

Category 5e UTP EuroClass Eca Cables

Datasheet: GD102446v9



APPLICATION

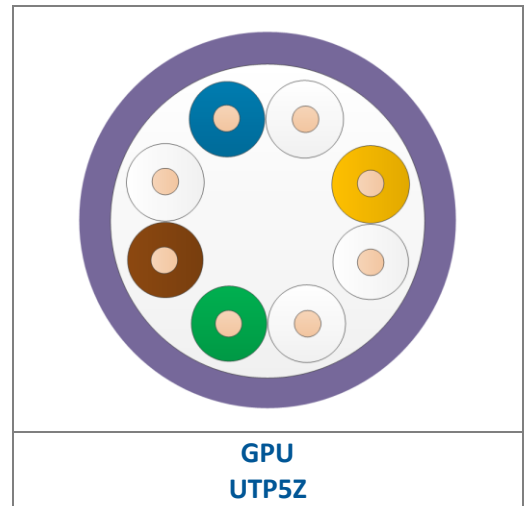
Leviton Category 5e UTP cables exceed Category 5e performance standards. They are rated to 100MHz and are suitable for use in all Class D structured wiring cable systems. Category 5e UTP cables support Gigabit Ethernet, Power over Ethernet and voice transmissions at frequencies up to 100MHz.

FEATURES AND BENEFITS

- 24 AWG solid annealed copper wire
- Polyolefin core insulation
- 4 unshielded twisted pairs cabled together
- HFFR-LS* 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

† 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 568C.2
- Supports Gigabit Ethernet
- Supports Power over Ethernet (PoE) and Power over Ethernet Plus (PoE+) applications

MATERIAL IDENTIFICATION

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

Category 5e UTP EuroClass Eca Cables

Datasheet: GD102446v9



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	4.1	6.5	8.2	9.3	11.7	22.0	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	38.3
	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
ELFEXT (dB/100m)	Standard	63.8	51.8	43.8	39.7	37.8	33.9	23.8	N/A	N/A
	Typical	81.4	69.4	61.4	57.3	55.4	51.5	41.4	35.4	33.4
PSELFEXT (dB/100m)	Standard	60.8	48.8	40.8	36.7	34.8	30.9	20.8	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
ACR (dB/100m)	Typical	74.9	64.0	55.8	51.1	48.7	43.4	26.2	11.9	6.2
PSACR (dB/100m)	Typical	71.9	61.0	52.8	48.1	45.7	40.4	23.2	8.9	3.2

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

Category 5e UTP EuroClass Eca Cables

Datasheet: GD102446v9



PRINT LEGEND

Example print legend UTP5Z Parts:

[Length Mark]m LEVITON UTP5Z BRAND-REX GPU-HF1-Eca Cat 5e U/UTP 4 PAIR 24 AWG HFFR IEC 60332-1-2 EuroClass Eca NVP 0.69 MADE IN UK [ID number] [Week/Year]

Example print legend GPU Parts:

[Length Mark]m BRAND-REX a LEVITON company GPU-HF1-Eca Cat 5e U/UTP IEC 60332-1-2 EuroClass Eca NVP 0.69 MADE IN UK [ID number] [Week/Year]

STANDARD PACKAGING SPECIFICATIONS - REELS

Brand-Rex Part Number	Leviton 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-500WH	128-UTP5Z-5WS	500	White	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-Eca-D1000VT*†	-	1000	Violet	5.05 x 10.3	63.1	600 x 600 x 405	71.9	4
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

* Only available in Europe and Middle East regions

† 'D' denotes duplex cable

STANDARD PACKAGING SPECIFICATIONS - BOXES

Brand-Rex Part Number	Leviton 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
GPU-HF1-Eca-Rlx-305WH	122-UTP5Z-MWB	305	Violet	5.05	32.2	365 x 250 x 365	9.9	27 or 18

"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.