

## Flexible Low Loss Phase Stable Flexible Sable Assemblies

S1/SMA Male /SMA Female/DC-26.5 GHz

Model: S1-SMAMSMAF-

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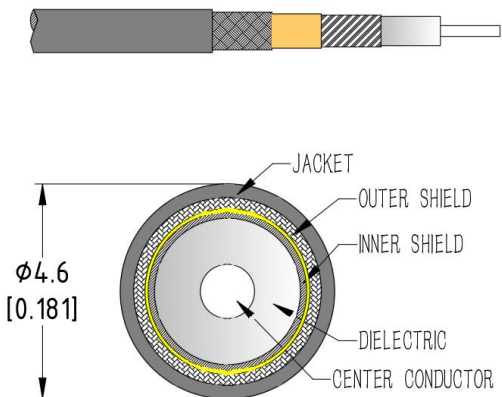
### Features:

- Max Frequency 26.5 GHz
- VSWR max of 1.30
- Velocity of Propagation of 76%

### Applications:

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

### Cable Cross Section:



### Electrical Characteristics:

| Parameter                               | Min | Typ   | Max  | Units |
|-----------------------------------------|-----|-------|------|-------|
| Frequency Range                         | DC  |       | 26.5 | GHz   |
| VSWR                                    |     | 1.25  | 1.3  | :1    |
| Velocity of propagation                 |     | 74%   |      |       |
| Shielding Effectiveness                 | 90  |       |      | dB    |
| Capacitance                             |     |       | 87.7 | pF/m  |
| Phase Stability Vs. Flexure@26.5GHz     |     | ±3    |      | °     |
| Amplitude Stability Vs. Flexure@26.5GHz |     | ±0.03 |      | dB    |
| Phase Stability Vs. Temperature         |     | 1000  |      | PPM   |

### Envrionmental And Physical Characteristics:

| Description           | Parameter   | Units |
|-----------------------|-------------|-------|
| Cable Diameter        | 4.6         | mm    |
| Cable Jacket          | FEP         |       |
| Min. Bending Radius   | 23          | mm    |
| Typical Flex life     | 50000       |       |
| Operating Temperature | -55 to +165 | °C    |
| Storage Temperature   | -55 to +200 | °C    |

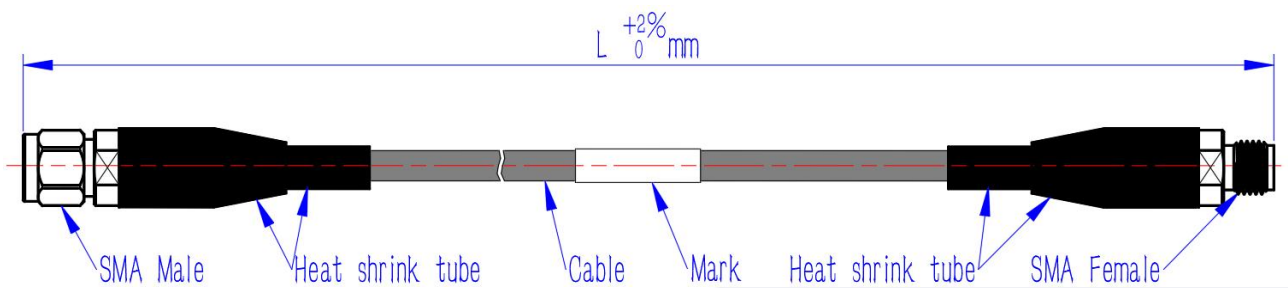
### Cable Performance By Frequency:

| Frequency                  | 1 GHz | 2 GHz | 4 GHz | 6 GHz | 8 GHz | 12 GHz | 16GHz | 18 GHz | 20GHz | 26.5 GHz |
|----------------------------|-------|-------|-------|-------|-------|--------|-------|--------|-------|----------|
| Insertion Loss (dB/m Max ) | 0.35  | 0.50  | 0.72  | 0.89  | 1.16  | 1.28   | 1.49  | 1.58   | 1.67  | 1.95     |
| RF Power CW (W Max.)       | 569   | 400   | 280   | 227   | 174   | 158    | 136   | 127    | 120   | 103      |

### Connectors:

| Description                  | Connector 1                | Connector 2                |
|------------------------------|----------------------------|----------------------------|
| Type                         | SMA Straight Male          | SMA Female                 |
| Contact Material And Plating | Brass,Gold                 | Beryllium Copper,Gold      |
| Dielectric Type              | PTFE                       | PTFE                       |
| Body Material And Plating    | Passivated Stainless Steel | Passivated Stainless Steel |
| 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) |
|-------------|-------|-----------------------------|-------------------------------------------------------------------------------------|--------------------------------|
| S1-SMAMSAF  | -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:S1-SMAMSMF-1m

| Frequency           | 2 GHz |      | 6 GHz |      | 12 GHz |      | 18 GHz |      | 26.5 GHz |      |
|---------------------|-------|------|-------|------|--------|------|--------|------|----------|------|
|                     | Typ   | Max  | Typ   | Max  | Typ    | Max  | Typ    | Max  | Typ      | Max  |
| Insertion Loss (dB) | 0.57  | 0.64 | 1.00  | 1.13 | 1.45   | 1.62 | 1.79   | 2.01 | 2.10     | 2.30 |
| VSWR                | 1.03  | 1.05 | 1.10  | 1.15 | 1.20   | 1.25 | 1.25   | 1.30 | 1.25     | 1.30 |

