

Category 6 S/FTP Cables

Datasheet: GD102420v5



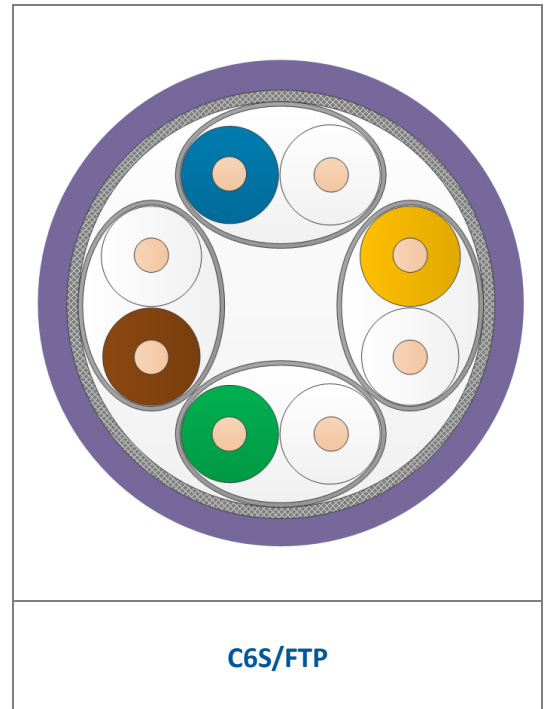
APPLICATION

Leviton Category 6 S/FTP cables exceed Category 6 performance standards. They are rated 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
- Gas injection foamed polyolefin core insulation – offering superior signal speed
- 4 twisted pairs individually screened and cabled together – providing EMI immunity
- Overall braided screen – for improved shielding efficiency, increased mechanical robustness and heat dissipation
- Available in a range of sheath materials – to suit a variety of installation environments and colour coded for identification
- Designed to support all Class E 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 E, IEC 61156-5
 - EN50173-1 and EN 50288-5-1
 - ANSI/TIA 568C.2
- Recommended for PoE standards: IEEE 802.3af, 802.3at, 802.3bt, Cisco UPoE, and Power over HDBaseT™ (PoH) up to 100 watts

MATERIAL IDENTIFICATION

Material Identifier	HF1	HF3
Material Description	Standard HFFR-LS	Enhanced HFFR-LS
Flammability Rating	IEC 60332-1-2	IEC 60332-3-24
Fire EuroClass EN13501-6	Eca	Eca
Smoke Emission	IEC 61034-1 & 2	IEC 61034-1 & 2
Acid Gas Emission	IEC 60754-2	IEC 60754-2
Color	Violet	Blue

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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 25nsec/100m @ 100MHz	4nsec/100m @ 100MHz
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz	100Ω ± 3Ω @ 100MHz
Coupling Attenuation	Type 1	90dB
Transfer Impedance	Grade 1	8mΩ/m @ 10MHz

ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	20	100	200	250	500	550
Insertion Loss (dB/100m)	Standard	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	66.0	65.3	59.3	54.8	44.3	39.8	38.3	N/A	N/A
	Typical	100.0	100.0	100.0	100.0	94.3	88.9	87.1	81.7	81.0
PSNEXT (dB)	Standard	64.0	63.3	57.3	52.8	42.3	37.8	36.3	N/A	N/A
	Typical	97.0	97.0	97.0	97.0	91.3	85.9	84.1	78.7	78.0
ELFEXT (dB/100m)	Standard	66.0	58.0	50.0	44.0	30.0	24.0	22.0	N/A	N/A
	Typical	90.0	90.0	90.0	84.8	70.8	64.8	62.8	56.8	56.0
PSELFEXT (dB/100m)	Standard	64.0	55.0	47.0	41.0	27.0	21.0	19.0	N/A	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	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
ACR (dB/100m)	Typical	98.1	96.5	94.5	92.2	76.3	62.8	57.7	38.7	35.6
PSACR (dB/100m)	Typical	95.1	93.5	91.5	89.2	73.3	59.8	54.7	35.7	32.6

INSTALLATION

Temperature (Installation)	0°C to +50°C	Min Bend Radius (Installation)	8 x Outer Diameter
Temperature (Operation)	-20°C to +75°C	Min Bend Radius (Operation)	4 x Outer Diameter
Max Tensile Load (Installation)	10kg per simplex cable	Field Test NVP Value	0.80
Segregation Class	Class D		

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PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company C6S/FTP-HF1-Eca Cat 6 S/FTP IEC 60332-1-2 Euroclass Eca NVP 0.80
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
C6S/FTP-HF1-Eca-500VT [†]	7.0	48.4	400 x 390	26.7	12
C6S/FTP-HF1- Eca-1000VT [‡]	7.0	48.4	600 x 405	54.8	4
C6S/FTP-HF1- Eca-D500VT [§]	7.1 x 14.3	100.0	600 x 405	113.0	4
C6S/FTP-HF1- Eca-D1000VT	7.1 x 14.3	100.0	750 x 405	109.0	2

[†]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.