

## A04I Series (SMA Male-ST to SMA Male-ST)

LL335I Cable Assembly, 50ohms, DC-18GHz



### A04I-01-01-"L" (L: Length)

#### Maximum Ratings

Operating Temperature -55°C to +85°C

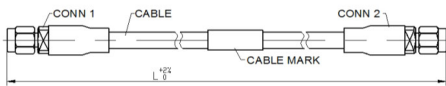
Storage Temperature -55°C to +85°C

Permanent damage may occur if any of these limits are exceeded

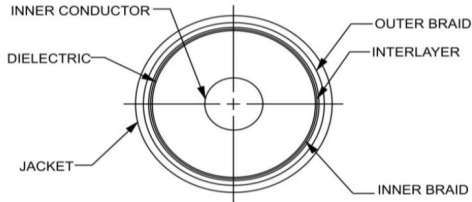
|                           |               |      |
|---------------------------|---------------|------|
| Cable Diameter            | 7.65mm        |      |
| Velocity of Propagation   | 83%           |      |
| Shielding Effectiveness   | >95dB         |      |
| Power Handling at<br>20°C | 1 GHz         | 590W |
|                           | 2 GHz         | 414W |
|                           | 6 GHz         | 221W |
|                           | 12GHz         | 172W |
|                           | 16 GHz        | 165W |
|                           | 18 GHz        | 153W |
| Min. Bending Radius       | 1.5" (38.1mm) |      |

Outline Drawing

Unit [mm]



Cable Cross Section



| Cable Construction                    |                            |
|---------------------------------------|----------------------------|
| Inner Conductor                       | Solid Silver Plated Copper |
| Dielectric                            | Expanded PTFE Tape         |
| Inner Braid                           | Silver-Plated Copper Strip |
| Interlayer                            | Aluminum Polyester         |
| Outer Braid                           | Silver-Plated Copper Braid |
| Jacket                                | FEP                        |
| Connectors                            |                            |
| • Nut, Stainless steel, Passivated    |                            |
| • Body, Stainless steel, Passivated   |                            |
| • Center contacts, Brass, Gold plated |                            |
| • Dielectric, PTFE, 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

#### Features

- Frequency up to 18 GHz
- Stainless steel connectors for long mating-cycle life
- Triple shielded cable for excellent shielding effectiveness, >95dB
- Excellent phase stability over temperature, 220ppm@+22°C~+85°C
- Low loss, low VSWR
- High power handling

#### Applications

- Rack to rack connection
- RF/Microwave test system
- Airborne, shipborne and ground systems
- Phase array Radars
- High power transmitters
- Power amplifier systems

#### Electrical Specifications at 25°C

| Freq.<br>(GHz) | Length<br>(m) | Insertion Loss (dB@GHz) |      |       |      |      |      |       |      | VSWR (@GHz) |      |       |      |      |      |       |      |
|----------------|---------------|-------------------------|------|-------|------|------|------|-------|------|-------------|------|-------|------|------|------|-------|------|
|                |               | DC - 2.5                |      | 2.5-6 |      | 6-12 |      | 12-18 |      | DC - 2.5    |      | 2.5-6 |      | 6-12 |      | 12-18 |      |
|                |               | Typ.                    | Max. | Typ.  | Max. | Typ. | Max. | Typ.  | Max. | Typ.        | Max. | Typ.  | Max. | Typ. | Max. | Typ.  | Max. |
| DC-18          | 0.5           | 0.3                     | 0.4  | 0.4   | 0.5  | 0.5  | 0.5  | 0.7   | 0.6  | 0.8         |      |       |      |      |      |       |      |
|                | 1             | 0.4                     | 0.5  | 0.6   | 0.7  | 0.8  | 1.0  | 1.0   | 1.2  | 1.09        | 1.15 | 1.12  | 1.20 | 1.18 | 1.25 | 1.25  | 1.30 |
|                | 1.5           | 0.6                     | 0.7  | 0.8   | 0.9  | 1.1  | 1.3  | 1.4   | 1.6  |             |      |       |      |      |      |       |      |
|                | 2             | 0.7                     | 0.8  | 1.0   | 1.1  | 1.4  | 1.6  | 1.8   | 2.0  |             |      |       |      |      |      |       |      |

#### Typical Performance Data (A04I-01-01-1M)

| Frequency(MHz) | VSWR | Insertion Loss (dB) |
|----------------|------|---------------------|
| 50             | 1.02 | 0.03                |
| 1000           | 1.07 | 0.27                |
| 2000           | 1.08 | 0.33                |
| 2500           | 1.09 | 0.38                |
| 4000           | 1.10 | 0.46                |
| 5000           | 1.11 | 0.51                |
| 6000           | 1.12 | 0.56                |
| 7000           | 1.13 | 0.60                |
| 8000           | 1.14 | 0.65                |
| 9000           | 1.15 | 0.69                |
| 10000          | 1.16 | 0.73                |
| 12000          | 1.18 | 0.81                |
| 13000          | 1.19 | 0.87                |
| 15000          | 1.22 | 0.96                |
| 18000          | 1.25 | 1.03                |

