



深圳市红心电子科技有限公司
广东省深圳市宝安区西乡固戍新安第二工业区10栋西面2楼
Shenzhen Hongxin Technology Electronics Co., Ltd

2nd to 5th floor, west of Building C10Xixiang Gushu Xin'an No. 2 Industrial Zone, Bao'an District, Shenzhen, Guangdong Province

Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Frequency (MHz)	2100.0	2110.0	2120.0	2130.0	2140.0	2150.0	2160.0	2170.0	2180.0	2190.0	2200.0	2210.0	2220.0	2230.0	2240.0	2250.0	2260.0	2270.0	2280.0	2290.0	2300.0	2310.0	2320.0	2330.0	2340.0	2350.0	2360.0	2370.0	2380.0	2390.0	2400.0	
Efficiency (dBi)	-11.98	-12.10	-12.10	-11.84	-11.84	-11.26	-11.01	-10.59	-10.79	-10.52	-10.46	-10.07	-9.72	-9.26	-8.86	-8.39	-8.09	-7.90	-7.63	-7.45	-7.04	-6.58	-6.05	-5.10	-4.94	-4.60	-4.45	-4.16	-3.91	-3.69		
Gain (dBi)	-8.65	-8.70	-8.82	-8.75	-8.75	-7.46	-7.46	-7.92	-7.67	-7.72	-7.42	-7.54	-7.14	-6.59	-6.03	-5.64	-5.33	-5.08	-4.84	-4.48	-4.20	-3.70	-3.03	-2.39	-1.91	-1.42	-1.32	-0.99	-0.84	-0.50	-0.10	0.23
Efficiency (%)	6.34	6.16	6.17	6.54	6.54	7.46	7.92	8.74	8.34	8.88	8.99	9.84	10.66	11.85	12.99	14.47	15.54	16.23	17.24	17.98	19.75	22.00	24.84	27.36	30.91	32.03	34.69	35.87	38.35	40.67	42.72	
Directivity (dB)	3.33	3.40	3.28	3.09	3.08	3.09	2.99	2.92	3.06	3.09	2.92	2.93	3.13	3.23	3.22	3.07	3.00	3.06	3.16	3.25	3.34	3.55	3.65	3.72	3.68	3.62	3.60	3.61	3.67	3.81	3.92	
Peak Gain Position (Theta)	75.00	75.00	75.00	75.00	90.00	75.00	75.00	60.00	60.00	60.00	60.00	60.00	90.00	75.00	120.00	120.00	120.00	120.00	90.00	90.00	90.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	
Peak Gain Position (Phi)	90.00	90.00	90.00	90.00	285.00	330.00	315.00	60.00	60.00	60.00	60.00	285.00	315.00	270.00	270.00	270.00	270.00	90.00	90.00	90.00	90.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00
Efficiency ThetaPol (%)	4.57	4.40	4.36	4.63	4.65	5.35	5.66	6.19	5.87	6.22	6.29	6.88	7.45	8.24	9.06	10.12	10.84	11.22	11.74	12.10	13.21	14.58	16.26	17.71	19.94	20.73	22.46	23.33	25.01	26.51	27.91	
Efficiency PhiPol (%)	1.77	1.77	1.81	1.92	1.99	2.14	2.26	2.55	2.48	2.66	2.70	2.96	3.21	3.61	3.93	4.36	4.70	5.01	5.50	5.88	6.54	7.42	8.58	9.65	10.96	11.31	12.73	12.55	13.34	14.15	14.81	
Upper Hem. Efficiency (%)	3.71	3.62	3.58	3.70	3.60	4.07	4.32	4.80	4.62	4.91	4.90	5.25	5.56	6.07	6.61	7.38	7.95	8.33	8.77	9.00	9.69	10.63	11.91	13.17	14.91	15.47	16.65	17.05	18.15	19.24	20.33	
Lower Hem. Efficiency (%)	2.63	2.54	2.59	2.84	2.94	3.41	3.61	3.94	3.72	3.92	3.97	4.09	4.59	5.10	5.78	6.38	7.09	7.58	7.89	8.47	8.98	10.06	11.37	12.93	14.19	16.00	16.56	18.04	18.82	20.20	21.43	22.39
Frequency ID	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61		
Frequency (MHz)	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0	2510.0	2520.0	2530.0	2540.0	2550.0	2560.0	2570.0	2580.0	2590.0	2600.0	2610.0	2620.0	2630.0	2640.0	2650.0	2660.0	2670.0	2680.0	2690.0	2700.0		
Efficiency (dBi)	-3.60	-3.63	-3.75	-4.10	-4.42	-4.89	-5.15	-5.56	-5.80	-6.19	-6.70	-7.16	-7.74	-8.14	-8.67	-8.79	-9.45	-9.52	-10.33	-10.53	-11.07	-11.52	-11.76	-12.17	-12.33	-12.63	-12.73	-13.22	-13.21	-13.85		
Gain (dBi)	0.37	0.31	0.01	-0.53	-0.92	-1.32	-1.34	-1.61	-1.76	-2.26	-2.79	-3.31	-3.86	-4.25	-4.53	-4.43	-5.15	-5.35	-6.24	-6.55	-6.97	-7.33	-7.57	-7.92	-8.05	-8.29	-8.48	-8.97	-8.88	-9.40		
Efficiency (%)	43.67	43.40	42.18	38.90	36.10	32.41	30.53	27.81	26.29	24.05	21.40	19.22	16.82	15.35	13.59	13.20	11.35	11.17	9.27	8.86	7.82	7.04	6.66	6.07	5.85	5.46	5.33	4.77	4.77	4.13		
Directivity (dB)	3.97	3.93	3.75	3.57	3.51	3.57	3.81	3.94	4.04	3.93	3.91	3.85	3.88	3.89	4.14	4.36	4.30	4.17	4.09	3.98	4.09	4.19	4.19	4.24	4.28	4.34	4.26	4.25	4.33	4.45		
Peak Gain Position (Theta)	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	105.00	120.00	120.00		
Peak Gain Position (Phi)	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	270.00	255.00	255.00	255.00	255.00	0.00	255.00		
Efficiency ThetaPol (%)	28.63	28.58	28.09	26.22	24.45	21.97	20.62	18.76	17.73	16.25	14.49	12.99	11.31	10.32	9.14	8.89	7.67	7.60	6.35	6.13	5.44	4.93	4.71	4.33	4.19	3.94	3.87	3.48	3.51	3.05		
Efficiency PhiPol (%)	15.04	14.82	14.09	12.68	11.65	10.44	9.91	9.05	8.56	7.80	6.91	6.23	5.51	5.03	4.45	4.31	3.68	3.56	2.92	2.73	2.38	2.11	1.96	1.75	1.65	1.52	1.46	1.28	1.27	1.08		
Upper Hem. Efficiency (%)	20.88	20.77	20.20	18.54	17.03	15.10	14.08	12.74	11.99	10.95	9.70	8.61	7.41	6.65	5.78	5.55	4.75	4.67	3.86	3.65	3.18	2.84	2.68	2.44	2.36	2.19	2.13	1.89	1.87	1.60		
Lower Hem. Efficiency (%)	22.80	22.63	21.97	20.37	19.07	17.32	16.45	15.07	14.31	13.09	11.70	10.61	9.41	8.70	7.81	7.66	6.60	6.50	5.41	5.21	4.64	4.20	3.99	3.64	3.49	3.27	3.20	2.88	2.91	2.53		
T90(H)角度	6.93	7.11	7.93	8.64	9.34	9.22	9.07	8.38	8.83	9.21	9.95	10.52	10.52	10.79	10.14	10.04	9.87	10.52	11.41	13.05	13.62	13.97	13.25	12.79	12.26	12.53	13.42	14.01	14.68	14.90	14.35	
Gain 15deg (dBi)	116.00	116.00	117.00	112.00	106.00	100.00	104.00	99.00	101.00	96.00	96.00	95.00	97.00	93.00	91.00	92.00	92.00	91.00	94.00	94.00	93.00	90.00	86.00	83.00	89.00	87.00	89.00	87.00	65.00	62.00	61.00	
E1(XZ)波瓣宽度	5.28	5.55	5.44	5.45	5.37	5.14	4.95	5.08	5.11	5.37	5.39	5.52	5.35	5.37	5.37	5.13	5.08	5.08	4.90	4.94	4.75	4.78	4.71	4.77	4.75	4.61	4.69	4.81	5.17	5.38	5.55	
E2(YZ)波瓣宽度	105.00	129.00	121.00	119.00	117.00	120.00	119.00	122.00	121.00	118.00	80.00	78.00	77.00	76.00	76.00	78.00	78.00	78.00	100.00	99.00	97.00	94.00	63.00	64.00	64.00	64.00	62.00	60.00	59.00	59.00	59.00	
E2(YZ)前后比	6.98	6.80	6.09	5.17	4.73	4.46	4.72	4.99	5.21	5.30	4.95	4.65	4.69	4.65	4.68	4.69	4.78	4.80	4.85	4.62	4.53	4.59	4.43	4.45	4.38	4.32	4.14	3.97	3.83	3.80	3.80	
最大增益处输出(P)	19.15	19.53	19.28	20.69	26.43	24.70	20.56	31.96	26.24	25.59	23.19	28.44	32.34	17.92	17.18	16.53	17.16	12.63	12.48	12.25	11.83	14.43	14.21	13.70	12.67	12.32	11.64	11.14	10.48	9.99	9.77	
顶点(Theta=0)处输出(P)	21.53	21.81	23.46	23.48	20.74	22.74	24.29	25.75	27.94	28.49	31.85	51.03	33.10	27.69	26.68	25.51	30.65	20.19	16.18	15.93	14.79	15.98	14.16	10.96	11.07	14.24	23.32	19.24	11.31	9.01	10.26	
仰角10度处最大(大)轴比(P)	46.55	53.65	55.46	60.32	56.23	76.90	66.03	68.14	65.46	64.14	66.26	57.99	66.84	57.59	70.67	57.78	55.07	78.22	60.01	53.60	47.45	47.51	51.91	49.78	49.34	49.84	52.52	52.07	52.01	54.38		
Hc(XY)波瓣宽度	293.00	291.00	287.00	279.00	240.00	238.00	243.00	274.00	270.00	270.00	257.00	233.00	231.00	234.00	238.00	240.00	252.00	241.00	230.00	225.00	223.00	224.00	225.00	231.00	234.00	234.00	228.00	227.00	228.00	231.00	230.00	
Hc(XY)前后比	0.48	0.39	0.02	0.00	0.00	0.00	0.00	0.00	0.30	0.12	0.19	0.00	0.00	0.00	0.00	0.00	0.17	0.42	0.50	0.54	0.58	0.46	0.37	0.30	0.21	0.39	0.54	0.52	0.42	0.13	0.00	
左旋圆极化效率(%)	3.33	3.25	3.22	3.34	3.25	3.71	3.99	4.41	4.27	4.59	4.67	5.06	5.41	5.95	6.55	7.44	8.11	8.52	9.11	9.47	10.37	11.60	13.12	14.45	16.19	16.81	18.53	19.32	20.68	21.50	22.13	
右旋圆极化效率(%)	3.01	2.91	2.94	3.21	3.29	3.77	3.94	4.33	4.07	4.29	4.32	4.78	5.25	5.90	6.44	7.04	7.43	7.71	8.13	8.51	9.38	10.39	11.72	12.91	14.72	15.22	16.16	16.56	17.67	19.16	20.59	
Empty																																
T90(H)角度	13.59	13.08	12.73	13.06	14.30	15.22	16.35	17.22	17.77	19.01	19.80	21.51	22.02	23.29	22.26	21.94	20.64	20.57	19.85	19.90	18.06	16.64	14.42	13.03	13.01	12.78	12.89	11.75	11.41	12.46		
Gain 15deg (dBi)	58.00	58.00	57.00	57.00	58.00	77.00	76.00	76.00	77.00	78.00	76.00	75.00	74.00	73.00	69.00	71.00	69.00	69.00	68.00	67.00	64.00	63.00	62.00	60.00	60.00	57.00	56.00	50.00	49.00			
E1(XZ)波瓣宽度	5.74	5.75	5.67	5.62	5.42	5.08	4.86	4.49	4.28	4.12	3.99	3.90	3.66	3.56	3.39	3.31	3.09	3.02	2.86	2.60	2.58	2.52	2.51	2.33	2.38	2.20	2.17	2.07	2.23	1.99		
E2(YZ)波瓣宽度	60.00	60.00	61.00																													

Peak Gain:

2390MHz	2410MHZ	2490MHZ
-0.10dbi	0.37db i	-1.76db i







