Category 6A U/UTP Reuleaux Eca Cables

Datasheet: GD102398v10

APPLICATION

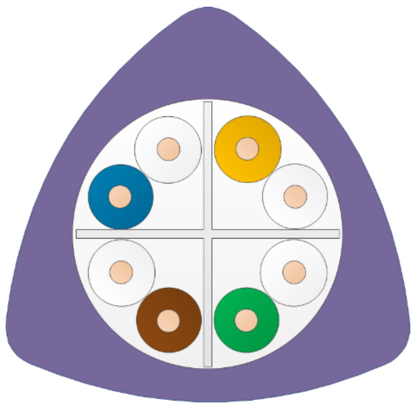
Leviton Category 6A U/UTP cables exceed Category 6A performance standards. They are rated to 500MHz and are suitable for use in all Class E_A structured wiring cable systems.

The U/UTP cable construction combines superior levels of pair balance with an innovative finished cable geometry specially designed to reduce alien crosstalk. U/UTP cables support 10 Gigabit Ethernet, Gigabit Ethernet, Power over Ethernet, voice and broadband video transmissions at frequencies up to 500MHz.

FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- 4 unshielded twisted pairs
- Central separator for excellent internal crosstalk performance
- Patented Reuleaux profile – offering superior alien crosstalk performance
- HFFR-LS* sheath enables cable to meet the requirements of the Construction Products Regulation (CPR) EuroClass Eca
- 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*



AC6U

STANDARDS

- Designed and constructed to give optimum electrical performance to the following standards:
    - ISO/IEC 11801 Class E_A, IEC 61156-5
    - EN50173-1 and EN 50288-11-1
    - ANSI/TIA 568C.2
- Supports 10GBASE-T
- Meets the design requirements of 802.11ac wireless
- Recommended for PoE standards: IEEE 802.3af, 802.3at, 802.3bt, Cisco UPoE, and Power over HDBaseT™ (PoH) up to 100 watts

FIRE CLASSIFICATION

Material Identifier	HF1
Material Description	Standard HFFR-LS
Single Cable Flame Rating	IEC/EN 60332-1-2
Reaction to Fire Classification/EuroClass	Eca

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LEVITON

PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19 Ω/100m	15 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	515nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @100MHz	17.5nsec/100m @ 100MHz
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz	100Ω ± 3Ω @ 100MHz
Transverse Conversion Loss (TCL)	≥60-10log(f)dB	65dB @ 10MHz

ELECTRICAL PERFORMANCE

Frequency (MHz)		1	4	10	20	100	200	250	500	550
Insertion Loss (dB/100m)	Standard	2.0	3.7	5.9	8.3	19.0	27.5	31.0	45.3	N/A
	Typical	***2.0***	***3.6***	***5.7***	***8.1***	***18.5***	***26.8***	***30.2***	***44.1***	***46.5***
NEXT (dB)	Standard	74.3	65.3	59.3	54.8	44.3	39.8	38.3	33.8	N/A
	Typical	***84.3***	***75.3***	***69.3***	***64.8***	***54.3***	***49.8***	***48.3***	***43.8***	***43.2***
PSNEXT (dB)	Standard	72.3	63.3	57.3	52.8	42.3	37.8	36.3	31.8	N/A
	Typical	***82.3***	***73.3***	***67.3***	***62.8***	***52.3***	***47.8***	***46.3***	***41.8***	***41.2***
ELFEXT (dB/100m)	Standard	67.8	55.8	47.8	41.8	27.8	21.8	19.8	13.8	N/A
	Typical	***79.8***	***67.8***	***59.8***	***53.8***	***39.8***	***33.8***	***31.8***	***25.8***	***25.0***
PSELFEXT (dB/100m)	Standard	64.8	52.8	44.8	38.8	24.8	18.8	16.8	10.8	N/A
	Typical	***76.8***	***64.8***	***56.8***	***50.8***	***36.8***	***30.8***	***28.8***	***22.8***	***22.0***
Return Loss (dB)	Standard	20.0	23.0	25.0	25.0	20.1	18.0	17.3	15.2	N/A
	Typical	***27.0***	***30.0***	***32.0***	***30.0***	***25.1***	***23.0***	***22.3***	***20.2***	***19.9***
PSANEXT (dB)	Standard	67.0	67.0	67.0	67.0	62.5	58.0	56.5	52.0	N/A
	Typical	***72.0***	***72.0***	***72.0***	***72.0***	***67.5***	***63.0***	***61.5***	***57.0***	***56.4***
PSAACR-F (dB)	Standard	67.0	66.2	58.2	52.2	38.2	32.2	30.2	24.2	N/A
	Typical	***73.0***	***72.2***	***64.2***	***58.2***	***44.2***	***38.2***	***36.2***	***30.2***	***29.4***

INSTALLATION

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

Min Bend Radius *(Installation)*	8 x Outer Diameter
Min Bend Radius *(Operation)*	4 x Outer Diameter
Field Test NVP Value	0.67

PRINT LEGEND

Example print legend:

[Length Mark]m BRAND-REX a LEVITON company AC6U-HF1-Eca Cat 6A U/UTP IEC 60332-1-2 EuroClass Eca NVP 0.67 MADE IN UK [ID number] [Week/Year]

STANDARD PACKAGING SPECIFICATIONS

Part Number	Nominal Cable Diameter *(mm)*	Nominal Cable Weight (kg/km)	Color *	Reel Size *Flange x Width (mm)*	Gross Weight *(kg/Item)*	Items Per Pallet
AC6U-HF1-Eca-500VT†	8.8	82.3	Violet	600 x 325	47.2	6
AC6U-HF1-Eca-1000VT‡	8.8	82.3	Violet	750 x 405	91.6	2

†500 = 500m length
‡1000 = 1000m length

**Also available in a range of non-standard colors*

*"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.