

EDIFIER W830 NB Project Antenna RF System Development Resume V1

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The main purpose of this report: Feedback prototype debugging

Main conclusions of this report: The free-space efficiency is about 31%

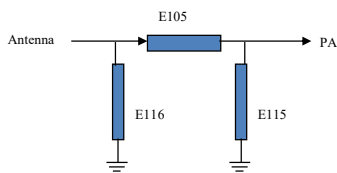
Key notes in this report: Modification of antenna length and modification of matching circuit

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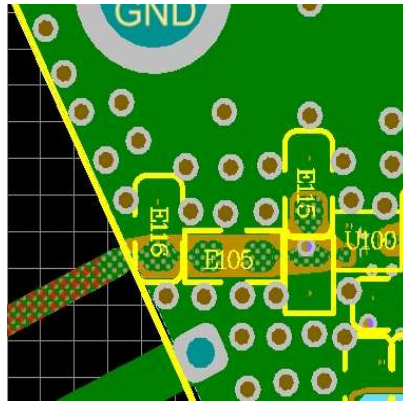
Conduction parameter

2#		
Channel	Power(dBm)	Sensitivity(dBm)
CH 0	10.1	-93.0
CH 39	9.6	-93.0
CH 78	10.0	-91.5

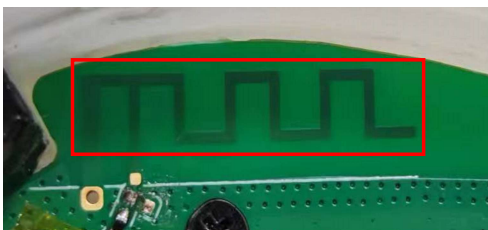
Schematic Diagram of Antenna Matching Circuit Modification



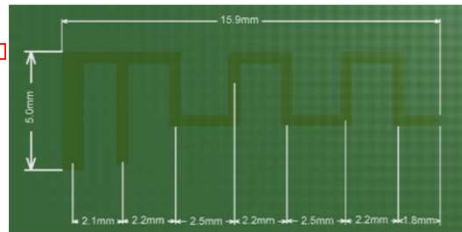
Element	Value
E116(0402)	1.2pF
E105(0402)	0Ω
E115(0402)	N/A



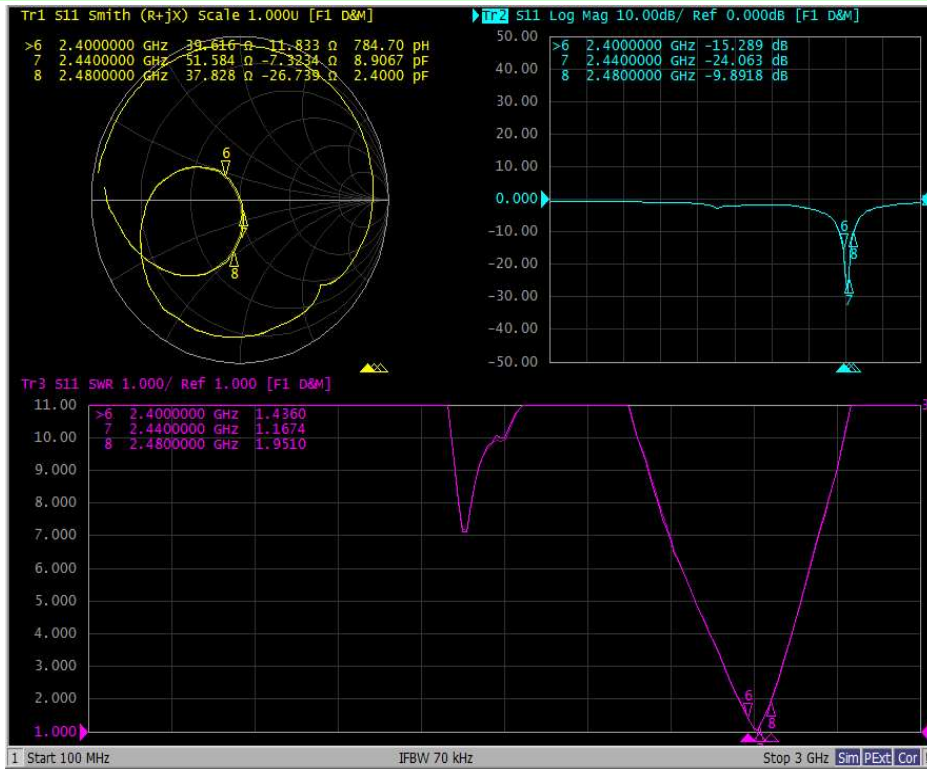
Antenna Length



The overall length of the antenna is 15.60mm and the

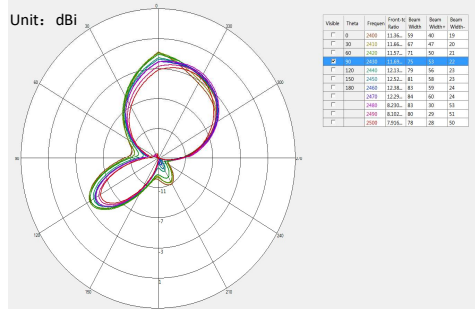
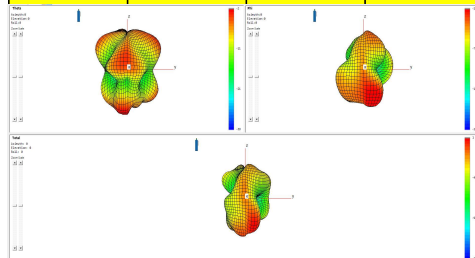


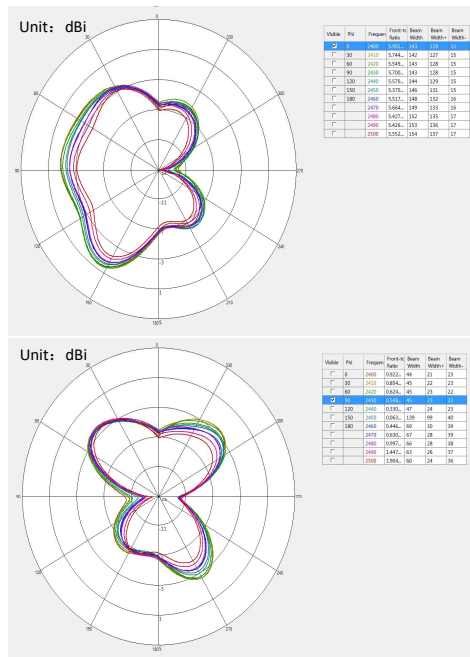
SWR&Smith&Log Mag Parameter



Antenna Efficiency Parameters

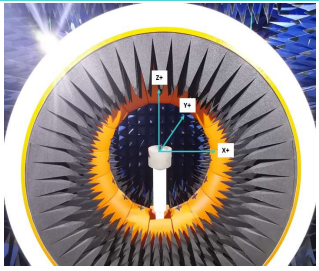
频点	增益dBi	效率dB	效率%
2400	0.02	-4.89	32.44
2410	0.18	-4.79	33.21
2420	0.23	-4.73	33.63
2430	0.07	-4.88	32.53
2440	-0.26	-5.11	30.83
2450	-0.38	-5.16	30.46
2460	-0.64	-5.44	28.60
2470	-0.62	-5.37	29.05
2480	-0.69	-5.35	29.16
平均值	-0.23	-5.08	31.10



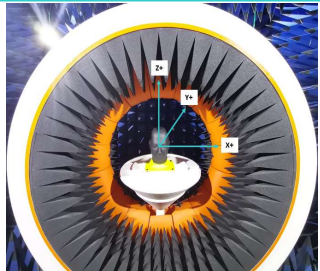


OTA Parameters

Darkroom Test Axis Diagram (Free)



Darkroom Test Axis Diagram



2#	Channel	FRP (dBm)	TIS (dBm)
Free	CH 0	5.2	-88.2
	CH 39	5.6	-88.8
	CH 78	4.3	-87.0

2#	Channel	FRP (dBm)	TIS (dBm)
Head	CH 0	3.4	-86.3
	CH 39	4.4	-87.5
	CH 78	3.2	-85.7