

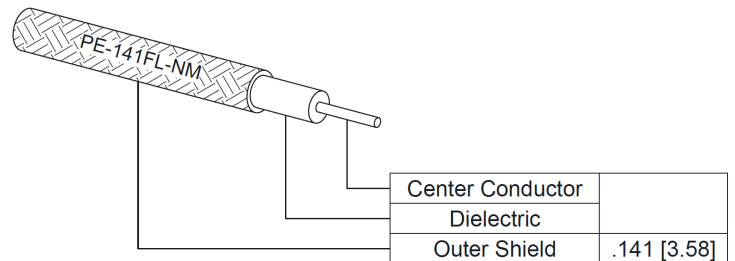
## BMZ Size 8 D38999 Contact Socket to SMA Male Cable Using PE-141FL-NM Coax with HeatShrink, LF Solder



### PE3M0290

#### Configuration

- Connector 1: Push-on BMZ Socket PEMACTRF8S06
- Connector 2: SMA Male PE4112
- Cable Type: PE-141FL-NM
- Coax Flex Type: Formable



#### Features

- Max Frequency: 18 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 PE3M0290 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 18 GHz.

The RF cable has a copper jacket. This PE3M0290 radio frequency cable assembly can withstand temperatures ranging from -65 to 165 degrees C. Our BMZ socket to SMA male cable has a maximum VSWR of 1.4:1. This formable RF cable assembly with a 0.5-inch diameter has silver plated copper as the cable's inner conducting material and PTFE dielectric type.

BMZ socket to SMA male cable assembly is built with PE-141FL-NM, which is a formable coax type. The Pasternack PE3M0290 formable 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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**PE3M0290**

**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	PE-141FL-NM in accordance with PE-141FL-NM datasheet
Connector 1	PEMACTRF8S06 in accordance with MIL-DTL-38999
Connector 2	PE4112 in accordance with MIL-STD-348
Heat Shrink 1	M23053/5-106-0 in accordance with SAE AS23053
Heat Shrink 2	M23053/5-106-0 in accordance with SAE AS23053
Solder	SAC305 in accordance with J-STD-006

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
VSWR			1.4:1	
Velocity of Propagation		70		%
RF Shielding	90			dB

**Specifications by Frequency**

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**PE3M0290**

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency		1000	2000	4500	9000	
PE3M0290	Custom Lengths Available	Insertion Loss (Typ.)	0.16	0.22	0.36	0.55	0.852	dB/ft	
			0.54	0.72	1.2	1.82	2.8	dB/m	
PE3M0290-6	6 inch	Insertion Loss (Typ.)	0.29	0.31	0.39	0.48	0.63	dB	0.68
PE3M0290-12	12 inch	Insertion Loss (Typ.)	0.37	0.42	0.57	0.76	1.06	dB	1.34
PE3M0290-24	24 inch	Insertion Loss (Typ.)	0.53	0.64	0.93	1.31	1.91	dB	2.66
PE3M0290-36	36 inch	Insertion Loss (Typ.)	0.69	0.86	1.29	1.86	2.76	dB	3.98
PE3M0290-48	48 inch	Insertion Loss (Typ.)	0.85	1.08	1.66	2.42	3.61	dB	5.3
PE3M0290-60	60 inch	Insertion Loss (Typ.)	1.01	1.3	2.02	2.97	4.46	dB	6.62

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: 1.34 pounds  
 Additional Weight per Foot: 1.32 pounds

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

**Mechanical Specifications**

**Cable Assembly**

Description	Minimum	Typical	Maximum	Units
Weight		1.34 [607.81]		lbs [g]
Repeated Minimum Bend Radius	0.375			in

**Cable Characteristics**

Description	Specification
Cable Type	PE-141FL-NM
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Silver Plated Copper
Dielectric Type	PTFE
Number of Shields	1
Outer Conductor 1 Material and Plating	Copper-Tin Composite
Jacket Material	Copper

**Connector Characteristics**

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

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**PE3M0290**

**Connector Characteristics**

Description	Connector 1	Connector 2
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Connection Method	Push-on	
Contact Size	8	
Mating Cycles	1,000	
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification		50 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Stainless Steel, Gold	
Body Material and Plating	Stainless Steel, Gold	Stainless Steel, Gold
Body Plating Specification		10 µin minimum
Coupling Nut Material and Plating		Brass, Nickel
Coupling Nut Plating Specification		100 µin minimum
Hex Size		5/16 inch
Torque		5 in-lbs [0.57 Nm]

Mechanical Specification Notes:

**Environmental Specifications**

Description	Specification
Temperature Operating Range	-65 to +165 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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**PE3M0290**

**How to Order**

Part Number Configuration:

**PE3M0290**

- **xx**

**uu**

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

Example: PE3M0290-12 = 12 inches long cable  
PE3M0290-100cm = 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 PE-141FL-NM 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.

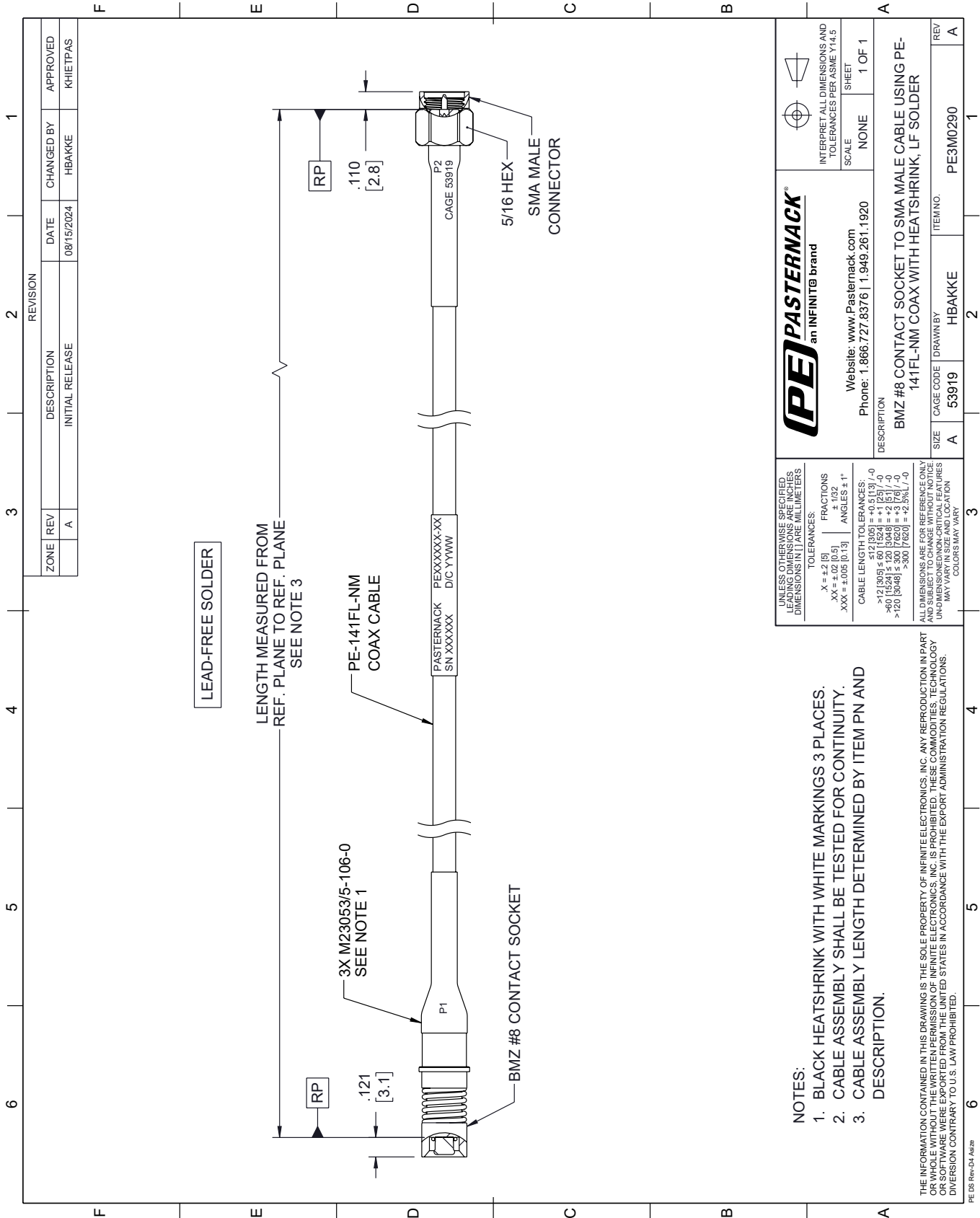
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [BMZ Size 8 D38999 Contact Socket to SMA Male Cable Using PE-141FL-NM Coax with HeatShrink, LF Solder PE3M0290](https://www.pasternack.com/bmz-8-contact-socket-to-sma-male-cable-using-pe-141fl-nm-coax-with-heatshrink-lf-solder-pe3m0290-p.aspx)

URL: <https://www.pasternack.com/bmz-8-contact-socket-to-sma-male-cable-using-pe-141fl-nm-coax-with-heatshrink-lf-solder-pe3m0290-p.aspx>

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# PE3M0290 CAD Drawing

BMZ Size 8 D38999 Contact Socket to SMA Male Cable Using PE-141FL-NM Coax with HeatShrink, LF Solder



**PE PASTERNAK**  
an INFINITI® brand

Website: [www.Pasternack.com](http://www.Pasternack.com)  
Phone: 1.866.727.8376 | 1.949.261.1920

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

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [ ] ARE MILLIMETERS.

TOLERANCES:  
 .X = ±.2 [5]  
 .XX = ±.02 [0.5]  
 .XXX = ±.005 [0.13]  
 FRACTIONS ± 1/32  
 ANGLES ± 1°

CABLE LENGTH TOLERANCES:  
 >12 [305] ≤ 60 [1524] = +0.1 [3] / -0  
 >60 [1524] ≤ 120 [3048] = +2 [51] / -0  
 >120 [3048] ≤ 300 [7620] = +2.5 [64] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY  
 UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [ ] ARE MILLIMETERS.  
 UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION.  
 COLORS MAY VARY

DESCRIPTION  
 BMZ #8 CONTACT SOCKET TO SMA MALE CABLE USING PE-141FL-NM COAX WITH HEATSHRINK, LF SOLDER

SIZE A  
 CAGE CODE 53919  
 DRAWN BY HBAKKE  
 ITEM NO. PE3M0290

NOTES:

1. BLACK HEATSHRINK WITH WHITE MARKINGS 3 PLACES.
2. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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PE DS Rev-04 Add2