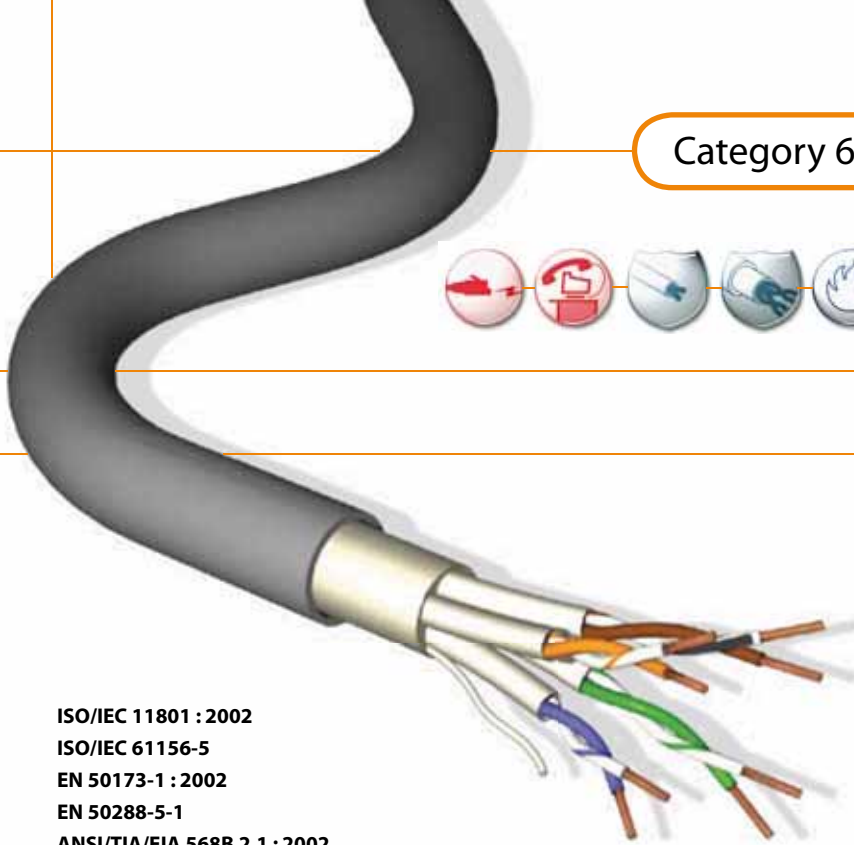


Category 6 Systems

CAT6PLUS



ISO/IEC 11801 : 2002
 ISO/IEC 61156-5
 EN 50173-1 : 2002
 EN 50288-5-1
 ANSI/TIA/EIA 568B.2.1 : 2002

Brand-Rex Copper Cables - Cat6Plus

Communication Cable, F/FTP, 100 Ω, 4x2xAWG 23/1



Independent 3rd Party Certification (3P)

PRODUCT DESCRIPTION:

Cat6Plus F/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 shielded pairs
- Drainwire: 0.5mm Tinned Annealed Copper Wire
- Tape Screen: Wrapped with aluminium polyester tape, applied metal side in
- Sheath: PVC or LSZH 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)
- Min Bend Radius: 8 x Outer Diameter (installation)
4 x Outer Diameter (operation)

Packaging

- WRL 500m Wooden Reel
- 1000m Wooden Reel

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 @ 100-500 V test voltage	>500 MΩ.km
Capacitance Unbalance to Earth	Max 160 pF/100m	80 pF/100m
Velocity of Propagation	<537.6 nsec/100m @ 100MHz	537.6 nsec/100m @ 100MHz (NVP for hand held testers = 0.74)
Skew	Max 40 nsec/100m @ 100MHz	25 nsec/100m @ 100MHz
Mean Characteristic Impedance	100 Ω +/- 5 Ω @ 100MHz	100 Ω +/- 3 Ω @ 100MHz
Transfer Impedance	Max 100 mΩ/m @ 10MHz	30 mΩ/m @ 10MHz (ISO 61156 grade 1 cable)
Coupling Attenuation up to 1GHz	Min 55 dB	75 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	100.0	100.0	100.0	100.0	95.0	90.0
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	97.0	97.0	97.0	97.0	97.0	92.0	87.0
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	89.0	85.0	81.0	76.0	72.0	67.0	60.0	52.0	50.0	49.0	40.0
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	88.0	86.0	82.0	78.0	73.0	69.0	64.0	57.0	49.0	47.0	46.0	37.0
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	27.0	25.0	24.0	22.0	21.0	20.0	19.0
ACR (dB/100m)	Spec	96.5	96.5	94.5	93.0	92.2	90.1	85.5	82.0	77.3	74.0	65.6	57.5
	Typical	93.5	93.5	91.5	90.0	89.2	87.1	82.9	79.0	74.3	71.0	62.6	54.5
PSACR (dB/100m)	Spec	93.5	93.5	91.5	90.0	89.2	87.1	82.9	79.0	74.3	71.0	62.6	54.5
	Typical	93.5	93.5	91.5	90.0	89.2	87.1	82.9	79.0	74.3	71.0	62.6	54.5

Product Part Numbering

Part Number	C6F/FTP	C6F/FTP-HF1	C6F/FTP-HF3
Outer Sheath	PVC	LSZH	LSZH
Construction	Simplex	Simplex	Simplex
Cable Weight	51.4 kg/km	54.3 kg/km	55.3 kg/km
Calorific Value	0.23 k Wh/m	0.20 k Wh/m	0.21 k Wh/m
Outer Diameter (nom)	7.3mm	7.3mm	7.4mm
Sheath Colour	Grey RAL 7037	Violet RAL 4005	Blue RAL 5015
Fire Safety Rating	IEC 60332-1-2	IEC 60332-1-2	IEC 60332-3-24
Acid Gas Emissions	na	IEC 60754-1	IEC 60754-1
Smoke Index	na	IEC 61034	IEC 61034
Packaging	WRL	WRL	WRL