



SMA Male to TNC Male Low Loss Cable Using PE-P142LL Coax

TECHNICAL DATA SHEET

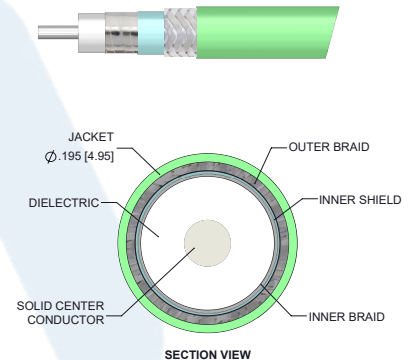
PE3C0847/HSGR

Configuration

- Connector 1: SMA Male
- Connector 2: TNC Male
- Cable Type: PE-P142LL
- Coax Flex Type: Flexible

Features

- Max Frequency 18 GHz
- Shielding Effectivity > 95 dB
- 83% Phase Velocity
- Triple Shielded
- FEP Jacket
- 83% Velocity of Propagation
- Shielding effectiveness >95 dB
- Maximum VSWR is < 1.45:1 to 18 GHz
- Minimum Bend Radius of 1 inch
- Operating Temperature range of -55 to +125 °C
- RoHS and REACH Compliant
- Same day shipment and customs lengths
- 100% Continuity, Hi-Pot, and RF tested



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3C0847/HSGR SMA male to TNC male cable using PE-P142LL coax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Pasternack SMA to TNC cable assembly has a male to male gender configuration with 50 ohm flexible PE-P142LL coax. The PE3C0847/HSGR SMA male to TNC male cable assembly operates to 18 GHz. The triple shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 95 dB. The PE3C0847 series high performance test cable's 0.195 inch diameter and 83% phase velocity offer very low loss performance up to 18 GHz. The durable stainless steel connectors and FEP jacket provide a cost effective design ideal for test environments where a rugged cable assembly is required. The series is offered with Type N, TNC, and SMA connectors all rated to 18 GHz. A heavy duty boot provides improved strain relief and adds to the durability of the cable assemblies. These cable assemblies are built using a double shielded flexible cable, providing excellent shielding effectiveness of greater than 95 dB. All PE3C0847 cable assemblies are 100% Continuity, Hi-POT, and RF tested to published specifications. Custom lengths are built to order and shipped same day.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male to TNC Male Low Loss Cable Using PE-P142LL Coax PE3C0847/HSGR](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
VSWR			1.4:1	
Return Loss			14.72	dB
Velocity of Propagation		83		%
RF Shielding	95			dB
Capacitance		25 [82.02]		pF/ft [pF/m]

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency	1000	2000	4500	9000		
PE3C0847/HSGR	Custom Lengths Available	Insertion Loss (Typ.)	0.08	0.12	0.178	0.257	0.376	dB/ft	
			0.27	0.4	0.59	0.85	1.24	dB/m	
PE3C0847/HSGR-12	12 inch	Insertion Loss (Typ.)	0.17	0.25	0.37	0.53	0.76	dB	0.102
PE3C0847/HSGR-24	24 inch	Insertion Loss (Typ.)	0.25	0.37	0.55	0.79	1.14	dB	0.141
PE3C0847/HSGR-36	36 inch	Insertion Loss (Typ.)	0.33	0.49	0.73	1.05	1.51	dB	0.179
PE3C0847/HSGR-48	48 inch	Insertion Loss (Typ.)	0.41	0.61	0.91	1.3	1.89	dB	0.217
PE3C0847/HSGR-60	60 inch	Insertion Loss (Typ.)	0.49	0.73	1.09	1.56	2.27	dB	0.255

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: $0.04 \cdot \text{SQRT}(\text{FGHz})$ dB

Loss due to Connector 2: $0.05 \cdot \text{SQRT}(\text{FGHz})$ dB

Base Weight: 0.102 pounds

Additional Weight per Inch: 0.00317 pounds

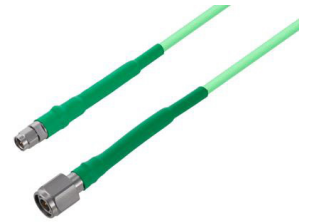
Mechanical Specifications

Cable Assembly

Weight

0.102 lbs [46.27 g]

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Cable

Cable Type	PE-P142LL
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Number of Shields	3
Shield Layer 1	Silver Plated Copper Tape
Shield Layer 2	Aluminum Polyester
Shield Layer 3	Silver Plated Copper Wire
Jacket Material	FEP, Green
Jacket Diameter	0.195 in [4.95 mm]
One Time Minimum Bend Radius	1 in [25.4 mm]

Connectors

Description	Connector 1	Connector 2
Type	SMA Male Threaded	TNC Male Threaded
Specification	MIL-STD-348	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold over Nickel	Beryllium Copper, Gold over Nickel
Contact Plating Specification	50 µin minimum	50 µin minimum
Dielectric Type	PTFE	PEI
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Body Plating Specification	SAE-AMS-2700	SAE-AMS-2700
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Plating Specification	SAE-AMS-2700	SAE-AMS-2700
Hex Size	5/16 Inch	9/16 Inch
Torque	8 in-lbs [0.9 Nm]	

Environmental Specifications

Temperature

Operating Range -55 to +165 deg C

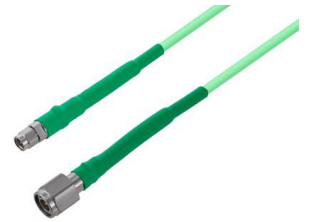
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

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PE3C0847/HSGR

How to Order

Part Number Configuration:

PE3C0847/HSGR- xx uu

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

Example: PE3C0847/HSGR-12 = 12 inches long cable
PE3C0847/HSGR-100cm = 100 cm long cable

SMA Male to TNC Male Low Loss Cable Using PE-P142LL Coax 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 Male to TNC Male Low Loss Cable Using PE-P142LL Coax PE3C0847/HSGR](#)

URL: <https://www.pasternack.com/sma-male-to-tnc-male-low-loss-cable-using-pe-p142ll-pe3c0847-hsgr-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.

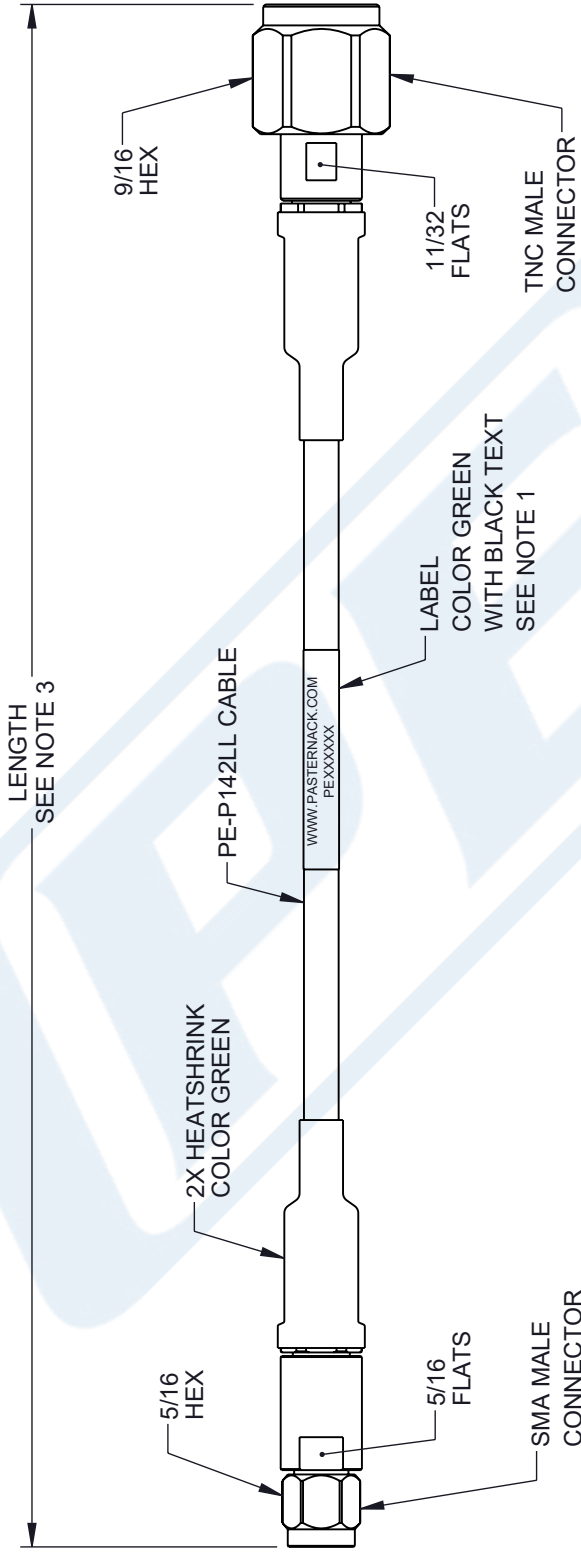
PE3C0847/HSGR CAD Drawing

SMA Male to TNC Male Low Loss Cable Using PE-P142LL Coax

F E D C B A

1 2 3 4 5 6

ZONE		REVISION		CHANGED BY		APPROVED BY	
A		DESCRIPTION	DATE	BPUCHASKI		AGANWANI	
		INITIAL RELEASE	11/16/2023				



NOTES:

1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION

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UNLESS OTHERWISE SPECIFIED LEAD DIMENSIONS ARE IN INCHES DIMENSIONS IN PARENTHESIS ARE IN MILLIMETERS	TOLERANCES:
	X = ±.2 [5] FRACTIONS ±.005 [0.13] ANGLES ± 1° XX = ±.02 [0.5] ±.1/32 XXX = ±.005 [0.13]
ALL DIMENSIONS ARE FOR REFERENCE ONLY UNLESS OTHERWISE NOTED. CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.	CABLE LENGTH TOLERANCES: >12 [305] ≤ 5/16 [20.3] = +.1231 / -0 >12 [305] ≤ 1/2 [127] = +.1231 / -0 >60 [1524] ≤ 120 [3048] = +4 [102] / -0 >120 [3048] ≤ 300 [7620] = +6 [152] / -0 >300 [7620] = +5% / -0

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

DESCRIPTION: SMA MALE TO TNC MALE LOW LOSS CABLE USING PE-P142LL COAX WITH GREEN HEATSHRINK, LF SOLDER

SIZE: A	CAGE CODE: 53919	DRAWN BY: BPUCHASKI	ITEM NO.: PE3C0847/HSGR	REV: A
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