

AUT Report

Product Model: Archer BE550

Manufacturer: TP-LINK CORPORATION PTE. LTD.

Test Date: 2024.06.25

Tested By: Yu Sunli *Yu Sunli*

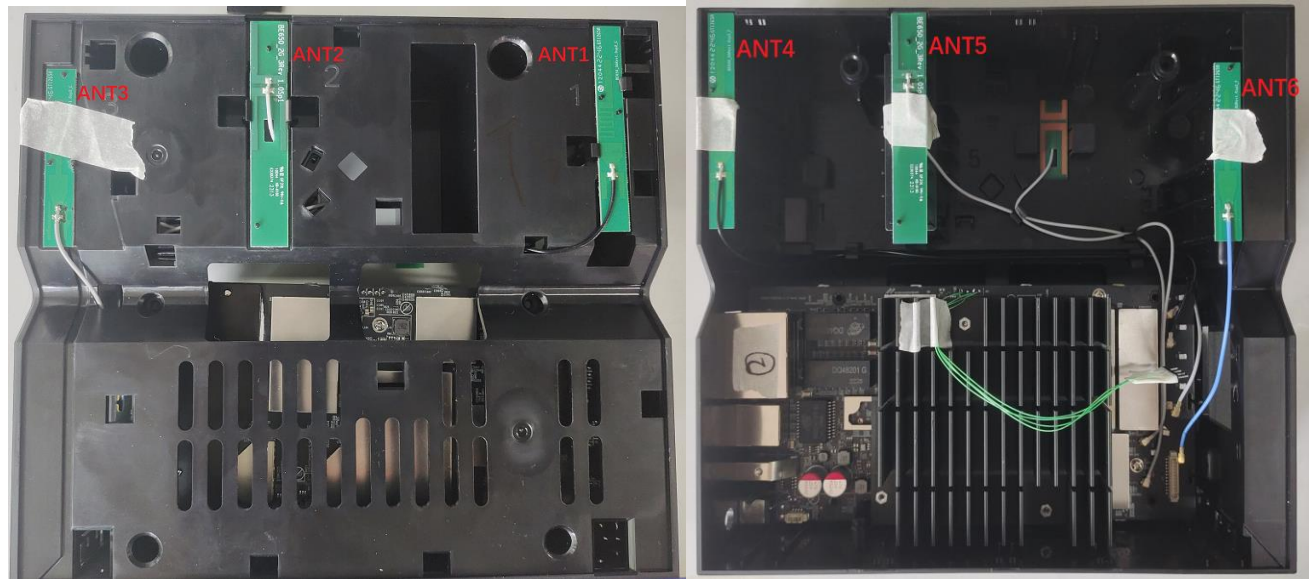
TP-LINK CORPORATION PTE. LTD.
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1. Antenna Distribution

NX510v *按照机型命名填写,不需要带有版本和区域编号



2. Electrical Characteristics

Ant1	
Frequency	5150~5895MHz
Impedance	50Ohm
Antenna Type	Dipole
Antenna Gain	2.44dBi@5150~5250MHz 3.00dBi@5250~5350MHz 2.91dBi@5470~5725MHz 2.84dBi@5725~5895MHz
Radiation pattern	Omni-Directional
P/N	3101506262

Ant2	
Frequency	2400~2500MHz
Impedance	50Ohm
Antenna Type	Dipole
Antenna Gain	2.00dBi@2400~2500MHz
Radiation pattern	Omni-Directional
P/N	3101506266

Ant3	
Frequency	5925~7125MHz
Impedance	50Ohm
Antenna Type	Dipole
Antenna Gain	3.00dBi@5925~6425MHz 2.83dBi@6425~6525MHz 2.62dBi@6525~6875MHz 2.85dBi@6875~7125MHz
Radiation pattern	Omni-Directional
P/N	3101506264

Ant4	
Frequency	5150~5895MHz
Impedance	50Ohm
Antenna Type	Dipole
Antenna Gain	2.69dBi@5150~5250MHz 2.71dBi@5250~5350MHz 2.81dBi@5470~5725MHz 2.84dBi@5725~5895MHz
Radiation pattern	Omni-Directional
P/N	3101506263

Ant5	
Frequency	2400~2500MHz
Impedance	50Ohm
Antenna Type	Dipole
Antenna Gain	2.00dBi@2400~2500MHz
Radiation pattern	Omni-Directional
P/N	3101506265

Ant6	
Frequency	5925~7125MHz
Impedance	50Ohm
Antenna Type	Dipole
Antenna Gain	1.96dBi@5925~6425MHz 2.42dBi@6425~6525MHz 3.00dBi@6525~6875MHz 2.87dBi@6875~7125MHz
Radiation pattern	Omni-Directional
P/N	3101506267

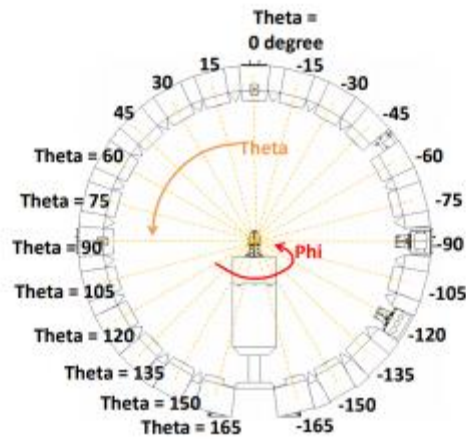


Figure 3-2

Before the measurement, calibrated the vector network analyzer, and then connected the input end of each antenna to the output end of the vector network analyzer, and evenly the antennas to be measured.

Test Equipment listed below:

Equipments	Model	Manufacturer	S/N	Cali. Interval	Cali. Due Date
Chamber	Rayzone2800	GTS(General Test System)	MY5347043 5	12months	2025/01/15
Vector Network Analyzer	E5071C	Keysight	MY46315238	24months	2026/03/13
GTS MaxSign100 Software	V2.1	GTS(General Test System)	/	/	/

3.2 Test Setup

The test setup was shown in Figure 3-3, 3-4:

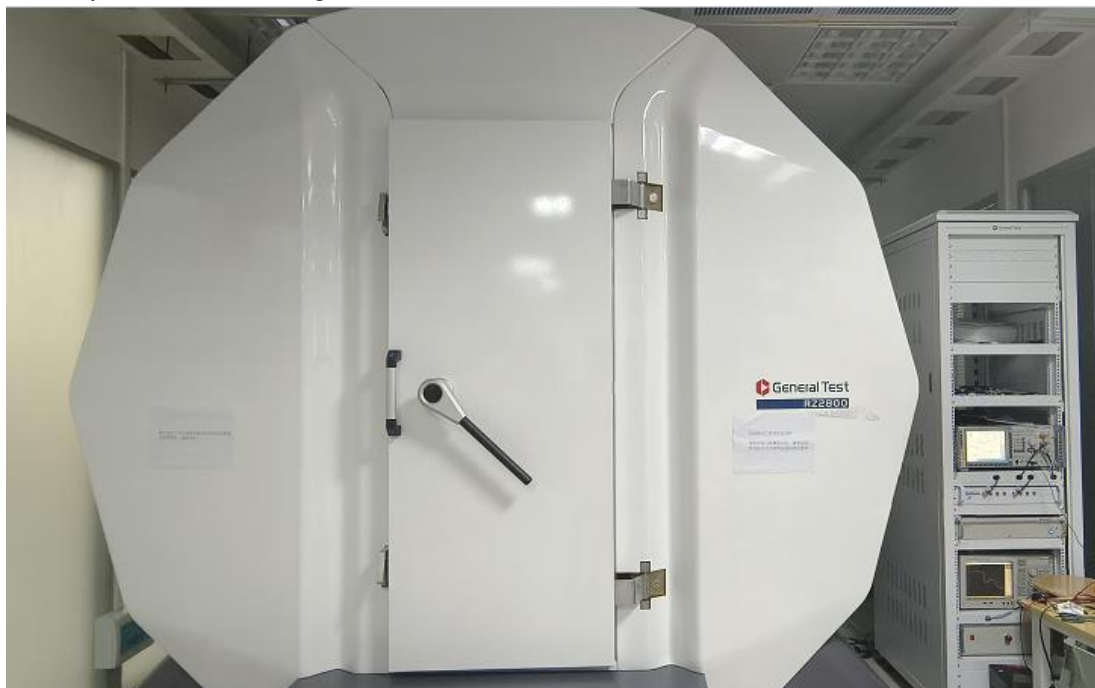


Figure 3-3

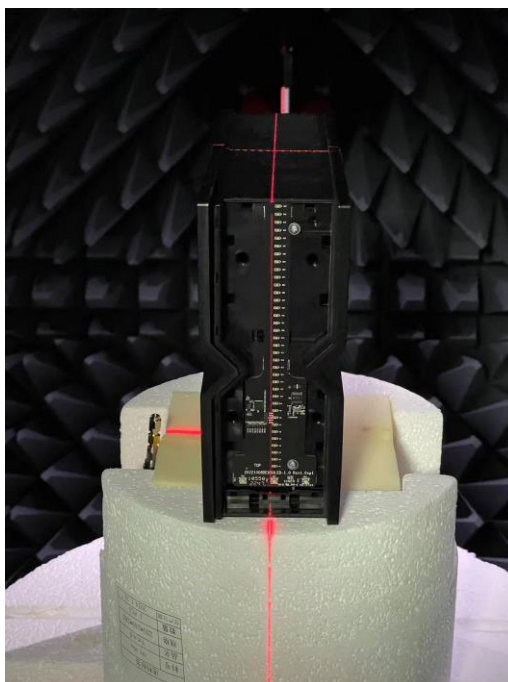
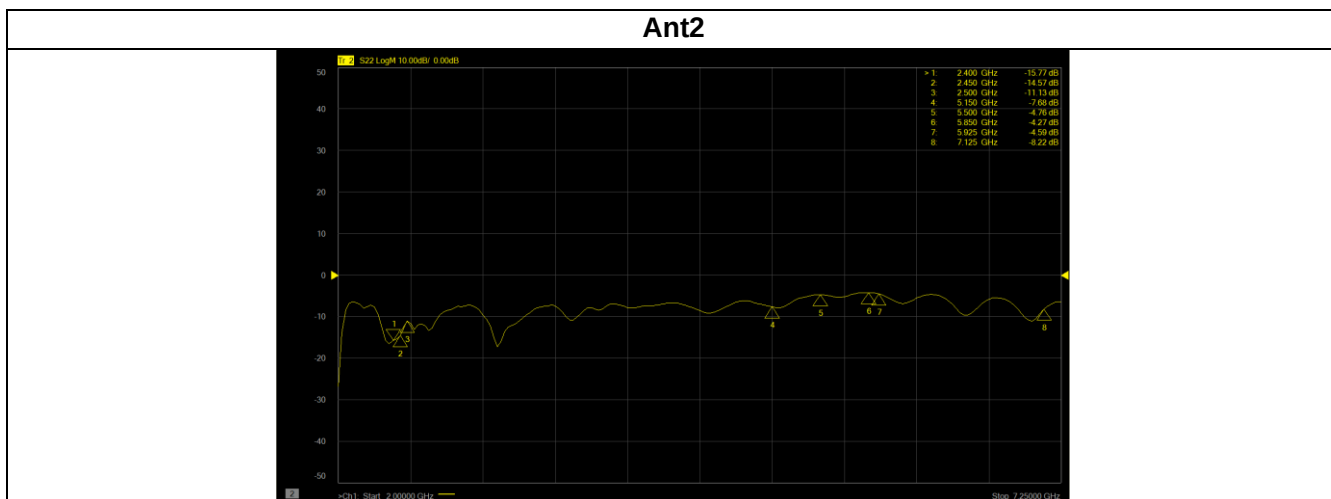
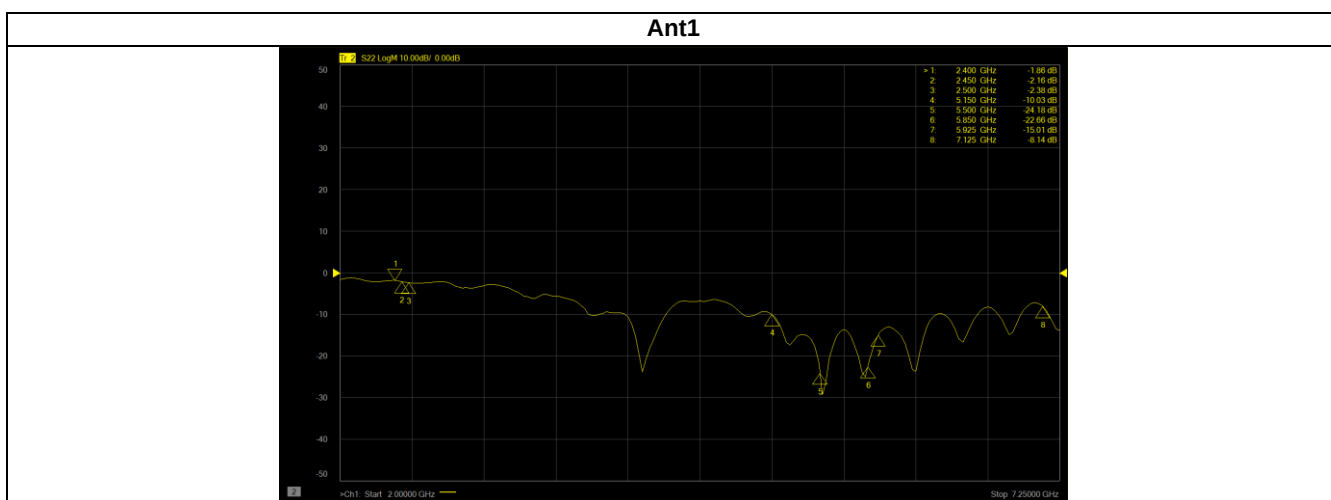
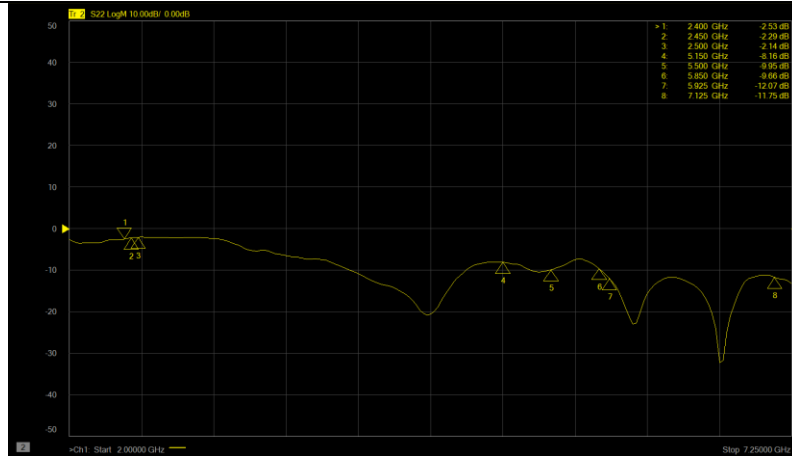


Figure 3-4

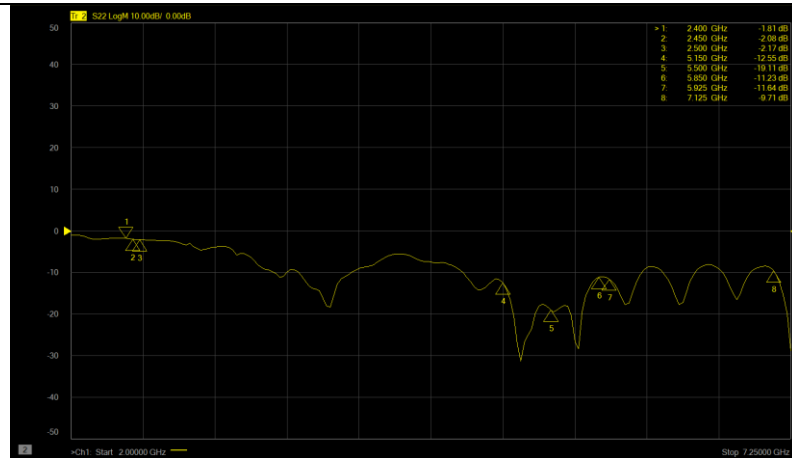
3.3 S Parameter Test Data



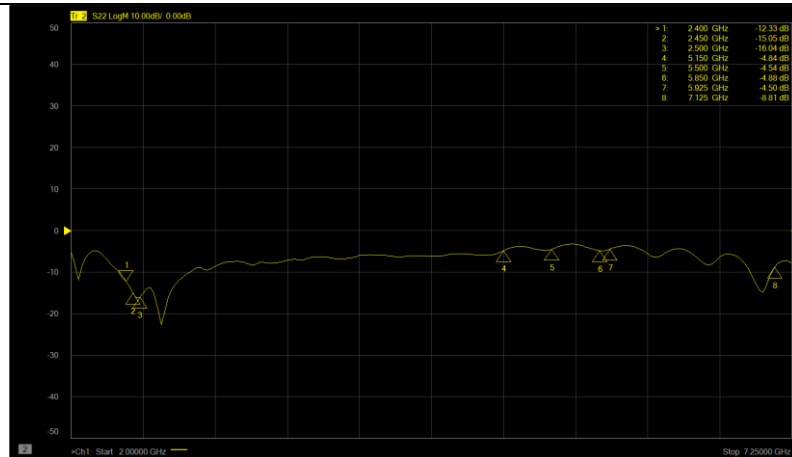
Ant3



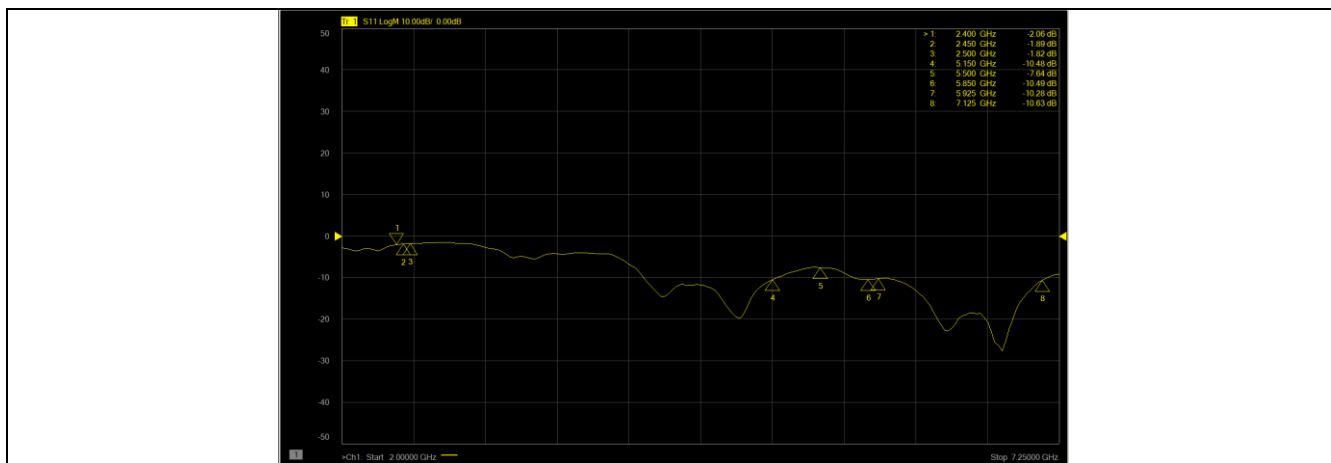
Ant4



Ant5



Ant6



3.4 Antenna Peak Gain

Frequency	2.45GHz 2400~2500MHz
Ant2 MaxGain(dBi)	2.00
Ant5 MaxGain(dBi)	2.00
Ant2 Polarization/ Φ (°) / θ (°)	Theta/285/90
Ant5 Polarization/ Φ (°) / θ (°)	Theta/120/90
Max Gain(dBi)	2.00

Frequency	5.2GHz 5150~5250MHz	5.3GHz 5250~5350MHz	5.6GHz 5470~5725MHz	5.8GHz 5725~5895MHz
Ant1 MaxGain(dBi)	2.44	3.00	2.91	2.84
Ant4 MaxGain(dBi)	2.69	2.71	2.81	3.00
Ant1 Polarization/ Φ (°) / θ (°)	Theta/165/90	Theta/30/90	Theta/105/105	Theta/90/105
Ant4 Polarization/ Φ (°) / θ (°)	Theta/225/75	Theta/165/90	Theta/45/90	Theta/120/90
Max Gain(dBi)	2.69	3.00	2.91	3.00

Frequency	6.175GHz 5925~6425MHz	6.475GHz 6425~6525MHz	6.725GHz 6525~6875MHz	7.025GHz 6875~7125MHz
Ant3 MaxGain(dBi)	3.00	2.83	2.62	2.85
Ant6 MaxGain(dBi)	1.96	2.42	3.00	2.87
Ant3 Polarization/ Φ (°) / θ (°)	Theta/255/90	Theta/210/90	Theta/105/105	Theta/90/105
Ant4 Polarization/ Φ (°) / θ (°)	Theta/225/75	Theta/225/90	Theta/225/90	Theta/300/90
Max Gain(dBi)	3.00	2.83	3.00	2.87

3.5 Antenna Radiation Pattern

