

Category 6 UTP EuroClass D_{ca} Cables

Datasheet: GD103630v3

Brand-Rex a LEVITON[®] company

APPLICATION

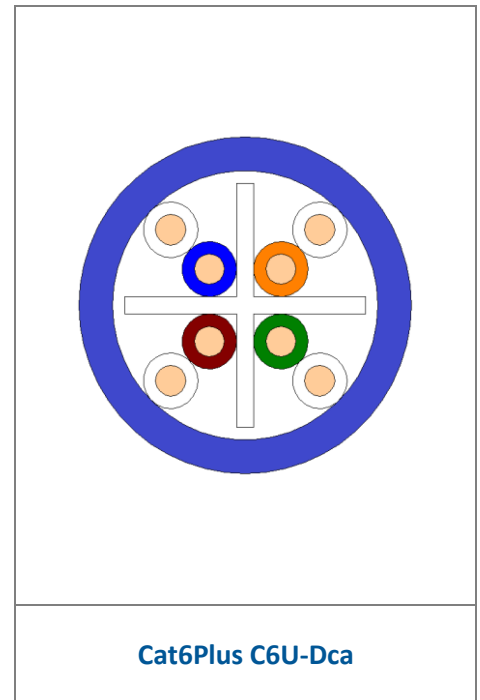
Brand-Rex Cat6Plus C6U cables exceed the Category 6 performance standards. They are rated to 250MHz and are suitable for use in all Class E structured wiring cable systems. The Cat6Plus C6U cable supports Gigabit Ethernet, PoE, PoE+, voice and broadband video transmissions at frequencies up to 250MHz.

FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- Polyolefin core Insulation
- Central cross filler – for increased internal crosstalk performance
- 4 unshielded twisted pairs cabled together
- Designed to support all class E protocols including Gigabit Ethernet
- Supports Power Over Ethernet (PoE) and Power Over Ethernet Plus (PoE+) applications
- HFFR-LS* material meets the requirements of the Construction Products Regulation (CPR) EuroClass D_{ca}
- Blue[†] coloured jacket to identify EuroClass level D_{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: IEC 61156-5 & EN 50288-6-1

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	D _{ca} s2 d2 a1

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

Category 6 UTP EuroClass D_{ca} Cables

Datasheet: GD103630v3

Brand-Rex a LEVITON company

SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Velocity of Propagation	<534nsec/100m @ 100MHz	490nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @100MHz	30nsec/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	2.1	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	86.5	77.5	71.5	67.0	56.5	52.0	50.5	46.0	45.4
PSNEXT (dB)	Standard	64.0	63.3	57.3	52.8	42.3	37.8	36.3	na	na
	Typical	84.5	75.5	69.5	65.0	54.5	50.0	48.5	44.0	43.4
ELFEXT (dB/100m)	Standard	66.0	58.0	50.0	44.0	30.0	24.0	22.0	na	na
	Typical	85.0	73.0	65.0	59.0	45.0	39.0	37.0	31.0	30.2
PSELFEXT (dB/100m)	Standard	64.0	55.0	47.0	41.0	27.0	21.0	19.0	na	na
	Typical	82.0	70.0	62.0	56.0	42.0	36.0	34.0	28.0	27.2
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	84.6	73.9	66.0	59.1	38.5	25.9	21.1	3.0	0.0
PSACR (dB/100m)	Typical	82.6	71.9	64.0	57.1	36.5	23.9	19.1	1.0	-2.0

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 per simplex cable	Field Test NVP Value	0.69
Segregation Class	Class B		

PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company C6U-Dca Cat 6 U/UTP EN 50399 EuroClass Dca s2 d2 a1 NVP 0.69
MADE IN UK [ID number] [Week/Year]

Category 6 UTP EuroClass D_{ca} Cables

Datasheet: GD103630v3

Brand-Rex | a LEVITON[®] company

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-Dca-500BU	500	Blue [†]	5.75	38.2	400 x 310	21.1	18
C6U-Dca-1000BU	1000	Blue [†]	5.75	38.2	465 x 390	40.5	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-Dca-Rlx-305BU	305	Blue [†]	5.75	38.2	405 x 265 x 405	11.6	27 or 18

[†]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 a Leviton Company reserves the right to modify details without notice in light of subsequent standard/specification changes and ongoing technical developments.