

Low Loss RA SMA Male to RA TNC Male Cable LL160 Coax in 24 Inch

FMCA1702-24

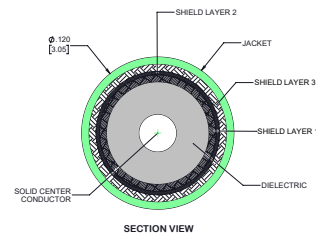
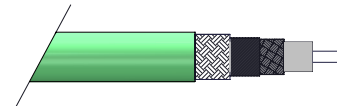


Configuration

- Connector 1: SMA Male Right Angle
- Connector 2: TNC Male Right Angle
- Cable Type: LL160
- Coax Flex Type: Flexible

Features

- Max Frequency 18 GHz
- Shielding Effectivity > -90 dB
- 82.5% Phase Velocity
- Triple Shielded
- FEP Jacket
- Low VSWR of 1.5:1 to 18 GHz
- -55 to +150 Temperature Range
- Expanded PTFE Tape Dielectric
- Same Day Shipment of Custom Lengths



Applications

- General Purpose
- Laboratory Use
- Automated Test Systems
- Military Electronics
- Phased Array Antennas
- RF Countermeasures

Description

The RA SMA male to RA TNC male 24 inch cable using LL160 coax, part number FMCA1702-24, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to TNC cable assembly has a male to male gender configuration with 50 ohm flexible LL160 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA1702-24 SMA male to TNC male cable assembly operates to 18 GHz. The right angle SMA and right angle TNC interfaces on the LL160 cable allow for easier connections in tight spaces. The triple shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than -90 dB. The RA SMA Male to RA TNC Male low loss cable using LL160 coax, part number FMCA1702-24, from Fairview Microwave is in-stock and ships same day. This SMA to TNC low loss cable assembly features a 82.5% velocity dielectric manufactured from expanded PTFE tape. This microporous dielectric contributes to the low loss and phase stability of the cables. Our triple shielded coaxial cable construction of Fairview's low loss LL160 provides shielding levels as high as 95 dB. The precision connections are constructed with stainless steel bodies and high temperature insulators, supporting a wide range of temperature from -55 to +165 degrees C. This solid combination of connectors and low loss coax are further enhanced with the addition of heavy-duty heat shrink for improved strain relief for this superior quality RF cable assembly.

Fairview's RA SMA Male to RA TNC Male low loss cable FMCA1702-24 datasheet, specifications and outline drawing are shown in this PDF below. Our extensive offering of RF, microwave and high speed digital connections allows designers to configure and customize their signals however they like. From reducing losses or improving phase stability, Fairview microwave has the right low loss cable solutions to meet your needs.

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.

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
VSWR			1.5:1	
Velocity of Propagation		82.5		%
RF Shielding	-90			
Capacitance		25 [82.02]		pF/ft [pF/m]

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	1	2	4.5	9	18	GHz
Insertion Loss (Typ.)	0.34	0.48	0.73	1.05	1.51	dB

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable used in this assembly. The Insertion Loss includes an estimated insertion loss of $0.04 \cdot \sqrt{F(\text{GHz})}$ dB maximum for the SMA right angle connector and $0.10 \cdot \sqrt{F(\text{GHz})}$ dB maximum for the TNC right angle connector.

Mechanical Specifications

Cable Assembly

Length 24 in [609.6 mm]
Weight lbs [0 g]

Cable

Cable Type LL160
Impedance 50 Ohms
Inner Conductor Type Solid
Inner Conductor Material and Plating Copper, Silver
Dielectric Type PTFE
Number of Shields 3
Shield Layer 1 Silver Plated Copper
Shield Layer 2 Aluminum Polyester
Shield Layer 3 Silver Plated Copper
Jacket Material FEP
Jacket Diameter 0.16 in [4.06 mm]
Repeated Minimum Bend Radius 0.8 in [20.32 mm]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male Right Angle	TNC Male Right Angle
Impedance	50 Ohms	50 Ohms
Configuration	Right Angle	Right Angle
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	ASTM-B488	ASTM-B488
Dielectric Type	PTFE	PTFE
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

Environmental Specifications

Operating Range Temperature -55 to +165 deg C

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

Plotted and Other Data

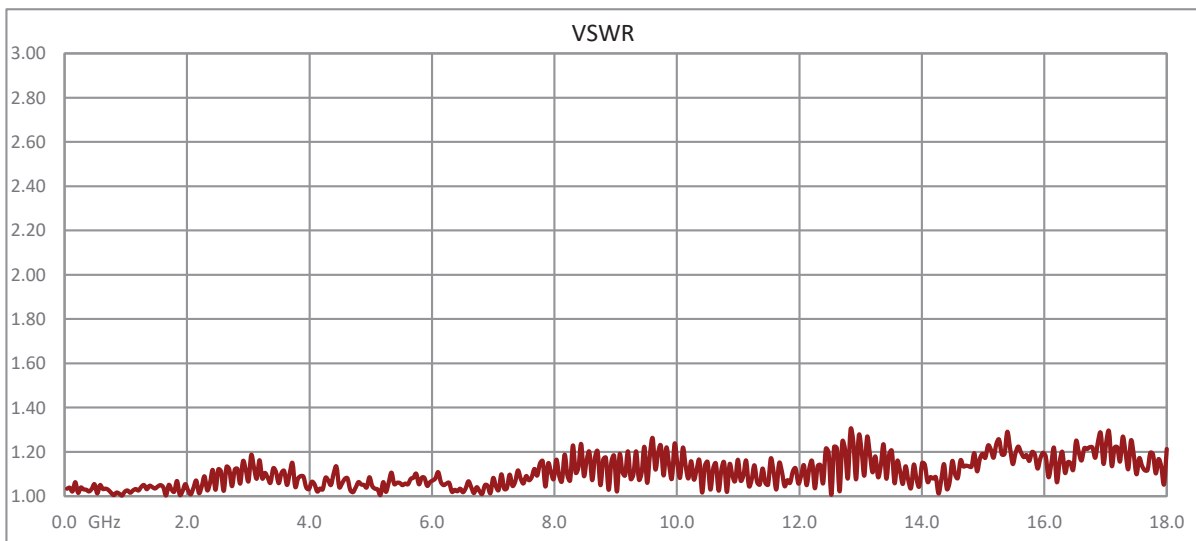
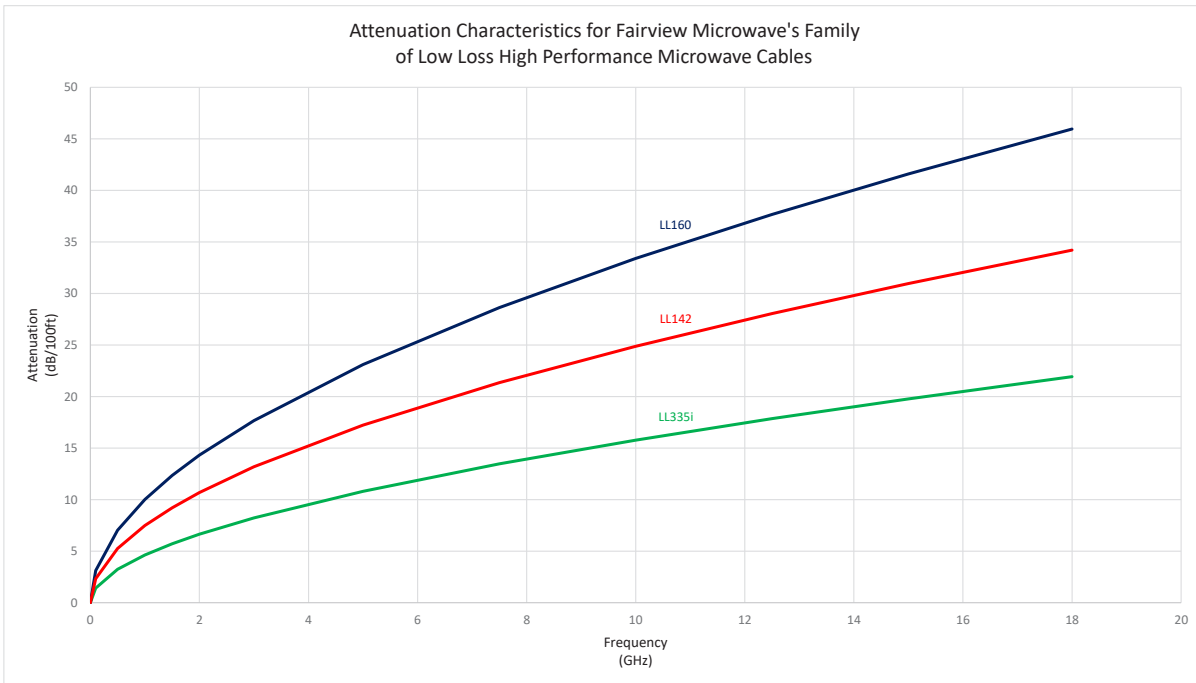
Notes:

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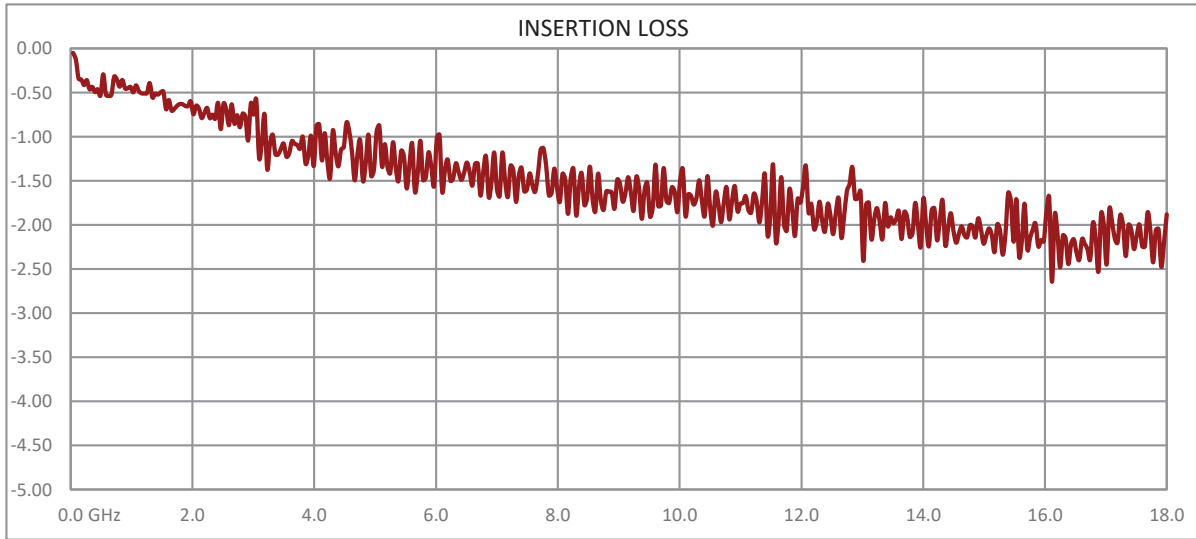
Typical Performance Data



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FMCA1702-24



How to Order

Part Number Configuration:

FMCA1702

- xx

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Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

Example: FMCA1702-12 = 12 inches long cable
FMCA1702-100cm = 100 cm long cable

Low Loss RA SMA Male to RA TNC Male Cable LL160 Coax in 24 Inch 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 Loss RA SMA Male to RA TNC Male Cable LL160 Coax in 24 Inch FMCA1702-24](https://www.fairviewmicrowave.com/low-loss-ra-sma-male-ra-tnc-male-cable-ll160-coax-fmca1702-24-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-loss-ra-sma-male-ra-tnc-male-cable-ll160-coax-fmca1702-24-p.aspx>

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. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume liability arising out of the use of any part or document.

FMCA1702-24 CAD Drawing

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