

Model 6020 Vertically-Polarized FM Antenna

(International)

Vertical polarization

5 kW power rating per bay

Radomes & de-icers not required

Shively standard features:

- Low weight and windload
- Rugged corrosion-resistant mounts
- Easy to install - minimum maintenance
- Non-pressurized (it is recommended that multi-bay systems be pressurized)
- Pattern studies and directional patterns available

Characteristics:

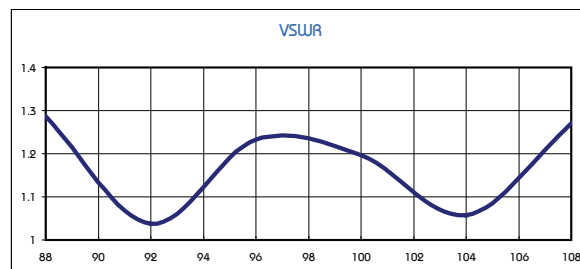
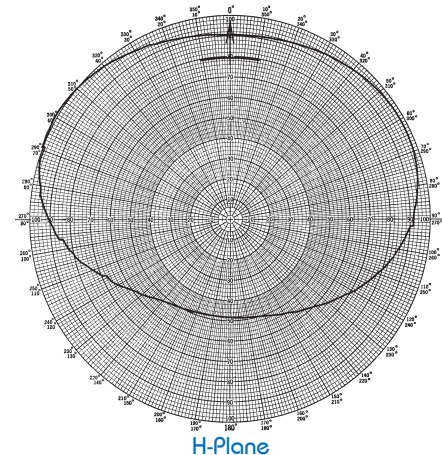
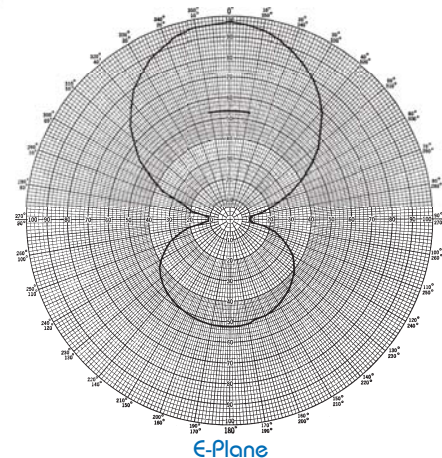
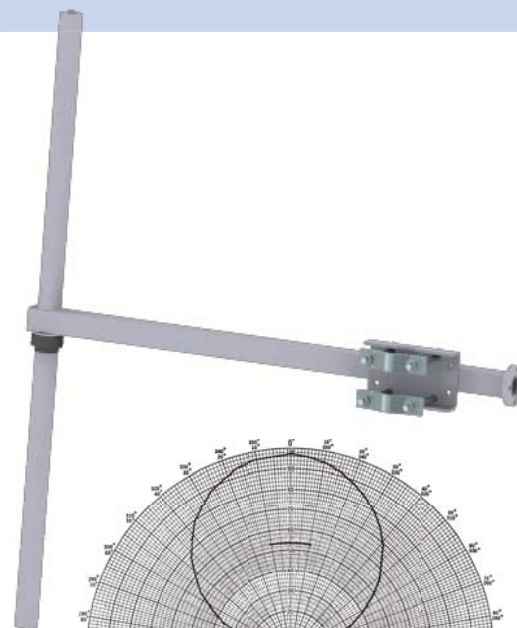
Polarization: Vertical only.
 Frequency range: 87.5-108 MHz
 Impedance: 50 Ω
 VSWR: Better than 1.3 : 1 over the FM band
 Dimensions (per bay): 142.5 cm x 105.6 cm x 14 cm
 Materials: External parts: durable stainless
 Input connection: One bay: female 1-5/8" EIA.

Electrical performance:

No. of bays	Peak Gain		Power rating (kW)
	Power	dB	
1	1.44	1.58	5
2	3.16	4.99	10
3	4.95	6.95	14
4	6.73	8.28	14
6	10.27	10.11	14

NOTES

- Arrays are provided with a 1-5/8" input power divider as standard. For higher power inputs, or custom configurations including beam tilt/ null-filling, please contact the factory.
- Gain and patterns depend on mounting geometry.
- Gain figures are derived from the computed vertical pattern directivity and include the losses in the antenna feed system.



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Tower space & weight:

No. of bays	Antenna radiation aperture (m)	Recommended length of outriggered pole (m)	Total clear tower space recommended (m)	Weight			
				Without radomes or ice (kg)	With 12.7 mm radial ice (kg)	With 25.4 mm radial ice (kg)	With 38.1 mm radial ice (kg)
1	1.2	3.0	6.1	12.7	18.6	26.8	36.8
2	3.9	5.8	9.1	50.5	72.3	104.6	146.4
3	6.7	8.5	11.6	67.7	105.5	161.4	235.9
4	9.4	11.2	14.3	82.7	148.2	243.6	369.1
6	14.9	16.5	19.5	112.7	212.3	359.1	552.3

NOTES

- Mounts are designed to fit 1-1/2" to 3-1/2" diameter pole.

Windload:

No. of bays	Without ice		With 12.7 mm radial ice		With 25.4 mm radial ice		With 38.1 mm radial ice	
	EPA_N (m ²)	EPA_T (m ²)	EPA_N (m ²)	EPA_T (m ²)	EPA_N (m ²)	EPA_T (m ²)	EPA_N (m ²)	EPA_T (m ²)
1	0.16	0.07	0.22	0.09	0.27	0.11	0.32	0.14
2	0.56	0.37	0.85	0.59	1.11	0.80	1.31	0.97
3	0.95	0.66	1.50	1.11	2.03	1.55	2.52	2.00
4	1.64	1.25	2.50	1.98	3.30	2.66	4.04	3.34
6	2.51	1.94	3.91	3.13	5.27	4.31	6.55	5.50

NOTES

- Effective projected area (EPA) is calculated in accordance with TIA-222-G.
- Ask for technical assistance at Shively if you are planning to mount antennas on AM towers or install them at altitudes over 915 meters above mean sea level.