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## **INTRODUCTION**

**MIMO 4x4 Panel External Antenna  
MPEA44-5G/LTE-CFD195-5M-SMA/Mx4  
4x4 MIMO Antenna Kit for 4G LTE/5G  
Hotspots,Routers & Modems  
(Includes Wall & Pole mount)**

**4-Cables : 4x 5G/LTE 4G (4x4)**

**Cable1~4 5G/LTE/4G/3G CFD195 Low loss 5M SMA/M x4  
600-960/1710-2170/2400-2700/3200~3800MHz 3-5.0dBi**

## **1. INERAL DESCRIPTION**

Model No	Products P/N
MPEA44-5G/LTE-CFD195-5M-SMA/Mx4	MPEA44-V1

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



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Wall mount



Compatible with Modems,Routers and  
Mobile Hotspots



Pole mount



Compatible with  
Modems,Routers and  
Mobile Hotspots



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

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

<b>Parameter</b>	<b>Description</b>
Communication System	5G/LTE/4G/3G/AMPS/GSM/DCS/UMTS
Frequency Band (MHz)	600~960/1710~2170/2400~2700/3200~3800MHz
Average Efficiency	86%/85%/77%87%
Average Gain	3.0~5.0dBi
Nominal Impedance	50 ohm
Polarization	Vertical
Return Loss (Check test Data)	797.104MHz(-36.840dB),1824.99MHz(-35.242dB) 2650.00MHz(-27.850dB),3553.00MHz(-37.325dB)
V.S.W.R <1.5:1	797.104MHz(1.029:1),1824.99MHz(1.035:1) 2650.00MHz(1.084:1),3553.00MHz(1.028:1)
Reflection coefficient	797.104MHz(0.014),1824.99MHz(0.017) 2650.00MHz(0.041),3553.00MHz(0.014)

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

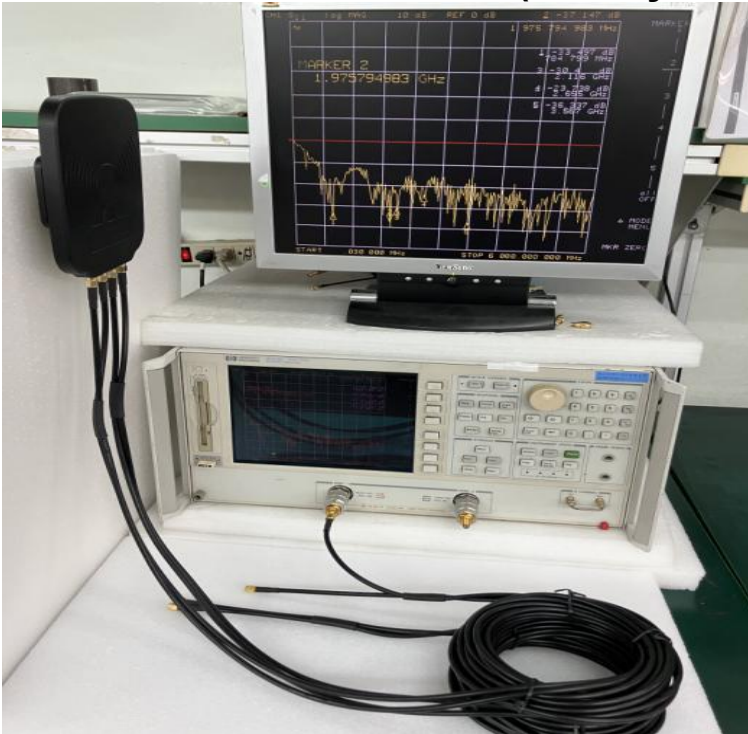
<b>Parameter</b>	<b>Description</b>
Antenna Type	Panel External Antenna
Compatible with	Modems,Routers and Hotspots
Mounting	Wall mount & Pole mount
Antenna size	L:156.0mm x W:136.0mm x H:12.2mm
Antenna Material	PCB & ABS
Antenna cable	CFD195 Low Loss
Connector Type	SMA Male
Antenna Cable Total Length	5000mm (16.4ft)
Antenna Color	Black
Waterproof	100% water proof.(IP66~P67)
Operating Temperature 1Range	-30°C~+70°C
Storage Temperature Range	-40°C~+80°C
Shock (Drop Test)	100cm drop on concret

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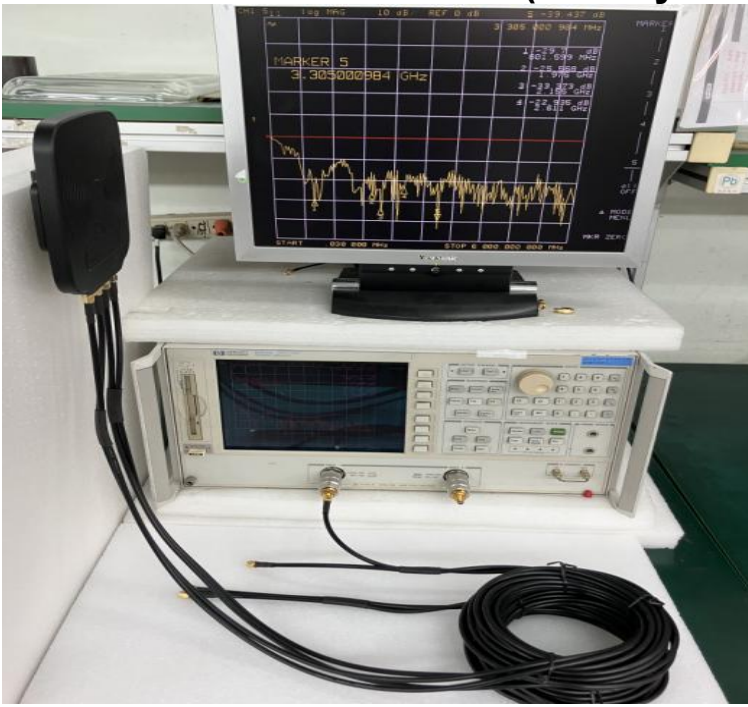
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**Cable 1 : 5G/LTE/4G/3G/GSM Multi-Band Network analyzer test HP8753E with wall mount(15-May-2023)**



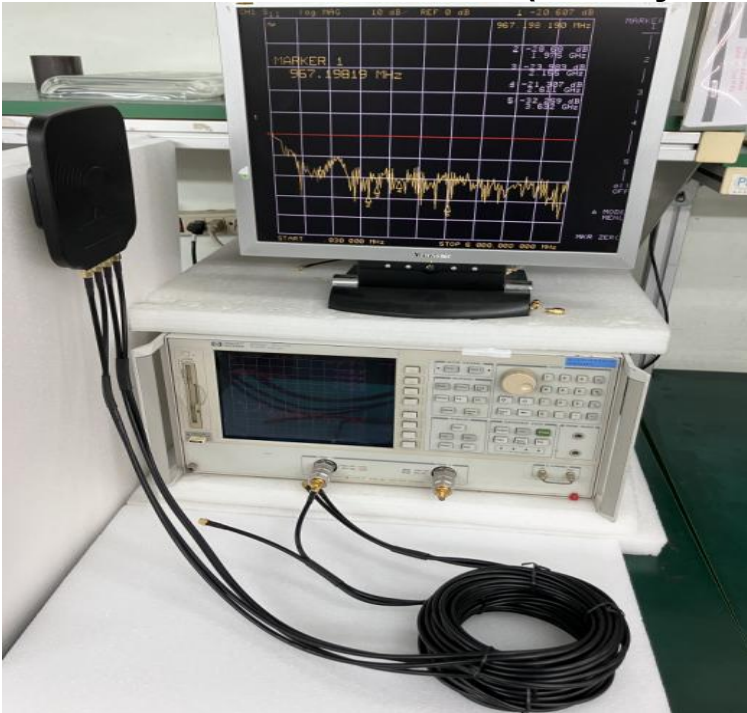
**Cable 2: 5G/LTE/4 G/3G/GSM Multi-Band Network analyze test HP8753E with Wall mount (15-May-2023)**



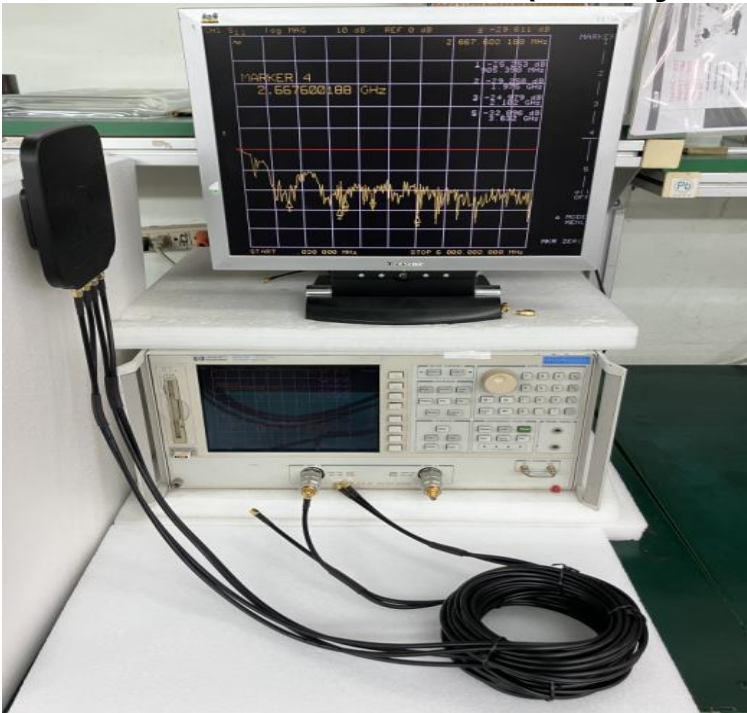
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**Cale 3: 5G/LTE/4 G/3G/GSM Multi-Band Network analyze test HP8753E with Wall mount (15-May-2023)**



**Cale 4: 5G/LTE/4 G/3G/GSM Multi-Band Network analyze test HP8753E with Wall mount (15-May-2023)**



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## **3. Antenna Appearance Size:**

**Length:156.0mm (6.14")**

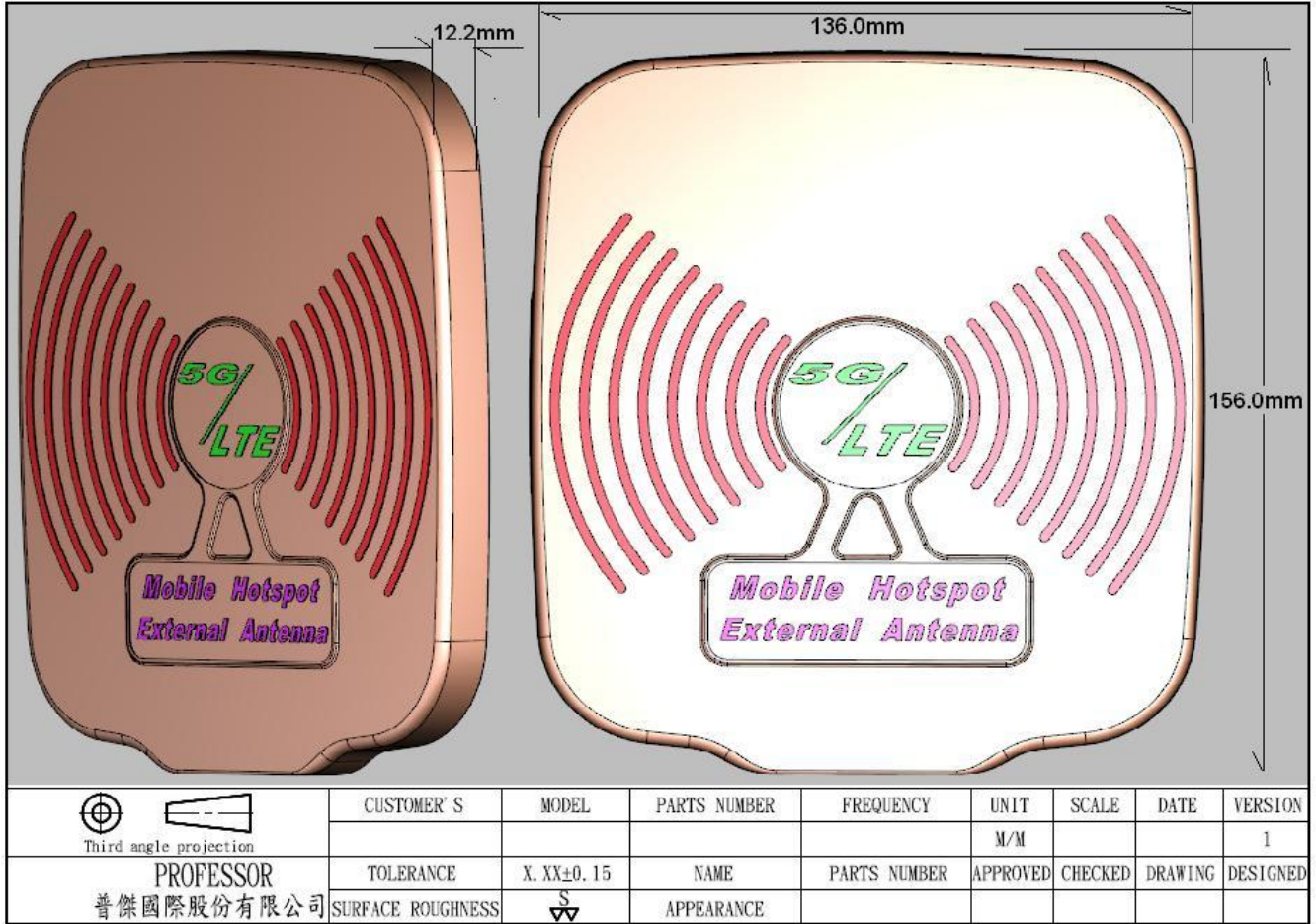
**Width:136.0mm (5.35")**

**Height :12.2mm (0.48")**



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## 4.Appearance



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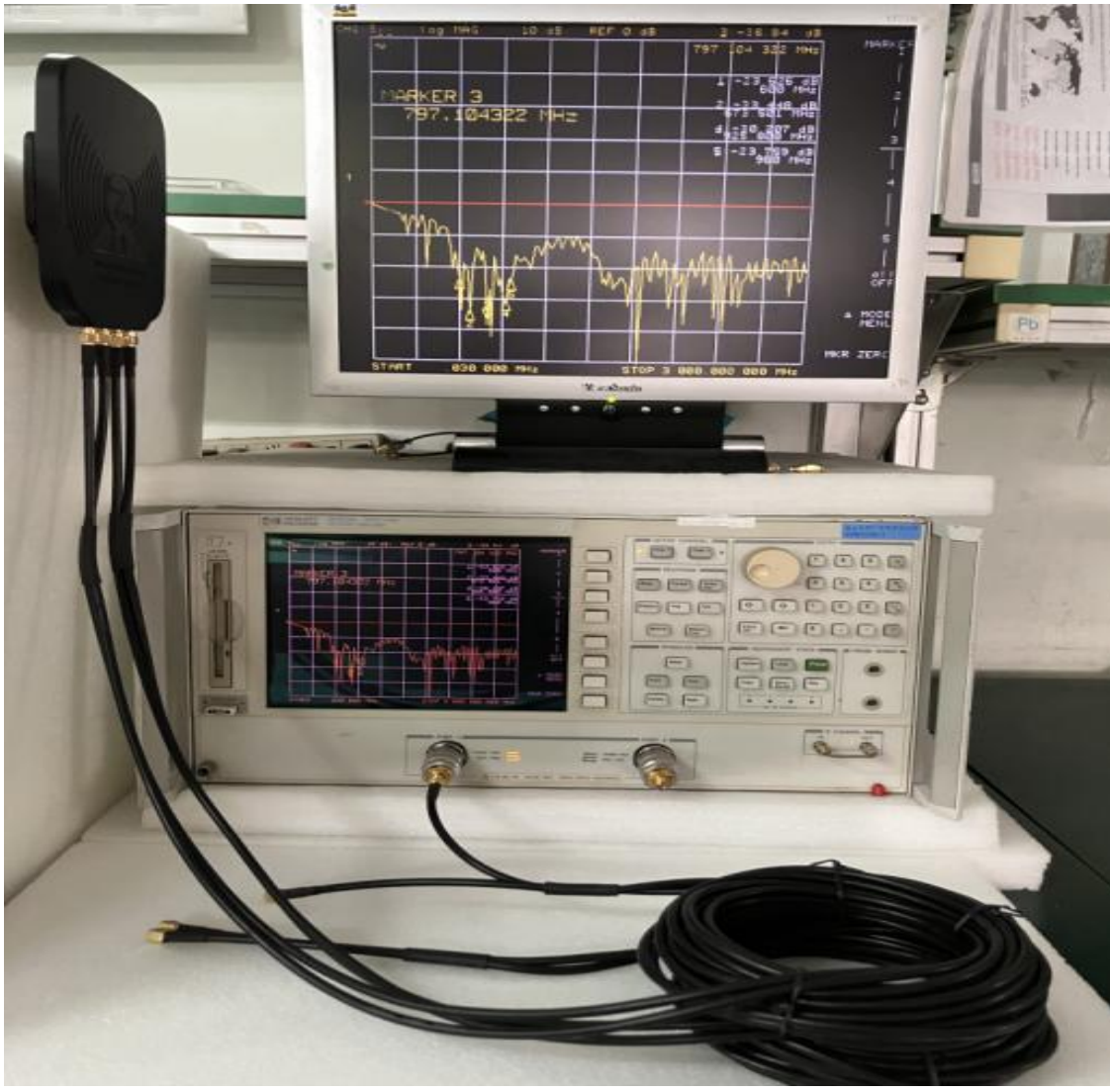
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## **5. 5G/LTE/4G/3G/GSM Multi-band Network analyzer test HP8753E (15-May-2023)**

**Frequency :600~960/1710~2170/2400~2700/3200~3800MHz**

**5-1 Detail band test - frequency : 600~960MHz**

<b>Frequency</b>	<b>Return loss</b>	<b>V.S.W.R</b>	<b>Reflection coefficient</b>
<b>600.000MHz</b>	<b>-23.626dB</b>	<b>1.141:1</b>	<b>0.066</b>
<b>673.501MHz</b>	<b>-33.448dB</b>	<b>1.043:1</b>	<b>0.021</b>
<b>797.104MHz</b>	<b>-36.840dB</b>	<b>1.029:1</b>	<b>0.014</b>
<b>925.808MHz</b>	<b>-30.207dB</b>	<b>1.064:1</b>	<b>0.031</b>
<b>960.000MHz</b>	<b>-23.759dB</b>	<b>1.139:1</b>	<b>0.065</b>

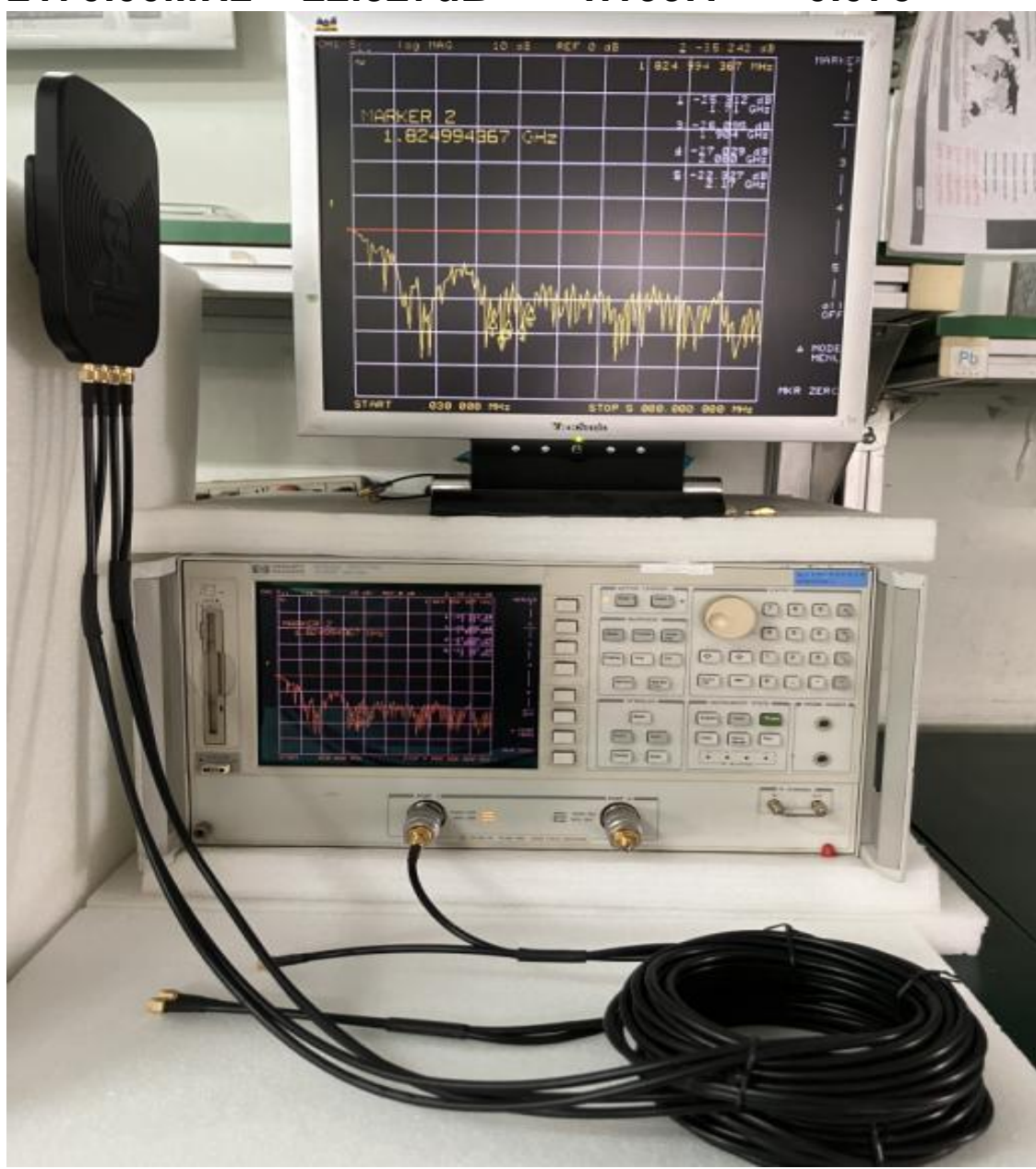




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## **5-2 Detail band test - frequency : 1710~2170MHz**

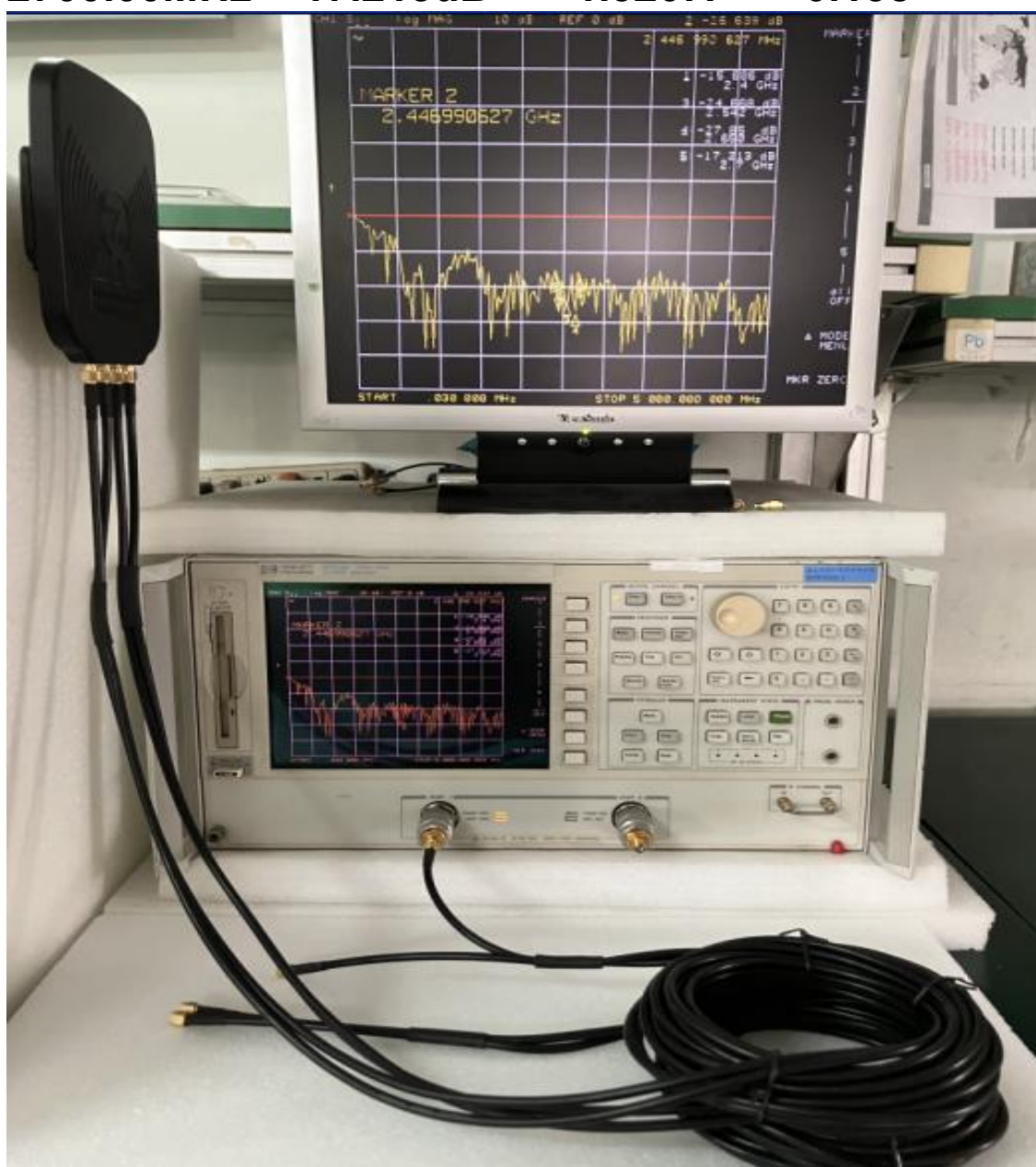
<b>Frequency</b>	<b>Return loss</b>	<b>V.S.W.R</b>	<b>Reflection coefficient</b>
<b>1710.00MHz</b>	<b>-25.312dB</b>	<b>1.115:1</b>	<b>0.054</b>
<b>1824.99MHz</b>	<b>-35.242dB</b>	<b>1.035:1</b>	<b>0.017</b>
<b>1904.00MHz</b>	<b>-26.095dB</b>	<b>1.104:1</b>	<b>0.050</b>
<b>2080.20MHz</b>	<b>-27.029dB</b>	<b>1.093:1</b>	<b>0.045</b>
<b>2170.00MHz</b>	<b>-22.327dB</b>	<b>1.166:1</b>	<b>0.076</b>



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## **5-3 Detail band test - frequency : 2400-2700MHz**

<b>Frequency</b>	<b>Return loss</b>	<b>V.S.W.R</b>	<b>Reflection coefficient</b>
<b>2400.00MHz</b>	<b>-15.686dB</b>	<b>1.393:1</b>	<b>0.164</b>
<b>2446.99MHz</b>	<b>-26.639dB</b>	<b>1.098:1</b>	<b>0.047</b>
<b>2542.00MHz</b>	<b>-24.688dB</b>	<b>1.124:1</b>	<b>0.058</b>
<b>2650.00MHz</b>	<b>-27.850dB</b>	<b>1.084:1</b>	<b>0.041</b>
<b>2700.00MHz</b>	<b>-17.213dB</b>	<b>1.320:1</b>	<b>0.138</b>



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## **5-4 Detail band test - frequency : 3200-3800MHz**

<b>Frequency</b>	<b>Return loss</b>	<b>V.S.W.R</b>	<b>Reflection coefficient</b>
<b>3200.00MHz</b>	<b>-22.020dB</b>	<b>1.172:1</b>	<b>0.079</b>
<b>3222.00MHz</b>	<b>-38.810dB</b>	<b>1.023:1</b>	<b>0.011</b>
<b>3375.58MHz</b>	<b>-34.018dB</b>	<b>1.041:1</b>	<b>0.020</b>
<b>3553.00MHz</b>	<b>-37.325dB</b>	<b>1.028:1</b>	<b>0.014</b>
<b>3800.00MHz</b>	<b>-31.283dB</b>	<b>1.056:1</b>	<b>0.027</b>

