

Category 7 S/FTP EuroClass Eca Cables

Datasheet: GD103088v10



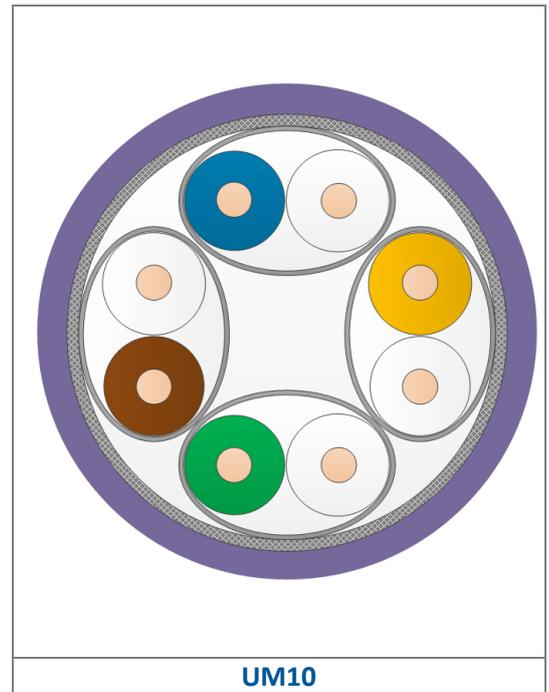
APPLICATION

Leviton Category 7 S/FTP 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, Power over Ethernet, 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 jacket materials – to suit a variety of installation environments and color coded for identification
- Designed to support all Class F protocols including 10GBASE-T
- HFFR-LS* versions meet the requirements of the Construction Products Regulation (CPR) EuroClass Eca
- Included in the Leviton Limited 25-Year System Warranty when used in conjunction with Leviton copper connectivity. System warranties are available for qualified projects installed by certified contractors

* Halogen Free Flame Retardant – Low Smoke



STANDARDS

- Designed and constructed to give optimal electrical performance to the following standards:
 - ISO/IEC 11801 Class F, IEC 61156-5, EN 50173-1 and EN 50288-4-1
- Recommended for PoE standards:
 - IEEE 802.3bt PoE Type 1 (15.4 Watts) formerly 802.3af and IEEE 802.3bt PoE Type 2 (30 Watts) formerly 802.3at
 - IEEE 802.3bt PoE Type 3 (60 Watts) and IEEE 802.3bt PoE Type 4 (90 Watts)
 - Cisco UPoE (60 Watts), Cisco UPoE+ (90 Watts) and Power over HDBaseT™ PoH (95 Watts)

REACTION TO FIRE

Material Identifier	HF1	HF3
Material Description	Standard HFFR-LS	Enhanced HFFR-LS
Flammability Rating	IEC 60332-1-2	IEC 60332-3-24
Fire EuroClass EN13501-6	Eca	Eca
Smoke Emission	IEC 61034-1 & 2	IEC 61034-1 & 2
Acid Gas Emission	IEC 60754-2	IEC 60754-2
Color	Violet	Blue

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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 45nsec/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 (Max)	2.0	3.7	5.9	19.0	27.5	31.0	45.3	50.1	N/A
	Typical	1.9	3.5	5.5	18.0	25.7	28.7	41.1	45.5	60.9
NEXT (dB)	Standard (Min)	80.0	80.0	80.0	72.4	67.9	66.5	61.9	60.8	N/A
	Typical	100.0	95.0	89.0						
PSNEXT (dB)	Standard (Min)	77.0	77.0	77.0	69.4	64.9	63.5	58.9	57.8	N/A
	Typical	97.0	92.0	86.0						
ACR-F (dB)	Standard (Min)	80.0	80.0	74.0	54.0	48.0	46.0	40.0	38.4	N/A
	Typical	103.9	103.9	102.8	89.4	78.2	74.6	65.2	55.2	50.8
PSACR-F (dB)	Standard (Min)	77.0	77.0	71.0	51.0	45.0	43.0	37.0	35.4	N/A
	Typical	100.9	100.9	99.8	86.4	75.2	71.6	62.2	52.2	47.8
Return Loss (dB)	Standard (Min)	20.0	23.0	25.0	20.1	18.0	17.3	17.3	17.3	N/A
	Typical	27.0	33.1	34.0	39.3	38.4	34.4	28.7	27.1	24.6
PSANEXT (dB)	Typical	100.0								
PSAACR-F (dB)	Typical	98.0	96.4	94.3	81.5	73.2	68.8	55.9	51.1	34.7

- The standard values shown are the most demanding taken from the relevant IEC, TIA and EN specifications. These standard values are the maximum permissible for Insertion loss and the minimum permissible for other parameters
- N/A – Not Applicable

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INSTALLATION

Temperature (Installation)	0°C to +50°C
Temperature (Operation)	-20°C to +75°C
Max Tensile Load (Installation)	10kg per simplex cable
Segregation Class	Class D

Min Bend Radius (Installation)	8 x Outer Diameter
Min Bend Radius (Operation)	4 x Outer Diameter
Field Test NVP Value	0.80

STANDARD PACKAGING SPECIFICATIONS

Part Number	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange Diameter x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
UM10-HF1-Eca-500VT [†]	7.0	50.2	400 x 390	27.6	12
UM10-HF1-Eca-1000VT [‡]	7.0	50.2	600 x 405	56.2	4
UM10-HF1-Eca-D500VT [§]	7.1 x 14.3	103.8	600 x 405	58.4	4
UM10-HF3-Eca-500BU	7.2	54.5	400 x 390	29.8	12
UM10-HF3-Eca-1000BU	7.2	54.5	600 x 405	61.0	4
UM10-HF3-Eca-D500BU	7.2 x 14.5	107.2	600 x 405	60.1	4

[†]500 = 500m length

[‡]1000 = 1000m length

[§]'D' denotes Duplex Cable

COUNTRY OF ORIGIN

COO: United Kingdom

*“Leviton is **dedicated to designing, developing and manufacturing** sustainable **high performance** structured cabling and specialty **cabling solutions.**”*

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