

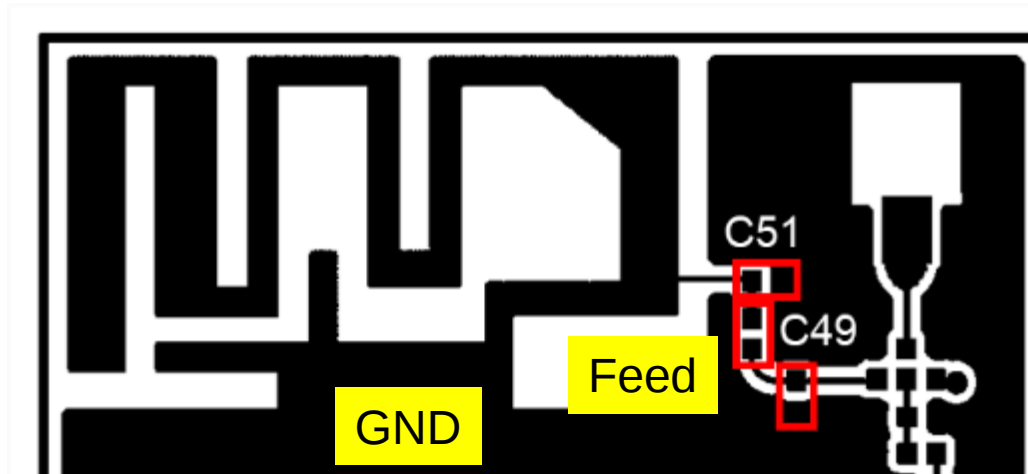
WCBN3602M_ANT Antenna Report

Outline

LITEON

- Overview
- Return Loss
- Radiation
- Summary

Overview - Proposed Pattern

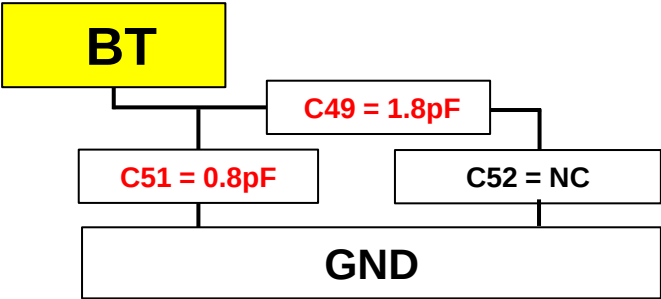
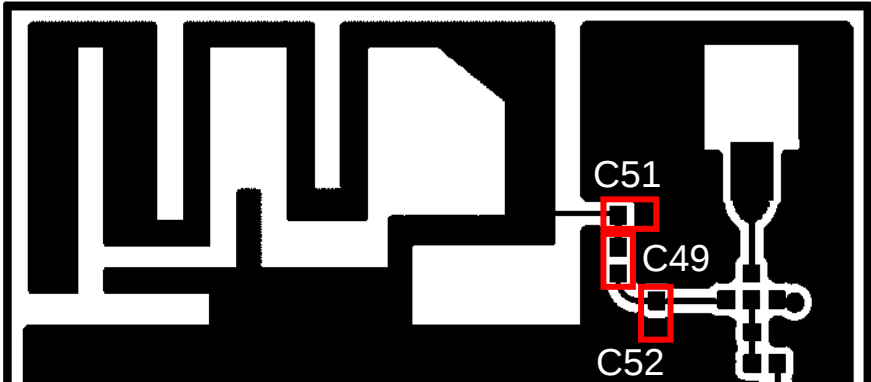
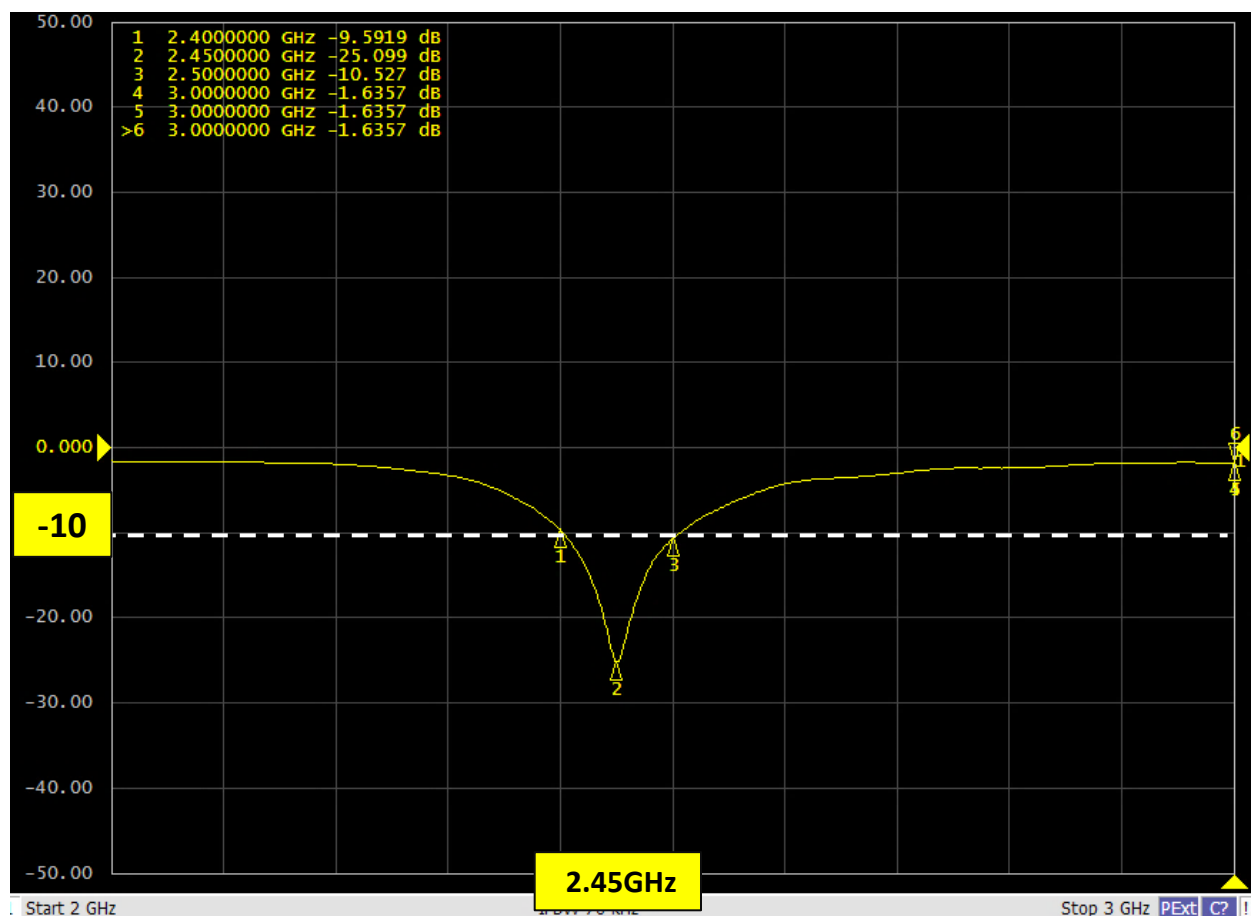


Condition:

- Single Band 2.45 GHz
 - Module dimension: 30mm*17mm*1mm
 - Antenna clearance: 6*11.3mm
 - Placement: Module + EVK
- EVK placement with the module

Return Loss

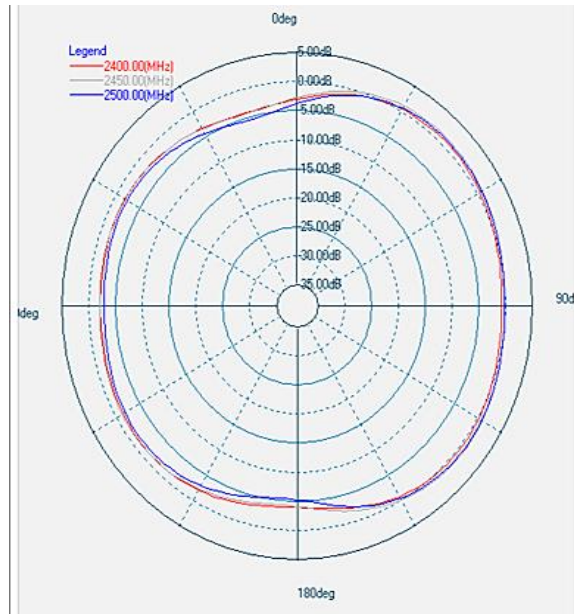
- The validation using the matching series 1.8pF, shunt 0.8pF.
- Antenna clearance: 25mm*10mm same.



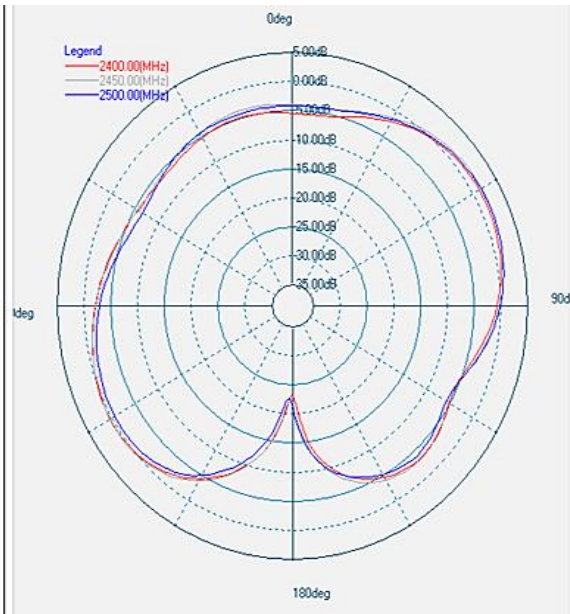
Frequency	Return Loss
2.40 GHz	-9.5 dB
2.45 GHz	-25.0 dB
2.50 GHz	-10.5 dB

Radiation Pattern

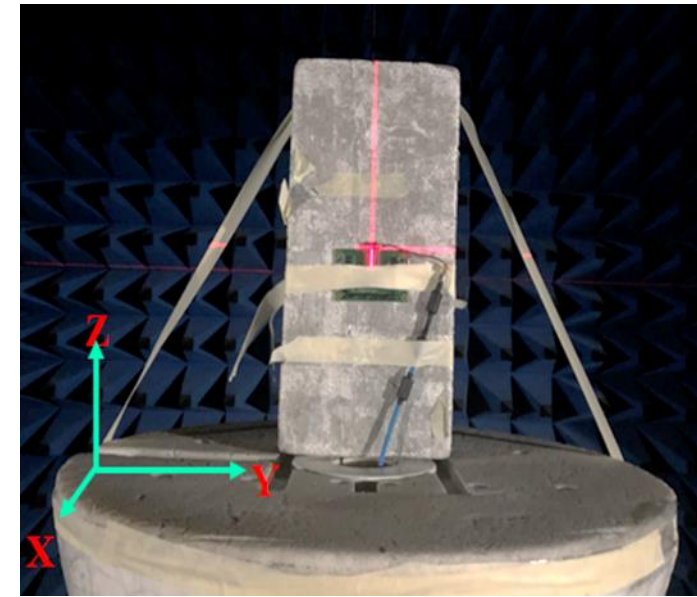
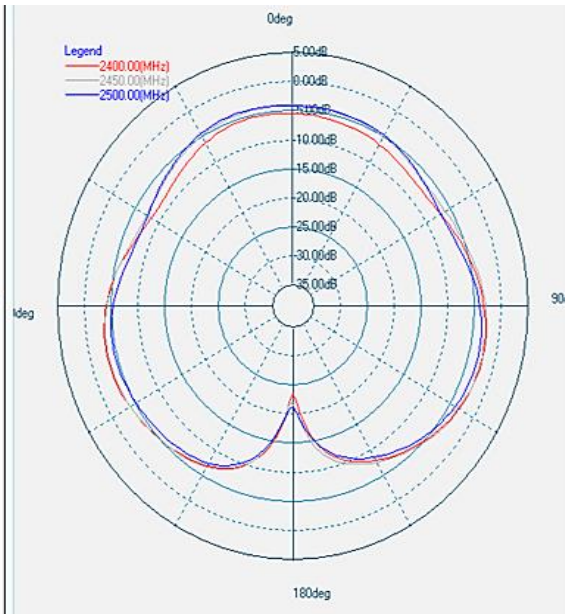
2.45GHz YZ Plane



2.45GHz XY Plane



2.45GHz XZ Plane



Summary

- Actual Module: Validate the DUT and fine-tune with the matching, confirm the efficiency can keep more than 50%.

Radiation Table		
Frequency(GHz)	Efficiency (%)	Peak Gain (dBi)
2.40 GHz	56%	1.3dBi
2.45 GHz	62%	1.8dBi
2.50 GHz	56%	1.9dBi

Manufacture name	Manufacture P/N	Brand Name	Model Name	Ant. Type	Connector	Support	Max Peak Gain
APCB	20323-078510B001	LITEON	WCBN3602M_ANT	Printed Ant	N/A	2.4G+BLE	1.9 dBi

Manufacture address:
No. 1818, Jinshajiang North Road, Economic and
Technological Development Zone, Kunshan City, Jiangsu
Province
江蘇省昆山市經濟技術開發區金沙江北路1818號

Frequency	Efficiency	Gain
2000	0.05	-10.19
2050	0.05	-10.18
2100	0.06	-8.96
2150	0.09	-7.27
2200	0.13	-5.49
2250	0.17	-4.55
2300	0.24	-3
2350	0.38	-0.76
2400	0.56	1.3
2410	0.57	1.32
2420	0.57	1.37
2430	0.58	1.42
2440	0.6	1.62
2450	0.62	1.87
2460	0.61	1.81
2470	0.6	1.9
2480	0.59	1.83
2490	0.57	1.8
2500	0.56	1.76
2550	0.42	0.51
2600	0.29	-1.13
2650	0.25	-1.66
2700	0.21	-2.46
2750	0.16	-3.58
2800	0.11	-5.26
2850	0.09	-6
2900	0.09	-6.38
2950	0.08	-7
3000	0.06	-7.88