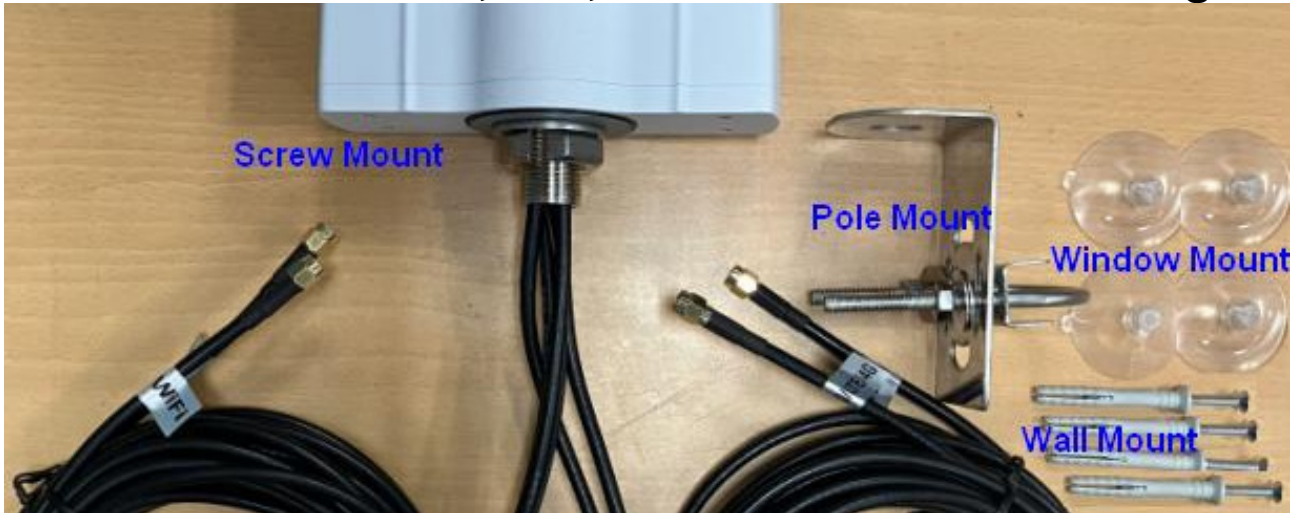
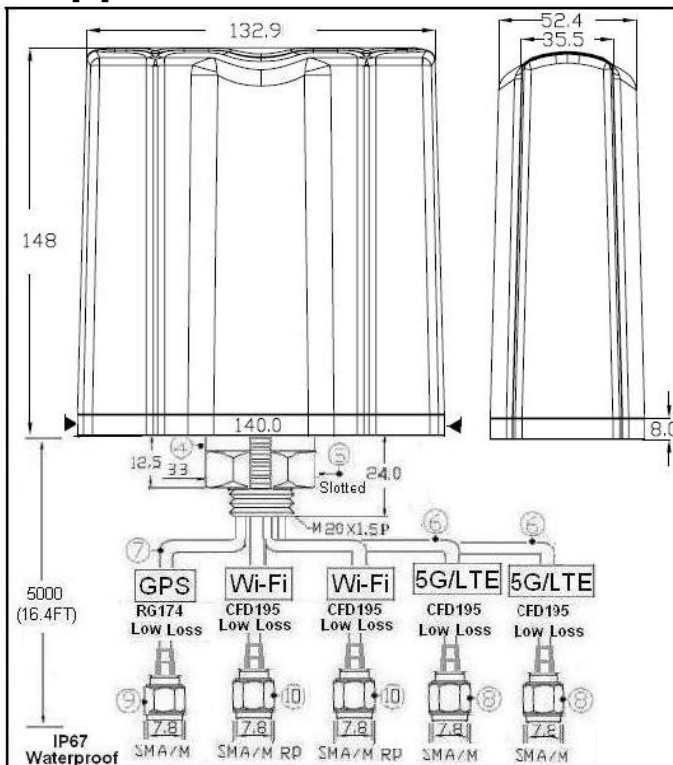


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7-1. Permanent Screw, Wall, Pole and Window mounting



8. Appearance



01	Top Plastic Shell	PC		1
02	Base Housing	PC		1
03	Rubber Adhesive	Rubber	Gray	1
04	Spring washer (Groove)	Stainless steel		1
05	NUT M20x1.5P (Groove)	Stainless steel		1
06	CFD195 Low Loss Cable	PVC	Black	4
07	RG174 Low Loss Cable	PVC	Black	1
08	SMA(M) ST CFD195	Brass	AuPlated	2
09	SMA(M) ST RG174	Brass	AuPlated	1
10	SMA(M) ST RP CFD195	Brass	AuPlated	2
11	Label LTE	PET	Silver	2
12	Label WiFi	PET	Silver	2
13	Label GPS	PET	Silver	1

MIMO 5in1 Antenna GPS+LTEx2+WiFiX2
 CPG65(5in1)-V1-GNSS+2xLTE+2xWiFi-CFD195-5M-SMA x 5
 MIMO Omni 4x4 Permanent Serew,Wall,Pole,Window mounting Outdoor Combo Antenna



CUSTOMER'S	MODEL	PARTS NUMBER	FREQUENCY	UNIT	SCALE	DATE	VERSION
				M/M			I
TOLERANCE	X, XX±0, 15	NAME	PARTS NUMBER	PPROVED	CHECKED	DRAWING	DESIGNED
SURFACE ROUGHNESS	S √V	APPEARANCE		Jack		Jimmy	Jimmy

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9 .GNSS/GPS Antenna Frequency : 1575.42-1602.00MHz

9-1. Electrical Specification:

* All values are defined at $25\pm 15^{\circ}\text{C}$, $65 \pm 20\% \text{RH}$, power handling 1 u watt , air pressure $960\pm 100 \text{ HPA}$ unless noted.

* Patch characteristics are measured with 70x70 mm ground plane in an anechoic chamber.

9-2) Patch

Characteristics	Specification
Center Frequency	1575.42-1602.00 MHz (when covered with a radome and measured by LNA ground plane)
Bandwidth (10dB return loss)	10 MHz min @ $S_{11} \leq -10\text{dB}$
Gain at Zenith	2 dBic type
Gain at 10° elevation	-7 dBic min
Polarization	R.H.C.P

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Axial Ratio	3 dB type
VSWR	<2.0:1

9-3) Filter / LNA

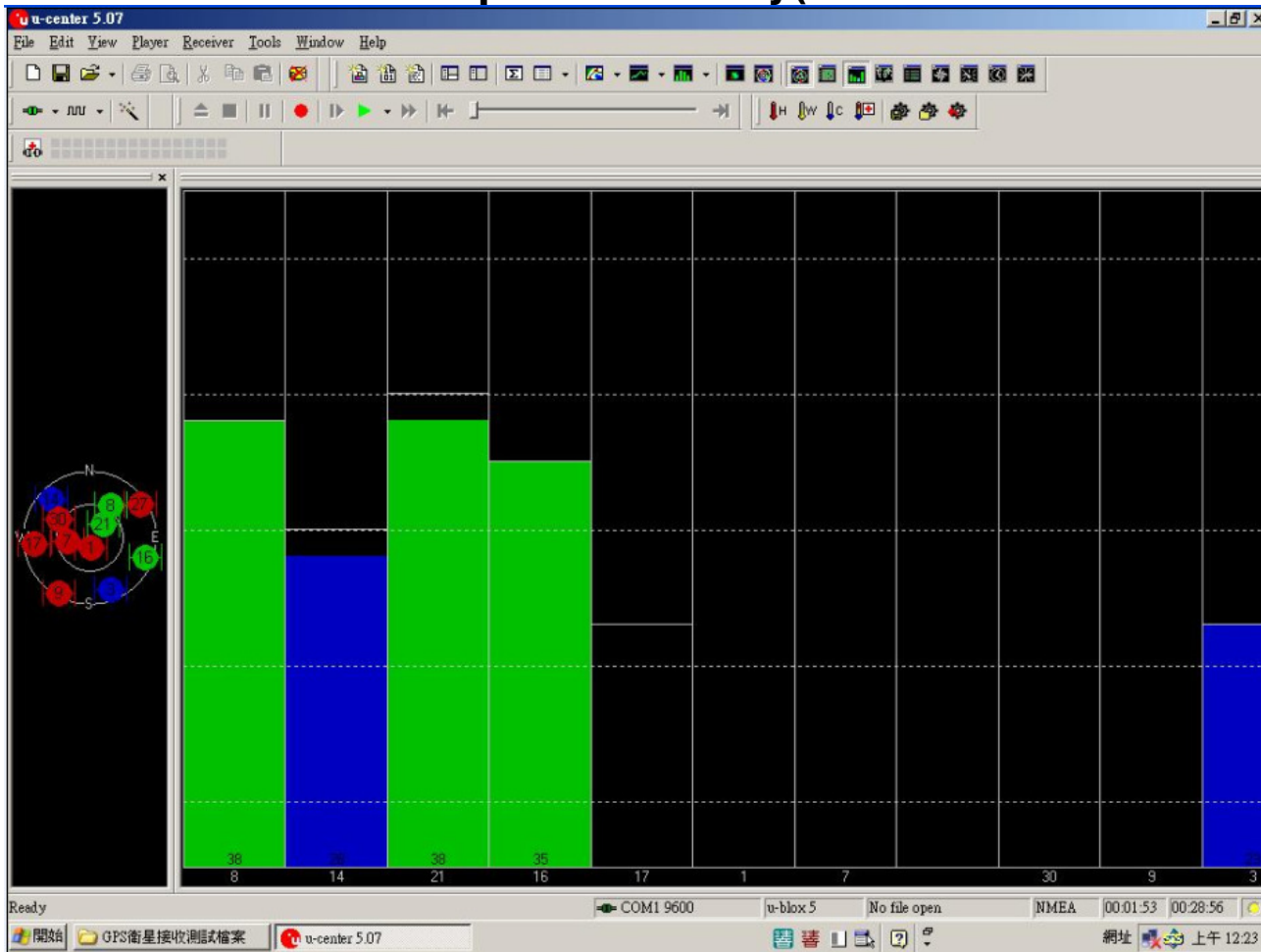
Characteristics	Specification
Center Frequency	1575.42-1602.00MHz
Gain	27-30 dB type
Transmission Log Mag	1575.42MHz (-6.410dB) 1602.00MHz (-8.213dB)
Noise Figure	1.5 dB type
Output V.S.W.R	2.0 max
Voltage	2.3~5.5 V
Current	2.3V : 6.6 mA Typical
	3.0 V : 8.6 mA Typical
	4.0 V : 12.6 mA Typical
	5.5 V : 16 mA Typical

9-4 GPS Log MAG & UFS RF NETWORK ANALYZER 8714ET (20-Jun-2022)



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9-5 GPS Satellite reception intensity(20-Jun-2022 AM12:38)

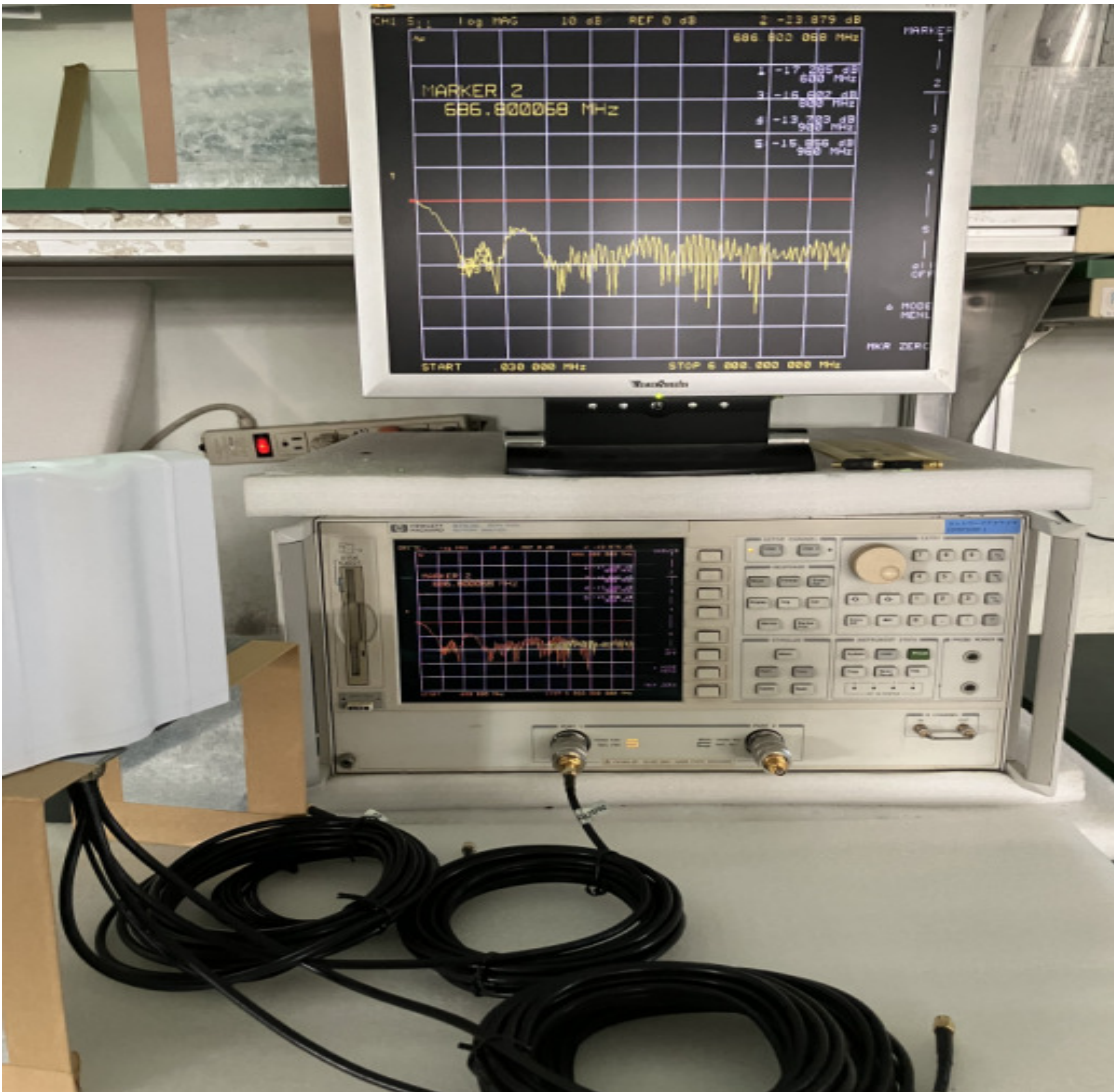


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**10. 5G/LTE/4G Multi-band Network analyzer test HP8753E
Frequency :600~960/1710~2170/2400~2700/3200-3800MHz
Cable:2 and 3**

10-1.Detail band test- frequency : 600~960MHz (20-Jun-2022)

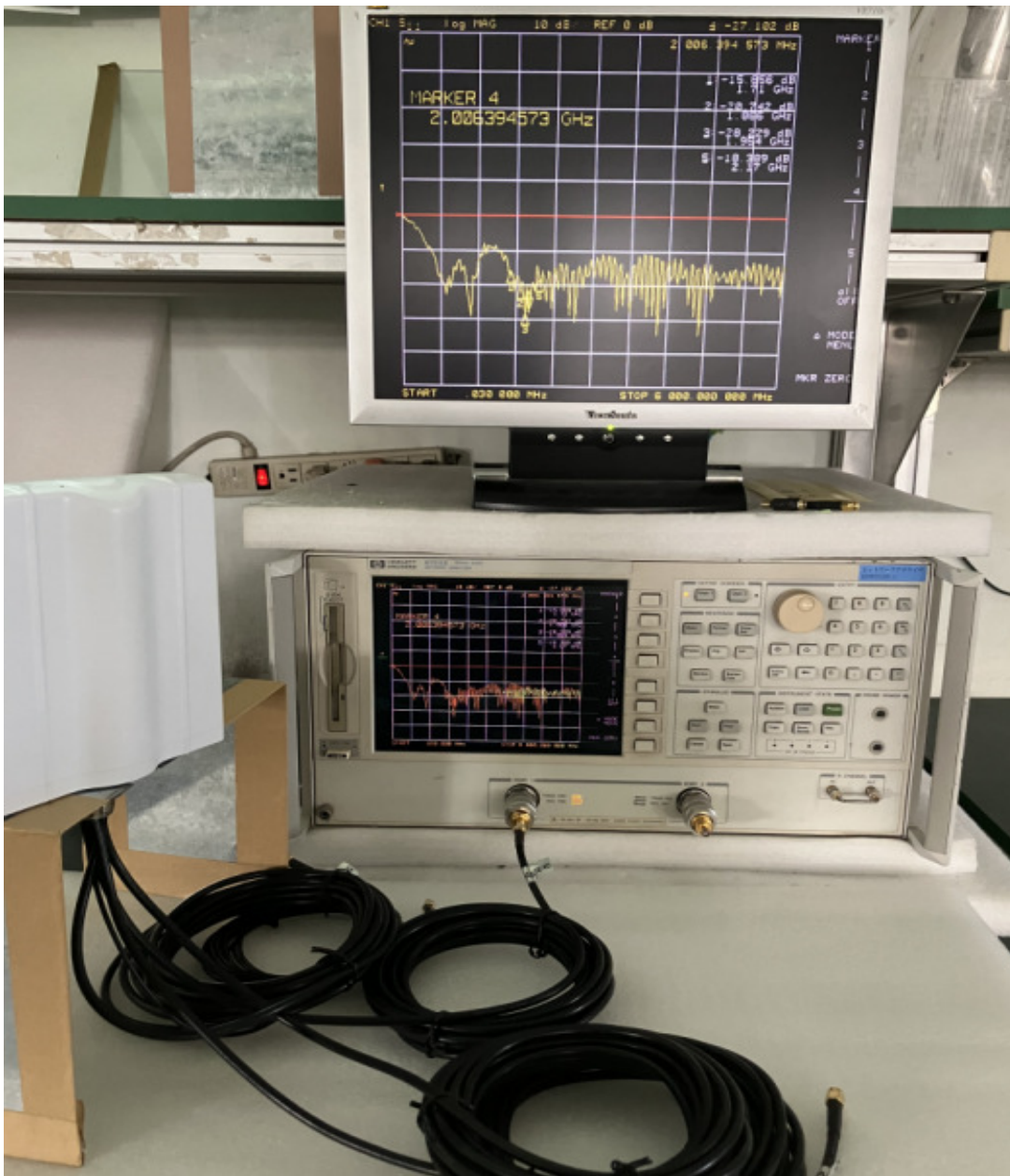
Frequency	Return loss	V.S.W.R	Reflection coefficient
600.000MHz	-17.285dB	1.317:1	0.137
686.800MHz	-23.879dB	1.137:1	0.064
800.000MHz	-16.802dB	1.338:1	0.145
900.000MHz	-13.703dB	1.520:1	0.206
960.000MHz	-15.856dB	1.384:1	0.161



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10-2.Detail band test - frequency : 1710~2170MHz

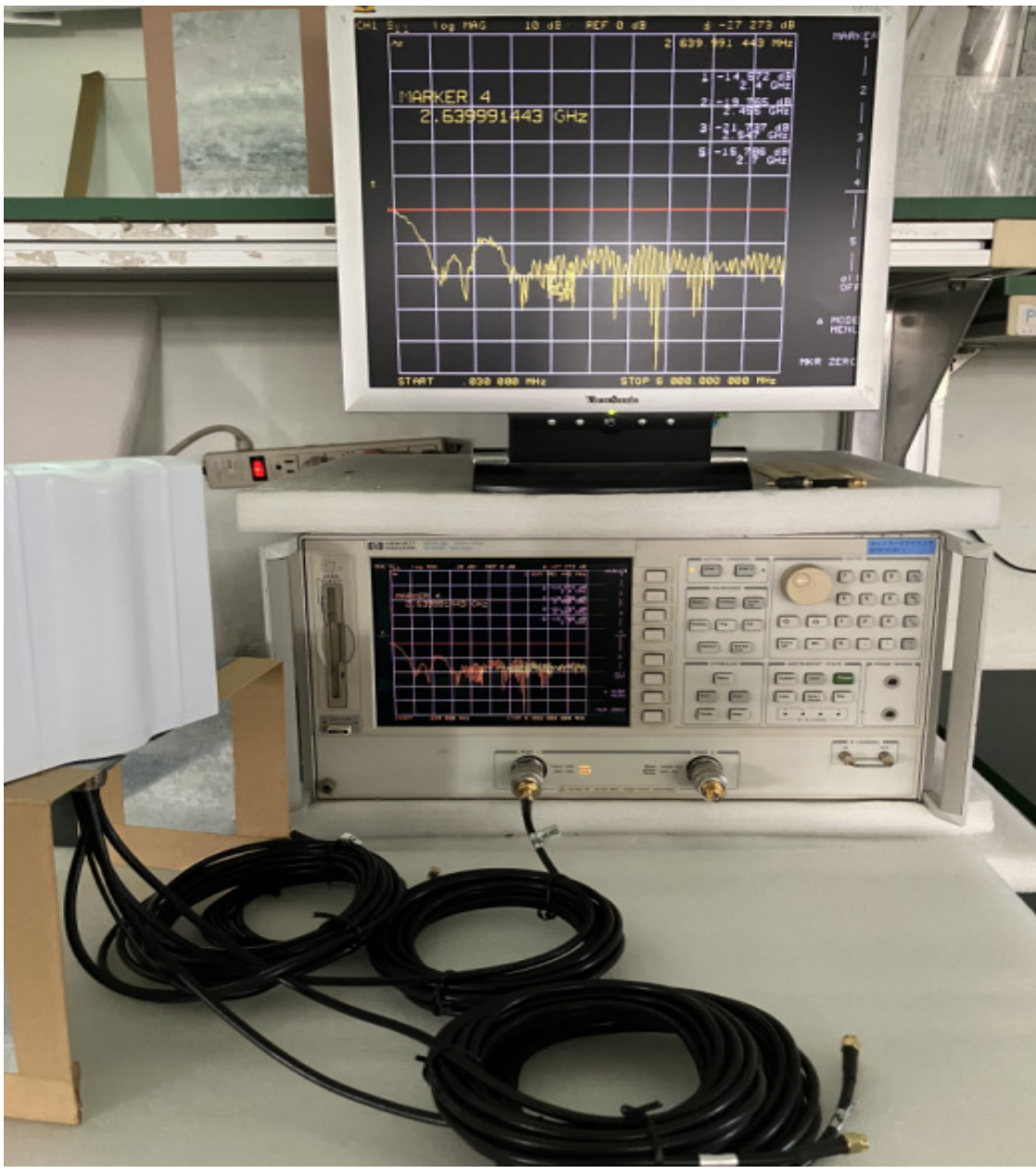
Frequency	Return loss	V.S.W.R	Reflection coefficient
1710.00MHz	-15.856dB	1.384:1	0.161
1866.00MHz	-20.742dB	1.202:1	0.092
1954.00MHz	-28.229dB	1.081:1	0.039
2006.39MHz	-27.102dB	1.092:1	0.044
2170.00MHz	-18.389dB	1.274:1	0.120



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10-3. Detail band test - frequency : 2400-2700MHz

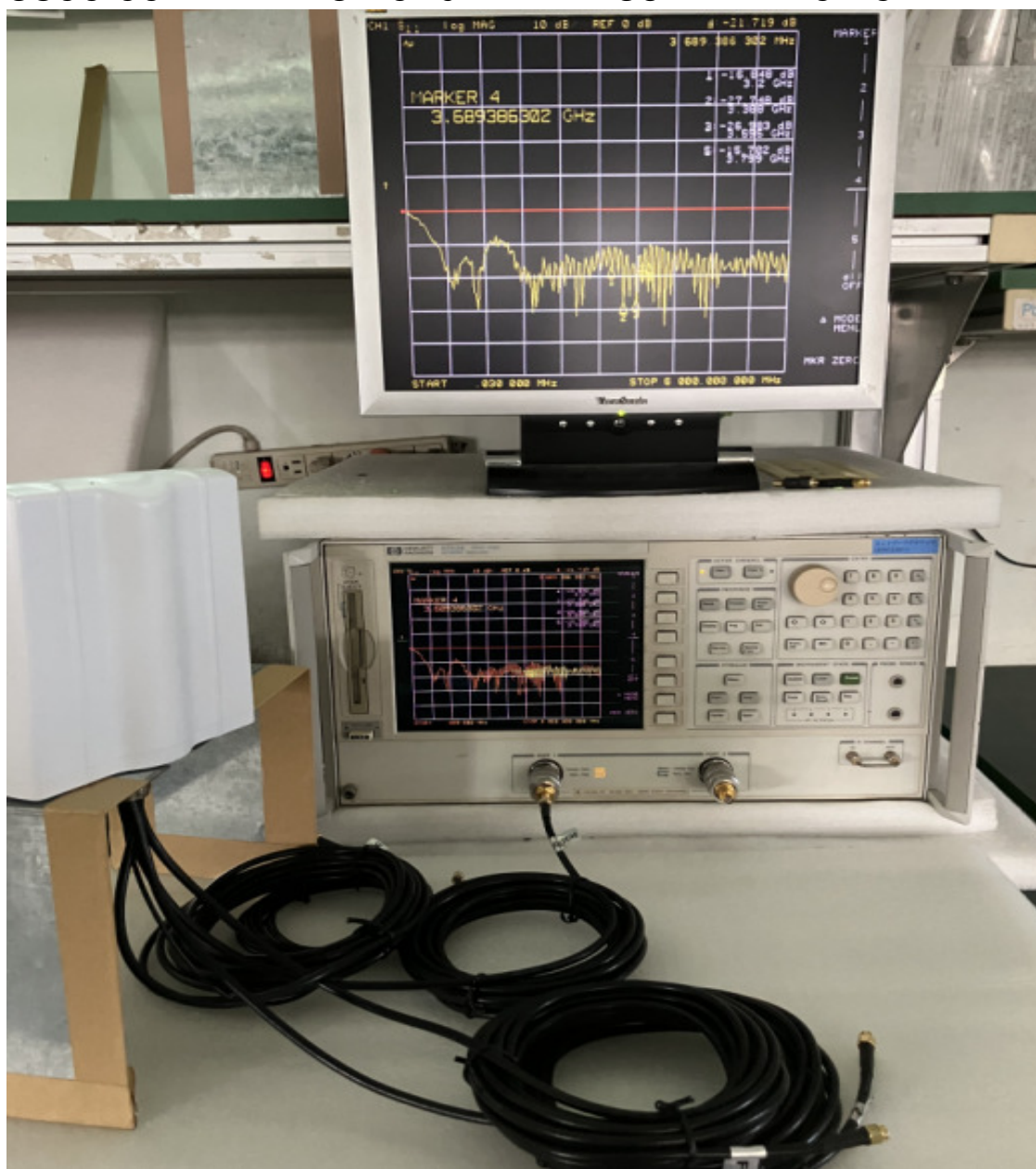
Frequency	Return loss	V.S.W.R	Reflection coefficient
2500.00MHz	-14.572dB	1.459:1	0.187
2450.00MHz	-19.752dB	1.229:1	0.103
2547.00MHz	-21.737dB	1.178:1	0.082
2639.99MHz	-27.273dB	1.090:1	0.043
2700.00MHz	-15.786dB	1.388:1	0.162



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10-4. Detail band test - frequency : 3200-3800MHz

Frequency	Return loss	V.S.W.R	Reflection coefficient
3200.00MHz	-16.848dB	1.336:1	0.144
3388.00MHz	-27.748dB	1.085:1	0.041
3595.00MHz	-26.983dB	1.094:1	0.045
3639.38MHz	-21.719dB	1.179:1	0.082
3800.00MHz	-15.702dB	1.392:1	0.164



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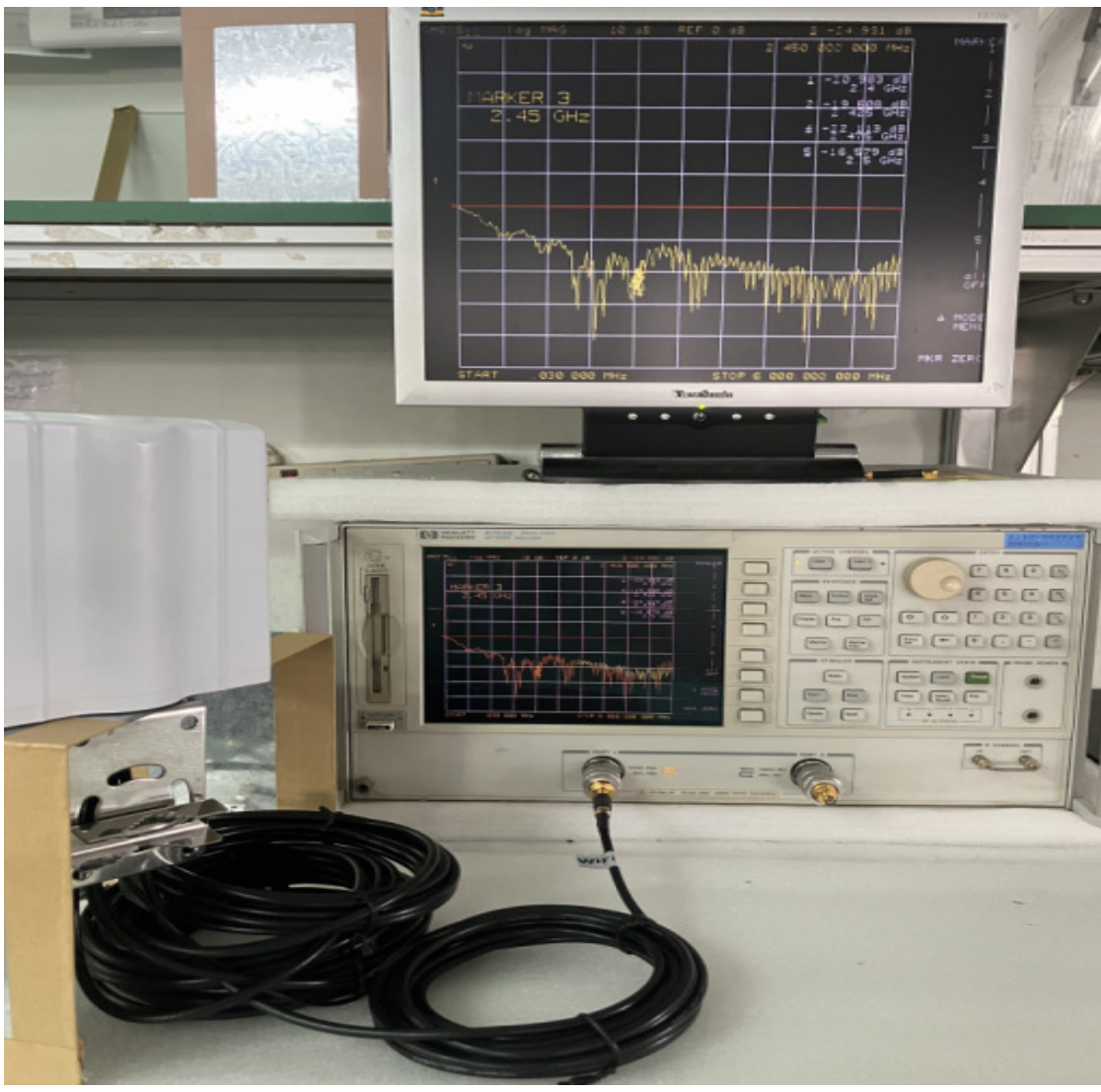
11. WiFi/WLAN Multi-band Network analyzer test HP8753E

Frequency :2.4~2.5/5.0~5.2/5.7~6.0GHz

Cable: 4 and 5

11-1.Detail band test - frequency : 2400~2500MHz

Frequency	Return loss	V.S.W.R	Reflection coefficient
2400.00MHz	-20.983dB	1.196:1	0.089
2425.00MHz	-19.608dB	1.105:1	0.105
2450.00MHz	-24.931dB	1.120:1	0.057
2475.00MHz	-22.113dB	1.170:1	0.078
2500.00MHz	-16.579dB	1.348:1	0.148



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11-2.Detail band test-frequency : 5.0~5.2/5.7~6.0GHz

Frequency	Return loss	V.S.W.R	Reflection coefficient
5000.00MHz	-26.732dB	1.097:1	0.046
5100.00MHz	-27.345dB	1.090:1	0.043
5200.00MHz	-21.956dB	1.174:1	0.080
5700.00MHz	-22.747dB	1.157:1	0.073
5800.00MHz	-24.907dB	1.121:1	0.057

