

# Category 5e F/UTP Euroclass D<sub>ca</sub> Cables

Datasheet: GD103437v2

**Brand-Rex** a LEVITON company

## APPLICATION

The Brand-Rex GPF D<sub>ca</sub> cables are compliant with the European Construction Products Regulation, achieving Euroclass level D<sub>ca</sub> according to EN 13501-6. These D<sub>ca</sub> Euroclass cables also have superior levels of smoke emission, flaming droplets and acid gas production making them a versatile choice for many internal installations. The GPF D<sub>ca</sub> Euroclass cables are suited to many high density backbone installations where people safety in the case of fire is a high priority.

The Brand-Rex GPF cables exceed the Category 5e performance standards. They are rated to 100MHz and are suitable for use in all Class D structured wiring cable systems.

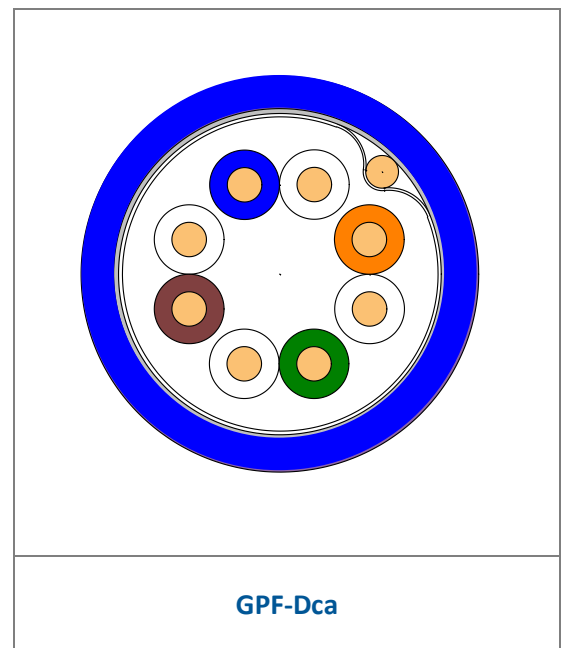
The GPF cable supports Gigabit Ethernet, PoE, PoE+ and voice transmissions at frequencies up to 100MHz.

## FEATURES AND BENEFITS

- 24 AWG Solid Annealed Copper Wire
- 4 Unshielded Twisted Pairs Cabled Together
- Aluminium Polyester screen
- Designed to Support all Class D protocols including Gigabit Ethernet
- Supports Power Over Ethernet (PoE / PoE+) Applications
- HFFR-LS\* jacket material meets the requirements of the Construction Products Regulation (CPR) Euroclass D<sub>ca</sub>
- Blue† Coloured Jacket to identify Euroclassification level D<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:** IEC 61156-5 and EN 50288-2-1

## REACTION TO FIRE

CHARACTERISTIC	STANDARD	RATING
Single Cable Flame Rating	IEC 60332-1-2	Pass
Bundled Cable Flame Rating	EN 50399 20.5kW source	D <sub>ca</sub>
Smoke Production	EN 50399	s2
Flaming Droplets / Particles	EN 50399	d1
Acid Gas Emission / Acidity	EN 50267-2-3	a1
Euroclassification	EN 13501-6	D <sub>ca</sub> s2 d1 a1

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## PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19Ω/100m	16Ω/100m
Conductor Resistance Unbalance	Max 2%	0.1%
Insulation Resistance	>5GΩ.km	>310GΩ.km
Dielectric Strength	2500 Vdc/2secs	Pass

## SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Propagation Delay	<534nsec/100m @ 100MHz	480nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @100MHz	11nsec/100m @100MHz
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz	100Ω +/- 3Ω @ 100MHz
Transfer Impedance	Grade 2	14mΩ/m @ 10MHz

## ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	16	20	31.25	100	200	250
Insertion Loss (dB/100m)	Standard	2.1	4.0	6.3	8.0	9.0	11.4	21.4	na	na
	<b>Typical</b>	<b>2.0</b>	<b>3.8</b>	<b>6.0</b>	<b>7.6</b>	<b>8.6</b>	<b>10.8</b>	<b>20.4</b>	<b>30.3</b>	<b>34.5</b>
NEXT (dB)	Standard	65.3	56.3	50.3	47.2	45.8	42.9	35.3	na	na
	<b>Typical</b>	<b>73.3</b>	<b>64.3</b>	<b>58.3</b>	<b>55.2</b>	<b>53.8</b>	<b>50.9</b>	<b>43.3</b>	<b>38.8</b>	<b>37.3</b>
PSNEXT (dB)	Standard	62.3	53.3	47.3	44.2	42.8	39.9	32.3	na	na
	<b>Typical</b>	<b>70.3</b>	<b>61.3</b>	<b>55.3</b>	<b>52.2</b>	<b>50.8</b>	<b>47.9</b>	<b>40.3</b>	<b>35.8</b>	<b>34.3</b>
ELFEXT (dB/100m)	Standard	63.8	51.8	43.8	39.7	37.8	33.9	23.8	na	na
	<b>Typical</b>	<b>78.8</b>	<b>66.8</b>	<b>58.8</b>	<b>54.7</b>	<b>52.8</b>	<b>48.9</b>	<b>38.8</b>	<b>32.8</b>	<b>30.8</b>
PSELFEXT (dB/100m)	Standard	60.8	48.8	40.8	36.7	34.8	30.9	20.8	na	na
	<b>Typical</b>	<b>76.8</b>	<b>64.8</b>	<b>56.8</b>	<b>52.7</b>	<b>50.8</b>	<b>46.9</b>	<b>36.8</b>	<b>30.8</b>	<b>28.8</b>
Return loss (dB)	Standard	na	23.0	25.0	25.0	25.0	23.6	20.1	na	na
	<b>Typical</b>	<b>25.0</b>	<b>28.0</b>	<b>30.0</b>	<b>30.0</b>	<b>30.0</b>	<b>28.6</b>	<b>25.1</b>	<b>23.0</b>	<b>22.3</b>
ACR (dB/100m)	<b>Typical</b>	<b>71.3</b>	<b>60.5</b>	<b>52.3</b>	<b>47.6</b>	<b>45.2</b>	<b>40.0</b>	<b>22.9</b>	<b>8.5</b>	<b>2.9</b>
PSACR (dB/100m)	<b>Typical</b>	<b>68.3</b>	<b>57.5</b>	<b>49.3</b>	<b>44.6</b>	<b>42.2</b>	<b>37.0</b>	<b>19.9</b>	<b>5.5</b>	<b>-0.1</b>

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## INSTALLATION

<b>Temperature (Installation)</b>	0°C to +50°C	<b>Min Bend Radius (Installation)</b>	8 x Outer Diameter
<b>Temperature (Operation)</b>	-20°C to +75°C	<b>Min Bend Radius (Operation)</b>	4 x Outer Diameter
<b>Max Tensile Load (Installation)</b>	10kg per simplex cable	<b>Field Test NVP Value</b>	0.68
<b>Segregation Class</b>	Class C		

## PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company GPF-Dca Cat 5e F/UTP EN 50399 Euroclass Dca s2 d1 a1 NVP 0.68  
MADE IN UK [ID number] [Week/Year]

## STANDARD PACKAGING SPECIFICATIONS

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
GPF-Dca-500BU	500	Blue†	6.1	40.0	400 x 315	22.0	18
GPF-Dca-1000BU	1000	Blue†	6.1	40.0	465 x 390	43.1	6

†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.