

PROFESSOR TECHNOLOGY CO.,LTD..

INTRODUCTION

**MIMO Omni Panel Combo Antenna
CP64(4x4)-4xLTE/5G-CFD195-5M-SMAx4
Permanent Screw (M20x1.5P) and Wall,
Pole,Window mounting Combo Antenna**

4-Cables : 4xLTE/5G (4x4)

**Cable1~4 5G/LTE/4G/3G CFD195 Low loss 5M(16.4ft) SMA/M
600-960/1710-2170/2400-2700/3200~3800MHz 3-5dBi**

1. INERAL DESCRIPTION

Model No	Products P/N
CP64(4x4)-4xLTE/5G-CFD195-5M-SMA/M	CP64-5M-V1

Below is a table summarizing the 5G/LTE/4G/3G/GSM (4in1) antenna design specification.



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2.Cable 1-4: (4x4) 5G LTE

2.1 5G/LTE/4G/3G/GSM Multi-band Antenna Electrical Properties

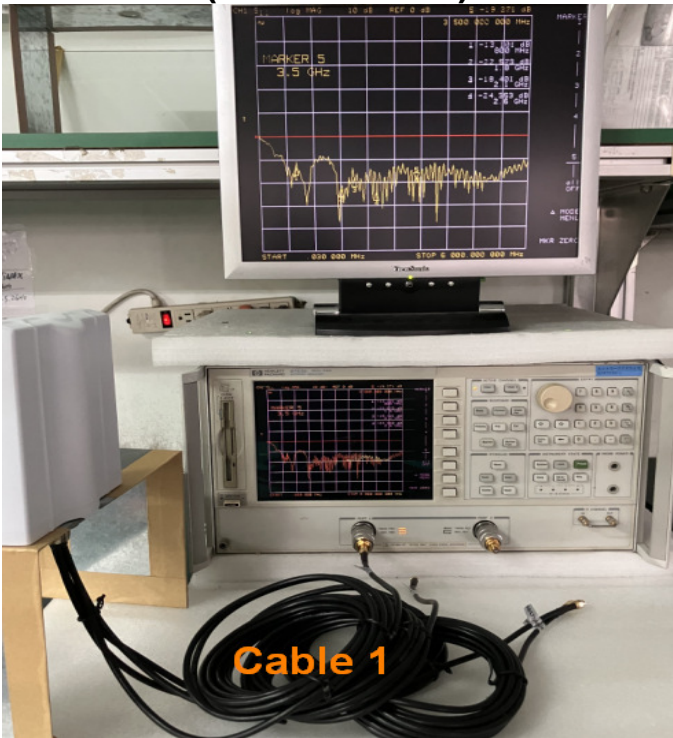
Parameter	Description
Communication System	5G/LTE/4G/3G/AMPS/GSM/DCS/UMTS
Frequency Band (MHz)	600~960/1710~2170/2400~2700/3200~3800MHz
Average Efficiency	75%/85%/80%80%
Average Gail	5.0~8.0dBi
Nominal Impedance	50 ohm
Polarization	Vertical
Return Loss (Check test Data)	691.01MHz (-22.308dB),1762MHz (-39.202dB), 2606MHz (-26.609dB),3570MHz (-25.385dB)
V.S.W.R <1.5:1	691.01MHz (1.166:1),1762MHz (1.022:1), 2606MHz (1.098:1), 3570MHz (1.114:1)
Reflection coefficient	691.01MHz (0.077),1762MHz (0.011), 2606MHz (0.047),3570MHz (0.054)

2.2 5G/LTE/4G/3G/2G Multi-band Antenna Mechanical Properties

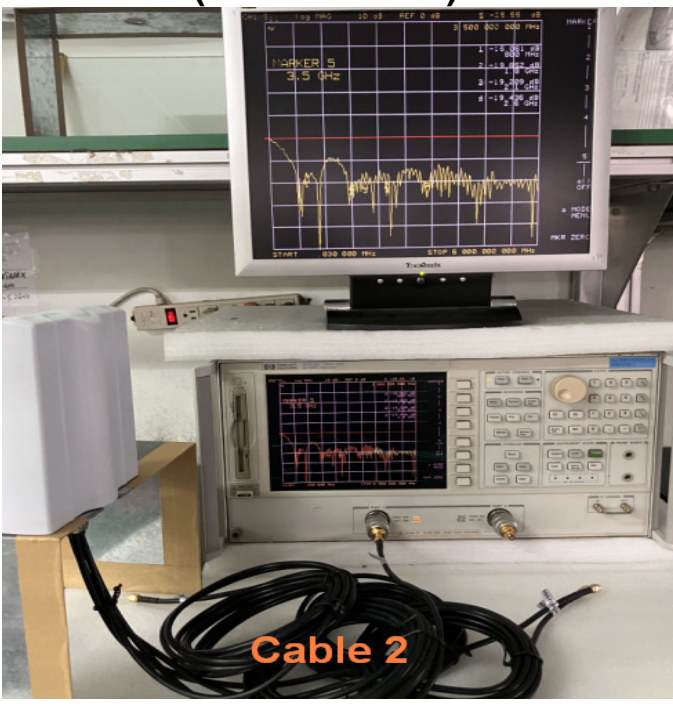
Parameter	Description
Antenna Type	External Antenna
Touch Type	Screw Type (M20x1.5P) Slotted
Mounting	Screw,Wall,Pole and Window
Antenna size	L:140mm x W:52.4mm x H:148mm
Antenna Material	PC & ABS
Antenna cable	CFD195 Low less
Connector Type	SMA 180°(Male)
Antenna Cable Total Length	5000mm (16.4ft)
Antenna Color	White
Waterproof	100% waterproof.(IP66~IP67)
Operating Temperature Range	-30℃~+70℃
Storage Temperature Range	-40℃~+80℃
Shock (Drop Test)	100cm drop on concrete

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Cable 1: 5G/LTE/4G/3G/GSM Multi-Band Network analyzer test HP8753E (15-Jun-2022)

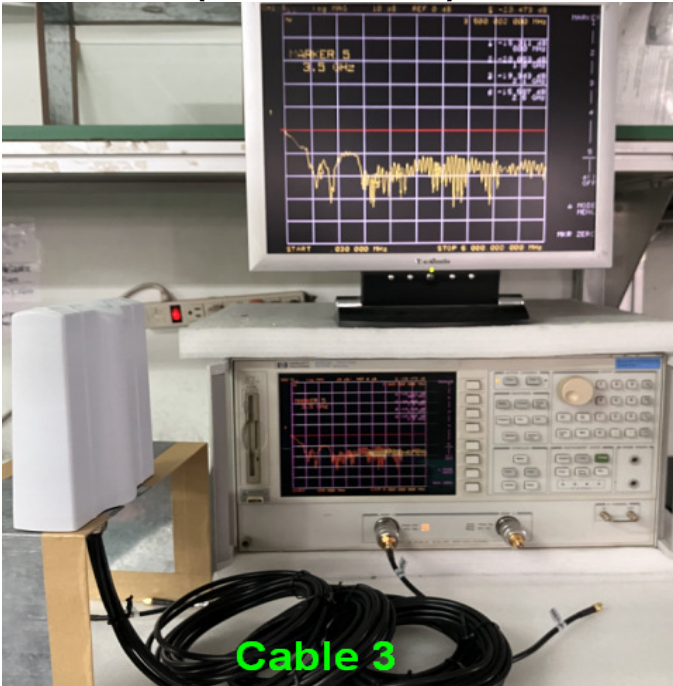


Cable 2: 5G/LTE/4G/3G/GSM Multi-Band Network analyzer test HP8753E (15-Jun-2022)

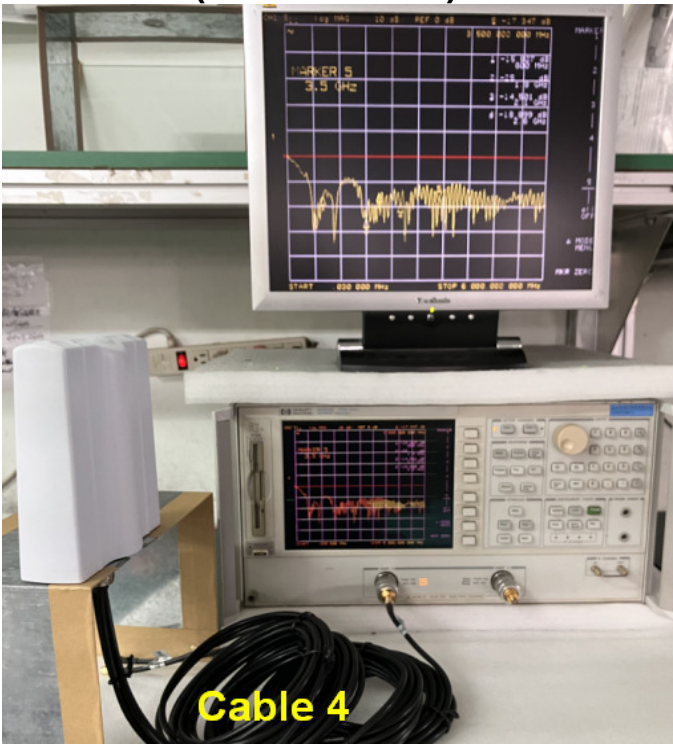


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Cable 3: 5G/LTE/4G/3G/GSM Multi-Band Network analyzer test HP8753E (15-Jun-2022)

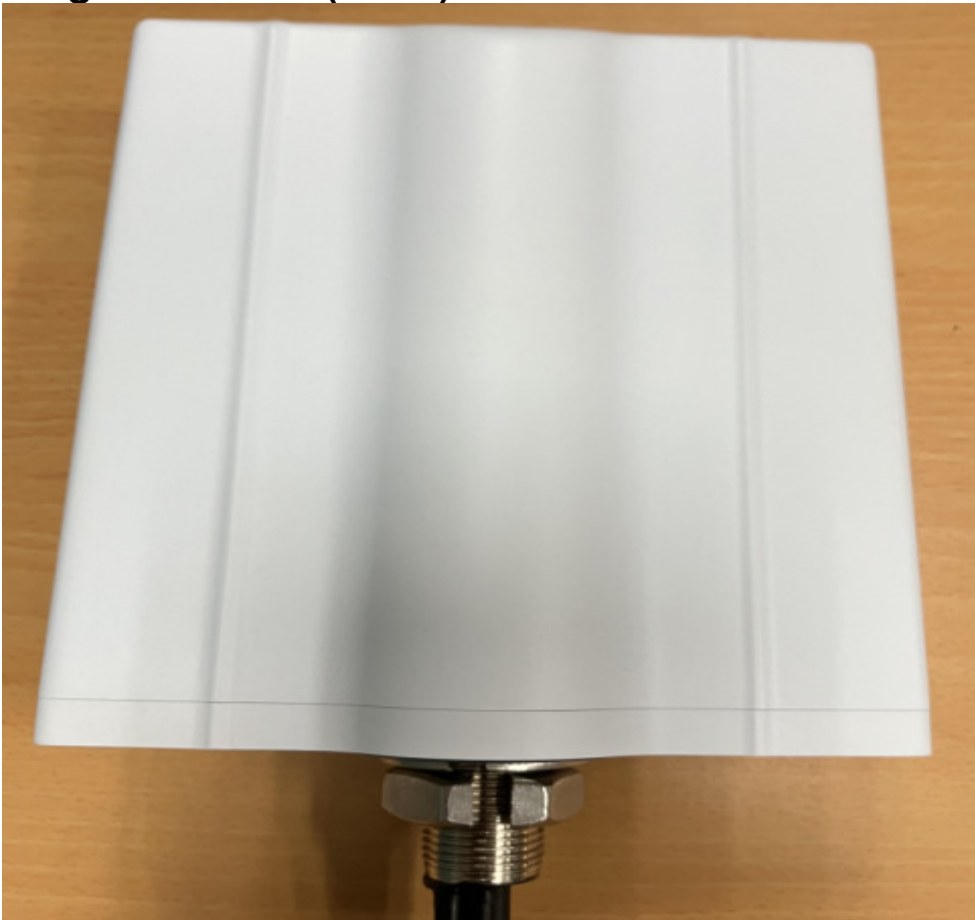


Cable 4: 5G/LTE/4G/3G/GSM Multi-Band Network analyzer test HP8753E (15-Jun-2022)

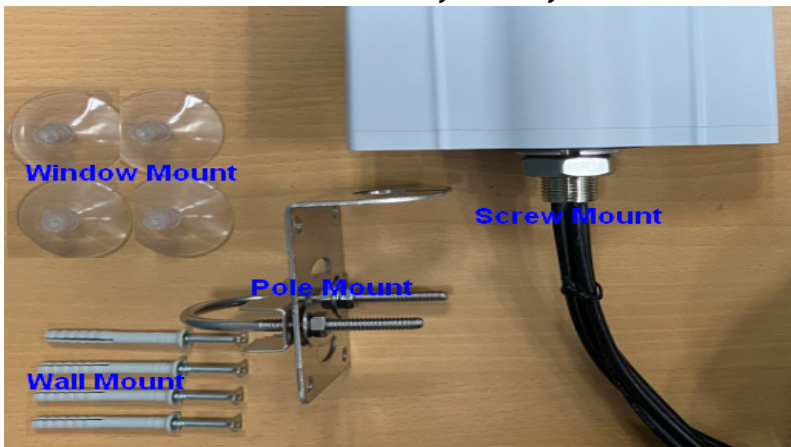


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3. Antenna Appearance Size: M20x1.5P Slotted Nut & Washer
Length:140mm (5.51")
Width:52.4mm (2.05")
Height : 148mm (5.82")



4. Permanent Screw, Wall, Pole and Window mounting



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5.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 SMA(M) ST CFD195	PVC		4
08 Label LTE	PET	Silver	4

MIMO Omni 4x4 LTE Combo Antenna
CP64(4x4)-V1-4xLTE-CFD195-5M-SMAx4
 MIMO Omni 4x4 Permanent Serew,Wall,Pole,Window mounting Outdoor Combo Antenna

IP67 Waterproof

CUSTOMER'S	MODEL	PARTS NUMBER	FREQUENCY	UNIT	SCALE	DATE	VERSION
				M/M			1
TOLERANCE	X, XX±0.15	NAME	PARTS NUMBER	PPROVED	CHECKED	DRAWING	DESIGNED
SURFACE ROUGHNESS	S VV	APPEARANCE		Jack		Jimmy	Jimmy

Third angle projection
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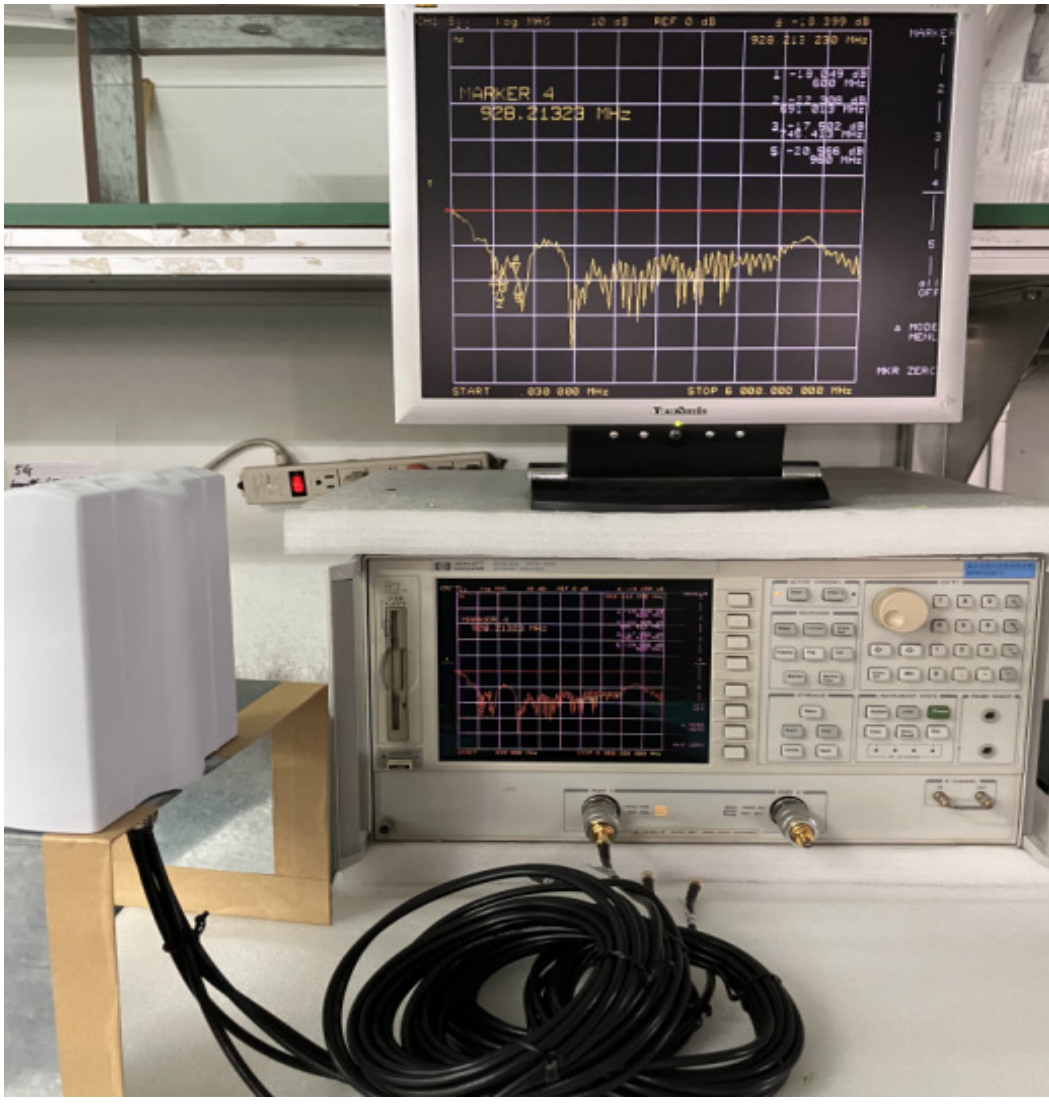
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6. 5G/LTE/4G/3G/GSM Multi-band Network analyzer test HP8753E (15-Jun-2022)

Frequency :600~960/1710~2170/2500~2700/3200~3800MHz

6-1 Detail band test - frequency : 600~960MHz

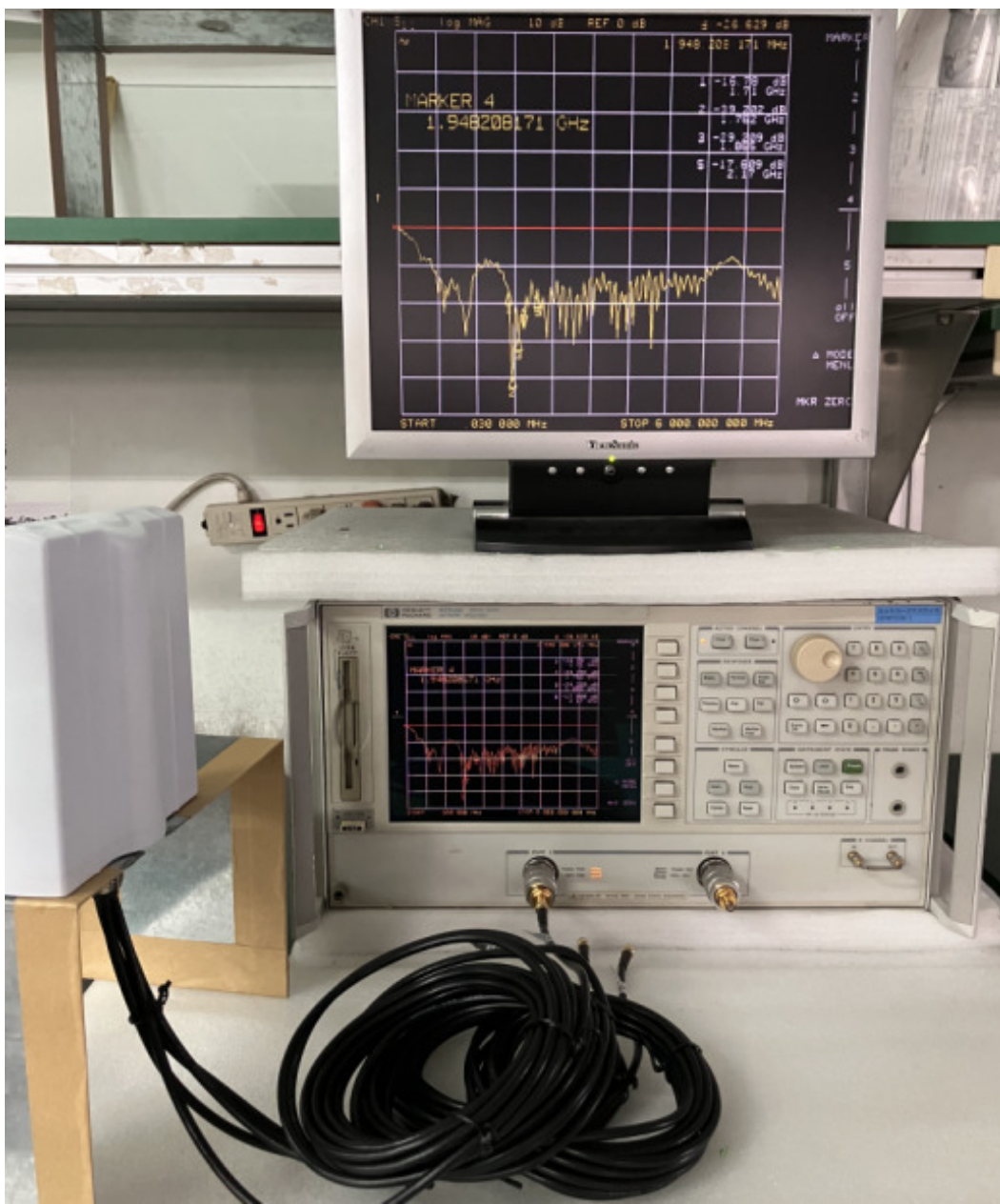
Frequency	Return loss	V.S.W.R	Reflection coefficient
600.000MHz	-18.049dB	1.286:1	0.125
691.013MHz	-22.308dB	1.166:1	0.077
745.413MHz	-17.502dB	1.308:1	0.133
928.213MHz	-18.339dB	1.276:1	0.121
960.000MHz	-20.566dB	1.207:1	0.094



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6-2 Detail band test - frequency : 1710~2170MHz

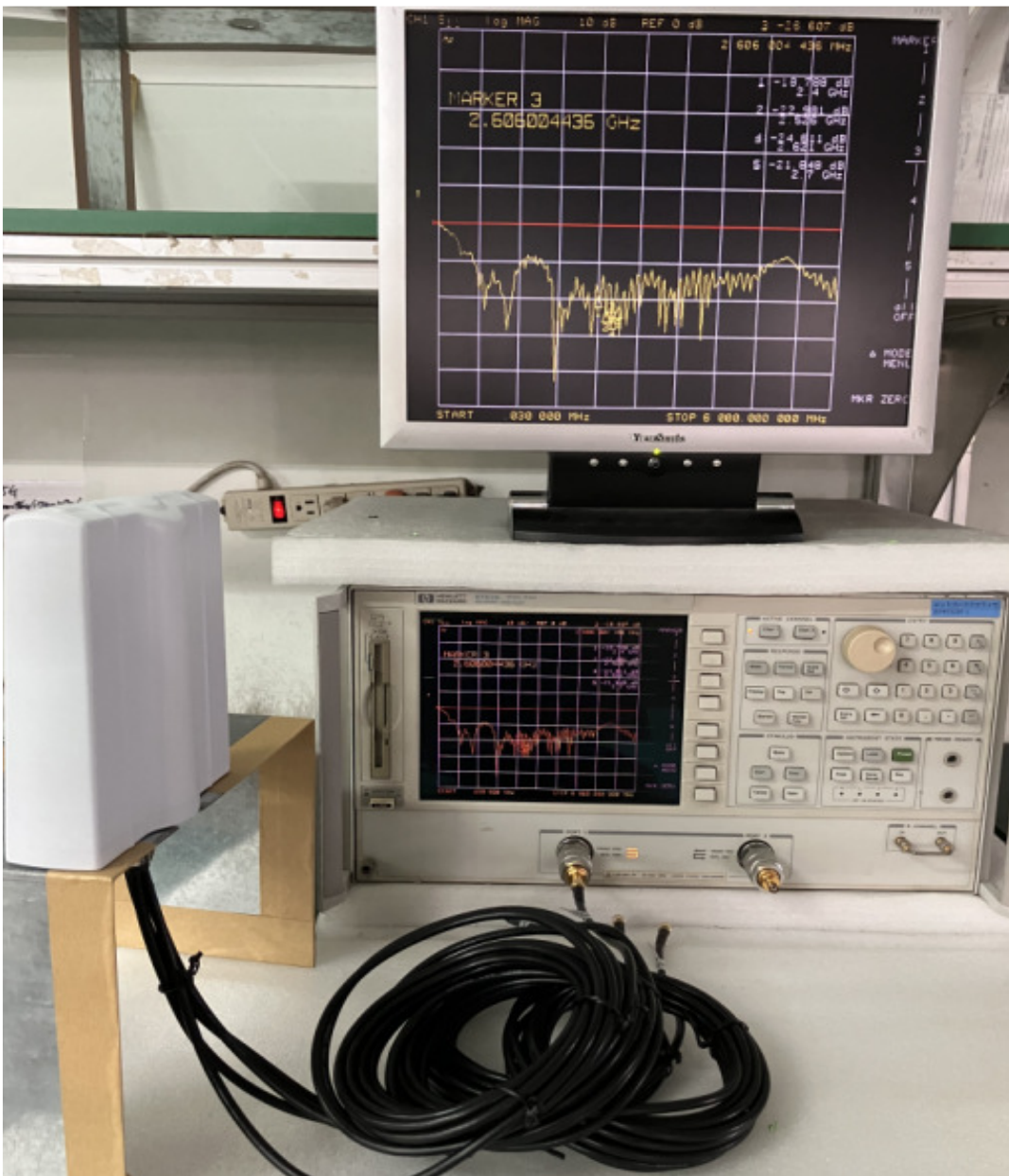
Frequency	Return loss	V.S.W.R	Reflection coefficient
1710.00MHz	-16.780dB	1.339:1	0.145
1762.00MHz	-39.202dB	1.022:1	0.011
1865.00MHz	-29.203dB	1.072:1	0.035
1948.20MHz	-25.629dB	1.110:1	0.052
2170.00MHz	-17.809dB	1.295:1	0.129



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6-3 Detail band test - frequency : 2400-2700MHz

Frequency	Return loss	V.S.W.R	Reflection coefficient
2400.00MHz	-18.788dB	1.260:1	0.115
2526.00MHz	-22.981dB	1.153:1	0.071
2606.00MHz	-26.609dB	1.098:1	0.047
2621.00MHz	-24.611dB	1.125:1	0.059
2700.00MHz	-21.848dB	1.176:1	0.081



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6-4 Detail band test - frequency : 3200-3800MHz

Frequency	Return loss	V.S.W.R	Reflection coefficient
3200.00MHz	-13.165dB	1.563:1	0.220
3423.00MHz	-25.059dB	1.118:1	0.056
3570.00MHz	-25.385dB	1.114:1	0.054
3662.39MHz	-24.429dB	1.113:1	0.054
3800.00MHz	-13.862dB	1.509:1	0.203

