



SMP Female Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL, Up To 40 GHz

RF Connectors Technical Data Sheet

PE45277

Configuration

- SMP Female Connector
- MIL-STD-348A
- 50 Ohms

- Straight Body Geometry
- Connector Interface Types: PE-047SR, PE-SR047AL, PE-SR047FL

Features

- Max. Operating Frequency 40 GHz
- Gold Plated Beryllium Copper Contact
- Contact plating according to MIL-DTL-45204

- Blind Mate Connector
- Excellent VSWR of 1.25:1 up to 20 GHz

Applications

- General Purpose Test
- Custom Cable Assemblies

Description

Pasternack's PE45277, SMP, Standard, Connector is part of our full line of RF components available for same-day shipping. Our SMP female connector operates up to a maximum frequency of 40 GHz and offers excellent VSWR of 1.25:1 up to 20 GHz. The Pasternack blind mate connector is ideal for applications where direct visual or tactile access to the connection point is not possible, for example, when two circuit boards need to be mated. Pasternack 40 GHz SMP connectors are designed to offer a low cost alternative where the SMP form factor is desired but the standard SMP frequency range is not needed. The line of 40 GHz SMP connectors is fully compatible with industry standard SMP and GPO® connectors. These SMP connectors offer a low cost high performance blind-mate solution for lower frequency applications. The Male versions of the 40 GHz SMP is available in Full Detent, Limited Detent, and Smooth Bore versions.

Our SMP female connector PE45277 datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Pasternack has the right connector for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
Impedance		50		Ohms

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 20					GHz
VSWR, Max	1.25:1					

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMP Female Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL, Up To 40 GHz PE45277](#)



SMP Female Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL, Up To 40 GHz

RF Connectors Technical Data Sheet

PE45277

Mechanical Specifications

Size

Length

0.26 in [6.65 mm]

Material Specifications

Description	Material	Plating
Contact	Beryllium Copper	Gold MIL-DTL-45204
Insulation	PTFE	
Body	Beryllium Copper	Gold MIL-DTL-45204

Environmental Specifications

Temperature

Operating Range

-65 to +165 deg C

Humidity

MIL-STD-202, Method 106 (except 7b omitted)

Shock

MIL-STD-202, Method 213, Condition I

Vibration

MIL-STD-202, Method 204, Condition D

Salt Spray

MIL-STD-202, Method 101, Condition B

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

Plotted and Other Data

Notes:

SMP Female Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL, Up To 40 GHz 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.

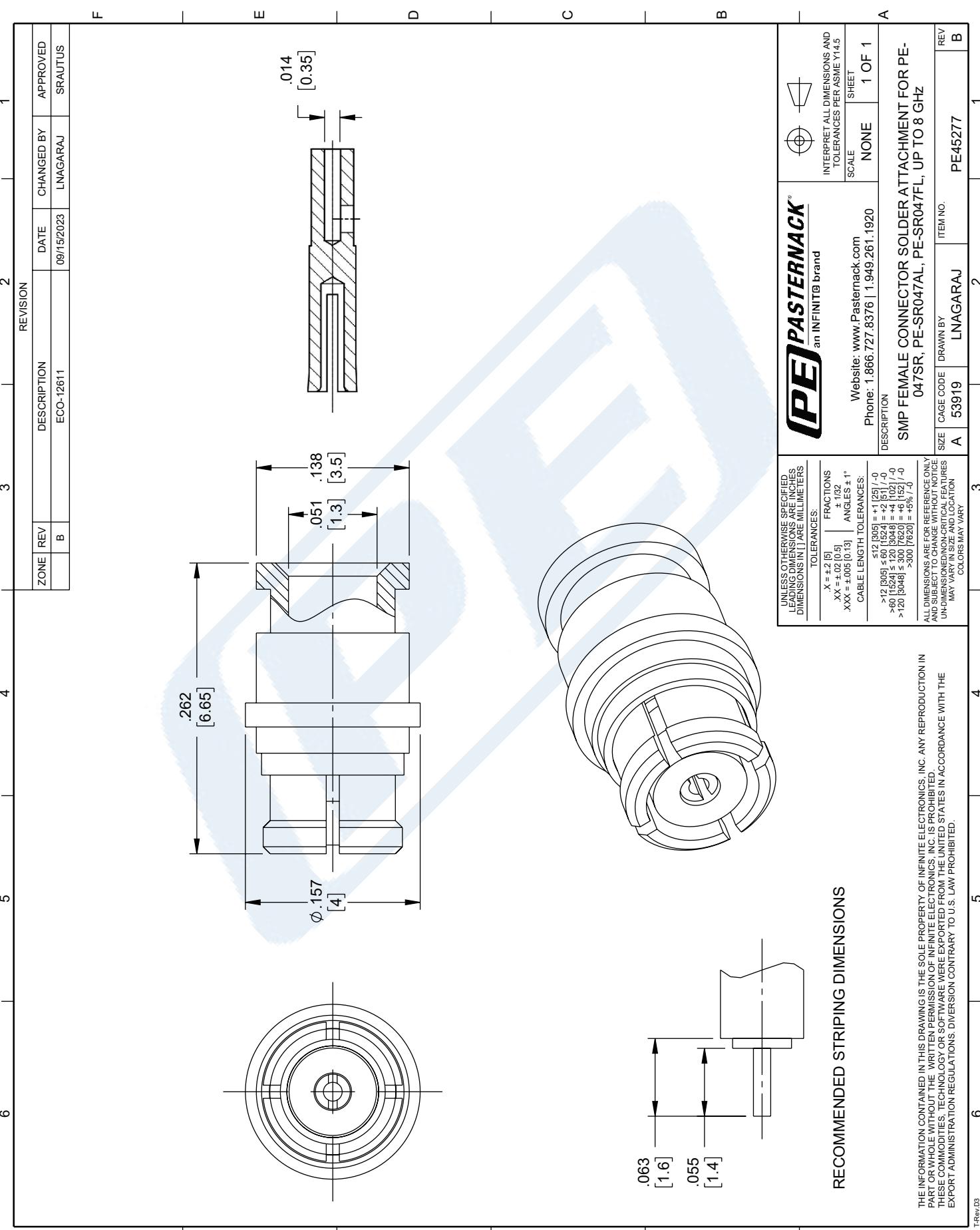
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMP Female Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL, Up To 40 GHz PE45277](#)

URL: <https://www.pasternack.com/smp-female-pe-047sr-pe-sr047al-pe-sr047fl-connector-pe45277-p.aspx>

The information contained in 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 implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE45277 CAD Drawing

SMP Female Connector Solder Attachment for PE-047SR,
PE-SR047AL, PE-SR047FL, Up To 40 GHz



SMA Female Bulkhead Mount Connector Solder Attachment for PE-047SR, PE-P047, PE-P047LL, PE-SR047AL, PE-SR047FL, .047 Semi-Rigid



PE51271

Configuration

- SMA Female Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: PE-047SR, PE-P047, PE-P047LL, PE-SR047AL, PE-SR047FL, .047 Semi-Rigid
- Bulkhead

Features

- Max. Operating Frequency 18 GHz
- Excellent VSWR of 1.25:1
- Gold over Nickel Plated Beryllium Copper Contact

Applications

- General Purpose Test
- Rack and Panel Mount Applications
- Custom Cable Assemblies

Description

Pasternack's PE51271, SMA, Standard, Connector is part of our full line of RF components available for same-day shipping. Our SMA female connector operates up to a maximum frequency of 18 GHz and offers excellent VSWR of 1.25:1. This SMA bulkhead connector allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications.

Our SMA female bulkhead connector PE51271 datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Pasternack has the right connector for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
VSWR			1.25:1	
Insertion Loss		0.17		dB
Operating Voltage (AC)			250	Vrms
Dielectric Withstanding Voltage (AC)			750	Vrms
Inner Conductor DC Resistance			3	mOhms
Outer Conductor DC Resistance			2	mOhms
Insulation Resistance	5,000			MOhms
Impedance		50		Ohms

Electrical Specification Notes:

Insertion loss is = $0.04 * \text{SQRT}(F(\text{GHz}))$ dB

Mechanical Specifications

Size

Length	0.433071 in [11 mm]
Width	0.433071 in [11 mm]
Height	0.748031 in [19 mm]
Weight	0.015 lbs [6.8 g]

SMA Female Bulkhead Mount Connector Solder Attachment for PE-047SR, PE-P047, PE-P047LL, PE-SR047AL, PE-SR047FL, .047 Semi-Rigid



PE51271

Mating Cycles	100 Cycles
Mating Torque	4 to 5.3 in-lbs [[0.45 to 0.60 Nm]]
Cable Retention Force	6.1 lbs [2.77 kg]

Material Specifications

Description	Material	Plating
Contact	Beryllium Copper	Gold over Nickel
Insulation	Teflon	
Body	Brass	Gold over Nickel
Coupling Nut	Brass	Gold over Nickel
Gasket	Silicone	
Washer	Brass	Gold over Nickel

Environmental Specifications

Temperature

Operating Range
Thermal Shock

-40 to +165 deg C
MIL-STD-202, Method 107, Condition B

Compliance Certifications

(see product page for current document)

Plotted and Other Data

Notes:

SMA Female Bulkhead Mount Connector Solder Attachment for PE-047SR, PE-P047, PE-P047LL, PE-SR047AL, PE-SR047FL, .047 Semi-Rigid 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: [SMA Female Bulkhead Mount Connector Solder Attachment for PE-047SR, PE-P047, PE-P047LL, PE-SR047AL, PE-SR047FL, .047 Semi-Rigid PE51271](#)

URL: <https://www.pasternack.com/sma-female-pe-047sr-pe-p047-pe-sr047al-connector-pe51271-p.aspx>

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PE51271 CAD Drawing

SMA Female Bulkhead Mount Connector Solder Attachment for PE-047SR, PE-047, PE-P047LL, PE-SR047AL, PE-SR047FL, .047 Semi-Rigid

REVISION

ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
C		UPDATED PER ECO-13767	8/1/2024	HBARKKE	RMANGL

CONTACT PIN

ASSEMBLY INSTRUCTION

Step 1: STRIP AS SHOWN

Step 2: SLIDE CONNECTOR 'A' OVER CABLE
Step 3: PUT PIN 'B' ON CENTER CONDUCTOR AND SOLDER IN 'Y'.
USE 0.4MM GAGE ST-04.

Step 4: USE SOLDERING FIXTURE, INSERT TOOL,
AND LOCATOR TOOL TO FIX THE
CONNECTOR SOLDER IN 'X'.
USE 0.4MM GAGE ST-04.

Step 5: POUR EPOXY INTO CONNECTOR
EPOXY

RECOMMENDED MOUNTING HOLE

PEI PASTERACK®
an INFINITE brand

WEBSITE: www.Pasterack.com
PHONE: 1.866.727.8376 | 1.949.261.1920

DESCRIPTION: SMA FEMALE SOLDER BULKHEAD FOR 047 SEMI-RIGID, 18GHZ VSWR 1.25

ITEM NO. 53919 DRAWN BY KDANG CAGE CODE 53919

REV C

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

TOLERANCES:
 $X = +.24 [6.1]$ **FRACTIONS:** $\frac{1}{12}$
 $XY = +.05 [0.13]$ **ANGLES:** $\pm 12^\circ$
 $XXX = \pm .05 [0.13]$ **CABLE LENGTH TOLERANCES:**
 >130.5 $\pm 1.2 [30.5]$ $\pm 1 [28]/-0$
 >60 ± 1.24 $\pm 1.2 [15.24]$ $\pm 1.2 [32]/-0$
 >120 ± 1.48 $\pm 1.4 [30.62]$ $\pm 1.4 [32]/-0$
 >360 ± 3.0 $\pm 3.0 [76.2]$ $\pm 3.0 [192]/-0$
 >120 ± 3.0 $\pm 3.0 [76.2]$ $\pm 3.0 [192]/-0$

**ALL DIMENSIONS ARE FOR REFERENCE ONLY
AND SUBJECT TO CHANGE WITHOUT NOTICE
UNDIMENSIONED CRITICAL FEATURES
MAY VARY IN SIZE AND LOCATION
COLORS MAY VARY**

**INTERPRET ALL DIMENSIONS AND
TOLERANCES PER ASME Y14.5
SCALE SHEET**

1 OF 1

047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor

TECHNICAL DATA SHEET

PE-SR047AL

047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor

Configuration

Inner Conductor Material and Plating	Copper Clad Steel, Silver
Dielectric Type	PTFE
Shield Materials	Tinned Aluminum

Electrical Specifications

Impedance, Ohms	50
Velocity of Propagation, %	69.5
Maximum Operating Frequency, GHz	20
RF Shielding, dB	90
Maximum Operating Voltage, Volts	1,000

Electrical Specifications by Frequency

Frequency 1

Frequency, MHz	1000
Attenuation, dB/100ft [dB/100m]	41 [134.51]
Power Handling, Watts	32

Frequency 2

Frequency, GHz	10
Attenuation, dB/100ft [dB/100m]	130 [426.51]
Power Handling, Watts	9

Frequency 3

Frequency, GHz	20
Attenuation, dB/100ft [dB/100m]	190 [623.36]
Power Handling, Watts	6.5

Mechanical Specifications

Temperature

Operating Range, deg C	-55 to +100
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Inner Conductor

Number of Strands	1
Material	Copper Clad Steel
Plating	Silver
Diameter, in [mm]	0.011 [0.28]

Dielectric:

Type	PTFE
Diameter, in [mm]	0.037 [0.94]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor PE-SR047AL](#)

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047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor

TECHNICAL DATA SHEET

PE-SR047AL

Shield:

Number of
Material 1

1
Tinned Aluminum

Jacket:

Diameter, in [mm]

0.047 [1.19]

One Time Minimum Bend Radius, in [mm]

0.05 [1.27]

Weight, lbs/ft [Kg/m]

0.002 [0]

Compliance Certifications (visit www.Pasternack.com for current document)

Plotted and Other Data

Notes:

Values at 25 °C, sea level

047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% 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: [047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor PE-SR047AL](#)

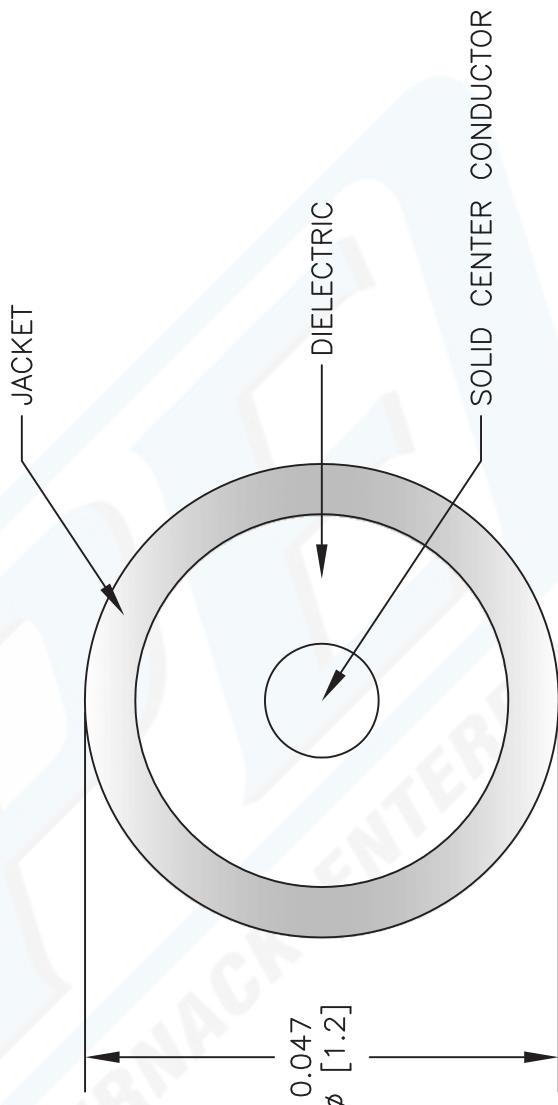
URL: <http://www.pasternack.com/semirigid-0.047-50-ohm-coax-cable-tinned-aluminum-pe-sr047al-p.aspx>

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PE-SR047AL CAD Drawing

047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor

PE-SR047AL



PE-SR047AL

DWG TITLE

PE-SR047AL

PE PASTERNACK®

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NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

FSM NO.	CAD FILE	SCALE	SIZE	REV
53919	103112-B	N/A	A	2233