

# ANT-916-OC-LG-XXX Test Report Rev1

2023.07.10

EVERY CONNECTION COUNTS



# TEST DETAILS AND SPEC

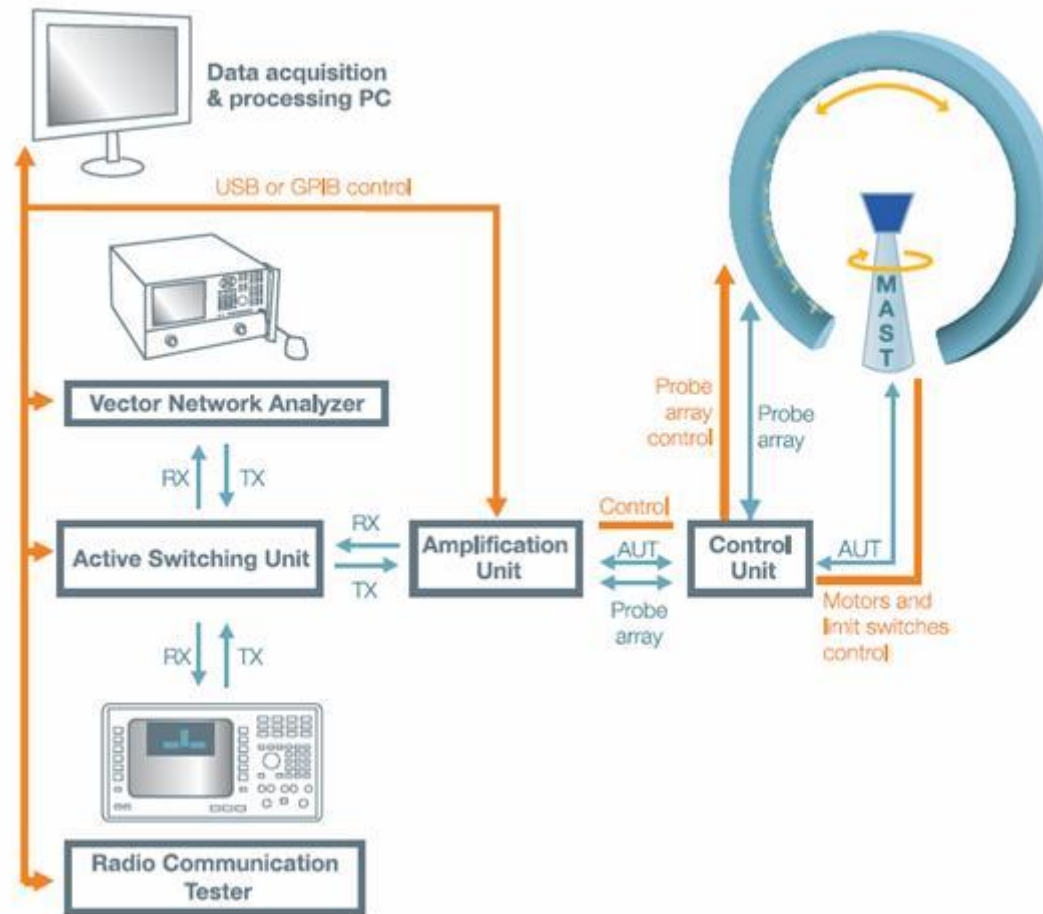
TE Engineering Location, Engineer	Taiwan, Barry Chen
Customer Equipment Name	
Bands / Frequencies	Band: LPWA 916 Band F [MHz]: 895-935
Requirements or Targets	Target: VSWR $\leq$ 2.0 @ 916MHz Peak Gain $\geq$ 2.2 @ 916MHz
Test Equipment	E5072A
Test Report Type	
Antennas	ANT-916-OC-LG-SMA ANT-916-OC-LG-RPS
Task	Check antenna performance at Taipei office chamber

# Testing Condition



S-Parameter Test Setup

# Testing Condition



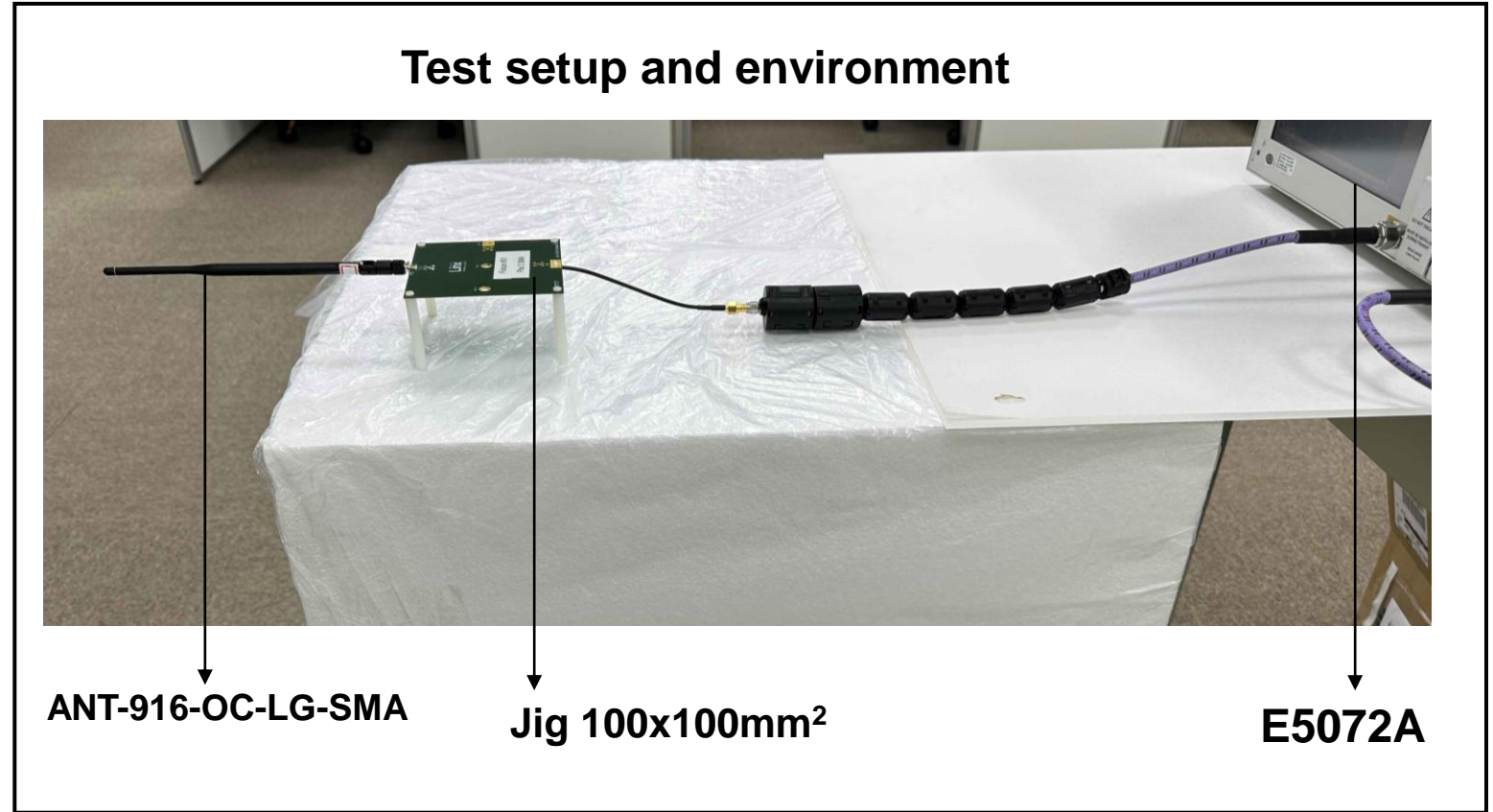
Antenna Gain Test Setup

# Outline

- ANT-916-OC-LG-SMA
  - Antenna performance setup and environment
  - Antenna VSWR
  - OTA chamber setup and performance
- ANT-916-OC-LG-RPS
  - Antenna performance setup and environment
  - Antenna VSWR
  - OTA chamber setup and performance
- TEST RESULT / CONCLUSION

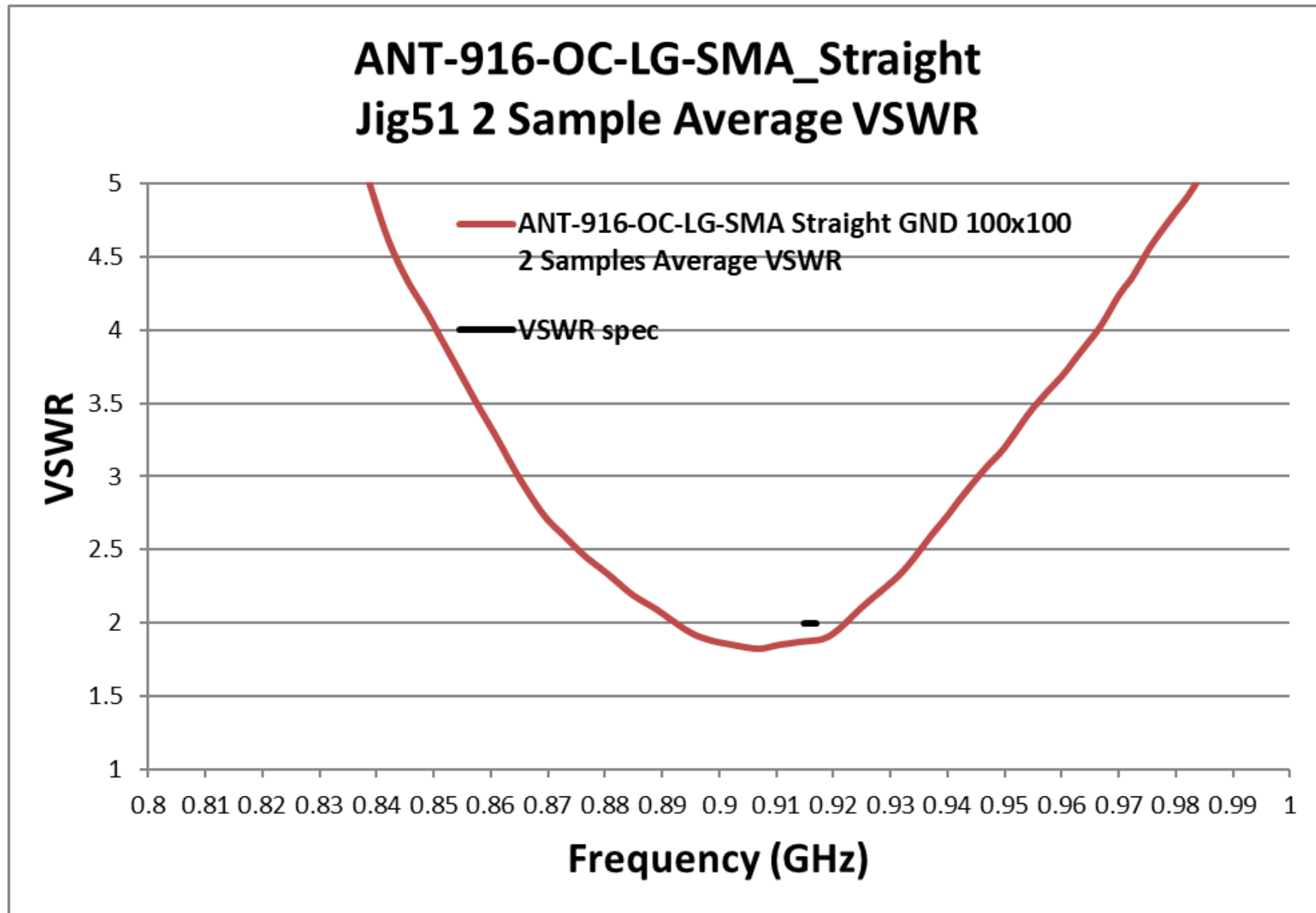


- **ANT-916-OC-LG-SMA** setup and environment

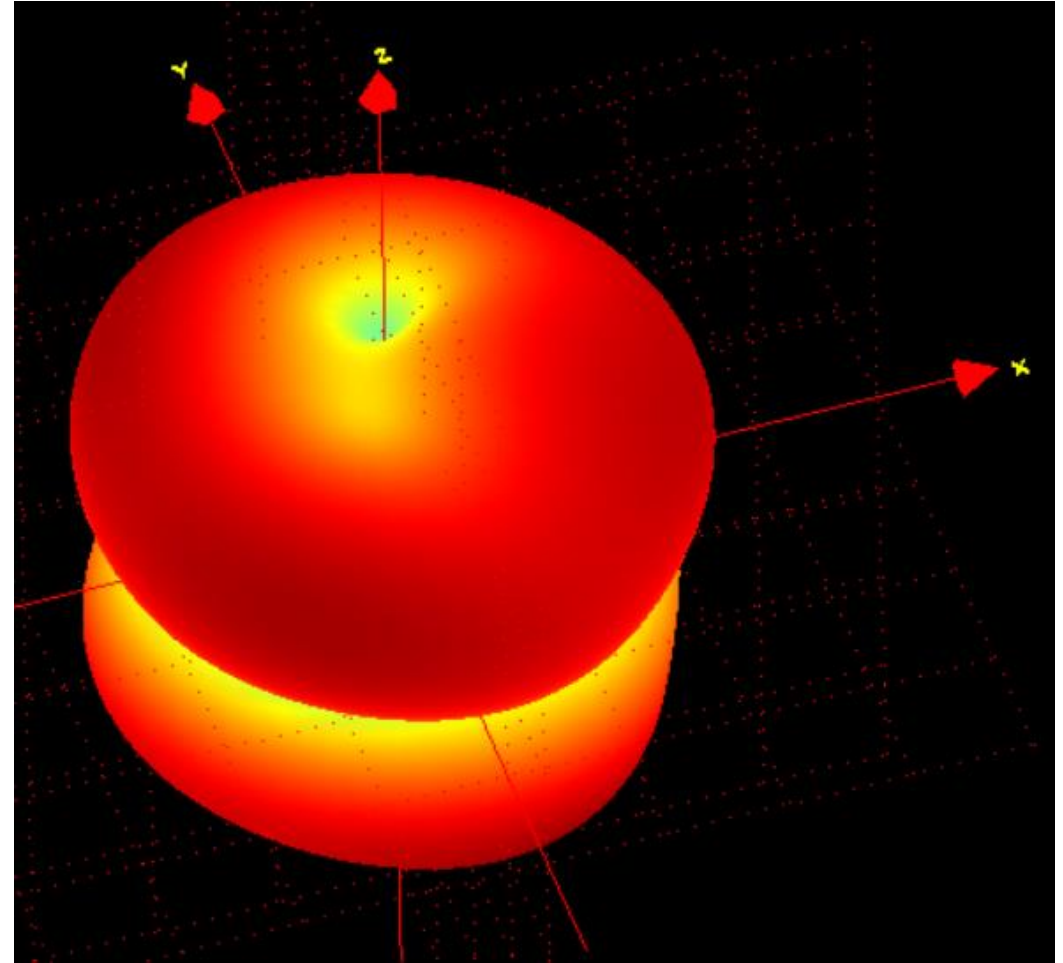
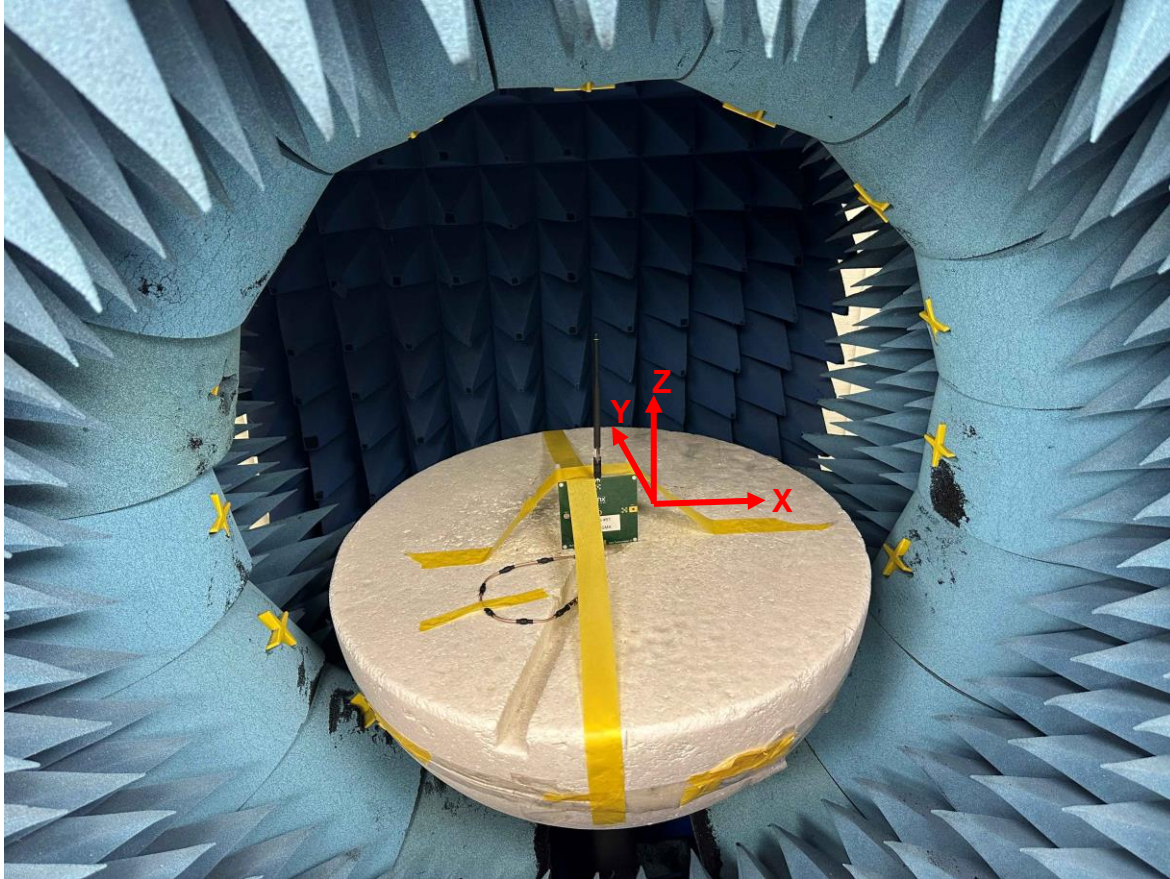


TE : Antenna used ANT-916-OC-LG-SMA

- Antenna VSWR



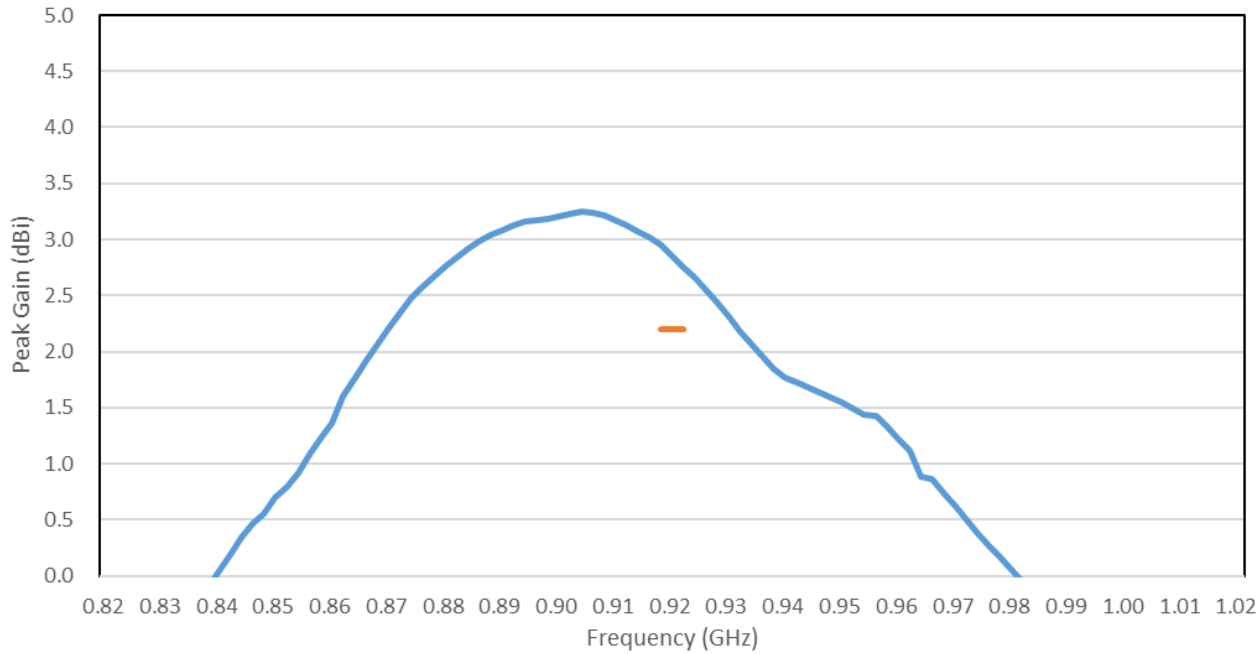
- OTA chamber setup and performance



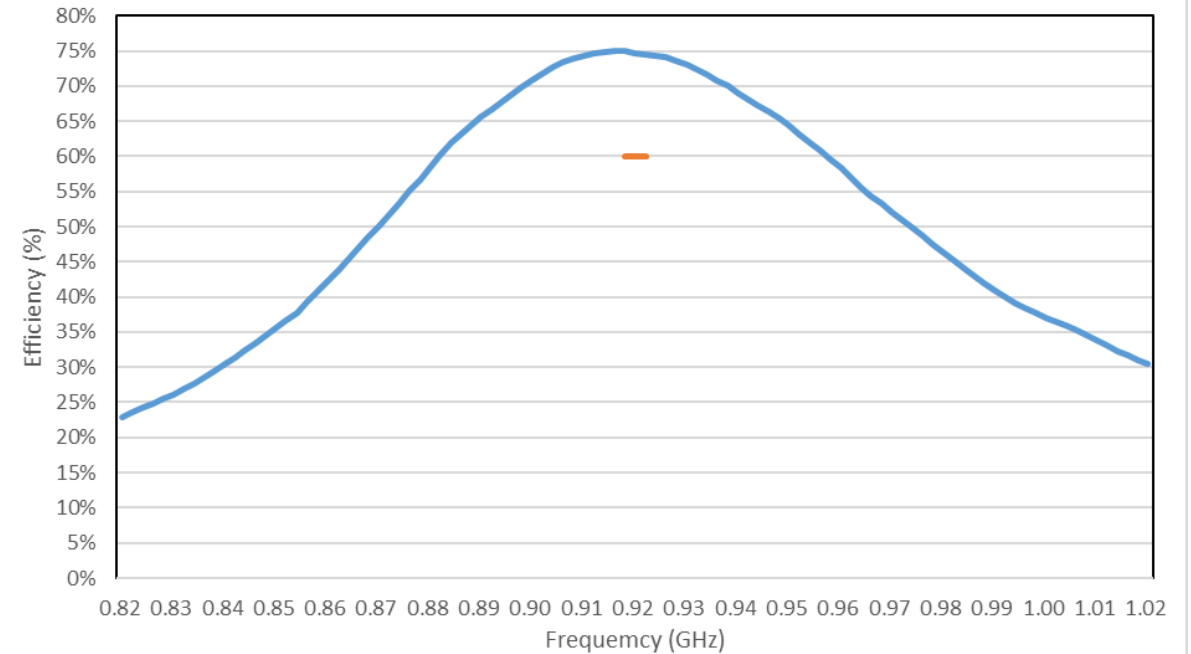


- Antenna Gain and Efficiency(%)

ANT-916-OC-LG-SMA-Jig51 Peak Gain



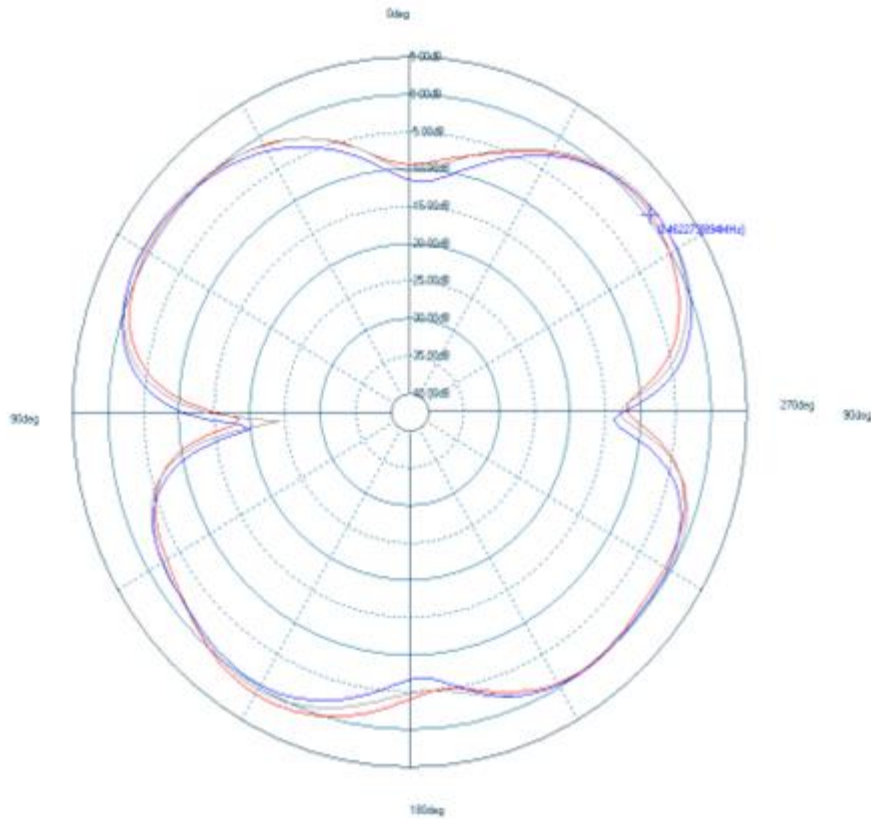
ANT-916-OC-LG-SMA-Jig51 Efficiency(%)



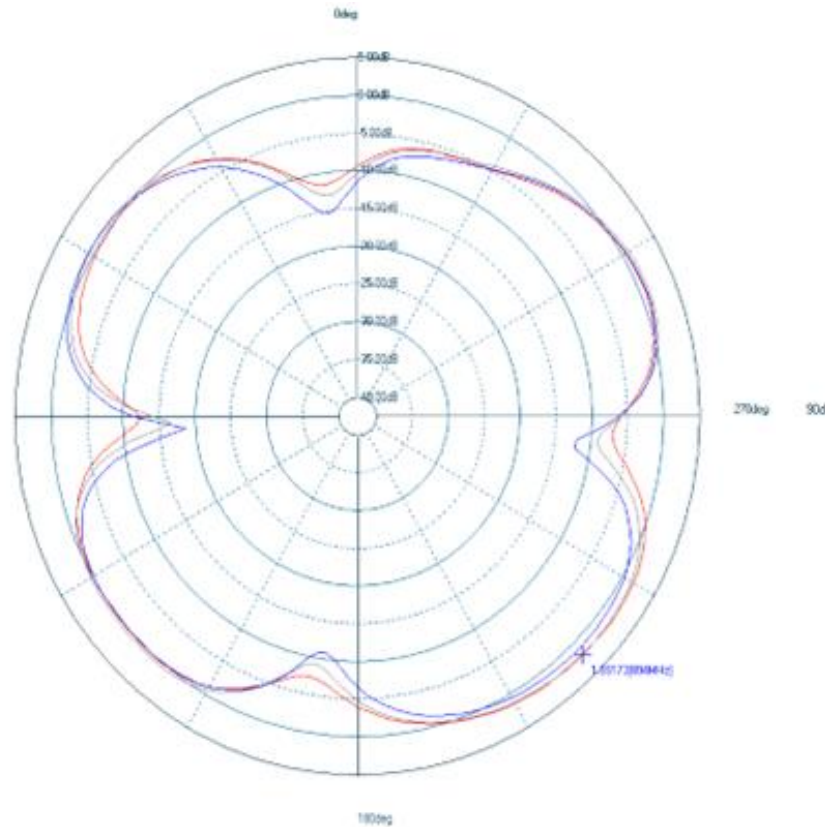
Frequency (MHz)	895	900	905	910	915	916	920	925	930	935
Peak gain (dBi)	3.18	3.25	3.21	3.08	2.94	2.85	2.67	2.44	2.07	1.85
Efficiency (%)	69	72	73	74	74	75	74	73	71	70

- Antenna 2D Pattern

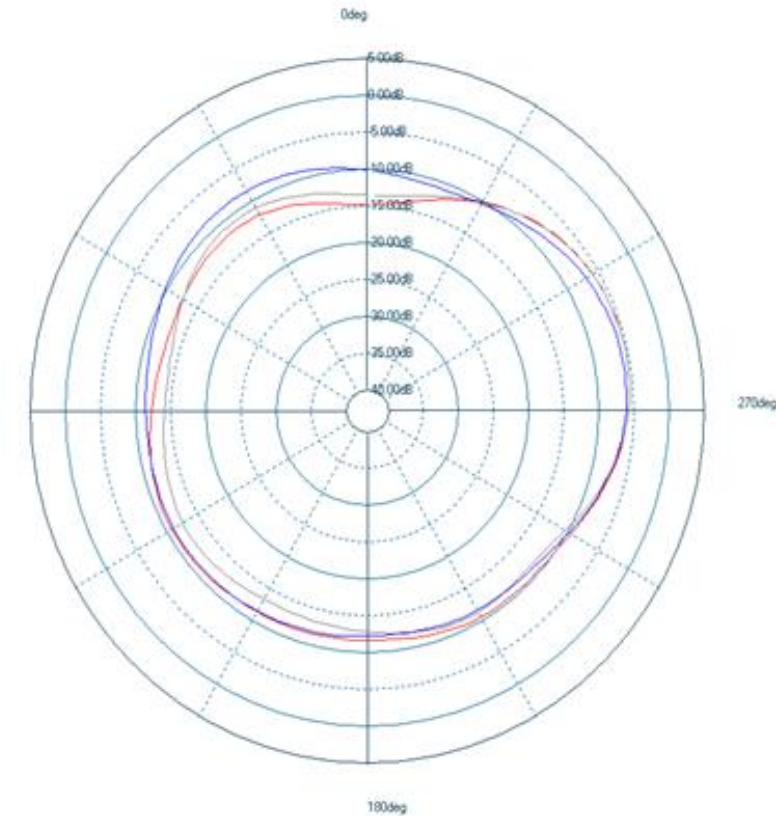
**XZ-Plane**



**YZ-Plane**

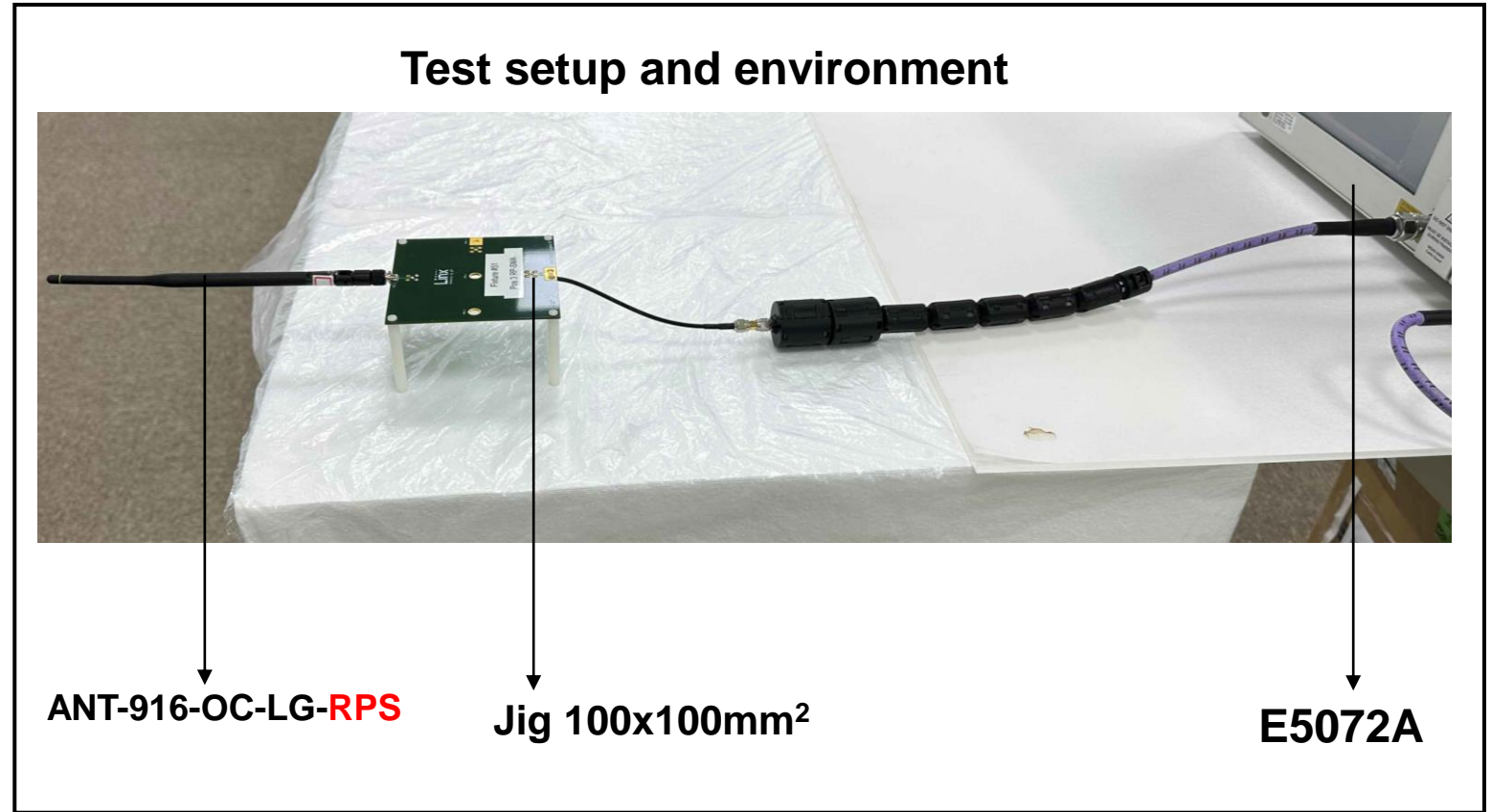


**XY-Plane**



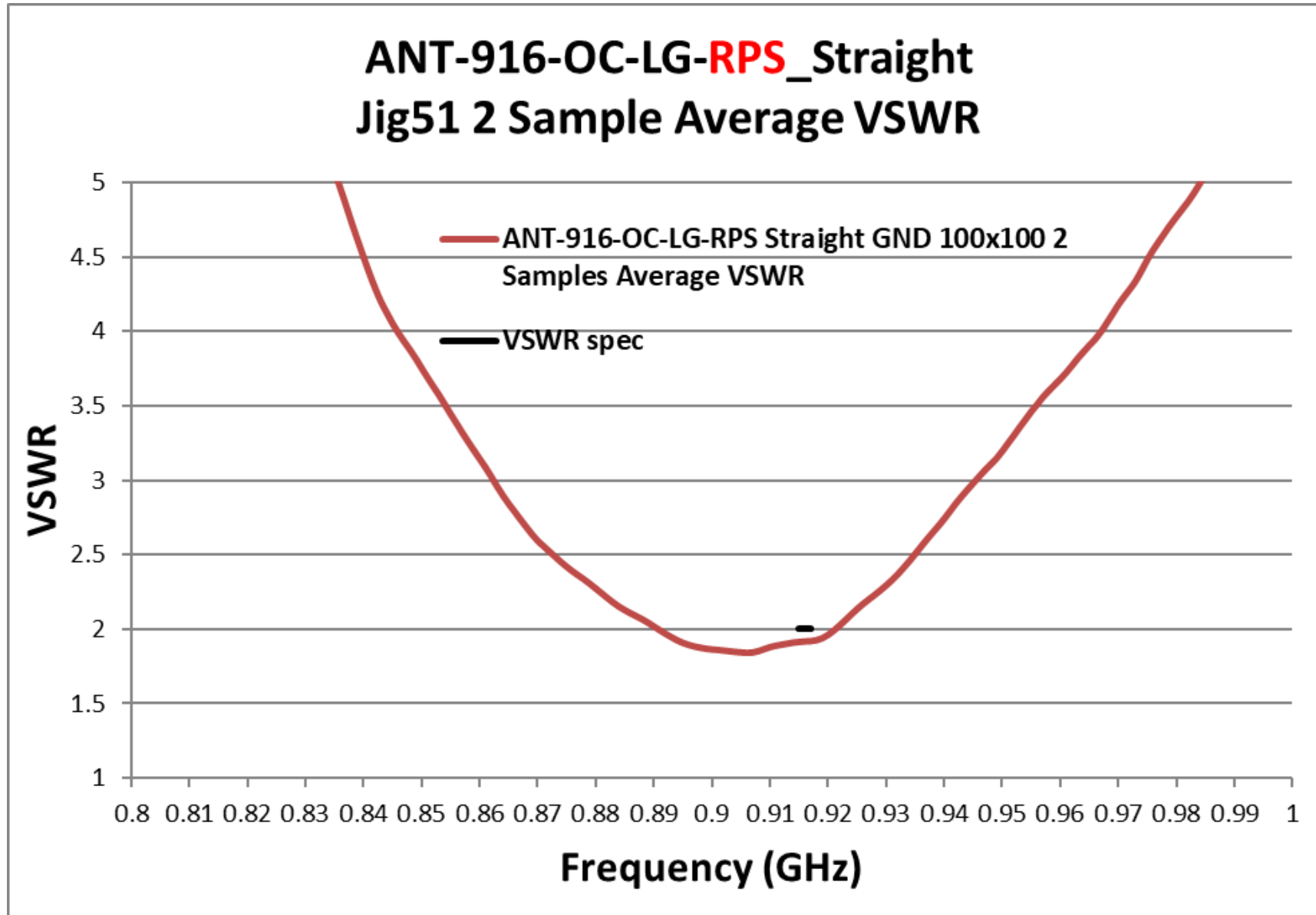
----- 895MHz, ----- 916MHz, -----935MHz

- **ANT-916-OC-LG-RPS** setup and environment



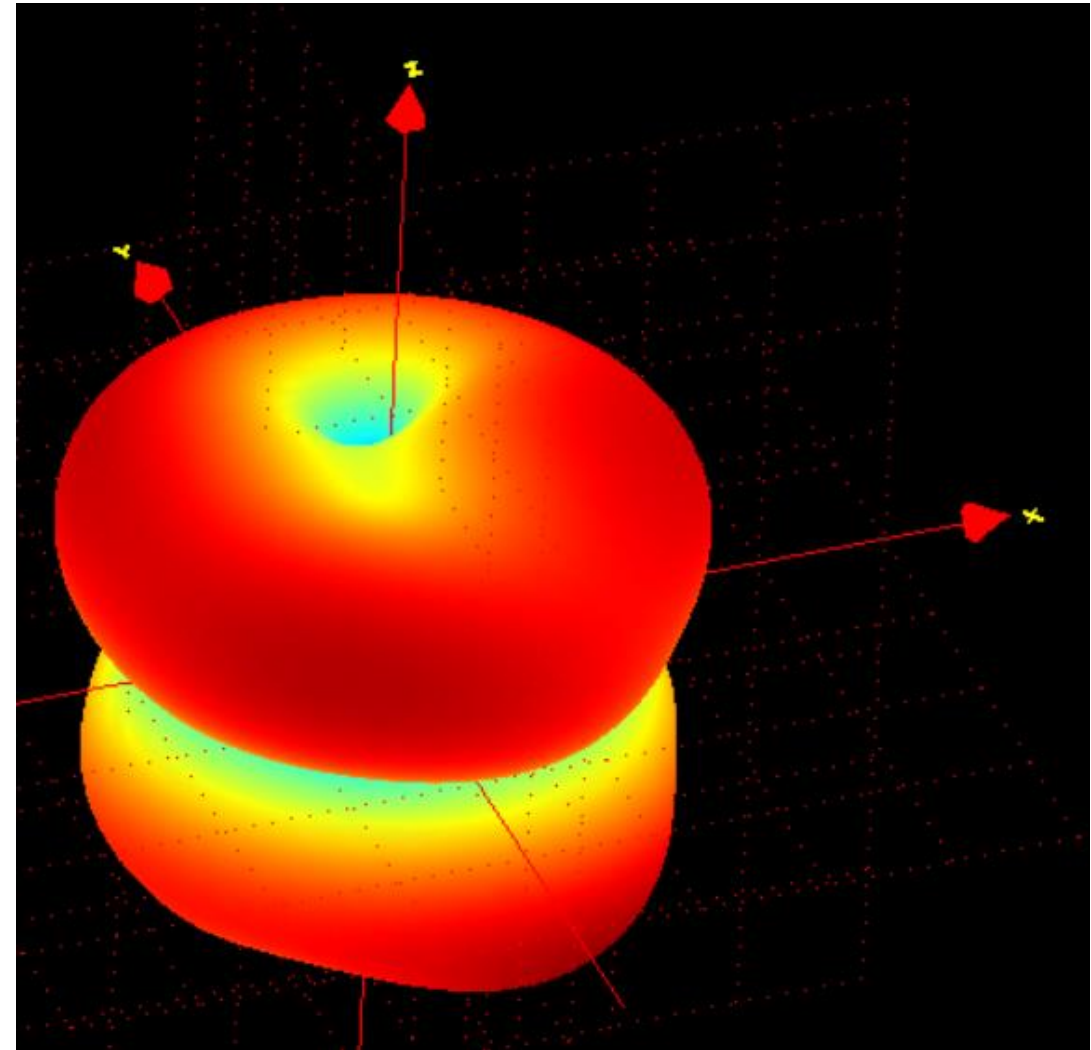
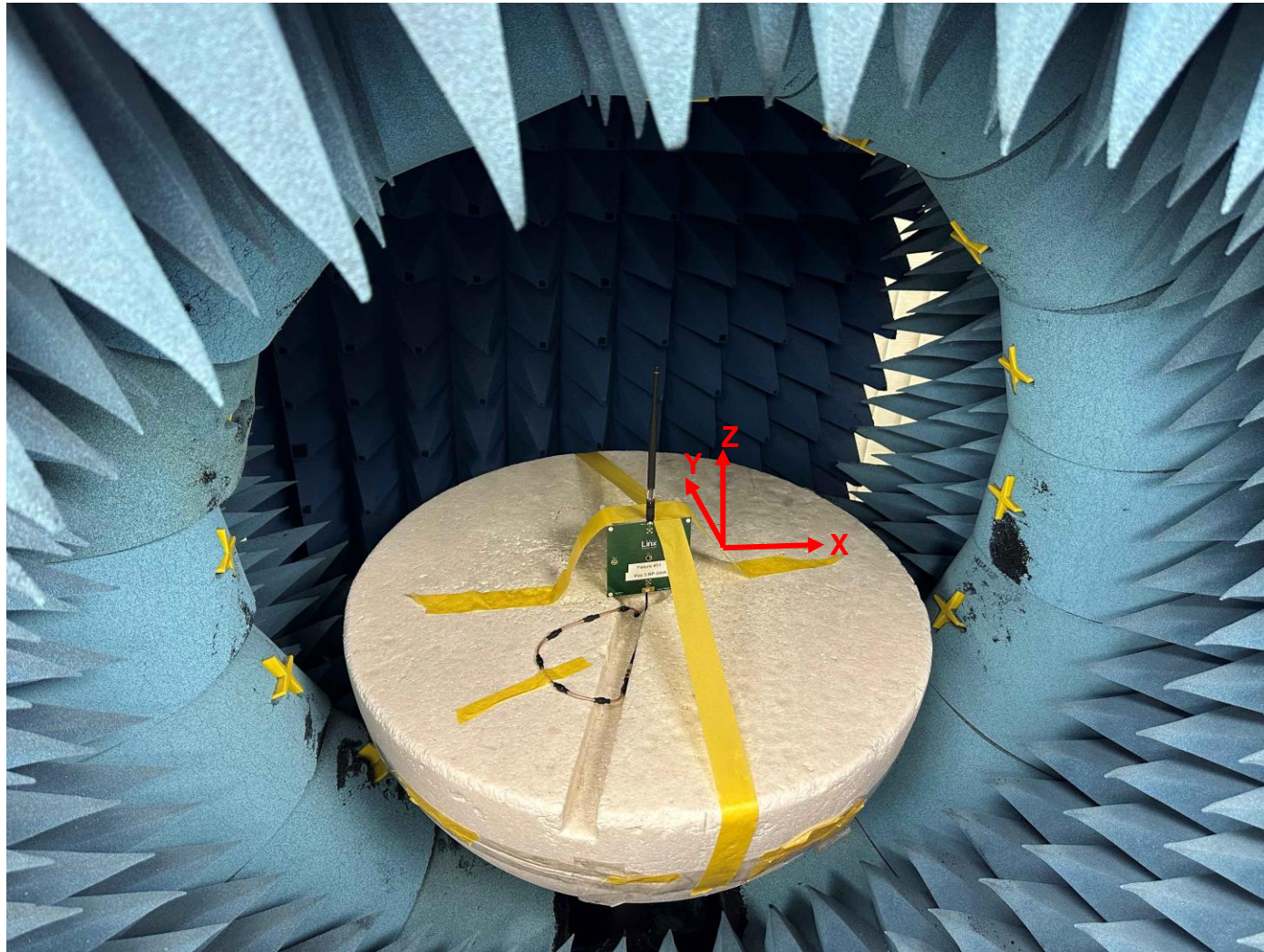
TE : Antenna used ANT-916-OC-LG-RPS

- Antenna VSWR



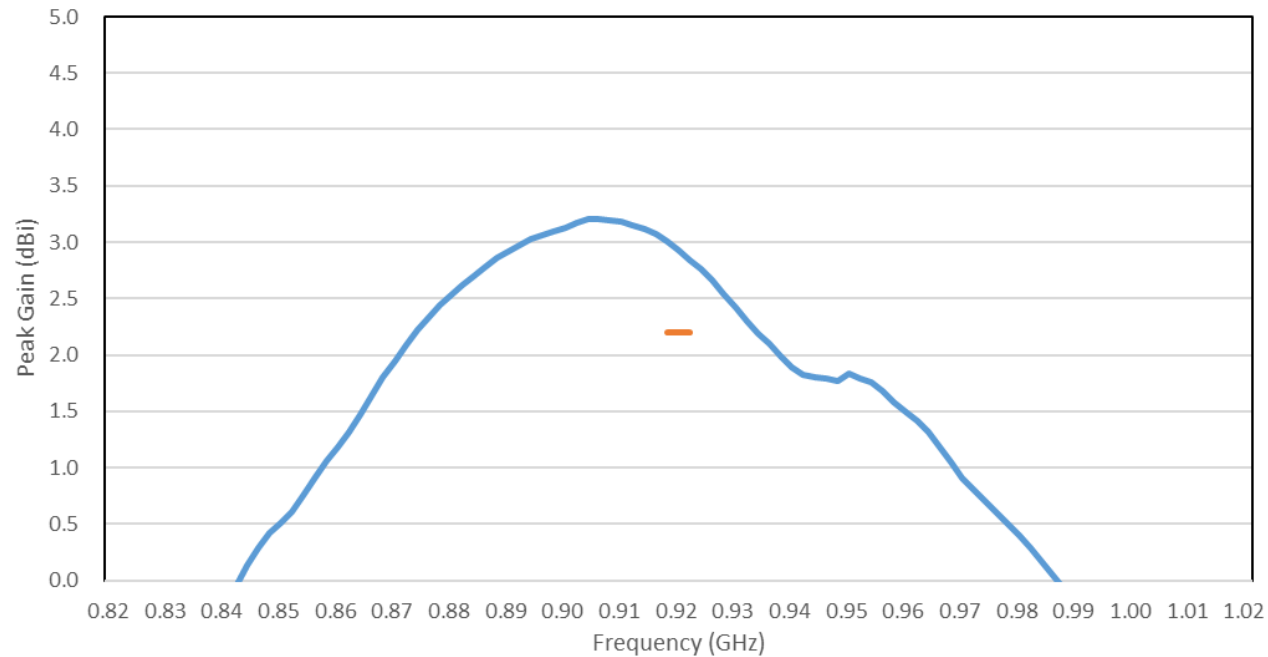


- OTA chamber setup and performance

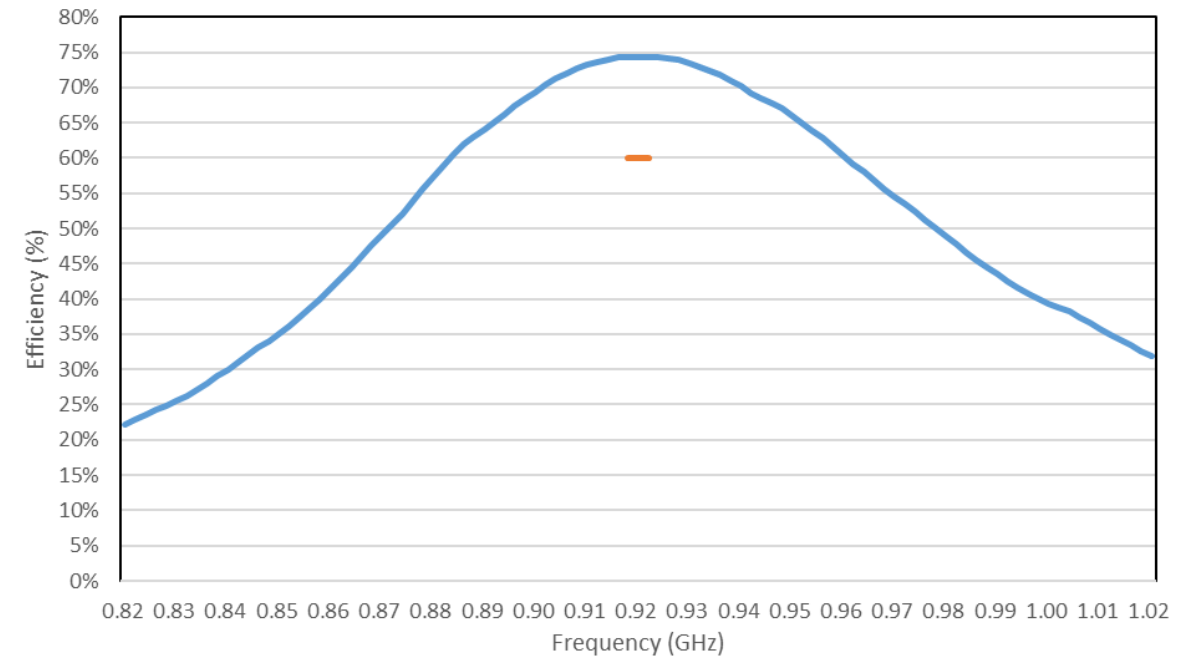


- Antenna Gain and Efficiency(%)

ANT-916-OC-LG-RPS-Jig51 Peak Gain



ANT-916-OC-LG-RPS-Jig51 Efficiency(%)

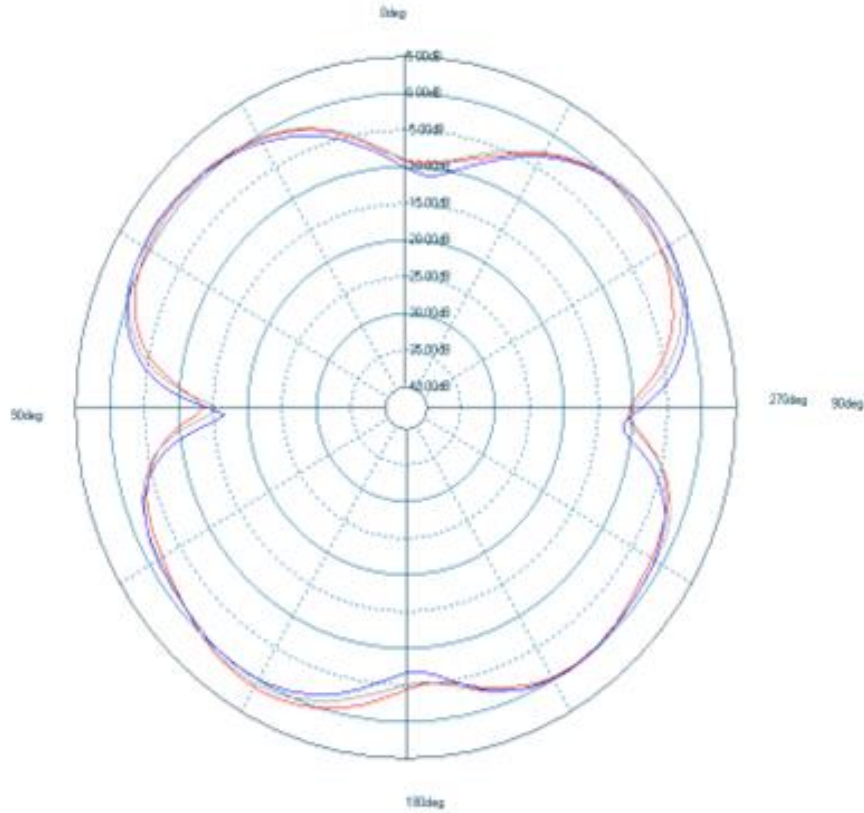


Frequency (MHz)	895	900	905	910	915	916	920	925	930	935
Peak gain (dBi)	3.09	3.21	3.2	3.12	3.00	2.93	2.76	2.55	2.19	1.89
Efficiency (%)	68	71	73	74	74	74	73	72	71	70

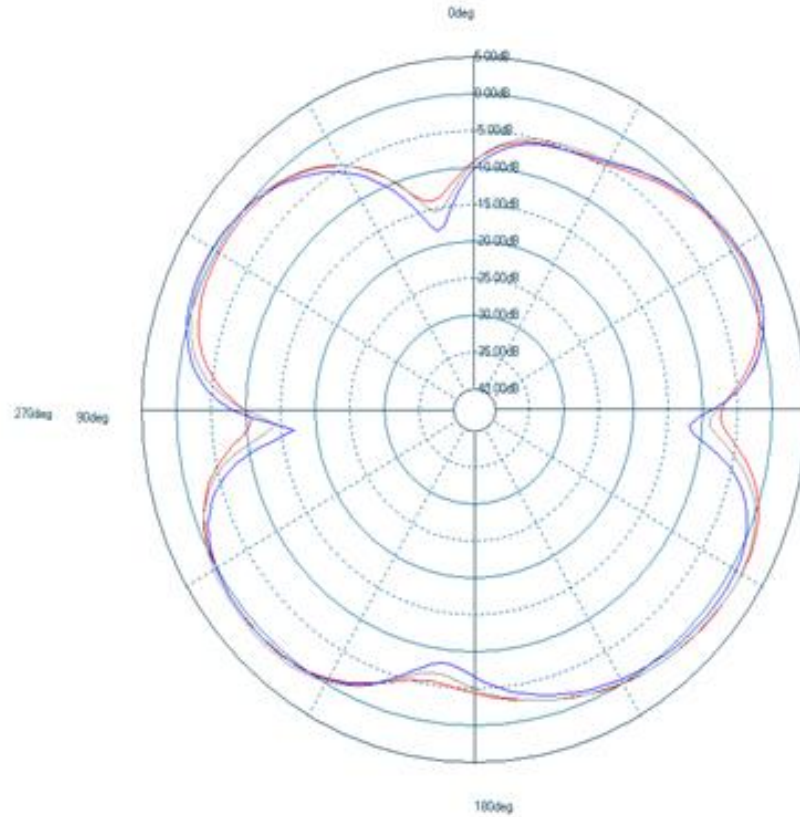


- Antenna 2D Pattern

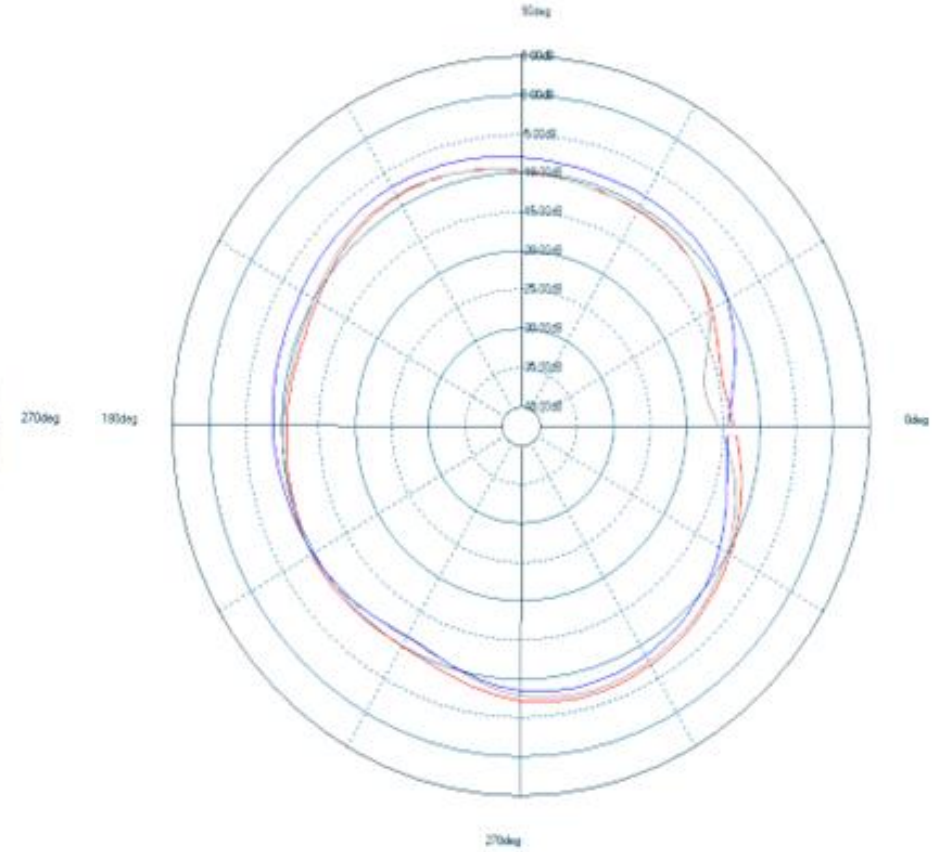
**XZ-Plane**



**YZ-Plane**



**XY-Plane**



----- 895MHz, ----- 916MHz, -----935MHz

# ANT-916-OC-LG-XXX TEST RESULT / CONCLUSION

We used the PN **ANT-916-OC-LG-XXX** antenna on Jig 100x100mm<sup>2</sup> & check the antenna performance at Taipei chamber.

## TEST RESULT :

- Antenna VSWR < 2.0 @ 916MHz with Jig 100x100mm<sup>2</sup>.
- Antenna Peak Gain > 2.2 @ 916MHz with Jig 100x100mm<sup>2</sup>.
- Antenna Efficiency > 60% @ 916MHz with Jig 100x100mm<sup>2</sup>.

## Manufacturer information as below:

- Company name : TE connectivity
- Address : 3F, No. 45, Dongsing Road, Taipei 11070, Taiwan R.O.C
- Phone number : 02-87682788



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**WHEN  
TECHNOLOGY  
CONNECTS,  
SO DOES HUMANITY.**

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EVERY CONNECTION COUNTS

