

Two Meter Driven Element

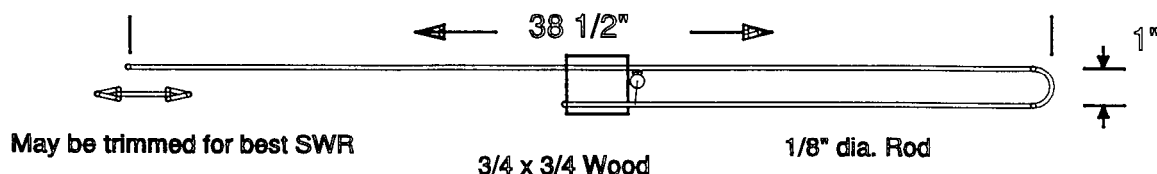


Figure 2. Details of the driven element for the 2-meter version of the Cheap Yagi. Use this in conjunction with the other dimensions in Table 1 to build your beam.

"Like the 2-meter version, [the 222] antenna is peaked for SSB use at 222.1 MHz, but performance is barely changed at 223.5 MHz, the national FM simplex frequency. Actually, the gain is slightly higher at 223.5 MHz, but the pattern is not quite as clean."

Next time we'll cover 900- and 1200-MHz versions of this antenna. The Houston Amateur Television Society, HATS, has built hundreds of them for ATV use. They also work well with 900-MHz spread-spectrum packet and 1200-MHz repeaters or L-Band satellites.

We Get Letters...

Interesting...my brief mention of a 6-meter version of the Cheap Yagi generated the most interest. Unfortunately, I have built only one 6-meter version—it didn't tune up the way it was supposed to. I used parts that are not readily available; and, well, it's not exactly duplicable. So, at least for now, there is only one

6-meter version of the Cheap Yagi; I'm using it, and even I couldn't build another one exactly like it. Maybe some day I'll get a few extra "round-to-its" and get back on that project.

There were also several letters asking about the software program, "YagiMax," by Lew Gordon, K4VX. A downloadable version of YagiMax 3.11 is available at

<http://www.qrz.com/files/antenna>. The file name is Yagim311.ZIP. Everyone likes to just dive in and design the highest gain Yagi in the world—I know, I did too. But you'll find it takes a bit more work than that and I highly suggest you read Lew's excellent README.DOC before tackling any antenna designs.

Until next time, 73. ■

Table 2. 222 MHz

# of Elements		Reflector	Driven Element	D1	Directors D2	D3	D4
3	Length	26.0	*	23.75			
	Spacing	0	5.5	13.5			
4	Length	26.25	*	24.1	22.0		
	Spacing	0	5.0	11.75	23.5		
6	Length	26.25	*	24.1	23.5	23.5	21.0
	Spacing	0	5.0	10.75	22.0	33.75	45.5

*See Figure 3 for details on Driven Element (DE) dimensions

Table 2. Element dimensions and spacing for the 222-MHz "Cheap Yagi." As in the 2-meter version, all dimensions are in inches and the reflector and directors are made from ³/₁₆-inch diameter material. Spacings are all from zero; NOT the closest element. If you want to build this antenna using ¹/₈-inch material for the elements, simply make the Reflector and Directors .1 inch longer to compensate for the thinner element material.

222 MHz Driven Element

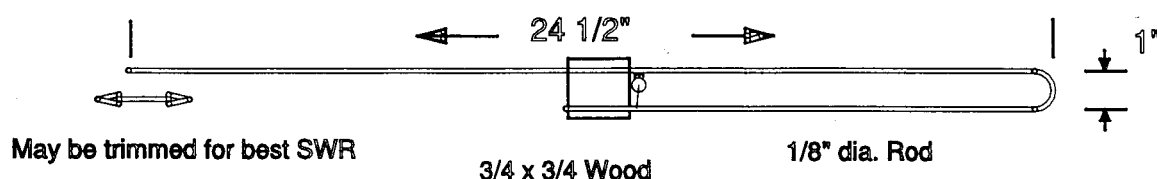


Figure 3. Driven element dimension details for the 222-MHz Cheap Yagi. You'll find the rest of the dimensions for the three-, four-, and six-element versions in Table 2.