

Appendix B

Test Results

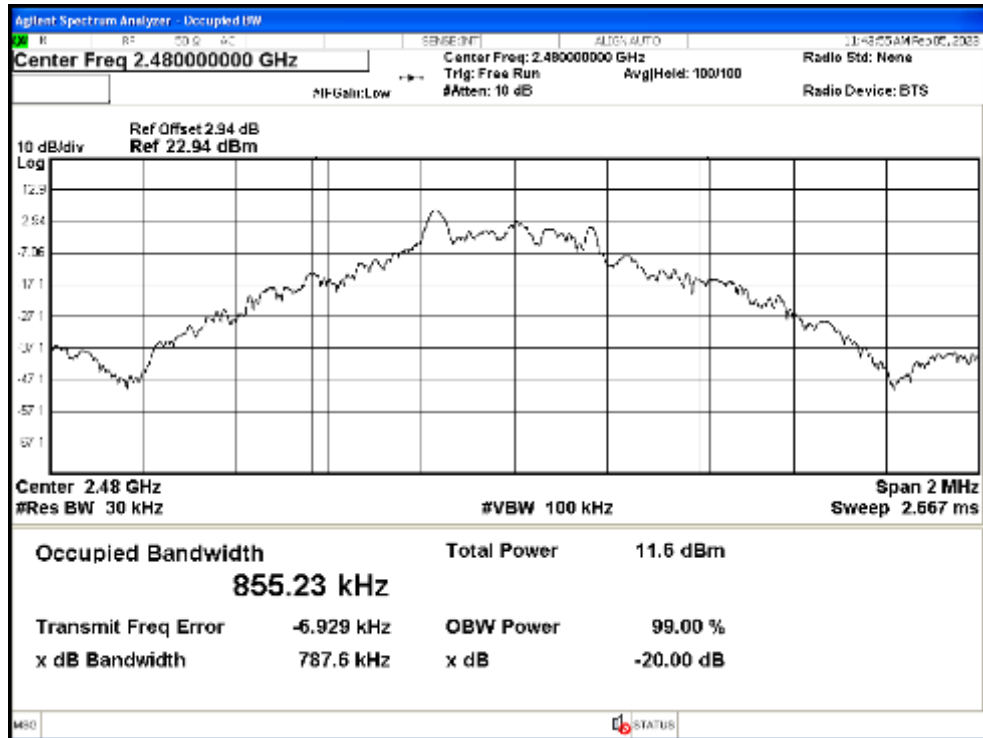
APPENDIX B	1
APPENDIX B.1: TEST PLOTS OF 99% BANDWIDTH	2
<i>BDR Mode, DH1</i>	2
<i>EDR Mode, 3DH1</i>	6
APPENDIX B.2: TEST PLOTS OF 20dB BANDWIDTH	10
<i>BDR Mode, DH1</i>	10
<i>EDR Mode, 3DH1</i>	14
APPENDIX B.3: TEST PLOTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH	18
<i>BDR Mode, Low Channel</i>	18
<i>BDR Mode, Middle Channel</i>	19
<i>BDR Mode, High Channel</i>	20
<i>EDR Mode, Low Channel</i>	21
<i>EDR Mode, Middle Channel</i>	22
<i>EDR Mode, High Channel</i>	23
<i>BDR Mode, Band Edge, Low Channel</i>	24
<i>BDR Mode, Band Edge, High Channel</i>	24
<i>BDR Mode, Hopping Band Edge</i>	25
<i>EDR Mode, Band Edge, Low Channel</i>	26
<i>EDR Mode, Band Edge, High Channel</i>	26
<i>EDR Mode, Hopping Band Edge</i>	27
APPENDIX B.4: TEST PLOTS OF CARRIER FREQUENCY SEPARATION	28
<i>BDR, Low Channel</i>	28
<i>BDR, Middle Channel</i>	28
<i>BDR, High Channel</i>	29
<i>EDR, Low Channel</i>	29
<i>EDR, Middle Channel</i>	30
<i>EDR, High Channel</i>	30
APPENDIX B.5: TEST PLOTS OF NUMBER OF HOPPING FREQUENCY	31
<i>BDR, Hopping</i>	31
<i>EDR, Hopping</i>	32
APPENDIX B.6: TEST PLOTS OF TIME OF OCCUPANCY	33
<i>BDR Mode, DH1, Middle Channel</i>	33
<i>BDR Mode, DH3, Middle Channel</i>	34
<i>BDR Mode, DH5, Middle Channel</i>	34
<i>EDR Mode, 3DH1, Middle Channel</i>	35
<i>EDR Mode, 3DH3, Middle Channel</i>	35
<i>EDR Mode, 3DH5, Middle Channel</i>	36
APPENDIX B.7: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	37
30MHz - 1GHz (Worst case)	37
1GHz - 18GHz	44
APPENDIX B.8: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS	56
<i>BDR</i>	56
<i>EDR</i>	58
APPENDIX B.9: TEST RESULTS OF CONDUCTED EMISSION ON AC MAINS	60
<i>working mode</i>	60

Appendix B.1: Test Plots of 99% Bandwidth

BDR Mode, DH1

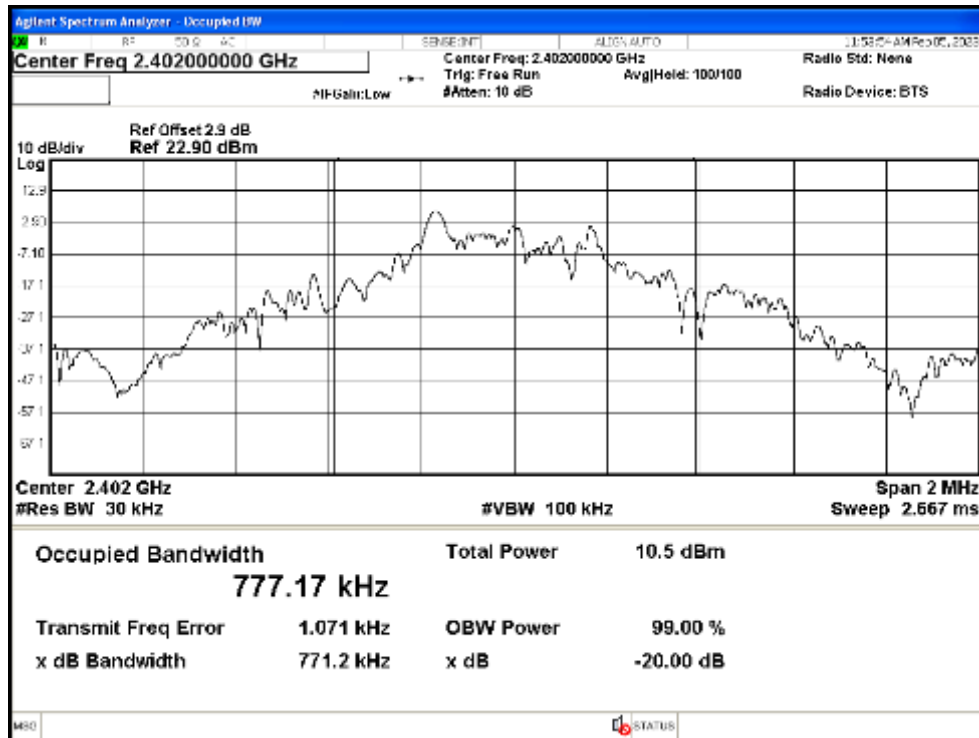
RBW=30kHz, VBW=100kHz





BDR Mode, DH5

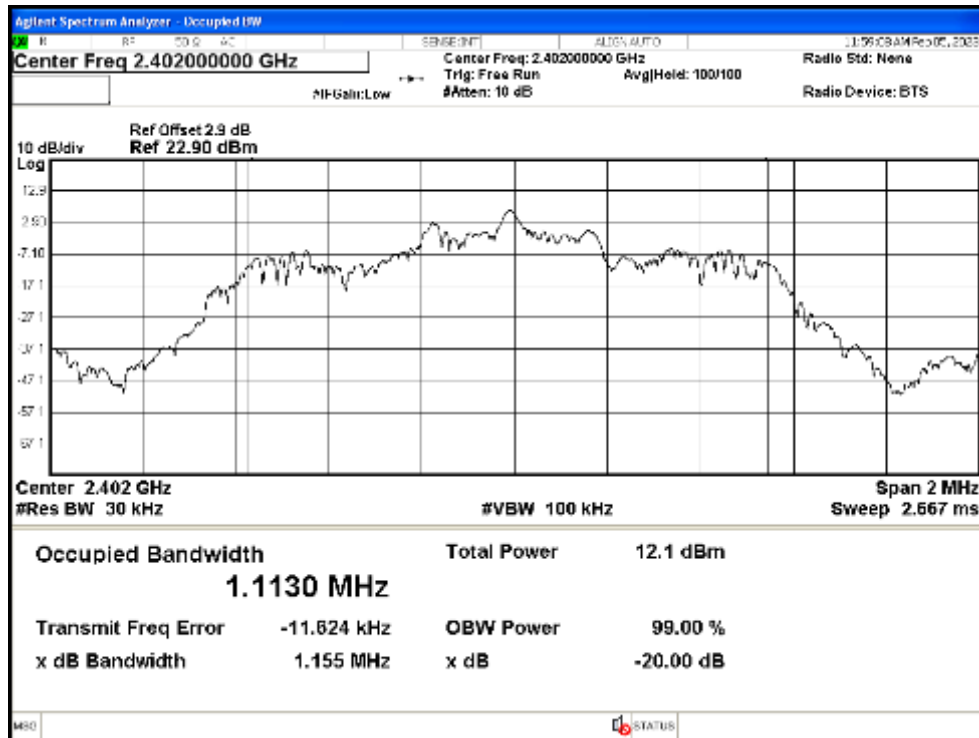
RBW=30kHz VBW=100kHz

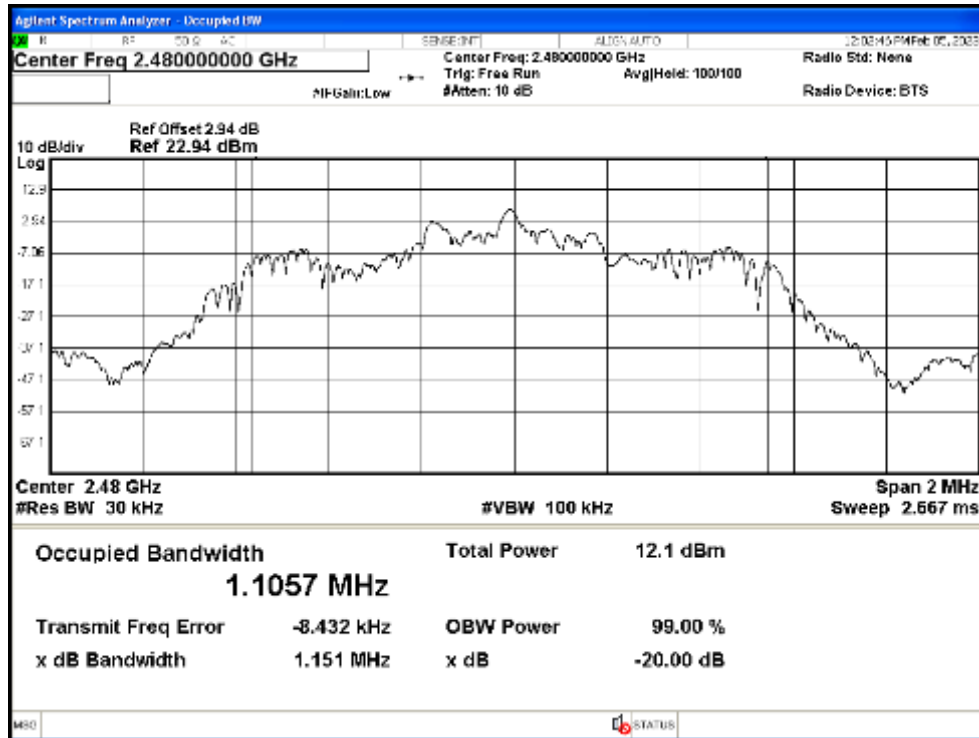




EDR Mode, 3DH1

RBW=30kHz VBW=100kHz

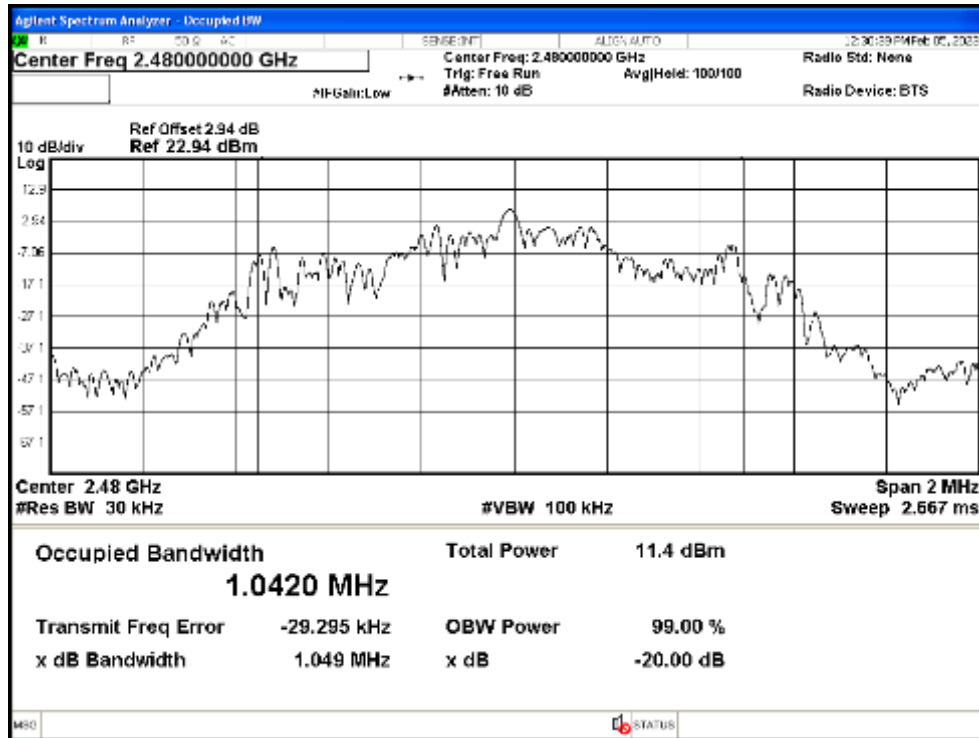




EDR Mode, 3DH5

RBW=30kHz VBW=100kHz



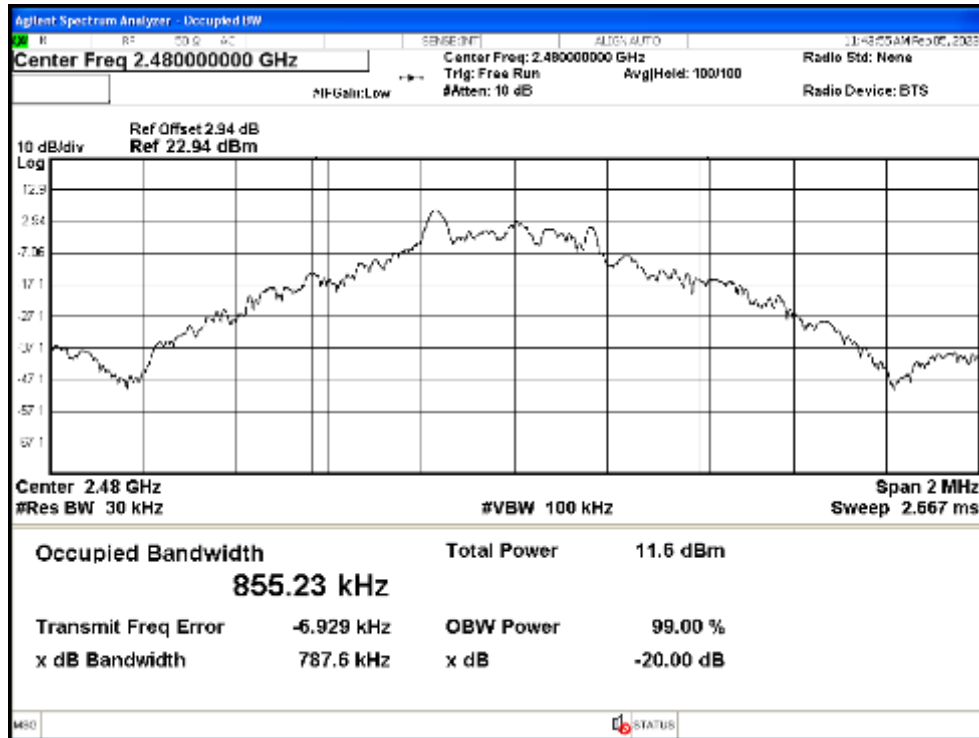


Appendix B.2: Test Plots of 20dB Bandwidth

BDR Mode, DH1

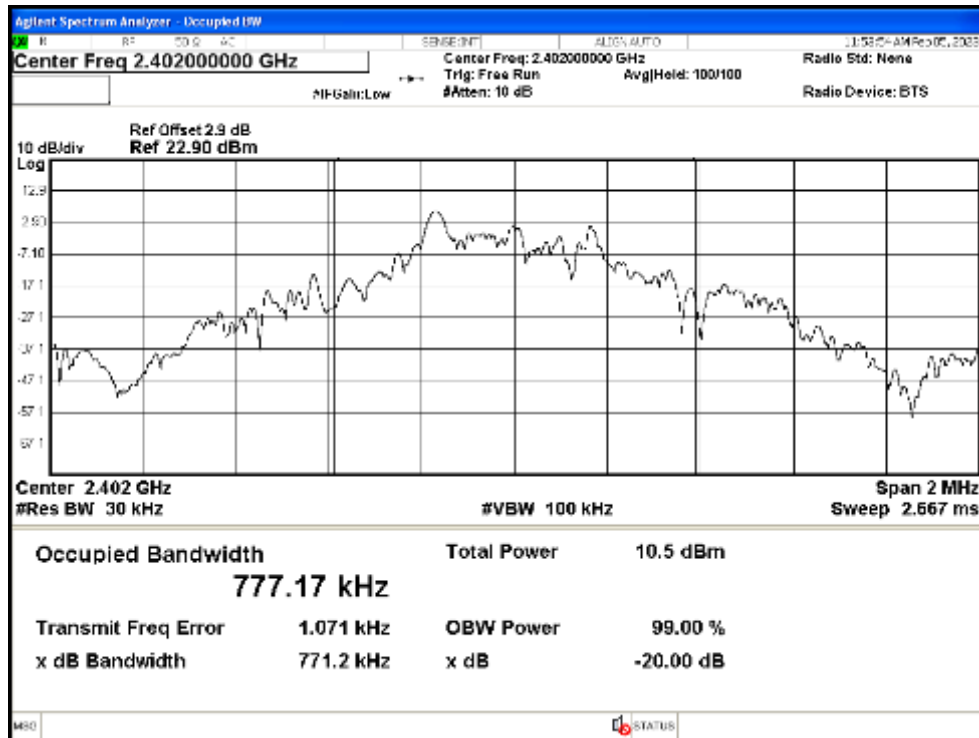
RBW=30kHz VBW=100kHz





BDR Mode, DH5

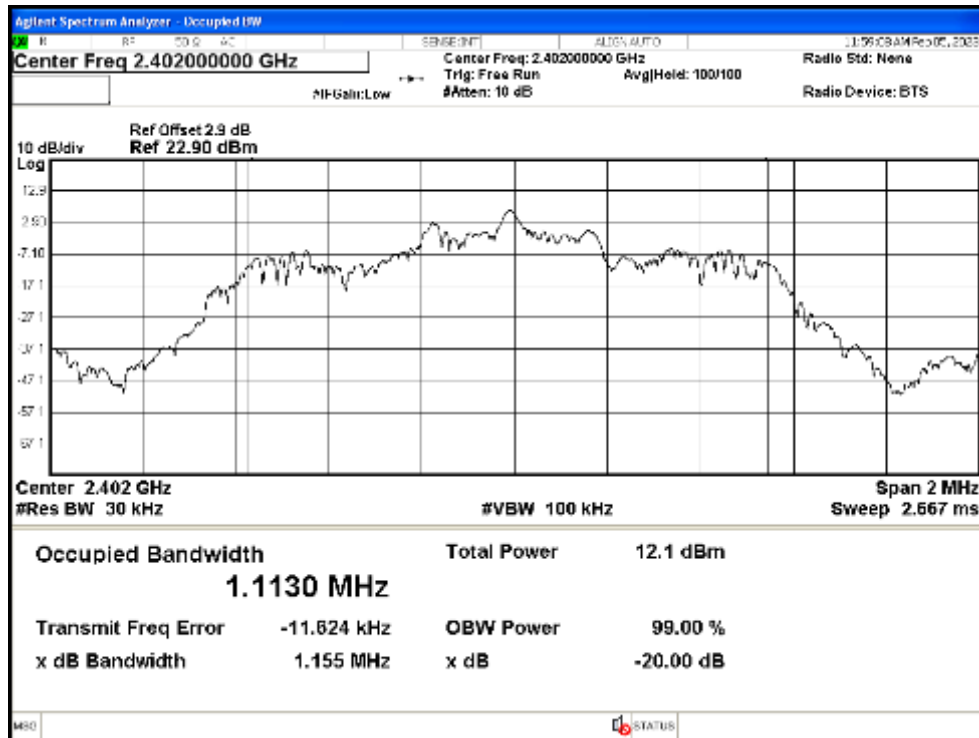
RBW=30kHz VBW=100kHz

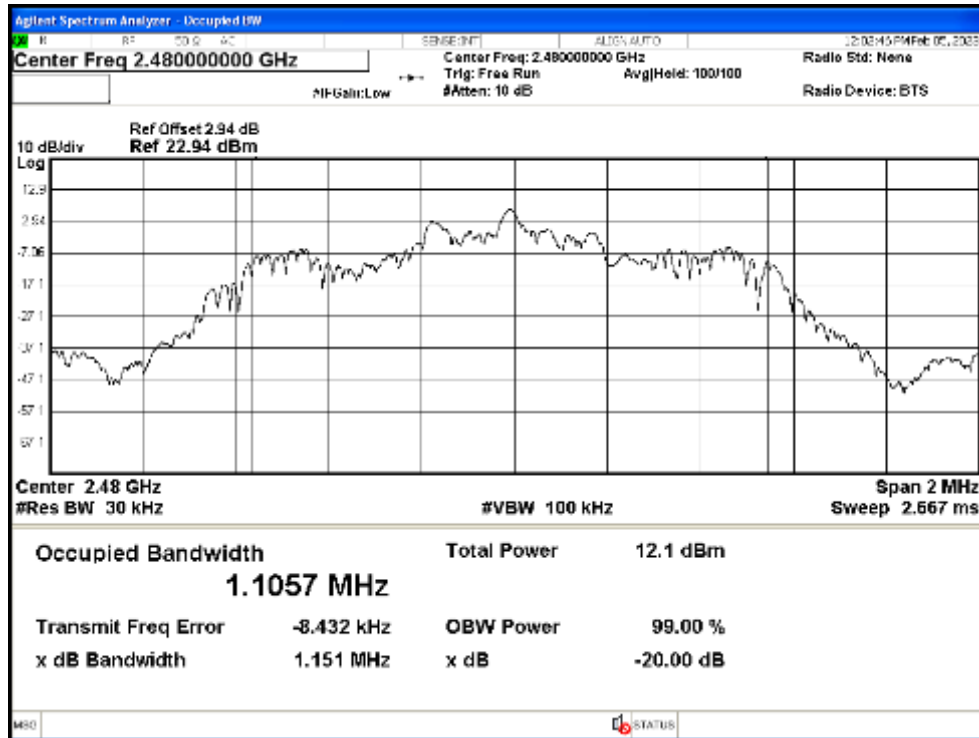




EDR Mode, 3DH1

RBW=30kHz VBW=100kHz

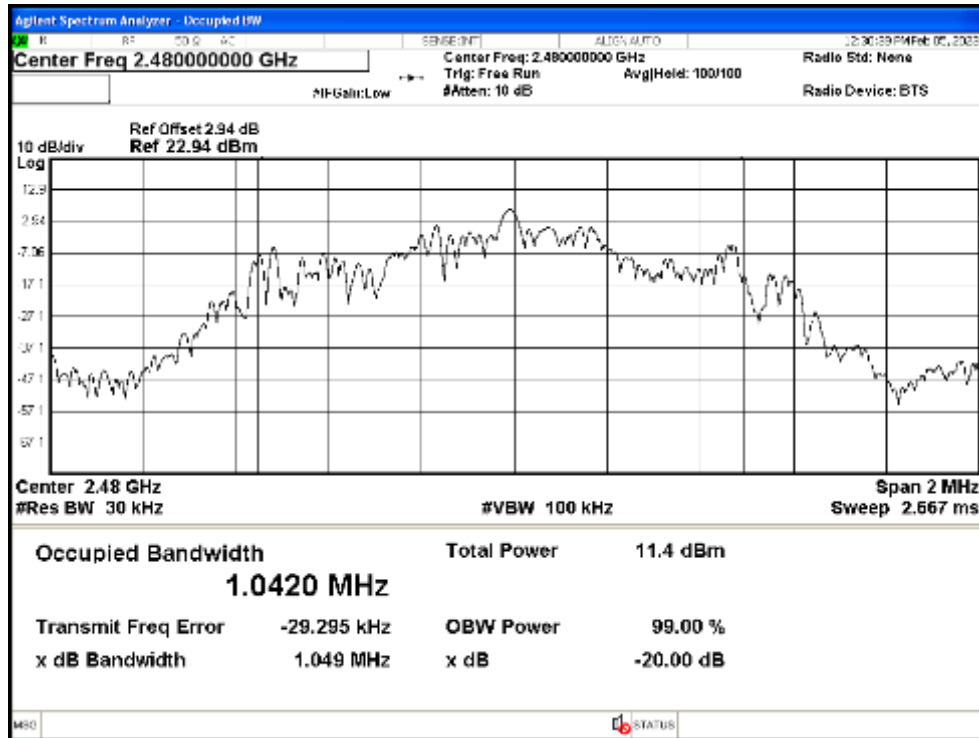




EDR Mode, 3DH5

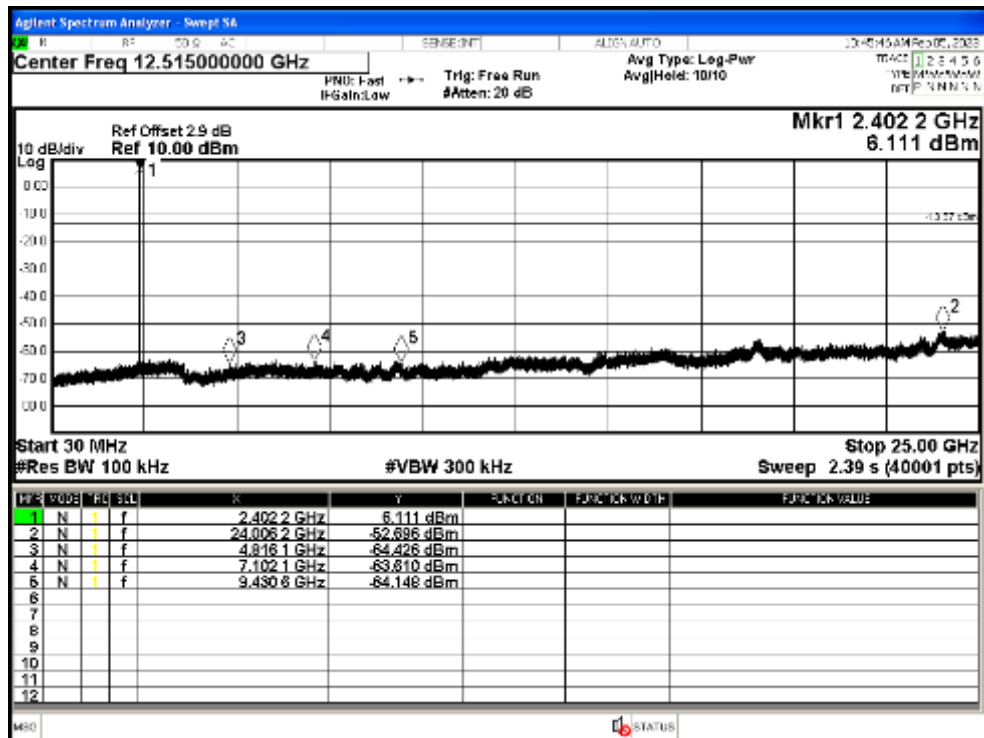
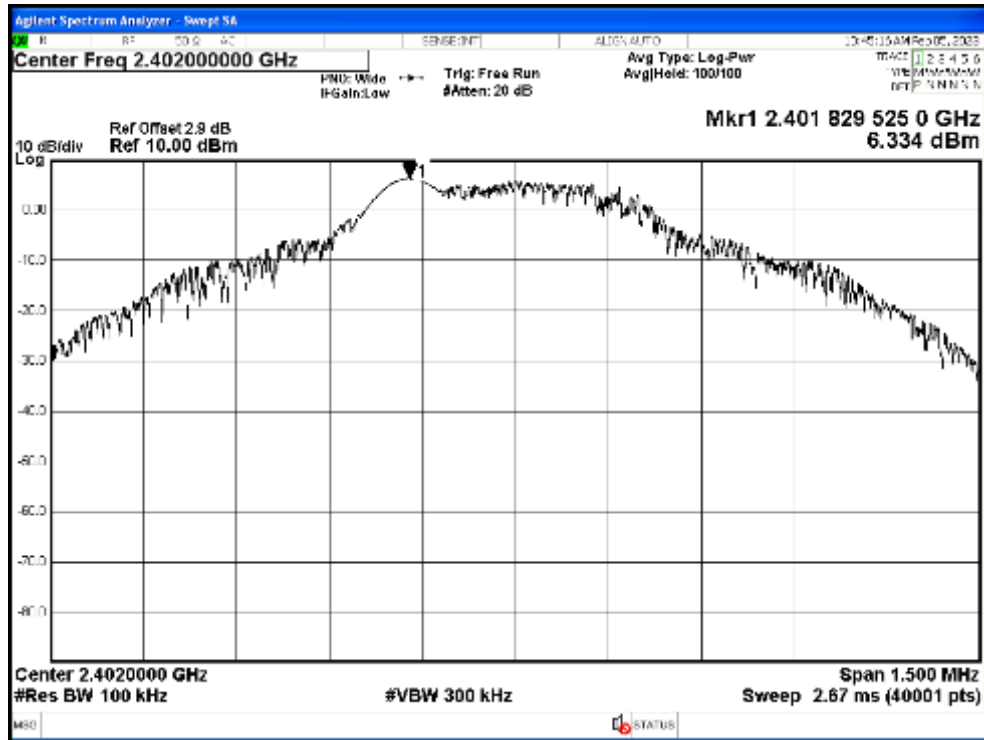
RBW=30kHz VBW=100kHz

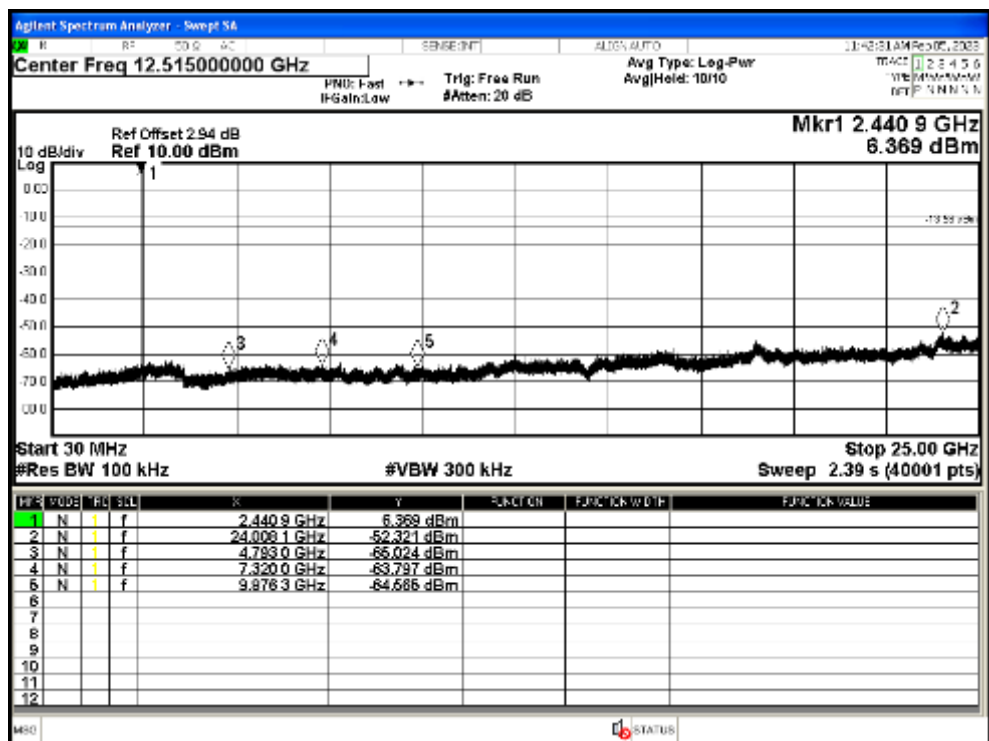




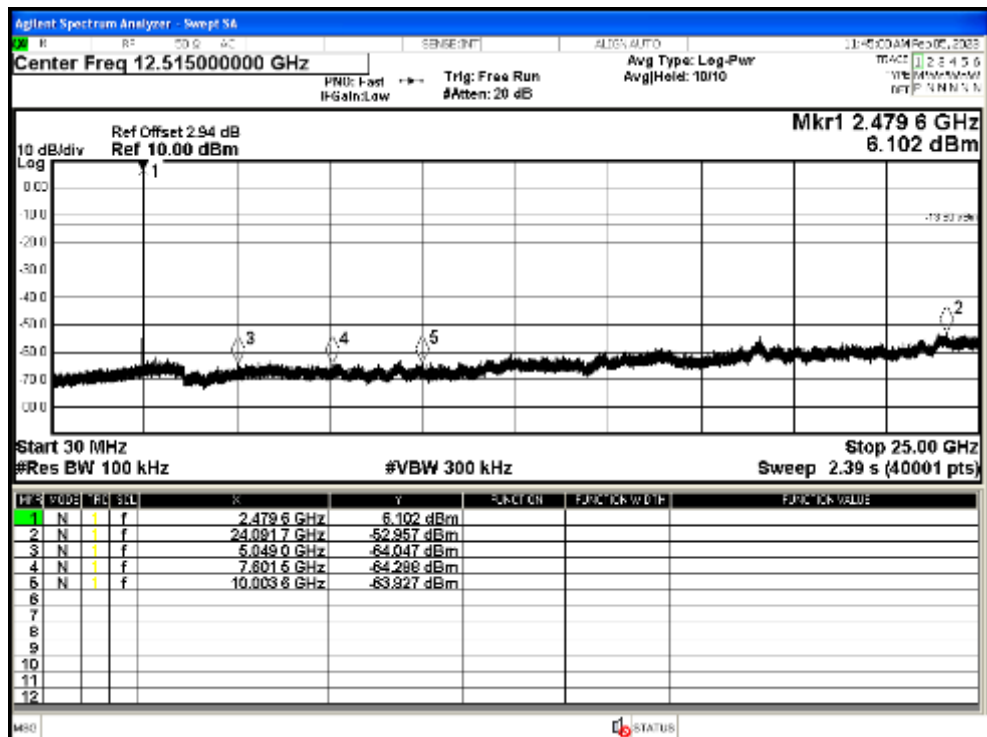
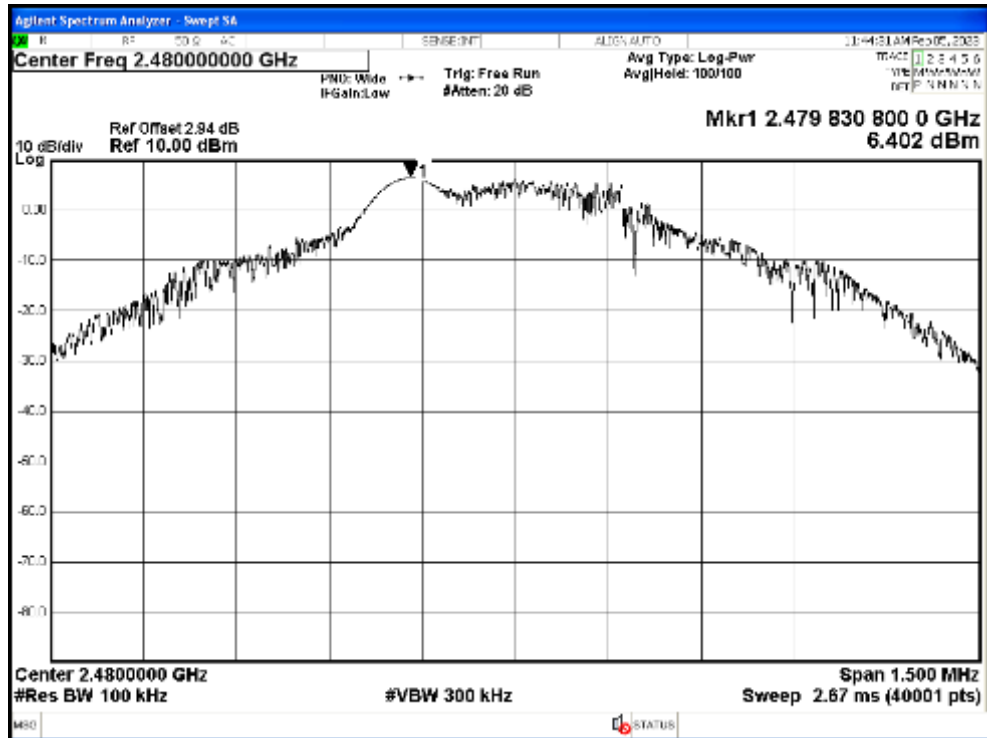
Appendix B.3: Test Plots of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

BDR Mode, Low Channel

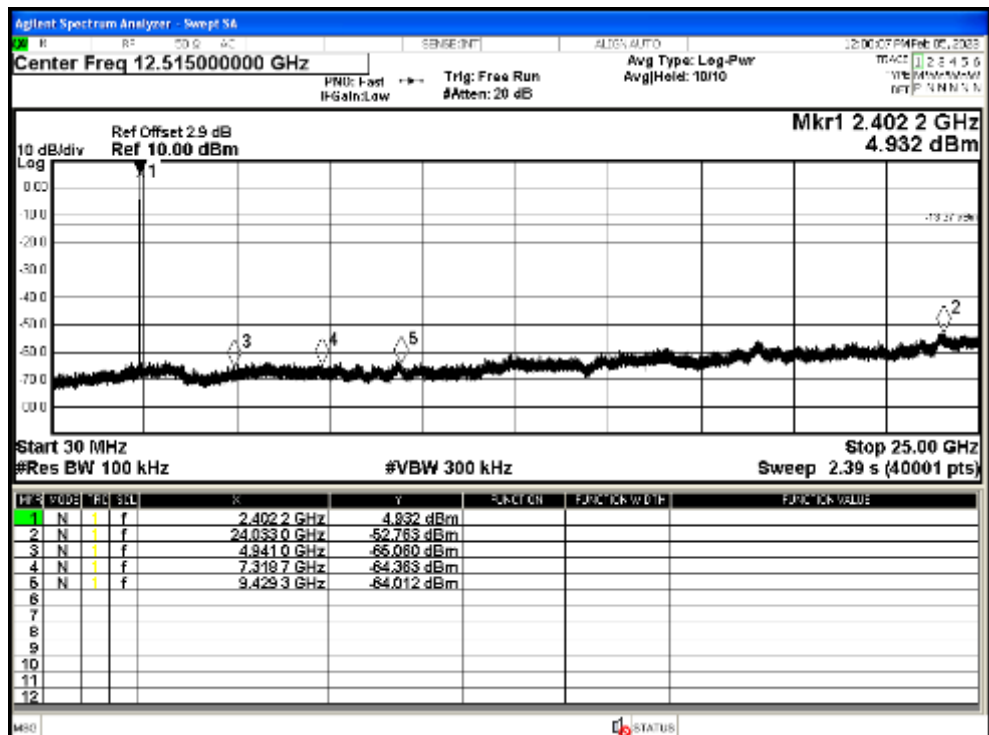
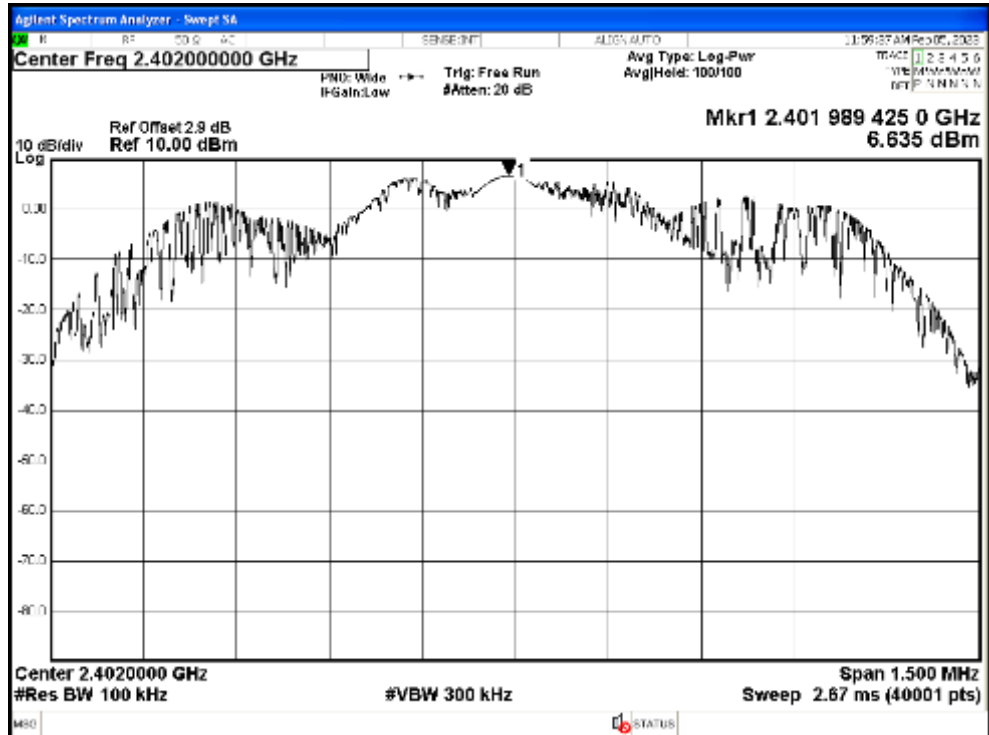




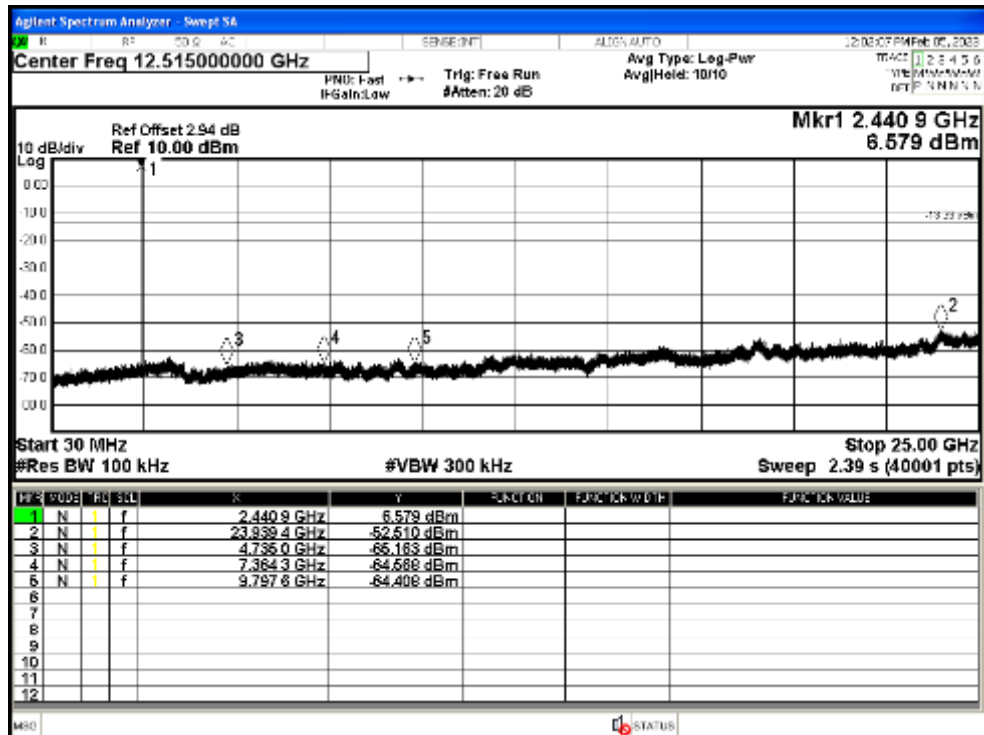
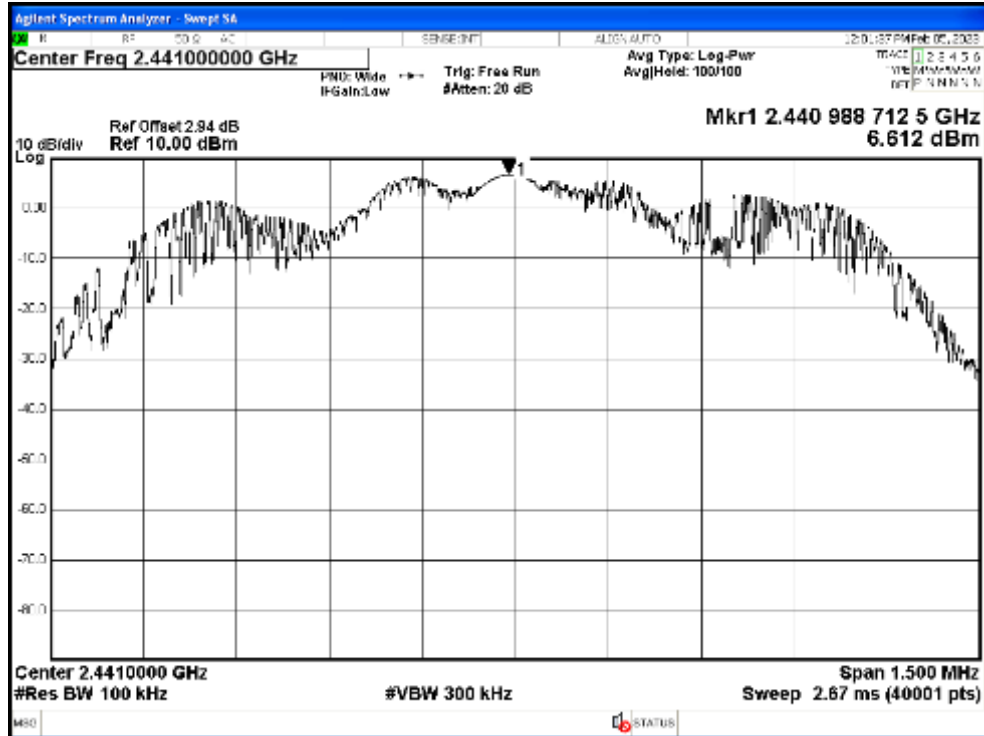
BDR Mode, High Channel



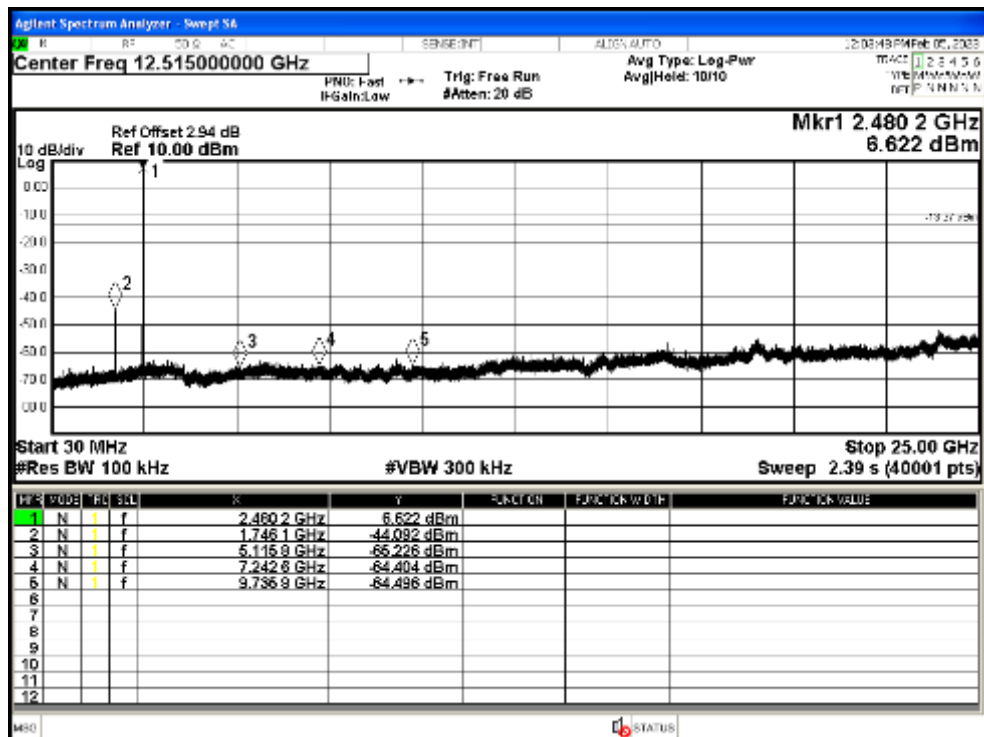
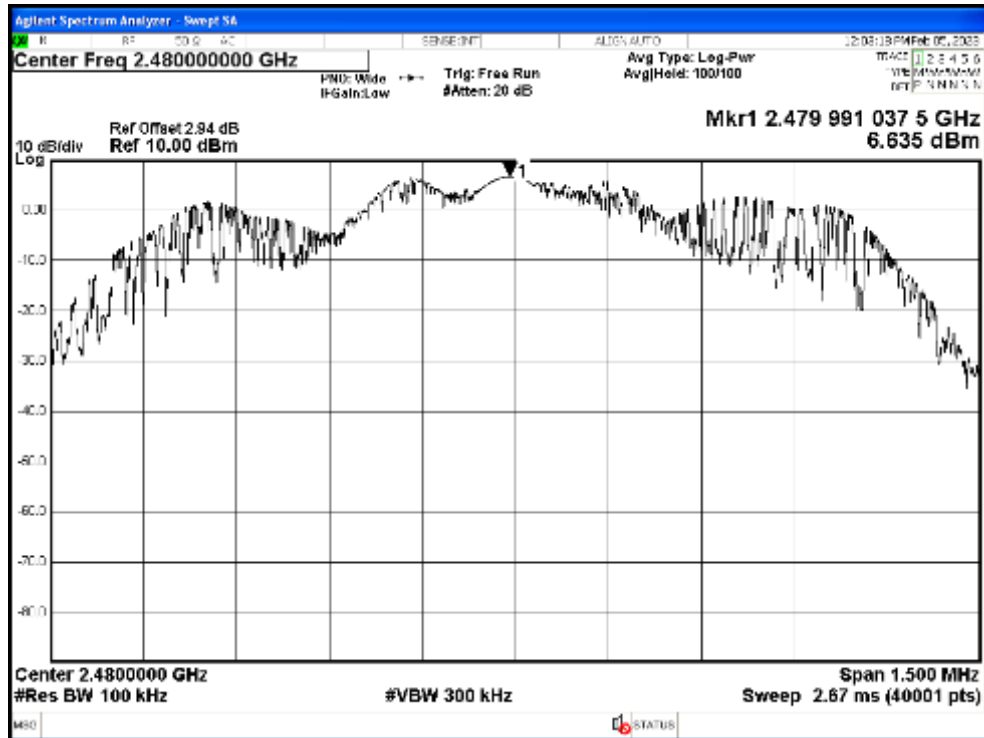
EDR Mode, Low Channel



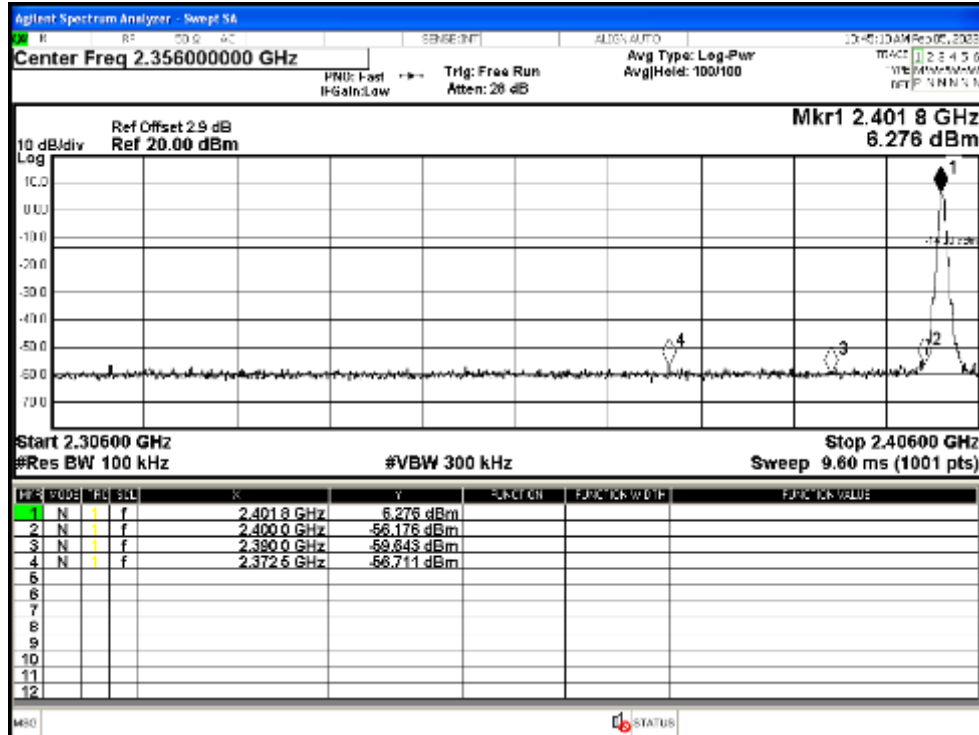
EDR Mode, Middle Channel



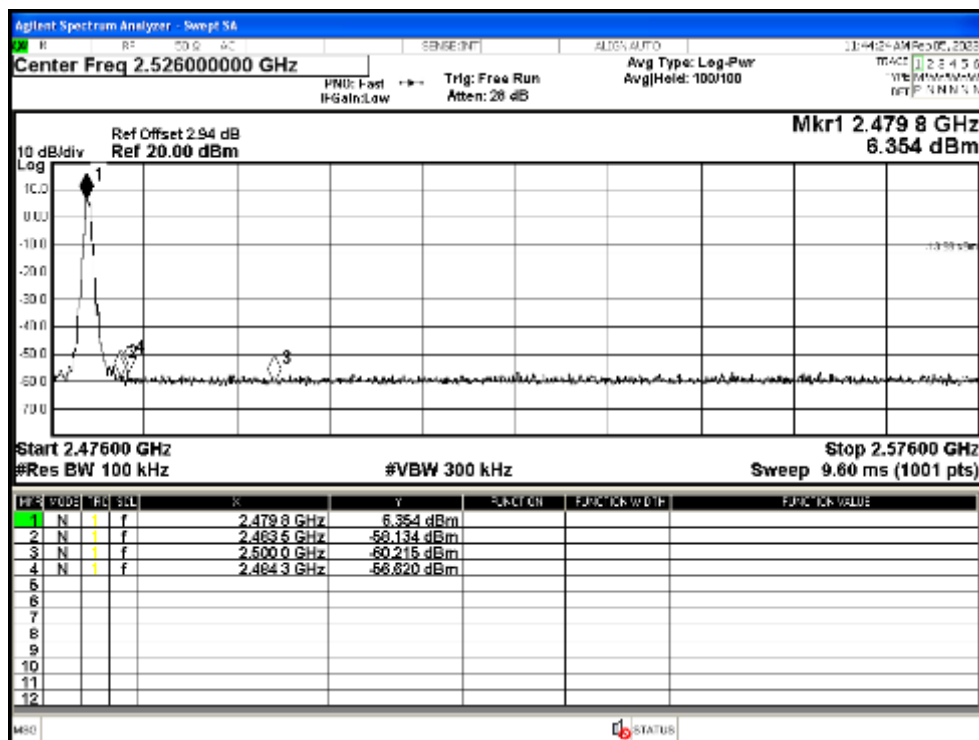
EDR Mode, High Channel



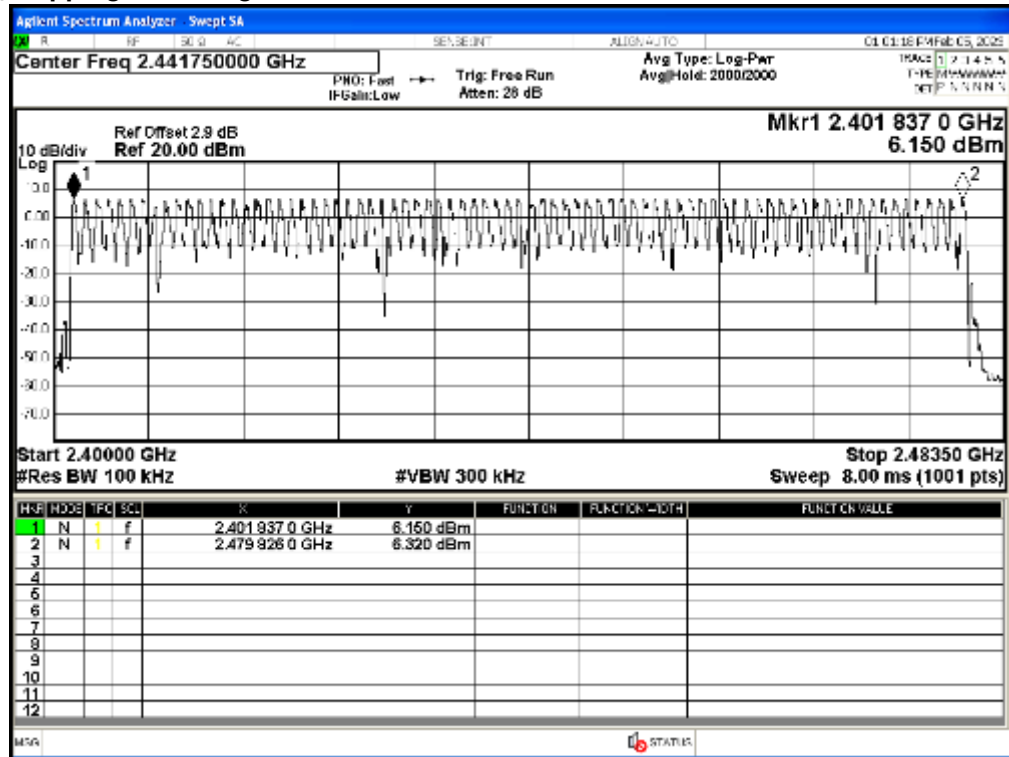
BDR Mode, Band Edge, Low Channel



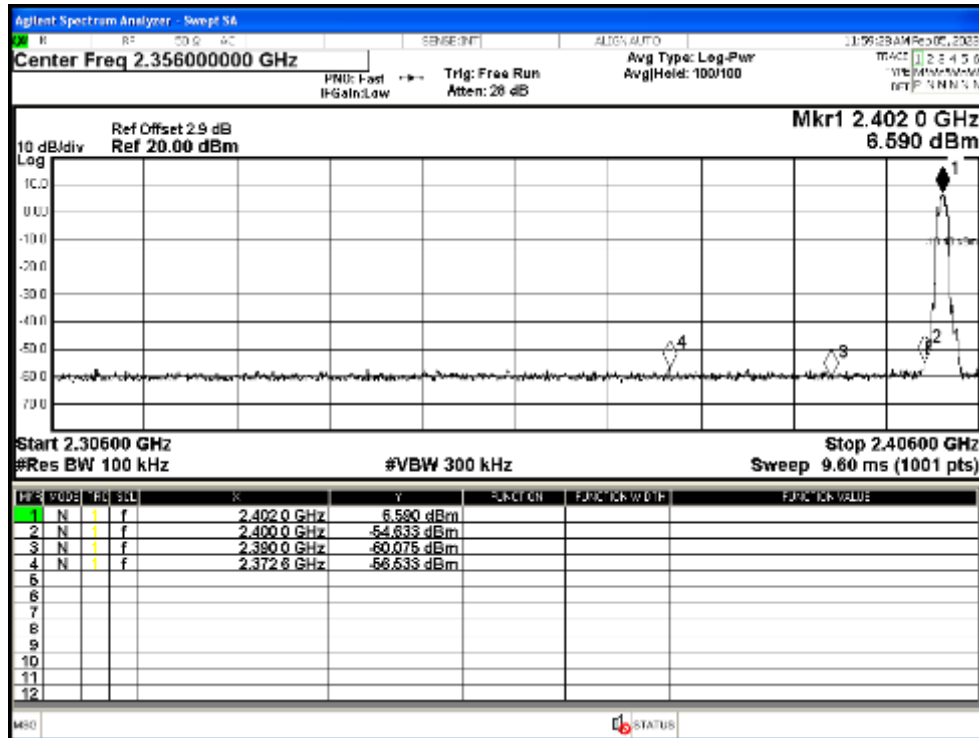
BDR Mode, Band Edge, High Channel



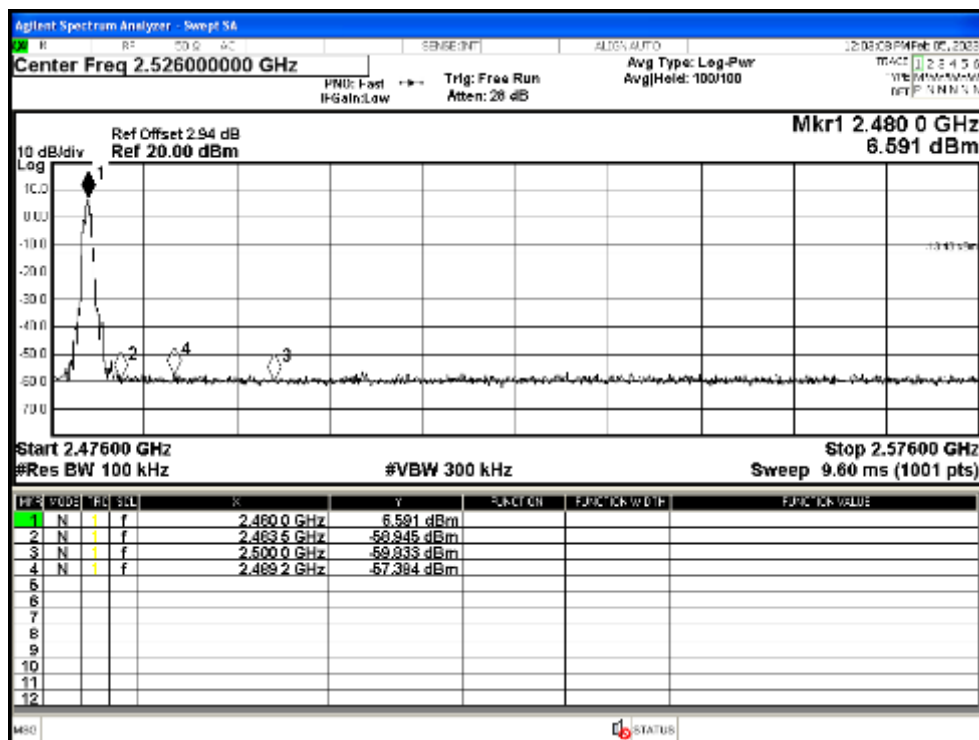
BDR Mode, Hopping Band Edge



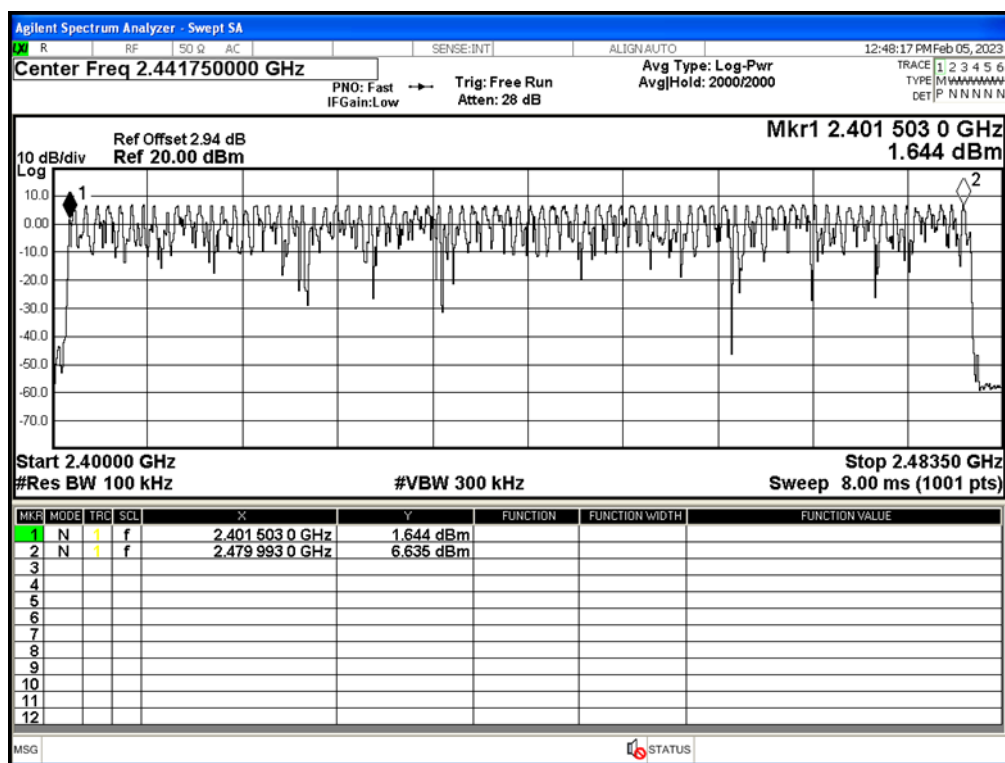
EDR Mode, Band Edge, Low Channel



EDR Mode, Band Edge, High Channel



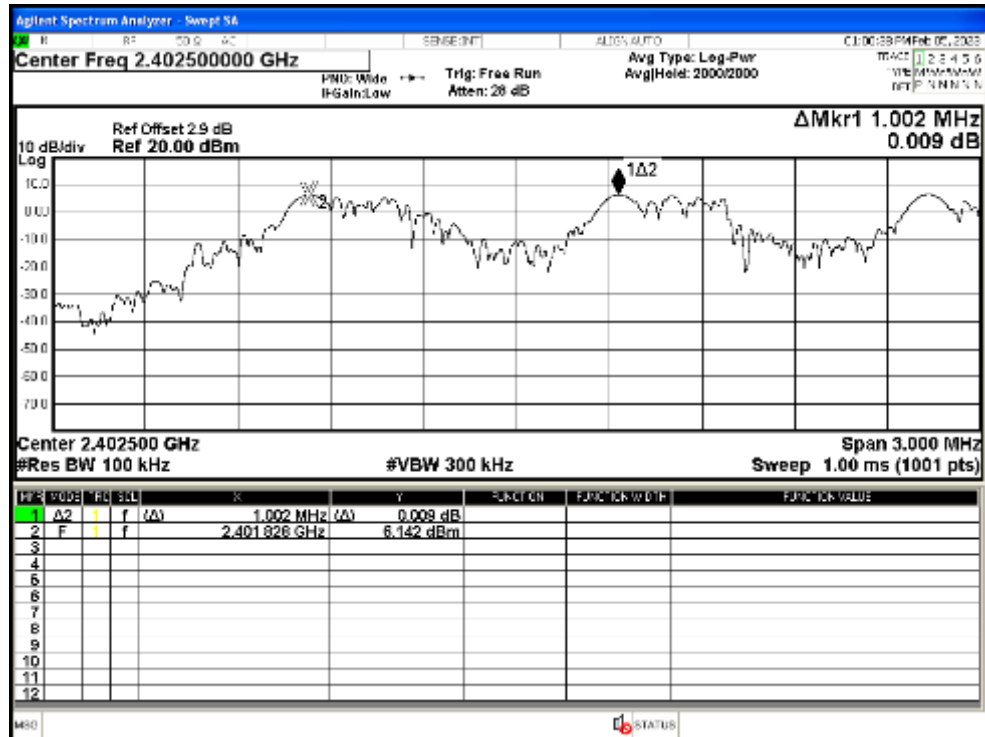
EDR Mode, Hopping Band Edge



Appendix B.4: Test Plots of Carrier Frequency Separation

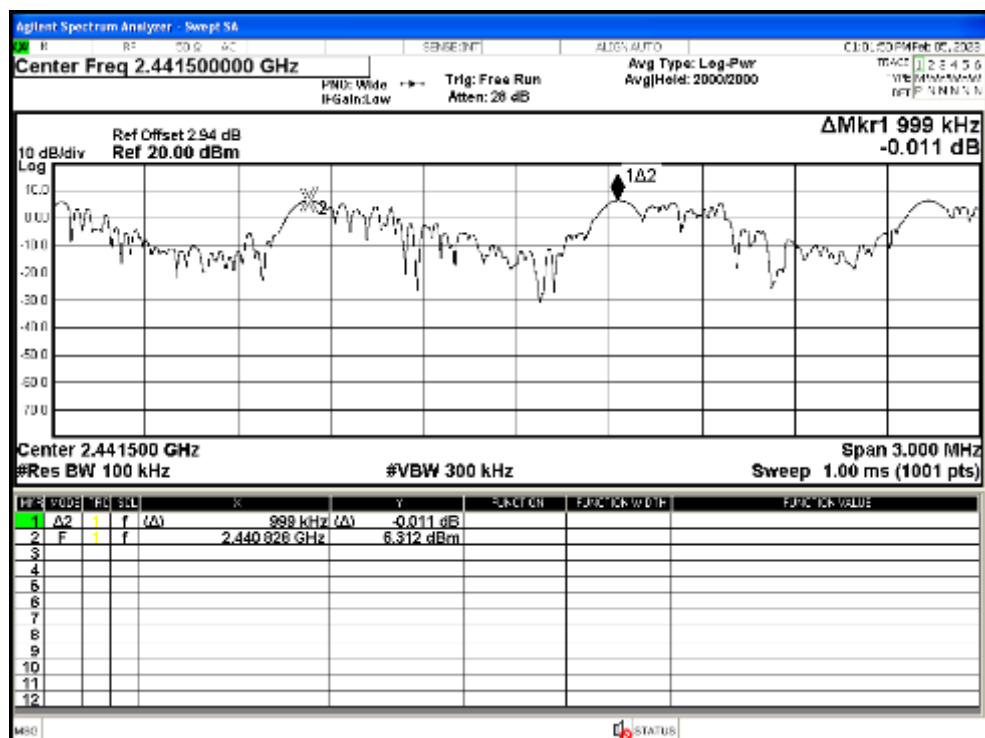
BDR, Low Channel

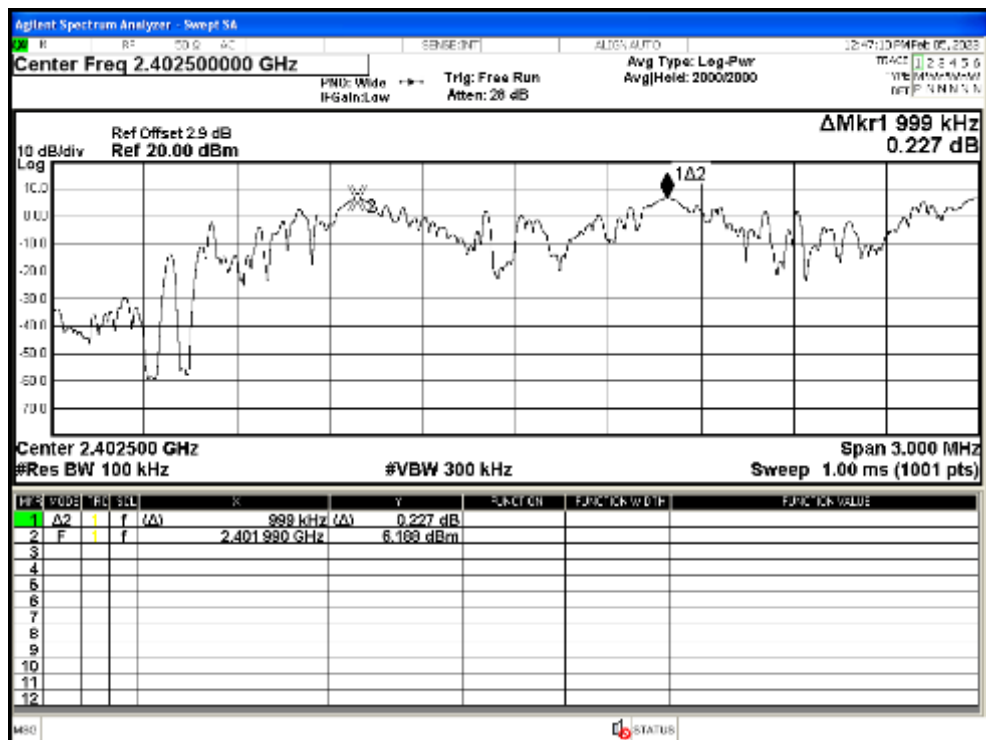
RBW=100kHz, VBW=300kHz



BDR, Middle Channel

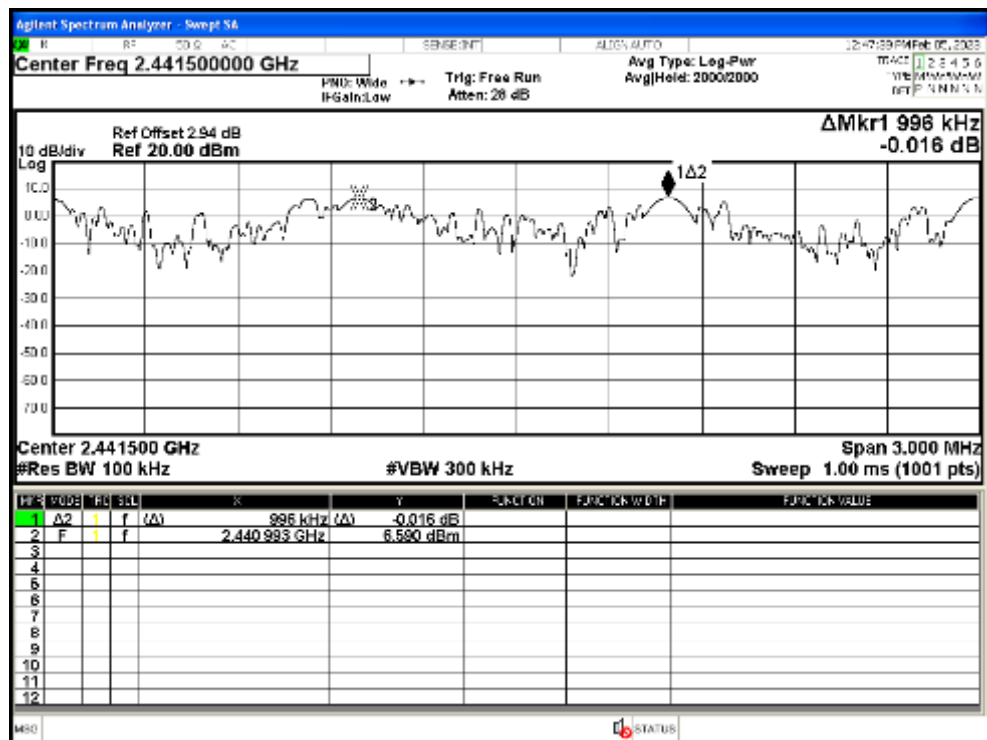
RBW=100kHz, VBW=300kHz





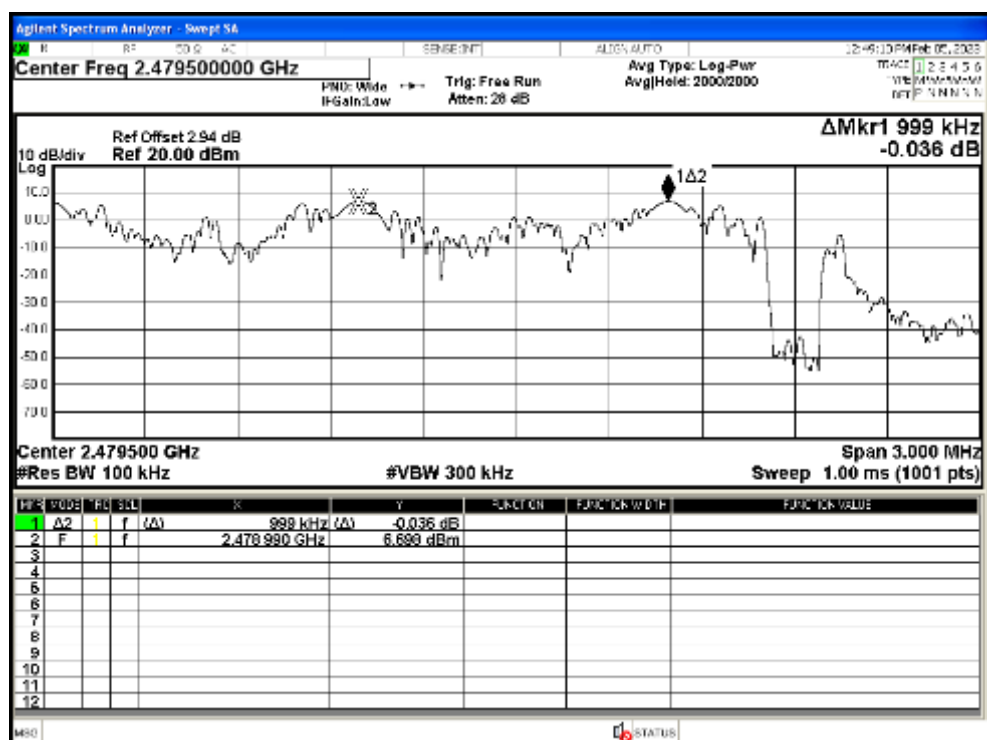
EDR, Middle Channel

RBW=100kHz, VBW=300kHz



EDR, High Channel

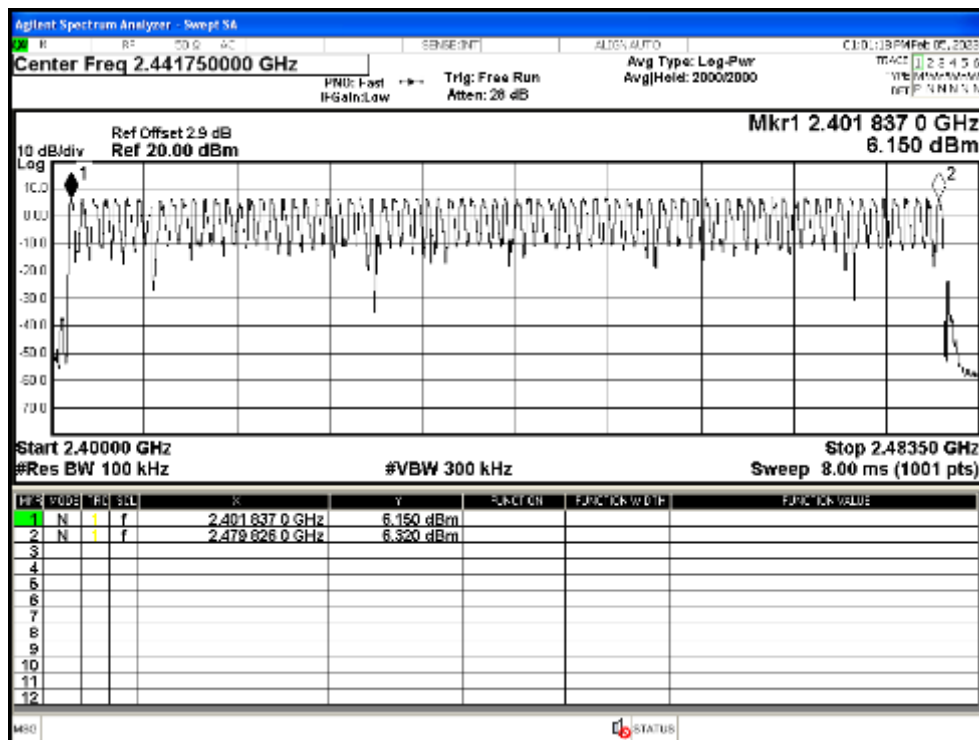
RBW=100kHz, VBW=300kHz

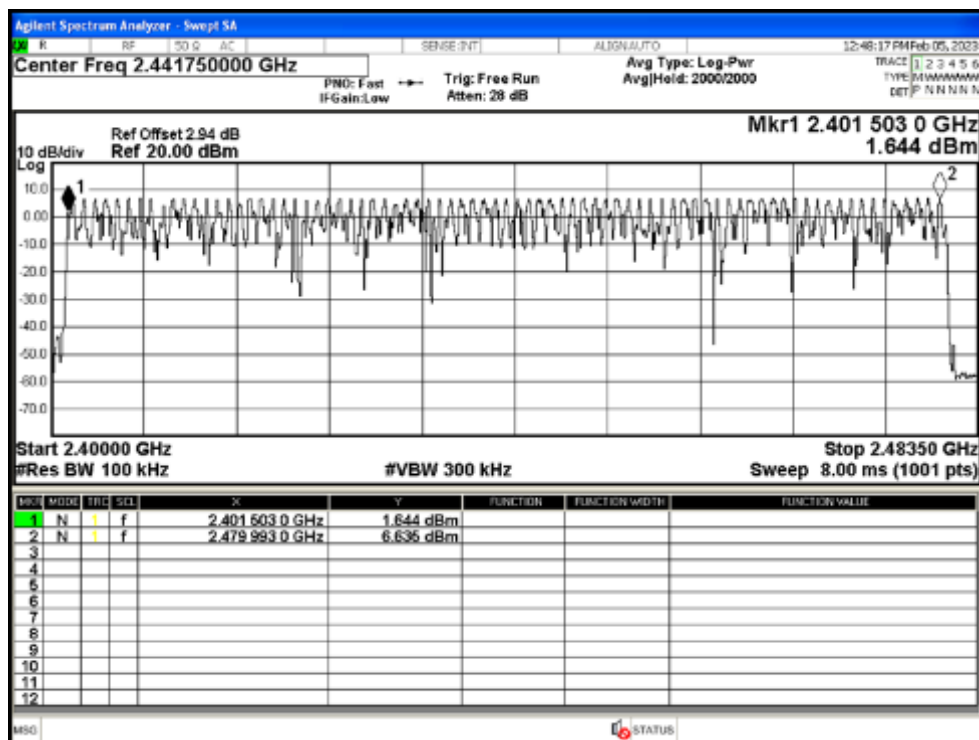


Appendix B.5: Test Plots of Number of Hopping Frequency

BDR, Hopping

Condition	Mode	Hopping Number	Limit	Verdict
NVNT	Hopping	79	15	Pass

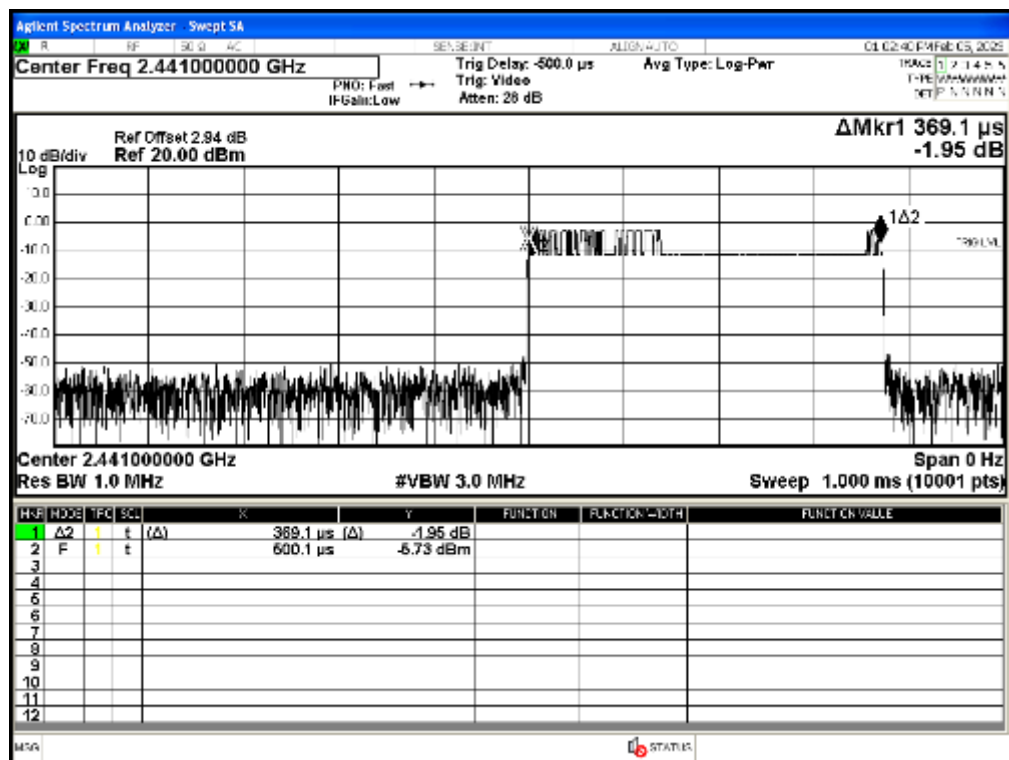




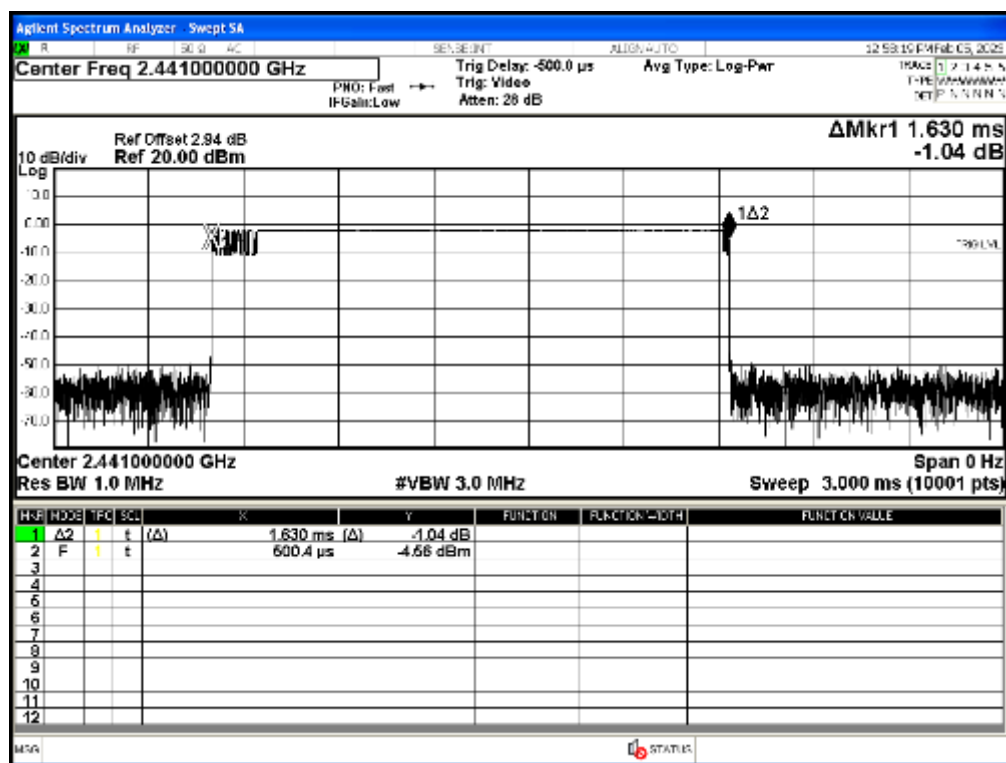
Appendix B.6: Test Plots of Time of Occupancy

Condition	Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	0.369	116.636	31600	400	Pass
NVNT	1-DH3	2441	1.63	257.477	31600	400	Pass
NVNT	1-DH5	2441	2.878	272.787	31600	400	Pass
NVNT	3-DH1	2441	0.377	119.258	31600	400	Pass
NVNT	3-DH3	2441	1.632	257.903	31600	400	Pass
NVNT	3-DH5	2441	2.884	273.356	31600	400	Pass

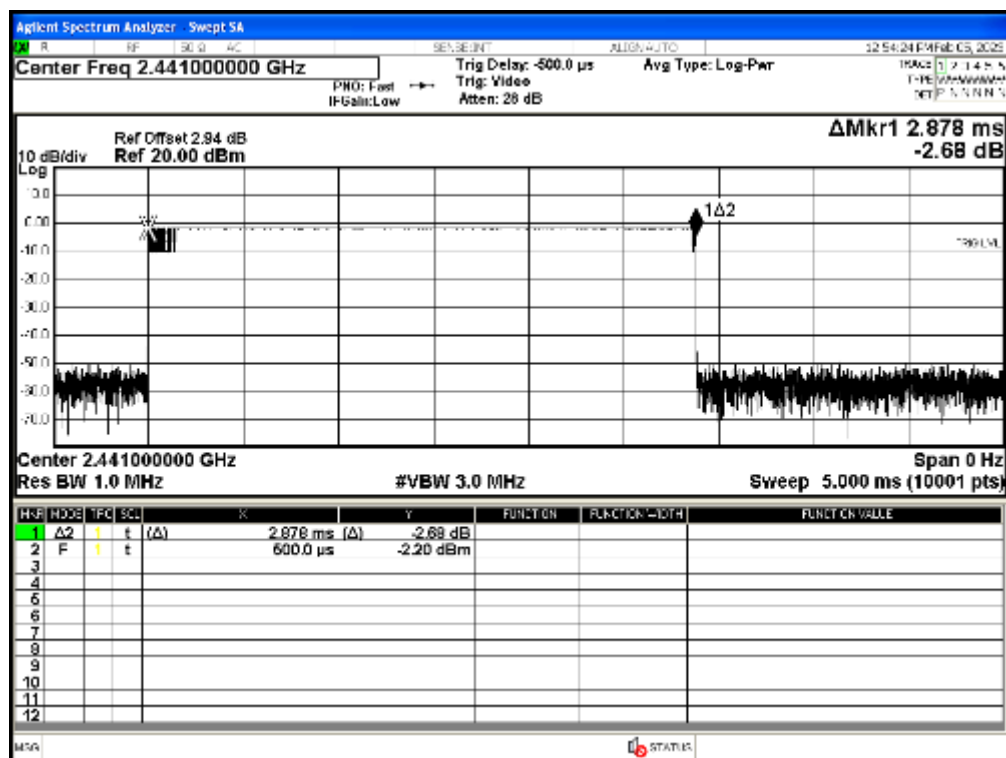
BDR Mode, DH1, Middle Channel



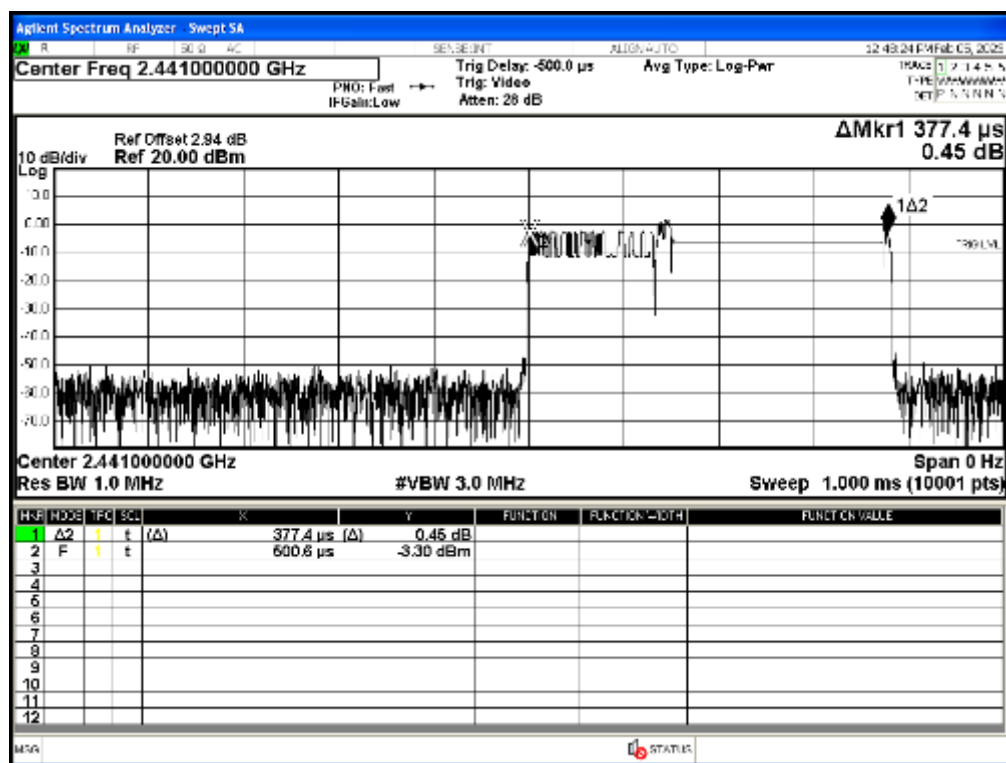
BDR Mode, DH3, Middle Channel



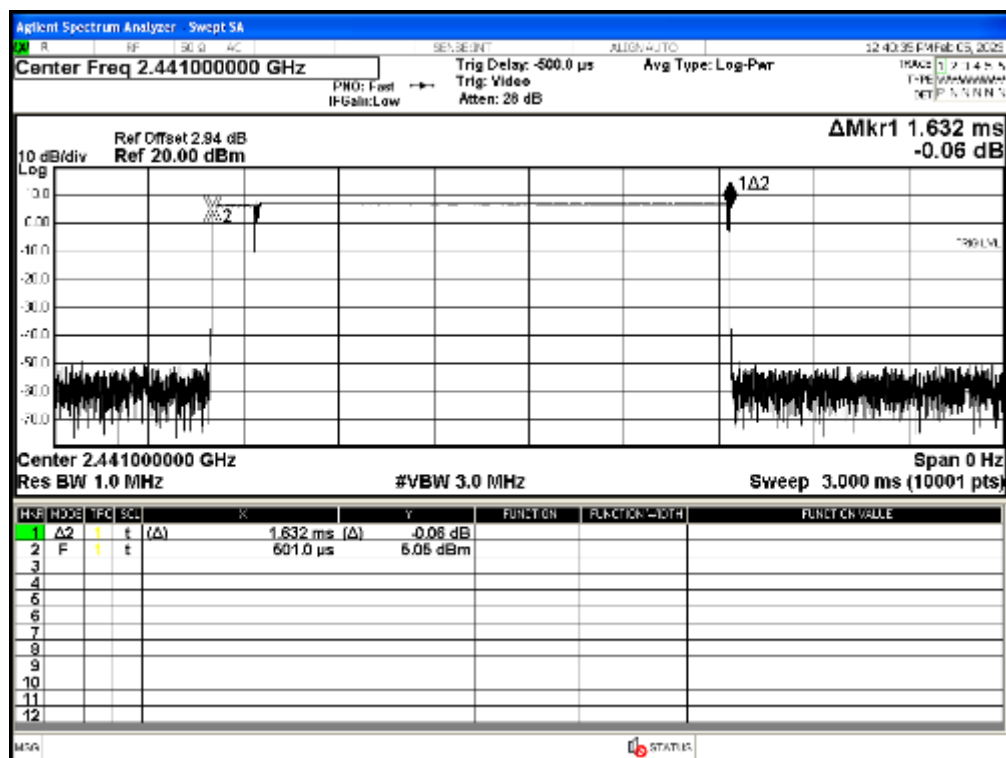
BDR Mode, DH5, Middle Channel



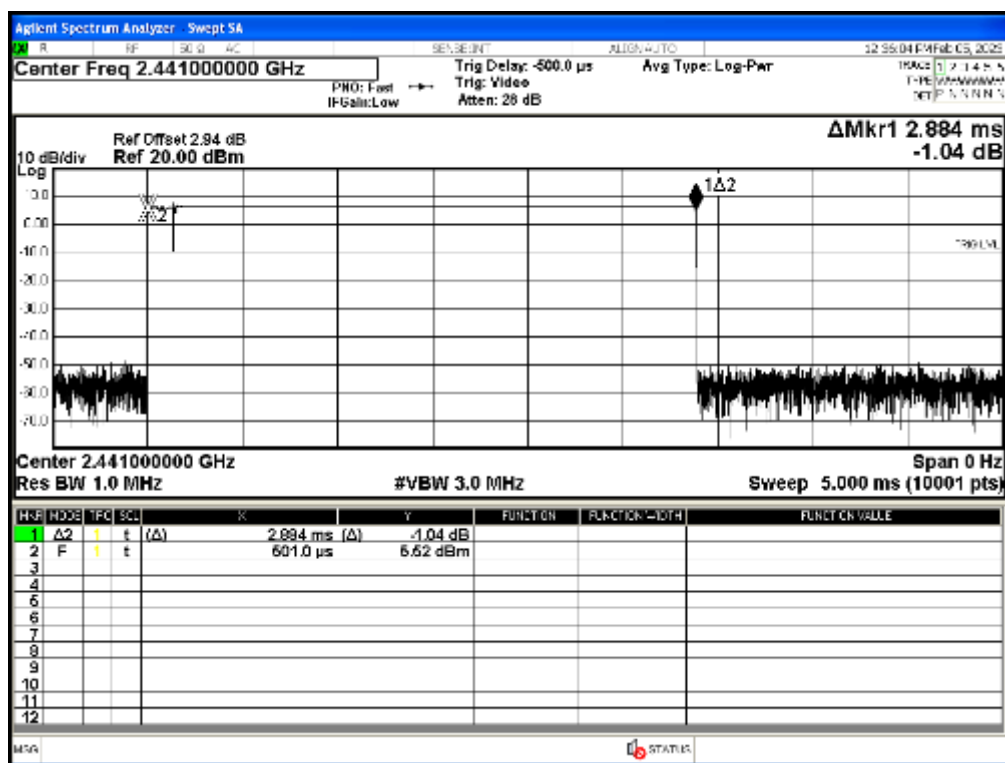
EDR Mode, 3DH1, Middle Channel



EDR Mode, 3DH3, Middle Channel



EDR Mode, 3DH5, Middle Channel



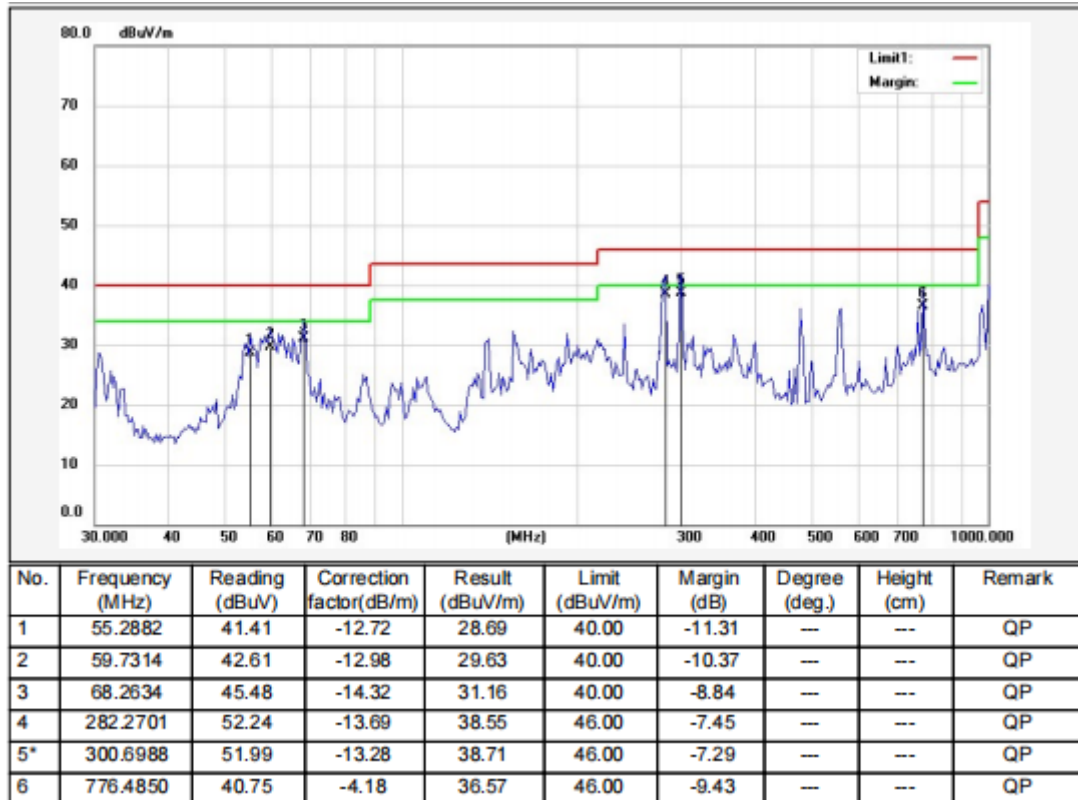
Note: Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

Appendix B.7: Test Results of Radiated Spurious Emissions

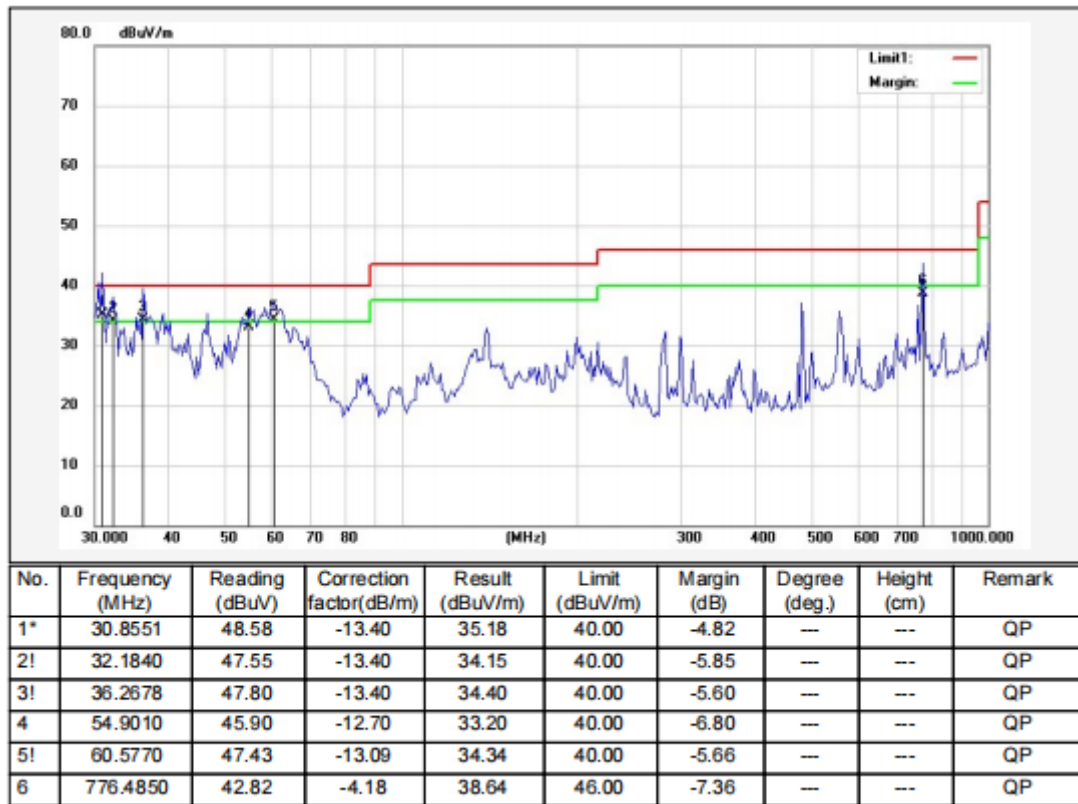
30MHz - 1GHz (Worst case)

BDR

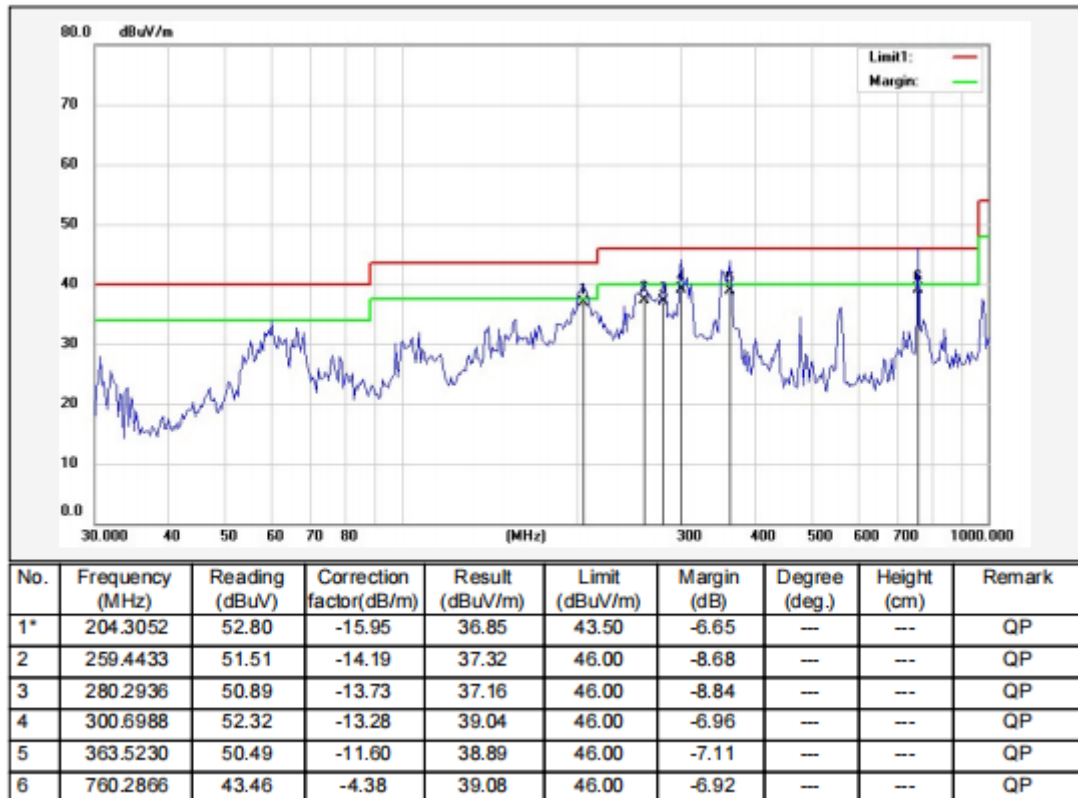
Low Channel Horizontal



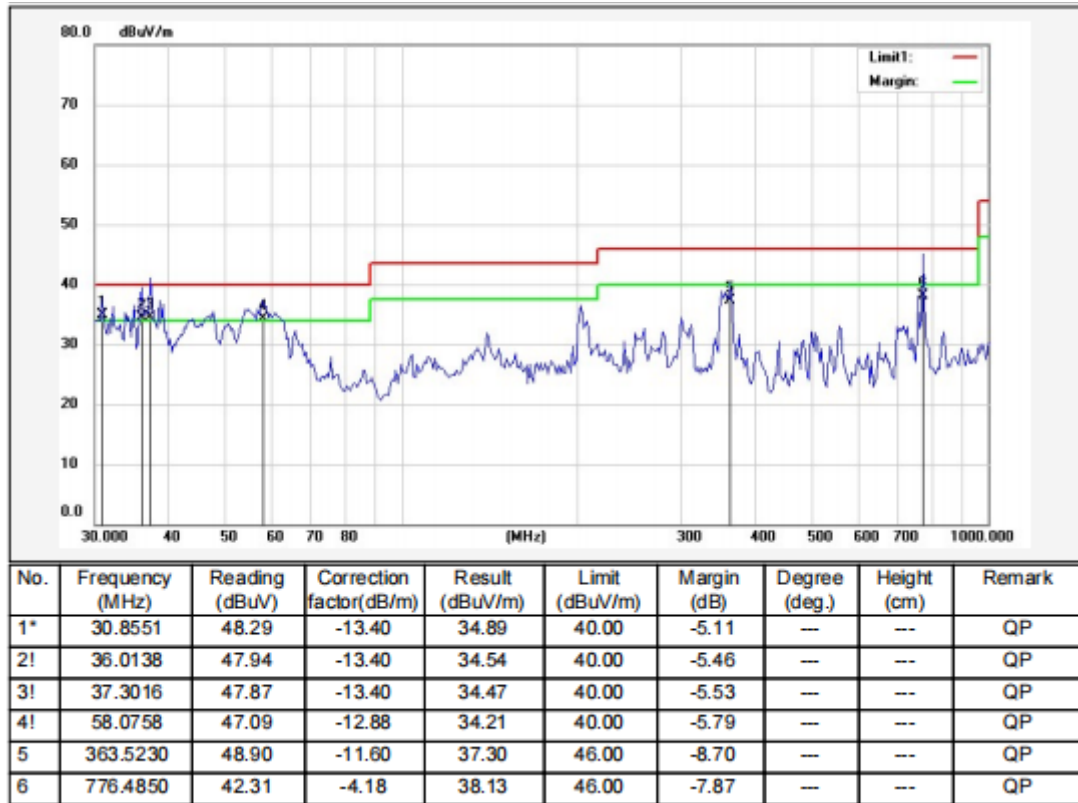
Low Channel Vertical



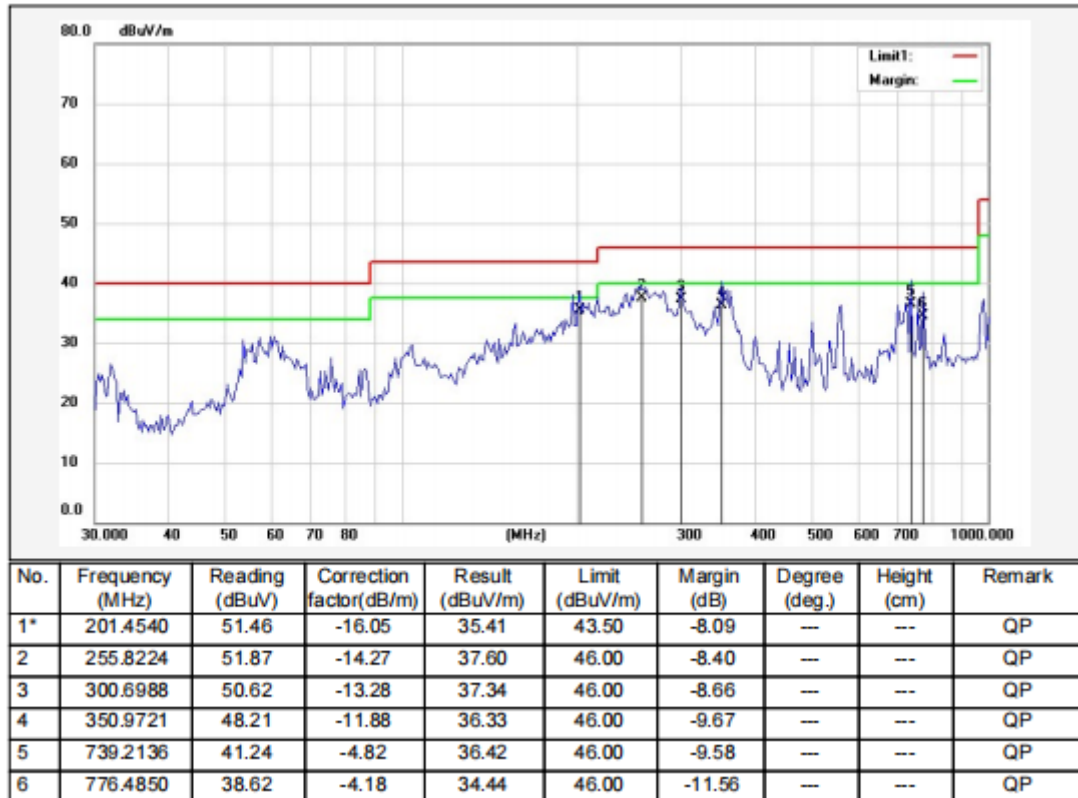
Middle Channel Horizontal



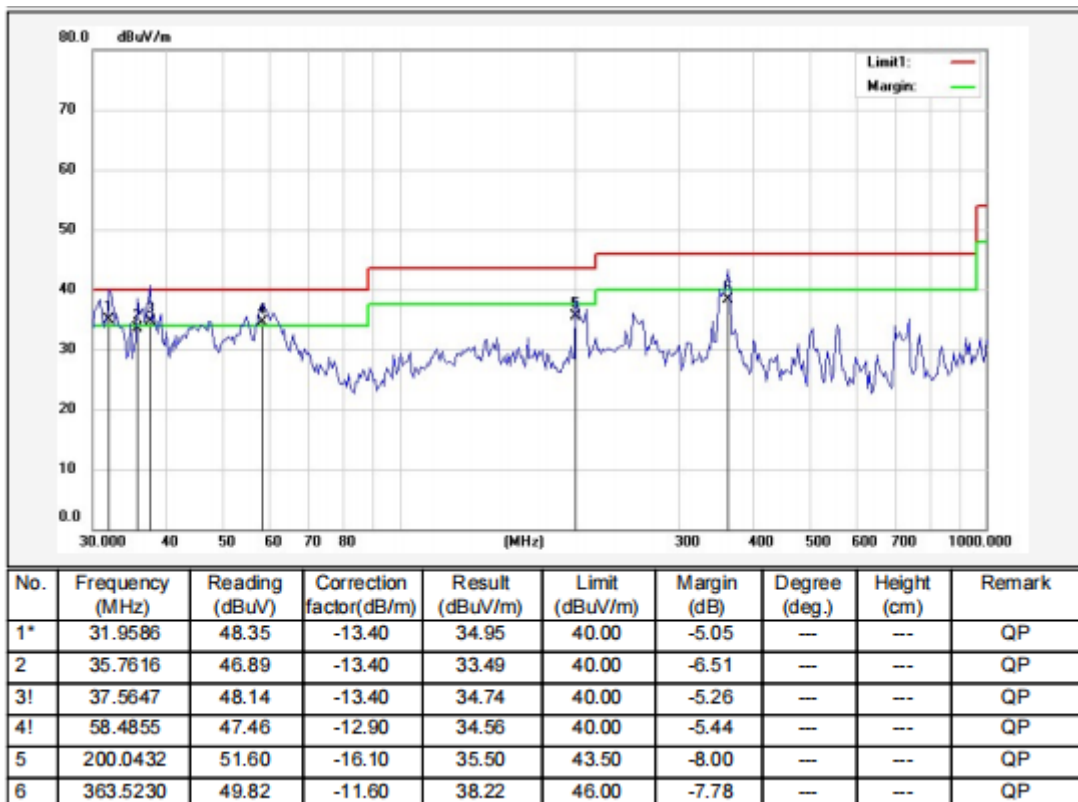
Middle Channel Vertical



High Channel Horizontal

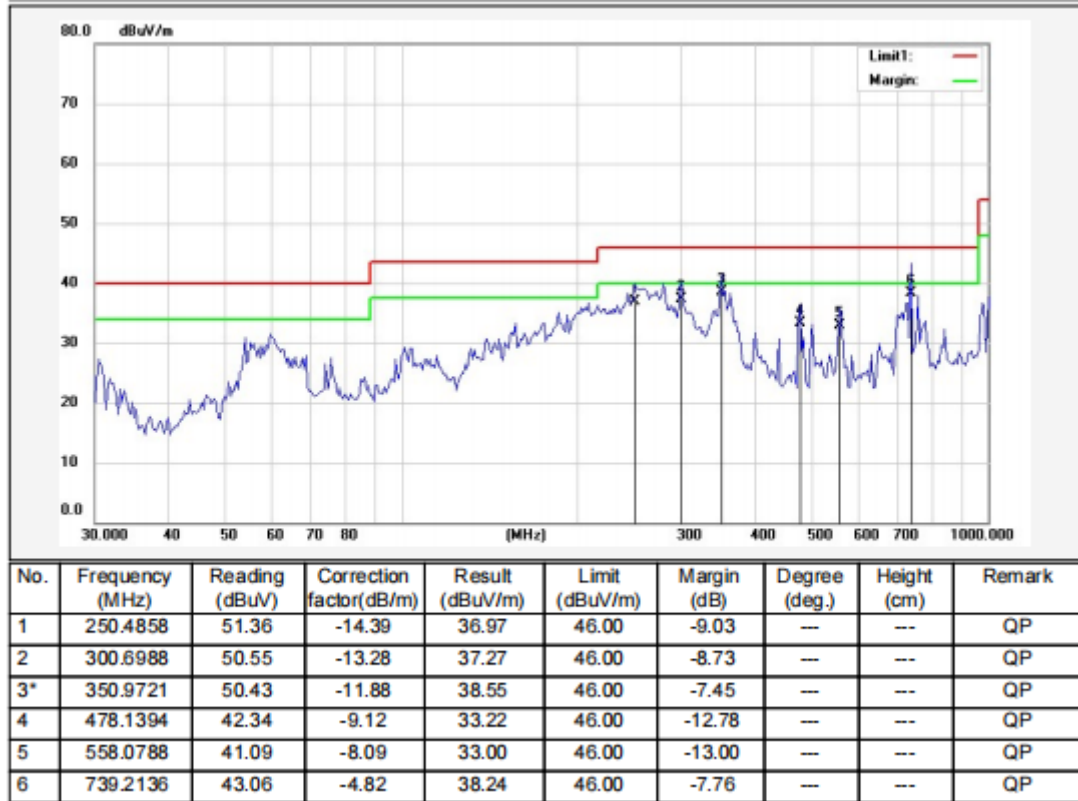


High Channel Vertical

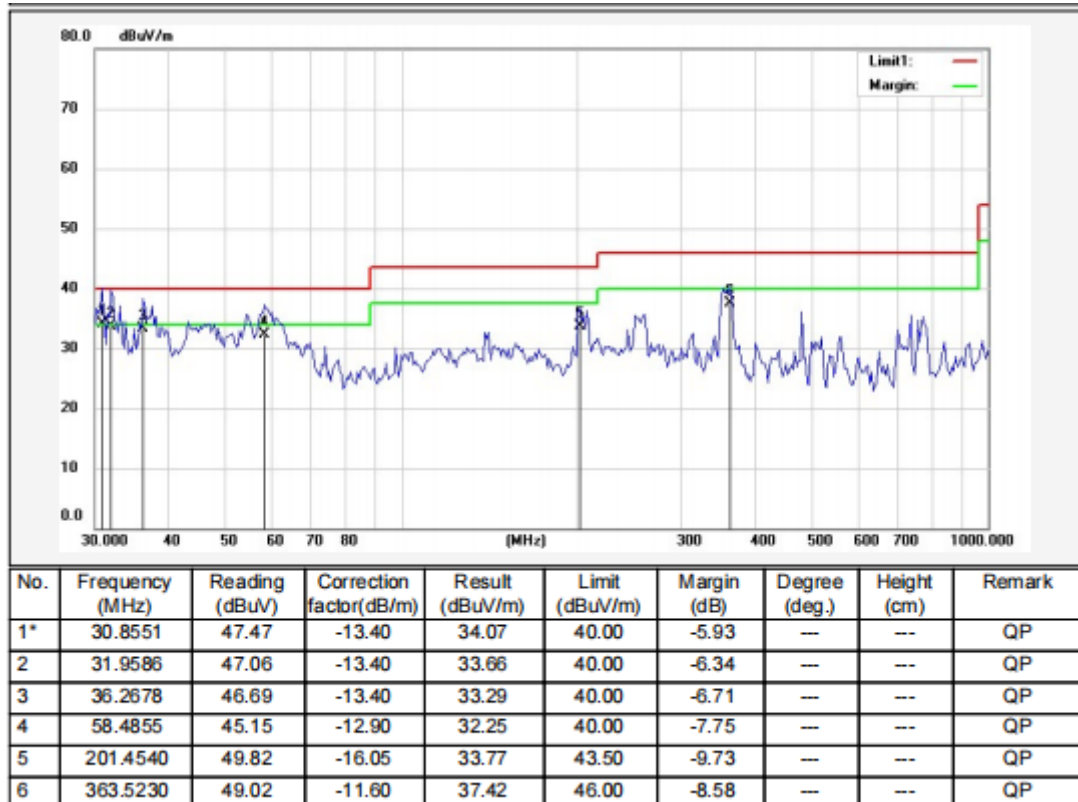


EDR

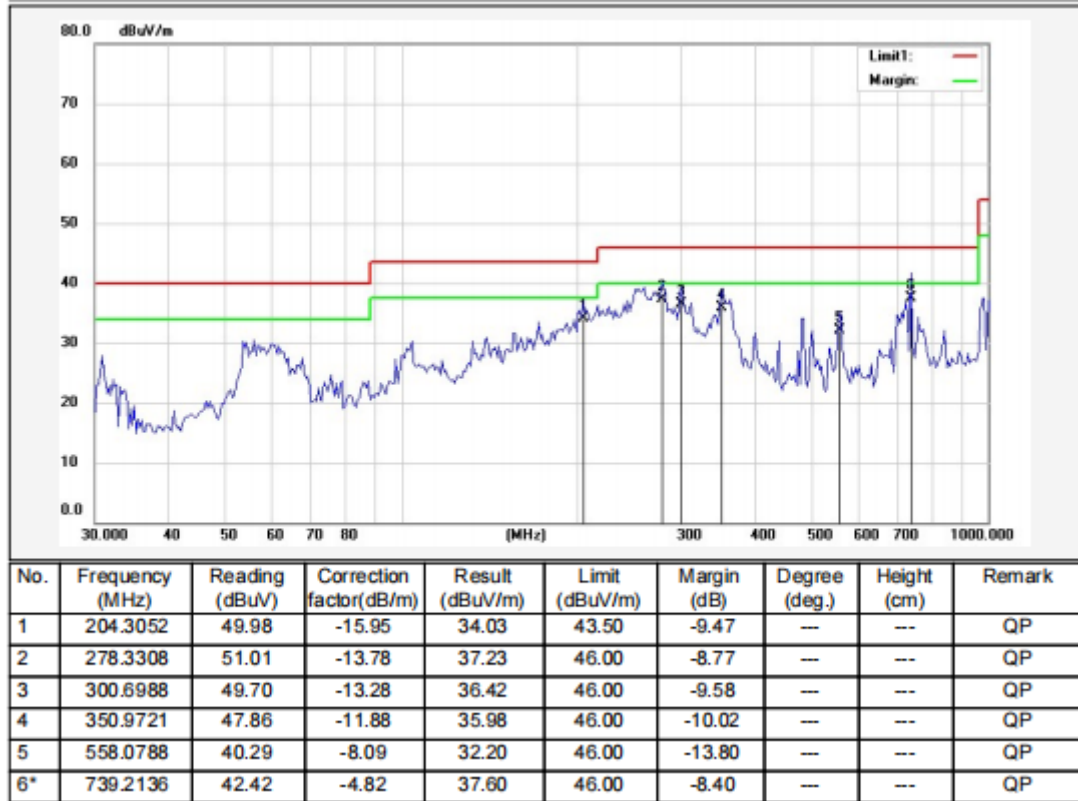
Low Channel Horizontal



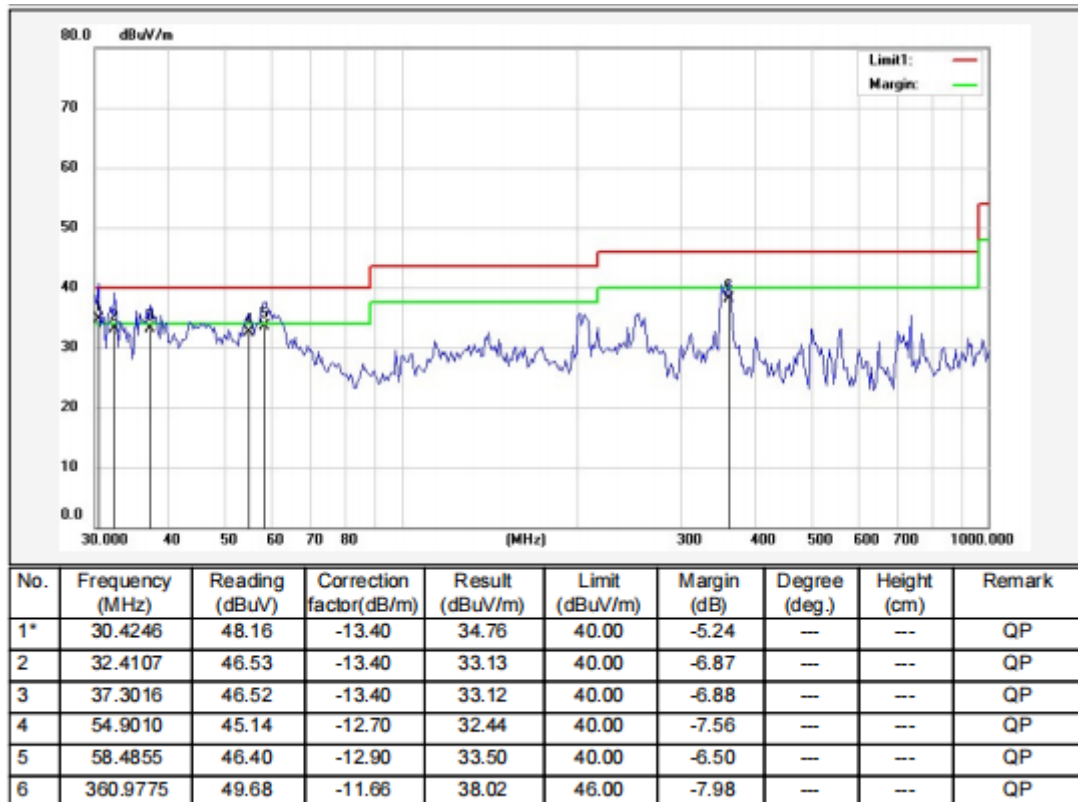
Low Channel Vertical



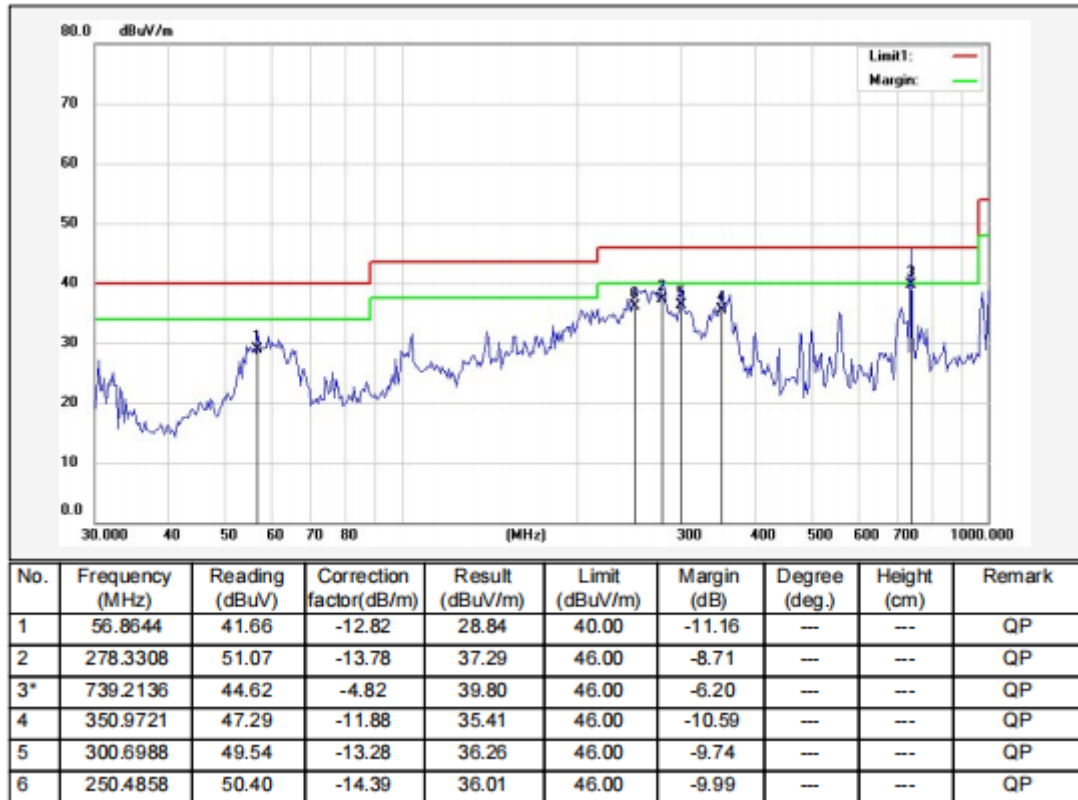
Middle Channel Horizontal



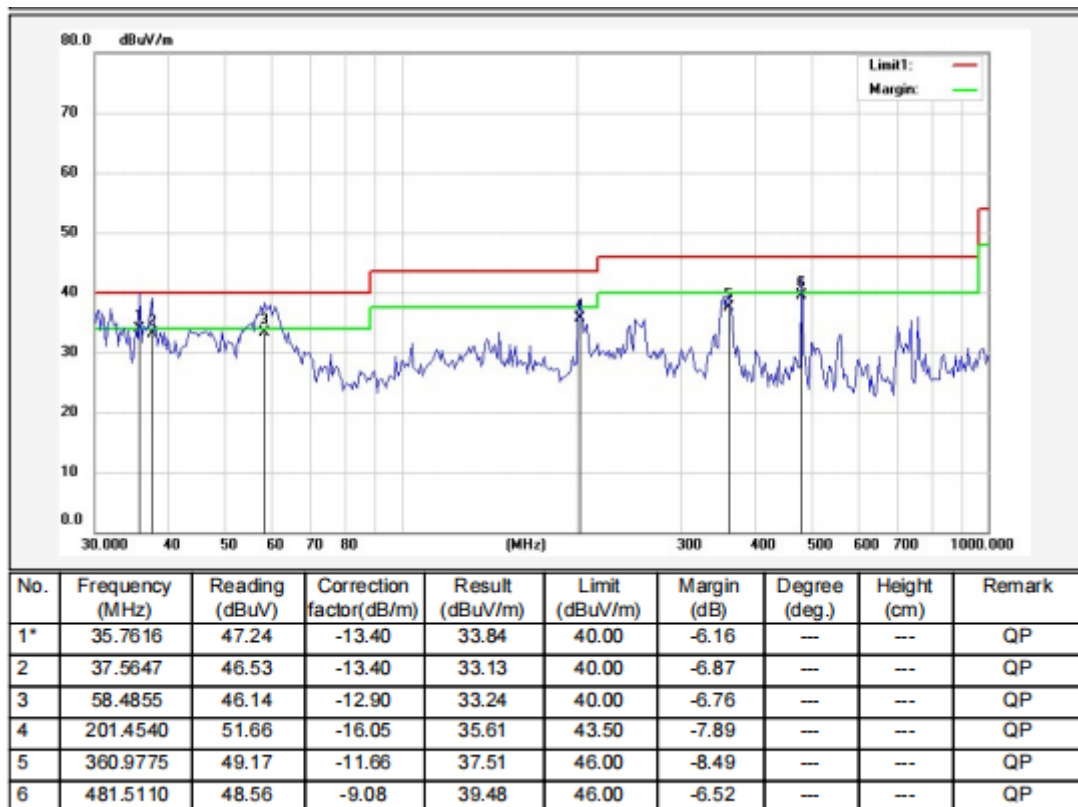
Middle Channel Vertical



High Channel Horizontal



High Channel Vertical

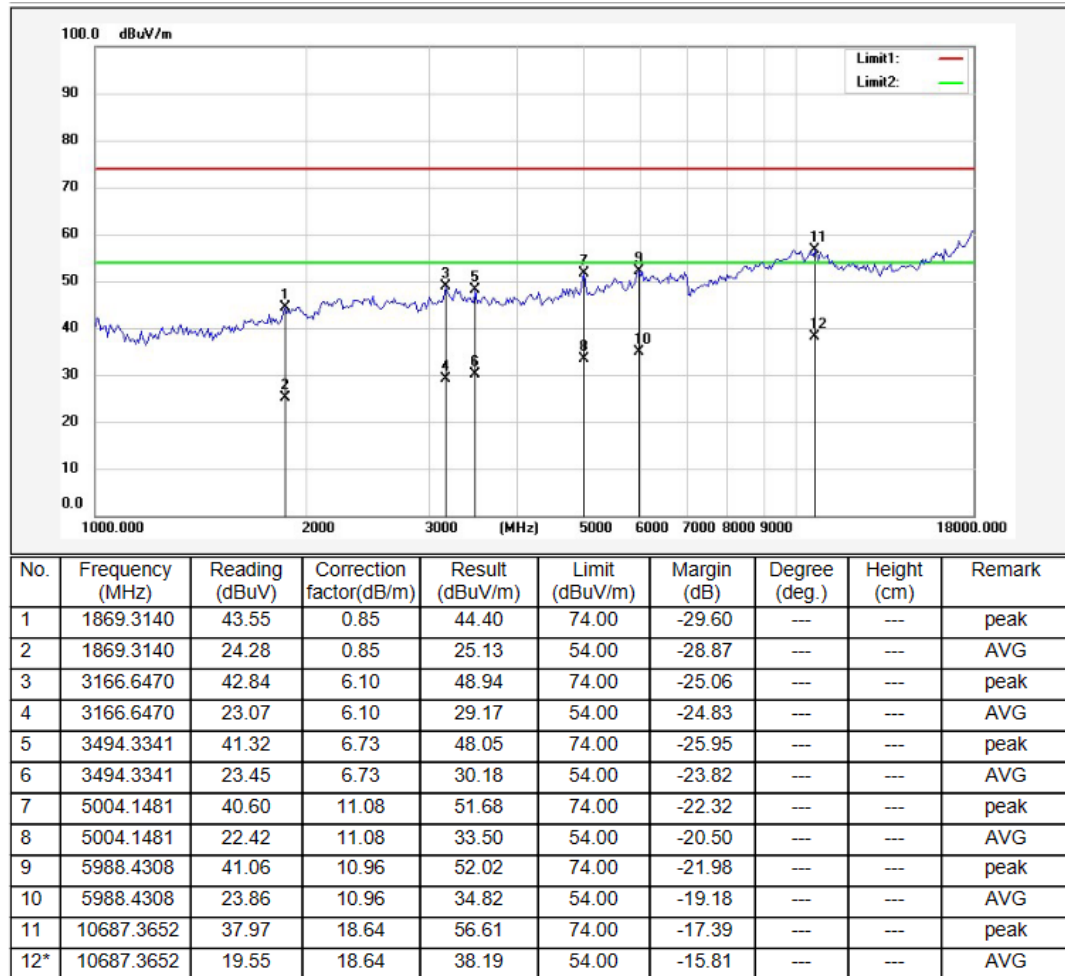


1GHz - 18GHz

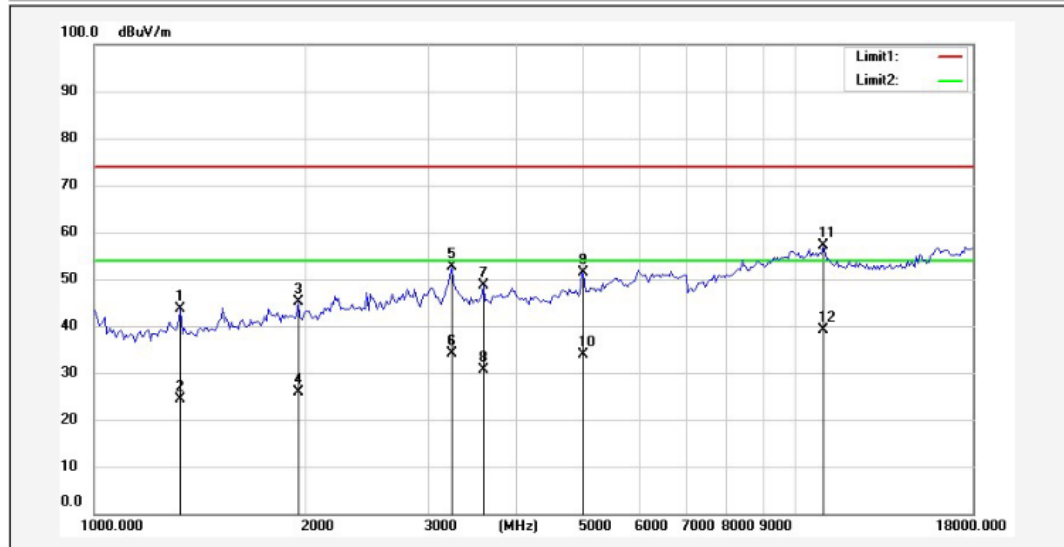
Note: The highest waveform in the figure is BT Fundamental.

BDR

Low Channel Horizontal

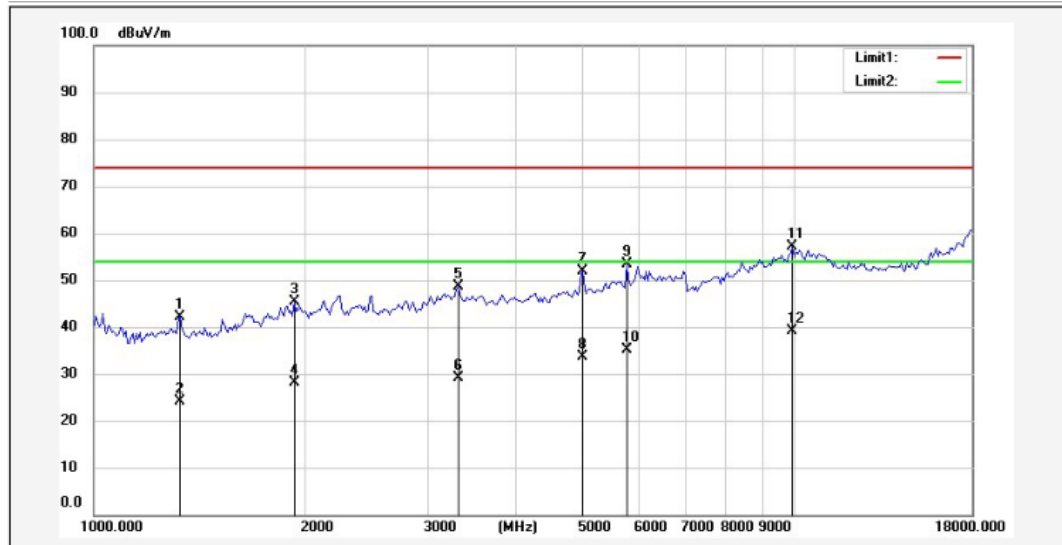


Low Channel Vertical



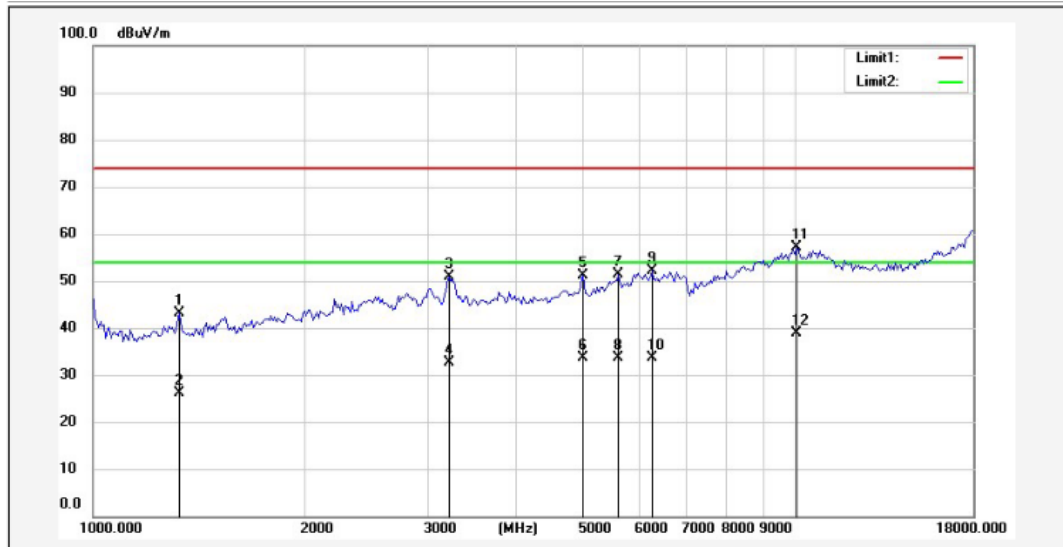
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1328.1992	46.39	-2.67	43.72	74.00	-30.28	---	---	peak
2	1328.1992	27.09	-2.67	24.42	54.00	-29.58	---	---	AVG
3	1957.9736	44.17	0.91	45.08	74.00	-28.92	---	---	peak
4	1957.9736	25.07	0.91	25.98	54.00	-28.02	---	---	AVG
5	3240.8726	45.44	7.18	52.62	74.00	-21.38	---	---	peak
6	3240.8726	26.83	7.18	34.01	54.00	-19.99	---	---	AVG
7	3597.0156	40.85	7.68	48.53	74.00	-25.47	---	---	peak
8	3597.0156	22.91	7.68	30.59	54.00	-23.41	---	---	AVG
9	4975.2462	39.51	11.88	51.39	74.00	-22.61	---	---	peak
10	4975.2462	21.97	11.88	33.85	54.00	-20.15	---	---	AVG
11	11001.4146	34.37	22.83	57.20	74.00	-16.80	---	---	peak
12*	11001.4146	16.35	22.83	39.18	54.00	-14.82	---	---	AVG

Middle Channel Horizontal



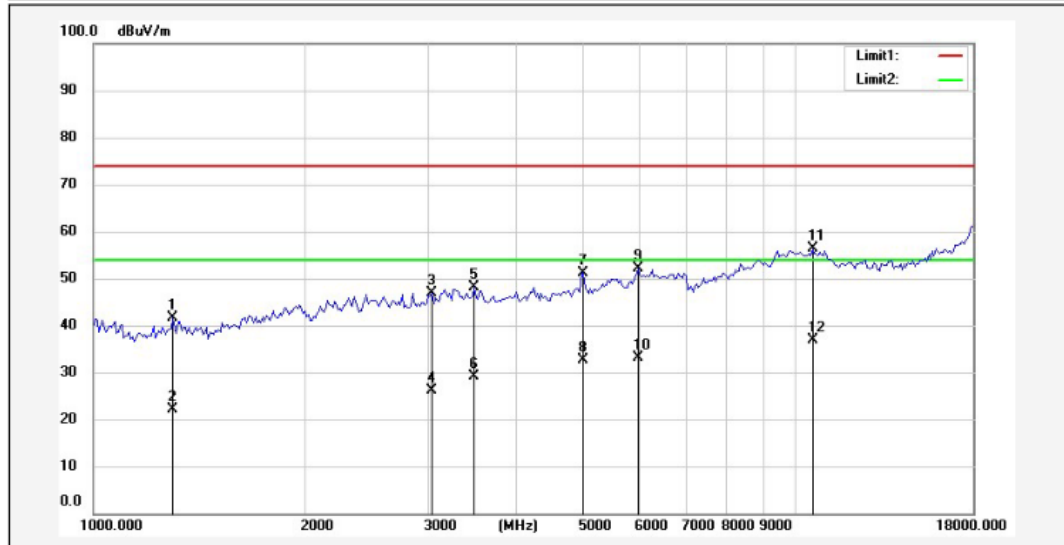
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1328.1992	44.97	-2.74	42.23	74.00	-31.77	---	---	peak
2	1328.1992	26.94	-2.74	24.20	54.00	-29.80	---	---	AVG
3	1935.4220	44.50	0.79	45.29	74.00	-28.71	---	---	peak
4	1935.4220	27.42	0.79	28.21	54.00	-25.79	---	---	AVG
5	3316.8380	41.83	6.90	48.73	74.00	-25.27	---	---	peak
6	3316.8380	22.24	6.90	29.14	54.00	-24.86	---	---	AVG
7	5004.1481	40.79	11.08	51.87	74.00	-22.13	---	---	peak
8	5004.1481	22.58	11.08	33.66	54.00	-20.34	---	---	AVG
9	5783.8840	41.03	12.30	53.33	74.00	-20.67	---	---	peak
10	5783.8840	22.82	12.30	35.12	54.00	-18.88	---	---	AVG
11	9969.7378	40.02	16.99	57.01	74.00	-16.99	---	---	peak
12*	9969.7378	22.21	16.99	39.20	54.00	-14.80	---	---	AVG

Middle Channel Vertical



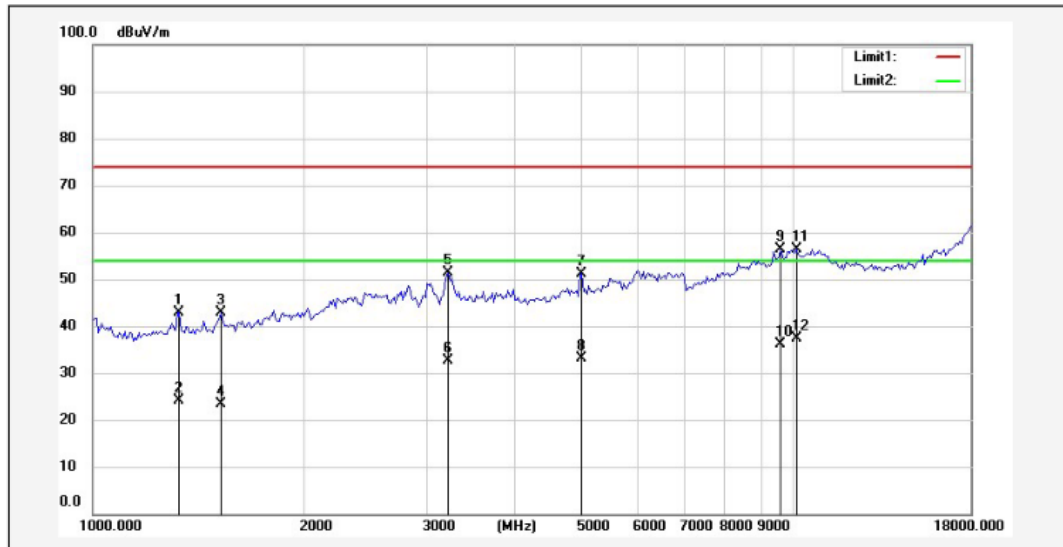
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1328.1992	45.73	-2.67	43.06	74.00	-30.94	---	---	peak
2	1328.1992	28.82	-2.67	26.15	54.00	-27.85	---	---	AVG
3	3222.1547	43.82	7.01	50.83	74.00	-23.17	---	---	peak
4	3222.1547	25.57	7.01	32.58	54.00	-21.42	---	---	AVG
5	5004.1481	39.31	11.91	51.22	74.00	-22.78	---	---	peak
6	5004.1481	21.71	11.91	33.62	54.00	-20.38	---	---	AVG
7	5618.7757	38.03	13.43	51.46	74.00	-22.54	---	---	peak
8	5618.7757	20.23	13.43	33.66	54.00	-20.34	---	---	AVG
9	6272.4561	38.68	13.43	52.11	74.00	-21.89	---	---	peak
10	6272.4561	20.09	13.43	33.52	54.00	-20.48	---	---	AVG
11	10085.9053	34.40	22.75	57.15	74.00	-16.85	---	---	peak
12*	10085.9053	16.16	22.75	38.91	54.00	-15.09	---	---	AVG

High Channel Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1297.7796	44.27	-2.66	41.61	74.00	-32.39	---	---	peak
2	1297.7796	24.71	-2.66	22.05	54.00	-31.95	---	---	AVG
3	3040.8193	41.84	5.05	46.89	74.00	-27.11	---	---	peak
4	3040.8193	21.20	5.05	26.25	54.00	-27.75	---	---	AVG
5	3494.3341	41.36	6.73	48.09	74.00	-25.91	---	---	peak
6	3494.3341	22.31	6.73	29.04	54.00	-24.96	---	---	AVG
7	4975.2462	40.00	11.05	51.05	74.00	-22.95	---	---	peak
8	4975.2462	21.47	11.05	32.52	54.00	-21.48	---	---	AVG
9	5988.4308	41.24	10.96	52.20	74.00	-21.80	---	---	peak
10	5988.4308	22.25	10.96	33.21	54.00	-20.79	---	---	AVG
11	10625.6394	38.18	18.29	56.47	74.00	-17.53	---	---	peak
12*	10625.6394	18.62	18.29	36.91	54.00	-17.09	---	---	AVG

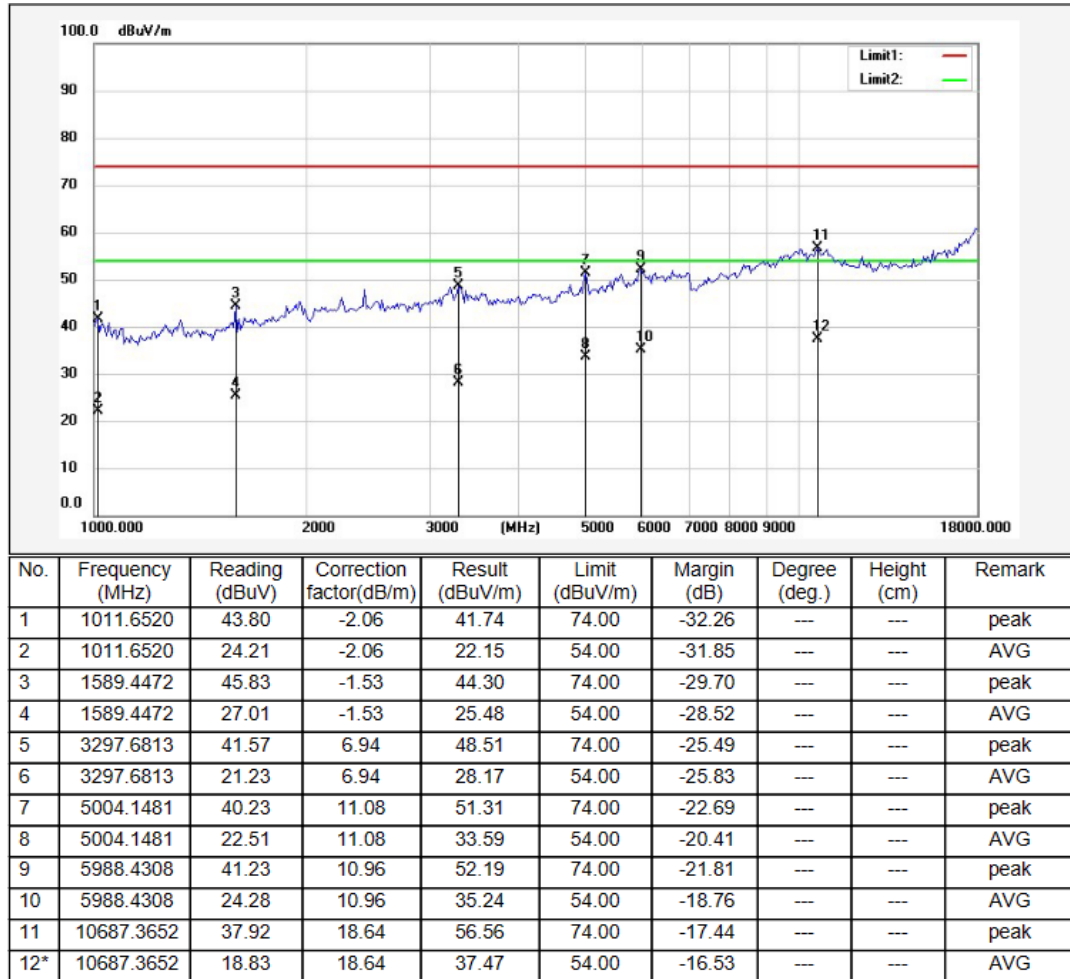
High Channel Vertical



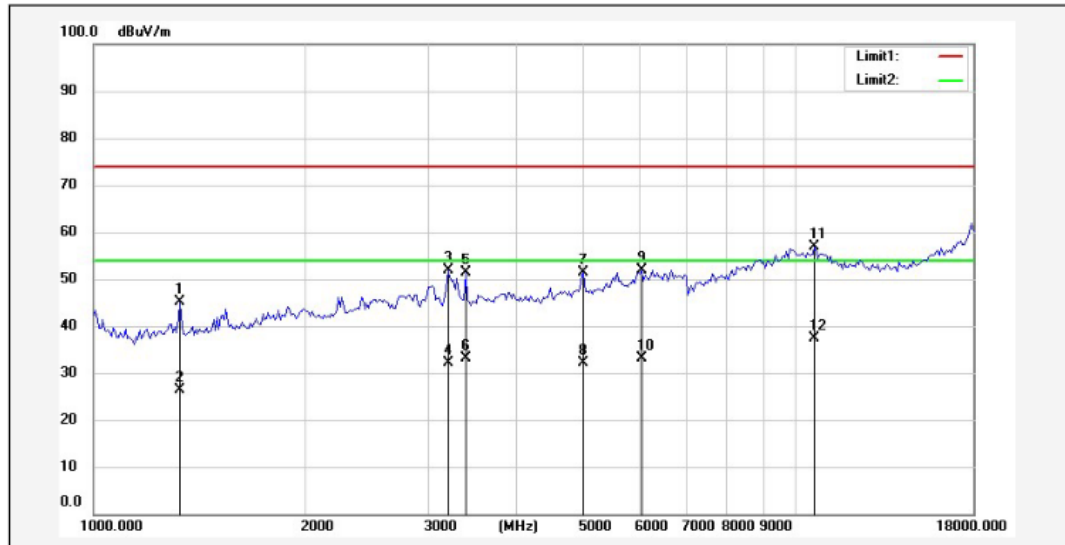
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1328.1992	45.67	-2.67	43.00	74.00	-31.00	---	---	peak
2	1328.1992	26.73	-2.67	24.06	54.00	-29.94	---	---	AVG
3	1526.2900	45.02	-2.20	42.82	74.00	-31.18	---	---	peak
4	1526.2900	25.46	-2.20	23.26	54.00	-30.74	---	---	AVG
5	3222.1547	44.35	7.01	51.36	74.00	-22.64	---	---	peak
6	3222.1547	25.61	7.01	32.62	54.00	-21.38	---	---	AVG
7	5004.1481	39.25	11.91	51.16	74.00	-22.84	---	---	peak
8	5004.1481	21.15	11.91	33.06	54.00	-20.94	---	---	AVG
9	9629.2016	34.09	22.23	56.32	74.00	-17.68	---	---	peak
10	9629.2016	13.82	22.23	36.05	54.00	-17.95	---	---	AVG
11	10144.4958	33.79	22.69	56.48	74.00	-17.52	---	---	peak
12*	10144.4958	14.76	22.69	37.45	54.00	-16.55	---	---	AVG

EDR

Low Channel Horizontal

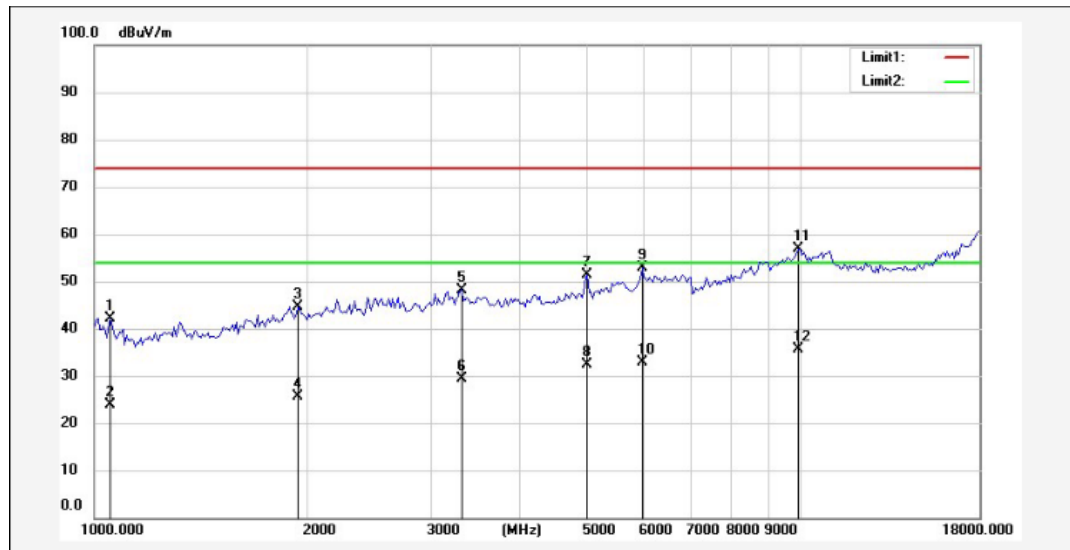


Low Channel Vertical



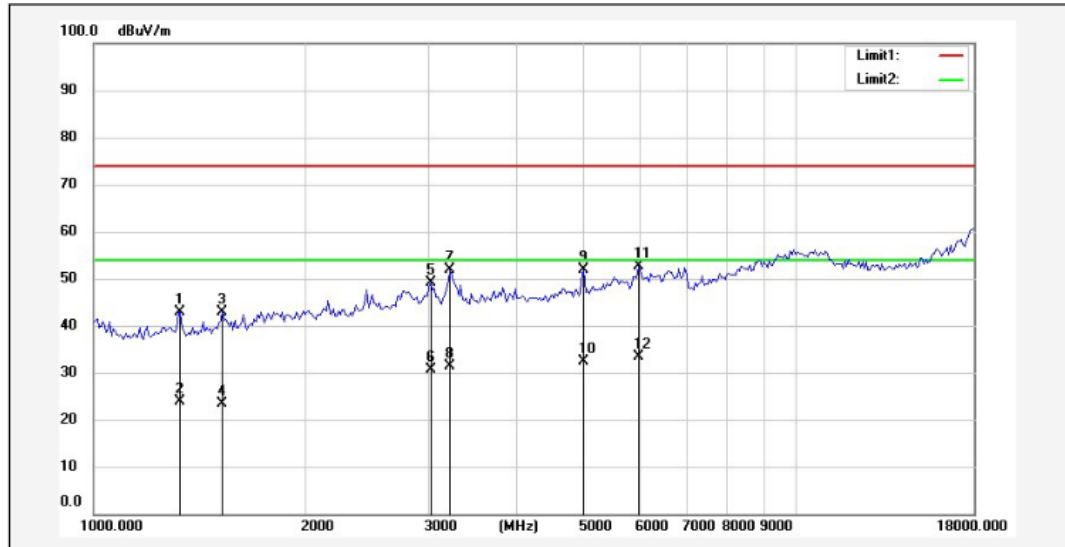
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1328.1992	47.72	-2.67	45.05	74.00	-28.95	---	---	peak
2	1328.1992	29.16	-2.67	26.49	54.00	-27.51	---	---	AVG
3	3203.5448	45.00	6.84	51.84	74.00	-22.16	---	---	peak
4	3203.5448	25.36	6.84	32.20	54.00	-21.80	---	---	AVG
5	3394.5841	44.13	7.13	51.26	74.00	-22.74	---	---	peak
6	3394.5841	25.90	7.13	33.03	54.00	-20.97	---	---	AVG
7	5004.1481	39.47	11.91	51.38	74.00	-22.62	---	---	peak
8	5004.1481	20.25	11.91	32.16	54.00	-21.84	---	---	AVG
9	6058.2080	38.64	13.34	51.98	74.00	-22.02	---	---	peak
10	6058.2080	19.85	13.34	33.19	54.00	-20.81	---	---	AVG
11	10687.3652	34.20	22.69	56.89	74.00	-17.11	---	---	peak
12*	10687.3652	14.61	22.69	37.30	54.00	-16.70	---	---	AVG

Middle Channel Horizontal



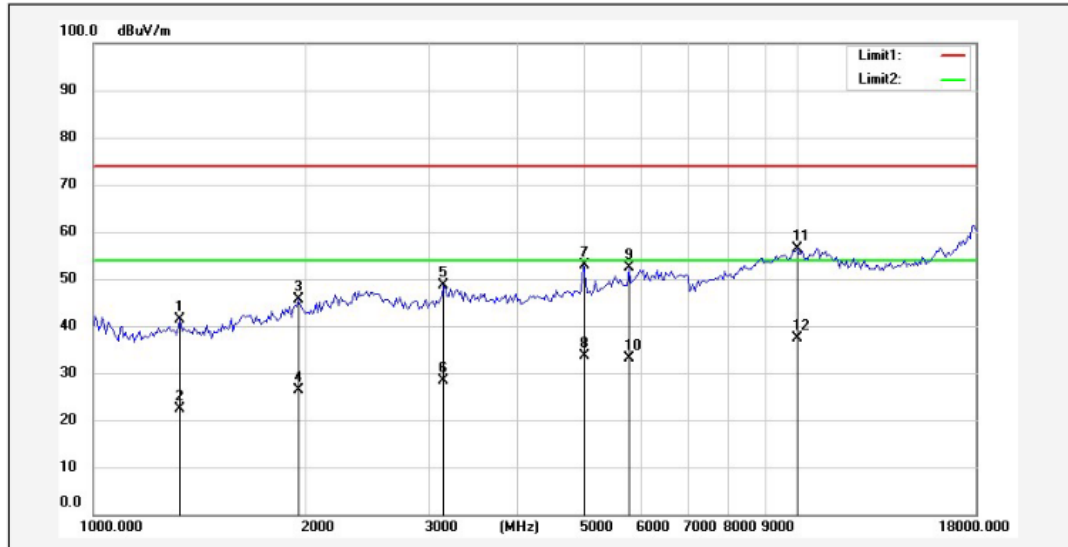
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1053.5135	45.70	-3.51	42.19	74.00	-31.81	---	---	peak
2	1053.5135	27.46	-3.51	23.95	54.00	-30.05	---	---	AVG
3	1946.6650	43.98	0.73	44.71	74.00	-29.29	---	---	peak
4	1946.6650	24.94	0.73	25.67	54.00	-28.33	---	---	AVG
5	3316.8380	41.11	6.90	48.01	74.00	-25.99	---	---	peak
6	3316.8380	22.41	6.90	29.31	54.00	-24.69	---	---	AVG
7	5004.1481	40.40	11.08	51.48	74.00	-22.52	---	---	peak
8	5004.1481	21.38	11.08	32.46	54.00	-21.54	---	---	AVG
9	5988.4308	41.83	10.96	52.79	74.00	-21.21	---	---	peak
10	5988.4308	22.00	10.96	32.96	54.00	-21.04	---	---	AVG
11*	9969.7378	39.87	16.99	56.86	74.00	-17.14	---	---	peak
12	9969.7378	18.55	16.99	35.54	54.00	-18.46	---	---	AVG

Middle Channel Vertical



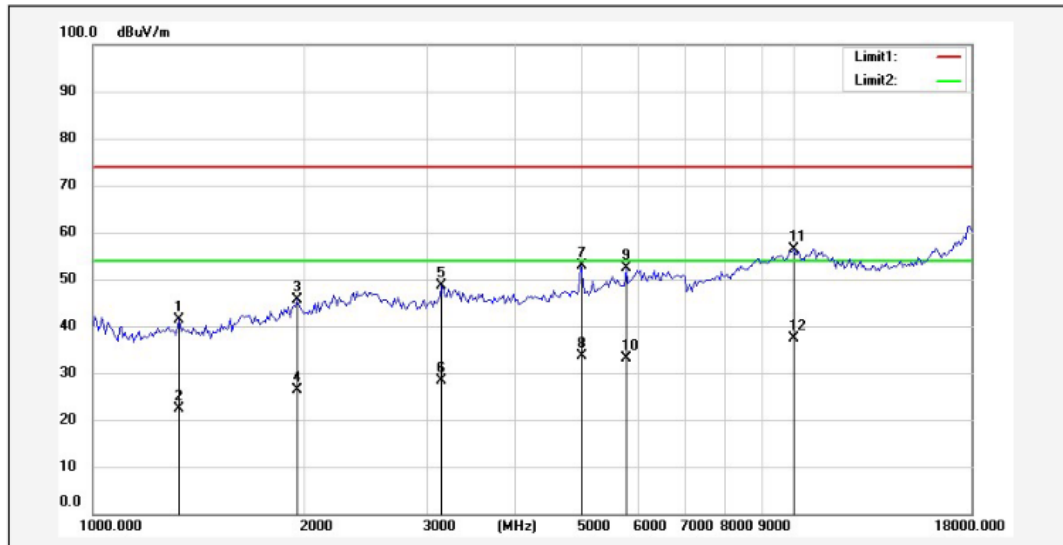
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1328.1992	45.63	-2.67	42.96	74.00	-31.04	---	---	peak
2	1328.1992	26.66	-2.67	23.99	54.00	-30.01	---	---	AVG
3	1526.2900	45.20	-2.20	43.00	74.00	-31.00	---	---	peak
4	1526.2900	25.66	-2.20	23.46	54.00	-30.54	---	---	AVG
5	3023.2568	43.81	5.38	49.19	74.00	-24.81	---	---	peak
6	3023.2568	25.22	5.38	30.60	54.00	-23.40	---	---	AVG
7	3222.1547	44.83	7.01	51.84	74.00	-22.16	---	---	peak
8	3222.1547	24.25	7.01	31.26	54.00	-22.74	---	---	AVG
9	5004.1481	39.98	11.91	51.89	74.00	-22.11	---	---	peak
10	5004.1481	20.59	11.91	32.50	54.00	-21.50	---	---	AVG
11	5988.4308	38.60	14.05	52.65	74.00	-21.35	---	---	peak
12*	5988.4308	19.40	14.05	33.45	54.00	-20.55	---	---	AVG

High Channel Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1328.1992	44.15	-2.74	41.41	74.00	-32.59	---	---	peak
2	1328.1992	25.20	-2.74	22.46	54.00	-31.54	---	---	AVG
3	1957.9736	45.01	0.71	45.72	74.00	-28.28	---	---	peak
4	1957.9736	25.59	0.71	26.30	54.00	-27.70	---	---	AVG
5	3148.3576	42.71	5.97	48.68	74.00	-25.32	---	---	peak
6	3148.3576	22.48	5.97	28.45	54.00	-25.55	---	---	AVG
7	4975.2462	41.77	11.05	52.82	74.00	-21.18	---	---	peak
8	4975.2462	22.59	11.05	33.64	54.00	-20.36	---	---	AVG
9	5783.8840	40.00	12.30	52.30	74.00	-21.70	---	---	peak
10	5783.8840	20.71	12.30	33.01	54.00	-20.99	---	---	AVG
11	10027.6532	39.42	16.93	56.35	74.00	-17.65	---	---	peak
12*	10027.6532	20.49	16.93	37.42	54.00	-16.58	---	---	AVG

High Channel Vertical

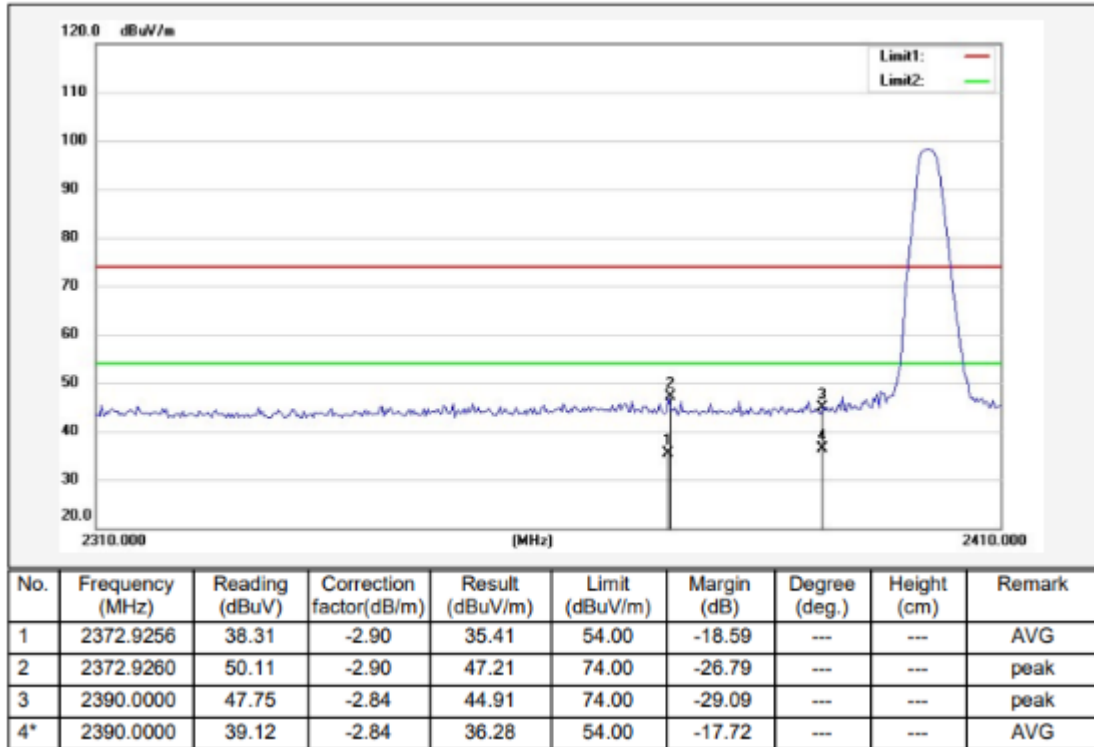


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1328.1992	44.15	-2.74	41.41	74.00	-32.59	---	---	peak
2	1328.1992	25.20	-2.74	22.46	54.00	-31.54	---	---	AVG
3	1957.9736	45.01	0.71	45.72	74.00	-28.28	---	---	peak
4	1957.9736	25.59	0.71	26.30	54.00	-27.70	---	---	AVG
5	3148.3576	42.71	5.97	48.68	74.00	-25.32	---	---	peak
6	3148.3576	22.48	5.97	28.45	54.00	-25.55	---	---	AVG
7	4975.2462	41.77	11.05	52.82	74.00	-21.18	---	---	peak
8	4975.2462	22.59	11.05	33.64	54.00	-20.36	---	---	AVG
9	5783.8840	40.00	12.30	52.30	74.00	-21.70	---	---	peak
10	5783.8840	20.71	12.30	33.01	54.00	-20.99	---	---	AVG
11	10027.6532	39.42	16.93	56.35	74.00	-17.65	---	---	peak
12*	10027.6532	20.49	16.93	37.42	54.00	-16.58	---	---	AVG

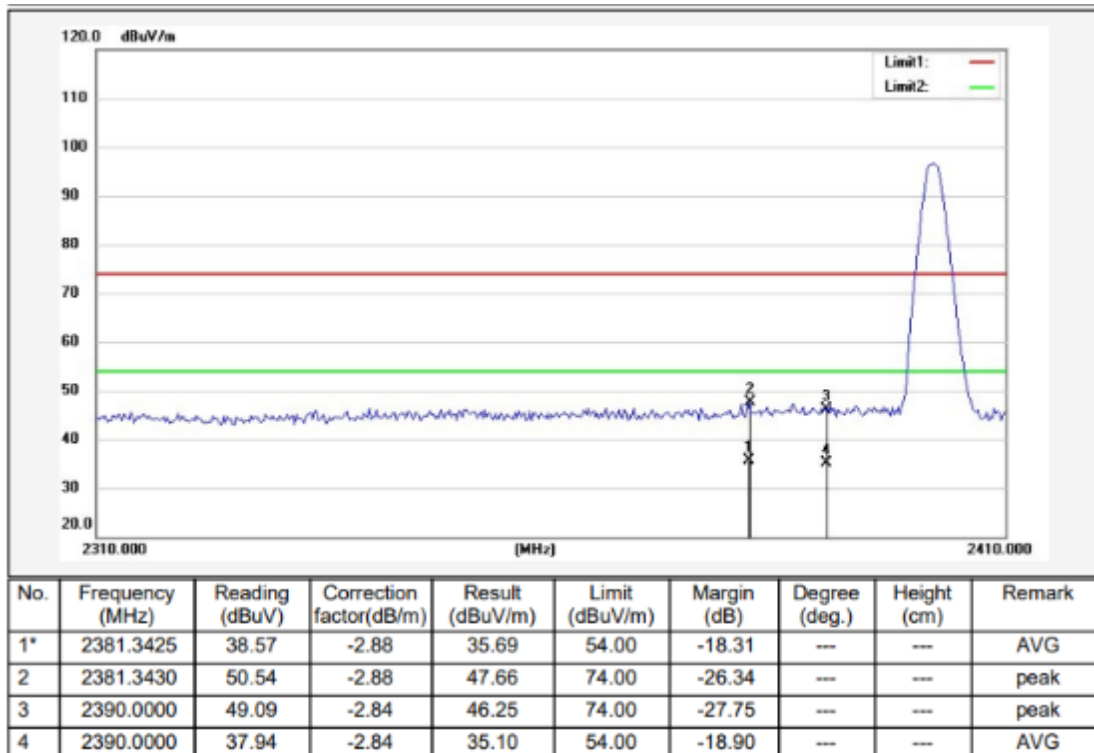
Appendix B.8: Test Results of Radiated Emissions in Restricted Bands

BDR

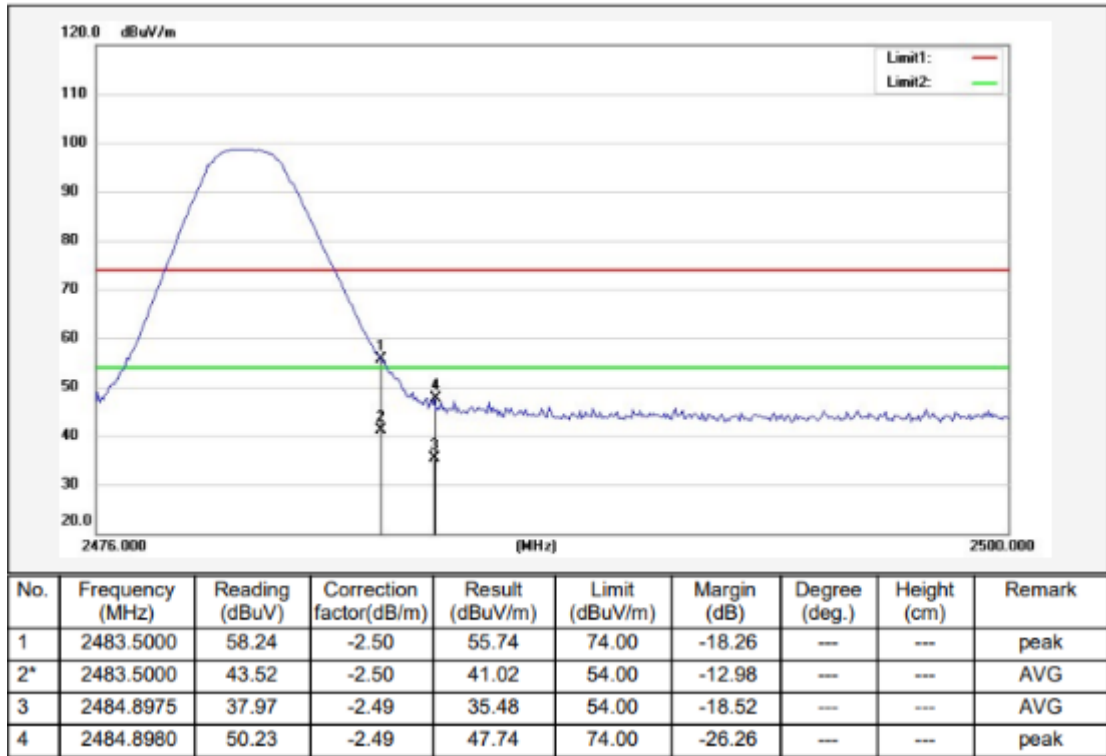
Low Channel DH1 Horizontal



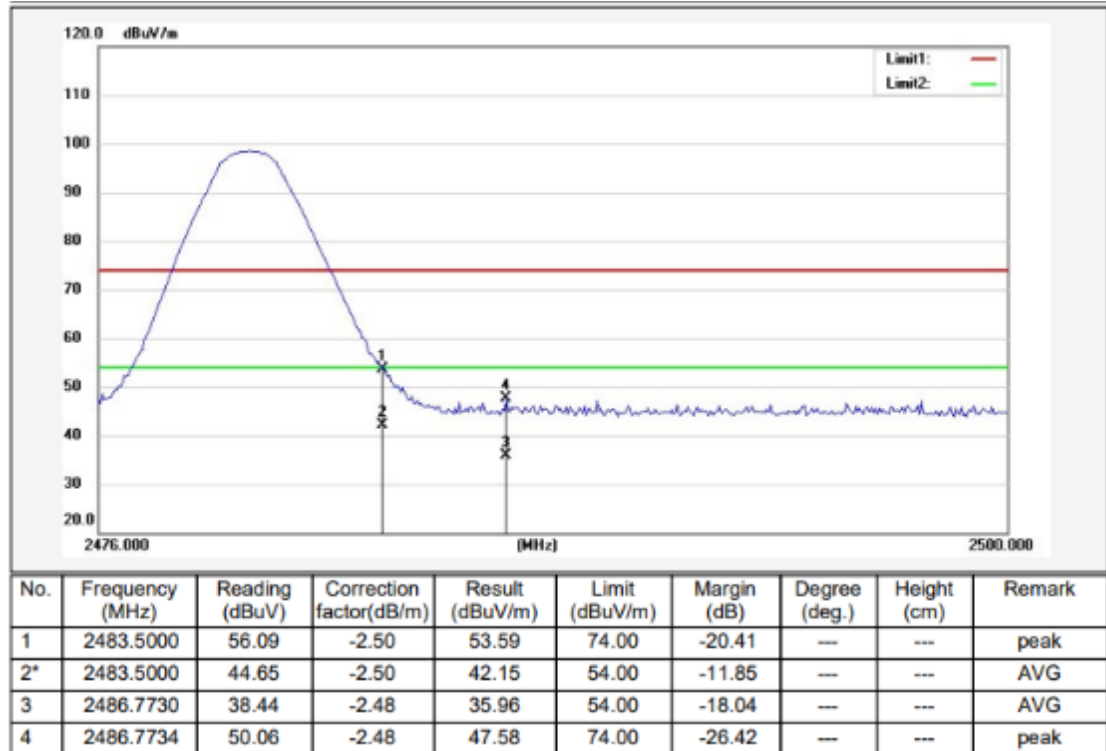
Low Channel DH1 Vertical



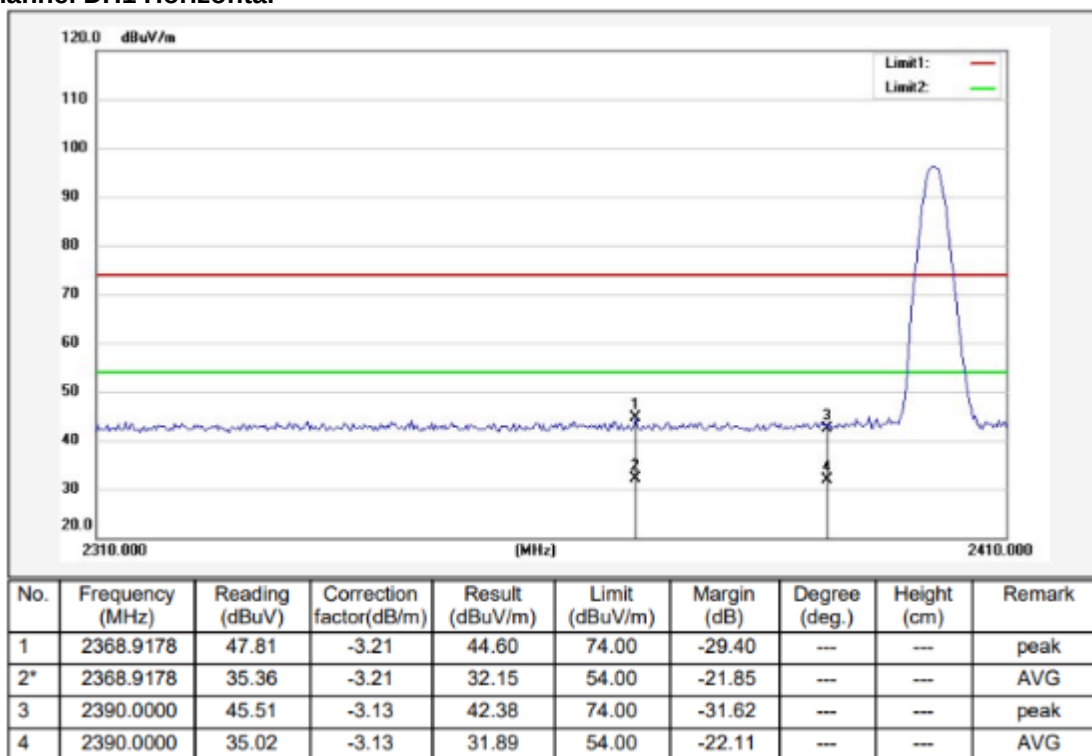
High Channel DH1 Horizontal



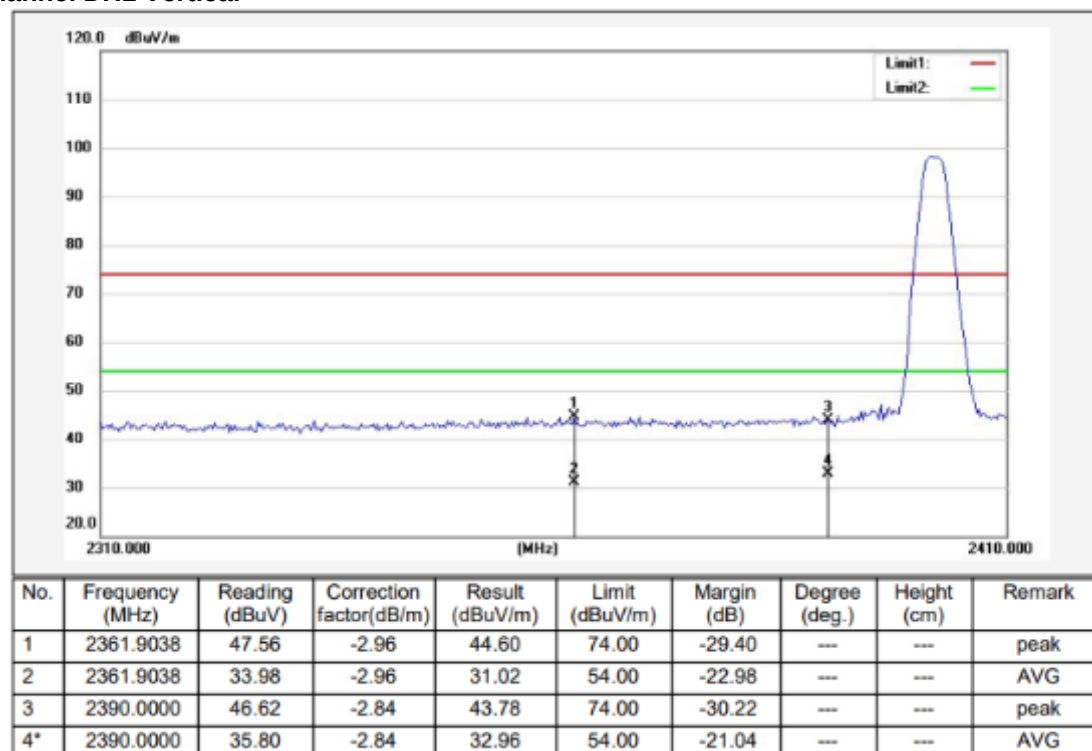
High Channel DH1 Vertical



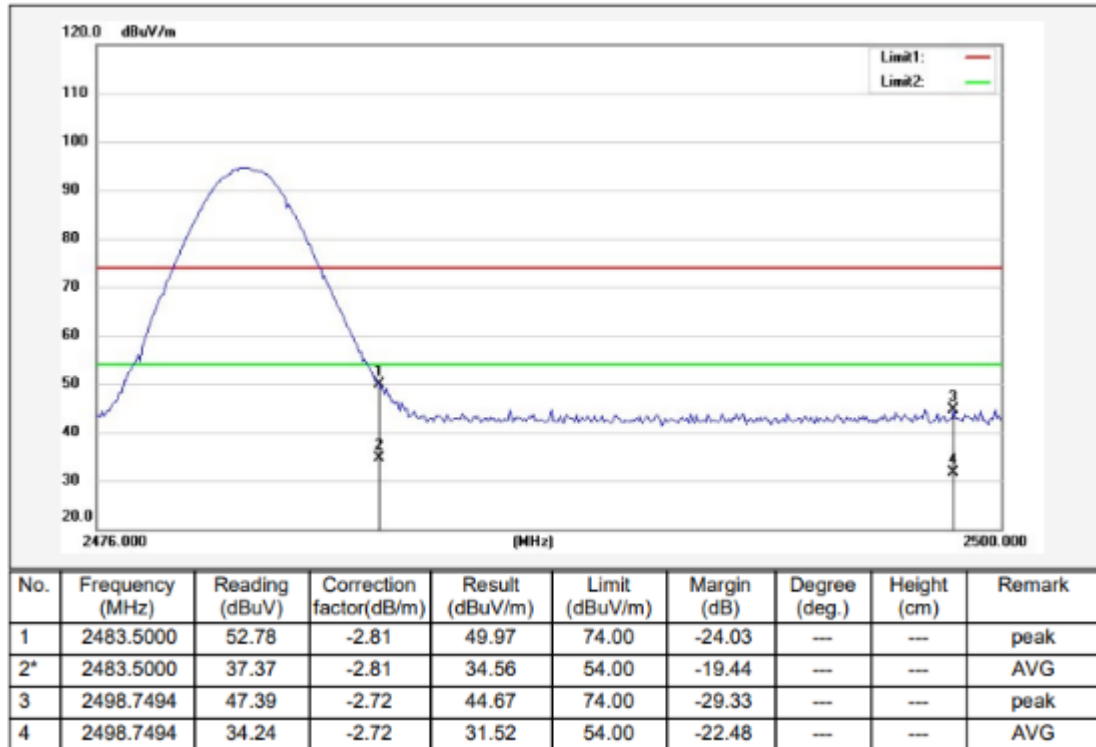
EDR
Low Channel DH1 Horizontal



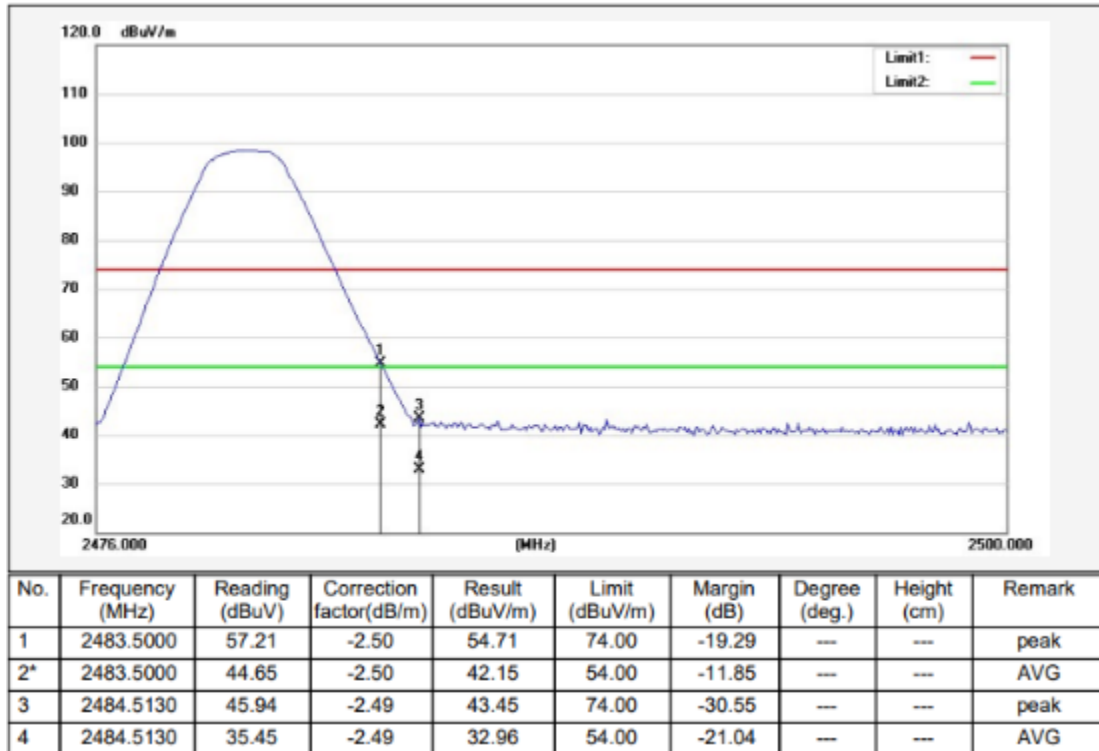
Low Channel DH1 Vertical



High Channel DH1 Horizontal



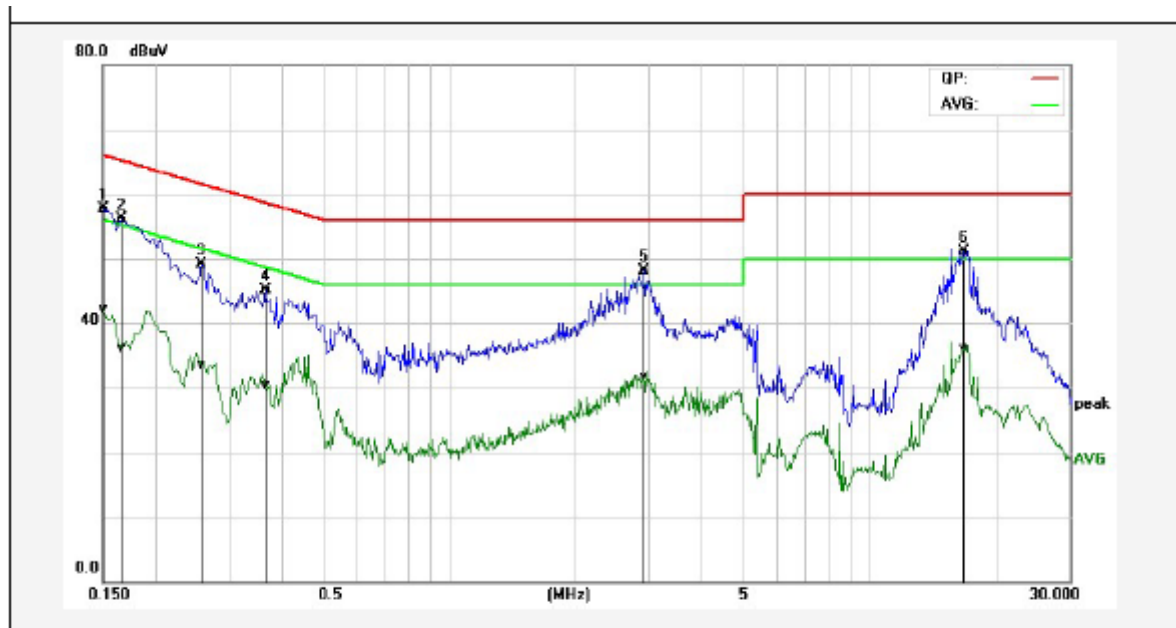
High Channel DH1 Vertical



Appendix B.9: Test Results of Conducted Emission on AC Mains

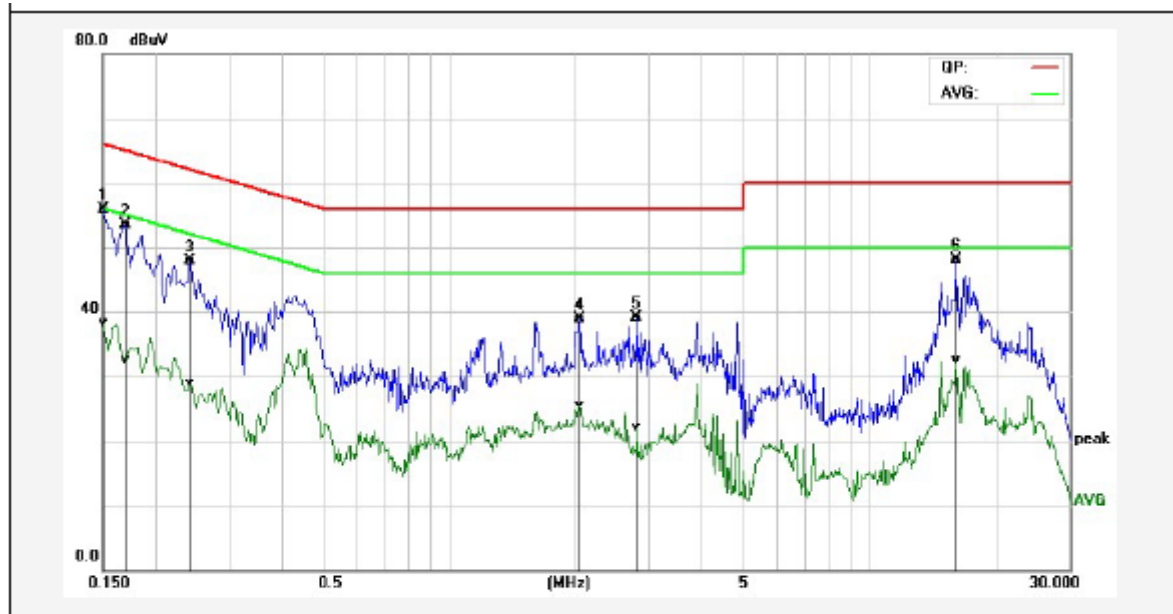
working mode

L



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1P	0.1516	47.72	32.18	9.89	57.61	42.07	65.91	55.91	-8.30	-13.84	Pass
2P	0.1660	46.34	26.23	9.80	56.14	36.03	65.15	55.16	-9.01	-19.13	Pass
3P	0.2580	39.44	23.85	9.59	49.03	33.44	61.49	51.50	-12.46	-18.06	Pass
4P	0.3660	35.56	20.77	9.55	45.11	30.32	58.59	48.59	-13.48	-18.27	Pass
5*	2.9460	38.55	22.12	9.63	48.18	31.75	56.00	46.00	-7.82	-14.25	Pass
6P	16.7939	41.11	26.01	10.04	51.15	36.05	60.00	50.00	-8.85	-13.95	Pass

N



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1*	0.1500	46.35	28.78	9.60	55.95	38.38	65.99	56.00	-10.04	-17.62	Pass
2P	0.1700	43.96	22.94	9.60	53.56	32.54	64.96	54.96	-11.40	-22.42	Pass
3P	0.2420	38.32	19.36	9.59	47.91	28.95	62.02	52.03	-14.11	-23.08	Pass
4P	2.0579	29.20	15.92	9.62	38.82	25.54	56.00	46.00	-17.18	-20.46	Pass
5P	2.8140	29.39	12.49	9.68	39.07	22.17	56.00	46.00	-16.93	-23.83	Pass
6P	16.0820	38.15	22.41	10.01	48.16	32.42	60.00	50.00	-11.84	-17.58	Pass