

## Plenum Low PIM 7/16 DIN Male to NEX10 Male Cable SPP-250-LLPL Coax in 200 cm Using Times Microwave Parts

### FMCA1921-200CM



#### Configuration

- Connector 1: 7/16 DIN Male TC-250-716M-LP
- Connector 2: NEX10 Male TC-250-NX10M-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

The 7/16 DIN male to NEX10 male 200 cm cable using SPP-250-LLPL coax, part number FMCA1921-200CM, from Fairview Microwave is in-stock and ships same day. This Fairview 7/16 DIN to NEX10 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 FMCA1921-200CM 7/16 DIN male to NEX10 male cable assembly operates to 5.8 GHz. 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             | Minimum | Typical | Maximum | Units |
|-------------------------|---------|---------|---------|-------|
| Frequency Range         | DC      |         | 5.8     | GHz   |
| VSWR                    |         |         | 1.4:1   |       |
| Velocity of Propagation |         | 76      |         | %     |
| RF Shielding            | 100     |         |         | dB    |

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#### Electrical Specifications

| Description                                | Minimum | Typical      | Maximum | Units                 |
|--------------------------------------------|---------|--------------|---------|-----------------------|
| Passive Intermodulation                    |         | -165         | -160    | dBc                   |
| IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz |         |              |         |                       |
| 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.) | 0.39 | 0.5 | 0.58 | 0.94 | 1.48 | 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  $0.1 \cdot \sqrt{F(\text{GHz})}$  dB per connector.

#### Mechanical Specifications

##### Cable Assembly

|                |                     |
|----------------|---------------------|
| Length         | 78.7402 in [200 cm] |
| Width/Diameter | 1.14 in [28.96 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                         | 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                               | 7/16 DIN Male       | NEX10 Male          |
| Impedance                          | 50 Ohms             | 50 Ohms             |
| Configuration                      | Straight            | Straight            |
| Mating Cycles                      |                     | 500                 |
| Contact Material and Plating       | Brass, Silver       | Brass, Silver       |
| Contact Plating Specification      | 200µ in             | 100 µin             |
| Dielectric Type                    | PTFE                | PTFE                |
| Body Material and Plating          | Brass, Tri-Metal    | Brass, Tri-Metal    |
| Body Plating Specification         | 80 µin              | 100 µin             |
| Coupling Nut Material and Plating  | Brass, Nickel       | Brass, Tri-Metal    |
| Coupling Nut Plating Specification | 80 µin              | 100 µin             |
| Torque                             | 22.127 ft-lbs 30 Nm | 13.28 in-lbs 1.5 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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#### Typical Performance Data



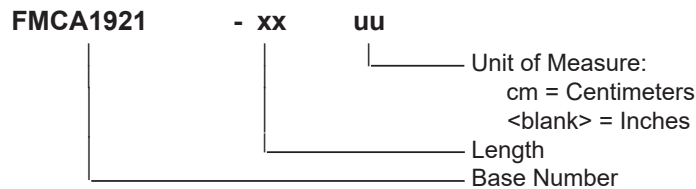
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### FMCA1921-200CM

#### How to Order

Part Number Configuration:



Example: FMCA1921-12 = 12 inches long cable  
FMCA1921-100cm = 100 cm long cable

Plenum Low PIM 7/16 DIN Male to NEX10 Male Cable SPP-250-LLPL Coax in 200 cm Using Times Microwave Parts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Plenum Low PIM 7/16 DIN Male to NEX10 Male Cable SPP-250-LLPL Coax in 200 cm Using Times Microwave Parts FMCA1921-200CM](https://www.fairviewmicrowave.com/low-pim-7-16-din-male-nex10-male-cable-spp250llpl-coax-fmca1921-200cm-p.aspx)

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FMCA1921-200CM CAD Drawing
Plenum Low PIM 7/16 DIN Male to NEX10 Male Cable SPP-250-LLPL Coax in 200 cm Using Times Microwave Parts

