

## FLEXIBLE CABLE RG142

(MIL-C-17/60-RG142)

### Application:



MIL-C-17/60-RG142

RG142 is one of the most popular RG cables. This cable presents a good compromise between flexibility and electrical performances.

RG142 will be selected among other 5/50 RG's for applications requiring high frequency range and low attenuation. Usable in severe thermal conditions.

CONSTRUCTION / DIMENSIONS			
	material	mm	inches
Center conductor	Solid SPCCS(1)	0.94	0.037
Dielectric	solid PTFE (2)	2.95	0.116
Inner shield	SPC (3) braid	-	-
Outer shield	SPC (3) braid	4.19	0.165
Jacket black	Brown FEP(4)	4.95	0.195

- (1) SPCCS= Silver Plated Copper Covered Steel  
 (2) PTFE = Polytetrafluoroethylene  
 (3) SPC = Silver plated copper  
 (4) FEP = Fluorinated Ethylene Propylene

MECHANICAL CHARACTERISTICS		
recommended minimum bending radius	25 mm inch	0.984
weight	64 g / m	0.043 lbs / ft

ENVIRONMENTAL CHARACTERISTICS		
operating temperature range	-55 / +200 °C	-67 / +392 °F
fire resistance	yes (CSA FT6 / IEC 332-2)	
halogen free	NO	

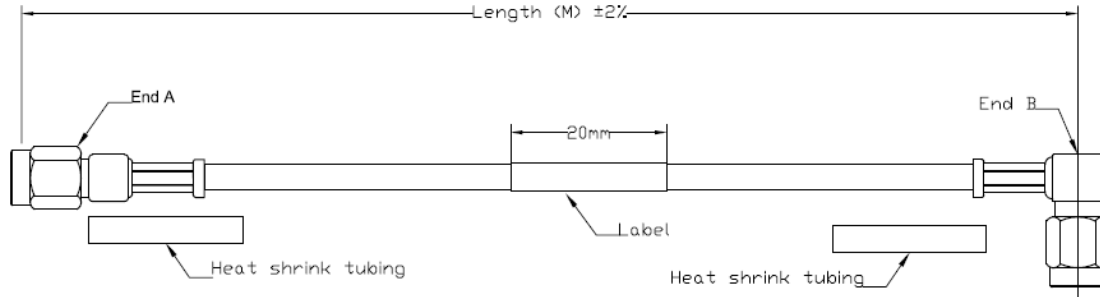
ELECTRICAL CHARACTERISTICS	
characteristic impedance	50Ω ± 2Ω
operating frequency range	DC – 12.4 GHz
shielding effectiveness	65 dB (DC-3GHz)
voltage withstanding	5 000 V rms
peak power	3.4 kW
capacitance	96 pF / m    29.3 pF /ft
velocity of propagation	70 % (4.8 ns / m)

Note: typical VSWR for the cable assembly  
VSWR=1.2:1 @3GHz

FREQUENCY / ATTENUATION MAX POWER (sea level / 25 °C)			
GHz	dB/ m	dB / ft	Watts
0.5	0.30	0.09	665
1.0	0.44	0.13	470
1.5	0.55	0.17	384
2.0	0.65	0.20	332
3.0	0.81	0.25	271
6.0	1.22	0.37	192
8.0	1.45	0.44	166
10.0	1.66	0.50	149
12.4	1.90	0.58	133
attenuation calculation (dB/m)	(0.40 x √f GHz) + (0.04 x f GHz)		
power calculation (W)	470 / √f GHz		

Note: typical attenuation for a couple of connectors  
(dB) = 0.045 x √f (GHz)

## FLEXIBLE CABLE RG142 ASSEMBLES (MIL-C-17/60-RG142)



End A  
SMA (Straight)  
Male

End B  
SMA (Right Angle)  
Male

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard =  $\pm 2\%$  )

<b>FLEXIBLE CABLE RG142 ASSEMBLES</b>				
SKU	Model	End A - Connector	End B - Connector	Photo
<a href="#">00-0305</a>	N male to N male RG142-XX.XX(M)	N male straight	N male straight	
<a href="#">00-0306</a>	N male to N female RG142-XX.XX(M)	N male straight	N female BH straight	
<a href="#">00-0336</a>	N male to SMA male RG142-XX.XX(M)	N male straight	SMA male straight	
<a href="#">00-0307</a>	N male to BNC male RG142-XX.XX(M)	N male straight	BNC male straight	
<a href="#">00-0308</a>	SMA male to SMA male RG142-XX.XX(M)	SMA male straight	SMA male straight	
<a href="#">00-0313</a>	TNC male to TNC male RG58-XX.XX(M)	TNC male straight	TNC male straight	

## CONNECTOR SELECTION ( FOR RG142 CABLE)

CONNECTOR SELECTION ( FOR RG142 CABLE)					
SKU	Connector Type Series	Interface	Frequency (GHz)	Impedance ( $\Omega$ )	Classic level ( Mil Spec)
01-0366	N	Male Straight, Crimp	6	50	Commercial
01-0314	N	Male Right Angle, crimp	6	50	Commercial
01-0355	N	Male Straight, Clamp	6	50	Commercial
01-0338	N	Male straight, Reversed polar,	3	50	Commercial
01-0336	N	Female Straight, Crimp,	6	50	Commercial
01-0335	N	Female, Bulkhead, Straight, Crimp	6	50	Commercial
01-0405	SMA	Male Straight, Crimp	11	50	Commercial
01-0407	SMA	Female Straight, Crimp,	11	50	Commercial
01-0416	SMA	Male Right Angle, crimp	6	50	Commercial
01-0430	SMA	Male straight, Reversed polar,	6	50	Commercial
01-0433	SMA	Female straight, Reversed polar,	6	50	Commercial
01-0506	TNC	Male Straight, Crimp	6	50	Commercial
01-0517	TNC	Female straight, crimp,	6	50	Commercial
01-0202	BNC	Male Straight, Crimp	4	50	Commercial
01-0215	BNC	Male Right Angle, crimp	4	50	Commercial
01-0235	BNC	Female, Bulkhead, Straight, Crimp	4	50	Commercial
01-0830	FME	Male Straight, Crimp	4	50	Commercial
01-0831	FME	Female straight, crimp,	4	50	Commercial
01-0823	SMB	Male Right Angle, crimp	6	50	Commercial
01-0609	UHF	Male Right Angle, crimp	2	50	Commercial
01-0607	UHF	Female straight, crimp,	2	50	Commercial