

Karis(ZBZ) Antenna Test Report

Provide by :

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Rev:1



Smarter Solutions for a Smarter Future

OUTLINE

1. Experimental Setup
2. Configuration
3. Antenna Placement & Picture
4. Outline Drawing
5. Antenna Performance
6. Antenna 2D Radiation Pattern
7. Antenna Coverage
8. Conclusion



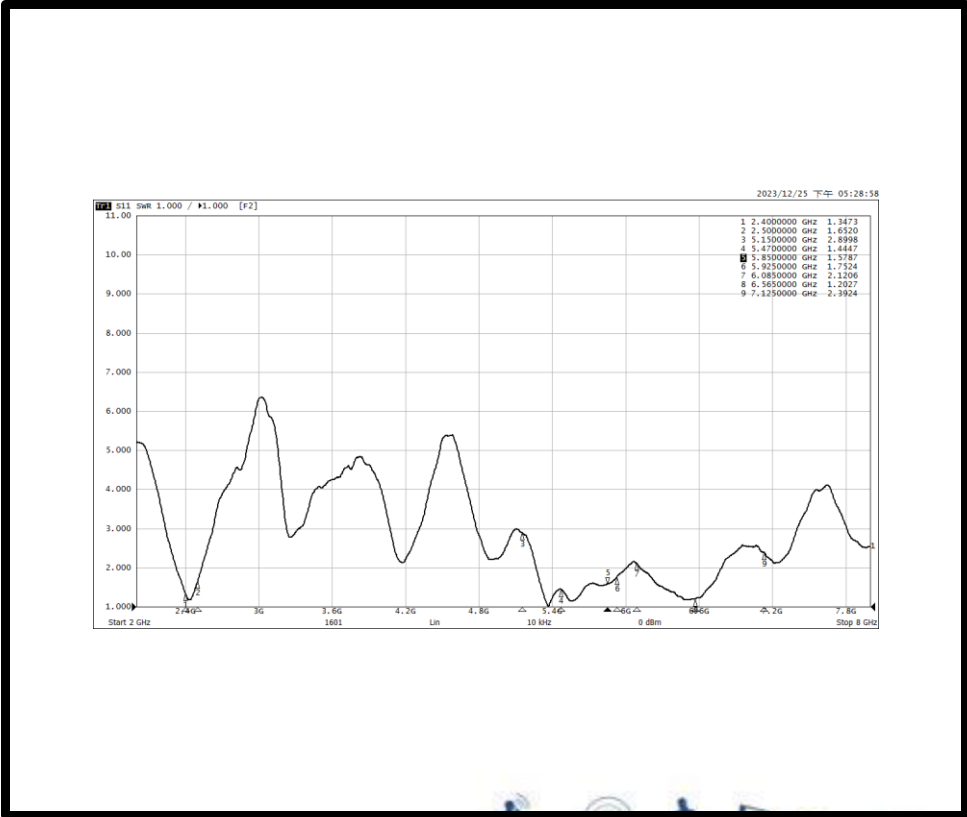
Open mode



5. Measured Efficiency & VSWR

Frequency (MHZ)	X-Y Plane Peak Gain (dBi)	3D PEAK Gain (dBi)	Efficiency (%/ dB)	
2412	0.88	2.61	47%	-3.32
2437	0.96	2.45	45%	-3.48
2462	0.63	2.40	46%	-3.36
5160	-2.60	1.50	50%	-3.05
5250	-3.64	2.17	53%	-2.77
5320	-3.62	2.50	55%	-2.59
5470	-3.35	2.33	55%	-2.63
5600	-2.81	2.58	53%	-2.78
5725	-2.75	2.98	49%	-3.13
5785	-3.07	2.85	47%	-3.27
5850	-3.02	2.82	45%	-3.44
5925	-2.20	2.76	42%	-3.78
6085	-1.61	1.94	44%	-3.53
6125	-1.76	2.23	46%	-3.33
6225	-2.27	2.31	45%	-3.46
6325	-3.05	2.32	46%	-3.33
6425	-3.51	2.25	43%	-3.62
6565	-2.58	2.21	39%	-4.09
6625	-3.75	2.07	37%	-4.29
6725	-3.68	2.31	35%	-4.54
6885	-3.36	2.29	39%	-4.13
6925	-1.99	2.40	39%	-4.08
7000	-0.57	2.07	40%	-3.97
7125	-0.11	2.83	39%	-4.14

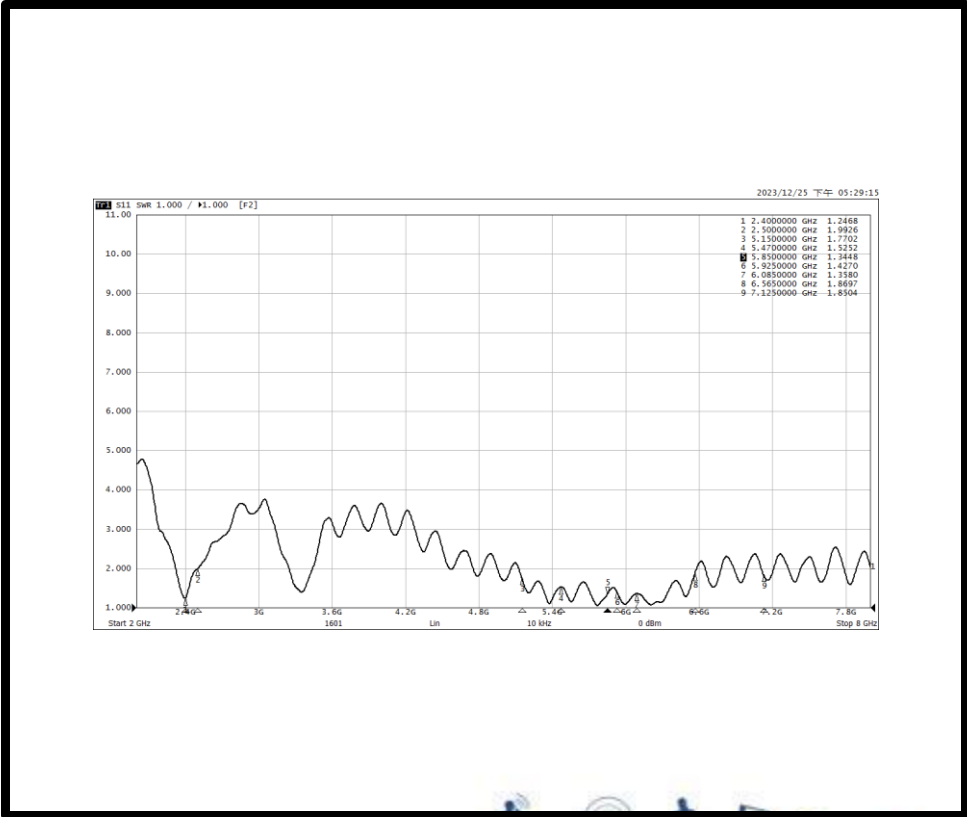
WLAN Main / Black



5. Measured Efficiency & VSWR

Frequency (MHZ)	X-Y Plane Peak Gain (dBi)	3D PEAK Gain (dBi)	Efficiency (%/ dB)	
2412	-2.85	2.38	35%	-4.57
2437	-2.97	2.37	38%	-4.18
2462	-3.05	2.38	39%	-4.09
5160	0.20	2.05	36%	-4.41
5250	0.79	2.96	36%	-4.48
5320	0.68	2.77	39%	-4.13
5470	0.15	2.58	36%	-4.40
5600	-1.40	2.09	35%	-4.61
5725	-2.35	2.19	31%	-5.13
5785	-1.09	2.24	31%	-5.07
5850	-0.15	2.30	31%	-5.09
5925	-1.43	1.71	26%	-5.82
6085	-2.65	1.16	32%	-4.97
6125	-0.54	2.87	30%	-5.18
6225	-0.86	2.95	30%	-5.21
6325	-0.64	2.92	30%	-5.16
6425	0.76	2.63	31%	-5.11
6565	0.26	2.35	32%	-4.96
6625	0.10	1.78	33%	-4.86
6725	-0.41	2.50	35%	-4.55
6885	-0.47	1.77	30%	-5.23
6925	-0.10	2.05	30%	-5.22
7000	-0.01	1.83	30%	-5.22
7125	-0.39	0.92	29%	-5.44

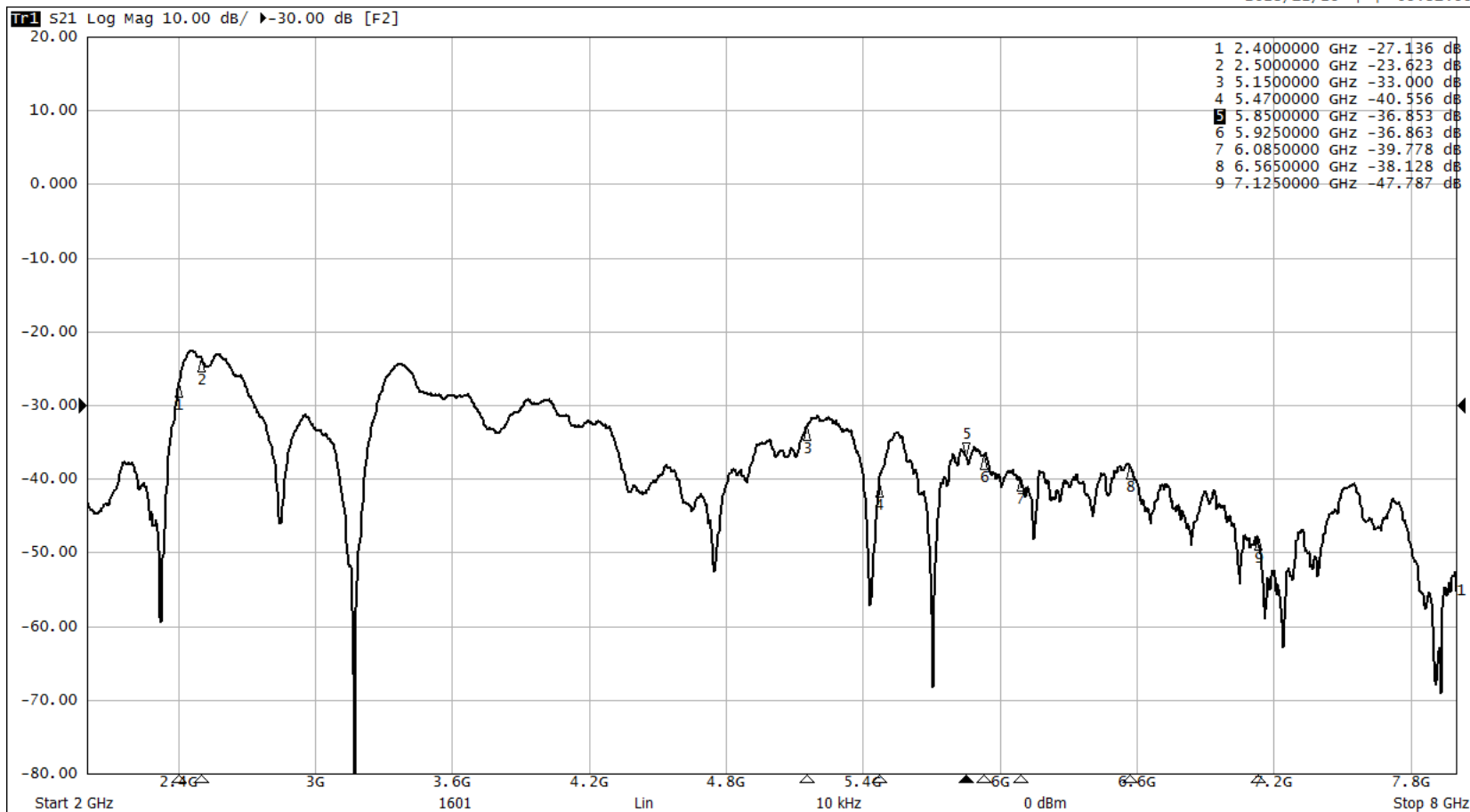
WLAN Aux / White



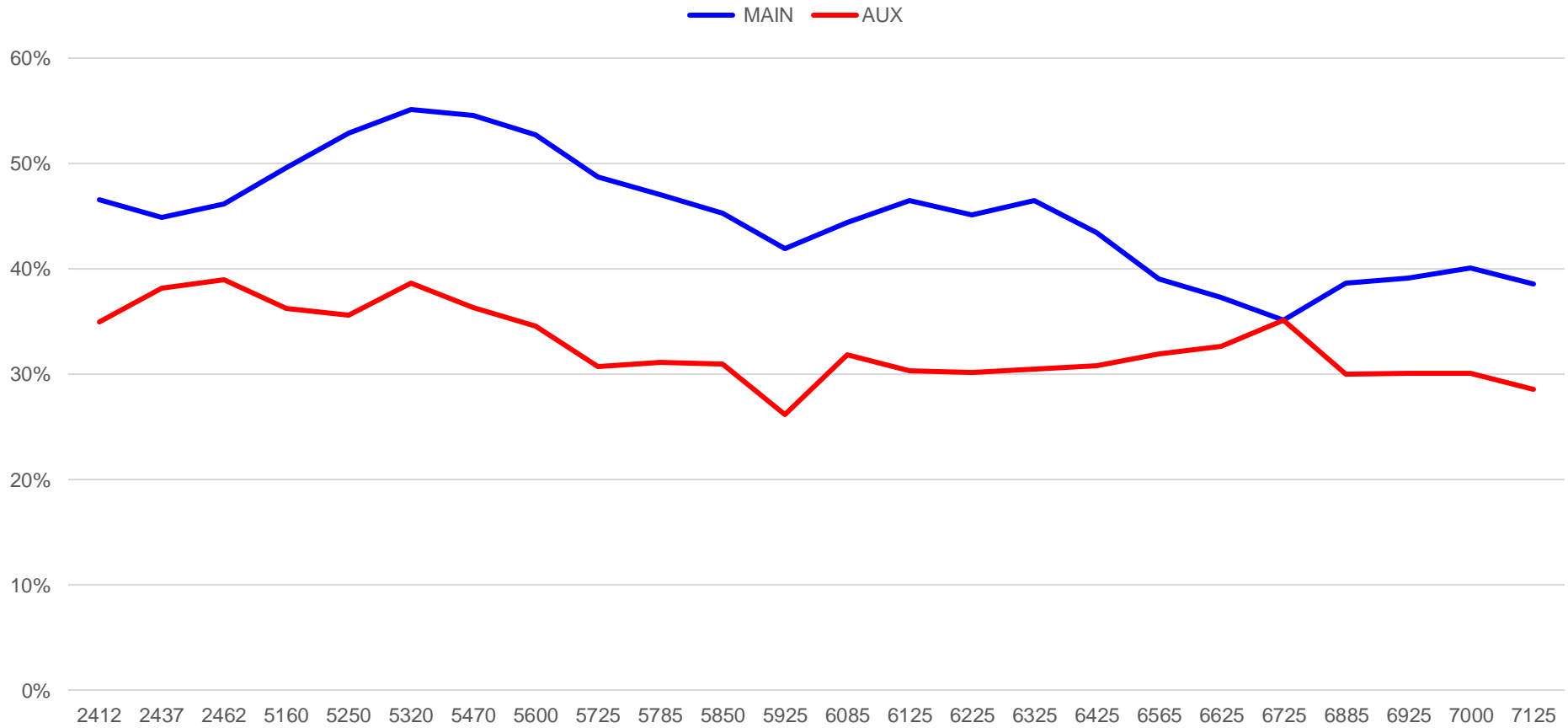
5. Measured Isolation

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5. Measured Efficiency



8. Conclusion

	VSWR	Efficiency (%)	3D Peak gain (dBi)	X-Y plane Peak gain (dBi)
WLAN	<2.5 @ 2.4~2.5 GHz	45~47 @ 2.4~2.5 GHz	2.4~2.61 @ 2.4~2.5 GHz	0.63~0.96 @ 2.4~2.5 GHz
	<2.5 @ 5.15~5.85 GHz	45~55 @ 5.15~5.85 GHz	1.5~2.98 @ 5.15~5.85 GHz	-3.64~-2.6 @ 5.15~5.85 GHz
MAIN	<2.5 @ 5.925~7.125 GHz	35~46 @ 5.925~7.125 GHz	1.94~2.83 @ 5.925~7.125 GHz	-3.75~-0.11 @ 5.925~7.125 GHz
WLAN	<2.5 @ 2.4~2.5 GHz	35~39 @ 2.4~2.5 GHz	2.37~2.38 @ 2.4~2.5 GHz	-3.05~-2.85 @ 2.4~2.5 GHz
	<2.5 @ 5.15~5.85 GHz	31~39 @ 5.15~5.85 GHz	2.05~2.96 @ 5.15~5.85 GHz	-2.35~-0.79 @ 5.15~5.85 GHz
AUX	<2.5 @ 5.925~7.125 GHz	26~35 @ 5.925~7.125 GHz	0.92~2.95 @ 5.925~7.125 GHz	-2.65~-0.76 @ 5.925~7.125 GHz



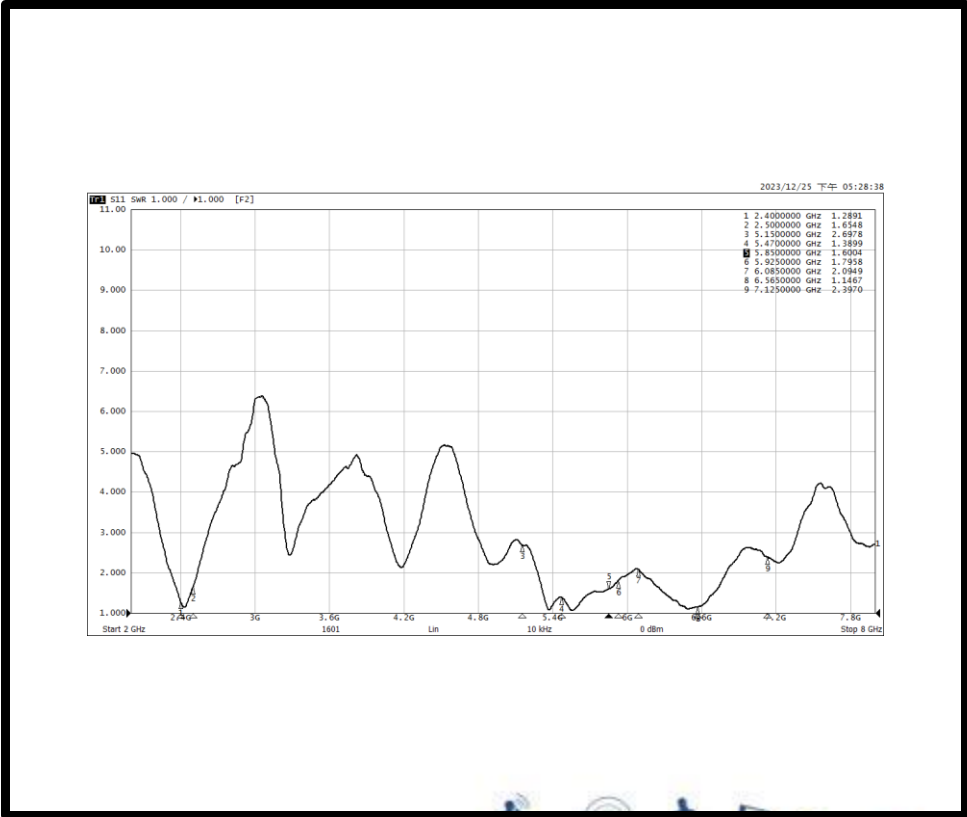
Table mode



5. Measured Efficiency & VSWR

Frequency (MHZ)	X-Y Plane Peak Gain (dBi)	3D PEAK Gain (dBi)	Efficiency (%/ dB)	
2412	-1.51	2.52	53%	-2.77
2437	-1.29	2.67	51%	-2.92
2462	-1.57	2.90	52%	-2.84
5160	-3.95	2.17	48%	-3.17
5250	-2.68	2.76	51%	-2.95
5320	-1.63	2.34	54%	-2.70
5470	0.45	2.66	54%	-2.71
5600	-2.02	1.66	52%	-2.86
5725	-1.44	2.44	47%	-3.24
5785	-1.45	2.36	45%	-3.45
5850	-1.50	2.40	45%	-3.51
5925	-0.96	2.47	41%	-3.89
6085	-1.28	1.55	46%	-3.37
6125	-1.81	1.79	47%	-3.25
6225	-2.29	1.90	45%	-3.43
6325	-2.17	2.45	48%	-3.22
6425	-1.50	2.75	45%	-3.43
6565	-1.96	2.70	41%	-3.85
6625	-1.97	2.74	39%	-4.06
6725	-1.35	2.59	37%	-4.28
6885	-1.51	1.92	40%	-3.99
6925	-1.58	1.55	40%	-3.93
7000	-1.11	1.15	40%	-3.93
7125	-0.48	2.51	40%	-4.01

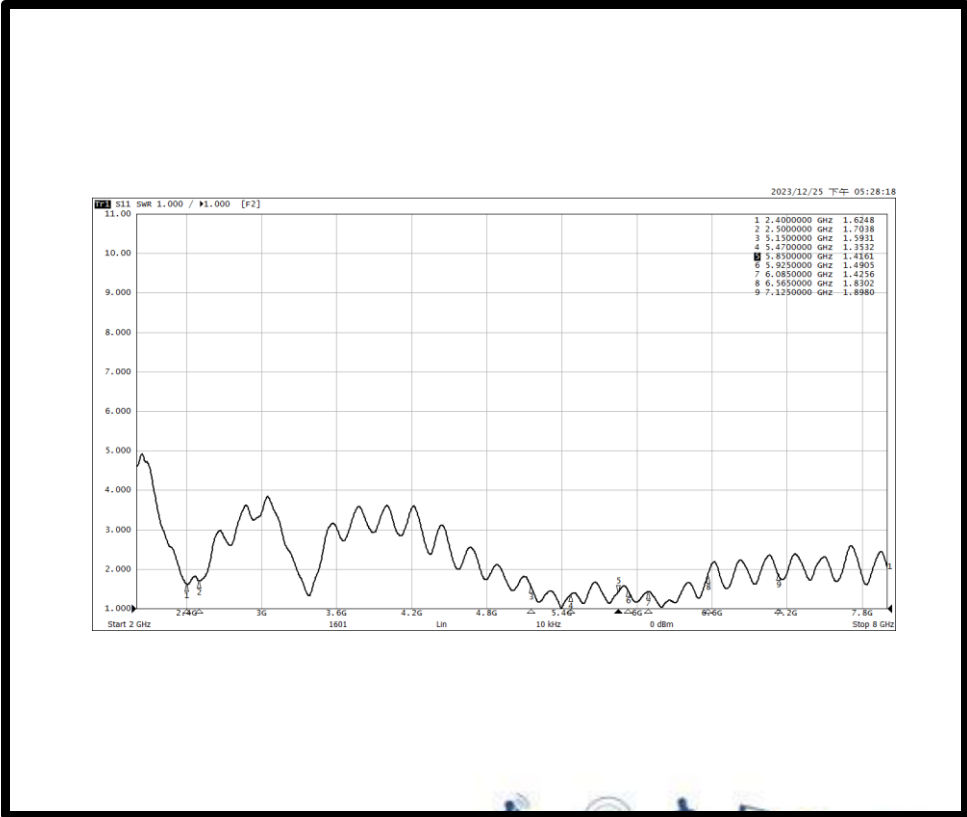
WLAN Main / Black



5. Measured Efficiency & VSWR

Frequency (MHZ)	X-Y Plane Peak Gain (dBi)	3D PEAK Gain (dBi)	Efficiency (%/ dB)	
2412	-3.54	1.87	37%	-4.37
2437	-3.70	2.18	38%	-4.15
2462	-2.28	1.79	38%	-4.15
5160	0.00	2.26	36%	-4.40
5250	0.51	2.90	35%	-4.59
5320	0.32	2.13	39%	-4.13
5470	-0.30	1.86	36%	-4.40
5600	-0.85	2.45	34%	-4.67
5725	-0.66	1.97	31%	-5.10
5785	-0.68	2.12	32%	-4.89
5850	-0.28	2.12	32%	-4.88
5925	-0.43	2.21	27%	-5.69
6085	-0.45	2.87	30%	-5.16
6125	-1.02	2.75	28%	-5.51
6225	-0.49	2.85	28%	-5.48
6325	0.32	2.74	30%	-5.30
6425	0.49	2.92	30%	-5.19
6565	-0.34	1.60	31%	-5.05
6625	-1.61	1.52	32%	-4.98
6725	-0.91	1.31	33%	-4.76
6885	-1.02	0.86	28%	-5.55
6925	-1.21	1.02	27%	-5.67
7000	-1.81	1.33	28%	-5.49
7125	-1.23	0.55	26%	-5.81

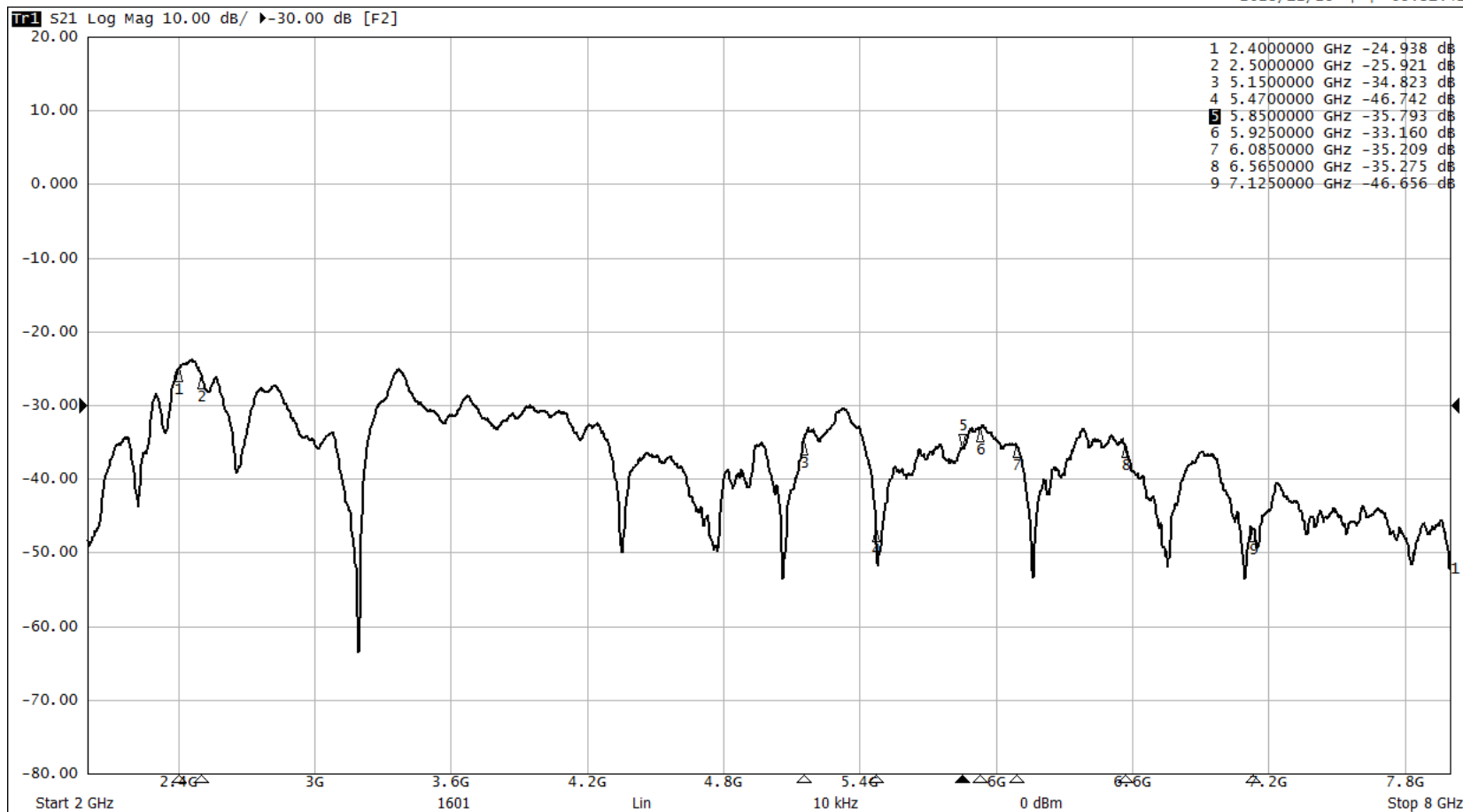
WLAN Aux / White



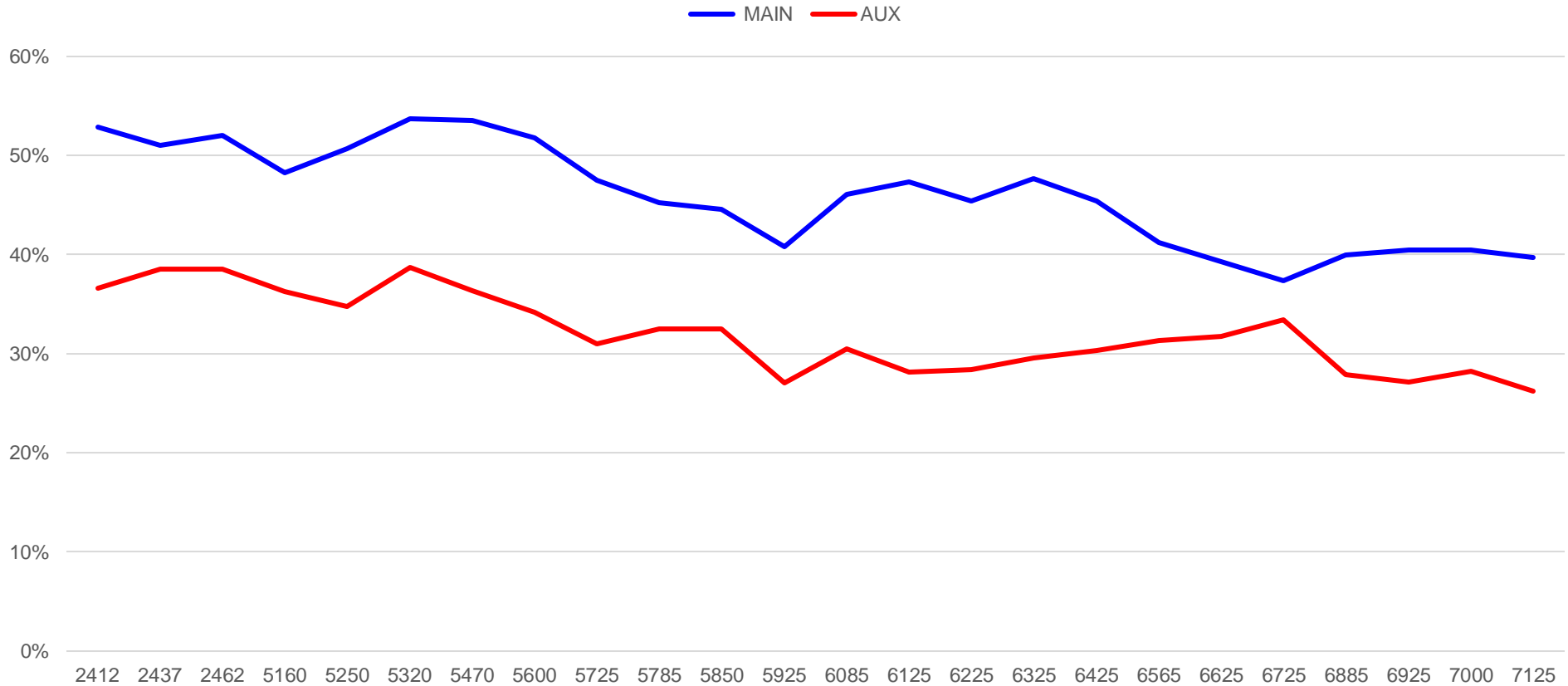
5. Measured Isolation

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5. Measured Efficiency



8. Conclusion

	VSWR	Efficiency (%)	3D Peak gain (dBi)	X-Y plane Peak gain (dBi)
WLAN	<2.5 @ 2.4~2.5 GHz	51~53 @ 2.4~2.5 GHz	2.52~2.9 @ 2.4~2.5 GHz	-1.57~-1.29 @ 2.4~2.5 GHz
	<2.5 @ 5.15~5.85 GHz	45~54 @ 5.15~5.85 GHz	1.66~2.76 @ 5.15~5.85 GHz	-3.95~-0.45 @ 5.15~5.85 GHz
	<2.5 @ 5.925~7.125 GHz	37~48 @ 5.925~7.125 GHz	1.15~2.75 @ 5.925~7.125 GHz	-2.29~-0.48 @ 5.925~7.125 GHz
MAIN	<2.5 @ 2.4~2.5 GHz	37~38 @ 2.4~2.5 GHz	1.79~2.18 @ 2.4~2.5 GHz	-3.7~-2.28 @ 2.4~2.5 GHz
	<2.5 @ 5.15~5.85 GHz	31~39 @ 5.15~5.85 GHz	1.86~2.9 @ 5.15~5.85 GHz	-0.85~-0.51 @ 5.15~5.85 GHz
	<2.5 @ 5.925~7.125 GHz	26~33 @ 5.925~7.125 GHz	0.55~2.92 @ 5.925~7.125 GHz	-1.81~-0.49 @ 5.925~7.125 GHz
AUX	<2.5 @ 2.4~2.5 GHz	37~38 @ 2.4~2.5 GHz	1.79~2.18 @ 2.4~2.5 GHz	-3.7~-2.28 @ 2.4~2.5 GHz
	<2.5 @ 5.15~5.85 GHz	31~39 @ 5.15~5.85 GHz	1.86~2.9 @ 5.15~5.85 GHz	-0.85~-0.51 @ 5.15~5.85 GHz
	<2.5 @ 5.925~7.125 GHz	26~33 @ 5.925~7.125 GHz	0.55~2.92 @ 5.925~7.125 GHz	-1.81~-0.49 @ 5.925~7.125 GHz

