

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Channel	Power(dBm)	Limit(dBm)	Verdict
Band2	9262	22.29	33	PASS
Band2	9400	22.50	33	PASS
Band2	9538	22.63	33	PASS
Band5	4132	21.62	38.5	PASS
Band5	4182	21.62	38.5	PASS
Band5	4233	21.62	38.5	PASS

Note: Band5 is ERP power, the Band2 is EIRP power.

HSDPA

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band2	9262	1	22.49	33	PASS
Band2	9262	2	22.48	33	PASS
Band2	9262	3	22.50	33	PASS
Band2	9262	4	22.49	33	PASS
Band2	9400	1	22.51	33	PASS
Band2	9400	2	22.46	33	PASS
Band2	9400	3	22.49	33	PASS
Band2	9400	4	22.50	33	PASS
Band2	9538	1	22.50	33	PASS
Band2	9538	2	22.51	33	PASS
Band2	9538	3	22.48	33	PASS
Band2	9538	4	22.49	33	PASS
Band5	4132	1	20.66	38.5	PASS
Band5	4132	2	20.16	38.5	PASS
Band5	4132	3	20.16	38.5	PASS
Band5	4132	4	20.17	38.5	PASS
Band5	4182	1	20.67	38.5	PASS
Band5	4182	2	20.16	38.5	PASS
Band5	4182	3	20.18	38.5	PASS
Band5	4182	4	20.16	38.5	PASS
Band5	4233	1	20.68	38.5	PASS
Band5	4233	2	20.17	38.5	PASS
Band5	4233	3	20.19	38.5	PASS
Band5	4233	4	20.17	38.5	PASS

Note: Band5 is ERP power, the Band2 is EIRP power.

HSUPA

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band2	9262	1	19.35	33	PASS
Band2	9262	2	19.85	33	PASS
Band2	9262	3	20.34	33	PASS
Band2	9262	4	19.35	33	PASS
Band2	9262	5	21.33	33	PASS
Band2	9400	1	19.57	33	PASS
Band2	9400	2	20.04	33	PASS
Band2	9400	3	20.56	33	PASS
Band2	9400	4	19.59	33	PASS
Band2	9400	5	21.52	33	PASS
Band2	9538	1	19.64	33	PASS
Band2	9538	2	20.16	33	PASS
Band2	9538	3	20.64	33	PASS
Band2	9538	4	19.63	33	PASS
Band2	9538	5	21.60	33	PASS
Band5	4132	1	18.66	38.5	PASS
Band5	4132	2	19.13	38.5	PASS
Band5	4132	3	19.63	38.5	PASS
Band5	4132	4	18.63	38.5	PASS
Band5	4132	5	20.62	38.5	PASS
Band5	4182	1	18.67	38.5	PASS
Band5	4182	2	19.15	38.5	PASS
Band5	4182	3	19.62	38.5	PASS
Band5	4182	4	18.65	38.5	PASS
Band5	4182	5	20.63	38.5	PASS
Band5	4233	1	18.68	38.5	PASS
Band5	4233	2	19.13	38.5	PASS
Band5	4233	3	19.66	38.5	PASS
Band5	4233	4	18.67	38.5	PASS
Band5	4233	5	20.68	38.5	PASS

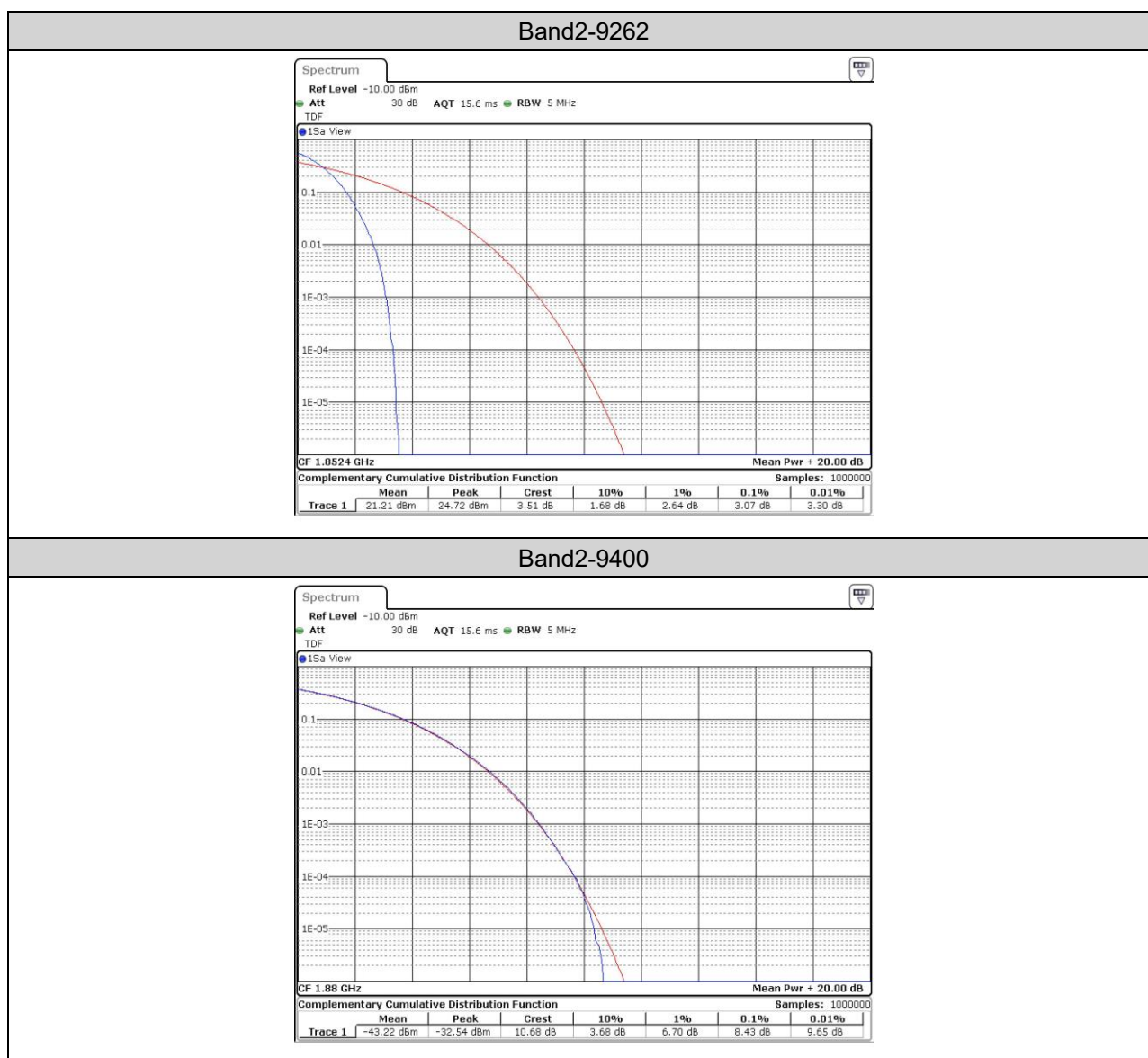
Note: Band5 is ERP power, the Band2 is EIRP power.

Appendix B: Peak-to-Average Ratio

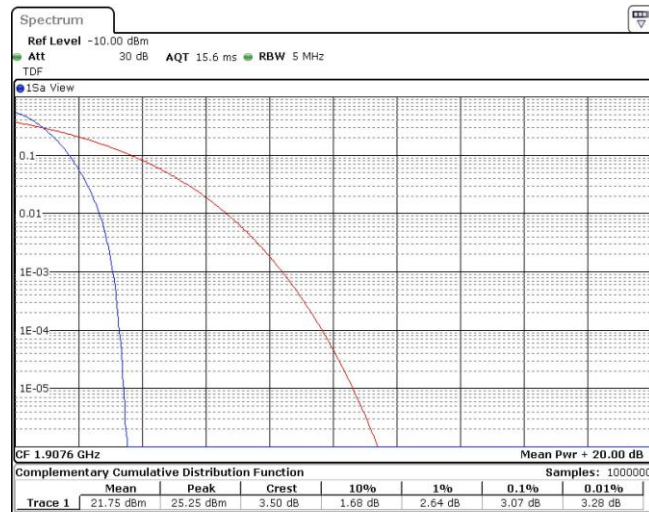
Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
Band2	9262	3.07	13	PASS
Band2	9400	8.43	13	PASS
Band2	9538	3.07	13	PASS
Band5	4132	8.46	13	PASS
Band5	4182	8.46	13	PASS
Band5	4233	8.55	13	PASS

Test Graphs



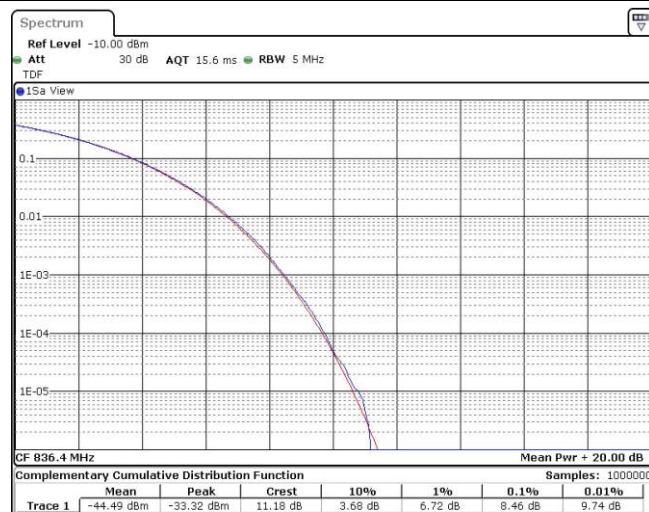
Band2-9538

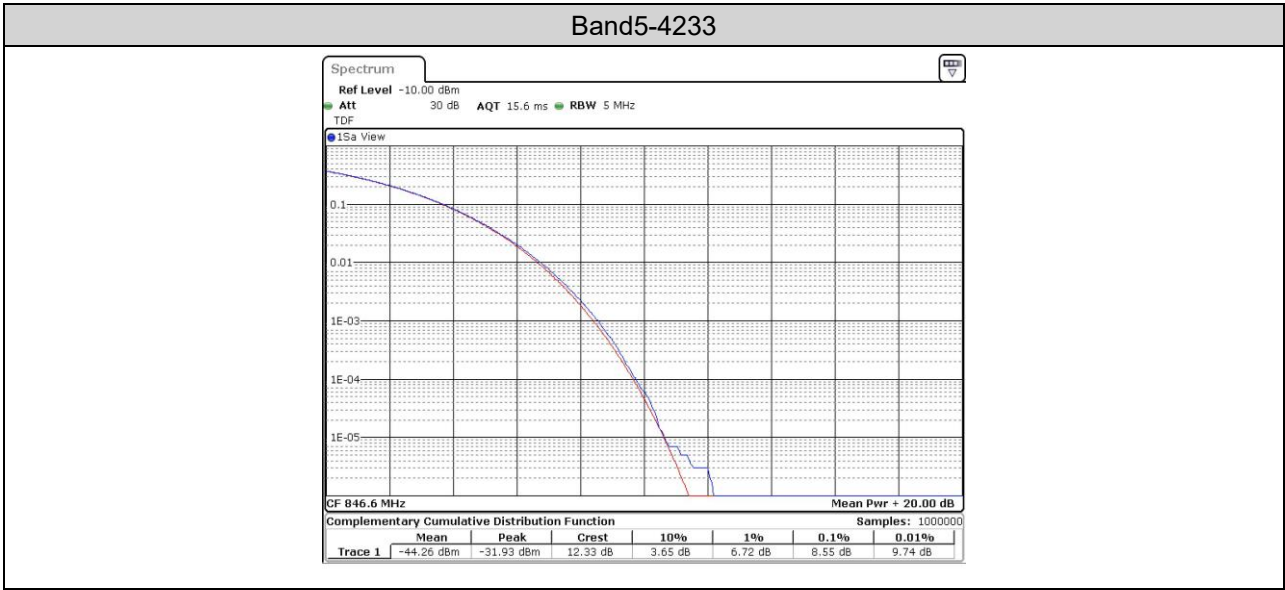


Band5-4132



Band5-4182



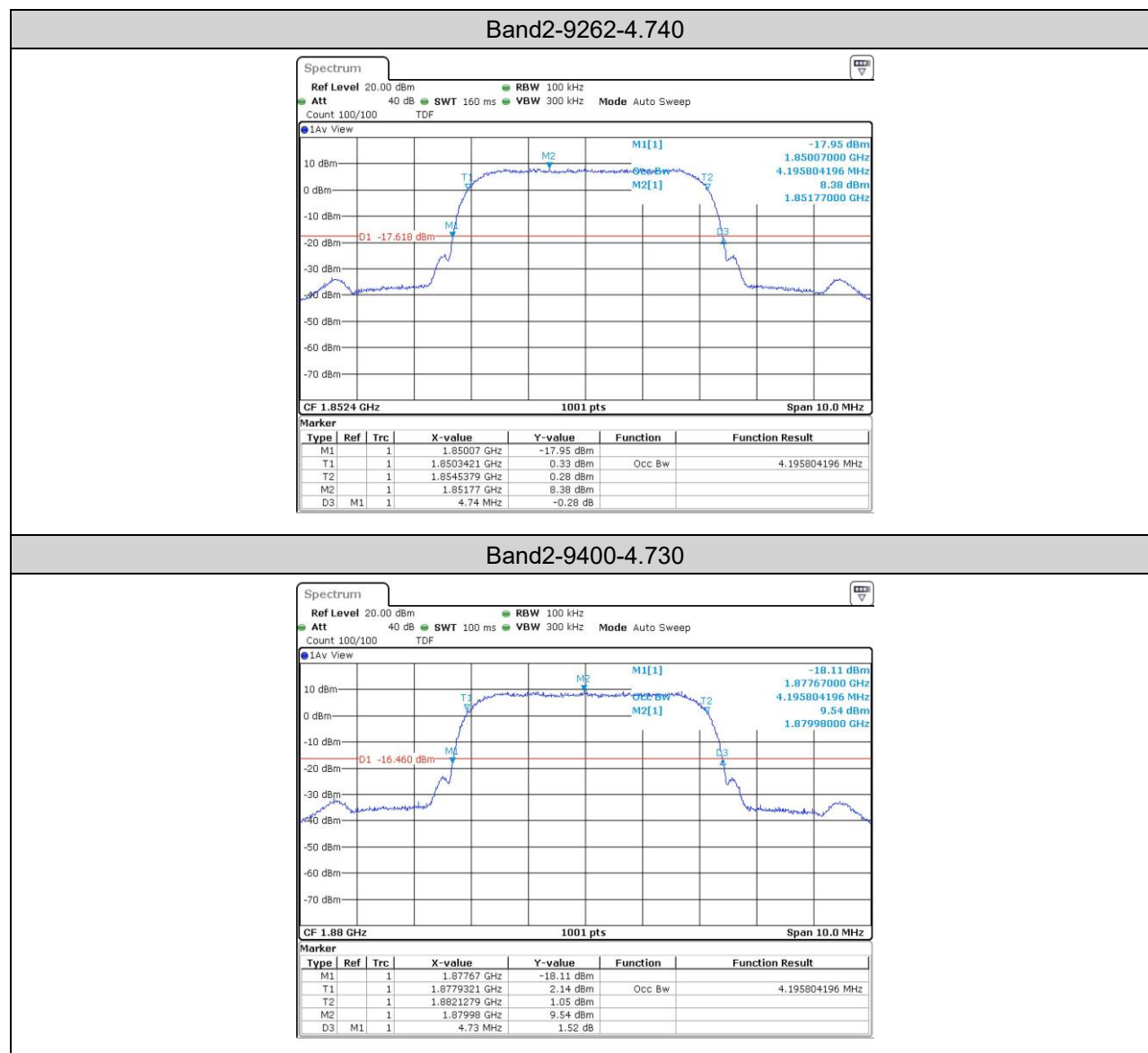


Appendix C: 26dB Bandwidth and Occupied Bandwidth

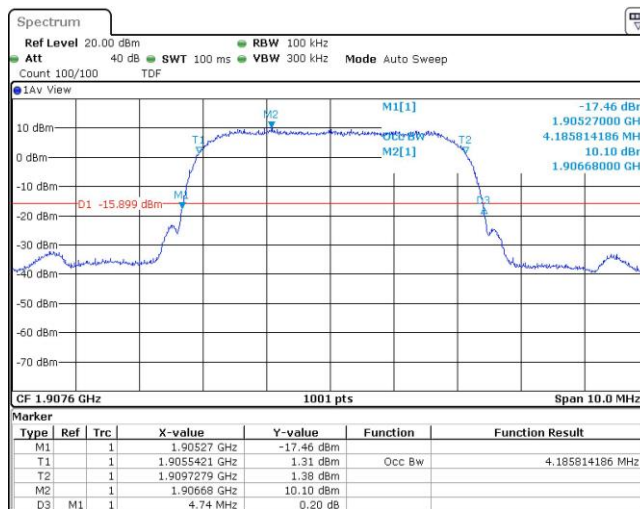
Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(kHz)	Verdict
Band2	9262	4.196	4.740	---	PASS
Band2	9400	4.196	4.730	---	PASS
Band2	9538	4.186	4.740	---	PASS
Band5	4132	4.186	4.740	---	PASS
Band5	4182	4.176	4.730	---	PASS
Band5	4233	4.196	4.740	---	PASS

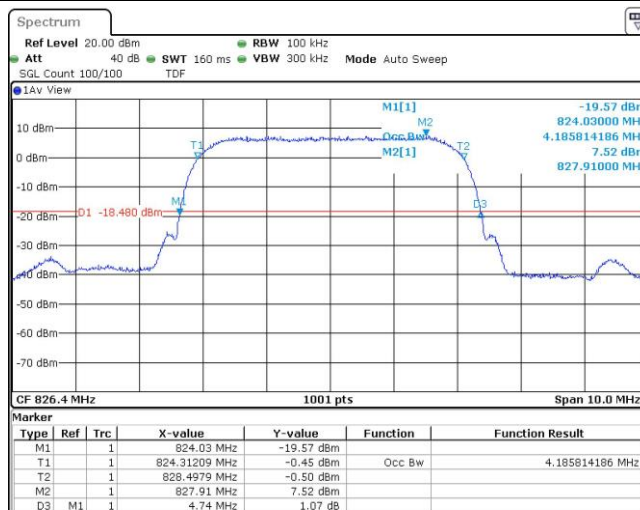
Test Graphs



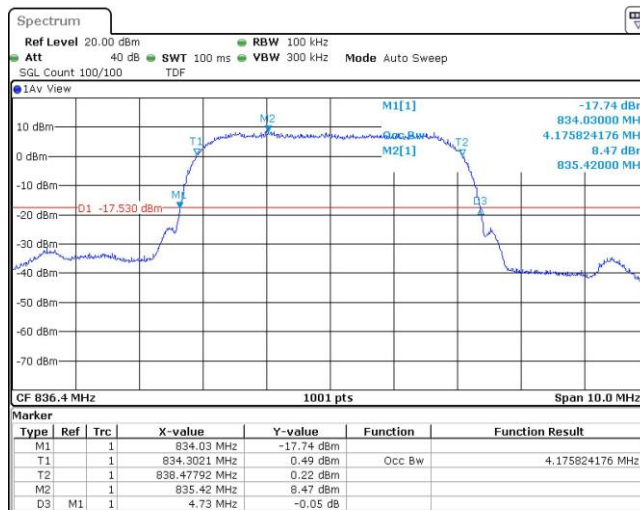
Band2-9538-4.740



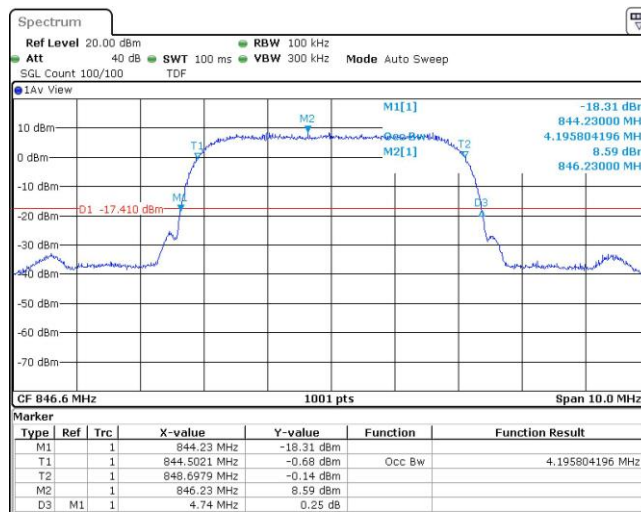
Band5-4132-4.74



Band5-4182-4.73



Band5-4233-4.74

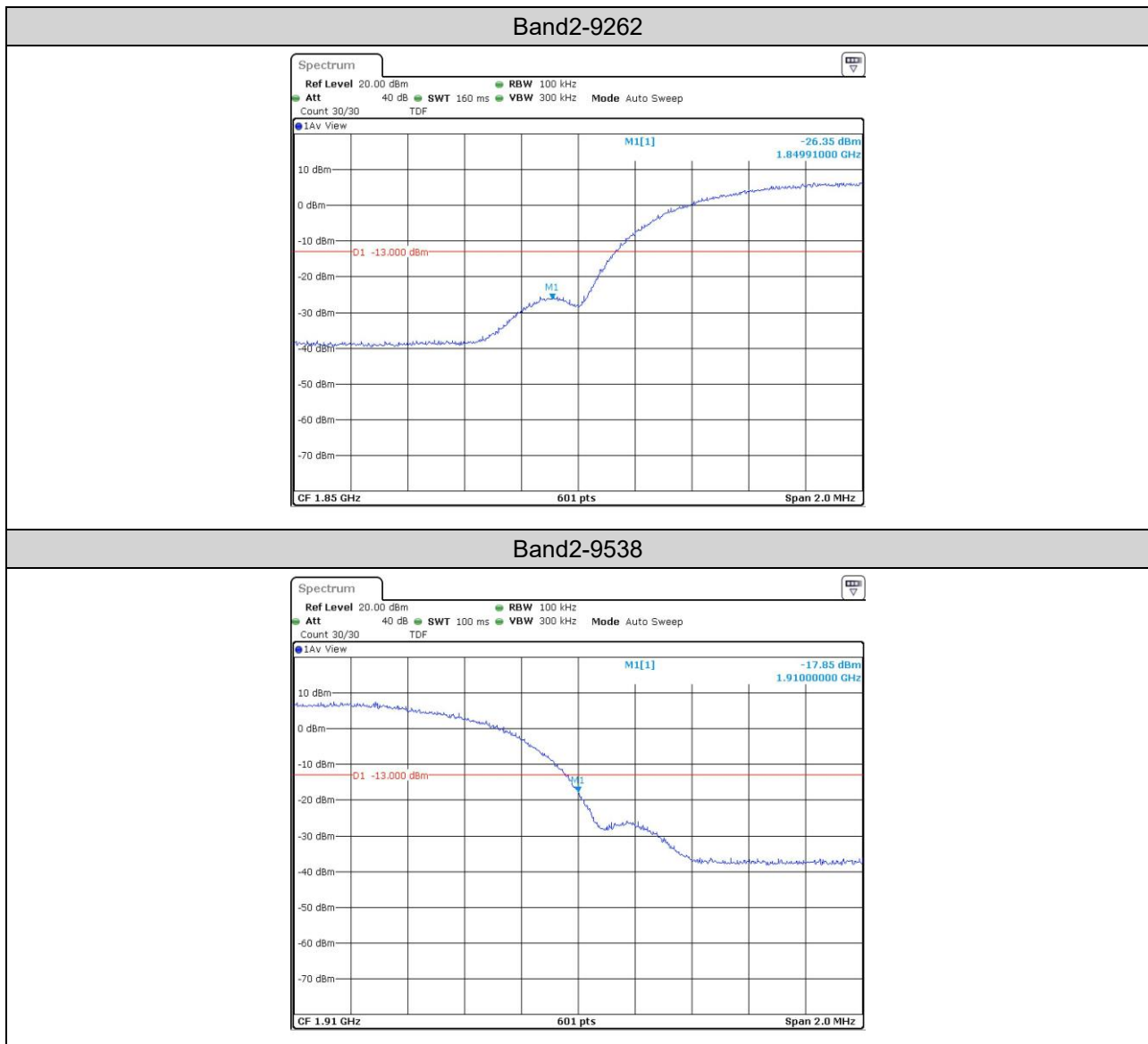


Appendix D: Band Edge

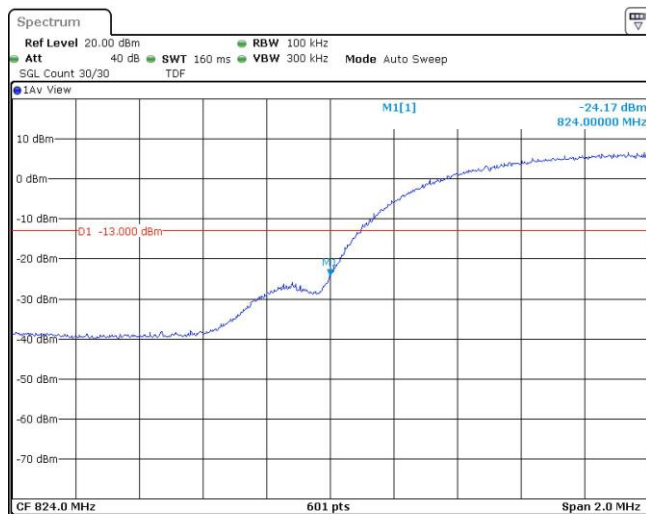
Test Result

Band	Channel	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band2	9262	1849.91	-25.44	-13	PASS
Band2	9538	1910.00	-17.85	-13	PASS
Band5	4132	824.00	-24.17	-13	PASS
Band5	4233	849.00	-23.08	-13	PASS

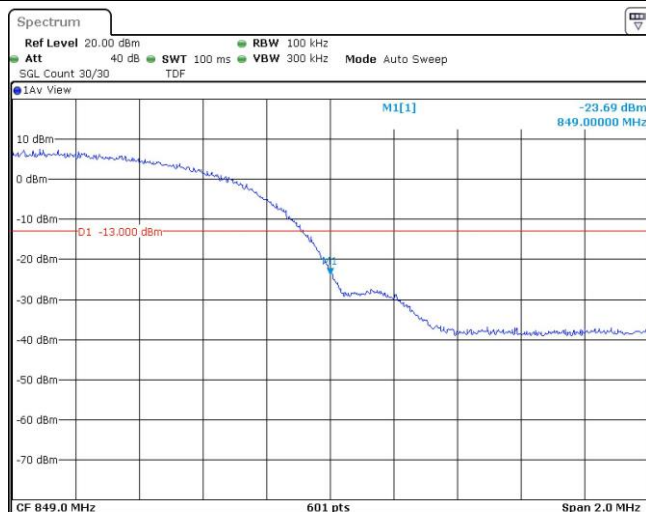
Test Graphs



Band5-4132



Band5-4233



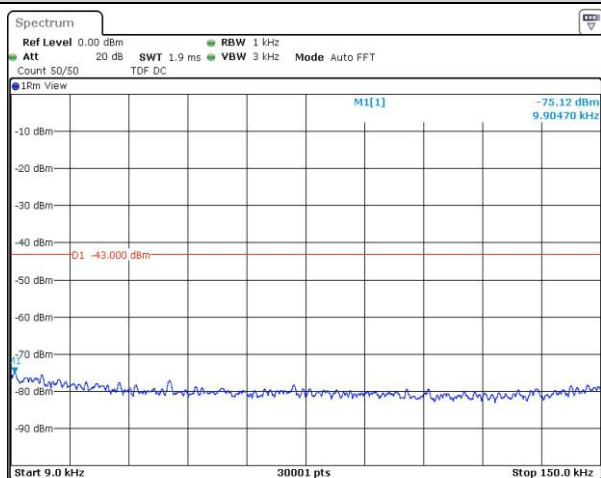
Appendix E: Conducted Spurious Emission

Test Result

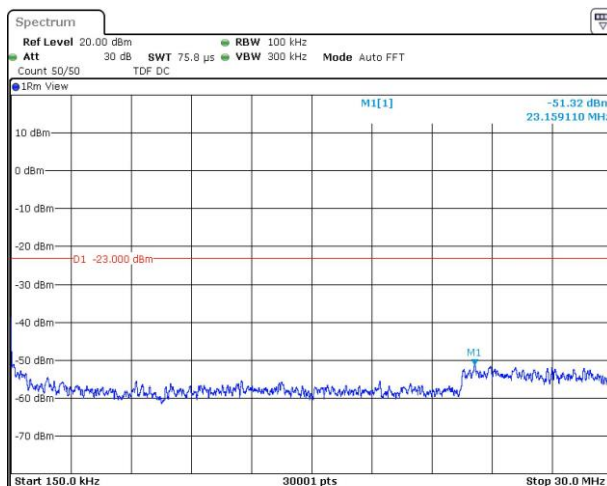
Band	Channel	Frequency Range (Mhz)	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	0.009~0.15MHz	0.01	-75.12	-43	PASS
Band2	9262	0.15~30MHz	23.16	-51.32	-23	PASS
Band2	9262	30~1000MHz	962.03	-35.62	-13	PASS
Band2	9262	1000~3000MHz	2994.8	-42.18	-13	PASS
Band2	9262	3000~10000MHz	3706.39	-45.53	-13	PASS
Band2	9262	10000~20000MHz	19887.17	-61.53	-13	PASS
Band2	9400	0.009~0.15MHz	0.01	-73.44	-43	PASS
Band2	9400	0.15~30MHz	23.73	-50.54	-23	PASS
Band2	9400	30~1000MHz	965.52	-34.9	-13	PASS
Band2	9400	1000~3000MHz	2954.73	-41.87	-13	PASS
Band2	9400	3000~10000MHz	3758.42	-45.95	-13	PASS
Band2	9400	10000~20000MHz	19893.17	-61.43	-13	PASS
Band2	9538	0.009~0.15MHz	0.01	-75.3	-43	PASS
Band2	9538	0.15~30MHz	24.19	-51.29	-23	PASS
Band2	9538	30~1000MHz	995.17	-35.19	-13	PASS
Band2	9538	1000~3000MHz	2997.47	-41.86	-13	PASS
Band2	9538	3000~10000MHz	3813.49	-45.03	-13	PASS
Band2	9538	10000~20000MHz	19893.84	-61.74	-13	PASS
Band5	4132	0.009~0.15MHz	0.01	-75.01	-33	PASS
Band5	4132	0.15~30MHz	23.06	-51.02	-13	PASS
Band5	4132	30~1000MHz	984.8	-35.49	-13	PASS
Band5	4132	1000~3000MHz	2923.9	-42.8	-13	PASS
Band5	4132	3000~10000MHz	5870.72	-51.59	-13	PASS
Band5	4132	10000~18000MHz	15143.16	-63.68	-13	PASS
Band5	4182	0.009~0.15MHz	0.01	-75.73	-33	PASS
Band5	4182	0.15~30MHz	23.44	-51.74	-13	PASS
Band5	4182	30~1000MHz	943.87	-35.57	-13	PASS
Band5	4182	1000~3000MHz	2979.5	-42.74	-13	PASS
Band5	4182	3000~10000MHz	5905.25	-51.63	-13	PASS
Band5	4182	10000~18000MHz	15152.23	-63.54	-13	PASS
Band5	4233	0.009~0.15MHz	0.01	-75.1	-33	PASS
Band5	4233	0.15~30MHz	25.47	-51.61	-13	PASS
Band5	4233	30~1000MHz	981.38	-34.82	-13	PASS
Band5	4233	1000~3000MHz	2945.57	-42.82	-13	PASS
Band5	4233	3000~10000MHz	5895.69	-51.51	-13	PASS
Band5	4233	10000~18000MHz	15137.56	-63.28	-13	PASS

Test Graphs

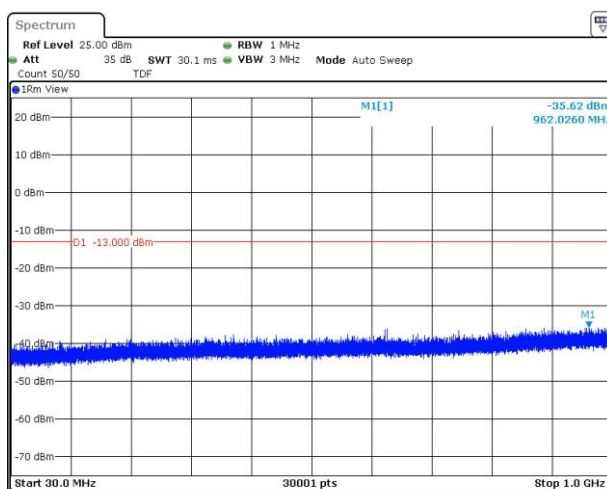
Band2-9262-0.009~0.15MHz



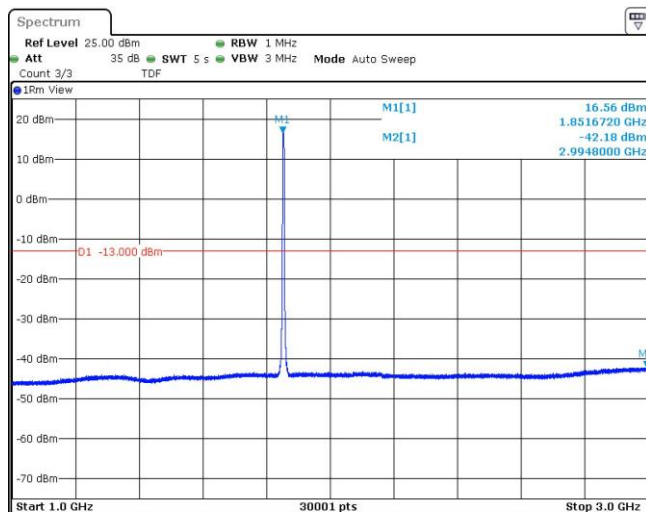
Band2-9262-0.15~30MHz



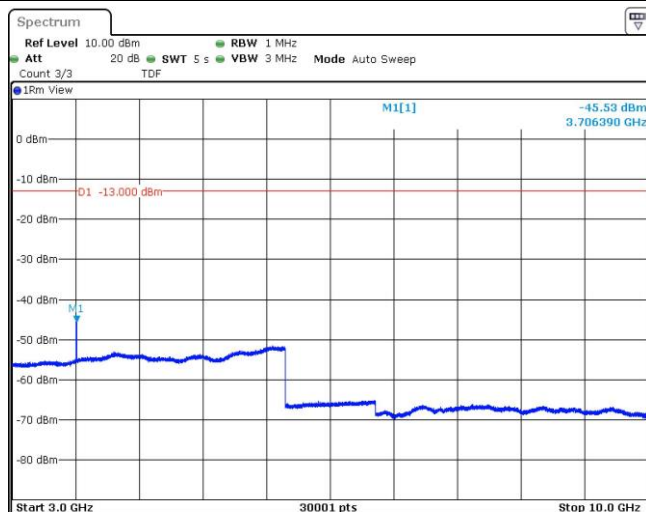
Band2-9262-30~1000MHz



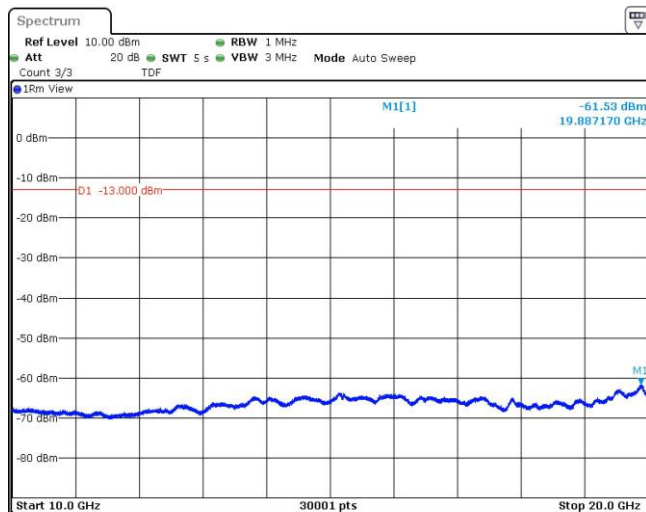
Band2-9262-1000~3000MHz



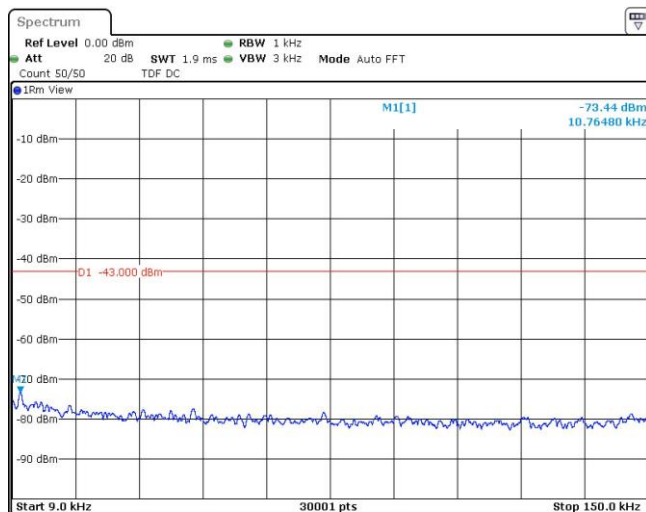
Band2-9262-3000~10000MHz



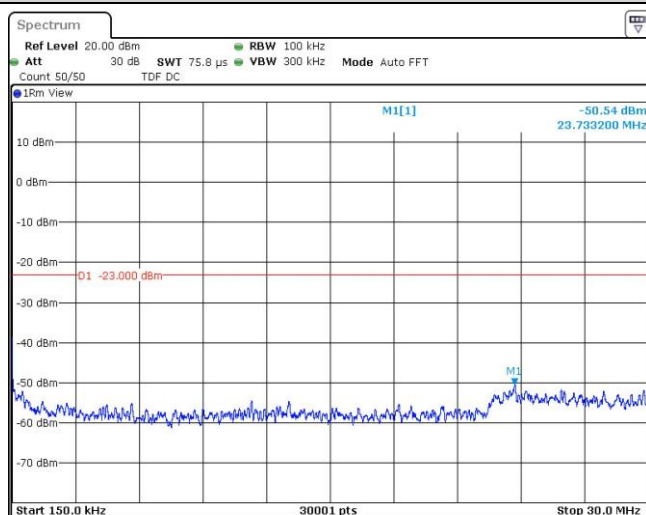
Band2-9262-10000~20000MHz



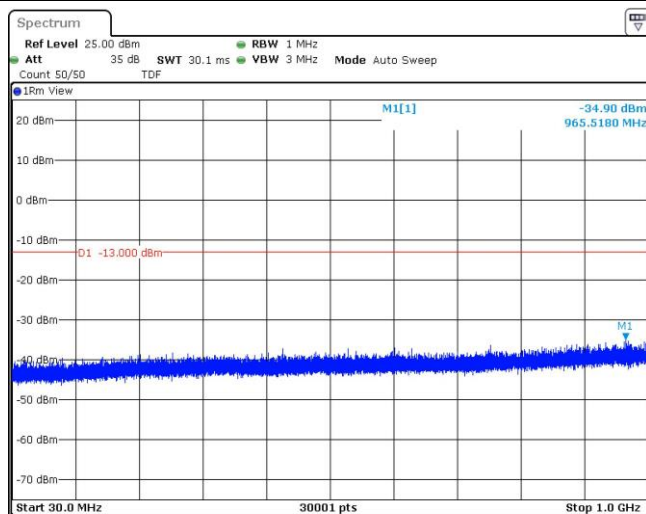
Band2-9400-0.009~0.15MHz



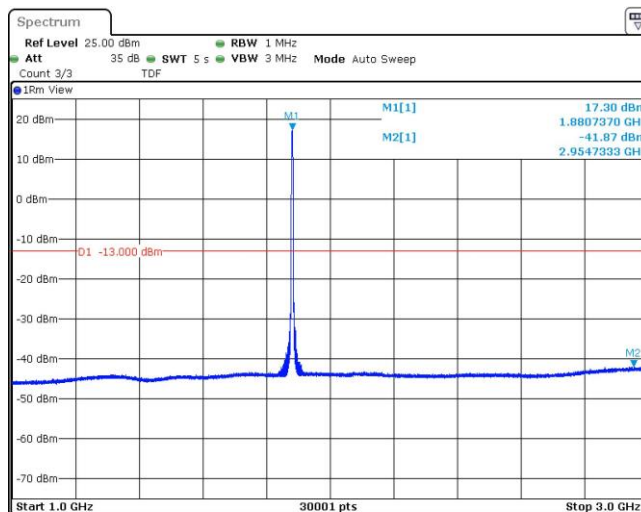
Band2-9400-0.15~30MHz



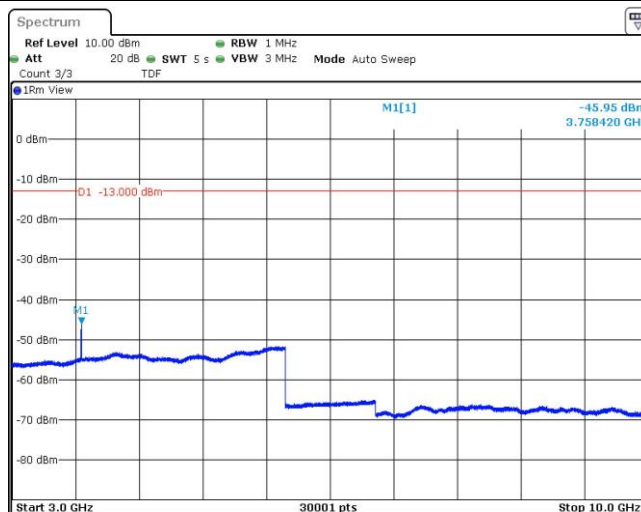
Band2-9400-30~1000MHz



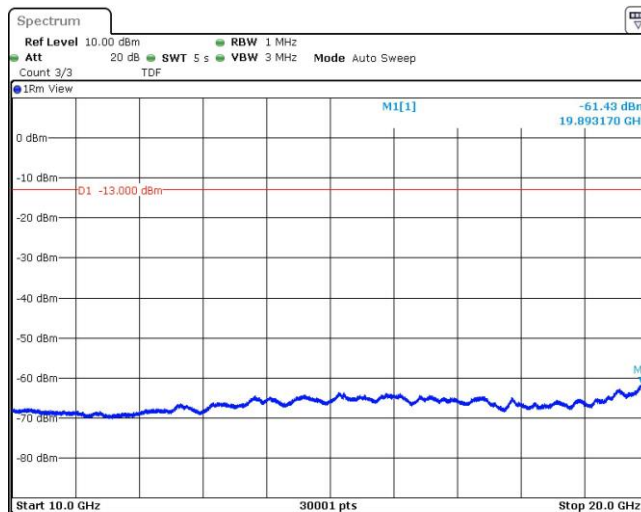
Band2-9400-1000~3000MHz



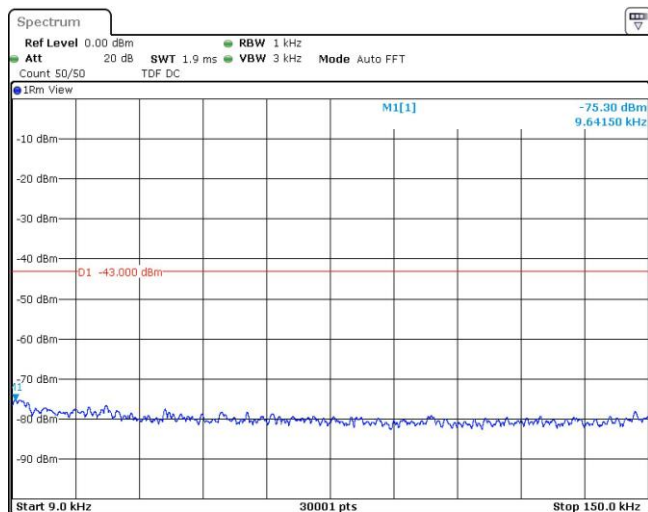
Band2-9400-3000~10000MHz



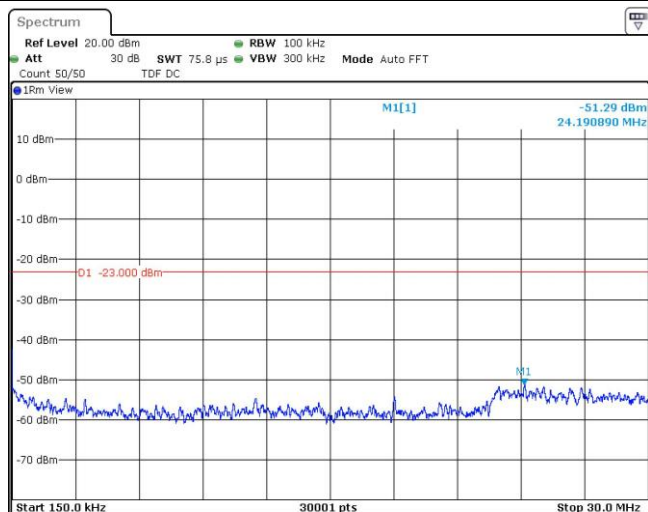
Band2-9400-10000~20000MHz



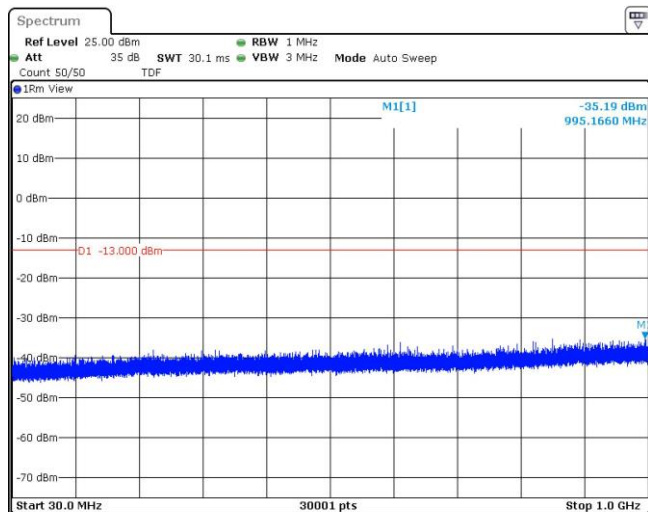
Band2-9538-0.009~0.15MHz



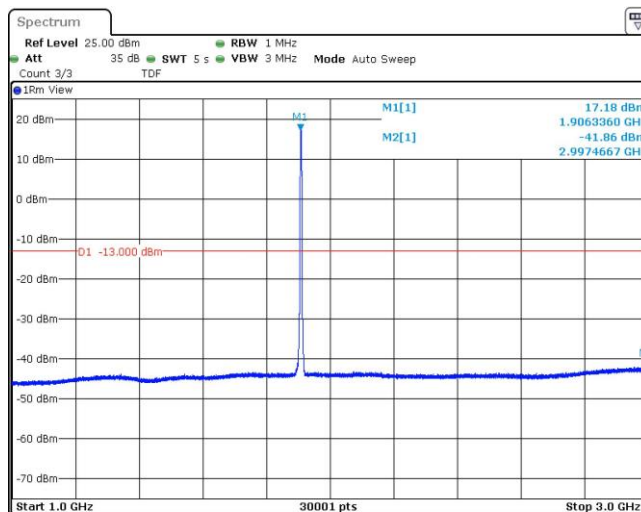
Band2-9538-0.15~30MHz



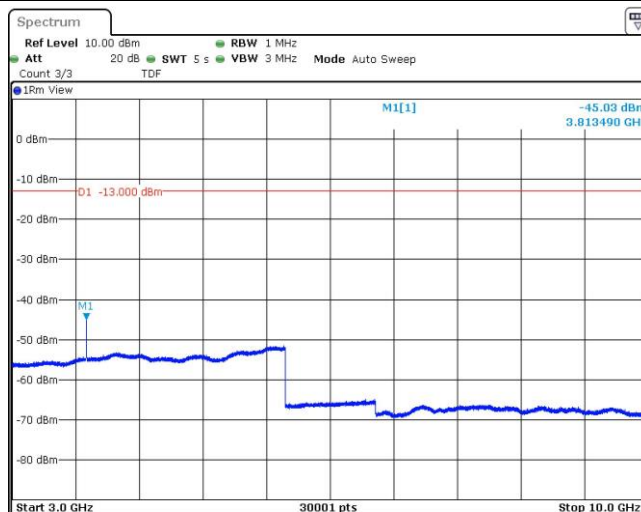
Band2-9538-30~1000MHz



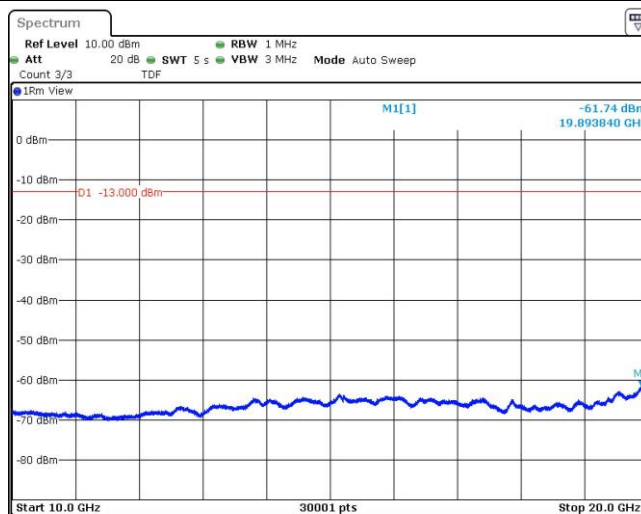
Band2-9538-1000~3000MHz



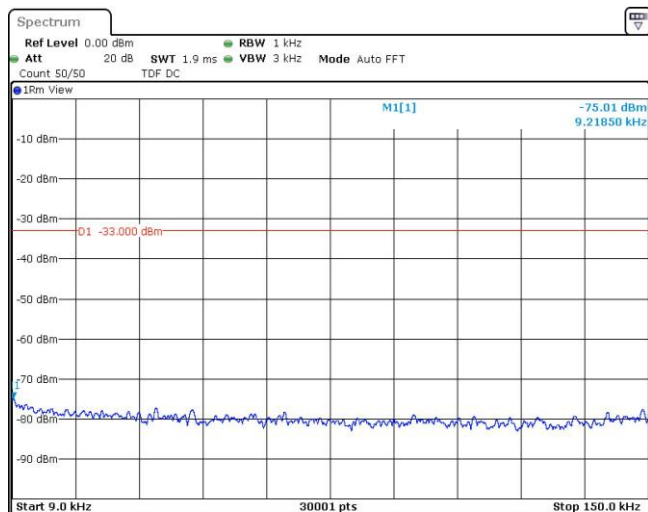
Band2-9538-3000~10000MHz



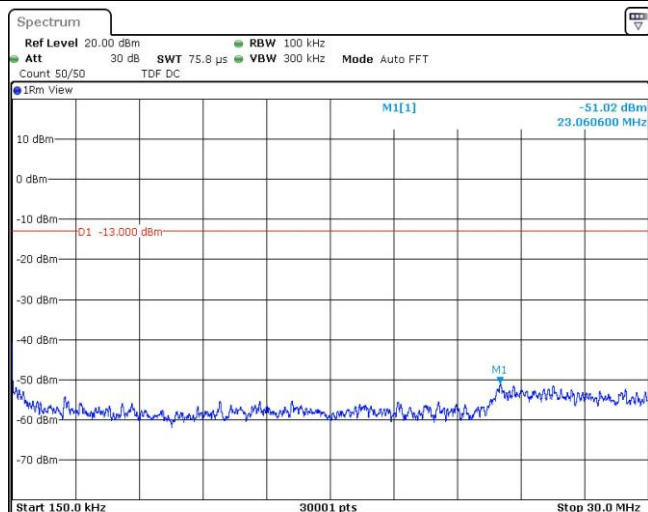
Band2-9538-10000~20000MHz



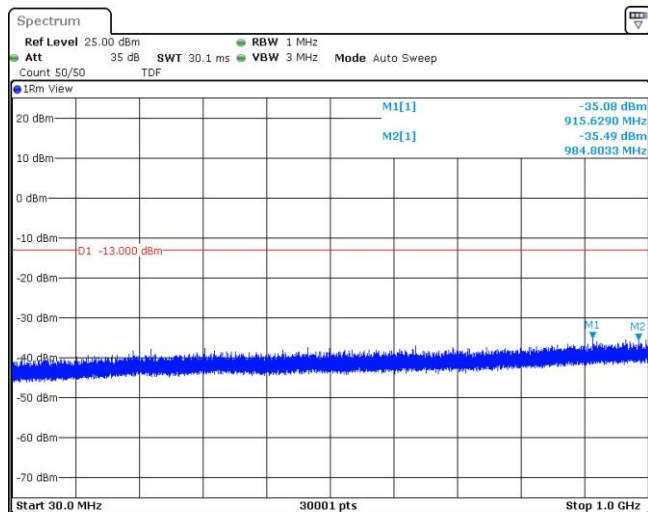
Band5-4132-0.009~0.15MHz



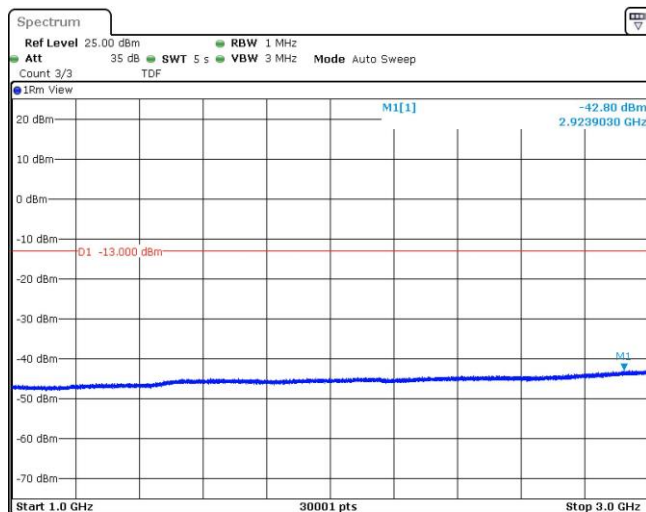
Band5-4132-0.15~30MHz



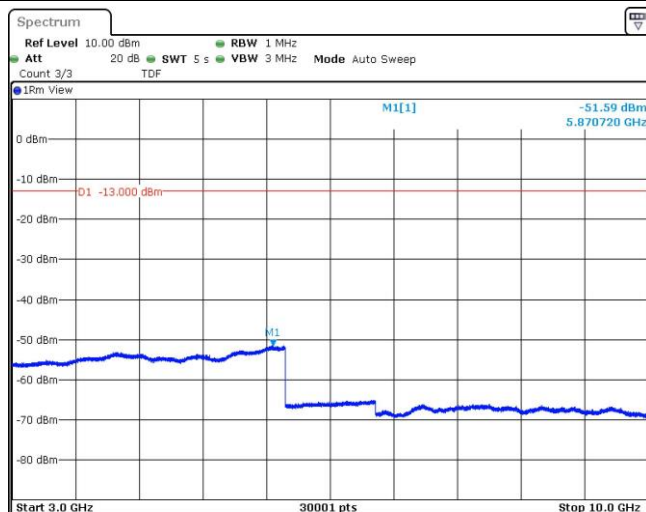
Band5-4132-30~1000MHz



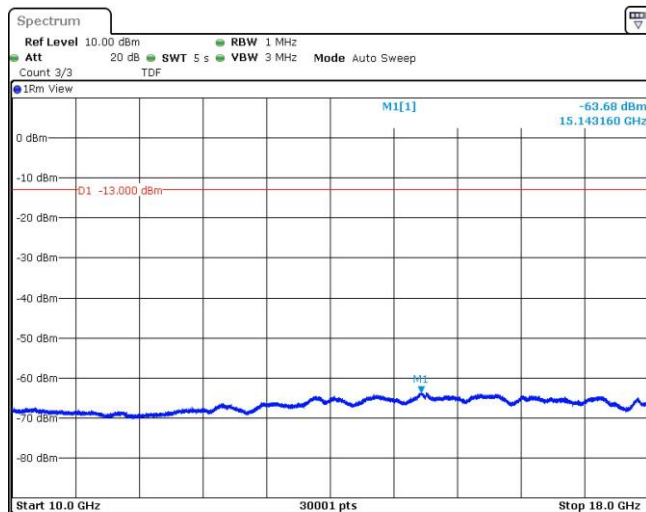
Band5-4132-1000~3000MHz



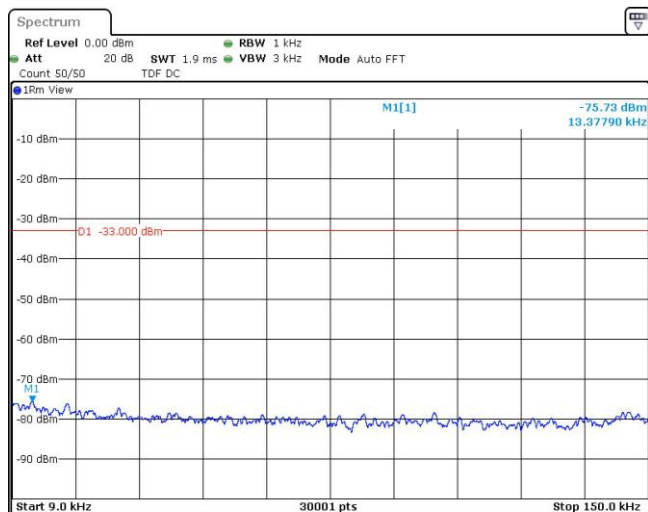
Band5-4132-3000~10000MHz



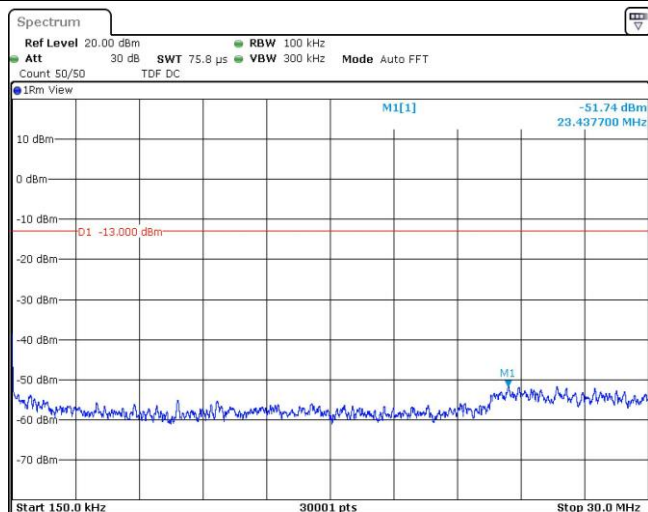
Band5-4132-10000~18000MHz



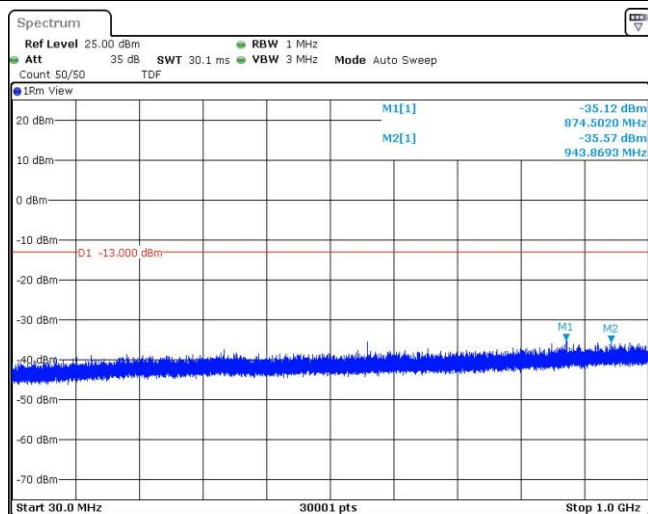
Band5-4182-0.009~0.15MHz



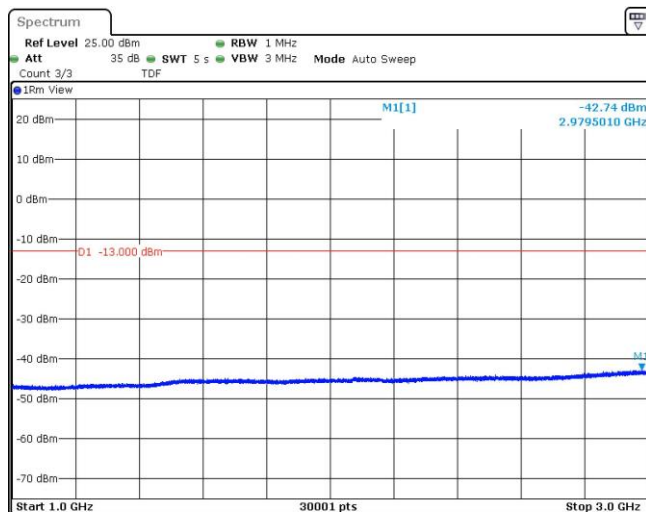
Band5-4182-0.15~30MHz



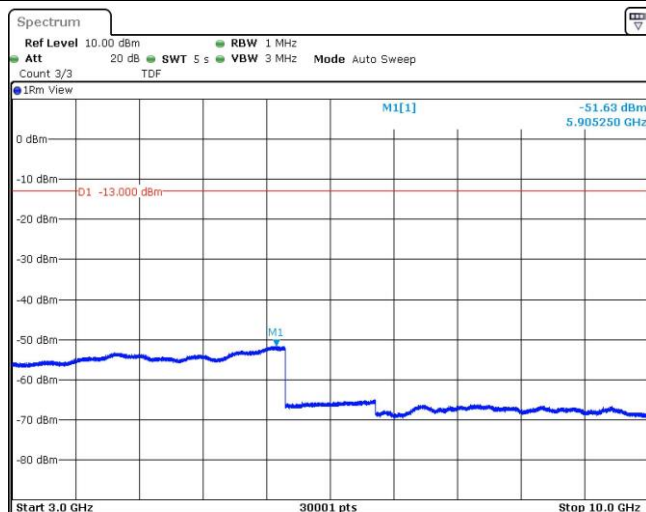
Band5-4182-30~1000MHz



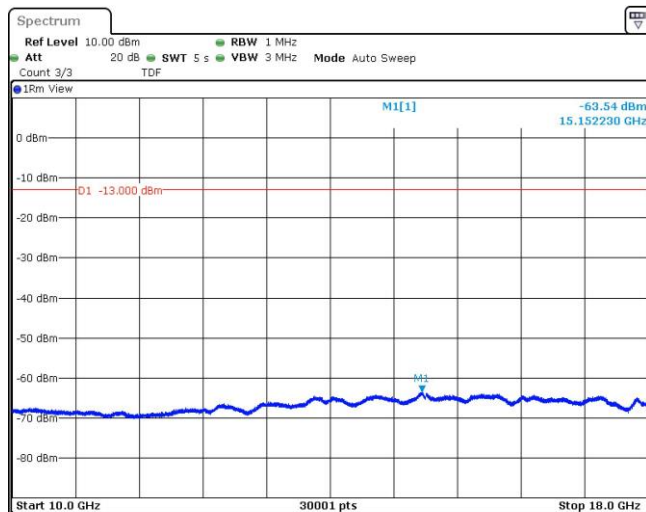
Band5-4182-1000~3000MHz



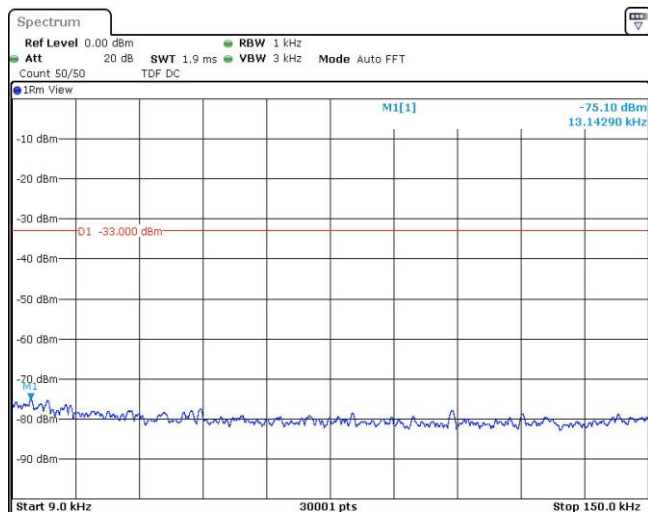
Band5-4182-3000~10000MHz



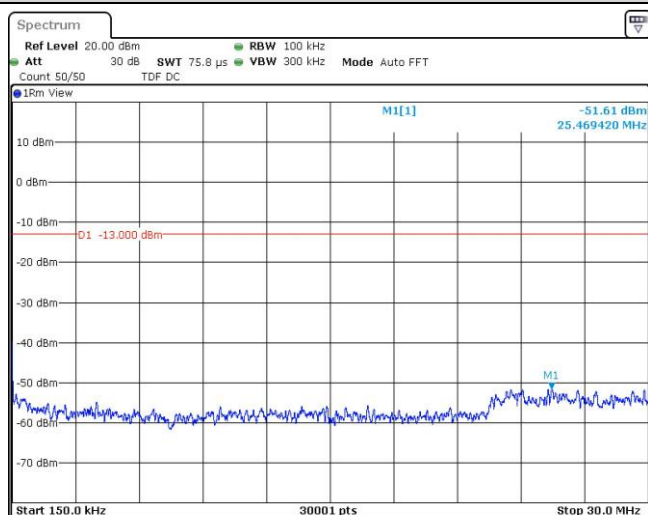
Band5-4182-10000~18000MHz



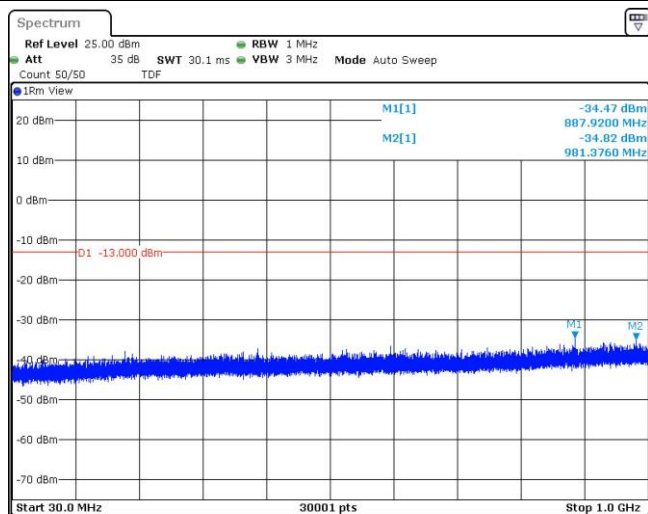
Band5-4233-0.009~0.15MHz



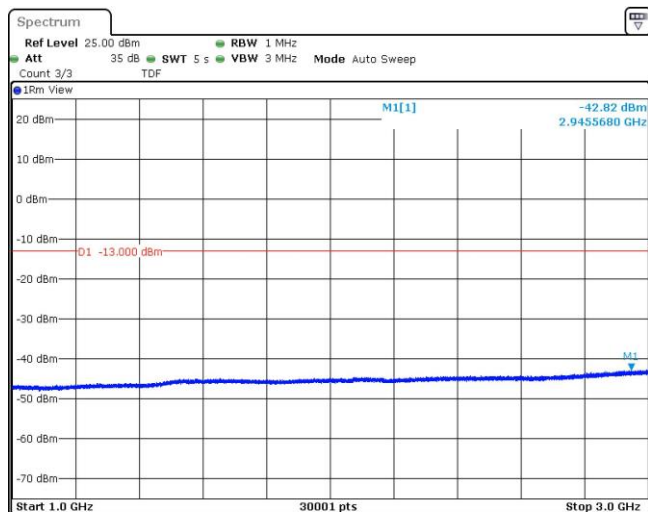
Band5-4233-0.15~30MHz



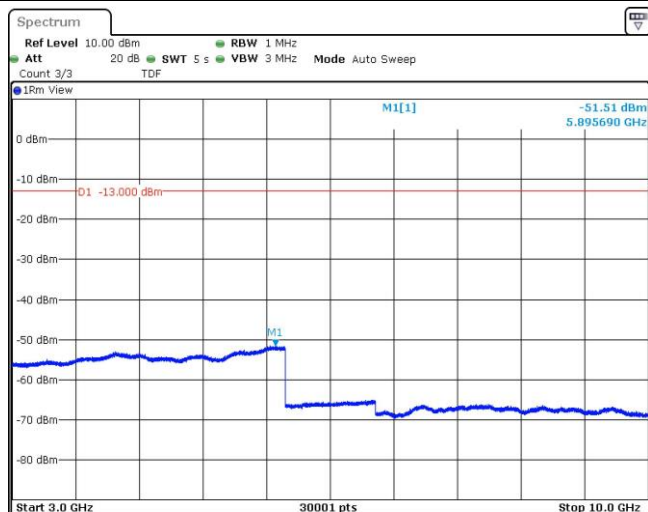
Band5-4233-30~1000MHz



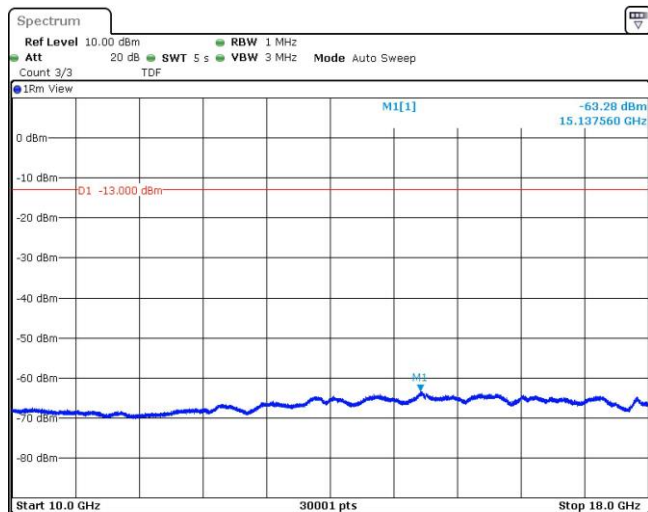
Band5-4233-1000~3000MHz



Band5-4233-3000~10000MHz



Band5-4233-10000~18000MHz



Appendix F: Frequency Stability

Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9262	VL	NT	-12.73	-0.006872	±2.5	PASS
Band2	9262	VN	NT	-14.65	-0.007909	±2.5	PASS
Band2	9262	VH	NT	-11.52	-0.006219	±2.5	PASS
Band2	9400	VL	NT	-11.12	-0.005915	±2.5	PASS
Band2	9400	VN	NT	-12.70	-0.006755	±2.5	PASS
Band2	9400	VH	NT	-10.63	-0.005654	±2.5	PASS
Band2	9538	VL	NT	-10.79	-0.005656	±2.5	PASS
Band2	9538	VN	NT	-12.83	-0.006726	±2.5	PASS
Band2	9538	VH	NT	-11.45	-0.006002	±2.5	PASS
Band5	4132	VL	NT	-10.67	-0.012911	±2.5	PASS
Band5	4132	VN	NT	-12.12	-0.014666	±2.5	PASS
Band5	4132	VH	NT	-9.01	-0.010903	±2.5	PASS
Band5	4182	VL	NT	-10.66	-0.012745	±2.5	PASS
Band5	4182	VN	NT	-8.87	-0.010605	±2.5	PASS
Band5	4182	VH	NT	-9.67	-0.011561	±2.5	PASS
Band5	4233	VL	NT	-8.76	-0.010347	±2.5	PASS
Band5	4233	VN	NT	-6.70	-0.007914	±2.5	PASS
Band5	4233	VH	NT	-10.23	-0.012084	±2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9262	NV	-10	-11.30	-0.006100	±2.5	PASS
Band2	9262	NV	0	-11.82	-0.006381	±2.5	PASS
Band2	9262	NV	10	-10.83	-0.005846	±2.5	PASS
Band2	9262	NV	20	-12.55	-0.006775	±2.5	PASS
Band2	9262	NV	30	-10.20	-0.005506	±2.5	PASS
Band2	9262	NV	40	-10.83	-0.005846	±2.5	PASS
Band2	9262	NV	50	-12.55	-0.006775	±2.5	PASS
Band2	9262	NV	60	-10.20	-0.005506	±2.5	PASS
Band2	9400	NV	-10	-10.66	-0.005670	±2.5	PASS
Band2	9400	NV	0	-12.67	-0.006739	±2.5	PASS
Band2	9400	NV	10	-6.77	-0.003601	±2.5	PASS
Band2	9400	NV	20	-9.03	-0.004803	±2.5	PASS

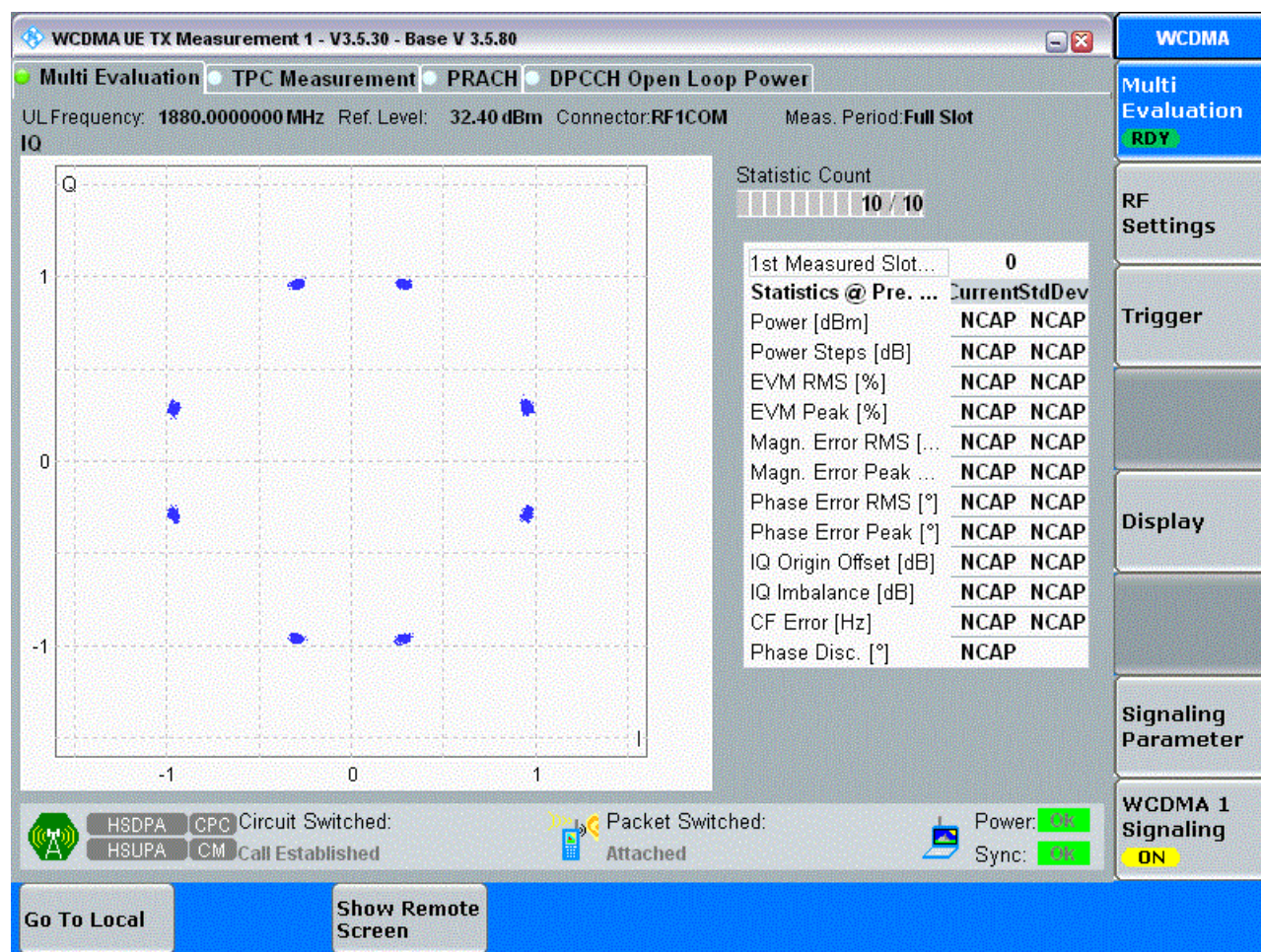
Temperature							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9400	NV	30	-9.68	-0.005149	±2.5	PASS
Band2	9400	NV	40	-6.77	-0.003601	±2.5	PASS
Band2	9400	NV	50	-9.03	-0.004803	±2.5	PASS
Band2	9400	NV	60	-9.68	-0.005149	±2.5	PASS
Band2	9538	NV	-10	-12.76	-0.006689	±2.5	PASS
Band2	9538	NV	0	-8.97	-0.004702	±2.5	PASS
Band2	9538	NV	10	-9.06	-0.004749	±2.5	PASS
Band2	9538	NV	20	-10.33	-0.005415	±2.5	PASS
Band2	9538	NV	30	-10.93	-0.005730	±2.5	PASS
Band2	9538	NV	40	-9.06	-0.004749	±2.5	PASS
Band2	9538	NV	50	-10.33	-0.005415	±2.5	PASS
Band2	9538	NV	60	-10.93	-0.005730	±2.5	PASS
Band5	4132	NV	-10	-11.45	-0.013855	±2.5	PASS
Band5	4132	NV	0	-11.22	-0.013577	±2.5	PASS
Band5	4132	NV	10	-11.65	-0.014097	±2.5	PASS
Band5	4132	NV	20	-11.03	-0.013347	±2.5	PASS
Band5	4132	NV	30	-12.04	-0.014569	±2.5	PASS
Band5	4132	NV	40	-11.65	-0.014097	±2.5	PASS
Band5	4132	NV	50	-11.03	-0.013347	±2.5	PASS
Band5	4132	NV	60	-12.04	-0.014569	±2.5	PASS
Band5	4182	NV	-10	-8.18	-0.009780	±2.5	PASS
Band5	4182	NV	0	-8.95	-0.010701	±2.5	PASS
Band5	4182	NV	10	-11.90	-0.014228	±2.5	PASS
Band5	4182	NV	20	-11.94	-0.014275	±2.5	PASS
Band5	4182	NV	30	-10.98	-0.013128	±2.5	PASS
Band5	4182	NV	40	-11.90	-0.014228	±2.5	PASS
Band5	4182	NV	50	-11.94	-0.014275	±2.5	PASS
Band5	4182	NV	60	-10.98	-0.013128	±2.5	PASS
Band5	4233	NV	-10	-7.11	-0.008398	±2.5	PASS
Band5	4233	NV	0	-8.84	-0.010442	±2.5	PASS
Band5	4233	NV	10	-9.16	-0.010820	±2.5	PASS
Band5	4233	NV	20	-8.05	-0.009509	±2.5	PASS
Band5	4233	NV	30	-6.81	-0.008044	±2.5	PASS
Band5	4233	NV	40	-9.16	-0.010820	±2.5	PASS
Band5	4233	NV	50	-8.05	-0.009509	±2.5	PASS
Band5	4233	NV	60	-6.81	-0.008044	±2.5	PASS

Appendix G: Modulation Characteristics

Test Band = WCDMA II

Test Mode = UMTS/TM1

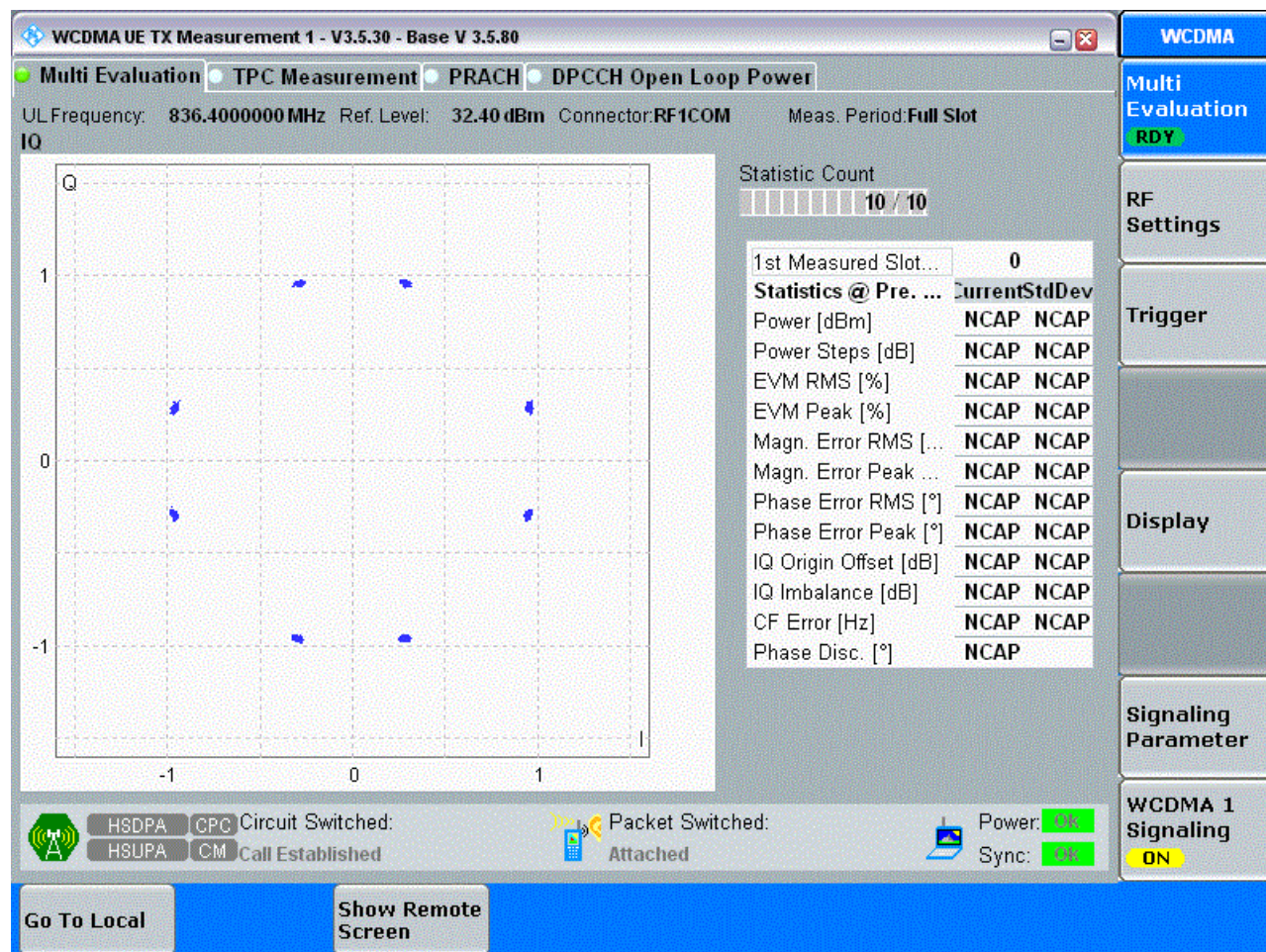
Test Channel = MCH



Test Band = WCDMA V

Test Mode = UMTS/TM1

Test Channel = MCH



Appendix H: Field Strength of Spurious Radiation

The transmitting equipment under test (EUT) is placed on a styrene turntable which is four feet in diameter and approximately 0.8 meter up to 1GHz and 1.5 meter above 1GHz in height above the ground plane. During the radiated emissions test, the turntable is rotated and any cables leaving the EUT are manipulated to find the configuration resulting in maximum emissions. The EUT is adjusted through all three orthogonal axes to obtain maximum emission levels. The antenna height and polarization are varied during the testing to search for maximum signal levels.

The frequency range scanned is from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or 40 GHz, whichever is lower. The emissions were very low against the limit in the frequency range 9kHz to 30MHz and 18 GHz ~ 20 GHz.

Note: We tested all modes, but the data presented below is the worst case.

9kHz~150kHz, VBW = 200Hz, VBW = 600 Hz, Detector: PK

150kHz~30MHz, VBW = 9kHz, VBW = 30k Hz, Detector: PK

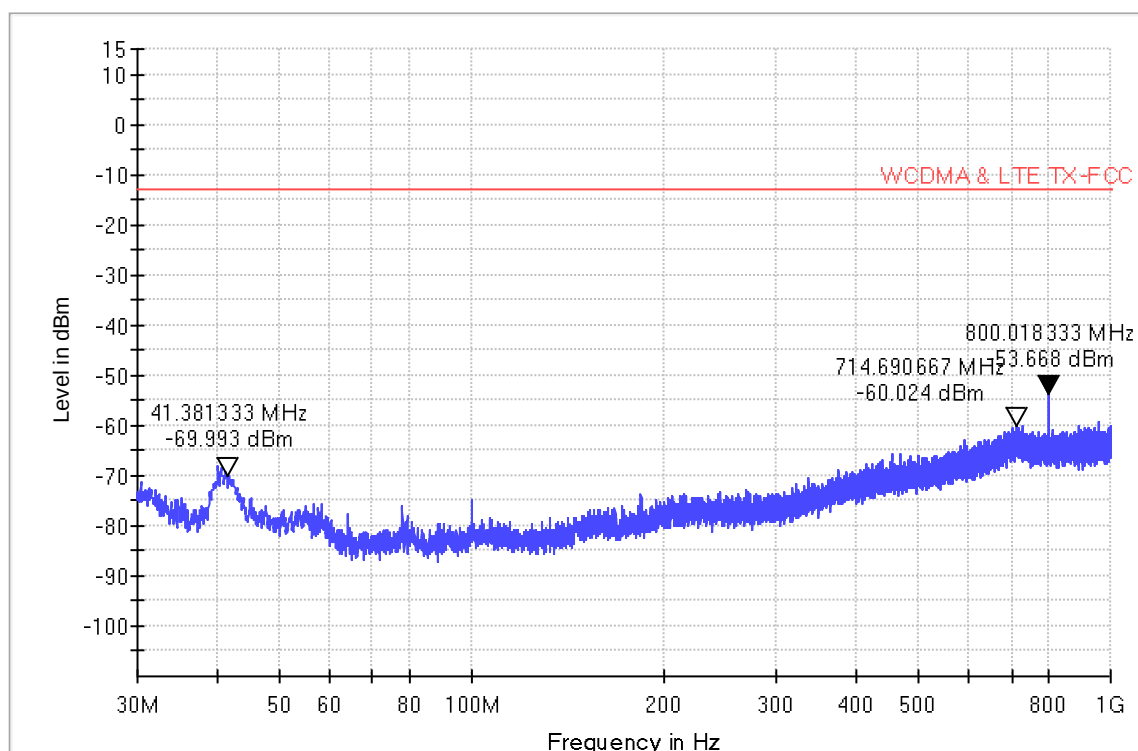
30MHz~1GHz, RBW = 100 kHz, VBW = 300 kHz. Detector: PK

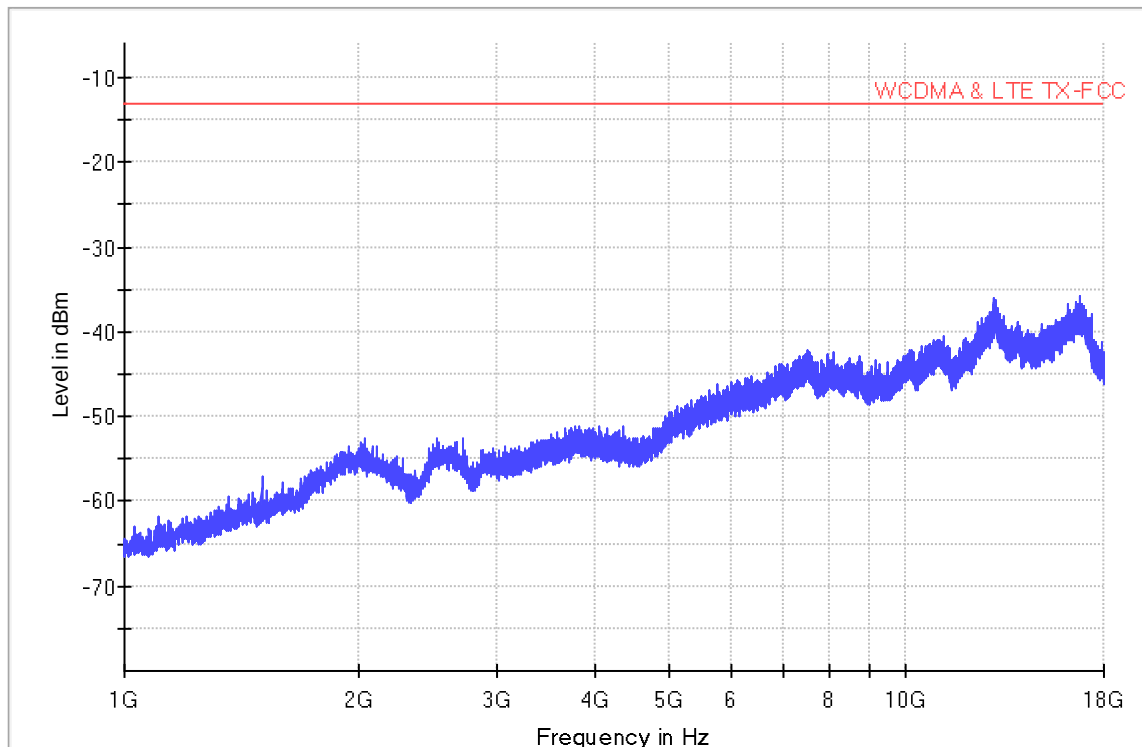
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Test Plots

Test Band = WCDMA II

Test Mode = UMTS/TM1





Test Band = WCDMA V

Test Mode = UMTS/TM1

