

RG402 Type .141 Semi-Rigid Coax Cable with a Tin Plated Aluminum Outer Conductor in Straight Sections



FM-SR141ALTN-STR

Configuration

- Semi-Rigid Cable
- 1 Shield(s)

Features

- Silver Plated Copper Clad Steel center conductor
- PTFE dielectric material
- Aluminum Tinned Outer Conductor
- Operating to 36 GHz
- Minimum inside bend radius of 1.25 inches
- ROHS compliant

Applications

- RF and Microwave Cable Assemblies to 36 GHz
- Preformed cable assemblies to insure fit and layout
- Test Equipment port jumpers

Description

.141 diameter semi-rigid coaxial cable is the cable of choice for many RF and Microwave engineers. 0.141 cables sometimes referred to as RG402 based on the mil specification for semi-rigid cable of this diameter has a maximum operating frequency of 36 GHz. This form factor is widely used in the RF industry and many connector series and configurations are available for this cable. Because of the solid copper wall design the cable can be formed using proper tooling with a minimum inside bend radius of 1.25 inches.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		36	GHz
Impedance		50		Ohms
Velocity of Propagation		69.5		%
Dielectric Withstanding Voltage (AC)			5,000	Vrms
Power@ 1GHz			450	Watts

Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	1	10	20			GHz
Attenuation, Typ	13	46	71			dB/100ft
	42.65	150.92	232.94			dB/100m
Input Power (CW), Max	450	120	70			Watts
Input Power (CW), Typ						mWatts

Description	F6	F7	F8	F9	F10	Units
Input Power (CW), Typ						mWatts

Mechanical Specifications

Diameter	0.141 in [3.58 mm]
Weight	0.0316 lbs/ft [0.05 kg/m]

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Min. Bend Radius (Installation) 0.1 in [2.54 mm]

Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper Clad Steel, Silver, Strand	0.036 in [0.91 mm]
Conductor Type	Solid	
Dielectric	PTFE	0.118 in [3 mm]
First Shield	Tinned Aluminum	0.141 in [3.58 mm]
Outer Conductor	Aluminum, Tin	
Jacket	Silver	0.141 in [3.58 mm]

Environmental Specifications

Temperature
Operating Range -55 to +125 deg C

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

Plotted and Other Data

Notes:

RG402 Type .141 Semi-Rigid Coax Cable with a Tin Plated Aluminum Outer Conductor in Straight Sections 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: [RG402 Type .141 Semi-Rigid Coax Cable with a Tin Plated Aluminum Outer Conductor in Straight Sections FM-SR141ALTN-STR](#)

URL: <https://www.fairviewmicrowave.com/rg402-type-.141-semi-rigid-coax-cable-tin-plated-aluminum-fm-sr141altn-str>

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