

Low PIM 7/16 DIN Male to 7/16 DIN Male Cable  
TCOM-600 Coax With Times Microwave Components



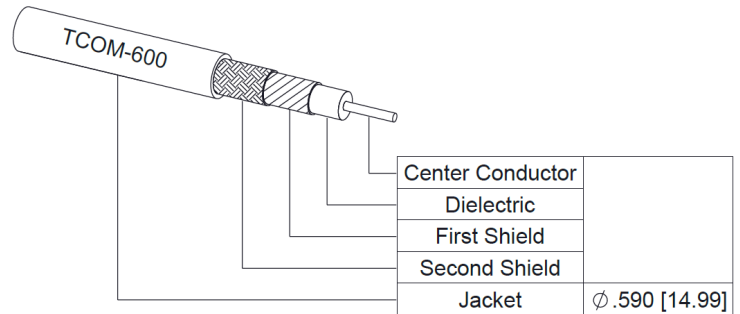
**FMCA100120**

**Configuration**

- Connector 1: 7/16 DIN Male
- Connector 2: 7/16 DIN Male
- Cable Type: TCOM-600
- Coax Flex Type: Flexible

**Features**

- Max Frequency 6 GHz
- Shielding Effectivity > 100 dB
- 87% Phase Velocity
- Double Shielded
- PE Jacket
- 500 Mating Cycles



**Applications**

- General Purpose
- Laboratory Use
- Low PIM Applications

**Description**

The 7/16 DIN male to 7/16 DIN male cable using TCOM-600 coax, part number FMCA100120, from Fairview Microwave is in-stock and ships same day. This Fairview 7/16 DIN to 7/16 DIN cable assembly has a male to male gender configuration with 50 ohm flexible TCOM-600 coax. Fairview Microwave’s flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. Our low PIM design offers excellent passive intermodulation performance. The FMCA100120 7/16 DIN male to 7/16 DIN male cable assembly operates to 6 GHz. The double shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 100 dB.

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		87		%
RF Shielding	100			dB
Group Delay		1.17 [3.84]		ns/ft [ns/m]
Passive Intermodulation		-155		dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				
Capacitance		23.4 [76.77]		pF/ft [pF/m]
Inductance		0.058 [0.19]		uH/ft [uH/m]
DC Resistance Inner Conductor		0.53 [1.74]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		1.52 [4.99]		Ohms/1000ft [Ohms/Km]

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**FMCA100120**

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Jacket Spark			8,000	Vrms

**Specifications by Frequency**

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency	250	500	1000	2500	6000	
FMCA100120	Custom Lengths Available	Insertion Loss (Typ.)	0.013	0.019	0.028	0.046	0.077	dB/ft	
			0.05	0.07	0.1	0.16	0.26	dB/m	
FMCA100120-24	24 inch	Insertion Loss (Typ.)	0.52	0.53	0.55	0.59	0.65	dB	0.674
FMCA100120-36	36 inch	Insertion Loss (Typ.)	0.53	0.55	0.58	0.63	0.73	dB	0.811
FMCA100120-48	48 inch	Insertion Loss (Typ.)	0.55	0.57	0.61	0.68	0.8	dB	0.948
FMCA100120-120	120 inch	Insertion Loss (Typ.)	0.62	0.68	0.77	0.95	1.26	dB	1.77
FMCA100120-180	180 inch	Insertion Loss (Typ.)	0.69	0.78	0.91	1.18	1.65	dB	2.454

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1:	0.245 dB
Loss due to Connector 2:	0.245 dB
Base Weight:	0.537 pounds
Additional Weight per Inch:	0.01141 pounds

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter	0.5 in [12.7 mm]
Weight	0.537 lbs [243.58 g]

**Cable**

Cable Type	TCOM-600
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Aluminum
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Silver Plated Copper Braid
Shield Layer 2	Tinned Copper Braid
Jacket Material	PE, Black
Jacket Diameter	0.59 in [14.99 mm]
One Time Minimum Bend Radius	1.5 in [38.1 mm]
Repeated Minimum Bend Radius	6 in [152.4 mm]
Bending Moment	2.75 lbs-ft [3.73 N-m]
Flat Plate Crush	60 lbs/in [1.07 Kg/mm]
Tensile Strength	350 lbs [158.76 Kg]

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**Connectors**

Description	Connector 1	Connector 2
Type	7/16 DIN Male	7/16 DIN Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	500	500
Contact Material and Plating	Brass, Silver	Brass, Silver
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal

**Environmental Specifications**

Operating Range Temperature -40 to +85 deg C

**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

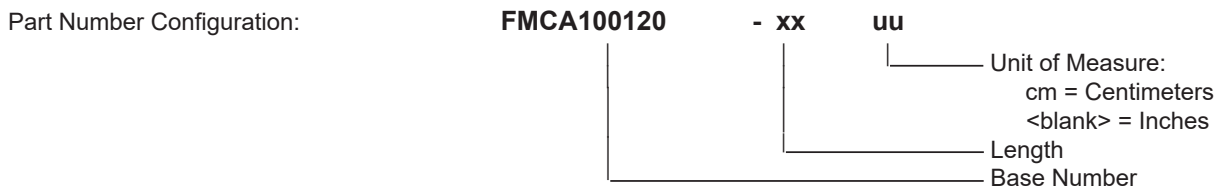
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**FMCA100120**

**Typical Performance Data**

**How to Order**



Example: FMCA100120-12 = 12 inches long cable  
FMCA100120-100cm = 100 cm long cable

Low PIM 7/16 DIN Male to 7/16 DIN Male Cable TCOM-600 Coax With Times Microwave Components 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.

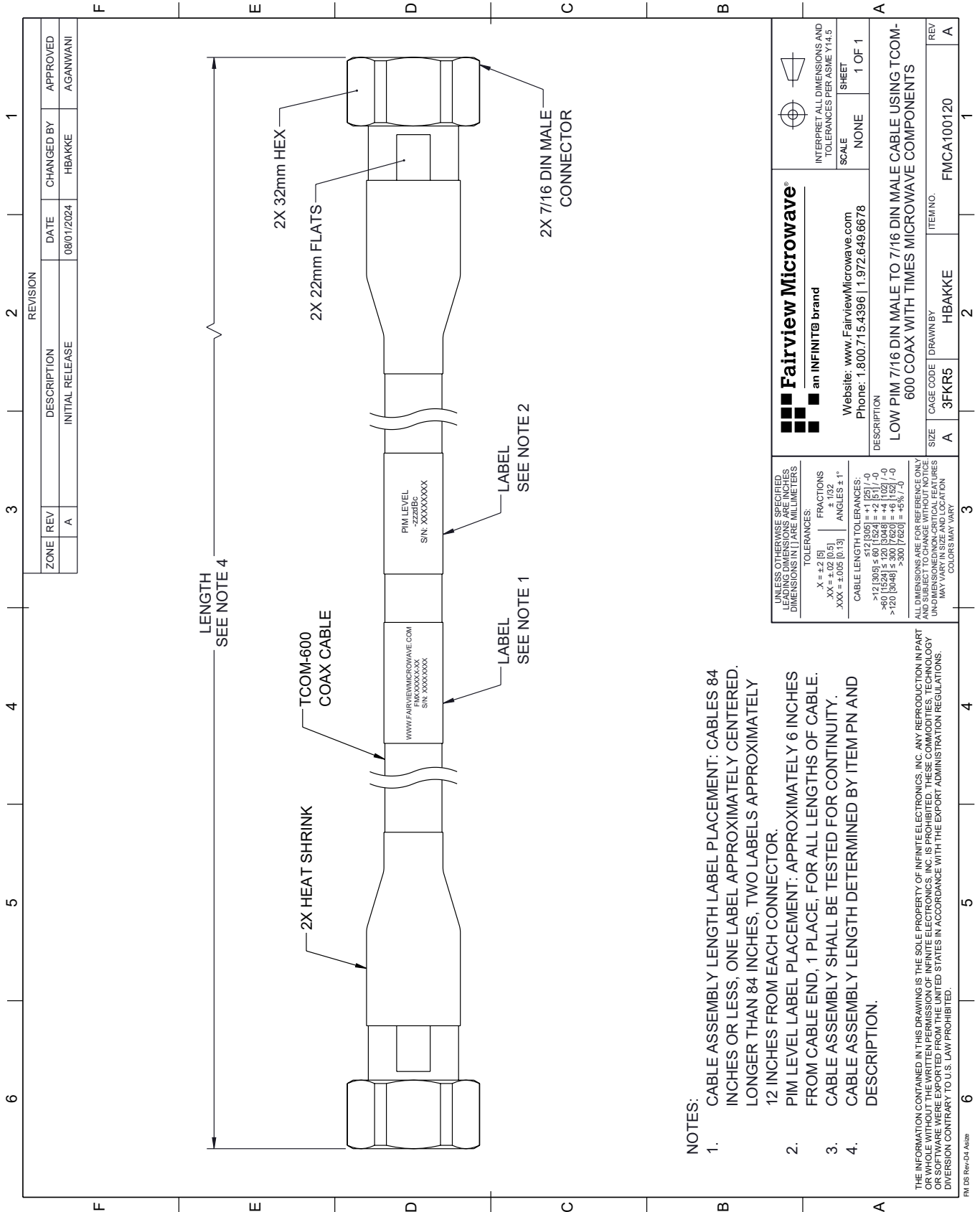
For additional information on this product, please click the following link: [Low PIM 7/16 DIN Male to 7/16 DIN Male Cable TCOM-600 Coax With Times Microwave Components FMCA100120](#)

URL: <https://www.fairviewmicrowave.com/low-pim-7-16-din-male-to-7-16-din-male-cable-tcom-600-coax-with-times-microwave-components-fmca100120-p.aspx>

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# FMCA100120 CAD Drawing

Low PIM 7/16 DIN Male to 7/16 DIN Male Cable TCOM-600 Coax With Times Microwave Components



- NOTES:**
- CABLE ASSEMBLY LABEL PLACEMENT: CABLES 84 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 84 INCHES, TWO LABELS APPROXIMATELY 12 INCHES FROM EACH CONNECTOR.
  - PIM LEVEL LABEL PLACEMENT: APPROXIMATELY 6 INCHES FROM CABLE END, 1 PLACE, FOR ALL LENGTHS OF CABLE.
  - CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
  - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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<p>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS.</p> <p>TOLERANCES:</p> <p>X = ±.2 [5]      FRACTIONS ±.132</p> <p>.XX = ±.02 [0.5]      ANGLES ± 1°</p> <p>.XXX = ±.005 [0.13]</p> <p>CABLE LENGTH TOLERANCES:</p> <p>&lt;12 [305] ≤ 60 [1524] = +.1 [25] / -0</p> <p>&gt;60 [1524] ≤ 120 [3048] = +.4 [102] / -0</p> <p>&gt;120 [3048] ≤ 300 [7620] = +.6 [152] / -0</p>		
<p>ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.</p>		
<p>DESCRIPTION</p> <p>LOW PIM 7/16 DIN MALE TO 7/16 DIN MALE CABLE USING TCOM-600 COAX WITH TIMES MICROWAVE COMPONENTS</p>	<p>SIZE</p> <p>A</p>	<p>ITEM NO.</p> <p>FMCA100120</p>
<p>REV</p> <p>A</p>	<p>DRAWN BY</p> <p>HBAKKE</p>	<p>REV</p> <p>A</p>