



Appendix for Test report



Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.122	2401.445	2402.567	---	PASS
		2441	1.125	2440.442	2441.567	---	PASS
		2480	1.137	2479.436	2480.573	---	PASS
2DH5	Ant1	2402	1.353	2401.331	2402.684	---	PASS
		2441	1.317	2440.343	2441.660	---	PASS
		2480	1.371	2479.325	2480.696	---	PASS
3DH5	Ant1	2402	1.308	2401.337	2402.645	---	PASS
		2441	1.320	2440.340	2441.660	---	PASS
		2480	1.353	2479.334	2480.687	---	PASS



Test Graphs

DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





Appendix B: Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.122	0.758	PASS
2DH5	Ant1	Hop	0.988	0.914	PASS
3DH5	Ant1	Hop	0.99	0.902	PASS

Test Graphs







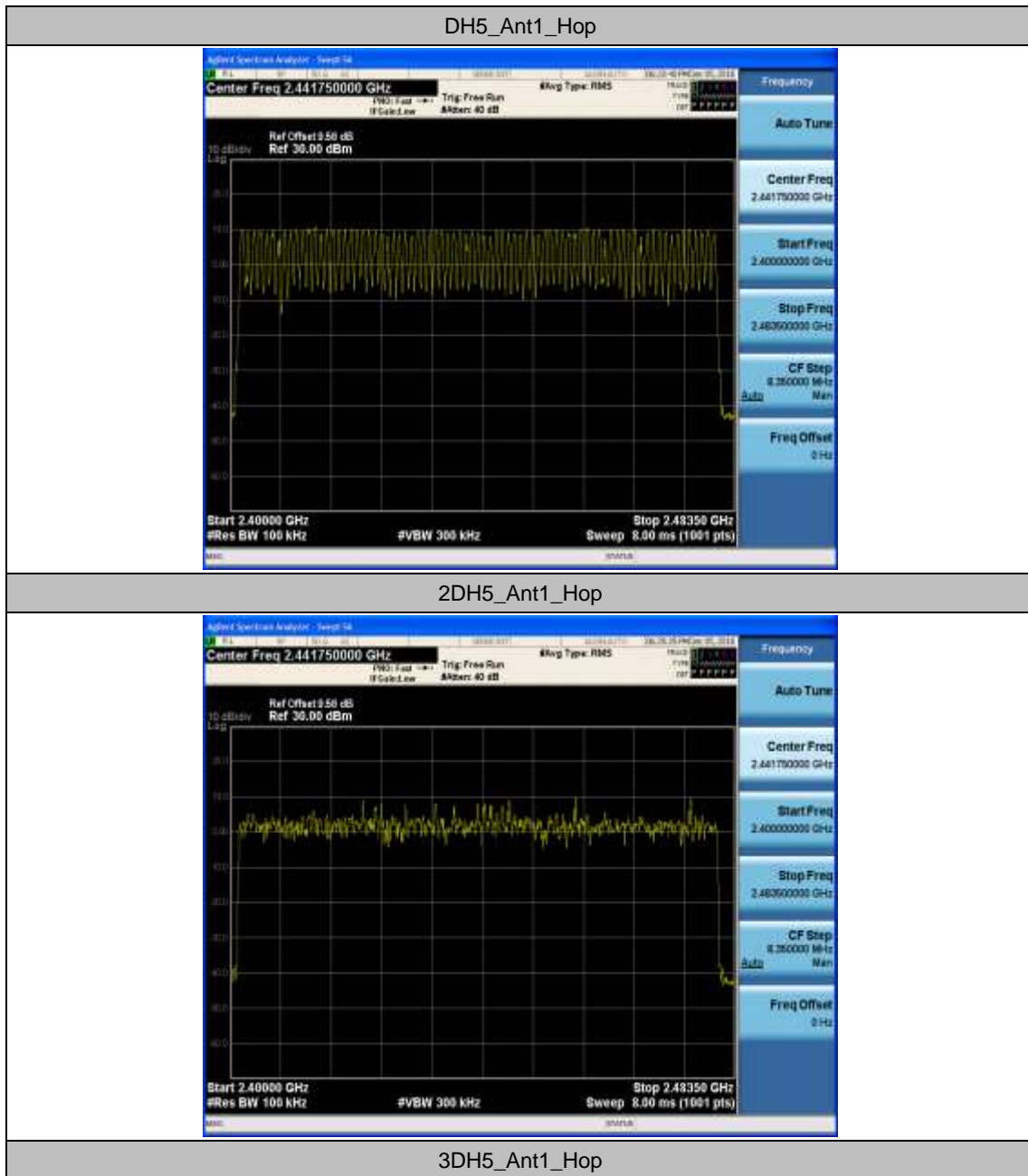
Appendix C: Number of hopping channels

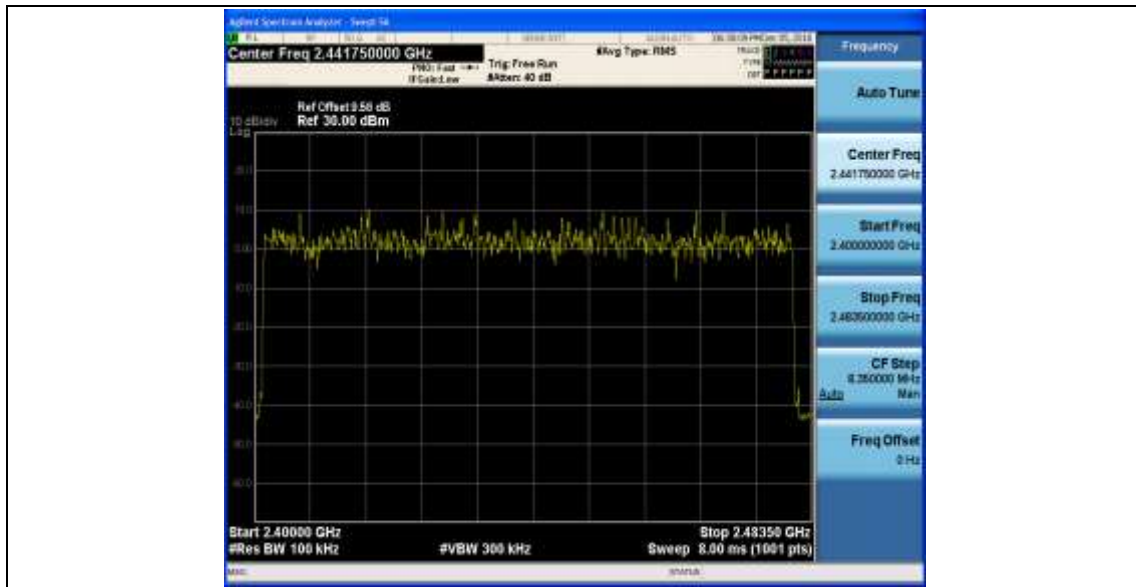
Test Result

TestMode	Antenna	Channel	Result	Limit	Verdict
DH5	Ant1	Hop	79	15	PASS
2DH5	Ant1	Hop	79	15	PASS
3DH5	Ant1	Hop	79	15	PASS



Test Graphs





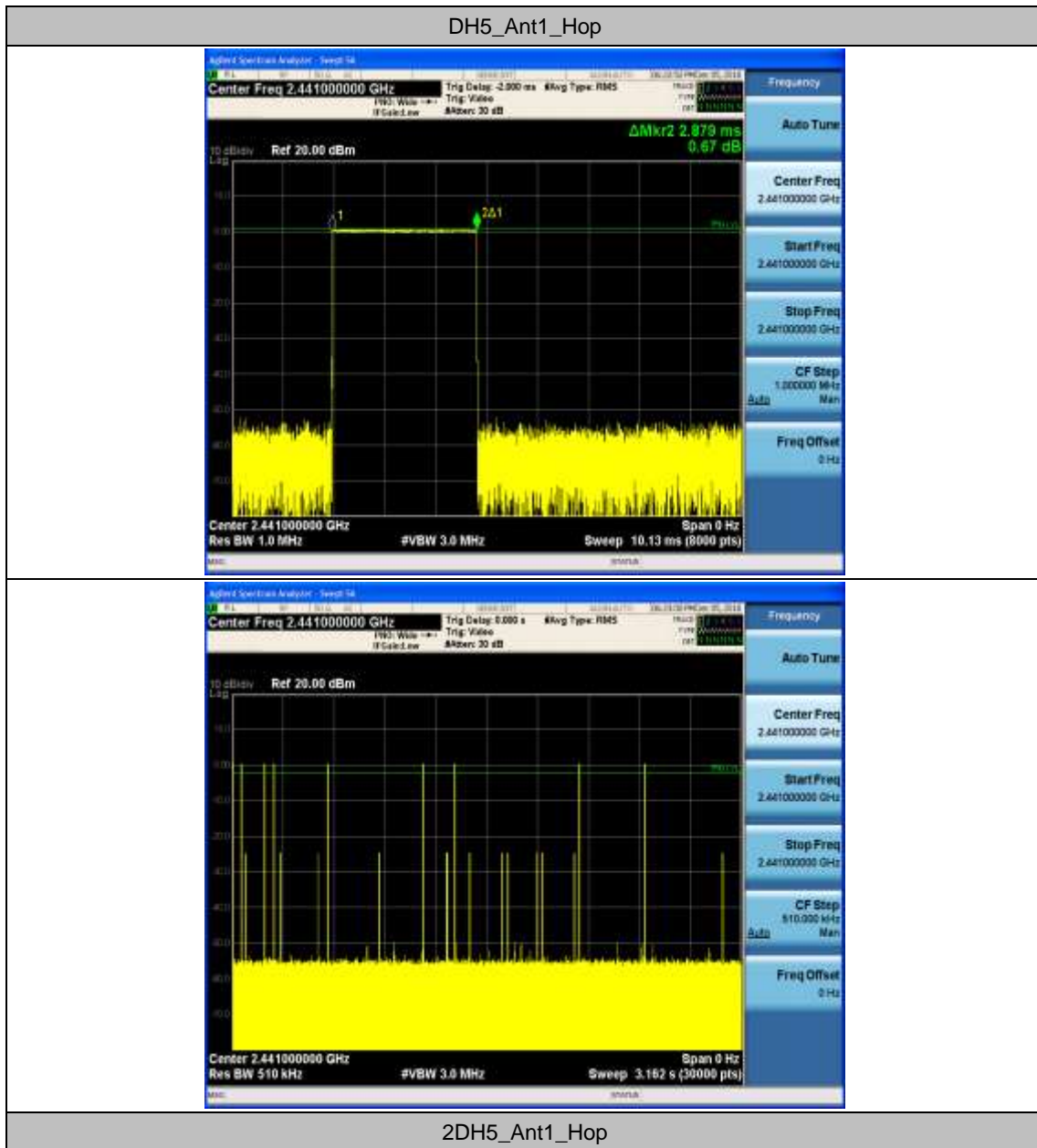


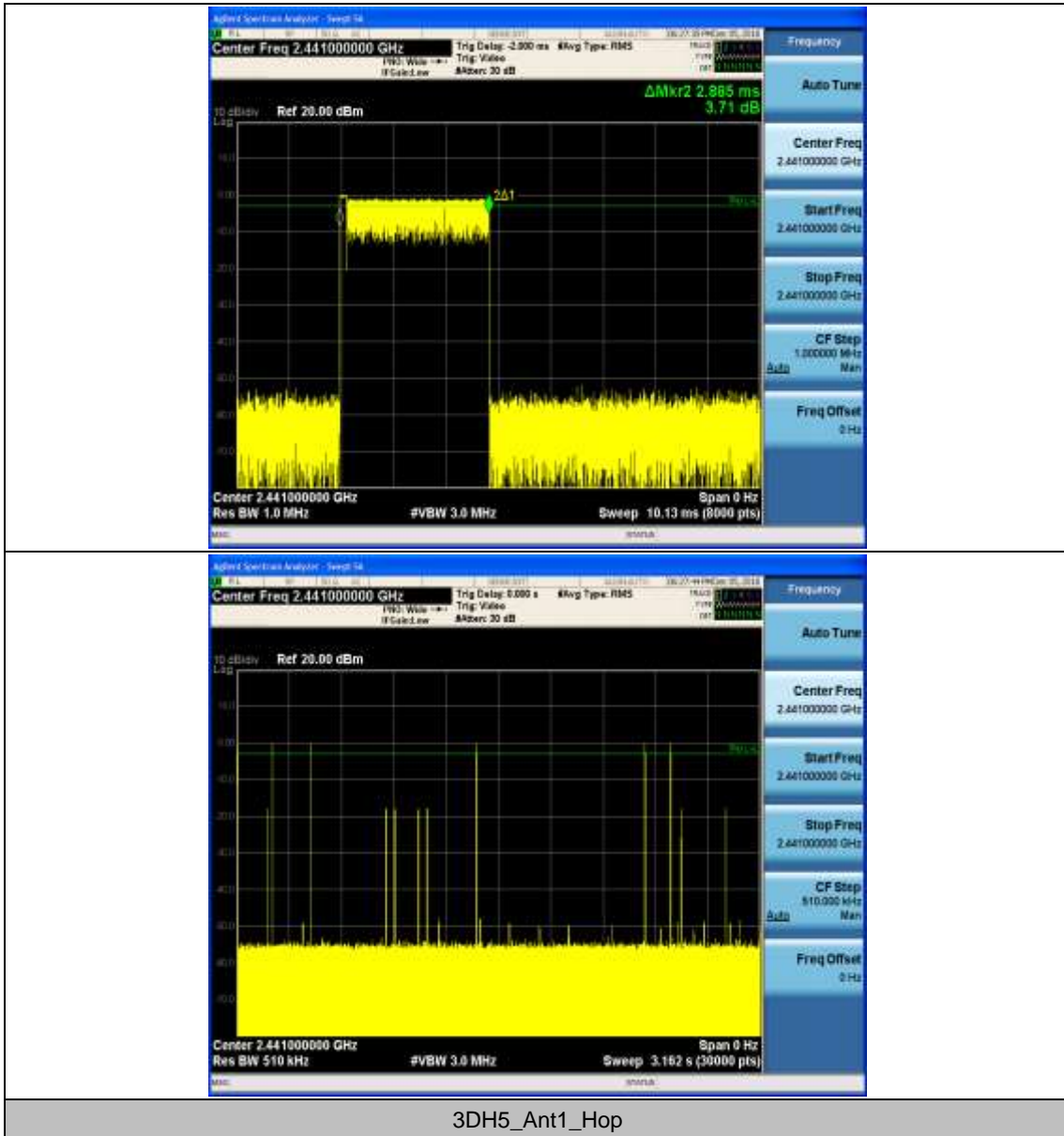
Appendix D: Time of occupancy

Test Result

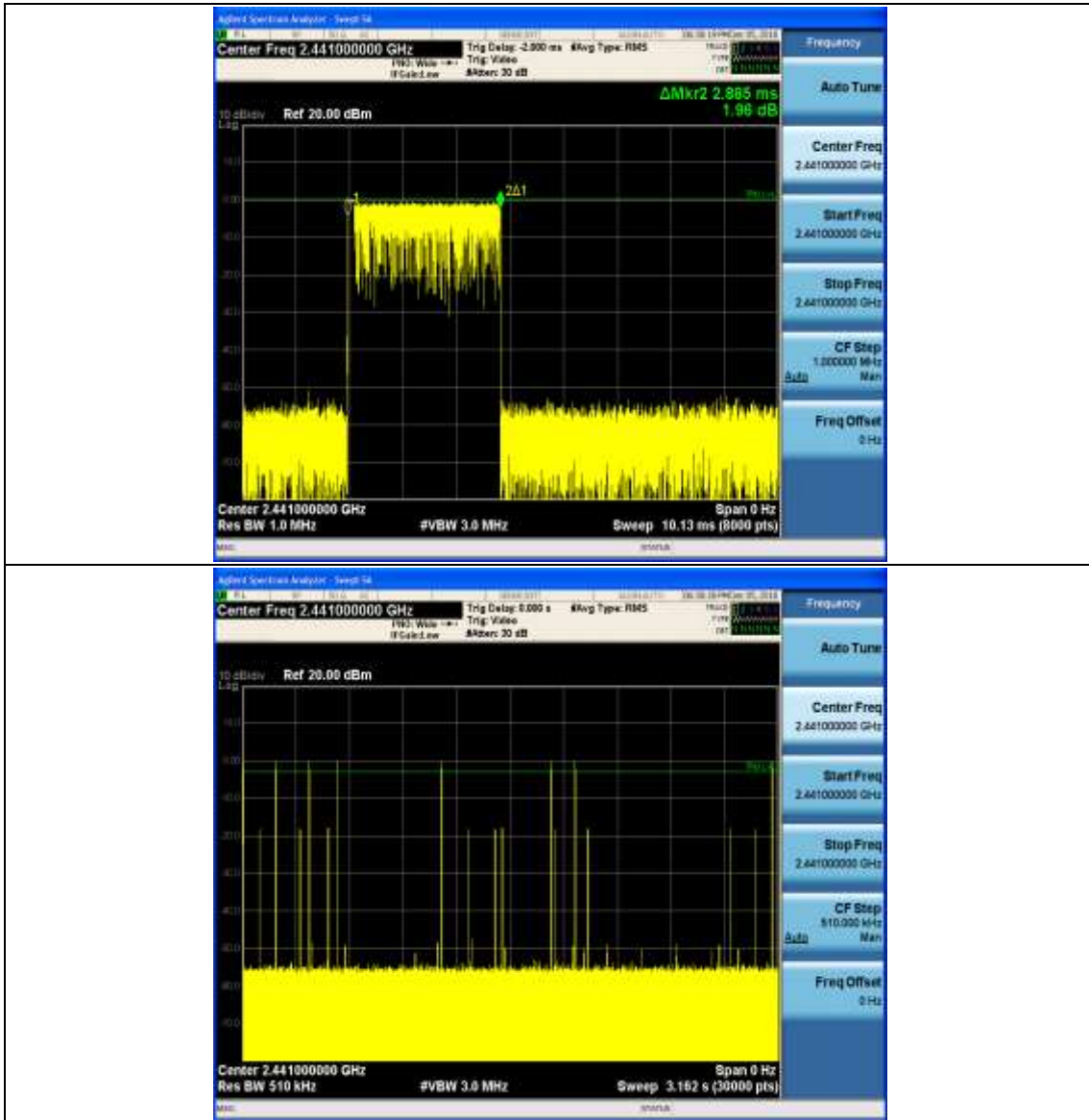
TestMode	Antenna	Channel	BurstWidth [ms/hop/ch]	TotalHops [hop*ch]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	90	0.259	0.4	PASS
2DH5	Ant1	Hop	2.89	60	0.173	0.4	PASS
3DH5	Ant1	Hop	2.89	80	0.231	0.4	PASS

Test Graphs





3DH5_Ant1_Hop



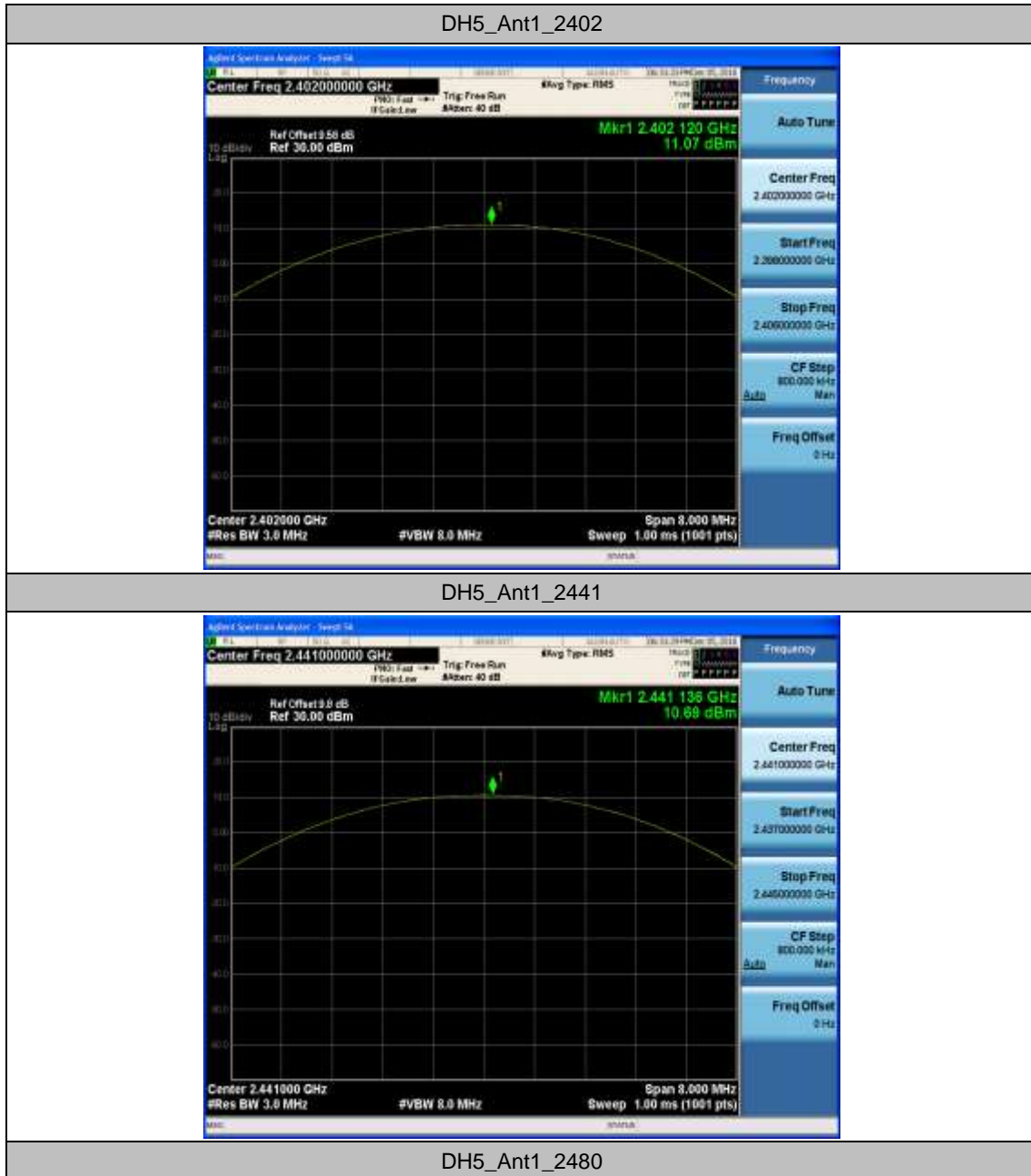


Appendix E: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	11.07	20.97	PASS
		2441	10.69	20.97	PASS
		2480	10.75	20.97	PASS
2DH5	Ant1	2402	10.16	20.97	PASS
		2441	9.95	20.97	PASS
		2480	9.96	20.97	PASS
3DH5	Ant1	2402	10.17	20.97	PASS
		2441	9.89	20.97	PASS
		2480	10.37	20.97	PASS

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





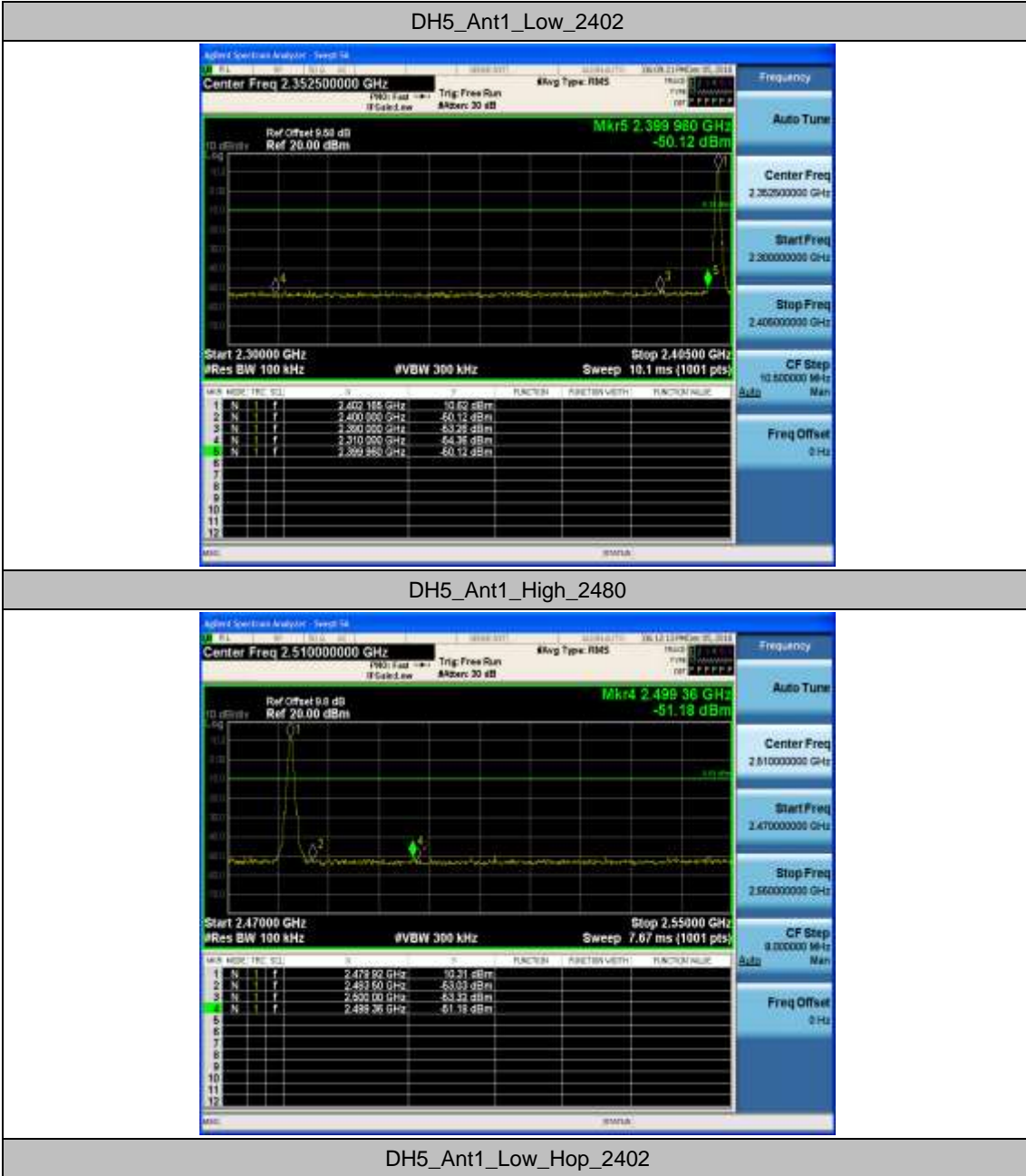
Appendix F: Band edge measurements

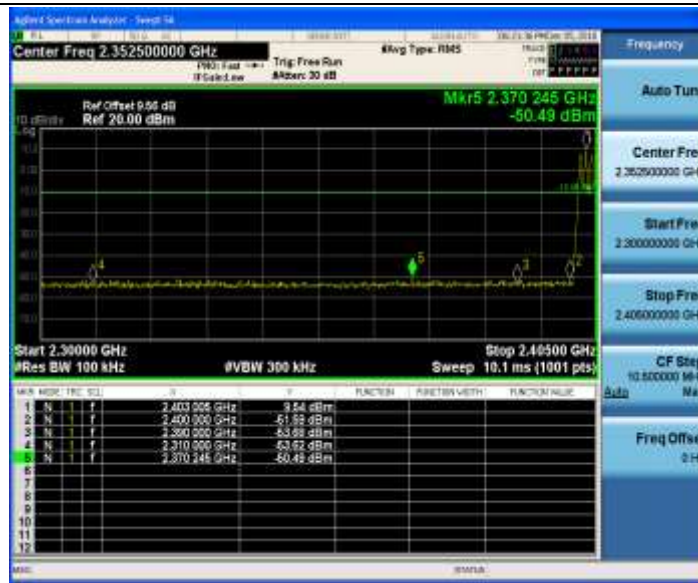
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	Low	2402	10.62	-50.12	-9.38	PASS
		High	2480	10.31	-51.18	-9.69	PASS
		Low	Hop_2402	9.54	-50.49	-10.46	PASS
		High	Hop_2480	9.80	-50.47	-10.2	PASS
2DH5	Ant1	Low	2402	5.53	-50.93	-14.47	PASS
		High	2480	5.46	-50.82	-14.54	PASS
		Low	Hop_2402	4.22	-51.03	-15.78	PASS
		High	Hop_2480	4.86	-51.85	-15.14	PASS
3DH5	Ant1	Low	2402	9.78	-51.06	-10.22	PASS
		High	2480	7.77	-49.21	-12.23	PASS
		Low	Hop_2402	4.24	-50.81	-15.76	PASS
		High	Hop_2480	4.89	-51.13	-15.11	PASS



Test Graphs

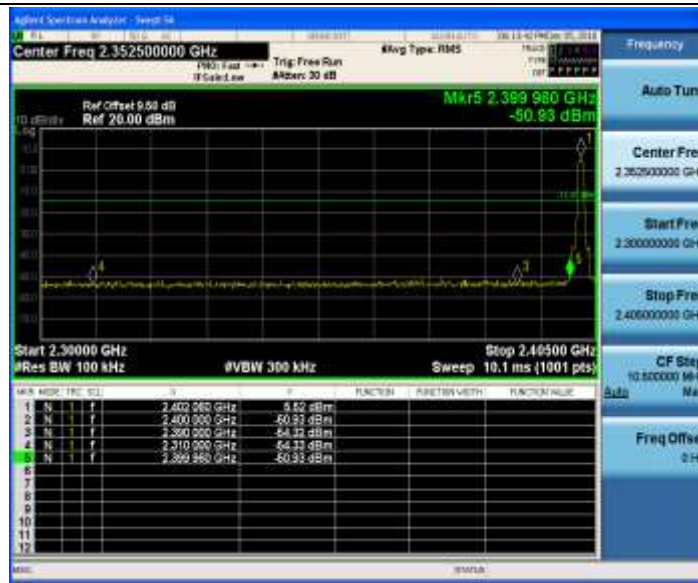




DH5_Ant1_High_Hop_2480



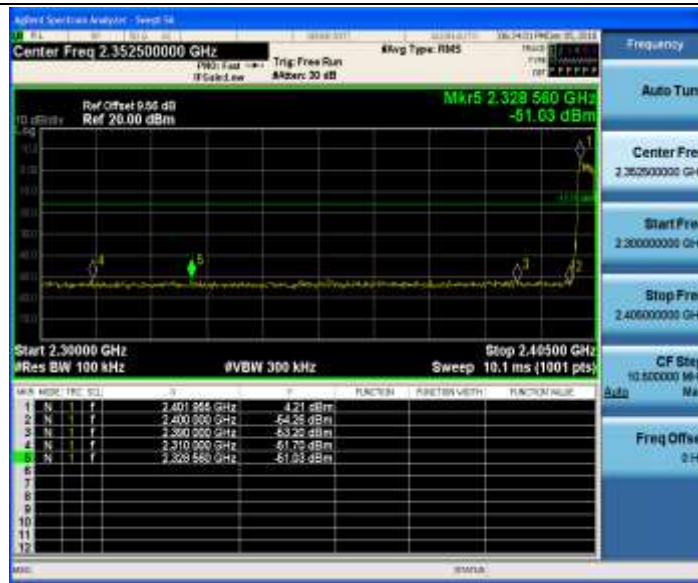
2DH5_Ant1_Low_2402



2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480



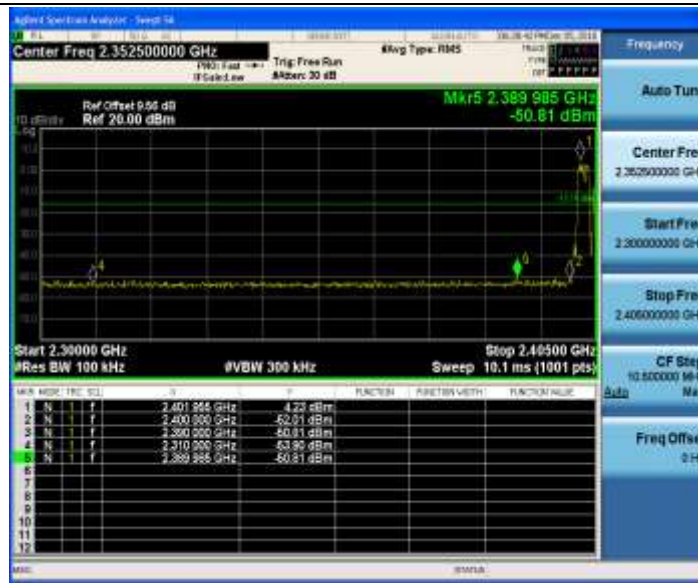
3DH5_Ant1_Low_2402



3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





Appendix G: Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	Reference	10.52	10.52	---	PASS
			0.009~30	0.009~30	-74.48	-29.48	PASS
			30~1000	30~1000	-62.65	-19.48	PASS
			1000~26500	1000~26500	-37.89	-19.48	PASS
		2441	Reference	9.68	9.68	---	PASS
			0.009~30	0.009~30	-73.52	-30.32	PASS
			30~1000	30~1000	-62.81	-20.32	PASS
			1000~26500	1000~26500	-36.37	-20.32	PASS
		2480	Reference	9.88	9.88	---	PASS
			0.009~30	0.009~30	-73.52	-30.12	PASS
			30~1000	30~1000	-62.55	-20.12	PASS
			1000~26500	1000~26500	-36.52	-20.12	PASS
2DH5	Ant1	2402	Reference	9.79	9.79	---	PASS
			0.009~30	0.009~30	-74	-30.21	PASS
			30~1000	30~1000	-63.25	-20.21	PASS
			1000~26500	1000~26500	-35.3	-20.21	PASS
		2441	Reference	8.34	8.34	---	PASS
			0.009~30	0.009~30	-73.36	-31.66	PASS
			30~1000	30~1000	-62.15	-21.66	PASS
			1000~26500	1000~26500	-37.1	-21.66	PASS
		2480	Reference	5.95	5.95	---	PASS
			0.009~30	0.009~30	-74.53	-34.05	PASS
			30~1000	30~1000	-62.7	-24.05	PASS
			1000~26500	1000~26500	-36.57	-24.05	PASS
3DH5	Ant1	2402	Reference	8.74	8.74	---	PASS
			0.009~30	0.009~30	-73.75	-31.26	PASS
			30~1000	30~1000	-62.66	-21.26	PASS
			1000~26500	1000~26500	-37.74	-21.26	PASS
		2441	Reference	5.13	5.13	---	PASS
			0.009~30	0.009~30	-73.35	-34.87	PASS
			30~1000	30~1000	-62.78	-24.87	PASS
			1000~26500	1000~26500	-36.8	-24.87	PASS
		2480	Reference	9.06	9.06	---	PASS

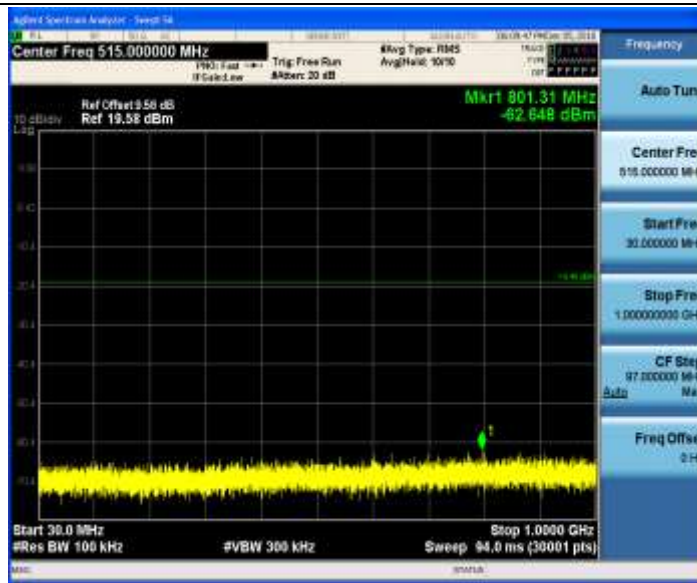


			0.009~30	0.009~30	-73.99	-30.94	PASS
			30~1000	30~1000	-62.29	-20.94	PASS
			1000~26500	1000~26500	-37.48	-20.94	PASS



Test Graphs





DH5_Ant1_2402_1000~26500



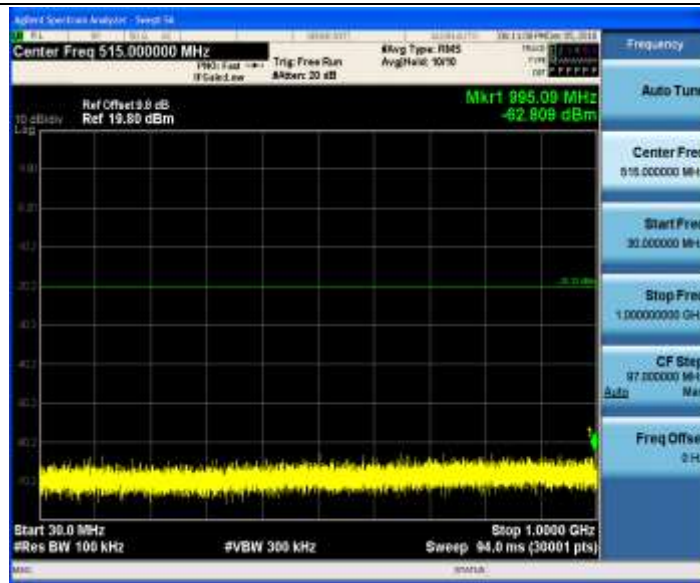
DH5_Ant1_2441_0-Reference



DH5_Ant1_2441_0.009~30



DH5_Ant1_2441_30~1000



DH5_Ant1_2441_1000~26500



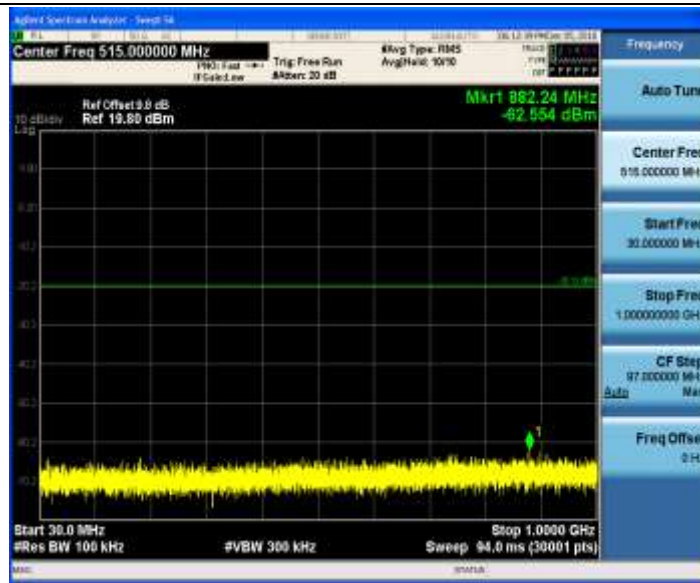
DH5_Ant1_2480_0-Reference



DH5_Ant1_2480_0.009~30



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



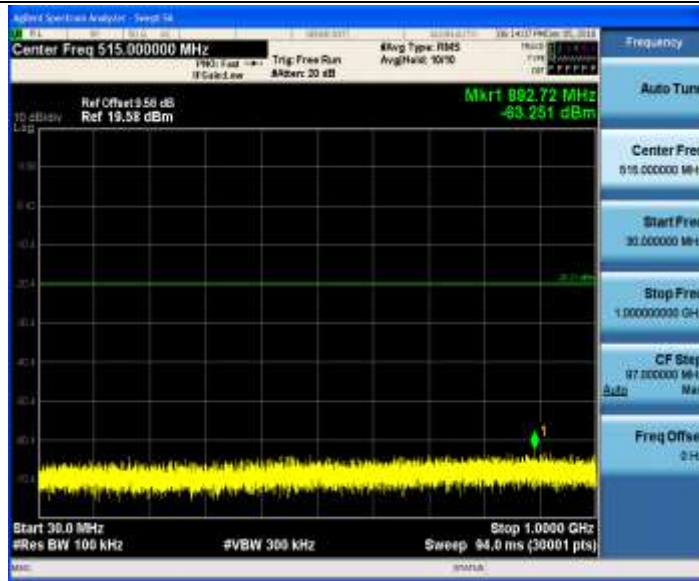
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_0.009~30



2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500



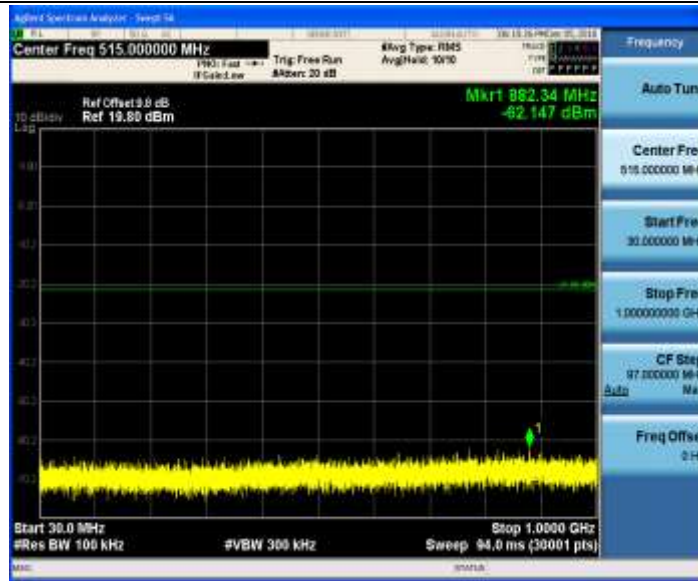
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_0.009~30



2DH5_Ant1_2441_30~1000



2DH5_Ant1_2441_1000~26500



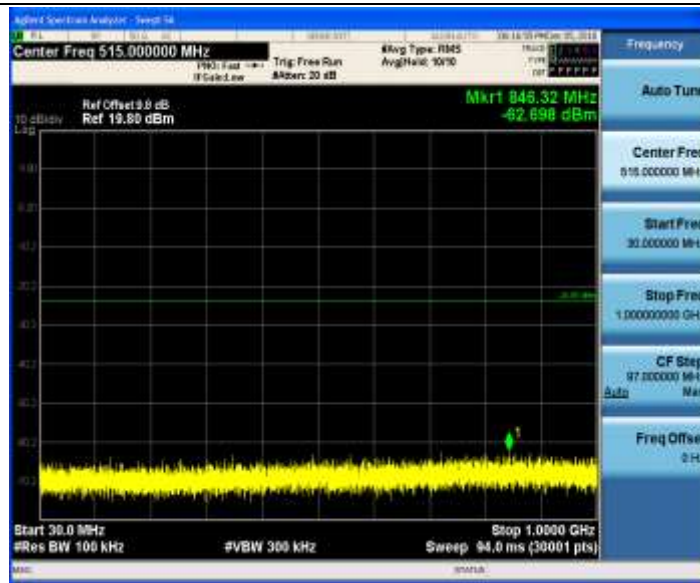
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_0.009~30



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500



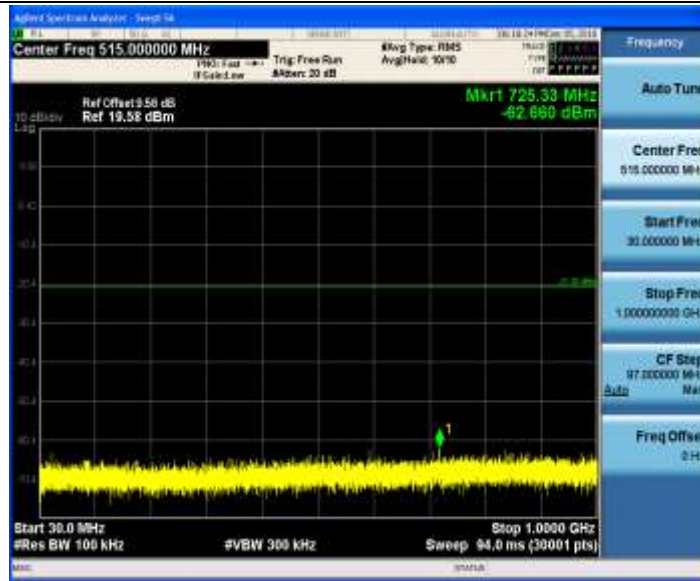
3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_0.009~30



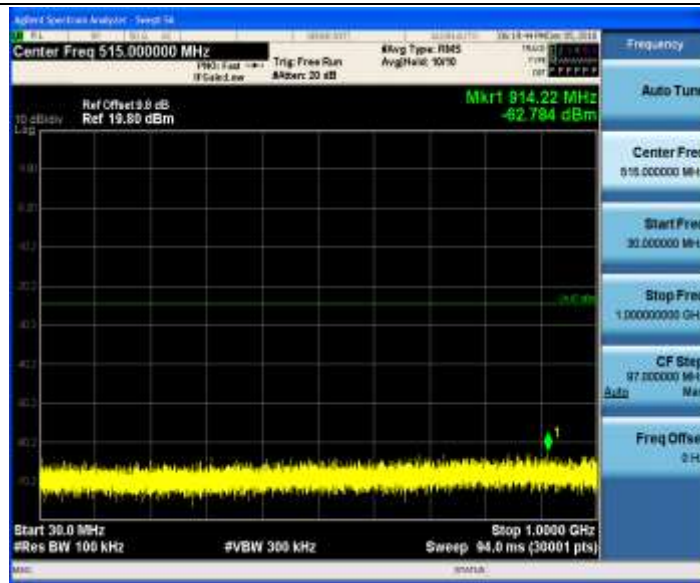
3DH5_Ant1_2402_30~1000



3DH5_Ant1_2402_1000~26500



3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_1000~26500



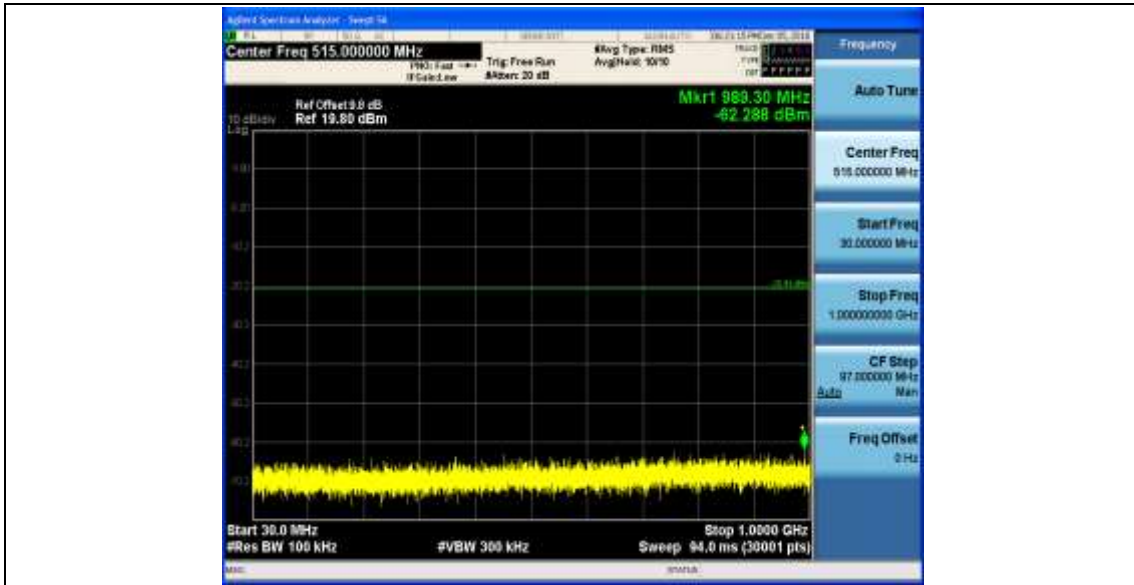
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_0.009~30



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500





Appendix H: Radiated Emissions in the Restricted Bands

1 Result Table

The whole testing range is from “30 MHz to 26.5 GHz (10th harmonics)” is divided into 5 parts according to the test site settings, which are:

- (Part 1): Test range of “9 KHz to 30 MHz”,
- (Part 2): Test range of “30 Mhz to 1GHz
- (Part 3): Test range of “1 GHz to 3 GHz”.
- (Part 4): Test range of “3 GHz to 18 GHz”,
- (Part 5): Test range of “18 GHz to 26.5 GHz”.

In this Appendix, only the test results and plots under the worst case can be reported. In the result table, the “< Limit” denotes that “Not found obvious spikes or see marked spikes on plots and listed emissions records”.

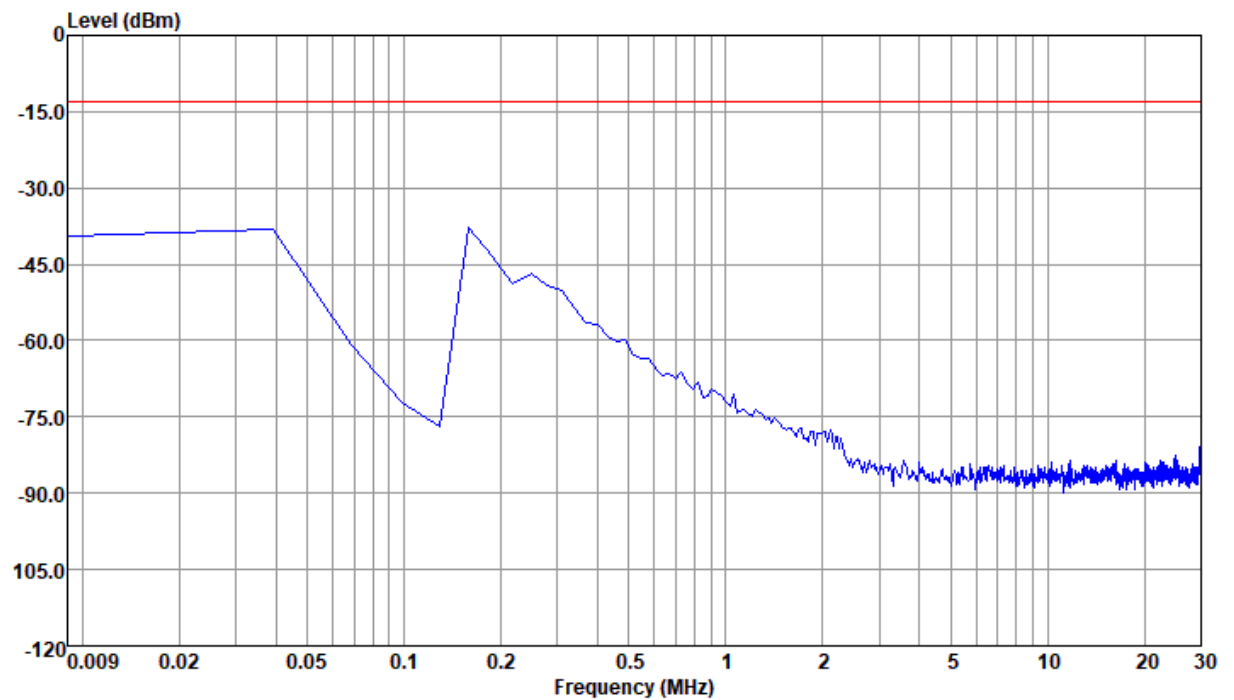
Test Range	EUT Conf.	Emissions	Verdict
30 MHz to 1 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass
1 GHz to 3 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass
	TM1_DH5_Ch78 (Worst Conf.)	< Limit	Pass
3 GHz to 18 GHz	TM1_DH5_Ch0 (Worse Conf.)	< Limit	Pass
18 GHz to 26.5 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass

Note: We tested all modes, but the data presented below is the worst case.

2 Result Plot

Part 1: Testing Range of “9 kHz to 30MHz”

Note 1: The test results and plot for testing range of “9 KHz to 30 MHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

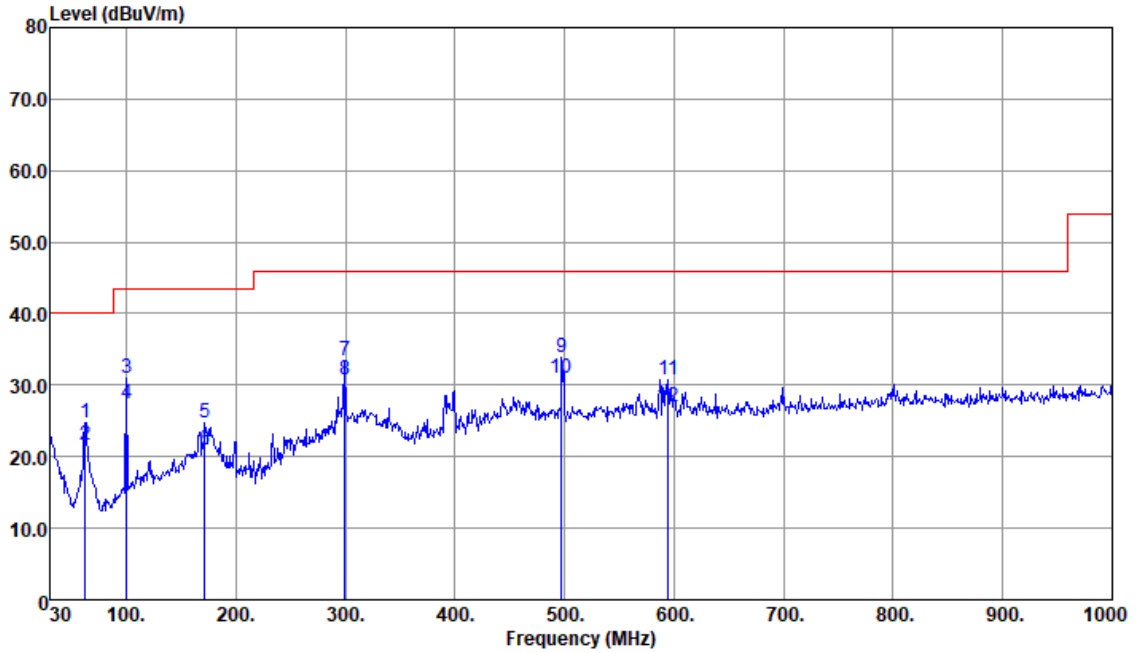




Part 2: Testing Range of “30 MHz to 1 GHz”

Note 1: The test results and plot for testing range of “30 MHz to 1 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

Note 2: The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Preamp	Loss	Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	62.01	24.84	-15.16	40.00	43.43	12.50	0.51	31.60	Peak
2	62.01	21.71	-18.29	40.00	40.30	12.50	0.51	31.60	QP
3	99.84	30.96	-12.54	43.50	44.91	16.70	0.85	31.50	Peak
4	99.84	27.34	-16.16	43.50	41.29	16.70	0.85	31.50	QP
5	171.62	24.63	-18.87	43.50	38.96	15.54	1.44	31.31	Peak
6	171.62	20.93	-22.57	43.50	35.26	15.54	1.44	31.31	QP
7	299.66	33.33	-12.67	46.00	43.19	19.20	2.04	31.10	Peak
8	299.66	30.70	-15.30	46.00	40.56	19.20	2.04	31.10	QP
9 pp	497.54	33.87	-12.13	46.00	38.92	23.35	2.70	31.10	Peak
10 qp	497.54	30.89	-15.11	46.00	35.94	23.35	2.70	31.10	QP
11	594.54	30.85	-15.15	46.00	34.62	24.44	2.99	31.20	Peak
12	594.54	26.87	-19.13	46.00	30.64	24.44	2.99	31.20	QP

Note:

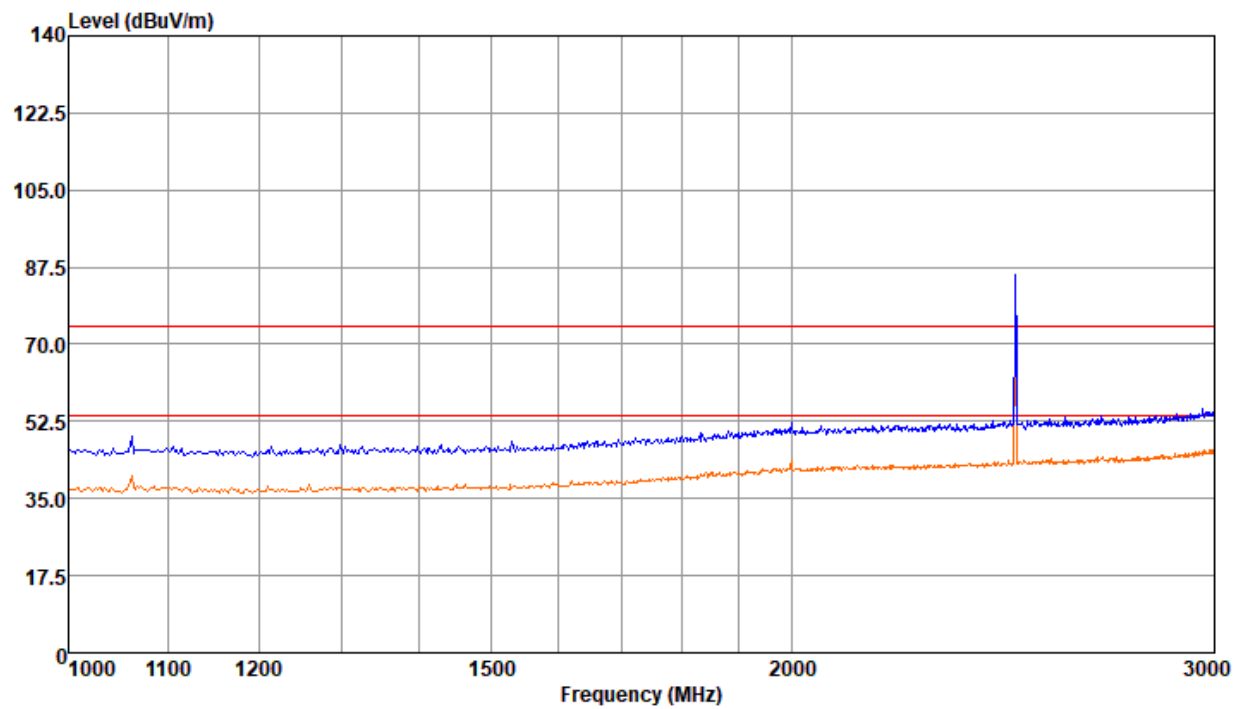
1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level

Part 3: Testing Range of “1GHz to 3GHz”

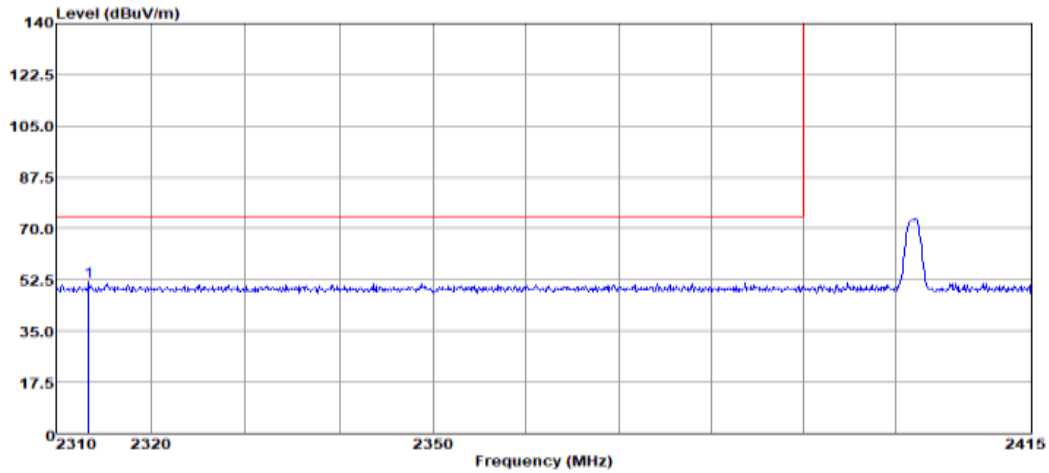
- Note 1: The testing range of “1 GHz to 3 GHz” is for checking radiated emissions located in restricted bands near the EUT operating bands.
- Note 2: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB μ V/m) and Average Limit (54 dB μ V/m).
- Note 3: The peak spike exceeds the limit line is EUT’s operating frequency.





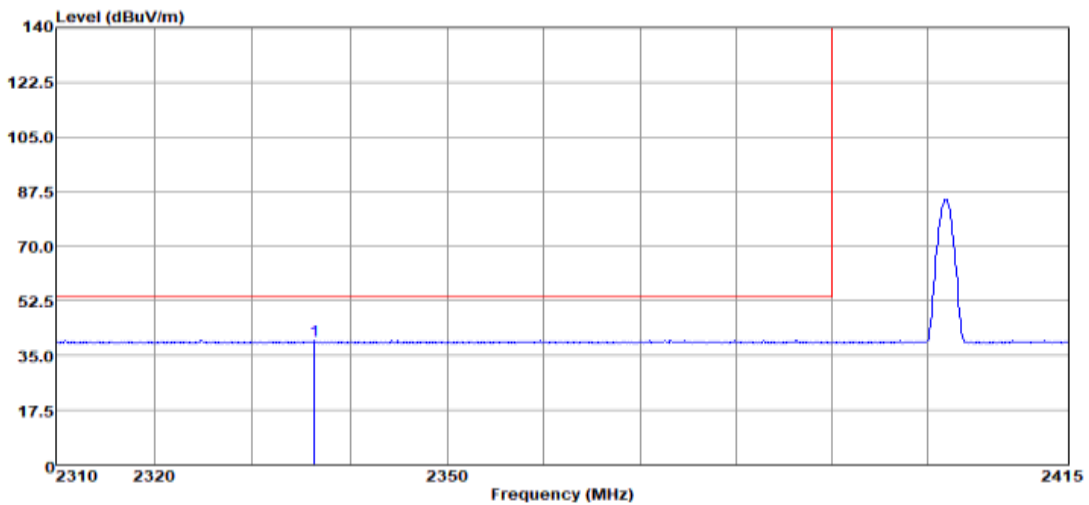
DH5-2402:

MEASUREMENT RESULT: PK Detector



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB
1 pp	2313.47	51.73	-22.27	74.00	46.49	31.59	6.65	33.00 Peak

MEASUREMENT RESULT: AV Detector



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB
1 pp	2336.36	39.76	-14.24	54.00	34.56	31.55	6.65	33.00 Average

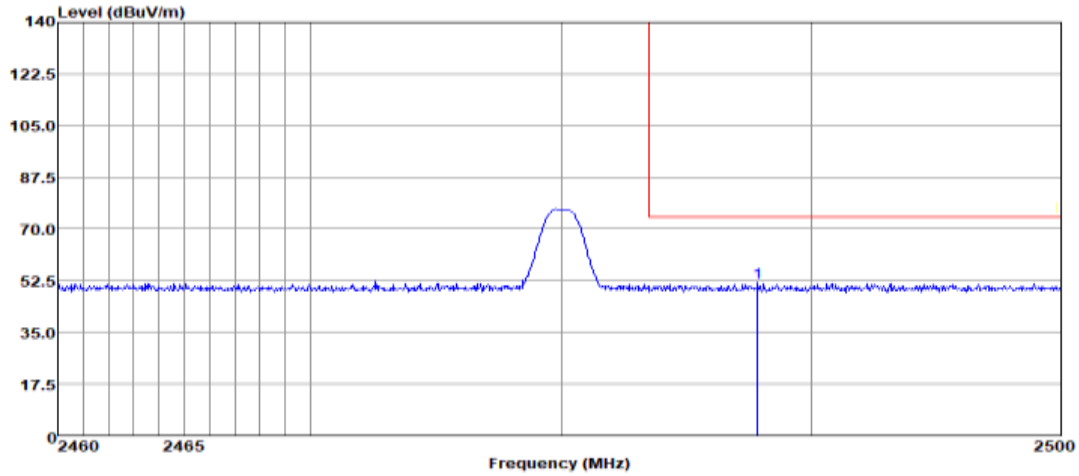
Note:

- 1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)
The reading level is calculated by software which is not shown in the sheet.
- 2, Margin=Limit - Level



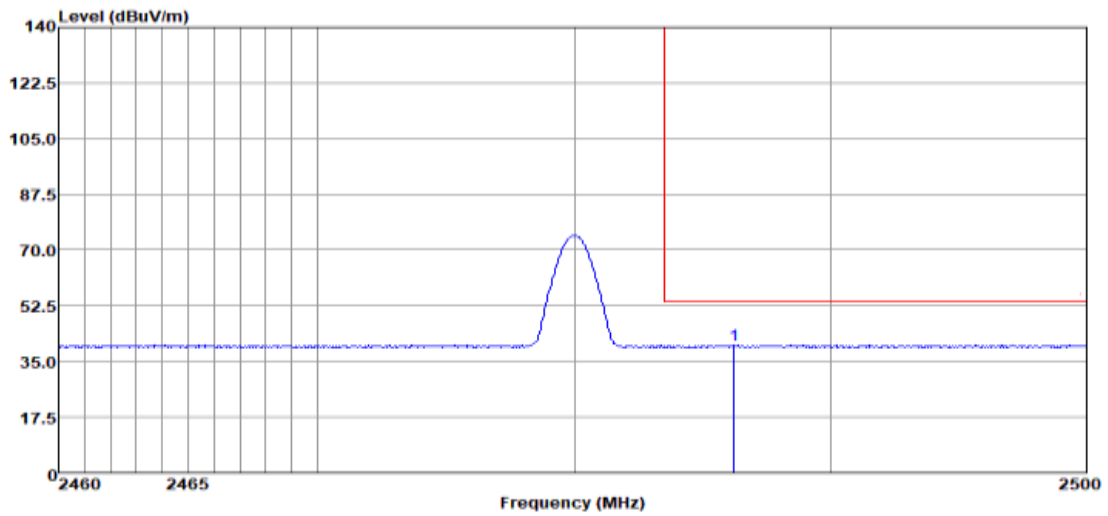
DH5-2480:

MEASUREMENT RESULT: PK Detector



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		
1	pp	2487.84	51.89	-22.11	74.00	46.05	31.93	6.91	33.00	Peak

MEASUREMENT RESULT: AV Detector



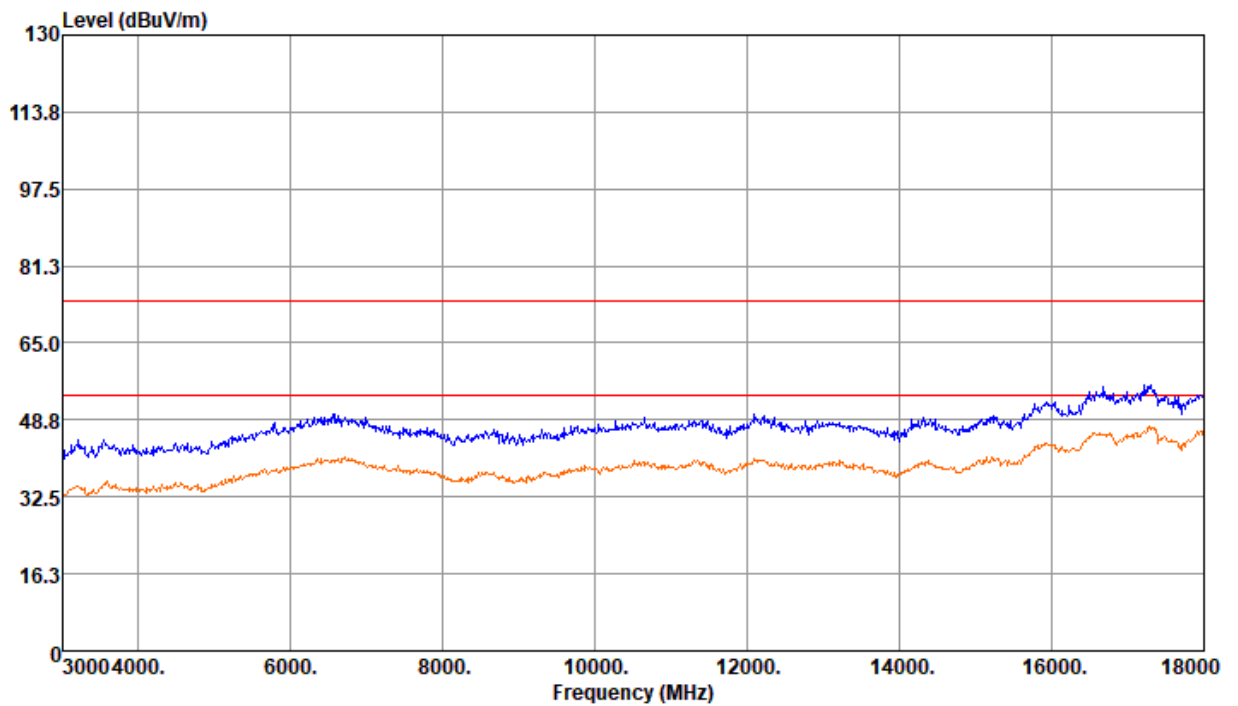
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		
1	pp	2486.20	40.09	-13.91	54.00	34.32	31.86	6.91	33.00	Average

Note:

- 1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)
The reading level is calculated by software which is not shown in the sheet.
- 2, Margin=Limit - Level

Part 4: Testing Range of “3 GHz to 18 GHz”

- Note 1: The test results and plot for testing range of “3 GHz to 18 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The testing range of “3 GHz to 18 GHz” is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.
- Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB μ V/m) and Average Limit (54 dB μ V/m).



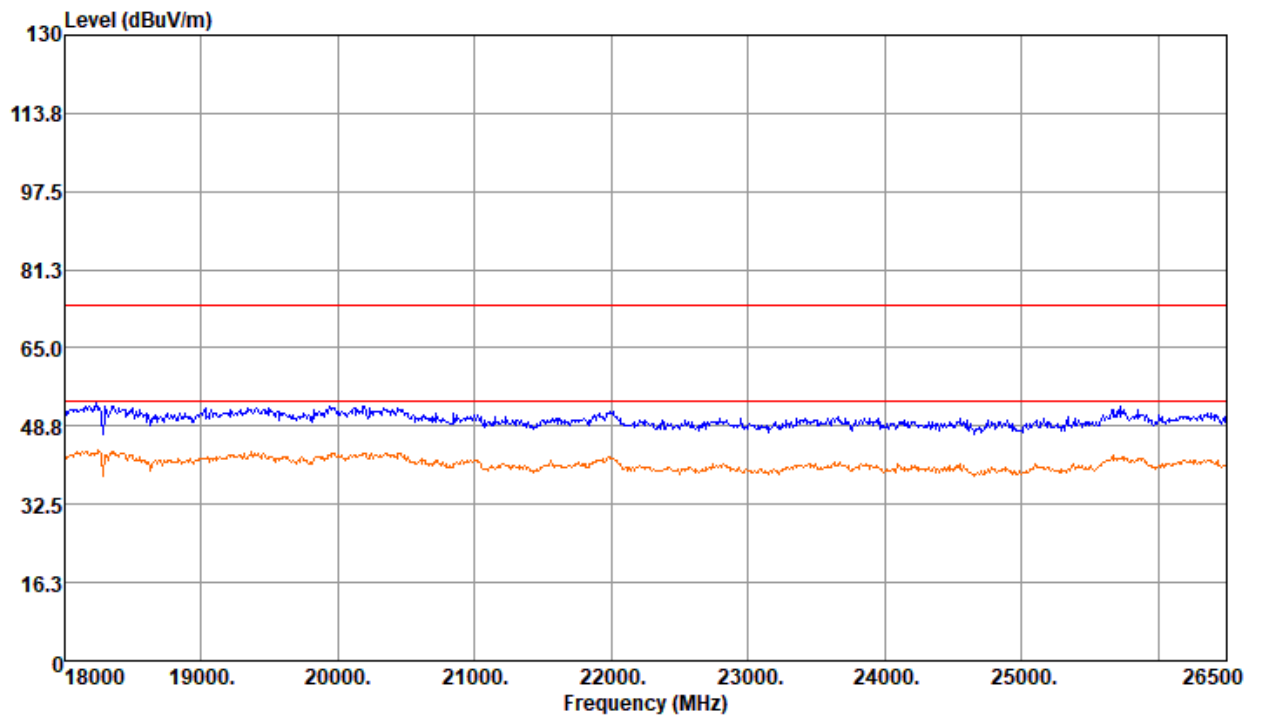


Part 5: Testing Range of “18 GHz to 26.5 GHz”

Note 1: The test results and plot for testing range of “18 GHz to 26.5 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

Note 2: The testing range of “18 GHz to 26.5 GHz” is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.

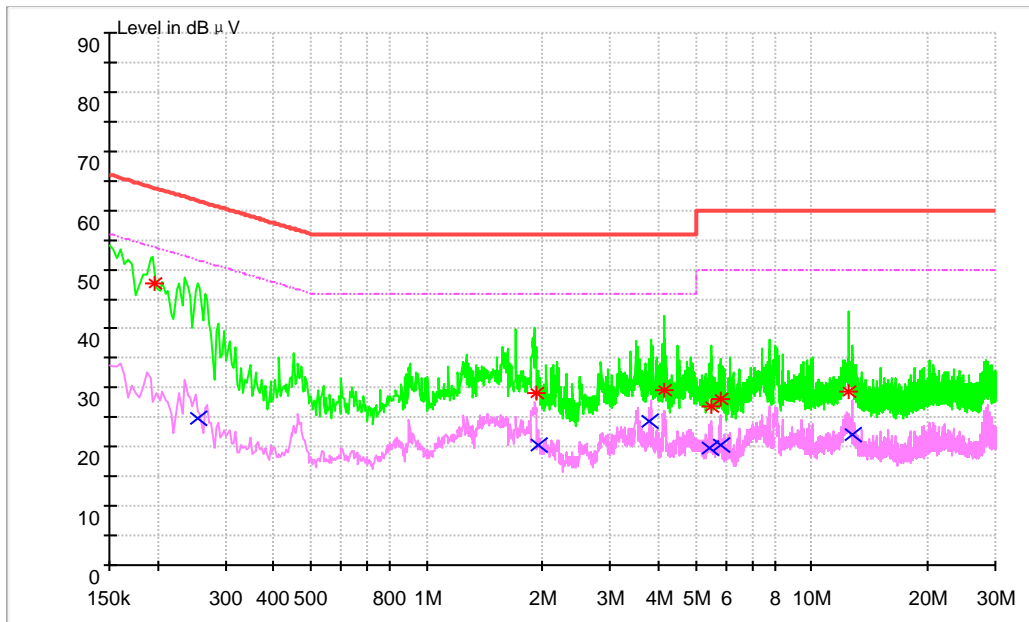
Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB μ V/m) and Average Limit (54 dB μ V/m).



Appendix I: Conducted Emission at Power Port

Note: RBW =9 kHz, VBW = 30 kHz

Channel 0



MEASUREMENT RESULT: PK Detector

Frequency (MHz)	Level (dB μ V)	Limit (dB μ V)	Transd. (dB)	Margin (dB)	Line	PE
0.195868	47.52	63.78	9.7	16.26	N	FLO
1.918825	29.15	56.00	9.8	26.85	L1	FLO
4.135612	29.70	56.00	10.0	26.30	N	FLO
5.465332	26.74	60.00	10.2	33.26	N	FLO
5.791197	28.04	60.00	10.1	31.96	L1	FLO
12.510032	29.22	60.00	10.8	30.78	N	FLO

MEASUREMENT RESULT: AV Detector

Frequency (MHz)	Level (dB μ V)	Limit (dB μ V)	Transd. (dB)	Margin (dB)	Line	PE
0.253585	24.91	51.63	9.7	26.72	N	FLO
1.941192	20.27	46.00	9.8	25.73	L1	FLO



3.807115	24.25	46.00	10.0	21.75	L1	FLO
5.444596	19.75	50.00	10.2	30.25	N	FLO
5.805558	20.35	50.00	10.1	29.65	L1	FLO
12.797670	22.05	50.00	10.9	27.95	N	FLO

Note:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level

END