

## Plenum Low PIM 7/16 DIN Male to RA SMA Male Cable SPP-250-LLPL Coax Using Times Microwave Parts

The 7/16 DIN male to RA SMA male cable using SPP-250-LLPL coax, part number FMCA1865, from Fairview Microwave is in-stock and ships same day. This Fairview 7/16 DIN to SMA cable assembly has a male to male gender configuration with 50 ohm corrugated SPP-250-LLPL coax. Fairview Microwave's corrugated RF cable assemblies are ideal for applications where durability and high power are needed. Our low PIM design offers excellent passive intermodulation performance with PIM levels better than -160 dBc. The FMCA1865 7/16 DIN male to SMA male cable assembly operates to 5.8 GHz. The right angle SMA 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 RF cable assembly value added services including connector orientation or clocking, heat shrink booting and labeling are also available. RF testing can also be performed to document the electrical performance of your cable assembly.

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		5.8	GHz
VSWR			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]		$\Omega$ /1000ft [ $\Omega$ /Km]

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.45	0.7	1	2.5	5.8	GHz
Insertion Loss (Max.)	0.038	0.048	0.057	0.094	0.148	dB/ft
	0.12	0.16	0.19	0.31	0.49	dB/m

#### Electrical Specification Notes:

PIM test results vary between cables

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as  $0.1 \cdot \text{SQRT}(\text{FGHz})$  dB for the straight connector and  $0.15 \cdot \text{SQRT}(\text{FGHz})$  dB for the right angle connector.



### Configuration:

- 7/16 DIN Male
- TC-250-716M-LP
- SMA Male Right Angle
- TC-SPP250-SM-RA-LP
- 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

### Cable Diagram:

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## Mechanical Specifications

### Cable Assembly

Length\* 0 in [0 mm]

### 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 Helicallly Corrugated Copper Tube  
 Outer Conductor 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]

### Connectors

Description	Connector 1	Connector 2
Type	7/16 DIN Male	SMA Male
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Brass, Silver	Phosphor Bronze, Silver
Contact Plating Spec.	200 µin	196 µin
Dielectric Type	PTFE	PTFE
Body Material & Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Spec.	80 µin	118 µin
Coupling Nut Material & Plating	Brass, Nickel	Brass, Tri-Metal
Coupling Nut Plating Spec.	80 µin	118 µin
Torque	22.127 ft-lbs 30 Nm	10 in-lbs 1.13 Nm

## Environmental Specifications

### Temperature

Operating Range -55 to +200 deg C  
 Storage Range -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.

**How to Order**

Part Number Configuration:

**FMCA1865 - xx uu**



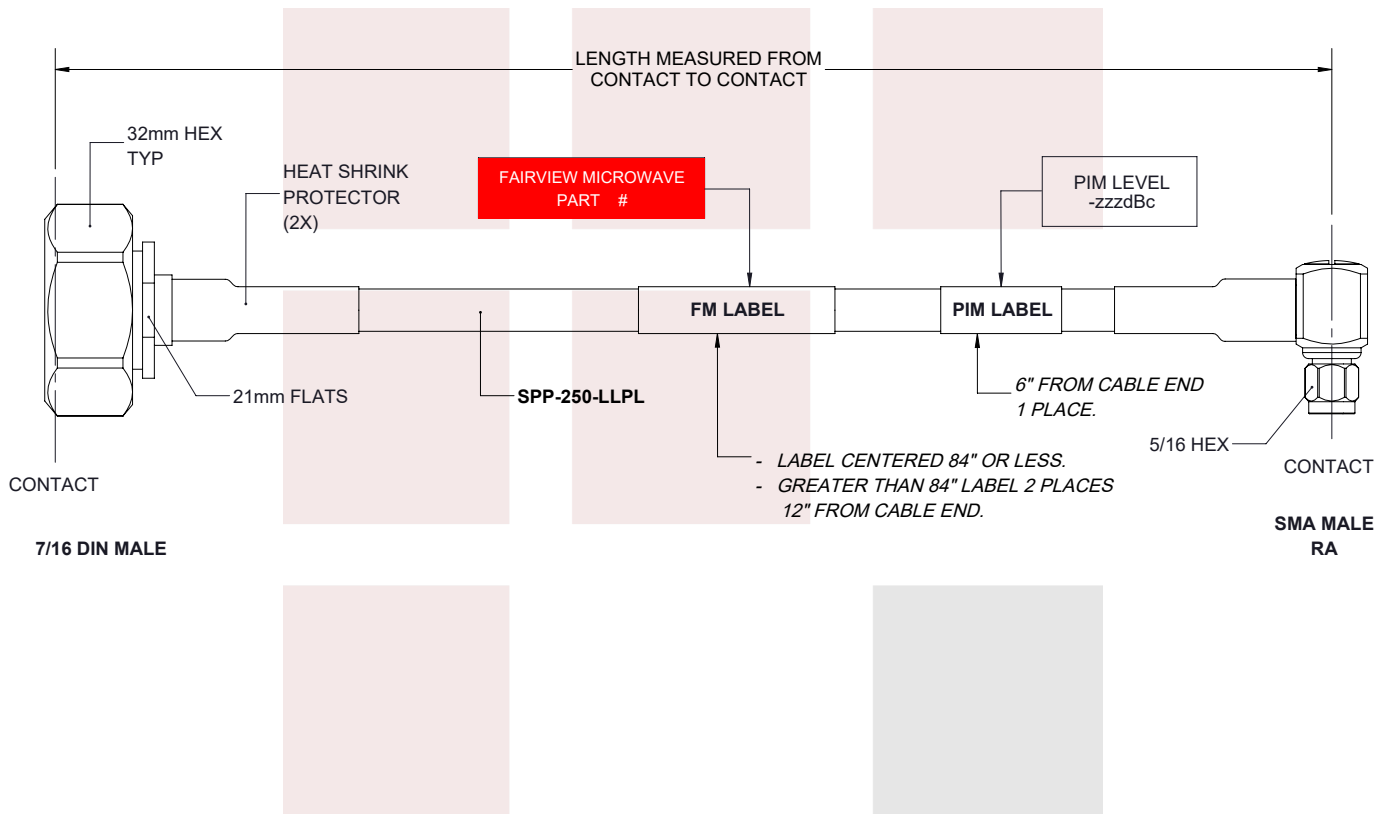
Example: FMCA1865-12 = 12 inches long cable  
FMCA1865-100cm = 100 cm long cable

Plenum Low PIM 7/16 DIN Male to RA SMA Male Cable SPP-250-LLPL Coax Using Times Microwave Parts from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [Plenum Low PIM 7/16 DIN Male to RA SMA Male Cable SPP-250-LLPL Coax Using Times Microwave Parts FMCA1865](https://www.fairviewmicrowave.com/low-pim-7-16-din-male-ra-sma-male-cable-spp-250-llpl-coax-using-times-microwave-parts-fmca1865)

URL: <https://www.fairviewmicrowave.com/low-pim-7-16-din-male-ra-sma-male-cable-spp250llpl-coax-fmca1865-p.aspx>

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STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

		NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].			
TITLE		DWG NO		CAGE CODE	
Plenum Low PIM 7/16 DIN Male to RA SMA Male Cable SPP-250-LLPL Coax Using Times Microwave Parts		FMCA1865		3FKR5	
CAD FILE	06/05/19	SHEET	1 OF 1	SCALE	N/A
		SIZE	A		7361