



# Communications Coax Selection Guide

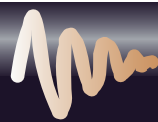


## Attenuation ( dB per 100 feet ; +25C )

	2 1/4" LDF	1 5/8" LDF	1 1/4" LDF	LMR-1700	7/8" LDF	LMR-1200	LMR-900	1/2" LDF	LMR-600	LMR-500	1/2" SuperFlex	3/8" LDF
<b>Frequency / Size</b>	2.350"	1.980"	1.550"	<b>1.670"</b>	1.090"	<b>1.200"</b>	<b>0.870"</b>	0.630"	<b>0.590"</b>	<b>0.500"</b>	0.520"	0.440"
30 MHz	0.096*	0.120	0.147	<b>0.149</b>	0.197	<b>0.209</b>	<b>0.288</b>	0.369	<b>0.421</b>	<b>0.54</b>	0.561	0.567
50 MHz	0.125*	0.156	0.191	<b>0.195</b>	0.257	<b>0.272</b>	<b>0.374</b>	0.479	<b>0.547</b>	<b>0.70</b>	0.730	0.736
150 MHz	0.227*	0.280	0.340	<b>0.347</b>	0.458	<b>0.481</b>	<b>0.658</b>	0.845	<b>0.964</b>	<b>1.22</b>	1.29	1.30
220 MHz	0.281*	0.345*	0.416*	<b>0.427</b>	0.560*	<b>0.589</b>	<b>0.803</b>	1.05*	<b>1.18</b>	<b>1.49</b>	1.58*	1.59*
450 MHz	0.422	0.515	0.617	<b>0.632</b>	0.834	<b>0.864</b>	<b>1.17</b>	1.51	<b>1.72</b>	<b>2.17</b>	2.32	2.30
700 MHz	--	--	--	<b>0.809</b>	--	<b>1.10</b>	<b>1.48</b>	--	<b>2.18</b>	<b>2.77</b>	--	--
900 MHz	0.641*	0.767*	0.912*	<b>0.936</b>	1.23*	<b>1.27</b>	<b>1.70</b>	2.21*	<b>2.50</b>	<b>3.13</b>	3.41*	3.36*
1,500 MHz	0.879*	1.050	1.22	<b>1.26</b>	1.66	<b>1.69</b>	<b>2.24</b>	2.93	<b>3.31</b>	<b>4.13</b>	4.57	4.43
2,000 MHz	1.058*	1.250	1.45	<b>1.50</b>	1.97	<b>1.99</b>	<b>2.63</b>	3.45	<b>3.90</b>	<b>4.84</b>	5.41	5.21
2,500 MHz	--	1.440	1.68*	<b>1.71</b>	2.27*	<b>2.26</b>	<b>2.98</b>	3.91*	<b>4.42</b>	<b>5.48</b>	6.17*	5.91*

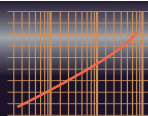
Attenuation at Any Frequency = [ k1 x SqRt (Fmhz) ] + [ k2 x Fmhz ] or use Performance Calculator at [www.timesmicrowave.com](http://www.timesmicrowave.com)

k1				<b>0.02646</b>		<b>0.03737</b>	<b>0.05177</b>		<b>0.07555</b>	<b>0.09659</b>		
k2				<b>0.00016</b>		<b>0.00016</b>	<b>0.00016</b>		<b>0.00026</b>	<b>0.00026</b>		



## Power Handling ( kW ; +40C ; Sea Level )

	2 1/4" LDF	1 5/8" LDF	1 1/4" LDF	LMR-1700	7/8" LDF	LMR-1200	LMR-900	1/2" LDF	LMR-600	LMR-500	1/2" SuperFlex	3/8" LDF
<b>Frequency / Size</b>	2.350"	1.980"	1.550"	<b>1.670"</b>	1.090"	<b>1.200"</b>	<b>0.870"</b>	0.630"	<b>0.590"</b>	<b>0.500"</b>	0.520"	0.440"
30 MHz	39.5*	28.9	21.1	<b>20.3</b>	14.0	<b>12.6</b>	<b>8.9</b>	6.31	<b>5.5</b>	<b>4.4</b>	5.75	4.14
50 MHz	30.2*	22.1	16.2	<b>15.6</b>	10.7	<b>9.7</b>	<b>6.8</b>	4.85	<b>4.3</b>	<b>3.4</b>	4.42	3.19
150 MHz	16.7*	12.3	9.09	<b>8.7</b>	6.04	<b>5.5</b>	<b>3.9</b>	2.75	<b>2.4</b>	<b>1.9</b>	2.49	1.81
220 MHz	13.5*	13.5*	7.45*	<b>7.1</b>	4.94*	<b>4.5</b>	<b>3.2</b>	2.23*	<b>1.9</b>	<b>1.6</b>	2.04*	1.49*
450 MHz	8.91	6.71	5.01	<b>4.8</b>	3.32	<b>3.1</b>	<b>2.2</b>	1.53	<b>1.3</b>	<b>1.1</b>	1.38	1.02
700 MHz	--	--	--	<b>3.8</b>	--	<b>2.4</b>	<b>1.7</b>	--	<b>1.1</b>	<b>0.85</b>	--	--
900 MHz	5.90*	4.49*	3.39*	<b>3.3</b>	2.24	<b>2.1</b>	<b>1.5</b>	1.05*	<b>0.93</b>	<b>0.75</b>	0.944*	0.703*
1,500 MHz	4.29*	3.30	2.52	<b>2.4</b>	1.66	<b>1.6</b>	<b>1.1</b>	0.793	<b>0.70</b>	<b>0.57</b>	0.705	0.530
2,000 MHz	3.57*	2.76	2.13	<b>2.0</b>	1.40	<b>1.3</b>	<b>1.0</b>	0.673	<b>0.59</b>	<b>0.49</b>	0.597	0.451
2,500 MHz	--	2.40	1.84*	<b>1.8</b>	1.21*	<b>1.2</b>	<b>0.9</b>	0.594*	<b>0.52</b>	<b>0.43</b>	0.547*	0.398*



## General Performance Properties

	LMR-1700	LMR-1200	LMR-900	LMR-600	LMR-500	LMR-400	LMR-300	LMR-240	LMR-200
Conductor: (note 1)	0.527"	0.349"	0.262"	0.176"	0.142"	0.109"	0.070"	0.056"	0.044"
Dielectric: Cellular PE (note 2)	1.350"	0.920"	0.680"	0.455"	0.370"	0.285"	0.190"	0.150"	0.116"
Shield: Aluminum Tape (note 3)	1.356"	0.926"	0.686"	0.461"	0.376"	0.291"	0.196"	0.155"	0.121"
Tinned Copper Braid	1.402"	0.972"	0.732"	0.490"	0.405"	0.320"	0.225"	0.178"	0.144"
Jacket: Black PE (note 4)	1.670"	1.200"	0.870"	0.590"	0.500"	0.405"	0.300"	0.240"	0.195"
Bend Radius (note 5)	13.5"	6.5"	3"	1.5"	1.25"	1"	.875"	0.75"	0.50"
Weight(lbs/foot)	0.736	0.448	0.266	0.131	0.097	0.068	0.055	0.034	0.022
Temperature Range	-40°C to +85°C								
Impedance	50 Ohms								
Velocity (%)	89	88	87	87	86	85	85	84	83
Capacitance (pF per Foot)	22.8	23.1	23.4	23.4	23.6	23.9	24.1	24.2	24.5
DC Resistance: center conductor	0.21	0.32	0.54	0.53	0.82	1.39	2.12	3.20	5.36
(ohms/1000') : shield	0.27	0.37	0.55	1.20	1.27	1.65	2.21	3.89	4.90
Shielding	> 90 db								
Phase Stability	+/- 10 ppm/degC								

LMR-400	3/8" SuperFlex	Belden 9913	ULTRA-LINK™	RG213/RG214	1/4" SuperFlex	LMR-300	LMR-240	Belden RG8X	LMR-200	ULTRA-LINK	LMR-195	RG-58	LMR-100A
0.405"	0.415"	0.405"	0.405"	0.405"	0.300"	0.300"	0.240"	0.242"	0.195"	0.195"	0.195"	0.195"	0.110"
0.7	0.654	0.8	0.7	1.2	0.98	1.1	1.3	2.0	1.8	2.5	2.0	2.5	3.9
0.9	0.848	0.9	--	1.6	1.27	1.4	1.7	2.5	2.3	--	2.6	3.1	5.1
1.5	1.49	1.6	1.5	2.8	2.23	2.4	3.0	4.7	4.0	5.1	4.4	6.2	8.9
1.8	1.82*	--	--	3.5	2.72	2.9	3.7	6.0	4.8	--	5.4	7.4	10.9
2.7	2.66	2.8	2.7	5.2	3.93	4.2	5.3	8.6	7.0	9.5	7.8	10.6	15.8
3.42	--	--	--	--	--	5.1	6.6	--	8.7	--	9.8	--	20.0
3.9	3.86*	4.2	4.19	8.0	5.67*	6.1	7.6	12.8	9.9	14.0	11.1	16.5	22.8
5.1	5.12	5.6	--	--	7.47	7.9	9.9	--	12.9	--	14.5	--	30.0
6.0	6.01	6.7	--	--	8.73	9.2	11.5	--	15.0	--	16.9	--	35.0
6.8	6.84*	--	6.8*	--	9.85*	10.4	12.9	--	16.9	37*	19.0	--	40.0
0.12229						0.19193	0.24208		0.32090		0.35686		0.70914
0.00026						0.00033	0.00033		0.00033		0.00047		0.00174

LMR-400	3/8" SuperFlex	Belden 9913	ULTRA-LINK	RG213/RG214	1/4" SuperFlex	LMR-300	LMR-240	Belden RG8X	LMR-200	ULTRA-LINK	LMR-195	RG-58	LMR-100A
0.405"	0.415"	0.405"	0.405"	0.405"	0.300"	0.300"	0.240"	0.242"	0.195"	0.195"	0.195"	0.195"	0.110"
3.3	3.97	2.2	--	1.8	2.28	2.1	1.49	0.35	1.02	4.0	0.89	0.40	0.23
2.6	3.06	1.7	--	1.2	1.76	1.6	1.15	0.28	0.79	--	0.68	0.30	0.18
1.5	1.74	0.90	--	0.62	1.00	0.93	0.66	0.15	0.45	2.0	0.39	0.16	0.10
1.2	1.44*	--	--	--	0.825*	0.76	0.54	--	0.37	--	0.32	--	0.08
0.83	0.975	0.45	--	0.30	0.567	0.52	0.38	0.08	0.26	1.0	0.22	0.08	0.06
0.66	--	--	--	--	--	0.43	0.30	--	0.21	--	0.18	--	0.05
0.58	0.674*	0.28	--	0.18	0.393*	0.36	0.26	0.05	0.18	0.65	0.15	0.05	0.040
0.44	0.507	0.20	--	--	0.299	0.28	0.20	--	0.14	--	0.12	--	0.030
0.37	0.431	0.16	--	--	0.256	0.24	0.17	--	0.12	--	0.10	--	0.025
0.33	0.379*	--	--	--	0.225*	0.21	0.15	--	0.10	--	0.09	--	0.020

**NOTES:**

- (1) Center Conductor in LMR-900, LMR-1200 & LMR-1700 is Copper Tube  
Center Conductor in LMR-400, LMR-500 & LMR-600 is Copper Clad Aluminum  
Center Conductor in LMR-195, LMR-200, LMR-240 and LMR-300 is Bare Copper  
LMR-100A is BCCS
- (2) Low loss closed cell polyethylene foam (LMR-100A solid polyethylene)
- (3) Aluminum laminated tape bonded (LMR-100A unbonded) to the Dielectric with a Tinned Copper Overbraid
- (4) Black UV protected polyethylene (LMR-100A black PVC)
- (5) Less than 1 ohm impedance change at bend

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Competitor's Data As Published  
\* = estimated from published data.



LMR-195	LMR-100A
0.037"	0.018"
0.113"	0.060"
0.118"	0.065"
0.141"	0.083"
0.195"	0.110"
0.50"	0.25"
0.022	0.009
80	66
24.3	30.8
7.58	81.0
4.90	9.5



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