

M210 Antenna Test Report V1

Date: 2025/2/18

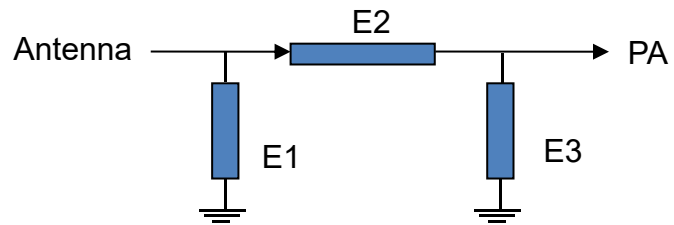
The main purpose of
this report: New project debugging

The main conclusion
of this report:

Antenna	frequency band	Material	Performance requirements
BT	2400-2480MHz	Onboard antenna	

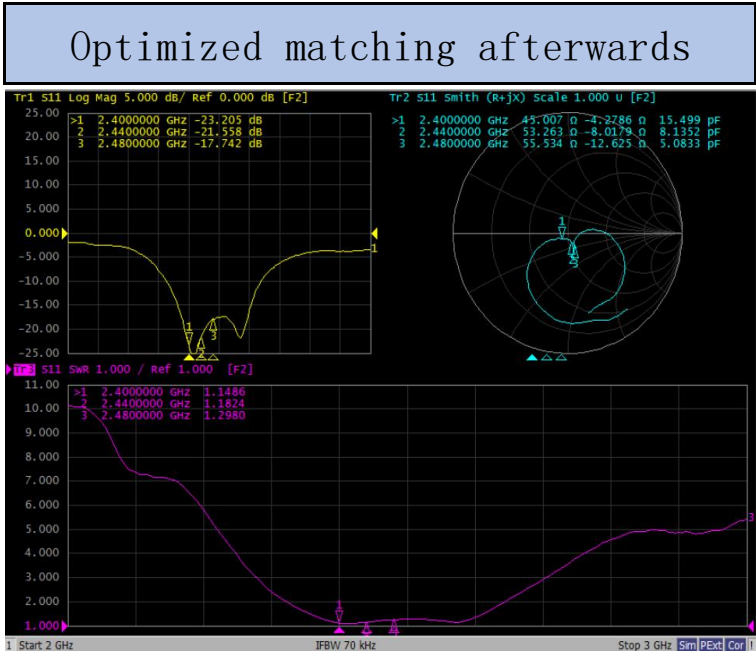
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Antenna terminal matching circuit:



BT	
Element	
E1(0402)	0.7pF
E2(0402)	0Ω
E3(0402)	

Antenna Passive S11 Parameter Test:



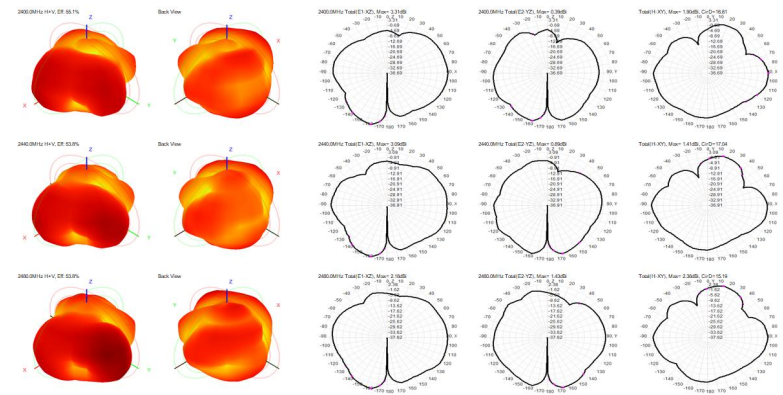
Freq (MHz)	2400	2440	2480
SWR	1.15	1.18	1.30
Log Mag	-23.20	-21.56	-17.74

Antenna Passive Efficiency and Gain Testing:

Optimized matching afterwards		
Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400	3.55	55.07
2410	3.67	56.39
2420	3.79	56.05
2430	3.80	55.40
2440	3.63	53.82
2450	3.70	52.62
2460	3.61	52.69
2470	3.33	53.38
2480	3.09	53.84
2490	3.01	54.88
2500	2.99	55.22

Antenna Passive Radiation Pattern:

Optimized matching afterwards



Antenna OTA Testing

Optimized matching afterwards		
Channels	TRP	TIS
0	5.37	-91.33
39	5.23	-90.27
78	4.36	-91.45

Antenna position and matching image:

