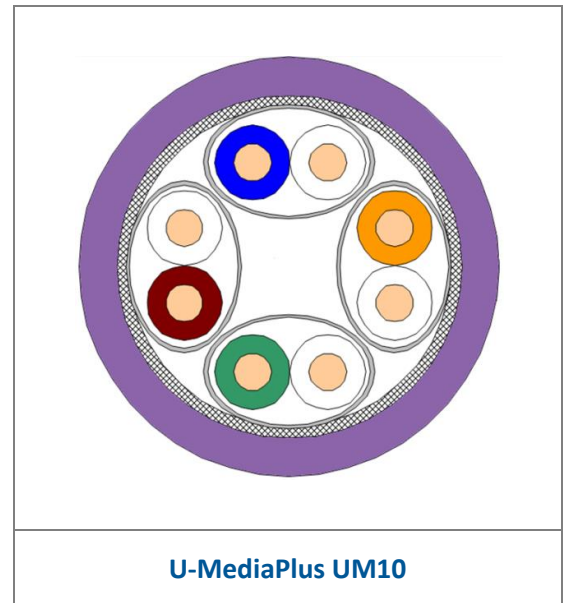


## APPLICATION

The Brand-Rex U-MediaPlus UM10 cables exceed the Category 7 performance standards. They are specified to 600MHz and rated to 1000MHz and are suitable for use in all Class F structured wiring cable systems. The applications supported include 10 Gigabit Ethernet, Gigabit Ethernet, PoE and PoE+ and broadband video transmissions at frequencies as high as 600MHz.

## FEATURES AND BENEFITS

- 23 AWG Solid Annealed Copper Wire
- Gas Injection Foamed Polyolefin Core Insulation – offering superior signal speed
- 4 Twisted Pairs Individually Screened and cabled together – providing EMI immunity
- Overall Braided Screen – for improved shielding efficiency, increased mechanical robustness and heat dissipation
- Available in a Range of Sheath Materials – to suit a variety of installation environments and colour coded for identification
- Designed to Support all Class F protocols including 10GBASE-T
- Supports Power Over Ethernet (PoE) and Power Over Ethernet Plus (PoE+) Applications
- Included in the Leviton and Brand-Rex 25 Year System Warranties when used in conjunction with Leviton or Brand-Rex copper connectivity. System warranties available for qualified projects installed by certified contractors.



## STANDARDS

Applicable Cable Standards: IEC 61156-5 and EN50288-4-1

## MATERIAL IDENTIFICATION

Material Identifier	HF1	HF3	HF1-X
Material Description	Standard HFFR-LS*	Enhanced HFFR-LS	Inner - HFFR-LS Outer - Polyethylene
Flammability Rating	IEC 60332-1-2	IEC 60332-3-24	n/a – External Only
Smoke Emission	IEC 61034-1 & 2	IEC 61034-1 & 2	n/a – External Only
Acid Gas Emission	IEC 60754-2	IEC 60754-2	n/a – External Only
Colour	Violet	Blue	Inner - Violet Outer - Black

\* Halogen Free Flame Retardant – Low Smoke

# Category 7 S/FTP Cables

Datasheet: GD101994v3

## PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19 Ω / 100m	14Ω / 100m
Conductor Resistance Unbalance	Max 2%	0.1%
Insulation Resistance	>5GΩ.km	>50GΩ.km
Dielectric Strength	2500 Vdc/2secs	Pass

## SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Velocity of Propagation	<534nsec/100m @ 100MHz	413nsec/100m @ 100MHz
Delay Skew	Max 25nsec/100m @ 100MHz	4nsec/100m @ 100MHz
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz	100Ω ± 3Ω @ 100MHz
Coupling Attenuation	Type 1	90dB
Transfer Impedance	Grade 1	8mΩ/m @ 10MHz

## ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	100	200	250	500	600	1000
Insertion Loss (dB/100m)	Standard	2.0	3.6	5.7	18.5	26.8	30.2	44.1	48.9	na
	<i>Typical</i>	<b>1.9</b>	<b>3.5</b>	<b>5.5</b>	<b>18.0</b>	<b>26.1</b>	<b>29.4</b>	<b>43.0</b>	<b>47.6</b>	<b>63.8</b>
NEXT (dB)	Standard	80.0	80.0	80.0	72.4	67.9	66.5	61.9	60.8	na
	<i>Typical</i>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>94.3</b>	<b>88.9</b>	<b>87.1</b>	<b>81.7</b>	<b>80.3</b>	<b>76.3</b>
PSNEXT (dB)	Standard	77.0	77.0	77.0	69.4	64.9	63.5	58.9	57.8	na
	<i>Typical</i>	<b>97.0</b>	<b>97.0</b>	<b>97.0</b>	<b>91.3</b>	<b>85.9</b>	<b>84.1</b>	<b>78.7</b>	<b>77.3</b>	<b>73.3</b>
ELFEXT (dB/100m)	Standard	80.0	80.0	74.0	54.0	48.0	46.0	40.0	38.4	na
	<i>Typical</i>	<b>90.0</b>	<b>90.0</b>	<b>90.0</b>	<b>70.8</b>	<b>64.8</b>	<b>62.8</b>	<b>56.8</b>	<b>55.2</b>	<b>50.8</b>
PSELFEXT (dB/100m)	Standard	77.0	77.0	71.0	51.0	45.0	43.0	37.0	35.4	na
	<i>Typical</i>	<b>87.0</b>	<b>87.0</b>	<b>87.0</b>	<b>67.8</b>	<b>61.8</b>	<b>59.8</b>	<b>53.8</b>	<b>52.2</b>	<b>47.8</b>
Return loss (dB)	Standard	Na	23.0	25.0	20.1	18.0	17.3	17.3	18.3	na
	<i>Typical</i>	<b>27.0</b>	<b>30.0</b>	<b>30.0</b>	<b>25.1</b>	<b>23.0</b>	<b>22.3</b>	<b>20.2</b>	<b>19.7</b>	<b>18.1</b>
ACR (dB/100m)	<i>Typical</i>	<b>98.1</b>	<b>96.5</b>	<b>94.5</b>	<b>76.3</b>	<b>62.8</b>	<b>57.7</b>	<b>38.7</b>	<b>32.6</b>	<b>12.5</b>
PSACR (dB/100m)	<i>Typical</i>	<b>95.1</b>	<b>93.5</b>	<b>91.5</b>	<b>73.3</b>	<b>59.8</b>	<b>54.7</b>	<b>35.7</b>	<b>29.6</b>	<b>9.5</b>

# Category 7 S/FTP Cables

Datasheet: GD101994v3

**Brand-Rex** | a **LEVITON** company

## INSTALLATION

Temperature (Installation)	0°C to +50°C	Min Bend Radius (Installation)	8 x Outer Diameter
Temperature (Operation)	-20°C to +75°C	Min Bend Radius (Operation)	4 x Outer Diameter
Max Tensile Load (Installation)	10kg per simplex cable	Field Test NVP Value	0.80
Segregation Class	Class D		

## PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX UM10-HF1 Cat7 IEC 60332-1-2 NVP 0.80 Made in the UK [ID number] [Week/Year]

## STANDARD PACKAGING SPECIFICATIONS

Brand-Rex Part Number	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
UM10-HF1-500VT <sup>†</sup>	7.0	48.4	400 x 390	26.7	12
UM10-HF1-1000VT <sup>‡</sup>	7.0	48.4	600 x 405	54.8	4
UM10-HF1-D500VT <sup>§</sup>	7.1 x 14.3	100.0	600 x 405	113.0	4
UM10-HF1-D1000VT	7.1 x 14.3	100.0	750 x 405	109.3	2
UM10-HF3-500BU	7.2	52.7	400 x 390	28.9	12
UM10-HF3-1000BU	7.2	52.7	600 x 405	59.2	4
UM10-HF3-D500BU	7.2 x 14.5	105.4	600 x 405	118.4	4
UM10-HF3-D1000BU	7.2 x 14.5	105.4	750 x 405	114.7	2
UM10-HF1-X-500BK	8.2	61.9	465 x 390	33.9	6
UM10-HF1-X-1000BK	8.2	61.9	750 x 405	70.8	2

<sup>†</sup> 500 = 500m length

<sup>‡</sup> 1000 = 1000m length

<sup>§</sup> 'D' denotes duplex cable

*“Brand-Rex is dedicated to designing, developing and manufacturing sustainable high performance structured cabling and speciality cabling solutions”*

The information contained in this document is valid and correct at the time of issue. Brand-Rex reserves the right to modify details without notice in light of subsequent standard/specification changes and ongoing technical developments.