# YSCI-500M

10 GHz, φ5.00 mm Communication Interconnect Cable Assembly

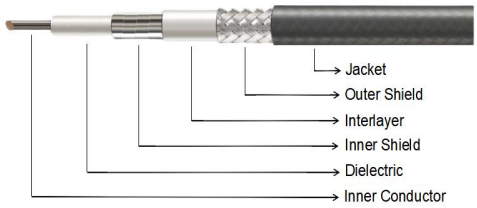
**Key Features**

- Low VSWR
- Low Insertion Loss
- UV Resistant Jacket
- Stable RF Performance
- Flexible Installation

**Applications**

- Base Station Interconnects
- RF System Interconnections
- Vehicular RF Systems
- Wireless Communication Systems
- Outdoor RF Installations

**Cable Construction**




| Cable Type | Dia.(mm) | Material |
|---|---|---|
| Inner Conductor | φ1.12 | Copper |
| Dielectric | φ2.95 | Foamed Polyethylene |
| Inner Shield | φ3.20 | Flat Silver-Plated Copper Braid |
| Interlayer | φ3.36 | Aluminum Foil |
| Outer Shield | φ3.91 | Tin-Plated Copper Wire |
| Jacket | φ5.00 | Black PUR Jacket |

| **Electrical Specifications** | | **Mechanical Specifications** | |
|---|---|---|---|
| Operating Freq. | 10 GHz | Static Bending Radius | 25 mm |
| Cut-off Freq. | 38 GHz | Dynamic Bending Radius | 50 mm |
| Impedance | 50 Ω | Weight | 60 g/m |
| Velocity of Propagation | 83% | **Environmental Specifications** | |
| Shielding Effectiveness | >90 dB | Operating Temperature | -45 to +85°C |
| Dielectric Withstanding Voltage | 1000 VDC | | |

**Attenuation** (dB/100 M,Typical at +25°C) **& Power Handling** (W,Typical at +40°C)

| Freq.(GHz) | 0.3 | 0.5 | 1 | 2 | 3 | 4 | 5 | 6 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| Attenuation | 18.6 | 24.1 | 34.5 | 49.4 | 61.1 | 71.1 | 80.1 | 88.3 | 116.6 |
| Avg. Power | 350 | 270 | 189 | 132 | 107 | 91 | 81 | 74 | 56 |

Typical Cable Attenuation Calculation Formula: $K1*\sqrt{F(MHz)} + K2*F(MHz)$
K1=1.054134, K2=0.001115

**Connectors Options**

| Connectors | Freq.(Max) | VSWR (Max) | | Connectors | Freq.(Max) | VSWR (Max) |
|---|---|---|---|---|---|---|
| BNC(B) | 4 GHz | 1.30:1 | | N(N) | 18 GHz | 1.25:1 |
| | | | | | | |

**Cable Assemblies Naming Rule:**

PN: Cable-Length(M)-Connector 1-Connector 2

Eg.: YSCI-500M-*1M-NM-NF* means YSCI-500M cable,L=1M, N(M)-N(F).

Add “R” for Right-Angle Connector, Add “H” for Bulkhead Connector (e.g., NMR, NFH).