



sample SPECIFICATIONS

Client :	Evy Eagle Travel
Project name :	W101-A
Antenna category:	LDS antenna
Edition :	V1.0
Date :	2025. 9. 29
Supplier address:	505-506, Block A, Donglian Building, Chuangye 2nd Road, Bao'an District, Shenzhen
Supplier :	Shenzhen Sixun Communication Technology Co., Ltd.



Catalogue

I. Passive Test Report.....	3
II. Active Test Data.....	7
III: Matching Circuit.....	8
IV: Environmental Treatment	9
5. Structure Diagram File	10

Change History			
Creation/Change Date	Reason for change	Change content	Edition
2025. 9. 29	First edition release	First edition release	V1. 0

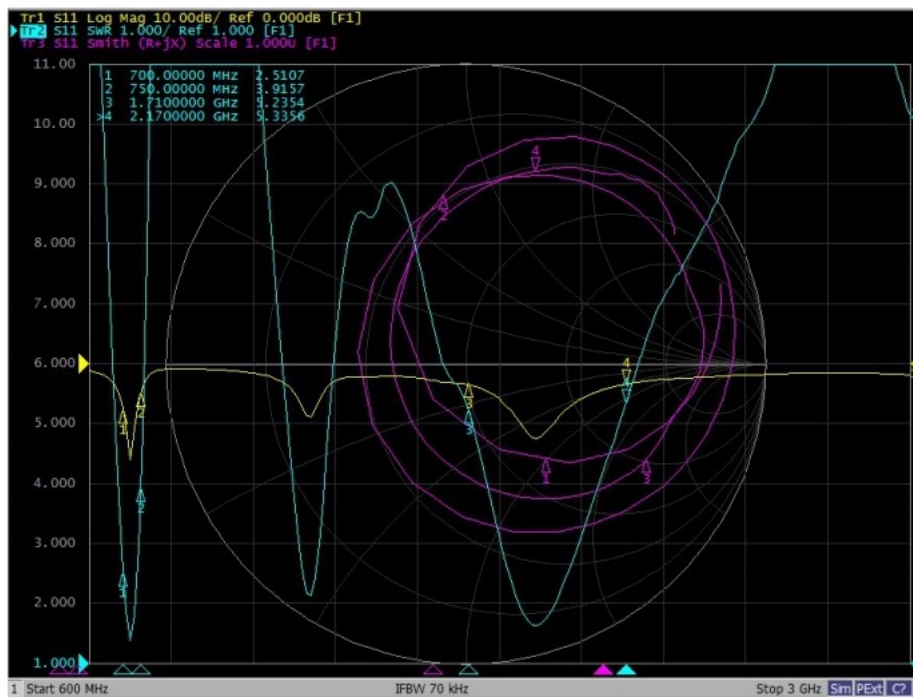


1. Passive Test Report



Angilent E5071C

S Parameter of Main Antenna

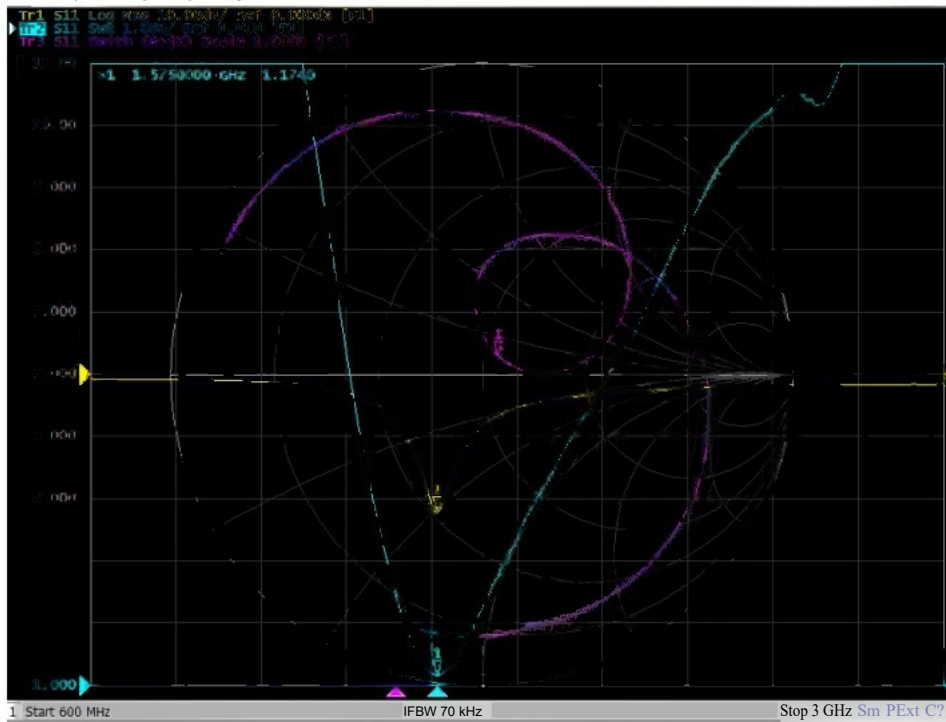




WIFI/BT Antenna S Parameters



GPS Antenna S Parameters





Passive efficiency of main antenna:

Freedom							
MAIN; PIFA: 0Ω series, GND-5.6nh							
Frequency point MHz	Productiveness %	Productiveness (dB)	Gain (dBi)	Frequency point MHz	Productiveness %	Productiveness (dB)	Gain (dBi)
700	11%	-9.67	-5.32	1710	25%	-6.04	-3.38
710	11%	-9.46	-4.80	1730	25%	-6.10	-3.46
720	12%	-9.13	-4.67	1750	26%	-5.77	-3.09
730	12%	-9.34	-5.19	1770	29%	-5.32	-2.56
740	11%	-9.44	-5.47	1790	31%	-5.15	-2.32
750	11%	-9.57	-5.54	1810	32%	-4.91	-2.11
				1830	33%	-4.85	-2.05
				1850	35%	-4.59	-1.50
				1870	38%	-4.19	-1.16
				1890	39%	-4.07	-0.98
				1910	41%	-3.85	-0.64
				1930	40%	-4.00	-0.65
				1950	39%	-4.04	-0.61
				1970	38%	-4.18	-0.72
				1990	37%	-4.36	-1.01
				2010	34%	-4.75	-1.52
				2030	33%	-4.88	-1.75
				2050	31%	-5.13	-1.98
				2070	29%	-5.35	-2.18
				2090	28%	-5.57	-2.30
				2110	26%	-5.90	-2.65
				2130	25%	-6.01	-2.82
				2150	24%	-6.25	-3.09
				2170	22%	-6.52	-3.30

Arm model							
MAIN; PIFA; 0Ω series, GND-5.6nh							
Frequency point MHz	productiveness %	productiveness (dB)	Gain (dBi)	Frequency point MHz	Productiveness %	Productiveness (dB)	Gain (dBi)
700	8%	-11.14	-8.74	1710	12%	-9.16	-4.07
710	8%	-11.10	-8.36	1730	13%	-8.89	-3.38
720	8%	-10.99	-8.44	1750	13%	-8.78	-3.46
730	8%	-10.83	-8.40	1770	14%	-8.65	-2.75
740		-10.80	-8.35	1790	14%	-8.69	-2.39
750	8%	-10.83	-8.03	1810	14%	-8.58	-2.25
				1830	14%	-8.51	-2.34
				1850	15%	-8.11	-2.09
				1870	16%	-7.96	-2.04
				1890	16%	-8.04	-2.08
				1910	16%	-8.06	-2.03
				1930	14%	-8.43	-2.19
				1950	14%	-8.59	-2.25
				1970	14%	-8.49	-2.40
				1990	14%	-8.42	-2.55
				2010	14%	-8.46	-2.87
				2030	14%	-8.57	-2.85
				2050	13%	-8.72	-2.90
				2070	13%	-8.87	-2.94
				2090	13%	-8.71	-3.01
				2110	13%	-8.98	-3.19
				2130	13%	-8.75	-3.30
				2150	13%	-8.96	-3.49
				2170	12%	-9.15	-3.72



WIFI/BT antenna passive efficiency:

Freedom			
BT/WIFI; PIFA; and 1.0pf			
Frequency point MHz	Productiveness %	Productiveness (dB)	Gain (dBi)
2400	49%	-3.09	1.54
2410	49%	-3.09	1.49
2420	49%	-3.08	1.40
2430	50%	-3.01	1.37
2440	50%	-3.05	1.23
2450	49%	-3.06	1.17
2460	49%	-3.07	1.13
2470	49%	-3.09	1.06
2480	48%	-3.20	0.92
2490	47%	-3.28	0.81
2500	46%	-3.37	0.78

Arm model BT/			
WIFI; PIFA; and 1.0pf			
Frequency MHz	productiveness	efficiency (dB)	gain (dBi)
2400	19%	-7.14	-2.09
2410	20%	-7.07	-2.02
2420	20%	-6.95	-1.91
2430	21%	-6.83	-1.84
2440	21%	-6.82	-1.88
2450	21%	-6.83	-1.88
2460	21%	-6.90	-1.93
2470	20%	-6.91	-1.98
2480	20%	-6.92	-1.98
2490	20%	-6.92	-1.98
2500	20%	-6.94	-1.97

GPS antenna passive efficiency:

Self			
GPS; PIFA; and 2.0pf			
Frequency point MHz	Productiveness %	Productiveness (dB)	Gain (dBi)
1570	32%	-4.94	-1.77
1571	32%	-4.88	-1.75
1572	33%	-4.88	-1.72
1573	32%	-4.90	-1.69
1574	32%	-4.88	-1.66
1575	33%	-4.87	-1.64
1576	32%	-4.90	-1.62
1577	33%	-4.88	-1.59
1578	33%	-4.85	-1.55
1579	33%	-4.86	-1.52
1580	33%	-4.87	-1.49

Arm model			
GPS; PIFA; and 2.0pf			
Frequency point MHz	Productiveness %	Productiveness (dB)	Gain (dBi)
1570	14%	-8.63	-4.10
1571	14%	-8.66	-4.10
1572	14%	-8.66	-4.11
1573	14%	-8.66	-4.11
1574	14%	-8.66	-4.11
1575	14%	-8.67	-4.13
1576	14%	-8.68	-4.14
1577	14%	-8.68	-4.14
1578	14%	-8.68	-4.14
1579	14%	-8.68	-4.13
1580	14%	-8.67	-4.12



II. Active Test Data

W101, certified as No.1; DVT prototype			
Arm model	Channel	TRP (dBm)	TIS (dBm)
FDD B2	CH 18650	14.4	-87.0
	CH 18900	14.8	-87.2
	CH 19150	15.1	-86.6
FDD B4	CH 20000	13.0	-86.6
	CH 20175	13.2	-86.2
	CH 20350	14.0	-85.7
FDD B12	CH 23035	10.3	-86.2
	CH 23095	10.5	-85.6
	CH 23155	10.4	-85.3
WCDMA B4	CH 1537	17.8	-103.10
	CH 1638	17.5	-102.28
	CH 1738	17.3	-102.63



MVG



GTS



GTS



MVG



MVG

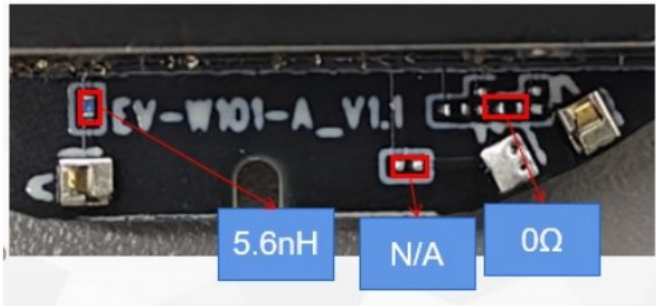


MVG

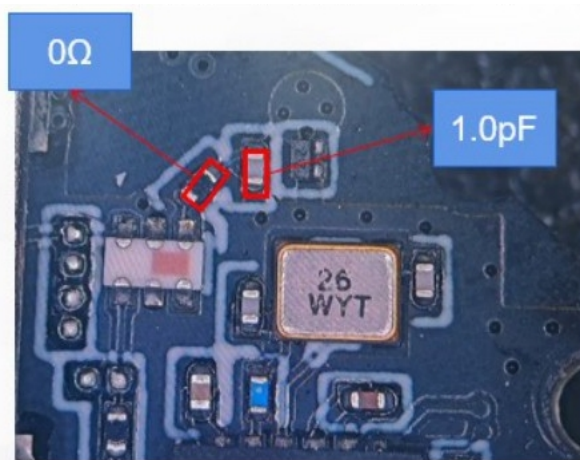
OTA Standard Chamber

III: Matching Circuit

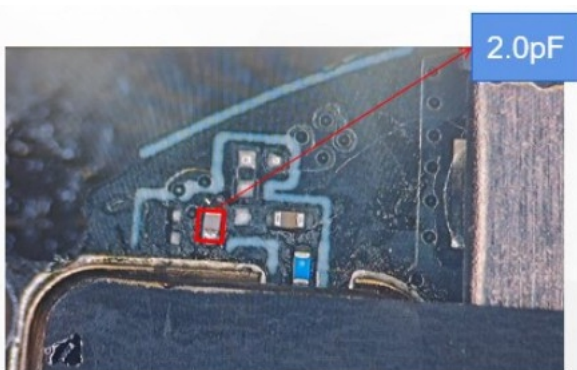
Main antenna matching circuit: series 0Ω ; GND-5.6nH



WIFI/BT antenna matching circuit: parallel 1.0pF, series 0Ω

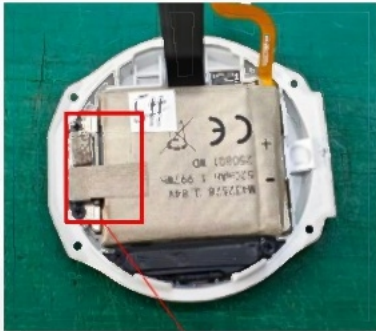


GPS antenna matching circuit: parallel 2.0pF





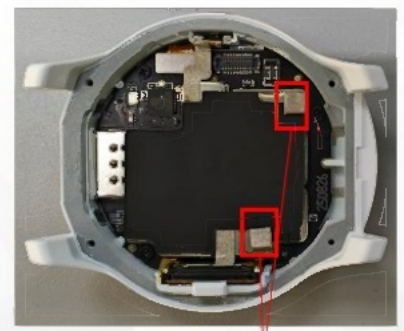
IV: Environmental Management



Apply conductive fabric here.
electro-sponge



Apply conductive foam to
exposed copper areas of
screen wiring and ground
the motherboard shielding
cover



The main board is bonded with
conductive foam and grounded
to the battery surface.



5. Structure Diagram File

