

# Category 5e F/UTP EuroClass Dca Cables



Datasheet: GD103437v6

## APPLICATION

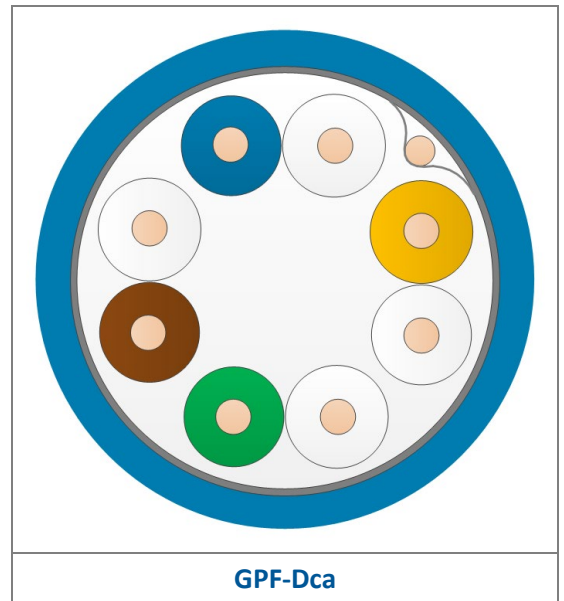
Leviton Category 5e F/UTP cables exceed the Category 5e performance standards. They are rated to 100MHz and are suitable for use in all Class D structured wiring cable systems. Category 5e F/UTP cables support Gigabit Ethernet, Power over Ethernet, and voice transmissions at frequencies up to 100MHz.

## FEATURES AND BENEFITS

- 24 AWG solid annealed copper wire
- 4 unshielded twisted pairs cabled together
- Aluminum polyester screen
- Designed to support all Class D protocols including Gigabit Ethernet
- HFFR-LS\* jacket material meets the requirements of the Construction Products Regulation (CPR) EuroClass Dca
- Blue† jacket to identify EuroClass level Dca
- Included in the Leviton Limited 25-Year System Warranty when used in conjunction with Leviton copper connectivity. System warranties are available for qualified projects installed by certified contractors

\* Halogen Free Flame Retardant – Low Smoke

† Also available in a range of non-standard colors



## STANDARDS

- Designed and constructed to give optimum electrical performance to the following standards:
  - ISO/IEC 11801 Class D, IEC 61156-5
  - EN50173-1 and EN 50288-2-1
  - ANSI/TIA 568.2-D
- Supports Gigabit Ethernet
- Supports Power over Ethernet (PoE) and Power over Ethernet Plus (PoE+) applications

## REACTION TO FIRE

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

# Category 5e F/UTP EuroClass Dca Cables



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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	N/A	N/A
	<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	N/A	N/A
	<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	N/A	N/A
	<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	N/A	N/A
	<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	N/A	N/A
	<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	N/A	23.0	25.0	25.0	25.0	23.6	20.1	N/A	N/A
	<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>

## 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	Field Test NVP Value	0.68
Segregation Class	Class C		

# Category 5e F/UTP EuroClass Dca Cables



Datasheet: GD103437v6

## STANDARD PACKAGING SPECIFICATIONS

Part Number	Packaging Length (m)	Color	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 colors

## COUNTRY OF ORIGIN

COO: United Kingdom

*“Leviton is **dedicated to designing, developing, and manufacturing** sustainable **high performance** structured cabling and specialty **cabling solutions.**”*

The information contained in this document is valid and correct at the time of issue. Leviton reserves the right to modify details without notice in light of subsequent standard/specification changes and ongoing technical developments.

# Category 5e U/UTP EuroClass Dca Cables

Datasheet: GD103609v8



## APPLICATION

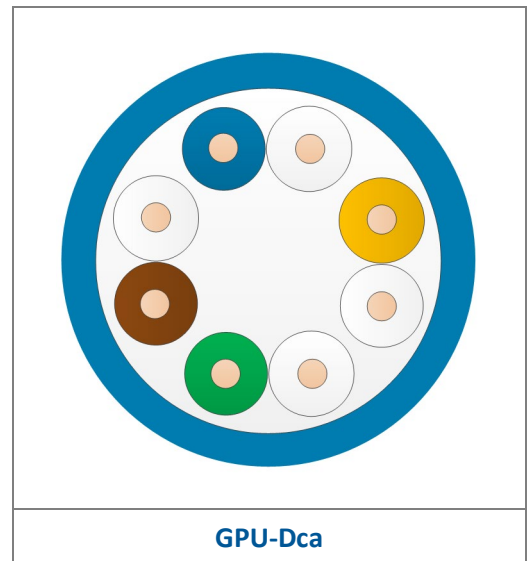
Leviton Category 5e U/UTP cables exceed Category 5e performance standards. They are rated to 100MHz and are suitable for use in all Class D structured wiring cable systems. Category 5e U/UTP cables support Gigabit Ethernet, Power over Ethernet, and voice transmissions at frequencies up to 100MHz.

## FEATURES AND BENEFITS

- 24 AWG solid annealed copper wire
- 4 unshielded twisted pairs cabled together
- Blue† HFFR-LS\* jacket enables the cable to meet the requirements of the Construction Products Regulation (CPR) EuroClass Dca
- Included in the Leviton Limited 25-Year System Warranty when used in conjunction with Leviton copper connectivity. System warranties are available for qualified projects installed by certified contractors

\* Halogen Free Flame Retardant – Low Smoke

† Also available in a range of non-standard colors



## STANDARDS

- Designed and constructed to give optimum electrical performance to the following standards:
  - ISO/IEC 11801 Class D, IEC 61156-2
  - EN50173-1 and EN 50288-3-1#
  - ANSI/TIA 568.2-D
- Supports Gigabit Ethernet
- Supports Power over Ethernet (PoE) and Power over Ethernet Plus (PoE+) applications

## REACTION TO FIRE

CHARACTERISTIC	IEC STANDARD	EN STANDARD	CPR RATING
Classification / EuroClass	-	EN 13501-6	Dca s2 d2 a1
Single Cable Flame Rating	IEC 60332-1-2	EN 60332-1-2	Pass
Smoke Emission	-	EN 50399	s2
Acid Gas Emission	IEC 60754	EN 60754	Pass

# Category 5e U/UTP EuroClass Dca Cables

Datasheet: GD103609v8



## PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19 Ω/100m	18 Ω/100m
Conductor Resistance Unbalance	Max 2%	0.1%
Insulation Resistance	>5GΩ.km	>45GΩ.km
Dielectric Strength	2500 Vdc/2secs	Pass

## SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Propagation Delay	<534nsec/100m @ 100MHz	487nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @100MHz	38nsec/100m @100MHz
Mean Characteristic Impedance	100Ω ± 5Ω @ 100MHz	100Ω ± 3Ω @ 100MHz
Transverse Conversion Loss (TCL)	≥50-10log(f)dB	65dB @ 10MHz

## ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	16	20	31.25	100	200	250
Insertion Loss (dB/100m)	Standard	2.0	4.1	6.5	8.2	9.3	11.7	22.0	N/A	N/A
	<b>Typical</b>	<b>1.9</b>	<b>3.8</b>	<b>6.0</b>	<b>7.7</b>	<b>8.6</b>	<b>10.9</b>	<b>20.6</b>	<b>30.4</b>	<b>34.6</b>
NEXT (dB)	Standard	65.3	56.3	50.3	47.2	45.8	42.9	35.3	N/A	38.3
	<b>Typical</b>	<b>76.8</b>	<b>67.8</b>	<b>61.8</b>	<b>58.7</b>	<b>57.3</b>	<b>54.4</b>	<b>46.8</b>	<b>42.3</b>	<b>40.8</b>
PSNEXT (dB)	Standard	62.3	53.3	47.3	44.2	42.8	39.9	32.3	N/A	N/A
	<b>Typical</b>	<b>73.8</b>	<b>64.8</b>	<b>58.8</b>	<b>55.7</b>	<b>54.3</b>	<b>51.4</b>	<b>43.8</b>	<b>39.3</b>	<b>37.8</b>
ELFEXT (dB)	Standard	63.8	51.8	43.8	39.7	37.8	33.9	23.8	N/A	N/A
	<b>Typical</b>	<b>81.4</b>	<b>69.4</b>	<b>61.4</b>	<b>57.3</b>	<b>55.4</b>	<b>51.5</b>	<b>41.4</b>	<b>35.4</b>	<b>33.4</b>
PSELFEXT (dB)	Standard	60.8	48.8	40.8	36.7	34.8	30.9	20.8	N/A	N/A
	<b>Typical</b>	<b>78.4</b>	<b>66.4</b>	<b>58.4</b>	<b>54.3</b>	<b>52.4</b>	<b>48.5</b>	<b>38.4</b>	<b>32.4</b>	<b>30.4</b>
Return Loss (dB)	Standard	20.0	23.0	25.0	25.0	25.0	23.6	20.1	N/A	N/A
	<b>Typical</b>	<b>24.8</b>	<b>27.8</b>	<b>29.8</b>	<b>29.8</b>	<b>29.8</b>	<b>28.4</b>	<b>24.9</b>	<b>22.8</b>	<b>22.1</b>
ACR (dB)	<b>Typical</b>	<b>74.9</b>	<b>64.0</b>	<b>55.8</b>	<b>51.1</b>	<b>48.7</b>	<b>43.4</b>	<b>26.2</b>	<b>11.9</b>	<b>6.2</b>
PSACR (dB)	<b>Typical</b>	<b>71.9</b>	<b>61.0</b>	<b>52.8</b>	<b>48.1</b>	<b>45.7</b>	<b>40.4</b>	<b>23.2</b>	<b>8.9</b>	<b>3.2</b>

## INSTALLATION

Temperature (Installation)	0°C to +50°C
Temperature (Operation)	-20°C to +75°C
Max Tensile Load (Installation)	10kg
Segregation Class	Class B

Min Bend Radius (Installation)	8 x Outer Diameter
Min Bend Radius (Operation)	4 x Outer Diameter
Field Test NVP Value	0.69

# Category 5e U/UTP EuroClass Dca Cables

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## STANDARD PACKAGING SPECIFICATIONS - REELS

Part Number	Packaging Length (m)	Color	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
GPU-Dca-500BU	500	Blue†	5.05	32.2	400 x 400 x 210	17.6	24
GPU-Dca-1000BU	1000	Blue†	5.05	32.2	400 x 400 x 390	34.7	12

## STANDARD PACKAGING SPECIFICATIONS - BOXES

Part Number	Packaging Length (m)	Color	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Box Size L x W x H (mm)	Gross Weight (kg/Item)	Items Per Pallet
GPU-Dca-Rlx-305BU	305	Blue†	5.05	32.2	365 x 250 x 365	9.9	27 or 18 ††

† Also available in a range of non-standard colors

†† Double or single stack pallets

## COUNTRY OF ORIGIN

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