



Cable Standards

The cable is compliant with:

- ISO/IEC 61156-5, EN 50288-5-1 and ANSI/TIA/EIA 568C



Independent 3rd Party Certification (3P)

PRODUCT DESCRIPTION:

Cat6Plus S/FTP, 100 Ω, 4x2xAWG 23/1 premium grade Class E/Cat 6 cable to support Gigabit Ethernet protocol for installation in horizontal and backbone areas.

PRODUCT PERFORMANCE:

Core

- Conductor: 23 AWG Plain Annealed Copper Wire
- Insulation: Cellular Polyolefin
- Diameter: 1.45mm Nominal
- Pair: 2 of the above cores
- Tape Screen: Individual pair wrapped with aluminium polyester tape applied metal side out
- Pair Colour: Blue-White, Orange-White, Green-White, Brown-White

Final Assembly

- Cable: 4 of the above pairs
- Braid Screen: Tinned Annealed Copper Wire
- Sheath: PVC or LSHF compound

Mechanical and Environmental

- Temp - Installation: 0°C to +50°C
- Temp - Operation: -20°C to +75°C
- Max Tensile Load: 10kg per simplex cable (installation)
- Mini Bend Radius: 8 x Outer Diameter (installation), 4 x Outer Diameter (operation)

Brand-Rex Copper Cables - Cat6Plus
Communication Cable, S/FTP, 100 Ω, 4x2xAWG 23/1

Electrical Characteristics @ 20°C	Specification	Typical Performance
Conductor Loop Resistance	Max 19 Ω / 100m	14 Ω / 100m
Conductor Resistance Unbalance	Max 2%	0.5%
Dielectric Strength	1.0kV dc or 0.7kV ac for 1 min	100% in process test
Insulation Resistance	>500MΩ.km @ 100-500 V test voltage	>5 GΩ.km
Capacitance Unbalance to Earth	Max 160 pF/100m	80 pF/100m
Velocity of Propagation	<537.6 nsec/100m @ 100MHz	445 nsec/100m @ 100MHz (NVP for hand held testers = 0.74)
Skew	Max 40 nsec/100m @ 100MHz	5 nsec/100m @ 100MHz
Mean Characteristic Impedance	100 Ω +/- 5 Ω @ 100MHz	100 Ω +/- 3 Ωhm @ 100MHz
Transfer Impedance	Max 100 mΩ/m @ 10 MHz	5 mΩ/m @ 10MHz (ISO 61156 grade 1 cable)
Coupling Attenuation up to 1Ghz	Min 55 dB	90 dB

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100	155	200	250	300	600
Insertion Loss (dB / 100m)	Spec	2.1	3.8	6.0	7.6	8.5	10.7	15.5	19.9	25.3	29.1	33.0	na
	Typical	1.9	3.5	5.5	7.0	7.8	9.9	14.1	18.0	22.7	26.1	29.4	32.5
NEXT (dB)	Spec	66.0	65.3	59.3	56.2	54.8	51.9	47.4	44.3	41.4	39.8	38.3	na
	Typical	100.0	100.0	100.0	100.0	100.0	100.0	98.0	94.3	90.9	88.9	87.1	85.7
PSNEXT (dB)	Spec	64.0	63.3	57.3	54.2	52.8	49.9	45.4	42.3	39.4	37.8	36.3	na
	Typical	97.0	97.0	97.0	97.0	97.0	95.0	91.3	87.9	85.9	84.1	82.7	77.3
ELFEXT (dB / 100m)	Spec	66.0	58.0	50.0	45.9	44.0	40.1	34.1	30.0	26.2	24.0	22.0	na
	Typical	90.0	90.0	90.0	86.7	84.8	80.9	74.9	70.8	67.0	64.8	62.8	1.3
PSELFEXT (dB / 100m)	Spec	64.0	55.0	47.0	42.9	41.0	37.1	31.1	27.0	23.2	21.0	19.0	na
	Typical	87.0	87.0	87.0	83.7	81.8	77.9	71.9	67.8	64.0	61.8	59.8	58.3
Return Loss (dB / 100m)	Spec	23.0	23.0	25.0	25.0	25.0	23.6	21.5	20.1	18.8	18.0	17.3	na
	Typical	30.0	30.0	30.0	30.0	30.0	28.6	26.5	25.1	23.8	23.0	22.3	21.8
ACR (dB / 100m)	Spec	96.5	96.5	94.5	93.0	92.2	90.1	83.9	76.3	68.1	62.8	57.7	53.3
	Typical	93.5	93.5	91.5	90.0	89.2	87.1	80.9	73.3	65.1	59.8	54.7	50.3
PSACR (dB / 100m)	Spec	93.5	93.5	91.5	90.0	89.2	87.1	80.9	73.3	65.1	59.8	54.7	50.3
	Typical	93.5	93.5	91.5	90.0	89.2	87.1	80.9	73.3	65.1	59.8	54.7	50.3

Product Part Numbering

Part Number	Length (m)	Cable type	Colour	Nominal Cable Diameter (mm)	Nominal Weight (Kg/Km)	Calorific Value kWh/m	Fire Safety Rating
C6S/FTP-500GY	500	PVC	Grey	7.55	56	0.19	IEC 60332-1-2
C6S/FTP-1000GY	1000						
C6S/FTP-D500GY	500	PVC	Grey	15.4 x 7.65	112	0.38	IEC 60332-1-2
C6S/FTP-D1000GY	1000						
C6S/FTP-HF1-500VT	500	LSHF	Violet	7.55	56	0.15	IEC 60332-1-2
C6S/FTP-HF1-1000VT	1000						
C6S/FTP-HF1-D500VT	500	LSHF	Violet	15.4 x 7.65	115	0.31	IEC 60332-1-2
C6S/FTP-HF1-D1000VT	1000						
C6S/FTP-HF3-500BU	500	LSHF	Blue	7.75	59	0.20	IEC 60332-3-24
C6S/FTP-HF3-1000BU	1000						