

Cable Standards

The cable is compliant with:
 • ISO/IEC 11801, EN50173-1,
 ANSI/EIA/TIA 568C series,
 ISO/IEC 61156-5 and EN 50288-5-1

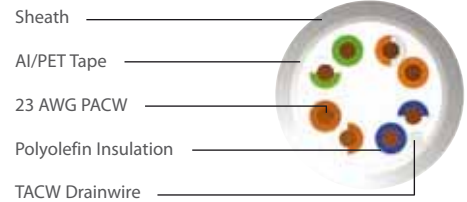
Brand-Rex Copper Cables – Cat6Plus
 Communication Cable, F/UTP, 100Ω, 4 x 2 x AWG 23/1

Electrical Characteristics @ 20°C	Specification	Typical Performance
Conductor Loop Resistance	Max 19 Ω/100m	14 Ω/100m
Conductor Resistance Unbalance	Max 2%	0.2%
Dielectric Strength	1.0kV d.c. or 0.7kV a.c. for 1min	100% in process test
Insulation Resistance	>500 MΩ.km @ 100-500V test voltage	>5000 MΩ.km
Capacitance Unbalance to Earth	Max 160 pF/100m	20 pF/100m
Velocity of Propagation	Max 40 nsec/100m @100MHz	20 nsec/100m @100MHz
Skew	100 Ω ± 5Ω @ 100 MHz	100 Ω ± 3Ω @ 100 MHz
Mean Characteristic Impedance	Max 100 mΩ/m @ 10MHz	10 mΩ/m @ 10MHz
Transfer Impedance	Min 55dB	80dB

Frequency (MHz)	4	10	16	20	31.25	62.5	100	155	200	250	500	550	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	-
	Typical	1.9	3.5	5.5	7.0	7.8	9.9	14.1	18.0	22.7	26.1	29.4	43.0
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	-
	Typical	80.0	71.0	65.0	61.9	60.5	57.6	53.1	50.0	47.1	45.5	44.0	39.5
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	-
	Typical	80.0	71.0	65.0	61.9	60.5	57.6	53.1	50.0	47.1	45.5	44.0	39.5
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	-
	Typical	82.0	70.0	62.0	57.9	56.0	52.1	46.1	42.0	38.2	36.0	34.0	28.0
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	-
	Typical	79.0	67.0	59.0	54.9	53.0	49.1	43.1	39.0	35.2	33.0	31.0	25.0
Return Loss (dB / 100m)	Spec	na	23.0	25.0	25.0	25.0	23.6	21.5	20.1	18.8	18.0	17.3	-
	Typical	27.0	30.0	30.0	30.0	30.0	28.6	26.5	25.1	23.8	23.0	22.3	20.2
ACR (dB / 100m)	Typical	78.1	67.4	59.5	54.9	52.6	47.7	39.0	32.0	24.4	19.4	14.6	-3.5
PSACR (dB / 100m)	Typical	78.1	67.4	59.5	54.9	52.6	47.7	39.0	32.0	24.4	19.4	14.6	-3.5

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
C6F/UTP-500GY	500	PVC	Grey	7.1	49	0.22	IEC 60332-1-2
C6F/UTP-1000GY	1000						
C6F/UTP-HF1-500VT	500	LSHF	Violet	7.1	50	0.19	IEC 60332-1-2
C6F/UTP-HF1-1000VT	1000						
C6F/UTP-HF1-D500VT	500	LSHF	Violet	14.3 x 7.1	101	0.37	IEC 60332-1-2
C6F/UTP-HF1-D1000VT	1000						



Independent 3rd Party Certification (3P)

PRODUCT DESCRIPTION:

Cat6Plus F/UTP, 100 Ω, 4x2xAWG 23/1 premium grade Class E/Cat 6 cable to support Gigabit ethernet protocol for installation in horizontal and backbone areas, PoE, PoEP a and broadband video transmissions at frequencies as high as 550MHz.

PRODUCT PERFORMANCE:

Core

Core conductor: 23 AWG Plain Annealed Copper Wire

Insulation: Polyethylene

Diameter: 1.2mm nominal

Pair: 2 of the above cores

Tape Screen: Wrapped with aluminium polyester tape

Pair Colour: Blue-White/Blue, Orange-White/Orange, Green-White/Green, Brown-White/Brown

Final Assembly

Cable: 4 of the above pairs cabled together around a cross filler

Drainwire: 0.5mm Tinned Annealed Copper Wire

Tape Screen: Wrapped with aluminium polyester tape, applied metal side in

Sheath: PVC or LSHF

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)