

# F06J Series (2.92 Male-ST to 2.92 Female-BH)

Jacketed .047 Hand Formable Cable Assembly, 50ohms, DC-40GHz



## F06J-40-42-"L" (L: Length)

### Maximum Ratings

Operating Temperature -55°C to +125°C

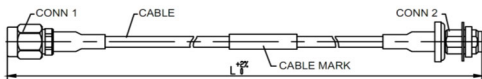
Storage Temperature -55°C to +125°C

Permanent damage may occur if any of these limits are exceeded

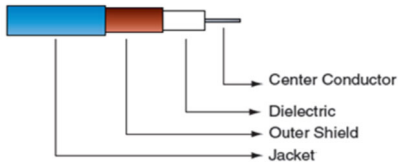
|                         |          |     |
|-------------------------|----------|-----|
| Cable Diameter          | 1.65mm   |     |
| Velocity of Propagation | 70%      |     |
| Shielding Effectiveness | >100dB   |     |
| Power Handling at 20°C  | 1 GHz    | 32W |
|                         | 6 GHz    | 14W |
|                         | 12 GHz   | 9W  |
|                         | 18 GHz   | 8W  |
|                         | 26.5 GHz | 7W  |
| 40 GHz                  | 5W       |     |
| Min. Bending Radius     | 4mm      |     |

### Outline Drawing

Unit[mm]



### Cable Construction



| Cable Construction |                            |
|--------------------|----------------------------|
| Inner Conductor    | Solid SPC                  |
| Dielectric         | PTFE                       |
| Outer Conductor    | Tinned Soaked Copper Braid |
| Jacket             | FEP                        |

| Connectors                                   |  |
|--|--|
| • Nut, Stainless steel, Passivated           |  |
| • Body, Stainless steel, Passivated          |  |
| • Center contacts, Brass Copper, 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 40GHz
- Excellent Return Loss/VSWR
- Hand formable to almost any custom shape without special bending tools
- Excellent shielding effectiveness >100 dB

### Applications

- Replacement for .047" semi-rigid cables
- Modules connection in receivers and transmitters
- Interconnect of assembled systems
- Military and commercial systems

### 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       | 0.1        | 0.5                     | 0.6  | 0.7  | 1.0  | 0.8     | 1.2  | 1.0     | 1.4  | 1.15        | 1.20 | 1.23 | 1.30 | 1.25    | 1.30 | 1.28    | 1.35 |
|             | 0.2        | 0.7                     | 0.9  | 1.1  | 1.4  | 1.5     | 1.8  | 2.0     | 2.3  |             |      |      |      |         |      |         |      |
|             | 0.3        | 1.0                     | 1.2  | 1.7  | 2.0  | 2.2     | 2.5  | 3.8     | 3.2  |             |      |      |      |         |      |         |      |

### Typical Performance Data (E01-40-42-0.2M)

| Frequency(MHz) | VSWR | Insertion Loss (dB) |
|----------------|------|---------------------|
| 50             | 1.02 | 0.08                |
| 1000           | 1.05 | 0.31                |
| 2000           | 1.07 | 0.43                |
| 3000           | 1.09 | 0.55                |
| 4000           | 1.11 | 0.61                |
| 5000           | 1.13 | 0.65                |
| 6000           | 1.15 | 0.70                |
| 7000           | 1.16 | 0.75                |
| 8000           | 1.17 | 0.80                |
| 9000           | 1.18 | 0.85                |
| 10000          | 1.19 | 0.93                |
| 12000          | 1.20 | 1.00                |
| 13000          | 1.21 | 1.05                |
| 15000          | 1.23 | 1.09                |
| 18000          | 1.25 | 1.20                |
| 26500          | 1.28 | 1.50                |

