

Coaxial Cable Attenuation Charts

A compilation of some of the most common coaxial cable attenuations.

Nominal attenuation of 30.5 metres (100ft)

Cable Type	70-85 MHz	148-174 MHz	400-520 MHz	806-960 MHz	2.4-2.45 GHz	5.8-5.85 GHz
RG178B/U	12.4 dB	17.0 dB	30.4 dB	40.8 dB	-	-
RG179	9.2 dB	11.5 dB	17.0 dB	22.3 dB	-	-
RG174/U	7.8 dB	10.8 dB	19.2 dB	26.9 dB	-	-
RG58C/U	4.6 dB	7.1 dB	13.5 dB	18.2 dB	-	-
CELLFOAM™	4.1 dB	5.6 dB	9.8 dB	13.2 dB	-	-
CELLFOIL™	2.8 dB	4.2 dB	6.9 dB	9.0 dB	-	-
RG142B/U	3.3 dB	4.9 dB	8.9 dB	12.0 dB	-	-
RG223/U	4.2 dB	5.7 dB	10.0 dB	13.7 dB	-	-
RG59B/U	3.1 dB	4.9 dB	9.0 dB	13.2 dB	-	-
RG62A/U	2.3 dB	3.4 dB	5.9 dB	8.0 dB	-	-
RG11/U	1.8 dB	2.5 dB	4.8 dB	6.6 dB	-	-
RG213/U	2.0 dB	2.6 dB	5.0 dB	7.4 dB	-	-
RG214/U	1.9 dB	2.6 dB	5.0 dB	7.4 dB	-	-
10D-FB Type	0.9 dB	1.2 dB	2.4 dB	3.1 dB	-	-
RG8 Type	1.2 dB	1.7 dB	3.1 dB	4.5 dB	7.0 dB	10.6dB
1/4" Superflex	1.3 dB	2.2 dB	4.2 dB	5.6 dB	9.9 dB	15.8dB
3/8" Superflex	1.1 dB	1.5 dB	2.8 dB	3.8 dB	6.9 dB	10.9dB
1/2" Superflex	0.8 dB	1.3 dB	2.4 dB	3.4 dB	5.9 dB	10.2dB
1/4" HELIAX®	1.1 dB	1.5 dB	2.7 dB	3.6 dB	5.8 dB	11.2dB
3/8" HELIAX®	0.9 dB	1.3 dB	2.3 dB	3.3 dB	5.7 dB	9.5dB
1/2" HELIAX®	0.6 dB	0.8 dB	1.6 dB	2.2 dB	3.7 dB	5.9dB
7/8" HELIAX®	0.3 dB	0.5 dB	0.9 dB	1.3 dB	2.3 dB	-
7/8" HELIAX®	0.3 dB	0.4 dB	0.8 dB	1.1 dB	2.0 dB	-
7/8" HELIAX®	0.3 dB	0.4 dB	0.9 dB	1.2 dB	2.1 dB	-
13" HELIAX®	0.2 dB	0.3 dB	0.6 dB	0.9 dB	1.6 dB	-
1e" HELIAX®	0.2 dB	0.3 dB	0.5 dB	0.7 dB	1.4 dB	-

Coaxial Cable Attenuation Charts

Attenuation of Coaxial Transmission Lines in the VHF/UHF/Microwave Amateur and ISM Bands

Cable Type	144 MHz	220 MHz	450 MHz	915 MHz	1.2 GHz	2.4 GHz	5.8 GHz
RG-58	6.2 (20.3)	7.4 (24.3)	10.6 (34.8)	16.5 (54.1)	21.1 (69.2)	32.2 (105.6)	51.6 (169.2)
RG-8X	4.7 (15.4)	6.0 (19.7)	8.6 (28.2)	12.8 (42.0)	15.9 (52.8)	23.1 (75.8)	40.9 (134.2)
LMR-240	3.0 (9.8)	3.7 (12.1)	5.3 (17.4)	7.6 (24.9)	9.2 (30.2)	12.9 (42.3)	20.4 (66.9)
RG-213/214	2.8 (9.2)	3.5 (11.5)	5.2 (17.1)	8.0 (26.2)	10.1 (33.1)	15.2 (49.9)	28.6 (93.8)
9913	1.6 (5.2)	1.9 (6.2)	2.8 (9.2)	4.2 (13.8)	5.2 (17.1)	7.7 (25.3)	13.8 (45.3)
LMR-400	1.5 (4.9)	1.8 (5.9)	2.7 (8.9)	3.9 (12.8)	4.8 (15.7)	6.8 (22.3)	10.8 (35.4)
3/8" LDF	1.3 (4.3)	1.6 (5.2)	2.3 (7.5)	3.4 (11.2)	4.2 (13.8)	5.9 (19.4)	8.1 (26.6)
LMR-600	0.96 (3.1)	1.2 (3.9)	1.7 (5.6)	2.5 (8.2)	3.1 (10.2)	4.4 (14.4)	7.3 (23.9)
1/2" LDF	0.85 (2.8)	1.1 (3.6)	1.5 (4.9)	2.2 (7.2)	2.7 (8.9)	3.9 (12.8)	6.6 (21.6)
7/8" LDF	0.46 (1.5)	0.56 (2.1)	0.83 (2.7)	1.2 (3.9)	1.5 (4.9)	2.3 (7.5)	3.8 (12.5)
1 1/4" LDF	0.34 (1.1)	0.42 (1.4)	0.62 (2.0)	0.91 (3.0)	1.1 (3.6)	1.7 (5.6)	2.8 (9.2)
1 5/8" LDF	0.28 (0.92)	0.35 (1.1)	0.52 (1.7)	0.77 (2.5)	0.96 (3.1)	1.4 (4.6)	2.5 (8.2)

Attenuation of Various Transmission Lines in Amateur and ISM Bands in dB/ 100 ft (dB/ 100 m)

Cable Attenuation (measured in db per 100 feet)

Cable	1MHz	10MHz	50MHz	100MHz	200MHz	400MHz	700MHz	900MHz	1GHz
RG-58	0.44	1.4	4.1	4.8	7.5	11.8			
RG-8X	0.2	0.78	2.0	3.0	4.5	6.0	7.9	8.8	
RG-213	0.17	0.55	1.3	1.9	2.5	4.1	7.5	8.0	8.2
RG-6	0.16	0.57	1.4	2.0	2.8	4.3	5.6	6.0	6.1
RG-11	0.14	0.42	1.0	1.5	2.2	3.5	4.1	5.2	6.6
RF9913**	0.15	0.4	0.9	1.4	1.8	2.6	3.6	4.2	4.5
BURY-FLEX™*	0.26	0.52	1.1	1.5	2.0	2.9	3.8	4.9	5.3
RG-59	0.6	1.1	2.4	3.4	4.9	7.0	9.7	11.1	12.0
RG-214	0.17	0.55	1.3	1.9	2.7	4.1	6.5	7.6	9.0

Coaxial Cable Attenuation Charts

Coaxial Cable Attenuation Ratings
Nominal attenuation db/100 feet at (MHz)

RG/U CABLE	1.0	10	50	100	200	400	900	1000	3000	5000
6A,212	.26	.83	1.9	2.7	4.1	5.9	6.5	9.8	23.0	32.0
8 MINI,8X		1.1	2.5	3.8	5.4	7.9	8.8	13.0	26.0	
LMR -240	.24	.76	1.7	2.4	3.4	4.9	7.5	7.9	14.2	18.7
8,8A,10A,213	.15	.55	1.3	1.9	2.7	4.1	7.5	8.0	16.0	27.0
9913,9086,9096			0.9	1.4	1.8	2.6	4.2	4.5		13.0
4XL8IIA,FLEXI 4XL			0.9	1.4	1.8	2.6	4.2	4.5		13.0
LMR-400			.9	1.2		2.5	4.1	4.3		
LMR-500			.7	1.0		2.0	3.2	3.4		
LMR-600			.6	.8		1.4	2.5	2.7		
8214		.60	1.2	1.7	2.7	4.2		7.8	14.2	22.0
9095			1.0	1.8	2.6	3.8	6.0	7.5		
9,9A,9B,214	.21	.66	1.5	2.3	3.3	5.0	7.8	8.8	18.0	27.0
11,11A,12,12A, 13,13A,216	.19	.66	1.6	2.3	3.3	4.8		7.8	16.5	26.5
RG/U CABLE	1.0	10	50	100	200	400	900	1000	3000	5000
14,14A,217	.12	.41	1.0	1.4	2.0	3.1		5.5	12.4	19.0
17,17A,18,18A, 218,219	.06	.24	.62	.95	1.5	2.4		4.4	9.5	15.3
55B,223	.30	1.2	3.2	4.8	7.0	10.0	14.3	16.5	30.5	46.0
58	.33	1.2	3.1	4.6	6.9	10.5	14.5	17.5	37.5	60.0
58A,58C	.44	1.4	3.3	4.9	7.4	12.0	20.0	24.0	54.0	83.0
59,59B	.33	1.1	2.4	3.4	4.9	7.0	11.0	12.0	26.5	42.0
62,62A,71A,71B	.25	.85	1.9	2.7	3.8	5.3	8.3	8.7	18.5	30.0
62B	.31	.90	2.0	2.9	4.2	6.2		11.0	24.0	38.0
141,141A,400 142,142A	.30	.90	2.1	3.3	4.7	6.9		13.0	26.0	40.0
174	2.3	3.9	6.6	8.9	12.0	17.5	28.2	30.0	64.0	99.0
178B,196A	2.6	5.6	10.5	14.0	19.0	28.0		46.0	85.0	100
188A,316	3.1	6.0	9.6	11.4	14.2	16.7		31.0	60.0	82.0
179B	3.0	5.3	8.5	10.0	12.5	16.0		24.0	44.0	64.0
393,235		.6	1.4	2.1	3.1	4.5		7.5	14.0	21.0
402		1.2	2.7	3.9	5.5	8.0		13.0	26.0	26.0
405								22.0		
LDF4-50A	.06	.21	.47	.68	.98	1.4	2.2	2.3	4.3	5.9
LDF5-50A	.03	.11	.25	.36	.53	.78	1.2	1.4	2.5	3.5
RG/U CABLE	1.0	10	50	100	200	400	900	1000	3000	5000

Coaxial Cable Attenuation Charts

Coax Cable Signal Loss (Attenuation) in dB per 100ft*								
Loss*	RG-174	RG-58	RG-8X	RG-213	RG-6	RG-11	RF-9914	RF-9913
1MHz	1.9dB	0.4dB	0.5dB	0.2dB	0.2dB	0.2dB	0.3dB	0.2dB
10MHz	3.3dB	1.4dB	1.0dB	0.6dB	0.6dB	0.4dB	0.5dB	0.4dB
50MHz	6.6dB	3.3dB	2.5dB	1.6dB	1.4dB	1.0dB	1.1dB	0.9dB
100MHz	8.9dB	4.9dB	3.6dB	2.2dB	2.0dB	1.6dB	1.5dB	1.4dB
200MHz	11.9dB	7.3dB	5.4dB	3.3dB	2.8dB	2.3dB	2.0dB	1.8dB
400MHz	17.3 dB	11.2dB	7.9dB	4.8dB	4.3dB	3.5dB	2.9dB	2.6dB
700MHz	26.0dB	16.9dB	11.0dB	6.6dB	5.6dB	4.7dB	3.8dB	3.6dB
900MHz	27.9 dB	20.1dB	12.6dB	7.7dB	6.0dB	5.4dB	4.9dB	4.2dB
1GHz	32.0dB	21.5dB	13.5dB	8.3dB	6.1dB	5.6dB	5.3dB	4.5dB
Imped	50ohm	50ohm	50ohm	50ohm	75ohm	75ohm	50ohm	50ohm

	LMR-1200	LMR-900	LMR-600	1/2" Superflex	LMR-400	Belden 9913F7	9914	RG214 RG213	LMR-240	Belden RG8X	LMR-200	LMR-195	RG-58/U
Frequency/Size	1.200"	0.870"	0.590"	0.520"	0.405"	0.405"	0.400"	0.405"	0.240"	0.242"	0.195"	0.195"	0.195"
30 MHz	0.209	0.288	0.421	0.561	0.7	0.8	0.8	1.2	1.3	2.0	1.8	1.8	2.5
50 MHz	0.272	0.374	0.547	0.730	0.9	1.1	1.1	1.6	1.7	2.5	2.3	2.3	3.1
150 MHz	0.481	0.658	0.964	1.29	1.5	1.7	1.7	2.8	3.0	4.7	3.9	4.0	6.2
220 MHz	0.589	0.803	1.18	1.58	1.8	2.1	2.1	3.5	3.7	6.0	4.8	4.8	7.4
450 MHz	0.864	1.17	1.72	2.32	2.7	3.1	3.1	5.2	5.3	8.6	6.9	7.0	10.6
900 MHz	1.27	1.70	2.50	3.41	3.9	4.4	4.5	8.0	7.6	12.8	9.9	9.9	16.5
1,500 MHz	1.69	2.24	3.31	4.57	5.1	6.0			9.9		12.7	12.9	

CABLE ATTENUATION (dB per 100 ft)

	1.8	3.5	7.0	14.0	21.0	28.0	50.0	144	440	1296
LDF7-50A	.03	.04	.06	.08	.10	.12	.16	.27	0.5	0.9
FHJ-7	.03	.05	.07	.10	.12	.15	.20	.37	0.8	1.7
LDF5-50A	.04	.06	.09	.14	.17	.19	.26	.45	0.8	1.5
FXA78-50J	.06	.08	.13	.17	.23	.27	.39	.77	1.4	2.8
3/4" CATV	.06	.08	.13	.17	.23	.26	.38	.62	1.7	3.0
LDF4-50A	.09	.13	.17	.25	.31	.36	.48	.84	1.4	2.5
RG-17	.10	.13	.18	.27	.34	.40	.50	1.3	2.5	5.0
SLA12-50J	.11	.15	.20	.28	.35	.42	.56	1.0	1.9	3.0
FXA12-50J	.12	.16	.22	.33	.40	.47	.65	1.2	2.1	4.0
FXA38-50J	.16	.23	.31	.45	.53	.64	.85	1.5	2.7	4.9
9913	.16	.23	.31	.45	.53	.64	.92	1.6	2.7	5.0
RG-213	.25	.37	.55	.75	1.0	1.2	1.6	2.8	5.1	10.0
RG-8X	.49	.68	1.0	1.4	1.7	1.9	2.5	4.5	8.4	

Properties for popular coaxial cables are listed below. c = speed of light in vacuum

Coaxial Cable Attenuation Charts

Type (U)	MIL-W-17	Z ₀ (Ω)	Dielectric Type	Capacitance (pF/ft)	O.D. (in.)	dB/100 ft @400 MHz	V _{max} (rms)	Shield
RG-4		50.0	PE	30.8	0.226	11.7	1,900	Braid
RG-5		52.5	PE	28.5	0.332	7.0	3,000	Braid
RG-5A/B		50.0	PE	30.8	0.328	6.5	3,000	Braid
RG-6	/2-RG6	76.0	PE	20.0	0.332	7.4	2,700	Braid
RG-6A	/2-RG6	75.0	PE	20.6	0.332	6.5	2,700	Braid
RG-8		52.0	PE	29.6	0.405	6.0	4,000	Braid
RG-8A		52.0	PE	29.6	0.405	6.0	5,000	Braid
RG-9		51.0	PE	30.2	0.420	5.9	4,000	Braid
RG-9A		51.0	PE	30.2	0.420	6.1	4,000	Braid
RG-9B		50.0	PE	30.8	0.420	6.1	5,000	Braid
RG-10		52.0	PE	29.6	0.463	6.0	4,000	Braid
RG-10A		52.0	PE	29.6	0.463	6.0	5,000	Braid
RG-11	/6-RG11	75.0	PE	20.6	0.405	5.7	4,000	Braid
RG-11A	/6-RG11	75.0	PE	20.6	0.405	5.2	5,000	Braid
RG-12	/6-RG12	75.0	PE	20.6	0.463	5.7	4,000	Braid
RG-12A	/6-RG12	75.0	PE	20.6	0.463	5.2	5,000	Braid
RG-17A		52.0	PE	29.6	0.870	2.8	11,000	Braid
RG-22	/15-RG22	95.0	PE	16.3	0.405	10.5	1,000	Braid
RG-22A/B	/15-RG22	95.0	PE	16.3	0.420	10.5	1,000	Braid
RG-23/A	/16-RG23	125.0	PE	12.0	0.650	5.2	3,000	Braid
RG-24/A	/16-RG24	125.0	PE	12.0	0.708	5.2	3,000	Braid
RG-34	/24-RG34	71.0	PE	21.7	0.625	5.3	5,200	Braid
RG-34A	/24-RG34	75.0	PE	20.6	0.630	5.3	6,500	Braid
RG-35	/64-RG35	71.0	PE	21.7	0.928	2.8	10,000	Braid
RG-35A/B	/64-RG35	75.0	PE	20.6	0.928	2.8	10,000	Braid
RG-55B		53.5	PE	28.8	0.200	11.7	1,900	Braid
RG-58	/28-RG58	53.5	PE	28.8	0.195	11.7	1,900	Braid
RG-58A	/28-RG58	52.0	PE	29.6	0.195	13.2	1,900	Braid
RG-58B		53.5	PE	28.8	0.195	14.0	1,900	Braid
RG-58C	/28-RG58	50.0	PE	30.8	0.195	14.0	1,900	Braid
RG-59/A	/29-RG59	73.0	PE	21.1	0.242	10.5	2,300	Braid
RG-59B	/29-RG59	75.0	PE	20.6	0.242	9.0	2,300	Braid
RG-62/A/B	/30-RG62	93.0	ASP	13.5	0.242	8.0	750	Braid
RG-63/A/B	/31-RG63	125.0	ASP	10.0	0.405	5.5	1,000	Braid
RG-65/A	/34-RG65	950.0	ASP	44.0	0.405	16 @5MHz	1,000	Braid
RG-71/A/B	/90-RG71	93.0	ASP	13.5	0.245	8.0	750	Braid
RG-79/A/B	/31-RG79	125.0	ASP	10.0	0.436	5.5	1,000	Braid
RG-83		35.0	PE	44.0	0.405	9.0	2,000	Braid
RG-88		48.0		50.0	0.515	0.7 @1MHz	10,000	Braid
RG-108/A	/45-RG108	78.0	PE	19.7	0.235	2.8 @10MHz	1,000	Braid
RG-111/A	/15-RG111	95.0	PE	16.3	0.478	10.5	1,000	Braid
RG-114/A	/47-RG114	185.0	ASP	6.5	0.405	8.5	1,000	Braid
RG-119	/52-RG119	50.0	ST	29.4	0.465	3.8	6,000	Braid
RG-120	/52-RG120	50.0	ST	29.4	0.523	3.8	6,000	Braid
RG-122	/54-RG122	50.0	PE	30.8	0.160	18.0	1,900	Braid
RG-130	/56-RG130	95.0	PE	17.0	0.625	8.8	3,000	Braid
RG-131	/56-RG131	95.0	PE	17.0	0.683	8.8	3,000	Braid
RG-133/A	/100-RG133	95.0	PE	16.3	0.405	5.7	4,000	Braid
RG-141/A		50.0	ST	29.4	0.190	9.0	1,900	Braid
RG-142/A/B	/60-RG142	50.0	ST	29.4	0.195	9.0	1,900	Braid
RG-144	/62-RG144	75.0	ST	19.5	0.410	4.5	5,000	Braid
RG-164	/64-RG164	75.0	PE	20.6	0.870	2.8	10,000	Braid
RG-165	/65-RG165	50.0	ST	29.4	0.410	5.0	5,000	Braid
RG-166	/65-RG166	50.0	ST	29.4	0.460	5.0	5,000	Braid
RG-174		50.0		30.5	0.110	14.7		Braid

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RG-177	/67-RG177	50.0	PE	30.8	0.895	2.8	11,000	Braid
RG-178/A/B	/93-RG178	50.0	ST	29.4	0.072	29.0	1,000	Braid
RG-179	/94-RG179	70.0	ST	20.9	0.100	21.0	1,200	Braid
RG-179A/B	/94-RG179	75.0	ST	19.5	0.100	21.0	1,200	Braid
RG-180	/95-RG180	93.0	ST	15.4	0.140	17.0	1,500	Braid
RG-180A/B	/95-RG180	95.0	ST	15.4	0.140	17.0	1,500	Braid
RG-210	/97-RG210	93.0	ASP	13.5	0.242	8.0	750	Braid
RG-211/A	/72-RG211	50.0	ST	29.4	0.730	2.3	7,000	Braid
RG-212	/73-RG212	50.0	PE	29.4	0.332	6.5	3,000	Braid
RG-213	/74-RG213	50.0	PE	30.8	0.405	5.5	5,000	Braid
RG-214	/75-RG214	50.0	PE	30.8	0.425	5.5	5,000	Dbl Braid
RG-215	/74-RG215	50.0	PE	30.8	0.463	5.5	5,000	Braid
RG-216	/77-RG216	75.0	PE	20.6	0.425	5.2	5,000	Braid
RG-217	/78-RG217	50.0	PE	30.8	0.545	4.3	7,000	Braid
RG-218	/79-RG218	50.0	PE	30.8	0.870	2.5	11,000	Braid
RG-219	/79-RG219	50.0	PE	30.8	0.928	2.5	11,000	Braid
RG-223	/84-RG223	50.0	PE	19.8	0.211	8.8	1,900	Dbl Braid
RG-302	/110-RG302	75.0	ST	19.5	0.201	8.0	2,300	Braid
RG-303	/111-RG303	50.0	ST	29.4	0.170	9.0	1,900	Braid
RG-304	/112-RG304	50.0	ST	29.4	0.280	6.0	3,000	Braid
RG-307/A	/116-RG307	75.0	80	16.9	0.270	7.5	1,000	Braid
RG-316	/113-RG316	50.0	ST	29.4	0.102	20.0	1,200	Braid
RG-391	/126-RG391	72.0		23.0	0.405	15.0	5,000	Braid
RG-392	/126-RG392	72.0		23.0	0.475	15.0	5,000	Braid
RG-393	/127-RG393	50.0	ST	29.4	0.390	5.0	5,000	Braid
RG-400	/128-RG400	50.0	ST	29.4	0.195	9.6	1,900	Braid
RG-401	/129-RG401	50.0	ST	29.4	0.250	4.6	3,000	Cu. S-R
RG-402	/130-RG402	50.0	ST	29.4	0.141	7.2	2,500	Cu. S-R
RG-403	/131-RG403	50.0	ST	29.4	0.116	29.0	2,500	Braid
RG-405	/133-RG405	50.0	ST	29.4	0.086	13.0	1,500	Cu. S-R
9914 (Belden)		50.0		26.0	0.405	10.0	-----	

I simply made this coax loss compilation for my own personal use, just to have it all in one place.

I take no credit what so ever, all credits go to the companies/persons posting their part of the list on the net.