

EE30A - Antenna Approval sheet

- PCB Overview & Matching Value
- VSWR & Smith Chart / 3D Gain data
- 2D Radiation Pattern & Gain
- 3D Radiation pattern

Rev 1.0

December. 16 , 2024

Revision History

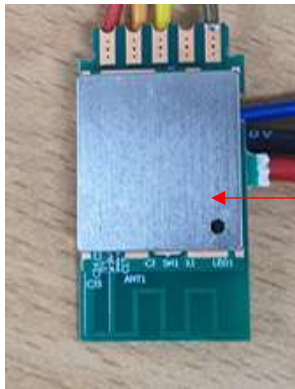
Version	Date	Editor	Notes
R1.0	December. 17, 2024	Ji.kwon	• Release

Electrical Characteristics

This specification covers the dielectric pattern antenna EE30A INUS Module used in RF4CE

ITEM		SPECIFICATION				
Frequency Range		2402 ~ 2480 MHz				
VSWR		3:1 Max				
Polarization		Linear				
Frequency [MHz]		2400	2430	2450	2470	2480
Gain [dBi]	Peak	1.39	-0.47	-1.48	-2.43	-1.83
	Average	-2.61	-4.49	-5.61	-6.65	-6.15
Efficiency [%]		54.87	35.58	27.46	21.63	24.26

PCB Overview & Matching Value

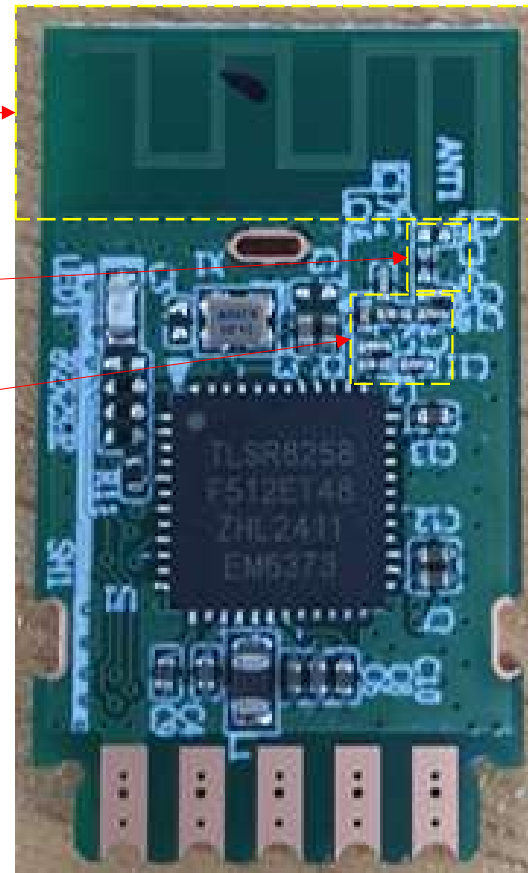


Shield CAN

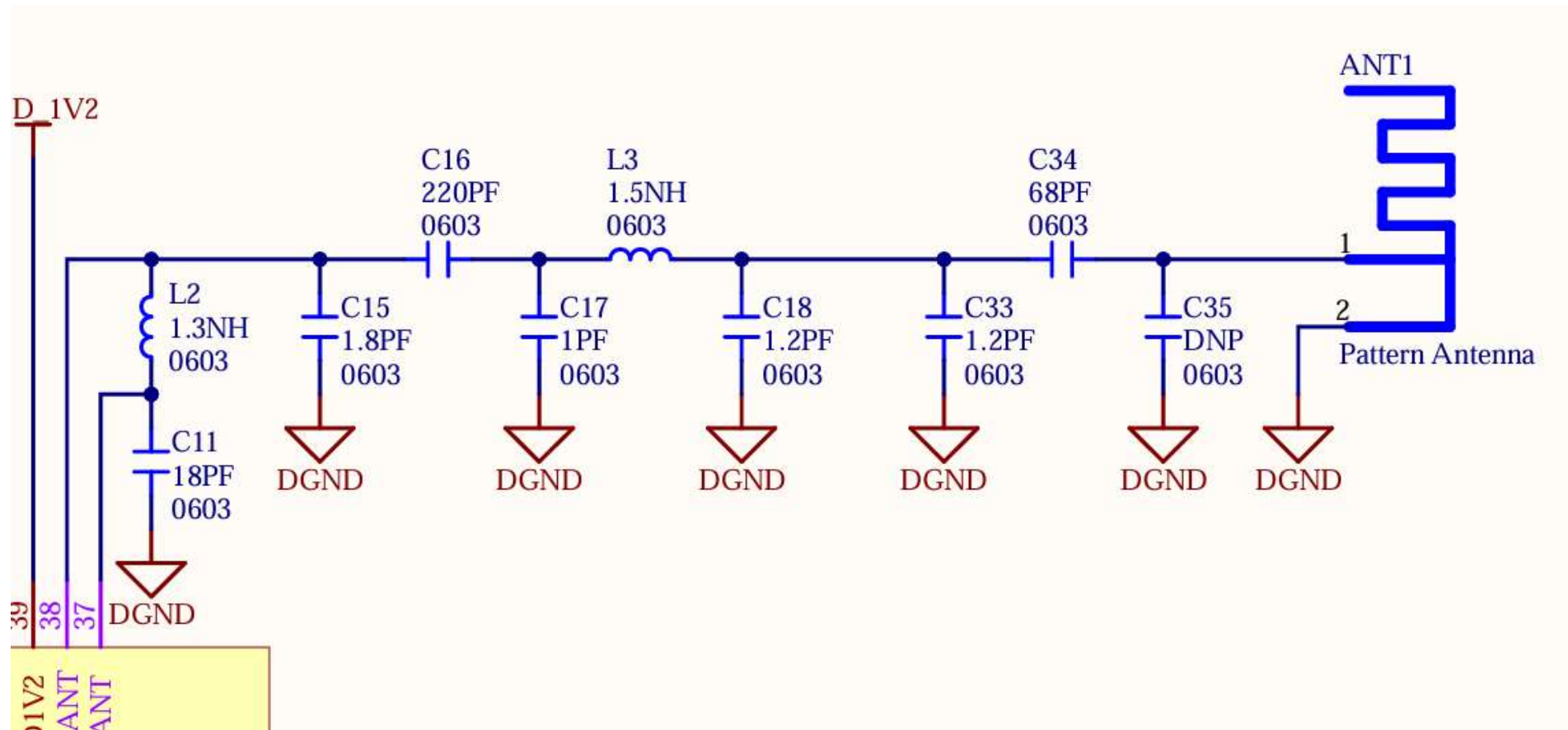
PCB Pattern Antenna

50ohm matching

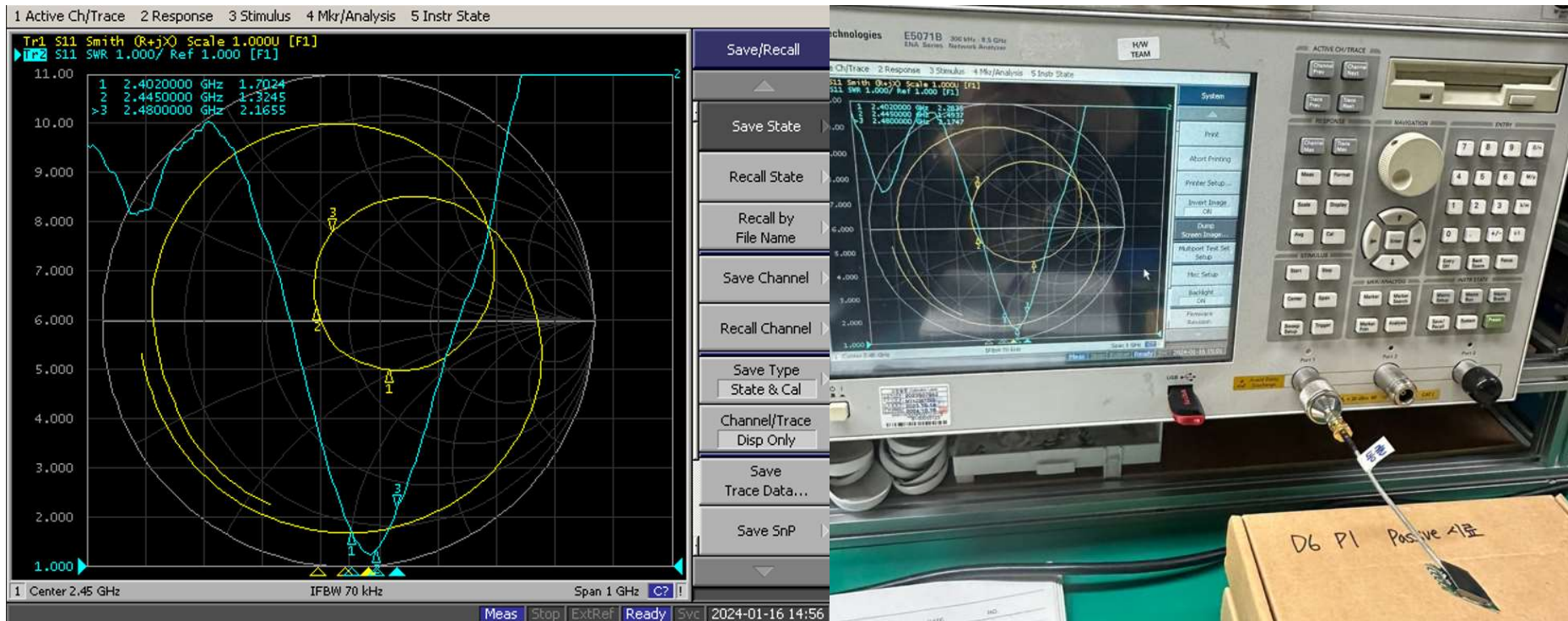
2.4GHz LPF



PCB Overview & Matching Value



VSWR & Smith Chart / 3D Gain data

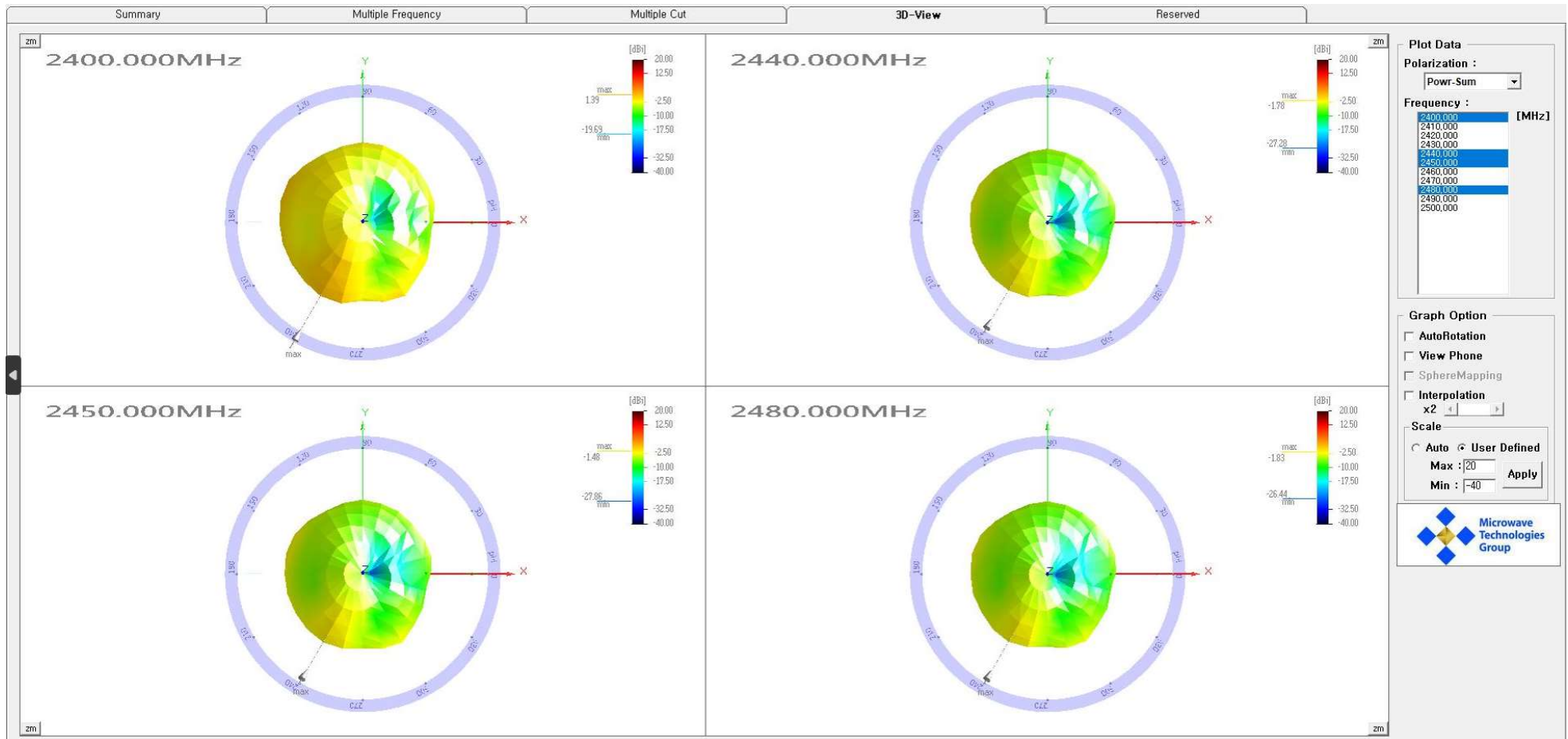


2D Radiation Pattern & Gain (ANT1)

3D Result Summary :

No	Freq.[MHz]	Theta-Pc	Eff.[%]	Avg.[dBi]	Peak[dBi]	Theta	Phi[de]	Phi-Pol(\)	Eff.[%]	Avg.[dBi]	Peak[dBi]	Theta	Phi[de]	Pwr Sum	Eff.[%]	Avg.[dBi]	Peak[dBi]	Theta	Phi[de]
1	2400.000	35.62	-4.48	-0.27	105.00	195.00	19.26	-7.15	-1.24	90.00	255.00	54.87	-2.61	1.39	75.00	240.00			
2	2410.000	28.90	-5.39	-1.19	105.00	195.00	15.37	-8.13	-2.33	90.00	255.00	44.27	-3.54	0.50	75.00	240.00			
3	2420.000	27.62	-5.59	-1.30	90.00	195.00	14.23	-8.47	-2.72	90.00	255.00	41.85	-3.78	0.28	60.00	240.00			
4	2430.000	23.69	-6.25	-1.74	90.00	195.00	11.89	-9.25	-3.52	75.00	255.00	35.58	-4.49	-0.47	75.00	240.00			
5	2440.000	17.51	-7.57	-3.06	90.00	195.00	8.51	-10.70	-4.96	75.00	255.00	26.02	-5.85	-1.78	60.00	240.00			
6	2450.000	18.50	-7.33	-2.87	90.00	195.00	8.96	-10.48	-4.71	75.00	255.00	27.46	-5.61	-1.48	60.00	240.00			
7	2460.000	16.50	-7.83	-3.26	90.00	165.00	7.97	-10.98	-5.22	180.00	285.00	24.47	-6.11	-1.98	60.00	240.00			
8	2470.000	14.65	-8.34	-3.67	90.00	195.00	6.98	-11.56	-5.63	180.00	285.00	21.63	-6.65	-2.43	60.00	240.00			
9	2480.000	16.58	-7.80	-3.16	90.00	165.00	7.67	-11.15	-5.10	180.00	285.00	24.26	-6.15	-1.83	60.00	240.00			
10	2490.000	14.01	-8.54	-3.97	90.00	165.00	6.49	-11.88	-5.88	180.00	285.00	20.50	-6.88	-2.43	60.00	240.00			
11	2500.000	16.52	-7.82	-3.35	90.00	165.00	7.48	-11.26	-5.19	180.00	120.00	24.00	-6.20	-1.72	60.00	240.00			

3D Radiation pattern





Thank you