Model : MR7400

ANTENNA DATASHEET

2024

PEGATRON

No. 96, Ligong St., Beitou Dist., Taipei City 112019 , Taiwan (R.O.C.)

Table of Contents

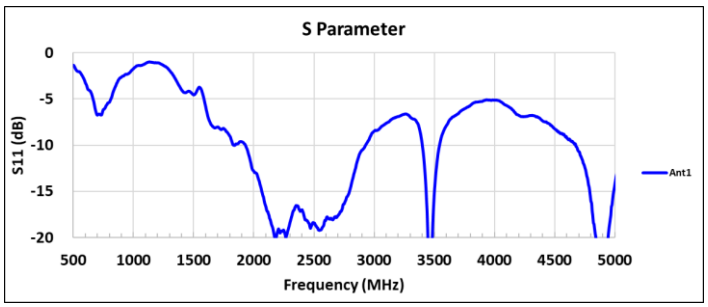
1. Specifications

Description	
Antenna type WWAN_ANT1 L/M/H/UH band Antenna	Monopole
Antenna type WWAN_ANT2 L/M/H/UH band Antenna	Monopole
Antenna type WWAN_ANT3 M/H/UH Antenna	Monopole
Antenna type WWAN_ANT4 M/H/UH Antenna	Monopole
Antenna type ANT5 WIFI Antenna	Monopole
Antenna type ANT6 GPS & WIFI Antenna	PIFA
Peak Gain WWAN_ANT1 L/M/H/UH band Antenna	See the table 3.2.1
Peak Gain WWAN_ANT2 L/M/H/UH band Antenna	See the table 3.2.2
Peak Gain WWAN_ANT3 M/H/UH Antenna	See the table 3.2.3
Peak Gain WWAN_ANT4 M/H/HU Antenna	See the table 3.2.4
Peak Gain ANT5 WIFI Antenna	See the table 3.2.5
Peak Gain ANT6 GPS&WIFI Antenna	See the table 3.2.6

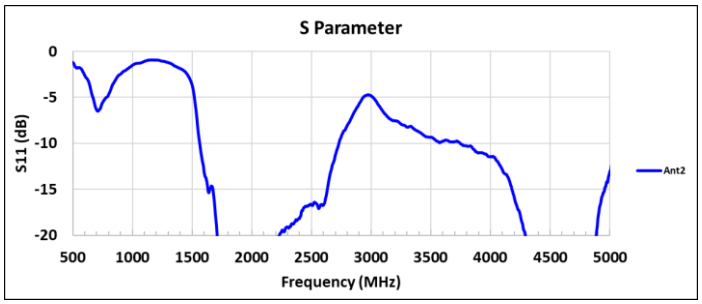
3. Performance Data

3.1 Return Loss

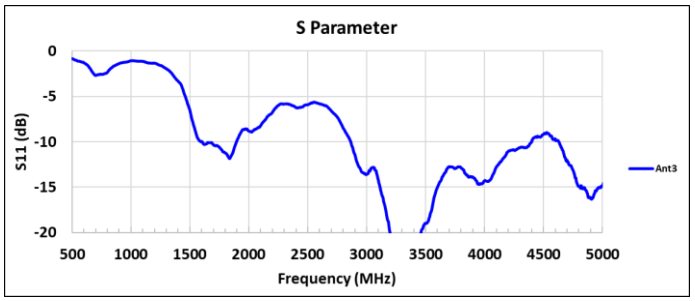
3.1.1 ANT1_WWAN_LMH&UH band Antenna



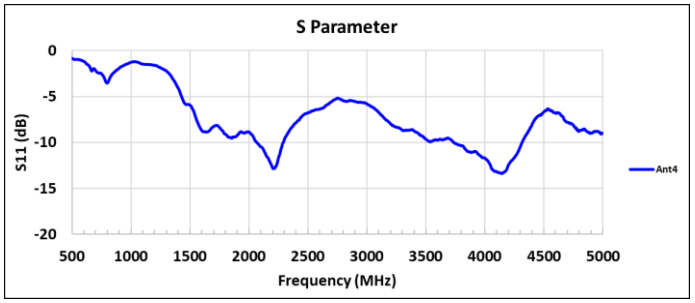
3.1.2 ANT2_WWAN_LMH&UH band Antenna



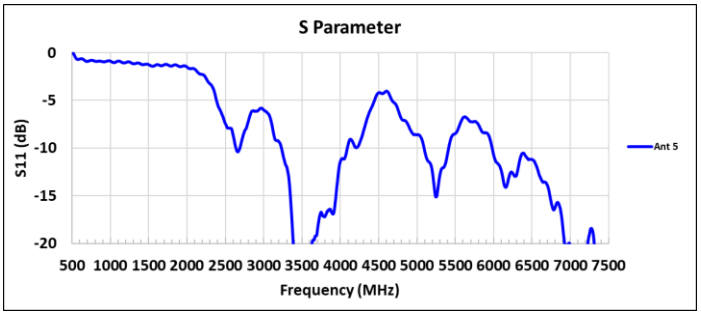
3.1.3 ANT3_WWAN_M&H&UH Antenna



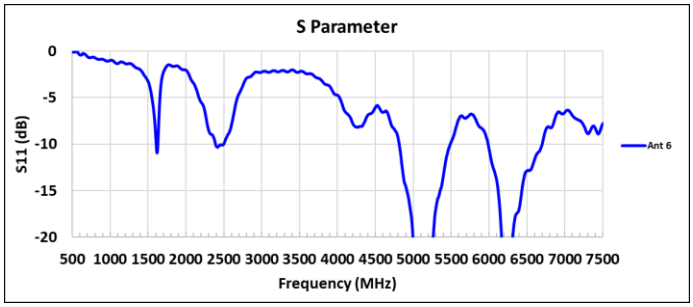
3.1.4 ANT4_WWAN_M&H&UH Antenna



3.1.5 ANT5 WIFI Antenna



3.1.6 ANT6 GPS&WIFI Antenna



3.2 Peak Gain summary

L/M/H/UH band	
Polarization	**Linear**
ANT 1	**Gain (dBi)**
Frequency (MHz)	
698 - 716	0.47
703 - 748	0.47
788 - 798	0.88
824 - 849	-1.31
1710 - 1755	2.08
1710 - 1780	2.19
1850 - 1915	3.25
1920 - 1980	3.25
2305 - 2315	3.01
2300 - 2400	3.01
2500 - 2570	3.8
3300 - 4200	3.22
3550 - 3800	2.31
4400 - 5000	3.46

Table 3.2.1

L/M/H/UH band	
Polarization	**Linear**
ANT 2	**Gain (dBi)**
Frequency (MHz)	
698 - 716	0.38
703 - 748	0.38
788 - 798	0.66
824 - 849	-0.58
1710 - 1755	3.09
1710 - 1780	3.09
1850 - 1915	2.99
1920 - 1980	2.99
2305 - 2315	2.67
2300 – 2400	2.88
2500 - 2570	3.18
3300 - 4200	2.85
3550 - 3800	1.91
4400 - 5000	3.84

Table 3.2.2

M/H/UH band	
Polarization	**Linear**
ANT 3	**Gain (dBi)**
Frequency (MHz)	
3300 - 4200	5
3550 - 3800	5

Table 3.2.3

M/H/UH band	
Polarization	**Linear**
ANT 4	**Gain (dBi)**
Frequency (MHz)	
3300 - 4200	3.24
3550 - 3800	3.24

Table 3.2.4

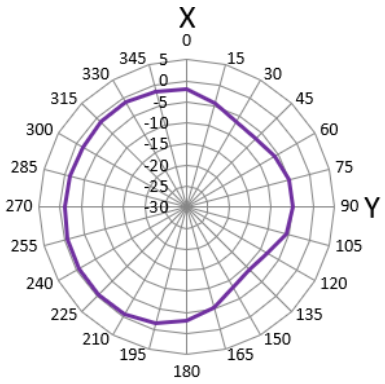
WIFI band	
Polarization	**Linear**
ANT 5	**Gain (dBi)**
Frequency (MHz)	
2402	-0.69
2440	-0.11
2478	0.74
5250	2.31
5550	1.38
5800	1.36
6200	2.98
6700	3.48
7125	3.85

Table 3.2.5

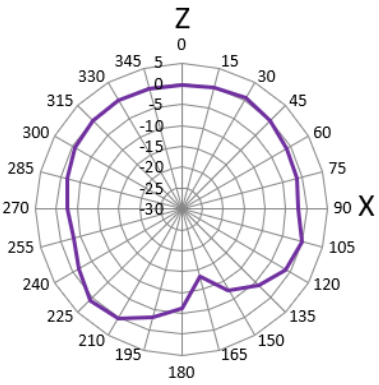
GPS / WIFI band	
Polarization	**Linear**
ANT 6	**Gain (dBi)**
Frequency (MHz)	
2402	0.41
2440	0.94
2478	1.17
5250	2.52
5550	1.55
5800	1.89
6200	1.71
6700	2.61
7125	1.72

Table 3.2.6

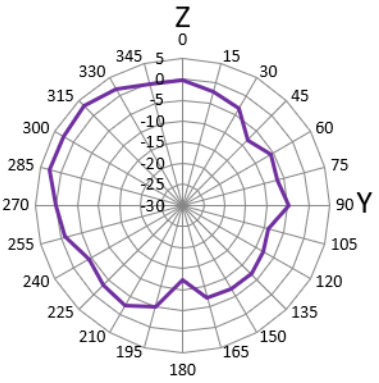
3.3 Max 2D Radiation Pattern Plane



X-Y plan

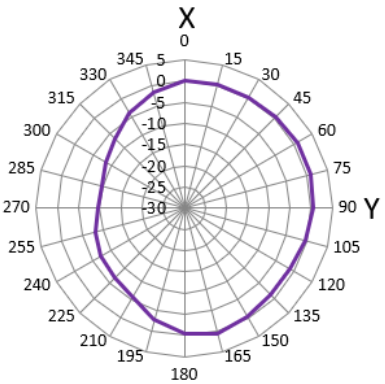


X-Z plan

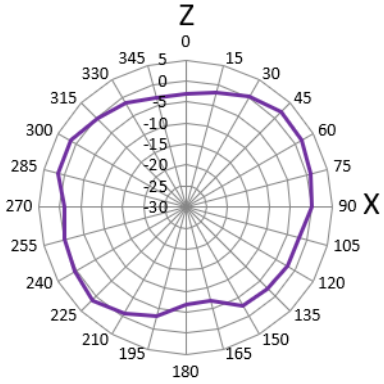


Y-Z plan

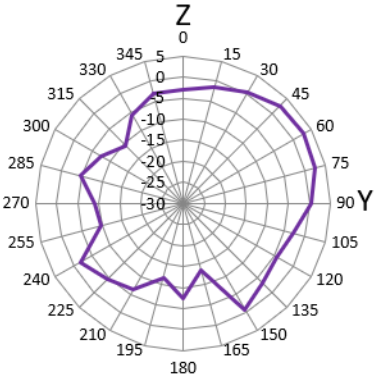
ANT1 1910 MHz



X-Y plan

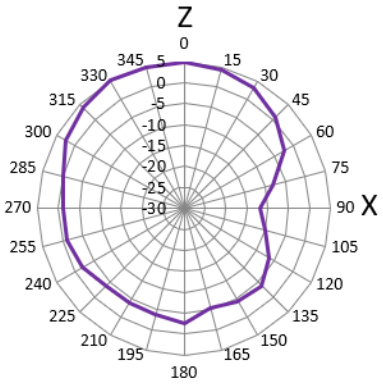


X-Z plan

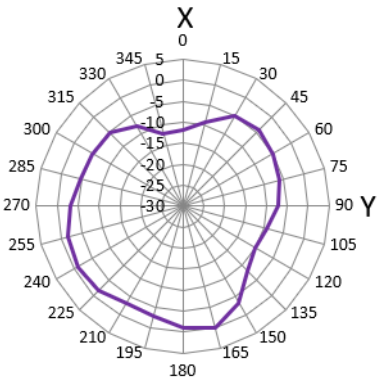


Y-Z plan

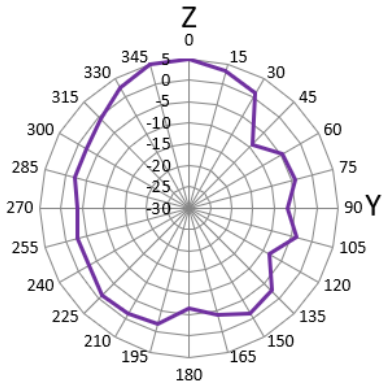
ANT2 2500 MHz



X-Z plan

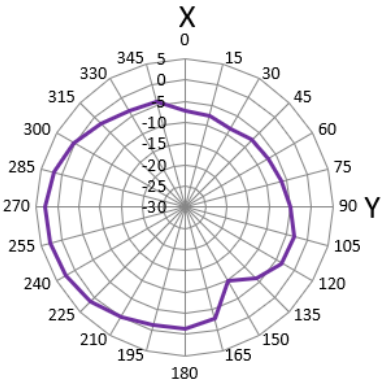


X-Y plan

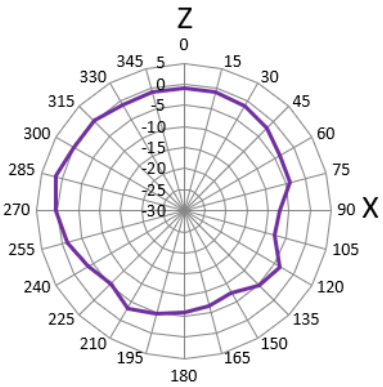


Y-Z plan

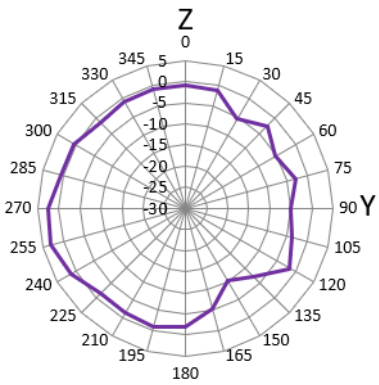
ANT3 3800 MHz



X-Y plan

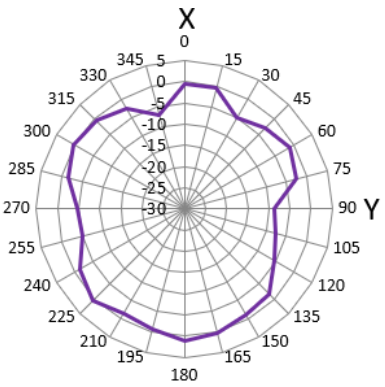


X-Z plan

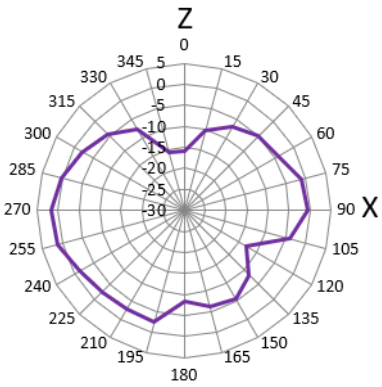


Y-Z plan

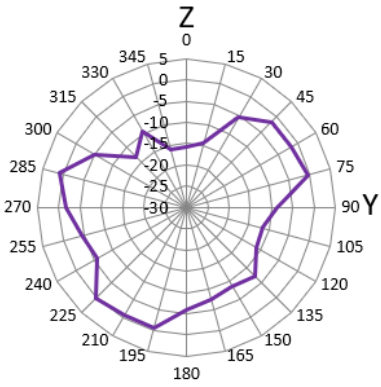
ANT4 3500 MHz



X-Y plan

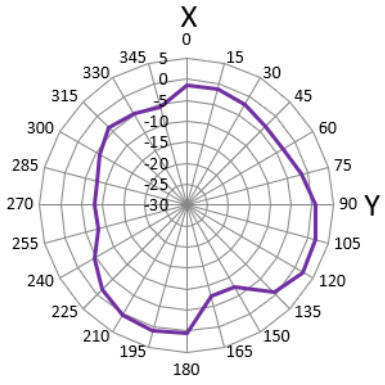


X-Z plan

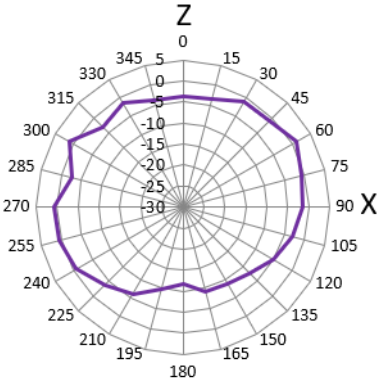


Y-Z plan

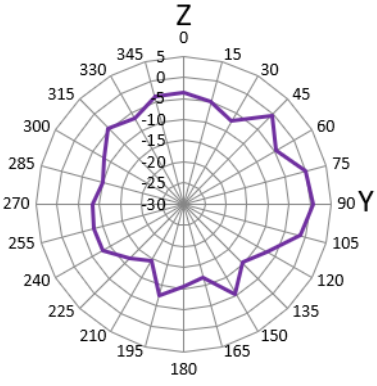
ANT5 7125 MHz



X-Y plan



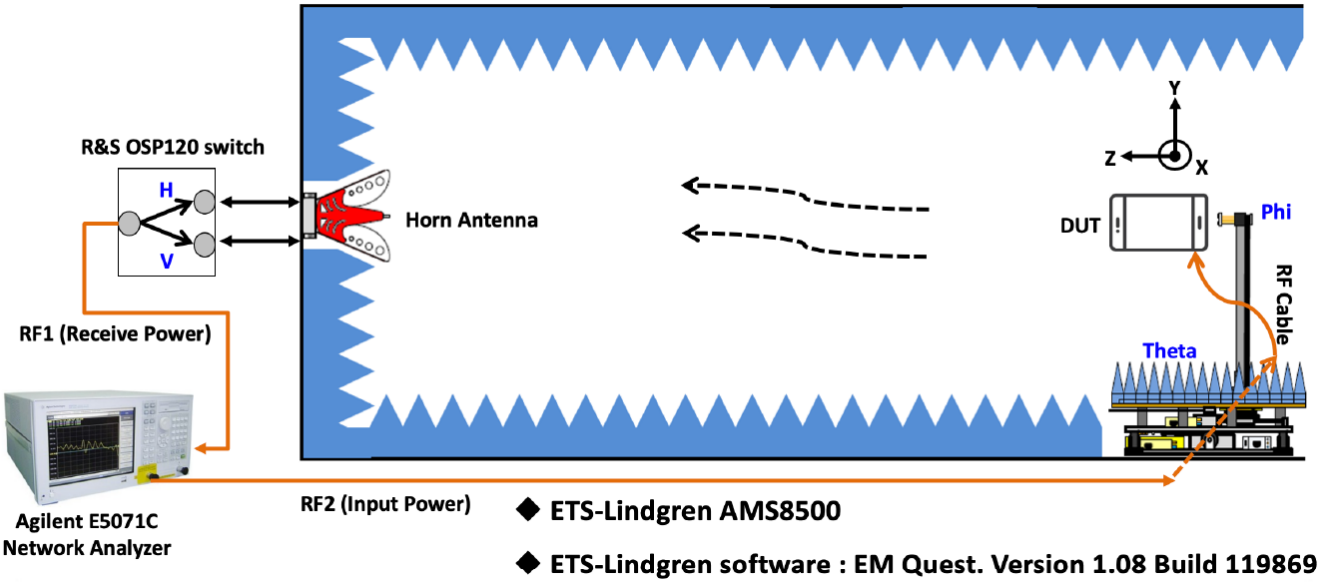
X-Z plan



Y-Z plan

ANT6 6700 MHz

4. Antenna Gain Measurement Setting



The list of test equipment and software used are as follows :

- ETS-Lindgren fully anechoic antenna test chamber
- Agilent E5071C Network analyzer
- ROHDE&SCHWARZ OSP120 Polarization Switch
- ETS-Lindgren measurement software: EM Quest software version 1.08 Build 119869

The list of test equipment calibration information are as follow :

- ETS-Lindgren AMS8500 calibration date : 2020 / 08 / 05
- ETS-Lindgren AMS8500 calibration name of personnel : ETS-Lindgren Leo Hsiao
- Agilent E5071C Network analyzer calibration date : 2023 / 01 / 10
- Agilent E5071C Network analyzer calibration name of personnel : Keysight Freddy Hsu
- The list of antenna engineers performed antenna passive measurement activities :
  - Pegatron Aries_Lin
  - Pegatron Junwei_Huang