

年 11 月 22 日

Antenna Specification

For official certification**Model: P991MV-02**

Version, status: V0.3, Approval
Date: 2022-11-22
Creator: Jacky. Liao
HW DM: Clapton. Lin
CPM: Yang. TonySH
Function: Regulatory Certification

Change History

Version	Status	Date	Handled by	Comments
0.1	Draft	2022-10-06	Jacky Liao	Initial Draft
0.2		2022-11-16	Matt Chuang	Add additional requirements from FCC
0.3		2022-11-22	Matt Chuang	Separate setup photo and add test personnel name

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1. Test Setup & Step

1.1 Calibrated Equipment

Machine name	Brand	Last Calibration Date
Anechonic chamber	ETS AMS-8500	
Network analyzer	Agilent E5071C	29 – Mar - 2021

1.2 Test Software

EMQuest version 1.15

1.3 Test Step

1. Remove watch strap
2. Mount watch on FS fixture with watch face toward horn antenna (+z direction) and side key toward +x direction.
3. Avoid coaxial cable contact to watch case and let it away from watch case.
4. Use EMQuest to execute passive performance test.

1.4 Test personnel name

Jacky Liao

1.5 Test date

2022/10/04

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2. Antenna Location & Distance

EUT Dimension, length= 51.87 mm ; Width= 48.95mm

Antenna location: the metal body of watch

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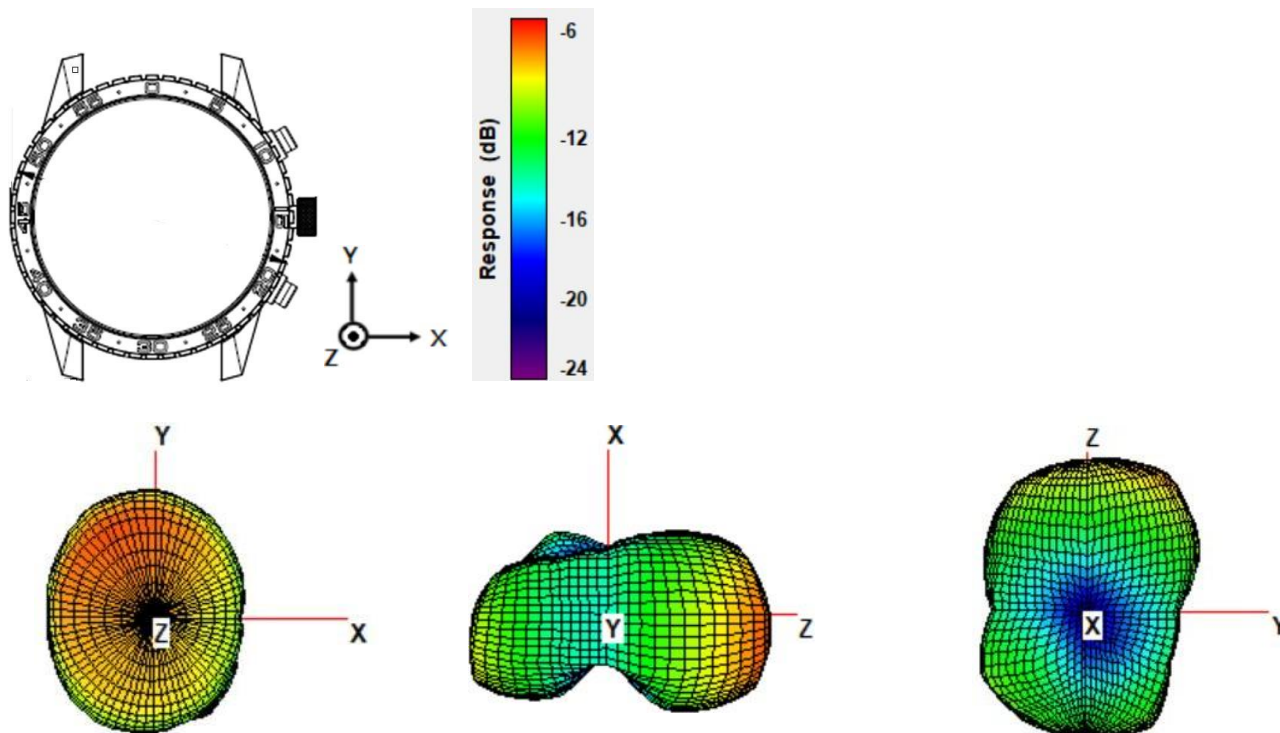
3. WLAN/BT Antenna Information

WLAN/BT Antenna

3.1. Antenna Peak Gain

Frequency(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak Gain(dBi)	-7.03	-6.91	-6.80	-6.81	-6.86	-6.88	-7	-7.05	-7.15	-7.18	-7.42

3.2. Antenna Radiation Pattern

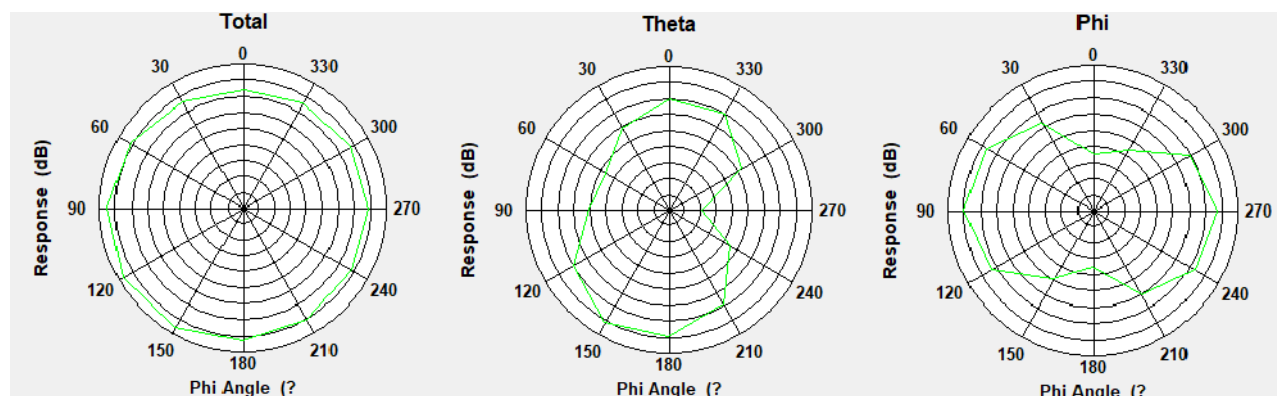


XY plane at 2.45GHz

XZ plane at 2.45GHz

YZ plane at 2.45GHz

3.3. Antenna Radiation Plots for Max Gain Plane (2.42GHz, Phi 120, Theta 30)



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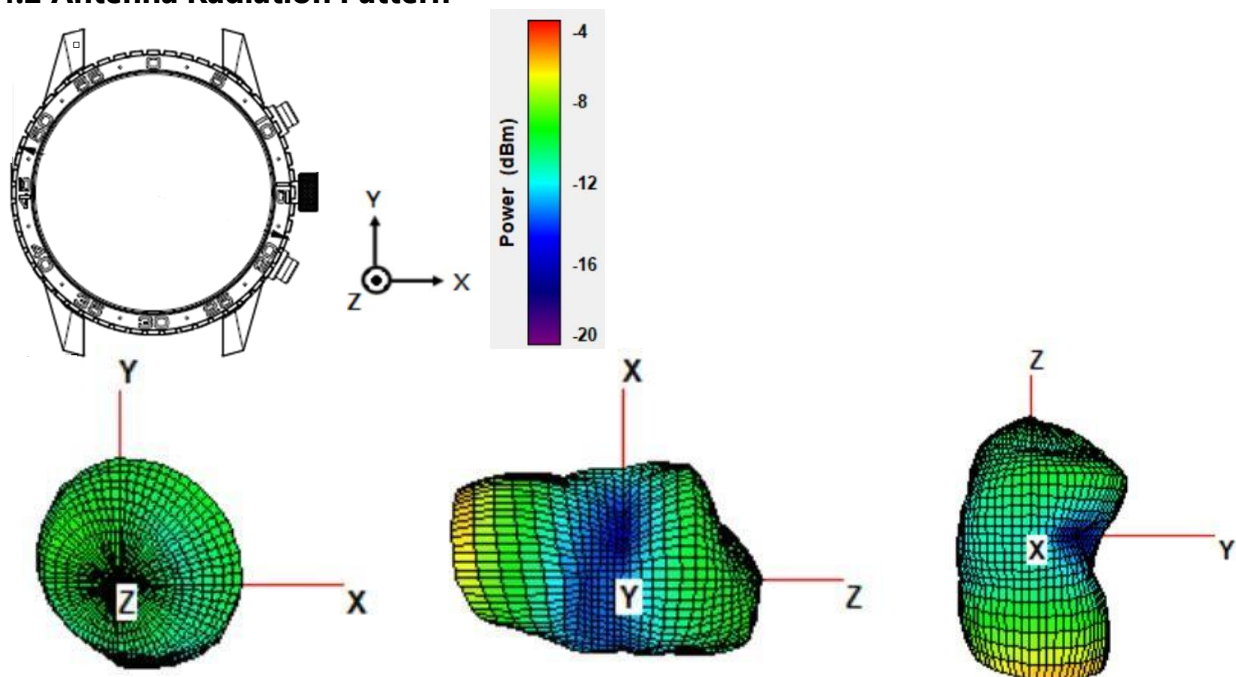
4. GPS Antenna Information

GPS Antenna

4.1. Antenna Peak Gain

Frequency(MHz)	1570	1575	1580	1585	1590	1595	1600	1605	1610	1615	1620
Peak Gain(dBi)	-5.61	-5.60	-5.59	-5.58	-5.64	-5.67	-5.66	-5.66	-5.64	-5.59	-5.53

4.2 Antenna Radiation Pattern



XY plane at 1.575GHz

XZ plane at 1.575GHz

YZ plane at 1.575GHz

4.3. Antenna Radiation Plots for Max Gain Plane (1.585GHz, Phi 30, Theta 150)

