

Category 7 S/FTP EuroClass B2_{ca} Cables

Datasheet: GD103455v4

Brand-Rex | a **LEVITON** company

APPLICATION

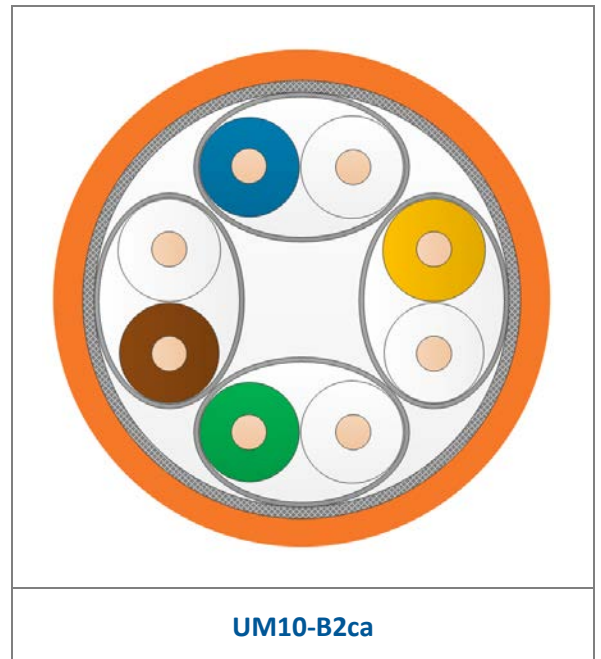
Brand-Rex UM10 cables exceed the Category 7 performance standards. They are specified to 600MHz and rated to 1000MHz and are suitable for use in all Class F structured wiring cable systems. The applications supported include 10 Gigabit Ethernet, Gigabit Ethernet, Power over Ethernet and broadband video transmissions at frequencies up to 600MHz.

FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- 4 twisted pairs individually screened and cabled together – providing EMI immunity
- Overall braided screen – for improved shielding efficiency, increased mechanical robustness and heat dissipation
- Designed to support all class F protocols including 10GBASE-T
- Supports Power over Ethernet (PoE) and Power over Ethernet plus (PoE+) applications
- Enhanced HFFR-LS* material enables the cable to meet the requirements of the Construction Products Regulation (CPR) EuroClass B2_{ca}
- Orange† coloured jacket to identify EuroClass level B2_{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 and EN50288-4-1

REACTION TO FIRE

CHARACTERISTIC	STANDARD	RATING
Single Cable Flame Rating	IEC 60332-1-2	Pass
Smoke Production	EN 61034	Pass
Acid Gas Emission / Acidity	EN 50267-2-3	Pass
Classification	EN 13501-6	B2 _{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 1	90dB
Transfer Impedance	Grade 1	8mΩ/m @ 10MHz

ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	100	200	250	500	600	1000
Insertion Loss (dB/100m)	Standard	2.0	3.6	5.7	18.5	26.8	30.2	44.1	48.9	na
	Typical	1.9	3.5	5.5	18.0	26.1	29.4	43.0	47.6	63.8
NEXT (dB)	Standard	80.0	80.0	80.0	72.4	67.9	66.5	61.9	60.8	na
	Typical	100.0	100.0	100.0	94.3	88.9	87.1	81.7	80.3	76.3
PSNEXT (dB)	Standard	77.0	77.0	77.0	69.4	64.9	63.5	58.9	57.8	na
	Typical	97.0	97.0	97.0	91.3	85.9	84.1	78.7	77.3	73.3
ELFEXT (dB/100m)	Standard	80.0	80.0	74.0	54.0	48.0	46.0	40.0	38.4	na
	Typical	90.0	90.0	90.0	70.8	64.8	62.8	56.8	55.2	50.8
PSELFEXT (dB/100m)	Standard	77.0	77.0	71.0	51.0	45.0	43.0	37.0	35.4	na
	Typical	87.0	87.0	87.0	67.8	61.8	59.8	53.8	52.2	47.8
Return Loss (dB)	Standard	Na	23.0	25.0	20.1	18.0	17.3	17.3	18.3	na
	Typical	27.0	30.0	30.0	25.1	23.0	22.3	20.2	19.7	18.1
ACR (dB/100m)	Typical	98.1	96.5	94.5	76.3	62.8	57.7	38.7	32.6	12.5
PSACR (dB/100m)	Typical	95.1	93.5	91.5	73.3	59.8	54.7	35.7	29.6	9.5

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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	0.80
Segregation Class	Class D		

PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company UM10-B2ca Cat 7 S/FTP EN 50399 EuroClass B2ca s1a d1 a1 NVP 0.80
MADE IN UK [ID number] [Week/Year]

STANDARD PACKAGING SPECIFICATIONS

Brand-Rex Part Number	Packaging Length (m)	Colour	Nominal Cable Dimensions (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
UM10-B2ca-500OR	500	Orange†	7.2	53.7	400 x 390	29.4	12
UM10-B2ca-1000OR	1000	Orange†	7.2	53.7	600 x 405	60.3	4
UM10-B2ca-D500OR††	500	Orange†	7.2 x 14.6	107.6	600 x 405	60.3	4

† Also available in a range of non-standard colours

†† Duplex cable

*“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.