

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

Datasheet: GD103703v2

**Brand-Rex** a LEVITON company

## APPLICATION

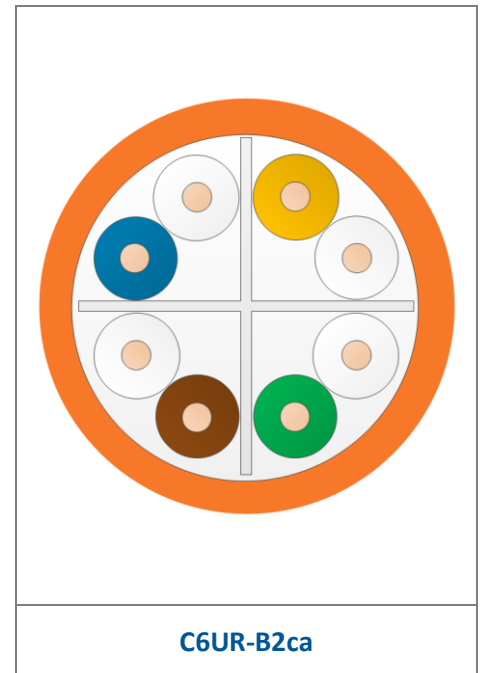
Brand-Rex C6U cables exceed the Category 6 performance standards. They are rated to 250MHz and are suitable for use in all Class E structured wiring cable systems. C6U cable supports Gigabit Ethernet, PoE, PoE+, voice and broadband video transmissions at frequencies up to 250MHz.

## FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- Polyolefin core insulation
- Central cross filler – for increased internal crosstalk performance
- 4 unshielded twisted pairs cabled together
- Designed to support all Class E protocols including Gigabit Ethernet
- Supports Power over Ethernet (PoE) and Power over Ethernet Plus (PoE+) applications
- HFFR-LS\* material enables the cable to meet the requirements of the Construction Products Regulation (CPR) EuroClass B2<sub>ca</sub>
- Orange† coloured jacket to identify EuroClass level B2<sub>ca</sub>

\* Halogen Free Flame Retardant – Low Smoke

† Also available in a range of non-standard colours



## STANDARDS

Applicable Cable Standards: ISO/IEC 11801 Class E, IEC 61156-5 & ANSI/TIA-568-C.2

## REACTION TO FIRE

CHARACTERISTIC	STANDARD	RATING
Single Cable Flame Rating	IEC/EN 60332-1-2	Pass
Smoke Production	EN 61034	Pass
Acid Gas Emission / Acidity	EN 50267-2-3	Pass
Reaction to Fire Classification	EN 13501-6	B2 <sub>ca</sub> s1a d1 a1

## 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)	Standard	2.0	3.8	6.0	8.5	19.8	29.0	32.8
	NEXT (dB)	74.3	65.3	59.3	54.8	44.3	39.8	38.3
PSNEXT (dB)	Standard	72.3	63.3	57.3	52.8	42.3	37.8	36.3
ACR-F (dB)	Standard	67.8	55.8	47.8	41.8	27.8	21.8	19.8
PSACR-F (dB)	Standard	64.8	52.8	44.8	38.8	24.8	18.8	16.8
Return loss (dB)	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 C6UR-B2ca Cat 6 U/UTP EN 50399 EuroClass B2ca s1a d1 a1  
NVP 0.67 HCA026 [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