

**PRODUCT SPECIFICATIONS**

## LF78-TD-001

### TeleDelta 7/8 Inch Leaky Feeder Cable

7/8 Inch 50 Ω Leaky Feeder for Underground, In-building and Mobile Communications



### Mechanical Specifications

|                                                    |                                                                                                                |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Environment:</b>                                | Underground and Above Ground Applications                                                                      |
| <b>Temperature Range (Operational):</b>            | -20 ~ +70 °C                                                                                                   |
| <b>Conductor (Inner)</b><br>Conductor Material     | 9.00mm +/- 0.2mm Diameter<br>Smooth Wall, Copper Coated                                                        |
| <b>Conductor Insulation</b><br>Insulation Material | 22.6mm +/- 0.5mm<br>PE - Physically foamed                                                                     |
| <b>Conductor (Outer)</b><br>Conductor Material     | 24.0mm +/- 0.5mm<br>Copper tube, corrugated with radiating slots                                               |
| <b>Jacket</b><br>Jacket Material                   | 38.5mm +/- 0.4mm<br>Low Smoke Halogen Free Sheath (LSZH) - Colour: Black (Standard), Optional: Blue and Yellow |
| <b>Cable Weight:</b>                               | 0.45kg /M                                                                                                      |
| <b>Single/ Multiple Bend Radius:</b>               | 250mm / 300mm                                                                                                  |
| <b>Recommended Hanger Spacing:</b>                 | 1.2m                                                                                                           |
| <b>Max Tensile strength:</b>                       | 1200N                                                                                                          |

### Electrical Specifications

|                                        |                              |
|----------------------------------------|------------------------------|
| <b>Operational Frequency Range:</b>    | 10 - 2700 MHz                |
| <b>Impedance:</b>                      | 50 Ω (+/- 2 Ω)               |
| <b>VSWR:</b>                           | <1.30 @ 500Mhz               |
| <b>Velocity Ratio</b>                  | 88%                          |
| <b>Insultation Resistance</b>          | 5000 Megaohms (minimum) / KM |
| <b>Peak Power</b>                      | 100.0 kW                     |
| <b>Jacket Spark Test Voltage (rms)</b> | 8000 V                       |
| <b>Maximum tensile resistance</b>      | 2000N                        |

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**Electrical Specifications (cont)**

|                                           |                                             |
|-------------------------------------------|---------------------------------------------|
| Inner Conductor DC Resistance:            | $\leq 3.0 \Omega/\text{km}$                 |
| Outer Conductor DC Resistance:            | $\leq 6.5 \Omega/\text{km}$                 |
| Insulation Resistance:                    | $\geq 5000 \text{ M}\Omega \cdot \text{km}$ |
| Insulation Dielectric Strength (DC 1min): | 10,000V                                     |
| Sheath spark test (AC, valid value):      | 8000V                                       |
| Characteristic Impedance (190-210Mhz):    | 50 +/-2.0 Ω                                 |

**Attenuation dB/100m +/- 5% (@ 20°C)**

|        |      |
|--------|------|
| 150Mhz | 1.70 |
| 350Mhz | 2.60 |
| 450Mhz | 3.20 |
| 500Mhz | 3.40 |

\*Higher Frequency results available on request (up to 2700Mhz)

**VSWR:** <1.30 @ 500 MHz

**Coupling Loss (dB +/- 5dB @ 95%)**

|        |      |
|--------|------|
| 150Mhz | 75.0 |
| 350Mhz | 71.0 |
| 450Mhz | 72.0 |
| 500Mhz | 72.0 |

\*Higher Frequency results available on request (up to 2700Mhz)

**Cont.**

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**Roll Lengths**

Custom Lengths available as required - standard drum lengths 300m, 500m, Black (standard) blue / yellow

| Ordering: | Ordering No.          | Approx. Shipping Weight |
|-----------|-----------------------|-------------------------|
| 500M      | LF78-TD-01-500        | 260kgs                  |
| 1000M     | LF78-TD-01-1000-1-500 | 490kgs                  |

**Connectors and Installation Items****Connectors:**

|           |                                                |
|-----------|------------------------------------------------|
| TD-716-M: | 716 DIN Male Connector for L778-TD-001 Cable   |
| TD-716-F: | 716 DIN Female Connector for LF78-TD-001 Cable |

**Hangers and Clamps**

|                 |                                                |
|-----------------|------------------------------------------------|
| TD-RAC-78-10:   | 7/8 Inch Radiating Cable Clamp (10pcs)         |
| TD-RAP-78-10:   | 7/8 Inch Handing Radiating Cable Clamp (10pcs) |
| TD-DRA-78-50MM: | 50mm Radiating Clamp Stand-odd (10pcs)         |
| TD-DRA-78-80MM: | 80mm Radiating Clamp Stand-odd (10pcs)         |