

MCX Plug Right Angle to SMB Plug Right Angle Cable Using RG178 Coax

PE37454

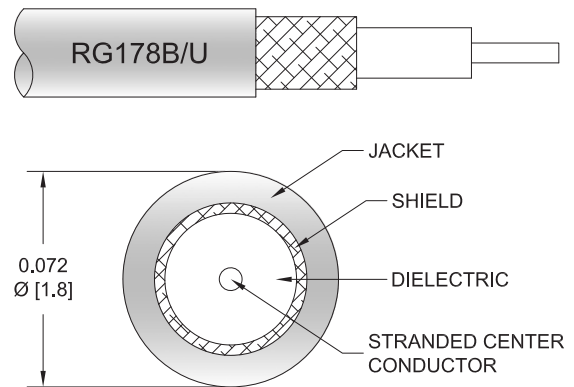


Configuration

- Connector 1: MCX Plug Right Angle
- Connector 2: SMB Plug Right Angle
- Cable Type: RG178
- Coax Flex Type: Flexible

Features

- Max Frequency 3 GHz
- 69.5% Phase Velocity
- FEP Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE37454 MCX plug right angle to SMB plug right angle cable using RG178 coax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Pasternack MCX to SMB cable assembly has a plug to plug gender configuration with 50 ohm flexible RG178 coax. The PE37454 MCX plug to SMB plug cable assembly operates to 3 GHz. The right angle MCX and right angle SMB interfaces on the RG178 cable allow for easier connections in tight spaces.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR			1.4:1	
Velocity of Propagation		69.5		%
Capacitance		29.4 [96.46]		pF/ft [pF/m]
Operating Voltage (AC)			170	Vrms

Specifications by Frequency

MCX Plug Right Angle to SMB Plug Right Angle Cable Using RG178 Coax



PE37454

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	100	250	500	1000	3000	MHz	
PE37454	Custom Lengths Available	Insertion Loss (Typ.)	0.13	0.18	0.26	0.44	0.78	dB/ft	
			0.43	0.6	0.86	1.45	2.56	dB/m	
PE37454-6	6 inch	Insertion Loss (Typ.)	0.47	0.49	0.53	0.62	0.79	dB	0.015
PE37454-9	9 inch	Insertion Loss (Typ.)	0.5	0.54	0.6	0.73	0.99	dB	0.016
PE37454-12	12 inch	Insertion Loss (Typ.)	0.53	0.58	0.66	0.84	1.18	dB	0.017
PE37454-24	24 inch	Insertion Loss (Typ.)	0.66	0.76	0.92	1.28	1.96	dB	0.023
PE37454-36	36 inch	Insertion Loss (Typ.)	0.79	0.94	1.18	1.72	2.74	dB	0.028

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1:	0.2 dB
Loss due to Connector 2:	0.2 dB
Base Weight:	0.017 pounds
Additional Weight per Inch:	0.00042 pounds

Mechanical Specifications

Cable Assembly

Weight	0.017 lbs [7.71 g]
--------	--------------------

Cable

Cable Type	RG178
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper Clad Steel, Silver
Dielectric Type	PTFE
Number of Shields	1
Shield Layer 1	Silver Plated Copper Braid
Jacket Material	FEP, Tan
Jacket Diameter	0.072 in [1.83 mm]
Repeated Minimum Bend Radius	0.393 in [9.98 mm]

Connectors

Description	Connector 1	Connector 2
Type	MCX Plug Right Angle	SMB Plug Right Angle
Specification	CECC 22220	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Right Angle	Right Angle
Contact Material and Plating	Brass, Gold	Beryllium Copper, Gold
Contact Plating Specification	30 µin minimum	30 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 µin minimum	100 µin minimum

MCX Plug Right Angle to SMB Plug Right Angle Cable Using RG178 Coax



PE37454

Environmental Specifications

Operating Range Temperature

-40 to +60 deg C

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Values at 25°C, sea level.

Typical Performance Data

How to Order

Part Number Configuration:

PE37454

- **xx**

uu

Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

Example: PE37454-12 = 12 inches long cable
PE37454-100cm = 100 cm long cable

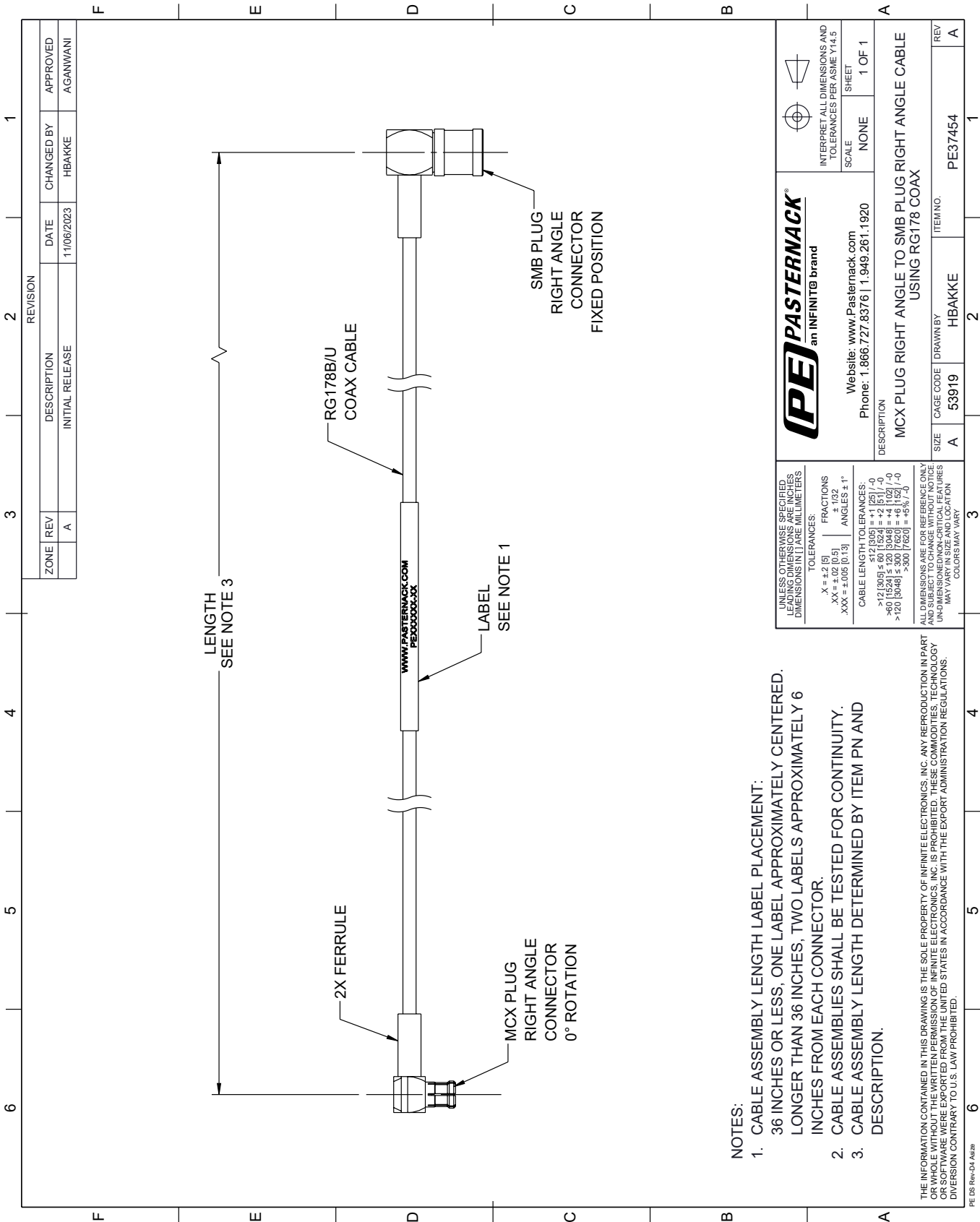
MCX Plug Right Angle to SMB Plug Right Angle Cable Using RG178 Coax from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [MCX Plug Right Angle to SMB Plug Right Angle Cable Using RG178 Coax PE37454](#)

URL: <https://www.pasternack.com/mcx-plug-right-angle-to-smb-plug-cable-using-rg178-pe37454-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Pasternack Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE37454 CAD Drawing
MCX Plug Right Angle to SMB Plug Right Angle Cable Using RG178 Coax



- NOTES:
- 1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
 - 2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
 - 3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

PE DS Rev-D4 Adda