

2026

KUNSHAN INNOWAVE COMMUNICATION TECHNOLOGY CO., LTD.

Robotic Dog Test Report

Kunshan R&D Department





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Company Profile and Testing Environment



Kunshan Ruixiang was founded in 2012, with its headquarters located in Kunshan City, Jiangsu Province. It provides leading RF front-end and antenna module solutions for mobile communication terminals such as mobile phones, tablets, laptops, and smart wearables, as well as IoT fields including automobiles, routers, drones, set-top boxes, TVs, and PON integration.

Office and R&D space: over 10,000 square meters

Independent production space: 50,000 square meters

Number of employees: over 1,000

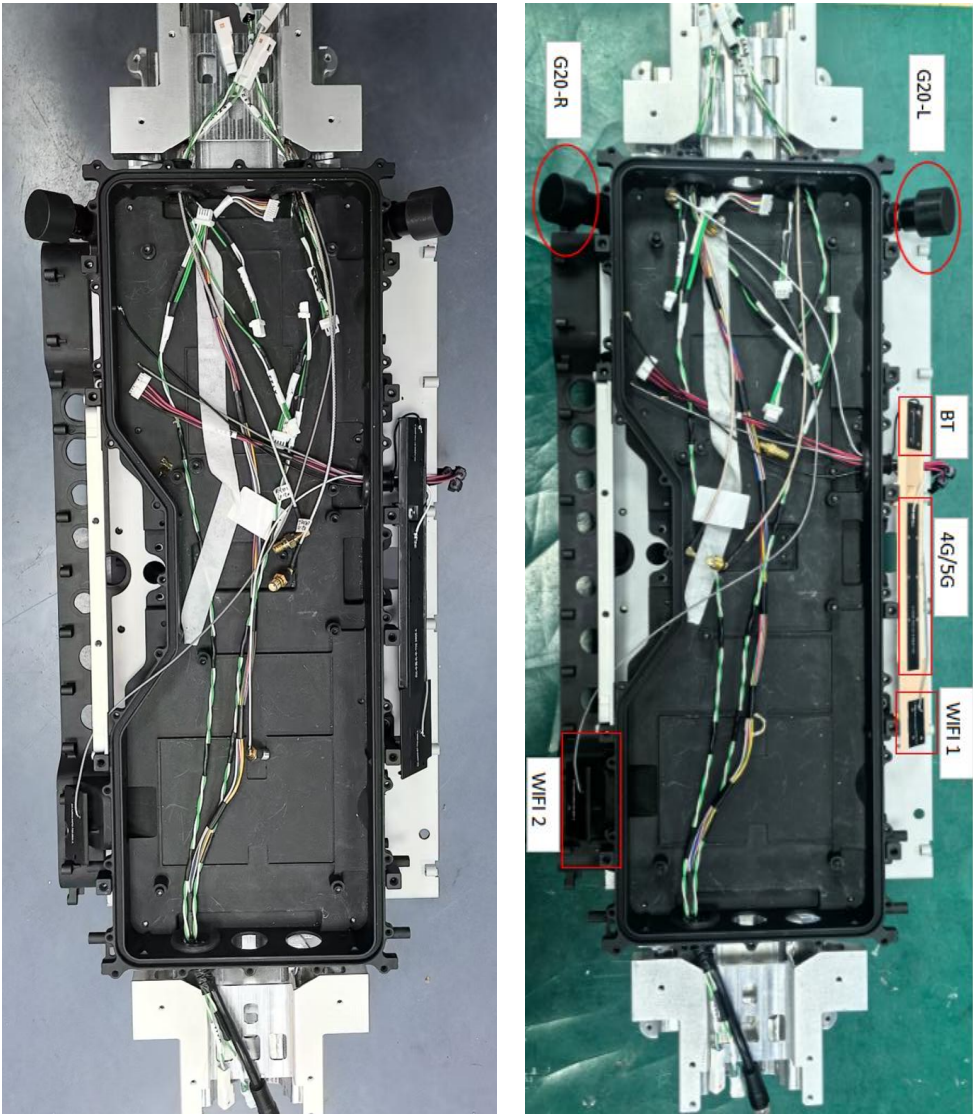
Cumulative sales revenue: over 2 billion RMB



Project Overview

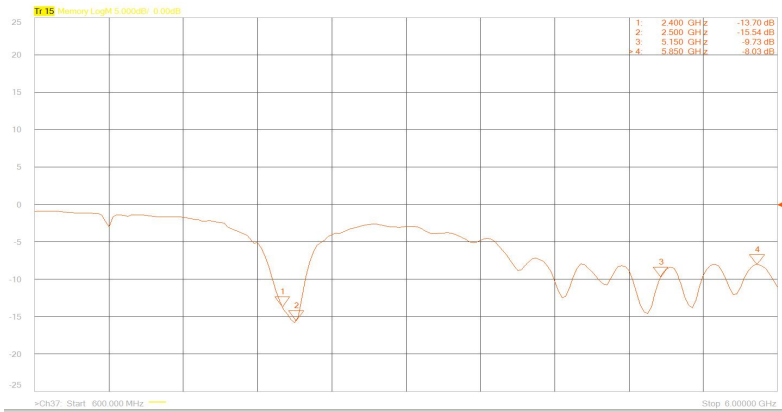
Antenna Information		TruquurY Ard conlyurubon	Number of antenna ports	Antenna Type
Wi-FI	Dual-band	2.4GHz-2.5GHz 5GHz-6GHz	WIFI1&2	FPC
BT	Single- band	2.4GHz-2.5GHz	BT*1	FPC
mage transmission module (G20)	Dual-band	2.4GHz-2.5GHz 5.715GHz-5.9GHz	MIMO2 (2T2R)	External Antenna

Prototype Pictures

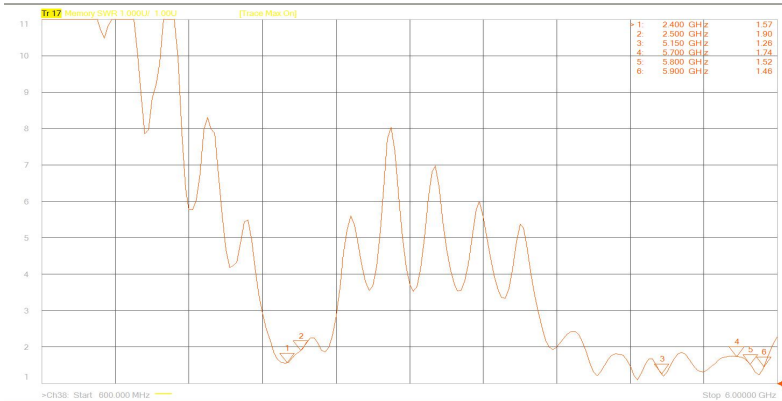


WIFI1 Antenna Test Results

WIFI1 Antenna S11



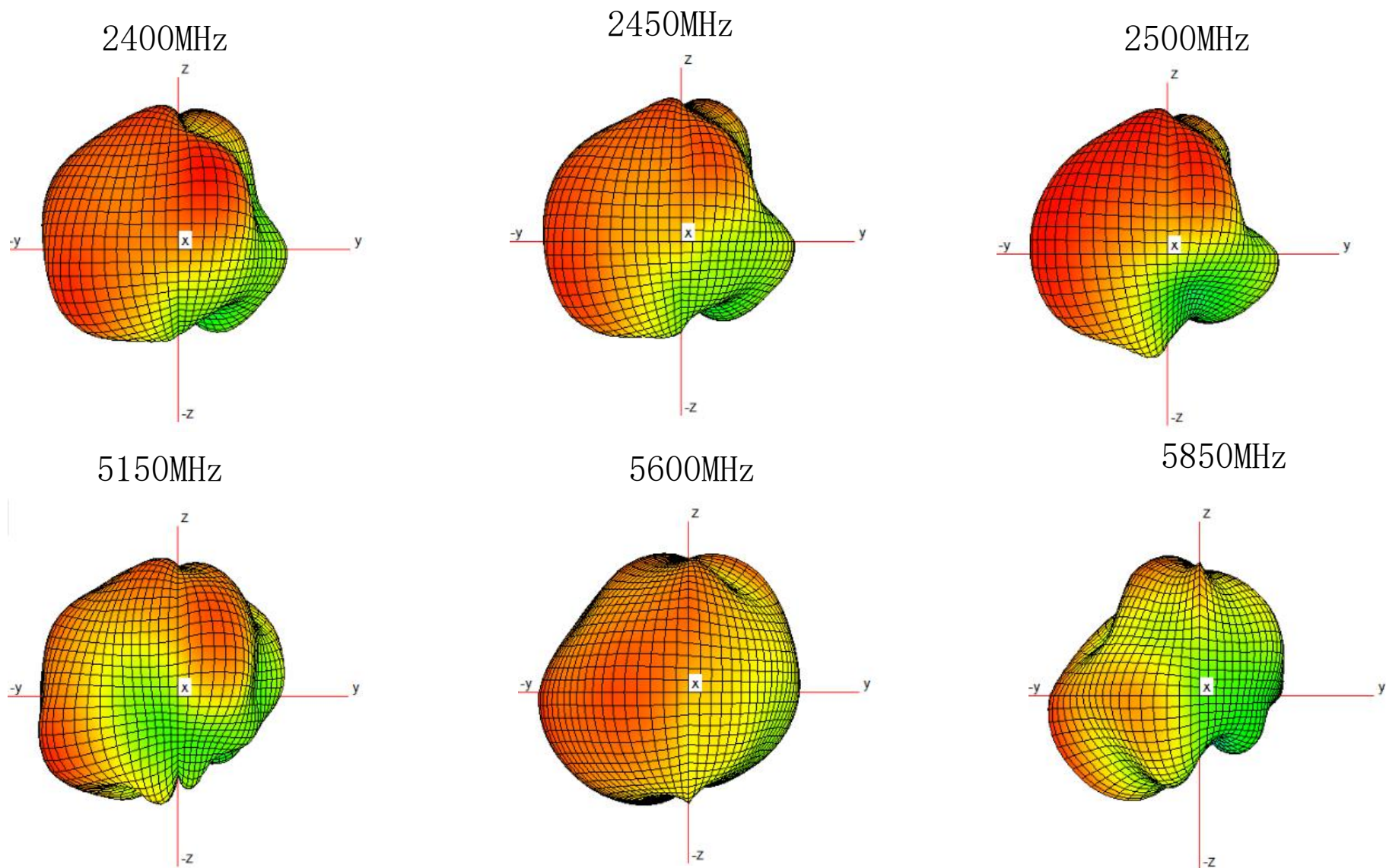
WIFI1 Antenna VSWR



WIFI1 Antenna Passive Efficiency

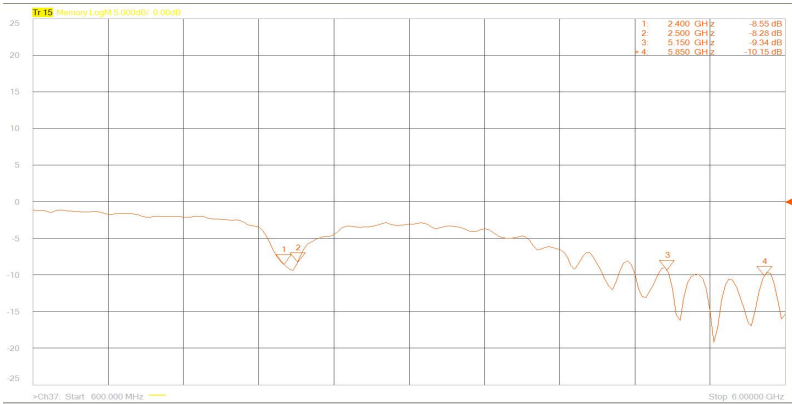
WIFI1		
Freq (Mhz)	Effi (dB)	Gain (dBi)
2400	-2.3	3.7
2410	-2.3	3.9
2420	-2.2	4.1
2430	-2.1	4.4
2440	-2.2	4.3
2450	-2.3	4.1
2460	-2.2	4.0
2470	-2.3	3.8
2480	-2.1	3.6
2490	-2.4	3.2
2500	-2.3	3.1
5150	-3.2	3.8
5200	-3.3	3.3
5250	-3.7	2.5
5300	-4.0	3.8
5350	-4.0	4.0
5400	-3.5	3.9
5450	-3.7	3.8
5500	-4.1	4.3
5550	-4.0	4.2
5600	-3.7	4.3
5650	-3.4	4.9
5700	-3.3	5.0
5750	-3.1	5.5
5800	-3.6	4.9
5850	-4.2	3.7
5900	-3.8	3.8

WIFI1 Antenna 3D radiation pattern

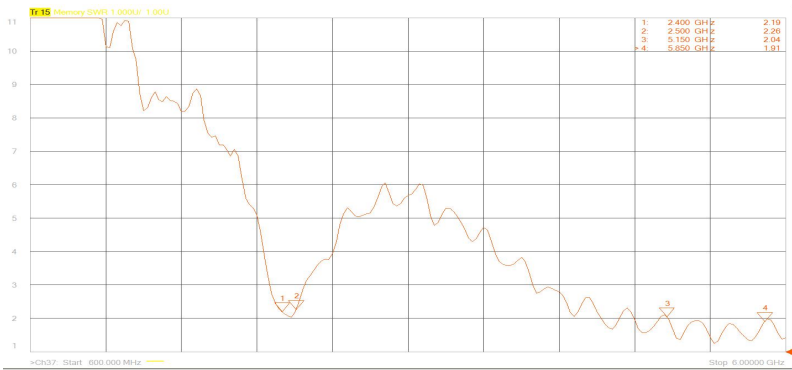


WiFi2 Antenna Test Results

WiFi Antenna S11



WiFi Antenna VSWR

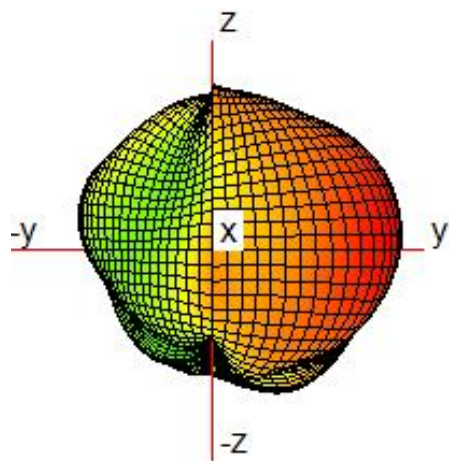


WiFi2 Antenna Passive Efficiency

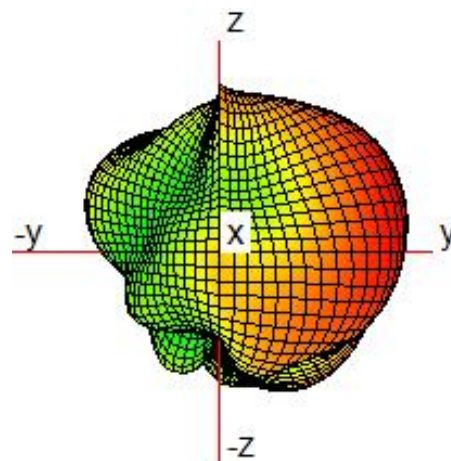
WIFI2		
Freq (Mhz)	Effi (dB)	Gain (dBi)
2400	-4.2	1.8
2410	-4.1	1.8
2420	-4.0	1.8
2430	-3.8	1.9
2440	-4.0	2.0
2450	-4.1	1.9
2460	-4.0	2.1
2470	-4.1	2.0
2480	-4.1	1.9
2490	-4.3	1.7
2500	-4.3	1.7
5150	-4.2	3.4
5200	-3.9	3.6
5250	-4.0	3.0
5300	-4.4	3.1
5350	-4.4	3.2
5400	-3.9	3.6
5450	-3.4	4.4
5500	-3.4	4.0
5550	-3.4	3.0
5600	-3.3	2.5
5650	-3.4	2.6
5700	-3.6	2.9
5750	-3.2	3.6
5800	-3.4	3.7
5850	-3.9	3.2
5900	-3.4	3.6

WIFI2 Antenna 3D radiation pattern

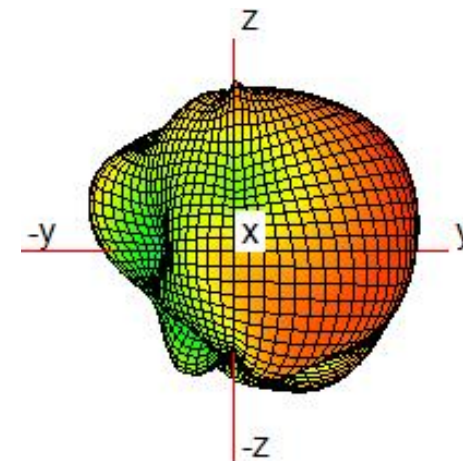
2400MHz



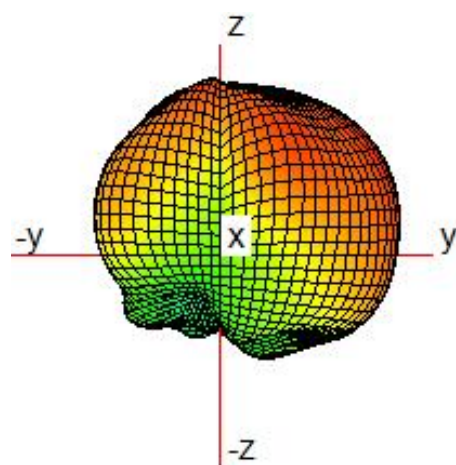
2450MHz



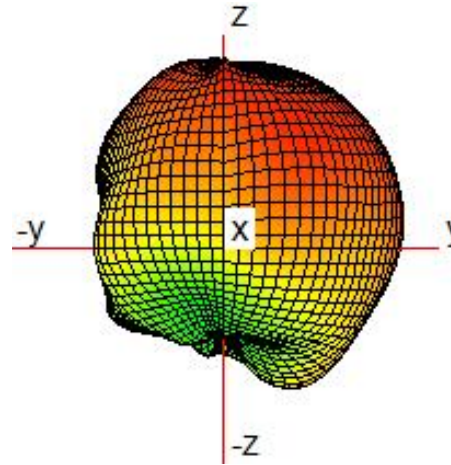
2500MHz



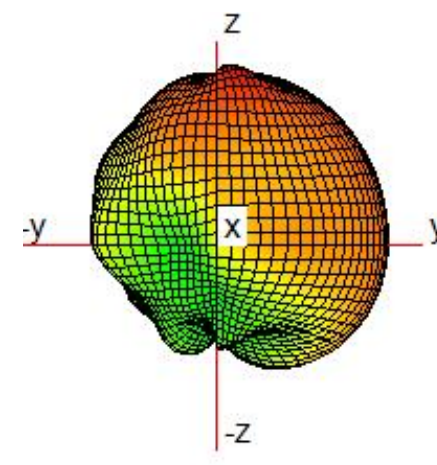
5150MHz



5600MHz

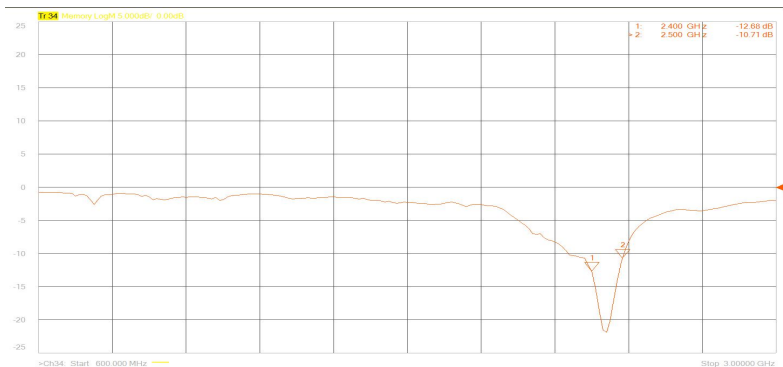


5850MHz

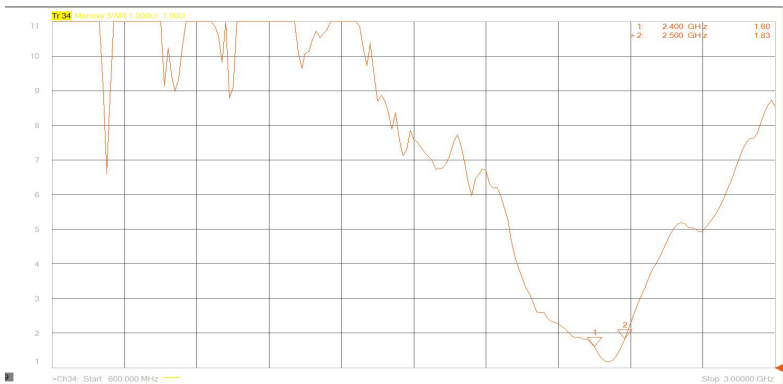


BT Antenna Test Results

BT Antenna S11



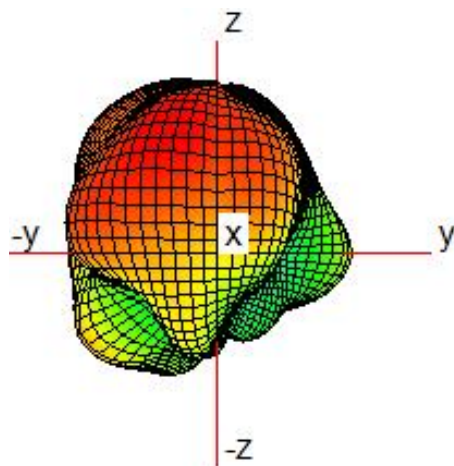
BT Antenna VSWR



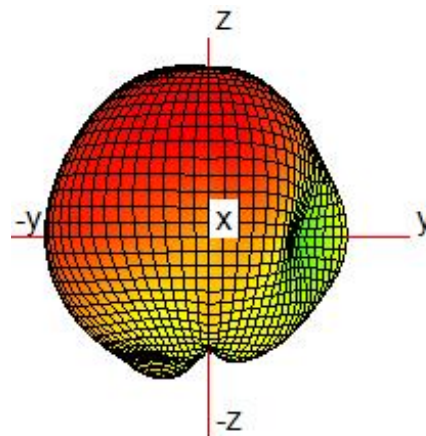
BT Antenna Passive Efficiency

BT		
Freq (Mhz)	Effi (dB)	Gain (dBi)
2400	-3.1	4.7
2410	-3.1	4.6
2420	-3.1	4.3
2430	-3.0	4.1
2440	-3.0	4.1
2450	-3.3	3.7
2460	-3.3	3.7
2470	-3.5	3.5
2480	-3.4	3.4
2490	-3.6	2.9
2500	-3.8	3.3

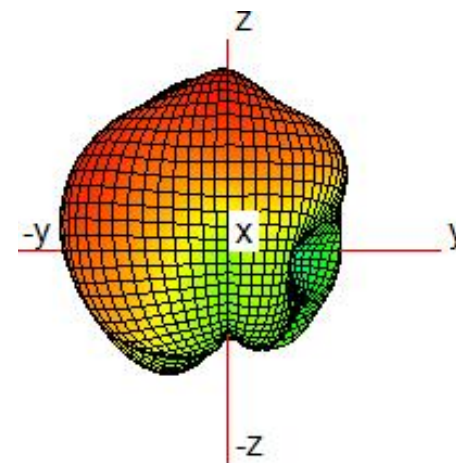
2400MHz



2450MHz



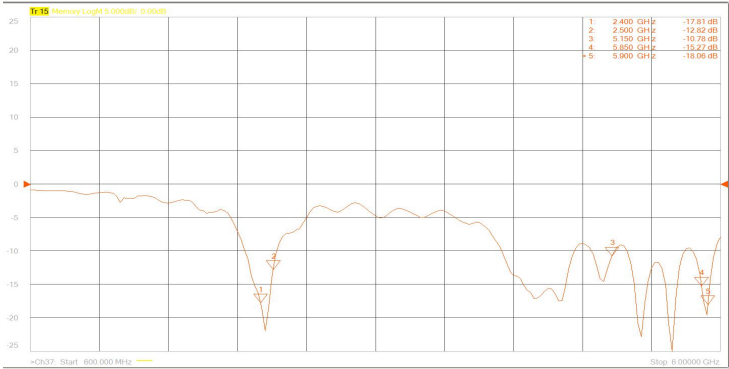
2500MHz



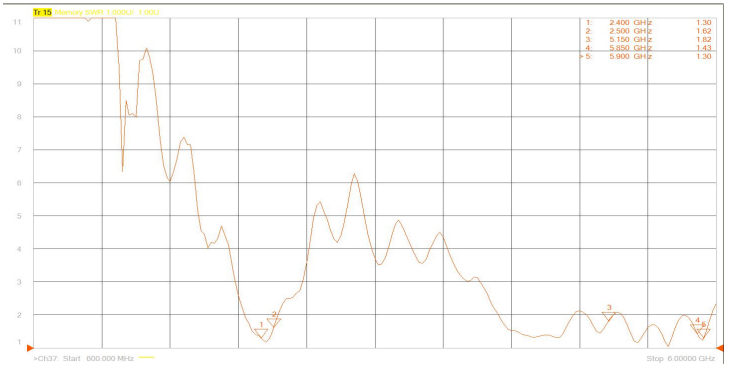
G20-L Antenna Test Results



G20-L Antenna S11



G20-L Antenna VSWR

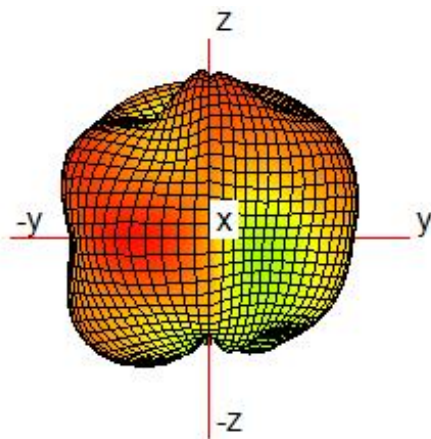


G20-L Antenna Passive Efficiency

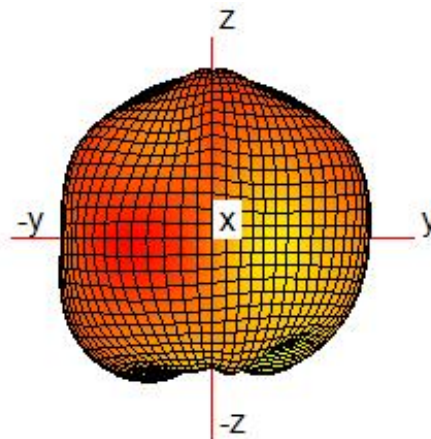
G20-L		
Freq (Mhz)	Effi (dB)	Gain (dBi)
2400	-3.8	3.4
2410	-3.9	3.5
2420	-3.9	3.5
2430	-3.9	3.6
2440	-4.0	3.5
2450	-4.3	3.1
2460	-4.3	2.9
2470	-4.4	2.6
2480	-4.4	2.3
2490	-4.7	1.5
2500	-4.7	1.2
5700	-7.8	-0.9
5750	-7.5	-0.4
5800	-6.7	-0.6
5850	-6.5	-1.5
5900	-7.4	-2.0

G20-L Antenna 3D radiation pattern

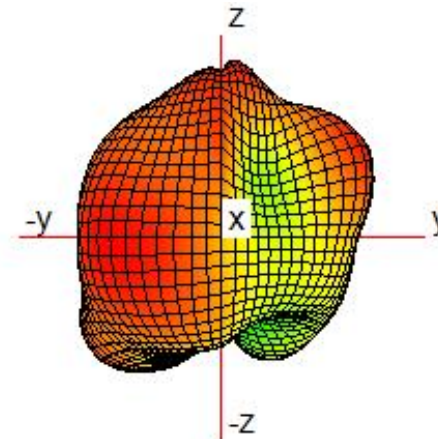
2400MHz



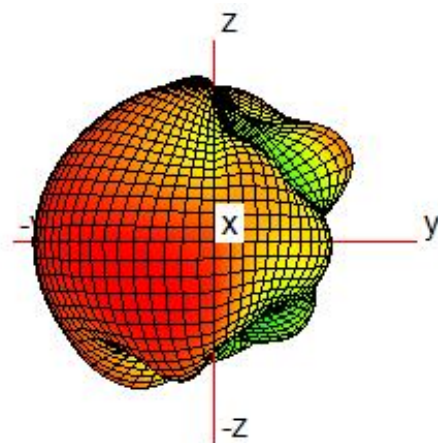
2450MHz



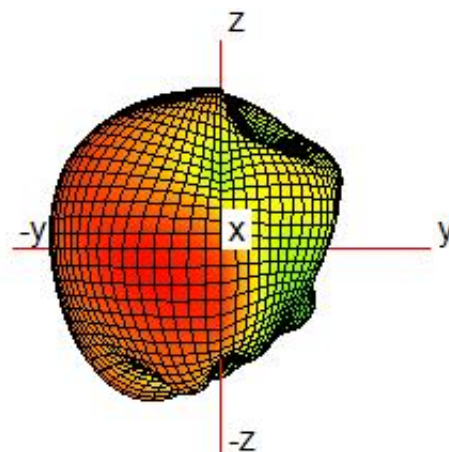
2500MHz



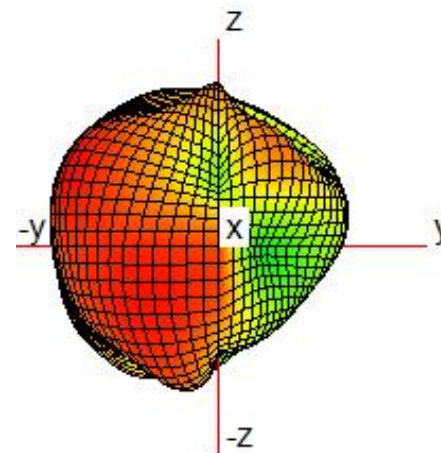
5700MHz



5800MHz

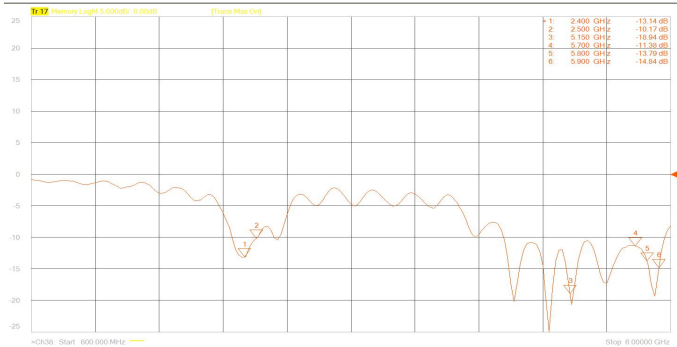


5900MHz



G20-R Antenna Test Results

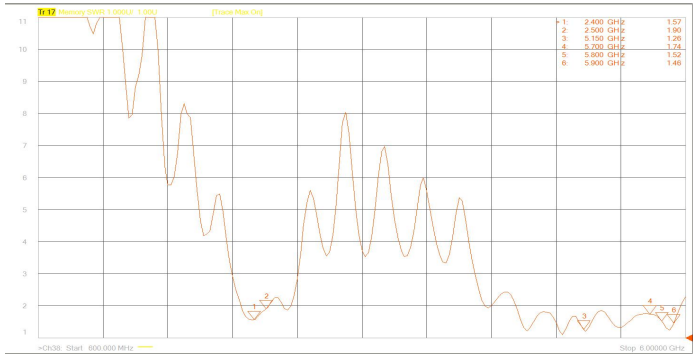
G20-R Antenna S11



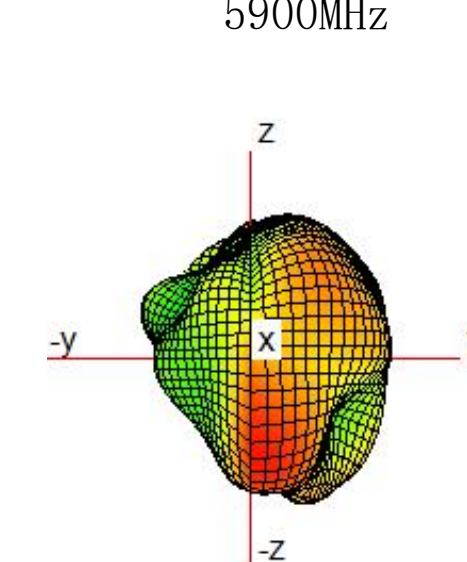
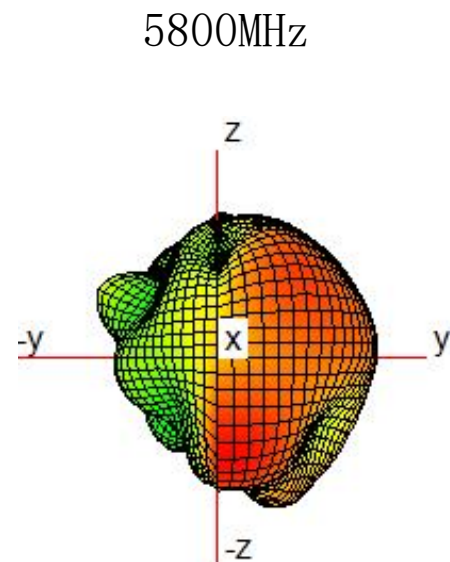
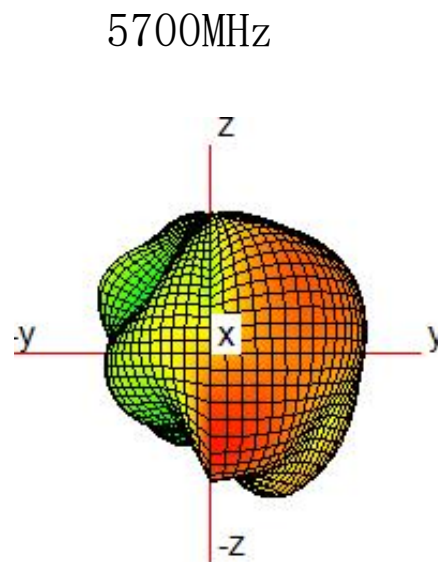
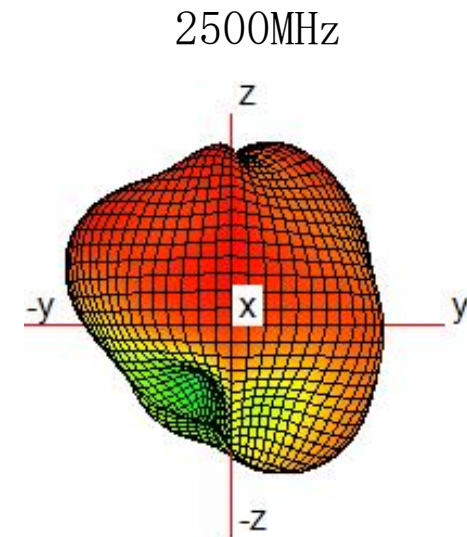
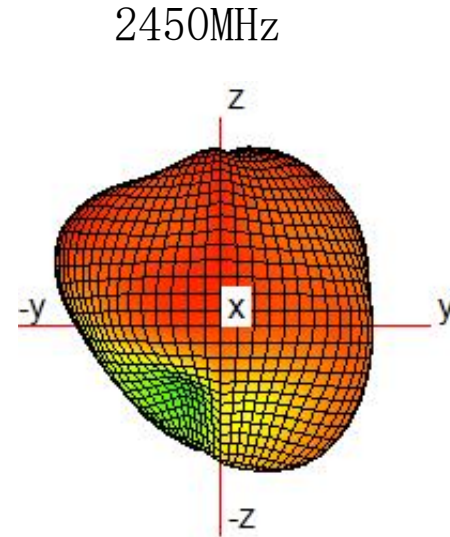
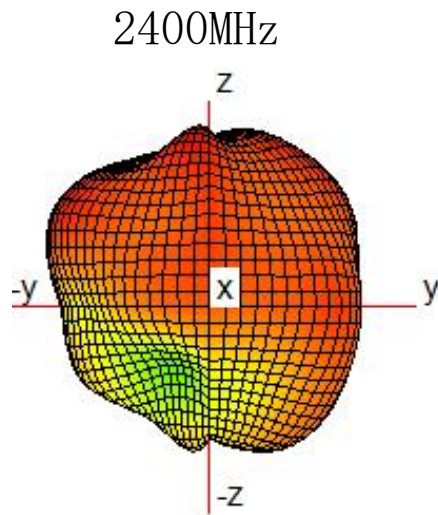
G20-R Antenna Passive Efficiency

G20-R		
Freq (Mhz)	Effi (dB)	Gain (dBi)
2400	-3.3	3.0
2410	-3.3	2.8
2420	-3.3	3.0
2430	-3.2	3.1
2440	-3.2	3.0
2450	-3.3	3.1
2460	-3.2	3.3
2470	-3.3	3.1
2480	-3.2	3.2
2490	-3.6	3.0
2500	-3.6	2.6
5700	-5.0	4.2
5750	-4.7	4.7
5800	-4.5	4.8
5850	-4.6	5.2
5900	-4.3	6.2

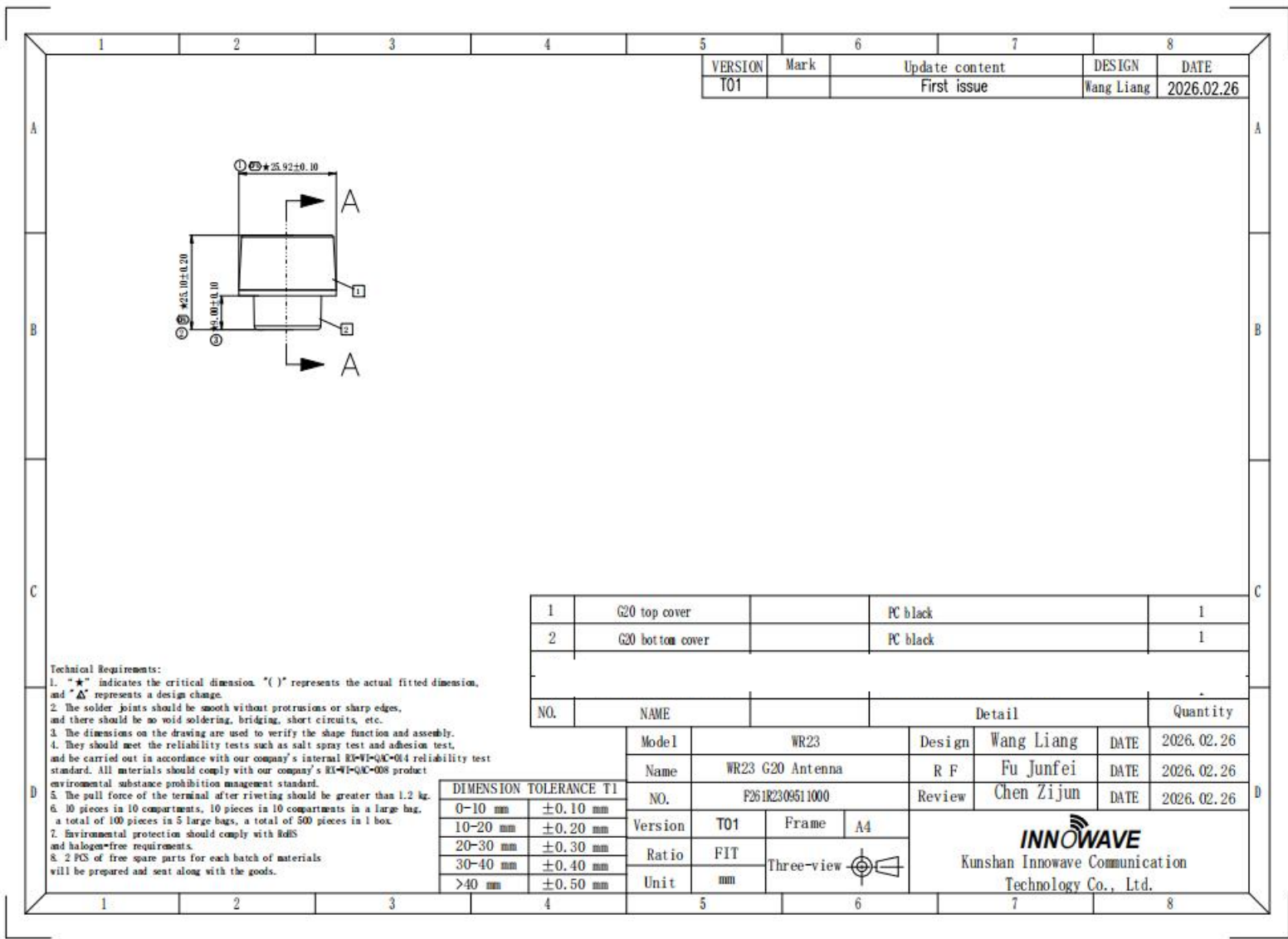
G20-R Antenna VSWR



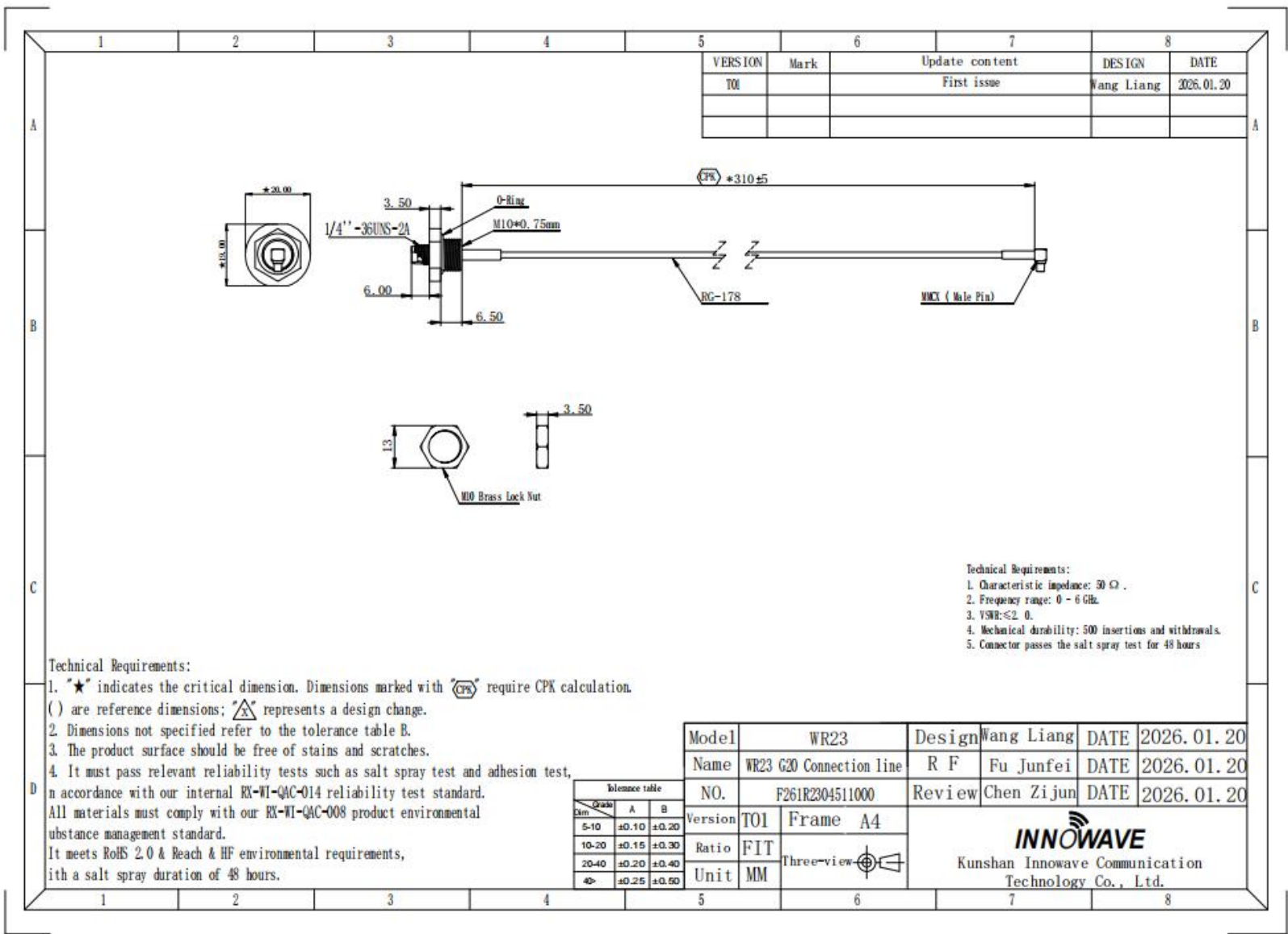
G20-R Antenna 3D radiation pattern



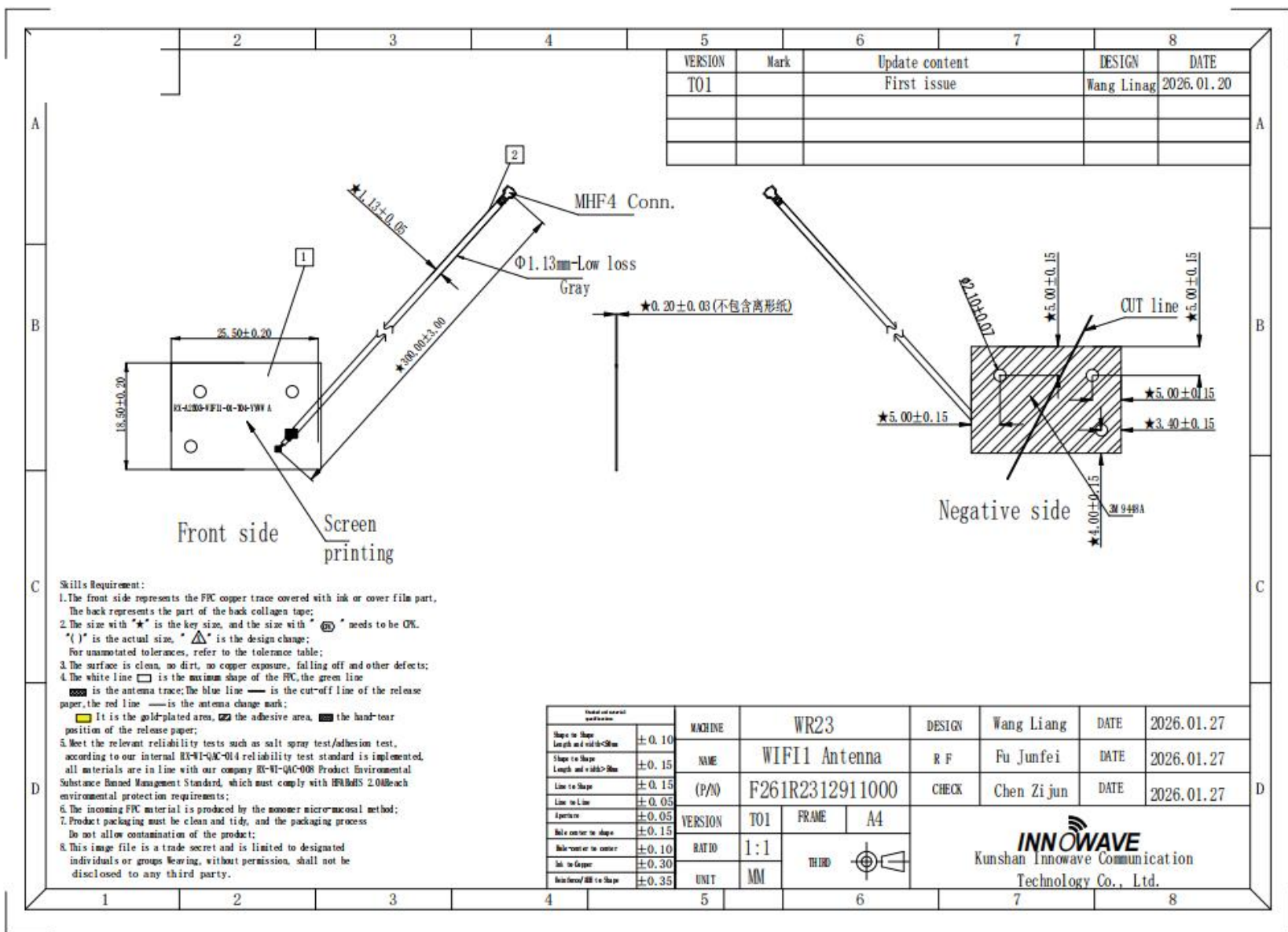
Antenna Drawings:G20 L&R



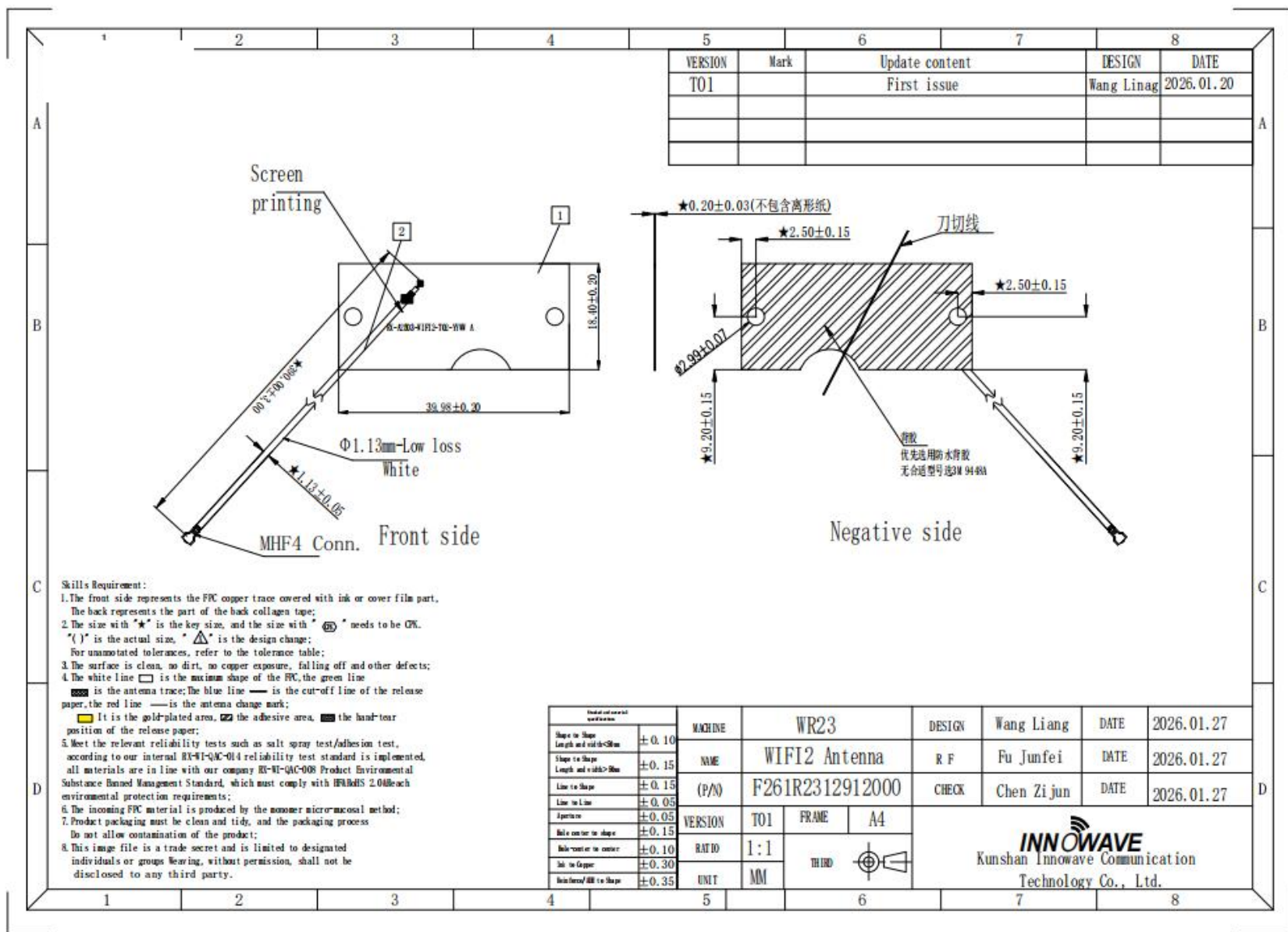
Antenna Drawings:G20 Cable



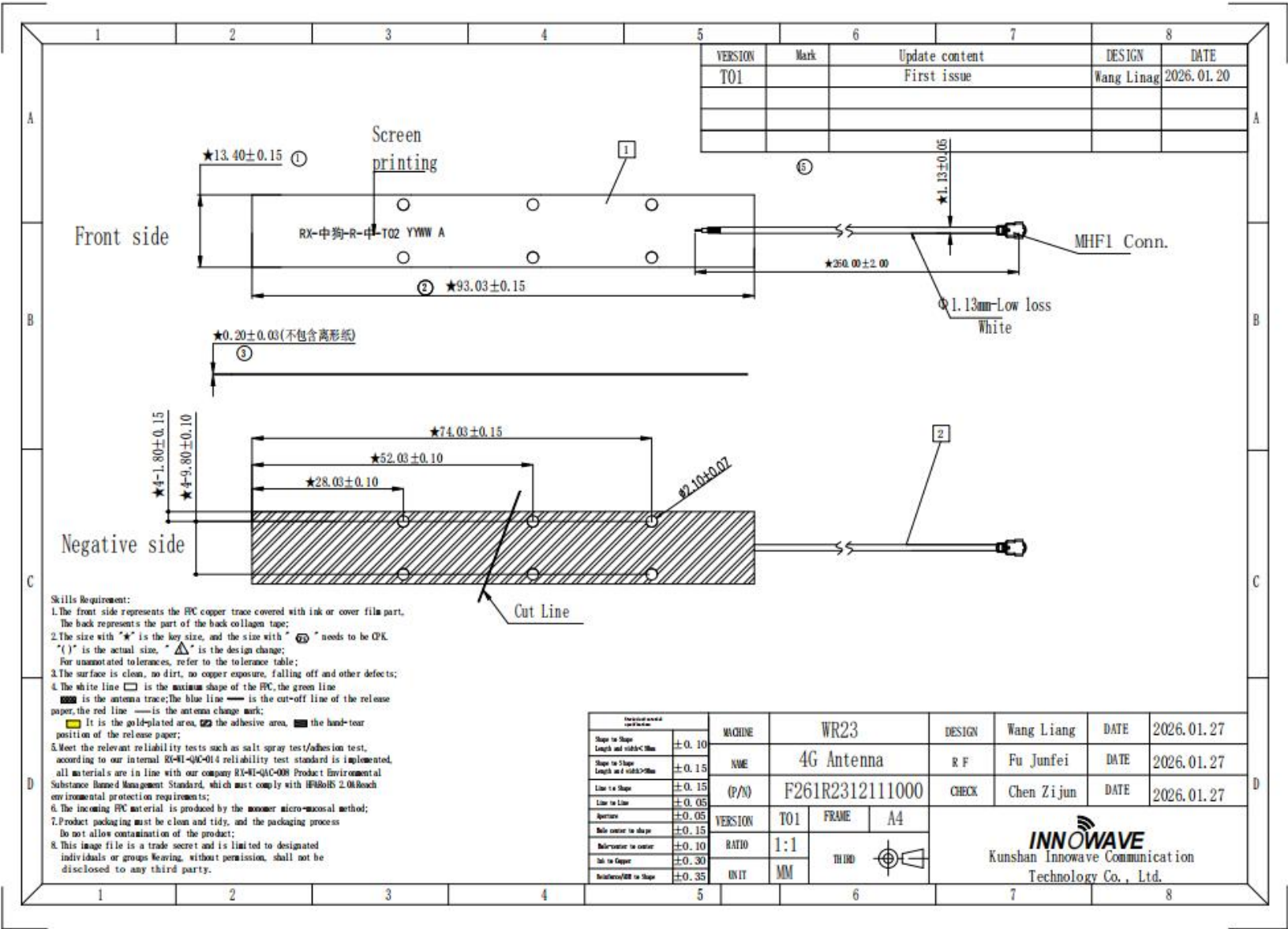
Antenna Drawings:WIFI1 Antenna



INNOWAVE



Antenna Drawings:MAIN Antenna



Antenna Drawings:BT Antenna

