APPENDIX 1: Data of Radio tests

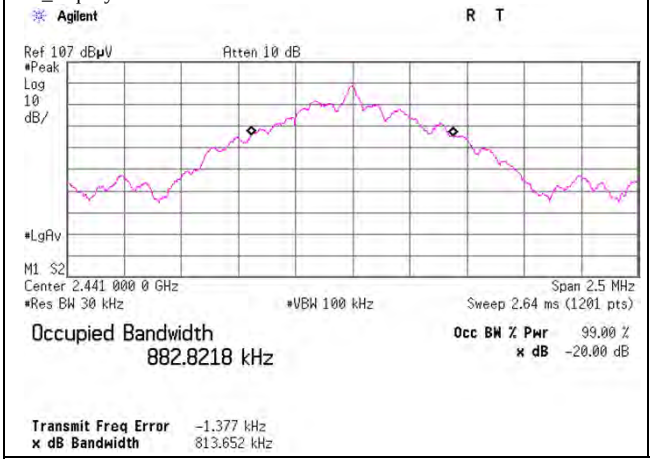
20dB Bandwidth and Carrier Frequency Separation

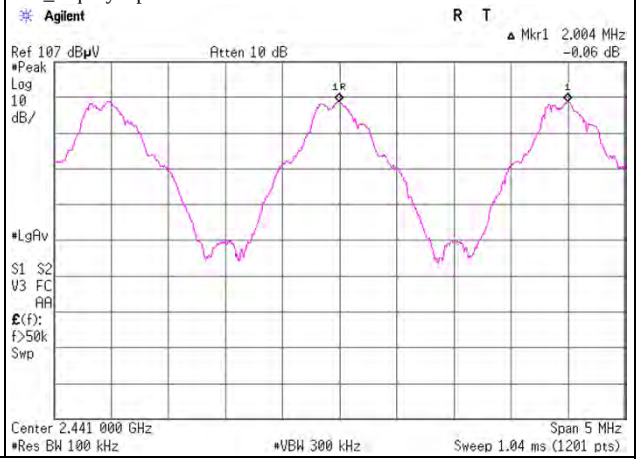
Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	January 27, 2012	
Temperature / Humidity	23deg.C , 24%RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, Bluetooth, BDR, PRBS9	

Mode	Freq. [MHz]	20dB Bandwidth [MHz]	Carrier Frequency Separation [MHz]	Limit for Carrier Frequency Separation [MHz]
DH5	2402.0	0.929	1.000	>= 0.619
DH5	2441.0	0.931	1.000	>= 0.621
DH5	2480.0	0.930	1.000	>= 0.620
Inquiry	2441.0	0.814	2.004	>= 0.542

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

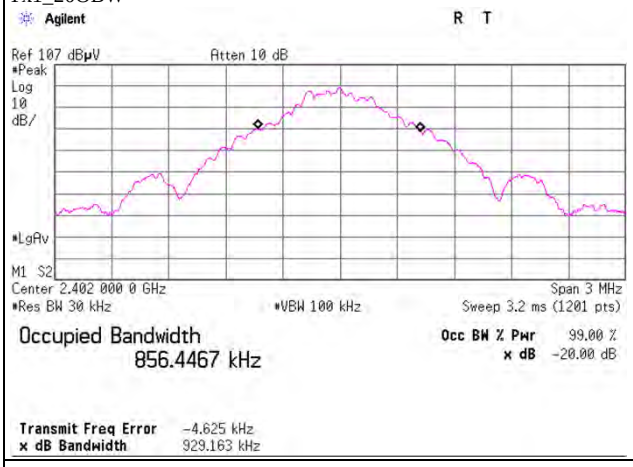
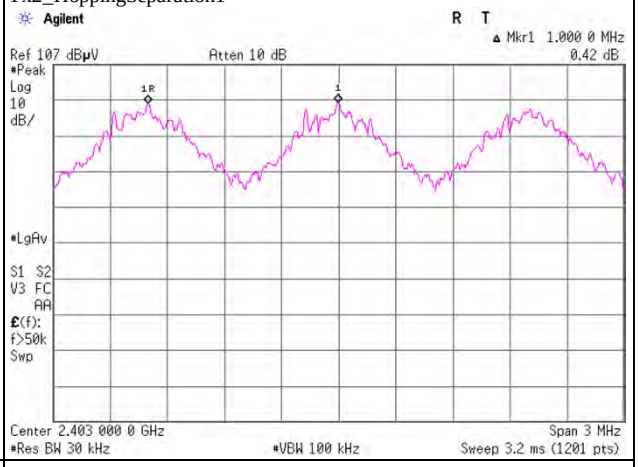
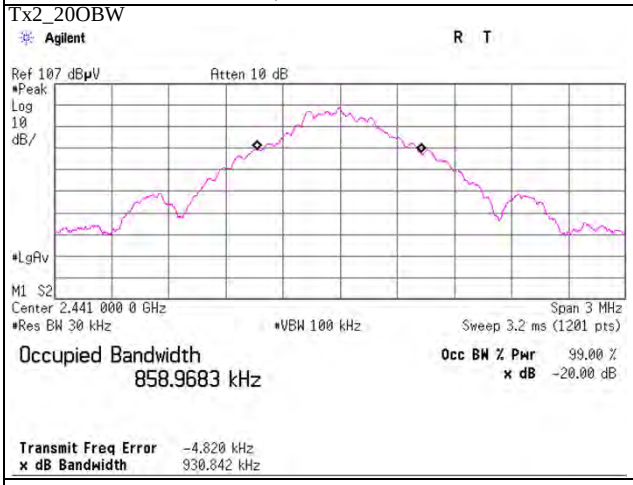
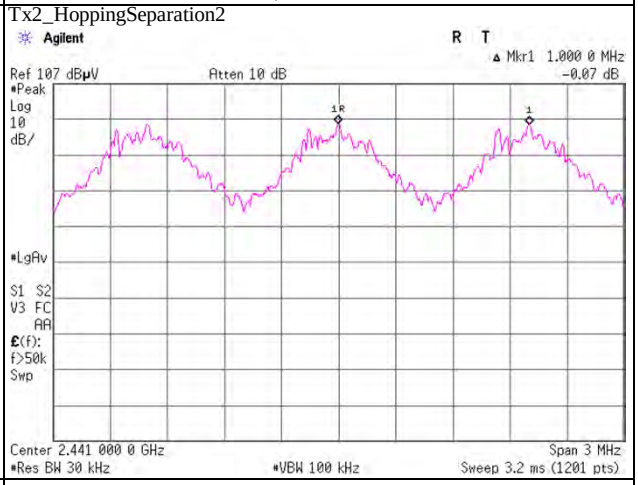
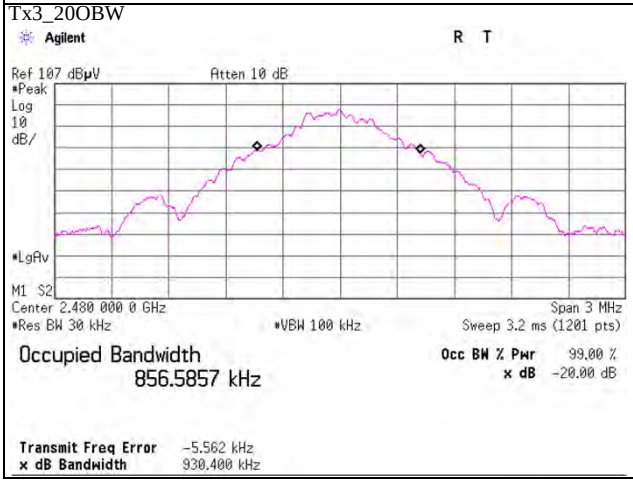
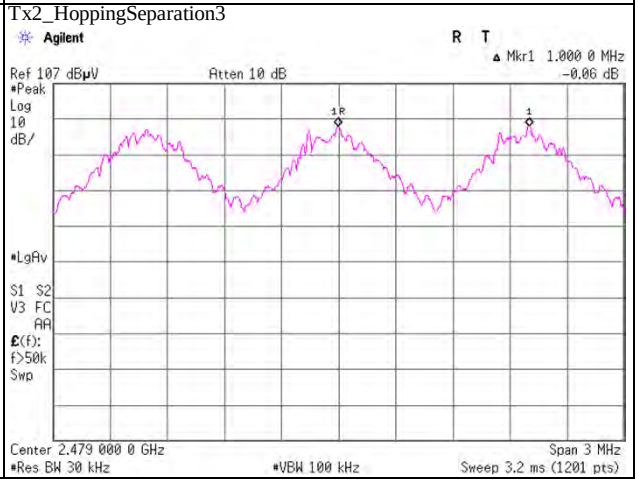
Inquiry	
20dB Bandwidth	**Carrier Frequency Separation**
Tx, 2441MHz	**Tx, 2441MHz**
Tx2_Inquiry20OBW	Tx2_InquirySeparation





20dB Bandwidth and Carrier Frequency Separation

Tx, Bluetooth, BDR, PRBS9

20dB Bandwidth	Carrier Frequency Separation
Tx, 2402MHz	**Tx, 2402MHz**
Tx1_20OBW 	Tx2_HoppingSeparation1 
Tx, 2441MHz	**Tx, 2441MHz**
Tx2_20OBW 	Tx2_HoppingSeparation2 
Tx, 2480MHz	**Tx, 2480MHz**
Tx3_20OBW 	Tx2_HoppingSeparation3 

20dB Bandwidth and Carrier Frequency Separation

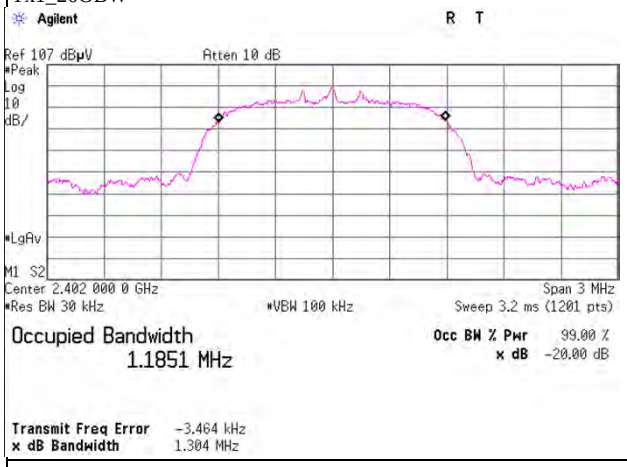
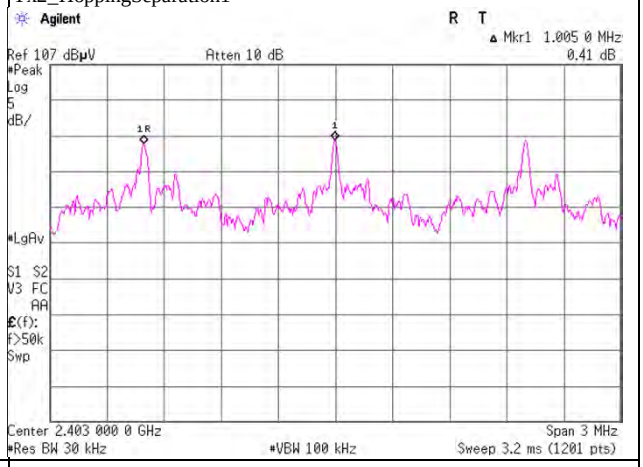
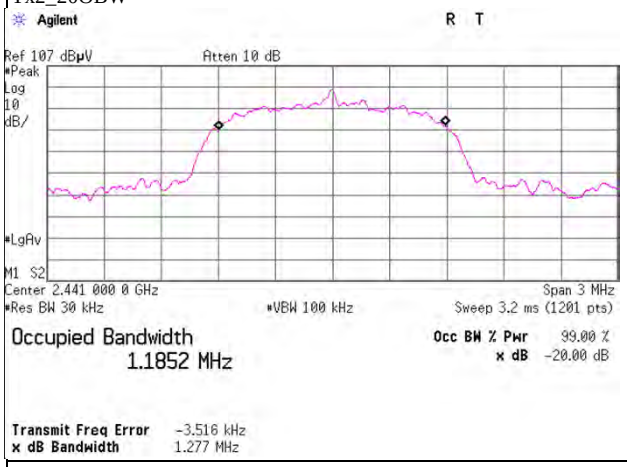
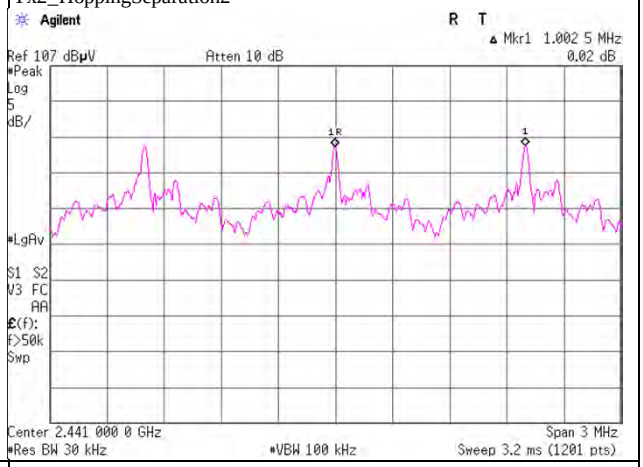
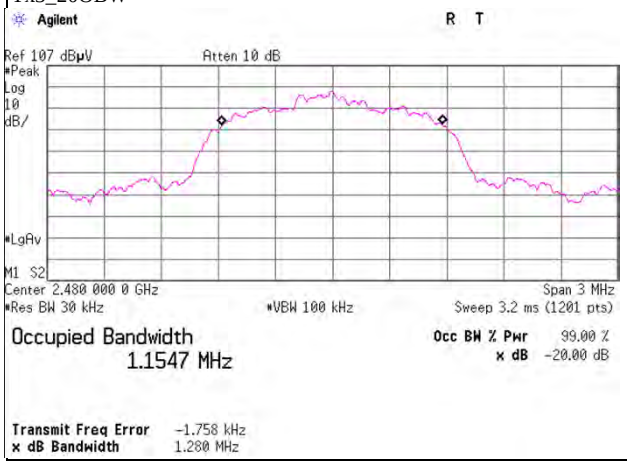
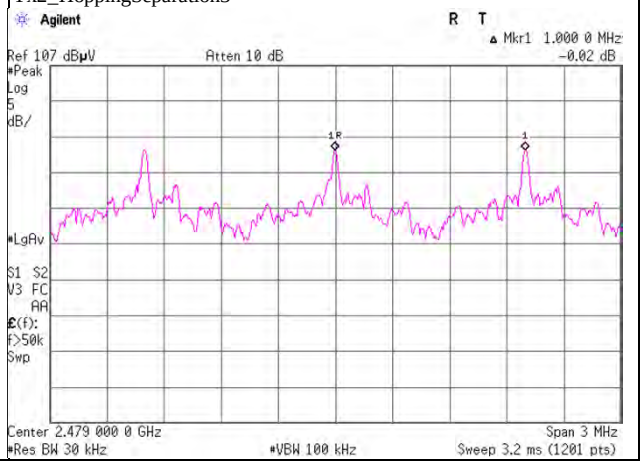
Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	January 27, 2012	
Temperature / Humidity	23deg.C , 24%RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, Bluetooth, EDR, PRBS9	

Mode	Freq. [MHz]	20dB Bandwidth [MHz]	Carrier Frequency Separation [MHz]	Limit for Carrier Frequency Separation [MHz]
3-DH5	2402.0	1.304	1.005	>= 0.869
3-DH5	2441.0	1.277	1.003	>= 0.851
3-DH5	2480.0	1.280	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

Tx, Bluetooth, EDR, PRBS9

20dB Bandwidth	Carrier Frequency Separation
Tx, 2402MHz	**Tx, 2402MHz**
Tx1_20OBW	Tx2_HoppingSeparation1
	
Tx, 2441MHz	**Tx, 2441MHz**
Tx2_20OBW	Tx2_HoppingSeparation2
	
Tx, 2480MHz	**Tx, 2480MHz**
Tx3_20OBW	Tx2_HoppingSeparation3
	

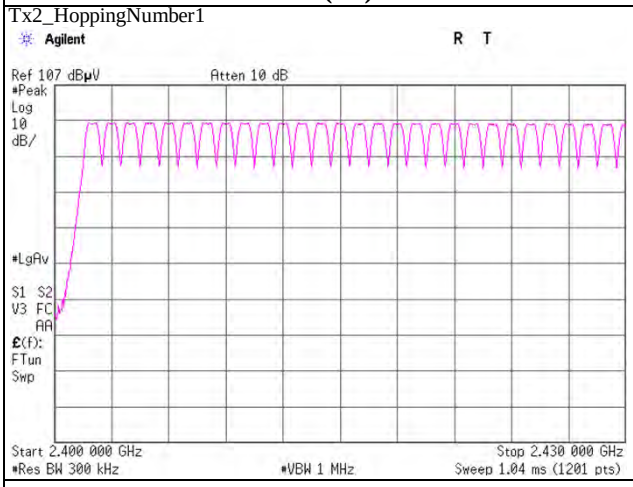
Number of Hopping Frequency

Test place	UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room
Date	January 27, 2012
Temperature / Humidity	23deg.C , 24%RH
Engineer	Hikaru Shirasawa
Mode	Tx, Bluetooth, BDR, PRBS9

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

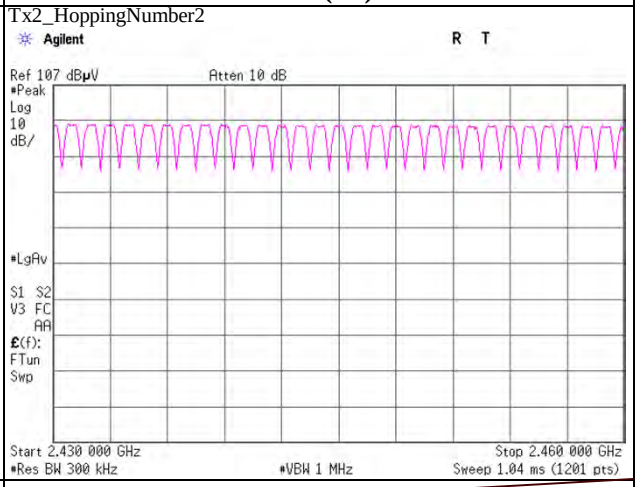
DH5 (1/3)

Tx2_HoppingNumber1



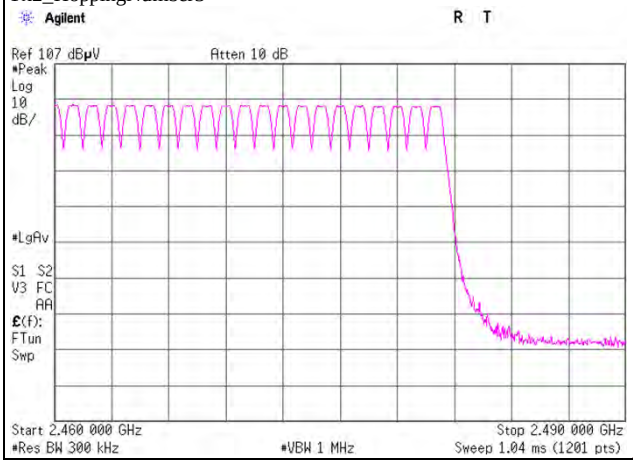
DH5 (2/3)

Tx2_HoppingNumber2



DH5 (3/3)

Tx2_HoppingNumber3



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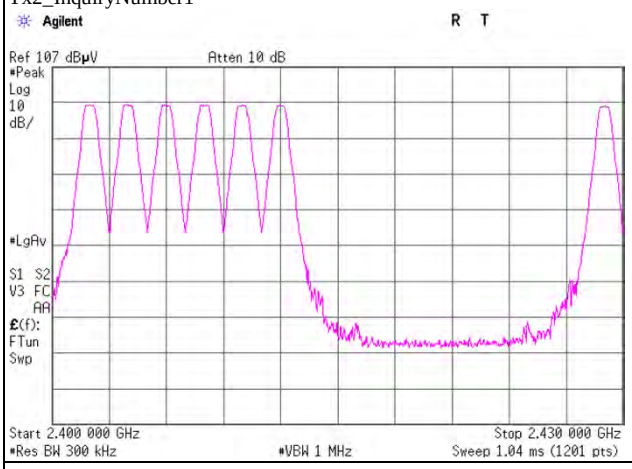
Number of Hopping Frequency

Test place	UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room
Date	January 27, 2012
Temperature / Humidity	23deg.C , 24%RH
Engineer	Hikaru Shirasawa
Mode	Tx, Bluetooth, Inquiry

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

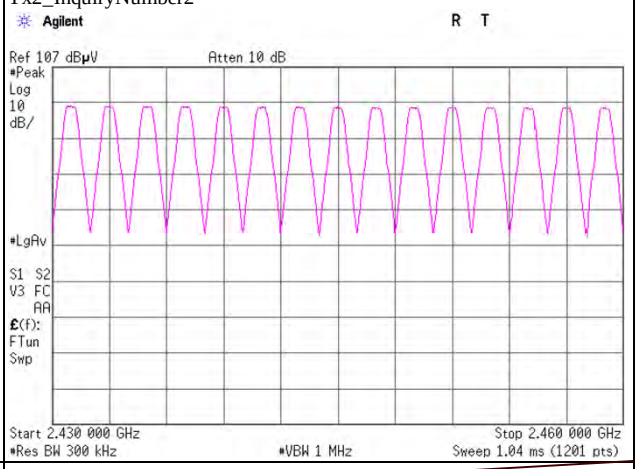
Inquiry (1/3)

Tx2_InquiryNumber1



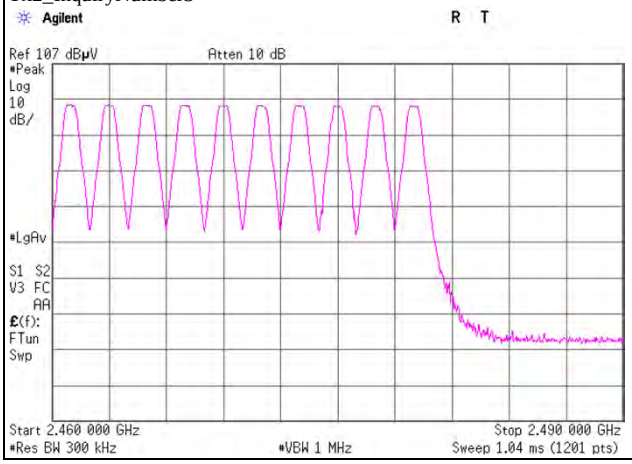
Inquiry (2/3)

Tx2_InquiryNumber2



Inquiry (3/3)

Tx2_InquiryNumber3



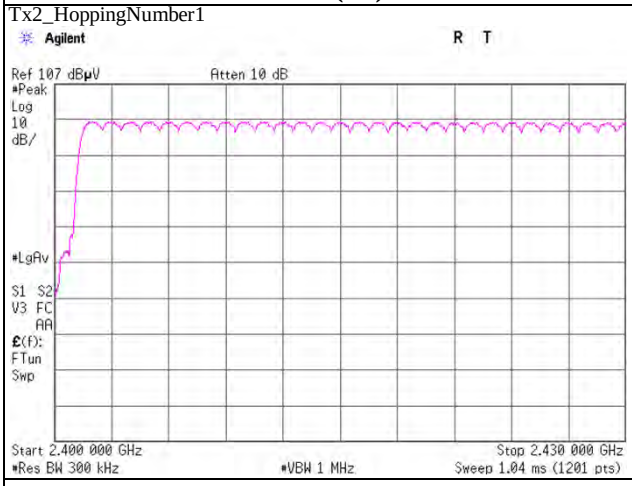
Number of Hopping Frequency

Test place	UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room
Date	January 27, 2012
Temperature / Humidity	23deg.C , 24%RH
Engineer	Hikaru Shirasawa
Mode	Tx, Bluetooth, EDR, PRBS9

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

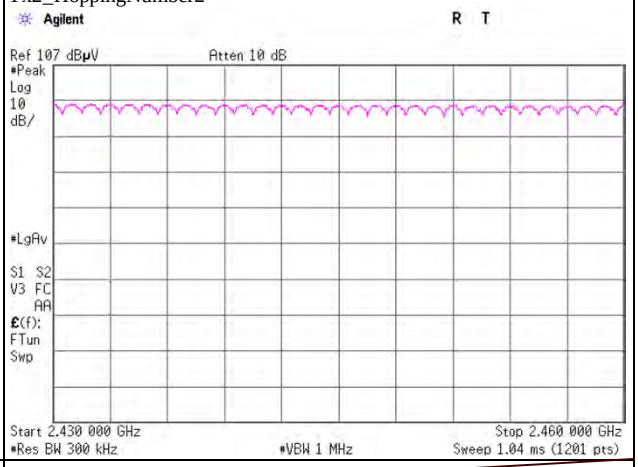
3-DH5 (1/3)

Tx2_HoppingNumber1



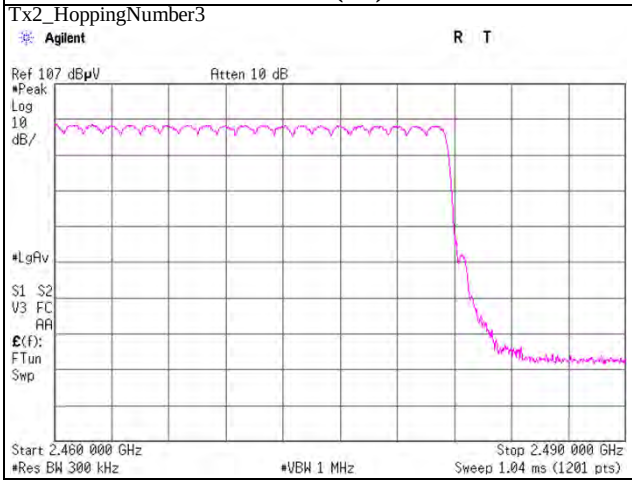
3-DH5 (2/3)

Tx2_HoppingNumber2



3-DH5 (3/3)

Tx2_HoppingNumber3



Dwell Time

Test place UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room
Date January 27, 2012
Temperature / Humidity 23deg.C , 24%RH
Engineer Hikaru Shirasawa
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	49.6 / 5.0 sec. x 31.6 sec. = 314 times	0.447	140	400
DH3	26.8 / 5.0 sec. x 31.6 sec. = 170 times	1.707	290	400
DH5	20.4 / 5.0 sec. x 31.6 sec. = 129 times	2.952	381	400
Inquiry	100.0 / 1.0 sec. x 12.8 sec. = 1280 times	0.140	180	400

Sample Calculation
Result = Number of transmission x Length of transmition time

*Average data of 5 tests.(except Inquiry)

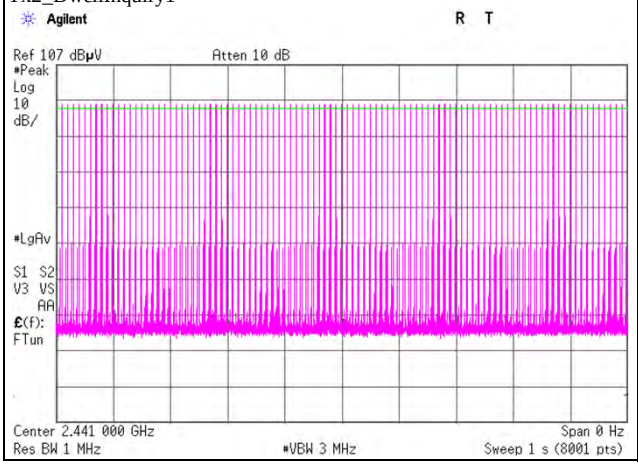
Mode	Sampling [times]					Average [times]
	1	2	3	4	5	
DH1	49	50	50	49	50	49.6
DH3	29	27	25	25	28	26.8
DH5	18	19	24	23	18	20.4
Inquiry	100	100	100	100	100	100.0

Sample Calculation
Average= Summation(Sampling 1 to 5) / 5

Inquiry

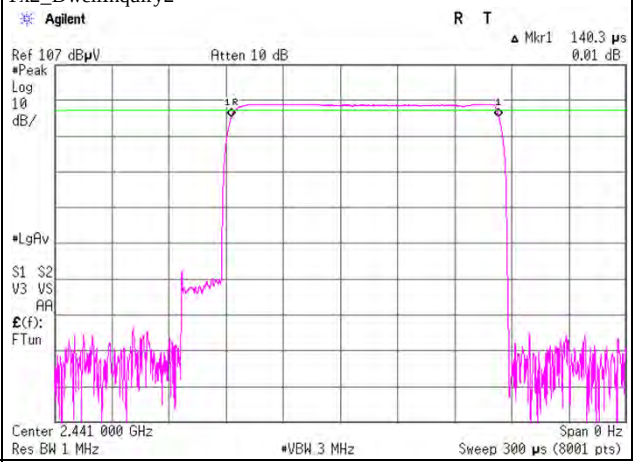
Inquiry (1/2)

Tx2_DwellInquiry1



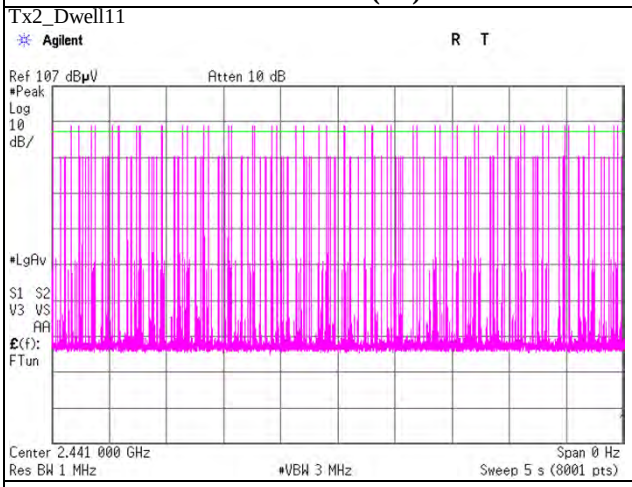
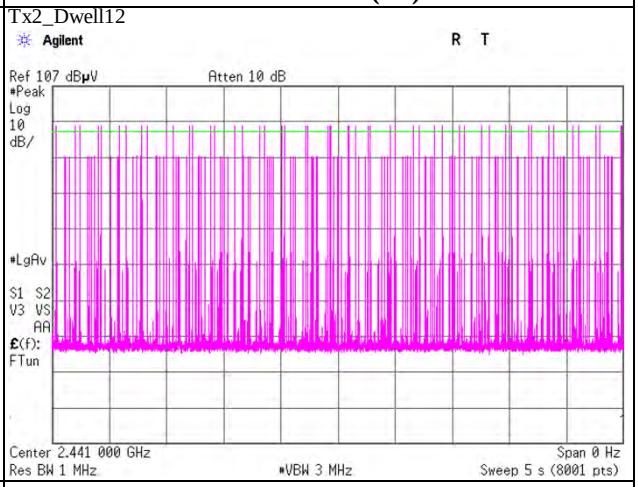
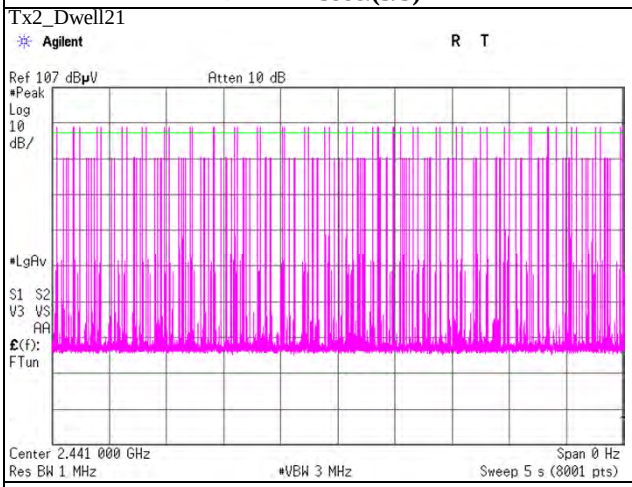
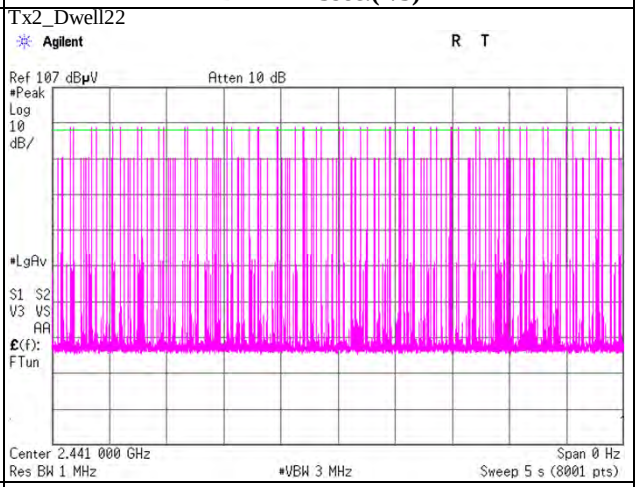
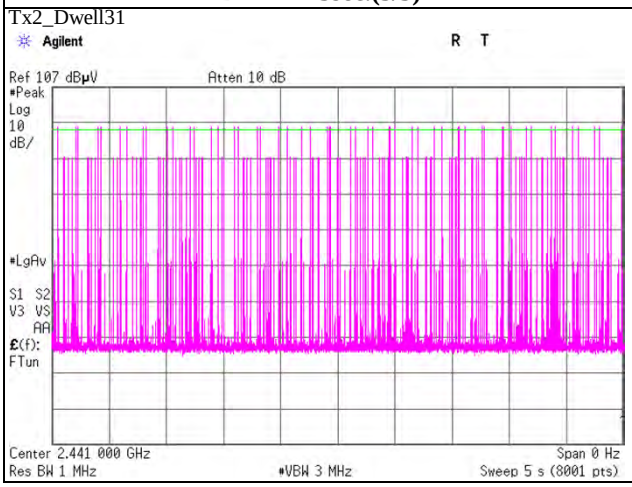
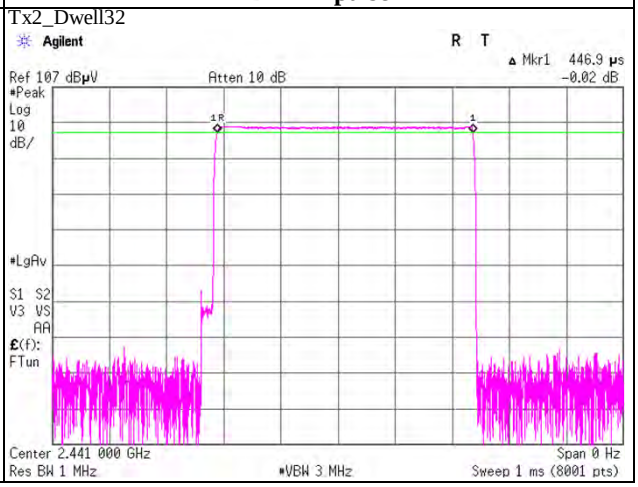
Inquiry (2/2)

Tx2_DwellInquiry2



Dwell time

Tx, Bluetooth, BDR, PRBS9

DH1 - in 5sec.(1/5)	DH1 - in 5sec.(2/5)
Tx2_Dwell11	Tx2_Dwell12
	
DH1 - in 5sec.(3/5)	**DH1 - in 5sec.(4/5)**
Tx2_Dwell21	Tx2_Dwell22
	
DH1 - in 5sec.(5/5)	**DH1 - 1pulse**
Tx2_Dwell31	Tx2_Dwell32
	

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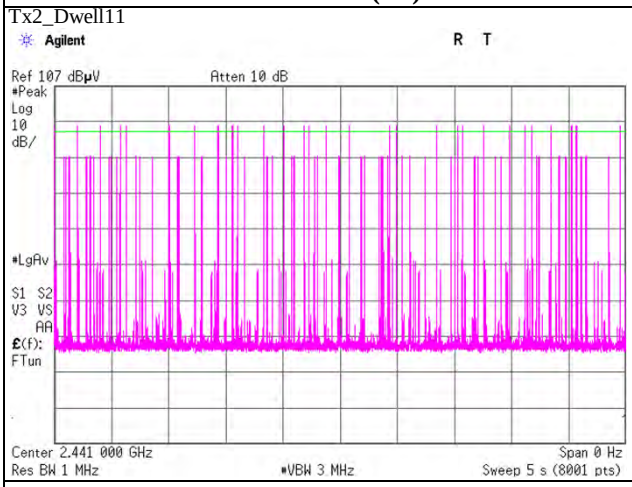
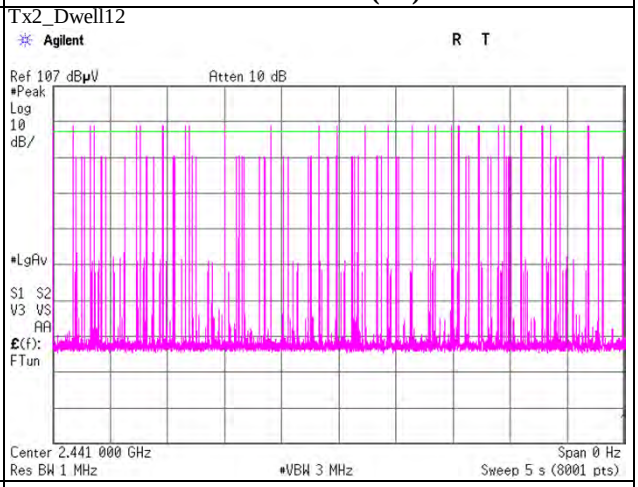
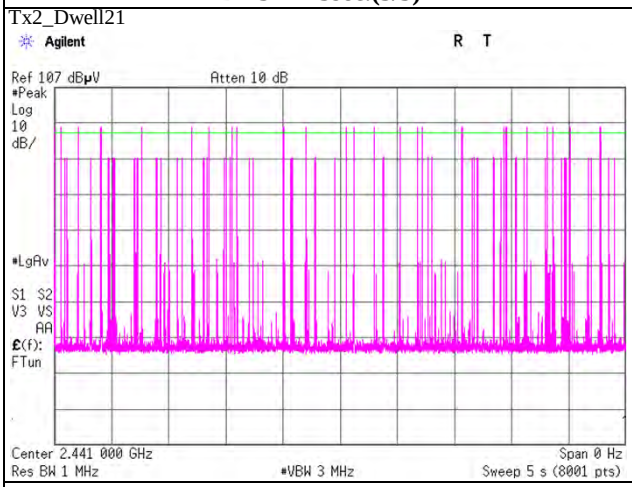
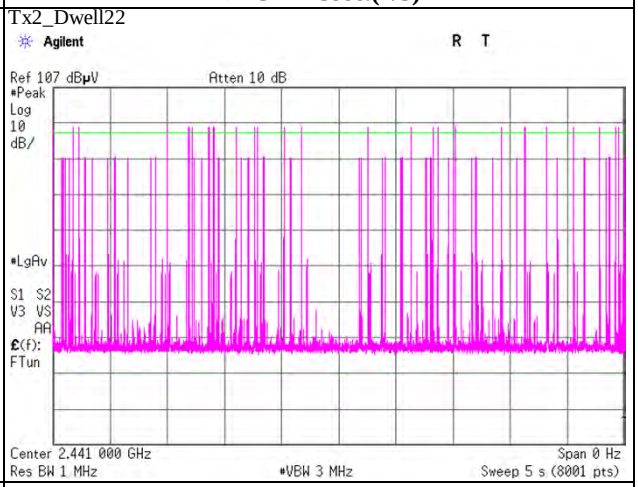
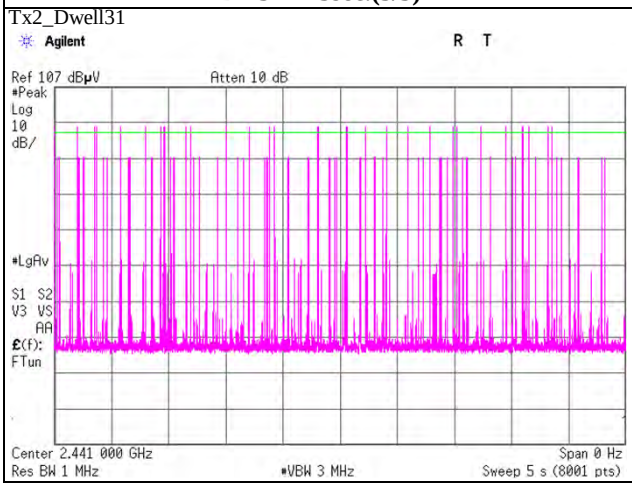
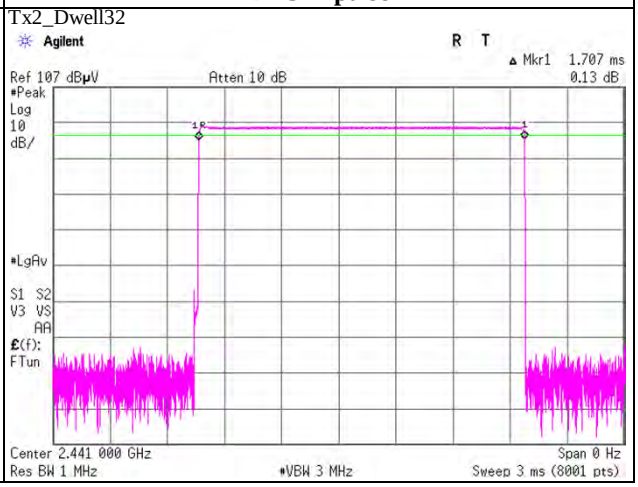
Dwell time

Tx, Bluetooth, BDR, PRBS9

DH3 - in 5sec.(1/5)	DH3 - in 5sec.(2/5)
Tx2_Dwell11	Tx2_Dwell12
	
DH3 - in 5sec.(3/5)	**DH3 - in 5sec.(4/5)**
Tx2_Dwell21	Tx2_Dwell22
	
DH3 - in 5sec.(5/5)	**DH3 - 1pulse**
Tx2_Dwell31	Tx2_Dwell32
	

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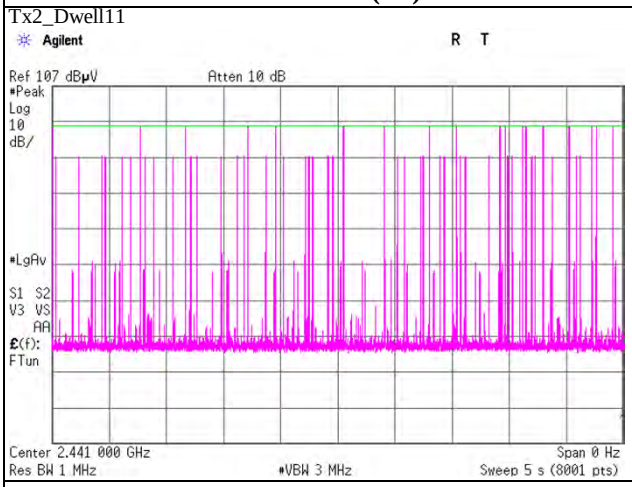
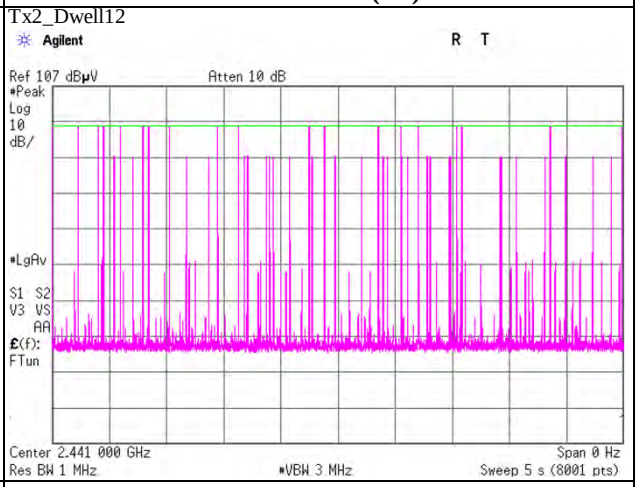
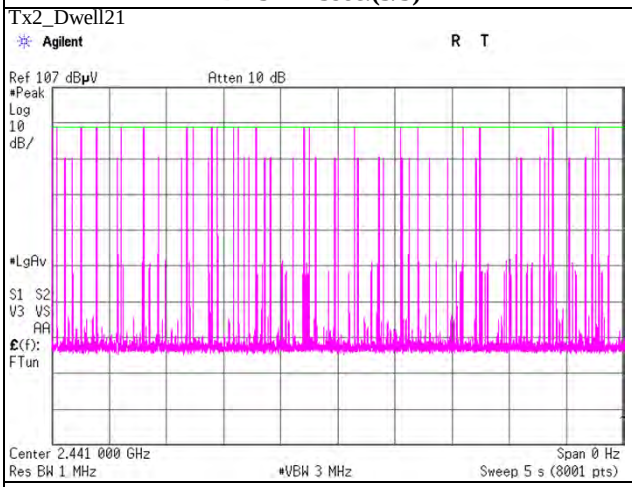
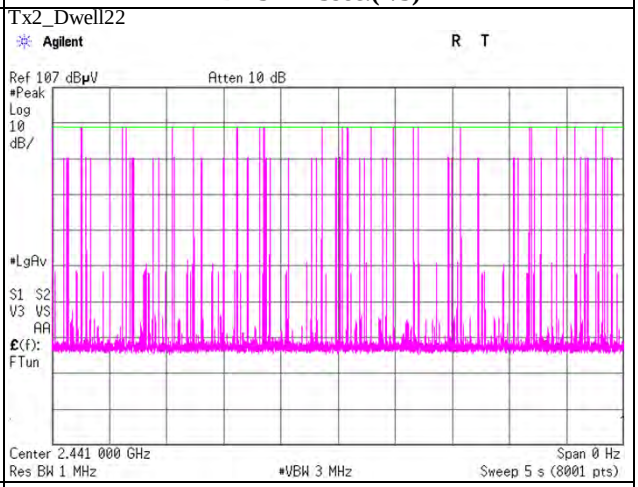
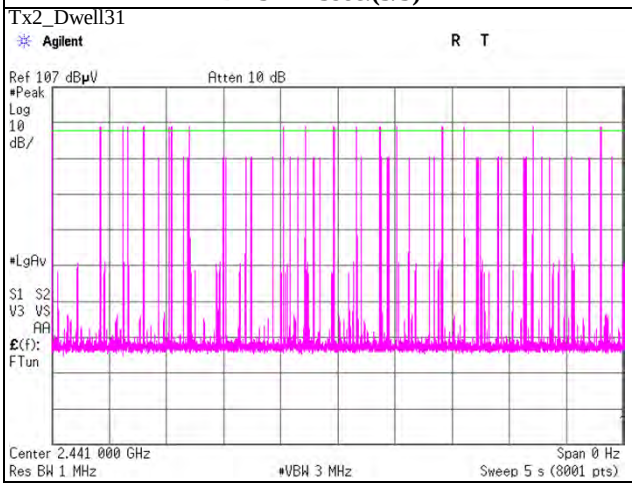
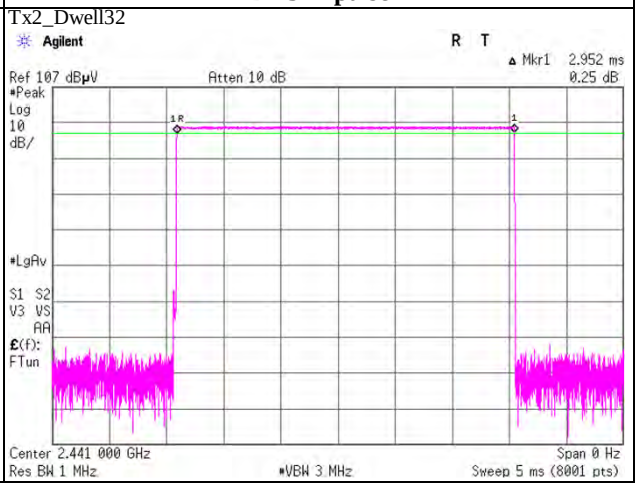
Dwell time

Tx, Bluetooth, BDR, PRBS9

DH5 - in 5sec.(1/5)	DH5 - in 5sec.(2/5)
Tx2_Dwell11	Tx2_Dwell12
	
DH5 - in 5sec.(3/5)	**DH5 - in 5sec.(4/5)**
Tx2_Dwell21	Tx2_Dwell22
	
DH5 - in 5sec.(5/5)	**DH5 - 1pulse**
Tx2_Dwell31	Tx2_Dwell32
	

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Dwell Time

Test place UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room
Date January 27, 2012
Temperature / Humidity 23deg.C , 24%RH
Engineer Hikaru Shirasawa
Mode Tx, Bluetooth, EDR, PRBS9

Mode	Number of transmission in a 31.6(79 Hopping x 0.4) second period	Length of transmission time [msec]	Result [msec]	Limit [msec]
3-DH1	49.8 / 5.0 sec. x 31.6 sec. = 315 times	0.444	140	400
3-DH3	26.2 / 5.0 sec. x 31.6 sec. = 166 times	1.697	282	400
3-DH5	18.6 / 5.0 sec. x 31.6 sec. = 118 times	2.947	348	400

Sample Calculation
Result = Number of transmission x Length of transmition time

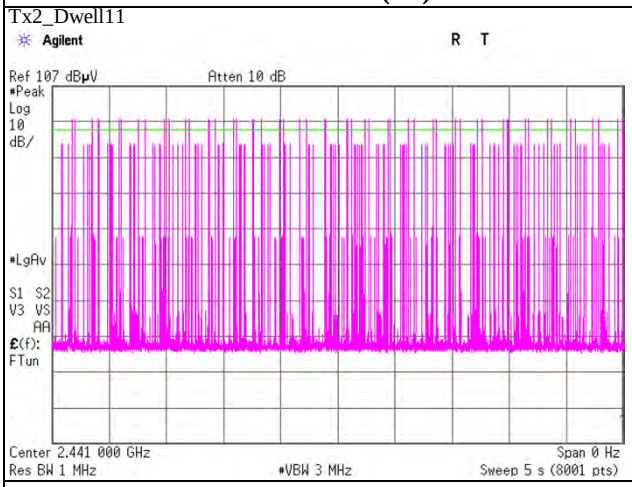
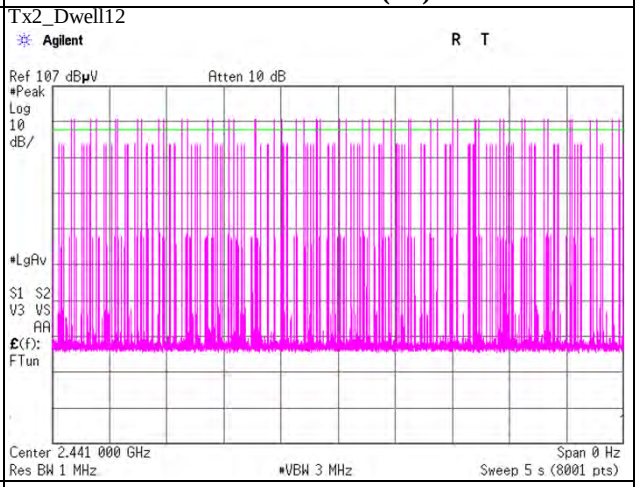
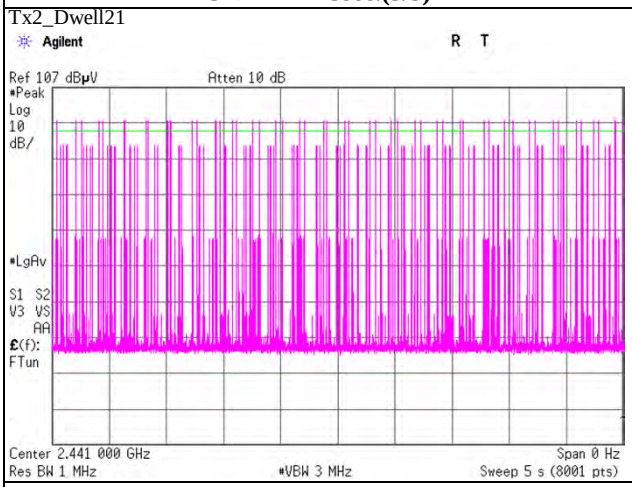
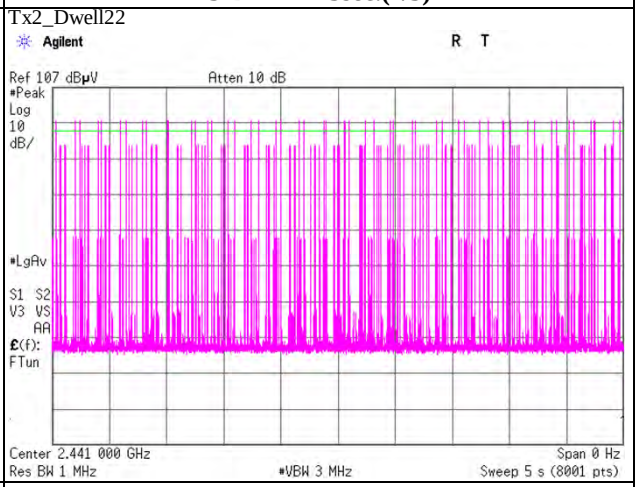
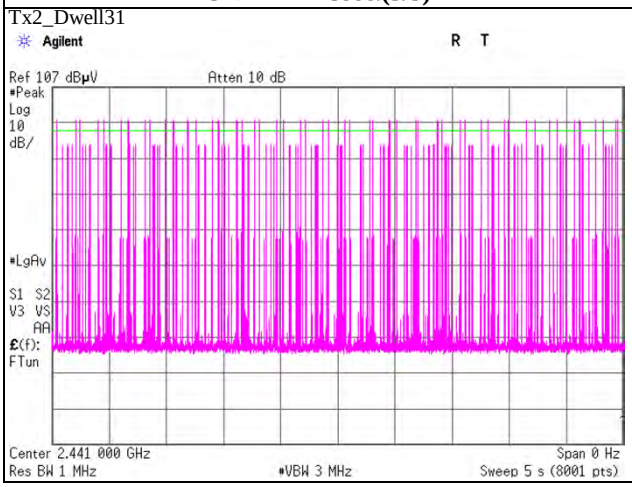
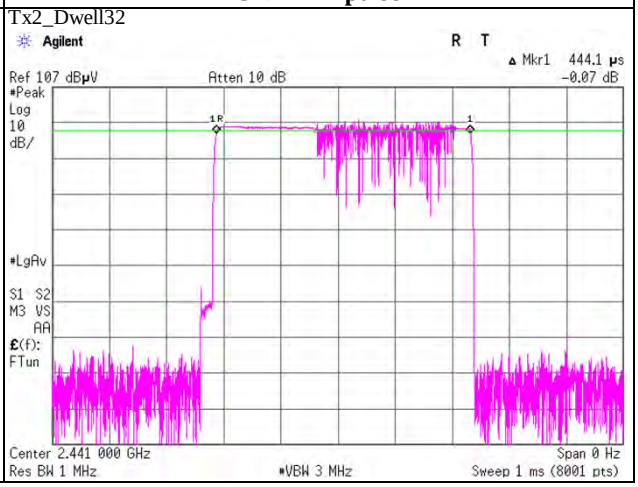
*Average data of 5 tests.(except Inquiry)

Mode	Sampling [times]					Average [times]
	1	2	3	4	5	
3-DH1	49	49	50	50	51	49.8
3-DH3	23	25	25	28	30	26.2
3-DH5	21	19	21	17	15	18.6

Sample Calculation
Average= Summation(Sampling 1 to 5) / 5

Dwell time

Tx, Bluetooth, EDR, PRBS9

3-DH1 - in 5sec.(1/5)	3-DH1 - in 5sec.(2/5)
Tx2_Dwell11	Tx2_Dwell12
	
3-DH1 - in 5sec.(3/5)	**3-DH1 - in 5sec.(4/5)**
Tx2_Dwell21	Tx2_Dwell22
	
3-DH1 - in 5sec.(5/5)	**3-DH1 - 1pulse**
Tx2_Dwell31	Tx2_Dwell32
	

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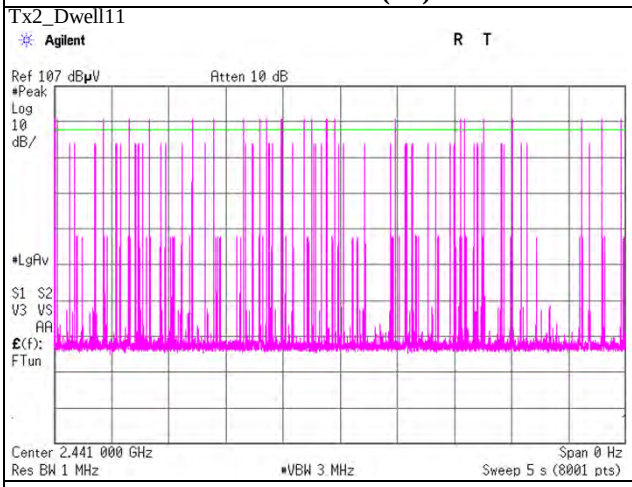
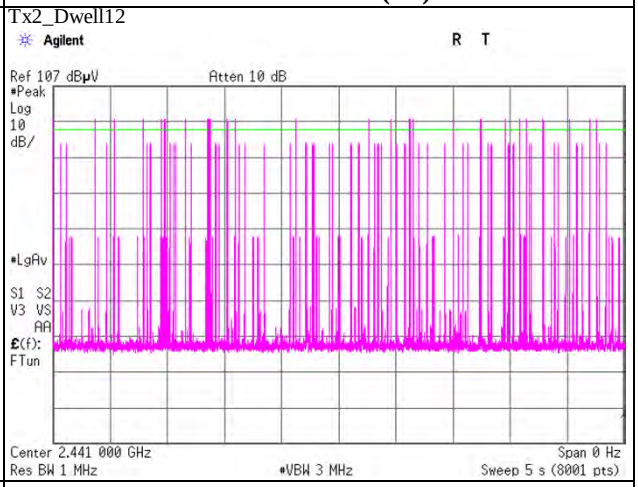
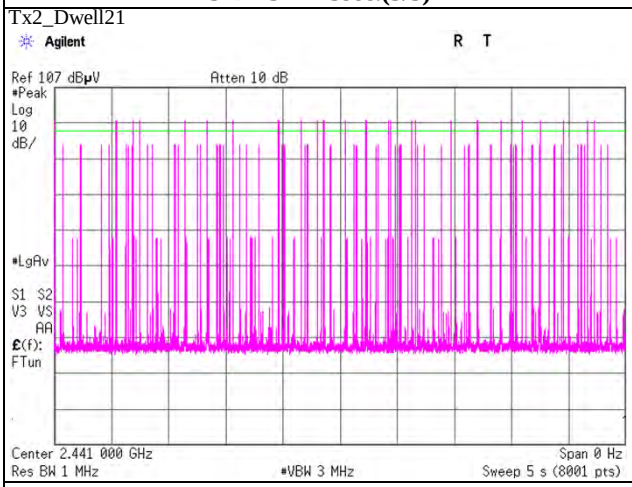
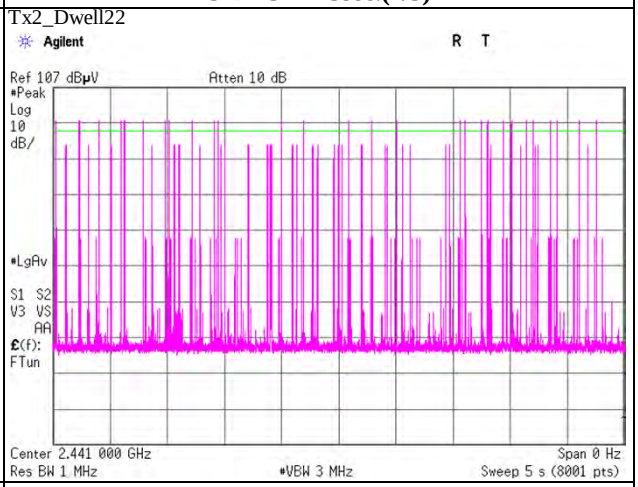
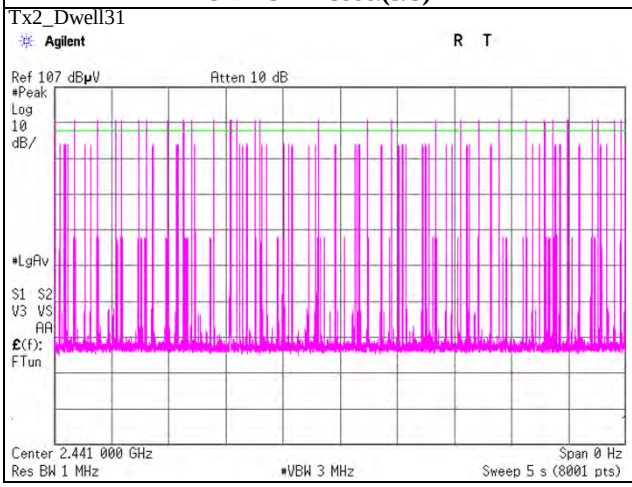
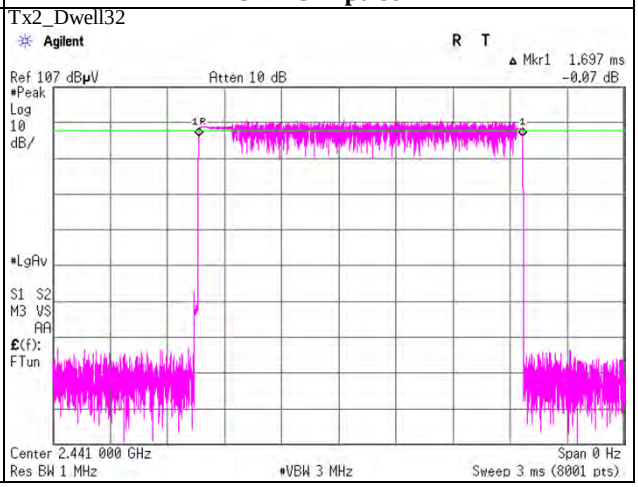
Dwell time

Tx, Bluetooth, EDR, PRBS9

3-DH3 - in 5sec.(1/5)	3-DH3 - in 5sec.(2/5)
Tx2_Dwell11	Tx2_Dwell12
	
3-DH3 - in 5sec.(3/5)	**3-DH3 - in 5sec.(4/5)**
Tx2_Dwell21	Tx2_Dwell22
	
3-DH3 - in 5sec.(5/5)	**3-DH3 - 1pulse**
Tx2_Dwell31	Tx2_Dwell32
	

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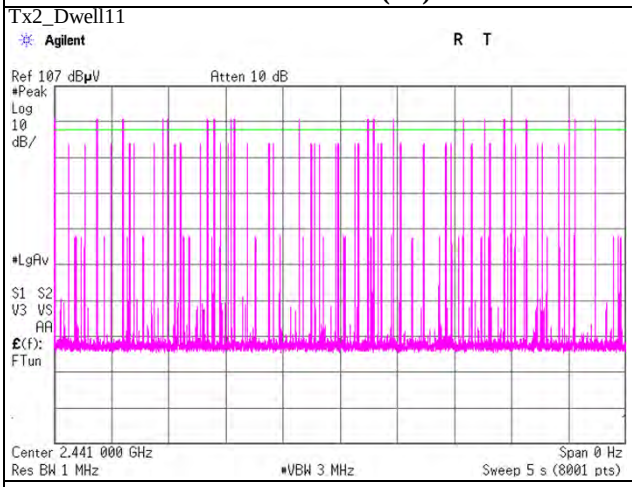
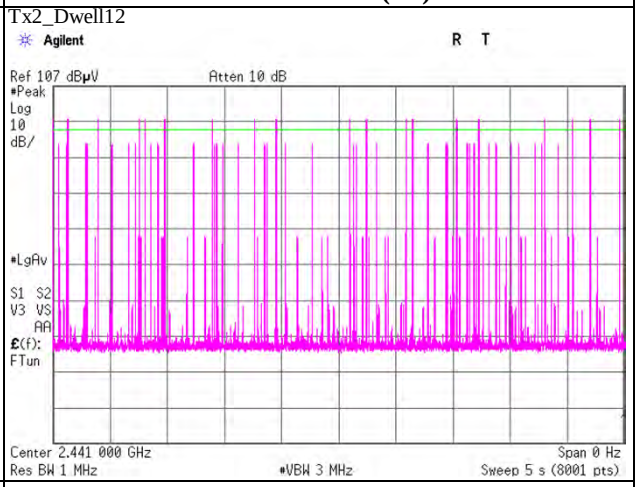
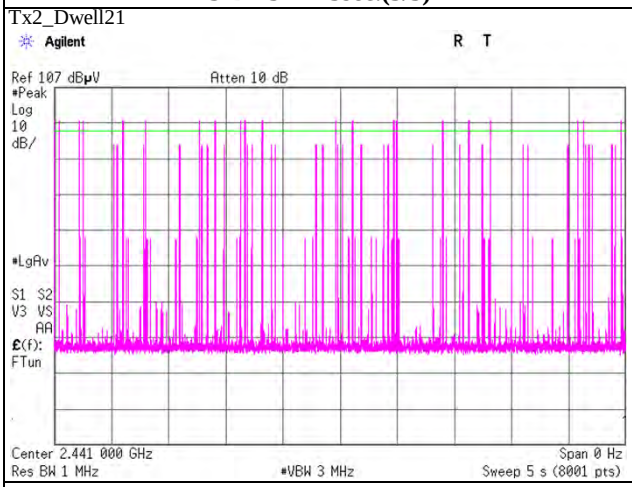
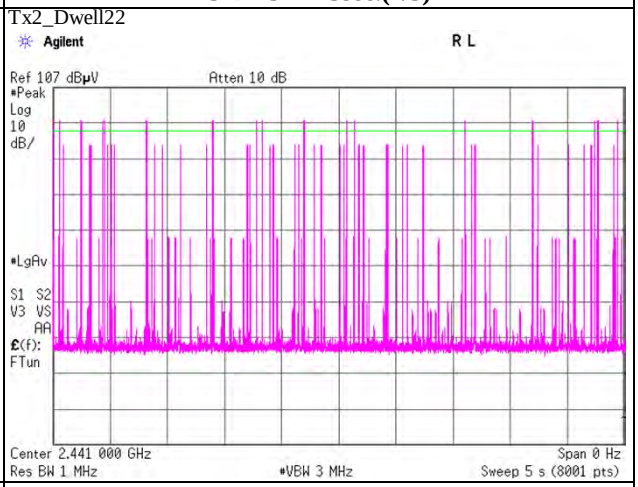
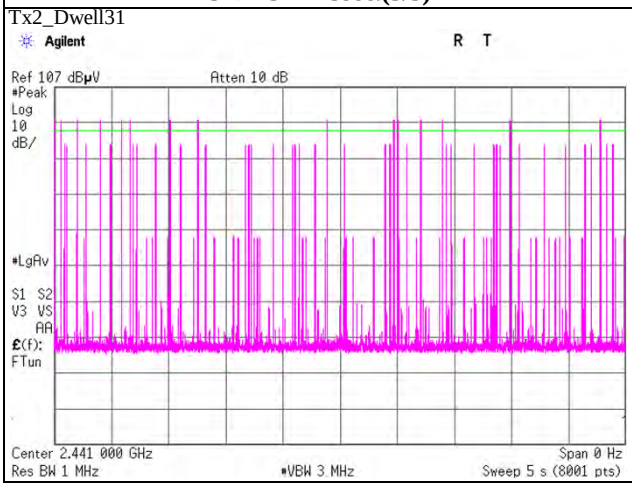
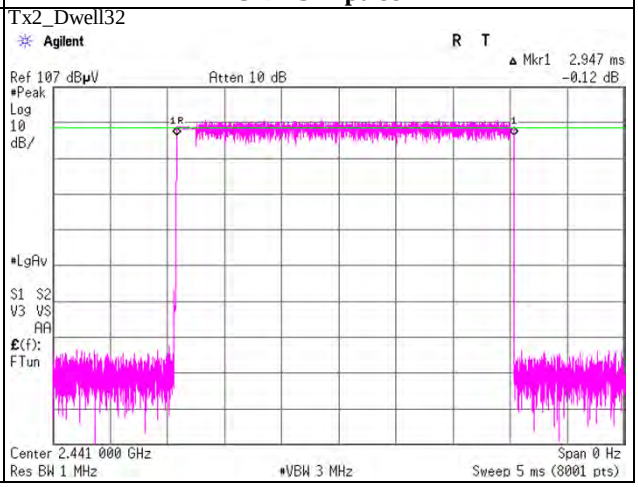
Dwell time

Tx, Bluetooth, EDR, PRBS9

3-DH5 - in 5sec.(1/5)	3-DH5 - in 5sec.(2/5)
Tx2_Dwell11	Tx2_Dwell12
	
3-DH5 - in 5sec.(3/5)	**3-DH5 - in 5sec.(4/5)**
Tx2_Dwell21	Tx2_Dwell22
	
3-DH5 - in 5sec.(5/5)	**3-DH5 - 1pulse**
Tx2_Dwell31	Tx2_Dwell32
	

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Peak Output Power (Conducted)

Test place UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room
Date January 26 2012
Temperature / Humidity 20deg.C , 24%RH
Engineer Hikaru Shirasawa
Mode Tx, Bluetooth

(* P/M: Power Meter with power sensor)

	Freq.	P/M (Peak) Reading	Cable Loss	Atten. Loss	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
DH5	2402.0	-10.52	2.18	9.57	1.23	1.33	20.97	125	19.74
DH5	2441.0	-11.09	2.19	9.57	0.67	1.17	20.97	125	20.30
DH5	2480.0	-11.73	2.20	9.57	0.04	1.01	20.97	125	20.93
2-DH5	2402.0	-8.85	2.18	9.57	2.90	1.95	20.97	125	18.07
2-DH5	2441.0	-9.47	2.19	9.57	2.29	1.69	20.97	125	18.68
2-DH5	2480.0	-10.08	2.20	9.57	1.69	1.48	20.97	125	19.28
3-DH5	2402.0	-8.47	2.18	9.57	3.28	2.13	20.97	125	17.69
3-DH5	2441.0	-9.08	2.19	9.57	2.68	1.85	20.97	125	18.29
3-DH5	2480.0	-9.67	2.20	9.57	2.10	1.62	20.97	125	18.87

Sample Calculation:
Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

Radiated Emission

Test place	UL Japan, Inc. Shonan EMC Lab.	
	No.3 Semi Anechoic Chamber	No.2 Semi Anechoic Chamber
Date	January 26, 2012	January 27, 2012
Temperature / Humidity	21deg.C , 33%RH	20deg.C , 32%RH
Engineer	Wataru Kojima	Wataru Kojima
Mode	Tx, 2402 MHz	S/N: AABB000001CS
	Tx, Bluetooth, BDR, PRBS9	

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	264.014	QP	35.6	17.6	10.0	31.7	31.5	46.0	14.5	124	76	
Hori.	360.020	QP	39.6	15.5	7.3	31.7	30.7	46.0	15.3	103	179	
Hori.	1439.987	PK	50.6	25.0	12.9	40.8	47.7	73.9	26.2	100	155	
Hori.	2390.000	PK	45.9	27.2	13.8	41.1	45.8	73.9	28.1	100	358	
Hori.	2397.933	PK	51.6	27.3	13.8	41.1	51.6	73.9	22.3	100	150	
Hori.	2400.000	PK	51.9	27.3	13.8	41.1	51.9	73.9	22.0	100	358	
Hori.	3360.143	PK	49.6	29.2	5.4	41.6	42.6	73.9	31.3	100	151	
Hori.	4804.000	PK	48.8	31.1	5.9	41.1	44.7	73.9	29.2	100	315	
Hori.	7206.000	PK	44.3	36.5	7.4	41.3	46.9	73.9	27.0	100	0	
Hori.	9608.000	PK	44.6	38.2	8.6	38.8	52.6	73.9	21.3	100	0	
Hori.	12010.000	PK	44.9	39.3	10.2	39.2	55.2	73.9	18.7	100	0	
Hori.	1439.987	AV	47.2	25.0	12.9	40.8	44.3	53.9	9.6	100	155	
Hori.	2390.000	AV	34.1	27.2	13.8	41.1	34.0	53.9	19.9	100	358	
Hori.	2397.933	AV	47.3	27.3	13.8	41.1	47.3	53.9	6.6	100	150	
Hori.	2400.000	AV	39.5	27.3	13.8	41.1	39.5	53.9	14.4	100	358	
Hori.	3360.143	AV	43.2	29.2	5.4	41.6	36.2	53.9	17.7	100	151	
Hori.	4804.000	AV	36.8	31.1	5.9	41.1	32.7	53.9	21.2	100	315	
Hori.	7206.000	AV	31.8	36.5	7.4	41.3	34.4	53.9	19.5	100	0	
Hori.	9608.000	AV	29.5	38.2	8.6	38.8	37.5	53.9	16.4	100	0	
Hori.	12010.000	AV	30.6	39.3	10.2	39.2	40.9	53.9	13.0	100	0	
Vert.	576.011	QP	39.9	18.8	8.5	31.6	35.6	46.0	10.4	100	199	
Vert.	768.016	QP	32.4	20.6	9.4	31.4	31.0	46.0	15.0	100	43	
Vert.	960.000	QP	31.1	22.6	10.3	30.5	33.5	46.0	12.5	100	29	
Vert.	1439.987	PK	47.1	25.0	12.9	40.8	44.2	73.9	29.7	100	205	
Vert.	2390.000	PK	46.5	27.2	13.8	41.1	46.4	73.9	27.5	100	72	
Vert.	2397.933	PK	47.9	27.3	13.8	41.1	47.9	73.9	26.0	100	67	
Vert.	2400.000	PK	48.1	27.3	13.8	41.1	48.1	73.9	25.8	100	0	
Vert.	4804.000	PK	49.2	31.1	5.9	41.1	45.1	73.9	28.8	100	10	
Vert.	7206.000	PK	41.4	36.5	7.4	41.3	44.0	73.9	29.9	100	0	
Vert.	9608.000	PK	43.8	38.2	8.6	38.8	51.8	73.9	22.1	100	0	
Vert.	12010.000	PK	44.5	39.3	10.2	39.2	54.8	73.9	19.1	100	0	
Vert.	1439.987	AV	42.8	25.0	12.9	40.8	39.9	53.9	14.0	100	205	
Vert.	2390.000	AV	34.1	27.2	13.8	41.1	34.0	53.9	19.9	100	72	
Vert.	2397.933	AV	38.9	27.3	13.8	41.1	38.9	53.9	15.0	100	67	
Vert.	2400.000	AV	35.5	27.3	13.8	41.1	35.5	53.9	18.4	100	0	
Vert.	4804.000	AV	37.5	31.1	5.9	41.1	33.4	53.9	20.5	100	10	
Vert.	7206.000	AV	31.8	36.5	7.4	41.3	34.4	53.9	19.5	100	0	
Vert.	9608.000	AV	29.4	38.2	8.6	38.8	37.4	53.9	16.5	100	0	
Vert.	12010.000	AV	30.6	39.3	10.2	39.2	40.9	53.9	13.0	100	0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier

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

Radiated Emission

Test place	UL Japan, Inc. Shonan EMC Lab.	
	No.3 Semi Anechoic Chamber	No.2 Semi Anechoic Chamber
Date	January 26, 2012	January 27, 2012
Temperature / Humidity	21deg.C , 33%RH	20deg.C , 32%RH
Engineer	Wataru Kojima	Wataru Kojima
Mode	Tx, 2441 MHz	S/N: AABB000001CS
	Tx, Bluetooth, BDR, PRBS9	

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	264.014	QP	35.9	17.6	10.0	31.7	31.8	46.0	14.2	150	69	
Hori.	360.192	QP	34.6	15.5	7.3	31.7	25.7	46.0	20.3	100	182	
Hori.	1440.182	PK	51.8	25.0	12.9	40.8	48.9	73.9	25.0	100	155	
Hori.	3360.143	PK	50.2	29.2	5.4	41.6	43.2	73.9	30.7	100	152	
Hori.	4882.000	PK	46.3	31.2	5.9	40.9	42.5	73.9	31.4	100	310	
Hori.	7323.000	PK	44.8	36.8	7.5	41.4	47.7	73.9	26.2	100	0	
Hori.	9764.000	PK	42.8	38.5	8.6	38.8	51.1	73.9	22.8	100	0	
Hori.	12205.000	PK	43.5	39.3	10.2	39.2	53.8	73.9	20.1	100	0	
Hori.	1440.182	AV	48.3	25.0	12.9	40.8	45.4	53.9	8.5	100	155	
Hori.	3360.143	AV	42.0	29.2	5.4	41.6	35.0	53.9	18.9	100	152	
Hori.	4882.000	AV	36.8	31.2	5.9	40.9	33.0	53.9	20.9	100	310	
Hori.	7323.000	AV	31.9	36.8	7.5	41.4	34.8	53.9	19.1	100	0	
Hori.	9764.000	AV	29.9	38.5	8.6	38.8	38.2	53.9	15.7	100	0	
Hori.	12205.000	AV	30.8	39.3	10.2	39.2	41.1	53.9	12.8	100	0	
Vert.	576.009	QP	40.0	18.8	8.5	31.6	35.7	46.0	10.3	100	205	
Vert.	768.012	QP	32.5	20.6	9.4	31.4	31.1	46.0	14.9	100	72	
Vert.	960.000	QP	30.5	22.6	10.3	30.5	32.9	46.0	13.1	100	12	
Vert.	1440.182	PK	49.7	25.0	12.9	40.8	46.8	73.9	27.1	100	207	
Vert.	4882.000	PK	46.2	31.2	5.9	40.9	42.4	73.9	31.5	100	5	
Vert.	7323.000	PK	44.6	36.8	7.5	41.4	47.5	73.9	26.4	100	0	
Vert.	9764.000	PK	43.2	38.5	8.6	38.8	51.5	73.9	22.4	100	0	
Vert.	12205.000	PK	43.7	39.3	10.2	39.2	54.0	73.9	19.9	100	0	
Vert.	1440.182	AV	44.2	25.0	12.9	40.8	41.3	53.9	12.6	100	207	
Vert.	4882.000	AV	34.6	31.2	5.9	40.9	30.8	53.9	23.1	100	5	
Vert.	7323.000	AV	31.9	36.8	7.5	41.4	34.8	53.9	19.1	100	0	
Vert.	9764.000	AV	29.8	38.5	8.6	38.8	38.1	53.9	15.8	100	0	
Vert.	12205.000	AV	30.8	39.3	10.2	39.2	41.1	53.9	12.8	100	0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier

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

Radiated Emission

Test place	UL Japan, Inc. Shonan EMC Lab.	
	No.3 Semi Anechoic Chamber	No.2 Semi Anechoic Chamber
Date	January 26, 2012	January 27, 2012
Temperature / Humidity	21deg.C , 33%RH	20deg.C , 32%RH
Engineer	Wataru Kojima	Wataru Kojima
Mode	Tx, 2480 MHz	S/N: AABB000001CS
	Tx, Bluetooth, BDR, PRBS9	

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	264.085	QP	35.5	17.6	10.0	31.7	31.4	46.0	14.6	150	66	
Hori.	360.024	QP	38.8	15.5	7.3	31.7	29.9	46.0	16.1	100	68	
Hori.	1439.973	PK	53.1	25.0	12.9	40.8	50.2	73.9	23.7	100	158	
Hori.	2483.500	PK	47.5	27.5	13.8	41.1	47.7	73.9	26.2	100	355	
Hori.	2483.942	PK	51.1	27.5	13.8	41.1	51.3	73.9	22.6	100	355	
Hori.	3359.969	PK	49.6	29.2	5.4	41.6	42.6	73.9	31.3	100	151	
Hori.	4960.000	PK	47.5	31.4	5.9	40.8	44.0	73.9	29.9	100	316	
Hori.	7440.000	PK	47.9	37.0	7.5	41.5	50.9	73.9	23.0	100	0	
Hori.	9920.000	PK	43.5	38.8	8.6	38.8	52.1	73.9	21.8	100	0	
Hori.	12400.000	PK	44.7	39.4	10.1	39.2	55.0	73.9	18.9	100	0	
Hori.	1439.973	AV	48.5	25.0	12.9	40.8	45.6	53.9	8.3	100	158	
Hori.	2483.500	AV	35.5	27.5	13.8	41.1	35.7	53.9	18.2	100	355	
Hori.	2483.942	AV	39.3	27.5	13.8	41.1	39.5	53.9	14.4	100	355	
Hori.	3359.969	AV	44.6	29.2	5.4	41.6	37.6	53.9	16.3	100	151	
Hori.	4960.000	AV	36.7	31.4	5.9	40.8	33.2	53.9	20.7	100	316	
Hori.	7440.000	AV	34.0	37.0	7.5	41.5	37.0	53.9	16.9	100	0	
Hori.	9920.000	AV	31.0	38.8	8.6	38.8	39.6	53.9	14.3	100	0	
Hori.	12400.000	AV	31.1	39.4	10.1	39.2	41.4	53.9	12.5	100	0	
Vert.	576.013	QP	40.3	18.8	8.5	31.6	36.0	46.0	10.0	100	209	
Vert.	768.014	QP	32.7	20.6	9.4	31.4	31.3	46.0	14.7	100	48	
Vert.	960.000	QP	30.9	22.6	10.3	30.5	33.3	46.0	12.7	100	29	
Vert.	1439.973	PK	51.0	25.0	12.9	40.8	48.1	73.9	25.8	100	208	
Vert.	2483.500	PK	47.7	27.5	13.8	41.1	47.9	73.9	26.0	100	0	
Vert.	2483.942	PK	51.0	27.5	13.8	41.1	51.2	73.9	22.7	100	0	
Vert.	4960.000	PK	48.2	31.4	5.9	40.8	44.7	73.9	29.2	100	11	
Vert.	7440.000	PK	46.5	37.0	7.5	41.5	49.5	73.9	24.4	100	0	
Vert.	9920.000	PK	43.6	38.8	8.6	38.8	52.2	73.9	21.7	100	0	
Vert.	12400.000	PK	46.2	39.4	10.1	39.2	56.5	73.9	17.4	100	0	
Vert.	1439.973	AV	44.5	25.0	12.9	40.8	41.6	53.9	12.3	100	208	
Vert.	2483.500	AV	35.4	27.5	13.8	41.1	35.6	53.9	18.3	100	0	
Vert.	2483.942	AV	39.2	27.5	13.8	41.1	39.4	53.9	14.5	100	0	
Vert.	4960.000	AV	36.9	31.4	5.9	40.8	33.4	53.9	20.5	100	11	
Vert.	7440.000	AV	33.0	37.0	7.5	41.5	36.0	53.9	17.9	100	0	
Vert.	9920.000	AV	30.0	38.8	8.6	38.8	38.6	53.9	15.3	100	0	
Vert.	12400.000	AV	31.1	39.4	10.1	39.2	41.4	53.9	12.5	100	0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier

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

Radiated Emission

Test place	UL Japan, Inc. Shonan EMC Lab.	
	No.3 Semi Anechoic Chamber	No.2 Semi Anechoic Chamber
Date	January 26, 2012	January 27, 2012
Temperature / Humidity	21deg.C , 33%RH	20deg.C , 32%RH
Engineer	Wataru Kojima	Wataru Kojima
Mode	Tx, 2402 MHz	S/N: AABB000001CS
	Tx, Bluetooth, EDR, PRBS9	

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	264.018	QP	34.7	17.6	10.0	31.7	30.6	46.0	15.4	131	180	
Hori.	360.028	QP	38.9	15.5	7.3	31.7	30.0	46.0	16.0	100	177	
Hori.	1439.989	PK	51.6	25.0	12.9	40.8	48.7	73.9	25.2	100	155	
Hori.	2390.000	PK	46.2	27.2	13.8	41.1	46.1	73.9	27.8	100	355	
Hori.	2399.400	PK	53.7	27.3	13.8	41.1	53.7	73.9	20.2	100	150	
Hori.	2400.000	PK	56.2	27.3	13.8	41.1	56.2	73.9	17.7	100	355	
Hori.	3359.958	PK	48.8	29.2	5.4	41.6	41.8	73.9	32.1	100	152	
Hori.	4804.000	PK	48.4	31.1	5.9	41.1	44.3	73.9	29.6	100	314	
Hori.	7206.000	PK	45.4	36.5	7.4	41.3	48.0	73.9	25.9	100	0	
Hori.	9608.000	PK	44.5	38.2	8.6	38.8	52.5	73.9	21.4	100	0	
Hori.	12010.000	PK	43.7	39.3	10.2	39.2	54.0	73.9	19.9	100	0	
Hori.	1439.989	AV	47.4	25.0	12.9	40.8	44.5	53.9	9.4	100	155	
Hori.	2390.000	AV	34.6	27.2	13.8	41.1	34.5	53.9	19.4	100	355	
Hori.	2399.400	AV	47.8	27.3	13.8	41.1	47.8	53.9	6.1	100	150	
Hori.	2400.000	AV	42.0	27.3	13.8	41.1	42.0	53.9	11.9	100	355	
Hori.	3359.958	AV	40.7	29.2	5.4	41.6	33.7	53.9	20.2	100	152	
Hori.	4804.000	AV	37.5	31.1	5.9	41.1	33.4	53.9	20.5	100	314	
Hori.	7206.000	AV	31.7	36.5	7.4	41.3	34.3	53.9	19.6	100	0	
Hori.	9608.000	AV	30.2	38.2	8.6	38.8	38.2	53.9	15.7	100	0	
Hori.	12010.000	AV	30.6	39.3	10.2	39.2	40.9	53.9	13.0	100	0	
Vert.	576.010	QP	40.4	18.8	8.5	31.6	36.1	46.0	9.9	100	205	
Vert.	768.016	QP	32.7	20.6	9.4	31.4	31.3	46.0	14.7	100	52	
Vert.	960.000	QP	30.8	22.6	10.3	30.5	33.2	46.0	12.8	103	18	
Vert.	1439.989	PK	50.3	25.0	12.9	40.8	47.4	73.9	26.5	100	205	
Vert.	2390.000	PK	47.4	27.2	13.8	41.1	47.3	73.9	26.6	100	69	
Vert.	2399.400	PK	51.6	27.3	13.8	41.1	51.6	73.9	22.3	100	75	
Vert.	2400.000	PK	50.4	27.3	13.8	41.1	50.4	73.9	23.5	100	0	
Vert.	4804.000	PK	49.1	31.1	5.9	41.1	45.0	73.9	28.9	100	14	
Vert.	7206.000	PK	45.5	36.5	7.4	41.3	48.1	73.9	25.8	100	0	
Vert.	9608.000	PK	44.2	38.2	8.6	38.8	52.2	73.9	21.7	100	0	
Vert.	12010.000	PK	45.3	39.3	10.2	39.2	55.6	73.9	18.3	100	0	
Vert.	1439.989	AV	44.9	25.0	12.9	40.8	42.0	53.9	11.9	100	205	
Vert.	2390.000	AV	34.6	27.2	13.8	41.1	34.5	53.9	19.4	100	69	
Vert.	2399.400	AV	39.2	27.3	13.8	41.1	39.2	53.9	14.7	100	75	
Vert.	2400.000	AV	36.9	27.3	13.8	41.1	36.9	53.9	17.0	100	0	
Vert.	4804.000	AV	38.6	31.1	5.9	41.1	34.5	53.9	19.4	100	14	
Vert.	7206.000	AV	31.8	36.5	7.4	41.3	34.4	53.9	19.5	100	0	
Vert.	9608.000	AV	30.2	38.2	8.6	38.8	38.2	53.9	15.7	100	0	
Vert.	12010.000	AV	30.6	39.3	10.2	39.2	40.9	53.9	13.0	100	0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier

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

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Radiated Emission

Test place	UL Japan, Inc. Shonan EMC Lab.	
	No.3 Semi Anechoic Chamber	No.2 Semi Anechoic Chamber
Date	January 26, 2012	January 27, 2012
Temperature / Humidity	21deg.C , 33%RH	20deg.C , 32%RH
Engineer	Wataru Kojima	Wataru Kojima
Mode	Tx, 2441 MHz	S/N: AABB000001CS
	Tx, Bluetooth, EDR, PRBS9	

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	264.018	QP	36.1	17.6	10.0	31.7	32.0	46.0	14.0	127	72	
Hori.	360.023	QP	39.1	15.5	7.3	31.7	30.2	46.0	15.8	100	175	
Hori.	1439.997	PK	52.0	25.0	12.9	40.8	49.1	73.9	24.8	100	157	
Hori.	3359.989	PK	49.9	29.2	5.4	41.6	42.9	73.9	31.0	100	154	
Hori.	4882.000	PK	47.8	31.2	5.9	40.9	44.0	73.9	29.9	100	315	
Hori.	7323.000	PK	46.2	36.8	7.5	41.4	49.1	73.9	24.8	100	0	
Hori.	9764.000	PK	41.9	38.5	8.6	38.8	50.2	73.9	23.7	100	0	
Hori.	12205.000	PK	43.4	39.3	10.2	39.2	53.7	73.9	20.2	100	0	
Hori.	1439.997	AV	47.7	25.0	12.9	40.8	44.8	53.9	9.1	100	157	
Hori.	3359.989	AV	41.3	29.2	5.4	41.6	34.3	53.9	19.6	100	154	
Hori.	4882.000	AV	37.9	31.2	5.9	40.9	34.1	53.9	19.8	100	315	
Hori.	7323.000	AV	33.2	36.8	7.5	41.4	36.1	53.9	17.8	100	0	
Hori.	9764.000	AV	31.3	38.5	8.6	38.8	39.6	53.9	14.3	100	0	
Hori.	12205.000	AV	30.8	39.3	10.2	39.2	41.1	53.9	12.8	100	0	
Vert.	576.012	QP	40.4	18.8	8.5	31.6	36.1	46.0	9.9	103	204	
Vert.	768.288	QP	32.7	20.6	9.4	31.4	31.3	46.0	14.7	100	51	
Vert.	960.000	QP	30.7	22.6	10.3	30.5	33.1	46.0	12.9	100	26	
Vert.	1439.997	PK	51.1	25.0	12.9	40.8	48.2	73.9	25.7	100	208	
Vert.	4882.000	PK	46.9	31.2	5.9	40.9	43.1	73.9	30.8	100	4	
Vert.	7323.000	PK	44.6	36.8	7.5	41.4	47.5	73.9	26.4	100	0	
Vert.	9764.000	PK	41.9	38.5	8.6	38.8	50.2	73.9	23.7	100	0	
Vert.	12205.000	PK	43.0	39.3	10.2	39.2	53.3	73.9	20.6	100	0	
Vert.	1439.997	AV	44.3	25.0	12.9	40.8	41.4	53.9	12.5	100	208	
Vert.	4882.000	AV	36.2	31.2	5.9	40.9	32.4	53.9	21.5	100	4	
Vert.	7323.000	AV	33.3	36.8	7.5	41.4	36.2	53.9	17.7	100	0	
Vert.	9764.000	AV	31.2	38.5	8.6	38.8	39.5	53.9	14.4	100	0	
Vert.	12205.000	AV	30.7	39.3	10.2	39.2	41.0	53.9	12.9	100	0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier

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

Radiated Emission

Test place	UL Japan, Inc. Shonan EMC Lab.	
	No.3 Semi Anechoic Chamber	No.2 Semi Anechoic Chamber
Date	January 26, 2012	January 27, 2012
Temperature / Humidity	21deg.C , 33%RH	20deg.C , 32%RH
Engineer	Wataru Kojima	Wataru Kojima
Mode	Tx, 2480 MHz	S/N: AABB000001CS
	Tx, Bluetooth, EDR, PRBS9	

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	264.018	QP	36.2	17.6	10.0	31.7	32.1	46.0	13.9	126	75	
Hori.	360.021	QP	38.7	15.5	7.3	31.7	29.8	46.0	16.2	100	178	
Hori.	1439.997	PK	51.9	25.0	12.9	40.8	49.0	73.9	24.9	100	156	
Hori.	2483.500	PK	46.0	27.5	13.8	41.1	46.2	73.9	27.7	100	63	
Hori.	2484.025	PK	46.4	27.5	13.8	41.1	46.6	73.9	27.3	100	63	
Hori.	3359.963	PK	50.0	29.2	5.4	41.6	43.0	73.9	30.9	100	154	
Hori.	4960.000	PK	46.8	31.4	5.9	40.8	43.3	73.9	30.6	100	313	
Hori.	7440.000	PK	45.8	37.0	7.5	41.5	48.8	73.9	25.1	100	0	
Hori.	9920.000	PK	42.4	38.8	8.6	38.8	51.0	73.9	22.9	100	0	
Hori.	12400.000	PK	44.2	39.4	10.1	39.2	54.5	73.9	19.4	100	0	
Hori.	1439.997	AV	47.7	25.0	12.9	40.8	44.8	53.9	9.1	100	156	
Hori.	2483.500	AV	32.3	27.5	13.8	41.1	32.5	53.9	21.4	100	63	
Hori.	2484.025	AV	33.2	27.5	13.8	41.1	33.4	53.9	20.5	100	63	
Hori.	3359.963	AV	40.7	29.2	5.4	41.6	33.7	53.9	20.2	100	154	
Hori.	4960.000	AV	35.4	31.4	5.9	40.8	31.9	53.9	22.0	100	313	
Hori.	7440.000	AV	32.3	37.0	7.5	41.5	35.3	53.9	18.6	100	0	
Hori.	9920.000	AV	29.0	38.8	8.6	38.8	37.6	53.9	16.3	100	0	
Hori.	12400.000	AV	31.0	39.4	10.1	39.2	41.3	53.9	12.6	100	0	
Vert.	576.013	QP	40.5	18.8	8.5	31.6	36.2	46.0	9.8	100	206	
Vert.	768.014	QP	32.9	20.6	9.4	31.4	31.5	46.0	14.5	100	43	
Vert.	960.000	QP	30.5	22.6	10.3	30.5	32.9	46.0	13.1	100	29	
Vert.	1439.997	PK	49.4	25.0	12.9	40.8	46.5	73.9	27.4	100	208	
Vert.	2483.500	PK	47.0	27.5	13.8	41.1	47.2	73.9	26.7	100	115	
Vert.	2484.025	PK	45.8	27.5	13.8	41.1	46.0	73.9	27.9	100	115	
Vert.	4960.000	PK	47.4	31.4	5.9	40.8	43.9	73.9	30.0	100	118	
Vert.	7440.000	PK	45.6	37.0	7.5	41.5	48.6	73.9	25.3	100	0	
Vert.	9920.000	PK	42.3	38.8	8.6	38.8	50.9	73.9	23.0	100	0	
Vert.	12400.000	PK	45.4	39.4	10.1	39.2	55.7	73.9	18.2	100	0	
Vert.	1439.997	AV	44.2	25.0	12.9	40.8	41.3	53.9	12.6	100	208	
Vert.	2483.500	AV	34.0	27.5	13.8	41.1	34.2	53.9	19.7	100	115	
Vert.	2484.025	AV	33.3	27.5	13.8	41.1	33.5	53.9	20.4	100	115	
Vert.	4960.000	AV	38.0	31.4	5.9	40.8	34.5	53.9	19.4	100	118	
Vert.	7440.000	AV	32.2	37.0	7.5	41.5	35.2	53.9	18.7	100	0	
Vert.	9920.000	AV	29.0	38.8	8.6	38.8	37.6	53.9	16.3	100	0	
Vert.	12400.000	AV	31.0	39.4	10.1	39.2	41.3	53.9	12.6	100	0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier

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

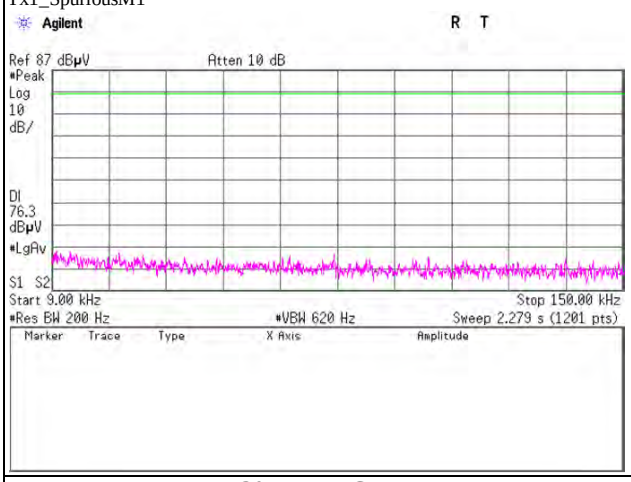
Spurious emission (Conducted)

Tx, Bluetooth, BDR, PRBS9

Tx, 2402MHz (1/2)

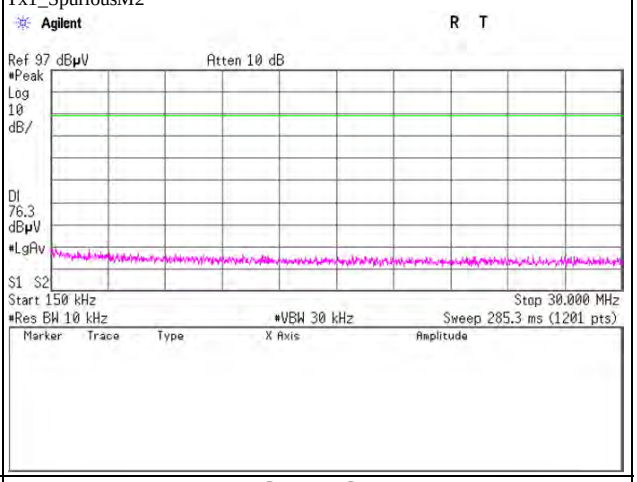
9kHz - 150kHz

Tx1_SpuriousM1



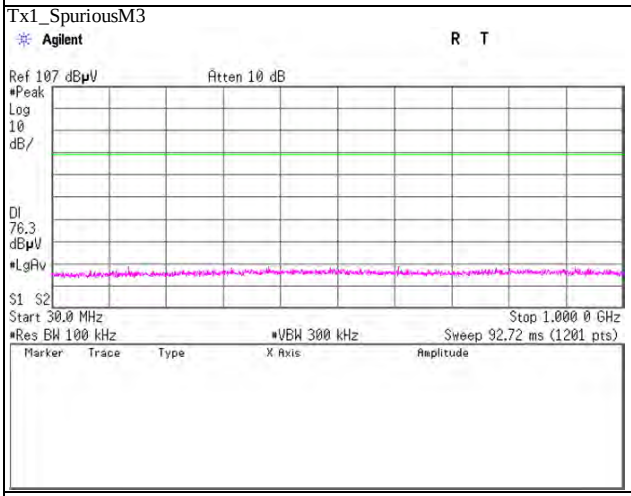
150kHz - 30MHz

Tx1_SpuriousM2



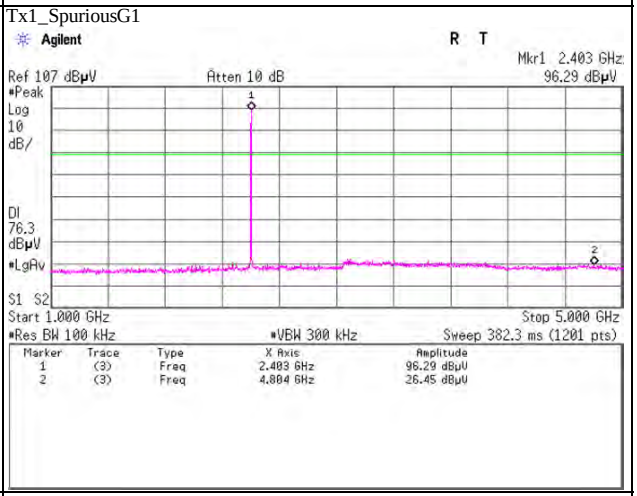
30MHz - 1GHz

Tx1_SpuriousM3



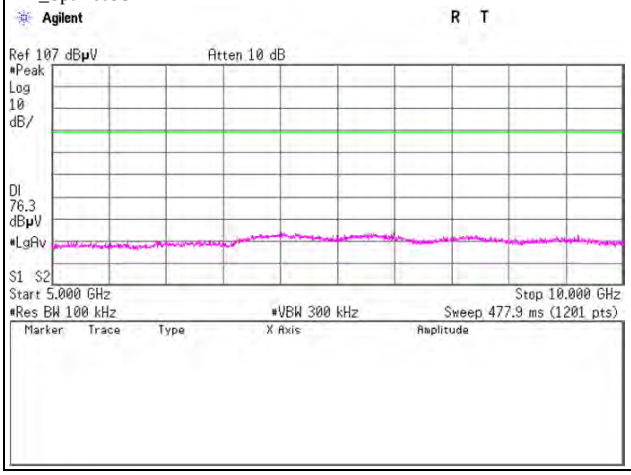
1GHz - 5GHz

Tx1_SpuriousG1



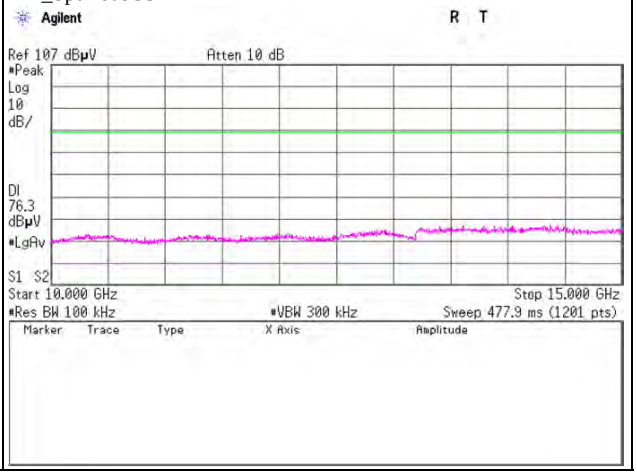
5GHz - 10GHz

Tx1_SpuriousG2



10GHz - 15GHz

Tx1_SpuriousG3



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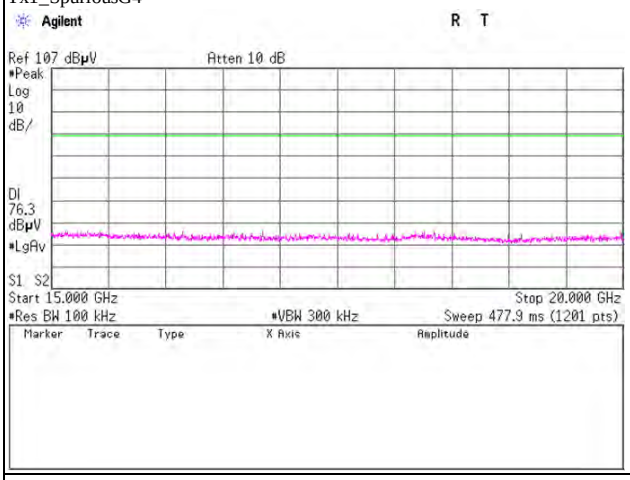
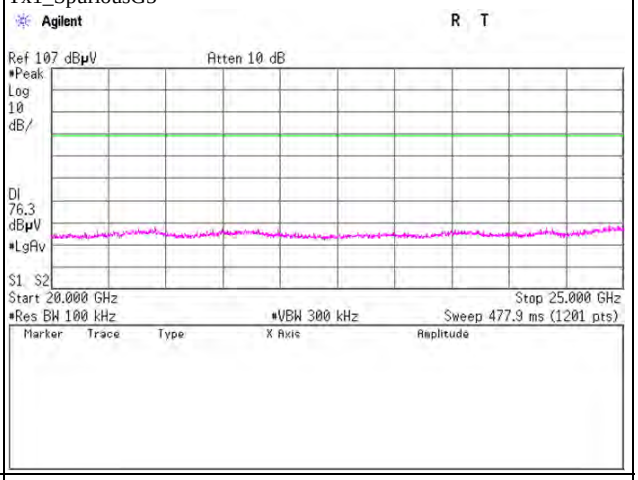
Spurious emission (Conducted)

Tx, Bluetooth, BDR, PRBS9

Tx, 2402MHz (2/2)

15GHz - 20GHz	20GHz - 25GHz
Tx1_SpuriousG4	Tx1_SpuriousG5
	
Tx1_SpuriousG6	Tx1_SpuriousG7
Tx1_SpuriousG8	

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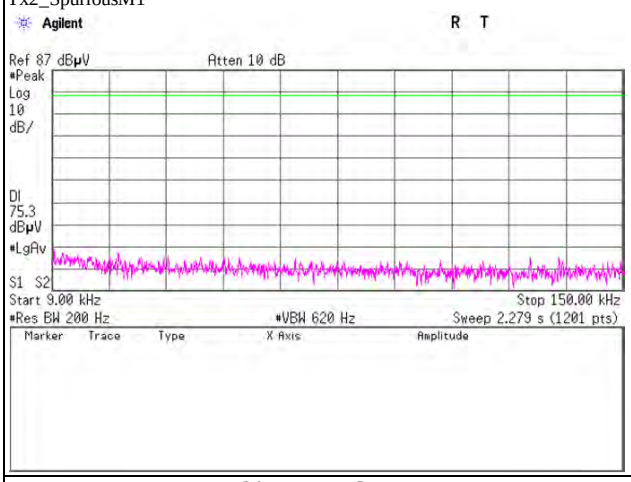
Spurious emission (Conducted)

Tx, Bluetooth, BDR, PRBS9

Tx, 2441MHz (1/2)

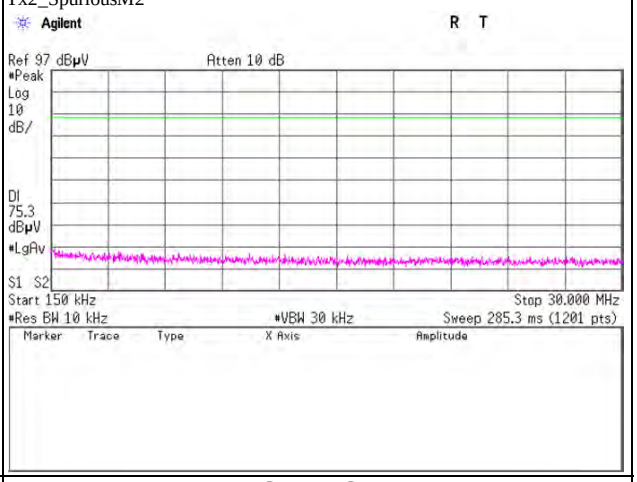
9kHz - 150kHz

Tx2_SpuriousM1



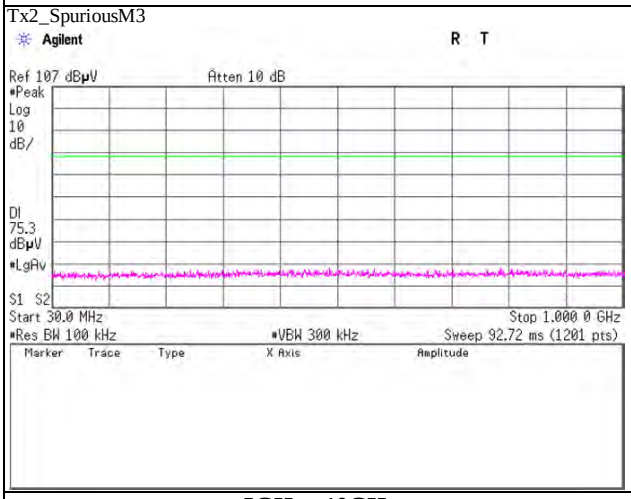
150kHz - 30MHz

Tx2_SpuriousM2



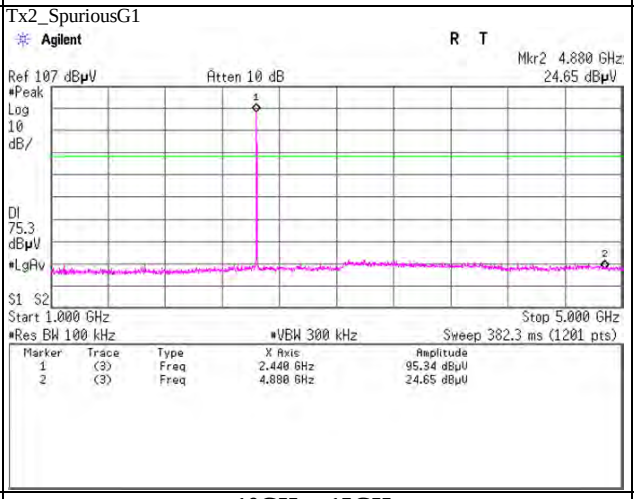
30MHz - 1GHz

Tx2_SpuriousM3



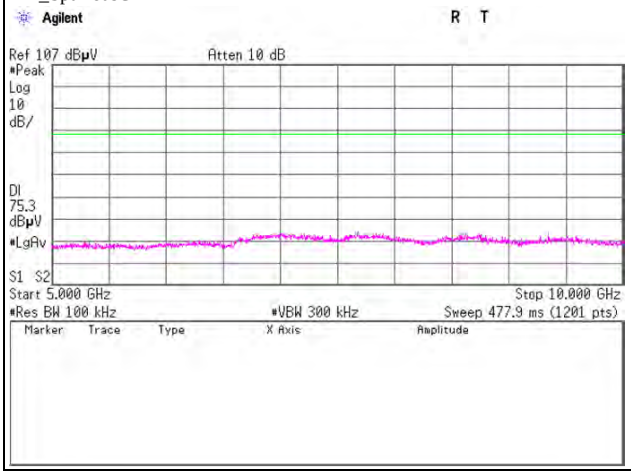
1GHz - 5GHz

Tx2_SpuriousG1



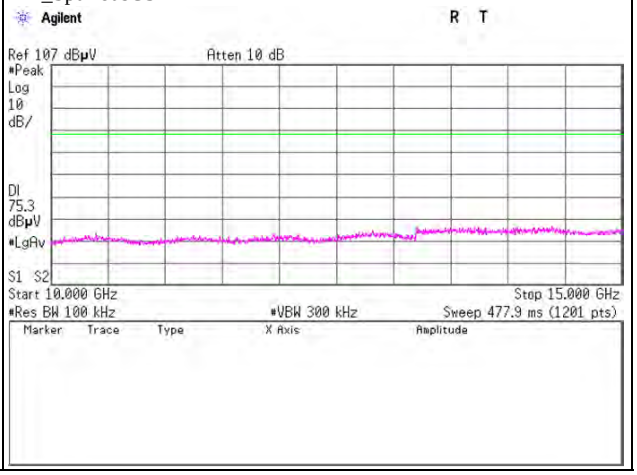
5GHz - 10GHz

Tx2_SpuriousG2



10GHz - 15GHz

Tx2_SpuriousG3



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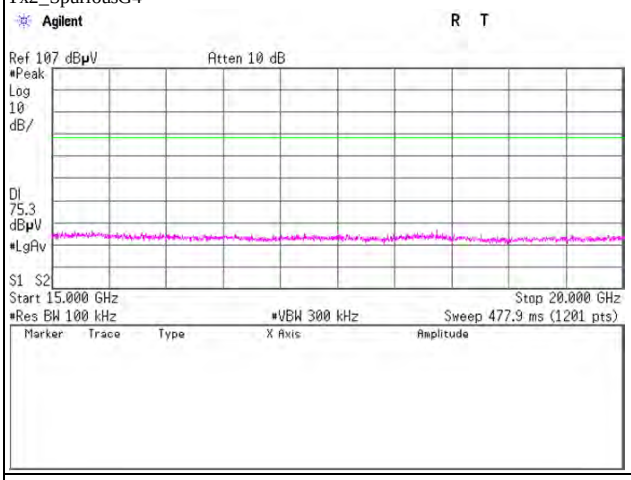
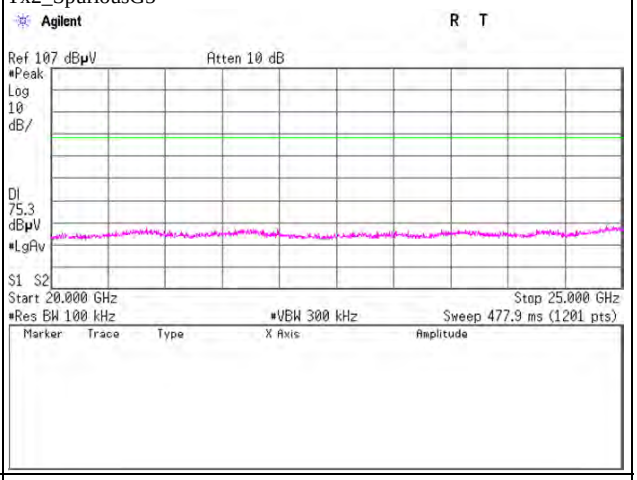
Spurious emission (Conducted)

Tx, Bluetooth, BDR, PRBS9

Tx, 2441MHz (2/2)

15GHz - 20GHz	20GHz - 25GHz
Tx2_SpuriousG4	Tx2_SpuriousG5
	
Tx2_SpuriousG6	Tx2_SpuriousG7
Tx2_SpuriousG8	

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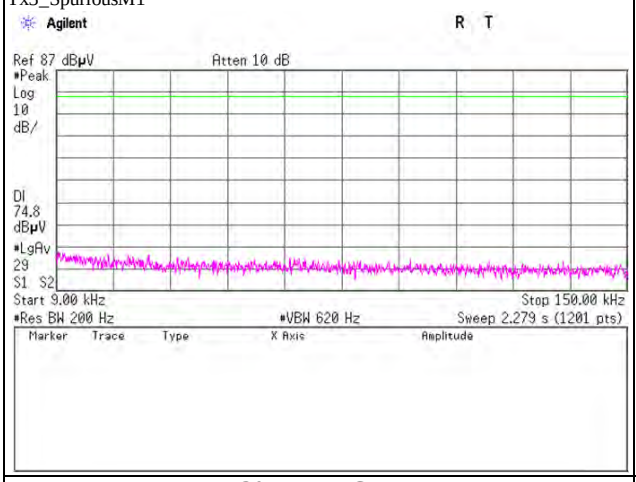
Spurious emission (Conducted)

Tx, Bluetooth, BDR, PRBS9

Tx, 2480MHz (1/2)

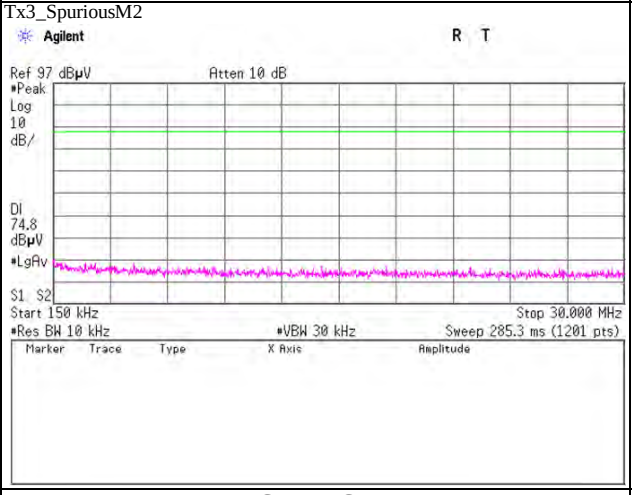
9kHz - 150kHz

Tx3_SpuriousM1



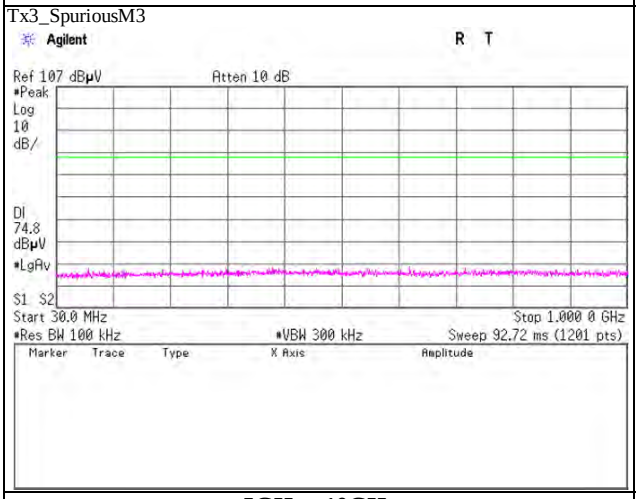
150kHz - 30MHz

Tx3_SpuriousM2



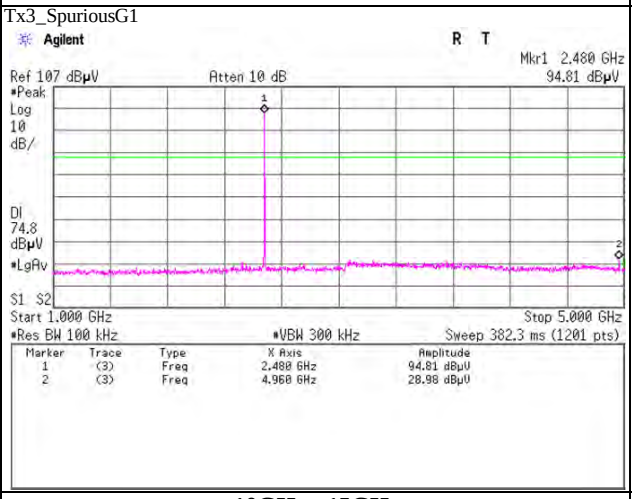
30MHz - 1GHz

Tx3_SpuriousM3



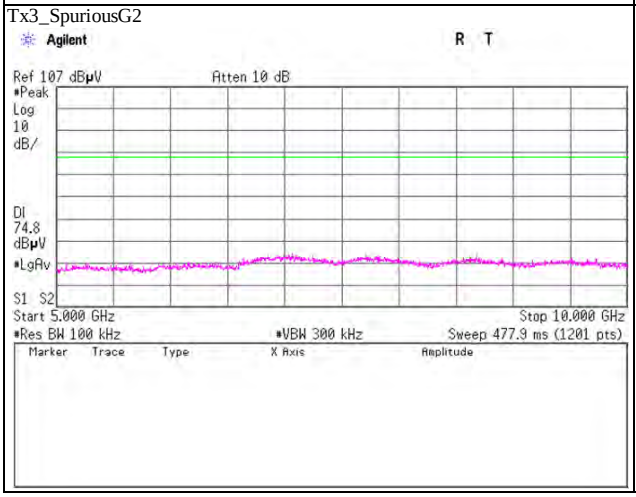
1GHz - 5GHz

Tx3_SpuriousG1



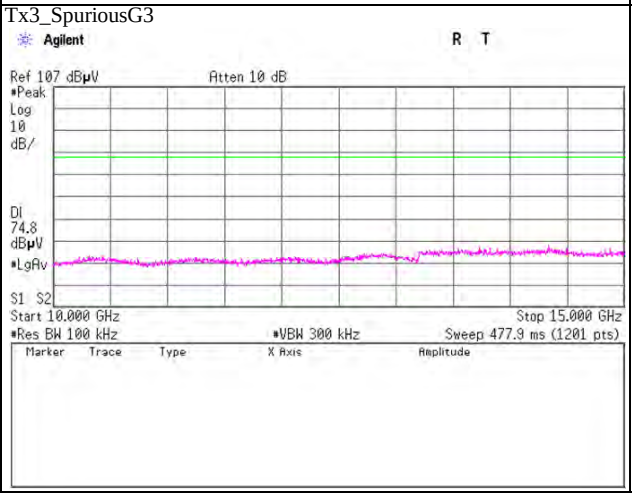
5GHz - 10GHz

Tx3_SpuriousG2



10GHz - 15GHz

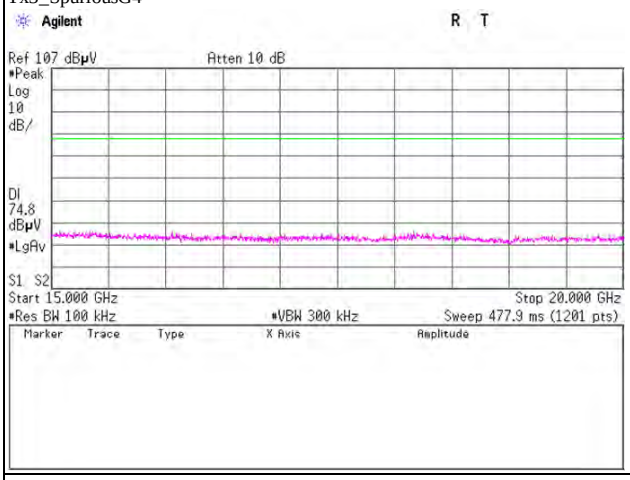
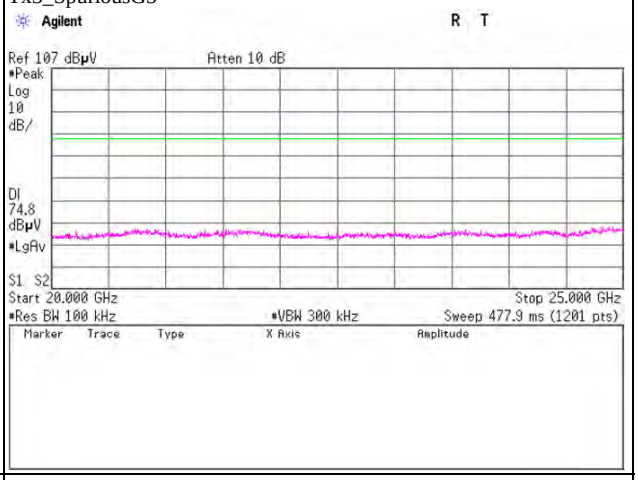
Tx3_SpuriousG3



Spurious emission (Conducted)

Tx, Bluetooth, BDR, PRBS9

Tx, 2480MHz (2/2)

15GHz - 20GHz	**20GHz - 25GHz**
Tx3_SpuriousG4	Tx3_SpuriousG5
	
Tx3_SpuriousG6	Tx3_SpuriousG7
Tx3_SpuriousG8	

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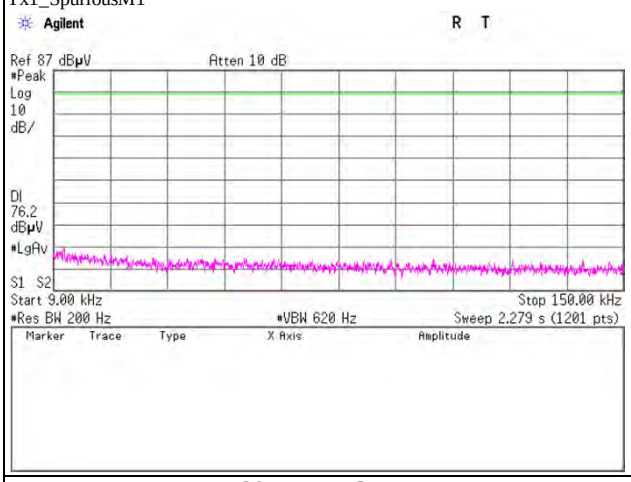
Spurious emission (Conducted)

Tx, Bluetooth, EDR, PRBS9

Tx, 2402MHz (1/2)

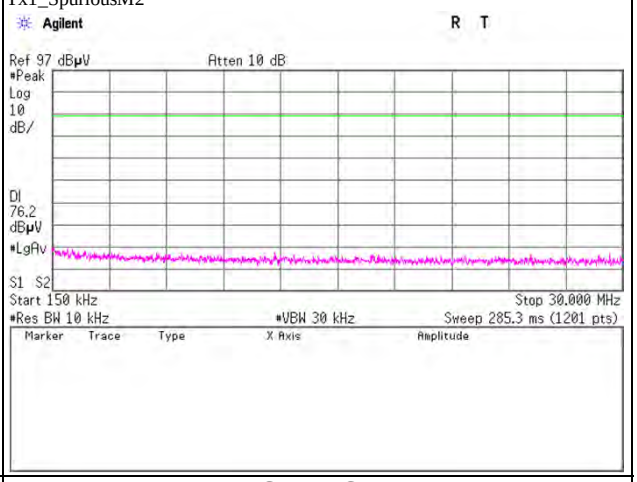
9kHz - 150kHz

Tx1_SpuriousM1



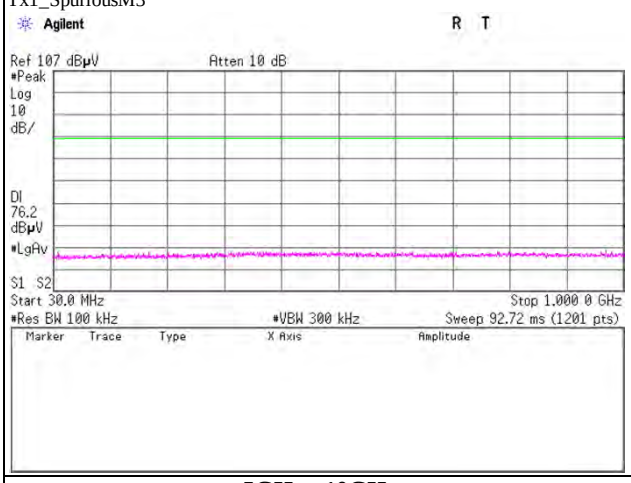
150kHz - 30MHz

Tx1_SpuriousM2



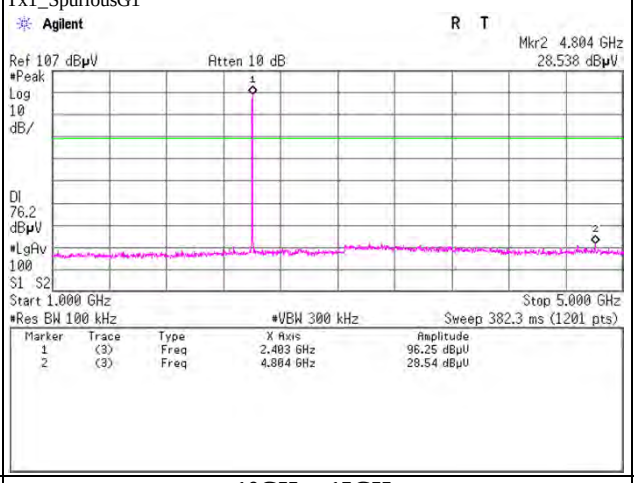
30MHz - 1GHz

Tx1_SpuriousM3



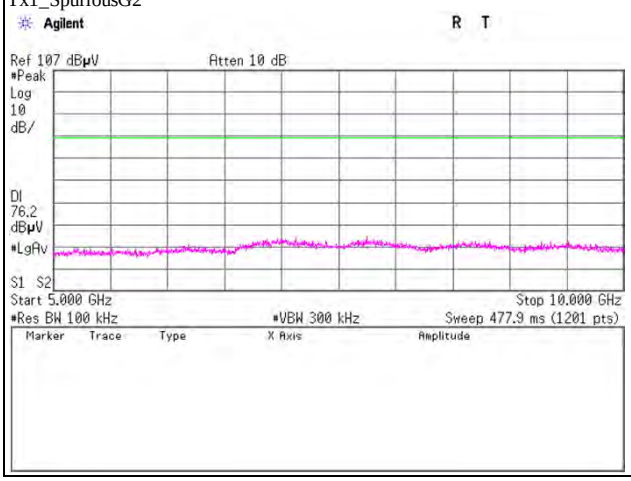
1GHz - 5GHz

Tx1_SpuriousG1



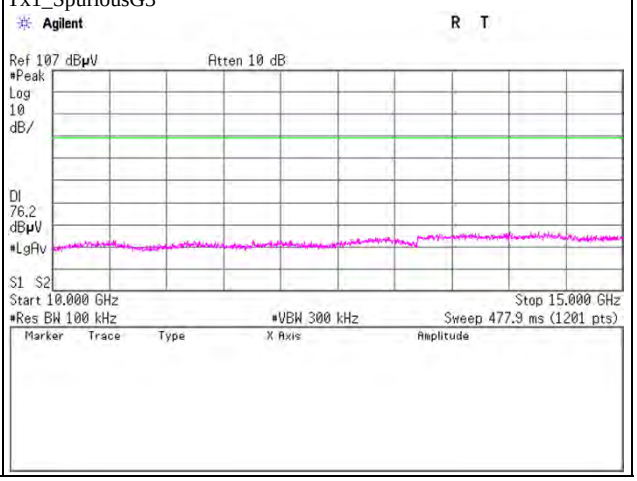
5GHz - 10GHz

Tx1_SpuriousG2



10GHz - 15GHz

Tx1_SpuriousG3



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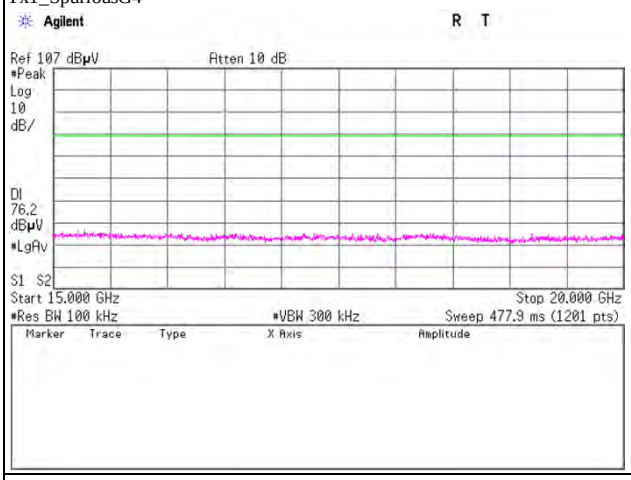
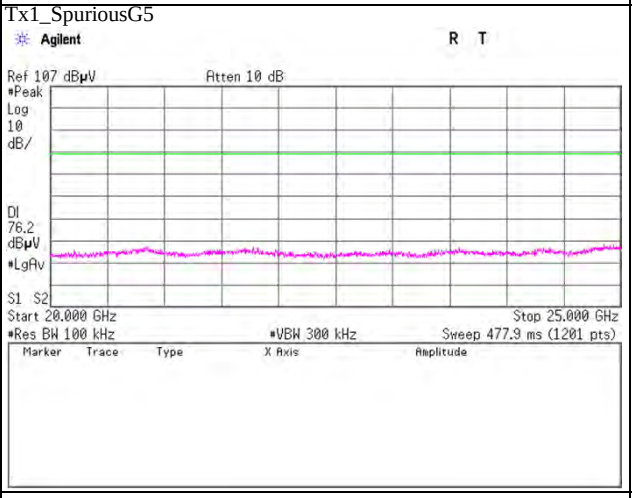
Spurious emission (Conducted)

Tx, Bluetooth, EDR, PRBS9

Tx, 2402MHz (2/2)

15GHz - 20GHz	**20GHz - 25GHz**
Tx1_SpuriousG4	Tx1_SpuriousG5
	
Tx1_SpuriousG6	Tx1_SpuriousG7
Tx1_SpuriousG8	

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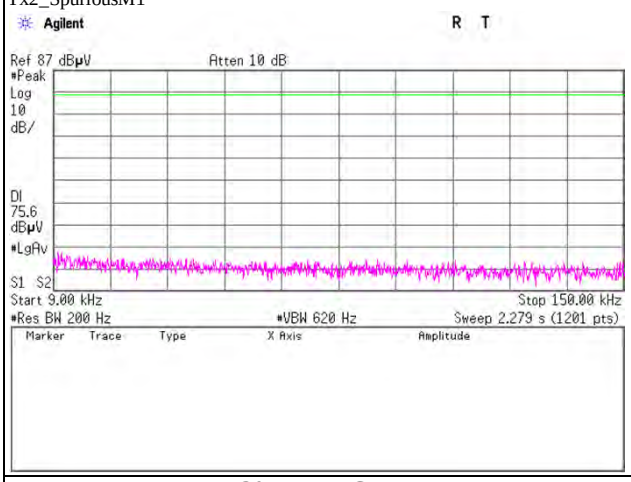
Spurious emission (Conducted)

Tx, Bluetooth, EDR, PRBS9

Tx, 2441MHz (1/2)

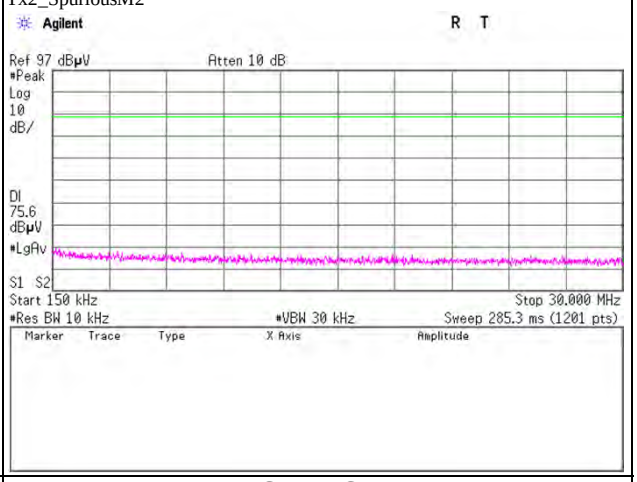
9kHz - 150kHz

Tx2_SpuriousM1



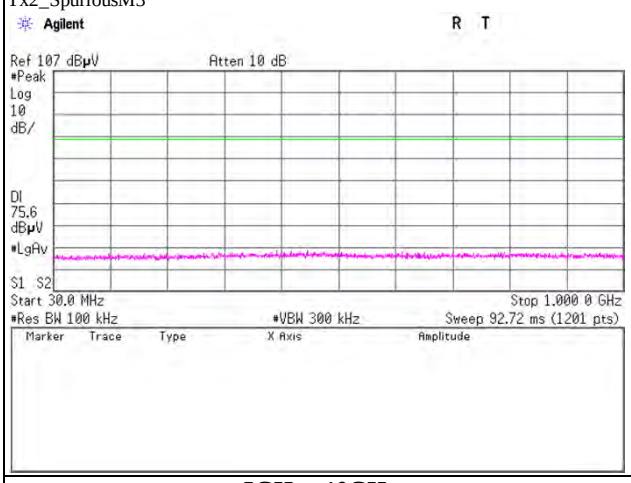
150kHz - 30MHz

Tx2_SpuriousM2



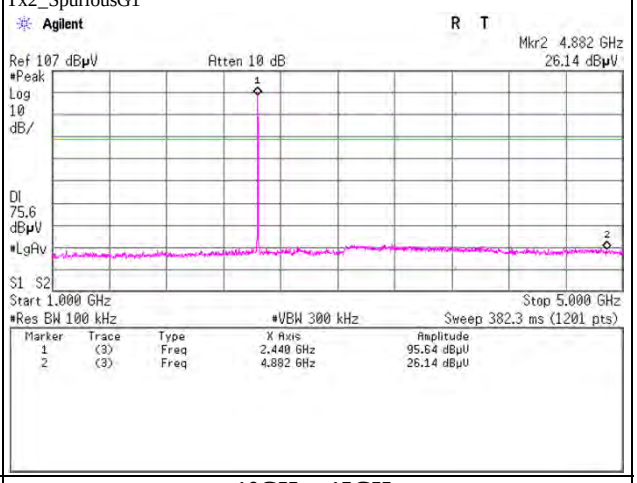
30MHz - 1GHz

Tx2_SpuriousM3



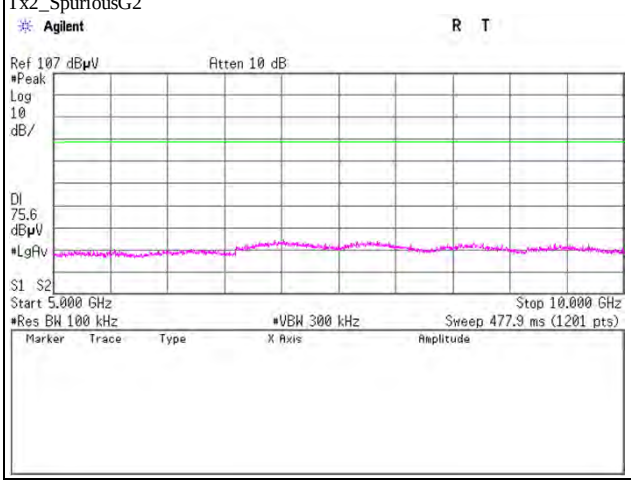
1GHz - 5GHz

Tx2_SpuriousG1



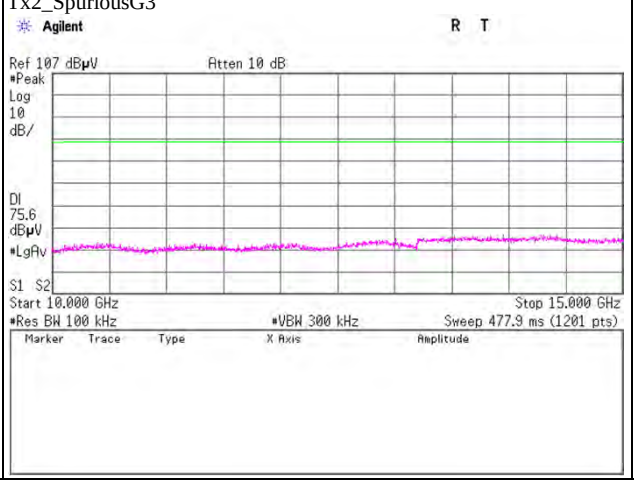
5GHz - 10GHz

Tx2_SpuriousG2



10GHz - 15GHz

Tx2_SpuriousG3



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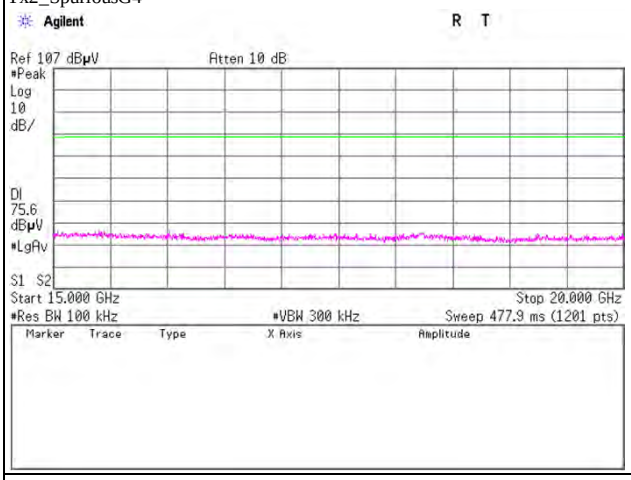
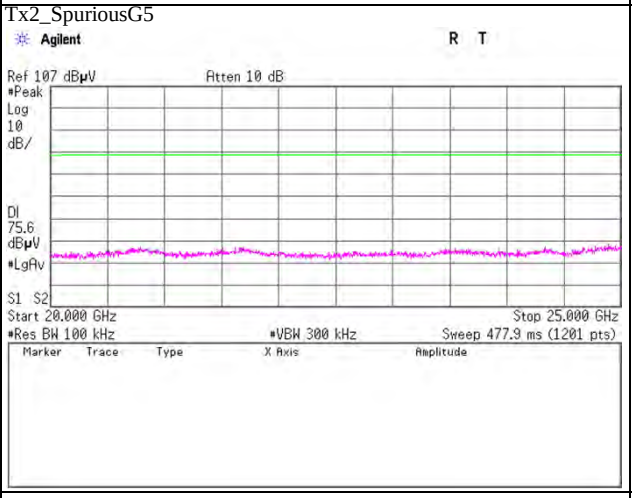
Spurious emission (Conducted)

Tx, Bluetooth, EDR, PRBS9

Tx, 2441MHz (2/2)	
15GHz - 20GHz	**20GHz - 25GHz**
Tx2_SpuriousG4	Tx2_SpuriousG5
	
Tx2_SpuriousG6	Tx2_SpuriousG7
Tx2_SpuriousG8	

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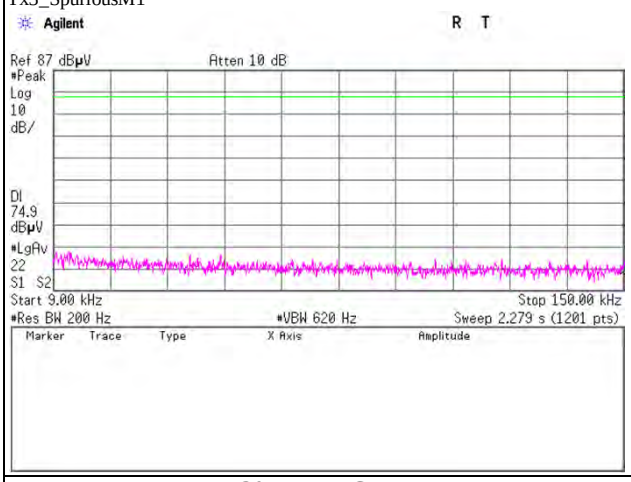
Spurious emission (Conducted)

Tx, Bluetooth, EDR, PRBS9

Tx, 2480MHz (1/2)

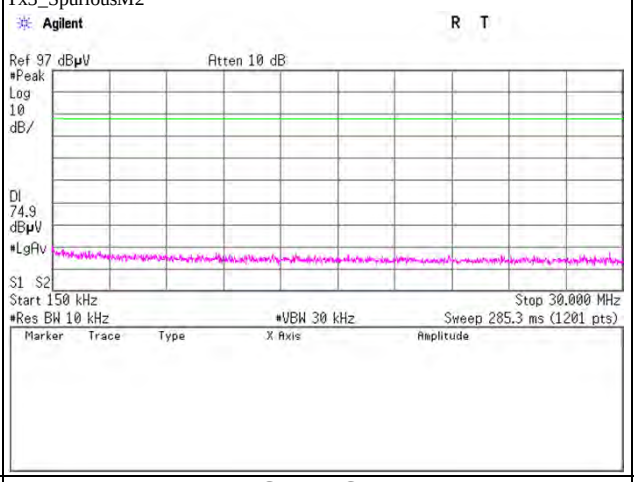
9kHz - 150kHz

Tx3_SpuriousM1



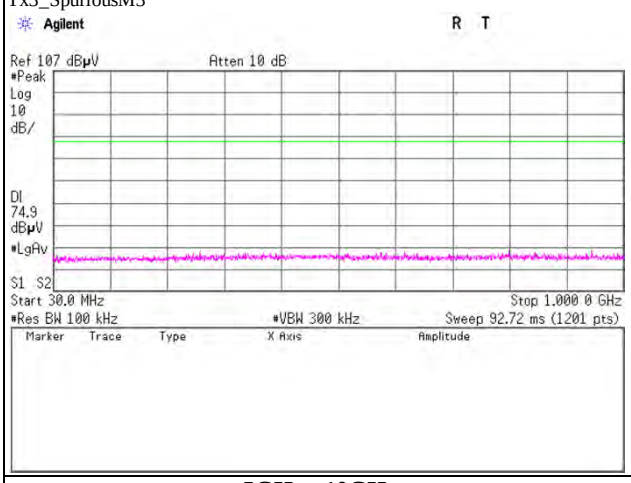
150kHz - 30MHz

Tx3_SpuriousM2



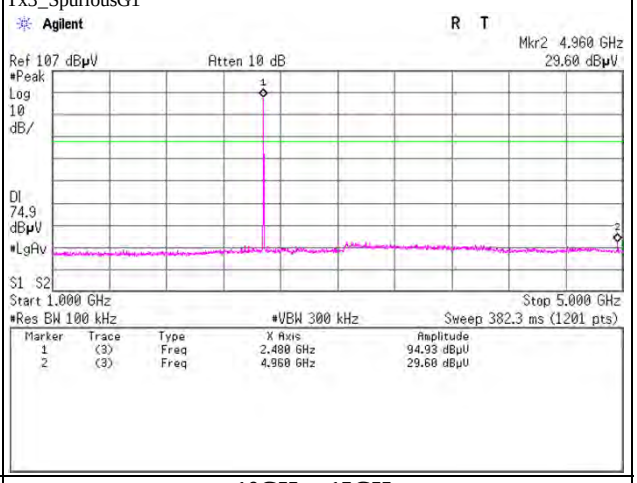
30MHz - 1GHz

Tx3_SpuriousM3



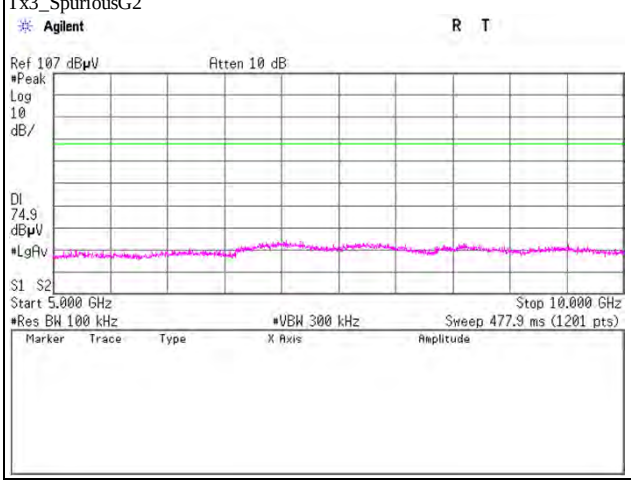
1GHz - 5GHz

Tx3_SpuriousG1



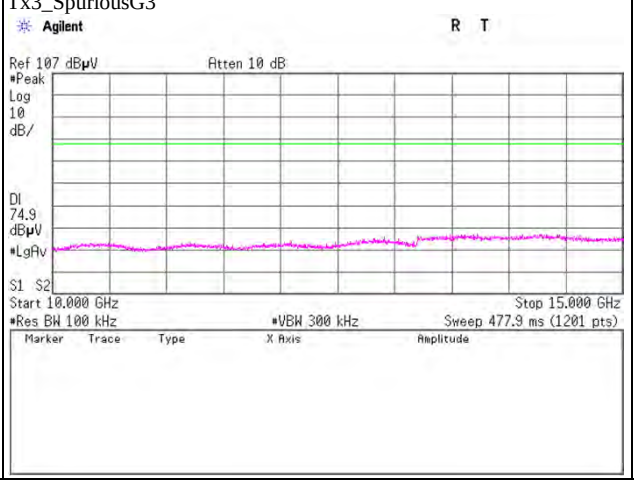
5GHz - 10GHz

Tx3_SpuriousG2



10GHz - 15GHz

Tx3_SpuriousG3



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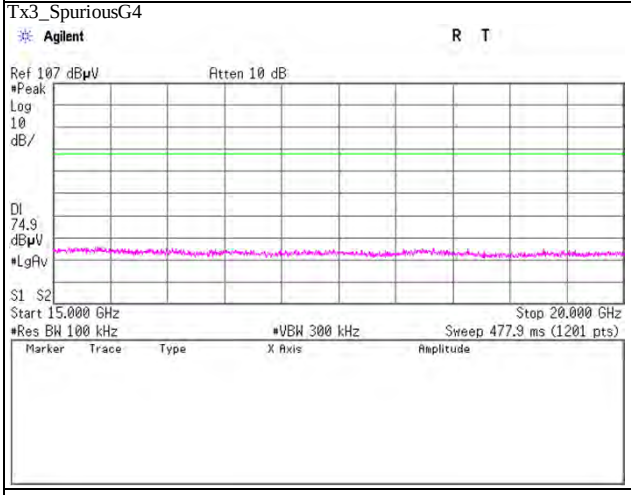
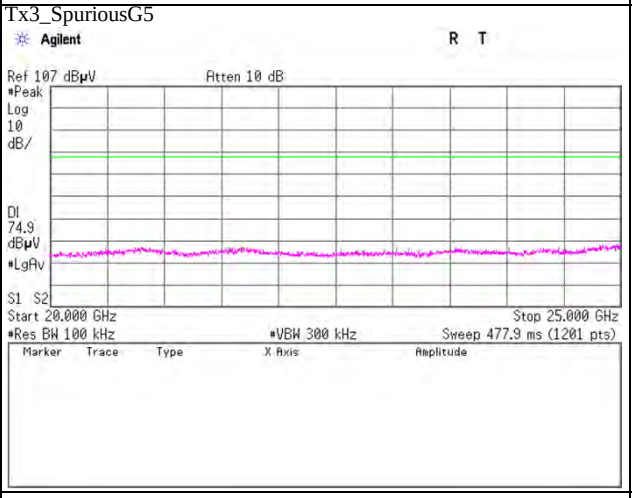
Spurious emission (Conducted)

Tx, Bluetooth, EDR, PRBS9

Tx, 2480MHz (2/2)

15GHz - 20GHz	20GHz - 25GHz
Tx3_SpuriousG4 	Tx3_SpuriousG5 
Tx3_SpuriousG6	Tx3_SpuriousG7
Tx3_SpuriousG8	

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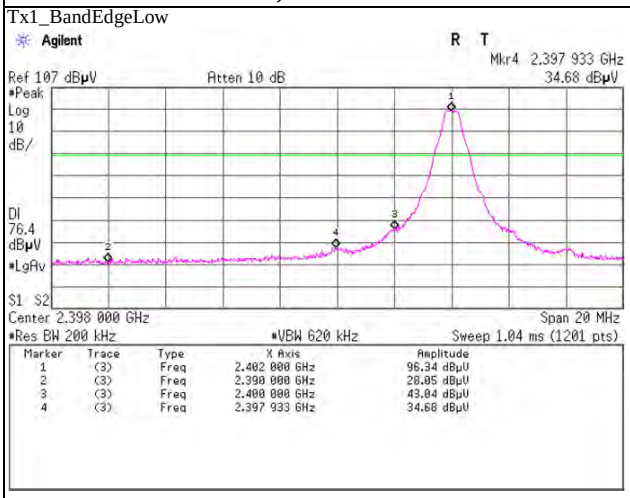
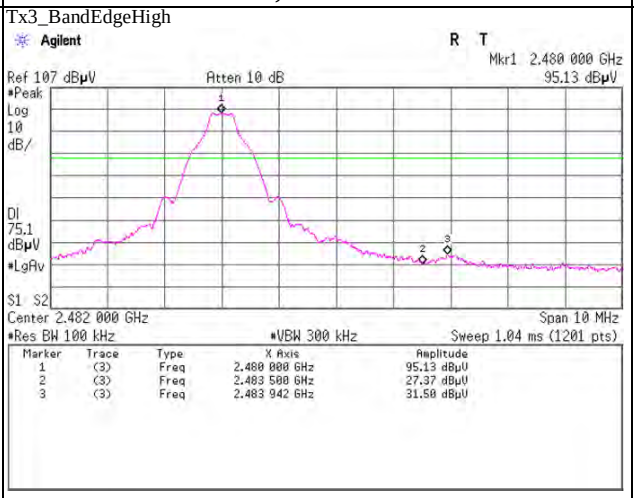
Spurious emission (Conducted)

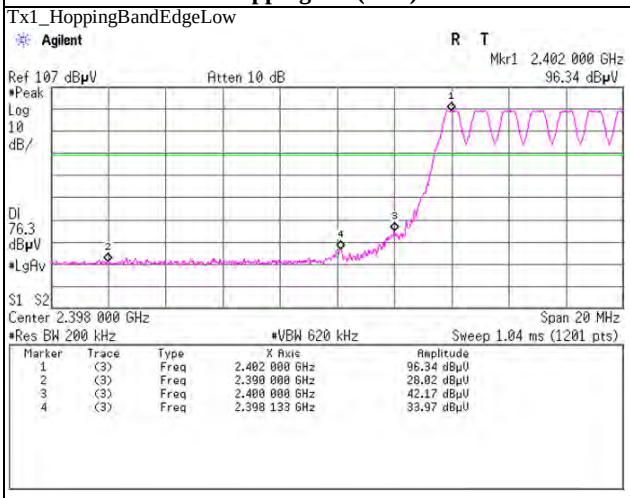
Band Edge compliance

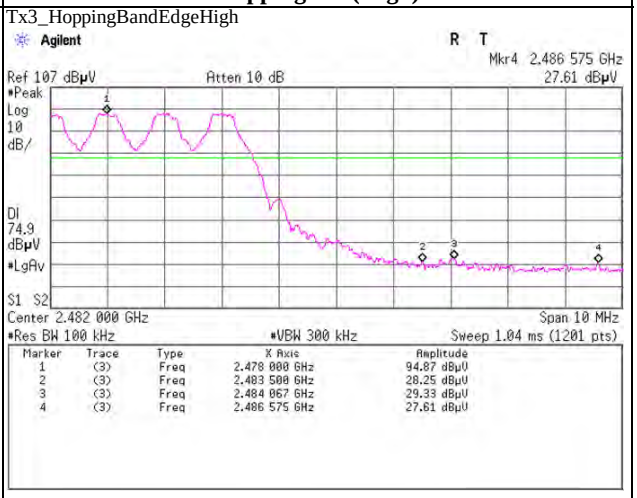
Tx, Bluetooth, BDR, PRBS9	
Tx, 2402MHz	**Tx, 2480MHz**
Tx1_BandEdgeLow	Tx3_BandEdgeHigh





Tx, Bluetooth, BDR, PRBS9	
Hopping On (Low)	**Hopping On (High)**
Tx1_HoppingBandEdgeLow	Tx3_HoppingBandEdgeHigh

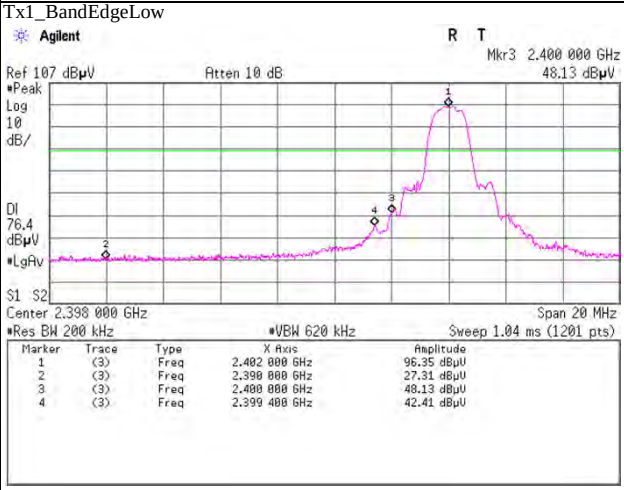


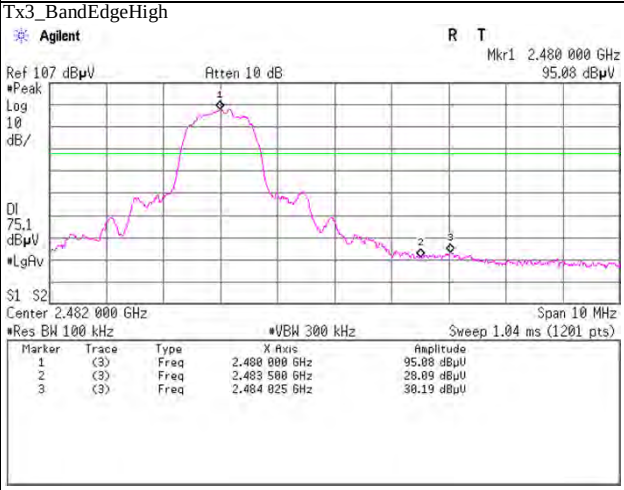


Spurious emission (Conducted)

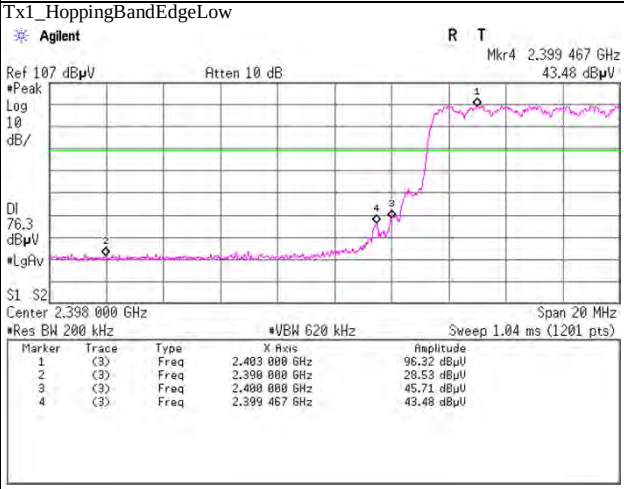
Band Edge compliance

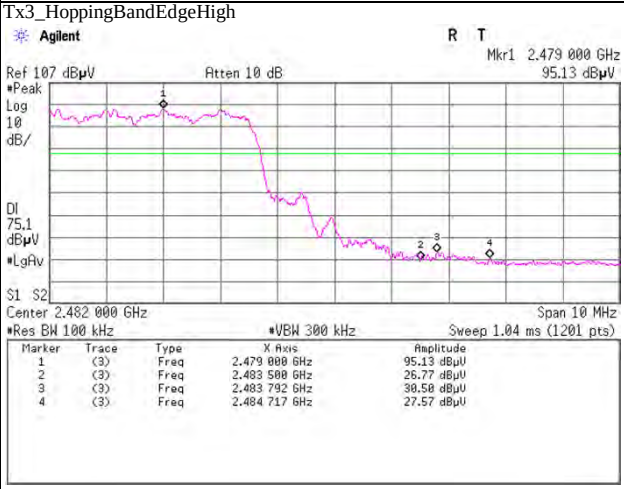
Tx, Bluetooth, EDR, PRBS9	
Tx, 2402MHz	**Tx, 2480MHz**
Tx1_BandEdgeLow	Tx3_BandEdgeHigh





Tx, Bluetooth, EDR, PRBS9	
Hopping On (Low)	**Hopping On (High)**
Tx1_HoppingBandEdgeLow	Tx3_HoppingBandEdgeHigh



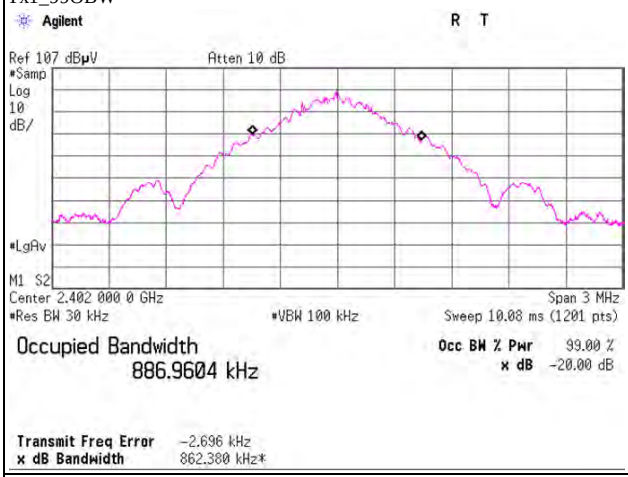


99% Occupied Bandwidth

Tx, Bluetooth, BDR, PRBS9

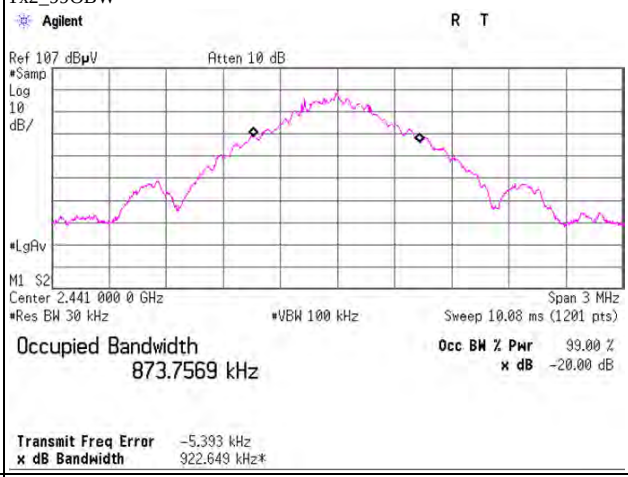
Tx, 2402MHz

Tx1_99OBW



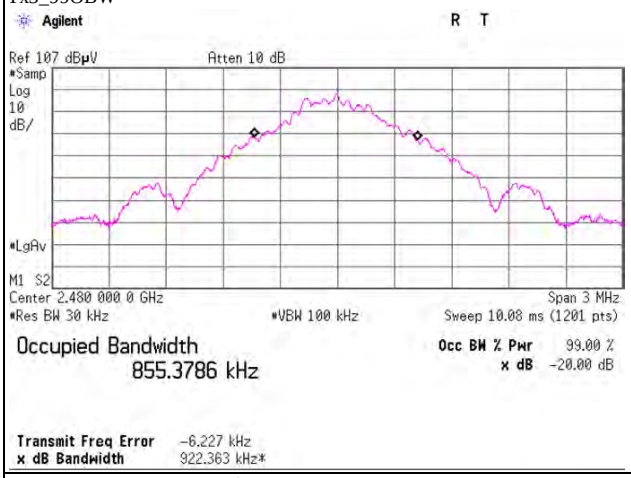
Tx, 2441MHz

Tx2_99OBW



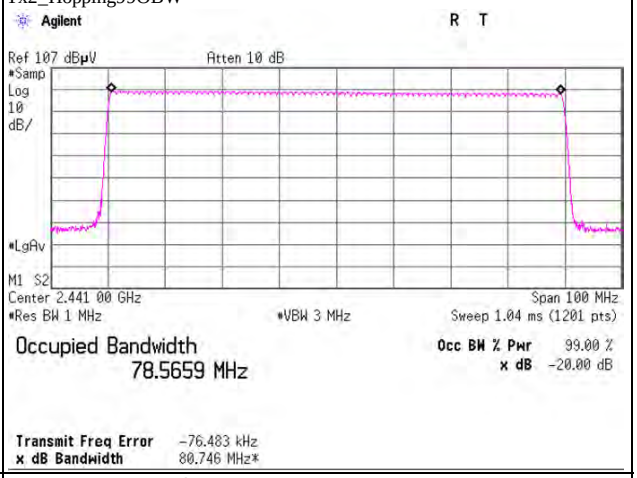
Tx, 2480MHz

Tx3_99OBW



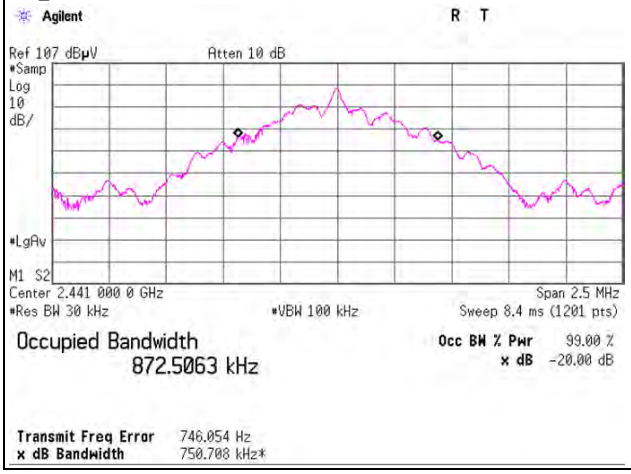
Tx, Hopping On

Tx2_Hopping99OBW



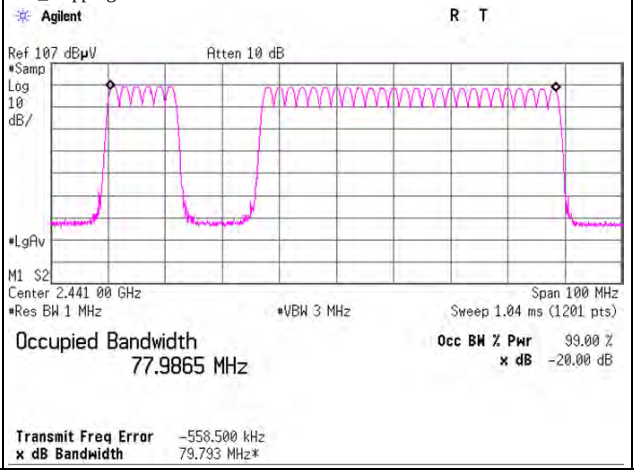
(Reference) Tx, Inquiry

Tx4_99OBW



(Reference) Tx, Inquiry, Hopping

Tx4_Hopping99OBW

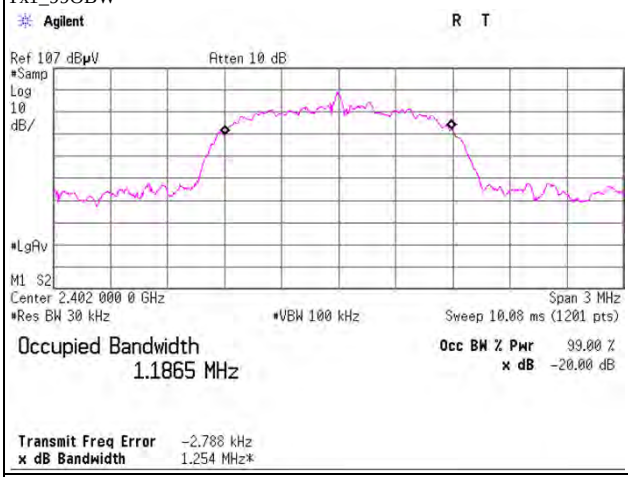


99% Occupied Bandwidth

Tx, Bluetooth, EDR, PRBS9

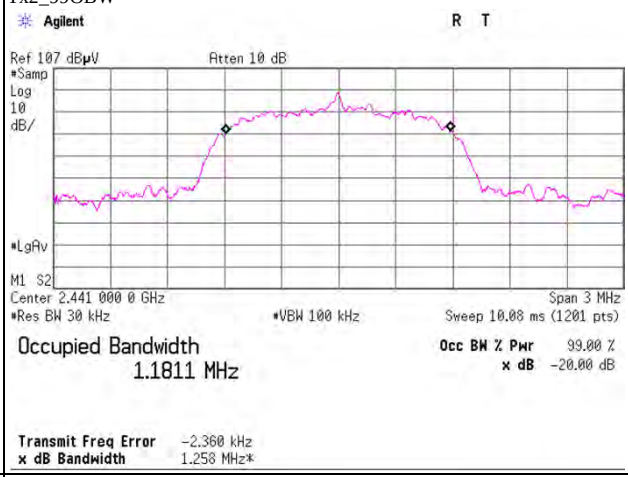
Tx, 2402MHz

Tx1_99OBW



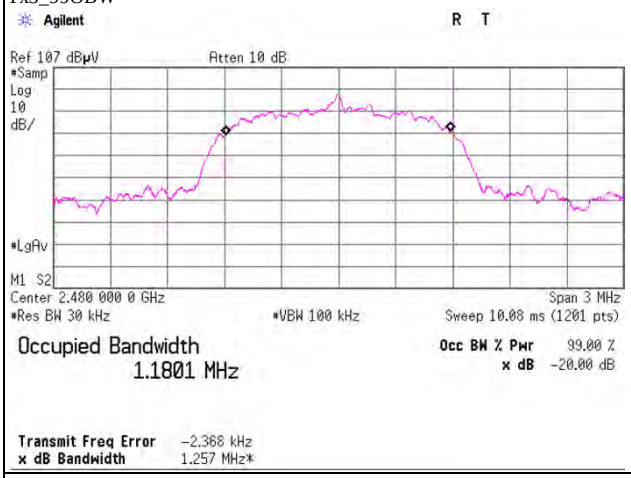
Tx, 2441MHz

Tx2_99OBW



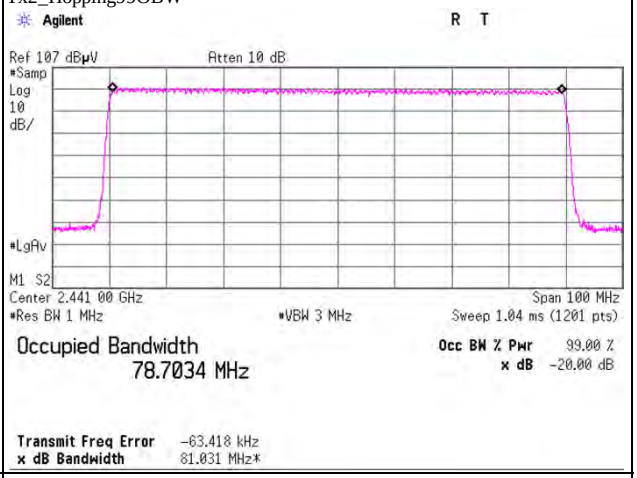
Tx, 2480MHz

Tx3_99OBW



Tx, Hopping On

Tx2_Hopping99OBW



Tx2_Inquiry99OBW

Tx2_InqHopping99OBW

APPENDIX 2
Test Instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
SSA-02	Spectrum Analyzer	Agilent	E4448A	MY48250106	AT	03/07/2011 * 12
SPM-06	Power Meter	Anritsu	ML2495A	0850009	AT	04/12/2011 * 12
SPSS-03	Power sensor	Anritsu	MA2411B	0917063	AT	04/12/2011 * 12
SAT10-09	Attenuator	Weinschel Corp.	54A-10	W5692	AT	11/09/2011 * 12
SCC-G12	Coaxial Cable	Suhner	SUCOFLEX 102	30790/2	AT	03/23/2011 * 12
SOS-09	Humidity Indicator	A&D	AD-5681	4061484	AT	03/02/2011 * 12
SAF-06	Pre Amplifier	TOYO Corporation	TPA0118-36	1440491	RE	07/19/2011 * 12
SCC-G03	Coaxial Cable	Suhner	SUCOFLEX 104A	46499/4A	RE	04/28/2011 * 12
SCC-G23	Coaxial Cable	Suhner	SUCOFLEX 104	297342/4	RE	05/27/2011 * 12
SHA-03	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-739	RE	08/28/2011 * 12
SOS-05	Humidity Indicator	A&D	AD-5681	4062518	RE	02/23/2011 * 12
SSA-03	Spectrum Analyzer	Agilent	E4448A	MY48250152	RE	12/05/2011 * 12
SJM-10	Measure	PROMART	SEN1935	-	RE	-
COTS-SEMI-1	EMI Software	TSJ	TEPTO-DV(RE,CE, RFI,MF)	-	RE	-
SFL-02	Highpass Filter	MICRO-TRONICS	HPM50111	051	RE	12/27/2011 * 12
SAT10-05	Attenuator(above1GHz)	Agilent	8493C-010	74864	RE	12/27/2011 * 12
SAF-02	Pre Amplifier	SONOMA	310N	290212	RE	02/17/2011 * 12
SAT6-02	Attenuator	JFW	50HF-006N	-	RE	02/17/2011 * 12
SAT3-02	Attenuator	JFW	50HF-003N	-	RE	02/17/2011 * 12
SBA-02	Biconical Antenna	Schwarzbeck	BBA9106	91032665	RE	11/16/2011 * 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	04/28/2011 * 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	04/28/2011 * 12
SLA-02	Logperiodic Antenna	Schwarzbeck	UHALP9108A	UHALP 9108-A 0893	RE	11/16/2011 * 12
SOS-03	Humidity Indicator	A&D	AD-5681	4063325	RE	02/23/2011 * 12
STR-02	Test Receiver	Rohde & Schwarz	ESCI	100575	RE	08/04/2011 * 12
SJM-02	Measure	KOMELON	KMC-36	-	RE	-
SAEC-02(NSA)	Semi-Anechoic Chamber	TDK	SAEC-02(NSA)	2	RE	09/25/2011 * 12
SSA-02	Spectrum Analyzer	Agilent	E4448A	MY48250106	RE	03/07/2011 * 12
SAF-08	Pre Amplifier	TOYO Corporation	HAP18-26W	00000019	RE	03/16/2011 * 12
SCC-G17	Coaxial Cable	Suhner	SUCOFLEX 104A	46291/4A	RE	03/16/2011 * 12
SHA-04	Horn Antenna	ETS LINDGREN	3160-09	LM3640	RE	03/15/2011 * 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 valid calibrations . Each measurement data is traceable to the national or international standards .
Test Item :
RE: Radiated emission ,
AT: Antenna terminal disturbance voltage