

## UF Series Ultra-Flexible Cable Assembly

UF3/SMA Male/SMA Female/DC-18 GHz

Model: UF3-SMAMSMAL-L

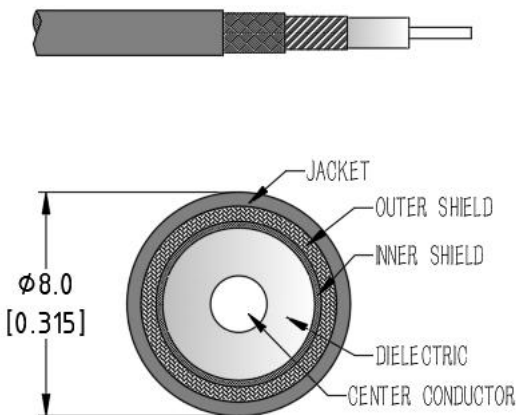
### Features:

- Max Frequency 18 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  |            | 18  | GHz        |
| VSWR                                  |     | 1.25       | 1.3 | :1         |
| Velocity of propagation               |     | 76%        |     |            |
| Shielding Effectiveness               | 90  |            |     | dB         |
| Capacitance                           |     |            | 81  | pF/m       |
| Phase Stability Vs. Flexure@18GHz     |     | $\pm 3$    |     | $^{\circ}$ |
| Amplitude Stability Vs. Flexure@18GHz |     | $\pm 0.05$ |     | dB         |
| Phase Stability Vs. Temperature       |     | 1000       |     | PPM        |

### Environmental And Physical Characteristics:

| Description           | Parameter  | Units              |
|-----------------------|------------|--------------------|
| Cable Diameter        | 8.0        | mm                 |
| Cable Jacket          | PUR        |                    |
| Min. Bending Radius   | 32         | mm                 |
| Typical Flex life     | 50000      |                    |
| Operating Temperature | -55 to +85 | $^{\circ}\text{C}$ |
| Storage Temperature   | -55 to +85 | $^{\circ}\text{C}$ |

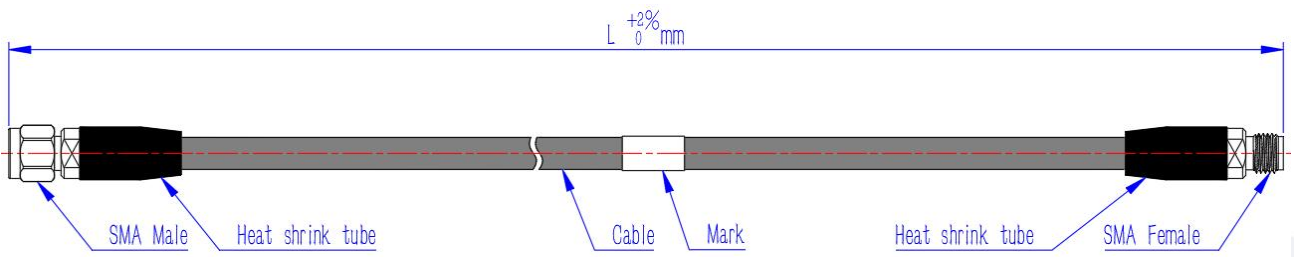
### Cable Performance By Frequency

| Frequency                  | 2 GHz | 4 GHz | 6 GHz | 8 GHz | 10 GHz | 12 GHz | 16 GHz | 18 GHz |
|----------------------------|-------|-------|-------|-------|--------|--------|--------|--------|
| Insertion Loss (dB/m Max.) | 0.27  | 0.40  | 0.51  | 0.61  | 0.70   | 0.78   | 0.94   | 1.02   |
| RF Power CW (W Max.)       | 967   | 647   | 508   | 426   | 370    | 330    | 274    | 254    |

### Connectors:

| Description                  | Connector 1                | Connector 2                |
|------------------------------|----------------------------|----------------------------|
| Type                         | SMA Straight Male          | SMA Straight 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) |
|--------------|-------|-----------------------------|--------------------------------|
| UF3-SMAMSMAF | -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:UF3-SMAMSMAF-1m**

| Frequency      | 2 GHz |      | 6 GHz |      | 12 GHz |      | 18 GHz |      |
|----------------|-------|------|-------|------|--------|------|--------|------|
|                | Typ   | Max  | Typ   | Max  | Typ    | Max  | Typ    | Max  |
| Insertion Loss | 0.34  | 0.41 | 0.63  | 0.75 | 0.96   | 1.13 | 1.23   | 1.44 |
| VSWR           | 1.05  | 1.10 | 1.15  | 1.20 | 1.20   | 1.25 | 1.25   | 1.30 |