

### 50 FT SMA to SMA M/F 240 Series Low Loss Cable Jumper



### CA240LL023-50FT

### Configuration

Connector 1: SMA MaleConnector 2: SMA FemaleCable 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

# JACKET SHIELD OUTER CONDUCTOR 0.240 Ø [6.1] SOLID CENTER CONDUCTOR

# **Applications**

- · General Purpose
- Laboratory Use
- Antenna Installations

- Land Mobile Radio & Other Communication Systems
- Cellular & Wi-Fi Systems

## Description

PolyPhaser CA240LL023-50FT is a 50 foot 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 CA240LL023-50FT 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 CA240LL023-50FT 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 50 foot 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: 50 FT SMA to SMA M/F 240 Series Low Loss Cable Jumper CA240LL023-50FT



### 50 FT SMA to SMA M/F 240 Series Low Loss Cable Jumper



### CA240LL023-50FT

### **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.)	2.2	2.7	4.7	7.7	11.7	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**

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 Length
 600 in [15.24 m]

 Diameter
 0.24 in [6.1 mm]

 Weight
 1.525 lbs [691.73 g]

Cable

Cable TypePPBC-240LLImpedance50 OhmsInner Conductor TypeSolidInner Conductor Material and PlatingCopperDielectric TypePE (F)

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	
Туре	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]		
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### **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/50-ft-sma-to-sma-m-f-240-series-low-loss-cable-jumper-p.aspx

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# CA240LL023-50FT CAD Drawing

