RG316 and RG178 Cable Sets are suitable for RF PCB and Panel interconnect applications.

RG316 Cable Set with SMB Right Angle Connectors

APPLICATIONS (DC~4 GHz)

- RF PCB & Panel interconnect applications
- Tight spaced applications
- Application demanding miniature coaxials
- Wimax
- GPS Antenna, Receivers
- Satcom

Physical & Mechanical Specifications

Parameter	RG316	RG 178
Cable Outer Diameter	0.098 inch (2.48mm)	0.071 inch (1.8mm)
Dielectric	PTFE	PTFE
Outer Shield	Silver-plated copper	Silver-plated copper
Jacket	FEP	FEP
Min. Bending Radius	0.5 inch (12.5mm)	0.4 inch (10.2mm)
Weight	0.0122 (lb/ft)	0.0063 (lbs/ft)
Temperature Range	-55°C to +125°C	-55°C to +125°C
Impedance	50Ω	50Ω
Capacitance	29.4 (pF/ft)	29.4 (pF/ft)

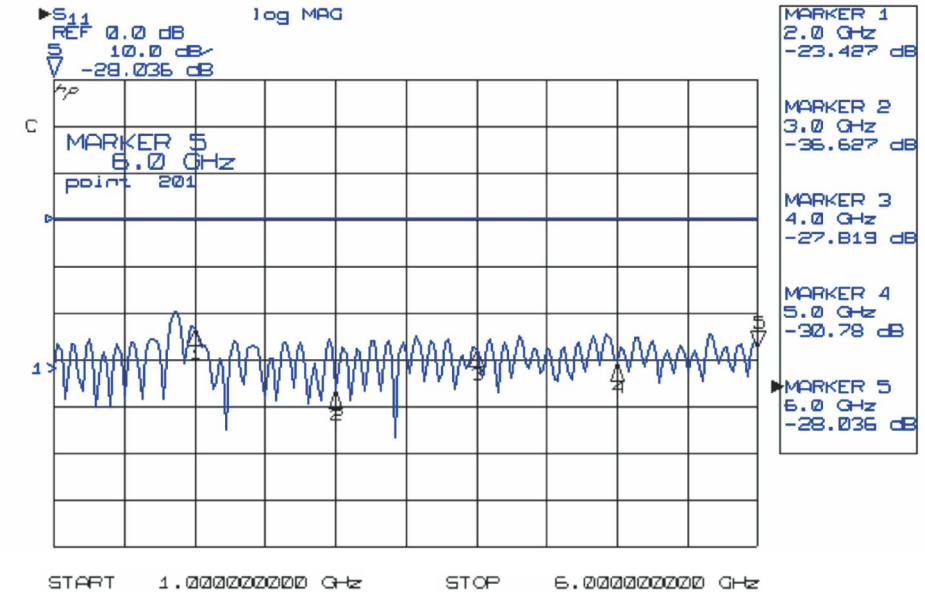
RG316 Attenuation Vs Frequency

Frequency (MHz)	100	400	1000	2400
(dB/100 feet)	9.2	18.5	33	47
(dB/100m)	30.2	60.7	108.3	154.3

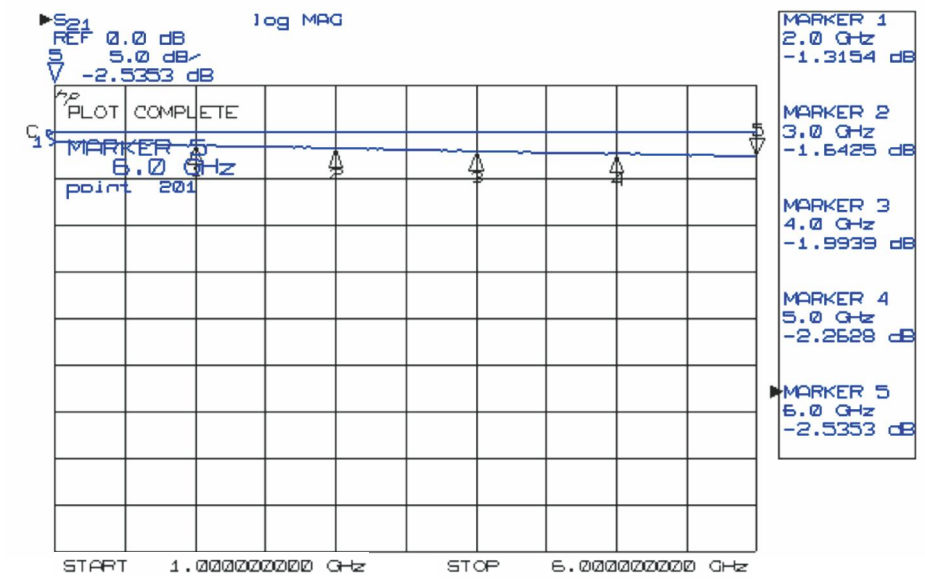
RG178 Attenuation Vs Frequency

Frequency (MHz)	100	400	1000	2400
(dB/100 feet)	14.5	30.1	48.1	50.1
(dB/100m)	47.56	98.72	157.76	164.2

Return Loss Plots of RG316 Cable Set, 1 meter, SMA (Male) on both sides



Insertion Loss Plots of RG316 Cable Set, 1 meter, SMA (Male) on both sides



Ordering Codes Description

	(Length)		(Connector 1)		(Connector 2)	
RG316/RG178 -	□ □	-	□ (□ / □)	-	□ (□ / □) -	□
	L L		1 2 3		1 2 3	U

L L	Length	0.5 = 0.5 ; 1 = 1.0 ; 2 = 2.0
1	Connector Series	SMA=SMA; N=N; BNC=BNC; TNC=TNC; SMB=SMB; SMC=SMC
2	Male/Female Designator	M = Male ; F = Female
3	Orientation of Connector	ST = Straight ; RA = Right Angle
U	Unit of Length	M = Meter ; F = Feet ; I = Inch

1 meter RG316 cable set with SMA (Male) on both sides = RG316-1.0-SMA(M/ST)-SMA(M/ST)-M

Connector Specifications

Specifications	SMB	SMA	SMC	TNC
Outer Conductor	Brass, Gold plated			
Center Conductor	Brass, Gold Plated			
Insulation	PTFE			
Gasket	Silicone Rubber			
Impedance	50 Ω			
Frequency range	DC~4GHz	DC~3 GHz	DC~4 GHz	DC~4 GHz
Mating/Unmating	500 operations min.			

RG316 Cable Set Ordering Codes

Ordering Code	Length	Insertion Loss (dB) Typical			
		100 GHz	400 GHz	1 GHz	2.4 GHz
SMA (Male) Straight - SMA (Male) Straight					
RG316-1.0-SMA(M/ST)-SMA(M/ST)-M	1m	0.50	1.04	1.68	2.5
RG316-2.0-SMA(M/ST)-SMA(M/ST)-M	2m	0.96	1.95	3.17	4.98
RG316-3.0-SMA(M/ST)-SMA(M/ST)-M	3m	1.40	2.88	4.5	7.49
SMA (Male) Straight - SMA (Male) Right Angle					
RG316-1.0-SMA(M/ST)-SMA(M/RA)-M	1m	0.51	1.05	1.69	2.6
RG316-2.0-SMA(M/ST)-SMA(M/RA)-M	2m	0.97	1.96	3.18	4.99
RG316-3.0-SMA(M/ST)-SMA(M/RA)-M	3m	1.41	2.89	4.6	7.50
TNC (Male) Straight - TNC (Male) Straight					
RG316-1.0-TNC(M/ST)-TNC(M/ST)-M	1m	0.57	1.11	1.75	2.75
RG316-2.0-TNC(M/ST)-TNC(M/ST)-M	2m	1.03	2.03	3.24	5.15
RG316-3.0-TNC(M/ST)-TNC(M/ST)-M	3m	1.48	2.96	4.75	7.56
SMB (Female) Straight - SMB (Female) Straight					
RG316-1.0-SMB(F/ST)-SMB(F/ST)-M	1m	0.52	1.06	1.7	2.7
RG316-2.0-SMB(F/ST)-SMB(F/ST)-M	2m	0.98	1.98	3.19	5.1
RG316-3.0-SMB(F/ST)-SMB(F/ST)-M	3m	1.43	2.91	4.7	7.51
SMB (Female) Straight - SMB (Female) Right Angle					
RG316-1.0-SMB(F/ST)-SMB(F/RA)-M	1m	0.53	1.07	1.71	2.71
RG316-2.0-SMB(F/ST)-SMB(F/RA)-M	2m	0.99	1.99	3.2	5.11
RG316-3.0-SMB(F/ST)-SMB(F/RA)-M	3m	1.44	2.92	4.71	7.52
SMB(Female) Right Angle - SMB(Female) Right Angle					
RG316-1.0-SMB(F/RA)-SMB(F/RA)-M	1m	0.55	1.09	1.73	2.73
RG316-2.0-SMB(F/RA)-SMB(F/RA)-M	2m	1.01	2.01	3.22	5.13
RG316-3.0-SMB(F/RA)-SMB(F/RA)-M	3m	1.46	2.94	4.73	7.54
SMC(Female) Straight - SMC(Female) Right Angle					
RG316-1.0-SMC(F/ST)-SMC(F/RA)-M	1m	0.53	1.07	1.71	2.71
RG316-2.0-SMC(F/ST)-SMC(F/RA)-M	2m	0.99	1.99	3.2	5.11
RG316-3.0-SMC(F/ST)-SMC(F/RA)-M	3m	1.44	2.92	4.71	7.52

RG316 Cable Set Ordering Codes

Ordering Code	Length	Insertion Loss (dB) Typical			
		100 GHz	400 GHz	1 GHz	2.4 GHz
SMC(Female) Right Angle - SMC(Female) Right Angle					
RG316-1.0-SMC(F/RA)-SMC(F/RA)-M	1m	0.55	1.09	1.73	2.73
RG316-2.0-SMC(F/RA)-SMC(F/RA)-M	2m	1.01	2.01	3.22	5.13
RG316-3.0-SMC(F/RA)-SMC(F/RA)-M	3m	1.46	2.94	4.73	7.54
SMA(Male) Straight - SMC(Female) Straight					
RG316-1.0-SMA(M/ST)-SMC(F/ST)-M	1m	0.56	1.11	1.75	2.75
RG316-2.0-SMA(M/ST)-SMC(F/ST)-M	2m	1.03	2.03	3.24	5.16
RG316-3.0-SMA(M/ST)-SMC(F/ST)-M	3m	1.48	2.96	4.74	7.56

RG178 Cable Set Ordering Codes

Ordering Code	Length	Insertion Loss (dB) Typical			
		100 GHz	400 GHz	1 GHz	2.4 GHz
SMB(Female) Straight - SMB(Female) Straight					
RG178-1.0-SMB(F/ST)-SMB(F/ST)-M	1m	0.59	1.20	1.93	3.07
RG178-2.0-SMB(F/ST)-SMB(F/ST)-M	2m	1.11	2.25	3.63	5.80
RG178-3.0-SMB(F/ST)-SMB(F/ST)-M	3m	1.62	3.31	5.34	8.53
SMB(Female) Straight - SMB(Female) Right Angle					
RG178-1.0-SMB(F/ST)-SMB(F/RA)-M	1m	0.61	1.24	1.99	3.16
RG178-2.0-SMB(F/ST)-SMB(F/RA)-M	2m	1.14	2.32	3.74	5.97
RG178-3.0-SMB(F/ST)-SMB(F/RA)-M	3m	1.67	3.41	5.50	8.79
SMB(Female) Right Angle - SMB(Female) Right Angle					
RG178-1.0-SMB(F/RA)-SMB(F/RA)-M	1m	0.62	1.26	2.03	3.22
RG178-2.0-SMB(F/RA)-SMB(F/RA)-M	2m	1.17	2.36	3.81	6.09
RG178-3.0-SMB(F/RA)-SMB(F/RA)-M	3m	1.70	3.48	5.61	8.96
SMC(Female) Straight - SMC(Female) Straight					
RG178-1.0-SMC(F/ST)-SMC(F/ST)-M	1m	0.59	1.20	1.93	3.07
RG178-2.0-SMC(F/ST)-SMC(F/ST)-M	2m	1.11	2.25	3.63	5.80
RG178-3.0-SMC(F/ST)-SMC(F/ST)-M	3m	1.62	3.31	5.34	8.53
SMC(Female) Straight - SMC(Female) Right Angle					
RG178-1.0-SMC(F/ST)-SMC(F/RA)-M	1m	0.61	1.24	1.99	3.16
RG178-2.0-SMC(F/ST)-SMC(F/RA)-M	2m	1.14	2.32	3.74	5.97
RG178-3.0-SMC(F/ST)-SMC(F/RA)-M	3m	1.67	3.41	5.50	8.79
SMA(Male) Straight - SMC(Female) Straight					
RG178-1.0-SMA(M/ST)-SMC(F/ST)-M	1m	0.62	1.25	2.01	3.17
RG178-2.0-SMA(M/ST)-SMC(F/ST)-M	2m	1.15	2.33	3.75	5.99
RG178-3.0-SMA(M/ST)-SMC(F/ST)-M	3m	1.68	3.42	5.52	8.80