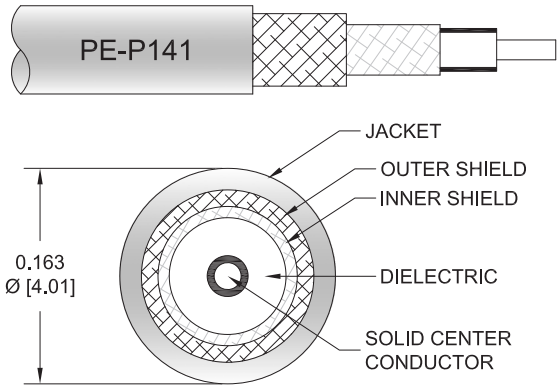
# BMB Size 8 D38999 Contact Pin to SMA Female Cable Using PE-P141 Coax with HeatShrink, LF Solder

## PE3M0313

### Configuration

- Connector 1: Push-on  BMB Pin
- Connector 2:  SMA Female
- Cable Type: PE-P141
- Coax Flex Type: Flexible




### 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 PE3M0313 from Pasternack is a D38999 contact cable assembly that is built with a size 8 BMB pin contact on one end and a SMA female 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 BMB 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 FEP jacket of 0.163-inch diameter. This PE3M0313 radio frequency cable assembly can withstand temperatures ranging from -65 to 165 degrees C. Our BMB pin to SMA female cable has a maximum VSWR of 1.4:1. This RF cable assembly with a 0.5-inch diameter has copper clad steel as the cable's inner conducting material and PTFE dielectric type.

This BMB pin to SMA female cable assembly is built with PE-P141, which is a flexible coax type. The Pasternack PE3M0313 flexible cable assembly has a 50 Ohm impedance and is double shielded. Additional dimensions, specifications, and CAD drawings for this BMB to SMA RF cable are available on our downloadable PDF datasheet.

BMB pin to SMA female 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 BMB 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 BMB to SMA RF cable assembly as per your requirements.

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## PE3M0313

### 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-P141 in accordance with PE-P141 datasheet |
| Connector 1 | in accordance with MIL-DTL-38999 |
| 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 | | % |
| Capacitance | | 29.4 [96.46] | | pF/ft [pF/m] |

### Specifications by Frequency

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## PE3M0313

| Part Number | Length | Description | F1 | F2 | F3 | F4 | F5 | Units | Weight (lbs) |
|---|---|---|---|---|---|---|---|---|---|
| | | Frequency | 1000 | 2000 | 4500 | 9000 | 18000 | MHz | |
| PE3M0313 | Custom Lengths Available | Insertion Loss (Typ.) | 0.11 | 0.17 | 0.25 | 0.41 | 0.58 | dB/ft | |
| | | | 0.37 | 0.55 | 0.83 | 1.35 | 1.91 | dB/m | |
| PE3M0313-6 | 6 inch | Insertion Loss (Typ.) | 0.26 | 0.29 | 0.33 | 0.41 | 0.49 | dB | 0.0345 |
| PE3M0313-12 | 12 inch | Insertion Loss (Typ.) | 0.32 | 0.37 | 0.46 | 0.61 | 0.78 | dB | 0.049 |
| PE3M0313-24 | 24 inch | Insertion Loss (Typ.) | 0.43 | 0.53 | 0.71 | 1.02 | 1.36 | dB | 0.078 |
| PE3M0313-36 | 36 inch | Insertion Loss (Typ.) | 0.54 | 0.7 | 0.96 | 1.43 | 1.94 | dB | 0.107 |
| PE3M0313-48 | 48 inch | Insertion Loss (Typ.) | 0.65 | 0.86 | 1.21 | 1.84 | 2.52 | dB | 0.136 |
| PE3M0313-60 | 60 inch | Insertion Loss (Typ.) | 0.76 | 1.03 | 1.46 | 2.25 | 3.1 | dB | 0.165 |

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: | 0.049 | pounds |
| Additional Weight per Foot: | 0.029 | pounds |

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

### Mechanical Specifications

#### Cable Assembly

| Description | Minimum | Typical | Maximum | Units |
|---|---|---|---|---|
| Length* | | | 0 [0] | in [mm] |
| Cable Outer Diameter | | 0.163 | | in |
| Weight | | 0.049 [22.23] | | lbs [g] |

#### Cable Characteristics

| Description | Specification |
|---|---|
| Cable Type | PE-P141 |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper Clad Steel, Silver |
| Dielectric Type | PTFE |
| Number of Shields | 2 |
| Shield Layer 1 | Silver Plated Copper Tape |
| Shield Layer 2 | Silver Plated Copper Braid |
| Jacket Material | FEP |

# BMB Size 8 D38999 Contact Pin to SMA Female Cable Using PE-P141 Coax with HeatShrink, LF Solder

## PE3M0313

### Connector Characteristics

| Description | Connector 1 | Connector 2 |
|---|---|---|
| Type | BMB Pin | SMA Female |
| Specification | MIL-DTL-38999 | |
| 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 | Beryllium Copper, Gold |
| Dielectric Type | PTFE | PTFE |
| Outer Conductor Material and Plating | Beryllium Copper, Gold | |
| Body Material and Plating | Stainless Steel, Passivated | Stainless Steel, Gold |

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.

# BMB Size 8 D38999 Contact Pin to SMA Female Cable Using PE-P141 Coax with HeatShrink, LF Solder

## PE3M0313

### How to Order

Part Number Configuration: **PE3M0313 - xx uu**

- uu — Unit of Measure: cm = Centimeters, <blank> = Inches
- xx — Length
- PE3M0313 — Base Number

Example: PE3M0313-12 = 12 inches long cable
PE3M0313-100cm = 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"

BMB Size 8 D38999 Contact Pin to SMA Female Cable Using PE-P141 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: BMB Size 8 D38999 Contact Pin to SMA Female Cable Using PE-P141 Coax with HeatShrink, LF Solder PE3M0313

URL: https://www.pasternack.com/bmb-size-8-d38999-contact-pin-to-sma-female-cable-using-pe-p141-coax-with-heatshrink-lf-solder-pe3m0313-p.aspx

# PE3M0313 CAD Drawing

BMB Size 8 D38999 Contact Pin to SMA Female Cable Using PE-P141 Coax with HeatShrink, LF Solder