

R Series Semi-flexible Cable Assemblies

R2/SMP Female /SMP Female/DC-40 GHz

Model: R2-SMPFSMPF-L

Features:

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

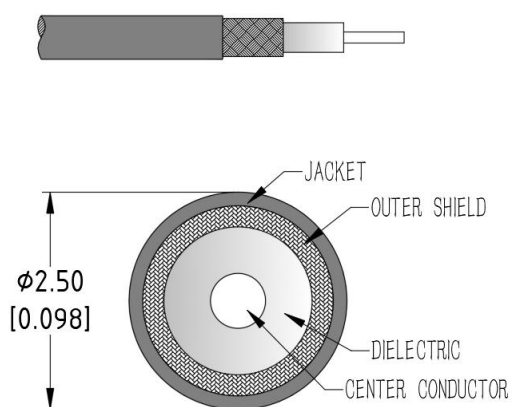
Applications:

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

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 |

Cable Cross Section:



Environmental And Physical Characteristics:

| Description | Parameter | Units |
|-----------------------|-------------|-------|
| Cable Diameter | 2.5 | mm |
| Cable Jacket | FEP | |
| Min. Bending Radius | 11 | mm |
| Typical Flex life | 50000 | |
| Operating Temperature | -55 to +125 | °C |
| Storage Temperature | -55 to +125 | °C |

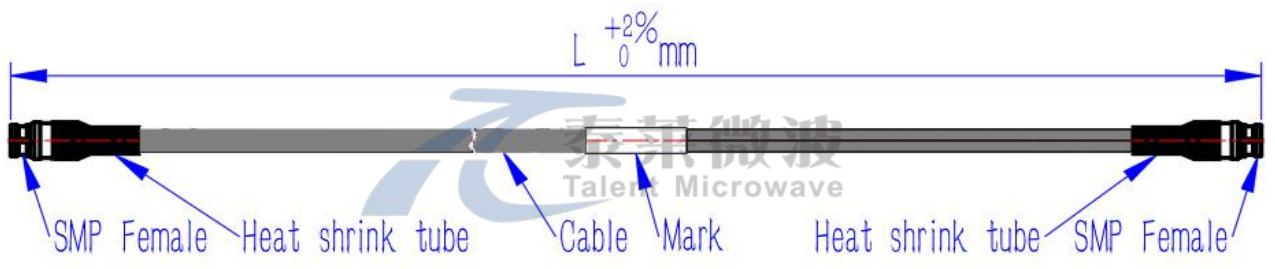
Cable Performance By Frequency

| 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 Straight 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 (Unit meters) | Phase/delay Matched |
|-------------|---------------------|--|
| R2-SMPFSMPF | -L | LEAVE BLANK (NOT REQUIRED) -XXPS ($\leq \pm XX$ PS) -XX° ($\pm XX^\circ$) |

Typical Performance Data:

Model: R2-SMPFSMPF-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 |