

Category 5e U/UTP EuroClass Eca Cables

Datasheet: GD102446v16



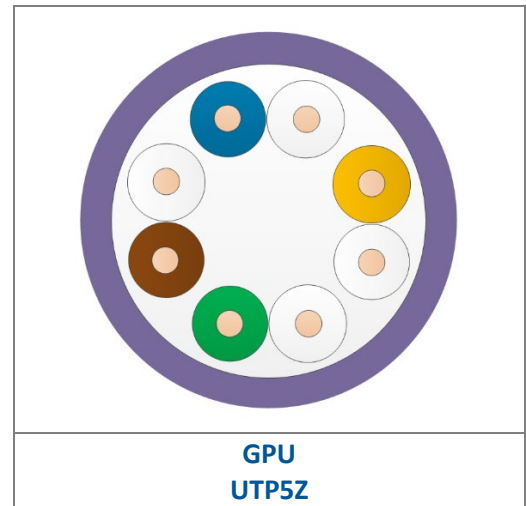
APPLICATION

Leviton Category 5e U/UTP cables exceed Category 5e performance standards. They are rated to 100MHz and are suitable for use in all Class D structured wiring cable systems. Category 5e U/UTP cables support Gigabit Ethernet, Power over Ethernet, and voice transmissions at frequencies up to 100MHz.

FEATURES AND BENEFITS

- 24 AWG solid annealed copper wire
- Polyolefin core insulation
- 4 unshielded twisted pairs cabled together
- HFFR-LS* jacket meets 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
† Also available in a range of non-standard colors



STANDARDS

- Designed and constructed to give optimum electrical performance to the following standards:
 - ISO/IEC 11801 Class D, IEC 61156-5
 - EN50173-1, EN 50288-3-1
 - ANSI/TIA 568.2-D
- Supports Gigabit Ethernet
- Supports Power over Ethernet (PoE) and Power over Ethernet Plus (PoE+) applications

REACTION TO FIRE

Material Identifier	HF1	HF1-X
Material Description	Standard HFFR-LS	Inner - HFFR-LS Outer - Polyethylene
Flammability Rating	IEC 60332-1-2	N/A – External Only
Fire EuroClass EN13501-6	Eca	N/A – External Only
Smoke Emission	IEC 61034-1 & 2	N/A – External Only
Acid Gas Emission	IEC 60754-2	N/A – External Only
Color	Violet†	Inner - Violet Outer - Black

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PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19 Ω/100m	18 Ω/100m
Conductor Resistance Unbalance	Max 2%	0.1%
Insulation Resistance	>5GΩ.km	>45GΩ.km
Dielectric Strength	2500 Vdc/2secs	Pass

SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Propagation Delay	<534nsec/100m @ 100MHz	487nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @100MHz	38nsec/100m @100MHz
Mean Characteristic Impedance	100Ω ± 5Ω @ 100MHz	100Ω ± 3Ω @ 100MHz
Transverse Conversion Loss (TCL)	≥50-10log(f)dB	65dB @ 10MHz

ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	16	20	31.25	100	200	250
Insertion Loss (dB/100m)	Standard	2.0	4.0	6.3	8.0	9.0	11.4	21.3	N/A	N/A
	Typical	1.9	3.8	6.0	7.7	8.6	10.9	20.6	30.4	34.6
NEXT (dB)	Standard	65.3	56.3	50.3	47.2	45.8	42.9	35.3	N/A	N/A
	Typical	76.8	67.8	61.8	58.7	57.3	54.4	46.8	42.3	40.8
PSNEXT (dB)	Standard	62.3	53.3	47.3	44.2	42.8	39.9	32.3	N/A	N/A
	Typical	73.8	64.8	58.8	55.7	54.3	51.4	43.8	39.3	37.8
ACR-F (dB)	Standard	64.0	52.0	44.0	39.9	38.0	34.1	24.0	N/A	N/A
	Typical	81.4	69.4	61.4	57.3	55.4	51.5	41.4	35.4	33.4
PSACR-F (dB)	Standard	61.0	49.0	41.0	36.9	35.0	31.1	21.0	N/A	N/A
	Typical	78.4	66.4	58.4	54.3	52.4	48.5	38.4	32.4	30.4
Return Loss (dB)	Standard	20.0	23.0	25.0	25.0	25.0	23.6	20.1	N/A	N/A
	Typical	24.8	27.8	29.8	29.8	29.8	28.4	24.9	22.8	22.1

- 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

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 B

Min Bend Radius (Installation)	8 x Outer Diameter
Min Bend Radius (Operation)	4 x Outer Diameter
Field Test NVP Value	0.69

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STANDARD PACKAGING SPECIFICATIONS - REELS

Part Number	Alternative Part Number	Packaging Length (m)	Color	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange Diameter x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
GPU-HF1-Eca-500VT	129-UTP5Z-5VS	500	Violet†	5.05	32.2	400 x 400 x 210	17.6	24
GPU-HF1-Eca-1000VT	-	1000	Violet†	5.05	32.2	400 x 400 x 390	34.7	12
GPU-HF1-Eca-D500VT#	-	500	Violet†	5.05 x 10.3	63.1	400 x 400 x 390	34.7	12
GPU-HF1-X-500BK	-	500	Black	6.3	42.6	400 x 400 x 310	23.3	18
GPU-HF1-X-1000BK	-	1000	Black	6.3	42.6	465 x 465 x 390	45.6	6

STANDARD PACKAGING SPECIFICATIONS – BOXES

Part Number	Alternative Part Number	Packaging Length (m)	Color	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Box Size L x W x H (mm)	Gross Weight (kg/Item)	Items Per Pallet
GPU-HF1-Eca-Rlx-305VT	125-UTP5Z-MVB	305	Violet†	5.05	32.2	365 x 250 x 365	9.9	27 or 18

#'D' denotes Duplex Cable

† Also available in a range of non-standard colors [Examples: WH = White, BU = Blue, GY = Gray]

COUNTRY OF ORIGIN

COO: United Kingdom

*“Leviton 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. Leviton reserves the right to modify details without notice in light of subsequent standard/specification changes and ongoing technical developments.