

1 M SMA to SMA M/F 240 Series Low Loss Cable Jumper

CA240LL023-1M



Configuration

- Connector 1: SMA Male
- Connector 2: SMA Female
- Cable Type: PPBC-240LL

Features

- LMR Equivalent Coax
- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Low Insertion Loss
- Double Shielded
- PE Jacket
- One Time Bend Radius of 0.75 Inches



Applications

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

Description

PolyPhaser CA240LL023-1M is a 1 meter SMA to SMA M/F 240 Series Low Loss Cable Jumper is built using high quality components by skilled technicians to ensure a reliable product. The SMA Male and SMA Female cable jumper connections are designed to industry standard interface dimensions to ensure superior performance. All of these products are available for same day shipment to fulfill your urgent needs. This high-quality RF coaxial assembly is perfect in many RF Interconnect applications such as research and development, IoT network, Wi-LAN, and many other applications. The CA240LL023-1M SMA to SMA cable assembly is the perfect companion to PolyPhaser line of RF surge protection devices particularly when used as an antenna jumper cable.

The 240 Series coax used in these SMA to SMA assemblies is a 0.24 inch diameter coax with a black PE jacket. This cable's foam PE dielectric is low loss material with a VoP of 84% reducing the attenuation when compared to solid dielectric coax cables. PolyPhaser Low Loss 240 Series coax has a solid center conductor and uses a double shield consisting of a wire braid over a foil tape construction providing >90% shielding effectivity. The construction and materials of the CA240LL023-1M result in a coax cable assembly with 0.75 inch one time bend radius and a repeat bend radius of 2.5 inches. The cable assembly's combination of SMA to SMA Male/Female and 240 Series Low Loss Cable supports a maximum operating frequency of 5800 MHz. Detailed specifications for this configuration includes layout drawings and performance and material specifications. All assemblies are design verified and shipped with a certificate of compliance.

Polyolefin heat shrink strain relief boots add additional strength on both ends of this 1 meter assembly. These epoxy filled heat shrinks provide strain relief to help prevent damage from over-bending the assembly ends.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:
[1 M SMA to SMA M/F 240 Series Low Loss Cable Jumper CA240LL023-1M](#)

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.5:1	
Velocity of Propagation		84		%
RF Shielding	90			dB
Capacitance		24.2 [79.4]		pF/ft [pF/m]
Jacket Spark			5,000	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.)	1.78	2.17	3.75	6.11	9.26	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 0.1 dB per connector.

Mechanical Specifications

Size

Length	39.37 in [100 cm]
Diameter	0.24 in [6.1 mm]
Weight	0.12343 lbs [55.99 g]

Cable

Cable Type	PPBC-240LL
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
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	0.24 in [6.1 mm]
One Time Minimum Bend Radius	0.752 in [19.1 mm]
Repeated Minimum Bend Radius	2.5 in [63.5 mm]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Female
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Phosphor Bronze, Gold	Beryllium Copper, Gold
Dielectric Type	Teflon	PTFE
Body Material and Plating	Brass, Gold	Brass, Gold
Coupling Nut Material and Plating	Brass, Gold	
Hex Size	16-May in	
Torque	5 in-lbs [0.57 Nm]	

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-sma-to-sma-m-f-240-series-low-loss-cable-jumper-p.aspx>

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CA240LL023-1M CAD Drawing

