

ANT-916-CW-HW

antenna test Report

RevA

2023.10.24 / Barry Chen

EVERY CONNECTION COUNTS



TEST DETAILS AND SPEC

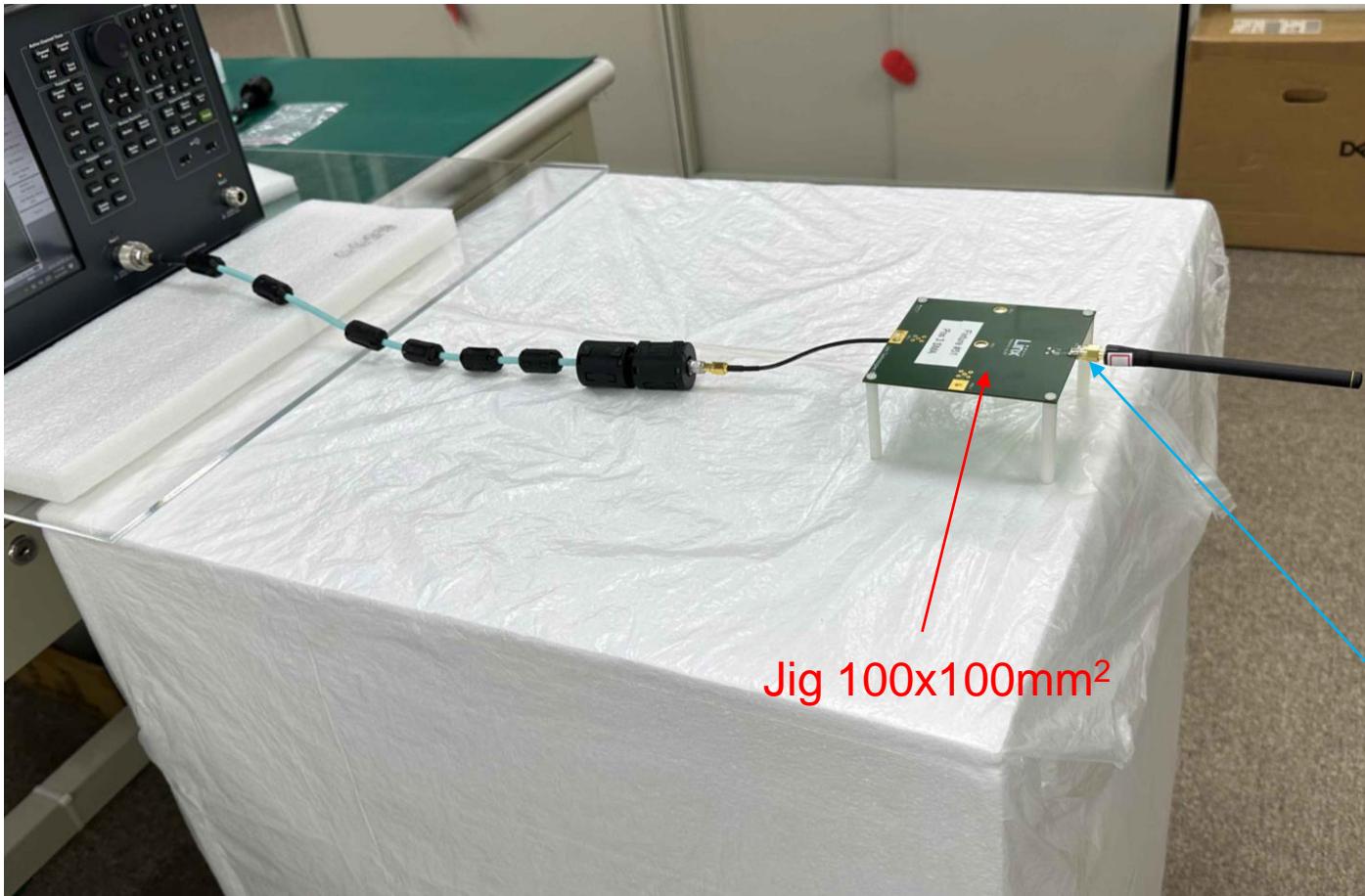
TE Engineering Location, Engineer	Taiwan, Barry Chen
Customer Equipment Name	
Bands / Frequencies	Band: ISM 900 [MHz] : 900 – 930
Requirements or Targets	Target : efficiency 40%
Antennas	ANT-916-CW-HW
Task	Test with Jig 100x100mm ² ground plane

Test Condition and VNA environment

ANT-916-CW-HW



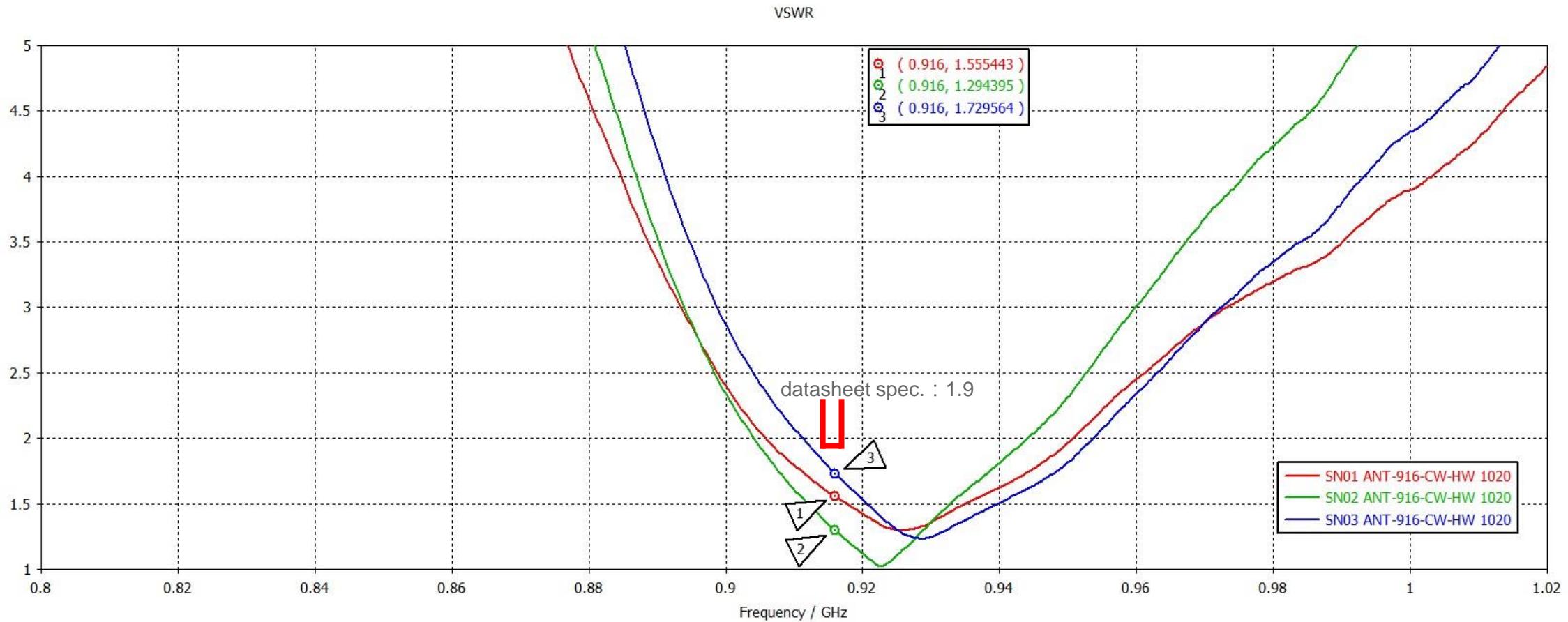
ANT-916-CW-HW with Jig 100x100mm²



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

Jig 100x100mm²

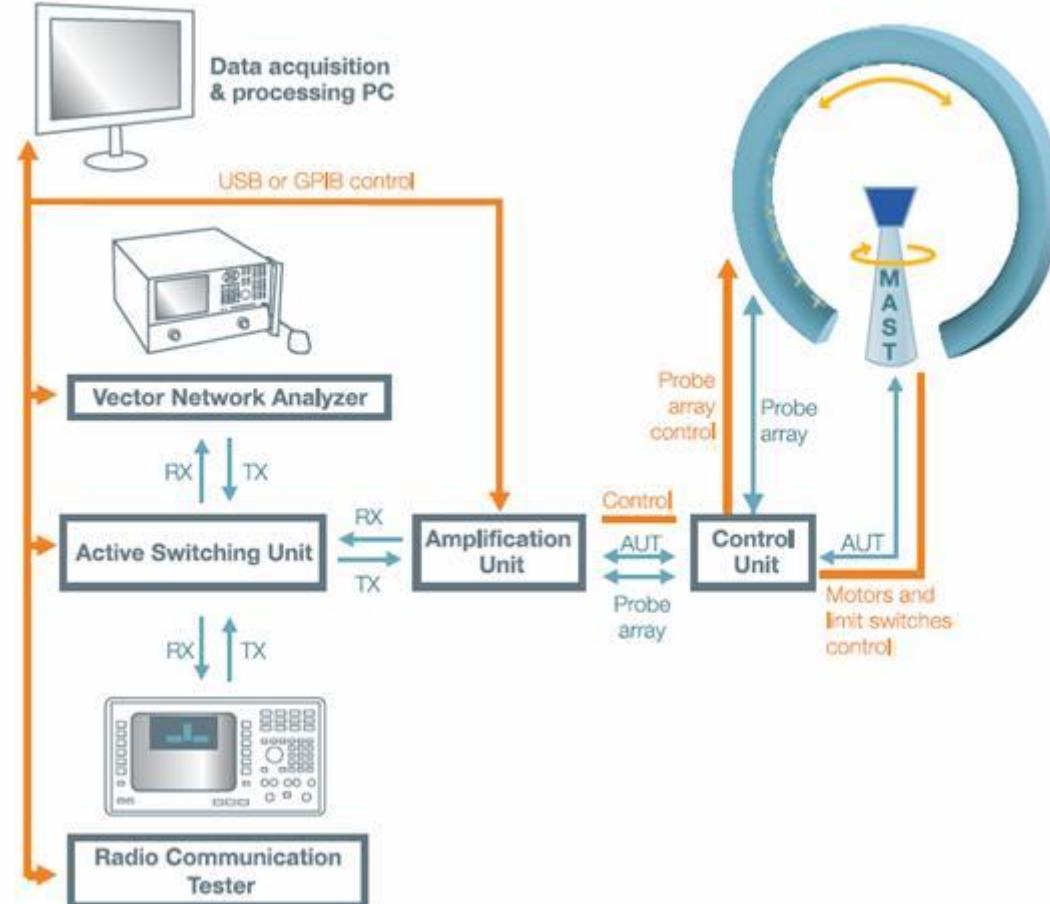
Remark : sma adapter
plug to jack RP



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

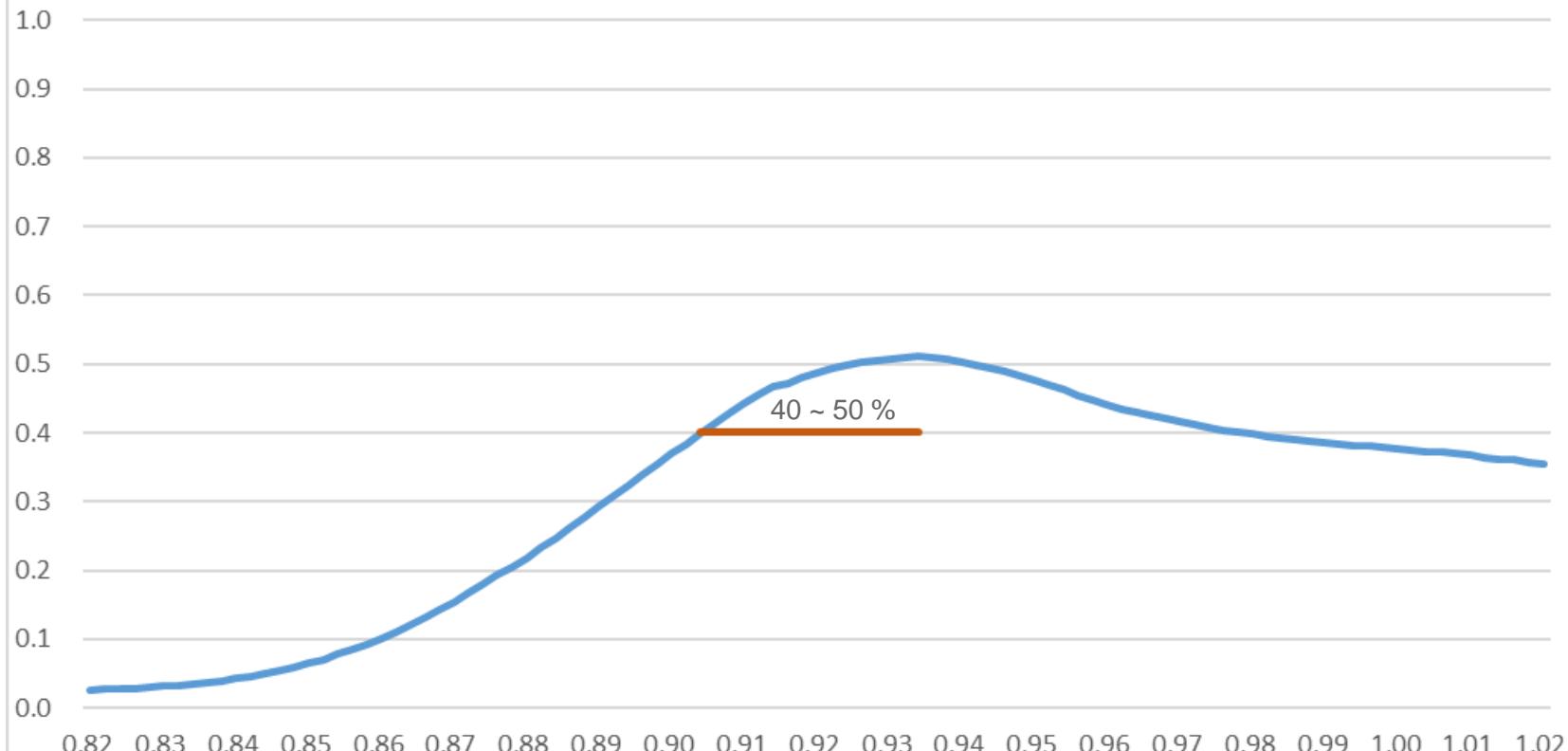


Taiwan chamber

Antenna Gain Test Setup

Efficiency (%)

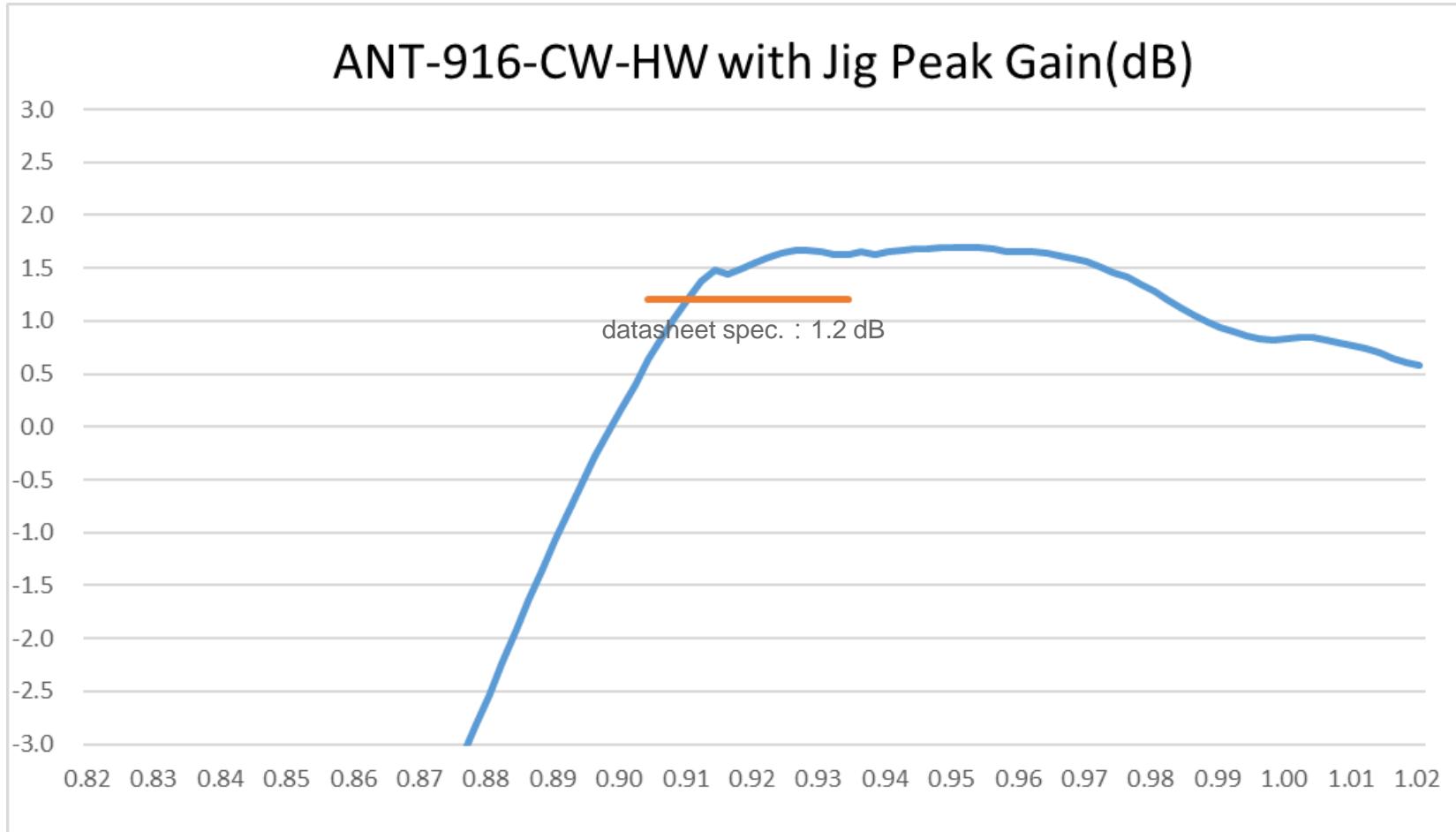
ANT-916-CW-HW with Jig Efficiency(%)



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

- One sample test at Taipei Chamber.

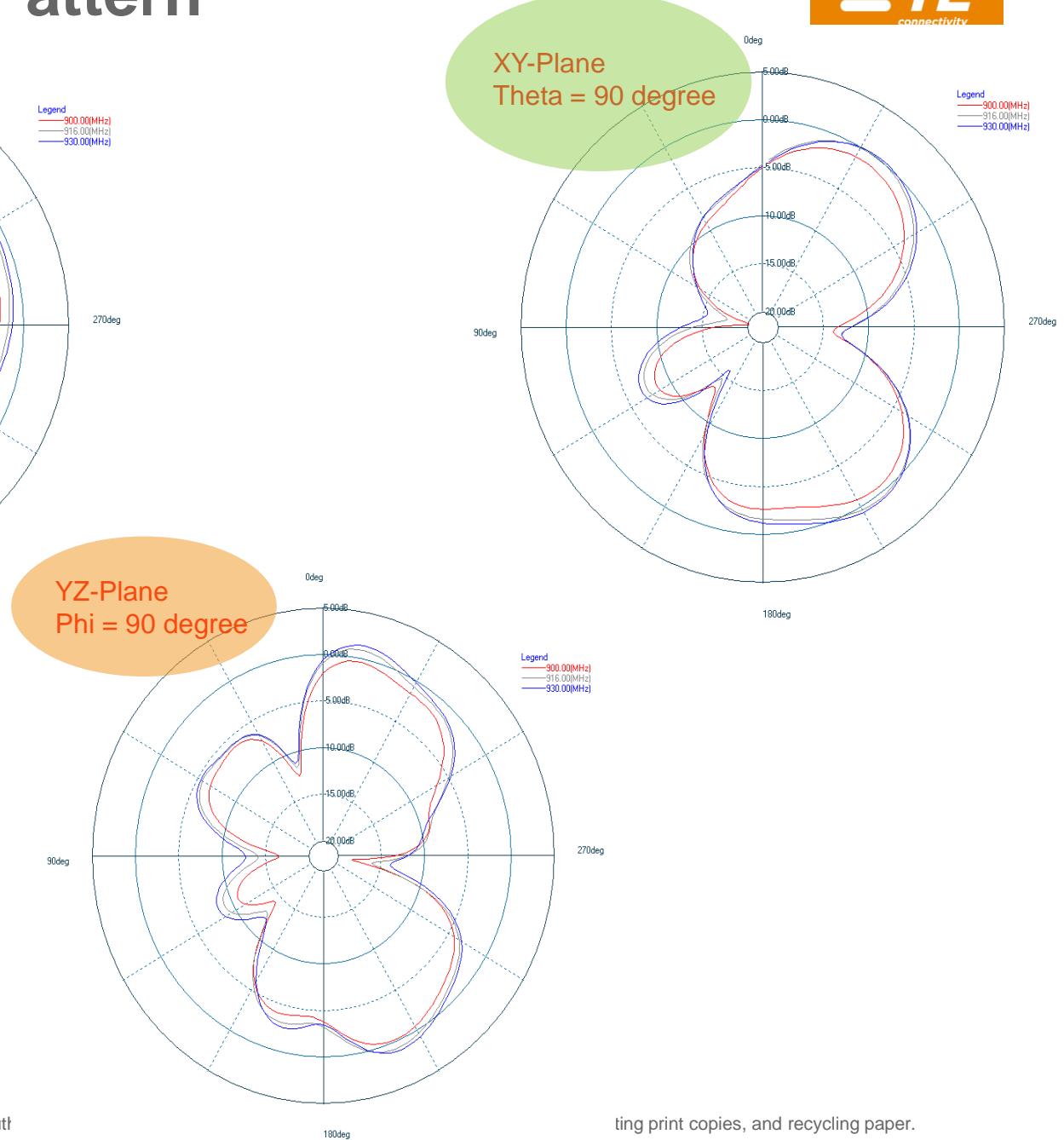
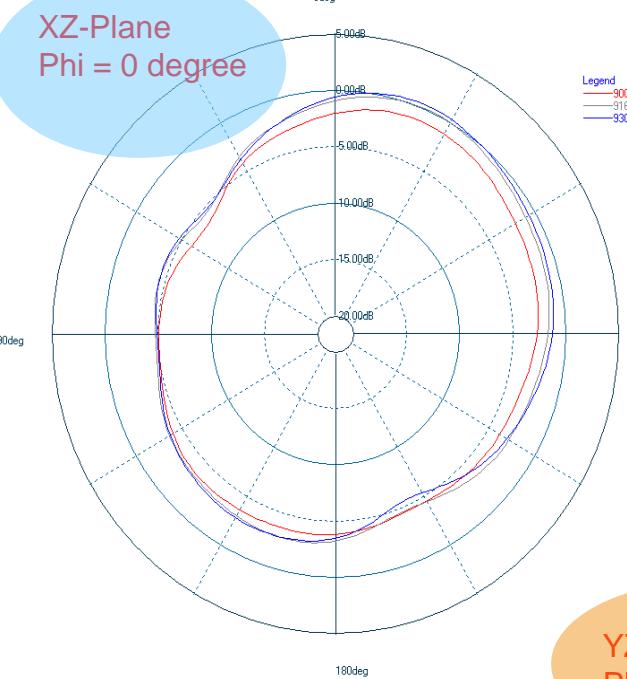
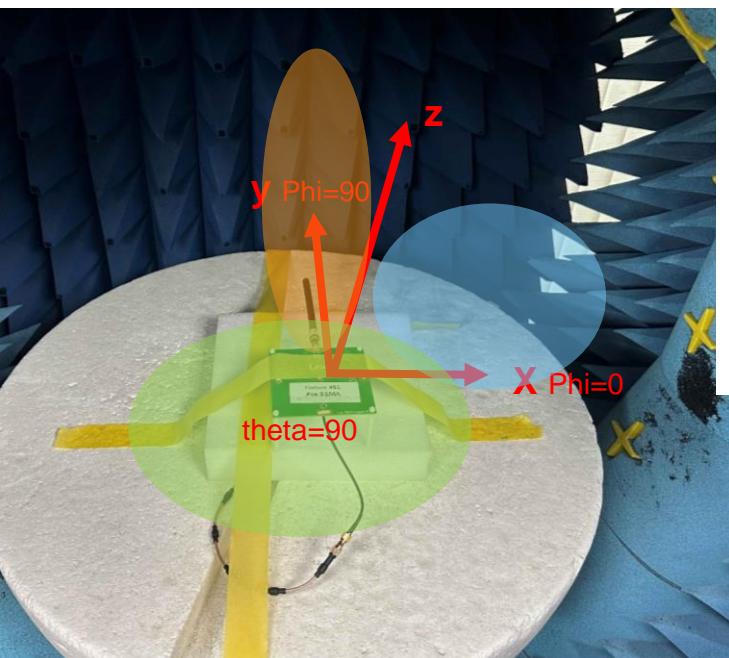
Peak Gain (dB)



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 100x100mm².

- 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.

WHEN
TECHNOLOGY
CONNECTS,
SO DOES HUMANITY.

EVERY CONNECTION COUNTS

