

# B16 Series (2.4 Male-ST to 2.4 Male-ST)

CXN3507, Cable Assembly, 50ohms, DC-40GHz



## B16-39-39-"L" (L: Length)

### Maximum Ratings

Operating Temperature -55°C to +85°C

Storage Temperature -55°C to +85°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    | 725W |
|                         | 2 GHz    | 520W |
|                         | 6GHz     | 240W |
|                         | 12 GHz   | 168W |
|                         | 18 GHz   | 120W |
|                         | 26.5 GHz | 95W  |
| 40 GHz                  | 75W      |      |
| Min. Bending Radius     | 25.4mm   |      |

### Features

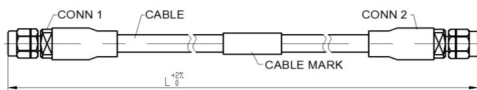
- Stainless steel connectors for long mating-cycle life
- High shielding effectiveness, >90dB
- Excellent phase stability over temperature, 500ppm@-55°C~+85°C
- Extremely low loss, low VSWR

### Applications

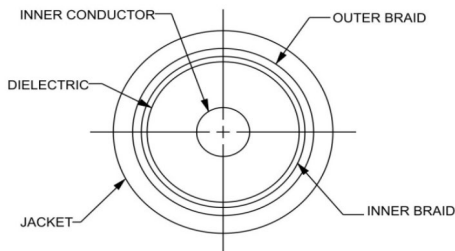
- Phase array radars
- Rack to rack connection
- RF/Microwave test systems
- Airborne, shipborne and ground systems

### Outline Drawing

Unit [mm]



### Cable Cross Section



| Cable Construction |                            |
|--------------------|----------------------------|
| Inner Conductor    | Solid Silver Plated Coppe  |
| 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, PEEK, 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 (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  |             |      |      |      |         |      |         |      |

### Typical Performance Data (B16-39-39-1M)

| Frequency(MHz) | VSWR | Insertion Loss (dB) |
|----------------|------|---------------------|
| 50             | 1.05 | 0.05                |
| 1000           | 1.09 | 0.44                |
| 2000           | 1.11 | 0.62                |
| 4000           | 1.12 | 0.89                |
| 5000           | 1.13 | 0.99                |
| 6000           | 1.14 | 1.10                |
| 7000           | 1.15 | 1.18                |
| 8000           | 1.16 | 1.27                |
| 9000           | 1.17 | 1.35                |
| 10000          | 1.18 | 1.42                |
| 12000          | 1.20 | 1.57                |
| 15000          | 1.22 | 1.76                |
| 16000          | 1.23 | 1.82                |
| 18000          | 1.24 | 1.94                |
| 20000          | 1.25 | 2.06                |
| 26500          | 1.27 | 2.38                |
| 31000          | 1.29 | 2.55                |
| 34000          | 1.31 | 2.68                |
| 38000          | 1.32 | 2.84                |
| 40000          | 1.33 | 2.91                |

