

HF antenna & feeder lengths in feet and inches

Band	MHz		Quarterwave				Halfwave			Fullwave			
	CW	SSB	¼ wave	Less 5%	¼ x 0.66	¼ x 0.82	½ wave	Less 5%	½ x 0.66	Full	Less 5%	Plus 10%	F x 0.66
160m	1.825		134' 8 3/4"	127' 11 7/8"	89' 9 5/6"	110' 5 3/4"	269' 5 2/3"	255' 11 7/8"	179' 7 2/3"	538' 11 2/7"	511' 11 7/8"	592' 10"	359' 3 1/2"
		1.850	132' 11"	126' 3 1/8"	88' 7 1/3"	108' 11 7/8"	265' 10"	252' 6 1/3"	177' 2 2/3"	531' 8"	505' 0 5/6"	584' 9 5/6"	354' 5 2/7"
80m	3.520		69' 10 1/5"	66' 4 1/3"	46' 6 5/6"	57' 3 1/3"	139' 8 1/2"	132' 8 2/3"	93' 1 2/3"	279' 5"	265' 5 2/5"	307' 4 1/3"	186' 3 1/3"
		3.800	64' 8 2/5"	61' 5 2/3"	43' 1 5/9"	53' 0 5/7"	129' 5"	122' 11 2/7"	86' 3 1/4"	258' 10"	245' 10 2/3"	284' 8 1/2"	172' 6 3/5"
40m	7.025		35' 0"	33' 3"	23' 4"	28' 8 2/5"	70' 0"	66' 6"	46' 8"	140' 0 1/8"	133' 0"	154' 0 1/8"	93' 4"
		7.100	34' 7 5/9"	32' 10 4/5"	23' 1"	28' 4 2/3"	69' 3 1/8"	65' 9 3/5"	46' 2"	138' 6 1/3"	131' 7 1/5"	152' 4 5/9"	92' 4 1/5"
30m	10.120		24' 3 1/2"	23' 1"	16' 2 2/7"	19' 11"	48' 7"	46' 2"	32' 4 2/3"	97' 2 2/7"	92' 4"	106' 10 4/5"	64' 9 1/2"
20m	14.020		17' 6 1/3"	16' 8"	11' 8 2/7"	14' 4 5/9"	35' 0 5/6"	33' 3 5/6"	23' 4 5/9"	70' 1 4/5"	66' 7 2/3"	77' 2"	46' 9 1/8"
		14.250	17' 3"	16' 4 2/3"	11' 6"	14' 1 2/3"	34' 6 1/8"	32' 9 1/3"	23' 0"	69' 0 1/4"	65' 6 5/6"	75' 11"	46' 0 1/8"
17m	18.075		13' 7 1/5"	12' 11"	9' 0 5/7"	11' 1 4/5"	27' 2 2/5"	25' 10"	18' 1 5/9"	54' 5"	51' 8 2/7"	59' 10 1/5"	36' 3 1/4"
		18.120	13' 6 5/6"	12' 10 2/3"	9' 0 1/2"	11' 1 4/9"	27' 1 2/3"	25' 9 1/3"	18' 1"	54' 3 1/3"	51' 6 5/7"	59' 8 2/5"	36' 2 1/6"
15m	21.020		11' 8 2/7"	11' 1 1/3"	7' 9 1/2"	9' 7"	23' 4 2/3"	22' 2 2/3"	15' 7"	46' 9 1/2"	44' 5 2/5"	51' 5 2/3"	31' 2 2/7"
		21.250	11' 6 5/6"	10' 11 7/8"	7' 8 1/2"	9' 5 3/4"	23' 1 2/3"	21' 11 3/4"	15' 5"	46' 3 1/3"	43' 11 2/3"	50' 11"	30' 10 1/5"
12m	24.910		9' 10 4/9"	9' 4 4/9"	6' 7"	8' 1"	19' 8 7/8"	18' 9"	13' 2"	39' 5 3/4"	37' 6 1/8"	43' 5 1/6"	26' 3 5/6"
		24.950	9' 10 1/5"	9' 4 1/3"	6' 6 5/6"	8' 1"	19' 8 1/2"	18' 8 2/3"	13' 1 2/3"	39' 5"	37' 5 2/5"	43' 4 1/3"	26' 3 1/3"
10m	28.020		8' 9 1/4"	8' 4"	5' 10 1/5"	7' 2 2/7"	17' 6 3/5"	16' 8"	11' 8 2/5"	35' 1 1/5"	33' 4"	38' 7 1/3"	23' 4 4/5"
		28.400	8' 7 4/5"	8' 2 2/3"	5' 9 1/4"	7' 1"	17' 3 5/7"	16' 5 2/5"	11' 6 1/2"	34' 7 5/9"	32' 10 4/5"	38' 1"	23' 1"
6m	50.100		4' 10 4/5"	4' 8"	3' 3 1/4"	4' 0 1/4"	9' 9 5/7"	9' 3 5/6"	6' 6 1/2"	19' 7 5/9"	18' 7 4/5"	21' 7"	13' 1"
		52.050	4' 8 2/3"	4' 5 3/4"	3' 1 2/3"	3' 10 4/9"	9' 5 2/7"	8' 11 2/3"	6' 3 1/2"	18' 10 2/3"	17' 11 2/5"	20' 9 1/3"	12' 7"

Where a full wave in metres = frequency in Hz divided by the speed of light (299,792,458 m/s)

The calculated lengths in metres have been converted to feet and inches using Excel's CONVERT function and some nifty rounding.

Reduce dipoles by ~5% for end effects. Add 5-10% to fullwave loops. Trim all antennas to resonance in situ.

Cut typical 50R coax 1/3 shorter due to velocity factor, 40% shorter for RG59 75R coax.

73 de ZL2iFB