

Antenna specification

Applicable model: M61

Customer name: Dongxin Taihe (Guangzhou) Co., Ltd.

Manufacturer name: Shenzhen Yusheng Communication Equipment Co., LTD

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1. Overview

1.1 Scope of application

This requirement specifies the antenna technical requirements and material requirements specifications for M61 products.

This requirement applies to the selection, testing and acceptance of M61 antennas.

1.2 Project basic information

Antenna name:	M61
Antenna frequency:	<i>GPS/BT: 1575.42Mhz/2.4Ghz</i>
Antenna type	Integral Antenna
Antenna material:	Metal frame

2. Technical index requirements

2.2.1 Introduction of test items and equipment

inventory	test item	equipment
Active test	TRP,TIS	Integrated tester, microwave darkroom

2.2.2 Test instructions

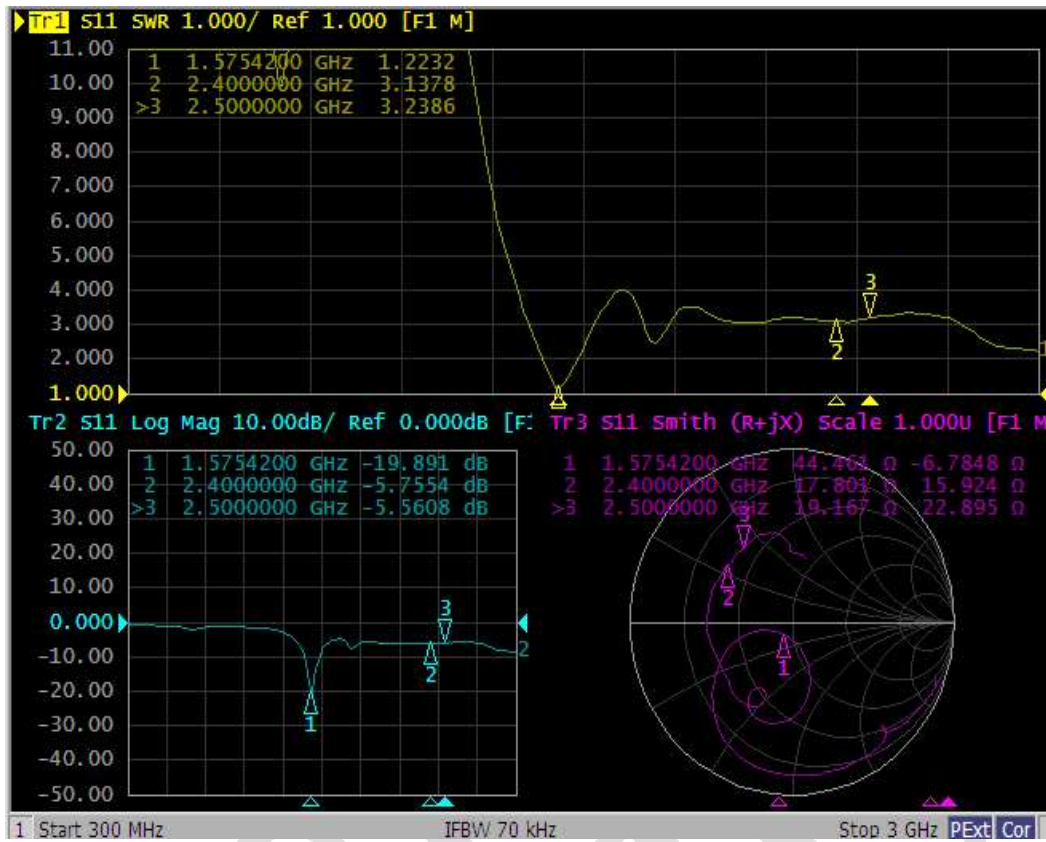
Test tools: Agilent8960 instrument, R & SCMW500, full wave far field ETS dark room, high precision positioning system and its controller and computer with automatic test program

Test environment: temperature $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, humidity $50\% \pm 15\%$

Test method: DUT is fixed in the center of the turntable on the same horizontal line as the center of the horn antenna.

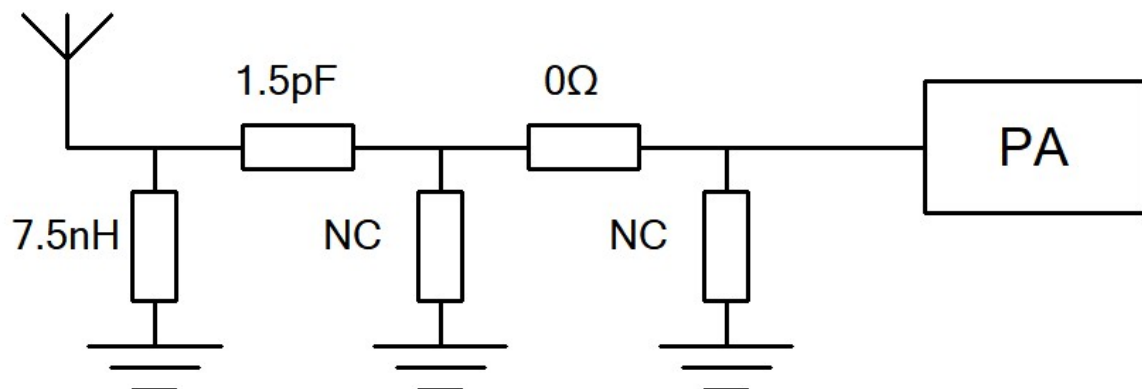
The positioning system enables the DUT to rotate in the whole sphere to satisfy the high-precision 3 D positioning. Each RF instrument and turntable controller communicate with the PC with automatic test software through the GPIB interface.

2.2.3 Antenna passive parameters



2.2.4 Matching circuit

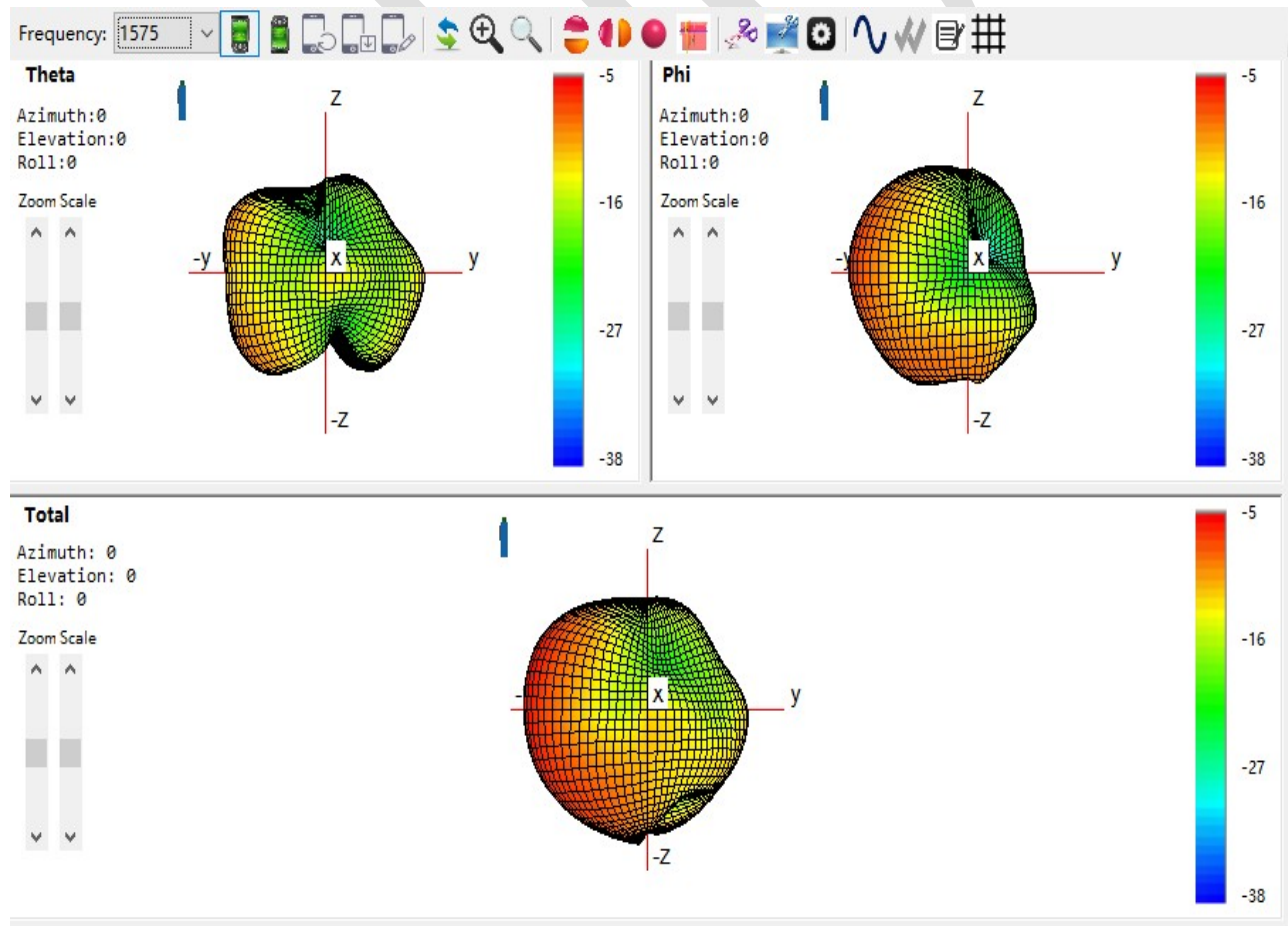
Antenna



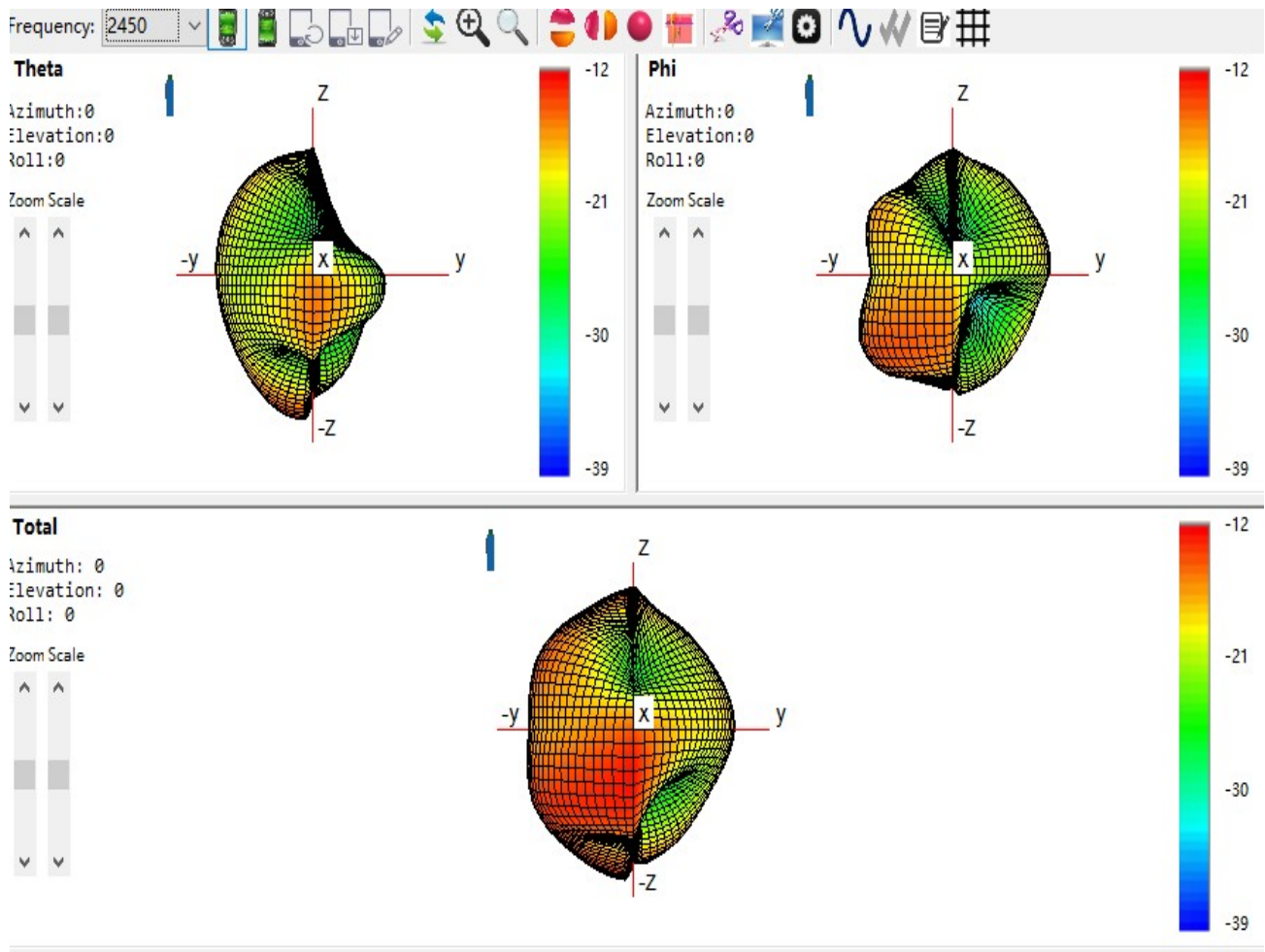
2.2.5 Antenna Efficiency and Gain

Arm Passive Test For 1575MHz			Passive Test For 2400MHz~2500MHz		
Freq	Effi	Gain	Freq	Effi	Gain
(MHz)	(%)	(dBi)	(MHz)	(%)	(dBi)
1550	20.08	-1.23	2400	18.96	-2.49
1555	20.28	-1.24	2410	19.27	-2.42
1560	20.28	-1.24	2420	19.27	-2.42
1565	20.43	-1.31	2430	19.76	-2.14
1570	20.43	-1.31	2440	20.79	-2.33
1575	20.54	-1.32	2450	19.76	-2.14
1580	20.63	-1.27	2460	18.59	-2.94
1585	20.63	-1.27	2470	18.59	-2.94
1590	20.62	-1.25	2480	17.43	-2.83
			2490	17.43	-2.83
			2500	17.43	-2.83

2.2.6 L1 Apple logo—Arm



2.2.7 BT Apple logo—Arm



3. Antenna size

