

# LOW LOSS COAXIAL CABLES

## LOW LOSS CABLES 5002 & 5003

Part Number	5002		5003	
<b>DIMENSIONS</b>				
Center Conductor Diameter				
(inch)	0.0201 ±0.001		0.037 ±0.001	
(mm)	0.51 ± 0.0254		0.94 ± 0.0254	
Dielectric Diameter				
(inch)	0.064 ±0.005		0.117 ±0.005	
(mm)	1.63 ±0.127		2.97 ±0.127	
Inner Braid Diameter				
(inch)	0.071 ±0.005		0.128 ±0.005	
(mm)	1.8 ±0.127		3.25 ±0.127	
Diameter over Outer Braid				
(inch)	0.086 ±0.005		0.141 ±0.005	
(mm)	2.18 ±0.127		3.58±0.127	
Jacket Diameter				
(inch)	0.104 ±0.005		0.163 ±0.005	
(mm)	2.64 ±0.127		4.14 ±0.127	
<b>MATERIAL SPECIFICATIONS</b>				
Jacket	FEP			
Outer Braid	Round silver plated copper			
Inner Braid	Flat silver plated copper strip			
Dielectric	Solid PTFE			
Center Conductor	Solid silver plated copper			
<b>ELECTRICAL CHARACTERISTICS</b>				
Impedance	50±2		50±2	
Capacitance (Nominal)				
(pF/ft)	29.4		29.4	
(pF/m)	96.4		96.4	
Velocity of Propagation (%)	70		70	
Cutt Off Frequency (GHz)	63		34	
Shielding Effectiveness	> -110dB		> -110dB	
Max. Attenuation (dB/100Ft)	Attenuation	Power	Attenuation	Power
Max Power (Watts)				
400MHz	14	240	8	1100
1GHz	23	160	13	550
3GHz	39	80	23	350
5GHz	52	57	30	245
10GHz	80	30	45	140
18GHz	110	20	64	50
<b>MECHANICAL CHARACTERISTICS</b>				
Max. Operating Temperature (°C)	-55/+200		-55/+200	
Min. Bend Radius				
(inch)	0.25		0.8	
(mm)	6.35		20.32	
Weight				
(g/Ft)	6		13.5	
(g/M)	19.7		44.3	

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# LOW LOSS CABLES 5004 ; 5005 ; 5006 & 5007

Part Number	5004		5005		5006		5007	
<b>DIMENSIONS</b>								
Center Conductor Diameter								
(inch)	0.0403 ±0.001		0.051 ±0.001		0.089 ±0.001		0.057 ±0.001	
(mm)	1.0236 ± 0.0254		1.3 ± 0.0254		2.26 ± 0.0254		1.45 ± 0.0254	
Dielectric Diameter								
(inch)	0.110 ±0.005		0.145 ±0.005		0.25 ±0.005		0.16 ±0.005	
(mm)	2.794 ±0.127		3.68 ±0.127		6.35 ±0.127		4.06 ±0.127	
Inner Braid Diameter								
(inch)	0.116 ±0.005		0.152 ±0.005		0.258 ±0.005		0.17 ±0.005	
(mm)	2.946 ±0.127		3.86 ±0.127		6.55 ±0.127		4.32 ±0.127	
Diameter over Interlayer								
(inch)	.122 ±0.005		0.158 ±0.005		0.264 ±0.005		0.175 ±0.005	
(mm)	3.099 ±0.127		4.01 ±0.127		6.71 ±0.127		4.45 ±0.127	
Diameter over Outer Braid								
(inch)	0.140 ±0.005		0.174 ±0.005		0.284 ±0.005		0.191 ±0.005	
(mm)	3.556±0.127		4.42 ±0.127		7.21 ±0.127		4.85 ±0.127	
Jacket Diameter								
(inch)	0.16 ±0.005		0.195 ±0.005		0.335 ±0.005		0.235 ±0.005	
(mm)	4.064 ±0.127		4.95 ±0.127		8.51 ±0.127		5.97 ±0.127	
<b>MATERIAL SPECIFICATIONS</b>								
Jacket	FEP							
Outer Braid	Round silver plated copper							
Interlayer	Aluminium polyester							
Inner Braid	Flat silver plated copper strip							
Dielectric	Expanded PTFE tape							
Center Conductor	Solid silver plated copper							
<b>ELECTRICAL CHARACTERISTICS</b>								
Impedance	50±2		50±2		50±2		50±2	
Capacitance (Nominal)								
(pF/ft)	24		25		25		25	
(pF/m)	79		82		82		82	
Velocity of Propagation (%)	84		80		80		80	
Cutt Off Frequency (GHz)	42		32.9		18		23	
Shielding Effectiveness	> -90dB		> -90dB		> -90dB		> -90dB	
Max. Attenuation (dB/100Ft)	Attenuation	Power	Attenuation	Power	Attenuation	Power	Attenuation	Power
Max Power (Watts)								
400MHz	7.1		6.5	1200	3.5	2900	5	1500
1GHz	11.2	500	10	720	5.5	1800	8	900
3GHz	19.6	300	17	400	9.5	1050	14	540
5GHz	25.7	220	21	310	12.5	850	18	410
10GHz	36.9	150	30	220	19	600	27	300
18GHz	50.4	90	40	130	26	300	37	/
<b>MECHANICAL CHARACTERISTICS</b>								
Max. Operating Temperature (°C)	-55/+200		-55/+200		-55/+200		-55/+200	
Min. Bend Radius								
(inch)	0.8		1		1.7		1.2	
(mm)	20.32		25.4		43.2		20.5	
Weight								
(g/Ft)	12.5		18		44		23	
(g/M)	41		59		145		76	