

Product Number: AN2400-35A01RS-B
Product Name: Antenna

Specification For Approval

Customer: GROWATT

Customer P/N: 019.0079101

Tengxiang P/N: AN2400-35A01RS-B

Description : 2.4GHz ANTENNA WITH RP SMA PLUG

Manufacturer: Tengxiang Technology.Inc

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Product Name: Antenna

1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	2400~2500MHz
S.W.R.	<= 2.0
Antenna Gain	3.91dBi
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	TUBE+ Cpper bar
Material of Plastic	TPE
Cable Type	/
Connector Type	RP SMA PLUG(内螺纹内孔) 盐雾 720H
C. Environmental	
Operation Temperature	- 40 °C ~ + 85 °C
Storage Temperature	- 40 °C ~ + 85 °C

2. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification

Product Number: AN2400-35A01RS-B

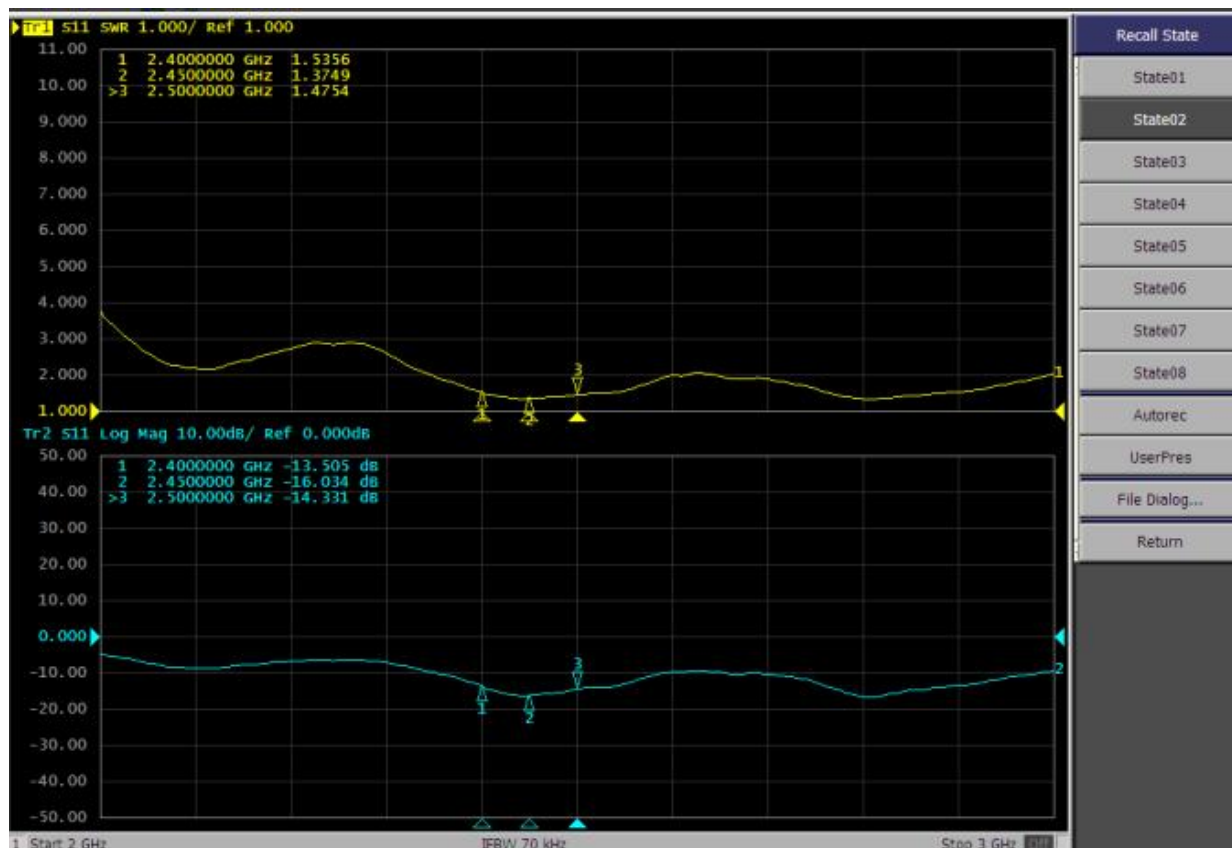
Product Name: Antenna

C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	MIL-STD-202G, 201A Amplitude: 0.03 inch (0.76mm); Freq: 10 to 55 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	Height: 1.5 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	MIL-STD-202G, 210F, cond. A Solder iron: 350±10°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	MIL-STD-202G, 211A, cond. A Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	MIL-STD-202G, 211A, cond. E Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	MIL-STD-202G, 101E, cond. B Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 720 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	MIL-STD-202G, 103B, cond. B Temp: 40°C; RH: >= 95%; Time: 48 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E4	Life (High Temp.)	MIL-STD-202G, 108A, cond. A Temp: 85°C; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2015/863/EU

3. Antenna - S Parameter Test Data

Product Number: AN2400-35A01RS-B

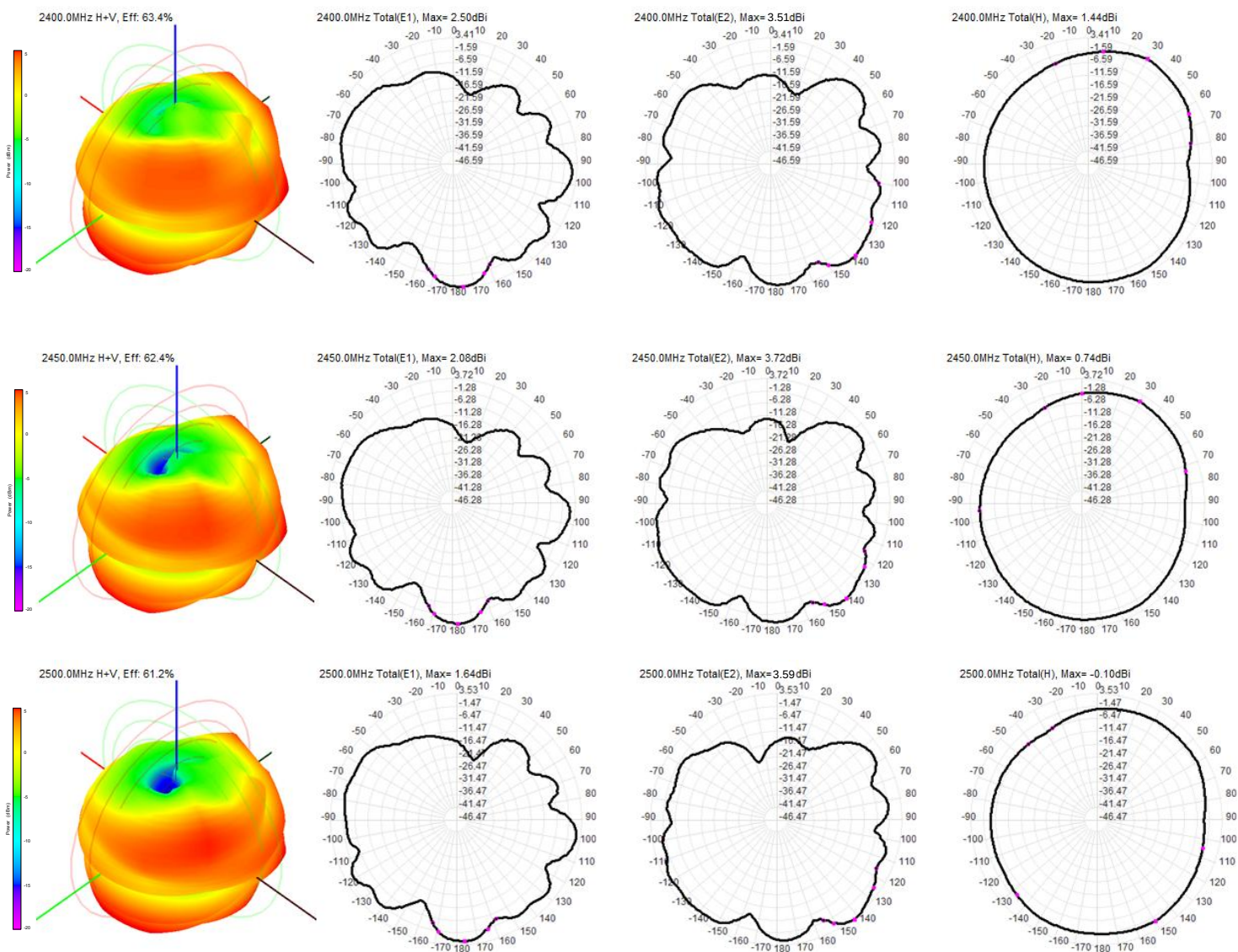
Product Name: Antenna



4. Antenna - Radiation Pattern Test Data

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-1.98	-1.93	-1.90	-1.95	-1.90	-2.05	-1.97	-2.02	-2.09	-2.12	-2.13
Gain (dBi)	3.51	3.58	3.69	3.74	3.87	3.72	3.91	3.87	3.76	3.66	3.59
Efficiency (%)	63.37	64.08	64.60	63.84	64.64	62.36	63.54	62.82	61.85	61.34	61.17
Directivity (dB)	5.49	5.52	5.59	5.69	5.77	5.78	5.88	5.89	5.85	5.78	5.72
Peak Gain Position (Theta)	41.00	41.00	40.00	40.00	40.00	40.00	40.00	39.00	39.00	39.00	39.00
Peak Gain Position (Phi)	120.00	120.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	120.00
Efficiency ThetaPol (%)	43.59	44.57	45.16	44.80	45.17	43.62	44.37	43.81	43.15	42.82	42.72
Efficiency PhiPol (%)	19.78	19.51	19.44	19.04	19.46	18.73	19.17	19.01	18.70	18.52	18.45
Upper Hem. Efficiency (%)	19.54	19.56	19.73	19.48	19.68	18.87	19.02	18.65	18.24	18.04	17.97
Lower Hem. Efficiency (%)	43.83	44.52	44.87	44.36	44.95	43.48	44.52	44.16	43.60	43.30	43.20

Product Number: AN2400-35A01RS-B
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5. Mechanical Drawing See attached files

產品包裝規範

PACKING CRITERION

Date: 2021.05.11

Page: 1 of 1

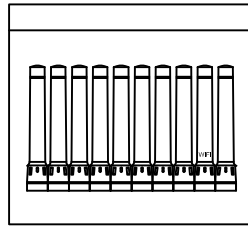
Part Number : AN2400-35A01RS-B

Revision : A

Name: Antenna

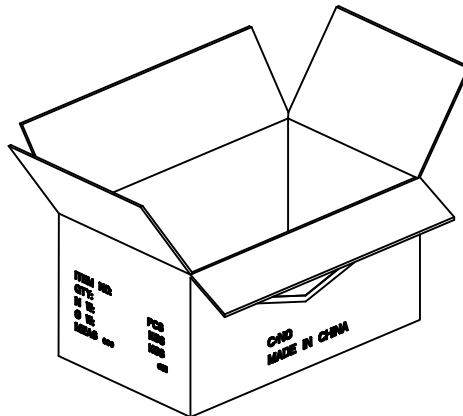
Customer : ALL

1 . Enter PE bag。



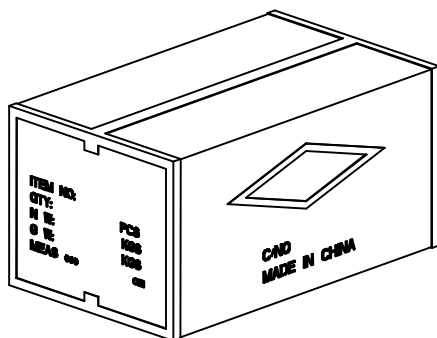
50pcs/ PE bag

2.PACKING 。

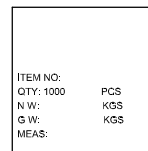


1000pcs/Carton

3. SEALING。



SIDE



FRONT

