

SMA Male to TNC Male Cable Using RG316-DS Coax

PE3W15042



Configuration

- Connector 1: SMA Male
- Connector 2: TNC Male
- Cable Type: RG316-DS
- Coax Flex Type: Flexible

Features

- Max Frequency 3 GHz
- Shielding Effectivity > 85 dB
- 69.5% Phase Velocity
- Double Shielded
- FEP Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W15042 SMA male to TNC male cable using RG316-DS 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 RG316-DS coax. The PE3W15042 SMA male to TNC male cable assembly operates to 3 GHz. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 85 dB.

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.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR			1.4:1	
Velocity of Propagation		69.5		%
RF Shielding	85			dB
Capacitance		28.96 [95.01]		pF/ft [pF/m]
DC Resistance Inner Conductor		83.82 [275]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		5.33 [17.49]		Ohms/1000ft [Ohms/Km]
Operating Voltage (AC)			335	Vrms

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	100	250	500	1000	3000	MHz	
PE3W15042	Custom Lengths Available	Insertion Loss (Typ.)	0.08	0.13	0.19	0.29	0.536	dB/ft	
			0.28	0.43	0.64	0.96	1.76	dB/m	
PE3W15042-6	6 inch	Insertion Loss (Typ.)	0.25	0.27	0.3	0.35	0.47	dB	0.047
PE3W15042-12	12 inch	Insertion Loss (Typ.)	0.29	0.33	0.4	0.49	0.74	dB	0.054
PE3W15042-24	24 inch	Insertion Loss (Typ.)	0.37	0.46	0.59	0.78	1.28	dB	0.069
PE3W15042-36	36 inch	Insertion Loss (Typ.)	0.45	0.59	0.79	1.07	1.81	dB	0.083
PE3W15042-48	48 inch	Insertion Loss (Typ.)	0.54	0.72	0.98	1.36	2.35	dB	0.097

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:	0.054 pounds
Additional Weight per Inch:	0.00117 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.054 lbs [24.49 g]

Cable

Cable Type	RG316-DS
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper Clad Steel, Silver
Dielectric Type	PTFE
Number of Shields	2
Shield Layer 1	Silver Plated Copper Braid
Shield Layer 2	Silver Plated Copper Braid
Jacket Material	FEP, Tan
Jacket Diameter	0.114 in [2.9 mm]
One Time Minimum Bend Radius	0.59 in [14.99 mm]
Repeated Minimum Bend Radius	1.57 in [39.88 mm]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male	TNC Male
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	30 µin minimum	30µ in. minimum
Dielectric Type	PTFE	Teflon
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 µin minimum	100µ in. minimum
Coupling Nut Material and Plating	Brass, Nickel	
Coupling Nut Plating Specification	100 µin minimum	
Hex Size	5/16 inch	
Torque	3 in-lbs 0.34 Nm	

Environmental Specifications

Operating Range Temperature -55 to +165 deg C

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

Plotted and Other Data

Notes:

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PE3W15042

Typical Performance Data

How to Order

Part Number Configuration:

PE3W15042

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- Unit of Measure:
cm = Centimeters
<blank> = Inches

- Length

- Base Number

Example: PE3W15042-12 = 12 inches long cable
PE3W15042-100cm = 100 cm long cable

SMA Male to TNC Male Cable Using RG316-DS 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 Cable Using RG316-DS Coax PE3W15042](#)

URL: <https://www.pasternack.com/sma-male-to-tnc-male-cable-using-rg316-ds-pe3w15042-p.aspx>

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

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