

SMA Male to MMCX Plug Right Angle Cable  
Assembly using RG178 Coax, 4 FT



**LCCA30069-FT4**

**Configuration**

- Connector 1: SMA Male
- Connector 2: MMCX Plug Right Angle
- Cable Type: RG178

**Features**

- Max Frequency 1 GHz
- 70% VoP
- FEP Jacket
- Heat Shrink Strain Relief

**Applications**

- General Purpose
- Laboratory Use



**Description**

L-com's LCCA30069-FT4 is a SMA male to MMCX plug right angle cable assembly using RG178 coax, 4 FT and ships same-day. The RG178 coax of this SMA cable uses the PTFE dielectric with a VoP of 70%. These flexible RF cable assemblies are ideal for applications where flexure is required. Our L-com SMA to MMCX cable assembly has a male to plug gender configuration with flexible RG178 series coax and operates to 1 GHz. The shielding of this SMA cable is comprised of silver plated copper braid. This right angle MMCX cable interface on the RG178 coax allows for easier connections in tight spaces.

Custom versions of this SMA male to SMA plug cable, along with the rest of L-com's other RF assemblies, can also be built and shipped same day. Other available RF cable assembly value added services from L-com 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. Contact a sales representative for testing or custom RF cable quotes. Part number LCCA30069-FT4 L-com SMA Male to MMCX Plug Right Angle Cable Assembly using RG178 Coax, 4 FT data sheet PDF includes details of the RF product specifications, CAD drawing(s) and dimensions below.

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## LCCA30069-FT4

### Electrical Specifications

| Description             | Minimum | Typical      | Maximum | Units        |
|-------------------------|---------|--------------|---------|--------------|
| Frequency Range         | DC      |              | 1,000   | MHz          |
| VSWR                    |         |              | 1.35:1  |              |
| Velocity of Propagation |         | 70           |         | %            |
| Capacitance             |         | 29.4 [96.46] |         | pF/ft [pF/m] |
| Operating Voltage (AC)  |         |              | 170     | Vrms         |

### Specifications by Frequency

| Description           | F1   | F2   | F3   | F4   | F5    | Units |
|-----------------------|------|------|------|------|-------|-------|
| Frequency             | 50   | 100  | 250  | 500  | 1,000 | MHz   |
| Insertion Loss (Max.) | 0.76 | 0.86 | 1.14 | 1.53 | 2.76  | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable and connectors used in this assembly. The Insertion Loss is estimated as 0.1 dB per straight connector and 0.2 dB per right angle connector.

### Mechanical Specifications

#### Cable Assembly

|          |                    |
|----------|--------------------|
| Length   | 48 in [121.92 cm]  |
| Diameter | 0.072 in [1.83 mm] |

#### Cable

|                                      |                            |
|--------------------------------------|----------------------------|
| Cable Type                           | RG178                      |
| Impedance                            | 50 Ohms                    |
| Inner Conductor Type                 | Stranded                   |
| Inner Conductor Material and Plating | Copper, Silver             |
| Dielectric Type                      | PTFE                       |
| Number of Shields                    | 1                          |
| Shield Layer 1                       | Silver Plated Copper Braid |
| Jacket Material                      | FEP, Tan                   |
| Jacket Diameter                      | 0.072 in [1.83 mm]         |

|                              |                   |
|------------------------------|-------------------|
| Repeated Minimum Bend Radius | 0.4 in [10.16 mm] |
|------------------------------|-------------------|

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## LCCA30069-FT4

### Connectors

| Description                        | Connector 1      | Connector 2           |
|------------------------------------|------------------|-----------------------|
| Type                               | SMA Male         | MMCX Plug Right Angle |
| Specification                      | MIL-STD-348A     | BS EN 122340          |
| Impedance                          | 50 Ohms          | 50 Ohms               |
| Contact Material and Plating       | Brass, Gold      | Brass, Gold           |
| Contact Plating Specification      | 50 µin minimum   | 30 µin minimum        |
| Dielectric Type                    | PTFE             | PTFE                  |
| Body Material and Plating          | Brass, Nickel    | Brass, Gold           |
| Body Plating Specification         | 100 µin minimum  | 3 µin minimum         |
| Coupling Nut Material and Plating  | Brass, Nickel    |                       |
| Coupling Nut Plating Specification | 100 µin minimum  |                       |
| Hex Size                           | 5/16 Inch        |                       |
| Torque                             | 5 in-lbs 0.57 Nm |                       |

### Environmental Specifications

#### Temperature

Operating Range -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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## LCCA30069-FT4

### How to Order

Part Number Configuration:

**LCCA30069 - xx uu**



Example: LCCA30069-12 = 12 inches long cable  
LCCA30069-100cm = 100 cm long cable

SMA Male to MMCX Plug Right Angle Cable Assembly using RG178 Coax, 4 FT from L-com has same day shipment for domestic and International orders. L-com is a leading manufacturer of wired and wireless connectivity products and committed to in-stock availability and same day shipping. Our portfolio includes coaxial cable assemblies, connectors, adapters and custom products as well as lightning and surge protectors, NEMA rated enclosures, and an RF product line which includes antennas, amplifiers, passive, and active components.

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. L-com reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. L-com does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and L-com does not assume liability arising out of the use of any part or document contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. L-com reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. L-com does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and L-com does not assume liability arising out of the use of any part or document.

# SMA Male to MMCX Plug Right Angle Cable Assembly using RG178 Coax, 4 FT

## L-com CAD Drawing

| REVISIONS |                 |            |          |
|-----------|-----------------|------------|----------|
| REV.      | DESCRIPTION     | DATE       | APPROVED |
| A         | INITIAL RELEASE | 01/31/2020 | SELLIS   |

  

LENGTH MEASURED  
FROM CONTACT TO CONTACT

SMA MALE

RG178 COAX CABLE

2x HEAT SHRINK TUBE,  
BLACK

LABEL

WWW.L-COM.COM  
L-COM P/N

(SEE NOTE 1)

MMCX PLUG  
RIGHT ANGLE

**NOTES:**

- CABLES 36" AND UNDER HAVE 1 LABEL CENTERED. CABLES OVER 36" HAVE 2 LABELS, ONE AT EACH END, 6.0" FROM THE FRONT OF THE CONNECTOR.

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|   |                                     |                       |                  |             |                    |  |              |               |                          |               |                            |                |                             |                |                    |             |  |  |
|---|-------------------------------------|-----------------------|------------------|-------------|--------------------|--|--------------|---------------|--------------------------|---------------|----------------------------|----------------|-----------------------------|----------------|--------------------|-------------|--|--|
| <p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p><b>TOLERANCES:</b></p> <table style="width: 100%; border: none;"> <tr> <td>.X ± .2 [5.08]</td> <td>FRACTIONS ± 1/32</td> </tr> <tr> <td>.XX ± .02 [ .51]</td> <td>ANGLES ± 1°</td> </tr> <tr> <td>.XXX ± .005 [ .13]</td> <td></td> </tr> </table> <p><b>CABLE LENGTH (L) TOLERANCES:</b></p> <table style="width: 100%; border: none;"> <tr> <td>L ≤ 12 [305]</td> <td>± 1 [25] / -0</td> </tr> <tr> <td>12 [305] &lt; L ≤ 60 [1524]</td> <td>± 2 [51] / -0</td> </tr> <tr> <td>60 [1524] &lt; L ≤ 120 [3048]</td> <td>± 4 [102] / -0</td> </tr> <tr> <td>120 [3048] &lt; L ≤ 300 [7620]</td> <td>± 6 [152] / -0</td> </tr> <tr> <td>300 [7620] &lt; L = ∞</td> <td>± 9% L / -0</td> </tr> </table> | .X ± .2 [5.08]                      | FRACTIONS ± 1/32      | .XX ± .02 [ .51] | ANGLES ± 1° | .XXX ± .005 [ .13] |  | L ≤ 12 [305] | ± 1 [25] / -0 | 12 [305] < L ≤ 60 [1524] | ± 2 [51] / -0 | 60 [1524] < L ≤ 120 [3048] | ± 4 [102] / -0 | 120 [3048] < L ≤ 300 [7620] | ± 6 [152] / -0 | 300 [7620] < L = ∞ | ± 9% L / -0 | <p><b>L-com</b><sup>TM</sup><br/>an INFINITE brand</p> <p>50 High Street, West Mill, 3rd Floor, Suite #30<br/>North Andover, MA 01845 USA.<br/>Phone: 1.800.341.5266   1.978.682.6936<br/>Fax: 1.978.689.9484<br/>Website: www.L-com.com<br/>E-mail: CustomerService@L-com.com</p> | <p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF L-COM GLOBAL CONNECTIVITY. ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> <p>SCALE N/A</p> |
| .X ± .2 [5.08]  | FRACTIONS ± 1/32                    |                       |                  |             |                    |  |              |               |                          |               |                            |                |                             |                |                    |             |  |  |
| .XX ± .02 [ .51]  | ANGLES ± 1°                         |                       |                  |             |                    |  |              |               |                          |               |                            |                |                             |                |                    |             |  |  |
| .XXX ± .005 [ .13]  |                                     |                       |                  |             |                    |  |              |               |                          |               |                            |                |                             |                |                    |             |  |  |
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| SIZE A  | CAGE CODE DRAWN BY 43321 MVEERAPPAN | PART NUMBER LCCA30069 | REV A            |             |                    |  |              |               |                          |               |                            |                |                             |                |                    |             |  |  |