

Kunshan Jinkang Electronics Co., LTD
Antenna specification

1. Antenna specifications

Antenna gain: 2.4G:3.0dBi
5G Band1:2.75dBi;
5G Band2:2.30dBi;
5G Band3:2.60dBi;
5G Band4:2.00dBi;
Antenna Type: External Antenna
Antenna model: KC-DBOX16
Length: 86mm
Frequency Band: 2400~2500MHz,5150~5850MHz

2. Test equipment

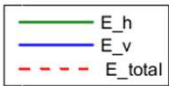
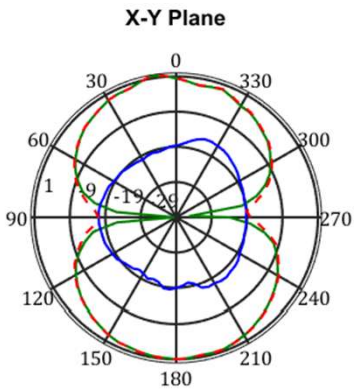
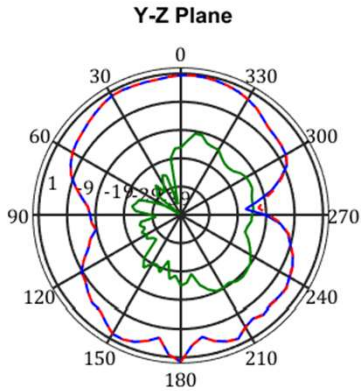
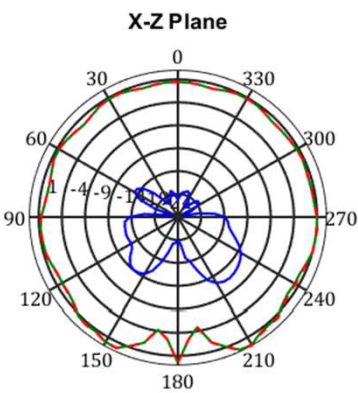
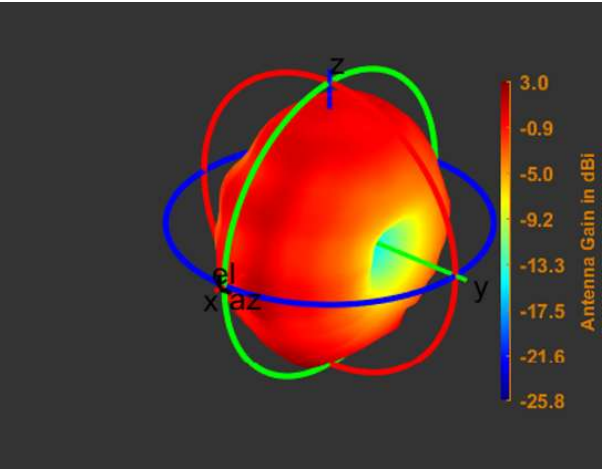
Test system: shielded darkroom
Test environment: Temperature 22°C±3°C, humidity 50%±15%

3. Efficiency:

Frequency (MHz)	Gain(dBi)	Average Gain(dBi)	Efficiency(dB)	Efficiency(%)
2400	2.7706	-1.3619	-1.8563	65.2186
2450	3.0042	-3.7878	-2.8002	52.4779
2500	2.5663	-3.4055	-2.3124	58.7169
5150	2.7519	-4.5023	-3.819	41.5052
5250	2.3048	-4.5216	-3.8785	40.9406
5350	1.9484	-4.6282	-4.1138	38.781
5470	2.5959	-4.6169	-4.2001	38.0179
5600	1.8957	-4.711	-4.3331	36.8716
5725	1.5867	-4.7331	-4.267	37.4373
5785	1.8828	-4.7198	-4.1304	38.633
5800	1.8824	-4.6679	-4.0422	39.426
5850	2.0069	-4.8687	-4.1384	38.5616

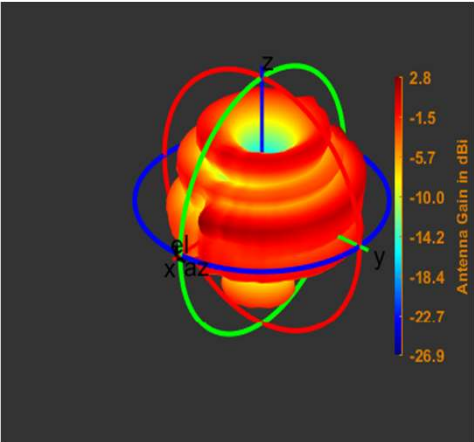
4. Radiation Pattern

4.1 2450MHz

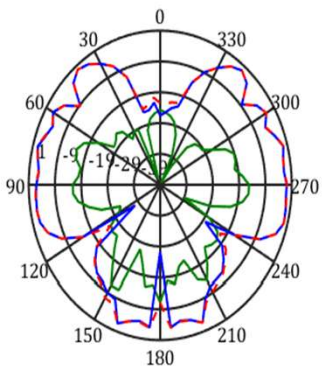


dBi	X-Z plane	Y-Z plane	X-Y plane
$E_h(max)$	2.86	-18.08	1.66
$E_v(max)$	-11.62	2.54	-15.36
$E_{total}(max)$	2.98	2.55	1.7
$E_h(min)$	-4.88	-48.44	-38.4
$E_v(min)$	-28.01	-26.13	-20.81
$E_{total}(min)$	-4.74	-21.52	-19.05
$E_h(avg)$	0.45	-25.44	-3.05
$E_v(avg)$	-20.97	-4.34	-18.55
$E_{total}(avg)$	0.46	-4.29	-2.96
degree	X-Z plane	Y-Z plane	X-Y plane
$E_h(max)$	-150	-135	10
$E_v(max)$	-140	180	-25
$E_{total}(max)$	-150	180	10
$E_h(min)$	-170	55	90
$E_v(min)$	75	-85	145
$E_{total}(min)$	-170	-85	-85
$E_h(3dB)$	203.05	41.81	58.32
$E_v(3dB)$	42.34	8.81	58
$E_{total}(3dB)$	147.08	8.82	59.1

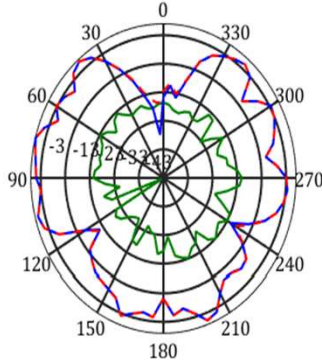
4.2 5150MHz



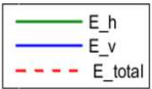
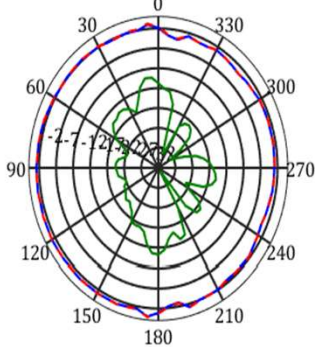
frequency=5150MHz, X-Z Plane



frequency=5150MHz, Y-Z Plane

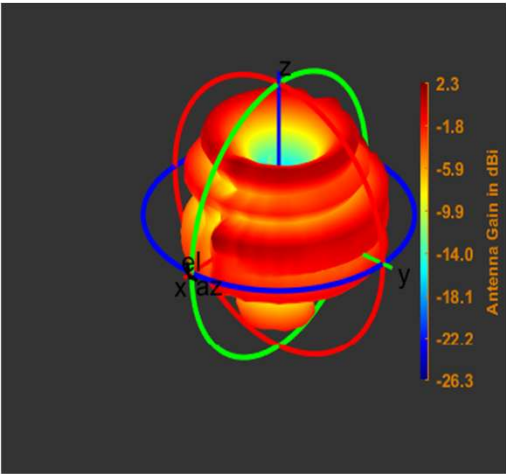


frequency=5150MHz, X-Y Plane

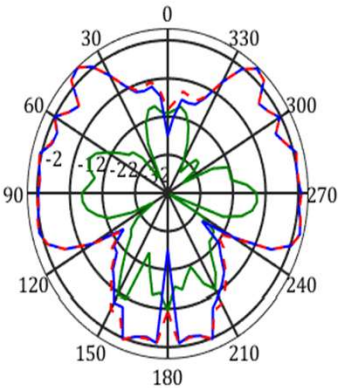


dBi	X-Z plane	Y-Z plane	X-Y plane
E_h(max)	-11.28	-21.02	-14.2
E_v(max)	-0.24	0.94	0.16
E_total(max)	-0.23	0.95	0.28
E_h(min)	-48.15	-52.15	-36.06
E_v(min)	-37.38	-37.8	-4.35
E_total(min)	-25.85	-26.8	-4.15
E_h(avg)	-22.65	-27.16	-22.95
E_v(avg)	-4.5	-5.89	-1.98
E_total(avg)	-4.25	-5.87	-1.9
degree	X-Z plane	Y-Z plane	X-Y plane
E_h(max)	180	-90	10
E_v(max)	40	75	175
E_total(max)	40	75	175
E_h(min)	-30	115	-145
E_v(min)	125	5	-10
E_total(min)	125	5	-10
E_h(3dB)	5.94	14.46	23.24
E_v(3dB)	15.04	23.42	191.39
E_total(3dB)	15.05	23.45	191.68

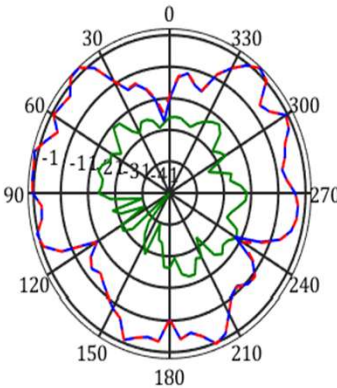
4.3 5250MHz



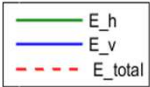
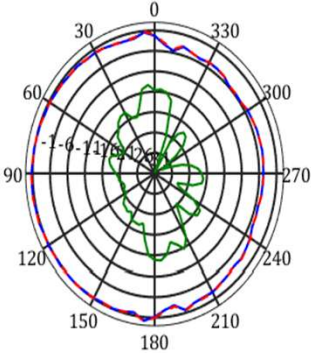
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frequency=5250MHz,Y-Z Plane

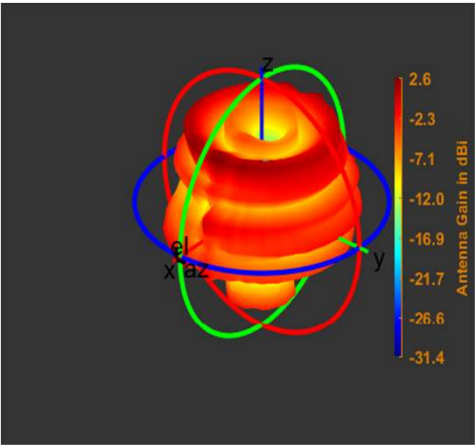


frequency=5250MHz, X-Y Plane

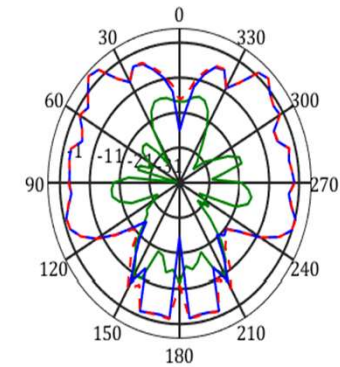


dBi	X-Z plane	Y-Z plane	X-Y plane
E_h(max)	-11.34	-21.89	-14.28
E_v(max)	0.89	0.8	-0.08
E_total(max)	0.9	0.82	0.03
E_h(min)	-41.26	-50.82	-35.77
E_v(min)	-29.18	-28.21	-5.75
E_total(min)	-24.35	-25.43	-5.72
E_h(avg)	-21.47	-27.29	-23.01
E_v(avg)	-5.07	-6.49	-2.41
E_total(avg)	-5.01	-6.43	-2.25
degree	X-Z plane	Y-Z plane	X-Y plane
E_h(max)	150	45	5
E_v(max)	40	40	175
E_total(max)	40	40	175
E_h(min)	-115	135	-25
E_v(min)	-125	5	-45
E_total(min)	125	5	-55
E_h(3dB)	9.59	11.74	27.18
E_v(3dB)	12.54	13.21	189.5
E_total(3dB)	12.55	13.21	190.76

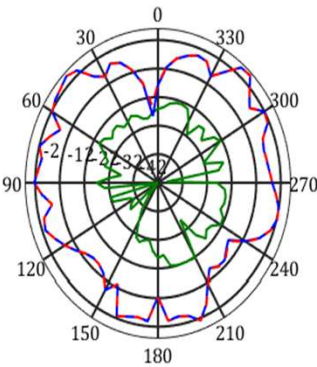
4.4 5470MHz



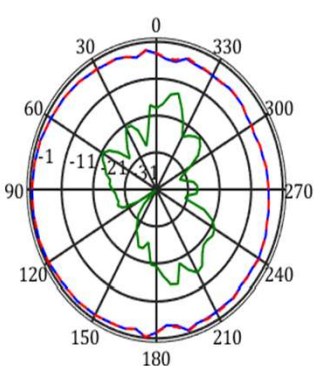
frequency=5470MHz, X-Z Plane



frequency=5470MHz, Y-Z Plane

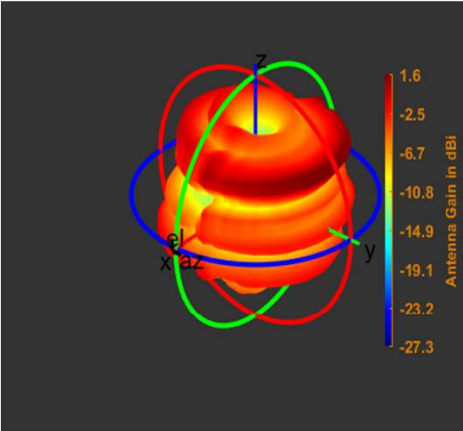


frequency=5470MHz, X-Y Plane

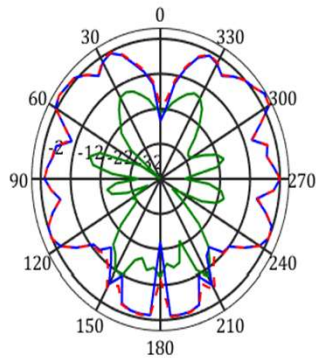


dBi	X-Z plane	Y-Z plane	X-Y plane
E_h(max)	-10.63	-21.7	-14.08
E_v(max)	2.04	1.1	-1.26
E_total(max)	2.05	1.11	-1.21
E_h(min)	-40.27	-51.94	-40.71
E_v(min)	-26.13	-28.54	-6.62
E_total(min)	-21.55	-24.82	-6.61
E_h(avg)	-20.18	-27.15	-24.54
E_v(avg)	-4.71	-5.96	-3.25
E_total(avg)	-4.63	-5.89	-3.05
degree	X-Z plane	Y-Z plane	X-Y plane
E_h(max)	150	-150	-15
E_v(max)	45	-45	175
E_total(max)	45	-45	175
E_h(min)	80	100	130
E_v(min)	0	5	-65
E_total(min)	135	5	-65
E_h(3dB)	10.48	24.73	13.31
E_v(3dB)	12.04	11.43	172.05
E_total(3dB)	12.05	11.43	237.77

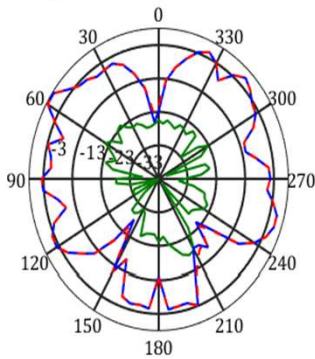
4.5 5470MHz



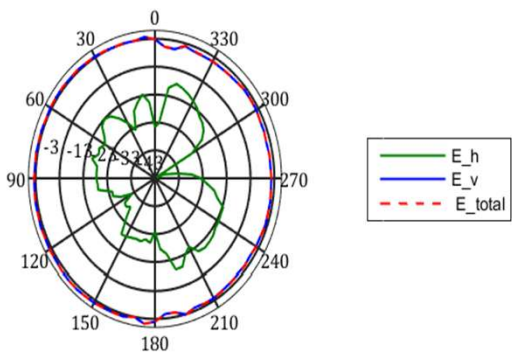
frequency=5725MHz, X-Z Plane



frequency=5725MHz, Y-Z Plane

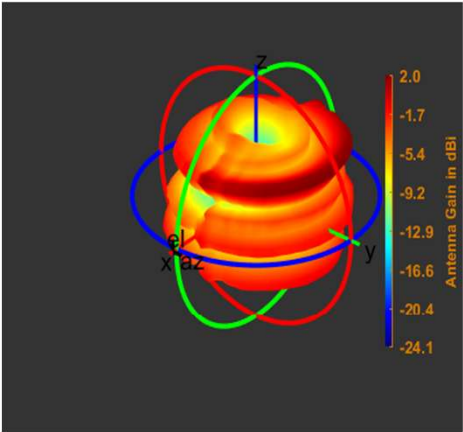


frequency=5725MHz, X-Y Plane

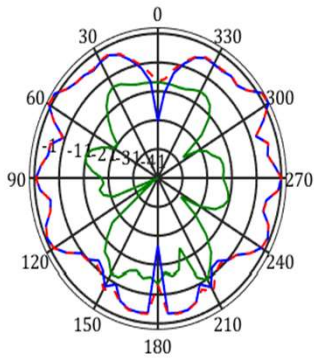


dBi	X-Z plane	Y-Z plane	X-Y plane
E_h(max)	-10.16	-17.88	-17.97
E_v(max)	0.46	1.57	-1.08
E_total(max)	0.46	1.58	-1.07
E_h(min)	-41.88	-42.92	-52.16
E_v(min)	-25.53	-28.11	-6.01
E_total(min)	-20.93	-26.19	-5.84
E_h(avg)	-21.51	-26.42	-27.9
E_v(avg)	-5.09	-5.14	-2.95
E_total(avg)	-4.84	-5.1	-2.94
degree	X-Z plane	Y-Z plane	X-Y plane
E_h(max)	-150	-155	-15
E_v(max)	-55	55	175
E_total(max)	-55	55	175
E_h(min)	55	125	-65
E_v(min)	0	145	-10
E_total(min)	0	145	-10
E_h(3dB)	9.64	16.61	20.5
E_v(3dB)	19.04	13.12	185.96
E_total(3dB)	19.14	13.13	185.97

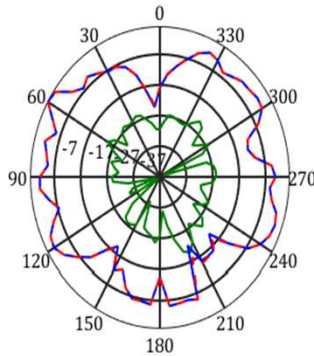
4.6 5850MHz



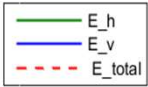
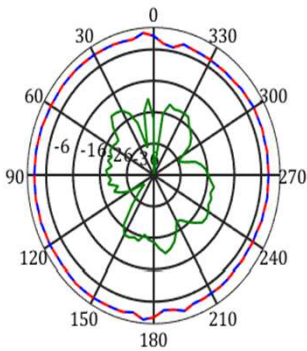
frequency=5850MHz, X-Z Plane



frequency=5850MHz,Y-Z Plane



frequency=5850MHz, X-Y Plane



dBi	X-Z plane	Y-Z plane	X-Y plane
E _h (max)	-10.71	-19.8	-20.67
E _v (max)	0.72	1.98	-0.14
E _{total} (max)	0.72	1.99	-0.12
E _h (min)	-50.9	-46.18	-45.55
E _v (min)	-31.37	-24.1	-4.74
E _{total} (min)	-17.61	-23.35	-4.71
E _h (avg)	-21.48	-27.94	-26.39
E _v (avg)	-5.65	-5.6	-1.98
E _{total} (avg)	-5.4	-5.55	-1.97
degree	X-Z plane	Y-Z plane	X-Y plane
E _h (max)	-150	-155	-170
E _v (max)	-60	60	175
E _{total} (max)	-60	60	175
E _h (min)	115	125	-5
E _v (min)	0	5	-10
E _{total} (min)	0	5	-10
E _h (3dB)	9.99	12.64	18.32
E _v (3dB)	12.05	11.57	223.66
E _{total} (3dB)	12.06	11.57	223.75

5. Dimension drawing

