

SONY

Antenna Specification

PY7-38431P

Sony Corporation

1-7-1 Konan Minato-ku Tokyo, 108-0075

Signature: *Amanda Wang*

Amanda Wang
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1 Introduction

This document describe how to measure the antenna performance of this device and the characteristics of the antenna i.e. antenna gain, antenna efficiency and radiation pattern. The Antenna Type is PIFA antenna.

2 Measurement Environment

2.1 Test Site

Zhejiang Haitong communication electronic Limited by Share Ltd Shanghai branch

ADD:Ground floor, C5 building, Kangqiao business oasis, No.2555 Xiu Pu Road, Pudong New Area, Shanghai.

2.2 Test Equipment List

Type of Equipment	Manufacturer	Model Number	S/N	Calibration	
				Last Cal.	Due Date
Network Analyzer	KEYSIGHT	E5071C	MY42302296	2022.06	2023.06
Satimo Horn antenna	Satimo	SH-400		NA	NA
Controller unit	Satimo	Controller unit SG24	MODU-022-A0031	NA	NA

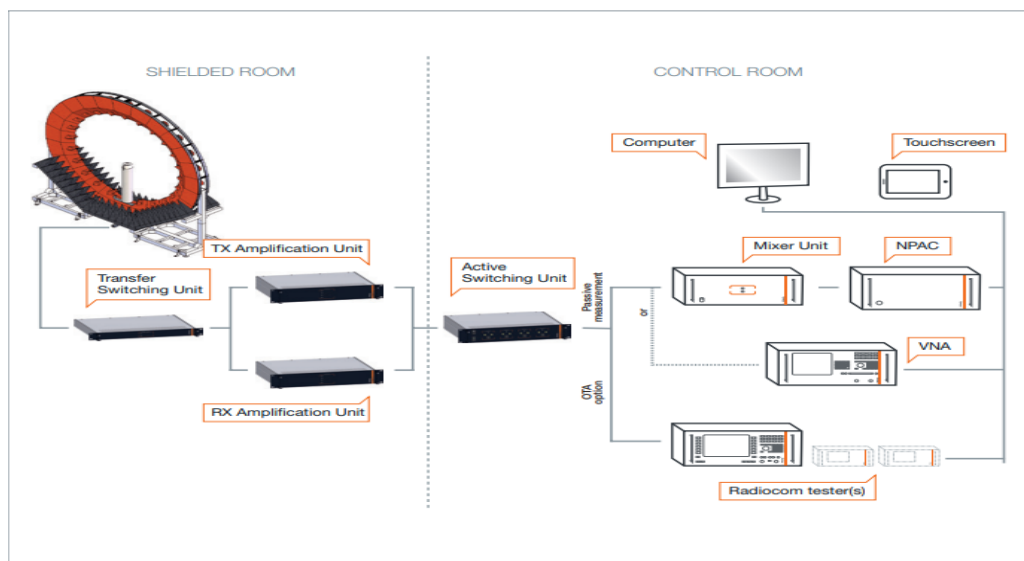
3 Applied Standards

Identity	Document Title
ANSI/IEEE Std 149-2008	IEEE Standard Test Procedures for Antennas

4 Test Condition

Temperature	MIN=19°C MAX=25°C
Relative humidity	MIN=40% MAX=72%
Shield effect	0.4-6GHz >100dB
Ground resistance	<0.5Ω

4.1 Test Method (Test Procedure)



4.2 Measurement System

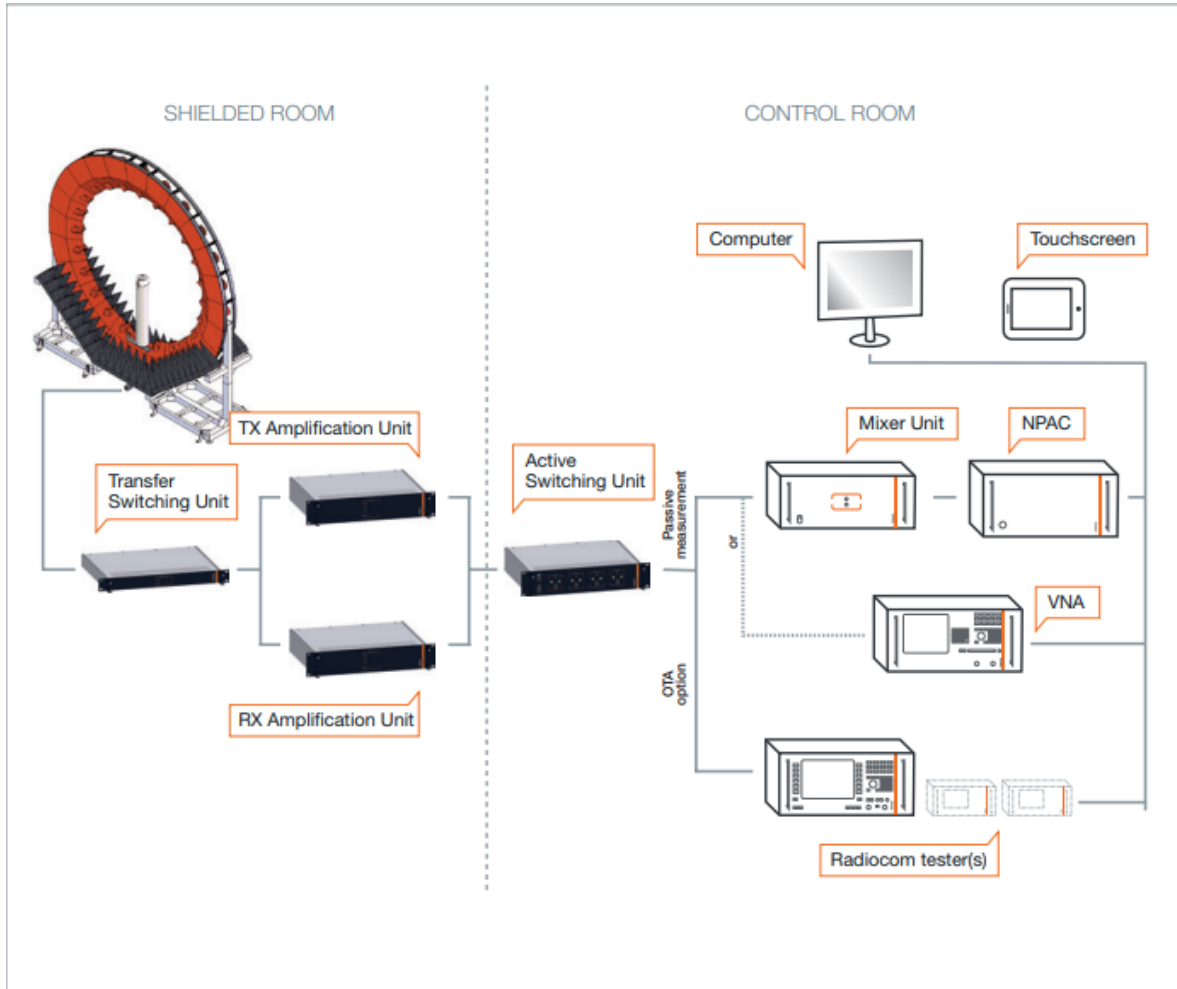
Satimo SG24

4.3 Test setup photo

Please refer to "FCC_Antenna_Gain_for_WLAN_and_Bluetooth_setup_photo"

5 Test Method (Test Procedure)

SG24:



6 Test Results

6.1 Gain and Efficiency

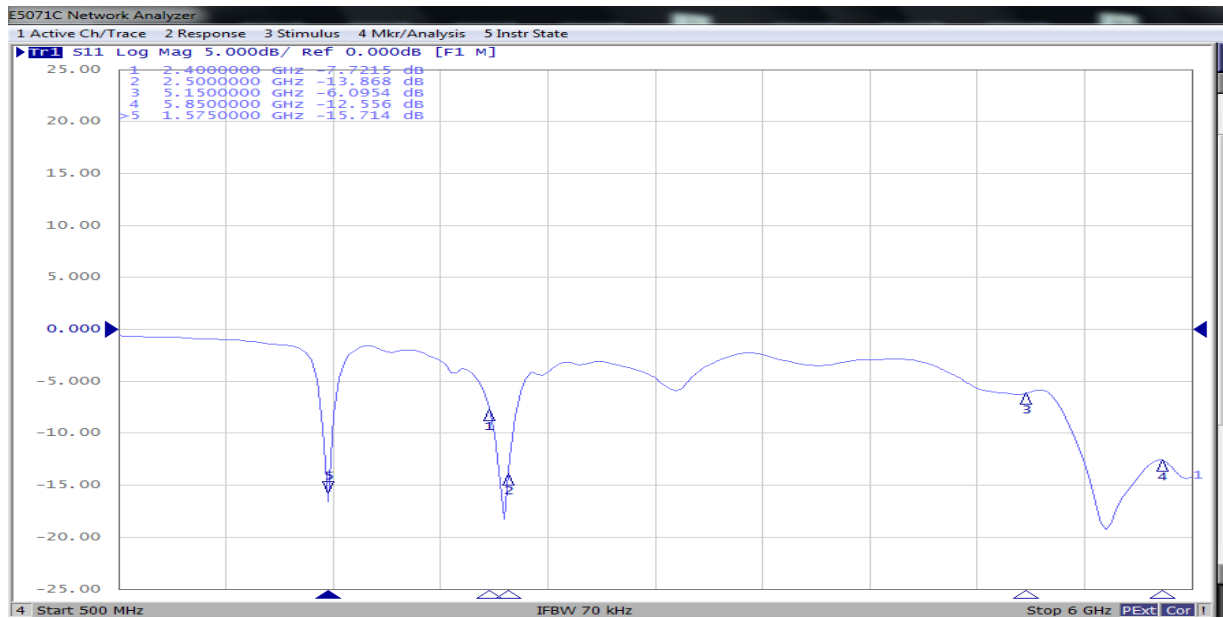
(1) Chain 0 Antenna (ANT6)

Frequency [MHz]	Peak Gain [dBi]	Efficiency [%]
2400	-1.2	23%
2410	-1.6	24%
2420	-1.0	24%
2430	-0.8	26%
2440	-0.8	26%
2450	-0.8	31%
2460	-0.8	32%
2470	-0.7	32%
2480	-0.9	27%
2490	-0.9	27%
2500	-1.0	26%
5150	-1.5	22%
5200	-0.3	24%
5250	0.3	27%
5300	0.6	30%
5350	1.1	34%
5400	1.5	37%
5450	2.0	38%
5500	1.9	38%
5550	2.0	37%
5600	1.6	34%
5650	1.3	32%
5700	1.0	30%
5750	2.1	30%
5800	2.5	29%
5850	1.8	30%

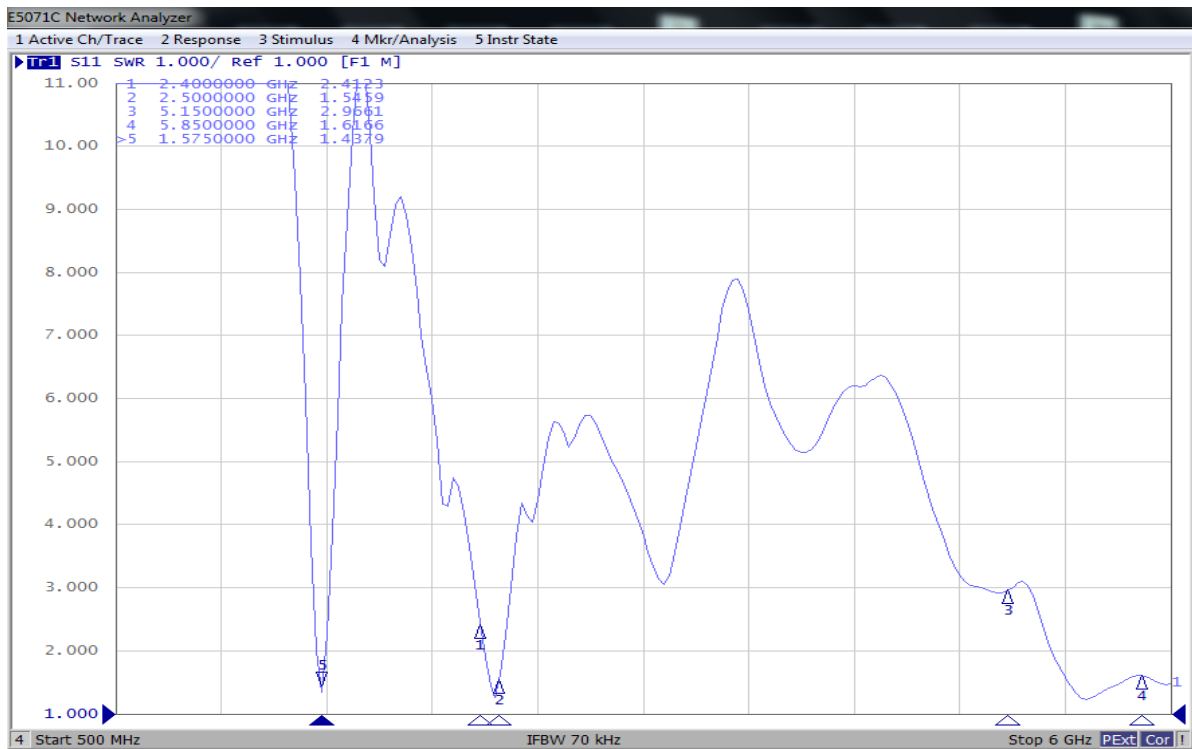
6.2 Radiation Pattern (2D or 3D)

6.2.1 Pattern Plots

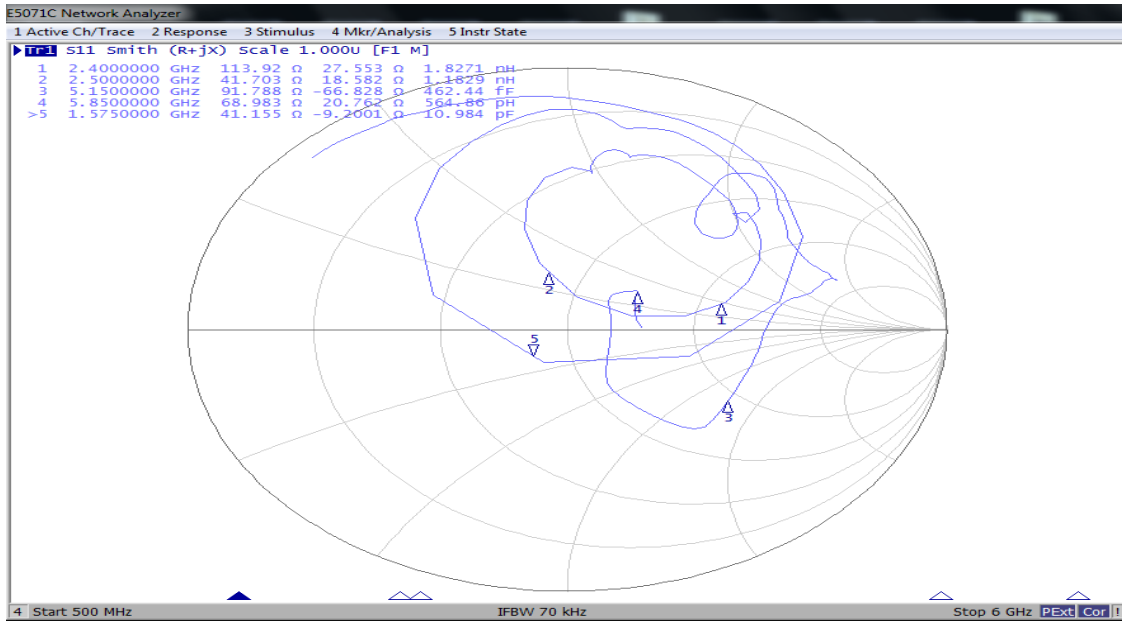
6.2.1.1 Return Loss



6.2.1.2 VSWR

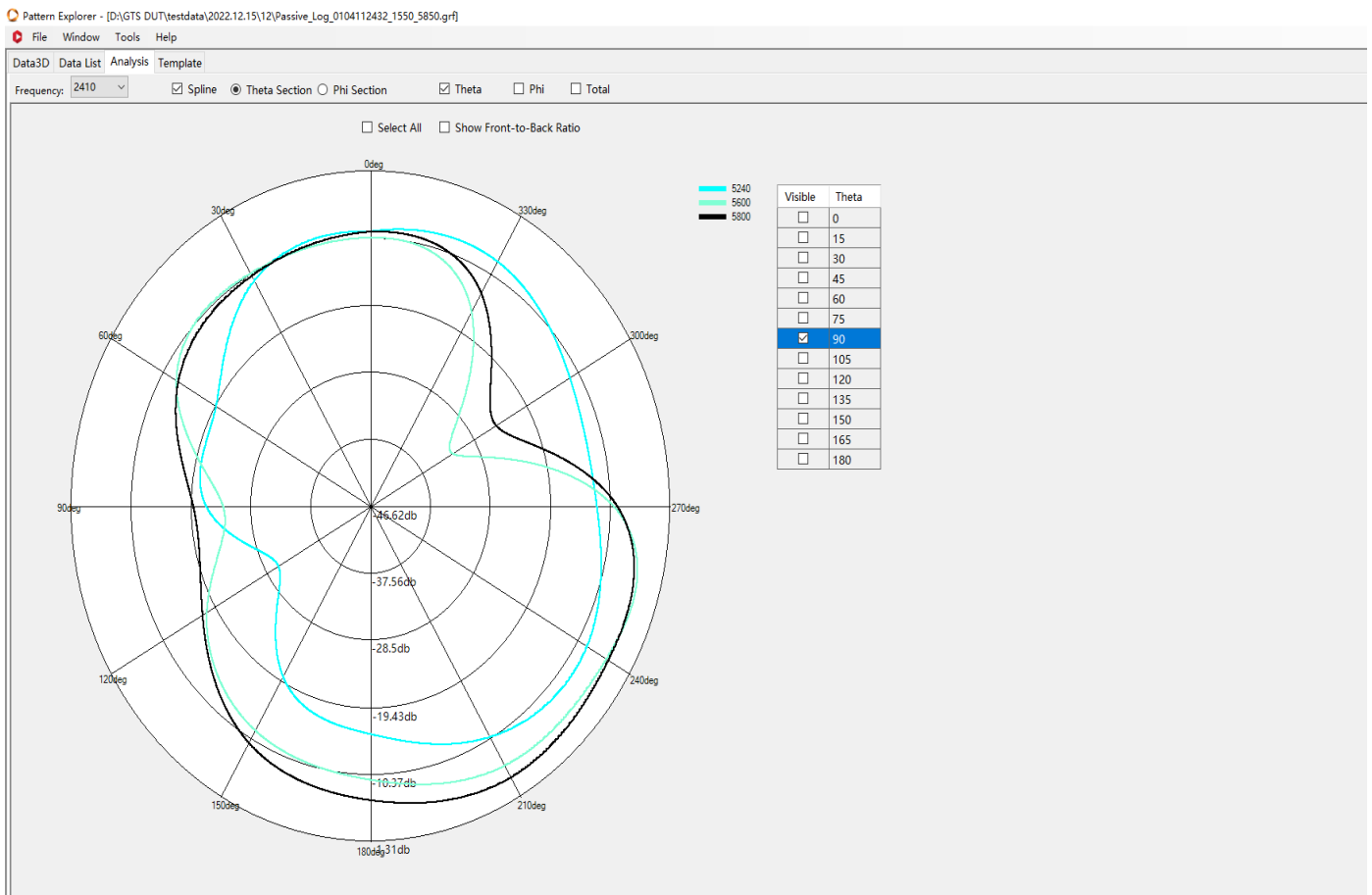
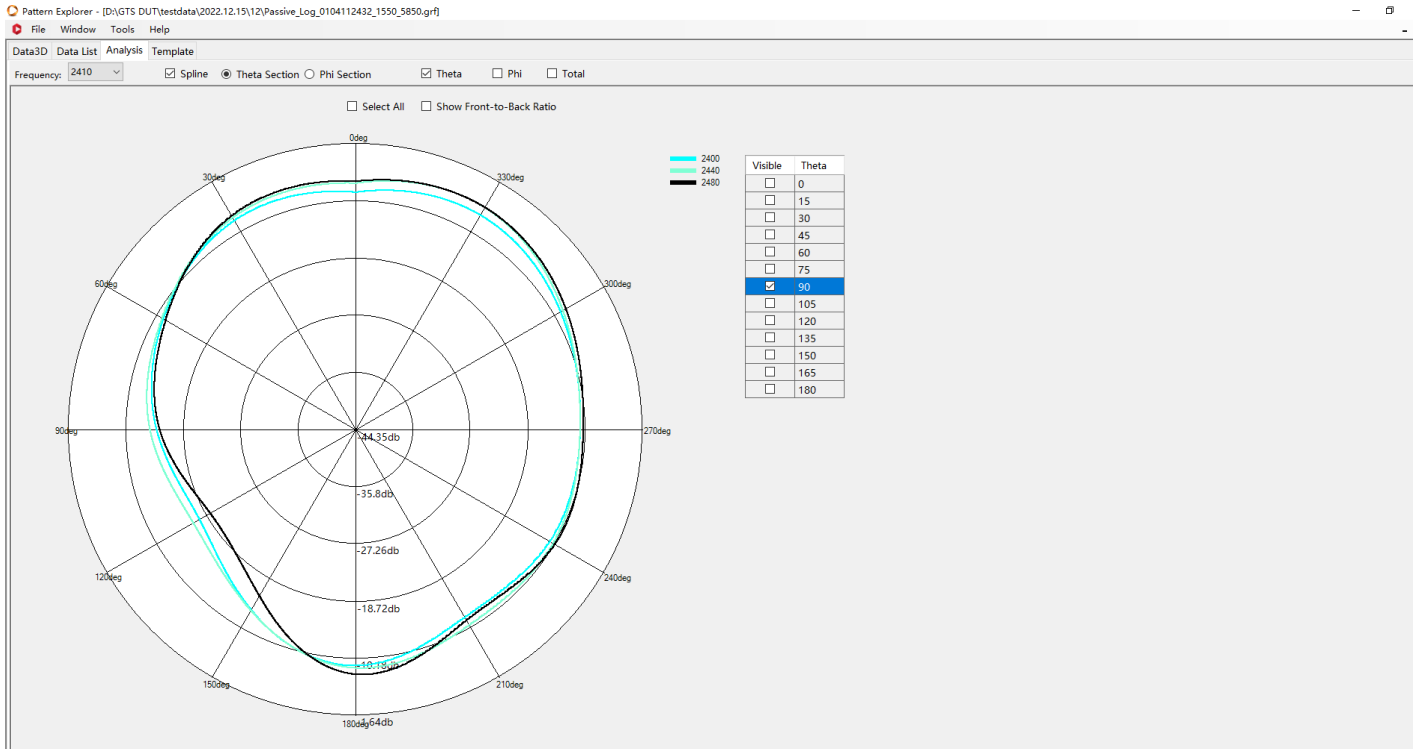


6.2.1.3 Smith



6.2.2 Antenna Pattern (2D or 3D)

6.2.2.1 Antenna Pattern(2D)



6.2.2.2 Antenna Pattern(3D)

