

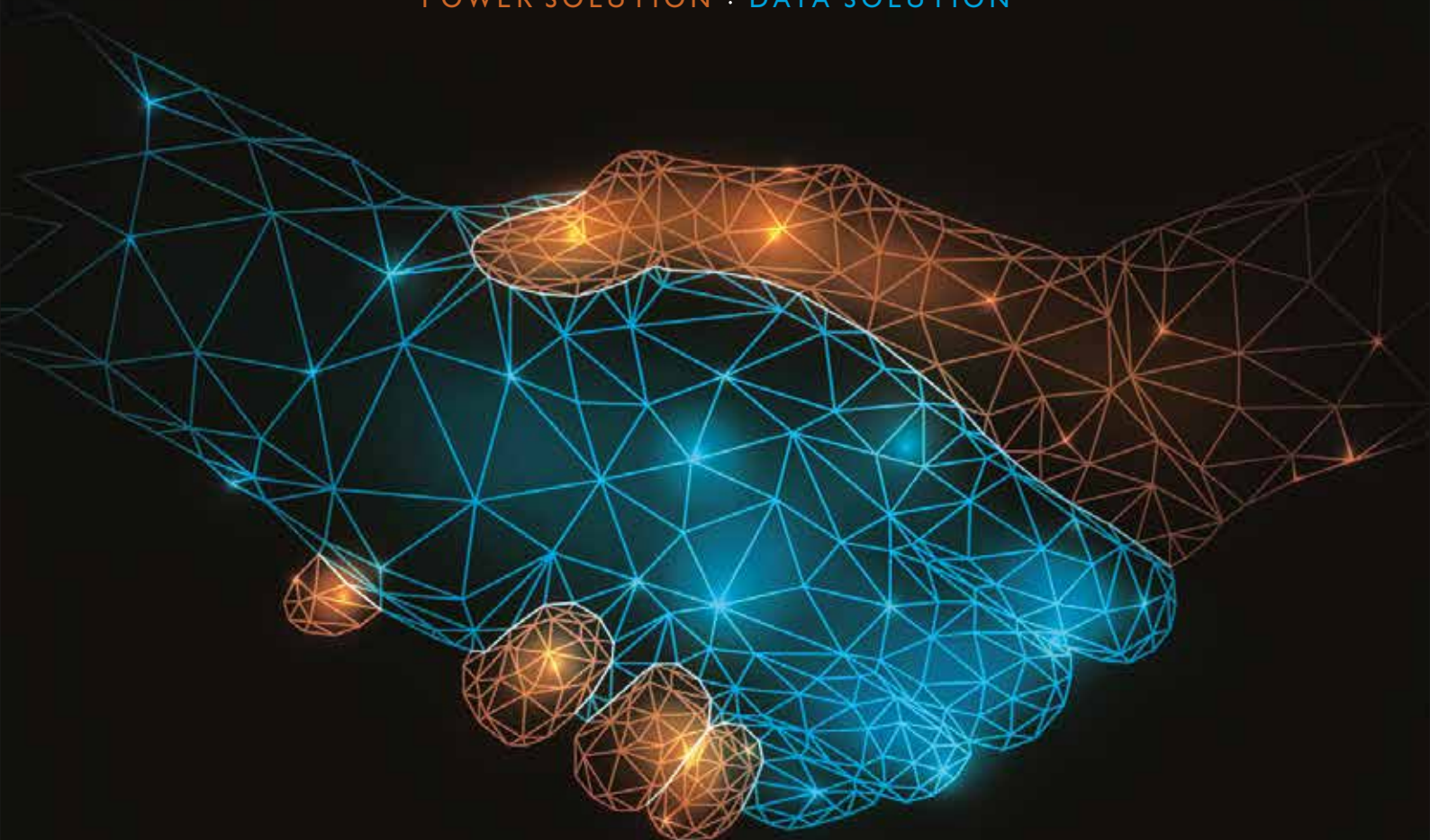
POLYCAB
TELECOM
SMARTLY. CONNECTED.

BUILDING INFRASTRUCTURE
FOR A SMARTER WORLD



FASTER THAN THE FASTEST

POWER SOLUTION : DATA SOLUTION



Bringing data and power together for
Smart Living





COPPER SYSTEM

Choosing the right cables is one of the most important aspects of setting up a network in any ecosystem. Copper Cabling has been in use in the communications industry for decades now. While there have been numerous developments and disruptions in the network technology in the recent years, with optical fiber cable networks and wireless networks becoming more popular, Copper Cables are still used frequently in networks for their utility, affordability and reliability.

Copper Communication Cables form an integral part of Polycab Telecom's array of offerings, as an integrator of data networks. We manufacture both the types of Copper Communication Cables, Co-axial Cables and Twisted Pairs (Unshielded Twisted Pair and Shielded Twisted Pair). We design, supply, install and test Copper Cabling System in the end-to-end integration and commissioning of Copper System Networks.

While our low cost and easy to work, screened Co-axial Cables are used in data, industrial and instrumentation applications to transmit fast digital signals at low level, our Twisted Pairs, two intertwined copper wires, insulated from each other by plastic and enclosed in a sheath, are commonly used for telephony and data applications in local area networks.

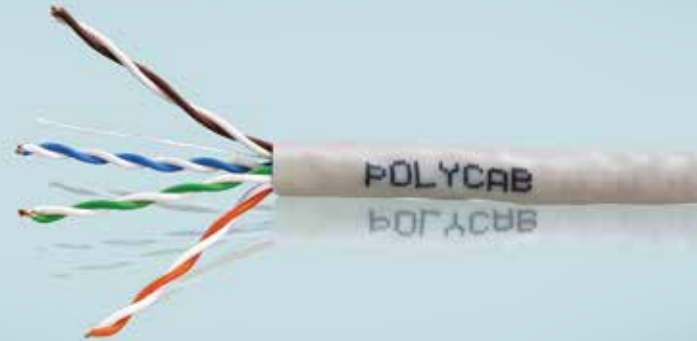
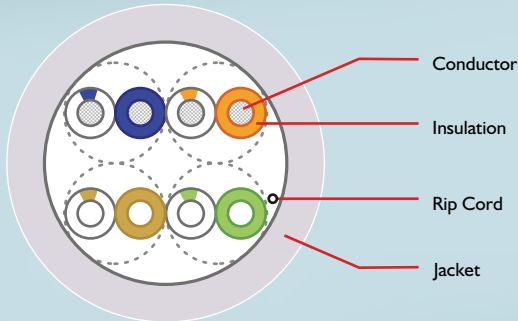
Amidst the growing high speed network systems, we, at Polycab Telecom, continue to work on Copper Cabling's ability to deliver power to the end devices. Our Copper Cables are used in various building systems. Our Twisted Pair Cabling supports a number of applications for the end devices that reside at, in, or near the ceiling, providing a great deal of flexibility for the residents of buildings.

Our Copper Cabling Systems come in different specifications to support varied enterprise applications, intelligent building systems, power supply and industrial networks. Our Twisted Pair Cables are copiously used in Lighting Systems and AV Systems.

Going beyond manufacturing, Polycab Telecom's R&D Wing is always in the quest to present different power bandwidth combination of Copper Cabling Systems. We always look to drive more value out of the Copper Cabling Systems we install, and connect more devices. Even in the age of Optical Fiber Cables and Hybrid Cables, we have been producing Copper Cabling Systems for practically any in-building communication system today. Copper Cabling remains an effective and dependable medium of different wired broadband technologies for us, as it requires relatively low investment needed for passive infrastructure.

CATEGORY 5e

CAT 5e UTP SOLID CABLE 24 AWG WITH FR-PVC JACKET



KEY FEATURES

- > For Data Center Applications
- > High bandwidth @ 100 MHz
- > 4 Pair 24 AWG
- > FR-PVC jacket
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA-568-C.2, ISO/IEC 11801

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω/100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 536 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS

MECHANICAL PROPERTIES

- > Conductor: 24 AWG Solid Bare Copper
- > Insulation: High Density Polyethylene
- > Solid Pairs: 4 Pairs Twisted together
- > Cable Diameter: 5.5 ± 0.5 mm
- > Rip cord: Nylon Rip cord
- > Outer Jacket: FR-PVC sheath (LSZH on request)
- > Jacket Colour: Light Grey (Customised colours on request)
- > Bending Radius: 4 X OD at 20°C
- > Pulling Force: 25 lbs
- > Operating Temperature: (-20°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

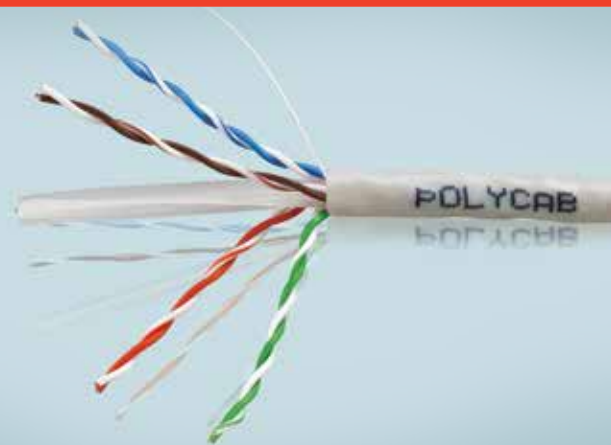
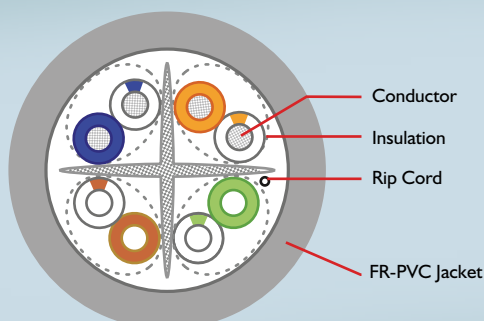
FREQUENCY (MHz)	ATT (dB/100 m) max.	NEXT (dB) min.	PS.NEXT (dB) min.	ACRF (dB@100 m)	PS.ACRF (dB@100 m) min	RETURN LOSS (dB@100 m)
1	2.2	60	57.0	57.4	54.4	17.0
4	4.5	53.5	50.5	45.4	42.4	17.0
8	6.3	48.6	45.6	39.3	36.3	17.0
10	7.1	47.0	44.0	37.4	34.4	17.0
16	9.1	43.6	40.6	33.3	30.3	17.0
20	10.2	42.0	39.0	31.4	28.4	17.0
25	11.4	40.3	37.3	29.4	26.4	16.0
31.25	12.9	38.7	35.7	27.5	24.5	15.1
62.5	18.6	33.6	30.6	21.5	18.5	12.1
100	24.0	30.1	27.1	17.4	14.4	10.0

PACKING: Easy pull boxes/reels of 305 m length (100 m, 500 m and 1000 m on request)



CATEGORY 6

CAT 6 UTP SOLID COPPER CABLE 23 AWG WITH FR-PVC JACKET



KEY FEATURES

- > For Data Center Applications
- > High bandwidth @ 250 MHz
- > 4 Pair 23 AWG
- > FR-PVC jacket
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA-568-C.2, ISO/IEC 11801 Class E

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω /100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 538 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS
- > Insulation Resistance: 100 M Ω

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Solid Pairs: 4 Pairs Twisted together
- > Cable Diameter: 5.8 \pm 0.5 mm
- > Rip cord: Nylon Rip cord
- > Outer Jacket: FR-PVC sheath
- > Jacket Colour: Light Grey (Customised colours on request)
- > Bending Radius: 4 X OD at 20°C
- > Pulling Force: 25 lbs
- > Operating Temperature: (-20°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

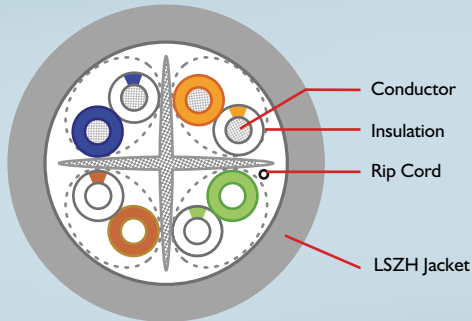
- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

FREQUENCY (MHz)	ATT (dB/100 m) max.	NEXT (dB) min.	PS.NEXT (dB) min.	ACRF (dB@100 m)	PS.ACRF (dB@100 m) min	RETURN LOSS (dB@100 m)
1	2.1	65.0	62.0	63.3	60.3	19.0
4	4.0	63.0	60.5	51.2	48.2	19.0
8	5.7	58.2	55.6	45.2	42.2	19.0
10	6.3	56.6	54.0	43.3	40.3	19.0
16	8.0	53.2	50.6	39.2	36.2	18.0
20	9.0	51.6	49.0	37.2	34.2	17.5
25	10.1	50.0	47.3	35.3	32.3	17.0
31.25	11.4	48.4	45.7	33.4	30.4	16.5
62.5	16.5	43.4	40.6	27.3	24.3	14.0
100	21.3	39.9	37.1	23.3	20.3	12.0
200	31.5	34.8	31.9	17.2	14.2	9.0
250	35.9	33.1	30.2	15.3	12.3	8.0

PACKING: Easy pull boxes/reels of 305 m length (100 m, 500 m and 1000 m on request)

CATEGORY 6

CAT 6 UTP SOLID COPPER CABLE 23 AWG WITH LSZH JACKET



KEY FEATURES

- > For Data Center Applications
- > High bandwidth @ 250 MHz
- > 4 Pair 23 AWG
- > LSZH jacket
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA-568-C.2, ISO/IEC 11801 Class E, ISO/IEC 60332-1

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω/100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 538 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS
- > Insulation Resistance: 100 M Ω

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Solid Pairs: 4 Pairs Twisted together
- > Cable Diameter: 5.8 ± 0.5 mm
- > Rip cord: Nylon Rip cord
- > Outer Jacket: LSZH sheath
- > Jacket Colour: White (Customised colours on request)
- > Bending Radius: 4 X OD at 20°C
- > Pulling Force: 25 lbs
- > Operating Temperature: (-20°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

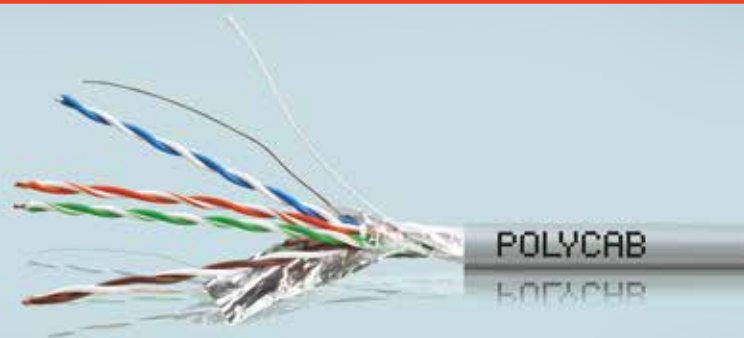
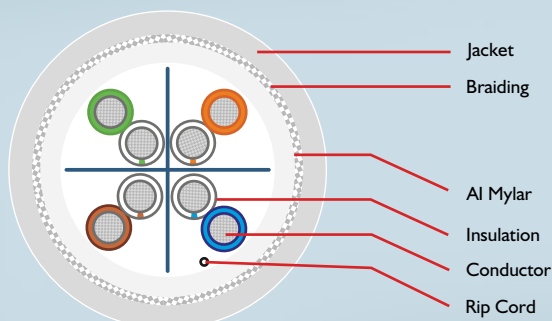
FREQUENCY (MHz)	ATT (dB/100 m) max.	NEXT (dB) min.	PS.NEXT (dB) min.	ACRF (dB@100 m)	PS.ACRF (dB@100 m) min	RETURN LOSS (dB@100 m)
1	2.1	65.0	62.0	63.3	60.3	19.0
4	4.0	63.0	60.5	51.2	48.2	19.0
8	5.7	58.2	55.6	45.2	42.2	19.0
10	6.3	56.6	54.0	43.3	40.3	19.0
16	8.0	53.2	50.6	39.2	36.2	18.0
20	9.0	51.6	49.0	37.2	34.2	17.5
25	10.1	50.0	47.3	35.3	32.3	17.0
31.25	11.4	48.4	45.7	33.4	30.4	16.5
62.5	16.5	43.4	40.6	27.3	24.3	14.0
100	21.3	39.9	37.1	23.3	20.3	12.0
200	31.5	34.8	31.9	17.2	14.2	9.0
250	35.9	33.1	30.2	15.3	12.3	8.0

PACKING: Easy pull boxes/reels of 305 m length (100 m, 500 m and 1000 m on request)



CATEGORY 6

CAT 6 SF/UTP SOLID COPPER CABLE 23 AWG WITH FR-PVC JACKET



KEY FEATURES

- > For Data Center Applications
- > Performance verified to 250 MHz
- > 4 Pair 23 AWG
- > FR-PVC jacket with foil/Shielding
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA-568-C.2, ISO/IEC 11801 Class E

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω/100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 538 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS
- > Insulation Resistance: 100 M Ω

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Solid Pairs: 4 Pairs Twisted together
- > Cable Diameter: 9.2 ± 0.5 mm
- > Rip cord: Nylon Rip cord
- > Outer Jacket: FR-PVC sheath
- > Jacket Colour: Light Grey (Customised colours on request)
- > Bending Radius: < 8 X OD at -20°C
- > Pulling Force: 25 lbs
- > Operating Temperature: (-20°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

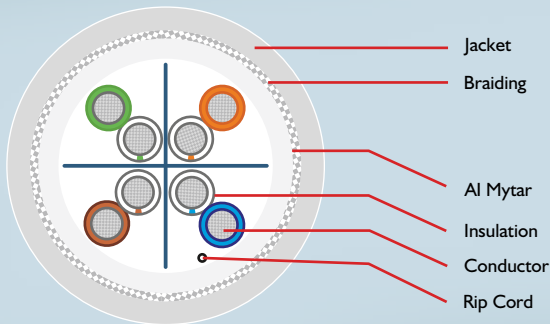
- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

FREQUENCY (MHz)	ATT (dB/100 m) max.	NEXT (dB) min.	PS.NEXT (dB) min.	ACRF (dB@100 m)	PS.ACRF (dB@100 m) min	RETURN LOSS (dB@100 m)
1	2.1	65.0	62.0	63.3	60.3	19.0
4	4.0	63.0	60.5	51.2	48.2	19.0
8	5.7	58.2	55.6	45.2	42.2	19.0
10	6.3	56.6	54.0	43.3	40.3	19.0
16	8.0	53.2	50.6	39.2	36.2	18.0
20	9.0	51.6	49.0	37.2	34.2	17.5
25	10.1	50.0	47.3	35.3	32.3	17.0
31.25	11.4	48.4	45.7	33.4	30.4	16.5
62.5	16.5	43.4	40.6	27.3	24.3	14.0
100	21.3	39.9	37.1	23.3	20.3	12.0
200	31.5	34.8	31.9	17.2	14.2	9.0
250	35.9	33.1	30.2	15.3	12.3	8.0

PACKING: Wooden drum of 305 m length (100 m, 500 m and 1000 m on request)

CATEGORY 6

CAT 6 SF/UTP SOLID COPPER CABLE 23 AWG WITH LSZH JACKET



KEY FEATURES

- > For Data Center Applications
- > High bandwidth @ 250 MHz
- > 4 Pair 23 AWG
- > LSZH jacket with foil/Shielding
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA-568-C.2, ISO/IEC 11801 Class E, ISO/IEC 60332-1

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω/100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 538 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS
- > Insulation Resistance: 100 M Ω

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Solid Pairs: 4 Pairs Twisted together
- > Cable Diameter: 9.2 ± 0.5 mm
- > Rip cord: Nylon Rip cord
- > Outer Jacket: LSZH sheath
- > Jacket Colour: White (Customised colours on request)
- > Bending Radius: < 8 x OD at -20°C
- > Pulling Force: 25 lbs
- > Operating Temperature: (-20°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

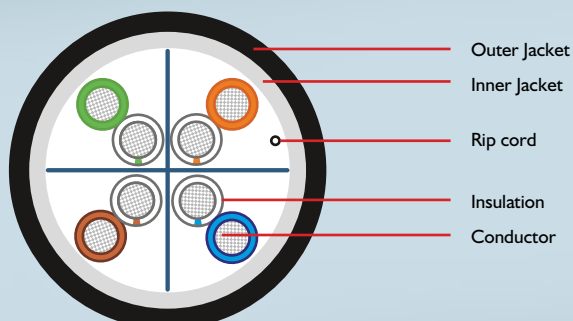
FREQUENCY (MHz)	ATT (dB/100 m) max.	NEXT (dB) min.	PS.NEXT (dB) min.	ACRF (dB@100 m)	PS.ACRF (dB@100 m) min	RETURN LOSS (dB@100 m)
1	2.1	65.0	62.0	63.3	60.3	19.0
4	4.0	63.0	60.5	51.2	48.2	19.0
8	5.7	58.2	55.6	45.2	42.2	19.0
10	6.3	56.6	54.0	43.3	40.3	19.0
16	8.0	53.2	50.6	39.2	36.2	18.0
20	9.0	51.6	49.0	37.2	34.2	17.5
25	10.1	50.0	47.3	35.3	32.3	17.0
31.25	11.4	48.4	45.7	33.4	30.4	16.5
62.5	16.5	43.4	40.6	27.3	24.3	14.0
100	21.3	39.9	37.1	23.3	20.3	12.0
200	31.5	34.8	31.9	17.2	14.2	9.0
250	35.9	33.1	30.2	15.3	12.3	8.0

PACKING: Wooden drum of 305 m length (100 m, 500 m and 1000 m on request)



CATEGORY 6

CAT 6 UTP SOLID COPPER CABLE 23 AWG DOUBLE JACKET-OUTDOOR



KEY FEATURES

- > For Data Center Applications
- > High bandwidth @ 250 MHz
- > 4 Pair 23 AWG
- > High speed transmission of Voice, Video and Data on LAN
- > Suitable for Outdoor above ground application
- > Rugged Double sheath construction
- > Complies to ANSI/TIA-568-C.2, ISO/IEC 11801

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω /100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 538 ns /100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS
- > Insulation Resistance: 100 M Ω

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Solid Pairs: 4 Pairs Twisted together
- > Inner Jacket: FR-PVC
- > Outer Jacket: Black HDPE
- > Cable Diameter: 7.5 \pm 0.5 mm
- > Rip cord: Nylon Rip cord
- > Bending Radius: 8 X OD at 20°C
- > Pulling Force: 25 lbs
- > Operating Temperature: (-20°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

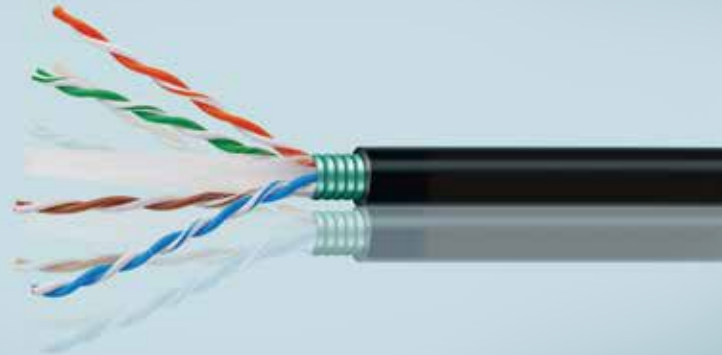
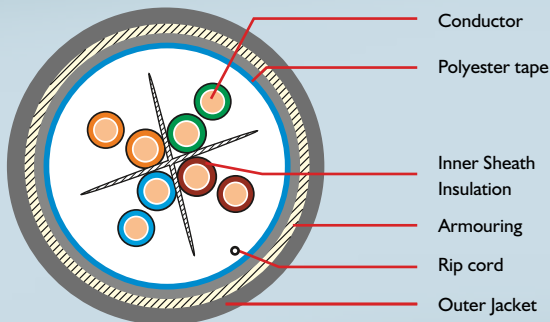
- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

FREQUENCY (MHz)	ATT (dB/100 m) max.	NEXT (dB) min.	PS.NEXT (dB) min.	ACRF (dB@100 m)	PS.ACRF (dB@100 m) min	RETURN LOSS (dB@100 m)
1	2.1	65.0	62.0	63.3	60.3	19.0
4	4.0	63.0	60.5	51.2	48.2	19.0
8	5.7	58.2	55.6	45.2	42.2	19.0
10	6.3	56.6	54.0	43.3	40.3	19.0
16	8.0	53.2	50.6	39.2	36.2	18.0
20	9.0	51.6	49.0	37.2	34.2	17.5
25	10.1	50.0	47.3	35.3	32.3	17.0
31.25	11.4	48.4	45.7	33.4	30.4	16.5
62.5	16.5	43.4	40.6	27.3	24.3	14.0
100	21.3	39.9	37.1	23.3	20.3	12.0
200	31.5	34.8	31.9	17.2	14.2	9.0
250	35.9	33.1	30.2	15.3	12.3	8.0

PACKING: Wooden drum of 305 m length (100 m, 500 m and 1000 m on request)

CATEGORY 6

CAT 6 UTP SOLID COPPER CABLE 23 AWG ECCS TAPE ARMoured



KEY FEATURES

- > High bandwidth @ 250 MHz
- > 4 Pair 23 AWG
- > Inner jacket – PVC, Outer Sheath - Polyethylene
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA-568-C.2
- > Suitable for Outdoor application

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω/100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 538 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS
- > Insulation Resistance: 100 M.Ω

MECHANICAL PROPERTIES

- > ECCS Tape Armoured
- > Conductor: 23 AWG Solid Bare Copper
- > Central separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Solid Pairs: 4 Pairs Twisted together
- > Cable Diameter: 10 ± 0.5 mm
- > Outer Jacket Colour: Black HDPE
- > Operating Temperature: (-20°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

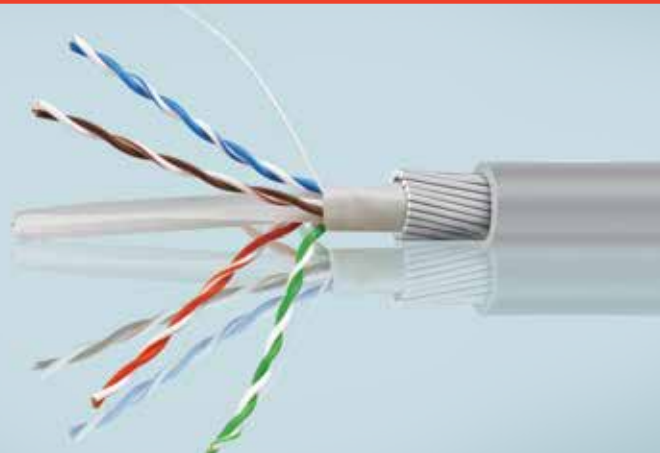
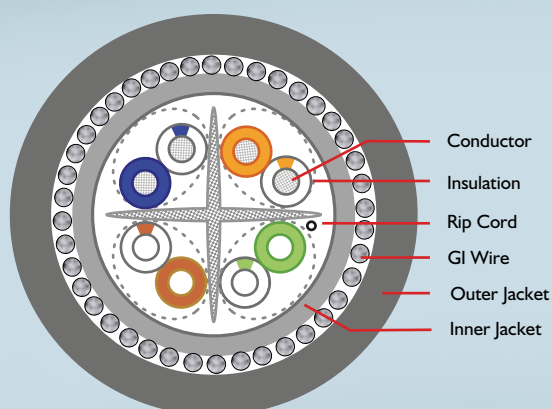
FREQUENCY (MHz)	ATT (dB/100 m) max.	NEXT (dB) min.	PS.NEXT (dB) min.	ACRF (dB@100 m)	PS.ACRF (dB@100 m) min	RETURN LOSS (dB@100 m)
1	2.3	65.0	62.0	63.3	60.3	19.0
4	4.3	63.0	60.5	51.2	48.2	19.0
8	5.8	58.2	55.6	45.2	42.2	19.0
10	6.5	56.6	54.0	43.3	40.3	19.0
16	8.2	53.2	50.6	39.2	36.2	18.0
20	9.2	51.6	49.0	37.2	34.2	17.5
25	10.2	50.0	47.3	35.3	32.3	17.0
31.25	11.5	48.4	45.7	33.4	30.4	16.5
62.5	16.4	43.4	40.6	27.3	24.3	14.0
100	20.9	39.9	37.1	23.3	20.3	12.0
200	30.1	34.8	31.9	17.2	14.2	9.0
250	33.9	33.1	30.2	15.3	12.3	8.0

PACKING: Wooden drum of 305 m length (100 m, 500 m and 1000 m on request)



CATEGORY 6

CAT 6 UTP SOLID COPPER CABLE 23 AWG GI WIRE ARMoured



KEY FEATURES

- > High bandwidth @ 250 MHz
- > 4 Pair 23 AWG
- > GI wire armoring
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA-568-C.2
- > Suitable for Outdoor application

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω /100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 538 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS
- > Insulation Resistance: 100 M Ω

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central Separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Rip cord: Nylon Rip cord
- > Inner Jacket: FR-PVC, Grey
- > Armoring: GI wire
- > Outer Jacket: FRLS PVC
- > Cable Diameter: 10.0 \pm 1.5 mm
- > Operating Temperature: (-10°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

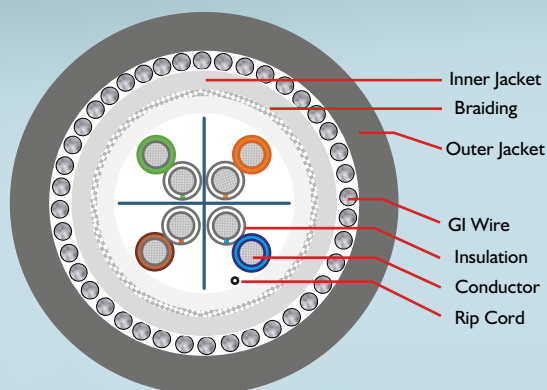
Pair Number: Colour

- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

PACKING: Wooden drum of 1000 m length

CATEGORY 6

CAT 6 STP SOLID COPPER CABLE 23 AWG GI WIRE ARMoured



KEY FEATURES

- > High bandwidth @ 250 MHz
- > 4 Pair 23 AWG
- > Shielding, GI wire armoring
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA-568-C.2
- > Suitable for Outdoor application

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω /100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 538 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central Separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Rip cord: Nylon Rip cord
- > ATC Braiding
- > Inner Jacket: FR-PVC
- > Armoring: GI wire
- > Outer Jacket: FRLS PVC, Grey
- > Cable Diameter: 11.0 \pm 1.5 mm
- > Operating Temperature: (-10°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

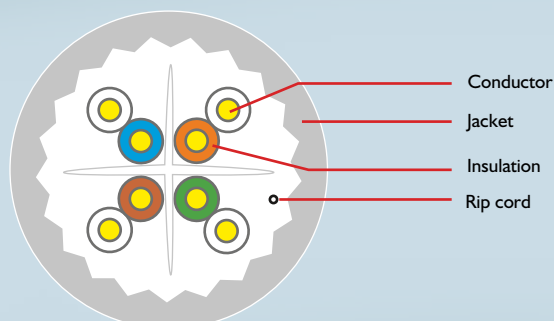
- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

PACKING: Wooden drum of 1000 m length



CATEGORY 6A

CAT 6A UTP SOLID COPPER CABLE 23 AWG WITH FR-PVC JACKET



KEY FEATURES

- > For Data Center Applications
- > High bandwidth @ 500MHz
- > 4 Pair 23 AWG
- > FR-PVC jacket
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA 568-C.2 Cat 6A, ISO/IEC 11801 E_A

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω/100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 542 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS
- > Insulation Resistance: 100 M Ω

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Solid Pairs: 4 Pairs Twisted together
- > Cable Diameter: 6.6 ± 1.0 mm
- > Rip cord: Nylon Rip cord
- > Outer Jacket: FR-PVC sheath
- > Jacket Colour: Light Grey (Customised colours on request)
- > Bending Radius: 4 X OD at 20°C
- > Pulling Force: 25 lbs
- > Operating Temperature: (-20°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

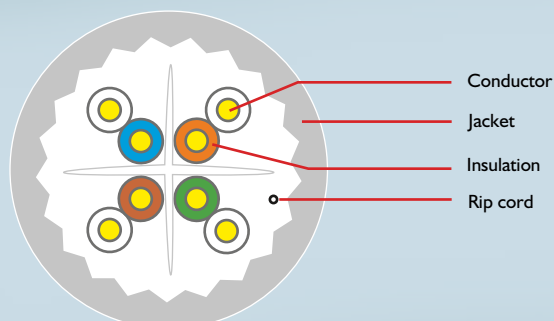
- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

FREQUENCY IN MHz	ATTENUATION (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	RETURN LOSS (dB)
1	2.03	74.30	72.30	67.80	64.80	20.0
10	5.95	59.30	57.30	47.80	44.80	25.0
25	9.65	53.33	51.34	39.84	36.83	24.32
62.5	15.46	47.36	45.32	31.88	28.88	21.54
100	19.9	44.30	42.28	27.8	24.76	20.11
250	32.9	38.33	36.33	19.84	16.84	17.32
500	48.90	33.82	31.82	13.80	10.82	15.21

PACKING: Wooden drum of 305 m length (100 m, 500 m and 1000 m on request)

CATEGORY 6A

CAT 6A UTP SOLID COPPER CABLE 23 AWG WITH LSZH JACKET



KEY FEATURES

- > For Data Center Applications
- > High bandwidth @ 500MHz
- > 4 Pair 23 AWG
- > LSZH Jacket
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA 568-C.2 Cat 6A, ISO/IEC 11801 E_A, ISO/IEC 60332-1

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω/100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 542 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS
- > Insulation Resistance: 100 M Ω

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Solid Pairs: 4 Pairs Twisted together
- > Cable Diameter: 6.6 ± 1.0 mm
- > Rip cord: Nylon Rip cord
- > Outer Jacket: LSZH sheath
- > Jacket Colour: White (Customised colours on request)
- > Bending Radius: 4 X OD at 20°C
- > Pulling Force: 25 lbs
- > Operating Temperature: (-20°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

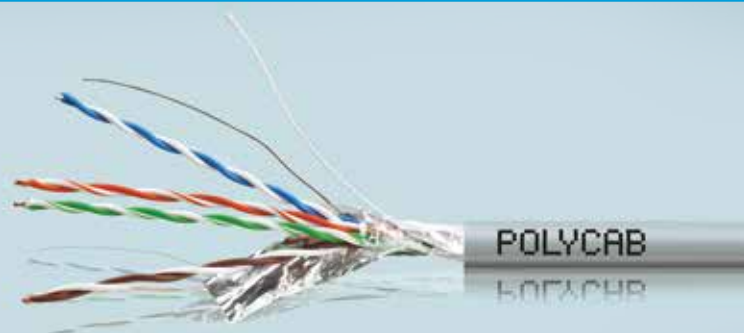
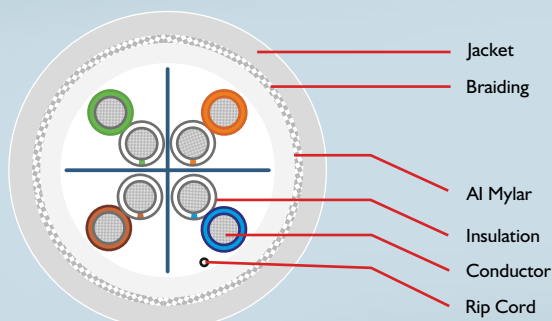
FREQUENCY IN MHz	ATTENUATION (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	RETURN LOSS (dB)
1	2.03	74.30	72.30	67.80	64.80	20.0
10	5.95	59.30	57.30	47.80	44.80	25.0
25	9.65	53.33	51.34	39.84	36.83	24.32
62.5	15.46	47.36	45.32	31.88	28.88	21.54
100	19.9	44.30	42.28	27.8	24.76	20.11
250	32.9	38.33	36.33	19.84	16.84	17.32
500	48.90	33.82	31.82	13.80	10.82	15.21

PACKING: Wooden drum of 305 m length (100 m, 500 m and 1000 m on request)



CATEGORY 6A

CAT 6A SF/UTP SOLID COPPER CABLE 23 AWG WITH FR-PVC JACKET



KEY FEATURES

- > For Data Center Applications
- > High bandwidth @ 500MHz
- > 4 Pair 23 AWG
- > FR-PVC jacket
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA 568-C.2 Cat 6A, ISO/IEC 11801 E_A

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω/100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 542 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS
- > Insulation Resistance: 100 M Ω

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Solid Pairs: 4 Pairs Twisted together
- > Cable Diameter: 10.0 ± 0.5 mm
- > Shielding: Al Mylar
- > Braiding: ATC Braiding
- > Rip cord: Nylon Rip cord
- > Outer Jacket: FR-PVC sheath, Light Grey (Customised colours on request)
- > Bending Radius: 4 X OD at 20°C, Pulling Force: 25 lbs
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

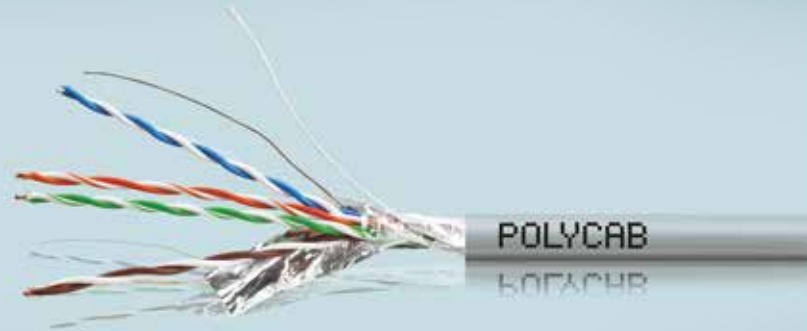
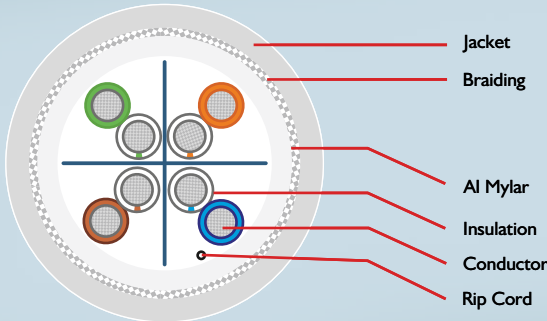
- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

FREQUENCY IN MHz	ATTENUATION (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	RETURN LOSS (dB)
1	2.03	74.30	72.30	67.80	64.80	20.0
10	5.95	59.30	57.30	47.80	44.80	25.0
25	9.65	53.33	51.34	39.84	36.83	24.32
62.5	15.46	47.36	45.32	31.88	28.88	21.54
100	19.9	44.30	42.28	27.8	24.76	20.11
250	32.9	38.33	36.33	19.84	16.84	17.32
500	48.90	33.82	31.82	13.80	10.82	15.21

PACKING: Wooden drum of 305 m length (100 m, 500 m and 1000 m on request)

CATEGORY 6A

CAT 6A SF/UTP SOLID COPPER CABLE 23 AWG WITH LSZH JACKET



KEY FEATURES

- > For Data Center Applications
- > High bandwidth @ 500MHz
- > 4 Pair 23 AWG
- > LSZH Jacket
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA 568-C.2 Cat 6A, ISO/IEC 11801 E_A, ISO/IEC 60332-1

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω/100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 542 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS
- > Insulation Resistance: 100 M Ω

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Solid Pairs: 4 Pairs Twisted together
- > Cable Diameter: 10.0 ± 0.5 mm
- > Shielding: Al Mylar
- > Braiding: ATC Braiding, ATC Drain wire
- > Rip cord: Nylon Rip cord
- > Outer Jacket: LSZH sheath, White (Customised colours on request)
- > Bending Radius: 4 X OD at 20°C, Pulling Force: 25 lbs
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

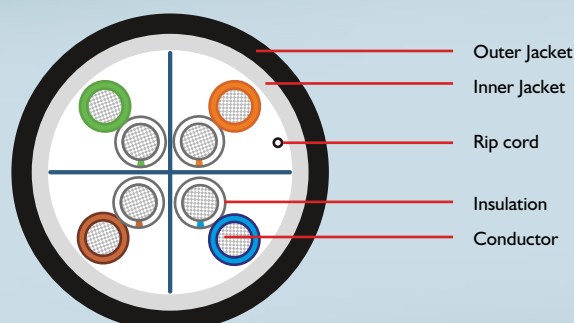
FREQUENCY IN MHz	ATTENUATION (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	RETURN LOSS (dB)
1	2.03	74.30	72.30	67.80	64.80	20.0
10	5.95	59.30	57.30	47.80	44.80	25.0
25	9.65	53.33	51.34	39.84	36.83	24.32
62.5	15.46	47.36	45.32	31.88	28.88	21.54
100	19.9	44.30	42.28	27.8	24.76	20.11
250	32.9	38.33	36.33	19.84	16.84	17.32
500	48.90	33.82	31.82	13.80	10.82	15.21

PACKING: Wooden drum of 305 m length (100 m, 500 m and 1000 m on request)



CATEGORY 6A

CAT 6A UTP SOLID COPPER CABLE 23 AWG DOUBLE JACKET-OUTDOOR



KEY FEATURES

- > High bandwidth @ 500 MHz
- > 4 Pair 23 AWG
- > High speed transmission of Voice, Video and Data on LAN
- > Suitable for Outdoor above ground application
- > Rugged Double sheath construction
- > Complies to ANSI/TIA-568-C.2

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω /100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 542 ns /100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Inner Jacket: FR-PVC
- > Outer Jacket: Black HDPE
- > Cable Diameter: 7.5 \pm 0.5 mm
- > Rip cord: Nylon Rip cord
- > Operating Temperature: (-20°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

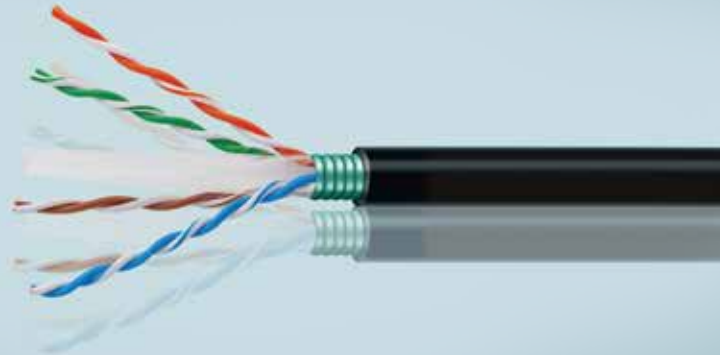
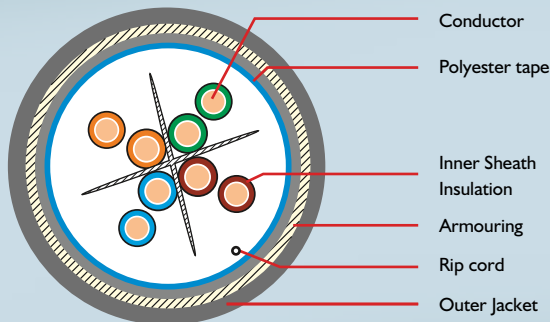
Pair Number: Colour

- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

PACKING: Wooden drum of 305 m length (500 m and 1000 m on request)

CATEGORY 6A

CAT 6A UTP SOLID COPPER CABLE 23 AWG ECCS TAPE ARMoured



KEY FEATURES

- > High bandwidth @ 500 MHz
- > 4 Pair 23 AWG
- > Inner jacket – PVC, Outer Sheath - Polyethylene
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA-568-C.2
- > Suitable for Outdoor application

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω /100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 542 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS
- > Insulation Resistance: 100 M Ω

MECHANICAL PROPERTIES

- > ECCS Tape Armoured
- > Conductor: 23 AWG Solid Bare Copper
- > Central separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Solid Pairs: 4 Pairs Twisted together
- > Cable Diameter: 10 \pm 0.5 mm
- > Outer Jacket Colour: Black HDPE
- > Operating Temperature: (-20°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

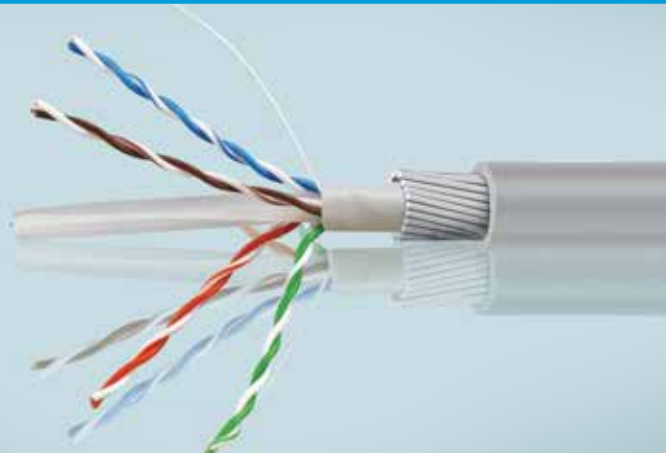
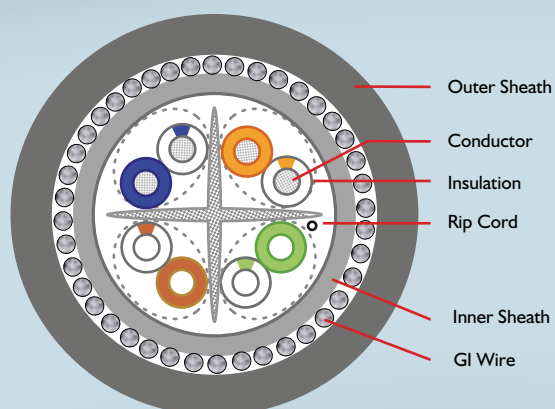
- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

PACKING: Wooden drum of 305 m length (100 m, 500 m and 1000 m on request)



CATEGORY 6A

CAT 6A UTP SOLID COPPER CABLE 23 AWG GI WIRE ARMoured



KEY FEATURES

- > High bandwidth @ 500 MHz
- > 4 Pair 23 AWG
- > GI wire armoring
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA-568-C.2
- > Suitable for Outdoor application

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω /100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 542 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V
- > Dielectric Strength: 1000 V RMS
- > Insulation Resistance: 100 M Ω

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central Separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Rip cord: Nylon Rip cord
- > Inner Jacket: FR-PVC
- > Armoring: GI wire
- > Outer Jacket: FRLS PVC, Grey
- > Cable Diameter: 10.5 \pm 1.5 mm
- > Operating Temperature: (-10°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

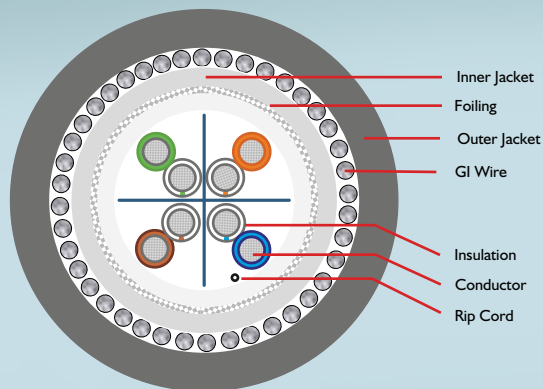
Pair Number: Colour

- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

PACKING: Wooden drum of 1000 m length

CATEGORY 6A

CAT 6A FTP SOLID COPPER CABLE 23 AWG GI WIRE ARMoured



KEY FEATURES

- > High bandwidth @ 500 MHz
- > 4 Pair 23 AWG
- > Foiling, GI wire armouring
- > High speed transmission of Voice, Video and Data on LAN
- > Complies to ANSI/TIA-568-C.2
- > Suitable for Outdoor application

ELECTRICAL PROPERTIES

- > Conductor Resistance: 9.2 Ω /100 Mtr max
- > Mutual Capacitance: 5.6 nF for 100 Mtr
- > Resistance Unbalance (%): max 5
- > Capacitance Unbalance: 330 pF for 100 Mtr
- > Delay Skew: 48 ns/100 Mtr
- > Propagation Delay: < 542 ns/100 Mtr
- > NVP: 69%
- > Current Rating: max 1.5 A
- > Operating Voltage: 72 V

MECHANICAL PROPERTIES

- > Conductor: 23 AWG Solid Bare Copper
- > Central Separator: PE Cross Separator
- > Insulation: High Density Polyethylene
- > Rip cord: Nylon Rip cord
- > Al Mylar tape
- > Inner Jacket: FR-PVC
- > Armouring: GI wire
- > Outer Jacket: FRLS PVC, Grey
- > Cable Diameter: 11.5 \pm 1.5 mm
- > Operating Temperature: (-10°C to +60°C)
- > Installation Temperature: (0°C to +50°C)

COLOUR CODE

Pair Number: Colour

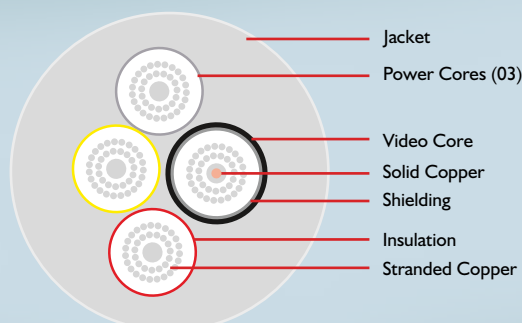
- > 1 - 2 : White-Orange Strip and Orange
- > 3 - 6 : White-Green Strip and Green
- > 4 - 5 : White-Blue Strip and Blue
- > 7 - 8 : White-Brown Strip and Brown

PACKING: Wooden drum of 1000 m length



CCTV CABLES

3+1 CCTV CABLE



KEY FEATURES

LOW FREQUENCY ELECTRICAL & MECHINCAL PARAMETER

- > Power and Data hybrid type construction
- > Communication and electrical conductors combined
- > Single Video Core and Three power cores
- > Flame retardant cable with CCA braiding on video core

MECHANICAL PROPERTIES

- > Conductor Resistance (DC) of Solid: 65 Ω /km @20°C. (Max)
- > Conductor Resistance (DC) of Stranded: 175 Ω /km @20° C. (Max)
- > Tensile Strength in PVC Jacket - 12.5 N/mm² (Min)
- > Elongation in PVC Jacket - 150% (Min)

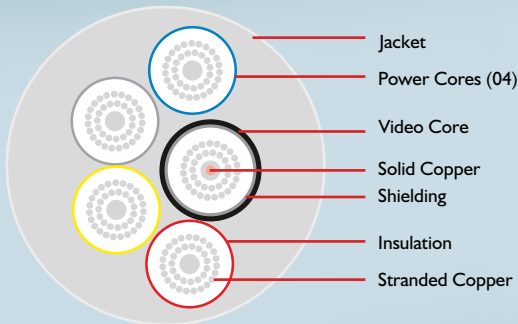
CONSTRUCTION

Power Core Conductor	
Conductor Type	Stranded Annealed Bare Copper Conductor
No. of Wire/Size of Wire (Nos./mm)	14/0.10 \pm 0.010 mm
Insulation	PVC
No. of Core	3
Colour Code	Red, Yellow & Grey
Core O.D.	1.35 \pm 0.10 mm
Video Core	
Conductor Type	Solid Annealed Bare Copper Conductor
No. of Wire/Size of Wire (Nos./mm)	01/0.60 \pm 0.015 mm
Insulation	HDPE
No. of Core	1
Colour Code	Natural
Shield (Video Core Shielding)	
Shielding	Al-Mylar
Braiding	CCA braiding (48 wire/0.12 \pm 0.01 mm)
Video Core Jacketing	HDPE
Colour of Jacket	Black
Video Core OD	2.50 \pm 0.20 mm
Outer Sheath	
Material	PVC
Colour of Jacketing (As per Customer Required)	White
Thickness of Outer Jacket	0.65 mm (Nom.)
Outer Dia.	5.70 \pm 0.30 mm
Sequential Marking	At Every Meter

PACKING: Standard length (as per customer req.) 90 m/180 m in box

CCTV CABLES

4+1 CCTV CABLE



KEY FEATURES

LOW FREQUENCY ELECTRICAL & MECHINCAL PARAMETER

- > Power and Data hybrid type construction
- > Communication and electrical conductors combined
- > Single Video Core and Four power cores
- > Flame retardant cable with CCA braiding on video core

MECHANICAL PROPERTIES

- > Conductor Resistance (DC) of Solid: 65 Ω /km @20°C. (Max)
- > Conductor Resistance (DC) of Stranded: 175 Ω /km @20° C. (Max)
- > Tensile Strength in PVC Jacket - 12.5 N/mm² (Min)
- > Elongation in PVC Jacket - 150% (Min)

CONSTRUCTION

Power Core Conductor	
Conductor Type	Stranded Annealed Bare Copper Conductor
No. of Wire/Size of Wire (Nos./mm)	14/0.10 \pm 0.010 mm
Insulation	PVC
No. of Core	4
Colour Code	Red, Yellow, Grey & Blue
Core O.D.	1.35 \pm 0.10 mm
Video Core	
Conductor Type	Solid Annealed Bare Copper Conductor
No. of Wire/Size of Wire (Nos./mm)	01/0.60 \pm 0.015 mm
Insulation	HDPE
No. of Core	1
Colour Code	Natural
Shield (Video Core Shielding)	
Shielding	Al-Mylar
Braiding	CCA braiding (48 wire/0.12 \pm 0.01 mm)
Video Core Jacketing	HDPE
Colour of Jacket	Black
Video Core OD	2.50 \pm 0.20 mm
Outer Sheath	
Material	PVC
Colour of Jacketing (As per Customer Required)	White
Thickness of Outer Jacket	0.65 mm (Nom.)
Outer Dia.	5.70 \pm 0.30 mm
Sequential Marking	At Every Meter

PACKING: Standard length (as per customer req.) 90 m/180 m in box



COPPER ACCESSORIES

24 PORT STRAIGHT PATCH PANEL 1U- FOR PUNCH DOWN KEYSTONE JACKS



KEY FEATURES

- > 24 Ports to Hold Punch Down Keystone Jacks (UTP & STP)
- > Elegant rear cable manager
- > Light weight and compact design
- > Designed for keystone snap in and out easily
- > Clear label window for port identification

COMPLIANCE

- > RoHS Compliant
- > ANSI/TIA-568-C.2
- > ISO/IEC 11801

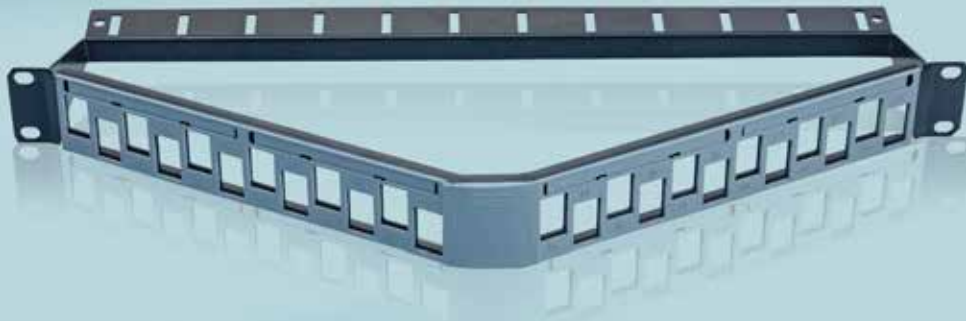
MECHANICAL PROPERTIES

- > Size 483.0 mm x 43.8 mm x 76.5 mm (19" 1U)
- > Panel CRCA Steel-fully black powder coated

PACKING: Each patch panel in individual gift pack.

COPPER ACCESSORIES

24 PORT ANGLED PATCH PANEL 1U- FOR TOOL LESS KEYSTONE JACKS



KEY FEATURES

- > 24 Ports to Hold Tool Less Keystone Jacks (UTP)
- > Elegant rear cable manager
- > Light weight and compact design
- > Designed for keystone snap in and out easily
- > Clear label window for port identification

COMPLIANCE

- > RoHS Compliant
- > ANSI/TIA-568-C.2
- > ISO/IEC 11801

MECHANICAL PROPERTIES

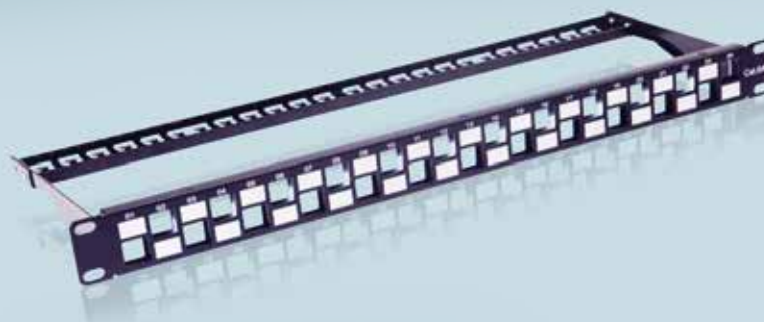
- > Size 482.6 mm x 43.2 mm x 245.3 mm (19" 1U)
- > Panel CRCA Steel-fully black powder coated

PACKING: Each patch panel in individual gift pack.



COPPER ACCESSORIES

24 PORT STAGGERED PATCH PANEL 1U- FOR PUNCH DOWN KEYSTONE JACKS



KEY FEATURES

- > Designed for better control of Alien Cross talk for Cat 6A performance
- > 24 ports unloaded staggered design
- > Powder coated CRCS body
- > Ideal patch panel for high end Data Center infrastructure
- > Efficient rear cable management

MECHANICAL PROPERTIES

- > Panel Frame: CRCS Powder coating in matt black finish
- > Drain Wire: Stranded electrical wire for grounding
- > Cable management: Rear body
- > Can accommodate UTP keystone jack
- > Size 483.0 mm x 43.8 mm x 76.5 mm (19" 1U)

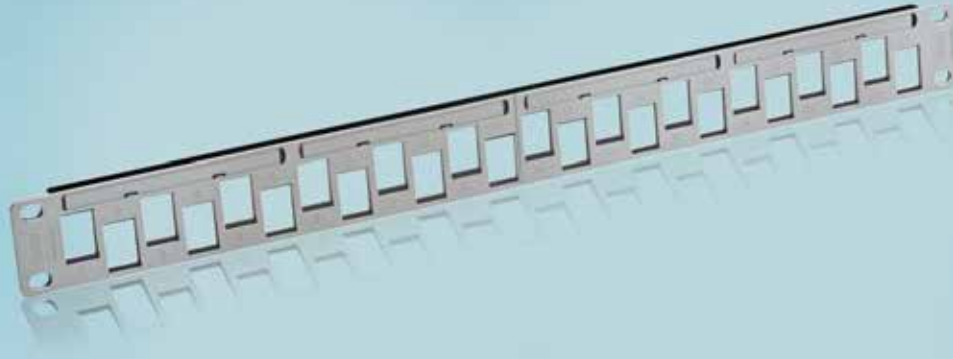
COMPLIANCE

- > RoHS Compliant
- > ANSI/TIA-568-C.2
- > ISO/IEC 11801

PACKING: Each patch panel in individual gift pack.

COPPER ACCESSORIES

24 PORT STAGGERED PATCH PANEL 1U- FOR TOOL LESS KEYSTONE JACKS



KEY FEATURES

- > Capacity of up to 24 snap-in ports
- > Light weight and compact design
- > Designed for Tool Less Keystone Jacks to snap in and out easily
- > Clear label window for port identification

MECHANICAL PROPERTIES

- > 19" 1U Rack Mountable
- > Size 43.2 mm x 482.6 mm
- > Metal Panel 1.5 mm
- > Colour: Metal Black powder coated, Front-Grey

COMPLIANCE

- > RoHS Compliant
- > ANSI/TIA-568-C.2
- > ISO/IEC 11801

PACKING: Each patch panel in individual gift pack.



COPPER ACCESSORIES

CAT 6 UTP PUNCHDOWN KEYSTONE JACK



KEY FEATURES

- > Small & Exquisite form factor
- > High and Reliable Performance
- > Ergonomic Design and Easy Termination
- > Supports both RJ11/RJ12 Plug

ELECTRICAL PROPERTIES

- > Current Rating: 1.5 amps
- > Insulation Resistance: 500 m Ω minimum
- > Contact Resistance: 10 m Ω maximum
- > DC Resistance: 0.1 Ω maximum

COMPLIANCE

- > ANSI/TIA-568-C.2
- > ISO/IEC 11801
- > ISO/IEC 60603-7 Compliant
- > RoHS Compliant

MECHANICAL PROPERTIES

- > Plug insertion life: 750 Cycles minimum
- > Plug & Jack contact force: 100 grams minimum
- > Using FCC-Approved Plug
- > Plug retention force: 30 lbs minimum
- > Temperature: -40°C to +70°C

PHYSICAL

- > High Impact Flame Retardant Plastic, UL 94 V-0 Rated
- > PCB: FR-4, 1.2 mm Thickness
- > Jack Wire: Phosphor Bronze Gold over Nickel Plating
- > Nickel Plating Base (Ni): 40 μ ~ 80 μ
- > Gold Plating: 50 microns
- > Connector: Insulation displacement connector (IDC)
- > IDC Accept #22~26 AWG solid wire
- > Colour options available on request

PACKING: Each keystone jack in individual gift pack.

COPPER ACCESSORIES

CAT 6 UTP TOOL LESS KEYSTONE JACK



KEY FEATURES

- > **PCB-free Tool Less Keystone Jack**
- > Tool-free Easy-Lock connection of installation cables AWG 26 – 22 (0.4 mm – 0.65 mm) and flexible cables AWG 26/7 – AWG 22/7
- > Halogen-free and heavy-metal free in acc. with EU directives RoHS 2
- > 4PPoE (IEEE 802.3bt)

ELECTRICAL PROPERTIES

- > Current Rating: > 1000 V DC, Typical value (at 20°)
- > Insulation Resistance: > 500 m Ω (100V DC), Typical value (at 20°)
- > Contact Resistance: < 50 m Ω , Typical value (at 20°)

COMPLIANCE

- > ANSI/TIA-568-C.2
- > ISO/IEC 11801:2002
- > ISO/IEC 60603-7 Compliant
- > EU directives RoHS 2
- > Power over Ethernet: IEC 60512-99-001
- > **Supports PoE (IEEE 802.3af), PoEP (IEEE 802.3at), 4PPoE (IEEE 802.3bt) and is compatible to IEC 60512-99-001/002**

MECHANICAL PROPERTIES

- > **Plug mating: > 1000 mating cycles**
- > Plug insertion life (termination): > 200 insertion cycles, IEC 60352-3
- > Temperature:
Operating temperature range -10°C to +60°C
Storage temperature range -40°C to +70°C

PHYSICAL

- > Housing: Polycarbonate (UL 94 V-0)
- > **Non PCB based**
- > Jack Wire: (IDC contact material): CuSn, tin-plated
- > **Nickel Plating Base (Ni): > 0.76 μ m gold over > 1.2 μ m nickel**

PACKING: Each keystone jack in individual gift pack.



COPPER ACCESSORIES

CAT 6 STP PUNCH DOWN KEYSTONE JACK



KEY FEATURES

- > Higher performance @ 250 MHz
- > Metal body shell
- > Outstanding performance to outside EMI

ELECTRICAL PROPERTIES

- > Current Rating: 1.5 Amps
- > Insulation Resistance: 500 m Ω minimum
- > Contact Resistance: 20 m Ω minimum
- > DC Resistance: 0.1 Ω maximum

COMPLIANCE

- > Qualified Screened Cat 6 /Class E
- > Complied of ANSI/TIA-568-C.2
- > IEC 60603-7-41
- > ISO/IEC 11801 2.2 Edition

MECHANICAL PROPERTIES

- > Plug insertion life: 750 Cycles minimum
- > Plug & Jack contact force: 100 grams minimum
- > Using FCC-Approved Plug
- > Plug retention force: 30 lbs minimum
- > Temperature: -40°C to +70°C

PHYSICAL

- > Shield Material Brass: 0.30 mm Nickel Plating
- > Housing Material: PC UL 94 V-0
- > PCB: FR4, 1.6mm Thickness
- > Gold Plating: 50 microns
- > Connector: Insulation displacement connector
- > IDC Accept #22~26 AWG solid wire

PACKING: Each keystone jack in individual gift pack.

COPPER ACCESSORIES

CAT 6A UTP PUNCH DOWN KEYSTONE JACK



KEY FEATURES

- > For Data Center Applications
- > Higher performance @ 500 MHz

ELECTRICAL PROPERTIES

- > Current Rating: 1.5 Amps
- > Insulation Resistance: 500 m Ω minimum
- > Contact Resistance: 20 m Ω maximum
- > DC Resistance: 0.1 Ω maximum

COMPLIANCE

- > Qualified Unscreened Cat 6A /Class EA Permanent Link & Channel
- > Complied of ANSI/TIA-568-C.2
- > IEC 60603-7-41
- > ISO/IEC 11801
- > RoHS Compliant

MECHANICAL PROPERTIES

- > Plug insertion life: 750 Cycles minimum
- > Plug & Jack contact force: 100 grams minimum
- > Using FCC-Approved Plug
- > Plug retention force: 30 lbs minimum
- > Temperature: -40°C to +70°C

PHYSICAL

- > High Impact Flame Retardant Plastic, UL 94 V-0 Rated
- > PCB: FR-4, 1.2 mm Thickness
- > Jack Wire: Phosphor Bronze Gold over Nickel Plating
- > Nickel Plating Base (Ni): 40 μ ~ 80 μ
- > Gold Plating: 50 microns
- > Connector: Insulation displacement connector (IDC)
- > IDC Accept #22~26 AWG solid wire
- > Colour options available on request

PACKING: Each keystone jack in individual gift pack.



COPPER ACCESSORIES

CAT 6A STP PUNCH DOWN KEYSTONE JACK



KEY FEATURES

- > For Data Center Applications
- > Higher performance @ 500 MHz
- > Metal body shell
- > Outstanding performance to outside EMI

ELECTRICAL PROPERTIES

- > Current Rating: 1.5 Amps
- > Insulation Resistance: 500 m Ω minimum
- > Contact Resistance: 20 m Ω minimum
- > DC Resistance: 0.1 Ω maximum

COMPLIANCE

- > Qualified Screened Cat 6A /Class EA Permanent Link & Channel
- > Complied of ANSI/TIA-568-C.2
- > IEC 60603-7-41
- > ISO/IEC 11801 2.2 Edition
- > RoHS Compliant

MECHANICAL PROPERTIES

- > Plug insertion life: 750 Cycles minimum
- > Plug & Jack contact force: 100 grams minimum
- > Using FCC-Approved Plug
- > Plug retention force: 30 lbs minimum
- > Temperature: -40°C to +70°C

PHYSICAL

- > Metal body shell
- > Cap: PC UL 94 V-0
- > PCB: FR4, 1.6mm Thickness
- > Gold Plating: 50 microns
- > Connector: Insulation displacement connector
- > IDC Accept #22~26 AWG solid wire

PACKING: Each keystone jack in individual gift pack.

COPPER ACCESSORIES

CAT 6A STP INDUSTRIAL PLUG 180°



KEY FEATURES

- > PoE+ Enabled Industrial Field Plug
- > Toolless type design with contact pins assembled with Solder-less Press-fit process
- > Fast and easy tool free termination with hands.
- > Optional termination with hand tool
- > Gold over nickel plated Contact pins
- > No oxidisation of Contact pins due to absence of soldering
- > Flux leading to longer life
- > High impact flame retardant plastic
- > Plug Insertion Life: 750 mating cycles
- > IDC Accept #22~26 AWG solid wire

COMPLIANCE

- > Qualified STP CAT 6A
- > Complies as per ANSI/TIA-568.2-D
- > IEC 60603-7-51
- > ISO/IEC 11801 2.2 edition
- > Power over Ethernet: IEC 60512-99-001
- > CENELEC EN 50173-1:2011

PACKING: Each plug in individual gift pack.



COPPER ACCESSORIES

CAT 6 UTP PATCH CORD



KEY FEATURES

- > Available in the lengths of 1, 2, 3 m and customised length
- > Available in Light Grey Colour
- > Available with FR-PVC/LSZH jacket material
- > 100% Factory Tested
- > Transparent Boot Cable Assemblies
- > Exceeds Cat 6 Performance

ELECTRICAL PROPERTIES

- > Spark Test for Insulation (DC): 2.5 KV
- > Conductor Resistance max. at 20°C: 87.60 Ω /km
- > Characteristic Impedance: 100 \pm 15 Ω
- > Propagation Delay Skew: 45 ns/100 m

COMPLIANCE

- > RoHS Compliant
- > ANSI/TIA-568-C.2
- > ISO/IEC 11801

MECHANICAL PROPERTIES

- > Plug mating: > 1000 mating cycles
- > Temperature:
Operating temperature range -10°C to +60°C
Storage temperature range -40°C to +70°C

PHYSICAL

- > RJ 45 8P 8C Connector
- > Conductor Material: Stranded Copper
- > Insulation Material: HDPE
- > Jacket Type: FR-PVC/LSZH sheath
- > Plug: 50 Microns Gold Plated Contact
- > Boot: Moulded Transparent
- > Colour options available on request

PACKING: Each patch cord in individual gift pack.

COPPER ACCESSORIES

CAT 6 STP PATCH CORD



KEY FEATURES

- > Available in the lengths of 1, 2, 3 m and customised length
- > Available in Light Grey Colour
- > Available with FR-PVC/LSZH jacket material
- > 100% Factory Tested
- > Shielded Boot Cable Assemblies
- > Exceeds Cat 6 Performance

ELECTRICAL PROPERTIES

- > Spark Test for Insulation (DC): 2.5 KV
- > Conductor Resistance max. at 20°C: 87.60 Ω /km
- > Characteristic Impedance: 100 \pm 15 Ω
- > Propagation Delay Skew: 45 ns/100 m

COMPLIANCE

- > RoHS Compliant
- > ANSI/TIA-568-C.2
- > ISO/IEC 11801

MECHANICAL PROPERTIES

- > Plug mating: > 1000 mating cycles
- > Temperature:
Operating temperature range -10°C to +60°C
Storage temperature range -40°C to +70°C

PHYSICAL

- > RJ 45 8P 8C Connector
- > Conductor Material: Stranded Copper
- > Insulation Material: HDPE
- > Jacket Type: FR-PVC/LSZH sheath
- > Plug: 50 Microns Gold Plated Contact
- > Boot: Shielded Boot
- > Colour options available on request

PACKING: Each patch cord in individual gift pack.



COPPER ACCESSORIES

CAT 6A UTP PATCH CORD



KEY FEATURES

- > Available in the lengths of 1, 2, 3 m and customised length
- > Available in Light Grey Colour
- > Available with FR-PVC/LSZH jacket material
- > 100% Factory Tested
- > Transparent Boot Cable Assemblies
- > Exceeds Cat 6A Performance

ELECTRICAL PROPERTIES

- > Spark Test for Insulation (DC): 2.5 KV
- > Conductor Resistance max. at 20°C: 87.60 Ω /km
- > Characteristic Impedance: 100 \pm 15 Ω
- > Propagation Delay Skew: 45 ns/100 m

COMPLIANCE

- > RoHS Compliant
- > ANSI/TIA-568-C.2
- > ISO/IEC 11801

MECHANICAL PROPERTIES

- > Plug mating: > 1000 mating cycles
- > Temperature:
Operating temperature range -10°C to +60°C
Storage temperature range -40°C to +70°C

PHYSICAL

- > RJ 45 8P 8C Connector
- > Conductor Material: Stranded Copper
- > Insulation Material: HDPE
- > Jacket Type: FR-PVC/LSZH sheath
- > Plug: 50 Microns Gold Plated Contact
- > Boot: Moulded Transparent
- > Colour options available on request

PACKING: Each patch cord in individual gift pack.

COPPER ACCESSORIES

CAT 6A STP PATCH CORD



KEY FEATURES

- > Available in the lengths of 1, 2, 3 m and customised length
- > Available in Light Grey Colour
- > Available with FR-PVC/LSZH jacket material
- > 100% Factory Tested
- > Shielded Boot Cable Assemblies
- > Exceeds Cat 6A Performance

ELECTRICAL PROPERTIES

- > Spark Test for Insulation (DC): 2.5 KV
- > Conductor Resistance max. at 20°C: 87.60 Ω /km
- > Characteristic Impedance: 100 \pm 15 Ω
- > Propagation Delay Skew: 45 ns/100 m

COMPLIANCE

- > RoHS Compliant
- > ANSI/TIA-568-C.2
- > ISO/IEC 11801

MECHANICAL PROPERTIES

- > Plug mating: > 1000 mating cycles
- > Temperature:
Operating temperature range -10°C to +60°C
Storage temperature range -40°C to +70°C

PHYSICAL

- > RJ 45 8P 8C Connector
- > Conductor Material: Stranded Copper
- > Insulation Material: HDPE
- > Jacket Type: FR-PVC/LSZH sheath
- > Plug: 50 Microns Gold Plated Contact
- > Boot: Shielded Boot
- > Colour options available on request

PACKING: Each patch cord in individual gift pack.



COPPER ACCESSORIES

CAT 6A UTP LOCKABLE PATCH CORD



KEY FEATURES

- > Available in the lengths of 1, 2, 3 m
- > Available in Light Grey Colour
- > Available with FR-PVC jacket material
- > 100% Factory Tested
- > Single side / Double side locking
- > Exceeds Cat 6A Performance

ELECTRICAL PROPERTIES

- > Spark Test for Insulation (DC): 2.5 KV
- > Conductor Resistance max. at 20°C: 87.60 Ω /km
- > Characteristic Impedance: 100 \pm 15 Ω
- > Propagation Delay Skew: 45 ns/100 m

COMPLIANCE

- > RoHS Compliant
- > ANSI/TIA-568-C.2
- > ISO/IEC 11801

MECHANICAL PROPERTIES

- > Plug mating: > 1000 mating cycles
- > Temperature:
Operating temperature range -10°C to +60°C
Storage temperature range -40°C to +70°C

PHYSICAL

- > RJ 45 8P 8C Connector
- > Conductor Material: Stranded Copper
- > Insulation Material: HDPE
- > Jacket Type: FR-PVC sheath
- > Plug: 50 Microns Gold Plated Contact
- > Boot: Moulded Transparent
- > Colour options available on request

PACKING: Each patch cord in individual gift pack.

FIBER ACCESSORIES

FIBER OPTIC PATCH CORD SINGLE MODE, MULTIMODE



KEY FEATURES

- > Single Mode OS2 G652D or G657A or G657B
- > Multi Mode OM2, OM3, OM4 and OM5 as option
- > Simplex, and Duplex Configurations
- > 100% Inspection for optical properties and fiber end face finish
- > Cable outer jacket diameter: 2 mm
- > Connector options includes:
SC/UPC - FC/UPC
LC/UPC - ST/UPC
SC/APC - LC/APC

MECHANICAL PROPERTIES

- > Connector Ferrule: Ceramic
- > Apex Offset: < 50 µm
- > Fiber Height: ± 100 nm
- > End Face Radius of Curvature: 7 mm < R < 25 mm
- > Repeatability: ≤ 0.2 dB 1000 Times Mating Cycles
- > Short Term Tensile (n): 160
- > Crush Resistance (n/100 mm): 500

COMPLIANCE

- > RoHS Compliant
- > ANSI/TIA-568-C.3
- > ISO/IEC 11801
- > Fiber cable according to IEC 60793-2

TECHNICAL SPECIFICATIONS

Connector Type	SC/UPC, FC/UPC, LC/UPC, ST/UPC, SC/APC, LC/APC
Fiber Type	OS2 (9/125) OM2, OM3, OM4, OM5
Tight Buffer Colour	White/Yellow/Orange
Tight Buffer Material	LSZH
Tight Buffer Diameter (mm)	2.0 ± 0.05
Strength Member	Aramid Yarn
Jacket Colour	As per standard. (Yellow for SM and Orange for OM2)
Jacket Thickness (mm)	0.45 ± 0.05
Outer Diameter	Simplex 2.0 mm, Duplex 2.0 mm x 2
Minimum Bending Radius (mm)	30 (static)
Minimum Cable Retention Strength	1.6 mm 11.24 lbs (50N)
Insertion Loss	SC: SM ≤ 0.35 dB; MM ≤ 0.35 dB (including repeatability) ST: SM ≤ 0.5 dB; MM ≤ 0.5 dB (including repeatability) LC: SM ≤ 0.35 dB; MM ≤ 0.2 dB (including repeatability)
Return loss	PC > 45 dB, UPC > 50 dB, APC > 60 dB
Repeatability	< 0.2 dB 1,000 times mating cycles
Working Temperature	From -25°C to +70°C
Storage Temperature	From -25°C to +70°C

PACKING: Each patch cord in individual gift pack.



FIBER ACCESSORIES

FIBER OPTIC PIGTAIL SINGLE MODE, MULTIMODE



KEY FEATURES

- > Single Mode OS2 G652D or G657A or G657B
- > Multi Mode OM2, OM3, OM4 and OM5 as option
- > Simplex Configurations
- > 100% Inspection for optical properties and fiber end face finish
- > Cable outer jacket diameter 900 microns
- > Connector options includes:
SC/UPC - FC/UPC
LC/UPC - ST/UPC
SC/APC - LC/APC

MECHANICAL PROPERTIES

- > Connector Ferrule: Ceramic
- > Apex Offset: < 50 μ m
- > Fiber Height: \pm 100 nm
- > End Face Radius of Curvature: 7 mm < R < 25 mm
- > Repeatability: \leq 0.2 dB 1000 Times Mating Cycles
- > Short Term Tensile (n): 160
- > Crush Resistance (n/100 mm): 500

COMPLIANCE

- > RoHS Compliant
- > ANSI/TIA-568-C.3
- > ISO/IEC 11801
- > Fiber cable according to IEC 60793-2

TECHNICAL SPECIFICATION

Connector Type	SC/UPC, FC/UPC, LC/UPC, ST/UPC, SC/APC, LC/APC
Fiber Type	OS2 (9/125) OM2, OM3, OM4, OM5
Tight Buffer Colour	White/Yellow/Orange
Tight Buffer Material	LSZH
Tight Buffer Diameter (mm)	0.9 \pm 0.05
Strength Member	Aramid Yarn
Jacket Colour	As per standard. (Yellow for SM and Orange for OM2)
Jacket Thickness (mm)	0.45 \pm 0.05
Outer Diameter	0.9 mm
Minimum Bending Radius (mm)	30 (static)
Insertion Loss	SC: SM \leq 0.35 dB; MM \leq 0.35 dB (including repeatability) ST: SM \leq 0.5 dB; MM \leq 0.5 dB (including repeatability) LC: SM \leq 0.35 dB; MM \leq 0.2 dB (including repeatability)
Return loss	PC > 45 dB, UPC > 50 dB, APC > 60 dB
Repeatability	< 0.2 dB 1,000 times mating cycles
Working Temperature	From -25°C to +70°C
Storage Temperature	From -25°C to +70°C

PACKING: Each pigtail in individual gift pack.

FIBER ACCESSORIES

FIBER ADAPTERS SINGLE MODE, MULTIMODE



KEY FEATURES

- > Single Mode and Multi Mode Adapters
- > High Precision alignments
- > Low Insertion and Return Loss
- > Zirconia or Phosphor Bronze Sleeve
- > Available in -
 - SC/UPC – Simplex / Duplex
 - LC/UPC – Simplex / Duplex
 - SC/APC - Simplex

MECHANICAL PROPERTIES

- > Sleeve/ferrule Withdrawal Force SC : 2.0 N ~ 5.9 N
- > Sleeve/ferrule Withdrawal Force LC: 1.0 N ~ 2.5 N
- > Durability (1000 Matings) : ≤0.2 dB
- > Main Body Material: PBT/ABS

COMPLIANCE

- > RoHS Compliant
- > ANSI/TIA-568-C.3
- > ISO/IEC 11801
- > Telecordia

TECHNICAL SPECIFICATION

Material Ferrule	Phosphor Bronze (for MM), Zirconia (for SM)
Compatible Optical Fiber	9/125 μm, 50/125 μm, 62.5/125 μm
Insertion Loss	IL=<0.2 dB (SM) ; IL=<0.1dB (MM)
Durability (1000 mating)	<0.2 dB max
Operating temperature	-10°C to +60°C

PACKING: Each adapter in individual gift pack.



FIBER ACCESSORIES

FIBER LIU UNLOADED - SLIDING TYPE



KEY FEATURES

- > Suitable for 19" Rack Mountable cabinet
- > Accommodate up to 24/48 Fibers in 1U
- > Security fastened patch cords can exit to left or right
- > Front Sliding
- > Accepts all standard Connector types and cable designs
- > Easy access to splice trays and internal fiber management
- > Comprehensive Accessory Kit for Cable Entry and Fiber Management
- > Save time and money on installation

MECHANICAL PROPERTIES

- > Body Material: CRCA Black Powder Coating
- > Rack mount standard 19" width with 1U height
- > Fiber protection sleeves, cable ties
- > Dimension (mm): 44.45 X 482 X 300

COMPLIANCE

- > RoHS Compliant
- > ANSI/TIA-568-C.3
- > ISO/IEC 11801

TECHNICAL SPECIFICATION

Adapter Capacity	12/24
Splice Tray	1or2
Adapter Panels	Metal
Adapter Options	SC Simplex, LC Duplex

PACKING: Each liu in individual gift box.