

## **Appendix for WCDMA Band 2**

Product Name: Smart Phone

Model No: N3

## Appendix A: Conducted Average Power

### Test Result

#### WCDMA

Band	Channel	Power(dBm)	Verdict
Band2	9262	22.11	PASS
Band2	9400	22.12	PASS
Band2	9538	22.03	PASS

#### HSDPA

Band	Channel	SubTest	Power(dBm)	Verdict
Band2	9262	1	21.13	PASS
Band2	9262	2	20.63	PASS
Band2	9262	3	20.64	PASS
Band2	9262	4	20.61	PASS
Band2	9400	1	21.14	PASS
Band2	9400	2	20.61	PASS
Band2	9400	3	20.62	PASS
Band2	9400	4	20.59	PASS
Band2	9538	1	21.02	PASS
Band2	9538	2	20.48	PASS
Band2	9538	3	20.51	PASS
Band2	9538	4	20.50	PASS

#### HSUPA

Band	Channel	SubTest	Power(dBm)	Verdict
Band2	9262	1	20.17	PASS
Band2	9262	2	20.57	PASS
Band2	9262	3	20.11	PASS
Band2	9262	4	20.08	PASS
Band2	9262	5	20.61	PASS
Band2	9400	1	20.06	PASS
Band2	9400	2	20.62	PASS
Band2	9400	3	20.12	PASS
Band2	9400	4	20.14	PASS
Band2	9400	5	21.11	PASS
Band2	9538	1	20.91	PASS

Band2	9538	2	20.46	PASS
Band2	9538	3	20.01	PASS
Band2	9538	4	20.98	PASS
Band2	9538	5	20.96	PASS

Sensor Mode:

WCDMA

Band	Channel	Power(dBm)	Verdict
Band2	9262	19.09	PASS
Band2	9400	19.02	PASS
Band2	9538	19.11	PASS

HSDPA

Band	Channel	SubTest	Power(dBm)	Verdict
Band2	9262	1	18.12	PASS
Band2	9262	2	17.56	PASS
Band2	9262	3	17.35	PASS
Band2	9262	4	17.47	PASS
Band2	9400	1	18.09	PASS
Band2	9400	2	17.53	PASS
Band2	9400	3	17.54	PASS
Band2	9400	4	17.63	PASS
Band2	9538	1	18.05	PASS
Band2	9538	2	17.39	PASS
Band2	9538	3	17.44	PASS
Band2	9538	4	17.46	PASS

HSUPA

Band	Channel	SubTest	Power(dBm)	Verdict
Band2	9262	1	17.20	PASS
Band2	9262	2	17.43	PASS
Band2	9262	3	17.08	PASS
Band2	9262	4	17.12	PASS
Band2	9262	5	17.56	PASS
Band2	9400	1	17.15	PASS
Band2	9400	2	17.57	PASS
Band2	9400	3	17.06	PASS

Band2	9400	4	17.11	PASS
Band2	9400	5	18.09	PASS
Band2	9538	1	17.87	PASS
Band2	9538	2	17.36	PASS
Band2	9538	3	17.15	PASS
Band2	9538	4	17.87	PASS
Band2	9538	5	17.84	PASS

Receiver Mode:

WCDMA

Band	Channel	Power(dBm)	Verdict
Band2	9262	13.08	PASS
Band2	9400	13.11	PASS
Band2	9538	13.02	PASS

HSDPA

Band	Channel	SubTest	Power(dBm)	Verdict
Band2	9262	1	12.08	PASS
Band2	9262	2	11.55	PASS
Band2	9262	3	11.59	PASS
Band2	9262	4	11.54	PASS
Band2	9400	1	12.10	PASS
Band2	9400	2	11.58	PASS
Band2	9400	3	11.65	PASS
Band2	9400	4	11.60	PASS
Band2	9538	1	11.99	PASS
Band2	9538	2	11.49	PASS
Band2	9538	3	11.51	PASS
Band2	9538	4	11.52	PASS

HSUPA

Band	Channel	SubTest	Power(dBm)	Verdict
Band2	9262	1	10.10	PASS
Band2	9262	2	10.60	PASS
Band2	9262	3	11.03	PASS
Band2	9262	4	10.11	PASS
Band2	9262	5	12.05	PASS

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Band2	9400	1	10.13	PASS
Band2	9400	2	10.57	PASS
Band2	9400	3	11.09	PASS
Band2	9400	4	10.16	PASS
Band2	9400	5	12.08	PASS
Band2	9538	1	10.01	PASS
Band2	9538	2	10.54	PASS
Band2	9538	3	10.96	PASS
Band2	9538	4	10.07	PASS
Band2	9538	5	11.99	PASS

Hotspot Mode:

WCMDA

Band	Channel	Power(dBm)	Verdict
Band2	9262	18.10	PASS
Band2	9400	18.12	PASS
Band2	9538	18.00	PASS

HSDPA

Band	Channel	SubTest	Power(dBm)	Verdict
Band2	9262	1	17.08	PASS
Band2	9262	2	16.72	PASS
Band2	9262	3	16.76	PASS
Band2	9262	4	16.73	PASS
Band2	9400	1	17.14	PASS
Band2	9400	2	16.58	PASS
Band2	9400	3	16.61	PASS
Band2	9400	4	16.57	PASS
Band2	9538	1	17.01	PASS
Band2	9538	2	16.65	PASS
Band2	9538	3	16.67	PASS
Band2	9538	4	16.68	PASS

HSUPA

Band	Channel	SubTest	Power(dBm)	Verdict
Band2	9262	1	16.20	PASS
Band2	9262	2	16.72	PASS

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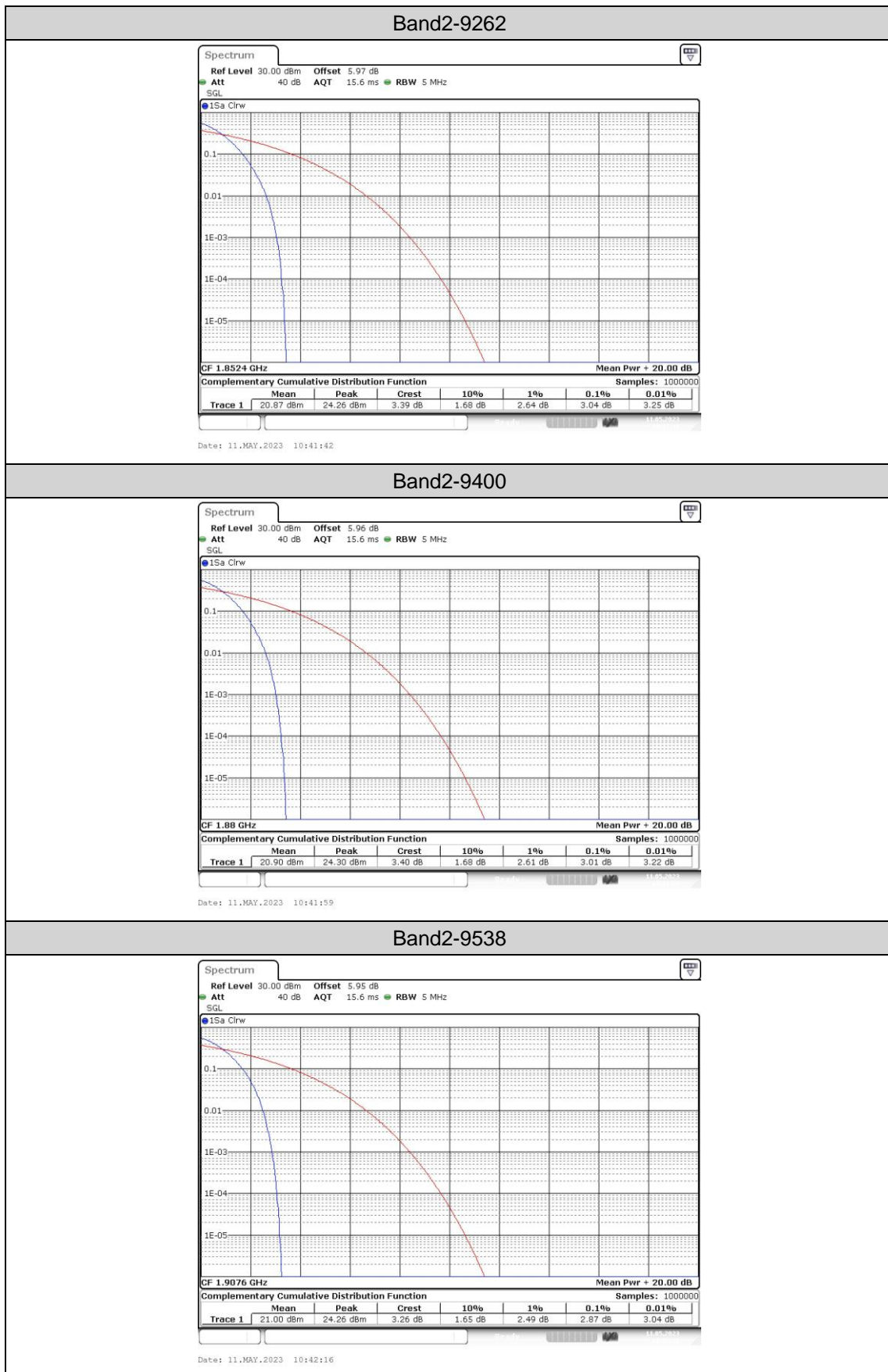
Band2	9262	3	16.24	PASS
Band2	9262	4	16.22	PASS
Band2	9262	5	17.04	PASS
Band2	9400	1	16.24	PASS
Band2	9400	2	16.76	PASS
Band2	9400	3	16.27	PASS
Band2	9400	4	16.27	PASS
Band2	9400	5	17.11	PASS
Band2	9538	1	16.11	PASS
Band2	9538	2	16.34	PASS
Band2	9538	3	16.16	PASS
Band2	9538	4	16.16	PASS
Band2	9538	5	16.76	PASS

## Appendix B: Peak-to-Average Ratio

### Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
Band2	9262	3.04	13	PASS
Band2	9400	3.01	13	PASS
Band2	9538	2.87	13	PASS

### Test Graphs



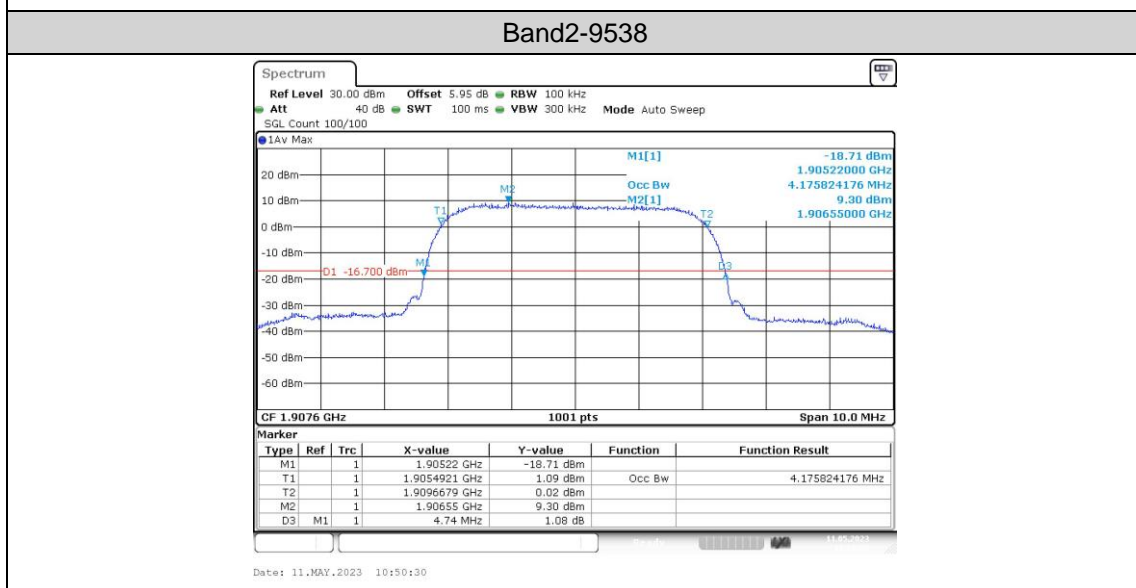
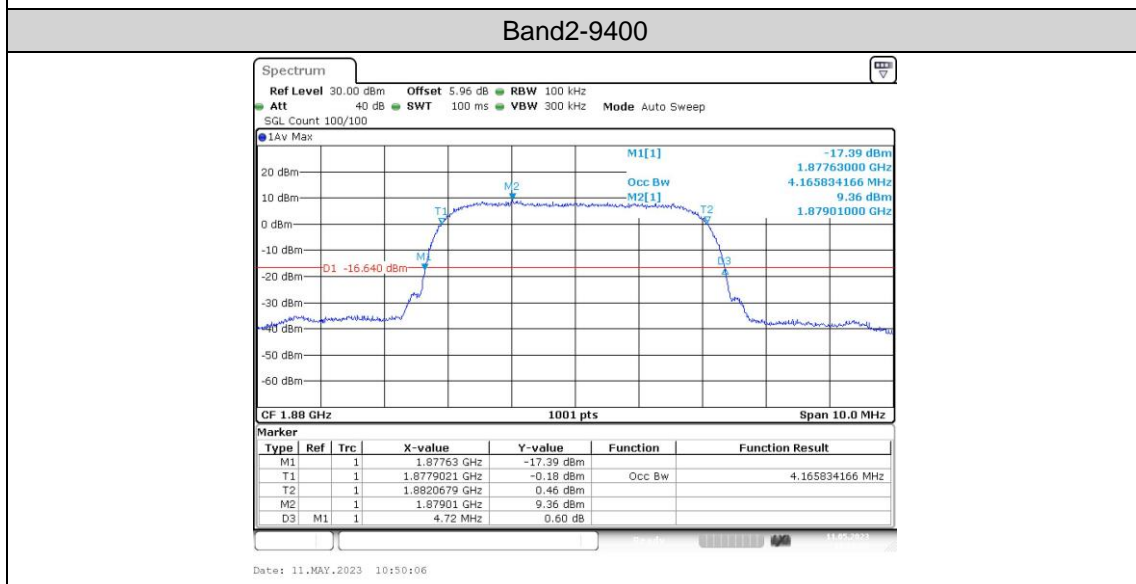
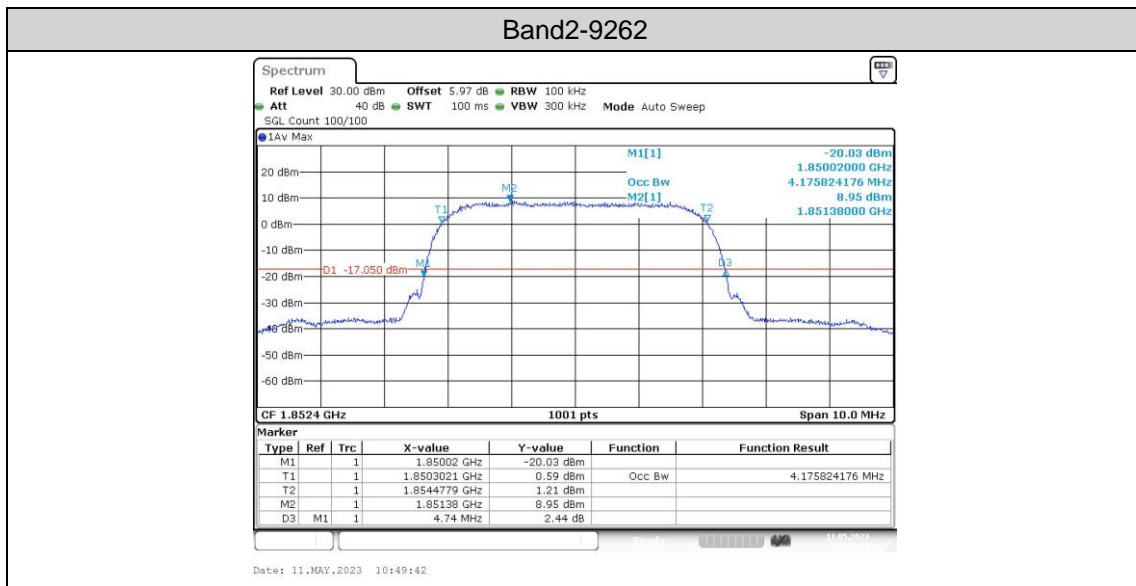


## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
Band2	9262	4.176	4.74	---	PASS
Band2	9400	4.166	4.72	---	PASS
Band2	9538	4.176	4.74	---	PASS

### Test Graphs

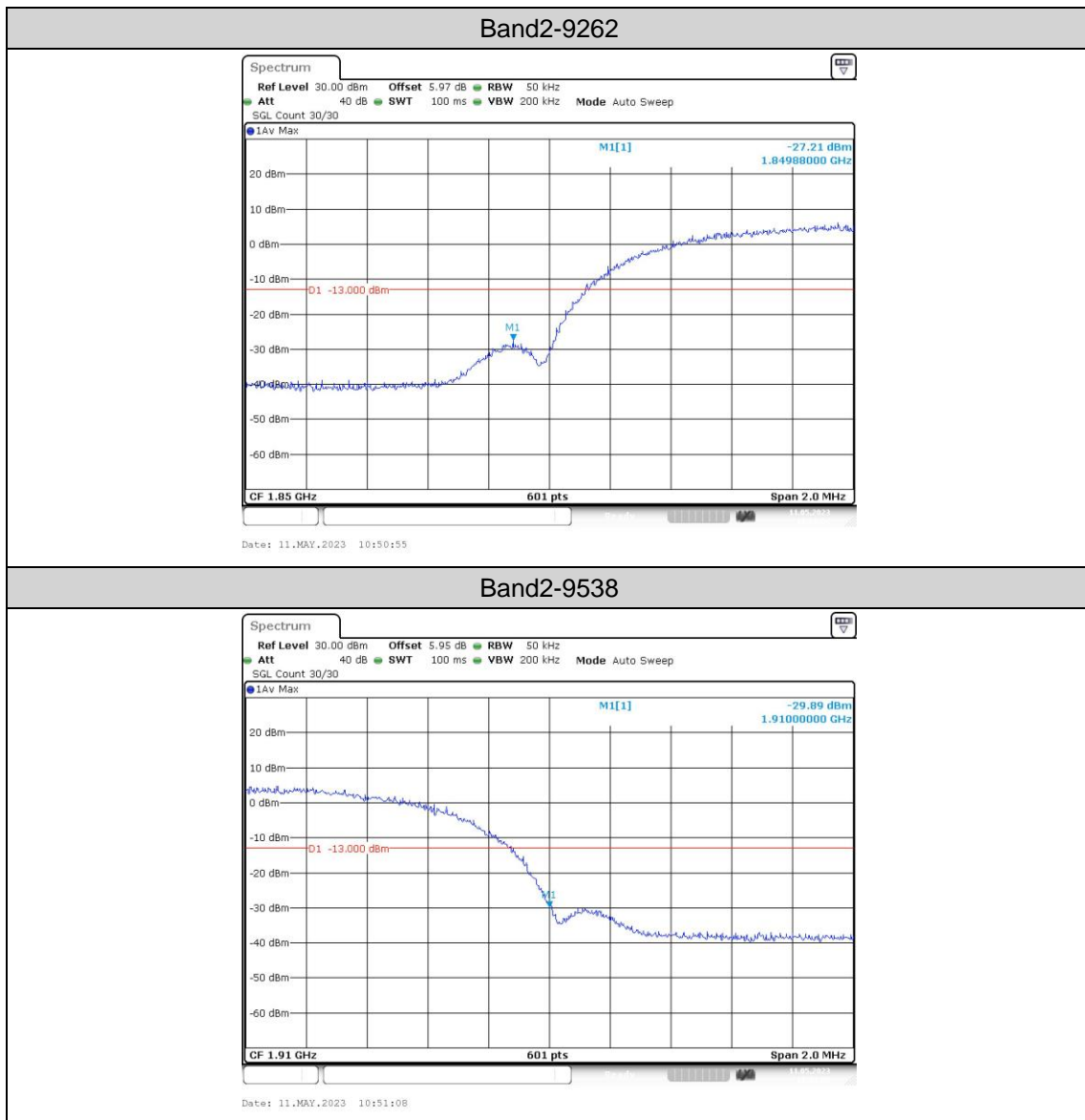


## Appendix D: Band Edge

### Test Result

Band	Channel	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band2	9262	1849.88	-27.21	-13	PASS
Band2	9538	1910.00	-28.73	-13	PASS

### Test Graphs

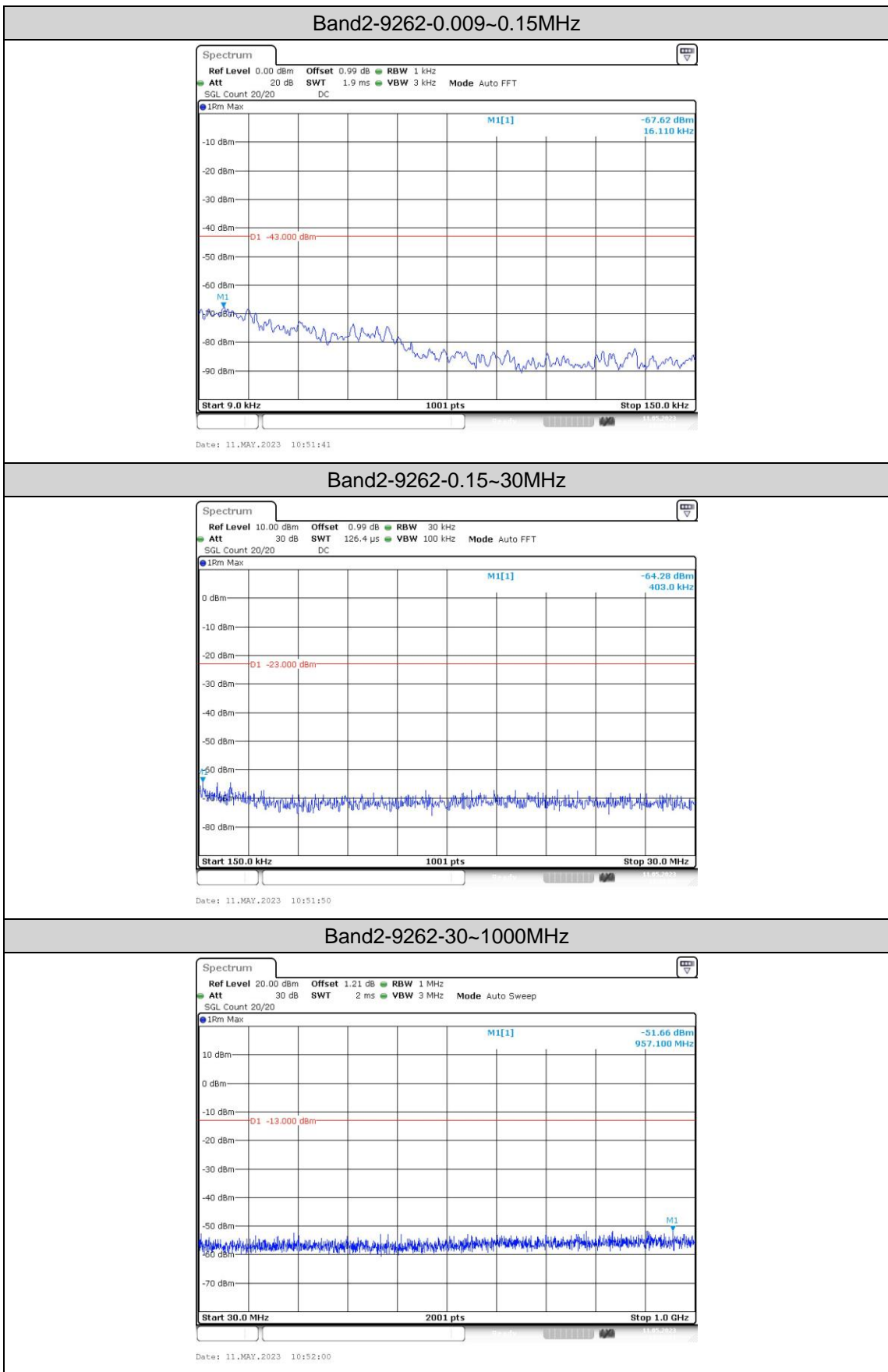


## Appendix E: Conducted Spurious Emission

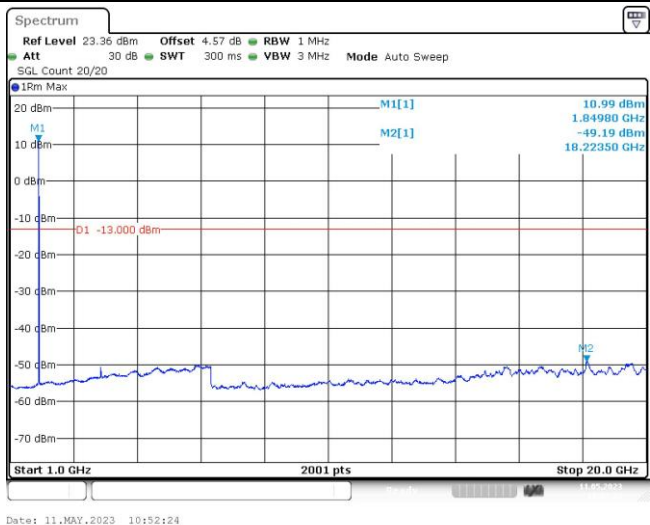
### Test Result

Band	Channel	Frequency Range (Mhz)	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	0.009~0.15MHz	0.02	-67.62	-43	PASS
Band2	9262	0.15~30MHz	0.4	-64.28	-23	PASS
Band2	9262	30~1000MHz	957.1	-51.66	-13	PASS
Band2	9262	1000~20000MHz	18223.5	-49.19	-13	PASS
Band2	9400	0.009~0.15MHz	0.02	-67.73	-43	PASS
Band2	9400	0.15~30MHz	0.25	-64.54	-23	PASS
Band2	9400	30~1000MHz	857.72	-50.86	-13	PASS
Band2	9400	1000~20000MHz	18233	-48.96	-13	PASS
Band2	9538	0.009~0.15MHz	0.02	-65.88	-43	PASS
Band2	9538	0.15~30MHz	0.23	-64.1	-23	PASS
Band2	9538	30~1000MHz	811.67	-51.33	-13	PASS
Band2	9538	1000~20000MHz	18242.5	-49.17	-13	PASS

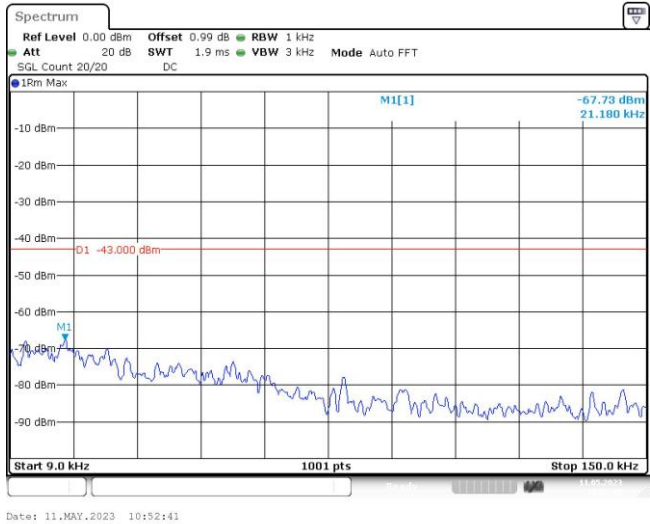
### Test Graphs



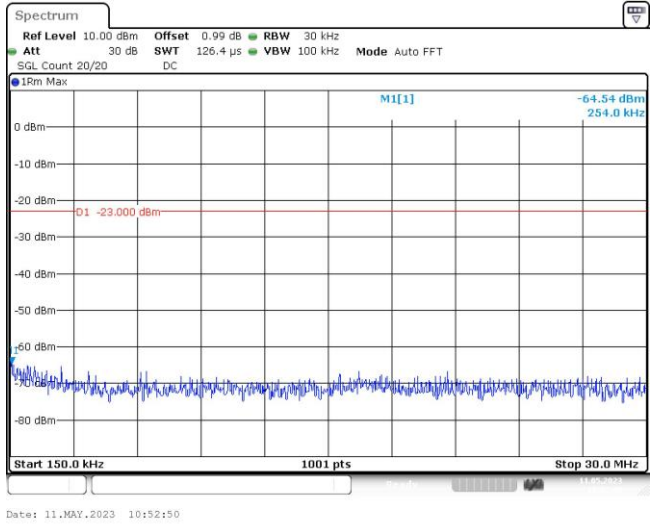
Band2-9262-1000~20000MHz



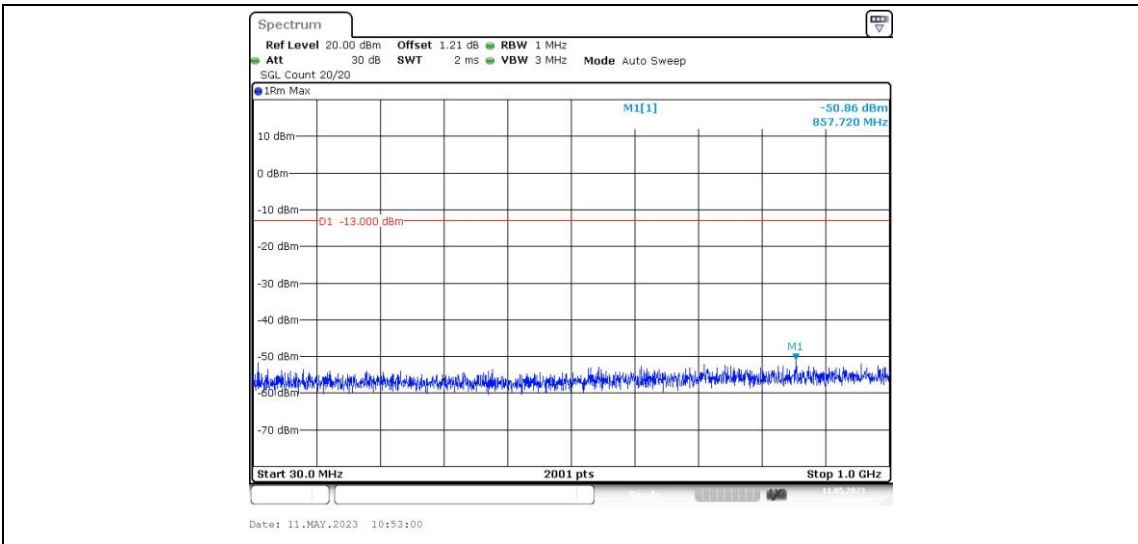
Band2-9400-0.009~0.15MHz



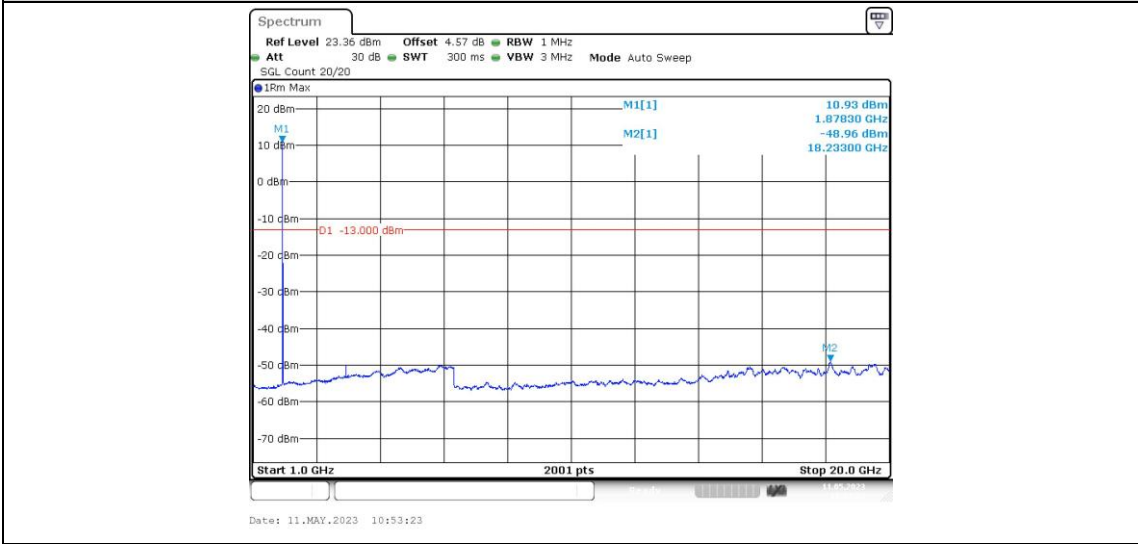
Band2-9400-0.15~30MHz



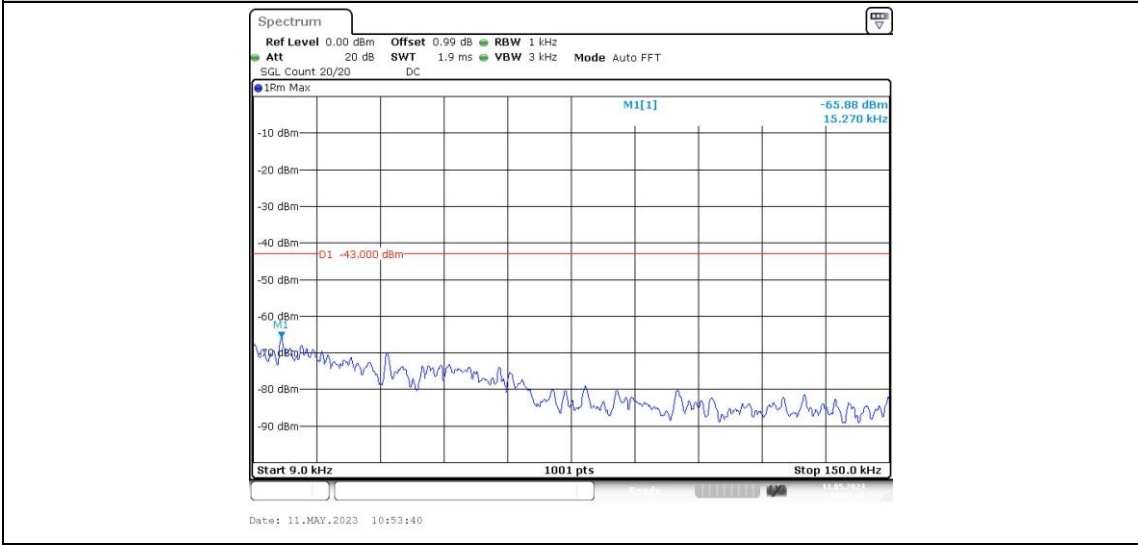
Band2-9400-30~1000MHz



Band2-9400-1000~20000MHz

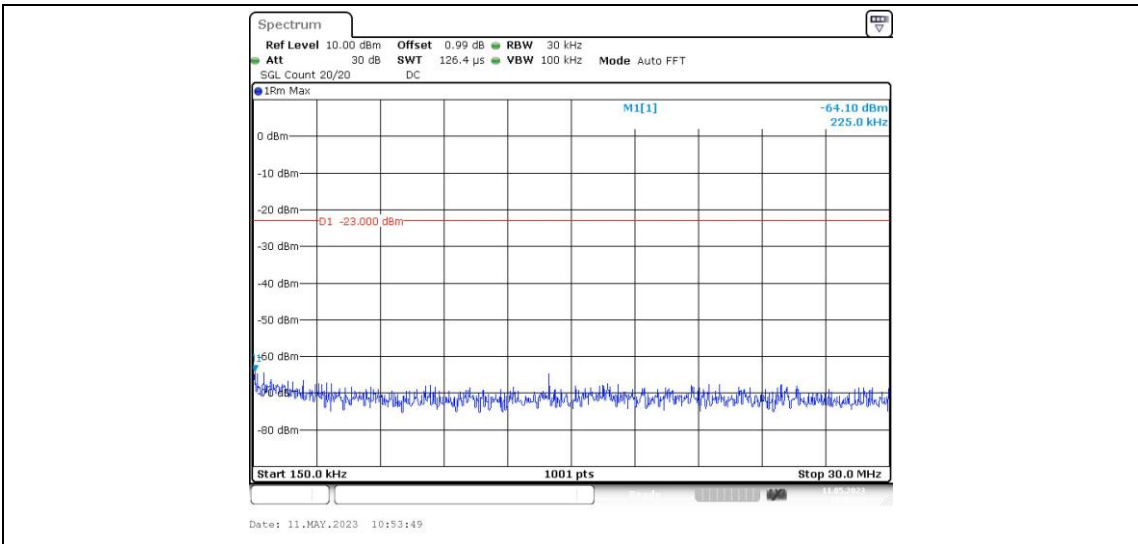


Band2-9538-0.009~0.15MHz

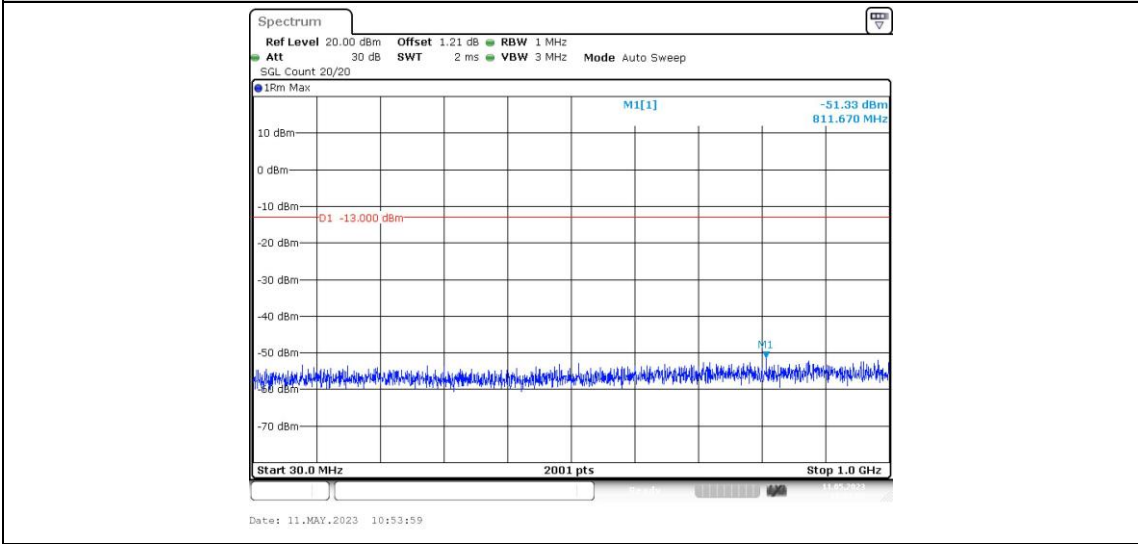


Band2-9538-0.15~30MHz

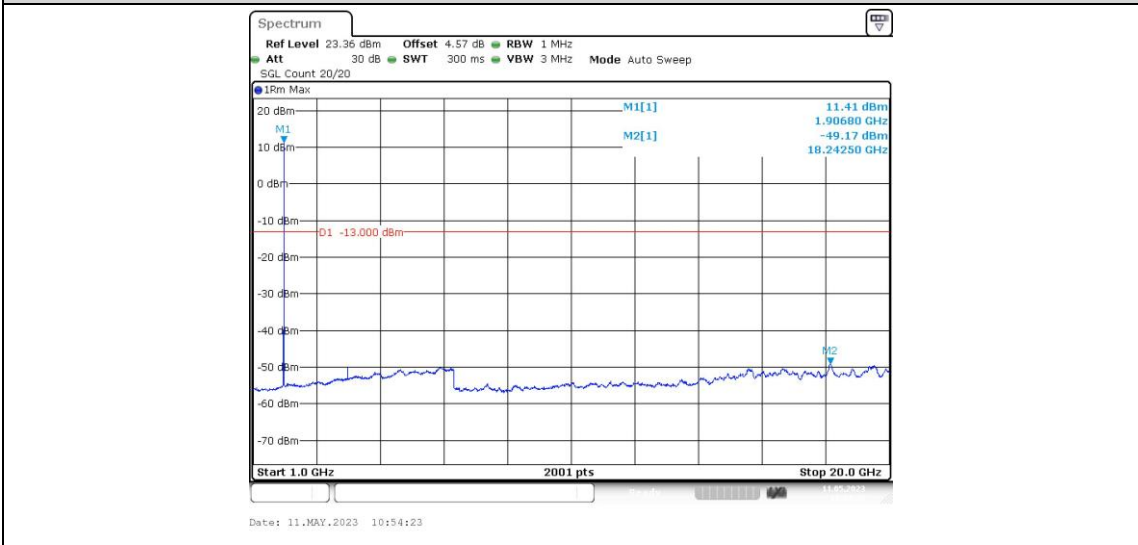




Band2-9538-30~1000MHz



Band2-9538-1000~20000MHz



## Appendix F: Frequency Stability

### Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9262	VL	NT	2.43	0.001312	±2.5	PASS
Band2	9262	VN	NT	2.08	0.001123	±2.5	PASS
Band2	9262	VH	NT	2.16	0.001166	±2.5	PASS
Band2	9400	VL	NT	1.64	0.000872	±2.5	PASS
Band2	9400	VN	NT	1.83	0.000973	±2.5	PASS
Band2	9400	VH	NT	3.16	0.001681	±2.5	PASS
Band2	9538	VL	NT	2.45	0.001284	±2.5	PASS
Band2	9538	VN	NT	1.34	0.000702	±2.5	PASS
Band2	9538	VH	NT	1.75	0.000917	±2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9262	NV	-30	2.99	0.001614	±2.5	PASS
Band2	9262	NV	-20	2.71	0.001463	±2.5	PASS
Band2	9262	NV	-10	2.29	0.001236	±2.5	PASS
Band2	9262	NV	0	2.30	0.001242	±2.5	PASS
Band2	9262	NV	10	3.16	0.001706	±2.5	PASS
Band2	9262	NV	20	2.36	0.001274	±2.5	PASS
Band2	9262	NV	30	2.73	0.001474	±2.5	PASS
Band2	9262	NV	40	2.54	0.001371	±2.5	PASS
Band2	9262	NV	50	3.05	0.001647	±2.5	PASS
Band2	9400	NV	-30	3.03	0.001612	±2.5	PASS
Band2	9400	NV	-20	1.86	0.000989	±2.5	PASS
Band2	9400	NV	-10	4.18	0.002223	±2.5	PASS
Band2	9400	NV	0	3.16	0.001681	±2.5	PASS
Band2	9400	NV	10	2.42	0.001287	±2.5	PASS
Band2	9400	NV	20	2.46	0.001309	±2.5	PASS
Band2	9400	NV	30	1.42	0.000755	±2.5	PASS
Band2	9400	NV	40	2.02	0.001074	±2.5	PASS
Band2	9400	NV	50	3.96	0.002106	±2.5	PASS
Band2	9538	NV	-30	2.22	0.001164	±2.5	PASS
Band2	9538	NV	-20	2.03	0.001064	±2.5	PASS
Band2	9538	NV	-10	3.05	0.001599	±2.5	PASS

Band2	9538	NV	0	2.39	0.001253	±2.5	PASS
Band2	9538	NV	10	2.92	0.001531	±2.5	PASS
Band2	9538	NV	20	2.32	0.001216	±2.5	PASS
Band2	9538	NV	30	1.74	0.000912	±2.5	PASS
Band2	9538	NV	40	2.14	0.001122	±2.5	PASS
Band2	9538	NV	50	2.40	0.001258	±2.5	PASS

## Appendix G: Modulation Characteristics

### Test Result

Band	Channel	Result	Verdict
Band2	9262	PASS	PASS
Band2	9400	PASS	PASS
Band2	9538	PASS	PASS

### Test Graphs

