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Bao 'an District, Shenzhen City

Antenna data sheet

Project name: MW3

Product name: MW3-WIFI-IPEX/ANT

Peak Gain : 3.21dBi

Issue date : 2023-05-26



Shenzhen Xingtong Wieress Technology Co., Ltd

Date

2023-05-26

Version

A0

Document number

XT-YF-004

Product name

MW3-WIFI-ANT

Identification
of product

MW3-APP-RA

1.Product Constrution

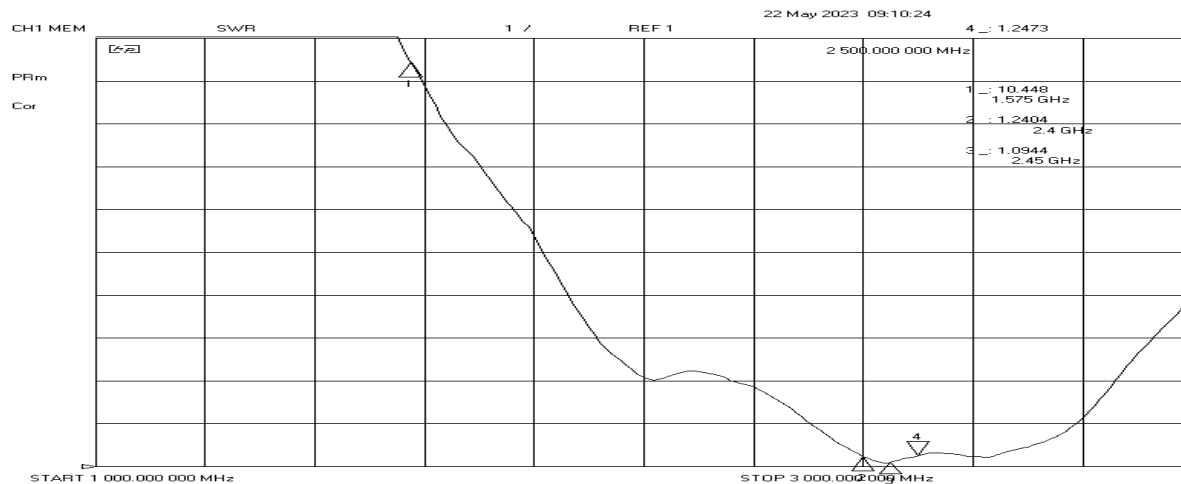
- 1. Antenna material: FPC
- 2. Model: 3M9471
- 3. Dimension: 20.9*4.95 (± 0.2 mm)
- 4. Coaxial axis size: 22 ϕ 0.81-2代 (± 0.5 mm)

2. Parameter index

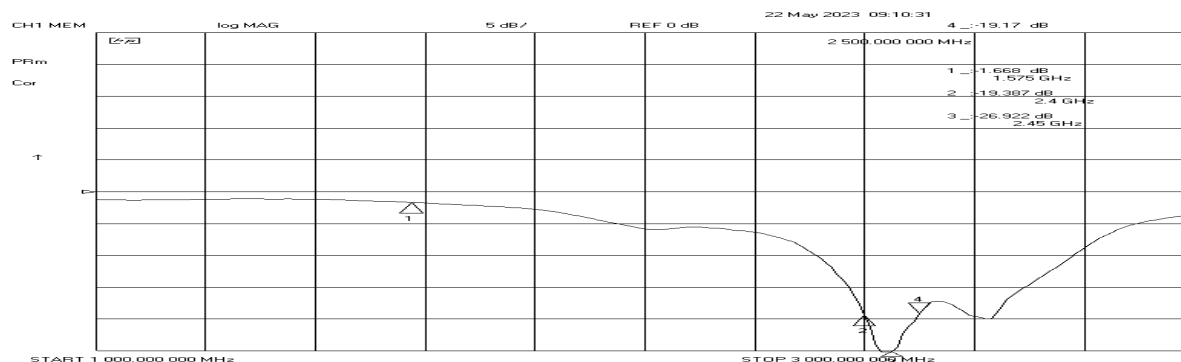
- Antenna frequency: 2412-2484Mhz
- Antenna impedance: 50 Ω
- VSWR: <1.5DBM
- Return loss: <-10DB
- Polarization mode: Vertical/horizontal
- Power capacity: 5W
- Installation method: Connect the mainboard with terminal wires

3.S11

3.1: VSWR

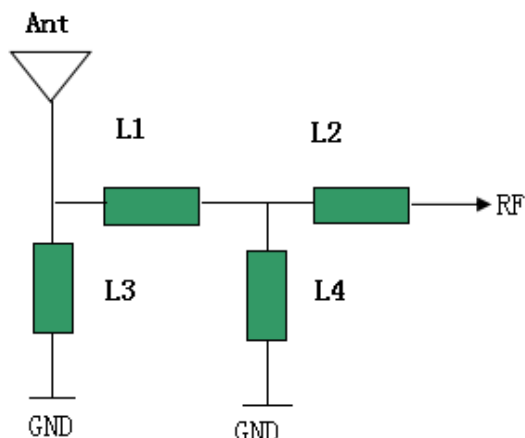


3.2: Return loss



4.OTA

■ 4.1: Antenna matching suggestions



Antenna	
Element	Value
L1 (0201)	
L2 (0201)	
L3 (0201)	
L4 (0201)	
匹配无修改	

■ 4.2: Antenna efficiency gain

FETUKEJI											
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
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-4.02	-4.11	-3.98	-4.05	-4.27	-3.97	-4.05	-4.22	-3.81	-3.96	-3.99
Peak EIRP (dBm)	3.06	3.07	3.21	3.15	2.82	3.03	2.94	2.81	3.26	3.10	3.17
Directivity (dBi)	7.08	7.18	7.19	7.20	7.09	7.00	6.99	7.03	7.06	7.06	7.15
Efficiency (dB)	-4.02	-4.11	-3.98	-4.05	-4.27	-3.97	-4.05	-4.22	-3.81	-3.96	-3.99
Efficiency (%)	39.70	38.80	40.00	39.30	37.40	40.10	39.40	37.80	41.60	40.20	39.90
Gain (dBi)	3.06	3.07	3.21	3.15	2.82	3.03	2.94	2.81	3.26	3.10	3.17
NHPRP ±Pi/4 (dBm)	-6.50	-6.59	-6.47	-6.55	-6.77	-6.48	-6.56	-6.76	-6.36	-6.52	-6.56
NHPRP ±Pi/6 (dBm)	-8.28	-8.35	-8.22	-8.28	-8.48	-8.18	-8.25	-8.44	-8.03	-8.18	-8.21
NHPRP ±Pi/8 (dBm)	-9.43	-9.48	-9.31	-9.34	-9.51	-9.18	-9.24	-9.41	-8.97	-9.10	-9.10
Upper Hem. PRP (dBm)	-8.68	-8.75	-8.60	-8.65	-8.87	-8.56	-8.62	-8.78	-8.33	-8.44	-8.43
Lower Hem. PRP (dBm)	-5.83	-5.93	-5.82	-5.90	-6.12	-5.82	-5.91	-6.09	-5.70	-5.87	-5.92
Upper Hem. PRP (%)	13.54	13.34	13.81	13.63	12.99	13.94	13.75	13.25	14.70	14.33	14.35
Lower Hem. PRP (%)	26.11	25.51	26.17	25.72	24.41	26.19	25.64	24.59	26.93	25.88	25.60

(Testing instruments: Network analyzers, oscilloscopes, customer-provided engineering prototypes, various standard cards, etc.

5.

■ 5.1: Finished antenna drawing

