

RailSafe Cat 6A U/UTP EuroClass B2ca Cables

Datasheet: GD106081v2



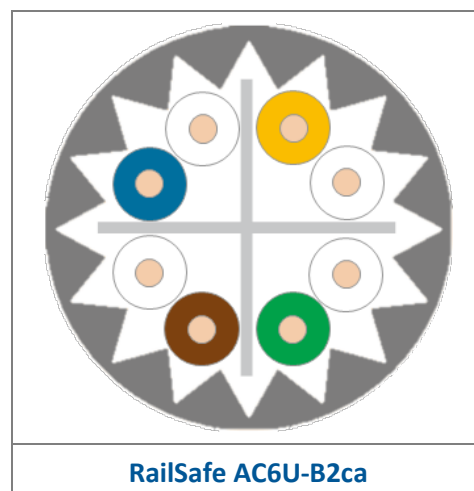
APPLICATION

Leviton RailSafe Cat 6A U/UTP cables are designed to meet the need of railway environments, exceeding the Category 6A performance standards. They are rated to 500MHz and are suitable for use in all Class EA structured wiring cable systems. Category 6A U/UTP cables support 10 Gigabit Ethernet, Gigabit Ethernet, Power over Ethernet, voice, and broadband video transmissions at frequencies up to 500MHz.

FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- 4 unshielded twisted pairs cabled together
- Central separator for excellent internal crosstalk performance
- HFFR-LS* jacket enables the cable to meet the requirements of the Construction Products Regulation (CPR) EuroClass 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



STANDARDS

- Designed and constructed to give optimal electrical performance to the following standards:
 - ISO/IEC 11801 Class EA, IEC 61156-5
 - EN 50173-1 and EN 50288-11-1
 - ANSI/TIA 568.2-D
- Supports 10GBASE-T
- Meets the design requirements of 802.11ac wireless
- 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)
 - 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
Single Cable Flame Rating	IEC 60332-1-2	EN 60332-1-2	Pass
Bundled Cable Flame Rating	IEC 60332-3-22	EN 60332-3-22	-

RailSafe Cat 6A U/UTP EuroClass B2ca Cables

Datasheet: GD106081v2



PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION
Conductor Loop Resistance	Max 19 Ω /100m
Conductor Resistance Unbalance	Max 2%
Insulation Resistance	>5G Ω .km
Dielectric Strength	2500 Vdc/2secs

SECONDARY ELECTRICAL PARAMETERS

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

ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	20	100	200	250	500	550
Insertion Loss (dB/100m)	Standard	2.1	3.8	5.9	8.4	19.1	27.6	31.1	45.3	N/A
	Typical	2.0	3.8	5.8	7.9	18.1	26.0	29.4	42.7	45.2
NEXT (dB)	Standard	75.3	66.3	60.3	55.8	45.3	40.8	39.3	34.8	N/A
	Typical	98.6	92.2	86.5	82.0	71.8	67.3	65.5	56.0	55.3
PSNEXT (dB)	Standard	72.3	63.3	57.3	52.8	42.3	37.8	36.3	31.8	N/A
	Typical	91.0	83.7	78.8	73.7	63.8	60.0	58.4	48.7	47.1
ACR-F (dB)	Standard	68.0	56.0	48.0	42.0	28.0	22.0	20.0	14.0	N/A
	Typical	91.1	83.1	75.3	69.0	54.8	48.2	45.8	38.3	37.9
PSACR-F (dB)	Standard	65.0	53.0	45.0	39.0	25.0	19.0	17.0	11.0	N/A
	Typical	83.5	75.5	68.0	62.0	47.6	41.3	39.2	31.5	31.0
Return Loss (dB)	Standard	20.0	23.0	25.0	25.0	20.1	18.0	17.3	17.3	N/A
	Typical	29.3	34.4	35.5	36.3	36.3	36.2	34.1	29.7	28.9
PSANEXT (dB)	Standard	67.0	67.0	67.0	67.0	62.5	58.0	56.5	52.0	N/A
	Typical	87.6	84.4	79.4	76.1	69.9	68.5	68.1	61.5	59.9
PSAACR-F (dB)	Standard	67.0	66.2	58.2	52.2	38.2	32.2	30.2	24.2	N/A
	Typical	81.9	72.4	64.9	58.8	44.9	38.8	37.1	29.4	28.3

- The standard values shown are the most demanding taken from the relevant IEC, TIA and EN specifications. These standard values are the maximum permissible for Insertion loss and the minimum permissible for other parameters
- N/A – Not Applicable

RailSafe Cat 6A U/UTP EuroClass B2ca Cables

Datasheet: GD106081v2



INSTALLATION

Temperature (Installation)	0°C to +50°C
Temperature (Operation)	-20°C to +60°C
Segregation Class	Class C

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 Diameter (mm)	Nominal Weight (kg/km)	Reel Size Flange Dia x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
RailSafe AC6U-B2ca-500GY2	500	Gray	7.9	67.6	465 x 375	37	6

COUNTRY OF ORIGIN

COO: United Kingdom

*"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.