Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Channel	Power(dBm)	ERP(dBm)	Limit(dBm)	Verdict
Band V	4132	22.95	23.36	38.45	PASS
Band V	4182	23.11	23.52	38.45	PASS
Band V	4233	23.04	23.45	38.45	PASS

Test on the worst case：

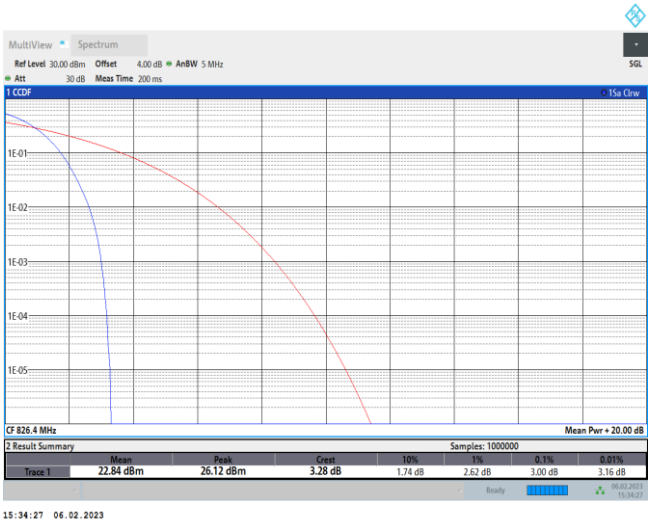
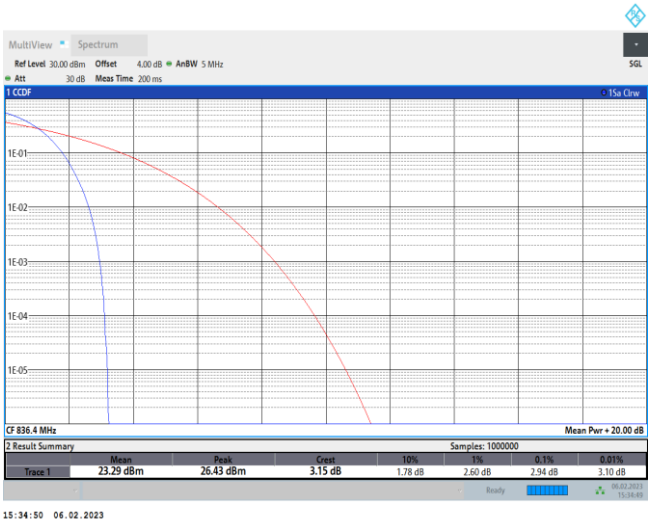
Band: V								
ENV	Mode		Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
	Network	Subset				Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	22.95	2.56	23.36	<=38.45	Pass
			836.6	22.98	2.56	23.39	<=38.45	Pass
			846.6	23.03	2.56	23.44	<=38.45	Pass
Note1: ERP=Conducted Power+Antenna Gain-2.15								

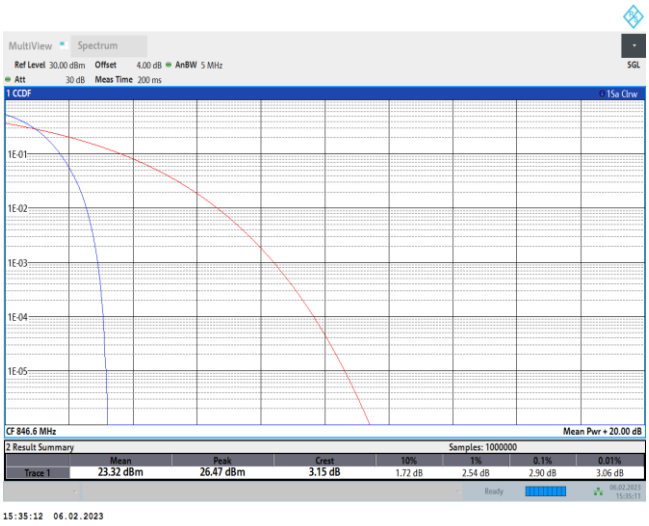
Peak-to-Average Ratio

Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band V	4132	3	13	PASS
Band V	4182	2.94	13	PASS
Band V	4233	2.9	13	PASS

Test Graphs

Band V-4132

Band V-4182


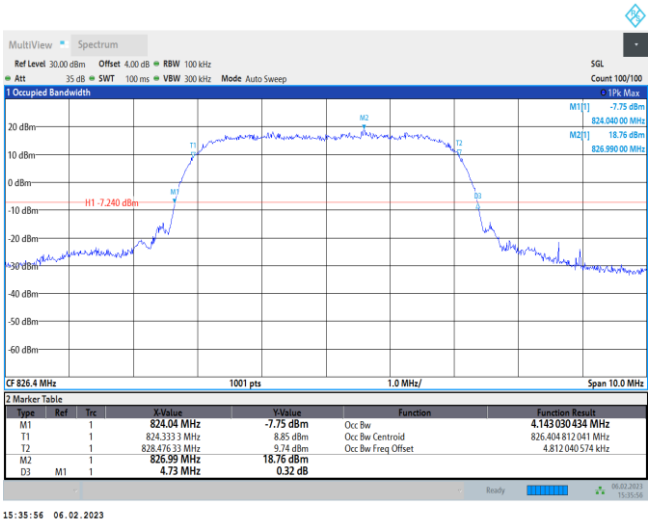
Band V-4233
 MultiView Spectrum Ref Level 30.00 dBm Offset 4.00 dB AnBW 5 MHz Att 30 dB Meas Time 200 ms SGL 1 CCDF 1Sa Clrw 1E-01 1E-02 1E-03 1E-04 1E-05 CF 846.6 MHz Mean Pwr + 20.00 dB 2 Result Summary Samples: 1000000 Mean Peak Crest 10% 1% 0.1% 0.01% Trace 1 23.32 dBm 26.47 dBm 3.15 dB 1.72 dB 2.54 dB 2.90 dB 3.06 dB Ready 15:35:12 06.02.2023

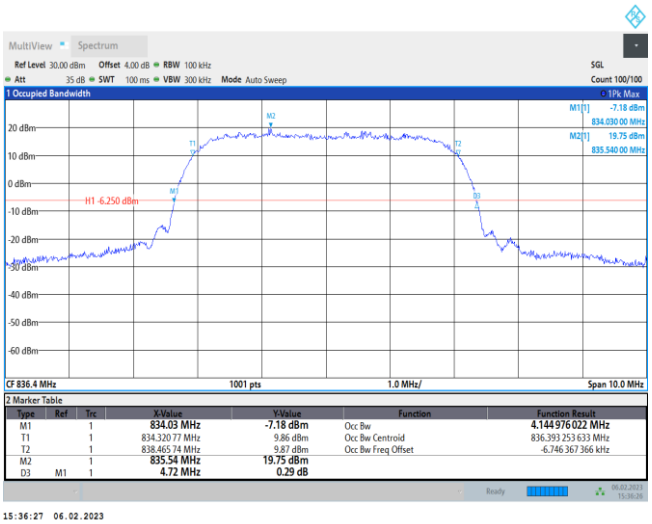
26dB Bandwidth andOccupied Bandwidth

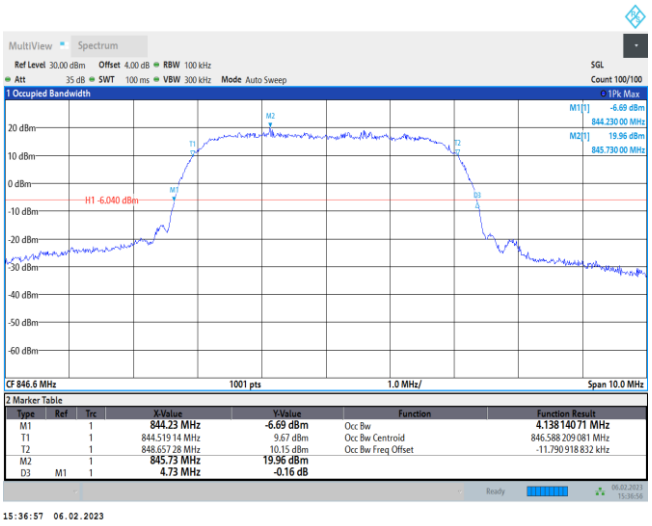
Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
Band V	4132	4.143	4.73	---	PASS
Band V	4182	4.145	4.72	---	PASS
Band V	4233	4.138	4.73	---	PASS

Test Graphs

Band V-4132


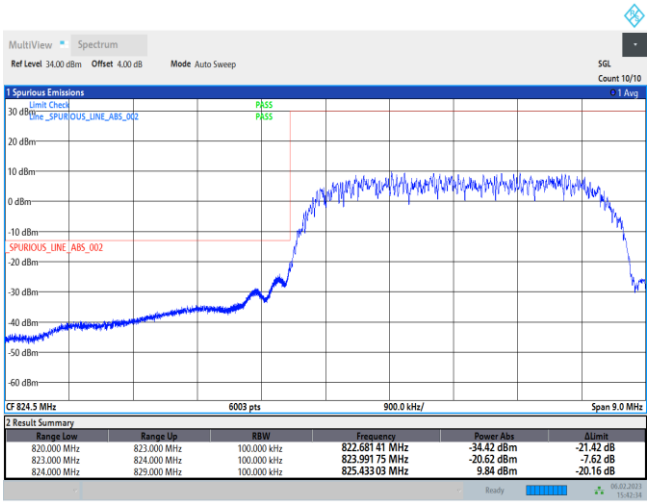
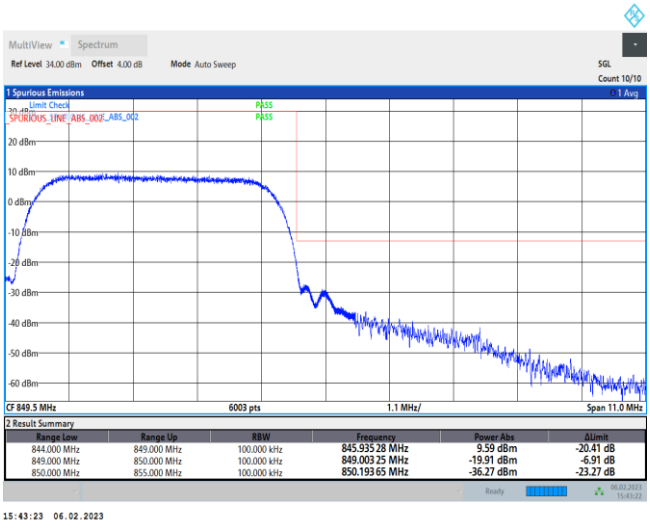
Band V-4182


Band V-4233


MultiView
Spectrum
Ref Level 30.00 dBm Offset 4.00 dB RBW 100 kHz
Att 35 dB SWT 100 ms VBW 300 kHz Mode Auto Sweep
SGL
Count 100/100
1 Occupied Bandwidth
1Pk Max
M1[1] -6.69 dBm
844.230 00 MHz
M2[1] 19.96 dBm
845.730 00 MHz
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
H1 -6.040 dBm
CF 846.6 MHz
1001 pts
1.0 MHz/
Span 10.0 MHz
2 Marker Table
Type Ref Trc X-Value Y-Value Function Function Result
M1 1 844.23 MHz -6.69 dBm Occ Bw 4.138 140 71 MHz
T1 1 844.519 14 MHz 9.67 dBm Occ Bw Centroid 846.588 209 081 MHz
T2 1 848.657 28 MHz 10.15 dBm Occ Bw Freq Offset -11.790 918 832 kHz
M2 1 845.73 MHz 19.96 dBm
D3 M1 1 4.73 MHz -0.16 dB
Ready
15:36:57 06.02.2023

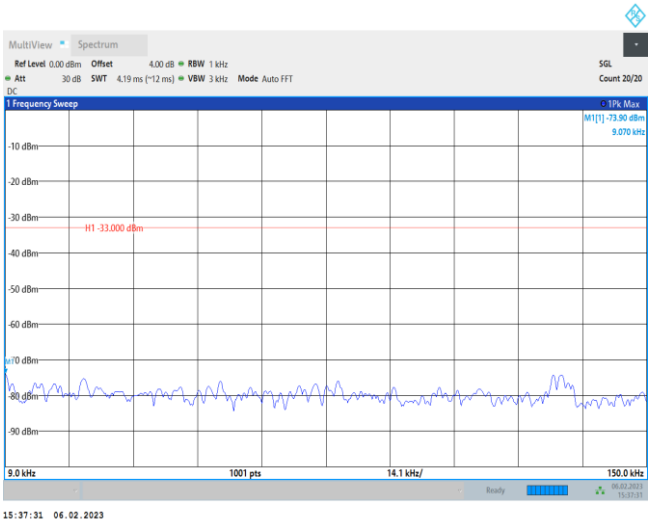
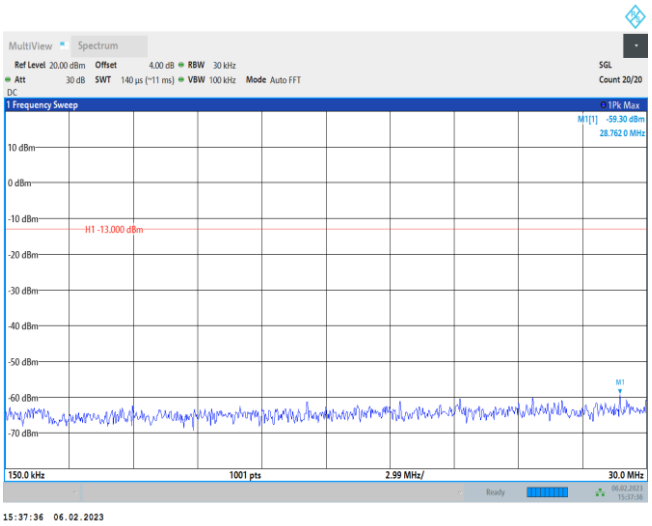
Band Edge

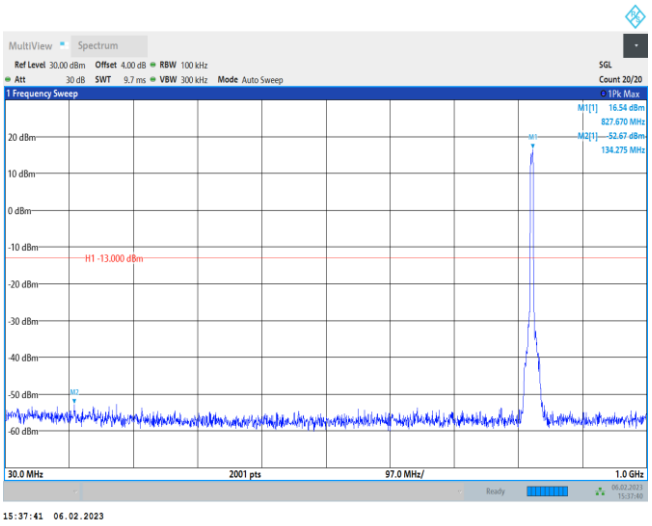
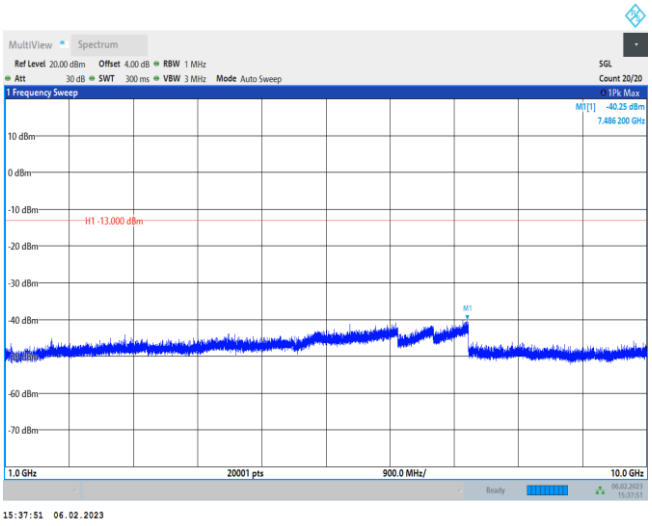
Test Graphs

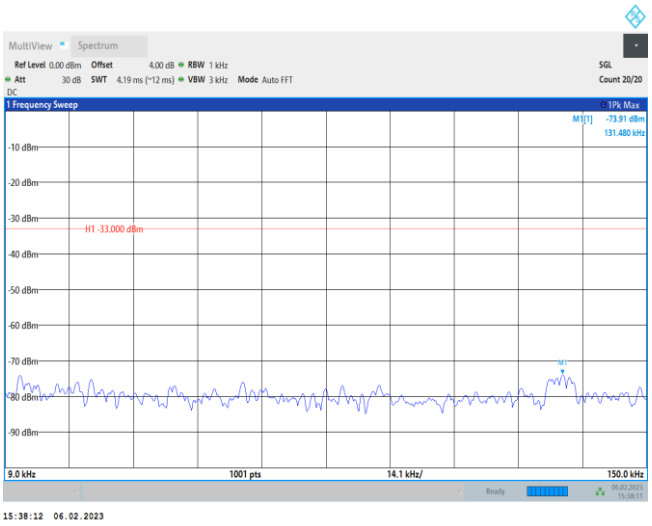
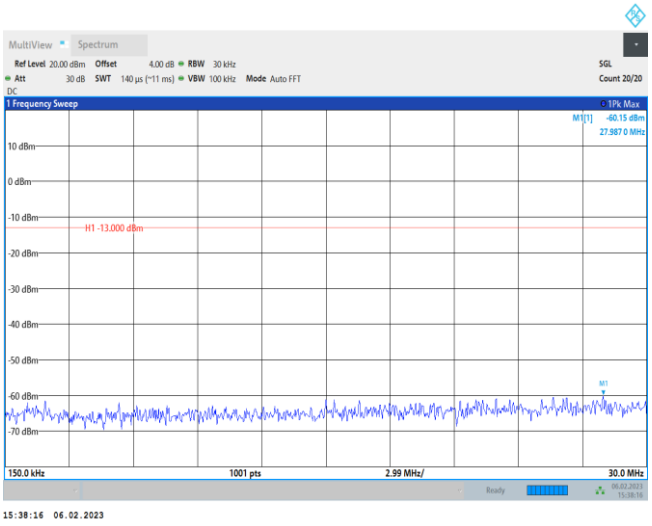
Band V-4132

Band V-4233


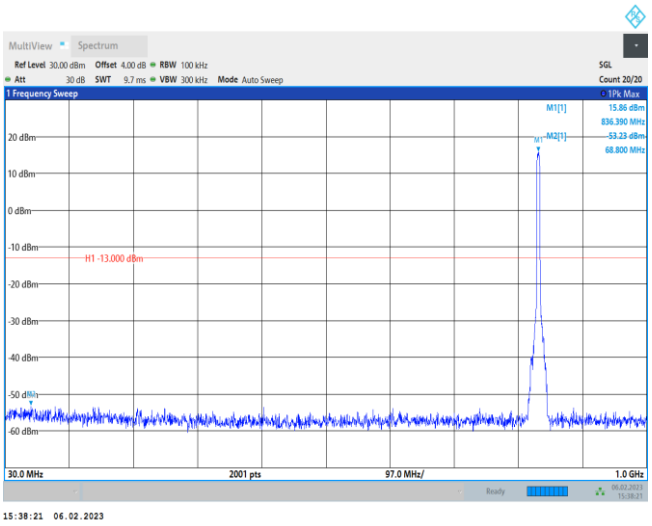
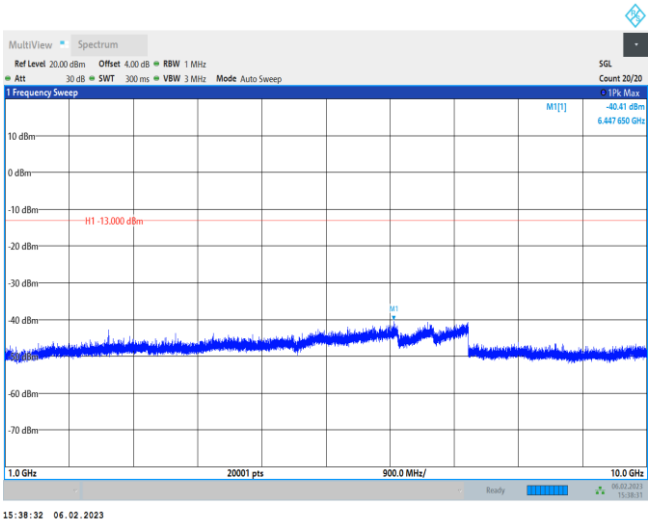
Conducted SpuriousEmission

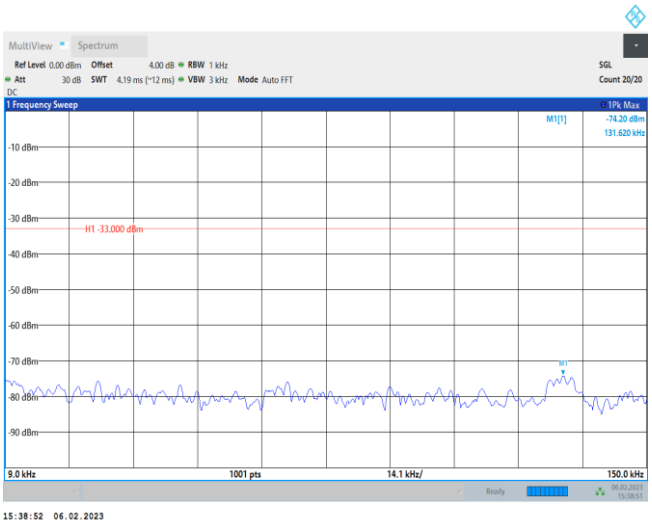
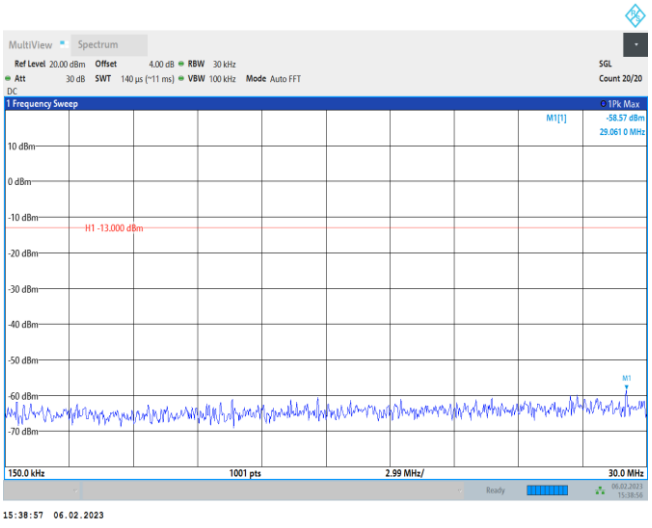
Test Graphs

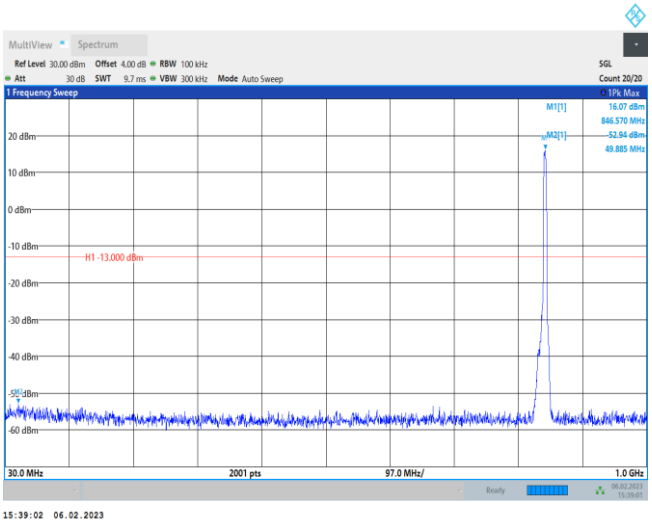
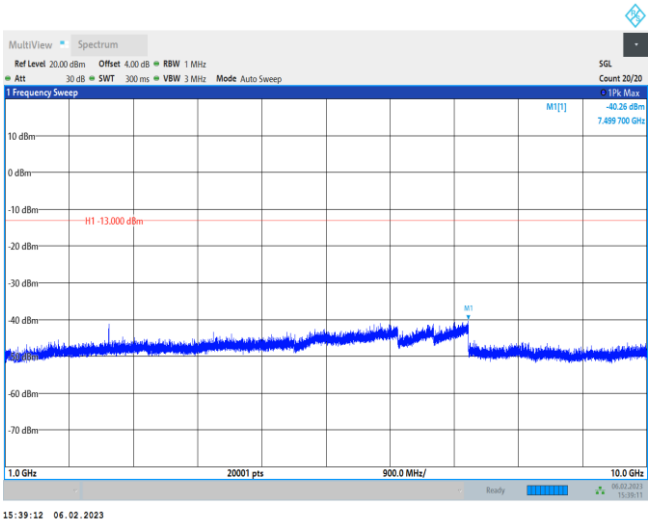
Band V-4132-0.009~0.15MHz

Band V-4132-0.15~30MHz


Band V-4132-30~1000MHz

Band V-4132-1000~10000MHz


Band V-4182-0.009~0.15MHz

Band V-4182-0.15~30MHz


Band V-4182-30~1000MHz

Band V-4182-1000~10000MHz


Band V-4233-0.009~0.15MHz

Band V-4233-0.15~30MHz


Band V-4233-30~1000MHz

Band V-4233-1000~10000MHz


Field Strength of Spurious Radiation

Test Band = WCDMA Band V_ TM1
Test Channel = Low Channel

Final Data List										
NO.	Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1652.8	44.44	-48.37	25.57	-73.62	-13.00	60.62	143	77	Horizontal
2	2479.2	43.91	-46.91	27.86	-70.40	-13.00	57.40	265	0	Horizontal
3	3305.6	43.25	-46.12	29.48	-68.65	-13.00	55.65	284	356	Horizontal
4	4132	42.43	-45.31	30.81	-67.33	-13.00	54.33	142	172	Horizontal
5	4958.4	42.19	-45.07	32.50	-65.64	-13.00	52.64	263	46	Horizontal
6	5784.8	41.67	-43.52	33.51	-63.60	-13.00	50.60	224	93	Horizontal

Final Data List										
NO.	Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1652.8	44.33	-48.37	25.57	-73.73	-13.00	60.73	296	360	Vertical
2	2479.2	43.27	-46.91	27.86	-71.04	-13.00	58.04	265	360	Vertical
3	3305.6	42.96	-46.12	29.48	-68.94	-13.00	55.94	241	234	Vertical
4	4132	42.12	-45.31	30.81	-67.64	-13.00	54.64	142	186	Vertical
5	4958.4	41.96	-45.07	32.50	-65.87	-13.00	52.87	263	31	Vertical
6	5784.8	41.83	-43.52	33.51	-63.44	-13.00	50.44	225	359	Vertical

Test Band = WCDMA Band V_ TM1
Test Channel = Mid Channel

Final Data List										
NO.	Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1672.8	44.30	-48.32	25.56	-73.71	-13.00	60.71	241	8	Horizontal
2	2509.2	43.36	-46.79	27.93	-70.75	-13.00	57.75	142	284	Horizontal
3	3345.6	43.86	-46.19	29.46	-68.13	-13.00	55.13	263	3	Horizontal
4	4182	41.51	-45.16	30.89	-68.02	-13.00	55.02	254	252	Horizontal
5	5018.4	42.87	-44.93	32.60	-64.72	-13.00	51.72	185	0	Horizontal
6	5854.8	42.04	-43.34	33.74	-62.82	-13.00	49.82	296	158	Horizontal

Final Data List										
NO.	Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1672.8	44.53	-48.32	25.56	-73.48	-13.00	60.48	185	248	Vertical
2	2509.2	43.81	-46.79	27.93	-70.30	-13.00	57.30	265	94	Vertical
3	3345.6	43.10	-46.19	29.46	-68.89	-13.00	55.89	241	248	Vertical
4	4182	41.92	-45.16	30.89	-67.61	-13.00	54.61	142	360	Vertical
5	5018.4	42.92	-44.93	32.60	-64.67	-13.00	51.67	263	217	Vertical
6	5854.8	41.92	-43.34	33.74	-62.94	-13.00	49.94	228	360	Vertical

Test Band = WCDMA Band V_ TM1
Test Channel = High Channel

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1693.2	44.53	-48.26	25.55	-73.44	-13.00	60.44	263	1	Horizontal
2	2539.8	43.74	-46.94	28.04	-70.42	-13.00	57.42	265	111	Horizontal
3	3386.4	43.47	-46.26	29.45	-68.60	-13.00	55.60	284	0	Horizontal
4	4233	41.37	-45.11	30.97	-68.03	-13.00	55.03	142	64	Horizontal
5	5079.6	42.01	-44.67	32.60	-65.32	-13.00	52.32	255	173	Horizontal
6	5926.2	42.29	-43.29	33.96	-62.30	-13.00	49.30	286	0	Horizontal

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1693.2	44.64	-48.26	25.55	-73.33	-13.00	60.33	185	327	Vertical
2	2539.8	44.07	-46.94	28.04	-70.09	-13.00	57.09	265	296	Vertical
3	3386.4	43.54	-46.26	29.45	-68.53	-13.00	55.53	241	327	Vertical
4	4233	41.91	-45.11	30.97	-67.49	-13.00	54.49	142	360	Vertical
5	5079.6	42.61	-44.67	32.60	-64.72	-13.00	51.72	263	249	Vertical
6	5926.2	42.00	-43.29	33.96	-62.59	-13.00	49.59	322	296	Vertical

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & AMP. The basic equation with a sample calculation is as follows:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier (dB)

Level = Reading Level + AF + Factor -95.26

Margin = Limit – Level

Test on the worst case：

Test Band = WCDMA Band Ⅴ_TM1
Test Channel = Low

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1270.2857	47.84	-48.26	25.14	-70.55	-13.00	57.55	Horizontal
2	1651.4286	61.69	-48.22	25.45	-56.34	-13.00	43.34	Horizontal
3	2482.8571	69.57	-47.30	27.17	-45.83	-13.00	32.83	Horizontal
4	3305.6000	42.89	-46.67	28.41	-70.64	-13.00	57.64	Horizontal
5	4132.0000	43.21	-45.92	29.72	-68.25	-13.00	55.25	Horizontal
6	4958.4000	41.48	-45.72	31.33	-68.16	-13.00	55.16	Horizontal

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1654.8571	53.14	-48.21	25.45	-64.88	-13.00	51.88	Vertical
2	2481.1429	58.72	-47.30	27.16	-56.68	-13.00	43.68	Vertical
3	3585.1429	44.13	-46.37	28.74	-68.76	-13.00	55.76	Vertical
4	4890.8571	43.11	-45.59	31.23	-66.51	-13.00	53.51	Vertical
5	6109.7143	43.26	-44.71	32.77	-63.94	-13.00	50.94	Vertical
6	7246.2857	42.56	-43.68	35.69	-60.70	-13.00	47.70	Vertical

Test Band = WCDMA Band Ⅴ_ TM1
Test Channel = Mid

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1670.8571	60.49	-48.19	25.47	-57.49	-13.00	44.49	Horizontal
2	2512	72.09	-47.23	27.22	-43.18	-13.00	30.18	Horizontal
3	3133.7143	44.28	-46.59	28.23	-69.34	-13.00	56.34	Horizontal
4	4186.2857	48.12	-45.95	29.85	-63.24	-13.00	50.24	Horizontal
5	6114.8571	43.41	-44.72	32.79	-63.78	-13.00	50.78	Horizontal
6	8079.4286	40.70	-41.78	37.05	-59.29	-13.00	46.29	Horizontal

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1674.2857	53.79	-48.19	25.47	-64.19	-13.00	51.19	Vertical
2	2512.5714	59.13	-47.23	27.22	-56.13	-13.00	43.13	Vertical
3	3323.4286	43.65	-46.65	28.42	-69.83	-13.00	56.83	Vertical
4	4440	43.76	-45.77	30.46	-66.82	-13.00	53.82	Vertical
5	5871.4286	43.13	-44.88	32.37	-64.64	-13.00	51.64	Vertical
6	7049.1429	42.00	-43.89	35.14	-62.01	-13.00	49.01	Vertical

Test Band = WCDMA Band Ⅴ_ TM1
Test Channel = High

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1691.4286	61.81	-48.17	25.49	-56.13	-13.00	43.13	Horizontal
2	2543.4286	69.27	-47.12	27.28	-45.83	-13.00	32.83	Horizontal
3	3025.7143	44.49	-46.58	28.13	-69.22	-13.00	56.22	Horizontal
4	3702.8571	43.25	-46.15	28.92	-69.24	-13.00	56.24	Horizontal
5	4589.1429	43.26	-45.77	30.74	-67.03	-13.00	54.03	Horizontal
6	6057.1429	43.11	-44.58	32.59	-64.13	-13.00	51.13	Horizontal

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1691.4286	53.27	-48.17	25.49	-64.67	-13.00	51.67	Vertical
2	2536.5714	59.13	-47.15	27.27	-56.01	-13.00	43.01	Vertical
3	3246.2857	43.68	-46.47	28.35	-69.70	-13.00	56.70	Vertical
4	4422.2857	43.67	-45.83	30.41	-67.00	-13.00	54.00	Vertical
5	5868	43.40	-44.87	32.37	-64.36	-13.00	51.36	Vertical
6	7756.5714	41.21	-42.92	36.76	-60.21	-13.00	47.21	Vertical

Frequency Stability

Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band V	4182	VL	NT	-3.71	-0.004436	±2.5	PASS
Band V	4182	VN	NT	-1.96	-0.002343	±2.5	PASS
Band V	4182	VH	NT	-4.56	-0.005452	±2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band V	4182	NV	-30	-4.18	-0.004998	±2.5	PASS
Band V	4182	NV	-20	-3.57	-0.004268	±2.5	PASS
Band V	4182	NV	-10	-2.65	-0.002653	±2.5	PASS
Band V	4182	NV	0	-2.78	-0.003324	±2.5	PASS
Band V	4182	NV	10	-2.27	-0.002714	±2.5	PASS
Band V	4182	NV	20	-1.82	-0.002176	±2.5	PASS
Band V	4182	NV	30	-1.41	-0.001686	±2.5	PASS
Band V	4182	NV	40	-1.46	-0.001746	±2.5	PASS
Band V	4182	NV	50	-0.94	-0.001124	±2.5	PASS

---End of Attachment---