

# **RF Cable Assemblies Technical Data Sheet**

### Configuration

- Connector 1: SSMC Plug
- Connector 2: SSMC Plug Right Angle
- Cable Type: LMR-100A

### **Features**

- SSMC Cable Assembly Max. Operating Frequency of 5.8 GHz
- Small SSMC cable connection form factor (50% smaller than SMA, radially)
- Reliable threaded coupling
- In stock and ready to ship

### **Applications**

 SSMC Cable General Purpose Test

- Data Acquisition Systems
- A/D Conversion Systems
- Ultra Wideband Digital Receivers
- Software defined radio (SDR)

### Description

Pasternack's SSMC cable assemblies are part of our full line of RF components available for same-day shipping. These SSMC cable assemblies are designed to connect SSMC system components and test connections, delivering signal frequencies as high as 12.4 GHz. Our family of SSMC cables can also be used to connect SSMC ports on data acquisition systems, A/D modules or SSMC coax patch panels. If none of our standard options fit your application, you can specify your own custom SSMC cable assembly using Pasternack's online Cable Creator.

Our SSMC cable assembly datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave cable assemblies allow designers to configure and customize their signal connections however they like. Whether the need is to provide SSMC cabling for a data acquisition system, or simply create a custom cable assembly configuration, Pasternack has the right cable assemblies for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same day.

#### **Electrical Specifications**

| Description                   | Minimum | Typical       | Maximum | Units           |
|-------------------------------|---------|---------------|---------|-----------------|
| Frequency Range               | DC      |               | 5.8     | GHz             |
| VSWR                          |         |               | 1.6:1   |                 |
| Velocity of Propagation       |         | 66            |         | %               |
| RF Shielding                  | 90      |               |         | dB              |
| Group Delay                   |         | 1.54 [5.05]   |         | ns/ft [ns/m]    |
| Capacitance                   |         | 30.8 [101.05] |         | pF/ft [pF/m]    |
| Inductance                    |         | 0.077 [0.25]  |         | uH/ft [uH/m]    |
| DC Resistance Inner Conductor |         | 81 [265.75]   |         | Ω/1000ft [Ω/Km] |
| DC Resistance Outer Conductor |         | 9.5 [31.17]   |         | Ω/1000ft [Ω/Km] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: SSMC Plug to SSMC Plug Right Angle Low Loss Cable 18 Inch Length Using LMR-100 Coax PE3C4420-18

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



PE3C4420-18



# **RF Cable Assemblies Technical Data Sheet**



## PE3C4420-18

#### **Specifications by Frequency**

| Description           | F1   | F2   | F3   | F4  | F5   | Units |
|-----------------------|------|------|------|-----|------|-------|
| Frequency             | 0.25 | 0.5  | 1    | 2.5 | 5.8  | GHz   |
| Insertion Loss (Typ.) | 0.38 | 0.46 | 0.56 | 0.8 | 1.17 | dB    |

#### **Mechanical Specifications**

Cable Assembly Length\* Diameter

#### Cable

Cable Type Impedance Inner Conductor Type Inner Conductor Material and Plating Dielectric Type Number of Shields Shield Layer 1 Shield Layer 2 Jacket Material Jacket Diameter

One Time Minimum Bend Radius Repeated Minimum Bend Radius Bending Moment Flat Plate Crush Tensile Strength 18 in [457.2 mm] 0.156 in [3.96 mm]

LMR-100A 50 Ohms Solid Copper Clad Steel PE 2 Aluminum Tape Tinned Copper Braid PVC, Black 0.11 in [2.79 mm]

0.25 in [6.35 mm] 1 in [25.4 mm] 0.1 lbs-ft [0.14 N-m] 10 lbs/in [0.18 Kg/mm] 15 lbs [6.8 Kg]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: SSMC Plug to SSMC Plug Right Angle Low Loss Cable 18 Inch Length Using LMR-100 Coax PE3C4420-18

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





# **RF Cable Assemblies Technical Data Sheet**

## PE3C4420-18

#### Connectors

| Description                        | Connector 1            | Connector 2            |  |
|------------------------------------|------------------------|------------------------|--|
| Туре                               | SSMC Plug              | SSMC Plug Right Angle  |  |
| Impedance                          | 50 Ohms                | 50 Ohms                |  |
| Mating Cycles                      | 500                    | 500                    |  |
| Contact Material and Plating       | Beryllium Copper, Gold | Beryllium Copper, Gold |  |
| Contact Plating Specification      | MIL-G-45204            | MIL-G-45204            |  |
| Dielectric Type                    | Teflon                 | Teflon                 |  |
| Body Material and Plating          | Beryllium Copper, Gold | Brass, Gold            |  |
| Body Plating Specification         | MIL-G-45204            | MIL-G-45204            |  |
| Coupling Nut Material and Plating  | Beryllium Copper, Gold | Beryllium Copper, Gold |  |
| Coupling Nut Plating Specification | MIL-G-45206            | MIL-G-45204            |  |
| Torque                             | 1.75 in-lbs [0.2 Nm]   | 1.75 in-lbs [0.2 Nm]   |  |

Mechanical Specification Notes:

\*All cable assemblies have a length tolerance of 1.5% or  $\pm$  3/8", whichever is greater.

### **Environmental Specifications**

Temperature Operating Range

-40 to +85 deg C

Compliance Certifications (see product page for current document)

### Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: SSMC Plug to SSMC Plug Right Angle Low Loss Cable 18 Inch Length Using LMR-100 Coax PE3C4420-18

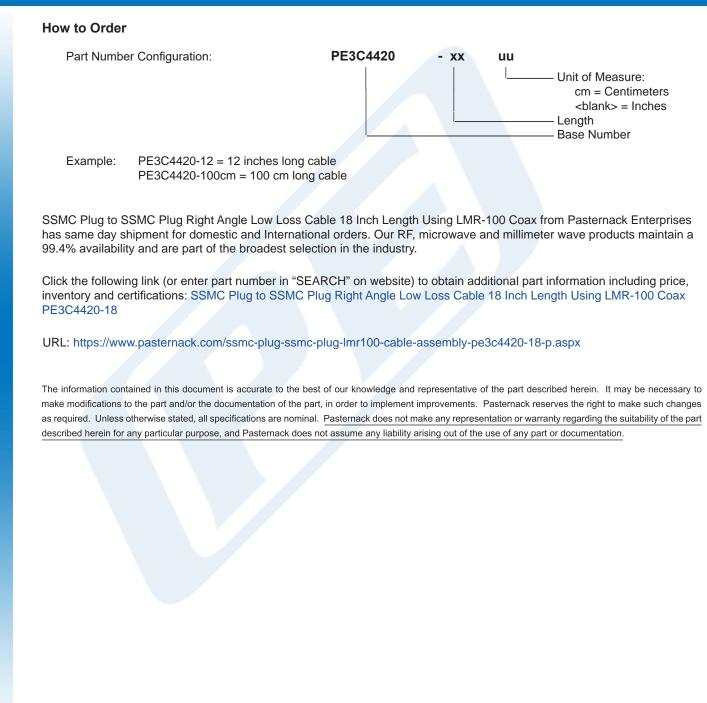
Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623 **Phone:** (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451 Sales@Pasternack.com • Techsupport@Pasternack.com





# **RF Cable Assemblies Technical Data Sheet**

## PE3C4420-18



© 2018 Pasternack Enterprises All Rights Reserved



PE3C4420-18 CAD Drawing

SSMC Plug to SSMC Plug Right Angle Low Loss Cable 18 Inch Length Using LMR-100 Coax

