

# Category 6 U/FTP EuroClass B2ca Cables

Datasheet: GD104714v4



## APPLICATION

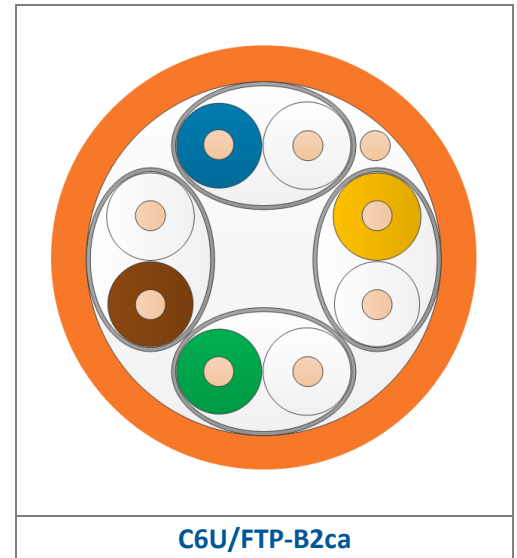
Leviton Category 6 U/FTP cables exceed Category 6 performance standards. They are specified to 250MHz and are suitable for use in all Class E structured wiring cable systems. Category 6 U/FTP cable supports Gigabit Ethernet, Power over Ethernet, voice, and broadband video transmissions at frequencies up to 250MHz.

## FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- 4 twisted pairs individually screened and cabled together – providing EMI immunity
- Designed to support all Class E protocols including Gigabit Ethernet
- Enhanced HFFR-LS\* material enables the cable to meet the requirements of the Construction Products Regulation (CPR) EuroClass B2ca
- Orange† jacket to identify EuroClass level B2ca
- 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 E, IEC 61156-5
  - EN50173-1 and EN 50288-5-1
  - ANSI/TIA 568.2-D
- 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

CHARACTERISTIC	IEC STANDARD	EN STANDARD	CPR RATING
Classification / EuroClass	-	EN 13501-6	B2ca s1a d1 a1
Single Cable Flame Rating	IEC 60332-1-2	EN 60332-1-2	Pass
Smoke Emission	IEC 61034	EN 61034	Pass
Acid Gas Emission	IEC 60754	EN 60754	Pass

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## PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19 $\Omega$ /100m	15.4 $\Omega$ /100m
Conductor Resistance Unbalance	Max 2%	0.1%
Insulation Resistance	>5G $\Omega$ .km	>50G $\Omega$ .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	100 $\Omega$ +/- 5 $\Omega$ @ 100MHz	100 $\Omega$ $\pm$ 3 $\Omega$ @ 100MHz
Coupling Attenuation	Type 1b	75dB
Transfer Impedance	Grade 2	28m $\Omega$ /m @ 10MHz

## ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	20	100	200	250
Insertion Loss (dB/100m)	Standard (Max)	N/A	3.8	5.9	8.4	19.1	27.6	31.1
	<i>Typical</i>	<i>1.9</i>	<i>3.5</i>	<i>5.5</i>	<i>7.8</i>	<i>18.0</i>	<i>26.1</i>	<i>29.4</i>
NEXT (dB)	Standard (Min)	N/A	66.3	60.3	55.8	45.3	40.8	39.3
	<i>Typical</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>94.3</i>	<i>88.9</i>	<i>87.1</i>
PSNEXT (dB)	Standard (Min)	N/A	63.3	57.3	52.8	42.3	37.8	36.3
	<i>Typical</i>	<i>97.0</i>	<i>97.0</i>	<i>97.0</i>	<i>97.0</i>	<i>91.3</i>	<i>85.9</i>	<i>84.1</i>
ACR-F (dB)	Standard (Min)	N/A	56.0	48.0	42.0	28.0	22.0	20.0
	<i>Typical</i>	<i>90.0</i>	<i>90.0</i>	<i>90.0</i>	<i>84.8</i>	<i>70.8</i>	<i>64.8</i>	<i>62.8</i>
PSACR-F (dB)	Standard (Min)	N/A	53.0	45.0	39.0	25.0	19.0	17.0
	<i>Typical</i>	<i>87.0</i>	<i>87.0</i>	<i>87.0</i>	<i>81.8</i>	<i>67.8</i>	<i>61.8</i>	<i>59.8</i>
Return Loss (dB)	Standard (Min)	20.0	23.0	25.0	25.0	20.1	18.0	17.3
	<i>Typical</i>	<i>27.0</i>	<i>30.0</i>	<i>30.0</i>	<i>30.0</i>	<i>25.1</i>	<i>23.0</i>	<i>22.3</i>
PSANEXT (dB)	Standard (Min)	67.0	67.0	67.0	67.0	62.5	58.0	56.5
	<i>Typical</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
PSAACR-F (dB)	Standard	67.0	66.2	58.2	52.2	38.2	32.2	30.2
	<i>Typical</i>	<i>98.1</i>	<i>96.5</i>	<i>94.5</i>	<i>92.2</i>	<i>82.0</i>	<i>73.9</i>	<i>70.6</i>

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## 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	Field Test NVP Value	0.80
Segregation Class	Class C		

## STANDARD PACKAGING SPECIFICATIONS - REELS

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
C6U/FTP-B2ca-500OR	500	Orange†	6.7	44.5	400 x 390	24.7	12

## STANDARD PACKAGING SPECIFICATIONS - BOXES

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
C6U/FTP-B2ca-B305OR	305	Orange†	6.7	44.5	475 x 295 x 475	14.6	12

†Also available in a range of non-standard colors

## 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.