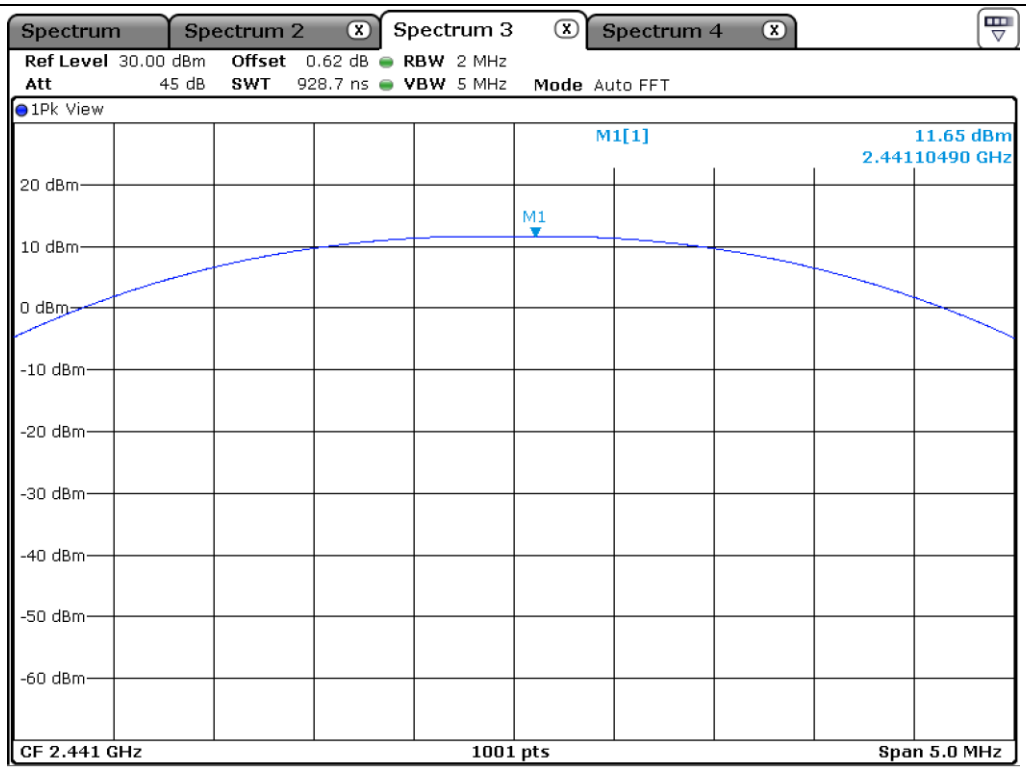
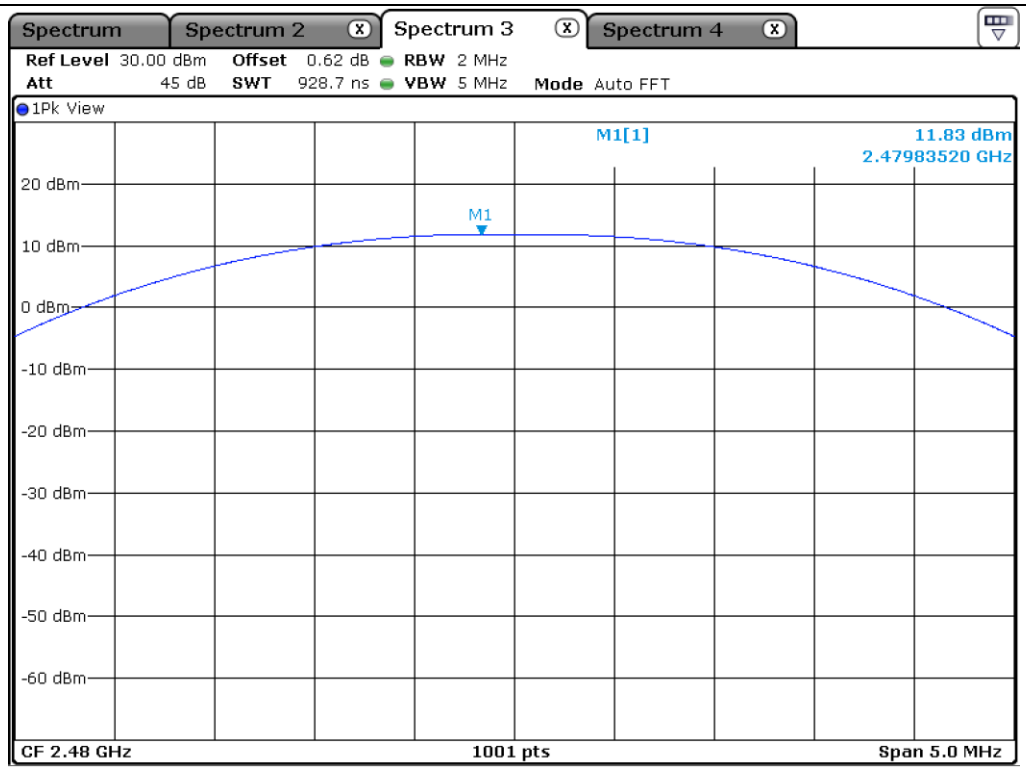


Middle Channel



High Channel

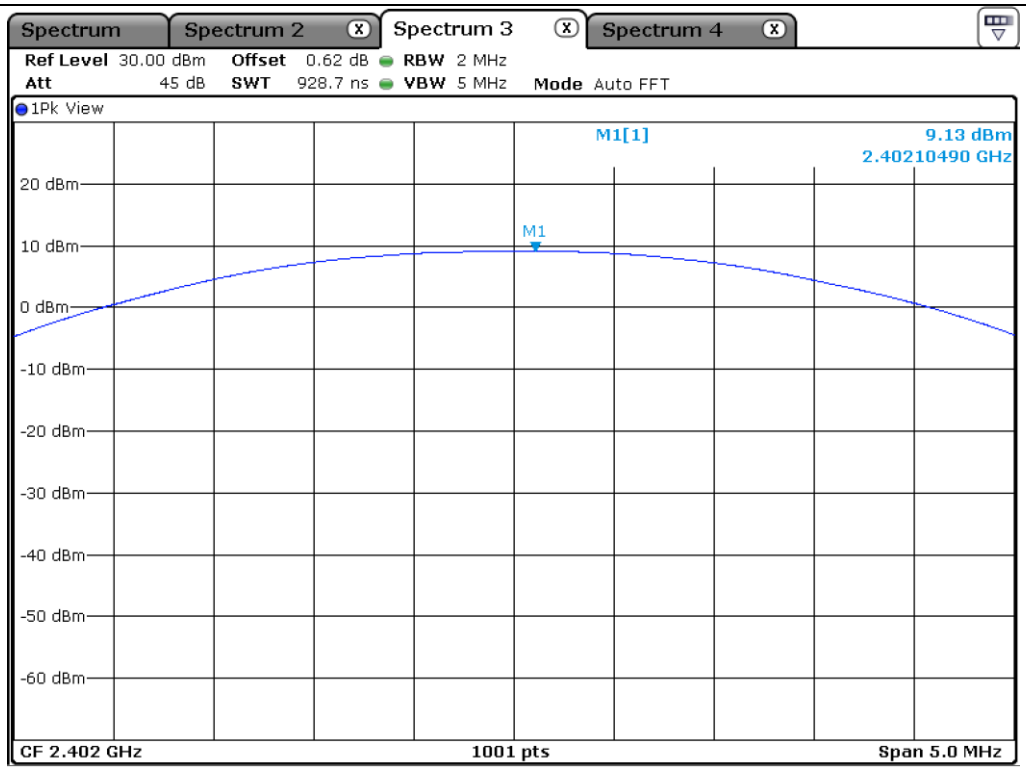
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

11.4.2 Test data for 2 Mbps

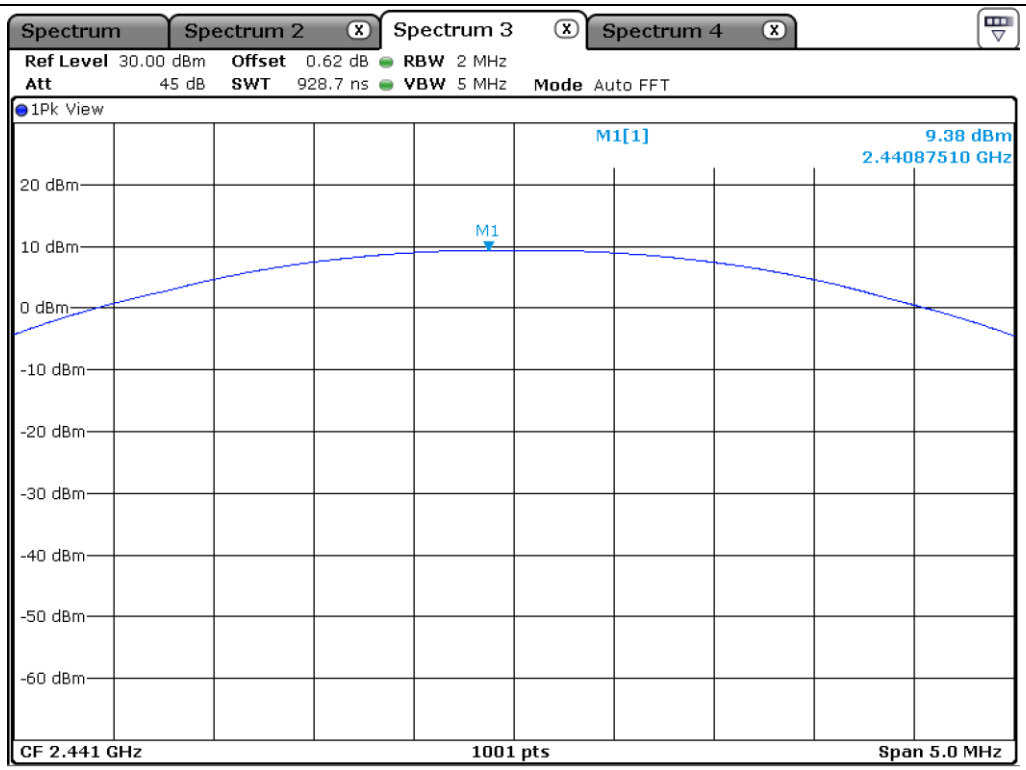
-. Test Result : Pass

CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
LOW	2 402.00	9.13	21.00	11.87
MIDDLE	2 441.00	9.38	21.00	11.62
HIGH	2 480.00	8.48	21.00	12.52

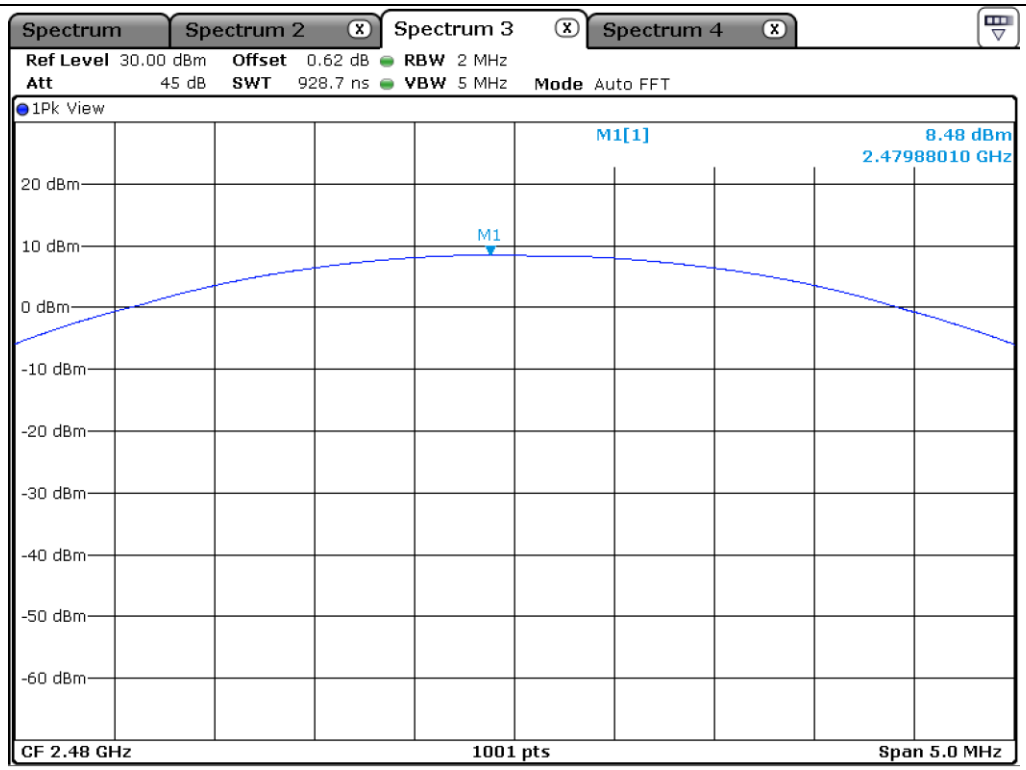
Remark. Margin = Limit – Measured Value (=Receiver Reading + Cable Loss)



Low Channel



Middle Channel



High Channel

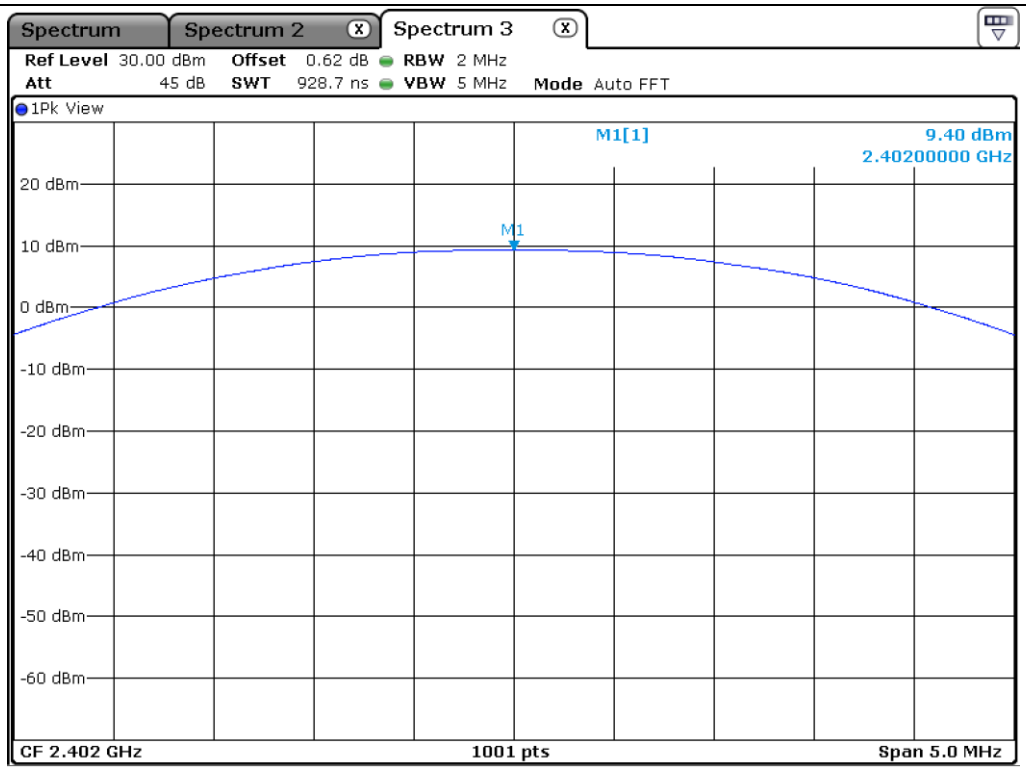
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

11.4.3 Test data for 3 Mbps

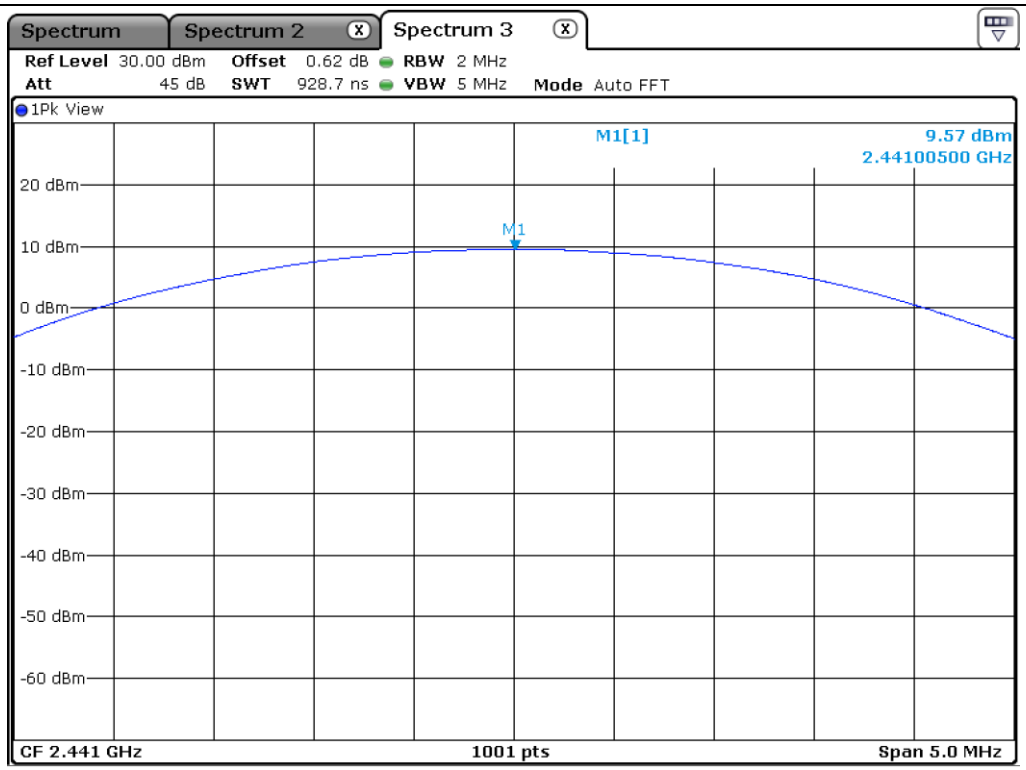
-. Test Result : Pass

CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
LOW	2 402.00	9.40	21.00	11.60
MIDDLE	2 441.00	9.57	21.00	11.43
HIGH	2 480.00	8.66	21.00	12.34

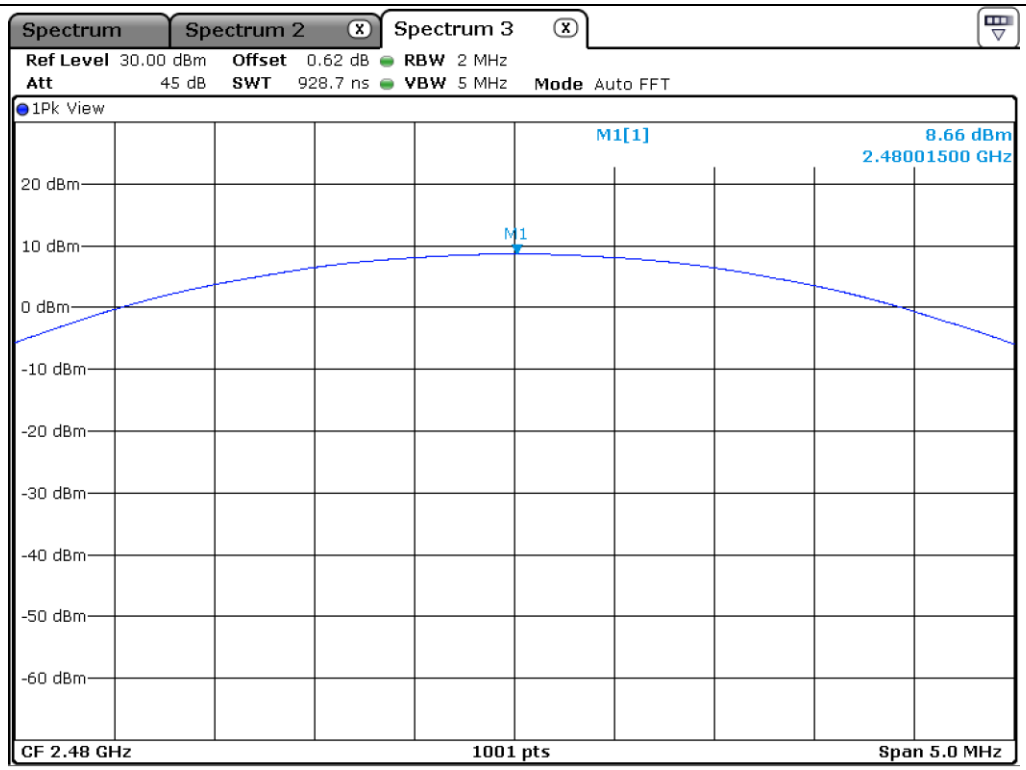
Remark. Margin = Limit – Measured Value (=Receiver Reading + Cable Loss)



Low Channel



Middle Channel



High Channel

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

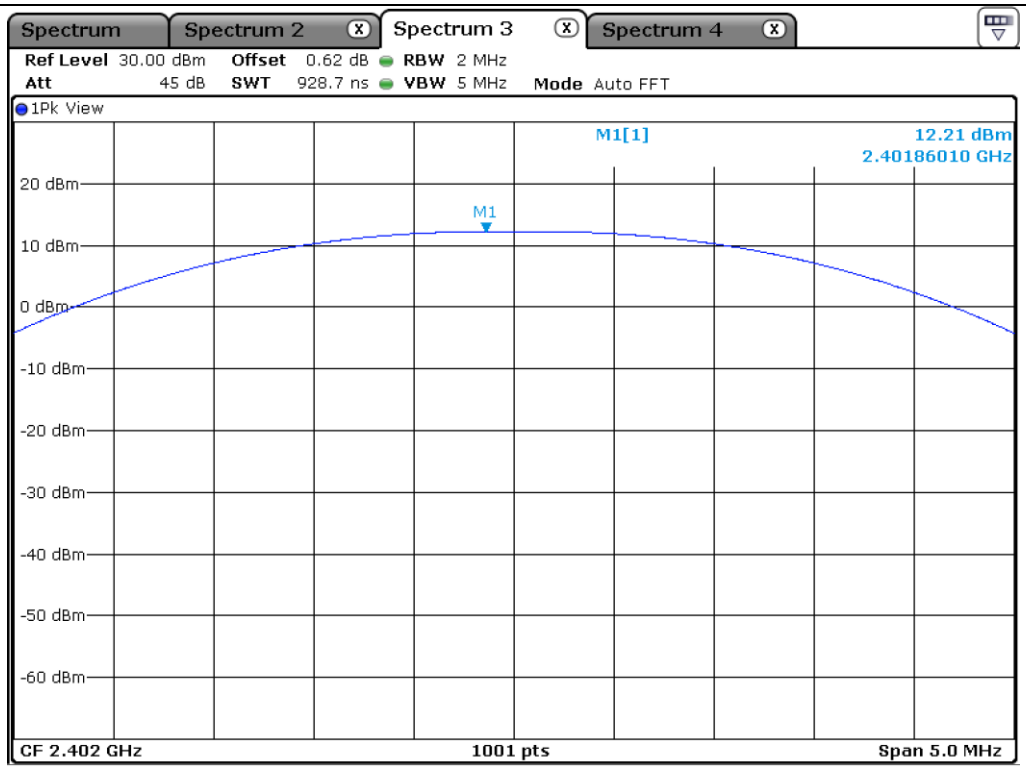
11.5 Test data for Right Earbud

11.5.1 Test data for 1 Mbps

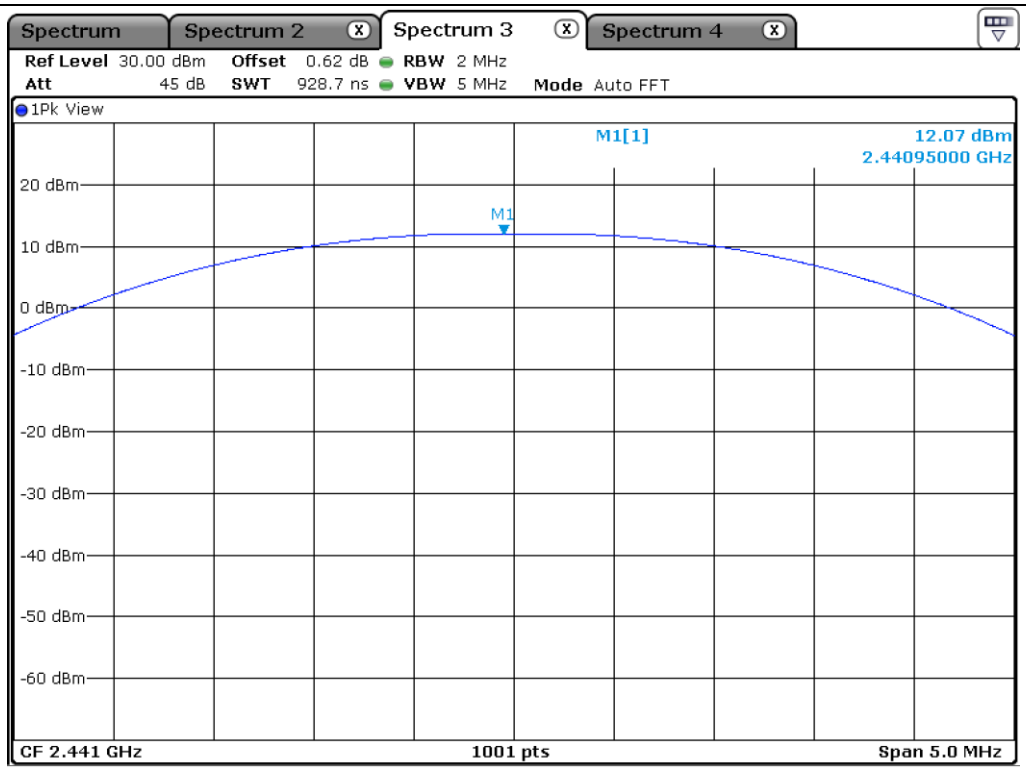
-. Test Result : Pass

CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
LOW	2 402.00	12.21	21.00	8.79
MIDDLE	2 441.00	12.07	21.00	8.93
HIGH	2 480.00	10.76	21.00	10.24

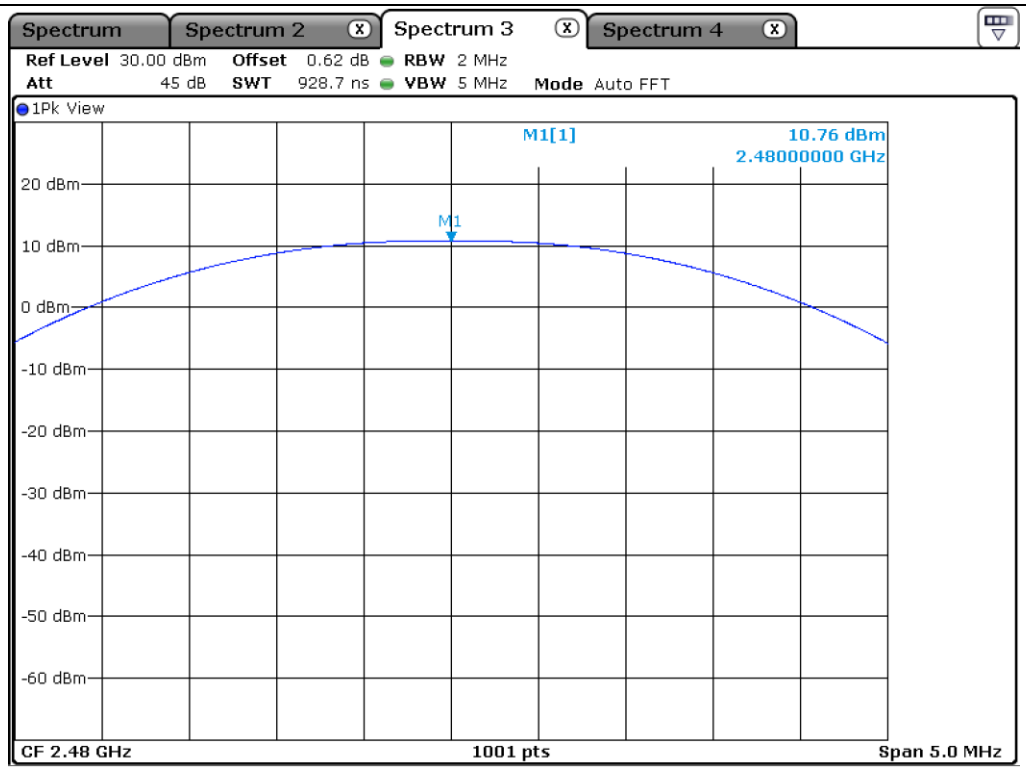
Remark. Margin = Limit – Measured Value (=Receiver Reading + Cable Loss)



Low Channel



Middle Channel



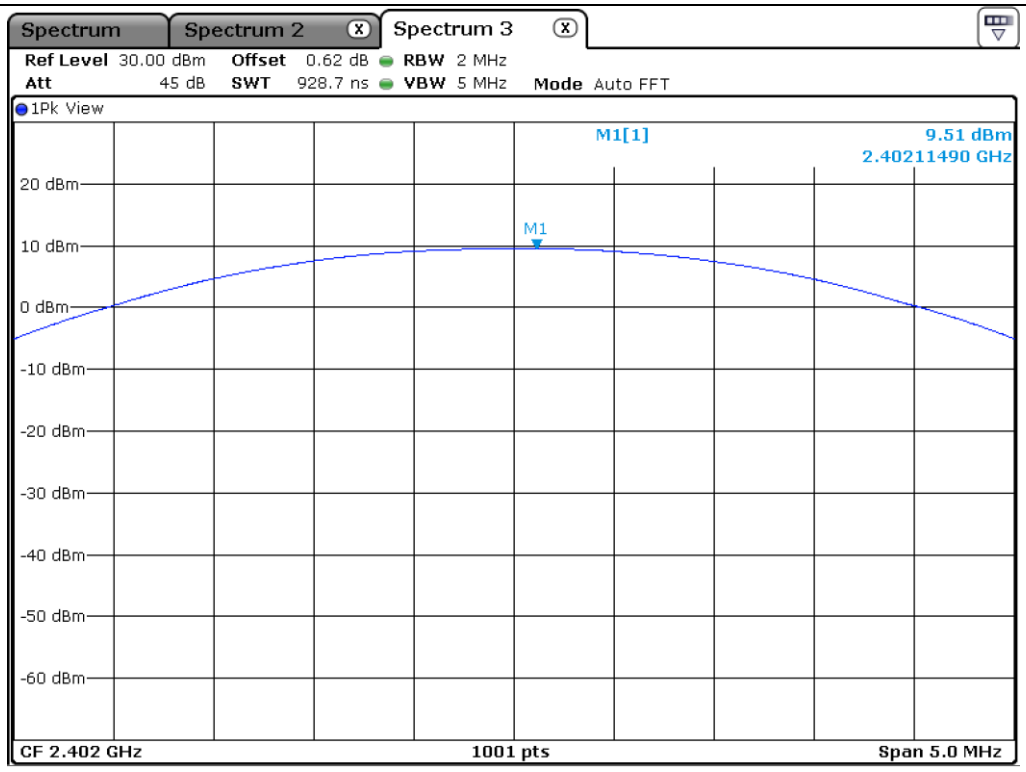
High Channel

11.5.2 Test data for 2 Mbps

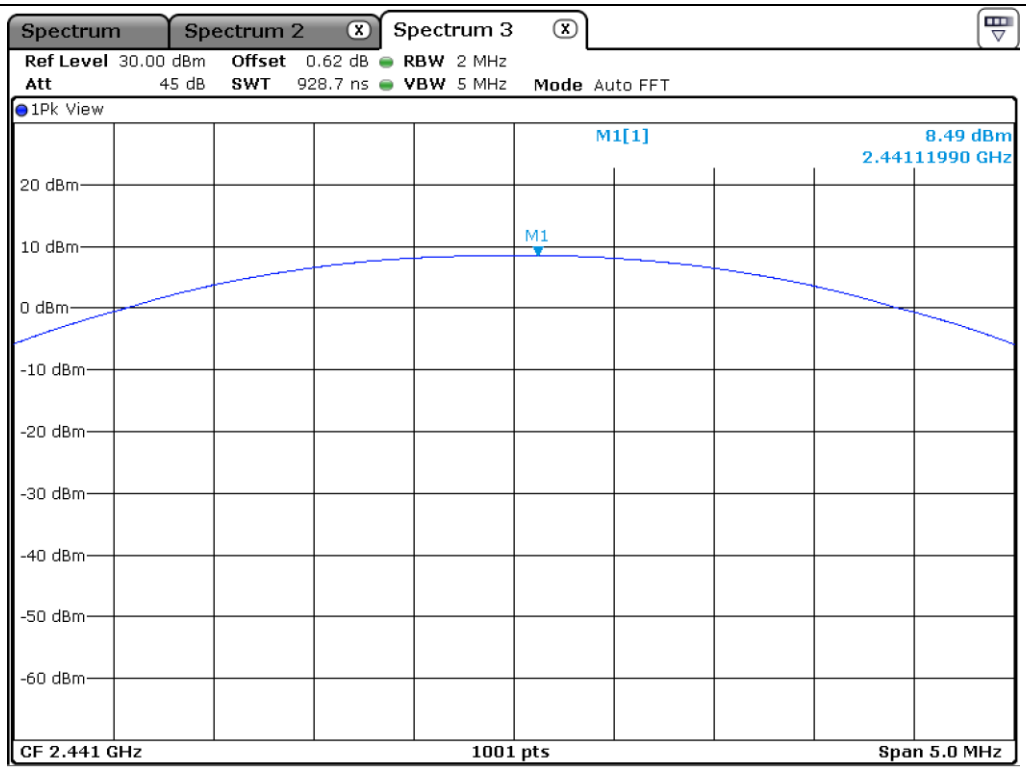
-. Test Result : Pass

CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
LOW	2 402.00	9.51	21.00	11.49
MIDDLE	2 441.00	8.49	21.00	12.51
HIGH	2 480.00	7.48	21.00	13.52

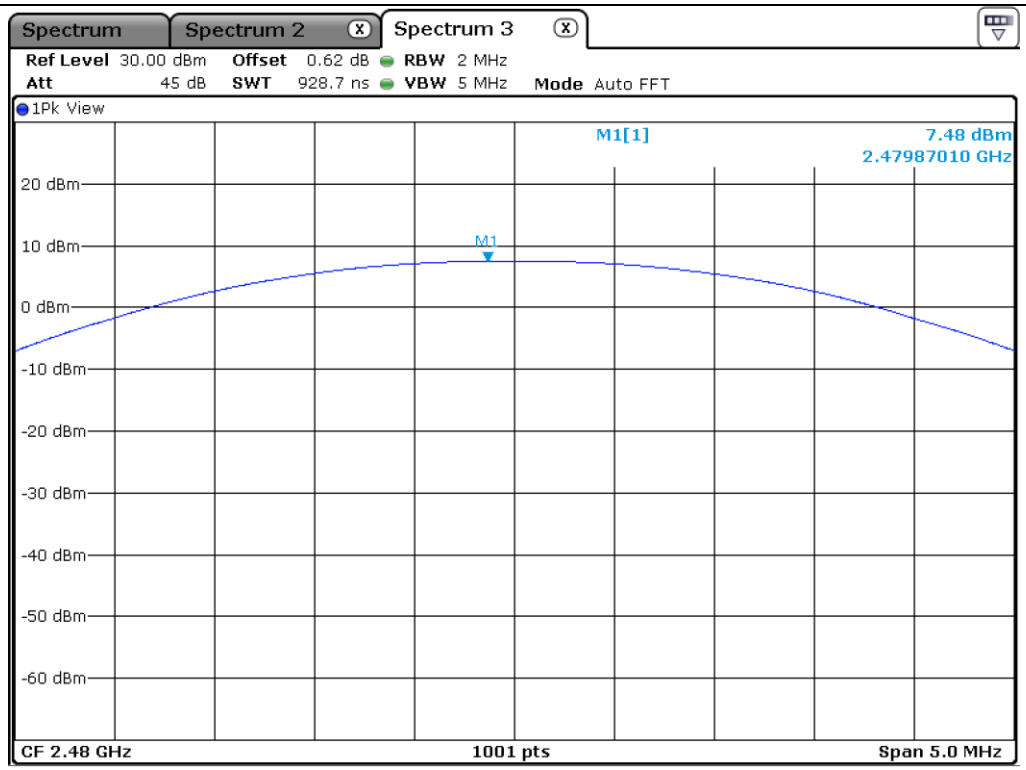
Remark. Margin = Limit – Measured Value (=Receiver Reading + Cable Loss)



Low Channel



Middle Channel



High Channel

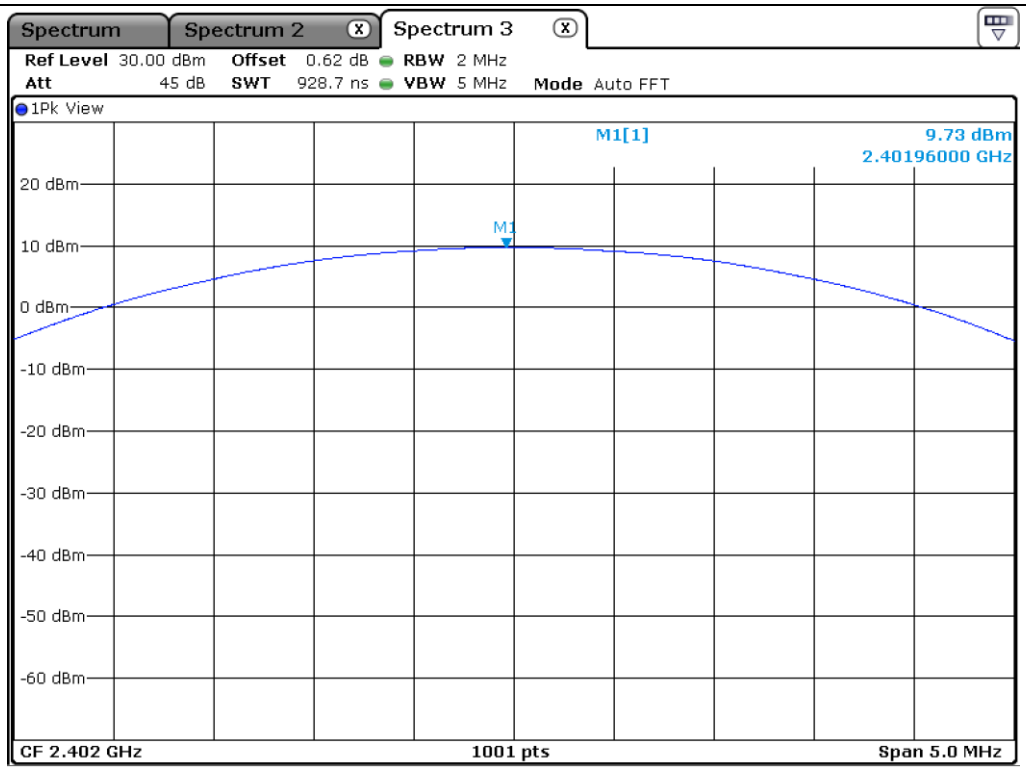
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

11.5.3 Test data for 3 Mbps

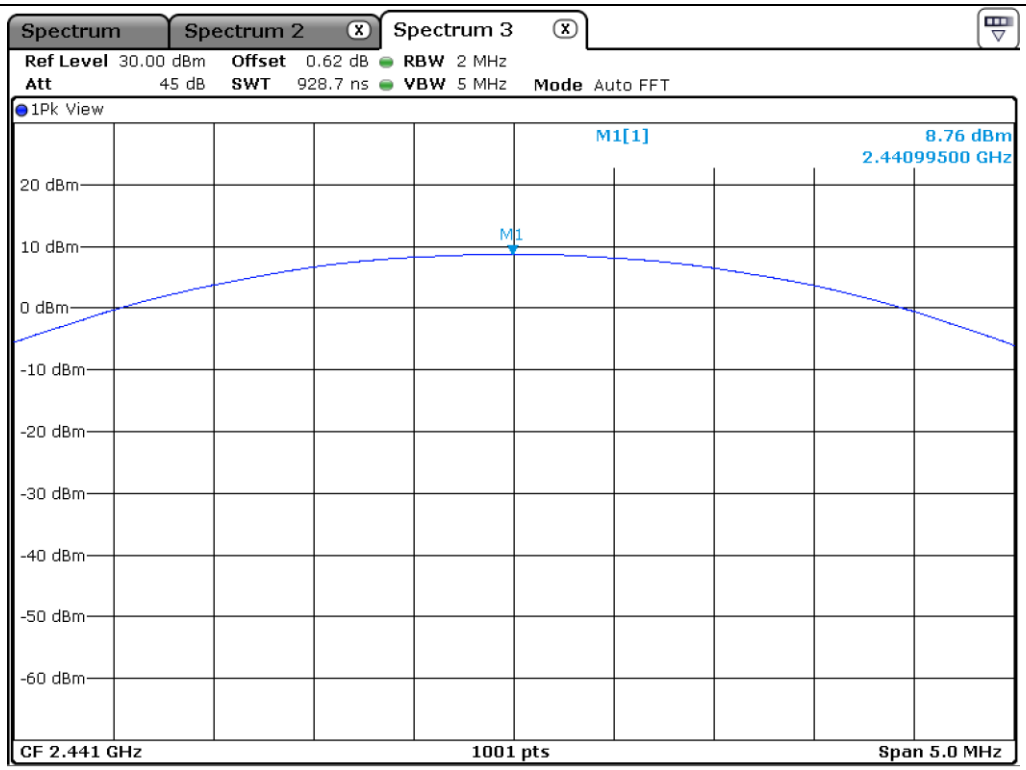
-. Test Result : Pass

CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
LOW	2 402.00	9.73	21.00	11.27
MIDDLE	2 441.00	8.76	21.00	12.24
HIGH	2 480.00	7.83	21.00	13.17

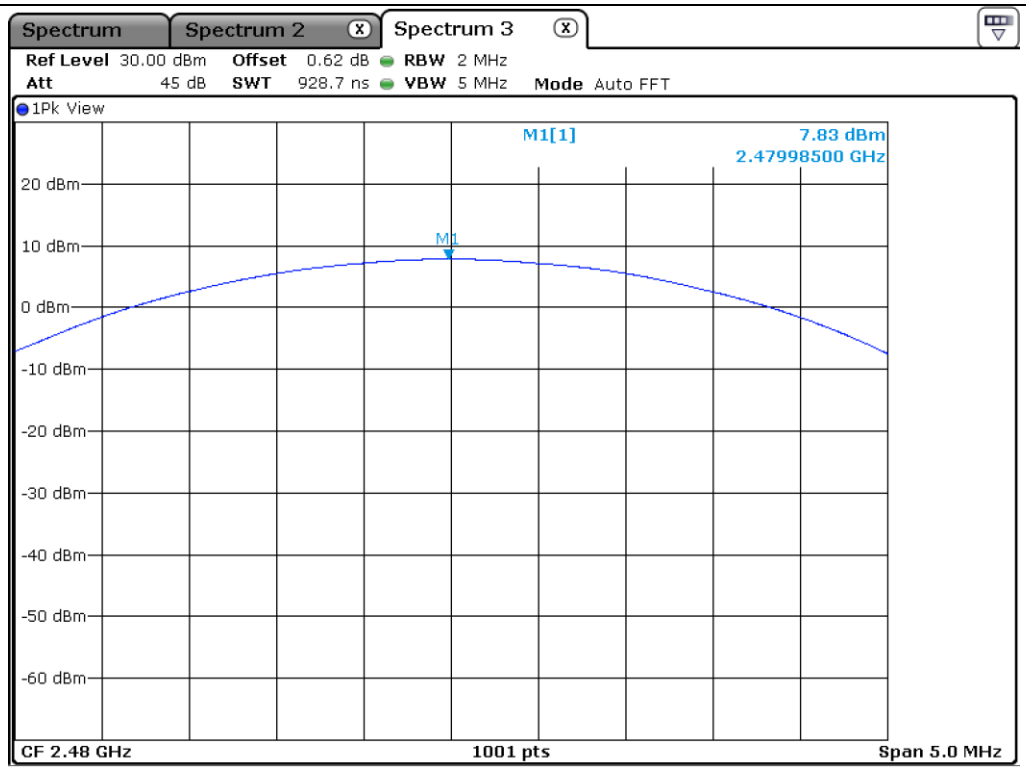
Remark. Margin = Limit – Measured Value (=Receiver Reading + Cable Loss)



Low Channel



Middle Channel



High Channel

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

12. 100 kHz BANDWIDTH OUTSIDE THE FREQUENCY BAND

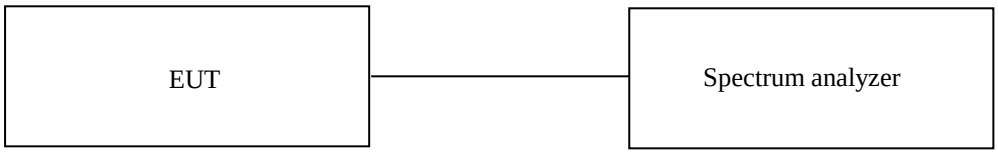
12.1 Operating environment

Temperature : 22.5 °C

Relative humidity : 53.5 % 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.

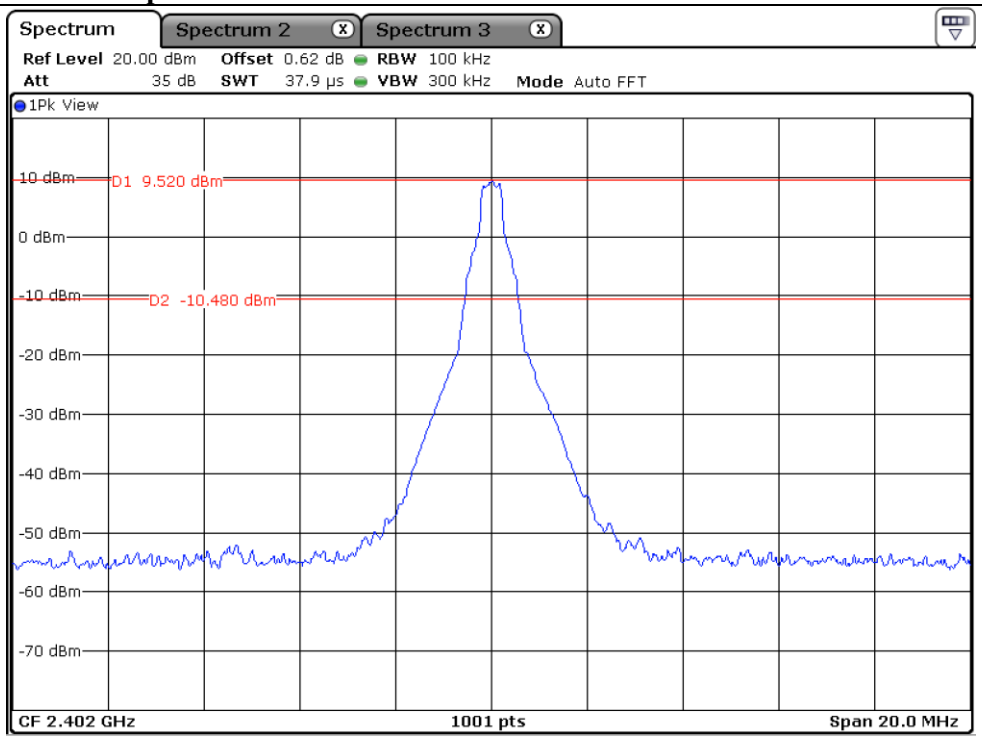
The frequency spectrum from 30 MHz to 26.5 GHz was scanned and maximum emission levels at each frequency recorded. The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for horizontal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

12.4 Test Date

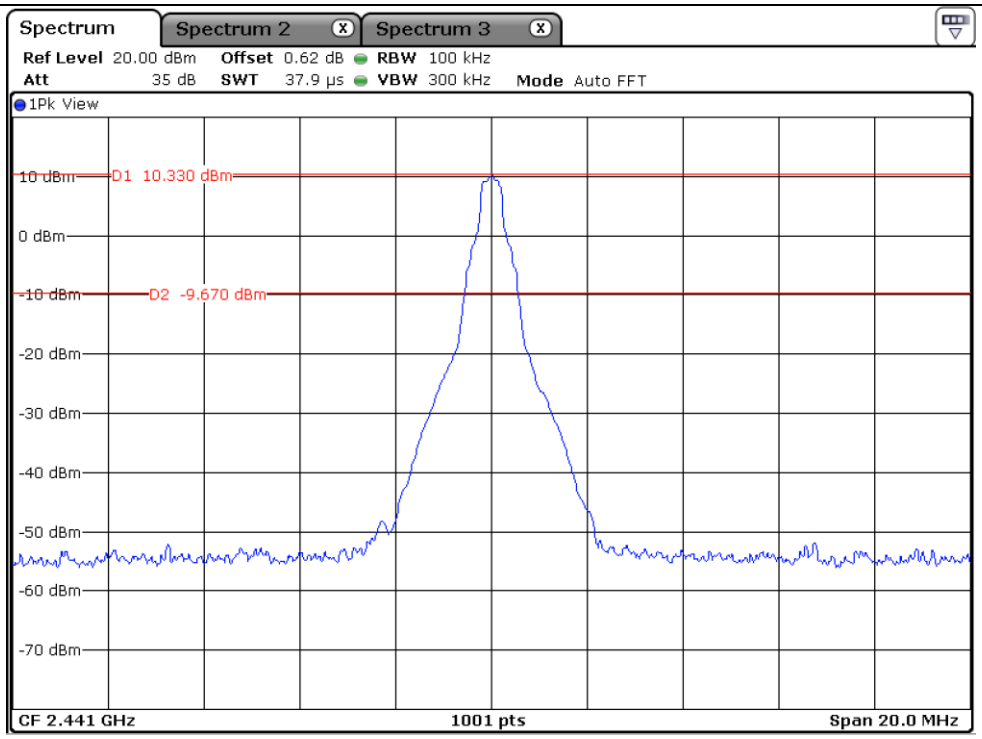
January 10, 2022 ~ January 17, 2022

12.5 Test data for conducted emission (Left Earbud)

12.5.1 Test data for 1 Mbps

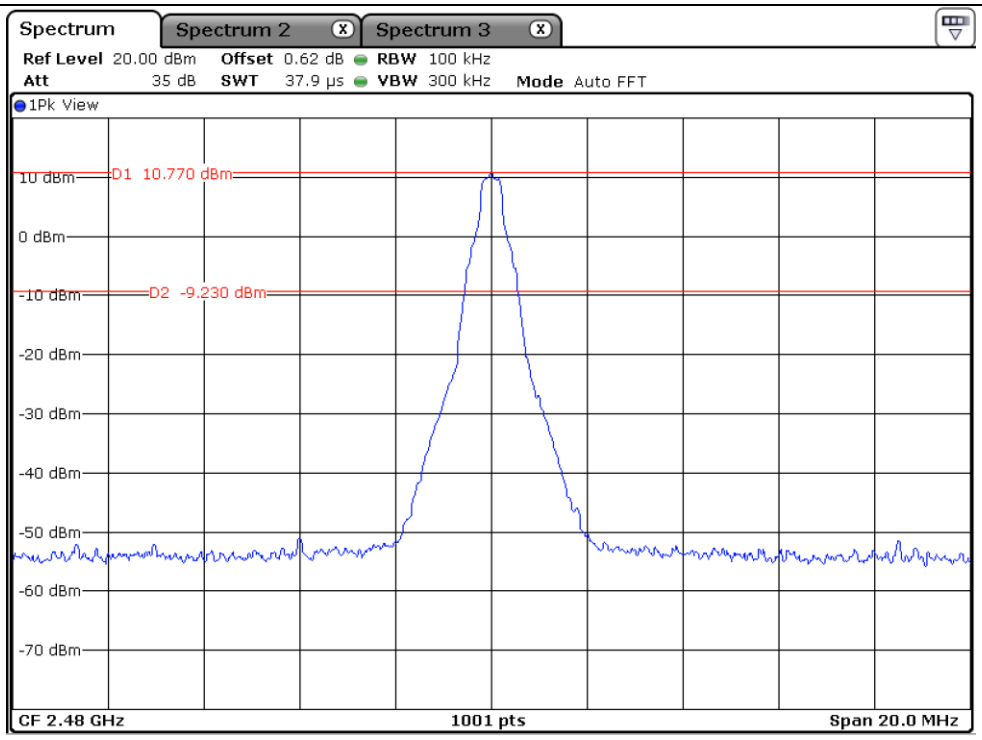


Low Channel

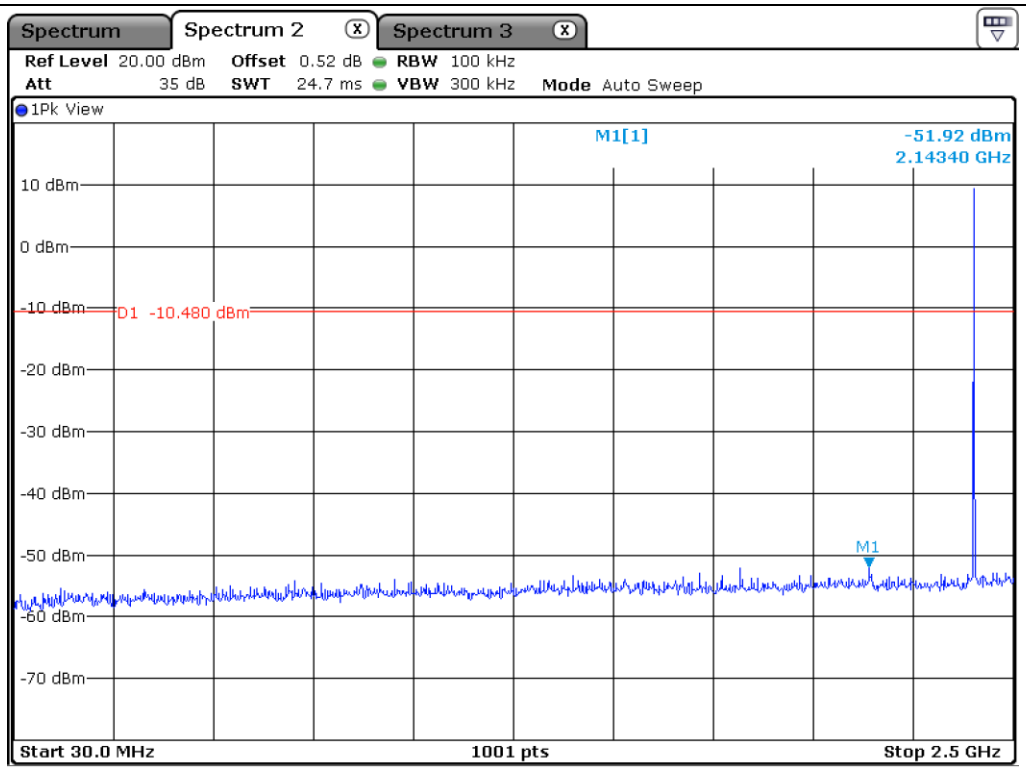


Middle Channel

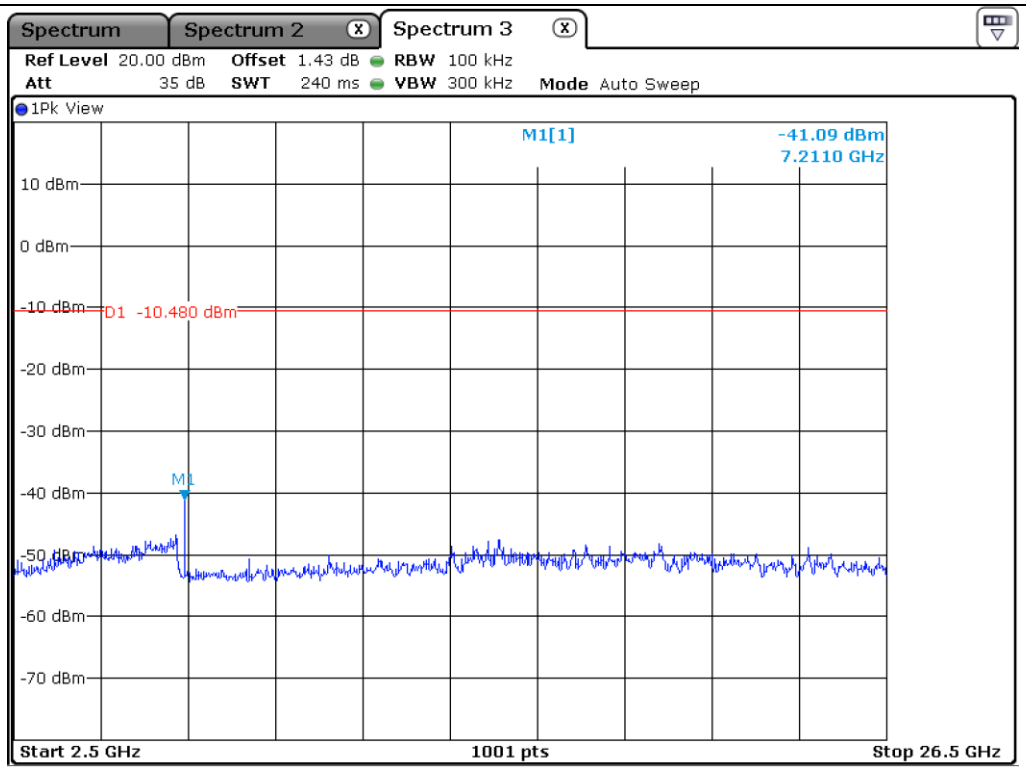
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



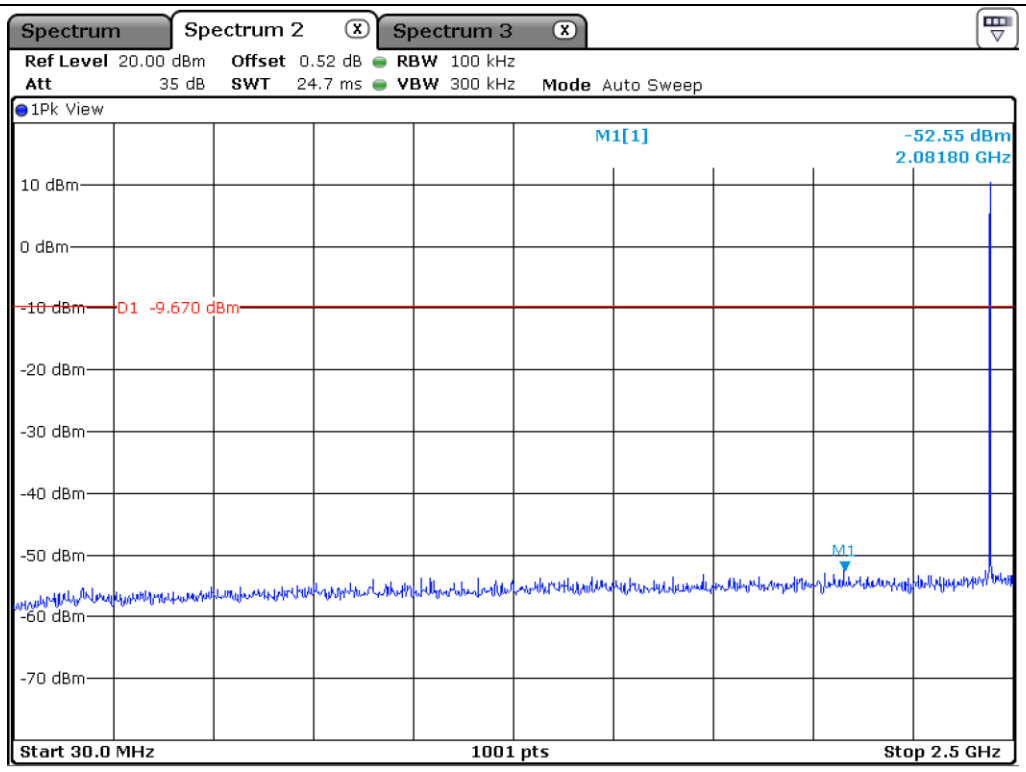
High Channel



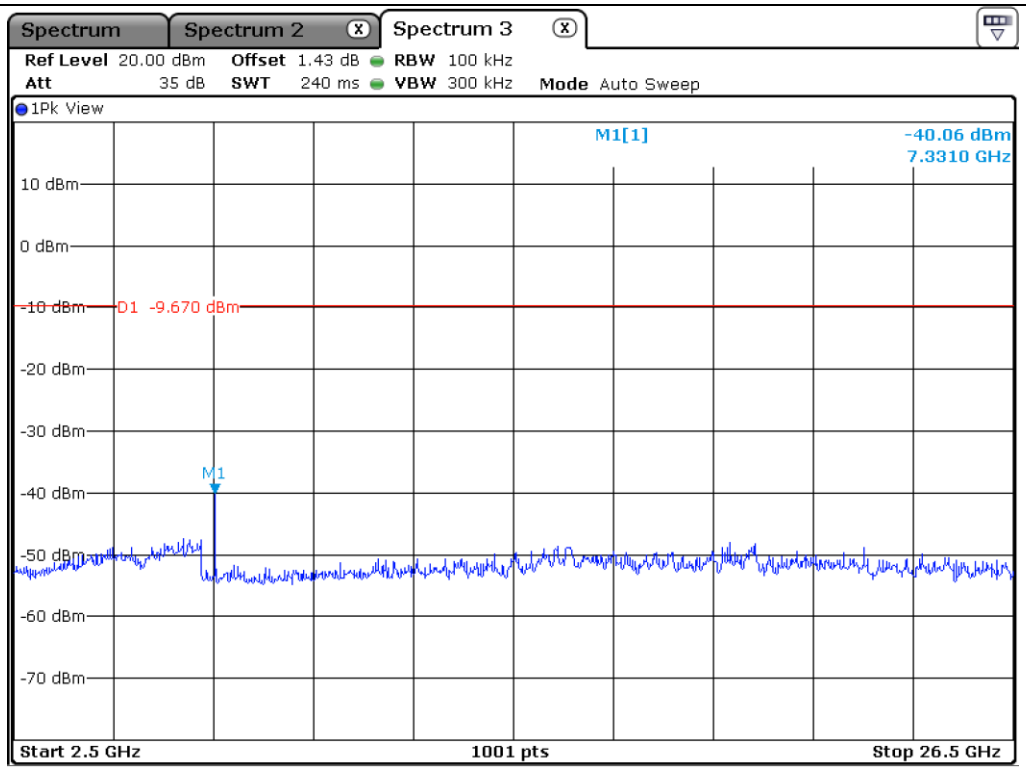
Low Channel



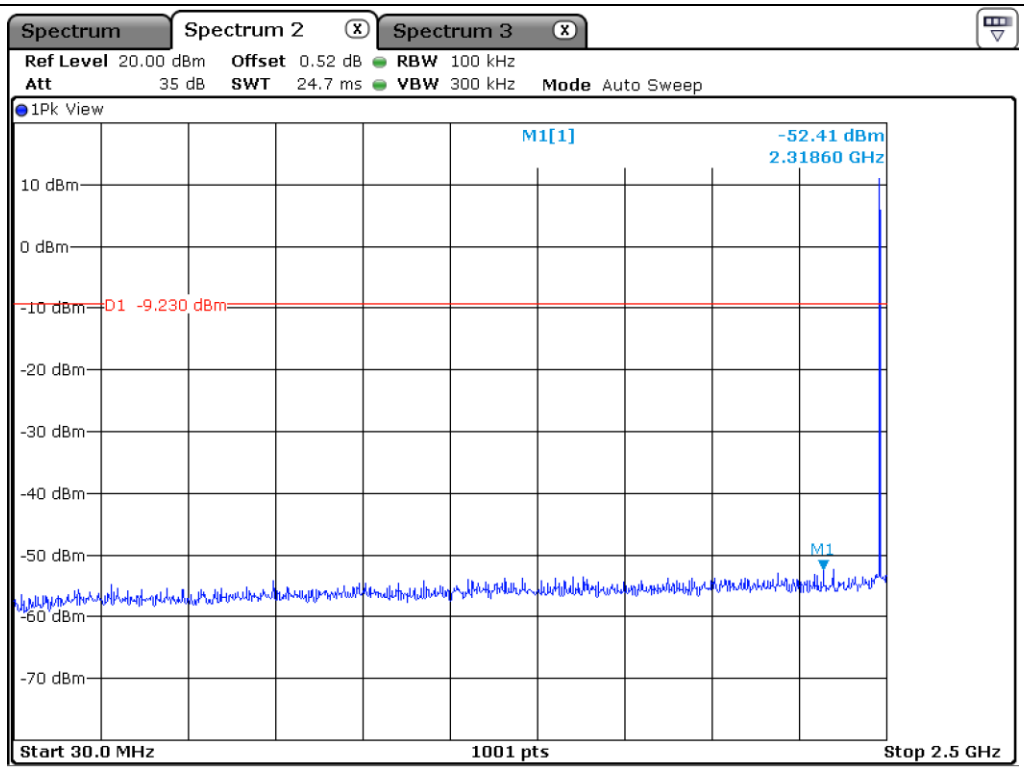
Low Channel



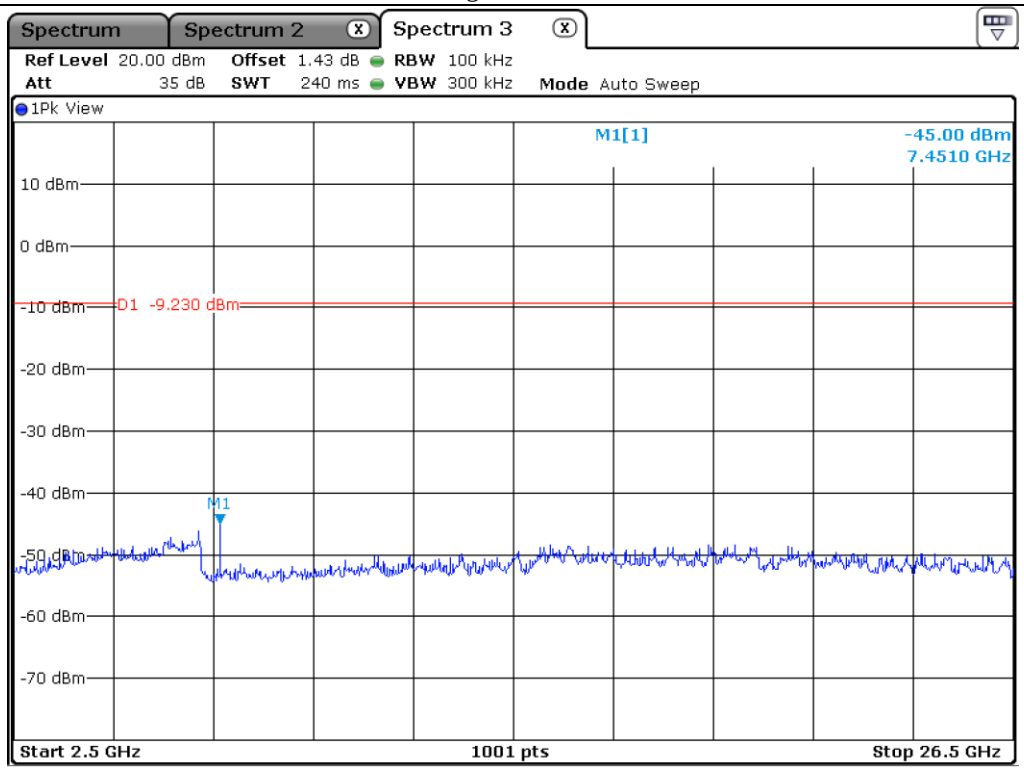
Middle Channel



Middle Channel

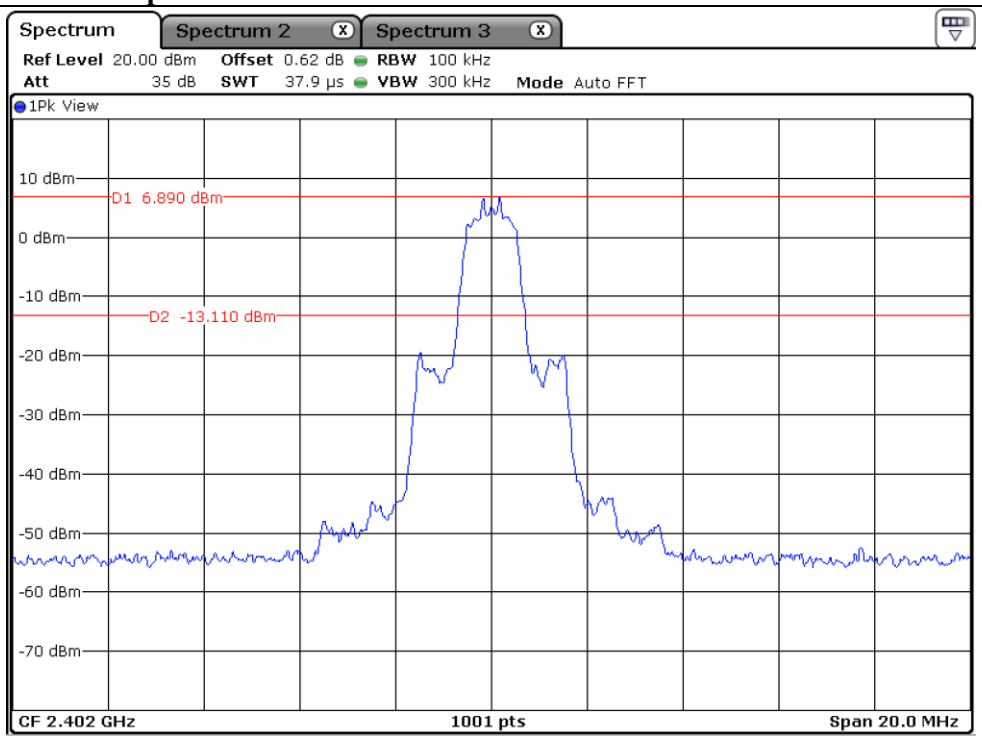


High Channel

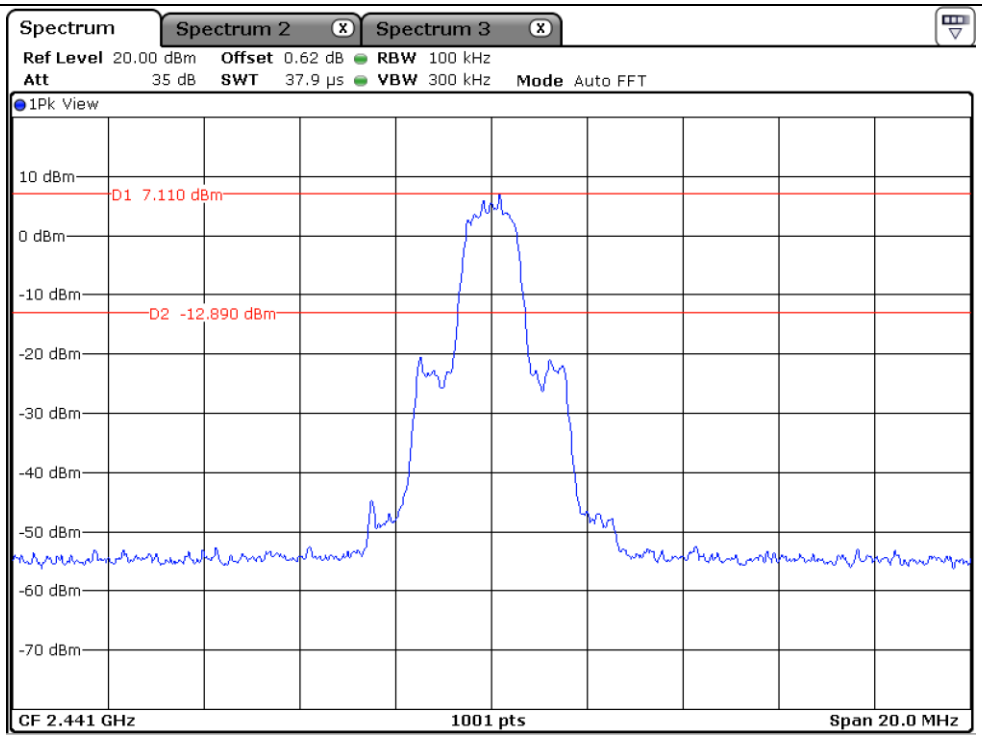


High Channel

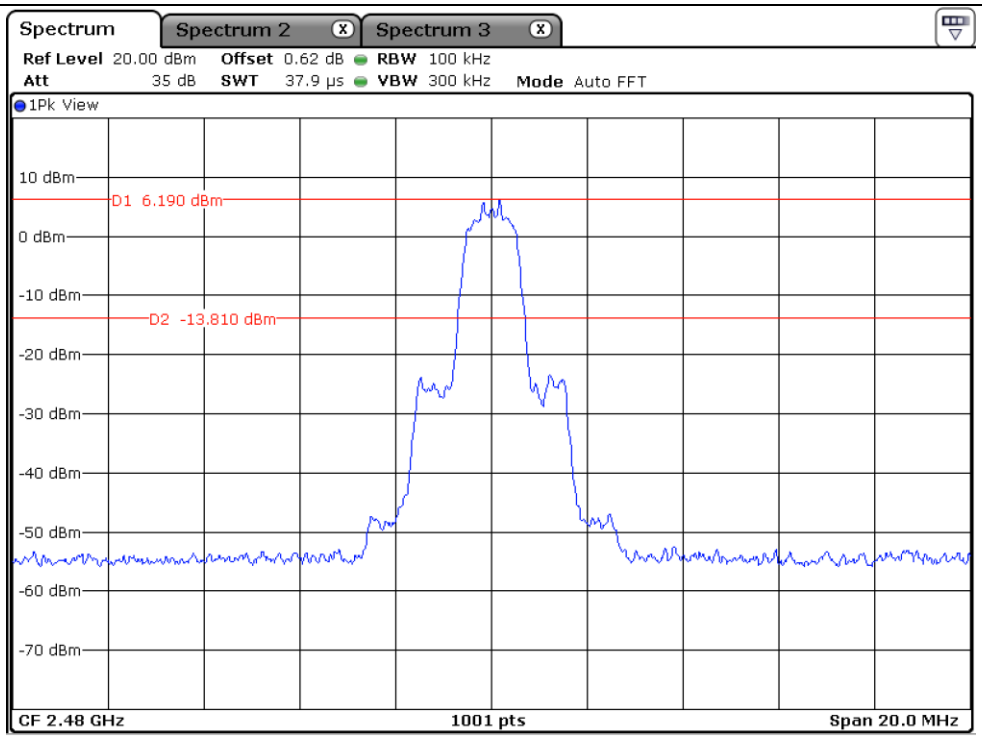
12.5.2 Test data for 2 Mbps



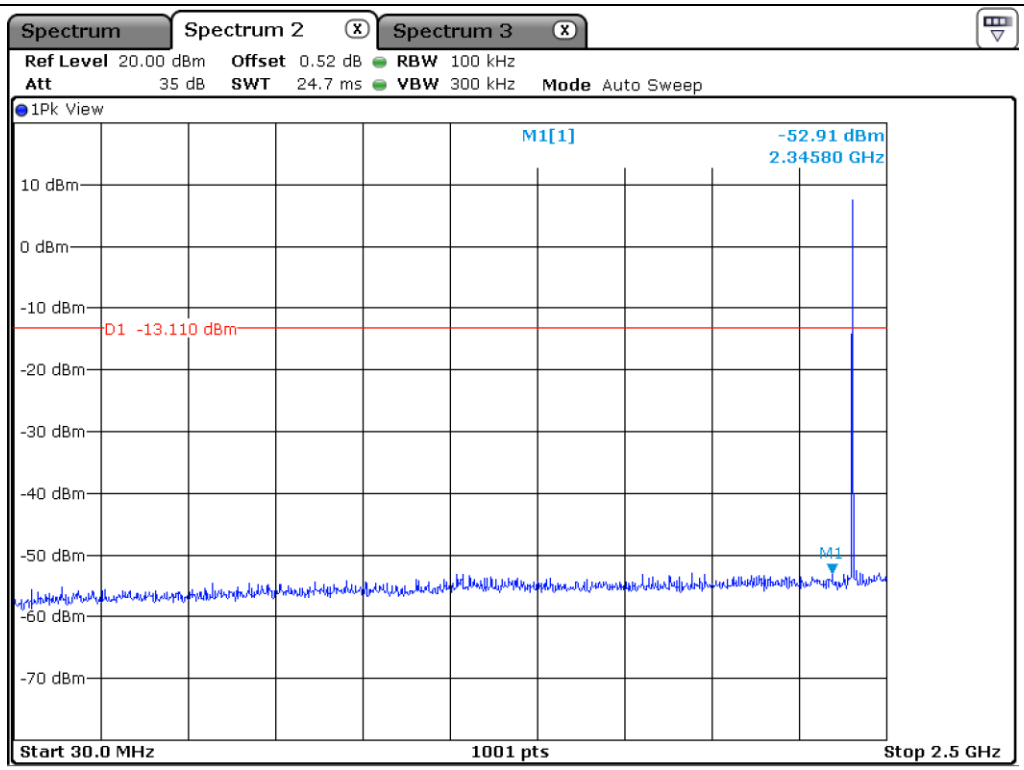
Low Channel



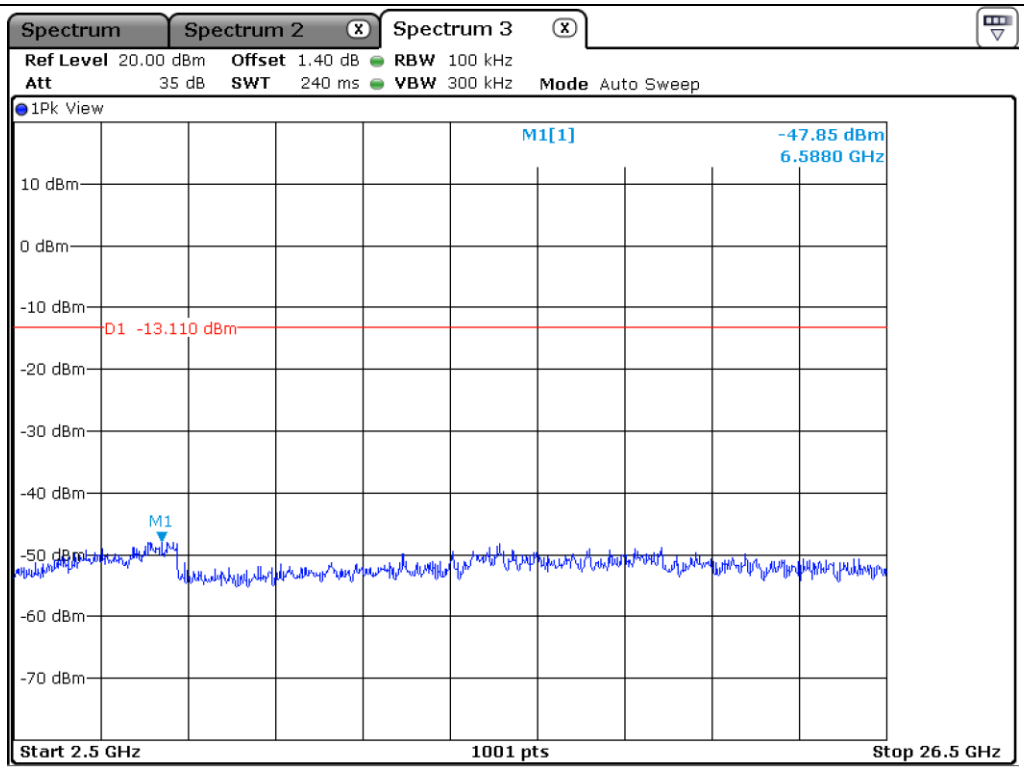
Middle Channel



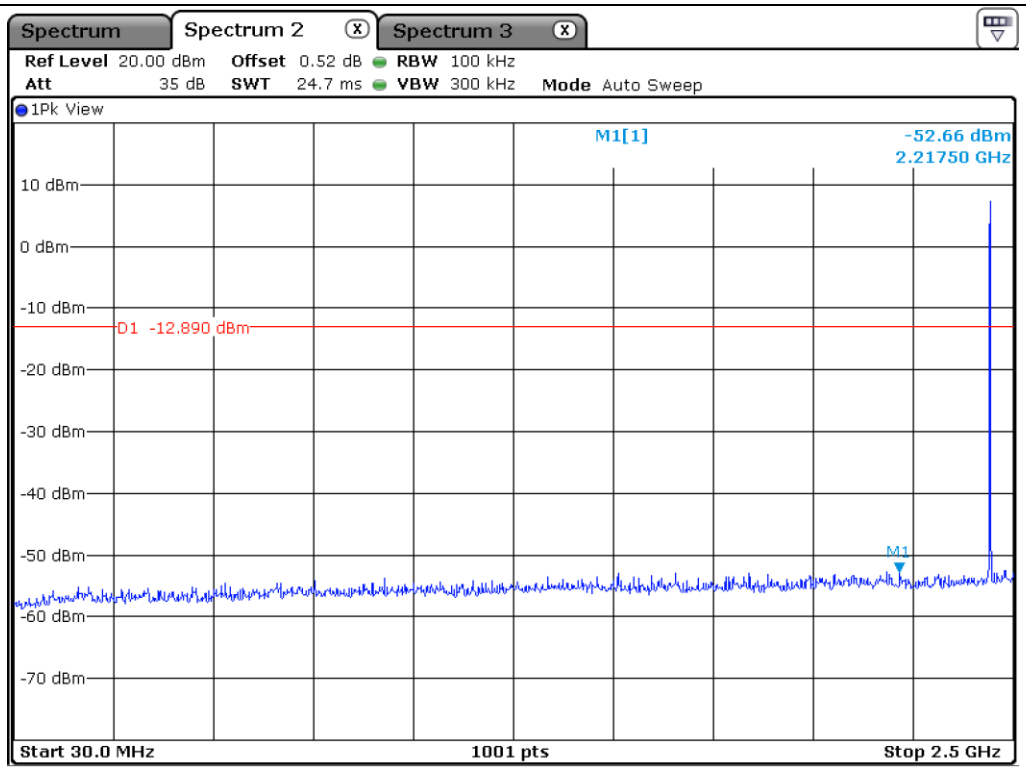
High Channel



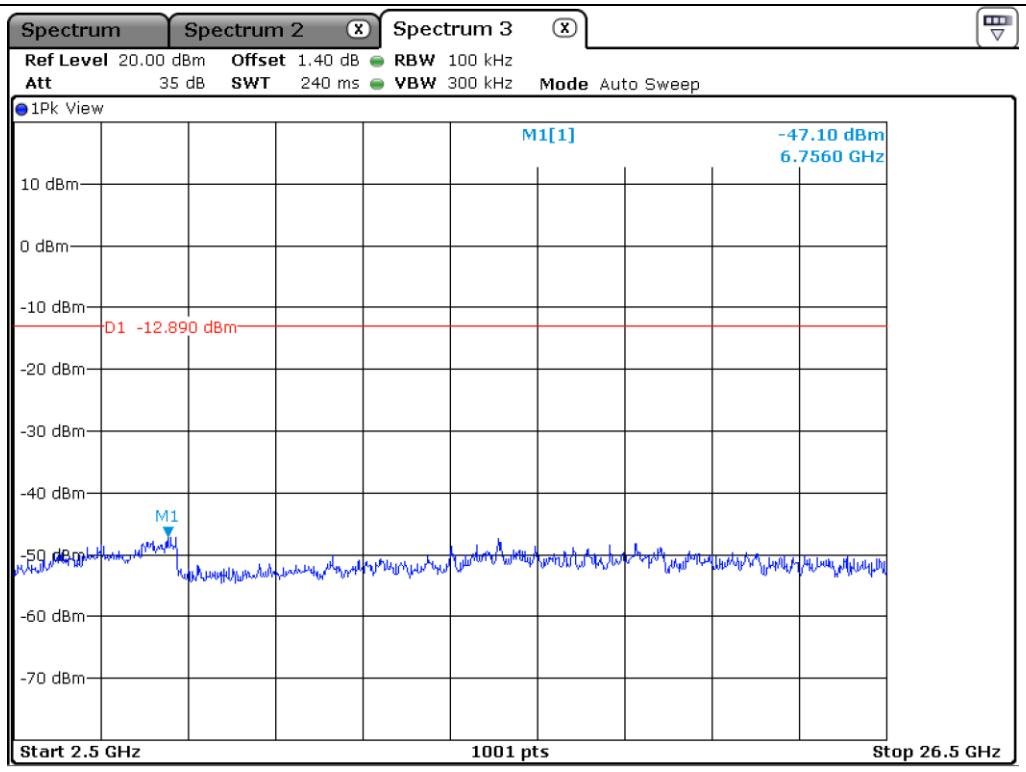
Low Channel



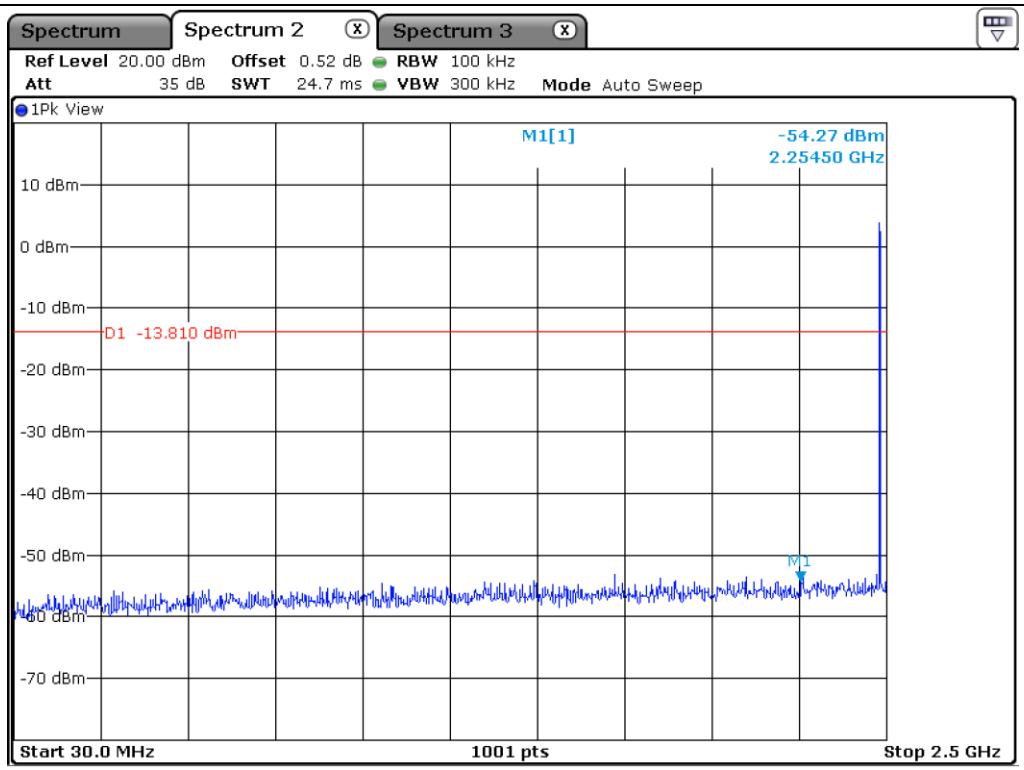
Low Channel



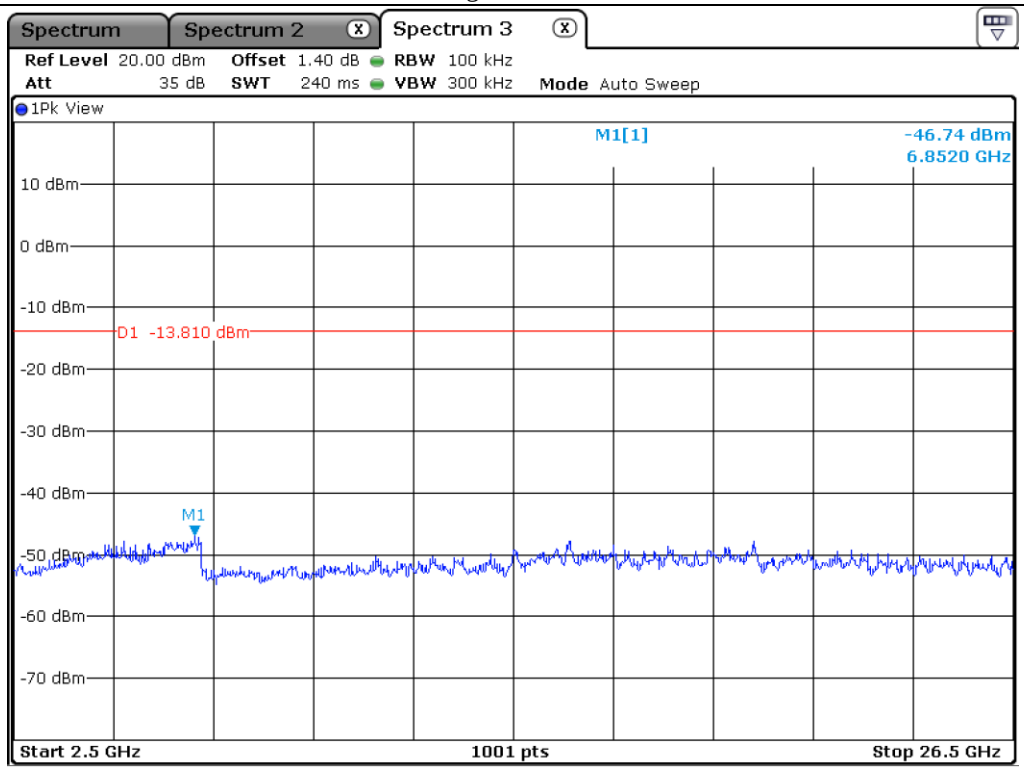
Middle Channel



Middle Channel

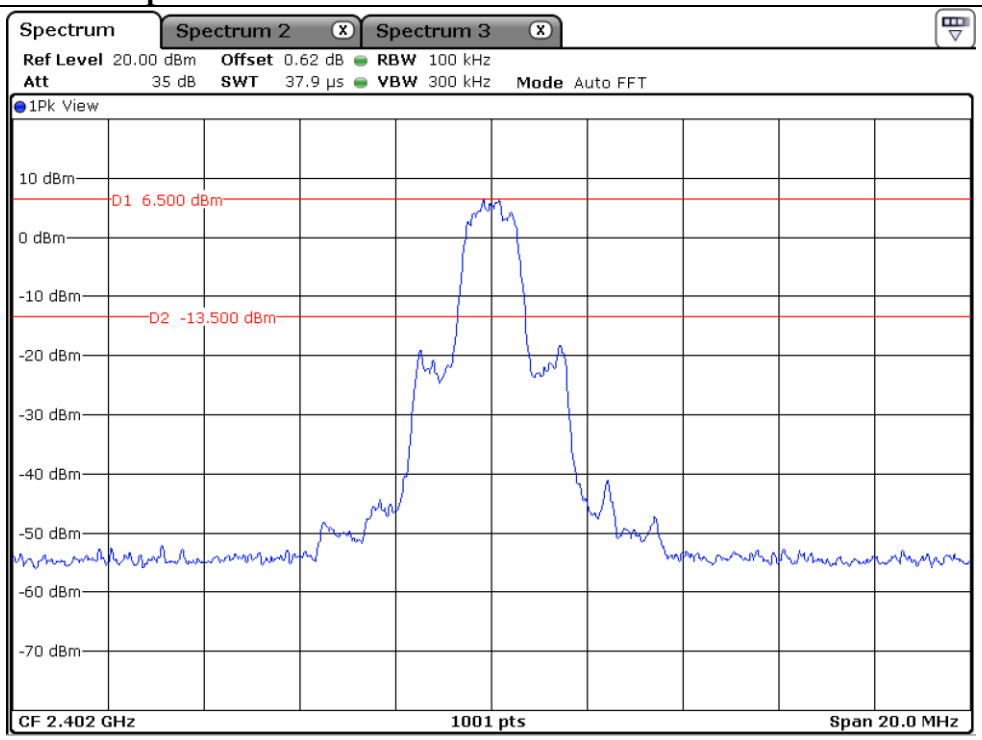


High Channel

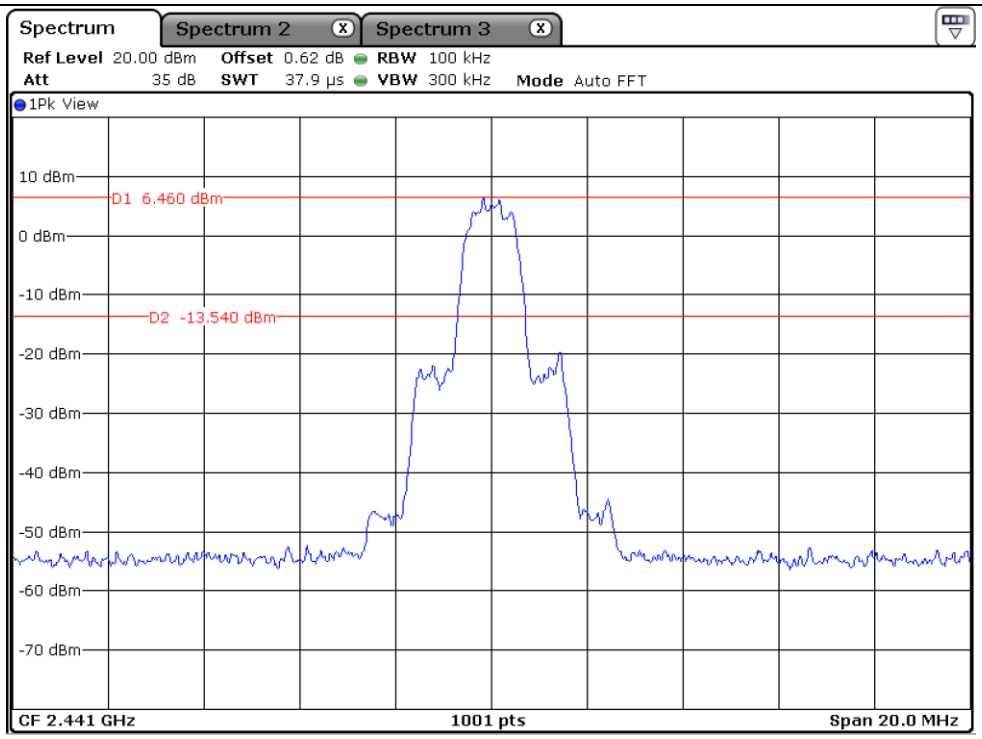


High Channel

12.5.3 Test data for 3 Mbps

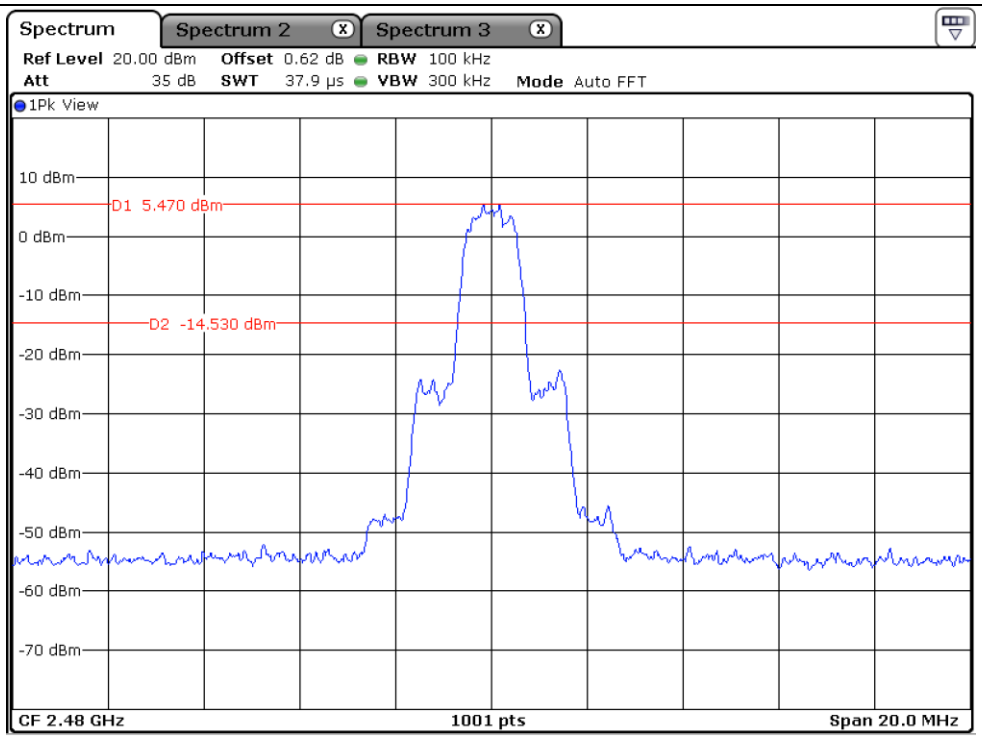


Low Channel

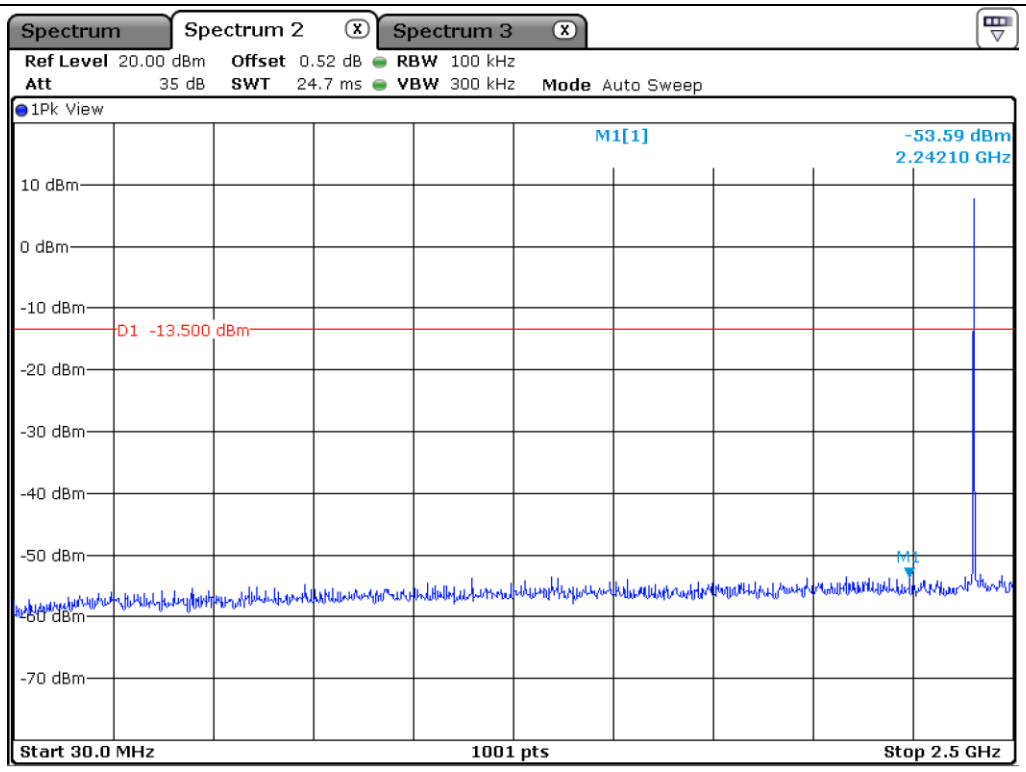


Middle Channel

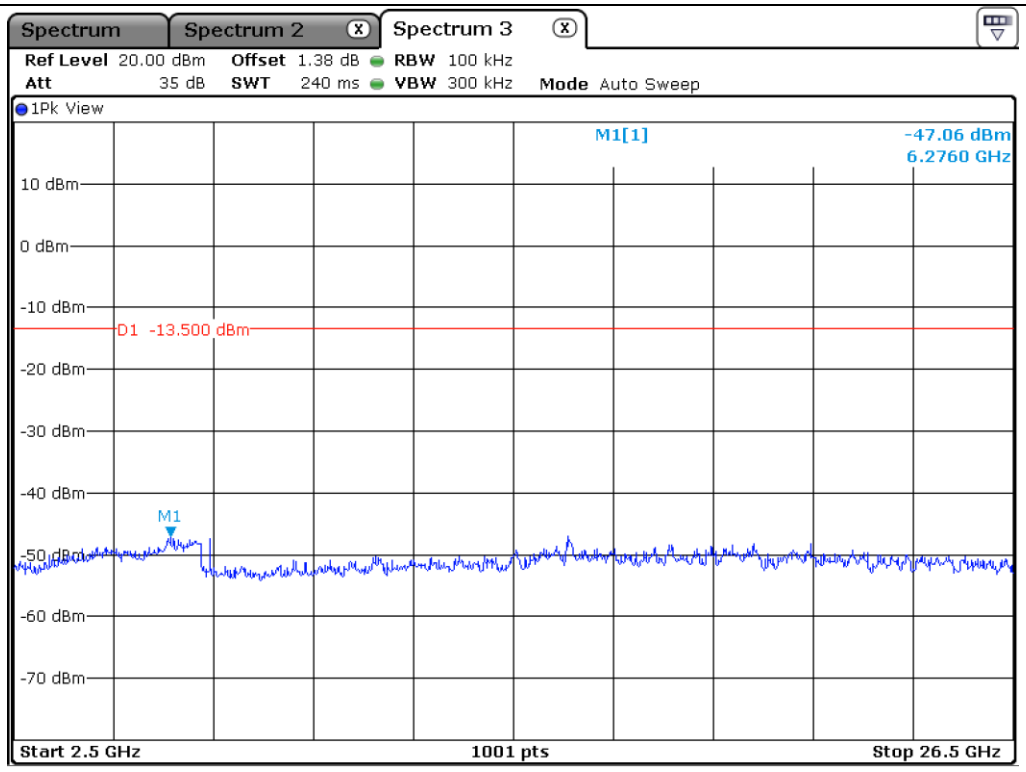
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



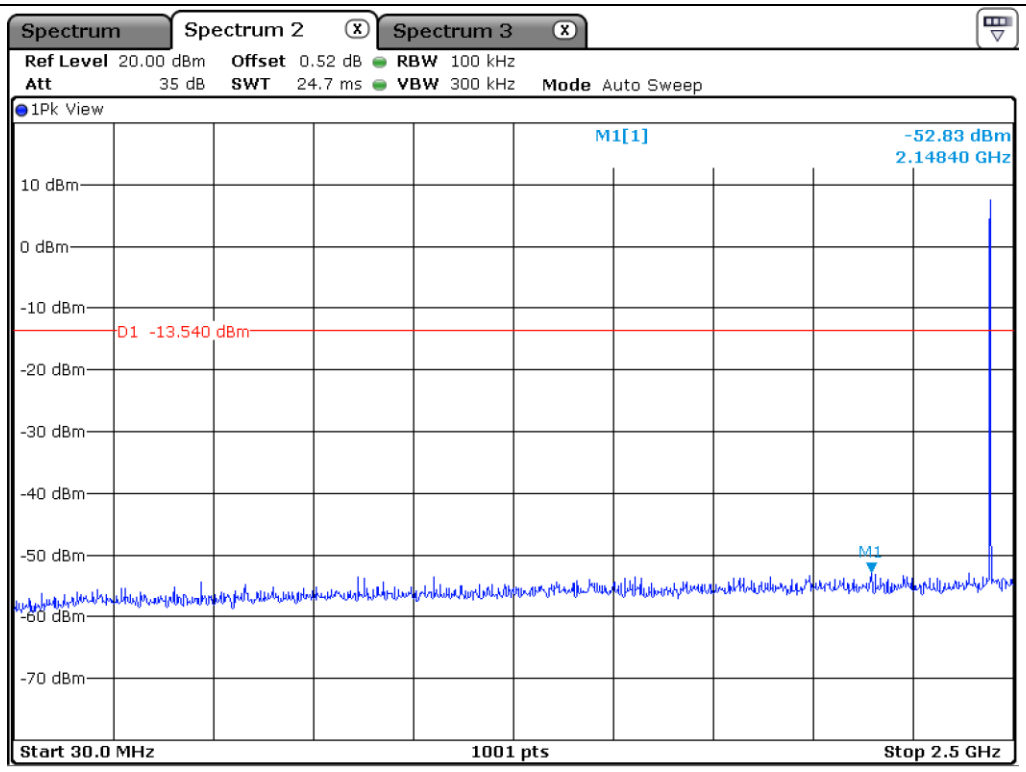
High Channel



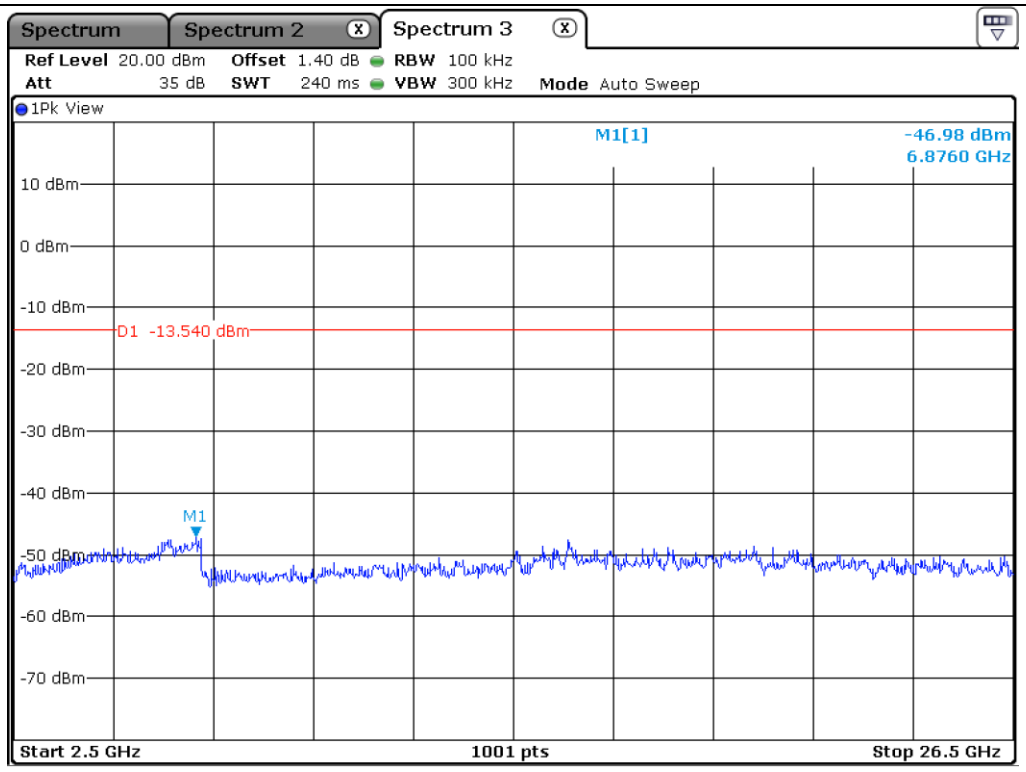
Low Channel



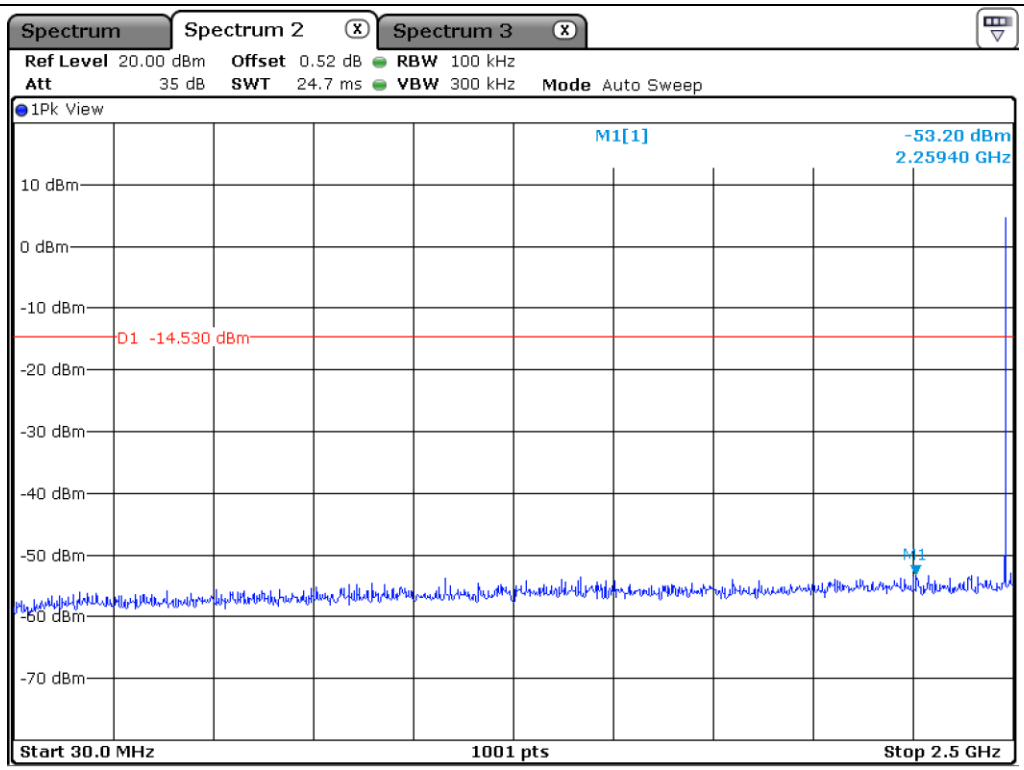
Low Channel



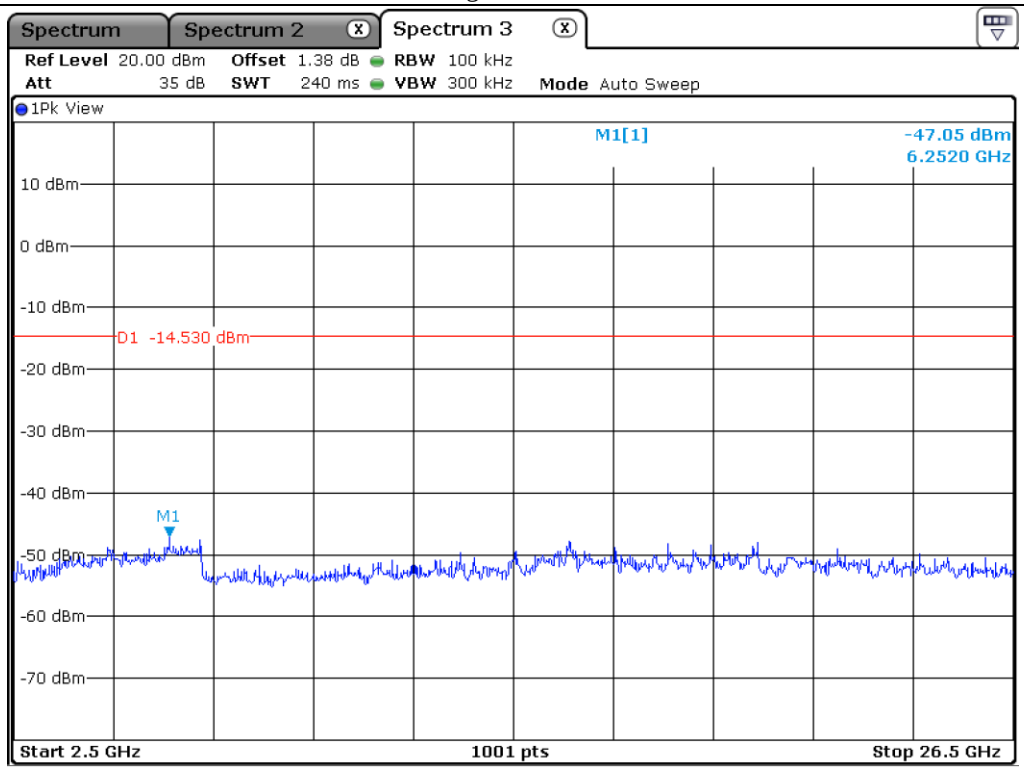
Middle Channel



Middle Channel



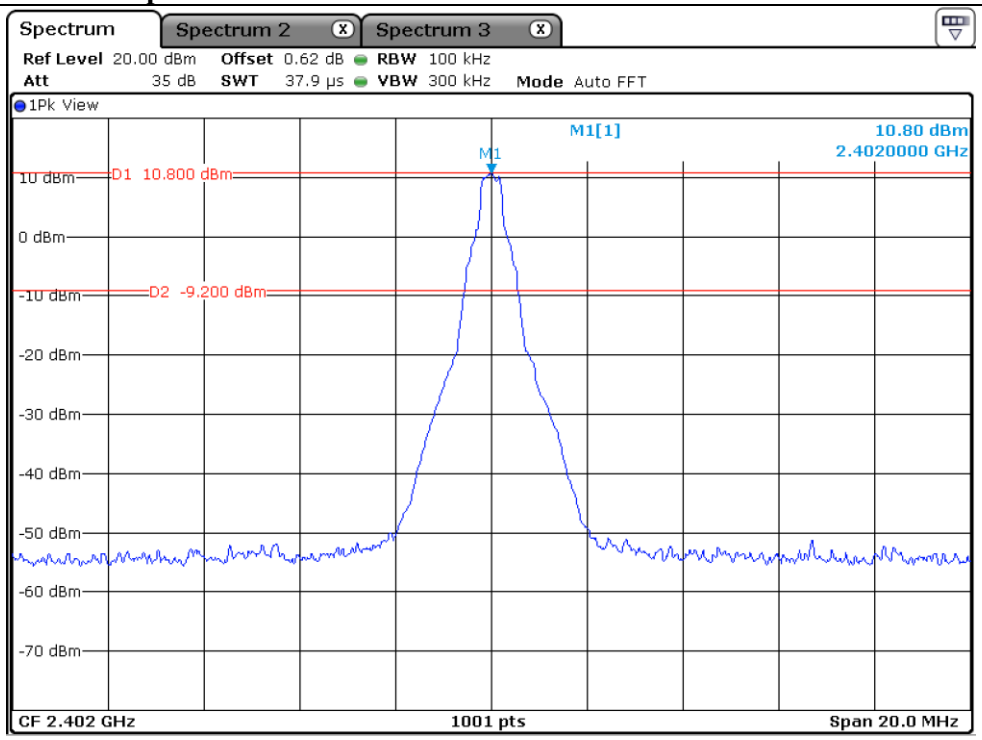
High Channel



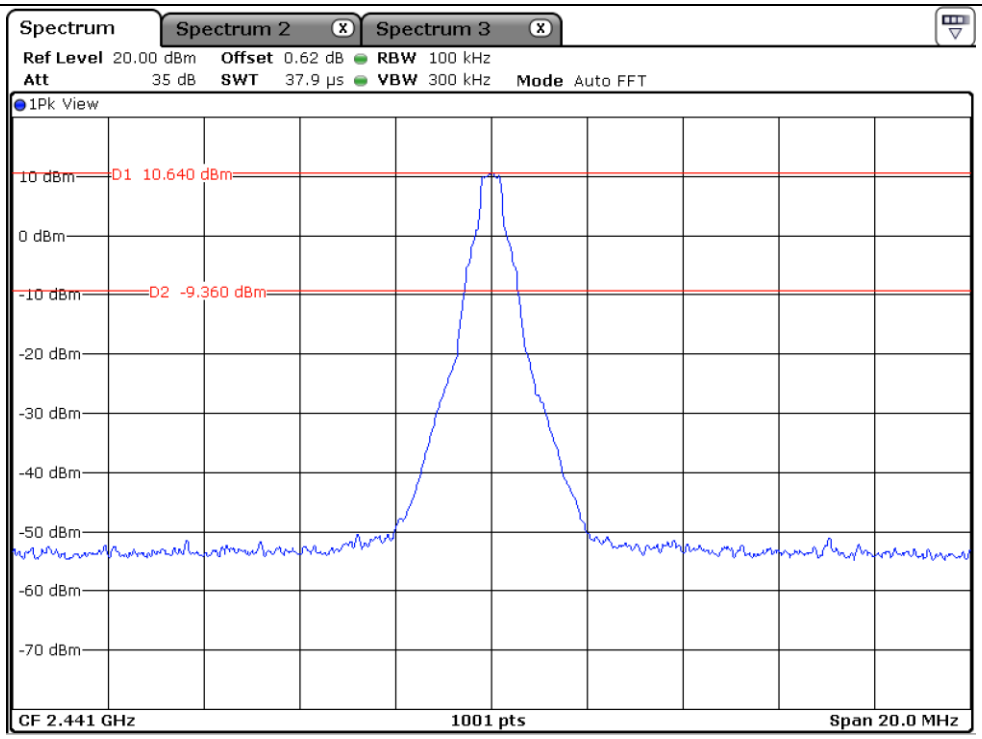
High Channel

12.6 Test data for conducted emission (Right Earbud)

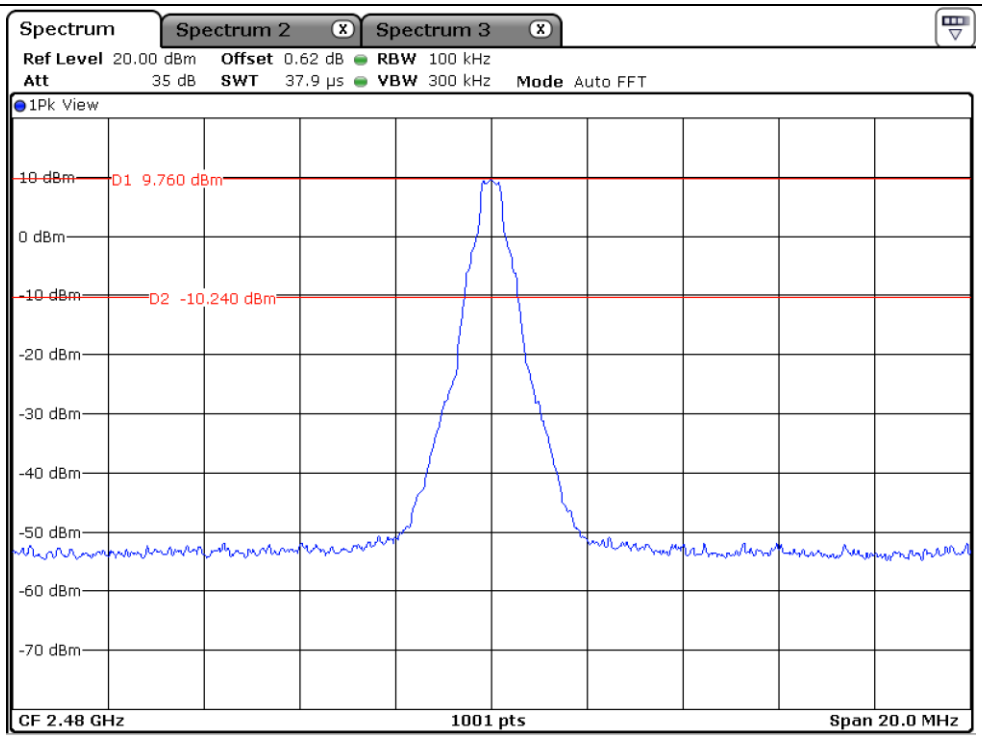
12.6.1 Test data for 1 Mbps



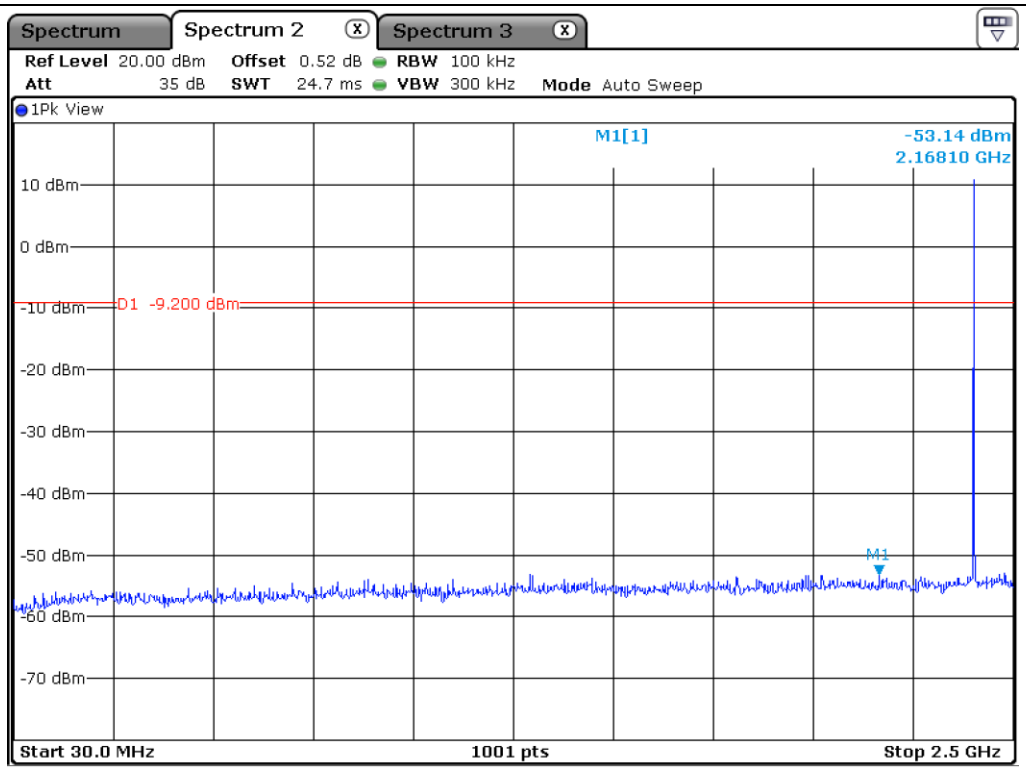
Low Channel



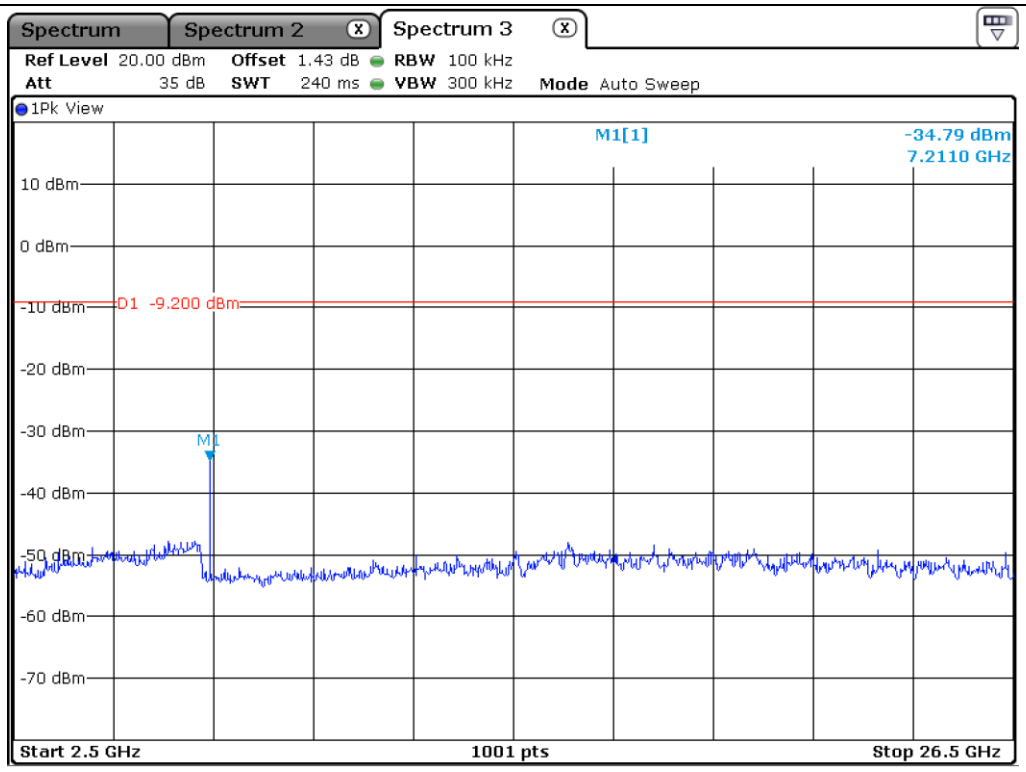
Middle Channel



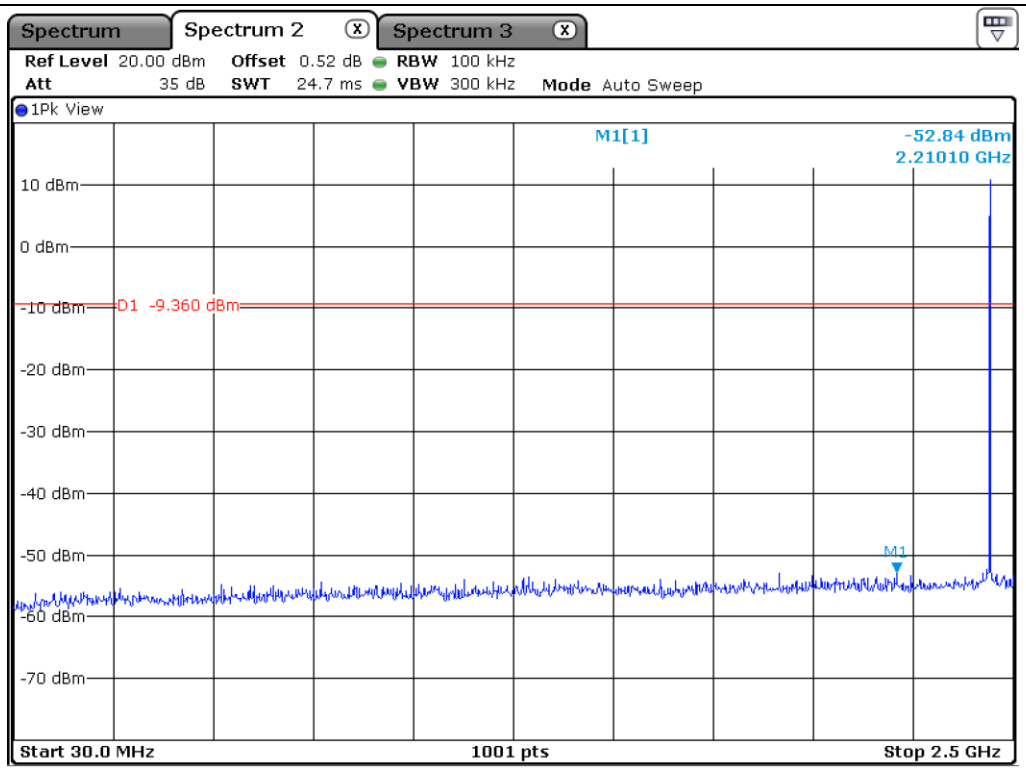
High Channel



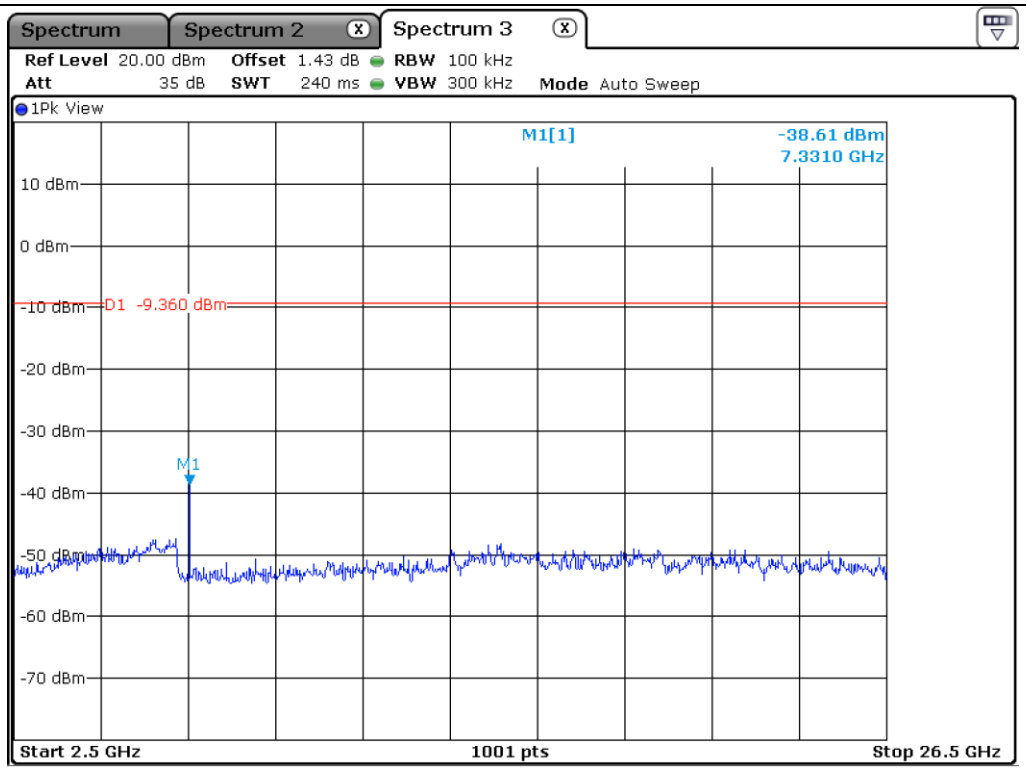
Low Channel



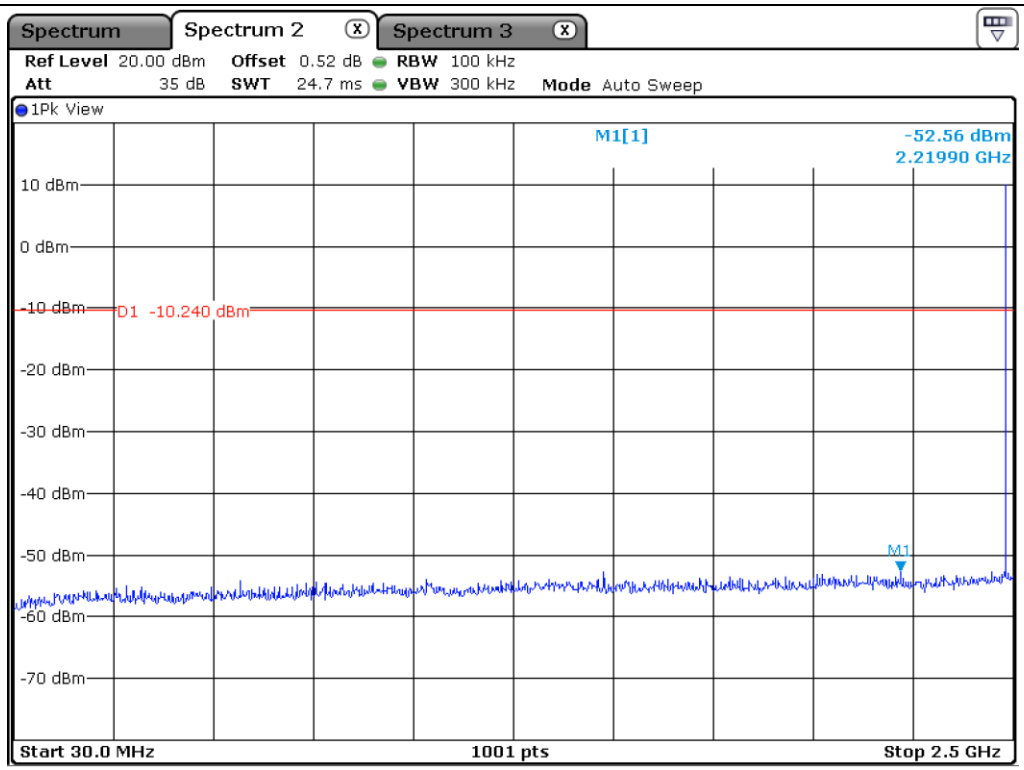
Low Channel



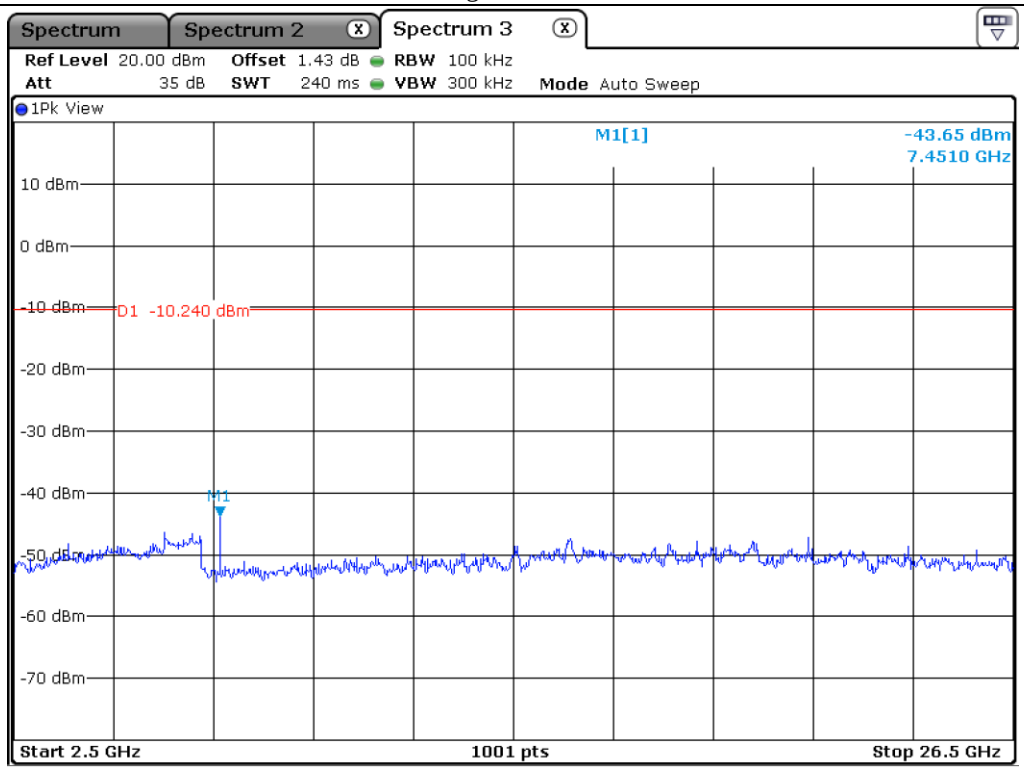
Middle Channel



Middle Channel



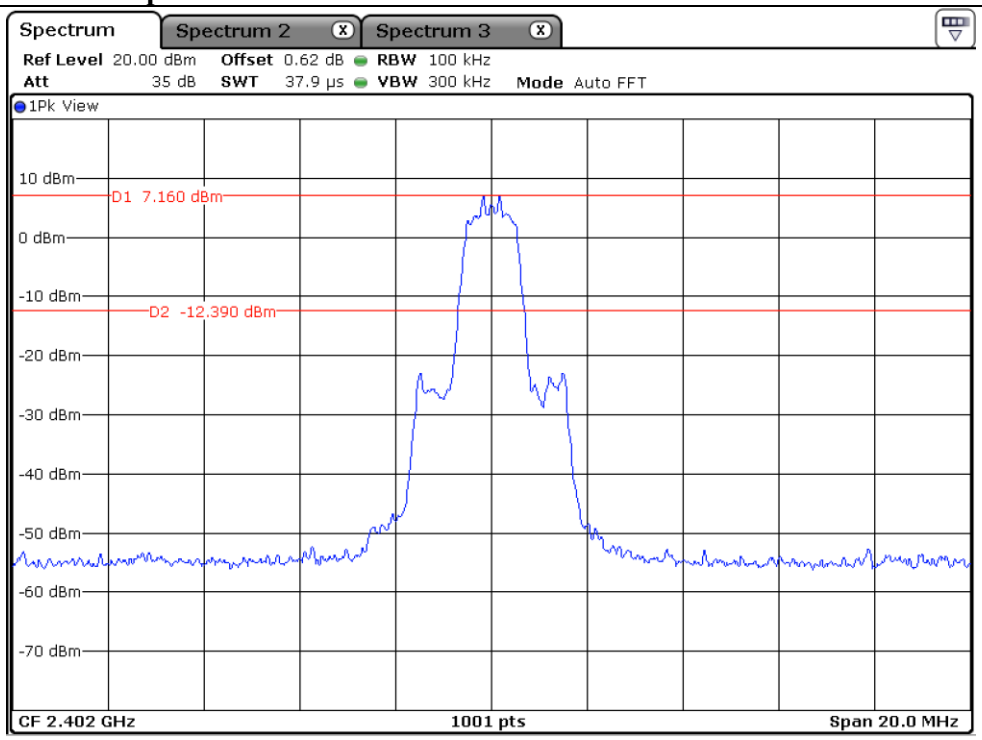
High Channel



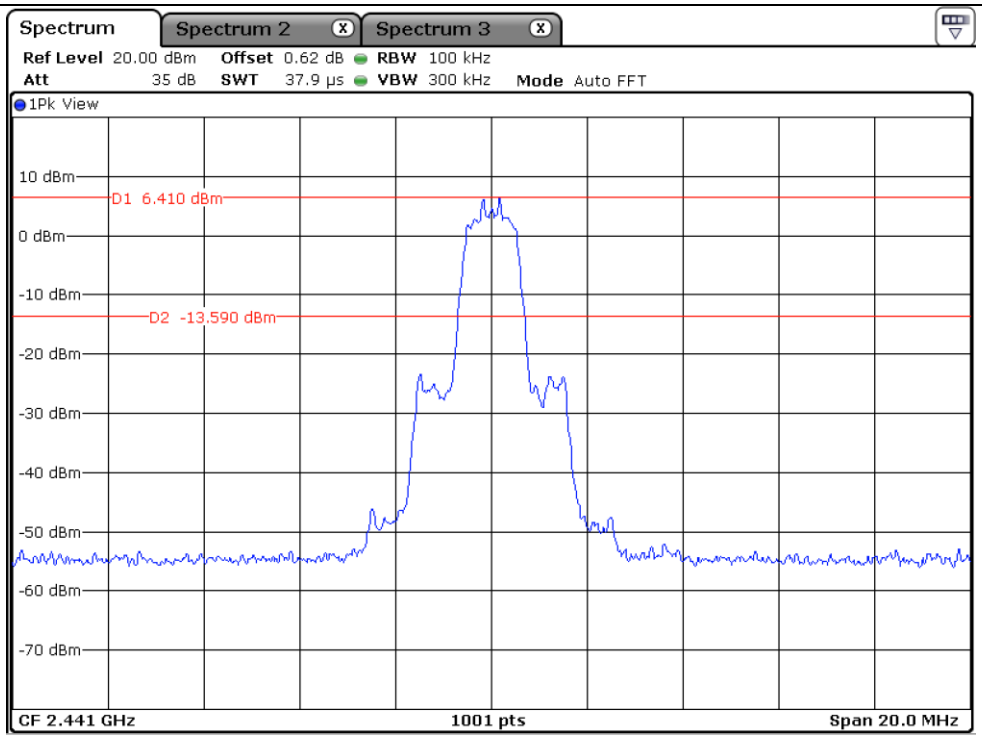
High Channel

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

12.6.2 Test data for 2 Mbps

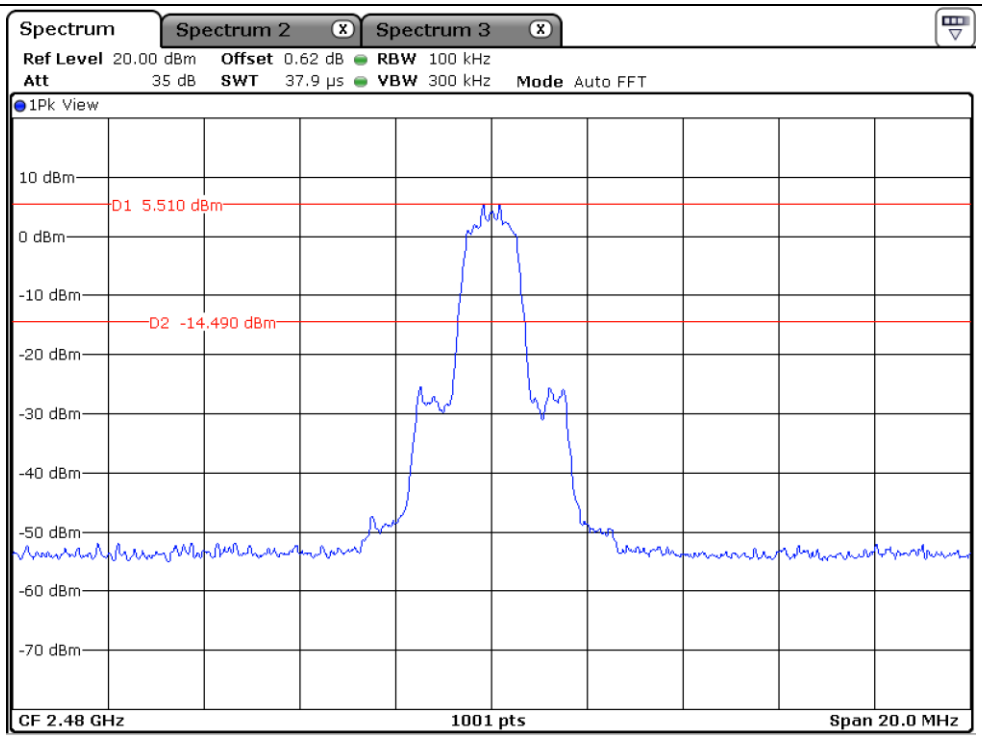


Low Channel

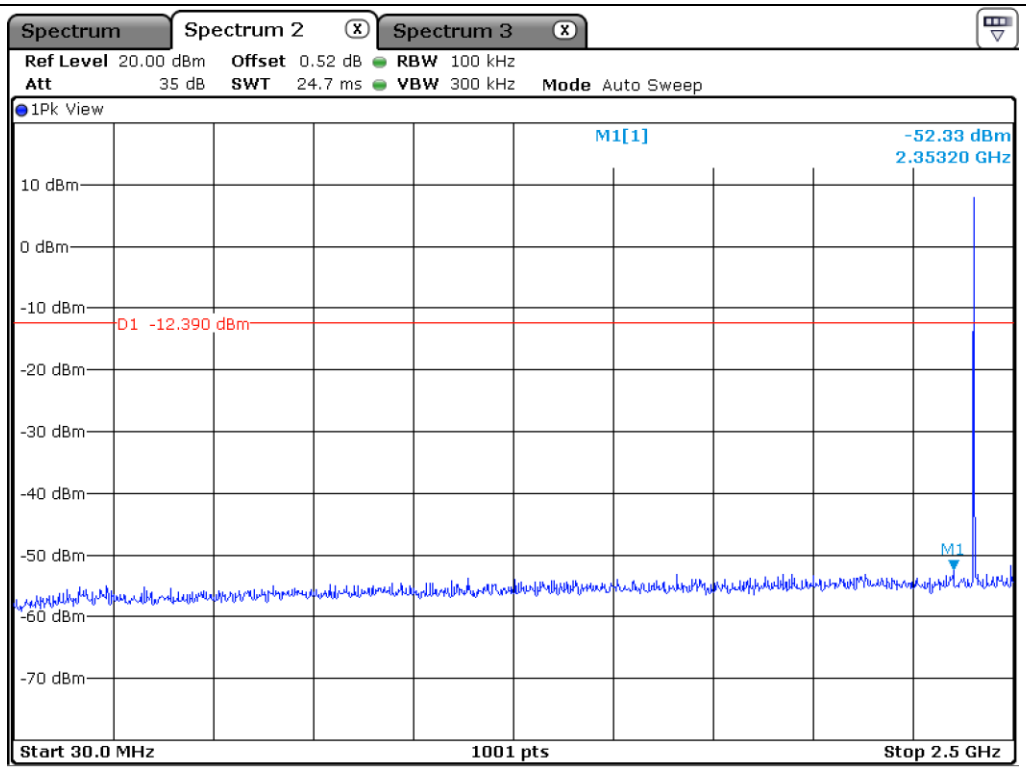


Middle Channel

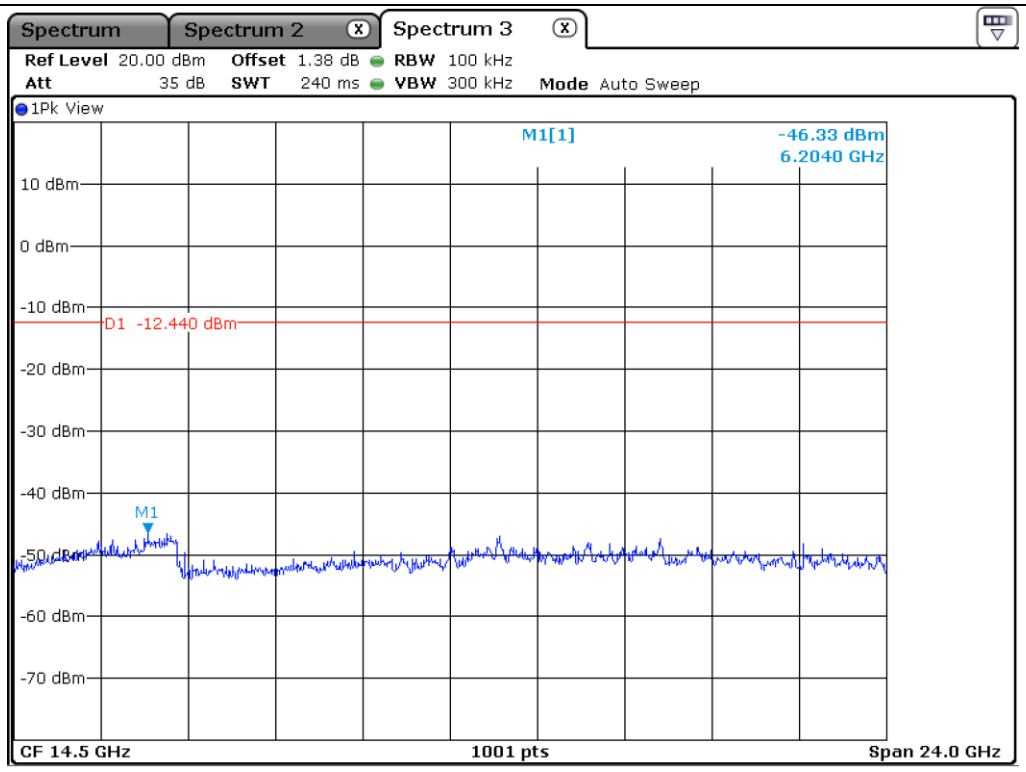
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



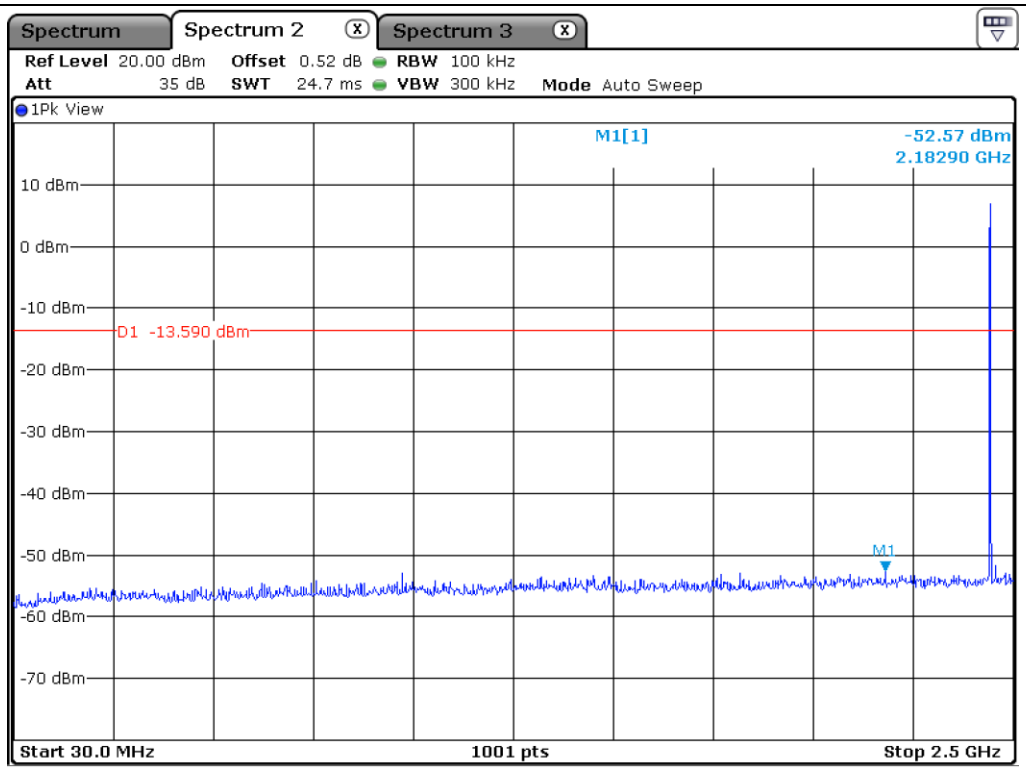
High Channel



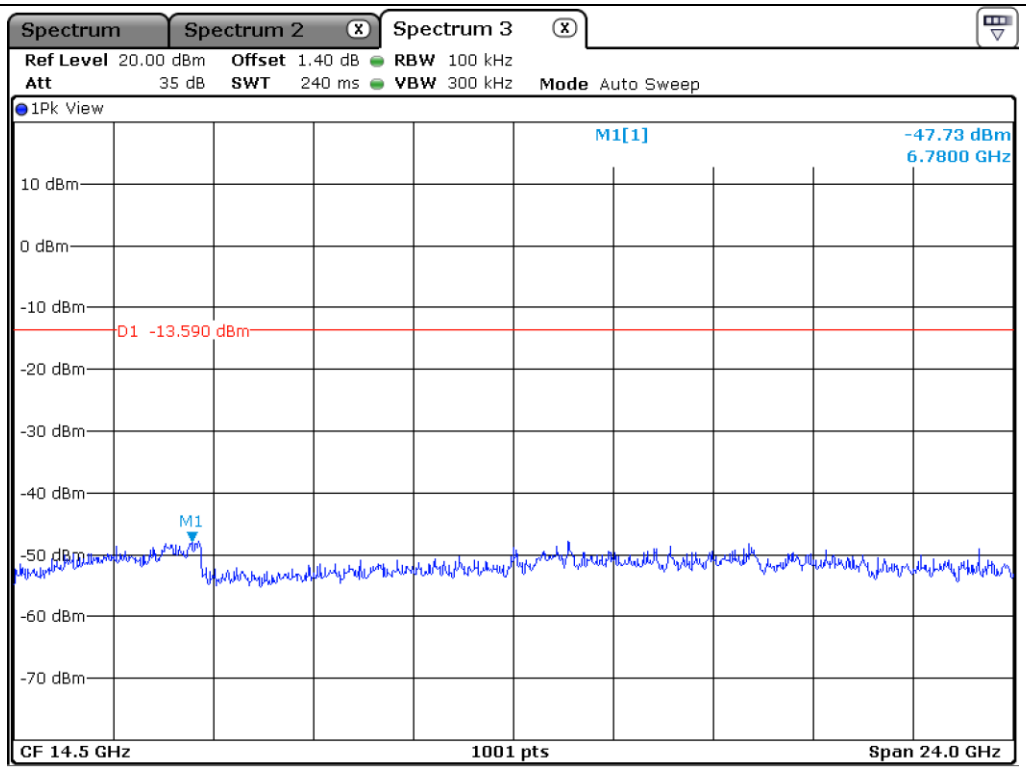
Low Channel



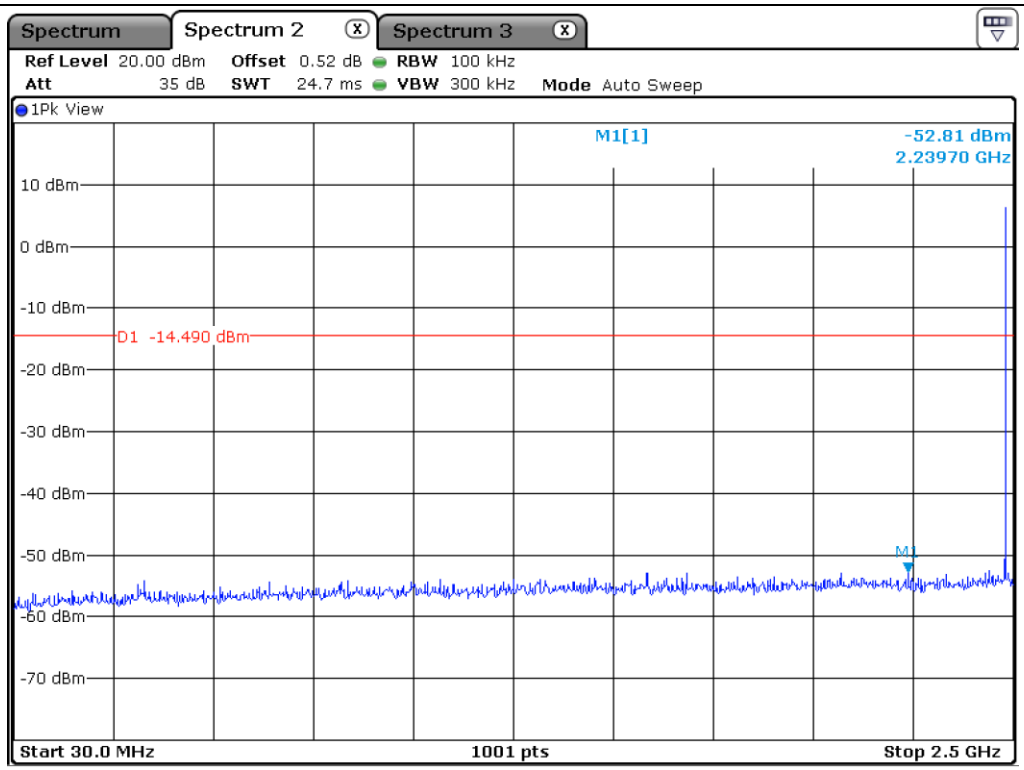
Low Channel



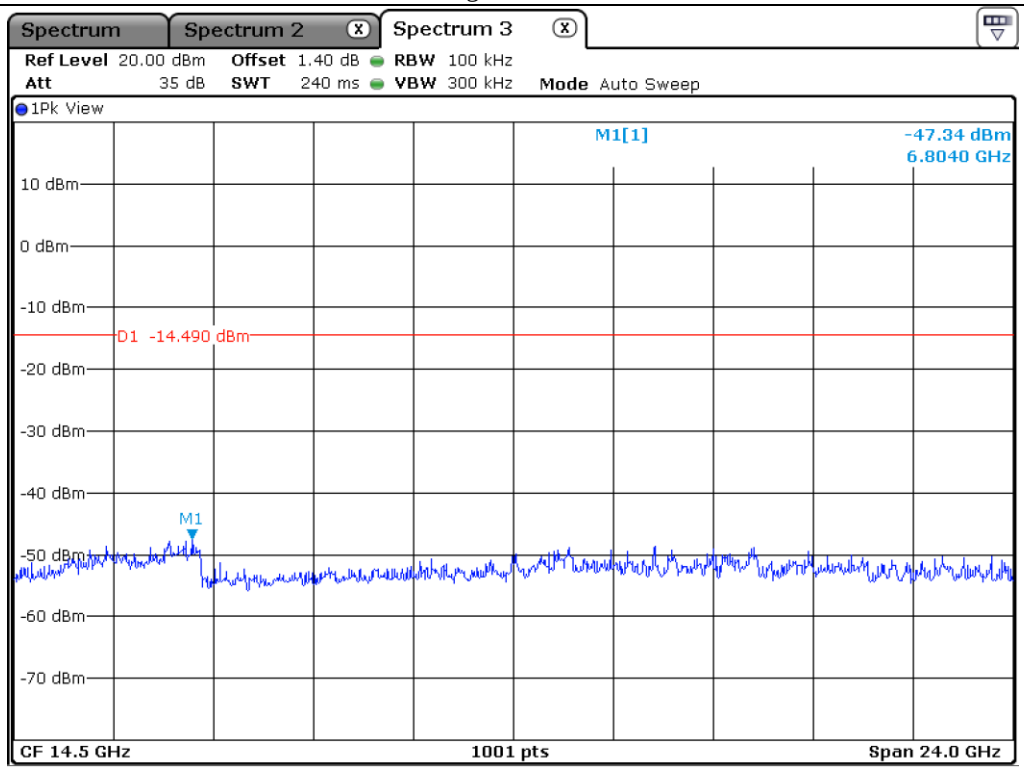
Middle Channel



Middle Channel

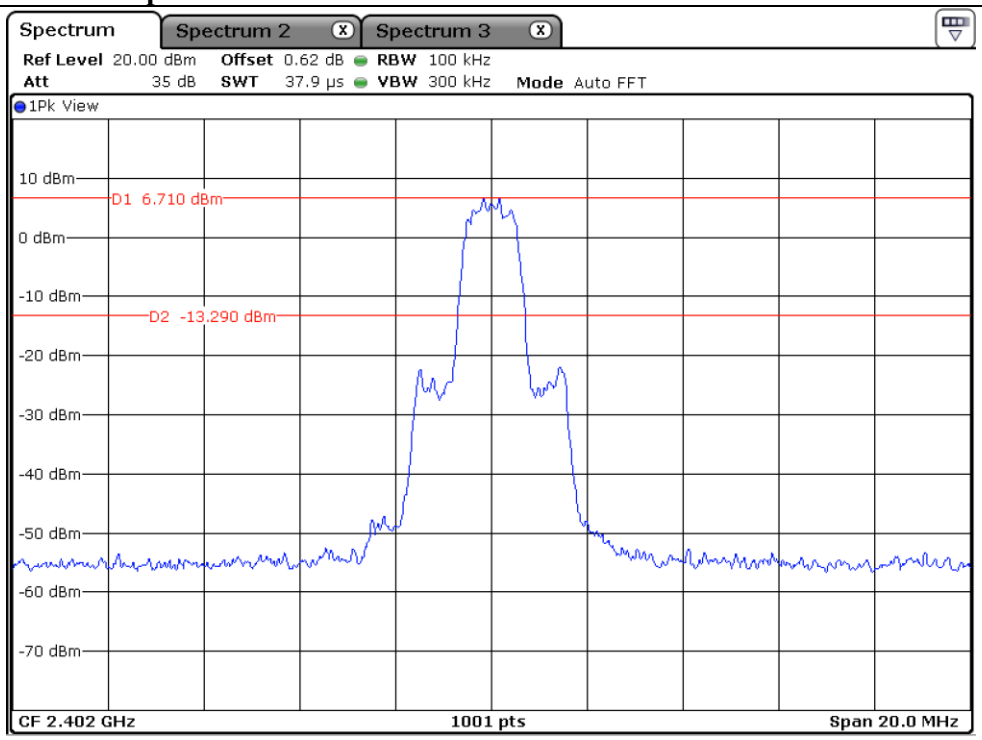


High Channel

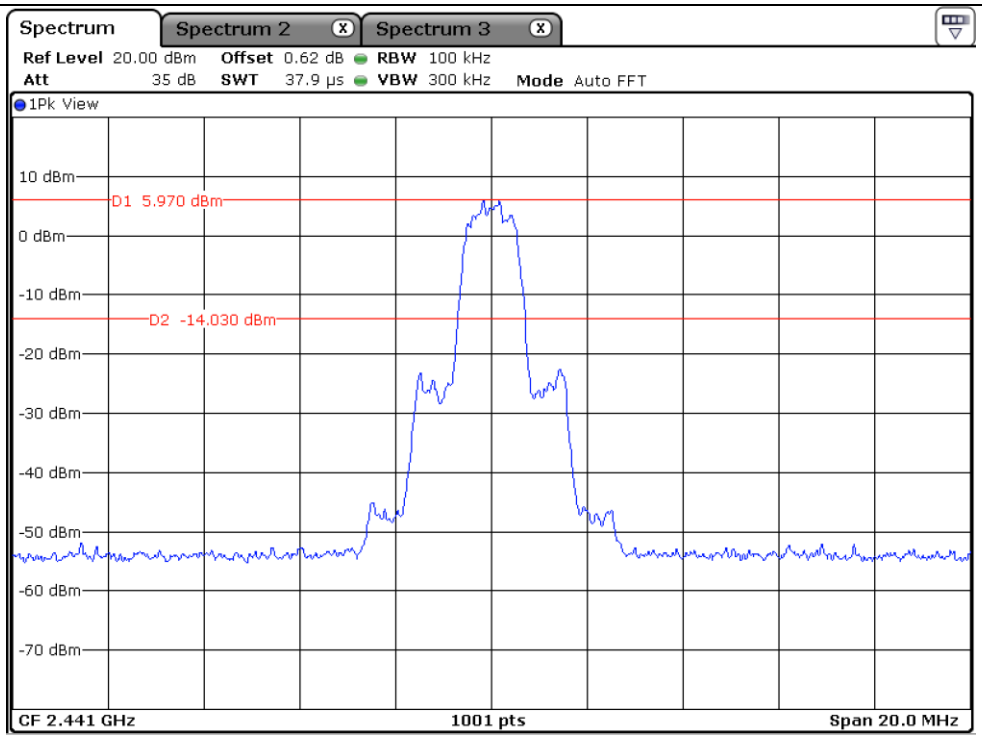


High Channel

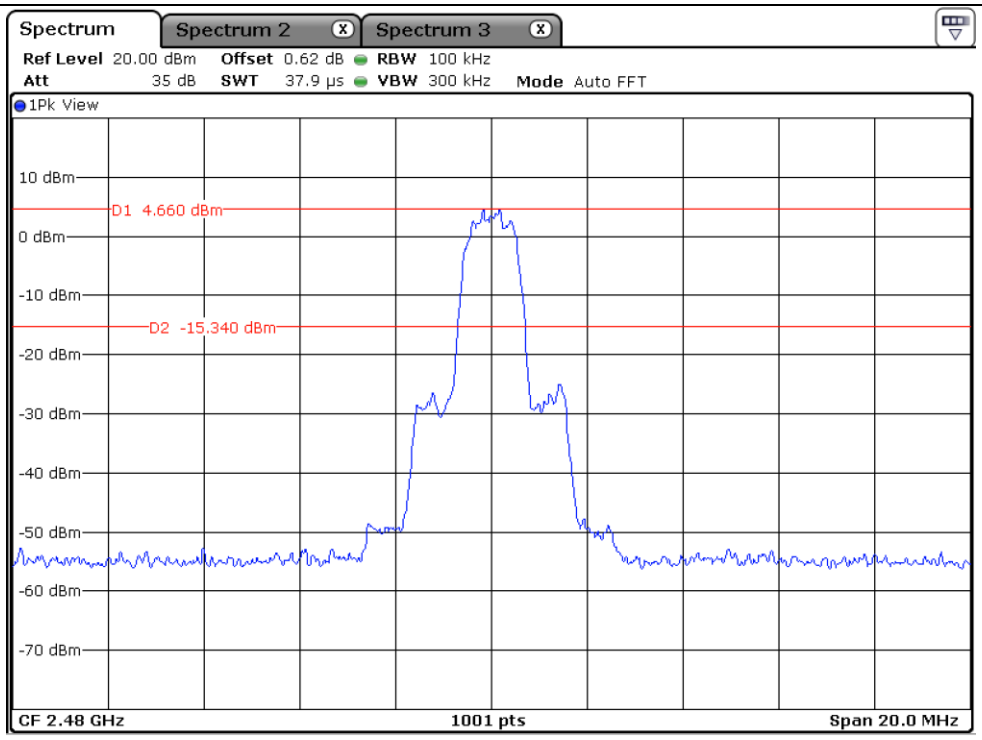
12.6.3 Test data for 3 Mbps



Low Channel

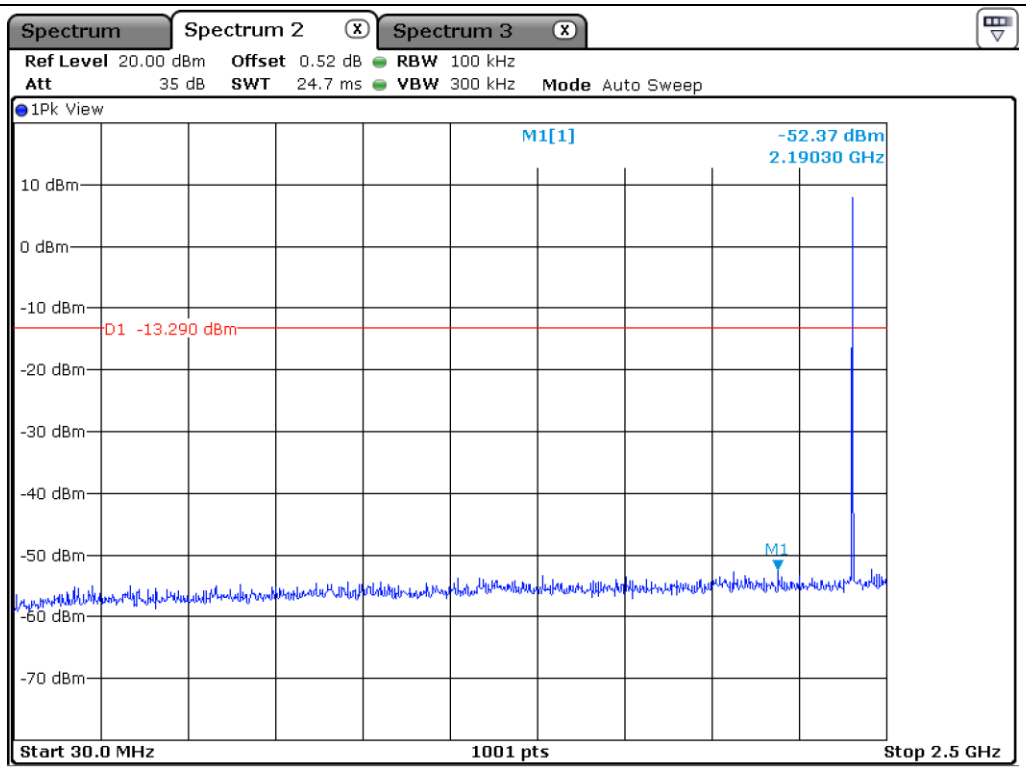


Middle Channel

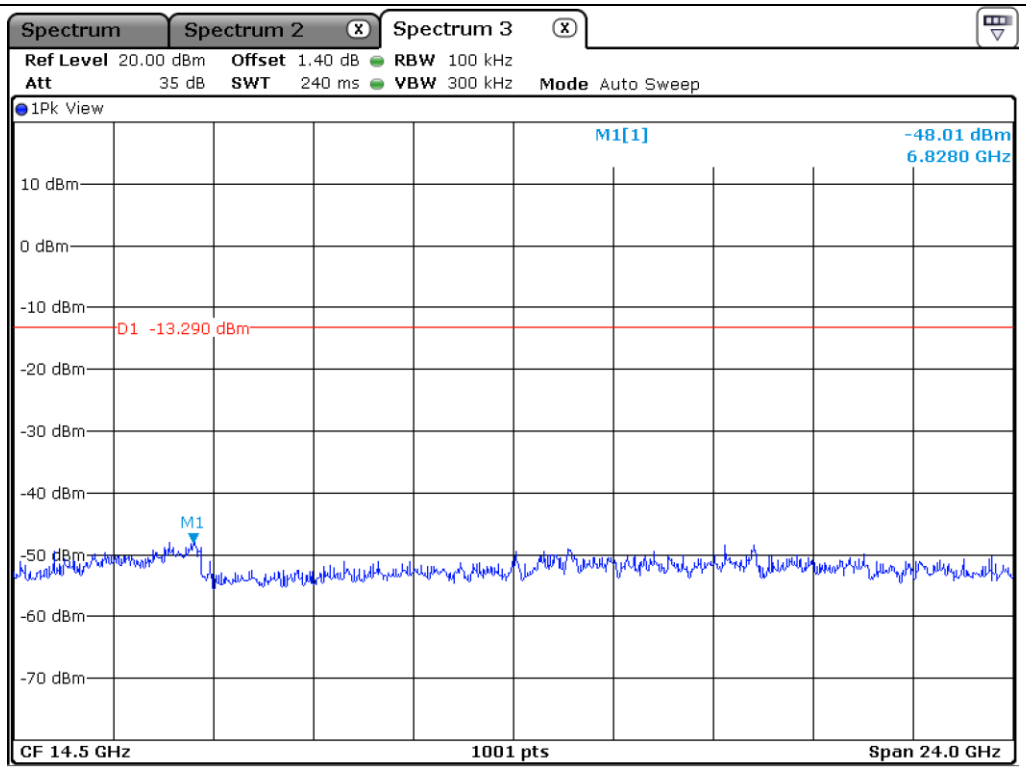


High Channel

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

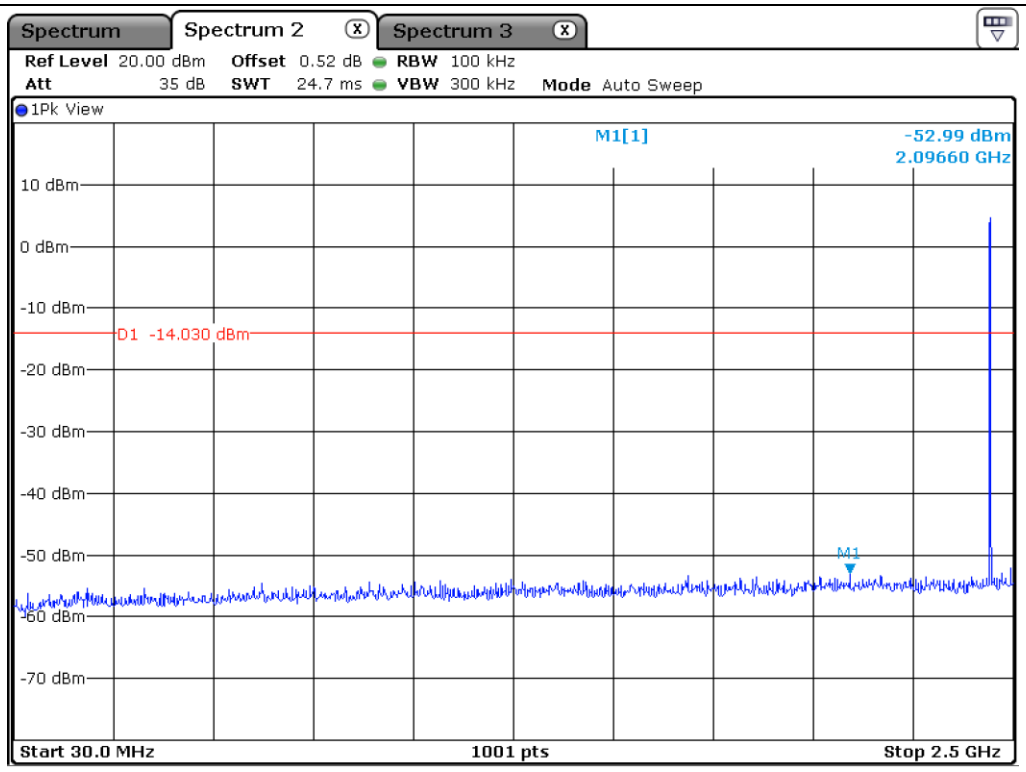


Low Channel

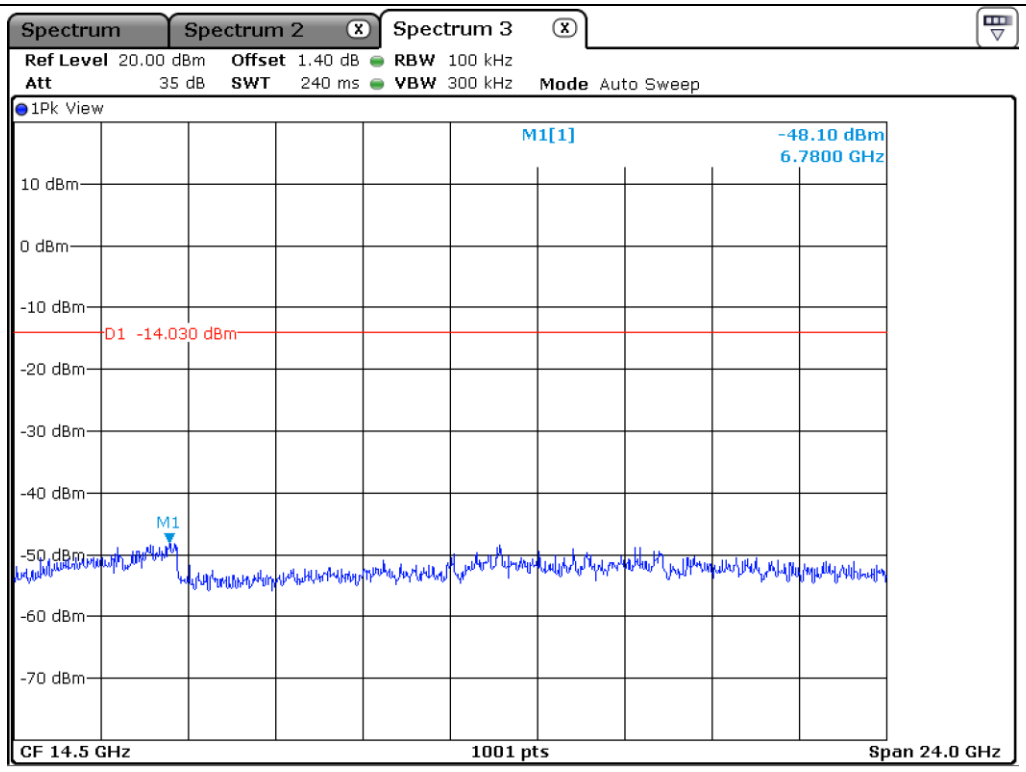


Low Channel

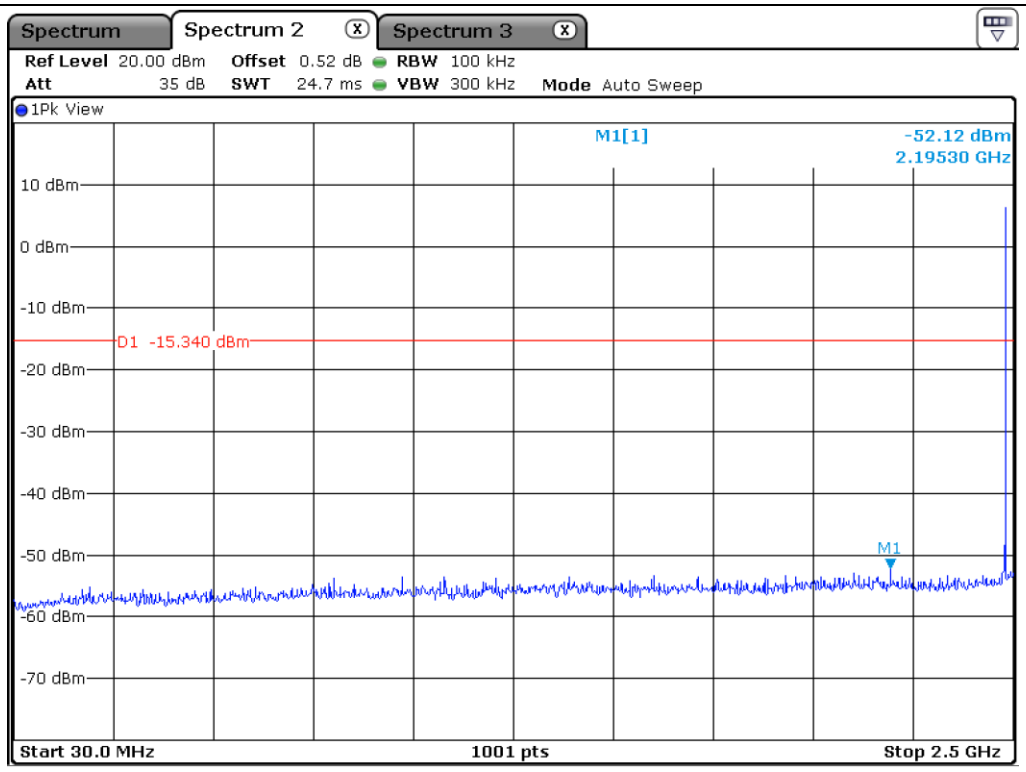
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



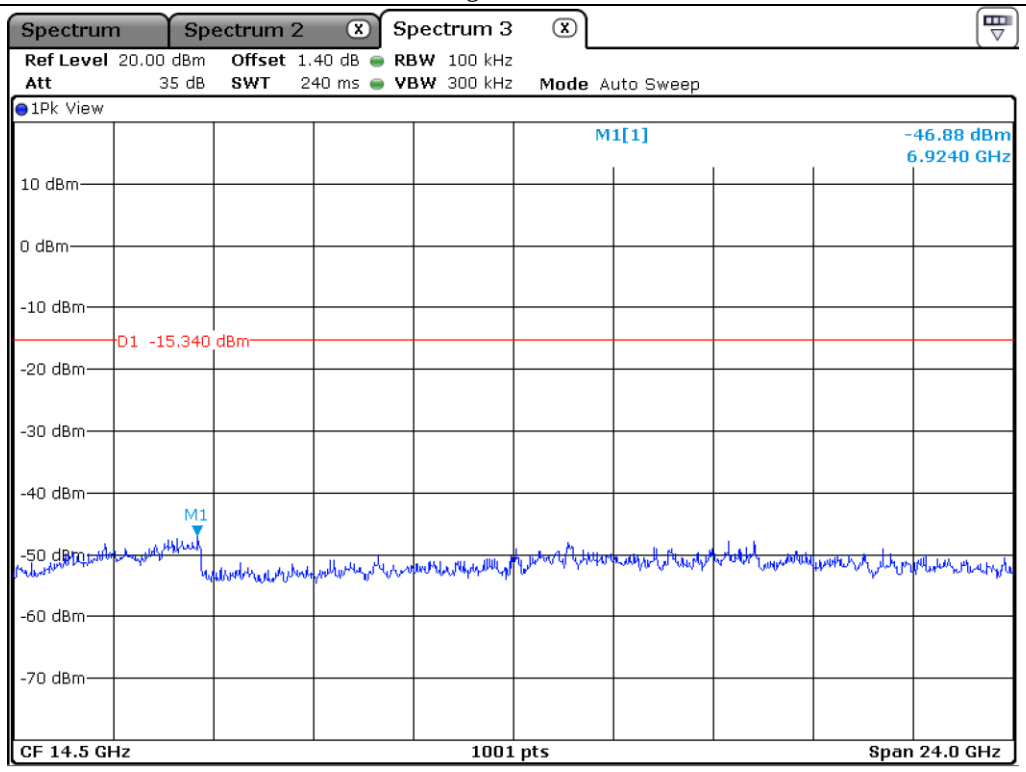
Middle Channel



Middle Channel



High Channel



High Channel

12.7 Test data for Transmitting mode radiated emission

12.7.1 Radiated Emission which fall in the Restricted Band (Left Earbud)

12.7.1.1 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 : 77.43 %

-. 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										
2 340.559	54.43	Peak	H	28.30	5.46	47.10	-	41.09	74.00	32.91
2 385.319	44.12	Average	H	28.30	5.46	47.10	1.11	31.89	54.00	22.11
2 379.620	56.30	Peak	V	28.30	5.46	47.10	-	42.96	74.00	31.04
2 361.882	45.93	Average	V	28.30	5.46	47.10	1.11	33.70	54.00	20.30
Test Data for High Channel										
2 484.426	59.55	Peak	H	27.70	5.46	47.10	-	45.61	74.00	28.39
2 483.506	51.27	Average	H	27.70	5.46	47.10	1.11	38.44	54.00	15.56
2 483.506	56.55	Peak	V	27.70	5.46	47.10	-	42.61	74.00	31.39
2 483.506	47.46	Average	V	27.70	5.46	47.10	1.11	34.63	54.00	19.37

Tabulated test data for Restricted Band

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Total Level (dBµV/m)

Total Level = Reading + Antenna Factor + Cable Loss - Amp Gain + Duty Factor

12.7.1.2 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 : 77.07 %

-. 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										
2 338.078	54.05	Peak	H	28.30	5.46	47.10	-	40.71	74.00	33.29
2 389.638	43.83	Average	H	28.30	5.46	47.10	1.13	31.62	54.00	22.38
2 372.819	54.38	Peak	V	28.30	5.46	47.10	-	41.04	74.00	32.96
2 389.914	46.34	Average	V	28.30	5.46	47.10	1.13	34.13	54.00	19.87
Test Data for High Channel										
2 484.346	60.15	Peak	H	27.70	5.46	47.10	-	46.21	74.00	27.79
2 483.506	53.10	Average	H	27.70	5.46	47.10	1.13	40.29	54.00	13.71
2 498.352	55.89	Peak	V	27.70	5.46	47.10	-	41.95	74.00	32.05
2 483.506	45.49	Average	V	27.70	5.46	47.10	1.13	32.68	54.00	21.32

Tabulated test data for Restricted Band

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Total Level (dBμV/m)

Total Level = Reading + Antenna Factor + Cable Loss - Amp Gain + Duty Factor

12.7.1.3 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 : 77.07 %

-. 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										
2 373.554	54.75	Peak	H	28.30	5.46	47.10	-	41.41	74.00	32.59
2 389.730	44.10	Average	H	28.30	5.46	47.10	1.13	31.89	54.00	22.11
2 385.411	54.09	Peak	V	28.30	5.46	47.10	-	40.75	74.00	33.25
2 373.738	43.92	Average	V	28.30	5.46	47.10	1.13	31.71	54.00	22.29
Test Data for High Channel										
2 486.503	59.87	Peak	H	27.70	5.46	47.10	-	45.93	74.00	28.07
2 483.506	50.76	Average	H	27.70	5.46	47.10	1.13	37.95	54.00	16.05
2 487.123	55.43	Peak	V	27.70	5.46	47.10	-	41.49	74.00	32.51
2 483.526	46.73	Average	V	27.70	5.46	47.10	1.13	33.92	54.00	20.08

Tabulated test data for Restricted Band

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Total Level (dBμV/m)

Total Level = Reading + Antenna Factor + Cable Loss - Amp Gain + Duty Factor

12.7.2 Radiated Emission which fall in the Restricted Band (Right Earbud)

12.7.2.1 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 : 77.71 %

-. 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	54.06	Peak	H	28.30	5.46	47.10	-	40.72	74.00	33.28
2 361.974	45.83	Average	H	28.30	5.46	47.10	1.10	33.59	54.00	20.41
2 388.260	54.68	Peak	V	28.30	5.46	47.10	-	41.34	74.00	32.66
2 361.882	45.04	Average	V	28.30	5.46	47.10	1.10	32.80	54.00	21.20
Test Data for High Channel										
2 483.506	58.20	Peak	H	27.70	5.46	47.10	-	44.26	74.00	29.74
2 483.506	50.37	Average	H	27.70	5.46	47.10	1.10	37.53	54.00	16.47
2 483.506	55.49	Peak	V	27.70	5.46	47.10	-	41.55	74.00	32.45
2 483.506	46.19	Average	V	27.70	5.46	47.10	1.10	33.35	54.00	20.65

Tabulated test data for Restricted Band

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Total Level (dBµV/m)

Total Level = Reading + Antenna Factor + Cable Loss - Amp Gain + Duty Factor

12.7.2.2 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 : 77.35 %

-. 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										
2 361.790	53.99	Peak	H	28.30	5.46	47.10	-	40.65	74.00	33.35
2 361.698	45.53	Average	H	28.30	5.46	47.10	1.12	33.31	54.00	20.69
2 342.214	54.16	Peak	V	28.30	5.46	47.10	-	40.82	74.00	33.18
2 387.800	43.80	Average	V	28.30	5.46	47.10	1.12	31.58	54.00	22.42
Test Data for High Channel										
2 483.506	57.36	Peak	H	27.70	5.46	47.10	-	43.42	74.00	30.58
2 483.506	50.08	Average	H	27.70	5.46	47.10	1.12	37.26	54.00	16.74
2 494.815	53.94	Peak	V	27.70	5.46	47.10	-	40.00	74.00	34.00
2 483.506	45.05	Average	V	27.70	5.46	47.10	1.12	32.23	54.00	21.77

Tabulated test data for Restricted Band

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Total Level (dBµV/m)

Total Level = Reading + Antenna Factor + Cable Loss - Amp Gain + Duty Factor

12.7.2.3 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 : 77.35 %

-. 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										
2 361.974	54.62	Peak	H	28.30	5.46	47.10	-	41.28	74.00	32.72
2 361.790	44.56	Average	H	28.30	5.46	47.10	1.12	32.34	54.00	21.66
2 331.920	54.29	Peak	V	28.30	5.46	47.10	-	40.95	74.00	33.05
2 389.363	43.76	Average	V	28.30	5.46	47.10	1.12	31.54	54.00	22.46
Test Data for High Channel										
2 483.506	58.68	Peak	H	27.70	5.46	47.10	-	44.74	74.00	29.26
2 483.506	49.56	Average	H	27.70	5.46	47.10	1.12	36.74	54.00	17.26
2 483.506	54.09	Peak	V	27.70	5.46	47.10	-	40.15	74.00	33.85
2 483.506	44.75	Average	V	27.70	5.46	47.10	1.12	31.93	54.00	22.07

Tabulated test data for Restricted Band

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Total Level (dBµV/m)

Total Level = Reading + Antenna Factor + Cable Loss - Amp Gain + Duty Factor

12.7.3 Spurious & Harmonic Radiated Emission above 1 GHz (Left Earbud)

12.7.3.1 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 : 77.43 %

-. 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										
7 206.00	53.87	Peak	H	36.40	10.40	45.80	-	54.87	74.00	19.13
7 206.00	42.96	Average	H	36.40	10.40	45.80	1.11	45.07	54.00	8.93
7 206.00	56.81	Peak	V	36.40	10.40	45.80	-	57.81	74.00	16.19
7 206.00	43.26	Average	V	36.40	10.40	45.80	1.11	45.37	54.00	8.63
Test Data for Middle Channel										
7 323.00	53.50	Peak	H	36.40	10.40	45.80	-	54.50	74.00	19.50
7 323.00	43.42	Average	H	36.40	10.40	45.80	1.11	45.53	54.00	8.47
7 323.00	55.80	Peak	V	36.40	10.40	45.80	-	56.80	74.00	17.20
7 323.00	44.10	Average	V	36.40	10.40	45.80	1.11	46.21	54.00	7.79
Test Data for High Channel										
7 440.00	53.08	Peak	H	36.60	10.40	45.80	-	54.28	74.00	19.72
7 440.00	42.88	Average	H	36.60	10.40	45.80	1.11	45.19	54.00	8.81
7 440.00	53.38	Peak	V	36.60	10.40	45.80	-	54.58	74.00	19.42
7 440.00	43.14	Average	V	36.60	10.40	45.80	1.11	45.45	54.00	8.55

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Total Level (dBµV/m)

Total Level = Reading + Antenna Factor + Cable Loss - Amp Gain + Duty Factor

12.7.3.2 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 : 77.07 %

-. 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										
7 206.00	53.43	Peak	H	36.40	10.40	45.80	-	54.43	74.00	19.57
7 206.00	42.92	Average	H	36.40	10.40	45.80	1.13	45.05	54.00	8.95
7 206.00	54.60	Peak	V	36.40	10.40	45.80	-	55.60	74.00	18.40
7 206.00	43.10	Average	V	36.40	10.40	45.80	1.13	45.23	54.00	8.77
Test Data for Middle Channel										
7 323.00	53.51	Peak	H	36.40	10.40	45.80	-	54.51	74.00	19.49
7 323.00	43.46	Average	H	36.40	10.40	45.80	1.13	45.59	54.00	8.41
7 323.00	53.48	Peak	V	36.40	10.40	45.80	-	54.48	74.00	19.52
7 323.00	43.03	Average	V	36.40	10.40	45.80	1.13	45.16	54.00	8.84
Test Data for High Channel										
7 440.00	52.77	Peak	H	36.60	10.40	45.80	-	53.97	74.00	20.03
7 440.00	42.81	Average	H	36.60	10.40	45.80	1.13	45.14	54.00	8.86
7 440.00	53.26	Peak	V	36.60	10.40	45.80	-	54.46	74.00	19.54
7 440.00	42.89	Average	V	36.60	10.40	45.80	1.13	45.22	54.00	8.78

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Total Level (dBµV/m)

Total Level = Reading + Antenna Factor + Cable Loss - Amp Gain + Duty Factor

12.7.3.3 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 : 77.07 %

-. 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										
7 206.00	53.87	Peak	H	36.40	10.40	45.80	-	54.87	74.00	19.13
7 206.00	43.00	Average	H	36.40	10.40	45.80	1.13	45.13	54.00	8.87
7 206.00	53.39	Peak	V	36.40	10.40	45.80	-	54.39	74.00	19.61
7 206.00	43.06	Average	V	36.40	10.40	45.80	1.13	45.19	54.00	8.81
Test Data for Middle Channel										
7 323.00	52.99	Peak	H	36.40	10.40	45.80	-	53.99	74.00	20.01
7 323.00	43.08	Average	H	36.40	10.40	45.80	1.13	45.21	54.00	8.79
7 323.00	53.26	Peak	V	36.40	10.40	45.80	-	54.26	74.00	19.74
7 323.00	43.05	Average	V	36.40	10.40	45.80	1.13	45.18	54.00	8.82
Test Data for High Channel										
7 440.00	52.61	Peak	H	36.60	10.40	45.80	-	53.81	74.00	20.19
7 440.00	42.49	Average	H	36.60	10.40	45.80	1.13	44.82	54.00	9.18
7 440.00	54.40	Peak	V	36.60	10.40	45.80	-	55.60	74.00	18.40
7 440.00	42.98	Average	V	36.60	10.40	45.80	1.13	45.31	54.00	8.69

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Total Level (dBµV/m)

Total Level = Reading + Antenna Factor + Cable Loss - Amp Gain + Duty Factor

12.7.4 Spurious & Harmonic Radiated Emission above 1 GHz (Right Earbud)

12.7.4.1 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 : 77.71 %

-. 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										
7 206.00	52.41	Peak	H	36.40	10.40	45.80	-	53.41	74.00	20.59
7 206.00	42.38	Average	H	36.40	10.40	45.80	1.10	44.48	54.00	9.52
7 206.00	52.96	Peak	V	36.40	10.40	45.80	-	53.96	74.00	20.04
7 206.00	43.06	Average	V	36.40	10.40	45.80	1.10	45.16	54.00	8.84
Test Data for Middle Channel										
7 323.00	52.69	Peak	H	36.40	10.40	45.80	-	53.69	74.00	20.31
7 323.00	42.41	Average	H	36.40	10.40	45.80	1.10	44.51	54.00	9.49
7 323.00	53.19	Peak	V	36.40	10.40	45.80	-	54.19	74.00	19.81
7 323.00	43.10	Average	V	36.40	10.40	45.80	1.10	45.20	54.00	8.80
Test Data for High Channel										
7 440.00	54.21	Peak	H	36.60	10.40	45.80	-	55.41	74.00	18.59
7 440.00	42.30	Average	H	36.60	10.40	45.80	1.10	44.60	54.00	9.40
7 440.00	56.49	Peak	V	36.60	10.40	45.80	-	57.69	74.00	16.31
7 440.00	43.55	Average	V	36.60	10.40	45.80	1.10	45.85	54.00	8.15

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Total Level (dBµV/m)

Total Level = Reading + Antenna Factor + Cable Loss - Amp Gain + Duty Factor

12.7.4.2 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 : 77.35 %

-. 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										
7 206.00	53.17	Peak	H	36.40	10.40	45.80	-	54.17	74.00	19.83
7 206.00	42.61	Average	H	36.40	10.40	45.80	1.12	44.73	54.00	9.27
7 206.00	52.74	Peak	V	36.40	10.40	45.80	-	53.74	74.00	20.26
7 206.00	42.38	Average	V	36.40	10.40	45.80	1.12	44.50	54.00	9.50
Test Data for Middle Channel										
7 323.00	53.22	Peak	H	36.40	10.40	45.80	-	54.22	74.00	19.78
7 323.00	42.76	Average	H	36.40	10.40	45.80	1.12	44.88	54.00	9.12
7 323.00	53.41	Peak	V	36.40	10.40	45.80	-	54.41	74.00	19.59
7 323.00	43.05	Average	V	36.40	10.40	45.80	1.12	45.17	54.00	8.83
Test Data for High Channel										
7 440.00	52.59	Peak	H	36.60	10.40	45.80	-	53.79	74.00	20.21
7 440.00	42.59	Average	H	36.60	10.40	45.80	1.12	44.91	54.00	9.09
7 440.00	53.25	Peak	V	36.60	10.40	45.80	-	54.45	74.00	19.55
7 440.00	42.45	Average	V	36.60	10.40	45.80	1.12	44.77	54.00	9.23

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Total Level (dBµV/m)

Total Level = Reading + Antenna Factor + Cable Loss - Amp Gain + Duty Factor

12.7.4.3 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 : 77.35 %

-. 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										
7 206.00	52.31	Peak	H	36.40	10.40	45.80	-	53.31	74.00	20.69
7 206.00	42.74	Average	H	36.40	10.40	45.80	1.12	44.86	54.00	9.14
7 206.00	53.19	Peak	V	36.40	10.40	45.80	-	54.19	74.00	19.81
7 206.00	42.67	Average	V	36.40	10.40	45.80	1.12	44.79	54.00	9.21
Test Data for Middle Channel										
7 323.00	53.07	Peak	H	36.40	10.40	45.80	-	54.07	74.00	19.93
7 323.00	42.65	Average	H	36.40	10.40	45.80	1.12	44.77	54.00	9.23
7 323.00	53.02	Peak	V	36.40	10.40	45.80	-	54.02	74.00	19.98
7 323.00	42.76	Average	V	36.40	10.40	45.80	1.12	44.88	54.00	9.12
Test Data for High Channel										
7 440.00	52.69	Peak	H	36.60	10.40	45.80	-	53.89	74.00	20.11
7 440.00	42.27	Average	H	36.60	10.40	45.80	1.12	44.59	54.00	9.41
7 440.00	53.41	Peak	V	36.60	10.40	45.80	-	54.61	74.00	19.39
7 440.00	42.79	Average	V	36.60	10.40	45.80	1.12	45.11	54.00	8.89

Remark: “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Total Level (dBµV/m)

Total Level = Reading + Antenna Factor + Cable Loss - Amp Gain + Duty Factor

13. RADIATED EMISSION TEST

13.1 Operating environment

Temperature	:	22.5 °C
Relative humidity	:	53.5 % 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 Date

January 10, 2022 ~ January 17, 2022

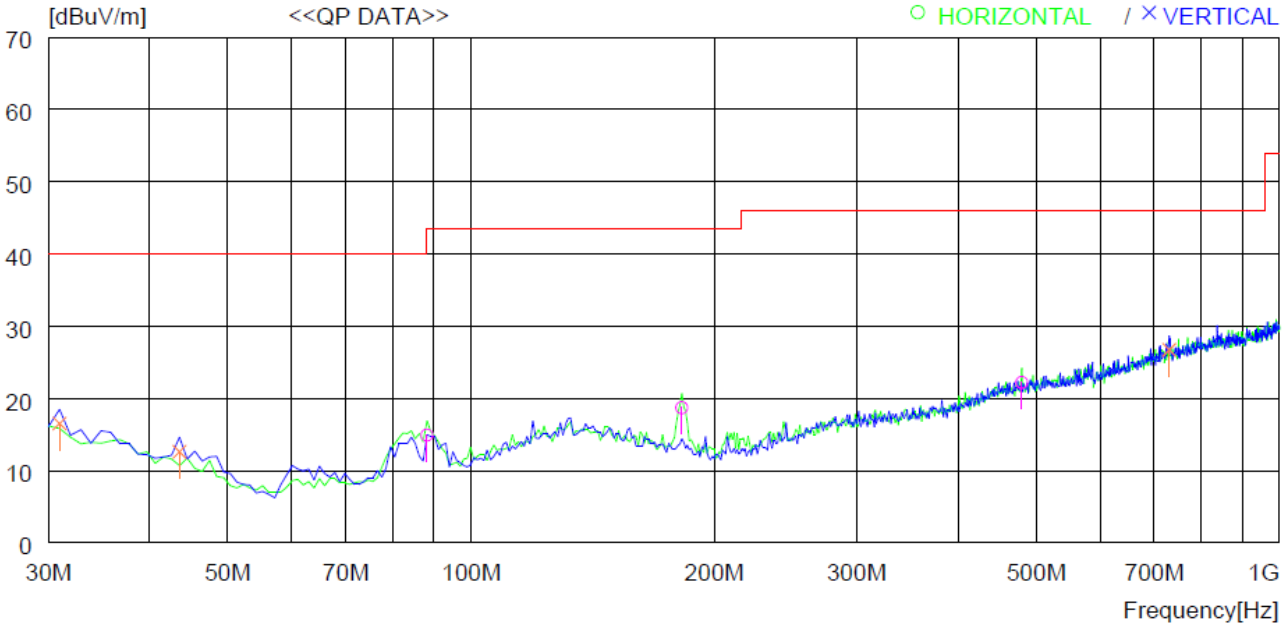
13.4 Test data for Left Earbud

13.4.1 Test data for 30 MHz ~ 1000 MHz

-. Resolution bandwidth : 120 kHz

-. Frequency range : 30 MHz ~ 1 000 MHz

-. Measurement distance : 3 m



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	88.200	31.4	13.3	2.7	32.5	14.9	43.5	28.6	200	354
2	182.290	31.0	16.3	3.9	32.5	18.7	43.5	24.8	400	0
3	480.081	25.2	22.9	6.5	32.4	22.2	46.0	23.8	100	339
----- Vertical ------										
4	30.970	26.8	20.7	1.6	32.6	16.5	40.0	23.5	100	90
5	43.580	27.5	15.7	1.9	32.5	12.6	40.0	27.4	100	273
6	730.334	25.1	26.1	8.0	32.5	26.7	46.0	19.3	400	359

13.4.2 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.								

13.4.3 Test data for above 1 GHz

-. Resolution bandwidth : 1 MHz for Peak and 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.								

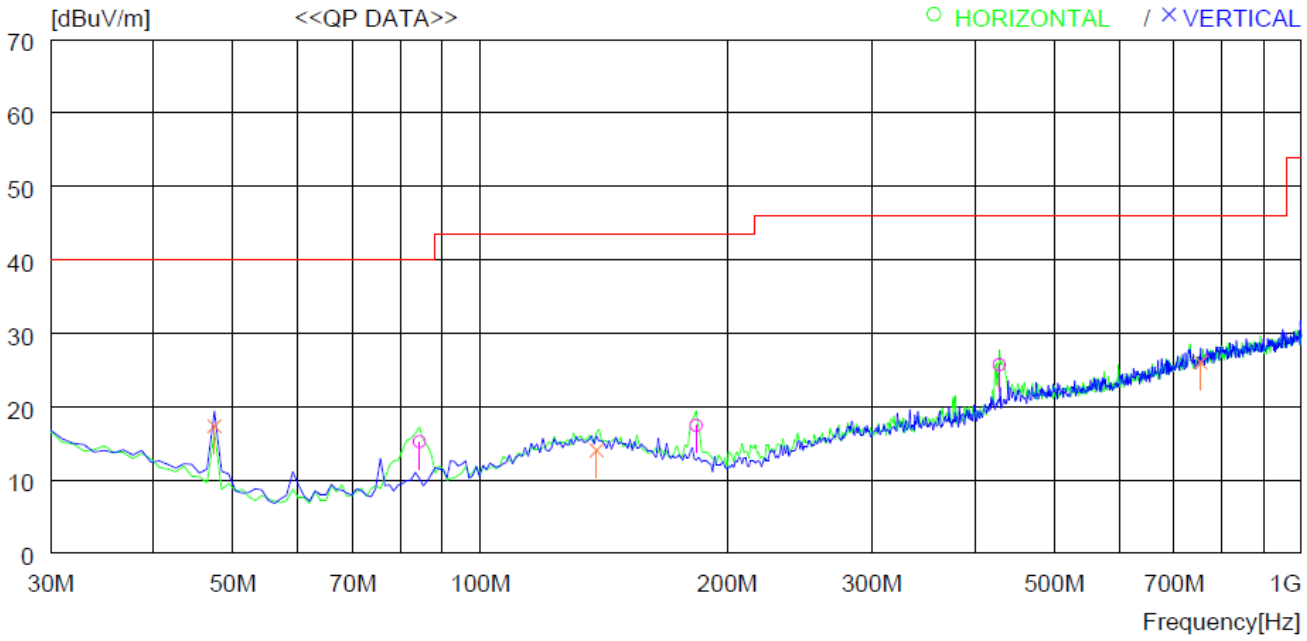
13.5 Test data for Right Earbud

13.5.1 Test data for 30 MHz ~ 1000 MHz

-. Resolution bandwidth : 120 kHz

-. Frequency range : 30 MHz ~ 1 000 MHz

-. Measurement distance : 3 m



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	84.320	32.1	13.0	2.6	32.5	15.2	40.0	24.8	400	359
2	183.260	29.7	16.3	3.9	32.5	17.4	43.5	26.1	400	359
3	428.671	30.2	21.8	6.1	32.4	25.7	46.0	20.3	100	0
----- Vertical ------										
4	47.460	33.8	14.1	1.9	32.5	17.3	40.0	22.7	100	359
5	138.640	23.6	19.4	3.5	32.5	14.0	43.5	29.5	400	79
6	753.613	24.0	26.4	8.1	32.5	26.0	46.0	20.0	200	0

13.5.2 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.								

13.5.3 Test data for above 1 GHz

-. Resolution bandwidth : 1 MHz for Peak and 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. LIST OF TEST EQUIPMENT

Model Number	Manufacturer	Description	Serial Number	Last Cal.(Interval)
FSV40-N	Rohde & Schwarz	Signal Analyzer	101457	Apr. 16, 2021 (1Y)
ESR	Rohde & Schwarz	EMI TEST RECEIVER	101470	Oct. 18, 2021 (1Y)
310N	Sonoma Instrument	Pre-Amplifier	312544	Mar. 16, 2021 (1Y)
DT3000-3t	Innco System	Turn Table	DT3000/093	N/A
MA-4000XPET	Innco System	Antenna Master	MA4000/509	N/A
BBHA9120D	Schwarzbeck	Horn Antenna	295	Mar. 04, 2021(1Y)
SCU 18	Rohde & Schwarz	Amplifier	102209	Oct. 14, 2021(1Y)
HLP-2008	TDK RF Solutions	Hybrid Antenna	131314	Feb. 27, 2020 (2Y)
HPF 3GHz	Rohde & Schwarz	High Pass Filter (1-3 GHz)	N/A	Feb. 08, 2021 (1Y)
ZUP36-6	TDK-Lambda	DC POWER SUPPLY	6MJ-850Z16-0014	Jan. 03, 2021 (1Y)