

11. MAXIMUM PEAK OUTPUT POWER

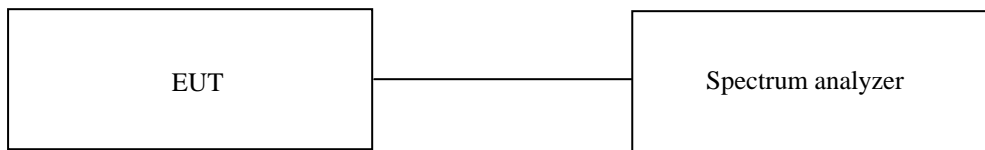
11.1 Operating environment

Temperature : 24.3 °C
 Relative humidity : 43.9 % R.H.

11.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer.

The resolution bandwidth is set to \geq DTS Bandwidth, the video bandwidth is set to 3 times the resolution bandwidth.



11.3 Test equipment used

Model Number	Manufacturer	Description	Serial Number	Last Cal.
■ - FSV40	Rohde & Schwarz	Signal Analyzer	101009	Mar. 14, 2018 (1Y)

All test equipment used is calibrated on a regular basis.

11.4 Test data for 1 Mbps

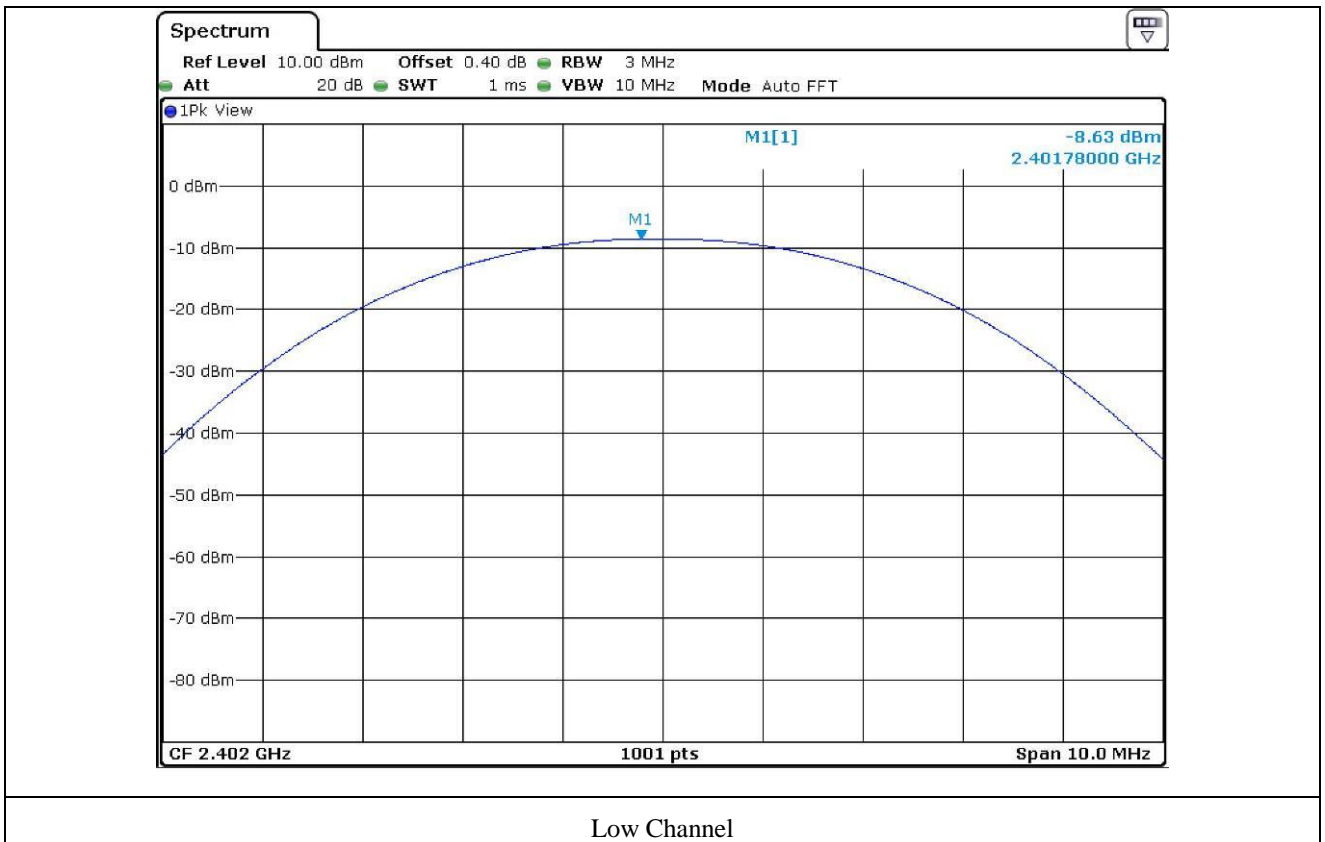
- Test Date : August 16, 2018 ~ August 28, 2018
- Duty Cycle : 77.1 %
- Test Result : Pass

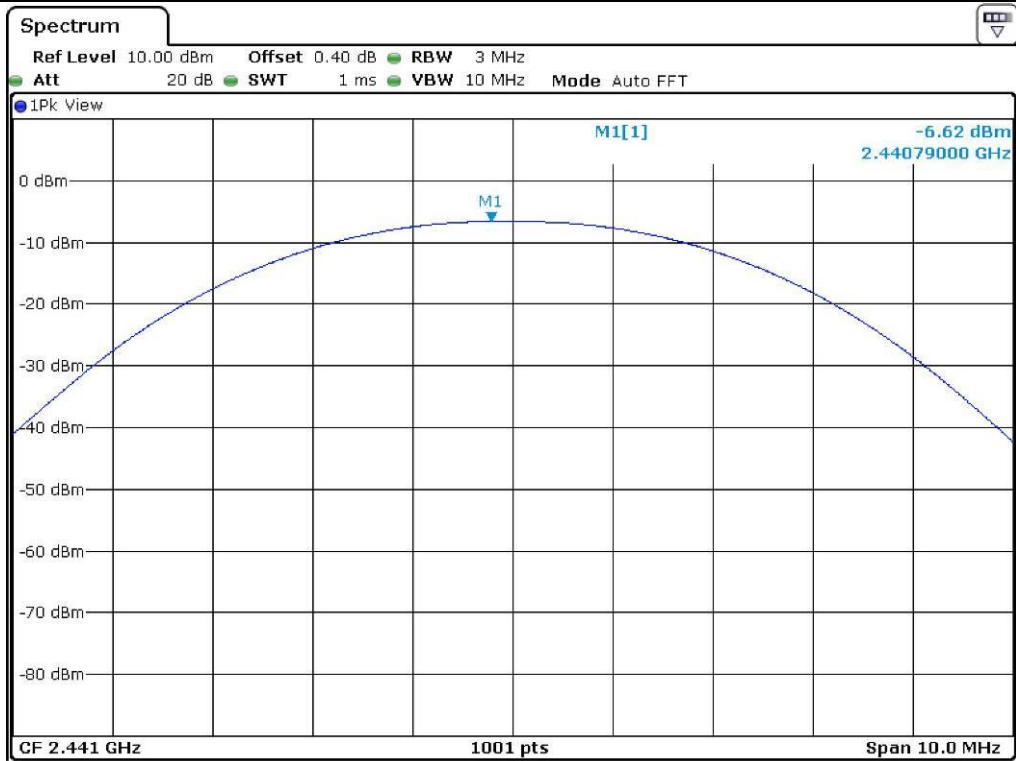
CHANNEL	FREQUENCY (MHz)	MEASURED VLAUE (dBm)	Duty Cycle Factor (dB)	Result (dBm)	LIMIT (dBm)	MARGIN (dB)
LOW	2 402.00	-8.63	1.13	-7.50	21.00	28.50
MIDDLE	2 441.00	-6.62	1.13	-5.49	21.00	26.49
HIGH	2 480.00	-7.14	1.13	-6.01	21.00	27.01

Remark : Result = MEASURED VALUE (dBm) + Duty Cycle Factor(dB)

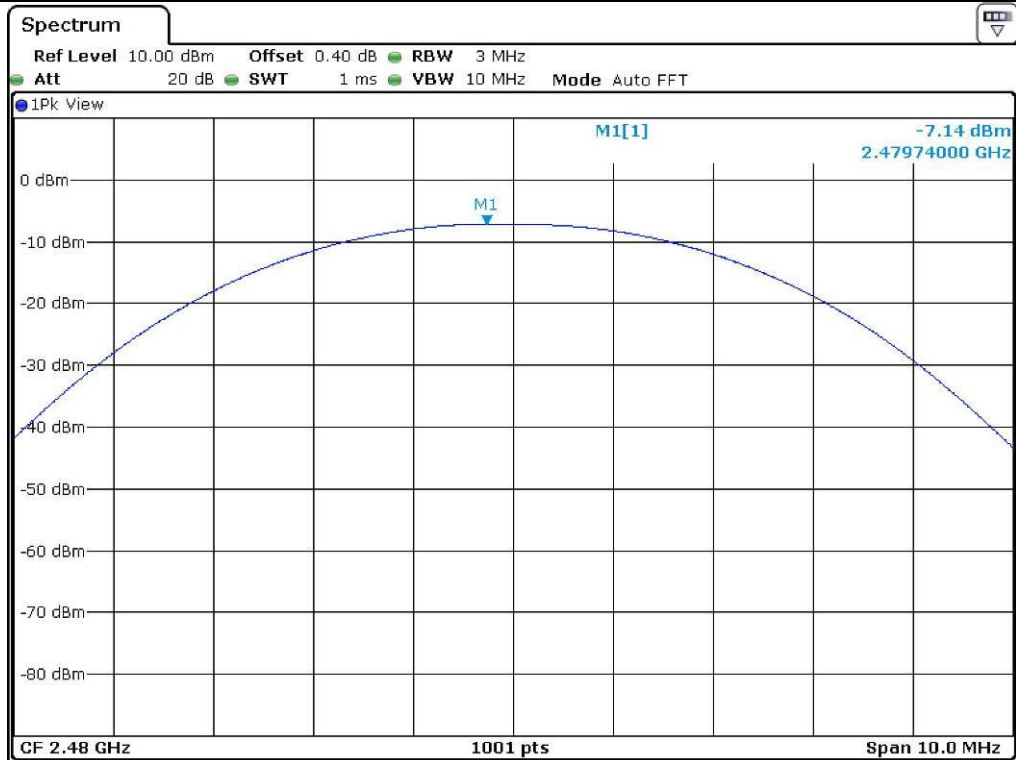


Tested by: Tae-Ho, Kim / Senior Manager





Middle Channel



High Channel

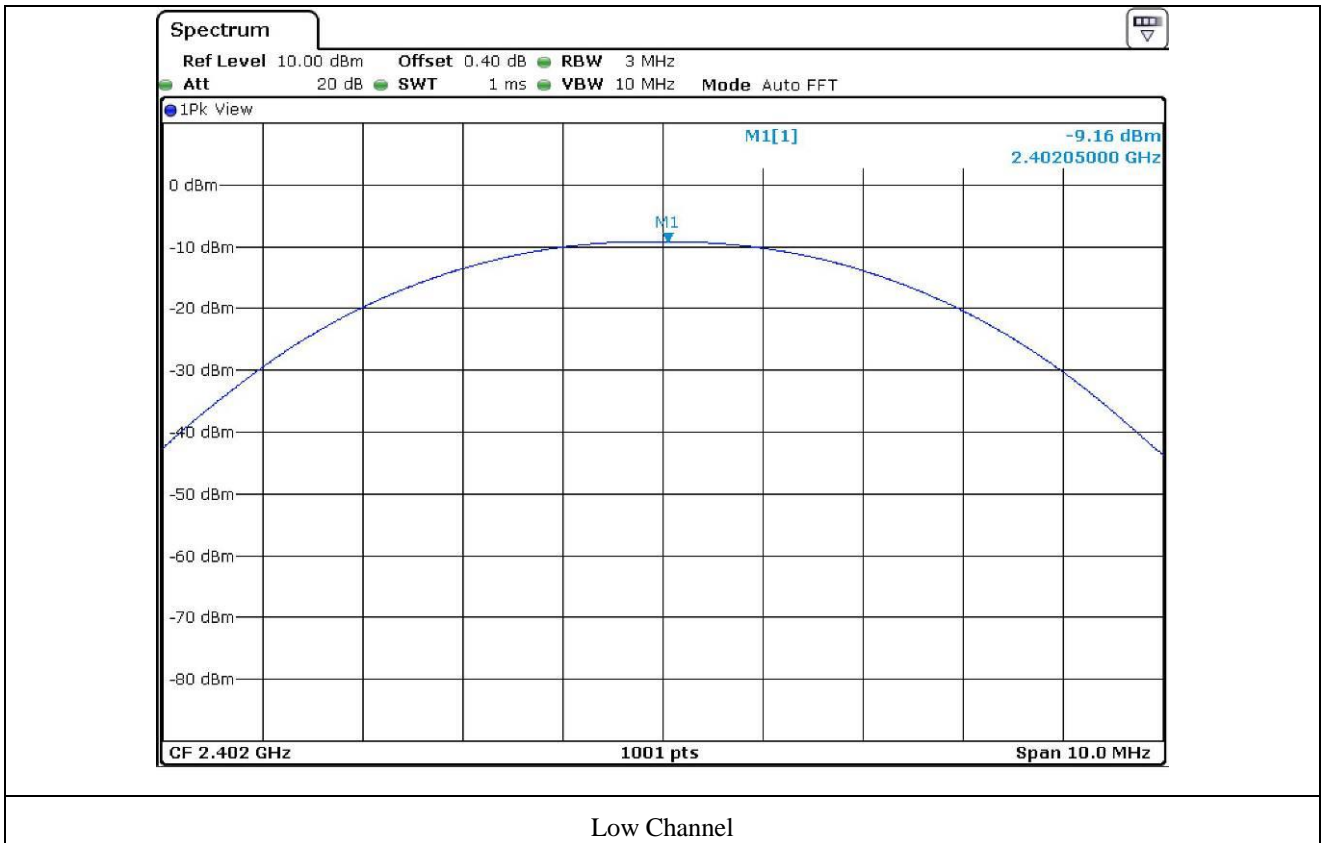
11.5 Test data for 2 Mbps

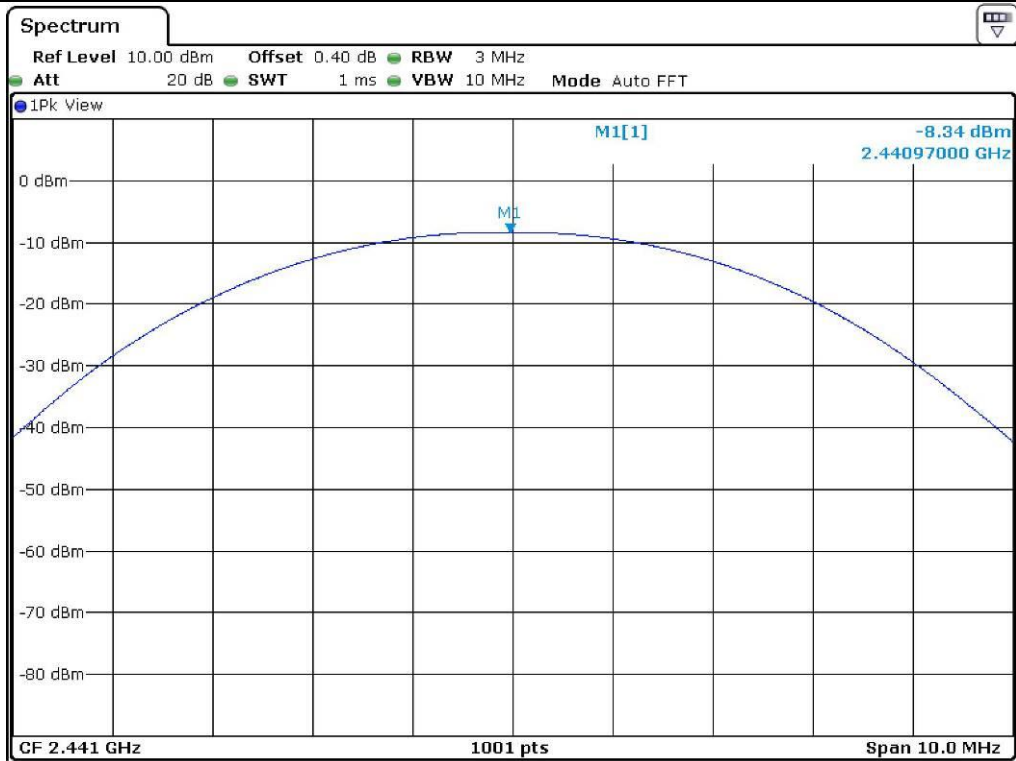
- Test Date : August 16, 2018 ~ August 28, 2018
- Duty Cycle : 77.1 %
- Test Result : Pass

CHANNEL	FREQUENCY (MHz)	MEASURED VLAUE (dBm)	Duty Cycle Factor (dB)	Result (dBm)	LIMIT (dBm)	MARGIN (dB)
LOW	2 402.00	-9.16	1.13	-8.03	21.00	29.03
MIDDLE	2 441.00	-8.34	1.13	-7.21	21.00	28.21
HIGH	2 480.00	-8.37	1.13	-7.24	21.00	28.24

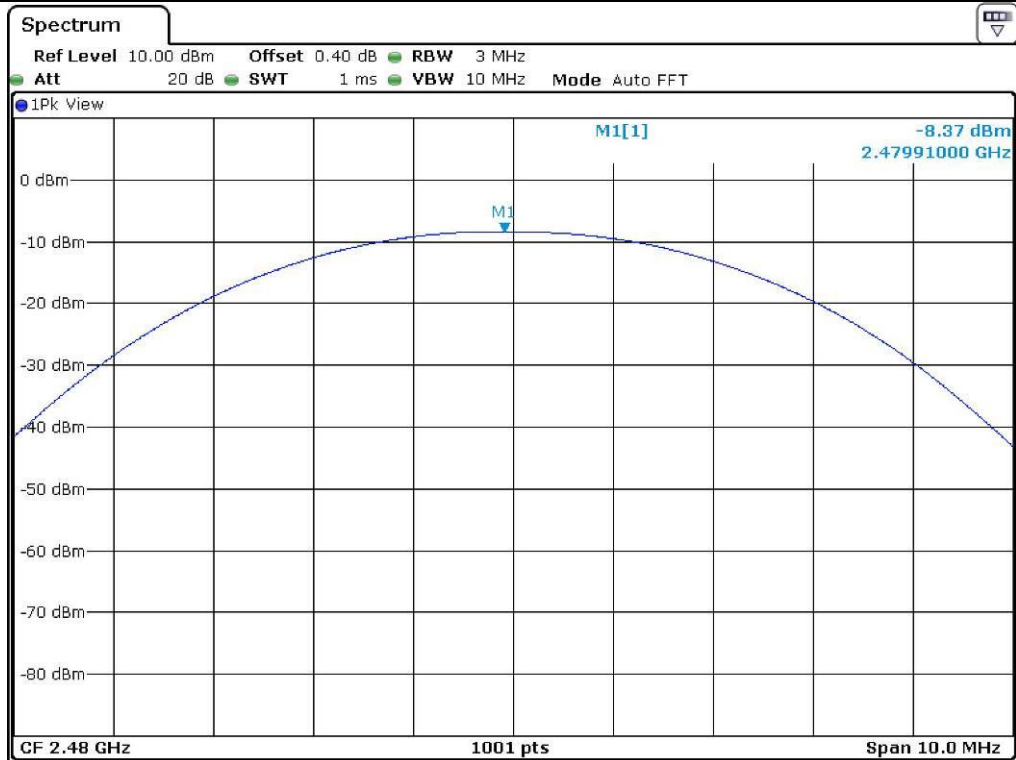
Remark : Result = MEASURED VALUE (dBm) + Duty Cycle Factor(dB)

Tested by: Tae-Ho, Kim / Senior Manager





Middle Channel



High Channel

11.6 Test data for 3 Mbps

-. Test Date : August 16, 2018 ~ August 28, 2018

-. Duty Cycle : 77.1 %

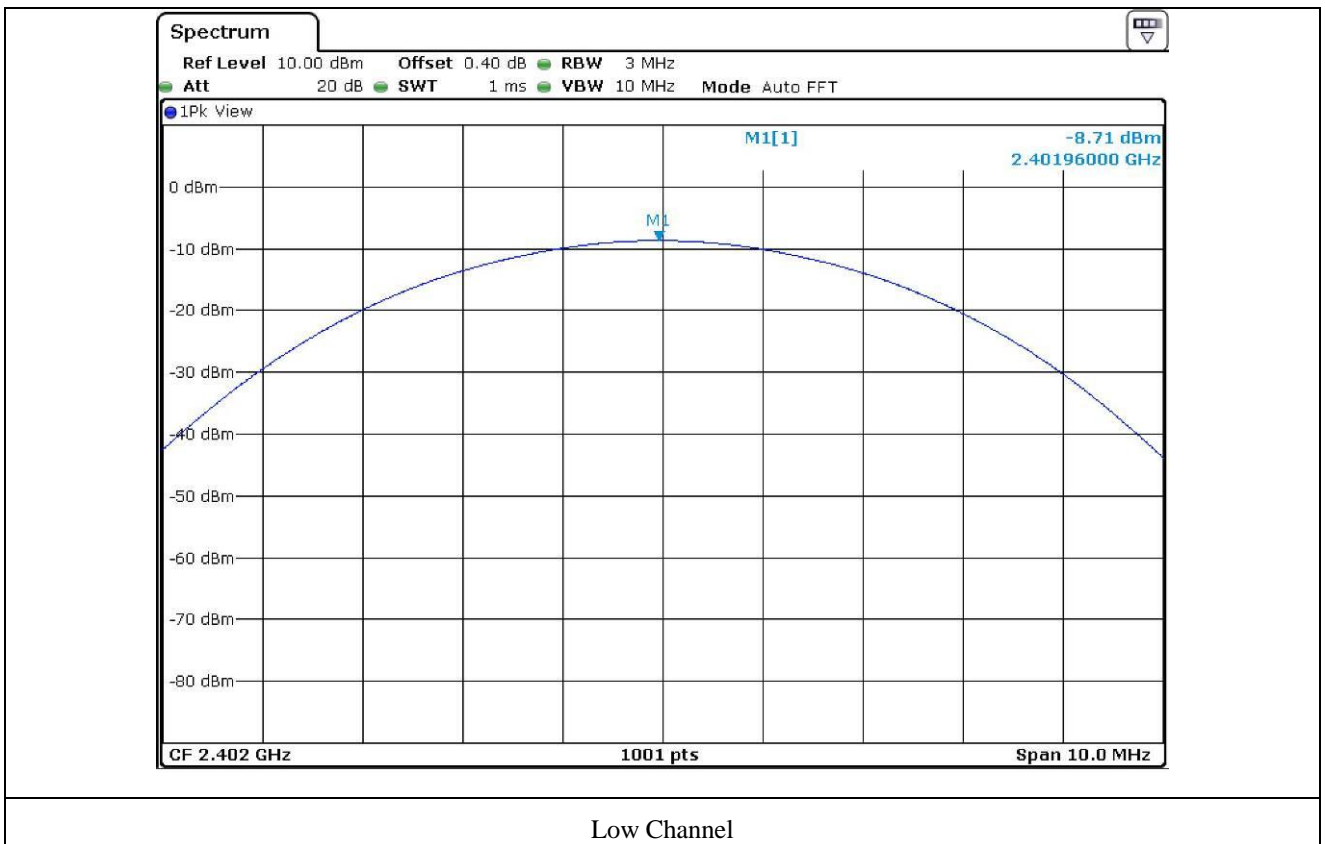
-. Test Result : Pass

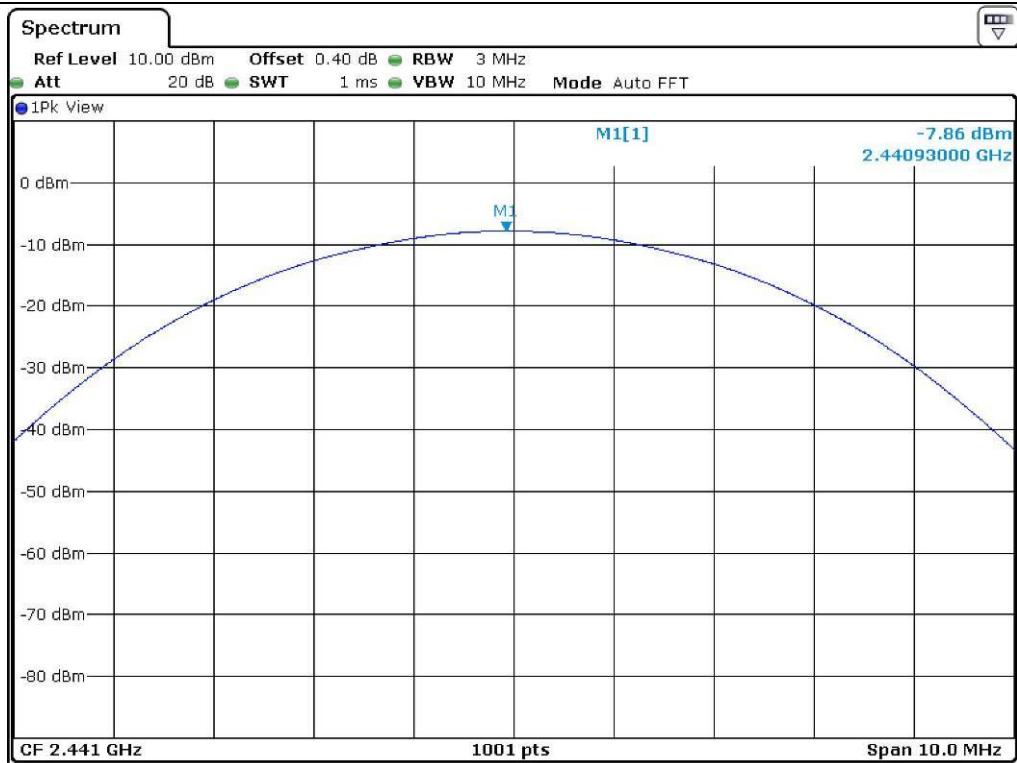
CHANNEL	FREQUENCY (MHz)	MEASURED VLAUE (dBm)	Duty Cycle Factor (dB)	Result (dBm)	LIMIT (dBm)	MARGIN (dB)
LOW	2 402.00	-8.71	1.13	-7.58	21.00	28.58
MIDDLE	2 441.00	-7.86	1.13	-6.73	21.00	27.73
HIGH	2 480.00	-7.87	1.13	-6.74	21.00	27.74

Remark : Result = MEASURED VALUE (dBm) + Duty Cycle Factor(dB)

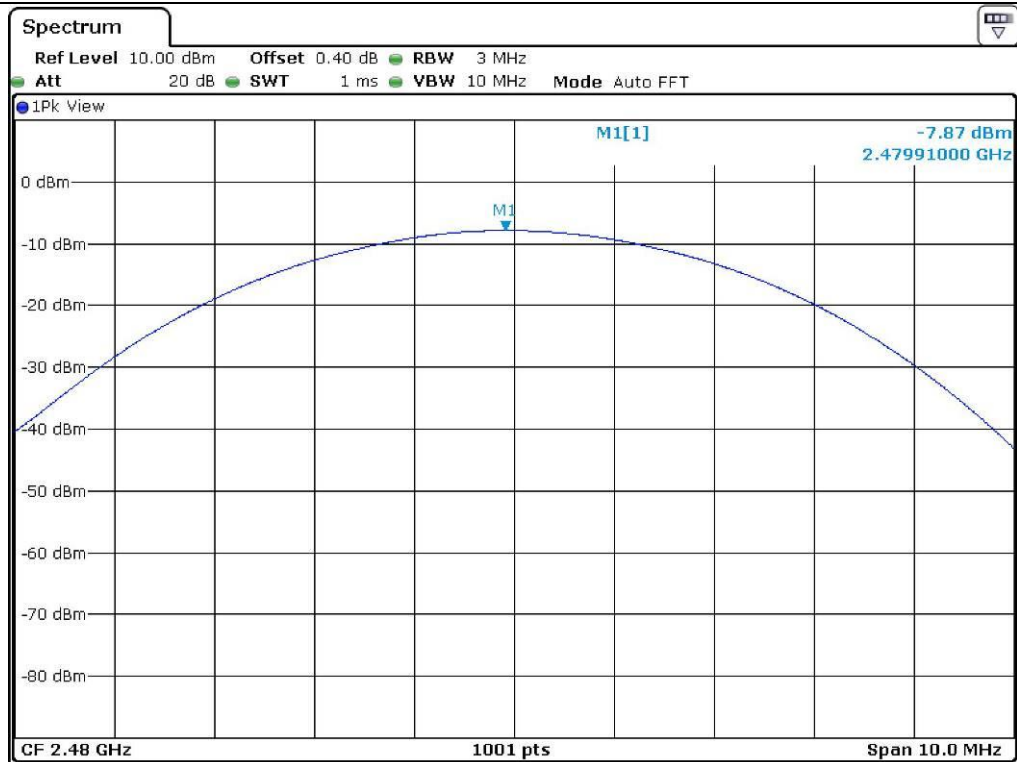


Tested by: Tae-Ho, Kim / Senior Manager





Middle Channel



High Channel

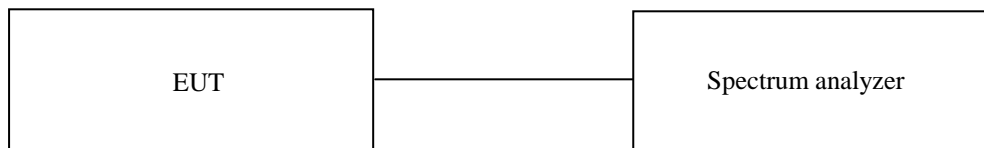
12. 100 kHz BANDWIDTH OUTSIDE THE FREQUENCY BAND

12.1 Operating environment

Temperature : 24.3 °C
 Relative humidity : 43.9 % 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.

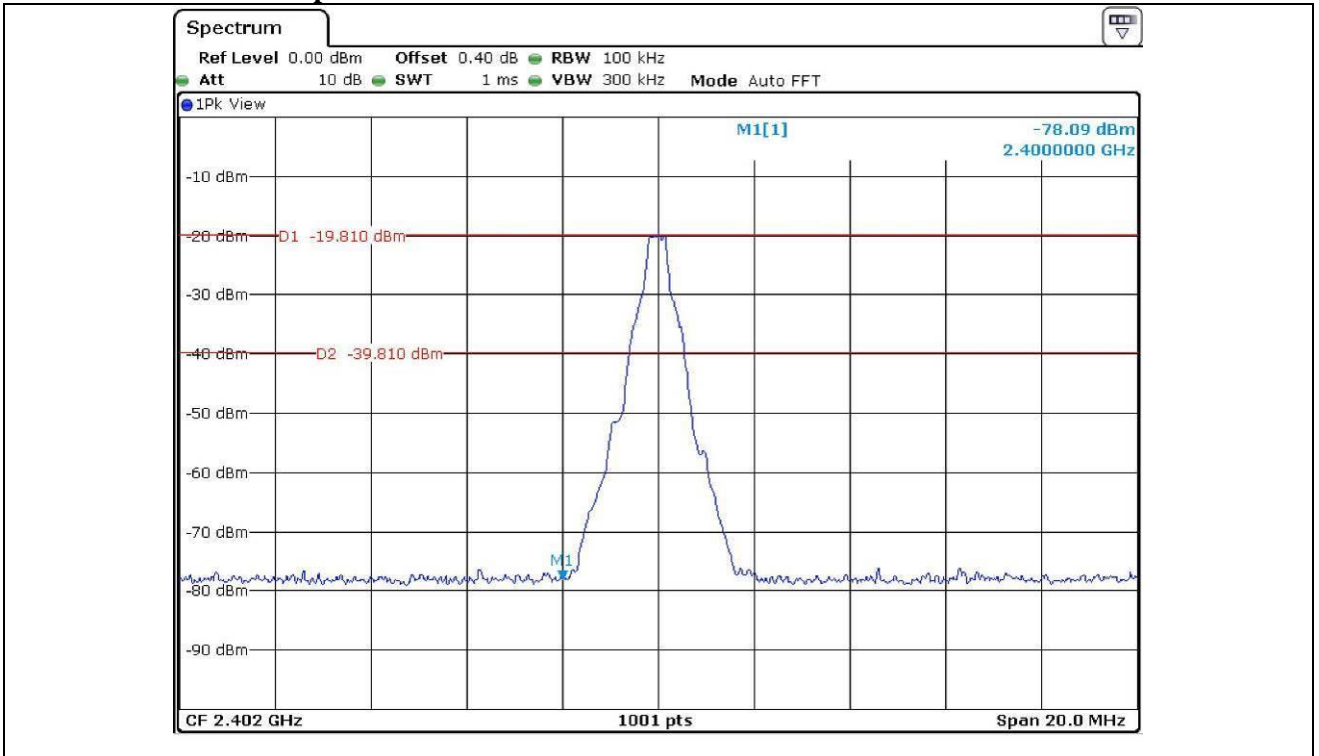
12.4 Test equipment used

Model Number	Manufacturer	Description	Serial Number	Last Cal.
■ - FSV40	Rohde & Schwarz	Signal Analyzer	101009	Mar. 14, 2018 (1Y)
■ - ESU	Rohde & Schwarz	EMI Test Receiver	100261	Mar. 29, 2018 (1Y)
■ - 310N	Sonoma Instrument	Pre-Amplifier	312544	Mar. 28, 2018 (1Y)
■ - BBV9718	Schwarzbeck	Amplifier	310	Mar. 30, 2018 (1Y)
■ - SCU40A	Rohde & Schwarz	Signal Conditioning unit	100436	Mar. 15, 2018 (1Y)
■ - DT3000-3t	Innco System	Turn Table	DT3000/093	N/A
■ - MA-4000XPET	Innco System	Antenna Master	MA4000/509	N/A
■ - VULB9163	Schwarzbeck	TRILOG Broadband Antenna	777	Apr. 13, 2018 (2Y)
■ - BBHA9120D	Schwarzbeck	Horn Antenna	BBHA9120D295	Aug. 16, 2017 (2Y)
■ - BBHA9170	Schwarzbeck	Horn Antenna	BBHA9170179	Jul. 28, 2017 (2Y)

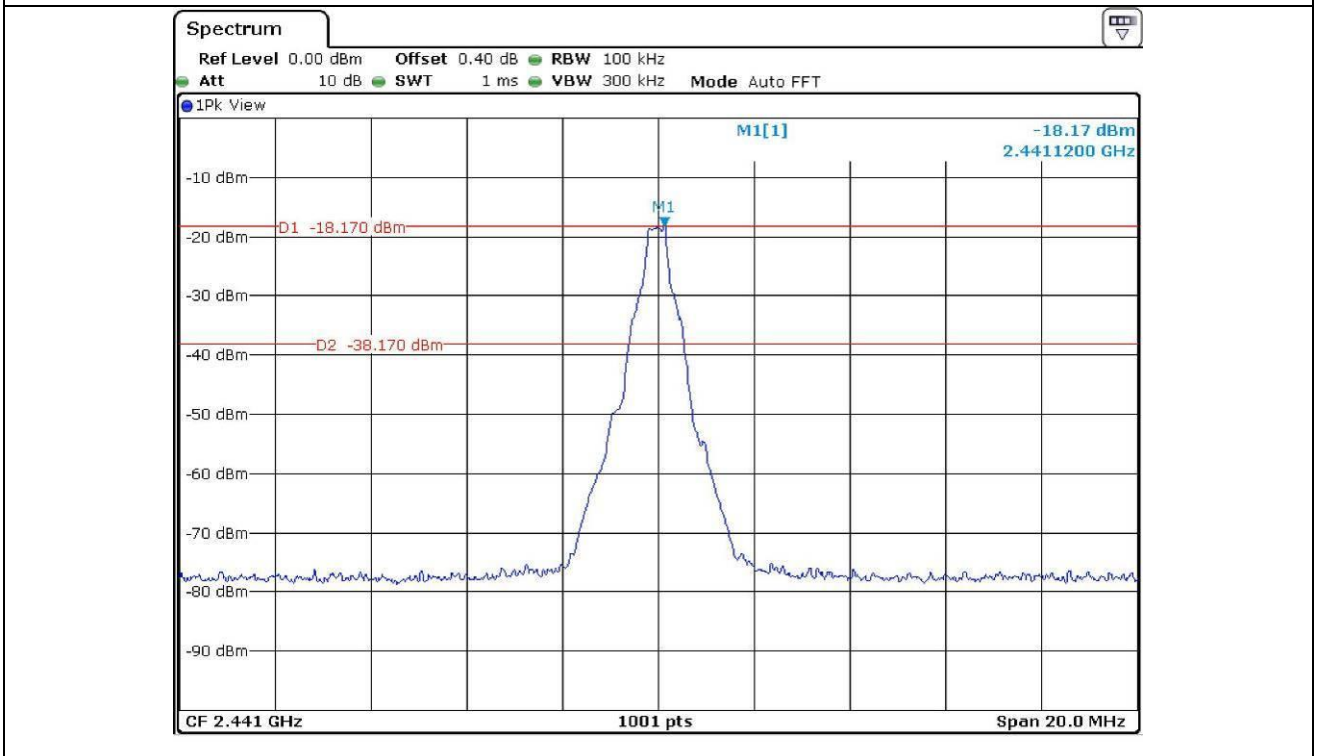
All test equipment used is calibrated on a regular basis.

12.5 Test data for conducted emission

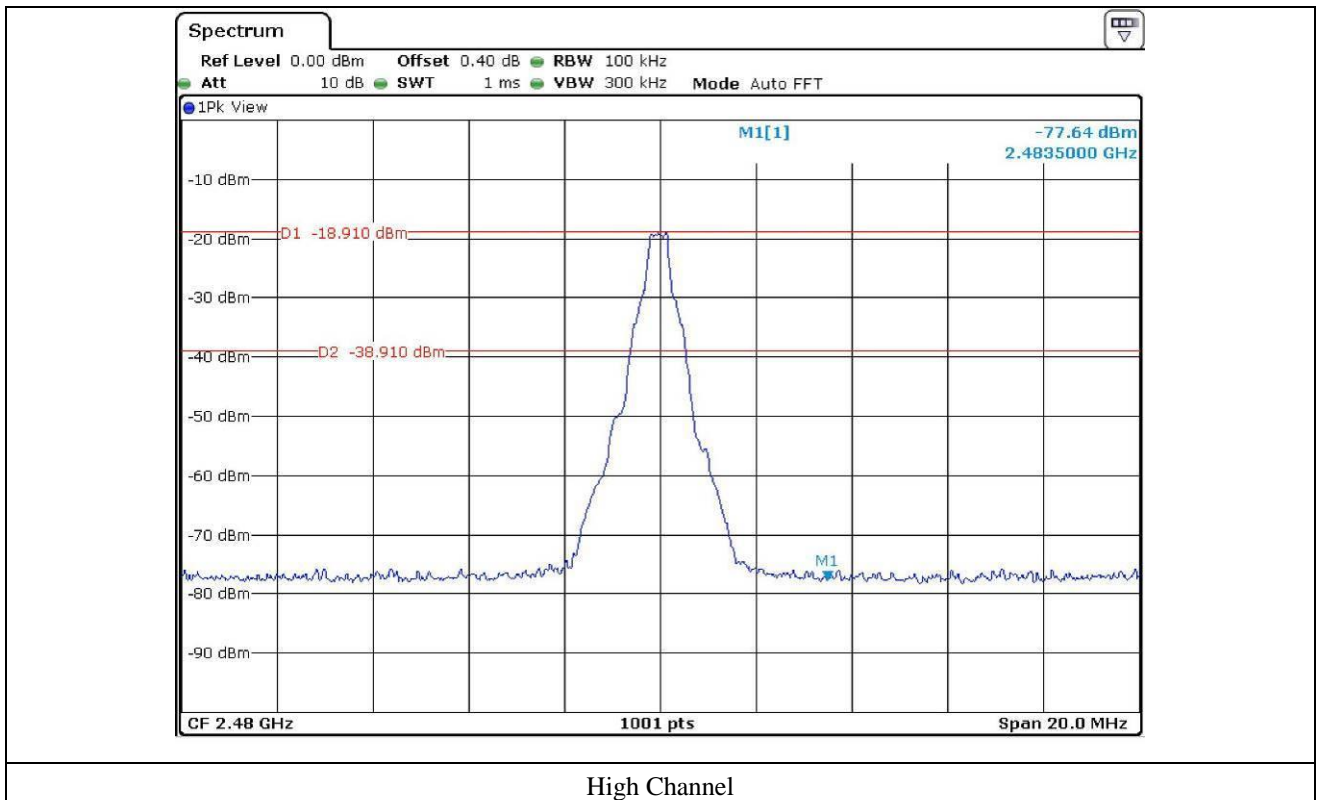
12.5.1 Test data for 1 Mbps

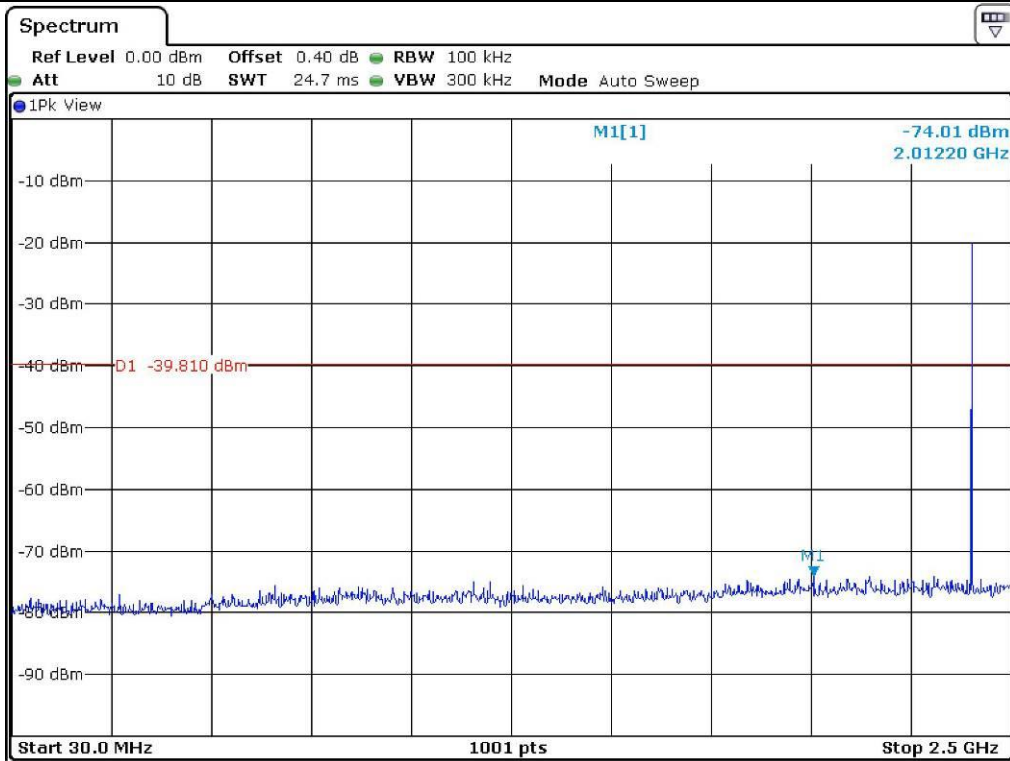


Low Channel

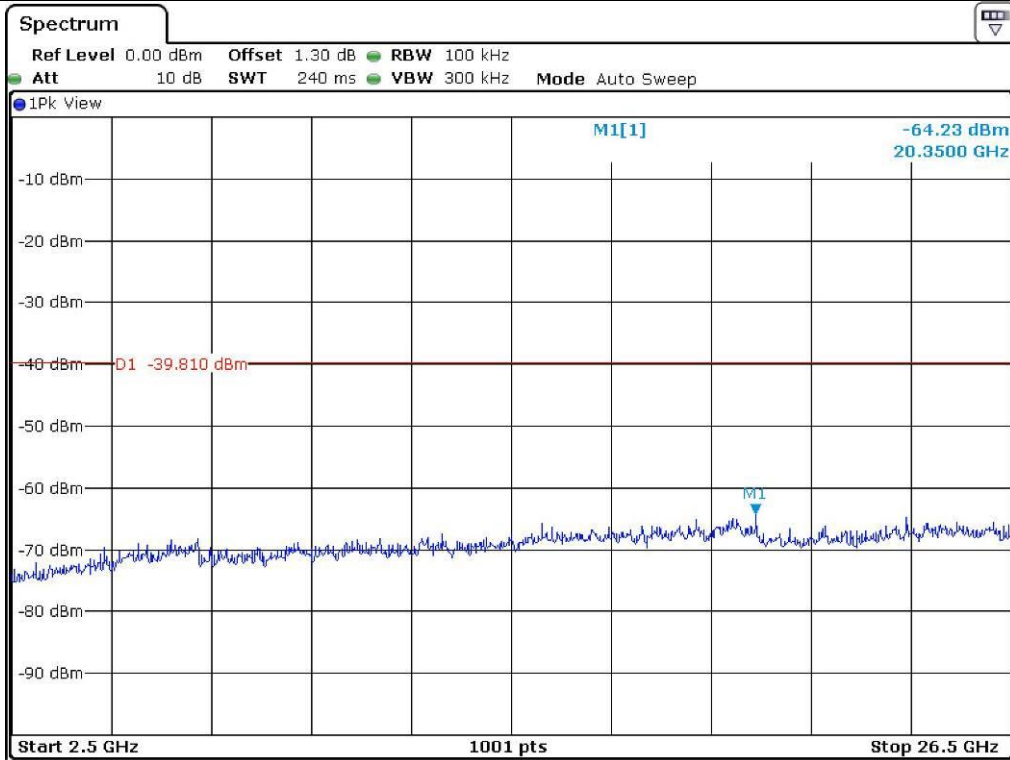


Middle Channel

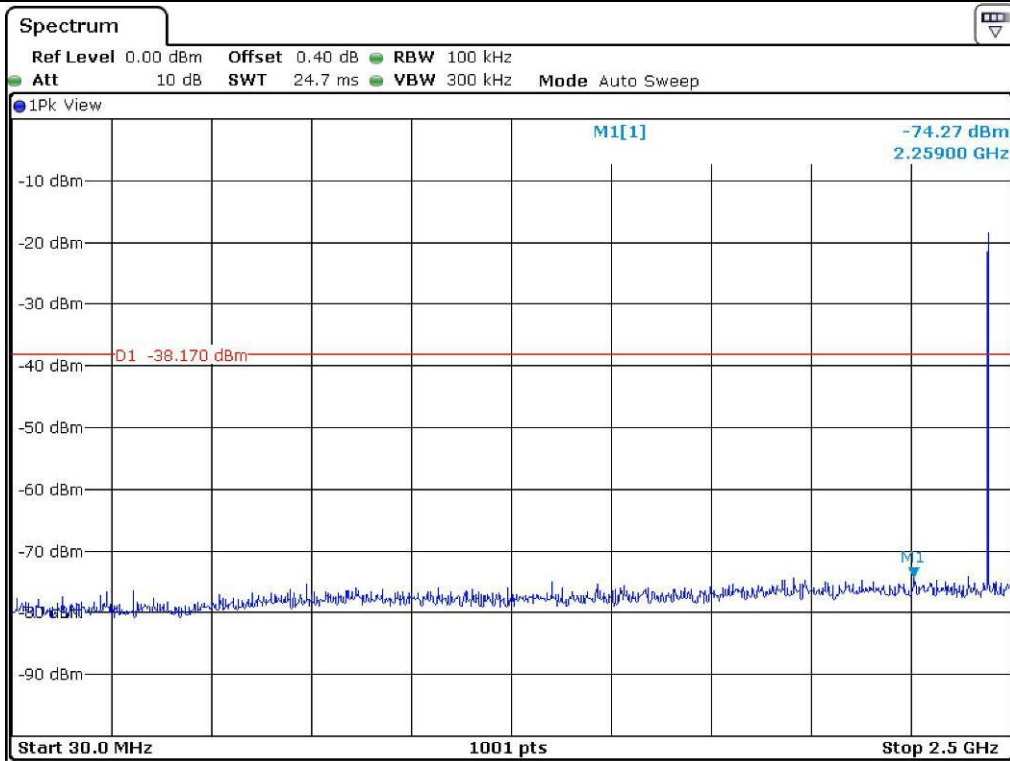




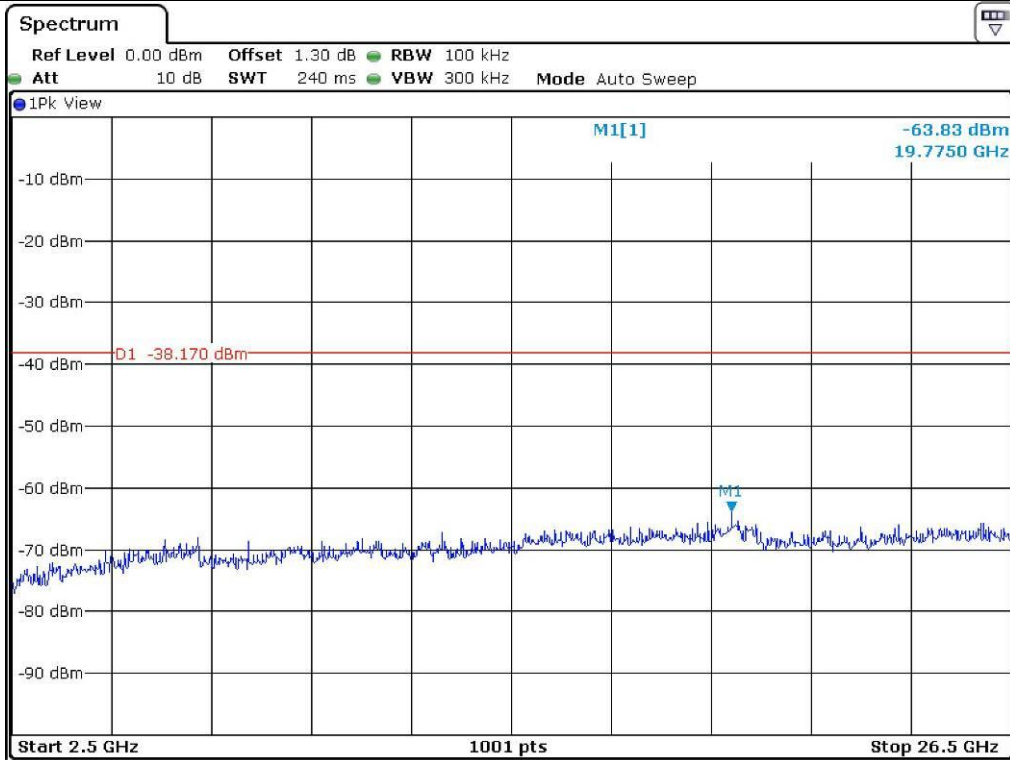
Low Channel



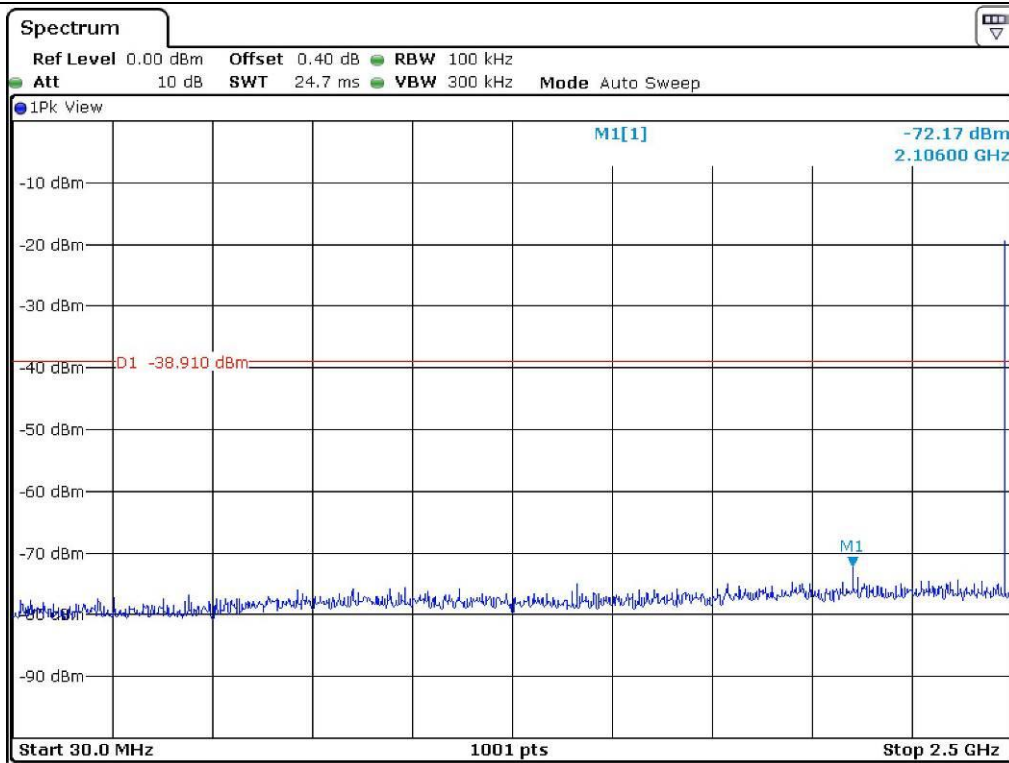
Low Channel



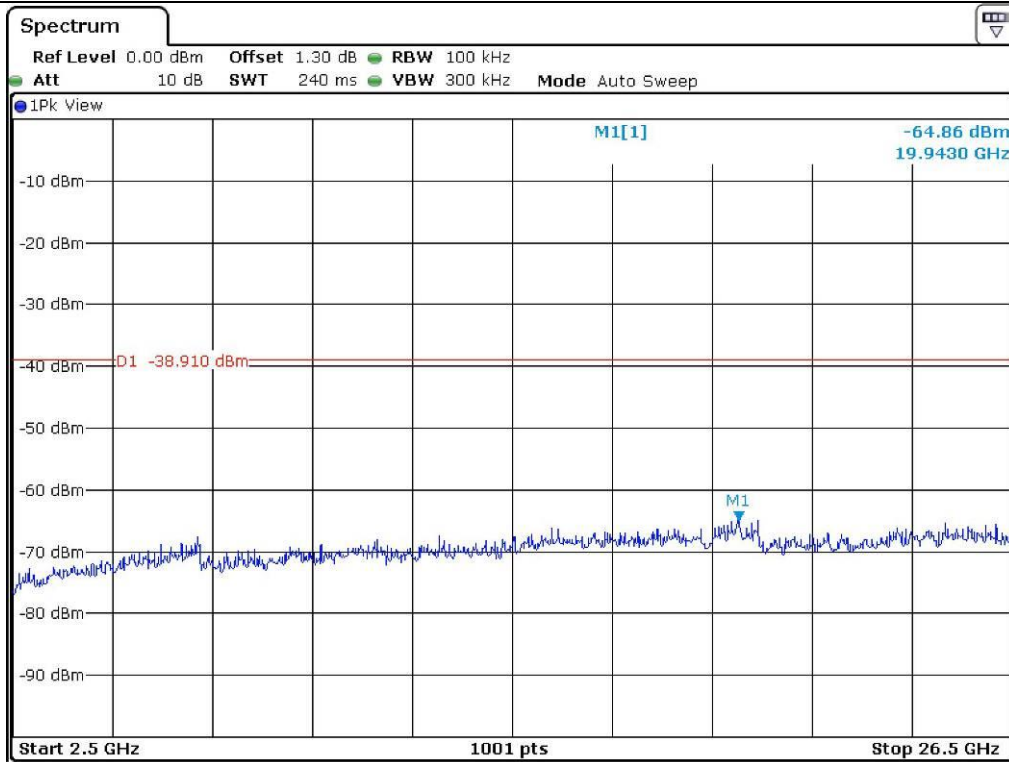
Middle Channel



Middle Channel

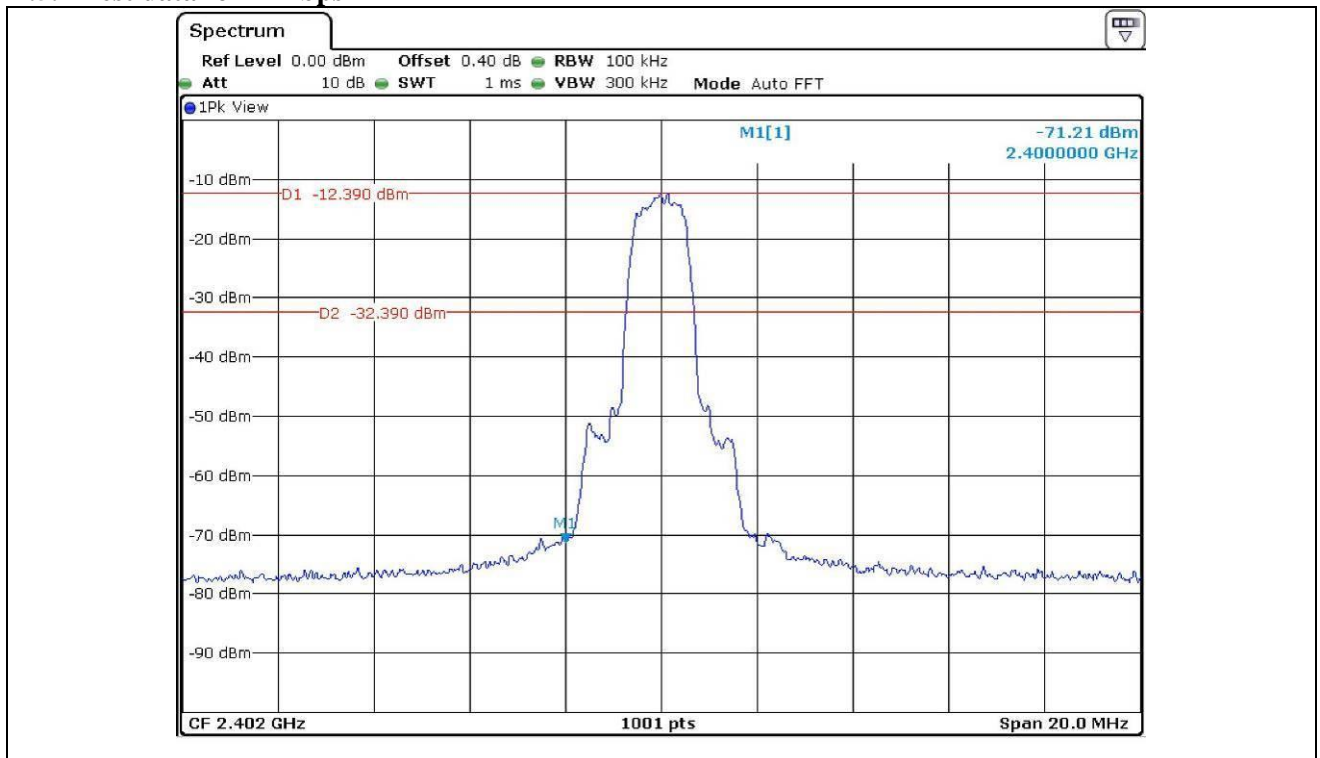


High Channel

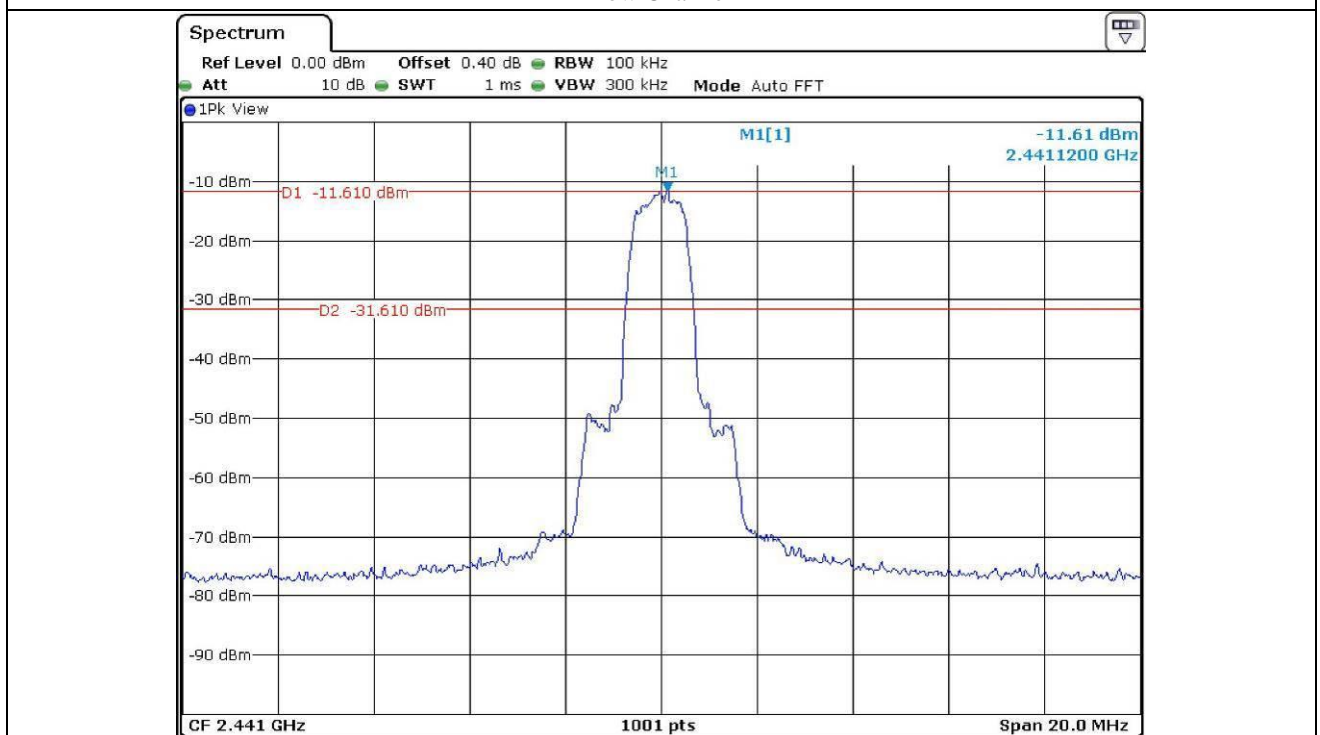


High Channel

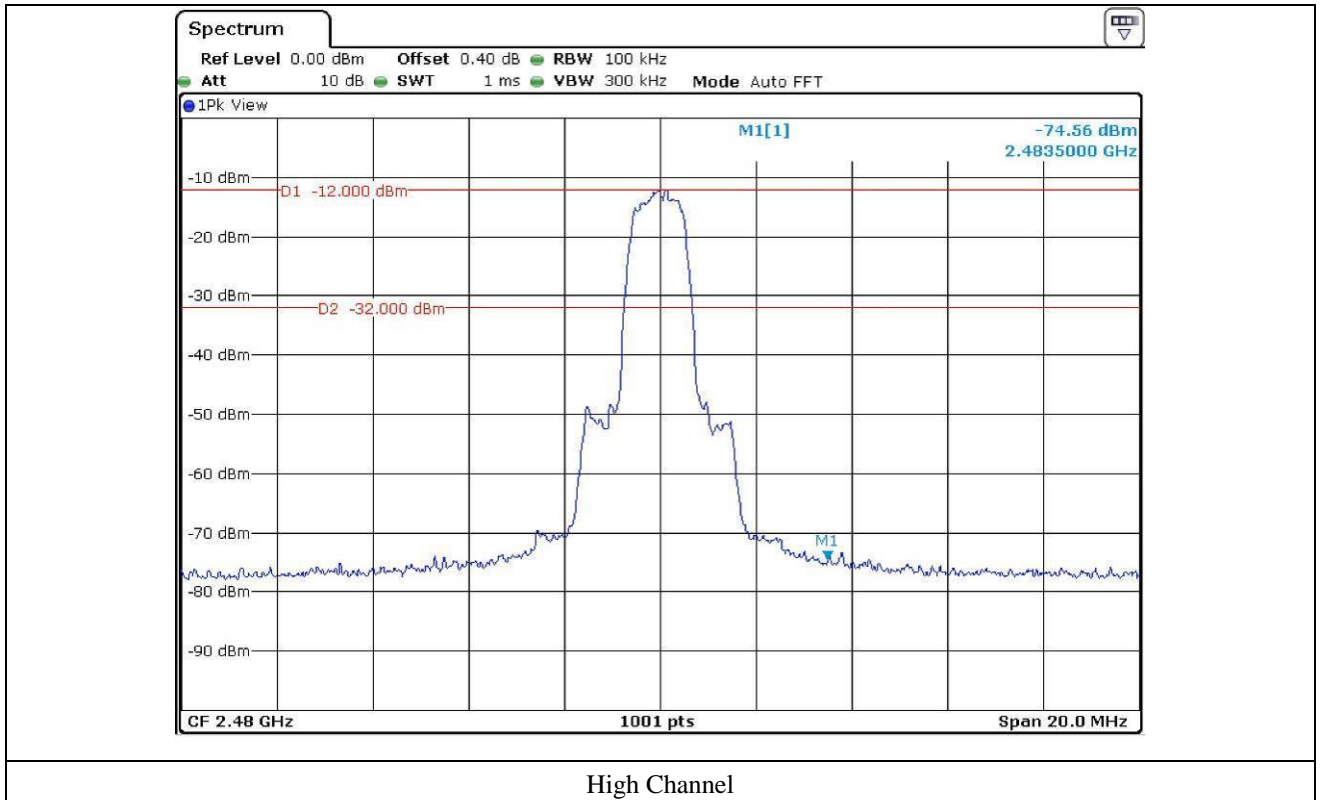
12.5.2 Test data for 2 Mbps

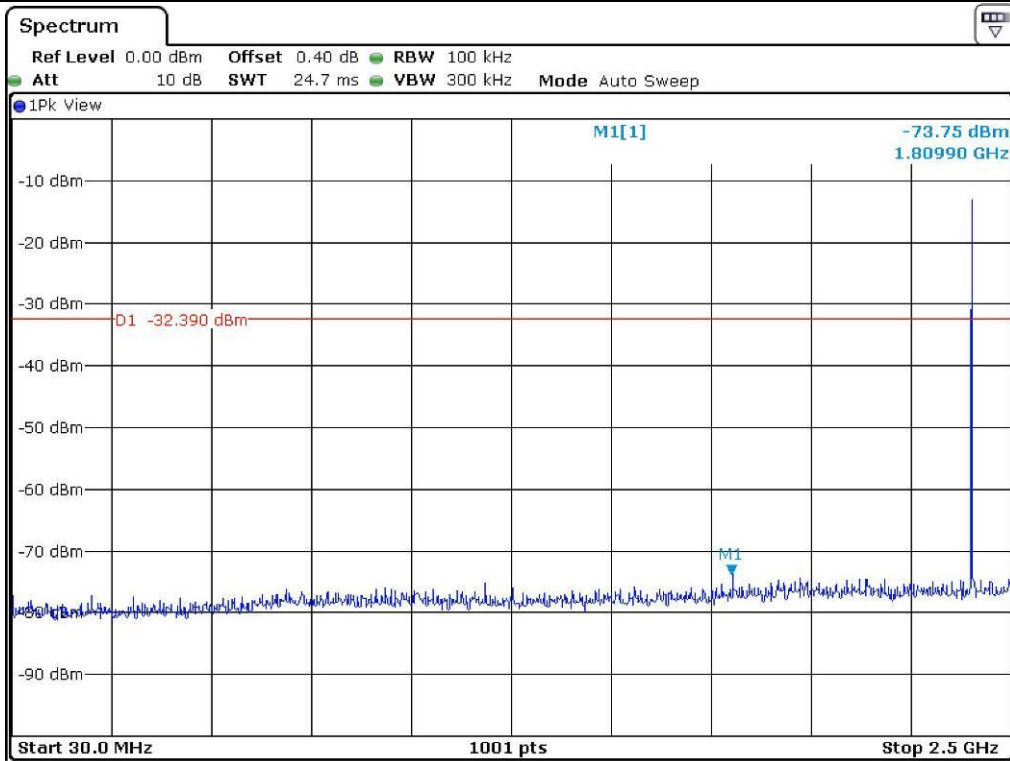


Low Channel

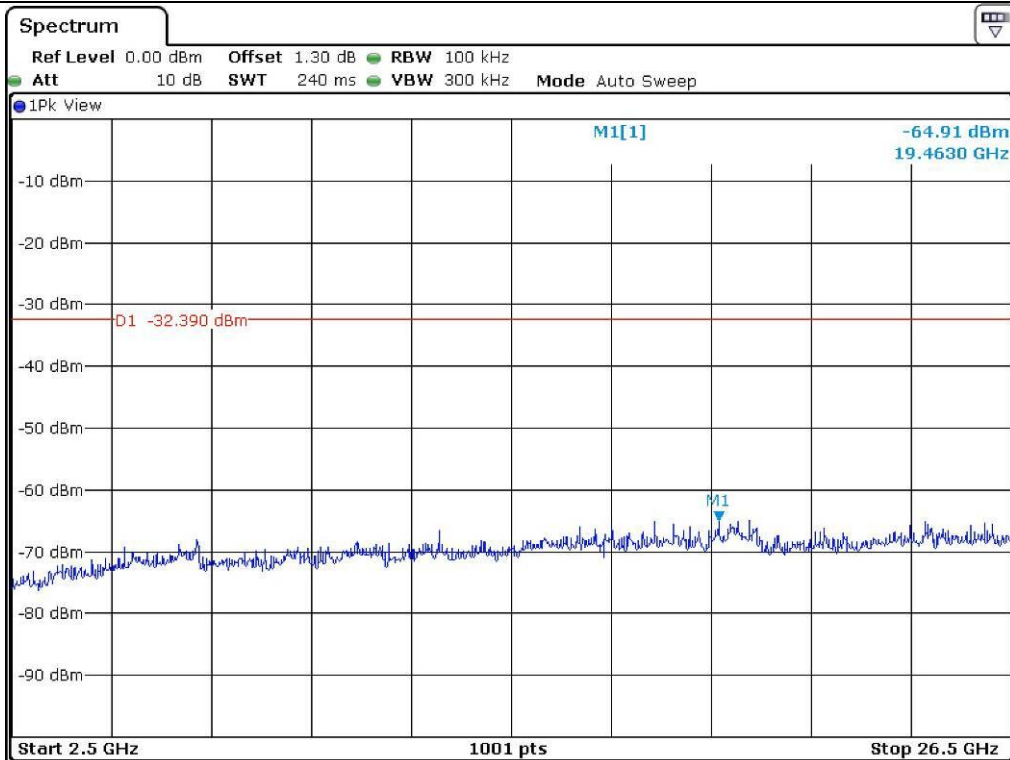


Middle Channel

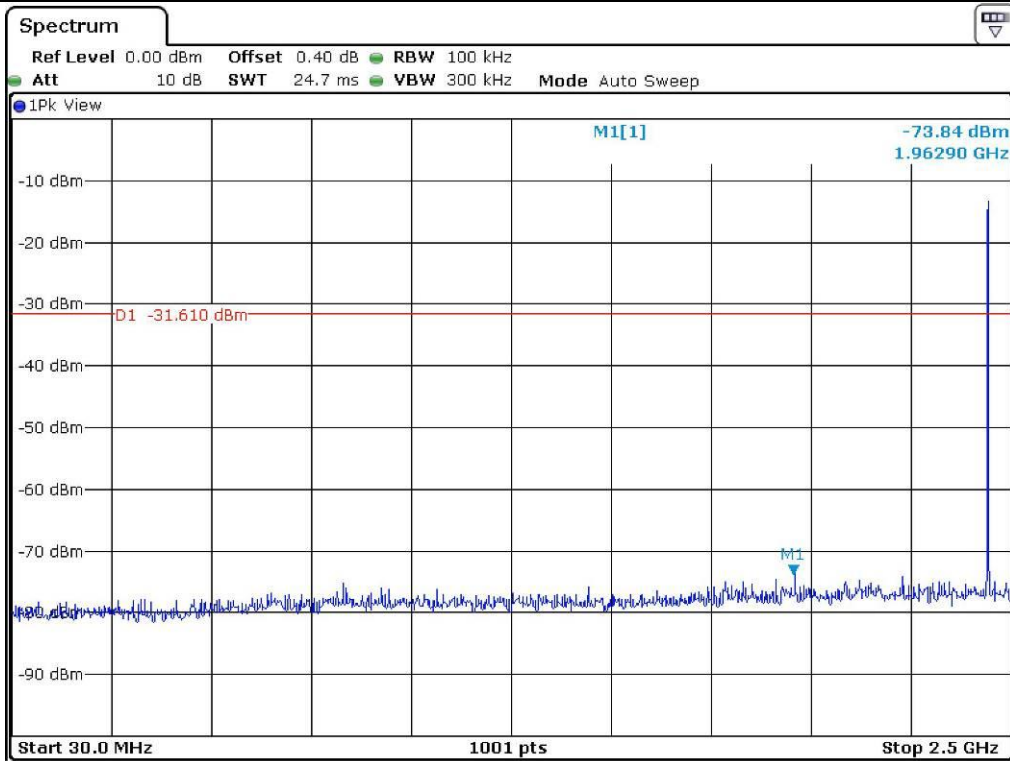




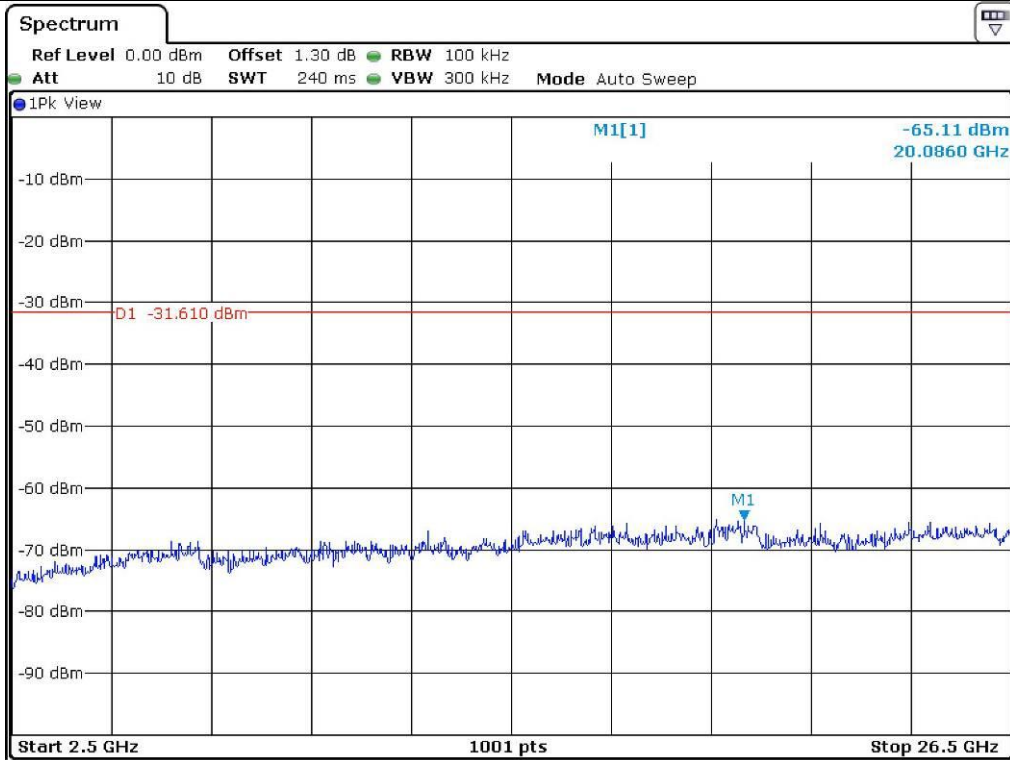
Low Channel



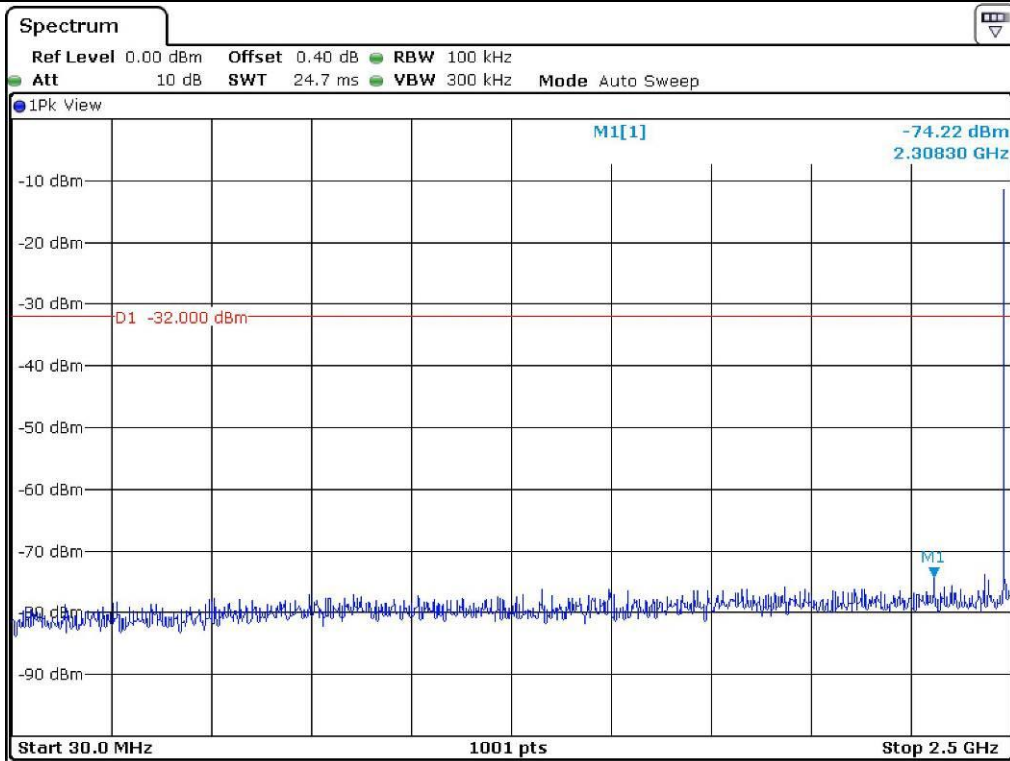
Low Channel



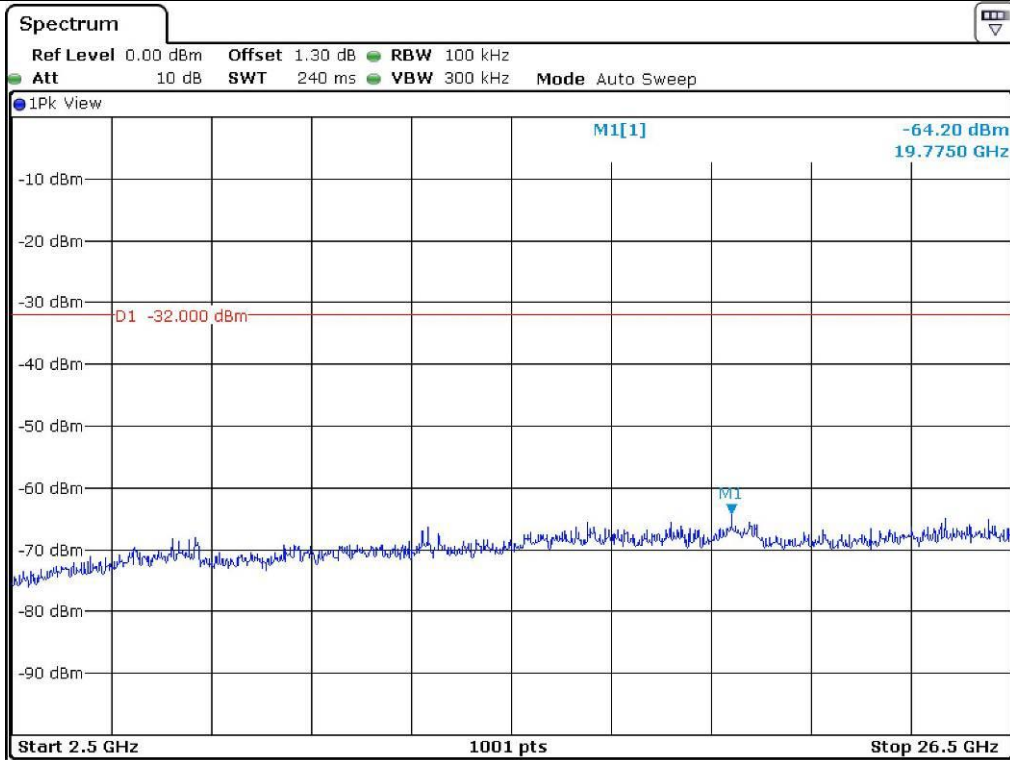
Middle Channel



Middle Channel

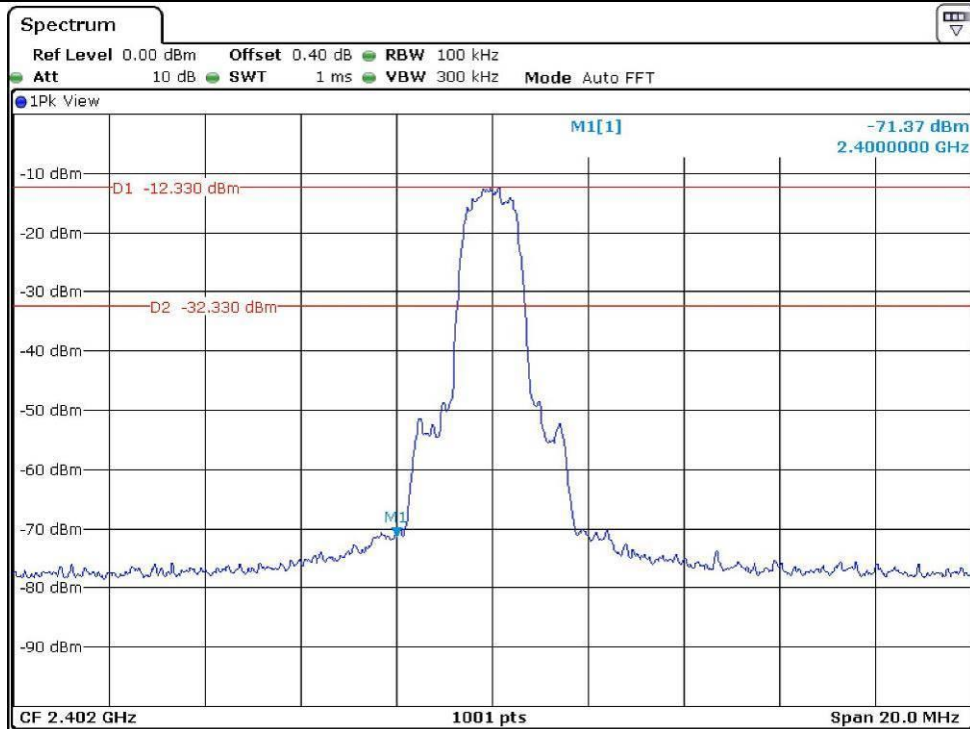


High Channel

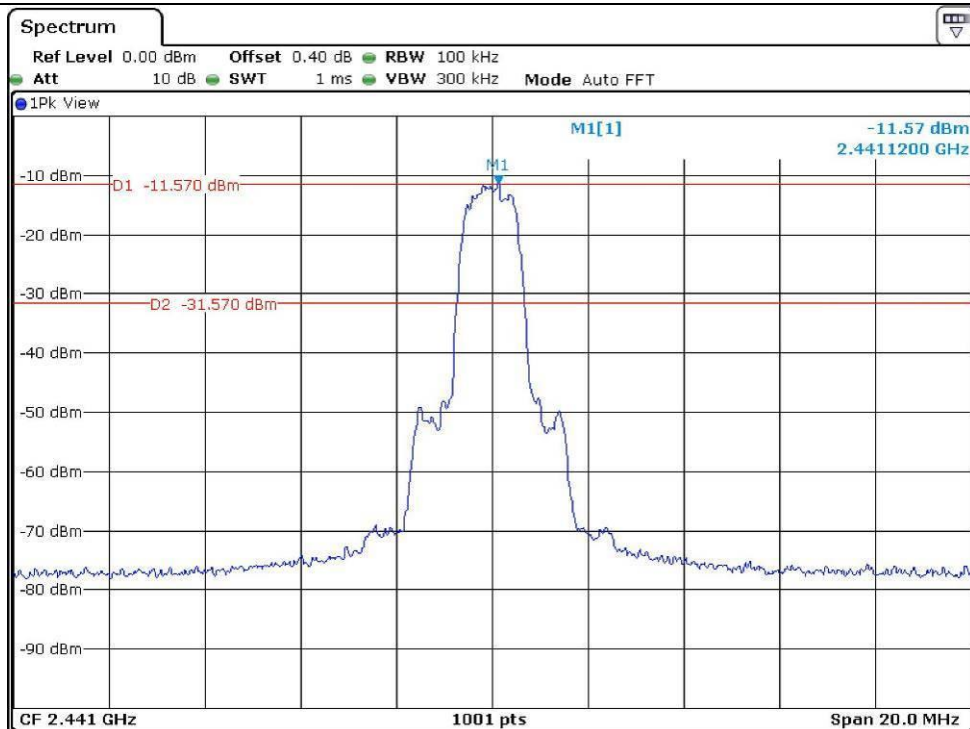


High Channel

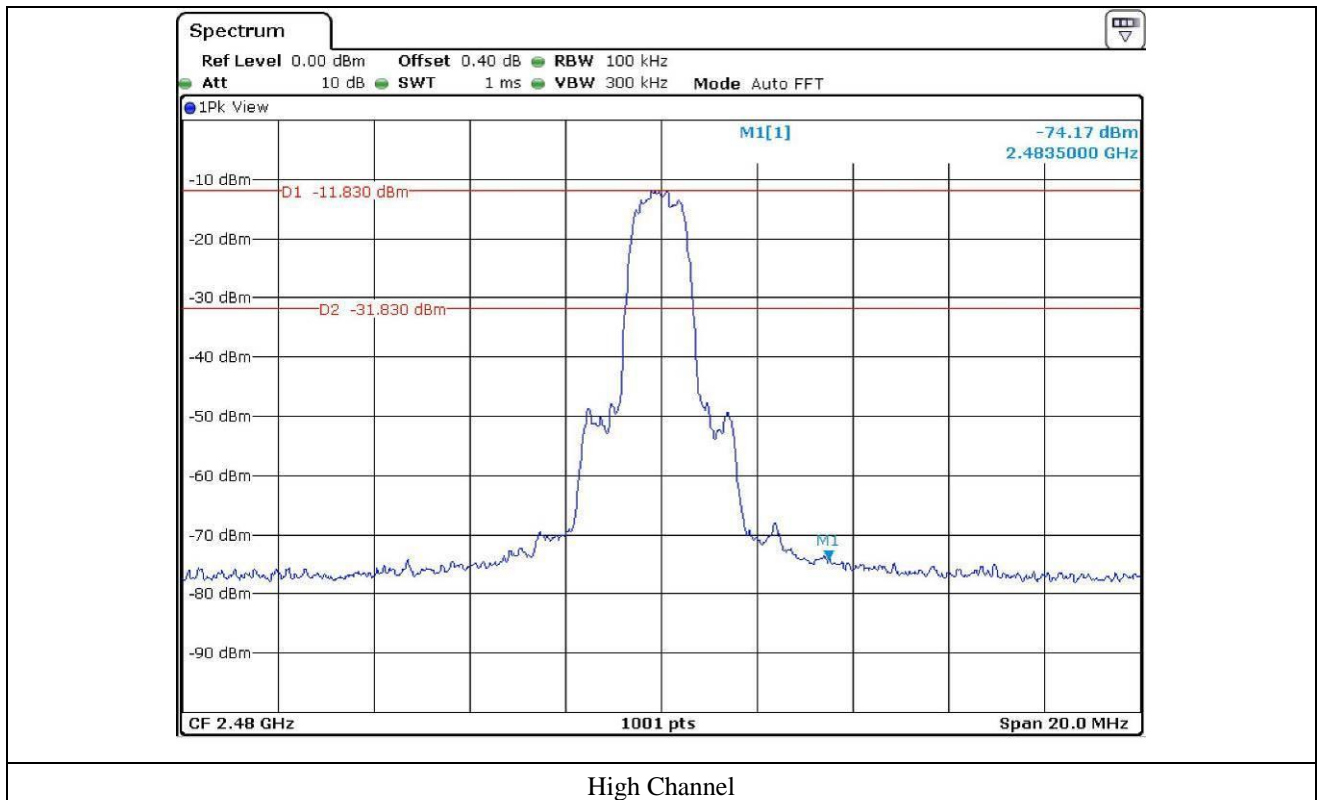
12.5.3 Test data for 3 Mbps

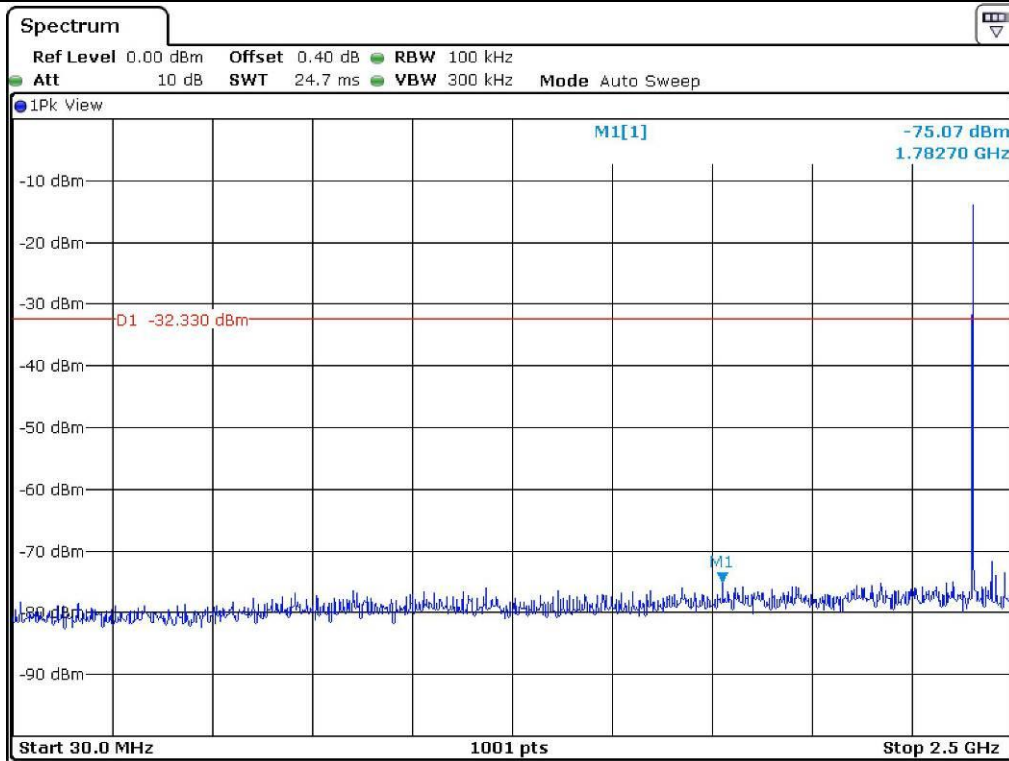


Low Channel

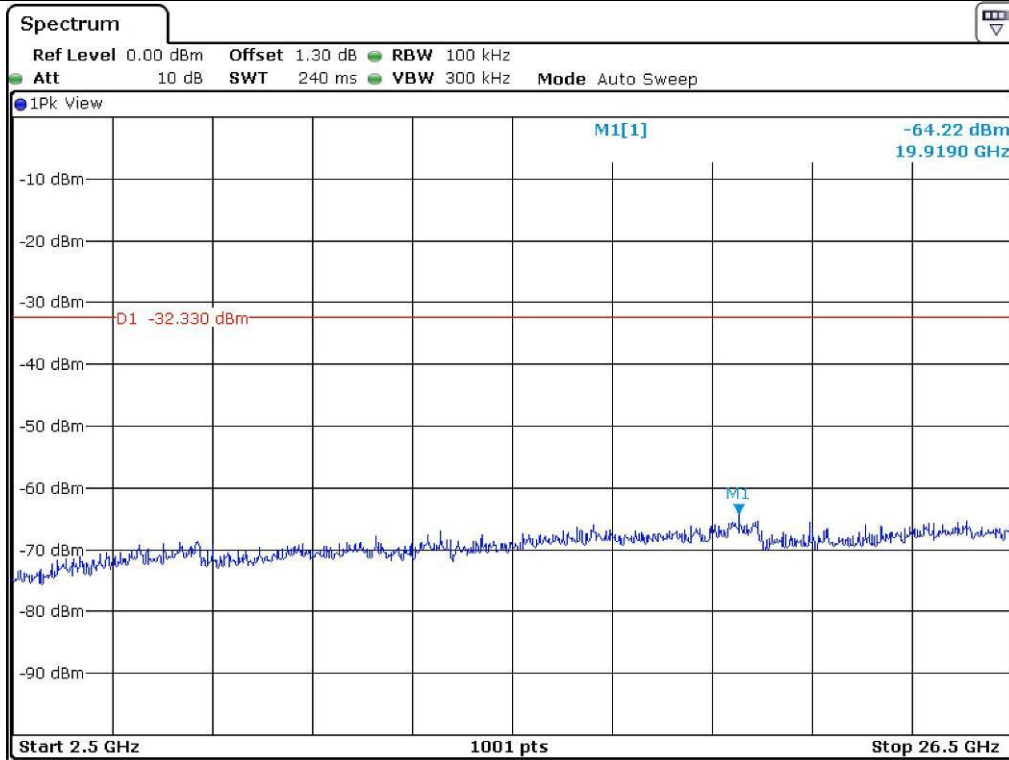


Middle Channel

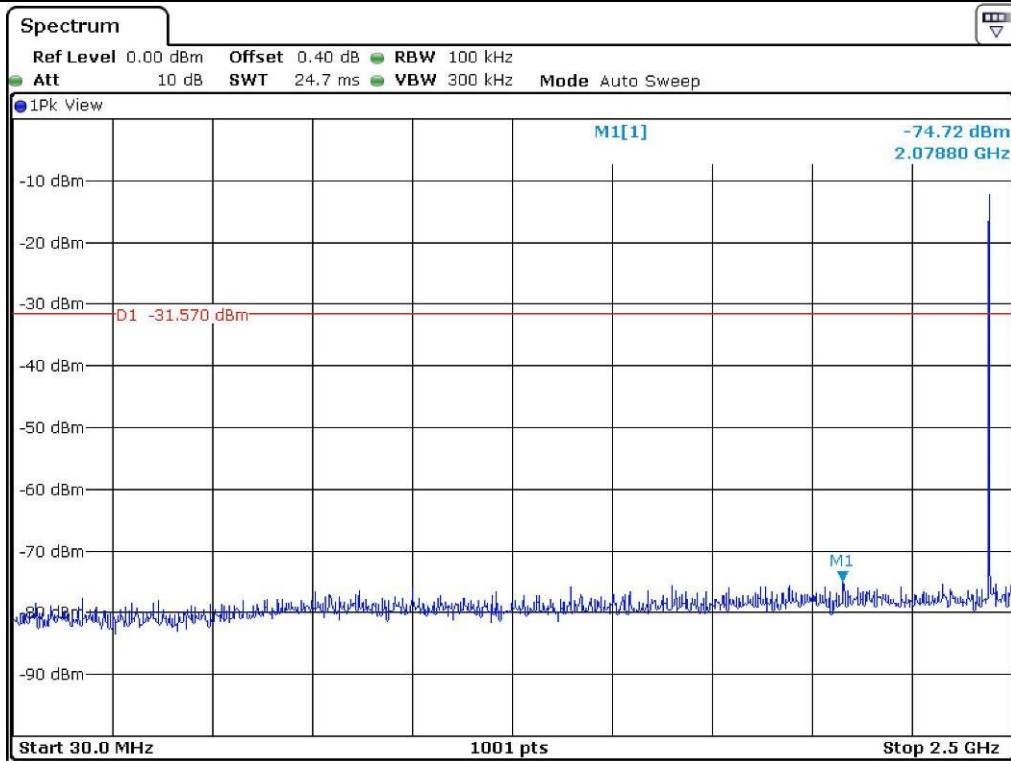




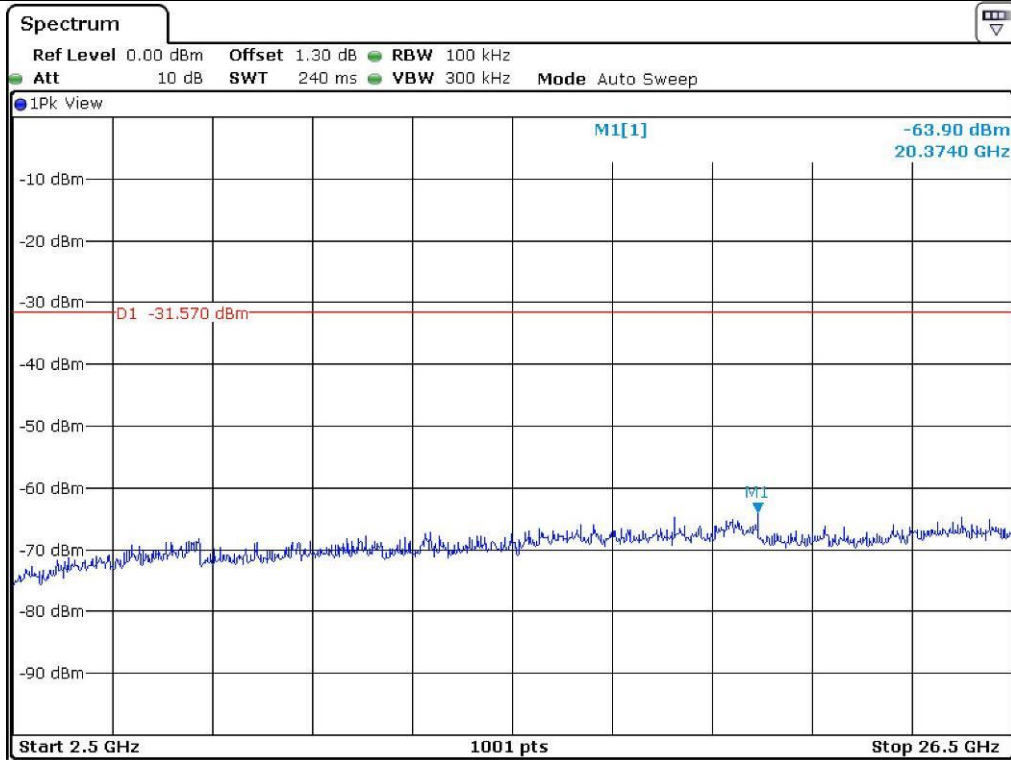
Low Channel



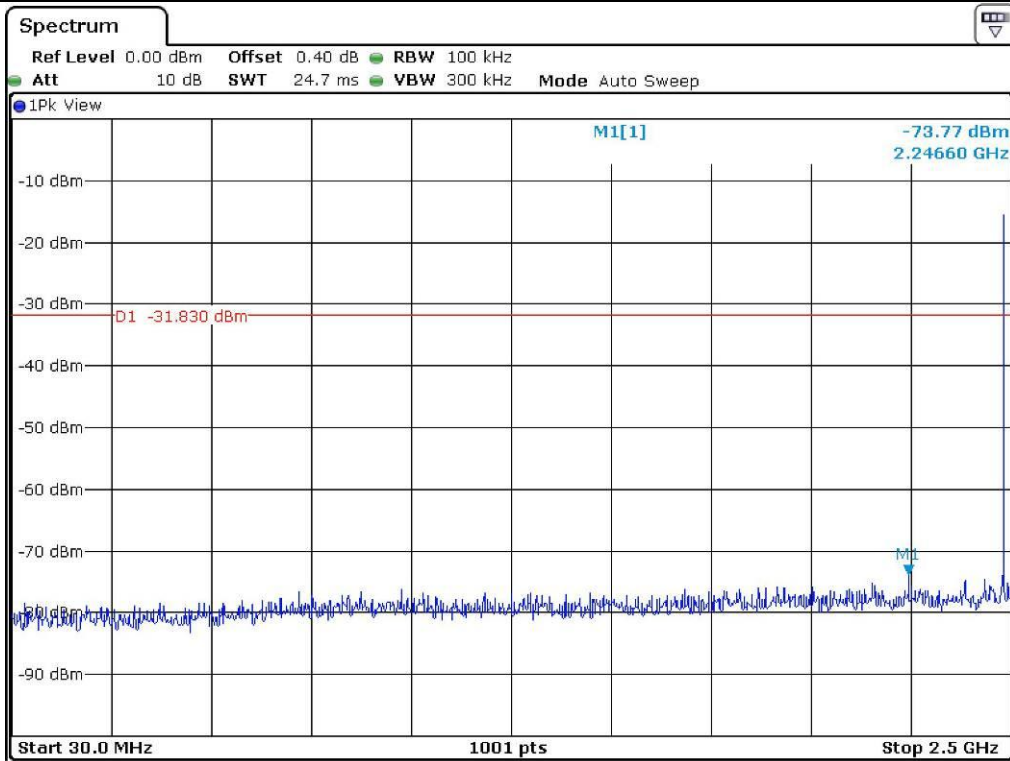
Low Channel



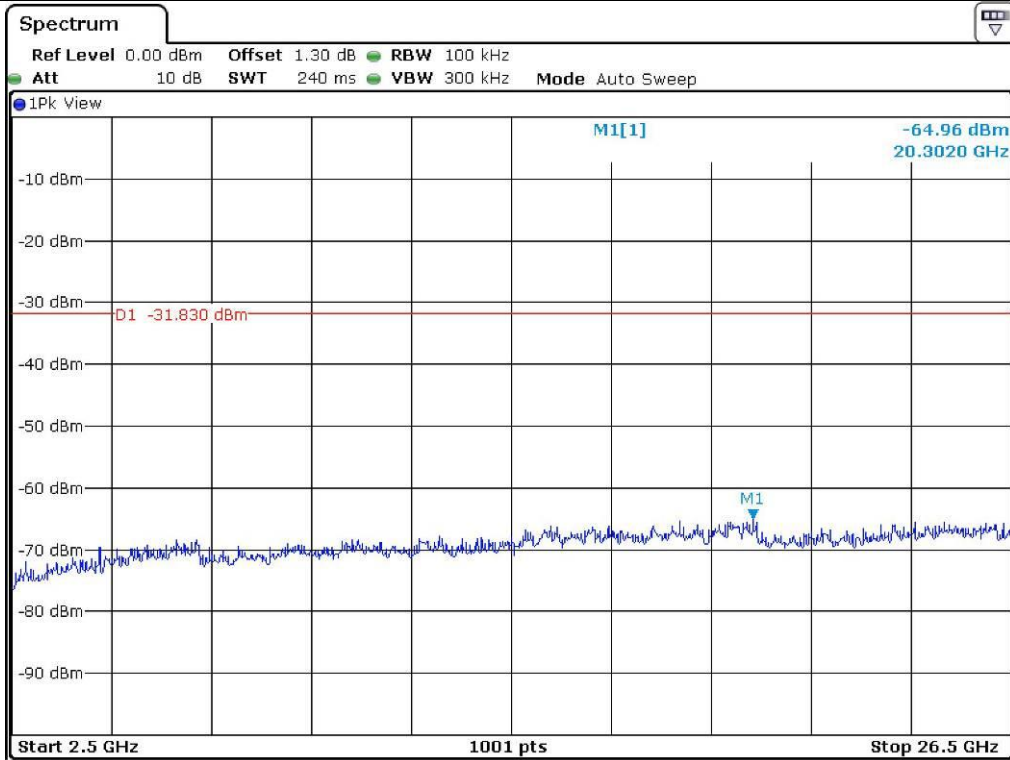
Middle Channel



Middle Channel



High Channel



High Channel

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

- Test Date : August 16, 2018 ~ August 28, 2018
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Duty Cycle : 77.1 %
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Duty Cycle (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margi n (dB)
Test Data for Low Channel										
2 328.901	44.31	Peak	H	26.94	9.20	34.76	-	45.69	74.00	28.31
2 388.521	33.31	Average	H	26.91	9.17	34.72	1.13	35.80	54.00	18.20
2 389.560	44.57	Peak	V	26.91	9.17	34.72	-	45.93	74.00	28.07
2 346.803	33.61	Average	V	26.91	9.17	34.72	1.13	36.10	54.00	17.90
Test Data for High Channel										
2 483.755	44.52	Peak	H	27.47	9.49	35.51	-	45.97	74.00	28.03
2 483.508	32.84	Average	H	27.47	9.49	35.51	1.13	35.42	54.00	18.58
2 493.415	44.63	Peak	V	27.48	9.49	35.52	-	46.08	74.00	27.92
2 488.635	32.81	Average	V	27.47	9.49	35.51	1.13	35.39	54.00	18.61

Tabulated test data for Restricted Band

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



Tested by: Tae-Ho, Kim / Senior Manager


12.6.1.2 Test data for 2 Mbps

- . Test Date : August 16, 2018 ~ August 28, 2018
- . Resolution bandwidth : 1 MHz for Peak and Average Mode
- . Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- . Duty Cycle : 77.1 %
- . Measurement distance : 3 m
- . Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Duty Cycle (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
2 386.603	45.66	Peak	H	26.94	9.20	34.76	-	47.04	74.00	26.96
2 321.309	33.39	Average	H	26.91	9.17	34.72	1.13	35.88	54.00	18.12
2 332.418	44.87	Peak	V	26.91	9.17	34.72	-	46.23	74.00	27.77
2 389.960	33.36	Average	V	26.91	9.17	34.72	1.13	35.85	54.00	18.15
Test Data for High Channel										
2 495.854	44.41	Peak	H	27.47	9.49	35.51	-	45.86	74.00	28.14
2 497.651	32.95	Average	H	27.47	9.49	35.51	1.13	35.53	54.00	18.47
2 487.448	44.97	Peak	V	27.48	9.49	35.52	-	46.42	74.00	27.58
2 485.880	32.25	Average	V	27.47	9.49	35.51	1.13	34.83	54.00	19.17

Tabulated test data for Restricted Band

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



Tested by: Tae-Ho, Kim / Senior Manager

12.6.1.3 Test data for 3 Mbps

- . Test Date : August 16, 2018 ~ August 28, 2018
- . Resolution bandwidth : 1 MHz for Peak and Average Mode
- . Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- . Duty Cycle : 77.1 %
- . Measurement distance : 3 m
- . Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Duty Cycle (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
2 387.613	46.68	Peak	H	26.94	9.20	34.76	-	48.06	74.00	25.94
2 327.304	34.18	Average	H	26.91	9.17	34.72	1.13	36.67	54.00	17.33
2 351.681	45.15	Peak	V	26.91	9.17	34.72	-	46.51	74.00	27.49
2 376.841	33.72	Average	V	26.91	9.17	34.72	1.13	36.21	54.00	17.79
Test Data for High Channel										
2 498.872	45.21	Peak	H	27.47	9.49	35.51	-	46.66	74.00	27.34
2 499.628	33.84	Average	H	27.47	9.49	35.51	1.13	36.42	54.00	17.58
2 485.517	45.16	Peak	V	27.48	9.49	35.52	-	46.61	74.00	27.39
2 483.758	33.68	Average	V	27.47	9.49	35.51	1.13	36.26	54.00	17.74

Tabulated test data for Restricted Band

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



Tested by: Tae-Ho, Kim / Manager

12.6.2 Spurious & Harmonic Radiated Emission above 1 GHz

12.6.2.1 Test data for 1 Mbps

- Test Date : August 16, 2018 ~ August 28, 2018
- Resolution bandwidth : 1 MHz for Peak and Average Mode for the emissions fall in restricted band,
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Duty Cycle : 77.1 %
- Measurement distance : 3 m
- Result : PASSED

Frequency (GHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Duty Cycle (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
4 804.000	42.75	Peak	H	30.84	12.31	35.74	-	50.16	74.00	23.84
	31.87	Average	H				1.13	40.41	54.00	13.59
	43.02	Peak	V				-	50.43	74.00	23.57
	31.86	Average	V				1.13	40.40	54.00	13.60
Test Data for Middle Channel										
4 882.000	40.71	Peak	H	30.01	12.43	35.80	-	47.35	74.00	26.65
	29.41	Average	H				1.13	37.18	54.00	16.82
	41.23	Peak	V				-	47.87	74.00	26.13
	31.58	Average	V				1.13	39.35	54.00	14.65
Test Data for High Channel										
4 960.000	41.68	Peak	H	31.15	12.81	35.96	-	49.68	74.00	24.32
	32.81	Average	H				1.13	41.94	54.00	12.06
	42.51	Peak	V				-	50.51	74.00	23.49
	30.54	Average	V				1.13	39.67	54.00	14.33

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical, "*" Frequency fall in restricted band



Tested by: Tae-Ho, Kim / Senior Manager

12.6.2.2 Test data for 2 Mbps

- Test Date : August 16, 2018 ~ August 28, 2018
- Resolution bandwidth : 1 MHz for Peak and Average Mode for the emissions fall in restricted band,
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Duty Cycle : 77.1 %
- Measurement distance : 3 m
- Result : PASSED

Frequency (GHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Duty Cycle (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
4 804.000	41.62	Peak	H	30.84	12.31	35.74	-	49.03	74.00	24.97
	32.11	Average	H				1.13	40.65	54.00	13.35
	43.15	Peak	V				-	50.56	74.00	23.44
	32.68	Average	V				1.13	41.22	54.00	12.78
Test Data for Middle Channel										
4 882.000	40.81	Peak	H	30.01	12.43	35.80	-	47.45	74.00	26.55
	31.27	Average	H				1.13	39.04	54.00	14.96
	41.56	Peak	V				-	48.20	74.00	25.80
	31.84	Average	V				1.13	39.61	54.00	14.39
Test Data for High Channel										
4 960.000	41.33	Peak	H	31.15	12.81	35.96	-	49.33	74.00	24.67
	31.84	Average	H				1.13	40.97	54.00	13.03
	42.37	Peak	V				-	50.37	74.00	23.63
	31.98	Average	V				1.13	41.11	54.00	12.89

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical, "*" Frequency fall in restricted band



Tested by: Tae-Ho, Kim / Senior Manager

12.6.2.3 Test data for 3 Mbps

- Test Date : August 16, 2018 ~ August 28, 2018
- Resolution bandwidth : 1 MHz for Peak and Average Mode for the emissions fall in restricted band,
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Duty Cycle : 77.1 %
- Measurement distance : 3 m
- Result : PASSED

Frequency (GHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Duty Cycle (dB)	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
4 804.000	42.51	Peak	H	30.84	12.31	35.74	-	49.92	74.00	24.08
	31.84	Average	H				1.13	40.38	54.00	13.62
	42.68	Peak	V				-	50.09	74.00	23.91
	32.27	Average	V				1.13	40.81	54.00	13.19
Test Data for Middle Channel										
4 882.000	41.67	Peak	H	30.01	12.43	35.80	-	48.31	74.00	25.69
	31.21	Average	H				1.13	38.98	54.00	15.02
	41.98	Peak	V				-	48.62	74.00	25.38
	31.81	Average	V				1.13	39.58	54.00	14.42
Test Data for High Channel										
4 960.000	42.28	Peak	H	31.15	12.81	35.96	-	50.28	74.00	23.72
	30.68	Average	H				1.13	39.81	54.00	14.19
	42.63	Peak	V				-	50.63	74.00	23.37
	31.84	Average	V				1.13	40.97	54.00	13.03

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical, "*" Frequency fall in restricted band



Tested by: Tae-Ho, Kim / Senior Manager

13. RADIATED EMISSION TEST

13.1 Operating environment

Temperature : 24.3 °C
 Relative humidity : 43.9 % 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.

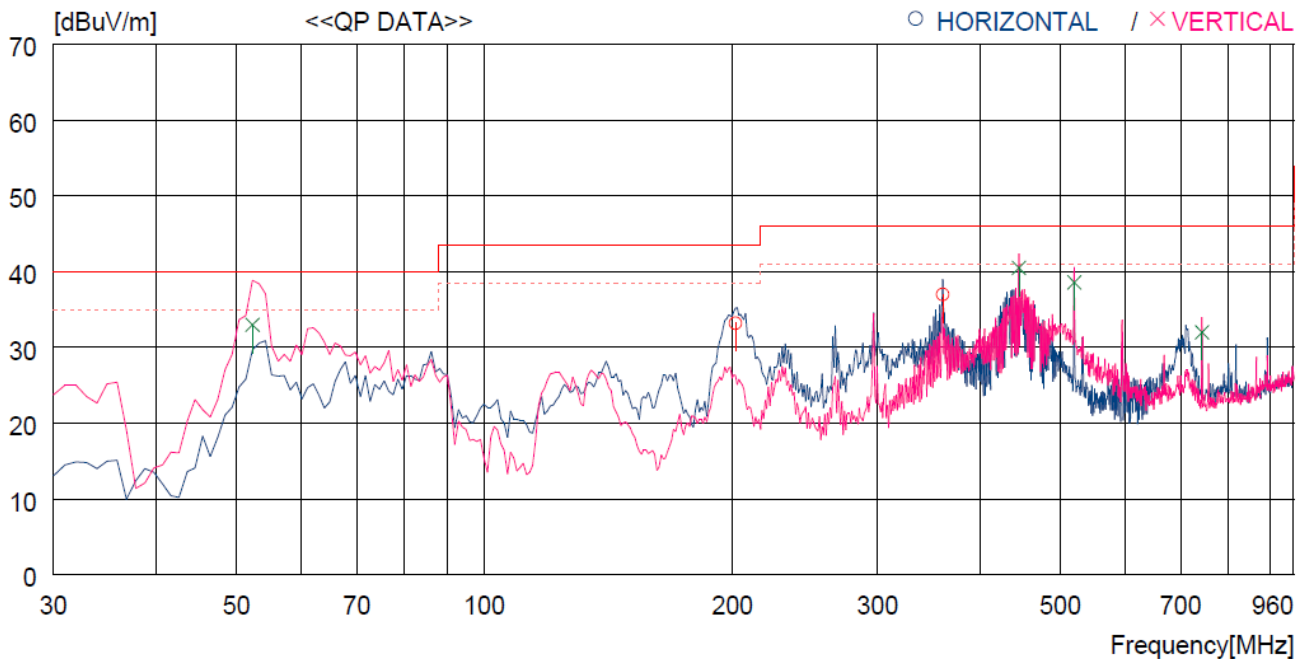
13.3 Test equipment used

Model Number	Manufacturer	Description	Serial Number	Last Cal.
■ - FSV40	Rohde & Schwarz	Signal Analyzer	101009	Mar. 14, 2018 (1Y)
■ - ESU	Rohde & Schwarz	EMI Test Receiver	100261	Mar. 29, 2018 (1Y)
■ - 310N	Sonoma Instrument	Pre-Amplifier	312544	Mar. 28, 2018 (1Y)
■ - BBV9718	Schwarzbeck	Amplifier	310	Mar. 30, 2018 (1Y)
■ - DT3000-3t	Innco System	Turn Table	DT3000/093	N/A
■ - MA-4000XPET	Innco System	Antenna Master	MA4000/509	N/A
■ - VULB9163	Schwarzbeck	TRILOG Broadband Antenna	777	Apr. 13, 2018 (2Y)
■ - BBHA9120D	Schwarzbeck	Horn Antenna	BBHA9120D295	Aug. 16, 2017 (2Y)
■ - BBHA9170	Schwarzbeck	Horn Antenna	BBHA9170179	Jul. 28, 2017 (2Y)

All test equipment used is calibrated on a regular basis.

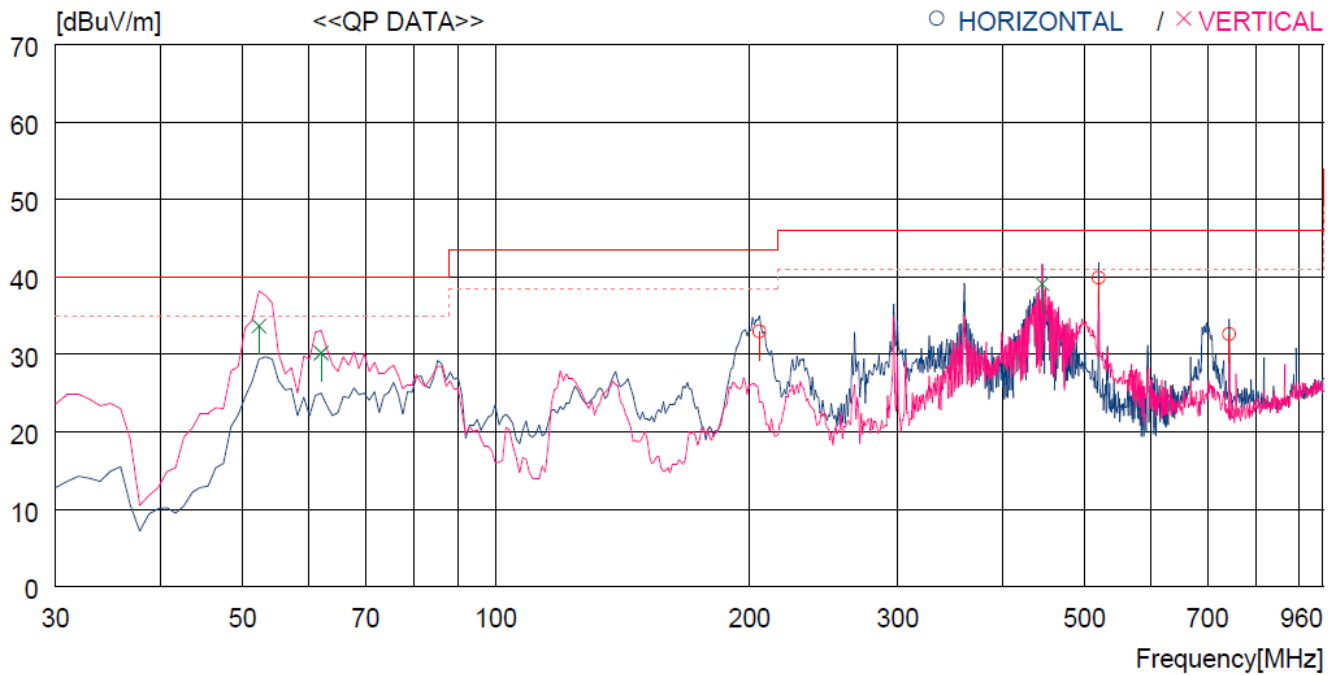
13.4 Test data for 30 MHz ~ 1 000 MHz

- Test Date : August 16, 2018 ~ August 28, 2018
- Resolution bandwidth : 120 kHz
- Frequency range : 30 MHz ~ 1 000 MHz
- Measurement distance : 3 m
- Operating condition : Low Channel



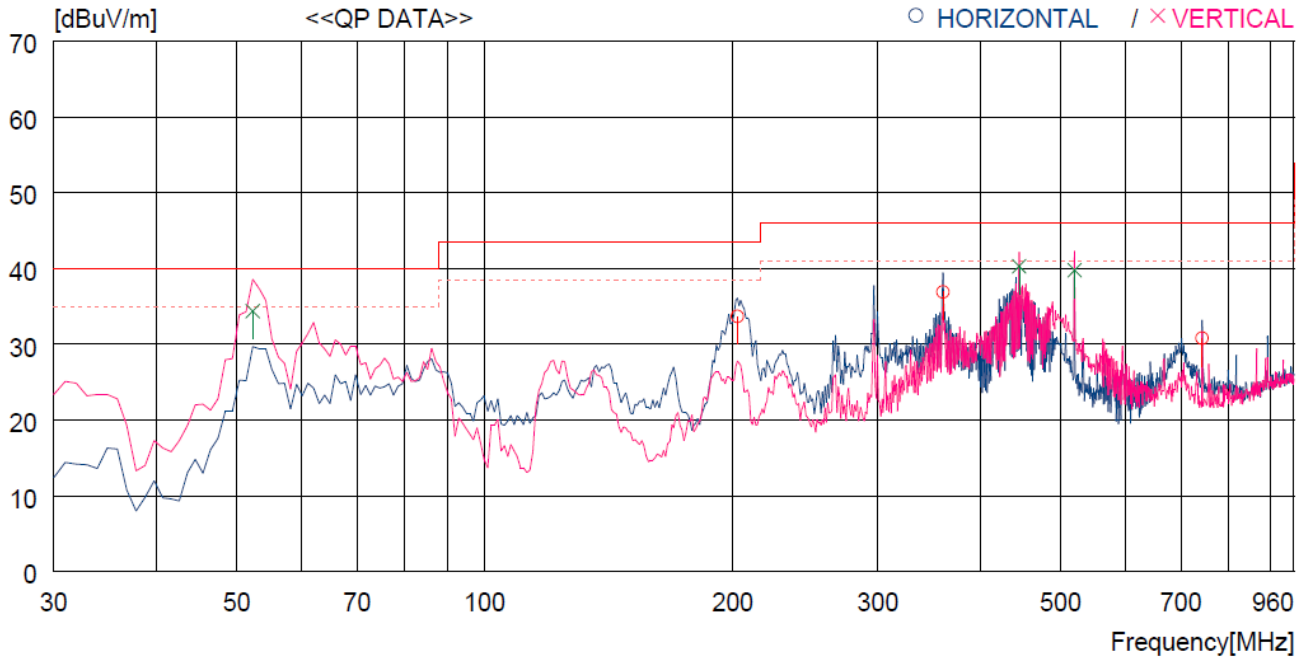
No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	201.690	52.6	10.5	3.3	33.2	33.2	43.5	10.3	100	229
2	359.800	51.3	14.4	4.4	33.1	37.0	46.0	9.0	100	356
----- Vertical -----										
3	52.310	50.5	13.9	1.7	33.1	33.0	40.0	7.0	100	8
4	445.161	52.7	16.1	4.8	33.1	40.5	46.0	5.5	100	0
5	519.850	49.2	17.5	5.2	33.3	38.6	46.0	7.4	100	0
6	742.944	38.7	20.4	6.3	33.4	32.0	46.0	14.0	100	0

Operating condition : Middle Channel



No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	205.570	51.8	10.9	3.3	33.0	33.0	43.5	10.5	100	241
2	519.850	50.0	17.9	5.3	33.3	39.9	46.0	6.1	200	81
3	742.944	38.9	20.6	6.3	33.2	32.6	46.0	13.4	100	359
----- Vertical -----										
4	52.310	51.2	13.9	1.7	33.1	33.7	40.0	6.3	100	0
5	62.010	49.1	12.4	1.8	33.1	30.2	40.0	9.8	100	0
6	445.161	51.3	16.1	4.8	33.1	39.1	46.0	6.9	100	156

Operating condition : High Channel



No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	202.660	53.0	10.6	3.3	33.2	33.7	43.5	9.8	100	249
2	359.800	51.2	14.4	4.4	33.1	36.9	46.0	9.1	100	0
3	742.944	37.5	20.4	6.3	33.4	30.8	46.0	15.2	100	0
----- Vertical -----										
4	52.310	52.1	13.7	1.7	33.1	34.4	40.0	5.6	100	355
5	445.161	52.2	16.5	4.8	33.2	40.3	46.0	5.7	100	183
6	519.850	50.4	17.5	5.2	33.3	39.8	46.0	6.2	100	339

Tested by: Tae-Ho, Kim / Senior Manager

13.5 Test data for Below 30 MHz

- . Test Date : August 16, 2018 ~ August 28, 2018
- . 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 (dB μ V)	Ant. Pol. (H/V)	Ant. Factor (dB/m)	Cable Loss	Amp Gain	Emission Level(dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
It was not observed any emissions from the EUT.								

13.6 Test data for above 1 GHz

- . Test Date : August 16, 2018 ~ August 28, 2018
- . Resolution bandwidth : 1 MHz for Peak and Average Mode
- . Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- . Frequency range : 1 GHz ~ 26.5 GHz
- . Measurement distance : 3 m

Frequency (MHz)	Reading (dB μ V)	Ant. Pol. (H/V)	Ant. Factor (dB/m)	Cable Loss	Amp Gain	Emission Level(dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
It was not observed any emissions from the EUT.								



Tested by: Tae-Ho, Kim / Senior Manager

14. CONDUCTED EMISSION TEST

14.1 Operating environment

Temperature : 24.3 °C
 Relative humidity : 43.9 % 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 Ω / 50 μH + 5 Ω Artificial Mains Network (AMN). The ground plane was electrically bonded to the reference ground system and all power lines were filtered from ambient.

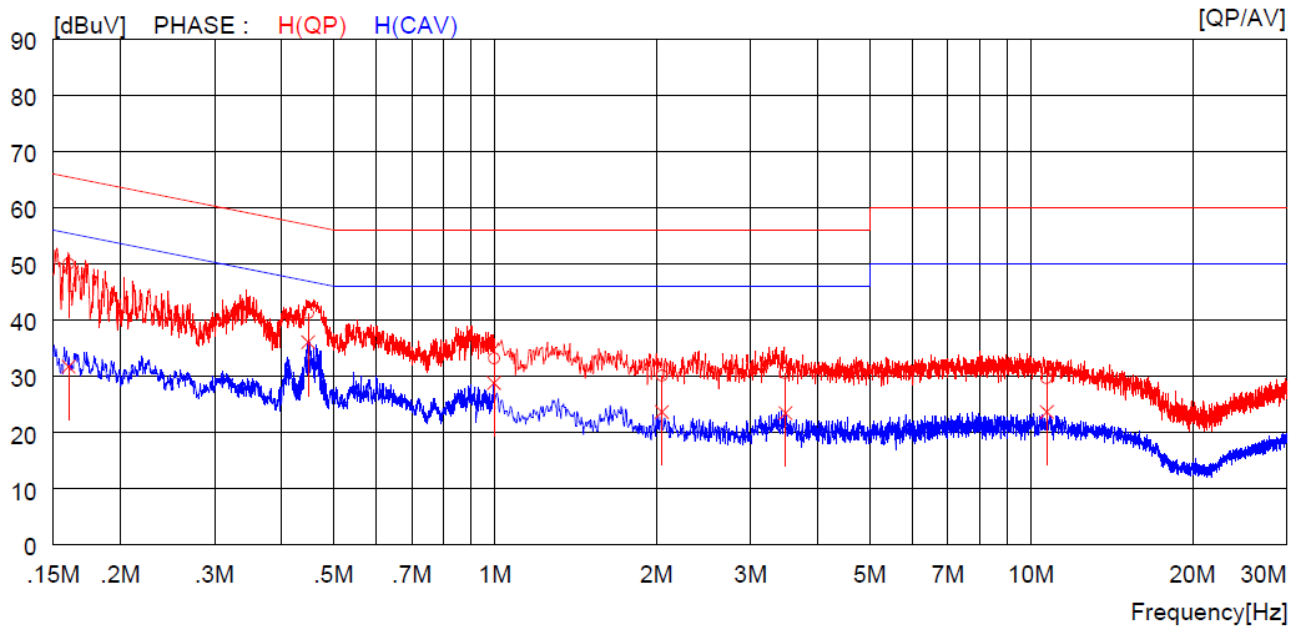
14.3 Test equipment used

	Model Number	Manufacturer	Description	Serial Number	Last Cal. (Interval)
■ -	ESPI	Rohde & Schwarz	EMI Test Receiver	101278	Oct. 27, 2017 (1Y)
□ -	ESHS10	Rohde & Schwarz	EMI Test Receiver	834467/007	Mar. 29, 2018 (1Y)
□ -	NSLK8128	Schwarzbeck	AMN	8128-216	Mar. 29, 2018 (1Y)
■ -	NSLK8126	Schwarzbeck	AMN	8126-404	Apr. 04, 2018 (1Y)
□ -	3825/2	EMCO	AMN	9109-1869	Apr. 11, 2018 (1Y)
■ -	3825/2	EMCO	AMN	9109-1867	Mar. 28, 2018 (1Y)

All test equipment used is calibrated on a regular basis.

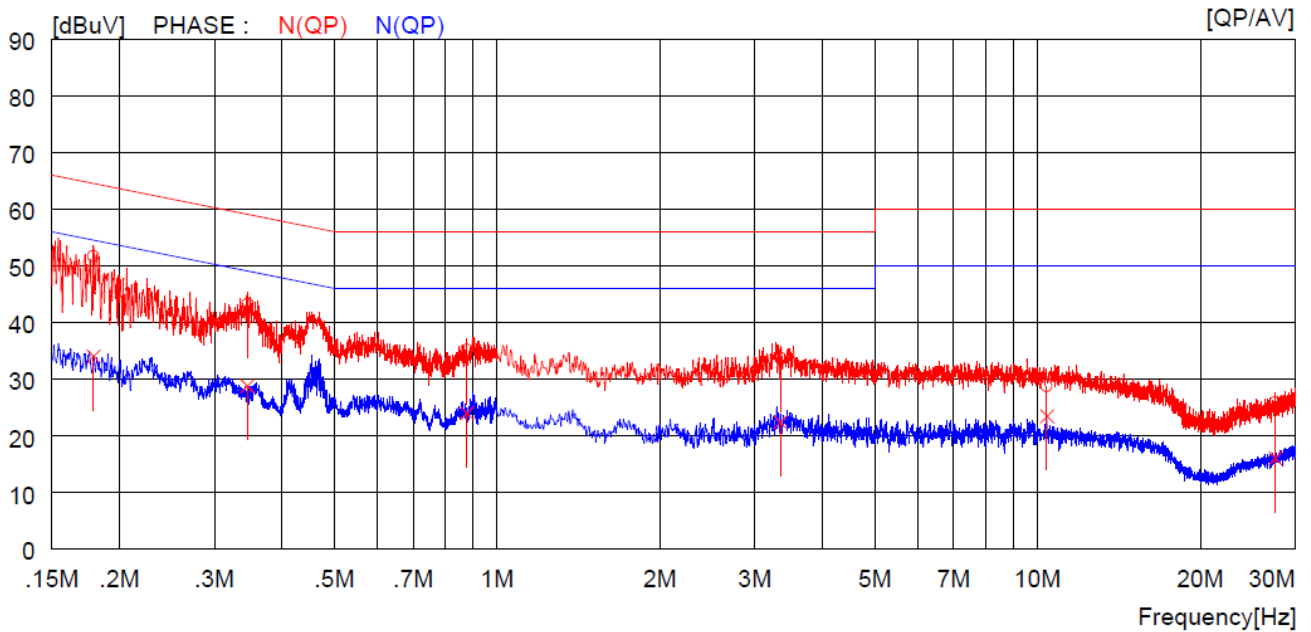
14.4 Test data

- Test Date : August 16, 2018 ~ August 28, 2018
- 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	0.16000	40.2	----	9.8	50.0	----	65.5	----	15.5	----	H (QP)
2	0.44800	31.5	----	9.8	41.3	----	56.9	----	15.6	----	H (QP)
3	0.99500	23.3	----	9.9	33.2	----	56.0	----	22.8	----	H (QP)
4	2.04800	20.2	----	9.9	30.1	----	56.0	----	25.9	----	H (QP)
5	3.48000	20.5	----	10.1	30.6	----	56.0	----	25.4	----	H (QP)
6	10.70000	19.5	----	10.2	29.7	----	60.0	----	30.3	----	H (QP)
7	0.16000	----	22.0	9.8	----	31.8	----	55.5	----	23.7	H (CAV)
8	0.44800	----	26.3	9.8	----	36.1	----	46.9	----	10.8	H (CAV)
9	0.99500	----	18.9	9.9	----	28.8	----	46.0	----	17.2	H (CAV)
10	2.04800	----	13.8	9.9	----	23.7	----	46.0	----	22.3	H (CAV)
11	3.48000	----	13.4	10.1	----	23.5	----	46.0	----	22.5	H (CAV)
12	10.70000	----	13.5	10.2	----	23.7	----	50.0	----	26.3	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	0.17900	41.8	----	9.9	51.7	----	64.5	----	12.8	----	N (QP)
2	0.34500	33.4	----	9.9	43.3	----	59.1	----	15.8	----	N (QP)
3	0.87800	25.3	----	9.9	35.2	----	56.0	----	20.8	----	N (QP)
4	3.34000	23.7	----	10.1	33.8	----	56.0	----	22.2	----	N (QP)
5	10.41000	18.6	----	10.2	28.8	----	60.0	----	31.2	----	N (QP)
6	27.54000	15.1	----	10.8	25.9	----	60.0	----	34.1	----	N (QP)
7	0.17900	----	24.1	9.9	----	34.0	----	54.5	----	20.5	N (CAV)
8	0.34500	----	18.9	9.9	----	28.8	----	49.1	----	20.3	N (CAV)
9	0.87800	----	14.1	9.9	----	24.0	----	46.0	----	22.0	N (CAV)
10	3.34000	----	12.3	10.1	----	22.4	----	46.0	----	23.6	N (CAV)
11	10.41000	----	13.3	10.2	----	23.5	----	50.0	----	26.5	N (CAV)
12	27.54000	----	5.3	10.8	----	16.1	----	50.0	----	33.9	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.

Tested by: Tae-Ho, Kim / Senior Manager