

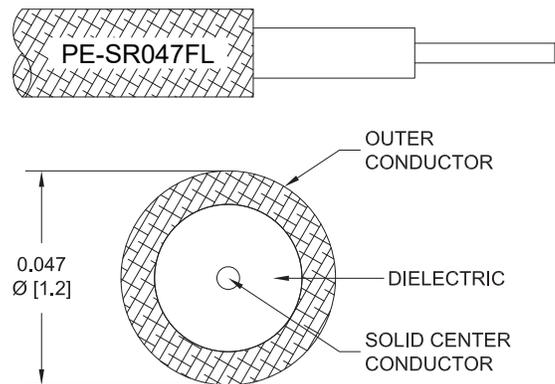
SMPM Size 12 D38999 Contact Socket to SMA Male Cable Using PE-SR047FL Coax with HeatShrink, LF Solder



PE3M0303

Configuration

- Connector 1: Push-on Mini SMP Socket PEMACTRF12S04
- Connector 2: SMA Male
- Cable Type: PE-SR047FL
- Coax Flex Type: Formable



Features

- Max Frequency: 18 GHz
- Can be installed in all D38999 size 12 inserts
- Lot traceability
- High speed RF cable assembly

Applications

- Military and Aerospace
- Avionics
- Industrial Automation

Description

The PE3M0303 from Pasternack is a D38999 contact cable assembly that is built with a size 12 Mini SMP 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 mini SMP 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 10 GHz.

This PE3M0303 radio frequency cable assembly can withstand temperatures ranging from -65 to 100 degrees C. Our Mini SMP 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 copper clad steel as the cable's inner conducting material and PTFE dielectric type.

Mini SMP socket to SMA male cable assembly is built with PE-SR047FL, which is a formable coax type. The Pasternack PE3M0303 formable cable assembly has a 50 Ohm impedance and is single shielded. Additional dimensions, specifications, and CAD drawings for this Mini SMP to SMA RF cable are available on our downloadable PDF datasheet.

Mini SMP 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 Mini SMP 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 mini SMP to SMA RF cable assembly as per your requirements.

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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-SR047FL in accordance with PE-SR047FL datasheet
Connector 1	PEMACTRF12S04 in accordance with MIL-DTL-38999
Heat Shrink 1	M23053/5-103-0 in accordance with SAE AS23053
Heat Shrink 2	M23053/5-103-0 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		32 [104.99]		pF/ft [pF/m]
DC Resistance Inner Conductor		207 [679.13]		Ω /1000ft [Ω /Km]
DC Resistance Outer Conductor		8 [26.25]		[Ω /Km]

Specifications by Frequency

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PE3M0303

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
PE3M0303	Custom Lengths Available	Insertion Loss (Typ.)	0.36	0.51	0.81	1.14	1.8	dB/ft	
			1.19	1.66	2.65	3.76	5.91	dB/m	
PE3M0303-6	6 inch	Insertion Loss (Typ.)	0.38	0.46	0.61	0.78	1.1	dB	0.0215
PE3M0303-12	12 inch	Insertion Loss (Typ.)	0.56	0.71	1.01	1.35	2	dB	0.023
PE3M0303-24	24 inch	Insertion Loss (Typ.)	0.92	1.21	1.82	2.49	3.8	dB	0.026
PE3M0303-36	36 inch	Insertion Loss (Typ.)	1.28	1.72	2.63	3.64	5.6	dB	0.029
PE3M0303-48	48 inch	Insertion Loss (Typ.)	1.64	2.22	3.43	4.78	7.4	dB	0.032
PE3M0303-60	60 inch	Insertion Loss (Typ.)	2	2.73	4.24	5.92	9.2	dB	0.035

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: 0.023 pounds
 Additional Weight per Foot: 0.003 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			0.047	in
Weight		0.023 [10.43]		lbs [g]

Cable Characteristics

Description	Specification
Cable Type	PE-SR047FL
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	Tinned Copper Braid

Connector Characteristics

Description	Connector 1	Connector 2
Type	Mini SMP Socket	SMA Male
Specification	MIL-DTL-38999	

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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	12	
Mating Cycles	1,000	
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold over Nickel
Contact Plating Specification		50 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Stainless Steel, Passivated	
Body Material and Plating	Beryllium Copper, Gold	Brass, Gold over Nickel
Body Plating Specification		50 µin minimum
Coupling Nut Material and Plating		Brass, Nickel
Coupling Nut Plating Specification		50 µin minimum
Hex Size		5/16 inch
Torque		10 in-lbs [1.13 Nm]

Mechanical Specification Notes:

Environmental Specifications

Description	Specification
Temperature Operating Range	-65 to +100 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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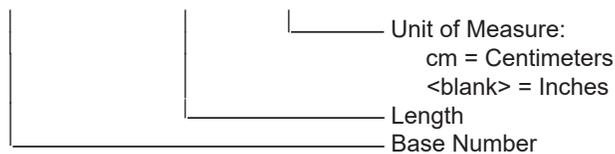


PE3M0303

How to Order

Part Number Configuration:

PE3M0303 - xx uu



Example: PE3M0303-12 = 12 inches long cable
PE3M0303-100cm = 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"

SMPM Size 12 D38999 Contact Socket to SMA Male Cable Using PE-SR047FL 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.

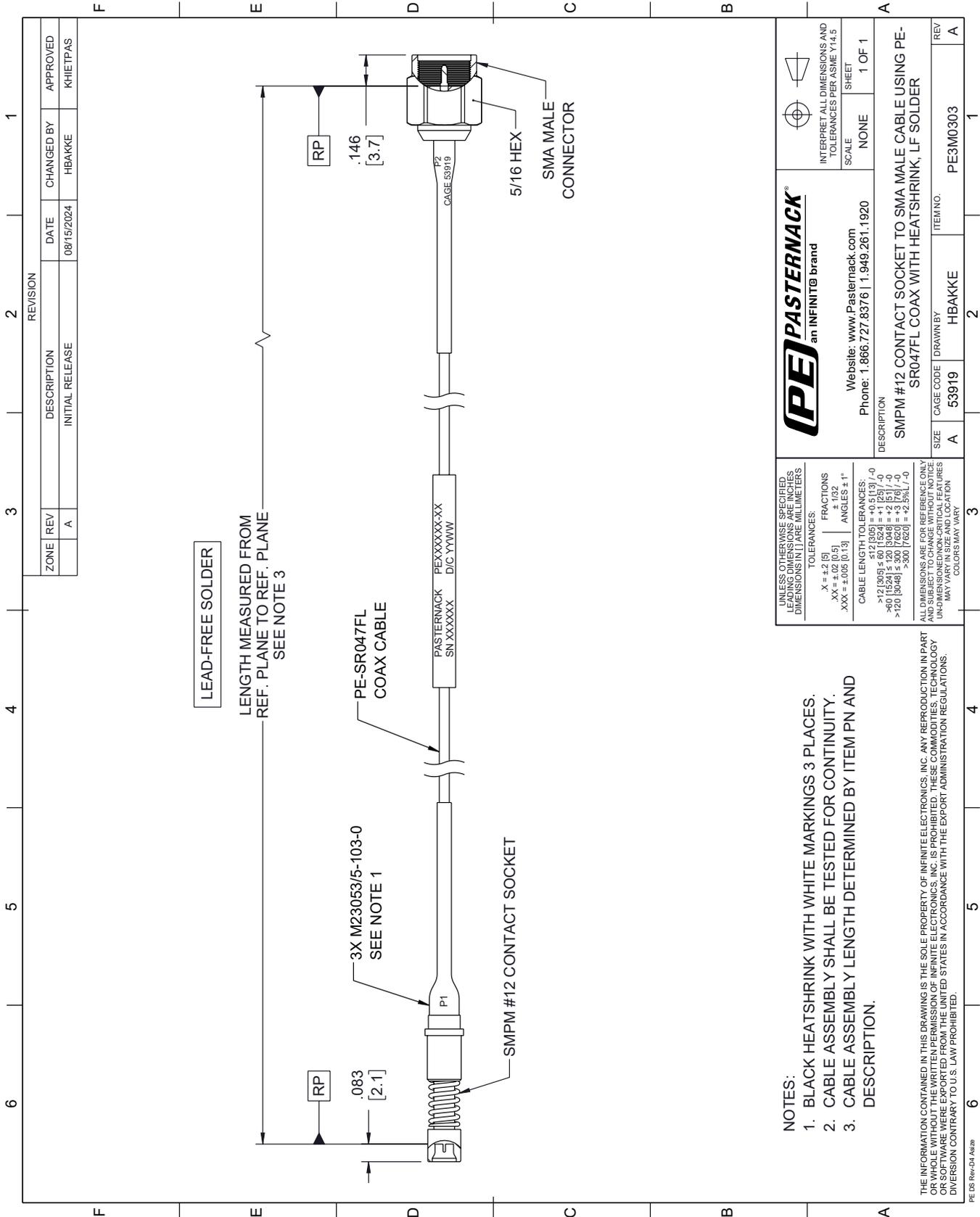
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMPM Size 12 D38999 Contact Socket to SMA Male Cable Using PE-SR047FL Coax with HeatShrink, LF Solder PE3M0303](https://www.pasternack.com/smpm-12-contact-socket-to-sma-male-cable-using-pe-sr047fl-coax-with-heatshrink-lf-solder-pe3m0303-p.aspx)

URL: <https://www.pasternack.com/smpm-12-contact-socket-to-sma-male-cable-using-pe-sr047fl-coax-with-heatshrink-lf-solder-pe3m0303-p.aspx>

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PE3M0303 CAD Drawing

SMPM Size 12 D38999 Contact Socket to SMA Male Cable Using PE-SR047FL Coax with HeatShrink, LF Solder



- 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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UNLESS OTHERWISE SPECIFIED
 LEADING DIMENSIONS ARE IN INCHES
 DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

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

CABLE LENGTH TOLERANCES:

>12 [305] ≤ 60 [1524] = +1 [25] / -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

Website: www.Pasternack.com
 Phone: 1.866.727.8376 | 1.949.261.1920

DESCRIPTION	SCALE	SHEET
SMPM #12 CONTACT SOCKET TO SMA MALE CABLE USING PE-SR047FL COAX WITH HEATSHRINK, LF SOLDER	NONE	1 OF 1

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	HBAKKE	PE3M0303