

# ANT-916-CW-HW antenna test Report RevA

2023.10.24 / Barry Chen

EVERY CONNECTION COUNTS



# TEST DETAILS AND SPEC

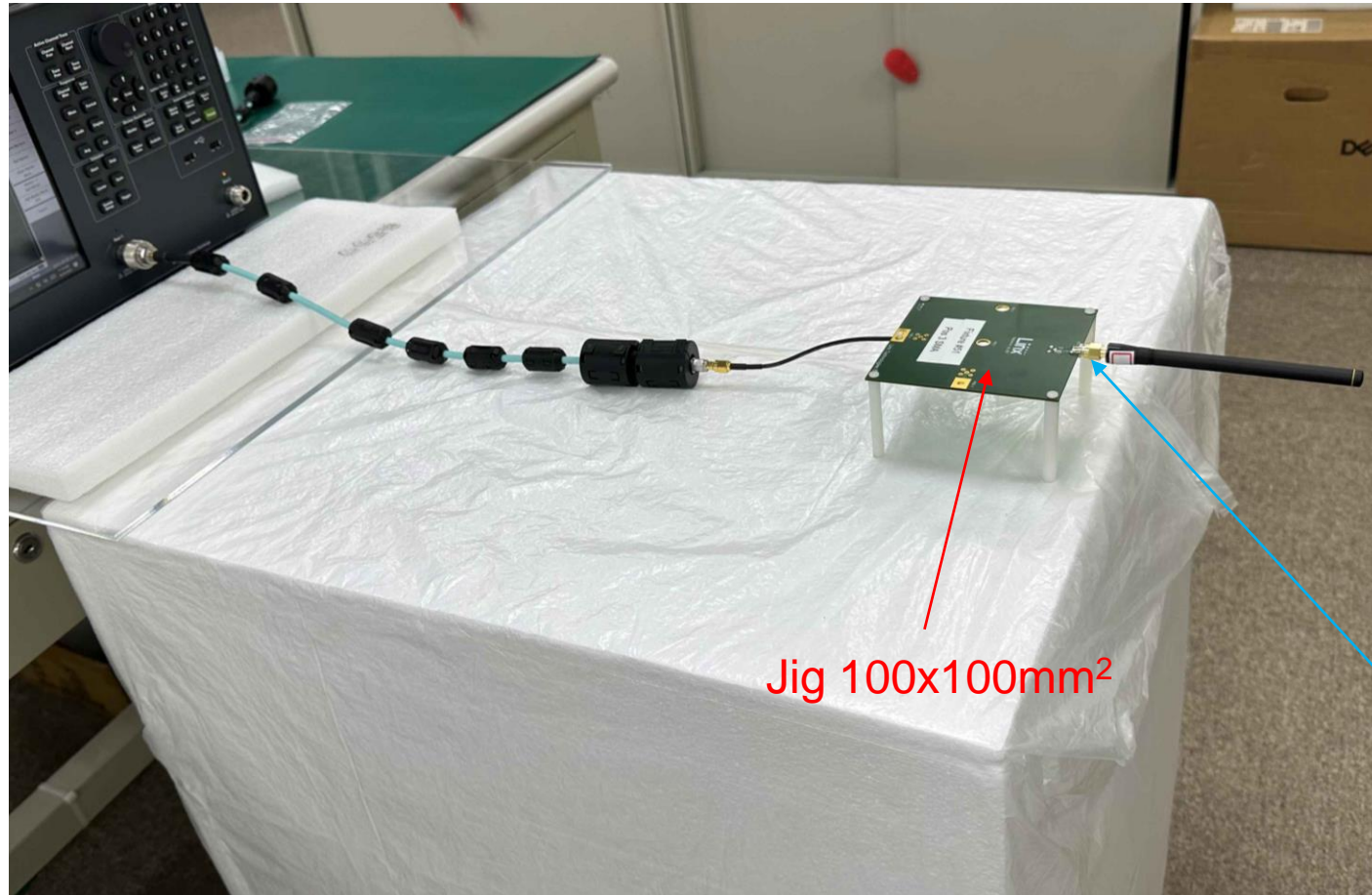
TE Engineering Location, Engineer	Taiwan, Barry Chen
Customer Equipment Name	
Bands / Frequencies	Band: ISM 900 [MHz] : 900 – 930
Requirements or Targets	Target : efficiency 40%
Antennas	ANT-916-CW-HW
Task	Test with Jig 100x100mm <sup>2</sup> ground plane

# Test Condition and VNA environment

ANT-916-CW-HW



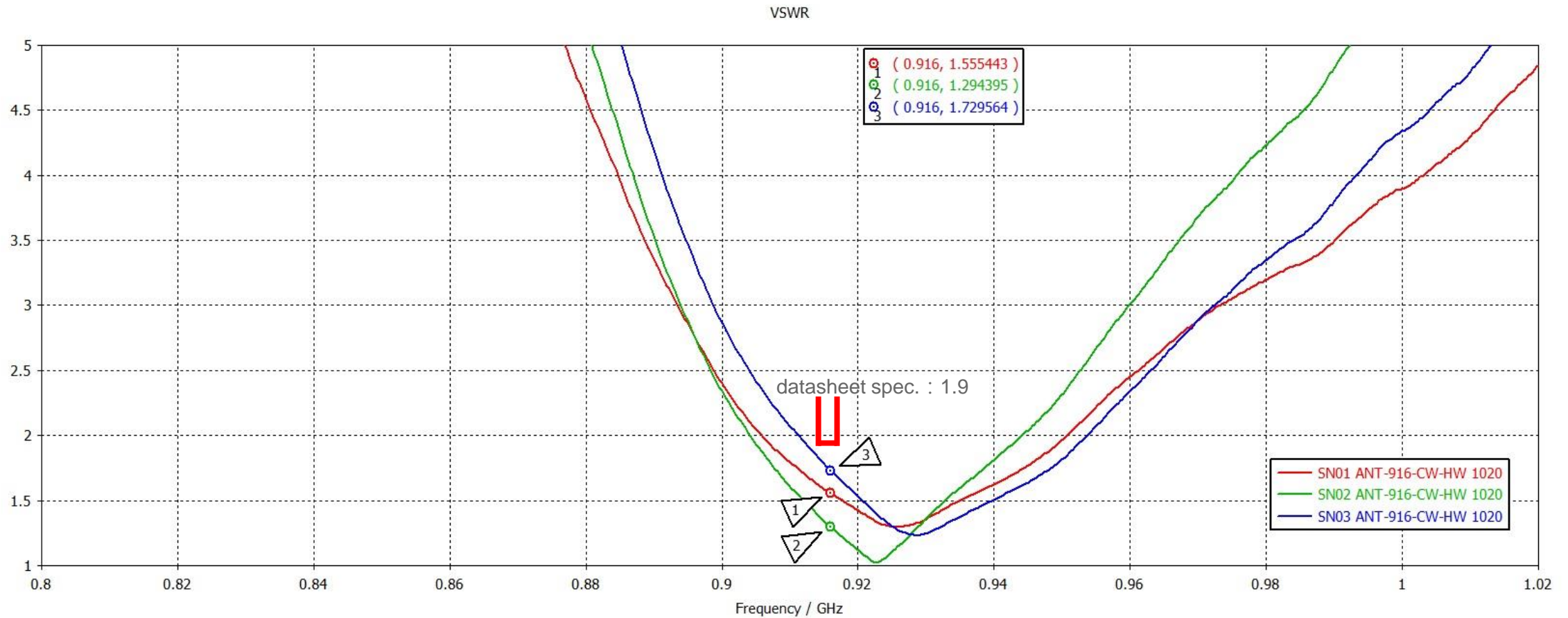
ANT-916-CW-HW with Jig 100x100mm<sup>2</sup>



Frequency Band(MHz) :  
ISM 900 : 900-930 MHz

Remark : sma adapter  
plug to jack RP

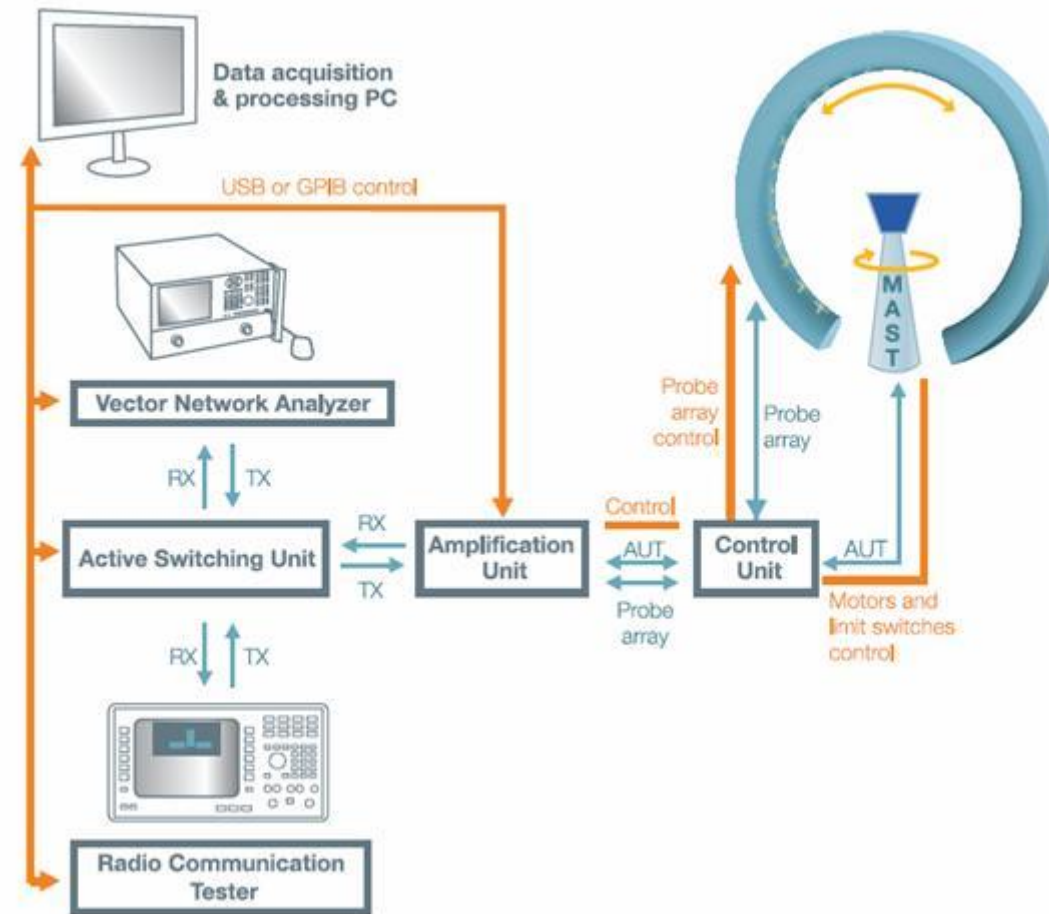




Freq. (MHz)	900	916	930
ISM 900	2.3 ~ 2.87	1.29 ~ 1.73	1.24 ~ 1.37

- VNA test 3 samples to check performance stable.

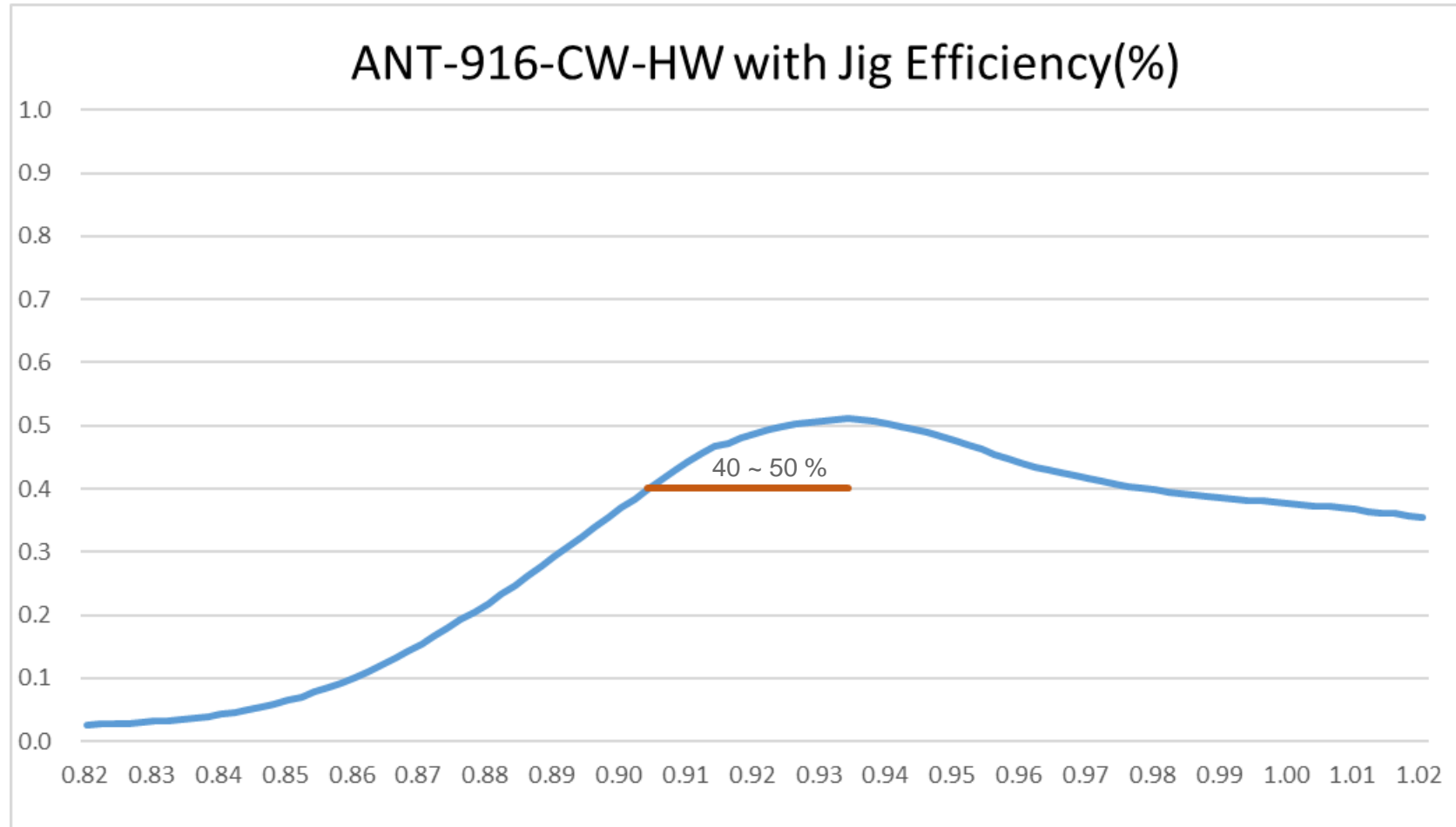
# Testing Condition



Taiwan chamber

Antenna Gain Test Setup

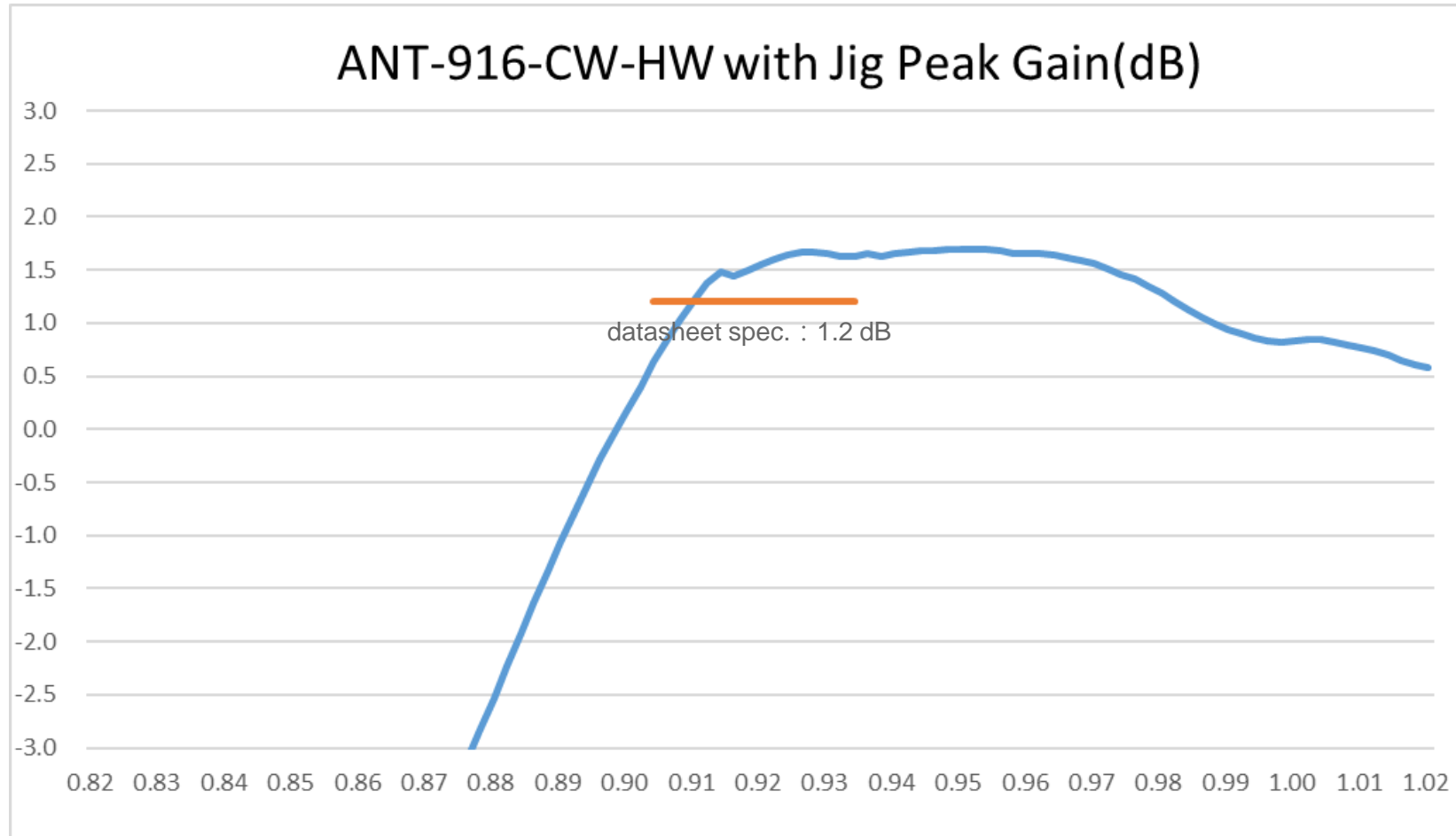
# Efficiency ( % )



Freq. (MHz)	900	916	930
ISM 900	40 %	48.7 %	51.1%

- One sample test at Taipei Chamber.

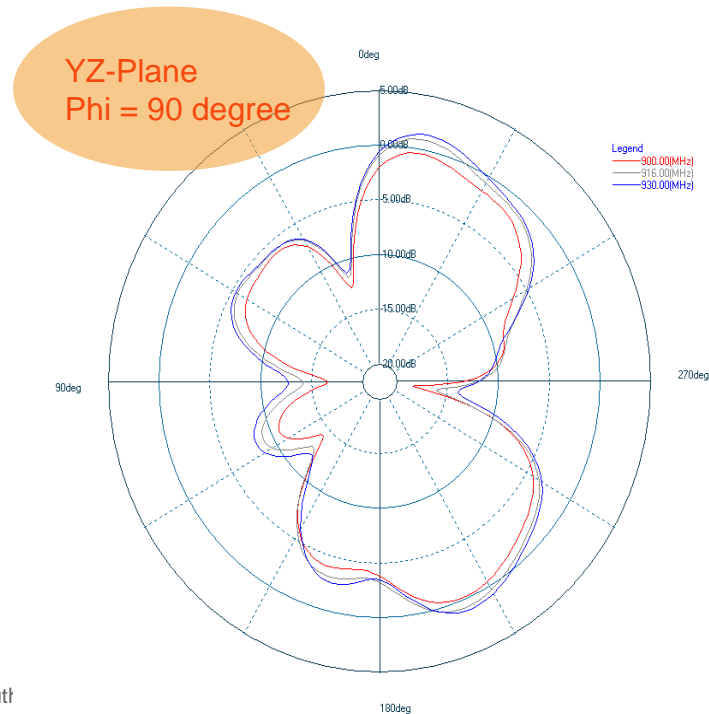
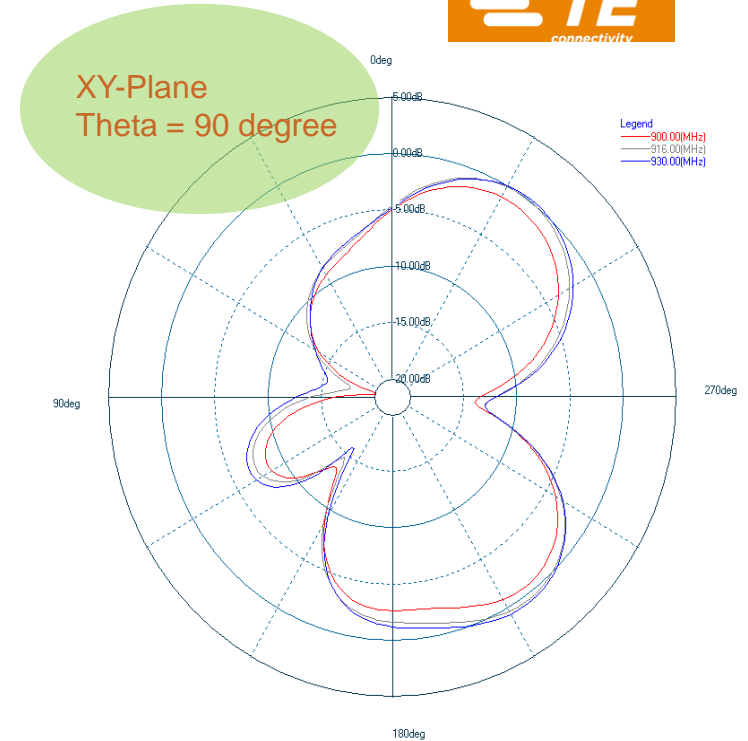
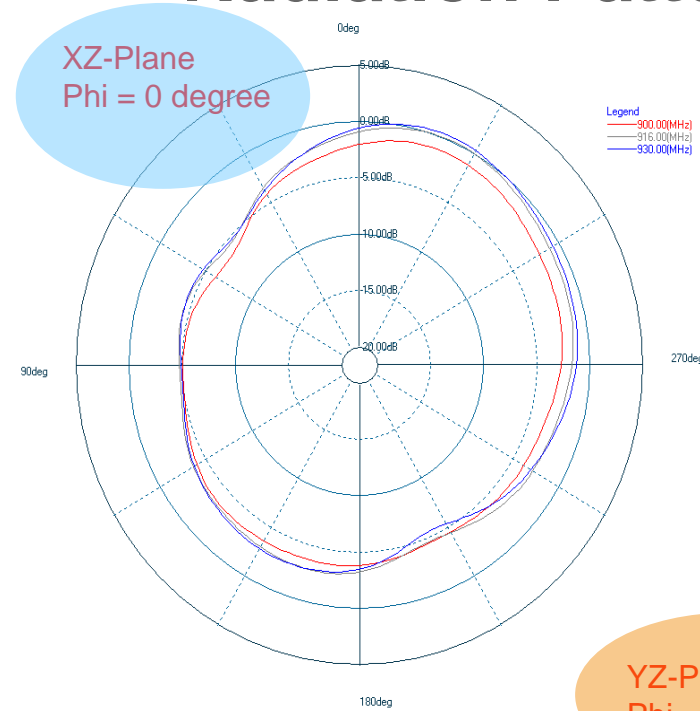
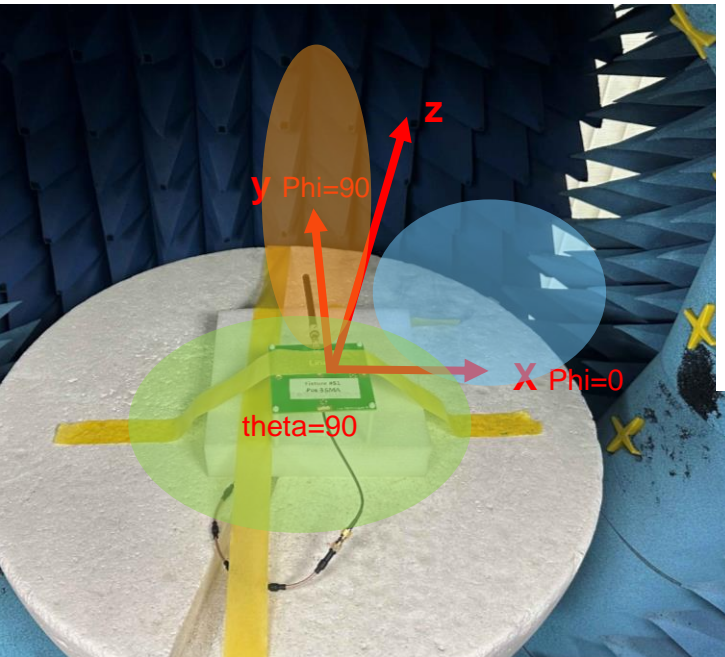
# Peak Gain ( dB )



Freq. (MHz)	900	916	930
ISM 900	0.631	1.551	1.631

- One sample test at Taipei Chamber.

# Radiation Pattern





# TEST RESULT / CONCLUSION



We tested ISM900 ant-916-cw-hw with test jig 100x100mm<sup>2</sup>.

- VNA test at 916MHz VSWR less than 1.9(datasheet spec.) by 3 samples.

Freq. (MHz)	900	916	930
ISM 900	2.3 ~ 2.87	1.29 ~ 1.73	1.24 ~ 1.37

- Chamber test, efficiency and peak gain at 916MHz are large than 40% and 1.2dB(datasheet spec.).

Freq. (MHz)	900	916	930
Efficiency	40 %	48.7 %	51.1%
Peak Gain	0.631	1.551	1.631

- We also have radiation pattern as page 8.

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

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EVERY CONNECTION COUNTS

