

# T50 Series (2.4 Male-ST to 2.4 Male-ST)

Test Cable, 50ohms, DC-50GHz



## T50-39-39-"L" (L: Length)

### Maximum Ratings

|   |                |
|---|----------------|
| Operating Temperature   | 23°C± 5°C      |
| Storage Temperature   | -55°C to +85°C |
| <i>Permanent damage may occur if any of these limits are exceeded</i> |                |

|                         |          |      |
|-------------------------|----------|------|
| Cable Diameter          | 3.6mm    |      |
| Velocity of Propagation | 74%      |      |
| Shielding Effectiveness | >90dB    |      |
| Power Handling at 40°C  | 1 GHz    | 125W |
|                         | 12 GHz   | 37W  |
|                         | 18 GHz   | 29W  |
|                         | 26.5 GHz | 22W  |
|                         | 40 GHz   | 18W  |
| 50 GHz                  | 15W      |      |
| Min. Bending Radius     | 14.4mm   |      |

### Features

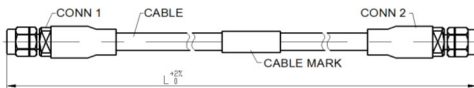
- Ultra-wideband operation, DC to 50 GHz
- Ideal VSWR and measurement accuracy
- Excellent amplitude and phase stability vs flexure and shaking
- Reinforced connector, multilayer armor structure to protect cable against compression, tension, torsion and abrasion

### Applications

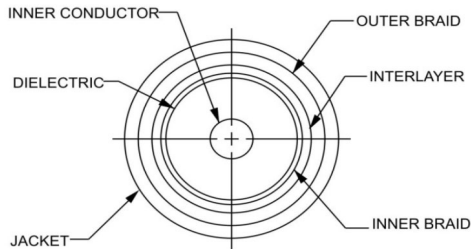
- Lab and production line test
- 5G Massive MIMO and antenna OTA test
- 5G switch and attenuator matrices systems
- Phase array test systems
- RF/Microwave test systems

### Outline Drawing

Unit [mm]



### Cable Cross Section



| Cable Construction |                             |
|--------------------|-----------------------------|
| Inner Conductor    | Silver Plated Copper, Solid |
| Dielectric         | Solid PTFE                  |
| Inner Braid        | Silver-Plated Copper Braid  |
| Interlayer         | PTFE                        |
| Outer Braid        | Silver-Plated Copper Braid  |
| Jacket             | FEP                         |

| Connectors                                       |  |
|--|--|
| • Nut, Stainless steel, Passivated               |  |
| • Body, Stainless steel, Passivated              |  |
| • Center contacts, Berillium Copper, Gold plated |  |
| • Dielectric, PEI, Natural                       |  |

### Product Guarantee\*

Micable will repair or replace your cable assembly if it fails within six months after shipment. This guarantee excludes product damage from misuse or abuse

### Electrical Specifications at 25°C

| Freq. (GHz) | Length | Insertion Loss (dB@GHz) |      |         |      |         |      |       |      | VSWR (@GHz) |      |         |      |         |      |       |      |
|-------------|--------|-------------------------|------|---------|------|---------|------|-------|------|-------------|------|---------|------|---------|------|-------|------|
|             |        | DC - 18                 |      | 18-26.5 |      | 26.5-40 |      | 40-50 |      | DC - 18     |      | 18-26.5 |      | 26.5-40 |      | 40-50 |      |
|             |        | Typ.                    | Max. | Typ.    | Max. | Typ.    | Max. | Typ.  | Max. | Typ.        | Max. | Typ.    | Max. | Typ.    | Max. | Typ.  | Max. |
| DC-50       | 2FT    | 1.4                     | 1.7  | 1.7     | 2.0  | 2.0     | 2.4  | 2.6   | 3.0  | 1.17        | 1.25 | 1.20    | 1.30 | 1.26    | 1.35 | 1.31  | 1.40 |
|             | 3FT    | 2.0                     | 2.3  | 2.5     | 2.8  | 3.0     | 3.4  | 3.4   | 3.9  |             |      |         |      |         |      |       |      |
|             | 1M     | 2.1                     | 2.4  | 2.7     | 3.0  | 3.2     | 3.6  | 3.6   | 4.2  |             |      |         |      |         |      |       |      |

### Typical Performance Data ( T50-39-39-1M)

| Frequency(MHz) | VSWR | Insertion Loss (dB) |
|----------------|------|---------------------|
| 50             | 1.02 | 0.10                |
| 1000           | 1.05 | 0.56                |
| 2000           | 1.04 | 0.78                |
| 4000           | 1.06 | 0.99                |
| 5000           | 1.07 | 1.08                |
| 6000           | 1.06 | 1.17                |
| 7000           | 1.09 | 1.29                |
| 8000           | 1.10 | 1.36                |
| 9000           | 1.11 | 1.47                |
| 10000          | 1.12 | 1.58                |
| 12000          | 1.13 | 1.71                |
| 18000          | 1.17 | 2.09                |
| 26500          | 1.20 | 2.68                |
| 40000          | 1.26 | 3.22                |
| 50000          | 1.31 | 3.63                |

