

APPENDIX 2: Data of EMI test

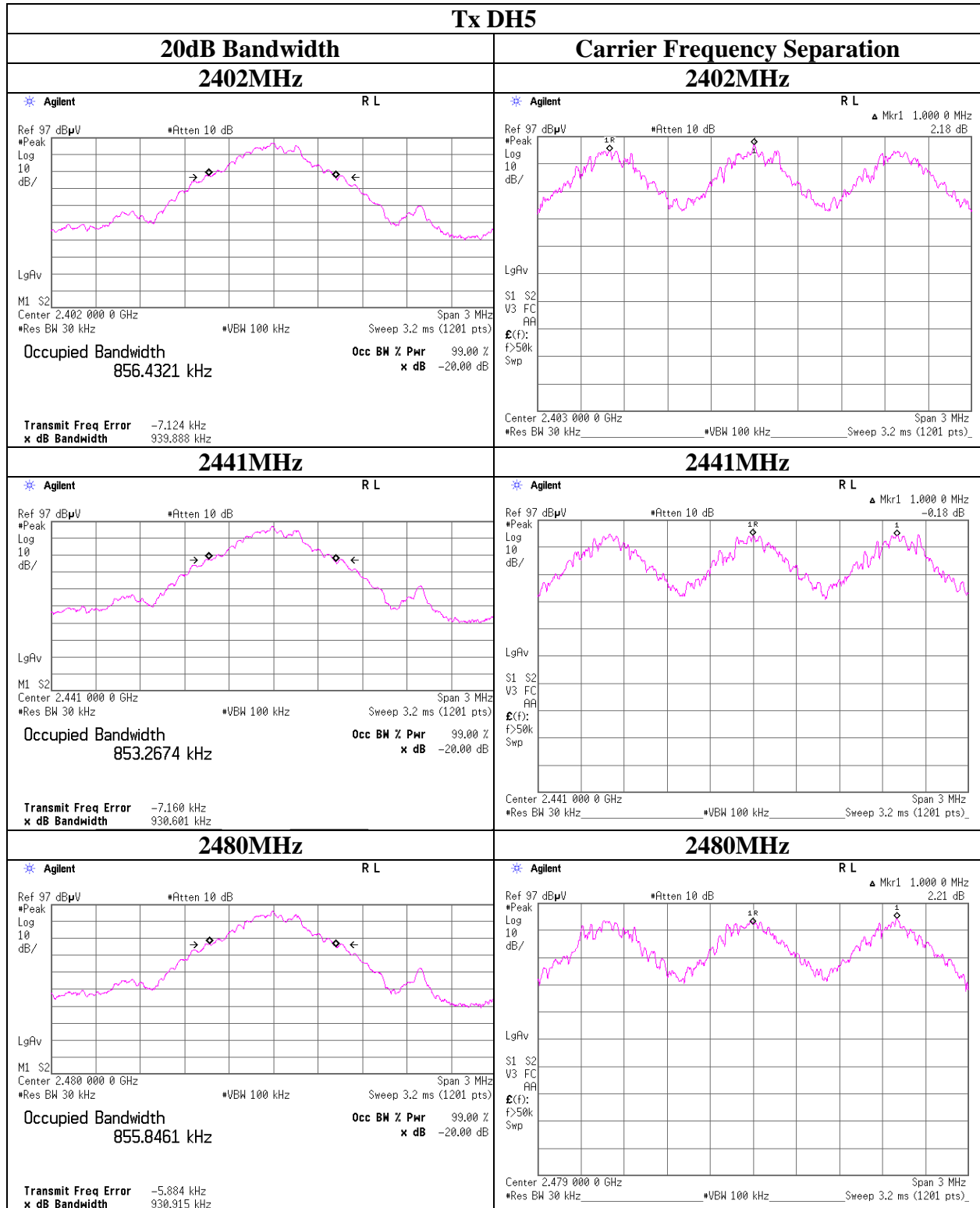
20dB Bandwidth and Carrier Frequency Separation

Test place Head Office EMC Lab. No.7 Shielded Room
Report No. 31IE0021-HO-02
Date 06/20/2011
Temperature/ Humidity 25 deg.C / 50% RH
Engineer Hisayoshi Sato
Mode Tx (Hopping on) DH5/3DH5

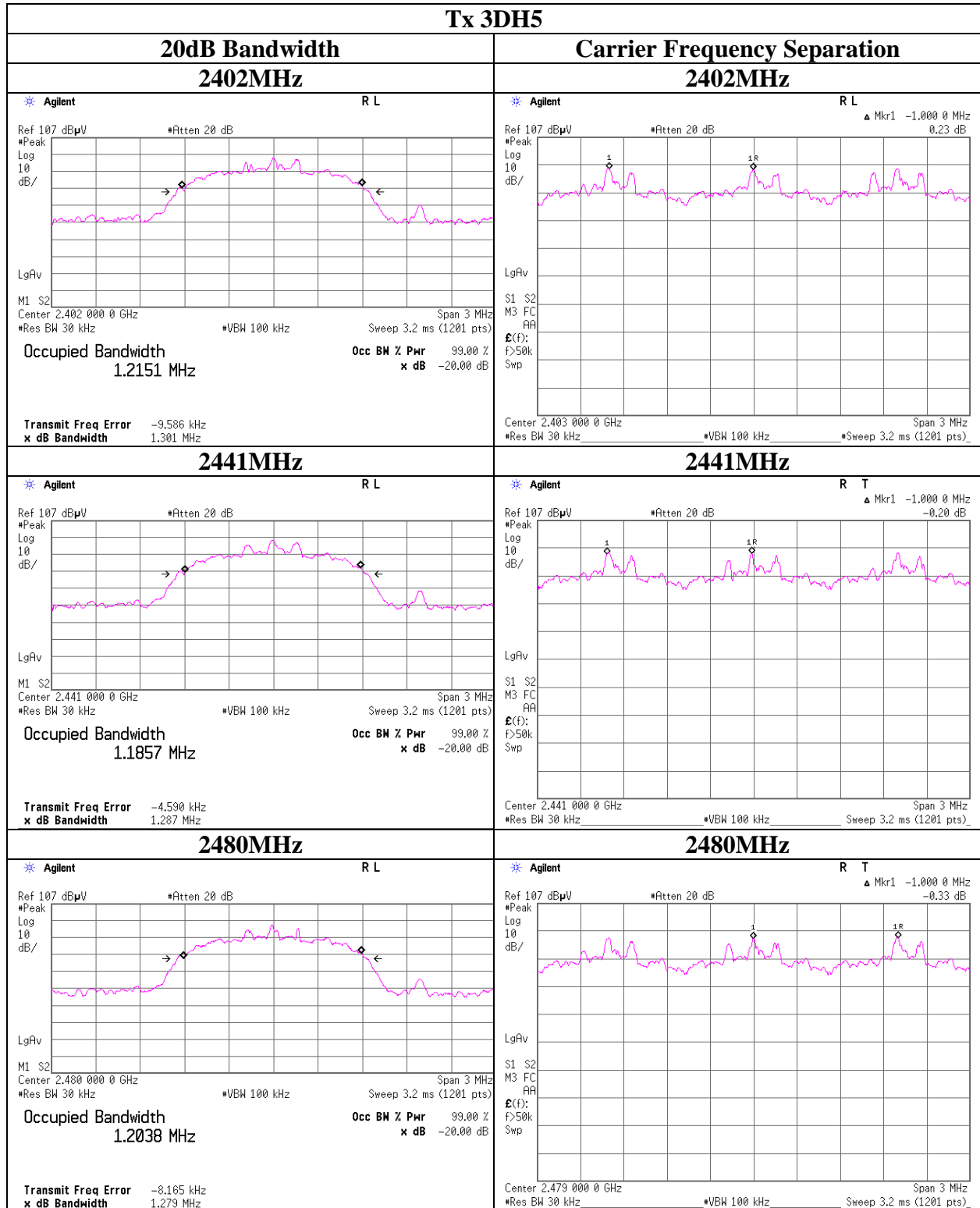
Mode	Freq. [MHz]	20dB Bandwidth [MHz]	Carrier Frequency Separation [MHz]	Limit for Carrier Frequency separation [MHz]
DH5	2402.0	0.940	1.000	≥ 0.627
DH5	2441.0	0.931	1.000	≥ 0.621
DH5	2480.0	0.931	1.000	≥ 0.621
3DH5	2402.0	1.301	1.000	≥ 0.867
3DH5	2441.0	1.287	1.000	≥ 0.858
3DH5	2480.0	1.279	1.000	≥ 0.853

Limit: Two-thirds of 20dB Bandwidth or 25kHz (whichever is greater).
No limit applies to 20dB Bandwidth.

20dB Bandwidth and Carrier Frequency Separation



20dB Bandwidth and Carrier Frequency Separation

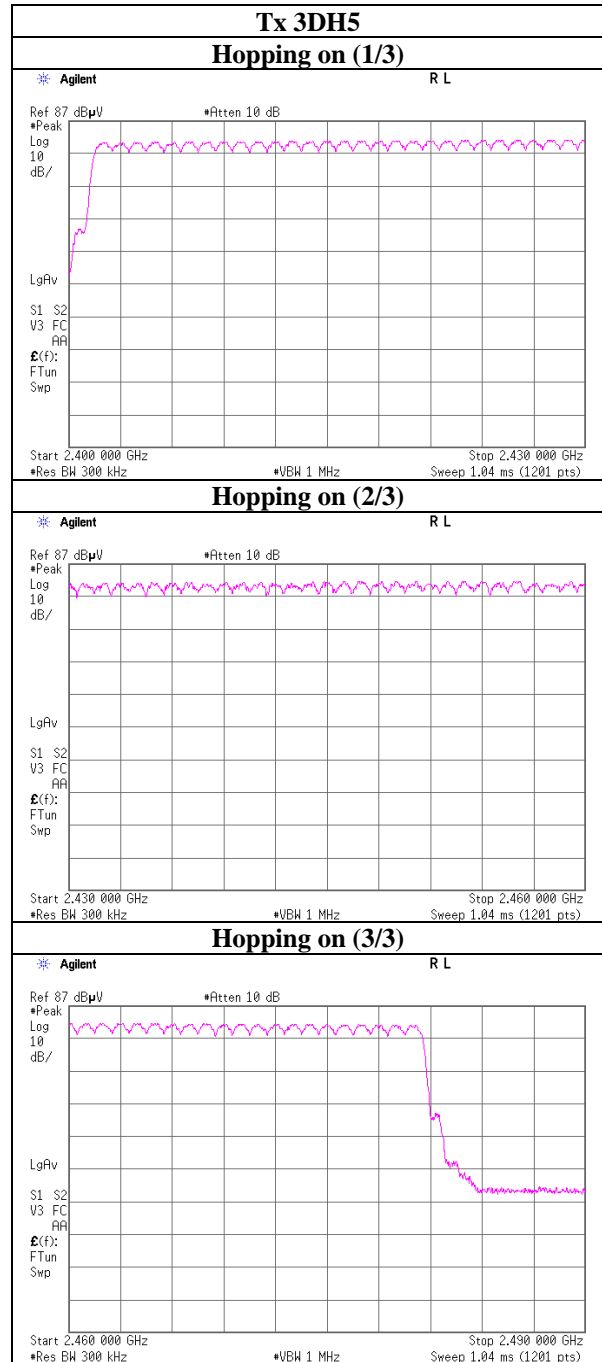
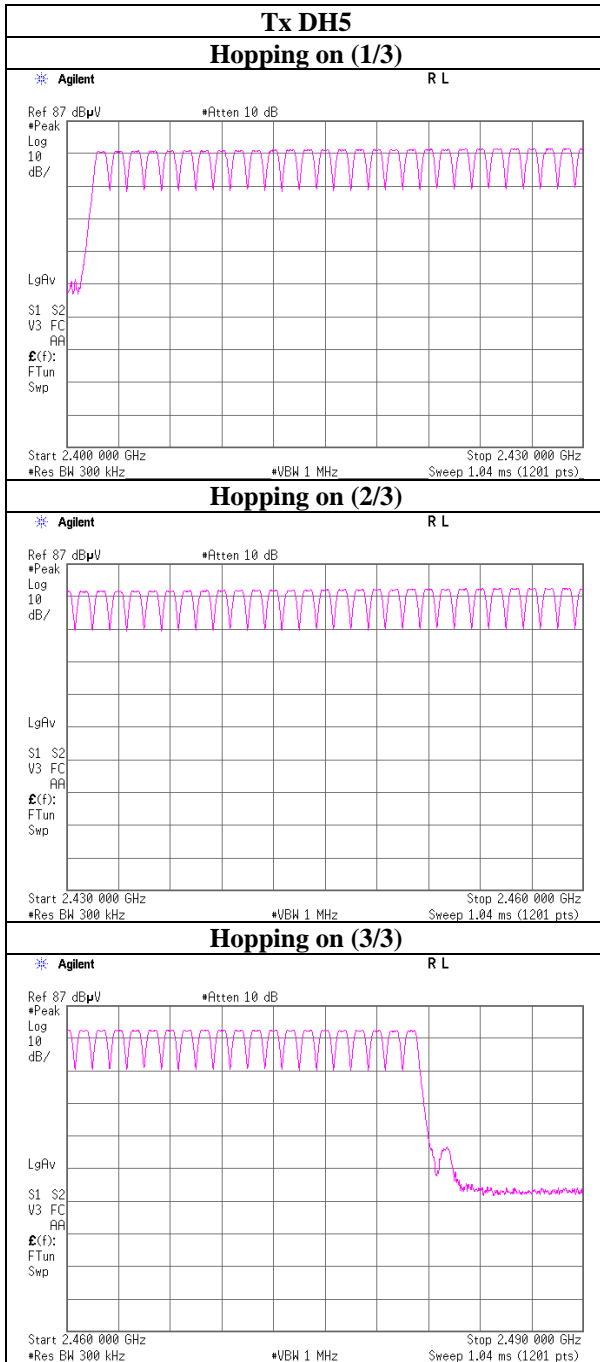


Number of Hopping Frequency

Test place Head Office EMC Lab. No.7 Shielded Room
Report No. 31IE0021-HO-02
Date 05/18/2011
Temperature/ Humidity 23 deg.C / 47% RH
Engineer Tomohisa Nakagawa
Mode Tx (Hopping on) DH5/3DH5

<i>Mode</i>	<i>Number of channel [times]</i>	<i>Limit [times]</i>
DH5	79	>= 15
3DH5	79	>= 15

Number of Hopping Frequency



Dwell time

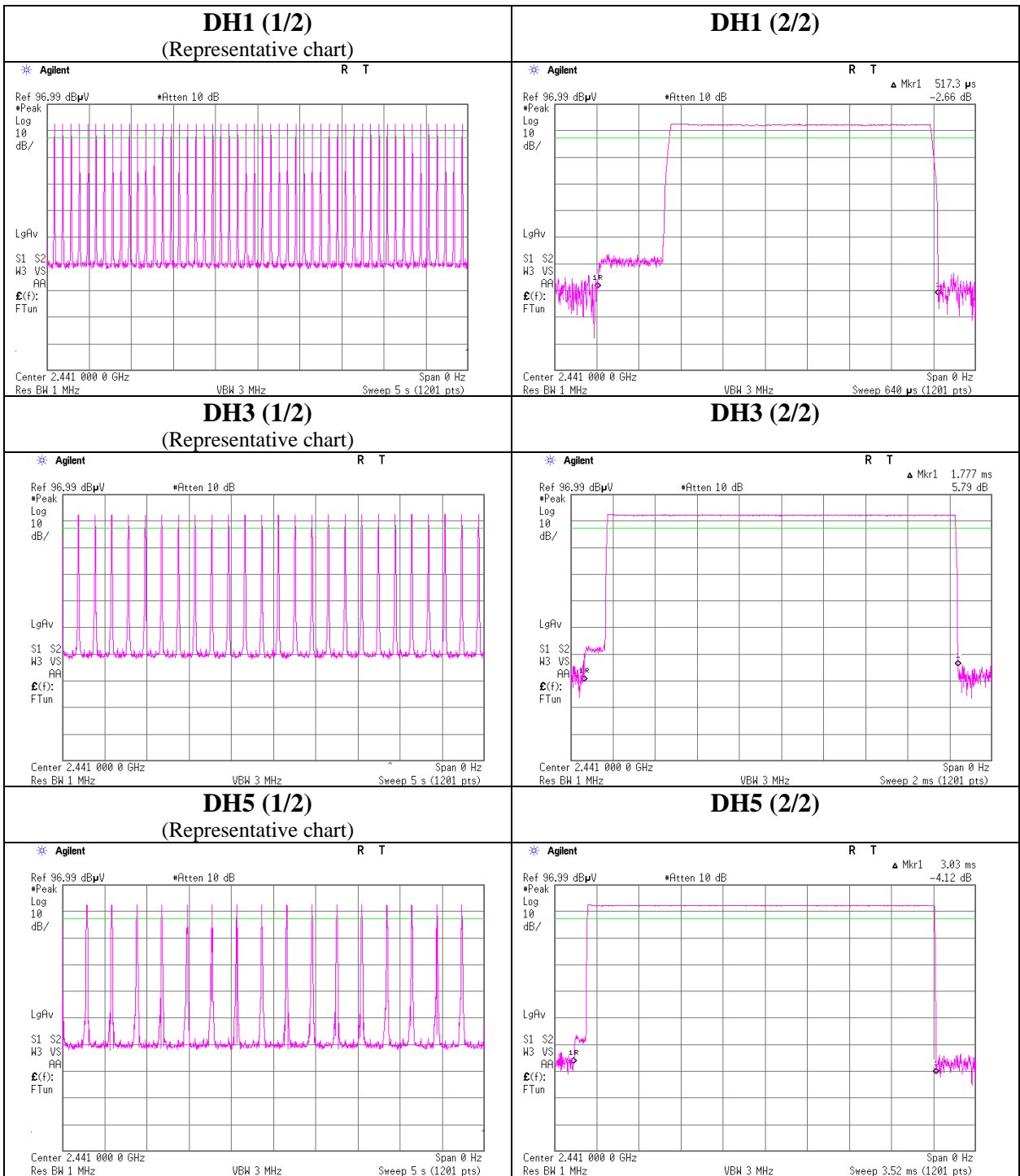
Test place	Head Office EMC Lab. No.7 Shielded Room
Report No.	31IE0021-HO-02
Date	05/18/2011
Temperature/ Humidity	23 deg.C / 47% RH
Engineer	Tomohisa Nakagawa
Mode	Tx (Hopping on) DH5/3DH5

Mode	Number of transmission				Length of transmission time [msec]	Result [msec]	Limit [msec]
	in a 31.6(79 Hopping x 0.4)						
	/ 12.8(32 Hopping x 0.4)second period						
DH1	50.0 times /	5 sec. x	31.6 sec. =	316 times	0.517	163	400
DH3	25.0 times /	5 sec. x	31.6 sec. =	158 times	1.777	281	400
DH5	16.0 times /	5 sec. x	31.6 sec. =	102 times	3.030	309	400
3DH1	50.0 times /	5 sec. x	31.6 sec. =	316 times	0.529	167	400
3DH3	25.0 times /	5 sec. x	31.6 sec. =	158 times	1.783	282	400
3DH5	16.0 times /	5 sec. x	31.6 sec. =	102 times	3.039	310	400

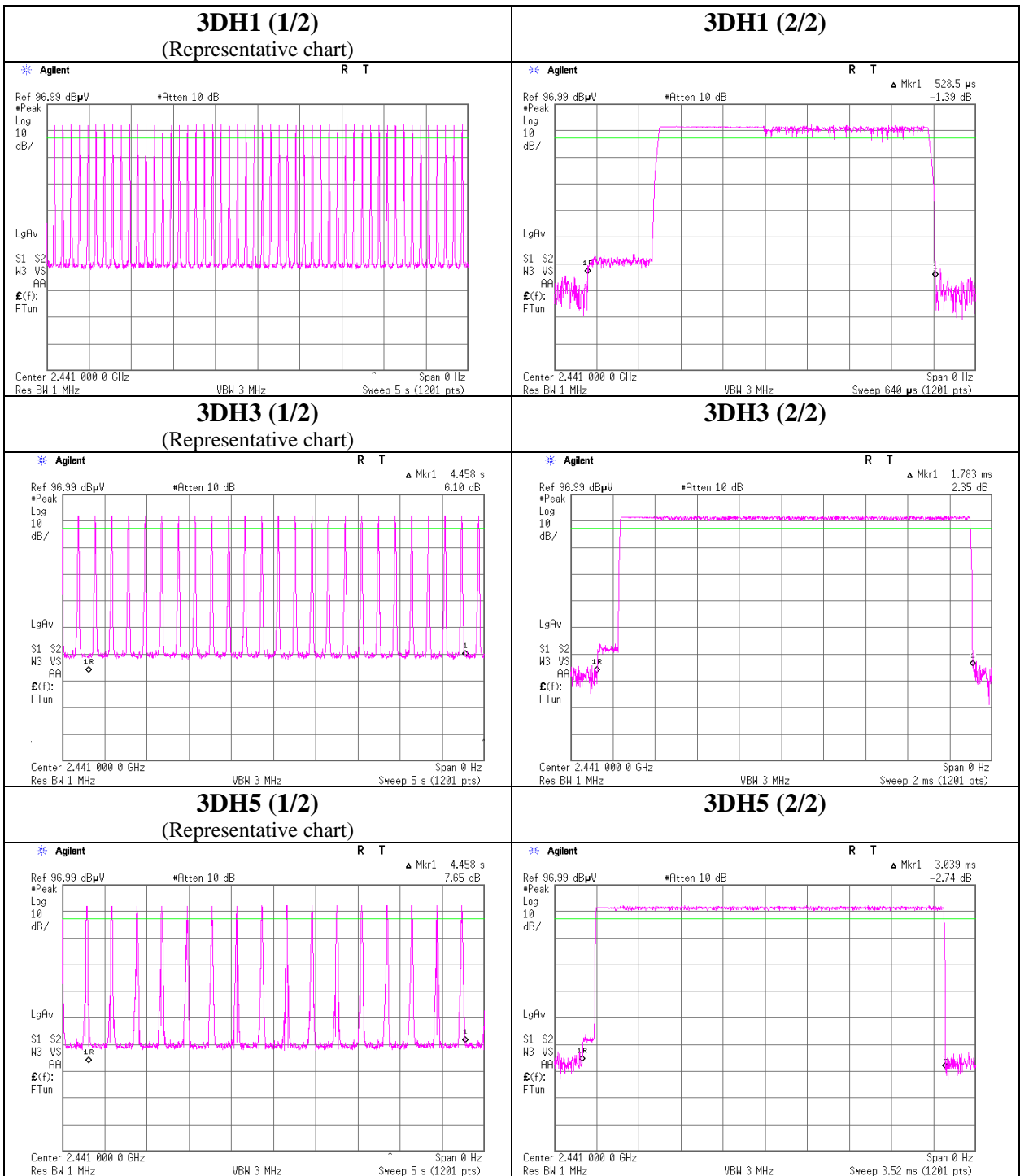
Sample Calculation

Result = Number of transmission x Length of transmission time

Dwell time



Dwell time



Maximum Peak Output Power

Test place Head Office EMC Lab. No.7 Shielded Room
Report No. 31IE0021-HO-02
Date 06/20/2011
Temperature/ Humidity 25 deg.C / 50% RH
Engineer Hisayoshi Sato
Mode Tx (Hopping off) DH5/3DH5

Mode	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
DH5	2402.0	-2.39	1.68	0.00	-0.71	0.85	20.97	125	21.68
DH5	2441.0	-2.79	1.68	0.00	-1.11	0.77	20.97	125	22.08
DH5	2480.0	-3.52	1.78	0.00	-1.74	0.67	20.97	125	22.71
3DH5	2402.0	-0.08	1.68	0.00	1.60	1.45	20.97	125	19.37
3DH5	2441.0	-0.51	1.68	0.00	1.17	1.31	20.97	125	19.80
3DH5	2480.0	-1.05	1.78	0.00	0.73	1.18	20.97	125	20.24

Sample Calculation:

Result = Reading + Cable Loss (customer supplied)

Test was not performed at AFH mode, because the decrease of number of channel (min: 20ch) at AFH mode does not influence on the output power and bandwidth of the EUT.

As this device had AFH mode and frequency separation could not meet the requirement of over 20dB BW without 2/3 relaxation, 125mW power limit was applied to it.

UL Japan, Inc.

Head Office EMC Lab.

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Radiated Spurious Emission

Test place Head Office EMC Lab. No.2 and 4 Semi Anechoic Chamber
Report No. 31IE0021-HO-02
Date 05/19/2011 05/20/2011 06/24/2011
Temperature/ Humidity 23 deg.C / 47% RH 22 deg.C / 45% RH 25 deg.C / 54% RH
Engineer Tomohisa Nakagawa Tomohisa Nakagawa Takeshi Choda
Mode Tx, DH5 2402MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	73.029	QP	39.7	6.5	7.2	28.6	24.8	40.0	15.2	
Hori	259.659	QP	43.1	17.8	8.5	27.7	41.7	46.0	4.3	
Hori	336.166	QP	46.7	15.9	9.0	27.9	43.7	46.0	2.3	
Hori	396.909	QP	35.1	17.2	9.3	28.3	33.3	46.0	12.7	
Hori	617.425	QP	34.6	19.6	10.3	28.6	35.9	46.0	10.1	
Hori	778.976	QP	34.2	21.5	10.9	28.3	38.3	46.0	7.7	
Hori	1587.638	PK	48.2	25.7	2.6	33.0	43.5	73.9	30.4	
Hori	2390.000	PK	42.8	27.4	3.0	32.4	40.8	73.9	33.1	
Hori	2400.000	PK	51.4	27.4	3.1	32.4	49.5	73.9	24.4	
Hori	3145.576	PK	44.7	28.6	3.4	32.2	44.5	73.9	29.4	
Hori	3203.000	PK	42.2	28.6	2.9	31.9	41.8	73.9	32.1	NS
Hori	4804.000	PK	53.8	31.3	5.2	31.4	58.9	73.9	15.0	
Hori	6350.000	PK	45.7	33.6	5.9	31.3	53.9	73.9	20.0	
Hori	7206.000	PK	41.0	35.5	5.8	31.6	50.7	73.9	23.2	
Hori	9608.000	PK	41.5	38.4	6.5	31.9	54.5	73.9	19.4	
Hori	24020.000	PK	47.4	37.8	-0.9	29.6	54.7	73.9	19.2	
Hori	1587.638	AV	42.7	25.7	2.6	33.0	38.0	53.9	15.9	
Hori	3145.576	AV	36.5	28.6	3.4	32.2	36.3	53.9	17.6	
Hori	3203.000	AV	29.5	28.6	2.9	31.9	29.1	53.9	24.8	NS
Hori	6350.000	AV	38.8	33.6	5.9	31.3	47.0	53.9	6.9	
Vert	73.029	QP	42.9	6.5	7.2	28.6	28.0	40.0	12.0	
Vert	259.659	QP	40.4	17.8	8.5	27.7	39.0	46.0	7.0	
Vert	336.166	QP	39.6	15.9	9.0	27.9	36.6	46.0	9.4	
Vert	396.909	QP	28.5	17.2	9.3	28.3	26.7	46.0	19.3	
Vert	617.425	QP	35.8	19.6	10.3	28.6	37.1	46.0	8.9	
Vert	778.976	QP	34.4	21.5	10.9	28.3	38.5	46.0	7.5	
Vert	1587.638	PK	40.8	25.7	2.6	33.0	36.1	73.9	37.8	
Vert	2390.000	PK	41.8	27.4	3.0	32.4	39.8	73.9	34.1	
Vert	2400.000	PK	51.5	27.4	3.1	32.4	49.6	73.9	24.3	
Vert	3145.576	PK	47.2	28.6	3.4	32.2	47.0	73.9	26.9	
Vert	3203.000	PK	42.3	28.6	2.9	31.9	41.9	73.9	32.0	NS
Vert	4804.000	PK	52.5	31.3	5.2	31.4	57.6	73.9	16.3	
Vert	6350.000	PK	45.0	33.6	5.9	31.3	53.2	73.9	20.7	
Vert	7206.000	PK	41.2	35.5	5.8	31.6	50.9	73.9	23.0	
Vert	9608.000	PK	41.7	38.4	6.5	31.9	54.7	73.9	19.2	
Vert	24020.000	PK	47.3	37.8	-0.9	29.6	54.6	73.9	19.3	
Vert	1587.638	AV	46.1	25.7	2.6	33.0	41.4	53.9	12.5	
Vert	3145.576	AV	42.2	28.6	3.4	32.2	42.0	53.9	11.9	
Vert	3203.000	AV	29.5	28.6	2.9	31.9	29.1	53.9	24.8	NS
Vert	6350.000	AV	40.7	33.6	5.9	31.3	48.9	53.9	5.0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

NS = No Signal detected

*For the band edge of the carrier and the harmonics that emission was found, the test was performed with VBW of the average detector set at 270Hz. For other average detectors, VBW was set at 10Hz.

Radiated Spurious Emission

Test place : Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. : 31IE0021-HO-02
Date : 05/19/2011 05/20/2011
Temperature/ Humidity : 23 deg.C / 47% RH 22 deg.C / 45% RH
Engineer : Tomohisa Nakagawa Tomohisa Nakagawa
Mode : Tx, DH5 2402MHz

Dwell time factor relaxation

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Dwell Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	2390.000	AV	31.0	27.4	3.0	32.4	-23.7	5.3	53.9	48.6	
Hori	2400.000	AV	42.8	27.4	3.1	32.4	-23.7	17.2	53.9	36.7	
Hori	4804.000	AV	50.3	31.3	5.2	31.4	-23.7	31.7	53.9	22.2	
Hori	7206.000	AV	29.6	35.5	5.8	31.6	-23.7	15.6	53.9	38.3	
Hori	9608.000	AV	30.0	38.4	6.5	31.9	-23.7	19.3	53.9	34.6	
Hori	24020.000	AV	35.0	37.8	-0.9	29.6	-23.7	18.6	53.9	35.3	
Vert	2390.000	AV	30.9	27.4	3.0	32.4	-23.7	5.2	53.9	48.7	
Vert	2400.000	AV	42.8	27.4	3.1	32.4	-23.7	17.2	53.9	36.7	
Vert	4804.000	AV	49.2	31.3	5.2	31.4	-23.7	30.6	53.9	23.3	
Vert	7206.000	AV	29.9	35.5	5.8	31.6	-23.7	15.9	53.9	38.0	
Vert	9608.000	AV	30.0	38.4	6.5	31.9	-23.7	19.3	53.9	34.6	
Vert	24020.000	AV	35.0	37.8	-0.9	29.6	-23.7	18.6	53.9	35.3	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz))

- Gain(Amplifier) + Dwell time factor (Refer to dwell time data sheet)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz $20\log(3.0m/1.0m) = 9.5dB$

NS = No Signal detected

*For the band edge of the carrier and the harmonics that emission was found, the test was performed with VBW of the average detector set at 270Hz. For other average detectors, VBW was set at 10Hz.

Radiated Spurious Emission

Test place Head Office EMC Lab. No.2 and 4 Semi Anechoic Chamber
Report No. 31IE0021-HO-02
Date 05/19/2011 05/20/2011 06/24/2011
Temperature/ Humidity 23 deg.C / 47% RH 22 deg.C / 45% RH 25 deg.C / 54% RH
Engineer Tomohisa Nakagawa Tomohisa Nakagawa Takeshi Choda
Mode Tx, DH5 2441MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	73.029	QP	39.6	6.5	7.2	28.6	24.7	40.0	15.3	
Hori	259.659	QP	40.4	17.8	8.5	27.7	39.0	46.0	7.0	
Hori	336.166	QP	45.7	15.9	9.0	27.9	42.7	46.0	3.3	
Hori	396.909	QP	36.4	17.2	9.3	28.3	34.6	46.0	11.4	
Hori	617.425	QP	33.0	19.6	10.3	28.6	34.3	46.0	11.7	
Hori	778.976	QP	33.6	21.5	10.9	28.3	37.7	46.0	8.3	
Hori	1587.662	PK	48.7	25.7	2.6	33.0	44.0	73.9	29.9	
Hori	3144.953	PK	44.0	28.6	3.4	32.2	43.8	73.9	30.1	
Hori	3257.000	PK	41.7	28.7	3.0	31.9	41.5	73.9	32.4	NS
Hori	4882.000	PK	52.1	31.5	5.3	31.3	57.6	73.9	16.3	
Hori	6336.000	PK	40.4	33.6	5.9	31.3	48.6	73.9	25.3	
Hori	7323.000	PK	42.8	35.7	5.9	31.6	52.8	73.9	21.1	
Hori	9764.000	PK	42.6	38.5	6.5	31.8	55.8	73.9	18.1	
Hori	24410.000	PK	46.3	37.9	-0.9	29.5	53.8	73.9	20.1	
Hori	1587.662	AV	42.2	25.7	2.6	33.0	37.5	53.9	16.4	
Hori	3144.953	AV	35.7	28.6	3.4	32.2	35.5	53.9	18.4	
Hori	3257.000	AV	29.5	28.7	3.0	31.9	29.3	53.9	24.6	NS
Hori	6336.000	AV	28.9	33.6	5.9	31.3	37.1	53.9	16.8	
Vert	73.029	QP	44.7	6.5	7.2	28.6	29.8	40.0	10.2	
Vert	259.659	QP	36.3	17.8	8.5	27.7	34.9	46.0	11.1	
Vert	336.166	QP	40.8	15.9	9.0	27.9	37.8	46.0	8.2	
Vert	396.909	QP	30.1	17.2	9.3	28.3	28.3	46.0	17.7	
Vert	617.425	QP	35.7	19.6	10.3	28.6	37.0	46.0	9.0	
Vert	778.976	QP	34.1	21.5	10.9	28.3	38.2	46.0	7.8	
Vert	1587.662	PK	43.6	25.7	2.6	33.0	38.9	73.9	35.0	
Vert	3144.953	PK	46.6	28.6	3.4	32.2	46.4	73.9	27.5	
Vert	3257.000	PK	42.0	28.7	3.0	31.9	41.8	73.9	32.1	NS
Vert	4882.000	PK	48.5	31.5	5.3	31.3	54.0	73.9	23.0	
Vert	6336.000	PK	40.3	33.6	5.9	31.3	48.5	73.9	25.4	
Vert	7323.000	PK	41.5	35.7	5.9	31.6	51.5	73.9	22.4	
Vert	9764.000	PK	42.1	38.5	6.5	31.8	55.3	73.9	18.6	
Vert	24410.000	PK	47.4	37.9	-0.9	29.5	54.9	73.9	19.0	
Vert	1587.662	AV	30.3	25.7	2.6	33.0	25.6	53.9	28.3	
Vert	3144.953	AV	39.6	28.6	3.4	32.2	39.4	53.9	14.5	
Vert	3257.000	AV	29.5	28.7	3.0	31.9	29.3	53.9	24.6	NS
Vert	6336.000	AV	28.9	33.6	5.9	31.3	37.1	53.9	16.8	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

NS = No Signal detected

*For the band edge of the carrier and the harmonics that emission was found, the test was performed with VBW of the average detector set at 270Hz. For other average detectors, VBW was set at 10Hz.

Radiated Spurious Emission

Test place Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 31IE0021-HO-02
Date 05/19/2011 05/20/2011
Temperature/ Humidity 23 deg.C / 47% RH 22 deg.C / 45% RH
Engineer Tomohisa Nakagawa Tomohisa Nakagawa
Mode Tx, DH5 2441MHz

Dwell time factor relaxation

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Dwell Factor [dB]	Result dBuV/m	Limit dBuV/m	Margin [dB]	Remark
Hori	4882.000	AV	50.0	31.5	5.3	31.3	-23.7	31.8	53.9	22.1	
Hori	7323.000	AV	29.9	35.7	5.9	31.6	-23.7	16.2	53.9	37.7	
Hori	9764.000	AV	30.1	38.5	6.5	31.8	-23.7	19.6	53.9	34.3	
Hori	24410.000	AV	34.3	37.9	-0.9	29.5	-23.7	18.1	53.9	35.8	
Vert	4882.000	AV	45.4	31.5	5.3	31.3	-23.7	27.2	53.9	26.7	
Vert	7323.000	AV	30.0	35.7	5.9	31.6	-23.7	16.3	53.9	37.6	
Vert	9764.000	AV	30.1	38.5	6.5	31.8	-23.7	19.6	53.9	34.3	
Vert	24410.000	AV	34.2	37.9	-0.9	29.5	-23.7	18.0	53.9	35.9	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz))
- Gain(Amplifier) + Dwell time factor (Refer to dwell time data sheet)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

NS = No Signal detected

*For the band edge of the carrier and the harmonics that emission was found, the test was performed with VBW of the average detector set at 270Hz. For other average detectors, VBW was set at 10Hz.

Radiated Spurious Emission

Test place : Head Office EMC Lab. No.2 and 4 Semi Anechoic Chamber
Report No. : 31IE0021-HO-02
Date : 05/19/2011 05/20/2011 06/24/2011
Temperature/ Humidity : 23 deg.C / 47% RH 22 deg.C / 45% RH 25 deg.C / 54% RH
Engineer : Tomohisa Nakagawa Tomohisa Nakagawa Takeshi Choda
Mode : Tx, DH5 2480MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	73.029	QP	38.8	6.5	7.2	28.6	23.9	40.0	16.1	
Hori	259.658	QP	42.7	17.8	8.5	27.7	41.3	46.0	4.7	
Hori	336.007	QP	45.9	15.9	9.0	27.9	42.9	46.0	3.1	
Hori	396.908	QP	36.2	17.2	9.3	28.3	34.4	46.0	11.6	
Hori	617.425	QP	33.0	19.6	10.3	28.6	34.3	46.0	11.7	
Hori	778.976	QP	34.1	21.5	10.9	28.3	38.2	46.0	7.8	
Hori	1587.670	PK	47.0	25.7	2.6	33.0	42.3	73.9	31.6	
Hori	2483.500	PK	46.4	27.6	3.1	32.4	44.7	73.9	29.2	
Hori	2483.850	PK	45.7	27.6	3.1	32.4	44.0	73.9	29.9	
Hori	3145.678	PK	44.3	28.6	3.4	32.2	44.1	73.9	29.8	
Hori	3307.000	PK	42.0	28.9	3.0	31.8	42.1	73.9	31.8	NS
Hori	4960.000	PK	49.2	31.7	5.3	31.3	54.9	73.9	19.0	
Hori	6350.400	PK	45.7	33.6	5.9	31.3	53.9	73.9	20.0	
Hori	7440.000	PK	41.5	35.8	6.0	31.7	51.6	73.9	22.3	
Hori	9920.000	PK	42.0	38.7	6.7	31.8	55.6	73.9	18.3	
Hori	24800.000	PK	48.9	38.0	-0.9	29.4	56.6	73.9	17.3	
Hori	1587.670	AV	42.2	25.7	2.6	33.0	37.5	53.9	16.4	
Hori	3145.678	AV	37.1	28.6	3.4	32.2	36.9	53.9	17.0	
Hori	3307.000	AV	29.7	28.9	3.0	31.8	29.8	53.9	24.1	NS
Hori	6350.400	AV	40.2	33.6	5.9	31.3	48.4	53.9	5.5	
Vert	73.029	QP	43.0	6.5	7.2	28.6	28.1	40.0	11.9	
Vert	259.658	QP	39.5	17.8	8.5	27.7	38.1	46.0	7.9	
Vert	336.007	QP	40.9	15.9	9.0	27.9	37.9	46.0	8.1	
Vert	396.908	QP	29.8	17.2	9.3	28.3	28.0	46.0	18.0	
Vert	617.425	QP	35.9	19.6	10.3	28.6	37.2	46.0	8.8	
Vert	778.976	QP	34.2	21.5	10.9	28.3	38.3	46.0	7.7	
Vert	1587.670	PK	49.4	25.7	2.6	33.0	44.7	73.9	29.2	
Vert	2483.500	PK	45.9	27.6	3.1	32.4	44.2	73.9	29.7	
Vert	2483.850	PK	44.9	27.6	3.1	32.4	43.2	73.9	30.7	
Vert	3145.678	PK	45.9	28.6	3.4	32.2	45.7	73.9	28.2	
Vert	3307.000	PK	42.3	28.9	3.0	31.8	42.4	73.9	31.5	NS
Vert	4960.000	PK	50.4	31.7	5.3	31.3	56.1	73.9	17.8	
Vert	6350.400	PK	42.5	33.6	5.9	31.3	50.7	73.9	23.2	
Vert	7440.000	PK	41.2	35.8	6.0	31.7	51.3	73.9	22.6	
Vert	9920.000	PK	43.0	38.7	6.7	31.8	56.6	73.9	17.3	
Vert	24800.000	PK	48.5	38.0	-0.9	29.4	56.2	73.9	17.7	
Vert	1587.670	AV	44.6	25.7	2.6	33.0	39.9	53.9	14.0	
Vert	3145.678	AV	40.0	28.6	3.4	32.2	39.8	53.9	14.1	
Vert	3307.000	AV	29.7	28.9	3.0	31.8	29.8	53.9	24.1	NS
Vert	6350.400	AV	34.1	33.6	5.9	31.3	42.3	53.9	11.6	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

NS = No Signal detected

*For the band edge of the carrier and the harmonics that emission was found, the test was performed with VBW of the average detector set at 270Hz. For other average detectors, VBW was set at 10Hz.

Radiated Spurious Emission

Test place : Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. : 31IE0021-HO-02
Date : 05/19/2011 05/20/2011
Temperature/ Humidity : 23 deg.C / 47% RH 22 deg.C / 45% RH
Engineer : Tomohisa Nakagawa Tomohisa Nakagawa
Mode : Tx, DH5 2480MHz

Dwell time factor relaxation

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Dwell Factor [dB]	Result dBuV/m	Limit dBuV/m	Margin [dB]	Remark
Hori	2483.500	AV	34.8	27.6	3.1	32.4	-23.7	9.4	53.9	44.5	
Hori	2483.850	AV	34.1	27.6	3.1	32.4	-23.7	8.7	53.9	45.2	
Hori	4960.000	AV	44.8	31.7	5.3	31.3	-23.7	26.8	53.9	27.1	
Hori	7440.000	AV	30.3	35.8	6.0	31.7	-23.7	16.7	53.9	37.2	
Hori	9920.000	AV	30.5	38.7	6.7	31.8	-23.7	20.4	53.9	33.5	
Hori	24800.000	AV	36.2	38.0	-0.9	29.4	-23.7	20.2	53.9	33.7	
Vert	2483.500	AV	34.0	27.6	3.1	32.4	-23.7	8.6	53.9	45.3	
Vert	2483.850	AV	33.5	27.6	3.1	32.4	-23.7	8.1	53.9	45.8	
Vert	4960.000	AV	45.0	31.7	5.3	31.3	-23.7	27.0	53.9	26.9	
Vert	7440.000	AV	30.2	35.8	6.0	31.7	-23.7	16.6	53.9	37.3	
Vert	9920.000	AV	30.6	38.7	6.7	31.8	-23.7	20.5	53.9	33.4	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz))
- Gain(Amplifier) + Dwell time factor (Refer to dwell time data sheet)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

NS = No Signal detected

*For the band edge of the carrier and the harmonics that emission was found, the test was performed with VBW of the average detector set at 270Hz. For other average detectors, VBW was set at 10Hz.

Radiated Spurious Emission

Test place Head Office EMC Lab. No.2 and 4 Semi Anechoic Chamber
Report No. 31IE0021-HO-02
Date 05/19/2011 05/20/2011 06/24/2011
Temperature/ Humidity 23 deg.C / 47% RH 22 deg.C / 45% RH 25 deg.C / 54% RH
Engineer Tomohisa Nakagawa Tomohisa Nakagawa Takeshi Choda
Mode Tx, 3DH5 2402MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	73.029	QP	39.1	6.5	7.2	28.6	24.2	40.0	15.8	
Hori	259.658	QP	38.0	17.8	8.5	27.7	36.6	46.0	9.4	
Hori	336.005	QP	45.7	15.9	9.0	27.9	42.7	46.0	3.3	
Hori	396.908	QP	34.8	17.2	9.3	28.3	33.0	46.0	13.0	
Hori	617.426	QP	33.3	19.6	10.3	28.6	34.6	46.0	11.4	
Hori	778.979	QP	33.6	21.5	10.9	28.3	37.7	46.0	8.3	
Hori	1587.518	PK	47.6	25.7	2.6	33.0	42.9	73.9	31.0	
Hori	2390.000	PK	41.8	27.4	3.0	32.4	39.8	73.9	34.1	
Hori	2400.000	PK	61.9	27.4	3.1	32.4	60.0	73.9	14.0	
Hori	3145.601	PK	45.8	28.6	3.4	32.2	45.6	73.9	28.3	
Hori	3203.000	PK	42.4	28.6	2.9	31.9	42.0	73.9	31.9	NS
Hori	4804.000	PK	51.7	31.3	5.2	31.4	56.8	73.9	17.1	
Hori	6350.607	PK	45.3	33.6	5.9	31.3	53.5	73.9	20.4	
Hori	7206.000	PK	41.5	35.5	5.8	31.6	51.2	73.9	22.7	
Hori	9608.000	PK	41.5	38.4	6.5	31.9	54.5	73.9	19.4	
Hori	24020.000	PK	46.8	37.8	-0.9	29.6	54.1	73.9	19.8	
Hori	1587.518	AV	42.1	25.7	2.6	33.0	37.4	53.9	16.5	
Hori	3145.601	AV	37.3	28.6	3.4	32.2	37.1	53.9	16.8	
Hori	3203.000	AV	29.5	28.6	2.9	31.9	29.1	53.9	24.8	NS
Hori	6350.607	AV	33.7	33.6	5.9	31.3	41.9	53.9	12.0	
Vert	73.029	QP	43.0	6.5	7.2	28.6	28.1	40.0	11.9	
Vert	259.658	QP	43.1	17.8	8.5	27.7	41.7	46.0	4.3	
Vert	336.005	QP	40.6	15.9	9.0	27.9	37.6	46.0	8.4	
Vert	396.908	QP	29.8	17.2	9.3	28.3	28.0	46.0	18.0	
Vert	617.426	QP	36.0	19.6	10.3	28.6	37.3	46.0	8.7	
Vert	778.979	QP	34.4	21.5	10.9	28.3	38.5	46.0	7.5	
Vert	1587.518	PK	49.5	25.7	2.6	33.0	44.8	73.9	29.1	
Vert	2390.000	PK	42.3	27.4	3.0	32.4	40.3	73.9	33.6	
Vert	2400.000	PK	62.2	27.4	3.1	32.4	60.3	73.9	13.6	
Vert	3145.601	PK	46.3	28.6	3.4	32.2	46.1	73.9	27.8	
Vert	3203.000	PK	42.0	28.6	2.9	31.9	41.6	73.9	32.3	NS
Vert	4804.000	PK	52.3	31.3	5.2	31.4	57.4	73.9	16.5	
Vert	6350.607	PK	43.5	33.6	5.9	31.3	51.7	73.9	22.2	
Vert	7206.000	PK	40.6	35.5	5.8	31.6	50.3	73.9	23.6	
Vert	9608.000	PK	41.0	38.4	6.5	31.9	54.0	73.9	19.9	
Vert	24020.000	PK	47.4	37.8	-0.9	29.6	54.7	73.9	19.2	
Vert	1587.518	AV	44.9	25.7	2.6	33.0	40.2	53.9	13.7	
Vert	3145.601	AV	40.2	28.6	3.4	32.2	40.0	53.9	13.9	
Vert	3203.000	AV	29.5	28.6	2.9	31.9	29.1	53.9	24.8	NS
Vert	6350.607	AV	33.6	33.6	5.9	31.3	41.8	53.9	12.1	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz $20\log(3.0m/1.0m) = 9.5dB$

NS = No Signal detected

*For the band edge of the carrier and the harmonics that emission was found, the test was performed with VBW of the average detector set at 270Hz. For other average detectors, VBW was set at 10Hz.

Radiated Spurious Emission

Test place : Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. : 31IE0021-HO-02
Date : 05/19/2011 05/20/2011
Temperature/ Humidity : 23 deg.C / 47% RH 22 deg.C / 45% RH
Engineer : Tomohisa Nakagawa Tomohisa Nakagawa
Mode : Tx, 3DH5 2402MHz

Dwell time factor relaxation

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Dwell Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	2390.000	AV	32.0	27.4	3.0	32.4	-23.9	6.1	53.9	47.8	
Hori	2400.000	AV	49.5	27.4	3.1	32.4	-23.9	23.7	53.9	30.2	
Hori	4804.000	AV	44.0	31.3	5.2	31.4	-23.9	25.2	53.9	28.7	
Hori	7206.000	AV	29.8	35.5	5.8	31.6	-23.9	15.6	53.9	38.3	
Hori	9608.000	AV	30.0	38.4	6.5	31.9	-23.9	19.1	53.9	34.8	
Hori	24020.000	AV	35.2	37.8	-0.9	29.6	-23.9	18.6	53.9	35.3	
Vert	2390.000	AV	30.6	27.4	3.0	32.4	-23.9	4.7	53.9	49.2	
Vert	2400.000	AV	49.8	27.4	3.1	32.4	-23.9	24.0	53.9	29.9	
Vert	4804.000	AV	44.5	31.3	5.2	31.4	-23.9	25.7	53.9	28.2	
Vert	7206.000	AV	29.6	35.5	5.8	31.6	-23.9	15.4	53.9	38.5	
Vert	9608.000	AV	29.7	38.4	6.5	31.9	-23.9	18.8	53.9	35.1	
Vert	24020.000	AV	35.1	37.8	-0.9	29.6	-23.9	18.5	53.9	35.4	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz))

- Gain(Amplifier) + Dwell time factor (Refer to dwell time data sheet)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

NS = No Signal detected

*For the band edge of the carrier and the harmonics that emission was found, the test was performed with VBW of the average detector set at 270Hz. For other average detectors, VBW was set at 10Hz.

Radiated Spurious Emission

Test place Head Office EMC Lab. No.2 and 4 Semi Anechoic Chamber
Report No. 31IE0021-HO-02
Date 05/19/2011 05/20/2011 06/24/2011
Temperature/ Humidity 23 deg.C / 47% RH 22 deg.C / 45% RH 25 deg.C / 54% RH
Engineer Tomohisa Nakagawa Tomohisa Nakagawa Takeshi Choda
Mode Tx, 3DH5 2441MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	73.029	QP	40.0	6.5	7.2	28.6	25.1	40.0	14.9	
Hori	259.666	QP	36.3	17.8	8.5	27.7	34.9	46.0	11.1	
Hori	336.007	QP	46.4	15.9	9.0	27.9	43.4	46.0	2.6	
Hori	396.908	QP	35.0	17.2	9.3	28.3	33.2	46.0	12.8	
Hori	617.427	QP	33.2	19.6	10.3	28.6	34.5	46.0	11.5	
Hori	778.970	QP	33.7	21.5	10.9	28.3	37.8	46.0	8.2	
Hori	1578.637	PK	46.5	25.7	2.6	33.0	41.8	73.9	32.1	
Hori	3144.953	PK	44.7	28.6	3.4	32.2	44.5	73.9	29.4	
Hori	3257.000	PK	42.1	28.7	3.0	31.9	41.9	73.9	32.0	NS
Hori	4882.000	PK	52.4	31.5	5.3	31.3	57.9	73.9	16.0	
Hori	6350.574	PK	44.9	33.6	5.9	31.3	53.1	73.9	20.8	
Hori	7323.000	PK	41.4	35.7	5.9	31.6	51.4	73.9	22.5	
Hori	9764.000	PK	41.6	38.5	6.5	31.8	54.8	73.9	19.1	
Hori	24410.000	PK	44.6	37.9	-0.9	29.5	52.1	73.9	21.8	
Hori	1578.637	AV	42.2	25.7	2.6	33.0	37.5	53.9	16.4	
Hori	3144.953	AV	37.3	28.6	3.4	32.2	37.1	53.9	16.8	
Hori	3257.000	AV	29.9	28.7	3.0	31.9	29.7	53.9	24.2	NS
Hori	6350.574	AV	39.1	33.6	5.9	31.3	47.3	53.9	6.6	
Vert	73.029	QP	42.9	6.5	7.2	28.6	28.0	40.0	12.0	
Vert	259.666	QP	34.5	17.8	8.5	27.7	33.1	46.0	12.9	
Vert	336.007	QP	40.5	15.9	9.0	27.9	37.5	46.0	8.5	
Vert	396.908	QP	29.8	17.2	9.3	28.3	28.0	46.0	18.0	
Vert	617.427	QP	35.9	19.6	10.3	28.6	37.2	46.0	8.8	
Vert	778.970	QP	34.4	21.5	10.9	28.3	38.5	46.0	7.5	
Vert	1578.637	PK	48.9	25.7	2.6	33.0	44.2	73.9	29.7	
Vert	3144.953	PK	46.1	28.6	3.4	32.2	45.9	73.9	28.0	
Vert	3257.000	PK	42.5	28.7	3.0	31.9	42.3	73.9	31.6	NS
Vert	4882.000	PK	50.9	31.5	5.3	31.3	56.4	73.9	17.5	
Vert	6350.574	PK	42.4	33.6	5.9	31.3	50.6	73.9	23.3	
Vert	7323.000	PK	41.9	35.7	5.9	31.6	51.9	73.9	22.0	
Vert	9764.000	PK	41.2	38.5	6.5	31.8	54.4	73.9	19.5	
Vert	24410.000	PK	46.8	37.9	-0.9	29.5	54.3	73.9	19.6	
Vert	1578.637	AV	44.6	25.7	2.6	33.0	39.9	53.9	14.0	
Vert	3144.953	AV	40.7	28.6	3.4	32.2	40.5	53.9	13.4	
Vert	3257.000	AV	29.9	28.7	3.0	31.9	29.7	53.9	24.2	NS
Vert	6350.574	AV	33.2	33.6	5.9	31.3	41.4	53.9	12.5	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz $20\log(3.0m/1.0m) = 9.5dB$

NS = No Signal detected

*For the band edge of the carrier and the harmonics that emission was found, the test was performed with VBW of the average detector set at 270Hz. For other average detectors, VBW was set at 10Hz.

Radiated Spurious Emission

Test place : Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. : 31IE0021-HO-02
Date : 05/19/2011 05/20/2011
Temperature/ Humidity : 23 deg.C / 47% RH 22 deg.C / 45% RH
Engineer : Tomohisa Nakagawa Tomohisa Nakagawa
Mode : Tx, 3DH5 2441MHz

Dwell time factor relaxation

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Dwell Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	4882.000	AV	45.5	31.5	5.3	31.3	-23.9	27.1	53.9	26.8	
Hori	7323.000	AV	30.0	35.7	5.9	31.6	-23.9	16.1	53.9	37.8	
Hori	9764.000	AV	29.8	38.5	6.5	31.8	-23.9	19.1	53.9	34.8	
Hori	24410.000	AV	33.2	37.9	-0.9	29.5	-23.9	16.8	53.9	37.1	
Vert	4882.000	AV	43.8	31.5	5.3	31.3	-23.9	25.4	53.9	28.5	
Vert	7323.000	AV	29.9	35.7	5.9	31.6	-23.9	16.0	53.9	37.9	
Vert	9764.000	AV	29.7	38.5	6.5	31.8	-23.9	19.0	53.9	34.9	
Vert	24410.000	AV	34.2	37.9	-0.9	29.5	-23.9	17.8	53.9	36.1	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz))

- Gain(Amplifier) + Dwell time factor (Refer to dwell time data sheet)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

NS = No Signal detected

*For the band edge of the carrier and the harmonics that emission was found, the test was performed with VBW of the average detector set at 270Hz. For other average detectors, VBW was set at 10Hz.

Radiated Spurious Emission

Test place : Head Office EMC Lab. No.2 and 4 Semi Anechoic Chamber
 Report No. : 311E0021-HO-02
 Date : 05/19/2011 05/20/2011 06/24/2011
 Temperature/ Humidity : 23 deg.C / 47% RH 22 deg.C / 45% RH 25 deg.C / 54% RH
 Engineer : Tomohisa Nakagawa Tomohisa Nakagawa Takeshi Choda
 Mode : Tx, 3DH5 2480MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	73.029	QP	40.0	6.5	7.2	28.6	25.1	40.0	14.9	
Hori	259.666	QP	36.4	17.8	8.5	27.7	35.0	46.0	11.0	
Hori	336.007	QP	46.2	15.9	9.0	27.9	43.2	46.0	2.8	
Hori	384.016	QP	40.8	16.9	9.3	28.2	38.8	46.0	7.2	
Hori	617.427	QP	32.7	19.6	10.3	28.6	34.0	46.0	12.0	
Hori	778.981	QP	35.0	21.5	10.9	28.3	39.1	46.0	6.9	
Hori	1587.670	PK	48.0	25.7	2.6	33.0	43.3	73.9	30.6	
Hori	2483.500	PK	51.3	27.6	3.1	32.4	49.6	73.9	24.3	
Hori	3145.678	PK	45.4	28.6	3.4	32.2	45.2	73.9	28.7	
Hori	3307.000	PK	42.3	28.9	3.0	31.8	42.4	73.9	31.5	NS
Hori	4960.000	PK	51.0	31.7	4.3	31.3	55.7	73.9	18.2	
Hori	6350.400	PK	45.7	33.6	4.7	31.3	52.7	73.9	21.2	
Hori	7440.000	PK	40.9	35.8	4.8	31.7	49.8	73.9	24.1	
Hori	9920.000	PK	43.0	38.7	5.5	31.8	55.4	73.9	18.5	
Hori	24800.000	PK	48.9	38.0	-0.9	29.4	56.6	73.9	17.3	
Hori	1587.670	AV	41.9	25.7	2.6	33.0	37.2	53.9	16.7	
Hori	3145.678	AV	37.3	28.6	3.4	32.2	37.1	53.9	16.8	
Hori	3307.000	AV	29.9	28.9	3.0	31.8	30.0	53.9	23.9	NS
Hori	6350.400	AV	40.6	33.6	4.7	31.3	47.6	53.9	6.3	
Vert	73.029	QP	42.7	6.5	7.2	28.6	27.8	40.0	12.2	
Vert	259.666	QP	34.6	17.8	8.5	27.7	33.2	46.0	12.8	
Vert	336.007	QP	40.7	15.9	9.0	27.9	37.7	46.0	8.3	
Vert	384.016	QP	35.4	16.9	9.3	28.2	33.4	46.0	12.6	
Vert	617.427	QP	35.8	19.6	10.3	28.6	37.1	46.0	8.9	
Vert	778.981	QP	34.6	21.5	10.9	28.3	38.7	46.0	7.3	
Vert	1587.670	PK	49.0	25.7	2.6	33.0	44.3	73.9	29.6	
Vert	2483.500	PK	47.5	27.6	3.1	32.4	45.8	73.9	28.1	
Vert	3145.678	PK	45.6	28.6	3.4	32.2	45.4	73.9	28.5	
Vert	3307.000	PK	42.2	28.9	3.0	31.8	42.3	73.9	31.6	NS
Vert	4960.000	PK	52.4	31.7	4.3	31.3	57.1	73.9	16.8	
Vert	6350.400	PK	41.1	33.6	4.7	31.3	48.1	73.9	25.8	
Vert	7440.000	PK	42.2	35.8	4.8	31.7	51.1	73.9	22.8	
Vert	9920.000	PK	42.0	38.7	5.5	31.8	54.4	73.9	19.5	
Vert	24800.000	PK	48.4	38.0	-0.9	29.4	56.1	73.9	17.8	
Vert	1587.670	AV	44.9	25.7	2.6	33.0	40.2	53.9	13.7	
Vert	3145.678	AV	39.3	28.6	3.4	32.2	39.1	53.9	14.8	
Vert	3307.000	AV	29.9	28.9	3.0	31.8	30.0	53.9	23.9	NS
Vert	6350.400	AV	30.0	33.6	4.7	31.3	37.0	53.9	16.9	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

NS = No Signal detected

*For the band edge of the carrier and the harmonics that emission was found, the test was performed with VBW of the average detector set at 270Hz. For other average detectors, VBW was set at 10Hz.

Radiated Spurious Emission

Test place Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 31IE0021-HO-02
Date 05/19/2011 05/20/2011
Temperature/ Humidity 23 deg.C/ 47% RH 22 deg.C/ 45% RH
Engineer Tomohisa Nakagawa Tomohisa Nakagawa
Mode Tx, 3DH5 2480MHz

Dwell time factor relaxation

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Dwell Factor [dB]	Result dBuV/m	Limit dBuV/m	Margin [dB]	Remark
Hori	2483.500	AV	37.9	27.6	3.1	32.4	-23.9	12.3	53.9	41.6	
Hori	4960.000	AV	42.9	31.7	4.3	31.3	-23.9	23.7	53.9	30.2	
Hori	7440.000	AV	30.0	35.8	4.8	31.7	-23.9	15.0	53.9	38.9	
Hori	9920.000	AV	30.6	38.7	5.5	31.8	-23.9	19.1	53.9	34.8	
Hori	24800.000	AV	36.3	38.0	-0.9	29.4	-23.9	20.1	53.9	33.8	
Vert	2483.500	AV	34.7	27.6	3.1	32.4	-23.9	9.1	53.9	44.8	
Vert	4960.000	AV	44.8	31.7	4.3	31.3	-23.9	25.6	53.9	28.3	
Vert	7440.000	AV	30.0	35.8	4.8	31.7	-23.9	15.0	53.9	38.9	
Vert	9920.000	AV	30.5	38.7	5.5	31.8	-23.9	19.0	53.9	34.9	
Vert	24800.000	AV	36.2	38.0	-0.9	29.4	-23.9	20.0	53.9	33.9	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz))

- Gain(Amplifier) + Dwell time factor (Refer to dwell time data sheet)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

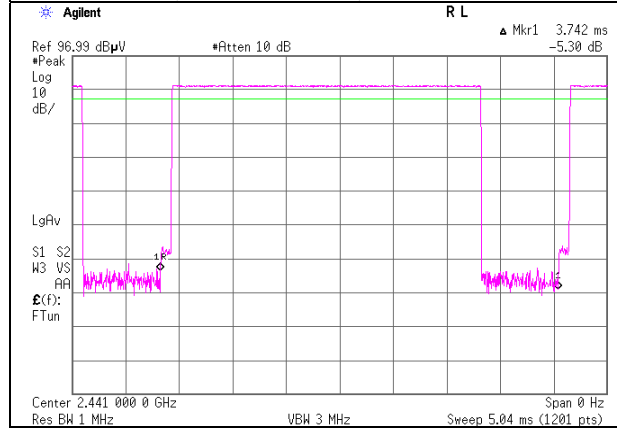
NS = No Signal detected

*For the band edge of the carrier and the harmonics that emission was found, the test was performed with VBW of the average detector set at 270Hz. For other average detectors, VBW was set at 10Hz.

VBW (AV) Calculation

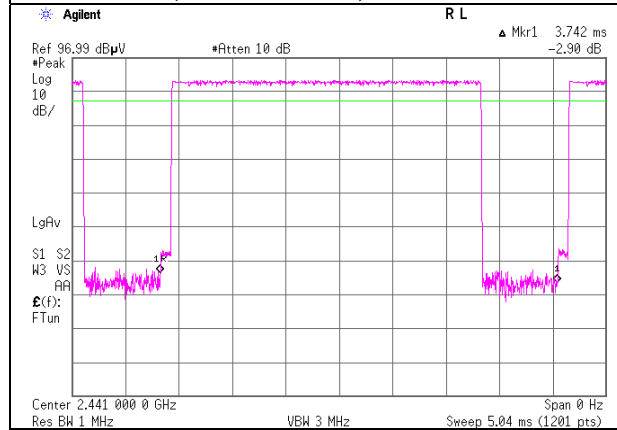
DH5

VBW: $1/x = 267\text{Hz} < 270\text{Hz}$
x: (Tx on+Tx off) = 3.742ms



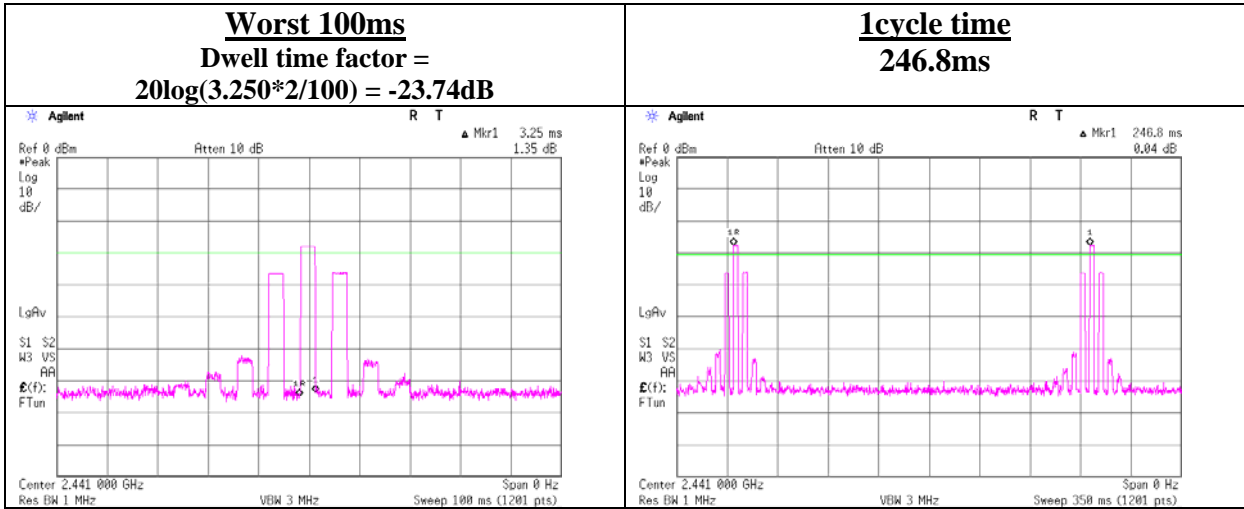
3DH5

VBW: $1/x = 267\text{Hz} < 270\text{Hz}$
x: (Tx on+Tx off) = 3.742ms

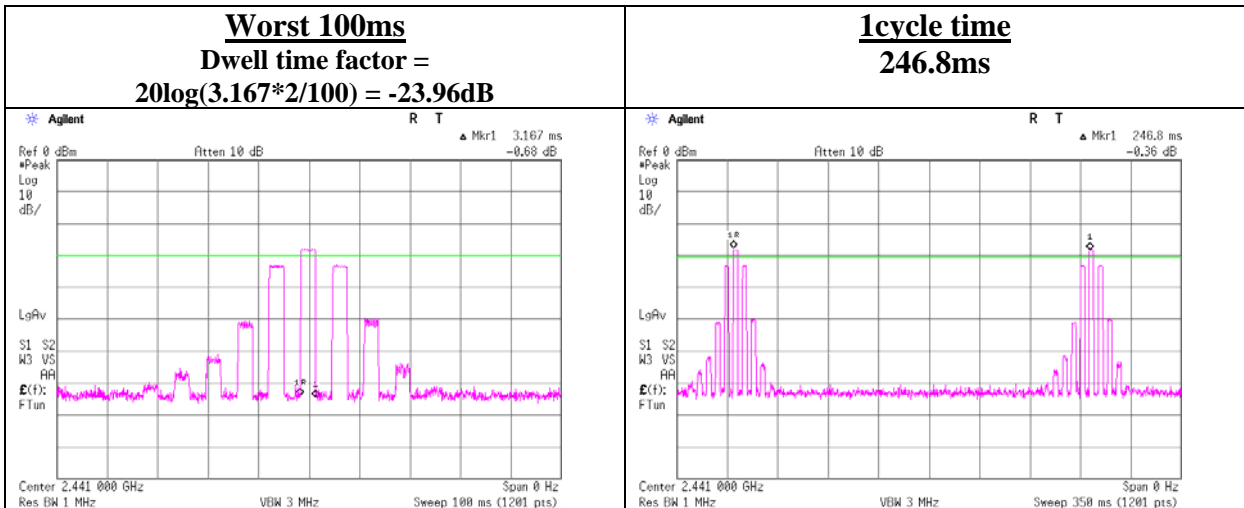


Dwell time factor

DH5

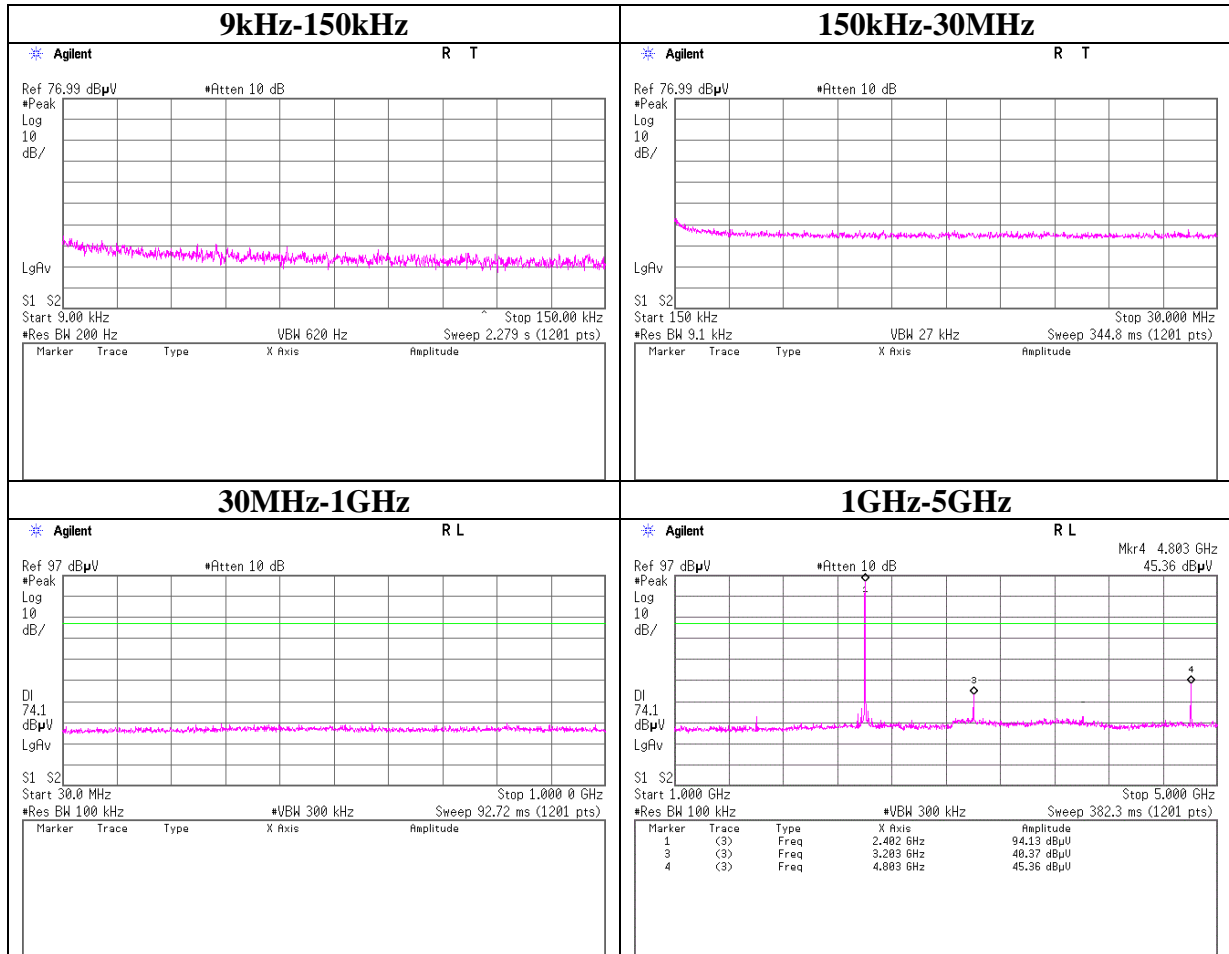


3DH5



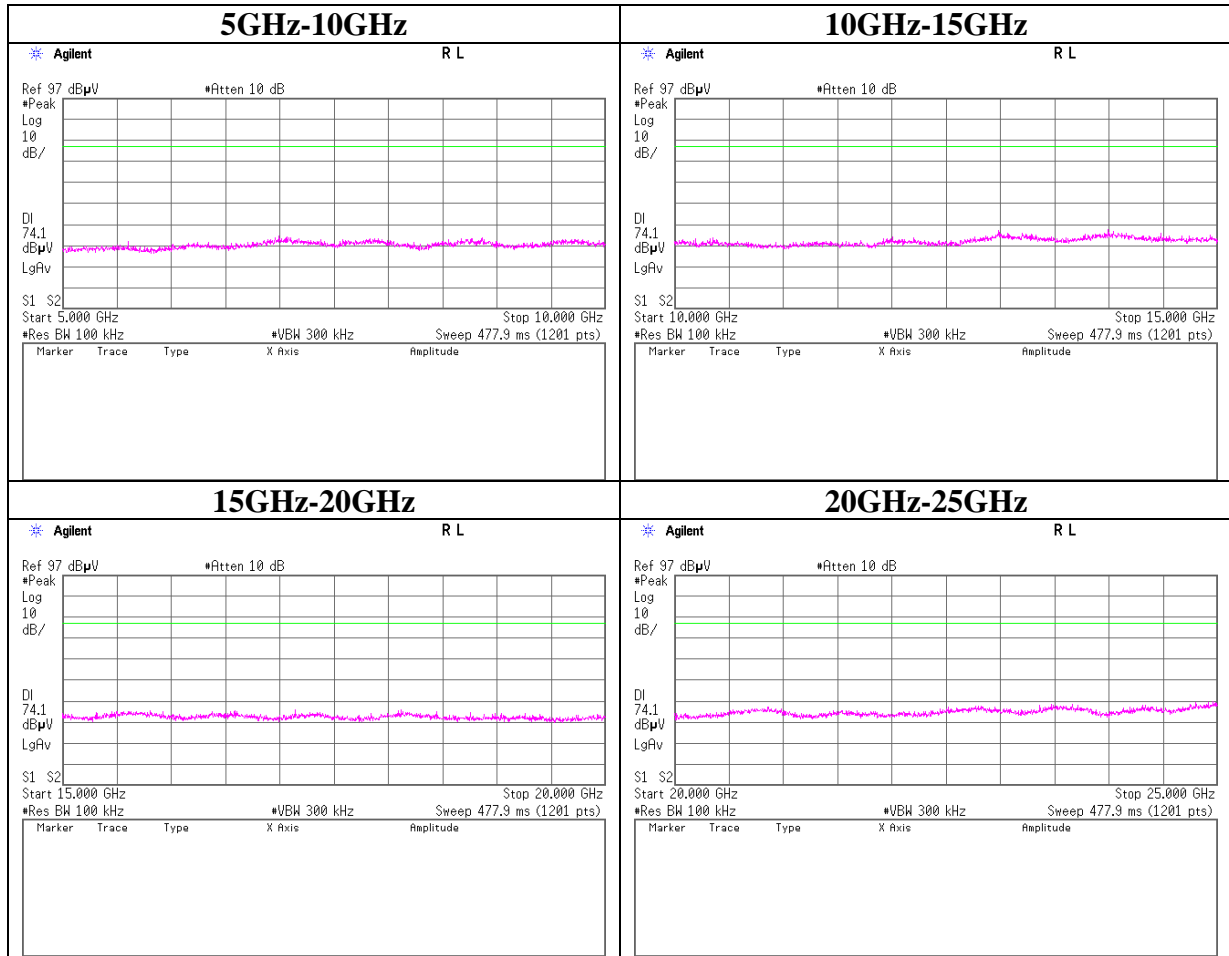
Conducted Spurious Emission

Tx DH5 2402MHz



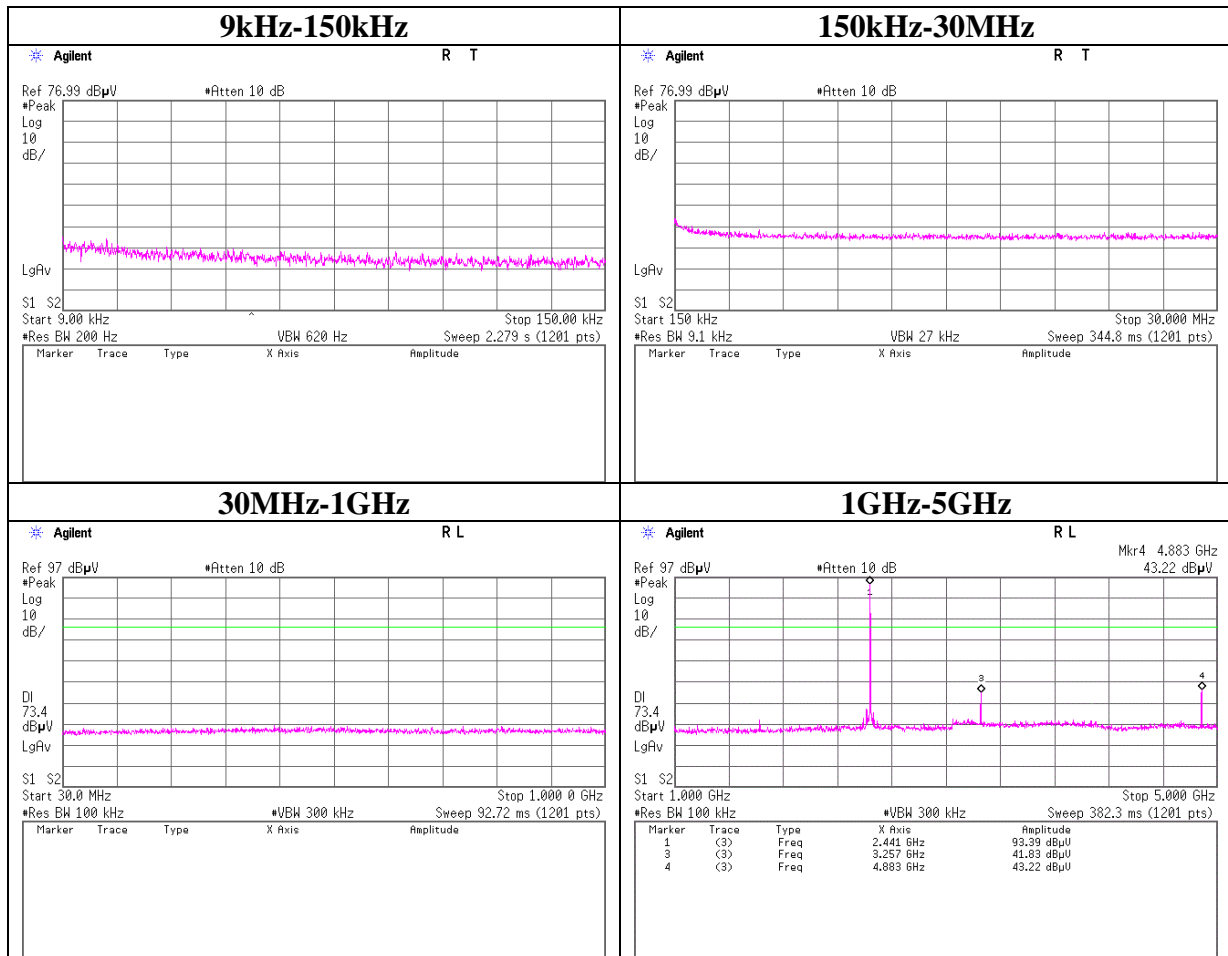
Conducted Spurious Emission

Tx DH5 2402MHz



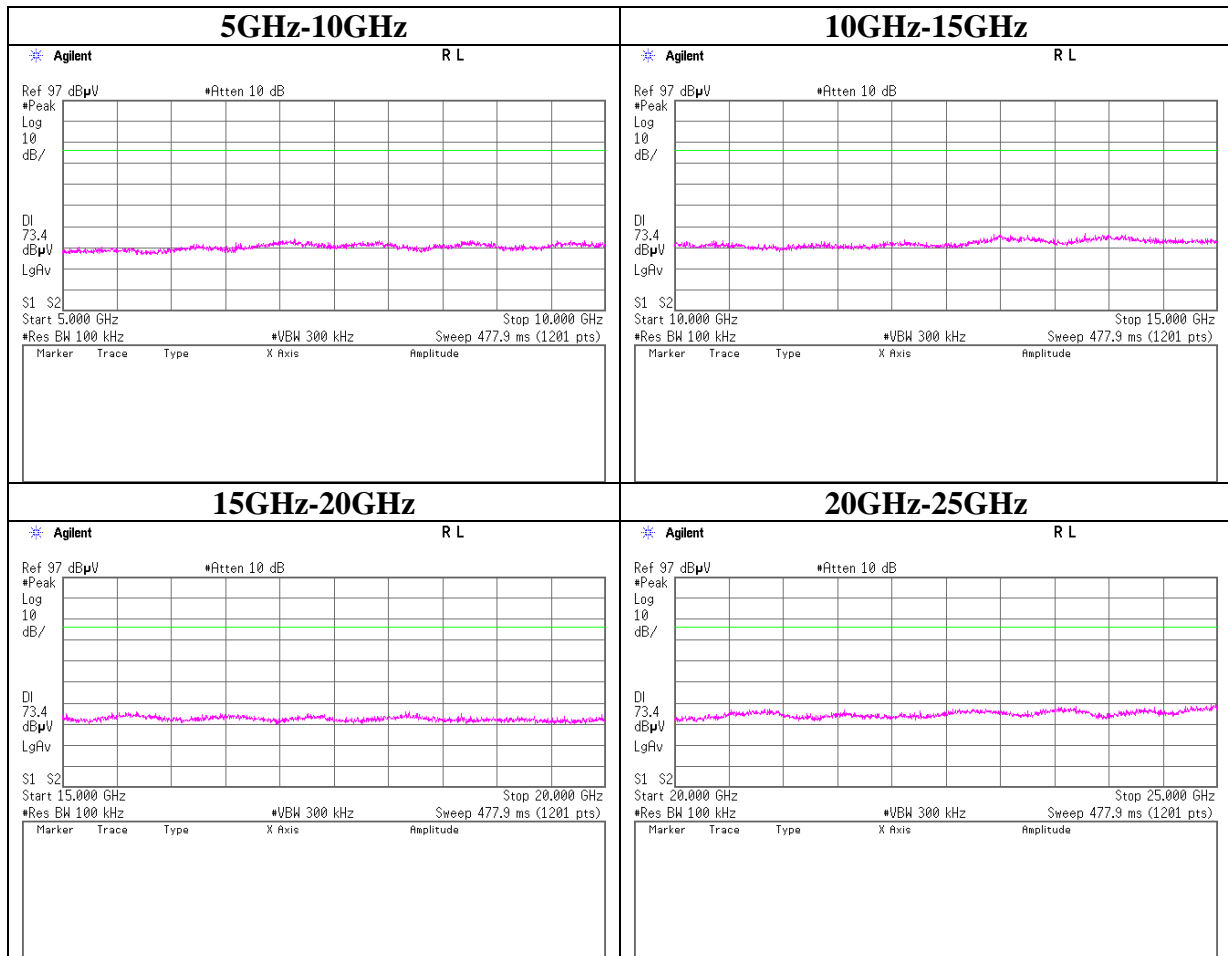
Conducted Spurious Emission

Tx DH5 2441MHz



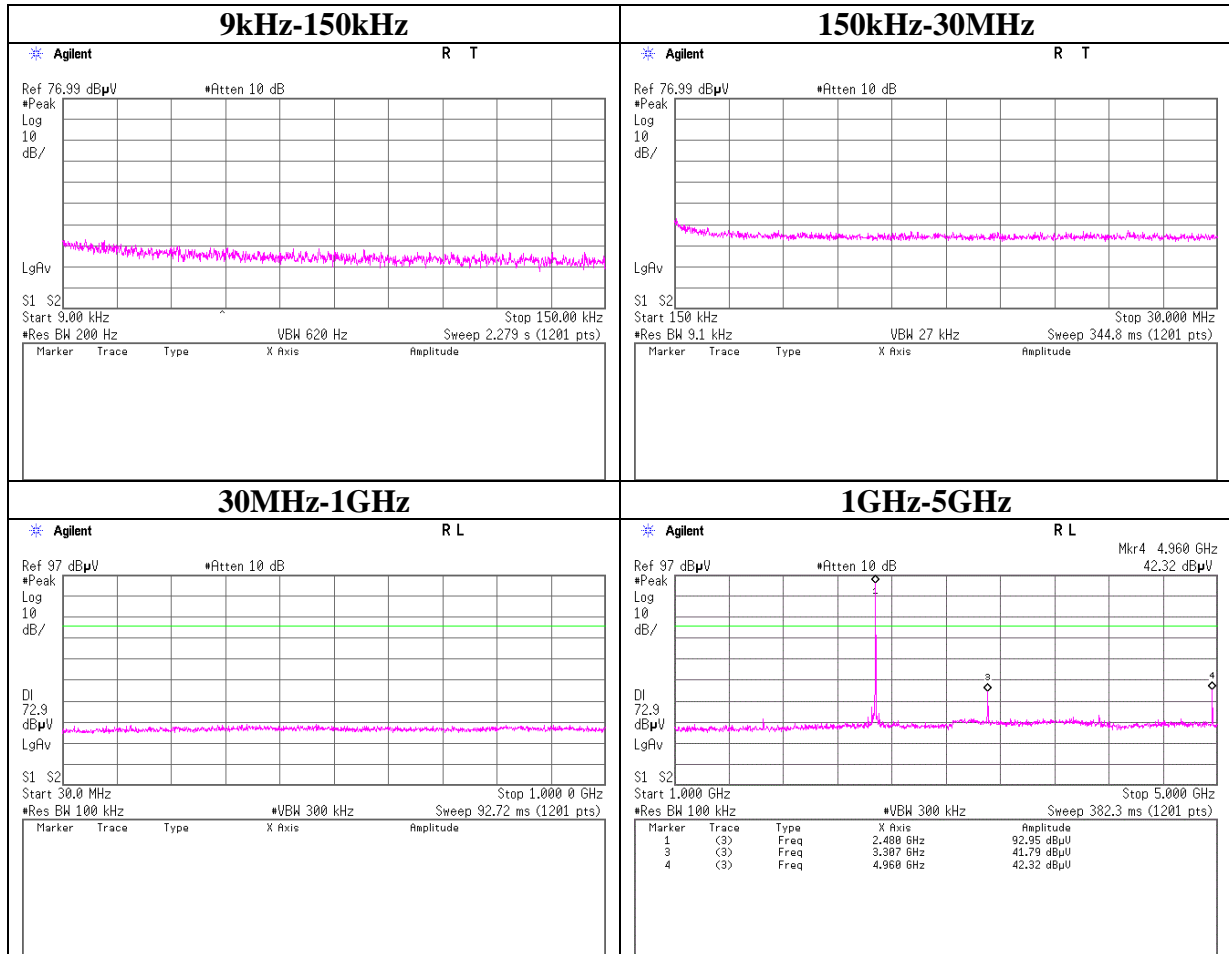
Conducted Spurious Emission

Tx DH5 2441MHz



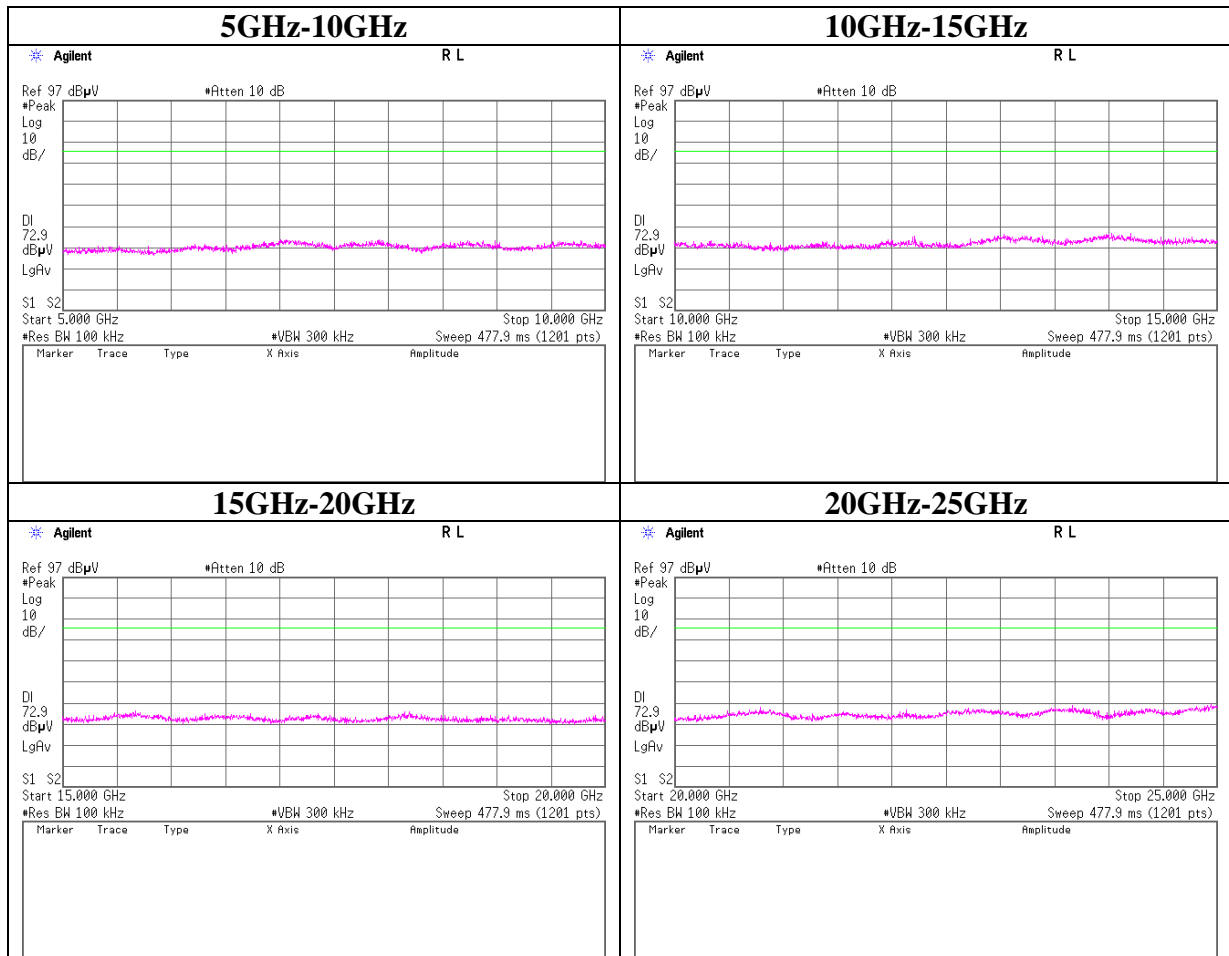
Conducted Spurious Emission

Tx DH5 2480MHz



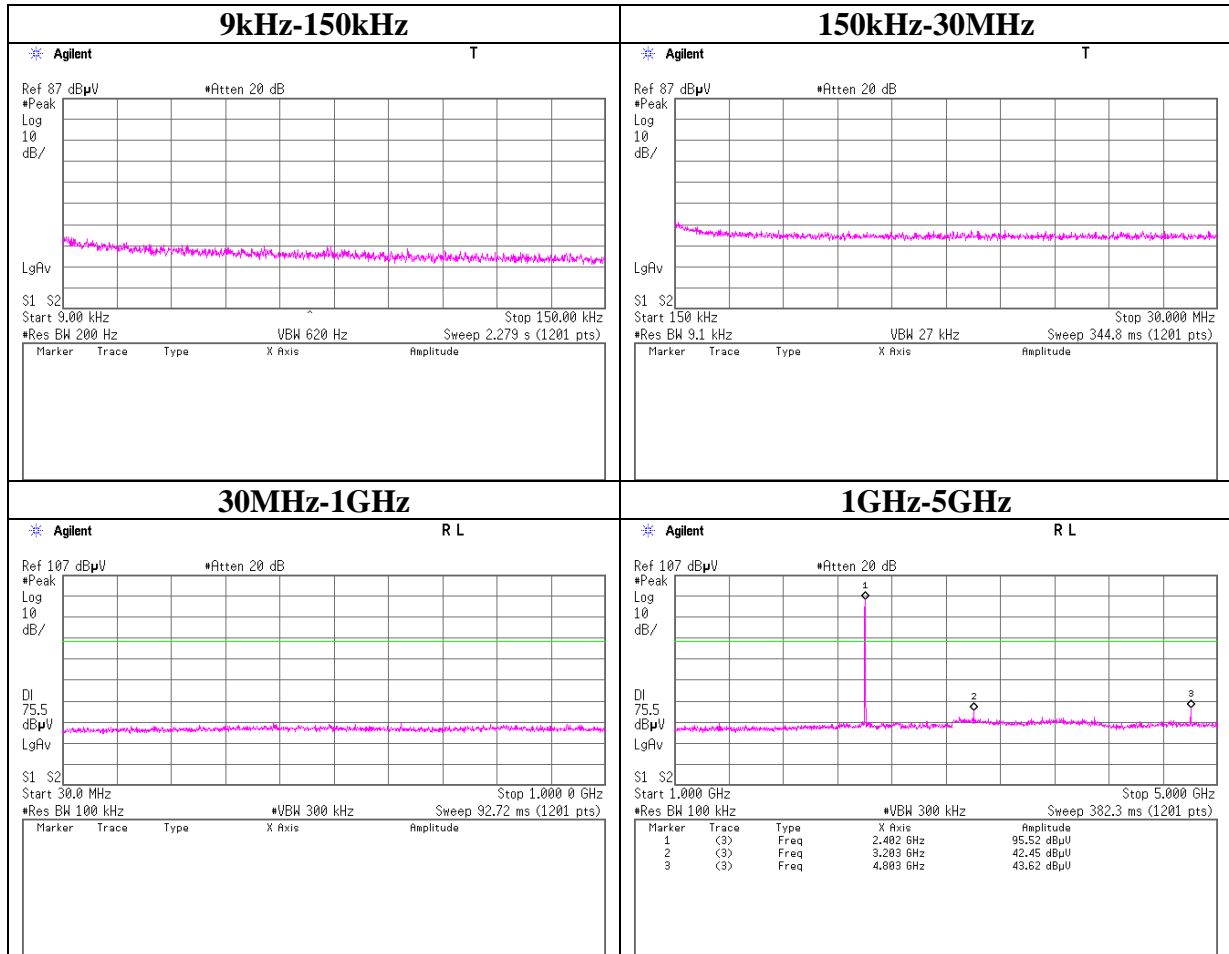
Conducted Spurious Emission

Tx DH5 2480MHz



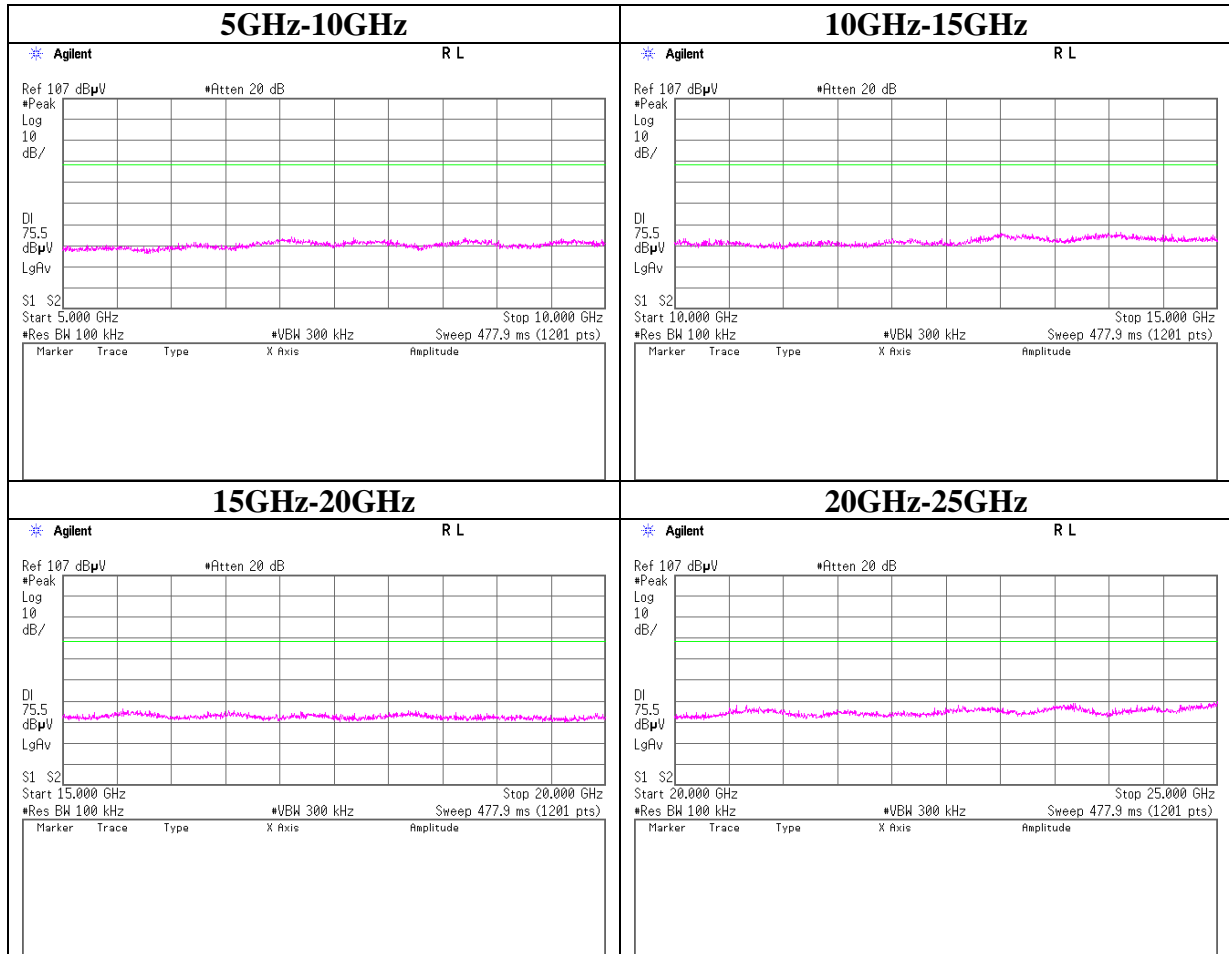
Conducted Spurious Emission

Tx 3DH5 2402MHz



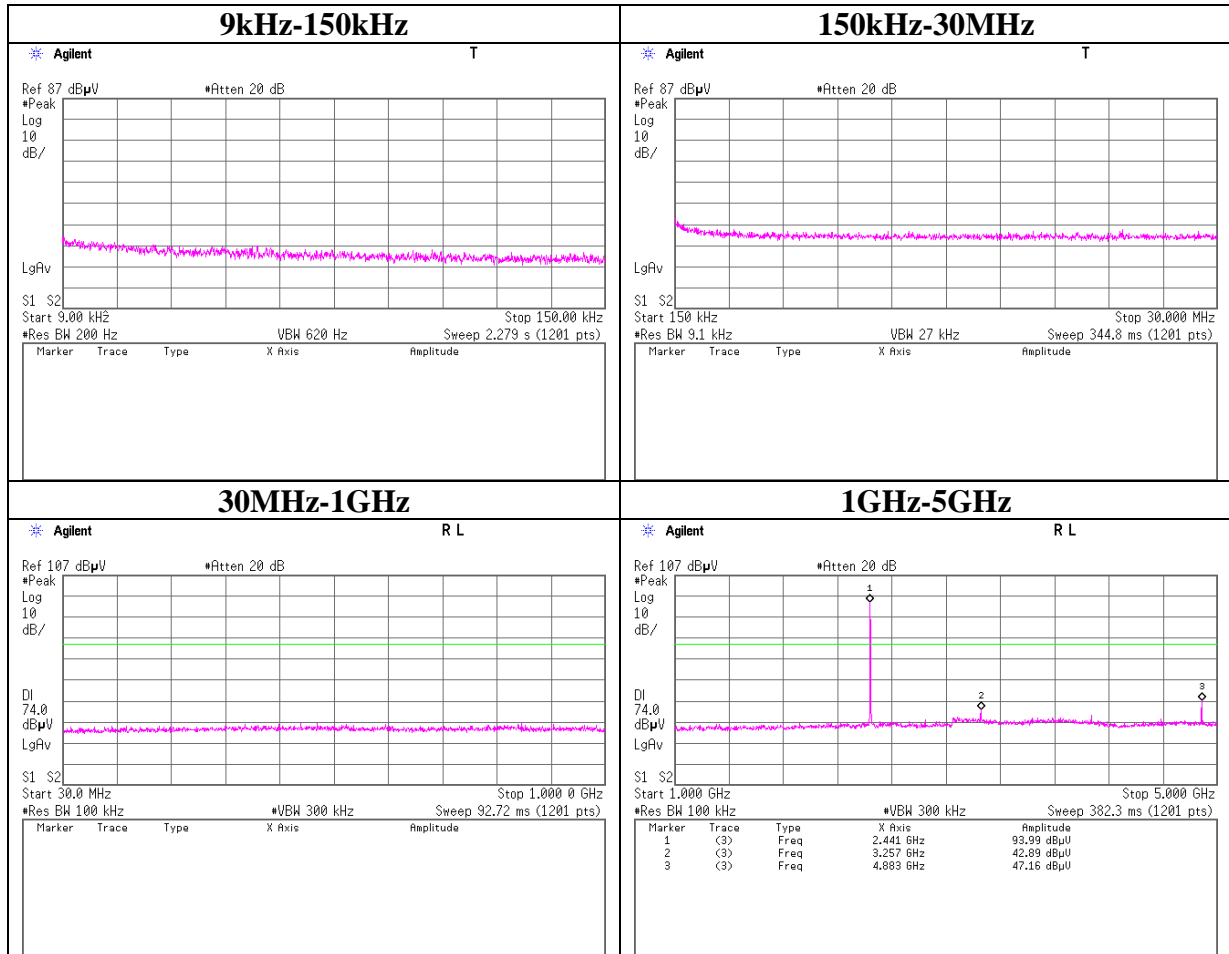
Conducted Spurious Emission

Tx 3DH5 2402MHz



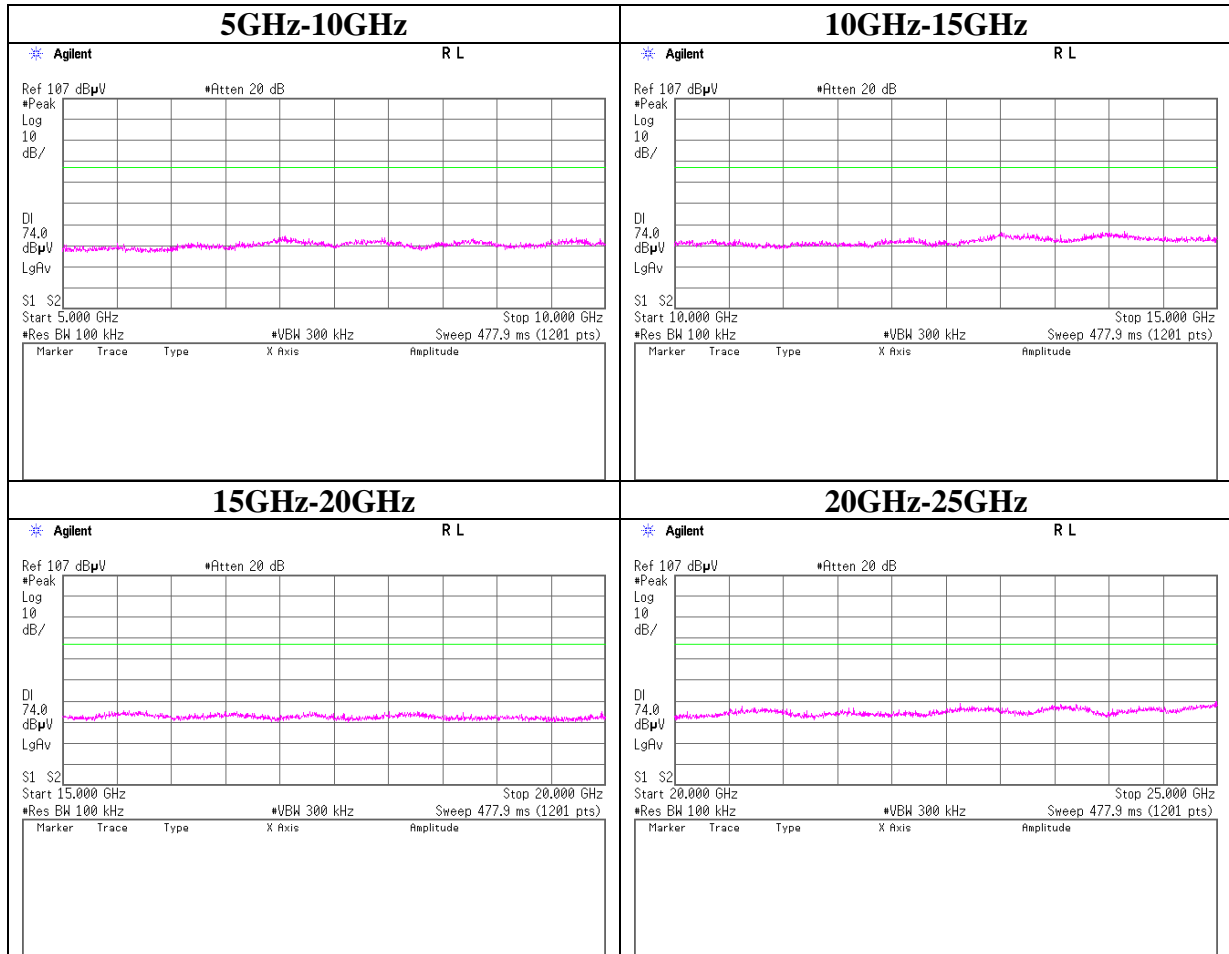
Conducted Spurious Emission

Tx 3DH5 2441MHz



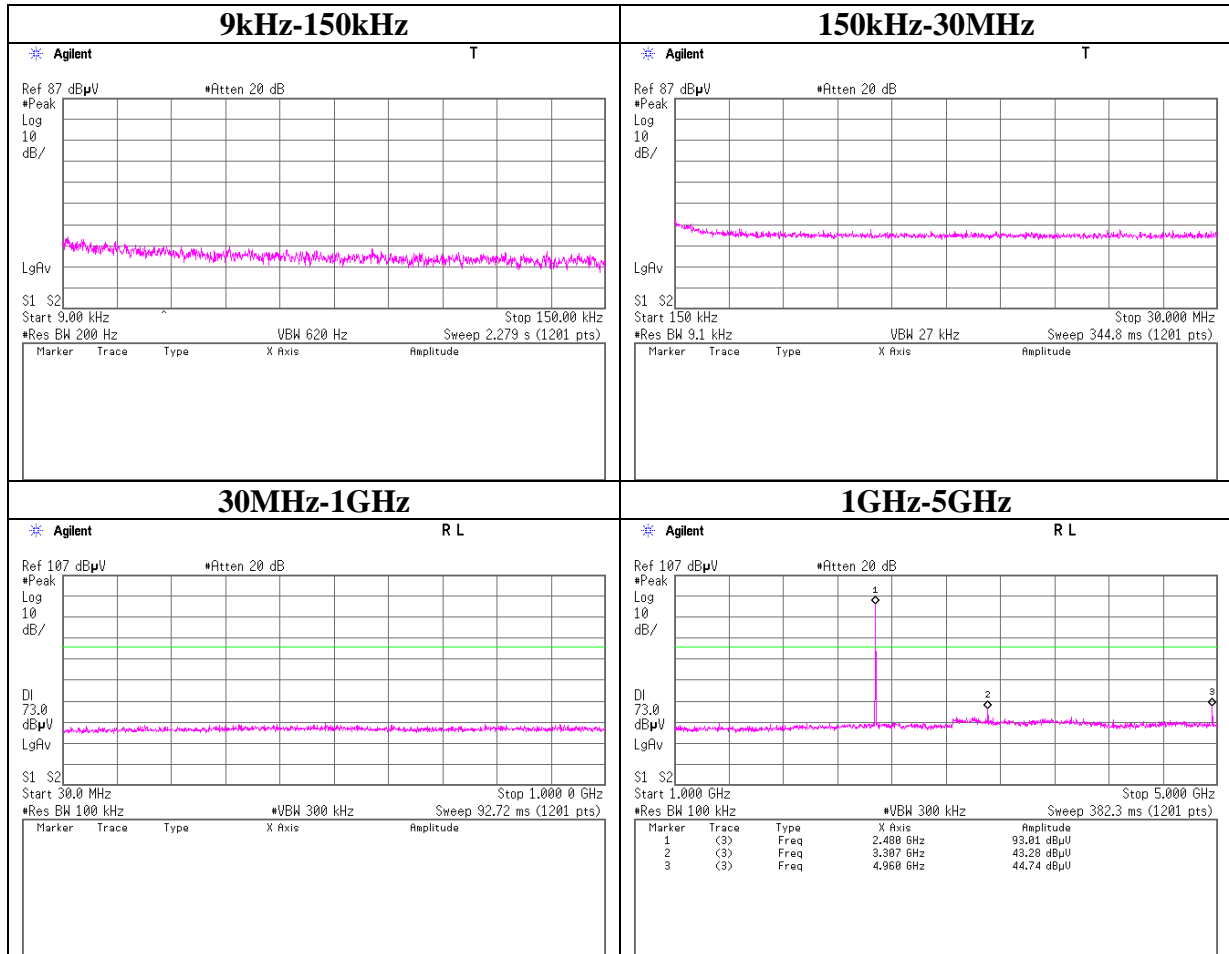
Conducted Spurious Emission

Tx 3DH5 2441MHz



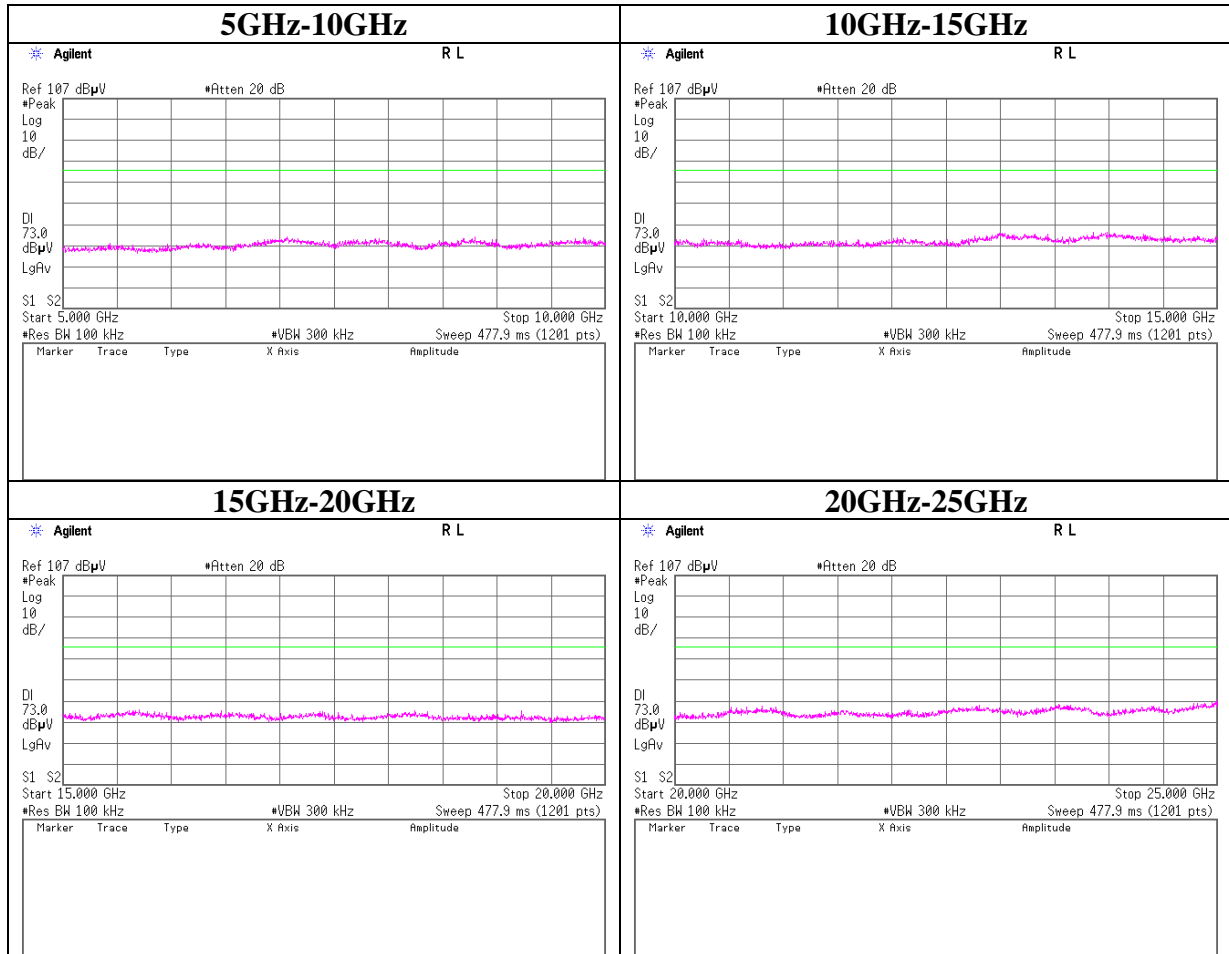
Conducted Spurious Emission

Tx 3DH5 2480MHz



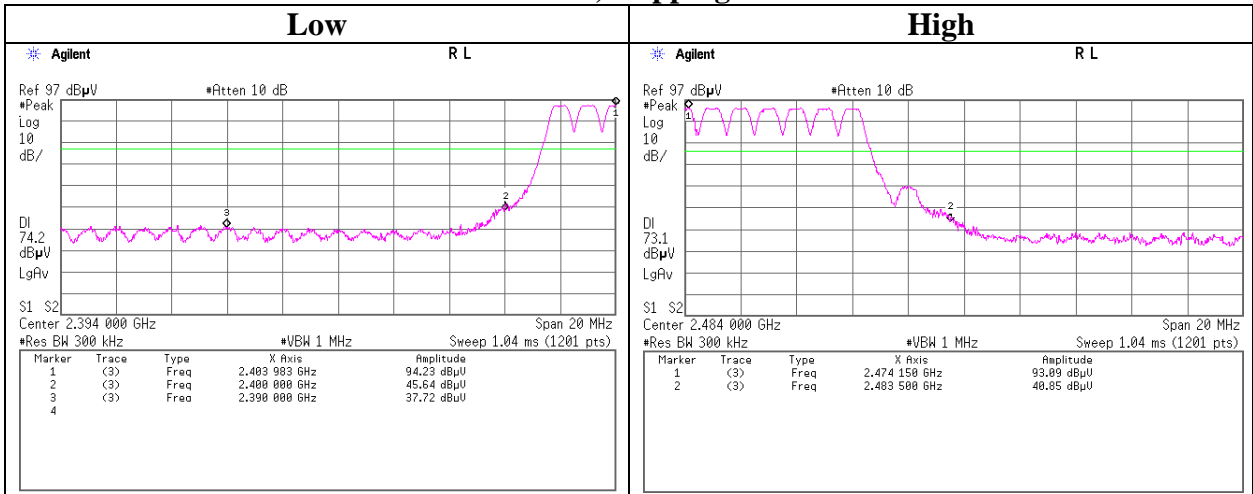
Conducted Spurious Emission

Tx 3DH5 2480MHz

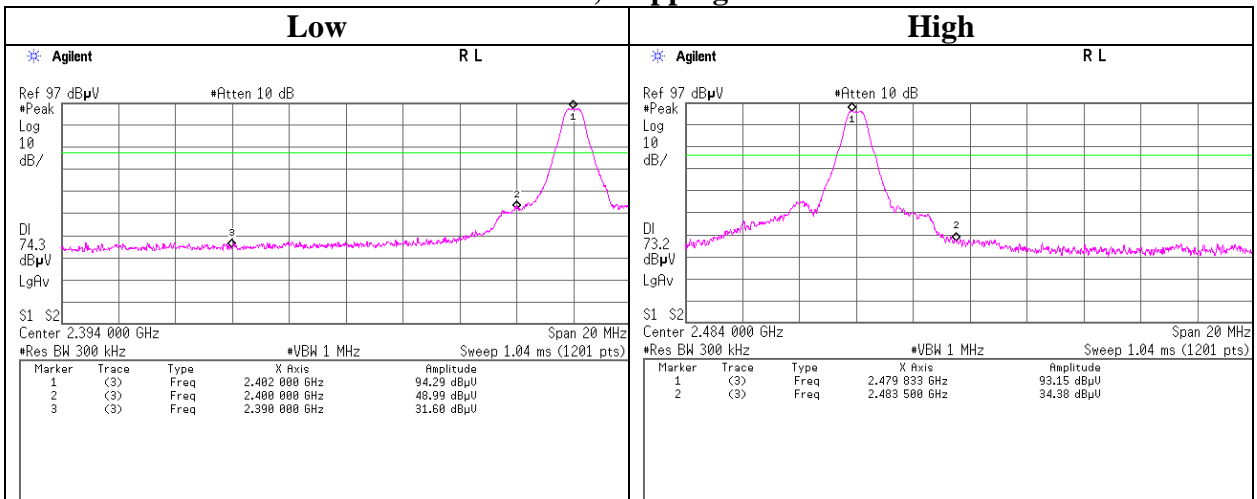


Conducted Emission Band Edge compliance

Tx DH5, Hopping on

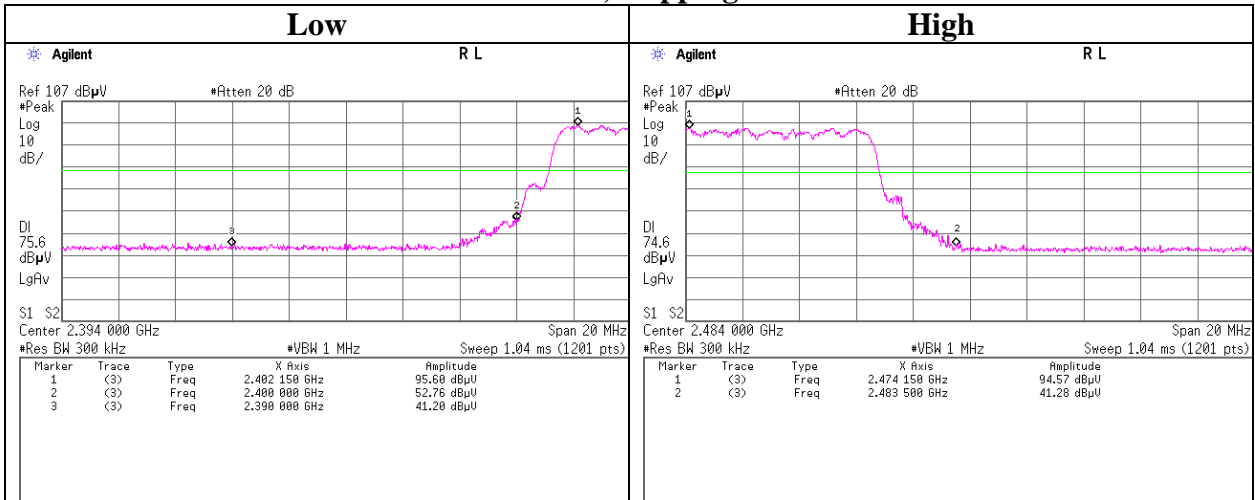


Tx DH5, Hopping off

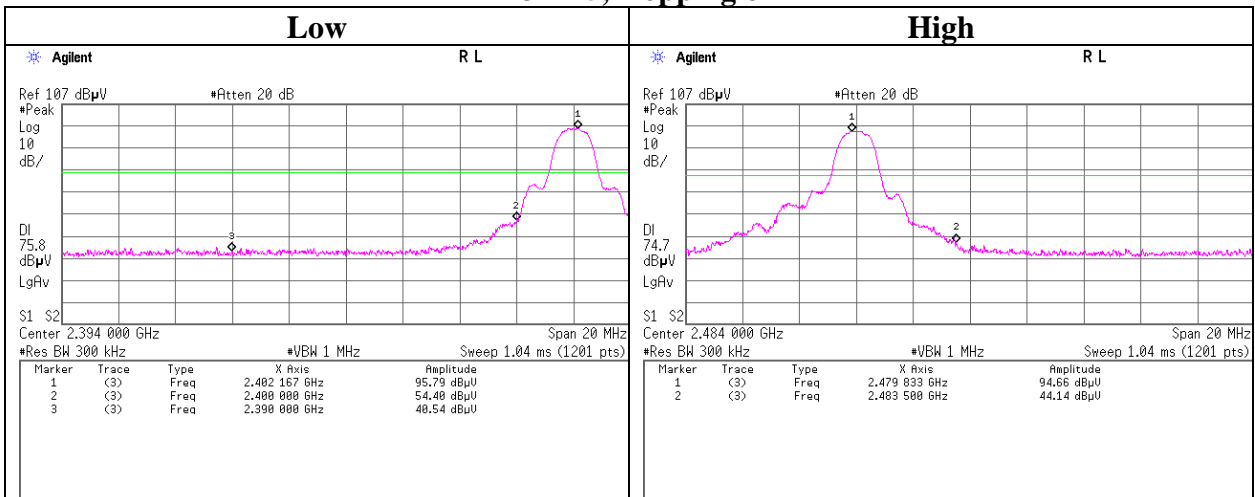


Conducted Emission Band Edge compliance

Tx 3DH5, Hopping on



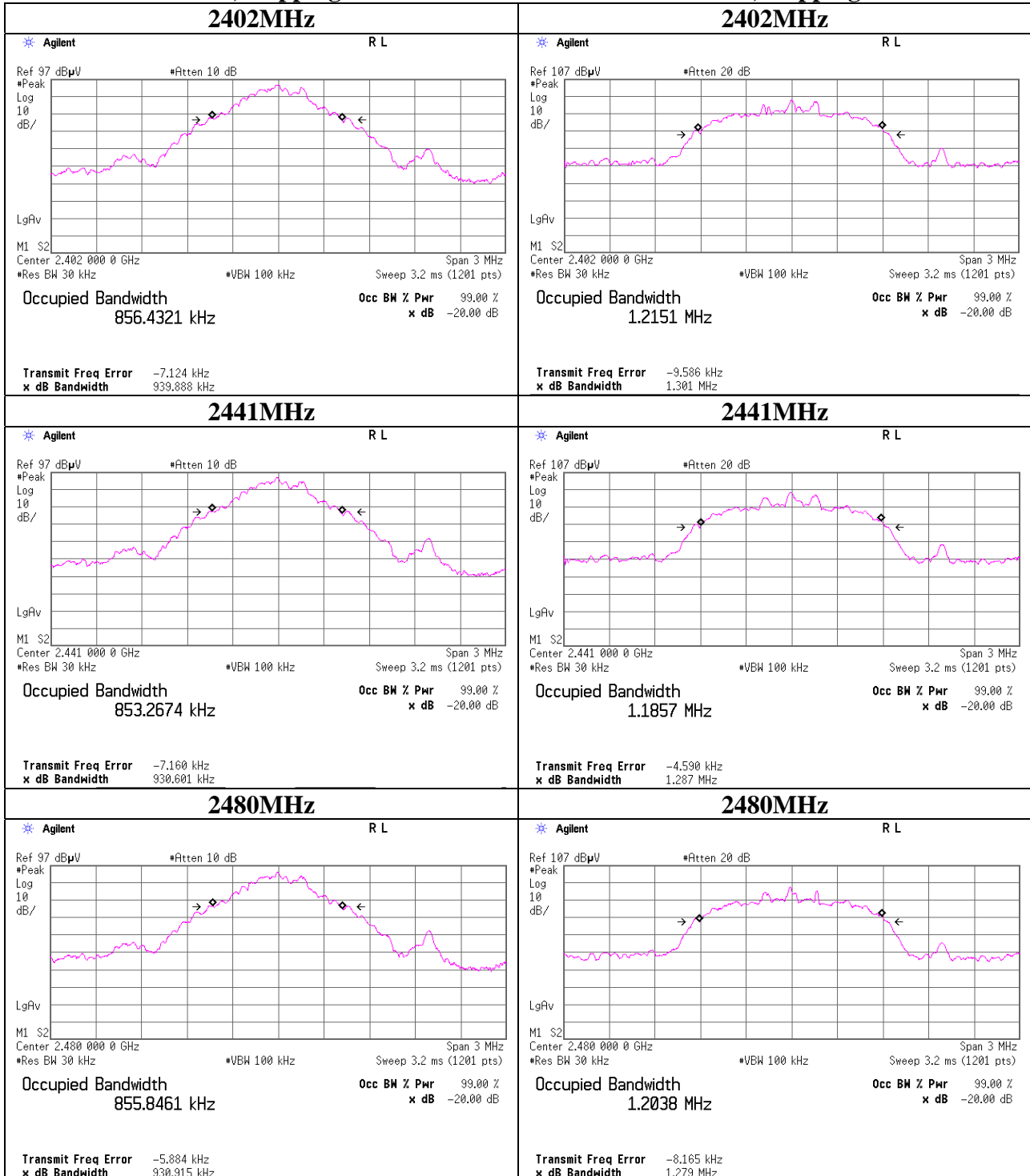
Tx 3DH5, Hopping off



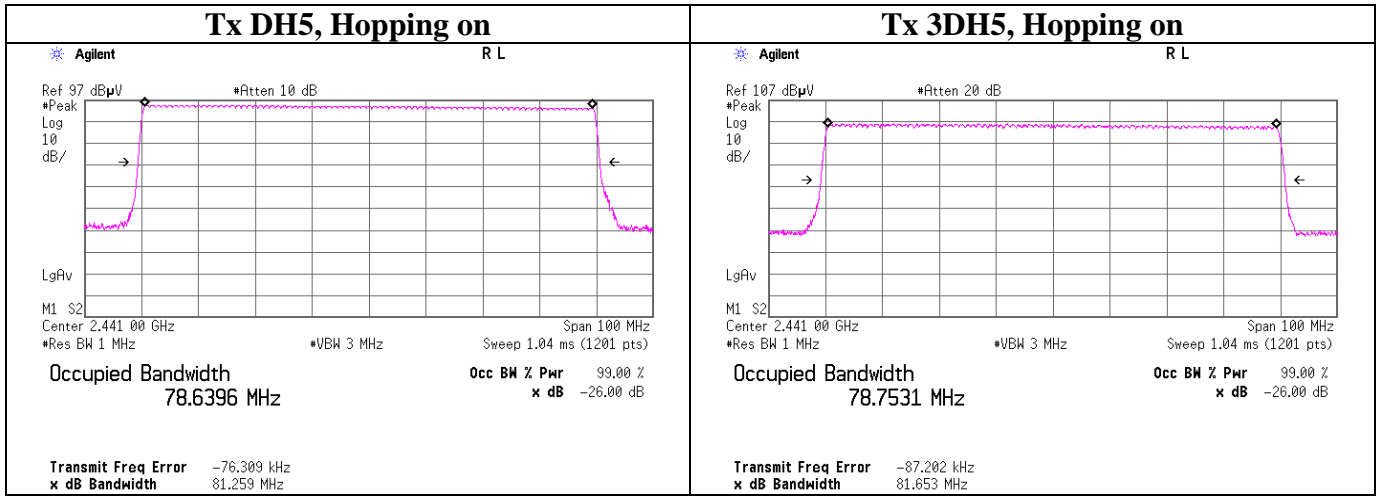
99%Occupied Bandwidth

Tx DH5, Hopping off

Tx 3DH5, Hopping off



99% Occupied Bandwidth



APPENDIX 3: Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MOS-04	Digital Humidity Indicator	N.T	NT-1800	MOS04	AT	2011/02/23 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	MY44020357	AT/RE	2010/11/30 * 12
MPSE-17	Power sensor	Anritsu	MA2411B	0738285	AT	2010/08/20 * 12
MPM-12	Power Meter	Anritsu	ML2495A	0825002	AT	2010/08/20 * 12
MAT-23	Attenuator(10dB) 1-18GHz	Orient Microwave	BX10-0476-00	-	AT	2011/03/14 * 12
MAEC-02	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	RE	2010/09/01 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	0003	RE	2011/02/23 * 12
MJM-05	Measure	PROMART	SEN1955	-	RE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE	-
MHA-06	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	254	RE	2011/01/16 * 12
MPA-10	Pre Amplifier	Agilent	8449B	3008A02142	RE	2010/09/30 * 12
MHA-16	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	BBHA9170306	RE	2011/05/23 * 12
MCC-57	Microwave Cable	Suhner	SUCOFLEX104	267195/4(0.6m) / 292411(5m)	RE	2010/11/26 * 12
MHF-18	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCA	7002	RE	2010/09/21 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	100300	RE	2011/04/15 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	VHA91032008	RE	2010/10/11 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	201	RE	2010/10/11 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	-	RE	2011/02/18 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	BK7970	RE	2010/11/05 * 12
MPA-09	Pre Amplifier	Agilent	8447D	2944A10845	RE	2010/09/09 * 12
MBM-11	Barometer	Sunoh	SBR121	839	AT	2010/12/13 * 36
MJM-04	Measure	PROMART	SEN1635	-	AT	-
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	AT	2011/04/08 * 12
MAEC-04	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE	2011/03/01 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	-	RE	2011/02/23 * 12
MJM-07	Measure	PROMART	SEN1955	-	RE	-
MSA-10	Spectrum Analyzer	Agilent	E4448A	MY46180655	RE	2011/02/15 * 12
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	9120D-557	RE	2010/08/08 * 12
MCC-56	Microwave Cable	Suhner	SUCOFLEX104	270875/4(1m) / 284655(5m)	RE	2011/03/02 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	MY39500780	RE	2011/03/10 * 12

The expiration date of the calibration is the end of the expired month.

All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

**Test Item: RE: Radiated Emission
AT: Antenna Terminal Conducted test**