

Antenna Testing Report

Customer: apical Technology

Project Name:D1015-6016AW

Report Number:SZ25406IA70-1/SZ25406IA70-2

Manufacturer: Sunnyway Technology(CHINA)

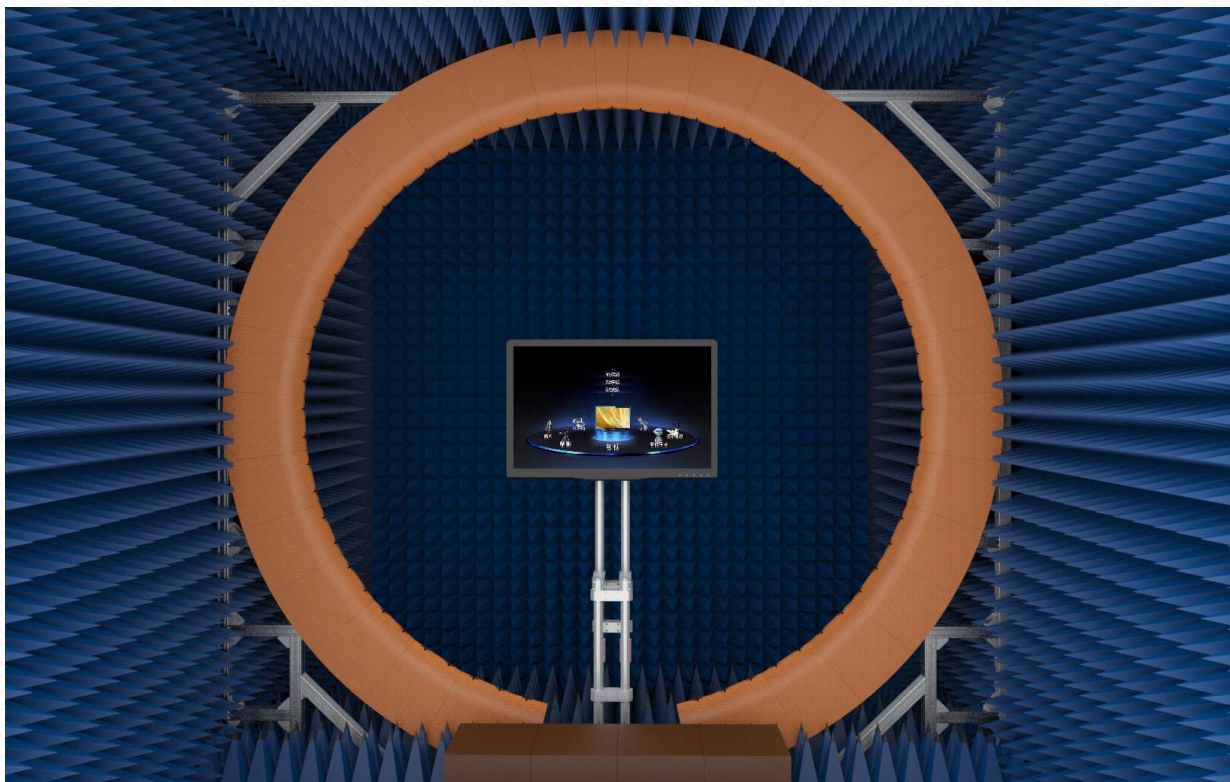
Address: Floor 6, Building 5, Nam Tai Inno Park, Guangming District,
Shenzhen

Report version: 2026/6/29

Version	Time	Update Notes
A0	2026/6/29	Latest test data
A1		
A2		
A3		
A4		
A5		
A6		
A7		
A8		
A9		

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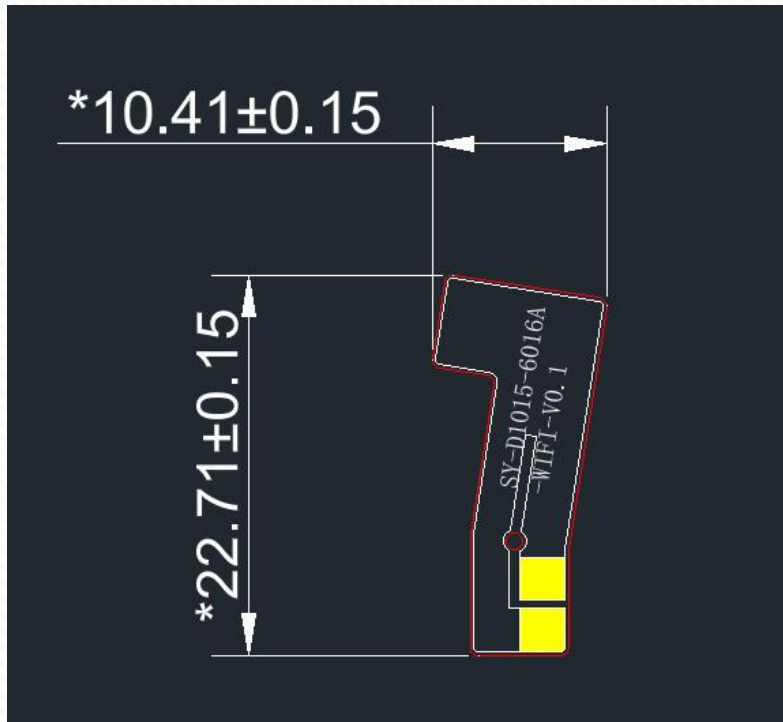
Prototype status	Active machine	Project Prototype Diagram: 
Product Type	Dashcam	
Number of antennas	two antennas	
Antenna frequency band	GPS: 1561MHZ/1575MHZ	
	WIFI 2.4	
Structural form	FPC+Ceramics	
Environmental management	No changes made	
Matching circuit	No changes made	



The industry's top 64 sensors OTA
chamber Frequency range: 400MHz-11GHz
Device Llimitation: 2M
Load-bearing limitation:100KG

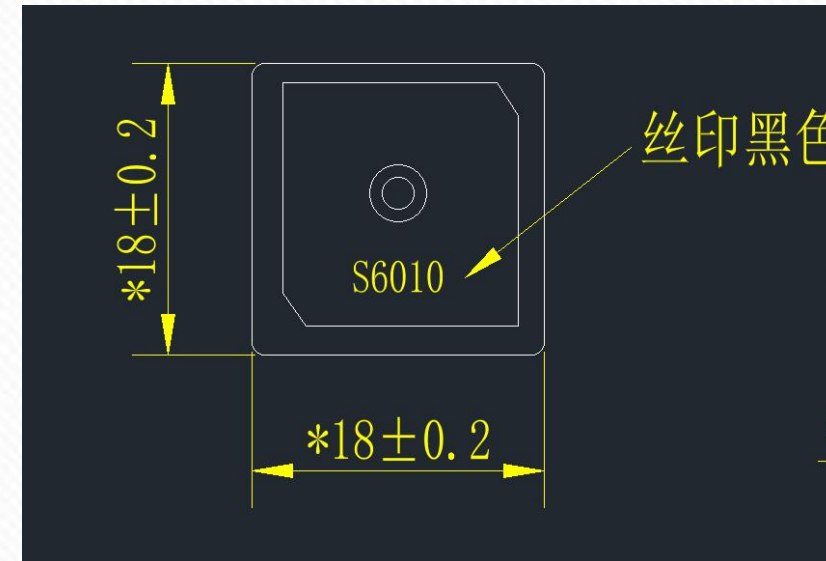
Equipments Items	Total Quantity	Quantity for Shanghai R&D	Quantity for Shenzhen R&D	Quantity for ChongQing R&D
OTA chamber	10	4	5	1
5G Tester (SP9500-CTS)	3	1	1	1
R&S Tester (high configuration CMW500)	6	3	2	1
Japan Anritsu Tester (Dual Channel 8820)	4	2	2	--
NB-IoT Tester (SP8315)	3	1	1	1
Agilent Tester (8960)	9	4	4	--
Agilent Network Analyzer (E5062A)	7	3	3	1
Agilent Network Analyzer (E5071C 8.5GHZ)	11	5	5	1
Agilent Network Analyzer (E5071B 8.5GHZ)	7	3	3	1
R&S Network Analyzer (ZND)	9	4	4	1
R&S Network Analyzer (ZVB)	3	1	1	1
OTA head hand / ear hand / arm hand	5	2	2	1
GPS/WIFI active test equipment	5	2	2	1

WI FI antenna/Antenna size

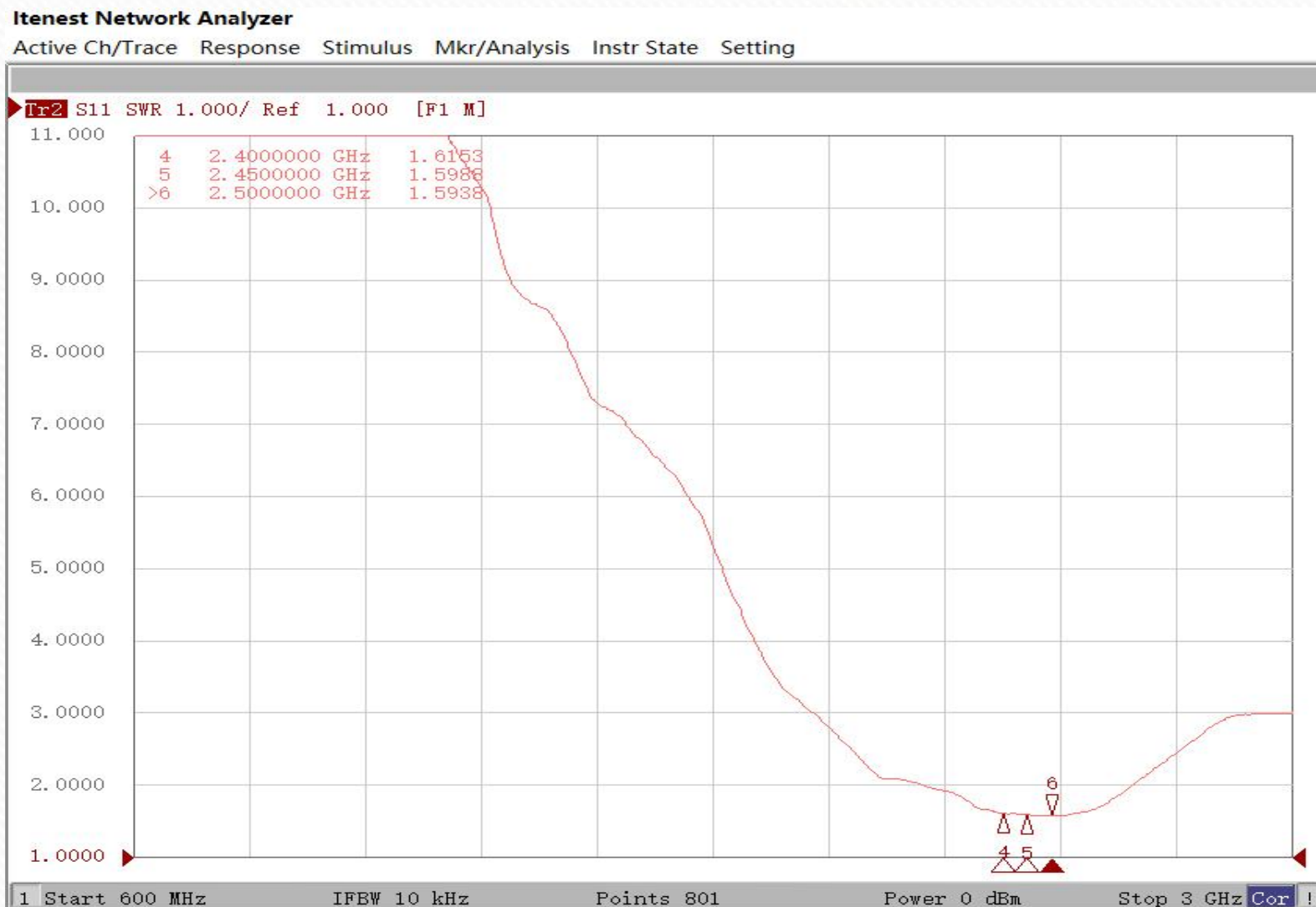


WI FI Antenna type: Steel sheet
WI FI Antenna model: **SZ26094IB75**

GPS antenna/Antenna size



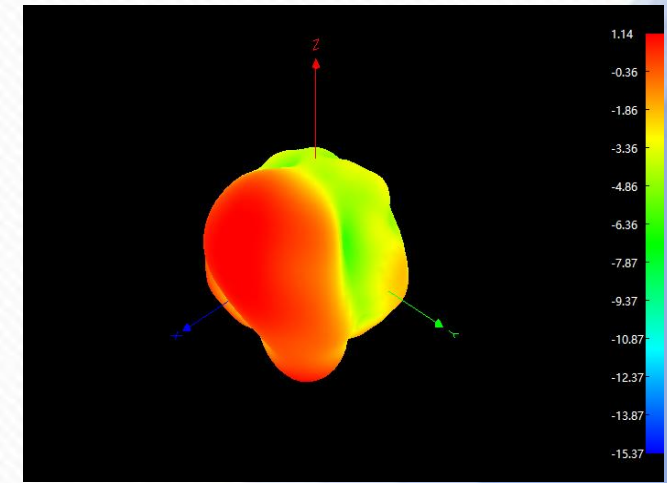
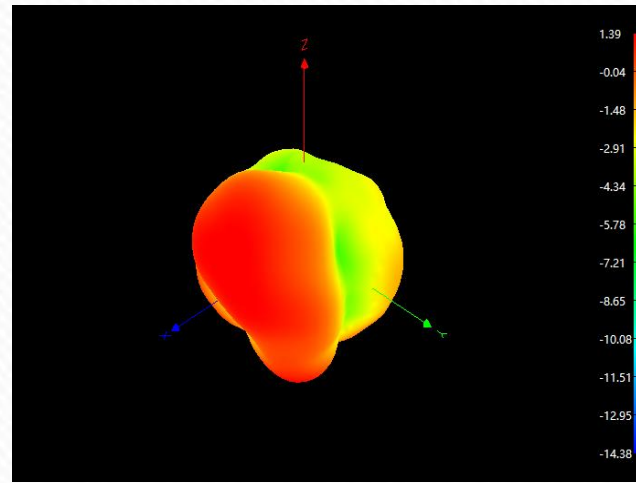
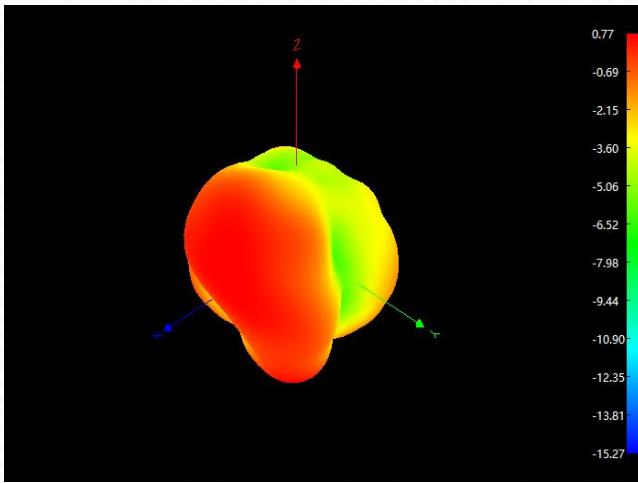
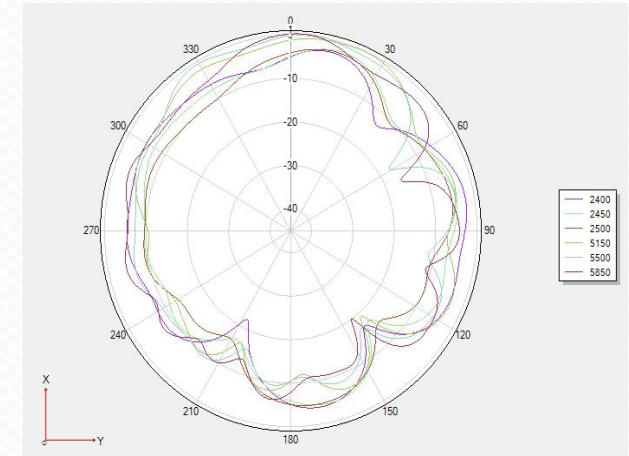
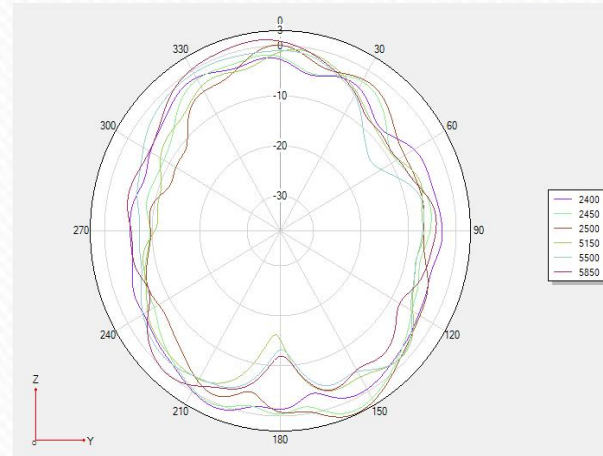
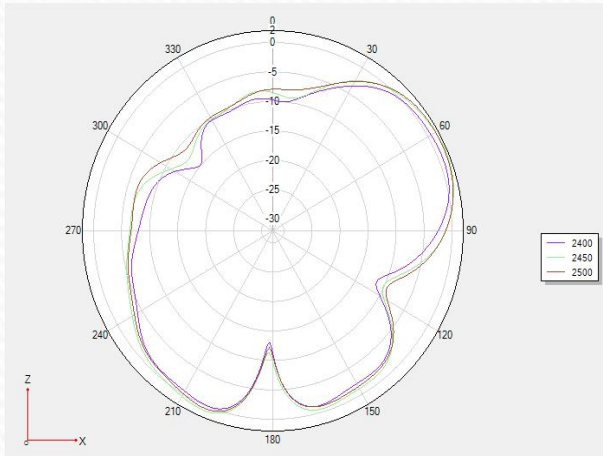
GPS Antenna type: CERAMIC
GPS Antenna model: **SZ26094IA54**



2.4G-WiFi Antenna efficiency

Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	0.77	46.52
2410	1.29	50.16
2420	1.06	43.98
2430	1.11	43.64
2440	1.23	47
2450	1.39	50.08
2460	1.21	45.23
2470	1.31	43.53
2480	1.25	49.2
2490	1.28	50.98
2500	1.14	47.84

2.4G-WiFi Antenna Radiation Pattern



Antenna OTA test data

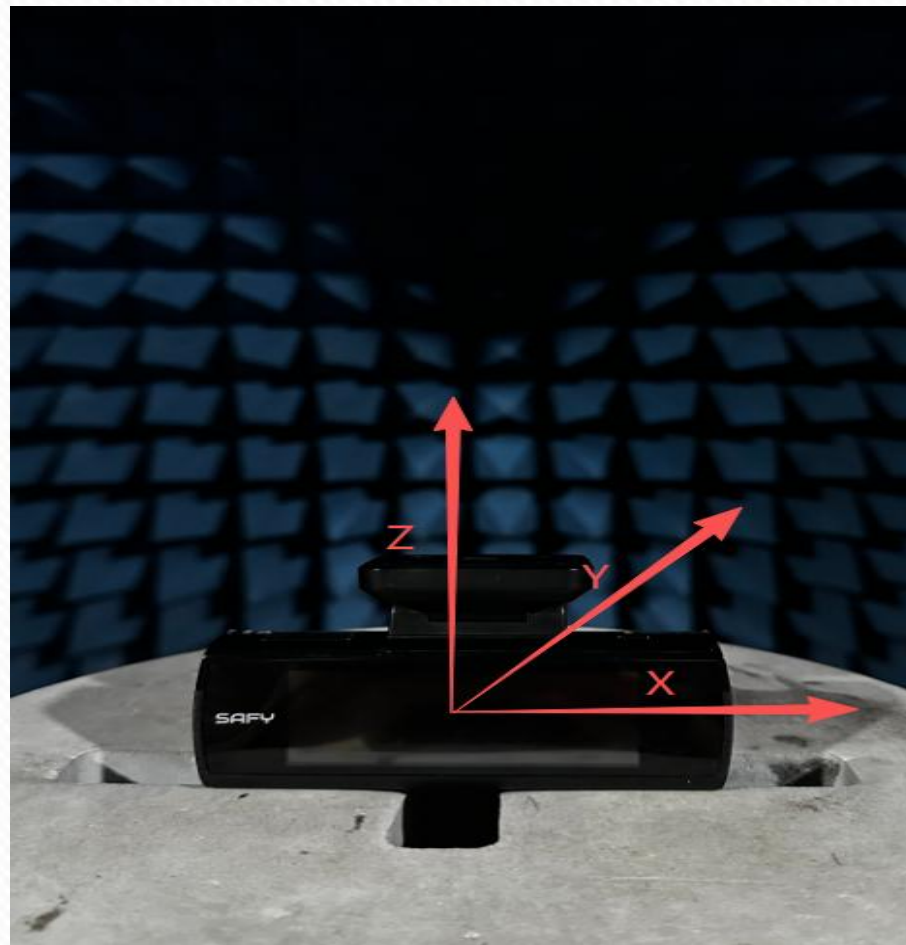
Measurement	Band	Channel	Total
TRP	WIFI_B (1M)	1	11.25
TRP	WIFI_B (1M)	7	11.33
TRP	WIFI_B (1M)	13	11.34
TIS(EIRP)	WIFI_B (11M)	1	-81.85
TIS(EIRP)	WIFI_B (11M)	7	-81.7
TIS(EIRP)	WIFI_B (11M)	13	-81.72
TRP	WIFI_G (6M)	1	8.94
TRP	WIFI_G (6M)	7	8.91
TRP	WIFI_G (6M)	13	8.92
TIS(EIRP)	WIFI_G (54M)	1	-69.88
TIS(EIRP)	WIFI_G (54M)	7	-70.2
TIS(EIRP)	WIFI_G (54M)	13	-69.63
TRP	WIFI_N_ISM (6.5M)	1	8.11
TRP	WIFI_N_ISM (6.5M)	7	8.14
TRP	WIFI_N_ISM (6.5M)	13	8.09
TIS(EIRP)	WIFI_N_ISM (65M)	1	-64.02
TIS(EIRP)	WIFI_N_ISM (65M)	7	-64.05
TIS(EIRP)	WIFI_N_ISM (65M)	13	-64.17



Frequency/Mhz	MaxGain/dBi	Efficiency / %
1555	-1.44	37.33
1556	-1.05	40.09
1557	-0.72	42.95
1558	-0.38	45.6
1559	-0.07	47.97
1560	0.19	50
1561	0.36	50.29
1562	0.52	49.48
1563	0.63	50.33
1564	0.69	52.08
1565	0.71	53.7
1566	0.73	53.95
1567	0.64	53.58
1568	0.57	52.95
1569	0.53	52.6
1570	0.47	51.17
1571	0.43	49.43
1572	0.35	47.75
1573	0.22	46.03
1574	0.03	44.36
1575	-0.19	42.85
1576	-0.36	41.21
1577	-0.56	39.63
1578	-0.76	37.84
1579	-0.97	35.97
1580	-1.19	33.81



Ten 40+



- 1.No changes were made to the environmental handling.
- 2.The antenna matching was not adjusted.

Thank You

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