

## Flexible Ultra Low Loss Coax Cable Assembly

A22/1.85mm Female / 1.85mm Female/DC-67 GHz      **Model: A22-1.85F1.85F-L**



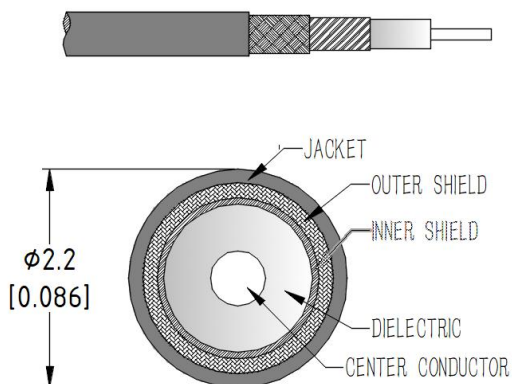
### Features:

- Max Frequency 67 GHz
- VSWR max of 1.30
- Velocity of Propagation of 82%

### Applications:

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

### Cable Cross Section:



### Electrical Characteristics:

| Parameter                             | Min | Typ  | Max | Units |
|---------------------------------------|-----|------|-----|-------|
| Frequency Range                       | DC  |      | 67  | GHz   |
| VSWR                                  |     | 1.25 | 1.3 | :1    |
| Velocity of propagation               |     | 82%  |     |       |
| Shielding Effectiveness               | 90  |      |     | dB    |
| Capacitance                           |     |      | 81  | pF/m  |
| Phase Stability Vs. Flexure@67GHz     |     | ±8   |     | °     |
| Amplitude Stability Vs. Flexure@67GHz |     | ±0.1 |     | dB    |
| Phase Stability Vs. Temperature       |     |      | 550 | PPM   |

### Envrionmental And Physical Characteristics:

| Description           | Parameter   | Units |
|-----------------------|-------------|-------|
| Cable Diameter        | 2.2         | mm    |
| Cable Jacket          | FEP         |       |
| Min. Bending Radius   | 11          | mm    |
| Typical Flex life     | 50000       |       |
| Operating Temperature | -55 to +125 | °C    |
| Storage Temperature   | -55 to +165 | °C    |

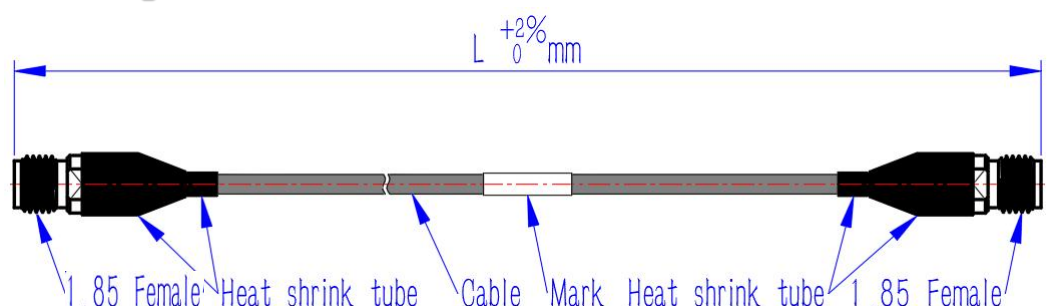
### Cable Performance By Frequency:

| Frequency                  | 2 GHz | 4 GHz | 6 GHz | 8 GHz | 12 GHz | 18 GHz | 26.5 GHz | 40GHz | 50 GHz | 67GHz |
|----------------------------|-------|-------|-------|-------|--------|--------|----------|-------|--------|-------|
| Insertion Loss (dB/m Max ) | 0.91  | 1.30  | 1.60  | 1.86  | 2.31   | 2.87   | 3.54     | 4.44  | 5.03   | 5.93  |
| RF Power CW (W Max.)       | 190   | 133   | 108   | 82    | 75     | 60     | 49       | 39    | 34     | 29    |

## Connectors:

| Description                  | Connector 1                    | Connector 2                    |
|------------------------------|--------------------------------|--------------------------------|
| Type                         | 1.85mm Straight Female         | 1.85mm Straight Female         |
| Contact Material And Plating | Beryllium Copper, Gold         | Beryllium Copper, Gold         |
| Dielectric Type              | PEI                            | PEI                            |
| Body Material And Plating    | Passivated Stainless Steel     | Passivated Stainless Steel     |
| Insertion Loss (dB Max)      | $0.05 * \sqrt{f_{\text{GHz}}}$ | $0.05 * \sqrt{f_{\text{GHz}}}$ |

## Outline Drawing:



## Ordering Information:

| Base Number    | Lenth | Armour (optional)           |                                                                                     | Phase/delay Matched (optional) |
|----------------|-------|-----------------------------|-------------------------------------------------------------------------------------|--------------------------------|
| A22-1.85F1.85F | -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:A22-1.85F1.85F-1m

| Frequency           | 2 GHz |      | 6 GHz |      | 12 GHz |      | 18 GHz |      | 26.5 GHz |      | 40GHz |      | 50GHz |      | 67GHz |      |
|---------------------|-------|------|-------|------|--------|------|--------|------|----------|------|-------|------|-------|------|-------|------|
|                     | Typ   | Max  | Typ   | Max  | Typ    | Max  | Typ    | Max  | Typ      | Max  | Typ   | Max  | Typ   | Max  | Typ   | Max  |
| Insertion Loss (dB) | 0.98  | 1.05 | 1.73  | 1.85 | 2.48   | 2.66 | 3.08   | 3.29 | 3.80     | 4.05 | 4.76  | 5.07 | 5.38  | 5.74 | 6.34  | 6.75 |
| VSWR                | 1.03  | 1.05 | 1.05  | 1.08 | 1.08   | 1.10 | 1.10   | 1.13 | 1.13     | 1.15 | 1.15  | 1.20 | 1.20  | 1.25 | 1.25  | 1.30 |

