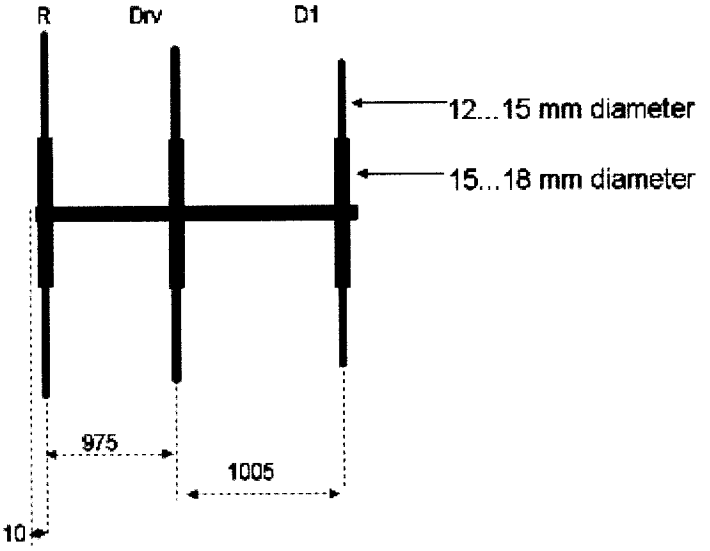
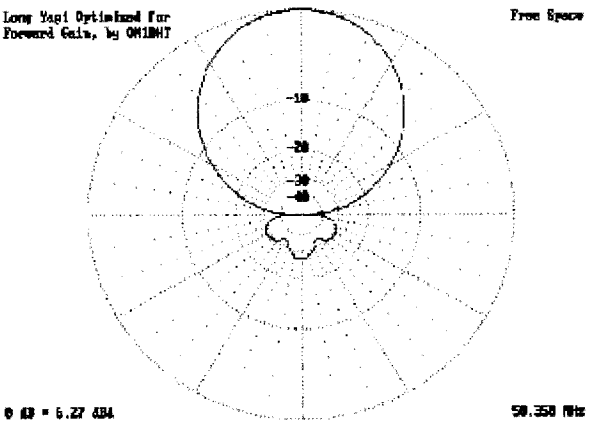
3 ELEMENT 50MHZ LONG YAGI, By ON1DHT

Top view



Antenna radiation pattern



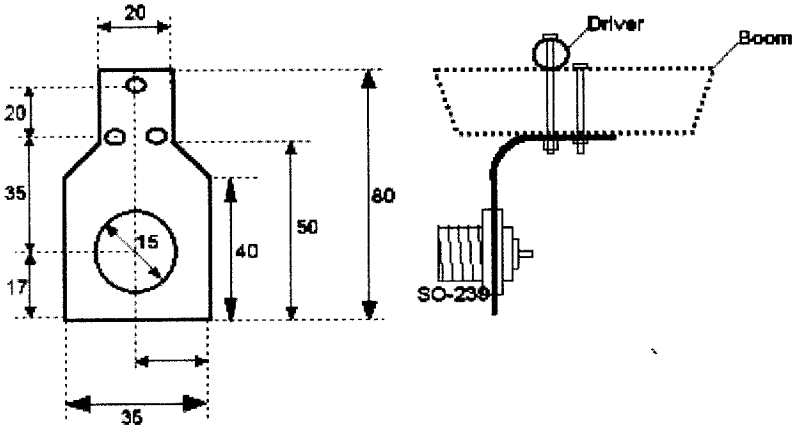
Element	Length	Prog. Spacing
Reflector	2940	10
Driver	2870	985
Director 1	2660	1990

Specifications

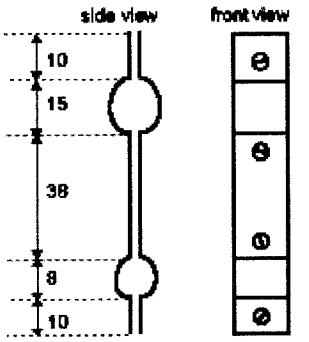
Froward gain	= 6.1 dBd
Front-to-Rear ratio	= 25 dB
SWR on 50.300 MHz	= 1
SWR on 50.0 & 50.6 MHz	= 1.2
Hor. plane pattern	= 45°
Ver. plane pattern	= 55°
Bandwidth	= 2 MHz

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

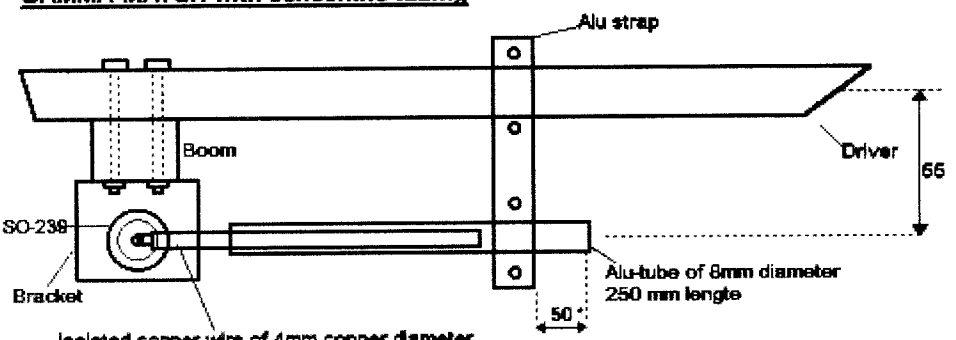
Bracket for SO-239 plug on boom



Aluminum Strap



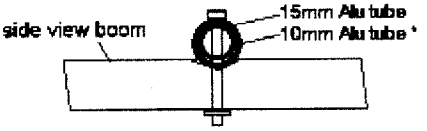
GAMMA MATCH with concentric tubing



Isolated copper wire of 4mm copper diameter
Diameter with isolation of the wire is around 6 a 7 mm
Length of the wire 260 mm
Seal everything with silicon

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

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 themfirmly to the boom.

73' Guy, ON1DHT
http://users.skynet.be/on1dht