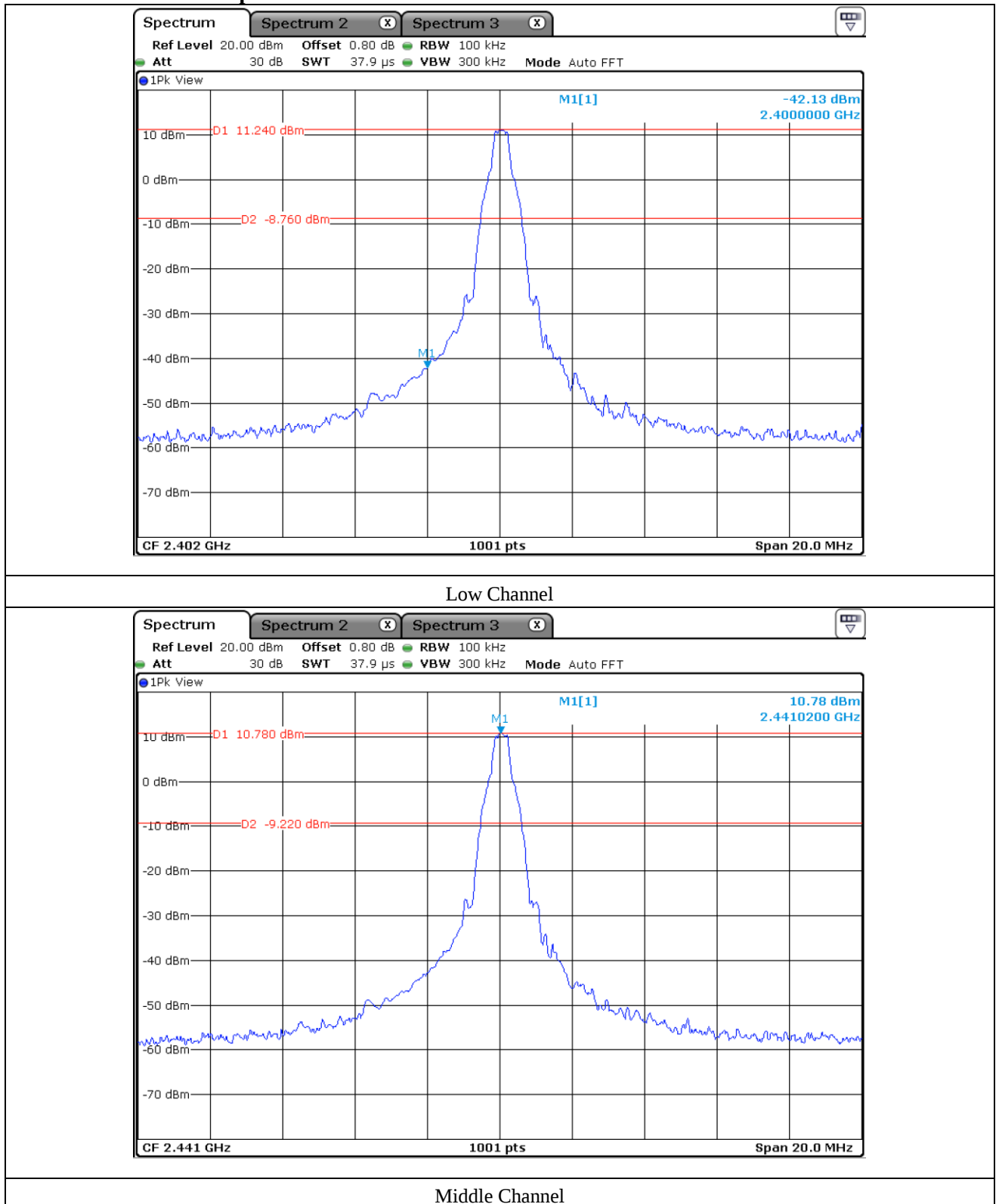


12.6 Test data for conducted emission (Right Earbud)

12.6.1 Test data for 1 Mbps

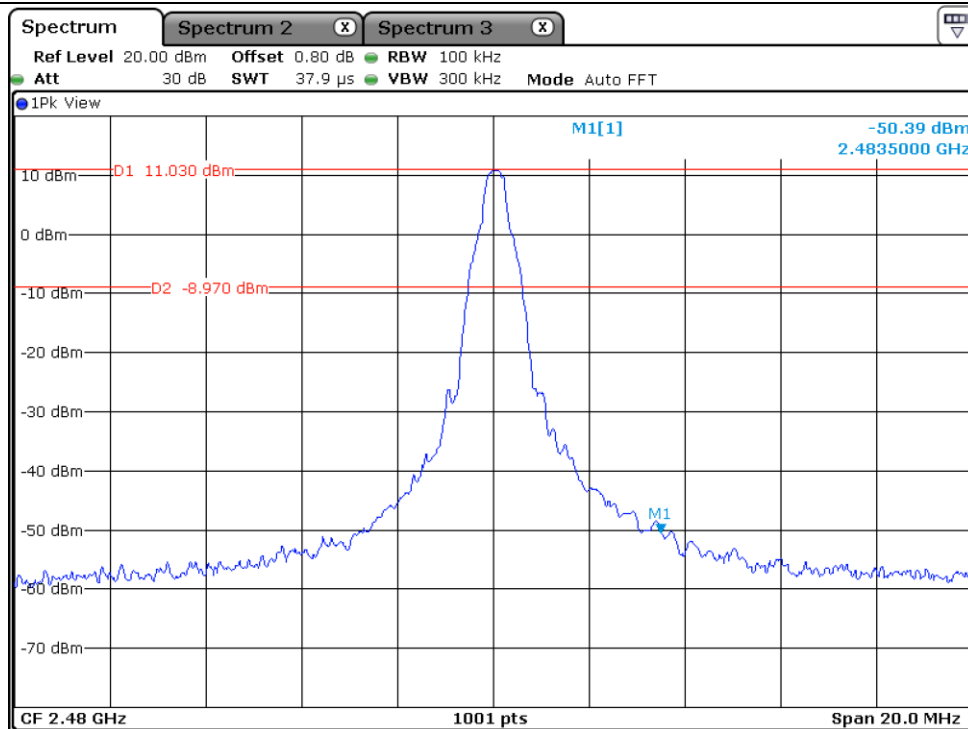


This Report is not correlated with the authentication of KOLAS

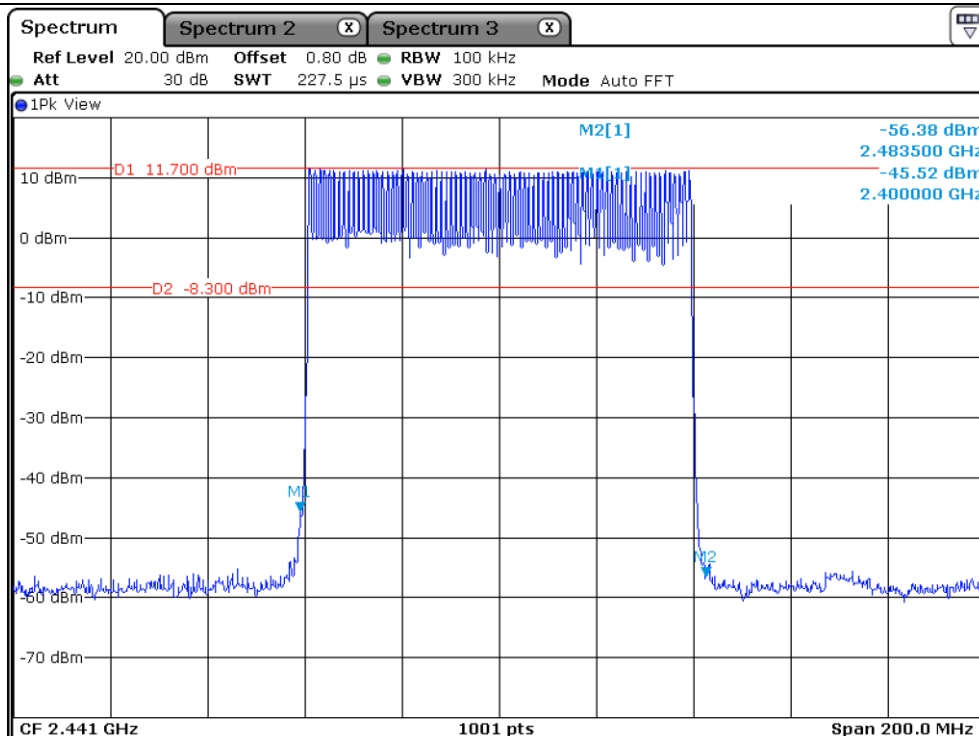
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High Channel



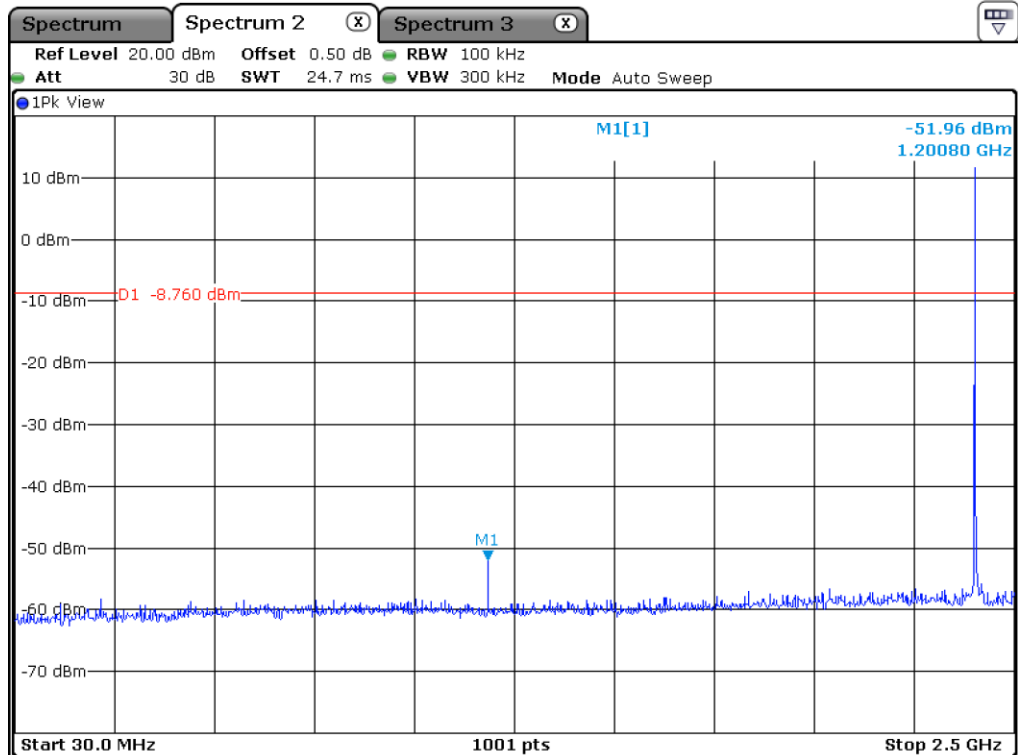
Hopping Mode

This Report is not correlated with the authentication of KOLAS

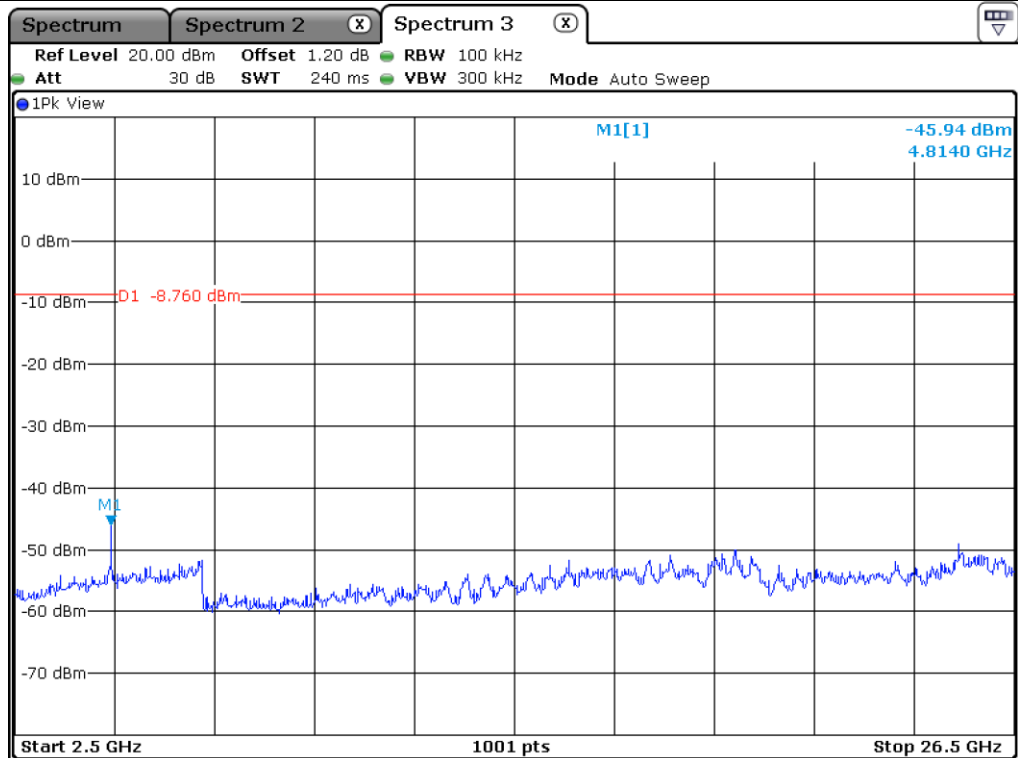
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Low Channel



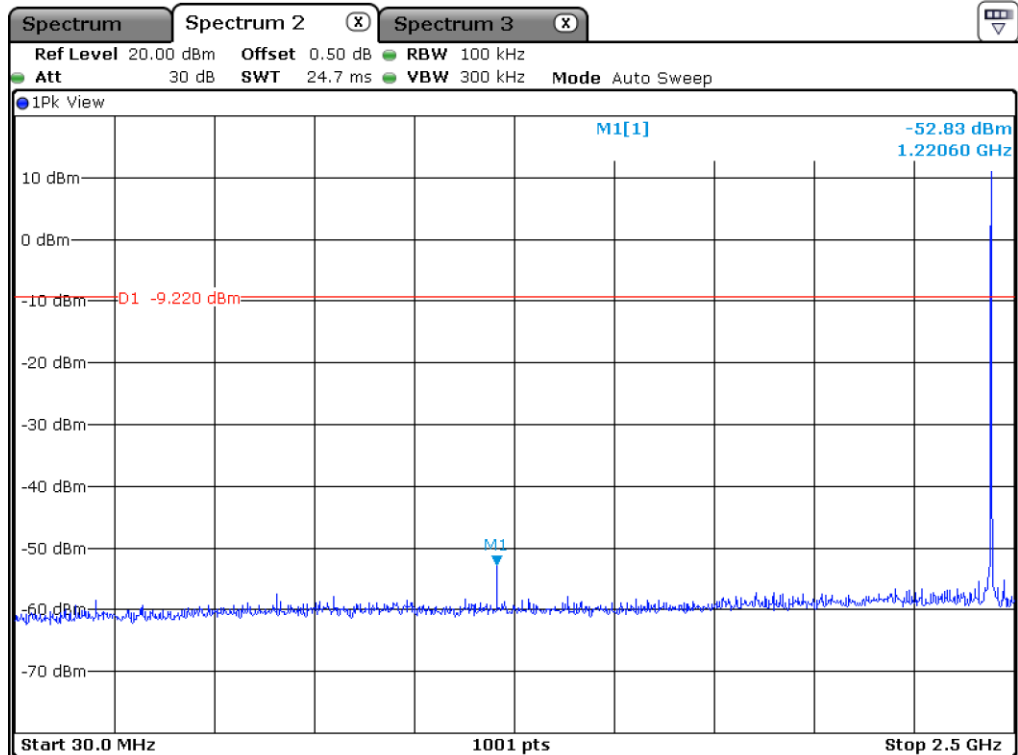
Low Channel

This Report is not correlated with the authentication of KOLAS

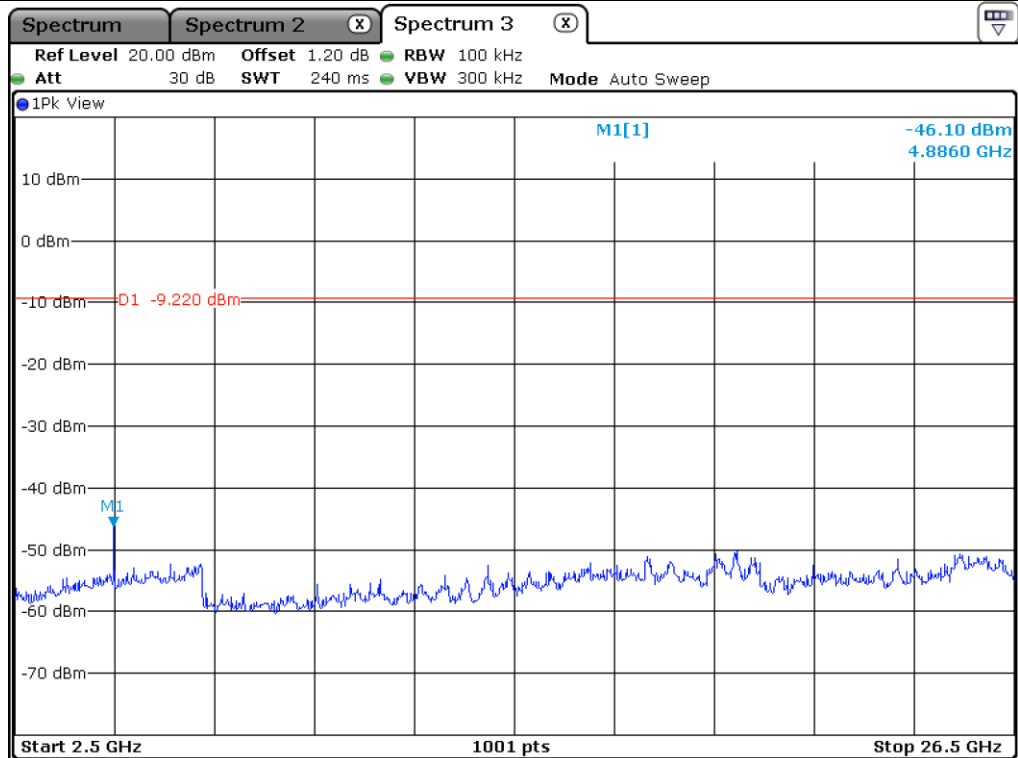
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Middle Channel



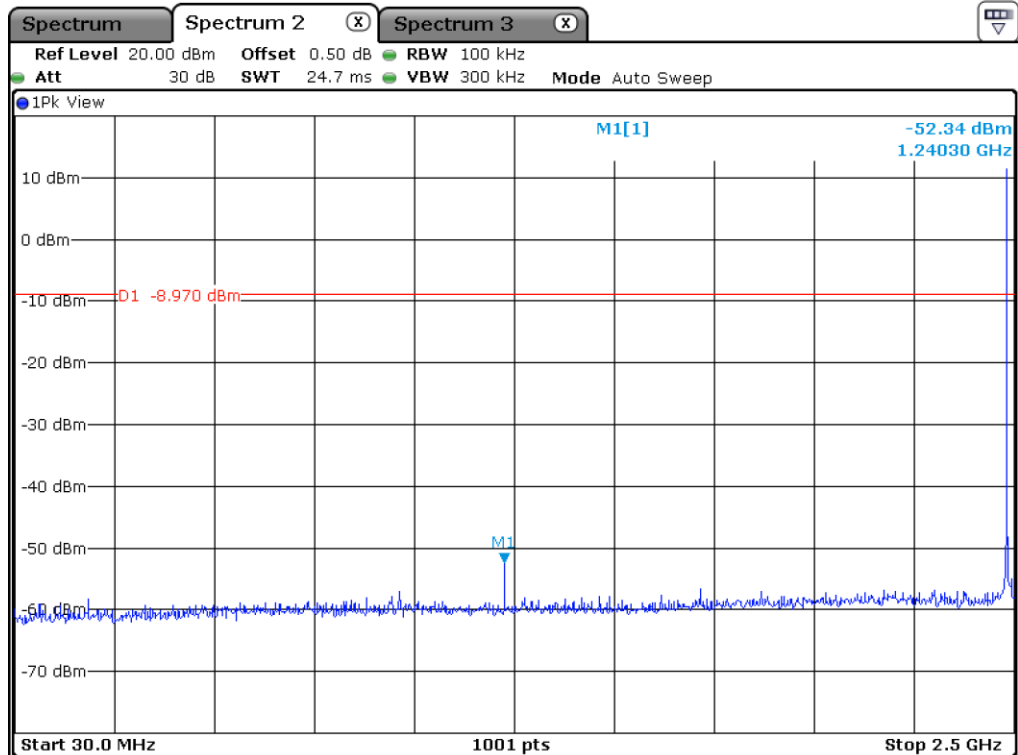
Middle Channel

This Report is not correlated with the authentication of KOLAS

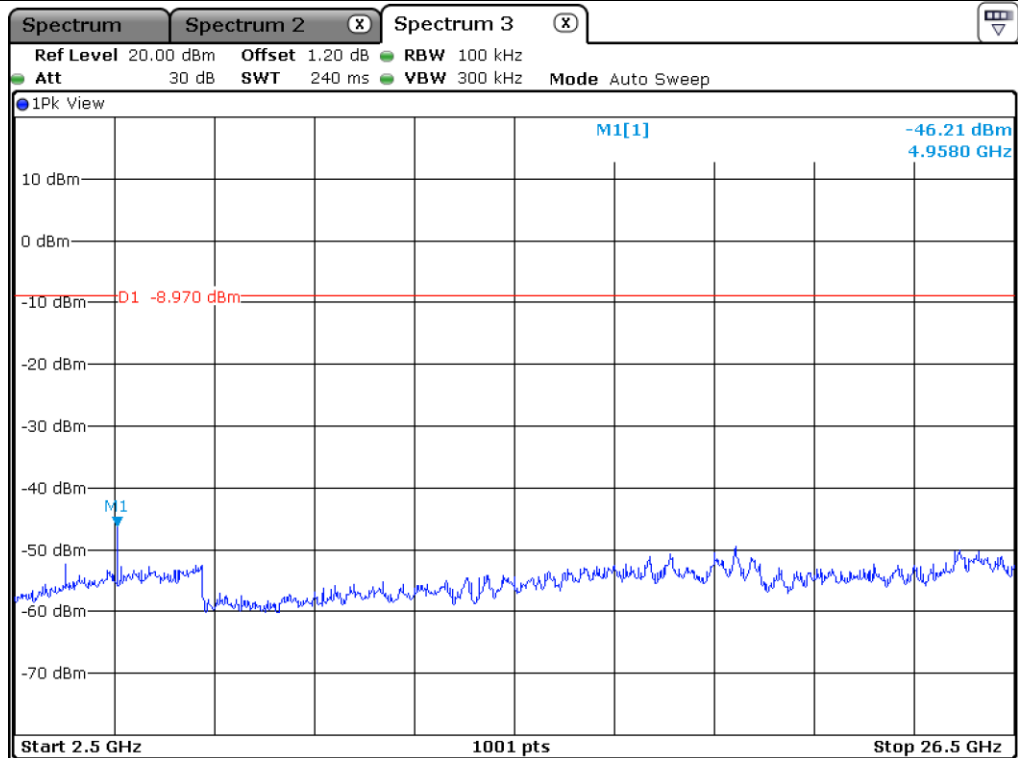
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High Channel



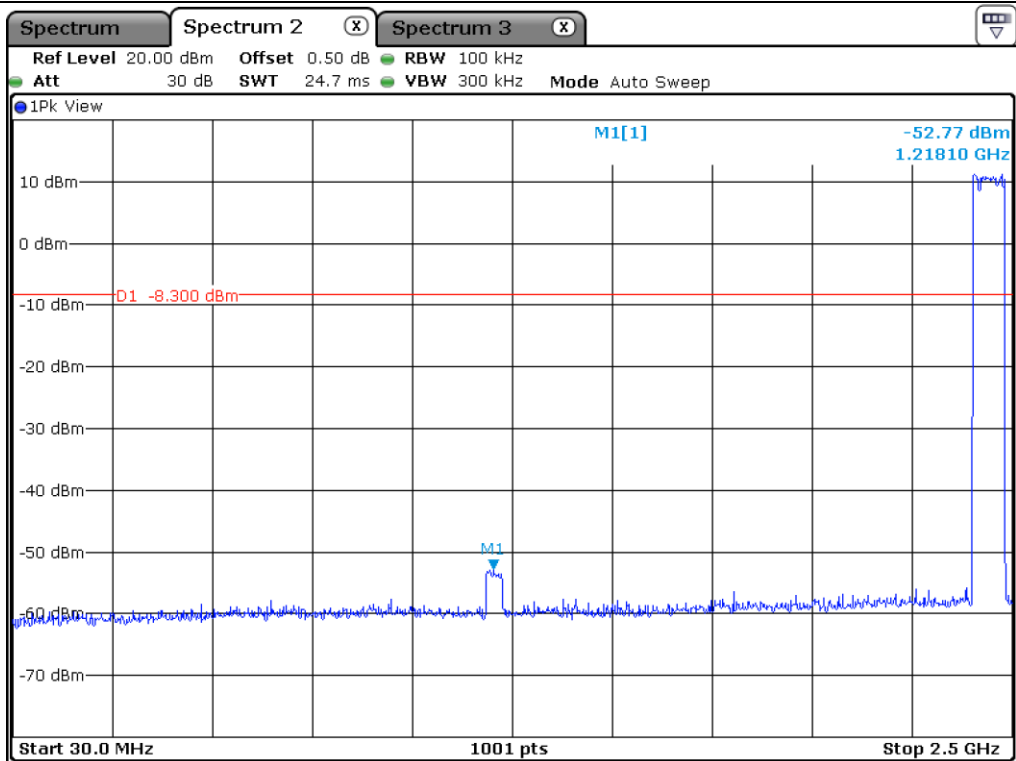
High Channel

This Report is not correlated with the authentication of KOLAS

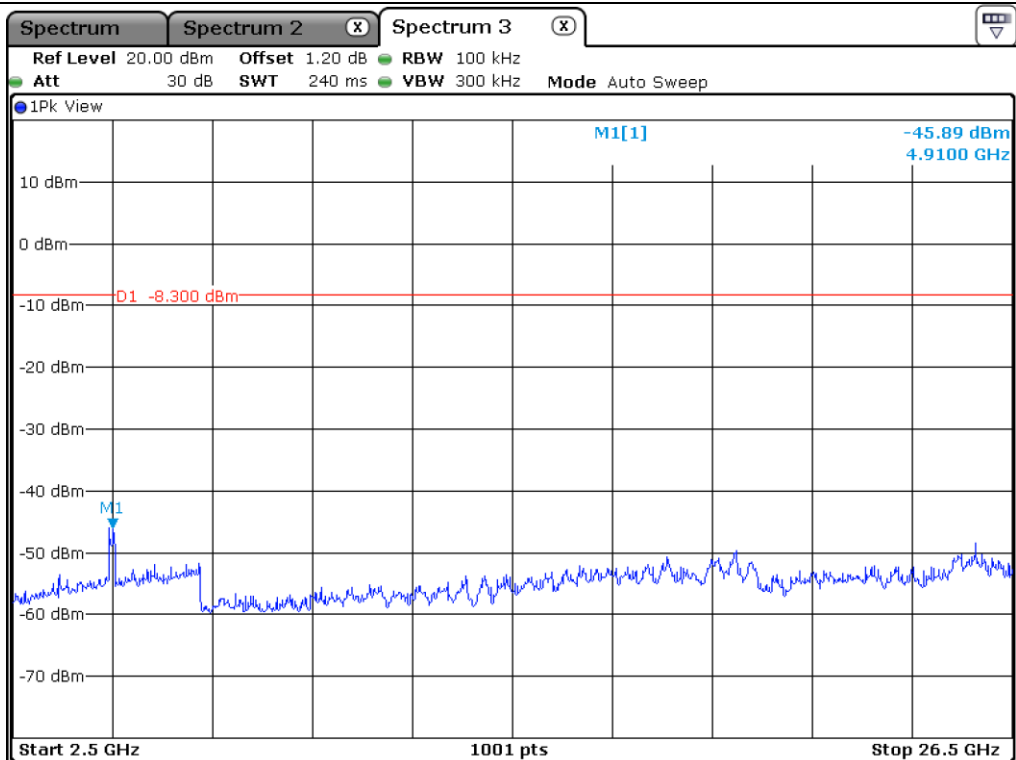
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Hopping Mode



Hopping Mode

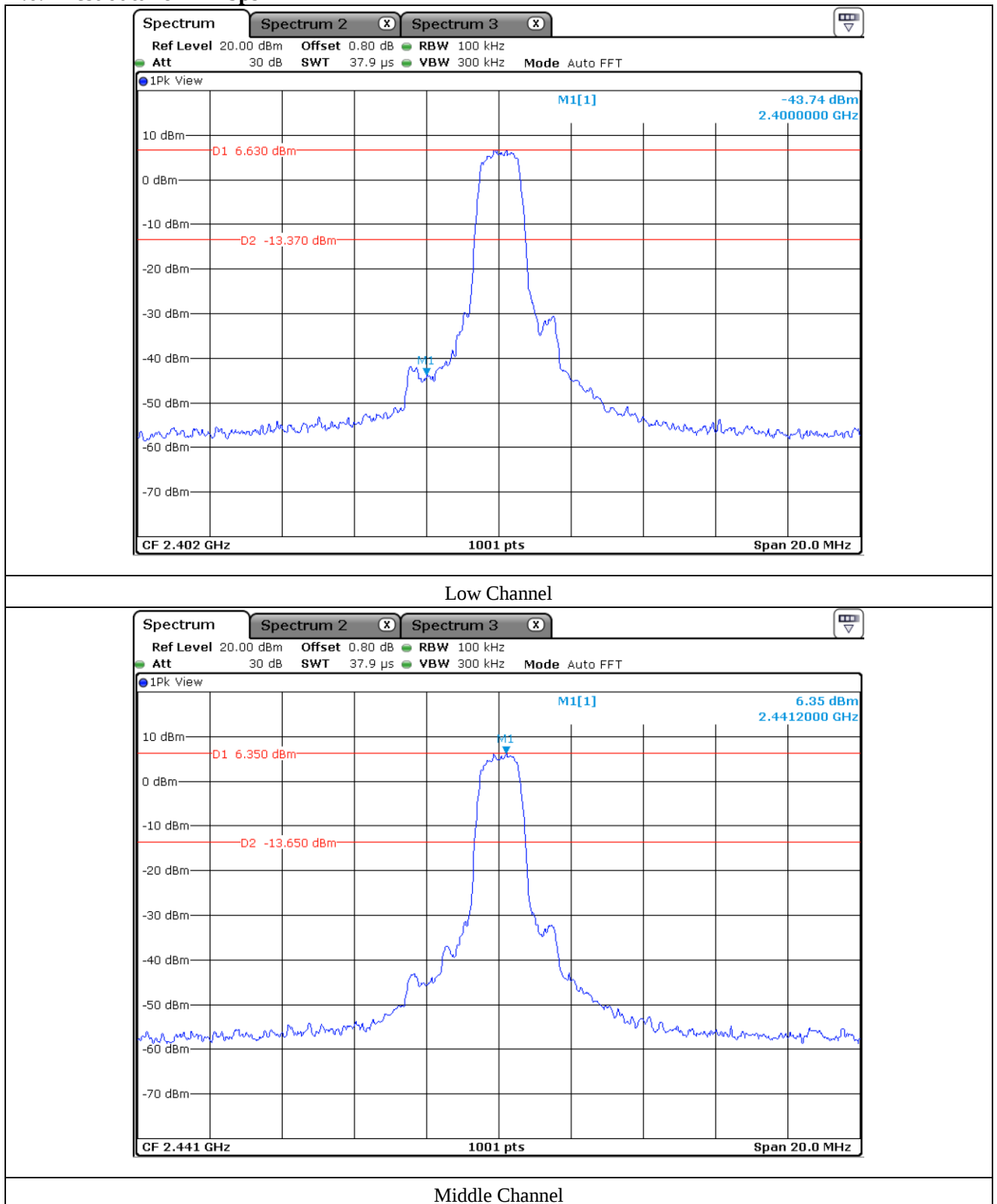
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12.6.2 Test data for 2 Mbps

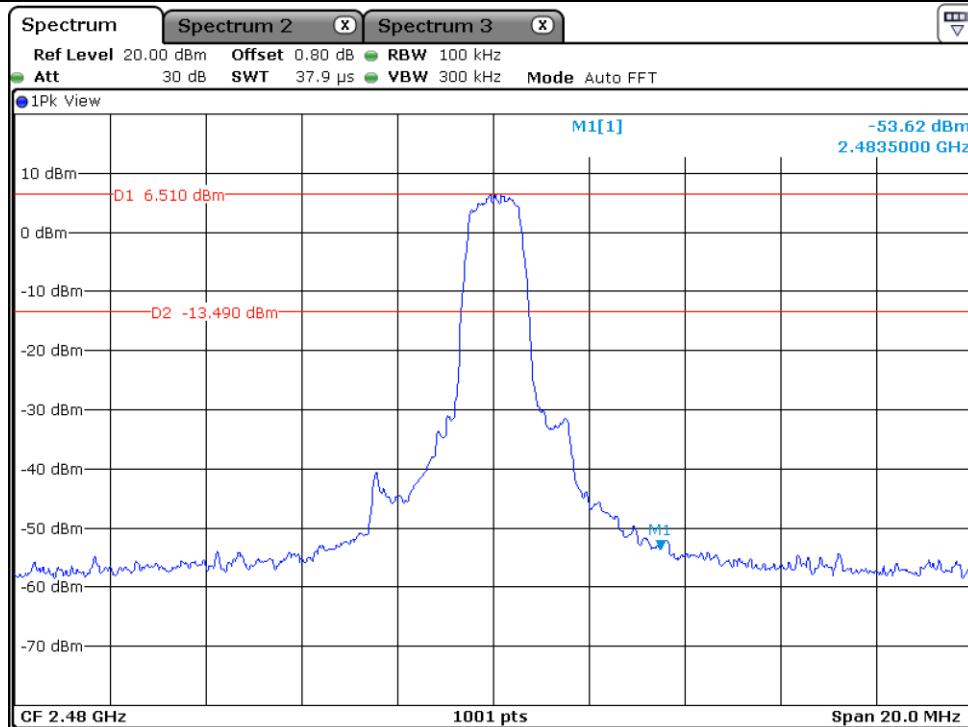


This Report is not correlated with the authentication of KOLAS

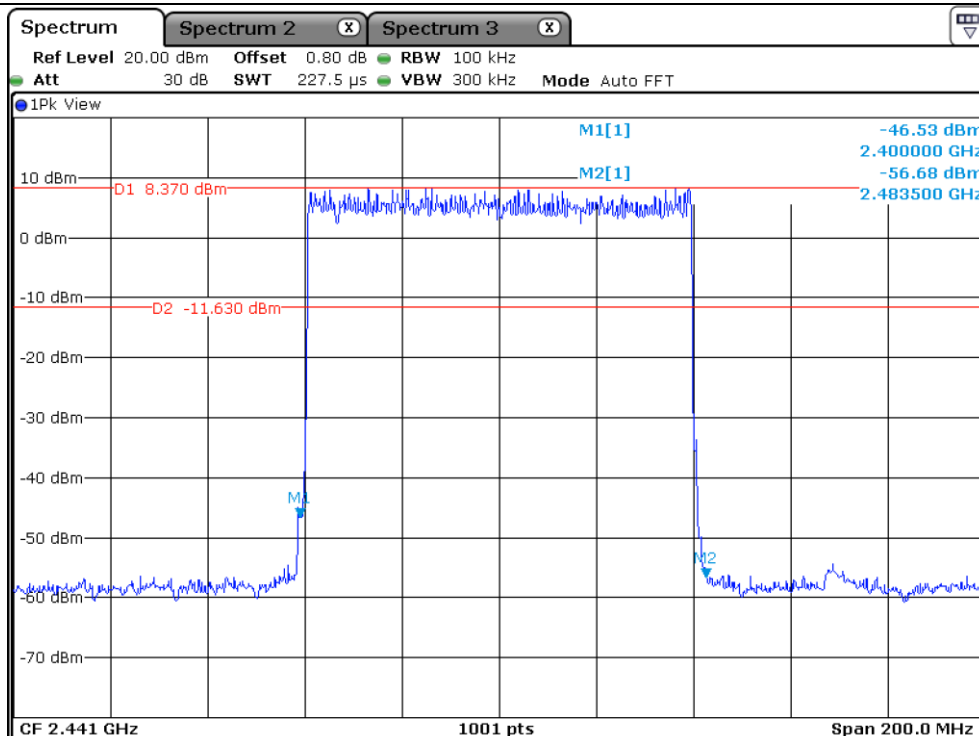
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OTC-TRF-RF-001(0)

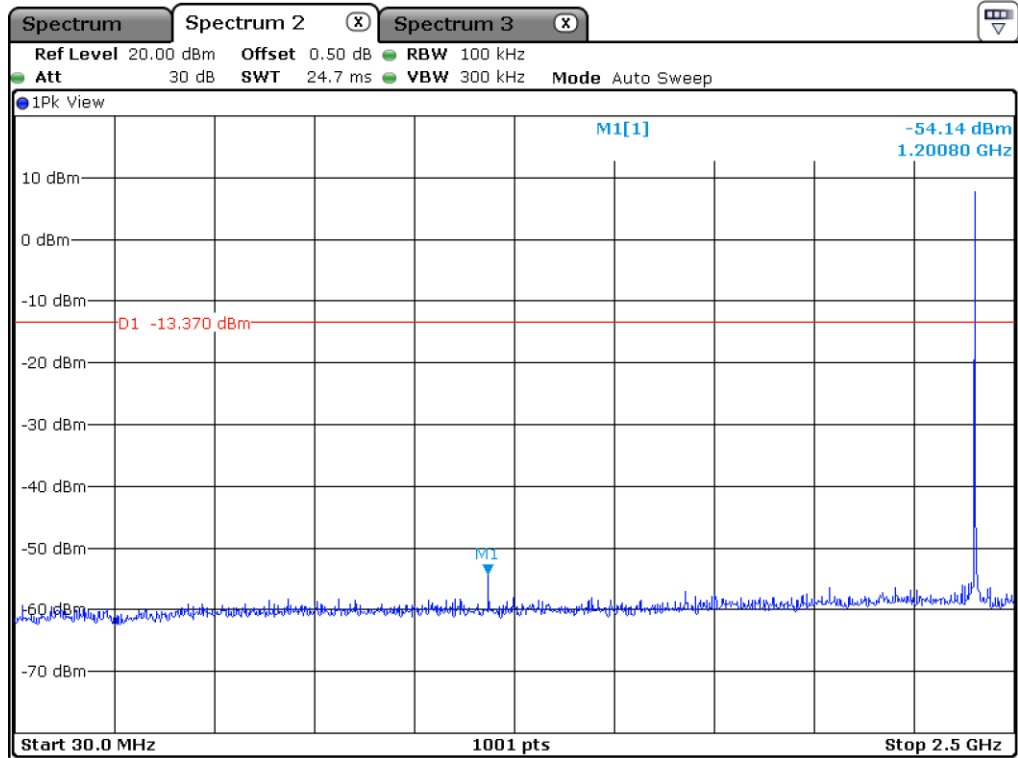
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



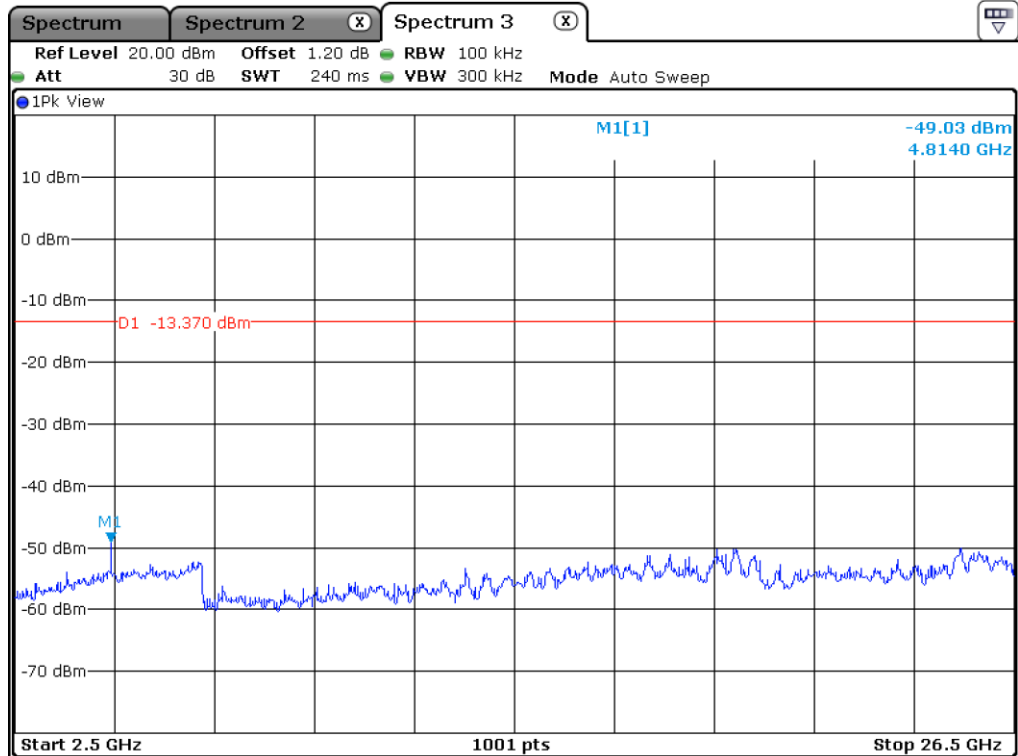
High Channel



Hopping Mode



Low Channel



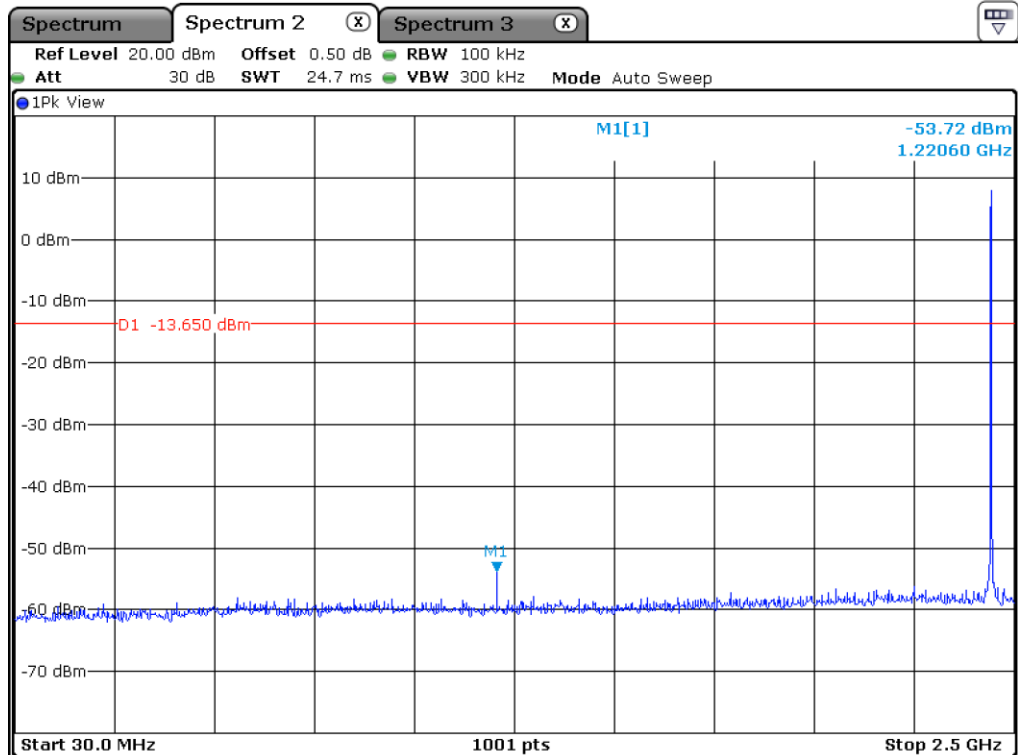
Low Channel

This Report is not correlated with the authentication of KOLAS

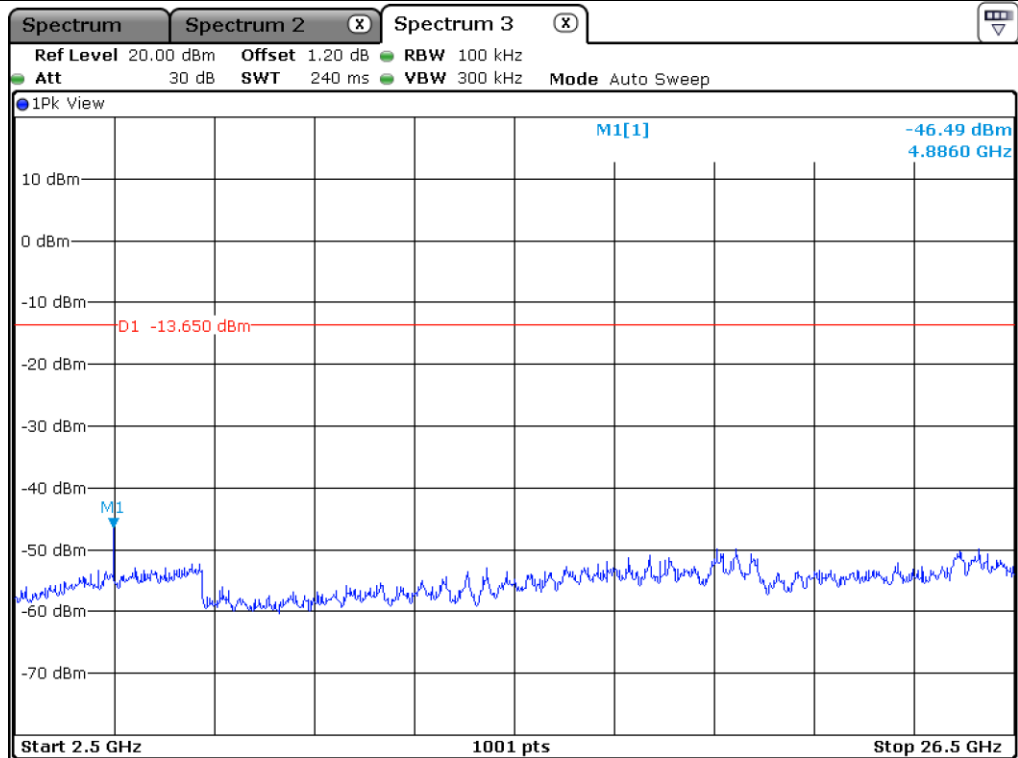
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Middle Channel



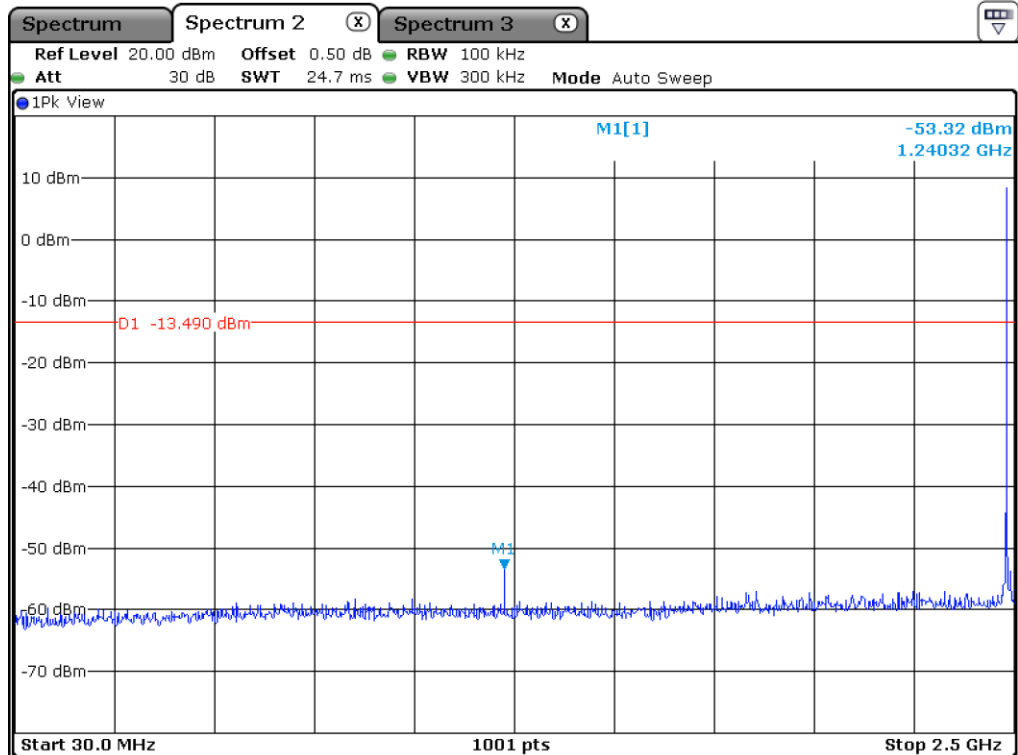
Middle Channel

This Report is not correlated with the authentication of KOLAS

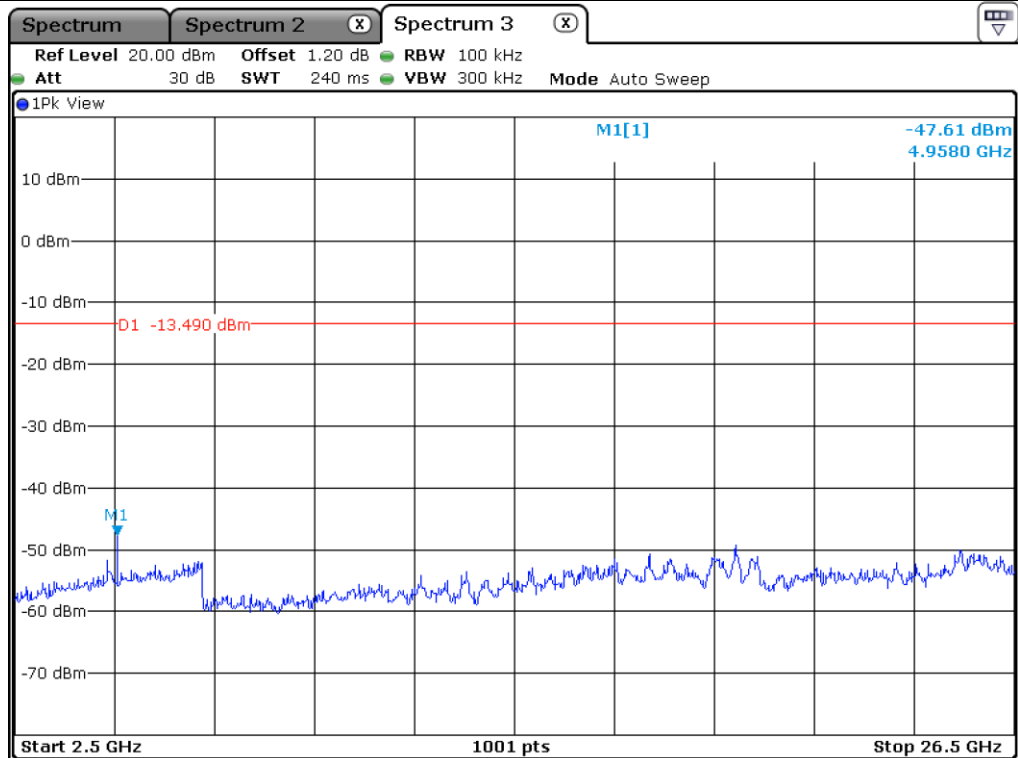
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High Channel



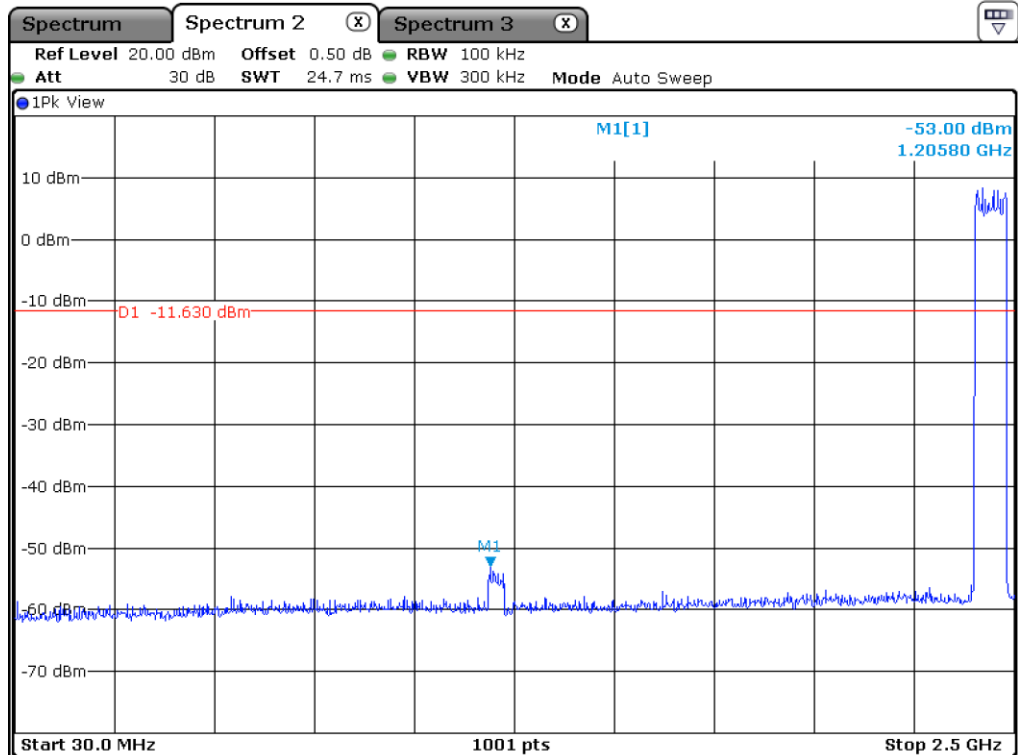
High Channel

This Report is not correlated with the authentication of KOLAS

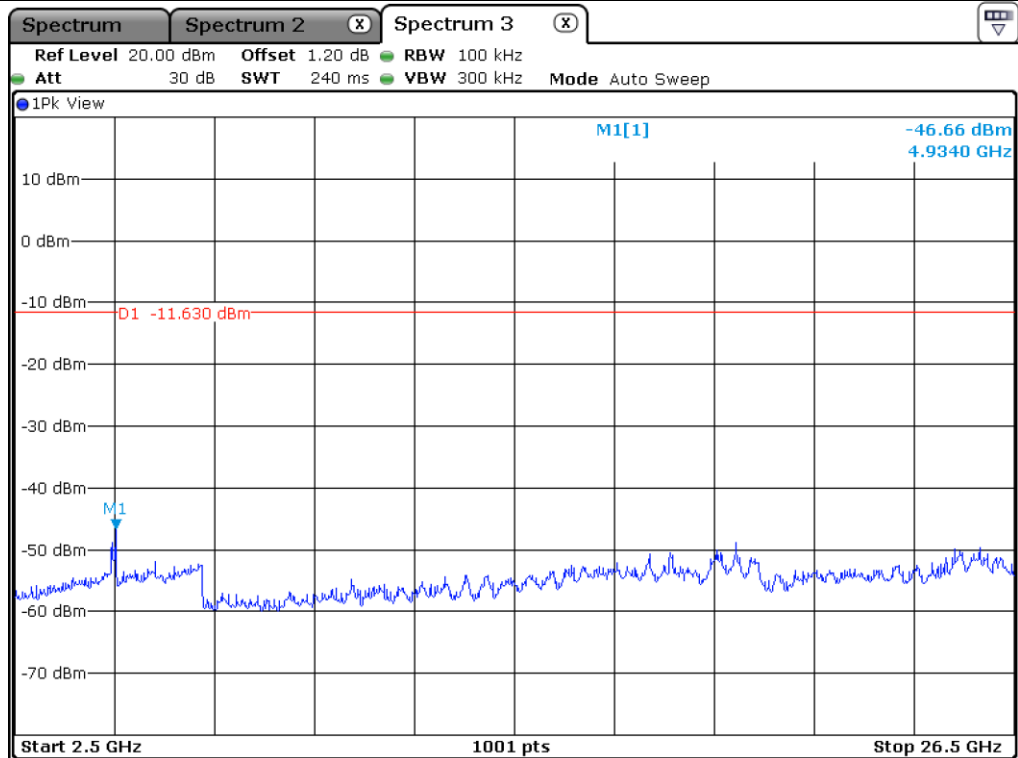
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Hopping Mode



Hopping Mode

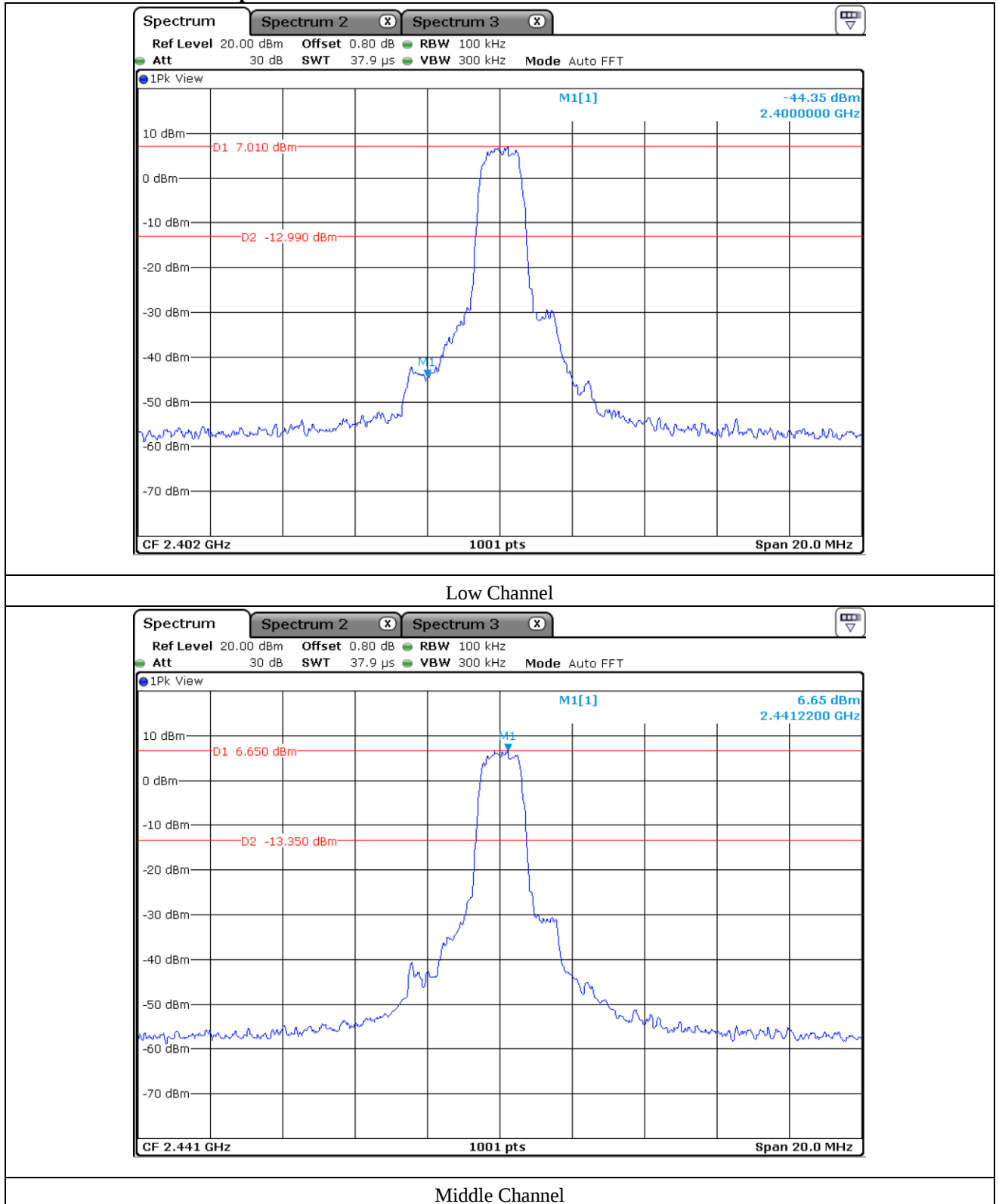
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12.6.3 Test data for 3 Mbps

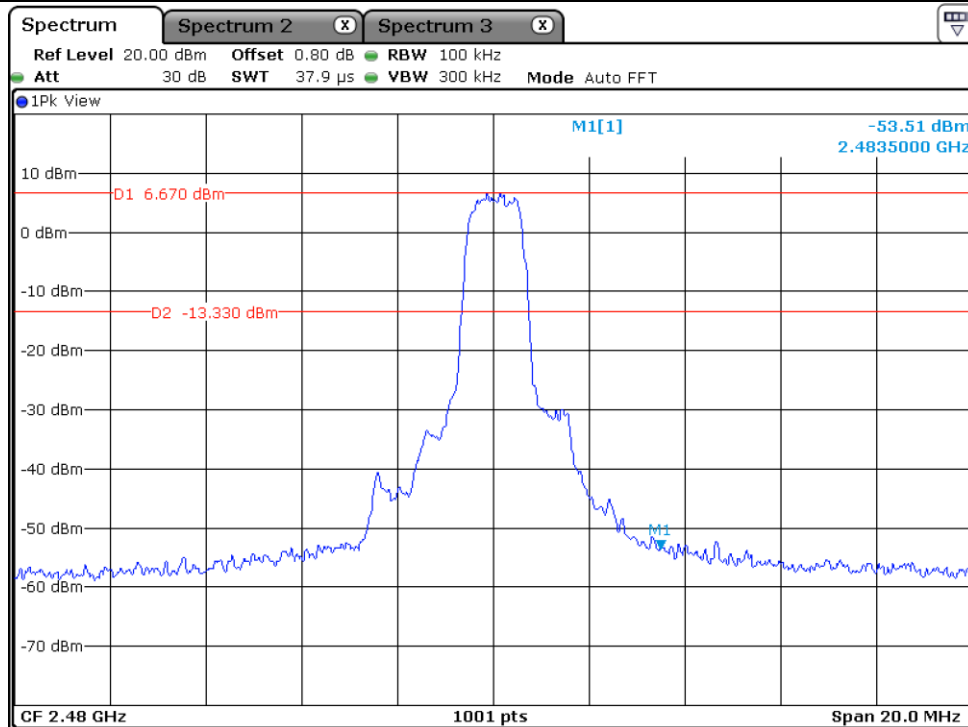


This Report is not correlated with the authentication of KOLAS

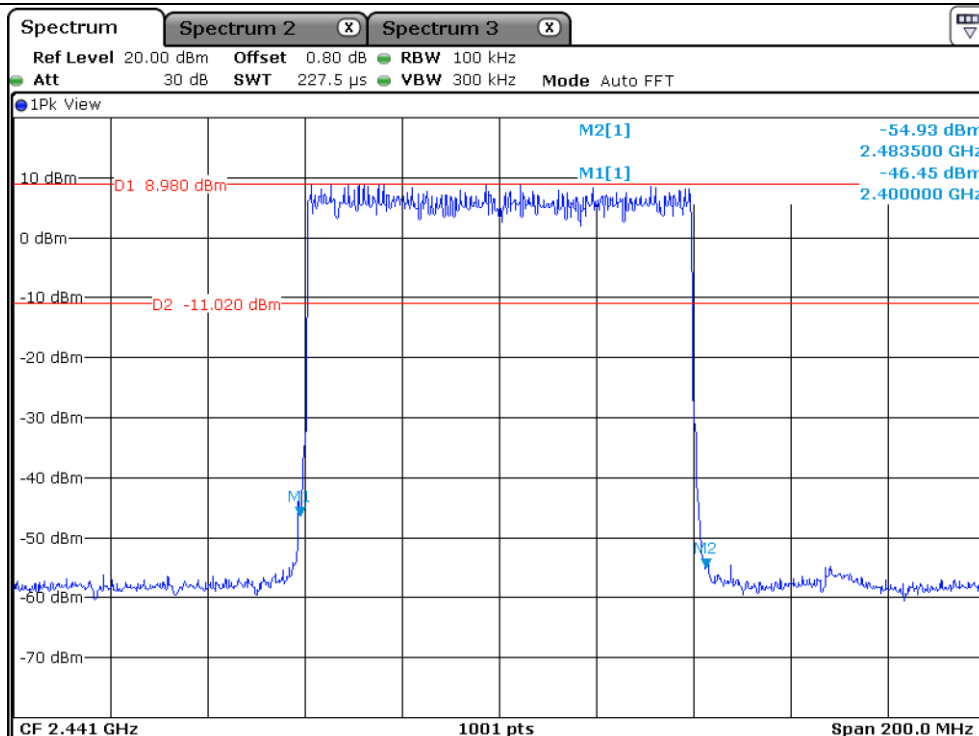
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High Channel



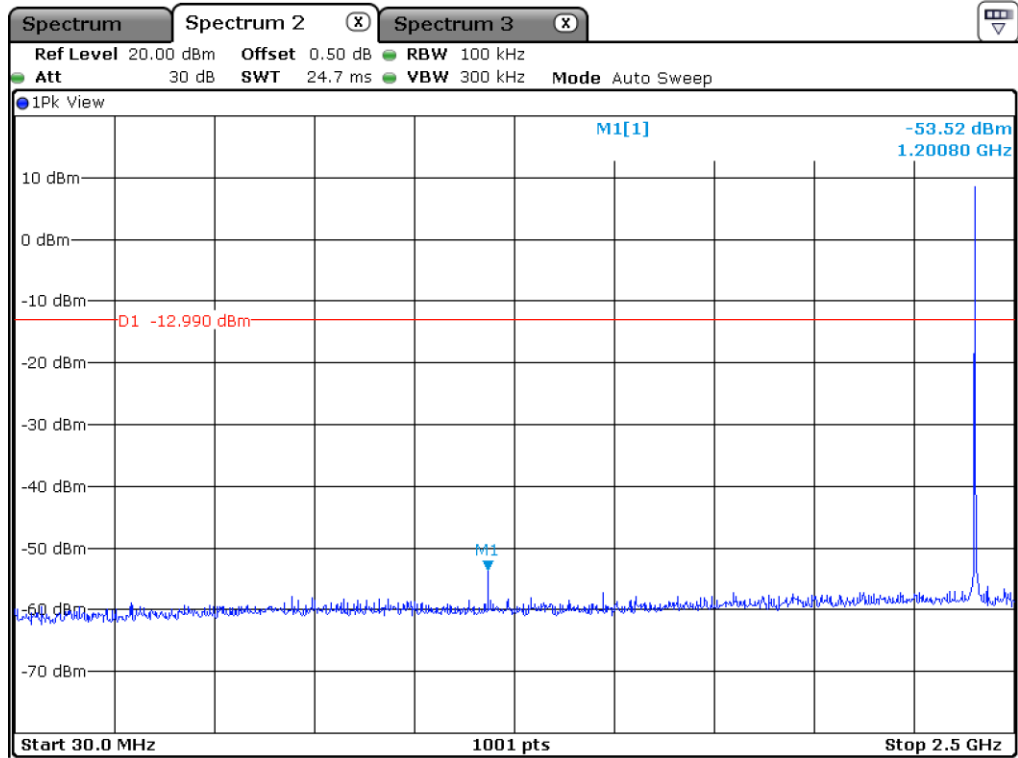
Hopping Mode

This Report is not correlated with the authentication of KOLAS

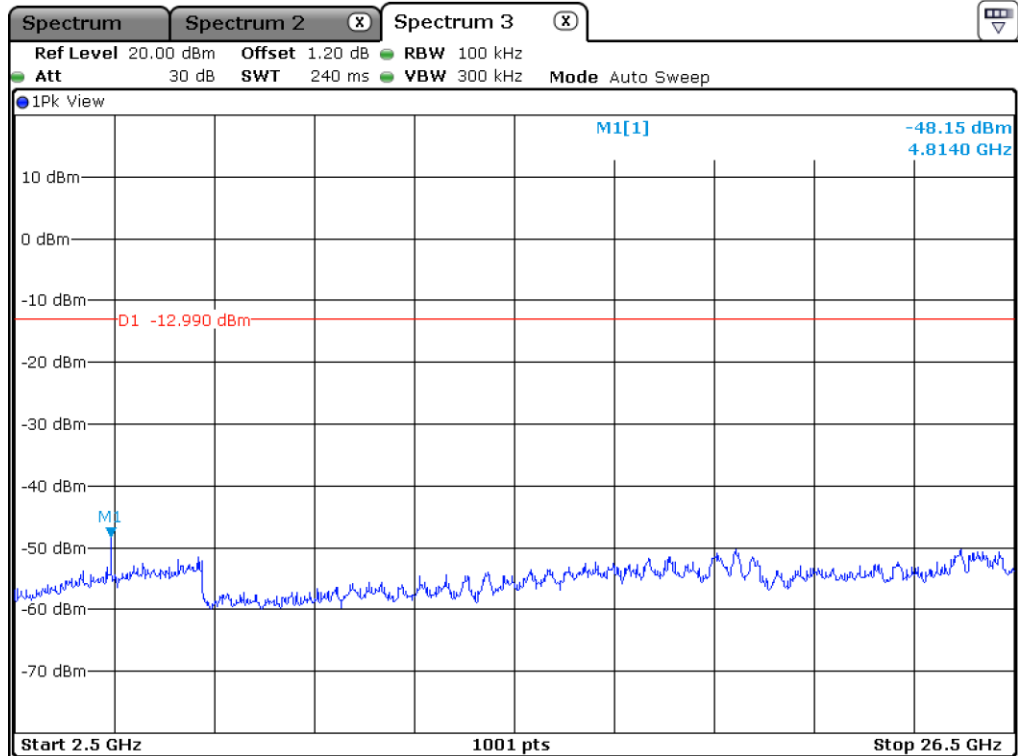
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Low Channel



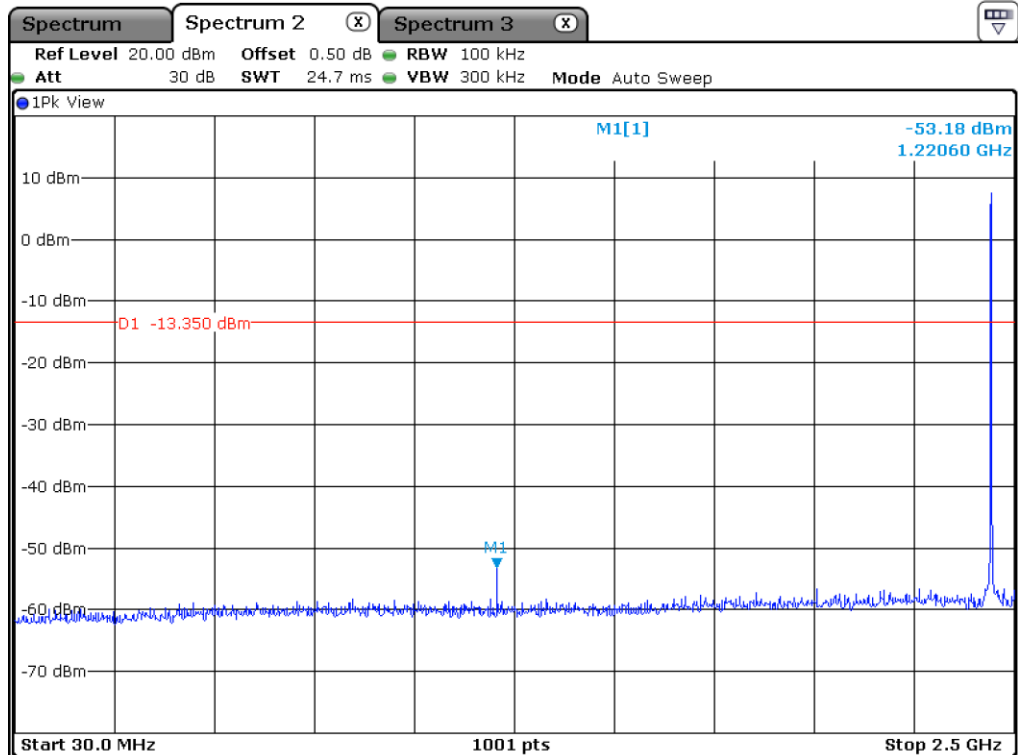
Low Channel

This Report is not correlated with the authentication of KOLAS

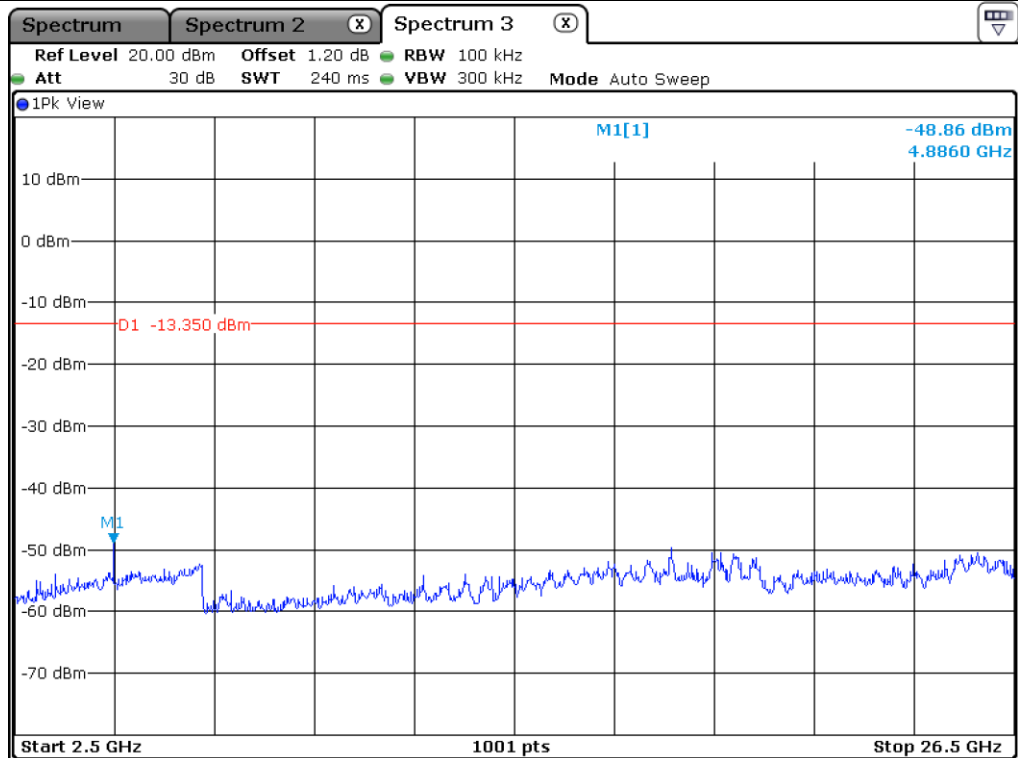
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OTC-TRF-RF-001(0)

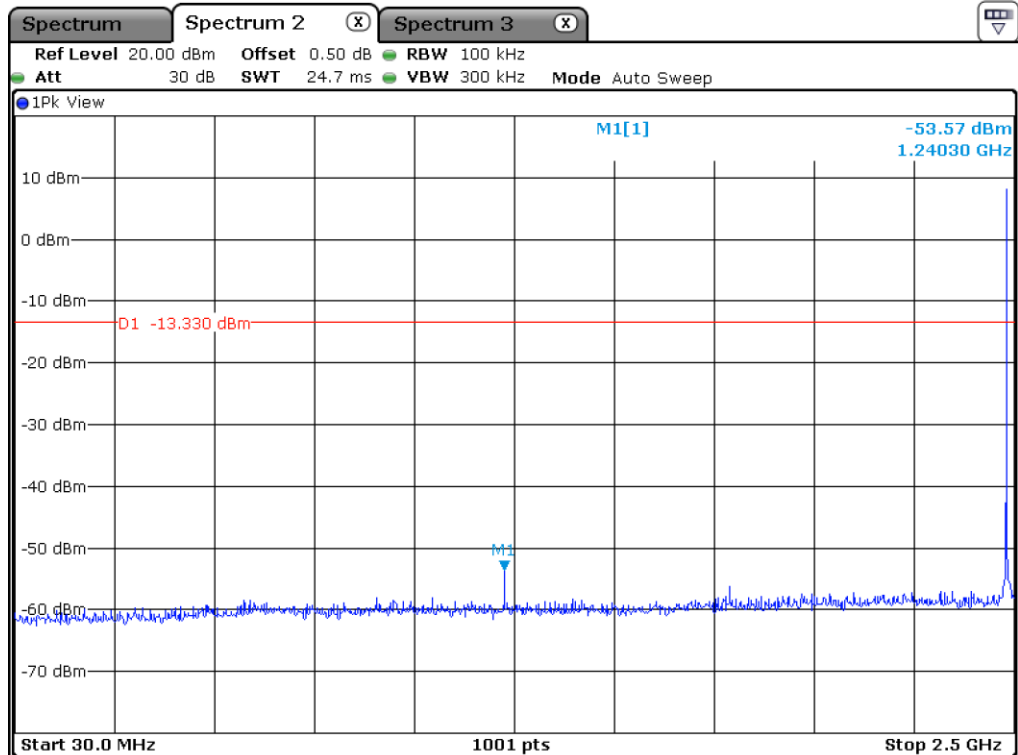
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



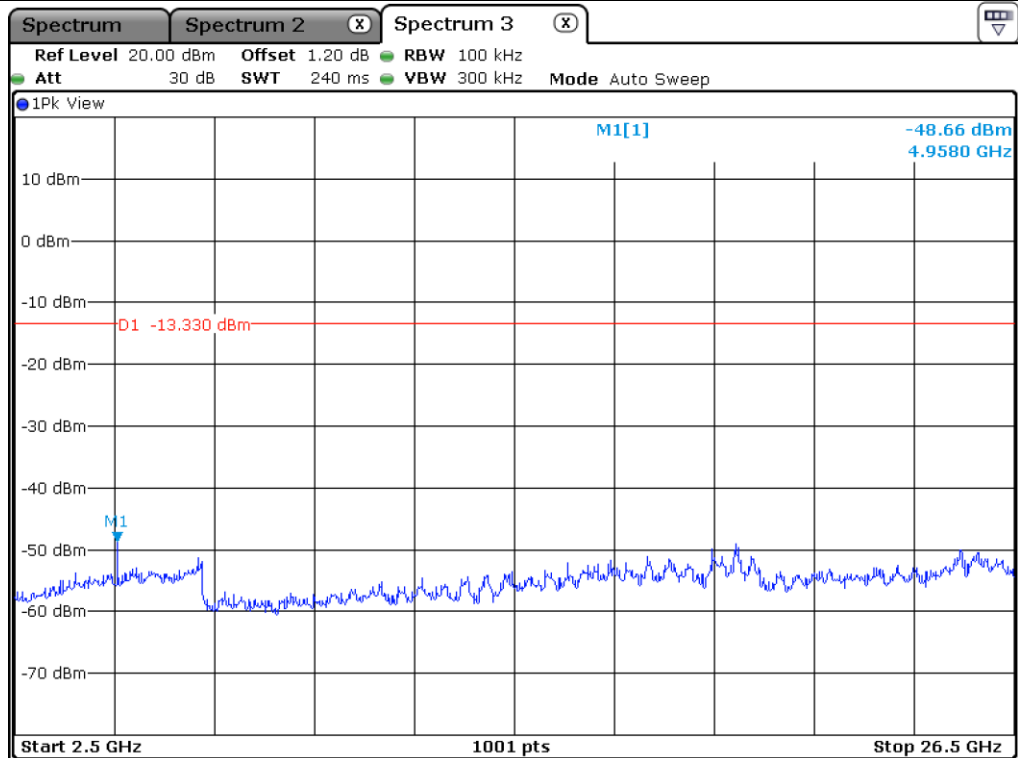
Middle Channel



Middle Channel



High Channel



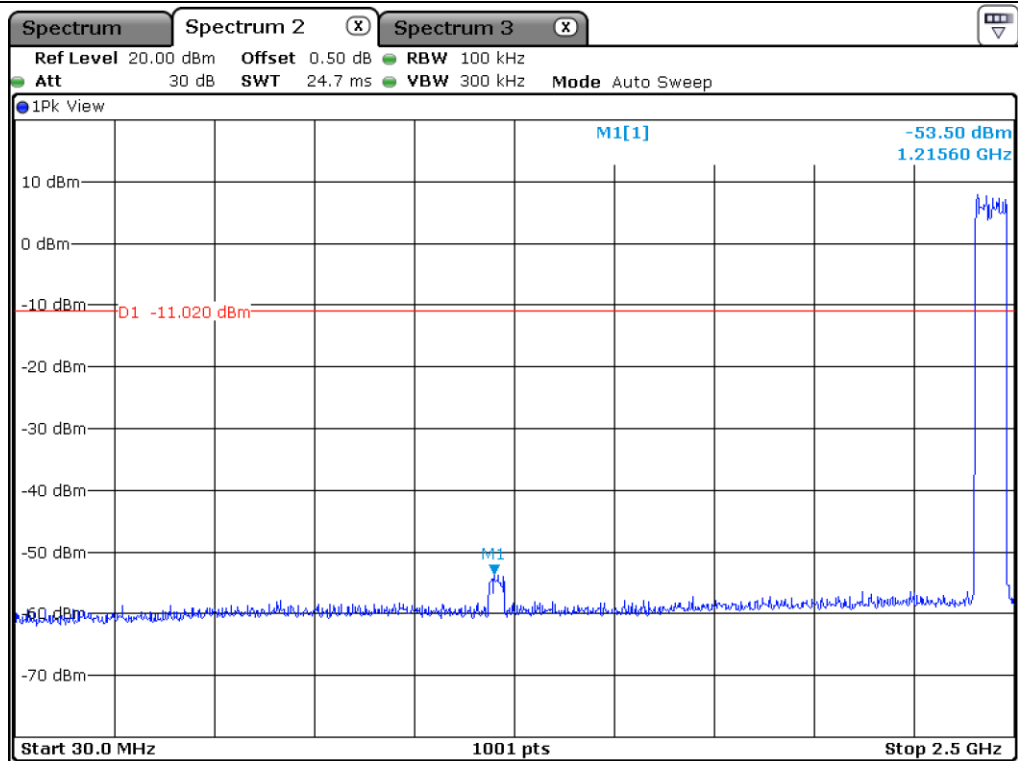
High Channel

This Report is not correlated with the authentication of KOLAS

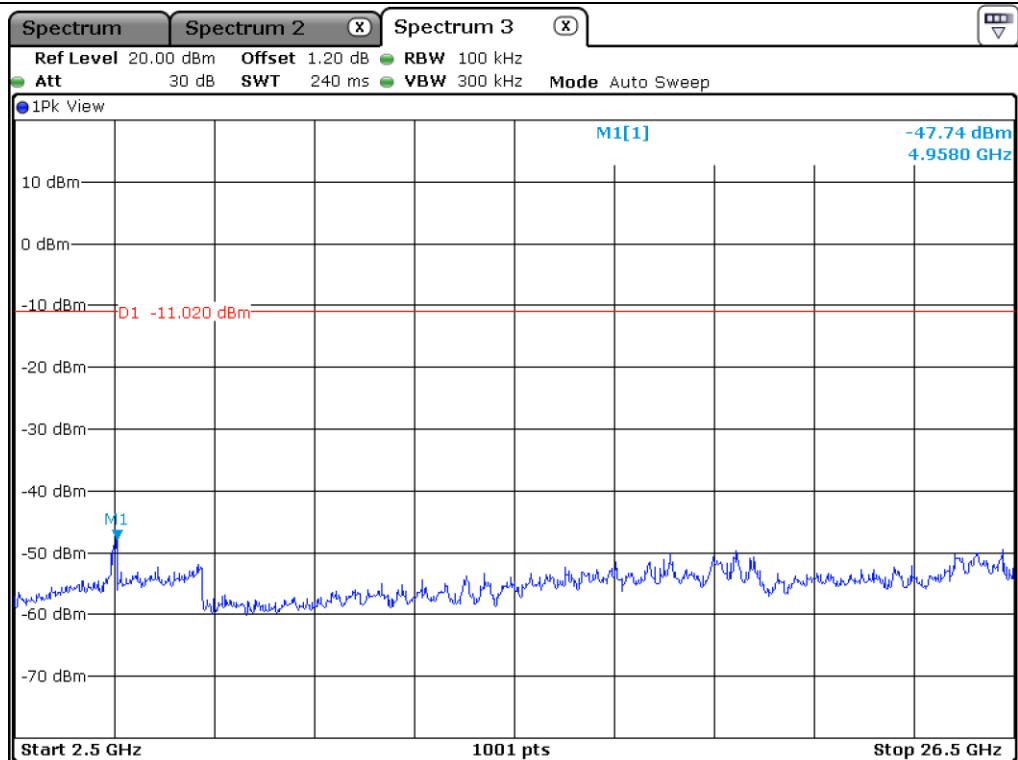
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Hopping Mode



Hopping Mode

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12.6 Test data for Transmitting mode radiated emission

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

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 : 76.80 %
- . 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										
2 374.71	52.76	Peak	H	28.30	8.20	46.15	-	43.11	74.00	30.89
2 390.00	43.55	Average	H	28.30	8.20	46.15	1.15	35.05	54.00	18.95
2 390.00	52.61	Peak	V	28.30	8.20	46.15	-	42.96	74.00	31.04
2 390.00	43.42	Average	V	28.30	8.20	46.15	1.15	34.92	54.00	19.08
Test Data for High Channel										
2 483.50	57.44	Peak	H	28.70	8.33	46.06	-	48.41	74.00	25.59
2 483.50	46.40	Average	H	28.70	8.33	46.06	1.15	38.52	54.00	15.48
2 483.50	57.32	Peak	V	28.70	8.33	46.06	-	48.29	74.00	25.71
2 483.50	46.27	Average	V	28.70	8.33	46.06	1.15	38.39	54.00	15.61

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 : 76.80 %
- . 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										
2 390.00	53.09	Peak	H	28.30	8.20	46.15	-	43.44	74.00	30.56
2 390.00	43.63	Average	H	28.30	8.20	46.15	1.15	35.13	54.00	18.87
2 390.00	52.91	Peak	V	28.30	8.20	46.15	-	43.26	74.00	30.74
2 390.00	43.52	Average	V	28.30	8.20	46.15	1.15	35.02	54.00	18.98
Test Data for High Channel										
2 483.50	58.26	Peak	H	28.70	8.33	46.06	-	49.23	74.00	24.77
2 483.50	47.29	Average	H	28.70	8.33	46.06	1.15	39.41	54.00	14.59
2 483.50	58.03	Peak	V	28.70	8.33	46.06	-	49.00	74.00	25.00
2 483.50	47.05	Average	V	28.70	8.33	46.06	1.15	39.17	54.00	14.83

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 : 76.80 %
- . 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										
2 390.00	53.12	Peak	H	28.30	8.20	46.15	-	43.47	74.00	30.53
2 390.00	43.66	Average	H	28.30	8.20	46.15	1.15	35.16	54.00	18.84
2 369.64	52.81	Peak	V	28.30	8.20	46.15	-	43.16	74.00	30.84
2 390.00	43.47	Average	V	28.30	8.20	46.15	1.15	34.97	54.00	19.03
Test Data for High Channel										
2 483.50	58.27	Peak	H	28.70	8.33	46.06	-	49.24	74.00	24.76
2 483.50	47.35	Average	H	28.70	8.33	46.06	1.15	39.47	54.00	14.53
2 483.50	57.82	Peak	V	28.70	8.33	46.06	-	48.79	74.00	25.21
2 483.50	46.88	Average	V	28.70	8.33	46.06	1.15	39.00	54.00	15.00

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

12.6.2.1 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 : 76.80 %
- 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										
2 390.00	52.41	Peak	H	28.30	8.20	46.15	-	42.76	74.00	31.24
2 390.00	43.22	Average	H	28.30	8.20	46.15	1.15	34.72	54.00	19.28
2 387.98	52.09	Peak	V	28.30	8.20	46.15	-	42.44	74.00	31.56
2 390.00	43.06	Average	V	28.30	8.20	46.15	1.15	34.56	54.00	19.44
Test Data for High Channel										
2 483.50	62.43	Peak	H	28.70	8.33	46.06	-	53.40	74.00	20.60
2 483.50	50.44	Average	H	28.70	8.33	46.06	1.15	42.56	54.00	11.44
2 483.50	61.74	Peak	V	28.70	8.33	46.06	-	52.71	74.00	21.29
2 483.50	49.96	Average	V	28.70	8.33	46.06	1.15	42.08	54.00	11.92

Tabulated test data for Restricted Band

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

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

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

12.6.2.2 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 : 76.80 %
- . 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										
2 389.47	52.69	Peak	H	28.30	8.20	46.15	-	43.04	74.00	30.96
2 390.00	43.51	Average	H	28.30	8.20	46.15	1.15	35.01	54.00	18.99
2 366.88	52.43	Peak	V	28.30	8.20	46.15	-	42.78	74.00	31.22
2 390.00	43.32	Average	V	28.30	8.20	46.15	1.15	34.82	54.00	19.18
Test Data for High Channel										
2 483.50	60.18	Peak	H	28.70	8.33	46.06	-	51.15	74.00	22.85
2 483.50	49.83	Average	H	28.70	8.33	46.06	1.15	41.95	54.00	12.05
2 483.50	59.11	Peak	V	28.70	8.33	46.06	-	50.08	74.00	23.92
2 483.50	49.32	Average	V	28.70	8.33	46.06	1.15	41.44	54.00	12.56

Tabulated test data for Restricted Band

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

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

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

12.6.2.3 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 : 76.80 %
- . 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										
2 315.96	52.84	Peak	H	28.30	8.20	46.15	-	43.19	74.00	30.81
2 390.00	43.55	Average	H	28.30	8.20	46.15	1.15	35.05	54.00	18.95
2 390.00	52.59	Peak	V	28.30	8.20	46.15	-	42.94	74.00	31.06
2 388.41	43.35	Average	V	28.30	8.20	46.15	1.15	34.85	54.00	19.15
Test Data for High Channel										
2 483.50	60.71	Peak	H	28.70	8.33	46.06	-	51.68	74.00	22.32
2 483.50	50.44	Average	H	28.70	8.33	46.06	1.15	42.56	54.00	11.44
2 483.50	60.16	Peak	V	28.70	8.33	46.06	-	51.13	74.00	22.87
2 483.50	50.04	Average	V	28.70	8.33	46.06	1.15	42.16	54.00	11.84

Tabulated test data for Restricted Band

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

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

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

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

12.6.3.1 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 : 76.80 %
- . 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	53.39	Peak	H	33.40	11.21	45.73	-	52.27	74.00	21.73
4 804.00	44.69	Average	H	33.40	11.21	45.73	1.15	44.72	54.00	9.28
4 804.00	53.05	Peak	V	33.40	11.21	45.73	-	51.93	74.00	22.07
4 804.00	44.31	Average	V	33.40	11.21	45.73	1.15	44.34	54.00	9.66
Test Data for Middle Channel										
4 882.00	53.21	Peak	H	33.50	11.23	45.80	-	52.14	74.00	21.86
4 882.00	44.53	Average	H	33.50	11.23	45.80	1.15	44.61	54.00	9.39
4 882.00	52.96	Peak	V	33.50	11.23	45.80	-	51.89	74.00	22.11
4 882.00	44.19	Average	V	33.50	11.23	45.80	1.15	44.27	54.00	9.73
Test Data for High Channel										
4 960.00	52.55	Peak	H	33.40	11.31	45.89	-	51.37	74.00	22.63
4 960.00	43.85	Average	H	33.40	11.31	45.89	1.15	43.82	54.00	10.18
4 960.00	52.19	Peak	V	33.40	11.31	45.89	-	51.01	74.00	22.99
4 960.00	43.52	Average	V	33.40	11.31	45.89	1.15	43.49	54.00	10.51

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

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

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

12.6.3.2 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 : 76.80 %
- 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	52.29	Peak	H	33.40	11.21	45.73	-	51.17	74.00	22.83
4 804.00	43.65	Average	H	33.40	11.21	45.73	1.15	43.68	54.00	10.32
4 804.00	51.99	Peak	V	33.40	11.21	45.73	-	50.87	74.00	23.13
4 804.00	43.35	Average	V	33.40	11.21	45.73	1.15	43.38	54.00	10.62
Test Data for Middle Channel										
4 882.00	52.23	Peak	H	33.50	11.23	45.80	-	51.16	74.00	22.84
4 882.00	43.62	Average	H	33.50	11.23	45.80	1.15	43.70	54.00	10.30
4 882.00	51.89	Peak	V	33.50	11.23	45.80	-	50.82	74.00	23.18
4 882.00	43.40	Average	V	33.50	11.23	45.80	1.15	43.48	54.00	10.52
Test Data for High Channel										
4 960.00	52.00	Peak	H	33.40	11.31	45.89	-	50.82	74.00	23.18
4 960.00	43.51	Average	H	33.40	11.31	45.89	1.15	43.48	54.00	10.52
4 960.00	51.78	Peak	V	33.40	11.31	45.89	-	50.60	74.00	23.40
4 960.00	43.19	Average	V	33.40	11.31	45.89	1.15	43.16	54.00	10.84

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

12.6.3.3 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 : 76.80 %
- . 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	52.31	Peak	H	33.40	11.21	45.73	-	51.19	74.00	22.81
4 804.00	43.72	Average	H	33.40	11.21	45.73	1.15	43.75	54.00	10.25
4 804.00	52.04	Peak	V	33.40	11.21	45.73	-	50.92	74.00	23.08
4 804.00	43.44	Average	V	33.40	11.21	45.73	1.15	43.47	54.00	10.53
Test Data for Middle Channel										
4 882.00	52.25	Peak	H	33.50	11.23	45.80	-	51.18	74.00	22.82
4 882.00	43.66	Average	H	33.50	11.23	45.80	1.15	43.74	54.00	10.26
4 882.00	52.21	Peak	V	33.50	11.23	45.80	-	51.14	74.00	22.86
4 882.00	43.49	Average	V	33.50	11.23	45.80	1.15	43.57	54.00	10.43
Test Data for High Channel										
4 960.00	51.89	Peak	H	33.40	11.31	45.89	-	50.71	74.00	23.29
4 960.00	43.36	Average	H	33.40	11.31	45.89	1.15	43.33	54.00	10.67
4 960.00	51.80	Peak	V	33.40	11.31	45.89	-	50.62	74.00	23.38
4 960.00	43.22	Average	V	33.40	11.31	45.89	1.15	43.19	54.00	10.81

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

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

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

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

12.6.4.1 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 : 76.80 %
- . 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	55.02	Peak	H	33.40	11.21	45.73	-	53.90	74.00	20.10
4 804.00	49.59	Average	H	33.40	11.21	45.73	1.15	49.62	54.00	4.38
4 804.00	53.54	Peak	V	33.40	11.21	45.73	-	52.42	74.00	21.58
4 804.00	47.87	Average	V	33.40	11.21	45.73	1.15	47.90	54.00	6.10
Test Data for Middle Channel										
4 882.00	53.26	Peak	H	33.50	11.23	45.80	-	52.19	74.00	21.81
4 882.00	47.66	Average	H	33.50	11.23	45.80	1.15	47.74	54.00	6.26
4 882.00	52.01	Peak	V	33.50	11.23	45.80	-	50.94	74.00	23.06
4 882.00	46.29	Average	V	33.50	11.23	45.80	1.15	46.37	54.00	7.63
Test Data for High Channel										
4 960.00	52.76	Peak	H	33.40	11.31	45.89	-	51.58	74.00	22.42
4 960.00	46.95	Average	H	33.40	11.31	45.89	1.15	46.92	54.00	7.08
4 960.00	51.86	Peak	V	33.40	11.31	45.89	-	50.68	74.00	23.32
4 960.00	45.76	Average	V	33.40	11.31	45.89	1.15	45.73	54.00	8.27

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

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

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

12.6.4.2 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 : 76.80 %
- 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	53.46	Peak	H	33.40	11.21	45.73	-	52.34	74.00	21.66
4 804.00	47.89	Average	H	33.40	11.21	45.73	1.15	47.92	54.00	6.08
4 804.00	52.26	Peak	V	33.40	11.21	45.73	-	51.14	74.00	22.86
4 804.00	46.44	Average	V	33.40	11.21	45.73	1.15	46.47	54.00	7.53
Test Data for Middle Channel										
4 882.00	52.34	Peak	H	33.50	11.23	45.80	-	51.27	74.00	22.73
4 882.00	46.55	Average	H	33.50	11.23	45.80	1.15	46.63	54.00	7.37
4 882.00	51.51	Peak	V	33.50	11.23	45.80	-	50.44	74.00	23.56
4 882.00	45.29	Average	V	33.50	11.23	45.80	1.15	45.37	54.00	8.63
Test Data for High Channel										
4 960.00	51.87	Peak	H	33.40	11.31	45.89	-	50.69	74.00	23.31
4 960.00	46.03	Average	H	33.40	11.31	45.89	1.15	46.00	54.00	8.00
4 960.00	50.53	Peak	V	33.40	11.31	45.89	-	49.35	74.00	24.65
4 960.00	44.78	Average	V	33.40	11.31	45.89	1.15	44.75	54.00	9.25

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

12.6.4.3 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 : 76.80 %
- . 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	53.50	Peak	H	33.40	11.21	45.73	-	52.38	74.00	21.62
4 804.00	47.96	Average	H	33.40	11.21	45.73	1.15	47.99	54.00	6.01
4 804.00	52.18	Peak	V	33.40	11.21	45.73	-	51.06	74.00	22.94
4 804.00	46.34	Average	V	33.40	11.21	45.73	1.15	46.37	54.00	7.63
Test Data for Middle Channel										
4 882.00	52.35	Peak	H	33.50	11.23	45.80	-	51.28	74.00	22.72
4 882.00	46.59	Average	H	33.50	11.23	45.80	1.15	46.67	54.00	7.33
4 882.00	51.40	Peak	V	33.50	11.23	45.80	-	50.33	74.00	23.67
4 882.00	45.18	Average	V	33.50	11.23	45.80	1.15	45.26	54.00	8.74
Test Data for High Channel										
4 960.00	51.84	Peak	H	33.40	11.31	45.89	-	50.66	74.00	23.34
4 960.00	45.94	Average	H	33.40	11.31	45.89	1.15	45.91	54.00	8.09
4 960.00	50.55	Peak	V	33.40	11.31	45.89	-	49.37	74.00	24.63
4 960.00	44.65	Average	V	33.40	11.31	45.89	1.15	44.62	54.00	9.38

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 : 22 °C
Relative humidity : 46 % 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.

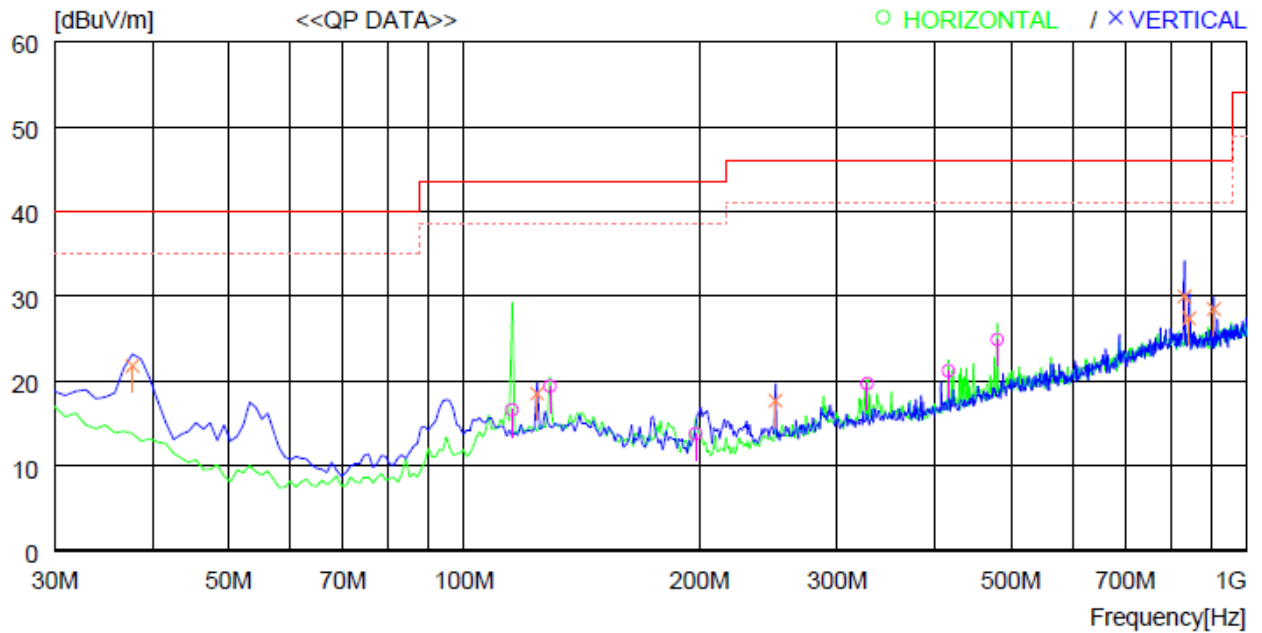
13.3 Test Date

May 17, 2021 ~ May 31, 2021

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	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	[dBuV]	FACTOR	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	115.360	29.6	17.8	1.2	32.0	16.6	43.5	26.9	300	95
2	128.940	31.1	19.0	1.3	32.0	19.4	43.5	24.1	300	0
3	197.810	28.6	15.6	1.6	32.0	13.8	43.5	29.7	300	0
4	327.790	30.0	19.5	2.2	32.0	19.7	46.0	26.3	100	243
5	416.061	29.9	20.9	2.5	32.1	21.2	46.0	24.8	300	0
6	480.081	31.9	22.6	2.7	32.3	24.9	46.0	21.1	100	0
----- Vertical -----										
7	37.760	35.0	18.1	0.7	32.0	21.8	40.0	18.2	100	359
8	124.090	30.4	18.8	1.3	32.0	18.5	43.5	25.0	100	64
9	250.190	30.2	17.6	1.9	32.0	17.7	46.0	28.3	100	359
10	833.151	30.6	27.2	4.1	31.9	30.0	46.0	16.0	400	127
11	844.791	28.1	27.2	4.0	31.9	27.4	46.0	18.6	100	359
12	907.839	28.8	27.5	3.9	31.7	28.5	46.0	17.5	100	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

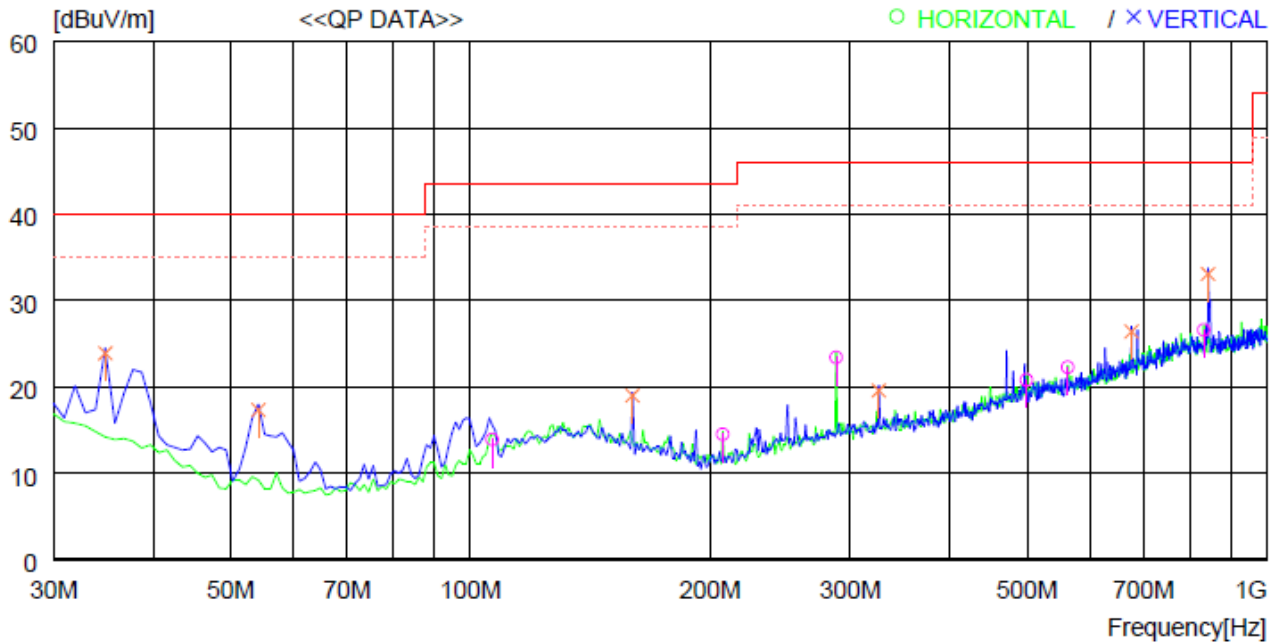
- . Resolution bandwidth : 1 MHz for Peak and Average Mode
- . Video bandwidth : 3 MHz for Peak and Average Mode
- . Frequency range : 1 GHz ~ 26.5 GHz
- . Measurement distance : 3 m

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	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
		QP	FACTOR							
	[MHz]	[dBuV]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	106.630	28.4	16.3	1.2	32.0	13.9	43.5	29.6	200	233
2	207.510	29.0	15.8	1.7	32.0	14.5	43.5	29.0	300	110
3	288.020	34.7	18.7	2.0	32.0	23.4	46.0	22.6	100	0
4	499.481	27.2	23.1	2.8	32.3	20.8	46.0	25.2	400	81
5	562.529	28.0	23.8	2.9	32.4	22.3	46.0	23.7	200	359
6	833.151	27.2	27.2	4.1	31.9	26.6	46.0	19.4	200	284
----- Vertical -----										
7	34.850	36.1	19.2	0.6	32.0	23.9	40.0	16.1	200	359
8	54.250	35.9	12.7	0.8	32.1	17.3	40.0	22.7	100	263
9	159.980	31.8	17.8	1.4	32.0	19.0	43.5	24.5	200	292
10	325.850	29.9	19.5	2.2	32.0	19.6	46.0	26.4	100	0
11	676.016	30.0	25.3	3.4	32.3	26.4	46.0	19.6	100	0
12	843.821	33.8	27.2	4.0	31.9	33.1	46.0	12.9	400	359

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)
ESR7	Rohde & Schwarz	EMI Test Receiver	102190	Oct. 14, 2020 (1Y)
310N	Sonoma Instrument	AMPLIFIER	392756	Oct. 16, 2020 (1Y)
PAM-840A	Com-Power	Pre-Amplifier	461339	Oct. 16, 2020 (1Y)
PAM-118A	Com-Power	Pre-Amplifier	18040081	Oct. 12, 2020 (1Y)
DT2000-2t	Innco Systems GmbH	Turn Table	N/A	N/A
CO3000	Innco Systems GmbH	Controller	1026/40960617/P	N/A
MA-4640-XPET	Innco Systems GmbH	Antenna Master	MA4640/652/43100318/P	N/A
HLP-2008	TDK RF Solutions	Hybrid Antenna	131316	Feb. 27, 2020 (2Y)
BBHA9170	Schwarzbeck	Horn Antenna	BBHA9170178	Jan. 07, 2021(1Y)
AH-118	Com-Power	Horn Antenna	10050061	Oct. 15, 2020 (1Y)
FMZB 1513	Schwarzbeck	Loop Antenna	1513-235	Mar. 24, 2020(2Y)
HPF 3GHz	Rohde & Schwarz	High Pass Filter (1-3 GHz)	N/A	Feb. 08, 2021 (1Y)
GP-4303D	LG Precision Co.,Ltd	DC POWER SUPPLY	5071069	Jan. 06, 2021 (1Y)

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