## **Category 7A S/FTP EuroClass Dca Cables**

### Datasheet: GD103888v5

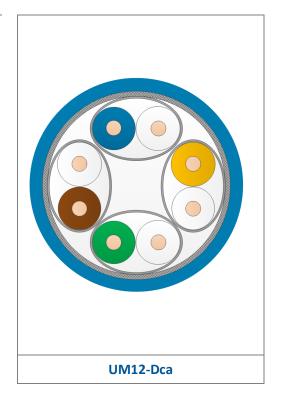
#### APPLICATION

Leviton Category 7A S/FTP cables exceed Category 7A performance standards. They are specified to 1000MHz and rated to 1200MHz and are suitable for use in all Class F<sub>A</sub> structured wiring cable systems. The applications supported include 10 Gigabit Ethernet, Gigabit Ethernet, Power over Ethernet, and broadband video transmissions at frequencies up to 1000MHz.

#### **FEATURES AND BENEFITS**

- 22 AWG solid annealed copper wire
- Gas injection foamed polyolefin core insulation offering superior signal speed
- 4 twisted pairs individually screened and cabled together providing EMI immunity
- Pairs color coded in accordance with EN 50288-1
- Overall braided screen for improved shielding efficiency, increased mechanical robustness and heat dissipation
- Blue<sup>+</sup> HFFR-LS<sup>\*</sup> jacket enables the cable to meet the requirements of the Construction Products Regulation (CPR) EuroClass Dca
- Designed to support all Class F<sub>A</sub> protocols including 10GBASE-T
- 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



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#### **STANDARDS**

- Designed and constructed to give optimum electrical performance to the following standards:
  - ISO/IEC 11801 Class FA, IEC 61156-5
  - EN50173-1 and EN 50288-9-1
- Meets the design requirements of 802.11ac wireless
- 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)
  - Cisco UPoE (60 Watts)
  - Cisco UPoE+ (90 Watts)
  - Power over HDBaseT<sup>™</sup> PoH (95 Watts)

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#### **REACTION TO FIRE**

| CHARACTERISTIC             | STANDARD         | RATING        |  |  |
|----------------------------|------------------|---------------|--|--|
| Single Cable Flame Rating  | IEC/EN 60332-1-2 | Pass          |  |  |
| Smoke Production           | EN 61034         | Pass          |  |  |
| Acid Gas Emission/Acidity  | EN 50267-2-3     | Pass          |  |  |
| Classification / EuroClass | EN 13501-6       | Dca s1a d1 a1 |  |  |

#### **PRIMARY ELECTRICAL PARAMETERS**

| CHARACTERISTIC                 | SPECIFICATION  | TYPICAL PERFORMANCE @ 20°C |  |  |
|--------------------------------|----------------|----------------------------|--|--|
| Conductor Loop Resistance      | Max 19 Ω/100m  | 12Ω/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   | 413nsec/100m @ 100MHz      |  |  |
| Delay Skew                    | Max 45nsec/100m @ 100MHz | 4nsec/100m @ 100MHz        |  |  |
| Mean Characteristic Impedance | 100Ω +/- 5Ω @ 100MHz     | 100Ω ± 3Ω @ 100MHz         |  |  |
| Coupling Attenuation          | Type 1                   | 90dB                       |  |  |
| Transfer Impedance            | Grade 1                  | 7mΩ/m @ 10MHz              |  |  |

#### **ELECTRICAL PERFORMANCE**

| Frequency (MHz)       |          | 1     | 4     | 10    | 100   | 250  | 500  | 600  | 1000 | 1200 |
|-----------------------|----------|-------|-------|-------|-------|------|------|------|------|------|
|                       | Standard | N/A   | 3.7   | 5.8   | 18.5  | 29.7 | 42.8 | 47.1 | 61.9 | N/A  |
|                       | Typical  | 1.9   | 3.4   | 5.3   | 16.7  | 26.9 | 38.7 | 42.7 | 56.2 | 62.1 |
| NEXT (dB)             | Standard | 78.0  | 78.0  | 78.0  | 75.4  | 69.4 | 64.9 | 63.7 | 60.4 | N/A  |
|                       | Typical  | 100.0 | 100.0 | 100.0 | 100.0 | 97.2 | 91.8 | 90.4 | 86.4 | 85.0 |
| PSNEXT (dB)           | Standard | 75.0  | 75.0  | 75.0  | 72.4  | 66.4 | 61.9 | 60.7 | 57.4 | N/A  |
|                       | Typical  | 90.0  | 90.0  | 90.0  | 90.0  | 88.0 | 83.5 | 82.3 | 79.0 | 77.8 |
| ELFEXT (dB/100m)      | Standard | 78.0  | 78.0  | 78.0  | 65.3  | 57.3 | 51.3 | 49.7 | 45.3 | N/A  |
|                       | Typical  | 100.0 | 99.0  | 91.0  | 71.0  | 63.0 | 57.0 | 55.4 | 51.0 | 49.4 |
| PSELFEXT<br>(dB/100m) | Standard | 75.0  | 75.0  | 75.0  | 62.3  | 54.3 | 48.3 | 46.7 | 42.3 | N/A  |
|                       | Typical  | 90.0  | 90.0  | 84.5  | 64.5  | 56.5 | 50.5 | 48.9 | 44.5 | 42.9 |
| Return Loss (dB)      | Standard | N/A   | 23.0  | 25.0  | 20.1  | 17.3 | 17.3 | 17.3 | 15.1 | N/A  |
|                       | Typical  | 30.0  | 33.0  | 36.0  | 35.1  | 32.3 | 31.3 | 30.5 | 28.3 | 27.5 |
| ACR (dB/100m)         | Typical  | 98.1  | 96.6  | 94.7  | 83.3  | 70.4 | 53.1 | 47.7 | 30.2 | 22.8 |
| PSACR (dB/100m)       | Typical  | 88.1  | 86.6  | 84.7  | 73.3  | 61.2 | 44.8 | 39.6 | 22.8 | 15.7 |

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#### 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           | 0.80               |  |
| Segregation Class                     | Class D      |                                |                    |  |

#### STANDARD PACKAGING SPECIFICATIONS

| Part Number                  | Package<br>Length (m) | Color | Nominal<br>Diameter<br>(mm) | Nominal Cable<br>Weight (kg/km) | <b>Reel Size</b><br>Flange Diameter<br>x Width (mm) | Gross Weight<br>(kg/Item) | ltems<br>Per<br>Pallet |
|------------------------------|-----------------------|-------|-----------------------------|---------------------------------|-----------------------------------------------------|---------------------------|------------------------|
| UM12-Dca-500BU <sup>+</sup>  | 500                   | Blue+ | 7.2                         | 61.5                            | 400 x 390                                           | 33.2                      | 12                     |
| UM12-Dca-1000BU <sup>‡</sup> | 1000                  | Blue+ | 7.2                         | 61.5                            | 600 x 405                                           | 68.0                      | 4                      |

*†* 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.