# Category 6A U/UTP Reuleaux EuroClass Dca Cables

Datasheet: GD103608v5

## 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 EA structured wiring cable systems.

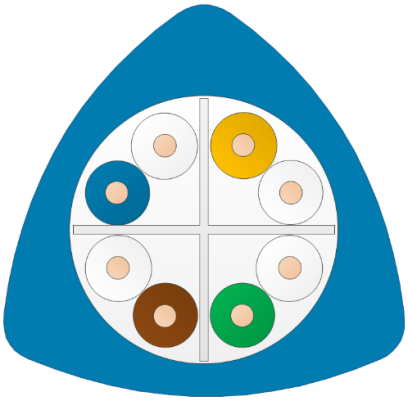
The U/UTP cable construction combines superior levels of pair balance with an innovative finished cable geometry specially designed to reduce alien crosstalk. Category 6A U/UTP cables support 10 Gigabit Ethernet, Gigabit Ethernet, Power over Ethernet, voice and broadband video transmissions at frequencies 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
- Blue† HFFR-LS* sheath enables 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*



**AC6U-Dca**

## STANDARDS

- Designed and constructed to give optimum electrical performance to the following standards:
  - ISO/IEC 11801 Class EA, 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

| CHARACTERISTIC | IEC STANDARD | EN STANDARD | CPR RATING |
|---|---|---|---|
| Reaction to Fire 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 6A U/UTP Reuleaux EuroClass Dca Cables

Datasheet: GD103608v5

## 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-Dca Cat 6A U/UTP EN 50399 EuroClass Dca s2 d2 a1 NVP 0.67 MADE IN UK [ID number] [Week/Year]**

## 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 |
|---|---|---|---|---|---|---|---|
| AC6U-Dca-500BU | 500 | Blue† | 8.8 | 82.3 | 600 x 325 | 47.2 | 6 |
| AC6U-Dca-1000BU | 1000 | Blue† | 8.8 | 82.3 | 750 x 405 | 91.3 | 2 |

†*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**"*