

Plenum N Male Right Angle to SMA Male  
Low PIM Cable 100 cm Length Using SPP-250-  
LLPL Coax Using Times Microwave Parts



**PE3C6209-100CM**

**Configuration**

- Connector 1: N Male Right Angle TC-SPP250-NM-RA-LP
- Connector 2: SMA Male TC-SPP250-SM-LP
- Cable Type: SPP-250-LLPL
- Coax Flex Type: Corrugated

**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

**Description**

Pasternack's PE3C6209-100CM type N male right angle to SMA male 100 cm 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 PE3C6209-100CM 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.

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		76		%

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### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
RF Shielding	100			dB
Passive Intermodulation IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz		-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]		Ohms/1000ft [Ohms/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.)	0.4	0.43	0.46	0.58	0.76	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

Weight 0.38 lbs [172.37 g]

#### Cable

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 1 Material and Plating Copper  
 Outer Conductor Diameter 0.25 in [6.35 mm]  
 Jacket Material FEP, Blue  
 Jacket Diameter 0.28 in [7.11 mm]  
 One Time Minimum Bend Radius 1.25 in [31.75 mm]  
 Bending Moment 0.8 lbs-ft [1.08 N-m]

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### Connectors

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

### Environmental Specifications

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

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

### Plotted and Other Data

Notes:  
Values at 25°C, sea level.

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## PE3C6209-100CM

### Typical Performance Data



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## PE3C6209-100CM

### How to Order

Part Number Configuration:

**PE3C6209**

- **xx**

**uu**

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

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

Plenum N Male Right Angle to SMA Male Low PIM Cable 100 cm 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.

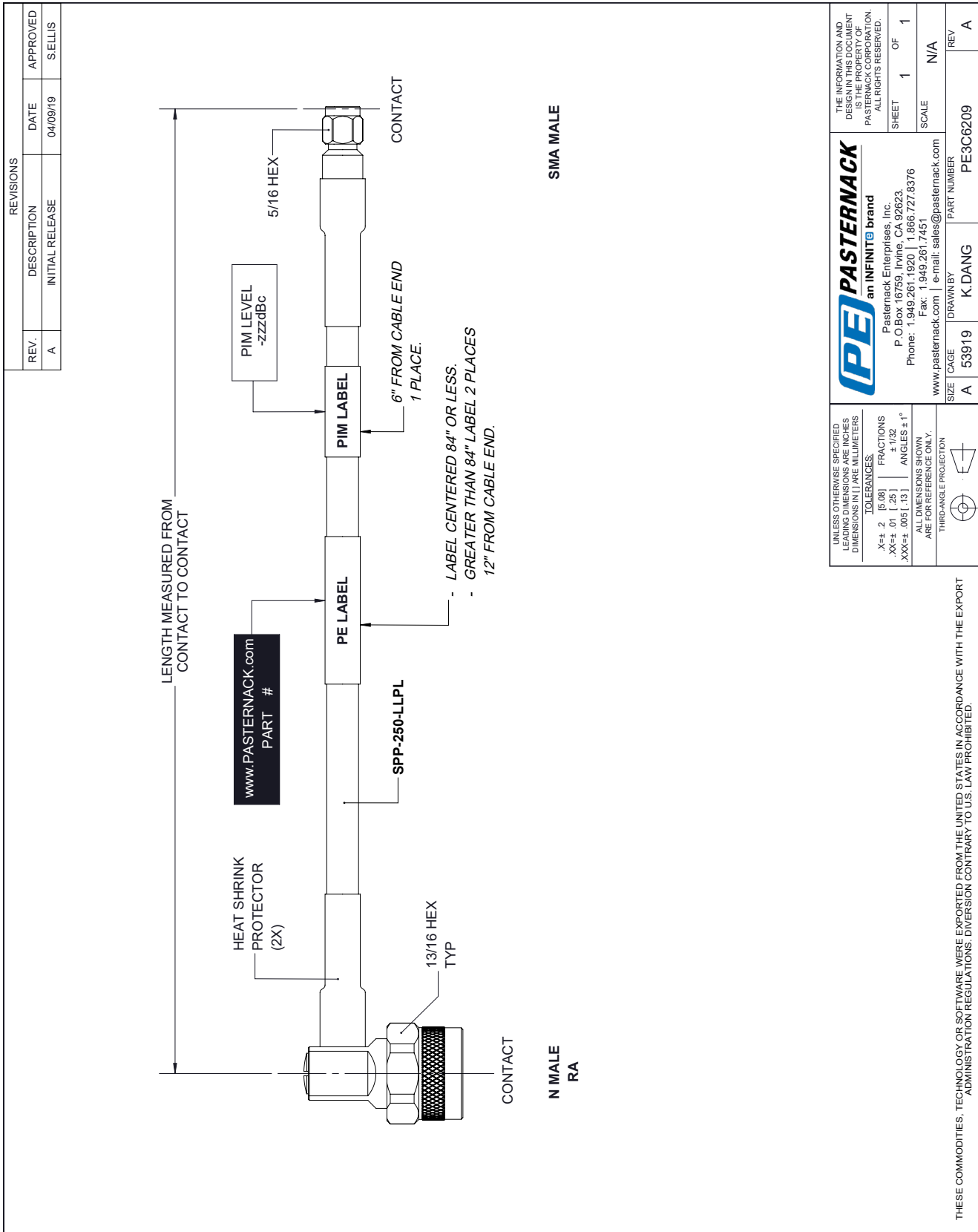
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Plenum N Male Right Angle to SMA Male Low PIM Cable 100 cm Length Using SPP-250-LLPL Coax Using Times Microwave Parts PE3C6209-100CM](#)

URL: <https://www.pasternack.com/n-male-sma-male-spp250llpl-cable-assembly-pe3c6209-100cm-p.aspx>

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# PE3C6209-100CM CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	04/09/19	SELLIS

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

**TOLERANCES:**  
 .X±.2 [ 5,08] | FRACTIONS ± 1/32  
 .XX±.01 [ .25] | ANGLES ± 1°  
 .XXX±.005 [ .13] | ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1  
SCALE N/A

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SIZE	CAGE	DRAWN BY	PART NUMBER
A	53919	K.DANG	PE3C6209

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