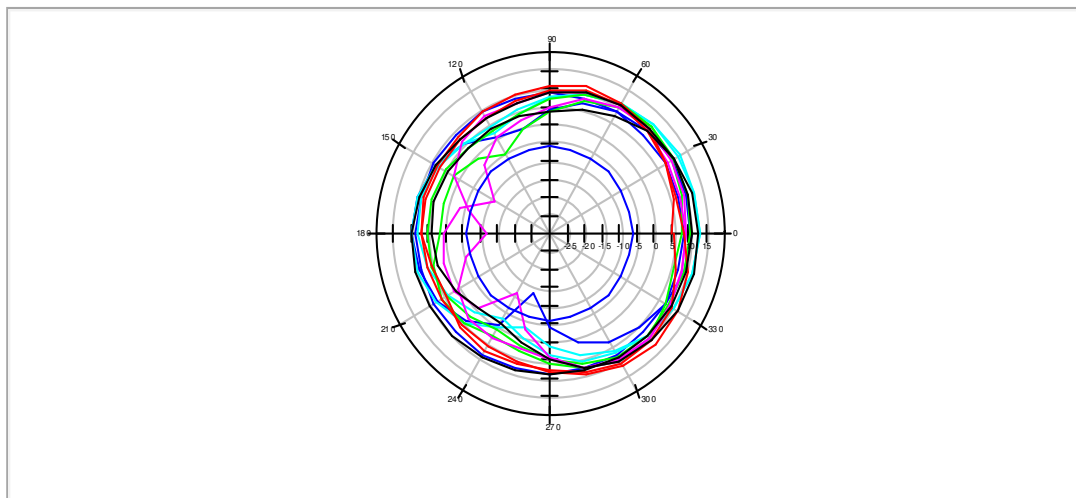


EMI test

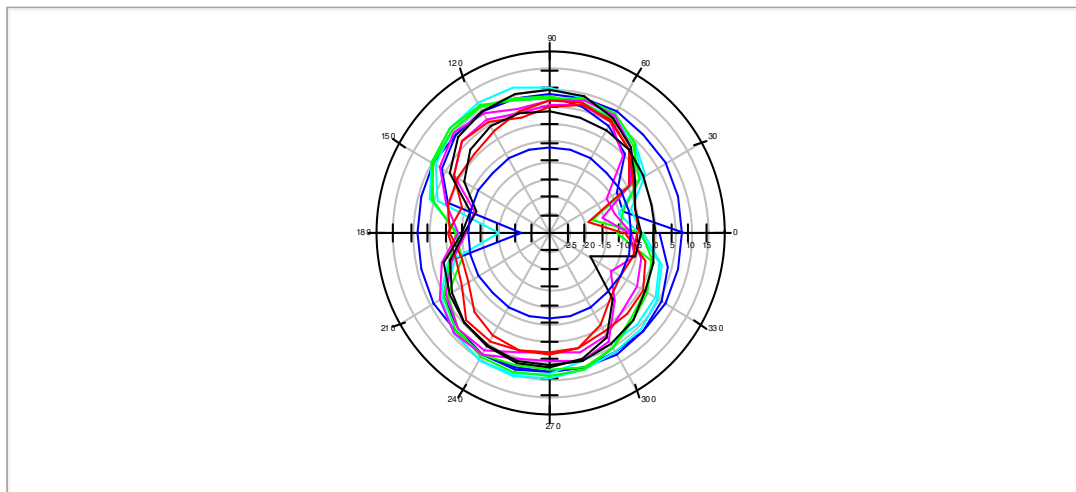
Common Information

Test Description:	KLF200 iO-2.4GHz
EUT Description:	
Test Site:	VELUX Radiated Chamber
Test Standard:	Total Radiated Test, TRP
Operator Name:	Jasim Hashem
Comment:	The conducted power measured with spectrum analyzer is 12.7 dBm while in this test is given to be 0 dBm, The calculation of efficiency and gain at this report are based on 0 dBm conducted and should manually do an new calculation based on 12.7 dBm conducted power.

RP_2450.500_hor



RP_2450.500_ver



OTA Test Results for Frequency 2450.500 MHz

OTA Evaluation Results:

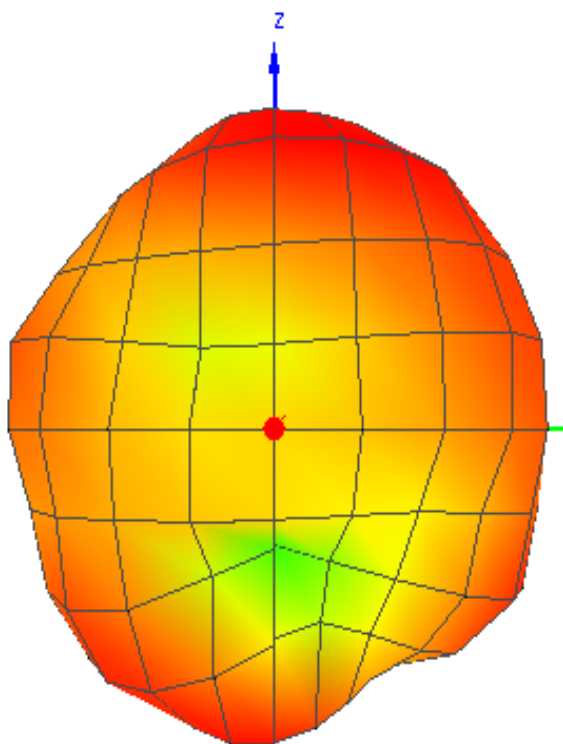
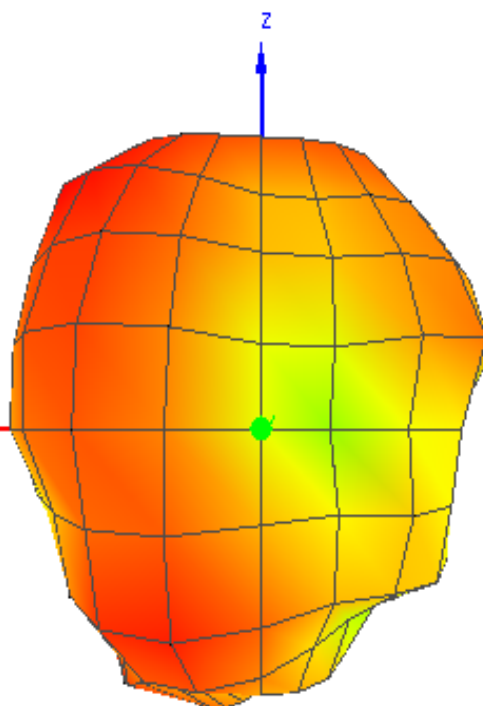
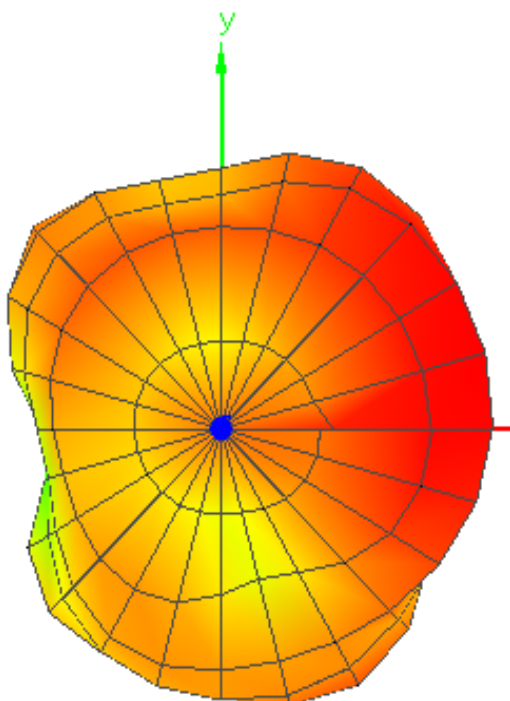
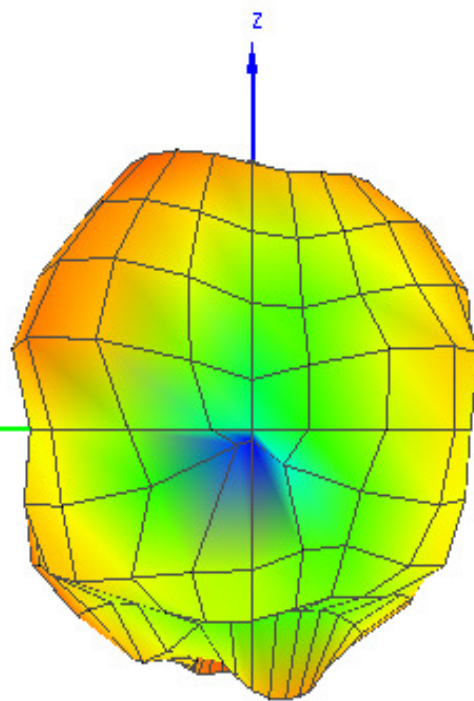
Total Radiated Power	10,14 dBm
Peak EIRP	13,57 dBm
Directivity	3,43 dBi
Efficiency	10,14 dB
Efficiency	1032,75 %
Gain	13,57 dBi
NHPRP 45°	8,37 dBm
NHPRP 45° / TRP	-1,77 dB
NHPRP 45° / TRP	66,51 %
NHPRP 30°	6,62 dBm
NHPRP 30° / TRP	-3,52 dB
NHPRP 30° / TRP	44,46 %
NHPRP 22.5°	5,35 dBm
NHPRP 22.5° / TRP	-4,79 dB
NHPRP 22.5° / TRP	33,17 %
UHRP	7,54 dBm
UHRP / TRP	-2,60 dB
UHRP / TRP	54,96 %
LHRP	6,68 dBm
LHRP / TRP	-3,46 dB
LHRP / TRP	45,04 %
Front/Back Ratio	6,54
PhiBW	207,7 deg
PhiBW Up	71,5 deg
PhiBW Down	136,2 deg
ThetaBW	75,3 deg
ThetaBW Up	22,6 deg
ThetaBW Down	52,7 deg
Boresight Phi	15 deg
Boresight Theta	45 deg
Maximum Power	13,57 dBm
Minimum Power	-4,70 dBm
Average Power	10,11 dBm
Max/Min Ratio	18,28 dB
Max/Avg Ratio	3,46 dB
Min/Avg Ratio	-14,81 dB
Best Single Value	13,52 dBm
Best Position	Phi = 15 deg; Theta = 45 deg; Pol = Hor

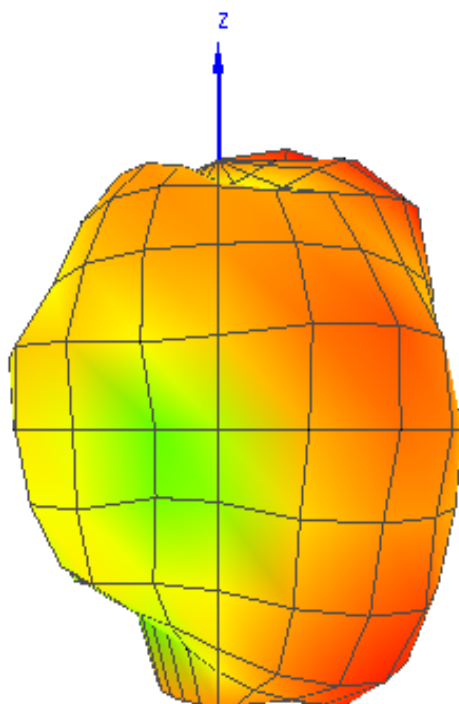
RP_2450.500_tot

Azimuth (deg)	Elevation 0 deg (dB)	Elevation 15 deg (dB)	Elevation 30 deg (dB)	Elevation 45 deg (dB)	Elevation 60 deg (dB)	Elevation 75 deg (dB)	Elevation 90 deg (dB)	Elevation 105 deg (dB)
0.00	11.49	12.96	13.42	13.49	10.79	8.74	9.70	9.57
15.00	11.49	11.11	13.36	13.57	11.30	9.87	10.03	9.20
30.00	11.49	10.83	13.16	13.50	11.92	11.11	10.67	9.16
45.00	11.49	10.51	12.90	13.30	12.45	12.14	11.57	10.23
60.00	11.49	10.05	12.57	12.71	12.47	12.35	12.02	11.71
75.00	11.49	9.49	12.18	11.53	11.56	11.15	11.19	11.94
90.00	11.49	9.11	11.93	10.29	10.18	8.72	8.63	10.31
105.00	11.49	9.14	11.95	10.20	9.98	8.48	7.19	9.11
120.00	11.49	9.43	12.02	10.86	10.80	10.61	8.88	9.86
135.00	11.49	9.75	11.94	11.14	11.17	11.41	9.18	9.07
150.00	11.49	9.96	11.65	10.62	10.43	10.11	6.84	5.12
165.00	11.49	10.00	11.10	9.40	8.53	6.50	2.25	-3.51
180.00	11.49	9.88	10.45	8.05	6.17	3.11	1.87	-4.70
195.00	11.49	9.71	10.10	7.67	5.86	5.79	5.07	0.71
210.00	11.49	9.57	10.31	8.52	7.44	8.59	7.73	5.90
225.00	11.49	9.44	10.73	9.73	8.98	9.91	9.32	8.89
240.00	11.49	9.25	10.87	10.65	10.00	9.79	8.66	8.87
255.00	11.49	8.94	10.44	10.94	10.51	9.07	6.24	6.58
270.00	11.49	8.74	9.41	10.76	10.80	9.91	7.58	7.10
285.00	11.49	9.01	8.64	10.68	11.07	11.49	10.43	9.73
300.00	11.49	9.73	9.40	11.00	11.06	12.05	11.55	10.86
315.00	11.49	10.55	11.06	11.61	10.68	11.37	11.32	10.92
330.00	11.49	11.15	12.43	12.35	10.40	9.76	10.27	10.46
345.00	11.49	11.45	13.23	13.06	10.44	8.36	9.56	10.03
360.00	11.49	11.48	13.50	13.46	10.74	8.67	9.71	9.72

(continuation of the "RP_2450.500_tot" table from column 9 ...)

Azimuth (deg)	Elevation 120 deg (dB)	Elevation 135 deg (dB)	Elevation 150 deg (dB)	Elevation 165 deg (dB)	Elevation 180 deg (dB)
0.00	5.36	8.85	13.13	11.53	-3.27
15.00	6.88	7.93	12.45	11.73	-3.27
30.00	8.84	9.08	11.41	11.78	-3.27
45.00	11.06	10.85	10.53	11.64	-3.27
60.00	12.75	12.05	10.27	11.29	-3.27
75.00	13.03	12.18	10.39	10.72	-3.27
90.00	11.79	11.19	10.52	9.92	-3.27
105.00	10.25	9.52	10.45	9.01	-3.27
120.00	10.06	8.03	9.97	8.25	-3.27
135.00	9.85	7.43	8.70	7.96	-3.27
150.00	8.69	7.61	6.56	8.38	-3.27
165.00	7.85	7.90	4.77	9.20	-3.27
180.00	7.53	7.75	4.90	9.99	-3.27
195.00	5.98	7.03	5.48	10.51	-3.27
210.00	5.81	6.55	5.64	10.76	-3.27
225.00	8.33	6.96	5.86	10.84	-3.27
240.00	9.25	7.51	6.63	10.87	-3.27
255.00	8.72	8.14	7.86	10.91	-3.27
270.00	9.13	9.49	9.18	10.96	-3.27
285.00	10.64	11.14	10.35	10.99	-3.27
300.00	11.78	12.34	11.23	11.02	-3.27
315.00	12.28	12.94	12.05	11.04	-3.27
330.00	11.28	12.69	12.83	11.10	-3.27
345.00	8.13	11.32	13.30	11.23	-3.27
360.00	5.77	9.22	13.21	11.38	-3.27

Theta = 90, Phi = 0**Theta = 90, Phi = 90****Theta = 0, Phi = 0****Theta = 90, Phi = 180**

Theta = 90, Phi = 270**Theta = 180, Phi = 0**