

PRODUCT SPECIFICATION

Model	Description
REBL-MZ29T_ANT	IEEE802.15.4

APPROVAL	REMARK	APPENDIX	DESIGNED	CHECKED	APPROVED
			2024.05.14	2024.05.14	2024.05.14
			K.S.LEE	J.B.KIM	I.U.KIM

ANTENNA SPECIFICATION

1. Model : REBL-MZ29T_ANT
2. Application : 2.4GHz IEEE802.15.4 compliant RF Transceiver
3. Electrical specification and performance

ELECTRICAL DATA	SPECIFICATIONS		REMARK
FREQUENCY RANGE	2405 ~ 2480 MHz		
IMPEDANCE	50 ΩNOMINAL		
V. S. W. R	2405 ~ 2480 MHz	Less than 2.0 : 1	#1. Attached
PEAK GAIN(Min)	2405 ~ 2480 MHz	-0.38 dBi	#2. Attached

4. Hardware specification and mechanical

MECHANICAL	SPECIFICATIONS	REMARK
Dimension	17.7 mm x 3.8 mm	#3. Attached

5. Company information

<p style="text-align: center;">ATEC IoT Co.,Ltd. 289, Pangyo-ro, Bundan-gu, Seongnam-si, Gyeonggi, Republic of Korea TEL : +82-31-696-9841 PAX : +82-31-696-9899</p>

6. OPERATING TEMPERATURE

Temperature : - 20°C / + 60°C

Demands : Set Antenna for 48 hours each temperature.

No visual and mechanical changes.

Unchanged mechanically during the test.

The antenna shall satisfy the electrical data

7. HUMIDITY Condition

Condition : 80% / + 30°C ~ +50 °C

Measuring method

Antenna is placed in climatic chamber for 48 hours.

Antenna is taken out from the chamber and measured after another 24 hours in room temperature

Demands : No visual and mechanical changes.

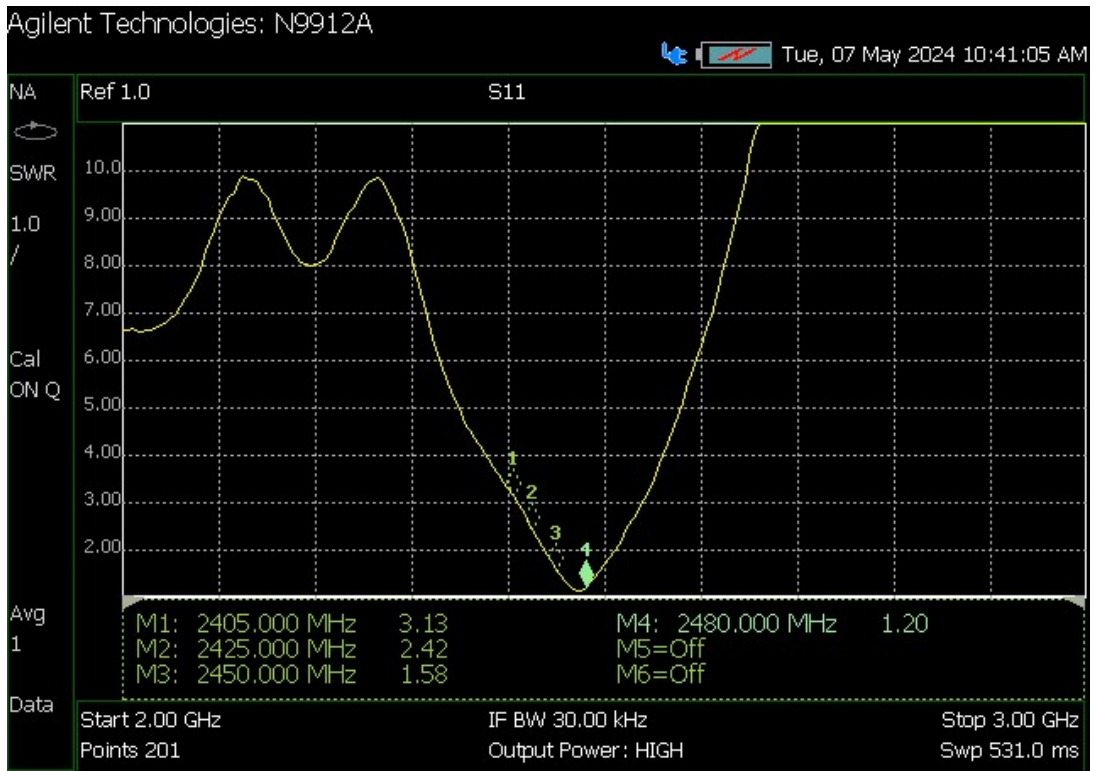
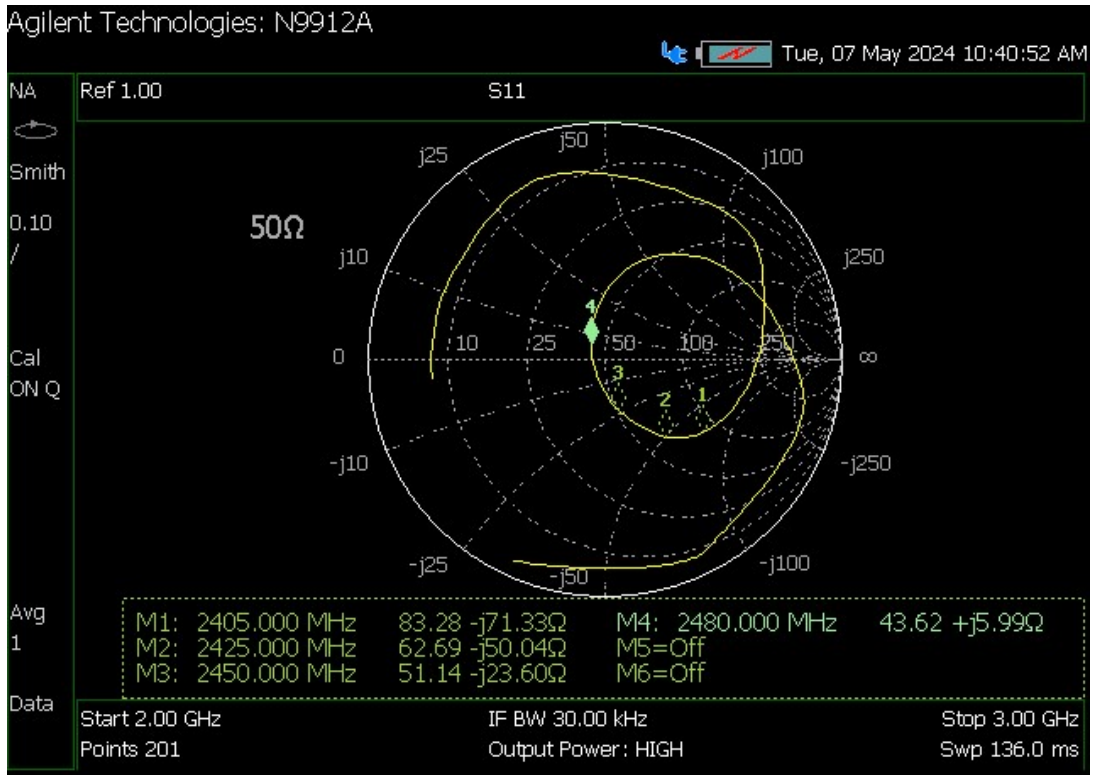
Unchanged mechanically during the test.

The antenna shall satisfy the electrical data.

8. TEST and Q/C

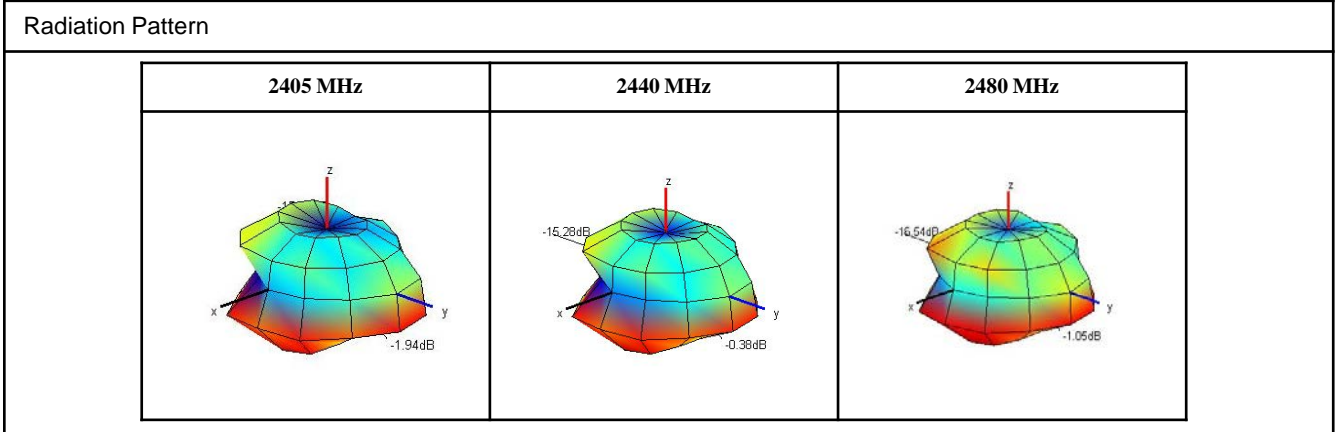
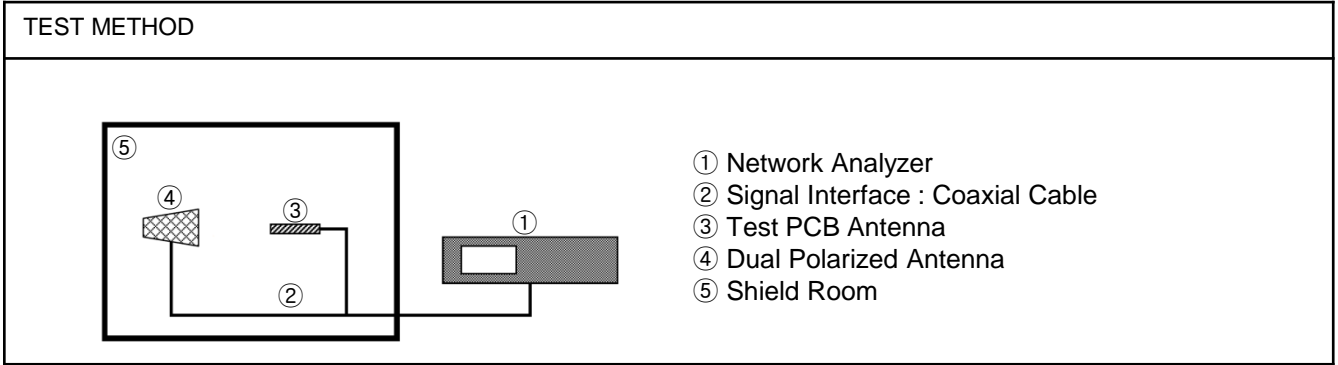
This specification is according to fixed demands and suitable *ATEC IoT* Q/C provision.

#1. Attached: VSWR



#2. Attached

▪ Radiation Pattern and Gain

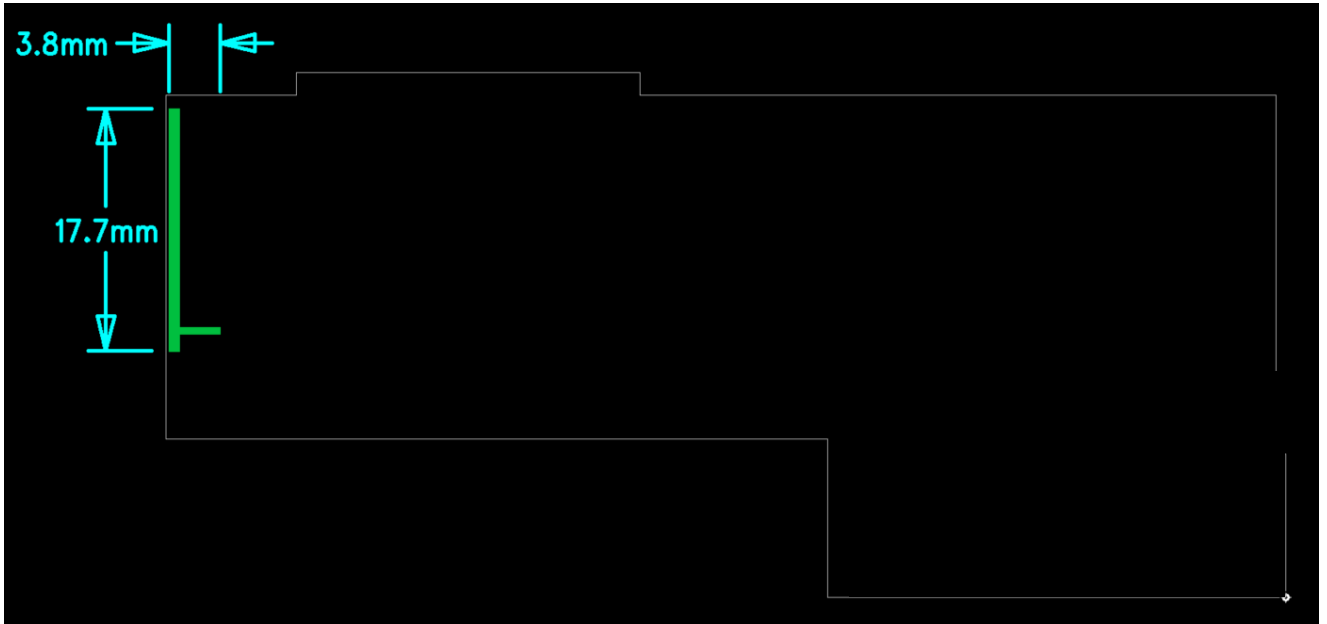


Efficiency

Frequency [MHz]	2405	2410	2415	2420	2425	2430	2435	2440	2445	2450	2455	2460	2465	2470	2475	2480
Efficiency [dB]	-7.68	-7.51	-7.33	-7.23	-6.91	-6.83	-6.67	-6.54	-6.55	-6.55	-6.50	-6.60	-6.67	-6.46	-6.51	-6.53
Efficiency [%]	17.1	17.7	18.5	18.9	20.4	20.7	21.5	22.2	22.1	22.2	22.4	21.9	21.5	22.6	22.3	22.2
Peak Gain [dB]	-1.94	-1.66	-1.38	-1.21	-0.81	-0.68	-0.52	-0.38	-0.43	-0.49	-0.52	-0.76	-0.94	-0.87	-1.01	-1.05
Directivity [dB]	5.74	5.85	5.95	6.01	6.10	6.15	6.15	6.16	6.13	6.05	5.98	5.84	5.73	5.59	5.50	5.48
Minimum Gain [dB]	-14.71	-14.67	-14.60	-14.82	-14.88	-15.07	-15.23	-15.28	-15.73	-15.85	-16.04	-16.39	-16.61	-16.44	-16.50	-16.54

Frequency(MHz)	2405	2440	2480	Avg.	Eff. [%]
Efficiency(dB)	-7.68	-6.54	-6.53	-7.03	19.84

#3. Attached: Drawing paper



PRODUCT SPECIFICATION

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			K.S.LEE	J.B.KIM	I.U.KIM

ANTENNA SPECIFICATION

- 1. Model : REBL-MZ29T_NFC
- 2. Application : Operating frequency of 13.56 MHz (Receiving Only)
- 3. Hardware specification and mechanical

MECHANICAL	SPECIFICATIONS	REMARK
Dimension	21.3 mm x 9.9mm	#2. Attached

- 5. Company information

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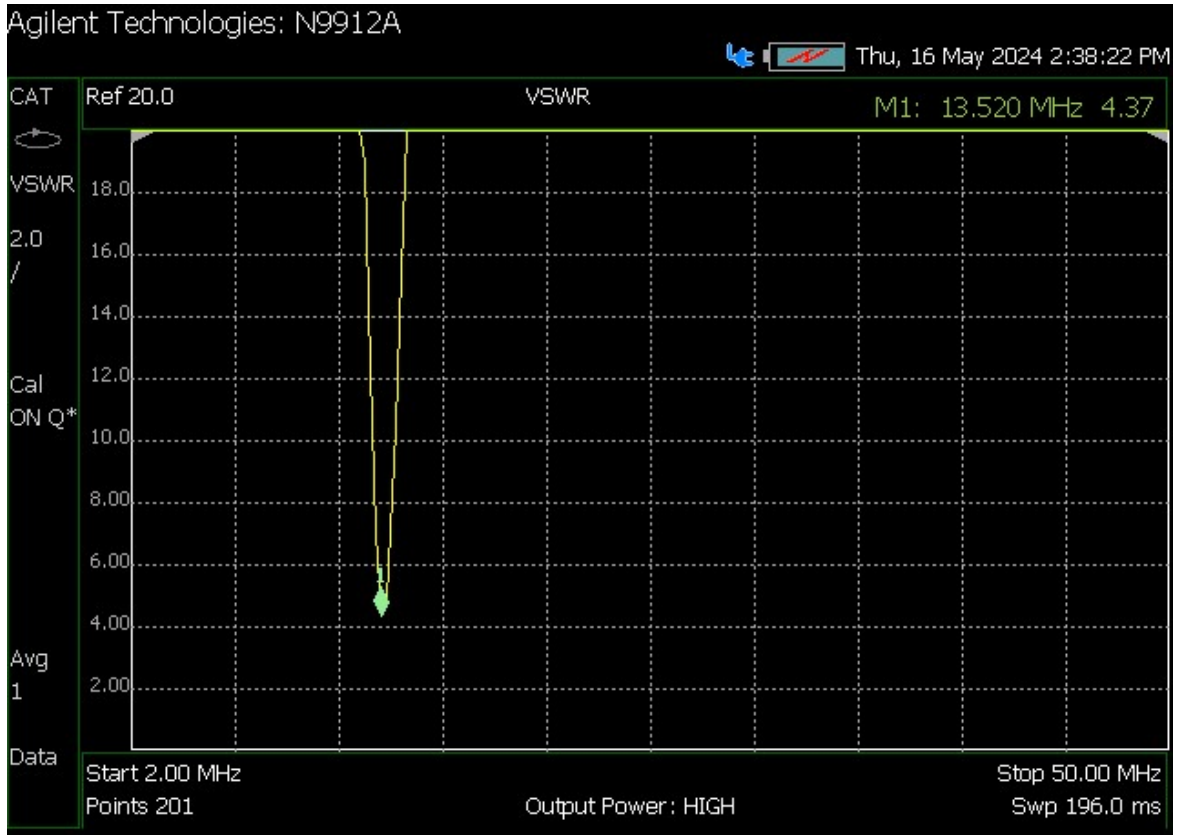
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#2. Attached: Drawing paper

