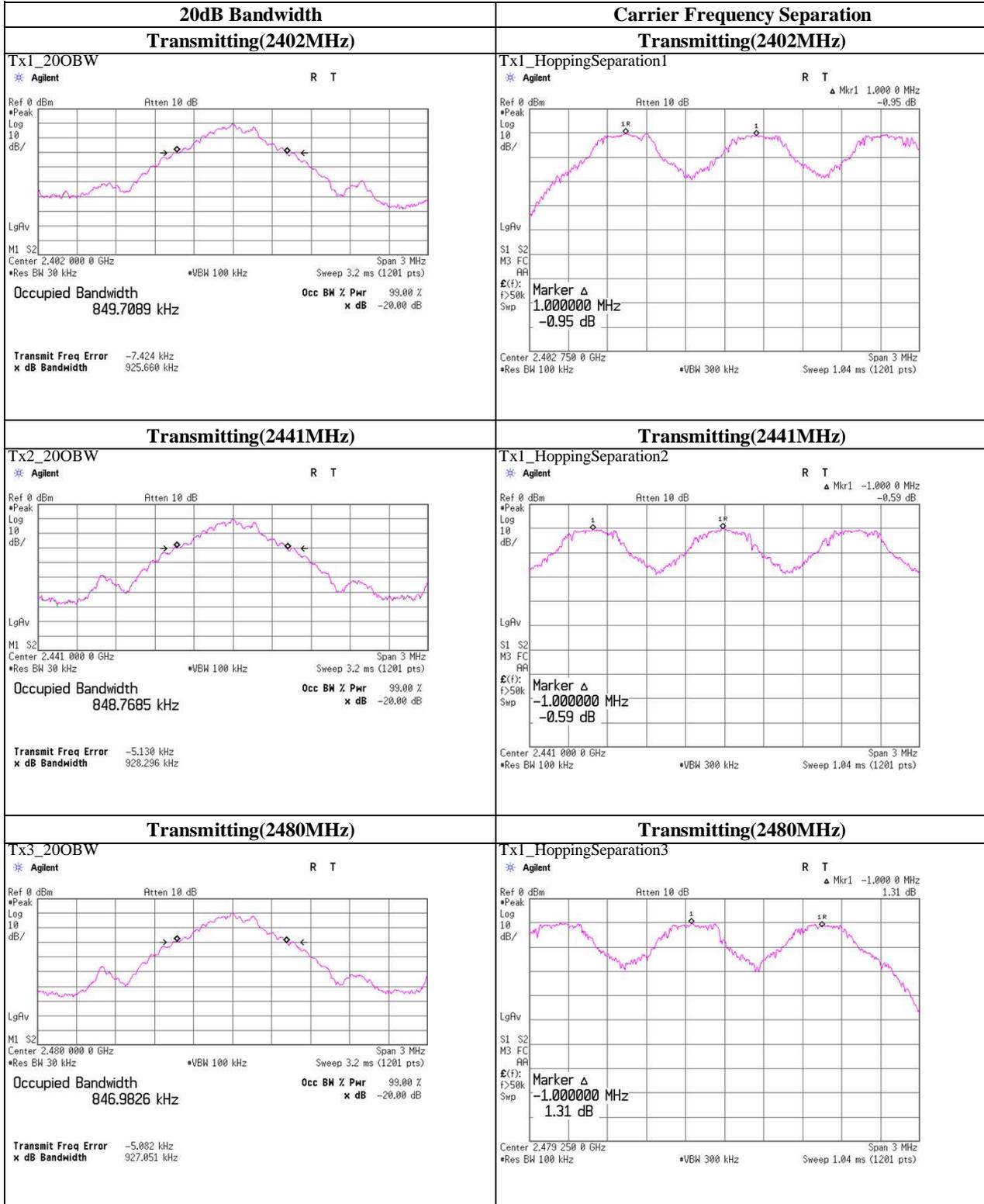


20dB Bandwidth and Carrier Frequency Separation

Tx, Bluetooth, BDR (Worst: DH5), PRBS9



UL Japan, Inc.

Shonan EMC Lab.

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Telephone : +81 463 50 6400

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20dB Bandwidth and Carrier Frequency Separation

Test place UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room
 Date April 7, 2011
 Temperature / Humidity 26deg.C. , 31%RH
 Engineer Kenichi Adachi
 Mode Tx, Bluetooth, EDR, PRBS9

Mode	Freq. [MHz]	20dB Bandwidth [MHz]	Carrier Frequency Separation [MHz]	Limit for Carrier Frequency Separation [MHz]
3-DH5	2402.0	1.286	1.000	>= 0.857
3-DH5	2441.0	1.305	1.003	>= 0.870
3-DH5	2480.0	1.270	1.000	>= 0.847

Limit: Two-thirds of 20dB Bandwidth or 25kHz (whichever is greater).

No limit applies to 20dB Bandwidth.

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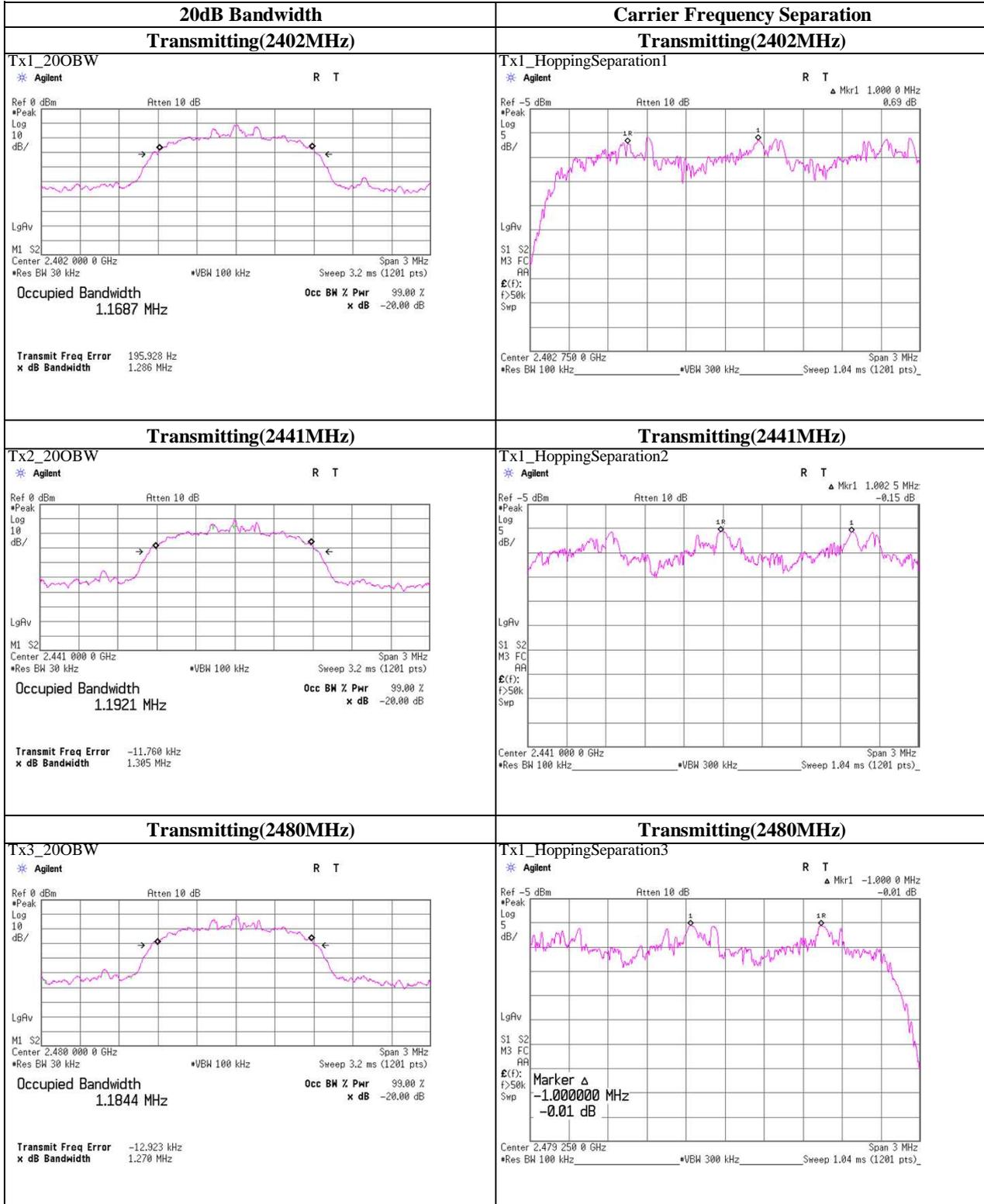
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

Telephone : +81 463 50 6400

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20dB Bandwidth and Carrier Frequency Separation

Tx, Bluetooth, EDR (Worst: 3-DH5), PRBS9



UL Japan, Inc.

Shonan EMC Lab.

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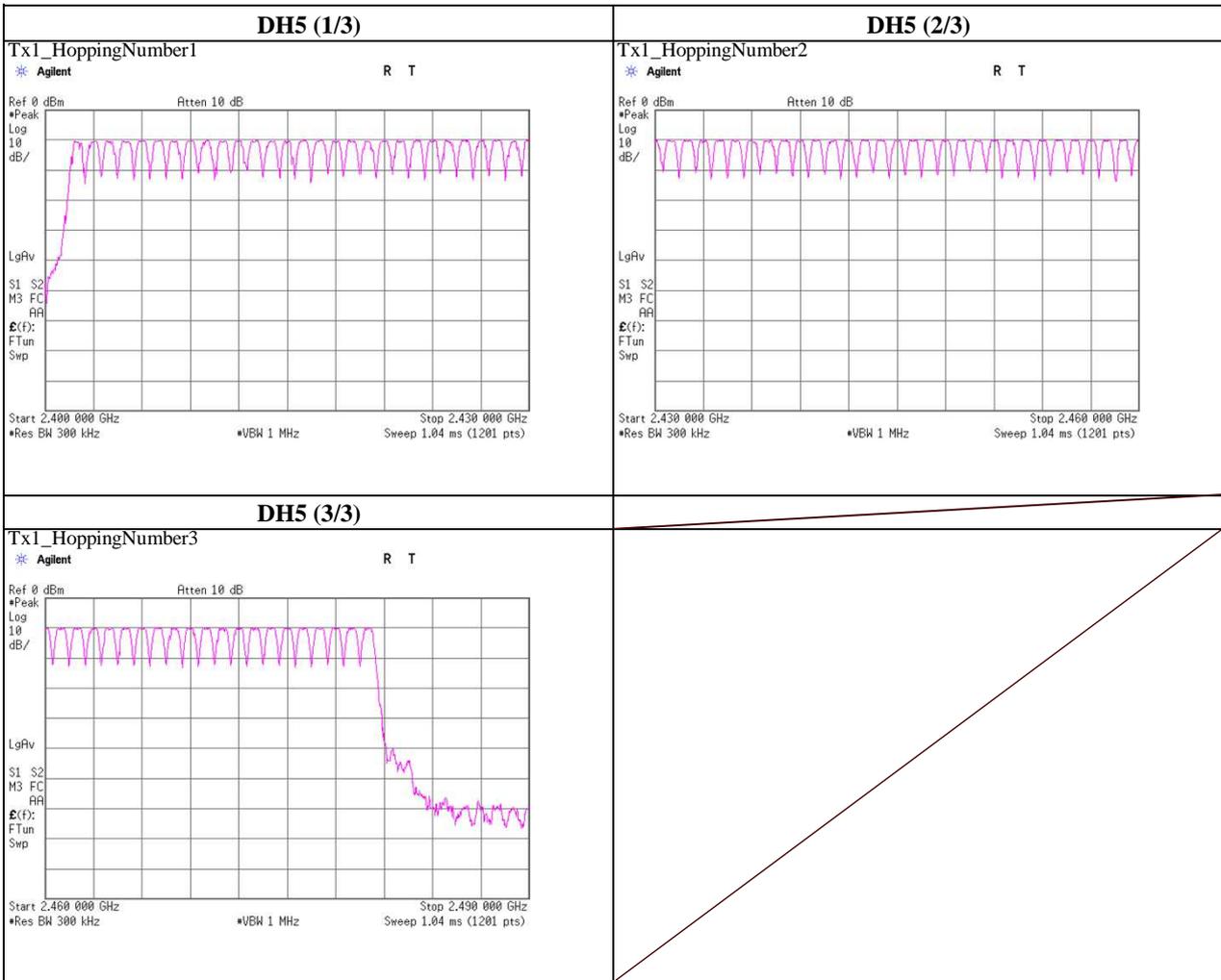
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

Number of Hopping Frequency

Test place UL Japan, Inc. Shonan EMC Lab.
 Date April 7, 2011
 Temperature / Humidity 26deg.C , 31%RH
 Engineer Kenichi Adachi
 Mode Tx, Bluetooth, BDR, PRBS9

Mode	Number of Channel [times]	Limit [times]
DH5	79	>= 15

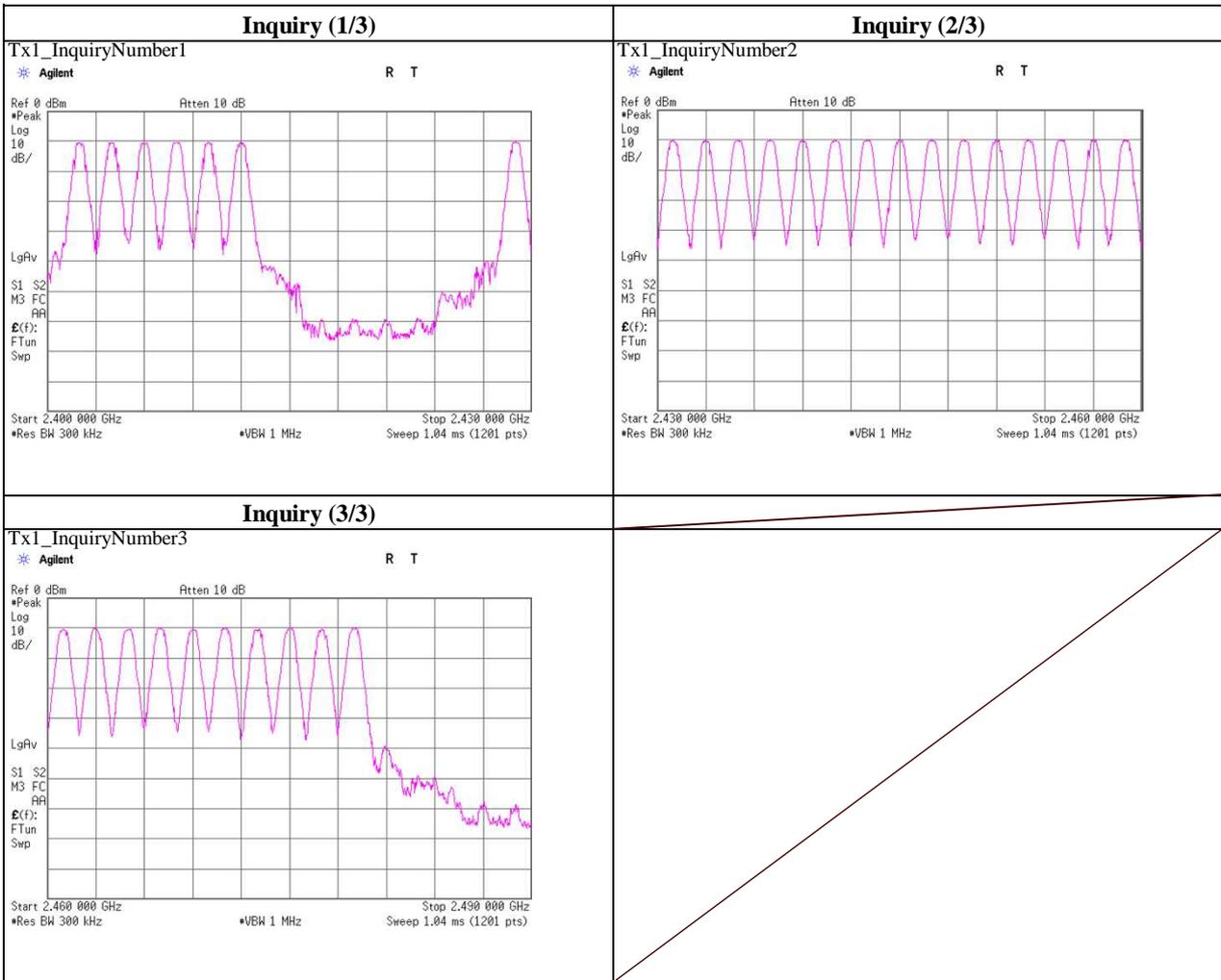


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Number of Hopping Frequency

Test place UL Japan, Inc. Shonan EMC Lab.
 Date April 7, 2011
 Temperature / Humidity 26deg.C , 31%RH
 Engineer Kenichi Adachi
 Mode Tx, Bluetooth, BDR, Inquiry

Mode	Number of Channel [times]	Limit [times]
Inquiry	32	>= 15

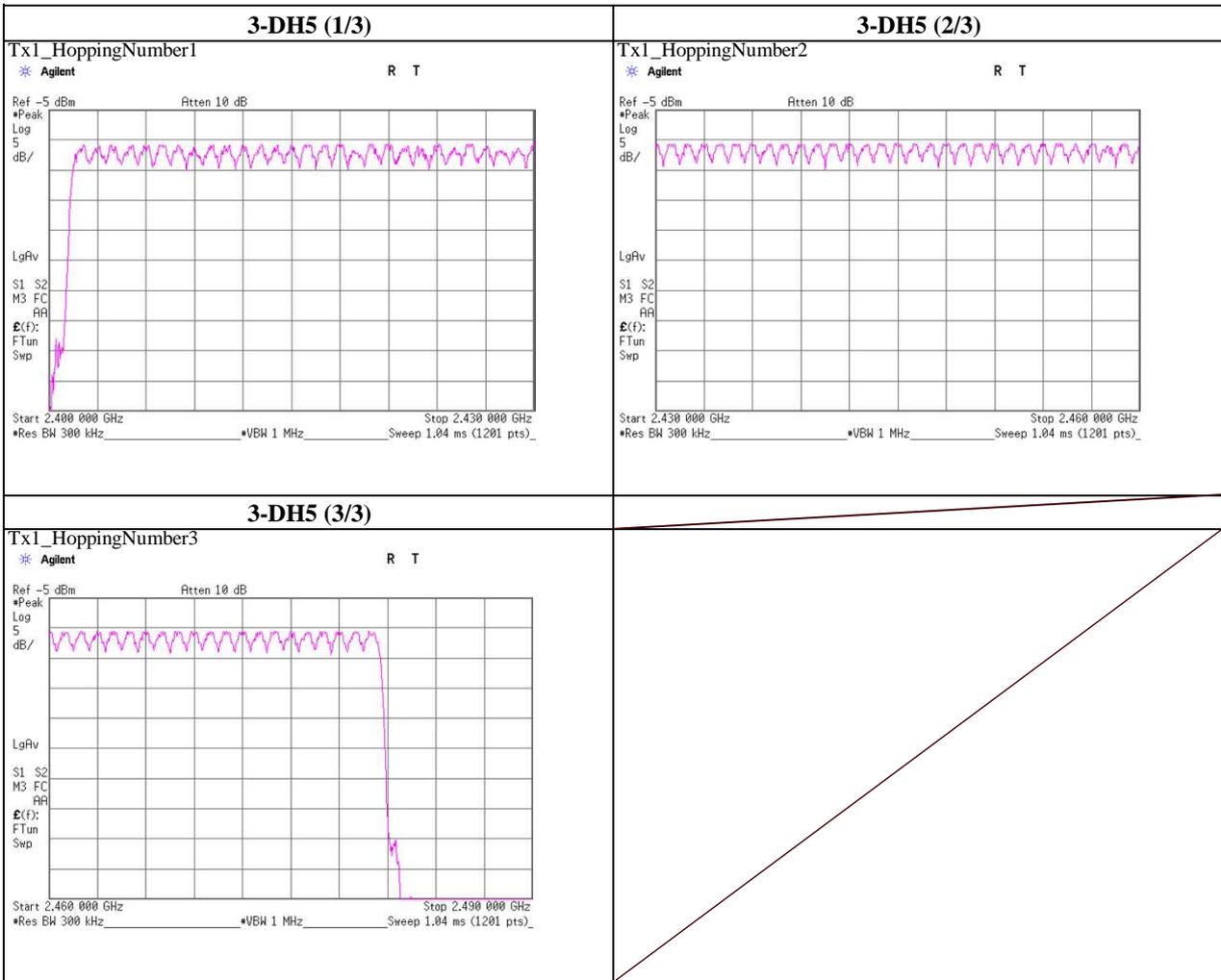


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Number of Hopping Frequency

Test place UL Japan, Inc. Shonan EMC Lab.
 Date April 7, 2011
 Temperature / Humidity 26deg.C , 31%RH
 Engineer Kenichi Adachi
 Mode Tx, Bluetooth, EDR, PRBS9

Mode	Number of Channel [times]	Limit [times]
3-DH5	79	>= 15



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Dwell Time

Test place UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room
 Date April 7, 2011
 Temperature / Humidity 26deg.C , 31%RH
 Engineer Kenichi Adachi
 Mode Tx, Bluetooth, BDR, PRBS9

Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period			Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	51.0	5.0 sec.	x 31.6 sec. =	323 times	0.420	136
DH3	25.0	5.0 sec.	x 31.6 sec. =	158 times	1.680	265
DH5	17.0	5.0 sec.	x 31.6 sec. =	108 times	3.032	327
Inquiry	100.0	1.0 sec.	x 12.8 sec. =	1280 times	0.119	152

Sample Calculation

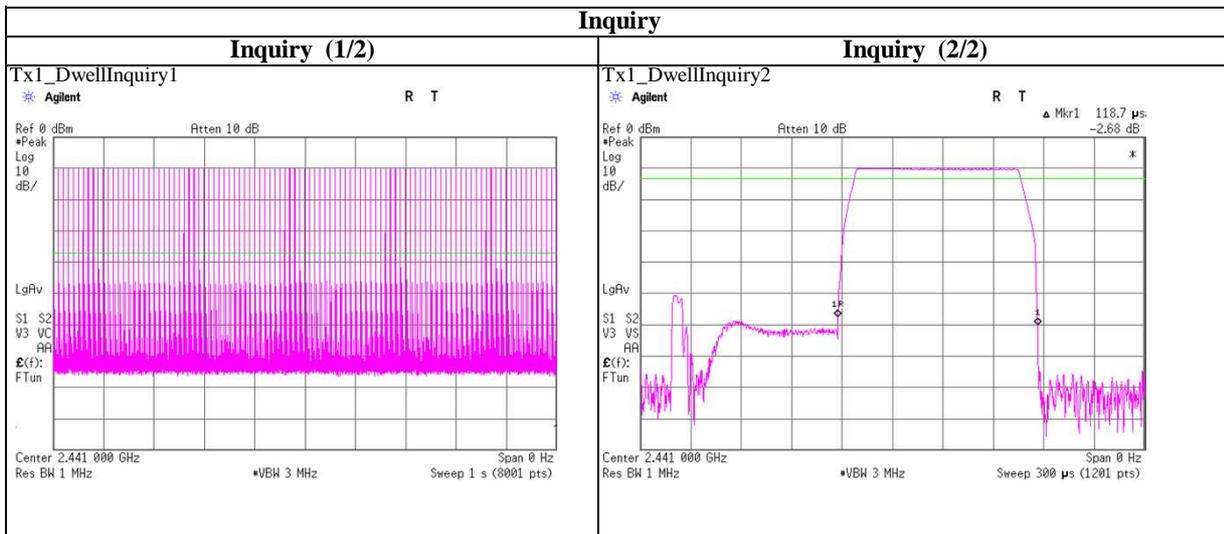
Result = Number of transmission x Length of transimtion time

*Average data of 5 tests.(except Inquiry)

Mode	Sampling [times]					Average [times]
	1	2	3	4	5	
DH1	51	51	51	51	51	51.0
DH3	25	25	25	25	25	25.0
DH5	17	17	17	17	17	17.0
Inquiry	100	100	100	100	100	100.0

Sample Calculation

Average= Summation(Sampling 1 to 5) / 5



UL Japan, Inc.

Shonan EMC Lab.

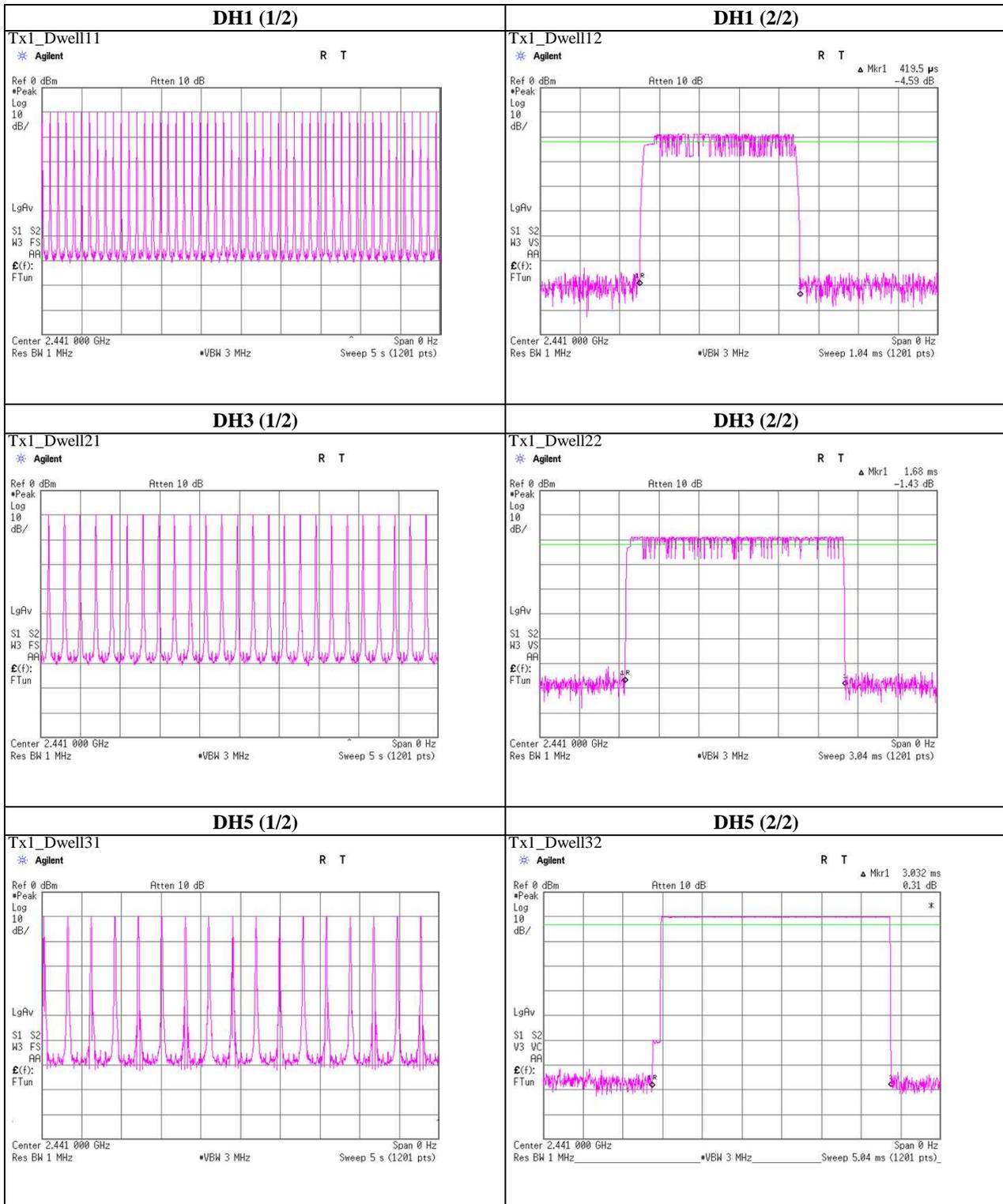
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

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Dwell time

Tx, Bluetooth, BDR, PRBS9



UL Japan, Inc.

Shonan EMC Lab.

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

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Dwell Time

Test place UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room
 Date April 7, 2011
 Temperature / Humidity 26deg.C. , 31%RH
 Engineer Kenichi Adachi
 Mode Tx, Bluetooth, EDR, PRBS9

Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period				Length of transmission time [msec]	Result [msec]	Limit [msec]
3-DH1	51.0	5.0 sec.	x	31.6 sec. = 323 times	0.534	172	400
3-DH3	26.0	5.0 sec.	x	31.6 sec. = 165 times	1.692	279	400
3-DH5	17.0	5.0 sec.	x	31.6 sec. = 108 times	3.041	328	400

Sample Calculation

Result = Number of transmission x Length of transmittion time

*Average data of 5 tests.(except Inquiry)

Mode	Sampling [times]					Average [times]
	1	2	3	4	5	
3-DH1	51	51	51	51	51	51.0
3-DH3	26	26	26	26	26	26.0
3-DH5	17	17	17	17	17	17.0

Sample Calculation

Average= Summation(Sampling 1 to 5) / 5

UL Japan, Inc.

Shonan EMC Lab.

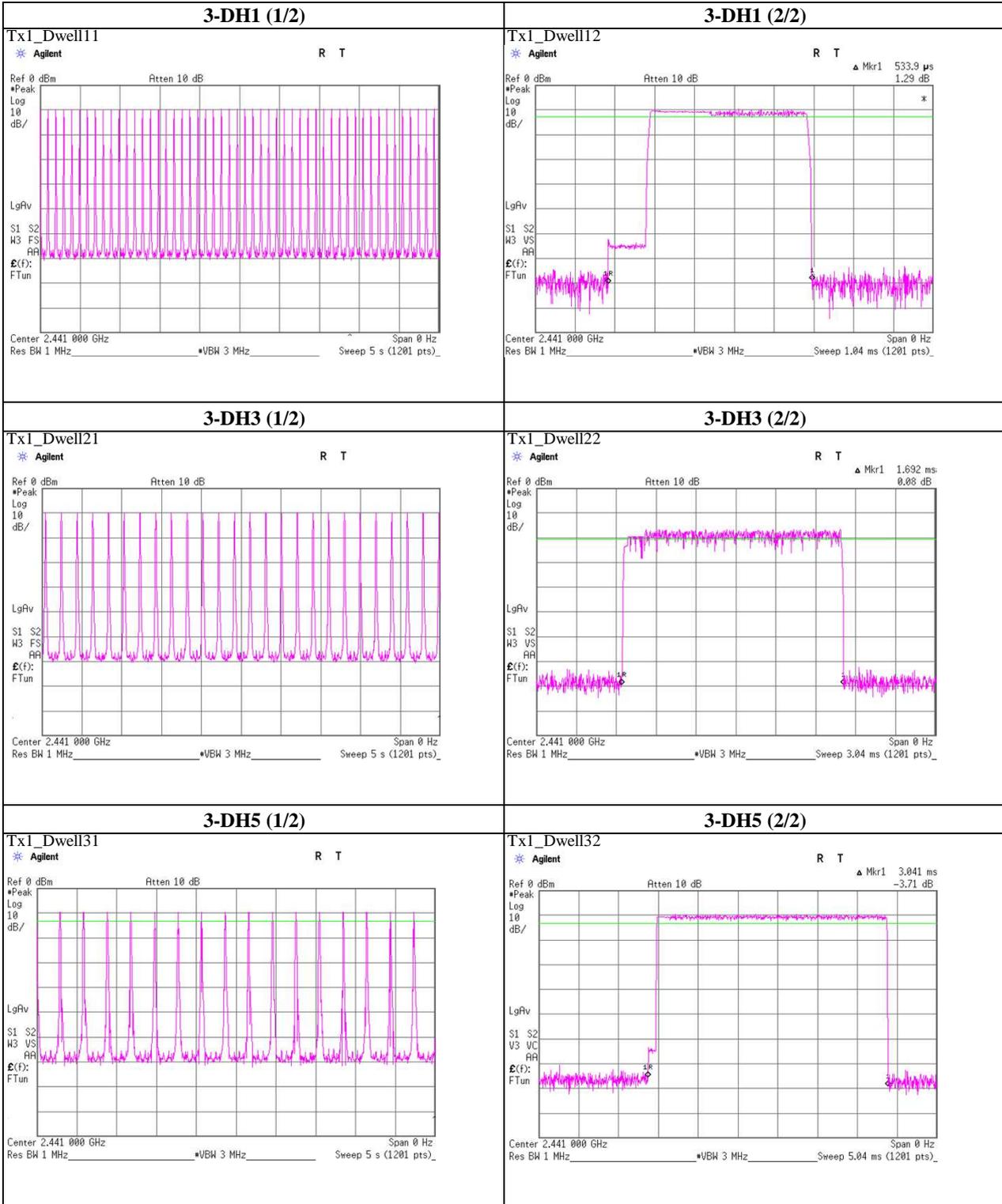
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Dwell time

Tx, Bluetooth, EDR, PRBS9



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Shonan EMC Lab.

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

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Peak Output Power (Conducted)

Test place UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room
 Date April 7, 2011
 Temperature / Humidity 26deg.C. , 31%RH
 Engineer Kenichi Adachi
 Mode Tx, Bluetooth, BDR (Worst: DH5)

	Freq. [MHz]	P/M (PK) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
DH5	2402.0	-9.21	0.60	9.97	1.36	1.37	20.97	125	19.61
DH5	2441.0	-9.09	0.60	9.97	1.48	1.41	20.97	125	19.49
DH5	2480.0	-8.91	0.60	9.97	1.66	1.47	20.97	125	19.31
2-DH5	2402.0	-8.78	0.60	9.97	1.79	1.51	20.97	125	19.18
2-DH5	2441.0	-8.64	0.60	9.97	1.93	1.56	20.97	125	19.04
2-DH5	2480.0	-8.56	0.60	9.97	2.01	1.59	20.97	125	18.96
3-DH5	2402.0	-8.79	0.60	9.97	1.78	1.51	20.97	125	19.19
3-DH5	2441.0	-8.50	0.60	9.97	2.07	1.61	20.97	125	18.90
3-DH5	2480.0	-8.37	0.60	9.97	2.20	1.66	20.97	125	18.77
Inquiry	hopping	-9.06	0.60	9.97	1.51	1.42	20.97	125	19.46

Sample Calculation:

Result = Reading + Cable Loss (supplied by customer) + Atten. Loss

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Radiated Emission

Test place: UL Japan, Inc. Shonan EMC Lab. No.3 Semi Anechoic Chamber
 Date: April 10, 2011 April 8, 2011
 Temperature / Humidity: 20deg.C. , 63%RH 25deg.C. , 35%RH
 Engineer: Hikaru Shirasawa Kenichi Adachi
 Mode: Tx, 2402 MHz
 Tx, Bluetooth, BDR, PRBS9

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Dwell time factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	169.321	QP	40.5	15.7	8.6	31.8	-	33.0	43.5	10.5	188	33	
Hori.	288.000	QP	38.6	19.2	9.6	31.7	-	35.7	46.0	10.3	167	207	
Hori.	902.768	QP	34.5	22.0	9.5	30.8	-	35.2	46.0	10.8	100	203	
Hori.	924.922	QP	35.5	22.2	9.6	30.7	-	36.6	46.0	9.4	100	220	
Hori.	1426.495	PK	51.8	24.8	12.6	40.6	-	48.6	73.9	25.3	174	247	
Hori.	1601.994	PK	48.4	25.5	12.7	40.6	-	46.0	73.9	27.9	100	337	
Hori.	2390.000	PK	46.0	27.5	13.3	40.8	-	46.0	73.9	27.9	100	97	
Hori.	2400.000	PK	56.7	27.5	13.3	40.8	-	56.7	73.9	-	100	97	Refer to 20dBc Data sheet
Hori.	3203.987	PK	46.5	29.2	5.0	41.2	-	39.5	73.9	34.4	100	79	
Hori.	4804.000	PK	53.9	31.5	5.6	40.6	-	50.4	73.9	23.5	149	352	
Hori.	7206.000	PK	46.5	36.4	6.8	39.6	-	50.1	73.9	23.8	100	0	
Hori.	9608.000	PK	44.8	37.9	8.0	37.9	-	52.8	73.9	21.1	100	0	
Hori.	12010.000	PK	45.3	39.4	9.2	39.5	-	54.4	73.9	19.5	100	0	
Hori.	1426.495	AV	47.9	24.8	12.6	40.6	-24.3	20.4	53.9	33.5	174	247	AV: VBW:300Hz
Hori.	1601.994	AV	41.0	25.5	12.7	40.6	-24.3	14.3	53.9	39.6	100	337	AV: VBW:300Hz
Hori.	2390.000	AV	34.5	27.5	13.3	40.8	-24.3	10.2	53.9	43.7	100	97	AV: VBW:300Hz
Hori.	2400.000	AV	40.9	27.5	13.3	40.8	-24.3	16.6	53.9	-	100	97	Refer to 20dBc Data sheet
Hori.	3203.987	AV	34.4	29.2	5.0	41.2	-24.3	3.1	53.9	50.8	100	79	AV: VBW:300Hz
Hori.	4804.000	AV	47.1	31.5	5.6	40.6	-24.3	19.3	53.9	34.6	149	352	AV: VBW:300Hz
Hori.	7206.000	AV	34.7	36.4	6.8	39.6	-24.3	14.0	53.9	39.9	100	0	AV: VBW:300Hz
Hori.	9608.000	AV	33.0	37.9	8.0	37.9	-24.3	16.7	53.9	37.2	100	0	AV: VBW:300Hz
Hori.	12010.000	AV	33.4	39.4	9.2	39.5	-24.3	18.2	53.9	35.7	100	0	AV: VBW:300Hz
Vert.	33.824	QP	44.5	16.5	7.0	31.9	-	36.1	40.0	3.9	100	78	
Vert.	49.847	QP	43.6	11.4	7.2	31.9	-	30.3	40.0	9.7	100	115	
Vert.	50.744	QP	45.8	11.0	7.2	31.9	-	32.1	40.0	7.9	100	90	
Vert.	288.000	QP	36.6	19.2	9.6	31.7	-	33.7	46.0	12.3	100	172	
Vert.	803.075	QP	35.1	21.0	9.1	31.4	-	33.8	46.0	12.2	100	61	
Vert.	1426.495	PK	52.0	24.8	12.6	40.6	-	48.8	73.9	25.1	136	339	
Vert.	1601.994	PK	48.8	25.5	12.7	40.6	-	46.4	73.9	27.5	120	54	
Vert.	2390.000	PK	45.9	27.5	13.3	40.8	-	45.9	73.9	28.0	100	17	
Vert.	2400.000	PK	60.2	27.5	13.3	40.8	-	60.2	73.9	-	100	17	Refer to 20dBc Data sheet
Vert.	3203.987	PK	46.3	29.2	5.0	41.2	-	39.3	73.9	34.6	101	113	
Vert.	4804.000	PK	52.8	31.5	5.6	40.6	-	49.3	73.9	24.6	100	190	
Vert.	7206.000	PK	46.4	36.4	6.8	39.6	-	50.0	73.9	23.9	100	0	
Vert.	9608.000	PK	44.7	37.9	8.0	37.9	-	52.7	73.9	21.2	100	0	
Vert.	12010.000	PK	45.3	39.4	9.2	39.5	-	54.4	73.9	19.5	100	0	
Vert.	1426.495	AV	48.2	24.8	12.6	40.6	-24.3	20.7	53.9	33.2	136	339	AV: VBW:300Hz
Vert.	1601.994	AV	41.3	25.5	12.7	40.6	-24.3	14.6	53.9	39.3	120	54	AV: VBW:300Hz
Vert.	2390.000	AV	34.5	27.5	13.3	40.8	-24.3	10.2	53.9	43.7	100	17	AV: VBW:300Hz
Vert.	2400.000	AV	50.5	27.5	13.3	40.8	-24.3	26.2	53.9	-	100	17	Refer to 20dBc Data sheet
Vert.	3203.987	AV	34.3	29.2	5.0	41.2	-24.3	3.0	53.9	50.9	101	113	AV: VBW:300Hz
Vert.	4804.000	AV	47.0	31.5	5.6	40.6	-24.3	19.2	53.9	34.7	100	190	AV: VBW:300Hz
Vert.	7206.000	AV	34.7	36.4	6.8	39.6	-24.3	14.0	53.9	39.9	100	0	AV: VBW:300Hz
Vert.	9608.000	AV	33.0	37.9	8.0	37.9	-24.3	16.7	53.9	37.2	100	0	AV: VBW:300Hz
Vert.	12010.000	AV	33.5	39.4	9.2	39.5	-24.3	18.3	53.9	35.6	100	0	AV: VBW:300Hz

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amplifier) + Dwell time factor (refer to Dwell time factor chart)

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

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

Distance factor: 13GHz-40GHz 20log(3.0m/1.0m)= 9.5dB

20dBc Data Sheet (RBW 100kHz, VBW 300kHz)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	2402.000	PK	91.7	27.5	13.3	40.8	91.7	-	-	Carrier
Hori.	2400.000	PK	43.5	27.5	13.3	40.8	43.5	71.7	28.2	
Vert.	2402.000	PK	94.9	27.5	13.3	40.8	94.9	-	-	Carrier
Vert.	2400.000	PK	48.6	27.5	13.3	40.8	48.6	74.9	26.3	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amplifier)

* At the point within the restricted bands of band edge data shown in page 47 to 48, the emission was not detected at Radiated measurement.

Radiated Emission

Test place UL Japan, Inc. Shonan EMC Lab. No.3 Semi Anechoic Chamber
 Date April 10, 2011 April 8, 2011
 Temperature / Humidity 20deg.C. , 63%RH 25deg.C. , 35%RH
 Engineer Hikaru Shirasawa Kenichi Adachi
 Mode Tx, 2441 MHz
 Tx, Bluetooth, BDR, PRBS9

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Dwell time factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	169.124	QP	38.7	15.7	8.6	31.8	-	31.2	43.5	12.3	183	31	
Hori.	288.000	QP	38.5	19.2	9.6	31.7	-	35.6	46.0	10.4	168	210	
Hori.	902.767	QP	34.5	22.0	9.5	30.8	-	35.2	46.0	10.8	100	202	
Hori.	924.938	QP	35.3	22.2	9.6	30.7	-	36.4	46.0	9.6	100	220	
Hori.	1426.503	PK	52.0	24.8	12.6	40.6	-	48.8	73.9	25.1	167	248	
Hori.	1626.666	PK	48.3	25.6	12.7	40.7	-	45.9	73.9	28.0	100	334	
Hori.	3253.319	PK	46.5	29.3	4.9	41.3	-	39.4	73.9	34.5	100	78	
Hori.	4882.000	PK	53.7	31.7	5.7	40.5	-	50.6	73.9	23.3	148	349	
Hori.	7323.000	PK	46.4	36.7	6.9	39.6	-	50.4	73.9	23.5	100	0	
Hori.	9764.000	PK	45.5	38.2	8.0	37.9	-	53.8	73.9	20.1	100	0	
Hori.	12205.000	PK	45.4	39.2	9.2	39.2	-	54.6	73.9	19.3	100	0	
Hori.	1426.503	AV	47.8	24.8	12.6	40.6	-24.3	20.3	53.9	33.6	167	248	AV: VBW:300Hz
Hori.	1626.666	AV	41.1	25.6	12.7	40.7	-24.3	14.4	53.9	39.5	100	334	AV: VBW:300Hz
Hori.	3253.319	AV	34.5	29.3	4.9	41.3	-24.3	3.1	53.9	50.8	100	78	AV: VBW:300Hz
Hori.	4882.000	AV	46.8	31.7	5.7	40.5	-24.3	19.4	53.9	34.5	148	349	AV: VBW:300Hz
Hori.	7323.000	AV	34.6	36.7	6.9	39.6	-24.3	14.3	53.9	39.6	100	0	AV: VBW:300Hz
Hori.	9764.000	AV	33.2	38.2	8.0	37.9	-24.3	17.2	53.9	36.7	100	0	AV: VBW:300Hz
Hori.	12205.000	AV	33.5	39.2	9.2	39.2	-24.3	18.4	53.9	35.5	100	0	AV: VBW:300Hz
Vert.	33.819	QP	43.6	16.4	7.0	31.9	-	35.1	40.0	4.9	100	111	
Vert.	49.855	QP	42.5	11.3	7.2	31.9	-	29.1	40.0	10.9	100	108	
Vert.	50.741	QP	44.6	11.0	7.2	31.9	-	30.9	40.0	9.1	100	110	
Vert.	288.000	QP	37.4	19.2	9.6	31.7	-	34.5	46.0	11.5	100	182	
Vert.	803.072	QP	34.8	21.0	9.1	31.4	-	33.5	46.0	12.5	100	55	
Vert.	1426.503	PK	51.8	24.8	12.6	40.6	-	48.6	73.9	25.3	139	333	
Vert.	1626.666	PK	48.6	25.6	12.7	40.7	-	46.2	73.9	27.7	118	62	
Vert.	3253.319	PK	46.4	29.3	4.9	41.3	-	39.3	73.9	34.6	104	114	
Vert.	4882.000	PK	52.5	31.7	5.7	40.5	-	49.4	73.9	24.5	109	193	
Vert.	7323.000	PK	46.7	36.7	6.9	39.6	-	50.7	73.9	23.2	100	0	
Vert.	9764.000	PK	45.6	38.2	8.0	37.9	-	53.9	73.9	20.0	100	0	
Vert.	12205.000	PK	45.4	39.2	9.2	39.2	-	54.6	73.9	19.3	100	0	
Vert.	1426.503	AV	47.8	24.8	12.6	40.6	-24.3	20.3	53.9	33.6	139	333	AV: VBW:300Hz
Vert.	1626.666	AV	40.9	25.6	12.7	40.7	-24.3	14.2	53.9	39.7	118	62	AV: VBW:300Hz
Vert.	3253.319	AV	34.4	29.3	4.9	41.3	-24.3	3.0	53.9	50.9	104	114	AV: VBW:300Hz
Vert.	4882.000	AV	46.7	31.7	5.7	40.5	-24.3	19.3	53.9	34.6	109	193	AV: VBW:300Hz
Vert.	7323.000	AV	34.8	36.7	6.9	39.6	-24.3	14.5	53.9	39.4	100	0	AV: VBW:300Hz
Vert.	9764.000	AV	33.3	38.2	8.0	37.9	-24.3	17.3	53.9	36.6	100	0	AV: VBW:300Hz
Vert.	12205.000	AV	33.5	39.2	9.2	39.2	-24.3	18.4	53.9	35.5	100	0	AV: VBW:300Hz

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amplifier) + Dwell time factor (refer to Dwell time factor chart)

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

Distance factor: 13GHz-40GHz $20\log(3.0m/1.0m) = 9.5dB$

Radiated Emission

Test place UL Japan, Inc. Shonan EMC Lab. No.3 Semi Anechoic Chamber
 Date April 10, 2011 April 8, 2011
 Temperature / Humidity 20deg.C. , 63%RH 25deg.C. , 35%RH
 Engineer Hikaru Shirasawa Kenichi Adachi
 Mode Tx, 2480 MHz
 Tx, Bluetooth, BDR, PRBS9

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Dwell time factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	169.120	QP	38.5	15.7	8.6	31.8	-	31.0	43.5	12.5	181	32	
Hori.	288.000	QP	38.7	19.2	9.6	31.7	-	35.8	46.0	10.2	170	211	
Hori.	902.764	QP	34.2	22.0	9.5	30.8	-	34.9	46.0	11.1	100	203	
Hori.	924.918	QP	35.0	22.2	9.6	30.7	-	36.1	46.0	9.9	100	220	
Hori.	1426.512	PK	51.6	24.8	12.6	40.6	-	48.4	73.9	25.5	171	252	
Hori.	1652.661	PK	48.6	25.7	12.8	40.7	-	46.4	73.9	27.5	100	342	
Hori.	2483.500	PK	46.4	27.6	13.3	40.7	-	46.6	73.9	27.3	100	99	
Hori.	3305.322	PK	46.4	29.3	5.0	41.3	-	39.4	73.9	34.5	100	82	
Hori.	4960.000	PK	54.0	31.9	5.7	40.3	-	51.3	73.9	22.6	152	344	
Hori.	7440.000	PK	46.5	36.9	6.9	39.6	-	50.7	73.9	23.2	100	0	
Hori.	9920.000	PK	45.1	38.4	8.1	37.9	-	53.7	73.9	20.2	100	0	
Hori.	12400.000	PK	45.6	39.1	9.3	38.9	-	55.1	73.9	18.8	100	0	
Hori.	1426.512	AV	47.7	24.8	12.6	40.6	-24.3	20.2	53.9	33.7	171	252	AV: VBW:300Hz
Hori.	1652.661	AV	41.2	25.7	12.8	40.7	-24.3	14.7	53.9	39.2	100	342	AV: VBW:300Hz
Hori.	2483.500	AV	35.1	27.6	13.3	40.7	-24.3	11.0	53.9	42.9	100	99	AV: VBW:300Hz
Hori.	3305.322	AV	34.2	29.3	5.0	41.3	-24.3	2.9	53.9	51.0	100	82	AV: VBW:300Hz
Hori.	4960.000	AV	47.1	31.9	5.7	40.3	-24.3	20.1	53.9	33.8	152	344	AV: VBW:300Hz
Hori.	7440.000	AV	34.8	36.9	6.9	39.6	-24.3	14.7	53.9	39.2	100	0	AV: VBW:300Hz
Hori.	9920.000	AV	33.0	38.4	8.1	37.9	-24.3	17.3	53.9	36.6	100	0	AV: VBW:300Hz
Hori.	12400.000	AV	33.6	39.1	9.3	38.9	-24.3	18.8	53.9	35.1	100	0	AV: VBW:300Hz
Vert.	33.829	QP	43.7	16.4	7.0	31.9	-	35.2	40.0	4.8	100	119	
Vert.	49.844	QP	42.6	11.3	7.2	31.9	-	29.2	40.0	10.8	100	87	
Vert.	50.743	QP	44.7	11.0	7.2	31.9	-	31.0	40.0	9.0	100	91	
Vert.	288.000	QP	37.3	19.2	9.6	31.7	-	34.4	46.0	11.6	100	182	
Vert.	803.079	QP	34.3	21.0	9.1	31.4	-	33.0	46.0	13.0	100	57	
Vert.	1426.512	PK	52.1	24.8	12.6	40.6	-	48.9	73.9	25.0	134	335	
Vert.	1652.661	PK	49.0	25.7	12.8	40.7	-	46.8	73.9	27.1	116	57	
Vert.	2483.500	PK	47.1	27.6	13.3	40.7	-	47.3	73.9	26.6	100	13	
Vert.	3305.322	PK	46.2	29.3	5.0	41.3	-	39.2	73.9	34.7	102	111	
Vert.	4960.000	PK	52.4	31.9	5.7	40.3	-	49.7	73.9	24.2	100	194	
Vert.	7440.000	PK	46.5	36.9	6.9	39.6	-	50.7	73.9	23.2	100	0	
Vert.	9920.000	PK	44.9	38.4	8.1	37.9	-	53.5	73.9	20.4	100	0	
Vert.	12400.000	PK	45.5	39.1	9.3	38.9	-	55.0	73.9	18.9	100	0	
Vert.	1426.512	AV	47.9	24.8	12.6	40.6	-24.3	20.4	53.9	33.5	134	335	AV: VBW:300Hz
Vert.	1652.661	AV	41.1	25.7	12.8	40.7	-24.3	14.6	53.9	39.3	116	57	AV: VBW:300Hz
Vert.	2483.500	AV	37.3	27.6	13.3	40.7	-24.3	13.2	53.9	40.7	100	13	AV: VBW:300Hz
Vert.	3305.322	AV	34.1	29.3	5.0	41.3	-24.3	2.8	53.9	51.1	102	111	AV: VBW:300Hz
Vert.	4960.000	AV	46.8	31.9	5.7	40.3	-24.3	19.8	53.9	34.1	100	194	AV: VBW:300Hz
Vert.	7440.000	AV	34.9	36.9	6.9	39.6	-24.3	14.8	53.9	39.1	100	0	AV: VBW:300Hz
Vert.	9920.000	AV	33.1	38.4	8.1	37.9	-24.3	17.4	53.9	36.5	100	0	AV: VBW:300Hz
Vert.	12400.000	AV	33.5	39.1	9.3	38.9	-24.3	18.7	53.9	35.2	100	0	AV: VBW:300Hz

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amplifier) + Dwell time factor (refer to Dwell time factor chart)

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

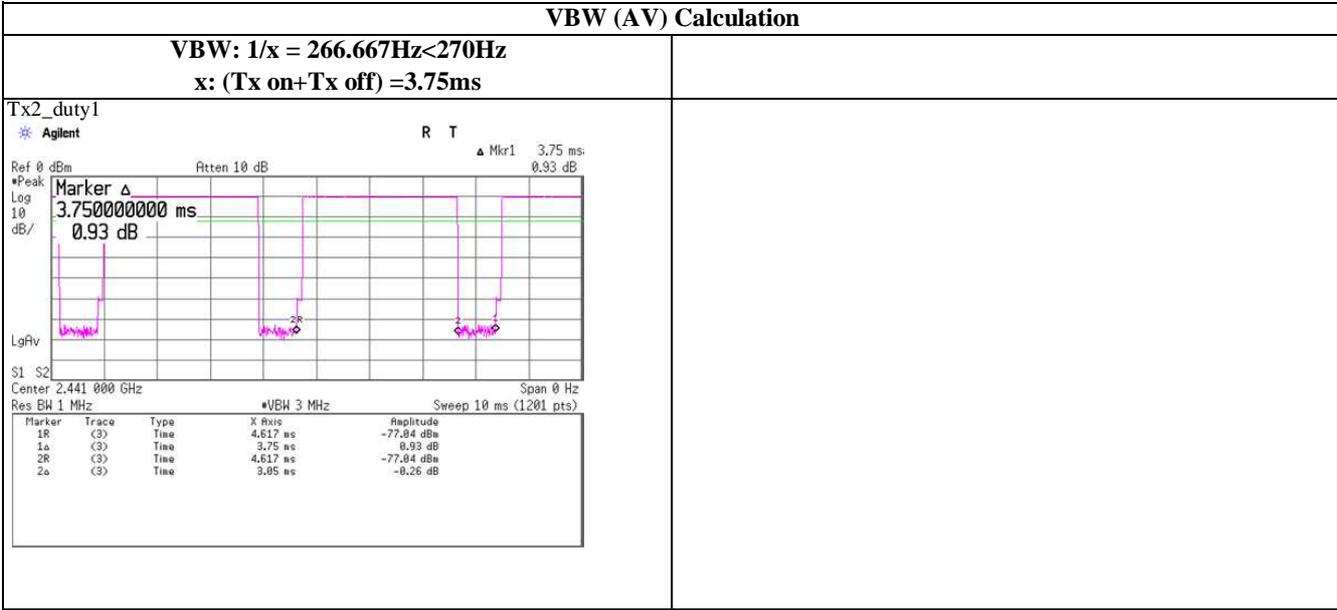
Distance factor: 13GHz-40GHz 20log(3.0m/1.0m)= 9.5dB

* At the point within the restricted bands of band edge data shown in page 47 to 48, the emission was not detected at Radiated measurement.

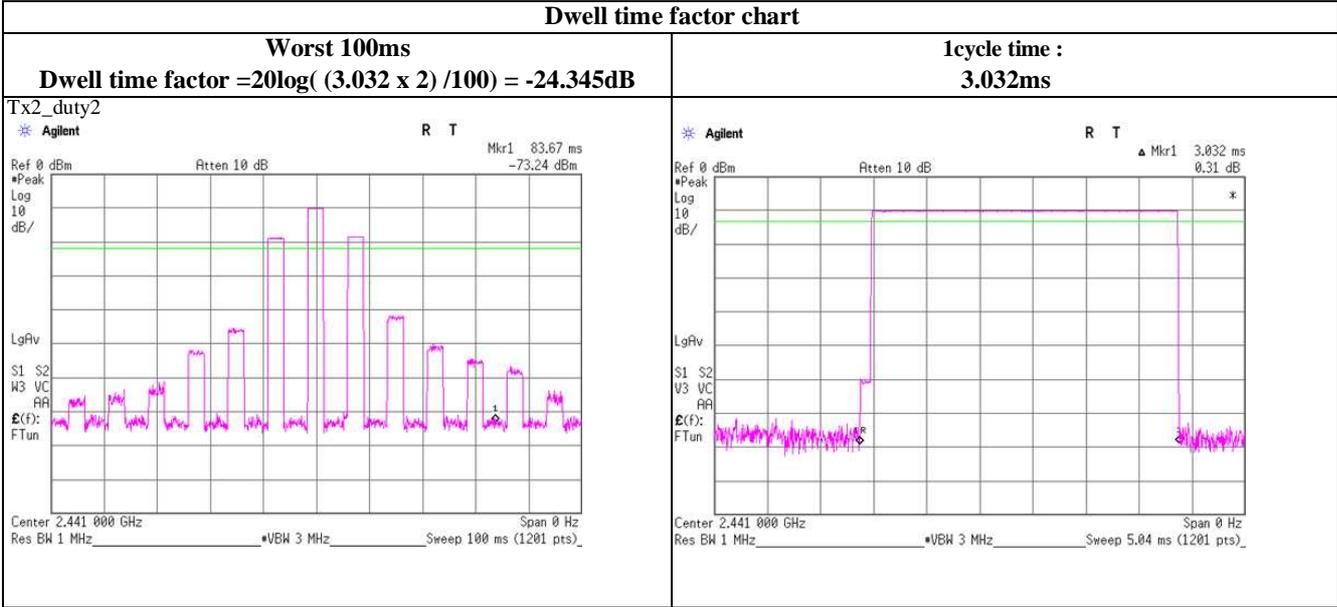
Spurious emission (Radiated)

Tx, Bluetooth, BDR, PRBS9

VBW (AV) Calculation



Dwell time factor chart



UL Japan, Inc.
Shonan EMC Lab.
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN
 Telephone : +81 463 50 6400
 Facsimile : +81 463 50 6401

Radiated Emission

Test place: UL Japan, Inc. Shonan EMC Lab. No.3 Semi Anechoic Chamber
 Date: April 10, 2011 April 8, 2011
 Temperature / Humidity: 20deg.C. , 63%RH 25deg.C. , 35%RH
 Engineer: Hikaru Shirasawa Kenichi Adachi
 Mode: Tx, 2402 MHz
 Tx, Bluetooth, EDR, PRBS9

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Dwell time factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	152.208	QP	44.1	14.6	8.4	31.8	-	35.3	43.5	8.2	199	39	
Hori.	288.000	QP	40.9	19.2	9.6	31.7	-	38.0	46.0	8.0	125	216	
Hori.	891.686	QP	35.3	21.9	9.5	30.9	-	35.8	46.0	10.2	100	106	
Hori.	924.924	QP	35.2	22.2	9.6	30.7	-	36.3	46.0	9.7	100	223	
Hori.	1426.449	PK	51.4	24.8	12.6	40.6	-	48.2	73.9	25.7	165	245	
Hori.	1601.996	PK	48.5	25.5	12.7	40.6	-	46.1	73.9	27.8	100	340	
Hori.	2390.000	PK	45.4	27.5	13.3	40.8	-	45.4	73.9	28.5	100	89	
Hori.	2400.000	PK	60.1	27.5	13.3	40.8	-	60.1	73.9	-	100	89	Refer to 20dBc Data sheet
Hori.	3203.998	PK	46.5	29.2	5.0	41.2	-	39.5	73.9	34.4	100	78	
Hori.	4804.000	PK	46.4	31.5	5.6	40.6	-	42.9	73.9	31.0	134	343	
Hori.	7206.000	PK	46.3	36.4	6.8	39.6	-	49.9	73.9	24.0	100	0	
Hori.	9608.000	PK	44.9	37.9	8.0	37.9	-	52.9	73.9	21.0	100	0	
Hori.	12010.000	PK	45.4	39.4	9.2	39.5	-	54.5	73.9	19.4	100	0	
Hori.	1426.449	AV	47.4	24.8	12.6	40.6	-24.3	19.9	53.9	34.0	165	245	AV: VBW:300Hz
Hori.	1601.996	AV	41.0	25.5	12.7	40.6	-24.3	14.3	53.9	39.6	100	340	AV: VBW:300Hz
Hori.	2390.000	AV	34.5	27.5	13.3	40.8	-24.3	10.2	53.9	43.7	100	89	AV: VBW:300Hz
Hori.	2400.000	AV	49.8	27.5	13.3	40.8	-24.3	25.5	53.9	-	100	89	Refer to 20dBc Data sheet
Hori.	3203.998	AV	34.5	29.2	5.0	41.2	-24.3	3.2	53.9	50.7	100	78	AV: VBW:300Hz
Hori.	4804.000	AV	34.7	31.5	5.6	40.6	-24.3	6.9	53.9	47.0	134	343	AV: VBW:300Hz
Hori.	7206.000	AV	34.6	36.4	6.8	39.6	-24.3	13.9	53.9	40.0	100	0	AV: VBW:300Hz
Hori.	9608.000	AV	33.1	37.9	8.0	37.9	-24.3	16.8	53.9	37.1	100	0	AV: VBW:300Hz
Hori.	12010.000	AV	33.5	39.4	9.2	39.5	-24.3	18.3	53.9	35.6	100	0	AV: VBW:300Hz
Vert.	33.827	QP	43.8	16.5	7.0	31.9	-	35.4	40.0	4.6	100	110	
Vert.	49.848	QP	42.5	11.4	7.2	31.9	-	29.2	40.0	10.8	100	86	
Vert.	50.743	QP	44.7	11.0	7.2	31.9	-	31.0	40.0	9.0	100	79	
Vert.	288.000	QP	37.4	19.2	9.6	31.7	-	34.5	46.0	11.5	100	176	
Vert.	803.077	QP	34.5	22.5	9.7	30.6	-	36.1	46.0	9.9	100	57	
Vert.	1426.449	PK	51.8	24.8	12.6	40.6	-	48.6	73.9	25.3	142	331	
Vert.	1601.996	PK	49.0	25.5	12.7	40.6	-	46.6	73.9	27.3	116	55	
Vert.	2390.000	PK	45.4	27.5	13.3	40.8	-	45.4	73.9	28.5	100	18	
Vert.	2400.000	PK	61.5	27.5	13.3	40.8	-	61.5	73.9	-	100	18	Refer to 20dBc Data sheet
Vert.	3203.998	PK	46.4	29.2	5.0	41.2	-	39.4	73.9	34.5	105	118	
Vert.	4804.000	PK	46.5	31.5	5.6	40.6	-	43.0	73.9	30.9	106	322	
Vert.	7206.000	PK	46.4	36.4	6.8	39.6	-	50.0	73.9	23.9	100	0	
Vert.	9608.000	PK	45.0	37.9	8.0	37.9	-	53.0	73.9	20.9	100	0	
Vert.	12010.000	PK	45.4	39.4	9.2	39.5	-	54.5	73.9	19.4	100	0	
Vert.	1426.449	AV	47.8	24.8	12.6	40.6	-24.3	20.3	53.9	33.6	142	331	AV: VBW:300Hz
Vert.	1601.996	AV	41.2	25.5	12.7	40.6	-24.3	14.5	53.9	39.4	116	55	AV: VBW:300Hz
Vert.	2390.000	AV	34.6	27.5	13.3	40.8	-24.3	10.3	53.9	43.6	100	18	AV: VBW:300Hz
Vert.	2400.000	AV	50.2	27.5	13.3	40.8	-24.3	25.9	53.9	-	100	18	Refer to 20dBc Data sheet
Vert.	3203.998	AV	34.2	29.2	5.0	41.2	-24.3	2.9	53.9	51.0	105	118	AV: VBW:300Hz
Vert.	4804.000	AV	34.7	31.5	5.6	40.6	-24.3	6.9	53.9	47.0	106	322	AV: VBW:300Hz
Vert.	7206.000	AV	34.8	36.4	6.8	39.6	-24.3	14.1	53.9	39.8	100	0	AV: VBW:300Hz
Vert.	9608.000	AV	33.2	37.9	8.0	37.9	-24.3	16.9	53.9	37.0	100	0	AV: VBW:300Hz
Vert.	12010.000	AV	33.4	39.4	9.2	39.5	-24.3	18.2	53.9	35.7	100	0	AV: VBW:300Hz

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amplifier) + Dwell time factor (refer to Dwell time factor chart)

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

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

Distance factor: 13GHz-40GHz 20log(3.0m/1.0m)= 9.5dB

20dBc Data Sheet (RBW 100kHz, VBW 300kHz)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	2402.000	PK	90.3	27.5	13.3	40.8	90.3	-	-	Carrier
Hori.	2400.000	PK	48.3	27.5	13.3	40.8	48.3	70.3	22.0	
Vert.	2402.000	PK	92.4	27.5	13.3	40.8	92.4	-	-	Carrier
Vert.	2400.000	PK	44.0	27.5	13.3	40.8	44.0	72.4	28.4	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amplifier)

* At the point within the restricted bands of band edge data shown in page 47 to 48, the emission was not detected at Radiated measurement.

Radiated Emission

Test place UL Japan, Inc. Shonan EMC Lab. No.3 Semi Anechoic Chamber
 Date April 10, 2011 April 8, 2011
 Temperature / Humidity 20deg.C. , 63%RH 25deg.C. , 35%RH
 Engineer Hikaru Shirasawa Kenichi Adachi
 Mode Tx, 2441 MHz
 Tx, Bluetooth, EDR, PRBS9

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Dwell time factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	152.215	QP	44.4	14.5	8.4	31.8	-	35.5	43.5	8.0	205	33	
Hori.	288.000	QP	39.8	19.2	9.6	31.7	-	36.9	46.0	9.1	121	205	
Hori.	891.688	QP	35.5	21.9	9.5	30.9	-	36.0	46.0	10.0	100	104	
Hori.	924.934	QP	35.2	22.2	9.6	30.7	-	36.3	46.0	9.7	100	220	
Hori.	1426.465	PK	51.7	24.8	12.6	40.6	-	48.5	73.9	25.4	163	241	
Hori.	1626.667	PK	48.0	25.6	12.7	40.7	-	45.6	73.9	28.3	100	334	
Hori.	3253.323	PK	46.6	29.3	4.9	41.3	-	39.5	73.9	34.4	100	83	
Hori.	4882.000	PK	46.5	31.7	5.7	40.5	-	43.4	73.9	30.5	143	341	
Hori.	7323.000	PK	46.2	36.7	6.9	39.6	-	50.2	73.9	23.7	100	0	
Hori.	9764.000	PK	45.0	38.2	8.0	37.9	-	53.3	73.9	20.6	100	0	
Hori.	12205.000	PK	45.5	39.2	9.2	39.2	-	54.7	73.9	19.2	100	0	
Hori.	1426.465	AV	47.5	24.8	12.6	40.6	-24.3	20.0	53.9	33.9	163	241	AV: VBW:300Hz
Hori.	1626.667	AV	40.8	25.6	12.7	40.7	-24.3	14.1	53.9	39.8	100	334	AV: VBW:300Hz
Hori.	3253.323	AV	34.5	29.3	4.9	41.3	-24.3	3.1	53.9	50.8	100	83	AV: VBW:300Hz
Hori.	4882.000	AV	34.3	31.7	5.7	40.5	-24.3	6.9	53.9	47.0	143	341	AV: VBW:300Hz
Hori.	7323.000	AV	34.4	36.7	6.9	39.6	-24.3	14.1	53.9	39.8	100	0	AV: VBW:300Hz
Hori.	9764.000	AV	33.2	38.2	8.0	37.9	-24.3	17.2	53.9	36.7	100	0	AV: VBW:300Hz
Hori.	12205.000	AV	33.5	39.2	9.2	39.2	-24.3	18.4	53.9	35.5	100	0	AV: VBW:300Hz
Vert.	33.823	QP	43.7	16.4	7.0	31.9	-	35.2	40.0	4.8	100	109	
Vert.	49.843	QP	42.6	11.3	7.2	31.9	-	29.2	40.0	10.8	100	85	
Vert.	50.737	QP	44.0	11.0	7.2	31.9	-	30.3	40.0	9.7	100	78	
Vert.	288.000	QP	37.6	19.2	9.6	31.7	-	34.7	46.0	11.3	100	182	
Vert.	803.071	QP	34.4	21.0	9.1	31.4	-	33.1	46.0	12.9	100	54	
Vert.	1426.465	PK	51.5	24.8	12.6	40.6	-	48.3	73.9	25.6	138	329	
Vert.	1626.667	PK	47.8	25.6	12.7	40.7	-	45.4	73.9	28.5	119	62	
Vert.	3253.323	PK	46.5	29.3	4.9	41.3	-	39.4	73.9	34.5	102	123	
Vert.	4882.000	PK	46.6	31.7	5.7	40.5	-	43.5	73.9	30.4	104	324	
Vert.	7323.000	PK	46.3	36.7	6.9	39.6	-	50.3	73.9	23.6	100	0	
Vert.	9764.000	PK	44.9	38.2	8.0	37.9	-	53.2	73.9	20.7	100	0	
Vert.	12205.000	PK	45.5	39.2	9.2	39.2	-	54.7	73.9	19.2	100	0	
Vert.	1426.465	AV	47.3	24.8	12.6	40.6	-24.3	19.8	53.9	34.1	138	329	AV: VBW:300Hz
Vert.	1626.667	AV	40.5	25.6	12.7	40.7	-24.3	13.8	53.9	40.1	119	62	AV: VBW:300Hz
Vert.	3253.323	AV	34.6	29.3	4.9	41.3	-24.3	3.2	53.9	50.7	102	123	AV: VBW:300Hz
Vert.	4882.000	AV	34.3	31.7	5.7	40.5	-24.3	6.9	53.9	47.0	104	324	AV: VBW:300Hz
Vert.	7323.000	AV	34.4	36.7	6.9	39.6	-24.3	14.1	53.9	39.8	100	0	AV: VBW:300Hz
Vert.	9764.000	AV	33.2	38.2	8.0	37.9	-24.3	17.2	53.9	36.7	100	0	AV: VBW:300Hz
Vert.	12205.000	AV	33.6	39.2	9.2	39.2	-24.3	18.5	53.9	35.4	100	0	AV: VBW:300Hz

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amplifier) + Dwell time factor (refer to Dwell time factor chart)

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

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

Distance factor: 13GHz-40GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Emission

Test place UL Japan, Inc. Shonan EMC Lab. No.3 Semi Anechoic Chamber
Date April 10, 2011 April 8, 2011
Temperature / Humidity 20deg.C. , 63%RH 25deg.C. , 35%RH
Engineer Hikaru Shirasawa Kenichi Adachi
Mode Tx, 2480 MHz
 Tx, Bluetooth, EDR, PRBS9

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Dwell time factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	152.209	QP	45.0	14.5	8.4	31.8	-	36.1	43.5	7.4	200	35	
Hori.	288.000	QP	40.7	19.2	9.6	31.7	-	37.8	46.0	8.2	119	214	
Hori.	891.689	QP	35.3	21.9	9.5	30.9	-	35.8	46.0	10.2	100	104	
Hori.	924.924	QP	35.0	22.2	9.6	30.7	-	36.1	46.0	9.9	100	225	
Hori.	1426.483	PK	51.3	24.8	12.6	40.6	-	48.1	73.9	25.8	159	236	
Hori.	1652.664	PK	48.4	25.7	12.8	40.7	-	46.2	73.9	27.7	100	331	
Hori.	2483.500	PK	46.5	27.6	13.3	40.7	-	46.7	73.9	27.2	100	89	
Hori.	3305.312	PK	46.2	29.3	5.0	41.3	-	39.2	73.9	34.7	100	89	
Hori.	4960.000	PK	46.3	31.9	5.7	40.3	-	43.6	73.9	30.3	149	346	
Hori.	7440.000	PK	46.1	36.9	6.9	39.6	-	50.3	73.9	23.6	100	0	
Hori.	9920.000	PK	45.0	38.4	8.1	37.9	-	53.6	73.9	20.3	100	0	
Hori.	12400.000	PK	45.5	39.1	9.3	38.9	-	55.0	73.9	18.9	100	0	
Hori.	1426.483	AV	47.2	24.8	12.6	40.6	-24.3	19.7	53.9	34.2	159	236	AV: VBW:300Hz
Hori.	1652.664	AV	40.8	25.7	12.8	40.7	-24.3	14.3	53.9	39.6	100	331	AV: VBW:300Hz
Hori.	2483.500	AV	35.3	27.6	13.3	40.7	-24.3	11.2	53.9	42.7	100	89	AV: VBW:300Hz
Hori.	3305.312	AV	34.1	29.3	5.0	41.3	-24.3	2.8	53.9	51.1	100	89	AV: VBW:300Hz
Hori.	4960.000	AV	34.2	31.9	5.7	40.3	-24.3	7.2	53.9	46.7	149	346	AV: VBW:300Hz
Hori.	7440.000	AV	34.3	36.9	6.9	39.6	-24.3	14.2	53.9	39.7	100	0	AV: VBW:300Hz
Hori.	9920.000	AV	33.3	38.4	8.1	37.9	-24.3	17.6	53.9	36.3	100	0	AV: VBW:300Hz
Hori.	12400.000	AV	33.4	39.1	9.3	38.9	-24.3	18.6	53.9	35.3	100	0	AV: VBW:300Hz
Vert.	33.825	QP	43.7	16.4	7.0	31.9	-	35.2	40.0	4.8	100	100	
Vert.	49.846	QP	42.6	11.3	7.2	31.9	-	29.2	40.0	10.8	100	86	
Vert.	50.740	QP	44.4	11.0	7.2	31.9	-	30.7	40.0	9.3	100	78	
Vert.	288.000	QP	37.3	19.2	9.6	31.7	-	34.4	46.0	11.6	100	177	
Vert.	803.075	QP	34.2	21.0	9.1	31.4	-	32.9	46.0	13.1	100	56	
Vert.	1426.483	PK	51.8	24.8	12.6	40.6	-	48.6	73.9	25.3	142	333	
Vert.	1652.664	PK	48.6	25.7	12.8	40.7	-	46.4	73.9	27.5	123	56	
Vert.	2483.500	PK	47.2	27.6	13.3	40.7	-	47.4	73.9	26.5	100	23	
Vert.	3305.312	PK	46.4	29.3	5.0	41.3	-	39.4	73.9	34.5	103	118	
Vert.	4960.000	PK	46.4	31.9	5.7	40.3	-	43.7	73.9	30.2	106	318	
Vert.	7440.000	PK	46.2	36.9	6.9	39.6	-	50.4	73.9	23.5	100	0	
Vert.	9920.000	PK	45.1	38.4	8.1	37.9	-	53.7	73.9	20.2	100	0	
Vert.	12400.000	PK	45.4	39.1	9.3	38.9	-	54.9	73.9	19.0	100	0	
Vert.	1426.483	AV	47.7	24.8	12.6	40.6	-24.3	20.2	53.9	33.7	142	333	AV: VBW:300Hz
Vert.	1652.664	AV	40.8	25.7	12.8	40.7	-24.3	14.3	53.9	39.6	123	56	AV: VBW:300Hz
Vert.	2483.500	AV	36.8	27.6	13.3	40.7	-24.3	12.7	53.9	41.2	100	23	AV: VBW:300Hz
Vert.	3305.312	AV	34.2	29.3	5.0	41.3	-24.3	2.9	53.9	51.0	103	118	AV: VBW:300Hz
Vert.	4960.000	AV	34.4	31.9	5.7	40.3	-24.3	7.4	53.9	46.5	106	318	AV: VBW:300Hz
Vert.	7440.000	AV	34.4	36.9	6.9	39.6	-24.3	14.3	53.9	39.6	100	0	AV: VBW:300Hz
Vert.	9920.000	AV	33.4	38.4	8.1	37.9	-24.3	17.7	53.9	36.2	100	0	AV: VBW:300Hz
Vert.	12400.000	AV	33.4	39.1	9.3	38.9	-24.3	18.6	53.9	35.3	100	0	AV: VBW:300Hz

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amplifier) + Dwell time factor (refer to Dwell time factor chart)

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

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

Distance factor: 13GHz-40GHz 20log(3.0m/1.0m)= 9.5dB

* At the point within the restricted bands of band edge data shown in page 47 to 48, the emission was not detected at Radiated measurement.

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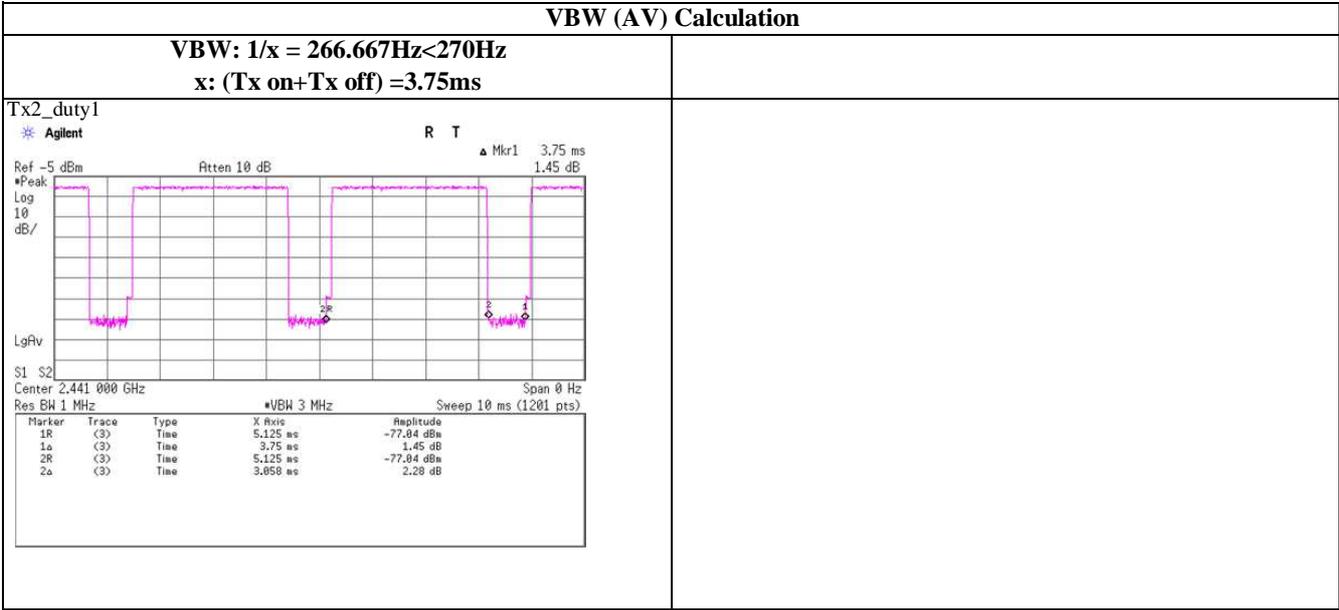
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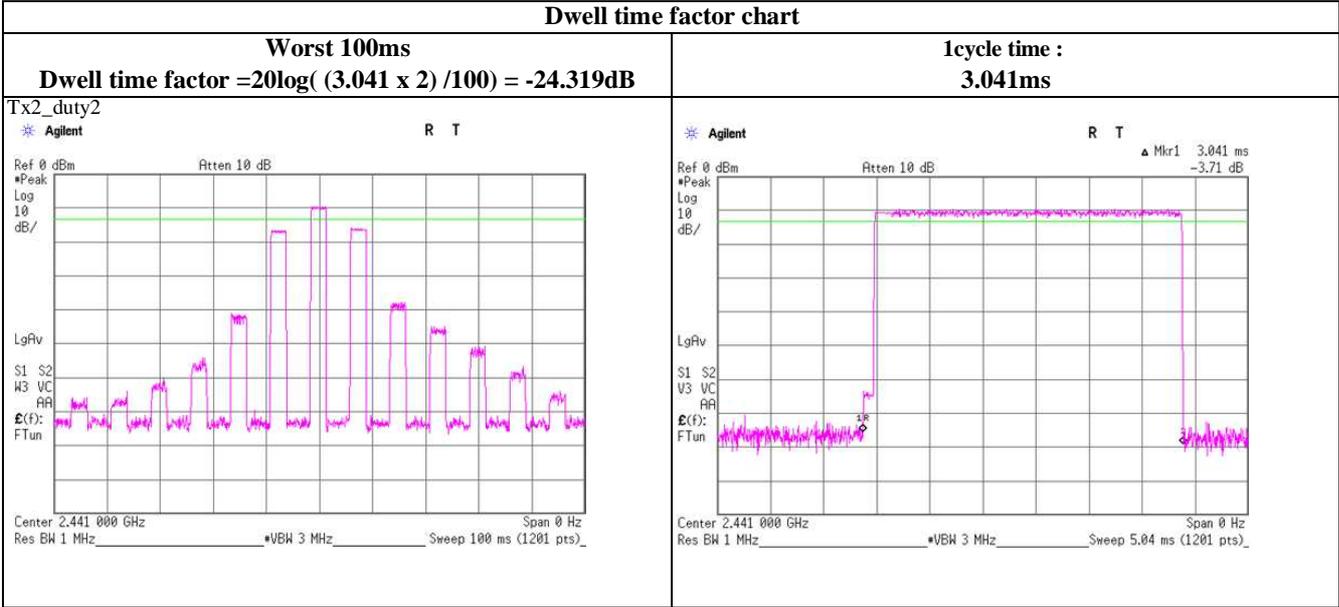
Spurious emission (Radiated)

Tx, Bluetooth, EDR, PRBS9

VBW (AV) Calculation



Dwell time factor chart

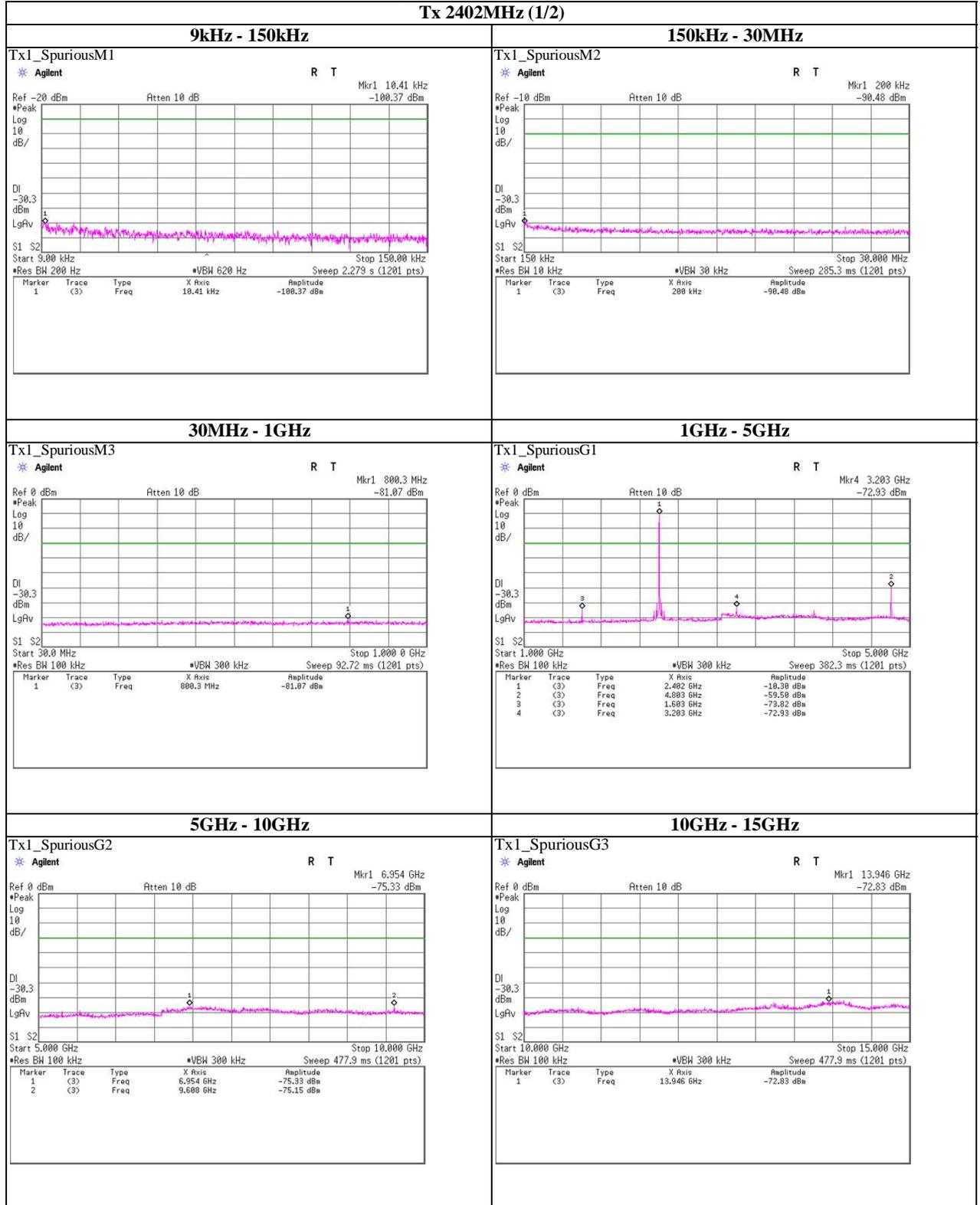


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Spurious emission (Conducted)

Tx, Bluetooth, BDR, PRBS9

Tx 2402MHz (1/2)



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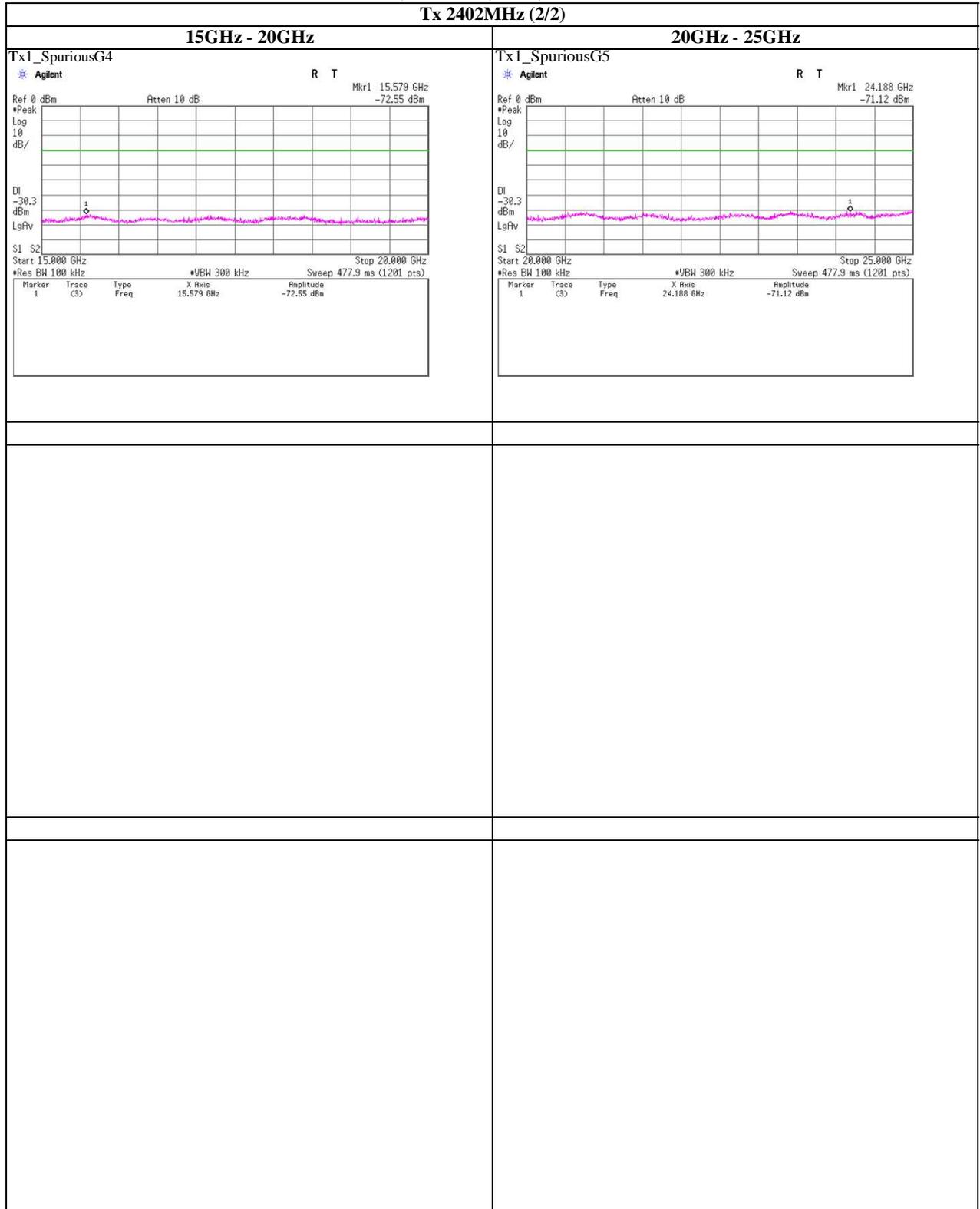
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Spurious emission (Conducted)

Tx, Bluetooth, BDR, PRBS9

Tx 2402MHz (2/2)



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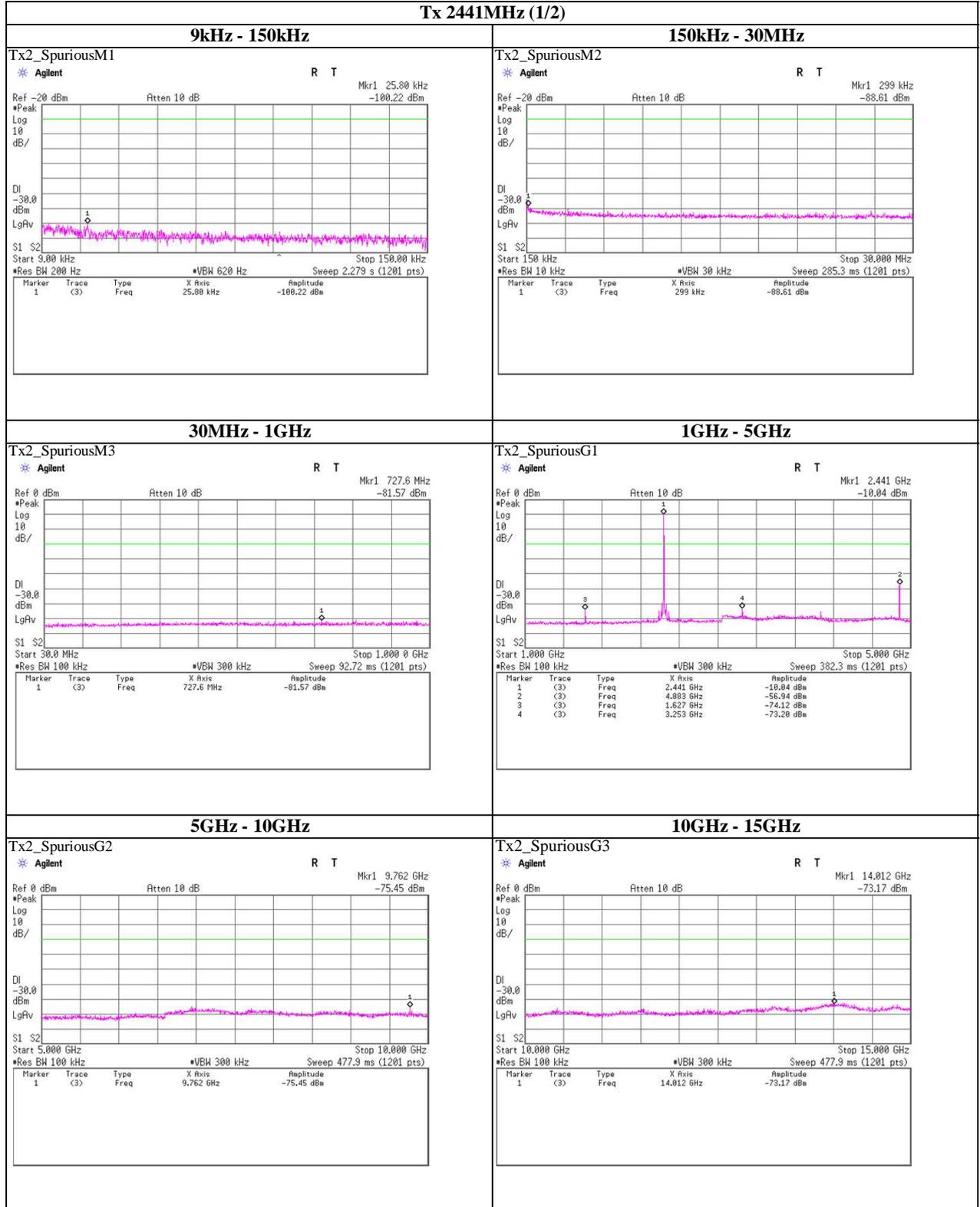
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Spurious emission (Conducted)

Tx, Bluetooth, BDR, PRBS9

Tx 2441MHz (1/2)



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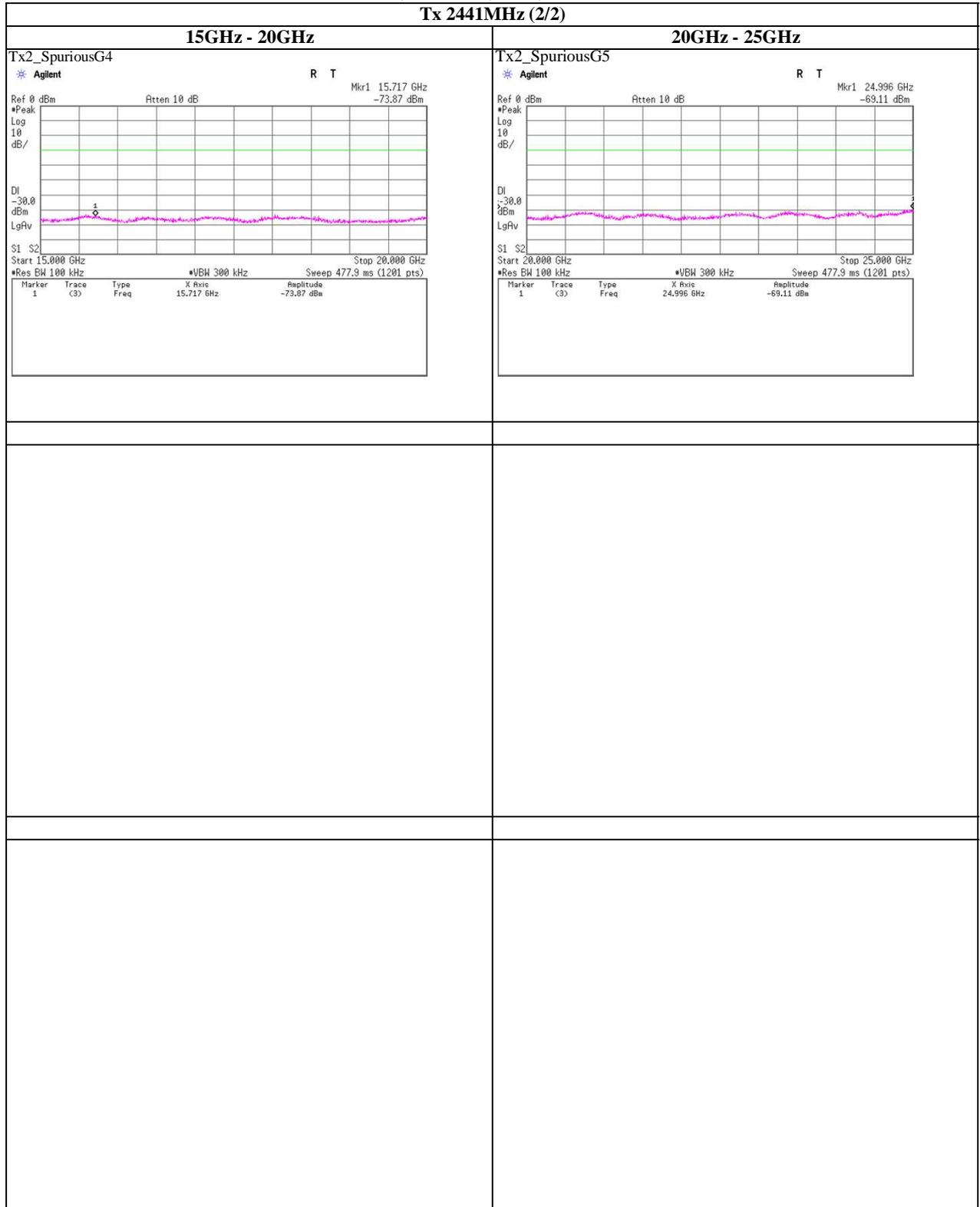
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Spurious emission (Conducted)

Tx, Bluetooth, BDR, PRBS9

Tx 2441MHz (2/2)



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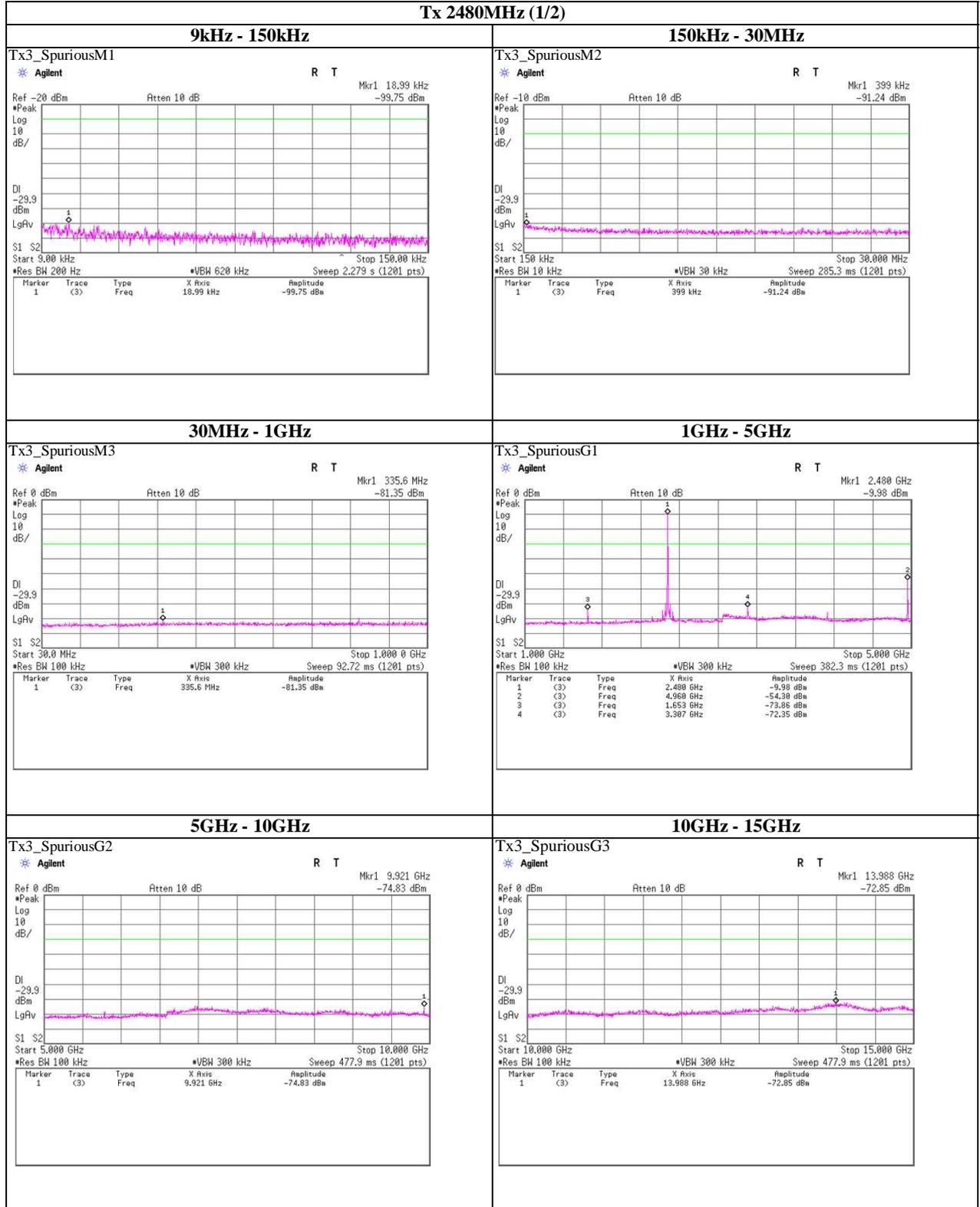
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Spurious emission (Conducted)

Tx, Bluetooth, BDR, PRBS9

Tx 2480MHz (1/2)



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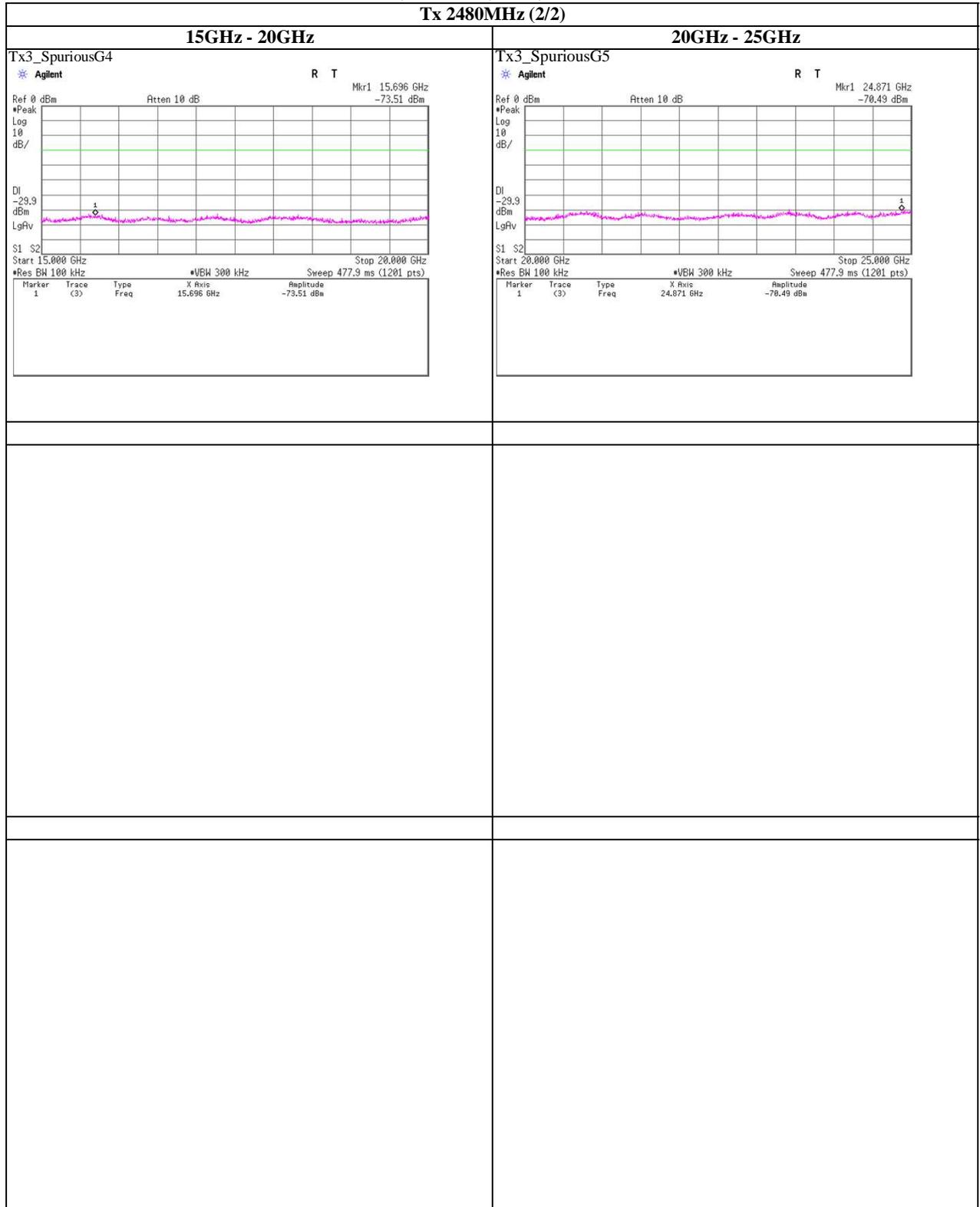
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Spurious emission (Conducted)

Tx, Bluetooth, BDR, PRBS9

Tx 2480MHz (2/2)



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Spurious emission (Conducted)

Tx, Bluetooth, EDR, PRBS9

Tx 2402MHz (1/2)



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Spurious emission (Conducted)

Tx, Bluetooth, EDR, PRBS9

Tx 2402MHz (2/2)



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Spurious emission (Conducted)

Tx, Bluetooth, EDR, PRBS9

Tx 2441MHz (1/2)



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Spurious emission (Conducted)

Tx, Bluetooth, EDR, PRBS9

Tx 2441MHz (2/2)



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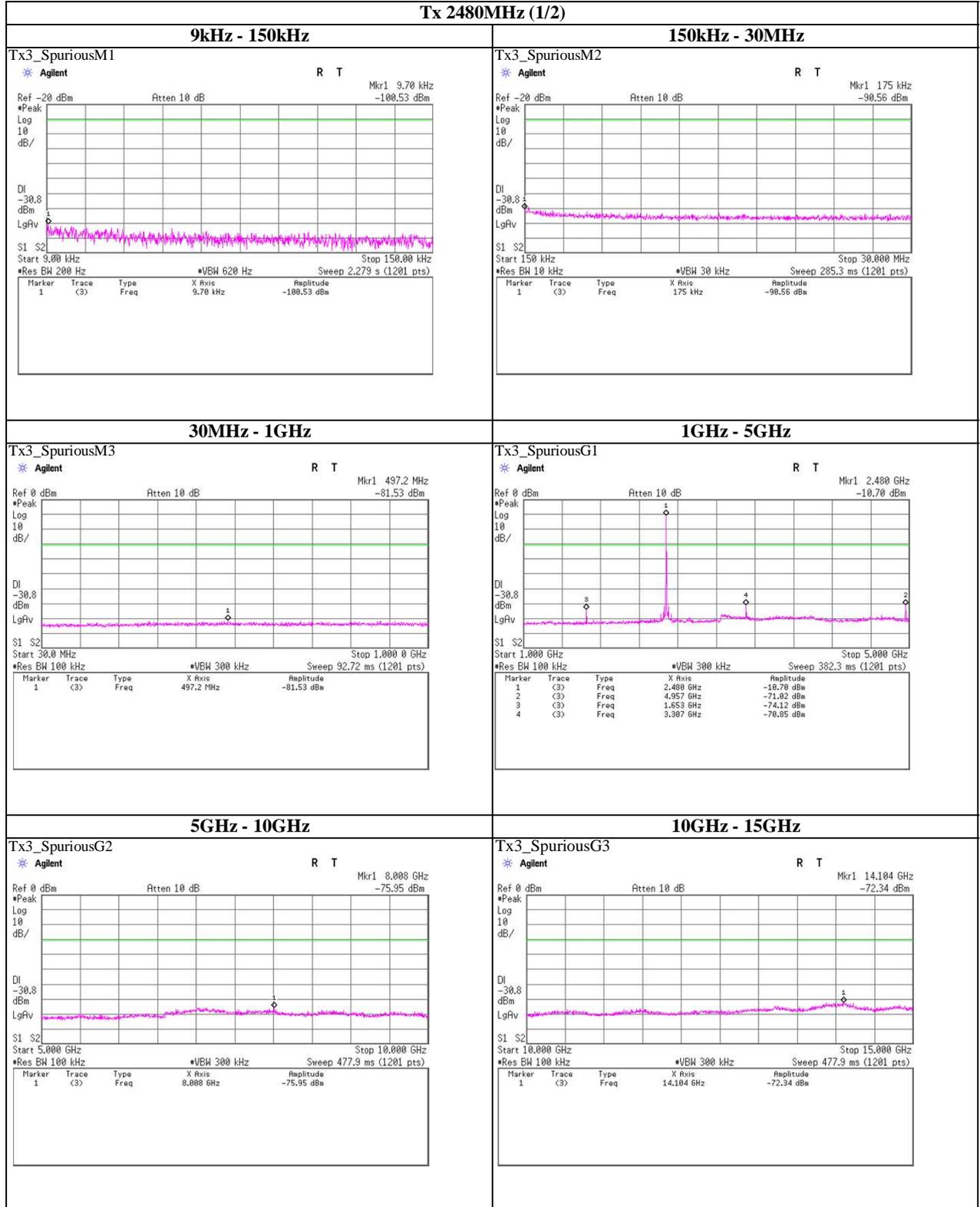
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Spurious emission (Conducted)

Tx, Bluetooth, EDR, PRBS9

Tx 2480MHz (1/2)



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Spurious emission (Conducted)

Tx, Bluetooth, EDR, PRBS9

Tx 2480MHz (2/2)



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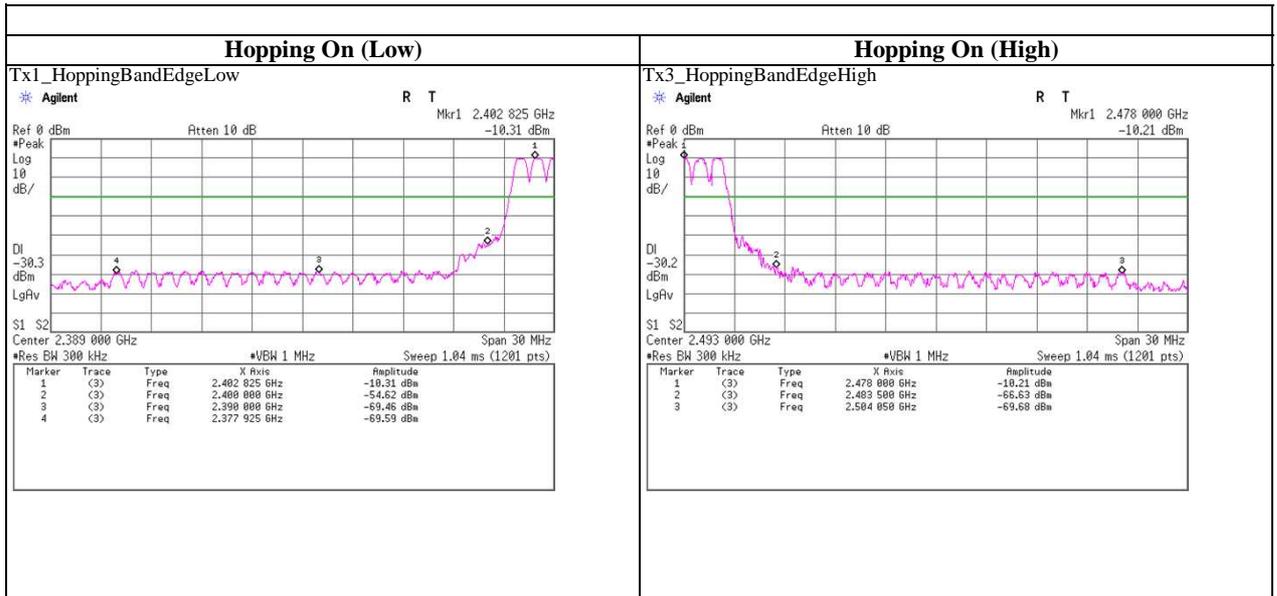
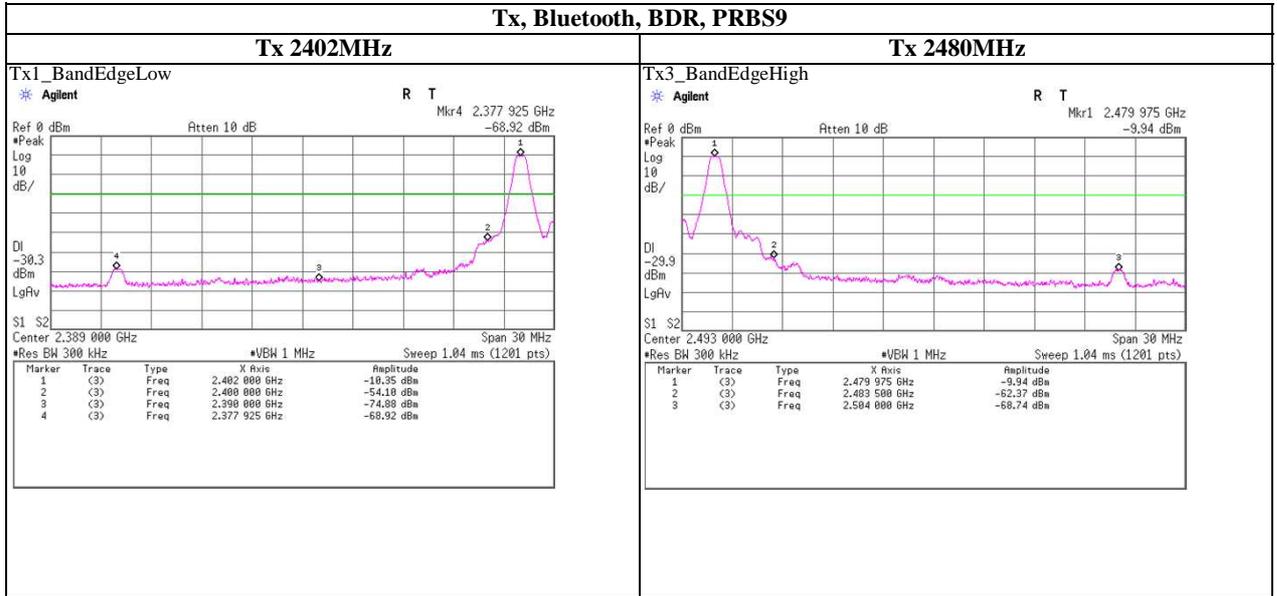
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Spurious emission (Conducted)

Band Edge compliance



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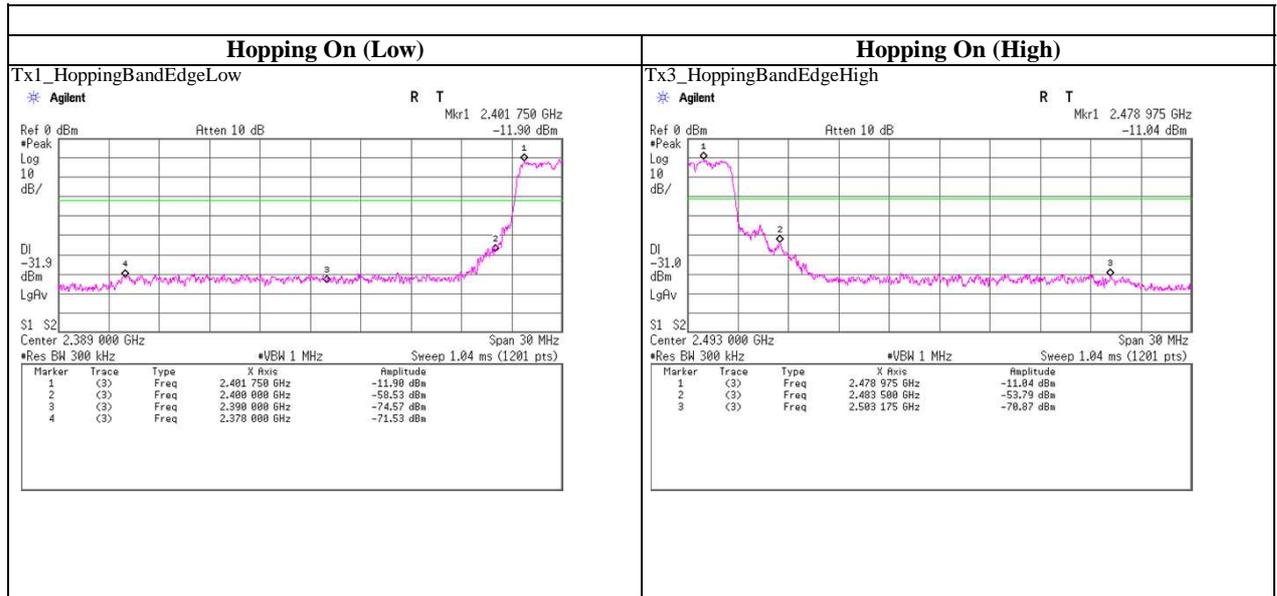
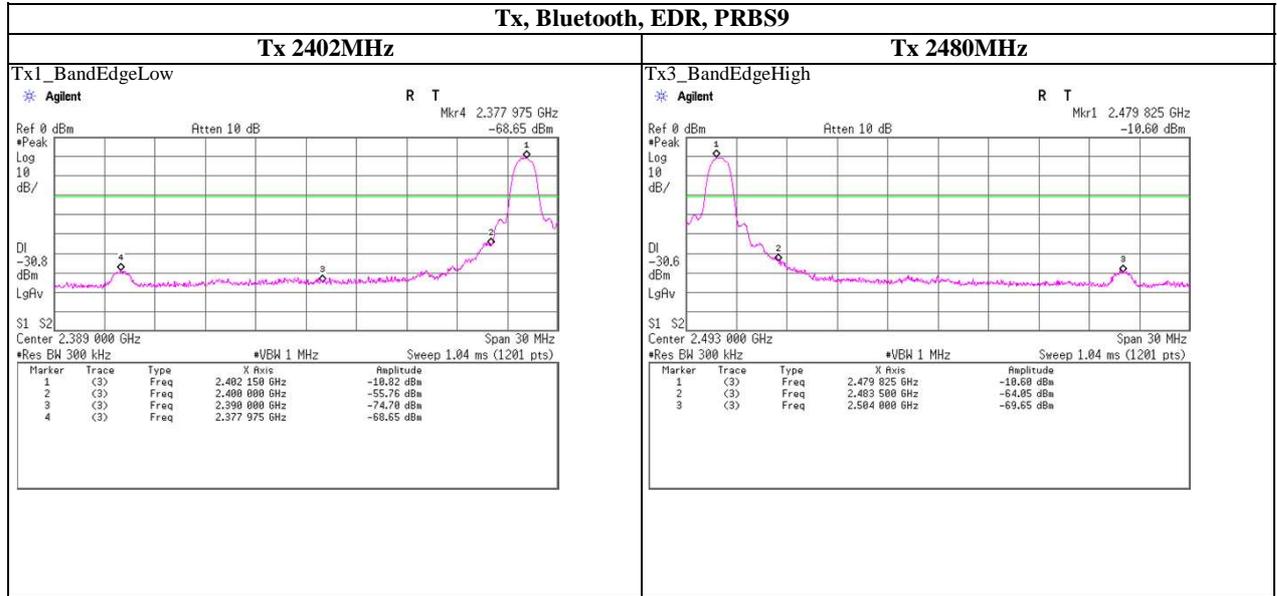
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Spurious emission (Conducted)

Band Edge compliance



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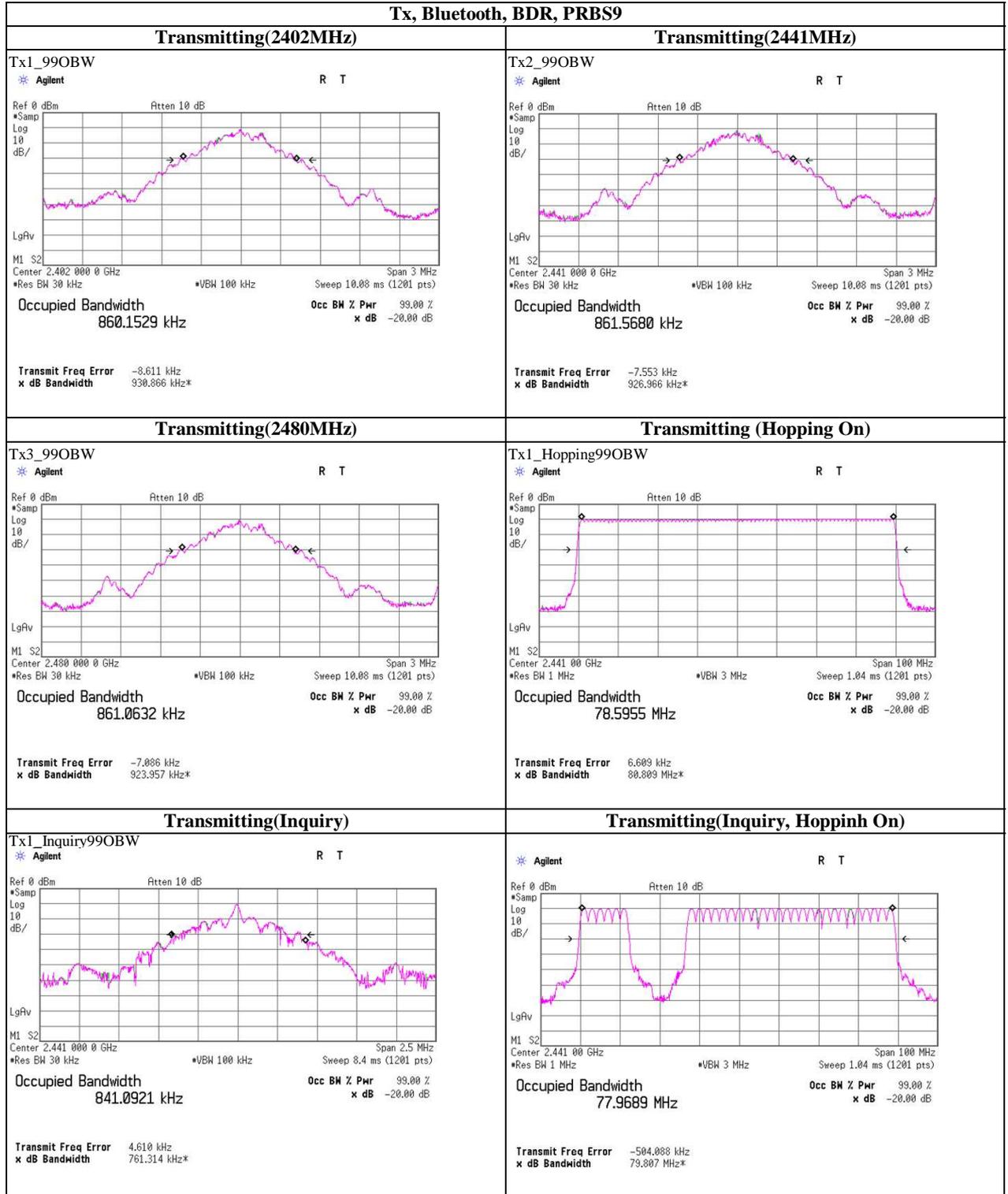
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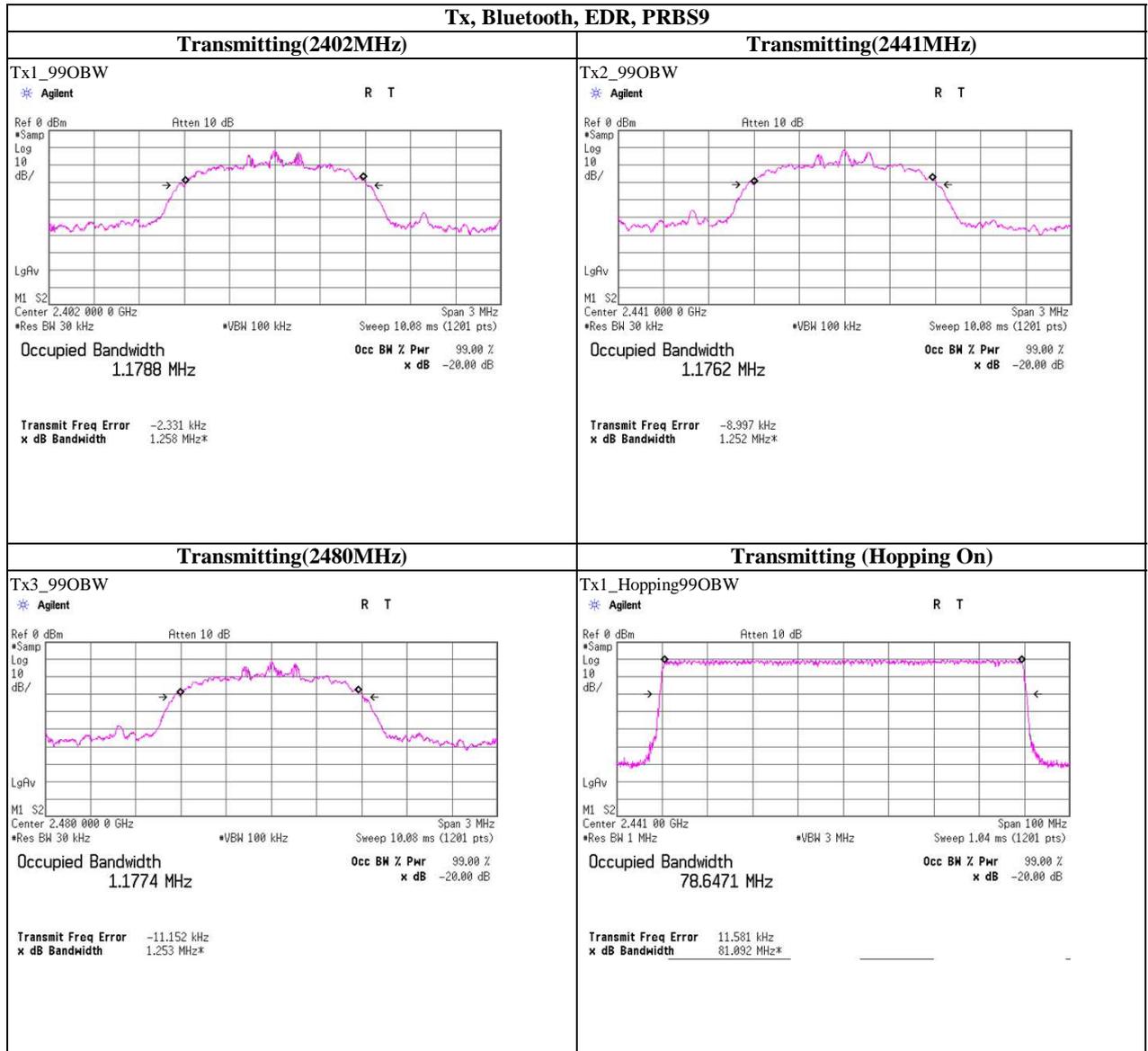
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99% Occupied Bandwidth



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99% Occupied Bandwidth



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APPENDIX 3 Test Instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
SPM-06	Power Meter	Anritsu	ML2495A	0850009	AT	2010/04/01 * 12
SPSS-03	Power sensor	Anritsu	MA2411B	0917063	AT	2010/04/01 * 12
SSA-03	Spectrum Analyzer	Agilent	E4448A	MY48250152	AT	2010/11/16 * 12
SAT10-06	Attenuator	Agilent	8493C-010	74865	AT	2011/03/23 * 12
SCC-G12	Coaxial Cable	Suhner	SUCOFLEX 102	30790/2	AT	2011/03/23 * 12
SOS-09	Humidity Indicator	A&D	AD-5681	4061484	AT	2011/03/02 * 12
SAF-06	Pre Amplifier	TOYO Corporation	TPA0118-36	1440491	RE	2011/03/23 * 12
SCC-G03	Coaxial Cable	Suhner	SUCOFLEX 104A	46499/4A	RE	2010/04/16 * 12
SCC-G23	Coaxial Cable	Suhner	SUCOFLEX 104	297342/4	RE	2010/05/27 * 12
SAT10-04	Attenuator(above1GHz)	Agilent	8493C-010	74863	RE	2010/12/15 * 12
SFL-02	Highpass Filter	MICRO-TRONICS	HPM50111	051	RE	2010/12/15 * 12
SHA-03	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-739	RE	2010/08/17 * 12
SAEC-03	Semi-Anechoic Chamber	TDK	SAEC-03(NSA)	3	RE	2010/09/13 * 12
SOS-05	Humidity Indicator	A&D	AD-5681	4062518	RE	2011/02/23 * 12
STR-03	Test Receiver	Rohde & Schwarz	ESI40	100054/040	RE	2010/07/21 * 12
SJM-10	Measure	PROMART	SEN1935	-	RE	-
COTS-SEMI-1	EMI Software	TSJ	TEPTO-DV	-	RE	-
SHA-04	Horn Antenna	ETS LINDGREN	3160-09	LM3640	RE	2011/03/15 * 12
SAF-08	Pre Amplifier	TOYO Corporation	HAP18-26W	00000019	RE	2011/03/16 * 12
SCC-G17	Coaxial Cable	Suhner	SUCOFLEX 104A	46291/4A	RE	2011/03/16 * 12
SAF-02	Pre Amplifier	SONOMA	310N	290212	RE	2011/02/17 * 12
SAT6-02	Attenuator	JFW	50HF-006N	-	RE	2011/02/17 * 12
SAT3-02	Attenuator	JFW	50HF-003N	-	RE	2011/02/17 * 12
SBA-02	Biconical Antenna	Schwarzbeck	BBA9106	91032665	RE	2010/10/11 * 12
SCC-B1/B3/B5/B7/B8/B13/SRSE-02	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906	-/0901-270(RF Selector)	RE	2010/04/02 * 12
SCC-B2/B4/B6/B7/B8/B13/SRSE-02	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906	-/0901-270(RF Selector)	RE	2010/04/02 * 12
SLA-02	Logperiodic Antenna	Schwarzbeck	UHALP9108A	UHALP 9108-A 0893	RE	2010/10/11 * 12
SOS-03	Humidity Indicator	A&D	AD-5681	4063325	RE	2011/02/23 * 12
STR-02	Test Receiver	Rohde & Schwarz	ESCI	100575	RE	2010/08/18 * 12
SJM-02	Measure	KOMELON	KMC-36	-	RE	-
SAEC-02(NSA)	Semi-Anechoic Chamber	TDK	SAEC-02(NSA)	2	RE	2010/09/04 * 12

The expiration date of the calibration is the end of the expired month .
As for some calibrations performed after the tested dates , those test equipment have been controlled by means of an unbroken chains of calibrations .

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

Test Item :

- CE: Conducted emission ,
- RE: Radiated emission ,
- AT: Antenna terminal conducted tests ,