

# Category 6<sub>A</sub> UTP EuroClass C<sub>ca</sub> Cables

Datasheet: GD103819v3

## APPLICATION

Brand-Rex AC6U cables exceeds the Category 6<sub>A</sub> performance standards. They are rated to 500MHz and are suitable for use in all Class E<sub>A</sub> structured wiring cable systems.

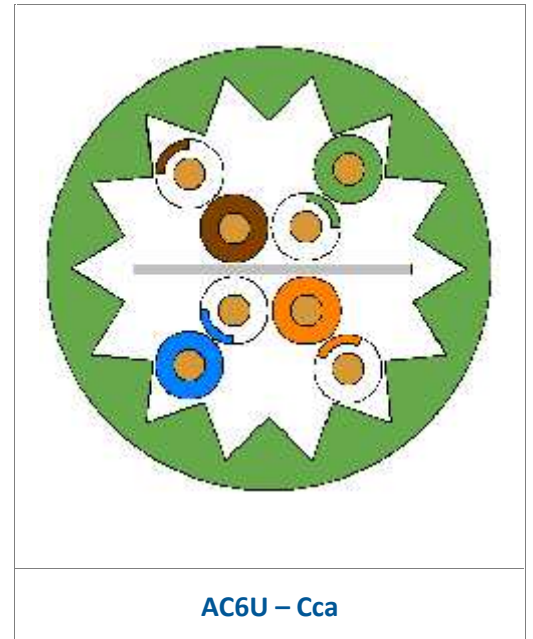
The UTP cable construction combines superior levels of pair balance with an innovative jacket profile specially designed to reduce alien crosstalk. The AC6U cable supports 10 Gigabit Ethernet, Gigabit Ethernet, Power over Ethernet, voice and broadband video transmissions at frequencies up to 500MHz.

## FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- Polyolefin core insulation
- Central separator – for increased internal crosstalk performance
- 4 unshielded twisted pairs cabled together
- Designed to support all Class E<sub>A</sub> protocols including 10GBASE-T
- Supports Power over Ethernet (PoE) and Power over Ethernet Plus (PoE+) Applications
- Meets the requirements of the Construction Products Regulation (CPR) EuroClass C<sub>ca</sub>
- Green† coloured HFFR-LS\* jacket to identify EuroClass level C<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

† Also available in a range of non-standard colours



## STANDARDS

Applicable Cable Standards: ANSI/TIA 568C.2

## REACTION TO FIRE

CHARACTERISTIC	STANDARD	RATING
Single Cable Flame Rating	IEC/EN 60332-1-2	Pass
Acid Gas Emission / Acidity	EN 50267-2-3	Pass
Classification	EN 13501-6	C <sub>ca</sub> s1 d1 a1

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## 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

## SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION
Velocity of Propagation	<538nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @100MHz
Characteristic Impedance (fitted)	100Ω +/- 15Ω

## ELECTRICAL PERFORMANCE

Frequency (MHz)	1	4	10	20	100	200	250	500
Insertion Loss (dB/100m) max.	2.1	3.8	5.9	8.4	19.1	27.6	31.1	45.3
NEXT (dB) min.	74.3	65.3	59.3	54.8	44.3	39.8	38.3	33.8
PSNEXT (dB) min.	72.3	63.3	57.3	52.8	42.3	37.8	36.3	31.8
ACR-F (dB) min.	67.8	55.8	47.8	41.8	27.8	21.8	19.8	13.8
PS ACR-F (dB/100m) min.	64.8	52.8	44.8	38.8	24.8	18.8	16.8	10.8
Return Loss (dB) min.	20.0	23.0	25.0	25.0	20.1	18.0	17.3	15.2
PSANEXT (dB) min.	67.0	67.0	67.0	67.0	62.5	58.0	56.5	52.0
PSAACR-F (dB) min.	67.0	66.2	58.2	52.2	38.2	32.2	30.2	24.2

## 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
Segregation Class	Class C		

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## STANDARD PACKAGING SPECIFICATIONS

Brand-Rex Part Number	Packaging Length (m)	Colour	Nominal Cable Diameter (mm)
AC6U-Cca-500GN1	500	Green†	7.9
AC6U-Cca-1000GN1	1000	Green†	7.9

† Also available in a range of non-standard colours

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*“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.