

# Antenna Under Test Report

Company : Panasonic Automotive Systems Co., Ltd.

# 1. Antenna Specification

## ◆ Antenna Description

Item	Description
Antenna type ( $\lambda/2$ Dipole Antenna etc)	Inverted F type antenna
Model No.	ANT0 : N1KYYYY00075 ANT1 : N1KYYYY00070
Antenna gain value ※Including cable loss	▪ N1KYYYY00075 (WiFi2.4GHz) Max: +4.04dBi ▪ N1KYYYY00070 (Bluetooth/BLE) Max: +2.08dBi
Frequency bandwidth	▪ N1KYYYY00075 2412MHz–2483.5MHz ▪ N1KYYYY00070 2402MHz – 2483.5MHz
Connector type (SMA reverse,UFL etc)	U.FL
Cable Length(mm)	▪ N1KYYYY00070 157mm ▪ N1KYYYY00075 108 mm



# 1. Antenna Specification

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- ◆ Antenna Appearance

Please refer to the following materials.

- FCC Test Setup Photo\_AUT.pdf

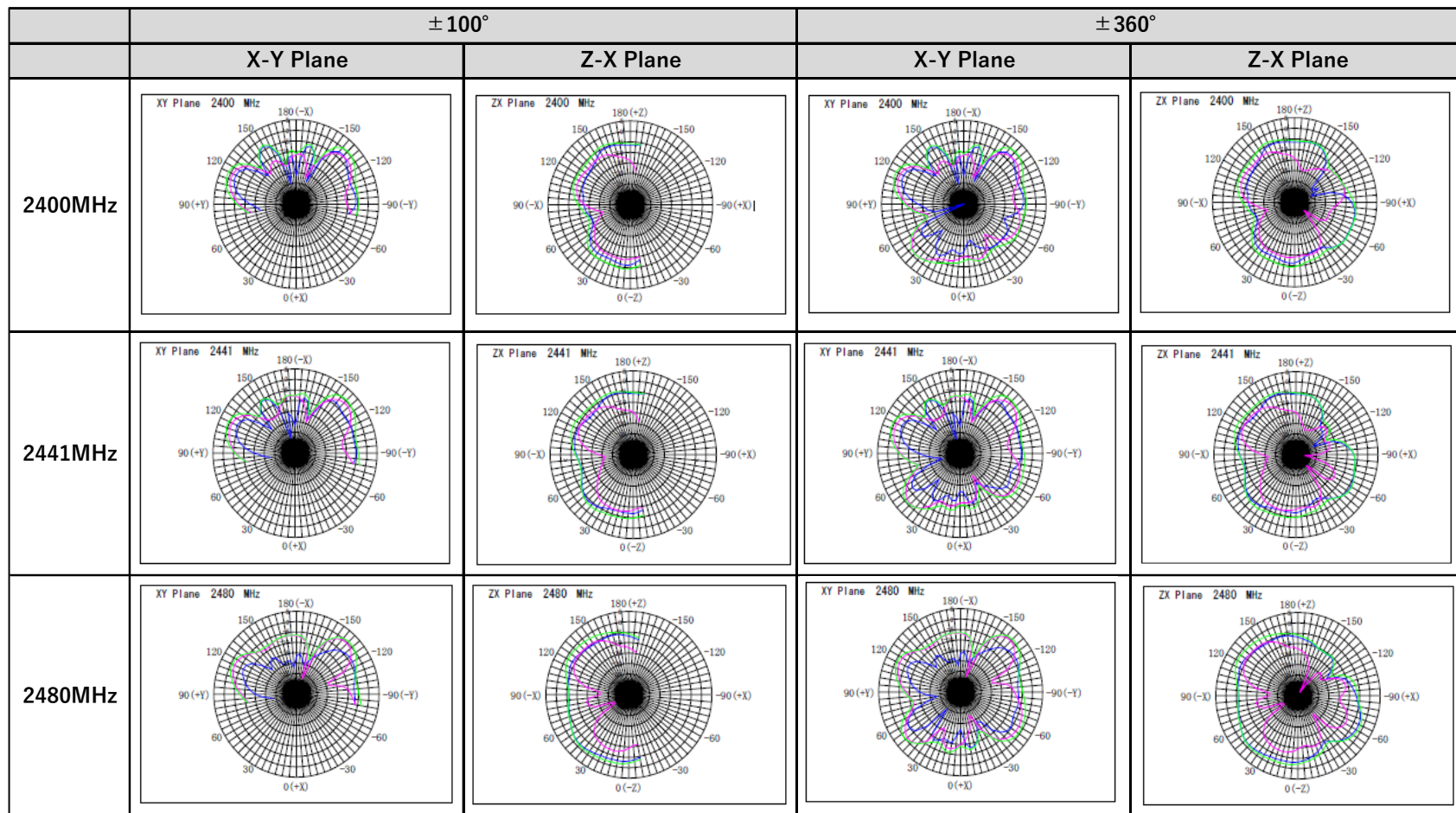
- ◆ Manufacturer name : NISSEI ELECTRIC CO.,LTD.

- ◆ Manufacturer Address : 1509 Okubo-Cho Hamamatsu-City Shizuoka-Pref 432-8006 Japan



# 2. Antenna Radiation Pattern

◆ N1KYYYY00075 (WiFi2.4GHz)



H [dBi]

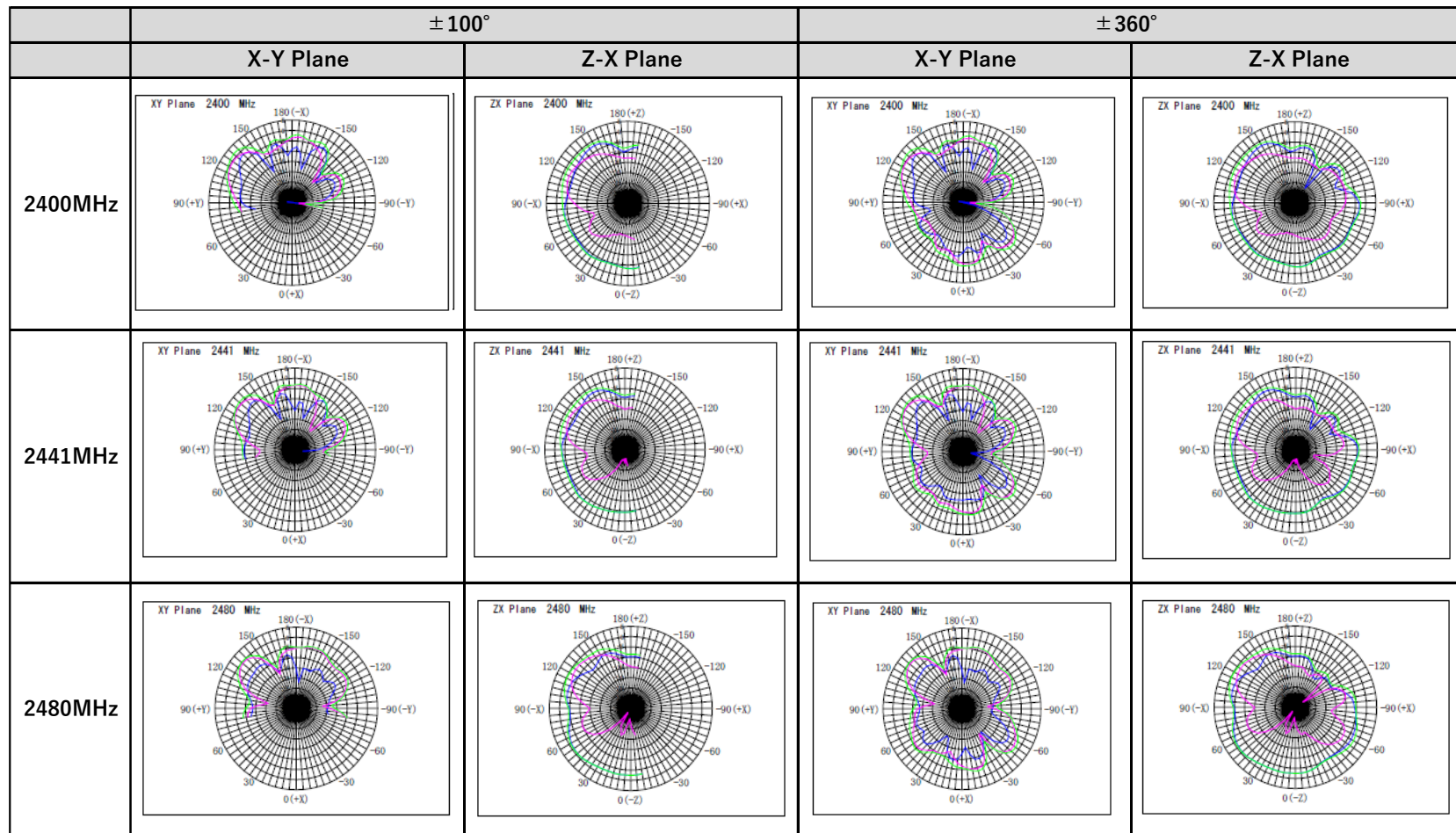
V [dBi]

H+V [dBi]



# 2. Antenna Radiation Pattern

◆ N1KYYYY00070 (Bluetooth/BLE)



H [dBi]

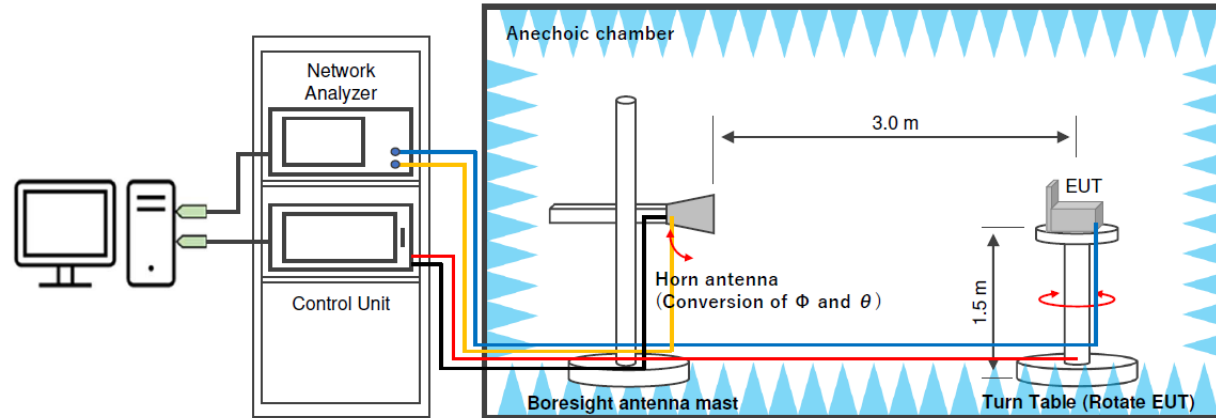
V [dBi]

H+V [dBi]



# 3. Test Equipment & Conditions

## ◆ Test Method for antenna gain measurement



## ◆ Test Setup photo

Please refer to the following materials.

- FCC Test Setup Photo\_AUT.pdf

# 3. Test Equipment & Conditions

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## ◆ List of equipment

Device	Type/Model	Serial	Manufacturer
Anechoic chamber	-	602477-0	NISSEI ELECTRIC CO., LTD.
Turn Table	-	602477-0	NISSEI ELECTRIC CO., LTD.
Control Unit	-	602544-1	NISSEI ELECTRIC CO., LTD.
Boresight antenna mast	-	602477-0	NISSEI ELECTRIC CO., LTD.
Horn antenna	3115	9107-3687	ETS-Lindgren
Horn antenna 2GHz for Cal.	3160-03	1096	ETS-Lindgren
Port Cable 0.1GHz~18.5GHz	MCCA011	-	NISSEI ELECTRIC CO., LTD.
Ferrite Cable 2.5m - 0.1GHZ~18.5GHz	X10511A	-	NISSEI ELECTRIC CO., LTD.
Network Analyzer	N5230C	MY48100176	Keysight

◆ Test software name : Gain Meas 3

◆ Test dates & Location : 2022 Sep. 22, NISSEI ELECTRIC CO.,LTD.

◆ Test conductor : Emi Yoshioka