

# Category 6 U/UTP EuroClass B2<sub>ca</sub> Cables

Datasheet: GD103703v3

**Brand-Rex** a **LEVITON** company

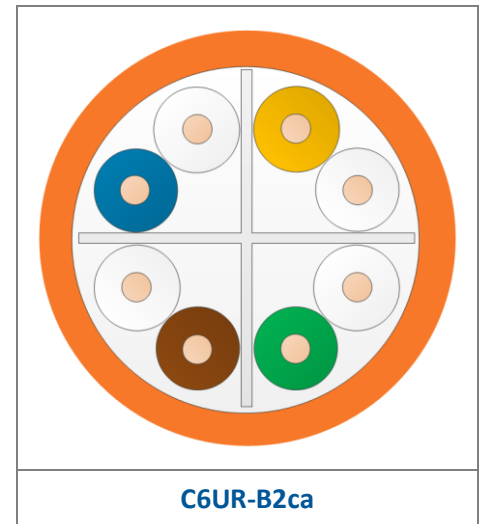
## APPLICATION

Brand-Rex 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 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 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<sub>ca</sub>
- 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.

\* 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
  - ANSI/TIA 568C.2
- Supports Gigabit Ethernet
- Meets the design requirements of 802.11ac wireless
- 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

## PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION
Conductor Loop Resistance	Max 19 Ω / 100m
Conductor Resistance Unbalance	Max 2%
Insulation Resistance	>5GΩ.km
Dielectric Strength	1000 Vdc / 1 min

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## SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION
Velocity of Propagation	<538nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @100MHz
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz

## 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	20.0	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 +60°C	Min Bend Radius (Operation)	4 x Outer Diameter
Max Tensile Load (Installation)	10kg per simplex cable	Field Test NVP Value	0.67
Segregation Class	Class B		

## PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company Cat 6 U/UTP EN 50399 EuroClass B2<sub>ca</sub> s1a d1 a1 NVP 0.67  
[Factory ID] [ID number] [Week/Year]

## STANDARD PACKAGING SPECIFICATIONS – REEL IN BOX

Brand-Rex Part Number	Packaging Length (m)	Colour	Nominal Diameter (mm)	Nominal Weight (kg/km)	Box Size L x W x H (mm)	Gross Weight (kg/Item)	Items Per Pallet
C6UR-B2 <sub>ca</sub> -RIB-305OR	305	Orange†	6.2	46.9	345 x 270 x 335	15.0	30

†Also available in a range of non-standard colours

*“Brand-Rex 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. Brand-Rex reserves the right to modify details without notice in light of subsequent standard/specification changes and ongoing technical developments.