

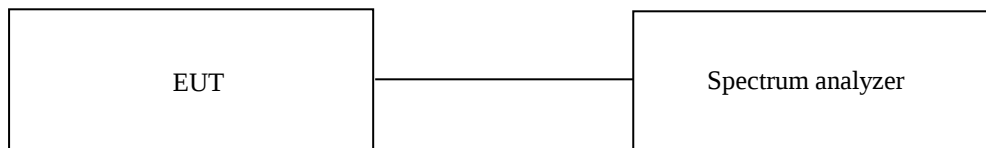
12. 100 kHz BANDWIDTH OUTSIDE THE FREQUENCY BAND

12.1 Operating environment

Temperature : 25.3 °C
Relative humidity : 53.1 % R.H.

12.2 Test set-up for conducted measurement

The antenna output of the EUT was connected to the spectrum analyzer. The resolution and video bandwidth is set to 100 kHz, and peak detection was used.



12.3 Test set-up for radiated measurement

The radiated emissions measurements were performed on the 3 m semi anechoic chamber. The EUT was placed on turntable approximately 1.5 m above the ground plane.

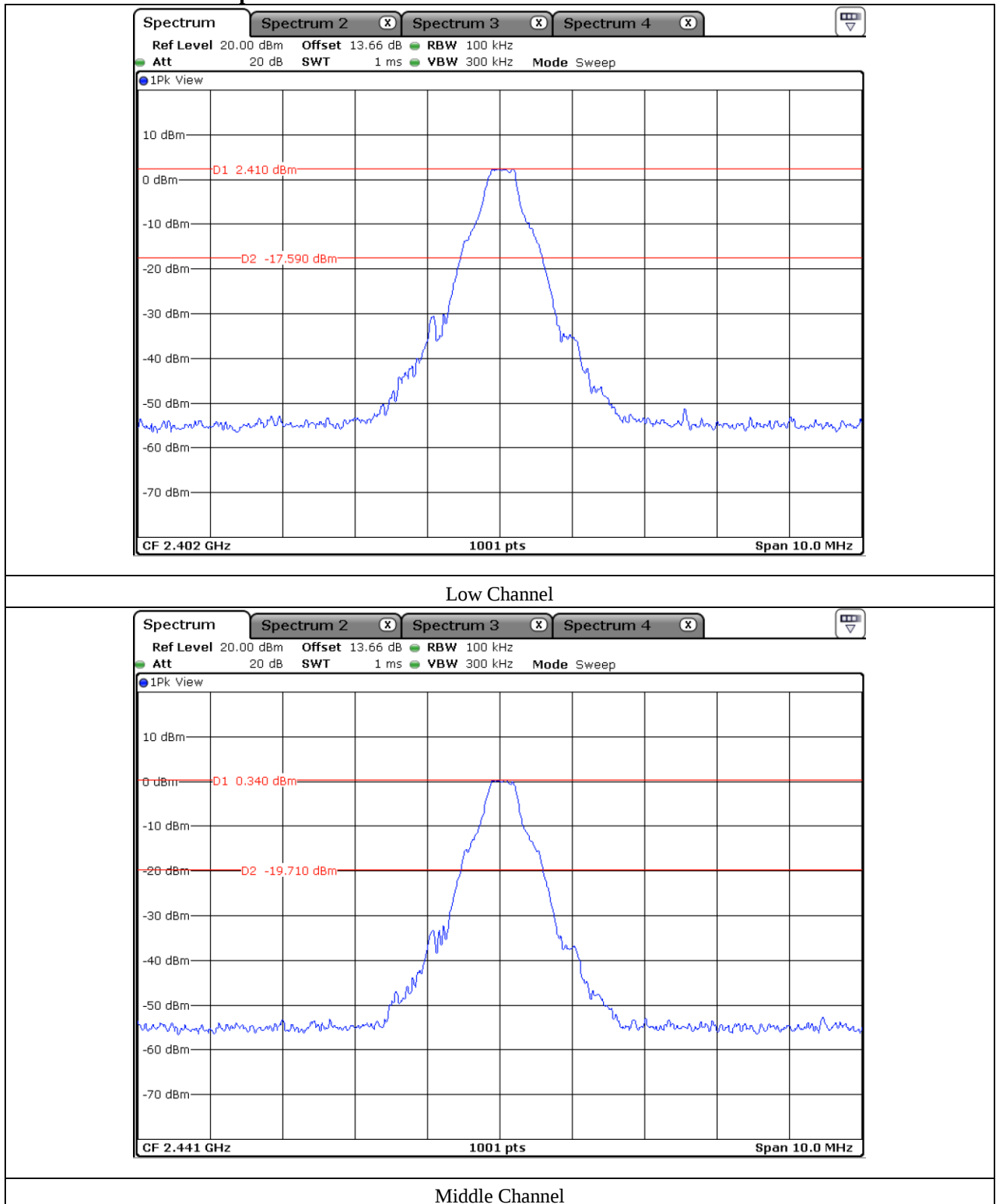
The frequency spectrum from 30 MHz to 26.5 GHz was scanned and maximum emission levels at each frequency recorded. The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.

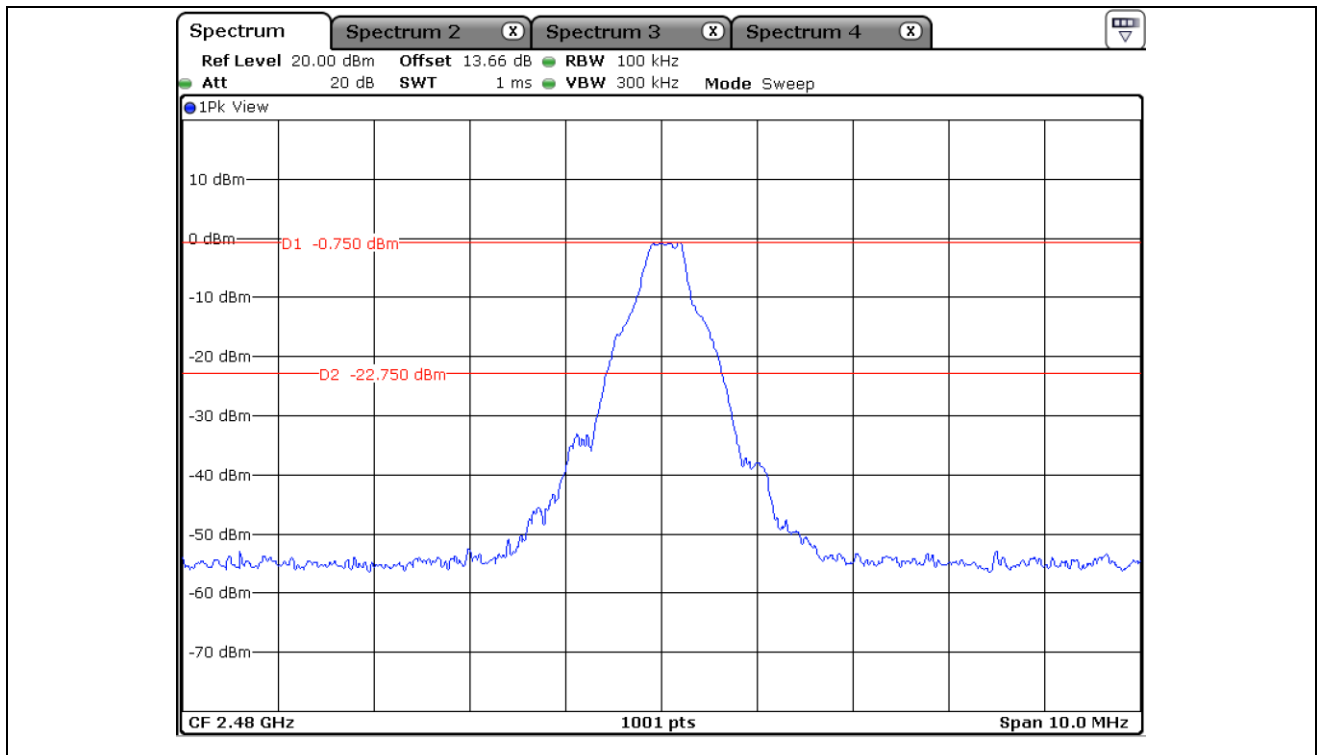
12.4 Test Date

August 09, 2022 ~ August 22, 2022

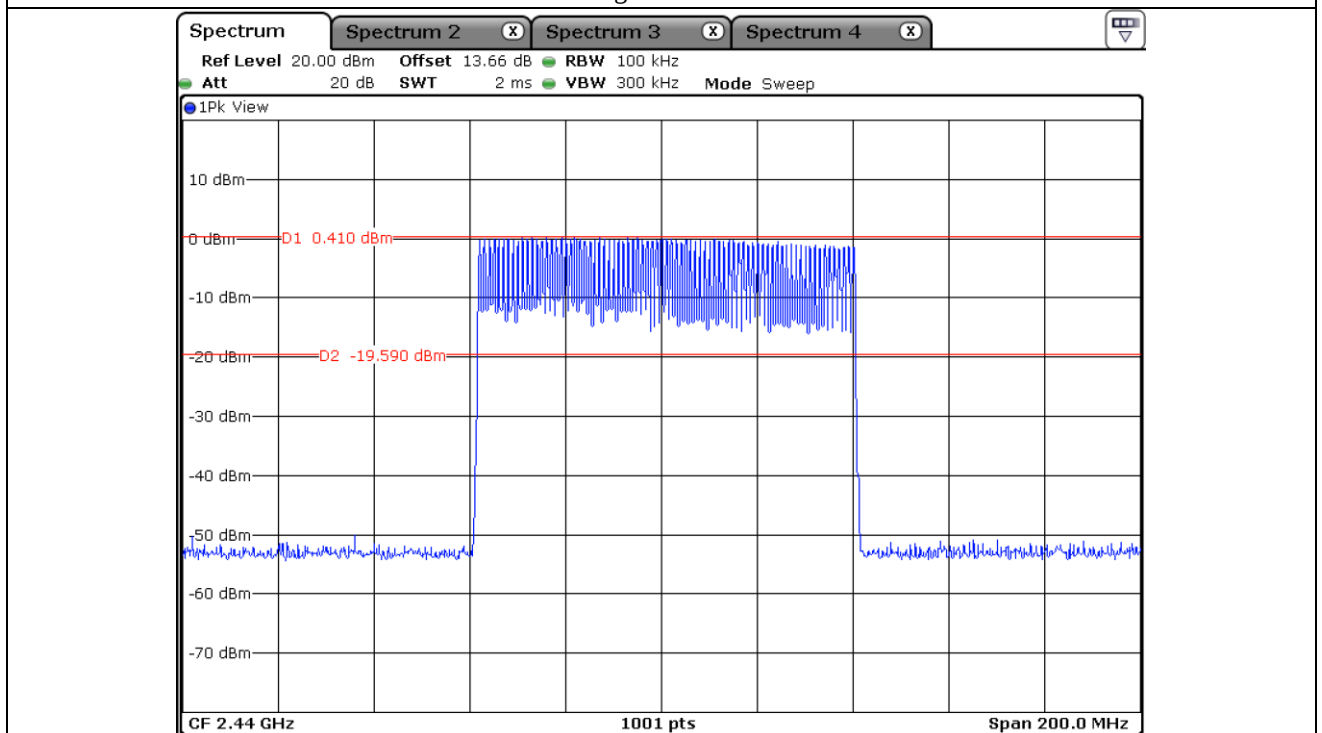
12.5 Test data for conducted emission

12.5.1 Test data for 1 Mbps

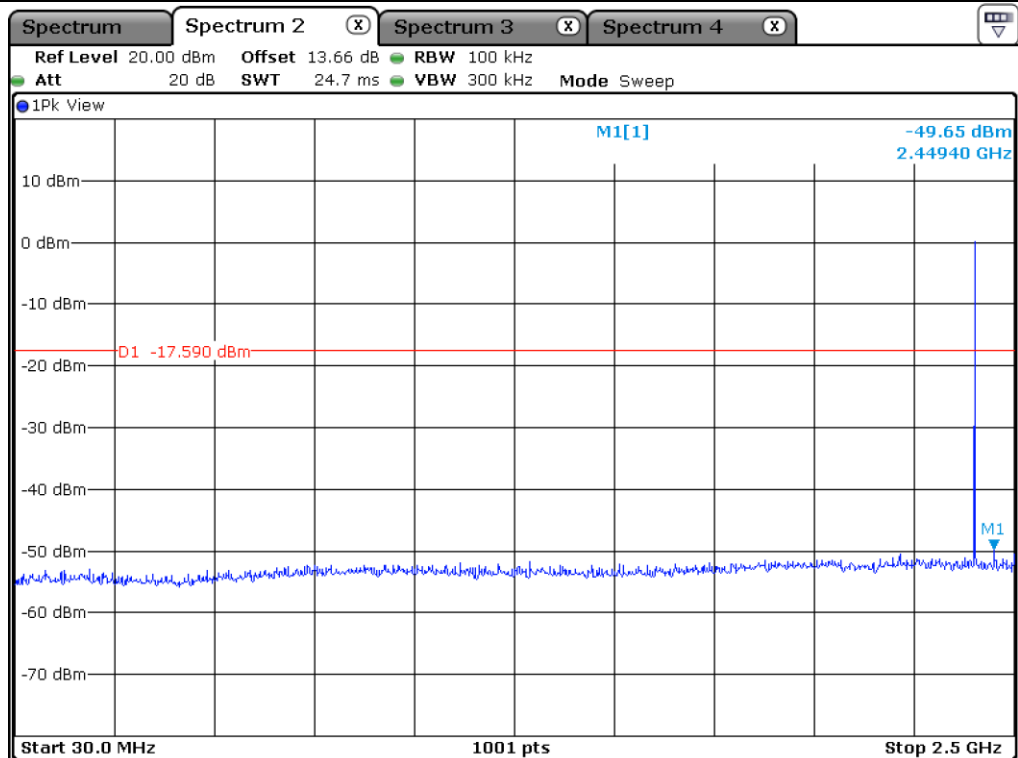




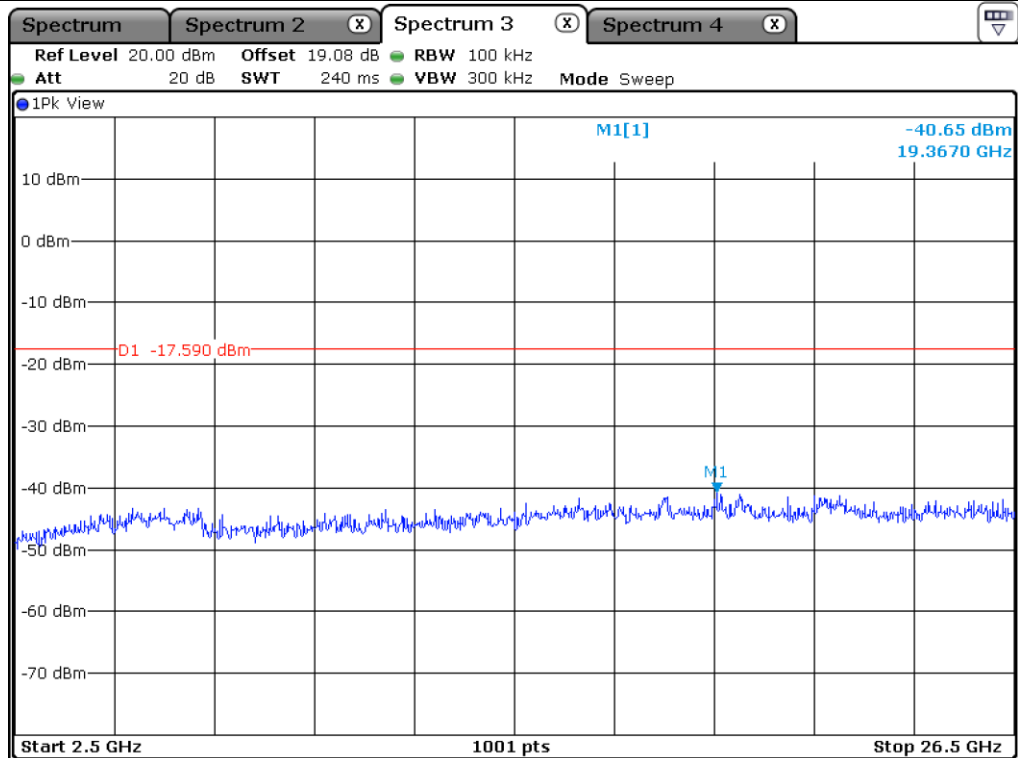
High Channel



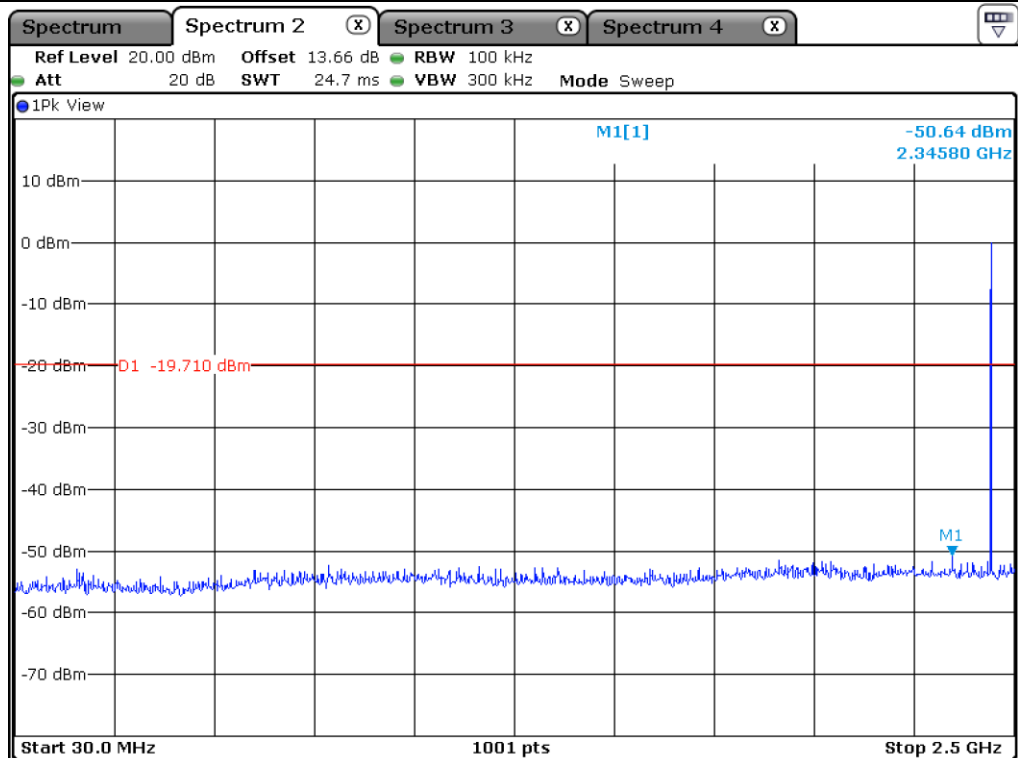
Hopping Mode



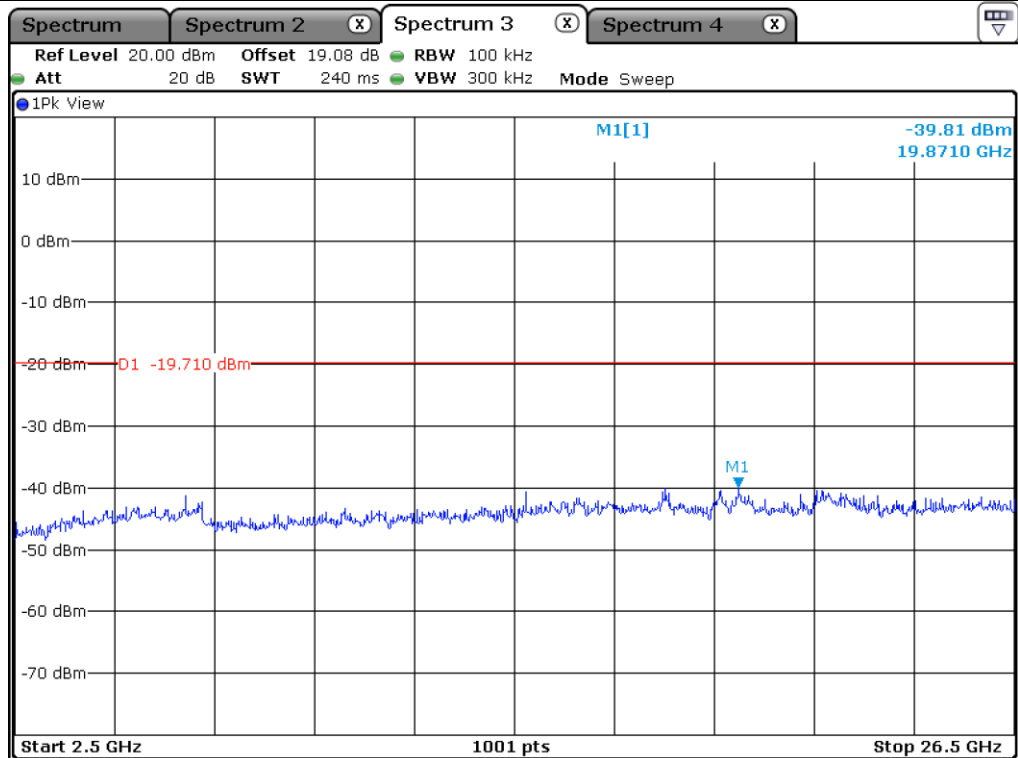
Low Channel



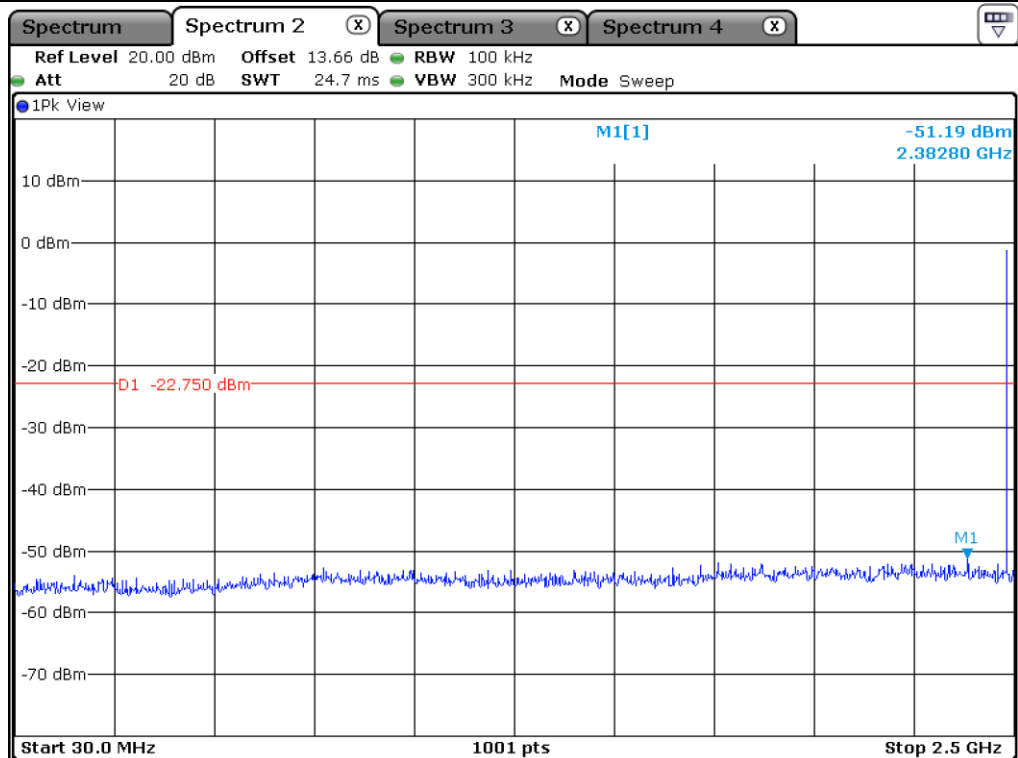
Low Channel



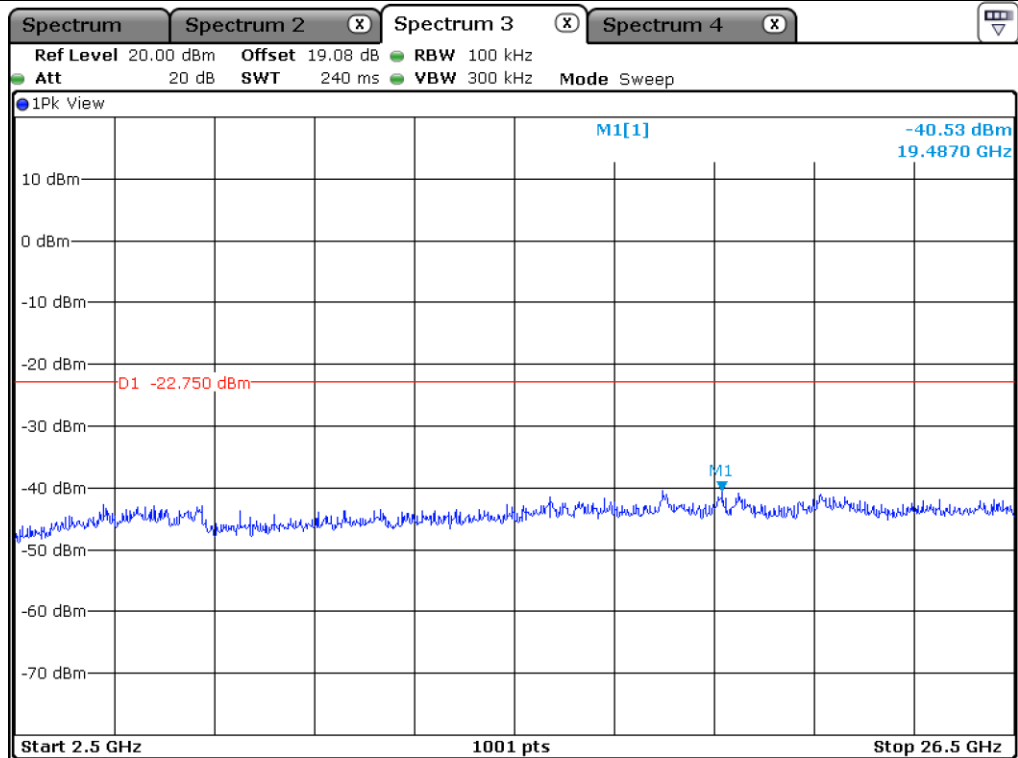
Middle Channel



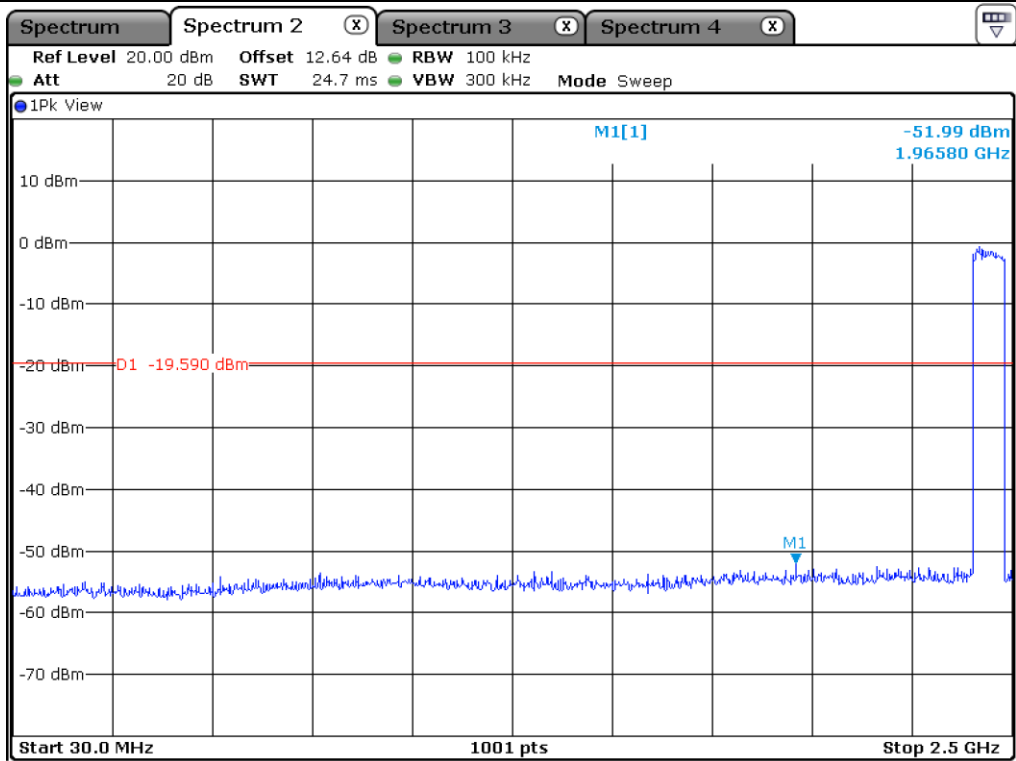
Middle Channel



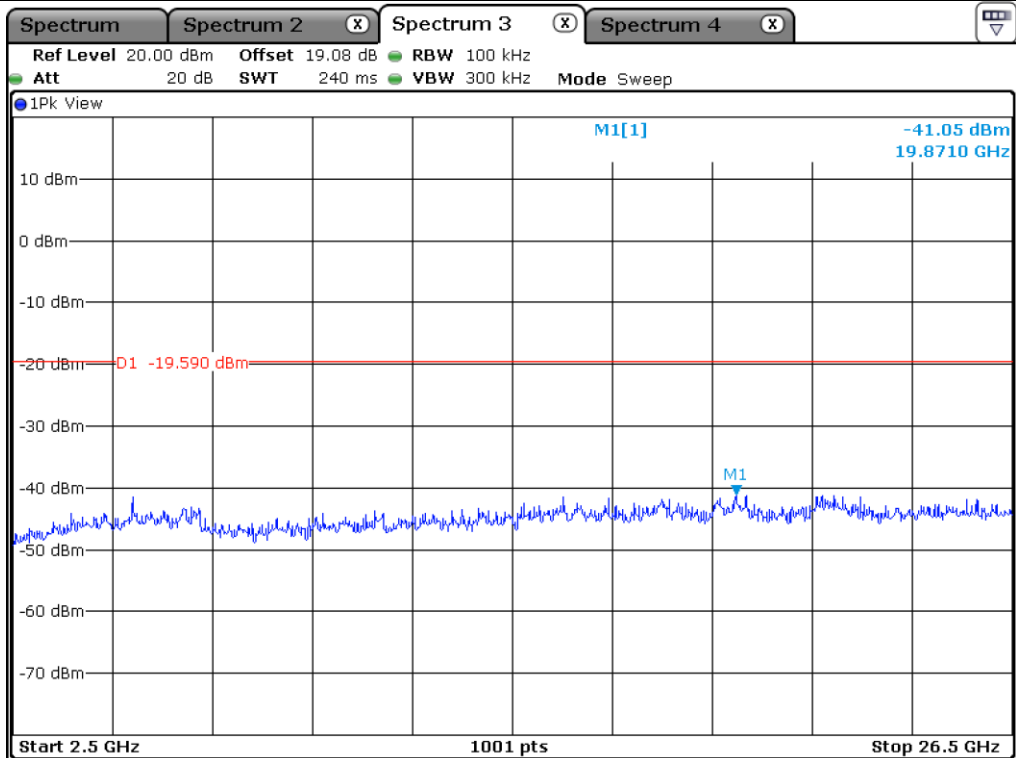
High Channel



High Channel

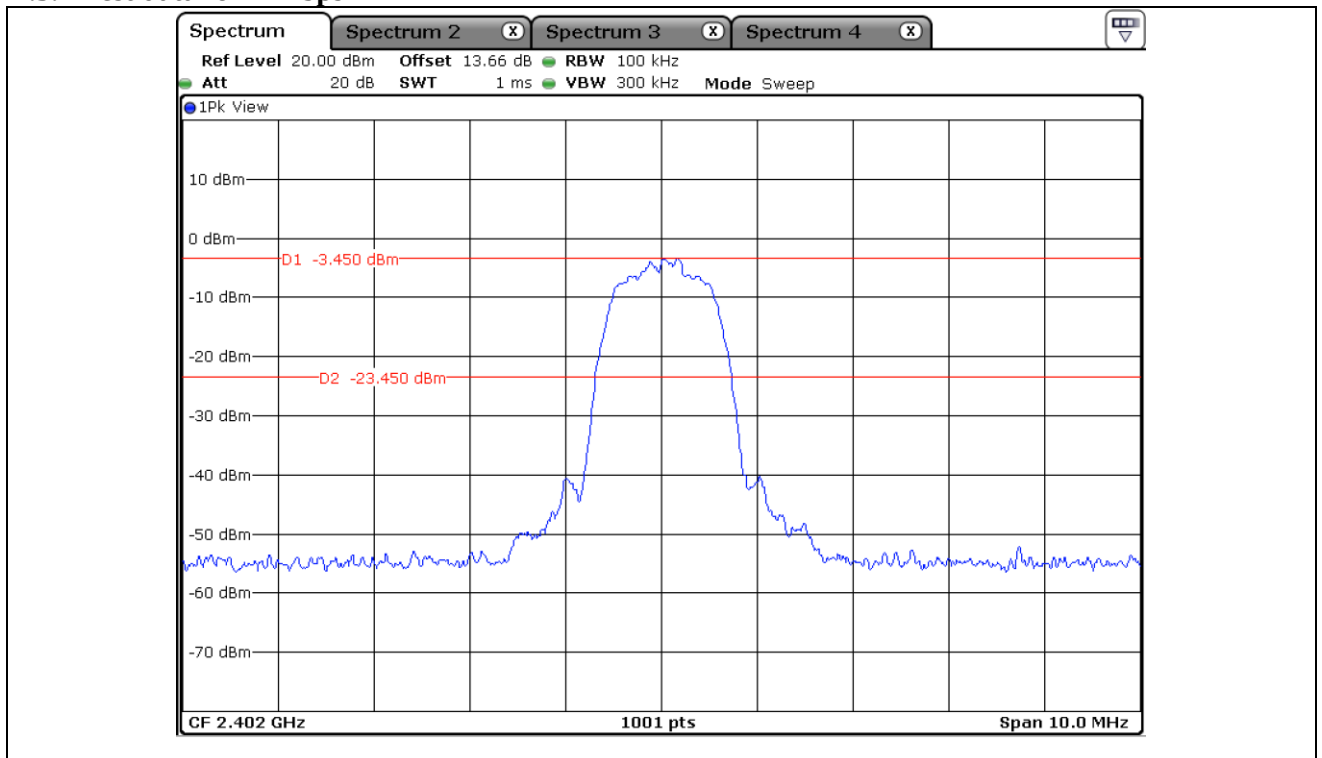


Hopping Mode

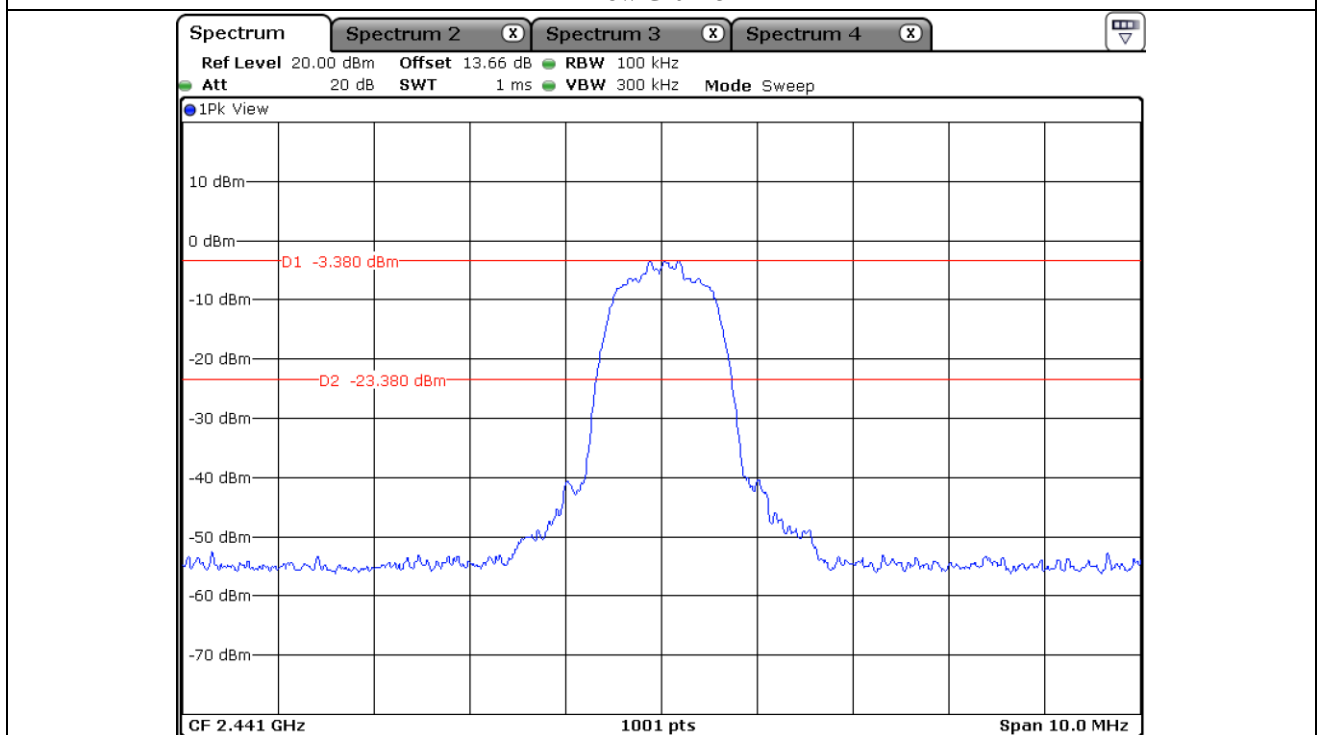


Hopping Mode

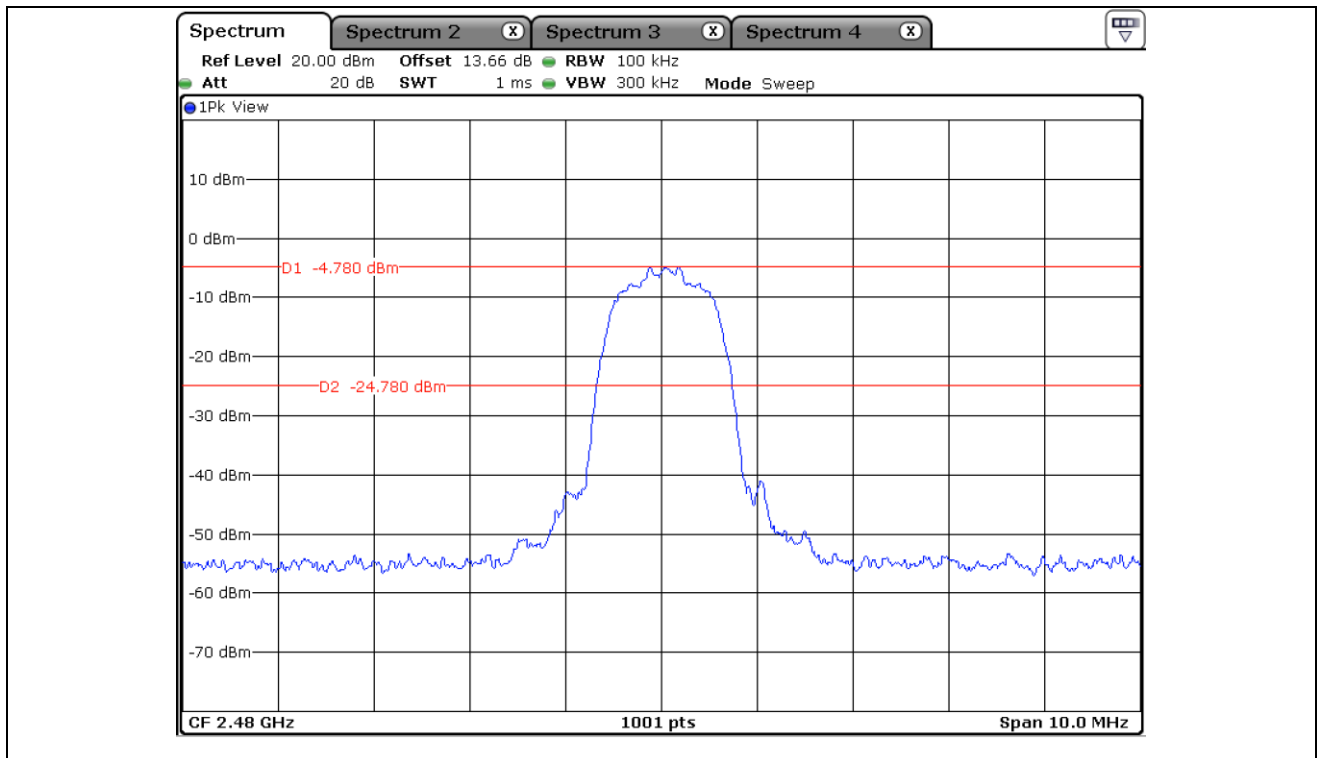
12.5.2 Test data for 2 Mbps



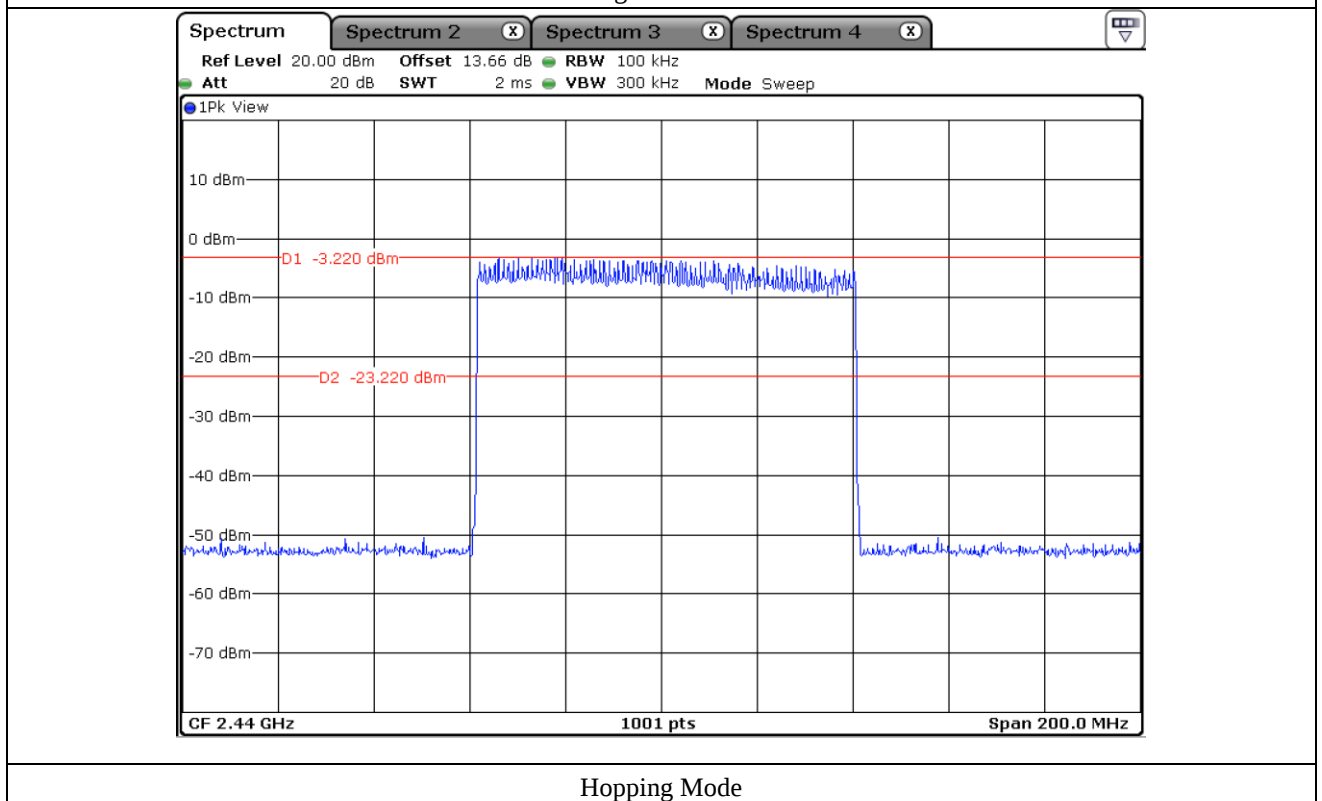
Low Channel



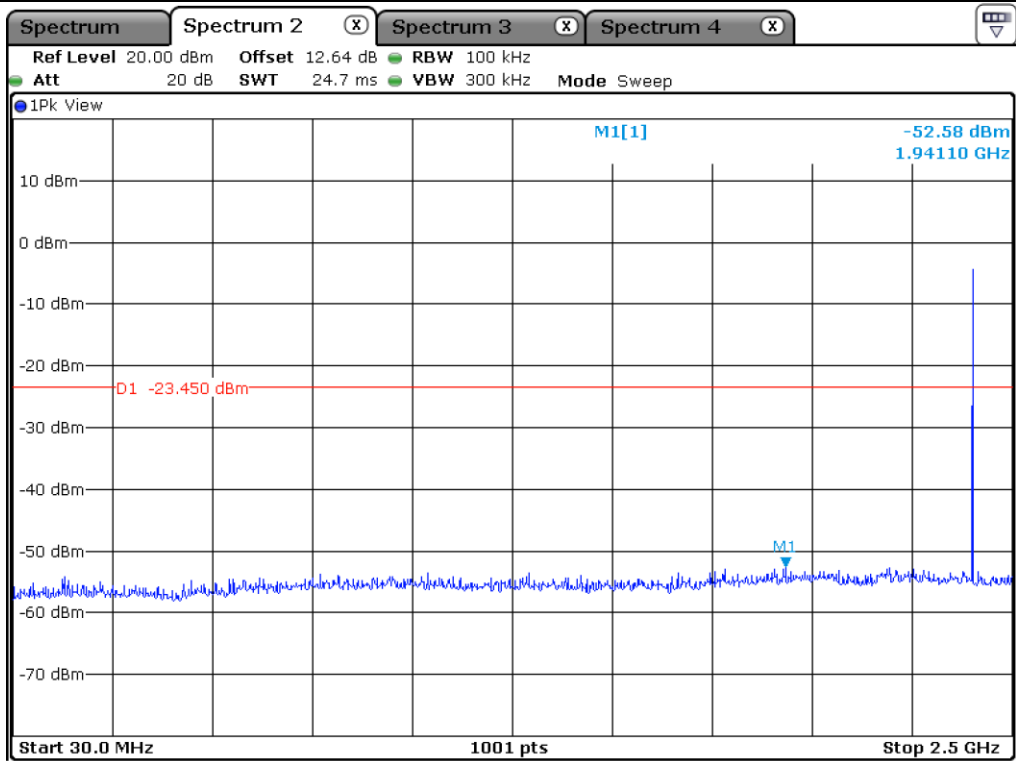
Middle Channel



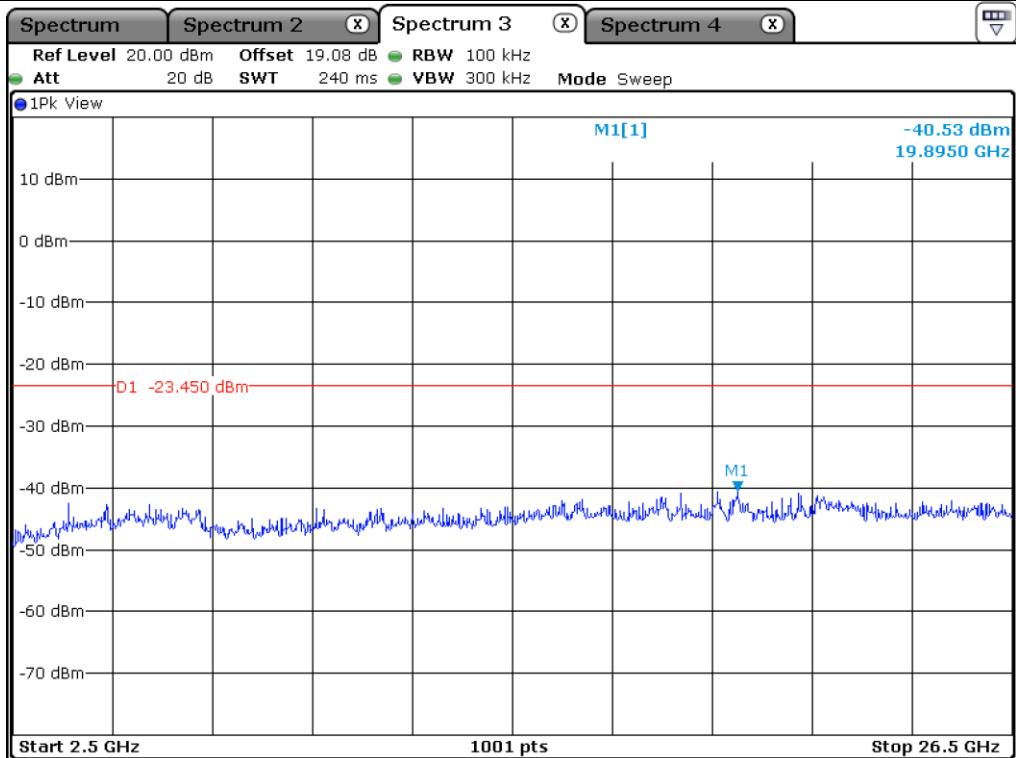
High Channel



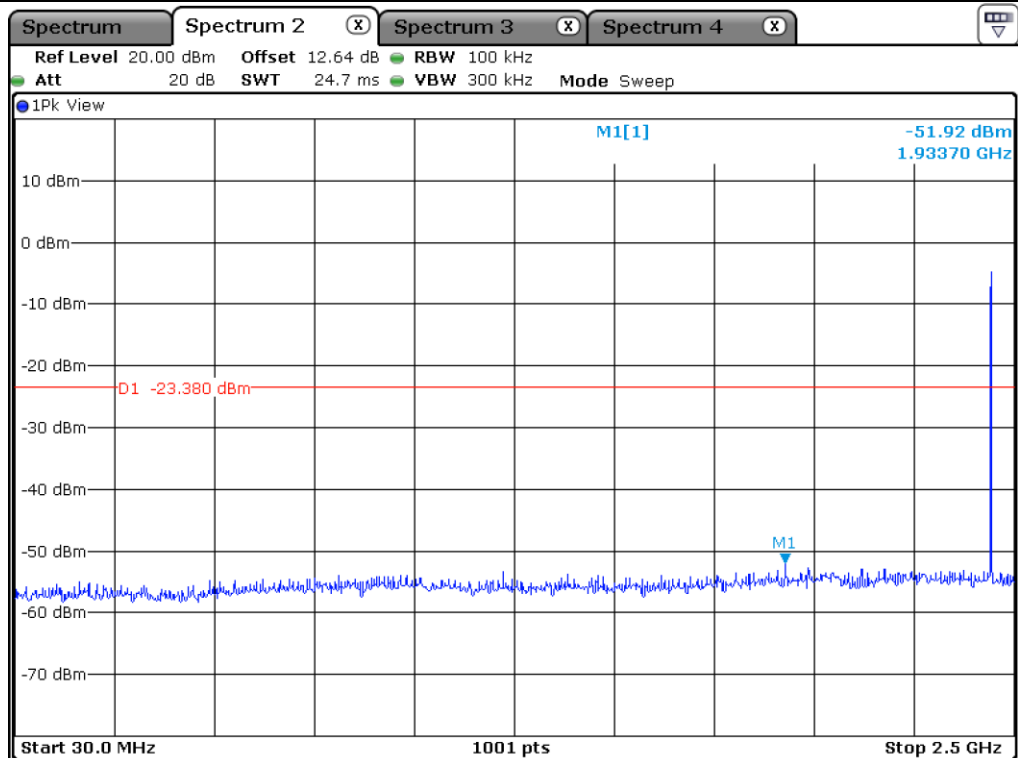
Hopping Mode



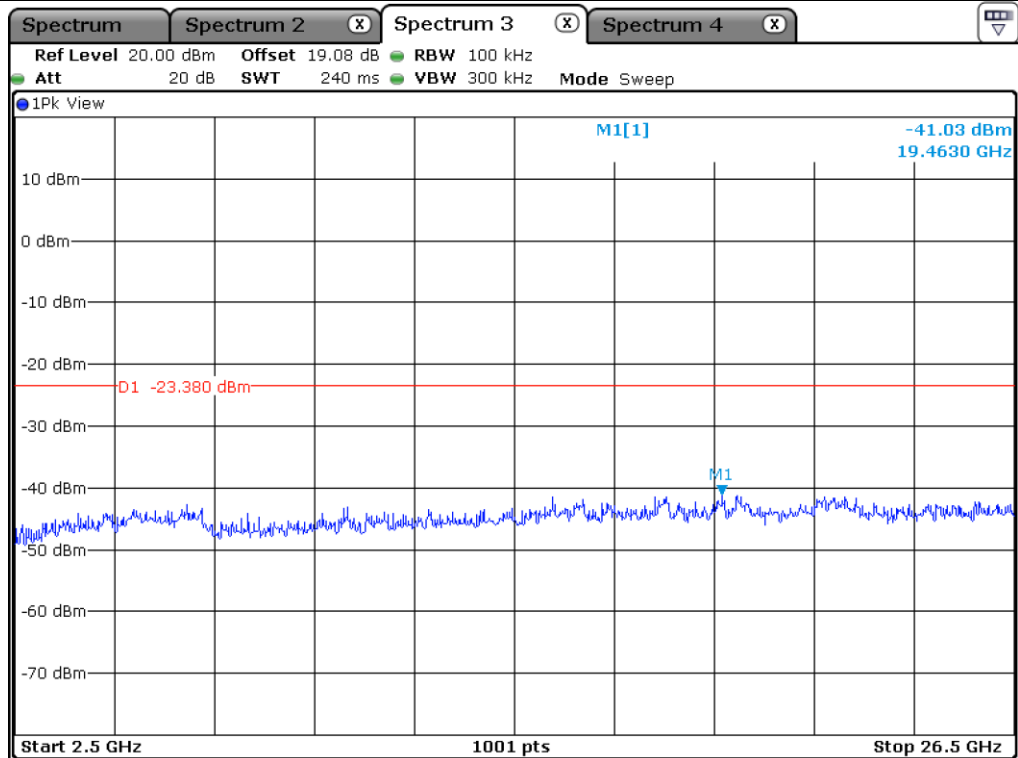
Low Channel



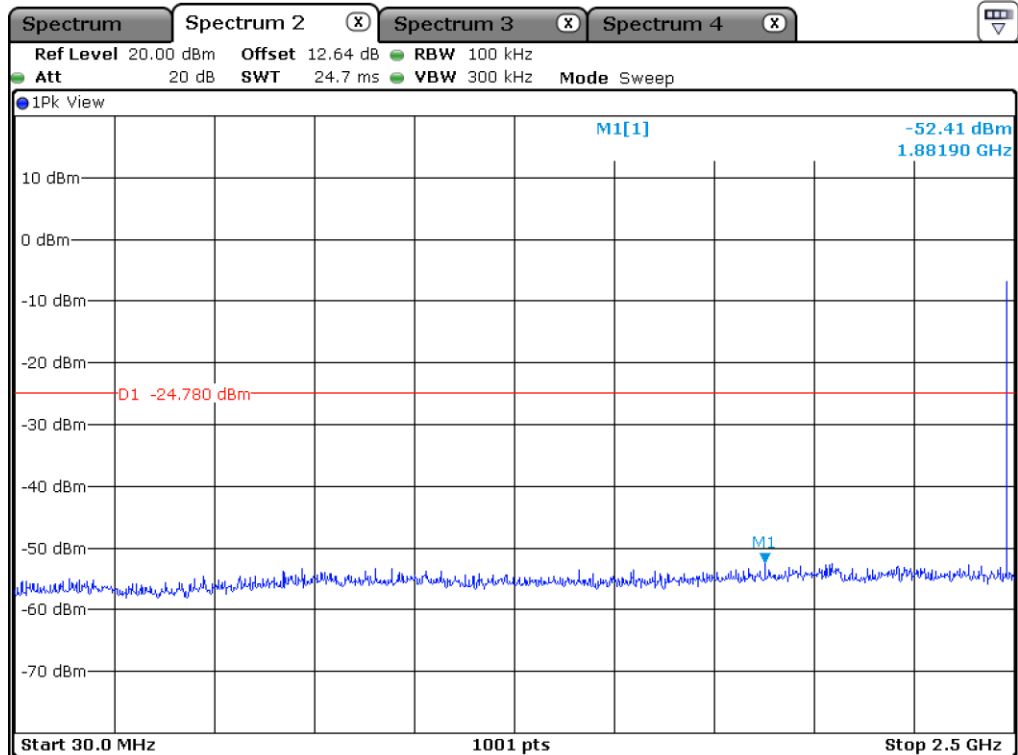
Low Channel



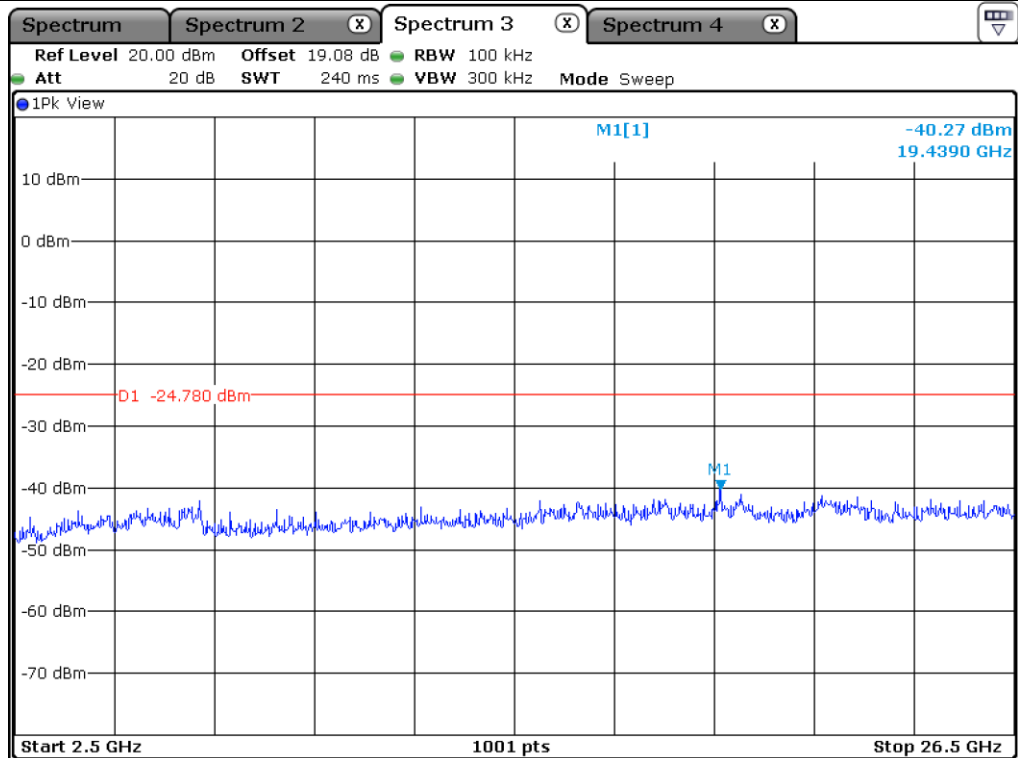
Middle Channel



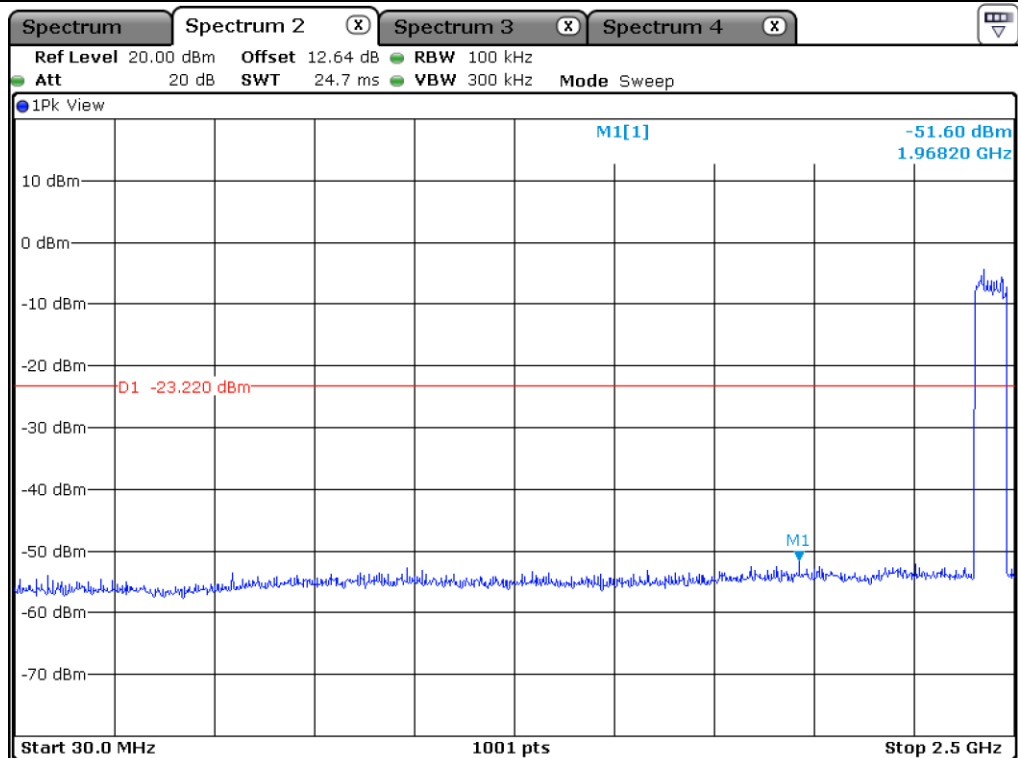
Middle Channel



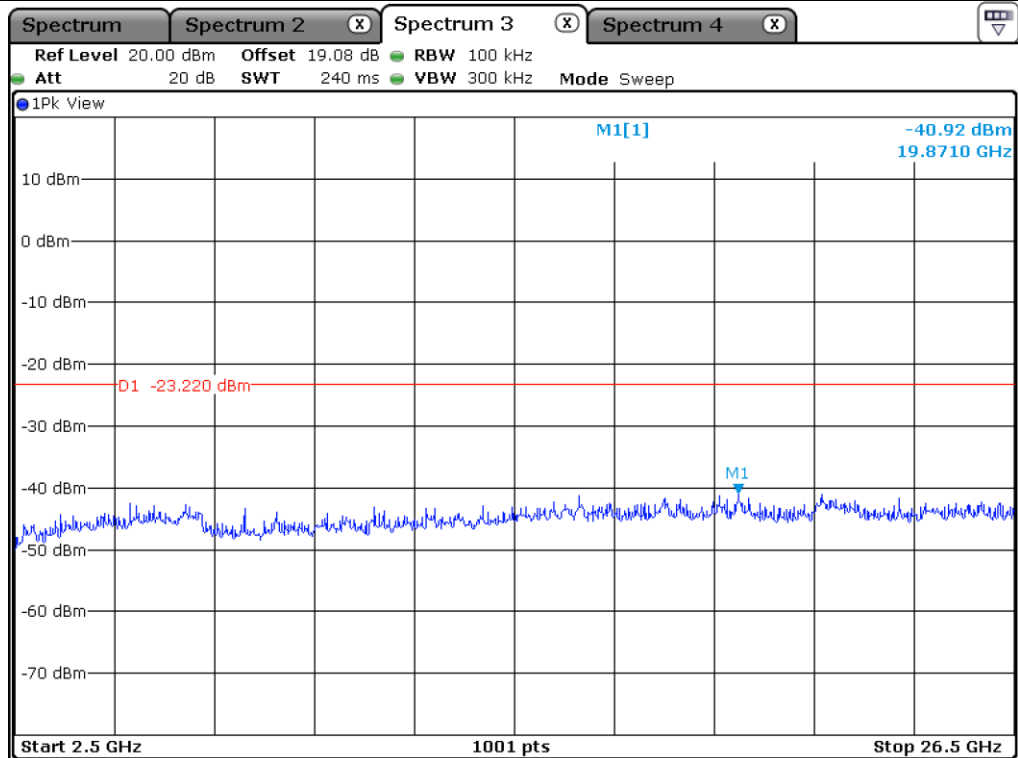
High Channel



High Channel

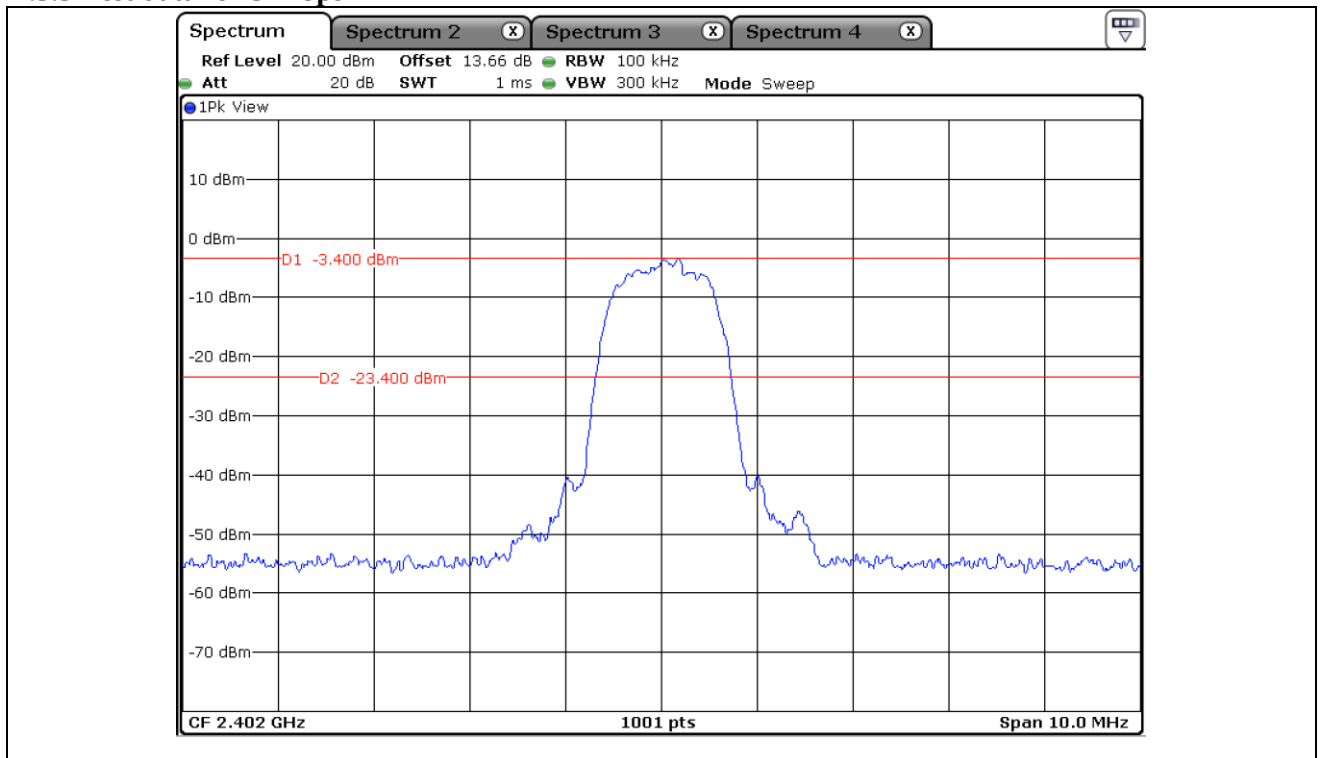


Hopping Mode

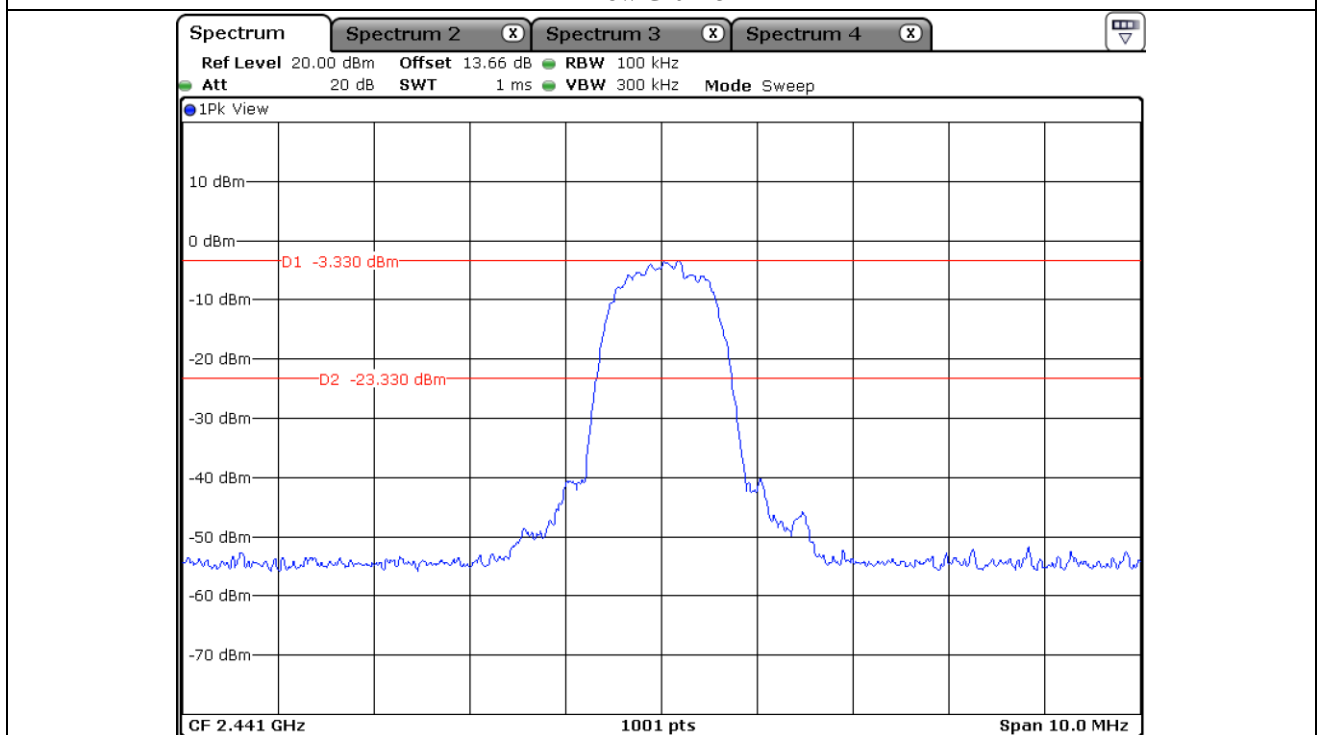


Hopping Mode

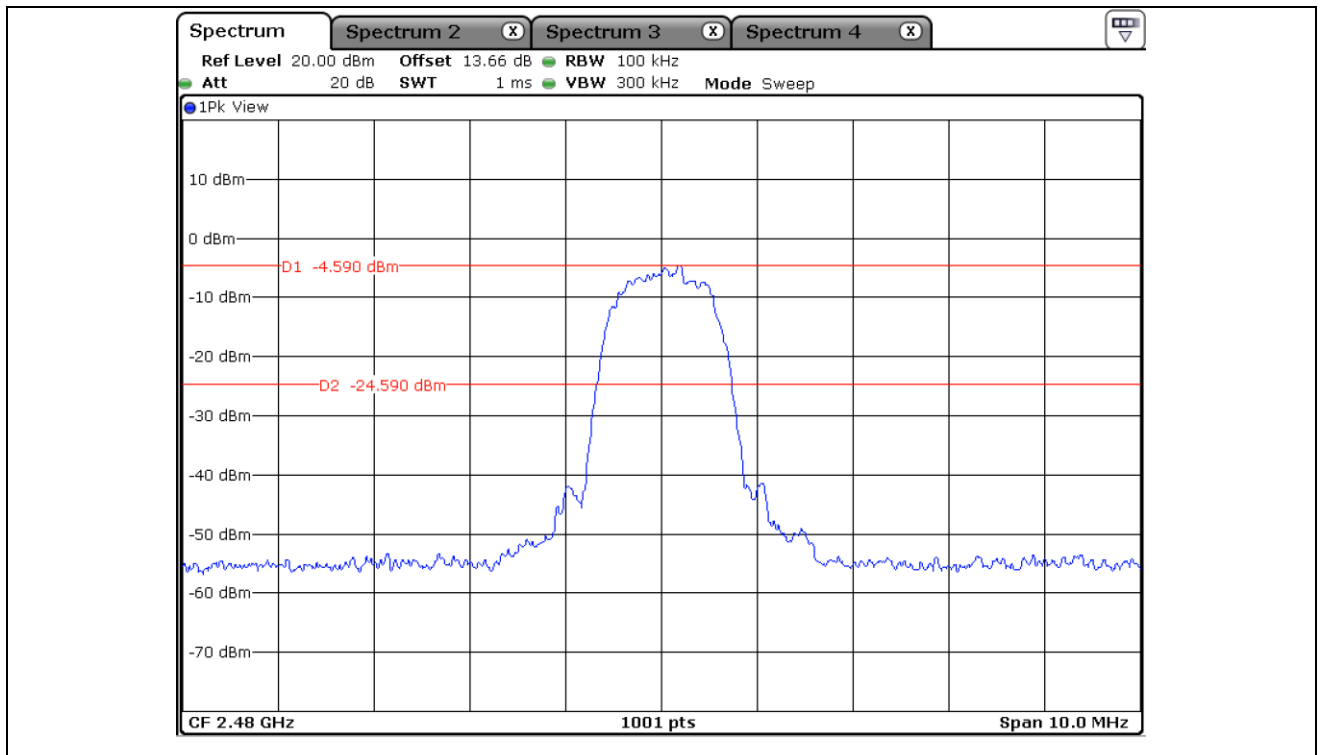
12.5.3 Test data for 3 Mbps



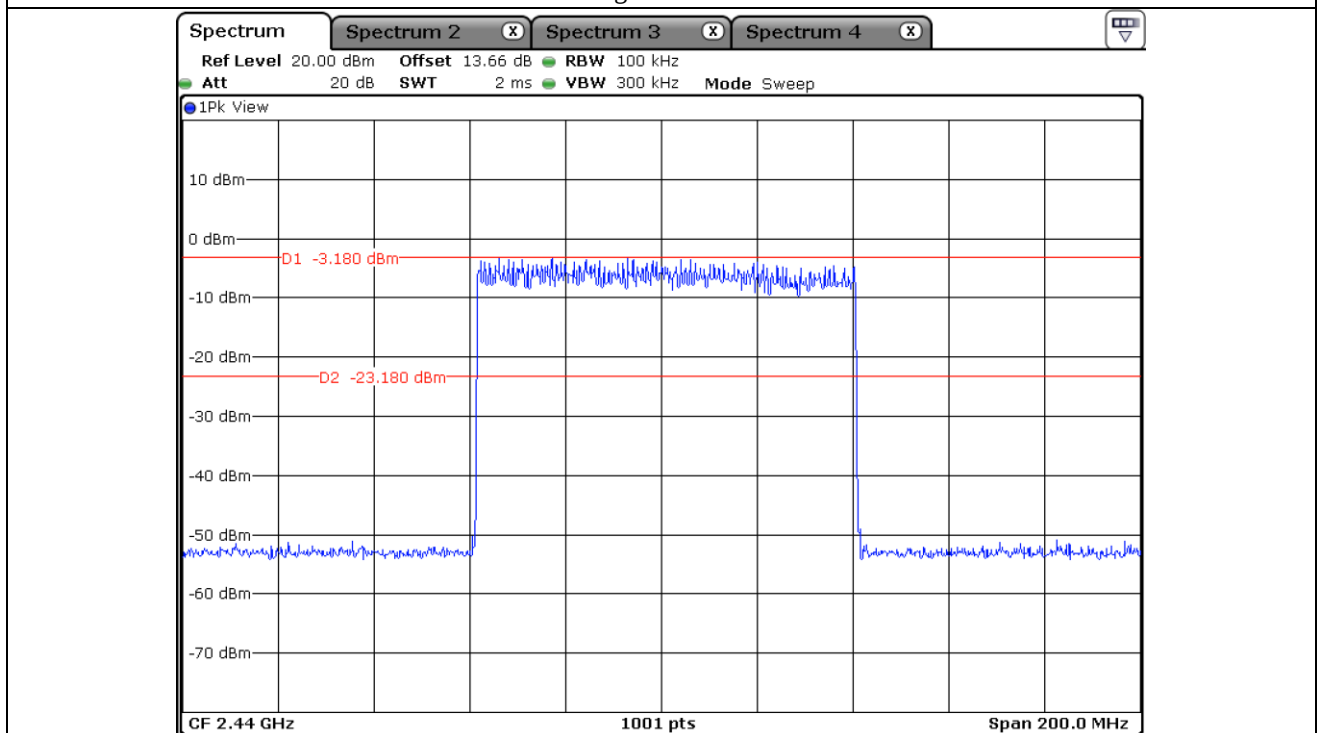
Low Channel



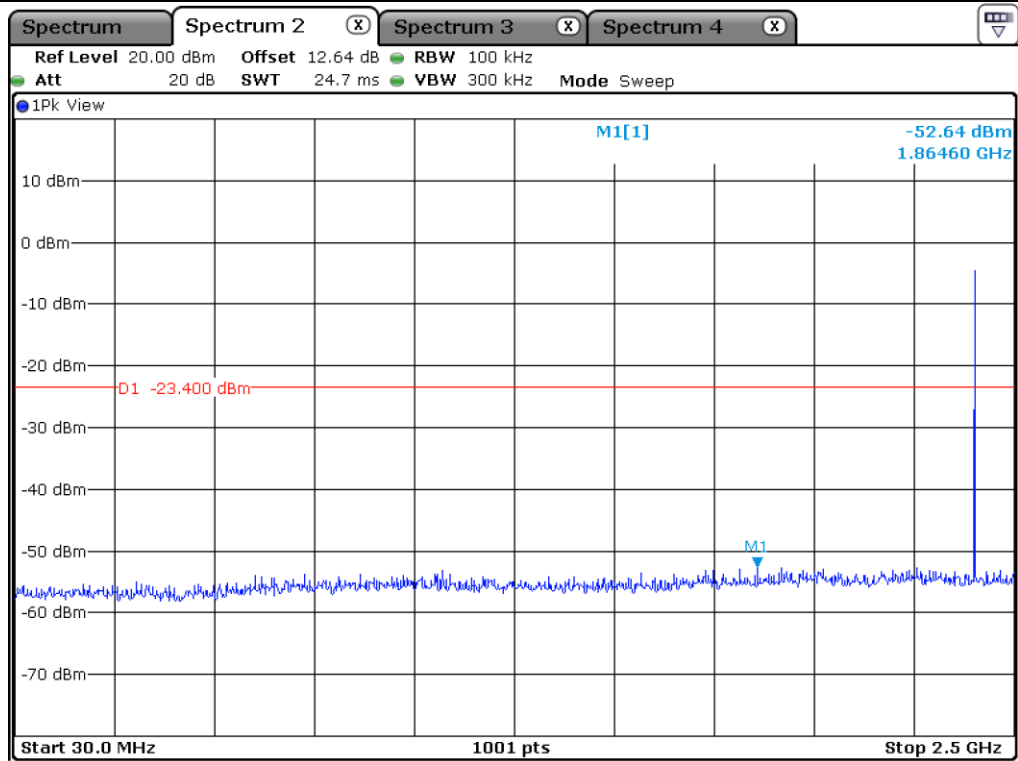
Middle Channel



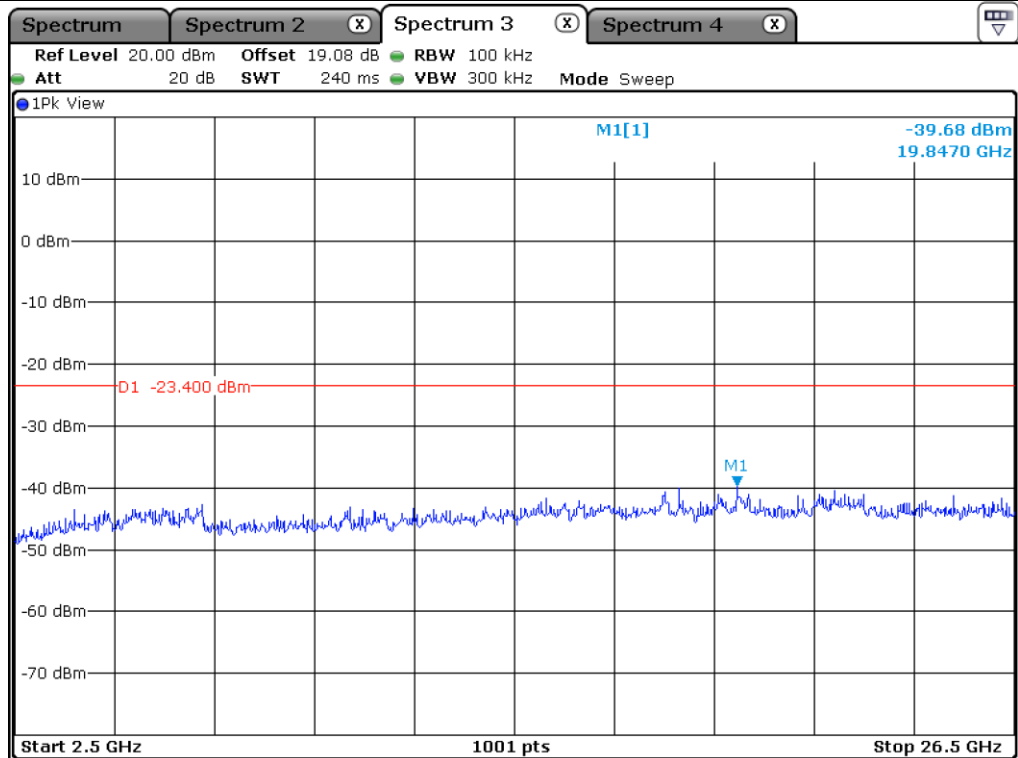
High Channel



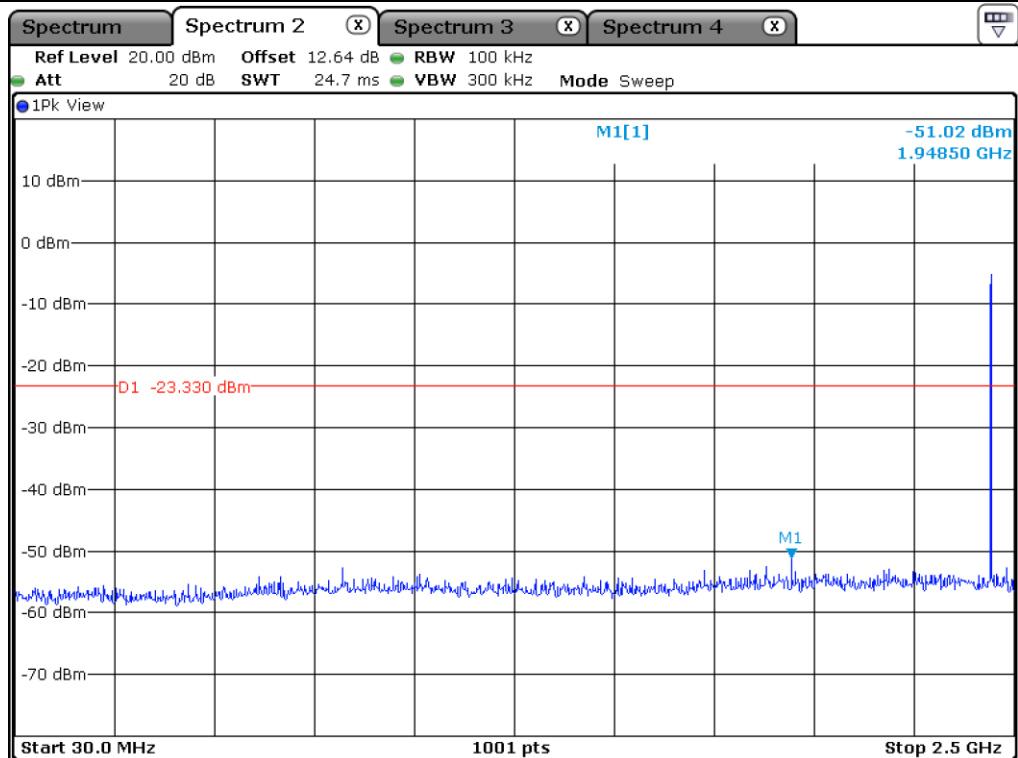
Hopping Mode



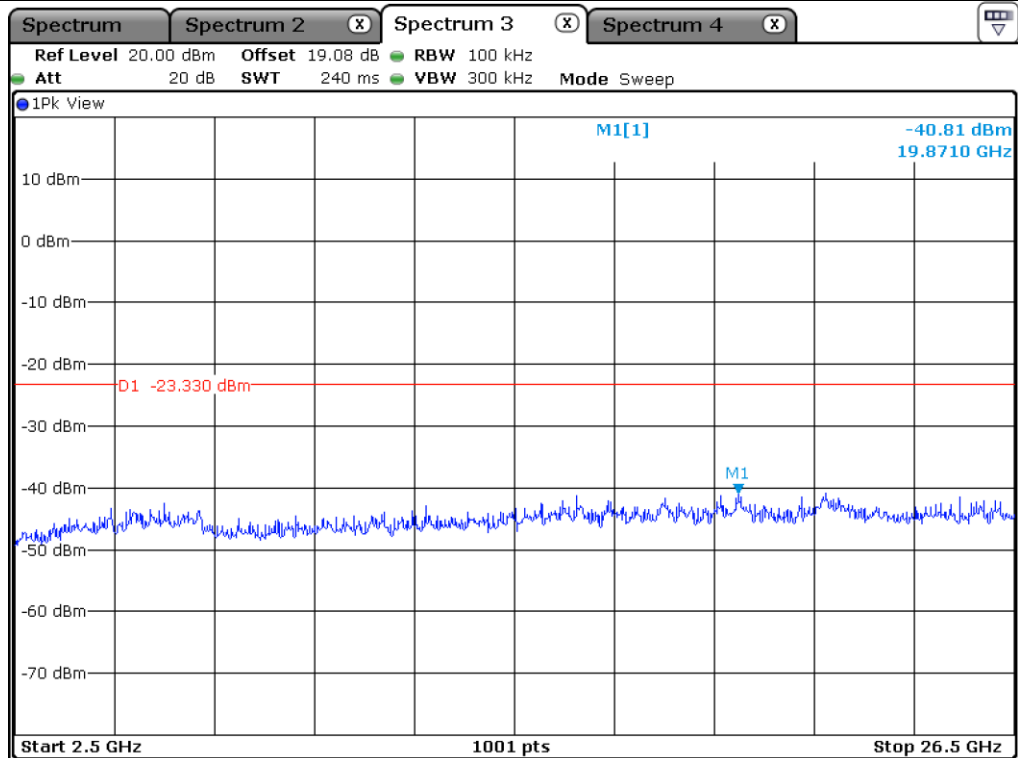
Low Channel



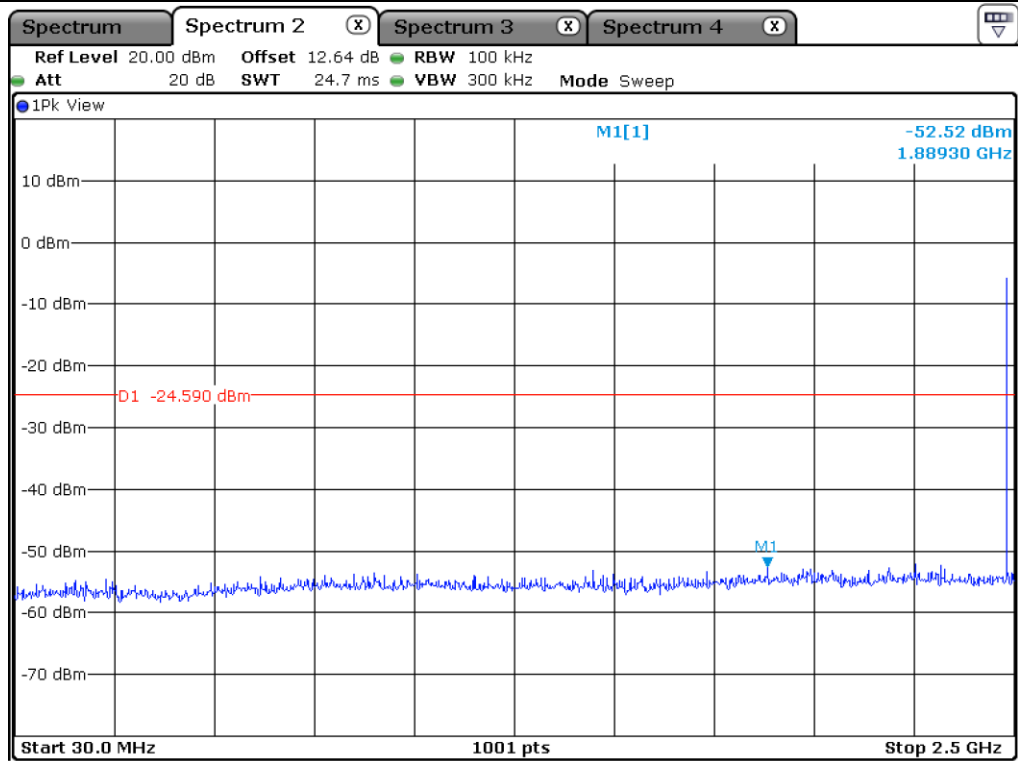
Low Channel



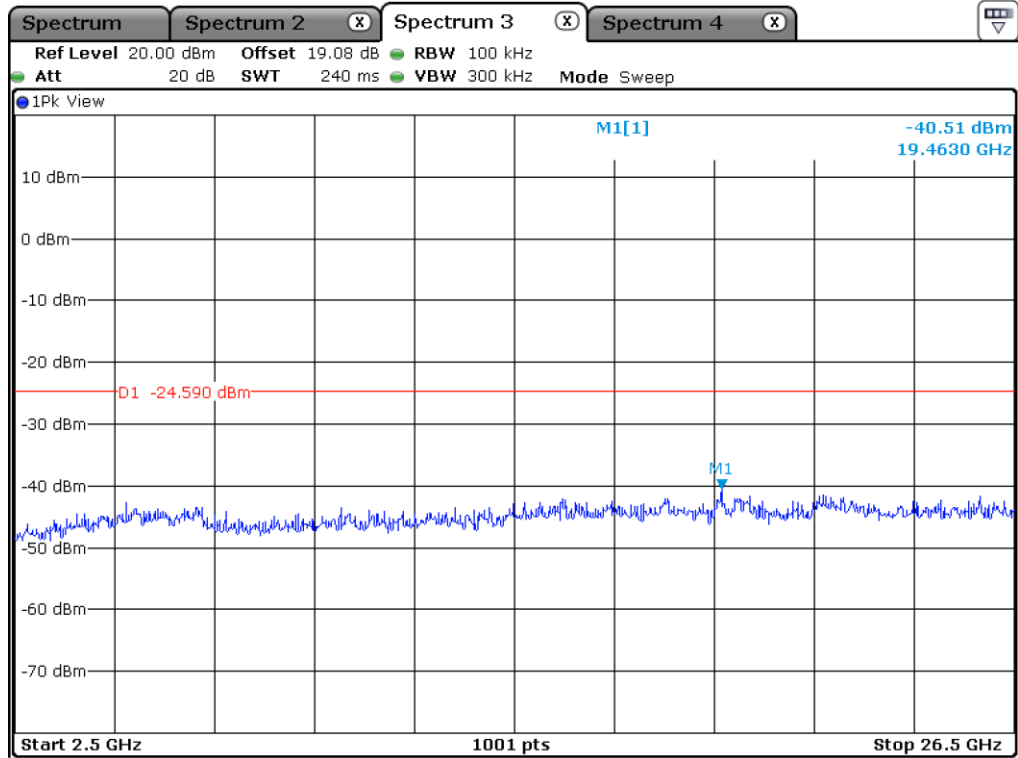
Middle Channel



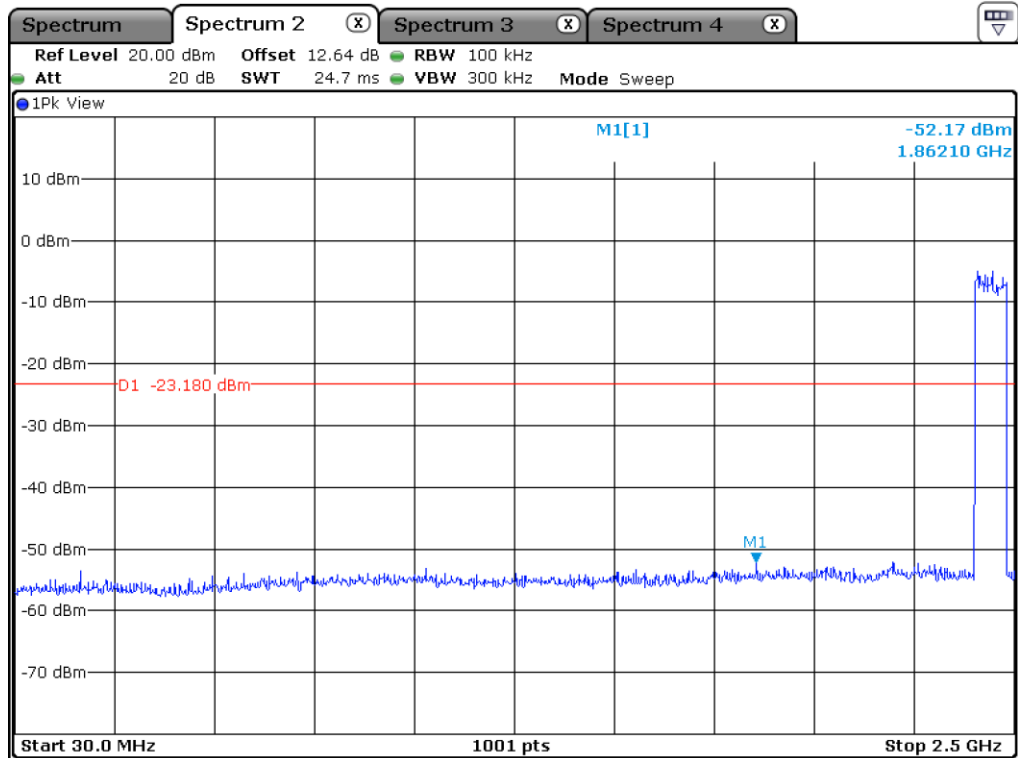
Middle Channel



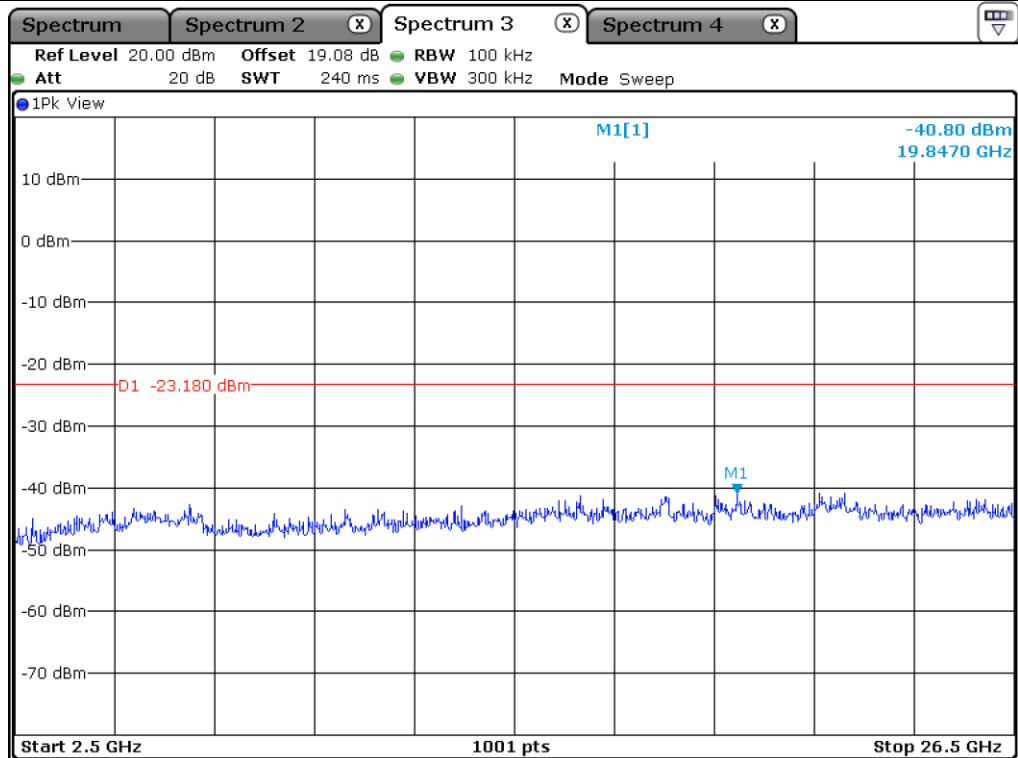
High Channel



High Channel



Hopping Mode



Hopping Mode

12.6 Test data for Transmitting mode radiated emission

12.6.1 Radiated Emission which fall in the Restricted Band

12.6.1.1 Test data for 1 Mbps

- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode
- Video bandwidth : 3 MHz for Peak and Average Mode
- Measurement distance : 3 m
- Duty Cycle : 77.23 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Gain	Duty Factor (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
2 378.426	56.41	Peak	H	27.40	6.87	44.90	-	45.78	74.00	28.22
2 378.150	50.20	Average	H	27.40	6.87	44.90	1.12	40.69	54.00	13.31
2 389.363	55.78	Peak	V	27.40	6.87	44.90	-	45.15	74.00	28.85
2 378.150	46.35	Average	V	27.40	6.87	44.90	1.12	36.84	54.00	17.16
Test Data for High Channel										
2 483.866	56.01	Peak	H	27.50	6.98	44.90	-	45.59	74.00	28.41
2 483.526	43.51	Average	H	27.50	6.98	44.90	1.12	34.21	54.00	19.79
2 499.391	53.87	Peak	V	27.50	6.98	44.90	-	43.45	74.00	30.55
2 483.666	42.32	Average	V	27.50	6.98	44.90	1.12	33.02	54.00	20.98

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{AMP Gain} + \text{Duty Factor}$$

12.6.1.2 Test data for 2 Mbps

- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode
- Video bandwidth : 3 MHz for Peak and Average Mode
- Measurement distance : 3 m
- Duty Cycle : 77.23 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Gain	Duty Factor (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
2 378.242	55.39	Peak	H	27.40	6.87	44.90	-	44.76	74.00	29.24
2 378.150	47.21	Average	H	27.40	6.87	44.90	1.12	37.70	54.00	16.30
2 389.914	58.53	Peak	V	27.40	6.87	44.90	-	47.90	74.00	26.10
2 378.334	43.55	Average	V	27.40	6.87	44.90	1.12	34.04	54.00	19.96
Test Data for High Channel										
2 483.646	56.43	Peak	H	27.50	6.98	44.90	-	46.01	74.00	27.99
2 483.766	42.43	Average	H	27.50	6.98	44.90	1.12	33.13	54.00	20.87
2 491.239	56.11	Peak	V	27.50	6.98	44.90	-	45.69	74.00	28.31
2 483.986	41.92	Average	V	27.50	6.98	44.90	1.12	32.62	54.00	21.38

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{AMP Gain} + \text{Duty Factor}$$

12.6.1.3 Test data for 3 Mbps

- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode
- Video bandwidth : 3 MHz for Peak and Average Mode
- Measurement distance : 3 m
- Duty Cycle : 77.23 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Gain	Duty Factor (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
2 378.517	54.28	Peak	H	27.40	6.87	44.90	-	43.65	74.00	30.35
2 378.242	47.02	Average	H	27.40	6.87	44.90	1.12	37.51	54.00	16.49
2 310.781	53.73	Peak	V	27.40	6.87	44.90	-	43.10	74.00	30.90
2 377.966	43.95	Average	V	27.40	6.87	44.90	1.12	34.44	54.00	19.56
Test Data for High Channel										
2 483.866	55.11	Peak	H	27.50	6.98	44.90	-	44.69	74.00	29.31
2 483.606	42.63	Average	H	27.50	6.98	44.90	1.12	33.33	54.00	20.67
2 483.606	54.23	Peak	V	27.50	6.98	44.90	-	43.81	74.00	30.19
2 489.520	41.98	Average	V	27.50	6.98	44.90	1.12	32.68	54.00	21.32

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{AMP Gain} + \text{Duty Factor}$$

12.6.2 Spurious & Harmonic Radiated Emission above 1 GHz

12.6.2.1 Test data for 1 Mbps

- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 3 MHz for Peak and Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Duty Cycle : 77.23 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Gain	Duty Factor (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
4 804.00	49.80	Peak	H	31.30	9.96	44.70	-	46.36	74.00	27.64
4 804.00	38.30	Average	H	31.30	9.96	44.70	1.12	35.98	54.00	18.02
4 804.00	49.40	Peak	V	31.30	9.96	44.70	-	45.96	74.00	28.04
4 804.00	38.09	Average	V	31.30	9.96	44.70	1.12	35.77	54.00	18.23
Test Data for Middle Channel										
4 882.00	49.51	Peak	H	31.30	9.96	44.70	-	46.07	74.00	27.93
4 882.00	38.55	Average	H	31.30	9.96	44.70	1.12	36.23	54.00	17.77
4 882.00	49.34	Peak	V	31.30	9.96	44.70	-	45.90	74.00	28.10
4 882.00	38.34	Average	V	31.30	9.96	44.70	1.12	36.02	54.00	17.98
Test Data for High Channel										
4 960.00	49.85	Peak	H	31.40	9.96	44.70	-	46.51	74.00	27.49
4 960.00	38.26	Average	H	31.40	9.96	44.70	1.12	36.04	54.00	17.96
4 960.00	50.16	Peak	V	31.40	9.96	44.70	-	46.82	74.00	27.18
4 960.00	38.12	Average	V	31.40	9.96	44.70	1.12	35.90	54.00	18.10

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{AMP Gain} + \text{Duty Factor}$$

12.6.2.2 Test data for 2 Mbps

- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 3 MHz for Peak and Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Duty Cycle : 77.23 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Gain	Duty Factor (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
4 804.00	49.26	Peak	H	31.30	9.96	44.70	-	45.82	74.00	28.18
4 804.00	38.09	Average	H	31.30	9.96	44.70	1.12	35.77	54.00	18.23
4 804.00	48.98	Peak	V	31.30	9.96	44.70	-	45.54	74.00	28.46
4 804.00	38.21	Average	V	31.30	9.96	44.70	1.12	35.89	54.00	18.11
Test Data for Middle Channel										
4 882.00	49.53	Peak	H	31.30	9.96	44.70	-	46.09	74.00	27.91
4 882.00	38.30	Average	H	31.30	9.96	44.70	1.12	35.98	54.00	18.02
4 882.00	49.60	Peak	V	31.30	9.96	44.70	-	46.16	74.00	27.84
4 882.00	38.33	Average	V	31.30	9.96	44.70	1.12	36.01	54.00	17.99
Test Data for High Channel										
4 960.00	49.13	Peak	H	31.40	9.96	44.70	-	45.79	74.00	28.21
4 960.00	38.20	Average	H	31.40	9.96	44.70	1.12	35.98	54.00	18.02
4 960.00	48.61	Peak	V	31.40	9.96	44.70	-	45.27	74.00	28.73
4 960.00	38.36	Average	V	31.40	9.96	44.70	1.12	36.14	54.00	17.86

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{AMP Gain} + \text{Duty Factor}$$

12.6.2.3 Test data for 3 Mbps

- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 3 MHz for Peak and Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Duty Cycle : 77.23 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Gain	Duty Factor (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
4 804.00	49.27	Peak	H	31.30	9.96	44.70	-	45.83	74.00	28.17
4 804.00	38.10	Average	H	31.30	9.96	44.70	1.12	35.78	54.00	18.22
4 804.00	49.11	Peak	V	31.30	9.96	44.70	-	45.67	74.00	28.33
4 804.00	38.17	Average	V	31.30	9.96	44.70	1.12	35.85	54.00	18.15
Test Data for Middle Channel										
4 882.00	48.83	Peak	H	31.30	9.96	44.70	-	45.39	74.00	28.61
4 882.00	37.68	Average	H	31.30	9.96	44.70	1.12	35.36	54.00	18.64
4 882.00	48.73	Peak	V	31.30	9.96	44.70	-	45.29	74.00	28.71
4 882.00	38.24	Average	V	31.30	9.96	44.70	1.12	35.92	54.00	18.08
Test Data for High Channel										
4 960.00	48.85	Peak	H	31.40	9.96	44.70	-	45.51	74.00	28.49
4 960.00	37.94	Average	H	31.40	9.96	44.70	1.12	35.72	54.00	18.28
4 960.00	49.12	Peak	V	31.40	9.96	44.70	-	45.78	74.00	28.22
4 960.00	38.11	Average	V	31.40	9.96	44.70	1.12	35.89	54.00	18.11

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{AMP Gain} + \text{Duty Factor}$$

13. RADIATED EMISSION TEST

13.1 Operating environment

Temperature : 25.3 °C
Relative humidity : 53.1 % R.H.

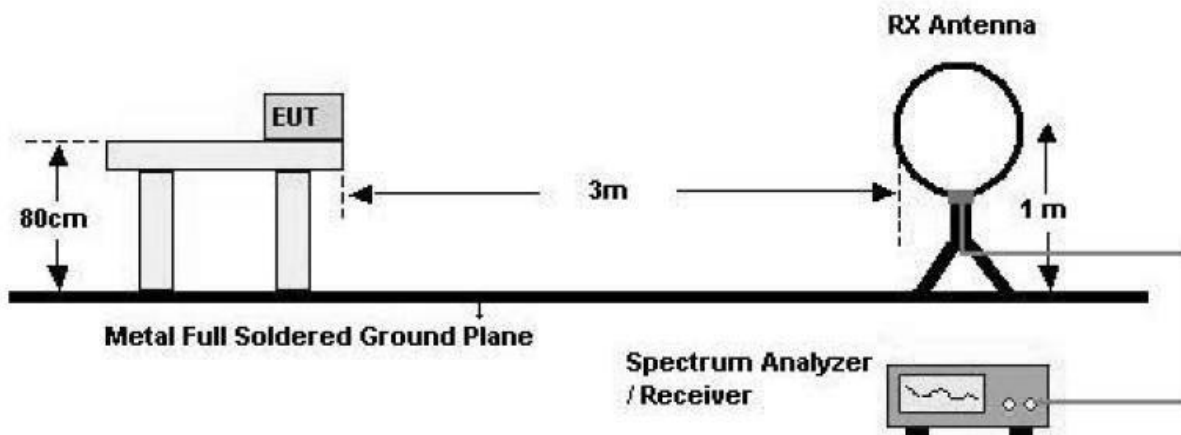
13.2 Test set-up

The radiated emissions measurements were on the 3 m semi anechoic chamber. The EUT and other support equipment were placed on a non-conductive turntable above the ground plane. The interconnecting cables from outside test site were inserted into ferrite clamps at the point where the cables reach the turntable.

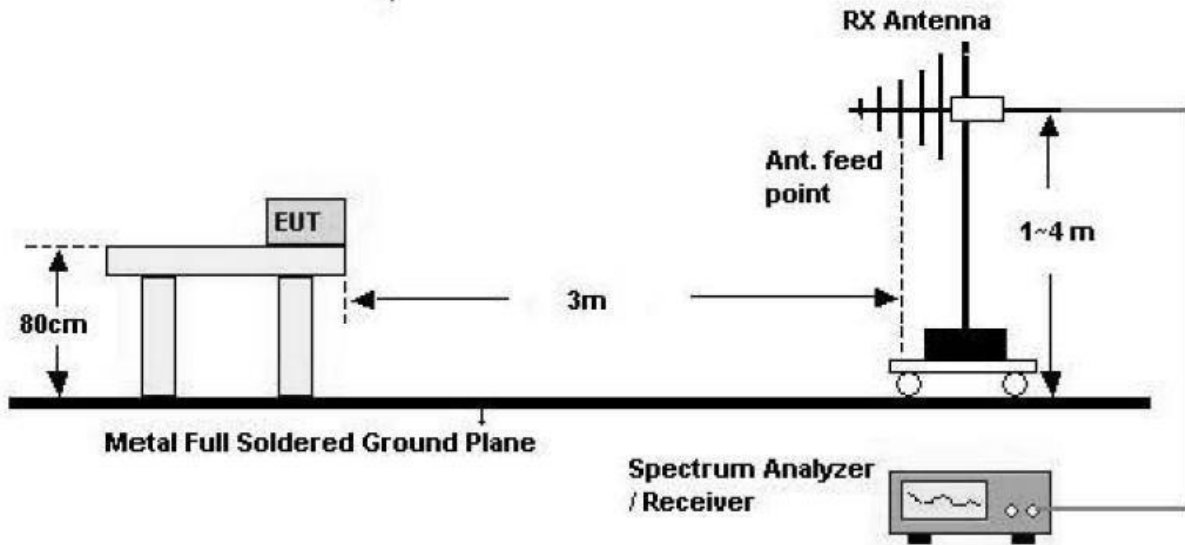
The frequency spectrum from 30 MHz to 26.5 GHz was scanned and emission levels maximized at each frequency recorded. The system was rotated 360°, and the antenna was varied in height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for both horizontal and vertical polarization of the receiving antenna.

- Test Configuration

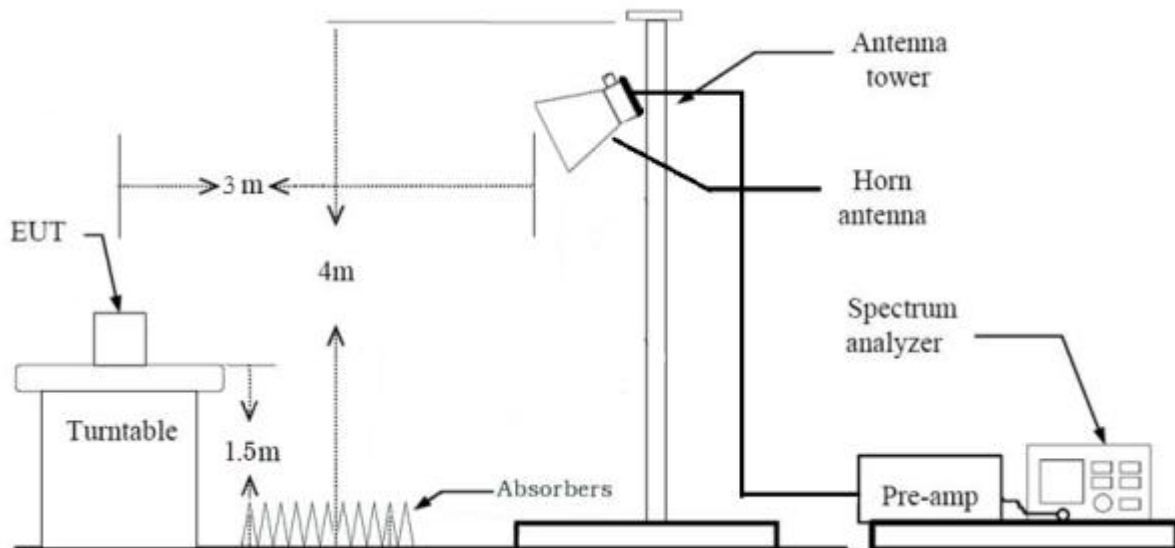
1. Below 30 MHz



2. 30 MHz - 1 GHz



3. Above 1 GHz

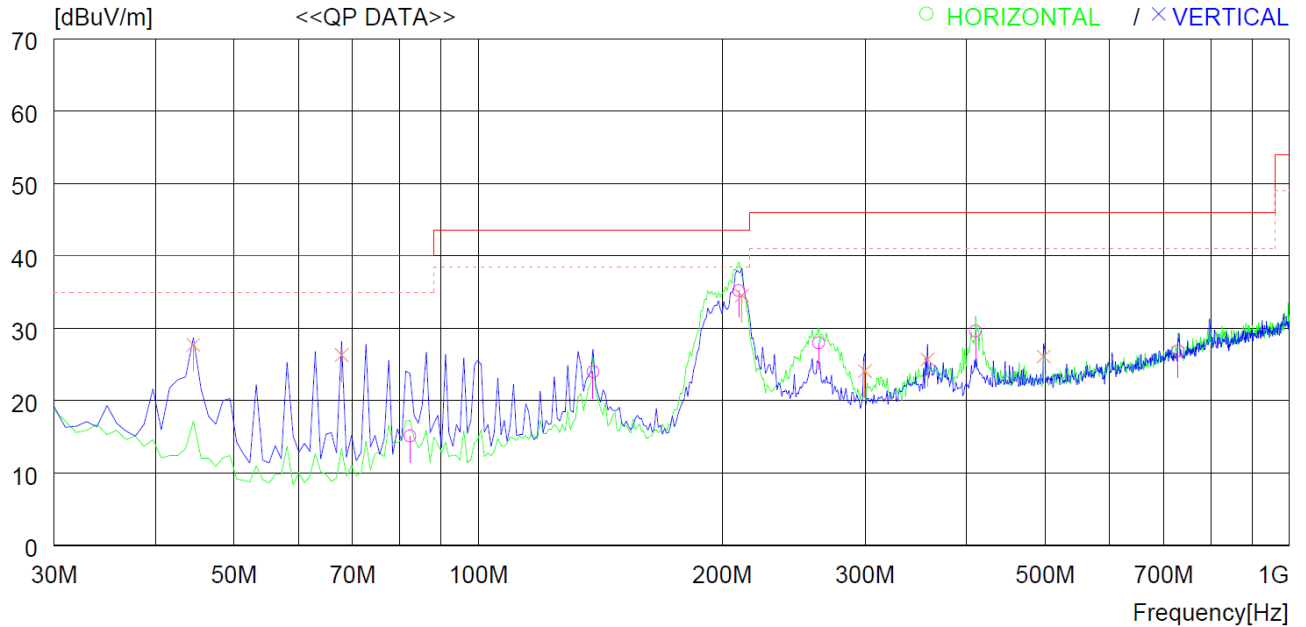


13.3 Test Date

August 09, 2022 ~ August 22, 2022

13.4 Test data for 30 MHz ~ 1 000 MHz

- . Resolution bandwidth : 120 kHz
- . Frequency range : 30 MHz ~ 1 000 MHz
- . Measurement distance : 3 m



No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	QP	FACTOR	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	82.380	32.1	13.4	2.7	33.1	15.1	40.0	24.9	300	359
2	138.640	34.3	19.3	3.4	33.0	24.0	43.5	19.5	200	49
3	209.450	48.5	15.7	4.0	33.0	35.2	43.5	8.3	200	358
4	262.800	37.9	18.5	4.5	32.9	28.0	46.0	18.0	100	337
5	410.240	35.2	21.7	5.6	32.9	29.6	46.0	16.4	100	328
6	729.364	26.7	26.0	7.5	33.3	26.9	46.0	19.1	100	359
----- Vertical -----										
7	44.550	43.5	15.3	2.0	33.1	27.7	40.0	12.3	100	359
8	67.830	43.9	13.0	2.5	33.1	26.3	40.0	13.7	100	1
9	211.390	47.7	15.7	4.1	33.0	34.5	43.5	9.0	100	0
10	299.660	32.8	19.4	4.8	32.9	24.1	46.0	21.9	100	107
11	357.860	33.1	20.3	5.3	33.0	25.7	46.0	20.3	100	0
12	497.541	29.3	23.4	6.4	33.0	26.1	46.0	19.9	100	279

13.5 Test data for Below 30 MHz

-. Resolution bandwidth : 200 Hz (from 9 kHz to 0.15 MHz), 9 kHz (from 0.15 MHz to 30 MHz)

-. Frequency range : 9 kHz ~ 30 MHz

-. Measurement distance : 3 m

Frequency (MHz)	Reading (dBμV)	Ant. Pol. (H/V)	Ant. Factor (dB/m)	Cable Loss	Amp Gain	Emission Level(dBμV/m)	Limits (dBμV/m)	Margin (dB)
Emission from the EUT more than 20 dB below the limit in each frequency range.								

13.6 Test data for above 1 GHz

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode

1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 26.5 GHz

-. Measurement distance : 3 m

Frequency (MHz)	Reading (dBμV)	Ant. Pol. (H/V)	Ant. Factor (dB/m)	Cable Loss	Amp Gain	Emission Level(dBμV/m)	Limits (dBμV/m)	Margin (dB)
Emission from the EUT more than 20 dB below the limit in each frequency range.								

14. CONDUCTED EMISSION TEST

14.1 Operating environment

Temperature : 25.3 °C
Relative humidity : 53.1 % R.H.

14.2 Test set-up

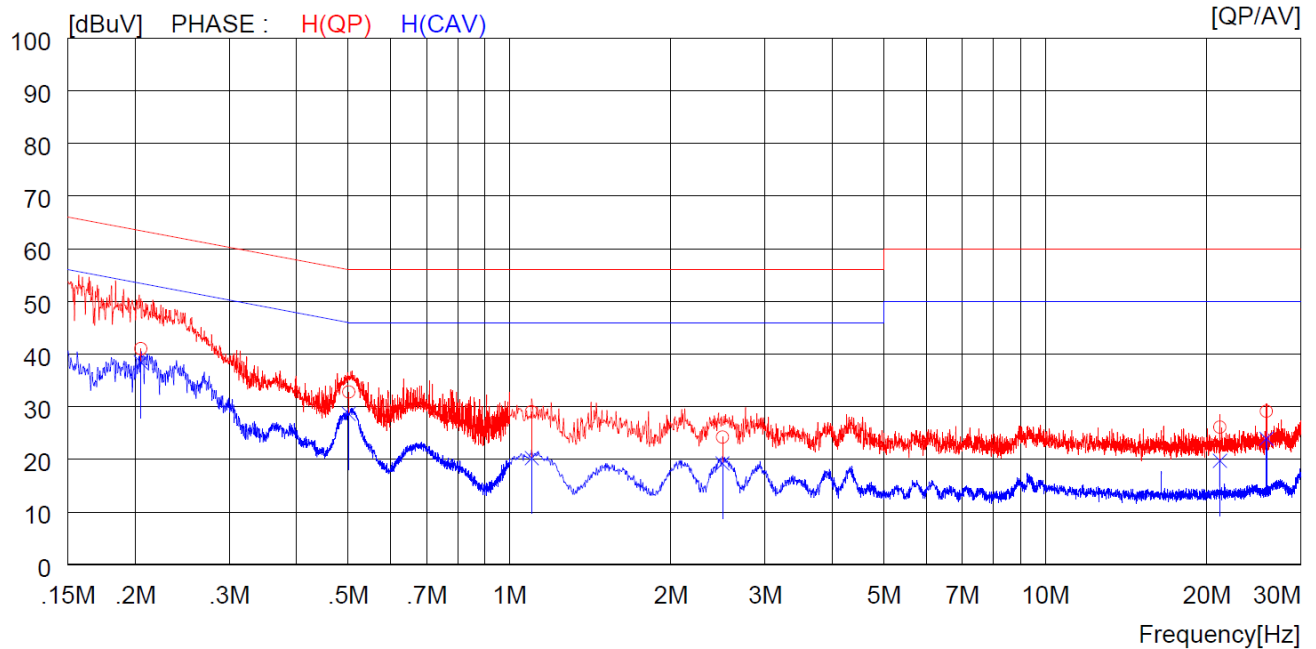
The EUT was placed on a wooden table, 0.8 m height above the floor. Power was fed to the EUT through a $50\ \Omega$ / $50\ \mu\text{H}$ + $5\ \Omega$ Artificial Mains Network (AMN). The ground plane was electrically bonded to the reference ground system and all power lines were filtered from ambient.

14.3 Test Date

August 09, 2022 ~ August 22, 2022

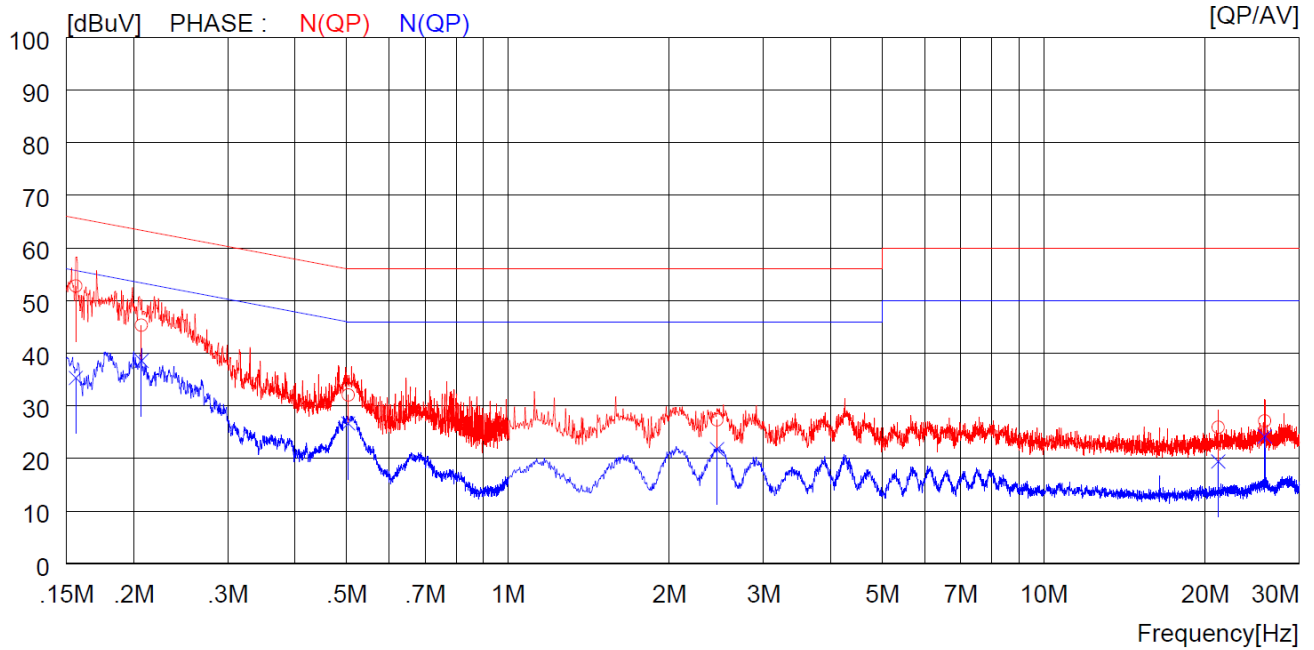
14.4 Test data

- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.20500	31.0	----	10.0	41.0	----	63.4	----	22.4	----	H (QP)
2	0.50100	22.8	----	10.0	32.8	----	56.0	----	23.2	----	H (QP)
3	1.10000	18.9	----	10.1	29.0	----	56.0	----	27.0	----	H (QP)
4	2.49600	14.1	----	10.1	24.2	----	56.0	----	31.8	----	H (QP)
5	21.16000	15.6	----	10.5	26.1	----	60.0	----	33.9	----	H (QP)
6	25.87000	18.5	----	10.6	29.1	----	60.0	----	30.9	----	H (QP)
7	0.20500	----	28.4	10.0	----	38.4	----	53.4	----	15.0	H (CAV)
8	0.50100	----	18.6	10.0	----	28.6	----	46.0	----	17.4	H (CAV)
9	1.10000	----	10.1	10.1	----	20.2	----	46.0	----	25.8	H (CAV)
10	2.49600	----	9.1	10.1	----	19.2	----	46.0	----	26.8	H (CAV)
11	21.16000	----	9.2	10.5	----	19.7	----	50.0	----	30.3	H (CAV)
12	25.87000	----	13.3	10.6	----	23.9	----	50.0	----	26.1	H (CAV)

-. Tested Line : NEUTRAL LINE



NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.15600	42.7	----	10.0	52.7	----	65.7	----	13.0	----	N (QP)
2	0.20700	35.3	----	10.0	45.3	----	63.3	----	18.0	----	N (QP)
3	0.50300	22.0	----	10.0	32.0	----	56.0	----	24.0	----	N (QP)
4	2.45600	17.2	----	10.1	27.3	----	56.0	----	28.7	----	N (QP)
5	21.16000	15.4	----	10.5	25.9	----	60.0	----	34.1	----	N (QP)
6	25.87000	16.5	----	10.6	27.1	----	60.0	----	32.9	----	N (QP)
7	0.15600	----	25.3	10.0	----	35.3	----	55.7	----	20.4	N (CAV)
8	0.20700	----	28.5	10.0	----	38.5	----	53.3	----	14.8	N (CAV)
9	0.50300	----	16.6	10.0	----	26.6	----	46.0	----	19.4	N (CAV)
10	2.45600	----	11.6	10.1	----	21.7	----	46.0	----	24.3	N (CAV)
11	21.16000	----	8.9	10.5	----	19.4	----	50.0	----	30.6	N (CAV)
12	25.87000	----	13.5	10.6	----	24.1	----	50.0	----	25.9	N (CAV)

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

15. LIST OF TEST EQUIPMENT

Model Number	Manufacturer	Description	Serial Number	Last Cal.(Interval)
FSV40-N	Rohde & Schwarz	Signal Analyzer	102196	Apr. 11, 2022 (1Y)
TC-3000C	TESCOM	BUETOOTH TESTER	3000C000634	Jan. 17, 2022 (1Y)
152610	KRYTAR	Directional Coupler	214012	Jun. 21, 2022 (1Y)
HPF 3GHz	Rohde & Schwarz	High Pass Filter (1-3 GHz)	N/A	Jan. 18, 2022 (1Y)
ESR	Rohde & Schwarz	EMI Test Receiver	101470	Oct. 18, 2021 (1Y)
310N	Sonoma Instrument	Pre-Amplifier	312544	Mar. 15, 2022 (1Y)
SCU18	Rohde & Schwarz	Pre-Amplifier	102266	Jul. 12, 2022 (1Y)
FMZB 1513	Schwarzbeck	Loop Antenna	1513-235	Mar. 24, 2022 (2Y)
HLP-2008	TDK	Hybrid Antenna	131313	Fed. 21, 2022 (2Y)
BBHA9120D	Schwarzbeck	Horn Antenna	295	Mar. 02, 2022 (1Y)
ESCI	Rohde & Schwarz	EMI TEST RECEIVER	101012	Oct. 20, 2021 (1Y)
NSLK8128	Schwarzbeck	V - LISN (4*32/50A)	8128216	Mar. 14, 2022 (1Y)
NSLK8121	Schwarzbeck	V - LISN	804	Oct. 19, 2021 (1Y)
ESH3-Z2	Rohde & Schwarz	PULSE LIMITER	100655	Mar. 14, 2022 (1Y)
DT3000-3t	Innco System	Turn Table	DT3000/093	N/A
MA-4000XPET	Innco System	Antenna Master	MA4000/509	N/A