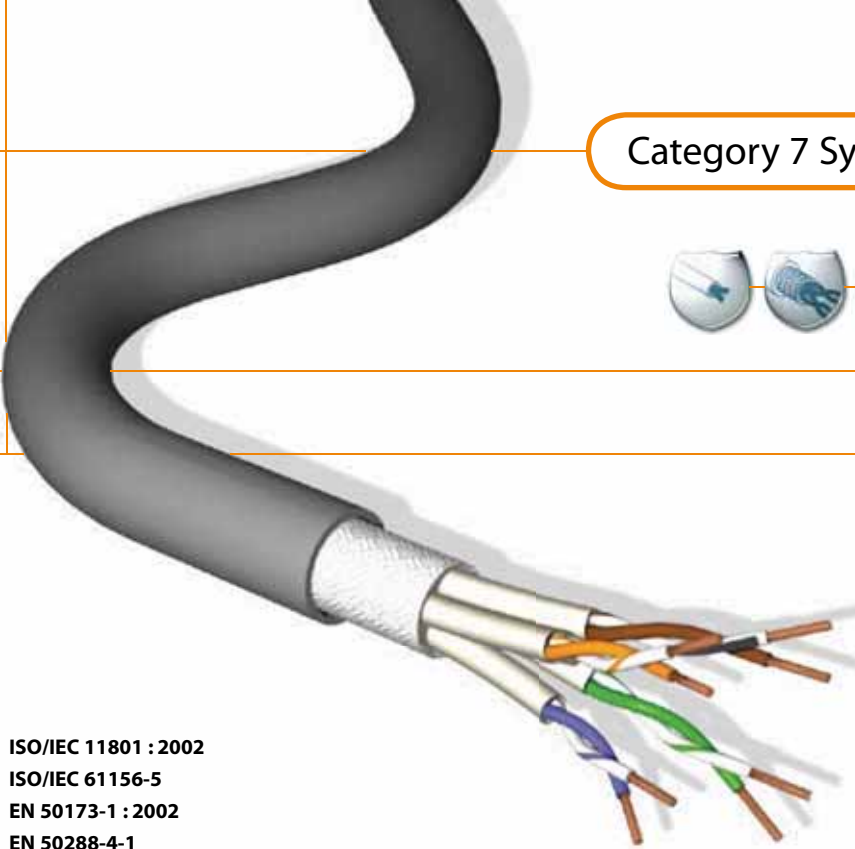


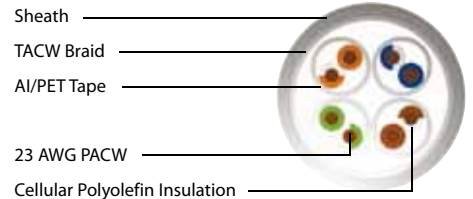
Category 7 Systems

U-MEDIAPLUS



ISO/IEC 11801 : 2002
 ISO/IEC 61156-5
 EN 50173-1 : 2002
 EN 50288-4-1

Brand-Rex Copper Cables - U-MediaPlus
 Communication Cable, PIMF cable, S/FTP, 100 Ω, 4x2xAWG 23/1



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: 0.127mm Tinned Annealed Copper Wire
- 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 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	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	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	UM10	UM10-D	UM10-HF1	UM10-HF1-D	UM10-HF3	UM10-HF3-D
Outer Sheath	PVC	PVC	LSZH	LSZH	LSZH	LSZH
Construction	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex
Cable Weight	62.6 kg/km	122.0 kg/km	64.1kg/km	127.1 kg/km	65.1 kg/km	129.0 kg/km
Calorific Value	0.22 k Wh/m	0.42 k Wh/m	0.19 k Wh/m	0.39 k Wh/m	0.20 k Wh/m	0.43 k Wh/m
Outer Diameter (nom)	7.5mm	15 x 7.5mm	7.5mm	15 x 7.5mm	7.8mm	15.6 x 7.8mm
Sheath Colour	Grey RAL 7037	Grey RAL 7037	Violet RAL 4005	Violet RAL 4005	Blue RAL 5015	Blue RAL 5015
Fire Safety Rating	IEC 60332-1-2	IEC 60332-1-2	IEC 60332-1-2	IEC 60332-1-2	IEC 60332-3-24	IEC 60332-3-24
Acid Gas Emissions	na	na	IEC 60754-1	IEC 60754-1	IEC 60754-1	IEC 60754-1
Smoke Index	na	na	IEC 61034	IEC 61034	IEC 61034	IEC 61034
Packaging	WRL	WRL	WRL	WRL	WRL	WRL