

RF Conducted Test - appendix III Bluetooth_(BLE Bluetooth)_Test data.

E.U.T:	T1R Range Hybrid Measuring Tool
Model Number:	RKN-T1R-16-001
Sample ID	33000276579
Sample(s) Status:	Engineer sample
Date of Receipt:	2026.06.11
Date of Test:	2026.06.12 ~ 2026.07.10
FCC ID:	2BBSG-RKNT1R001
IC:	30816-RKNT1R001
Report No.	2026071019588563-00
Tester	Ray Zhu

A.1 DUTY CYCLE

Test Result

Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
BLE 1M	0	0.393	0.625	62.88	0.6288	2.0149	2.5445
	19	0.393	0.625	62.88	0.6288	2.0149	2.5445
	39	0.393	0.625	62.88	0.6288	2.0149	2.5445
BLE 2M	0	0.209	0.625	33.44	0.3344	4.7573	4.7847
	19	0.208	0.625	33.28	0.3328	4.7782	4.8077
	39	0.208	0.625	33.28	0.3328	4.7782	4.8077

Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs



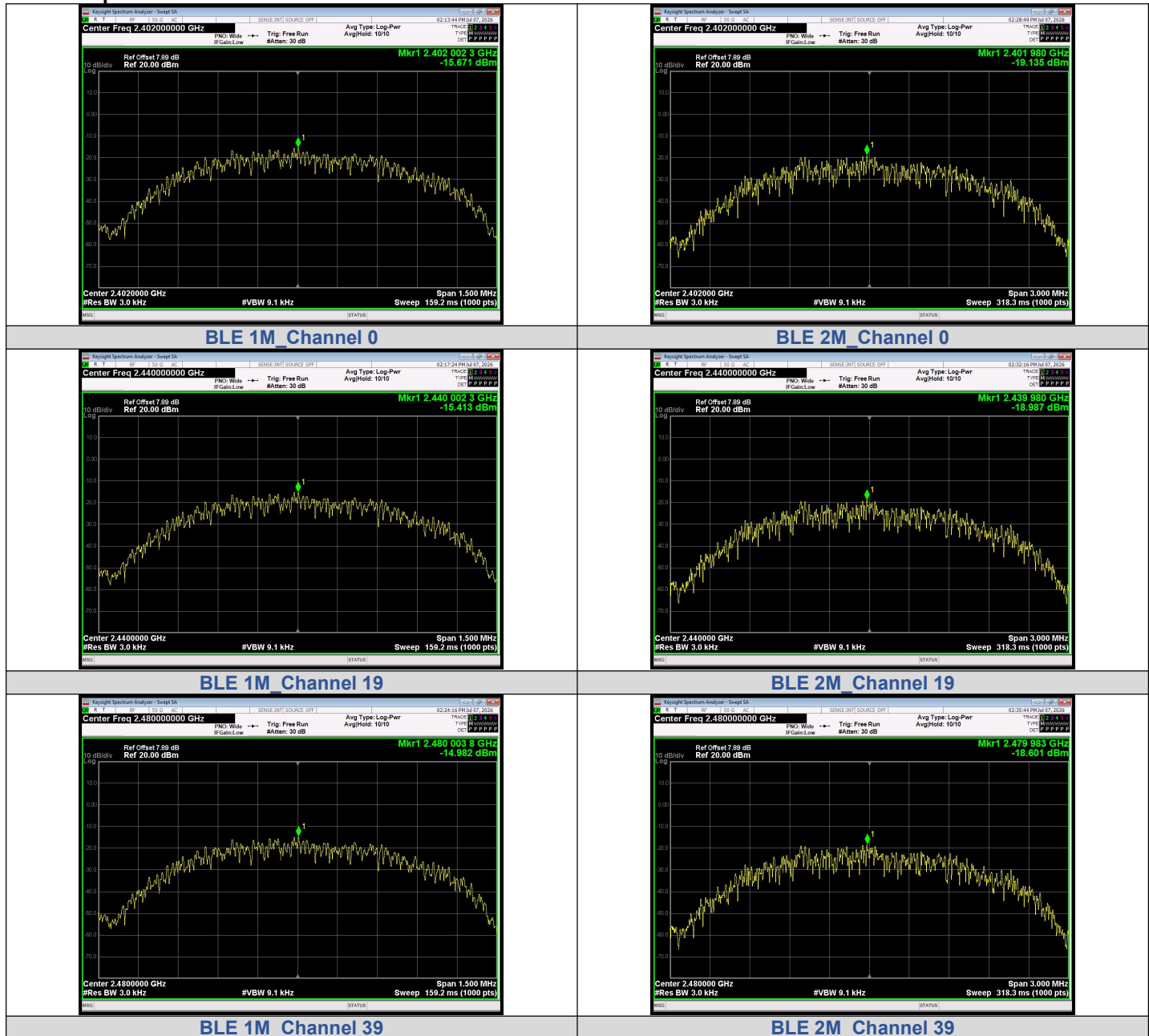
A.2 POWER SPECTRAL DENSITY

Test Result

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-15.67	≤8	PASS
BLE 1M	19	-15.41	≤8	PASS
BLE 1M	39	-14.98	≤8	PASS
BLE 2M	0	-19.14	≤8	PASS
BLE 2M	19	-18.99	≤8	PASS
BLE 2M	39	-18.60	≤8	PASS

Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs



A.3 CONDUCTED PEAK OUTPUT POWER

Test Result

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Max. Avg. Power (dBm)	Limit (dBm)	Result
BLE 1M	0	-0.13	0.97	None	≤30	PASS
	19	0.10	1.02	None	≤30	PASS
	39	0.52	1.13	None	≤30	PASS
BLE 2M	0	-0.09	0.98	None	≤30	PASS
	19	0.12	1.03	None	≤30	PASS
	39	0.58	1.14	None	≤30	PASS

Note: input compensation coefficient (dB)= Cable Loss (dB)

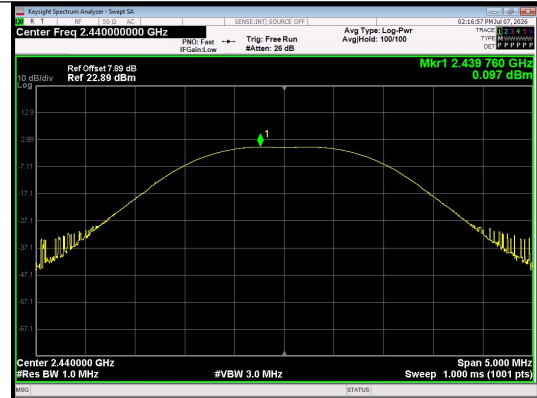
Mode	Channel	Peak Output Power (dBm)	Peak Power Limit (dBm)	ISED EIRP (dBm)	ISED EIRP Limit (dBm)	Max. Avg. Power (dBm)	Result
BLE 1M	0	-0.13	≤30	-0.13	≤36.02	None	PASS
	19	0.10	≤30	0.10	≤36.02	None	PASS
	39	0.52	≤30	0.52	≤36.02	None	PASS
BLE 2M	0	-0.09	≤30	-0.09	≤36.02	None	PASS
	19	0.12	≤30	0.12	≤36.02	None	PASS
	39	0.58	≤30	0.58	≤36.02	None	PASS

Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs



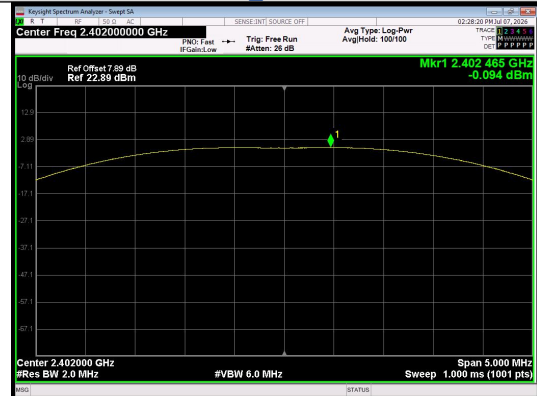
Peak Output Power
BLE 1M_Channel 0



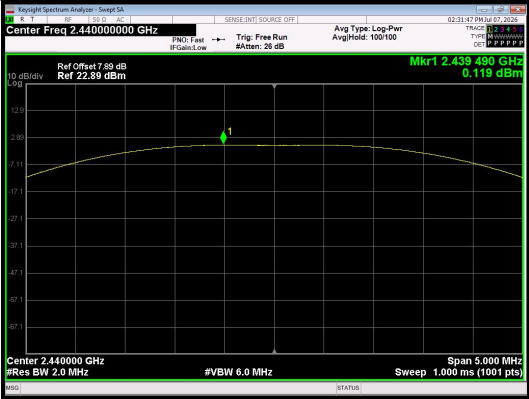
Peak Output Power
BLE 1M_Channel 19



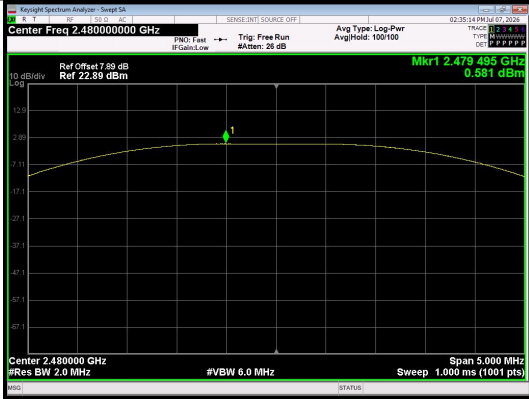
Peak Output Power
BLE 1M_Channel 39



Peak Output Power
BLE 2M_Channel 0



Peak Output Power
BLE 2M_Channel 19



Peak Output Power
BLE 2M_Channel 39

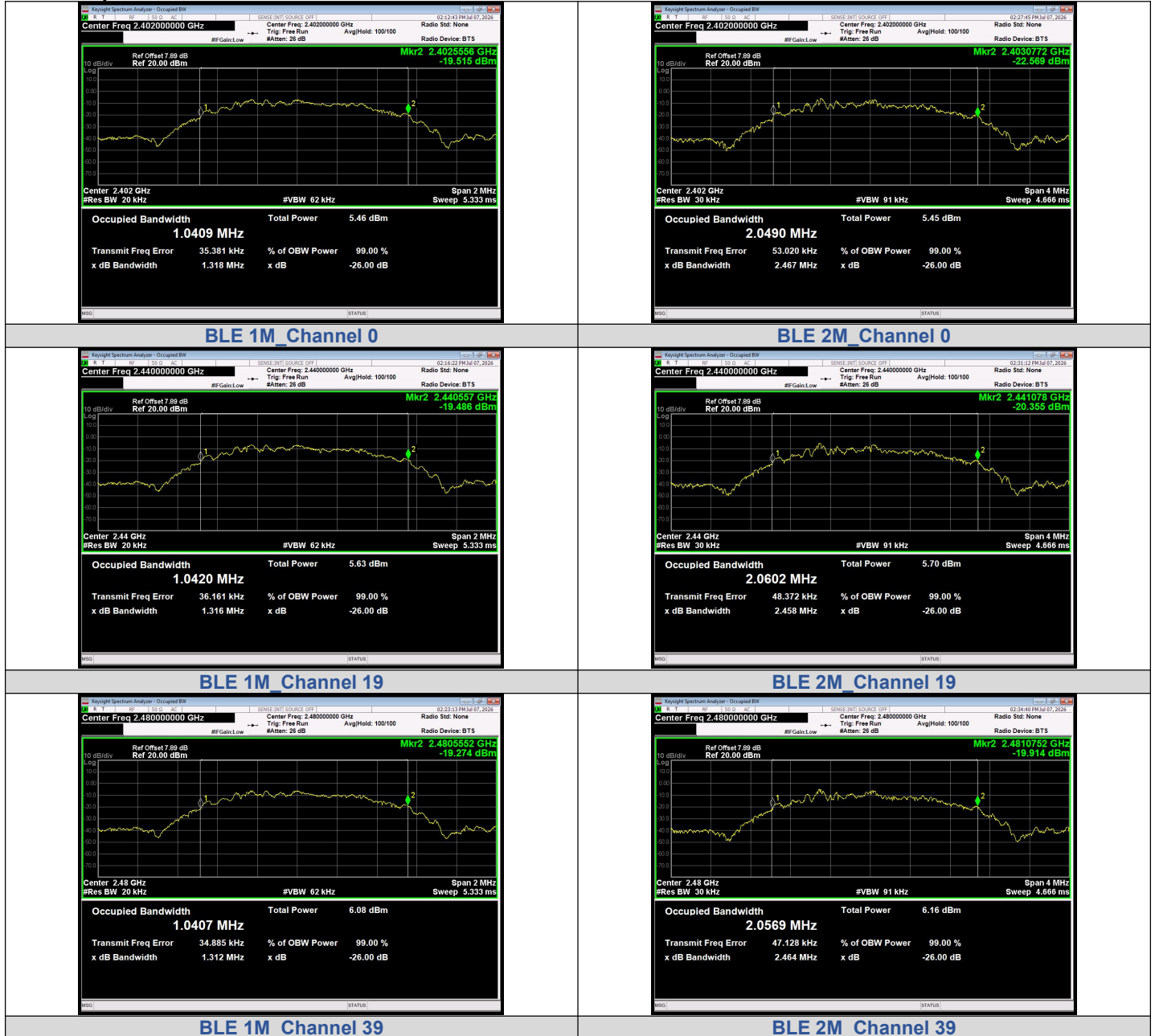
A.4 99% BANDWIDTH

Test Result

Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0409
BLE 1M	19	2440	1.0420
BLE 1M	39	2480	1.0407
BLE 2M	0	2402	2.0490
BLE 2M	19	2440	2.0602
BLE 2M	39	2480	2.0569

Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs



A.5 6DB BANDWIDTH

Test Result

Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.7024	≥0.5	PASS
	19	2440	0.7115		PASS
	39	2480	0.7142		PASS
BLE 2M	0	2402	1.205		PASS
	19	2440	1.205		PASS
	39	2480	1.202		PASS

Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs



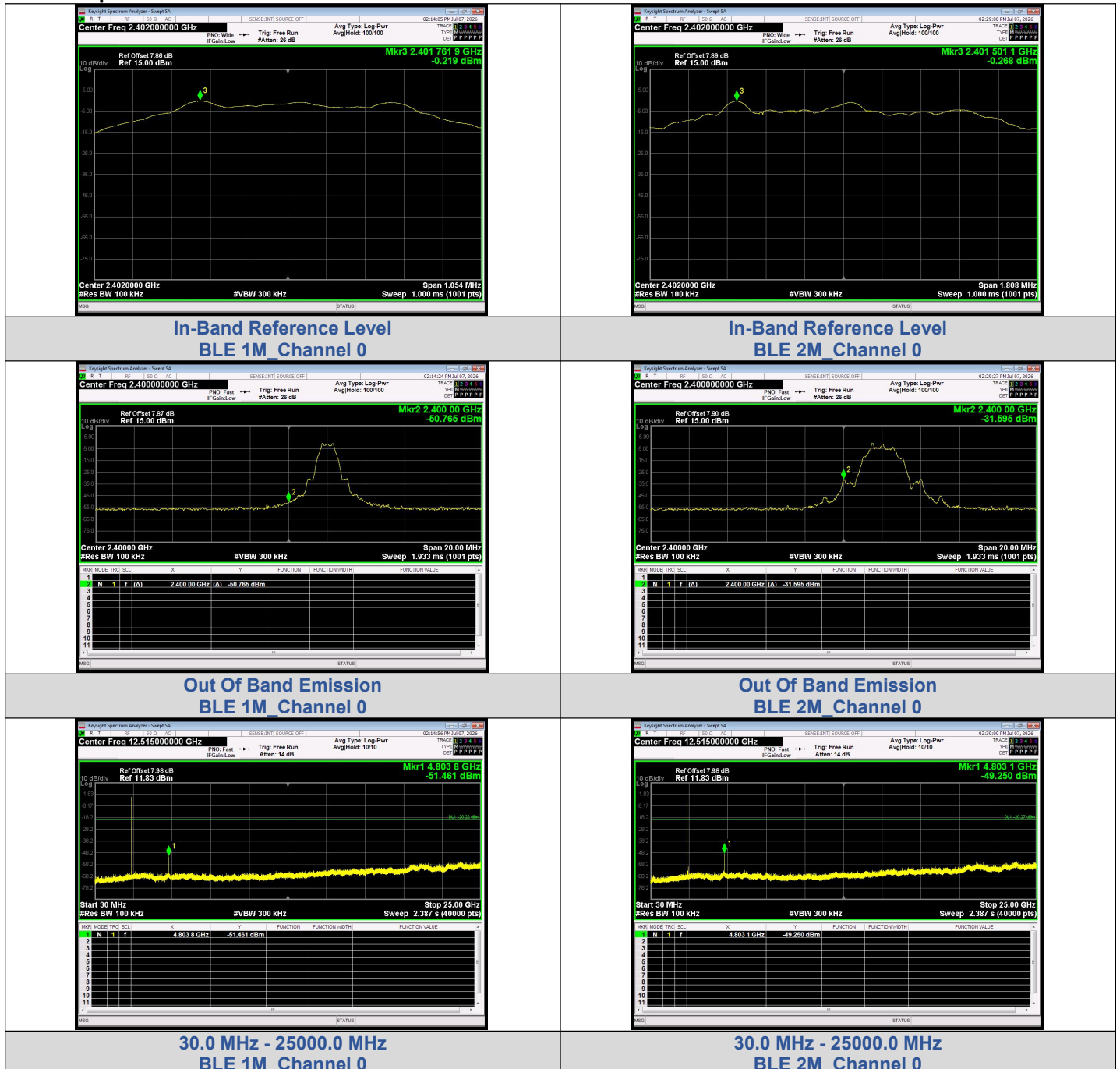
A.6 CONDUCTED SPURIOUS & BAND EDGE EMISSION

Test Result

Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2400.00	-50.765	-20.22	-30.545	PASS
		2497.72	-51.461	-20.22	-31.241	PASS
	19	2535.80	-52.141	-20.0	-32.141	PASS
		2483.50	-55.065	-19.53	-35.535	PASS
		2576.38	-51.211	-19.53	-31.681	PASS
BLE 2M	0	2400.00	-31.595	-20.27	-11.325	PASS
		2497.72	-49.250	-20.27	-28.980	PASS
	19	2533.93	-49.618	-20.05	-29.568	PASS
		2483.50	-53.872	-19.57	-34.302	PASS
		2575.76	-49.557	-19.57	-29.987	PASS

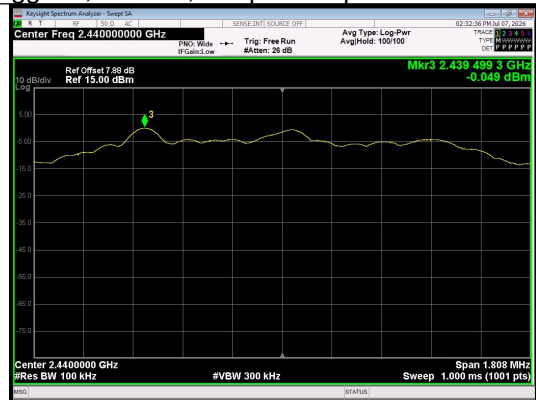
Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs

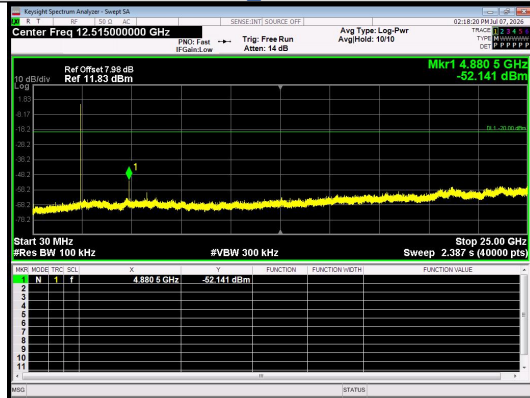




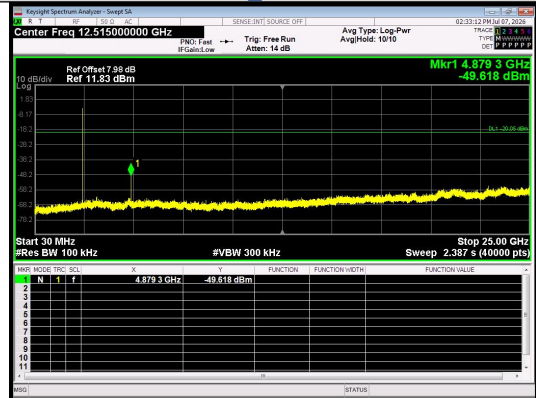
In-Band Reference Level
BLE 1M_Channel 19



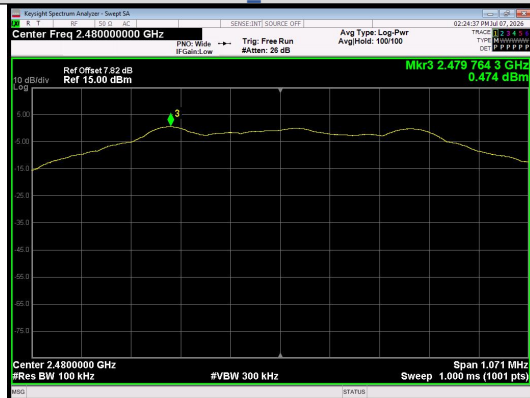
In-Band Reference Level
BLE 2M_Channel 19



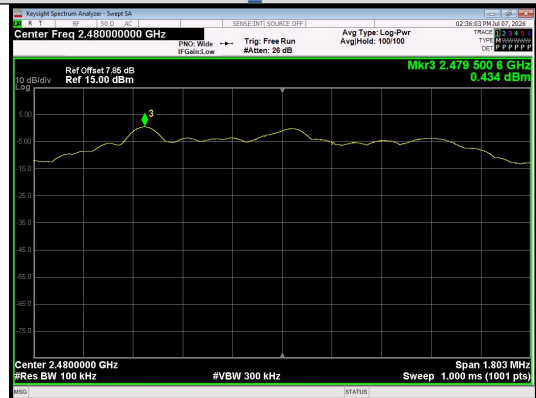
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19



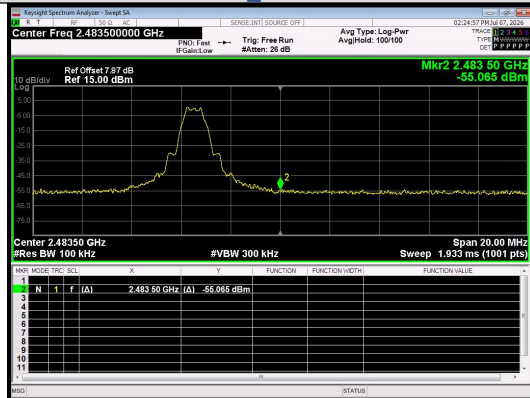
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 19



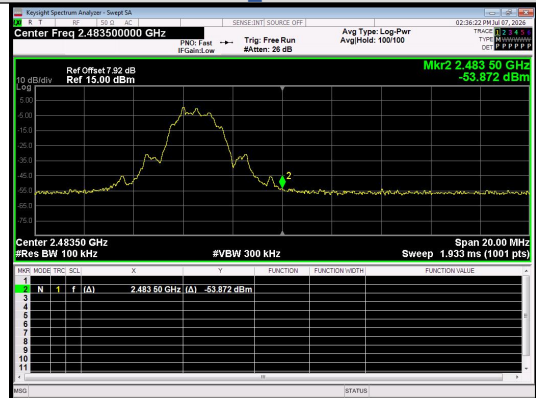
In-Band Reference Level
BLE 1M_Channel 39



In-Band Reference Level
BLE 2M_Channel 39



Out Of Band Emission
BLE 1M_Channel 39



Out Of Band Emission
BLE 2M_Channel 39



30.0 MHz - 25000.0 MHz
BLE 1M_Channel 39



30.0 MHz - 25000.0 MHz
BLE 2M_Channel 39