MICRONETIXX COMMUNICATIONS

THV High Band VHF C/P Antennas

- **Single Channel C/P Antenna**
- **One to Ten-Bay Models**
- **Up to 88 kW ERP**
- **Low Wind Load, Lightweight**
- **All Stainless Steel**
- **Omni-Directional Pattern**
- **Right-Hand C/P Signal**
- **Low RFR on Ground**
- **Easy to Install**

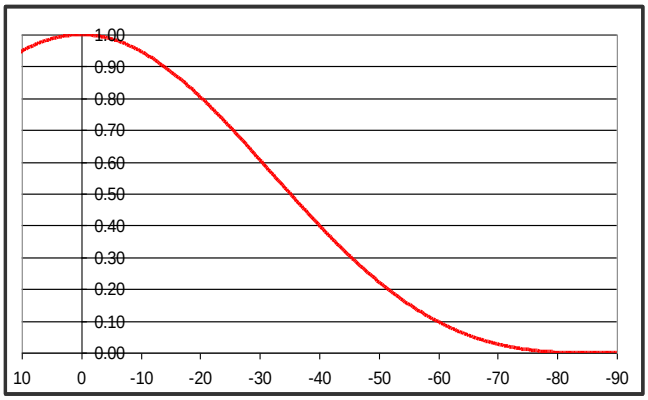
THV Series Antennas are side-mounted light-weight antennas that produce an excellent Omni-directional right hand C/P pattern. They are available as a single bay, or in two-bay increments, up to 10 bays The antenna uses the time tested dual inverted vee design found on FM antennas. The single bay model is fed directly, while the multi-bay models are corporate-fed via a power divider. The bays are spaced 0.70 Lambda apart.

	THV Antenna Electrical Information		
Number of Bays	**Antenna Gain (C/P)**	**Antenna Max Input Power**	**Maximum ERP**
1	0.49 (-3.1 dB)	2 kW 3.00 dBk)	1 kW (0.00 dBk)
2	0.89 (-0.50 dB)	4 kW (6.00 dBk)	3.5 kW (5.40 dBk)
4	1.70 (2.30 dB)	8 kW (9.00 dBk)	13.6 kW 11.30 dBk)
6	2.55 (4.06 dB)	12 kW (10.7 dBk)	30 kW (14.70 dBk)
8	3.40 (5.30 dB)	16 kW (12.dBk)	55 kW (17.40 dBk)
10	4.40 (6.43 dB)	20 kW (13.00 dBk)	88 kW (19.40 dBk)

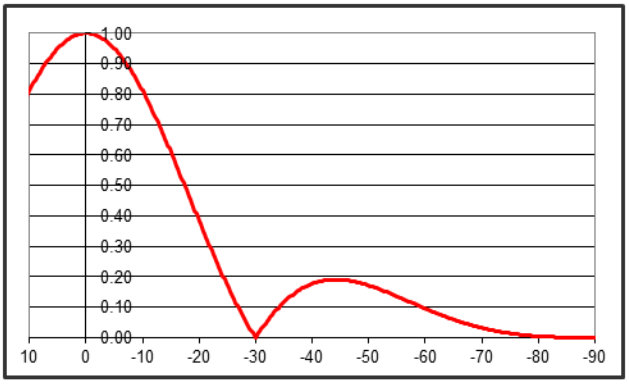
The 0.70 Lambda-spaced models have much lower RFR at high depression angles, allowing them to be used lower on a tower or rooftop. The RFR hitting the ground is 10 to 18 dB less than standard-spaced antennas.

A single bay THV is fed directly (7/16 DIN), while multi bay antennas are corporate-fed with a power divider (1-5/8" EIA or 3-1/8" EIA.) Input power ranges from 2 kW with a single bay to 16 kW with the 10 bay antenna. The maximum ERP of the THV is 1 kW with a single bay and 88 kW with a 10 bay antenna. Since the multi-bay THV antennas are corporate-fed, there is no differential group delay across the channel, making this a perfect choice for ATSC 1.0 and 3.0 operations

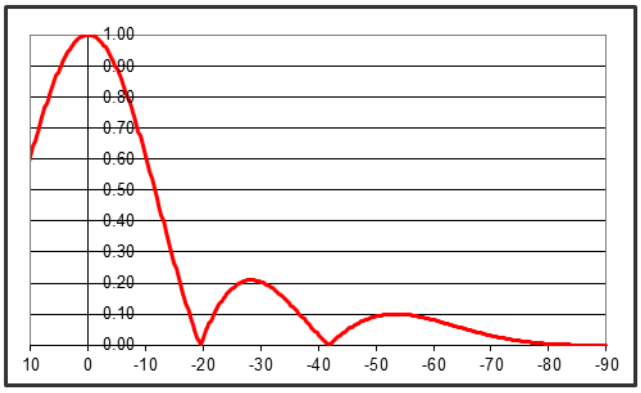
Sample THV antenna elevation patterns



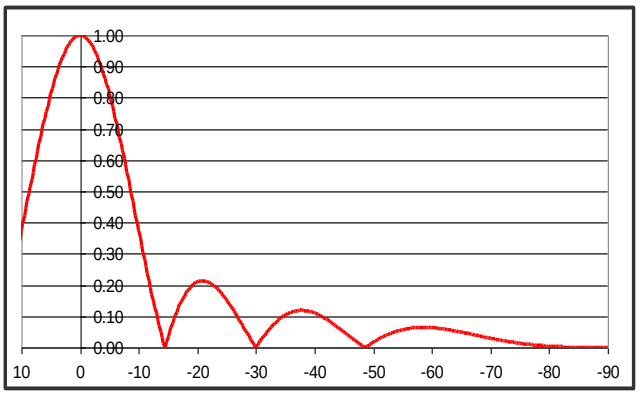
2 Bay elevation pattern



4 Bay elevation pattern



6 Bay elevation pattern



8 Bay elevation pattern

Four to ten bay **THV** Antennas can have null fill and beam tilt added. The gain of the antenna will be reduced slightly.

We also offer the **THV** Antennas in a broad cardioid configuration. The maximum ERP that these antennas can produce is 1.7 times the maximum ratings show in the chart on page 1.

For best operation, **THV** antennas should be top-mounted on a small diameter pole (3.5 inch O.D. nominal), or outrigger from a tower face by a few feet with using an outrigged pole supplied by others.

THV Antenna Mechanical Information

Number of Bays	Antenna Length	Reccomended tower space	Antena Weight	Antenna Load Area
1	2.0 ft. (0.61 m)	8 ft. (3.05 m)	15 lbs. (6.81 kg)	0.5 ft^2 (0.04 m^2)
2	4.5 ft. (1.4 m)	10 ft. (3.81 m)	37 lbs. (16.1kg)	1.4 ft^2 (0.13 m^2)
4	11 ft. (2.93 m)	17 ft. (5.97 m)	77 lbs. (35 kg)	2.4 ft^2 (0.22 m^2)
6	18 ft. (4.45 m)	24 ft. (7.50 m)	97 lbs. (44.1 kg)	3.4 ft^2 (0.32 m^2)
8	25 ft. (6.00 m)	31 ft. (9.05 m)	127 lbs. (57.7 kg)	4.4 ft^2 (0.41 m^2)
10	33 ft. (7.52 m)	39 ft. (12.00 m)	157 lbs. (71.4 kg)	5.4 ft (0.50 m^2)

Note: Mechanicals are for a channel 10 antenna

The **THV** Antenna bays are made from 100% schedule 304 stainless steel. The elements are TIG welded in place and are all at DC ground for superior lightning immunity. The antenna has a basic wind speed rating of 150 M.P.H.

The **THV** Antennas are perfect for applications from translators to standby or full power operations. **THV** Antennas have a small load profile, but deliver a perfectly launched right hand C/P signal to your viewers

70 Commercial St. Lewiston, ME 04240 U.S.A.
V 207-786-2000 F 207-786-7444
www.micronetixxantennas.com info@micronetixx.com