DATASHEET

SCHNELL CAT6 SF/UTP 23 AWG 4 PAIR OUTDOOR CABLE

Schnell Category 6 SF/UTP 23 AWG 4 Pair Cable exceeds Cat 6/Class E standards, tested up to 250 MHz and supports Gigabit 1000Base-T/TX up to 100 m. With dual shielding (foil + braid), it delivers superior EMC, reduces interference, and enhances crosstalk protection. Ideal for LAN, PoE, and installations in EMI-prone or outdoor environments.

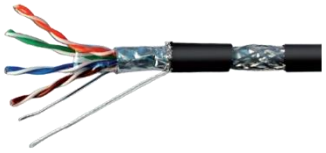
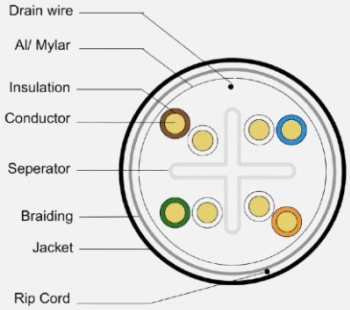


DIAGRAM & CONSTRUCTION

Conductor	: 23 AWG solid bare copper
Insulation	: High-density polyethylene (HDPE)
Pairing	: 4 twisted pairs with cross-filler



Shielding	: Aluminum foil + overall tinned copper braid (SF/UTP)
Jacket	: PVC / LSZH
Outer Diameter	: ~7.5 mm
Rip Cord	: Included

ELECTRICAL CHARACTERISTICS

Impedance	: 100 Ω ± 15 Ω
Mutual Capacitance	: ≤ 5.6 nF/100m
Capacitance Unbalance	: ≤ 330 pF/100m
DC Resistance	: ≤ 9.5 Ω/100m
Propagation Delay Skew	: ≤ 45 ns/100m
Velocity of Propagation	: ≥ 69%
Dielectric Strength	: 2.5 kV DC for 2s

PHYSICAL CHARACTERISTICS

Installation Temperature	: 0°C to +50°C
Operating Temperature	: −10°C to +60°C
Storage Temperature	: −20°C to +75°C
Minimum Bend Radius	: 8 × cable diameter
Pulling Tension	: ≤ 110 N
Insulation Resistance	: ≥ 5 MΩ·km

KEY FEATURES

- Exceeds Cat 6 / Class E performance (250 MHz)
- Dual shielding for superior EMI protection
- High pair-balance ensures low crosstalk
- Flame retardant and LSZH options
- Supports Gigabit Ethernet and PoE/PoE+

KEY APPLICATIONS

- Gigabit Ethernet up to 100 m
- PoE/PoE+ devices (IP cameras, APs, VoIP phones)
- Data centers and structured LAN cabling
- IP-based surveillance systems
- Industrial/outdoor EMI-prone installations

REACTION TO FIRE

IEC 60332-1	: Flame retardant
IEC 60754	: Low halogen emission
IEC 61034	: Low smoke emission

STANDARDS

- ANSI/TIA-568.2-D Cat 6
- ISO/IEC 11801 Class E
- IEC 61156-5
- IEEE 802.3af / 802.3at (PoE/PoE+)
- IEC 60332-1, IEC 60754, IEC 61034

SCHNELL NETWORKZ LIMITED
128, City Road, London, EC1V 2NX, United Kingdom
info@schnellnetworkz.com | www.schnellnetworkz.com

TRANSMISSION PERFORMANCE

Frequency (MHz)	Insertion Loss (dB/100m)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)
1	2	20	74.3	72.3	67.8	64.8	72.3
4	3.8	23	65.3	63.3	55.8	52.8	61.5
8	5.3	24.5	60.8	58.8	49.7	46.7	55.5
10	6	25	59.3	57.3	47.8	44.8	53.3
16	7.6	25	56.2	54.2	43.7	40.7	48.6
20	8.5	25	54.8	52.8	41.8	38.8	46.3
25	9.5	24.3	53.3	51.3	39.8	36.8	43.8
31.25	10.7	23.6	51.9	49.9	37.9	34.9	41.2
62.5	15.4	21.5	47.4	45.4	31.9	28.9	32
100	19.8	20.1	44.3	42.3	27.8	24.8	24.5
200	29	18	39.8	37.8	21.8	18.8	10.8
250	32.8	17.3	38.3	36.3	19.8	16.8	5.5

PACKING INFORMATION

Part Number	Packing Mode	Roll Length	N.W (kg)	G.W (kg)	Dimension (mm)
SCZ-5010C6UTPOBK	Plywood Reel/Ctn	305 Mtr	19.1	20.0	380 x 380 x 260
SCZ-5010C6UTPOBKLSBK	Plywood Reel/Ctn	305 Mtr	19.1	20.0	380 x 380 x 260

PART NUMBER

Part Number	Description
SCZ-5010C6SFUTPOBK	SCHNELL CAT6 SF/UTP 23 AWG 4 PAIR CABLE 305 MTR BLACK PE
SCZ-5010C6SFUTPOLSBK	SCHNELL CAT6 SF/UTP 23 AWG 4 PAIR CABLE 305 MTR BLACK PE LSZH

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