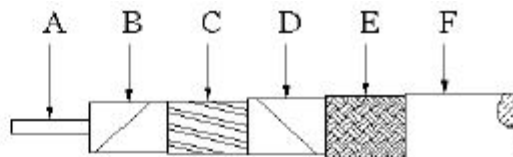


# RG402 Cable Specifications M17/130-RG402

DOCUMENT No: CABLE-RG402

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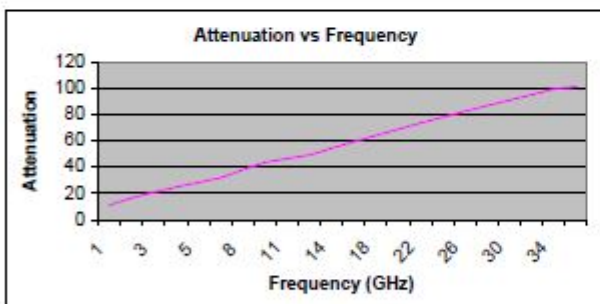
Semi-Rigid 141 offers high performance to 35 GHz with moderate insertion loss. The .141 diameter size cable well with high frequency connectors such as 2.9mm, BMA and SMA connectors. Florida RF Labs offers Space Qualified assemblies bent to your specifications with a wide range of connectors.



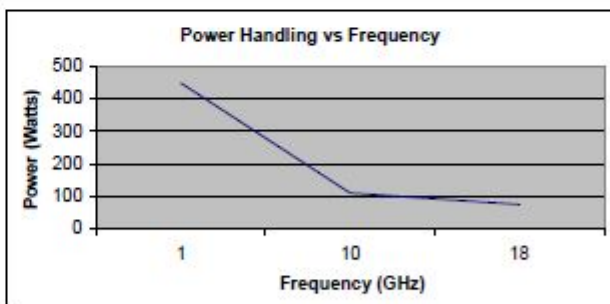
Electrical Data			
Frequency, Max (GHz)	35.0		
Impedance, nominal ( $\Omega$ )	50		
Velocity of Propagation (%)	69.5		
Shielding Effectiveness, 1 GHz (dB/ft)	>100		
Capacitance (pF/ft)	29.5		
Delay (ns/ft), (ns/meter)	1.463	4.80	
Attenuation k1 (db/100ft) @ 23 deg C	0.316		Attenuation (typical) at any Frequency =k1 x SqRt (FMHz) + k2 x (FMHz)
Attenuation k2 (db/100ft) @ 23 deg C	0.0012		

Mechanical Data			
Weight (lbs/100ft), (Kg/100m)	3.44	5.17	
Temperature Range ( $^{\circ}$ C)	-40 to 125		
Minimum Bend Radius (inch), (mm)	0.32	8.13	

Construction Data				
Inner Conductor (inch)	A	Solid	0.036	Silver Covered Copper Clad Steel
Dielectric (inch)	B	Solid	0.119	Polytetrafluoroethylene
First Outer Shield (inch)	C		0.141	Bare Copper Tube
Second Outer Shield (inch)	D			
Third Outer Shield (inch)	E			
Jacket (inch O.D.)	F		0.141	None



(dB per 100 feet)



\*CW Power in watts at sea level and 23 $^{\circ}$ C

**QUICK SPEC**

Max Frequency	Loss @ 5 GHz	Cable Diameter	Shielding Effect.
<b>35 GHz</b>	<b>28 dB</b>	<b>0.141"</b>	<b>&gt;100</b>

# RG402 Cable Specifications M17/130-RG402

DOCUMENT No: CABLE-RG402

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**Standard Connectors:**

Cable Code	Connector Code	Series	Gender	Type	C-Nut Style*	Body Material*	Body Finish*	Loss per GHz	Frequency Max GHz
RG402	KMS	2.9 mm	(Male) plug	Straight	H	SS	G	0.007	35
RG402	KMSR <sup>2</sup>	2.9 mm	(Male) plug	R/A	H	SS	G	0.007	35
RG402	KFS	2.9 mm	(Female) jack	Straight	N/A	SS	G	0.015	35
RG402	SMS	SMA	(Male) plug	Straight	H	G	G	0.007	18
RG402	SMSR <sup>2</sup>	SMA	(Male) plug	R/A	H	SS	G	0.007	18
RG402	SMR	SMA	(Male) plug	R/A	H	SS	G	0.015	12
RG402	SFS	SMA	(Female) jack	Straight	N/A	SS	G	0.010	18
RG402	SFBS	SMA	(Female) Bulkhead	Straight	N/A	SS	G	0.015	18
RG402	SMSAT <sup>1</sup>	SMA	(Male) plug	Straight	H	SS	G	0.010	18
RG402	OSPMBMS	OSP	(Male) Bulkhead	Straight	H	SS	G	0.010	18
RG402	NMS	TYPE N	(Male) plug	Straight	HK	B	T	0.015	18
RG402	NMSR <sup>2</sup>	TYPE N	(Male) plug	R/A	HK	B	T	0.015	18
RG402	NFBS	TYPE N	(Female) Bulkhead	Straight	N/A	SS	P	0.015	18
RG402	TMS	TNC	(Male) plug	Straight	H	SS	G	0.015	18
RG402	TMSR <sup>2</sup>	TNC	(Male) plug	R/A	H	SS	G	0.015	18
RG402	TMR	TNC	(Male) plug	R/A	H	SS	G	0.020	18
RG402	TFBS	TNC	(Female) Bulkhead	Straight	N/A	SS	G	0.015	18
RG402	TFS	TNC	(Female) jack	Straight	N/A	B	G	0.020	12
RG402	MCXMR	MCX	(Male)	R/A	H	B	G	0.015	6
RG402	BMS	BNC	(Male) plug	Straight	H	B	N	0.010	4
RG402	BFBS	BNC	(Female) Bulkhead	Straight	N/A	B	N	0.010	4

\* C-Nut Style: H=Hex Nut, K=Knurled, HK=Hex Nut & Knurled

\* Body Materials: B=Brass, SS=Stainless Steel, BE=Beryllium Copper

\* Body Finish: N=Nickel, S=Silver, G=Gold, P=Passivated, T=Tri-Metal

SMSAT<sup>1</sup> = Anti-Torque

<sup>2</sup> = Connector pre-bent cable to form right angle

Sex of the connector is determined by center pin.

**Standard Options:**

Cable Code	Option Code	Option Description	Option Details
RG402	W	Weatherized Protective Covering	Polyolefin shrink tube cover
RG402	RP	Phase Matched in sets	Cable matched to each other to +/- 2.8PS
RG402	AP	Phase Matched to an electrical length	Absolute electrical length +/- 2.8PS
RG402	RoHS	RoHS Compliant Cable Assembly	per EU directive 2002/95/EC

Standard Product is not RoHS compliant

For RoHS complaint assemblies (-ROHS) is required to be added to end of standard part number

ex. SMS-RG402-12.0-SMS-ROHS

**Custom Options:**

The above connectors and options the most common types used. Florida RF Labs offers a wide range of cables, connectors and options. If you do not see what you need please consult the factory.

**QUICK SPEC**

Max Frequency	Loss @ 5 GHz	Cable Diameter	Shielding Effect.
<b>35 GHz</b>	<b>28 dB</b>	<b>0.141"</b>	<b>&gt;100</b>