

## Outdoor Rated Low PIM N Male to N Male Cable SPO-500 Coax in 48 Inch Using Times Microwave Parts

### FMCA2041-48

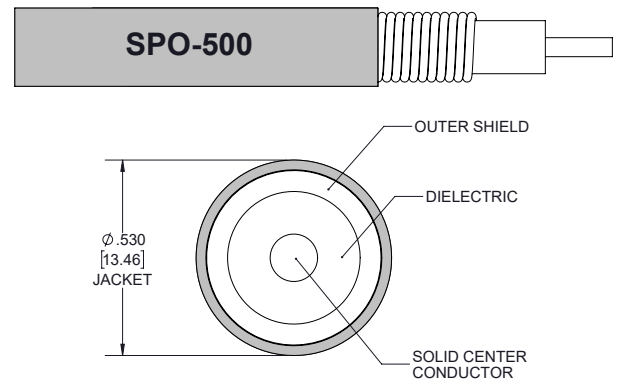


#### Configuration

- Connector 1: N Male TC-500-NM-LP
- Connector 2: N Male TC-500-NM-LP
- Cable Type: SPO-500
- Coax Flex Type: Corrugated

#### Features

- Max Frequency 6 GHz
- Low PIM: -160 dBc Max
- 83% Phase Velocity
- PE Jacket
- 100% Tested with PIM Test Results Marked on 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)
- Multi-Carrier Communication Systems
- PIM Testing

#### Description

The type N male to type N male 48 inch cable using SPO-500 coax, part number FMCA2041-48, from Fairview Microwave is in-stock and ships same day. This Fairview type N to type N cable assembly has a male to male gender configuration with 50 ohm corrugated SPO-500 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 FMCA2041-48 type N male to type N male cable assembly operates to 6 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      |         | 6       | GHz   |
| VSWR                                       |         |         | 1.4:1   |       |
| Velocity of Propagation                    |         | 83      |         | %     |
| Passive Intermodulation                    |         | -165    | -160    | dBc   |
| IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz |         |         |         |       |

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**FMCA2041-48**



### Electrical Specifications

| Description | Minimum | Typical    | Maximum | Units        |
|-------------|---------|------------|---------|--------------|
| Capacitance |         | 24 [78.74] |         | pF/ft [pF/m] |

### Specifications by Frequency

| Description           | F1   | F2   | F3   | F4   | F5 | Units |
|-----------------------|------|------|------|------|----|-------|
| Frequency             | 0.5  | 1    | 2    | 6    |    | GHz   |
| Insertion Loss (Max.) | 0.24 | 0.34 | 0.49 | 0.88 |    | 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  $0.1 \cdot \sqrt{\text{FGHz}}$  dB per connector.

### Mechanical Specifications

#### Cable Assembly

Length 48 in [121.92 cm]

#### Cable

Cable Type SPO-500  
 Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper Clad Aluminum  
 Dielectric Type Foam PE  
 Number of Shields 1  
 Shield Layer 1 Helically Corrugated Copper Tube  
 Outer Conductor 1 Material and Plating Copper  
 Jacket Material PE, Black  
 Jacket Diameter 0.53 in [13.46 mm]  
 One Time Minimum Bend Radius 2.25 in [57.15 mm]

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SPO-500 Coax in 48 Inch Using Times Microwave Parts

FMCA2041-48



Connectors

| Description                        | Connector 1       | Connector 2       |
|------------------------------------|-------------------|-------------------|
| Type                               | N Male            | N Male            |
| Impedance                          | 50 Ohms           | 50 Ohms           |
| Configuration                      | Straight          | Straight          |
| Contact Material and Plating       | Brass, Silver     | Brass, Silver     |
| Contact Plating Specification      | 200 µin           | 200 µin           |
| Dielectric Type                    | PTFE              | PTFE              |
| Body Material and Plating          | Brass, Tri-Metal  | Brass, Tri-Metal  |
| Body Plating Specification         | 80 µin            | 80 µin            |
| Coupling Nut Material and Plating  | Brass, Tri-Metal  | Brass, Tri-Metal  |
| Coupling Nut Plating Specification | 80 µin            | 80 µin            |
| 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 |

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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### FMCA2041-48



#### How to Order

Part Number Configuration:

**FMCA2041 - xx uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches

Length

Base Number

Example: FMCA2041-12 = 12 inches long cable  
FMCA2041-100cm = 100 cm long cable

Outdoor Rated Low PIM N Male to N Male Cable SPO-500 Coax in 48 Inch 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: [Outdoor Rated Low PIM N Male to N Male Cable SPO-500 Coax in 48 Inch Using Times Microwave Parts FMCA2041-48](#)

URL: <https://www.fairviewmicrowave.com/low-pim-n-male-n-male-cable-spo500-coax-fmca2041-48-p.aspx>

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