



sample SPECIFICATIONS

Client :	Evy Eagle Travel
Project name :	EV12X-V
Antenna category:	LDS antenna
Edition :	V1.0
Date :	2025.11.19
Supplier address:	505-506, Block A, Donglian Building, Chuangye 2nd Road, Bao'an District, Shenzhen
Supplier :	Shenzhen Sixun Communication Technology Co., Ltd.



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Change History			
Creation/Change Date	Reason for change	Change content	Edition
2025. 11. 19	First edition release	First edition release	V1. 0

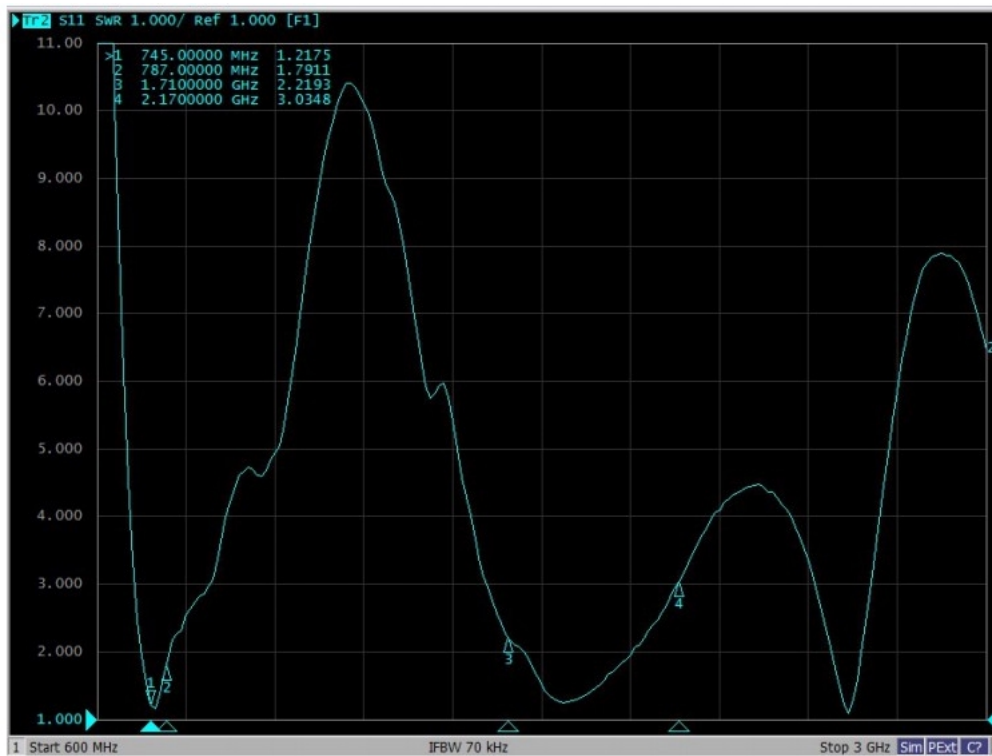


1. Passive Test Report



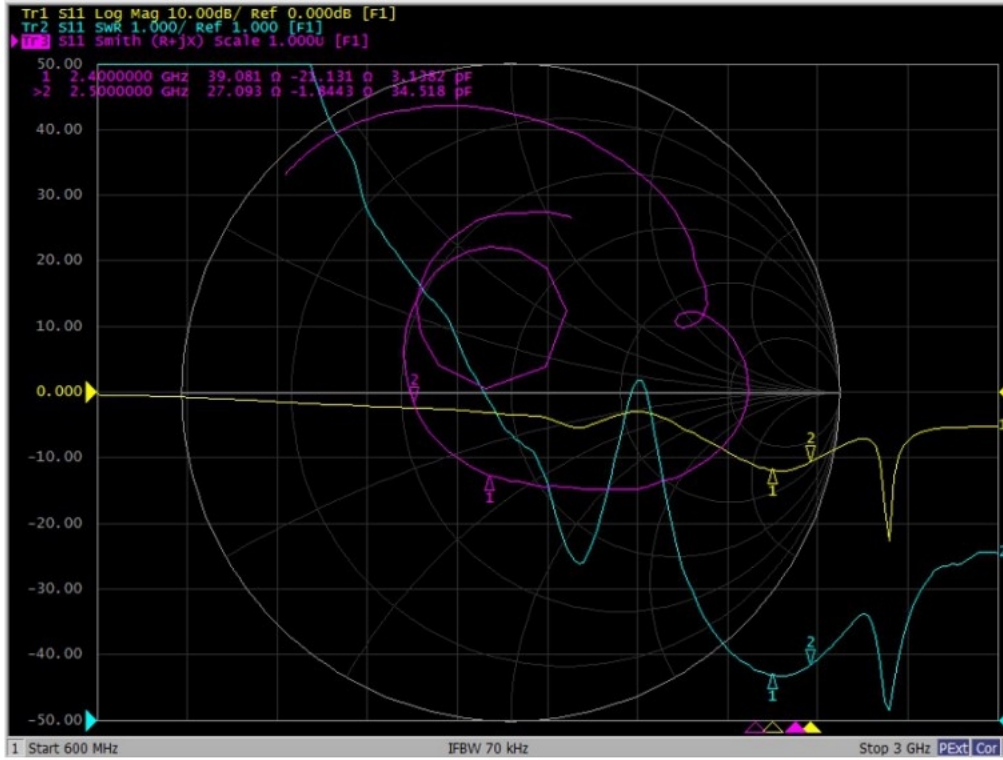
Agilent E5071C

S Parameter of Main Antenna

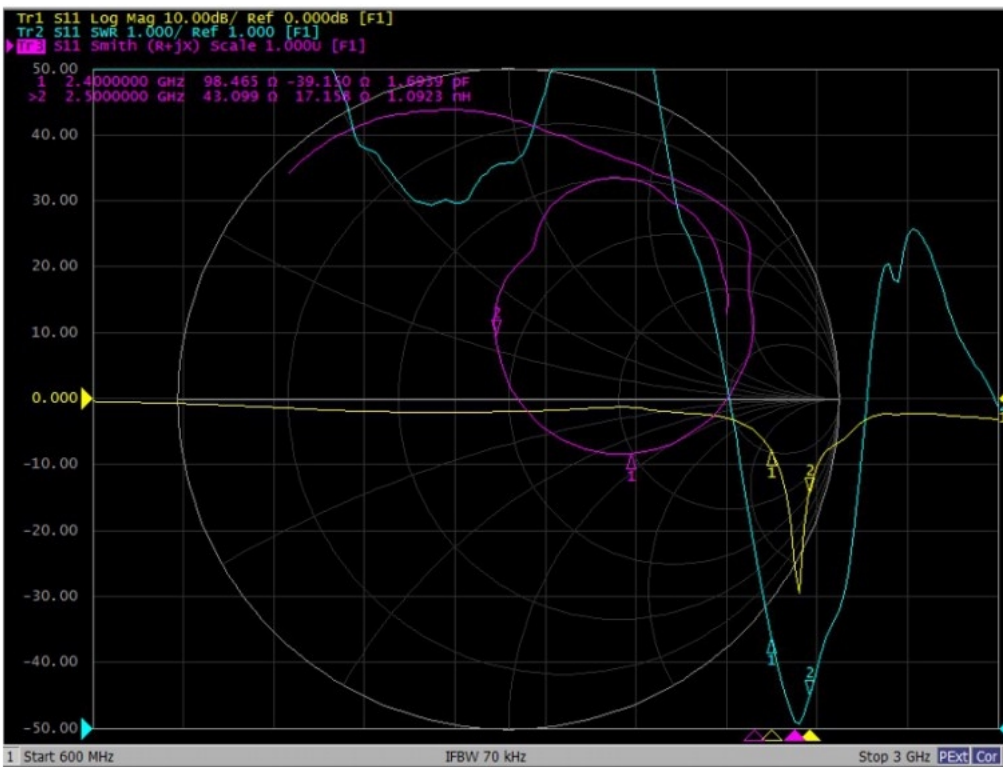




WIFI Antenna S Parameter

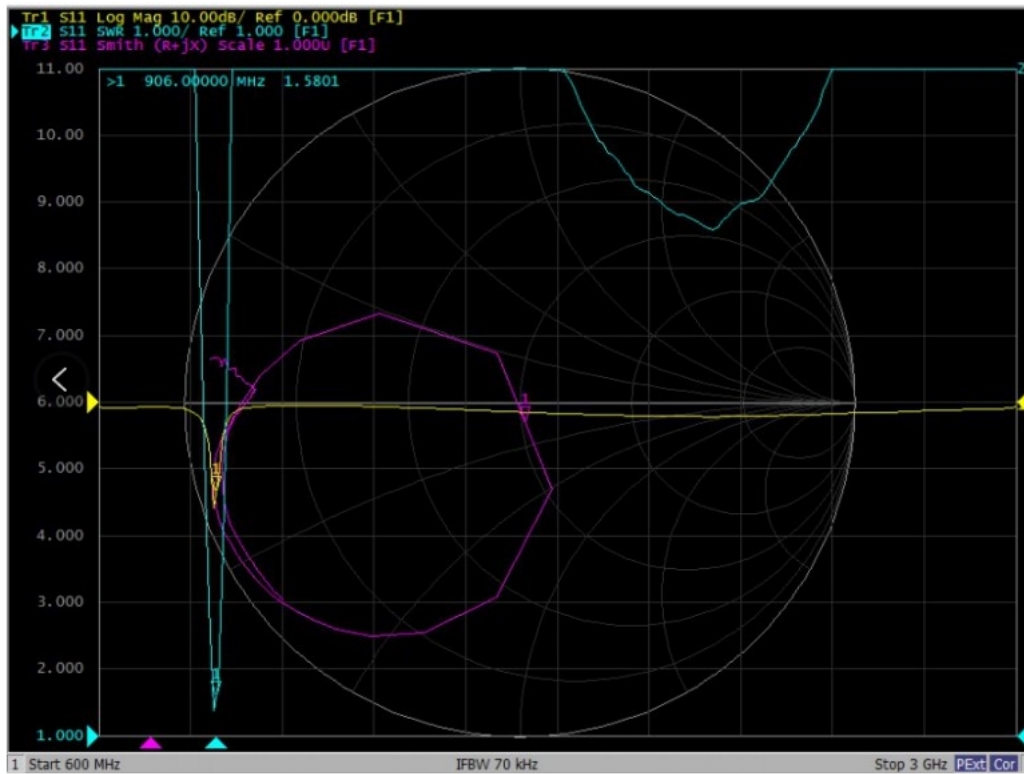


BT Antenna S Parameter





LORA Antenna S Parameters





Passive Efficiency of Each Antenna:

MAIN: String 3.0pf, GND-5.6nh, Parasitic-0.2pF											
Frequency point MHz	Productiveness %	Productiveness (dB)	Gain (dBi)	frequency (MHz)	Productiveness %	Productiveness (dB)	Gain (dBi)	Frequency point MHz	Productiveness %	Productiveness (dB)	Gain (dBi)
745	11%	-9.58	-5.67	1710	46%	-3.36	-0.75	1950	46%	-3.39	-0.06
755	11%	-9.55	-5.62	1730	48%	-3.18	-0.87	1970	45%	-3.51	-0.17
765	11%	-9.58	-5.59	1750	53%	-2.73	-0.65	1990	43%	-3.67	-0.28
775	11%	-9.60	-5.51	1770	47%	-3.26	-0.10	2010	40%	-4.02	-0.54
785	12%	-9.37	-5.28	1790	49%	-3.13	-0.10	2030	39%	-4.07	-0.53
795	12%	-9.32	-5.25	1810	45%	-3.50	0.53	2050	37%	-4.28	-0.73
				1830	45%	-3.49	0.94	2070	36%	-4.48	-1.01
				1850	45%	-3.50	0.84	2090	34%	-4.63	-1.21
				1870	51%	-2.92	0.92	2110	33%	-4.84	-1.42
				1890	47%	-3.24	0.59	2130	33%	-4.85	-1.51
				1910	44%	-3.54	0.70	2150	32%	-4.99	-1.59
				1930	43%	-3.65	0.57	2170	31%	-5.14	-1.64

BT;0Ω			
Frequency point MHz	Productiveness %	Productiveness (dB)	Gain (dBi)
2400	36%	-4.43	-0.08
2410	37%	-4.36	-0.04
2420	37%	-4.30	0.17
2430	37%	-4.37	0.36
2440	34%	-4.73	0.52
2450	35%	-4.60	1.06
2460	36%	-4.42	1.49
2470	34%	-4.67	1.27
2480	35%	-4.60	1.38
2490	37%	-4.29	2.08
2500	35%	-4.57	2.01

LORA; Monopole, and 10pf			
Frequency point MHz	Productiveness %	Productiveness (dB)	Gain (dBi)
900	19%	-7.30	-3.69
901	19%	-7.14	-3.53
902	20%	-6.99	-3.38
903	21%	-6.86	-3.24
904	21%	-6.74	-3.12
905	22%	-6.64	-3.04
906	22%	-6.59	-2.98
907	22%	-6.56	-2.98
908	22%	-6.56	-3.01
909	22%	-6.59	-3.07
910	22%	-6.65	-3.16

WIFI;0Ω			
Frequency point MHz	Productiveness %	Productiveness (dB)	Gain (dBi)
2400	43%	-3.69	0.98
2410	42%	-3.79	0.77
2420	41%	-3.86	0.71
2430	39%	-4.08	0.66
2440	37%	-4.29	0.50
2450	38%	-4.24	0.57
2460	36%	-4.40	0.46
2470	39%	-4.10	0.80
2480	41%	-3.85	1.14
2490	40%	-3.96	1.00
2500	41%	-3.92	0.86



2. Antenna OTA Darkroom Data

Free space	Channel	TRP (dBm)	TIS (dBm)
FDD B4	CH 20000	19.6	
	CH 20175	19.8	
	CH 20350	20.2	-92.6

FDD B13	CH 23230	11.1	
	CH 23230	11.2	
	CH 23230	11.3	-86.5

Arm model	Channel	TRP (dBm)	TIS (dBm)
FDD B4	CH 20000	13.2	
	CH 20175	13.6	
	CH 20350	13.9	-87.8

FDD B13	CH 23230	10.8	
	CH 23230	11.1	
	CH 23230	11.1	-85.5

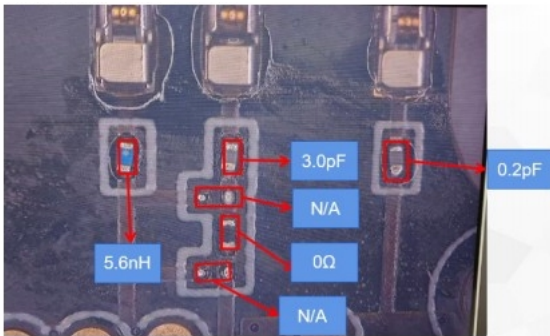


OTA Standard Chamber

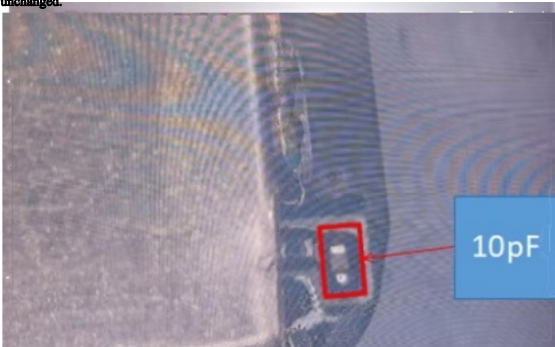


III: Matching Circuit

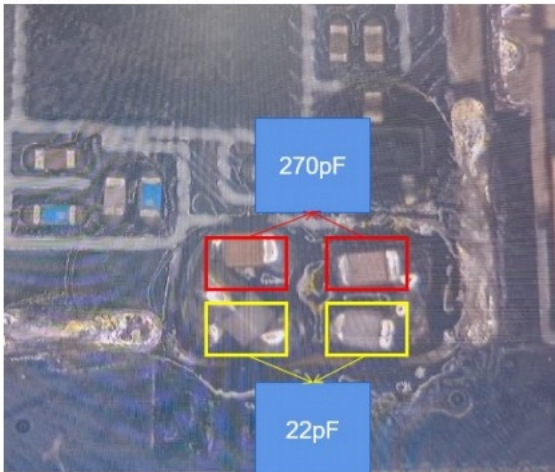
Main antenna matching circuit:



LORA antenna matching circuit: The LORA antenna requires a 10pF parallel matching, as shown in the figure below, with all other matching components remaining unchanged.



NFC antenna matching circuit:



WIFI antenna and BT antenna matching circuit: unchanged.



IV: Environmental Treatment

