



reliable, durable, customizable, affordable

[broadcast antenna systems]

MODEL PSIFM5CLOG

5 ELEMENT LOG PERIODIC FM ANTENNA

BROADBAND | CIRCULAR POLARIZATION

General Specifications

Multi-Element Arrays: Available for custom pattern requirements

Element Input: Single element configurations include both Horizontal and Vertical

7-16 DIN feed cables and a equal split matched power divider

Power Divider Input: 7/8" EIA | 7-16 DIN | 1-5/8" EIA

Power Rating: 7/8" EIA - 5 kW | 7-16 DIN - 2.5 kW | 1-5/8" EIA - 5 kW

Dimensions: 60.375" x 48.25" x 48.25" (1534 x 1226 x 1266 mm)

Physical Characteristics: Galvanized Steel or Chromated Aluminum

Weight: Steel 80 lbs (36.3 kg)

Aluminum 52 lbs (23.6 kg)

Wind Area: Steel 11.6 ft² (1.1 m²)

Aluminum 8 ft² (.74 m²)

Wind Survival Rating: 112 mph (180 km/h)

Frequency: 88 - 108 MHz

Polarization: Linear or Circular

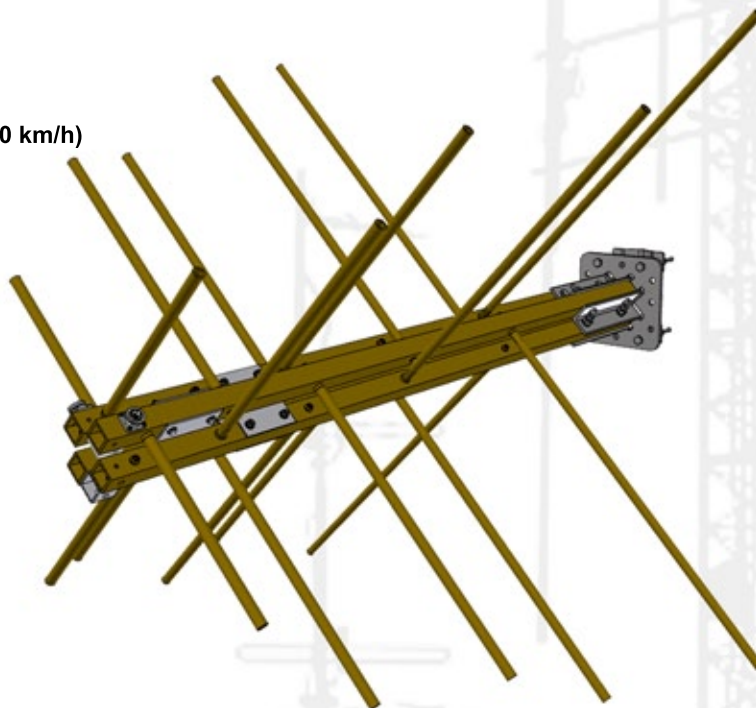
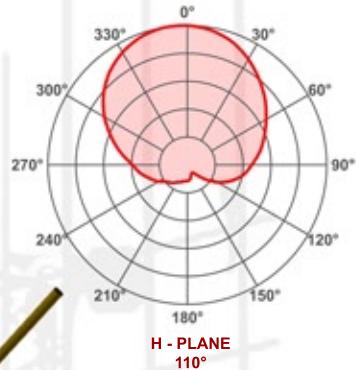
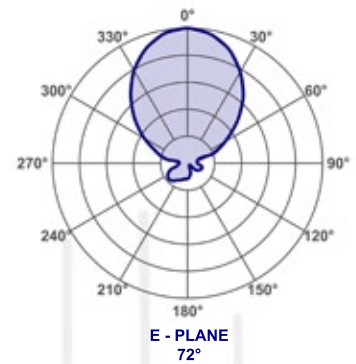
Gain: Linear 3.55 (5.50 dBd)

Circular 1.78 (2.50 dBd)

VSWR: < 1.25:1

F/B: 20 dBd

Impedance: 50 ohms



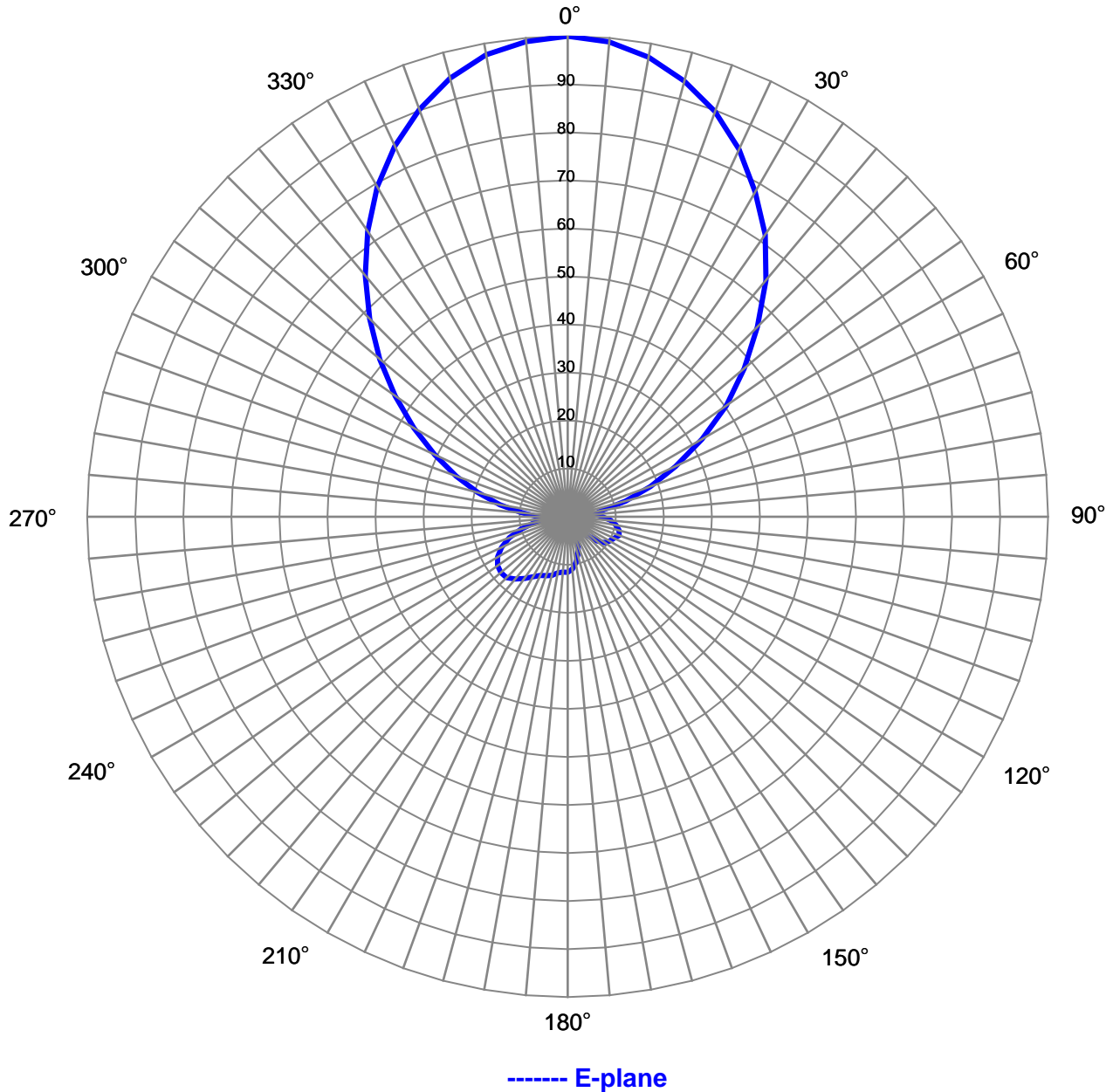
PSIFM5CLOG antenna model is a narrow lobe, circularly polarized antenna intended for FM broadcast applications up to 5 kW of input power. Treated aluminum, plated brass, and teflon construction with hot dip galvanized mounting bracket make it suitable for any environment. Fully galvanized steel version is available for harsh environments.

Standard with the PSIFM5CLOG are both the horizontal and vertical feed cables, an equal split frequency matched power divider and integral mounting bracket that will accommodate a mast from 1-1/2" to 4" in diameter. Three power divider input versions are available: 7/8" EIA, 7-16 DIN, and 1-5/8" EIA.

This model is also available in arrayed configurations for custom patterns. For multi-element custom arrays, the PSIFM5CLOG includes a multi-power divider network, corresponding cables and site specific mounting. Total weight, wind area, gain and power rating are dependent on pattern requirements and configuration.



Relative Field Azimuth Plane Pattern



Pattern Type:	Relative Field	Antenna Type:	5-Element FM Log
Antenna Model:	PSIFM5CLOG	Mount:	Slant 45 Mount
Polarization:	Circular	Configuration:	H-pol Component
Gain:	3.55 (5.50 dB)	Beamwidth:	72 Degrees
Pattern:	E-Plane	Date:	9/29/2025



Relative Field Tabulation

Azimuth Plane Pattern

Antenna Model: PSIFM5CLOG

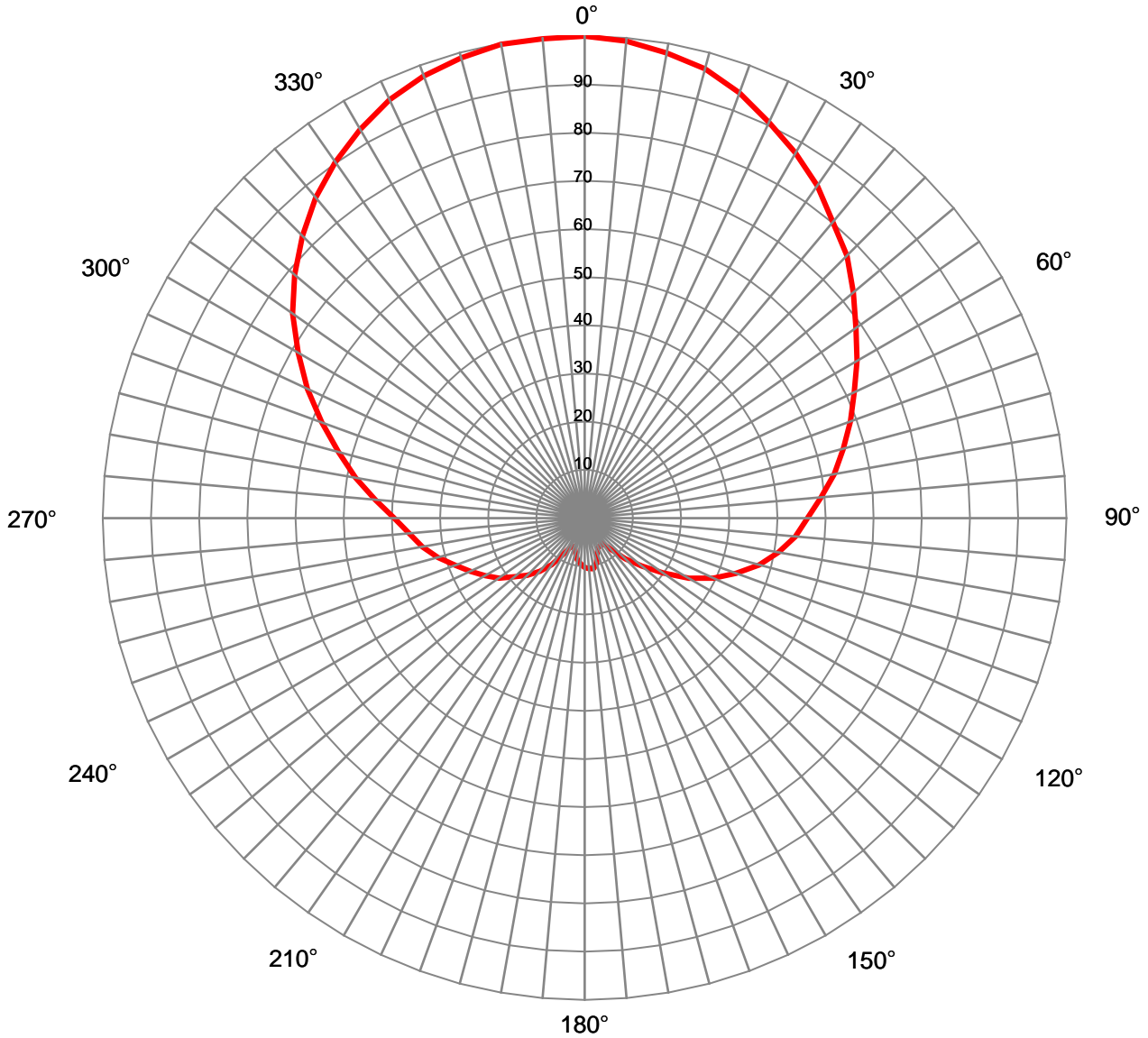
Horizontal Polarization (E-plane)

Slant 45 Mount

Angle	Relative Field	Power Gain	Gain (dB)	Angle	Relative Field	Power Gain	Gain (dB)
0	1.000	3.550	5.50	180	0.116	0.048	-13.23
5	0.992	3.492	5.43	185	0.116	0.048	-13.21
10	0.971	3.345	5.24	190	0.119	0.050	-13.01
15	0.939	3.128	4.95	195	0.126	0.057	-12.46
20	0.897	2.858	4.56	200	0.131	0.061	-12.16
25	0.844	2.527	4.03	205	0.135	0.064	-11.91
30	0.780	2.162	3.35	210	0.144	0.074	-11.30
35	0.717	1.823	2.61	215	0.157	0.087	-10.59
40	0.642	1.464	1.66	220	0.169	0.102	-9.92
45	0.559	1.109	0.45	225	0.180	0.115	-9.41
50	0.480	0.818	-0.87	230	0.181	0.117	-9.32
55	0.403	0.577	-2.39	235	0.178	0.112	-9.51
60	0.323	0.371	-4.31	240	0.168	0.100	-9.98
65	0.248	0.218	-6.62	245	0.152	0.082	-10.89
70	0.184	0.120	-9.22	250	0.129	0.059	-12.30
75	0.125	0.055	-12.57	255	0.101	0.036	-14.42
80	0.072	0.018	-17.36	260	0.070	0.018	-17.56
85	0.057	0.012	-19.39	265	0.052	0.009	-20.25
90	0.072	0.018	-17.34	270	0.062	0.014	-18.70
95	0.090	0.029	-15.42	275	0.097	0.033	-14.77
100	0.103	0.037	-14.28	280	0.144	0.073	-11.36
105	0.111	0.043	-13.62	285	0.194	0.133	-8.75
110	0.114	0.046	-13.37	290	0.246	0.216	-6.66
115	0.107	0.040	-13.93	295	0.305	0.331	-4.81
120	0.101	0.036	-14.41	300	0.370	0.485	-3.14
125	0.094	0.031	-15.02	305	0.439	0.683	-1.66
130	0.079	0.022	-16.59	310	0.510	0.924	-0.34
135	0.050	0.009	-20.58	315	0.582	1.204	0.81
140	0.019	0.001	-28.72	320	0.655	1.524	1.83
145	0.015	0.001	-31.12	325	0.725	1.868	2.71
150	0.025	0.002	-26.59	330	0.792	2.230	3.48
155	0.045	0.007	-21.40	335	0.851	2.572	4.10
160	0.065	0.015	-18.29	340	0.902	2.888	4.61
165	0.082	0.024	-16.21	345	0.945	3.170	5.01
170	0.097	0.034	-14.73	350	0.976	3.382	5.29
175	0.110	0.043	-13.69	355	0.993	3.498	5.44



Relative Field Azimuth Plane Pattern



— H-plane

Pattern Type:	Relative Field	Type:	5-Element FM Log
Antenna Model:	PSIFM5CLOG	Mount:	Slant 45 Mount
Polarization:	Circular	Configuration:	V-pol Component
Gain:	3.55 (5.50 dB)	Beamwidth:	110 Degrees
Pattern:	H-Plane	Date:	9/29/2025

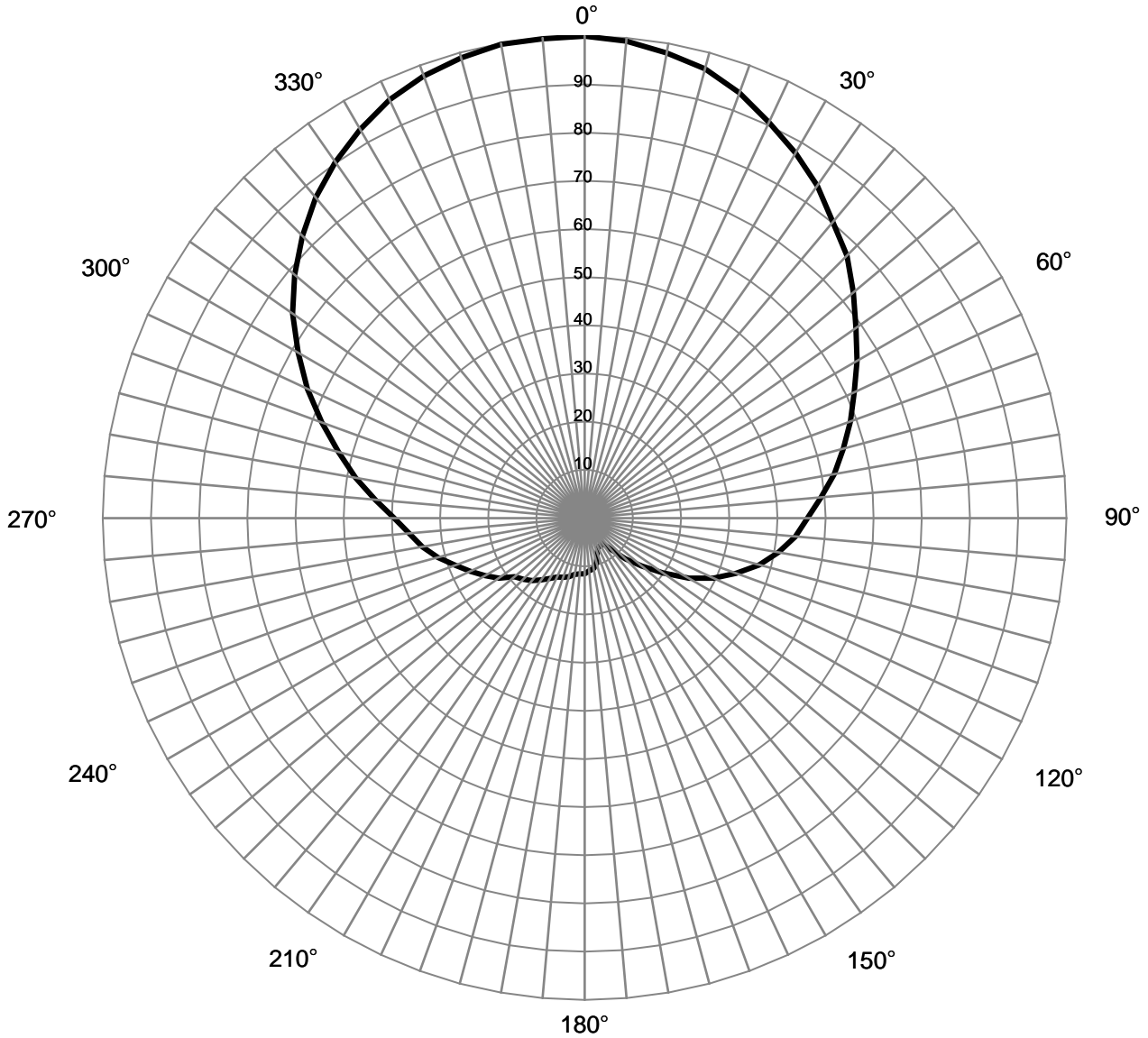


Relative Field Tabulation
Azimuth Plane Pattern
 Antenna Model: PSIFM5CLOG
 Vertical Polarization (H-plane)
 Slant 45 Mount

Angle	Relative Field	Power Gain	Gain (dB)	Angle	Relative Field	Power Gain	Gain (dB)
0	1.000	3.550	5.50	180	0.102	0.037	-14.30
5	0.993	3.502	5.44	185	0.096	0.032	-14.90
10	0.980	3.410	5.33	190	0.087	0.027	-15.70
15	0.965	3.305	5.19	195	0.074	0.019	-17.14
20	0.939	3.133	4.96	200	0.063	0.014	-18.49
25	0.906	2.911	4.64	205	0.064	0.014	-18.40
30	0.875	2.720	4.35	210	0.085	0.026	-15.92
35	0.842	2.517	4.01	215	0.118	0.050	-13.03
40	0.802	2.281	3.58	220	0.144	0.074	-11.33
45	0.770	2.105	3.23	225	0.168	0.100	-9.99
50	0.728	1.881	2.74	230	0.190	0.128	-8.93
55	0.688	1.679	2.25	235	0.217	0.167	-7.76
60	0.653	1.513	1.80	240	0.239	0.203	-6.93
65	0.617	1.353	1.31	245	0.262	0.244	-6.13
70	0.587	1.223	0.87	250	0.286	0.290	-5.37
75	0.555	1.095	0.40	255	0.315	0.353	-4.52
80	0.526	0.984	-0.07	260	0.342	0.416	-3.81
85	0.493	0.861	-0.65	265	0.365	0.473	-3.25
90	0.462	0.759	-1.20	270	0.395	0.553	-2.57
95	0.439	0.685	-1.65	275	0.436	0.675	-1.71
100	0.409	0.593	-2.27	280	0.483	0.827	-0.83
105	0.375	0.500	-3.01	285	0.529	0.993	-0.03
110	0.335	0.397	-4.01	290	0.580	1.196	0.78
115	0.295	0.309	-5.11	295	0.635	1.430	1.55
120	0.250	0.221	-6.55	300	0.687	1.674	2.24
125	0.199	0.141	-8.51	305	0.740	1.943	2.88
130	0.155	0.086	-10.67	310	0.786	2.191	3.41
135	0.119	0.051	-12.95	315	0.828	2.433	3.86
140	0.084	0.025	-16.04	320	0.868	2.676	4.28
145	0.063	0.014	-18.53	325	0.902	2.889	4.61
150	0.066	0.015	-18.12	330	0.932	3.081	4.89
155	0.067	0.016	-17.98	335	0.958	3.255	5.13
160	0.077	0.021	-16.81	340	0.976	3.380	5.29
165	0.097	0.033	-14.77	345	0.989	3.470	5.40
170	0.107	0.041	-13.92	350	0.998	3.537	5.49
175	0.106	0.040	-14.02	355	0.999	3.540	5.49



Relative Field Azimuth Plane Pattern



———— Composite

Pattern Type:	Relative Field	Type:	5-Element FM Log
Antenna Model:	PSIFM5CLOG	Mount:	45 Degree Slant Mount
Polarization:	Circular	Configuration:	Combined H/V
Gain:	1.78 (2.50 dB)	Beamwidth:	115 Degrees
Pattern:	Composite	Date:	9/29/2025



**Relative Field Tabulation
Azimuth Plane Pattern**

Antenna Model: PSIFM5CLOG
Combined H-pol and V-pol Component
Slant 45 Mount
Composite Pattern

Angle	Relative Field	Power Gain	Gain (dB)	Angle	Relative Field	Power Gain	Gain (dB)
0	1.000	1.780	2.50	180	0.116	0.024	-16.23
5	0.993	1.756	2.45	185	0.116	0.024	-16.20
10	0.980	1.710	2.33	190	0.119	0.025	-16.01
15	0.965	1.657	2.19	195	0.126	0.028	-15.46
20	0.939	1.571	1.96	200	0.131	0.030	-15.16
25	0.906	1.460	1.64	205	0.135	0.032	-14.91
30	0.875	1.364	1.35	210	0.144	0.037	-14.30
35	0.842	1.262	1.01	215	0.157	0.044	-13.58
40	0.802	1.143	0.58	220	0.169	0.051	-12.91
45	0.770	1.055	0.23	225	0.180	0.057	-12.41
50	0.728	0.943	-0.25	230	0.190	0.064	-11.93
55	0.688	0.842	-0.75	235	0.217	0.084	-10.76
60	0.653	0.759	-1.20	240	0.239	0.102	-9.92
65	0.617	0.678	-1.69	245	0.262	0.122	-9.13
70	0.587	0.613	-2.12	250	0.286	0.145	-8.37
75	0.555	0.549	-2.60	255	0.315	0.177	-7.52
80	0.526	0.493	-3.07	260	0.342	0.209	-6.81
85	0.493	0.432	-3.65	265	0.365	0.237	-6.25
90	0.462	0.381	-4.20	270	0.395	0.277	-5.57
95	0.439	0.343	-4.64	275	0.436	0.338	-4.71
100	0.409	0.297	-5.27	280	0.483	0.415	-3.82
105	0.375	0.251	-6.01	285	0.529	0.498	-3.03
110	0.335	0.199	-7.01	290	0.580	0.600	-2.22
115	0.295	0.155	-8.10	295	0.635	0.717	-1.45
120	0.250	0.111	-9.55	300	0.687	0.839	-0.76
125	0.199	0.071	-11.51	305	0.740	0.974	-0.11
130	0.155	0.043	-13.67	310	0.786	1.099	0.41
135	0.119	0.025	-15.95	315	0.828	1.220	0.86
140	0.084	0.012	-19.04	320	0.868	1.342	1.28
145	0.063	0.007	-21.53	325	0.902	1.448	1.61
150	0.066	0.008	-21.12	330	0.932	1.545	1.89
155	0.067	0.008	-20.98	335	0.958	1.632	2.13
160	0.077	0.010	-19.81	340	0.976	1.695	2.29
165	0.097	0.017	-17.77	345	0.989	1.740	2.40
170	0.107	0.020	-16.92	350	0.998	1.773	2.49
175	0.110	0.021	-16.69	355	0.999	1.775	2.49