

Table 2.

A properly designed Yagi antenna increases in gain as the length of the boom is increased along with additional elements. This table will give some rough guidelines as to the gain, boom length and number of elements required.

Gain Range (dBd)	Boom Length (in wavelengths)*	Number of Elements
3.0-4.5	0.1-0.25	2
4.5-6.5	0.15-0.35	3
6.0-7.5	0.3-0.5	4
7.0-8.5	0.5-0.8	5
8.5-10.0	0.8-1.2	6
9.0-10.5	1.2-1.5	7
10.0-11.0	1.5-2.0	8
11.0-12.0	2.0-2.5	9-10
12.0-13.0	2.5-3.5	11-13
13.0-14.0	3.5-4.5	14-18

* $Wavelength \text{ (in inches)} = 11803/F \text{ (MHZ)}$.

At 900 MHZ, 1.0 Wavelength=13.114"