Spread Spectrum: Transmission Line Attenuation Chart

The following table shows coax type and the attenuation (measured in db) you can expect by frequency of use per 100 feet of cable.

From Barry McLarnon, VE3JF, Attenuation of Coaxial Transmission Lines in the VHF/UHF/Microwave Amateur and ISM Bands

Coax	Size	150MHz	220MHz	450MHz	900MHz	1.5GHz	2GHz	5.8GHz
LDF6-50	1.550"	0.34	-	0.617	0.907	1.22	1.45	2.50
LMR-1700	1.670"	0.347	0.427	0.427	0.632	1.267	1.50	-
Helliax LDF5	1.090"	0.458	-	0.834	1.23	1.66	1.97	-
LMR-1200	1.200"	0.481	0.589	0.864	1.26	1.69	1.99	-
LMR-900	0.870"	0.619	0.755	1.10	1.60	2.12	2.49	-
LMR-600	0.590"	0.964	1.18	1.72	2.50	3.31	3.90	7.3
HELIAX FSJ4	0.630"	0.845	-	1.51	2.20	2.93	3.45	-
LMR-500	0.500"	1.22	1.49	2.17	3.13	4.13	4.84	-
HELIAX FSJ4	0.520"	1.29	-	2.32	3.38	4.50	5.31	-
LMR-400	0.405"	1.5	1.8	2.7	3.9	5.1	6.0	10.8
Belden 9913	0.405"	1.6	1.9	2.8	4.2	5.6	6.7	13.8
Ultra-Link	0.405"	1.5	-	2.7	4.19	-	6.7	-
RG213/RG214	0.405"	2.8	3.5	5.2	8.0	10.1	15.2	28.6
HELIAX FSJ1	0.300"	2.23	-	3.93	5.687	7.47	8.73	-
LMR-240	0.240"	3.0	3.7	5.3	7.6	9.9	11.5	20.4
ProFlex 800	0.242"	-	-	7.8	-	-	-	-
Belden RG8X	0.242"	4.7	6.0	8.6	12.8	15.9	23.1	40.9
LMR-200	0.195"	4.0	4.8	6.9	9.9	12.9	15.0	-
Ultra-Link	0.195"	5.1	-	9.5	14.0	-	36	-
RG-58	0.195"	6.2	7.4	10.6	16.5	21.1	32.2	51.6
LMR-100	0.150"	8.9	10.9	15.8	22.8	30.0	35.0	-

Data gathered from:

- Hutton Antenna Supply Catalog, 1997, p. 144
- Barry McLarnon, VE3JF, Attenuation of Coaxial Transmission Lines in the VHF/UHF/Microwave Amateur and ISM Bands

Other Info:

- The LMR series is manufactured by Times Microwave.
- 9913 is manufactured by Belden Corp.
- RG-series cables are manufactured by Belden and many others.
- The LDF series are foam dielectric, solid corrugated outer conductor cables, best known by the brand name HELIAX (®Andrew Corp.).

- Attenuation at any frequency = (K1 x SqRt(Fmhz) + K2 x Fmhz)

