

Model 6014 FM Panel Antenna

True circular polarization

Broadband 87.5 - 108 MHz; designed for multistation use

15 kW average, 100 kW peak power rating per panel

Designed for 3-sided towers

Omnidirectional ± 2 dB

Directional versions available

Custom feed systems

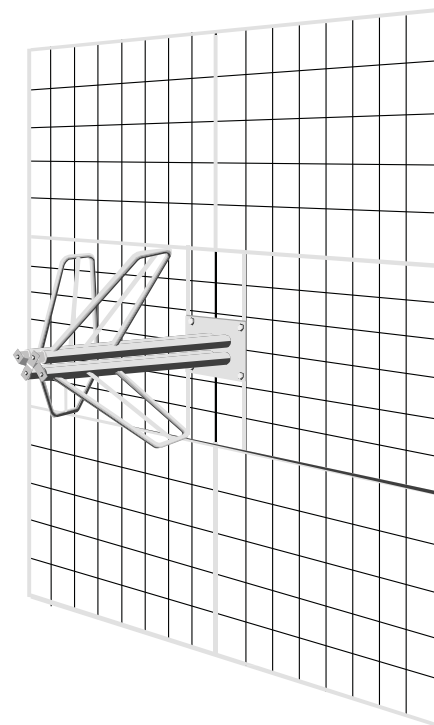
Stainless steel construction

Low windload design with excellent strength-to-windload ratio

Ideal for IBOC implementation

Special spacing available to reduce downward radiation

Electrical specifications:



No. of Levels (3 panels each)	Gain		Power Rating kW	No. of Levels (3 panels each)	Gain		Power Rating kW
	Power	dB			Power	dB	
1	0.46	-3.40	45	6	3.28	5.163	160
2	1.01	-0.044	90	8	4.40	6.433	160
3	1.58	1.995	135	10	5.52	7.416	160
4	2.16	3.335	160	12	6.64	8.221	160

Performance specifications:

Polarization: Right circular

VSWR: 1.15 : 1 over the FM band

Azimuth pattern circularity: Horizontal component ± 2 dB on a 5-ft triangular tower

Power rating: 15 kW average per panel
100 kW peak per panel

Input: 1-5/8" - 6-1/8" EIA. Single and dual inputs available.

Notes:

- Our gain figures are derived from the computed directivity and include the losses in the antenna feed system. Gain is computed for 98 MHz and will vary across the band.

Gain is provided for one polarization and is equal in circularly polarized antennas for both horizontal and vertical components. Gain will be reduced if special wavelength spacing is provided. Gain will increase in a directional array by the directivity of the azimuth pattern.

Document No. ds-6014 (170323)

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Model 6014 size and weight:

No. of Levels (3 panels each)	Vertical Tower Space		Weight			
	Antenna Radiation Aperture		without ice		with 1/2" radial ice	
	ft	m	lb	N	lb	N
1	10	3.1	630	2802	1387	6170
2	20	6.1	1086	4831	2388	10622
3	30	9.1	1541	6855	3390	15079
4	40	12.2	1996	8879	4392	19536
6	60	18.3	2907	12931	6395	28446
8	80	24.4	3818	16983	8399	37360
10	100	30.5	4728	21031	10402	46270
12	120	36.5	5639	25083	12406	55184

IMPORTANT!

Weight and windload will vary with each system, depending on the specific components used in the feed system. The numbers shown here represent very conservative estimates.

Windload:

No. of Levels (3 panels each)	Revision 'C'				Revision 'F'			
	without ice		with 1/2" radial ice		without ice		with 1/2" radial ice	
	lb	N	lb	N	(ft ²)	m ²	(ft ²)	m ²
1	1022	4581	2372	10631	33	3.1	67	6.2
2	2044	9161	4743	21258	65	6.0	135	12.5
3	3066	13742	7115	31889	98	9.1	202	18.8
4	4088	18322	9486	42516	130	12.1	270	15.8
6	6132	27484	14229	63774	196	18.2	405	37.6
8	8176	36645	18972	85033	261	24.2	539	50.1
10	10220	45806	23715	106291	326	30.3	674	62.6
12	12264	54967	28458	127549	391	36.3	809	75.2

Notes:

- Vertical apertures are approximate, consisting of the distance between the top edge of the top panel to the bottom edge of the bottom panel. Contact us for the exact antenna aperture for your frequency.
Please do not confuse vertical aperture with tower space needed for proper installation. Tower space required is greater. Contact us for details.
- Windload and weight figures are approximate values and should be used for estimating purposes only. They assume a typical omnidirectional (3 panel per level) pattern. The figures include radiators, panels, panel hybrids, and a representative single input feed system. No values are included for mounts. The values for mounts, complex feed systems, and directional arrays may significantly affect these estimates. Please contact the factory for an estimate for a system to meet your specific requirements.
- Antenna windloads are calculated for 112 mph (180 kph), using 50 psf (2400 N/m²) for flats and 33 psf (1600 N/m²) for rounds] per IFA standard RS-222-C and CSA standard S37-94. The surface area is calculated per IFA standard RS-222-F (C_oA_o).
- Ask for technical assistance at Shively if you are planning to install antennas at altitudes over 3,000 ft (915 m) AMSL.