



# **RF Cable Assemblies Technical Data Sheet**

PE3C6209-60

OUTER SHIFLD

DIELECTRIC

SOLID CENTER CONDUCTOR

# Configuration

• Connector 1: TC-SPP250-NM-RA-LP

N Male Right Angle

• Connector 2: TC-SPP250-SM-LP

SMA Male

Cable: SPP-250-LLPL

#### **Features**

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- Shielding Effectivity > 100 dB
- 76% Phase Velocity
- FEP Jacket
- 100% Tested with PIM Test Results Marked on Cable
- UL910 Plenum Rated Cable
- · Lightweight and Extremely Flexible
- · Low Loss with Excellent VSWR
- IP67 (when mated)
- Using Times Microwave Components

# **Applications**

- General Purpose
- Laboratory Use
- Low PIM Applications
- Distributed Antenna Systems (DAS)
- · Plenum Installations
- Multi-Carrier Communication Systems
- PIM Testing



SPP-250-LLPL

Ø 280

[7.11] JACKET

## Description

Pasternack's PE3C6209-60 type N male right angle to SMA male 60 inch cable using SPP-250-LLPL coax is part of our full line of RF components available for same-day shipping. Pasternack's corrugated RF cable assemblies are ideal for applications where durability and high power are needed. This Pasternack type N to SMA cable assembly has a male to male gender configuration with 50 ohm corrugated SPP-250-LLPL coax. The PE3C6209-60 type N male to SMA male cable assembly operates to 5.8 GHz. Our low PIM design also offers excellent passive intermodulation performance with PIM levels better than -160 dBc. The right angle type N interface on the SPP-250-LLPL cable allows for easier connections in tight spaces. Times Microwave cable is used in each assembly and TMS components are used to form connections with the super flexible low PIM cable. These cable assemblies are expertly built to satisfy your specific need with high quality Times Microwave Systems manufactured parts.

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: Plenum N Male Right Angle to SMA Male Low PIM Cable 60 Inch Length Using SPP-250-LL-PL Coax Using Times Microwave Parts PE3C6209-60

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





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## **Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR		750	1.4:1	
Velocity of Propagation		76		%
RF Shielding	100			dB
Passive Intermodulation		-165	-160	dBc
Capacitance		27 [88.58]		pF/ft [pF/m]
Inductance		0.067 [0.22]		uH/ft [uH/m]
DC Resistance Inner Conductor		3 [9.84]		Ω/1000ft [Ω/Km]

### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.45	0.7	1	2.5	5.8	GHz
Insertion Loss (Max.)	0.46	0.51	0.56	0.74	1.01	dB

**Electrical Specification Notes:** 

PIM test results vary between cables

The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.12 dB for the right angle connector and 0.15 dB for the straight connector.

#### **Mechanical Specifications**

#### **Cable Assembly**

Description	Minimum	Typical	Maximum	Units
Length		60.0 [152.4]		in [cm]
Jacket Diameter		0.28 [7.11]		in [mm]
One Time Minimum Bend Radius	1.25			in
Bending Moment		0.8		lbs-ft

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#### **Cable Characteristics**

Description	Specification	
Cable Type	SPP-250-LLPL	
Impedance	50 Ohms	
Inner Conductor Type	Solid	
Inner Conductor Material and Plating	Copper	
Dielectric Type	PTFE	
Number of Shields	1	
Shield Layer 1	Helically Corrugated Copper Tube	
Outer Conductor Material and Plating	Copper	
Outer Conductor Diameter	0.25 in [6.35 mm]	
Jacket Material	FEP, Blue	

#### **Connector Characteristics**

Description	Connector 1	Connector 2	
Туре	N Male Right Angle	SMA Male	
Impedance	50 Ohms	50 Ohms	
Contact Material and Plating	Phosphor Bronze, Silver	Brass, Silver	
Contact Plating Specification	196µ in	196µ in	
Dielectric Type	PTFE	PTFE	
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal	
Body Plating Specification	118µ in	118µ in	
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal	
Coupling Nut Plating Specification	118µ in	118µ in	
Torque	10 in-lbs 1.13 Nm	10 in-lbs 1.13 Nm	

Mechanical Specification Notes:

## **Environmental Specifications**

Description	Specification	
Temperature Operating Range	-55 to +200 deg C	
Temperature Storage Range	-55 to +200 deg C	
Plenum Rating	UL910	

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Plotted and Other Data
Notes:

• Values at 25°C, sea level.

Typical Performance Data

PIM LEVEL

-Test Result> JBC

PIM LEVEL

-Test Result> dBc

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#### **How to Order**



Example: PE3C6209-12 = 12 inches long cable PE3C6209-100cm = 100 cm long cable

Plenum N Male Right Angle to SMA Male Low PIM Cable 60 Inch Length Using SPP-250-LLPL Coax Using Times Microwave Parts 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.

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URL: https://www.pasternack.com/n-male-sma-male-spp250llpl-cable-assembly-pe3c6209-60-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.

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