

Flexible Ultra Low Loss Coax Cable Assembly

A50/3.5mm Male /N Male/DC-18 GHz

Model: A50-3.5MNM-L



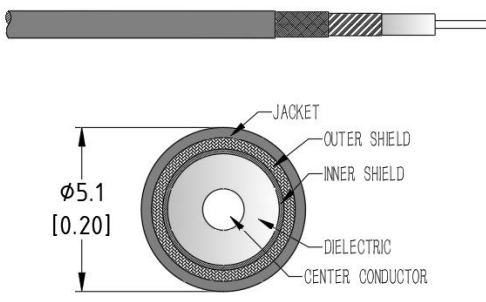
Features:

- Max Frequency 18 GHz
- VSWR max of 1.30
- Velocity of Propagation of 83%

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 | | 83% | | |
| Shielding Effectiveness | 90 | | | dB |
| Capacitance | | | 80 | pF/m |
| Phase Stability Vs. Flexure@18GHz | | ± 2 | | $^{\circ}$ |
| Amplitude Stability Vs. Flexure@18GHz | | ± 0.03 | | dB |
| Phase Stability Vs. Temperature | | | 550 | PPM |

Environmental And Physical Characteristics:

| Description | Parameter | Units |
|-----------------------|-------------|--------------------|
| Cable Diameter | 5.1 | mm |
| Cable Jacket | FEP | |
| Min. Bending Radius | 26 | mm |
| Typical Flex life | 50000 | |
| Operating Temperature | -55 to +125 | $^{\circ}\text{C}$ |
| Storage Temperature | -55 to +165 | $^{\circ}\text{C}$ |

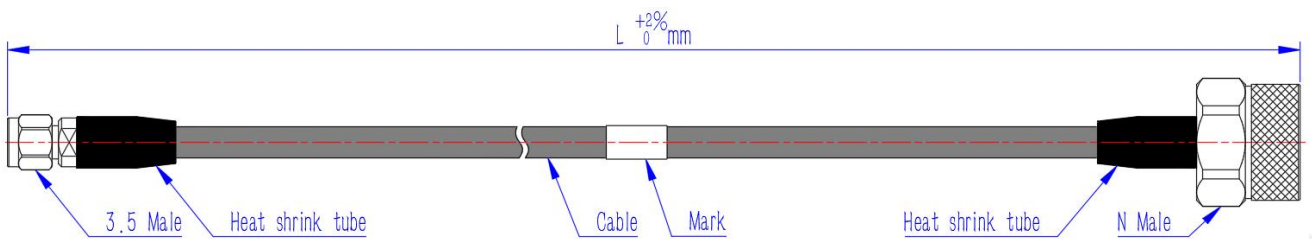
Cable Performance By Frequency

| Frequency | 2 GHz | 4 GHz | 6 GHz | 8 GHz | 10 GHz | 12 GHz | 16 GHz | 18 GHz |
|----------------------------|-------|-------|-------|-------|--------|--------|--------|--------|
| Insertion Loss (dB/m Max) | 0.33 | 0.47 | 0.57 | 0.67 | 0.75 | 0.82 | 0.96 | 1.02 |
| RF Power CW (W Max.) | 615 | 431 | 350 | 302 | 268 | 244 | 210 | 197 |

Connectors:

| Description | Connector 1 | Connector 2 |
|------------------------------|----------------------------|----------------------------|
| Type | 3.5mm Straight Male | N Straight Male |
| Contact Material And Plating | Beryllium Copper, Gold | Brass, Gold |
| Dielectric Type | PEI | 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) |
|-------------|-------|-----------------------------|--------------------------------|
| A50-3.5MNM | -L | -A(Black nylon woven armor) | |
| | | -AP(PUR water proof armor) | -XXPS($\leq \pm XX$ PS) |
| | | -AS(Stainless steel armor) | -XX°($\pm XX$ °) |
| | | -AT(Transparent armor) | |

Typical Performance Data:

Model:A50-3.5MNM-1m

| Frequency | 2 GHz | | 6 GHz | | 8 GHz | | 12 GHz | | 18 GHz | |
|---------------------|-------|------|-------|------|-------|------|--------|------|--------|------|
| | Typ | Max | Typ | Max | Typ | Max | Typ | Max | Typ | Max |
| Insertion Loss (dB) | 0.40 | 0.47 | 0.70 | 0.82 | 0.81 | 0.95 | 1.00 | 1.17 | 1.23 | 1.44 |
| VSWR | 1.05 | 1.1 | 1.08 | 1.15 | 1.15 | 1.2 | 1.2 | 1.25 | 1.25 | 1.3 |