

# T40E Series (2.92 Male-ST to 2.92 Male-ST)

## Temperature Stable Test Cable, 50ohms, DC-40GHz



### T40E-40-40-"L" (L: Length)

#### Maximum Ratings

Operating Temperature -65°C to +165°C

Storage Temperature -65°C to +165°C

Permanent damage may occur if any of these limits are exceeded

|                         |          |      |
|-------------------------|----------|------|
| Cable Diameter          | 3.60mm   |      |
| Velocity of Propagation | 85%      |      |
| Shielding Effectiveness | >90dB    |      |
| Power Handling at 40°C  | 1 GHz    | 125W |
|                         | 2 GHz    | 93W  |
|                         | 6GHz     | 52W  |
|                         | 12 GHz   | 37W  |
|                         | 18 GHz   | 29W  |
|                         | 26.5 GHz | 22W  |
| 40 GHz                  | 18W      |      |
| Min. Bending Radius     | 25.4mm   |      |

#### Features

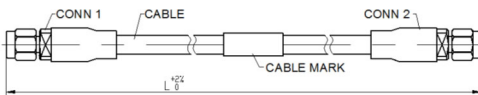
- Stainless steel connectors for long mating-cycle life
- High shielding effectiveness, >90dB
- Excellent phase stability over temperature, 500ppm@-55°C~+85°C
- Extremely low loss, low VSWR
- Wide range of operation temperature at -65°C to +165°C

#### Applications

- Thermal cycling and thermal shock test
- RF/Microwave test systems
- Rack to rack connection
- Airborne, shipborne and ground systems

#### Outline Drawing

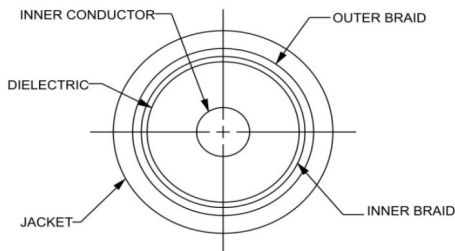
Unit [mm]



#### Electrical Specifications at 25°C

| Freq. (GHz) | Length (m) | Insertion Loss (dB@GHz) |      |      |      |         |      |         |      | VSWR (@GHz) |      |      |      |         |      |         |      |
|-------------|------------|-------------------------|------|------|------|---------|------|---------|------|-------------|------|------|------|---------|------|---------|------|
|             |            | DC - 6                  |      | 6-18 |      | 18-26.5 |      | 26.5-40 |      | DC - 6      |      | 6-18 |      | 18-26.5 |      | 26.5-40 |      |
|             |            | Typ.                    | Max. | Typ. | Max. | Typ.    | Max. | Typ.    | Max. | Typ.        | Max. | Typ. | Max. | Typ.    | Max. | Typ.    | Max. |
| DC-40       | 0.5        | 0.6                     | 0.8  | 1.0  | 1.2  | 1.2     | 1.5  | 1.6     | 1.9  | 1.14        | 1.20 | 1.20 | 1.25 | 1.27    | 1.35 | 1.33    | 1.40 |
|             | 1          | 1.0                     | 1.2  | 1.8  | 2.1  | 2.4     | 2.7  | 2.9     | 3.2  |             |      |      |      |         |      |         |      |
|             | 1.5        | 1.4                     | 1.6  | 2.7  | 3.0  | 3.3     | 3.6  | 4.2     | 4.5  |             |      |      |      |         |      |         |      |

#### Cable Cross Section



#### Typical Performance Data (T40E-40-40-1M)

| Frequency(MHz) | VSWR | Insertion Loss (dB) |
|----------------|------|---------------------|
| 50             | 1.05 | 0.05                |
| 1000           | 1.09 | 0.44                |
| 2000           | 1.11 | 0.59                |
| 4000           | 1.12 | 0.87                |
| 5000           | 1.13 | 0.95                |
| 6000           | 1.14 | 1.01                |
| 7000           | 1.15 | 1.08                |
| 8000           | 1.16 | 1.16                |
| 9000           | 1.17 | 1.22                |
| 10000          | 1.18 | 1.35                |
| 12000          | 1.20 | 1.47                |
| 15000          | 1.22 | 1.62                |
| 16000          | 1.23 | 1.70                |
| 18000          | 1.24 | 1.81                |
| 20000          | 1.25 | 1.95                |
| 26500          | 1.27 | 2.36                |
| 31000          | 1.29 | 2.53                |
| 34000          | 1.31 | 2.63                |
| 38000          | 1.32 | 2.77                |
| 40000          | 1.33 | 2.86                |

#### Cable Construction

|                 |                            |
|-----------------|----------------------------|
| Inner Conductor | Solid Silver Plated Copper |
| Dielectric      | LD-PTFE                    |
| Inner Braid     | Silver-Plated Copper Strip |
| Outer Braid     | Silver-Plated Copper Braid |
| Jacket          | PFA                        |

#### Connectors

- Nut, Stainless steel, Passivated
- Body, Stainless steel, Passivated
- Center contacts, Beryllium, 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

