

# Category 6 U/UTP EuroClass Eca Cables

Datasheet: GD102051v11



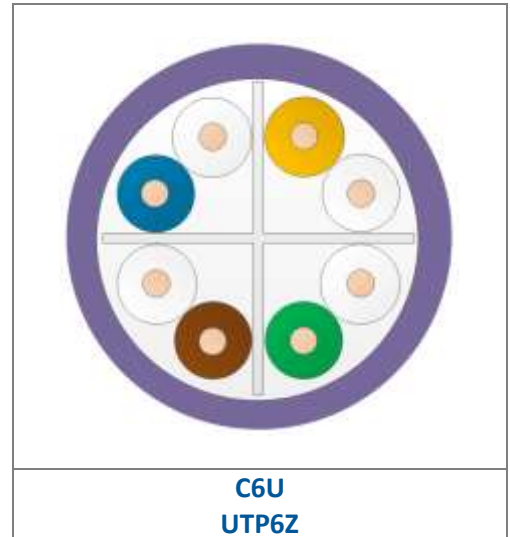
## APPLICATION

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 cable to meet the requirements of the Construction Products Regulation (CPR) EuroClass Eca
- 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
- Delivered in 100% recyclable packaging

\* 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 802.3af, 802.3at, 802.3bt, Cisco UPoE, and Power over HDBaseT™ (PoH) up to 100 watts

## MATERIAL PERFORMANCE

Material Identifier	HF1
Material Description	Standard HFFR-LS
Flammability Rating	IEC/EN 60332-1-2
Reaction to Fire 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	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	N/A	N/A
	<b>Typical</b>	<b>1.9</b>	<b>3.5</b>	<b>5.5</b>	<b>7.8</b>	<b>18.0</b>	<b>26.1</b>	<b>29.4</b>	<b>43.0</b>	<b>45.4</b>
NEXT (dB)	Standard	66.0	65.3	59.3	54.8	44.3	39.8	38.3	N/A	N/A
	<b>Typical</b>	<b>86.5</b>	<b>77.5</b>	<b>71.5</b>	<b>67.0</b>	<b>56.5</b>	<b>52.0</b>	<b>50.5</b>	<b>46.0</b>	<b>45.4</b>
PSNEXT (dB)	Standard	64.0	63.3	57.3	52.8	42.3	37.8	36.3	N/A	N/A
	<b>Typical</b>	<b>84.5</b>	<b>75.5</b>	<b>69.5</b>	<b>65.0</b>	<b>54.5</b>	<b>50.0</b>	<b>48.5</b>	<b>44.0</b>	<b>43.4</b>
ACR-F (dB)	Standard	66.0	58.0	50.0	44.0	30.0	24.0	22.0	N/A	N/A
	<b>Typical</b>	<b>85.0</b>	<b>73.0</b>	<b>65.0</b>	<b>59.0</b>	<b>45.0</b>	<b>39.0</b>	<b>37.0</b>	<b>31.0</b>	<b>30.2</b>
PSACR-F (dB)	Standard	64.0	55.0	47.0	41.0	27.0	21.0	19.0	N/A	N/A
	<b>Typical</b>	<b>82.0</b>	<b>70.0</b>	<b>62.0</b>	<b>56.0</b>	<b>42.0</b>	<b>36.0</b>	<b>34.0</b>	<b>28.0</b>	<b>27.2</b>
Return Loss (dB)	Standard	N/A	23.0	25.0	25.0	20.1	18.0	17.3	N/A	N/A
	<b>Typical</b>	<b>27.0</b>	<b>30.0</b>	<b>30.0</b>	<b>30.0</b>	<b>25.1</b>	<b>23.0</b>	<b>22.3</b>	<b>20.2</b>	<b>19.9</b>
ACR (dB)	<b>Typical</b>	<b>84.6</b>	<b>73.9</b>	<b>66.0</b>	<b>59.1</b>	<b>38.5</b>	<b>25.9</b>	<b>21.1</b>	<b>3.0</b>	<b>0.0</b>
PSACR (dB)	<b>Typical</b>	<b>82.6</b>	<b>71.9</b>	<b>64.0</b>	<b>57.1</b>	<b>36.5</b>	<b>23.9</b>	<b>19.1</b>	<b>1.0</b>	<b>-2.0</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 per simplex cable	Field Test NVP Value	0.69
Segregation Class	Class B		

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## PRINT LEGEND

Example print legend UTP6Z Parts:

[Length Mark]m LEVITON UTP6Z BRAND-REX C6U-HF1-Eca Cat 6 4 PAIR 23AWG HFFR IEC 60332-1-2 EuroClass Eca NVP 0.69  
MADE IN UK [ID number] [Week/Year]

Example print legend C6U Parts:

[Length Mark]m BRAND-REX a LEVITON company C6U-HF1-Eca Cat 6 U/UTP IEC 60332-1-2 EuroClass Eca NVP 0.69 MADE IN UK  
[ID number] [Week/Year]

## STANDARD PACKAGING SPECIFICATIONS - REELS

Brand-Rex Part Number	Leviton 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	37.5	400 x 310	20.8	18
C6U-HF1-Eca-500VT	129-UTP6Z-5VS	500	Violet	5.8	37.5	400 x 310	20.8	18
C6U-HF1-Eca-1000VT*	-	1000	Violet	5.8	37.5	465 x 390	40.5	6
C6U-HF1-Eca-D500VT*	-	500	Violet	11.6 x 5.8	75.0	465 x 390	40.5	6
C6U-HF1-Eca-D1000VT*	-	1000	Violet	11.6 x 5.8	75.0	750 x 410	84.3	2
C6U-HF1-X-500BK*	-	500	Black	7.0	48.7	400 x 390	26.8	12
C6U-HF1-X-1000BK*	-	1000	Black	7.0	48.7	600 x 405	55.2	4

\* Only available in Europe and Middle East regions

|| 'D' denotes duplex cable

## STANDARD PACKAGING SPECIFICATIONS - BOXES

Brand-Rex Part Number	Leviton 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	37.5	405 x 265 x 405	11.4	27 + 18 <sup>§</sup>
C6U-HF1-Eca-Rlx-305GY*	121-UTP6Z-MSB <sup>γ</sup>	305	Grey	5.8	37.5	405 x 265 x 405	11.4	27 + 18 <sup>§</sup>
C6U-HF1-Eca-Rlx-305WH*	122-UTP6Z-MWB <sup>γ</sup>	305	White	5.8	37.5	405 x 265 x 405	11.4	27 + 18 <sup>§</sup>
C6U-HF1-Eca-Rlx-305BU*	120-UTP6Z-MLB <sup>γ</sup>	305	Blue	5.8	37.5	405 x 265 x 405	11.4	27 + 18 <sup>§</sup>

\* Only available in Europe and Middle East regions

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

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

*“Leviton 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. Leviton reserves the right to modify details without notice in light of subsequent standard/specification changes and ongoing technical developments.