

tecnologia wireless



Build your own 2.4Ghz 15dbi Yagi

I recently obtained an old Aironet 2.4Ghz 15dbi Yagi. Instinctively, my first thought was to take it apart and measure everything. I've seen pictures of these types of antennas before, but no one seems to have any sort of accurate measurements. Here, you will find exact measurements (well, as exact as can be with Vernier Calipers) that will allow you to make a copy of this antenna.

Here's some pictures of the antenna:

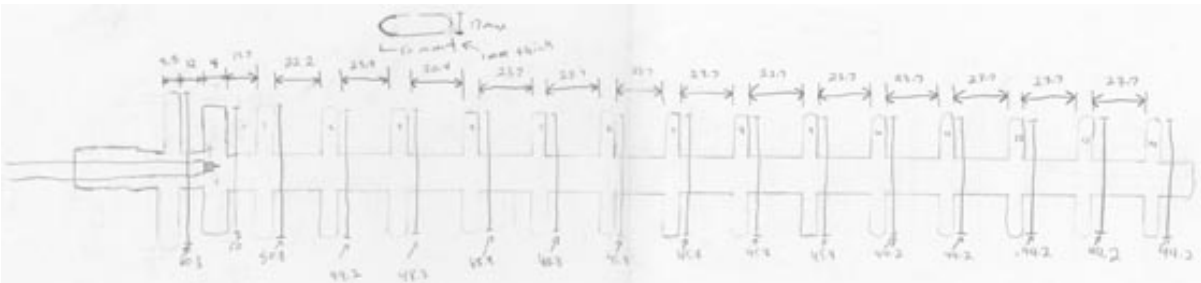


Still assembled... not for long



Disassembled view





Some clarifications to the diagram:

All dimensions are in mm.

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The main part of the antenna is a 1/2" plastic dowel with holes drilled through it, and metal rods (the elements) inserted into the holes

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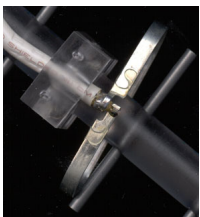
All of the rods are 3.3mm thick

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The driven element is a loop 50 mm wide by 17 mm high made from 4 mm wide by 1 mm thick metal.

Loop Details:

After much demand, I decided to take another look at the loop part and see if there was a way to get at it for better inspection, measuring, and imaging. Well, as it turns out, like most things assembled on an assembly line, there is an easy way to do it. It's only held in by a couple dabs of hot glue and the tie wraps hold the wire back. After cutting the tie wraps and wiggling the loop a bit, it came out. What it looks like is quite surprising:



Choose Image Size: [Medium \(585 x 631\)](#)

Some clarifications on the loop:

- The circumference of the loop (from where it's full width around to the other side where it's full width, in other words, not counting the 2 skinny parts that connect to the coax) is 12cm.
- The circumference around the entire loop (from point back to the same point) is 12.5cm.

If you have any questions, send me an e-mail at hakmana@hotmail.com