



ANTENNA DATASHEET

PN: AET245872RPSM-W

REVISION HISTORY		
REV.	Description	Date
1.0	First release	Aug.30/2023



Contents

1.	AOT AET245872RPSM-W External Antenna.....	2
2.	Features.....	2
3.	Specifications and Interface	3
4.	Radiation Patterns.....	4
5.	Dimensions	6
6.	ROHS	6
7.	Assembly Drawing	7

Figures

Figure 1:	Model AET245872RPSM-W External Antenna.....	2
Figure 2:	Model AET245872RPSM-W Measurement axes	4
Figure 3:	Model AET245872RPSM-W Measured Radiation Patterns at 2.4 GHz.....	5
Figure 4:	Model AET245872RPSM-W Measured Radiation Patterns at 5 GHz.....	5
Figure 5:	Model AET245872RPSM-W Measured Radiation Patterns at 6 GHz.....	5
Figure 6:	Model AET245872RPSM-W Antenna Dimensions	6
Figure 7:	Model AET245872RPSM-W Antenna Assembly Drawing	7



1. AET245872RPSM-W External Antenna

Based on AOT's patented technology, the Model AET245872RPSM-W Antenna features provides a high performance, off-board and RP-SMA feeding External antenna solution. It was designed for supporting 2400MHz-2490MHz/5150MHz-5850MHz/5925MHz-7125MHz bands applications including WIFI.

2. Features

The Model AET245872RPSM-W External Antenna is defined by the following features:

- Covering 2400MHz-2490MHz/5150MHz-5850MHz/5925MHz-7125MHz frequency
- Superior performance
- 3.3dBi@2.4GHz band;3.3dBi@5GHz band;4.4dBi@6GHz band
- Off-board, low profile design
- Low Cost, High performance

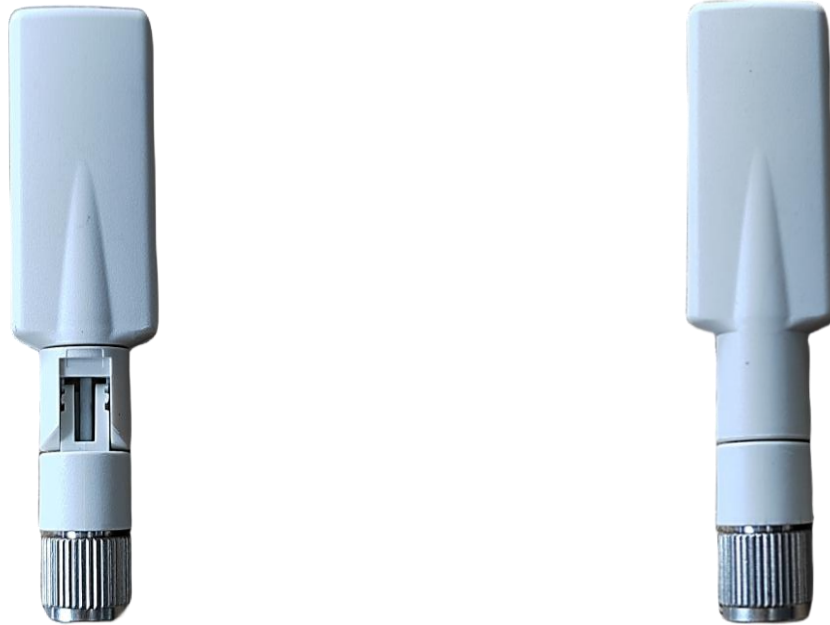


Figure 1: Model AET245872RPSM-W External Antenna



3. Specifications and Interface

Wireless Standard	IEEE 802.11.a/b/g/n/ac/ax/WIFI6E/WIFI7
Frequency Range	2400MHz-2490MHz/5150MHz-5850MHz/5925MHz-7125MHz
Peak Realized Gain(Max)	3.3dBi@2.4GHz;3.3dBi@5GHz;4.4dBi@6GHz
Realized Efficiency	>65%@2.4GHz;>81%@5GHz;>79%@6GHz
Return Loss	>10dB
Polarization	Linear Polarization
Axial Ratio	/
Radiation Pattern	Omni-directional
Feed Impedance	50Ω
Power Handling	30dBm
Antenna Structure	External Antenna
Feeding Description	Cable Feeding
Antenna Dimensions	69.3mm x 16.5mm x 10.3mm
Weight	10.5g
Temperature Range	Operating temperature: -40° C to +95° C (-40° F to +203° F) Storage temperature: -40° C to +95° C (-40° F to +203° F)



4. Radiation Patterns

Radiation patterns were taken with the antenna in testing Chamber

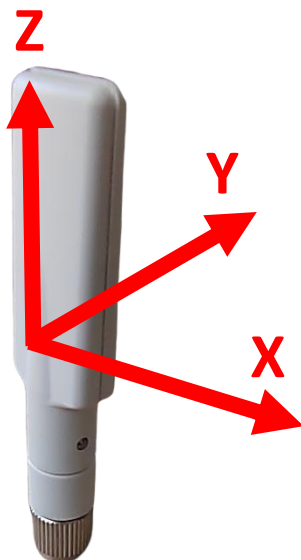


Figure 2: Model AET245872RPSM-W Measurement axes

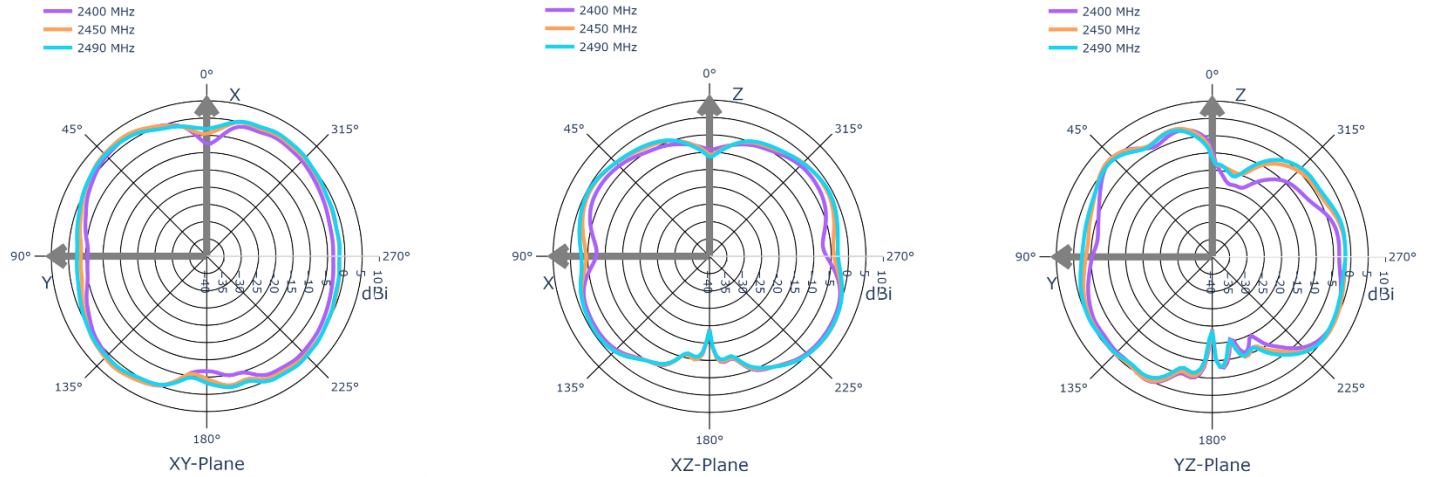


Figure 3: Model AET245872RPSM-W Measured Radiation Patterns at 2.4G

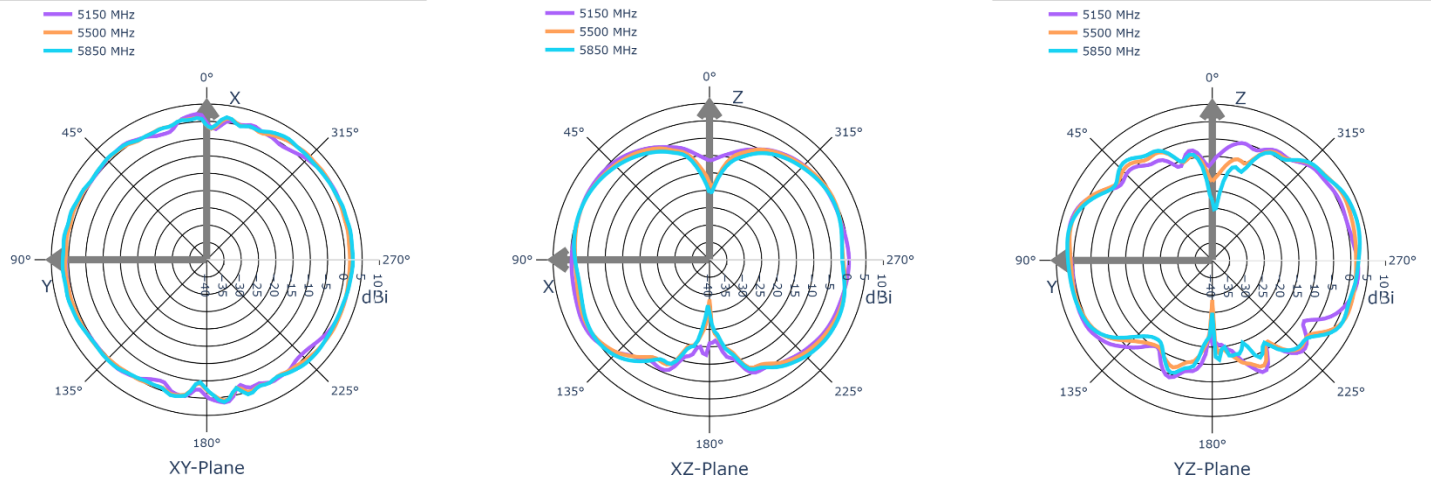


Figure 4: Model AET245872RPSM-W Measured Radiation Patterns at 5G

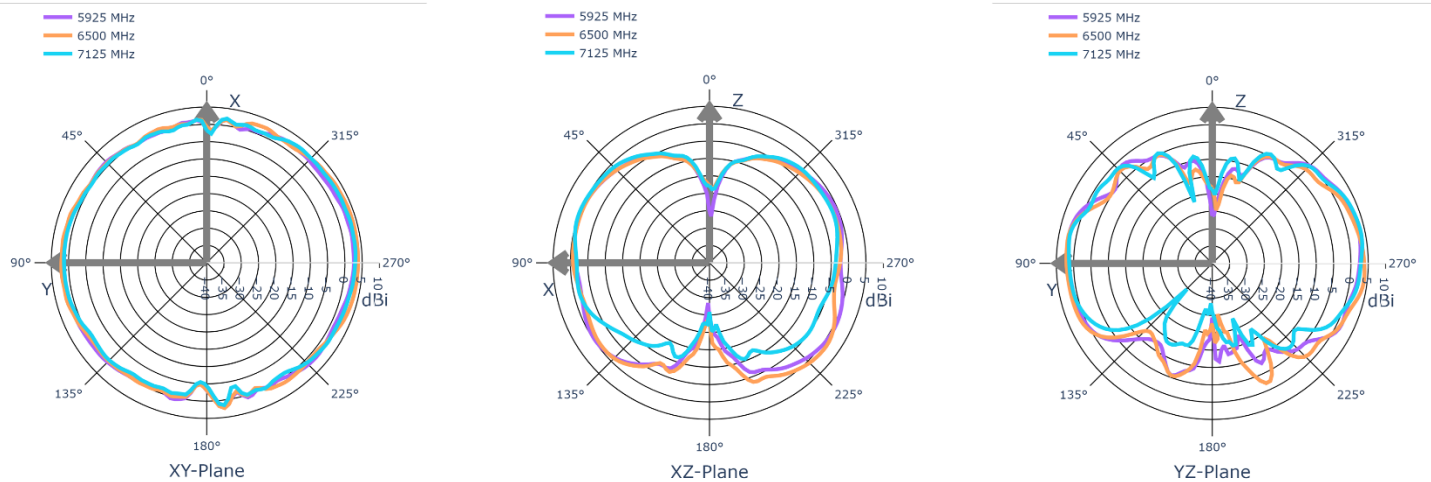


Figure 5: Model AET245872RPSM-W Measured Radiation Patterns at 6G



5. Dimensions

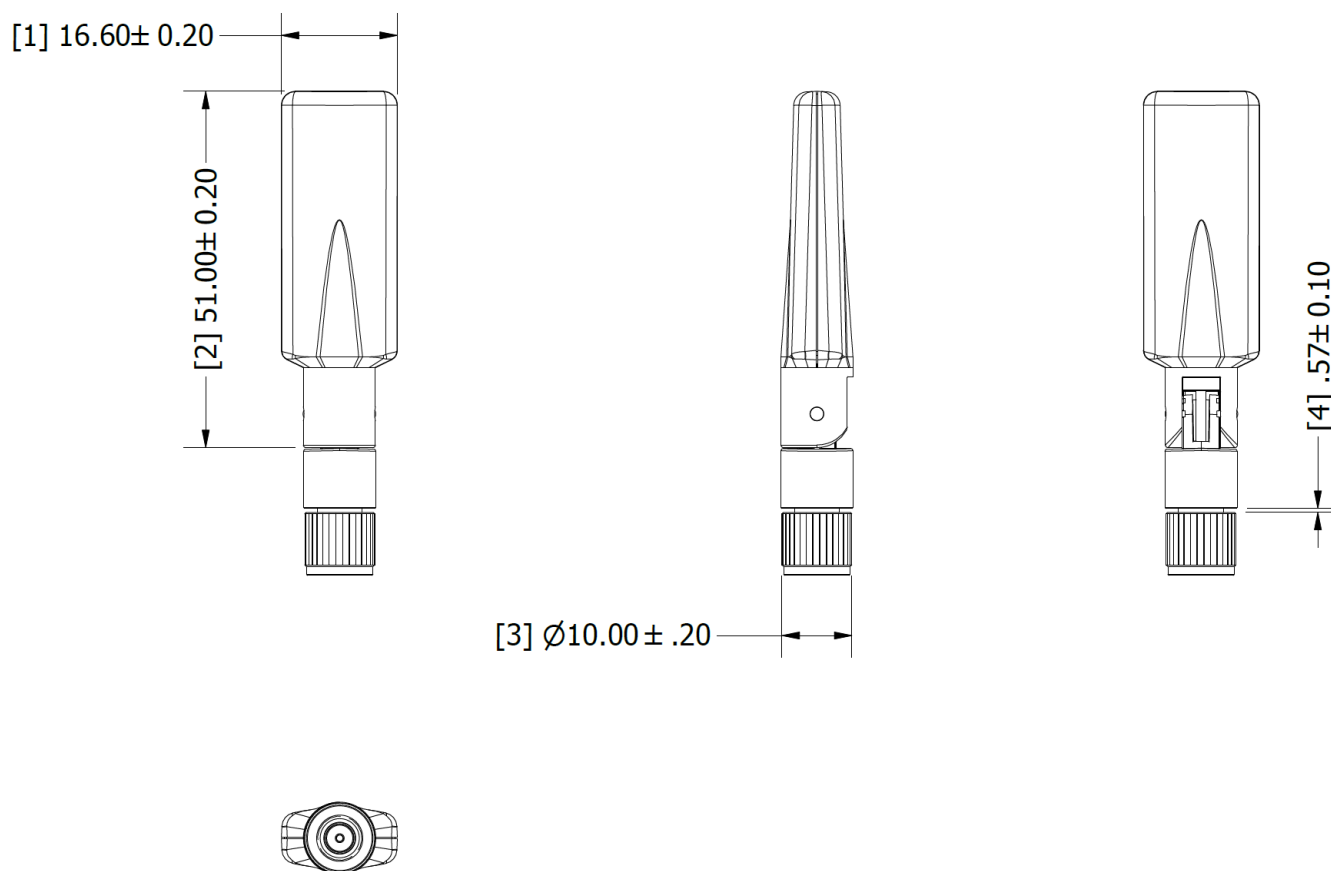


Figure 6: Model AET245872RPSM-W Antenna Dimensions

6. ROHS

AOT AET245872RPSM-W External antennas are RoHS compliant.



7. Assembly Drawing

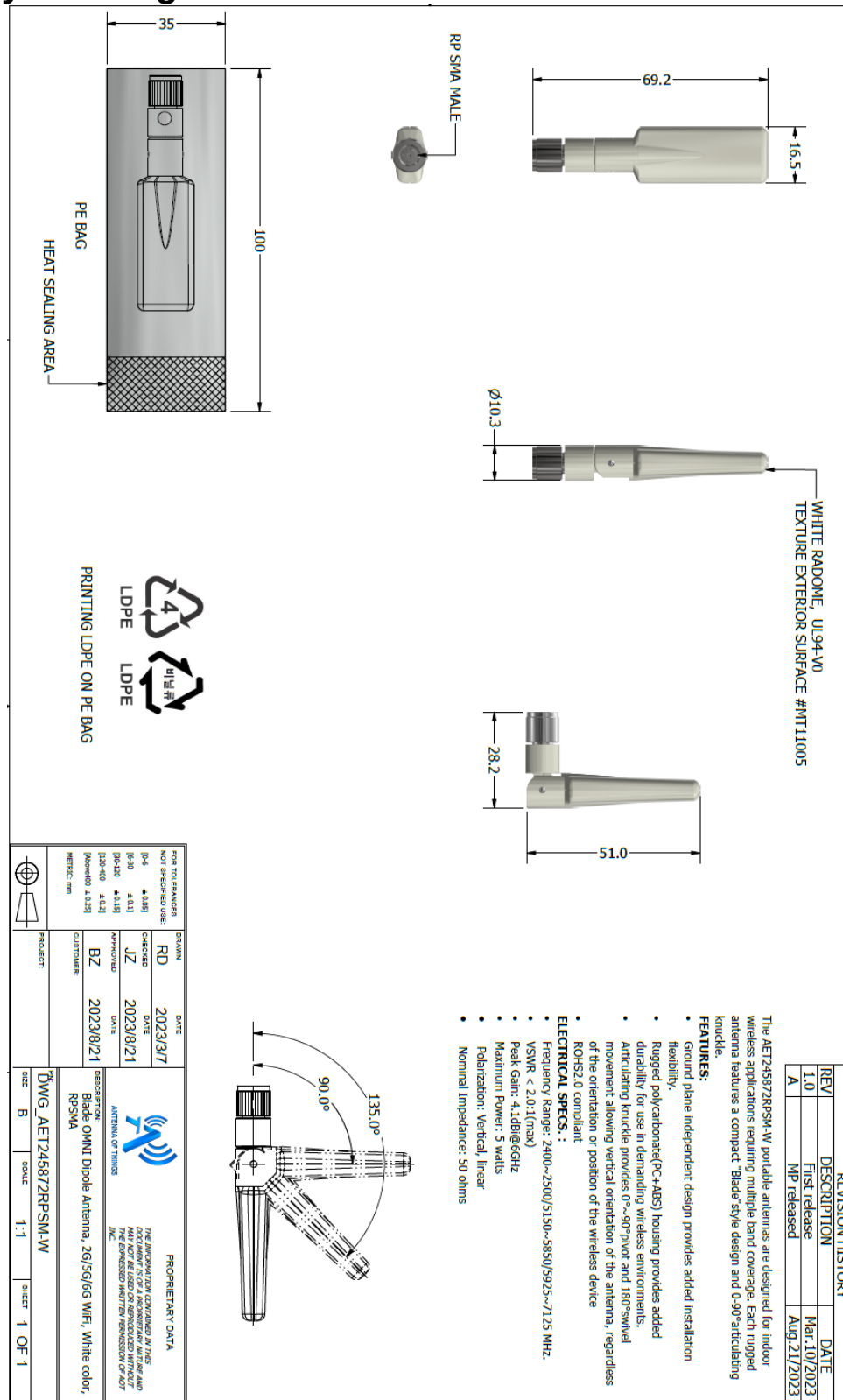


Figure 7: Model AET245872RPSM-W Antenna Assembly Drawing