

# Category 6A U/UTP Reuleaux EuroClass B2ca Cables

Datasheet: GD104048v2



## APPLICATION

Leviton Category 6A U/UTP cables exceed Category 6A performance standards. They are rated to 500MHz and are suitable for use in all Class EA structured wiring cable systems.

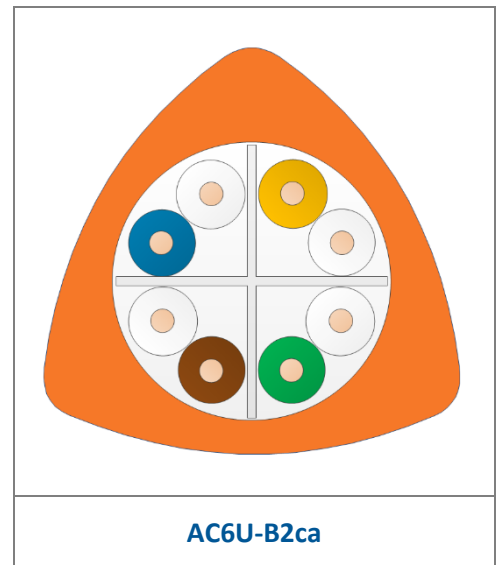
The U/UTP cable construction combines superior levels of pair balance with an innovative finished cable geometry specially designed to reduce alien crosstalk. U/UTP cables support 10 Gigabit Ethernet, Gigabit Ethernet, Power over Ethernet, voice and broadband video transmissions at frequencies up to 500MHz.

## FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- 4 unshielded twisted pairs
- Central separator for excellent internal crosstalk performance
- Patented Reuleaux profile – offering superior alien crosstalk performance
- Orange† HFFR-LS\* sheath enables 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

† Also available in a range of non-standard colors



## STANDARDS

- Designed and constructed to give optimum electrical performance to the following standards:
  - ISO/IEC 11801 Class EA, IEC 61156-5
  - EN50173-1 and EN 50288-11-1
  - ANSI/TIA 568C.2
- Supports 10GBASE-T
- Meets the design requirements of 802.11ac wireless
- Recommended for PoE standards: IEEE 802.3af, 802.3at, 802.3bt, Cisco UPoE, and Power over HDBaseT™ (PoH) up to 100 watts

## 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	15 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	515nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @100MHz	17.5nsec/100m @ 100MHz
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz	100Ω ± 3Ω @ 100MHz
Transverse Conversion Loss (TCL)	≥60-10log(f)dB	65dB @ 10MHz

## ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	20	100	200	250	500	550
Insertion Loss (dB/100m) max	Standard	2.0	3.7	5.9	8.3	19.0	27.5	31.0	45.3	N/A
	<b>Typical</b>	<b>2.0</b>	<b>3.6</b>	<b>5.7</b>	<b>8.1</b>	<b>18.5</b>	<b>26.8</b>	<b>30.2</b>	<b>44.1</b>	<b>46.5</b>
NEXT (dB) min	Standard	74.3	65.3	59.3	54.8	44.3	39.8	38.3	33.8	N/A
	<b>Typical</b>	<b>84.3</b>	<b>75.3</b>	<b>69.3</b>	<b>64.8</b>	<b>54.3</b>	<b>49.8</b>	<b>48.3</b>	<b>43.8</b>	<b>43.2</b>
PSNEXT (dB) min	Standard	72.3	63.3	57.3	52.8	42.3	37.8	36.3	31.8	N/A
	<b>Typical</b>	<b>82.3</b>	<b>73.3</b>	<b>67.3</b>	<b>62.8</b>	<b>52.3</b>	<b>47.8</b>	<b>46.3</b>	<b>41.8</b>	<b>41.2</b>
ACR-F (dB) min	Standard	67.8	55.8	47.8	41.8	27.8	21.8	19.8	13.8	N/A
	<b>Typical</b>	<b>79.8</b>	<b>67.8</b>	<b>59.8</b>	<b>53.8</b>	<b>39.8</b>	<b>33.8</b>	<b>31.8</b>	<b>25.8</b>	<b>25.0</b>
PSACR-F (dB) min	Standard	64.8	52.8	44.8	38.8	24.8	18.8	16.8	10.8	N/A
	<b>Typical</b>	<b>76.8</b>	<b>64.8</b>	<b>56.8</b>	<b>50.8</b>	<b>36.8</b>	<b>30.8</b>	<b>28.8</b>	<b>22.8</b>	<b>22.0</b>
Return Loss (dB) min	Standard	20.0	23.0	25.0	25.0	20.1	18.0	17.3	15.2	N/A
	<b>Typical</b>	<b>27.0</b>	<b>30.0</b>	<b>32.0</b>	<b>30.0</b>	<b>25.1</b>	<b>23.0</b>	<b>22.3</b>	<b>20.2</b>	<b>19.9</b>
PSANEXT (dB) min	Standard	67.0	67.0	67.0	67.0	62.5	58.0	56.5	52.0	N/A
	<b>Typical</b>	<b>72.0</b>	<b>72.0</b>	<b>72.0</b>	<b>72.0</b>	<b>67.5</b>	<b>63.0</b>	<b>61.5</b>	<b>57.0</b>	<b>56.4</b>
PSAACR-F (dB) min	Standard	67.0	66.2	58.2	52.2	38.2	32.2	30.2	24.2	N/A
	<b>Typical</b>	<b>73.0</b>	<b>72.2</b>	<b>64.2</b>	<b>58.2</b>	<b>44.2</b>	<b>38.2</b>	<b>36.2</b>	<b>30.2</b>	<b>29.4</b>

## 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	Field Test NVP Value	0.67
Segregation Class	Class C		

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## PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company AC6U-B2ca Cat 6A U/UTP EN 50399 EuroClass B2ca s1a d1 a1 NVP 0.67  
MADE IN UK [ID number] [Week/Year]

## STANDARD PACKAGING SPECIFICATIONS

Part Number	Packaging Length (m)	Color	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
AC6U-B2ca-500OR	500	Orange <sup>†</sup>	8.8	81.5	600 x 325	44.8	6
AC6U-B2ca-1000OR	1000	Orange <sup>†</sup>	8.8	81.5	750 x 405	90.8	2

<sup>†</sup>Also available in a range of non-standard colors

*“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.