

Category 6 U/UTP EuroClass B2_{ca} Cables

Datasheet: GD104131v3



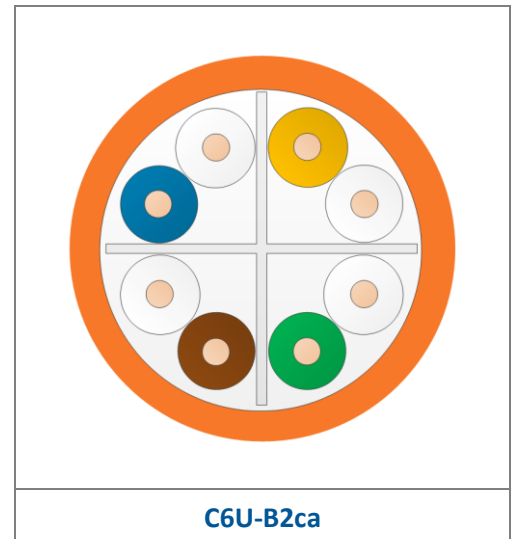
APPLICATION

C6U cables exceed the Category 6 performance standards. They are rated to 250MHz and are suitable for use in all Class E structured wiring cable systems. C6U cables support 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 unshielded twisted pairs cabled together
- Central separator for increased internal crosstalk performance
- HFFR-LS* sheath enables cable to meet the requirements of the Construction Products Regulation (CPR) EuroClass B2_{ca}
- Included in the Leviton and Brand-Rex 25 Year System Warranties when used in conjunction with Leviton or Brand-Rex copper connectivity. System warranties available for qualified projects installed by certified contractors.
- Designed and manufactured in a carbon neutral facility in the UK
- Delivered in 100% recyclable packaging

* 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 50288-6-1
 - ANSI/TIA 568C.2
- Supports Gigabit Ethernet
- Recommended for PoE standards: IEEE 802.3af, 802.3at, Cisco UPoE, and Power over HDBaseT™ (PoH) up to 100 watts, as well as emerging 4 pair PoE standards such as the IEEE 802.3bt, including 90 watts at the powered device (PD)

FIRE CLASSIFICATION

CHARACTERISTIC	IEC STANDARD	EN STANDARD	CPR RATING
Reaction to Fire 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 Ω / 100m	16 Ω / 100m
Conductor Resistance Unbalance	Max 2%	0.1%
Insulation Resistance	>5G Ω .km	>50G Ω .km
Dielectric Strength	2500 Vdc/2secs	Pass

SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Velocity of Propagation	<534nsec/100m @ 100MHz	505nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @100MHz	30nsec/100m @ 100MHz
Mean Characteristic Impedance	100 Ω +/- 5 Ω @ 100MHz	100 Ω \pm 3 Ω @ 100MHz
Transverse Conversion Loss (TCL)	\geq 50-10log(f)dB	61dB @ 10MHz

ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	20	100	200	250
Insertion Loss (dB/100m) max	Standard	2.0	3.8	6.0	8.5	19.8	29.0	32.8
NEXT (dB) min	Standard	74.3	65.3	59.3	54.8	44.3	39.8	38.3
PSNEXT (dB) min	Standard	72.3	63.3	57.3	52.8	42.3	37.8	36.3
ACR-F (dB) min	Standard	67.8	55.8	47.8	41.8	27.8	21.8	19.8
PSACR-F (dB) min	Standard	64.8	52.8	44.8	38.8	24.8	18.8	16.8
Return Loss (dB) min	Standard	n/a	23.0	25.0	25.0	20.1	18.0	17.3

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	0.66
Segregation Class	Class B		

PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company C6U-B2ca Cat 6 U/UTP EN 50399 EuroClass B2ca s1a d1 a1 NVP 0.66
MADE IN UK [ID number] [Week/Year]

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STANDARD PACKAGING SPECIFICATIONS – REELS

Part Number	Packaging Length (m)	Colour	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
C6U-B2ca-500OR	500	Orange†	6.15	44.9	400 x 310	24.5	18
C6U-B2ca-1000OR	1000	Orange†	6.15	44.9	465 x 390	47.9	6

STANDARD PACKAGING SPECIFICATIONS - BOXES

Part Number	Packaging Length (m)	Colour	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-B2ca-Rlx-305OR	305	Orange†	6.15	44.9	435 x 265 x 405	14.4	21/14††

† Also available in a range of non-standard colours

†† 3 layers/2 layers

*“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.