



Antenna PERFORMANCE TEST REPORT

Product Name	TJG01
Applicant	Innocomm
Manufacturer	Innocomm
Test site	Innocomm
Model	Jagar
Antenna type	PIFA
Address	1F, No.6, Hsin Ann Rd., Hsinchu Science Park, Hsinchu 30078, Taiwan

Approved by	Reviewed by	Issued by
Taka Wei		Ella Lin

TABLE OF CONTENT

1. INTRODUCTION	3
1.1 TEST EQUIPMENT	3
1.2 TEST CONDITION	3
1.3 TEST SETUP AND ENVIRONMENTS	3
2. PASSIVE PERFORMANCE TEST	4
2.1 VSWR MEASUREMENT	4
2.2 RADIATION PATTERN	5
2.3 AVERAGE EFFICIENCY PEAK GAIN	7
2.4 3D GAIN OF FREE SPACE(AVERAGE)	8

1. INTRODUCTION

1.1 TEST EQUIPMENT

Passive Test:

Network Analyzer: Keysight E507C (100KHz ~ 8.5GHz)

Passive Chamber: AMS-8500

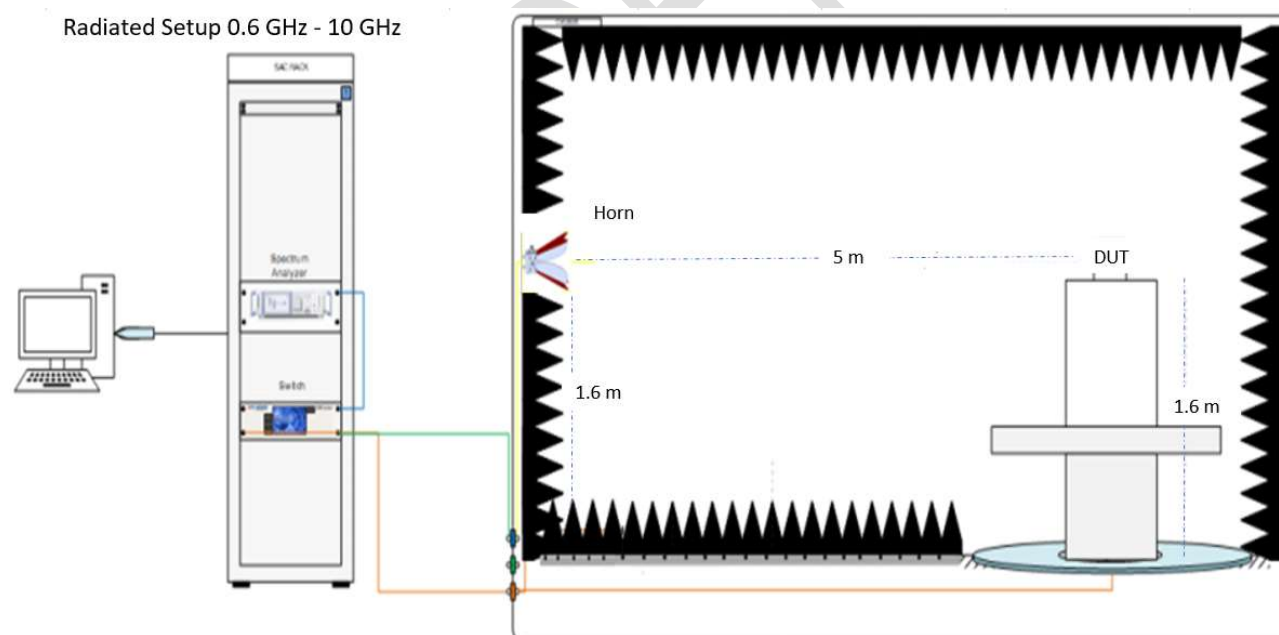
1.2 TEST CONDITION

Support Band: 2402MHz~2480MHz, 4910MHz~5850MHz, 5925MHz~7125MHz

Temperature: 25°C

1.3 TEST SETUP AND ENVIRONMENTS

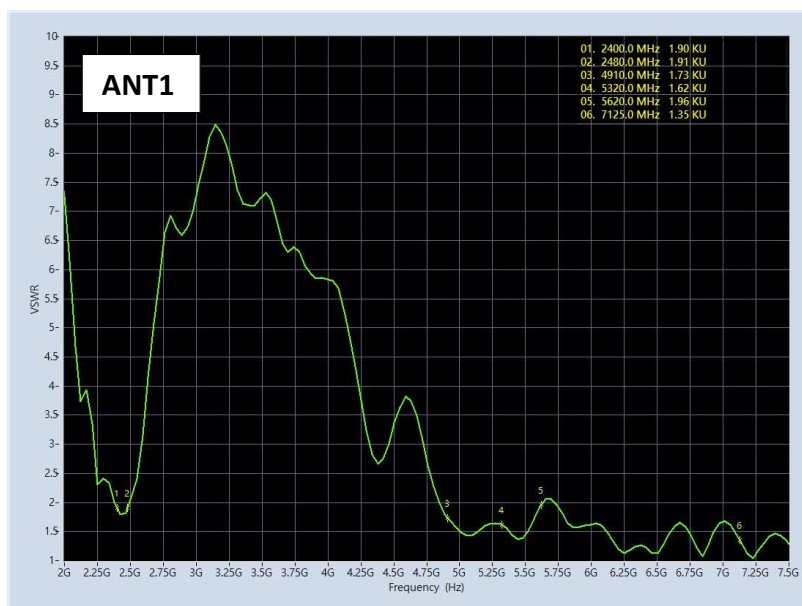
The testing of antenna gain should be made at a ETS qualified lab with an RF anechoic chamber with at least 5-meter separation from the receive antenna to the antenna under test. The antenna gain report from unqualified lab can't be referenced a passing. Besides, all test equipment including horn antennas, adapters, cables, network analyzers, and receivers shall be calibrated per manufacturer's minimum calibration requirements.



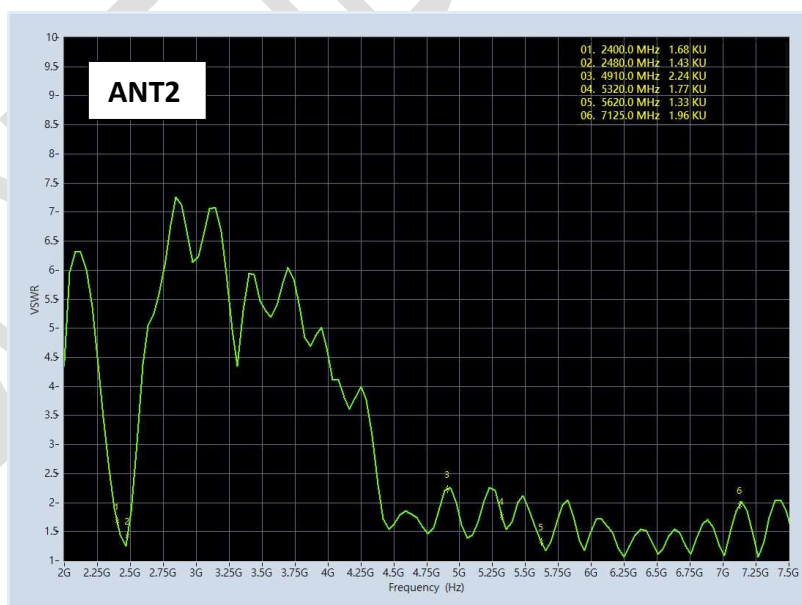
Device	Type/Module	Serial#	Manufacturer	Cal. Date	Cal. Due Date
Anechoic Chamber	AMS-8500	1047	ETS-Lindgren	2023/2/21	2024/8/21
Turn Table	ETS	-	ETS-Lindgren	N/A	N/A
Rotate controller	2090	SN 00035073	ETS-Lindgren	N/A	N/A
Horn Antenna	HAD-0710	111025-02	Bwant	2023/3/16	2025/3/16
Vector Network Analyzer	E5071C	MY46733781	Keysight	2022/1/21	2025/1/21
Cable 40cm 18 GHz	201EH012010400	201EH012010400#1	Jmtt	2023/3/27	2024/3/27
Cable 6m 18 GHz	201EH012016000	201EH012016000#3	Jmtt	2023/3/27	2024/3/27
Cable 6m 18 GHz	201EH012016000	201EH012016000#5	Jmtt	2023/3/27	2024/3/27
Cable 3.5m 18 GHz	201EH012013500	201EH012013500#3	Jmtt	2023/3/27	2024/3/27
Cable 1.5m 18 GHz	201EH012011500	201EH012011500#2	Jmtt	2023/3/27	2024/3/27

2. PASSIVE PERFORMANCE TEST

2.1 VSWR MEASUREMENT



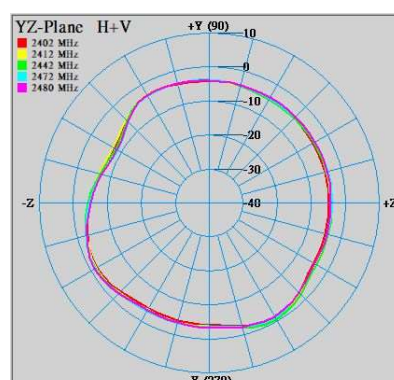
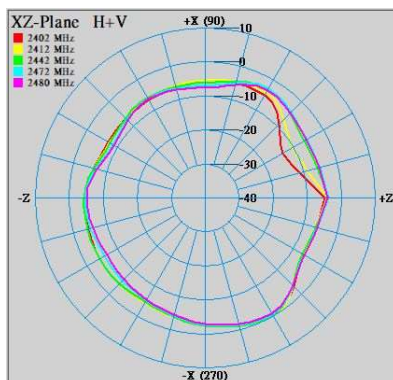
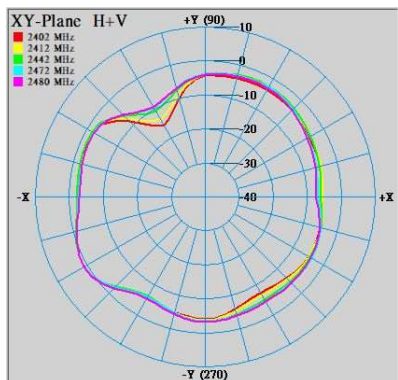
2402MHz~2480MHz, 4910MHz~5850MHz, 5925MHz~7125MHz



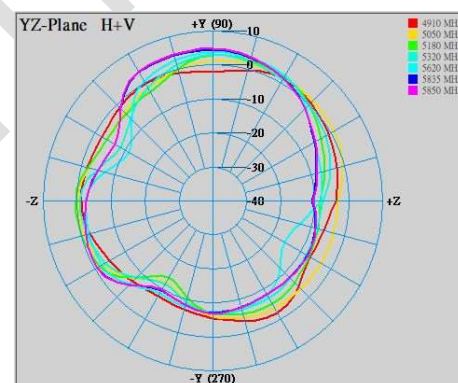
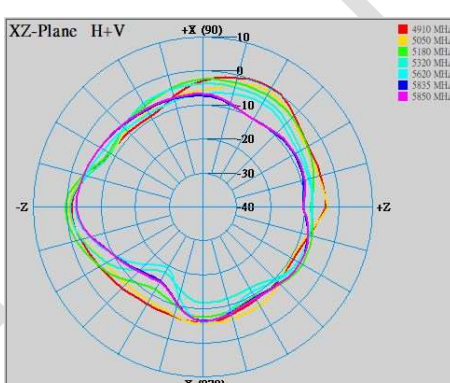
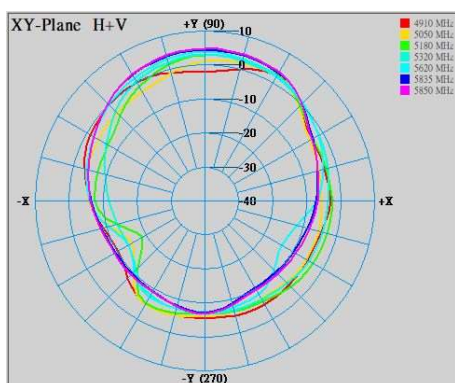
2402MHz~2480MHz, 4910MHz~5850MHz, 5925MHz~7125MHz

2.2 RADIATION PATTERN

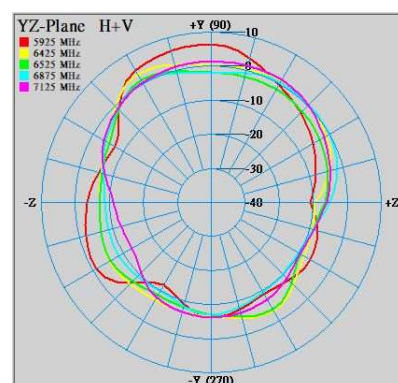
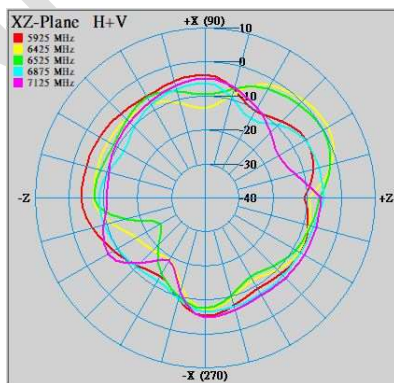
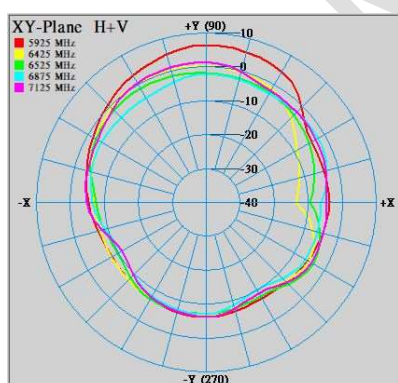
ANT1



2402MHz~2480MHz

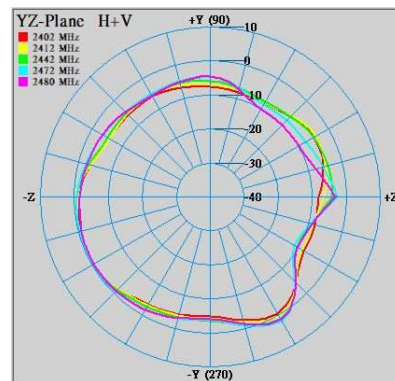
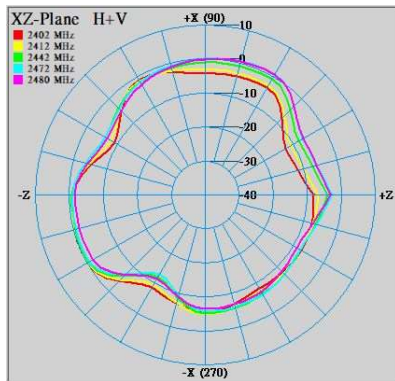
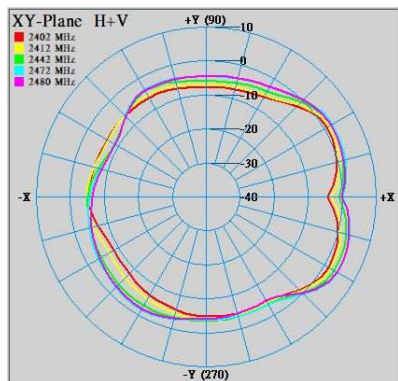


4910MHz~5850MHz

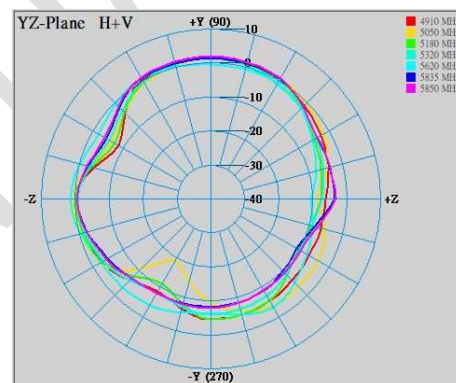
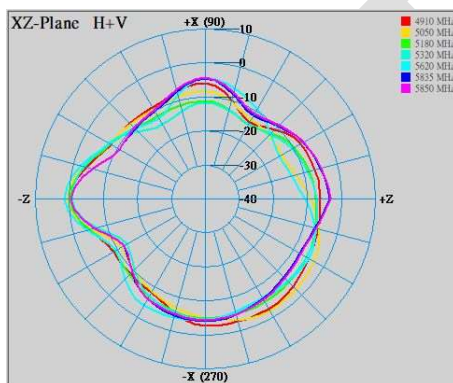
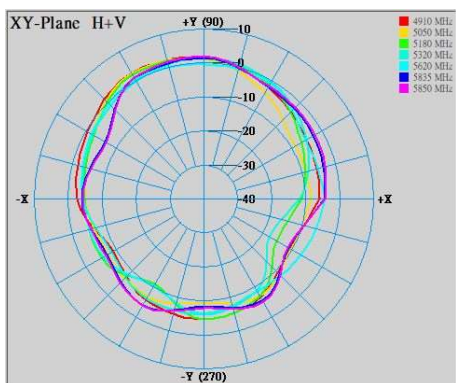


5925MHz~7125MHz

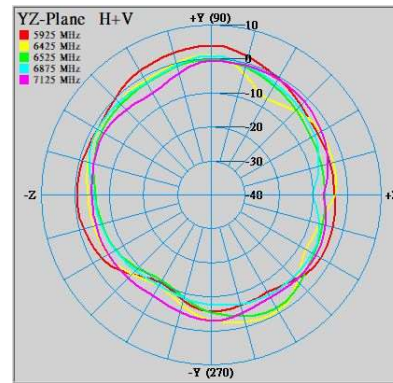
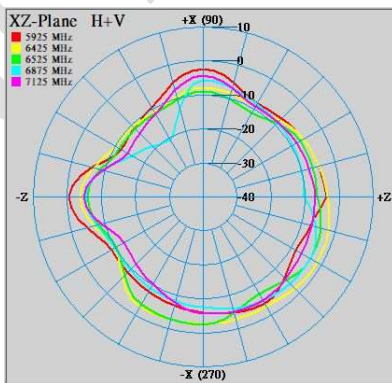
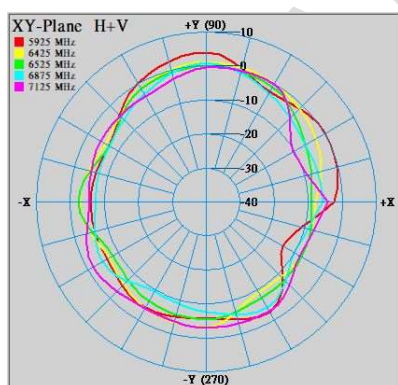
ANT2



2402MHz~2480MHz



4910MHz~5850MHz



5925MHz~7125MHz

2.3 AVERAGE EFFICIENCY PEAK GAIN

ANT1	Average efficiency (%)	Average Gain (dBi)	Peak Gain (dBi)
2402MHz~2480MHz	44.68	-3.50	2.60
4910MHz~5850MHz	45.65	-3.41	3.44
5925MHz~7125MHz	50.20	-3.01	2.76

ANT2	Average efficiency (%)	Average Gain (dBi)	Peak Gain (dBi)
2402MHz~2480MHz	58.70	-2.36	3.60
4910MHz~5850MHz	42.39	-3.73	1.98
5925MHz~7125MHz	44.34	-3.54	1.56

2.4 3D GAIN OF FREE SPACE(AVERAGE)

Frequency (MHz)	ANT1		
	Frequency (MHz)	Gain (dBi)	Efficiency %
2402MHz~2480MHz	2402	-3.82	41.50
	2412	-3.57	43.97
	2442	-3.36	46.15
	2472	-3.37	46.08
	2480	-3.40	45.69
4910MHz~5850MHz	4910	-3.30	46.73
	5050	-3.50	44.66
	5180	-3.47	45.00
	5320	-3.92	40.53
	5620	-3.57	43.93
	5835	-3.13	48.62
	5850	-3.00	50.07
5925MHz~7125MHz	5925	-2.27	59.24
	6425	-3.02	49.84
	6525	-3.17	48.23
	6875	-3.28	46.99
	7125	-3.31	46.68

Frequency (MHz)	ANT2		
	Frequency (MHz)	Gain (dBi)	Efficiency %
2402MHz~2480MHz	2402	-3.25	47.37
	2412	-2.85	51.84
	2442	-2.14	61.09
	2472	-1.58	69.58
	2480	-1.96	63.62
4910MHz~5850MHz	4910	-3.61	43.54
	5050	-3.68	42.89
	5180	-3.81	41.64
	5320	-3.87	41.02
	5620	-3.77	42.01
	5835	-3.70	42.66
	5850	-3.67	43.00
5925MHz~7125MHz	5925	-3.02	49.85
	6425	-3.50	44.67
	6525	-3.57	43.92
	6875	-3.70	42.67
	7125	-3.92	40.58