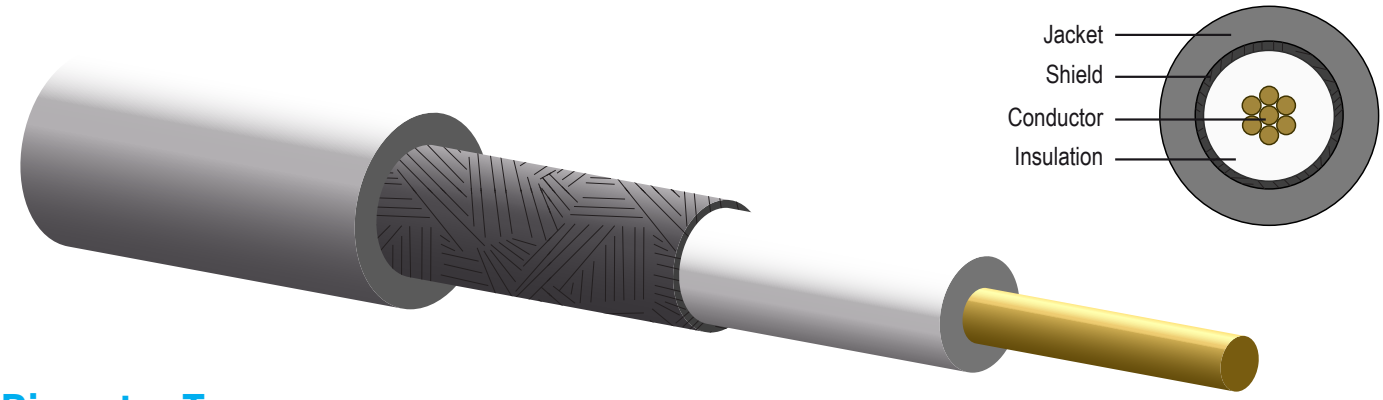
Coaxial Cable Product Specification

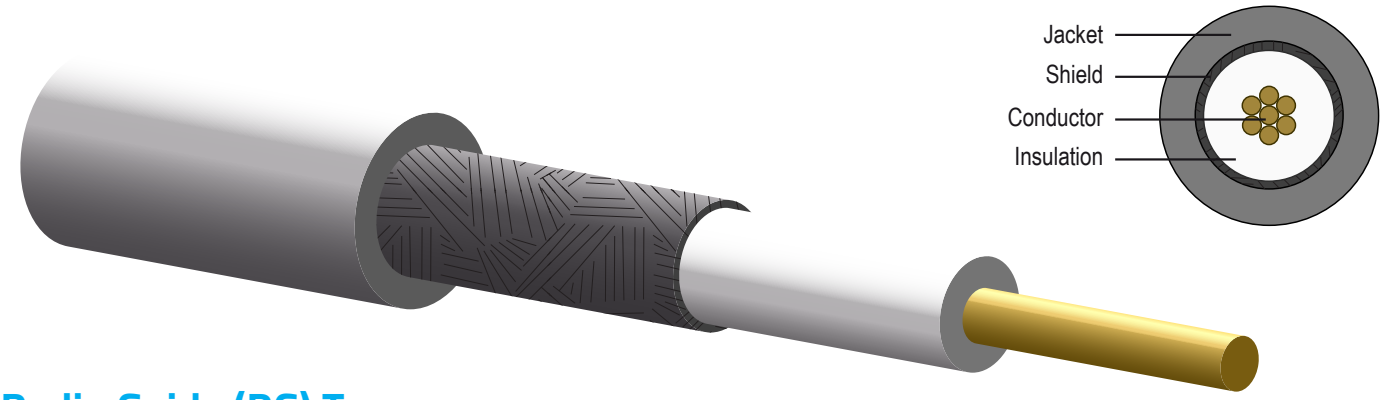


Diameter Types

	Cable Type	0.81mm	1.13mm	1.13mm Low Loss	1.32mm	1.37mm	1.48mm
Conductor	Material	Silver-Coated Copper	Silver-Coated Copper	Silver-Coated Copper	Silver-Coated Copper	Silver-Coated Copper	Silver-Coated Copper, Clad Steel
	Construction AWG (mm)	36 (7/0.05)	32 (7/0.08 ±0.003)	32 (7/0.085)	32 (7/0.085)	30 (7/0.107)	30 (7/0.102)
	Diameter (approx mm)	0.15	0.22	0.26	0.22	0.32	0.31
Insulation	Material	FEP or PFA	FEP	FEP	FEP	FEP	FEP
	Average Thickness (mm)	0.125	0.20	0.22	0.20	0.30	0.28
	Colour	Clear	Clear	Clear	Clear	Clear	Clear
	Diameter (mm)	0.40+0.04 - 0.02	0.70 ±0.02	0.70 ±0.03	0.70 ±0.02	0.92 ±0.03	0.86 ±0.03
Binder	Material			Cu-PET Tape			
Shield	Material	Tinned-Coated Copper	Tinned-Coated Copper	Tinned-Coated Copper	Silver-Coated Copper	Tinned-Coated Cop-per	Silver-Coated Copper
	Construction (mm)	16/3/0.05	16/4/0.05	16/4/0.05	16/4/0.05	16/6/0.05	16/5/0.05
	Coverage (%)	85	89.4	88	90.4	96.4	91.6
Jacket	Material	FEP or PFA	FEP	FEP	FEP	FEP	FEP
	Average Thickness (mm)	0.08	0.12	0.10	0.21	0.13	0.21
	Colour	Grey	Black, Grey, White	Grey	Black, Grey	Black, Grey, White, Brown, Red, Blue, Yellow, Orange, Green	Black, Grey
	Diameter (mm)	0.81 +0.04 -0.02	1.13 ±0.05	1.13 ±0.05	1.32 ±0.05	1.37 ±0.05	1.48 ±0.05

Note this document does not relate to either Hirose, Murata or Sunridge cable assemblies. If you require more information please contact GradConn

Cable Type			0.81mm		1.13mm		1.13mm Low Loss		1.32mm		1.37mm		1.48mm	
Nominal Impedance (Ω)			50 ±3		50 ±3		50 ±3		50 ±3		50 ±3		50 ±5	
Conductor Resistance (Ω/km Max. at 20°C)			1400		545		482		850		314		828C	
Insulation Resistance (MΩ/km min.)			1000		3000		3000		1000		3000		3000	
Nominal Capacitance (pF/M)			96		96 ±3		96 ±3		96 ±3		95.8		95.8	
Dielectric Strength (KV/Min)			AC 1		AC 1		AC 1		AC 0.5		AC 1		AC 1	
Spark Test (KV)			5		2.5		1		2.5		2		2	
Flame Test					VW-1 OK		VW-1 OK		VW-1 OK		VW-1 OK			
Nom. Vel. of Prop. (%)			70		69		69		69		69.5		69.5	
VSWR (0-6 GHz)					1.3 Max.		1.3 Max.		1.3 Max.		1.3 Max.		1.3 Max.	
Rating Temp Voltage			90°C 30V		105°C 30V		105°C 30V		105°C 30V		105°C 30V		105°C 30V	
Minimum Bend Radius (mm)			3.24		5.0		5.0				9		9	
Insulation	Unaged	Tensile Strength			2500 PSI min. (1.76 Kg/mm²)		2500 PSI min. (1.76 Kg/mm²)		2500 PSI min. (1.76 Kg/mm²)		2500 PSI min. (1.76 Kg/mm²)		2500 PSI min. (1.76 Kg/mm²)	
		Elongation (min)			200%		200%		200%		200%		200%	
	Aged (168Hrs x 232°C)	Tensile Strength			Unaged min. 75%		Unaged min. 75%		Unaged min. 75%		Unaged min. 75%		Unaged min. 75%	
		Elongation												
Jacket	Unaged	Tensile Strength			2500 PSI min. (1.76 Kg/mm²)		2500 PSI min. (1.76 Kg/mm²)		2500 PSI min. (1.76 Kg/mm²)		2500 PSI min. (1.76 Kg/mm²)		2500 PSI min. (1.76 Kg/mm²)	
		Elongation (min)			200%		200%		200%		200%		200%	
	Aged (168Hrs x 232°C)	Tensile Strength			Unaged min. 75%		Unaged min. 75%		Unaged min. 75%		Unaged min. 75%		Unaged min. 75%	
		Elongation												
Attenuation			dB/ 1m	dB/ 1ft	dB/ 1m	dB/ 1ft	dB/ 1m	dB/ 1ft	dB/ 1m	dB/ 1ft	dB/ 1m	dB/ 1ft	dB/ 1m	dB/ 1ft
	1 GHz		3.0	0.92			1.6	0.49			1.6	0.49	1.8	0.55
	1.8 GHz												2.6	0.79
	2 GHz		4.4	1.34	2.90	0.89	2.2	0.68	2.80	0.85	2.3	0.71		
	2.4 GHz		4.9	1.49	3.20	0.98	2.5	0.77	3.10	0.95	2.5	0.76	2.9	0.88
	2.5 GHz		5.0	1.56	3.28	1.00			3.15	0.96	2.6	0.79		
	3 GHz		5.5	1.68										
	4 GHz		6.5	1.98										
	5 GHz		7.5	2.29	5.05	1.54			4.85	1.48				
	5.15 GHz										3.9	1.19		
	5.2 GHz												4.5	1.37
	5.35 GHz										4.0	1.22		
	6 GHz		8.5	2.59	5.40	1.65	4.2	1.29	5.20	1.59	4.3	1.32	4.9	1.49
	8 GHz						5.1	1.56						
	12 GHz													
Cable Type			0.81mm		1.13mm		1.13mm Low Loss		1.32mm		1.37mm		1.48mm	



Radio Guide (RG) Types

	Cable Type	RG174(/U)	RG178B/U	RG316	RD316
Conductor	Material	Copper Strand	Silver-Coated Copper, Clad Steel	Silver-Coated Copper, Clad Steel	Silver-Coated Copper, Clad Steel
	Construction AWG (mm)	26 (7/0.16)	30 (7/0.102 ±0.003)	26 (7/0.175)	26 (7/0.175)
	Diameter (approx mm)	0.48	0.31	0.53	0.53
Insulation	Material	XLPE	FEP	FEP	FEP
	Average Thickness (mm)	0.455	0.28	0.51	0.51
	Colour		Clear	Clear	Clear
	Nominal Thickness (mm)	0.535			
	Diameter (mm)	1.55 ±0.05	0.86 ±0.03	1.53 ±0.03	1.53 ±0.03
Shield	Material	Tinned-Coated Copper	Silver-Coated Copper	Silver-Coated Copper	Silver-Coated Copper x2
	Construction (mm)	16/5/0.1	16/3/0.10	16/5/0.092	1- 16/5/0.092 2- 16/5/0.092
	Coverage (%)	95	92.7	92.3	1- 92.3 2- 84.2
Jacket	Material	PVC	FEP	FEP	FEP
	Average Thickness (mm)	0.22	0.25	0.30	0.30
	Colour	Black	Black Brown	White	Brown
	Diameter (mm)	2.70 ±0.10	1.80 ±0.05	2.53 ±0.10	2.93 ±0.10

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Cable Type			RG174(/U)	RG178B/U	RG316	RD316
Nominal Impedance (Ω)			50 ±5	50 ±5	50	50
Conductor Resistance (Ω/km Max. at 20°C)			142.6	838	281	281
Insulation Resistance (MΩ/km min.)			1000	3000	3000	3000
Nominal Capacitance (pF/M)			100 ±8	95.8 ±3	95.8	95.8
Dielectric Strength (KV/Min)				AC 1	AC 1	AC 1
Spark Test (KV)				2	5	2
Flame Test				VW-1 OK		
Nom. Vel. of Prop. (%)				69.5	69.5	69.5
VSWR (0-6 GHz)				1.3 Max.	1.3 Max.	1.3 Max.
Rating Temp Voltage			80°C 30V	105°C 30V	105°C 30V	105°C 30V
Minimum Bend Radius (mm)			10.5	9	10.5	
Insulation	Unaged	Tensile Strength		2500 PSI min. (1.76 Kg/mm²)	2500 PSI min. (1.76 Kg/mm²)	2500 PSI min. (1.76 Kg/mm²)
		Elongation (min)		200%	200%	200%
	Aged (168Hrs x 232°C)	Tensile Strength		Unaged min. 75%	Unaged min. 75%	Unaged min. 75%
		Elongation				
Jacket	Unaged	Tensile Strength		2500 PSI min. (1.76 Kg/mm²)	2500 PSI min. (1.76 Kg/mm²)	2500 PSI min. (1.76 Kg/mm²)
		Elongation (min)		200%	200%	200%
	Aged (168Hrs x 232°C)	Tensile Strength		Unaged min. 75%	Unaged min. 75%	Unaged min. 75%
		Elongation				

Attenuation	RG174(/U)		RG178B/U		RG316		RD316	
	dB/1m	dB/1ft	dB/1m	dB/1ft	dB/1m	dB/1ft	dB/1m	dB/1ft
100 MHz	0.36	0.01			0.34	0.10	0.34	0.10
400 MHz	0.66	0.02						
1 GHz	1.18	0.03	1.8	0.52				
1.8 GHz			2.6					
2 GHz				0.76	1.40	0.43	1.40	0.43
2.4 GHz			2.9					
2.5 GHz								
3 GHz	2.10	0.06		0.95				
4 GHz				1.07	2.63	0.80	2.05	0.63
5 GHz				1.22				
5.15 GHz								
5.2 GHz			4.5					
5.35 GHz								
6 GHz			4.9	1.37			2.63	0.80
8 GHz					3.19	0.97	3.19	0.97
12 GHz					4.80	1.46	4.80	1.46

Cable Type	RG174(/U)	RG178B/U	RG316	RD316