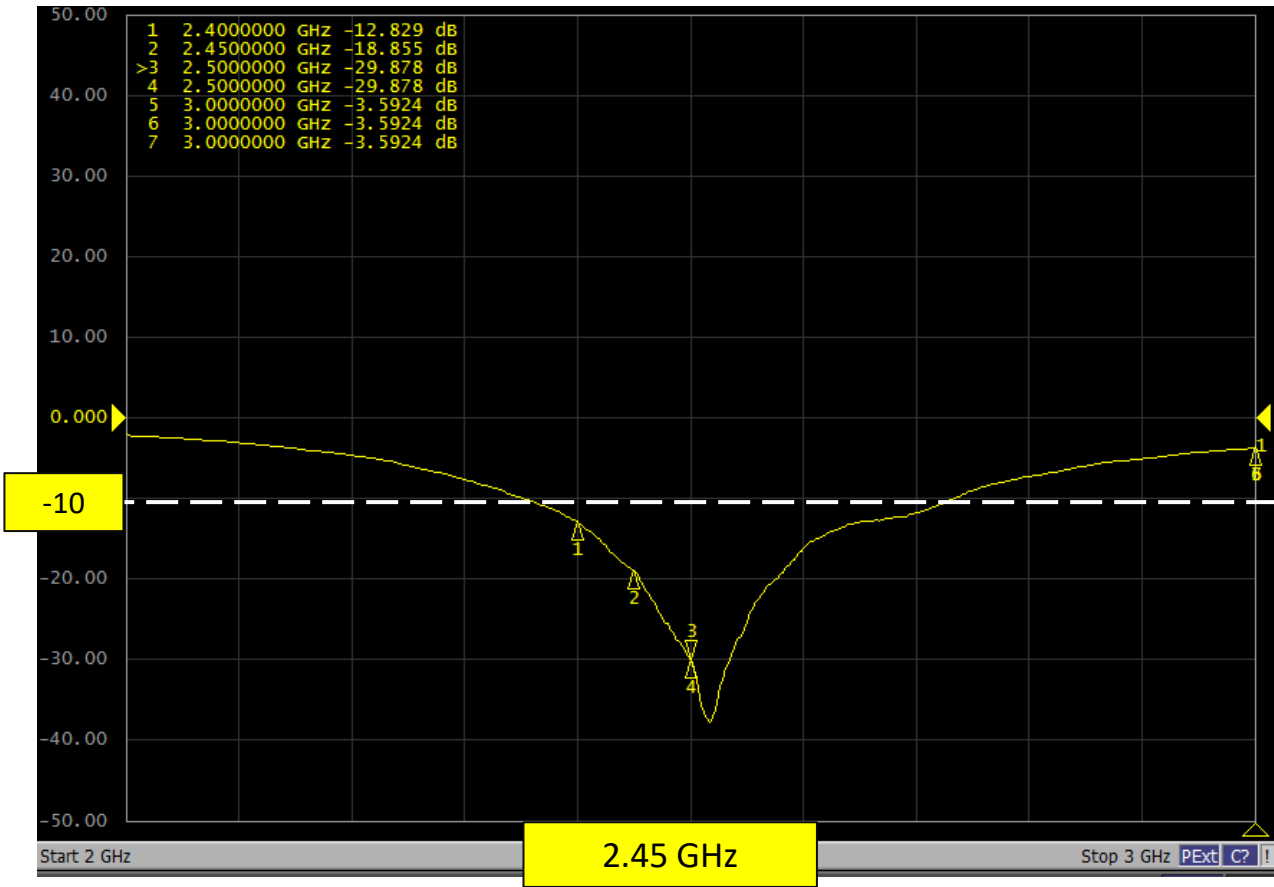


ZGP SENSOR (ES6501) Antenna Report

George
2023/04/20

V02(DVT) Modified PCB

- Confirm the modified pattern can improve the impedance and bandwidth.
- Assemble: MB + Battery + Mockup

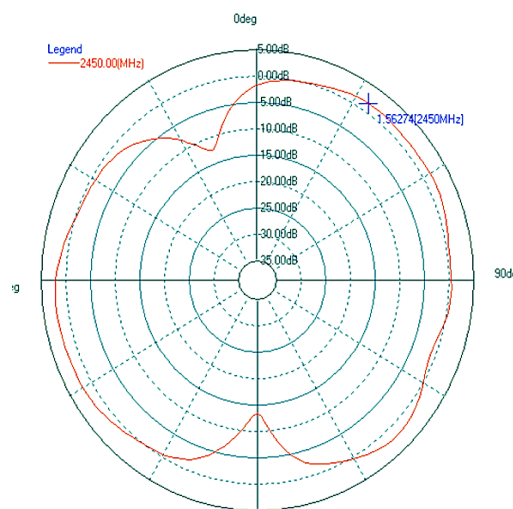


- v02 modified pattern

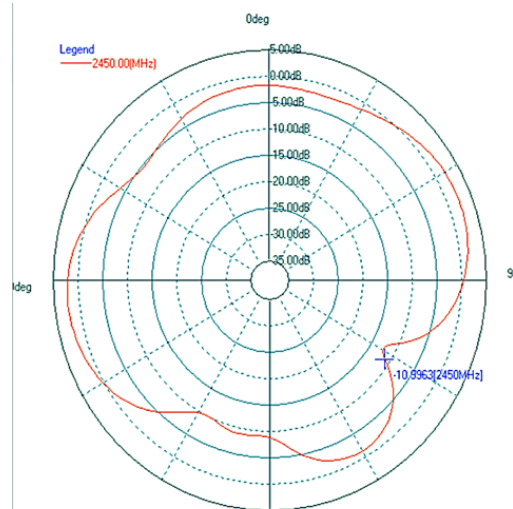
Frequency (GHz)	Return Loss (dB)
2.40 GHz	-12.8dB
2.45 GHz	-18.8dB
2.50 GHz	-29.8dB

V02(DVT) Modified PCB: Radiation Pattern

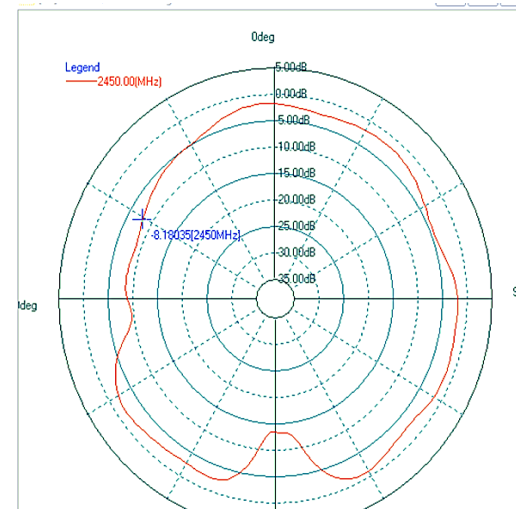
Date:20230420



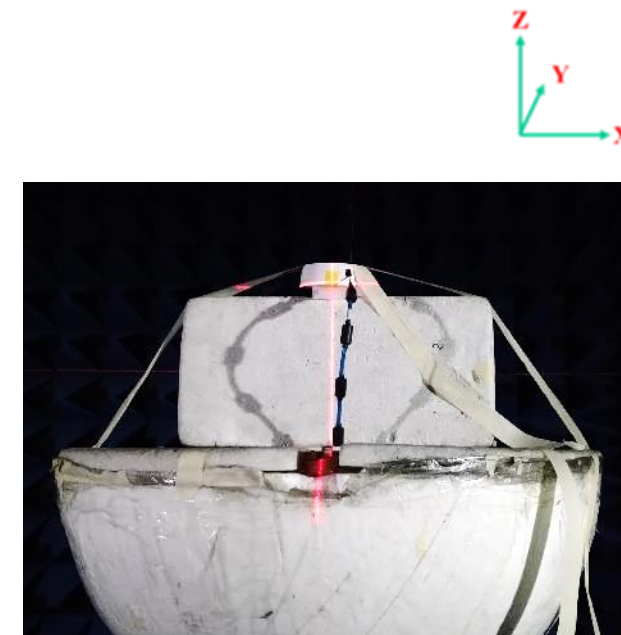
2.45GHz YZ Plane



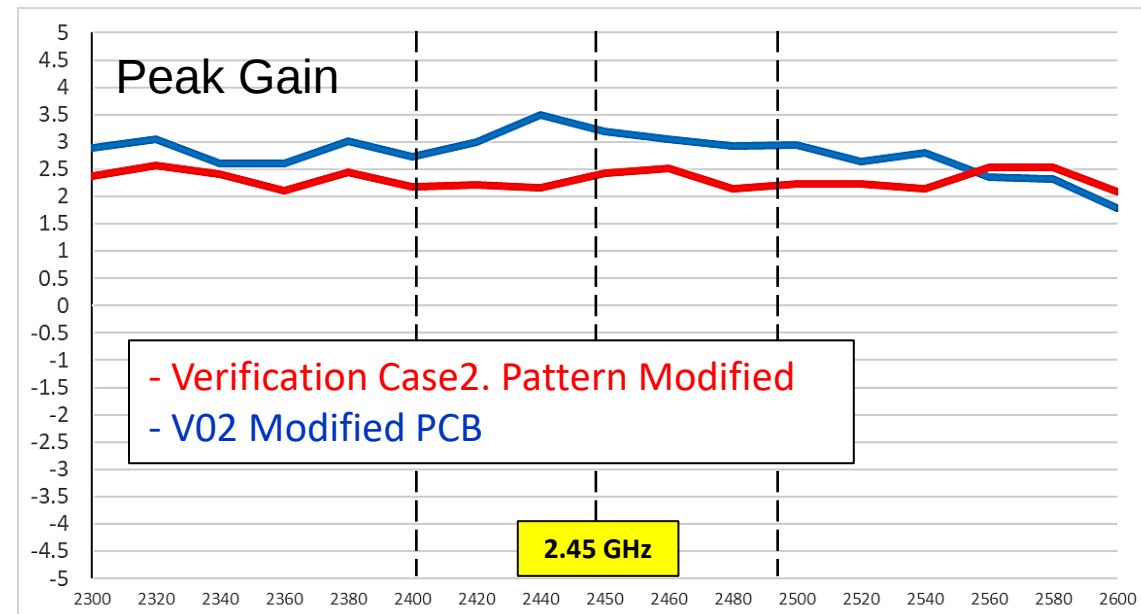
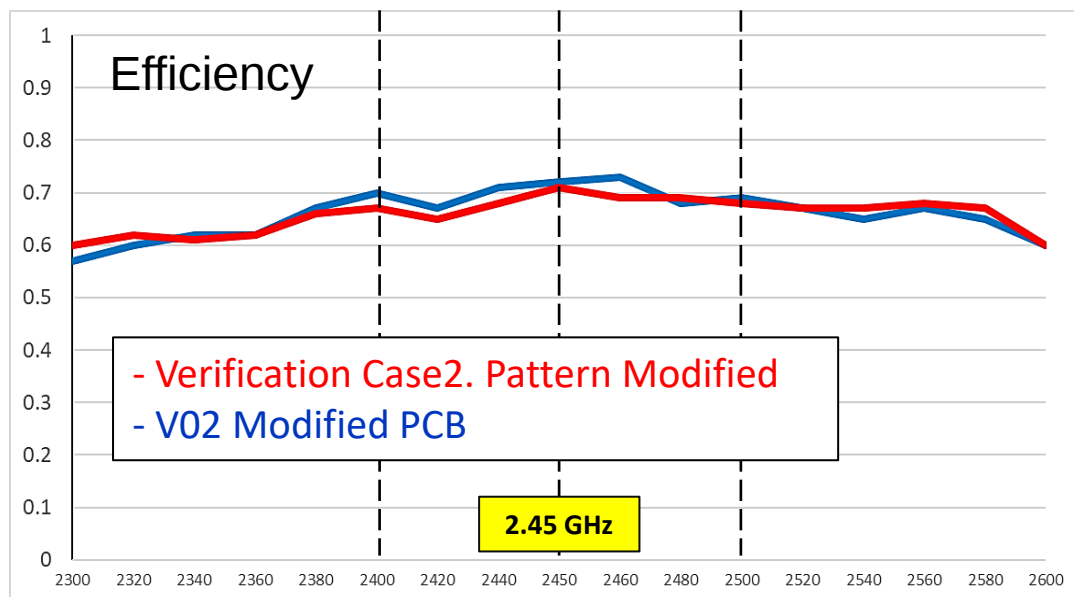
2.45GHz XY Plane



2.45GHz XZ Plane



V02(DVT) Modified PCB: Efficiency & Peak Gain



Comparison Table			
Frequency (GHz)	V02 Modified PCB		
	Return Loss(dB)	Efficiency(%)	Peak Gain(dBi)
2.40 GHz	-12.8dB	70%	2.7dBi
2.45 GHz	-18.8dB	72%	3.2dBi
2.50 GHz	-29.8dB	69%	2.9dBi

Table & Summary

- V02(DVT) mainboard confirm the prediction of the return loss & radiation

Summary Table		
Frequency (GHz)	V02(DVT) Modified PCB	
	Return Loss (dB)	Efficiency (%)
2.40 GHz	-12.8dB	70%
2.45 GHz	-18.8dB	72%
2.50 GHz	-29.8dB	69%