

CUSTOMER: _____

CUSTOMER NO:

2.4~2.5/5.15~5.85GHz

PART NAME:WIFI+BT Antenna L=135mm(00.81+MHF)

SUPPLIER NO: SLEingB227060140

Date: 2022.10.14

Revision: **X1**

CUSTOMER APPROVED BY		
APPROVAL	CHIEF	SUPERVISOR

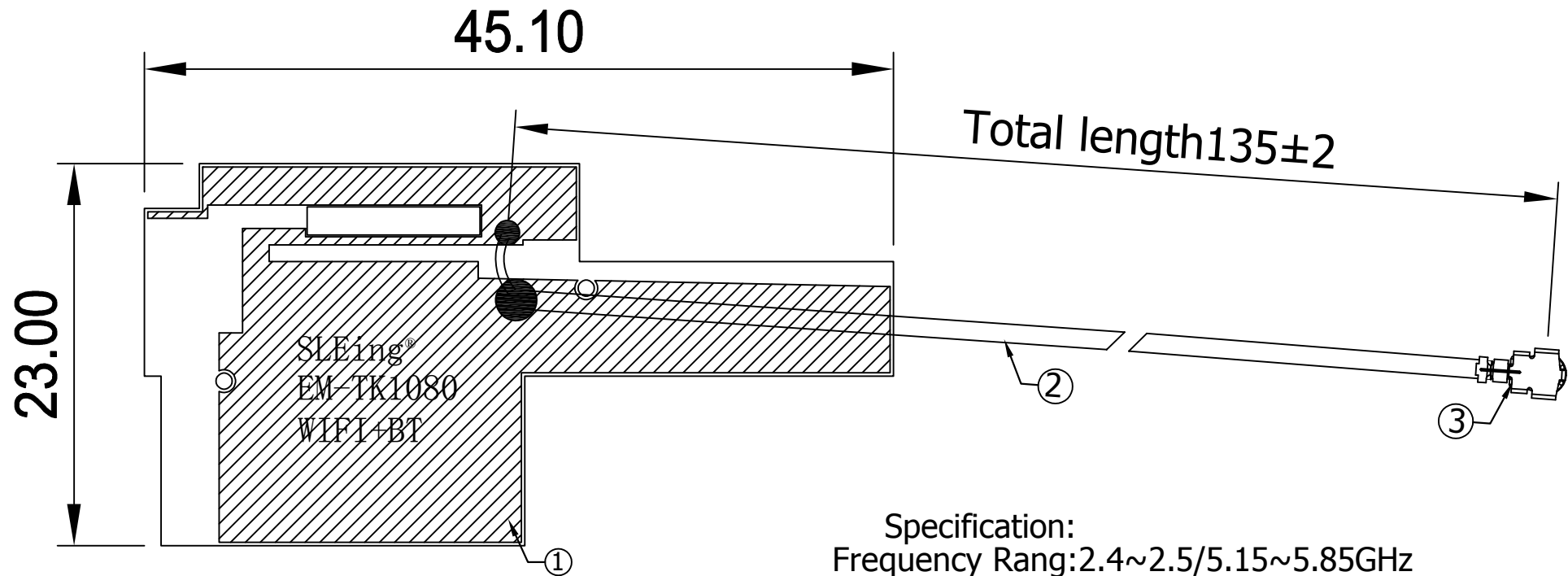
SUPPLIER SIGNATURE		
APPROVAL	CHECK	DESIGN
Jongrei	HZH	Xiang



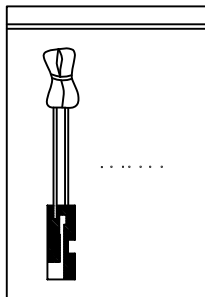
Project statement Spec Item

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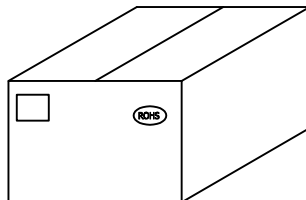
REV.	CONTENT	DATE
X1	First Sample	2022.10.14



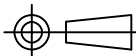
Specification:
Frequency Rang:2.4~2.5/5.15~5.85GHz
Return Loss:-10dB or less
VSWR:1.92 Max



50pcs/Bundle
Packing:100pcs/bag



The outer box shall be labeled with the ROHS
label and the material label each 1PCS

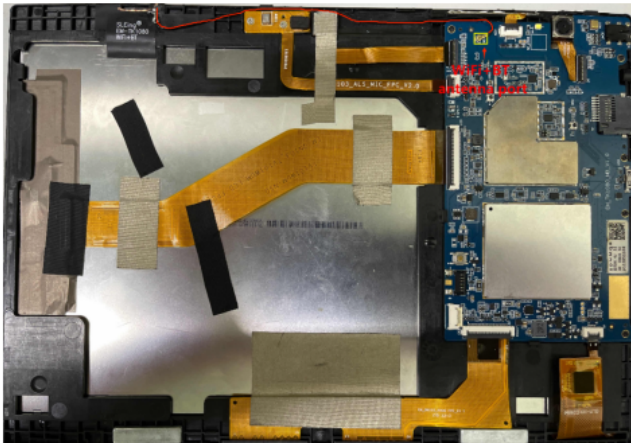
SLEing® DONGGUAN SLEing INTEL-TECH CO.,LTD				CUSTOMER			
				PART NO			
				TITLE		WIFI+BT ANTENNA	
				S.L P/NO		SLEingB227060140	
		TOLERANCE UNLESS OTHERWISE SPECIFIED		SIZE	DRAWED	CHECKED	APPROVED
UNIT:mm		ANGLES ±0.5°	X. ±0.3	A4			
SHEET: 1/1		0.XX ±0.05	XX. ±0.5				
SCALE: 1/1			XXX. ±2.0				

8 7 6 5 4 3 2 1

Test Reports

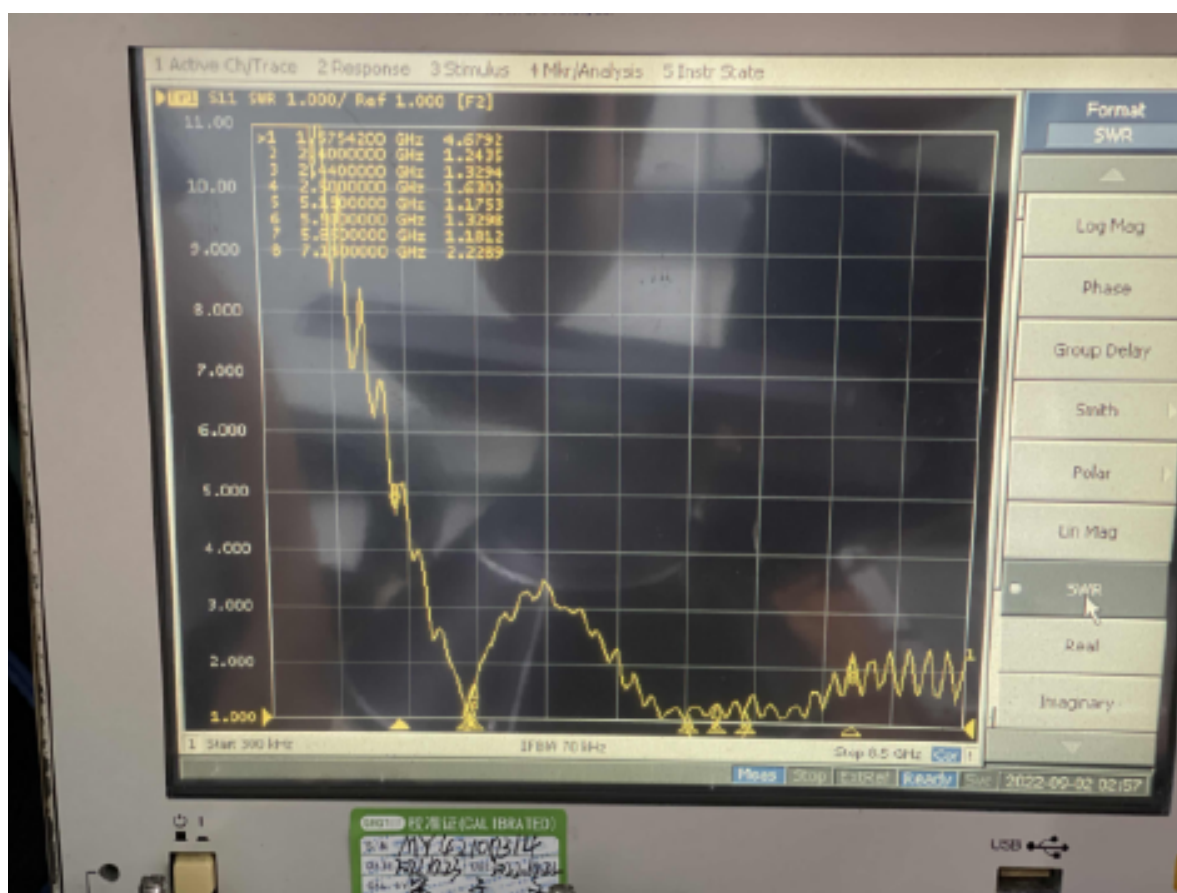
Electrical Properties	
Frequency	2.4~2.5/5.15~5.85GHz
Impedance	50 Ohm Nominal
V.S.W.R	≤ 1.92
Return Loss	-10 dB Max
Radiation	Omni-directional
Gain (Peak)	2.4G: -3.0 dBi/5G: 1.6 dBi
Polarization	Linear, Vertical
Admitted Power	2 W
Connector	MHF
Physical Properties	
Antenna Material	PIFA
Cable Type	Φ0.81mm Black
Operating Temp	-25~+75 °C
Storage Temp	-25~+75 °C

Antenna Profile

<i>Device</i>	5、WiFi+BT antenna cable routing Solder the WiFi+BT antenna terminal to the position marked in the yellow box in the figure, and then glue it to prevent the antenna from falling off. In the figure, the red is WiFi+BT antenna wiring, the antenna wire length is 135mm, the diameter is 0.81mm, the third-generation terminal (black coaxial line); Note: The antenna should walk in the cable slot during the wiring process. The antenna should be welded at 90° 
<i>Antenna</i>	4、Paste WiFi+BT antenna The sticking details of WiFi +BT antenna are shown in the figure. Note: When the antenna is pasted, the antenna should not be stuck skewed, skewed or warped, and the ground of the antenna should be closely attached to the metal frame.  

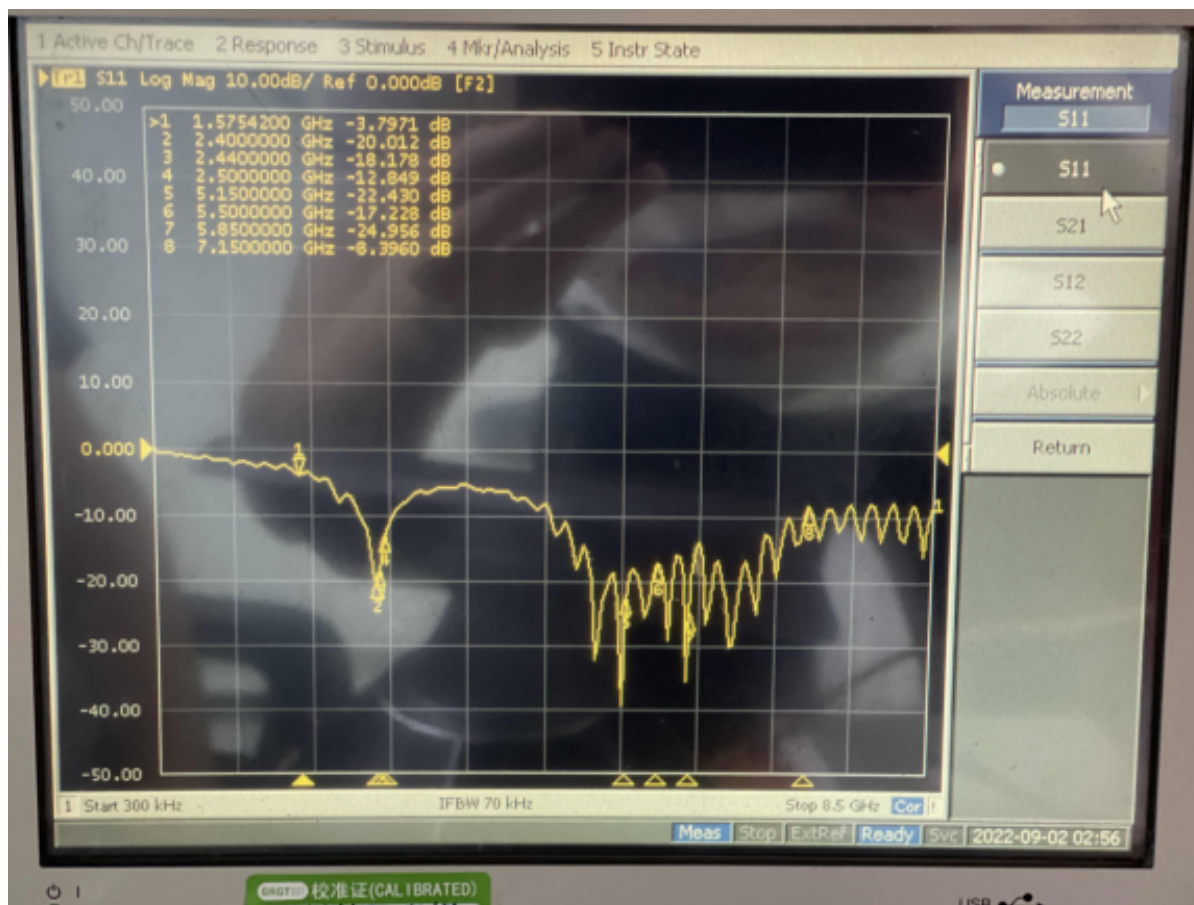
S Parameter Test

Agilent E5071C



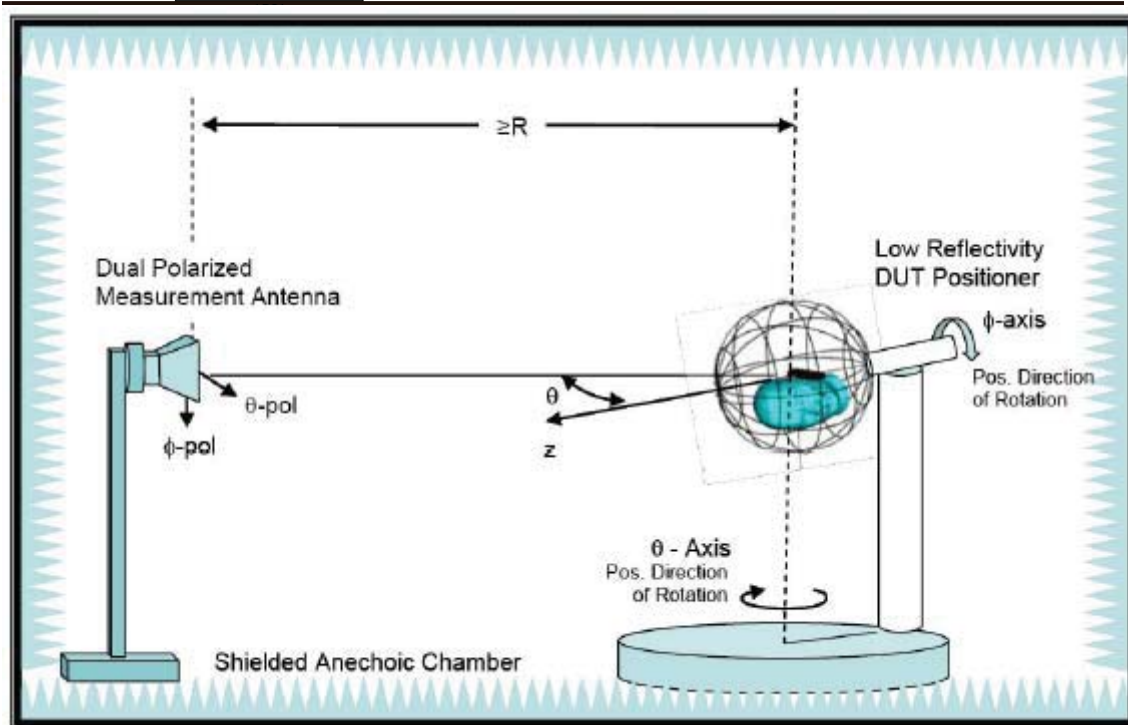
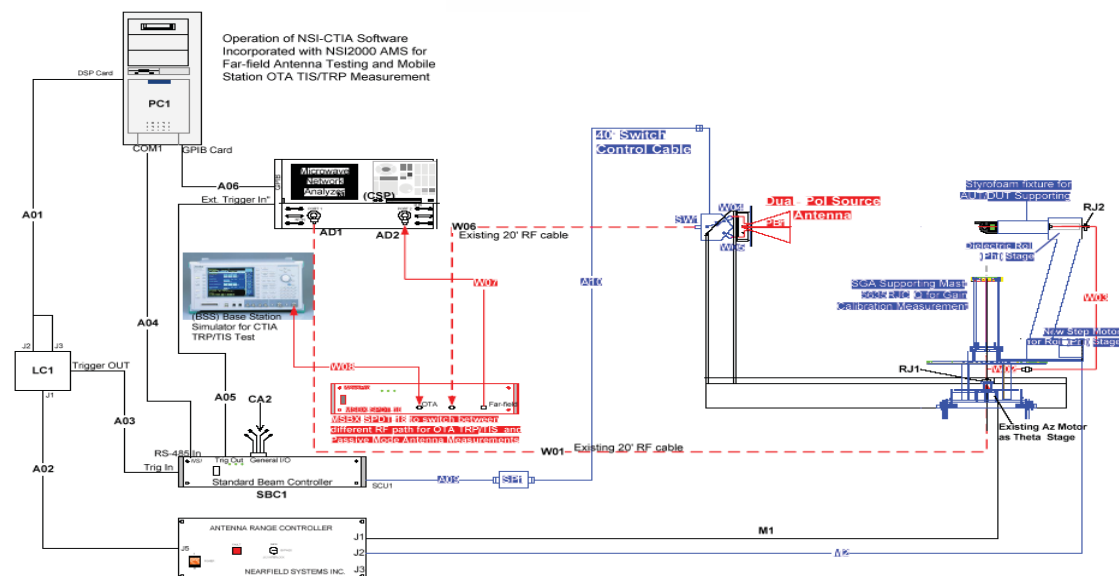
S Parameter Test

Agilent E5071C



Test Setup

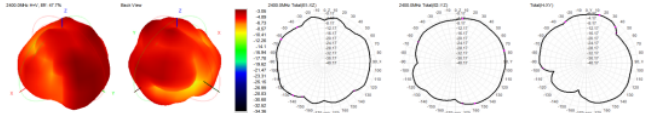
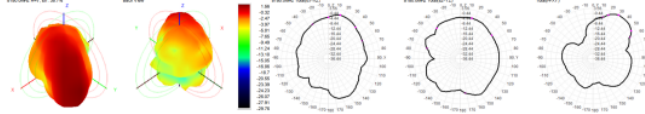
NFC-500S 3D Chamber Coordinate System Definition



Configuration of 3D Chamber



Test Efficiency

2.4G WiFi	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
	Gain (dBi)	-3.05	-3.03	-3.00	-3.05	-3.02	-3.06	-3.05	-3.09	-3.05	-3.00	-3.09
	Efficiency (%)	47.68	48.65	49.73	50.03	51.54	50.90	50.75	49.11	49.78	47.65	48.58
												
5G WiFi	Frequency ID	1	2	3	4	5	6	7	8	9	10	11
	Frequency (MHz)	5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0
	Gain (dBi)	1.56	1.51	1.60	1.60	1.58	1.59	1.59	1.60	1.58	1.52	1.56
	Efficiency (%)	35.70	34.91	34.46	32.42	36.37	34.31	30.20	33.00	33.09	32.91	32.16
	Frequency ID	12	13	14	15	16	17	18	19	20	21	
	Frequency (MHz)	5700.0	5750.0	5800.0	5850.0							
	Gain (dBi)	1.58	1.59	1.60	1.58							
	Efficiency (%)	35.21	35.92	39.90	33.50							
												

EM_TK1080 WiFi OTA测试数据

WiFi OTA		WiFi OTA	
		TRP	TIS亮屏
11b 11M	1	12.2	-82.37
	7	12.65	-83.13
	11	13.38	-82.74
	AVG	12.74	-82.75
11a 6M	36	13.39	-87.16
	64	13.88	-87.71
	157	13.65	-87.93
	AVG	13.64	-87.60
WiFi模组: WCN3950			