

**Brand-Rex Copper Cable - U-MediaPlus****Communication Cable, PIMF cable, S/FTP, 100  $\Omega$ , 4x2xAWG 23/1**

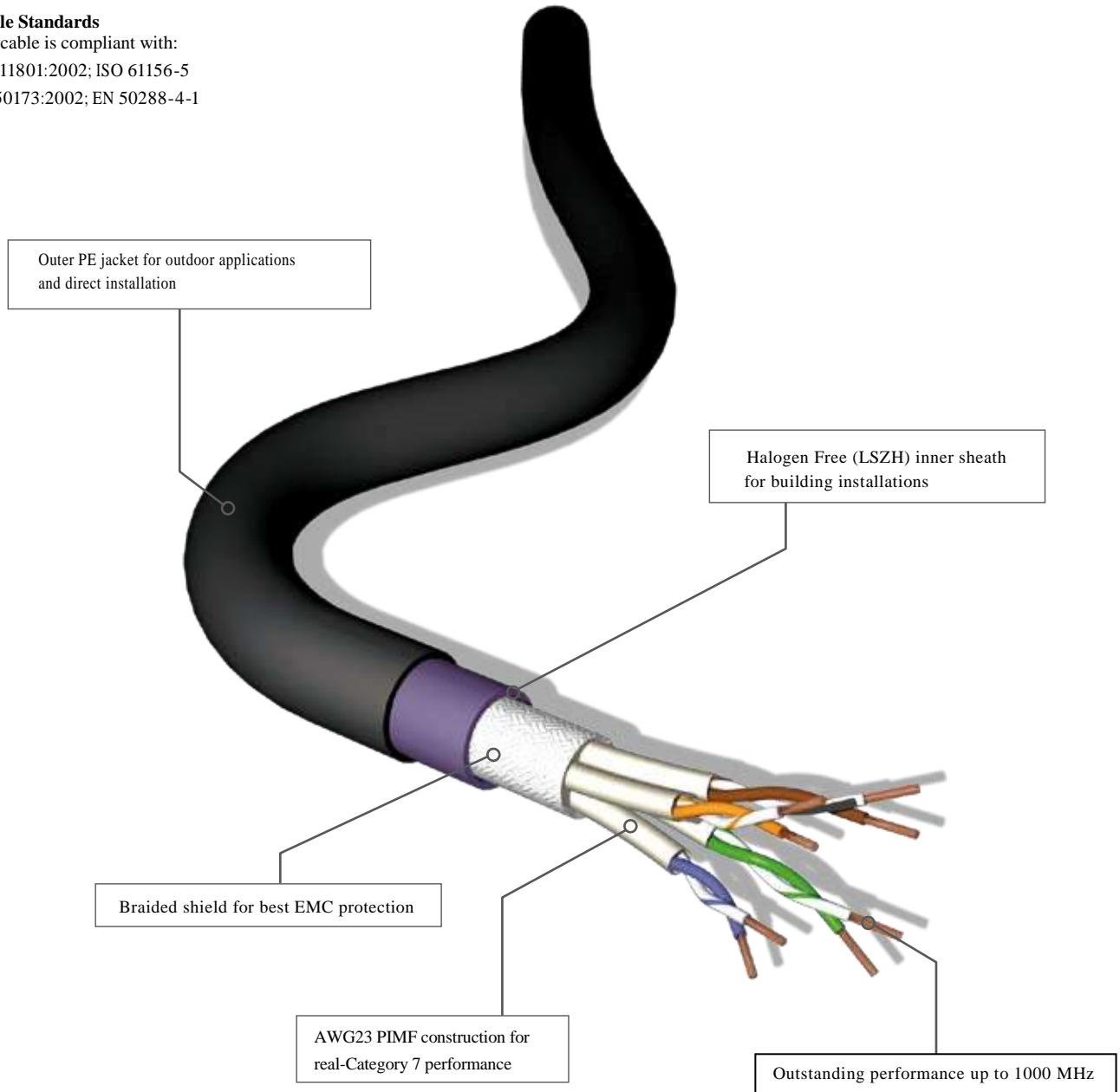
The cable is suitable for outdoor use.

**Cable Standards**

The cable is compliant with:

ISO 11801:2002; ISO 61156-5

EN 50173:2002; EN 50288-4-1

**PRODUCT DESCRIPTION**

The Brand-Rex UM10-HF1-X outer cable offers true Category 7 performance with very good transmission characteristics up to 1000 MHz. It is specifically designed for outdoor applications such as BCT multimedia, wireless access, CATV, security and access control systems.... The 2-layer sheath offers the best protection for direct outdoor installations, and with only the inner halogen-free sheath the cable can be installed indoor without additional transfer distribution.

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 =
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	77.0	72.8	69.4	66.6	64.9	63.5	62.3	57.8	na	na	na
	Typical	97.0	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	na	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)	Spec	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
	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

Part Number	Cable type	Colour	Length (m)
UM10-HF1-X-1000BK	PE	Black	1000m Drum

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

### PRODUCT PERFORMANCE

#### Core

Conductor: 23 AWG Plain Annealed Copper Wire

Insulation: Cellular Polyolefin

Diameter: 1,45mm Nominal

Pair: 2 of the above core

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: 0,127mm Tinned Annealed Copper Wire

Inner Sheath: Violet LSHF

Outer Sheath: Sort Polyethylene

Diameter: 8.6mm

#### 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)

Our brochures are to the best of our knowledge. However, a legal force cannot be derived. Changes to our systems and components as a result of continuing development we reserve the right. © Brand-Rex Limited 2010