

## Flexible Ultra Low Loss Coax Cable Assembly

T1/SMP Female /SMPW Female/DC-40 GHz

Model: T1-SMPFSMPWF-L

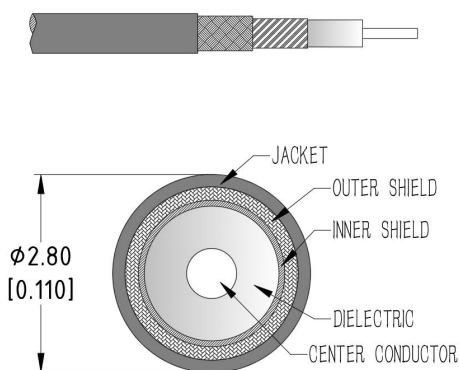
### Features:

- Max Frequency 40 GHz
- VSWR max of 1.40
- Velocity of Propagation of 70%

### Applications:

- Test & Measurement equipment
- Manufacturing lab
- WAN system equipment

### Cable Cross Section:



### Electrical Characteristics:

| Parameter                       | Min | Typ   | Max   | Units |
|---------------------------------|-----|-------|-------|-------|
| Frequency Range                 | DC  |       | 40    | GHz   |
| VSWR                            |     | 1.35  | 1.4   | :1    |
| Velocity of propagation         |     | 70%   |       |       |
| Shielding Effectiveness         | 90  |       |       | dB    |
| Capacitance                     |     |       | 81    | pF/m  |
| Phase Stability Vs. Flexure     |     | ±8    | ±10   | °     |
| Amplitude Stability Vs. Flexure |     | ±0.10 | ±0.20 | dB    |
| Phase Stability Vs. Temperature |     |       | 1100  | PPM   |

### Envrionmental And Physical Characteristics:

| Description           | Parameter   | Units |
|-----------------------|-------------|-------|
| Cable Diameter        | 2.8         | mm    |
| Cable Jacket          | FEP         |       |
| Min. Bending Radius   | 14          | mm    |
| Typical Flex life     | 50000       |       |
| Operating Temperature | -55 to +125 | °C    |
| Storage Temperature   | -55 to +125 | °C    |

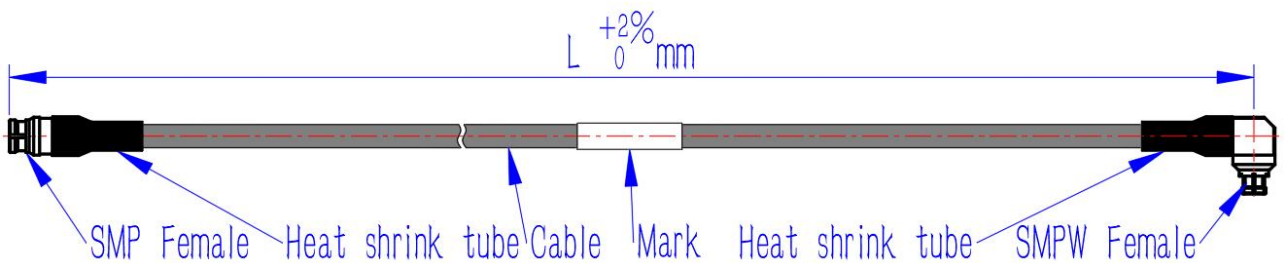
### Cable Performance By Frequency

| Frequency                  | 2 GHz | 4 GHz | 6 GHz | 8 GHz | 12 GHz | 16 GHz | 18 GHz | 26.5 GHz | 40GHz |
|----------------------------|-------|-------|-------|-------|--------|--------|--------|----------|-------|
| Insertion Loss (dB/m Max ) | 1.00  | 1.46  | 1.84  | 2.16  | 2.74   | 3.24   | 3.48   | 4.41     | 5.71  |
| RF Power CW (W Max.)       | 69    | 47    | 38    | 32    | 25     | 21     | 20     | 16       | 12    |

## Connectors:

| Description                  | Connector 1            | Connector 2            |
|------------------------------|------------------------|------------------------|
| Type                         | SMP Straight Female    | SMP Angle Female       |
| Contact Material And Plating | Beryllium Copper,Gold  | Beryllium Copper,Gold  |
| Dielectric Type              | PTFE                   | PTFE                   |
| Body Material And Plating    | Beryllium Copper,Gold  | Beryllium Copper,Gold  |
| Insertion Loss (dB Max)      | $0.05 * \sqrt{f\_GHz}$ | $0.05 * \sqrt{f\_GHz}$ |

## Outline Drawing:



## Ordering Information:

| Base Number  | Lenth | Armour (optional)           |                                                                                     | Phase/delay Matched (optional) |
|--------------|-------|-----------------------------|-------------------------------------------------------------------------------------|--------------------------------|
| T1-SMPFSMPWF | -L    | -A(Black nylon woven armor) |  |                                |
|              |       | -AP(PUR water proof armor)  |  | -XXPS( $\leq \pm XX$ PS)       |
|              |       | -AS(Stainless steel armor)  |  | -XX°( $\pm XX^\circ$ )         |
|              |       | -AT(Transparent armor)      |  |                                |

## Typical Performance Data:

Model:T1-SMPFSMPWF-1m

| Frequency      | 2 GHz |      | 6 GHz |      | 12 GHz |      | 18 GHz |      | 26.5 GHz |      | 40GHz |      |
|----------------|-------|------|-------|------|--------|------|--------|------|----------|------|-------|------|
|                | Typ   | Max  | Typ   | Max  | Typ    | Max  | Typ    | Max  | Typ      | Max  | Typ   | Max  |
| Insertion Loss | 1.07  | 1.14 | 1.96  | 2.08 | 2.91   | 3.08 | 3.69   | 3.91 | 4.67     | 4.92 | 6.02  | 6.34 |
| VSWR           | 1.10  | 1.15 | 1.15  | 1.20 | 1.20   | 1.25 | 1.25   | 1.30 | 1.30     | 1.35 | 1.35  | 1.40 |

