

# Category 6 U/UTP EuroClass Eca Cables

Datasheet: GD102051v19



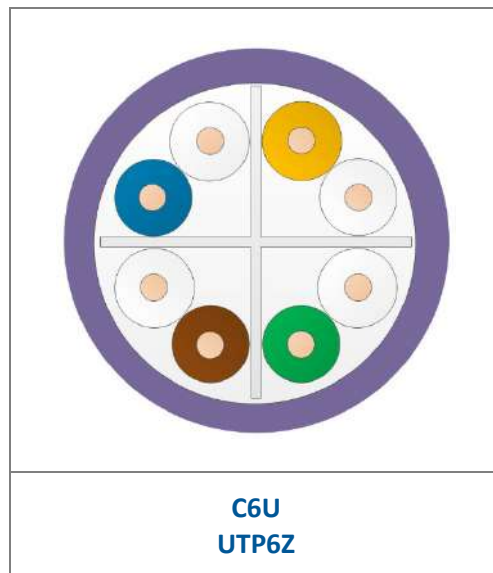
## APPLICATION

Leviton Category 6 U/UTP cables exceed Category 6 performance standards. They are rated to 250MHz and are suitable for use in all Class E structured wiring cable systems. Category 6 U/UTP cables support Gigabit Ethernet, Power over Ethernet, voice, and broadband video transmissions at frequencies up to 250MHz.

## FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- 4 unshielded twisted pairs cabled together
- Central separator for increased internal crosstalk performance
- HFFR-LS\* jacket enables the cable to meet the requirements of the Construction Products Regulation (CPR) EuroClass Eca
- CE and UKCA marked for CPR
- Included in the Leviton Limited 25-Year System Warranties when used in conjunction with Leviton copper connectivity. System warranties are available for qualified projects installed by certified contractors
- Designed and manufactured in a carbon neutral facility in the UK
- Reel and box packaging are 100% recyclable

\* Halogen Free Flame Retardant – Low Smoke



## STANDARDS

- Designed and constructed to give optimum electrical performance to the following standards:
  - ISO/IEC 11801 Class E, IEC 61156-5
  - EN50173-1 and EN 50288-6-1
  - ANSI/TIA 568.2-D
- Supports Gigabit Ethernet
- Recommended for PoE standards:
  - IEEE 802.3bt PoE Type 1 (15.4 Watts) formerly 802.3af
  - IEEE 802.3bt PoE Type 2 (30 Watts) formerly 802.3at
  - IEEE 802.3bt PoE Type 3 (60 Watts)
  - IEEE 802.3bt PoE Type 4 (90 Watts)
  - Exceeds IEEE 802.3bt standard up to 0.5 amps per conductor (100 watts) continuously
  - Cisco UPoE (60 Watts)
  - Cisco UPoE+ (90 Watts)
  - Power over HDBaseT™ PoH (95 Watts)

## REACTION TO FIRE

Material Identifier	HF1
Material Description	Standard HFFR-LS
Flammability Rating	IEC/EN 60332-1-2
Classification / EuroClass	Eca

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## 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

## SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Velocity of Propagation	<534nsec/100m @ 100MHz	490nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @100MHz	25nsec/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	2.0	3.8	6.0	8.5	19.8	29.0	32.8	N/A	N/A
	<b>Typical</b>	<b>1.7</b>	<b>3.5</b>	<b>5.6</b>	<b>8.0</b>	<b>18.9</b>	<b>27.6</b>	<b>31.1</b>	<b>43.0</b>	<b>45.4</b>
NEXT (dB)	Standard	75.3	66.3	60.3	55.8	45.3	40.8	39.3	N/A	N/A
	<b>Typical</b>	<b>91.0</b>	<b>91.5</b>	<b>86.0</b>	<b>80.4</b>	<b>69.2</b>	<b>64.0</b>	<b>64.1</b>	<b>46.0</b>	<b>45.4</b>
PSNEXT (dB)	Standard	72.3	63.3	57.3	52.8	42.3	37.8	36.3	N/A	N/A
	<b>Typical</b>	<b>83.7</b>	<b>84.2</b>	<b>78.0</b>	<b>71.9</b>	<b>61.9</b>	<b>57.3</b>	<b>57.0</b>	<b>44.0</b>	<b>43.4</b>
ACR-F (dB)	Standard	67.8	58.0	50.0	44.0	30.0	24.0	22.0	N/A	N/A
	<b>Typical</b>	<b>91.2</b>	<b>83.7</b>	<b>75.8</b>	<b>68.2</b>	<b>52.3</b>	<b>47.8</b>	<b>45.0</b>	<b>31.0</b>	<b>30.2</b>
PSACR-F (dB)	Standard	64.8	55.0	47.0	42.0	27.0	21.0	19.0	N/A	N/A
	<b>Typical</b>	<b>84.8</b>	<b>76.4</b>	<b>68.4</b>	<b>61.4</b>	<b>46.4</b>	<b>42.4</b>	<b>39.6</b>	<b>28.0</b>	<b>27.2</b>
Return Loss (dB)	Standard	20.0	23.0	25.0	25.0	20.1	18.0	17.3	N/A	N/A
	<b>Typical</b>	<b>34.0</b>	<b>36.5</b>	<b>39.1</b>	<b>41.6</b>	<b>37.1</b>	<b>31.3</b>	<b>30.2</b>	<b>20.2</b>	<b>19.9</b>

- The standard values shown are the most demanding taken from across the relevant IEC, TIA and EN specifications. These standards values are the maximum permissible for Insertion loss and the minimum permissible for other parameters.
- N/A = Not applicable

## 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		

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## STANDARD PACKAGING SPECIFICATIONS - REELS

Part Number	Alternative** Part Number	Packaging Length (m)	Color	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)	Reel Size Flange Diameter x Width (mm)	Gross Weight (kg/Item)	Items Per Pallet
C6U-HF1-Eca-500WH	128-UTP6Z-5WS	500	White	5.8	39.7	400 x 310	21.9	18
C6U-HF1-Eca-500VT	129-UTP6Z-5VS	500	Violet	5.8	39.7	400 x 310	21.9	18
C6U-HF1-Eca-1000VT*	-	1000	Violet	5.8	39.7	465 x 390	42.7	6
C6U-HF1-Eca-D500VT*	-	500	Violet	11.6 x 5.8	79.4	465 x 390	42.7	6

\* Only available in Europe and the Middle East regions

\*\* May be ordered using alternative part number in some regions

|| 'D' denotes Duplex Cable

## STANDARD PACKAGING SPECIFICATIONS - BOXES

Part Number	Alternative** 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 Double Pallet
C6U-HF1-Eca-Rlx-305VT*	125-UTP6Z-MVB <sup>γ</sup>	305	Violet	5.8	39.7	405 x 265 x 372	12.8	27 + 18 <sup>§</sup>
C6U-HF1-Eca-Rlx-305GY*	121-UTP6Z-MSB <sup>γ</sup>	305	Gray	5.8	39.7	405 x 265 x 372	12.8	27 + 18 <sup>§</sup>
C6U-HF1-Eca-Rlx-305WH*	122-UTP6Z-MWB <sup>γ</sup>	305	White	5.8	39.7	405 x 265 x 372	12.8	27 + 18 <sup>§</sup>
C6U-HF1-Eca-Rlx-305BU*	120-UTP6Z-MLB <sup>γ</sup>	305	Blue	5.8	39.7	405 x 265 x 372	12.8	27 + 18 <sup>§</sup>

\* Only available in Europe and the Middle East regions

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<sup>§</sup> Standard double stacked pallet configuration (lower + upper)

<sup>γ</sup> When supplied to Americas – 2 upper pallets are supplied double stacked

## 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.