SPECIFICATION FOR APPROVAL

CUSTOMER: Tack One

CUSTOMER P/N : TK23 ■GP ■HF

MODEL NAME: Tack GPS plus

AWAN P/N: ■GP ■HF

ADVANCED WIRELESS & ANTENNA INC.

Manufacturer: Tack One Private Limited
Address: 22 SIN MING LANE #06-76, SINGAPORE 573969

Brand Name	Model Name	Ant. Type	Connector	Support	Max Peak Gain [dBi]
Tack	TK23-ANTW	PIFA	I-Pex	2.4G+BT	2.4G：-0.36 BT：-0.36

1. Description

1.1 Specifications

Antennas Type	PIFA
Connector Type	N/A
Cable Type	N/A
Impedance	50Ω
Cable length	N/A
Polarization	Linear
Radiation pattern	Omni-directional
Frequency	2400～2500 MHz

2. Electrical Specification

2.1 Test Equipment

A. VSWR and input impedance : ROHDE&SCHWARZ ZND Network Analyzer

B. Antenna gain and efficiency: BW-ant three-dimensional anechoic chamber

2.2 Test Setup

2.2.1 Frequency Range

A. 2400～2500 MHz

2.2.2 VSWR

Step 1: The antenna is arranged on the customer provided test device(see figure. 1).

Step 2: The VSWR of the antenna is measured via ROHDE&SCHWARZ ZND Network Analyzer (see figure. 1).

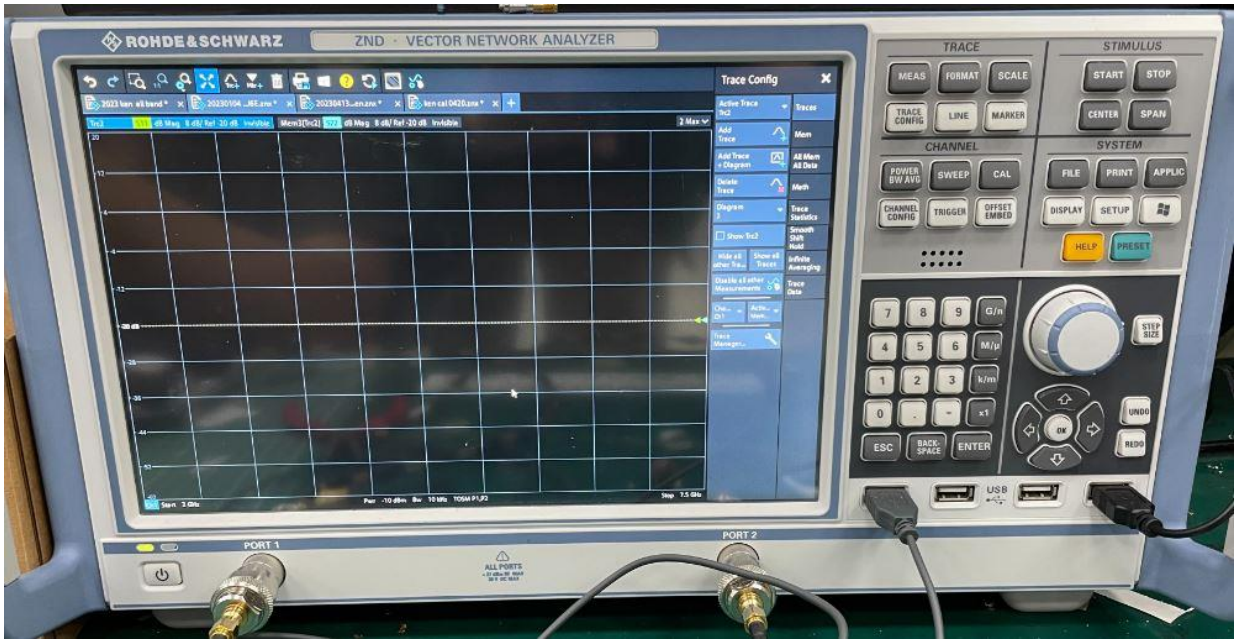


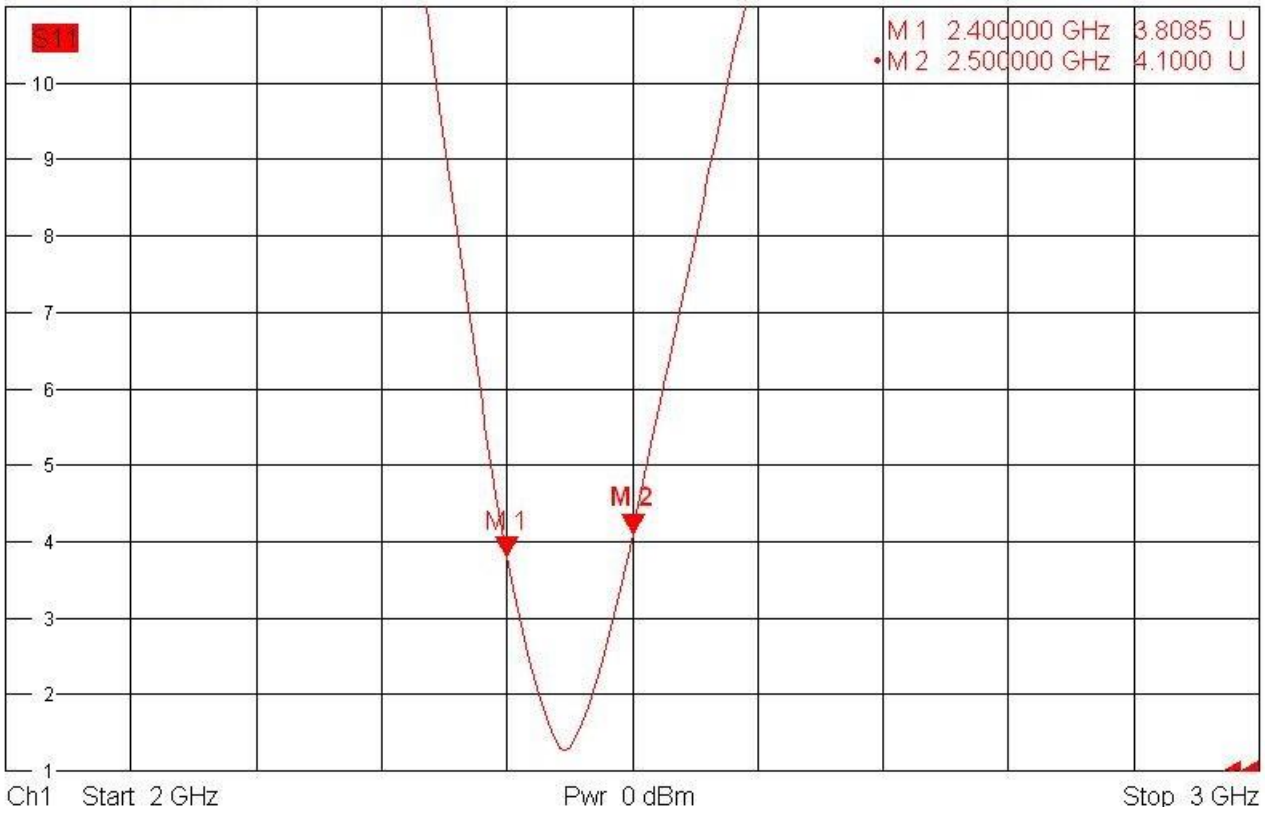
Figure.1

2.2.3 Radiation pattern and Gain

A. The 3D chamber provides less than -40dB reflectivity from 500MHz to 7.5GHz and a 40cm diameter spherical quiet zone. The measurement results are calibrated using both dipoles and standard gain horns (see figure. 2).
B. The antenna under tested is arranged in the turned table and a decoupling sleeve is used to reduce feed line radiation (see figure. 3).

3. Performance Data

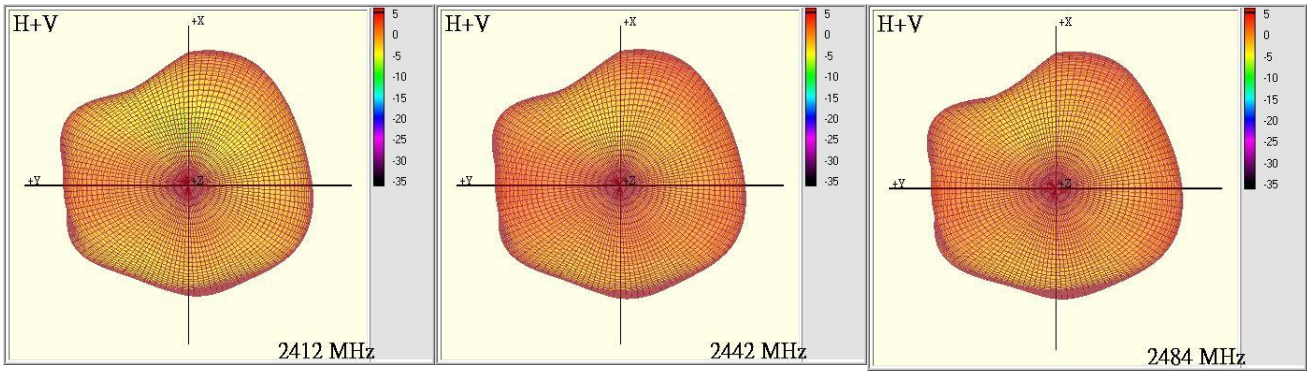
3.1 VSWR



3.2 Peak Gain & Average Gain

Frequency (MHz)	3D Peak Gain.	3D Average Gain
2412	-2.30	-7.34
2442	-0.36	-5.39
2484	-0.67	-5.71

3.3 3D Radiation pattern



Revision

Revision	Date	Change Notification	Notes
Rev.0	2022-7-6	--	