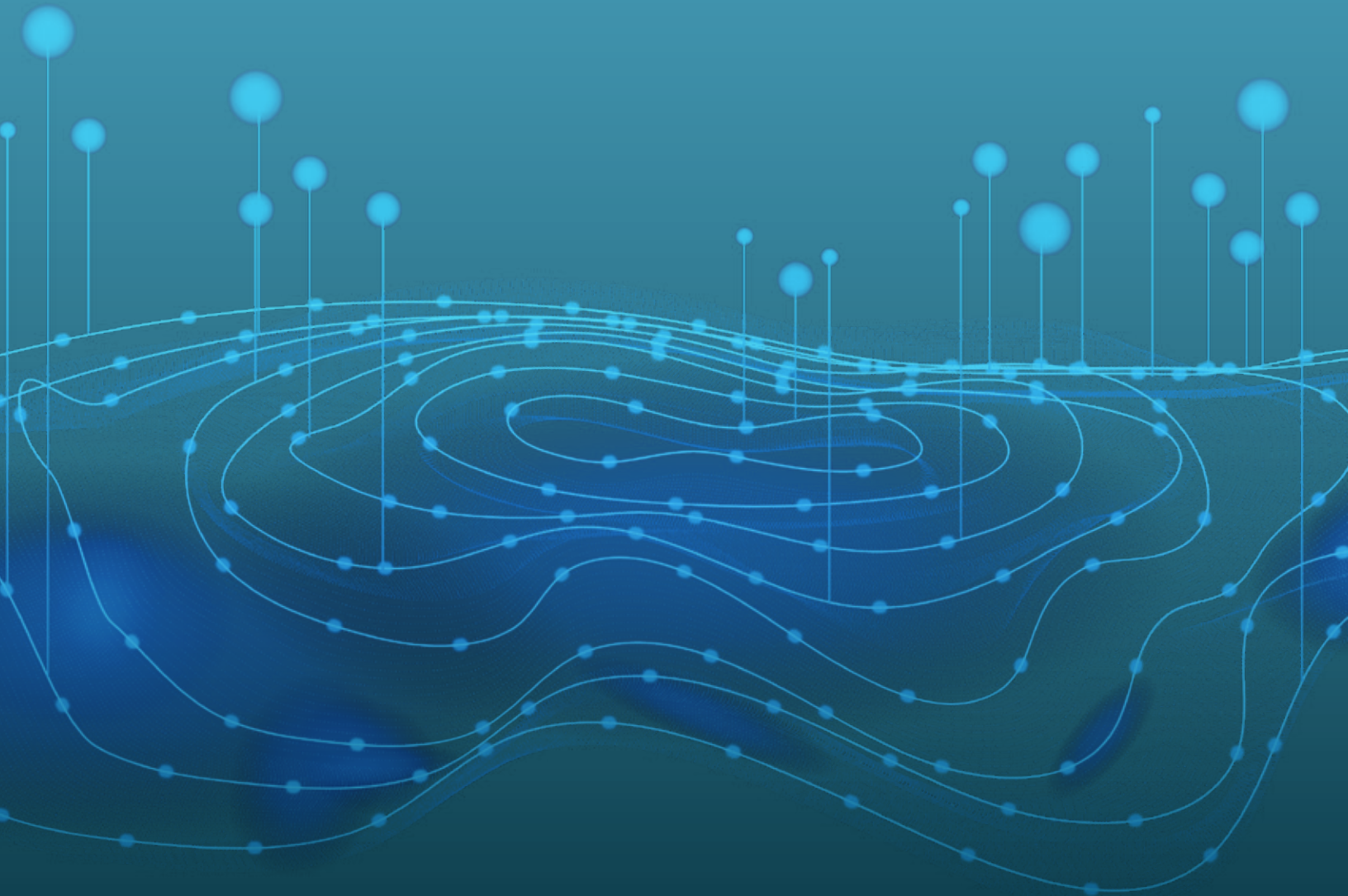




**Empower Your World**

# BUSINESS CATALOG

FIBER - COPPER - ACCESSORIES



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| CONNECTORS

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## ACCESSORIES

ADAPTERS | ATTENUATORS

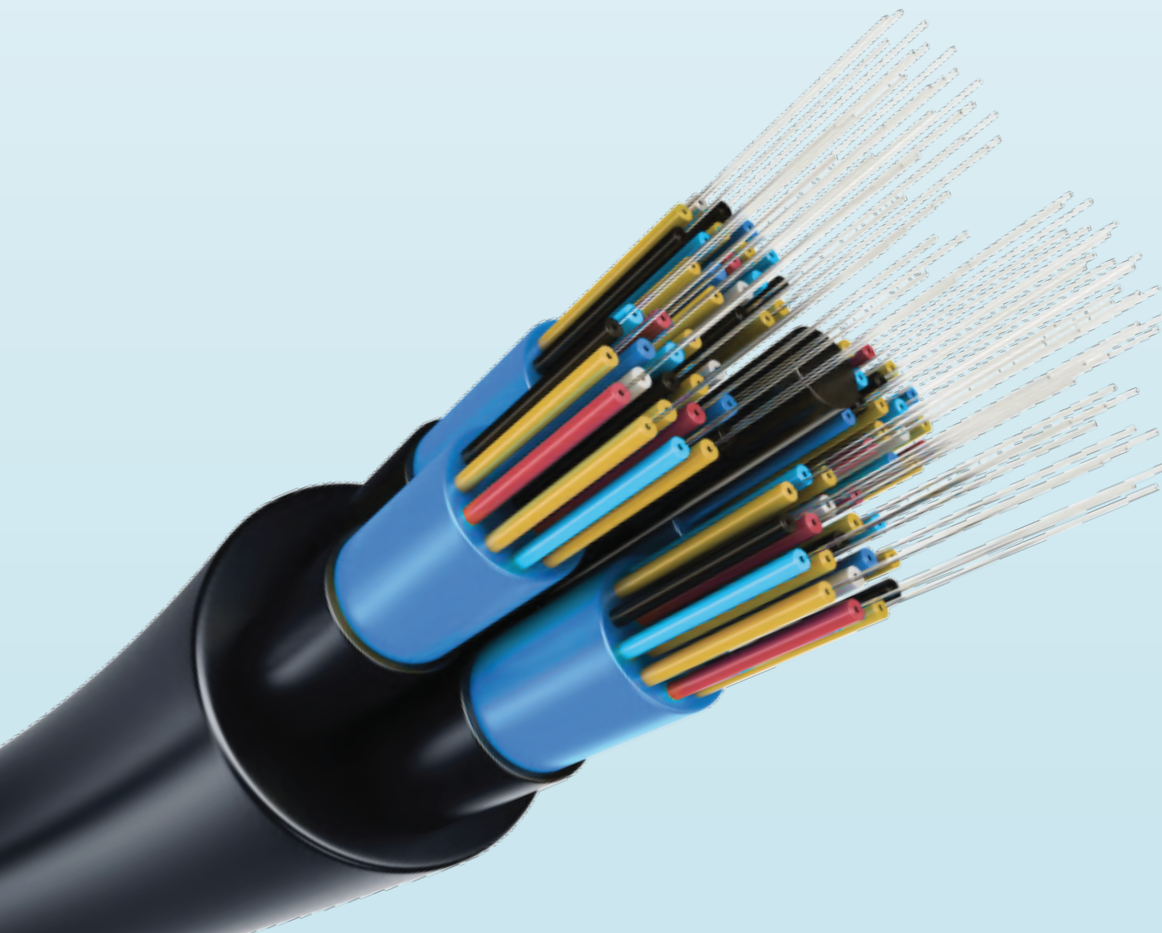
**56**



# WHO ARE WE?

A premier global distribution and sourcing company, **829** partners with manufacturers across Southeast Asia to bridge regional production with international demand.

We deliver high-quality fiber optic and copper cabling solutions to markets around the world, supported by trusted logistics, technical expertise, and efficient distribution channels that empower our partners to compete globally.





04

# FIBER OPTIC PRODUCTS





# FIBER OPTIC CABLE

**CONNECTOR TYPE** SC / ST / LC / FC

**MODE** 9/125UM - 62.5/125UM -  
50/125UM

**POLISH** UPC OR APC

**WAVELENGTH** 1310/1550NM | 850/1300NM  
FOR MULTIMODE

**LENGTH** 1M-15M OR CUSTOMIZED

**FIBER TYPE** SIMPLEX OR DUPLEX

**INSERTION LOSS TYPICAL**  $\leq 0.2\text{DB}$

**RETURN LOSS** SMF: UPC  $\geq 50\text{DB}$ , APC  $\geq 60\text{DB}$   
(LC/SC/ST/FC)  
MMF: UPC  $\geq 30\text{DB}$  (LC/SC/ST/FC)

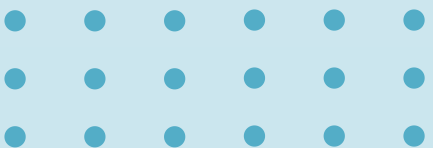
**INTERCHANGEABILITY**  $\leq 0.2\text{DB}$

**VIBRATION**  $\leq 0.2\text{DB}$

**JACKET MATERIAL** PVC/ LSZH / OFNR

**JACKET COLOR** ●●●●●●●●

**CABLE OD** STANDARD 0.9 / 2.0 / 3.0MM





# ABOUT

Fiber optic pigtail is a fiber optic cable terminated with a factory-installed connector on one end, leaving the other end terminated. Hence the connector side can be linked to equipment and the other side melted with optical fiber cables. High-quality pigtail cables offer the best performance possible for fiber optic cable terminations.



## PIGTAIL PRODUCTS

## APPLICATION

- Fiber optic pigtail are utilized to terminate fiber optic cables via fusion or mechanical splicing.
- Fiber optic pigtails are usually found in fiber optic management equipment like ODF, fiber terminal box and distribution box.

## STANDARD

ANSI/TIA/EIA 568-C.3

ISO/IEC 11801

IEC 60332 - 1

RoHS Compliance: Directive 2002/95/EC

# PIGTAILS

**CONNECTOR TYPE** SC / ST / LC / FC

**FIBER TYPE** OS2 (9/125UM)  
OM1 (62.5/125UM)  
OM2, OM3, OM4 (50/125UM)

**NUMBER OF FIBERS** 1F TIGHT JACKETED (SX)

**CABLE DIAMETER (MM)**  $0.9 \pm 0.05$

**JACKET COLOR**  CUSTOM

**JACKET MATERIAL** LSZH

**CONNECTOR COLOR**  UPC APC MULTI MODE ST, FC

**BEND RADIUS (MIN)** 10D

**CRUSH RESISTANCE** 10N/100MM

**VIBRATION**  $\leq 0.2\text{DB}$

**CONNECTOR CABLE RETENTION** 3N (0.67 LBS)

**CONNECTOR FERRULE** CERAMIC

**CONNECTOR REPEATABILITY**  $\leq 0.2\text{DB}$  (1000 TIMES MATING CYCLE)

**COATING STRIP FORCE**  $\leq 13.3\text{N}$

**STORAGE/INSTALLATION/ OPERATING TEMPERATURE**  $-20^{\circ}\text{C}$  TO  $70^{\circ}\text{C}$



# PIGTAILS



## PIGTAIL APC



SC/ LC/FC/ ST



APC Singlemode  
9/125 um



LSZH

## PIGTAIL UPC



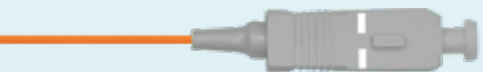
SC/ LC/FC/ ST



UPC Singlemode  
9/125 um



LSZH



## PIGTAIL OM1



SC/ LC/FC/ ST



OM1 Multimode  
62.5/125 um



LSZH

## PIGTAIL OM2



SC/ LC/FC/ ST



OM2 Multimode  
50/125 um



LSZH



## PIGTAIL OM3



SC/ LC/FC/ ST



OM3 Multimode  
50/125 um



LSZH

## PIGTAIL OM4



SC/ LC/FC/ ST



OM4 Multimode  
50/125 um



LSZH

# PIGTAILS

## PIGTAIL MULTICOLOR

**CONNECTOR TYPE** SC / ST / LC / FC / MTRJ / MU

**FIBER TYPE** OS2 (9/125UM)  
OM1 (62.5/125UM)  
OM2, OM3, OM4 (50/125UM)

**BUFFER** TIGHT-BUFFER, SEMI-TIGHT BUFFER  
OR EASY STRIP/LOOSE TUBE

**CABLE DIAMETER (MM)**  $0.9 \pm 0.05$ , 2.0MM,  
3.0MM, CUSTOMIZED

**JACKET COLOR** AVAILABLE IN 6 OR 12 COLOR BUNDLES

**JACKET MATERIAL** LSZH

**CONNECTOR COLOR**  UPC  APC  MULTI  
MODE  ST, FC

**BOOTS** SEVERAL BOOT COLORS AND LENGTH

**DUSTCAP** SEVERAL DUSTCAP COLOR AND SHAPE

**VIBRATION**  $\leq 0.2\text{DB}$

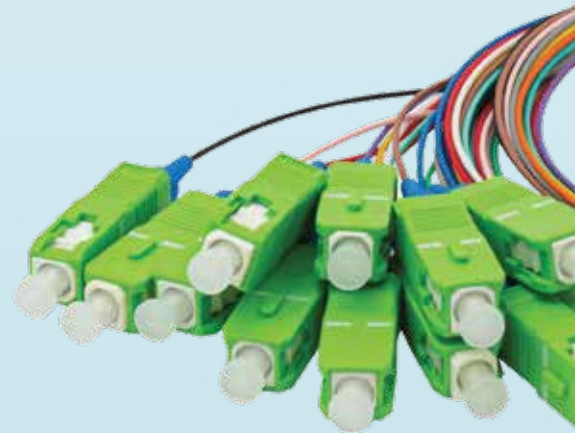
**CONNECTOR CABLE RETENTION** 3N (0.67 LBS)

**CONNECTOR FERRULE** CERAMIC

**CONNECTOR  
REPEATABILITY**  $\leq 0.2\text{DB}$  (1000 TIMES  
MATING CYCLE)

**COATING STRIP FORCE**  $\leq 13.3\text{N}$

**STORAGE/INSTALLATION/  
OPERATING TEMPERATURE** -20°C TO 70°C





# ABOUT

Fiber optic patch cord refers to the connecting cables used to connect fiber optic equipment in fiber optic communication systems. It is composed of fiber optic cable and fiber connector that fixed at both ends of optical cable. Customers feel that our fiber optic patch cord is a good product with excellent performance, to prove that our quality of fiber optic patch cord is trustworthy.

## PATCHCORD PRODUCTS

## APPLICATION

Widely used in various fields such as fiber optic communication systems, fiber optic access networks, fiber optic data transmission, CATV, and local area networks

## STANDARD

ANSI/TIA/EIA 568-C.3

ISO/IEC 11801

IEC 60332 - 1

RoHS Compliance: Directive 2002/95/EC



# PATCHCORD

**CONNECTOR TYPE** SC / LC / FC / ST (END A) | SC  
/ LC / FC / ST (END B)

**FIBER TYPE** OS2 G652D, G657A1,  
G657A2, G657B3  
OM1, OM2, OM3, OM4

**NUMBER OF FIBERS** 1F TIGHT JACKETED (SX),  
2F ZIPCORD JACKETED (DX)

**BUFFER DIAMETER (MM)**  $0.9 \pm 0.05$

**CABLE DIAMETER (MM)**  $2.0 \pm 0.2$  (SX),  $2.0 \times$   
 $3.8 \pm 0.2$  (DX)

**CABLE THICKNESS (MM)**  $0.35 \pm 0.05$

**JACKET COLOR** CUSTOMIZED

**JACKET MATERIAL** LSZH/OFNR

**CONNECTOR COLOR**  UPC  APC  MULTI  
MODE  ST, FC

**BEND RADIUS (MIN)** 20D

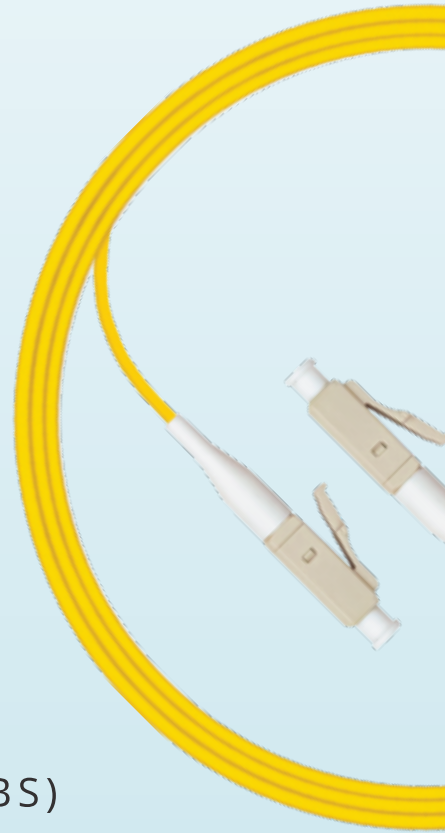
**CRUSH RESISTANCE** 10N/100MM

**CONNECTOR CABLE RETENTION** 50N (11.24 LBS)

**CONNECTOR FERRULE** CERAMIC

**CONNECTOR**  $\leq 0.2\text{DB}$  (1000 TIMES  
**REPEATABILITY** MATING CYCLE)

**STORAGE/INSTALLATION/  
OPERATING TEMPERATURE**  $-20^{\circ}\text{C}$  TO  $70^{\circ}\text{C}$



# PATCHCORD



## PATCHCORD UPC



SC/ LC/  
FC/ ST



UPC DX  
9/125  
um



LSZH

## PATCHCORD APC



SC/ LC/  
FC/ ST



APC DX  
9/125  
um



LSZH



## PATCHCORD OM1



SC/ LC/  
FC/ ST



OM1 DX  
62.5/125  
um



LSZH

## PATCHCORD OM2



SC/ LC/  
FC/ ST



OM2 DX  
50/125 um



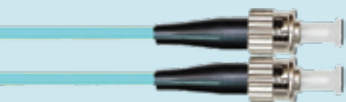
LSZH



## PATCHCORD OM3



SC/ LC/  
FC/ ST



OM3 DX  
50/125  
um



LSZH

## PATCHCORD OM4



SC/ LC/  
FC/ ST



OM4 DX  
50/125 um



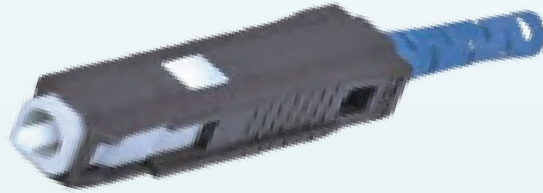
LSZH





# CONNECTORS

**MU/UPC CONNECTOR**



**MTRJ/UPC CONNECTOR**



**E2000/UPC CONNECTOR**



# FAST CONNECTORS



## SC UPC



### CONNECTOR TYPE

SC / LC / FC

### OTHER INFORMATION

NO EPOXY AND NO  
POLISHING REQUIRED  
PRE-POLISHED IN UPC  
AND APC

## FC UPC



### DIAMETER

FOR PIGTAIL CABLE,  
PATCHCORD CABLE AND  
DROPCABLE: UPTO  
8.0MM DIAMETER

## LC APC



### INSERTION LOSS

SM  $\leq 0.2\text{DB}$ , MM  $\leq 0.3\text{DB}$

### RETURN LOSS

SM UPC  $\geq 55.0$   
DB

SM APC  $\geq 60.0$  DB  
MM  $\geq 35.0\text{DB}$



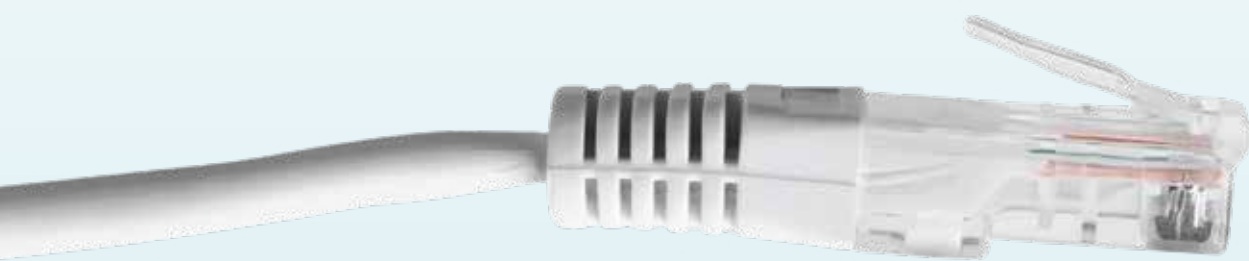
15

# COPPER PATCHCORD



# ABOUT

Category 5E UTP stranded cables exceed Category 5E / Class D specification. It is tested to 100 MHz frequency range and designed to support Gigabit 1000Base-T applications up to 100m.



## CAT 5E STRANDED CABLE

### APPLICATION

- Work area cable.
- Support current and future Category 5e applications, such as :  
1,000Base-T (Gigabit Ethernet), 100 Base-T,  
10 Base-T, FDDI,

### STANDARD

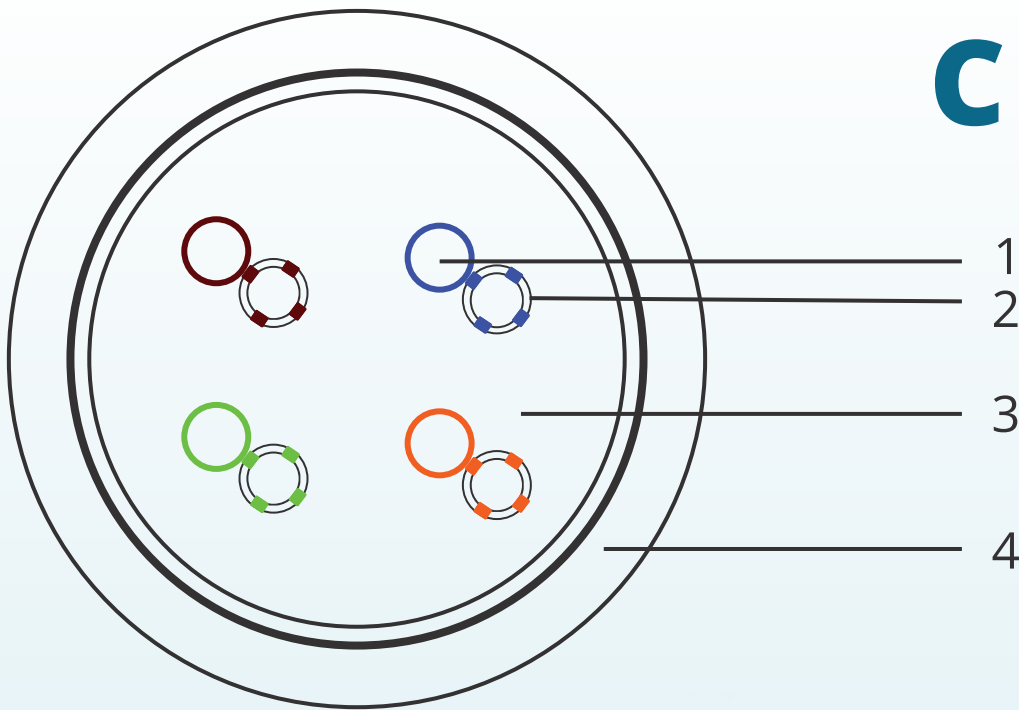
ANSI/TIA/EIA 568-B.2-1 (2002)

ISO/IEC 11801 2nd edition (2002)

ISO/IEC 11801 Amendment 2 (2010)



# CAT 5E



## 1.CONDUCTOR

**Material** Stranded bare copper ETP.  
**Sizes** 24AWG (7X0.18mm (±0.01mm))

## 2.INSULATION

**Material** Polyethylene  
**Sizes** 0.85mm

## 3.CABLE CORE

**Pair** 2 twisted Insulated conductors  
**Number of pairs** 4, all twisted together  
**Colour code pair 1** White / Blue and Blue  
**Colour code pair 2** White / Orange and Orange  
**Colour code pair 3** White / Green and Green  
**Colour code pair 4** White / Brown and Brown

## 4.JACKET

**Material** PVC  
**Diameter** 5.1± 0.03mm  
**Colour**

# ELECTRICAL CHARACTERISTICS

CAT 5E

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
D.C. resistance conductor	<=9.5	$\Omega$ /100m
Resistance unbalance: within a pair / between pairs	< 2 / <4	%
Insulation resistance	>= 5,000	M $\Omega$ .km
Dielectric strength conductor and conductor screen (2s)	1min (1Kv)	kV
Mutual capacitance	< 56	nF/km
Capacitance unbalance pair to ground	< 3,300	pF/km
Nominal velocity of propagation (for information only)	69	%
Delay skew (differential delay)	<= 40	ns/100m
Transfer impedance according IEC 61156-5	Grade 2	
Coupling attenuation according IEC 61156-5	Type II	

# MECHANICAL CHARACTERISTICS

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Elongation at break of the conductors	18	%
Resistance unbalance: within a pair / between pairs	>= 100	
Insulation resistance	>= 100	
Dielectric strength conductor and conductor screen (2s)	<9	mPa

# ENVIRONMENTAL AND OVERALL CHARACTERISTICS

## CAT 5E

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Maximum operating voltage (for all temperatures cable is intended to be used)	72	V dc
Maximum continuous current per conductor (at 25 C)	1.5	A
Temperature rating installation	-10 to +50	°C
Temperature rating operation	-25 to +60	
Total cable weight	31	kg/km
Minimum bending radius (during operation and installation)	21/42	mm
Maximum pulling strength	45	N
Burning load	395	kJ/m
Fire performance according IEC 60332-1	Pass	





# ABOUT

Cat5e UTP Solid Cable has been designed for Horizontal Cabling Networks for Transmission of High Speed Data, Digital and Analog, Voice and Video Signals on Lans. Supports Gigabit Ethernet (1000 Base-T) Standard Suitable for Noisy Environments, High EMI Interference Surroundings and Complies to the Requirement of ANSI/TIA-568-C.2 and ISO/IEC 11801. Bandwidth Performance Up to 100MHz.

## CAT 5 E SOLID CABLE

## APPLICATION

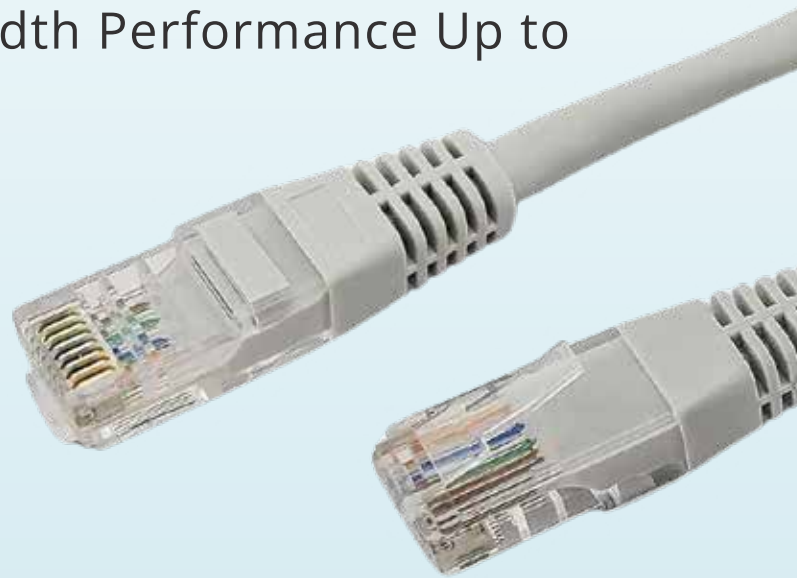
- Work area cable.
- Support current and future Category 5e applications, such as :  
1,000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI

## STANDARD

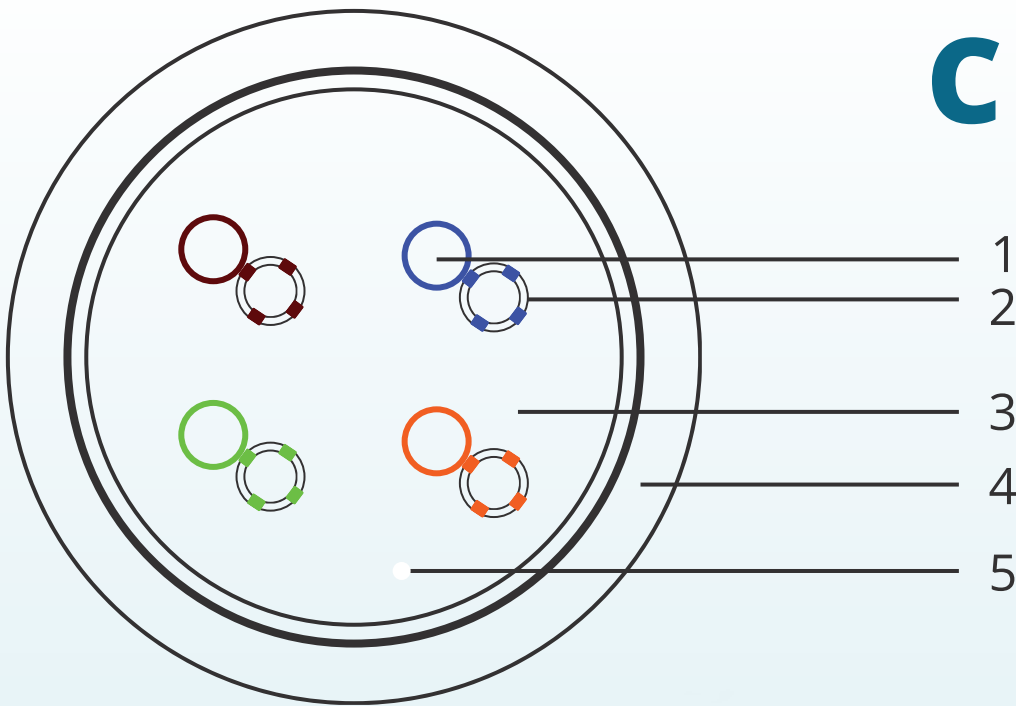
ANSI/TIA/EIA 568-B.2-1 (2002)

ISO/IEC 11801 2nd edition (2002)

ISO/IEC 11801 Amendment 2 (2010)



# CAT 5E



## 1.CONDUCTOR

**Material** Solid bare copper ETP.  
**Sizes** 24AWG

## 2.INSULATION

**Material** Polyethylene  
**Sizes** 0.85mm

## 3.CABLE CORE

**Pair** 2 twisted Insulated conductors  
**Number of pairs** 4, all twisted together  
**Colour code pair 1** White / Blue and Blue  
**Colour code pair 2** White / Orange and Orange  
**Colour code pair 3** White / Green and Green  
**Colour code pair 4** White / Brown and Brown

## 4.JACKET

**Material** PVC  
**Diameter**  $5.1 \pm 0.03$ mm  
**Colour**

## 5.RIPCORD

**Material** Polyethylene

# ELECTRICAL CHARACTERISTICS

CAT 5E

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
D.C. resistance conductor	$\leq 9.5$	$\Omega/100m$
Resistance unbalance: within a pair / between pairs	$< 2 / < 4$	%
Insulation resistance	$\geq 5,000$	M $\Omega$ .km
Dielectric strength conductor and conductor screen (2s)	1min (1Kv)	kV
Mutual capacitance	$< 56$	nF/km
Capacitance unbalance pair to ground	$< 3,300$	pF/km
Nominal velocity of propagation (for information only)	69	%
Delay skew (differential delay)	$\leq 40$	ns/100m
Transfer impedance according IEC 61156-5	Grade 2	
Coupling attenuation according IEC 61156-5	Type II	

# MECHANICAL CHARACTERISTICS

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Elongation at break of the conductors	20	%
Resistance unbalance: within a pair / between pairs	$\geq 100$	
Insulation resistance	$\geq 100$	
Dielectric strength conductor and conductor screen (2s)	$< 9$	mPa

# ENVIRONMENTAL AND OVERALL CHARACTERISTICS

## CAT 5E

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Maximum operating voltage (for all temperatures cable is intended to be used)	72	V dc
Maximum continuous current per conductor (at 25 C)	1.5	A
Temperature rating installation	-10 to +50	°C
Temperature rating operation	-25 to +60	
Total cable weight	31	kg/km
Minimum bending radius (during operation and installation)	21/42	mm
Maximum pulling strength	45	N
Burning load	395	kJ/m
Fire performance according IEC 60332-1	Pass	



# ABOUT

Category 6 is an Ethernet cable standard defined by the Electronic Industries Association and Telecommunications Industry Association. Cat 6 is the sixth generation of twisted pair Ethernet cabling that is used in home and business networks.



## CAT 6 STRANDED CABLE APPLICATION

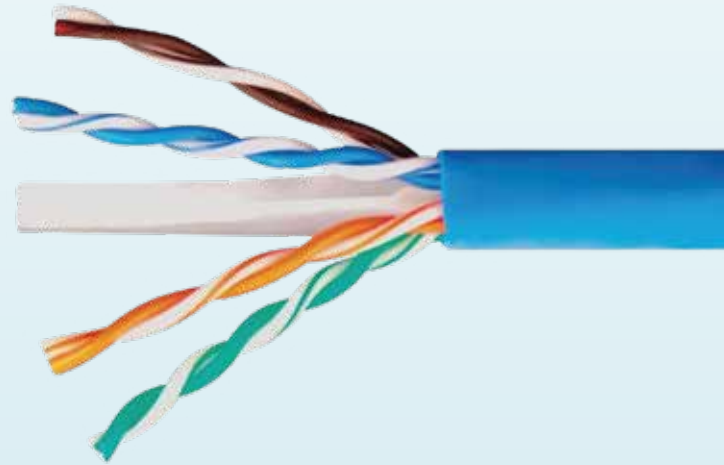
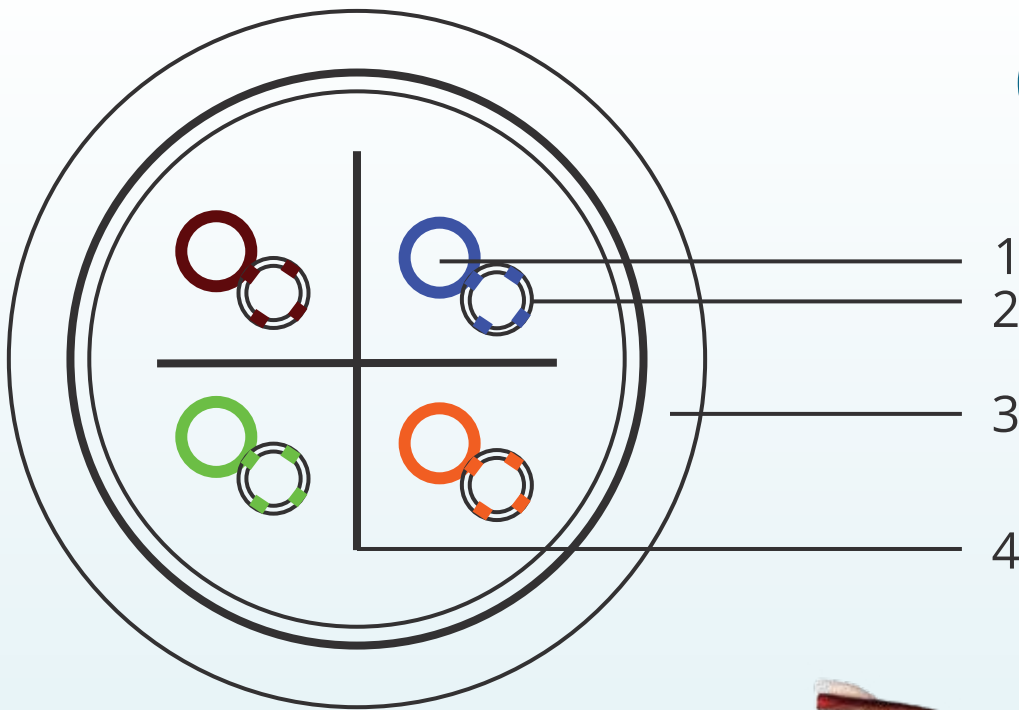
- IEEE 802.3: 1000BASE-T (Gigabit Ethernet), 100BASE-TX, 10BASE-T ANSI/TIA/EIA-854: 1000BASE-TX
  - 155 Mb/s, 1.2 Gb/s ATM
  - ANSI X3.263: 100 Mb/s
- IEEE 802.3af DTE Power (POE)
  - 4/16 Mb/s Token Ring
- Digital Video, Broadband and Baseband Analog Video

## STANDARD

ISO/IEC 11801:2002 Class E  
TIA/EIA 568-B.2-1, TIA/EIA 568-C, TIA/EIA 568-C.2 IEC61156-5, IEC 60332-1,  
60754-1, 60754-2, 61034-2 EN 50173-1, EN 50288-6-1



# CAT 6



## 1.CONDUCTOR

**Material** Stranded copper

**Sizes** 24AWG (7X0.18mm ( $\pm 0.01$ mm))

## 2.INSULATION

**Material** Polyethylene

**Sizes**  $0.85 \pm 0.05$ mm

## 3.JACKET

**Material** PVC

**Diameter**  $6.0 \pm 0.03$ mm

**Colour**

## 4.CROSS SEPARATOR

**Material** HDPE

**Colour** White

**Thickness** 0.45mm

# ELECTRICAL CHARACTERISTICS

## CAT 6

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Dielectric strength between conductors	DC, 1min (1kV)	<b>kV</b>
Impedance	110	$\Omega$
Operating frequency, maximum	250	MHz
Propagation delay	536	ns/100 m Max
Skew delay	45 ns	ns/100 m Max
Mutual capacitance	5.6	no Max./100m
Conductor	6.65	$\Omega$ Max./100m
Normal Velocity of Propagation NVP	69	%
TVL	30-10	log (f/100) dB
Insulation resistance	$\geq 5000$	<b>M<math>\Omega</math></b> .km
DC resistance unbalance	3	%



# MECHANICAL CHARACTERISTICS

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Minimum bend radius during installation	8x outside dia	mm
Minimum bend radius after installation	4x outside dia	
Installation temp.	-10 to + 50	°C
Operating temp.	-25 to + 60	
Storage temp.	-25 to + 70	

# INSTALLATION CHARACTERISTICS

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Maximum pulling tension	90	N
Minimum bend radius during installation	55	mm
Minimum installed bend radius	27	mm
Normal weight	35	kg/km



# ABOUT

Category 6 is an Ethernet cable standard defined by the Electronic Industries Association and Telecommunications Industry Association. Cat 6 is the sixth generation of twisted pair Ethernet cabling that is used in home and business networks.



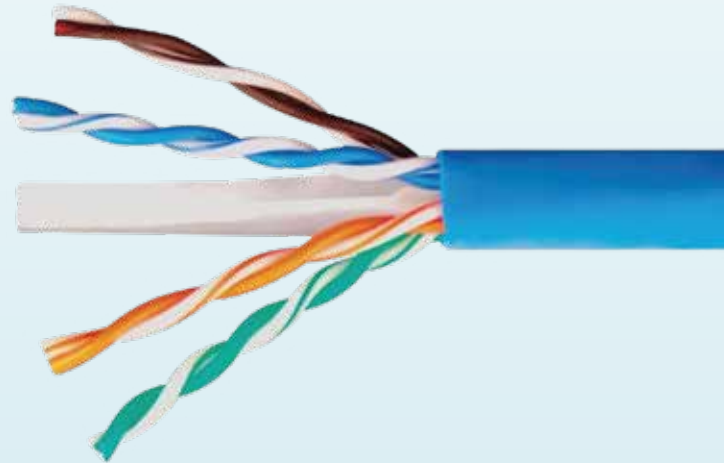
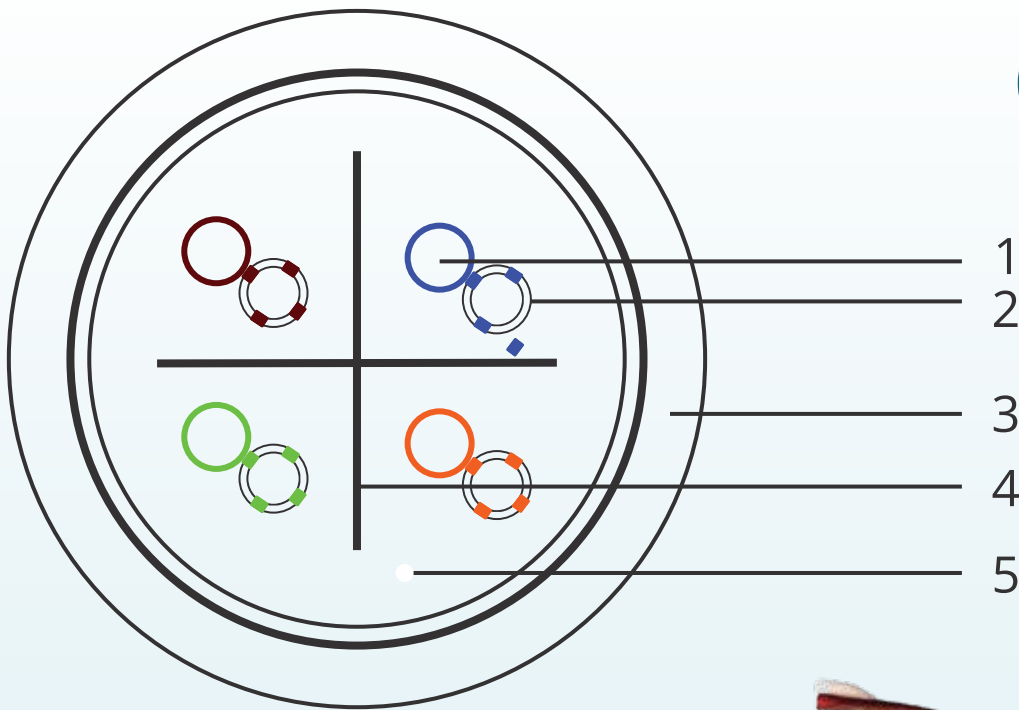
## CAT 6 SOLID CABLE APPLICATION

- IEEE 802.3: 1000BASE-T (Gigabit Ethernet), 100BASE-TX, 10BASE-T ANSI/TIA/EIA-854: 1000BASE-TX
  - 155 Mb/s, 1.2 Gb/s ATM
  - ANSI X3.263: 100 Mb/s
- IEEE 802.3af DTE Power (POE)
  - 4/16 Mb/s Token Ring
- Digital Video, Broadband and Baseband Analog Video

## STANDARD

ISO/IEC 11801:2002 Class E  
TIA/EIA 568-B.2-1, TIA/EIA 568-C, TIA/EIA 568-C.2 IEC61156-5, IEC 60332-1,  
60754-1, 60754-2, 61034-2 EN 50173-1, EN 50288-6-1

# CAT 6



## 1.CONDUCTOR

**Material** Solid copper  
**Sizes** 24AWG (0.57mm)

## 2.INSULATION

**Material** Polyethylene  
**Sizes**  $1.0 \pm 0.05\text{mm}$

## 3.JACKET

**Material** PVC  
**Diameter**  $6.0 \pm 0.03\text{mm}$   
**Colour**

## 4.CROSS SEPARATOR

**Material** HDPE  
**Colour** White  
**Thickness** 0.45mm

## 5.RIPCORD

**Material** Polyethylene

# ELECTRICAL CHARACTERISTICS

## CAT 6

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Dielectric strength between conductors	DC, 1min (1kV)	<b>kV</b>
Impedance	100	$\Omega$
Operating frequency, maximum	250	MHz
Propagation delay	536	ns/100 m Max
Skew delay	45 ns	ns/100 m Max
Mutual capacitance	5.6	no Max./100m
Conductor	6.65	$\Omega$ Max./100m
Normal Velocity of Propagation NVP	69	%
TVL	30-10	log (f/100) dB
Insulation resistance	$\geq 5000$	<b>M<math>\Omega</math></b> .km
DC resistance unbalance	3	%



# MECHANICAL CHARACTERISTICS

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Minimum bend radius during installation	8x outside dia	mm
Minimum bend radius after installation	4x outside dia	
Installation temp.	-10 to + 50	°C
Operating temp.	-25 to + 60	
Storage temp.	-25 to + 70	

# INSTALLATION CHARACTERISTICS

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Maximum pulling tension	90	N
Minimum bend radius during installation	55	mm
Minimum installed bend radius	27	mm
Normal weight	40	kg/km







# ABOUT

Category 6 is an Ethernet cable standard defined by the Electronic Industries Association and Telecommunications Industry Association. Cat 6 is the sixth generation of twisted pair Ethernet cabling that is used in home and business networks.

## CAT 6 SFTP CABLE

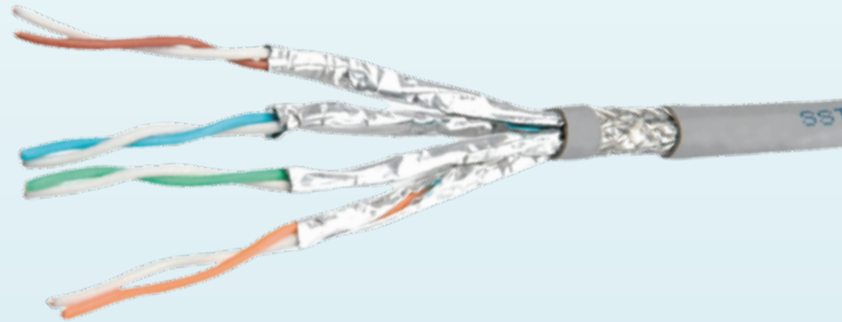
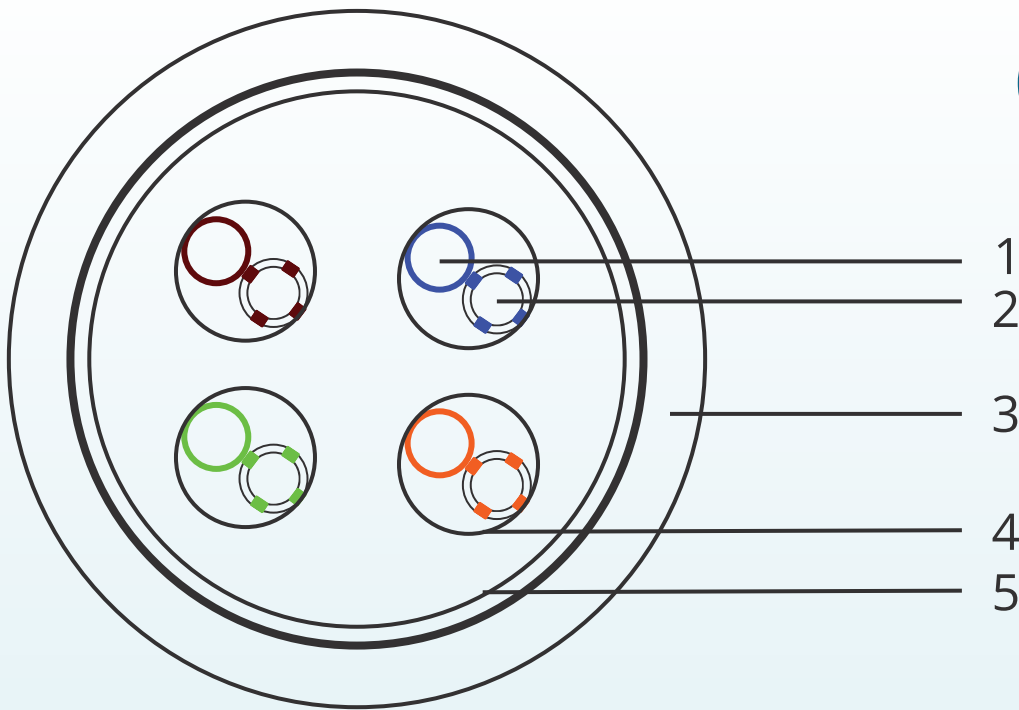
## APPLICATION

- IEEE 802.3: 1000BASE-T (Gigabit Ethernet), 100BASE-TX, 10BASE-T ANSI/TIA/EIA-854: 1000BASE-TX
  - 155 Mb/s, 1.2 Gb/s ATM
  - ANSI X3.263: 100 Mb/s
- IEEE 802.3af DTE Power (POE)
  - 4/16 Mb/s Token Ring
- Digital Video, Broadband and Baseband Analog Video

## STANDARD

ISO/IEC 11801:2002 Class E  
TIA/EIA 568-B.2-1, TIA/EIA 568-C, TIA/EIA 568-C.2 IEC61156-5, IEC 60332-1,  
60754-1, 60754-2, 61034-2 EN 50173-1, EN 50288-6-1

# CAT 6




## 1.CONDUCTOR

**Material** Stranded copper  
**Sizes** 24AWG (7x0.18mm)

## 2.INSULATION

**Material** Polyethylene  
**Sizes**  $0.85 \pm 0.05\text{mm}$

## 3.JACKET

**Material** PVC  
**Diameter**  $5.3 \pm 0.03\text{mm}$   
**Colour** 

## 4.FOIL

**Material** Aluminum

## 5.SHIELD

**Material** Tinned copper

# ELECTRICAL CHARACTERISTICS

## CAT 6

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Dielectric strength between conductors	DC, 1min (1kV)	<b>kV</b>
Impedance	110	$\Omega$
Operating frequency, maximum	250	MHz
Propagation delay	536	ns/100 m Max
Skew delay	45 ns	ns/100 m Max
Mutual capacitance	5.6	no Max./100m
Conductor	6.65	$\Omega$ Max./100m
Normal Velocity of Propagation NVP	69	%
TVL	30-10	log (f/100) dB
Insulation resistance	$\geq 5000$	<b>M<math>\Omega</math></b> .km
DC resistance unbalance	3	%



# MECHANICAL CHARACTERISTICS

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Minimum bend radius during installation	8x outside dia	mm
Minimum bend radius after installation	4x outside dia	
Installation temp.	-10 to + 50	°C
Operating temp.	-25 to + 60	
Storage temp.	-25 to + 70	

# INSTALLATION CHARACTERISTICS

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Maximum pulling tension	90	N
Minimum bend radius during installation	55	mm
Minimum installed bend radius	27	mm
Normal weight	40	kg/km





# ABOUT

Category 6 is an Ethernet cable standard defined by the Electronic Industries Association and Telecommunications Industry Association. Cat 6 is the sixth generation of twisted pair Ethernet cabling that is used in home and business networks.

## CAT 6 SLIM CABLE

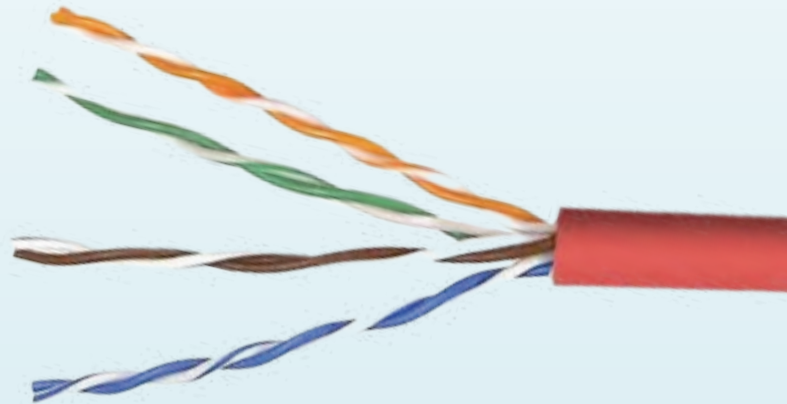
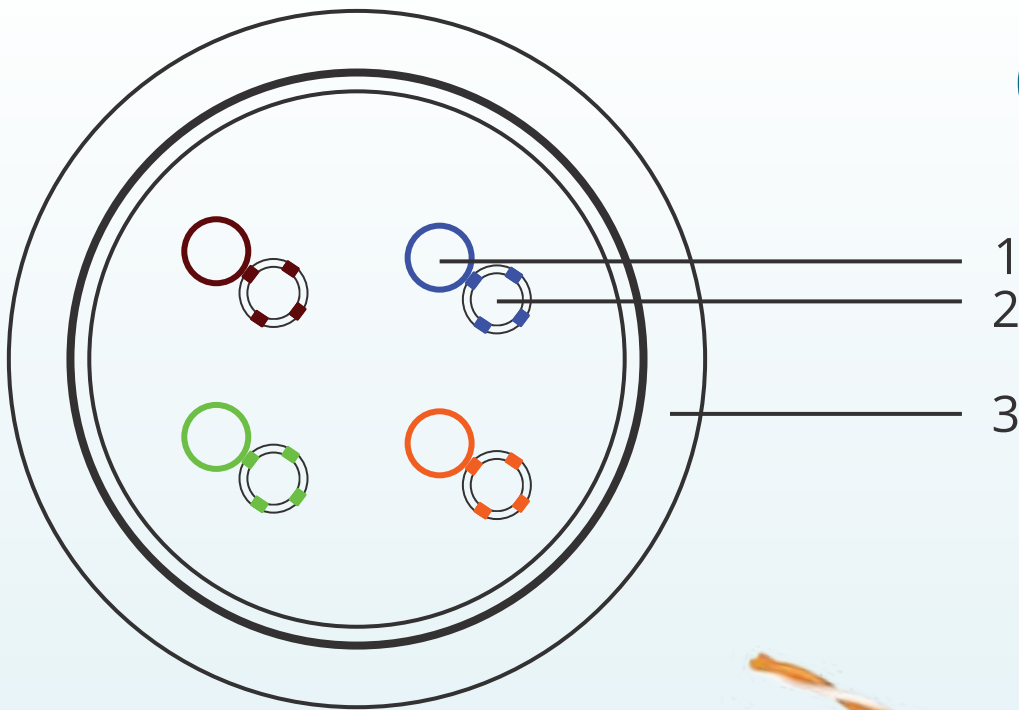
## APPLICATION

- IEEE 802.3: 1000BASE-T (Gigabit Ethernet), 100BASE-TX, 10BASE-T ANSI/TIA/EIA-854: 1000BASE-TX
  - 155 Mb/s, 1.2 Gb/s ATM
  - ANSI X3.263: 100 Mb/s
- IEEE 802.3af DTE Power (POE)
  - 4/16 Mb/s Token Ring
- Digital Video, Broadband and Baseband Analog Video

## STANDARD

ISO/IEC 11801:2002 Class E  
TIA/EIA 568-B.2-1, TIA/EIA 568-C, TIA/EIA 568-C.2 IEC61156-5, IEC 60332-1,  
60754-1, 60754-2, 61034-2 EN 50173-1, EN 50288-6-1

# CAT 6




## 1.CONDUCTOR

**Material** Stranded copper  
**Sizes** 28AWG  
(7X0.12mm (±0.01mm))

## 2.INSULATION

**Material** Polyethylene  
**Sizes** 0.55 ± 0.05mm

## 3.JACKET

**Material** PVC  
**Diameter** 3.8 ±0.02 mm  
**Colour** 



# ELECTRICAL CHARACTERISTICS

## CAT 6

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Dielectric strength between conductors	DC, 1min (1kV)	<b>kV</b>
Impedance	220	$\Omega$
Operating frequency, maximum	250	MHz
Propagation delay	536	ns/100 m Max
Skew delay	45 ns	ns/100 m Max
Mutual capacitance	5.6	no Max./100m
Conductor	6.65	$\Omega$ Max./100m
Normal Velocity of Propagation NVP	65	%
TVL	30-10	log (f/100) dB
Insulation resistance	$\geq 5000$	$M\Omega$ .km
DC resistance unbalance	3	%



# MECHANICAL CHARACTERISTICS

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Minimum bend radius during installation	8x outside dia	mm
Minimum bend radius after installation	4x outside dia	
Installation temp.	-10 to + 50	°C
Operating temp.	-25 to + 60	
Storage temp.	-25 to + 70	

# INSTALLATION CHARACTERISTICS

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Maximum pulling tension	90	N
Minimum bend radius during installation	55	mm
Minimum installed bend radius	27	mm
Normal weight	18	kg/km





# ABOUT

The Category 6 Augmented cable standard, or Cat 6a, was created to further improve the performance of Cat 6 Ethernet cables

## CAT 6A STRANDED CABLE APPLICATION

- Supports category 6A (Class EA) networks running up to 500MHz applications
- Horizontal and backbone in structured cabling installations

## STANDARD

ANSI/TIA-568-C.2

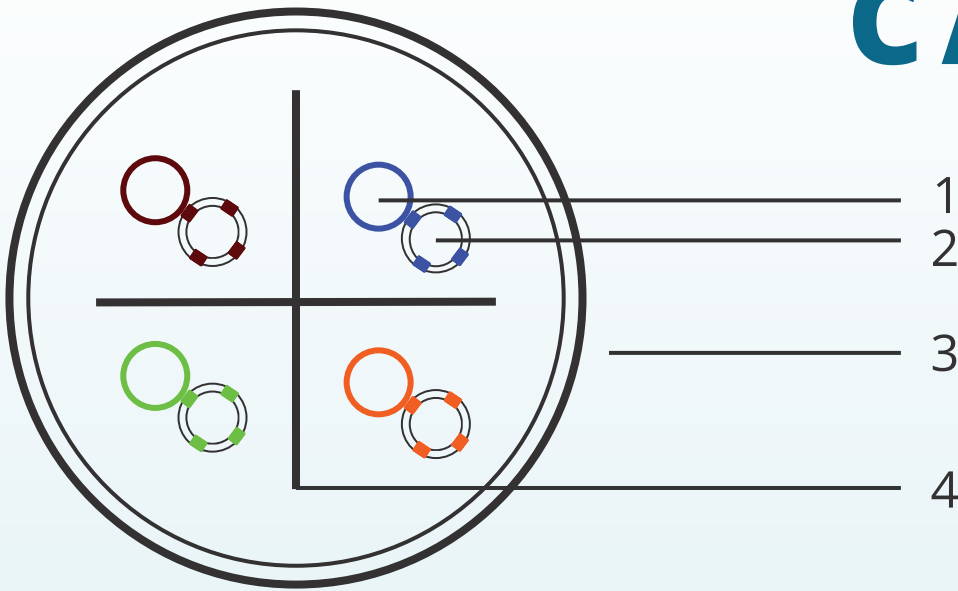
ISO 11801

IEC 60603-7

ETL Verified



# CAT 6A



## 1.CONDUCTOR

**Material** Stranded copper  
**Sizes** 24AWG (7X0.2mm  
( $\pm 0.01$ mm))

## 3.JACKET

**Material** PVC  
**Diameter**  $6.0 \pm 0.03$ mm  
**Colour**

## 2.INSULATION

**Material** Polyethylene  
**Sizes**  $1.0 \pm 0.05$ mm

## 4.CROSS SEPARATOR

**Material** HDPE  
**Colour** White

# ELECTRICAL CHARACTERISTICS

## CAT 6A

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
D.C. resistance conductor	< 9.38	$\Omega/100m$
Resistance unbalance: within a pair / between pairs	$\leq 3$	%
Capacitance unbalance pair to ground	< 3,300	pF/km
Delay skew (differential delay)	$\leq 45$	ns/100m
Nominal velocity of propagation (for information only)	68	%
Propagation Delay (Nominal)	533	ns/100m at 500MHz
Test Voltage (d.c for 1 minute) Conductor / Conductor	1000V	VDC
Insulation Resistance (100~500V D.C)	$\geq 5000$	M $\Omega$ /km
DC resistance unbalance	3	%



# MECHANICAL CHARACTERISTICS

## CAT 6A

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Bulk Cable Weight	40	Kg/Km
Max. Pull Tension	100	N
Min. Bend Radius (installation)	8x	OD
Min. Bend Radius (installed)	4x	OD
Cold Bend	No Crack	@-20 C x 4hrs
Storage Temp.	-25 to + 70	°C
Operation Temp.	-25 to + 60	
Installation Temp.	-10 to + 50	



# ABOUT

The Category 6 Augmented cable standard, or Cat 6a, was created to further improve the performance of Cat 6 Ethernet cables

## CAT 6A SOLID CABLE

## APPLICATION

- Supports category 6A (Class EA) networks running up to 500MHz applications
- Horizontal and backbone in structured cabling installations

## STANDARD

ANSI/TIA-568-C.2

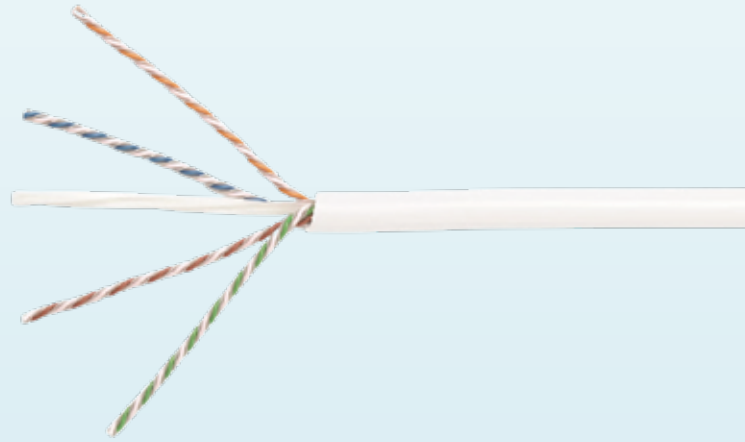
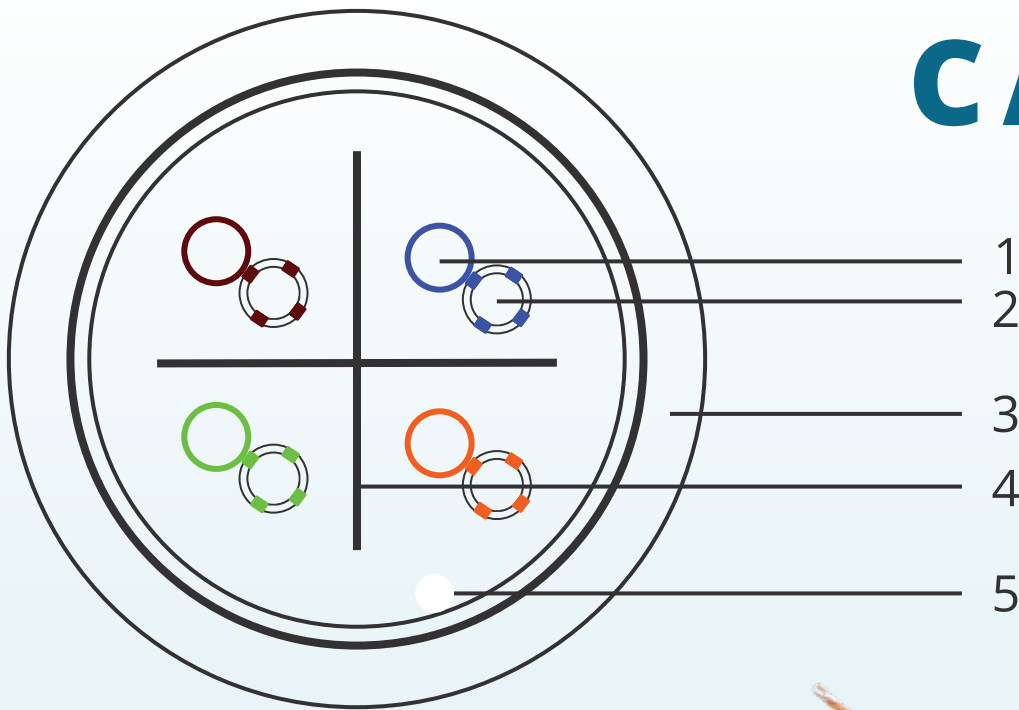
ISO 11801

IEC 60603-7

ETL Verified



# CAT 6A




## 1.CONDUCTOR

**Material** Solid copper  
**Sizes** 24AWG (0.55mm)

## 2.INSULATION

**Material** HDPE  
**Sizes**  $1.0 \pm 0.05\text{mm}$

## 3.JACKET

**Material** PVC  
**Diameter**  $6.5 \pm 0.03\text{mm}$   
**Colour** 

## 4.CROSS SEPARATOR

**Material** HDPE  
**Colour** White

## 5.RIPCORD

**Material** Polyethylene

# ELECTRICAL CHARACTERISTICS

## CAT 6A

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
D.C. resistance conductor	< 9.38	$\Omega$ /100m
Resistance unbalance: within a pair / between pairs	<=3	%
Capacitance unbalance pair to ground	< 3,300	pF/km
Delay skew (differential delay)	<= 45	ns/100m
Nominal velocity of propagation (for information only)	68	%
Propagation Delay (Nominal)	533	ns/100m at 500MHz
Test Voltage (d.c for 1 minute) Conductor / Conductor	1000V	VDC
Insulation Resistance (100~500V D.C)	>= 5000	M $\Omega$ /km



# MECHANICAL CHARACTERISTICS

## CAT 6A

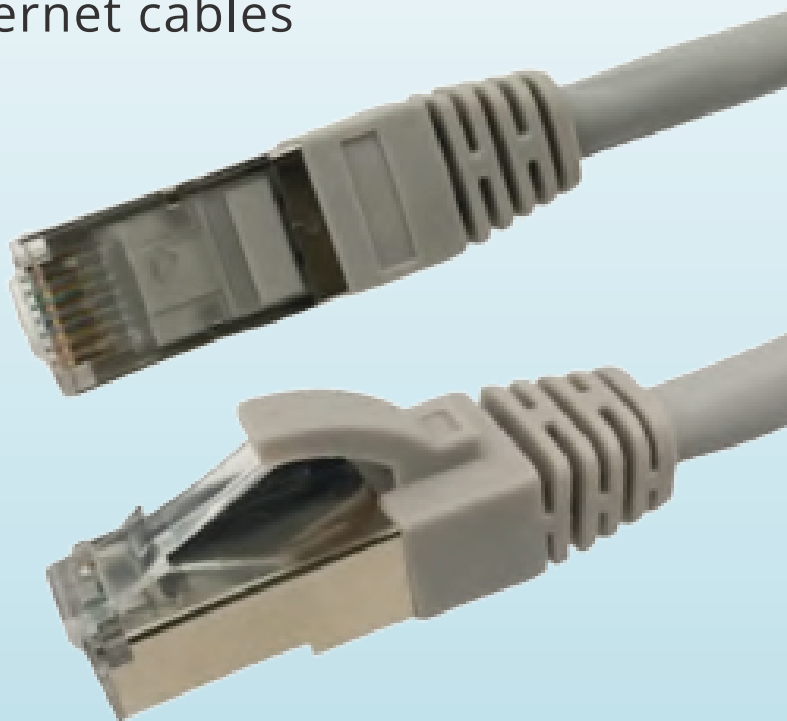
LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Bulk Cable Weight	42	Kg/Km
Max. Pull Tension	100	N
Min. Bend Radius (installation)	8x	OD
Min. Bend Radius (installed)	4x	OD
Cold Bend	No Crack	@-20 C x 4hrs
Storage Temp.	-25 to + 70	°C
Operation Temp.	-25 to + 60	
Installation Temp.	-10 to + 50	





# ABOUT

The Category 6 Augmented cable standard, or Cat 6a, was created to further improve the performance of Cat 6 Ethernet cables



## CAT 6A SFTP CABLE

## APPLICATION

- Supports category 6A (Class EA) networks running up to 500MHz applications
- Horizontal and backbone in structured cabling installations

## STANDARD

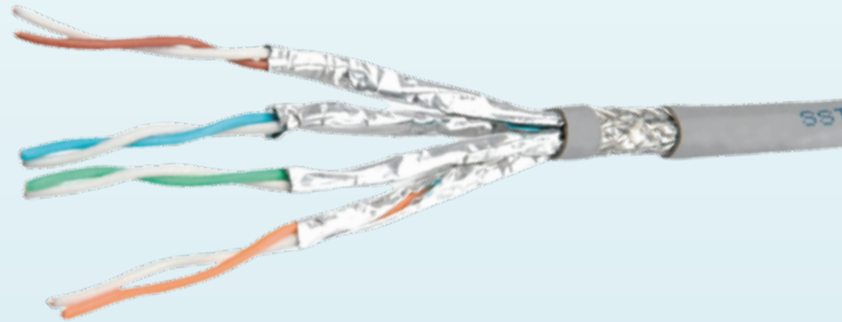
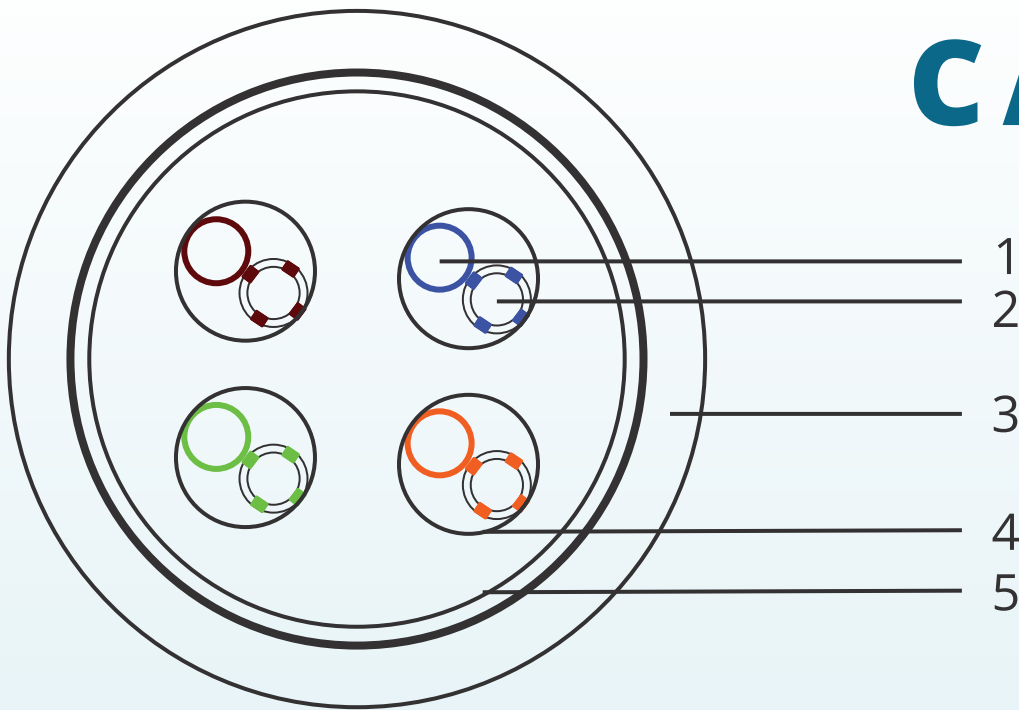
ANSI/TIA-568-C.2

ISO 11801

IEC 60603-7

ETL Verified

# CAT 6A




## 1.CONDUCTOR

**Material** Stranded copper  
**Sizes** 26AWG  
(7X0.16mm (±0.01mm))

## 2.INSULATION

**Material** FPE  
**Sizes** 1.0 ± 0.05 mm

## 3.JACKET

**Material** PVC  
**Diameter** 6.5 ± 0.03mm  
**Colour** 

## 4.FOIL

**Material** Aluminum

## 5.SHIELD

**Material** Tinned copper

# ELECTRICAL CHARACTERISTICS

## CAT 6A

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
D.C. resistance conductor	< 9.38	$\Omega$ /100m
Resistance unbalance: within a pair / between pairs	<=3	%
Capacitance unbalance pair to ground	< 3,300	pF/km
Delay skew (differential delay)	<= 45	ns/100m
Nominal velocity of propagation (for information only)	68	%
Propagation Delay (Nominal)	533	ns/100m at 500MHz
Test Voltage (d.c for 1 minute) Conductor / Conductor	1000V	VDC
Insulation Resistance (100~500V D.C)	>= 5000	M $\Omega$ /km



# MECHANICAL CHARACTERISTICS

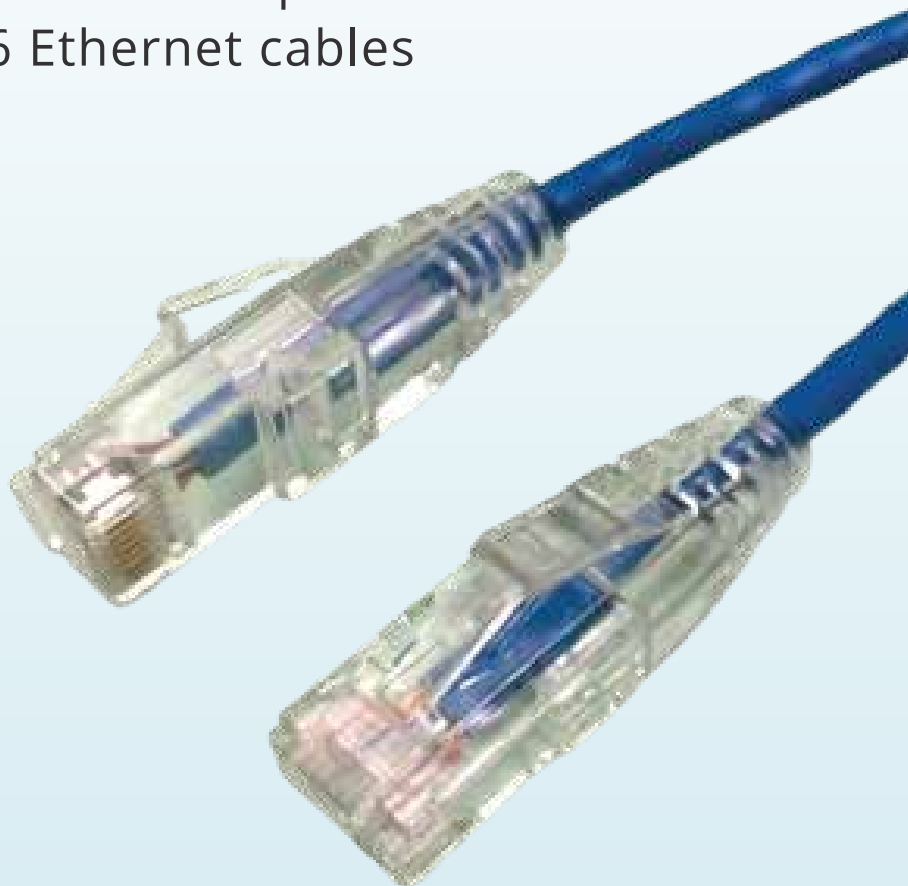
## CAT 6A

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Bulk Cable Weight	42	Kg/Km
Max. Pull Tension	100	N
Min. Bend Radius (installation)	8x	OD
Min. Bend Radius (installed)	4x	OD
Cold Bend	No Crack	@-20 C x 4hrs
Storage Temp.	-25 to + 70	°C
Operation Temp.	-25 to + 60	
Installation Temp.	-10 to + 50	



# ABOUT

The Category 6 Augmented cable standard, or Cat 6a, was created to further improve the performance of Cat 6 Ethernet cables



## CAT 6A SLIM CABLE

## APPLICATION

- Supports category 6A (Class EA) networks running up to 500MHz applications
- Horizontal and backbone in structured cabling installations

## STANDARD

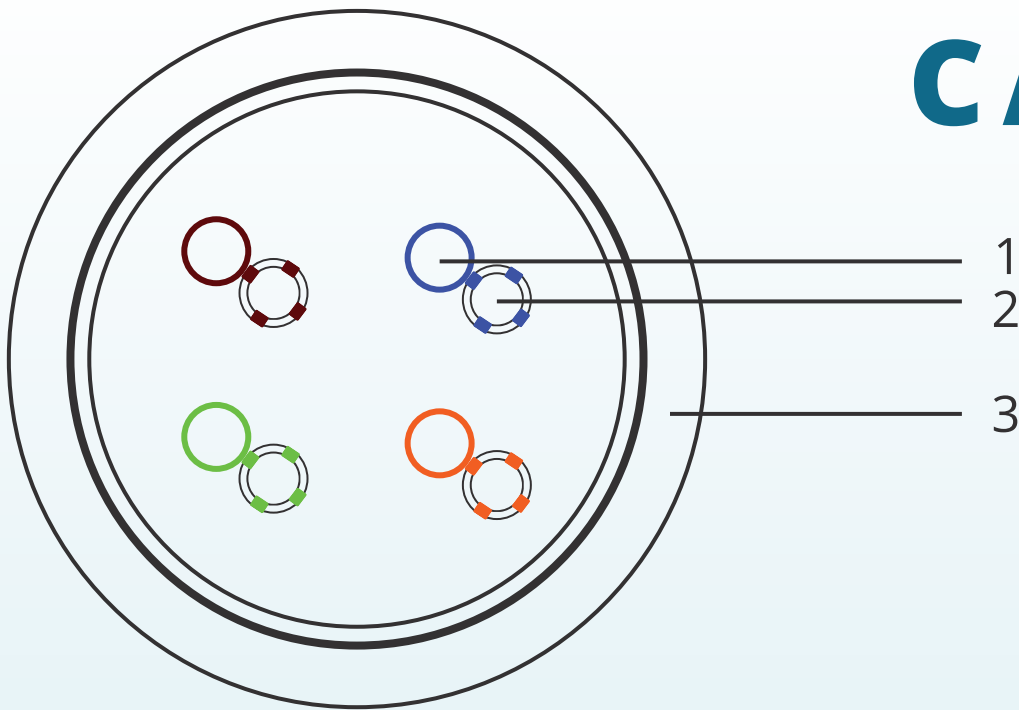
ANSI/TIA-568-C.2

ISO 11801

IEC 60603-7

ETL Verified

# CAT 6A




## 1.CONDUCTOR

**Material** Stranded copper  
**Sizes** 28 AWG  
(7x0.12mm(±0.01mm))

## 2.INSULATION

**Material** HDPE  
**Sizes** 0.6 ± 0.05mm

## 3.JACKET

**Material** PVC  
**Thickness** 0.55±0.03 mm  
**OD** 3.8mm  
**Colour** 

# ELECTRICAL CHARACTERISTICS

## CAT 6A

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
D.C. resistance conductor	< 22	$\Omega$ /100m
Resistance unbalance: within a pair / between pairs	<=3	%
Capacitance unbalance pair to ground	< 3,300	pF/km
Delay skew (differential delay)	<= 45	ns/100m
Nominal velocity of propagation (for information only)	65	%
Propagation Delay (Nominal)	533	ns/100m at 500MHz
Test Voltage (d.c for 1 minute) Conductor / Conductor	1000V	VDC
Insulation Resistance (100~500V D.C)	>= 5000	M $\Omega$ /km



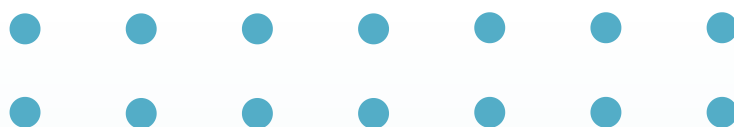
# MECHANICAL CHARACTERISTICS

## CAT 6A

LOW FREQUENCY AND D.C (AT 20 C)	SPECIFICATION	UNIT
Bulk Cable Weight	19	Kg/Km
Max. Pull Tension	100	N
Min. Bend Radius (installation)	8x	OD
Min. Bend Radius (installed)	4x	OD
Cold Bend	No Crack	@-20 C x 4hrs
Storage Temp.	-25 to + 70	°C
Operation Temp.	-25 to + 60	
Installation Temp.	-10 to + 50	

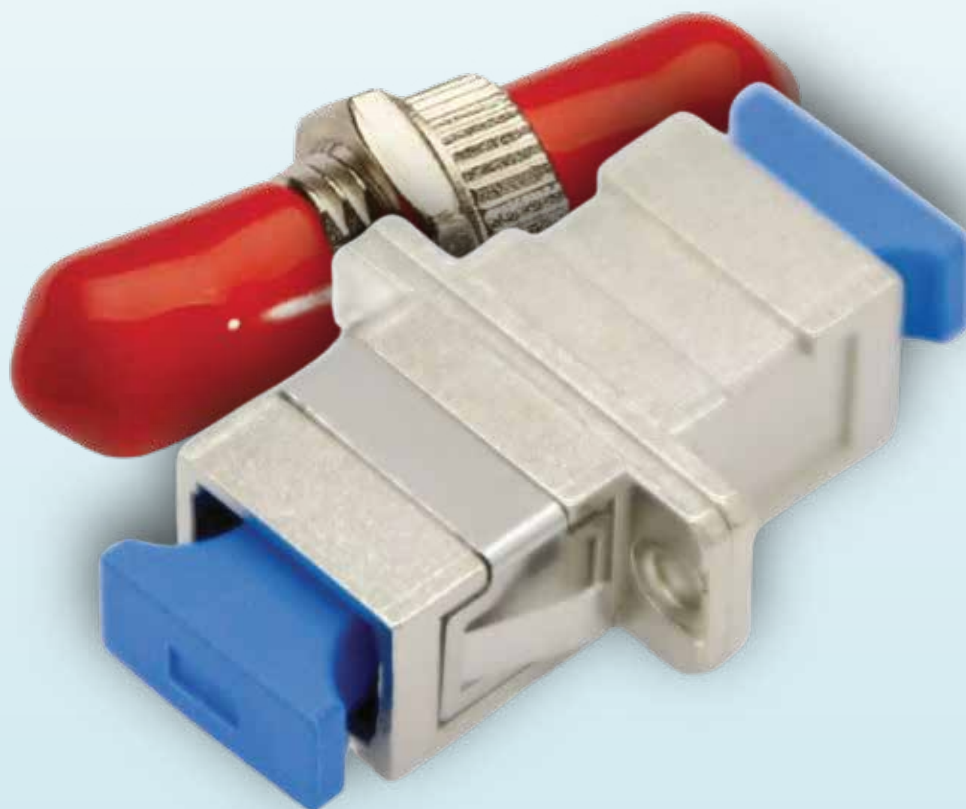






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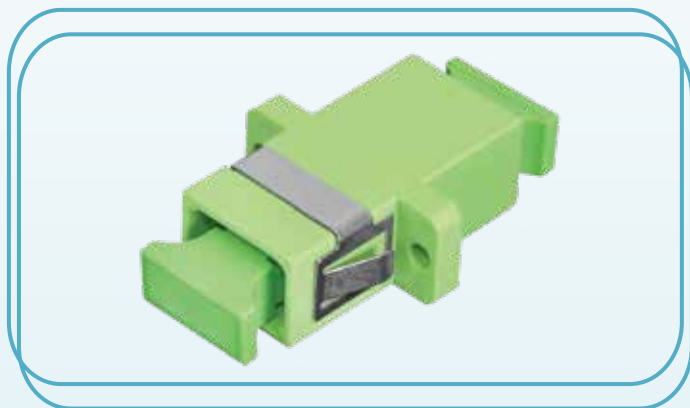
# ACCESSORIES





# ADAPTER

SC APC SX ZIRCONIA WITH  
FLANGE GREEN T-CAP



## TYPE

HYBRID TYPES  
FEMALE - FEMALE  
FEMALE - MALE

## MODE

SIMPLEX, DUPLEX,  
QUADRUPLX

SC APC DX ZIRCONIA WITH  
FLANGE BLACK FULL CAP



## MATERIAL

PLASTIC OR METAL

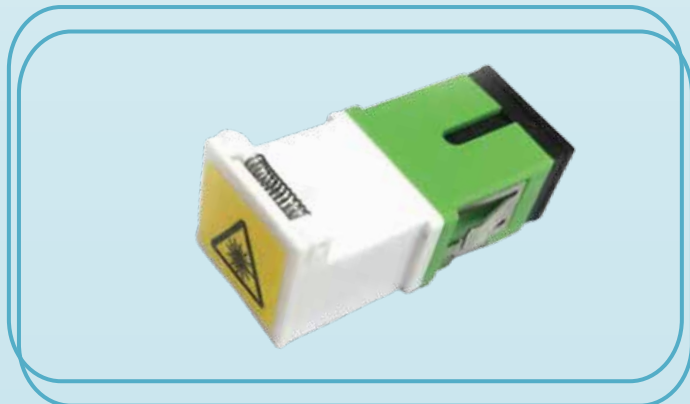
## FLANGE

WITH FLANGE OR  
WITHOUT FLANGE

## HOUSING COLOR

SEVERAL COLORS  
AVAILABLE

SC APC SX OUTERSHUTTERDOOR  
ZIRCONIA FLANGLESS WHITEGREEN



## DUST CAP COLOR

SEVERAL COLORS  
AVAILABLE

## INSERTION LOSS

< 0.2 DB

## DURABILITY

>1000 MATINGS

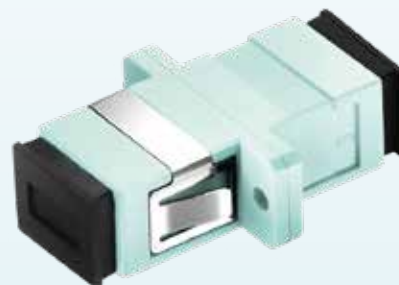


# ADAPTER

SC UPC SX ZIRCONIA WITH  
FLANGE BLACK FULL CAP



SC OM3 SX ZIRCONIA WITH  
FLANGE FULL-CAP AQUA



LC APC DX ZIRCONIA WITH  
FLANGE GREEN



LC UPC DX ZIRCONIA WITH  
FLANGE BLUE



LC UPC OM3 DX ZIRCONIA  
WITH FLANGE AQUA



LC/UPC OM3 QUAD ZIRCONIA  
WITH FLANGE AQUA





# ADAPTER

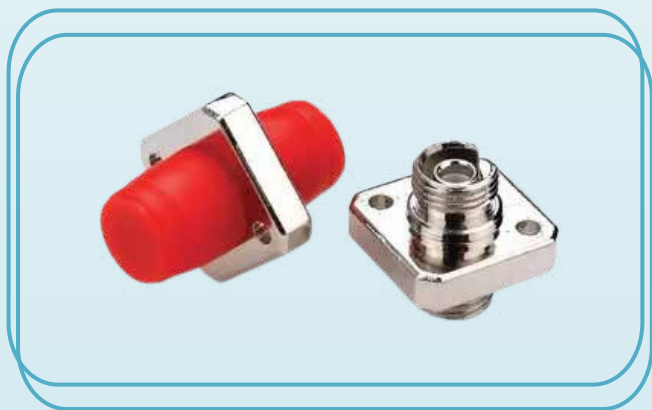
FC/UPC SMALL D



FC/APC SX BIGD METAL PB  
GREEN



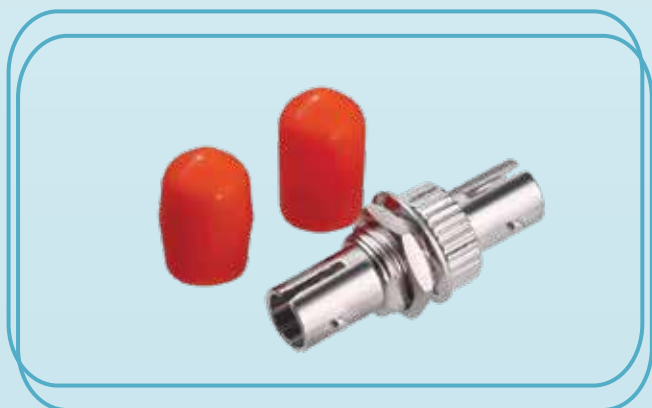
FC UPC SM SX SQUARE  
METAL ZIRCONIA RED BOOT



ST/UPC SM SX



ST/UPC MM SX



MPO/UPC-MPO/UPC SM  
BLACK





# ADAPTER

MU/UPC - MU/UPC SM



MTRJ/UPC - MTRJ/UPC SM  
BLACK



SC/UPC DX MM ZIRCONIA WITH  
FLANGE BLACK FULL CAP



SC/UPC SX METAL ZIRCONIA  
WITH FLANGE BLUE T - CAP



SC UPC LC UPC SM SX  
FEMALE - MALE METAL



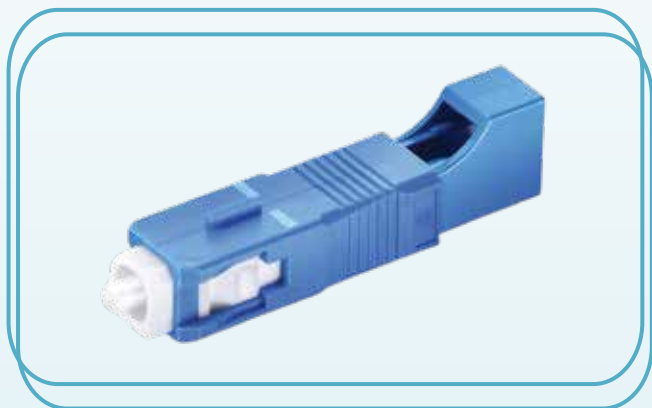
SC UPC - LC UPC SM SX  
FEMALE - FEMALE METAL



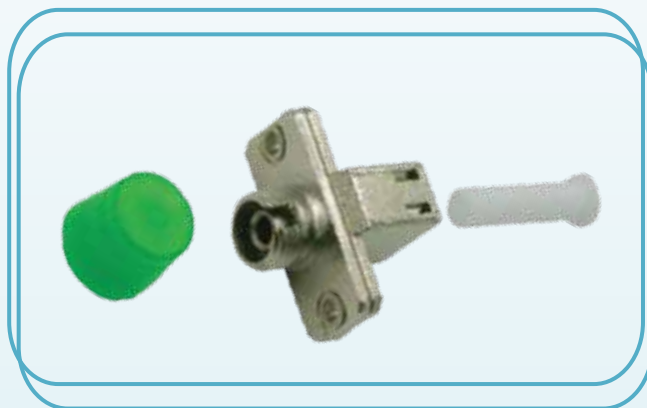


# ADAPTER

LC UPC - SC UPC SM SX  
FEMALE - MALE



LC UPC - FC APC SM SX  
FEMALE - FEMALE METAL



SC/UPC - SC/UPC SM SX  
FEMALE - FEMALE



SC/UPC - FC/UPC MM SX  
FEMALE - FEMALE



LC UPC - ST UPC SM SX  
FEMALE - FEMALE





# ATTENUATOR

SC APC SM MALE - FEMALE  
5DB



LC APC SM MALE - FEMALE  
5DB



FC APC, SM MALE - FEMALE  
5DB



ST UPC SM MALE - FEMALE  
5DB



## CONNECTOR

SC, LC, FC, ST, MU

## POLISHING TYPE

UPC OR APC

## FERRULE

2.5MM ZIRCONIA

CERAMIC FERRULE (SC)

1.25MM ZIRCONIA

CERAMIC FERRULE (LC)

## ATTENUATION

1-20DB

## CONNECTOR STYLE

METALIC

## ADAPTER STYLE

PLASTIC

## RETURN LOSS

SM UPC  $\geq$  50.0 DB

SM APC  $\geq$  60.0 DB

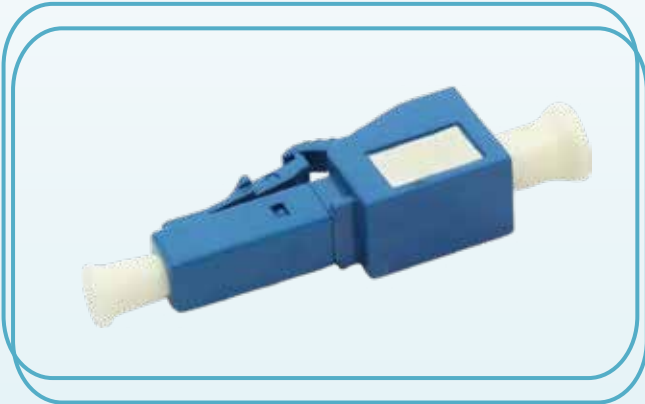
## DURABILITY

200 CYCLES



# ATTENUATOR

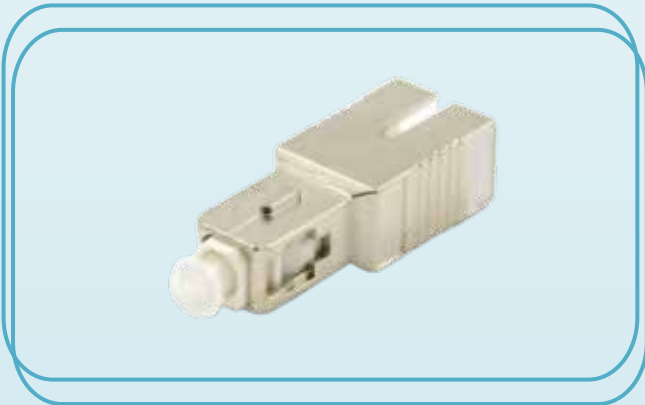
LC UPC SM MALE - FEMALE  
5DB



MU UPC SM MALE - FEMALE  
10DB



SC UPC SM MALE - FEMALE  
5DB



FC UPC SM MALE - FEMALE  
5DB







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