

Simple[™]

Structured Cabling System



About LS Cable & System

LS spun off from LG in 2003 as a group specializing in the Electrics, Electronics, Energy, and Material.

LS consists of about 40 affiliates including LS Cable & System, LSIS, LS-Nikko Copper, LS Mtron, Gaon Cable, E1 and Yesco.

LS Cable & System is No.1 cable maker in Korea and its business field are electric power, telecommunication.

LS Cable & System makes its best to accomplish the vision, "Enable the Cabled World" and be one of the world leaders with high technology and best level of service.

History

1962~2012

May. 1962

Established Korea Cable Industry

Jan. 1969

Established Goldstar Cable

Jun. 1977

Listed on KOSPI

(Korea Composite Stock Price Index)

May. 1978

Completed Plant in Gumi, Korea

Nov. 2003

Branched off from LG Group, launched LG Cable Group

Sep. 2005

Completed LS Industrial Complex in Wuxi, China

Dec. 2007

Completed LSCV (in Ho Chi Minh City),
the 2nd cable plant in Vietnam

Aug. 2009

Acquired HongQi Electricity
(currently, LS HongQi Cable & System) in China

Nov. 2009

Completed submarine cable plant in Donghae City

Nov. 2011

Built R&D Center in Wuhan, Hubei, China

Apr. 2012

Completed LSCI power plant in Haryana, India

Apr. 2012

Completed R&D center in Gunpo-si, Gyeonggi-do

Dec. 2012

Completed VCV tower at LS HongQi Cable & System

2013~2015

Mar. 2013

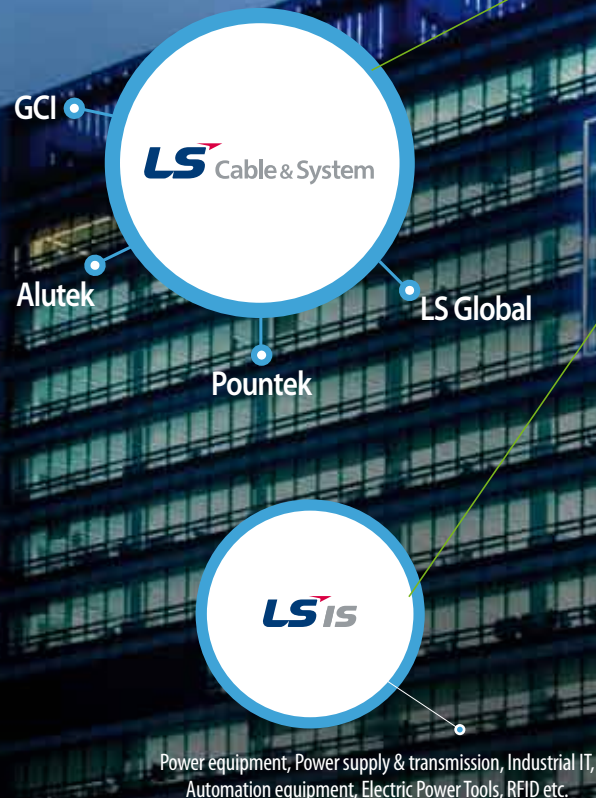
First in Korea make inroads into the
South American submarine cable market

Apr. 2013

First in Korea to export HVDC cables to the
European market(Denmark).

Jan. 2015

Finished installation and demonstration of the
world's first DC superconducting cable(80kV)
in actual grid.



Toward the Global Leading Cable Company

Founded in 1962, LS Cable & System has been contributing to power and communications network implementation not only in Korea, but also throughout the world and secured a foundation for industrial development by supplying a wide range of industrial specialty cables. LS Cable & System is supplying power and communications cable systems for national backbone networks, and special industrial cables used in wind power farms, railways, ships, offshore plants and mines as well as a wide range of architectural materials. In addition, LS Cable & System is investing in advanced technologies, such as HVDC, submarine and superconducting cables to lead the next-generation power network.

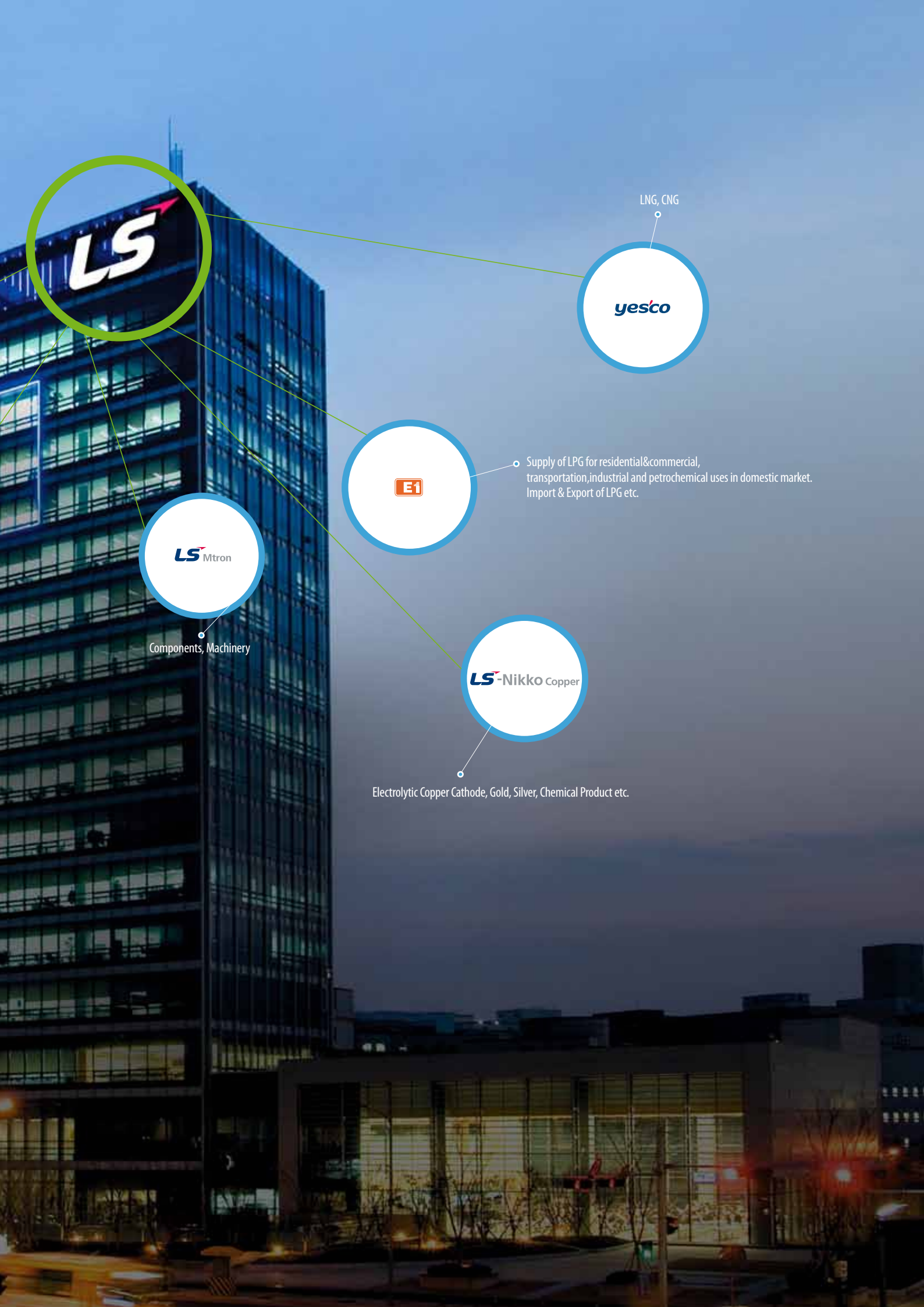
Major Business

Energy(Submarine Cable, Superconductor Cable, Extra-High Voltage Cable & Accessories, High Voltage Direct Current, Overhead Transmission Line, etc)

Industrial Specialty Cable(Wind Power, Marine & Offshore, Railway & Rolling Stock, Airport, Mining, etc)

Telecommunications(Structured Cabling System, RF Feeder System, Optical Fiber and Cable, FTTH Solution, etc)

Industrial Materials(Copper Rod, Magnet Wire, etc)



LNG, CNG



Supply of LPG for residential&commercial, transportation, industrial and petrochemical uses in domestic market. Import & Export of LPG etc.

LS Mtron



Components, Machinery

LS-Nikko Copper



Electrolytic Copper Cathode, Gold, Silver, Chemical Product etc.

LS Inbuilding Solution





System List

Structured Cabling System



Data Center Solution



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 Category 6A F/UTP Cable 4Pair
 Category 6A F/FTP&S/FTP Cable 4Pair
 Category 6A Patch Panel
 Category 6A Modular Jack
 Category 6A Patch Cord



75 Work Area & Empty Solutions

Telecommunication Structure
 Empty Panel
 Work Area Cabling System
 – Faceplate
 – Outlet Module
 – Surface Mount Box & Modular Plug
 – Consolidation Box & Mini Panel
 – Termination Tools



31 Simple™ Category 6 Solutions

Telecommunication Structure
 Category 6 Plus U/UTP Cable 4Pair
 Category 6 U/UTP Cable 4Pair
 Category 6 F/UTP Cable 4Pair
 Category 6 SF/UTP Cable 4Pair
 Category 6 Patch Panel
 Category 6 Modular Jack
 Category 6 Patch Cord
 Category 6 GXC™ 110 Patching System



85 Simple™ Fiber Solutions

Fiber Optic Simplex and Duplex Cord
 Fiber Optic Breakout Cable
 Fiber Optic Distribution Cable
 Fiber Optic Drop Cable
 Fiber Optic Loose Tube Cable
 Fiber Distribution Frame
 Fiber Optic Connectivity
 Fiber Jumper Cord



50 Simple™ Category 5e Solutions

Telecommunication Structure
 Category 5e U/UTP Cable 4Pair
 Category 5e U/UTP Cable 25Pair
 Category 5e F/UTP Cable 4Pair
 Category 5e SF/UTP Cable 4Pair
 Category 5e Patch Panel
 Category 5e Modular Jack
 Category 5e Patch Cord
 Category 5e 110 Patching System



110 Simple™ CATV Solutions

ECX Series Coaxial Cable (75 ohm)
 HF8T Series Coaxial Cable (75 ohm)
 RG Series Coaxial Cable



116 Simple™ Rack & Raceway

Rack
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 Overhead Routing System



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Category 5 UTP Cable Multi-Pair
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123 Fast-Net™ Solutions

Copper Pre-Terminated Solution
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72 Simple™ Security Patch Cord Solutions

Security Category 6A Patch Cord
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Category 6A Above Solutions

Telecommunication Structure

Category 7/7A S/FTP Cable 4Pair

Category 6A U/UTP Cable 4Pair

Category 6A F/UTP Cable 4Pair

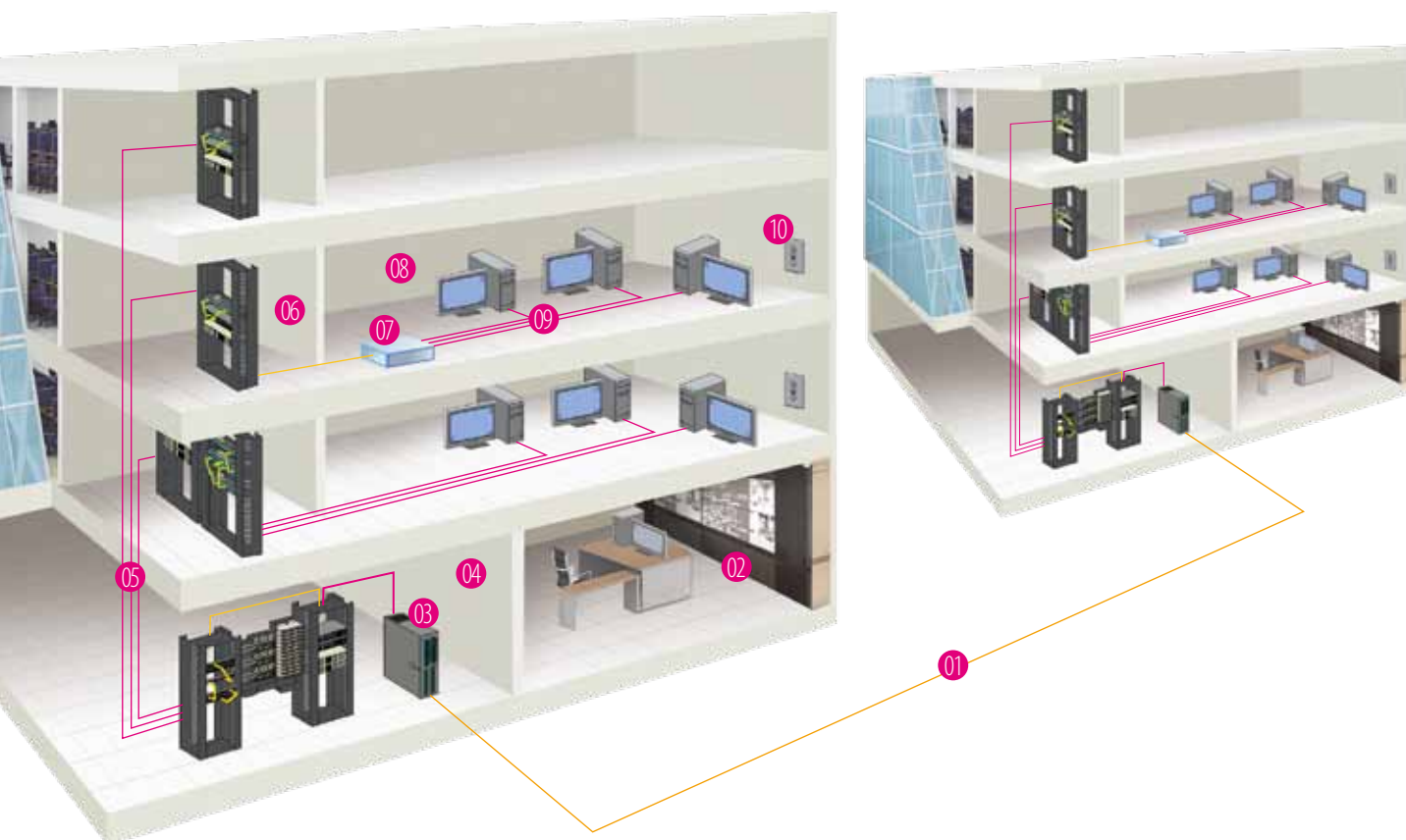
Category 6A F/FTP & S/FTP Cable 4Pair

Category 6A Patch Panel

Category 6A Modular Jack

Category 6A Patch Cord

Telecommunication Structure



01. Backbone Cabling(Inter-BC)

02. Administration(TIA/EIA-606)

03. Entrance Facilities(EF)

04. Equipment Room(ER)

05. Backbone Cabling(Intra-BC) **Vertical Cabling**

06. Telecommunication Rooms(TR)

07. Consolidation Point(CP)

08. Work Area(WA)

09. Horizontal Cabling

10. Outlet

LS Simple™ 10Gbps Cables

S/FTP Cable 4Pair

Ultra Super Slim Cable 4Pair

U/UTP Cable 4Pair Next Generation

U/UTP Cable 4Pair 1st Generation

F/UTP Cable 4Pair

F/FTP & S/FTP Cable 4Pair

LS Simple™ Cat.6A Patch Panel

Unshielded Modular type patch panel with Wire Management

Shielded Patch Panel with Wire Management

LS Simple™ Cat.6A Modular Jacks

Unshielded 180 degree Modular Jack

Shielded 180 degree Modular Jack

LS Simple™ Cat.6A Patch Cord

Unshielded Patch Cord

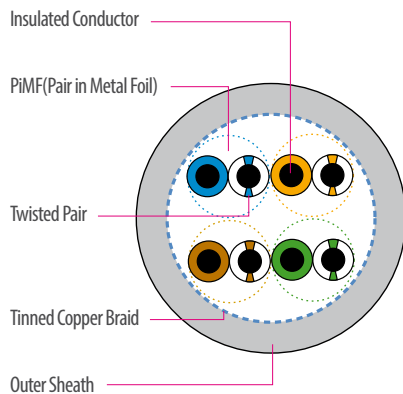
Shielded Patch Cord



Category 7/7A S/FTP Cable 4 Pair

Description

- DNV certified for Cat.7
- Cable diameter : 0.303 in. (7.7mm)
- Adequate for data center system & special application
- Capable of handling full broadband and baseband video signals
- Electrical performances comply with IEC 61156-5
- Wooden Reel is standard, so wire pulls through reel for easy access
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance



Application

- Data Center System
- Horizontal Distribution & Backbone Cabling
- 4/16Mbps Token Ring (IEEE 802.5)
- 10/100/1000/10G BASE-T (IEEE 802.3)
- 155 Mbps ATM
- 100 Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G
- PoE++ (IEEE 802.3bt draft. Type 3(60W) or Type 4(100W))

Technical Details

Item	Unit	PVC/LSZH
DC Resistance	Ohms/100 m	≤ 9.5
DC Resistance Unbalance	%	≤ 2
Capacitance Unbalance (Pair to Grd.)	pF/km (800~1000Hz)	≤ 1600
Insulation Resistance	MΩ · m	≥ 5000
Characteristic Impedance	Ohms	100 ± 5% (at 100MHz)
Propagation Delay	ns/100 m	535 at 600MHz
Delay Skew	ns	≤ 25
Nominal Velocity of Propagation	%	67
Installation Temperature	°C / °F	0~60/32~140
Operating Temperature	°C / °F	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / °F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	5 x Cable Diameter
Packaging Type	1000ft (305m)	Reel
Packaging Weight	lb/kft (kg/km)	38 (56)
Conductor Diameter / Material	-	23 AWG, Solid Copper
Insulation Diameter / Material	Inch (mm)	0.053 (1.35), Foamed PE
Outer Diameter / Material	Inch (mm)	0.303 (7.7), PVC or LSZH
Safety Standard, Performance Standard	PVC-UL444/CMX-UL1581, IEC60332-1 / CM-UL1685, IEC60332-3 / CMR-UL1666 /LSZH-IEC61034, IEC60754	
Approvals Performance	IEC 61156-5 & ISO/IEC 11801 "Performance specifications for 100 ohm Category 7/7A Cabling"	

Category 7/7A

S/FTP Cable 4 Pair

Part Number(S/FTP Category 7)

	Product Number	Description	Length	Package
PVC	SSP-G-C7G-E1VN-X 0.5X004P/WH	Category 7 S/FTP Cable 4-Pair, CMX rated, White Color	1000 ft (305m)	Reel
	SSP-G-C7G-E1VN-X 0.5X004P/GY	Category 7 S/FTP Cable 4-Pair, CMX rated, Gray Color	1000 ft (305m)	Reel
	SSP-G-C7G-E1VN-X 0.5X004P/BL	Category 7 S/FTP Cable 4-Pair, CMX rated, Blue Color	1000 ft (305m)	Reel
	SSP-G-C7G-E1VN-M 0.5X004P/WH	Category 7 S/FTP Cable 4-Pair, CM rated, White Color	1000 ft (305m)	Reel
	SSP-G-C7G-E1VN-M 0.5X004P/GY	Category 7 S/FTP Cable 4-Pair, CM rated, Gray Color	1000 ft (305m)	Reel
	SSP-G-C7G-E1VN-M 0.5X004P/BL	Category 7 S/FTP Cable 4-Pair, CM rated, Blue Color	1000 ft (305m)	Reel
LSZH	SSP-G-C7G-E1ZN-X 0.5X004P/WH	Category 7 S/FTP Cable 4-Pair, CMX rated, White Color	1000 ft (305m)	Reel
	SSP-G-C7G-E1ZN-X 0.5X004P/GY	Category 7 S/FTP Cable 4-Pair, CMX rated, Gray Color	1000 ft (305m)	Reel
	SSP-G-C7G-E1ZN-X 0.5X004P/BL	Category 7 S/FTP Cable 4-Pair, CMX rated, Blue Color	1000 ft (305m)	Reel

Part Number(S/FTP Category 7A)

	Product Number	Description	Length	Package
PVC	SSP-A-C7G-E1VN-X 0.5X004P/WH	Category 7A S/FTP Cable 4-Pair, CMX rated, White Color	1000 ft (305m)	Reel
	SSP-A-C7G-E1VN-X 0.5X004P/GY	Category 7A S/FTP Cable 4-Pair, CMX rated, Gray Color	1000 ft (305m)	Reel
	SSP-A-C7G-E1VN-X 0.5X004P/BL	Category 7A S/FTP Cable 4-Pair, CMX rated, Blue Color	1000 ft (305m)	Reel
	SSP-A-C7G-E1VN-M 0.5X004P/WH	Category 7A S/FTP Cable 4-Pair, CM rated, White Color	1000 ft (305m)	Reel
	SSP-A-C7G-E1VN-M 0.5X004P/GY	Category 7A S/FTP Cable 4-Pair, CM rated, Gray Color	1000 ft (305m)	Reel
	SSP-A-C7G-E1VN-M 0.5X004P/BL	Category 7A S/FTP Cable 4-Pair, CM rated, Blue Color	1000 ft (305m)	Reel
LSZH	SSP-A-C7G-E1ZN-X 0.5X004P/WH	Category 7A S/FTP Cable 4-Pair, CMX rated, White Color	1000 ft (305m)	Reel
	SSP-A-C7G-E1ZN-X 0.5X004P/GY	Category 7A S/FTP Cable 4-Pair, CMX rated, Gray Color	1000 ft (305m)	Reel
	SSP-A-C7G-E1ZN-X 0.5X004P/BL	Category 7A S/FTP Cable 4-Pair, CMX rated, Blue Color	1000 ft (305m)	Reel

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black

* Please contact your LS representative for the available color

Copper Cable Product Identifier

A	A	A	-	B	-	C	C	C	-	D	E	F	G	-	H	0.5X	I	I	I	P	/	#	#
A : Cable Type				B : Cable Performance			C : Cable Category				D~G : Material & Cable Construction					H : Flame Retardant Grade		I : Number of Pairs				# : Jacket Color	
• UTP — U/UTP • FTP — F/UTP • SFP — SF/UTP • SSP — S/FTP • FSP — F/FTP				• A — Augmented • E — Enhanced • G — General			• C3G — CAT3 • C5G — CAT5 • C6G — CAT6 • C7G — CAT7				• D : Insulation material E(PE), F(FEP) • E : Number of jacket • F : Jacket material V(PVC), Z(LSZH) • G : Others					• X : CMX • M : CM • R : CMR (Riser) • P : CMP (Plenum)		• 004P — 4 pair • 025P — 25 pair				• GY : Gray • WH : White • BL : Blue • VI : Violet • OR : Orange • RD : Red • GN : Green • YL : Yellow • BK : Black	



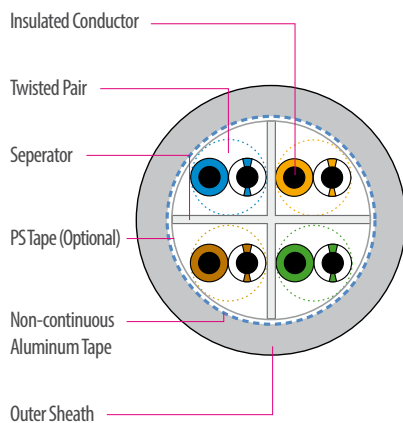
Category 6A

U/UTP Cable 4 Pair Ultra Super Slim

Description

LS Simple™ Ultra Super Slim U/UTP Category 6A cable is a special development to support 10G networking within dense and short length environments such as data center. It complies to 'ANSI/TIA-568-C.2' and 'ISO/IEC 11801' for channels of Max 70m or permanent links of max. 60m when used in combination with LS Simple™ Category 6A connectors and patch cord. LS Ultra Super Slim U/UTP Category 6A cable also complies to 'Work Area CAT6A wiring performance according to IEC 61156-6 Ed.3'. Data center copper channel usage survey shows 70m channel length covers almost 100% and 60m permanent link lengths covers 99% of today's 10G applications. The cable can support max. 60m permanent link and max. 70m channel by 26AWG solid copper conductors and smallest cable outer diameter (nominal 5.8mm (0.23in)) allows space saving when installed in bundle.

LS Ultra Super slim U/UTP Category 6A cable's smaller cable outer diameter meets the customer's high density installation of cable needs.



Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring (IEEE 802.5) up to 70m
- 10/100/1000/10G BASE-T (IEEE 802.3) up to 70m
- 155Mbps ATM up to 70m
- 100Mbps TP-PMD up to 70m
- ISDN, ADSL



Cable Type	1st Gen. Cat.6A	Next Gen. Cat.6A	Ultra Super Slim Cat.6A
Diameter	27mm	21mm	17.4mm
Surface	100%	60%	42%

Technical Details

Item	Unit	PVC/LSZH
Conductor DC Resistance	Ohms/100 m	Max. 14.8
Resistance Unbalance	%	Max. 2
Capacitance Unbalance	pF/100 m	1600(@ 800 or 1000Hz)
Characteristic Impedance	Ohms	100±5% @ 100MHz
Operating Temperature	°C / °F	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / °F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	4 x Cable Diameter
Packaging Type	1000ft (305m)	Reel-In-Box
Packaging Weight	lb/kft (kg/km)	20(30) PVC, 21(31) LSZH
Conductor Diameter / Material	-	26AWG, Solid Copper
Insulation Diameter / Material	Inch(mm)	0.03(0.8), HDPE
Outer Diameter / Material	Inch(mm)	0.23(5.8), PVC or LSZH
Safety Standard, Performance Standard	PVC-UL444/CMX-UL1581, IEC60332-1 / CM-UL1685, IEC60332-3 / CMR-UL1666 /LSZH-IEC61034, IEC60754	
Approvals Performance	IEC 61156-6 Ed. 3 'Work Area CAT6A wiring performance' 'ANSI/TIA-568-C.2' and 'ISO/IEC 11801' for channels of Max 70m or permanent links of max. 60m	

Category 6A

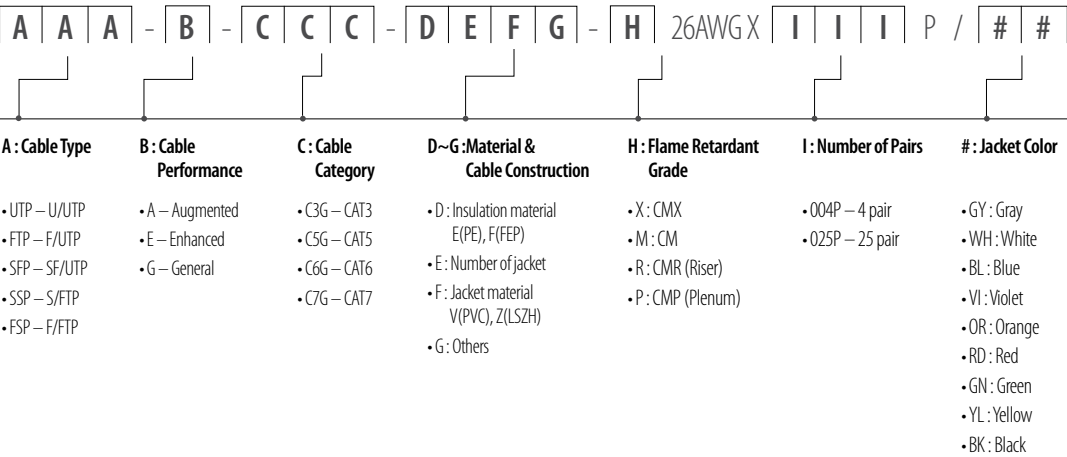
U/UTP Cable 4 Pair Ultra Super Slim

Part Number

PVC	Product Number	Description	Length	Package
	UTP-A-C6G-E1VL-X 26AWGx004P/WH	Category 6A U/UTP Cable 4-Pair USS, 5.8mm, CMX rated, White color	1000 ft (305m)	Reel / RIB
	UTP-A-C6G-E1VL-X 26AWGx004P/GY	Category 6A U/UTP Cable 4-Pair USS, 5.8mm, CMX rated, Gray color	1000 ft (305m)	Reel / RIB
	UTP-A-C6G-E1VL-X 26AWGx004P/BL	Category 6A U/UTP Cable 4-Pair USS, 5.8mm, CMX rated, Blue color	1000 ft (305m)	Reel / RIB
	UTP-A-C6G-E1VL-M 26AWGx004P/WH	Category 6A U/UTP Cable 4-Pair USS, 5.8mm, CM rated, White color	1000 ft (305m)	Reel / RIB
	UTP-A-C6G-E1VL-M 26AWGx004P/GY	Category 6A U/UTP Cable 4-Pair USS, 5.8mm, CM rated, Gray color	1000 ft (305m)	Reel / RIB
	UTP-A-C6G-E1VL-M 26AWGx004P/BL	Category 6A U/UTP Cable 4-Pair USS, 5.8mm, CM rated, Blue color	1000 ft (305m)	Reel / RIB
	UTP-A-C6G-E1VL-R 26AWGx004P/WH	Category 6A U/UTP Cable 4-Pair USS, 5.8mm, CMR rated, White color	1000 ft (305m)	Reel / RIB
	UTP-A-C6G-E1VL-R 26AWGx004P/GY	Category 6A U/UTP Cable 4-Pair USS, 5.8mm, CMR rated, Gray color	1000 ft (305m)	Reel / RIB
LSZH	Product Number	Description	Length	Package
	UTP-A-C6G-E1ZL-X 26AWGx004P/WH	Category 6A U/UTP Cable 4-Pair USS, 5.8mm, CMX rated, White color	1000 ft (305m)	Reel / RIB
	UTP-A-C6G-E1ZL-X 26AWGx004P/GY	Category 6A U/UTP Cable 4-Pair USS, 5.8mm, CMX rated, Gray color	1000 ft (305m)	Reel / RIB
	UTP-A-C6G-E1ZL-X 26AWGx004P/BL	Category 6A U/UTP Cable 4-Pair USS, 5.8mm, CMX rated, Blue color	1000 ft (305m)	Reel / RIB

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black
* Please contact your LS representative for the available color

Copper Cable Product Identifier





Category 6A

U/UTP Cable 4 Pair Next Generation

Benefit

- High performance of Category 6A and transmit full broadband and baseband video signals
- ANSI/TIA-568-C.2 (or 568B), IEEE802.3 Support maximum 10Gbit TX transmission
- Support bundled cabling considered on Alien crosstalk by 100meter channel composition
- Performance guaranteed max. 6 connections in any length channel configuration up to 100m
- LS Simple™ 10G solution provides 10Gbit high performance transmission which comply with international standards
- Product meets ISO/IEC 11801 and ANSI/TIA-568-C.2 the from equipment room to outlet

Product considered on PSACR-F and PSANEXT when cable bundling and provides optimized performance.

Frequency extension up to 500MHz with high speed. Especially, Category 6A cables enable user to have cost, space and time efficiency through world smallest outer diameter by maximizing cabling density, thus, we confidently recommend our solution.

Connector is designed under consideration of customer's convenience to use, thus, cabling with high density is available at outlet and equipment room.

LS Simple™ Category 6A solution is highly optimized solution for meeting high requirement on Data Center and IBS building. Shielded and unshielded solution are supported, and whole range of components have high flame retardant characteristics.

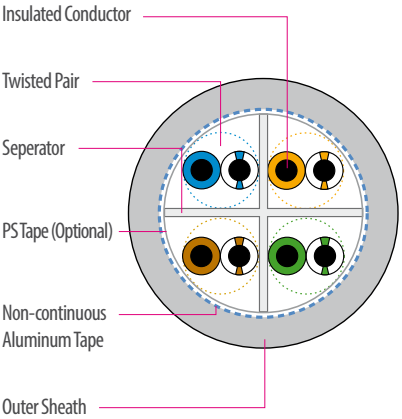
Guaranteed Channel Performances (6-connection)

Frequency (MHz)	Attenuation (dB / 100m)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB / 100m)	PSSELFEXT (dB / 100m)	Return Loss (dB)	PSANEXT (dB / 100m)	PSAELFEXT (dB / 100m)
1	2.3	65.0	62.0	63.3	60.3	19.0	67.0	67.0
4	4.2	63.0	60.5	51.2	48.2	19.0	67.0	65.0
8	5.8	58.2	55.6	45.2	42.2	19.0	67.0	58.9
10	6.5	56.6	54.0	43.3	40.3	19.0	67.0	57.0
16	8.2	53.2	50.6	39.2	36.2	18.0	67.0	52.9
20	9.2	51.6	49.0	37.2	34.2	17.5	67.0	51.0
25	10.2	50.0	47.3	35.3	32.3	17.0	66.0	49.0
31.25	11.5	48.4	45.7	33.4	30.4	16.5	65.1	47.1
62.5	16.4	43.4	40.6	27.3	24.3	14.0	62.0	41.1
100	20.9	39.9	37.1	23.3	20.3	12.0	60.0	37.0
200	30.1	34.8	31.9	17.2	14.2	9.0	55.5	31.0
250	33.9	33.1	30.2	15.3	12.3	8.0	54.0	29.0
300	37.4	31.7	28.8	13.7	10.7	7.2	52.8	27.5
400	43.7	28.7	25.8	11.2	8.2	6.0	51.0	25.0
500	49.3	26.1	23.2	9.3	6.3	6.0	49.5	23.0

* The figures larger than 67dB for PSANEXT and PSAELFEXT are information only.

Typical Channel Performance

Attenuation (dB / 100m)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB / 100m)	PSSELFEXT (dB / 100m)	Return Loss (dB)	PSANEXT (dB / 100m)	PSAELFEXT (dB / 100m)
-10%	+5	+5	+8	+8	+5	+5	+8



Category 6A

U/UTP Cable 4 Pair Next Generation

Description

- Cable diameter : 0.275 in. (7.0 mm), World-smallest Category 6A Cable diameter
- UL Listed(CMR) & **ETL 6 connection Channel Verified**
- Capable of handling full broadband and baseband video signals
- High flame retardant grade is available, protecting propagation of fire (Riser Cable)
- Electrical performances comply with ANSI/TIA-568-C.2
- Specialized print legend contains footage from 1000 to 0, Metric from 305 to 0 and dual marking footage and metric
- Wooden Reel is standard, so wire pulls through reel for easy access
- Superior alien crosstalk mitigation performance
- RoHS compliant
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 6A Channel

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000/10G BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G
- PoE++ (IEEE 802.3bt draft, Type 3(60W) or Type 4(100W))

Technical Details

Item	Unit	PVC/LSZH
Conductor DC Resistance	Ohms/100 m	9.38
Resistance Unbalance	%	5
Mutual Capacitance	nF/100 m	5.6
Capacitance Unbalance	pF/100 m	330
Characteristic Impedance	Ohms	100 ± 15%
Propagation Delay	ns/100 m	536 @ 500MHz
Delay Skew	ns	45
Nominal Velocity of Propagation	%	67
Installation Temperature	°C / ° F	0~60/32~140
Operating Temperature	°C / ° F	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / ° F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	4 x Cable Diameter
Packaging Type	1000ft (305m)	Reel
Packaging Weight	lb/kft (kg/km)	34 (50)
Conductor Diameter / Material	-	23 AWG, Solid Copper
Insulation Diameter / Material	Inch(mm)	0.043(1.1), HDPE
Outer Diameter / Material	Inch(mm)	0.275(7.0), PVC or LSZH
Safety Standard, Performance Standard	PVC-UL444/CMX-UL1581, IEC60332-1 / CM-UL1685, IEC60332-3 / CMR-UL1666 /LSZH-IEC61034,IEC60754	
Approvals Performance	ANSI/TIA-568-C.2 / ISO/IEC 11801"Performance specifications for 100 ohm Category 6A Cabling"	

Category 6A

U/UTP Cable 4 Pair Next Generation

Part Number

PVC	Product Number	Description	Length	Package
	UTP-A-C6G-E1VF-X 0.5X004P/WH	Category 6A U/UTP Cable 4-Pair Next Generation, 7mm, CMX rated, White color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VF-X 0.5X004P/GY	Category 6A U/UTP Cable 4-Pair Next Generation, 7mm, CMX rated, Gray color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VF-X 0.5X004P/BL	Category 6A U/UTP Cable 4-Pair Next Generation, 7mm, CMX rated, Blue color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VF-M 0.5X004P/WH	Category 6A U/UTP Cable 4-Pair Next Generation, 7mm, CM rated, White color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VF-M 0.5X004P/GY	Category 6A U/UTP Cable 4-Pair Next Generation, 7mm, CM rated, Gray color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VF-M 0.5X004P/BL	Category 6A U/UTP Cable 4-Pair Next Generation, 7mm, CM rated, Blue color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VF-R 0.5X004P/WH	Category 6A U/UTP Cable 4-Pair Next Generation, 7mm, CMR rated, White color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VF-R 0.5X004P/GY	Category 6A U/UTP Cable 4-Pair Next Generation, 7mm, CMR rated, Gray color	1000 ft (305m)	Reel
LSZH	UTP-A-C6G-E1VF-R 0.5X004P/BL	Category 6A U/UTP Cable 4-Pair Next Generation, 7mm, CMR rated, Blue color	1000 ft (305m)	Reel
	Product Number	Description	Length	Package
	UTP-A-C6G-E1ZF-X 0.5X004P/WH	Category 6A U/UTP Cable 4-Pair Next Generation, 7mm, CMX rated, White color	1000 ft (305m)	Reel
LSZH	UTP-A-C6G-E1ZF-X 0.5X004P/GY	Category 6A U/UTP Cable 4-Pair Next Generation, 7mm, CMX rated, Gray color	1000 ft (305m)	Reel
	UTP-A-C6G-E1ZF-X 0.5X004P/BL	Category 6A U/UTP Cable 4-Pair Next Generation, 7mm, CMX rated, Blue color	1000 ft (305m)	Reel

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black

* Please contact your LS representative for the available color

Copper Cable Product Identifier

A	A	A	-	B	-	C	C	C	-	D	E	F	G	-	H	0.5 X	I	I	I	P	/	#	#
A : Cable Type				B : Cable Performance		C : Cable Category				D~G :Material & Cable Construction					H : Flame Retardant Grade		I : Number of Pairs				# : Jacket Color		
• UTP – U/UTP • FTP – F/UTP • SFP – SF/UTP • SSP – S/FTP				• A – Augmented • E – Enhanced • G – General		• C3G – CAT3 • C5G – CAT5 • C6G – CAT6 • C7G – CAT7				• D : Insulation material E(PE), F(FEP) • E : Number of jacket • F : Jacket material V(PVC), Z(LSZH) • G : Others					• X : CMX • M : CM • R : CMR (Riser) • P : CMP (Plenum)		• 004P – 4 pair • 025P – 25 pair				• GY : Gray • WH : White • BL : Blue • VI : Violet • OR : Orange • RD : Red • GN : Green • YL : Yellow • BK : Black		



Category 6A

U/UTP Cable 4 Pair 1st Generation

Benefit

- High performance of Category 6A and transmit full broadband and baseband video signals
 - ANSI/TIA-568-C.2(or 568B), IEEE802.3 Support maximum 10Gbit TX transmission
 - Support bundled cabling considered on Alien crosstalk by 100meter channel composition
 - Performance guaranteed max. 4 connections in any length channel configuration up to 100m
 - LS Simple™ Category 6A solution provides 10Gbit high performance transmission which comply with international standards
 - Product meets ISO/IEC 11801 and ANSI/TIA-568-C.2 the from equipment room to outlet
-
- Product considered on PSACR-F and PSANEXT when cable bundling and provides optimized performance.
 - Frequency extension up to 500MHz with high speed.
 - LS Simple™ Category 6A solution is highly optimized solution for meeting high requirement on Data Center and IBS building.
 - Shielded and unshielded solution are supported, and whole range of components have high flame retardant characteristics.

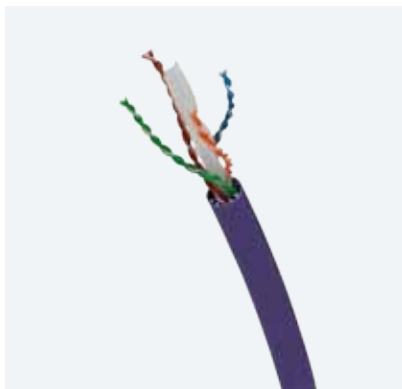
Guaranteed Channel Performances (4-Connection)

Frequency	Attenuation	NEXT	PSNEXT	ELFEXT	PSSELFEXT	Return Loss	PSANEXT	PSAELFEXT
(MHz)	(dB / 100m)	(dB)	(dB)	(dB / 100m)	(dB / 100m)	(dB)	(dB / 100m)	(dB / 100m)
1.00	2.3	65.0	62.0	63.3	60.3	19.0	82.0 *	77.9 *
4.00	4.2	63.0	60.5	51.2	48.2	19.0	76.0 *	65.9
8.00	5.9	58.2	55.6	45.2	42.2	19.0	73.0 *	59.8
10.00	6.6	56.6	54.0	43.3	40.3	19.0	72.0 *	57.9
16.00	8.3	53.2	50.6	39.2	36.2	18.0	70.0 *	53.8
20.00	9.3	51.6	49.0	37.2	34.2	17.5	69.0 *	51.9
25.00	10.5	50.0	47.3	35.3	32.3	17.0	68.0 *	49.9
31.25	11.7	48.4	45.7	33.4	30.4	16.5	67.1 *	48.0
62.50	16.9	43.4	40.6	27.3	24.3	14.0	64.0	42.0
100.00	21.7	39.9	37.1	23.3	20.3	12.0	62.0	37.9
200.00	31.7	34.8	31.9	17.2	14.2	9.0	57.5	31.9
250.00	35.9	33.1	30.2	15.3	12.3	8.0	56.0	29.9
300.00	39.8	31.7	28.8	13.7	10.7	7.2	54.8	28.4
400.00	46.9	26.8	23.8	11.2	8.2	6.0	53.0	25.9
500.00	53.4	22.0	19.0	9.3	6.3	6.0	51.5	23.9

* The figures larger than 67dB for PSANEXT and PSAELFEXT are information only.

Typical Channel Performance

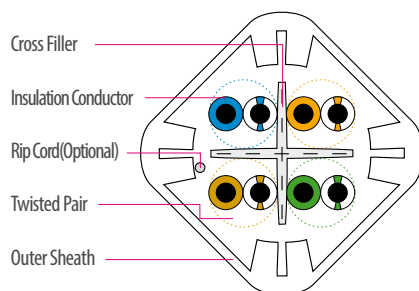
Attenuation	NEXT	PSNEXT	ELFEXT	PSSELFEXT	Return Loss	PSANEXT	PSAELFEXT
(dB / 100m)	(dB)	(dB)	(dB / 100m)	(dB / 100m)	(dB)	(dB / 100m)	(dB / 100m)
-10%	+3	+3	+5	+5	+5	+2	+2



Category 6A U/UTP Cable 4 Pair 1st Generation

Description

- Cable diameter : 0.331in. (8.4mm)
- UL Listed CMR, CMP
- Capable of handling full broadband and baseband video signals
- High flame retardant grade is available, protecting propagation of fire (Plenum Cable)
- Electrical performances comply with ANSI/TIA-568-C.2
- Specialized print legend contains footage from 1000 to 0, Metric from 305 to 0 and dual marking footage and metric
- Wooden Reel is standard, so wire pulls through reel for easy access
- Superior alien crosstalk mitigation performance
- RoHS compliant
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 6A Channel



Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000/10G BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G
- PoE++ (IEEE 802.3bt draft, Type 3(60W) or Type 4(100W))

Technical Details

Item	Unit	Non-Plenum	Plenum
Conductor DC Resistance	Ohms/100 m	9.38	9.38
Resistance Unbalance	%	5	5
Mutual Capacitance	nF/100 m	5.6	5.6
Capacitance Unbalance	pF/100 m	330	330
Characteristic Impedance	Ohms	100 ± 15%	100 ± 15%
Propagation Delay	ns/100 m	536 @ 500MHz	536 @ 500MHz
Delay Skew	ns	45	45
Nominal Velocity of Propagation	%	67	69
Installation Temperature	°C / °F	0~60 / 32~140	0~60 / 32~140
Operating Temperature	°C / °F	-20 ~ 60 / -4 ~ 140	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / °F	-20 ~ 80 / -4 ~ 176	-20 ~ 80 / -4 ~ 176
Bending Radius	-	4 x Cable Diameter	4 x Cable Diameter
Packaging Type	1000ft (305m)	Reel	Reel
Packaging Weight	lb/kft (kg/km)	43(65)	43(65)
Conductor Diameter / Material	-	23 AWG, Solid Copper	23 AWG, Solid Copper
Insulation Diameter / Material	Inch (mm)	0.045(1.15), HDPE	0.041(1.05)Ø, FEP
Outer Diameter / Material	Inch (mm)	0.331(8.4)Ø, PVC or LSZH(Low Smoke Zero Halogen)	0.335(8.5)Ø, PVC(Plenum Rated)
Safety Standard,		CMX-UL 1581, IEC60332-1 / CM-UL 1685, IEC60332-3	
Performance Standard		CMR-UL 1666 / CMP-NFPA262 / LSZH-IEC61034, IEC60754	
Approvals Performance		ANSI/TIA-568-C.2, ISO/IEC 11801"Performance specifications for 100 ohm Category 6A Cabling"	

Category 6A

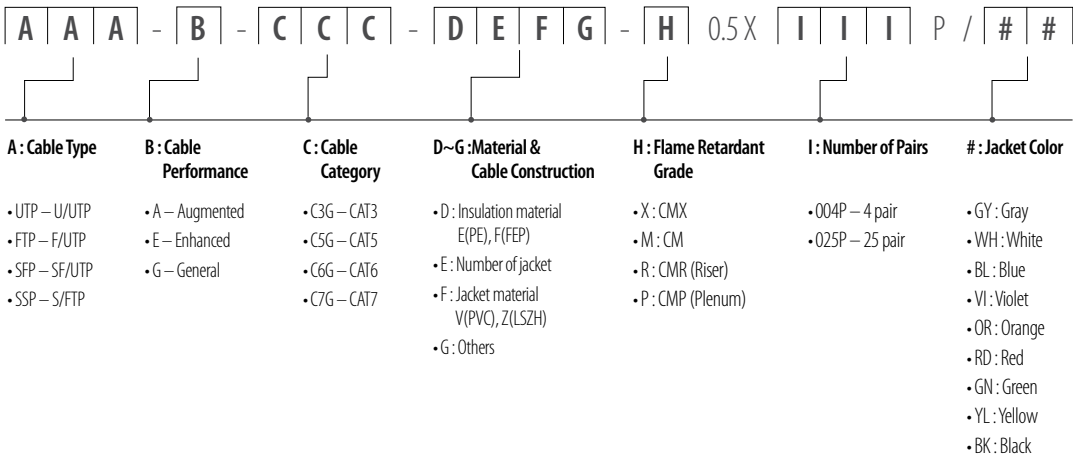
U/UTP Cable 4 Pair 1st Generation

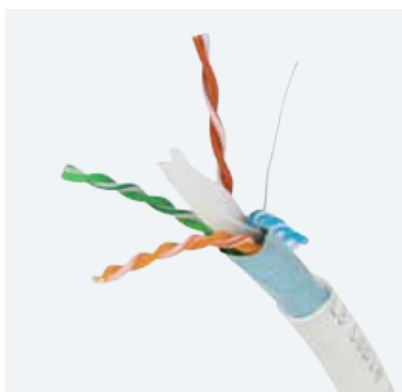
Part Number

PVC	Product Number	Description	Length	Package
	UTP-A-C6G-E1VI-X 0.5X004P/WH	Category 6A U/UTP Cable 4-Pair 1st Generation, CMX rated, White color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VI-X 0.5X004P/GY	Category 6A U/UTP Cable 4-Pair 1st Generation, CMX rated, Gray color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VI-X 0.5X004P/BL	Category 6A U/UTP Cable 4-Pair 1st Generation, CMX rated, Blue color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VI-M 0.5X004P/WH	Category 6A U/UTP Cable 4-Pair 1st Generation, CM rated, White color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VI-M 0.5X004P/GY	Category 6A U/UTP Cable 4-Pair 1st Generation, CM rated, Gray color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VI-M 0.5X004P/BL	Category 6A U/UTP Cable 4-Pair 1st Generation, CM rated, Blue color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VI-R 0.5X004P/WH	Category 6A U/UTP Cable 4-Pair 1st Generation, CMR rated, White color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VI-R 0.5X004P/GY	Category 6A U/UTP Cable 4-Pair 1st Generation, CMR rated, Gray color	1000 ft (305m)	Reel
	UTP-A-C6G-E1VI-R 0.5X004P/BL	Category 6A U/UTP Cable 4-Pair 1st Generation, CMR rated, Blue color	1000 ft (305m)	Reel
	UTP-A-C6G-F1VI-P 0.5X004P/WH	Category 6A U/UTP Cable 4-Pair 1st Generation, CMP rated, White color	1000 ft (305m)	Reel
	UTP-A-C6G-F1VI-P 0.5X004P/GY	Category 6A U/UTP Cable 4-Pair 1st Generation, CMP rated, Gray color	1000 ft (305m)	Reel
	UTP-A-C6G-F1VI-P 0.5X004P/BL	Category 6A U/UTP Cable 4-Pair 1st Generation, CMP rated, Blue color	1000 ft (305m)	Reel
LSZH	Product Number	Description	Length	Package
	UTP-A-C6G-E1ZI-X 0.5X004P/WH	Category 6A U/UTP Cable 4-Pair 1st Generation, CMX rated, White color	1000 ft (305m)	Reel
	UTP-A-C6G-E1ZI-X 0.5X004P/GY	Category 6A U/UTP Cable 4-Pair 1st Generation, CMX rated, Gray color	1000 ft (305m)	Reel
	UTP-A-C6G-E1ZI-X 0.5X004P/BL	Category 6A U/UTP Cable 4-Pair 1st Generation, CMX rated, Blue color	1000 ft (305m)	Reel

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black
* Please contact your LS representative for the available color

Copper Cable Product Identifier

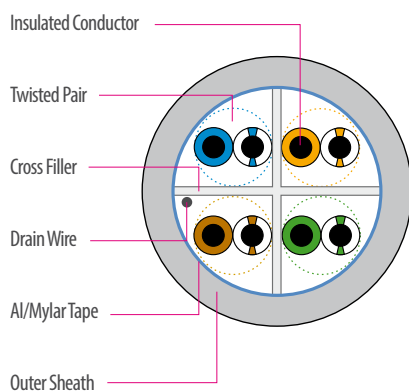




Category 6A F/UTP Cable 4 Pair

Description

- UL Listed & Verified for CM grade LSZH
- Cable Diameter : 0.283 in. (7.2mm)
- Capable of handling full broadband and baseband video signals
- High flame retardant grade is available, protecting propagation of fire (Riser Cable)
- Electrical performances comply with ANSI/TIA-568-C.2
- Specialized print legend contains footage from 1000 to 0, Metric from 305 to 0 and dual marking footage and metric
- Wooden Reel is standard, so wire pulls through reel for easy access
- RoHS compliant
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 6A Channel



Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000/10G BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G
- PoE++ (IEEE 802.3bt draft. Type 3(60W) or Type 4(100W))

Technical Details

Item	Unit	PVC/LSZH
Conductor DC Resistance	Ohms/100 m	9.38
Resistance Unbalance	%	5
Mutual Capacitance	nF/100 m	5.6
Capacitance Unbalance	pF/100 m	330
Characteristic Impedance	Ohms	100 ± 15%
Propagation Delay	ns/100 m	536 @ 500MHz
Delay Skew	ns	45
Nominal Velocity of Propagation	%	67
Installation Temperature	°C / °F	0~60/32~140
Operating Temperature	°C / °F	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / °F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	5 x Cable Diameter
Packaging Type	1000ft (305m)	Reel
Packaging Weight	lb/kft (kg/km)	43(65)
Conductor Diameter / Material	-	23 AWG, Solid Copper
Insulation Diameter / Material	Inch (mm)	0.043(1.1), HDPE
Outer Diameter / Material	Inch (mm)	0.283(7.2)Ø, PVC or LSZH(Low Smoke Zero Halogen)
Safety Standard, Performance Standard	CMX-UL1581, IEC60332-1 / CM-UL1685, IEC60332-3 / CMR-UL1666 / CMP-NFPA262 / LSZH-IEC61034, IEC60754	
Approvals Performance	ANSI/TIA-568-C.2, ISO/IEC 11801"Performance specifications for 100 ohm Category 6A Cabling"	

Category 6A

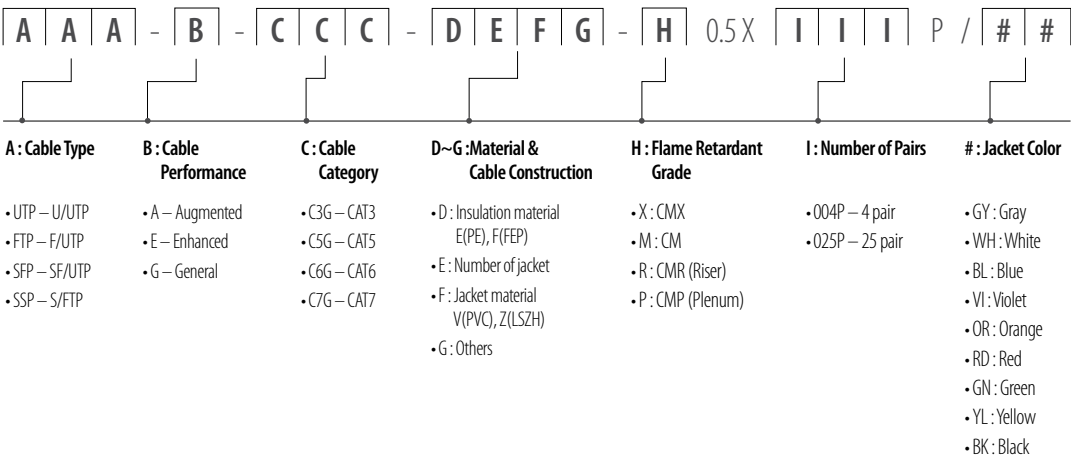
F/UTP Cable 4 Pair

Part Number

PVC	Product Number	Description	Length	Package
	FTP-A-C6G-E1VN-X 0.5X004P/WH	Category 6A F/UTP Cable 4-Pair, CMX rated, White color	1000 ft (305m)	Reel
	FTP-A-C6G-E1VN-X 0.5X004P/GY	Category 6A F/UTP Cable 4-Pair, CMX rated, Gray color	1000 ft (305m)	Reel
	FTP-A-C6G-E1VN-X 0.5X004P/BL	Category 6A F/UTP Cable 4-Pair, CMX rated, Blue color	1000 ft (305m)	Reel
	FTP-A-C6G-E1VN-M 0.5X004P/WH	Category 6A F/UTP Cable 4-Pair, CM rated, White color	1000 ft (305m)	Reel
	FTP-A-C6G-E1VN-M 0.5X004P/GY	Category 6A F/UTP Cable 4-Pair, CM rated, Gray color	1000 ft (305m)	Reel
	FTP-A-C6G-E1VN-M 0.5X004P/BL	Category 6A F/UTP Cable 4-Pair, CM rated, Blue color	1000 ft (305m)	Reel
	FTP-A-C6G-E1VN-R 0.5X004P/WH	Category 6A F/UTP Cable 4-Pair, CMR rated, White color	1000 ft (305m)	Reel
	FTP-A-C6G-E1VN-R 0.5X004P/GY	Category 6A F/UTP Cable 4-Pair, CMR rated, Gray color	1000 ft (305m)	Reel
	FTP-A-C6G-E1VN-R 0.5X004P/BL	Category 6A F/UTP Cable 4-Pair, CMR rated, Blue color	1000 ft (305m)	Reel
	FTP-A-C6G-F1VN-P 0.5X004P/WH	Category 6A F/UTP Cable 4-Pair, CMP rated, White Color	1000 ft (305m)	Reel
	FTP-A-C6G-F1VN-P 0.5X004P/GY	Category 6A F/UTP Cable 4-Pair, CMP rated, Gray Color	1000 ft (305m)	Reel
	FTP-A-C6G-F1VN-P 0.5X004P/BL	Category 6A F/UTP Cable 4-Pair, CMP rated, Blue Color	1000 ft (305m)	Reel
LSZH	Product Number	Description	Length	Package
	FTP-A-C6G-E1ZN-X 0.5X004P/WH	Category 6A F/UTP Cable 4-Pair, CMX rated, White color	1000 ft (305m)	Reel
	FTP-A-C6G-E1ZN-X 0.5X004P/GY	Category 6A F/UTP Cable 4-Pair, CMX rated, Gray color	1000 ft (305m)	Reel
	FTP-A-C6G-E1ZN-X 0.5X004P/BL	Category 6A F/UTP Cable 4-Pair, CMX rated, Blue color	1000 ft (305m)	Reel

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black
* Please contact your LS representative for the available color

Copper Cable Product Identifier





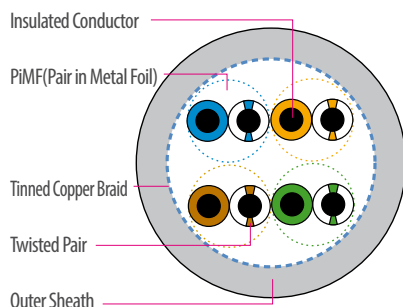
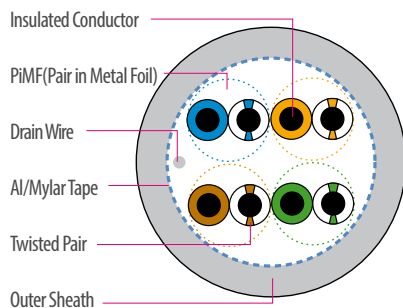
Category 6A F/FTP & S/FTP Cable 4 Pair

Description

- Cable diameter : 0.303 in. (7.7mm)
- Capable of handling full broadband and baseband video signals
- Electrical performances comply with IEC 61156-5
- RoHS compliant
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 6A Channel

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000/10G BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G
- PoE++ (IEEE 802.3bt draft, Type 3(60W) or Type 4(100W))



Technical Details

Item	Unit	PVC/LSZH
DC Resistance	Ohms/100 m	≤9.5
Resistance Unbalance	%	≤2
Capacitance Unbalance(Pair to Grd.)	pF/km(800~1000Hz)	≤1600
Characteristic Impedance	Ohms	100±5% (at 100MHz)
Propagation Delay	ns/100 m	536 @ 500MHz
Delay Skew	ns	≤25
Nominal Velocity of Propagation	%	67
Installation Temperature	°C / °F	0~60 / 32~140
Operating Temperature	°C / °F	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / °F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	5 x Cable Diameter
Packaging Type	1000ft (305m)	Reel
Packaging Weight	lb/kft (kg/km)	43(65)
Conductor Diameter / Material	-	23 AWG, Solid Copper
Insulation Diameter / Material	Inch (mm)	0.053(1.35), Foamed PE
Outer Diameter / Material	Inch (mm)	0.303(7.7)Ø, PVC or LSZH(Low Smoke Zero Halogen)
Safety Standard, Performance Standard	CMX-UL1581, IEC60332-1 / CM-UL1685, IEC60332-3 / LSZH-IEC61034, IEC60754	
Approvals Performance	ANSI/TIA-568-C.2, ISO/IEC 11801"Performance specifications for 100 ohm Category 6A Cabling"	

Category 6A F/FTP & S/FTP Cable 4 Pair

Part Number(F/FTP Category 6A)

	Product Number	Description	Length	Package
PVC	FSP-A-C6G-E1VN-X 0.5X004P/WH	Category 6A F/FTP Cable 4-Pair, CMX rated, White Color	1000 ft (305m)	Reel
	FSP-A-C6G-E1VN-X 0.5X004P/GY	Category 6A F/FTP Cable 4-Pair, CMX rated, Gray Color	1000 ft (305m)	Reel
	FSP-A-C6G-E1VN-X 0.5X004P/BL	Category 6A F/FTP Cable 4-Pair, CMX rated, Blue Color	1000 ft (305m)	Reel
	FSP-A-C6G-E1VN-M 0.5X004P/WH	Category 6A F/FTP Cable 4-Pair, CM rated, White Color	1000 ft (305m)	Reel
	FSP-A-C6G-E1VN-M 0.5X004P/GY	Category 6A F/FTP Cable 4-Pair, CM rated, Gray Color	1000 ft (305m)	Reel
	FSP-A-C6G-E1VN-M 0.5X004P/BL	Category 6A F/FTP Cable 4-Pair, CM rated, Blue Color	1000 ft (305m)	Reel
LSZH	FSP-A-C6G-E1ZN-X 0.5X004P/WH	Category 6A F/FTP Cable 4-Pair, CMX rated, White Color	1000 ft (305m)	Reel
	FSP-A-C6G-E1ZN-X 0.5X004P/GY	Category 6A F/FTP Cable 4-Pair, CMX rated, Gray Color	1000 ft (305m)	Reel
	FSP-A-C6G-E1ZN-X 0.5X004P/BL	Category 6A F/FTP Cable 4-Pair, CMX rated, Blue Color	1000 ft (305m)	Reel

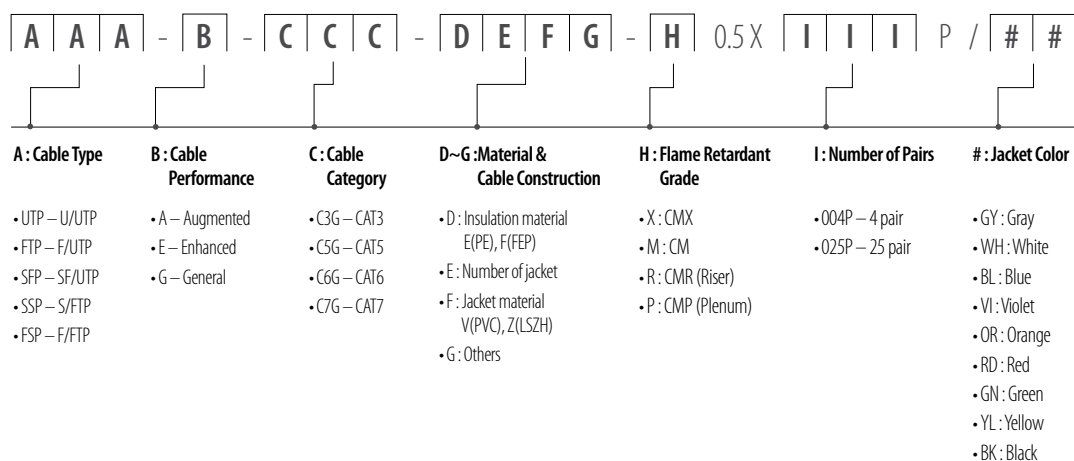
Part Number(S/FTP Category 6A)

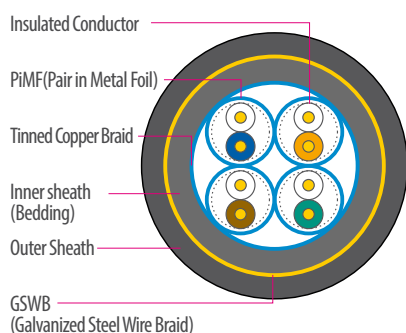
	Product Number	Description	Length	Package
PVC	SSP-A-C6G-E1VN-X 0.5X004P/WH	Category 6A S/FTP Cable 4-Pair, CMX rated, White Color	1000 ft (305m)	Reel
	SSP-A-C6G-E1VN-X 0.5X004P/GY	Category 6A S/FTP Cable 4-Pair, CMX rated, Gray Color	1000 ft (305m)	Reel
	SSP-A-C6G-E1VN-X 0.5X004P/BL	Category 6A S/FTP Cable 4-Pair, CMX rated, Blue Color	1000 ft (305m)	Reel
	SSP-A-C6G-E1VN-M 0.5X004P/WH	Category 6A S/FTP Cable 4-Pair, CM rated, White Color	1000 ft (305m)	Reel
	SSP-A-C6G-E1VN-M 0.5X004P/GY	Category 6A S/FTP Cable 4-Pair, CM rated, Gray Color	1000 ft (305m)	Reel
	SSP-A-C6G-E1VN-M 0.5X004P/BL	Category 6A S/FTP Cable 4-Pair, CM rated, Blue Color	1000 ft (305m)	Reel
LSZH	SSP-A-C6G-E1ZN-X 0.5X004P/WH	Category 6A S/FTP Cable 4-Pair, CMX rated, White Color	1000 ft (305m)	Reel
	SSP-A-C6G-E1ZN-X 0.5X004P/GY	Category 6A S/FTP Cable 4-Pair, CMX rated, Gray Color	1000 ft (305m)	Reel
	SSP-A-C6G-E1ZN-X 0.5X004P/BL	Category 6A S/FTP Cable 4-Pair, CMX rated, Blue Color	1000 ft (305m)	Reel

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black

* Please contact your LS representative for the available color

Copper Cable Product Identifier





Category 6A S/FTP GSWB Cable 4Pair

Description

- S/FTP Category 6A Galvanized Steel Wire Braid LSZH
- ABS (PDA) certified for guaranteed performance
- Cable Diameter : Nom. 12.5mm
- Capable of handling full broadband and baseband video signals
- High flame retardant grade of the cable is protected propagation of fire (IEC 60332-3-22)
- Electrical performances comply with IEC 61156-5 & ISO/IEC 11801 international standard
- RoHS compliant

Application

- Horizontal Distribution & Backbone Cabling
- Communication in Offshore & Marine
- 4/16 Mbps Token Ring (IEEE 802.5)
- 10/100/1000/10G BASE-T (IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G
- PoE++ (IEEE 802.3bt draft, Type 3(60W) or Type 4(100W))

Technical Details

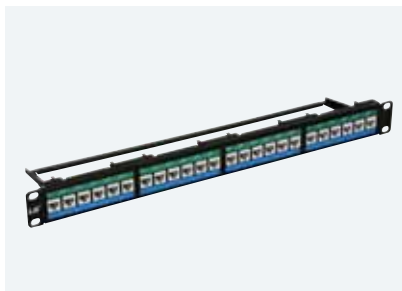
Item	Unit	LSZH
DC Resistance	Ohms/100 m	≤9.5
DC Resistance Unbalance	%	≤2
Capacitance Unbalance(Pair to Grd.)	pF/km(800~1000Hz)	≤1600
Insulation Resistance	MΩ·m	≥ 5000
Characteristic Impedance	Ω	100±5% (at 100MHz)
Propagation Delay	ns/100 m	536 (@ 500MHz)
Delay Skew	ns	≤25
Nominal Velocity of Propagation	%	69%
Installation Temperature	°C / °F	0~60 / 32~140
Operating Temperature	°C / °F	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / °F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	Min. 5 x Cable Diameter
Packaging Type	-	Reel
Conductor Diameter / Material	-	23 AWG, Solid Copper
Insulation Diameter / Material	Inch (mm)	0.053(1.35), Foamed PE
Outer Diameter / Material	Inch (mm)	0.492(12.5) / LSZH
Safety Standard, Performance Standard	CMX-UL1581, IEC60332-1 / CM-UL1685, IEC60332-3 / LSZH-IEC61034, IEC60754	
Approvals Performance	IEC 61156-5 "Performance specifications for 100ohm Category 6A Cabling"	

Category 6A

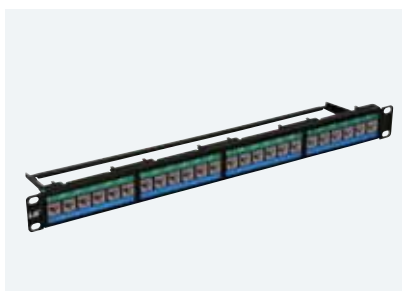
S/FTP GSWB Cable 4Pair

Part Number

Product Number	Description	Length	Package
SSP-A-C6G-E2ZG-X 0.5X004P/BK	Category 6A S/FTP GSWB Cable 4-Pair, CMX, CM rated, Black Color	500m	Reel



A LS-PPP-UC-24P-E4-WM-C + LS-MJ-UC6A-WH-ERI



B LS-PPP-SC-24P-E4-WM-C + LS-MJ-SC6A-ERI

Category 6A Patch Panel

Description

- This 1U patch panel comes complete with cable management, accessories and full installation instructions
- It fully complies with the requirements set out in ANSI/TIA-568-C.2
- Architectural design and flexibility – Support max. 6 connection channels
- Easy cable routing and bundling through improved rear cable management
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 6A Channel

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000/10G BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G

Physical Specification

Item	A inch(mm)	B inch(mm)
Height	1.73(44.00)	1.73(44.00)
Width	19.00(482.6)	19.00(482.6)
Depth(Including cable management)	5.58(141.61)	5.58(141.61)
Unit	1U	1U

Technical Details

Electrical / Mechanical Characteristics

- Current Rating : 1.5 Amps
- Insulation Resistance : 500 Megaohm
- DC Resistance : 0.1 ohm Max.
- Voltage : 150 Vac Max.
- Insertion Life : 750 Mating Cycles
- Plug Retention Force : 20 lbs (89N)
- Temperature : -40°C~68°C(-40°F~154°F)
- Humidity : 10%~90% RH
- IDC Accept : 23~26 AWG Solid Wire

Materials

- Panel : SPCC black coating, t=1.6mm (0.063in)
- Hanger : SPCC nickel electroplating, t=1.6mm (0.063in)
- Cable Manager : SPCC black powder coating finish
- Frame : Acrylonitrile Butadiene Styrene (ABS resin) + Polycarbonate (PC resin), UL 94V-0 rated, Black
- Jack Housing & Door : ABS+PC, UL 94V-0 rated
- Jack Cap : PA11 + Anti-EMI material, UL9V-0 rated, Black
- Contact Bracket : PC, UL 94V-2 rated, Transparent
- IDC Block : PC, UL 94V-2 rated
- IDC Terminals : Phosphor Bronze, plated with tin over nickel underplate
- Jack Contacts : Phosphor bronze flat wire, plated with 1.27μm (50μin) thick hard gold on contact area over nickel underplate
- Jack PCB : FR4, UL 94V-0 rated

Approvals

- Category : ANSI/TIA-568-C.2 Category 6A , ISO/IEC 11801 Class E_a
- Meet : FCC CFR 47 Parts 68
- Wiring Scheme : T568A/T568B

Category 6A Patch Panel

Part Number

Product Number	Description
LS-PPP-UC-24P-E4-WM-C + LS-MJ-UC6A-WH-ERI	24-Ports Category 6A Unshielded, Jack type Panel of Enhanced Rear IDC with Wire Management 1U, White Color Jack
LS-PPP-SC-24P-E4-WM-C + LS-MJ-SC6A-ERI	24-Ports Category 6A Shielded, Jack type Panel of Enhanced Rear IDC with Wire Management 1U & Shield Jack



A LS-MJ-UC6A-xx-ERI



B LS-MJ-UC6A-xx-ERD



C LS-MJ-SC6A-ERI

Category 6A Modular Jack

Description

LS Simple™ Category 6A modular jacks are designed and manufactured to meet today's and tomorrow's demanding international standards. They take into consideration the need for reliable and quick installations. The Jack is individually terminated using Insulation Displacement Connectors (IDC) giving assurance of wire connection when using a punch down tool and dedicated easy termination tool. User instructions and basic wiring layout for standard configuration are included. The LS Simple™ Modular Jack comes with the ability to wire to a T568A or T568B configuration and fully complies with ANSI/TIA-568-C.2 Category 6A transmission performance.

- Comply with Category 6A performance levels based on ANSI/TIA-568-C.2
- Architectural design and flexibility – Support max. 6 connection channels
- Universal design and label supports both T568A and T568B wiring
- IDC Connector accept and allow quick, easy installation of 23~26 AWG cable
- Optimal performance is achieved when using LS Simple™ Category 6A patch cords
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 6A Channel
- Slide door type for dust proof on unused port is applicable (if necessary)
- 2-way semi-conductive IDC cover for crosstalk mitigation at adjacent port in HD system configuration

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000/10G BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G

Physical Specification

Item	A / B inch(mm)	C inch(mm)
Height	0.76 (19.3)	0.77 (19.5)
Width	0.66 (16.8)	0.65 (16.4)
Depth	1.14 (29.0)	1.43 (36.2)
Type	Unshield RJ45 8pin	Shield RJ45 8pin

Technical Details

Electrical / Mechanical Characteristics

- Current Rating : 1.5 Amps
- Insulation Resistance : 500 Megaohm
- DC Resistance : 0.1 ohm Max.
- Voltage : 150 Vac Max.
- Insertion Life : 2000 Mating Cycles
- Plug Retention Force : 20 lbs (89N)
- Temperature : -40°C~-68°C(-40°F~154°F)
- Humidity : 10%~90% RH
- IDC Accept : 23~26 AWG Solid Wire

Materials

- Housing & Door : ABS+PC, UL94V-0 rated
- Cap : PA11 + Anti-EMI material, UL94V-0 rated, Black
- Contact Bracket : PC, UL 94V-2 rated, Transparent
- IDC Block : PC, UL 94V-2 rated
- IDC Terminals : Phosphor Bronze, plated with tin over nickel underplate
- Jack Contacts : Phosphor bronze flat wire, plated with 1,27µm (50µin) thick hard gold on contact area over nickel underplate
- PCB : FR4, UL 94V-0 rated

Approvals

- Category : ANSI/TIA-568-C.2 Category 6A, ISO/IEC 11801 Class Ea
- Meet : FCC CFR 47 Parts 68
- Wiring Scheme : T568A/T568B

Category 6A Modular Jack

Part Number

Product Number	Description
LS-MJ-UC6A-WH-ERI	Category 6A Unshielded Keystone Jack White Color, Slim Enhanced Rear IDC type
LS-MJ-UC6A-BL-ERI	Category 6A Unshielded Keystone Jack Blue Color, Slim Enhanced Rear IDC type
LS-MJ-UC6A-RD-ERI	Category 6A Unshielded Keystone Jack Red Color, Slim Enhanced Rear IDC type
LS-MJ-UC6A-BK-ERI	Category 6A Unshielded Keystone Jack Black Color, Slim Enhanced Rear IDC type
LS-MJ-SC6A-ERI	Category 6A Shielded Keystone Jack, Slim Enhanced Rear IDC type
LS-MJ-UC6A-WH-ERD	Category 6A Unshielded Keystone Jack White Color, Slim ERI type with door
LS-MJ-UC6A-BL-ERD	Category 6A Unshielded Keystone Jack Blue Color, Slim ERI type with door
LS-MJ-UC6A-RD-ERD	Category 6A Unshielded Keystone Jack Red Color, Slim ERI type with door
LS-MJ-UC6A-BK-ERD	Category 6A Unshielded Keystone Jack Black Color, Slim ERI type with door

* Please contact your LS representative for the available color



LS-PC-UC6A(L)-XX-YYY



LS-PC-SC6A(L)-XX-YYY

Category 6A Patch Cord

Description

LS Simple™ Category 6A patch cords are factory terminated, providing the quality required to support your channel requirements. They are fully booted and have clip protection for simple removal. They offer a high performance alternative to satin modular line cords where crosstalk, EMI or distance may be considerations.

- Comply with ANSI/TIA-568-C.2 performance levels
- Architectural design and flexibility – Support max. 6 connection channels
- Optimal performance is achieved when using LS Simple™ Category 6A patch cords
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 6A Channel

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000/10G BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G

Technical Details

Electrical / Mechanical Characteristics

- Current Rating : 1.5 Amps
- Insulation Resistance : 500 Mega-ohm Min.
- Contact Resistance : 20 Milli-ohm Max.
- Dielectric Strength : 1000 VAC (RMS)
- Voltage : 30 VAC Max.
- Insertion Life : 750 Mating Cycles
- Plug Retention Force : 20 lbs (89N)
- Temperature : -20°C~68°C (-4°F~154°F)
- Humidity : 10%~90% RH

Materials

- Plug Housing : Polycarbonate (PC),
UL 94V-2 Rated over
- Contact Blade : Phosphor Bronze plated with
50μ-inch (1.27μm) thick Gold over
100μ-inch(2.54μm) thick Nickel
undercoat
- Cable Jacket : PVC, LSZH

Approvals

- Category : ANSI/TIA-568-C.2 Category 6A, ISO/IEC 11801 Class Ea
- Meet : FCC CFR 47 Parts 68 and IEC 60603-7
- Wiring Scheme : T568B

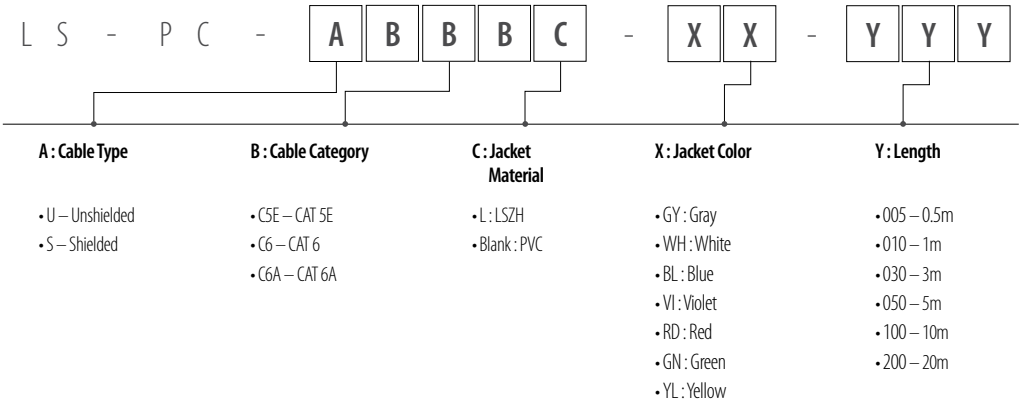
Category 6A Patch Cord

Part Number

PVC	Product Number	Description
	LS-PC-UC6A-XX-YYY	Unshielded Category 6A Patch Cord with T568B wiring, PVC Cable (CM rated)
LSZH	Product Number	Description
	LS-PC-SC6A-XX-YYY	Shielded Category 6A Patch Cord with T568B wiring, PVC Cable (CM rated)
LSZH	Product Number	Description
	LS-PC-UC6AL-XX-YYY	Unshielded Category 6A Patch Cord with T568B wiring, LSZH Cable
LSZH	Product Number	Description
	LS-PC-SC6AL-XX-YYY	Shielded Category 6A Patch Cord with T568B wiring, LSZH Cable

* XX Available Colors : WH(White), BL(Blue), GY(Gray), OR(Orange), RD(Red), GN(Green), YL(Yellow), BK(Black)
* YY, Available length : 005(0.5m), 010(1m), 030(3m) ~ 200(20m).
* Please contact your LS representative for available color & length

Patch Cord Product Identifier



Category 6 Solutions

Telecommunication Structure

Category 6 Plus U/UTP Cable 4Pair

Category 6 U/UTP Cable 4Pair

Category 6 F/UTP Cable 4Pair

Category 6 SF/UTP Cable 4Pair

Category 6 Patch Panel

Category 6 Modular Jack

Category 6 Patch Cord

Category 6 GXC™ 110 Patching System

Telecommunication Structure



- 01. Backbone Cabling (Inter-BC)
- 02. Administration (TIA/EIA-606)
- 03. Entrance Facilities (EF)
- 04. Equipment Room (ER)
- 05. Backbone Cabling (Intra-BC)
- 06. Telecommunication Rooms (TR)
- 07. Consolidation Point (CP)
- 08. Work Area (WA)
- 09. Horizontal Cabling
- 10. Outlet

LS Simple™ Cat.6Plus Cable
U/UTP Cat.6 Plus Cable 4Pair

LS Simple™ Cat.6 Cables
U/UTP Cat.6 Cable 4Pair
F/UTP Cat.6 Cable 4Pair
SF/UTP Cat.6 Cable 4Pair

LS Simple™ Cat.6 Patch Panels
Unshielded Modular type patch panel with Wire Management
Shielded Patch Panel with Wire Management

LS Simple™ Cat.6 Modular Jacks
Unshielded Modular Jack
Shielded Modular Jack

LS Simple™ Cat.6 Patch Cords
Unshielded Patch Cord
Shielded Patch Cord

LS Simple™ Cat.6 GXC™ 110 Patching Systems
GXC™ Patching Block
GXC™ 110 Patch Cord



Benefit

- Support maximum 1Gbit TX and high performance of Category 6 and transmit full broadband and baseband video signals ANSI/TIA-568-C.2 (or 568B), IEEE802.3
- Performance guaranteed max. 4 connections in any length channel configuration up to 100m
- LS Simple™ Category 6 Solution provides 1.2Gbit high performance transmission which comply with international standards. It fully meets ISO/IEC 11801 and ANSI/TIA-568-C.2 from equipment room to outlet.
- Possible to provide high speed with frequency extension up to 250MHz Category6/Class E.
- Connector is designed under consideration of customer's convenience to use, thus cabling with high density is available at outlet and equipment room.
- LS Simple™ Category 6 Solution is highly optimized solution for meeting high requirement on Data Center and IBS building.
- Shielded and unshielded solution are supported and whole range of components meet high flame retardant characteristics.

Guaranteed Channel Performances

Frequency (MHz)	Attenuation (dB / 100m)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB / 100m)	PSELFEXT (dB / 100m)	Return Loss (dB)
1.00	2.1	65.0	62.0	63.3	60.3	19.0
4.00	4.0	63.0	60.5	51.2	48.2	19.0
8.00	5.7	58.2	55.6	45.2	42.2	19.0
10.00	6.3	56.6	54.0	43.3	40.3	19.0
16.00	8.0	53.2	50.6	39.2	36.2	18.0
20.00	9.0	51.6	49.0	37.2	34.2	17.5
25.00	10.1	50.0	47.3	35.3	32.3	17.0
31.25	11.4	48.4	45.7	33.4	30.4	16.5
62.50	16.5	43.4	40.6	27.3	24.3	14.0
100.00	21.3	39.9	37.1	23.3	20.3	12.0
200.00	31.5	34.8	31.9	17.2	14.2	9.0
250.00	35.9	33.1	30.2	15.3	12.3	8.0

Typical Channel Performances

Attenuation (dB / 100m)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB / 100m)	PSELFEXT (dB / 100m)	Return Loss (dB)
-10%	+8	+8	+10	+10	+5

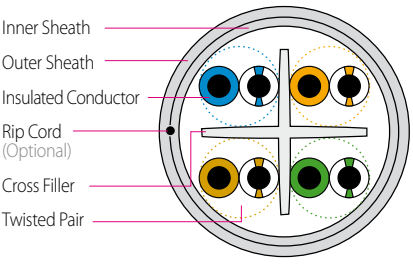
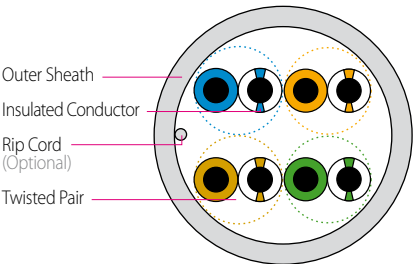
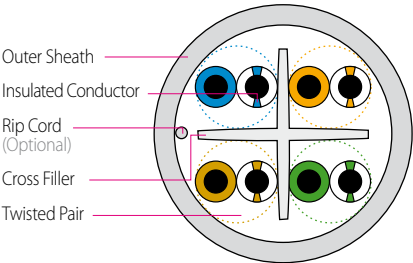


Category 6

U/UTP Cable 4 Pair

Description

- ETL Verified, UL Listed
- Capable of handling full broadband and baseband video signals
- High flame retardant grade of the cable is protected propagation of fire(Plenum Cable)
- Electrical performances comply with ANSI/TIA-568-C.2
- Specialized print legend contains footage from 1000 to 0, Metric from 305 to 0 and dual marking footage and metric
- Reelex & Reel in a Box is standard, so wire pulls through box opening for easy access
- RoHS compliant
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 6 Channel



Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000 BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G
- PoE & PoE+ (IEEE 802.3af Type 1(15.4W), IEEE 802.3at Type 2(34.2W))

Technical Details

Item	Unit	Non-Plenum	Plenum
Conductor DC Resistance	Ohms/100 m	9.38	9.38
Resistance Unbalance	%	5	5
Mutual Capacitance	nF/100 m	5.6	5.6
Capacitance Unbalance	pF/100 m	330	330
Characteristic Impedance	Ohms	100 ± 15%	100 ± 15%
Propagation Delay	ns/100 m	536 @ 250MHz	536 @ 250MHz
Delay Skew	ns	45	45
Nominal Velocity of Propagation	%	67	69
Operating Temperature	° C / ° F	-20 ~ 60 / -4 ~ 140	-20 ~ 60 / -4 ~ 140
Storage Temperature	° C / ° F	-20 ~ 80 / -4 ~ 176	-20 ~ 80 / -4 ~ 176
Bending Radius	-	4 x Cable Diameter	4 x Cable Diameter
Packaging Type	1000ft (305m)	Reelex / Reel In a Box/Reel	Reelex / Reel In a Box/Reel
Packaging Weight	lb/kft (kg/km)	24(36), Cross filler	26(39), Cross filler
Conductor Diameter / Material	-	23~24 AWG, Solid Copper	23~24 AWG, Solid Copper
Insulation Diameter / Material	Inch (mm)	0.037 (0.95), HDPE	0.037 (0.95), FEP
Outer Diameter / Material	Inch (mm)	0.236 (6.0), PVC or LSZH - Cross filler 0.213(5.4), PVC or LSZH - Non-filler	0.228 (5.8), LS-PVC - Cross filler 0.209(5.3), LS-PVC - Non-filler
Safety Standard, Performance Standard	UL444 / CMX-UL1581, IEC332-1 / CM-UL1685, IEC332-3 / CMR-UL1666 / CMP-NFPA262 / LSZH-IEC61034, IEC60754		
Approvals Performance	ANSI/TIA-568-C.2, ISO/IEC 11801 "Performance specifications for 4pairs 100 ohm Category 6 Cabling"		

Category 6 Plus U/UTP Cable 4 Pair

Part Number

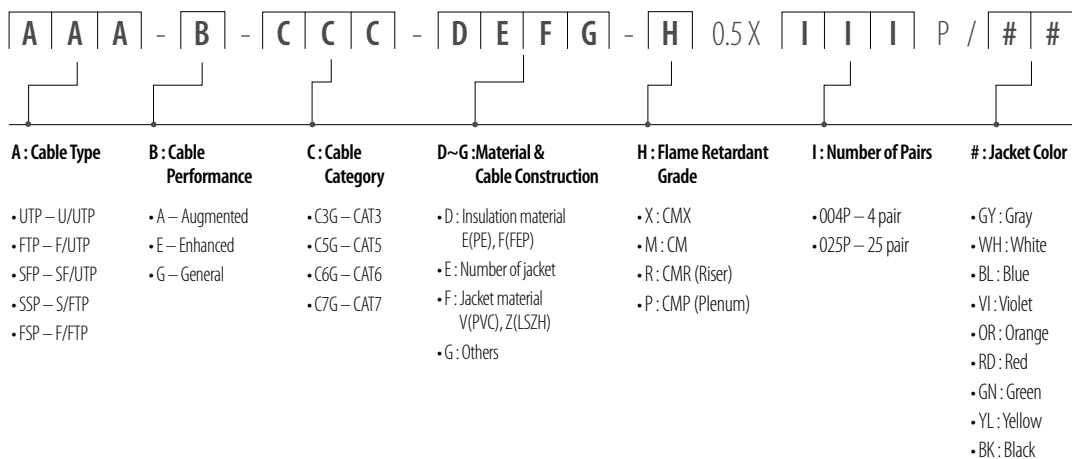
PVC	Product Number	Description	Length	Package
	UTP-E-C6G-E1VN-X 0.5X004P/WH	Category 6Plus U/UTP Cable 4-Pair, CMX rated, White color	1000 ft (305m)	RIB/Reel
	UTP-E-C6G-E1VN-X 0.5X004P/GY	Category 6Plus U/UTP Cable 4-Pair, CMX rated, Gray color	1000 ft (305m)	RIB/Reel
	UTP-E-C6G-E1VN-X 0.5X004P/BL	Category 6Plus U/UTP Cable 4-Pair, CMX rated, Blue color	1000 ft (305m)	RIB/Reel
	UTP-E-C6G-E1VN-M 0.5X004P/WH	Category 6Plus U/UTP Cable 4-Pair, CM rated, White color	1000 ft (305m)	RIB/Reel
	UTP-E-C6G-E1VN-M 0.5X004P/GY	Category 6Plus U/UTP Cable 4-Pair, CM rated, Gray color	1000 ft (305m)	RIB/Reel
	UTP-E-C6G-E1VN-M 0.5X004P/BL	Category 6Plus U/UTP Cable 4-Pair, CM rated, Blue color	1000 ft (305m)	RIB/Reel
	UTP-E-C6G-E1VN-R 0.5X004P/WH	Category 6Plus U/UTP Cable 4-Pair, CMR rated, White color	1000 ft (305m)	RIB/Reel
	UTP-E-C6G-E1VN-R 0.5X004P/GY	Category 6Plus U/UTP Cable 4-Pair, CMR rated, Gray color	1000 ft (305m)	RIB/Reel
	UTP-E-C6G-E1VN-R 0.5X004P/BL	Category 6Plus U/UTP Cable 4-Pair, CMR rated, Blue color	1000 ft (305m)	RIB/Reel

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black

* Please contact your LS representative for the available color

LSZH	Product Number	Description	Length	Package
	UTP-E-C6G-E1ZN-X 0.5X004P/WH	Category 6Plus U/UTP Cable 4-Pair, CMX rated, White color	1000 ft (305m)	RIB/Reel
	UTP-E-C6G-E1ZN-X 0.5X004P/GY	Category 6Plus U/UTP Cable 4-Pair, CMX rated, Gray color	1000 ft (305m)	RIB/Reel
	UTP-E-C6G-E1ZN-X 0.5X004P/BL	Category 6Plus U/UTP Cable 4-Pair, CMX rated, Blue color	1000 ft (305m)	RIB/Reel

Copper Cable Product Identifier



Category 6

U/UTP Cable 4 Pair

Part Number (Cross-filler)

PVC	Product Number	Description	Length	Package
	UTP-G-C6G-E1VN-X 0.5X004P/WH	Category 6 U/UTP Cable 4-Pair, CMX rated, White color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-E1VN-X 0.5X004P/GY	Category 6 U/UTP Cable 4-Pair, CMX rated, Gray color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-E1VN-X 0.5X004P/BL	Category 6 U/UTP Cable 4-Pair, CMX rated, Blue color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-E1VN-M 0.5X004P/WH	Category 6 U/UTP Cable 4-Pair, CM rated, White color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-E1VN-M 0.5X004P/GY	Category 6 U/UTP Cable 4-Pair, CM rated, Gray color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-E1VN-M 0.5X004P/BL	Category 6 U/UTP Cable 4-Pair, CM rated, Blue color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-E1VN-R 0.5X004P/WH	Category 6 U/UTP Cable 4-Pair, CMR rated, White color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-E1VN-R 0.5X004P/GY	Category 6 U/UTP Cable 4-Pair, CMR rated, Gray color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-E1VN-R 0.5X004P/BL	Category 6 U/UTP Cable 4-Pair, CMR rated, Blue color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-F1VN-P 0.5X004P/WH	Category 6 U/UTP Cable 4-Pair, CMP rated, White color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-F1VN-P 0.5X004P/GY	Category 6 U/UTP Cable 4-Pair, CMP rated, Gray color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-F1VN-P 0.5X004P/BL	Category 6 U/UTP Cable 4-Pair, CMP rated, Blue color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-E2VV-X 0.5X004P/BK	Category 6 U/UTP Cable 4-Pair, Double Sheath, UV	1640 ft (500m)	Reel
LSZH	Product Number	Description	Length	Package
	UTP-G-C6G-E1ZN-X 0.5X004P/WH	Category 6 U/UTP Cable 4-Pair, CMX rated, White color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-E1ZN-X 0.5X004P/GY	Category 6 U/UTP Cable 4-Pair, CMX rated, Gray color	1000 ft (305m)	Reelex/RIB/Reel
	UTP-G-C6G-E1ZN-X 0.5X004P/BL	Category 6 U/UTP Cable 4-Pair, CMX rated, Blue color	1000 ft (305m)	Reelex/RIB/Reel

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black
* Please contact your LS representative for the available color

Copper Cable Product Identifier

A	A	A	-	B	-	C	C	C	-	D	E	F	G	-	H	0.5X	I	I	I	P	/	#	#
A : Cable Type				B : Cable Performance		C : Cable Category				D~G :Material & Cable Construction					H : Flame Retardant Grade			I : Number of Pairs				# : Jacket Color	
• UTP – U/UTP • FTP – F/UTP • SFP – SF/UTP • SSP – S/FTP • FSP – F/FTP				• A – Augmented • E – Enhanced • G – General		• C3G – CAT3 • C5G – CAT5 • C6G – CAT6 • C7G – CAT7				• D : Insulation material E(PE), F(FEP) • E : Number of jacket • F : Jacket material V(PVC), Z(LSZH) • G : Others					• X : CMX • M : CM • R : CMR (Riser) • P : CMP (Plenum)			• 004P – 4 pair • 025P – 25 pair				• GY : Gray • WH : White • BL : Blue • VI : Violet • OR : Orange • RD : Red • GN : Green • YL : Yellow • BK : Black	

Category 6

U/UTP Cable 4 Pair

Part Number (Non-filler)

PVC

Product Number	Description	Length	Package
UTP-G-C6G-E1VX-X 0.5X004P/WH	Category 6 U/UTP Cable 4-Pair, CMX rated, White color	1000 ft (305m)	Reelex/RIB/Reel
UTP-G-C6G-E1VX-X 0.5X004P/GY	Category 6 U/UTP Cable 4-Pair, CMX rated, Gray color	1000 ft (305m)	Reelex/RIB/Reel
UTP-G-C6G-E1VX-X 0.5X004P/BL	Category 6 U/UTP Cable 4-Pair, CMX rated, Blue color	1000 ft (305m)	Reelex/RIB/Reel
UTP-G-C6G-E1VX-M 0.5X004P/WH	Category 6 U/UTP Cable 4-Pair, CM rated, White color	1000 ft (305m)	Reelex/RIB/Reel
UTP-G-C6G-E1VX-M 0.5X004P/GY	Category 6 U/UTP Cable 4-Pair, CM rated, Gray color	1000 ft (305m)	Reelex/RIB/Reel
UTP-G-C6G-E1VX-M 0.5X004P/BL	Category 6 U/UTP Cable 4-Pair, CM rated, Blue color	1000 ft (305m)	Reelex/RIB/Reel
UTP-G-C6G-E1VX-R 0.5X004P/WH	Category 6 U/UTP Cable 4-Pair, CMR rated, White color	1000 ft (305m)	Reelex/RIB/Reel
UTP-G-C6G-E1VX-R 0.5X004P/GY	Category 6 U/UTP Cable 4-Pair, CMR rated, Gray color	1000 ft (305m)	Reelex/RIB/Reel
UTP-G-C6G-E1VX-R 0.5X004P/BL	Category 6 U/UTP Cable 4-Pair, CMR rated, Blue color	1000 ft (305m)	Reelex/RIB/Reel
UTP-G-C6G-F1VX-P 0.5X004P/WH	Category 6 U/UTP Cable 4-Pair, CMP rated, White color	1000 ft (305m)	Reelex/RIB/Reel
UTP-G-C6G-F1VX-P 0.5X004P/GY	Category 6 U/UTP Cable 4-Pair, CMP rated, Gray color	1000 ft (305m)	Reelex/RIB/Reel
UTP-G-C6G-F1VX-P 0.5X004P/BL	Category 6 U/UTP Cable 4-Pair, CMP rated, Blue color	1000 ft (305m)	Reelex/RIB/Reel

LSZH

Product Number	Description	Length	Package
UTP-G-C6G-E1ZX-X 0.5X004P/WH	Category 6 U/UTP Cable 4-Pair, CMX rated, White color	1000 ft (305m)	Reelex/RIB/Reel
UTP-G-C6G-E1ZX-X 0.5X004P/GY	Category 6 U/UTP Cable 4-Pair, CMX rated, Gray color	1000 ft (305m)	Reelex/RIB/Reel
UTP-G-C6G-E1ZX-X 0.5X004P/BL	Category 6 U/UTP Cable 4-Pair, CMX rated, Blue color	1000 ft (305m)	Reelex/RIB/Reel

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black

* Please contact your LS representative for the available color

Copper Cable Product Identifier



A : Cable Type

- UTP – U/UTP
- FTP – F/UTP
- SFP – SF/UTP
- SSP – S/FTP
- FSP – F/FTP

B : Cable Performance

- A – Augmented
- E – Enhanced
- G – General

C : Cable Category

- C3G – CAT3
- C5G – CAT5
- C6G – CAT6
- C7G – CAT7

D~G : Material & Cable Construction

- D : Insulation material E(PE), F(FEP)
- E : Number of jacket
- F : Jacket material V(PVC), Z(LSZH)
- G : Others

H : Flame Retardant Grade

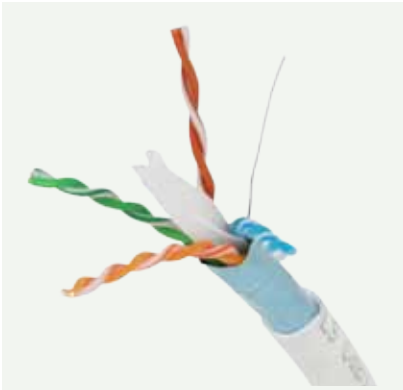
- X : CMX
- M : CM
- R : CMR (Riser)
- P : CMP (Plenum)

I : Number of Pairs

- 004P – 4 pair
- 025P – 25 pair

: Jacket Color

- GY : Gray
- WH : White
- BL : Blue
- VI : Violet
- OR : Orange
- RD : Red
- GN : Green
- YL : Yellow
- BK : Black

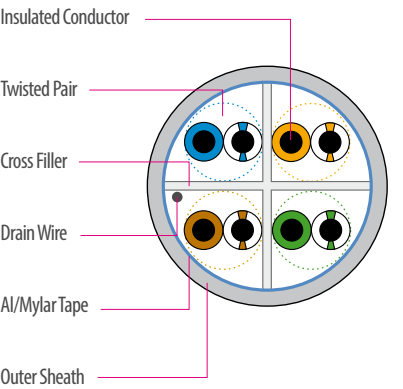


Category 6

F/UTP Cable 4 Pair

Description

- UL Listed & Verified
- Cable diameter : 0.283 in. (7.2 mm)
- Capable of handling full broadband and baseband video signals
- Electrical performances comply with ANSI/TIA-568-C.2
- Specialized print legend contains footage from 1000 to 0, Metric from 305 to 0 and dual marking footage and metric
- Wooden reel is standard, so wire pulls through reel for easy access
- RoHS compliant
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 6 Channel
- Meet superior transmission performance by using LS dedicated coding program for shield effectiveness and crosstalk mitigation based on long-term cable design & process technology

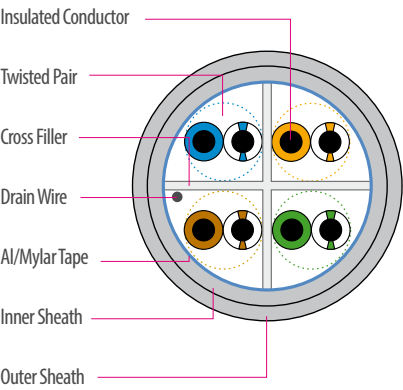


Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000 BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G
- PoE++ (IEEE 802.3bt draft. Type 3(60W))

Technical Details

Item	Unit	PVC/LSZH
Conductor DC Resistance	Ohms/100 m	9.38
Resistance Unbalance	%	5
Mutual Capacitance	nF/100 m	5.6
Capacitance Unbalance	pF/100 m	330
Characteristic Impedance	Ohms	100 ± 15%
Propagation Delay	ns/100 m	536 @ 250MHz
Delay Skew	ns	45
Nominal Velocity of Propagation	%	67
Operating Temperature	° C / ° F	-20 ~ 60 / -4 ~ 140
Storage Temperature	° C / ° F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	5 x Cable Diameter
Packaging Type	1000ft (305m)	Reel
Packaging Weight	lb/kft (kg/km)	36(54)
Conductor Diameter / Material	-	23~24 AWG, Solid Copper
Insulation Diameter / Material	Inch (mm)	0.043 (1.10), HDPE
Outer Diameter / Material	Inch (mm)	0.283 (7.2), PVC or LSZH (Low Smoke Zero Halogen)
Safety Standard, Performance Standard	UL444 / CMX-UL1581, IEC332-1 / CM-UL1685, IEC332-3 / CMR-UL1666 / / LSZH-IEC61034, IEC60754	
Approvals Performance	ANSI/TIA-568-C.2, ISO/IEC 11801 "Performance specifications for 4pairs 100 ohm Category 6 Cabling"	



Category 6 F/UTP Cable 4 Pair

Part Number

PVC

Product Number	Description	Length	Package
FTP-G-C6G-E1VN-X 0.5X004P/WH	Category 6 F/UTP Cable 4-Pair, CMX rated, White color	1000 ft (305m)	Reel
FTP-G-C6G-E1VN-X 0.5X004P/GY	Category 6 F/UTP Cable 4-Pair, CMX rated, Gray color	1000 ft (305m)	Reel
FTP-G-C6G-E1VN-X 0.5X004P/BL	Category 6 F/UTP Cable 4-Pair, CMX rated, Blue color	1000 ft (305m)	Reel
FTP-G-C6G-E1VN-M 0.5X004P/WH	Category 6 F/UTP Cable 4-Pair, CM rated, White color	1000 ft (305m)	Reel
FTP-G-C6G-E1VN-M 0.5X004P/GY	Category 6 F/UTP Cable 4-Pair, CM rated, Gray color	1000 ft (305m)	Reel
FTP-G-C6G-E1VN-M 0.5X004P/BL	Category 6 F/UTP Cable 4-Pair, CM rated, Blue color	1000 ft (305m)	Reel
FTP-G-C6G-E1VN-R 0.5X004P/WH	Category 6 F/UTP Cable 4-Pair, CMR rated, White color	1000 ft (305m)	Reel
FTP-G-C6G-E1VN-R 0.5X004P/GY	Category 6 F/UTP Cable 4-Pair, CMR rated, Gray color	1000 ft (305m)	Reel
FTP-G-C6G-E1VN-R 0.5X004P/BL	Category 6 F/UTP Cable 4-Pair, CMR rated, Blue color	1000 ft (305m)	Reel
FTP-G-C6G-E2VV-X 0.5X004P/BK	Category 6 F/UTP Cable 4-Pair, Double Sheath, UV	1640 ft (500m)	Reel

LSZH

Product Number	Description	Length	Package
FTP-G-C6G-E1ZN-X 0.5X004P/WH	Category 6 F/UTP Cable 4-Pair, CMX rated, White color	1000 ft (305m)	Reel
FTP-G-C6G-E1ZN-X 0.5X004P/GY	Category 6 F/UTP Cable 4-Pair, CMX rated, Gray color	1000 ft (305m)	Reel
FTP-G-C6G-E1ZN-X 0.5X004P/BL	Category 6 F/UTP Cable 4-Pair, CMX rated, Blue color	1000 ft (305m)	Reel

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black

* Please contact your LS representative for the available color

Copper Cable Product Identifier

A A A	B	C C C	D E F G	H	0.5 X I I I	P / # #
A : Cable Type	B : Cable Performance	C : Cable Category	D~G : Material & Cable Construction	H : Flame Retardant Grade	I : Number of Pairs	# : Jacket Color
• UTP – U/UTP • FTP – F/UTP • SFP – SF/UTP • SSP – S/FTP • FSP – F/FTP	• A – Augmented • E – Enhanced • G – General	• C3G – CAT3 • C5G – CAT5 • C6G – CAT6 • C7G – CAT7	• D : Insulation material E(PE), F(FEP) • E : Number of jacket • F : Jacket material V(PVC), Z(LSZH) • G : Others	• X : CMX • M : CM • R : CMR (Riser) • P : CMP (Plenum)	• 004P – 4 pair • 025P – 25 pair	• GY : Gray • WH : White • BL : Blue • VI : Violet • OR : Orange • RD : Red • GN : Green • YL : Yellow • BK : Black



Category 6

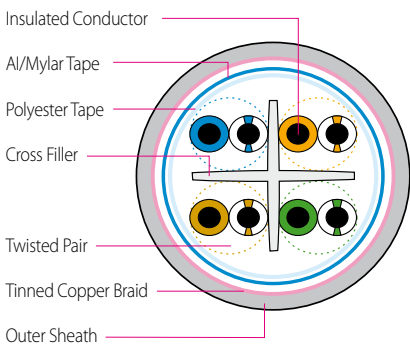
SF/UTP Cable 4 Pair

Description

- Cable diameter : 0.295 in. (7.5 mm)
- Capable of handling full broadband and baseband video signals
- High flame retardant grade is available, protecting propagation of fire
- Electrical performances comply with ANSI/TIA-568-C.2
- Specialized print legend contains footage from 1000 to 0, Metric from 305 to 0 and dual marking footage and metric
- Reel Packaging is standard, so wire pulls through reel opening for easy access
- RoHS compliant
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 6 Channel
- Meet superior transmission performance by using LS dedicated coding program for shield effectiveness and crosstalk mitigation based on long-term cable design & process technology

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000 BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- PoE++ (IEEE 802.3bt draft, Type 3(60W))



Technical Details

Item	Unit	PVC/LSZH
Conductor DC Resistance	Ohms/100 m	9.38
Resistance Unbalance	%	5
Mutual Capacitance	nF/100 m	5.6
Capacitance Unbalance	pF/100 m	330
Characteristic Impedance	Ohms	100 ± 15%
Propagation Delay	ns/100 m	536 @ 250MHz
Delay Skew	ns	45
Nominal Velocity of Propagation	%	67
Operating Temperature	° C / ° F	-20 ~ 60 / -4 ~ 140
Storage Temperature	° C / ° F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	5 x Cable Diameter
Packaging Type	1000ft(305m)	Reel
Packaging Weight	lb/kft (kg/km)	40 (60)
Conductor Diameter / Material	-	23 ~ 24 AWG, Solid Copper
Insulation Diameter / Material	inch (mm)	0.043 (1.10), HDPE
Outer Diameter / Material	inch (mm)	0.295 (7.5), PVC or LSZH
Safety Standard, Performance Standard	UL444 / CMX-UL1581, IEC332-1 / CM-UL1685, IEC332-3 / CMR-UL1666 / LSZH-IEC61034, IEC60754	
Approvals Performance	ANSI/TIA-568-C.2, ISO/IEC 11801 "Performance specifications for 4pairs 100 ohm Category 6 Cabling"	

Category 6 SF/UTP Cable 4 Pair

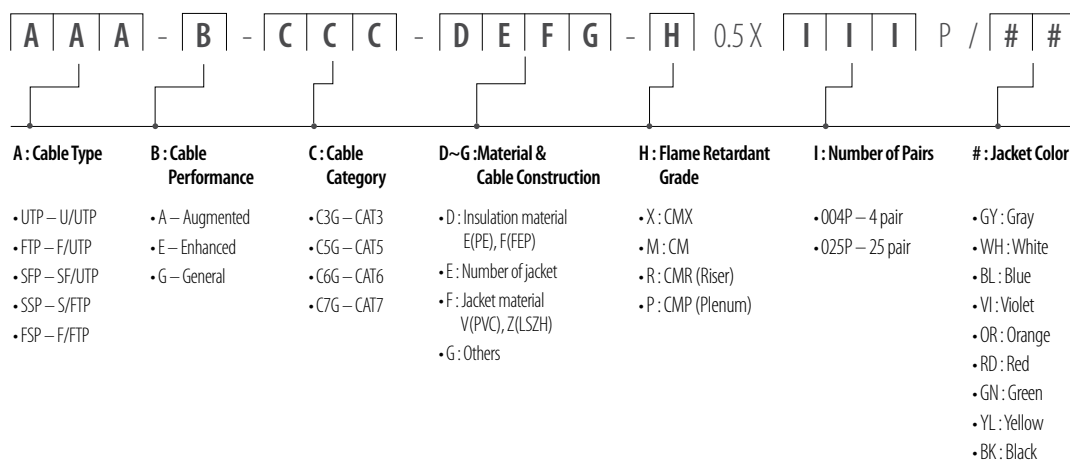
Part Number

PVC	Product Number	Description	Length	Package
	SFP-G-C6G-E1VN-X 0.5X004P/WH	Category 6 SF/UTP Cable 4-Pair, CMX rated, White color	1000 ft (305m)	Reel
	SFP-G-C6G-E1VN-X 0.5X004P/GY	Category 6 SF/UTP Cable 4-Pair, CMX rated, Gray color	1000 ft (305m)	Reel
	SFP-G-C6G-E1VN-X 0.5X004P/BL	Category 6 SF/UTP Cable 4-Pair, CMX rated, Blue color	1000 ft (305m)	Reel
	SFP-G-C6G-E1VN-M 0.5X004P/WH	Category 6 SF/UTP Cable 4-Pair, CM rated, White color	1000 ft (305m)	Reel
	SFP-G-C6G-E1VN-M 0.5X004P/GY	Category 6 SF/UTP Cable 4-Pair, CM rated, Gray color	1000 ft (305m)	Reel
	SFP-G-C6G-E1VN-M 0.5X004P/BL	Category 6 SF/UTP Cable 4-Pair, CM rated, Blue color	1000 ft (305m)	Reel
	SFP-G-C6G-E1VN-R 0.5X004P/WH	Category 6 SF/UTP Cable 4-Pair, CMR rated, White color	1000 ft (305m)	Reel
	SFP-G-C6G-E1VN-R 0.5X004P/GY	Category 6 SF/UTP Cable 4-Pair, CMR rated, Gray color	1000 ft (305m)	Reel
	SFP-G-C6G-E1VN-R 0.5X004P/BL	Category 6 SF/UTP Cable 4-Pair, CMR rated, Blue color	1000 ft (305m)	Reel
LSZH	Product Number	Description	Length	Package
	SFP-G-C6G-E1ZN-X 0.5X004P/WH	Category 6 SF/UTP Cable 4-Pair, CMX rated, White color	1000 ft (305m)	Reel
	SFP-G-C6G-E1ZN-X 0.5X004P/GY	Category 6 SF/UTP Cable 4-Pair, CMX rated, Gray color	1000 ft (305m)	Reel
	SFP-G-C6G-E1ZN-X 0.5X004P/BL	Category 6 SF/UTP Cable 4-Pair, CMX rated, Blue color	1000 ft (305m)	Reel

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black

* Please contact your LS representative for the available color

Copper Cable Product Identifier





A. LS-PP-UC6-24P-WM



B. LS-PP-SC6-24P



C. LS-PP-24P-E-LWM + LS-MJ-UC6-WH-ERI



D. LS-PP-24P-E-LWM + LS-MJ-SC6-RIDC

Category 6 Patch Panel

Description

- These PCB 1U 24 way patch panels come complete with cable management, accessories and full installation instructions.
- It fully complies with the requirements set out in ANSI/TIA-568-C.2

- UL Listed
- Architectural design and flexibility – Support max. 4 connection channels
- Available in 24-port(1U) options
- Easy cable routing and bundling through improved rear cable management
- Electrical performances comply with ANSI/TIA-568-C.2 (Category 6 / Class E level)
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 6 Channel

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring (IEEE 802.5)
- 10/100/1000 BASE-T (IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G

Physical Specification

	A inch(mm)	B inch(mm)
Height	1.73 (44.1)	1.75 (44.5)
Width	18.99 (482)	18.97 (482)
Depth(Including cable management)	5.13 (130)	4.33 (110)
Unit	1U	1U

Technical Details

Electrical / Mechanical Characteristics

- Current Rating : 1.5 Amps
- Insulation Resistance : 500 Megaohm
- DC Resistance : 0.1 ohm Max
- 150Vac Max.
- Insertion Life : 750 Mating Cycles
- Temperature : -40°C ~ 68°C (-40°F ~ 154°F)
- Humidity : 10% ~ 90% RH
- IDC Accept : 23~26 AWG Solid Wire

Materials

- Housing : High impact Flame Retardant Plastic
UL 94V-0 or 2 Rated
- Spring Wire : Phosphor Bronze plated with 50μ-inch
(1.27μm) thick Gold over 100μ-inch
(2.54μm) thick Nickel
- IDC Plastic : Polycarbonate or ABS, UL 94V-0 or 2 rated over
- IDC Contact : Phosphor Bronze plated with 100μ-inch
(2.54μm) minimum thick Tin
- Panel : Steel with Black Painting (Unshielded)

Approvals

- Category - ANSI/TIA-568-C.2 Category 6, ISO/IEC 11801 Class E
- Wiring Scheme - T568A / T568B

- Meet - FCC CFR 47 Parts 68

Category 6 Patch Panel

Part Number

Product Number	Description
LS-PP-UC6-24P-WM	24-Port Cat.6 Unshielded Patch Panel with Wire Management
LS-PP-SC6-24P	24-Port Cat.6 Shielded Patch Panel, Built in Wire Management
LS-PP-24P-E-LWM + LS-MJ-UC6-WH-ERI	24-Port Modular type Patch Panel with Wire Management & Unshielded Enhanced Rear IDC Category 6 Modular Jack
LS-PP-24P-E-LWM + LS-MJ-SC6-RIDC	24-Port Modular type Patch Panel with Wire Management & Shielded Rear IDC Category 6 Modular Jack



A. LS-MJ-UC6-xx-ERI



B. LS-MJ-UC6-xx-ERD



C. LS-MJ-SC6-RIDC

Category 6 Modular Jack

Description

- LS Simple™ Category 6 modular jacks are designed and manufactured to meet today's and tomorrow's demanding international standards.
- It takes into consideration the need for reliable and quick installations.
- The jack is individually terminated using Insulation Displacement Connectors (IDC) giving assurance of wire connection when using a punch down tool and dedicated easy termination tool.
- User instructions and basic wiring layout for standard configuration are included.
- The LS Simple™ modular jack comes with the ability to wire to a T568A or T568B configuration and fully complies with ANSI / TIA-568-C.2 Category 6

- Electrical performances comply with ANSI/TIA-568-C.2 (Category 6 performance levels)
- Architectural design and flexibility – Support max. 4 connection channels
- Universal design and label supports both T568A and T568B wiring
- IDC Connector accept and allow quick, easy installation of 23~26AWG cable
- Optimal performance is achieved when using Simple™ Category 6 patch cords
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 6 Channel
- Slide door type for dust proof on unused port is applicable (if necessary)
- 2-way slim IDC cover applicable in HD system configuration

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring (IEEE 802.5)
- 10/100/1000 BASE-T (IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G

Physical Specification

	A / B inch(mm)	C inch(mm)
Height	0.76(19.3)	0.75(19.0)
Width	0.66(16.8)	0.57(14.6)
Depth	1.14(29.0)	1.30(33.0)
Type	Unshield RJ45 8pin	Shield RJ45 8pin

Technical Details

Electrical / Mechanical Characteristics

- Current Rating : 1.5 Amps
- Insulation Resistance : 500 Mega-ohm Min.
- DC Resistance : 0.1 ohm Max.
- Voltage : 150 Vac Max.
- Insertion Life : 2000 Mating Cycles
- Plug Retention Force : 20 lbs (89N)
- Temperature : -40°C~68°C(-40°F~154°F)
- Humidity : 10%~90% RH
- IDC Accept : 23~26 AWG Solid Wire

Materials

- Housing & Door : ABS+PC, UL94V-0 rated
- Cap : PA11 + Anti-EMI material, UL94V-0 rated, Black
- Contact Bracket : PC, UL 94V-2 rated, Transparent
- IDC Block : PC, UL 94V-2 rated
- IDC Terminals : Phosphor Bronze, plated with tin over nickel underplate
- Jack Contacts : Phosphor bronze flat wire, plated with 1.27µm (50µin) thick hard gold on contact area over nickel underplate
- PCB : FR4, UL 94V-0 rated

Approvals

- Category - ANSI/TIA-568-C.2 Category 6, ISO/IEC 11801 Class E
- Wiring Scheme - T568A / T568B

- Meet - FCC CFR 47 Parts 68

Category 6 Modular Jack

Part Number

Product Number	Description
LS-MJ-UC6-WH-ERI	Category 6 Unshielded Keystone Jack White Color, Enhanced Rear IDC type
LS-MJ-UC6-BL-ERI	Category 6 Unshielded Keystone Jack Blue Color, Enhanced Rear IDC type
LS-MJ-UC6-RD-ERI	Category 6 Unshielded Keystone Jack Red Color, Enhanced Rear IDC type
LS-MJ-UC6-BK-ERI	Category 6 Unshielded Keystone Jack Black Color, Enhanced Rear IDC type
LS-MJ-SC6-RIDC	Category 6 Shielded Keystone Jack, Rear IDC type
LS-MJ-UC6-WH-ERD	Category 6 Unshielded Keystone Jack White Color, ERI type with door
LS-MJ-UC6-BL-ERD	Category 6 Unshielded Keystone Jack Blue Color, ERI type with door
LS-MJ-UC6-RD-ERD	Category 6 Unshielded Keystone Jack Red Color, ERI type with door
LS-MJ-UC6-BK-ERD	Category 6 Unshielded Keystone Jack Black Color, ERI type with door

* Please contact your LS representative for the available color



LS-PC-UC6(L)-XX-YYY



LS-PC-SC6(L)-XX-YYY

Category 6 Patch Cord

Description

- LS Simple™ Category 6 patch cords are factory terminated, providing the quality required to support your channel requirements.
- It is fully booted and have clip protection for simple removal.
- It offers a high performance alternative to satin modular line cords where crosstalk, EMI or distance may be considerations.

- Comply with Category 6 / Class E performance levels
- Architectural design and flexibility – Support max. 4 connection channels
- Optimal performance is achieved when using Simple™ Category 6 patch cords
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 6 Channel

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000 BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G

Technical Details

Electrical / Mechanical Characteristics

- Current Rating : 1.5 Amps
- Contact Resistance : 20 milli-ohm
- Insulation Resistance : 500 Mega-ohm
- DC Resistance : 0.1 ohm Max.
- Insertion Life : 750 Mating Cycles
- Temperature : -20° C ~ 68° C (-4° F ~ 154° F)
- Humidity : 10% ~ 90% RH

Materials

- Housing : Polycarbonate (PC), UL 94V-2 Rated
- Cable Jacket : PVC, LSZH

Approvals

- Category - ANSI/TIA-568-C.2 Category 6, ISO/IEC 11801 Class E
- Meet : FCC CFR 47 Parts 68 and IEC 60603-7
- Wiring Scheme : T568B

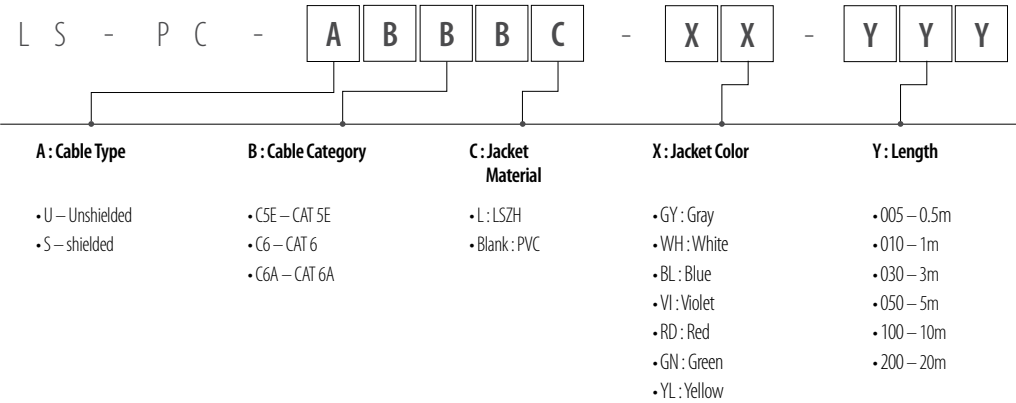
Category 6 Patch Cord

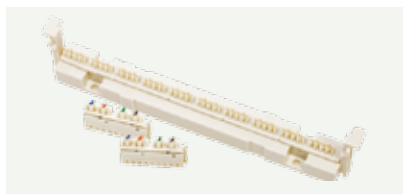
Part Number

PVC	Product Number	Description
	LS-PC-UC6-XX-YYY	Category 6 Unshielded Patch Cord with T568B wiring, PVC CM rated
	LS-PC-SC6-XX-YYY	Category 6 Shielded Patch Cord with T568B wiring, PVC CM rated
LSZH	Product Number	Description
	LS-PC-UC6L-XX-YYY	Category 6 Unshielded Patch Cord with T568B wiring, LSZH
	LS-PC-SC6L-XX-YYY	Category 6 Shielded Patch Cord with T568B wiring, LSZH

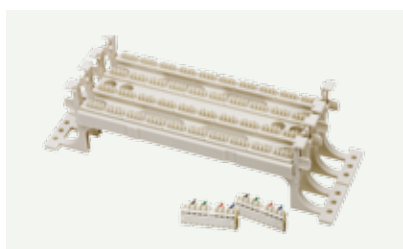
* XX Available Colors : WH(White), BL(Blue), GY(Gray), OR(Orange), RD(Red), GN(Green), YL(Yellow), BK(Black)
* YYY, Available Length : 005(0.5m), 010(1m), 030(3m) ~200(20m).
* Please contact your LS representative for available color & length

Patch Cord Product Identifier





A. LS-110WB-UC6-20P-W/O



B. LS-110WB-UC6-80P-W



C. LS-110WB-UC6-80P-2U-WM1U



D. LS-110WB-UC6-160P-4U-WM2U



E. LS-HWMMR-PR12-8726-WC6240-WM



LS-110PCC-UC6-4-GY-YYY

Category 6 GXC™ 110 Patching System

Description

- The GXC™ (Giga Cross Connected) Patch Block for Category 6 grade to meet the electrical requirement of ANSI/TIA-568-C.2 by coupling-pin technology and improve workability.
- The Simple GXC™ Patching systems provide various sized products for back board mounting (20, 40 and 80-pair)
- Same IDCs pin interval as Category 5e that means operators at installation site can use same multi-pin push down tool as conventional.
- The Simple GXC™ Patching Blocks are ideal for use in cross-connect, consolidation point (CP) and 19" rack mount panel.
- The Simple GXC™ Patching Blocks fully comply with the requirement set out in ANSI/TIA-568-C.2 (Category 6), ISO/IEC 11801.
- It includes base 110 Terminal Block, Wiring Base Block, Wiring Label, Label holders.

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring (IEEE 802.5)
- 10/100/1000 BASE-T (IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G
- Analog & Digital voice (VoIP) and video
- Full broadband and baseband video

Physical Specification

Item	A inch(mm)	B inch(mm)	C inch(mm)	D inch(mm)	E inch(mm)
Height	1.7 (42)	3.6 (92)	3.4 (87)	6.9 (175)	24.2 (615)
Width	8.5 (216)	10.7 (272)	19.0 (482)	19.0 (482)	8.7 (220)
Depth (Including cable management)	1.6 (40)	3.1 (80)	3.0 (75)	2.8 (70)	6.7 (170)
Type	110Block	110Block	19" 2U	19" 4U	Wall Mounted

Technical Details

Electrical / Mechanical Characteristics

- Current Rating : 1.5 Amps
- Contact Resistance : 20 milli-ohm
- Insulation Resistance : 500 Mega-ohm
- Temperature : -20° C ~ 68° C (-4° F ~ 154° F)
- Humidity : 10% ~ 90% RH

Materials

- Block & IDC housing : Polycarbonate, UL 94V-0 Rated

Approvals

- Category : UL Listed

Approvals

- Category : ANSI/TIA-568-C.2 Category 6, ISO/IEC 11801 Class E
- Meet : FCC CFR 47 Parts 68 and IEC 60603-7
- Wiring Scheme : T568B

Category 6

GXC™ 110 Patching System

Part Number

110 Wiring Block

Product Number	Description
LS-110WB-UC6-20P-W/O	Category 6 Unshielded 110wiring block, giga cross 20pairs with label holder, IDC connectors, paper & drill screws without leg, white color
LS-110WB-UC6-40P-W/O	Category 6 Unshielded 110wiring block, giga cross 40pairs with label holder, IDC connectors, paper & drill screws without leg, white color
LS-110WB-UC6-80P-W/O	Category 6 Unshielded 110wiring block, giga cross 80pairs with label holder, IDC connectors, paper & drill screws without leg, white color
LS-110WB-UC6-40P-W	Category 6 Unshielded 110wiring block, giga cross 40pairs with label holder, IDC connectors, paper & drill screws, white color
LS-110WB-UC6-80P-W	Category 6 Unshielded 110wiring block, giga cross 80pairs with label holder, IDC connectors, paper & drill screws, white color
LS-110WB-UC6-80P-2U-WM1U	Category 6 Unshielded Wall Mounted 110wiring block, giga cross 80ports with 19inch rack frame 2U, Wire management 1U & accessories
LS-110WB-UC6-160P-4U-WM2U	Category 6 Unshielded Wall Mounted 110wiring block, giga cross 160ports with 19inch rack frame 4U, Wire management 2U & accessories
LS-HWMB-PR12-8726-WC6240-WM	Category 6 Unshielded Wall Mounted 110wiring block, giga cross 240ports with rack frame, "U" duct steel frame, three jumper trough 2U & accessories, white color block (Dimension : H 615 * W 220 * D 170mm)

110 Patch Cord

Product Number	Description
LS-110PCC-UC6-4-GY-YYY	Category 6 Unshielded 110wiring patch cord 4pair Gray cable, PVC CM rated (110 patch to 110 patch)
LS-110PCR-UC6-4-GY-YYY	Category 6 Unshielded 110wiring patch cord 4pair Gray cable, PVC CM rated (110 patch to 8pin plug T568B wiring)

* Please contact your LS representative for the available Rack Unit frame & pair

* YYY denotes available length : 005(0.5m), 010(1m), 030(3m), 100(10m), etc.

* Please contact your LS representative for the available color & length

Category 5e Solutions

Telecommunication Structure

Category 5e U/UTP Cable 4Pair

Category 5e U/UTP Cable 25Pair

Category 5e F/UTP Cable 4Pair

Category 5e SF/UTP Cable 4Pair

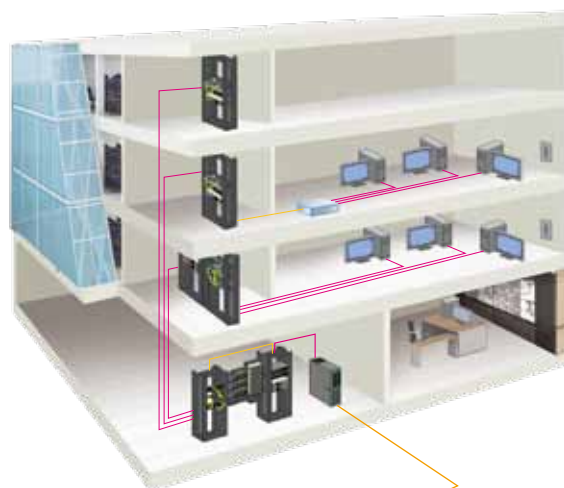
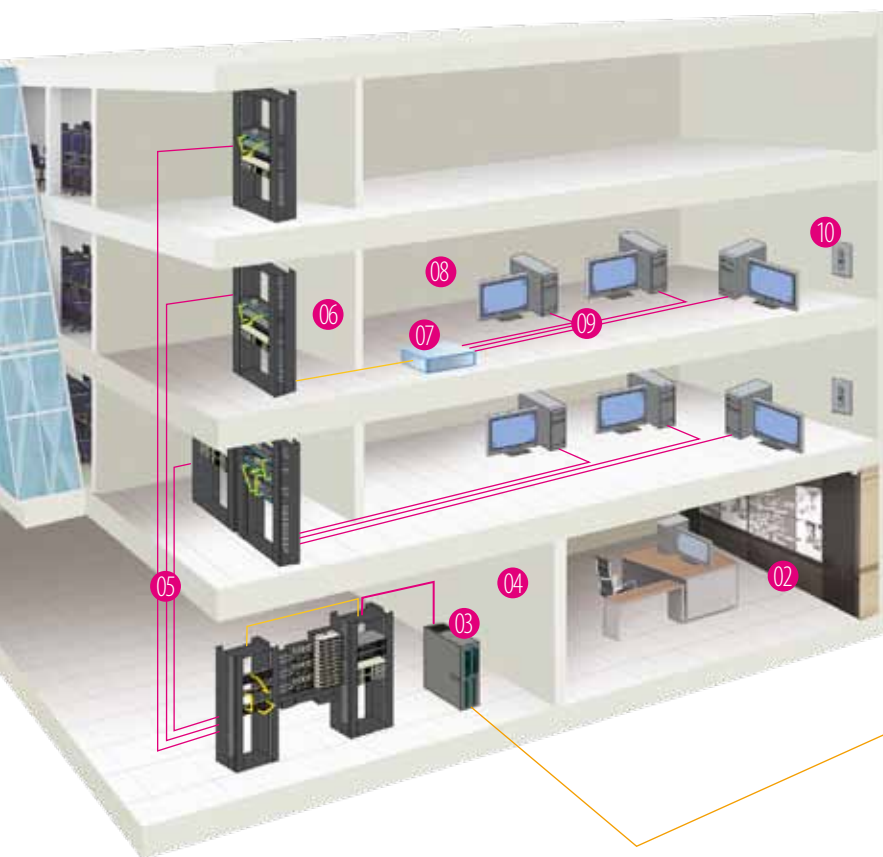
Category 5e Patch Panel

Category 5e Modular Jack

Category 5e Patch Cord

Category 5e 110 Patching System

Telecommunication Structure



- 01. Backbone Cabling(Inter-BC)
- 02. Administration(TIA/EIA-606)
- 03. Entrance Facilities(EF)
- 04. Equipment Room(ER)
- 05. Backbone Cabling(Intra-BC)
- 06. Telecommunication Rooms(TR)
- 07. Consolidation Point(CP)
- 08. Work Area(WA)
- 09. Horizontal Cabling
- 10. Outlet

LS Simple™ Cat.5e Cables

U/UTP Cat.5e Cable 4Pair
 U/UTP Cat.5e Cable 25Pair
 F/UTP Cat.5e Cable 4Pair
 SF/UTP Cat.5e Cable 4Pair

LS Simple™ Cat.5e Patch Panels

Unshielded Modular type patch panel with wire management
 Shielded Patch Panel with wire management

LS Simple™ Cat.5e Modular Jacks

Unshielded Modular Jack
 Shielded Modular Jack

LS Simple™ Cat.5e Patch Cords

Unshielded Patch Cord
 Shielded Patch Cord

LS Simple™ Cat.5e 110 Patching Systems

110 Block
 110 Patch cord
 Jumper Trough



Benefits

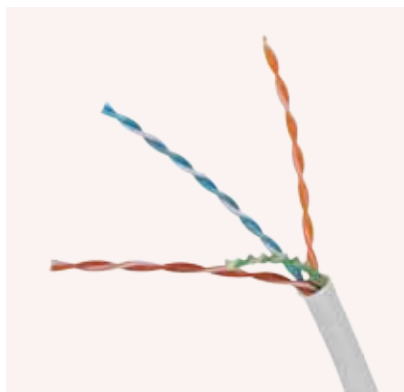
- High performance of Category 5 Enhanced and transmit full broadband and baseband video signals
- ANSI/TIA-568-C.2, IEEE802.3 1000Base-T
- Performance guaranteed max. 4 connections in any length channel configuration up to 100m
- LS Simple™ Category 5e solution provides 100Mbit/s or 1Gbit/s performance transmission which comply with international standards. Product meets ISO/IEC 11801 and ANSI/TIA-568-C.2 from equipment room to outlet.
- Possible to provide high speed with frequency extension up to 100MHz Category5e/Class D.
- Connector is designed under consideration of customer's convenience to use, thus, cabling with high density is available at outlet and equipment room.
- LS Simple™ Category 5e solution is highly optimized solution for meeting high requirement on Data Center and IBS building.
- Shielded and unshielded solution are supported, and whole range of components have high flame retardant characteristics.

Guaranteed Channel Performances

Frequency (MHz)	Attenuation (dB / 100m)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB / 100m)	PSELFEXT (dB / 100m)	Return Loss (dB)
1.00	2.2	60.0	57.0	57.4	54.4	17.0
4.00	4.5	53.5	50.5	45.4	42.4	17.0
8.00	6.3	48.6	45.6	39.3	36.3	17.0
10.00	7.1	47.0	44.0	37.4	34.4	17.0
16.00	9.1	43.6	40.6	33.3	30.3	17.0
20.00	10.2	42.0	39.0	31.4	28.4	17.0
25.00	11.4	40.3	37.3	29.4	26.4	16.0
31.25	12.9	38.7	35.7	27.5	24.5	15.1
62.50	18.6	33.6	30.6	21.5	18.5	12.1
100.00	24.0	30.1	27.1	17.4	14.4	10.0

Typical Channel Performance

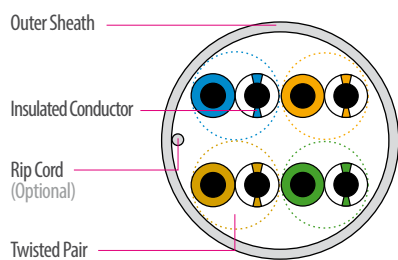
Attenuation (dB / 100m)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB / 100m)	PSELFEXT (dB / 100m)	Return Loss (dB)
-10%	+6	+6	+8	+8	+4



Category 5e U/UTP Cable 4 Pair

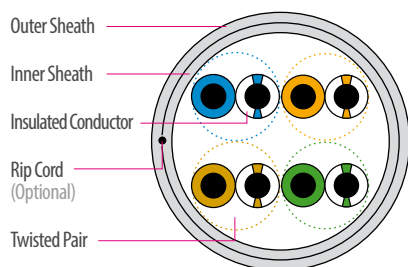
Description

- Cable diameter : 0.193inch (4.9 mm)
- ETL Verified & UL Listed
- Supports Fast Ethernet, Gigabit Ethernet, 155 Mb/s, Multimedia
- All accepted design for global commercial network installation
- Simplified structured cabling solution preserving long-term network investment
- Electrical performances comply with ANSI/TIA-568-C.2
- Specialized print legend contains footage from 1000 to 0, Metric from 305 to 0 and dual marking footage and metric
- RoHS compliant
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 5e Channel



Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring (IEEE 802.5)
- 10/100/1000 BASE-T (IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- PoE & PoE+ (IEEE 802.3af Type 1(15.4W), IEEE 802.3at Type 2(34.2W))



Technical Details

Item	Unit	Non-Plenum	Plenum
Conductor DC Resistance	Ohms/100 m	9.38	9.38
Resistance Unbalance	%	5	5
Mutual Capacitance	nF/100 m	5.6	5.6
Capacitance Unbalance	pF/100 m	330	330
Characteristic Impedance	Ohms	100 ± 15%	100 ± 15%
Propagation Delay	ns/100 m	538 @ 100MHz	538 @ 100MHz
Delay Skew	ns	45	45
Nominal Velocity of Propagation	%	67	68
Operating Temperature	°C / °F	-20 ~ 60 / -4 ~ 140	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / °F	-20 ~ 80 / -4 ~ 176	-20 ~ 80 / -4 ~ 176
Bending Radius	-	4 x Cable Diameter	4 x Cable Diameter
Packaging Type	1000ft (305m)	Reelex / RIB	Reelex / RIB
Packaging Weight	lb/kft (kg/km)	17 (25)	20 (30)
Conductor Diameter / Material	-	24 AWG, Solid Copper	24 AWG, Solid Copper
Insulation Diameter / Material	inch (mm)	0.035(0.90) Φ, HDPE	0.034(0.86) Φ, FEP
Outer Diameter / Material	inch (mm)	0.193(4.9) Φ, PVC or LSZH(Low Smoke Zero Halogen)	0.185(4.7) Φ, LS-PVC(Plenum)
Safety Standard, Performance Standard	UL444 / CMX-UL1581, IEC332-1 / CM-UL1685, IEC332-3 / CMR-UL1666 / CMP-NFPA262 / LSZH-IEC60754, IEC61034		
Approvals Performance	ANSI/TIA-568-C.2, ISO/IEC 11801 "Performance specifications for 4Pairs 100 ohm Category 5E / Class D Cabling"		

Category 5e

U/UTP Cable 4 Pair

Part Number

PVC

Product Number	Description	Length	Package
UTP-E-C5G-E1VN-X 0.5X004P/WH	Category 5E U/UTP 4-Pair Cable, CMX rated, White color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-E1VN-X 0.5X004P/GY	Category 5E U/UTP 4-Pair Cable, CMX rated, Gray color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-E1VN-X 0.5X004P/BL	Category 5E U/UTP 4-Pair Cable, CMX rated, Blue color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-E1VN-M 0.5X004P/WH	Category 5E U/UTP 4-Pair Cable, CM rated, White color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-E1VN-M 0.5X004P/GY	Category 5E U/UTP 4-Pair Cable, CM rated, Gray color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-E1VN-M 0.5X004P/BL	Category 5E U/UTP 4-Pair Cable, CM rated, Blue color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-E1VN-R 0.5X004P/WH	Category 5E U/UTP 4-Pair Cable, CMR rated, White color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-E1VN-R 0.5X004P/GY	Category 5E U/UTP 4-Pair Cable, CMR rated, Gray color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-E1VN-R 0.5X004P/BL	Category 5E U/UTP 4-Pair Cable, CMR rated, Blue color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-F1VN-P 0.5X004P/WH	Category 5E U/UTP 4-Pair Cable, CMP rated, White color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-F1VN-P 0.5X004P/GY	Category 5E U/UTP 4-Pair Cable, CMP rated, Gray color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-F1VN-P 0.5X004P/BL	Category 5E U/UTP 4-Pair Cable, CMP rated, Blue color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-E2VW-X 0.5X004P/BK	Category 5E U/UTP 4-Pair Cable, Double Sheath, UV	1640 ft (500m)	Reel

LSZH

Product Number	Description	Length	Package
UTP-E-C5G-E1ZN-X 0.5X004P/WH	Category 5E U/UTP 4-Pair Cable, CMX rated, White color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-E1ZN-X 0.5X004P/GY	Category 5E U/UTP 4-Pair Cable, CMX rated, Gray color	1000 ft (305m)	Reelex/RIB
UTP-E-C5G-E1ZN-X 0.5X004P/BL	Category 5E U/UTP 4-Pair Cable, CMX rated, Blue color	1000 ft (305m)	Reelex/RIB

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black
* Please contact your LS representative for the available color

Copper Cable Product Identifier

A

A

A

-

B

-

C

C

C

-

D

E

F

G

-

H

0.5 X

I

I

I

P /

#

#

A : Cable Type

• UTP – U/UTP

• FTP – F/UTP

• SFP – SF/UTP

• SSP – S/FTP

• FSP – F/FTP

B : Cable Performance

• A – Augmented

• E – Enhanced

• G – General

C : Cable Category

• C3G – CAT3

• C5G – CAT5

• C6G – CAT6

• C7G – CAT7

D~G : Material & Cable Construction

• D : Insulation material E(PE), F(FEP)

• E : Number of jacket

• F : Jacket material V(PVC), Z(LSZH)

• G : Others

H : Flame Retardant Grade

• X : CMX

• M : CM

• R : CMR (Riser)

• P : CMP (Plenum)

I : Number of Pairs

• 004P – 4 pair

• 025P – 25 pair

: Jacket Color

• GY : Gray

• WH : White

• BL : Blue

• VI : Violet

• OR : Orange

• RD : Red

• GN : Green

• YL : Yellow

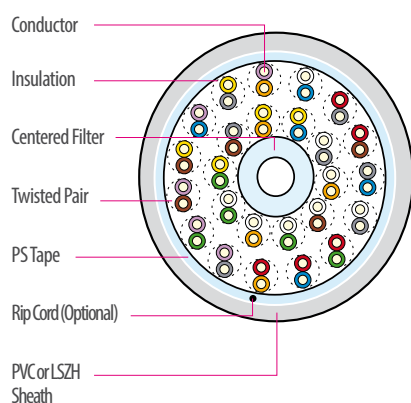
• BK : Black



Category 5e U/UTP Cable 25Pair

Description

- Cable diameter : 0.5 in. (12.7 mm)
- Supports Fast Ethernet, Gigabit Ethernet, 155 Mb/s, Multimedia
- All accepted design for global commercial network installation
- Simplified structured cabling solution preserving long-term network investment
- Electrical performances comply with ANSI/TIA-568-C.2
- RoHS compliant
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 5e Channel



Application

- Backbone Cabling
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000 BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL

Technical Details

Item	Unit	PVC/LSZH
Conductor DC Resistance	Ohms/100 m	9.38
Resistance Unbalance	%	5
Mutual Capacitance	nF/100 m	5.6
Capacitance Unbalance	pF/100 m	330
Characteristic Impedance	Ohms	100 ± 15%
Propagation Delay	ns/100 m	538 @ 100MHz
Delay Skew	ns	45
Nominal Velocity of Propagation	%	67
Operating Temperature	°C / °F	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / °F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	10 x Cable Diameter
Packaging Type	1000ft (305m)	Reel / Drum
Packaging Weight	lb/kft (kg/km)	124 (185)
Conductor Diameter / Material	-	24 AWG, Solid Copper
Insulation Diameter / Material	inch (mm)	0.037(0.95) Φ, HDPE
Outer Diameter / Material	inch (mm)	0.5(12.7) Φ, PVC or LSZH(Low Smoke Zero Halogen)
Safety Standard, Performance Standard	UL444 / CMX-UL1581, IEC332-1 / CM-UL1685, IEC332-3 / CMR-UL1666 / LSZH-IEC60754, IEC61034	
Approvals Performance	ANSI/TIA-568-C.2, ISO/IEC 11801 "Performance specifications for 25Pairs 100 ohm Category 5e / Class D Cabling"	

Category 5e

U/UTP Cable 25 Pair

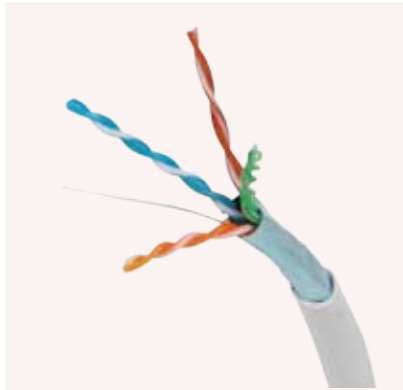
Part Number

	Product Number	Description	Length	Package
PVC	UTP-E-C5G-E1VN-X 0.5X025P/##	Category 5E U/UTP 25-Pair Cable, CMX rated	1000 ft (305m)	Reel/Drum
	UTP-E-C5G-E1VN-M 0.5X025P/##	Category 5E U/UTP 25-Pair Cable, CM rated	1000 ft (305m)	Reel/Drum
	UTP-E-C5G-E1VN-R 0.5X025P/##	Category 5E U/UTP 25-Pair Cable, CMR rated	1000 ft (305m)	Reel/Drum
LSZH	UTP-E-C5G-E1ZN-X 0.5X025P/##	Category 5E U/UTP 25-Pair Cable, CMX rated	1000 ft (305m)	Reel/Drum

* ## denotes available Colors : WH(White), BL(Blue), GY(Gray), OR(Orange), RD(Red), GN(Green), YL(Yellow), BK(Black)
* Please contact your LS representative for available color & length

Copper Cable Product Identifier

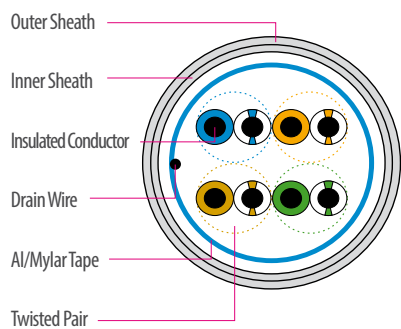
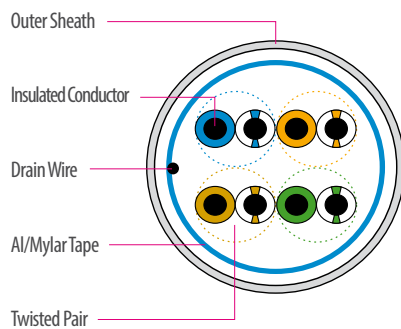
A	A	A	-	B	-	C	C	C	-	D	E	F	G	-	H	0.5X	I	I	I	P	/	#	#
A : Cable Type				B : Cable Performance		C : Cable Category				D~G : Material & Cable Construction					H : Flame Retardant Grade		I : Number of Pairs				# : Jacket Color		
• UTP – U/UTP • FTP – F/UTP • SFP – SF/UTP • SSP – S/FTP • FSP – F/FTP				• A – Augmented • E – Enhanced • G – General		• C3G – CAT3 • C5G – CAT5 • C6G – CAT6 • C7G – CAT7				• D : Insulation material E(PE), F(FEP) • E : Number of jacket • F : Jacket material V(PVC), Z(LSZH) • G : Others					• X : CMX • M : CM • R : CMR (Riser) • P : CMP (Plenum)		• 004P – 4 pair • 025P – 25 pair				• GY : Gray • WH : White • BL : Blue • VI : Violet • OR : Orange • RD : Red • GN : Green • YL : Yellow • BK : Black		



Category 5e F/UTP Cable 4 Pair

Description

- UL Listed & Verified
- Cable diameter : 0.236 inch. (6.0 mm)
- Supports Fast Ethernet, Gigabit Ethernet, 155 Mb/s, Multimedia
- All accepted design for global commercial network installation
- Simplified structured cabling solution preserving long-term network investment
- Electrical performances comply with ANSI/TIA-568-C.2
- Specialized print legend contains footage marking from 1000 to 0, metric 305 to 0 and dual marking footage and metric
- Reel in a Box is standard, so wire pulls through box opening for easy access
- RoHS compliant
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 5e Channel



Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring (IEEE 802.5)
- 10/100/1000 BASE-T (IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- PoE & PoE+ (IEEE 802.3af Type 1(15.4W), IEEE 802.3at Type 2(34.2W))

Technical Details

Item	Unit	PVC/LSZH
Conductor DC Resistance	Ohms/100 m	9.38
Resistance Unbalance	%	5
Mutual Capacitance	nF/100 m	5.6
Capacitance Unbalance	pF/100 m	330
Characteristic Impedance	Ohms	100 ± 15%
Propagation Delay	ns/100 m	538 @ 100MHz
Delay Skew	ns	45
Nominal Velocity of Propagation	%	67
Operating Temperature	°C / °F	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / °F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	5 x Cable Diameter
Packaging Type	1000ft (305m)	Reel In a Box / Reel
Packaging Weight	lb/kft (kg/km)	30 (46)
Conductor Diameter / Material	-	24 AWG, Solid Copper
Insulation Diameter / Material	inch (mm)	0.043(1.08) Φ, HDPE
Outer Diameter / Material	inch (mm)	0.236(6.0) Φ, PVC or LSZH(Low Smoke Zero Halogen)
Safety Standard, Performance Standard	UL444 / CMX-UL1581, IEC332-1 / CM-UL1685, IEC332-3 / CMR-UL1666 / LSZH-IEC60754, IEC61034	
Approvals Performance	ANSI/TIA-568-C.2, ISO/IEC 11801 "Performance specifications for 4Pairs 100 ohm Category 5E / Class D Cabling"	

Category 5e

F/UTP Cable 4 Pair

Part Number

PVC

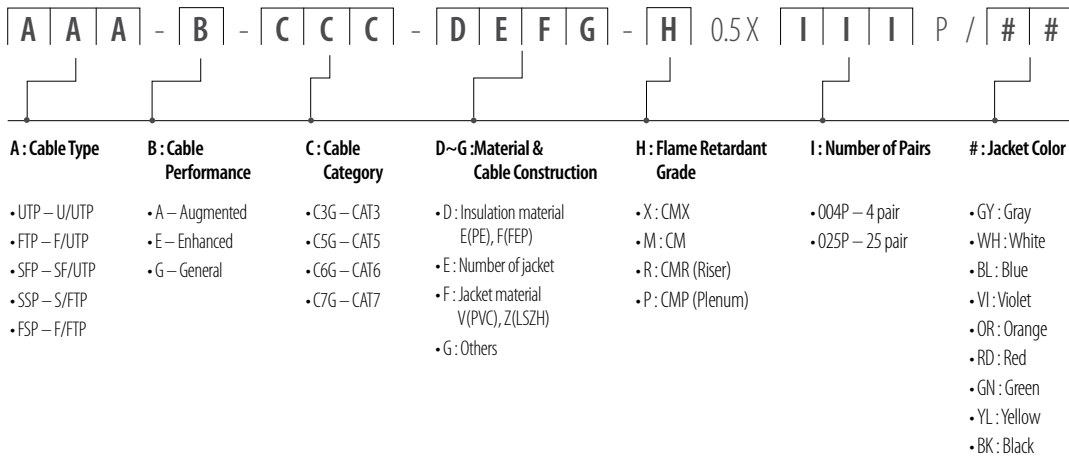
Product Number	Description	Length	Package
FTP-E-C5G-E1VN-X 0.5X004P/WH	Category 5E F/UTP 4-Pair Cable, CMX rated, White color	1000 ft (305m)	RIB/Reel
FTP-E-C5G-E1VN-X 0.5X004P/GY	Category 5E F/UTP 4-Pair Cable, CMX rated, Gray color	1000 ft (305m)	RIB/Reel
FTP-E-C5G-E1VN-X 0.5X004P/BL	Category 5E F/UTP 4-Pair Cable, CMX rated, Blue color	1000 ft (305m)	RIB/Reel
FTP-E-C5G-E1VN-M 0.5X004P/WH	Category 5E F/UTP 4-Pair Cable, CM rated, White color	1000 ft (305m)	RIB/Reel
FTP-E-C5G-E1VN-M 0.5X004P/GY	Category 5E F/UTP 4-Pair Cable, CM rated, Gray color	1000 ft (305m)	RIB/Reel
FTP-E-C5G-E1VN-M 0.5X004P/BL	Category 5E F/UTP 4-Pair Cable, CM rated, Blue color	1000 ft (305m)	RIB/Reel
FTP-E-C5G-E1VN-R 0.5X004P/WH	Category 5E F/UTP 4-Pair Cable, CMR rated, White color	1000 ft (305m)	RIB/Reel
FTP-E-C5G-E1VN-R 0.5X004P/GY	Category 5E F/UTP 4-Pair Cable, CMR rated, Gray color	1000 ft (305m)	RIB/Reel
FTP-E-C5G-E1VN-R 0.5X004P/BL	Category 5E F/UTP 4-Pair Cable, CMR rated, Blue color	1000 ft (305m)	RIB/Reel
FTP-E-C5G-E2VV-X 0.5X004P/BK	Category 5E F/UTP 4-Pair Cable, Double Sheath, UV	1640 ft (500m)	Reel

LSZH

Product Number	Description	Length	Package
FTP-E-C5G-E1ZN-X 0.5X004P/WH	Category 5E F/UTP 4-Pair Cable, CMX rated, White color	1000 ft (305m)	RIB/Reel
FTP-E-C5G-E1ZN-X 0.5X004P/GY	Category 5E F/UTP 4-Pair Cable, CMX rated, Gray color	1000 ft (305m)	RIB/Reel
FTP-E-C5G-E1ZN-X 0.5X004P/BL	Category 5E F/UTP 4-Pair Cable, CMX rated, Blue color	1000 ft (305m)	RIB/Reel

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black
* Please contact your LS representative for the available color

Copper Cable Product Identifier





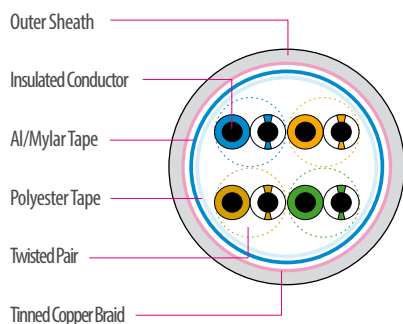
Category 5e SF/UTP Cable 4 Pair

Description

- Cable diameter : 0.256 inch (6.5 mm)
- Supports Fast Ethernet, Gigabit Ethernet, 155 Mb/s, Multimedia
- All accepted design for global commercial network installation
- Simplified structured cabling solution preserving long-term network investment
- Electrical performances comply with ANSI/TIA-568-C.2
- Specialized print legend contains footage marking from 1000 to 0, metric 305 to 0 and dual marking footage and metric
- Reel package is standard, so wire pulls through reel opening for easy access
- RoHS compliant
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 5e Channel

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring (IEEE 802.5)
- 10/100/1000 BASE-T (IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- PoE & PoE+ (IEEE 802.3af Type 1(15.4W), IEEE 802.3at Type 2(34.2W))



Technical Details

Item	Unit	PVC/LSZH
Conductor DC Resistance	Ohms/100 m	9.38
Resistance Unbalance	%	5
Mutual Capacitance	nF/100 m	5.6
Capacitance Unbalance	pF/100 m	330
Characteristic Impedance	Ohms	100 ± 15%
Propagation Delay	ns/100 m	538 @ 100MHz
Delay Skew	ns	45
Nominal Velocity of Propagation	%	67
Operating Temperature	°C / °F	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / °F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	5 x Cable Diameter
Packaging Type	1000ft (305m)	Reel
Packaging Weight	lb/kft (kg/km)	38 (57)
Conductor Diameter / Material	-	24 AWG, Solid Copper
Insulation Diameter / Material	inch (mm)	0.043(1.08) Φ, HDPE
Outer Diameter / Material	inch (mm)	0.256(6.5) Φ, PVC or LSZH(Low Smoke Zero Halogen)
Safety Standard, Performance Standard	UL444 / CMX-UL1581, IEC332-1 / CM-UL1685, IEC332-3 / CMR-UL1666 / LSZH-IEC60754, IEC61034	
Approvals Performance	ANSI/TIA-568-C.2, ISO/IEC 11801 "Performance specifications for 4Pairs 100 ohm Category 5E / Class D Cabling"	

Category 5e

SF/UTP Cable 4 Pair

Part Number

PVC

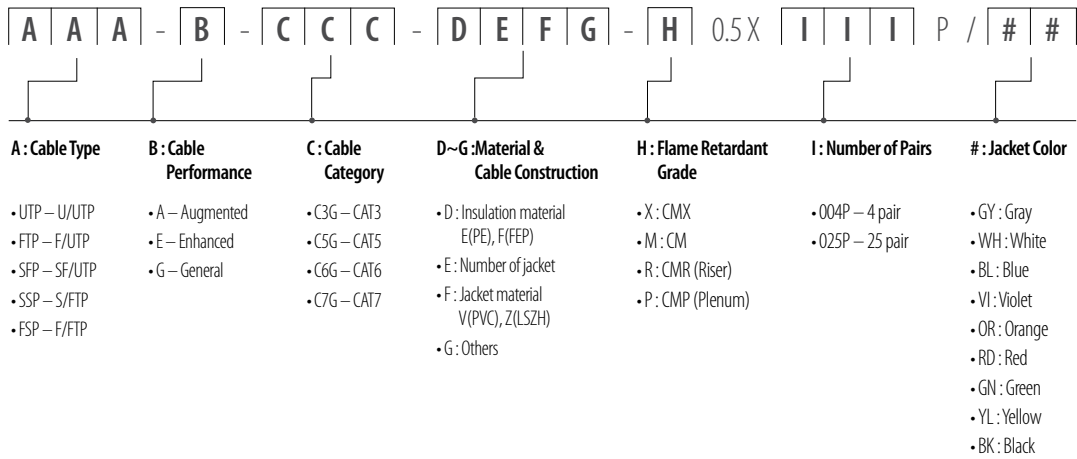
Product Number	Description	Length	Package
SFP-E-CSG-E1VN-X 0.5X004P/WH	Category 5E SF/UTP 4-Pair Cable, CMX rated, White color	1000 ft (305m)	Reel
SFP-E-CSG-E1VN-X 0.5X004P/GY	Category 5E SF/UTP 4-Pair Cable, CMX rated, Gray color	1000 ft (305m)	Reel
SFP-E-CSG-E1VN-X 0.5X004P/BL	Category 5E SF/UTP 4-Pair Cable, CMX rated, Blue color	1000 ft (305m)	Reel
SFP-E-CSG-E1VN-M 0.5X004P/WH	Category 5E SF/UTP 4-Pair Cable, CM rated, White color	1000 ft (305m)	Reel
SFP-E-CSG-E1VN-M 0.5X004P/GY	Category 5E SF/UTP 4-Pair Cable, CM rated, Gray color	1000 ft (305m)	Reel
SFP-E-CSG-E1VN-M 0.5X004P/BL	Category 5E SF/UTP 4-Pair Cable, CM rated, Blue color	1000 ft (305m)	Reel
SFP-E-CSG-E1VN-R 0.5X004P/WH	Category 5E SF/UTP 4-Pair Cable, CMR rated, White color	1000 ft (305m)	Reel
SFP-E-CSG-E1VN-R 0.5X004P/GY	Category 5E SF/UTP 4-Pair Cable, CMR rated, Gray color	1000 ft (305m)	Reel
SFP-E-CSG-E1VN-R 0.5X004P/BL	Category 5E SF/UTP 4-Pair Cable, CMR rated, Blue color	1000 ft (305m)	Reel

LSZH

Product Number	Description	Length	Package
SFP-E-CSG-E1ZN-X 0.5X004P/WH	Category 5E SF/UTP Cable 4-Pair Cable, CMX rated, White color	1000 ft (305m)	Reel
SFP-E-CSG-E1ZN-X 0.5X004P/GY	Category 5E SF/UTP Cable 4-Pair Cable, CMX rated, Gray color	1000 ft (305m)	Reel
SFP-E-CSG-E1ZN-X 0.5X004P/BL	Category 5E SF/UTP Cable 4-Pair Cable, CMX rated, Blue color	1000 ft (305m)	Reel

* Available Colors : WH: White, BL: Blue, GY: Gray, VI: Violet, OR: Orange, RD: Red, GN: Green, YL: Yellow, BK: Black
* Please contact your LS representative for the available color

Copper Cable Product Identifier





A. LS-PP-UC5E-24P



B. LS-PP-SC5E-24P



C. LS-PP-24P-E-LWM + LS-MJ-UC5E-WH-ERI



D. LS-PP-24P-E-LWM + LS-MJ-SC5E-RIDC

Category 5e Patch Panel

Description

LS Simple™ Category 5e 1U patch panel comes complete with cable management, accessories and full installations. They fully comply with the requirements set out in ANSI/TIA-568-C.2

- Meet Category 5e/Class D performance levels
- Architectural design and flexibility – Support max. 4 connection channels
- Available in 24-port(1U) options
- Easy cable routing and bundling through improved rear cable management
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS CAT.5e Channel

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring (IEEE 802.5)
- 10/100/1000 BASE-T (IEEE 802.3)
- 155Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL

Physical Specification

Item	A inch(mm)	B inch(mm)
Height	1.73 (44)	1.73 (44)
Width	19.01 (483)	19.01 (483)
Depth	0.55 (14)	4.33 (110)
Unit	1U	1U

Technical Details

Electrical / Mechanical Characteristics

- Current Rating : 1.5 Amps
- Contact Resistance : 20 milli-ohm
- Insulation Resistance : 500 Mega-ohm
- DC Resistance : 0.1 ohm Max.
- Voltage : 150 Vac Max.
- Insertion Life : 750 Mating Cycles
- Plug Retention Force : 20 lbs (89N)
- Temperature : -40°C~68°C(-40°F~154°F)
- Humidity : 10%~90% RH
- IDC Accept : 22~26 AWG Solid Wire

Materials

- Housing : High Impact Flame Retardant Plastic, UL 94V-0 Rated
- Spring Wire : Phosphor Bronze plated with 50μ-inch (1.27μm) thick Gold over 100μ-inch (2.54μm) thick Nickel undercoat
- IDC Plastic : Polycarbonate, UL 94V-0 Rated
- IDC Contact : Phosphor Bronze plated with 100μ-inch (2.54μm) minimum thick Tin
- Panel : Steel with Black Painting (Unshielded)

Approvals

- Category : ANSI/TIA-568-C.2 Category 5e, ISO/IEC 11801 Class D
- Meet : FCC CFR 47 Parts 68
- Wiring Scheme : T568A/T568B

Category 5e Patch Panel

Part Number

Product Number	Description
LS-PP-UC5E-24P	24-ports Category 5e Unshielded Patch Panel without Wire Management
LS-PP-SC5E-24P	24-ports Category 5e Shielded Patch Panel , Built in Wire Management
LS-PP-24P-E-LWM + LS-MJ-UC5E-WH-ERI	24-Port Modular type Patch Panel with Wire Management & Unshielded Enhanced Rear IDC Category 5e Modular Jack
LS-PP-24P-E-LWM + LS-MJ-SC5E-RIDC	24-Port Modular type Patch Panel with Wire Management & Shielded Rear IDC Category 5e Modular Jack



A. LS-MJ-UC5E-xx-ERI



B. LS-MJ-UC5E-xx-ERD



C. LS-MJ-SC5E-RIDC

Category 5e Modular Jack

Description

LS Simple™ Category 5e modular jacks are designed and manufactured to meet today's and tomorrow's demanding international standards. It takes into consideration the needs for reliable and quick installations. The jack is individually terminated using Insulation Displacement Connectors (IDC) giving assurance of wire connection when using a punch down tool and dedicated easy termination tool. User instructions and basic wiring layout for standard configuration are included.

The LS simple™ Modular Jack comes with the ability to wire to a T568A or T568B configuration and fully complies with ANSI/TIA-568-C.2 (Category 5e) and ISO/IEC 11801 (Class D) component performances.

The slide door type modular jack for dust proof on unused port is applicable according to customer requirement and also 2-way slim IDC cover is applicable in HD system configuration.

- Meet Category 5e/Class D performance levels
- Architectural design and flexibility – Support max. 4 connection channels
- Universal design and label supports both T568A and T568B wiring
- IDC Connector accepts and allows quick, easy installation of 23~26 AWG cable
- Optimal performance is achieved when using LS simple™ Category 5e patch cords
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 5e Channel

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring (IEEE 802.5)
- 10/100/1000 BASE-T (IEEE 802.3)
- 155Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL

Physical Specification

Item	A / B inch(mm)	C inch(mm)
Height	0.76 (19.3)	0.76 (19.0)
Width	0.66 (16.8)	0.57 (14.6)
Depth	1.14 (29.0)	1.30 (33.0)
Type	Unshielded RJ45 8pin	Shielded RJ45 8pin

Technical Details

Electrical / Mechanical Characteristics

- Current Rating : 1.5 Amps
- DC Resistance : 0.1 ohm Max.
- Voltage : 150 Vac Max.
- Insertion Life : 750 Mating Cycles
- Plug Retention Force : 20 lbs (89N)
- Temperature : -40°C~68°C (-40°F~154°F)
- Humidity : 10%~90% RH
- IDC Accept : 23~26 AWG Solid Wire

Materials

- Housing : High Impact Flame Retardant Plastic, UL 94V-0 Rated
- Spring Wire : Phosphor Bronze plated with 50μ-inch (1.27μm) thick Gold over 100μ-inch (2.54μm) thick Nickel undercoat
- IDC Plastic : Polycarbonate, UL 94V-0 Rated
- IDC Contact : Phosphor Bronze plated with 100μ-inch (2.54μm) minimum thick Tin
- Shielded : Copper Zinc Alloy, pre-plated with bright Nickel

Approvals

- Category : ANSI/TIA-568-C.2 Category 5e, ISO/IEC 11801 Class D
- Meet : FCC CFR 47 Parts 68
- Wiring Scheme : T568A/T568B

Category 5e Modular Jack

Part Number

Product Number	Description
LS-MJ-UCSE-WH-ERI	Category 5e Unshielded Keystone Jack White color, Enhanced Rear IDC type
LS-MJ-UCSE-BL-ERI	Category 5e Unshielded Keystone Jack Blue color, Enhanced Rear IDC type
LS-MJ-UCSE-RD-ERI	Category 5e Unshielded Keystone Jack Red color, Enhanced Rear IDC type
LS-MJ-UCSE-BK-ERI	Category 5e Unshielded Keystone Jack Black color, Enhanced Rear IDC type
LS-MJ-SCSE-RIDC	Category 5e Shielded Keystone Jack, Rear IDC type
LS-MJ-UCSE-WH-ERD	Category 5e Unshielded Keystone Jack White Color, ERI type with door
LS-MJ-UCSE-BL-ERD	Category 5e Unshielded Keystone Jack Blue Color, ERI type with door
LS-MJ-UCSE-RD-ERD	Category 5e Unshielded Keystone Jack Red Color, ERI type with door
LS-MJ-UCSE-BK-ERD	Category 5e Unshielded Keystone Jack Black Color, ERI type with door

* Please contact your LS representative for the available color



LS-PC-UC5E(L)-XX-YYY



LS-PC-SC5E(L)-XX-YYY

Category 5e Patch Cord

Description

LS Simple™ Category 5e patch cords are factory terminated, providing the quality required to support your channel requirements. They are fully booted and have clip protection for simple removal. They offer a high performance alternative to satin modular line cords where crosstalk, EMI or distance may be considerations. Cable consists of pairs of 24 AWG (0.51mm) wire, each four pair twisted at a different lay length.

- Meet Category 5e / Class D performance levels
- Architectural design and flexibility – Support max. 4 connection channels
- Optimal performance is achieved when using LS Simple™ Category 5e patch cords
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Category 5e Channel

Application

- Horizontal Distribution & Backbone Cabling
- 4/16 Mbps Token Ring (IEEE 802.5)
- 10/100/1000 BASE-T (IEEE 802.3)
- 155Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL

Technical Details

Electrical / Mechanical Characteristics

- Current Rating : 1.5 Amps
- Contact Resistance : 20 milli-ohm
- Insertion Resistance : 500 Mega-ohm
- Insertion Life : 750 Mating Cycles
- Plug Retention Force : 20 lbs (89N)
- Temperature : -40°C~68°C(-40°F~154°F)
- Humidity : 10%~90% RH

Materials

- Housing : Polycarbonate, UL 94V-2 Rated
- Cable Jacket : PVC, LSZH

Approvals

- Category : ANSI/TIA-568-C.2 Category 5e, ISO/IEC 11801 Class D
- Meet : FCC CFR 47 Parts 68
- Wiring Scheme : T568A/T568B

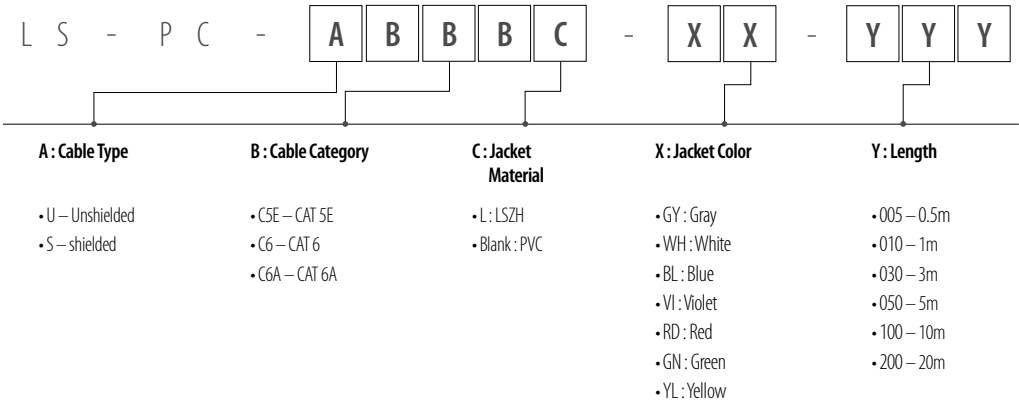
Category 5e Patch Cord

Part Number

PVC	Product Number	Description
	LS-PC-UC5E-XX-YYY	Category 5e Unshielded Patch Cord with T568B wiring, CM rated
LSZH	LS-PC-SC5E-XX-YYY	Category 5e Shielded Patch Cord with T568B wiring, CM rated
	Product Number	Description
	LS-PC-UC5EL-XX-YYY	Category 5e Unshielded Patch Cord with T568B wiring, LSZH
	LS-PC-SC5EL-XX-YYY	Category 5e Shielded Patch Cord with T568B wiring, LSZH

* XX denotes available Colors : WH(White), BL(Blue), GY(Gray), OR(Orange), RD(Red), GN(Green), YL(Yellow), BK(Black)
* YYY denotes available length : 005(0.5m), 010(1m), 030(3m) ~ 200(20m).
* Please contact your LS representative for available color & length

Patch Cord Product Identifier





LS-110WB-UC5ES-100P-W/O



LS-110WB-UC5ES-50P-W



LS-110PCC-4-GY-YYY



LS-JT-T1-W/O & LS-JT-T2-W

Category 5e 110 Patching System

Description

- LS Simple™ 110 wiring blocks accept 23~26AWG conductors, blocks are available in 25, 50 and 100 pair sizes for backboard mounting.
- The 110 Jumper troughs are flame-retardant molded plastic frame, which serves as a horizontal cable management for routing of patch cords and cross-connect wire.

Technical Details

Materials

PC, UL 94V-0 Rated

Approvals

- Category : ANSI/TIA-568-C.2 Category 5e, ISO/IEC 11801 Class D
- Meet : FCC CFR 47 Parts 68
- Wiring Scheme : T568A/T568B

Part Number

110 wiring block

Product Number	Description
LS-110WB-UC5ES-100P-W/O	Category 5e Unshielded 110wiring block, 100pair with label holders, IDC connectors, papers, drill screws, white color without leg
LS-110WB-UC5ES-50P-W/O	Category 5e Unshielded 110wiring block, 50pair with label holders, IDC connectors, papers, drill screws, white color without leg
LS-110WB-UC5ES-25P-W/O	Category 5e Unshielded 110wiring block, 25pair with label holders, IDC connectors, papers, drill screws, white color without leg
LS-110WB-UC5ES-100P-W	Category 5e Unshielded 110wiring block, 100pair with label holders, IDC connectors, papers, drill screws, white color with leg
LS-110WB-UC5ES-50P-W	Category 5e Unshielded 110wiring block, 50pair with label holders, IDC connectors, papers, drill screws, white color with leg
LS-HWMR-PR12-8726-UC5E300-WM	Category 5e Unshielded Wall Mounted 110wiring block, 300ports with rack frame, "U" duct steel frame, three JumperTrough 2U type & accessories, white color block, (Dimension : H615 * W220 * D170mm)

110 Patch Cord

Product Number	Description
LS-110PCC-4-GY-YYY	Category 5e Unshielded 110wiring Patch Cord 4pair, Gray cable (110 patch to 110 patch)
LS-110PCR-4-GY-YYY	Category 5e Unshielded 110wiring Patch Cord 4pair, Gray cable (110 patch to 8pin plug T568B wiring)

Jumper Trough

Product Number	Description
LS-JT-T1-W/O	110 Jumper Trough, 5 Wire Hangers without Legs
LS-JT-T2-W	110 Jumper Trough, 5 Wire Hangers with Legs

* Please contact your LS representative for available rack unit frame & pair

* Available Colors : WH(White), BL(Blue), GY(Gray), OR(Orange), RD(Red), GN(Green), YL(Yellow), BK(Black)

* YYY denotes available length : 005(0.5m), 010(1m), 030(3m) ~ 200(20m)

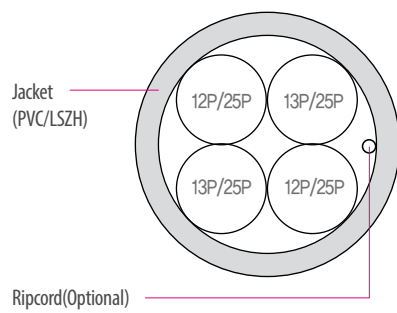
* Please contact your LS representative for available color & length

Voice & Outdoor Solutions

Category 5 U/UTP Cable Multi-Pair

Category 3 U/UTP Cable Multi-Pair

Category 5e & 6 U/UTP Cable Outdoor



Category 5 U/UTP Cable Multi-Pair

Description

- All accepted design for global commercial network installation
- Simplified structured cabling solution preserving long-term network investment
- Electrical performances comply with TIA/EIA-568-B.2

Application

- Backbone Cabling
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000 BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL

Technical Details

Item	Unit	PVC/LSZH
Conductor DC Resistance	Ohms/100 m	9.38
Resistance Unbalance	%	5
Mutual Capacitance	nF/100 m	5.6
Capacitance Unbalance	pF/100 m	330
Characteristic Impedance	Ohms	100 ± 15%
Propagation Delay	ns/100 m	538@100MHz
Delay Skew	ns	45
Nominal Velocity of Propagation	%	67
Operating Temperature	°C / °F	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / °F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	10 x Cable Diameter
Packaging Type	500m or 1000m	Reel or Drum
Packaging Weight	lb/kft (kg/km)	249(370), 50-Pair
Conductor Diameter / Material	-	24 AWG, Solid Copper
Insulation Diameter / Material	inch (mm)	0.036(0.92), HDPE
Outer Diameter / Material	inch (mm)	0.748(19.0), 50-Pair, PVC/LSZH
Safety Standard, Performance Standard	UL444 / CMX-UL1581, IEC332-1	CM-UL1685, IEC332-3 CMR-UL1666 LSZH-IEC61034, IEC60754
Approvals Performance	TIA/EIA-568-B.2 "Performance specifications for Multi-pair 100 ohm Category 5 Cabling"	

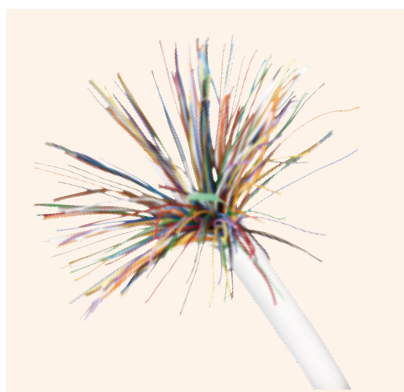
Part Number

	Product Number	Description	Length	Package
PVC	UTP-G-CSG-E1VN-X0.5X###P/XX	Category 5 U/UTP Multi-Pair Cable, CMX rated	500m or 1000m	Reel or Drum
	UTP-G-CSG-E1VN-M0.5X###P/XX	Category 5 U/UTP Multi-Pair Cable, CM rated	500m or 1000m	Reel or Drum
	UTP-G-CSG-E1VN-R0.5X###P/XX	Category 5 U/UTP Multi-Pair Cable, CMR rated	500m or 1000m	Reel or Drum
LSZH	UTP-G-CSG-E12N-X0.5X###P/XX	Category 5 U/UTP Multi-Pair Cable, CMX rated, LSZH Jacket	500m or 1000m	Reel or Drum

* ### - Number of pairs : 4P=004, 25P=025, 50P=050, 100P=100, 200P=200

* XX - Available Colors : WH(White), BL(Blue), GY(Grey)

* Please contact your LS representative for available color & length



Category 3 U/UTP Cable Multi-Pair

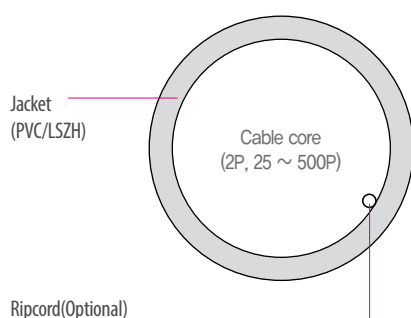
Description

- All accepted design for global commercial network installation
- Simplified structured cabling solution preserving long-term network investment
- Electrical performances comply with ANSI/TIA-568-C.2

Application

- Backbone Cabling
- 4Mbps Token Ring(IEEE 802.5)
- 10 BASE-T(IEEE 802.3)

Technical Details



Item	Unit	PVC/LSZH
Conductor DC Resistance	Ohms/100 m	9.38
Resistance Unbalance	%	5
Mutual Capacitance	nF/100 m	5.6
Capacitance Unbalance	pF/100 m	330
Characteristic Impedance	Ohms	100 ± 15%
Propagation Delay	ns/100 m	543@16MHz
Delay Skew	ns	45
Nominal Velocity of Propagation	%	70
Operating Temperature	°C / °F	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / °F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	4 x OD (2-pair), 10 x OD (Multi-Pair)
Packaging Type	500m or 1000m	Reel or Drum
Conductor Diameter / Material	-	24 AWG, Solid Copper
Insulation Diameter / Material	inch (mm)	0.031(0.80), HDPE
Outer Diameter / Material	inch (mm)	0.394(10.0), 25-pair, PVC/LSZH
Safety Standard, Performance Standard	UL444 / CMX-UL1581, IEC332-1 CM-UL1685, IEC332-3 CMR-UL1666 LSZH-IEC61034, IEC60754	
Approvals Performance	ANSI/TIA-568-C.2 "Performance specifications for multi-pairs 100 ohms Category 3 Cabling"	

Part Number

	Product Number	Description	Length	Package
PVC	UTP-G-C3G-E1VN-X0.5X###P/XX	Category 3 U/UTP Multi-Pair Cable, CMX rated	500m or 1000m	Reel or Drum
	UTP-G-C3G-E1VN-M0.5X###P/XX	Category 3 U/UTP Multi-Pair Cable, CM rated	500m or 1000m	Reel or Drum
	UTP-G-C3G-E1VN-R0.5X###P/XX	Category 3 U/UTP Multi-Pair Cable, CMR rated	500m or 1000m	Reel or Drum
LSZH	UTP-G-C3G-E1ZN-X0.5X###P/XX	Category 3 U/UTP Multi-Pair Cable, CMX rated, LSZH Jacket	500m or 1000m	Reel or Drum

* ### - Number of pairs : 2P=002, 25P=025, 50P=050, 100P=100, 200P=200, 500P=500

* XX - Available Colors : WH(White), BL(Blue), GY(Gray)

* Please contact your LS representative for available color & length



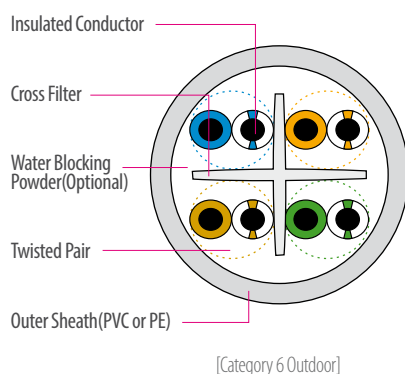
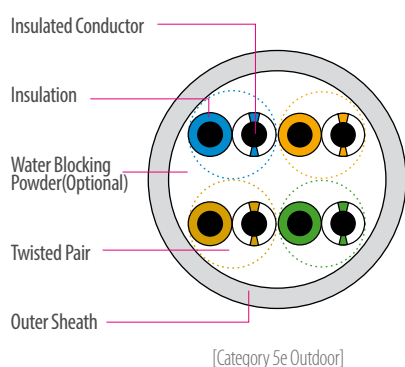
Category 5e & 6 U/UTP Cable Outdoor

Description

- Outdoor UV Resistance
- All accepted design for global commercial network installation
- Simplified structured cabling solution preserving long-term network investment
- Electrical performances comply with ANSI/TIA-568-C.2

Application

- Horizontal Distribution & Backbone Cabling
- UV Resistance(UL1581)
- 4/16 Mbps Token Ring(IEEE 802.5)
- 10/100/1000 BASE-T(IEEE 802.3)
- 155 Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL



Technical Details

Item	Unit	PVC / PE
Conductor DC Resistance	Ohms/100 m	9.38
Resistance Unbalance	%	5
Mutual Capacitance	nF/100 m	5.6
Capacitance Unbalance	pF/100 m	330
Characteristic Impedance	Ohms	100 ± 15%
Propagation Delay	ns/100 m	538 @ 100MHz
Delay Skew	ns	45
Nominal Velocity of Propagation	%	67
Operating Temperature	°C / °F	-20 ~ 60 / -4 ~ 140
Storage Temperature	°C / °F	-20 ~ 80 / -4 ~ 176
Bending Radius	-	4 x Cable Diameter
Packaging Type	1000ft (305m)	Reel / RIB / Reel
Packaging Weight	lb/kft (kg/km)	17 (25), Cat.5e
Conductor Diameter / Material	-	24 AWG, Solid Copper
Insulation Diameter / Material	inch (mm)	0.035(0.90), HDPE
Outer Diameter / Material	inch (mm)	0.213(5.4), Cat.5e / PVC, PE
Approvals Performance	ANSI/TIA-568-C.2 "Performance specifications for 4pair 100 ohm Category 5e/6 Cabling"	

Part Number

Product Number	Description	Length	Package
UTP-E-C5G-E1VN-X0.5X002/XX	Category 5e U/UTP 2-Pair Outdoor Cable, CMX(PVC) rated	1000ft (305m)	Reel / RIB / Reel
UTP-E-C5G-E1VN-X0.5X004/XX	Category 5e U/UTP 4-Pair Outdoor Cable, CMX(PVC) rated	1000ft (305m)	Reel / RIB / Reel
UTP-E-C5G-E1EN-N0.5X002P/XX	Category 5e U/UTP 2-Pair Outdoor Cable, PE	1000ft (305m)	Reel / RIB / Reel
UTP-E-C5G-E1EN-N0.5X004P/XX	Category 5e U/UTP 4-Pair Outdoor Cable, PE	1000ft (305m)	Reel / RIB / Reel
UTP-E-C5G-E1EW-N0.5X004P/XX	Category 5e U/UTP 4-Pair Outdoor Cable, PE, Water Blocking	1000ft (305m)	Reel / RIB / Reel
UTP-E-C6G-E1VN-X0.5X004P/XX	Category 6 U/UTP 4-Pair Outdoor Cable, CMX (PVC) rated	1000ft (305m)	Reel / RIB / Reel
UTP-G-C6G-E1EN-N0.5X004P/XX	Category 6 U/UTP 4-Pair Outdoor Cable, PE	1000ft (305m)	Reel / RIB / Reel
UTP-G-C6G-E1EW-N0.5X004P/XX	Category 6 U/UTP 4-Pair Outdoor Cable, PE, Water Blocking	1000ft (305m)	Reel / RIB / Reel

* XX - Available Colors : BK(Black), IV(Ivory)

* Please contact your LS representative for available color & length

Security Patch Cord Solutions

Copper Security Patch Cord

Fiber Security Jumper Cord



LS-SPC-UC6(A)-XX-YYY



LS-TOOL-SPC



LS-SRS-BL



LS-TOOL-SRS

Copper Security Patch Cord

Description

LS Simple™ copper security patch cords are comprised of two parts, regular Category 6/6A patch cord and security stopper with security key. It's required of the place where need to secure for systems especially in data center or public telecommunication area such as School, Airport and Health Care Center.

- Tamper Resistant - Security key locks in the plug for added physical security
- Versatility - Designed for pre-terminated and field terminated applications
- Flexibility - Compatible with industry-standard RJ45 Cat.6 and Cat.6A Modular plugs
- Slim-line and compact design ideal for high-density applications in mission critical facilities

Part Number

Category 6 Security Patch Cord	Product Number	Description
	LS-SPC-UC6-XX-YYY	Unshielded Category 6 Security Patch Cord with T568B wiring
	LS-SPC-SC6-XX-YYY	Shielded Category 6 Security Patch Cord with T568B wiring
Category 6A Security Patch Cord	Product Number	Description
	LS-SPC-UC6A-XX-YYY	Unshielded Category 6A Security Patch Cord with T568B wiring
	LS-SPC-SC6A-XX-YYY	Shielded Category 6A Security Patch Cord with T568B wiring
Stopper	Product Number	Description
	LS-SRS-BL	Security Stopper of RJ45 Modular Jack, Blue color
Security Key	Product Number	Description
	LS-TOOL-SPC	Security unlock/lock key for Patch Cord
	LS-TOOL-SRS	Security unlock/lock key for RJ45 Modular Jack Stopper

* XX - Available Colors : WH(White), RD(Red), YL(Yellow)

* YYY - Available length : 005(0.5m), 010(1m), 030(3m), 200(20m) etc.

* Please contact your LS representative for available color & length.



LS-SJC-LC-M3-20DPV-YYY



LS-TOOL-SPC / SLS



LS-SLS-BL

Fiber Security Jumper Cord

Description

LS Simple™ Fiber security patch cords are comprised of two parts, regular LC type adaptor and security stopper with security key. It's required of the place where need to secure for systems especially in Data Center or Public telecommunication area such as School, Airport and Health Care Center.

- Tamper Resistant - Security key locks in the adaptor for added physical security
- Versatility - Designed for pre-terminated and field terminated applications
- Flexibility - Compatible with industry-standard LC type adaptor
- Slim-line and compact design ideal for high-density applications in mission critical facilities

Part Number

	Product Number	Description
LC type Patch Cord	LS-SJC-LC-SM-20DPV-YYY	Single-mode LC connector duplex security fiber patch cord, fiber cable diameter 2mm
	LS-SJC-LC-M3-20DPV-YYY	Multi-mode LC connector duplex security fiber patch cord, fiber cable diameter 2mm
	Product Number	Description
Stopper	LS-SLS-BL	Security fiber stopper of LC adaptor, Blue color
	Product Number	Description
Security Key	LS-TOOL-SPC / SLS	Security unlock/lock key for fiber Patch Cord & LC adaptor Stopper

* YYY - Available length : 005(0.5m), 010(1m), 030(3m), 300(30m) etc.
* Please contact your LS representative for available length

Work Area & Empty Solutions

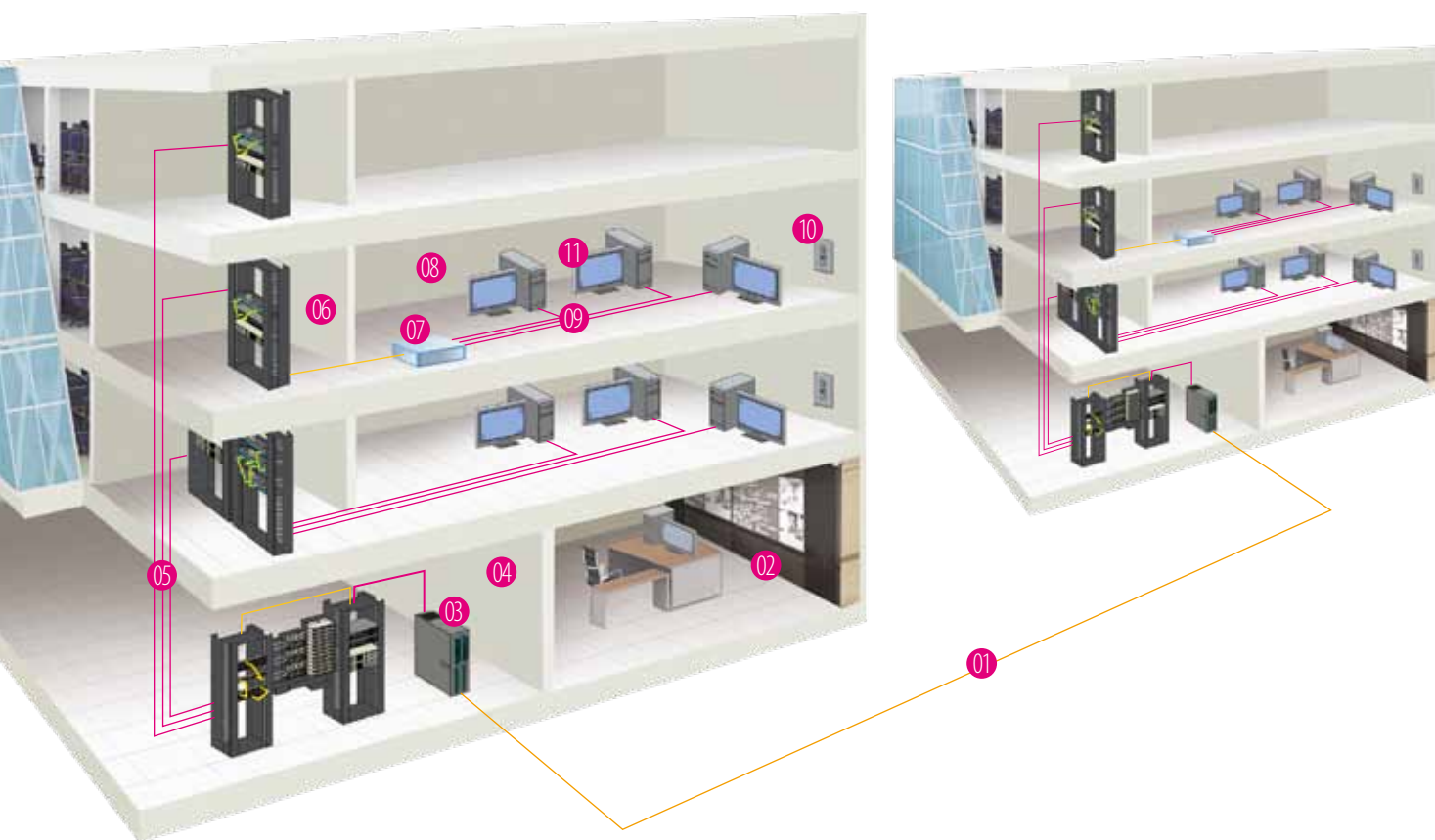
Telecommunication Structure

Empty Panel

Work Area Cabling System

- Faceplate
- Outlet Module
- Surface Mount Box
- Modular Plug
- Consolidation Box & Mini Panel
- Termination Tools

Telecommunication Structure



- 01. Backbone Cabling(Inter-BC)
- 02. Administration(TIA/EIA-606)
- 03. Entrance Facilities(EF)
- 04. Equipment Room(ER)
- 05. Backbone Cabling(Intra-BC)
- 06. Telecommunication Rooms(TR)
- 07. Consolidation Point(CP)
- 08. Work Area(WA)
- 09. Horizontal Cabling
- 10. Outlet
- 11. Access Point

Empty Panel & Outlet

Work Area Cabling System

Faceplate
Back Box
Outlet Module
Surface Mount Box
Modular Plug
Consolidation Box & Mini Panel
Termination Tools



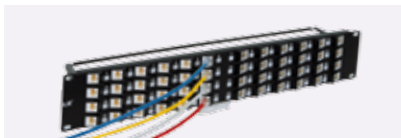
LS-PP-24P-E-LWM



LS-PP-48P-E-WM



LS-APP-24P-E-WM



LS-APP-48P-E-WM



LS-APP-UC-24P-E4-WM-C



LS-PPP-UC-24P-E4-WM-C



LS-APP-48P-E-WM-1U



LS-PP-48P-E-WM-1U

Description

These unshielded/shielded empty patch panels come complete with cable management accessories and full installation instructions. Empty panel holds the shield/unshield modular jack, fiber adaptor & coupler etc.

- Available in a 24 & 48 port configuration
- Angled or Flat type panel frame
- Support 100Mbps and 1G/10Gbps applications
- Support all copper Cat.5e/Cat.6/Cat.6A Modular Jacks
- Qualifies for the LS 25-Year Extended Product Warranty and Applications Assurance when included as part of a registered LS Channel

Part Number

Product Number	Description
LS-PP-24P-E-LWM	24-Ports 1U Empty Panel, Jack type for Unshielded & Shielded, 19" std. with management
LS-PP-48P-E-WM	48-Ports 2U Empty Panel, Jack type for Unshielded & Shielded, 19" std. with management
LS-APP-24P-E	24-Ports 1U Hinged Angled Empty Panel, Jack type for Unshielded, 19" std. (Wire management (LS-PP-MD-WM) is compatible)
LS-APP-48P-E	48-Ports 2U Hinged Angled Empty Panel, Jack type for Unshielded, 19" std. (Wire management (LS-PP-MD-WM) is compatible)
LS-APP-24P-E-WM	24-Ports 1U Hinged Angled Empty Panel, Jack type for Unshielded, 19" std. with management
LS-APP-48P-E-WM	48-Ports 2U Hinged Angled Empty Panel, Jack type for Unshielded, 19" std. with management
LS-APP-UC-24P-E4-WM-C	24-Ports 1U Angled Empty Patch Panel, Removable Module type for Unshielded, 19" std. with management
LS-PPP-UC-24P-E4-WM-C	24-Ports 1U Empty Patch Panel, Removable Module type for Unshielded, 19" std. with management
LS-APP-SC-24P-E4-WM-C	24-Ports 1U Angled Empty Patch Panel, Removable Module type for Shielded, 19" std. with management
LS-PPP-SC-24P-E4-WM-C	24-Ports 1U Empty Patch Panel, Removable Module type for Shielded, 19" std. with management
LS-APP-48P-E-WM-1U	HD 48-Ports 1U Angled Empty Patch Panel, Jack type for Unshielded & Shielded, 19" std. with management
LS-PP-48P-E-WM-1U	HD 48-Ports 1U Empty Patch Panel, Jack type for Unshielded & Shielded, 19" std. with management



LS-FP-US Series



LS-FP-SA(F) Series



LS-FP-SU Series



LS-FP-US-xP-S Series

Work Area Cabling System Faceplate

Description

These faceplates attractively house keystone jacks that you can select and snap in according to your needs.

Part Number

Product Number	Description	Port	Size (W*H:mm)
LS-FP-SF-1	1-Port British Face Plate with Shutter & Icon of Keystone Modular Jack	Max. 1Ports	86*86
LS-FP-SF-2	2-Port British Face Plate with Shutter & Icon of Keystone Modular Jack	Max. 2Ports	86*86
LS-FP-SF-4	4-Port British Face Plate with Shutter & Icon of Keystone Modular Jack	Max. 4Ports	86*86
LS-FP-SA-1	1-Port Euro Mode Face Plate with Angled Shutter Bezel of Keystone Modular Jack	Max. 1Ports	86*86
LS-FP-SA-2	2-Port Euro Mode Face Plate with Angled Shutter Bezel of Keystone Modular Jack	Max. 2Ports	86*86
LS-FP-SU-1	1-Port Single Gang British Faceplate with Shutter	Max. 1Ports	86*86
LS-FP-SU-2	2-Port Single Gang British Faceplate with Shutter	Max. 2Ports	86*86
LS-FP-AUS-H-1	1-Port Australian Face Plate with Shutter & Icon of Keystone Modular Jack	Max. 1Ports	114*70
LS-FP-AUS-H-2	2-Port Australian Face Plate with Shutter & Icon of Keystone Modular Jack	Max. 2Ports	114*70
LS-FP-AUS-H-3	3-Port Australian Face Plate with Shutter & Icon of Keystone Modular Jack	Max. 3Ports	114*70
LS-FP-US-1PORT	1-Port US type Single Gang Face Plate of Keystone Modular Jack	Max. 1Ports	70*114
LS-FP-US-2PORT	2-Port US type Single Gang Face Plate of Keystone Modular Jack	Max. 2Ports	70*114
LS-FP-US-4PORT	4-Port US type Single Gang Face Plate of Keystone Modular Jack	Max. 4Ports	70*114
LS-FP-US-6PORT	6-Port US type Single Gang Face Plate of Keystone Modular Jack	Max. 6Ports	70*114
LS-FP-US-9PORT-D	9-Port US type Double Gang Face Plate of Keystone Modular Jack	Max. 9Ports	114*114
LS-FP-US-12PORT-D	12-Port US type Double Gang Face Plate of Keystone Modular Jack	Max. 12Ports	114*114
LS-FP-US-1P-S	1-Port US type Single Gang stainless Face Plate of Keystone Modular Jack	Max. 1Ports	70*114
LS-FP-US-2P-S	2-Ports US type Single Gang stainless Face Plate of Keystone Modular Jack	Max. 2Ports	70*114
LS-FP-US-4P-S	4-Ports US type Single Gang stainless Face Plate of Keystone Modular Jack	Max. 4Ports	70*114
LS-FP-US-6P-S	6-Ports US type Single Gang stainless Face Plate of Keystone Modular Jack	Max. 6Ports	70*114

Technical Details

- Housing : High Impact Flame Retardant Plastic, UL 94V-0 Rated.



LS-BB-Series

Work Area Cabling System

Back Box

Description

The back box is designed to mount into a wall, floor, or other flat surface.

Convenient "molded-in" rear and side cable entries easily accommodate Category 5e or Category 6 cable or optical fiber. Unit includes screws and double-sided tape for mounting, rubber-door and cable tie.

Part Number

Product Number	Description	Size (W*H*Dmm)
LS-BB-8686-37	Euro Mode Single Gang Back Box (Depth 37mm) Compatible items : LS-FP-SA-1, LS-FP-SA-2, LS-FP-SF-1, LS-FP-SF-2, LS-FP-SF-4	86*86*37
LS-BB-11572-38	US type Single Gang Back Box (Depth 38mm) Compatible items : LS-FP-US-1PORT (or 2PORT or 4PORT or 6PORT), LS-FP-AUS-H-1 (or 2 or 3)	72*115*38

Technical Details

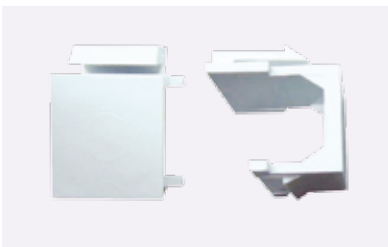
Housing : High Impact Flame Retardant Plastic, UL 94V-0 Rated



LS-AI-US-LC-MM



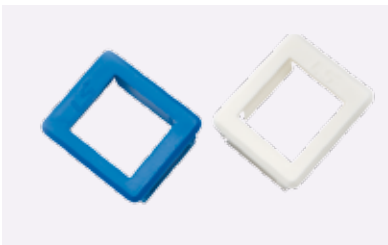
LS-AI-US-SC-MM



LS-AI-US-BI-1



LS-AI-US-TV-1



LS-FP-SBB

Work Area Cabling System

Outlet Module

Description

These adaptor inserts are ideal for the installation of "F" NTSC-TV connectors or LC, SC, ST fiber optic connectors. Insert the units into plastic inserts before snap in the faceplates.

Technical Details

Electrical / Mechanical Characteristics

- Insertion Loss : ≤0.15dB Typical
- Durability : Max. 0.15dB Increase After 500-Cycle
- Insulation Resistance : 500 Mega-ohm
- Retention Force : 200 ~ 600g
- Temperature : -20° C ~ 70° C (-4° F ~ 158° F)
- High-Performance Interconnections offer very low Insertion Loss
- Ceramic (Zirconia) or Low-cost Phosphor Bronze Alignment Sleeves
- Adaptors are Supplied with Dust Caps
- Environmental Stable

Materials

- Housing : High Impact Flame Retardant Plastic, UL 94V-0 Rated
- Sleeve : Ceramic (Zirconia) for Singlemode / Phosphor Bronze for Multimode
- Spring Plate : Stainless Steel

Part Number

Product Number	Description	Core
LS-AI-US-LC-SM	LC Duplex Adaptor Insert, Single-Mode (Blue color) with dust cover, Snap-In type, Dimension (H19.2 *W16.8)	2 Cores
LS-AI-US-LC-MM	LC Duplex Adaptor Insert, Multi-Mode (Beige color) with dust cover, Snap-In type, Dimension (H19.2 *W16.8)	2 Cores
LS-AI-US-SC-SM	SC Simplex Adaptor Insert, Single-Mode (Blue color) with dust cover, Snap-In type, Dimension (H19.2 *W16.8)	1 Cores
LS-AI-US-SC-MM	SC Simplex Adaptor Insert, Multi-Mode (Beige color) with dust cover, Snap-In type, Dimension (H19.2 *W16.8)	1 Cores
LS-AI-US-ST-SM	ST Simplex Adaptor Insert, Single-Mode, Zinc alloy, Plate with nickel Snap-In type, Dimension (H19.2 *W16.8)	1 Cores
LS-AI-US-ST-MM	ST Simplex Adaptor Insert, Multi-Mode, Zinc alloy, Plate with nickel Snap-In type, Dimension (H19.2 *W16.8)	1 Cores
LS-AI-US-BI-1	Blank Adaptor Insert, Snap-In type Dimension (H19.2 *W16.8 *D32mm)	-
LS-AI-US-TV-1	"F" Type Simplex connector NTSC-TV, CATV Adaptor Insert, Snap-In type, Dimension (H19.2 *W16.8)	-
LS-FP-SBB	System Box Bezel, Snap-In type, Dimension (H19.2 *W16.8)	1 Port



LS-SMB-xPORT

Work Area Cabling System

Surface Mount Box

Part Number

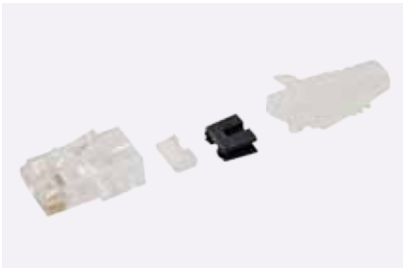
Product Number	Description	Port	Size (W*H*D mm)
LS-SMB-1PORT	1-Port Surface Mount Box with Shutter & Icon	1 Port	48 * 65 * 27
LS-SMB-2PORT	2-Port Surface Mount Box with Shutter & Icon	2 Ports	61 * 52 * 21
LS-SMB-4PORT	4-Port Surface Mount Box with Shutter & Icon	4 Ports	132 * 66 * 30
LS-SMB-6PORT	6-Port Surface Mount Box with Shutter & Icon	6 Ports	189 * 66 * 30

Technical Details

Material: High Impact Flame Retardant Plastic, UL 94V-0 Rated



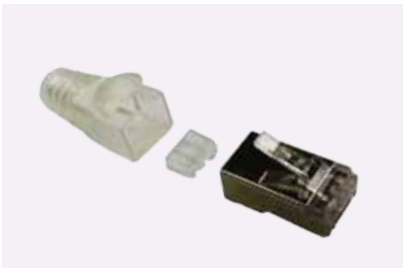
LS-MP-UC5E-RJ45



LS-MP-UC6-RJ45



LS-MP-SC6-RJ45-TRBOOT-A



LS-MP-SC5E-RJ45-TRBOOT

Work Area Cabling System Modular Plug

Part Number

Product Number	Description	Pin
LS-MP-UC5E-RJ45	8P8C Category 5e unshielded modular plug for suitable stranded & solid wire, 50micro-inch gold coating	8Pins
LS-MP-UC6-RJ45	8P8C Category 6 unshielded modular plug for suitable stranded & solid wire, 50micro-inch gold coating with boot of semi-transparency white color, separator of pairs	8Pins
LS-MP-SC6-RJ45-TRBOOT-A	8P8C Category 6 Shielded modular plug for insulation diameter 1.2mm(23AWG) suitable stranded & solid wire, 50micro-inch gold coating with transparent boot	8Pins
LS-MP-SC5E-RJ45-TRBOOT	8P8C Category 5e Shielded modular plug suitable stranded & solid wire, 50micro-inch gold coating with transparent boot	8Pins
LS-MP-6P6C-R	6P6C Unshielded modular plug, suitable for stranded wire, 50micro-inch gold coating, round type cable	6Pins
LS-MP-6P4C-F	6P4C Unshielded modular plug, suitable for stranded wire, 50micro-inch gold coating, flat type cable	6Pins
LS-MP-4P4C-R	4P4C Unshielded modular plug, suitable for stranded wire, 50micro-inch gold coating, round type cable	4Pins
LS-MP-4P4C-F	4P4C Unshielded modular plug, suitable for stranded wire, 50micro-inch gold coating, flat type cable	4Pins

* Please contact your LS representative for available color & length

Technical Details

Electrical / Mechanical Characteristics

- Rating Voltage & Current: 30VAC at 1.5A
- Contact Resistance : 20 Milli-ohm Max.
- Dielectric Strength : 1000VAC (RMS)
- Insulation Resistance : 500 Mega-ohm Min.
- Cable-to-Plug, Tensile Strength : 20lbs (89N) Min.
- Durability : 750 mating cycle Min.
- Temperature : -20℃~80℃(-4ℱ~176ℱ)

Materials

- Housing: Polycarbonate (PC)
- Contacts: Copper Alloy Selective Gold Over Nickel Plating

Specification

- Meet FCC CFR 47 Part 68 and IEC 60603-7



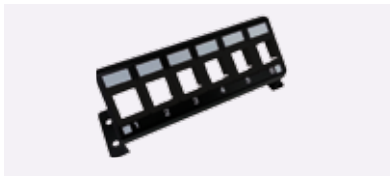
LS-CB-1414-C



LS-CB-1428-C



LS-PPM-MD-6P



LS-PPM-EP-6P



LS-PPM-UC5E-12P-WM



LS-PPM-UC6-12P-WM

Work Area Cabling System

Consolidation Box & Mini Panel

Description

- Cable support SOHO or Consolidation Point
- TIA-570-B / EIA-600 CEBus (Consumer Electronics Bus)
- 6-port Module Type Blank Patch Panel for SOHO BOX
- CATV, 110 Patching

Part Number

Product Number	Description
LS-CB-1414-C	Consolidation Box 14inch X 14inch with Cover
LS-CB-1428-C	Consolidation Box 14inch X 28inch with Cover
LS-CB-1414-H	Consolidation Box 14inch X 14inch with Hinged Door
LS-CB-1428-H	Consolidation Box 14inch X 28inch with Hinged Door

Product Number	Description
LS-PPM-MD-6P	6-Port Empty Mini Modular type panel, 6 module in 1 plastic
LS-PPM-EP-6P	6-Port Empty Mini Modular type panel
LS-PPM-MD-12P-E-WM	12-Port Empty Mini Modular type panel with Wire manager
LS-PPM-MD-12P-E	12-Port Empty Mini Modular type panel
LS-PPM-UC5E-12P-WM	Category 5e 12-Port Mini panel with Wire manager
LS-PPM-UC6-12P-WM	Category 6 12-Port Mini panel with Wire manager



LS-EZT-TOOL-ER



LS-EZT-TOOL-FR



LS-TOOL-MJ



LS-STOOL



LS-CT-C5E-S11 or LS-CT-C6-S11



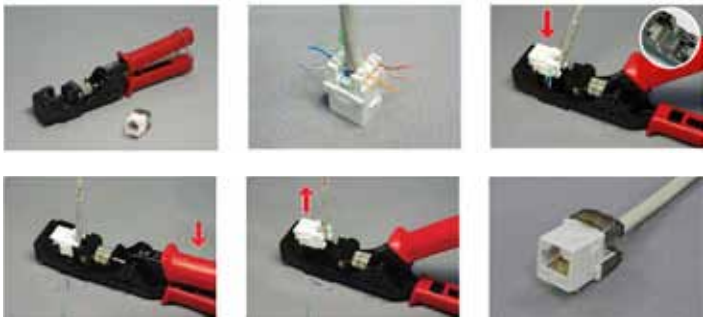
LS-PTOOL-5P

Work Area Cabling System Termination Tools

Part Number

Product Number	Description
LS-EZT-TOOL-ER	Easy Termination Tool for Modular Jack of ERI type
LS-EZT-TOOL-FR	Easy Termination Tool for Modular Jack of RIDC type
LS-TOOL-MJ	Punching Down Tool for Modular Jack 1Pin IDC connection
LS-STOOL	Cable Stripper with cutter
LS-CT-C5E-S11	Crimping Tool for Category 5e Modular Plug
LS-CT-C6-S11	Crimping Tool for Category 6 Modular Plug
LS-PTOOL-5P	Punch down Tool for 5-Pair 110 Connecting Block

INSTRUCTIONS (ERI type EZT Tools)



1. Termination tool with ERI modular jack.
2. Place the wires into the slots according to the wire scheme.
3. Put the Modular jack onto the termination tool in the right position.
4. Squeeze the tool then terminate all wires and trim the excess wire at the same time.
5. Remove the Modular jack vertically away from the termination tool.
6. Place the cap & - completion -

UNINSTALLATION



1. Insert the screwdriver into the slot between Cap & Jack housing.
Use the screwdriver to pry the lid.
2. Repeat the Step A to unlock the other side.
3. Completion

Fiber Solutions

Fiber Optic Simplex and Duplex Cord

Fiber Optic Distribution Cable

- 900um tight buffered Aramid yarn strength member

Fiber Optic Drop Cable

Fiber Optic Loose Tube Cable

- All Dielectric Single Jacketed Central Tube Cable
- All Dielectric Single/Double Jacketed Loose Tube Cable

Fiber Distribution Frame

Fiber Optic Connectivity

- Fiber Adaptor & Connector
- Field Installable Optical Connector

Fiber Jumper Cord

Fiber Optic Simplex and Duplex Cord

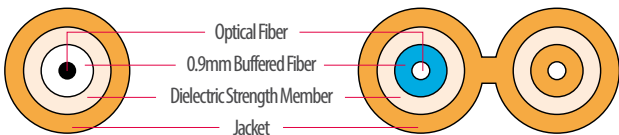
ONFR(riser rated), OFNP(plenum rated) or LSZH rated

Description

- Short Run Office & Computer Room Cabling
- Patch Cords, Pigtails and Jumpers
- Equipment Interconnects
- RoHS Compliant

Specification

- ISO / IEC 11801
- Telcordia GR-409-CORE
- ANSI/ ICEA S-83-596



Construction

- Simplex
 - Buffer Color : Natural(White)
 - Zip Cord
 - Buffer Color : Blue and Orange
 - Fiber
 - Single mode,
 - Multi mode(50um/62.5um)
- Jacket Color
 - Single Mode : Yellow
 - 62.5/125µm 1Gbe : Orange
 - 50/125µm 1Gbe : Orange
 - 50/125µm 10Gbe : Aqua

Mechanical Characteristics

Storage Temperature : -40 to +158ℱ (-40 to 70℃) / Operating Temperature : 14 to +158ℱ (-10 to 70℃)

Construction		Buffered Fiber Outer Diameter [µm]	Nominal Outer Diameter		Nominal Weight		Maximum Tensile Load		Crush Load		Minimum Bend Radius			
							Short Term	Long Term	Short Term	Long Term	Loaded		Installed	
			[mm]	[Inch]	[kg/km]	[lb/kft]								
Simplex Cord	Riser/Pleum Rate 1.6mm	600±50	1.6	0.06	3.0	0.01	130	65	3.5	1.5	32	1.26	16	0.65
	Riser/Pleum Rate 1.8mm	600±50	1.8	0.07	4.0	0.01	130	65	3.5	1.5	36	1.42	18	0.72
	Riser/Pleum Rate 2.0mm	900±50	2.0	0.08	4.0	0.01	130	65	3.5	1.5	40	1.57	20	0.80
	Riser/Pleum Rate 2.4mm	900±50	2.4	0.09	6.5	0.01	300	150	3.5	1.5	48	1.089	24	0.95
	Riser/Pleum Rate 2.9mm	900±50	2.9	0.11	9.5	0.02	300	150	3.5	1.5	58	2.28	29	1.15
Zip Cord	Riser/Pleum Rate 1.6mm	600±50	1.6	0.06	5.5	0.01	200	100	3.5	1.5	32	1.26	16	0.64
	Riser/Pleum Rate 1.8mm	600±50	1.8	0.07	7.0	0.02	200	100	3.5	1.5	36	1.42	18	0.72
	Riser/Pleum Rate 2.0mm	900±50	2.0	0.08	8.0	0.02	200	100	3.5	1.5	40	1.57	20	0.80
	Riser/Pleum Rate 2.4mm	900±50	2.4	0.09	12.0	0.03	500	250	3.5	1.5	48	1.89	24	0.95
	Riser/Pleum Rate 2.9mm	900±50	2.9	0.11	17.0	0.04	500	250	3.5	1.5	58	2.28	29	1.15

* Please refer the end part of Fiber Optic Cable Solutions for Part Number Scheme.

Fiber Optic Distribution Cable

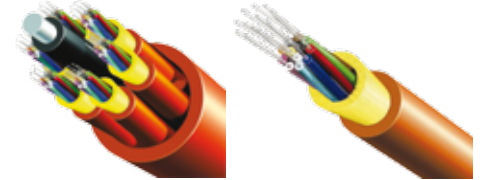
900um tight buffered Aramid yarn strength member

Description

- Distribution cables are rugged, high performance optical communication cables for inside plant installations
- Backbone & Computer Room Cabling
- Compact design for limited conduit space
- RoHS (Restriction of the use of certain Substances Directive) Complied

Specification

- ISO / IEC 11801
- Telcordia GR-409-CORE
- ANSI/ ICEA S-83-596

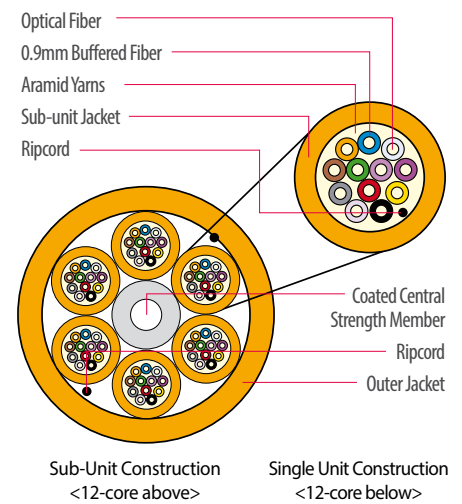


Construction

- Fiber
 - Single mode, Multi mode(50um/62.5um) available
- Sub-unit & Outer Jacket color
 - 62.5/125um 1Gbe : Orange
 - 50/125um 1Gbe : Orange
 - 50/125um 10Gbe : Aqua
- If the cable will be used indoor/outdoor applications, outer cable jacket shall be black
- Outer jacket : PVC or LSZH (Low Smoke Zero Halogen)

Sub-unit Identification

- The identification code & number is printed on the sub-unit jacket every 10cm(eg. SM#1, SM#2)



Color of Buffer

- | | | | |
|---------------|---------------|--------------------------|--------------------------|
| • 01 - Blue | • 07 - Red | • 13 - Blue/Black dash | • 19 - Red/Black dash |
| • 02 - Orange | • 08 - Black | • 14 - Orange/Black dash | • 20 - Black/White dash |
| • 03 - Green | • 09 - Yellow | • 15 - Green/Black dash | • 21 - Yellow/Black dash |
| • 04 - Brown | • 10 - Violet | • 16 - Brown/Black dash | • 22 - Violet/Black dash |
| • 05 - Gray | • 11 - Pink | • 17 - Gray/Black dash | • 23 - Pink/Black dash |
| • 06 - White | • 12 - Aqua | • 18 - White/Black dash | • 24 - Aqua/Black dash |

Mechanical Characteristics

Storage Temperature : -4 to +158°F (-20 to 70°C) / Operating Temperature : 14 to +140°F (-10 to 60°C)

Construction	Fiber Count	Nominal Outer Diameter		Nominal Weight		Maximum Tensile Load		Crush Load		Minimum Bend Radius			
						Short Term	Long Term	Short Term	Long Term	Loaded		Installed	
		[mm]	[Inch]	[kg/km]	[lb/kft]	[N]	[N]	[N/cm]	[N/cm]	[mm]	[Inch]	[mm]	[Inch]
Single Unit	2	4.5	0.18	20	0.04	660	300	50	25	90	3.54	45	1.79
	4	5.3	0.21	25	0.06	660	300	50	25	106	4.17	53	2.11
	6	5.7	0.22	30	0.07	660	300	50	25	114	4.49	57	2.27
	8	6	0.24	35	0.08	660	300	50	25	120	4.72	60	2.39
	12	6.7	0.26	40	0.09	660	450	50	25	134	5.28	67	2.67
	16	8.5	0.33	70	0.15	1,320	800	100	50	170	6.69	85	3.38
	18	8.9	0.35	75	0.17	1,320	1,350	100	50	178	7.01	89	3.54
	24	9.8	0.39	90	0.20	1,320	1,350	100	50	196	7.72	98	3.90
6 Fiber Sub units	24*	13.9	0.55	160	0.35	1,320	1,350	100	50	278	10.94	139	5.53
12 Fiber Sub units	48	18.3	0.72	275	0.61	1,320	1,350	100	50	366	14.41	183	7.28

* Please refer the end part of Fiber Optic Cable Solutions for Part Number Scheme.

Fiber Optic Drop Cable

Flat type Drop Cable with/without Messenger Wire

Description

- Suitable for Indoor & Outdoor (Aerial) application
- Flame Retardant LSZH jacket is applied
- Excellent crush and impact resistance
- Field installable connector (Ez-SC) is available

Options

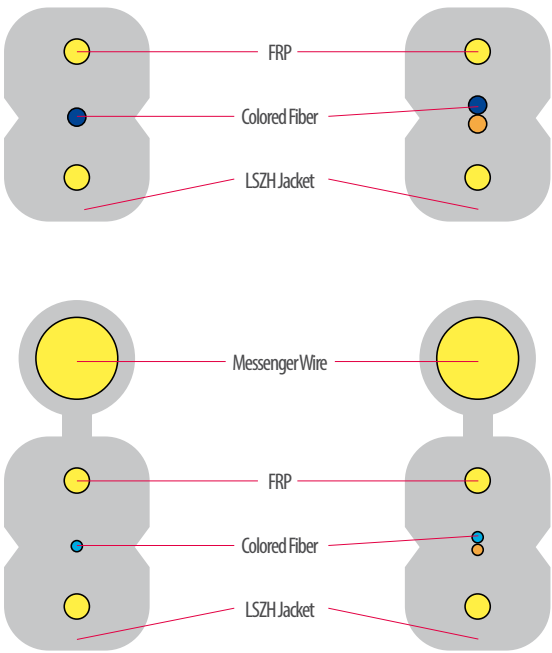
- Fiber type: Single Mode (G652D) / Bend-Insensitive (G657A)
- Sequential meter or footage markings
- With or Without Messenger Wire

Color Identification

- 01 – Blue
- 02 – Orange

Specification

- IEC-60794
- IEC-60332-1
- ITUT-G652D, G657A



Mechanical Characteristics

Storage & Operating Temperature: -10°C ~ +75°C

Messenger Type	Fiber Count	Nominal Outer Diameter		Nominal Weight		Max Tensile Load	Max Crush Load	Min Bending Radius (Loaded)		Min Bending Radius (Unloaded)	
		[mm]	[Inch]	[kg/km]	[lb/kft]	[N]	[N/cm]	[mm]	[Inch]	[mm]	[Inch]
Without	1	2.0 x 3.0	0.08 x 0.12	8.0	5.4	150	100	10	0.4	15	0.6
	2	2.0 x 3.0	0.08 x 0.12	8.0	5.4	150	100	10	0.4	15	0.6
With	1	2.0 x 5.0	0.08 x 0.20	25.0	16.8	460	200	30	1.2	60	2.4
	2	2.0 x 5.0	0.08 x 0.20	25.0	16.8	460	200	30	1.2	60	2.4

Fiber Optic Central Loose Tube Cable

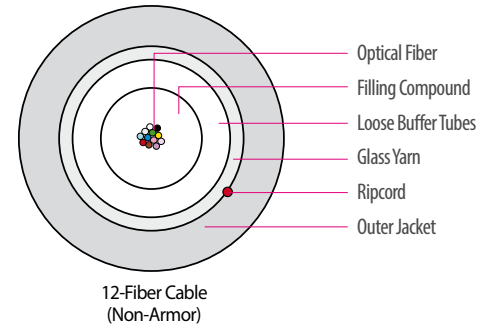
Single Jacketed Central Tube Cable

Description

- Single Jacket Central Loose Tube cable is a UV-stabilized, fully water blocked cable for outdoor duct applications (PE outer jacket) or indoor/Outdoor applications (LSZH outer jacket)
- Loose tube design provides stable and highly reliable transmission parameters for a variety of voice, data, video and imaging applications.
- Compact design for limited conduit space
- RoHS (Restriction of the use of Certain Hazardous Substances Directive) complied

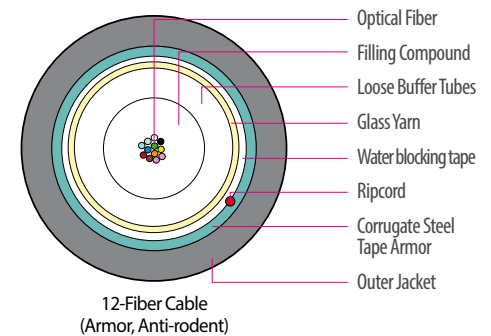
Specification

- Telcordia GR-20-CORE
- IEC 60793, 60794
- ITU-T G652



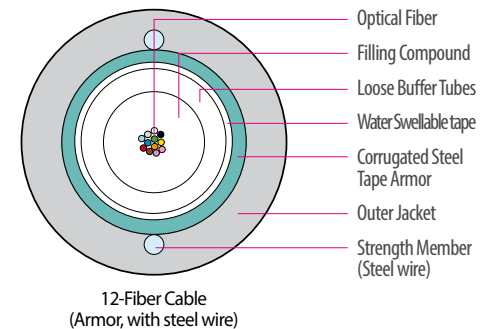
Construction

- Fiber – Single mode, Multi mode (50um/62.5um) available
- Sequential meter or footage markings
- Outer jacket : Black UV-and moisture-resistant Polyethylene or LSZH (Low Smoke Zero Halogen)



Color Identification

- | | | | |
|---------------|---------------|--------------------------|--------------------------|
| • 01 - Blue | • 07 - Red | • 13 - Blue/Black dash | • 19 - Red/Black dash |
| • 02 - Orange | • 08 - Black | • 14 - Orange/Black dash | • 20 - Black/White dash |
| • 03 - Green | • 09 - Yellow | • 15 - Green/Black dash | • 21 - Yellow/Black dash |
| • 04 - Brown | • 10 - Violet | • 16 - Brown/Black dash | • 22 - Violet/Black dash |
| • 05 - Slate | • 11 - Rose | • 17 - Slate/Black dash | • 23 - Rose/Black dash |
| • 06 - White | • 12 - Aqua | • 18 - White/Black dash | • 24 - Aqua/Black dash |



Mechanical Characteristics

Storage Temperature : -20 to 70°C / Operating Temperature : -10 to 60°C

Fiber Count	Nominal Outer Diameter		Nominal Weight		Maximum Tensile Load		Crush Load		Minimum Bend Radius			
					Short Term	Long Term	Short Term	Long Term	Loaded		Installed	
	[mm]	[Inch]	[kg/km]	[lb/kft]	[N]	[N]	[N/cm]	[N/cm]	[mm]	[Inch]	[mm]	[Inch]
2	6.4	0.25	45	0.10	1200	600	220	110	126	4.96	63	2.51
4	6.4	0.25	45	0.10	1200	600	220	110	126	4.96	63	2.51
6	6.4	0.25	45	0.10	1200	600	220	110	126	4.96	63	2.51
8	6.4	0.25	45	0.10	1200	600	220	110	126	4.96	63	2.51
10	6.4	0.25	45	0.10	1200	600	220	110	126	4.96	63	2.51
12	6.4	0.25	45	0.10	1200	600	220	110	126	4.96	63	2.51
16	6.4	0.25	55	0.12	1200	600	220	110	126	5.35	68	2.71
18	6.4	0.25	55	0.12	1200	600	220	110	126	5.35	68	2.71
24	6.4	0.25	55	0.12	1200	600	220	110	126	5.35	68	2.71

* Please refer the end part of Fiber Optic Cable Solutions for Part Number Scheme.

Fiber Optic Loose Tube Cable

Single/Double Jacketed Loose Tube Cable

Description

- Single Jacket Loose Tube cable is a UV-stabilized, fully water blocked cable for In/Outdoor duct applications.
- Loose tube design provides stable and highly reliable transmission parameters for a variety of voice, data, video and imaging applications.
- This lightweight cable offers durability and flexibility required for many outside plant uses.
- RoHS (Restriction of the use of Certain Hazardous Substances Directive) complied

Specification

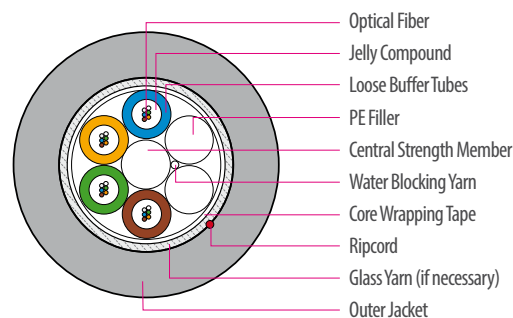
- Telcordia GR-20-CORE
- IEC 60793, 60794
- IEC 60332-1,3
- IEEE 383

Construction

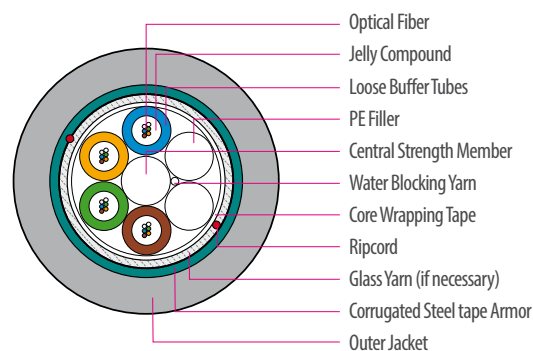
- Fiber - Single mode, multi mode(50um/62.5um) available
- Sequential meter or footage markings
- Outer jacket : Black UV and moisture-resistant LSZH(Low Smoke Zero Halogen) or PE(Polyethylene)

Color Identification

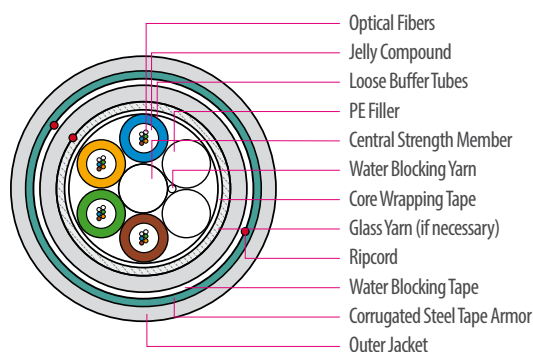
- 01 - Blue
- 02 - Orange
- 03 - Green
- 04 - Brown
- 05 - Slate
- 06 - White
- 07 - Red
- 08 - Black
- 09 - Yellow
- 10 - Violet
- 11 - Rose
- 12 - Aqua



24-Fiber Cable (Non-Armor)



24-Fiber Cable (Armor)



24-Fiber Cable (Double Jacket, Single Armor)

Mechanical Characteristics

Storage Temperature : -40 to 70°C / Operating Temperature : -40 to 70°C

Fiber Count	Nominal Outer Diameter		Nominal Weight		Maximum Tensile Load				Crush Load				Minimum Bend Radius			
					Short Term		Long Term		Short Term		Long Term		Loaded		Installed	
	[mm]	[Inch]	[kg/km]	[lb/kft]	[N]	[lb]	[N]	[lb]	[N/cm]	[lb/Inch]	[N/cm]	[lb/Inch]	[mm]	[Inch]	[mm]	[Inch]
6	10.5	0.41	86	58	2,700	125	1,000	46	110	63	55	31	21	8.27	10.5	4.13
12	10.5	0.41	86	58	2,700	125	1,000	46	110	63	55	31	21	8.27	10.5	4.13
24	10.5	0.41	86	58	2,700	125	1,000	46	110	63	55	31	21	8.27	10.5	4.13
36	10.5	0.41	86	58	2,700	125	1,000	46	110	63	55	31	21	8.27	10.5	4.13
48	11.0	0.43	92	62	2,700	125	1,000	46	110	63	55	31	22	8.66	11.0	4.33
72	11.0	0.43	92	62	2,700	125	1,000	46	110	63	55	31	22	8.66	11.0	4.33
96	12.1	0.48	113	76	2,700	125	1,000	46	110	63	55	31	24	9.53	12.1	4.76
120	13.6	0.54	139	93	2,700	125	1,000	46	110	63	55	31	27	10.71	13.6	5.35
144	15.0	0.59	167	112	2,700	125	1,000	46	110	63	55	31	30	11.81	15	5.9
228	15.8	0.62	178	120	2,700	125	1,000	46	110	63	55	31	32	12.44	15.8	6.22
276	17.0	0.67	212	142	2,700	125	1,000	46	110	63	55	31	34	13.39	17	6.69
300	17.7	0.70	228	153	2,700	125	1,000	46	110	63	55	31	35	13.94	17.7	6.97

* Please refer the end part of Fiber Optic Cable Solutions for Part Number Scheme.

Fiber Optic Cable Part Number

Fiber Optic Simplex and Zip Cord

① Unit Material	V : PVC, Z : LSZH etc.
② Strip Performance	L : Loose Strip, S : Semi-tight, T : Tight Strip, X : Not applied
③ Sheath Structure	KVX : Aramid yarn + PVC, KZX : Aramid yarn + LSZH etc.
④ W/B type	J : Jelly-filled, B : W/B Dry core, A : Air-filled
⑤ Cable Shape	R : Round, Z : Zip type cord etc.
⑥ Fire retardant	X : CMX(IEC332-1), M : CM(IEC332-3), R : Riser(UL-1666) etc.
⑦ Fiber Code	SC : Single Mode Fiber Conventional, SE : Single Mode Fiber Enhanced etc.
⑧ Number of Fiber	# : 1, 2 etc.

Part Number

SIMPLEX CORD

SC - N□□□ / □□□ □□

ZIP CORD

DC - N□□□ / □□□ □□

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

Fiber Optic Distribution Cable - 900um Tight Buffered Aramid yarn Strength Member

① CSM type	M : Metal, D : Non-metal, N : Non-CSM
② Unit Material	E : PE, V : PVC, Z : LSZH, Y : Lead Free PVC, T : Teflon, N : Nylon etc.
③ Strip Performance	L : Loose Strip, S : Semi-tight Strip, T : Tight Strip, X : Not applied
④ Sheath Structure	KVXX : Aramid yarn + PVC, KZXX : Aramid yarn + LSZH etc.
⑤ W/B type	J : Jelly-filled, B : W/B Dry core, A : Air-filled
⑥ Cable type	R : Round, Z : Zip type cord etc.
⑦ Fire retardant	X : CMX(IEC332-1), M : CM(IEC332-3), R : Riser(UL-1666) etc.
⑧ Fiber Code	SE : Single Mode Fiber Enhanced, MX : 10Giga, HG : Giga grade
⑨ No. of Fiber	4XX : 4-core, 6XX : 6-core, 12X : 12-core etc.

Part Number

DT - □□□□ / □□□ □□

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Fiber Optic Drop Cable

① CSM type	DX: Non-metal (FRP)
② Sheath Material	ZXX : LSZH
③ W/B type	A : Air-filled
④ Cable type	F : Flat
⑤ Fire retardant	X : CMX (IEC60332-1)
⑥ Fiber Code	SE : Single mode enhanced B(A) : G657A Bend Insensitive Fiber
⑦ No. of Fiber	1XXX : 1 core / 2XXX : 2 cores

Part Number

DP - □□ / □□□ □□

① ② ③ ④ ⑤ ⑥ ⑦

* Please contact your regional representative for other material code.

Single Jacketed Central Loose Tube Cable

① Unit Structure	JB : Jelly-filled PBT Tube etc.
② Sheath Structure	GZXX : Glass Yarn + LSZH, GSEX : Glass Yarn + St. tape + PE, GSZX : Glass Yarn + St. tape + LSZH, SMEX : St. tape + Metallic Strength Member + PE etc.
③ W/B type	J : Jelly-filled, B : W/B Dry core, A : Air-filled
④ Cable type	R : Round etc.
⑤ Fiber retardant	N : Non-fire retardant X : CMX(IEC332-1), M : CM(IEC332-3), R : Riser(UL-1666) etc.
⑥ Fiber Code	SE : Single mode Fiber Enhanced, MG : Giga grade, MX : 10Giga etc.
⑦ No. of Fiber	4XXX : 4-core, 6XXX : 6-core, 8XXX : 8-core, 12XX : 12-core etc.

Part Number **CT-N** /

① ② ③ ④ ⑤ ⑥ ⑦

Single/Double Jacketed Loose Tube Cable

① CSM type	M : Metal, D : Non-metal
② Unit Structure	JB : Jelly-filled PBT Tube etc.
③ Sheath Structure	GEXX : Glass Yarn + PE, GZXX : Glass Yarn + LSZH GSEX : Glass Yarn + St. tape + PE, GESE : Glass Yarn + PE + St. tape + PE
④ W/B type	J : Jelly-filled, B : W/B Dry core, A : Air-filled
⑤ Cable type	R : Round etc.
⑥ Fiber retardant	N : Non-fire retardant X : CMX(IEC332-1), M : CM(IEC332-3), R : Riser(UL-1666) etc.
⑦ Fiber Code	SE : Single mode Fibre Enhanced, MG : Giga grade, MX : 10Giga etc.
⑧ No. of Fiber	4XXX : 4-core, 6XXX : 6-core, 8XXX : 8-core, 12XX : 12-core 48XX : 48-core etc.

Part Number **LT -** /

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

* Please contact your regional representative for other material code.



Simple™ Fiber Solution

Fiber Distribution Frame(FDF)

Multi-connection Module type FDF



Description

LS Simple™ Multi-connection module type FDFs fully comply with the requirements set out TIA 19-inch rack type. It holds the 4 FDM¹⁾ (Fiber Distribution adaptor Module) or 4 MCF²⁾ (Multi-Connection fiber Frame) or 4 MCM³⁾ (Multi-Connection MPO/MTP Cassettes) which are configured with fiber optic adaptors or blank. It's possible to configure the system according to needs and special site environments with LS dedicated slim module.



Application

- Telecommunication network
- Data center systems
- LAN and WAN (IEEE 802.3ba, 10G BASE-FX, 10G BASE-LX4, 10G BASE-ER/EW, 40G BASE-LR4, 100G BASE-ER4 etc.)

Specification

- Multi-connection module type FDF
- Connector Insertion Loss $\leq 0.5\text{dB}$
- Material : Steel (SCP-1 1.2T) & PC
- 19-inch rack mountable 1U~4U etc.

1) FDMs



2) MCFs



3) MCMs



Fiber Distribution adaptor Module(FDM) & Multi-Connection fiber Frame(MCF)

Manageable & Flexible

- 4 module type configuration in 1RU
- Customized system configuration by either FDM or MCF

Easy Install

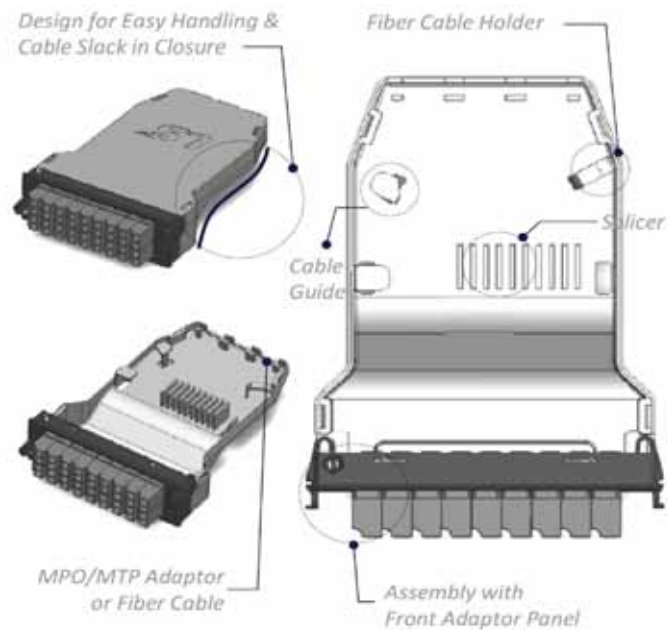
- Detachable structure in front of rack
- Slim Design for Easy Handling

High Density

- Possible to splice Max. LC 36-core by using Splicing Fixture in Cassette
- High-Density System Configuration in Data Center etc.

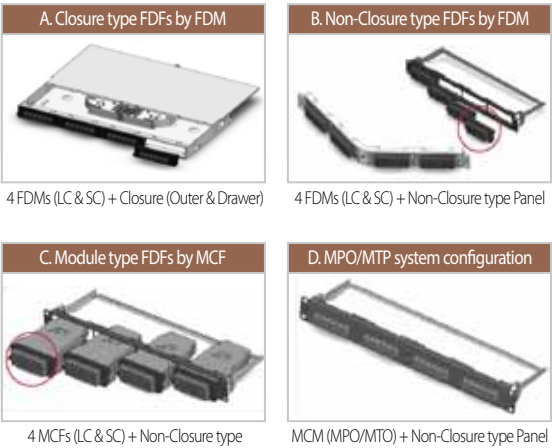
Reliable

- Support pre-terminated solution with low-loss MTP(Max. 0.35dB) for quality assurance



FDF Capacity

Adaptor type	Core No.	A	B	C	D	Core No./RU
LC	12C	✓	✓	✓		48C
	24C	✓	✓	✓		96C
	36C		✓	✓		144C
SC	6C	✓	✓	✓		24C
	12C	✓	✓	✓		48C
	18C	✓	✓	✓		72C
MPO/MTP	72C or 144C				✓	288C or 576C



Multi-connection Module type Fiber Distribution Frame



Part Number(Empty Closure)

Type	Product Number	Description
Outer type Empty Closure	LS-FDF-1U-EP-0	FDF(Fiber Distribution Frame) 1U, Empty enclosing body, outer type
	LS-FDF-2U-EP-0	FDF(Fiber Distribution Frame) 2U, Empty enclosing body, outer type
	LS-FDF-3U-EP-0	FDF(Fiber Distribution Frame) 3U, Empty enclosing body, outer type
	LS-FDF-4U-EP-0	FDF(Fiber Distribution Frame) 4U, Empty enclosing body, outer type



Part Number(Front Panel for Individual Fiber Adaptor Installation)

Product Number	Description	Compatible Adaptor
LS-FDP-BK-012-SCSP-W	Front empty panel 1U for mounting SC simplex adaptor 12ea	Adaptor(Flange type) LS-FA-SC-MM-C-1-BG-W
LS-FDP-BK-024-SCSP-W	Front empty panel 1U for mounting SC simplex adaptor 24ea	LS-FA-SC-SM-C-1-BL-W
LS-FDP-BK-024-SCDP-W	Front empty panel 1U for mounting SC duplex adaptor 12ea(24core)	Adaptor(Flange type) LS-FA-SC-MM-C-2-BG-W
LS-FDP-BK-048-SCDP-W	Front empty panel 1U for mounting SC duplex adaptor 24ea(48core)	LS-FA-SC-SM-C-2-BL-W
LS-FDP-BK-024-LCDP-W	Front empty panel 1U for mounting LC duplex adaptor 12ea(24core)	Adaptor(Flange type) LS-FA-LC-MM-C-2-BG-W
LS-FDP-BK-048-LCDP-W	Front empty panel 1U for mounting LC duplex adaptor 24ea(48core)	LS-FA-LC-SM-C-2-BL-W
LS-FDP-BK-012-STSP-W	Front empty panel 1U for mounting ST simplex adaptor 12ea	Adaptor(Flange type) LS-FA-ST-MM-C-1
LS-FDP-BK-024-STSP-W	Front empty panel 1U for mounting ST simplex adaptor 24ea	LS-FA-ST-SM-C-1



Part Number(Front Panel for Module Installation)

Product Number	Description	Compatible Adaptor Module
LS-FDP-BK-4M	4 module empty front panel for FDM, MCF, MCM series	LS-FDM-series LS-MCF-series LS-MCM-series

Multi-connection Module type Fiber Distribution Frame



example. Slide FDF with FDM module
(splicing tray and front module is optional)

Part Number(Empty Closure with panel for Slide FDF)

Part Number	Description	Compatible Items
LS-FDF-MC1U-EP4M-D	FDF(Fiber Distribution Frame) 1U, Empty enclosing body, 4 empty holes for FDM module or MCF cassette, slide type	Fiber adaptor module : LS-FDM series Fiber cassette : LS-MCF series Cable splicing tray : LS-SPTR-024(048)

* Please contact your LS representative for available port & type

4U Vertical Multi-connection Module type FDF

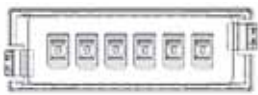
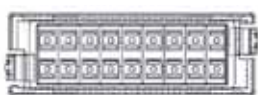


Part Number

Part Number	Description	Compatible Items
LS-FDF-MC4U-EP10M-VI	FDF 4U, Empty enclosing body, 10 empty vertical holes for FDM module or MCF Cassette, inner type	Fiber adaptor module : LS-FDM series Fiber cassette : LS-MCF series Cable splicing tray : LS-SPTR-024(048)

Fiber Distribution adaptor Module(FDM)

Part Number

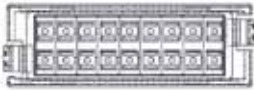
FDM Module	Image	Drawing	
		Front View	Adaptor(Color/type)
LS-FDM-SC-SP-06-SM			Blue or Green/SM
LS-FDM-SC-SP-06-MM			Beige/MM
LS-FDM-SC-SP-06-M3			Beige/OM3, OM4
LS-FDM-SC-DP-12-SM			Blue or Green/SM
LS-FDM-SC-DP-12-MM			Beige/MM
LS-FDM-SC-DP-12-M3			Beige/OM3, OM4
LS-FDM-SC-DP-18-SM			Blue or Green/SM
LS-FDM-SC-DP-18-MM			Beige/MM
LS-FDM-SC-DP-18-M3			Beige/OM3, OM4
LS-FDM-LC-DP-12-SM			Blue or Green/SM
LS-FDM-LC-DP-12-MM			Beige/MM
LS-FDM-LC-DP-12-M3			Aqua/OM3, OM4
LS-FDM-LC-4M-24-SM			Blue or Green/SM
LS-FDM-LC-4M-24-MM			Beige/MM
LS-FDM-LC-4M-24-M3			Aqua/OM3, OM4
LS-FDM-LC-4M-36-SM			Blue or Green/SM
LS-FDM-LC-4M-36-MM			Beige/MM
LS-FDM-LC-4M-36-M3			Aqua/OM3, OM4
LS-FDM-BLK			-

* Please contact your LS representative for available port & type

* Green color adaptor for single-mode APC type is applicable

Multi-Connection fiber Frame(MCF)

Part Number

MCF Cassette	Image	Drawing	
		Front View	Adaptor(Color/type)
LS-MCF-SC-SP-06-SM			Blue or Green/SM
LS-MCF-SC-SP-06-MM			Beige/MM
LS-MCF-SC-SP-06-M3			Beige/OM3, OM4
LS-MCF-SC-DP-12-SM			Blue or Green/SM
LS-MCF-SC-DP-12-MM			Beige/MM
LS-MCF-SC-DP-12-M3			Beige/OM3, OM4
LS-MCF-SC-DP-18-SM			Blue or Green/SM
LS-MCF-SC-DP-18-MM			Beige/MM
LS-MCF-SC-DP-18-M3			Beige/OM3, OM4
LS-MCF-LC-DP-12-SM			Blue or Green/SM
LS-MCF-LC-DP-12-MM			Beige/MM
LS-MCF-LC-DP-12-M3			Aqua/OM3, OM4
LS-MCF-LC-4M-24-SM			Blue or Green/SM
LS-MCF-LC-4M-24-MM			Beige/MM
LS-MCF-LC-4M-24-M3			Aqua/OM3, OM4
LS-MCF-LC-4M-36-SM			Blue or Green/SM
LS-MCF-LC-4M-36-MM			Beige/MM
LS-MCF-LC-4M-36-M3			Aqua/OM3, OM4

* Please contact your LS representative for available port & type

* Green color adaptor for single-mode APC type is applicable

Multi-connection Module type Fiber Distribution Frame

Ordering Information

Empty closure	Front Panel	Module	Splicing Tray (Optional)	Gland (Optional)
Outer type LS-FDF-1U-EP-O LS-FDF-2U-EP-O LS-FDF-3U-EP-O LS-FDF-4U-EP-O	Individual Adaptor type	LS-FDP-BK-012-SCSP-W	LS-SPTR-024 LS-SPTR-048	LS-GLAND-D13.5 LS-GLAND-D16
		LS-FDP-BK-024-SCSP-W		
		LS-FDP-BK-024-SCDP-W		
		LS-FDP-BK-048-SCDP-W		
		LS-FDP-BK-024-LCDP-W		
		LS-FDP-BK-048-LCDP-W		
		LS-FDP-BK-012-STSP-W		
		LS-FDP-BK-024-STSP-W		
	Module Adaptor type	LS-FDP-BK-4M	LS-SPTR-024 LS-SPTR-048	LS-GLAND-D13.5 LS-GLAND-D16
		LS-FDM-SC-SP-06-xx		
		LS-FDM-SC-DP-12-xx		
		LS-FDM-SC-DP-18-xx		
		LS-FDM-LC-DP-12-xx		
		LS-FDM-LC-4M-24-xx		
		LS-FDM-LC-4M-36-xx		
		LS-FDM-BLK		
	Cassette Module type	LS-FDP-BK-4M	No needed	No needed
		LS-MCF-SC-SP-06-xx		
		LS-MCF-SC-DP-12-xx		
		LS-MCF-SC-DP-18-xx		
		LS-MCF-LC-DP-12-xx		
		LS-MCF-LC-4M-24-xx		
		LS-MCF-LC-4M-36-xx		
		LS-FDM-BLK		
Closure	Module	Splicing Tray (Optional)	Gland (Optional)	
Drawer type LS-FDF-MC1U-EP4M-D (Closure + Front Panel All-in-one type)	Individual Adaptor type	LS-FDM-SC-SP-06-xx	LS-SPTR-024 LS-SPTR-048	LS-GLAND-D13.5 LS-GLAND-D16
		LS-FDM-SC-DP-12-xx		
		LS-FDM-SC-DP-18-xx		
		LS-FDM-LC-DP-12-xx		
		LS-FDM-LC-4M-24-xx		
		LS-FDM-SC-4M-36-xx		
		LS-FDM-BLK		
		Cassette Module type		
	LS-MCF-SC-DP-12-xx			
	LS-MCF-SC-DP-18-xx			
	LS-MCF-LC-DP-12-xx			
	LS-MCF-LC-4M-24-xx			
	Inner type (4U) LS-FDF-MC4U-EP10M-VI	Cassette Module type	LS-MCF-LC-4M-36-xx	No needed
LS-FDM-BLK				
LS-MCF-SC-SP-06-xx				
LS-MCF-SC-DP-12-xx				
LS-MCF-SC-DP-18-xx				

* xx denotes SM (Single-mode), MM (Multi-mode), M3 (OM3 or OM4)

* Gland is optional item for only 1U Outer / Slide type FDF

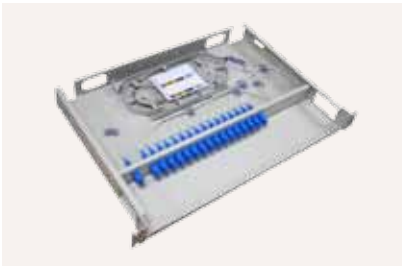
* Only FDM module is applicable in case of angled type.



LS-FDF-LC-MM-C-048-DP (Outer type)



LS-FDF-SC-SM-024-SP (Outer type)



LS-FDF-SC-SM-016-SP-I (Inner type)



LS-FDF-SC-SM-012-SP-S (Swing type)

Simple™ Fiber Solution

Fiber Distribution Frame(FDF)

Features

- Splicing Tray & Accessories are included
- Mounted in 19" standard rack
- Robust configuration by using screw fixed adaptor

Application

- Telecommunication network
- Data center Systems
- LAN and WAN (IEEE 802.3ba, 100BASE-FX, 10GBASE-LX4, 10GBASE-ER/EW, 40GBASE-LR4, 100GBASE-ER4 etc.)

FDF Capacity

LC Type(DP)	SC Type(SP)	SC Type(DP)	ST Type(SP)
48C	24C	48C	24C

Based on 1U FDF

* FDF is supplied with cover

Specifications

- Modular structure with up to 48 fiber core
- Include fiber splicing tray basically
- Connector loss ≤ 0.5dB
- Material : Steel (SCP-1 1.2T/1.0T [Inner type])
- 19" rack mountable 1U

Assembled Fiber Distribution Frame(Outer type)

Part Number

Type	Product Number	Description
Outer FDF LC Type MM with splicing tray	LS-FDF-LC-MM-C-004-DP	Fiber Distribution Frame, 4-Core MM LC Duplex
	LS-FDF-LC-MM-C-008-DP	Fiber Distribution Frame, 8-Core MM LC Duplex
	LS-FDF-LC-MM-C-012-DP	Fiber Distribution Frame, 12-Core MM LC Duplex
	LS-FDF-LC-MM-C-016-DP	Fiber Distribution Frame, 16-Core MM LC Duplex
	LS-FDF-LC-MM-C-024-DP	Fiber Distribution Frame, 24-Core MM LC Duplex
	LS-FDF-LC-MM-C-048-DP	Fiber Distribution Frame, 48-Core MM LC Duplex
Outer FDF LC Type SM with splicing tray	LS-FDF-LC-SM-004-DP	Fiber Distribution Frame, 4-Core SM LC Duplex
	LS-FDF-LC-SM-008-DP	Fiber Distribution Frame, 8-Core SM LC Duplex
	LS-FDF-LC-SM-012-DP	Fiber Distribution Frame, 12-Core SM LC Duplex
	LS-FDF-LC-SM-016-DP	Fiber Distribution Frame, 16-Core SM LC Duplex
	LS-FDF-LC-SM-024-DP	Fiber Distribution Frame, 24-Core SM LC Duplex
	LS-FDF-LC-SM-048-DP	Fiber Distribution Frame, 48-Core SM LC Duplex
Outer FDF SC Type MM with splicing tray	LS-FDF-SC-MM-C-004-DP	Fiber Distribution Frame, 4-Core MM SC Duplex
	LS-FDF-SC-MM-C-008-DP	Fiber Distribution Frame, 8-Core MM SC Duplex
	LS-FDF-SC-MM-C-012-DP	Fiber Distribution Frame, 12-Core MM SC Duplex
	LS-FDF-SC-MM-C-016-DP	Fiber Distribution Frame, 16-Core MM SC Duplex
	LS-FDF-SC-MM-C-024-DP	Fiber Distribution Frame, 24-Core MM SC Duplex
	LS-FDF-SC-MM-C-048-DP	Fiber Distribution Frame, 48-Core MM SC Duplex
Outer FDF SC Type SM with splicing tray	LS-FDF-SC-SM-004-SP	Fiber Distribution Frame, 4-Core SM SC Simplex
	LS-FDF-SC-SM-008-SP	Fiber Distribution Frame, 8-Core SM SC Simplex
	LS-FDF-SC-SM-012-SP	Fiber Distribution Frame, 12-Core SM SC Simplex
	LS-FDF-SC-SM-016-SP	Fiber Distribution Frame, 16-Core SM SC Simplex
	LS-FDF-SC-SM-024-SP	Fiber Distribution Frame, 24-Core SM SC Simplex
	LS-FDF-SC-SM-012-DP	Fiber Distribution Frame, 12-Core SM SC Duplex
	LS-FDF-SC-SM-024-DP	Fiber Distribution Frame, 24-Core SM SC Duplex
	LS-FDF-SC-SM-048-DP	Fiber Distribution Frame, 48-Core SM SC Duplex
	LS-FDF-SC-SM-2U-096-DP	Fiber Distribution Frame, 2U 96-Core SM SC Duplex
	LS-FDF-SC-SM-4U-096-SP	Fiber Distribution Frame, 4U 96-Core SM SC Simplex
Outer FDF ST Type	LS-FDF-ST-MM-024-SP	Fiber Distribution Frame, 24-Core MM ST Simplex with splicing tray
	LS-FDF-ST-SM-024-SP	Fiber Distribution Frame, 24-Core SM ST Simplex with splicing tray

*Please contact your LS representative for available port & type

Assembled Fiber Distribution Frame(Inner type)

Part Number

Type	Product Number	Description
Inner FDF LC MM with splicing tray	LS-FDF-LC-MM-C-004-DP-I	Fiber Distribution Frame, 4-Core MM LC Duplex Inner
	LS-FDF-LC-MM-C-008-DP-I	Fiber Distribution Frame, 8-Core MM LC Duplex Inner
	LS-FDF-LC-MM-C-012-DP-I	Fiber Distribution Frame, 12-Core MM LC Duplex Inner
	LS-FDF-LC-MM-C-016-DP-I	Fiber Distribution Frame, 16-Core MM LC Duplex Inner
	LS-FDF-LC-MM-C-024-DP-I	Fiber Distribution Frame, 24-Core MM LC Duplex Inner
	LS-FDF-LC-MM-C-048-DP-I	Fiber Distribution Frame, 48-Core MM LC Duplex Inner
Inner FDF LC SM with splicing tray	LS-FDF-LC-SM-004-DP-I	Fiber Distribution Frame, 4-Core SM LC Duplex Inner
	LS-FDF-LC-SM-008-DP-I	Fiber Distribution Frame, 8-Core SM LC Duplex Inner
	LS-FDF-LC-SM-012-DP-I	Fiber Distribution Frame, 12-Core SM LC Duplex Inner
	LS-FDF-LC-SM-016-DP-I	Fiber Distribution Frame, 16-Core SM LC Duplex Inner
	LS-FDF-LC-SM-024-DP-I	Fiber Distribution Frame, 24-Core SM LC Duplex Inner
	LS-FDF-LC-SM-048-DP-I	Fiber Distribution Frame, 48-Core SM LC Duplex Inner
Inner FDF SC MM with splicing tray	LS-FDF-SC-MM-C-004-DP-I	Fiber Distribution Frame, 4-Core MM SC Duplex Inner
	LS-FDF-SC-MM-C-008-DP-I	Fiber Distribution Frame, 8-Core MM SC Duplex Inner
	LS-FDF-SC-MM-C-012-DP-I	Fiber Distribution Frame, 12-Core MM SC Duplex Inner
	LS-FDF-SC-MM-C-016-DP-I	Fiber Distribution Frame, 16-Core MM SC Duplex Inner
	LS-FDF-SC-MM-C-024-DP-I	Fiber Distribution Frame, 24-Core MM SC Duplex Inner
Inner FDF SC SM with splicing tray	LS-FDF-SC-SM-004-SP-I	Fiber Distribution Frame, 4-Core SM SC Simplex Inner
	LS-FDF-SC-SM-008-SP-I	Fiber Distribution Frame, 8-Core SM SC Simplex Inner
	LS-FDF-SC-SM-012-SP-I	Fiber Distribution Frame, 12-Core SM SC Simplex Inner
	LS-FDF-SC-SM-016-SP-I	Fiber Distribution Frame, 16-Core SM SC Simplex Inner
	LS-FDF-SC-SM-024-SP-I	Fiber Distribution Frame, 24-Core SM SC Simplex Inner
	LS-FDF-SC-SM-2U-048-SP-I	Fiber Distribution Frame, 2U 48-Core SM SC Simplex Inner
Inner FDF ST type	LS-FDF-ST-MM-C-024-SP-I	Fiber Distribution Frame, 24-Core MM ST Simplex Inner with splicing tray
	LS-FDF-ST-SM-C-024-SP-I	Fiber Distribution Frame, 24-Core SM ST Simplex Inner with splicing tray

*Please contact your LS representative for available port & type

Assembled Fiber Distribution Frame (Swing type)

Part Number

Type	Product Number	Description
Swing FDF LC type with splicing tray	LS-FDF-LC-MM-C-012-DP-S	Fiber Distribution Frame, 12-core, MM LC Duplex, Swing
	LS-FDF-LC-MM-C-024-DP-S	Fiber Distribution Frame, 24-core, MM LC Duplex, Swing
	LS-FDF-LC-MM-2U-048-DP-S	Fiber Distribution Frame, 2U 48-core, MM LC Duplex, Swing
	LS-FDF-LC-SM-C-012-DP-S	Fiber Distribution Frame, 12-core, SM LC Duplex, Swing
	LS-FDF-LC-SM-C-024-DP-S	Fiber Distribution Frame, 24-core, SM LC Duplex, Swing
	LS-FDF-LC-SM-2U-048-DP-S	Fiber Distribution Frame, 2U 48-core, SM LC Duplex, Swing
Swing FDF SC type with splicing tray	LS-FDF-SC-MM-C-012-SP-S	Fiber Distribution Frame, 12-core, MM SC Simplex, Swing
	LS-FDF-SC-MM-C-024-SP-S	Fiber Distribution Frame, 24-core, MM SC Simplex, Swing
	LS-FDF-SC-MM-2U-048-SP-S	Fiber Distribution Frame, 2U 48-core, MM SC Simplex, Swing
	LS-FDF-SC-SM-C-012-SP-S	Fiber Distribution Frame, 12-core, SM SC Simplex, Swing
	LS-FDF-SC-SM-C-024-SP-S	Fiber Distribution Frame, 24-core, SM SC Simplex, Swing
	LS-FDF-SC-SM-2U-048-SP-S	Fiber Distribution Frame, 2U 48-core, SM SC Simplex, Swing
Swing FDF ST type with splicing tray	LS-FDF-ST-MM-C-024-SP-S	Fiber Distribution Frame, 24-core, MM ST Simplex, Swing
	LS-FDF-ST-SM-C-024-SP-S	Fiber Distribution Frame, 24-core, SM ST Simplex, Swing

*Please contact your LS representative for available port & type



Simple™ Fiber Solution

Fiber Distribution Frame(FDF)

Individual adaptor type Slide FDF

Description

- 1U Fiber Distribution Frame
- Mountable on 19" standard rack
- Empty type FDF for mounting SC, LC, ST adaptor
- Hinged slide for convenient splicing
- Compatible with gland 13.5mm & 16mm
- Convenient installation & maintenance on rack status

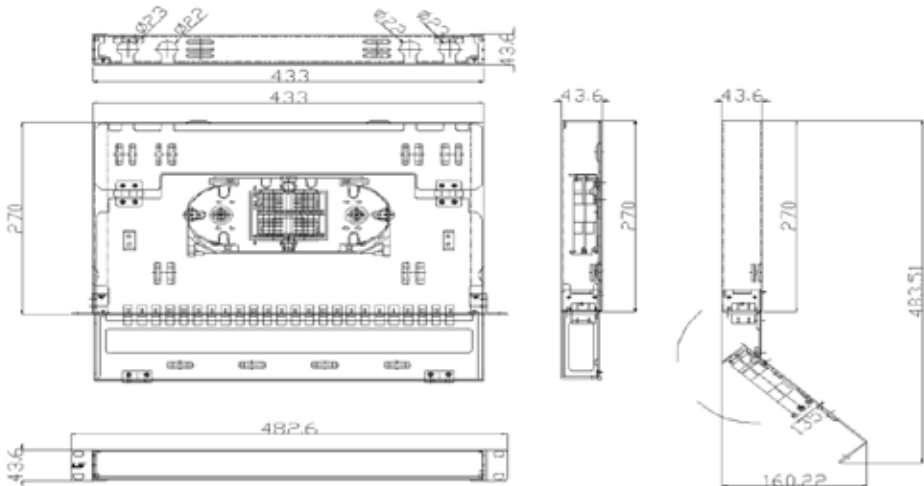
Application

- Telecommunication network
- Data center systems
- LAN and WAN(IEEE 802.3ba, 100BASE-FX, 10GBASE-LX4, 10GBASE-ER/EW, 40GBASE-LR4, 100GBASE-ER4 etc.)

Part Number

Product Number	Description	Compatible Adaptor
LS-FDF-LC-EP-048-H	FDF(Fiber Distribution Frame) 1U, Empty enclosing body, 24 entry holes for LC, SC, ST Hinged Slide type	LS-FA-SC-SM(MM)-C-2-BL(BG)-W LS-FA-ST-SM(MM)-C-1 LS-FA-LC-SM-C-2-BL-W LS-FA-LC-MM(M3)-C-2-BG(AQ)-W
LS-FDF-SC-EP-048-H		
LS-FDF-ST-EP-024-H		
LS-FDF-LC-EP-048-DI-135160	FDF(Fiber Distribution Frame) 1U, Empty enclosing body, 24 entry holes for LC, SC, ST Slide type	
LS-FDF-SC-EP-048-DI-135160		
LS-FDF-ST-EP-024-DI-135160		

Drawing(example, hinged slide type)



Splicing Tray / Gland / Sleeve / FCM

Part Number

Type	Product Number	Description
Splicing Tray	LS-SPTR-024	Splicing tray Max. 24-Cores
	LS-SPTR-048	Splicing tray Max. 48-Cores
Gland	LS-GLAND-D7	Cable Gland D7
	LS-GLAND-D9	Cable Gland D9
	LS-GLAND-D11	Cable Gland D11
	LS-GLAND-D13.5	Cable Gland D13.5 for Drawer type FDF
	LS-GLAND-D16	Cable Gland D16 for Drawer type FDF
Sleeve	LS-FDF-FHSS-12P	Fiber Heat Shrink Sleeve 12pcs/1Package
FCM	LS-FCM-1U	Fiber Cable Management(Front type) 1U for slide type FDF
	LS-FCM-2U	Fiber Cable Management(Front type) 2U for slide type FDF

*Please contact your LS representative for available port & type



LS-FCM-1U



LS-SPTR-024



LS-GLAND-D16



LS-FDF-SC-MM-C-004-DP-MTV



LS-FDF-SC-MM-C-006-SP-MTC



LS-FDF-SC-MM-C-008-SP-MW



LS-FDF-SC-MM-C-012-SP-MW



LS-FDF-EP24-W

Simple™ Fiber Solution

Fiber Distribution Frame

(Mini wall-mounted FDF)

Description

LS Simple™ Mini wall-mounted Fiber Distribution Frame come complete with splicing tray and accessories. LS Simple™ Mini wall-mounted Fiber Distribution Frame can be installed in narrow space where 19" racks couldn't be placed on.

Application

- Telecommunication network
- Horizontal distribution systems
- Local Area Networks
- CATV Systems
- LAN and WAN (IEEE 802.3ba, 100BASE-FX, 10GBASE-LX4, 10GBASE-ER/EW, 40GBASE-LR4, 100GBASE-ER4 etc)

Specifications

- Wall mountable structure (Hanging bracket)
- 12-core fiber splicing tray basically included
- Material : Steel (SCP-1 1.2T)
- SC Simplex/Duplex 12 core available

Part Number

Product Number	Description
LS-FDF-SC-SM-C-004-DP-MTV	Vertical Mini FDF 4-Cores Single-mode SC type Duplex
LS-FDF-SC-SM-C-006-SP-MTC	Plate Mini FDF 6-Cores Single-mode SC type Simplex with cover
LS-FDF-LC-SM-C-008-DP-MTC	Plate Mini FDF 8-Cores Single-mode LC type Duplex with cover
LS-FDF-SC-SM-C-008-SP-MW	Mini wall mount FDF 8-Cores Single-Mode SC type Simplex
LS-FDF-SC-SM-C-012-SP-MW	Mini wall mount FDF 12-Cores Single-Mode SC type Simplex
LS-FDF-SC-MM-C-004-DP-MTV	Vertical Mini FDF 4-Cores Multi-mode SC type Duplex
LS-FDF-SC-MM-C-006-SP-MTC	Plate Mini FDF 6-Cores Multi-mode SC type Simplex with cover
LS-FDF-LC-MM-C-008-DP-MTC	Plate Mini FDF 8-Cores Multi-mode LC type Duplex with cover
LS-FDF-SC-MM-C-008-SP-MW	Mini wall mount FDF 8-Cores Multi-Mode SC type Simplex
LS-FDF-SC-MM-C-012-SP-MW	Mini wall mount FDF 12-Cores Multi-Mode SC type Simplex
LS-FDF-EP24-W	Wall mount type Empty FDF, 24 adaptor hole for SC simplex 24-core & LC duplex 48-core
LS-FDF-EP48-W	Wall mount type Empty FDF, 48 adaptor hole for SC simplex

* Please contact your LS representative for other fiber adaptor type

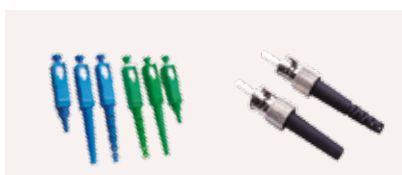


LC type Fiber Adaptor & Connector



SC type Fiber Adaptor

ST type Fiber Adaptor



SC type Fiber Connector

ST type Fiber Connector

Simple™ Fiber Solution

Fiber Adaptor & Connector

Description

- Easy installation in the field without adhesive & polishing
- Performance exceeds ANSI/TIA/EIA-568-A
- Telcordia GR-1081-CORE
- Fiber optic connector & adaptor LC, SC, ST etc.

Part Number

Item	Product Number	Description
Adaptor	LS-FA-LC-xx-C-y-zz-WO	Fiber Adaptor LC type, without Flange, for outlet port
	LS-FA-LC-xx-C-y-zz-W	Fiber Adaptor LC type, with Flange
	LS-FA-SC-xx-C-y-zz-WO	Fiber Adaptor SC type, without Flange, for outlet port
	LS-FA-SC-xx-C-y-zz-W	Fiber Adaptor SC type, with Flange
	LS-FA-ST-xx-C-y	Fiber Adaptor ST type
Connector	LS-FC-LC/PC-xx-y-zz	Fiber Connector LC(PC) type
	LS-FC-LC/APC-xx-y-zz	Fiber Connector LC(APC) type
	LS-FC-SC/PC-xx-y-zz	Fiber Connector SC(PC) type
	LS-FC-SC/APC-xx-y-zz	Fiber Connector SC(APC) type
	LS-FC-ST/PC-xx-y-zz	Fiber Connector ST type

* xx denotes SM(Single Mode) or MM(Multi Mode)

* y denotes 1 or 2 Core

* zz denotes Color : BL(Blue)-SM/PC, BG(Beige)-MM/PC, GN(Green)-SM/APC, AQ(Aqua)-OM3, OM4/PC

* Please contact your LS representative for available port & type.

Electrical / Mechanical Characteristics

Item	Specifications
Insertion Loss	≤ 0.3dB
Durability	Max. 0.2dB increase after 500-Cycle
Retention Force	200 ~ 600g
Temperature	-20°C ~ 70°C (-4°F ~ 158°F)



LS-FC-SC/PC-SM(MM)-BL(GY)-FI-30



LS-FC-LC/PC-SM(MM)-BL(GY)-FI-20



LS-FC-SC/PC-SM(MM)-BL(GY)-FI-20 /
LS-FC-LC/PC-SM(MM)-BL(GY)-FI-20



LS-FC-ST/PC-SM(MM)-BL(GY)-FI-20

Simple™ Fiber Solution

Field Installable Optical Connector

Description

- LS Simple™ FIOC connector
- Cable connectors without polishing
- Enables fast, on-site installation of connectors
- Using a simple tool and recycled several times
- Telcordia GR-326

Key Features

- Quick and easy fiber termination
- High success rate of connection
- Superior optical characteristic value
- No Failure after opening

Specification

Item	Value
Insertion Loss	<0.5dB (typical 0.3dB)
Return Loss	>50dB
Endurance (IL Change)	After 500 times re-connection
	0.9mm diameter : 0.75kg tensile load
	2mm and 3mm diameter : 2kg tensile load
	21 times thermal cycling
	-40°C ~ +75°C

Part Number

Type	Product Number	Description
SC Type	LS-FC-SC/PC-SM-BL-FI-30	SC/PC SM, Cable Φ=3mm
	LS-FC-SC/PC-SM-BL-FI-09	SC/PC SM, Cable Φ=0.9mm
	LS-FC-SC/PC-M2-BG-FI-30	SC/PC MM(OM2), Cable Φ=3mm
	LS-FC-SC/PC-M2-BG-FI-09	SC/PC MM(OM2), Cable Φ=0.9mm
	LS-FC-SC/PC-M3-AQ-FI-30	SC/PC MM(OM3), Cable Φ=3mm
	LS-FC-SC/PC-M3-AQ-FI-09	SC/PC MM(OM3), Cable Φ=0.9mm
	LS-FC-SC/PC-M4-AQ-FI-30	SC/PC MM(OM4), Cable Φ=3mm
	LS-FC-SC/PC-M4-AQ-FI-09	SC/PC MM(OM4), Cable Φ=0.9mm
LC Type	LS-FC-LC/PC-SM-BL-FI-20	LC/PC SM, Cable Φ=2mm
	LS-FC-LC/PC-SM-BL-FI-09	LC/PC SM, Cable Φ=0.9mm
	LS-FC-LC/PC-M2-BG-FI-20	LC/PC MM(OM2), Cable Φ=2mm
	LS-FC-LC/PC-M2-BG-FI-09	LC/PC MM(OM2), Cable Φ=0.9mm
	LS-FC-LC/PC-M3-AQ-FI-20	LC/PC MM(OM3), Cable Φ=2mm
	LS-FC-LC/PC-M3-AQ-FI-09	LC/PC MM(OM3), Cable Φ=0.9mm
	LS-FC-LC/PC-M4-AQ-FI-20	LC/PC MM(OM4), Cable Φ=2mm
	LS-FC-LC/PC-M4-AQ-FI-09	LC/PC MM(OM4), Cable Φ=0.9mm
ST Type	LS-FC-ST/PC-SM-BL-FI-09	ST/PC SM, Cable Φ=0.9mm
	LS-FC-ST/PC-M2-BG-FI-09	ST/PC MM(OM2), Cable Φ=0.9mm
	LS-FC-ST/PC-M3-AQ-FI-09	ST/PC MM(OM3), Cable Φ=0.9mm
	LS-FC-ST/PC-M4-AQ-FI-09	ST/PC MM(OM4), Cable Φ=0.9mm

*Please contact your LS representative for available port & type



LS-JC-LC/LC-M3-20DPV-020



LS-JC-LC/LC-M1-20DPV-020



LS-JC-SC/SC-SM-24SPV-020



LS-JC-SC/LC-SM-20SPV-020



LS-JC-ST/ST-M1-24DPV-020



LS-JC-FC/FC-M1-24SPV-020

Simple™ Fiber Solution

Fiber Jumper Cord

Part Number

Description	Part Number
Fiber Optic Jumper Cord	LS-JC-AB/AB-C-DEF-G
Fiber Optic One Side Connector	LS-PIG-AB-C-DEF-G

A denotes Connector type : SC, LC, ST, FC

B denotes Polishing : Blank(PC), AC(APC)

C denotes Fiber type : SM, M1 (OM1), M2(OM2), M3(OM3), M4(OM4)

D denotes Cable diameter : 09(Φ0.9), 16(Φ1.6), 18(Φ1.8), 20(Φ2.0), 24(Φ2.4), 30(Φ3.0), etc.

E denotes Cable type : SP (Simplex Cord), DP (Duplex Cord)

F denotes Cable Jacket : V (PVC), Z (LSZH)

G denotes Meter : 005(0.5m), 010(1m), 050(5m), 100(10m) etc.

Description

- Various type of connectors (SC, LC, ST, FC, etc.)
- Optimum optical performance through high quality ferrules
- 100% Factory tested for Insertion & Return Loss
- Ferrule inspection data sheet included with all shipments
- Small Form Factor for high density applications

Application

- Telecommunication network
- Data Processing Systems (Data Center)
- Horizontal Distribution & Backbone Cabling
- LAN and WAN (10/100/1000 BASE-FX, 155Mbps, 100Mbps, 1Gbps, 10Gbps) ISDN, ADSL
- Fiber Optic Test & Measurement System
- RoHS Compliant

Specification

Fiber Type	SM(1310/1550nm)		MM(850/1300nm)
Polishing Type	PC	APC	PC
Insertion Loss	≤ 0.3dB(Typ. ≤ 0.2dB)		
Return Loss	≥ 50dB	≥ 60dB	≥ 20dB

Note : PC(Physical Contact), APC(Angled Physical Contact)

Technical detail

- Insertion Loss and return Loss is based on ANSI/TIA-568-C.3 requirements
- Fiber types: SM (OS1/2) - 9/125μm & MM (OM1~OM4) - 50/125μm, 62.5/125μm
- Cable Diameter : Jumper Cord (1.8 ~ 3.0mm), One side connector (0.9 ~ 3.0mm) available
- Link Length up to 300m(OM3), 550m(OM4) with 850nm source for 10Gbps systems (IEEE802.3ae)
- Material of Ferrules : Ceramic (Zirconia)
- IEC61754, TIA604 Standard for Connectors

CATV Solutions

ECX Series Coaxial Cable (75 ohm)

HFBT Series Coaxial Cable (75 ohm)

RG Series Coaxial Cable

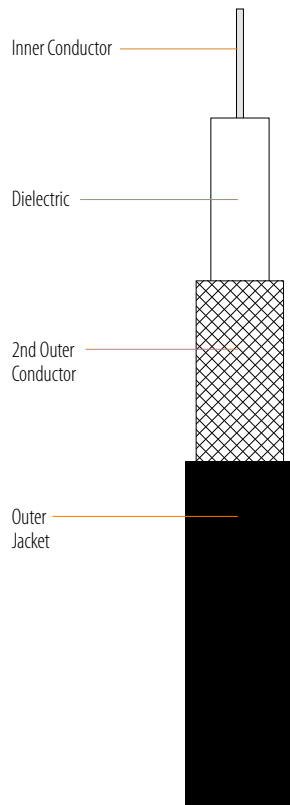


ECX Series Coaxial Cable (75 ohm)

Description

- Bare Copper Conductor
- Solid Polyethylene Dielectric
- Bare Copper Braid
- Black PVC Jacket

Physical Dimensions



Material	Characteristics	3C-2V mm(inch)	5C-2V mm(inch)	7C-2V mm(inch)	10C-2V mm(inch)
Inner Conductor	Bare Copper	0.50(0.020)	0.80(0.031)	0.50(0.020)	1.50(0.059)
Dielectric	Solid PE	3.10(0.122)	4.90(0.193)	7.30(0.287)	9.40(0.370)
2nd Outer Conductor	Copper Braid	3.80(0.150)	5.60(0.220)	8.20(0.323)	10.40(0.409)
Jacket	PVC	5.40(0.213)	7.40(0.291)	10.40(0.409)	13.00(0.512)

Electrical Specifications

Characteristic Impedance (Ω)	75 $\pm$ 3	75 $\pm$ 3	75 $\pm$ 3	75 $\pm$ 3
Velocity of Propagation (%)	66	66	66	66
Capacitance, Nominal (pF/m)	67	67	67	67
DC Resistance (Ω /km) - Inner Conductor	91.40	35.90	20.70	13.10
Attenuation (dB/100m) nominal@10MHz, 20 °C (68 °F)	4.20	2.70	2.20	1.80

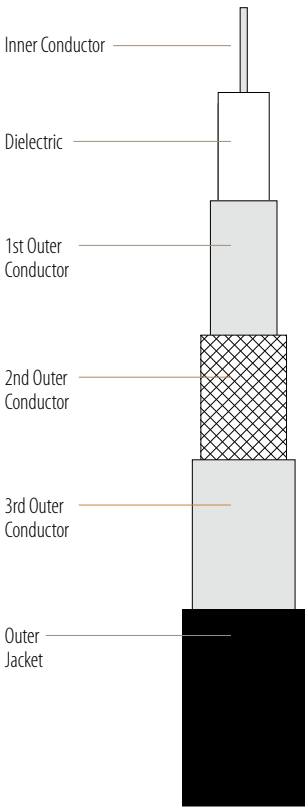


HFBT Series

Coaxial Cable (75 ohm)

Description

- Bare Copper Conductor
- Foamed Polyethylene Dielectric
- 45% or 60% Shielding Coverage
- Al/Mylar Tape Shield
- Black PVC Jacket



Physical Dimensions

Material	Characteristics	5C mm(inch)	7C mm(inch)	10C mm(inch)
Inner Conductor	Bare Copper	1.20(0.047)	1.80(0.071)	2.40(0.094)
Dielectric	Foamed Polyethylene	5.00(0.197)	7.30(0.287)	9.40(0.370)
1st Outer Conductor	Unsealed APA Tape	5.10(0.201)	7.40(0.291)	9.50(0.374)
2nd Outer Conductor	60% Tinned Copper Braid	5.60(0.220)	7.95(0.313)	10.05(0.395)
3rd Outer Conductor	Unsealed AP Tape	5.65(0.222)	8.00(0.315)	10.10(0.398)
Jacket	PVC	7.40(0.291)	10.00(0.394)	12.30(0.484)

Electrical Specifications

Characteristic Impedance (Ω)	75±3
Velocity of Propagation (%)	≥83
Capacitance, Nominal (pF/km)	52±3
DC Resistance (Ω/km) – Inner Conductor	≤19.24(5C), 12.95(7C), 7.81(10C)

Attenuation [@68°F. (20°C)]

Series_Frequency(MHz)	HFBT_Max.(dB/100m)		
	5C	7C	10C
50	4.72	3.07	2.54
150	7.72	5.51	4.22
250	9.89	7.10	5.40
350	11.71	8.62	6.57
450	13.70	9.59	7.34
750	17.80	12.43	9.62
950	20.18	13.47	10.72
1200	24.47	15.12	11.81

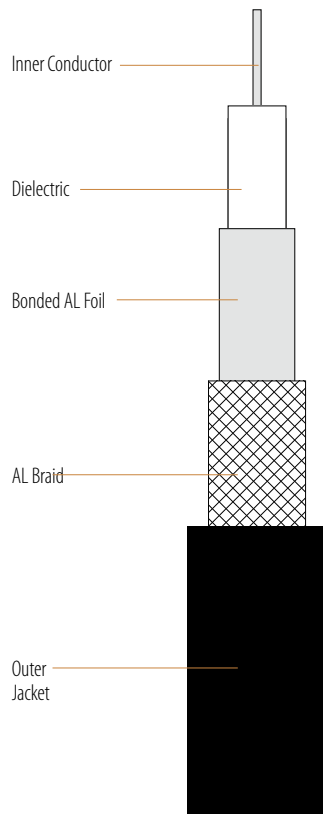


RG Series 6 Coaxial Cable

RG 6 CCS 60%,80% Dual Shield

Physical Dimensions

Center Conductor	1.02 ± 0.01mm Copper clad steel (21% Conductivity)
Dielectric	Nom. 4.57mm
Shield	Bonded AL Foil
Braid Coverage	16 x 5 x 0.12 ± 0.01mm AL Wire (60% or 80% coverage)
Jacket	6.90 ± 0.20 mm PVC
Jacket Thickness	Nom. 0.80 mm
Jacket Color Code	Black : RAL9005



Electrical Characteristics

Item	Unit	Specification(RG6)
DC Resistance / Inner	Ω/km	≤102
Capacitance	pF/m	50 ± 3
Relative Propagation Velocity	%	≥82
SRL_5MHz ~ 1000MHZ	dB	20
SRL_1000MHz ~ 3000MHZ	dB	15
Impedance	Ω	75 ± 3

Attenuation [@68°F. (20°C)]

Series_Frequency(MHz)	RG6_Max.(dB/100m)	Series_Frequency(MHz)	RG6_Max.(dB/100m)
5	2.60	400	13.61
55	5.25	450	14.43
211	10.00	500	15.29
250	10.82	550	16.08
270	11.04	600	16.73
300	11.64	750	18.54
330	12.26	870	20.04
350	12.63	1000	21.49

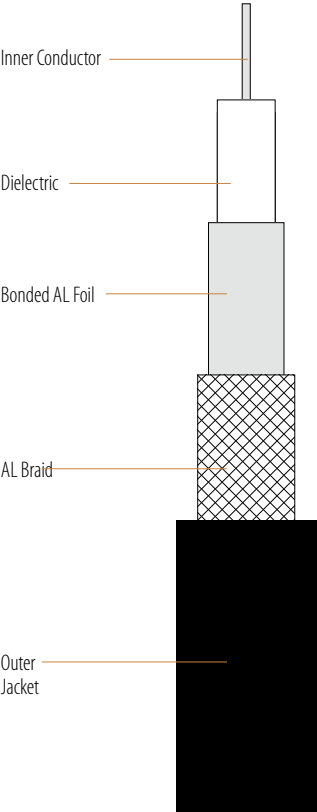


RG Series 59 Coaxial Cable

RG59CCS 60%, 80%, 80% Siamese Dual Shield

Physical Dimensions

Center Conductor		0.81±0.008mm Copper Clad Steel (24% Conductivity)
Dielectric		Nom. 3.45 Foam PE
Shield		Bonded AL Foil
Braid Coverage		16 x 4 x 0.12 ± 0.01mm AL Wire (60% or 80% coverage)
Jacket		5.80 ± 0.20 mm PVC
Jacket Thickness		Nom. 0.80mm
Jacket Color Code		Black : RAL9005 / White : RAL9010
Power Wire 2/18AWG	Conductor	Stranded CCA 15* 0.25mm
	Insulation	PE 2.0±0.10mm
	Jacket	PVC 4.95 ±0.2mm (Thick. Nom. 0.50mm)



Electrical Characteristics

Item	Unit	Specification(RG59)
DC Resistance / Inner	Ω/km	≤140
Capacitance	pF/m	50 ± 3
Relative Propagation Velocity	%	≥82
SRL_5MHz ~ 1000MHZ	dB	≥20
SRL_1000MHz ~ 3000MHZ	dB	15
Impedance	Ω	75 ± 3

Attenuation [@68°F. (20°C)]

Series_Frequency(MHz)	RG59_Max.(dB/100m)	Series_Frequency(MHz)	RG59_Max.(dB/100m)
5	2.85	400	16.73
55	6.73	450	17.72
211	12.47	500	18.70
250	13.45	550	19.52
270	13.85	600	20.34
300	14.60	750	22.87
330	15.29	870	24.85
350	15.75	1000	26.64



e.g.) RG 59 80% Siamese

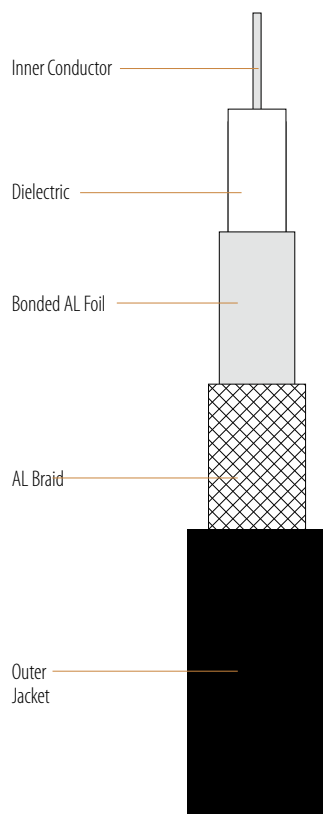


RG Series 11 Coaxial Cable

RG 11 CCS 60%, 80%, 90% Dual Shield

Physical Dimensions

Center Conductor	1.63 ± 0.01mm Copper clad steel (21% Conductivity)
Dielectric	Nom. 7.11mm Foam PE
Shield	Bonded AL Foil
Braid Coverage	16 x 5 x 0.16 ± 0.01mm AL Wire (60% or 80% or 90% coverage)
Jacket	10.16 ± 0.20 mm PVC
Jacket Thickness	Nom. 1.07 mm
Jacket Color Code	Black : RAL9005 / White : RAL9010



Electrical Characteristics

Item	Unit	Specification(RG11)
DC Resistance / Inner	Ω/km	≤40.4
Capacitance	pF/m	50 ± 3
Relative Propagation Velocity	%	≥82
SRL_5MHz ~ 1000MHZ	dB	20
SRL_1000MHz ~ 3000MHZ	dB	15
Impedance	Ω	75 ± 3

Attenuation [@68°F. (20°C)]

Series_Frequency(MHz)	RG11_Max.(dB/100m)	Series_Frequency(MHz)	RG11_Max.(dB/100m)
5	1.50	400	8.53
55	3.30	450	9.10
211	6.23	500	9.70
250	6.72	550	10.20
270	7.00	600	10.63
300	7.38	750	12.25
330	7.71	870	13.50
350	7.94	1000	14.40

Rack & Raceway

Rack Solutions
Overhead Routing System

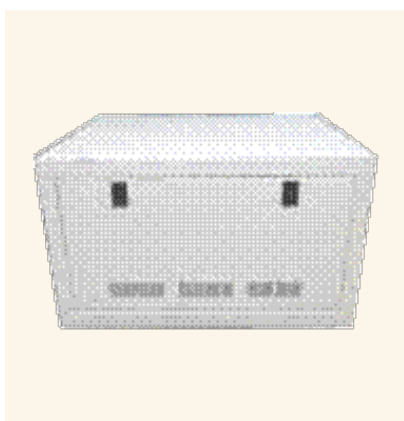




LS-CR-22-2430-EX



LS-CR-40-2430-EX



LS-MWR-9U-EX

Rack & Raceway Rack Solutions

The LS Racks generally conform to IEC297, EIA-310-D standard and provides unsurpassed strength, stability and durability for supporting FDF, patch panel, high-density blocks, cabling and other telecommunication equipments. It is a versatile rack that can be freely adjusted in height, width and depth to be easily changed in specification.

Cabinet Rack

- Front door: Tempered bent holed Steel or glass(optional)
- Load capability Maximum 1,000kg
- Aluminum frame & 19Inch standard Rack
- Fan unit (220V-1FAN), C-Shelf, Cable Bar 3ea
- Power Unit(220V-8Way)
- Slim Nuts M5, mounting bar, rear door, side/top/bottom panel included

Part Number

Part Number	Dimension (H*W*D,mm)	Description
LS-CR-22-2430-EX	1200*600*750	CABINET RACK 19" (22U), M5 bolt 50ea
LS-CR-27-2430-EX	1400*600*750	CABINET RACK 19" (27U), M5 bolt 60ea
LS-CR-31-2430-EX	1600*600*750	CABINET RACK 19" (31U), M5 bolt 70ea
LS-CR-36-2430-EX	1800*600*750	CABINET RACK 19" (36U), M5 bolt 70ea
LS-CR-40-2430-EX	2000*600*750	CABINET RACK 19" (40U), M5 bolt 80ea
LS-CR-42-2430-EX	2100*600*750	CABINET RACK 19" (42U), M5 bolt 80ea
LS-CR-45-2430-EX	2200*600*750	CABINET RACK 19" (45U), M5 bolt 90ea

Mini Wall Mounted Rack & Management

- Front door: Tempered bent holed Steel
- Load capability Maximum 500kg
- Aluminum frame & 19Inch standard Rack
- Fan unit (220V-1FAN), A-Shelf, Cable Bar 3ea
- Power Unit(220V-6Way)
- Slim Nuts M5, mounting bar, rear door, side/top/bottom panel included

Part Number

Part Number	Dimension (H*W*D,mm)	Description
LS-MWR-9U-EX	470*626*500	Mini Wall Mounted Rack with steel door, 9U
LS-MWR-11U-EX	607*646*600	Mini Wall Mounted Rack with steel door, 11U
LS-MWR-13U-EX	697*646*600	Mini Wall Mounted Rack with steel door, 13U



LS-OR-PAT(PATA) series



LS-HVF-36S-EX



LS-VCM-36S-EX

Rack & Raceway Rack Solutions

2Post Open Rack & Management

- Load capability Maximum 1000Kg, M5 Screw Mounting
- Available for mounting vertical cable management in the left or right(optional)
- Rack material: black color, cold-rolled steel
- VCM Guide: flame retardant PC or ABS

Part Number

Item	Product Number	Dimension (H* W* D,mm)	Description
Open Rack	LS-OR-PAT-36A-EX	1800*600*365	2Post Open Rack 36U
	LS-OR-PAT-40A-EX	2000*600*365	2Post Open Rack 40U
	LS-OR-PAT-44A-EX	2200*600*365	2Post Open Rack 44U
Vertical Cable Management (for Open Rack)	LS-OR-PATV-36A-EX	1800*150*178	Vertical management for 36U
	LS-OR-PATV-40A-EX	2000*150*178	Vertical management for 40U
	LS-OR-PATV-44A-EX	2200*150*178	Vertical management for 44U
Plinth	LS-OR-PATP-30A-EX	300*600*360	Plinth of under floor base 4post supporter
Support	LS-OR-PATS-A-EX	-	Accessory, Rack holder on the wall

Extension Rack for Data Center

- Load capability Maximum 1200Kg, M5 Screw Mounting
- Available for mounting vertical cable management in the left or right(optional)
- Rack material: black color, cold-rolled steel
- VCM Guide: flame retardant PC or ABS

Part Number

Item	Product Number	Dimension (H* W* D,mm)	Description
4Post Rack Frame	LS-HVF-36S-EX	1850*600*800	4 Post Rack Frame, 19", (36U) M5 Cage Net & Bolt 72ea
	LS-HVF-42S-EX	2100*600*800	4 Post Rack Frame, 19", (42U) M5 Cage Net & Bolt 84ea
	LS-HVF-45S-EX	2250*600*800	4 Post Rack Frame, 19", (45U) M5 Cage Net & Bolt 90ea
Vertical Cable Management	LS-VCM-36S-EX	1760*600*115	Built in vertical cable management for 36U
	LS-VCM-42S-EX	2100*600*115	Built in vertical cable management for 42U
	LS-VCM-45S-EX	2160*600*115	Built in vertical cable management for 45U
Side Cover	LS-SD-36S-EX	1658*567*17	Side cover for 36U
	LS-SD-42S-EX	1908*567*17	Side cover for 42U
	LS-SD-45S-EX	2058*567*17	Side cover for 45U
Dual Door	LS-FD-36S-EX	1756*590*20	Perforation hole rate 70% over, Dual door for 36U Frame
	LS-FD-42S-EX	2006*590*20	Perforation hole rate 70% over, Dual door for 42U Frame
	LS-FD-45S-EX	2156*590*20	Perforation hole rate 70% over, Dual door for 45U Frame



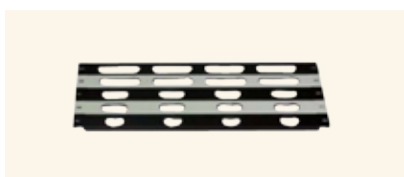
LS-HDR-SVR42A-EX(rear side)



LS-HDR-SVR42A-EX(front side)



LS-MER-9U-525-EX



LS-EN-1U-EX



LS-110B-xU-EX



LS-RR-1U-EX

High Density Rack for Data Center

- High Density PKG Server & Patch rack
- 4Post with Air Perforated Doors (Perforation Rate 70% over), Side panel
- Loading capacity: 1200kg
- Fan unit (220V-2FAN)

Item	Product Number	Dimension (H*W*D,mm)	Description
Server Rack	LS-HDR-SVR31A-EX	1600*600*1000	High Density Server Rack 31U, M5 cage nut & bolt 62ea, with Key, Top entry 2 hole, cage nut frame
	LS-HDR-SVR36A-EX	1800*600*1000	High Density Server Rack 36U, M5 cage nut & bolt 72ea, with Key, Top entry 2 hole, cage nut frame
	LS-HDR-SVR40A-EX	2000*600*1000	High Density Server Rack 40U, M5 cage nut & bolt 80ea, with Key, Top entry 2 hole, cage nut frame
	LS-HDR-SVR42A-EX	2100*600*1000	High Density Server Rack 42U, M5 cage nut & bolt 84ea, with Key, Top entry 2 hole, cage nut frame
	LS-HDR-SVR45A-EX	2200*600*1000	High Density Server Rack 45U, M5 cage nut & bolt 90ea, with Key, Top entry 2 hole, cage nut frame
Network Rack	LS-HDR-NWK36A-EX	1800*800*1000	High Density Network Rack 36U, M5 cage nut & bolt 72ea, with Key, Top entry 2 hole, cage nut frame
	LS-HDR-NWK40A-EX	2000*800*1000	High Density Network Rack 40U, M5 cage nut & bolt 80ea, with Key, Top entry 2 hole, cage nut frame
	LS-HDR-NWK42A-EX	2100*800*1000	High Density Network Rack 42U, M5 cage nut & bolt 84ea, with Key, Top entry 2 hole, cage nut frame
	LS-HDR-NWK45A-EX	2200*800*1000	High Density Network Rack 45U, M5 cage nut & bolt 90ea, with Key, Top entry 2 hole, cage nut frame
Finger Kit	LS-FG-A-EX	10U	VCM Finger Kit for high density Rack

Eco Rack

The LS Echo Rack is an eco-friendly plastic compact rack suitable for small equipments such as hubs, routers, switches and can be used in a confined space such as offices.

- Eco-friendly Design by Plastic Cover
- Convenient Installation & Transport by low-weight
- Sufficient Strength & Hardness

Item	Product Number	Dimension (H*W*D,mm)	Description
Mini Eco-friendly Rack	LS-MER-6U-390-EX	390*560*560	Eco friendly rack (ABS/Steel/Glass) 6U
	LS-MER-9U-525-EX	525*560*560	Eco friendly rack (ABS/Steel/Glass) 9U
	LS-MER-14U-750-EX	750*560*560	Eco friendly rack (ABS/Steel/Glass) 14U

Accessory

Item	Product Number	Dimension (H*W*D,mm)	Description
Entry Panel	LS-EN-1U-EX	43*482*10	Entry Panel, 4 entry holes 1U
	LS-EB-1U-EX	43*482*10	Entry Brush 1U
Blank Panel	LS-BK-1U-EX	43*482*10	Blank panel 1U
	LS-BK-2U-EX	88*482*10	Blank panel 2U
	LS-BK-3U-EX	132*482*10	Blank panel 3U
Ringrun Panel	LS-RR-1U-EX	43*482*78	5 Ring-run 1U
	LS-RR-2U-EX	88*482*77	5 Ring-run 2U
Shelf	LS-SF-300-BK-EX	-	Shelf, Black color, 19" 2points holding
	LS-SF-750-BK-EX	D750mm	Shelf, Black color, 19" 4points holding
	LS-SF-800-BK-EX	D800mm	Shelf, Black color, 19" 4points holding
	LS-SF-1000-BK-EX	D1000mm	Shelf, Black color, 19" 4points holding
Bracket	LS-110B-1U-EX	43*482*10	110 Bracket 1U
	LS-110B-2U-EX	88*482*10	110 Bracket 2U
	LS-110B-4U-EX	173*482*10	110 Bracket 4U
	LS-RC-EX	12*482*6	Supplement cable bracket OD6mm
HCM (Horizontal Cable Management)	LS-HCM-1U-EX	44*482*85	Fiber type HCM(Horizontal Cable Management) 1U
	LS-HCM-2U-EX	88*482*85	Fiber type HCM(Horizontal Cable Management) 2U
	LS-HCML-2U-EX	89*482*154	Inside, Fiber type HCM(Horizontal Cable Management) 2U
Power Strip	LS-PU8-A-EX	-	Power Unit (220V-8Way, 15A)
	LS-PU8-B-EX	-	Power Unit (220V-8Way, 15A, Universal type)
	LS-PU8-C-EX	-	Power Unit (220V-8Way, 30A, Universal type)



LS-DS-MD-16



LS-DS-MD-16 & LS-DS-MDC-16



LS-DS-JO-10



LS-DS-JO-16



LS-DS-CA-10

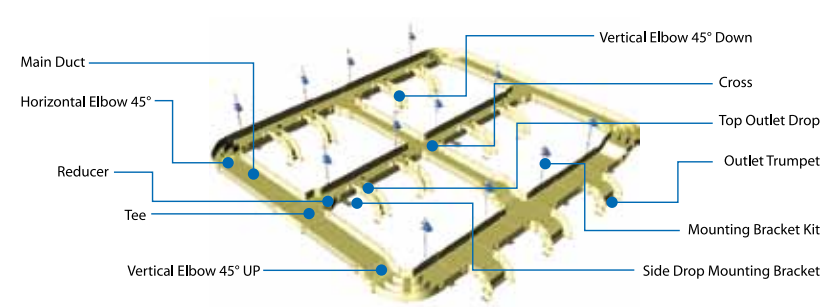


LS-DS-CA-16

Rack & Raceway Overhead Routing System

Features and Benefits

- Non-Toxic materials (RoHS, Halogen-Free)
- Flame retardant – UL 94V-0 rated
- Reliable Strength
- Provide variable size
- UV resistant materials
- Fast & Easy installation – saving time & manpower
- Effective protection for cables
- No need special tools for installation

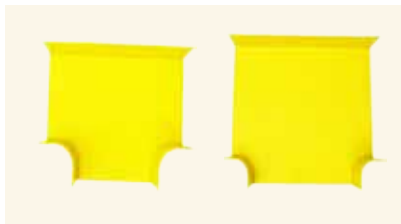


Part Number

Type	Product Number	Description
Main Duct	LS-DS-MD-03	Main Duct W(30mm)
	LS-DS-MD-05	Main Duct W(50mm)
	LS-DS-MD-10	Main Duct W(100mm)
	LS-DS-MD-16	Main Duct W(160mm)
	LS-DS-MD-22	Main Duct W(220mm)
	LS-DS-MD-30	Main Duct W(300mm)
Main Duct Cover	LS-DS-MDC-03	Main Duct Cover W(30mm)
	LS-DS-MDC-05	Main Duct Cover W(50mm)
	LS-DS-MDC-10	Main Duct Cover W(100mm)
	LS-DS-MDC-16	Main Duct Cover W(160mm)
	LS-DS-MDC-22	Main Duct Cover W(220mm)
	LS-DS-MDC-30	Main Duct Cover W(300mm)
Joiner	LS-DS-JO-05	Joiner with Screw W(50mm)
	LS-DS-JO-10	Joiner with Screw W(100mm)
	LS-DS-JO-16	Joiner with Screw W(160mm)
	LS-DS-JO-22	Joiner with Screw W(220mm)
	LS-DS-JO-30	Joiner with Screw W(300mm)
Cross type	LS-DS-CA-10	Horizontal Cross-Type Duct W(100)
	LS-DS-CA-16	Horizontal Cross-Type Duct W(160)
	LS-DS-CA-22	Horizontal Cross-Type Duct W(220)
	LS-DS-CA-30	Horizontal Cross-Type Duct W(300)
Cross Cover	LS-DS-CAC-10	Horizontal Cross-Type Duct Cover W(100mm)
	LS-DS-CAC-16	Horizontal Cross-Type Duct Cover W(160mm)
	LS-DS-CAC-22	Horizontal Cross-Type Duct Cover W(220mm)
	LS-DS-CAC-30	Horizontal Cross-Type Duct Cover W(300mm)



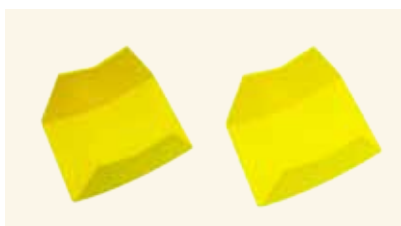
LS-DS-HA45-16 / 22



LS-DS-TA-16 / 30



LS-DS-DA45-10 / 16

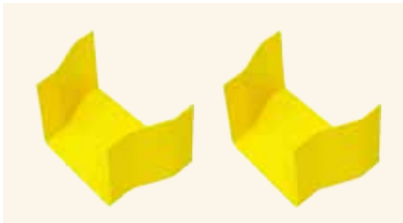


LS-DS-UA45-10 / 16

Rack & Raceway Overhead Routing System

Part Number

Type	Product Number	Description
Horizontal Elbow	LS-DS-HA45-10	45degree Horizontal Elbow W(100mm)
	LS-DS-HA45-16	45degree Horizontal Elbow W(160mm)
	LS-DS-HA45-22	45degree Horizontal Elbow W(220mm)
	LS-DS-HA45-30	45degree Horizontal Elbow W(300mm)
45degree Horizontal Elbow Cover	LS-DS-HAC45-10	45degree Horizontal Elbow Cover W(100mm)
	LS-DS-HAC45-16	45degree Horizontal Elbow Cover W(160mm)
	LS-DS-HAC45-22	45degree Horizontal Elbow Cover W(220mm)
	LS-DS-HAC45-30	45degree Horizontal Elbow Cover W(300mm)
T-Type Main Duct	LS-DS-TA-03	Horizontal T-Type Duct W(30)
	LS-DS-TA-10	Horizontal T-Type Duct W(100)
	LS-DS-TA-16	Horizontal T-Type Duct W(160)
	LS-DS-TA-22	Horizontal T-Type Duct W(220)
	LS-DS-TA-30	Horizontal T-Type Duct W(300)
T-Type Main Duct Cover	LS-DS-TAC-03	Horizontal T-Type Duct Cover W(30)
	LS-DS-TAC-10	Horizontal T-Type Duct Cover W(100)
	LS-DS-TAC-16	Horizontal T-Type Duct Cover W(160)
	LS-DS-TAC-22	Horizontal T-Type Duct Cover W(220)
	LS-DS-TAC-30	Horizontal T-Type Duct Cover W(300)
45degree Vertical Elbow Down	LS-DS-DA45-05	45degree Vertical Elbow Down W(50mm)
	LS-DS-DA45-10	45degree Vertical Elbow Down W(100mm)
	LS-DS-DA45-16	45degree Vertical Elbow Down W(160mm)
	LS-DS-DA45-22	45degree Vertical Elbow Down W(220mm)
	LS-DS-DA45-30	45degree Vertical Elbow Down W(300mm)
45degree Vertical Elbow Down Cover	LS-DS-DAC45-10	45degree Vertical Elbow Down Cover W(100mm)
	LS-DS-DAC45-16	45degree Vertical Elbow Down Cover W(160mm)
	LS-DS-DAC45-22	45degree Vertical Elbow Down Cover W(220mm)
	LS-DS-DAC45-30	45degree Vertical Elbow Down Cover W(300mm)
45degree Vertical Elbow Up	LS-DS-UA45-05	45degree Vertical Elbow Up W(50mm)
	LS-DS-UA45-10	45degree Vertical Elbow Up W(100mm)
	LS-DS-UA45-16	45degree Vertical Elbow Up W(160mm)
	LS-DS-UA45-22	45degree Vertical Elbow Up W(220mm)
	LS-DS-UA45-30	45degree Vertical Elbow Up W(300mm)
45degree Vertical Elbow Up Cover	LS-DS-UAC45-10	45degree Vertical Elbow Up Cover W(100mm)
	LS-DS-UAC45-16	45degree Vertical Elbow Up Cover W(160mm)
	LS-DS-UAC45-22	45degree Vertical Elbow Up Cover W(220mm)
	LS-DS-UAC45-30	45degree Vertical Elbow Up Cover W(300mm)



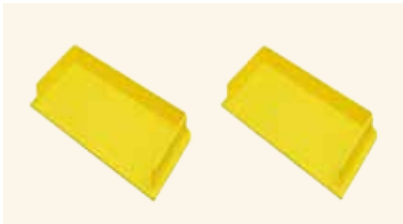
LS-DS-RD-22 / 30



LS-DS-HT-10



LS-DS-TP-16



LS-DS-EC-16 / 22



LS-DS-DMB-22



LS-DS-VT-10, LS-DS-TG-10 & LS-DS-TUBE-10



LS-DS-ST08

Rack & Raceway Overhead Routing System

Part Number

Type	Product Number	Description
Reducer	LS-DS-RD-10	Reducer W(100mm) → W(50mm)
	LS-DS-RD-16	Reducer W(160mm) → W(100mm)
	LS-DS-RD-22	Reducer W(220mm) → W(160mm)
	LS-DS-RD-30	Reducer W(300mm) → W(220mm)
	LS-DS-RDC-10	Reducer Cover W(100mm) → W(50mm)
	LS-DS-RDC-16	Reducer Cover W(160mm) → W(100mm)
	LS-DS-RDC-22	Reducer Cover W(220mm) → W(160mm)
	LS-DS-RDC-30	Reducer Cover W(300mm) → W(220mm)
Top Outlet Drop set	LS-DS-HT-10	Mold Horizontal Top Outlet Drop W(100mm)
	LS-DS-HTC-10	Mold Horizontal Top Outlet Drop Cover W(100mm)
	LS-DS-SDB-10	Side Drop bracket with T-bolt W(100mm)
Vertical Top Outlet Drop Set	LS-DS-VT-10	Mold Vertical Top Outlet Drop W(100mm)
	LS-DS-VTC-10	Mold Vertical Top Outlet Drop Cover W(100mm)
	LS-DS-TG-10	Tube Guide Set (100mm)
	LS-DS-TUBE-10	36mm Tube 1m
Outlet Trumpet	LS-DS-TP-05	Outlet Trumpet W(50mm)
	LS-DS-TP-10	Outlet Trumpet W(100mm)
	LS-DS-TP-16	Outlet Trumpet W(160mm)
	LS-DS-TP-22	Outlet Trumpet W(220mm)
	LS-DS-TP-30	Outlet Trumpet W(300mm)
End Cap	LS-DS-EC-16	End Cap W(160mm)
	LS-DS-EC-22	End Cap W(220mm)
	LS-DS-EC-30	End Cap W(300mm, CUT 16mm, CUT 10mm)
Main Duct Mounting Set	LS-DS-ST08	Threaded Rod 450mm
	LS-DS-DMB-10/16	Duct Mounting Bracket with T-bolt W(100mm/160mm)
	LS-DS-DMB-22	Duct Mounting Bracket with T-bolt W(220mm)
	LS-DS-DMB-30	Duct Mounting Bracket with T-bolt W(300mm)
Accessories	LS-DS-TBOLT	Tees Bolt & Nut
	LS-DS-M4	Pan Head Screw M4*10(160 & 300mm Joiners)
	LS-DS-SP-SETL	Suspension Set

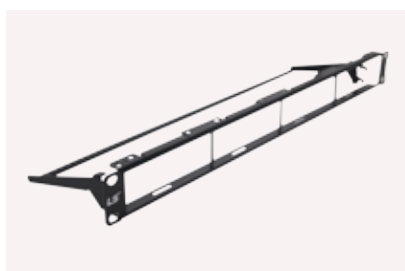
Fast-Net™ Solutions

Copper Pre-Terminated Solution

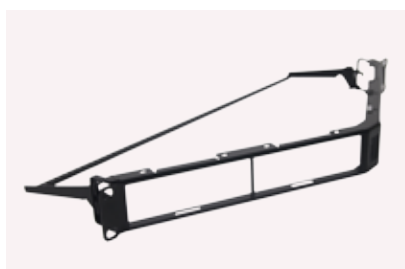
Fiber Pre-Terminated Solution



Fast-Net™ Assembly



LS-PPP-UC-24P-EP4-WM-C



LS-APP-UC-24P-EP4-WM-C

LS-PC6-UC6A-MBL-JJBK-005-ERI
(including 6 in 1 plastic module)

Copper Pre-Terminated Solution

Description

LS Simple Fast-Net™ copper solution is factory terminated, providing the quality required to support your channel requirements. It offers a high performance & stable six bundle cabling.

LS Simple Fast-Net™ is ideal solution for IBS or Data Center building because it doesn't need to punch down for IDC connection and is easily maintained by detachable module type solution. so it's possible for quick cabling and saves the installation time up to 80%.

Application

- Primary (Campus), Secondary (Riser), Tertiary (Horizontal)
- Six bundle Horizontal Distribution & Backbone Cabling
- 4/16Mbps Token Ring (IEEE 802.5)
- 10/100/1000/10G BASE-T (IEEE 802.3)
- 155Mbps ATM
- 100Mbps TP-PMD
- ISDN, ADSL
- ATM LAN 1.2G

Empty Patch Panel

Part Number	Description
LS-PPP-UC-24P-EP4-WM-C, LS-PPP-SC-24P-EP4-WM-C	Fast-Net™ UTP(STP) 24Port 4 entry Patch Panel without Plastic Module
LS-APP-UC-24P-EP4-WM-C, LS-APP-SC-24P-EP4-WM-C	Fast-Net™ UTP(STP) Angled 24Port 4 entry Patch Panel without Plastic Module

Unshielded

Part Number	Description	Cable Type
LS-PC6-UC6-wxx-JJyy-zzz-ERI	FastNet™ 6 Equipment Cord (Cat.6 ERI type Jack, Jack to Jack)	UTP-G-C6G-E1V(Z)N series
LS-PC6-UC6-wxx-JPy-y-zzz-ERI	FastNet™ 6 Equipment Cord (Cat.6 ERI type Jack, Jack to Plug)	
LS-PC6-UC6A-wxx-JJyy-zzz-ERI	FastNet™ 6 Equipment Cord with Super Slim Cat.6A Cable (Cat.6A ERI type Jack, Jack to Jack)	UTP-A-C6G-E1V(Z)F series
LS-PC6-UC6A-wxx-JPy-y-zzz-ERI	FastNet™ 6 Equipment Cord with Super Slim Cat.6A Cable (Cat.6A ERI type Jack, Jack to Plug)	
LS-PC6-USC6A-wxx-JJyy-zzz-ERI	FastNet™ 6 Equipment Cord with Ultra Super Slim Cat.6A Cable (Cat.6A ERI type Jack, Jack to Jack)	UTP-A-C6G-E1V(Z)L series
LS-PC6-USC6A-wxx-JPy-y-zzz-ERI	FastNet™ 6 Equipment Cord with Ultra Super Slim Cat.6A Cable (Cat.6A ERI type Jack, Jack to Plug)	

Shielded

Part Number	Description	Cable Type
LS-PC6-SC6-wxx-JJ-zzz-RIDC	FastNet™ 6 Equipment Cord (Cat.6 RIDC type Jack, Jack to Jack)	FTP-G-C6G-E1V(Z)N series
LS-PC6-SC6-wxx-JP-zzz-RIDC	FastNet™ 6 Equipment Cord (Cat.6 RIDC type Jack, Jack to Plug)	
LS-PC6-SC6A-wxx-JJ-zzz-ERI	FastNet™ 6 Equipment Cord (Cat.6A ERI type Jack, Jack to Jack)	FTP-A-C6G-E1V(Z)N series
LS-PC6-SC6A-wxx-JP-zzz-ERI	FastNet™ 6 Equipment Cord (Cat.6A ERI type Jack, Jack to Plug)	

* The drawing appearing on this page may be subject to change or modification without any prior notice.

* w denotes cable flame retardant rate : M(CM), L(LSZH)

* xx denotes cable color : BL(Blue), GY(Grey) etc.

* yy denotes connector color : BL(Blue), WH(White), RD(Red) etc.

* zzz denotes cable length : 005(0.5m), 010(1m), 050(5m) etc.

* Contact your LS representative for available cable/jack color & length.

Copper Pre-Terminated Solution

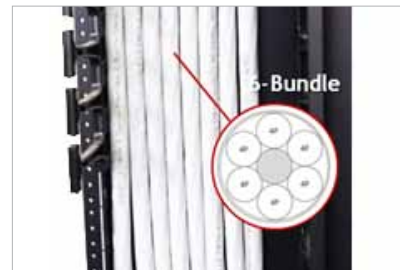
Fast-Net™ Category 6A U/UTP

- Patented non-continuous aluminum tape shall suppress the effect of Alien X-talk allowing 10Gbps transmission
- World smallest OD(Outer Diameter)
 - Super Slim : 7.0mm
 - Ultra Super Slim : 5.8mm
- One-time insert with 6 bundle



Characteristics

- 100% factory terminated & tested
- Suitable solution for data center
- Flame retardant(CM, LSZH)
- Diverse color available
- Easy-installation & maintenance
- Design to prevent kink with central filler
- High-Density through angled configuration

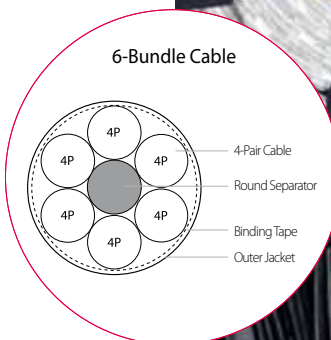
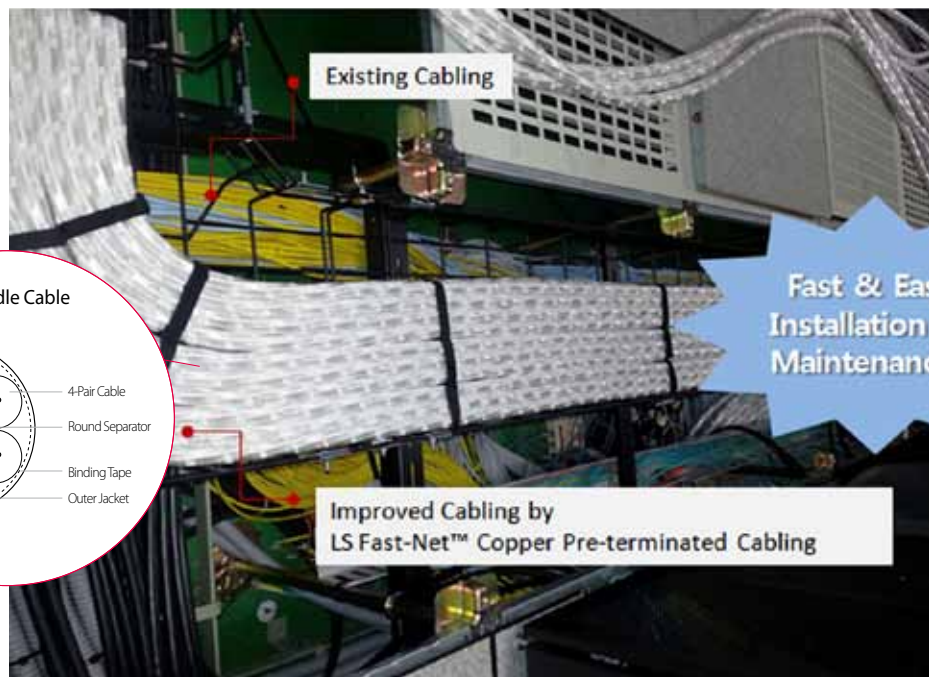
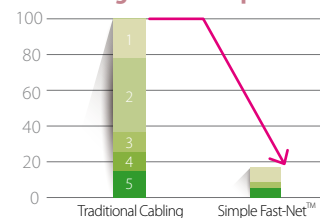


Traditional Cabling Work

1. Patching
2. IDC connecting
3. Testing
4. Labeling
5. Bundling



Working Time Comparison





Fiber Pre-Terminated Solution

MPO/MTP Fiber Distribution Frame

Description

MPO/MTP Modular Panel is a Fiber Distribution Frame (FDF) case which is installed for MPO /MTP cassette modules and MPO/MTP adapter panels. This product includes the metallic case, cable protective guide, cable management and other necessary materials to array MPO/MTP cable. The MPO/MTP Modular Panel is installed on the international standard equipment rack or cabinet rack.

Application

- Telecommunication Network
- Data Center Systems
- LAN and WAN (IEEE 802.3ba, 100BASE-FX, 10GBASE-LX4, 10GBASE-ER/EW, 40GBASE-LR4, 100GBASE-ER4 etc.)

Specification

- Capacity : Up to 144 fiber core per 1U
- 4 Spaces for MPO/MTP Cassette or MPO/MTP Adapter Panel
- Poly-Carbonate (PC) Material for Front Cable Management
- 19" Rack mountable 1U
- Transport & Storage Temperature : 0℃ ~ 70℃

Part Number

Part Number	Description
LS-FDF-MC1U-EP4M-O	MPO/MTP Empty Modular Panel, 4 Module Outer type(LS-FDF-1U-EP-O + LS-FDP-BK-4M)
LS-FDF-MC1U-EP4M-D	MPO/MTP Empty Modular Panel, 4 Module Slide type
LS-FDF-MC2U-EP8M-O	MPO/MTP Empty Modular Panel, 8 Module Outer type(LS-FDF-2U-EP-O + 2pcs LS-FDP-BK-4M)
LS-FDF-MC3U-EP12M-O	MPO/MTP Empty Modular Panel, 12 Module Outer type(LS-FDF-3U-EP-O + 3pcs LS-FDP-BK-4M)
LS-FDF-MC4U-EP16M-O	MPO/MTP Empty Modular Panel, 16 Module Outer type(LS-FDF-4U-EP-O + 4pcs LS-FDP-BK-4M)



LS-MCM-LC-4M-36-M3
(with MPO/MTP Trunk Cable)

Fiber Pre-Terminated Solution

MPO/MTP Cassettes

Description

The MPO/MTP Cassette Modules are installed with terminated MPO/MTP trunk cables and patch cords. The cassette includes the plastic case, adaptor plate, MPO/MTP fan-out cord and other necessary materials for the arrangement of optical fiber cables. It is installed on LS Simple Fast-Net™ Empty Panel(PPP-) and Modular FDF. They are pre-terminated and pre-tested in the factory with MPO/MTP fan-out cords, which guarantee the high performances.

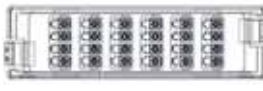
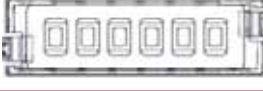
Application

- Telecommunication Network
- Data center systems
- Fiber Optic Test & Measurement System
- LAN and WAN (IEEE 802.3ba, 100BASE-FX, 10GBASE-LX4, 10GBASE-ER/EW, 40GBASE-LR4, 100GBASE-ER4 etc.)

Specification

- Based on IEC61754-7 MPO/MTP Type Connector
- Insertion Loss & Return Loss is based on ANSI/TIA-568-C.3
- LC connector insertion loss $\leq 0.2\text{dB(SM)}$, 0.3dB(MM)
- Operating temperature: $0^{\circ}\text{C} \sim 70^{\circ}\text{C}$
- Dimension: $112 \times 149 \times 37 \text{ mm}$
- Fiber types: Single-mode & Multi-mode
- MPO/MTP connector insertion loss $\leq 0.35\text{dB}(\text{low-loss})$
- Class OF-300 channel support
- Material: Plastic UL 94V-2 above
- Connection polarity is based on ANSI/TIA-568-C.3

Part Number

Part Number	Description	Drawing	
		Image	Front View
LS-MCM-SC-DP-12-XX	SC duplex 12-core to 1 MTP Pre-term. Cassette		
LS-MCM-LC-DP-12-XX	LC duplex 12-core to 1 MTP Pre-term. Cassette		
LS-MCM-LC-4M-24-XX	LC quad 24-core to 2 MTP Pre-term. Cassette		
LS-MCM-LC-4M-36-XX	LC quad 36-core to 3 MTP Pre-term. Cassette		
LS-MCM-MCC6	MPO/MTP Adaptor Panel (6-ports, cross-connection)		

* XX denotes Mode: SM (Single-Mode), M1~M4 (Multi-Mode)



4 MCMs (LC & SC) + Empty Panel



LS-MCM-MCC6 + Empty Panel



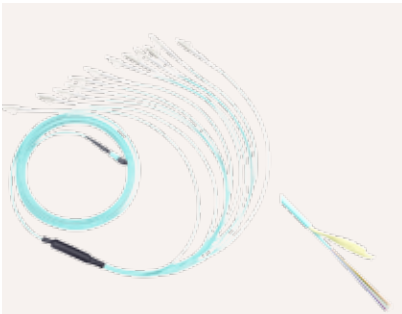
LS-MTC-FF-M3-12Z-010



LS-MTC-FF-SM-12Z-050



LS-MFC-MSC-SM-12Z-030



LS-MFC-MLC-M3-12Z-030

Fiber Pre-Terminated Solution

MPO/MTP Trunk cable & Fan-out cord

Description

- Optimum optical performance through high quality MT ferrules
- High-density connection with Multi-Core (Up to 24C) support
- Male and Female type classification with guide pin
- Push-Pull type connecting for easy & fast installation
- 40/100Gbps Parallel Transmission (IEEE 802.3ba) support solution
- Ferrule inspection data sheet included with all shipments
- Small form factor and high density applications

Application

- Telecommunication network, Data Center
- Data Processing Systems
- LAN and WAN (IEEE 802.3ba, 100BASE-FX, 10GBASE-LX4, 10GBASE-ER/EW, 40GBASE-LR4, 100GBASE-ER4 etc.)
- Fiber Optic Test & Measurement System

Specification

- Based on IEC61754-7 MPO/MTP Type Connector
- Fiber types : SM & MM
- Insertion Loss and Return Loss is based on ANSI/TIA-568-C.3
- Insertion Loss ≤ 0.35dB(Low-Loss MPO/MTP)
- Connection polarity is based on ANSI/TIA-568-C.3 (Method A)
- Transport & Storage Temperature : 0℃ ~ 70℃

Part Number (Trunk Cable)

Part Number	Description
LS-MTC-FF-xx-12Z-yyy	Female to Female MPO/MTP connector Trunk Cable with 12-core Micro Distri. Cable (LSZH)
LS-MTC-MF-xx-12Z-yyy	Male to Female MPO/MTP connector Trunk Cable with 12-core Micro Distri. Cable (LSZH)
LS-MTC-FF-xx-24Z-yyy	Female to Female MPO/MTP connector Trunk Cable with 24-core Micro Distri. Cable (LSZH)
LS-MTC-MF-xx-24Z-yyy	Male to Female MPO/MTP connector Trunk Cable with 24-core Micro Distri. Cable (LSZH)

Part Number (Fan-out Cord)

Part Number	Description
LS-MFC-FLC-xx-08Z-yyy	Female MPO/MTP to 8-core LC Connector Fan-out Cord (LSZH)
LS-MFC-MLC-xx-08Z-yyy	Male MPO/MTP to 8-core LC Connector Fan-out Cord (LSZH)
LS-MFC-FSC-xx-12Z-yyy	Female MPO/MTP to 12-core SC Connector Fan-out Cord (LSZH)
LS-MFC-FLC-xx-12Z-yyy	Female MPO/MTP to 12-core LC Connector Fan-out Cord (LSZH)
LS-MFC-MSC-xx-12Z-yyy	Male MPO/MTP to 12-core SC Connector Fan-out Cord (LSZH)
LS-MFC-MLC-xx-12Z-yyy	Male MPO/MTP to 12-core LC Connector Fan-out Cord (LSZH)
LS-MFC-FSC-xx-24Z-yyy	Female MPO/MTP to 24-core SC Connector Fan-out Cord (LSZH)
LS-MFC-FLC-xx-24Z-yyy	Female MPO/MTP to 24-core LC Connector Fan-out Cord (LSZH)
LS-MFC-MSC-xx-24Z-yyy	Male MPO/MTP to 24-core SC Connector Fan-out Cord (LSZH)
LS-MFC-MLC-xx-24Z-yyy	Male MPO/MTP to 24-core LC Connector Fan-out Cord (LSZH)

* xx denotes Mode : SM (Single-Mode), M1~M4 (Multi-Mode OM1, 2, 3, 4)
* yyy denotes Length : 3m (030), 5m (050), 10m (100), etc.
* Please contact your LS representative for the available of length & polishing type

LS SimpleWin™ I2MS

(Intelligent Infrastructure Management System)

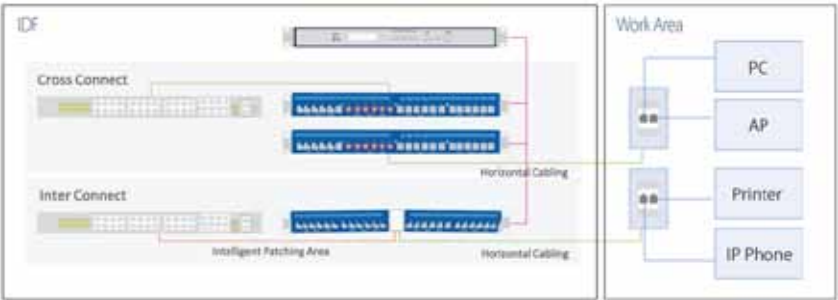


LS Simple Win™

Intelligent Infrastructure Management System (I2MS)

LS SimpleWin™ Intelligent Infrastructure Management System drastically speeds up and simplifies site planning and daily network provisioning, maintenance and security. It also provides comprehensive visibility into datacenter and work space facilities, keeping an accurate inventory of all assets-wherever located across a campus or an ocean.

System Configuration



Features

- Reliable confirmation of access information
- Supplementation of intelligent equipment (Controller)
- Communication System based on TCP/IP
- Simultaneous management capabilities of copper and fiber
- Monitoring without geographical constraint
- Monitoring through software
- Enables additional administration assignment
- Can be linked to integrated SI Program
- Asset Location Management based on 3D

Benefits

- Real-time error management
- Capture and discover error point and port
- Analyze connection status across
- Helps to track on IP and MAC address
- Long-term operating cost saving
- Work order by portable electronics
- CAD drawing is available
- Reliable connection status analysis
- Automatic recovery of DB information in blackout





LS-IC960-PS1A



LS-IPPC(I)-UC-24P



LS-IAPC(I)-UC-24P



LS-IPCC-UC6-BL-030



LS-IFDC-LC-MM-C-048-DP-D



LS-IFCC-IL/IL-MM-40DPV-030

LS Simple Win™

Intelligent Infrastructure Management System (I2MS)

Part Number

	Part Number	Description
Intelligent Controller	LS-IC960-PS1A	Intelligent Controller, 960Ports, Power Supply 1ea
	LS-IC960-PS2A	Intelligent Controller, 960Ports, Power Supply 2ea
	LS-IC384-PS1A	Intelligent Controller, 384Ports, Power Supply 1ea
485 Cable	LS-ICPC960-001-A	960Ports Intelligent between controller and panel, 1M
	LS-ICPC960-002-A	960Ports Intelligent between controller and panel, 2M
	LS-ICPC960-005-A	960Ports Intelligent between controller and panel, 5M
Intelligent Panel	LS-IPPC-UC-24P	Intelligent Cross-Connection Unshielded panel 24ports 1U, 19" rack mount, without Modular Jack
	LS-IPPI-UC-24P	Intelligent Inter-Connection Unshielded panel 24ports 1U, 19" rack mount, without Modular Jack
	LS-IAPC-UC-24P	Intelligent Cross-Connection Unshielded angled panel 24ports 1U, 19" rack mount, without Modular Jack
	LS-IAPI-UC-24P	Intelligent Inter-Connection Unshielded angled panel 24ports 1U, 19" rack mount, without Modular Jack
	LS-IPPC-SC-24P	Intelligent Cross-Connection Shielded panel 24ports 1U, 19" rack mount, without Modular Jack
	LS-IAPC-SC-24P	Intelligent Cross-Connection Shielded angled panel 24ports 1U, 19" rack mount, without Modular Jack
Intelligent RJ45 Patch Cord	LS-IPCC-UC6(L)-xx-yyy LS-IPCC-UC6A(L)-xx-yyy	Intelligent Cross-Connection (Panel to Panel patching) UTP Cat.6 or Cat.6A, PVC(or LSZH) Cord
	LS-IPCC-SC6(L)-xx-yyy LS-IPCC-SC6A(L)-xx-yyy	Intelligent Cross-Connection (Panel to Panel patching) STP Cat.6 or Cat.6A, PVC(or LSZH) Cord
	LS-IPCI-UC6(L)-xx-yyy LS-IPCI-UC6A(L)-xx-yyy	Intelligent Inter-Connection (Panel to Switch patching) UTP Cat.6 or Cat.6A, PVC(or LSZH) Cord
	LS-IPCS-UC6(L)-xx-yyy LS-IPCS-UC6A(L)-xx-yyy	Intelligent Inter-Connection (Panel to Switch patching) UTP Cat.6 or Cat.6A, PVC(or LSZH) Security Cord
	LS-IFDC-LC-SM-C-048-DP-D	Intelligent Cross-Connection LC single-mode, duplex, 24ports(48cores), Drawer type FDF, 19" rack mount 1U
	LS-IFDC-LC-MM-C-048-DP-D	Intelligent Cross-Connection LC multi-mode, duplex, 24ports(48cores), Drawer type FDF, 19" rack mount 1U
Intelligent Fiber Distribution Frame	LS-IFDC-LC-M3-C-048-DP-D	Intelligent Cross-Connection LC OM3, duplex, 24ports(48cores), Drawer type FDF, 19" rack mount 1U
	LS-IFDC-LC-M4-C-048-DP-D	Intelligent Cross-Connection LC OM4, duplex, 24ports(48cores), Drawer type FDF, 19" rack mount 1U
	LS-IFCC-IL/IL-SM-40DPV(Z)-yyy	Intelligent Cross-Connection LC duplex, single-mode Fiber Patch Cord, PVC(or LSZH) Jacket
	LS-IFCC-IL/IL-MM-40DPV(Z)-yyy	Intelligent Cross-Connection LC duplex, multi-mode Fiber Patch Cord, PVC(or LSZH) Jacket
Intelligent Fiber Jumper Cord	LS-IFCC-IL/IL-M3-40DPV(Z)-yyy	Intelligent Cross-Connection LC duplex, OM3 Fiber Patch Cord, PVC(or LSZH) Jacket
	LS-IFCC-IL/IL-M4-40DPV(Z)-yyy	Intelligent Cross-Connection LC duplex, OM4 Fiber Patch Cord, PVC(or LSZH) Jacket
Software	LS-IMSW-W-zzzzz	Intelligent Management Software Port License
	LS-IMSW-W-ADD	Intelligent Management Software Additional License
	LS-IMSW-M-zzzzz	Intelligent Management Software Port License (Mobile)
	LS-IMSW-M-ADD	Intelligent Management Software Additional License (Mobile)

* xx denotes cord color : WH(White), BL(Blue), YL(Yellow), RD(Red), GN(Green), GY(Grey) etc.

* yyy denotes cord lengths : 005(0.5m), 010(1m), 030(3m), 050(5m), 070(7m), 100(10m) etc.

* zzzzz denotes management port number : 01000(1000ports), 02000(2000ports), 03000(3000ports) etc.

* Please contact your LS representative for available fiber jumper cord diameter and polishing type etc.

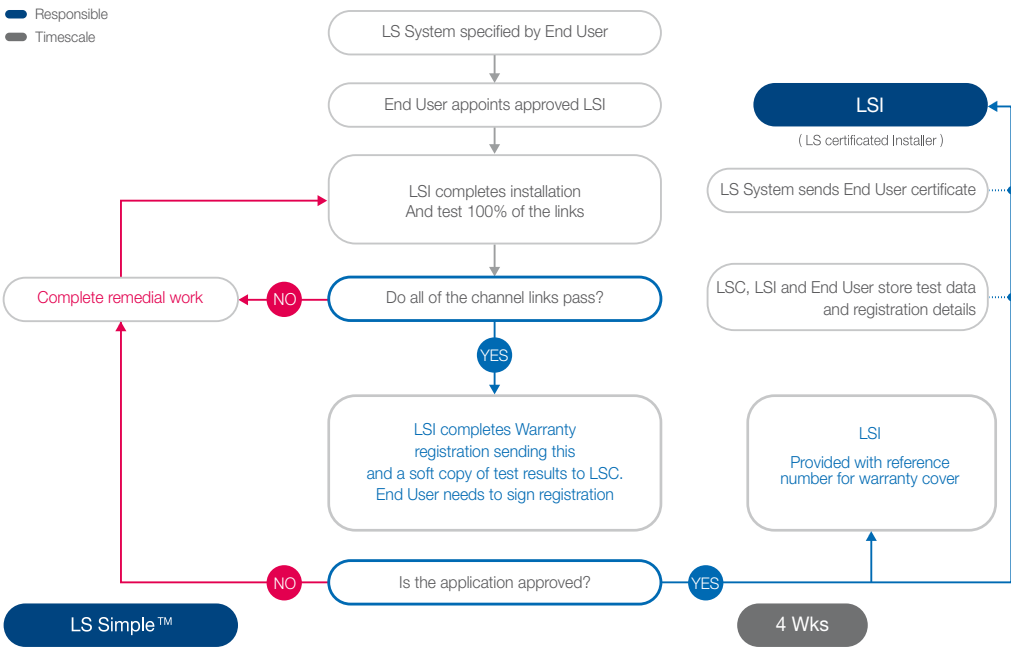
LS Simple™ Warranty

LS Simple™ Warranty

- The Simple™ range of solutions is supported by a Simple™ comprehensive warranty
- Unique 25 year application and product warranty.
 - The warranty applied to the network and can be sold as an asset.
 - The warranty is only offered by fully trained LS Integrators.
 - The system is independently inspected by a third party.



LS Simple™ Warranty Process



Products & Systems of LS Cable & System

A Convenient World through the Use of Cable

Energy Cables & Systems

LS Cable & System-setting the standards in power solution business



LS Cable & System provides highly customized electric power systems from power transmission & distribution solutions to marine, ship vessels, nuclear power and wind power systems.

Our turnkey solutions encompass the entire power transmission & distribution system from architecture, provision of raw materials, and installation, to maintenance and repair. We also lead the industry in developing cutting-edge products, such as superconducting cables, submarine cables and IT solutions for electric power.

We provide customized total solutions for a wide array of industries from nuclear power plants, manufacturing plants, railways, marine and ship vessel systems to wind power generation systems. Busduct system, which efficiently and effectively delivers high-capacity electricity, and the fire-retardant low toxic cables are a result of our decades-long commitment to creating eco-friendly products.

- Extra High Voltage Cable
- Overhead Transmission Line
- Submarine Cable
- Medium & Low Voltage Cable
- Industrial & Speciality Cable
- Bus duct

Telecommunications

Providing cutting-edge, innovative technologies for a ubiquitous network

Amid the convergence of broadcasting and telecommunications, and accelerating growth of broadband and wireless networks, the telecommunications industry is undergoing a major transformation. In this rapidly evolving landscape, LS Cable & System leads the industry with customized solutions and services that meets the demanding needs of our clients worldwide. We have developed the following solutions with the scalability to serve both the private and public sector: ① NI (Network Integration) / SI (System Integration), ② ITS (Intelligent Transport Solution), and ③ UTS (Ubiquitous Total Solution).

Our quest to remain at the forefront of network technology and trends has led us to develop the following cutting-edge products: fiber-optic telecom solution, 10G Ethernet-level converged integrated cabling system, RF coaxial cable system, G-PON-based FTTH solution and LS-HFC (Hybrid Fiber Coaxial), which is 200-Mbps high-speed cable TV network system. Our broad product portfolio and technical prowess have made us a market leader in the global telecommunications industry.

- Optical Cable
- LAN Cable
- RF Feeder System
- FTTH(Fiber To The Home)
- SI(System Integration)
- LS HFC



Integrated Modules & Cable Systems

Providing the best customized cable solutions for all environments



Our dedication to meeting our clients need for faster, smaller, safer and more convenient products has kept us ahead of our peers on the technology curve. As such, our cables and modules are widely used in industrial installations, electronic devices, automobiles, aircrafts, and even military equipments and installations.

We have also maintained our commitment to developing a wide array of eco-friendly products that are safer, more efficient, and produce fewer pollutants.

Our technological breakthroughs have led us to the development of the following innovative products: MCX (Micro-Coaxial cables) for internal wiring of mobile phones, FA (Factory Automation) cables for plant automation systems, eco-friendly cables for LCDs, eco-friendly PP (Polypropylene) cables for automobiles, electric solutions for hybrid vehicles, and heat shrinkable tubes that can endure temperatures up to 135°C

- Industrial Cable & Module
- Automotive Wire & Cable Solution
- Tube Components

Industrial Materials

Realizing a convenient future with cutting-edge materials

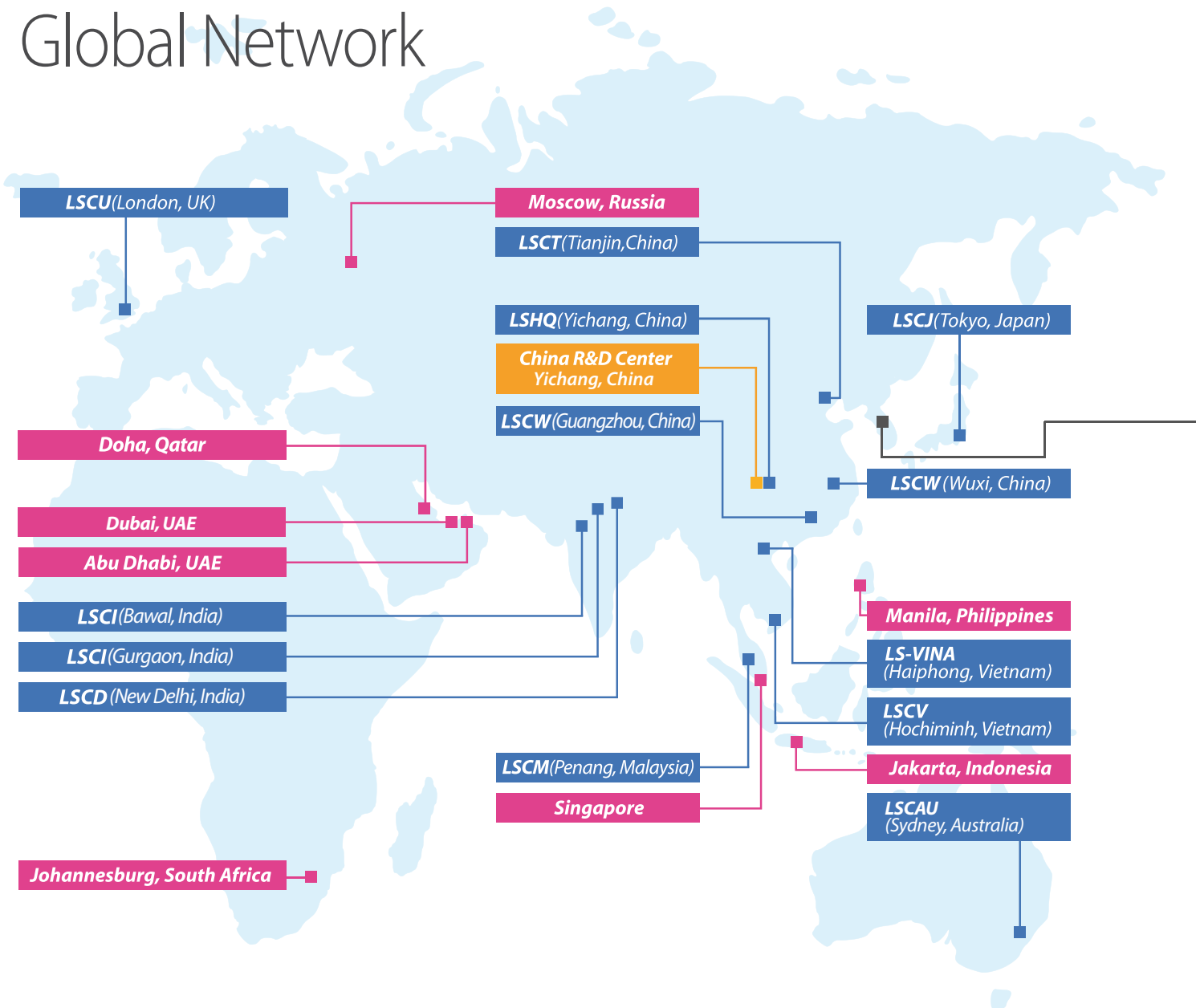
Based on LS Cable & System's production know-how and technologies in copper, aluminum and rubber treatment, the company is ramping up production of high value-added products, such as high-purity 8mm copper rods for vehicle wires and 0.03mm copper rod for ultra-fine wires.

The cutting-edge technologies of our precision rectangular winding wires, suitable for hybrid vehicle motors and car generators, and eXtra Thermal Aluminum Alloy (XTAL) are bolstering LS Cable & System's brand power here and abroad. Our continuous efforts to develop innovative new materials have also led us to produce oxide free copper (OFC), alternative to copper alloy, and so on. Furthermore, all these new developments are coming about as the company makes inroads in the global cable market through its localization efforts. With years of experience and technologies in compounding treatment, LS Cable & System produces industrial rubber products and rubber tiles, the flooring material used in construction. Global demand for our flocking-based carpet tiles, featuring excellent convenience and sanitary engineering, is booming.

- Copper Rod
- Magnet Wires
- Aluminum Materials
- Industrial Rubber



Global Network



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Tel. +971-2-674-8780 Fax. +971-2-674-8781

Dubai Office(U.A.E.)

Tel. +971-4-344-4662 Fax. +971-2-674-8781

Singapore Office(Singapore)

Tel. +65-6342-9162-3 Fax. +65-6342-9165

Moscow Office(Russia)

Tel. +7-495-258-1805 Fax. +7-495-258-1806

Lima Office(Peru)

Tel. +51-1-434-6433

Johannesburg Office(South Africa)

Tel. +27-71-688-2028 Fax. +27-11-785-8327

Jakarta Office(Indonesia)

Tel. +62-21-797-4140 / 4013 Fax. +62-21-799-3071

Manila Office(Philippines)

Tel. +63-2-899-6169 / +63-2-962-2250 Fax. +632-962-2250

Doha Office(Qatar)

Tel. +974-4453-0333

Subsidiaries

LSCA[U.S.A.] : Marketing and Sales

Tel. +1-201-944-2005 Fax. +1-201-503-8130

LSCAU(Australia) : Marketing and Sales

Tel. +61-2-9460-0255 Fax. +61-2-9460-0355

LSCU(U.K.) : Marketing and Sales

Tel. +44-20-8899-6671 Fax. +44-20-8899-6673

LSCJ(Japan) : Marketing and Sales

Tel. +81-3-6205-7188 Fax. +81-3-6205-7187

LSCD(India) : Marketing and Sales

Tel. +91-11-4106-4242

LSHQ(China)

Tel. +86-717-667-7777

Production : EHV, LV/MV, Overhead Transmission Line, Industrial Specialty Cable & System

LSCT(China)

Tel. +86-22-2699-7618

Production : Magnet Wire

LSCW(China)

Tel. +86-510-8811-9000 Fax. +86-510-8534-5341

Production : Automotive Wire & Cable, Bus Duct, Electronic Wire & Cable, Tube, ACF, Accessories for EHV Cable System



LSCA (New Jersey, USA)

Lima, Peru

- **LS Cable & System Branches**
- **LS Cable & System Subsidiaries**
- **R&D Center**

Beijing Office(Beijing)

Tel. +86-10-5761-3166 Fax. +86-10-5761-3160

Shenzhen Office(Shenzhen)

Tel. +86-755-8275-0470~1 Fax. +86-755-8275-0545

Guangzhou Office(Guangzhou)

Tel. +86-20-8326-6321 Fax. +86-20-8326-6270

LS-VINA(Vietnam)

Tel. +84-31-354-0141 Fax. +84-31-354-0142

Production : EHV, LV/MV, ACSR, OPGW, SCR

LSCV(Vietnam)

Tel. +84-61-356-9140 Fax. +84-61-356-9148

Production : Low Voltage Cable, UTP

LSCM(Malaysia)

Tel. +60-4-588-9609 Fax. +60-4-588-9607

Production : Magnet Wire

LSCI(India)

Gurgaon: Marketing & Sales

Tel. +91-124-428-5800~4 Fax. +91-124-428-5805

Bawal

Tel. +91-128-426-4267 Fax. +91-128-426-4364

Production : RF Feeder Cable, Network Solution, EHV, LV/MV, OPGW

China R&D Center

Tel. +86-717-667-7777

Korea Operations

Headquarter

Tel. +82-2-2189-9114

Gumi Plant

Tel. +82-54-469-7114

Production : Power Cable up to 500kV, OHTL, OPGW, Data Cable, RF Feeder System, Copper Rod, Magnet Wire

Indong Plant

Tel. +82-54-469-7763

Production : Industrial Cable & Module, Optical Cable, Aluminum Materials

Donghae Plant

Tel. +82-33-820-3114

Production : Submarine Cable, Industrial Specialty Cable

R&D Center

Tel. +82-31-450-8114

Global Network

