

**Cable Standards**

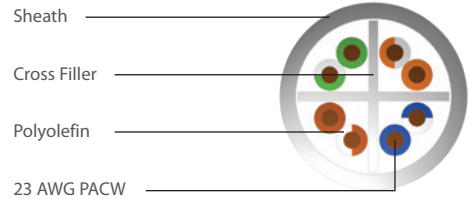
The cable is compliant with:

- ISO/IEC 61156-5, EN 50288-6-1 and ANSI/TIA/EIA 568C

**Brand-Rex Copper Cables - Cat6Plus**

Communication Cable, U/UTP, 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	40 pF/100m
Velocity of Propagation	<534 nsec/100m @ 100MHz	490 nsec/100m @ 100MHz (NVP for hand held testers = 0.69)
Skew	Max 40 nsec/100m @ 100MHz	30 nsec/100m @ 100MHz
Mean Characteristic Impedance	100 Ω +/- 5 Ω @ 100MHz	100 Ω +/- 3Ω @ 100MHz
Coupling Attenuation up to 1GHz	Min 40 dB	56 dB



**Independent 3rd Party Certification (3P)**

**PRODUCT DESCRIPTION**

Cat6Plus U/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.

**PRODUCT PERFORMANCE**

**Core**

- Conductor: 23 AWG Plain Annealed Copper Wire
- Insulation: Polyolefin
- Diameter: 1.00mm Nominal
- Pair: 2 of the above cores
- Pair Colour: Blue-White, Orange-White, Green-White, Brown-White

**Final Assembly**

- Cable: 4 of the above pairs cabled together around a cross filler
- Sheath: 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)
- Min Bend Radius: 8 x Outer Diameter (installation)  
4 x Outer Diameter (operation)

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100	155	200	250	300	550	
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	45.4
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	86.5	77.5	71.5	68.4	67.0	64.1	59.6	56.5	53.6	52.0	50.5	49.3	45.4
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	84.5	75.5	69.5	66.4	65.0	62.1	57.6	54.5	51.6	50.0	48.5	47.3	43.4
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	85.0	73.0	65.0	60.9	59.0	55.1	49.1	45.0	41.2	39.0	37.0	35.5	30.2
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	82.0	70.0	62.0	57.9	56.0	52.1	46.4	42.0	38.2	36.0	34.0	32.5	27.2
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	na	
	Typical	27.0	30.0	30.0	30.0	30.0	28.6	26.5	25.1	23.8	23.0	22.3	21.8	19.9
ACR (dB / 100m)	Typical	84.6	73.9	66.0	61.4	59.1	54.2	45.5	38.5	30.9	25.9	21.1	16.9	0.0
PSACR (dB / 100m)	Typical	82.6	71.9	64.0	59.4	57.1	52.2	43.5	36.5	28.9	23.9	19.1	14.9	-2.0

**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
C6U-HF1-Rlx-305VT	305	LSHF	Violet	5.75	38	0.14	IEC 60332-1-2
C6U-HF1-500VT	500						
C6U-HF1-1000VT	1000						
C6U-HF1-D500VT	500	LSHF	Violet	11.6 x 5.75	77	0.28	IEC 60332-1-2
C6U-HF1-D1000VT	1000						
C6U-HF3-500BU	500						
C6U-HF3-1000BU	1000	LSHF	Blue	6.55	51	0.23	IEC 60332-3-24
C6U-HF3-D500BU	500						
C6U-HF3-D1000BU	1000						
C6U-HF1-X-500BK	500	PE	Black	6.95	49	0.27	N/A
C6U-HF1-X-1000BK	1000						