

# MODEL TA-53-M

The TA-53-M was designed to give the Ham who would like to have a 3 element beam on 5 bands, but who needs to keep the size of the antenna to minimum. The design criteria was:

1. A single feed line.
2. A very broad band capability, which will easily work with the new solid state rigs.
3. An antenna that was as compact as possible to justify its use on five bands.
4. To tune the 53-M for optimum gain, for a "5" band beam on a 14' boom.
5. To minimize the self interaction of the antennas operating frequencies due to the close proximity to each other on the various bands.
6. Build it to withstand any above average environments.

We feel this has been accomplished only at the expense of front to back. We considered this to be the least area of importance considering only one director and one reflector spaced over a 14' boom working on five bands.

For the ham that wants a heavy duty all around performer the TA-53-M is for you. It will equal or exceed anyone's 3 element beam on a 14 foot boom in the areas of gain, band width, swr and construction.

<b>Frequency, MHz</b>	28, 24, 21, 18, 14	
<b>Power Rating, watts CW</b>	1500	
<b>Power Rating, watts SSB</b>	2500	
<b>Power Rating, AM/FM</b>	600 / 250	
<b>Power Rating, RTTY/AMTOR</b>	600 / 250	
<b>VSWR at frequency</b>	1.0/1 to 1.85/1	
<b>Forward Gain, dBd 10 meters</b>	7.9	
<b>Forward Gain, dBd 12 meters</b>	7.1	
<b>Forward Gain, dBd 15 meters</b>	6.9	
<b>Forward Gain, dBd 17 meters</b>	6.7	
<b>Forward Gain, dBd 20 meters</b>	6.5	
<b>Front-to-Back Ratio, dB 10 meters</b>	16	
<b>Front-to-Back Ratio, dB 12 meters</b>	8	
<b>Front-to-Back Ratio, dB 15 meters</b>	13	
<b>Front-to-Back Ratio, dB 17 meters</b>	12	
<b>Front-to-Back Ratio, dB 20 meters</b>	10	
<b>Boom Length</b>	14 ft	4.27 m
<b>Maximum Element Length</b>	28.67 ft	8.13 m
<b>Turning Radius</b>	14.92 ft	4.55 m
<b>Mast Size hardware (equipped)</b>	2 in	5.08 cm
<b>Assembled weight</b>	55 lbs	24.95 kg
<b>Wind Surface Area</b>	6.7 sq ft	.822 sq m
<b>Wind Load, EIA Standard 80 MPH</b>	160 lbs	72.58 kg
<b>Warranty</b>	2	
<b>Recommended Coax</b>	<b>Hyperflex 500 / RG-213</b>	