

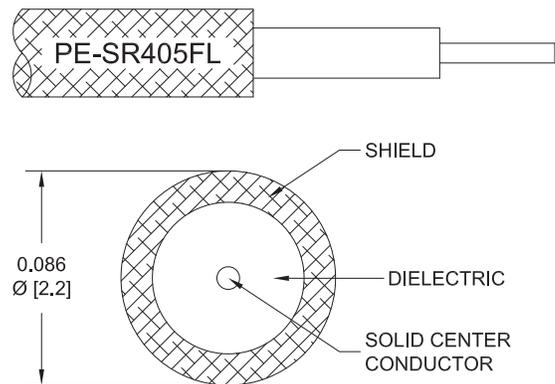
BMA Size 8 D38999 Contact Pin to SMA Male Cable Using PE-SR405FL Coax with HeatShrink, LF Solder



PE3M0255

Configuration

- Connector 1: Push-on BMA Pin PEMACTRF8P01
- Connector 2: SMA Male PE45135
- Cable Type: PE-SR405FL
- 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 PE3M0255 from Pasternack is a D38999 contact cable assembly that is built with a size 8 BMA pin 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 BMA 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.

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

BMA pin to SMA male cable assembly is built with PE-SR405FL, which is a formable coax type. The Pasternack PE3M0255 formable cable assembly has a 50 Ohm impedance and is single shielded. Additional dimensions, specifications, and CAD drawings for this BMA to SMA RF cable are available on our downloadable PDF datasheet.

BMA pin 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 BMA 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 BMA to SMA RF cable assembly as per your requirements.

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PE3M0255

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-SR405FL in accordance with PE-SR405FL datasheet |
| Connector 1 | PEMACTRF8P01 in accordance with MIL-DTL-38999 |
| Connector 2 | PE45135 in accordance with MIL-STD-348A |
| Heat Shrink 1 | M23053/5-105-0 in accordance with SAE AS23053 |
| Heat Shrink 2 | M23053/5-105-0 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 | | 69.5 | | % |
| Capacitance | | 29 [95.14] | | pF/ft [pF/m] |
| DC Resistance Inner Conductor | | 65.7 [215.55] | | $\Omega/1000ft$ [Ω/Km] |
| DC Resistance Outer Conductor | | 10.2 [33.46] | | [Ω/Km] |

Specifications by Frequency

BMA Size 8 D38999 Contact Pin to SMA Male Cable
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PE3M0255

| Part Number | Length | Description | F1 | F2 | F3 | F4 | F5 | Units | Weight (lbs) |
|-------------|--------------------------|-----------------------|-----------|------|------|------|-------|-------|--------------|
| | | | Frequency | | 1000 | 2000 | 4500 | 9000 | |
| PE3M0255 | Custom Lengths Available | Insertion Loss (Typ.) | 0.23 | 0.31 | 0.51 | 0.76 | 1.122 | dB/ft | |
| | | | 0.74 | 1.01 | 1.67 | 2.5 | 3.69 | dB/m | |
| PE3M0255-6 | 6 inch | Insertion Loss (Typ.) | 0.32 | 0.36 | 0.46 | 0.58 | 0.77 | dB | 0.0255 |
| PE3M0255-12 | 12 inch | Insertion Loss (Typ.) | 0.43 | 0.51 | 0.71 | 0.96 | 1.33 | dB | 0.031 |
| PE3M0255-24 | 24 inch | Insertion Loss (Typ.) | 0.65 | 0.82 | 1.22 | 1.72 | 2.45 | dB | 0.042 |
| PE3M0255-36 | 36 inch | Insertion Loss (Typ.) | 0.88 | 1.12 | 1.73 | 2.48 | 3.57 | dB | 0.053 |
| PE3M0255-48 | 48 inch | Insertion Loss (Typ.) | 1.1 | 1.43 | 2.24 | 3.24 | 4.69 | dB | 0.064 |
| PE3M0255-60 | 60 inch | Insertion Loss (Typ.) | 1.33 | 1.73 | 2.74 | 4 | 5.81 | dB | 0.075 |

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: 0.031 pounds
 Additional Weight per Foot: 0.011 pounds

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

Mechanical Specifications

Cable Assembly

| Description | Minimum | Typical | Maximum | Units |
|------------------------------|---------|---------------|---------|---------|
| Length* | | | 0 [0] | in [mm] |
| Weight | | 0.031 [14.06] | | lbs [g] |
| Repeated Minimum Bend Radius | 0.78 | | | in |

Cable Characteristics

| Description | Specification |
|--|---------------------------|
| Cable Type | PE-SR405FL |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper Clad Steel, Silver |
| Dielectric Type | PTFE |
| Number of Shields | 1 |
| Outer Conductor 1 Material and Plating | Copper, Tin |

Connector Characteristics

| Description | Connector 1 | Connector 2 |
|---------------|---------------|--------------|
| Type | BMA Pin | SMA Male |
| Specification | MIL-DTL-38999 | MIL-STD-348A |

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Connector Characteristics

| Description | Connector 1 | Connector 2 |
|--------------------------------------|------------------------|--------------------|
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Straight | Straight |
| Connection Method | Push-on | |
| Contact Size | 8 | |
| Mating Cycles | 5,000 | |
| Contact Material and Plating | Beryllium Copper, Gold | Brass, Gold |
| Contact Plating Specification | | 50μ in. minimum |
| Dielectric Type | PTFE | Teflon |
| Outer Conductor Material and Plating | Stainless Steel, Gold | |
| Body Material and Plating | Stainless Steel, Gold | Brass, Gold |
| Body Plating Specification | | 3μ in. minimum |
| Coupling Nut Material and Plating | | Brass, Gold |
| Coupling Nut Plating Specification | | 3μ in. minimum |
| Hex Size | | 5/16 in |
| 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.

BMA Size 8 D38999 Contact Pin to SMA Male Cable Using PE-SR405FL Coax with HeatShrink, LF Solder



PE3M0255

How to Order

Part Number Configuration:

PE3M0255

- **xx**

uu

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

Example: PE3M0255-12 = 12 inches long cable
PE3M0255-100cm = 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"

BMA Size 8 D38999 Contact Pin to SMA Male Cable Using PE-SR405FL 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.

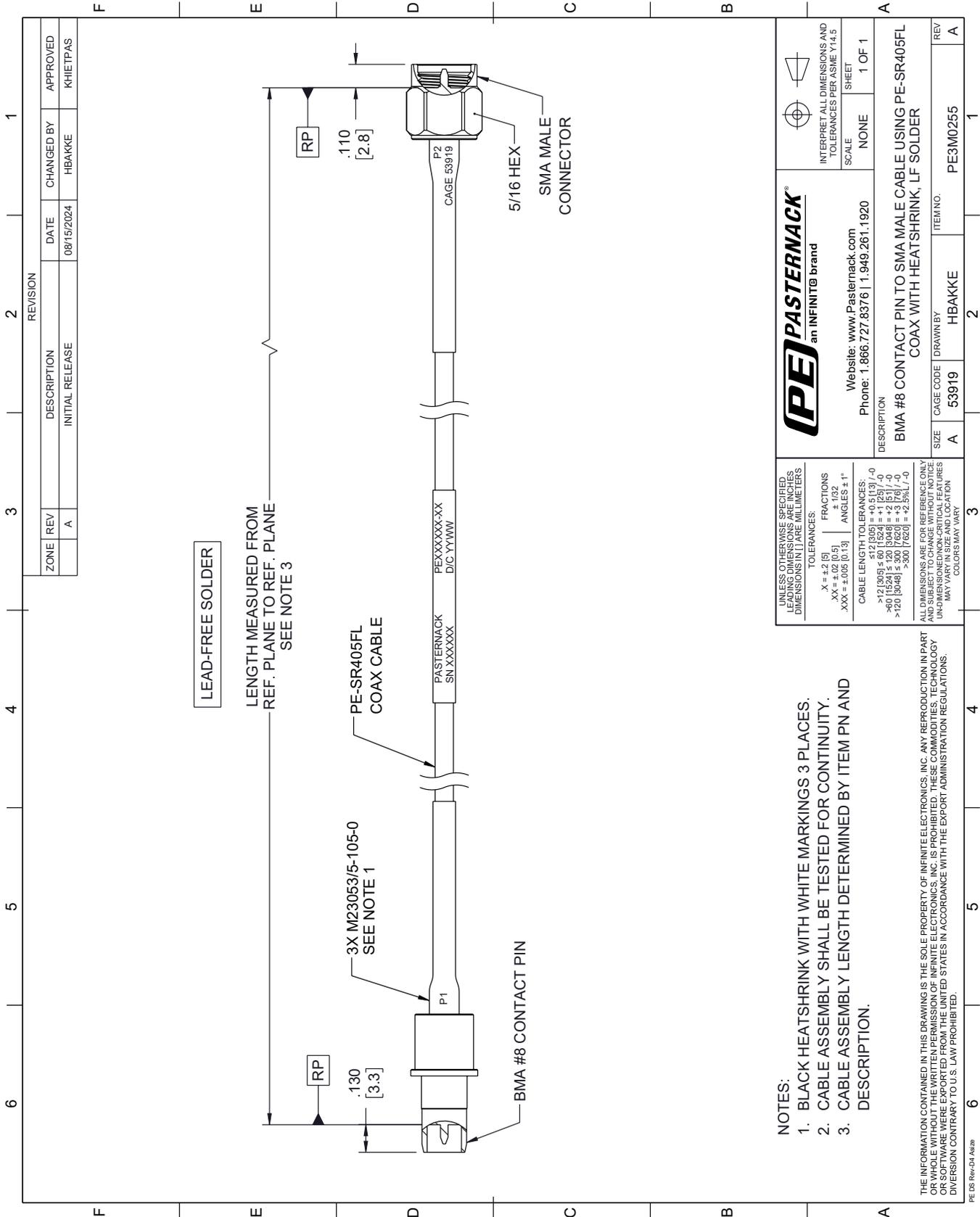
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [BMA Size 8 D38999 Contact Pin to SMA Male Cable Using PE-SR405FL Coax with HeatShrink, LF Solder PE3M0255](#)

URL: <https://www.pasternack.com/bma-8-d38999-contact-pin-to-sma-male-cable-using-pe-sr405fl-coax-with-heatshrink-lf-solder-pe3m0255-p.aspx>

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PE3M0255 CAD Drawing

BMA Size 8 D38999 Contact Pin to SMA Male Cable Using PE-SR405FL Coax with HeatShrink, LF Solder



PE PASTERNAK
an INFINITE brand

Website: 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] FRACTIONS ±.132 ±.02 [0.5] ANGLES ± 1° .XXX = ±.005 [0.13]

CABLE LENGTH TOLERANCES: >12 [305] ≤ 60 [1524] = +0.1 [3] / -0 >60 [1524] ≤ 120 [3048] = +2 [5] / -0 >120 [3048] ≤ 300 [7620] = +2.5 [6] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

DESCRIPTION: BMA #8 CONTACT PIN TO SMA MALE CABLE USING PE-SR405FL COAX WITH HEATSHRINK, LF SOLDER

| SIZE | CAGE CODE | DRAWN BY | ITEM NO. |
|------|-----------|----------|----------|
| A | 53919 | HBAKKE | PE3M0255 |

REV A

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