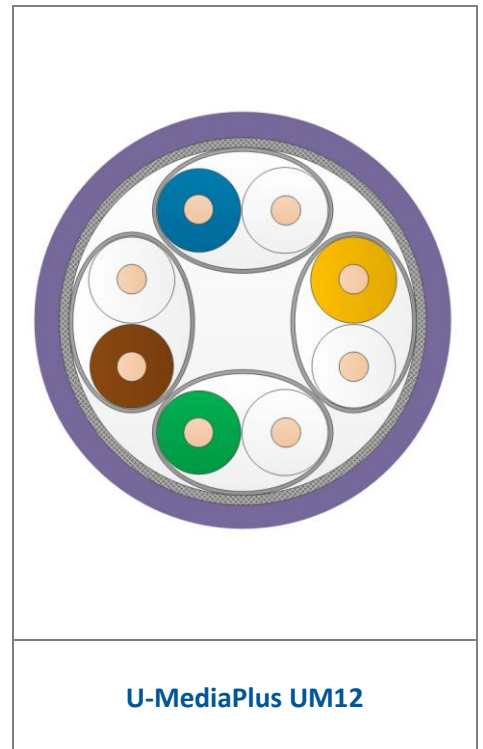


## APPLICATION

Brand-Rex U-MediaPlus UM12 cables exceed the Category 7A performance standards. They are specified to 1000MHz and rated to 1200MHz and are suitable for use in all Class FA structured wiring cable systems. The applications supported include 10 Gigabit Ethernet, Gigabit Ethernet, PoE and PoE+ and broadband video transmissions at frequencies up to 1000MHz.

## FEATURES AND BENEFITS

- 22 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 FA protocols including 10GBASE-T
- Supports Power Over Ethernet (PoE & PoE+) applications
- HFFR-LS versions meet the requirements of the Construction Products Regulation (CPR) EuroClass Eca
- 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 EN50288-9-1

## MATERIAL PERFORMANCE

Material Identifier	HF1	HF3
Material Description	Standard HFFR-LS*	Enhanced HFFR-LS*
Flammability Rating	IEC/EN 60332-1-2	IEC/EN 60332-3-24
EuroClass Level EN13501-6	Eca	Eca
Colour	Violet †	Blue †
Calorific Value (kWh/m)	0.13	0.14

\* Halogen Free Flame Retardant – Low Smoke

† Also available in a range of non-standard colours

# Category 7A S/FTP Cables

Datasheet: GD102248v4

## PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19 Ω / 100m	12Ω / 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	7mΩ/m @ 10MHz

## ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	100	250	500	600	1000	1200
Insertion Loss (dB/100m)	Standard	na	3.7	5.8	18.5	29.7	42.8	47.1	61.9	na
	<i>Typical</i>	<b>1.9</b>	<b>3.4</b>	<b>5.3</b>	<b>16.7</b>	<b>26.9</b>	<b>38.7</b>	<b>42.7</b>	<b>56.2</b>	<b>62.1</b>
NEXT (dB)	Standard	78.0	78.0	78.0	75.4	69.4	64.9	63.7	60.4	na
	<i>Typical</i>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>97.2</b>	<b>91.8</b>	<b>90.4</b>	<b>86.4</b>	<b>85.0</b>
PSNEXT (dB)	Standard	75.0	75.0	75.0	72.4	66.4	61.9	60.7	57.4	na
	<i>Typical</i>	<b>90.0</b>	<b>90.0</b>	<b>90.0</b>	<b>90.0</b>	<b>88.0</b>	<b>83.5</b>	<b>82.3</b>	<b>79.0</b>	<b>77.8</b>
ELFEXT (dB/100m)	Standard	78.0	78.0	78.0	65.3	57.3	51.3	49.7	45.3	na
	<i>Typical</i>	<b>100.0</b>	<b>99.0</b>	<b>91.0</b>	<b>71.0</b>	<b>63.0</b>	<b>57.0</b>	<b>55.4</b>	<b>51.0</b>	<b>49.4</b>
PSELFEXT (dB/100m)	Standard	75.0	75.0	75.0	62.3	54.3	48.3	46.7	42.3	na
	<i>Typical</i>	<b>90.0</b>	<b>90.0</b>	<b>84.5</b>	<b>64.5</b>	<b>56.5</b>	<b>50.5</b>	<b>48.9</b>	<b>44.5</b>	<b>42.9</b>
Return loss (dB)	Standard	na	23.0	25.0	20.1	17.3	17.3	17.3	15.1	na
	<i>Typical</i>	<b>30.0</b>	<b>33.0</b>	<b>36.0</b>	<b>35.1</b>	<b>32.3</b>	<b>31.3</b>	<b>30.5</b>	<b>28.3</b>	<b>27.5</b>
ACR (dB/100m)	<i>Typical</i>	<b>98.1</b>	<b>96.6</b>	<b>94.7</b>	<b>83.3</b>	<b>70.4</b>	<b>53.1</b>	<b>47.7</b>	<b>30.2</b>	<b>22.8</b>
PSACR (dB/100m)	<i>Typical</i>	<b>88.1</b>	<b>86.6</b>	<b>84.7</b>	<b>73.3</b>	<b>61.2</b>	<b>44.8</b>	<b>39.6</b>	<b>22.8</b>	<b>15.7</b>

# Category 7A S/FTP Cables

Datasheet: GD102248v4

**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 a LEVITON company UM12-HF1-Eca Cat 7A S/FTP IEC 60332-1-2 EuroClass Eca NVP 0.80 MADE IN 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
UM12-HF1-Eca-500VT <sup>†</sup>	7.55	59.9	465 x 465 x 390	33.0	6
UM12-HF1-Eca-1000VT <sup>‡</sup>	7.55	59.9	600 x 600 x 405	66.4	4
UM12-HF3-Eca-500BU <sup>†</sup>	7.75	64.6	465 x 465 x 390	35.3	6
UM12-HF3-Eca-1000BU <sup>‡</sup>	7.75	64.6	600 x 600 x 405	71.1	4

<sup>†</sup>500 = 500m length

<sup>‡</sup>1000 = 1000m length

“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.