

Test Report

Client Name: Vision Source

Project Name: SI07CY

Development Case No.: Y202010091920

Manufacturer: Vision Source

Antenna band: 2.4/5G

Frequency range: 2.4-2.5G/5.15-5.85G

Structural Engineer: Youjie

Radio Frequency Engineer: Yang

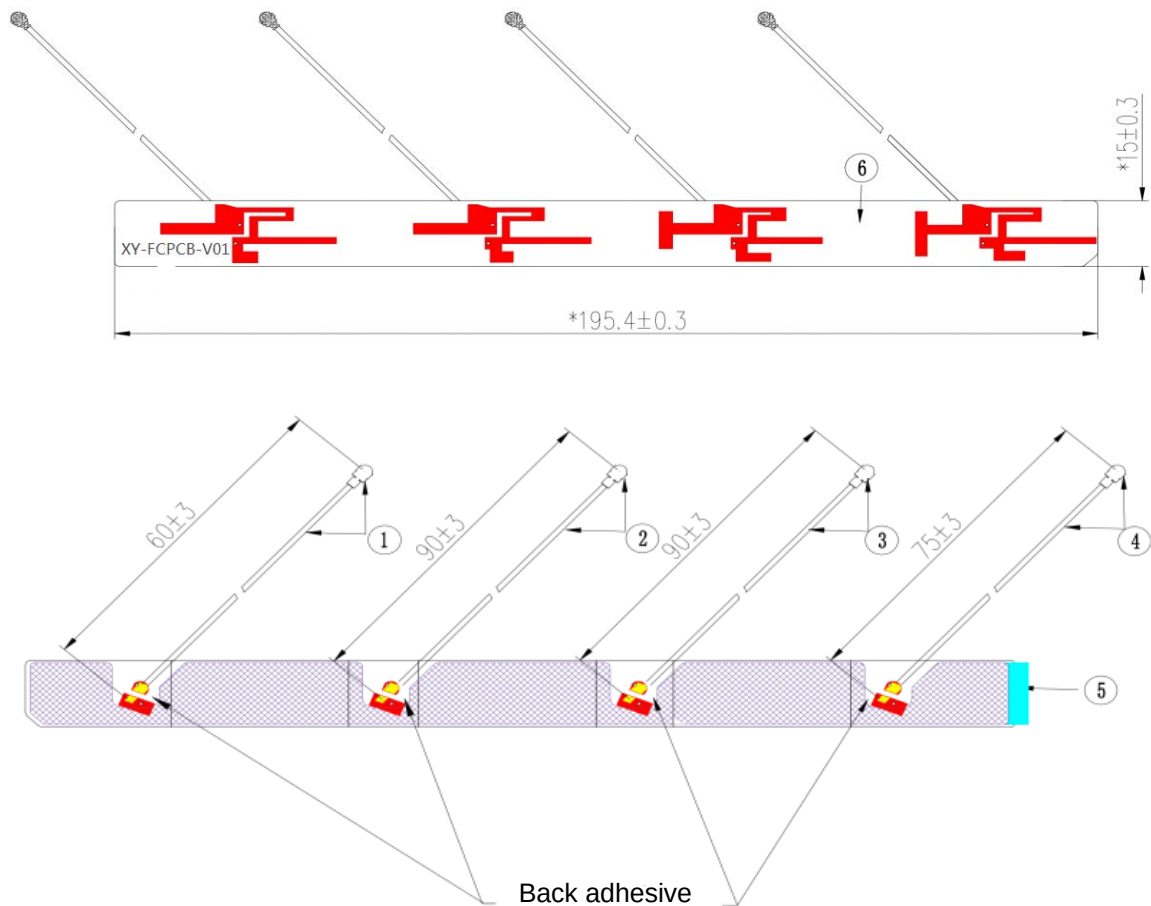
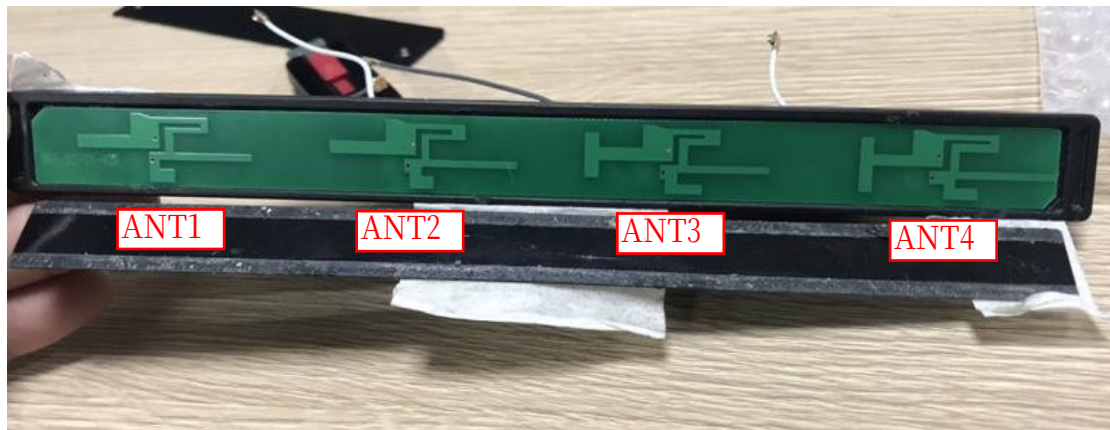
Production date: 2020.10.26

Revision date	Revisions	Revisionist	Original version

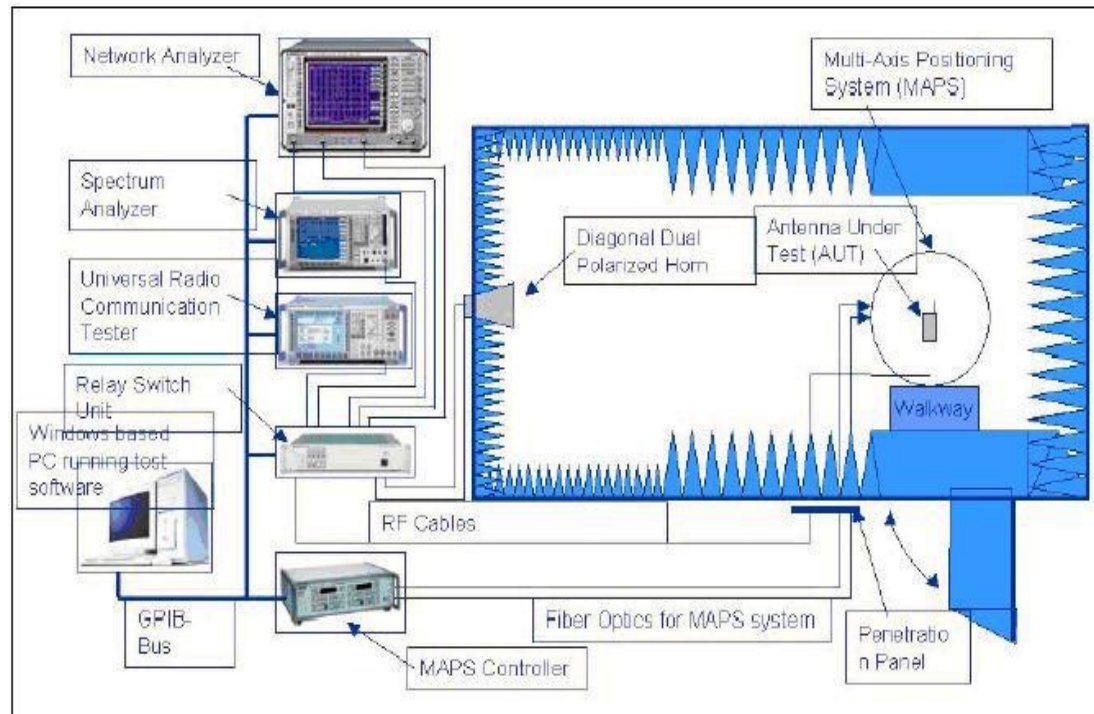
I. Description

This report presents the antenna electrical performance results for the SI07CY project.

II. Antenna assembly schematic

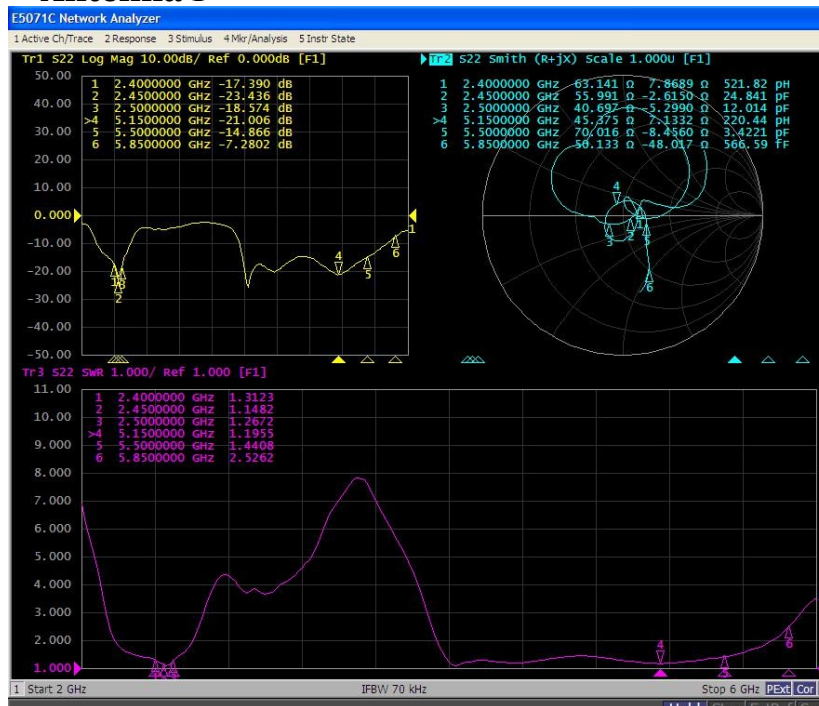


III. Test schematic of microwave dark room



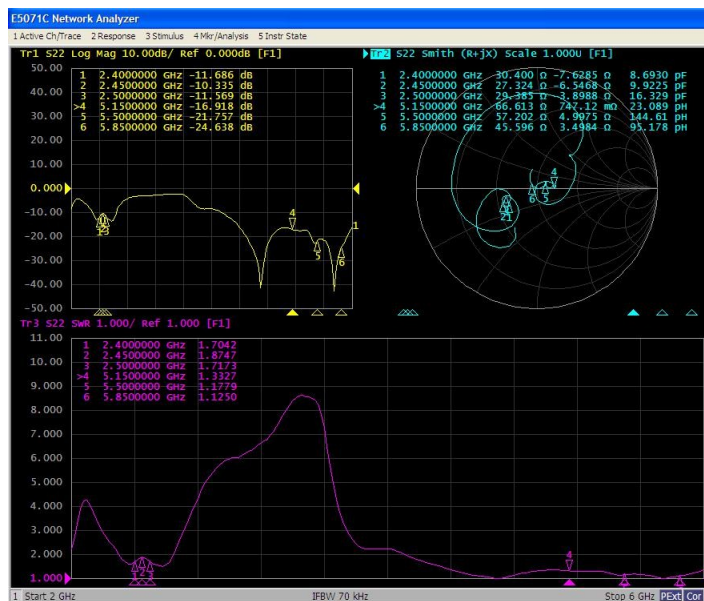
IV. Antenna passive test data

Antenna 1



Freq/GHz	2.4	2.45	2.5	5.15	5.50	5.85
RL	-17.39	-23.43	-18.57	-21	-14.86	-7.28

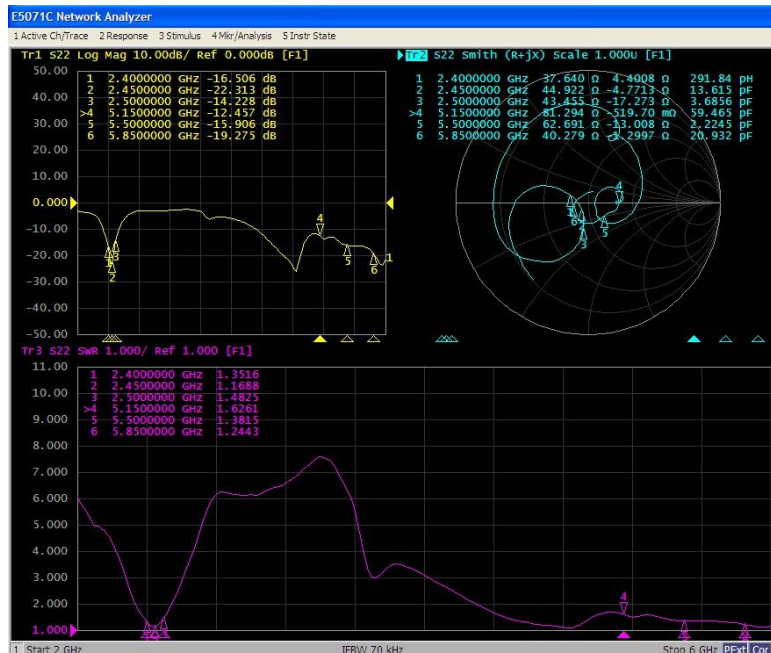
Antenna 2



VSWR data

Freq/GHz	2.4	2.45	2.5	5.15	5.50	5.85
R L	-11.68	-10.33	-11.56	-16.91	-21.75	-24.63

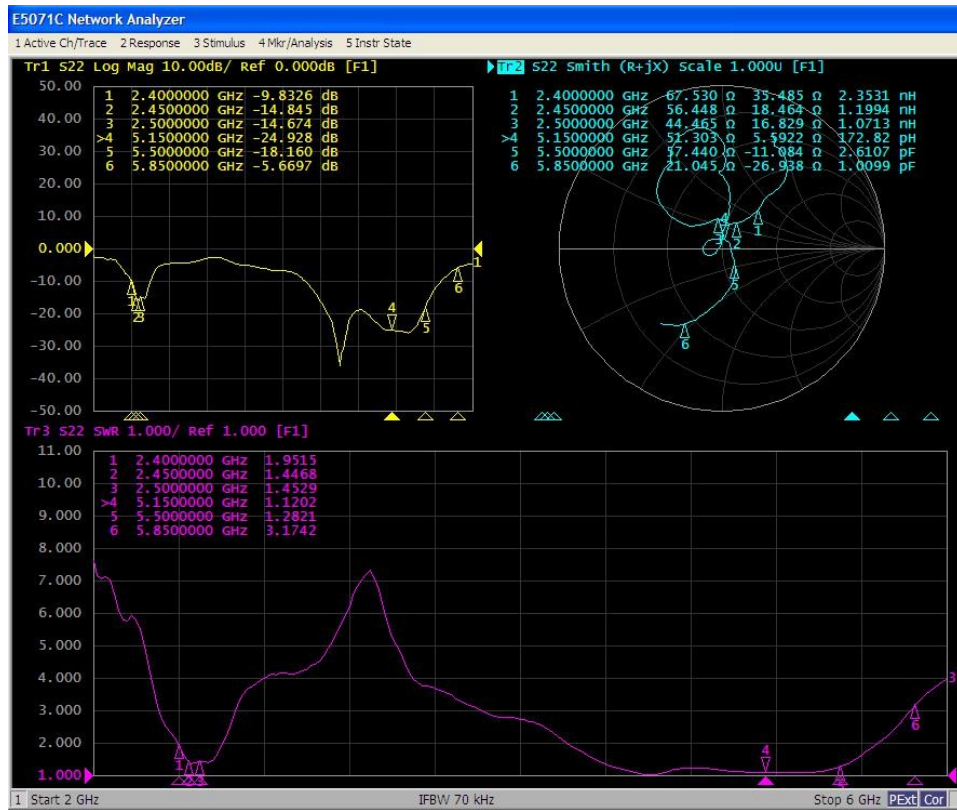
Antenna 3



VSWR data

Freq/GHz	2.4	2.45	2.5	5.15	5.50	5.85
R L	-16.50	-22.31	-14.22	-12.45	-15.9	-19.27

Antenna 4



VSWR data

Freq/GHz	2.4	2.45	2.5	5.15	5.50	5.85
R L	-11.1	-12.8	-11.5	-12.8	-14.2	-16.5

➤ Antenna darkroom test data

Antenna 1

frequency /MHz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
gain (electronics) /dBi	1.88	1.69	2.00	1.58	1.68	1.60	1.69	2.07	2.54	2.27	2.70
Efficiency /%	63.27	62.48	68.43	62.23	63.76	61.97	60.94	63.77	69.23	63.97	68.33

Frequency/ MHz	5150	5250	5350	5450	5550	5650	5750	5850
Gain/dBi	3.51	4.21	3.73	4.36	4.12	3.74	3.75	3.14
Efficiency/%	65.82	73.08	66.38	74.50	67.66	70.93	63.63	60.43

Antenna 2

frequency /MHz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
gain (electronics) /dBi	2.46	2.46	2.64	2.30	2.39	2.56	2.49	2.71	3.17	3.18	3.56
Efficiency /%	62.07	61.75	66.57	62.14	61.76	62.82	60.29	61.06	64.22	60.78	63.63

Frequency/ MHz	5150	5250	5350	5450	5550	5650	5750	5850
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Gain/dBi	2.36	2.73	2.66	2.81	3.01	2.58	2.31	2.35
Efficiency/%	52.10	58.22	56.37	60.43	56.88	61.15	58.11	55.40

Antenna 3

frequency /MHz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
gain (electronics) /dBi	3.15	2.95	3.21	2.81	2.83	2.79	2.56	2.43	2.41	1.85	2.31
Efficiency /%	67.15	64.14	67.57	60.82	60.70	60.31	57.88	58.49	61.45	55.91	58.82

Frequency/ MHz	5150	5250	5350	5450	5550	5650	5750	5850
Gain/dBi	1.99	2.79	2.16	2.70	3.04	3.17	3.03	3.14
Efficiency/%	46.08	58.07	55.06	61.14	57.96	59.95	53.48	53.25

Antenna 4

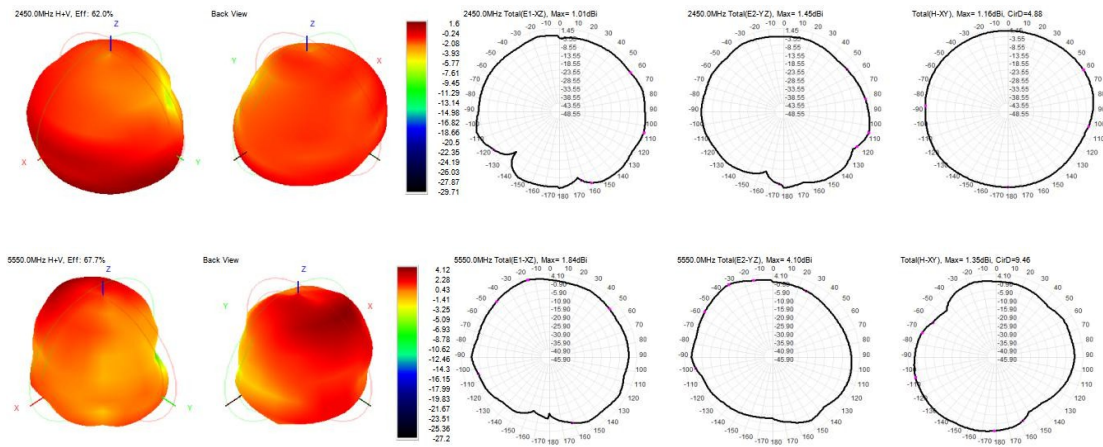
frequency /MHz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
gain (electronics) /dBi	3.49	3.52	3.75	3.43	3.41	3.27	3.07	3.11	3.27	2.96	2.95
Efficiency /%	77.33	75.86	79.66	73.96	74.73	73.45	70.81	71.41	74.08	69.86	71.71

Frequency/ MHz	5150	5250	5350	5450	5550	5650	5750	5850
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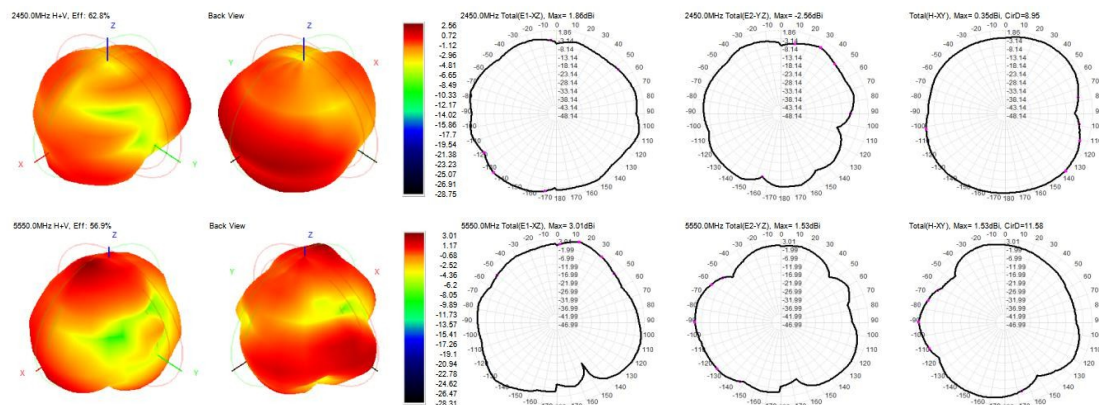
Gain/dBi	3.78	4.88	3.89	2.68	2.23	2.12	2.06	1.08
Efficiency/%	52.85	61.93	58.95	62.74	58.61	54.08	46.05	35.61

➤ Antenna Orientation Diagram

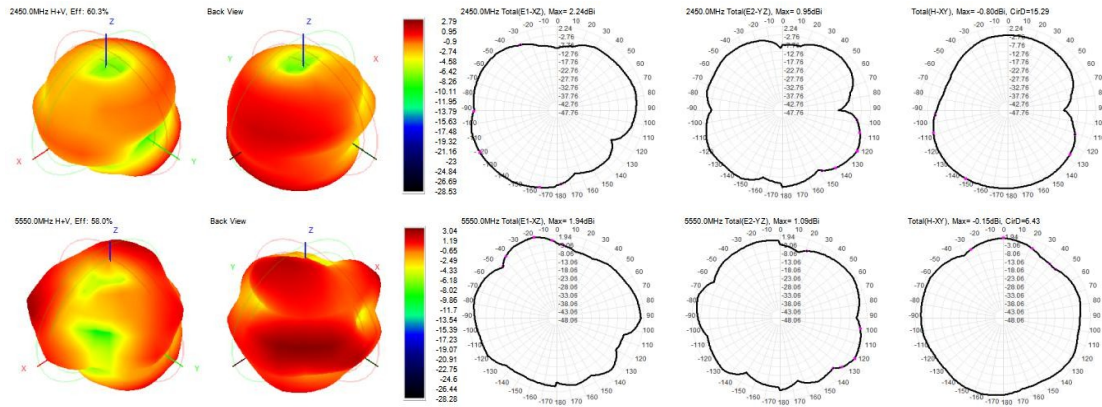
Antenna 1



Antenna 2



Antenna 3



Antenna 4

