

Category 5e F/UTP Cables

Datasheet: GD103082v5

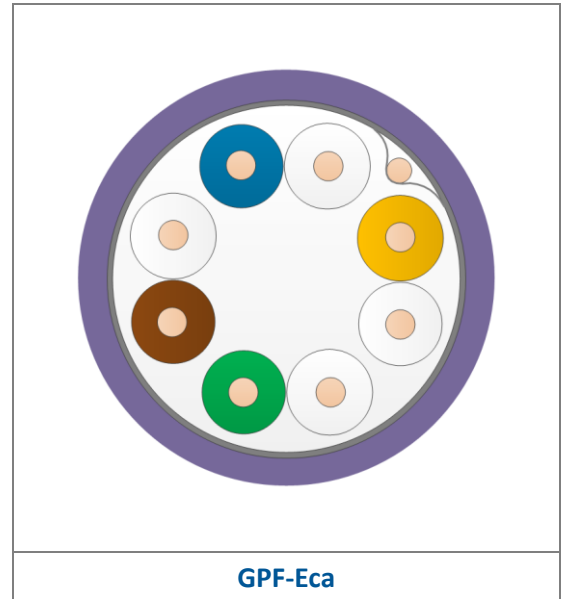


APPLICATION

Leviton Category 5e F/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 F/UTP cables supports 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
- Aluminium polyester screen
- Available in a range of sheath materials – to suit a variety of installation environments and colour coded for identification
- Designed to support all class D protocols including Gigabit Ethernet
- 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 optimum electrical performance to the following standards:
 - ISO/IEC 11801 Class D, IEC 61156-5
 - EN50173-1 and EN 50288-2-1
 - ANSI/TIA 568C.2
- Supports Gigabit Ethernet
- Supports Power over Ethernet (PoE) and Power over Ethernet Plus (PoE+) applications

MATERIAL PERFORMANCE

Material Identifier	HF1	HF3	HF1-X
Material Description	Standard HFFR-LS	Enhanced HFFR-LS	Inner - HFFR-LS Outer - Polyethylene
Flammability Rating	IEC/EN 60332-1-2	IEC/EN 60332-1-2 IEC/EN 60332-3-24	N/A – External Only
EuroClass Level EN13501-6	Eca	Eca	N/A – External Only
Colour	Violet†	Blue†	Inner - Grey Outer - Black

† Also available in a range of non-standard colors

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PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19Ω/100m	16Ω/100m
Conductor Resistance Unbalance	Max 2%	0.1%
Insulation Resistance	>5GΩ.km	>310GΩ.km
Dielectric Strength	2500 Vdc/2secs	Pass

SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Propagation Delay	<534nsec/100m @ 100MHz	480nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @100MHz	11nsec/100m @100MHz
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz	100Ω +/- 3Ω @ 100MHz
Transfer Impedance	Grade 2	14mΩ/m @ 10MHz

ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	16	20	31.25	100	200	250
Insertion Loss (dB/100m)	Standard	2.1	4.0	6.3	8.0	9.0	11.4	21.4	N/A	N/A
	Typical	2.0	3.8	6.0	7.6	8.6	10.8	20.4	30.3	34.5
NEXT (dB)	Standard	65.3	56.3	50.3	47.2	45.8	42.9	35.3	N/A	N/A
	Typical	73.3	64.3	58.3	55.2	53.8	50.9	43.3	38.8	37.3
PSNEXT (dB)	Standard	62.3	53.3	47.3	44.2	42.8	39.9	32.3	N/A	N/A
	Typical	70.3	61.3	55.3	52.2	50.8	47.9	40.3	35.8	34.3
ELFEXT (dB/100m)	Standard	63.8	51.8	43.8	39.7	37.8	33.9	23.8	N/A	N/A
	Typical	78.8	66.8	58.8	54.7	52.8	48.9	38.8	32.8	30.8
PSELFEXT (dB/100m)	Standard	60.8	48.8	40.8	36.7	34.8	30.9	20.8	N/A	N/A
	Typical	76.8	64.8	56.8	52.7	50.8	46.9	36.8	30.8	28.8
Return Loss (dB)	Standard	N/A	23.0	25.0	25.0	25.0	23.6	20.1	N/A	N/A
	Typical	25.0	28.0	30.0	30.0	30.0	28.6	25.1	23.0	22.3
ACR (dB/100m)	Typical	71.3	60.5	52.3	47.6	45.2	40.0	22.9	8.5	2.9
PSACR (dB/100m)	Typical	68.3	57.5	49.3	44.6	42.2	37.0	19.9	5.5	-0.1

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 C

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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PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company GPF-HF1-Eca Cat 5e F/UTP IEC 60332-1-2 EuroClass Eca NVP 0.68 MADE IN UK [ID number] [Week/Year]

STANDARD PACKAGING SPECIFICATIONS

Part Number	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
GPF-HF1-Eca-500VT [†]	6.1	40.0	400 x 310	22.0	18
GPF-HF1-Eca-1000VT [‡]	6.1	40.0	465 x 390	43.0	6
GPF-HF1-Eca-D500VT	12.3 x 6.1	80.1	600 x 315	46.0	6
GPF-HF1-Eca-D1000VT	12.3 x 6.1	80.1	750 x 410	89.4	2
GPF-HF3-Eca-500BU	6.7	50.2	400 x 390	27.6	12
GPF-HF3-Eca-1000BU	6.7	50.2	600 x 315	56.2	6
GPF-HF1-X-500BK	7.45	53.5	465 x 390	56.5	6
GPF-HF1-X-1000BK	7.45	53.5	6000 x 405	60.0	4

[†]500 = 500m length

[‡]1000 = 1000m length

^{||}'D' denotes duplex cable

“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.