RailSafe Cat 6 U/UTP B2ca Cables

Datasheet: GD106084v3

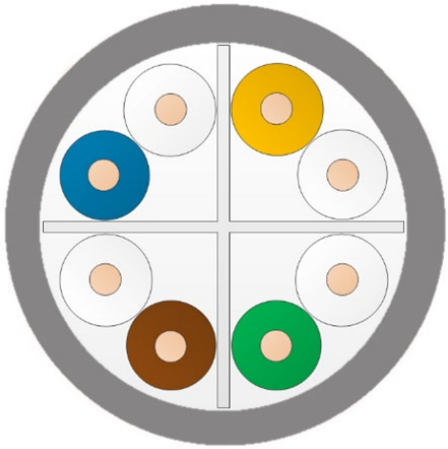
APPLICATION

Leviton RailSafe Cat 6 U/UTP B2ca cables are designed to meet the needs of railway environments, exceeding Category 6 performance standards. They are rated to 250MHz and suitable for use in all Class E structured cabling systems. Category 6 U/UTP 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* jacket enables the cable to meet the requirements of the Construction Products Regulation (CPR) EuroClass B2ca
- CE and UKCA marked for CPR
- 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
- Designed and manufactured in a carbon neutral facility in the UK
- Reel and box packaging is 100% recyclable

** Halogen Free Flame Retardant – Low Smoke*



RailSafe C6U-B2ca

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 568.2-D
- Supports Gigabit Ethernet. Recommended for PoE standards:
  - IEEE 802.3bt PoE Type 1 (15.4 Watts), IEEE 802.3bt PoE Type 2 (30 Watts)
  - IEEE 802.3bt PoE Type 3 (60 Watts) and IEEE 802.3bt PoE Type 4 (90 Watts)
  - Exceeds IEEE 802.3bt standard up to 0.5 amps per conductor (100 watts) continuously
  - Cisco UPoE (60 Watts), Cisco UPoE+ (90 Watts) and Power over HDBaseT™ PoH (95 Watts)

REACTION TO FIRE

Toxicity	BS EN 45545-2, LUL S1085		
CHARACTERISTIC	**IEC STANDARD**	**EN STANDARD**	**CPR RATING**
Classification / EuroClass	-	EN 13501-6	B2ca s1a d0 a1
IEC 60332 Cable Flame Rating	IEC 60332-1-2 IEC 60332-3-22	EN 60332-1-2 EN 60332-3-22	Pass Pass
Smoke Emission	IEC 61034	EN 61034	Pass
Acid Gas Emission	IEC 60754	EN 60754	Pass

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	>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	505nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @100MHz	25nsec/100m @ 100MHz
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz	100Ω ± 3Ω @ 100MHz
Transverse Conversion Loss (TCL)	**≥50-10log(f)dB**	**61dB @ 10MHz**

ELECTRICAL PERFORMANCE

Frequency (MHz)		**1**	**4**	**10**	**20**	**100**	**200**	**250**	**500**	**550**
Insertion Loss (dB/100m)	Standard	2.0	3.8	6.0	8.5	19.8	29.0	32.8	N/A	N/A
	Typical	***1.7***	***3.5***	***5.6***	***8.0***	***18.9***	***27.6***	***31.1***	***43.0***	***45.4***
NEXT (dB)	Standard	75.3	66.3	60.3	55.8	45.3	40.8	39.3	N/A	N/A
	Typical	***91.0***	***91.5***	***86.0***	***80.4***	***69.2***	***64.0***	***64.1***	***46.0***	***45.4***
PSNEXT (dB)	Standard	72.3	63.3	57.3	52.8	42.3	37.8	36.3	N/A	N/A
	Typical	***83.7***	***84.2***	***78.0***	***71.9***	***61.9***	***57.3***	***57.0***	***44.0***	***43.4***
ACR-F (dB)	Standard	67.8	58.0	50.0	44.0	30.0	24.0	22.0	N/A	N/A
	Typical	***91.2***	***83.7***	***75.8***	***68.2***	***52.3***	***47.8***	***45.0***	***31.0***	***30.2***
PSACR-F (dB)	Standard	64.8	55.0	47.0	42.0	27.0	21.0	19.0	N/A	N/A
	Typical	***84.8***	***76.4***	***68.4***	***61.4***	***46.4***	***42.4***	***39.6***	***28.0***	***27.2***
Return Loss (dB)	Standard	20.0	23.0	25.0	25.0	20.1	18.0	17.3	N/A	N/A
	Typical	***34.0***	***36.5***	***39.1***	***41.6***	***37.1***	***31.3***	***30.2***	***20.2***	***19.9***

- *The standard values shown are the most demanding taken from across the relevant IEC, TIA and EN specifications. These standards values are the maximum permittable for Insertion loss and the minimum permittable for other parameters.*
- *N/A = Not applicable*

INSTALLATION

Temperature *(Installation)*	0°C to +50°C
Temperature *(Operation)*	-20°C to +75°C
Max Tensile Load *(Installation)*	10kg
Segregation Class	Class B

Min Bend Radius *(Installation)*	8 x Outer Diameter
Min Bend Radius *(Operation)*	4 x Outer Diameter
Field Test NVP Value	0.69

STANDARD PACKAGING SPECIFICATIONS – REELS

Part Number	Packaging Length *(m)*	Color	Nominal Cable Diameter *(mm)*	Nominal Cable Weight *(kg/km)*	Reel Size *Flange Dia. x Width (mm)*	Gross Weight *(kg/Item)*	Items Per Pallet
RailSafe C6U-B2ca-500GY	500	Gray	6.15	44.6	400 x 310	24.3	18

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
Railsafe C6U-B2ca-Rlx-305GY	305	Gray	6.15	44.6	435 x 265 x 405	14.4	21/14††

†† 3 layers/2 layers

COUNTRY OF ORIGIN

COO: United Kingdom

*"Leviton is **dedicated** to **designing**, **developing** and **manufacturing** sustainable **high-performance** structured cabling and specialty **cabling solutions.**"*