

Category 6A U/FTP EuroClass Eca Cables

Datasheet: GD102401v14



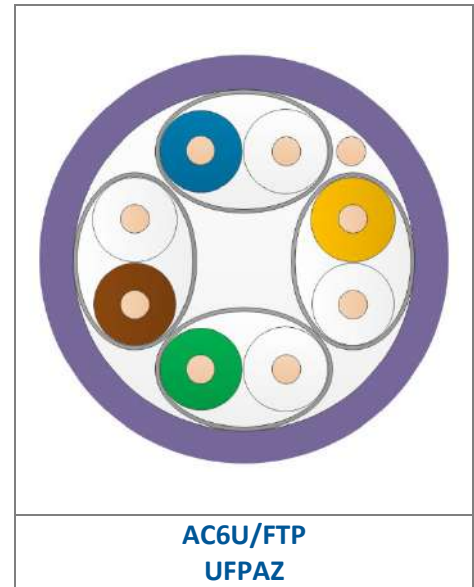
APPLICATION

Leviton Category 6A U/FTP cables exceed Category 6A performance standards. They are specified to 500MHz and are suitable for use in all Class E_A structured wiring cable systems. The Category 6A U/FTP cable supports 10 Gigabit Ethernet, Gigabit Ethernet, Power Over Ethernet, voice, and broadband video transmissions at frequencies up to 500MHz.

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
- 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_A, IEC 61156-5
 - EN50173-1 and EN 50288-10-1
 - ANSI/TIA 568.2-D
- Supports 10GBASE-T and meets the design requirement of 802.11ac wireless. Recommended for PoE standards:
 - IEEE 802.3bt PoE Type 1 (15.4 Watts) formerly 802.3af
 - IEEE 802.3bt PoE Type 2 (30 Watts) formerly 802.3at
 - IEEE 802.3bt PoE Type 3 (60 Watts)
 - 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	HF1-X
Material Description	Standard HFFR-LS	Enhanced HFFR-LS	Inner – HFFR-LS Outer - Polyethylene
Flammability Rating	IEC 60332-1-2	IEC 60332-3-24	N/A External Only
Fire EuroClass EN13501-6	Eca	Eca	N/A External Only
Smoke Emission	IEC 61034-1 & 2	IEC 61034-1&2	N/A External Only
Acid Gas Emission	IEC 60754-2	IEC 60754-2	N/A External Only
Color	Violet	Blue	Inner – Violet Outer - Black

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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 1b	75dB
Transfer Impedance	Grade 2	28mΩ/m @ 10MHz

ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	20	100	200	250	500	550
Insertion Loss (dB/100m)	Standard	2.1	3.8	5.9	8.4	19.1	27.6	31.1	45.3	N/A
	Typical	1.9	3.5	5.5	7.8	18.0	26.1	29.4	43.0	45.4
NEXT (dB)	Standard	75.3	66.3	60.3	55.8	45.3	40.8	39.3	34.8	N/A
	Typical	100.0	100.0	100.0	100.0	94.3	88.9	87.1	81.7	81.0
PSNEXT (dB)	Standard	72.3	63.3	57.3	52.8	42.3	37.8	36.3	31.8	N/A
	Typical	97.0	97.0	97.0	97.0	91.3	85.9	84.1	78.7	78.0
ACR-F (dB)	Standard	68.0	56.0	48.0	42.0	28.0	22.0	20.0	14.0	N/A
	Typical	90.0	90.0	90.0	84.8	70.8	64.8	62.8	56.8	56.0
PSACR-F (dB)	Standard	65.0	53.0	45.0	39.0	25.0	19.0	17.0	11.0	N/A
	Typical	87.0	87.0	87.0	81.8	67.8	61.8	59.8	53.8	53.0
Return Loss (dB)	Standard	20.0	23.0	25.0	25.0	20.1	18.0	17.3	17.3	N/A
	Typical	27.0	30.0	30.0	30.0	25.1	23.0	22.3	20.2	19.9
PSANEXT (dB)	Standard	67.0	67.0	67.0	67.0	62.5	58.0	56.5	52.0	N/A
	Typical	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PSAACR-F (dB)	Standard	67.0	66.2	58.2	52.2	38.2	32.2	30.2	24.2	N/A
	Typical	98.1	96.5	94.5	92.2	82.0	73.9	70.6	57.0	54.6

- 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 C

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

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STANDARD PACKAGING SPECIFICATIONS - REELS

Part Number	Alternative Part Number	Packaging Length (m)	Color [†]	Nom. Cable Diameter (mm)	Nom. Cable Weight (kg/km)	Reel Size Flange Dia x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
AC6U/FTP-HF1-Eca-500WH	128-UFPAZ-5WS	500	White	6.8	45.0	400 x 390	25	12
AC6U/FTP-HF1-Eca-500VT	129-UFPAZ-5VS	500	Violet	6.8	45.0	400 x 390	25	12
AC6U/FTP-HF1-Eca-1000VT	-	1000	Violet	6.8	45.0	600 x 405	51.5	4
AC6U/FTP-HF1-Eca-D500VT ^{††}	-	500	Violet	6.8 x 13.7	90.0	600 x 405	51.5	4
AC6U/FTP-HF3-Eca-500BU	-	500	Blue	7.2	52.9	400 x 390	28.9	12

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
AC6U/FTP-HF1-Eca-Rlx-305VT	-	305	Violet	6.8	45.0	475 x 295 x 475	14.7	12

^{††} 'D' denotes Duplex Cable

[†] Also available in non-standard colors

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.