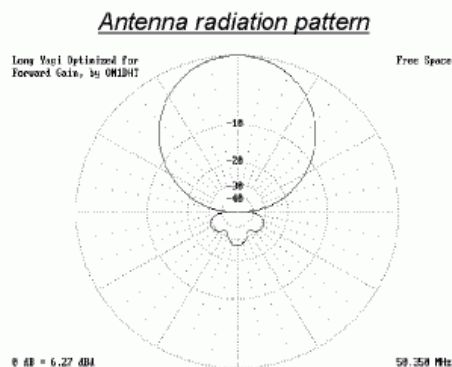
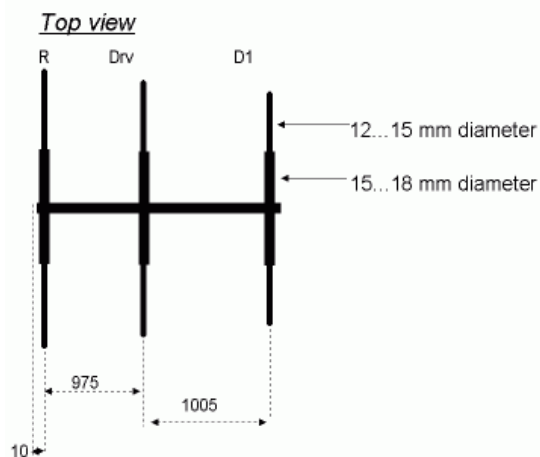


**ON6MU**  
VHF Optimized Yagi Antenna for the 6-meterband (50 Mhz)  
RE-A50Y3

### 3 ELEMENT 50MHZ LONG YAGI de ON6MU



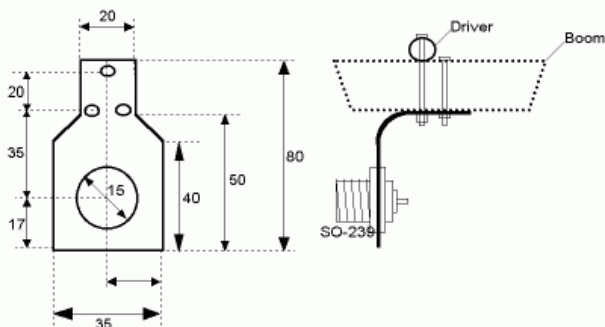
| Element    | Length | Prog. Spacing |
|------------|--------|---------------|
| Reflector  | 2940   | 10            |
| Driver     | 2870   | 985           |
| Director 1 | 2660   | 1990          |

Specifications

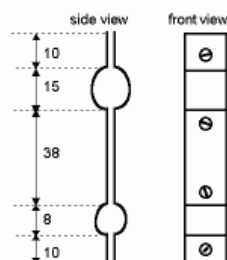
|                        |           |
|------------------------|-----------|
| Forward gain           | = 6.1 dBd |
| Front-to-Rear ratio    | = 25 dB   |
| SWR on 50.300 MHz      | = 1       |
| SWR on 50.0 & 50.6 MHz | = 1.2     |
| Hor. plane pattern     | = 45°     |
| Ver. plane pattern     | = 55°     |
| Bandwidth              | = 2 MHz   |

Boomlength = 2000 mm., thickness +/- 20 mm.  
 Aluminum tube diameters 12mm and 15mm.  
 Used material: 3 alu tubes of 2 meter (15mm),  
 3 alu tubes of 2 meter (12mm)

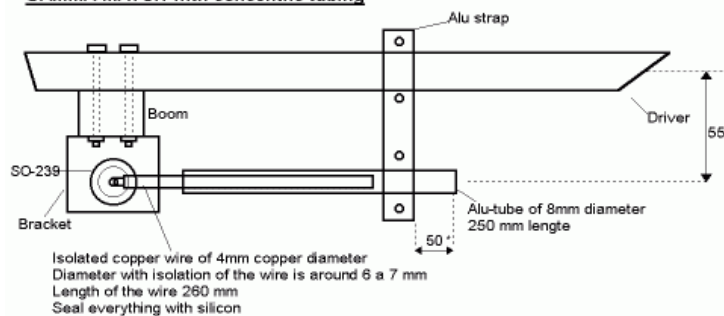
Bracket for SO-239 plug on boom



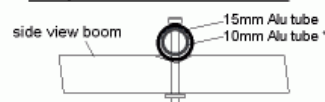
Aluminum Strap



GAMMA MATCH with concentric tubing



Example element connection to boom



Tip: Slide a bit smaller alu tube in to each element on the place where you connect the element to the boom. This to prevent from crunching the elements when screwing them firmly to the boom.

\*You need to tune for best SWR.  
 Move the strap and/or tube in or out

**73" de ON6MU (ex. on1dht)**  
[www.qsl.net/on6mu](http://www.qsl.net/on6mu)

### Highlighted



#### Parts list for the long yagi antenna RE-A50Y3

- 2 meter long alu/copper pipe/tube of +/- 20...28mm (square or round) or if using portable, use 2 x 1 meter pipes/tubes fitted together in the middle of the boom with a larger piece that slides over. Same goes for the centre of the elements.
- 6 pieces of 1 meter alu or copper tubing:
  - 12...16 mm diameter
- 3 pieces of 2 meter long alu or copper tubing:
  - 15...20 mm diameter
- Gamma match: alu or copper tube of 250 mm of 8mm diameter
- some cul wire (isolated wire, installation wire, etc.) of 4 mm copper diameter (+/- 6...7mm diameter with isolation)
- some alu/copper plates to construct the strap holder for the gamma-match
- 1 female PL 259 chassis
- some silicon, grease... to make the construction weather resistant.
- several lengths of inox bolts or other non oxidating bolts
- a bracket to mount the yagi to a boom
- and a few inox hose clamps

Note: there are many ways to build your antenna and I'm sure some can come up with better mechanical designs then described here although the design and material used here is cheap and easy to find. Also, the diameters of the tubing described here is not too critical.