RG+™ Series Cable

The RG+™ Series was designed to replace standard RG142 and RG316 style cable in applications up to 6 GHz. Using standard crimp style connectors with this cable series provides better assembly yields through improved VSWR (50% better) and a 22% improvement in insertion loss (38 dB/100 ft vs 48 dB/100 ft @ 6 GHz). RG+™ cable also reduces phase and attenuation drift caused by temperature variations. In addition to being 60% lighter than standard RG cable, this series exhibits greatly enhanced flexibility. Installers can make tighter bends without stressing the connector/cable junctions, eliminating installation failures and reducing rework at the system integration level.

CABLE PROPERTIES

Mechanical Properties

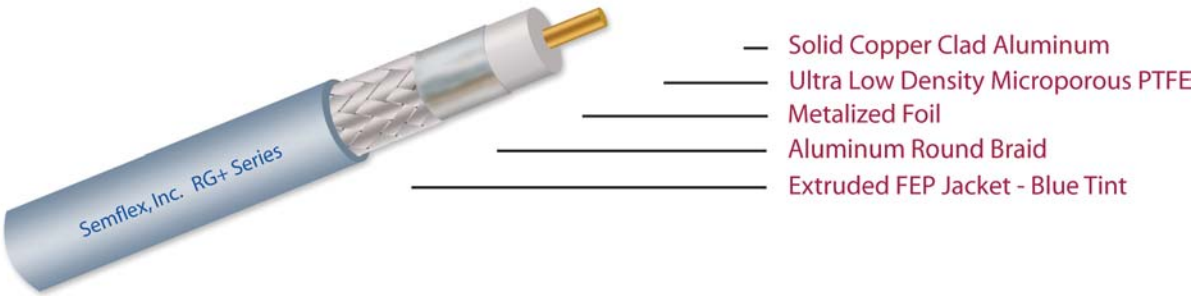
	RG+™142
Jacket O.D. (in)	0.172
Round Braid O.D. (in)	0.152
Metalized Foil O.D. (in)	0.120
Dielectric O.D. (in)	0.117
Center Conductor O.D. (in)	0.043
Center Conductor Type	Solid
Inside Min Bend Radius (in)	1.250
Operating Temperature (°C)	-60/+125
Weight (lbs/ft)	0.015

Electrical Properties

Impedance (ohms)	50
Capacitance (pf/ft)	25.2
Inductance (nH/ft)	61
Shielding Effectiveness (dB)	>85
Max Frequency (GHz)	6
Velocity of Propagation	82%
Breakdown Voltage (KV)	5
Max Structural VSWR	1.10:1

CABLE CONSTRUCTION

The lightweight and flexible features of RG+™ cable is achieved with a copper clad aluminum center conductor and aluminum braid wire. The microporous PTFE dielectric provides excellent phase stability across extreme temperature fluctuations. The outer shield construction combines a bonded aluminum foil and woven braid to produce >85 dB of shielding.



Semflex ISO 9001
5550 E. McDowell Road | Mesa, AZ 85215 | tel: 480.985.9000 | fax: 480.985.0334 | www.semflex.com

Attenuation (dB/100 ft)

GHz		RG+™142
.1	Guaranteed Max	3.97
.45		8.77
1		13.53
2		19.96
3		25.22
6		38.13
k1		12.125
k2		1.405

Average Power (KW)

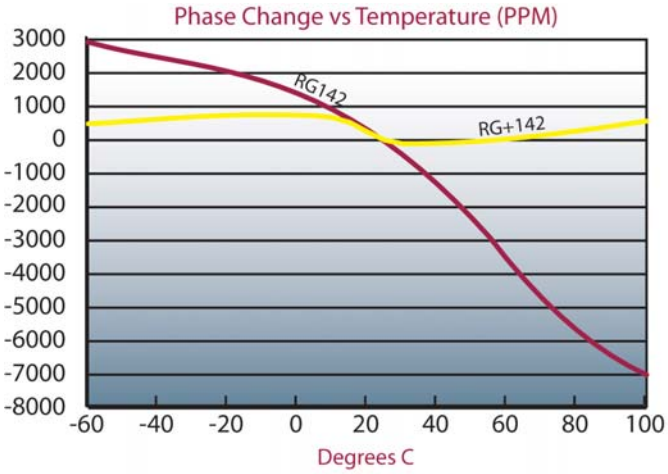
.10	Power Rating	3.2
.45		2.2
1		1.5
2		1.0
3		.9
6		.6

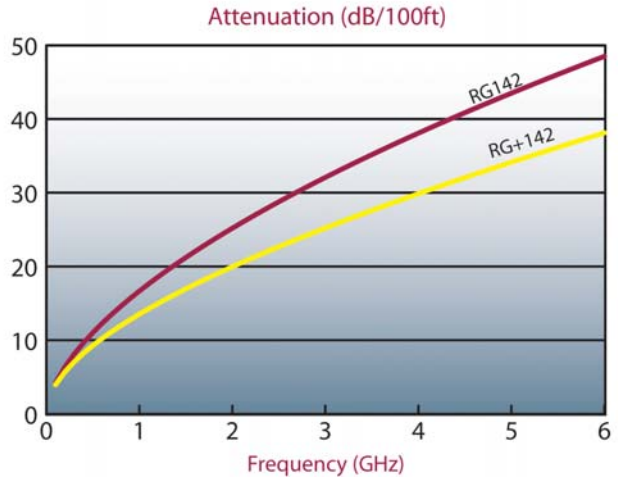
For applications requiring interconnects for:

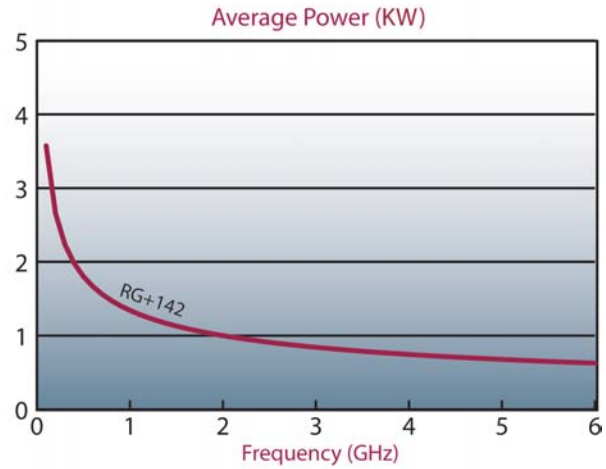
- ***Aerospace and other weight sensitive applications***
- ***Racks, cabinets, or enclosures under 6 GHz***
- ***Sensitive phase/temperature applications***

Cable Cross Reference

Semflex	Replacement
RG+142	RG142, RD142, FBT195, FBT200







* Attenuation at any frequency

$$= \left(k1 \times \sqrt{freq(GHz)}\right) + \left(k2 \times freq(GHz)\right)$$

"The difference starts with the cable..."

Vital Links™ Performance Quality Service