

1 M Type N to Type N M/F Bulkhead 400 Series Low Loss Cable Jumper

CA400LL003-1M



Configuration

- Connector 1: N Male
- Connector 2: N Female Bulkhead
- Cable Type: PPBC-400LL

Features

- LMR Equivalent Coax
- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 85% Phase Velocity
- Low Insertion Loss
- Double Shielded
- PE Jacket
- One Time Bend Radius of 1 Inch



Applications

- General Purpose
- Laboratory Use
- Antenna Installations
- Land Mobile Radio & Other Communication Systems
- Cellular & Wi-Fi Systems

Description

PolyPhaser CA400LL003-1M is a 1 meter Type N to Type N M/F Bulkhead 400 Series Low Loss Cable Jumper is built using high quality components by skilled technicians to ensure a reliable product. The Type N (M) and Type N (FBH) jumper connections are designed to industry standard interface dimensions to ensure superior performance. This product is in stock and available for same day shipping. Female bulkhead interfaces allow cables to be attached to a bracket to fix the cable and reduce unwanted movement. In addition, female bulkhead connectors are often used as an input/output to a piece of equipment or enclosure. This high-quality RF coaxial assembly is perfect in many RF Interconnect applications such as Wi-LAN, Land Mobile Radio (LMR), laboratory test and measurement, and many other RF systems. The CA400LL003-1M Type N to Type N cable assembly is the perfect companion to PolyPhaser line of RF surge protection devices particularly when used as an antenna jumper cable.

The 400 Series coax used in these Type N to Type N assemblies is a 0.4 inch diameter coax with a black PE jacket. This cable's foam Polyethylene dielectric is low loss material with a phase velocity of 85% reducing the attenuation when compared to solid dielectric coax cables. PolyPhaser Low Loss 400 Series coax has a solid center conductor and uses a double shield comprised of a wire braid over a foil tape construction which provides >90% shielding effectiveness. The construction and materials of the CA400LL003-1M result in a coax cable assembly with a 1 inch one time bend radius and a repeat bend radius of four inches. The cable assembly's combination of Type N to Type N Male/Female Bulkhead and 400 Series Low Loss Cable supports a maximum operating frequency of 5800 MHz. You can find detailed performance specifications in the product datasheet. Processes and procedures are in place to ensure products meet the published specifications.

For additional strength, these Type N Male to Type N Female Bulkhead cable assemblies have polyolefin heat shrink strain relief boots on both ends of the RF Cable Assembly Jumpers. The heat shrink booting uses a double walled epoxy filled material to prolong the life of the assembly.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:
[1 M Type N to Type N M/F Bulkhead 400 Series Low Loss Cable Jumper CA400LL003-1M](#)

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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------|---------|------------|---------|--------------|
| Frequency Range | DC | | 5.8 | GHz |
| VSWR | | | 1.3:1 | |
| Velocity of Propagation | | 85 | | % |
| RF Shielding | 90 | | | dB |
| Capacitance | | 24 [78.74] | | pF/ft [pF/m] |
| Operating Voltage (AC) | | | 1,500 | Vrms |
| Jacket Spark | | | 8,000 | Vrms |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|------|------|------|-----|------|-------|
| Frequency | 0.25 | 0.5 | 1 | 2.5 | 5.8 | GHz |
| Insertion Loss (Max.) | 1.04 | 1.44 | 2.22 | 3.4 | 4.98 | dB |

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable and connectors used in this assembly. Insertion Loss is estimated as 0.15 dB per N male connector and 0.1 dB per N female connector.

Mechanical Specifications

Size

| | |
|----------|------------------------|
| Length | 39.37 in [100 cm] |
| Diameter | 0.405 in [10.29 mm] |
| Weight | 0.37097 lbs [168.27 g] |

Cable

| | |
|--------------------------------------|----------------------|
| Cable Type | PPBC-400LL |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper Clad Aluminum |
| Dielectric Type | PE (F) |
| Number of Shields | 2 |
| Shield Layer 1 | Aluminum Tape |
| Shield Layer 2 | Tinned Copper Braid |
| Jacket Material | PE, Black |
| Jacket Diameter | 0.4 in [10.16 mm] |
| One Time Minimum Bend Radius | 1 in [25.4 mm] |
| Repeated Minimum Bend Radius | 4 in [101.6 mm] |

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| | |
|------------------|-----------------------|
| Bending Moment | 0.5 lbs-ft [0.68 N-m] |
| Tensile Strength | 160 lbs [72.57 Kg] |

Connectors

| Description | Connector 1 | Connector 2 |
|-------------------------------|------------------|-------------------|
| Type | N Male | N Female Bulkhead |
| Specification | MIL-STD-348A | |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material and Plating | Brass, Silver | Brass, Gold |
| Contact Plating Specification | 70µ in. minimum | |
| Dielectric Type | Teflon | Teflon |
| Body Material and Plating | Brass, Nickel | Brass, Nickel |
| Body Plating Specification | 100µ in. minimum | |

Environmental Specifications

Temperature

| | |
|-----------------|------------------|
| Operating Range | -40 to +85 deg C |
|-----------------|------------------|

Compliance Certifications

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

PolyPhaser protects and increases the reliability of global RF communications networks, including transportation, telecommunications, defense, security and industrial applications, with superior RF surge protection technologies including DC Block, DC Pass and Ultra Low PIM. Backed by responsive service and expert technical support PolyPhaser continually expands its product offering and services to serve engineers' urgent needs for RF components in mission critical communication networks.

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URL: <https://www.polyphaser.com/1-m-type-n-to-type-n-m-f-bulkhead-400-series-low-loss-cable-jumper-p.aspx>

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CA400LL003-1M CAD Drawing

