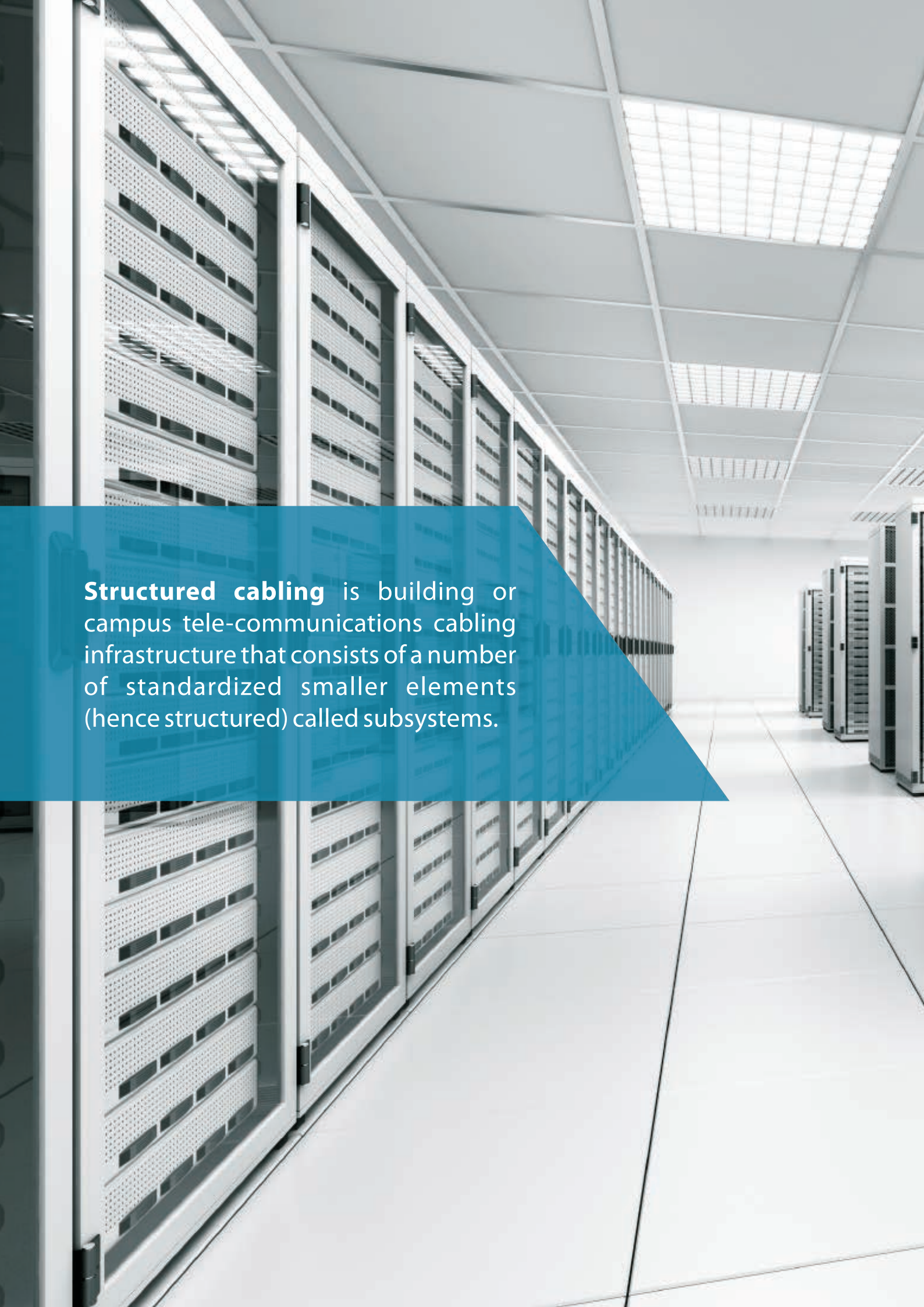


D-Link Structured Cabling Guide

Copper Solution | Fiber Solution | FTTH Solution

A perspective view of a modern server room. On the left, a long row of server racks with perforated doors extends into the distance. The floor is light-colored and reflective. The ceiling has a grid of recessed lighting. On the right, more server racks are visible, and the aisle leads towards a bright white wall at the end of the room. A semi-transparent blue overlay with a diagonal cut is positioned in the middle-left of the image, containing white text.

Structured cabling is building or campus tele-communications cabling infrastructure that consists of a number of standardized smaller elements (hence structured) called subsystems.

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About D-Link (India) Limited

D-Link, the global networking solutions provider, celebrates three decades of "Building Networks for People" across 65 countries. With 'Passion to innovate' as the core mantra, D-Link is committed to introducing the latest & best in networking technology. It is indeed the passion to innovate that has helped D-Link evolve into a globally diverse, billion dollar networking giant. Every day, in some 100 countries, D-Link powers hospital networks so that life-saving operations can be carried out. D-Link connects vast knowledge centres in the heart of universities and research institutes, enabling critical scientific breakthroughs. D-Link helps grow small businesses/ enterprises through its wide product portfolio.

Since its inception in 1986 in Taiwan, D-Link has grown from a group of seven friends to more than 2,700 employees around the world. Today D-Link is a global leader in connectivity for home, small business, medium to large-sized enterprise environments, and service providers with experience spanning 30 years. An award-winning designer, developer, and manufacturer, D-Link implements and supports unified network solutions that integrate capabilities in switching, wireless, broadband, storage, IP Surveillance, cloud-based network management, and Structured Cabling.

D-Link celebrates its "Passion to Innovate" by bringing in more innovate networking products, and by playing to its strengths of heritage, anticipating future trends and meeting customer needs. In years to come, D-Link will lead the networking industry with innovative products that shall provide high-performance and cost-effective products to deliver better connectivity, security, efficiency, and cost savings solutions for both home and offices. Moving forward, D-Link stands ready to meet the future demands of consumers and businesses with a broad range of products that are reliable, affordable, and easy to use. D-Link is proud to offer advanced technology and practical innovations for the future.

D-Link (India) Limited is a part of D-Link Corporation and is engaged in Marketing and Distribution of Networking products in India and SAARC region. The Equities of D-Link (India) Limited are listed in NSE & BSE Stock exchanges. D-Link (India) Limited is a key market player with a nationwide reach, and is firmly committed towards delivering high quality, efficient and reliable Networking products, solutions and services. D-Link India today has 17 branch offices with State of-the-art service support infrastructure present PAN India.

Innovation

Our Passion to Innovate has produced many world's first technologies. We are driven by entrepreneurship and vision.

Execution

We do it with integrity, efficiency and teamwork globally. Each one of us puts our heart and soul into our work.

Heritage

Every day, we keep building on our heritage. We make it stronger and we pass this heritage on every year.

This is the way we've built a networking giant from the ground up.

Structured Cabling

Structured cabling is building or campus telecommunications cabling infrastructure that consists of a number of standardized smaller elements (hence structured) called subsystems.

Structured cabling falls into six subsystems:

- Entrance Facilities are where the building interfaces with the outside world.
- Equipment Rooms host equipment which serve the users inside the building.
- Telecommunications Rooms house telecommunication equipment which connect the backbone and the horizontal cabling subsystems.
- Backbone Cabling connect between the entrance facilities, equipment rooms and telecommunications rooms.
- Horizontal Cabling connect telecommunications rooms to individual outlets on the floor.
- Work-Area Components connect end-user equipment to outlets of the horizontal cabling system. Structured cabling design and installation is governed by a set of standards that specify wiring data centers, offices, and apartment buildings for data or voice communications, using category 5 (CAT 5E) or category 6 cable (CAT 6) and modular sockets. These standards define how to lay the cabling in a star formation, such that all outlets terminate at a central patch panel (which is normally 19 inch rack-mounted), from where it can be determined exactly

how these connections will be used. Each outlet can be 'patched' into a data network switch (normally also rack mounted alongside), or patched into a 'telecoms patch panel' which forms a bridge into a private branch exchange (PBX) telephone system, thus making the connection a voice port.

Lines patched as data ports into a network switch require simple straight-through patch cables at the other end to connect a computer. Voice patches to PBXs in most countries require an adapter at the remote end to translate the configuration on 8P8C modular connectors into the local standard telephone wall socket. No adapter is needed in the U.S. as the 6P6C plug used with RJ 11 telephone connections is physically compatible with the larger 8P8C ("13145") socket and the wiring of the 8P8C is compatible with RJ11. In the UK, an adapter must be present at the remote end as the 6-pin BT socket is physically incompatible with 8P8C.

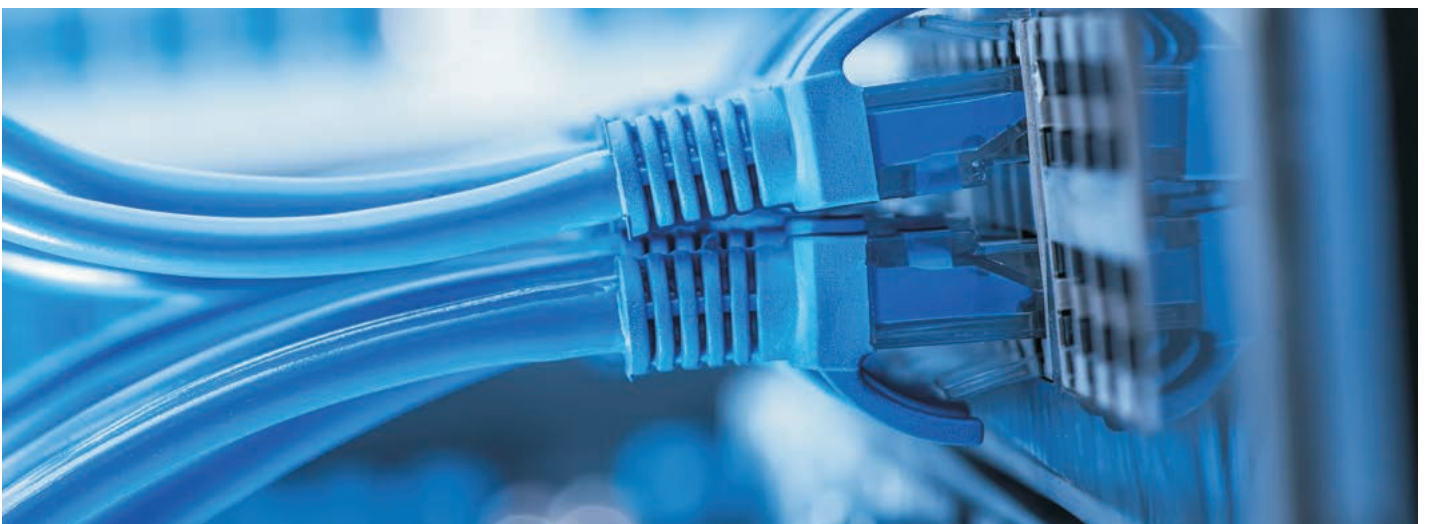
It is common to color code patch panel cables to identify the type of connection, though structured cabling standards do not require it, except in the demarcation wall field.

Cabling standards demand that all eight connectors in Cat5/5e/6 cable are connected, resisting the temptation to 'double-up' or use one cable for both voice and data.

Structured Cabling Standards

TIA/EIA-568-A : Commercial Building Cabling
TIA/EIA-568-A-3 : Bundled Cables
TIA/EIA-568-A-5 : Cat 5E Cabling
TIA/EIA-568-B TIA/EIA-568-B.1 : Cat 6 Cabling
TIA/EIA-568-B.2-1 : Cat 6 Cabling
TIA/EIA-568-B.3 : Optical Fiber Cabling
TIA/EIA-569A : Pathways & Spaces
TIA/EIA-606 : Labeling And Recording

TIA/EIA-607 : Grounding & Bonding
TSB-67 : Field Testing
TSB-72 : Centralized Fiber
TSB-75 : Open Office Wiring
TSB-95 : Additional Guidelines for Cat5E Cabling
TIA/EIA 568—C : Commercial buildings, and Between buildings in campus environments



Copper Solution

Patch Panel



Angular Patch Panel



UTP Keystone Jack



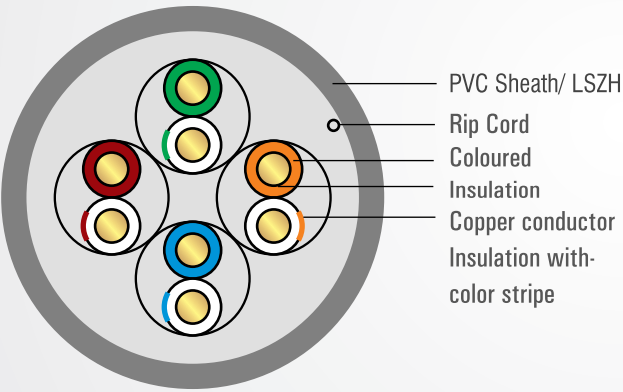
Face Plate



Patch Cords



CAT 5e UTP CABLE



SPECIFICATIONS

• Conductor:	24AWG Solid Bare Copper (4 pair)
• Conductor Diameter:	0.5mm
• Insulation:	High Density Polyethylene
• Insulation Diameter:	1.04mm
• Sheath:	PVC/ LSZH
• Cable Diameter:	5.0mm nominal
• Pairs:	2 Insulated Conductors twisted together
• Printing:	Each meter printed with sequential Length Counter

COLOR CODE

Pair No	Color
1-2	White-Orange Stripe and Orange
3-6	White-Green Stripe and Green
4-5	White-Blue Stripe and Blue
7-8	White-Brown Stripe and Brown

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANs. Supports Gigabit Ethernet (1000 baseT) standard. Operates at bandwidth up to 100MHz.

This cable well exceeds the requirements of TIA/EIA-568-C.2 and ISO/IEC 11801

ELECTRICAL PROPERTIES

Characteristic Impedance	: 100 ± 15Ω
Conductor Resistance :	<9.38Ω/100m
Mutual Capacitance :	<5.6nF/100m
Resistance Unbalance :	5% Max
Capacitance Unbalance	: 330pF/100m
Delay Skew	: <45nS
NVP	: 69%
Operating Voltage	: 72V
Dielectric Strength	: 1.0KVdc or 0.75KVac for 1min



CAT 5e UTP CABLE

TRANSMISSION CHARACTERISTICS PER 100M

Frequency Mhz	Insertion Loss (dB/100m)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	65.3	62.3	63.8	60.8	63.3	60.3
4	4.1	23.0	56.3	53.3	51.8	48.8	52.2	49.2
8	5.8	24.5	51.8	48.8	45.7	42.7	46.0	43.0
10	6.5	25.0	50.3	47.3	43.8	40.8	43.8	40.8
16	8.2	25.0	47.2	44.2	39.7	36.7	39.0	36.0
20	9.3	25.0	45.8	42.8	37.8	34.8	36.5	33.5
25	10.4	24.3	44.3	41.3	35.8	32.8	33.9	30.9
31.25	11.7	23.6	42.9	39.9	33.9	30.9	31.2	28.2
62.5	17.0	21.5	38.4	35.4	27.9	24.9	21.4	18.4
100	22.0	20.1	35.3	32.3	23.8	20.8	13.3	10.3

MECHANICAL PROPERTIES

- Bending Radius: <25.4mm at -20°C ± 1°C
- Pulling Force: 9Kg
- Operating Temperature Range: -20°C to + 70°C
- Storage Temperature Range: 0°C to +50°C

PACKING

Available in easy-pull boxes of guaranteed 305m length

CONNECTION SYSTEM

Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801

ORDERING INFORMATION

Part Code	Description
NCB-5EUGRYR-100	CATSe UTP 24AWG Solid:100M
NCB-5EUGRYR-305	CATSe UTP 24AWG Solid:305M
NCB-5EUGRYR-305-LS	CATSe UTP LSZH 24AWG Solid:305M

CAT 5e UTP KEYSTONE JACK



SPECIFICATIONS

RJ45 Jack	:	Housing: ABC + PC, UL 94V-0 with option color Contact Bracket: PC, UL 94V-2 Transparent color
RJ45 Jack Contact	:	Material: Phosphor Bronze with Nickel Plated Finish : 50 micro-inch Gold plated on Plug Contact area
IDC	:	Housing: PC+Glass Fiber, UL 94V-2 Terminal : Phosphor Bronze with Tin plated
IDC CAP	:	ABS, UL 94V-0
Insertion Cycles	:	750times
Insertion Force	:	20N (Max)
Operating Temperature	:	10°C to 60°C
Storage Temperature	:	-10°C to 80°C
Contact Resistance	:	
Variation	:	20 Milliohms
Insulation Resistance	:	>100Megaohms

D-Link Category 5e keystone jacks are RJ45 8P 8C 50u jacks suitable for 22-26 AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. They are available in universal labels color coded for T568A and T568B wiring schemes and fit in high density keystone patch panel. It supports IEC 60603-7-4 and complied with ANSI/TIA EIA-568-C.2 standard.

ORDERING INFORMATION

Part Code	Description	Colour
NKJ-5EWHI1B21	Cat5E UTP Keystone Jack	White
NKJ-5EBLU1B21	Cat5E UTP Keystone Jack	Blue
NKJ-5ERED1B21	Cat5E UTP Keystone Jack	Red
NKJ-5EGRN1B21	Cat5E UTP Keystone Jack	Green
NKJ-5EYEL1B21	Cat5E UTP Keystone Jack	Yellow

CAT 5e UTP Patch Cord



APPLICATION

- 10BASE-T, 100BASE-TX Fast Ethernet, 1000BASE-T (IEEE802.3)
- 100VG-AnyLAN (IEEE802.12)
- 550MHz Broadband Video
- Voice, T1, ISDN
- 155/622 Mbps ATM
- Power over Ethernet (PoE)

SPECIFICATIONS

- Conductor : 24AWG, Multi-strands
- Conductor Metal : Bare Copper
- Insulation Material : High Density Polyethylene
- Jacket Material : PVC UL94V-0
- Heat-resistant : 60°C minimum (Temperature limited)
- Flame property : The purpose of the vertical flame test is to screen out flammable wires That follow to VW-1 (UL); FT-1 (CSA) standards
- Insertion Cycles : 750 times

ORDERING INFORMATION

Part Code	Description	Color
NCB-5EUBLUR1-1	Cat5E UTP 24AWG Patch Cord, 1M	Blue
NCB-5EUBLUR1-2	Cat5E UTP 24AWG Patch Cord, 2M	Blue
NCB-5EUBLUR1-3	Cat5E UTP 24AWG Patch Cord, 3M	Blue

D-Link CAT 5e UTP Patch Cords are high quality four pair twisted stranded cable terminated with RJ45 modular plugs at both the ends. It is TIA/EIA-568-C.2 standard. These patch cords are appropriate for high-speed data transmission.

MODULAR CONNECTOR / PLUG

RJ45 8P for transparent color

- Gold Plated : 30U°
- Contact Blade : Phosphor Bronze
- Temperature range : 10 ~ 80°C
- Dielectric withstanding voltage : 500V AC
- Insulation resistance : 35M Ohm (max.)
- UL Applications : 250V AC, PC UL94-V-0

CAT 5e UTP Loaded Patch Panel



SPECIFICATIONS

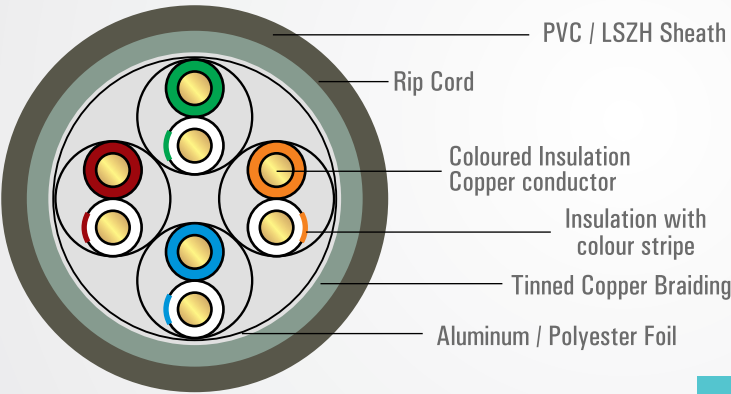
I.D. Plate	:	PVC Transparent color with Paper
Panel	:	SPCC. 1.5 mm thickness with Black color painted
RJ45 Jack	:	Housing: ABS, UL 94V-0 Contact Bracket: PC, UL 94V-2, Transparent color
RJ45 Jack Contact	:	Material: Phosphor Bronze with Nickel plated Finish : 50 micro-inch Gold plated on Plug contact area
IDC	:	Housing: PC+Glass Fiber, UL 94V-2 Terminal: Phosphor Bronze with Tin plated
Jack Bracket Set	:	ABS, UL 94V-0
Support Bar	:	SPCC, 1.5 mm thickness with Black color painted

D-Link Category 5e Patch Panels are six port RJ45 modules applied and suitable for 22.26AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. D-Link Cat5e patch panels have improved Cable Management with optional Cable Management bar terminating 4 pairs UTP cable. They are complied with the ANSI/TIA/EIA-568-C.2 standard.

ORDERING INFORMATION

Part Code	Description
NPP-5E1BLK241	Cat5E UTP 24 Port Loaded Patch Panel
NPP-5E1BLK481	Cat5E UTP 48 Port Loaded Patch Panel

CAT 5e SFTP CABLE



Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANs. Supports Gigabit Ethernet (1000 baseT) standard.

Operates at bandwidth of 100 MHz. Tinned Copper gives Protection against EMI and avoid signal loss with Higher Mechanical protection.

This cable well exceeds the requirements of TIA/EIA-568-C.2

SPECIFICATIONS

Conductor	:	24 AWG Solid bare Copper
Conductor Diameter	:	0.50mm
Insulation	:	High Density Polyethylene
Insulation Diameter	:	1.04mm
Pairs	:	2 Insulated conductors twisted together
Shield	:	Aluminum / Polyester Foil Tinned copper Braiding
Sheath	:	PVC / LSZH
Cable Diameter	:	6.5 mm nominal
Printing	:	Each meter printed with sequential length counter

COLOR CODE

Pair No	Color
1-2	White-Orange Stripe and Orange
3-6	White-Green Stripe and Green
4-5	White-Blue Stripe and Blue
7-8	White-Brown Stripe and Brown

ELECTRICAL PROPERTIES

Conductor Resistance	:	= 9.38 Ω /100m
Mutual Capacitance	:	< 5.6nF/100m
Resistance Unbalance	:	5% Max
Capacitance Unbalance	:	330pF/100m
Delay Skew	:	< 45nS

CAT 5e SFTP CABLE

ELECTRICAL CHARACTERISTICS MEET OR EXCEED TIA/EIA-568-C.2

Frequency Mhz	Insertion Loss (dB/100m)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	65.3	62.3	63.8	60.8	63.3	60.3
4	4.1	23.0	56.3	53.3	51.8	48.8	52.2	49.2
8	5.8	24.5	51.8	48.8	45.7	42.7	46.0	43.0
10	6.5	25.0	50.3	47.3	43.8	40.8	43.8	40.8
16	8.2	25.0	47.2	44.2	39.7	36.7	39.0	36.0
20	9.3	25.0	45.8	42.8	37.8	34.8	36.5	33.5
25	10.4	24.3	44.3	41.3	35.8	32.8	33.9	30.9
31.25	11.7	23.6	42.9	39.9	33.9	30.9	31.2	28.2
62.5	17.0	21.5	38.4	35.4	27.9	24.9	21.4	18.4
100	22.0	20.1	35.3	32.3	23.8	20.8	13.3	10.3

MECHANICAL PROPERTIES

Bending Radius	:	< 8 x Cable Diameter at -20°C ± 1°C
Pulling Force	:	9.0 Kgs
Temperature Range	:	-20°to +70°C

CONNECTION SYSTEM

Compatible with all common systems according to TIA/EIA 568-C.2

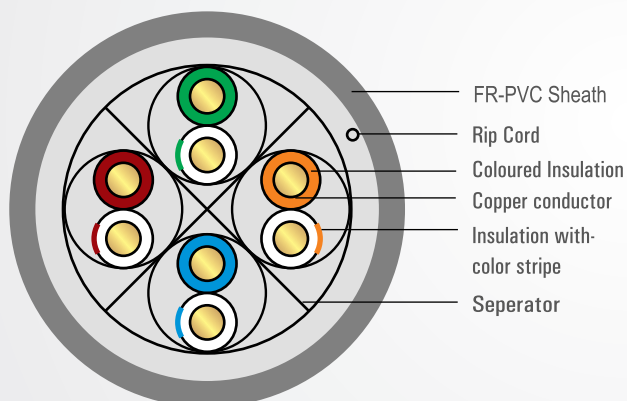
PACKING

Available in 305meter coils or as per customer requirement

ORDERING INFORMATION

Part Code	Description
NCB-5ESBLUR-305	CAT5e SFTP 24AWG Solid: 305M

CAT 6 UTP CABLE



Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANs. Supports Gigabit Ethernet (1000 baseT) standard. Performance verified up to 600 MHz

This cable well exceeds the requirements of ANSI/TIA-568-C.2 category6 ISO 11801 Class E

SPECIFICATIONS

Conductor	:	23 AWG (Solid) bare copper (4 pair)
Insulation	:	HD-PE (High Density Polyethylene)
Pairs	:	2 Insulated conductors twisted together
Sheath	:	FR-PVC
Cable Diameter	:	6.1 mm nominal
Cable wt perbox	:	13.6 kgs nominal
Printing	:	Each meter printed with sequential Length Counter

ELECTRICAL PROPERTIES

Characteristic Impedance	:	100 $\pm$ 6 Ω
Conductor Resistance	:	9.38 Ω /100m
Mutual Capacitance	:	<5.6nF/100m
Resistance Unbalance	:	5% Max
Capacitance Unbalance	:	330pF/100m
Delay Skew	:	<45nS
NVP (%)	:	69%
Operating Voltage	:	72V
Dielectric Strength	:	1.0KV dc or 0.75KV ac for 1min

COLOR CODE

Pair No	Color
1-2	White-Orange Stripe and Orange
3-6	White-Green Stripe and Green
4-5	White-Blue Stripe and Blue
7-8	White-Brown Stripe and Brown

CAT 6 UTP CABLE

TRANSMISSION CHARACTERISTICS PER 100M

Frequency MHz	Insertion Loss (dB/100m)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	74.3	72.3	67.8	64.8	72.3	70.3
4	3.8	23.0	65.3	63.3	55.8	52.8	61.5	59.5
8	5.3	24.5	60.8	58.8	49.7	46.7	55.5	53.5
10	6.0	25.0	59.3	57.3	47.8	44.8	53.3	51.3
16	7.6	25.0	56.2	54.2	43.7	40.7	48.6	46.6
20	8.5	25.0	54.8	52.8	41.8	38.8	46.3	44.3
25	9.5	24.3	53.3	51.3	39.8	36.8	43.8	41.8
31.25	10.7	23.6	51.9	49.9	37.9	34.9	41.2	39.2
62.5	15.4	21.5	47.4	45.4	31.9	28.9	32.0	30.0
100	19.8	20.1	44.3	42.3	27.8	24.8	24.5	22.5
200	29.0	18.0	39.8	37.8	21.8	18.8	10.8	8.8
250	32.8	17.3	38.3	36.3	19.8	16.8	5.5	3.5
500	45.3	15.2	33.8	31.8	13.8	10.8	4.5	2.8
600	51	14.5	31.2	29.9	11.8	8.6	3.5	2.1

MECHANICAL PROPERTIES

Bending Radius	:	< 25.4mm at -20°C ± 1°C
Pulling Force	:	11.5 Kg
Operating Temperature Range	:	-20°C to +70°C
Storage Temperature Range	:	0°C to +50°C

CONNECTION SYSTEM

Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801 Class E

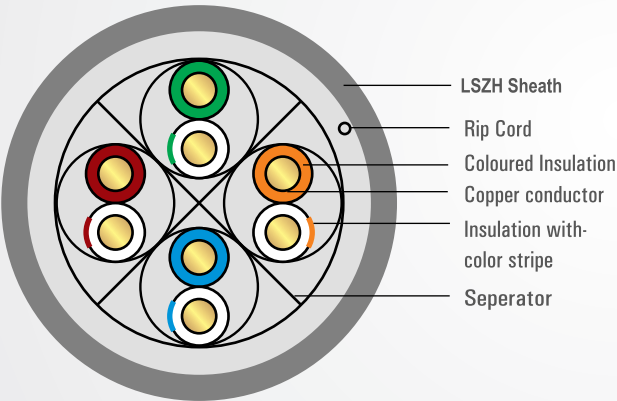
PACKING

Reels of guaranteed 305m Length

ORDERING INFORMATION

Part Code	Description
NCB-C6UGRYR-100	CAT6 UTP 23AWG Solid: 100M
NCB-C6UGRYR-305	CAT6 UTP 23AWG Solid: 305M

CAT 6 UTP CABLE LSZH



Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANs. Supports Gigabit Ethernet (1000 baseT) standard. Operates at bandwidth of 250MHz.

This cable well exceeds the requirements of TIA/EIA-568-C.2 and ISO/IEC 11801

CONSTRUCTION

Conductor	:	23 AWG Solid bare Copper (4 pair)
Insulation	:	High Density Polyethylene
Insulation Diameter	:	1.45mm
Pairs	:	2 Insulated conductors twisted together
Sheath	:	LSZH
Cable Diameter	:	6.1 mm nominal
Printing	:	Each meter printed with sequential Length Counter
Jacket Nominal Wall Thickness	:	0.50mm
Insulation Nominal Wall Thickness	:	0.18mm
Cable Weight	:	13.6kg/Box

ELECTRICAL PROPERTIES

Characteristic Impedance	:	100 ± 6Ω
Conductor Resistance	:	< 9.38Ω/100m
Insulation Resistance	:	100 MΩ
Mutual Capacitance	:	< 5.6nF/100m
Resistance Unbalance	:	5% Max
Capacitance Unbalance	:	330pF/100m
Delay Skew	:	< 45nS
NVP	:	69%
Operating Voltage	:	72V
Dielectric Strength	:	1.0KV/dc or 0.75KV ac for 1 min
Propagation Delay	:	537.6nS @ 100 MHz

COLOR CODE

Pair No	Color
1-2	White-Orange Stripe and Orange
3-6	White-Green Stripe and Green
4-5	White-Blue Stripe and Blue
7-8	White-Brown Stripe and Brown



CAT 6 UTP CABLE LSZH

TRANSMISSION CHARACTERISTICS PER 100M

Frequency MHz	Insertion Loss (dB/100m)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	74.3	72.3	67.8	64.8	72.3	70.3
4	3.8	23.0	65.3	63.3	55.8	52.8	61.5	59.5
8	5.3	24.5	60.8	58.8	49.7	46.7	55.5	53.5
10	6.0	25.0	59.3	57.3	47.8	44.8	53.3	51.3
16	7.6	25.0	56.2	54.2	43.7	40.7	48.6	46.6
20	8.5	25.0	54.8	52.8	41.8	38.8	46.3	44.3
25	9.5	24.3	53.3	51.3	39.8	36.8	43.8	41.8
31.25	10.7	23.6	51.9	49.9	37.9	34.9	41.2	39.2
62.5	15.4	21.5	47.4	45.4	31.9	28.9	32.0	30.0
100	19.8	20.1	44.3	42.3	27.8	24.8	24.5	22.5
200	29.0	18.0	39.8	37.8	21.8	18.8	10.8	8.8
250	32.8	17.3	38.3	36.3	19.8	16.8	5.5	3.5
400	43.0	15.9	35.3	33.3	15.8	12.8	5.0	3.2
500	48.9	15.2	33.8	31.8	13.8	10.8	4.5	2.8
600	54.5	14.7	32.6	30.6	12.2	9.2	3.5	2.1

MECHANICAL PROPERTIES

Bending Radius	:	< 25.4mm at -20°C ± 1°C
Pulling Force	:	11.5 Kg
Operating Temperature Range	:	-20°C to +70°C
Storage Temperature Range	:	0°C to +50°C

CONNECTION SYSTEM

Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801

PACKING

Available in easy-pull boxes/Reels of guaranteed 305m Length

ORDERING INFORMATION

Part Code	Description
NCB-C6UGRYR-305-LS	Solid Cable Cat6, 4pair, UTP-LSZH, 305M

CAT 6 UTP KEYSTONE JACKS



D-Link Category 6 keystone jacks are RJ45 8P 8C 50u jacks suitable for 22-26 AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. They are available in universal labels color coded for T568A and T568B wiring schemes and fit in high density keystone patch panel. It supports IEC 60603.7.4 and complied with ANSI/TIA/EIA.568.C.2 standard

SPECIFICATIONS

RJ45 Jack	:	Housing: ABC + PC, UL 94V-0 with option color
Contact Bracket	:	PC, UL 94V-2, Transparent color
PCB Material	:	FR-4 T=1.2mm
RJ45 Jack Contact	:	Material: Phosphor Bronze with Nickel Plated Finish: 50 micro-inch Gold plated on Plug Contact area
IDC	:	Housing: PC+Glass Fiber, UL 94V-2 Terminal: Phosphor Bronze with Tin plated
IDC CAP	:	ABS, UL 94V-0
IDC Life	:	200 times min
Wire	:	AWG-22-24
Insertion Cycles	:	750 times
Operating Temperature	:	-10°C to 60°C
Storage Temperature	:	-10°C to 80°C
Current Rating	:	1.5A
Insulation Resistance	:	>100Megaohms
Contact Resistance	:	
Variations	:	20 Milliohms
Insulation Force	:	20N (Max)

ORDERING INFORMATION

Part Code	Description	Colour
NKJ-C6WHI1B21	Cat6 UTP Keystone Jack	White
NKJ-C6BLU1B21	Cat6 UTP Keystone Jack	Blue
NKJ-C6RED1B21	Cat6 UTP Keystone Jack	Red
NKJ-C6GRN1B21	Cat6 UTP Keystone Jack	Green
NKJ-C6YEL1B21	Cat6 UTP Keystone Jack	Yellow



CAT6 UTP PATCH CORD



APPLICATION

- 10BASE-T, 100BASE-TX Fast Ethernet, 1000BASE-T, 10GBASE-T (IEEE802.3)
- 100VG-AnyLAN (IEEE802.12)
- 550MHz Broadband Video
- Voice, T1, ISDN
- 155/622 Mbps ATM
- Power over Ethernet (PoE)

SPECIFICATIONS

Conductor	:	24 AWG Multi-strands
Conductor	:	Bare Copper
Insulation	:	High Density Polyethylene
Material	:	PVC UL94V-0
Color Code	:	Cool Grey 5C
Heat Resistance	:	60°C minimum (Temperature Limited)
Flame Property	:	The purpose of the vertical flame test is to screen out flammable wires. It follows the VW-1(UL) and FT-1 (CSA) standards
Insertion Cycles	:	750 times

ORDERING INFORMATION

Part Code	Part Code
NCB-C6UGRYR1-1	Cat6 UTP 24AWG Patch Cord, 1M
NCB-C6UGRYR1-2	Cat6 UTP 24AWG Patch Cord, 2M
NCB-C6UGRYR1-3	Cat6 UTP 24AWG Patch Cord, 3M
NCB-C6UGRYR1-5	Cat6 UTP 24AWG Patch Cord, 5M

* Available in other colors also

D-Link Cat6 patch cords are high quality four pair twisted stranded cable terminated with RJ45 modular plugs at both the ends. It is TIA/EIA-568-C.2 standard

These patch cords are appropriate for high speed data transmission.

MODULAR CONNECTOR/PLUG

RJ45 8P for transparent color

- Gold Plated : 30U°
- Contact Blade : Phosphor Bronze
- Temperature range : 10 ~ 80°C
- Dielectric withstanding voltage : 500V AC
- Insulation resistance : 35M Ohm (max.)
- UL Applications : 250V AC, PC UL94-V-0



CAT 6 UTP PATCH PANEL



D-Link Category 6 patch panels are six port RJ45 modules applied and suitable for 22-26AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. D-Link patch panels have improved Cable Management with optional Cable Management bar terminating 4 pairs UTP cable. They are complied with the ANSI/TIA/EIA-568-C.2 & ISO 11801 standard.

SPECIFICATIONS

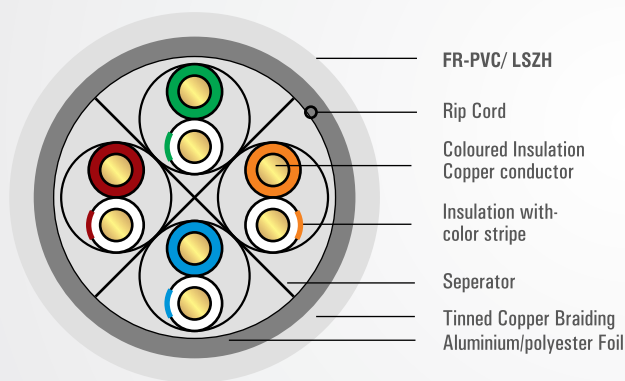
Identification	: I.D. Plate: PVC Transparent color with Paper
Panel	: SPCC, 1.5 mm thickness with Black color painted
RJ45 Jack	: Housing: ABS, UL 94V-0 Contact Bracket: PC, UL 94V-2, Transparent color
RJ45 Jack Contact	: Material: Phosphor Bronze with Nickel plated Finish : 50 micro-inch Gold plated on Plug contact area
IDC	: Housing: PC+Glass Fiber, UL 94V-2 Terminal: Phosphor Bronze with Tin plated
Jack Bracket Set	: ABS, UL 94V-0
Support Bar	: SPCC, 1.5 mm thickness with Black color painted
Size	: 1U & 2U
Cable Manager	: 19" rack mountable, Metallic high strength with metal jumper rings for routing cable assemblies, mounts to the front of 19" rack & 1U height
Contact Resistance	: 100 Milliohms max.
Insulation Resistance	: 1000 Megaohms min. @ 500 VDC
RJ45 Jack Life	: 750 Times min
IDC Life	: 200 Times min
Storage	: -40°C to + 70°C
Operation	: -10°C to + 60°C

ORDERING INFORMATION

Part Code	Description
NPP-C61BLK241	Cat6 UTP 24 Port Loaded Patch Panel
NPP-C61BLK481	Cat6 UTP 48 Port Loaded Patch Panel



CAT 6 SFTP CABLE



Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANs. Supports Gigabit Ethernet (1000 baseT) standard.

Operates at bandwidth of 250MHz. Tinned Copper Screening gives Protection against EMI and avoid signal loss. Better Mechanical Properties of Cable.

This cable well exceeds the requirements of TIA/EIA-568.C.2

SPECIFICATIONS

Conductor	:	23 AWG Solid bare Copper
Insulation	:	High Density Polyethylene
Pairs	:	2 Insulated conductors twisted together
Shield	:	Aluminum/ Polyester Foil Tinned copper Braiding
Sheath	:	FR-PVC/ LSZH
Cable Diameter	:	7.5mm nominal

ELECTRICAL PROPERTIES

Conductor Resistance	:	=9.38 Ω /100m
Mutual Capacitance	:	<5.6nF/100m
Resistance Unbalance	:	5%Max
Capacitance Unbalance	:	330pF/100m
Delay Skew	:	< 45nS

COLOR CODE

Pair No	Color
1-2	White-Orange Stripe and Orange
3-6	White-Green Stripe and Green
4-5	White-Blue Stripe and Blue
7-8	White-Brown Stripe and Brown

CAT 6 SFTP CABLE

TRANSMISSION CHARACTERISTICS PER 100M

Frequency MHz	Insertion Loss (dB/100m)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	74.3	72.3	67.8	64.8	72.3	70.3
4	3.8	23.0	65.3	63.3	55.8	52.8	61.5	59.5
8	5.3	24.5	60.8	58.8	49.7	46.7	55.5	53.5
10	6.0	25.0	59.3	57.3	47.8	44.8	53.3	51.3
16	7.6	25.0	56.2	54.2	43.7	40.7	48.6	46.6
20	8.5	25.0	54.8	52.8	41.8	38.8	46.3	44.3
25	9.5	24.3	53.3	51.3	39.8	36.8	43.8	41.8
31.25	10.7	23.6	51.9	49.9	37.9	34.9	41.2	39.2
62.5	15.4	21.5	47.4	45.4	31.9	28.9	32.0	30.0
100	19.8	20.1	44.3	42.3	27.8	24.8	24.5	22.5
200	29.0	18.0	39.8	37.8	21.8	18.8	10.8	8.8
250	32.8	17.3	38.3	36.3	19.8	16.8	5.5	3.5

MECHANICAL PROPERTIES

Bending Radius	:	< 8 x Cable Diameter at -20°C ± 1°C
Pulling Force	:	11.5Kgs
Temperature Range	:	-20°to +70°C

PACKING

Available in 305meter coils

CONNECTION SYSTEM

Compatible with all common systems according to TIA/EIA 568-C.2

ORDERING INFORMATION

Part Code	Description
NCB-C6SGRYR-305	CAT6 SFTP 23AWG Solid:305M
NCB-C6SGRYR-305-LS	CAT6 SFTP LSZH 23AWG Solid:305M

CAT6 STP KEYSTONE JACKS



SPECIFICATIONS

RJ45 Jack	:	Housing - Zinc Alloy
Contact Bracket	:	PC
RJ45 Jack Contact	:	Material-phosphor bronze Stamp Pin T= .35mm,
Finish	:	50 micro-inch gold plated on plug
IDC	:	Phosphor bronze, T=0.50mm with tin plating
IDC CAP	:	ABS, UL 94V-0
Insertion Cycles	:	750 times
IDC Life	:	200 times Min
Wire	:	AWG 22-24
Operating Temperature	:	-40°C to 70°C
Storage Temperature	:	-10°C to 60°C
Current Rating	:	1.5A
Voltage Rating	:	125 VAC RMS
Insulation Resistance	:	> 1000 Megaohms
Contact Resistance	:	100 milliohms

ORDERING INFORMATION

Part Code	Description	Colour
NKJ-C6SWHI1B21	CAT6 STP Keystone Jack	White

D-Link Category 6 keystone jacks are RJ45 8P 8C 50u jacks suitable for 22-26 AWG stranded and solid wire, compatible with both 110 & Krone punch down tool. They are capable of re-termination.

They are available in universal labels color coded for T568A and T568B wiring schemes and fit in high density keystone patch panel. It supports IEC 60603-7- 4 and complied with ANSI/ TIA/ EIA-568-C.2 standard.

CAT 6 STP PATCH CORD



D-Link Cat6 STP patch cords are high quality four pair shielded twisted stranded cable terminated with RJ45 modular plugs at both the ends. It is TIA/EIA 568C.2 standard.

The shielded cables helps to complete a proper ground connection and allows longer runs with less effect of Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI) These patch cords are appropriate for high speed data transmission.

APPLICATION

- 10BASE-T, 100BASE-TX Fast Ethernet, 1000BASE-T,
- 10GBASE-T (IEEE802.3),
- 100VG-AnyLAN (IEEE802.12)
- 550MHz Broadband Video
- Voice, T1, ISDN 155/622 Mbps ATM
- Power over Ethernet (PoE)

SPECIFICATIONS

Conductor	:	24 AWG Multi-cores
Conductor Metal	:	Metal - Bare Copper
Insulation Material	:	High Density Polyethylene
Outside	:	Tape metal: MYLAR
Drain Wire	:	26 AWG
Material	:	PVC UL94V-0
Color Code	:	Cool Grey 5C
Heat Resistance	:	75°C minimum (Temperature Limited)
Flame Property	:	The purpose of the vertical flame test is to screen out flammable wires. It follows the VW-1(UL) and FT-1 (CSA) standards

ORDERING INFORMATION

Part Code	Description
NCB-C6SGRYR1-1	Cat6 STP 24AWG Patch Cord, 1M
NCB-C6SGRYR1-2	Cat6 STP 24AWG Patch Cord, 2M
NCB-C6SGRYR1-3	Cat6 STP 24AWG Patch Cord, 3M

MODULAR CONNECTOR/PLUG

RJ45 8P for transparent color

- | | | |
|-----------------------------------|---|----------------------|
| • Gold Plated | : | 30U° |
| • Contact Blade | : | Phosphor Bronze |
| • Dielectric withstanding voltage | : | 500V AC |
| • Insulation resistance | : | 35M Ohm (max.) |
| • UL Applications | : | 250V AC, PC UL94-V-0 |



CAT 6 STP PATCH PANEL



SPECIFICATIONS

Identification	:	ID plate, PVC, transparent color with paper
ID Bracket	:	ABS + PC, UL 94V-0
Panel	:	SECC, 1.2mm thickness with optional color painted
RJ45 Jack	:	Housing: PBT + glass fiber, UL-94V-0 Contact Brackets : PBT + glass fiber, UL-94V-0
RJ45 Jack Contact	:	Material: Phosphor bronze with nickel plated Finish: 50 micro-inches Gold plated on plug contact area
IDC	:	Housing: PC+ glass fiber, UL 94V-2
ID Bracket	:	AB S + PC, UL 94V-0
Ground Wire	:	18 AWG Wire, with Green/ Yellow/ Striped Color

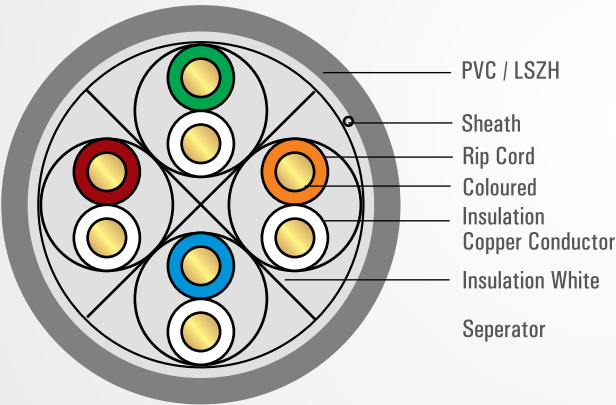
D-Link Category 6 STP patch panels are eight ports RJ-45 modules applied and suitable for 22-26 AWG stranded and solid wire, compatible with both 110 & Krone punch down tools.

D-Link STP patch panels terminate 4 pairs STP cable and are rack mounted. They are complied with the ANSIT/TIA/EIA 568C.2-1 standard

ORDERING INFORMATION

Part Code	Description
NPP-C62BLK241	Cat6 STP 24 Port Loaded Patch Panel
NPP-C62BLK481	Cat6 STP 48 Port Loaded Patch Panel

CAT6A UTP CABLE



Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANs. Supports Gigabit Ethernet (10GbaseT) standard. Operates at bandwidth of 500MHz.

This cable well exceeds the requirements of TIA/EIA-568-C.2 Category 6A
ISO 11801-2 Class E.
Exceeds all requirements for IEE 802.3an

SPECIFICATIONS

Conductor	:	23 AWG (Solid), Bare Copper
Insulation	:	High Density Polyethylene
Pairs	:	2 Insulated conductors twisted together
Sheath	:	PVC/ LSZH
Cable Diameter	:	8.00mm Nominal
Printing	:	Each meter printed with sequential Length Counter

ELECTRICAL PROPERTIES

Conductor Resistance	:	$\approx 9.38\Omega/100m$
Mutual Capacitance	:	$< 5.6nF/100m$
Resistance Unbalance	:	5%Max
Delay Skew	:	$< 25NS$
NVP%	:	68.2

COLOR CODE

Pair No	Color
1 -2	White and Orange
3-6	White and Green
4-5	White and Blue
7-8	White and Brown

CAT6A UTP CABLE

TRANSMISSION CHARACTERISTICS PER 100M

Frequency Mhz	Max Attenuation (dB/100m)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ACRF (dB)	PSACRF (dB)
1	2.1	20.0	74.3	72.3	67.8	64.8
4	3.8	23.0	65.3	63.3	55.8	52.8
10	5.9	25.0	59.3	57.3	47.8	44.8
16	7.5	25.0	56.2	54.2	43.7	40.7
20	8.4	25.0	54.8	52.8	41.8	38.8
31.25	10.5	23.6	51.9	49.9	37.9	34.9
62.5	15	21.5	47.4	45.4	31.9	28.9
100	19.1	20.1	44.3	42.3	27.8	24.8
200	27.6	18.0	39.8	37.8	21.8	18.8
250	31.1	17.3	38.3	36.3	19.8	16.8
300	34.3	16.8	38.1	35.1	18.3	15.3
500	45.3	15.2	34.8	31.8	13.8	10.8

CONNECTION SYSTEM

Compatible with all common systems according to TIA/EIA 568-C.2

PACKING

Available in 305meter coils.

ORDERING INFORMATION

Part Code	Description
NCB-6AUGRYR-305	CAT6A UTP 23AWG Solid: 305M/Roll

CAT 6A UTP KEYSTONE JACKS



SPECIFICATIONS

RJ45 Jack	:	Housing: ABS+PC, UL 94V-0, Black color
Contact Bracket	:	PC, UL 94V-2, transparent color
RJ45 Jack Contact	:	Material: Phosphor bronze with nickel plated Finish : 50 micro-inch gold plated on plug contact area
IDC	:	Housing: PC + glass fiber, grey color, UL 94V-2
Terminal	:	Phosphor bronze with tin plated
IDC CAP	:	PC + glass fiber, UL 94-V2, white color

D-Link Category 6A keystone jacks are RJ45 8P 8C 50u jacks suitable for 22-26 AWG stranded and solid wire, compatible with both 110 & Krone punch down tools.

They are available in universal labels color coded for T568A and T568B wiring schemes and fit in high density keystone patch panel. It supports IEC 60603-7-4 and complied with ANSI/TIA/EIA 568 C.2 standard.

ORDERING INFORMATION

Part Code	Description	Color Code
NKJ-6AWHI1B21	Cat6A UTP Keystone Jack	White
NKJ-6ABLU1B21	Cat6A UTP Keystone Jack	Blue
NKJ-6ARED1B21	Cat6A UTP Keystone Jack	Red
NKJ-6AGRN1B21	Cat6A UTP Keystone Jack	Green
NKJ-6ABLK1 B21	Cat6A UTP Keystone Jack	Black

CAT 6A UTP PATCH CORD



APPLICATION

- 10BASE-T, 100BASE-TX Fast Ethernet, 1000BASE-T, 10GBASE-T (IEEE802.3)
- 100VG-AnyLAN (IEEE802.12)
- 500MHz Broadband Video
- Voice, T1, ISDN
- 155/622 Mbps ATM
- Power over Ethernet (PoE)

SPECIFICATIONS

Conductor	:	24 AWG Multi-cores
Conductor Meta	:	Bare Copper
Insulation Material	:	High Density Polyethylene
Color Code	:	Cool Grey 5C
Material	:	PVC UL94V-0
Heat-Resistant	:	75°C minimum (Temperature limited)
Flame Property	:	The purpose of the vertical flame test is to screen out flammable wires. It follows the VW-1 (UL) and FT-1 (CSA) standards

ORDERING INFORMATION

Part Code	Part Code
NCB-6AUGRYR1-1	Cat6A UTP 24AWG Patch Cord, 1M
NCB-6AUGRYR1-2	Cat6A UTP 24AWG Patch Cord, 2M
NCB-6AUGRYR1-3	Cat6A UTP 24AWG Patch Cord, 3M

D-Link Cat6A patch cords are high quality four pair twisted stranded cable terminated with RJ45 modular plugs at both the ends.

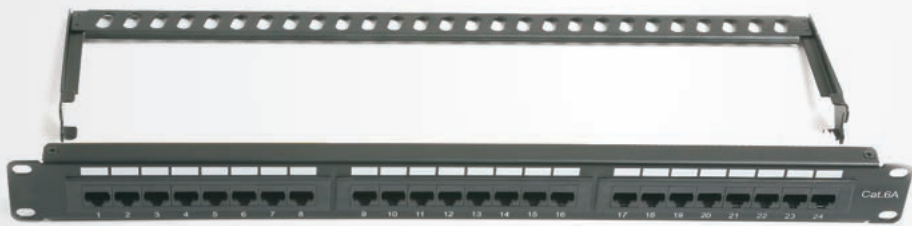
It is TIA/EIA 568C.2 standard. These patch cords are appropriate for high speed data transmission.

MODULAR CONNECTOR/PLUG

RJ-45 8P for transparent color

Gold Plated	:	30U°
Contact Blade	:	phosphor bronze
Dielectric withstanding voltage	:	500V AC
Insulation Resistance	:	35M Ohm (max.)
UL Applications	:	250V AC, PC UL94-V-0

Cat6A UTP LOADED PATCH PANEL



D-Link Category 6A UTP patch panels are eight ports RJ-45 modules applied and suitable for 22-24 AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. D-Link UTP patch panels terminate 4 pairs UTP cable and are rack mounted. They are complied with the ANSI/TIA/EIA 568C.2 10G & ISO/IEC 11801 standard.

SPECIFICATIONS

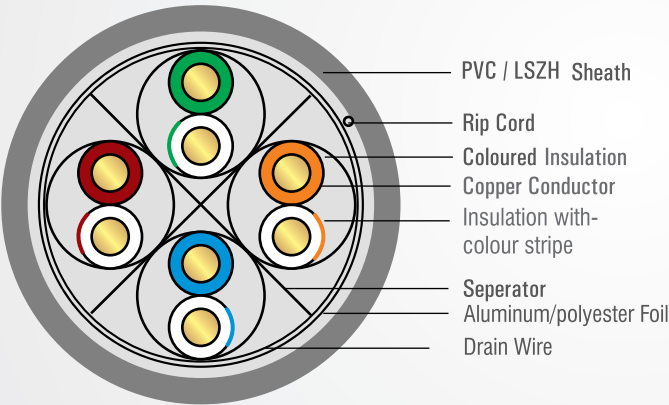
Identification	:	ID plate, PVC, transparent color with paper ID Bracket : ABS + PC, UL 94V-0
Panel	:	SECC, 1.2mm thickness with optional color painted
RJ45 Jack	:	Housing: PBT + glass fiber, UL-94V-0 Contact Brackets: PBT + glass fiber, UL-94V-0
Rj45 Jack Contact	:	Material: Phosphor bronze with nickel plated Finish: 50 micro-inches Gold plated on plug contact area
RJ45 Jack Shield	:	Bronze with nickel plated
Dust cover	:	PC, UL94V-2
IDC	:	Housing: PC+ glass fiber, UL 94V-2 Terminal: phosphor bronze with tin plated

ORDERING INFORMATION

Part Code	Description
NPP-6A1BLK241	Cat6A UTP 24Port Loaded Patch Panel
NPP-6A1BLK481	Cat6A UTP 48Port Loaded Patch Panel



CAT 6A STP CABLE



Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANs. It supports Gigabit Ethernet (10GbaseT) standard and operates at bandwidth of 500MHz.

This cable well exceeds the requirements of ANSI/TIA-568-C.2. The shield acts as a Faraday cage to reduce electrical noise from affecting the signals, and to reduce electromagnetic radiation that may interfere with other devices.

SPECIFICATIONS

Conductor	:	23 AWG Solid bare Copper
Insulation	:	High Density Polyethylene
Pairs	:	2 Insulated conductors twisted together
Sheath	:	PVC
Shield	:	Aluminum / Polyester Foil
Printing	:	Each meter printed with sequential Length Counter

ELECTRICAL PROPERTIES

Conductor Resistance	:	< 9.38Ω/100m
Mutual Capacitance	:	< 5.6nF/100m
Resistance Unbalance	:	5% Max
Capacitance Unbalance	:	330pF/100m
Delay Skew	:	< 45nS

COLOR CODE

Pair No	Color
1-2	White-Orange Stripe and Orange
3-6	White-Green Stripe and Green
4-5	White-Blue Stripe and Blue
7-8	White-Brown Stripe and Brown

CONNECTION SYSTEM

Compatible with all common systems according to ANSI/TIA-568-C-2

CAT 6A STP CABLE

TRANSMISSION CHARACTERISTICS PER 100M

Frequency Mhz	Max attenuation (dB/ 100M)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ACRF	PSACRF
1	2.1	20.0	74.3	72.3	67.8	64.8
4	3.8	23.0	65.3	63.3	55.8	52.8
10	5.9	25.0	59.3	57.3	47.8	44.8
16	7.5	25.0	56.2	54.2	43.7	40.7
20	8.4	25.0	54.8	52.8	41.8	38.8
31.25	10.5	23.6	51.9	49.9	37.9	34.9
62.5	15	21.5	47.4	45.4	31.9	28.9
100	19.1	20.1	44.3	42.3	27.8	24.8
200	27.6	18.0	39.8	37.8	21.8	18.8
250	31.1	17.3	38.3	36.3	19.8	16.8
300	34.3	16.8	38.1	35.1	18.3	15.3
500	45.3	15.2	34.8	31.8	13.8	10.8

PACKING

Available in Reels of 305M

ORDERING INFORMATION

Part Code	Description
NCB-6ASGRYR-305	Solid Cable Cat 6A, 4 pair, STP - 305m

CAT 6A STP KEYSTONE JACK



D-Link Category 6A STP keystone jacks are RJ45 8P 8C 50u jacks suitable for 22-24 AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. They fit in high density keystone patch panel. Compliant with TIA/EIA 568A and B.

SPECIFICATIONS

Contact Resistance	:	100 MILLIOHMS Max
Insulation Resistance	:	1000 MEGOHMS Min @ 500V DC
Housing Material	:	Zinc Alloy
Insert Material	:	PC
Contact Material	:	Phosphor Bronze Stamp Pin T=0.35mm
IDC Contact Material	:	Phosphor Bronze T=0.50mm with tin Plating
RJ45 Jack Life	:	750 Times Min
IDC Life	:	200 Times Min
Voltage	:	150V AC max
Temperature	:	-40°C to 70°C

ORDERING INFORMATION

Part Code	Description
NKJ-6ASWHI2B21	Cat6A STP Keystone Jack

CAT 6A STP PATCH CORD



APPLICATION

- 10BASE-T, 100BASE-TX Fast Ethernet, 1000BASE-T,
- 10GBASE-T (IEEE802.3)
- 100VG-AnyLAN (IEEE802.12)
- 500MHz Broadband Video
- Voice, T1, ISDN
- 155/622 Mbps ATM
- Power over Ethernet (PoE)

SPECIFICATIONS

Conductor	:	26 AWG, Multi-cores
Conductor Metal	:	Bare Copper
Insulation Material	:	HD-PE
Material	:	PVC
Color Code	:	Cool Grey 5C
Heat Resistance	:	75°C minimum (Temperature limited)

ORDERING INFORMATION

Part Code	Description
NCB-6ASGRYR1-1	Cat6A STP 24AWG Patch Cord, 1M
NCB-6ASGRYR1-2	Cat6A STP 24AWG Patch Cord, 2M
NCB-6ASGRYR1-3	Cat6A STP 24AWG Patch Cord, 3M

D-Link Cat6A STP patch cords are high quality four pair twisted stranded cable terminated with RJ45 modular plugs at both the ends. It is TIA/EIA 568C.2 standard. These patch cords are appropriate for high speed data transmission.

MODULAR CONNECTOR/PLUG

RJ-45 8P for transparent color	
Gold Plated	: 50U°
Contact Blade	: Phosphor Bronze
Dielectric withstanding voltage	: 500V AC
Insulation Resistance	: 35M Ohm (max.)
UL Applications	: 250V AC, PC UL94-V-2

Cat6A STP LOADED PATCH PANEL



SPECIFICATIONS

Identification	:	ID plate, PVC, transparent color with paper ID Bracket : ABS + PC, UL 94V-0
Panel	:	SECC, 1.2mm thickness with optional color painted
RJ45 Jack	:	Housing: PBT + glass fiber, UL-94V-0 Contact Brackets: PBT + glass fiber, UL 94V-0
RJ45 Jack Contact	:	Material: Phosphor bronze with nickel plated Finish: 50 micro-inches Gold plated on plug contact area
RJ45 Jack Shield	:	Bronze with nickel plated
Dust cover	:	PC, UL94V-2
IDC	:	Housing: PC+ glass fiber, UL 94V-2 Terminal: phosphor bronze with tin plated
Ground Wire	:	18 AWG wire, with green/yellow striped color

D-Link Category 6A STP patch panels are eight ports RJ-45 modules applied and suitable for 22-26 AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. D-Link STP patch panels terminate 4 pairs STP cable and are rack mounted. They are complied with the ANSI/TIA/EIA 568C.2 10G & ISO/IEC 11801 standard.

ORDERING INFORMATION

Part Code	Description
NPP-6A2BLK241	Cat6A STP 24Port Loaded Patch Panel
NPP-6A2BLK481	Cat6A STP 48Port Loaded Patch Panel

FACE PLATE



D-Link offers a range of high quality, stylish designed Faceplates for professional installations, fully compliant for copper cabling systems.

The Faceplates are inbuilt with shutters which are compatible with any standard colored keystone jacks. The Faceplates are available in one, two and four port variants.

SPECIFICATIONS

UK style with shutter against dust and labeling plate		
ID Plate	:	PC - transparent color
Face plate	:	ABS - with white color
Dust Cover	:	ABS - with white color
Screw	:	M3.5XL25.0mm

ORDERING INFORMATION

Part Code	Description
NFP-0WHI11	86x86 mm, Single Faceplate accepts one keystone jack
NFP-0WHI21	86x86 mm, Dual Faceplate accepts two keystone jacks
NFP-0WHI41	86x86 mm, Quad Faceplate accepts four keystone jacks

UNLOADED PATCH PANEL



KEY FEATURES

- With cable management bar for improved management
- Staggered 24 port panel in 1U
- Staggered 48 port panel in 2U
- Mounts in standard 19 inch racks
- Feasible solution for lower interference and eliminate alien crosstalk

SPECIFICATIONS

Panel	:	PC + glass fiber, UL 94V-0, black color
Support Bar	:	PC + glass fiber, UL 94V-0, black color

ORDERING INFORMATION

Part Code	Description
NPP-AL1BLK241	UTP 24-Port Keystone Unloaded Patch Panel- Cat 5e, Cat 6, Cat 6 A
NPP-AL1BLK481	UTP 48-Port Keystone Unloaded Patch Panel- Cat 5e, Cat 6, Cat 6 A

D-Link Unloaded Patch Panel 24/ 48 port RJ45 modules applied and suitable for Cat 5e, Cat 6 and Cat 6A.

D-Link patch panel have improved cable management with optional cable management bar terminating 4 pairs UTP cable.

24 PORT ANGULAR PATCH PANEL



KEY FEATURES

- Angled design easy to arrange patch cord from both side of the rack
- Front cable manager not required

SPECIFICATIONS

Material	:	All steel metal with high quality plastic powder cladding surface
Structure	:	Blank port, 24 ports for keystone jacks with back cable management bar
Design	:	Angled design for high density installation

STANDARD COMPLIANCE

- TIA/EIA 568C.2
- ISO 11801 Class D/E/EA
- RoHS compliant

ORDERING INFORMATION

Part Code	Description
NPP-AL1BLK244	1U 24 ports UTP Unloaded Angular Panel
NPP-AL1BLK484	2U 48 ports UTP Unloaded Angular Panel

APPLICATIONS

- 1000 Base - T 1000Mbps Ethernet
- 100 Base - T 100Mbps Ethernet
- 10 Base - T 10Mbps Ethernet
- Other networking and voice application

Angled UTP Blank Panel 1U/24 | 2U/ 48 ports,
19inch available for Cat5e, Cat6, Cat6A UTP
Keystone Jack

Fiber Solution

Sliding LIU



Fiber Patch Cords



Fiber Optic Pigtails



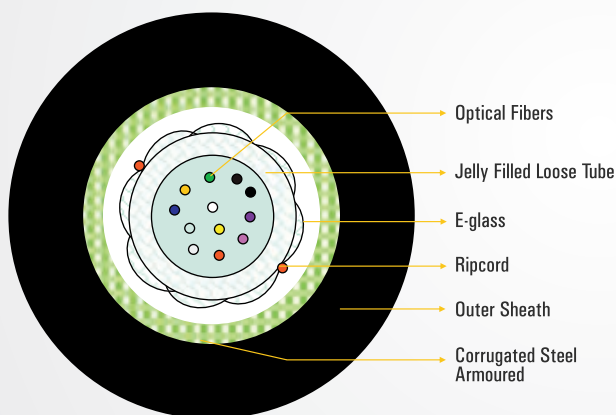
Fiber Optic Adapters



Fiber Optic Connectors



OPTIC FIBER CABLE - ARMoured



DESCRIPTION

- Central Loose tube with jelly compound.
- Glass yarns in between Steel tape & loose tube.
- Corrugated Steel tape armoured.

MECHANICAL & ENVIRONMENT CHARACTERISTICS

Operating Temperature : - 20°C to+ 60°C
 Storage Temperature : - 40°C to+ 60°C
 Jacket Material : LSZH / HDPE

APPLICATIONS

- Suitable for Indoor/ Outdoor Local Area network System.
- Excellent water proof layer & good moisture resistance.
- Excellent crush resistant performance, light weight, Compact Structure

STANDARDS

- ISO 11801
- IEC 60793-1/60794-1-2
- ITU-T REC G.652D
- Telcordia GR-20-core

MECHANICAL & ENVIRONMENT CHARACTERISTICS

Fiber Count	Outer Diameter (mm)	Thickness of Jacket (mm)	Nominal Cable Weight (kg/km) HDPE/ LSZH	Pulling Tension IEC 60794-1-2—E1		Crush Load IEC 60794-1-2—E3 (N/100mm)	Bend Radius (mm) IEC 60794-1-2-E1 1 IEC 60794-1-2-E6	
				Short Term (N)	Long Term (N)		Short Term (N)	Long Term (N)
4	9 ± 0.3	1.8 ± 0.2	72/ 95	2000	1000	3000	10D	20D
6	9 ± 0.3	1.8 ± 0.2	72/ 95	2000	1000	3000	10D	20D
12	9 ± 0.3	1.8 ± 0.2	72/ 95	2000	1000	3000	10D	20D
24*	9.5 ± 0.3	1.8 ± 0.2	82/ 110	2000	1000	3000	10D	20D
48**	9.8 ± 0.3	1.8 ± 0.2	98/ 125	2000	1000	3000	10D	20D

24C- Single loose tube contains two Binder bundle of 12F in Blue & Orange color bundle
 48C- Single loose tube contains two Binder bundle of 12F in Blue, Orange, Green & Brown color.

COLOR CODE

BL-BLUE	OR-ORANGE	GR-GREEN	BR-BROWN	GY-GREY	WH-WHITE
RD-RED	BK-BLACK	YE-YELLOW	PU-PURPLE	PI-PINK	AQ-AQUA

OPTIC FIBER CABLE - ARMoured

OPTICAL FIBER CHARACTERISTICS

Fiber Type	9/ 125um (OS1)		62.5/ 125um (OM1)		50/ 125um (OM2)		50/125um (OM3)	
Operational Wavelength	1310nm	1550nm	850nm	1300nm	850nm	1300nm	850nm	1300nm
Maximum Attenuation (db/km)	0.36	0.22	3.5	1.5	3.5	1.5	2.7	1.0
Minimum Bandwidth (Mhz-km)	—	—	200	600	500	550	150012000*	500

* Effective Modal Bandwidth at 850nm for OM3

CHARACTERISTICS (CABLED) SINGLE-MODE - MATCHED-CLADDED OPTICAL FIBERS ACCORDING TO ITU

Fiber—Type & Refractive Index	Mode-Field/ Cladding Diameter (um)	Wavelength (nm)	Dispersion (ps/(nm-km))	PMD (ps/km)	Cable Cut-off Wavelength (nm)
9/125/G.652D	9.2 ± 0.4	1310	= 3.5	= 0.2	= 1260
1.4670/1.4675	125 ± 0.7	1550	= 18		

CHARACTERISTICS (CABLED) MULTI-MODE GRADED-INDEX OPTICAL FIBERS ACCORDING TO IEC 60793

Fiber - Type	Mode-Field/ Cladding Diameter (um)	Wavelength (nm)	Numerical Aperture (urn)	Refractive Index
62.5/125 OM1	62.5 ± 2.5 125 ± 1	850 1300	0.275 ± 0.015	1.497 1.493
50/125 OM2	50 ± 2.5 125 ± 1	850 1300	0.200 ± 0.015	1.483 1.478
50/125 OM3	50 ± 2.5 125 ± 1	850 1300	0.200 ± 0.015	1.483 1.478

CABLE DRUM & PALLET SIZES

Cable Size	Standard Length
4F to 12F	4kms ± 10%
24F/ 48F	2kms ± 10%

ORDERING INFORMATION:

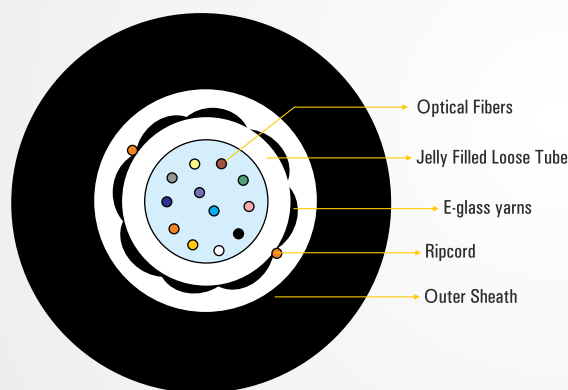
HDPE- High Density Poly Ethylene

	Single Model (OS1)	Multimode 62.5 um (OM1)	Multimode 50 um (OM2)	Multimode 50 um (OM3)
4 Fibers	NCB-FS090-AUHD-04	NCB-FM620-AUHD-04	NCB-FM500-AUHD-04	NCB-FM510-AUHD-04
6 Fibers	NCB-FS090-AUHD-06	NCB-FM620-AUHD-06	NCB-FM500-AUHD-06	NCB-FM510-AUHD-06
12 Fibers	NCB-FS090-AUHD-12	NCB-FM620-AUHD-12	NCB-FM500-AUHD-12	NCB-FM510-AUHD-12
24 Fibers	NCB-FS090-AUHD-24	NCB-FM620-AUHD-24	NCB-FM500-AUHD-24	NCB-FM510-AUHD-24
48 Fibers	NCB-FS090-AUHD-48	NCB-FM620-AUHD-48	NCB-FM500-AUHD-48	NCB-FM510-AUHD-48

LSZH- Low Smoke Zero Halogen

	Single Model (OS1)	Multimode 62.5 um (OM1)	Multimode 50 um (OM2)	Multimode 50 um (OM3)
4 Fibers	NCB-FS090-AULS-04	NCB-FM620-AULS-04	NCB-FM500-AULS-04	NCB-FM510-AULS-04
6 Fibers	NCB-FS090-AULS-06	NCB-FM620-AULS-06	NCB-FM500-AULS-06	NCB-FM510-AULS-06
12 Fibers	NCB-FS090-AULS-12	NCB-FM620-AULS-12	NCB-FM500-AULS-12	NCB-FM510-AULS-12
24 Fibers	NCB-FS090-AULS-24	NCB-FM620-AULS-24	NCB-FM500-AULS-24	NCB-FM510-AULS-24
48 Fibers	NCB-FS090-AULS-48	NCB-FM620-AULS-48	NCB-FM500-AULS-48	NCB-FM510-AULS-48

OPTIC FIBER CABLE - UNARMoured



DESCRIPTION

- Central Loose tube with jelly compound.
- E - glass strength members.
- Sequential Meter Marking.

MECHANICAL & ENVIRONMENT CHARACTERISTICS

Operating Temperature : - 20°C to + 60°C

Storage Temperature : - 40°C to + 60°C

Jacket Material : LSZH/ HDPE

APPLICATIONS

- Suitable for Indoor & Outdoor (duct), aerial, pipeline.
- Excellent waterproofing performance.
- Lightweight, Small, Compact cable size

Fiber Count	HDPE/ LSZH Outer Diameter (mm)	HDPE/ LSZH Thickness of Jacket (mm)	HDPE/ LSZH Nominal Cable Weight (kg/km)	Pulling Tension IEC 60794 -1-2 - E1		Crush Load IEC 60794 -1-2 - E3 (N/100mm)		Bend Radius (mm) IEC 60794-1-2-E11 IEC 60794-1-2-E6	
				Short Term (N)	Long Term (N)	Short Term (N)	Long Term (N)	Short Term (N)	Long Term (N)
4	6.8 ± 0.3/ 6.2 ± 0.3	1.8 ± 0.2/ 1.4 ± 0.2	34/ 45	1500	600	1000	300	20D	10D
6	6.8 ± 0.3/ 6.2 ± 0.3	1.8 ± 0.2/ 1.4 ± 0.2	34/ 45	1500	600	1000	300	20D	10D
12	6.8 ± 0.3/ 6.2 ± 0.3	1.8 ± 0.2/ 1.4 ± 0.2	34/ 45	1500	600	1000	300	20D	10D
24**	7.3 ± 0.3/ 6.7 ± 0.3	1.8 ± 0.2/ 1.4 ± 0.2	34/ 45	1500	600	1000	300	20D	10D

24C - Core contains two bundle of 12F in Blue & Orange color bundle

OPTICAL FIBER CHARACTERISTICS

Fiber Type	9/125um		62.5/125 (OM1)		50/125um (OM2)		50/125um (OM3)	
Operational Wavelength	1310nm	1550nm	850nm	1300nm	850nm	1300nm	850nm	1300nm
Maximum Attenuation (db/km)	0.36	0.22	3.5	1.5	3.5	1.5	2.7	0.8
Minimum Bandwidth (Mhz—km)	—	—	200	600	500	550	1500/ 2000*	500

* Effective Modal Bandwidth at 850nm for OM3

COLOR CODE

BL-BLUE OR-ORANGE GR-GREEN BR-BROWN GY-GREY WH-WHITE
RD-RED BK-BLACK YE-YELLOW PU-PURPLE PI-PINK AQ-AQUA

OPTIC FIBER CABLE - UNARMoured

CHARACTERISTICS (CABLED) SINGLE-MODE - MATCHED-CLADDED OPTICAL FIBERS ACCORDING TO ITU

Fiber-Type & Refractive Index	Mode-Field/ Cladding Diameter (um)	Wavelength (nm)	Dispersion (ps/(nm-km))	PMD (ps/km)	Cable Cut-off Wavelength (nm)
9/125/ G.652D 1.4670/1.4675	9.2 ± 0.4 125 ± 0.7	1310 1550	= 3.5 = 18	= 0.2	= 1260

CHARACTERISTICS (CABLED) MULTI-MODE GRADED-INDEX OPTICAL FIBERS ACCORDING TO IEC 60793

Fiber—Type & Refractive Index	Mode-Field/ Cladding Diameter (um)	Wavelength (nm)	Numerical Aperture (urn)	Refractive Index
62.5/125	62.5 ± 2.5	850	0.275 ± 0.015	1.497
OM1 50/125	125 ± 1 50 ± 2.5	1300 850	0.200 ± 0.015	1.493 1.483
OM2 50/125	125 ± 1 50 ± 2.5	1300 850	0.200 ± 0.015	1.478 1.483
OM3	125 ± 1	1300		1.478

CABLE DRUM & PALLET SIZES

Cable Size	Standard Length
4F to 12F	4kms ± 10%
24F	2kms ± 10%

STANDARDS

- ISO 11801
- IEC 60793-1/60794-1-2
- ITU-T REC G.652D
- Telcordia GR-20-core

ORDERING INFORMATION:

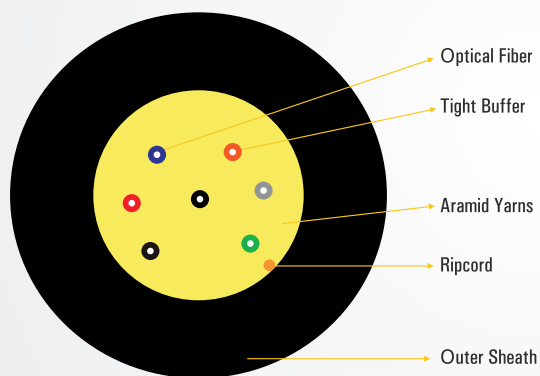
HDPE- High Density Poly Ethylene

	Single Mode(OS1)	Single Mode(OS2)	Multimode 62.5 um (OM1)	Multimode 50 urn (OM2)	Multimode 50 urn (OM3)
4 Fibers	NCB-FS09X-UUHD-04	NCB-FS10X-UUHD-04	NCB-FM62X-UUHD-04	NCB-FM50X-UUHD-04	NCB-FM51X-UUHD-04
6 Fibers	NCB-FS09X-UUHD-06	NCB-FS10X-UUHD-06	NCB-FM62X-UUHD-06	NCB-FM50X-UUHD-06	NCB-FM51X-UUHD-06
12 Fibers	NCB-FS09X-UUHD-12	NCB-FS10X-UUHD-12	NCB-FM62X-UUHD-12	NCB-FM50X-UUHD-12	NCB-FM51X-UUHD-12
24 Fibers	NCB-FS09X-UUHD-24	NCB-FS10X-UUHD-24	NCB-FM62X-UUHD-24	NCB-FM50X-UUHD-24	NCB-FM51X-UUHD-24

LSZH- Low Smoke Zero Halogen

4 Fibers	NCB-FS09X-UULS-04	NCB-FS10X-UULS-04	NCB-FM62X-UULS-04	NCB-FM50X-UULS-04	NCB-FM51X-UULS-04
6 Fibers	NCB-FS09X-UULS-06	NCB-FS10X-UULS-06	NCB-FM62X-UULS-06	NCB-FM50X-UULS-06	NCB-FM51X-UULS-06
12 Fibers	NCB-FS09X-UULS-12	NCB-FS10X-UULS-12	NCB-FM62X-UULS-12	NCB-FM50X-UULS-12	NCB-FM51X-UULS-12
24 Fibers	NCB-FS09X-UULS-24	NCB-FS10X-UULS-24	NCB-FM62X-UULS-24	NCB-FM50X-UULS-24	NCB-FM51X-UULS-24

OPTIC FIBER CABLE — TIGHT BUFFERED



DESCRIPTION

- Tight Buffered fiber without jelly compound
- Aramid yarn strength members
- Round construction and termination can be made standard

MECHANICAL, PHYSICAL & ENVIRONMENT CHARACTERISTICS

Operating Temperature	: -10° to + 60°C
Storage Temperature	: -20° to + 85°C
Tight Buffer Material	: PVC / LSZH
Jacket Material	: HDPE / LSZH

APPLICATIONS

- Suitable for aerial, pipeline, bracket lying
- Suitable for indoor and outdoor cable
- Light weight, all dielectric self supporting

STANDARDS

- ISO 11801
- IEC 60793-1 160794-1-2
- ITU-T REC G.652D
- Telcordia GR-20-core

Fiber Count	Outer Diameter (mm)	Nominal Thickness of Jacket (mm)	Nominal Cable Weight (kg/km)	Pulling Tension IEC 60794-1-2—E1		Crush Load IEC 60794-1-2—E3 (N/100mm)		Bend Radius (mm) IEC 60794.1-2-E11 IEC 60794-1-2-E6	
				Short Term (N)	Long Term (N)	Short Term (N)	Long Term (N)	Short Term (N)	Long Term (N)
4	5.4 ± 0.3	1.2	29	640	640	1500	600	20D	10D
6	6.0 ± 0.3	1.2	35	730	730	1500	600	20D	10D
12	7.5 ± 0.3	1.3	52	1100	1100	1500	600	20D	10D

GENERAL CHARACTERISTICS

Flame retardancy according to

- | | |
|---------------------------------|------|
| • IEC 60332-3-22 (EN 50266-2-2) | Pass |
| • IEC 60331-25 (EN 50200) | Pass |
| • IEC 61034 (EN 50268-2) | Pass |

Halogen-free according to IEC 60754-2 (EN 50267-2-2) Corrosively

pH = 3.5 - uS/ cm = 100

COLOR CODE

BL-BLUE	BR-BROWN	RD-RED	PU-PURPLE
OR-ORANGE	GY-GREY	BL-BLACK	PI-PINK
GR-GREEN	WH-WHITE	YL-YELLOW	AQ-AQUA

OPTICAL FIBER CHARACTERISTICS

Fiber Type	9/125um (OS2)		62.5/125 (OM1)		50/ 125um (OM2)		50/ 125um (OM3)	
Operational Wavelength	1310 nm	1550 nm	850 nm	1300 nm	850 nm	1300 nm	850 nm	1300 nm
Maximum Attenuation (db/km)	0.40 max	0.300 max	3.5 max	1.5 max	3.5 max	1.5 max	2.7 max	1.0 max
Minimum Bandwidth (Mhz—km)	—	—	200	600	500	550	2000	500

OPTIC FIBER CABLE — TIGHT BUFFERED

CHARACTERISTICS (CABLED) SINGLE-MODE - MATCHED-CLADDED OPTICAL FIBERS ACCORDING TO ITU

Fiber—Type & Refractive Index	Mode-Field/ Cladding Diameter (um)	Wavelength (nm)	Dispersion (ps/(nm-km))	PMD (ps/km)	Cable Cut-off Wavelength (nm)
9/125	9.2 ± 0.4	1310	= 3.5	= 0.2	= 1260
G.652D	125 ± 0.7	1550	= 18		

CHARACTERISTICS (CABLED) MULTI-MODE GRADED-INDEX OPTICAL FIBERS ACCORDING TO IEC 60793

Fiber—Type & Refractive Index	Mode-Field/ Cladding Diameter (um)	Wavelength (nm)	Numerical Aperture (urn)
62.5/125 OM1	62.5 ± 2.5 125 ± 1	850 1300	0.275 ± 0.015
50/125 OM2	50 ± 2.5 125 ± 1	850 1300	0.200 ± 0.015
50/125 OM3	50 ± 2.5 125 ± 1	850 1300	0.200 ± 0.015

ORDERING INFORMATION:

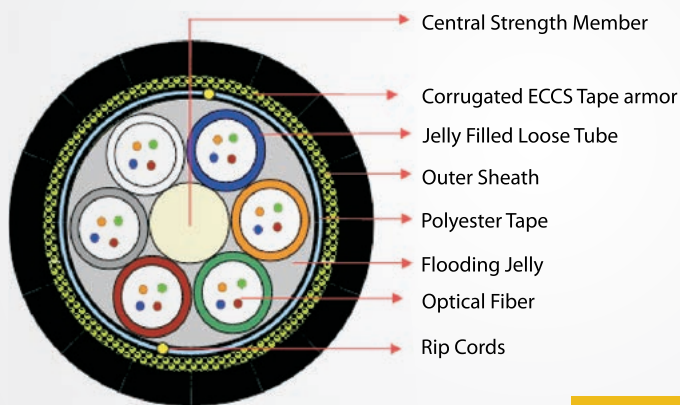
HDPE- High Density Poly Ethylene

	Single Mode	Multimode 62.5 um (OM1)	Multimode 50 um (OM2)	Multimode 50 um (OM3)
4 Fibers	NCB-FS10I-UTHD-04	NCB-FM62I-UTHD-04	NCB-FM50I-UTHD-04	NCB-FM51I-UTHD-04
6 Fibers	NCB-FS10I-UTHD-06	NCB-FM62I-UTHD-06	NCB-FM50I-UTHD-06	NCB-FM51I-UTHD-06
12 Fibers	NCB-FS10I-UTHD-12	NCB-FM62I-UTHD-12	NCB-FM50I-UTHD-12	NCB-FM51I-UTHD-12

LSZH- Low Smoke Zero Halogen

	Single Mode	Multimode 62.5 um (OM1)	Multimode 50 um (OM2)	Multimode 50 um (OM3)
4 Fibers	NCB-FS10I-UTLS-04	NCB-FM62I-UTLS-04	NCB-FM50I-UTLS-04	NCB-FM51I-UTLS-04
6 Fibers	NCB-FS10I-UTLS-06	NCB-FM62I-UTLS-06	NCB-FM50I-UTLS-06	NCB-FM51I-UTLS-06
12 Fibers	NCB-FS10I-UTLS-12	NCB-FM62I-UTLS-12	NCB-FM50I-UTLS-12	NCB-FM51I-UTLS-12

SINGLE SHEATH SM MT FIBER



DESCRIPTION

- Multi-loose tube with jelly compound.
- Outer Sheath HDPE/ LSZH - Black Colour

MECHANICAL & ENVIRONMENT CHARACTERISTICS

Operating Temperature : -20° to + 70°C
 Storage Temperature : -40° to + 60°C
 Jacket Material : HDPE / LSZH

APPLICATIONS

- Suitable for outdoor (duct) local area network systems.
- Excellent crush resistant performance, light weight compact structure

Fiber Count	Outer Diameter (mm)	Thickness of Jacket - Outer (mm)	Nominal Cable Weight (kg/km)	Pulling Tension		Crush Load N/100 mm)	Bend Radius (mm)	
				Short Term (N)	Long Term (N)		Short Term (N)	Long Term (N)
4	10	1.5	100	1700	680	2000	20D	10D
6	10	1.5	100	1700	680	2000	20D	10D
12	10	1.5	100	1700	680	2000	20D	10D
24	10	1.5	100	1700	680	2000	20D	10D
48	10.8	1.5	120	1700	680	2000	20D	10D
72	11.2	1.5	130	1700	680	2000	20D	10D
96	12.5	1.5	165	1700	680	2000	20D	10D

PHYSICAL PROPERTIES

No. of Fibers	4F	6F	12F	24F	48F	72F	96F
Strength Member-FRP	1.8 ± 0.1	1.8 ± 0.1	1.8 ± 0.1	1.8 ± 0.1	2.0 ± 0.1	2.2 ± 0.1	3.5 ± 0.1
Loose Tube Diameter-mm	1.7 ± 0.1	1.7 ± 0.1	1.7 ± 0.1	1.7 ± 0.1	2.0 ± 0.1	2.1 ± 0.1	2.1 ± 0.1
Number of Loose Tube	2	3	3	6	6	6	8
Number of Fiber in Loose Tube	2	2	4	4	8	12	12
Number of Filler	4	3	3	0	0	0	0

SINGLE SHEATH SM MT FIBER

COLOR CODE

BL-Blue	OR-Orange	GR-Green	BR-Brown
SL-Slate	WH-White	RD-Red	BK-Black

MULTI LOOSE TUBE COLOR SEQUENCE:

BL-Blue	OR-Orange	GR-Green	BR-Brown
SL-Slate	WH-White		

OPTICAL FIBER CHARACTERISTICS:

Fiber Type	9/125 μ m (OS1)	
Operational Wavelength	1310 nm	1550 nm
Max Attenuation (db / km)	≤ 0.38	≤ 0.25

CHARACTERISTICS (CABLED) SINGLE-MODE - MATCHED-CLADDED OPTICAL FIBERS ACCORDING TO ITU

Fiber - type & Refractive Index	Mode-filed/ Cladding Diameter (μ m)	Wavelength (nm)	Dispersion (ps/(nm-km))	PMD (ps/km)	Cable Cut-off wavelength (nm)
9/125 / G.652D	9.2 ± 0.4	1310	≤ 3.5	≤ 0.2	≤ 1260
1.4674/1.4679	125 ± 0.7	1550	≤ 18		

CABLE SIZE & ORDERING INFORMATION:

Cable Size	Standard Length
4/6/12/24/48/72/96 Fibers	2 km / 4 Km $\pm 10\%$

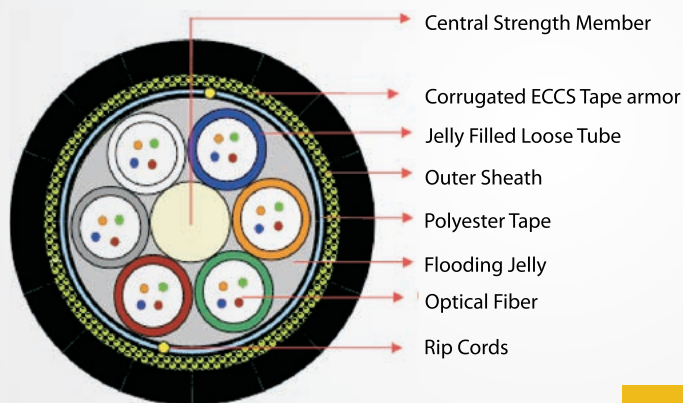
STANDARDS

- ISO 11801
- I EC 60793-1/60794-1-2/60794-3-10
- ITU-T-REC G.652D

ORDERING INFORMATION:

NCB-FS090-ALHD-04	O.F.Cable 4F Outdoor Multitube SM Single Sheath Jacket
NCB-FS090-ALHD-06	O.F.Cable 6F Outdoor Multitube SM Single Sheath Jacket
NCB-FS090-ALHD-12	O.F.Cable 12F Outdoor Multitube SM Single Sheath Jacket
NCB-FS090-ALHD-24	O.F.Cable 24F Outdoor Multitube SM Single Sheath Jacket
NCB-FS090-ALHD-48	O.F.Cable 48F Outdoor Multitube SM Single Sheath Jacket
NCB-FS090-ALHD-72	O.F.Cable 72F Outdoor Multitube SM Single Sheath Jacket
NCB-FS090-ALHD-96	O.F.Cable 96F Outdoor Multitube SM Single Sheath Jacket
NCB-FS090-ALLS-04	O.F.Cable 4F Outdoor Multitube SM Single Sheath LSZH Cable
NCB-FS090-ALLS-06	O.F.Cable 6F Outdoor Multitube SM Single Sheath LSZH Cable
NCB-FS090-ALLS-12	O.F.Cable 12F Outdoor Multitube SM Single Sheath LSZH Cable
NCB-FS090-ALLS-24	O.F.Cable 24F Outdoor Multitube SM Single Sheath LSZH Cable
NCB-FS090-ALLS-48	O.F.Cable 48F Outdoor Multitube SM Single Sheath LSZH Cable
NCB-FS090-ALLS-72	O.F.Cable 72F Outdoor Multitube SM Single Sheath LSZH Cable
NCB-FS090-ALLS-96	O.F.Cable 96F Outdoor Multitube SM Single Sheath LSZH Cable

SINGLE SHEATH MM MT FIBER



DESCRIPTION

- Multi-loose tube with jelly compound.
- Outer Sheath HDPE/ LSZH - Black Colour

MECHANICAL & ENVIRONMENT CHARACTERISTICS

Operating Temperature : -20° to + 70°C
 Storage Temperature : -40° to + 60°C
 Jacket Material : HDPE/ LSZH

APPLICATIONS

- Suitable for outdoor local area network systems.
- Excellent crush resistant performance, light weight compact structure

Fiber Count	Outer Diameter (mm)	Thickness of Jacket - Outer (mm)	Nominal Cable Weight (kg/km)	Pulling Tension		Crush Load N/100 mm)	Bend Radius (mm)	
				Short Term (N)	Long Term (N)		Short Term (N)	Long Term (N)
4	10	1.5	100	1700	680	2000	20D	10D
6	10	1.5	100	1700	680	2000	20D	10D
12	10	1.5	100	1700	680	2000	20D	10D
24	10	1.5	100	1700	680	2000	20D	10D
48	10.8	1.5	120	1700	680	2000	20D	10D
72	11.2	1.5	130	1700	680	2000	20D	10D
96	12.5	1.5	165	1700	680	2000	20D	10D

PHYSICAL PROPERTIES

No. of Fibers	4F	6F	12F	24F	48F	72F	96F
Strength Member-FRP	1.8 ± 0.1	1.8 ± 0.1	1.8 ± 0.1	1.8 ± 0.1	2.0 ± 0.1	2.2 ± 0.1	3.5 ± 0.1
Loose Tube Diameter-mm	1.7 ± 0.1	1.7 ± 0.1	1.7 ± 0.1	1.7 ± 0.1	2.0 ± 0.1	2.1 ± 0.1	2.1 ± 0.1
Number of Loose Tube	2	3	3	6	6	6	8
Number of Fiber in	2	2	4	4	8	12	12
Loose Tube							
Number of Filler	4	3	3	0	0	0	0

SINGLE SHEATH MM MT FIBER

COLOR CODE

BL-Blue	OR-Orange	GR-Green	BR-Brown
SL-Slate	WH-White	RD-Red	BK-Black

MULTI LOOSE TUBE COLOR SEQUENCE:

BL-Blue	OR-Orange	GR-Green	BR-Brown
SL-Slate	WH-White		

CHARACTERISTICS (CABLED) MULTI-MODE GRADED-INDEX OPTICAL FIBERS ACCORDING TO IEC 60793

Fiber CHARACTERISTICS	Unit		
Fiber - type		OM2	OM3
Attenuation	db/km		
@ 850 nm		≤ 3.5	≤ 3.2
@ 1300 nm		≤ 1.5	≤ 1.2
Core Diameter	um	50 ± 3	50 ± 3
Core non circularity	%	$= 3$	$= 5$
Core Clad concentricity error	um	$= 2$	$= 2$
Clad diameter	um	125 ± 2	125 ± 2
Coating diameter	um	245 ± 10	245 ± 10

CABLE SIZE & ORDERING INFORMATION:

Cable Size	Standard Length
4/6/12/24/48/72/96 Fibers	2 km

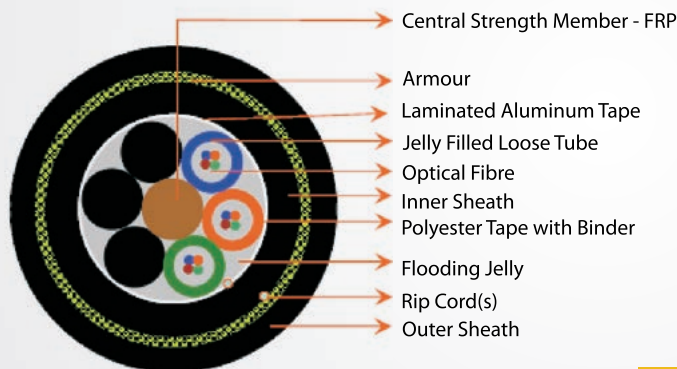
STANDARDS

- ISO 11801
- I EC 60793-1/60794-1-2/60794-3-10

ORDERING INFORMATION:

OM2- HDPE	OM3- HDPE	OM2 - LSZH	OM3- LSZH
NCB-FM500-ALHD-04	NCB-FM510-ALHD-04	NCB-FM500-ALLS-04	NCB-FM510-ALLS-04
NCB-FM500-ALHD-06	NCB-FM510-ALHD-06	NCB-FM500-ALLS-06	NCB-FM510-ALLS-06
NCB-FM500-ALHD-12	NCB-FM510-ALHD-12	NCB-FM500-ALLS-12	NCB-FM510-ALLS-12
NCB-FM500-ALHD-24	NCB-FM510-ALHD-24	NCB-FM500-ALLS-24	NCB-FM510-ALLS-24
NCB-FM500-ALHD-48	NCB-FM510-ALHD-48	NCB-FM500-ALLS-48	NCB-FM510-ALLS-48
NCB-FM500-ALHD-72	NCB-FM510-ALHD-72	NCB-FM500-ALLS-72	NCB-FM510-ALLS-72
NCB-FM500-ALHD-96	NCB-FM510-ALHD-96	NCB-FM500-ALLS-96	NCB-FM510-ALLS-96

DOUBLE SHEATH MM MT



STANDARDS

- ISO 11801
- IEC 60793-1/60794-1-2

DESCRIPTION

- Multi-loose tube with jelly compound.
- Inner Sheath HDPE - Black colour
- Outer Sheath HDPE/LSZH - Black colour
- Central Strength Member – FRP Rod

APPLICATIONS

- Suitable for outdoor (duct) local area network systems.
- Excellent crush resistant performance, light weight compact structure

MECHANICAL & ENVIRONMENT CHARACTERISTICS

Operating Temperature : -20°C to +70°C

Jacket Material

: HDPE /LSZH SHEATH

Storage Temperature : -40°C to +60°C

Fiber Count	Outer Diameter (mm)	Thickness of Jacket - Outer (mm)	Thickness of Jacket - Inner (mm)	Nominal Cable weight (kg/km)	Pulling Tension		Crush Load N/100 (mm)	Bend Radius (mm)	
					Short Term (N)	Long Term (N)		Short Term (N)	Long Term (N)
4	11.9 ± 0.5 mm	1.5 mm	1 mm	138	2000	800	4000	20D	10D
6	11.9 ± 0.5 mm	1.5 mm	1 mm	138	2000	800	4000	20D	10D
12	11.9 ± 0.5 mm	1.5 mm	1 mm	138	2000	800	4000	20D	10D
24	11.9 ± 0.5 mm	1.5 mm	1 mm	138	2000	800	4000	20D	10D

PHYSICAL PROPERTIES

No. of Fibers	4F	6F	12F	24F
Strength Member-FRP	1.8± 0.1	1.8± 0.1	1.8± 0.1	1.8± 0.1
Loose Tube Diameter-mm	1.7± 0.1	1.7± 0.1	1.7± 0.1	1.7± 0.1
Number of Loose Tube	2	3	3	6
Number of Fiber in Loose Tube	2	2	4	4
Number of Filler	4	3	3	0

DOUBLE SHEATH MM MT

COLOR CODE

BL-Blue	OR-Orange	GR-Green	BR-Brown
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MULTI LOOSE TUBE COLOR SEQUENCE: OM1/OM2/ OM3

OM1	BL-Blue	OR-Orange	GR-Green		
Om2 & OM3	BL-Blue	OR-Orange	GR-Green	BR-Brown	SL-SlateWH-White

OPTICAL FIBER CHARACTERISTICS:

	OM1	OM2	OM3
Fiber Type	62.5/125 µm OM1	50/125 µm OM2	50/125 µm OM3
Operational Wavelength	850 nm / 1300 nm	850 nm	850 nm
Max Attenuation (db / km)	<=3.5 / <=1	<=3.5	<=3.5

CHARACTERISTICS (CABLED) MULTI-MODE - MATCHED-CLADDED OPTICAL FIBERS ACCORDING TO ITU

Fiber - type	Mode-filed/Cladding Diameter (um)	Wavelength (nm)	Numerical Aperture (um)	Refractive Index	Fiber - type
62.5/125 OM1	62.5 ± 2.5	850	0.275 ± 0.015	1.497	62.5/125 OM1
	125 ± 1	1300		1.493	
50/125 OM2	50 ± 2.5	850	0.200 ± 0.015	1.483	50/125 OM2
	125 ± 1	1300		1.478	
50/125 OM3	50 ± 2.5	850	0.200 ± 0.015	1.483	50/125 OM3
	125 ± 1	1300		1.478	

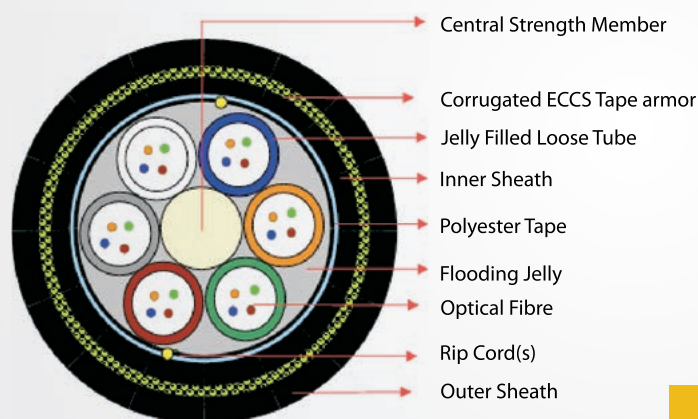
CABLE SIZE & ORDERING INFORMATION:

Cable Size	Standard Length
4/6/12/24 Fibers	2 km / 4 Km ± 10%

ORDERING INFORMATION:

OM1	OM2	OM3	
NCB- FM62O -ALDD-04	NCB-FM50O-ALDD-04	NCB-FM51O-ALDD-04	O.F.Cable 4 F Outdoor Multitube MM OM1/OM2/OM3 Double Sheath Jacket
NCB-FM62O-ALDD-06	NCB-FM50O-ALDD-06	NCB-FM51O-ALDD-06	O.F.Cable 6 F Outdoor Multitube MM OM1/OM2/OM3 Double Sheath Jacket
NCB- FM62O -ALDD-12	NCB- FM50O -ALDD-12	NCB- FM51O -ALDD-12	O.F.Cable 12 F Outdoor Multitube MM OM1/OM2/OM3 Double Sheath Jacket
NCB- FM62O -ALDD-24	NCB- FM50O -ALDD-24	NCB- FM51O -ALDD-24	O.F.Cable 24 F Outdoor Multitube MM OM1/OM2/OM3 Double Sheath Jacket
NCB-FM62O-ALDL-04	NCB-FM50O-ALDL-04	NCB-FM51O-ALDL-04	O.F.Cable LSZH 4 F Outdoor Multitube MM OM1/OM2/OM3 Double Sheath Jacket
NCB- FM62O -ALDL-06	NCB- FM50O -ALDL-06	NCB- FM51O -ALDL-06	O.F.Cable LSZH 6 F Outdoor Multitube MM OM1/OM2/OM3 Double Sheath Jacket
NCB-FM62O-ALDL-12	NCB- FM50O -ALDL-12	NCB- FM51O -ALDL-12	O.F.Cable LSZH 12 F Outdoor Multitube MM OM1/OM2/OM3 Double Sheath Jacket
NCB-FM62O-ALDL-24	NCB- FM50O -ALDL-24	NCB- FM51O -ALDL-24	O.F.Cable LSZH 24 F Outdoor Multitube MM OM1/OM2/OM3 Double Sheath Jacket

DOUBLE SHEATH SM MT FIBER



STANDARDS

- ISO 11801
- IEC 60793-1/60794-1-2
- ITU-T-REC G.652D

DESCRIPTION

- Multi Loose tube with jelly compound.
- Inner Sheath HDPE - Black colour
- Outer sheath HDPE - Black colour

APPLICATIONS

- Suitable for outdoor (duct) local area network systems.
- Excellent crush resistant performance, light weight compact structure

MECHANICAL & ENVIRONMENT CHARACTERISTICS

Operating Temperature	:	- 20°C to +70°C	Jacket Material	:	HDPE / LSZH
Storage Temperature	:	- 40°C to +60°C			

Fiber Count	Outer Diameter (mm)	Thickness of Jacket - Outer (mm)	Thickness of Jacket - Inner (mm)	Nominal Cable Weight (kg/km)	Pulling Tension		Crush Load N/100 (mm)	Bend Radius (mm)	
					Short Term (N)	Long Term (N)		Short Term (N)	Long Term (N)
4	11.9 ± 0.5mm	1.5	1.0	138/163	2000	800	4000	20D	10D
6	11.9 ± 0.5mm	1.5	1.0	138/163	2000	800	4000	20D	10D
12	11.9 ± 0.5mm	1.5	1.0	138/163	2000	800	4000	20D	10D
24	11.9 ± 0.5mm	1.5	1.0	138/163	2000	800	4000	20D	10D

PHYSICAL PROPERTIES

No. of Fibers	4F	6F	12F	24F
Strength Member-FRP	1.8 ± 0.1	1.8 ± 0.1	1.8 ± 0.1	1.8 ± 0.1
Loose Tube Diameter-mm	1.7 ± 0.1	1.7 ± 0.1	1.7 ± 0.1	1.7 ± 0.1
Number of Loose Tube	2	3	3	6
Number of Fiber in Loose Tube	2	2	4	4
Number of Filler	4	3	3	0

DOUBLE SHEATH SM MT FIBER

COLOR CODE

BL-Blue	OR-Orange	GR-Green	BR-Brown
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MULTI LOOSE TUBE COLOR SEQUENCE

BL-Blue	OR-Orange	GR-Green	BR-Brown	SL-Slate	WH-White
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OPTICAL FIBER CHARACTERISTICS:

Fiber Type	9/125 μ m (OS1)	
Operational Wavelength	1310 nm	1550 nm
Max Attenuation (db / km)	≤ 0.38	≤ 0.25

CHARACTERISTICS (CABLED) SINGLE MODE - MATCHED-CLADDED OPTICAL FIBERS ACCORDING TO ITU

Fiber - type & Refractive Index	Mode-filed/Cladding Diameter (μ m)	Wavelength (nm)	Dispersion (ps/(nm-km))	PMD (ps/km)	Cable Cut-off wavelength (nm)
9/125 / G.652D	9.2 ± 0.4	1310	≤ 3.5	≤ 0.2	≤ 1260
1.4674/1.4679	125 ± 0.7	1550	≤ 18		

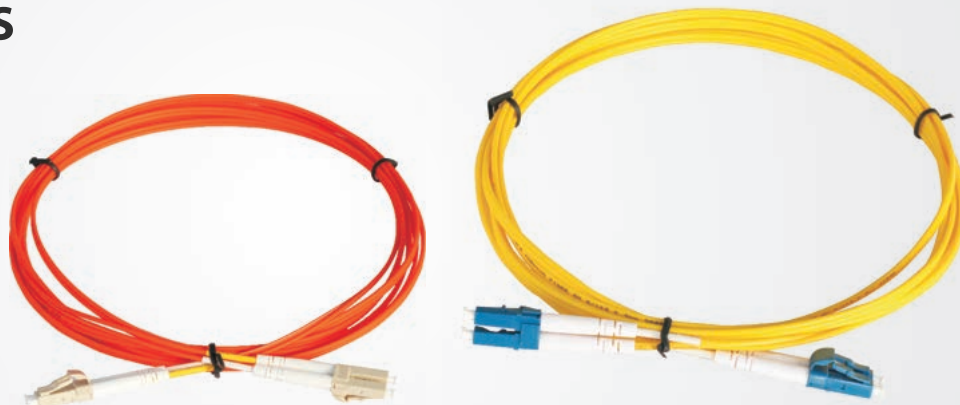
CABLE SIZE & ORDERING INFORMATION:

Cable Size	Standard Length
4/6/12/24 Fibers	2 km / 4 Km $\pm 10\%$

ORDERING INFORMATION:

NCB-FS09O-ALDD-04	O.F.Cable 4 F Outdoor Multitube SM Double Sheath Jacket
NCB-FS09O-ALDD-06	O.F.Cable 6 F Outdoor Multitube SM Double Sheath Jacket
NCB-FS09O-ALDD-12	O.F.Cable 12 F Outdoor Multitube SM Double Sheath Jacket
NCB-FS09O-ALDD-24	O.F.Cable 24 F Outdoor Multitube SM Double Sheath Jacket
NCB-FS09O-ALDL-04	O.F.Cable 4 F Outdoor Multitube SM Double Sheath Jacket - LSZH
NCB-FS09O-ALDL-06	O.F.Cable 6 F Outdoor Multitube SM Double Sheath Jacket - LSZH
NCB-FS09O-ALDL-12	O.F.Cable 12 F Outdoor Multitube SM Double Sheath Jacket - LSZH
NCB-FS09O-ALDL-24	O.F.Cable 24 F Outdoor Multitube SM Double Sheath Jacket - LSZH

FIBER PATCH CORDS



D-Link offers standard simplex & duplex patch cords in a variety of connectors & cables configurations. D-Link patch cords are available with full standard optical specifications, precise length tolerances. All assemblies are 100% inspected for optical characteristics and fiber end face finish.

The optical fiber patch cords are suitable for data communication, telecommunication applications. The terminated connectors in assemblies are designed to and are compatible with industry standards (EIA/TIA, IEC, ANSI, NTT and Telecordia). D-Link can deliver customized patch cords as per requirement.

KEY FEATURES

- Adopts high precision ceramic ferrule with good concentricity.
- Good geometrical characteristics of apex offset & radius of curvature & fiber height.
- Compact & strong crimping offers exceptional tensile strength in cable assemblies.
- 100% inspected for optical characteristics & fiber end face finish.
- Low insertion loss & return loss, clean and scratch-free end faces.
- Good performance endurance under changing circumstances.
- Strength member-aramid yarn

SPECIFICATIONS

Connector Type	SC/ ST/ FC/ LC/ MTRJ		
Optical Fiber	Corning single-mode	Corning multimode	
	G652D, G657A, G657B	OM1, OM2, OM3, OM4	
Cable Type	PVC & LSZH on request 0.9mm/ 2.0mm/ 3.0mm Simplex & duplex		
Cable Color, Length	Yellow for Single-mode & Orange for Multi-mode & Aqua for OM3 1 m, 2m & 3m. Other lengths on request.		
Optical Specification	Insertion Loss	Typical: = 0.2dB, Max. 0.3dB (MTRJ: Max. 0.5dB)	Typical: = 0.2dB, Max. 0.3dB (MTRJ: Max. 0.5dB)
	Return Loss	PC = 45dB, UPC = 50 dB, APC = 60dB	=30dB
Mechanical Specification:	Connector	Ceramic, (MTRJ: PS- Polyphenylene Sulphide)	
	Ferrule		
	Apex Offset	< 50um	
	Fiber Height	± 100um	
	End-face Radius		
	of Curvature	7mm < R < 25mm (Excluding MTRJ)	
	Repeatability	= 0.2dB 1,000 times mating cycles	
Working Temperature	40°C ~ + 85°C		
Storage Temperature	40°C ~ + 85°C		

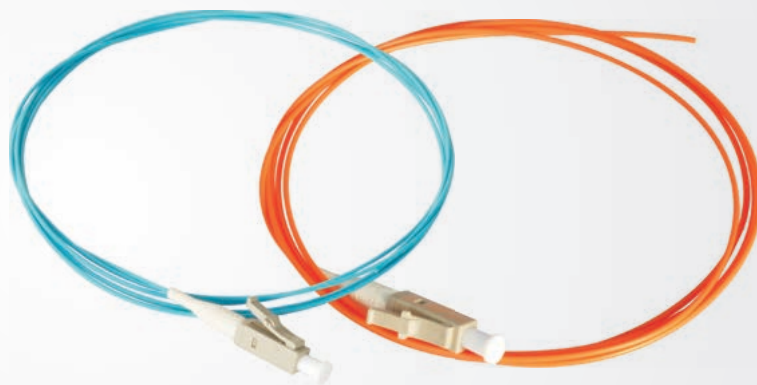
FIBER PATCH CORDS

ORDERING INFORMATION

Type-Length	Single Mode (09um-OS1)	Single Mode (09um -OS2)	Multi Mode (62.5 um-OM1)	Multi Mode (50um-OM2)	Multi Mode (51um-OM3)
Simplex-1m	NCB-FSO9S-STSC-1 NCB-FSO9S-STST-1 NCB-FSO9S-SCSC-1 NCB-FSO9S-LCSC-1 NCB-FSO9S-LCLC-1 NCB-FSO9S-MTSC-1 NCB-FSO9S-MTST-1 NCB-FSO9S-MTMT-1 —	NCB-FS10S-STSC-1 NCB-FS10S-STST-1 NCB-FS10S-SCSC-1 NCB-FS10S-LCSC-1 NCB-FS10S-LCLC-1 NCB-FS10S-MTST-1 NCB-FS10S-MTSC-1 NCB-FS10S-MTMT-1 —	NCB-FM62S-STST-1 NCB-FM62S-STSC-1 NCB-FM62S-SCSC-1 NCB-FM62S-MTST-1 NCB-FM62S-MTSC-1 NCB-FM62S-MTMT-1 NCB-FM62S-LCST-1 NCB-FM62S-LCSC-1 NCB-FM62S-LCLC-1	NCB-FM50S-STST-1 NCB-FM50S-STSC-1 NCB-FM50S-SCSC-1 NCB-FM50S-MTST-1 NCB-FM50S-MTSC-1 NCB-FM50S-MTMT-1 NCB-FM50S-LCSC-1 NCB-FM50S-LCLC-1 NCB-FM50S-LCST-1	NCB-FM51S-STST-1 NCB-FM51S-STSC-1 NCB-FM51S-SCSC-1 NCB-FM51S-MTST-1 NCB-FM51S-MTSC-1 NCB-FM51S-MTMT-1 NCB-FM51S-LCSC-1 NCB-FM51S-LCLC-1 —
Duplex-1m	NCB-FS09D-STST-1 NCB-FS09D-SCSC-1 NCB-FS09D-STSC-1 NCB-FS09D-STFC-1 NCB-FS09D-SCFC-1 NCB-FS09D-LCST-1 NCB-FS09D-LCSC-1 NCB-FS09D-LCLC-1 NCB-FS09D-MTST-1 NCB-FS09D-MTSC-1 NCB-FS09D-MTMT-1	NCB-FS10D-STST-1 NCB-FS10D-SCSC-1 NCB-FS10D-STSC-1 NCB-FS10D-STFC-1 NCB-FS10D-SCFC-1 NCB-FS10D-LCST-1 NCB-FS10D-LCSC-1 NCB-FS10D-LCLC-1 NCB-FS10D-MTST-1 NCB-FS10D-MTSC-1 NCB-FS10D-MTMT-1	NCB-FM62D-STST-1 NCB-FM62D-STSC-1 NCB-FM62D-SCSC-1 NCB-FM62D-MTST-1 NCB-FM62D-MTSC-1 NCB-FM62D-MTMT-1 NCB-FM62D-LCST-1 NCB-FM62D-LCSC-1 NCB-FM62D-LCLC-1 — —	NCB-FM50D-STST-1 NCB-FM50D-STSC-1 NCB-FM50D-SCSC-1 NCB-FM50D-MTST-1 NCB-FM50D-MTSC-1 NCB-FM50D-MTMT-1 NCB-FM50D-LCSC-1 NCB-FM50D-LCLC-1 NCB-FM50D-LCST-1 — — —	NCB-FM51D-STST-1 NCB-FM51D-STSC-1 NCB-FM51D-SCSC-1 NCB-FM51D-MTST-1 NCB-FM51D-MTSC-1 NCB-FM51D-MTMT-1 NCB-FM51D-LCSC-1 NCB-FM51D-LCLC-1 — — —

*Other lengths available on request also available in LSZH

OPTIC FIBER COMPONENTS – PIGTAILS



D-Link offers quality optical fiber pigtails which are single ended with connectors. D-Link pigtails come with good end-face geometry, full standard optical specifications, precise length & tolerances.

The pre-polished pigtail assemblies give the quality, confidence & convenience to be installed & spliced in the field. Standard TIA/ EIA 568.C.3

KEY FEATURES

- Adopts high precision ceramic ferrule with good concentricity.
- Advanced termination facilities & process, deliver good geometrical characteristics of apex offset & radius of curvature & fiber height.
- 100% inspected for optical characteristics & fiber end face finish.
- Low insertion loss & return loss, clean and scratch-free end faces.
- It is compliant with 94.V.0
- Good performance endurance under changing circumstances.

SPECIFICATIONS

Connector		SC / ST/ FC/ LC/ MTRJ		SC/ LC
Optical Fiber		Corning single mode OS1, OS2, G652D, G657A, G657B	Corning multimode OM1, OM2, OM3	Corning multimode OM4
Cable Type		PVC and LSZH on request 0.9mm/ 2.0mm/ 3.0mm		
Cable Color, Length		Yellow for Single-mode & Orange for Multi-mode & Aqua for OM3 & OM4 1m, 2m, & 3m. Other lengths on request Buffer Diameter: 900um Tight Buffer Minimum Bend Radius: Install: 30mm		
Physical Properties		Retention Strength: 100N Cable: 900um Buffered		
Optical Specification	Insertion Loss	Typical: = 0.2dB, Max. 0.3dB (MTRJ: Max 0.5dB)	Typical: = 0.2dB, Max. 0.3dB (MTRJ: Max 0.5dB)	
	Return Loss	PC = 45dB, UPC = 50dB, APC = 60dB		= 30dB
Mechanical Specification	Connector Ferrule	Ceramic		
	Apex Offset	<50um		
	Fiber Height	±100nm		
	End-face Radius of Curvature	7mm < R < 25mm (Excluding MTRJ)		
	Repeatability	= 0.2dB 1,000 times mating cycles		
Working Temperature		- 40°C ~+ 85°C		
Storage Temperature		- 40°C~ +85°C		

OPTIC FIBER COMPONENTS – PIGTAILS

ORDERING INFORMATION

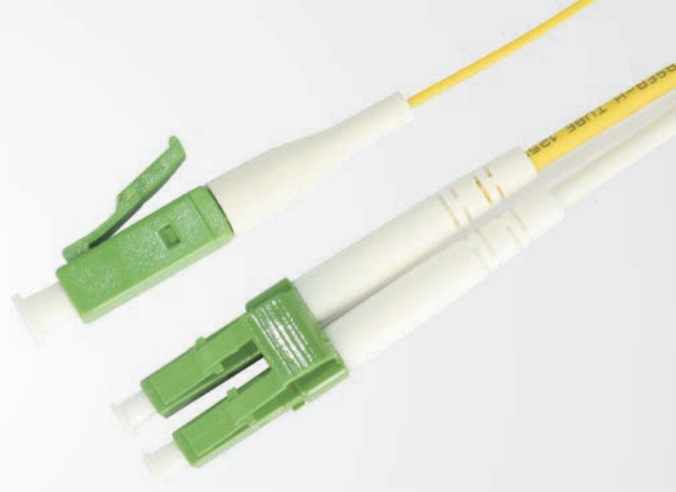
Type-Length	Single Mode (09um-OS1)	Single Mode (09um -OS2)
Simplex-1m	NCB-FS09S-FC1 NCB-FS09S-SC1 NCB-FS09S-ST1 NCB-FS09S-LC1	NCB-FS10S-FC1 NCB-FS10S-SC1 NCB-FS10S-ST1 NCB-FS10S-LC1
Simplex-LSZH-1m	NCB-FS09S-FC1-LS NCB-FS09S-SC1-LS NCB-FS09S-ST1-LS NCB-FS09S-LC1-LS	NCB-FS10S-FC1-LS NCB-FS10S-SC1-LS NCB-FS10S-ST1-LS NCB-FS10S-LC1-LS

Type-Length	Multi Mode (62.5 um-OM1)	Multi Mode (50um-OM2)	Multi Mode (51um-OM3)	Multi Mode (51um-OM4)
Simplex-1m	NCB-FM62S-LC1 NCB-FM62S-SC1 NCB-FM62S-ST1 -	NCB-FM50S-LC1 NCB-FM50S-ST1 NCB-FM50S-SC1 -	NCB-FM51S-LC1 NCB-FM51S-SC1 -	NCB-FM54S-LC1 NCB-FM54S-SC1
Simplex-LSZH-1m	NCB-FM62S-LC1-LS NCB-FM62S-SC1-LS NCB-FM62S-ST1-LS	NCB-FM50S-LC1-LS NCB-FM50S-ST1-LS NCB-FM50S-SC1-LS	NCB-FM51S-LC1-LS NCB-FM51S-SC1-LS -	NCB-FM54S-LC1-LS NCB-FM54S-SC1-LS
-	-	-	-	-

*Other lengths available on request also available in LSZH

FIBER OPTIC COMPONENTS

LC-CONNECTOR



D-Link adopts high precision equipments in fiber connector product line providing the highest levels of reliability and performance. Each FC simplex optical fiber connector has a 2.5mm ceramic ferrule which is housed in a nickel plated brass housing. Available in both Single mode and Multi mode, connectors come with a 900µm and 3mm strain relief boot. Good for use with pigtail and buffered fiber cables.

KEY FEATURES

- High Precision Ceramic Ferrule
- High Precision Polymer housing
- Simplex or Duplex at your choice
- Beige for Multi mode and Blue for Single mode
- APC Green Polymer housing with 900µm and 3mm strain relief boot

SPECIFICATIONS

Measure	:	LC Connector
Insertion Loss dB (Single and Multi Mode)	:	< 0.3
Return Loss	:	> 55dB UPC Style Ferrule > 60dB APC Style Ferrule
Cable Boot	:	2mm white, 3mm upon request
Mating Cycle	:	Up to 1000 times
Ferrule Diameter	:	1.25mm ± 0.001
Ferrule Tolerance Single Mode	:	126 ± 0.5 µm internal
Ferrule Tolerance Multi Mode	:	127 ± 0.5 µm internal
Finish	:	Pre-radiused PC end, radius 10 to 25mm
Operating Temperature	:	– 40°C to + 85°C
Meet Standard	:	IEC61754-20 Optical Fiber Connector Interface
Durability	:	IEC61300-2-2 Fiber Optic Interconnecting Devices
Performance	:	IEC61753-1 Optical Fiber interconnecting devices and passive components performance standard

ORDERING INFORMATION:

NCO-FSSLCXX	Connector SM LC Style
NCO-FMSLC20	Connector MM LC Style

FIBER OPTIC COMPONENTS

FC – CONNECTOR



D-Link adopts high precision equipments in fiber connector product line providing the highest levels of reliability and performance. Each FC simplex optical fiber connector has a 2.5mm ceramic ferrule which is housed in a nickel plated brass housing. Available in both Single mode and Multi mode, connectors come with a 900µm and 3mm strain relief boot. Good for use with pigtail and buffered fiber cables.

KEY FEATURES

- High Precision Ceramic Ferrule
- High Precision Nickel plated brass housing
- 900µm and 3mm strain relief boot

SPECIFICATIONS

Measure	:	FC Connector
Insertion Loss dB (Single and Multi Mode)	:	< 0.3
Return Loss	:	> 55dB UPC Style Ferrule > 60dB APC Style Ferrule
Pigtail Boot	:	900mm black (Multi mode) blue (Single mode)
Cable Boot	:	3mm black (Multi mode), blue (Single mode) 2mm upon request
Mating Cycle	:	Up to 1000 times
Ferrule Diameter	:	2.5mm ± 0.001
Ferrule Tolerance Single Mode	:	126 ± 0.5 m internal
Ferrule Tolerance Multi Mode	:	127 ± 0.5 m internal
Finish	:	Pre-radiused PC end, radius 10 to 25mm
Operating Temperture	:	– 40°C to + 85°C
Meet Standard	:	IEC61754-20 Optical Fiber Connector Interface
Durability	:	IEC61300-2-2 Fiber Optic Interconnecting Devices
Performance	:	IEC61753-1 Optical Fiber interconnecting devices and passive components performance standard

ORDERING INFORMATION:

NCO-FSSFCXX	Connector SM FC/PC type
NCO-FMSFCXX	Connector MM FC/PC type

FIBER OPTIC COMPONENTS

MT-RJ – CONNECTOR



At D-Link, we adopt high precision equipments in fiber connector product line providing the highest levels of reliability and performance. It is designed to terminate any 125mm fibre, plus the flexibility of the connector allows it to be used in local area networks. It is also ideal to be used on long haul distance with single mode. Two fiber can be terminated in a MT-RJ connector, ideal for using on high fiber count backbone cable in a small panel. Available in both Single and Multi mode, connectors come with a 900µm and 3mm strain relief boot.

KEY FEATURES

- High density, allow up to 72 fiber in a 1 unit panel
- MT based Multi-Fiber connector for two fibers
- Come with a 900µm and 3mm strain relief boot

SPECIFICATIONS

Measure	:	MT-RJ Connector
Insertion Loss dB (Single and Multi Mode)	:	< 0.75
Return Loss	:	> 45dB UPC Style Ferrule
Pigtail Boot	:	900mm black
Cable Boot	:	3mm black, 2mm upon request
Mating Cycle	:	Up to 1000 times
Operating Temperature	:	– 40°C to + 85°C
Meet Standard	:	IEC61754-20 Optical Fiber Connector Interface
Durability	:	IEC61300-2-2 Fiber Optic Interconnecting Devices
Performance	:	IEC61753-1 Optical Fiber interconnecting devices and passive components performance standard

ORDERING INFORMATION:

NCO-FSSMTXX	Connector SM MTRJ Style
NCO-FMSMT20	Connector MM MTRJ Style

FIBER OPTIC COMPONENTS

SC – CONNECTOR



D-Link adopts high precision equipments in fiber connector product line providing the highest levels of reliability and performance. Each SC simplex optical fiber connector has a 2.5mm ceramic ferrule which is housed in a color coded polymer frame. Special design allow quick conversion to a duplex style connector by the use of a simple jointing clip.

Available in both Single mode-blue housing and Multi mode-beige housing, connectors come with a 900µm and 3mm strain relief boot. Good for use with pigtail and buffered fiber cables.

KEY FEATURES

- High Precision Ceramic Ferrule
- High Precision Polymer housing
- Quick conversion to duplex with a joint clip
- Beige for Multi mode and Blue for Single mode
- APC Green Polymer housing with 900µm and 3mm strain relief boot

SPECIFICATIONS

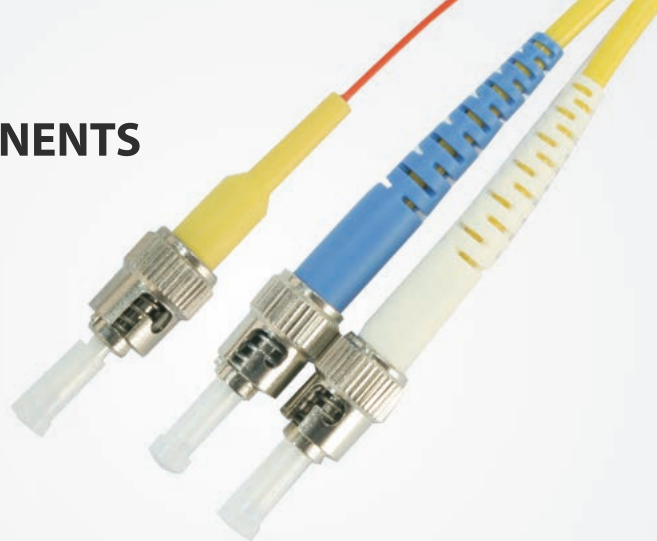
Measure	:	SC Connector
Insertion Loss dB (Single and Multi Mode)	:	< 0.3
Return Loss	:	> 50dB UPC Style Ferrule > 60dB APC Style Ferrule
Pigtail Boot	:	900µm beige (Multi mode) blue (Single mode)
Cable Boot	:	3mm beige (Multi mode), blue (Single mode) 2mm upon request
Mating Cycle	:	Up to 1000 times
Ferrule Diameter	:	2.5mm ± 0.001
Ferrule Tolerance Single Mode	:	126 ± 0.5µm internal
Ferrule Tolerance Multi Mode	:	127 ± 0.5µm internal
Finish	:	Pre-radiused PC end, radius 10 to 25mm
Operating Temperature	:	– 40°C to + 85°C
Meet Standard	:	IEC61754-20 Optical Fiber Connector Interface
Durability	:	IEC61300-2-2 Fiber Optic Interconnecting Devices
Performance	:	IEC61753-1 Optical Fiber interconnecting devices and passive components performance standard

ORDERING INFORMATION:

NCO-FSSSC09	Connector SM SC type
NCO-FMSSC09	Connector MM SC type

FIBER OPTIC COMPONENTS

ST – CONNECTOR



At D-Link, we adopt high precision equipments in fiber connectors product line providing the highest levels of reliability and performance. Each connector has a 2.5mm ceramic ferrule which is housed in a nickel plated brass housing. Available in both Single and Multi mode, connectors come with a 900µm and 3mm strain relief boot. Good for use with pigtail and buffered fiber cables.

KEY FEATURES

- High Precision Ceramic Ferrule
- High Precision Nickel Plated Brass housing
- Come with a 900µm and 3mm strain relief boot

SPECIFICATIONS

Measure	:	ST Connector
Insertion Loss dB (Single and Multi Mode)	:	< 0.3
Return Loss	:	> 50dB UPC Style Ferrule
Pigtail Boot	:	900µm black (MM) yellow (SM)
Cable Boot	:	3mm black, 2mm upon request
Mating Cycle	:	Up to 1000 times
Ferrule Diameter	:	2.5mm ± 0.001
Ferrule Tolerance Single Mode	:	126 ± 0.5µm internal
Ferrule Tolerance Multi Mode	:	127 ± 0.5µm internal
Finish	:	Pre-radiused PC end, radius 10 to 25mm
Operating Temperature	:	– 40°C to + 85°C
Meet Standard	:	IEC61754-20 Optical Fiber Connector Interface
Durability	:	IEC61300-2-2 Fiber Optic Interconnecting Devices
Performance	:	IEC61753-1 Optical Fiber interconnecting devices and passive components performance standard

ORDERING INFORMATION:

NCO-FMSST09	Connector MM ST Style
NCO-FSSST09	Connector SM ST Style

OPTIC FIBER CONNECTOR - FC ADAPTER



D-Link offers high quality FC adapters that have compact design & high precision, which perform well under various circumstances & maintain good plug retention strength.

The female-female threaded adapter provides extremely accurate key alignment to enhance connector loss performance, fully compliant to TIA/EIA, IEC standards. All these FC adapters are with metal housing and zirconia sleeves.

SPECIFICATIONS

Insertion Loss	:	= 0.20dB for Zirconia Sleeve
Sleeve/Ferrule Withdrawal Force	:	2.0N ~ 5.9N

ORDERING INFORMATION

Single mode

Product Code	Description
NAD-FSSFCFC	ADAPTOR FC SM

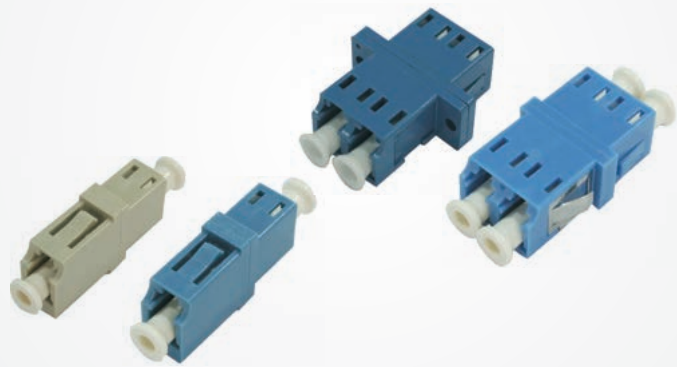
KEY FEATURES

- Compact design
- Telcordia, TIA/EIA, IEC compliance
- High precision alignment
- Low insertion and return loss
- Screw-type locking stable and reliable
- Square Type design

APPLICATIONS

- Telecommunication networks
- LAN
- Data communications
- Optical equipments
- Fiber-To-The-Home
- Premises distribution

OPTIC FIBER CONNECTOR - LC ADAPTER



D-Link offers a full range of LC adapters with high precision alignment sleeves for improved reliability and better reconnectability. The LC adapters feature a self-adjusting mechanism designed to accommodate panels of thickness. Duplex LC fiber adapters are with SC footprint. D-Link LC Adapter is designed to work together with the complete LC product family to offer an optimal, high-density solution for your network.

The LC adapters come with zirconia sleeves for both single mode and multimode use.

KEY FEATURES

- Compact design Telecommunication networks
- Telcordia, TIA/EIA, IEC compliance LAN
- High precision alignment Data communications
- Low insertion and return loss Optical equipments
- Self adjusting metal panel clips
- Duplex adapter SC footprint

SPECIFICATIONS

Insertion Loss	:	= 0.20dB for Zirconia Sleeve
Sleeve/ Ferrule Withdrawal Force	:	1.0N — 2.5N

APPLICATIONS

- Telecommunication networks
- LAN
- Data communications
- Optical equipments
- Fiber-To-The-Home
- Premises distribution

ORDERING INFORMATION

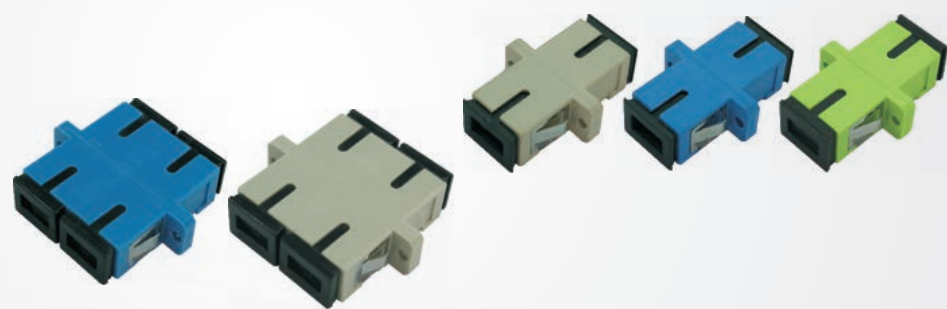
Single mode

Product Code	Description
NAD-FSSLCLC	ADAPTOR LC SM
NAD-FSDLCLC	ADAPTOR LC SM DUPLEX
NAD-FSSLCLC-S	ADAPTOR LC SM with Shutter
NAD-FSDLCLC-S	ADAPTOR LC SM DUPLEX with Shutter

Multi mode

Product Code	Description
NAD-FMSLCLC	ADAPTOR LC MM SIMPLEX
NAD-FMDLCLC	ADAPTOR LC MM DUPLEX
NAD-FMSLCLC-S	ADAPTOR LC MM SIMPLEX with Shutter
NAD-FMDLCLC-S	ADAPTOR LC MM DUPLEX with Shutter

OPTIC FIBER CONNECTOR - SC ADAPTER



D-Link offers a full range of SC adapters that have compact design & high precision, which perform well under various circumstances & maintain good plug retention strength. Simplex and duplex adapters are available.

The sleeves are basically recommended zirconia split type, the phosphor bronze split.

KEY FEATURES

- Compact design
- Telcordia, TIA/EIA, IEC compliance
- High precision alignment
- Low insertion and return loss

SPECIFICATIONS

Insertion Loss	:	< 0.20dB for Zirconia Sleeve
Sleeve/ Ferrule Withdrawal Force	:	2.0N — 5.9N

APPLICATIONS

- Telecommunication networks
- LAN
- Data communications
- Optical equipments

ORDERING INFORMATION

Single mode

Product Code	Description
NAD-FSSSCSC	ADAPTOR SC SM
NAD-FSDSCSC	ADAPTOR SC SM DUPLEX
NAD-FSSSCSC-S	ADAPTOR SC SM with Shutter
NAD-FSDSCSC-S	ADAPTOR SC SM DUPLEX with Shutter

Multi mode

Product Code	Description
NAD-FMSSCSC	ADAPTOR SC MM
NAD-FMDSCSC	ADAPTOR SC MM DUPLEX
NAD-FMSSCSC-S	ADAPTOR SC MM with Shutter
NAD-FMDSCSC-S	ADAPTOR SC MM DUPLEX with Shutter

OPTIC FIBER CONNECTOR - ST ADAPTER



D-Link offers a full range of ST adapters which are comprised of metal outer body and inner assembly fitted with a precision alignment mechanism. The ST adapters set the standard for optical fiber interconnects. These come with a D-Hole profile and retaining nut, which prevents accidental disconnection. The combination of a zirconia alignment sleeves and precision metal housing provides consistent long-term mechanical and good optical performance.

KEY FEATURES

- Compact design
- Telcordia, TIA/EIA, IEC compliance
- High precision alignment
- Low insertion and return loss
- Threaded with nuts or snap-in coupling
- Body zinc alloy for long life

SPECIFICATIONS

Insertion Loss : $\approx 0.20\text{dB}$ for Zirconia Sleeve
Sleeve/Ferrule Withdrawal Force : $2.0\text{N} \sim 5.9\text{N}$

APPLICATIONS

- Telecommunication networks
- LAN
- Data communications
- Optical equipments
- Fiber-To-The-Home
- Premises distribution

ORDERING INFORMATION

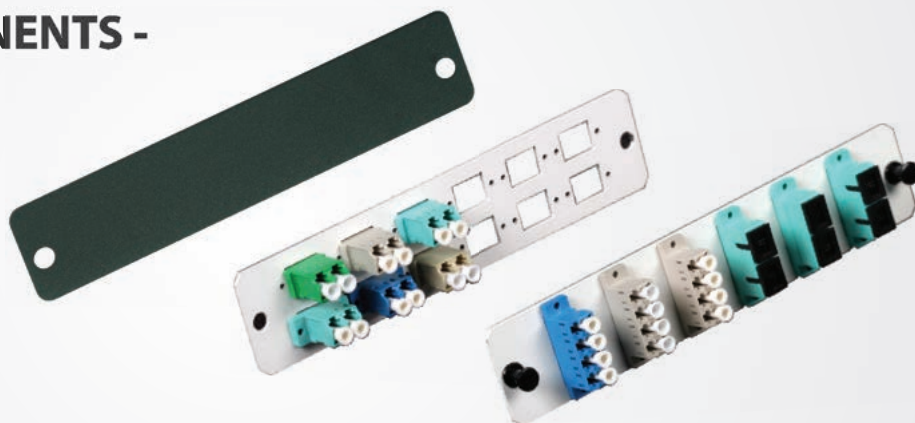
Single mode

Product Code	Description
NAD-FSSSTST	ADAPTOR ST SM

Multi mode

Product Code	Description
NAD-FMSSTST	ADAPTOR ST MM

FIBER OPTIC COMPONENTS - ADAPTER PANEL



D-Link offers comprehensive range of adapter panel which enhance installation flexibility and convenience. The panel is pre-loaded with adapters and can snap in for installation and can be removed easily for future changes. Blank fiber adapter panels reserve fiber adapter panel space for future use. All fiber adapter panels snap quickly into the front of fiber optic patch panels and enclosures for easy network deployment or moves, adds and changes.

KEY FEATURES

- Cold rolled steel materials
- Available in 4~24 holes (according to the type of adapters)
- Offer type of 175,109 size module panels, other dimension and type according to customers' request
- Suitable for FC, LC, SC, ST adapters
- Panel fastener to hold adapter panels securely in place
- Ideal for simple moves, adds and changes

SPECIFICATIONS

PARTS	MATERIAL	DIMENSION	REMARKS
Panel	Steel,1.5mm Thickness	175x37mm (WxH) 109 x35.4mm (WxH)	Black, Beige
Panel Fastener	PC	175 panel: 8.2mm 109 panel: 6.4mm	2 Pieces/ Panel, Black

ORDERING INFORMATION

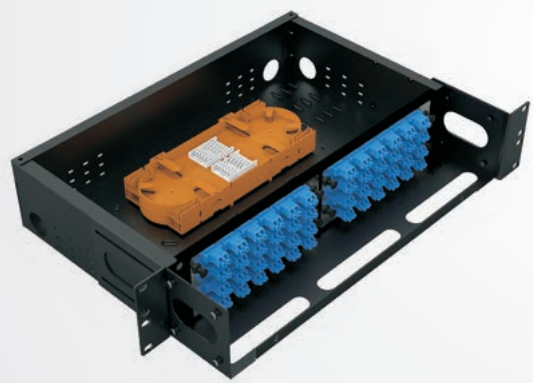
Product Code	Description
NPL-FXXSC-06	1 x 6 Adapter Panel - SC
NPL-FXXLC-06	1 x 6 Adapter Panel - LC
NPL-FXXSC-12	1 x 12 Adapter Panel - SC
NPL-FXXLC-12	1 x 12 Adapter Panel - LC
NPL-FXXFC-12	1 x 12 Adapter Panel - FC
NPL-FXXST-12	1 x 12 Adapter Panel - ST
NPL-FXXLC-24	1 x 24 Adapter Panel - LC
NPL-FXDSC-03	1 x 3 Adapter Panel - SC
NPL-FXDSC-06	1 x 6 Adapter Panel - SC
NPL-FXXXX-06	6 port Blank Adapter Panel

APPLICATIONS

- Installation and management of fiber optic patch cords and pigtails
- Used with rack mount, both fixed and sliding fiber optic patch panel and wall mount distribution box
- High-density fiber optic network application

FIBER OPTIC COMPONENTS

LIU - FIXED 1U/ 2U



D-Link 19-inch Fixed Optical Fiber Interconnection Units are the smaller basic patch panels & cabinets used in interconnecting, cross-connecting, or splicing applications in LANs at a premise location. The LIU (optical fiber interconnecting unit) is modular and suitable for optical cable installation, bare fibers splicing & protection, pigtails storage & management. The number of fibers determines which LIU is appropriate for the application.

The D-Link 1U & 2U Series Combination Shelves help you save time & money to manage your cable resources efficiently. By using these shelves to terminate and splice fibers, you can rearrange cabling quickly and keep track of your fiber resources. Efficient fiber management also helps save on maintenance and replacement costs.

KEY FEATURES

- Aluminum base material with powder coating for light mounting
- Slim 1U/ 2U Unit Mounting Height
- Front-mounted cable saddles for jumper management
- Can include adapter panels for maximum 96 LC, 24 SC, 24 ST or 24 FC terminations
- Rubber fiber slotted bracket built-in, metal splice shelf to protect the fibers
- 4 fiber spools built-in for 900µm tight buffered fiber storing
- Capable of storing up to 3 meters of 900µm tight buffered fiber per adapter
- Snap-in locker design, easy to change adapter panels for various connector patching
- Removable front and rear covers for better access to interior of LIU
- Removable rubber grommet allows for pre-terminated fiber trunk installation, protects cable and minimizes dust build-up
- Accessory kit consists of cable ties, mounting ear screws, and spiral wrap tube

SPECIFICATIONS

PARTS	MATERIAL	DIMENSION	REMARKS
Metal Shelf	Alum., 1.2mm Thickness	410x310x42mm (DxWxH)	1U, Black or Beige
Metal Mounting Ear	Alum., 2.0mm Thickness	105x36.3x42mm (DxWxH)	2 Pieces, Black or Beige
Splice Tray	Alum., 0.6mm Thickness	142x116x11mm (DxWxH)	1 tray 12 or 24 fibers, 2 trays Max.
Winding Plate	Plastic	40x16mm (RxH)	2 Pieces, White or Black
Adapter Panel	Alum., 1.5mm Thickness	175x37mm (WxH)	2 Panels, Black or Beige
Cable Plug	Rubber	28mm Diameter	For 4 Cable Entries

ORDERING INFORMATION

Product Code	Description	Product Code	Description
NLU-FXXUXXR-06	LIU 6 PORT Rack Mount - Unloaded	NLU-FMDLLCR-24	LIU 24 PORT Rack Mount - Loaded (LC) MM
NLU-FXXUXXR-12	LIU 12 PORT Rack Mount - Unloaded	NLU-FSSLSCR-12	LIU 12 PORT Rack Mount - Loaded (SC) SM
NLU-FXXUXXR-24	LIU 24 PORT Rack Mount - Unloaded	NLU-FSDLSCR-24	LIU 24 PORT Rack Mount - Loaded (SC) SM
NLU-FMSLSCR-12	LIU 12 PORT Rack Mount - Loaded (SC) MM	NLU-FSLLCR-12	LIU 12 PORT Rack Mount - Loaded (LC) SM
NLU-FMDLSCR-24	LIU 24 PORT Rack Mount - Loaded (SC) MM	NLU-FSDLLCR-24	LIU 24 PORT Rack Mount - Loaded (LC) SM
NLU-FMSLLCR-12	LIU 12 PORT Rack Mount - Loaded (LC) MM	NLU-FXXUXXR-48	LIU 48 port Rack Mount Unloaded

FIBER OPTIC COMPONENTS

LIU - WALL MOUNT



KEY FEATURES

- Space saving with its compact & small design of enclosure
- Front door design is easy for operation & fibers expansion
- Can manage both splices and terminations
- Can include adapter panels for maximum 24 ports LC/SC and 12 ports ST/FC terminations
- Rubber fiber slotted bracket built-in, metal splice shelf to protect the fibers
- Snap-in locker design, easy to change adapter panels for flexible configuration & easy installation
- Top & bottom cable entry is easy with rubber plug
- Lock & Key Provided

The D-Link Wall Mount LIU is a modular enclosure that provides cross-connect and interconnect capabilities for splicing and terminating outdoor cables & FTTH drop cables in fiber access network. It integrates three main functions of fiber splicing, cable winding & storing, and interface management.

The enclosure adopts good quality metal sheets & surface electrostatic spray technique, which is offering safety & good endurance performance. It is the ideal design for building & campus networking.

APPLICATIONS

- Optical fiber access networks
- Local area networks
- Fiber to the premises
- Small-count splice applications

SPECIFICATIONS

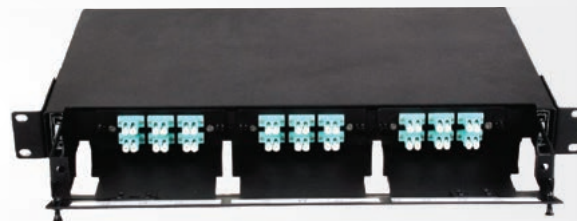
PARTS	MATERIAL	DIMENSION	REMARKS
Metal Shelf	Alum., 1.0mm Thickness	320x250x55mm (LxWxH)	Black or Beige
Splice Tray	Alum., 0.6mm Thickness	142x116x11mm (LxWxH)	12 fibers/Tray, 2 trays Max.
Adapter Panel	Alum., 1.5mm Thickness	175x37mm (WxH)	1 Panel, Black or Beige
Cable Plug	Rubber	28mm Diameter	For 4 Cable Entries
Cable Saddle	Plastic	28x24mm Inner Ring	2 pcs, with foam sticker

ORDERING INFORMATION

Product Code	Description
NLU-FXXUXXW-06	LIU 6 PORT Wall Mount - UnLoaded
NLU-FXXUXXW-12	LIU 12 PORT Wall Mount - UnLoaded
NLU-FXXUXXW-24	LIU 24 PORT Wall Mount - UnLoaded

FIBER OPTIC COMPONENTS

LIU - SLIDING



D-Link 19-inch Sliding Optical Fiber Interconnection Units are the smaller basic patch panel & cabinet used in interconnecting, cross-connecting, or splicing applications in LANs at a premise location. The LIU (optical fiber interconnecting unit) is modular and suitable for optical cable installation, bare fibers splicing & protection, pigtailed storage & management. The number of fibers determines which LIU is appropriate for the application.

The D-Link 1U Series Combination Shelves help you save time & money to manage your cable resources efficiently. By using these shelves to terminate and splice fibers, you can rearrange cabling quickly and keep track of your fiber resources. Efficient fiber management also helps save on maintenance and replacement costs. The 1U sliding LIU utilizes easy glide ball bearing slide rails for smooth pullout & push in with a positive stop feature.

KEY FEATURES

- 1.5mm steel sheet for strong housing
- Ball bearing slid rails with positive stop
- Hinged front panel is easy to be turned over & be fixed by snap-in locker
- Front-mounted cable saddles for jumper management
- Can manage both splices and terminations
- Can include adapter panels for up to 72 LC, 36 SC, 24 ST or 24 FC terminations
- High density splice tray contains 24 fiber maximum in one tray
- Clear plastic cover to protect the fibers
- 4 fiber saddles built-in for 900µm tight buffered fiber winding & storing
- Capable of storing up to 3 meters of 900µm tight buffered fiber per adapter
- Snap-in locker design, easy to change adapter panels for various connector patching
- Removable rubber grommet allows for pre-terminated fiber trunk installation, protects cable and minimizes dust build-up
- Accessory kit consists of cable ties, mounting ear screws, and spiral wrap tube

SPECIFICATIONS

PARTS	MATERIAL	DIMENSION	REMARKS
Metal Draw	Steel, 1.5mm Thickness	410 x 309 x 38.80mm (DxWxH)	1U, Black or Beige
Metal Outer Shelf	Steel, 1.5mm Thickness	430 x 250 x 43.65mm (DxWxH)	1U, Black or Beige
Metal Mounting Ear	Steel, 2.0mm Thickness	75 x 26.3 x 43.65mm (DxWxH)	2 Pieces, Black or Beige
Splice Tray	Plastic	224 x 107 x 12.2mm (DxWxH)	Containers 12, 24 fibers
Adapter Panel	Steel, 1.5mm Thickness	109.4 x 35.4mm (WxH)	3 Panels, Black or Beige
Cable Plug	Rubber	28mm Diameter	For 2 Cable Entries

ORDERING INFORMATION

Product Code	Description	Product Code	Description
NLU-FXXUXXR-06S	LIU 6 PORT Rack Mount - Sliding - Unloaded	NLU-FMSLLCR-12S	LIU 12 PORT Rack Mount - Sliding - Loaded (LC) MM
NLU-FXXUXXR-12S	LIU 12 PORT Rack Mount - Sliding - Unloaded	NLU-FMDLLCR-24S	LIU 24 PORT Rack Mount - Sliding - Loaded (LC) MM
NLU-FXXUXXR-24S	LIU 24 PORT Rack Mount - Sliding - Unloaded	NLU-FSSLSCR-12S	LIU 12 PORT Rack Mount - Sliding - Loaded (SC) SM
NLU-FXXUXXR-48S	LIU 48 PORT Rack Mount - Sliding - Unloaded	NLU-FSDLSCR-24S	LIU 24 PORT Rack Mount - Sliding - Loaded (SC) SM
NLU-FMSLSCR-12S	LIU 12 PORT Rack Mount - Sliding - Loaded (SC) MM	NLU-FSSLLCR-12S	LIU 12 PORT Rack Mount - Sliding - Loaded (LC) SM
NLU-FMDLSCR-24S	LIU 24 PORT Rack Mount - Sliding - Loaded (SC) MM	NLU-FSDLSCR-24S	LIU 24 PORT Rack Mount - Sliding - Loaded (LC) SM

FTTH Solution



FO Outlet



BOX Type Splitter



**Optical Distribution
Frame**



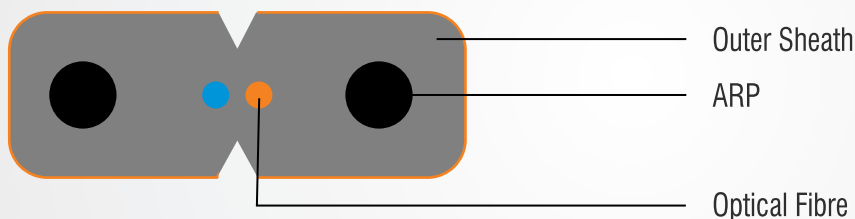
PLC Splitter - Rack Mount



Tube Type Splitter



FTTH DROP CABLE



CABLE MECHANICAL CHARACTERISTICS

Tensile Strength	:	
Installation	:	100 N
Operation	:	50 N
Minimum Bending radius	:	20 mm
Crush Resistance	:	500N/ 100x100

OPTICAL CHARACTERISTICS FOR G.652D FIBRES

Attenuation 1310nm	:	= 0.4 dB/Km
1550nm	:	= 0.3 dB/Km
Cable cut-offwavelength	:	= 1260nm
Mode Field Diameter@1310nm	:	8.2 - 9.4 μ m

PHYSICAL CHARACTERISTICS

Cable Dimensions		
Width	:	3.1 ± 0.2 mm
Height	:	2 ± 0.2 mm
Nominal Cable Weight	:	9.5 Kg/km (Nominal)

Cable Size - 2 F

Standard Length - 1Km or 2 Km $\pm$ 10 %

ORDERING INFORMATION

Part Code	Description
NCB-FS09I- UFPV-02	2F Drop Cable for FTTH – PVC Type
NCB-FS09I- UFLS-02	2F Drop Cable for FTTH – LSZH Type

CABLE CONSTRUCTION DETAILS

No. of Fibres	:	2F
Fiber Colour	:	Blue, Orange
Strength Member	:	ARP Rod - 2 Nos.
Sheath	:	Low Smoke Zero Halogen/PVC
Sheath Colour	:	Black

FIBRE GEOMETRY

Coating diameter	:	$245 \pm 10\mu$ m
Cladding Non-circularity	:	= 1 %
Cladding diameter	:	$125 \pm 1\mu$ m
Mode Field Concentricity error	:	= 0.8 μ m

FO OUTLET



Fiber Optic Outlet is used in FTTH indoor application. It enables termination of fiber optic cables within residence and commercial buildings. The bend radius of the individual fibers does not fall below 15mm, thereby minimize the signal transmission losses.

KEY FEATURES

- Inner slack storage area ensures minimum bend radius
- Inner tray for splice sleeve
- Suitable for SC or LC connectors
- Compact size: Takes less wall space

SPECIFICATIONS

Size (L*W*H) (mm)	:	86*86*20
Adapter Type	:	SC, Duplex LC
No. of Adapter	:	2
Storage of Fibers	:	G.657 or G.652 fiber applied
Max. Cable Diameter (mm)	:	3 – 6
No. of Cable Entry	:	5(Up, down, left, right, rear)
Splice Method	:	Fusion Splice (40mm sleeve applied)
Color	:	White
Material	:	Impact Plastic

APPLICATIONS

Widely used in FTTH access Network

ORDERING INFORMATION

Part Code	Description
NFO-FXDXX02	Blank Outlet

OPTICAL DISTRIBUTION FRAME



D-Link Optical Distribution Frame Units are the cabinets used in interconnecting, cross-connecting, or splicing applications in LANs at a premise location.

The optical distribution frame (ODF) is modular and suitable for optical cable installation, bare fibers splicing & protection, pigtails storage & management. The number of fibers determines which ODF is appropriate for the application.

SPECIFICATIONS

- Operation temperature : -40° to +45°
- Pressure resistance : 70 to 106KPa
- Tensile force : 1000N(minimum value)
- Strength : 15KV(DC)/1 min, no flashover
- Relative humidity : 85%
- Return loss : PC(=45db) UPC(50=db)
- APC (=60db)
- 12 & 24 Ports
- Rack mount & wall mount
- High quality

ORDERING INFORMATION

Part Code	Description
NDF-XXUSCA-24	Optical Distribution Frame with 24 SC ports
NDF-XXUSCA-48	Optical Distribution Frame with 48 SC ports
NDF-XXUSCA-96	Optical Distribution Frame with 96 SC ports
NDF-XXUSCA-144	Optical Distribution Frame with 144 SC ports

KEY FEATURES

- High strength material
- Full components
- Easy to maintain and install
- Excellent seal performance
- Both burying and aerial are available

ABS PLASTIC 24 CORES FIBER OPTIC SPLICE TRAY

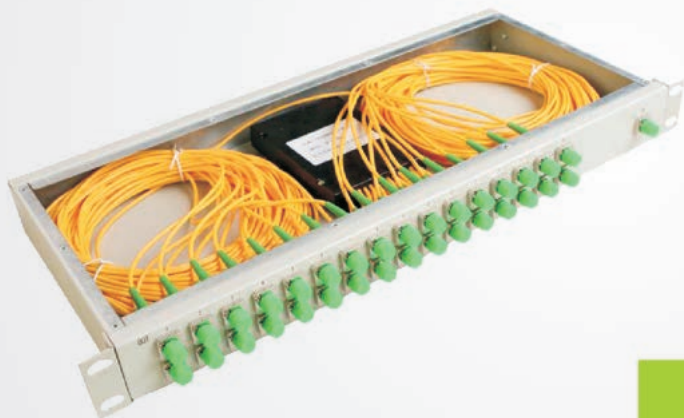
Fiber optic splice trays are designed to provide a location to store and to protect the fiber cables and the splices. Fiber optic splice trays are located at intermediate points along a route where cables are required to be joined or at the termination and patch panel points at the end of fiber cable runs.

Splice trays normally hold up to 12 splices, and several trays are used together to splice a large fiber cable. Each tray provides space for mounting fiber splice protectors and excess fiber.

APPLICATION

- Telecommunications subscriber loop
- Fiber to the home (FTTH)
- LAN/WAN

PLC SPLITTER - RACK MOUNT



Planar Light Circuit (PLC) splitters exhibit uniform signal splitting for FTTH and PON network. It is fabricated using silica optical waveguide technology.

Splitters come with SC adapter. It meets GR-1209 and GR-1221 standard for performance and reliability

KEY FEATURES

- Quartz substrate integrated waveguard
- Good Uniformity and low insertion loss
- Low Polarisation Dependent Loss
- Excellent Environmental Stability
- High Reliability
- Channel-to-Channel uniformity
- Small size

APPLICATIONS

- FTTH(FTTP, FTTH, FTTN, FTTC)
- CATV Systems
- Passive Optical Networks(PON)
- Test Equipment
- Local Area Networks (LAN)
- Monitoring system

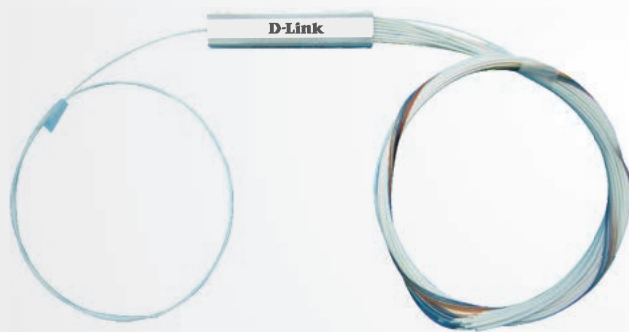
SPECIFICATIONS

Parameter	1 x 2	1 x 4	1 x 8	1 x 16	1 x 32	1 x 64	2 x 2	2 x 4	2 x 8	2 x 16	2 x 32	2 x 64
Wavelength	1260-1650 (nm)											
Max. Insertion Loss (dB)	4.0/ 4.2	7.2/ 7.4	10.5/ 10.7	13.5/ 13.7	16.5/ 16.9	20.5/ 21	4.0/ 4.5	7.5/ 7.8	11.2/ 11.5	14.2/ 14.5	17.4/ 17.7	21.0/ 21.5
Max. Loss Uniformity.(dB)	0.6	0.6	0.8	1.2	1.5	2.5	0.6	0.6	0.8	1.2	1.5	2.5
Max. PDL (dB)	0.2	0.2	0.3	0.3	0.3	0.4	0.2	0.2	0.3	0.3	0.3	0.4
Return Loss (dB)					≥50							
Directivity (dB)					≥55							
Pigtail Length (m)	1.2 (± 0.1), customer specified											
Fiber Type	Corning SMF-28e, customer specified											
Operating Temperature	-40 - +85 (°C)											

ORDERING INFORMATION

Part Code	Description	Part Code	Description	Part Code	Description
NFS-FSSSC1- 2	1 x 2 PLC splitter	NFS-FSSSC1- 32	1 x 32 PLC splitter	NFS-FSSSC2- 8	2 x 6 PLC splitter
NFS-FSSSC1- 4	1 x 4 PLC splitter	NFS-FSSSC1- 64	1 x 64 PLC splitter	NFS-FSSSC2- 16	2 x 8 PLC splitter
NFS-FSSSC1- 8	1 x 8 PLC splitter	NFS-FSSSC2- 2	2 x 2 PLC splitter	NFS-FSSSC2- 32	2 x 32 PLC splitter
NFS-FSSSC1- 16	1 x 16 PLC splitter	NFS-FSSSC2- 4	2 x 4 PLC splitter	NFS-FSSSC2- 64	2 x 64 PLC splitter

PLC SPLITTER - TUBE TYPE



Planar Light Circuit (PLC) splitters exhibit uniform signal splitting for FTTH and PON network. It is fabricated using silica optical waveguide technology.

Splitters come with SC adapter. It meets GR-1209 and GR-1221 standard for performance and reliability.

KEY FEATURES

- Quartz substrate integrated waveguard
- Good Uniformity and low insertion loss
- Low Polaration Dependent Loss
- Excellent Environmental Stability
- High Reliability
- Channel-to-Channel uniformity
- Small size

APPLICATIONS

- FTTX(FTTP, FTTH, FTTN, FTTC)
- Passive Optical Networks(PON)
- Local Area Networks (LAN)
- Test Equipment
- Monitoring system

SPECIFICATIONS

Parameter	1 x 2	1 x 4	1 x 8	1 x 16	1 x 32	1 x 64	2 x 2	2 x 4	2 x 8	2 x 16	2 x 32	2 x 64
Wavelength (nm)	1260-1650											
Max. Insertion Loss (dB)	3.8/4.1	7.0/7.4	10.0/10.3	13.5/ 13.7	16.5/ 16.9	21	4.1/4.3	7.3/7.6	10.3/10.5	13.7/ 13.9	16.8/ 17.2	21.5
Max. Loss Uniformity (dB)	0.6	0.6	0.8	1.2	1.5	2.5	0.8	0.8	1.5	2.0	1.5	2.5
Max. PDL (dB)	0.2	0.2	0.3	0.3	0.3	0.4	0.2	0.2	0.4	0.4	0.4	0.4
Return Loss (dB)	=50											
Directivity (dB)	=55											
Pigtail Length (m)	1.2 (± 0.1), customer specified											
Fiber Type	Corning SMF-28e, customer specified											
Operating Temperature (°C)	-40 - +85											

All measurements were done at room temperature and specifications exclude connectors

PLC SPLITTER - TUBE TYPE

ORDERING INFORMATION

Part Code	Description	Part Code	Description
NFS-FSSSC1-2-T	1 x 2 PLC splitter – Tube type	NFS-FSSSC2-2-T	2 x 2 PLC splitter – Tube type
NFS-FSSSC1-4-T	1 x 4 PLC splitter – Tube type	NFS-FSSSC2-4-T	2 x 4 PLC splitter – Tube type
NFS-FSSSC1-8-T	1 x 8 PLC splitter – Tube type	NFS-FSSSC2-8-T	2 x 8 PLC splitter – Tube type
NFS-FSSSC1-16-T	1 x 16 PLC splitter – Tube type	NFS-FSSSC2-16-T	2 x 16 PLC splitter – Tube type
NFS-FSSSC1-32-T	1 x 32 PLC splitter – Tube type	NFS-FSSSC2-32-T	2 x 32 PLC splitter – Tube type
NFS-FSSSC1-64-T	1 x 64 PLC splitter – Tube type	NFS-FSSSC2-64-T	2 x 64 PLC splitter – Tube type

BOX TYPE SPLITTER



Planar lightwave circuit (PLC) splitter is a type of optical power management device that distribute optical signals from Central Office (CO) to multiple premise locations.

The Box type design, can easily be placed into optical fiber distribution box, optical fiber junction box or many kind of box, which can reserve some space. It can be easily applied in FTTx construction, optical network construction, CATV networks and etc.

KEY FEATURES

- Low insertion loss. Low PDL and High reliability
- High return loss and Good repeatability
- Wide wavelength range
- Excellent channel-to-channel uniformity

APPLICATIONS

- LAN, WAN and Metro Networks
- FTTH project & FTTX deployments
- CATV System
- GPON, EPON
- Fiber Optic Test Equipment
- Database Transmit Broadband Net

SIZE

Item	1x2	1x4	1x8	1x16	1x32	1x64
Length x Width x Height (mm)	100x80x10	100x80x10	100x80x10	120x80x18	120x80x18	140x114x18

Item	2x2	2x4	2x8	2x16	2x32	2x64
Length x Width x Height (mm)	100x80x10	100x80x10	100x80x10	120x80x18	120x80x18	140x114x18

ORDERING INFORMATION

Part Code	Description
NFS-FSSSC1-2-B	1 x 2 PLC splitter – Box type
NFS-FSSSC1-4-B	1 x 4 PLC splitter – Box type
NFS-FSSSC1-8-B	1 x 8 PLC splitter – Box type
NFS-FSSSC1-16-B	1 x 16 PLC splitter – Box type
NFS-FSSSC1-32-B	1 x 32 PLC splitter – Box type
NFS-FSSSC1-64-B	1 x 64 PLC splitter – Box type

Part Code	Description
NFS-FSSSC2-2-B	2 x 2 PLC splitter – Box type
NFS-FSSSC2-4-B	2 x 4 PLC splitter – Box type
NFS-FSSSC2-8-B	2 x 8 PLC splitter – Box type
NFS-FSSSC2-16-B	2 x 16 PLC splitter – Box type
NFS-FSSSC2-32-B	2 x 32 PLC splitter – Box type
NFS-FSSSC2-64-B	2 x 64 PLC splitter – Box type

FAST FIELD ASSEMBLY CONNECTORS



At D-Link, we adopt high precision equipment in fiber connector product line providing the highest levels of reliability and performance.

KEY FEATURES

- Industry-leading double V groove alignment clamping mechanism.
- Applies to leather cabled fiber: H * W = 3 * 2m.
- Site installation can be completed within two minutes.
- Particularly suitable for FTTH and all kinds of complex applications.
- Lower requirements for the construction workers, construction of low scrap rate.
- Do not need to grinding, adhesive and power supply equipment .
- Can be reused.

PRODUCT INDICATORS

Item	Specifications	
Insertion Loss	Average = 0.3dB	Maximum:0.5dB
Return Loss	=40dB(PC)	=55dB(APC)
Tensile	=30N	
Repeated Mating	=500Times	
Operating Temperature	-40°C ~ +85°C	

ORDERING INFORMATION

Part Code	Description
NCO-FSSSF09-APC	Fast Connector SM SC APC Type
NCO-FSSSF09	Fast Connector SM SC

GLOSSARY OF TERMS

The following glossary offers explanations for a number of terms used in this catalog. It additionally provides explanations for a number of other terms frequently used within the networking and cabling industries.

10BASE-T- 10 Mbps Ethernet using 2-pairs of Category 3 cable.

100BASE-T4- 100 Mbps Fast Ethernet using 4-pairs of Category 3 cable.

100BASE-TX- 100 Mbps Fast Ethernet using 2-pairs of Category 5 cable.

100VG-AnyLAN- 100 Mbps LAN using Demand Priority Protocol originally developed by Hewlett Packard and AT&T for Category 3 cable.

1000BASE-T- 1000 Mbps (1Gbps) Ethernet using 4-pairs of Category 5e cable.

1000BASE-TX- A low cost alternative to 1000BASE-T developed by TIA for Category 6 cabling.

1000BASE-SX- 1000 Mbps (1Gbps) Ethernet operating on multimode fiber with short wave lasers (850 nm).

1000BASE-LX- 1000 Mbps (1 Gbps) Ethernet operating on multimode fiber with long wave lasers (1300nm).

10GBASE-T- 10 Gbps Ethernet using 4-pairs of Category 6 or better cabling.

10GBASE-LR- 10 Gigabit Ethernet operating at long wavelength (1300nm) on singlemode optical fiber. 10GBASE-LR is the LAN version, 10GBASE-LW is the WAN version. Up to 10 Km reach.

10GBASE-LX4- 10 Gigabit Ethernet operating at long wavelength (1300nm) on multimode or singlemode optical fiber. Designed to overcome the imperfections of legacy multimode fiber, by utilizing 4 lasers and 4 detectors operating at different wavelengths. Up to 300 m reach on multimode, 10 Km on singlemode.

10GBASE-SR- 10 Gigabit Ethernet operating at short wavelength (850 nm) on laser optimized (OM3) multimode fiber. The lowest cost transceiver alternative, taking advantage of the advances in multimode fiber technology that eliminate the imperfections of legacy multimode. Up to 300m reach on laser optimized (OM3) multimode fiber (up to 550 m supported on enhanced OM3 fiber).

A

Alien Crosstalk-Signal coupling between adjacent cabling components (cables, connector) or between adjacent links or channels.

Application- A system, with its associated transmission method which is supported by telecommunications cabling.

Application Layer- The uppermost layer (layer7) of the open systems interconnection (OSI) model. This layer is concerned with support to the user application and is responsible for managing the communication between applications, e.g. Email, File transfer, etc.

Asynchronous-Two or more signals sourced from independent clocks, therefore having different frequency and phase relations.

Asynchronous Data Transfer- A method of data transfer in which each alphabetic or numeric character (represented by 7 or 8 bits) is preceded by 'start' and 'stop' bits to delineate the 7/8 bit pattern from the ideal pattern which otherwise occupies the (digital) transmission medium.

Asynchronous Transfer Mode (ATM)- A high-speed cell-based switching and multiplexing technology based on segmentation of voice, data and video into fixed packets (cells). These cells are transferred along switched paths and are not received on a regular basis (hence the term asynchronous).

Attenuation- The effect of signal dwindling, experienced with accumulating line length or distance or radio transmission.

B

Backbone(s)- The part of a premises distribution system that

includes a main cable route and facilities for supporting the cable from the equipment room to the upper floors, or along the same floor to the wiring closets.

Balanced Twisted Pair Cable- A cable consisting of one or more metallic symmetrical cable elements (twisted pairs or quads).

Bandwidth- The range of frequencies that can be used for transmitting information on a channel. It indicates the transmission-carrying capacity of a channel. Thus, the larger the bandwidth, the greater the amount of information that can pass through the circuit. Measured in hertz or bits per second or Mhz-Km (for fiber).

Bit Error Rate (BER)- A measure of quality of a digital transmission line, either quoted as a percentage, or more usually as a ratio, typically 1 error in 10E8 or 10E9 bits carried. The lower the number of errors, the better the quality of the line.

Building Backbone Cable- A cable that connects the building distributor to a floor distributor. Building backbone cables may also connect floor distributors in the same building.

Building Distributor- A distributor in which the building backbone cable(s) terminate(s) and at which connections to the campus backbone cable(s) may be made.

Building Entrance Facility- A facility that provides all necessary mechanical facility and electrical services, that complies with all relevant regulations, for the entry of telecommunications cables into a building.

BUS- Consists of a common transmission path with a number of nodes attached to it. Sometimes referred to as linear network topology.

C

Cabling- A system of telecommunications cables, cords and connecting hardware that can support the connection of information technology equipment.

Campus- A premises containing more than one building adjacent or near to one another.

Campus Backbone Cabling- A cable that connects the campus distributor to the building backbone distributor(s). Campus backbone cables may also connect building distributors directly.

Category 3- Industry standard for cable and connecting hardware products with transmission characteristics specified to 16 MHz, designed to support digital transmission of 10 Mbps.

Category 5- Industry standard for cable and connecting hardware products with transmission characteristics specified to 100 MHz, intended to support digital transmission of 100 Mbps.

Category 5e- Enhanced Category 5 specifications for cable and connecting hardware products with transmission characteristics specified to 100 MHz, intended to support digital transmission of 1000 Mbps.

Category 6- Industry standard for cable and connecting hardware products with transmission characteristics specified to 250 MHz, designed to support digital transmission in excess of 1000 Mbps.

Category 6A- Industry standard for cable and connecting hardware products with transmission characteristics specified to 500 MHz, designed to support digital transmission of 40 Gbps.

CENELEC- European committee for electrotechnical standardization.

CENELEC En50173- The European standard for generic cabling for customer premises.

CENELEC En50174- A proposed European cabling systems planning & installation standard being developed by CENELEC.

Channel- The end-to-end transmission path connecting any two pieces of application-specific equipment. Equipment cables and work area cables are included in the channel.

Consolidation Point- An interconnection point in horizontal cabling, typically used to support the re-arrangement of furniture cloisters.

Cross-connect- A facility enabling the termination of cable elements and their connection, primarily by means of patch cords or jumpers.

Crosstalk- An electromagnetic coupling between two physically isolated circuits in a system. This coupling causes a signal on one circuit to induce a noise voltage on adjacent circuits, thereby causing signal interference.

D

Decibel (dB)- A unit used to measure relative increase or decrease in power, voltage or current, using a logarithmic scale.

Digital Transmission- A technique in which all information is converted into binary digits for transmission.

Distributor- The terms used for the functions of a collection of components (i.e. patch panels, patch cords) used to connect cables.

E

EIA/TIA- North American Standards organization.

EIA/TIA 568B- North American commercial building telecommunications wiring standard.

Ethernet- A LAN originally developed by DEC, Xerox and Intel. It used the CSMA/CD protocol.

F

Fast Ethernet- A 100 Mbps LAN based on CSMA/CD protocol. See 100BASE-T.

Fiber- See Optical Fiber.

Fiber Channel- This is an ANSI standard describing point to point and switched point to point physical interface, transmission protocol, signaling protocol, services and command set mapping of a high performance serial link for uses between mainframe computers and computer peripherals.

Fiber Distributed Data Interface (FDDI)- An American National Standards Institute standard for fiber-based token passing access protocol that operates at a 100 Mbps data transfer rate.

Foil Screened Twisted Pair Cable (FTP)- A cable that uses a metallic foil to surround the conductors in a twisted pair cable.

Full Duplex- Simultaneous two-way communication on the same link or cabling channel.

Full Duplex Ethernet- Full duplex Ethernet allows nodes to transmit and receive data at the same time, doubling throughput between work-station and switch.

G

Generic Cabling- A structured telecommunications cabling system, capable of supporting a wide range of applications. Generic cabling can be installed without prior knowledge of the required applications. Application-specific hardware is not a part of generic cabling.

H

Half Duplex- Two-way transmission on a single link or cabling channel, one direction at a time.

Horizontal Cable- A cable connecting the floor distributor to the telecommunications outlet(s).

Horizontal Subsystem- The part of the premises distribution system installed on one floor that includes the cabling and distribution components connecting the riser backbone or equipment wiring to the information outlet.

Hub- A concentrator or repeater in a star topology at which node

connections meet.

Hybrid Cable- An assembly of two or more different types of cable units, cables or categories covered by an overall sheath. It may be covered by an overall shield.

I

IEC 60332- The international standard covering fire performance of cables.

IEEE- Institute of Electrical and Electronic Engineers in the USA. This organization is also involved in producing Local Area Network standards such as Ethernet.

Individual Pair Screened- Where each twisted pair in one overall cable has its own screen.

Integrated Services Digital Network (ISDN)- Integrated voice and data network based on digital communications technology and standards interfaces.

Intelligent Buildings- Buildings that maximize the efficiency of its occupants and allow effective management of resources with minimum of resources with minimum life-time costs (Source: European Intelligent Building Group).

Interconnect- A location at which equipment cables are terminated and interconnected to the cabling subsystems without using a patch cord or jumper.

Interference- A signal impairment caused by the interaction of another unwanted signal.

ISO- International Standards Organization.

ISO/IEC IS 11801- The international standard for generic cabling for customer premises.

ISO/IEC 14763-1- The international standard for generic cabling.

L

Local Area Network(s) (LANs)- A LAN allows users to share information and computer resources. Typically a local area network is limited to a single building.

M

Multimedia- A means of conveying information with components in different media such as voice, music, text, graphics, image and video.

Multimode Fiber- Optical fibers that have a large core and that permit non-axial rays or modes to propagate through the core.

N

Network Architecture- Network topology and design.

Network Interface Cards (NICs)- The piece of equipment that is installed into the expansion port of a personal computer and allows communication between the PC and the network.

Network Layer- The network layer is layer 3 of the OSI mode. This layer sets up an end-to-end connection across a network determining which permutation of individual links to be used. Thus the network layer performs overall routing functions.

Node(s)- A piece of communications equipment on the network.

Noise- The term used for spurious signals produced in a conductor by sources other than the transmitter to which it is connected. Noise can affect a legitimate signal to the extent that it is inaccurate or indecipherable when it reaches the receiver. The higher the speed of data transmission, the worse the effects of noise become.

O

Open System Interconnection (OSI)- A conceptual model specified by CCITT recommendations in the X200 series. The model describes the 7-layer process of communication between co-operating computers. The model provides a standard for the development of communication protocols allowing for computers of different manufacturers to be interconnected.

Optical Fiber- A transmission medium consisting of a core of glass or plastic surrounded by a protective cladding. Signals are transmitted as light pulses, introduced into the fiber by a light transmitter (i.e. Laser or an LED).

Outlets- A term used to describe the sockets provided in the work location of a structured cabling system. These are usually 8-pin modular sockets which can support a variety of services (i.e. voice, video and data).

P

Patch Cord(s)- Flexible cable unit or element with connector(s), used to establish connections on a patch panel.

Patch Panel(s)- Termination and administration hardware designed to accommodate the use of patch cords. It facilitates administration for moves and changes.

Pathway(s)- Designated cable routes and/or support structures on a false floor or ceiling. Peripheral(s)- Additions to a system, a resource (i.e. printer, scanner, etc.)

Permanent Link- The transmission path between two mated interfaces of generic cabling, excluding equipment cables, work area cables and cross-connections.

Physical Layer- Layer 1 of the open systems interconnection (OSI) model. The physical layer protocol is the hardware and software in the line terminating device which converts the data bits needed by the datalink layer into the electrical pulses, modern tones, optical signals or other means which will transmit the data.

Physical Topology- Physical cabling layout (i.e. ring, bus, star wired etc.)

Ports- A computer interface capable of transmitting and or receiving information.

PowerSum- A method of testing and measuring crosstalk in multi-pair cables that accounts for the sum of crosstalk affecting a pair when all other pairs are active. This is the only method of specifying crosstalk performance that is suited to cables with more than four pairs.

Protocol(s)- Systems that are not standards specific and therefore are not interoperable with standards based equipment.

R

Raceway- Any distribution method designed for holding cables, (i.e. conduit, metal or plastic trunking, cable trays, etc.)

Redundancy Risers- A fail-safe method of splitting and routing riser/backbone cabling via two or more riser cores. Also known as diverse routing.

Riser(s)- The term used to describe a space utilized by backbone cabling to house communications cabling and other building services. This space should preferably be specified, or allowed for, at the time of the building design.

Router(s)- An intermediate system between two or more networks capable of forwarding data packets at the networks layer (layer3).

S

Screened Cable- See foil screened twisted pair cable.

Simplex- A transmission means allowing only one direction of transmission. (i.e. public broadcast radio.)

Singlemode- Optical fiber with a small core diameter in which only

singlemode is capable of propagation, 8.3 micron is the common standard core size.

Splice- A joining of conductors or fibers, generally from separate cables.

Star- A physical point to point network topology.

Structured Cabling- Flexible cabling scheme which allows rapid reconfiguration for office moves through patching.

Switching- A function carried out by a switching hub, alleviating traffic by making virtual connections between transmitting and receiving nodes.

Synchronization- The method by which the bit patterns appearing on digital line systems may be properly clocked and interpreted — allowing the beginning of particular patterns and frame formats to be correctly identified.

Synchronous- Signals that are sourced from the same timing reference and hence are identical in frequency.

T

Telecommunications- A branch of technology concerned with the transmission, emission and reception of signals, writing, images and sounds; that is, information of any nature by cable, radio, optical or other electromagnetic systems.

Telecommunications Closet- An enclosed space for housing telecommunications equipment, cable terminations, and cross-connect cabling. The telecommunications closet is a recognized cross-connect point between the backbone and horizontal cabling subsystems.

Telecommunications Outlet- A socket where the horizontal cable terminates. The telecommunications outlet provides the interface to work area cabling.

Token Ring- The transmission medium used for IEEE 802.3 10BASE-2 LANs. It is a 50 ohm thick coax cable (commonly referred to as Cheaper Net). It is a 50 ohm thin coax cable.

Topology- The physical or logical configuration of a telecommunications system.

Twisted Pair(s)- A cable element conducting cable comprising one or more pairs none of which is shielded.

V

VCSEL- Vertical Cavity Surface Emitting Laser.

Video Conferencing- Real time communications via video between two or more users at separate locations.

W

Wide Area Networks (WANS)- Networks that are linked across a large geographical area generally using leased lines from a public operator.

Wireless LAN- Local area network that communicates using radio technology.

Work Area- A building space where the occupants interact with telecommunications terminal equipment. A user's work area which is typically 9 sq. meter or 100 sq. ft.

Work Area Cable- A cable connecting telecommunications outlet to the terminal equipment.

CERTIFICATIONS OVERVIEW



Underwriters Laboratories Inc. (www.ul.com) is an independent, nonprofit organization that writes testing standards and tests products for safety and certifies them. UL has developed more than 800 standards for safety, and millions of products and their components are tested to UL's safety standards.



ETL is a mark provided by Intertek and ETL Semko. Intertek (www.intertek-etlsemko.com) is a global leader in testing inspection and certification services. They are a Nationally Recognized Testing Laboratory and tests products to UL, CSA and CE standards.

25 YEARS STRUCTURED CABLING PERFORMANCE WARRANTY



Benefit from D-Link's 25-years performance warranty applicable to all D-Link Cabling and Copper products.



25 years Performance Warranty Certificate

is awarded to

ABCD Private Limited

Regd. office: _____

Site Installation Address: _____

Site Installer Address: _____

Warranty Registration Number: XXX-XXXX-XXX
Installation Medium (copper/Fiber): XXX XXXX
DCCE Registration No.: XXXXXX

Issue date: XX XXXXX XXXX
Valid up-to: XX XXXXX XXXX

Authorized Signatory


Raj Jadhav
VP- Consulting, Support & IT



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D-LINK EMPOWERS PARTNERS WITH DCCE CERTIFICATION

'D-Link Certified Cabling Expert' (DCCE) program has been established with the objective of imparting enhanced knowledge on structured cabling to the engineers & technicians of its System Integrators.

The 2 day DCCE program is conducted by a team specializing in structured cabling domain from D-Link, who offer participant with in-depth information on the technical aspect of the subject, evaluate trends for both Copper and Fiber products, and train them to design, install & also conduct post implementation testing of D-Link passive networking components for Infrastructure Projects.

On the very first day, participants were introduced to Copper cabling and covered topics like Information transportation system, Evolution of structured cabling, Basic concepts of topology, SCS

standards, Categories of copper cables, Field testing & Installation requirements along with practical's. While on the second day, the focus is on Fiber cabling and it covers topics like Basics of optical fiber, Fiber theory & hands-on, Key definitions, Different types of fiber cables, Fiber cable construction, Fiber optic components & OFC cabling considerations.

After the 2 day program, participants have to undergo an exam, and once certified as DCCE they will be in a position to validate projects wherein D-Link structured cabling products are implemented, with 25 years performance warranty.

To register for the DCCE certification program, participants can log on to <http://www.dlink.co.in:8081/>



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M/S. D-Link (I) Ltd.
404, Sapath-II, Opp Rajpath Club,
Sarkhej Gandhinagar Highway,
Satellite,
Ahmedabad – 380 015, Gujarat

Rajkot

202, Siddhi Vinayak Apts,
Shiv Sangam Society,
Nr Alishan flat, Jalaram 2,
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Rajkot – 360007, Gujarat

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216, 2nd Floor, Commerce House,
7 Race Course Road,
Indore – 452001, Madhya Pradesh

Goa

Plot No. U02B,
Verna Industrial Estate,
Verna, Salcette,
Goa – 403722

Pune

Plot No.54,
Sahakarvrund Society,
Ramkrishna Paramhans Nagar,
Paud Road, Near Shikshak Nagar,
Pune – 411038, Maharashtra

Nagpur

P23/A Kalmegh Nagar,
CRPF Gate, Hingna Road,
Nagpur – 440016, Maharashtra

Bangalore

#273, My Bhavan, 1st Floor,
15th Cross, 20th Main,
5th Phase, J.P.Nagar,
Bangalore – 560 076, Karnataka

Chennai

Old No.501, New No. 626,
JVL Plaza, 1st Floor,
Anna Salai, Teynampet,
Chennai- 600018, Tamilnadu

Cochin

G-183, Shopping Complex Lane,
Near Panampilly Nagar Post office,
Panampilly Nagar,
Cochin – 682036, Kerala

Visakhapatnam

D.no 23-45-23 Dayalnagar Iova
Pedagantyada mandal
Visakhapatnam – 530044,
Andhra Pradesh

Secunderabad

New Address: No 114, 1st Floor,
Bhuvana Towers
(CMR Exclusive Building)
Next to Manju Theatre
SD Road, Secunderabad – 500 003,
Andhra Pradesh

Warrangal

18-8-367/5 Bharthi Nalayam,
Bombay Mill Subha Nagar,
Warangal – 506002,
Andhra Pradesh

Delhi

401 – 405
4th Floor – A Block,
Naurang House
K.G. Marg, Connaught Place
New Delhi – 110001, Delhi

Chandigarh

SCO-180, First Level,
Sector-38C,
Chandigarh-160036, Punjab

Lucknow

1st Floor, B-98, Sector-C,
Near Police Wireless Crossing,
Mahanagar,
Lucknow – 226 006,
Uttar Pradesh

Jaipur

S-302, 2nd Floor, Nobel House – I,
Plot No. 22, Mission Compound,
Ajmer Road,
Jaipur – 302001, Rajasthan

Jammu & Kashmir

House No.5, Dawood Colony,
Soura, Srinagar – 190011,
Jammu & Kashmir

Bhubaneswar

Room No. #405, 4th Floor,
Nirmala Plaza,
Air-Port Square, Forest Park,
Bhubaneswar – 751016,
Odisha

Guwahati

2nd Floor, Above KFC
Parnil Palace, Zoo Road Tiniali,
Guwahati-781024, Assam

Kolkata

Matrix Tower, 402,
DN-24, 4th Floor, sector - V,
Saltlake City, Kolkata,
West Bengal

Raipur

Unit-II, 1st Floor,
Gobindkunj, Behind NIIT,
Civil Lines,
Raipur – 492 001, Chattisgarh

Patna

Sheopuri, Beur Road
Anisabad, Patna – 800002,
Bihar

Dhanbad

House No : 31, Moti Nagar,
Karmik Nagar Saraidhela,
Dhanbad – 826004, Jharkhand

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Ranchi – 834002, Jharkhand



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