



**Cable Standards**

The cable is compliant with:

- ISO/IEC 61156-5 ed2:2009 and EN 50288-4-1

**Brand-Rex Copper Cables - U-MediaPlus**

Communication Cable, PIMF cable, S/FTP, 100 Ω, 4x2xAWG 23/1

Electrical Characteristics @ 20°C	Specification	Typical Performance
Conductor Loop Resistance	Max 19 0hm / 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 25 nsec/100m @ 100MHz	5 nsec/100m @ 100MHz
Mean Characteristic Impedance	100 Ω +/- 5 Ω @ 100MHz	100 Ω +/- 3 Ω @ 100MHz
Transfer Impedance	Max 10 mΩ/m @ 100 MHz	5 mΩ/m @ 100MHz (ISO 61156 grade 1 cable)
Coupling Attenuation up to 1Ghz	Min 80 db	90 db

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100	155	200	250	300	600	750	900	1000	
Insertion Loss (dB / 100m)	Spec	2.0	2.0	5.7	7.2	8.1	10.1	14.5	18.5	23.4	26.8	30.2	33.3	48.9	na	na	na
	Typical	1.9	1.9	5.5	7.0	7.8	9.9	14.1	18.0	22.7	26.1	29.4	32.5	47.6	54.1	60.0	63.8
NEXT (dB)	Spec	80.0	80.0	80.0	80.0	80.0	80.0	75.5	72.4	69.6	67.9	66.5	65.3	60.8	na	na	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	80.3	78.5	77.1	76.3
PSNEXT (dB)	Spec	77.0	77.0	77.0	77.0	77.0	72.8	69.4	66.6	64.9	63.5	62.3	57.8	na	na	na	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	75.5	74.1	73.3	
ELFEXT (dB / 100m)	Spec	80.0	80.0	74.0	69.9	68.0	64.1	58.1	54.0	50.2	48.0	46.0	44.5	38.4	na	na	na
	Typical	90.0	90.0	90.0	86.7	84.8	80.9	74.9	70.8	67.0	64.8	62.8	61.3	55.2	53.3	51.7	50.8
PSELFEXT (dB / 100m)	Spec	77.0	77.0	71.0	66.9	65.0	61.1	55.1	51.0	47.2	45.0	43.0	41.5	35.4	na	na	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	52.2	50.3	48.7	47.8
Return Loss (dB / 100m)	Spec	NA	NA	25.0	25.0	25.0	23.6	21.5	20.1	18.8	18.0	17.3	17.3	17.3	na	na	na
	Typical	27.0	27.0	30.0	30.0	30.0	28.6	26.5	25.1	23.8	23.0	22.3	21.8	19.7	19.0	18.4	18.1
ACR (dB / 100m)	Typical	98.1	98.1	94.5	93.0	92.2	90.1	83.9	76.3	68.1	62.8	57.7	53.3	32.6	24.5	17.1	12.5
PSACR (dB / 100m)	Typical	95.1	95.1	91.5	90.0	89.2	87.1	80.9	73.3	65.1	59.8	54.7	50.3	29.6	21.5	14.1	9.5

**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
UM10-500GY	500	PVC	Grey	7.55	56	0.18	IEC 60332-1-2
UM10-1000GY	1000						
UM10-D500GY	500	PVC	Grey	15.4 x 7.65	115	0.37	IEC 60332-1-2
UM10-D1000GY	1000						
UM10-HF1-500VT	500	LSHF	Violet	7.55	56	0.15	IEC 60332-1-2
UM10-HF1-1000VT	1000						
UM10-HF1-D500VT	500	LSHF	Violet	15.4 x 7.65	115	0.31	IEC 60332-1-2
UM10-HF1-D1000VT	1000						
UM10-HF3-500BU	500	LSHF	Blue	7.75	59	0.20	IEC 60332-3-24
UM10-HF3-1000BU	1000						
UM10-HF3-D500BU	500	LSHF	Blue	7.75	121	0.41	IEC 60332-3-24
UM10-HF3-D1000BU	1000						

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

**PRODUCT DESCRIPTION:**

U-MediaPlus S/FTP, 100 Ω, 4x2xAWG 23/1 premium grade Class F/Cat 7 cables 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 in Metal Foil)
- Pair Colour: Blue-White, Orange-White, Green-White, Brown-White

**Final Assembly**

- Cable: 4 of the above screened pairs
- Braid Screen: Tinned Annealed Copper Wire
- Sheath: PVC or LHSF 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)