



# **RF Cable Assemblies Technical Data Sheet**

# PE3C5250-36

#### Configuration Connector 1: TNC Male Right Angle Connector 2: TNC Male Right Angle Cable Type: PE-P160LL Features OUTER BRAID Max Frequency 18 GHz Ø.160 [4.06] • Shielding Effectivity > 90 dB DIELECTRIC NNER SHIELD • 82.5% Phase Velocity • Triple Shielded • FEP Jacket • 0.8 inch Minimum Bend Radius SOLID CENTER INNER BRAID • Max VSWR of 1.35:1 to 18 GHz SECTION VIEW · Same Day Shipment of Custom Lengths RoHS and REACH Compliant Applications · General Purpose Automated Test Systems Phased Arrays • EW and Countermeasures Laboratory Use Airborne Systems

## Description

The PE3C5250-36 TNC Male Right Angle to TNC Male Right Angle Low Loss cable assembly is part of a series of cable assemblies that use our PE-P160LL double shielded coax. The PE-P160LL based cable assemblies are available in a variety of connector configurations operating to a maximum frequency for this cable series of 18 GHz. The PE3C5250-36 high performance cable assembly with a 82.5% phase velocity offers very low loss performance in a 0.16 inch coax up to 18 GHz. The shielding effectiveness of the PE-P160LL double shielded coax is greater than 95 dB. The durable stainless steel connectors and FEP cable jacket provide a cost effective design ideal for test environments where a rugged cable assembly is required. A heavy duty heat shrink booting provides improved strain relief and adds to the durability of the cable assembly.

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: TNC Male Right Angle to TNC Male Right Angle Low Loss Cable 36 Inch Length Using PE-P160LL Coax PE3C5250-36

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623 **Phone:** (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451 Sales@Pasternack.com • Techsupport@Pasternack.com

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## **Electrical Specifications**

Description	1	Minimu	ım	Typical	Maximum	Units
Frequency Range		DC			18	GHz
VSWR					1.35:1	
Velocity of Propagation				82.5		%
RF Shielding		90				dB
Capacitance				25 [82.02]		pF/ft [pF/m]
Specifications by Fre	anency	-	-	1.1		
Description	F1	F2	F3	F4	F5	Units
Frequency	1	2	4.5	9	18	GHz
Insertion Loss (Typ.)	0.5	0.71	1.08	1.55	2.23	dB

## **Electrical Specification Notes:**

The Insertion Loss data above is based on the performance specifications of the coax cable used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.10\*SQRT(F(GHz))dB maximum per connector.

## **Mechanical Specifications**

Cable Assembly Length\*

## Cable

Cable Type Impedance Inner Conductor Type Inner Conductor Material and Plating Dielectric Type Number of Shields Shield Layer 1 Shield Layer 2 Shield Layer 3 Jacket Material Jacket Diameter

Repeated Minimum Bend Radius

36 in [914.4 mm]

PE-P160LL 50 Ohms Solid Copper, Silver Expanded PTFE Tape 3 Silver Plated Copper Aluminum Polyester Silver Plated Copper FEP 0.16 in [4.06 mm]

0.8 in [20.32 mm]

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#### Connectors

Description	Connector 1	Connector 2 TNC Male Right Angle	
Туре	TNC Male Right Angle		
Impedance	50 Ohms	50 Ohms	
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold	
Contact Plating Specification	ASTM-B488	ASTM-B488	
Dielectric Type	PTFE	PTFE	
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel	
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel	

## **Environmental Specifications**

**Temperature** Operating Range

-55 to +165 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data Notes:

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**Typical Performance Data** Attenuation Characteristics for Pasternack's Family of Low Loss High Performance Microwave Cables 50 45 40 PE-P160L 35 30 Attenuation (dB/100ft) PE-P142L 20 PE-P3001 15 10 10 14 16 18 20 Frequency (GHz) VSWR 3.00 2.80 2.60 2.40 2.20 2.00 1.80 1.60 1.40 1.20 1.00 0.0 GHz 2.0 4.0 6.0 8.0 10.0 12.0 14.0 16.0 18.0

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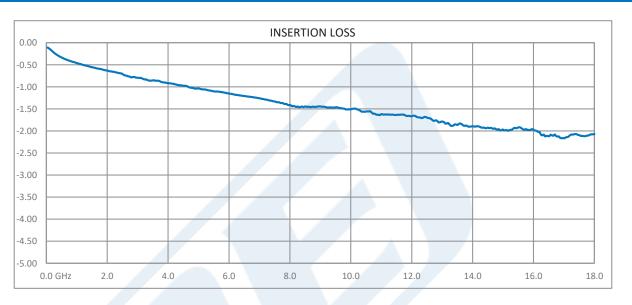
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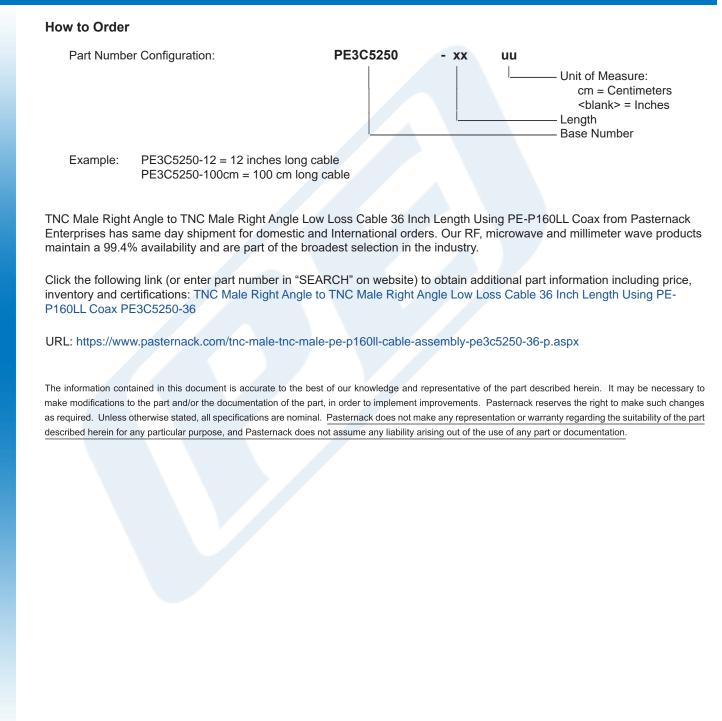
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PE3C5250-36 CAD Drawing TNC Male Right Angle to TNC Male Right Angle Low Loss Cable 36 Inch Length Using PE-P160LL Coax

