

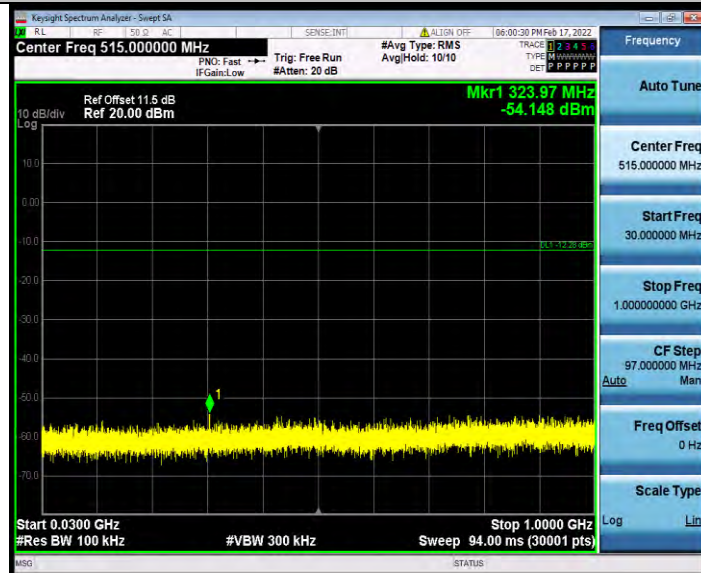


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Test Report No.: W7L-P22010035RF02



11B_Ant1_2462_30~1000

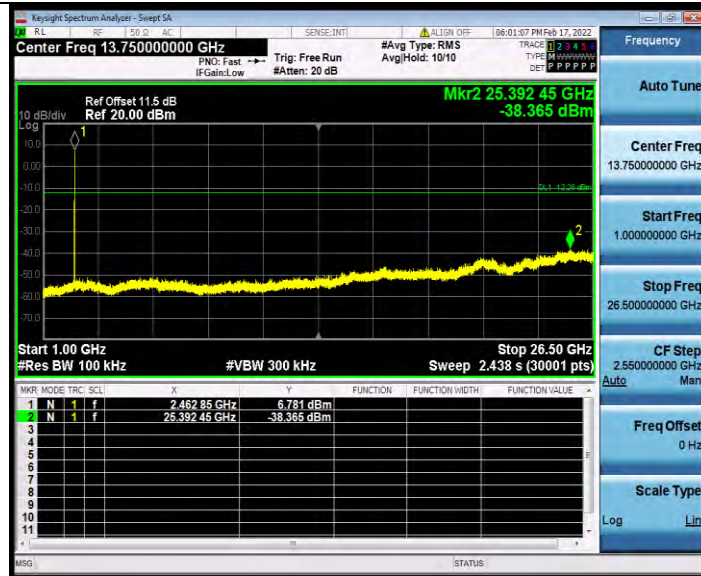


11B_Ant1_2462_1000~26500



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Test Report No.: W7L-P22010035RF02



11G_Ant1_2412_0~Reference

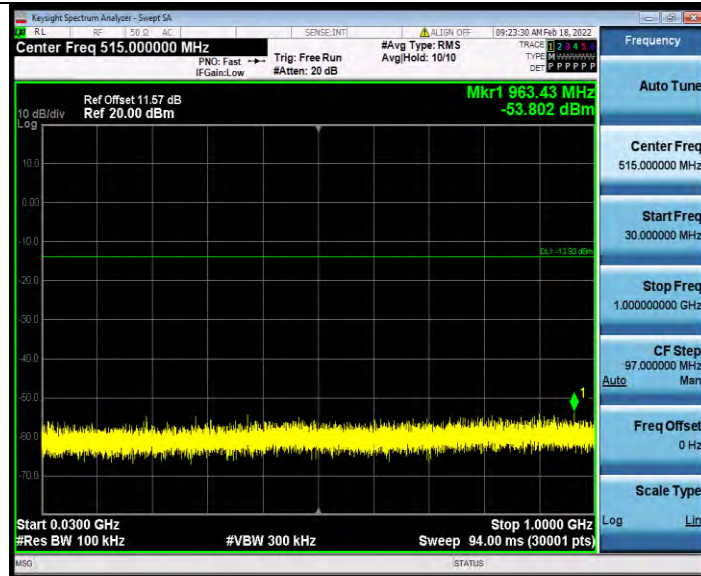


11G_Ant1_2412_30~100



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Test Report No.: W7L-P22010035RF02



11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference

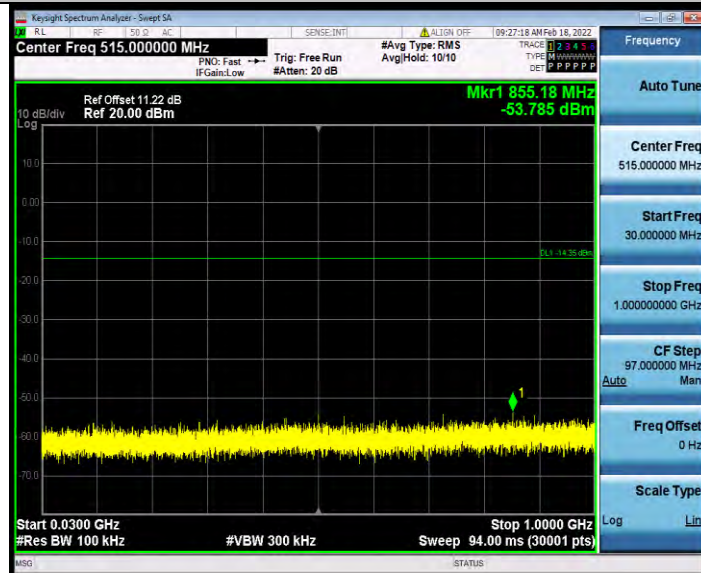


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Test Report No.: W7L-P22010035RF02



11G_Ant1_2437_30~1000



11G_Ant1_2437_1000~26500

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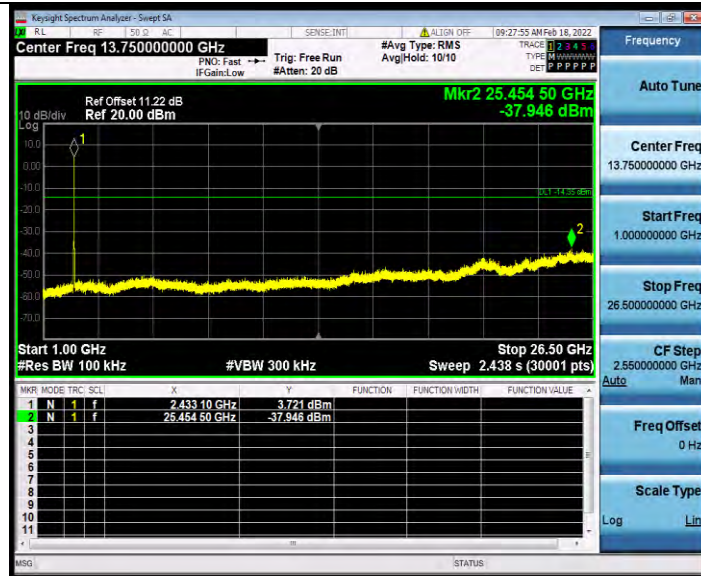
No.B102, Dazu Chuangxin Mansion, North of Beihuan
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11G_Ant1_2462_0~Reference

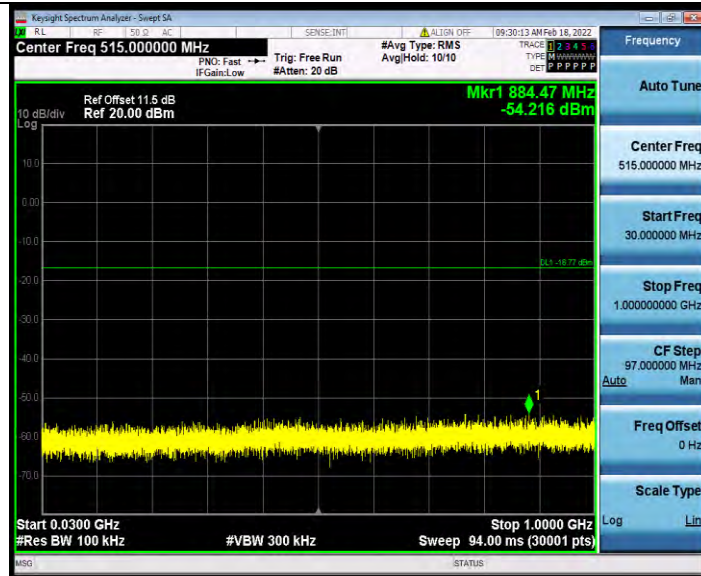


11G_Ant1_2462_30~100



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11G_Ant1_2462_1000~26500

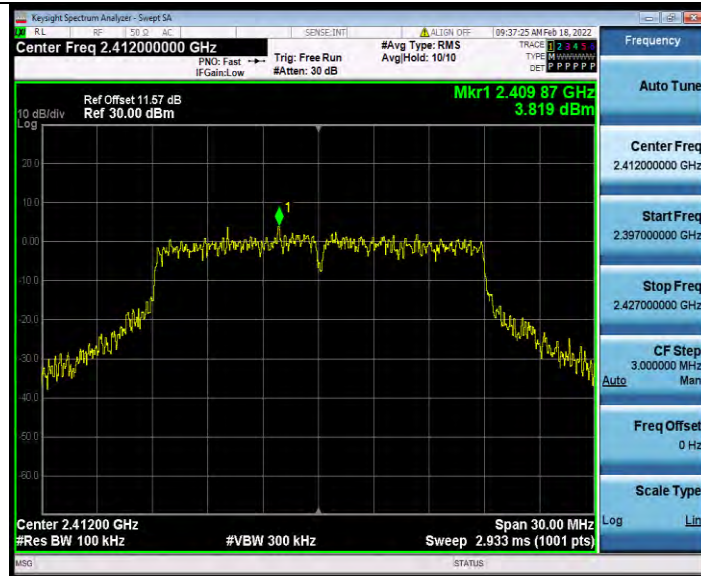


11N20SISO_Ant1_2412_0~Reference

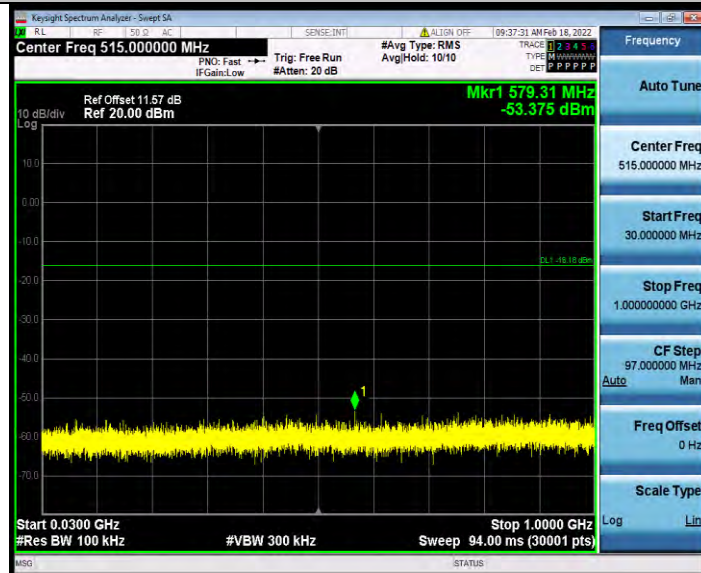


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11N20SISO_Ant1_2412_30~1000



11N20SISO_Ant1_2412_1000~26500



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11N20SISO_Ant1_2437_0~Reference

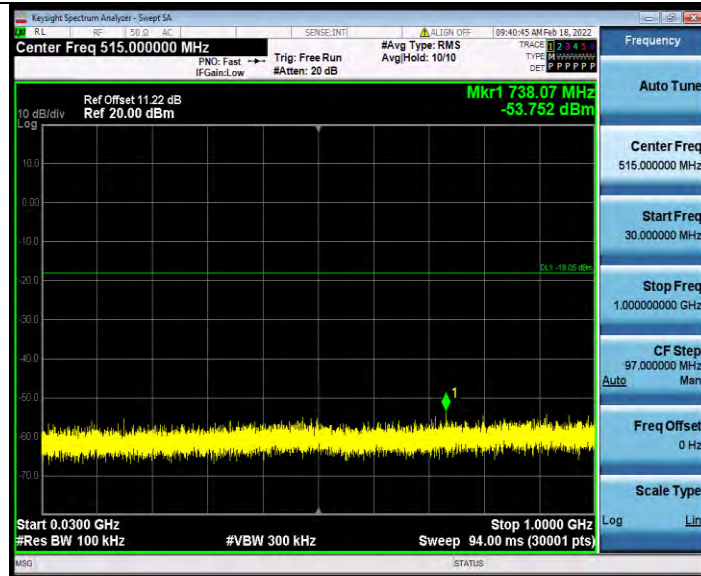


11N20SISO_Ant1_2437_30~1000



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11N20SISO_Ant1_2437_1000~26500



11N20SISO_Ant1_2462_0~Reference

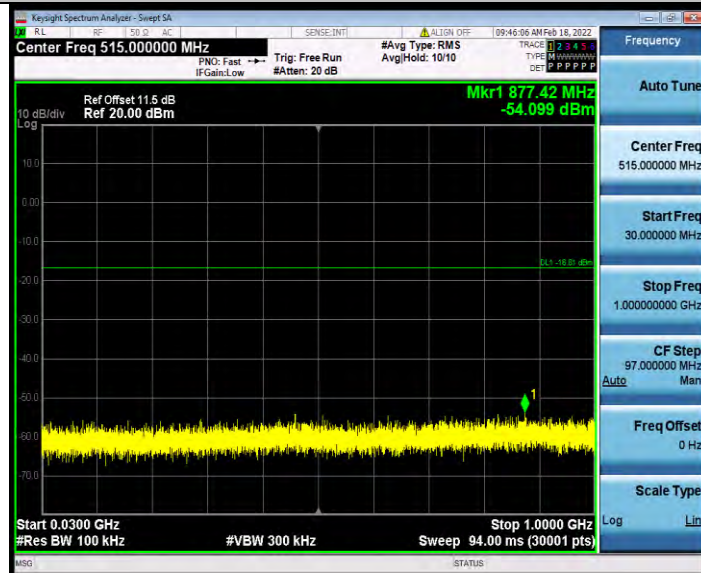


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Test Report No.: W7L-P22010035RF02



11N20SISO_Ant1_2462_30~1000

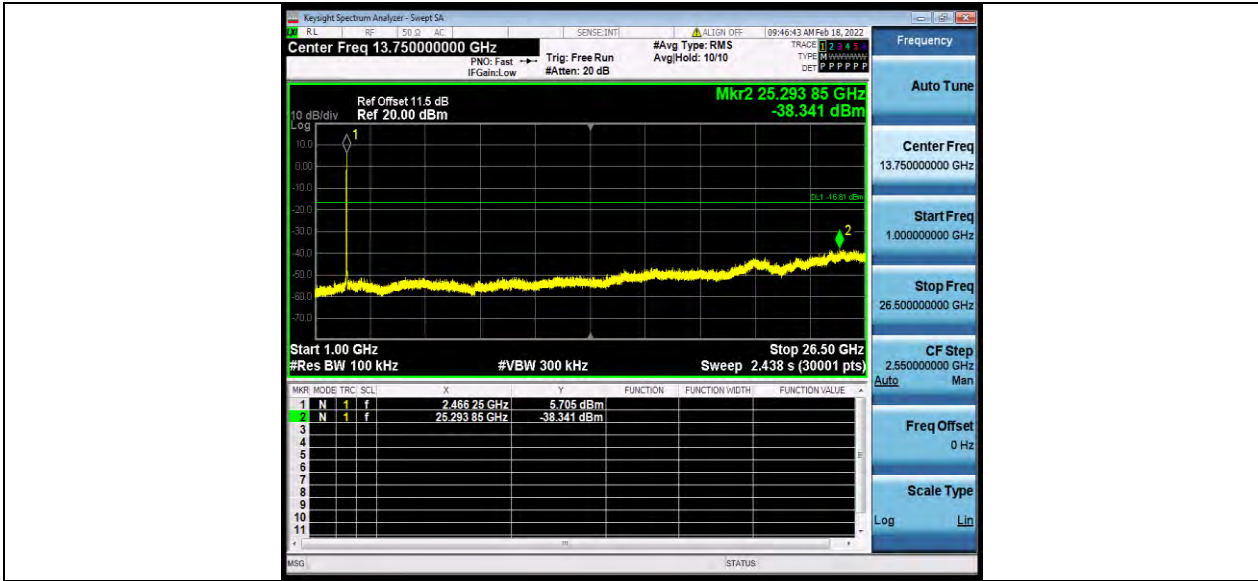


11N20SISO_Ant1_2462_1000~26500



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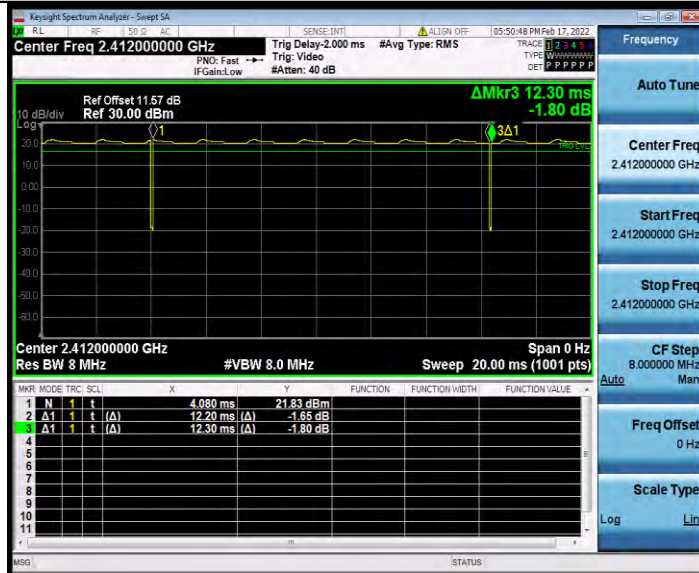
DUTY CYCLE TEST RESULT

TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11B	Ant1	2412	12.20	12.30	99.19
		2437	12.20	12.30	99.19
		2462	12.20	12.30	99.19
11G	Ant1	2412	2.03	2.07	98.07
		2437	2.02	2.06	98.06
		2462	2.02	2.06	98.06
11N20SISO	Ant1	2412	1.89	1.93	97.93
		2437	1.89	1.93	97.93
		2462	1.89	1.93	97.93

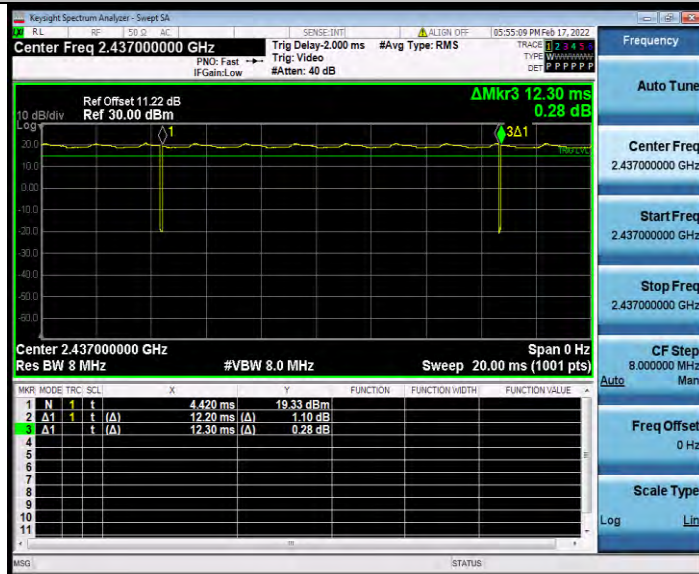


TEST GRAPHS

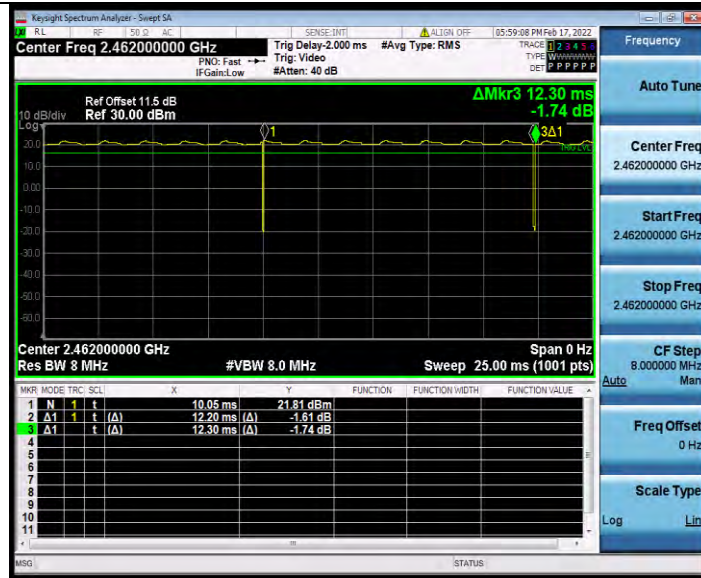
11B_Ant1_2412



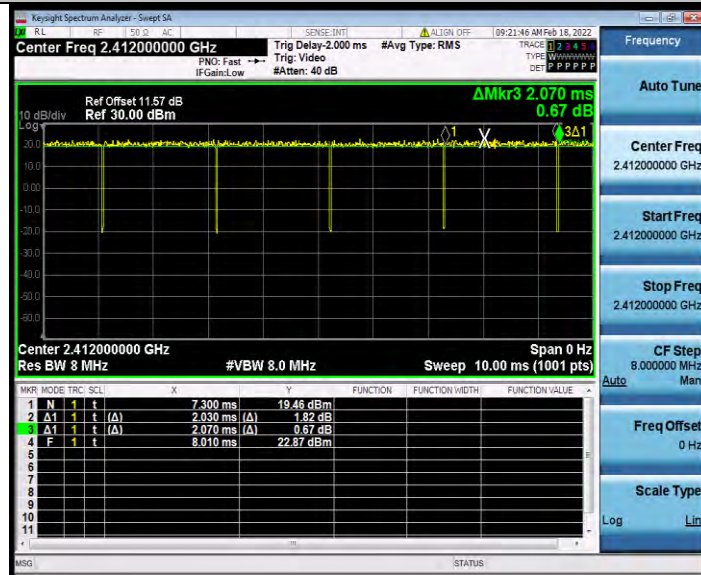
11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412

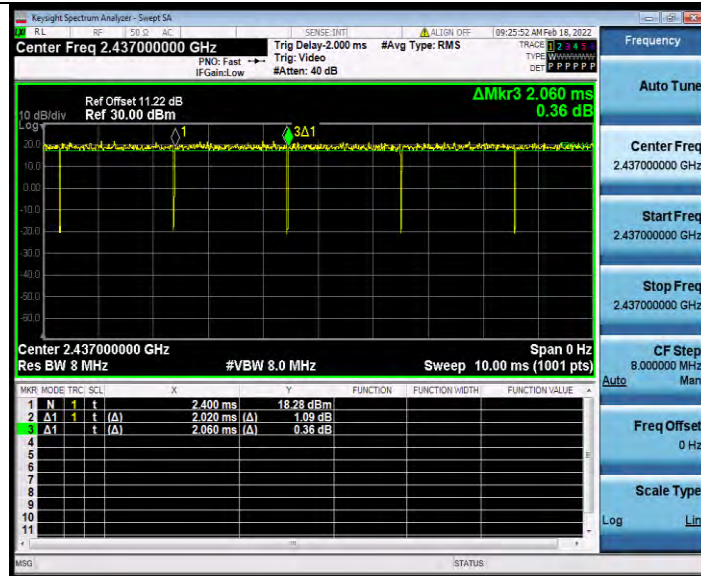


11G_Ant1_2437

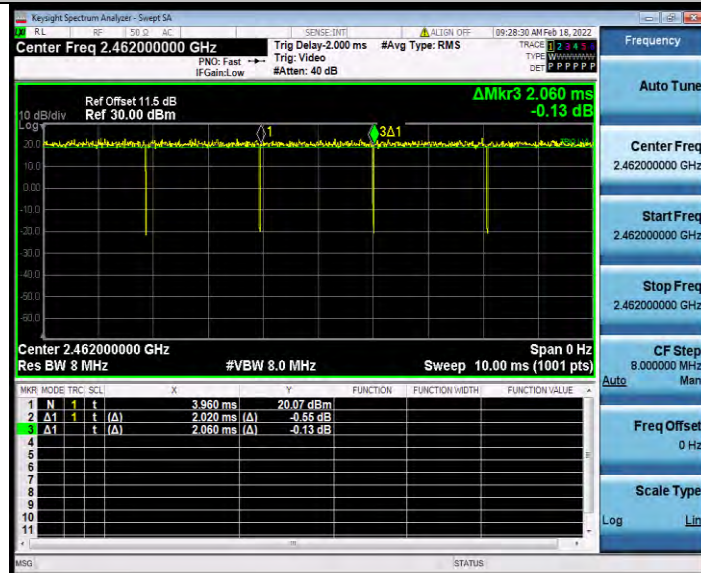


BUREAU VERITAS

Test Report No.: W7L-P22010035RF02



11G_Ant1_2462

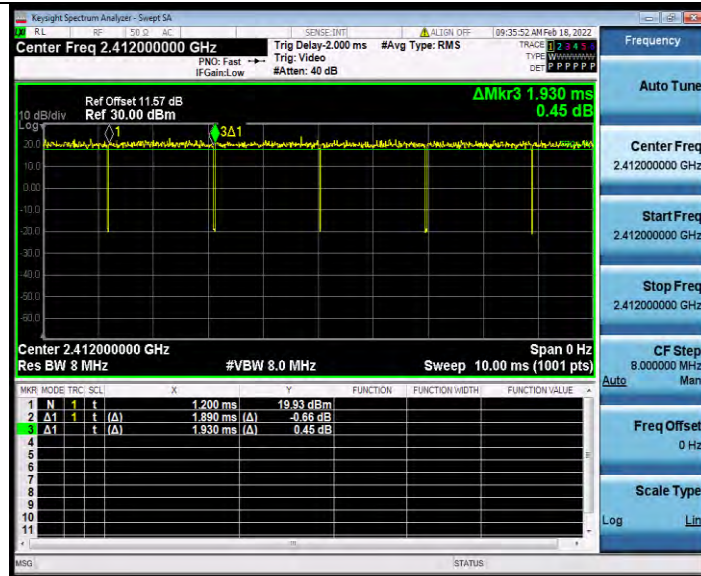


11N20SISO_Ant1_2412

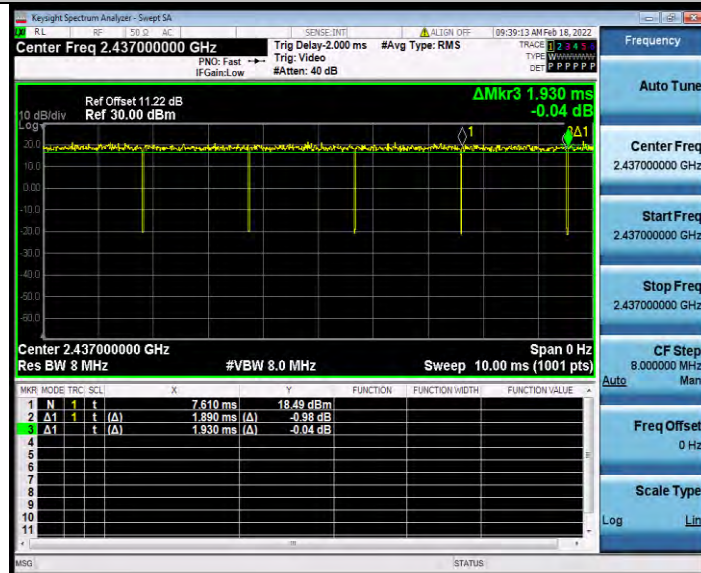


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Test Report No.: W7L-P22010035RF02



11N20SISO_Ant1_2437

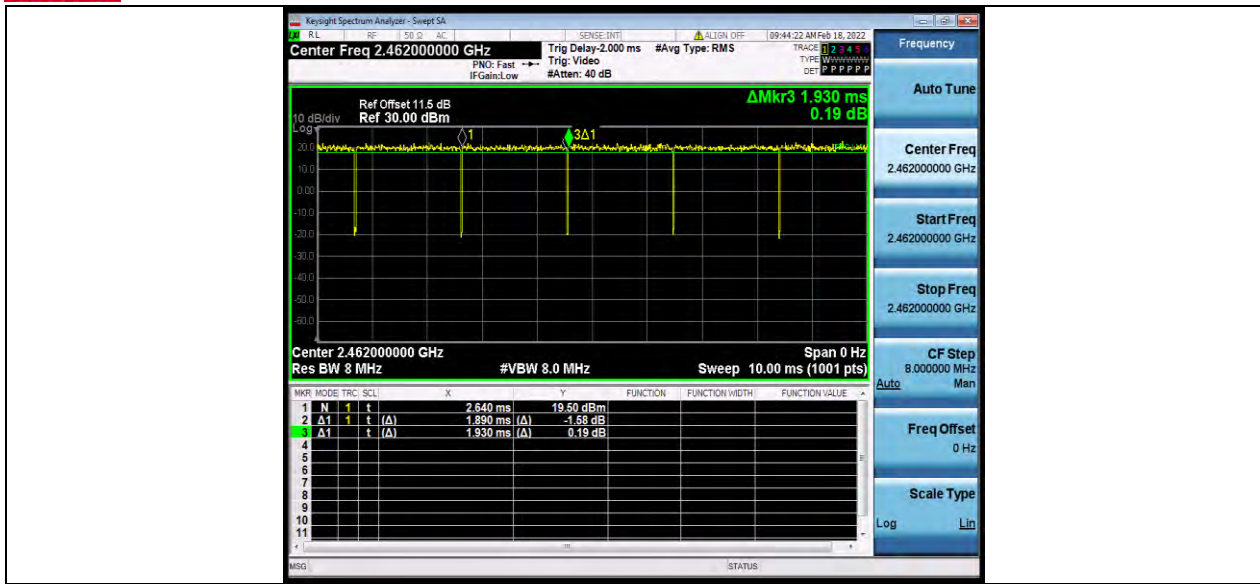


11N20SISO_Ant1_2462



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**BT-LE
DTS BANDWIDTH
TEST RESULT**

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_125K	Ant1	2402	0.600	2401.692	2402.292	0.5	PASS
		2440	0.684	2439.652	2440.336	0.5	PASS
		2480	0.684	2479.648	2480.332	0.5	PASS
BLE_1M	Ant1	2402	0.680	2401.648	2402.328	0.5	PASS
		2440	0.688	2439.648	2440.336	0.5	PASS
		2480	0.668	2479.656	2480.324	0.5	PASS
BLE_2M	Ant1	2402	1.144	2401.432	2402.576	0.5	PASS
		2440	1.192	2439.348	2440.540	0.5	PASS
		2480	1.244	2479.336	2480.580	0.5	PASS
BLE_500K	Ant1	2402	0.660	2401.664	2402.324	0.5	PASS
		2440	0.700	2439.640	2440.340	0.5	PASS
		2480	0.676	2479.660	2480.336	0.5	PASS



TEST GRAPHS

BLE_125K_Ant1_2402



BLE_125K_Ant1_2440



BLE_125K_Ant1_2480



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Test Report No.: W7L-P22010035RF02



BLE_1M_Ant1_2402

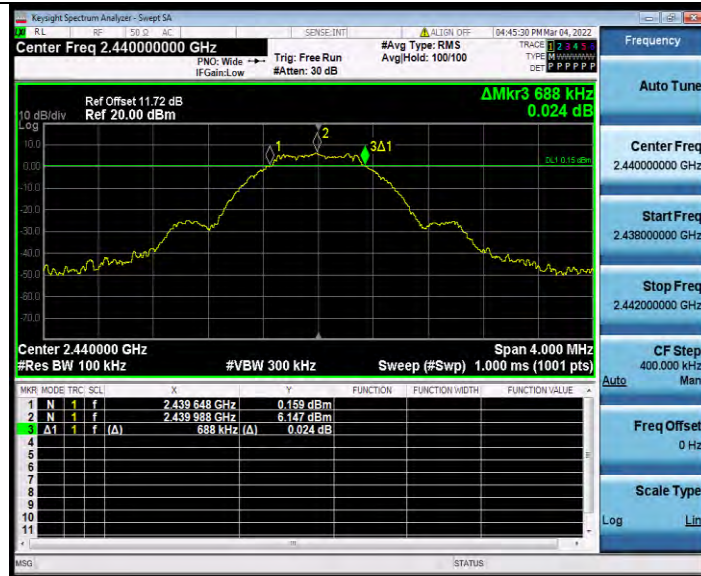


BLE_1M_Ant1_2440



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Test Report No.: W7L-P22010035RF02



BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



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Test Report No.: W7L-P22010035RF02



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



BUREAU VERITAS

Test Report No.: W7L-P22010035RF02



BLE_500K_Ant1_2402



BLE_500K_Ant1_2440

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BLE_500K_Ant1_2480





MAXIMUM CONDUCTED OUTPUT POWER

TEST RESULT PEAK

TestMode	Antenna	Channel	Peak Power[dBm]	Peak Power[mw]	Conducted Limit[W]	Verdict	Power setting
1M	Ant1	2402	5.08	3.22	≤1.00	PASS	Default
		2440	5.18	3.30	≤1.00	PASS	Default
		2480	6.05	4.03	≤1.00	PASS	Default
2M	ANT1	2402	5.13	3.26	≤1.00	PASS	Default
		2440	5.41	3.48	≤1.00	PASS	Default
		2480	6.32	4.29	≤1.00	PASS	Default
S2	Ant1	2402	5.02	3.18	≤1.00	PASS	Default
		2440	5.28	3.37	≤1.00	PASS	Default
		2480	6.08	4.06	≤1.00	PASS	Default
S8	Ant1	2402	5.08	3.22	≤1.00	PASS	Default
		2440	5.18	3.30	≤1.00	PASS	Default
		2480	6.10	4.07	≤1.00	PASS	Default

TEST RESULT AVERAGE

TestMode	Antenna	Channel	Average Power	Conducted Limit[W]	Verdict	Power setting
1M	Ant1	2402	4.12	/	PASS	Default
		2440	4.48	/	PASS	Default
		2480	5.13	/	PASS	Default
2M	ANT1	2402	2.76	/	PASS	Default
		2440	3.07	/	PASS	Default
		2480	3.90	/	PASS	Default
S2	Ant1	2402	4.35	/	PASS	Default
		2440	4.92	/	PASS	Default
		2480	5.42	/	PASS	Default
S8	Ant1	2402	4.64	/	PASS	Default
		2440	4.95	/	PASS	Default
		2480	5.88	/	PASS	Default



MAXIMUM POWER SPECTRAL DENSITY TEST RESULT

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_125K	Ant1	2402	1.34	≤8.00	PASS
		2440	0.87	≤8.00	PASS
		2480	2.19	≤8.00	PASS
BLE_1M	Ant1	2402	-8.43	≤8.00	PASS
		2440	-8.92	≤8.00	PASS
		2480	-7.60	≤8.00	PASS
BLE_2M	Ant1	2402	-11.00	≤8.00	PASS
		2440	-11.47	≤8.00	PASS
		2480	-10.07	≤8.00	PASS
BLE_500K	Ant1	2402	1.25	≤8.00	PASS
		2440	0.79	≤8.00	PASS
		2480	2.08	≤8.00	PASS

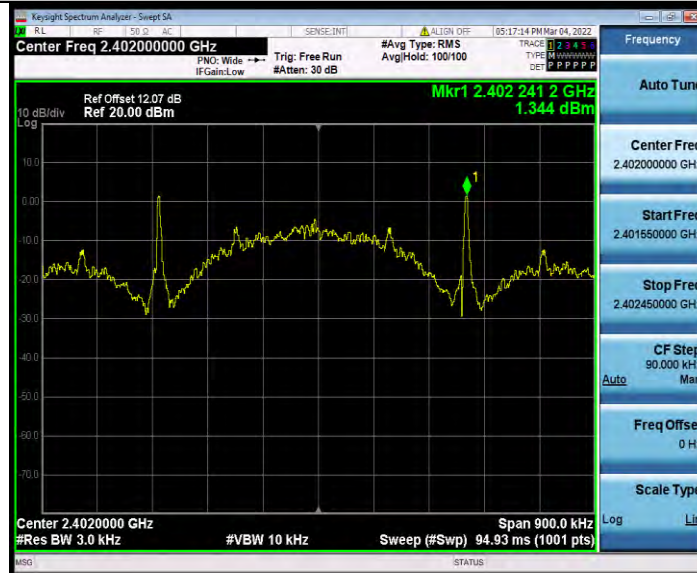


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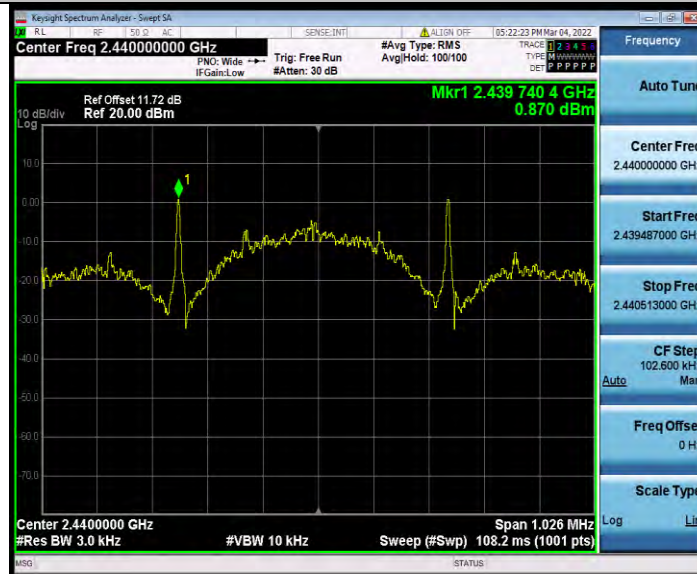
Test Report No.: W7L-P22010035RF02

TEST GRAPHS

BLE_125K_Ant1_2402



BLE_125K_Ant1_2440



BLE_125K_Ant1_2480

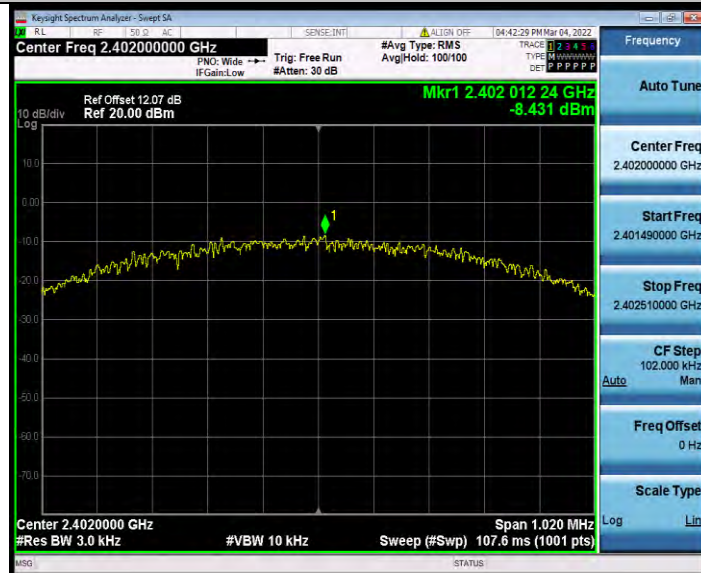


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Test Report No.: W7L-P22010035RF02



BLE_1M_Ant1_2402

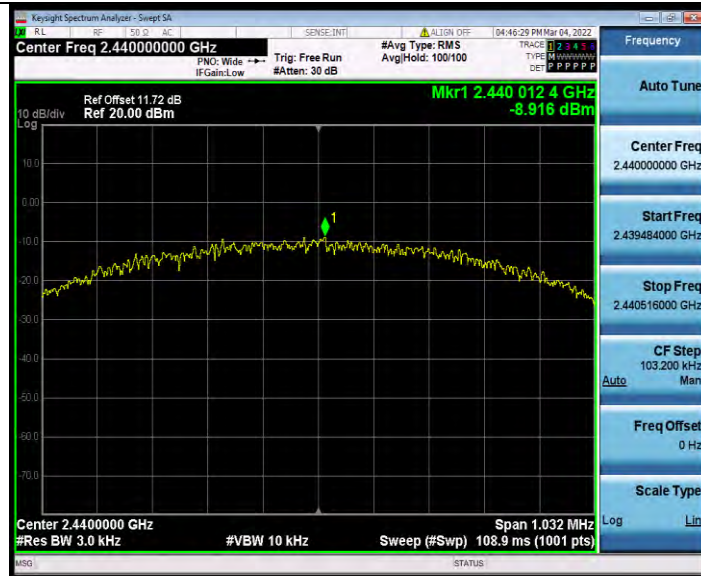


BLE_1M_Ant1_2440



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Test Report No.: W7L-P22010035RF02



BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



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Test Report No.: W7L-P22010035RF02



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

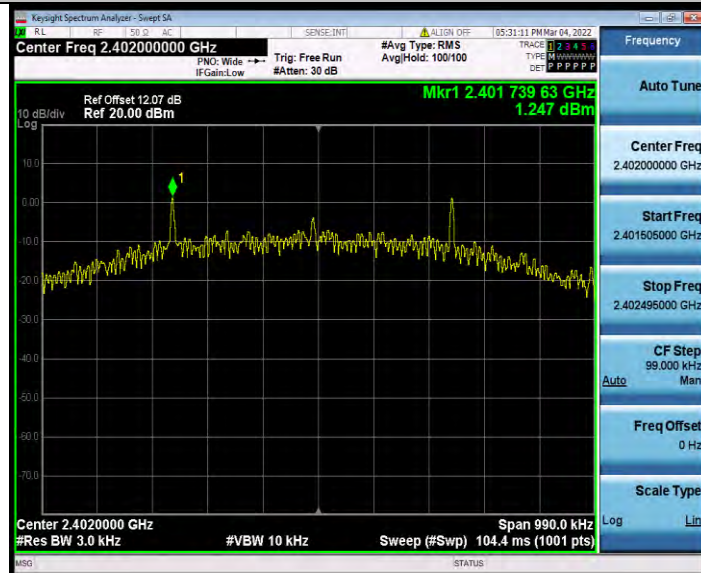


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Test Report No.: W7L-P22010035RF02



BLE_500K_Ant1_2402

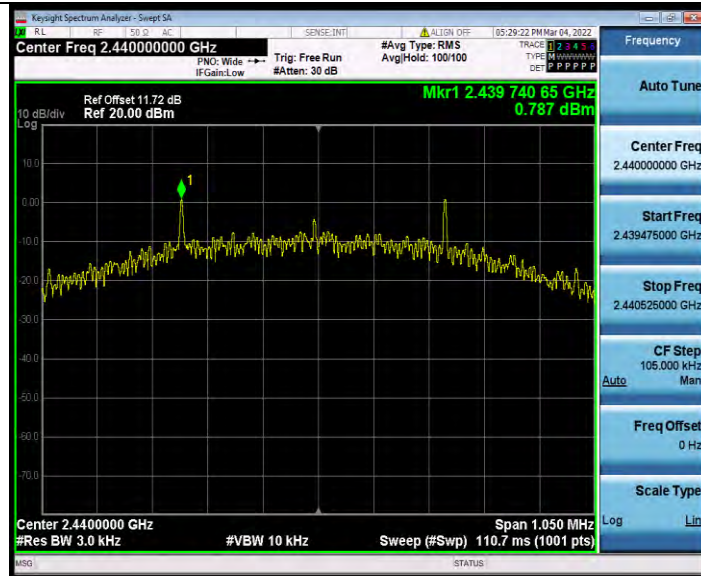


BLE_500K_Ant1_2440

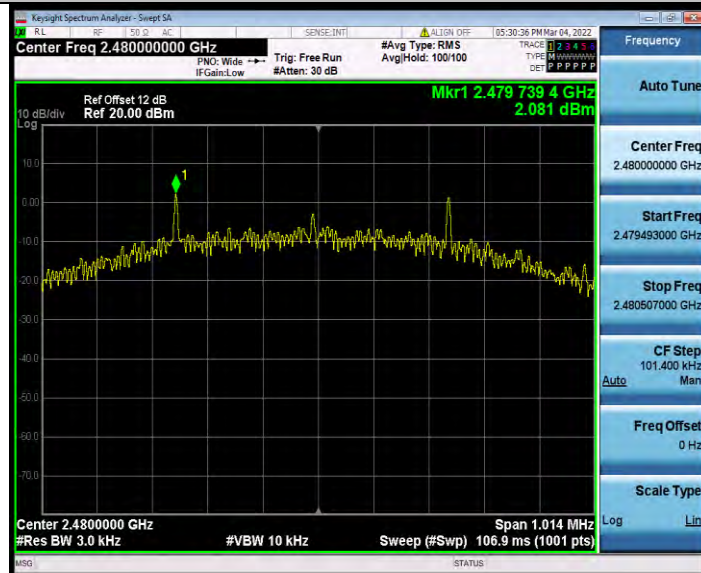


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Test Report No.: W7L-P22010035RF02



BLE_500K_Ant1_2480





BAND EDGE MEASUREMENTS

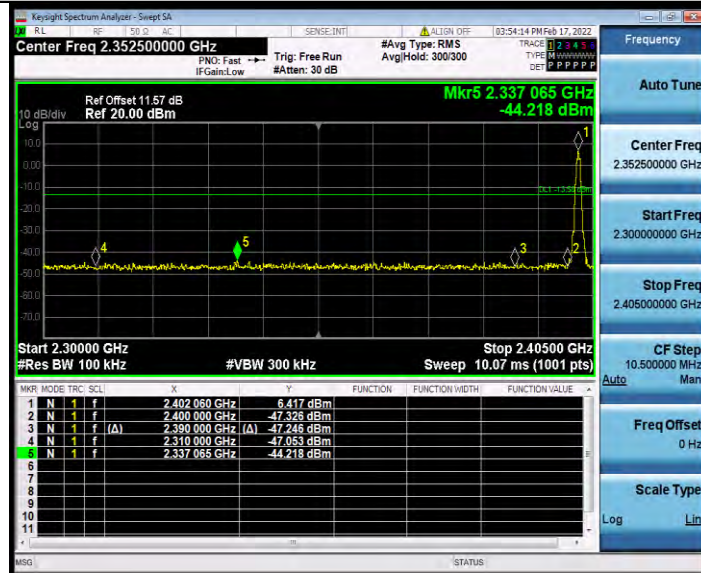
TEST RESULT

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_125K	Ant1	Low	2402	6.42	-44.22	≤-13.58	PASS
		High	2480	6.25	-43.52	≤-13.75	PASS
BLE_1M	Ant1	Low	2402	6.49	-43.62	≤-13.51	PASS
		High	2480	7.13	-41.95	≤-12.87	PASS
BLE_2M	Ant1	Low	2402	6.71	-43.98	≤-13.29	PASS
		High	2480	7.23	-43.67	≤-12.77	PASS
BLE_500K	Ant1	Low	2402	6.46	-44.67	≤-13.54	PASS
		High	2480	6.94	-44.16	≤-13.06	PASS

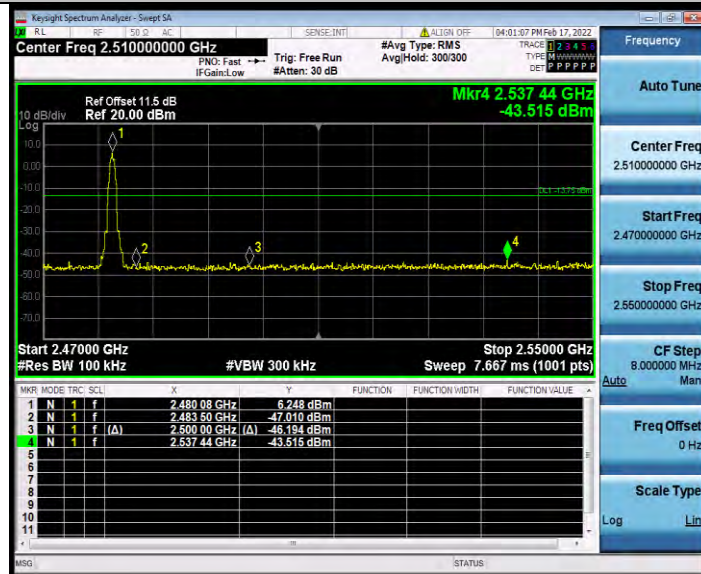


TEST GRAPHS

BLE_125K_Ant1_Low_2402



BLE_125K_Ant1_High_2480

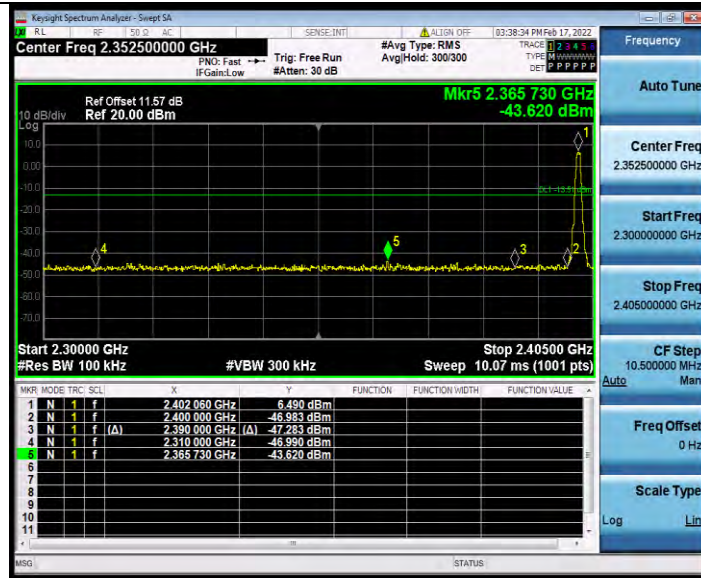


BLE_1M_Ant1_Low_2402

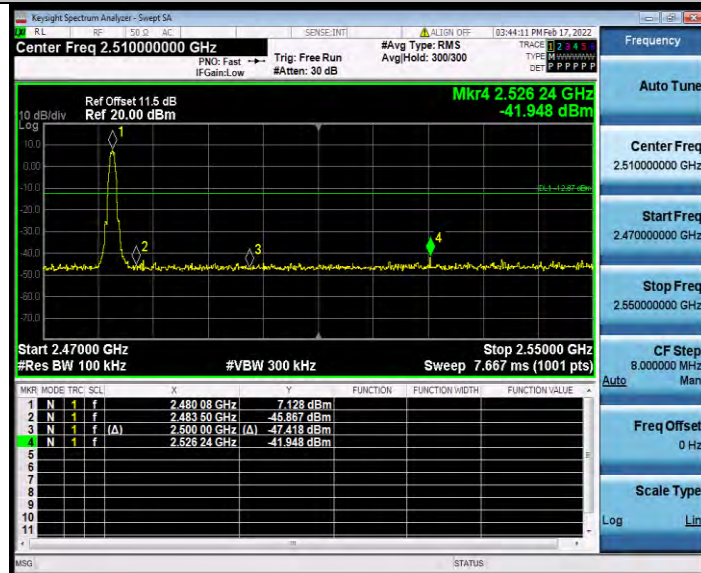


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Test Report No.: W7L-P22010035RF02



BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402

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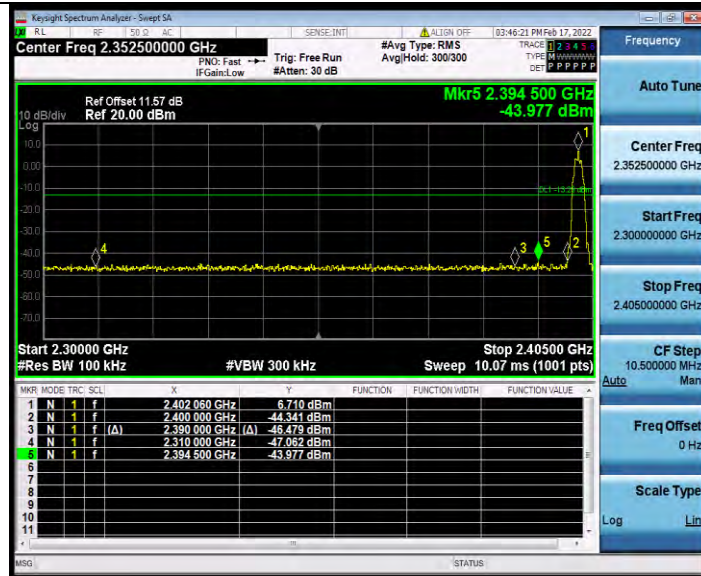
No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, China

Tel: +86 755 8869 6566
Fax: +86 755 8869 6577
Email: customerservice.sw@bureauveritas.com

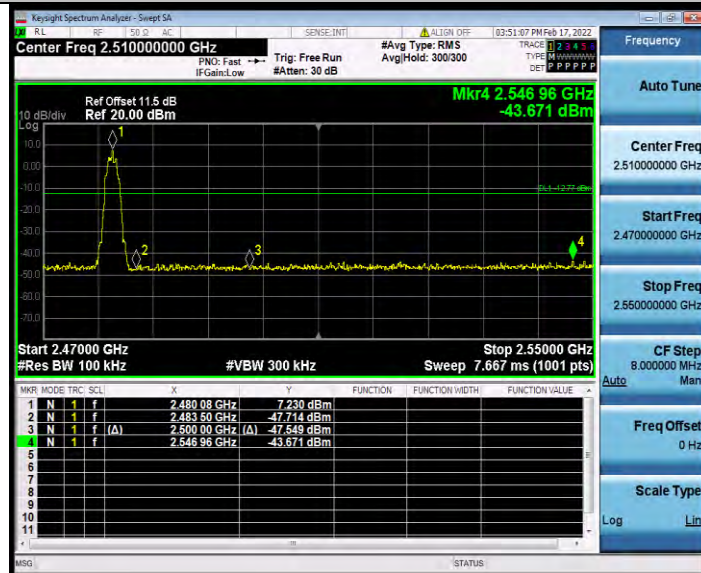


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Test Report No.: W7L-P22010035RF02



BLE_2M_Ant1_High_2480

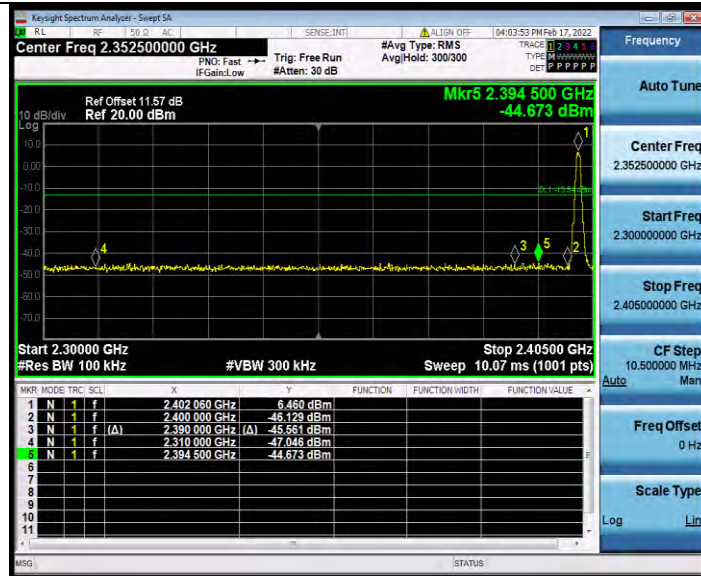


BLE_500K_Ant1_Low_2402

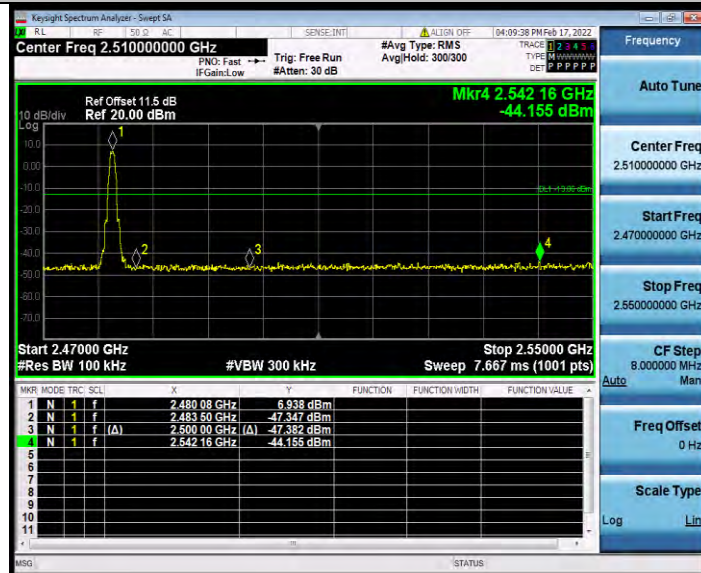


BUREAU VERITAS

Test Report No.: W7L-P22010035RF02



BLE_500K_Ant1_High_2480





CONDUCTED SPURIOUS EMISSION

TEST RESULT

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_125K	Ant1	2402	Reference	2.86	2.86	---	PASS
			30~1000	2.86	-53.9	≤-17.14	PASS
			1000~26500	2.86	-37.46	≤-17.14	PASS
		2440	Reference	2.28	2.28	---	PASS
			30~1000	2.28	-54.68	≤-17.73	PASS
			1000~26500	2.28	-38.44	≤-17.73	PASS
		2480	Reference	3.76	3.76	---	PASS
			30~1000	3.76	-53.38	≤-16.24	PASS
			1000~26500	3.76	-37.99	≤-16.24	PASS
BLE_1M	Ant1	2402	Reference	5.54	5.54	---	PASS
			30~1000	5.54	-52.88	≤-14.46	PASS
			1000~26500	5.54	-37.76	≤-14.46	PASS
		2440	Reference	4.52	4.52	---	PASS
			30~1000	4.52	-53.92	≤-15.48	PASS
			1000~26500	4.52	-37.44	≤-15.48	PASS
		2480	Reference	6.17	6.17	---	PASS
			30~1000	6.17	-53.52	≤-13.83	PASS
			1000~26500	6.17	-37.67	≤-13.83	PASS
BLE_2M	Ant1	2402	Reference	3.12	3.12	---	PASS
			30~1000	3.12	-52.78	≤-16.88	PASS
			1000~26500	3.12	-38.28	≤-16.88	PASS
		2440	Reference	4.19	4.19	---	PASS
			30~1000	4.19	-53.62	≤-15.82	PASS
			1000~26500	4.19	-38.21	≤-15.82	PASS
		2480	Reference	6.87	6.87	---	PASS
			30~1000	6.87	-53.49	≤-13.13	PASS
			1000~26500	6.87	-37.6	≤-13.13	PASS
BLE_500K	Ant1	2402	Reference	4.69	4.69	---	PASS
			30~1000	4.69	-53.71	≤-15.32	PASS



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Test Report No.: W7L-P22010035RF02

			1000~26500	4.69	-38.07	≤ -15.32	PASS
		2440	Reference	5.45	5.45	---	PASS
			30~1000	5.45	-54.6	≤ -14.55	PASS
			1000~26500	5.45	-38.35	≤ -14.55	PASS
		2480	Reference	4.15	4.15	---	PASS
			30~1000	4.15	-53.95	≤ -15.85	PASS
			1000~26500	4.15	-38.07	≤ -15.85	PASS



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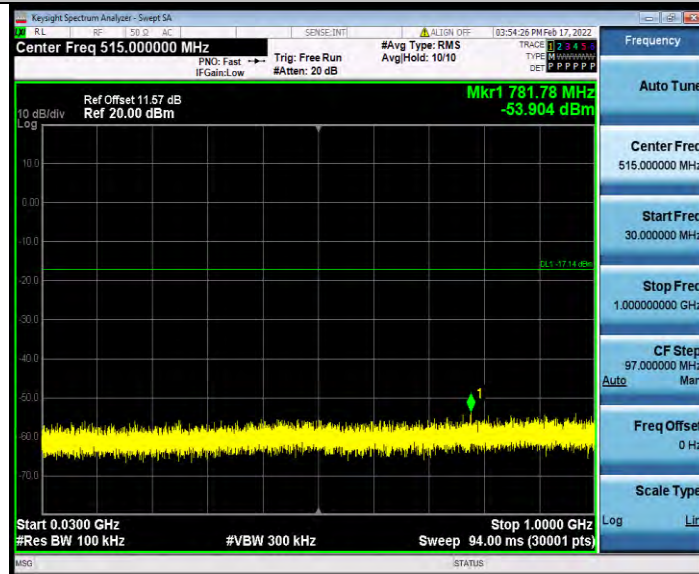
Test Report No.: W7L-P22010035RF02

TEST GRAPHS

BLE_125K_Ant1_2402_0~Reference



BLE_125K_Ant1_2402_30~1000

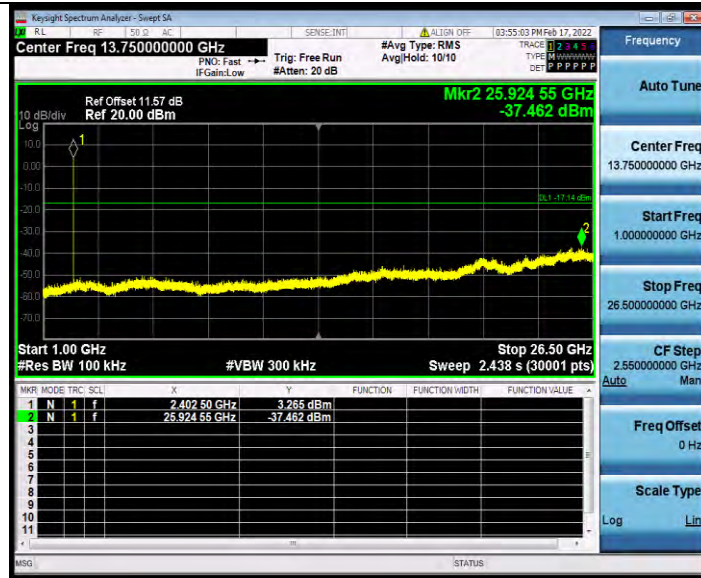


BLE_125K_Ant1_2402_1000~26500



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VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_125K_Ant1_2440_0~Reference



BLE_125K_Ant1_2440_30~1000

BV 7Layers Communications Technology
(Shenzhen) Co., Ltd

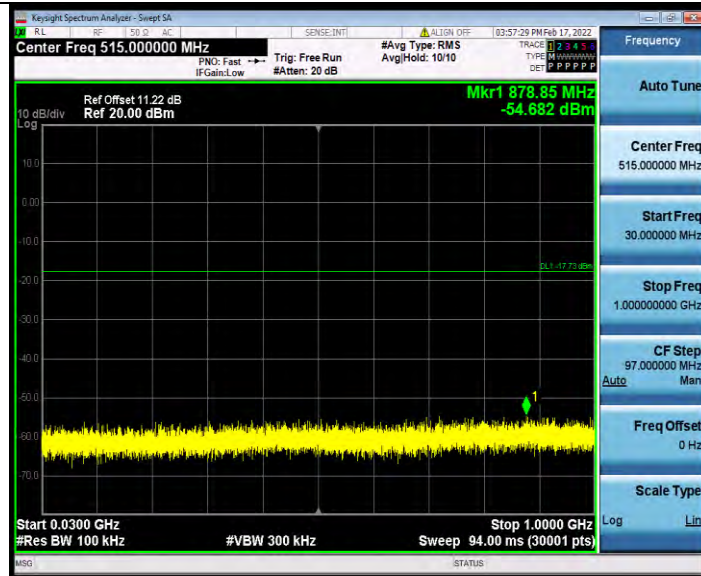
No.B102, Dazu Chuangxin Mansion, North of Beihuan
Avenue, North Area, Hi-Tech Industrial Park, Nanshan
District, Shenzhen, Guangdong, China

Tel: +86 755 8869 6566
Fax: +86 755 8869 6577
Email: customerservice.sw@bureauveritas.com



**BUREAU
VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_125K_Ant1_2440_1000~26500



BLE_125K_Ant1_2480_0~Reference

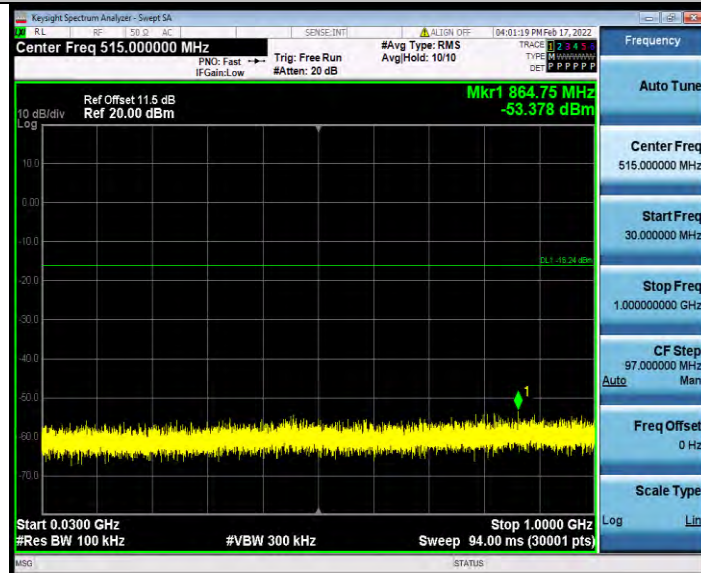


**BUREAU
VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_125K_Ant1_2480_30~1000

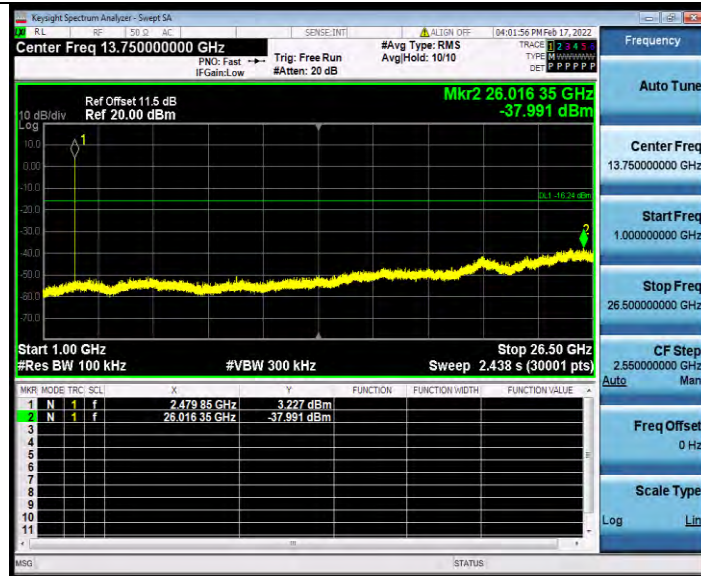


BLE_125K_Ant1_2480_1000~26500



**BUREAU
VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_1M_Ant1_2402_0~Reference



BLE_1M_Ant1_2402_30~1000

BV 7Layers Communications Technology
(Shenzhen) Co., Ltd

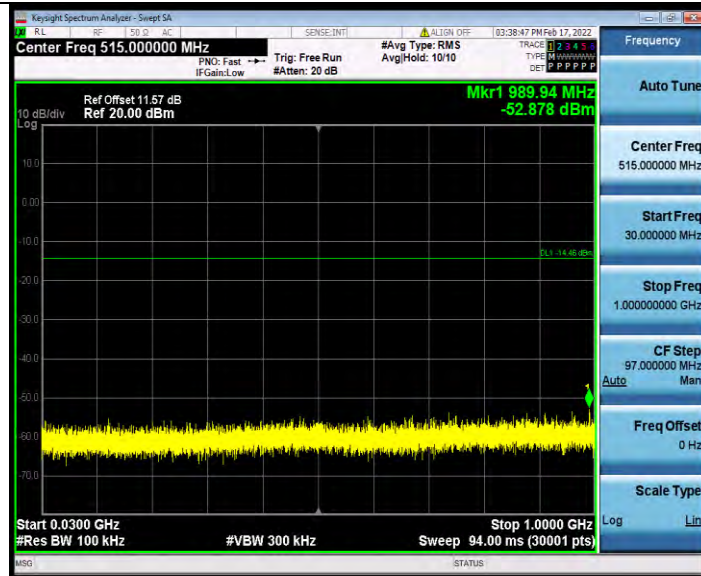
No.B102, Dazu Chuangxin Mansion, North of Beihuan
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**BUREAU
VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

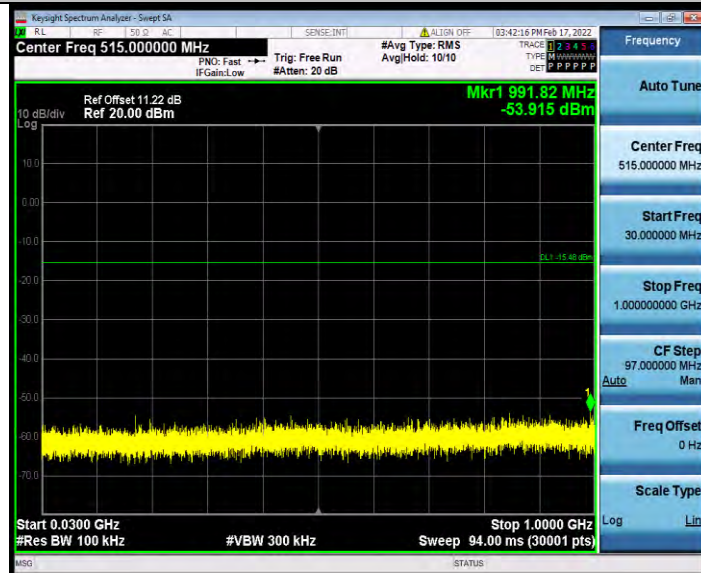


**BUREAU
VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_1M_Ant1_2440_30~1000

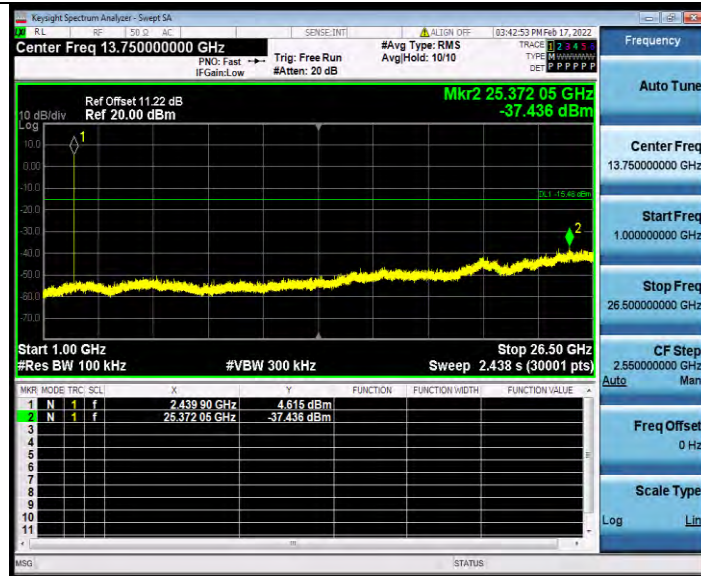


BLE_1M_Ant1_2440_1000~26500



**BUREAU
VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000

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BUREAU VERITAS

Test Report No.: W7L-P22010035RF02



BLE_1M_Ant1_2480_1000~26500



BLE_2M_Ant1_2402_0~Reference

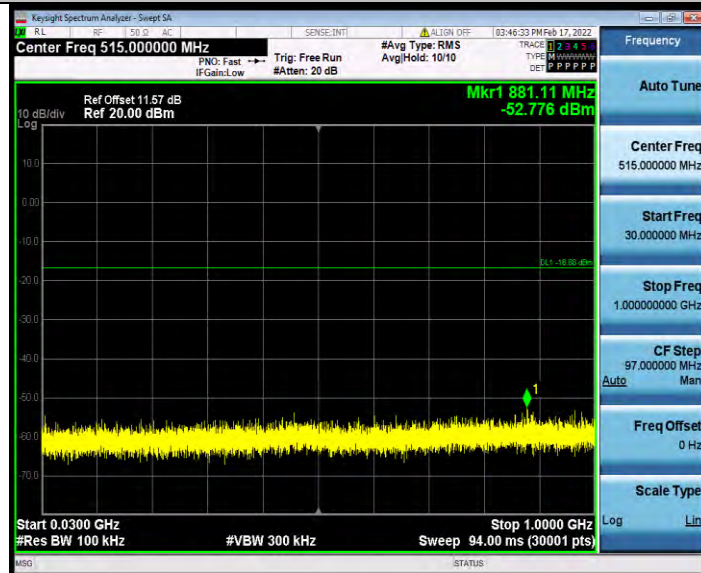


**BUREAU
VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_2M_Ant1_2402_30~1000

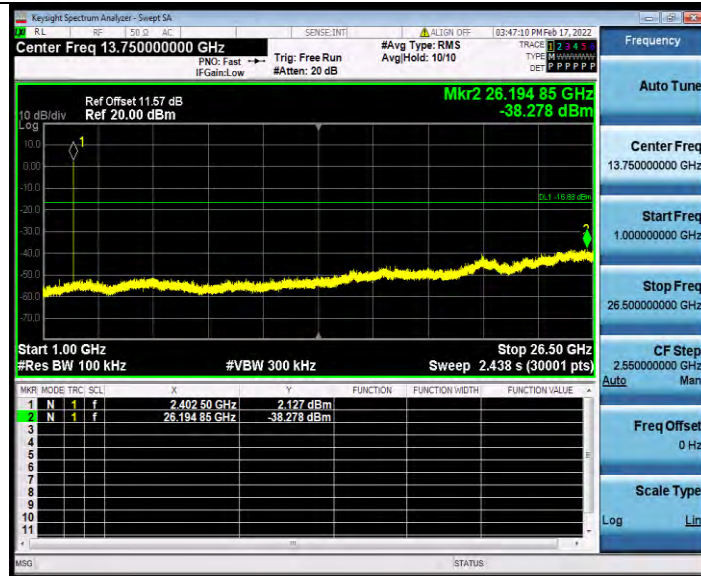


BLE_2M_Ant1_2402_1000~26500



**BUREAU
VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_2M_Ant1_2440_0~Reference



BLE_2M_Ant1_2440_30~1000

BV 7Layers Communications Technology
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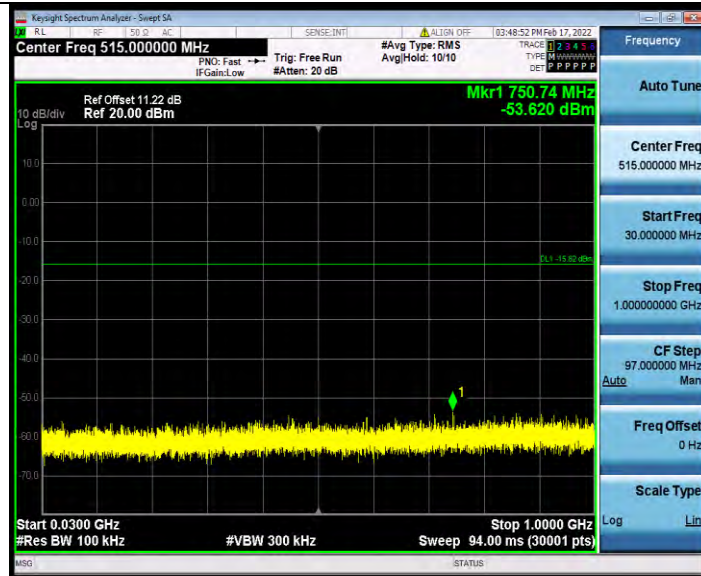
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VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_2M_Ant1_2440_1000~26500



BLE_2M_Ant1_2480_0~Reference

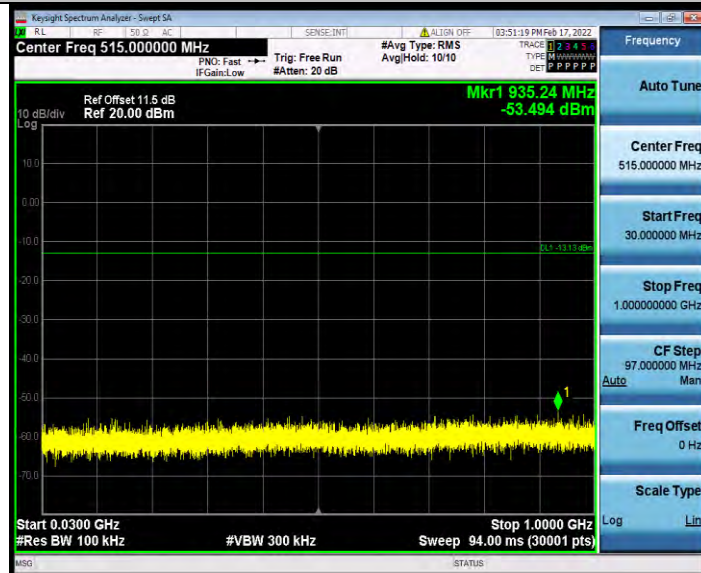


**BUREAU
VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_2M_Ant1_2480_30~1000

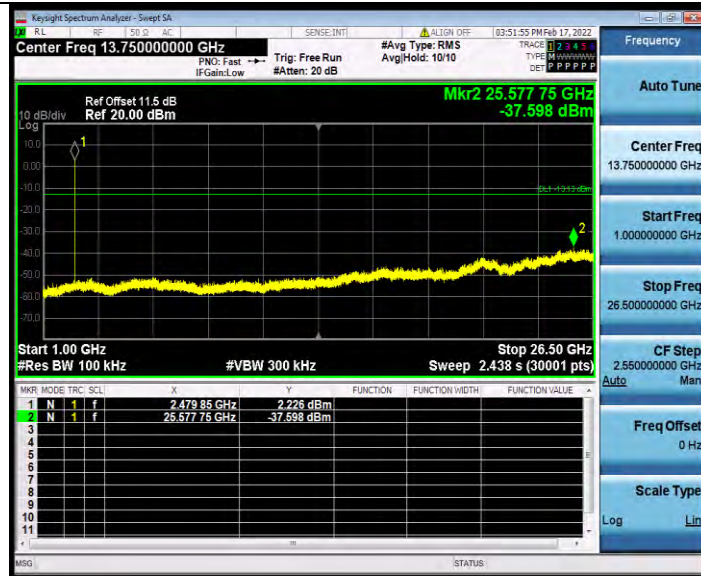


BLE_2M_Ant1_2480_1000~26500



BUREAU VERITAS

Test Report No.: W7L-P22010035RF02



BLE_500K_Ant1_2402_0~Reference

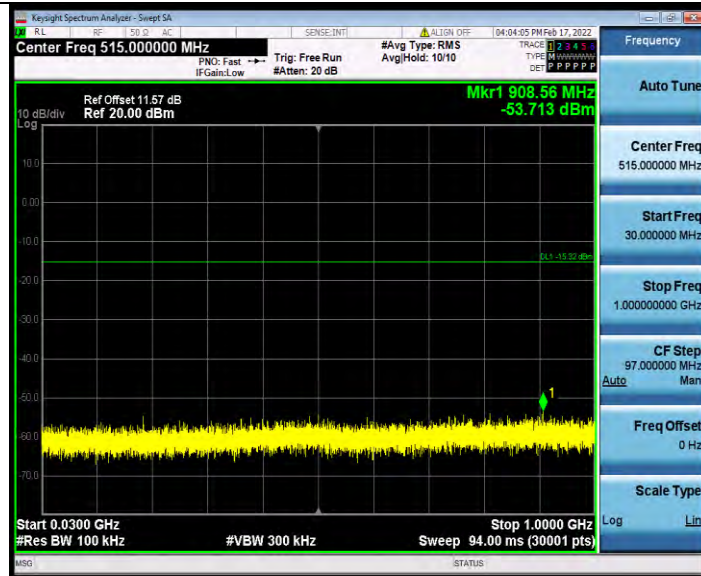


BLE_500K_Ant1_2402_30~1000



**BUREAU
VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_500K_Ant1_2402_1000~26500



BLE_500K_Ant1_2440_0~Reference



**BUREAU
VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_500K_Ant1_2440_30~1000

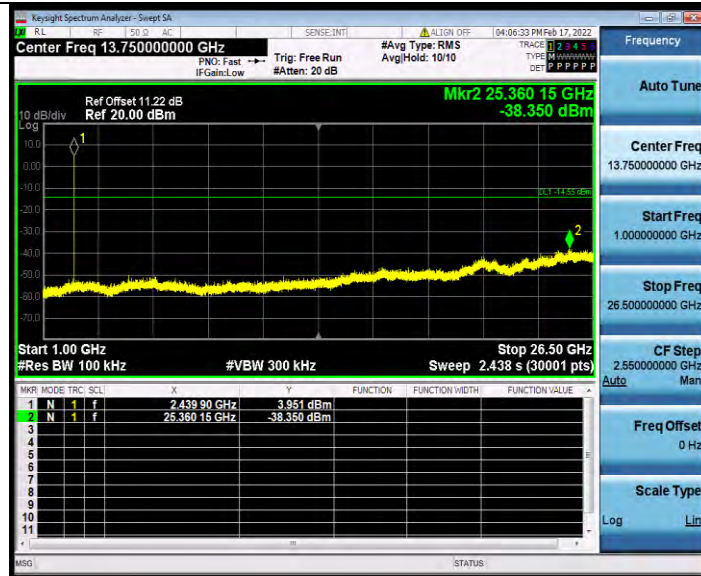


BLE_500K_Ant1_2440_1000~26500



**BUREAU
VERITAS**

Test Report No.: W7L-P22010035RF02



BLE_500K_Ant1_2480_0~Reference

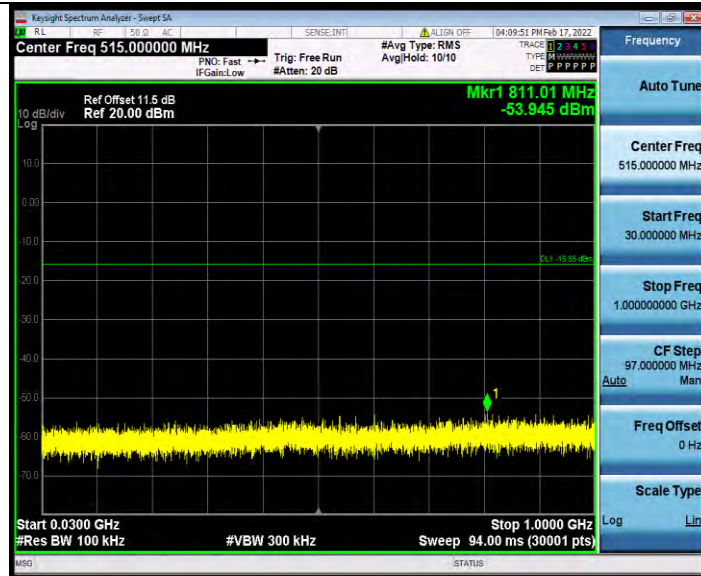


BLE_500K_Ant1_2480_30~1000



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Test Report No.: W7L-P22010035RF02



BLE_500K_Ant1_2480_1000~26500



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DUTY CYCLE TEST RESULT

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_125K	Ant1	2402	3.11	3.75	82.93	0.81
		2440	3.10	3.75	82.67	0.83
		2480	3.10	3.75	82.67	0.83
BLE_1M	Ant1	2402	0.39	0.62	62.90	2.01
		2440	0.40	0.63	63.49	1.97
		2480	0.39	0.62	62.90	2.01
BLE_2M	Ant1	2402	0.21	0.62	33.87	4.70
		2440	0.21	0.63	33.33	4.77
		2480	0.21	0.63	33.33	4.77
BLE_500K	Ant1	2402	1.08	1.88	57.45	2.41
		2440	1.07	1.88	56.91	2.45
		2480	1.07	1.88	56.91	2.45