

Category 6 U/FTP EuroClass C_{ca} Cables

Datasheet: GD103546v3

Brand-Rex | a **LEVITON** company

APPLICATION

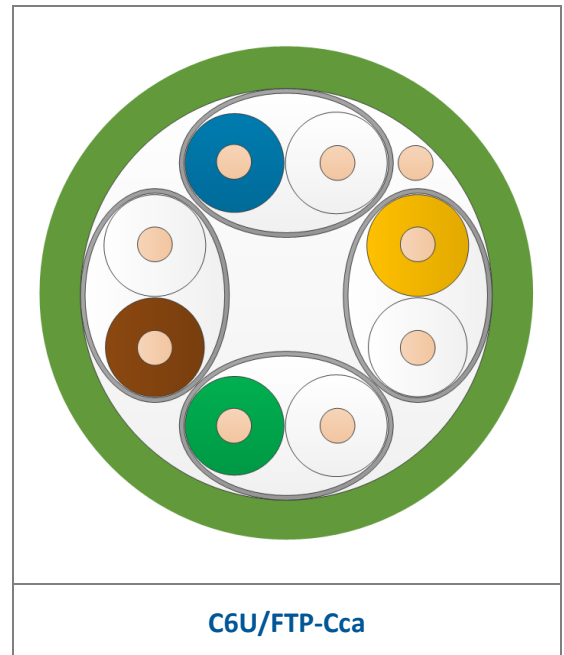
Brand-Rex Cat6Plus C6U/FTP cables exceed the Category 6 performance standards. They are specified to 250MHz and are suitable for use in all Class E structured wiring cable systems. The applications supported include 10 Gigabit Ethernet, Gigabit Ethernet, PoE and PoE+ and broadband video transmissions at frequencies up to 250MHz.

FEATURES AND BENEFITS

- 23 AWG Solid Annealed Copper Wire
- 4 Twisted Pairs Individually Screened and cabled together – providing EMI immunity
- Designed to Support all Class E protocols including Gigabit Ethernet
- Supports Power Over Ethernet (PoE) and Power Over Ethernet Plus (PoE+) applications
- Enhanced HFFR-LS* material meets the requirements of the Construction Products Regulation (CPR) EuroClass C_{ca}
- Green† Coloured Jacket to identify EuroClassification level C_{ca}
- 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: EN50288-5-1 and IEC 61156-5

REACTION TO FIRE

CHARACTERISTIC	STANDARD	RATING
Single Cable Flame Rating	IEC 60332-1-2	Pass
Bundled Cable Flame Rating	EN 50399 20.5kW source	C _{ca}
Smoke Production	EN 50399	s1a
Flaming Droplets / Particles	EN 50399	d1
Acid Gas Emission / Acidity	EN 50267-2-3	a1
EuroClassification	EN 13501-6	C _{ca} s1a d1 a1

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PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19 Ω / 100m	14Ω / 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	413nsec/100m @ 100MHz
Delay Skew	Max 25nsec/100m @ 100MHz	4nsec/100m @ 100MHz
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz	100Ω ± 3Ω @ 100MHz
Coupling Attenuation	Type 1b	75dB
Transfer Impedance	Grade 2	28mΩ/m @ 10MHz

ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	20	100	200	250	500	550
Insertion Loss (dB/100m)	Standard	2.1	3.8	6.0	8.5	19.9	29.1	33.0	na	na
	Typical	1.9	3.5	5.5	7.8	18.0	26.1	29.4	43.0	45.4
NEXT (dB)	Standard	66.0	65.3	59.3	54.8	44.3	39.8	38.3	na	na
	Typical	100.0	100.0	100.0	100.0	94.3	88.9	87.1	81.7	81.0
PSNEXT (dB)	Standard	64.0	63.3	57.3	52.8	42.3	37.8	36.3	na	na
	Typical	97.0	97.0	97.0	97.0	91.3	85.9	84.1	78.7	78.0
ELFEXT (dB/100m)	Standard	66.0	58.0	50.0	44.0	30.0	24.0	22.0	na	na
	Typical	90.0	90.0	90.0	84.8	70.8	64.8	62.8	56.8	56.0
PSELFEXT (dB/100m)	Standard	64.0	55.0	47.0	41.0	27.0	21.0	19.0	na	na
	Typical	87.0	87.0	87.0	81.8	67.8	61.8	59.8	53.8	53.0
Return Loss (dB)	Standard	na	23.0	25.0	25.0	20.1	18.0	17.3	na	na
	Typical	27.0	30.0	30.0	30.0	25.1	23.0	22.3	20.2	19.9
ACR (dB/100m)	Typical	98.1	96.5	94.5	92.2	76.3	62.8	57.7	38.7	35.6
PSACR (dB/100m)	Typical	95.1	93.5	91.5	89.2	73.3	59.8	54.7	35.7	32.6

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INSTALLATION

Temperature (<i>Installation</i>)	0°C to +50°C	Min Bend Radius (<i>Installation</i>)	8 x Outer Diameter
Temperature (<i>Operation</i>)	-20°C to +75°C	Min Bend Radius (<i>Operation</i>)	4 x Outer Diameter
Max Tensile Load (<i>Installation</i>)	10kg per simplex cable	Field Test NVP Value	0.80
Segregation Class	Class C		

PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company C6U/FTP-Cca Cat 6 U/FTP EN 50399 Euroclass Cca s1a d1 a1 NVP 0.80
MADE IN UK [ID number] [Week/Year]

STANDARD PACKAGING SPECIFICATIONS - REELS

Brand-Rex Part Number	Packaging Length (m)	Colour	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
C6U/FTP-Cca-500GN	500	Green†	6.7	44.5	400 x 390	24.7	12
C6U/FTP-Cca-1000GN	1000	Green†	6.7	44.5	600 x 325	50.5	6

STANDARD PACKAGING SPECIFICATIONS - BOXES

Brand-Rex Part Number	Packaging Length (m)	Colour	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Box Size L x W x H (mm)	Gross Weight (kg/Item)	Items Per Pallet
C6U/FTP-Cca-Rlx-305GN	305	Green†	6.7	44.5	475 x 295 x 475	14.6	12

†Also available in a range of non-standard colours

*“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.