

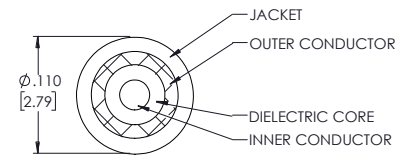
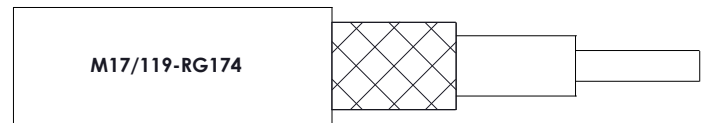
## BMZ Size 8 D38999 Contact Socket to SMA Male Cable Using M17/119-RG174-0XDS2 Coax with HeatShrink, LF Solder



### PE3M0291

#### Configuration

- Connector 1: Push-on BMZ Socket PEMACTRF8S08
- Connector 2: SMA Male PE45145
- Cable Type: M17/119-RG174
- Coax Flex Type: Flexible



#### Features

- Max Frequency: 1 GHz
- Can be installed in all D38999 size 8 inserts
- Lot traceability
- High speed RF cable assembly

#### Applications

- Military and Aerospace
- Avionics
- Industrial Automation

#### Description

The PE3M0291 from Pasternack is a D38999 contact cable assembly that is built with a size 8 BMZ socket contact on one end and a SMA male connector on the other. Pasternack MIL-DTL-38999 (also known as D38999 or 38999) coaxial cable assembly products are used in applications requiring high quality such as laboratory RF test and measurement, rugged and designed for defense/military, production environments, general use, etc. This BMZ to SMA cable assembly is a part of one of the largest selections of same-day ship coaxial cables for RF, microwave, and millimeter wave interconnect solutions. This high frequency D38999 cable assembly operates at a maximum frequency of 1 GHz.

The RF cable has a PVC jacket of 0.110-inch diameter. This PE3M0291 radio frequency cable assembly can withstand temperatures ranging from -40 to 85 degrees C. Our BMZ socket to SMA male cable has a maximum VSWR of 1.4:1. This flexible RF cable assembly with a 0.5-inch diameter has steel as the cable's inner conducting material and PE dielectric type.

BMZ socket to SMA male cable assembly is built with M17/119-RG174-0XDS2, which is a flexible coax type. The Pasternack PE3M0291 flexible cable assembly has a 50 Ohm impedance and is single shielded. Additional dimensions, specifications, and CAD drawings for this BMZ to SMA RF cable are available on our downloadable PDF datasheet.

BMZ socket to SMA male cable assembly is just one of more than one million in-stock RF products available. Pasternack is where to buy high quality custom RF cable assembly products for rugged and MIL-STD designed military/defense, aerospace, outdoor and harsh environment, microwave and millimeter wave radio transmitter receiver, component inter-connection and more for RF test & measurement labs, telecom, phase stable, phase and delay matching, and other radio frequency applications can be manufactured. Variations of BMZ and SMA cable assemblies can also be built and will ship on the same day as well, search this website or contact us for assistance. For further information on similar products, our expert technical support and trained sales team can get you the ideal BMZ to SMA RF cable assembly as per your requirements.

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**PE3M0291**

**Referenced Specifications**

IPC J-STD-001	Requirements for Soldered Electrical and Electronic Assemblies
IPC J-STD-006	Requirements for Electronic Grade Solder Alloys and Fluxed and Non-Fluxed Solid Solders for Electronic Soldering Applications
IPC/WHMA-A-620	Requirements and Acceptance for Cable and Wire Harness Assemblies
MIL-DTL-17	Cables, Radio Frequency, Flexible and Semirigid, General Specification for
MIL-PRF-39012	Connectors, Coaxial, Radio Frequency, General Specification for
MIL-STD-348	Radio Frequency Connector Interfaces for MIL-DTL-3643, MIL-DTL-3650, MIL-DTL-3655, MIL-DTL-25516, MIL-PRF-31031, MIL-PRF-39012, MIL-PRF-49142, MIL-PRF-55339, MIL-DTL-83517
SAE AS22520	Crimping Tools, Wire Termination, General Specification For
SAE AS23053	Insulation Sleeving, Electrical, Heat Shrinkable, General Specifications For
SAE AS5942	Marking of Electrical Insulating Materials
IPC J-STD-001	Requirements for Soldered Electrical and Electronic Assemblies

**Material Specifications**

Component	Specification
Cable	M17/119-RG174 in accordance with MIL-DTL-17
Connector 1	PEMACTRF8S08 in accordance with MIL-DTL-38999
Connector 2	PE45145 in accordance with MIL-STD-348
Heat Shrink 1	M23053/5-104-0 in accordance with SAE AS23053
Heat Shrink 2	M23053/5-104-0 in accordance with SAE AS23053
Solder	SAC305 in accordance with J-STD-006

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		1,000	MHz
VSWR			1.4:1	
Velocity of Propagation		65.9		%
Capacitance		32.2 [105.64]		pF/ft [pF/m]
DC Resistance Inner Conductor		0.97 [3.18]		Ω/1000ft [Ω/Km]
Dielectric Withstanding Voltage (AC)			2,000	Vrms
Jacket Spark			2,000	Vrms

**Specifications by Frequency**

BMZ Size 8 D38999 Contact Socket to SMA Male Cable Using M17/119-RG174-0XDS2 Coax with HeatShrink, LF Solder



**PE3M0291**

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency		50	100	250	500	
PE3M0291	Custom Lengths Available	Insertion Loss (Typ.)	0.07	0.01	0.13	0.28	0.45	dB/ft	
			0.22	0.04	0.43	0.93	1.48	dB/m	
PE3M0291-6	6 inch	Insertion Loss (Typ.)	0.24	0.21	0.27	0.35	0.43	dB	0.023
PE3M0291-12	12 inch	Insertion Loss (Typ.)	0.27	0.21	0.33	0.49	0.65	dB	0.026
PE3M0291-24	24 inch	Insertion Loss (Typ.)	0.33	0.22	0.46	0.77	1.1	dB	0.032
PE3M0291-36	36 inch	Insertion Loss (Typ.)	0.4	0.23	0.59	1.05	1.55	dB	0.038
PE3M0291-48	48 inch	Insertion Loss (Typ.)	0.46	0.24	0.72	1.34	2	dB	0.044
PE3M0291-60	60 inch	Insertion Loss (Typ.)	0.53	0.25	0.85	1.62	2.45	dB	0.05

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:	0.1 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	0.026 pounds
Additional Weight per Foot:	0.006 pounds

Electrical Specification Notes:  
Values at 25°C, sea level.

**Mechanical Specifications**

**Cable Assembly**

Description	Minimum	Typical	Maximum	Units
Cable Outer Diameter		0.11		in
Weight		0.026 [11.79]		lbs [g]

**Cable Characteristics**

Description	Specification
Cable Type	M17/119-RG174
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Steel, Copper Clad Aluminum
Dielectric Type	PE
Number of Shields	1
Shield Layer 1	Tinned Copper
Jacket Material	PVC

**Connector Characteristics**

Description	Connector 1	Connector 2
Type	BMZ Socket	SMA Male
Specification	MIL-DTL-38999	MIL-STD-348

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## PE3M0291

### Connector Characteristics

Description	Connector 1	Connector 2
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Connection Method	Push-on	
Contact Size	8	
Mating Cycles	500	
Contact Material and Plating	Brass, Gold	Brass, Gold
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Beryllium Copper, Gold	
Body Material and Plating	Stainless Steel, Passivated	Brass, Gold
Coupling Nut Material and Plating		Brass, Gold
Hex Size		5/16 inch
Torque		5 in-lbs [0.57 Nm]

Mechanical Specification Notes:

### Environmental Specifications

Description	Specification
Temperature Operating Range	-40 to +85 deg C

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

### Plotted and Other Data

Notes:  
Values at 25°C, sea level.

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**PE3M0291**

**How to Order**

Part Number Configuration:

**PE3M0291 - xx uu**



Example: PE3M0291-12 = 12 inches long cable  
PE3M0291-100cm = 100 cm long cable

Cable Assembly Length Tolerances:

Imperial English		Metric	
"L" ≤ 1 ft	+0.5 in / -0 in	"L" ≤ 0.3 m	+12.5 mm / -0 mm
1 ft < "L" ≤ 5 ft	+1 in / -0 in	0.3 m < "L" ≤ 1.5 m	+25 mm / -0 mm
5 ft < "L" ≤ 10 ft	+2 in / -0 in	1.5 m < "L" ≤ 3 m	+50 mm / -0 mm
10 ft < "L" ≤ 25 ft	+3 in / -0 in	3 m < "L" ≤ 7.5 m	+75 mm / -0 mm
25 ft < "L"	+2%"L" / -0%"L"	7.5 m < "L"	+2%"L" / -0%"L"

\* Cable Length = "L"

BMZ Size 8 D38999 Contact Socket to SMA Male Cable Using M17/119-RG174-0XDS2 Coax with HeatShrink, LF Solder 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.

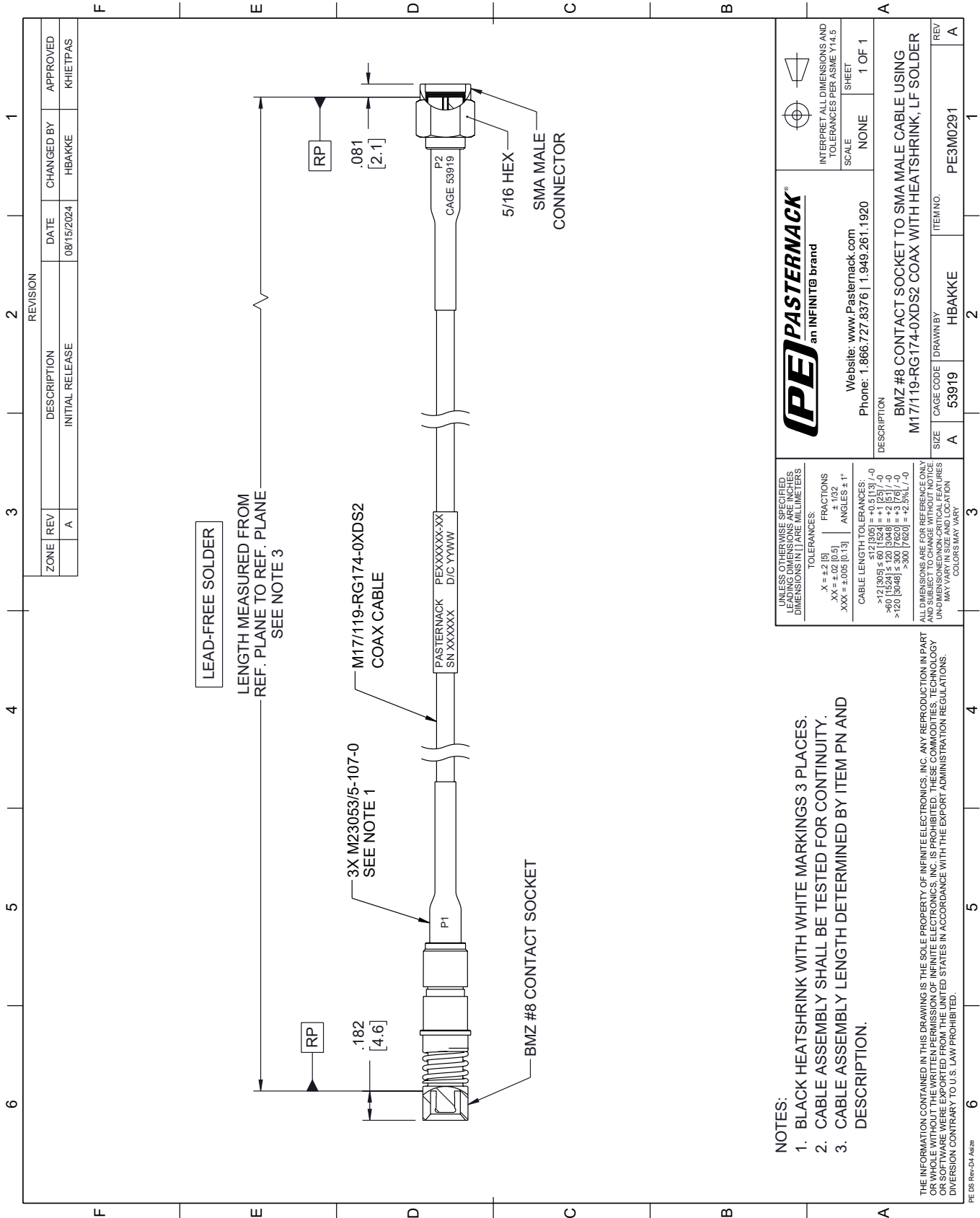
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [BMZ Size 8 D38999 Contact Socket to SMA Male Cable Using M17/119-RG174-0XDS2 Coax with HeatShrink, LF Solder PE3M0291](#)

URL: <https://www.pasternack.com/bmz-8-contact-socket-to-sma-male-cable-using-m17-119-rg174-coax-with-heatshrink-lf-solder-pe3m0291-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 impliment 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.

# PE3M0291 CAD Drawing

BMZ Size 8 D38999 Contact Socket to SMA Male Cable Using M17/119-RG174-0XDS2 Coax with HeatShrink, LF Solder



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an INFINITE brand

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5  
SCALE NONE SHEET 1 OF 1

DESCRIPTION  
**BMZ #8 CONTACT SOCKET TO SMA MALE CABLE USING M17/119-RG174-0XDS2 COAX WITH HEATSHRINK, LF SOLDER**

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	HBAKKE	PE3M0291