



Sample

client:	Qi gen
project name:	Lite gateway
Material category:	BLE antenna + WIFI antenna
edition:	V1.0
date:	2024.03.21

catalogue

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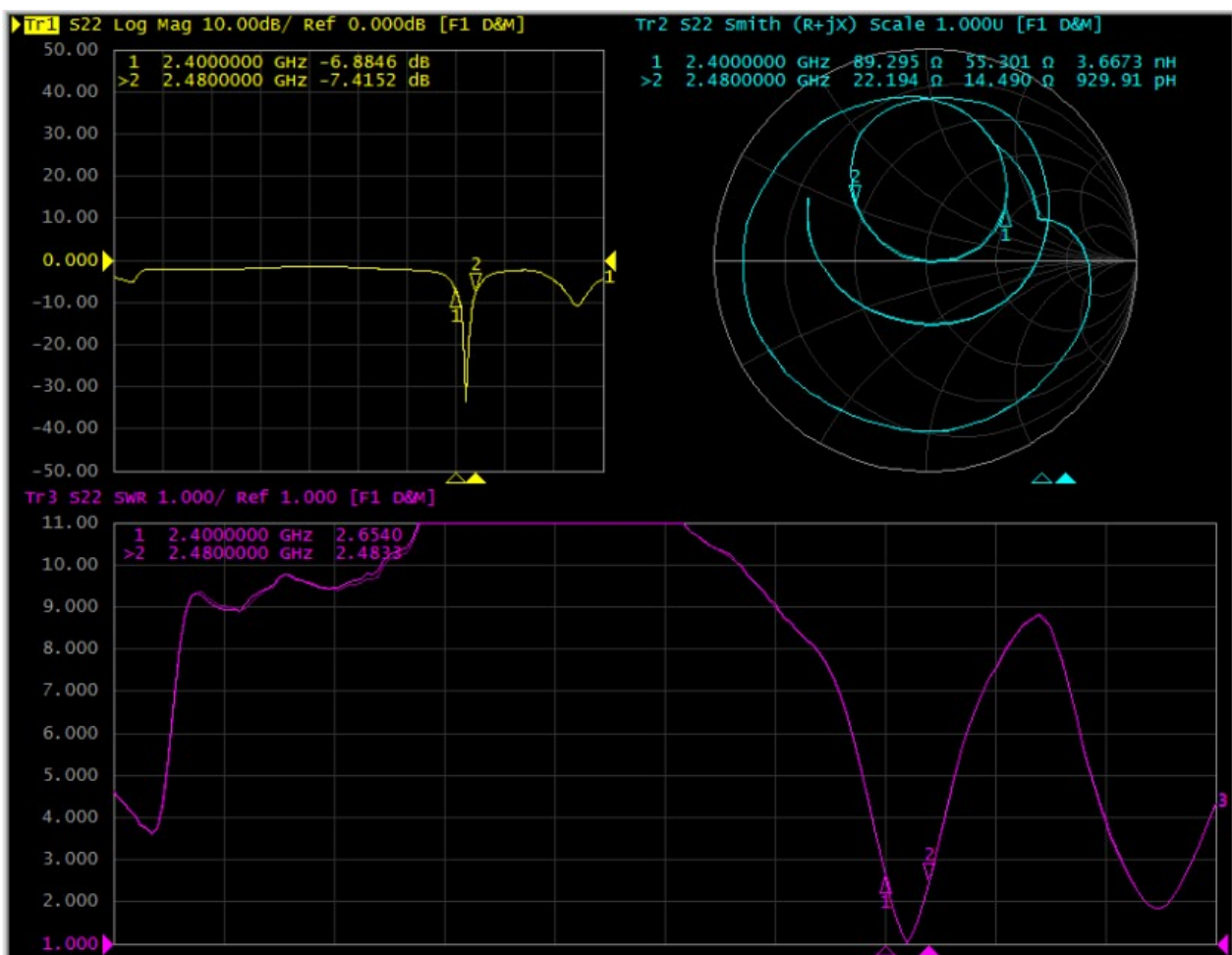
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Preparation / change date	Change reason	Change the content	editi on
2024. 03. 21	First edition release	First edition release	V1.0

One: passive test report



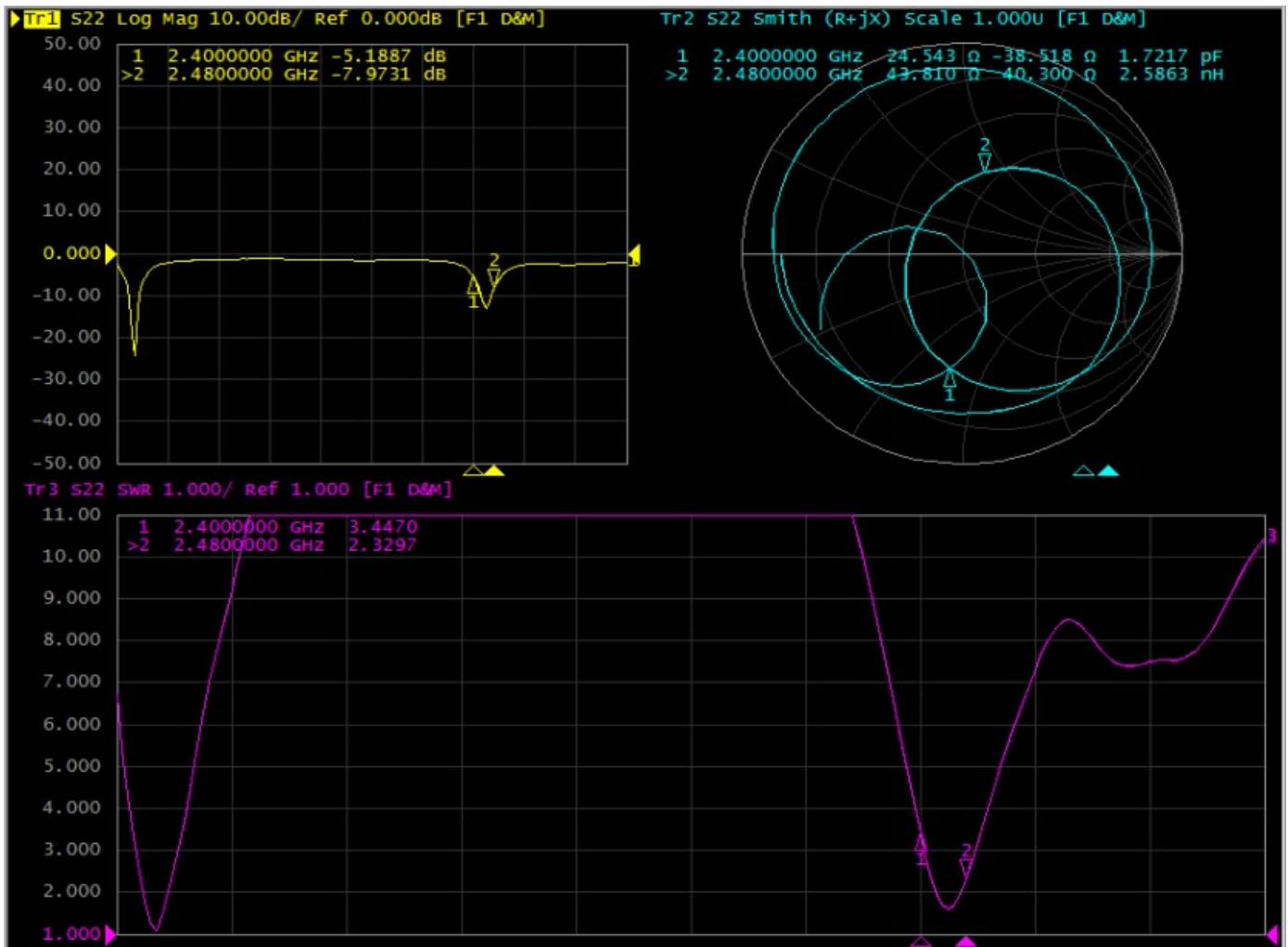
Angilent E5071C

BLE antenna S11 parameters





WIFI antenna S11 parameters



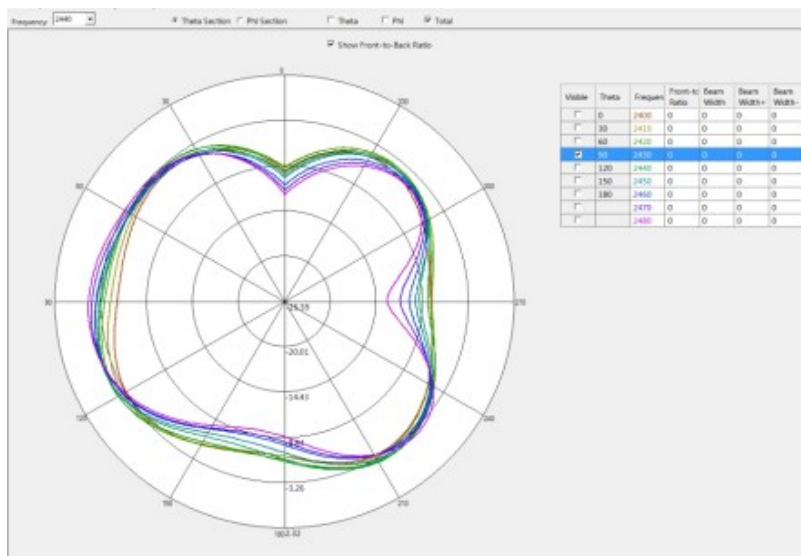
BLE antenna efficiency and gain:

BLE			
frequency point MHz	gain (dBi)	efficiency (dB)	efficiency %
2400	-0.5	-4.1	39.0
2410	-0.3	-3.9	41.1
2420	-0.4	-3.6	43.7
2430	-0.3	-3.6	43.6
2440	-0.4	-3.7	42.2
2450	-0.3	-3.8	41.6
2460	-0.4	-4.1	38.8
2470	-0.2	-4.1	38.7
2480	-0.3	-4.2	37.9
average value	-0.3	-3.9	40.7

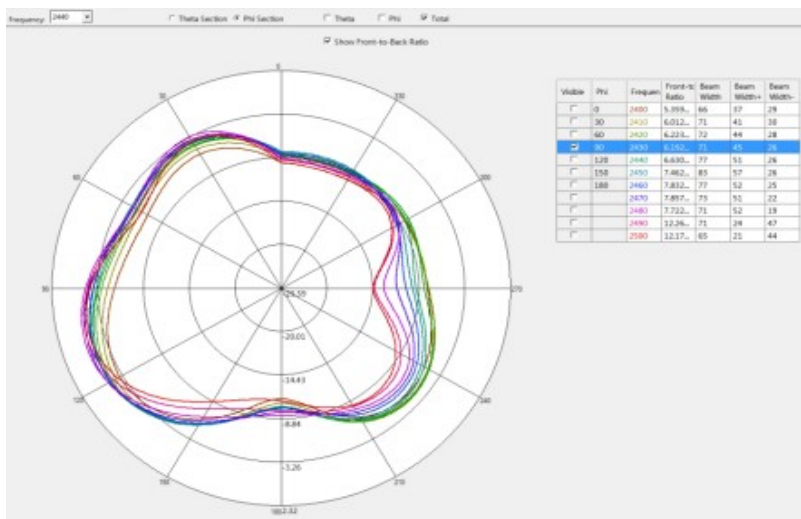
WIFI antenna efficiency and gain:

WIFI			
frequency point MHz	gain (dBi)	efficiency (dB)	efficiency (dB)%
2400	0.4	-3.6	43.6
2410	0.9	-3.4	45.8
2420	1.2	-3.2	47.6
2430	1.0	-3.0	49.8
2440	0.8	-3.4	46.2
2450	0.7	-3.6	43.6
2460	0.1	-3.7	42.6
2470	-0.2	-3.8	41.5
2480	-0.4	-3.8	41.2
average value	0.5	-3.5	44.7

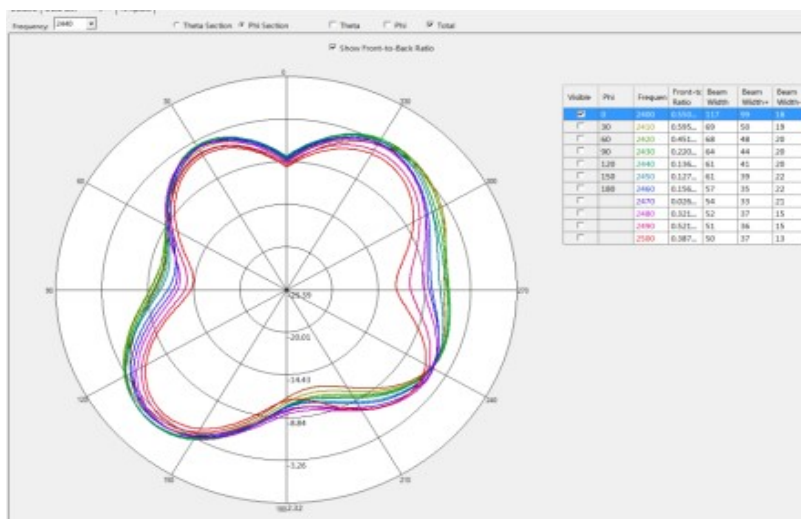
BLE antenna passive orientation diagram:
Theta=90.00deg



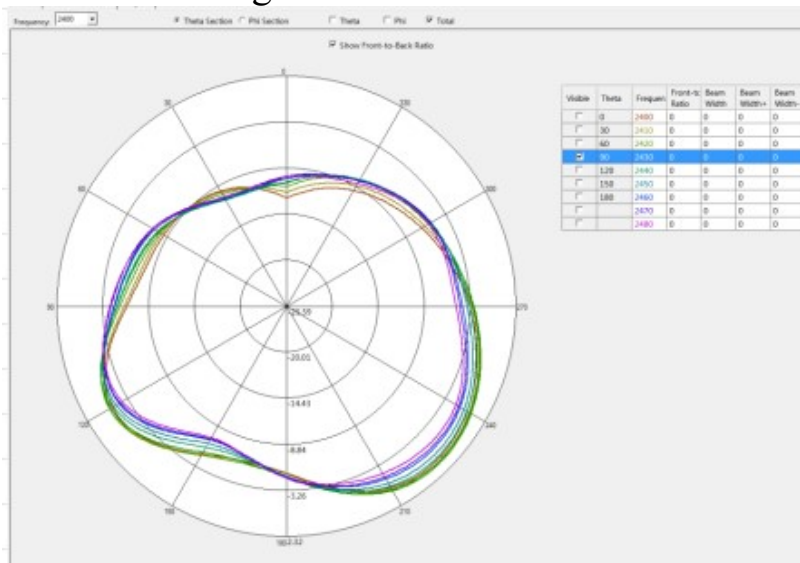
Phi=90.00deg



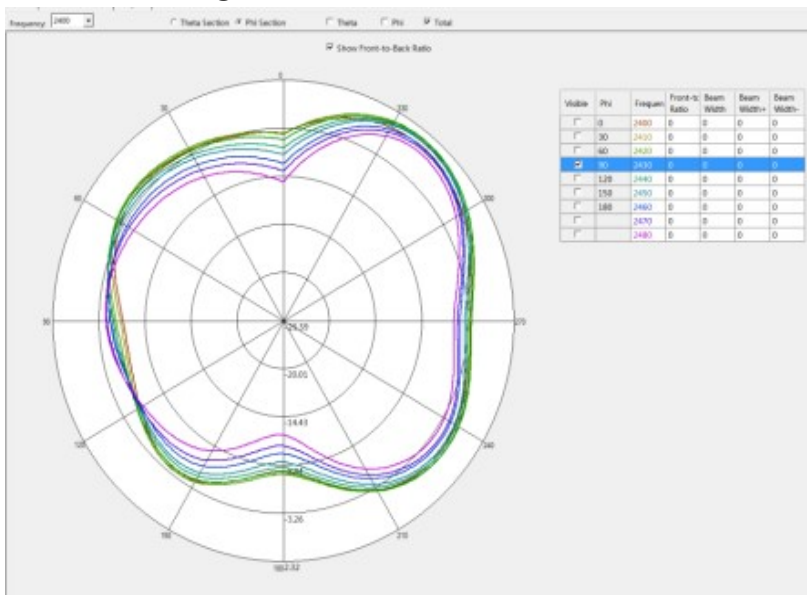
Phi=0.00deg



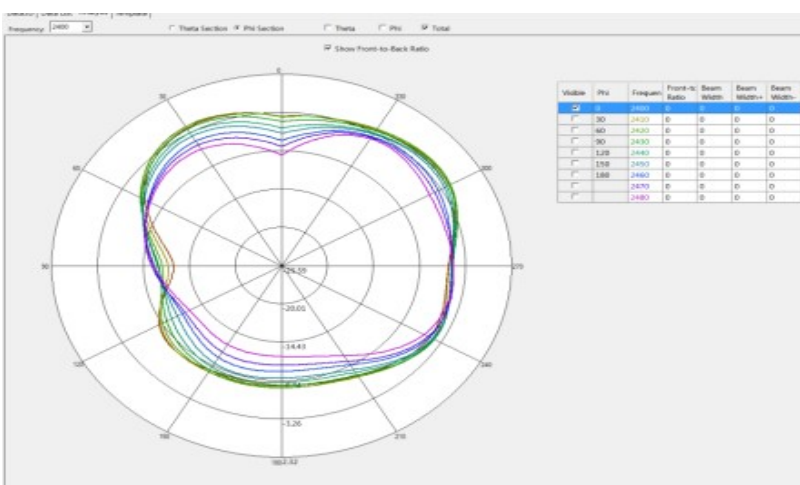
WIFI antenna passive orientation diagram:
Theta=90.00deg



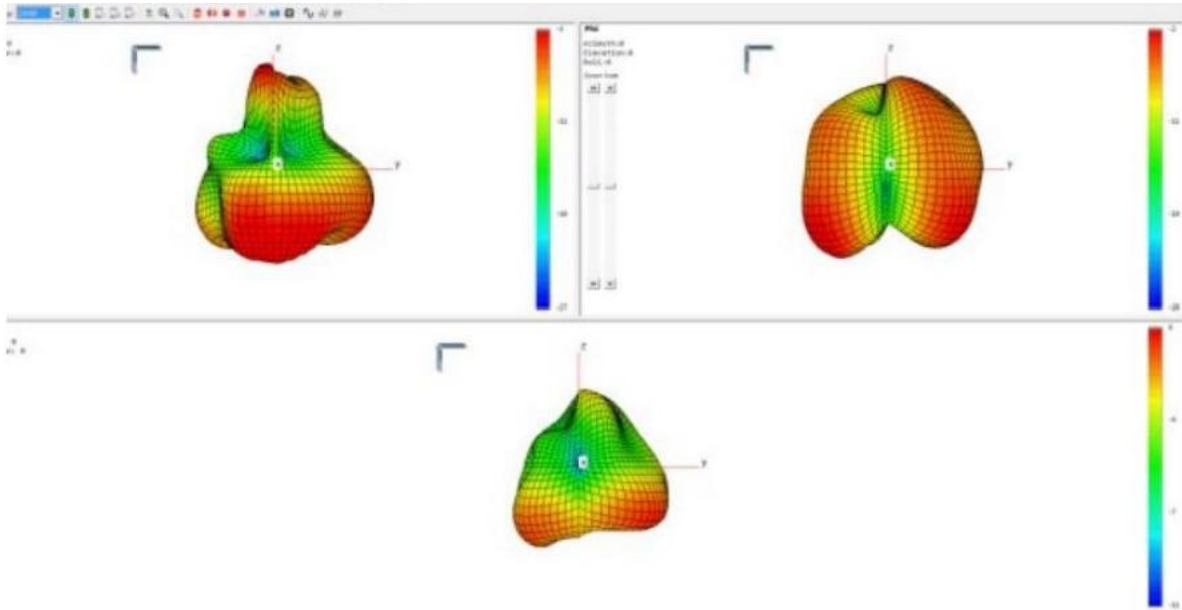
Phi=90.00deg



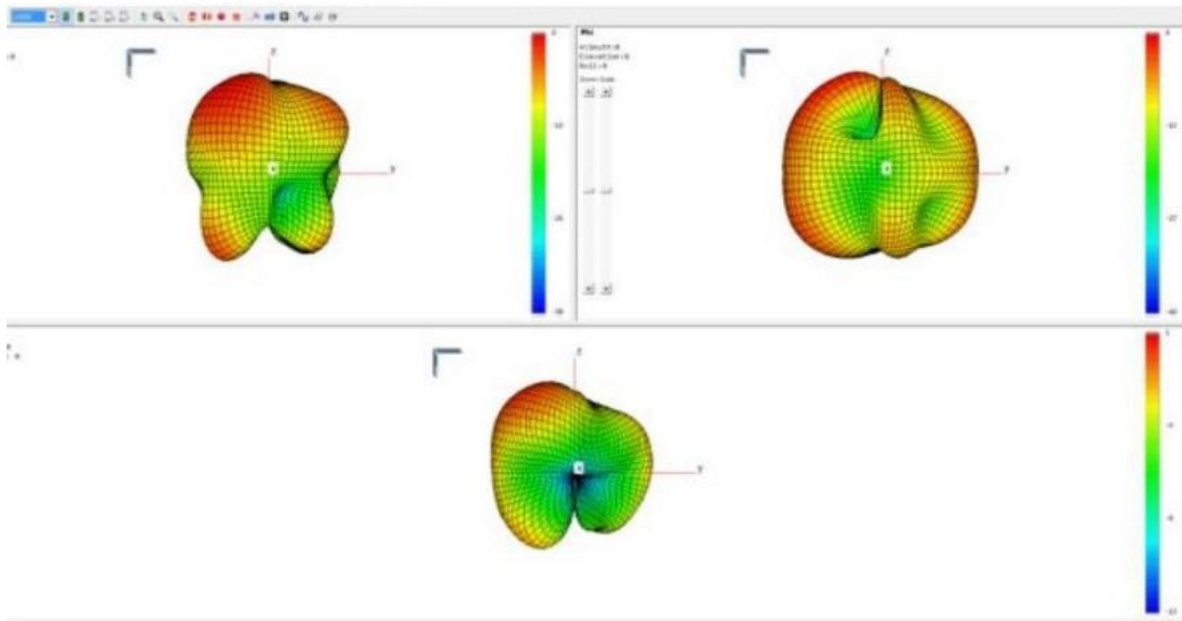
Phi=0.00deg



BLE antenna passive 3D direction diagram:



WIFI antenna passive 3D direction map:



Two.Complete machine active data

BLE antenna	Channel	TRP (dBm)	TIS (dBm)
BLE	CH 0	4.8	-87.7
	CH 20	6.3	-89.1
	CH 39	6.0	-89.1

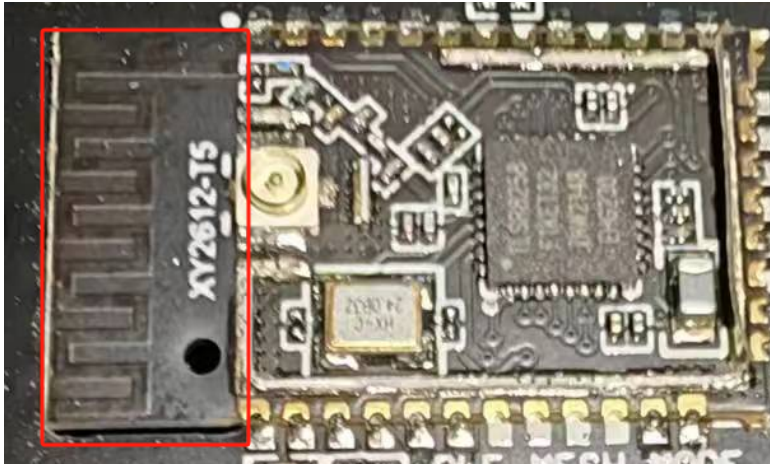
WIFI antenna	Channel	TRP (dBm)	TIS (dBm)
WIFI B (11M)	CH 1	14.3	-74.4
	CH 7	15.0	-84.3
	CH 13	14.3	-85.3
WIFI antenna	Channel	TRP (dBm)	TIS (dBm)
WIFI G (54M)	CH 1	12.4	-63.1
	CH 7	13.0	-69.6
	CH 13	12.8	-69.4



OTA Standard Chamber

Three: the antenna matching circuit

BLE antenna



WIFI antenna

