

Category 6 F/UTP EuroClass Eca Cables

Datasheet: GD102470v11

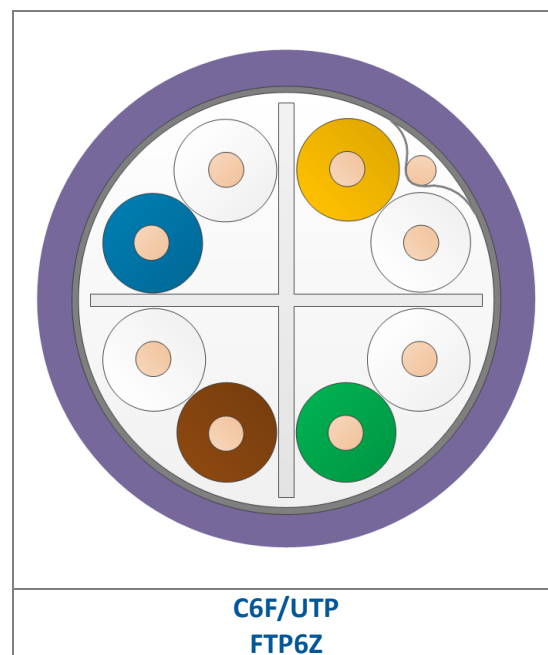


APPLICATION

Leviton Category 6 F/UTP cables exceed Category 6 performance standards. They are specified to 250MHz and are suitable for use in all Class E structured wiring cable systems. The applications supported include Gigabit Ethernet, Power over Ethernet, and broadband video transmissions at frequencies up to 250MHz.

FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- Polyolefin core insulation
- 4 unshielded twisted pairs cabled together
- Aluminum polyester screen
- Available in a range of jacket materials - to suit a variety of installation environments and color coded for identification
- 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 E, IEC 61156-5
 - EN 50173-1 and EN 50288-5-1
 - ANSI/TIA 568.2-D
- Supports Gigabit Ethernet and meets the design requirements of 802.11ac wireless. 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
Material Description	Standard HFFR-LS
Flammability Rating	IEC 60332-1-2
Fire EuroClass EN13501-6	Eca
Smoke Emission	IEC 61034-1 & 2
Acid Gas Emission	IEC 60754-2

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PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19Ω/100m	15Ω/100m
Conductor Resistance Unbalance	Max 2%	0.1%
Insulation Resistance	>5GΩ.km	>490GΩ.km
Dielectric Strength	2500 Vdc/2secs	Pass

SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Velocity of Propagation	<534nsec/100m @ 100MHz	502nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @ 100MHz	23nsec/100m @ 100MHz
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz	100Ω ± 3Ω @ 100MHz
Coupling Attenuation	Type 1b	86dB
Transfer Impedance	Grade 2	80mΩ/m @ 10MHz

ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	20	100	200	250	500	550
Insertion Loss (dB/100m)	Standard (Max)	2.1	3.8	6.0	8.5	19.9	29.1	33.0	N/A	N/A
	Typical	1.9	3.5	5.5	7.8	18.0	26.1	29.4	43.0	45.4
NEXT (dB)	Standard (Min)	66.0	65.3	59.3	54.8	44.3	39.8	38.3	N/A	N/A
	Typical	80.0	71.0	65.0	60.5	50.0	45.5	44.0	39.5	38.9
PSNEXT (dB)	Standard (Min)	64.0	63.3	57.3	52.8	42.3	37.8	36.3	N/A	N/A
	Typical	80.0	71.0	65.0	60.5	50.0	45.5	44.0	39.5	38.9
ACR-F (dB)	Standard (Min)	66.0	58.0	50.0	44.0	30.0	24.0	22.0	N/A	N/A
	Typical	82.0	70.0	62.0	56.0	42.0	36.0	34.0	28.0	27.2
PSACR-F (dB)	Standard (Min)	64.0	55.0	47.0	41.0	27.0	21.0	19.0	N/A	N/A
	Typical	79.0	67.0	59.0	53.0	39.0	33.0	31.0	25.0	24.2
Return Loss (dB)	Standard (Min)	N/A	23.0	25.0	25.0	20.1	18.0	17.3	N/A	N/A
	Typical	27.0	30.0	30.0	30.0	25.1	23.0	22.3	20.2	19.9
PSANEXT (dB)	Typical	78.1	67.4	59.5	52.6	32.0	19.4	14.6	-3.5	-6.5
PSAACR-F (dB)	Typical	78.1	67.4	59.5	52.6	32.0	19.4	14.6	-3.5	-6.5

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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 C

Min Bend Radius (Installation)	8 x Outer Diameter
Min Bend Radius (Operation)	4 x Outer Diameter
Field Test NVP Value	0.68

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 Dia. x Width (mm)	Gross Weight (kg/lte m)	Items Per Pallet
C6F/UTP-HF1-Eca-500WH	128-FTP6Z-5WS	500	White	7.1	51.5	400 x 390	28.2	12
C6F/UTP-HF1-Eca-500VT	129-FTP6Z-5VS	500	Violet	7.1	51.5	400 x 390	28.2	12
C6F/UTP-HF1-Eca-1000VT*	-	1000	Violet	7.1	51.5	600 x 405	58.0	4
C6F/UTP-HF1-Eca-D500VT*†	-	500	Violet	14.3 x 7.1	102.9	600 x 405	58.0	4
C6F/UTP-HF1-Eca-D1000VT*†	-	1000	Violet	14.3 x 7.1	102.9	750 x 405	112.2	2

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/lte m)	Items Per Pallet
C6F/UTP-HF1-Eca-RIx-305GY	124-FTP6Z-MSB	305	Gray	7.1	54.3	475 x 295 x 475	17.6	12
C6F/UTP-HF1-Eca-RIx-305VT	125-FTP6Z-MVB	305	Violet	7.1	54.3	475 x 295 x 475	17.6	12

* Only available in Europe and Middle East regions

** May be ordered using alternative part number in some regions

† '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.