APPENDIX 2: Data of EMI test

20dB Bandwidth and Carrier Frequency Separation

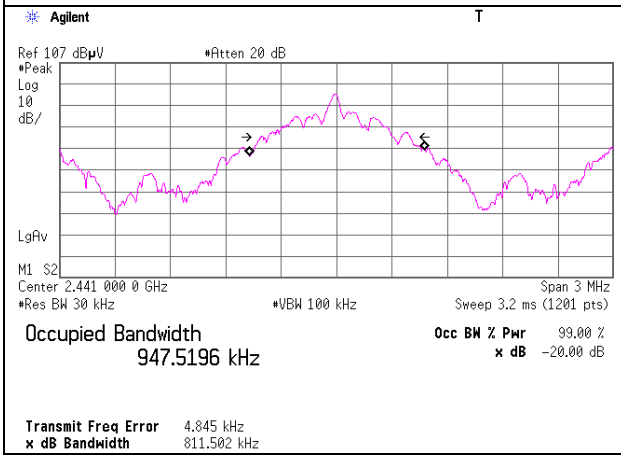
Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber	
Report No.	30KE0284-HO-01	
Date	10/25/2010	10/28/2010
Temperature/ Humidity	23 deg.C./ 68%	22 deg.C./ 70%
Engineer	Takayuki Shimada	Hiroyuki Furutaka
Mode	Tx (Hopping on) DH5/3DH5/Inquiry	

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	0.926	1.000	>= 0.618
DH5	2480.0	0.932	1.000	>= 0.621
3DH5	2402.0	1.279	1.000	>= 0.853
3DH5	2441.0	1.271	1.000	>= 0.847
3DH5	2480.0	1.267	1.000	>= 0.845
Inquiry	2441.0	0.812	2.000	>= 0.541

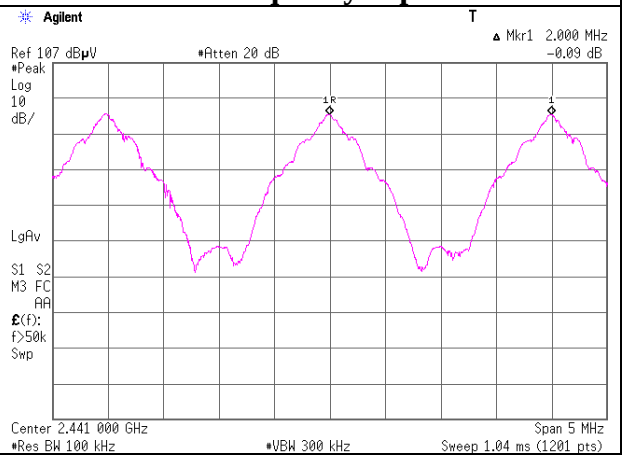
Limit: Two-thirds of 20dB Bandwidth or 25kHz (whichever is greater).
No limit applies to 20dB Bandwidth.

Inquiry

20dB Bandwidth



Carrier Frequency Separation

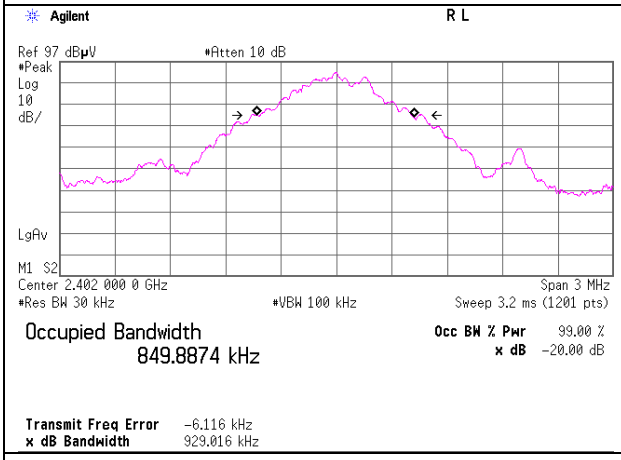


20dB Bandwidth and Carrier Frequency Separation

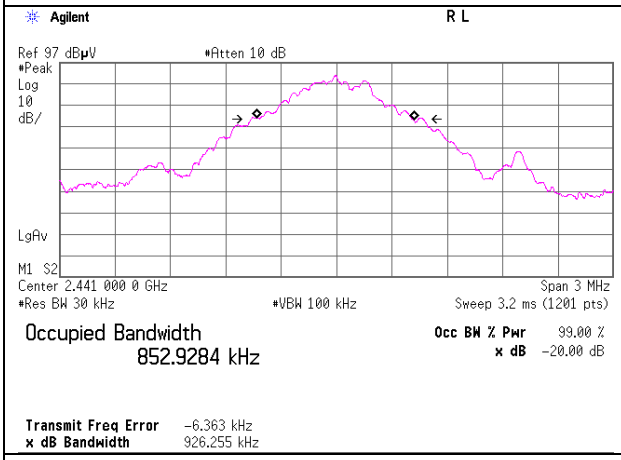
Tx DH5

20dB Bandwidth

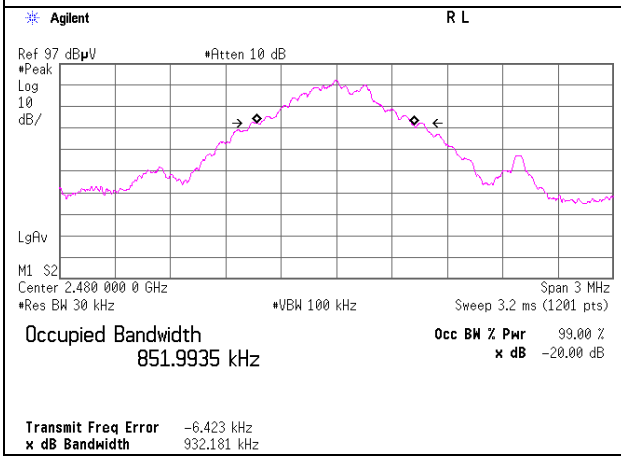
2402MHz



2441MHz

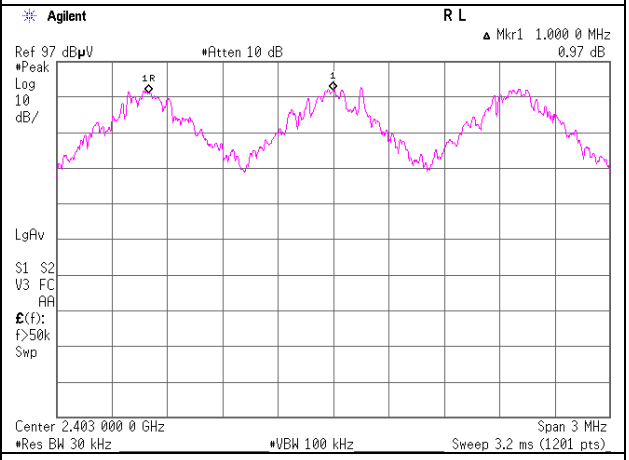


2480MHz

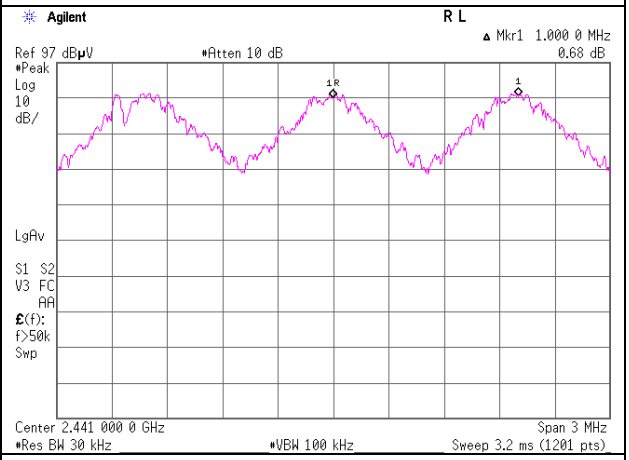


Carrier Frequency Separation

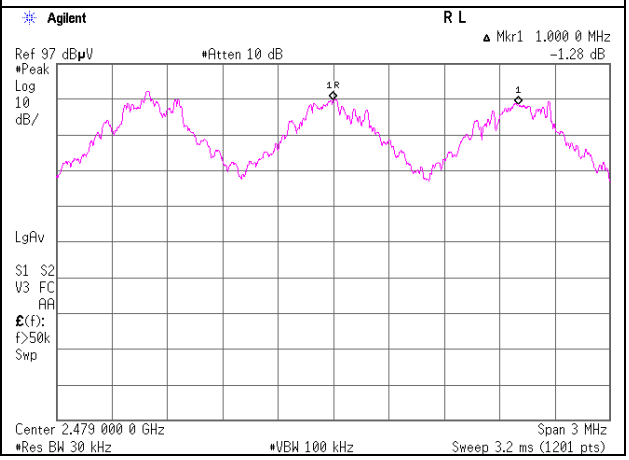
2402MHz



2441MHz



2480MHz

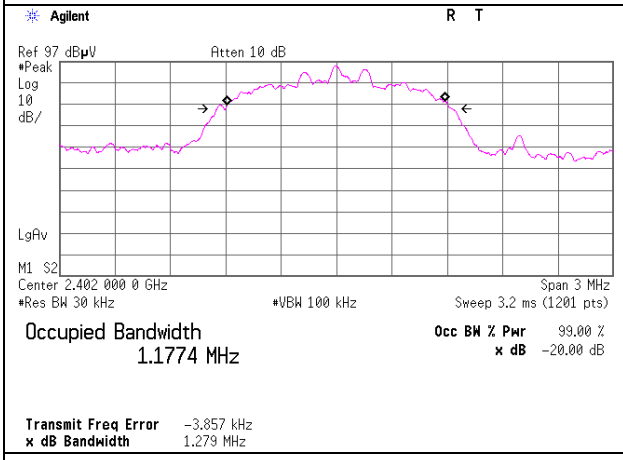


20dB Bandwidth and Carrier Frequency Separation

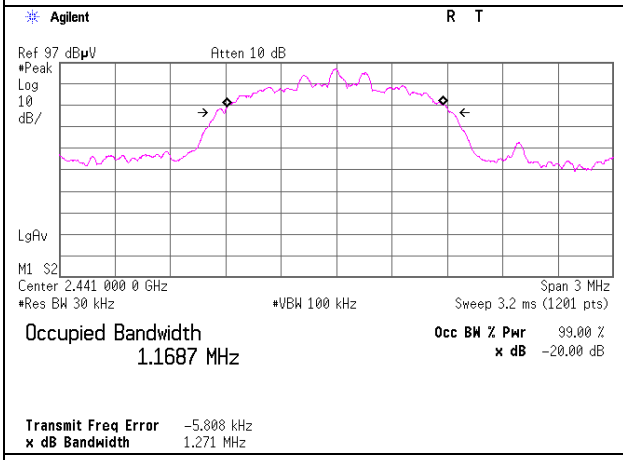
Tx 3DH5

20dB Bandwidth

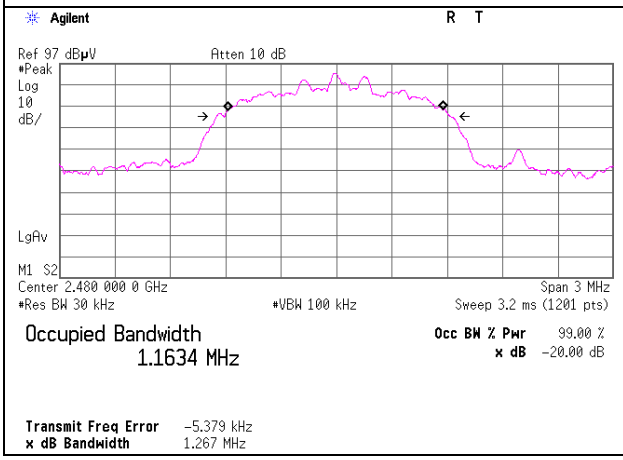
2402MHz



2441MHz

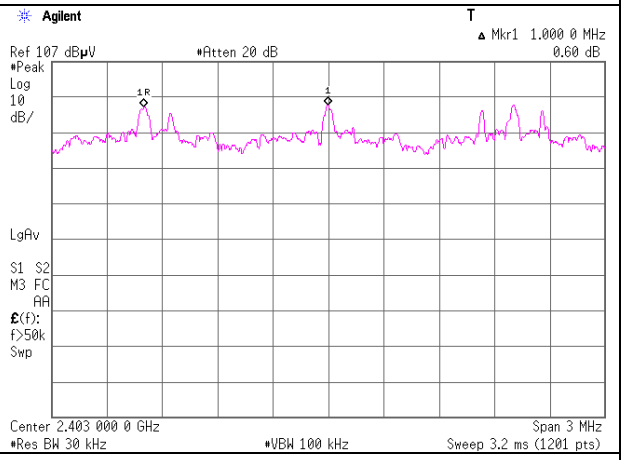


2480MHz

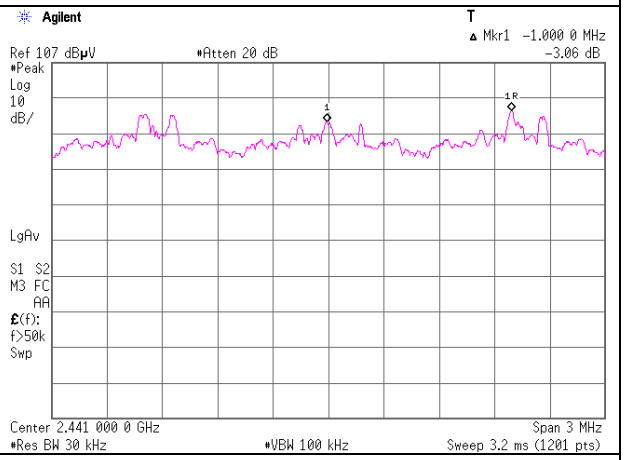


Carrier Frequency Separation

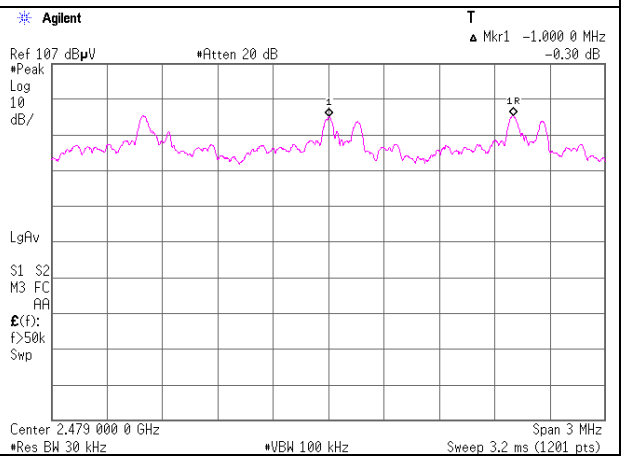
2402MHz



2441MHz



2480MHz

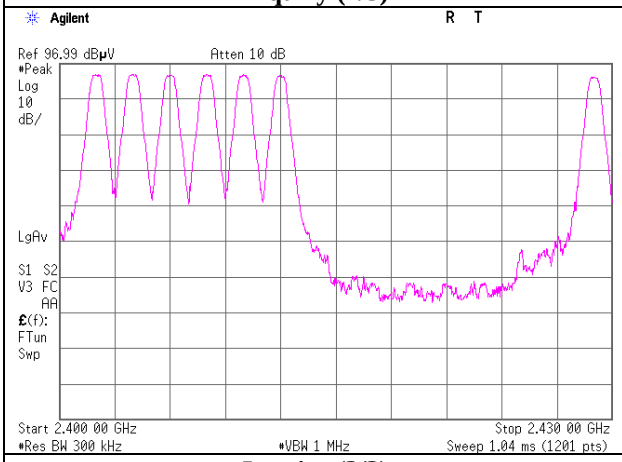


Number of Hopping Frequency

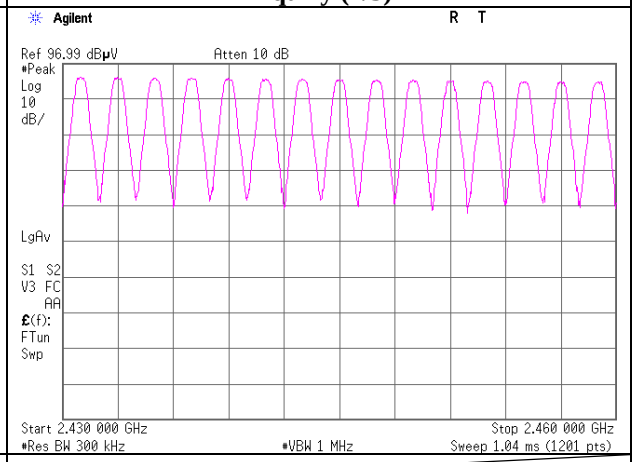
Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber	
Report No.	30KE0284-HO-01	
Date	10/25/2010	10/28/2010
Temperature/ Humidity	23 deg.C./ 68%	22 deg.C./ 70%
Engineer	Takayuki Shimada	Hiroyuki Furutaka
Mode	Tx (Hopping on) DH5/3DH5/Inquiry	

Mode	Number of channel [times]	Limit [times]
DH5	79	>= 15
3DH5	79	>= 15
Inquiry	32	>= 15

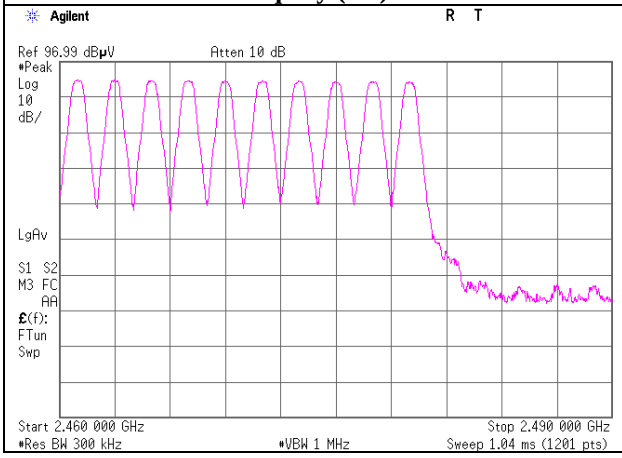
Inquiry (1/3)

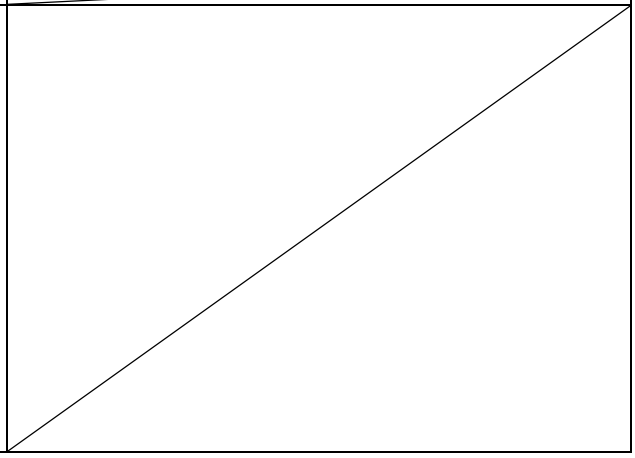


Inquiry (2/3)



Inquiry (3/3)





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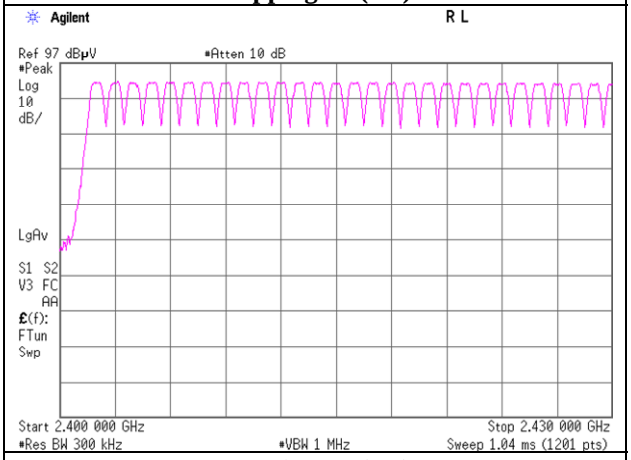
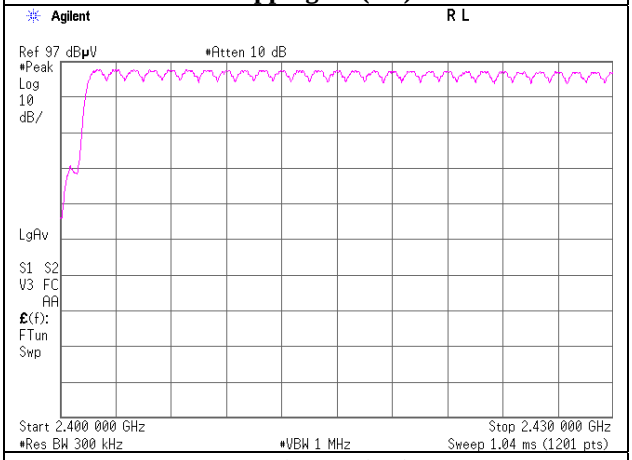
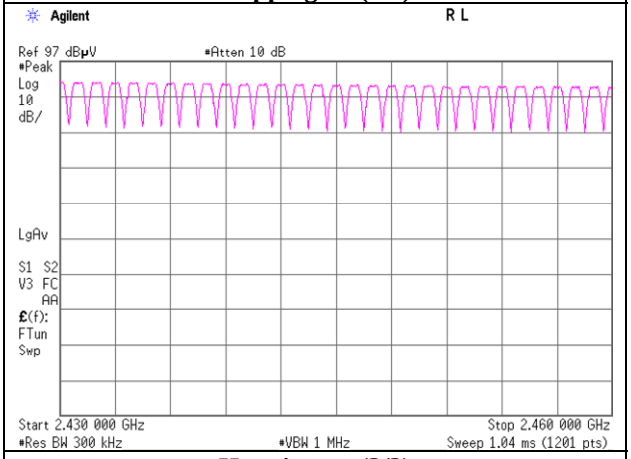
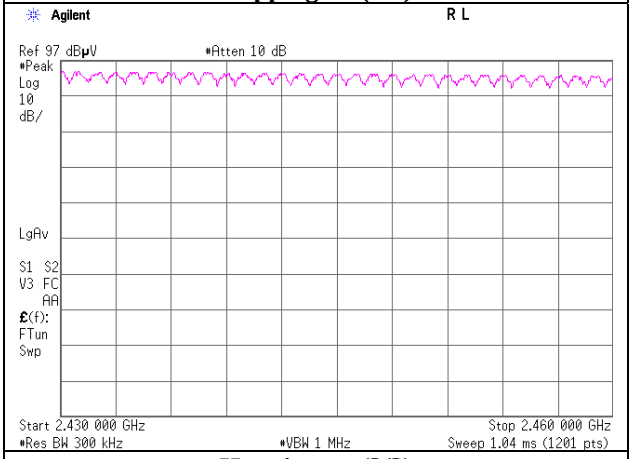
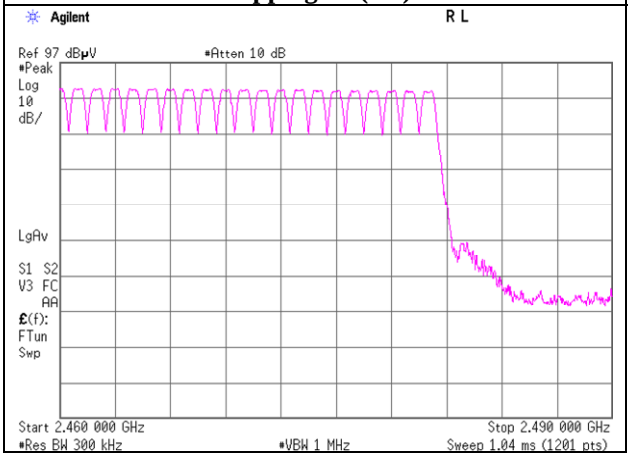
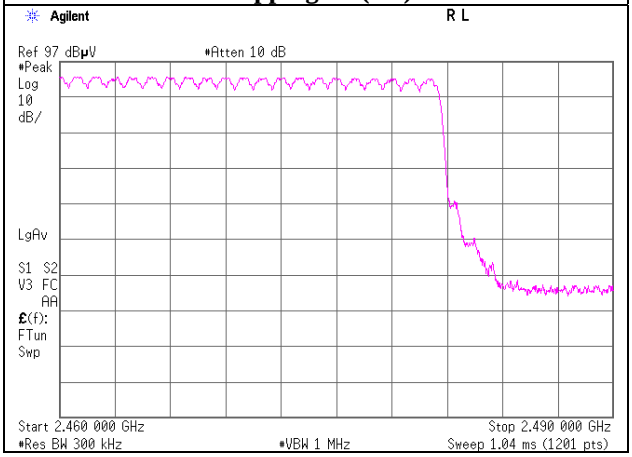
Number of Hopping Frequency

Tx DH5	Tx 3DH5
Hopping on (1/3)	Hopping on (1/3)
	
Hopping on (2/3)	Hopping on (2/3)
	
Hopping on (3/3)	Hopping on (3/3)
	

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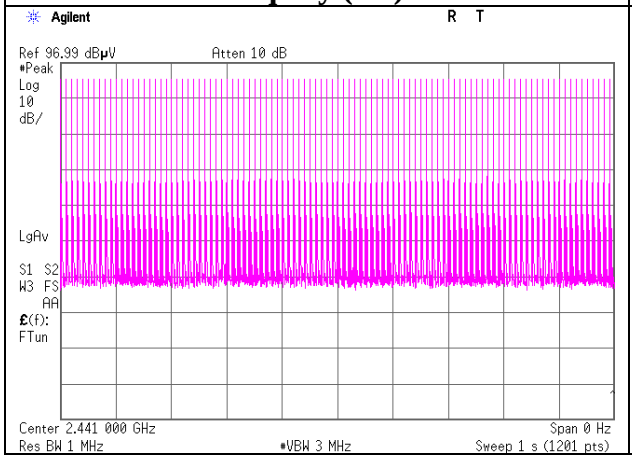
Dwell time

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber	
Report No.	30KE0284-HO-01	
Date	10/25/2010	10/28/2010
Temperature/ Humidity	23 deg.C./ 68%	22 deg.C./ 70%
Engineer	Takayuki Shimada	Hiroyuki Furutaka
Mode	Tx (Hopping on) DH5/3DH5/Inquiry	

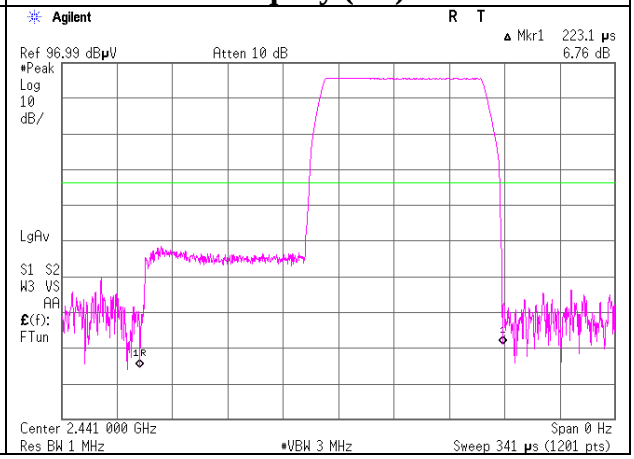
Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period	Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	50.0 times / 5 sec. x 31.6 sec. = 316 times	0.520	164	400
DH3	17.0 times / 5 sec. x 31.6 sec. = 108 times	1.778	192	400
DH5	10.0 times / 5 sec. x 31.6 sec. = 64 times	3.028	194	400
3DH1	51.0 times / 5 sec. x 31.6 sec. = 323 times	0.534	172	400
3DH3	17.0 times / 5 sec. x 31.6 sec. = 108 times	1.786	193	400
3DH5	10.0 times / 5 sec. x 31.6 sec. = 64 times	3.057	196	400
Inquiry	100.0 times / 1 sec. x 12.8 sec. = 1280 times	0.223	286	400

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

Inquiry (1/2)

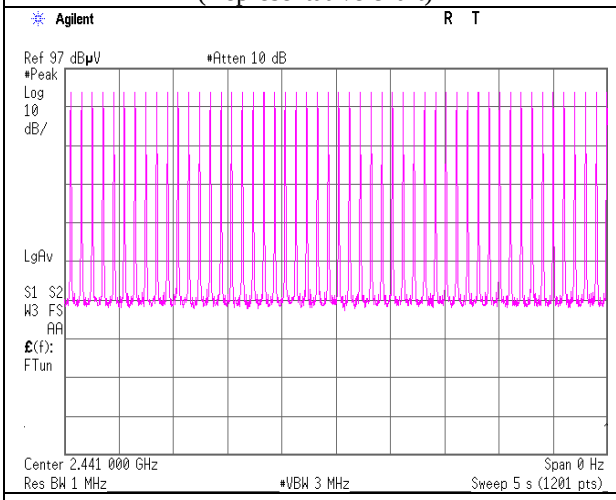


Inquiry (2/2)

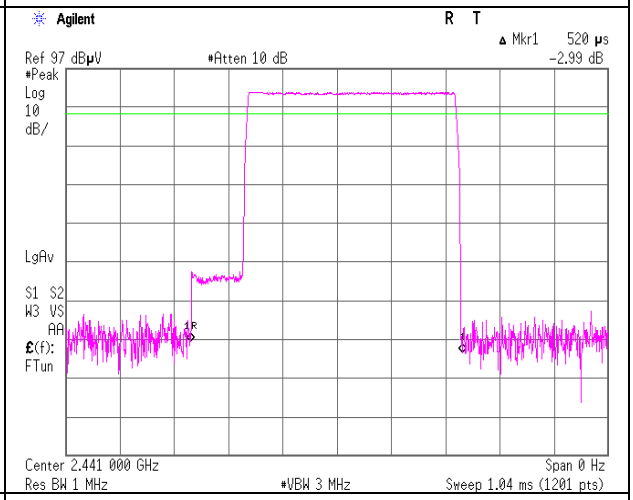


Dwell time

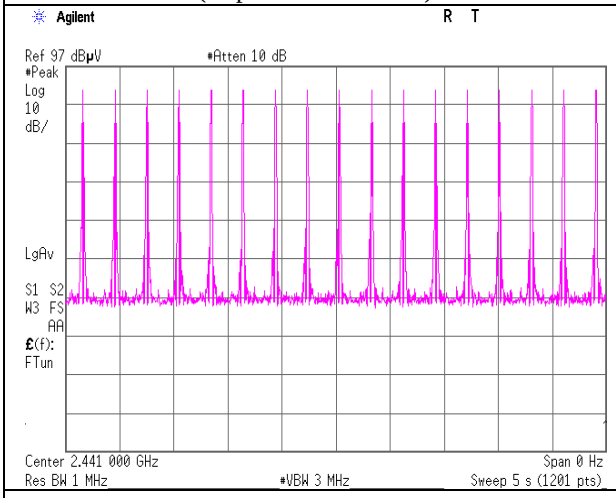
DH1 (1/2)
(Representative chart)



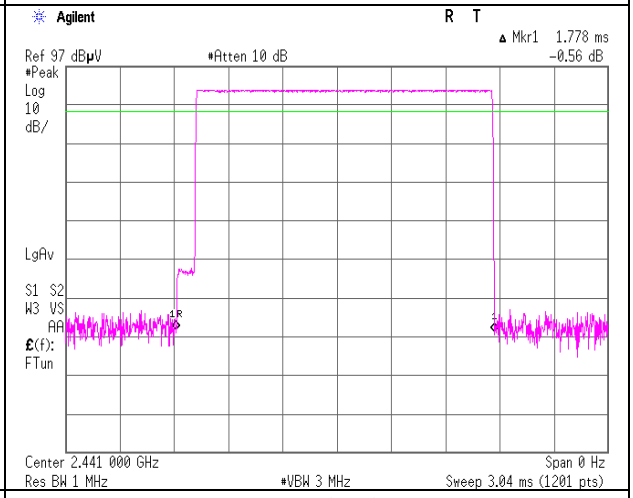
DH1 (2/2)



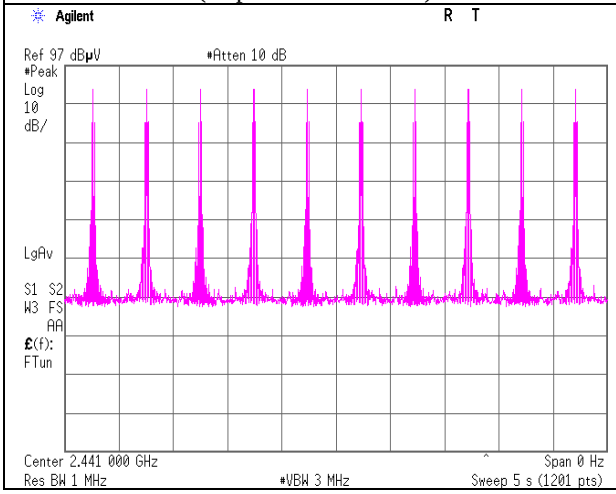
DH3 (1/2)
(Representative chart)



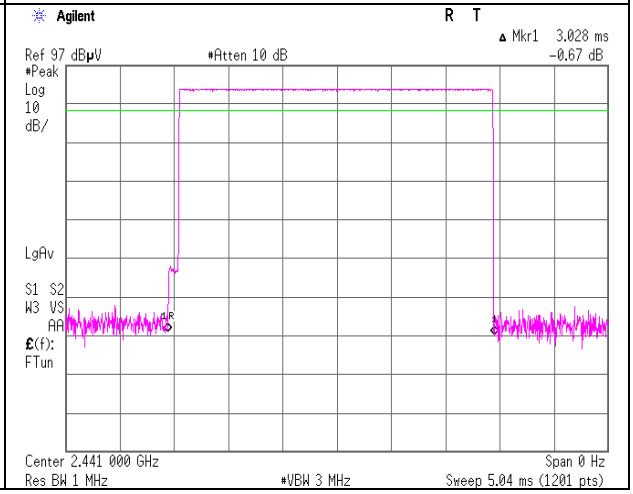
DH3 (2/2)



DH5 (1/2)
(Representative chart)



DH5 (2/2)



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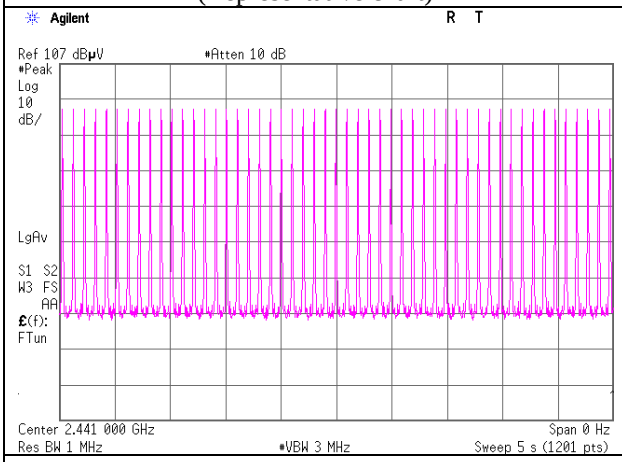
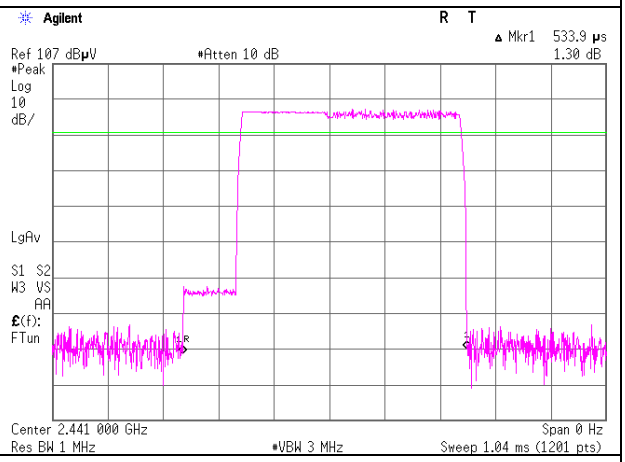
Dwell time

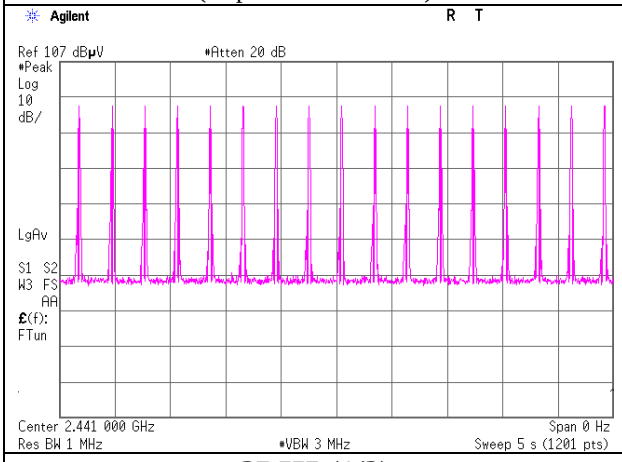
3DH1 (1/2)
(Representative chart)



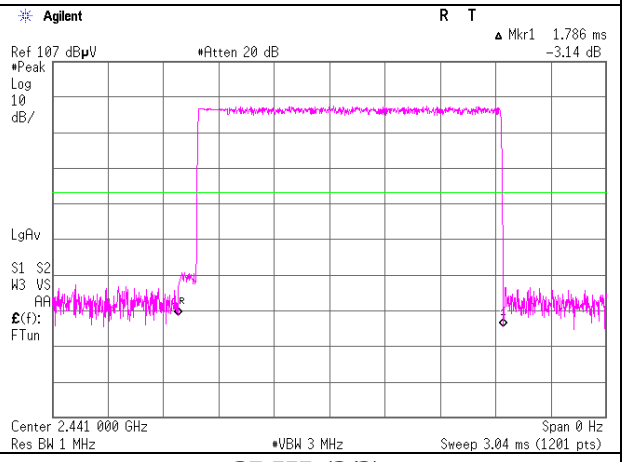
3DH1 (2/2)



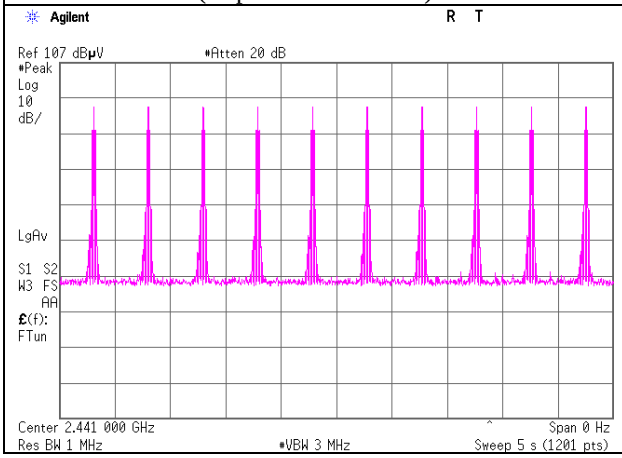
3DH3 (1/2)
(Representative chart)



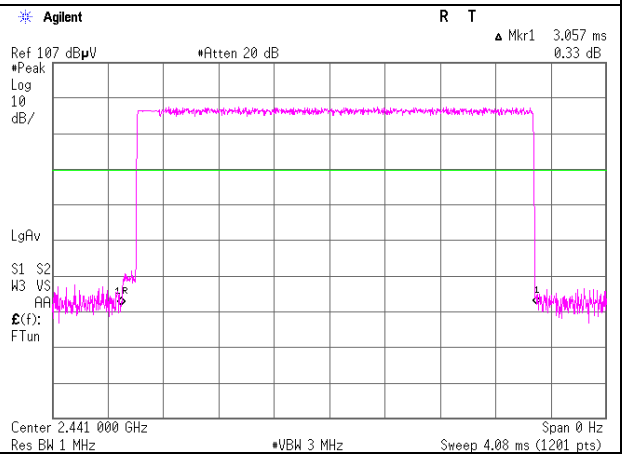
3DH3 (2/2)



3DH5 (1/2)
(Representative chart)



3DH5 (2/2)



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Maximum Peak Output Power

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber	
Report No.	30KE0284-HO-01	
Date	10/25/2010	10/28/2010
Temperature/ Humidity	23 deg.C./ 68%	22 deg.C./ 70%
Engineer	Takayuki Shimada	Hiroyuki Furutaka
Mode	Tx (Hopping off) DH5/3DH5/Inquiry	

Mode	Freq.	Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
DH5	2402.0	-14.20	3.90	10.08	-0.22	0.95	20.97	125	21.19
DH5	2441.0	-15.16	3.91	10.08	-1.18	0.76	20.97	125	22.14
DH5	2480.0	-16.45	3.98	10.08	-2.39	0.58	20.97	125	23.36
3DH5	2402.0	-11.10	3.90	10.08	2.88	1.94	20.97	125	18.09
3DH5	2441.0	-12.01	3.91	10.08	1.98	1.58	20.97	125	18.99
3DH5	2480.0	-13.18	3.98	10.08	0.88	1.23	20.97	125	20.09
Inquiry	2441.0	-13.61	3.91	10.08	0.38	1.09	20.97	125	20.59

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

Test was not performed at AFH mode, because the decrease of number of channel (min: 20ch) at AFH mode does not influence on the output power and bandwidth of the EUT.
However, the limit level 125mWof AFH mode was used for the test.

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber	
Report No.	30KE0284-HO-01	
Date	11/10/2010	11/11/2010
Temperature/ Humidity	24 deg.C./ 39%	24 deg.C./ 45%
Engineer	Tomohisa Nakagawa	Hiroyuki Furutaka
	above 1GHz	below 1GHz
Mode	Tx, DH5 2402MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	332.318	QP	37.6	16.0	10.2	31.8	32.0	46.0	14.0	
Hori	365.554	QP	34.3	16.7	10.4	31.8	29.6	46.0	16.4	
Hori	629.033	QP	33.8	19.7	12.0	32.0	33.5	46.0	12.5	
Hori	654.194	QP	34.6	20.0	12.1	32.0	34.7	46.0	11.3	
Hori	704.520	QP	29.7	20.5	12.4	32.0	30.6	46.0	15.4	
Hori	850.479	QP	30.8	22.0	13.1	31.2	34.7	46.0	11.3	
Hori	1000.001	PK	54.2	24.9	1.6	35.2	45.5	73.9	28.4	
Hori	1499.958	PK	51.4	26.9	2.0	33.8	46.5	73.9	27.4	
Hori	1603.000	PK	43.2	27.2	2.1	33.5	39.0	73.9	34.9	
Hori	2390.000	PK	46.3	27.7	2.6	32.5	44.1	73.9	29.8	
Hori	2400.000	PK	65.4	27.7	2.6	32.5	63.2	73.9	10.7	
Hori	3203.000	PK	49.3	29.4	3.1	32.1	49.7	73.9	24.2	
Hori	4804.000	PK	44.9	31.6	5.2	31.8	49.9	73.9	24.0	
Hori	7206.000	PK	43.8	36.2	6.2	32.4	53.8	73.9	20.1	
Hori	9608.000	PK	44.1	38.0	6.8	32.9	56.0	73.9	17.9	
Hori	24020.000	PK	45.2	37.9	-1.3	31.0	50.8	73.9	23.1	
Hori	1000.001	AV	49.1	24.9	1.6	35.2	40.4	53.9	13.5	
Hori	1499.958	AV	46.4	26.9	2.0	33.8	41.5	53.9	12.4	
Hori	1603.000	AV	30.2	27.2	2.1	33.5	26.0	53.9	27.9	
Hori	2390.000	AV	32.0	27.7	2.6	32.5	29.8	53.9	24.1	
Hori	2400.000	AV	48.9	27.7	2.6	32.5	46.7	53.9	7.2	
Hori	3203.000	AV	45.2	29.4	3.1	32.1	45.6	53.9	8.3	
Hori	4804.000	AV	35.5	31.6	5.2	31.8	40.5	53.9	13.4	
Hori	7206.000	AV	30.6	36.2	6.2	32.4	40.6	53.9	13.3	
Hori	9608.000	AV	30.5	38.0	6.8	32.9	42.4	53.9	11.5	
Hori	24020.000	AV	34.1	37.9	-1.3	31.0	39.7	53.9	14.2	
Vert	48.004	QP	35.9	12.4	7.4	32.2	23.5	40.0	16.5	
Vert	564.938	QP	37.6	19.0	11.7	32.0	36.3	46.0	9.7	
Vert	603.870	QP	35.3	19.4	11.9	32.0	34.6	46.0	11.4	
Vert	629.027	QP	39.6	19.7	12.0	32.0	39.3	46.0	6.7	
Vert	654.194	QP	36.1	20.0	12.1	32.0	36.2	46.0	9.8	
Vert	817.742	QP	32.0	21.9	13.0	31.4	35.5	46.0	10.5	
Vert	1000.001	PK	54.4	24.9	1.6	35.2	45.7	73.9	28.2	
Vert	1499.958	PK	49.6	26.9	2.0	33.8	44.7	73.9	29.2	
Vert	1603.000	PK	42.9	27.2	2.1	33.5	38.7	73.9	35.2	
Vert	2390.000	PK	44.1	27.7	2.6	32.5	41.9	73.9	32.0	
Vert	2400.000	PK	57.8	27.7	2.6	32.5	55.6	73.9	18.3	
Vert	3203.000	PK	51.5	29.4	3.1	32.1	51.9	73.9	22.0	
Vert	4804.000	PK	47.3	31.6	5.2	31.8	52.3	73.9	21.7	
Vert	7206.000	PK	43.8	36.2	6.2	32.4	53.8	73.9	20.1	
Vert	9608.000	PK	43.1	38.0	6.8	32.9	55.0	73.9	18.9	
Vert	24020.000	PK	45.9	37.9	-1.3	31.0	51.5	73.9	22.5	
Vert	1000.001	AV	49.2	24.9	1.6	35.2	40.5	53.9	13.4	
Vert	1499.958	AV	43.0	26.9	2.0	33.8	38.1	53.9	15.8	
Vert	1603.000	AV	30.2	27.2	2.1	33.5	26.0	53.9	27.9	
Vert	2390.000	AV	30.2	27.7	2.6	32.5	28.0	53.9	25.9	
Vert	2400.000	AV	40.8	27.7	2.6	32.5	38.6	53.9	15.3	
Vert	3203.000	AV	46.4	29.4	3.1	32.1	46.8	53.9	7.1	
Vert	4804.000	AV	38.3	31.6	5.2	31.8	43.3	53.9	10.6	
Vert	7206.000	AV	31.6	36.2	6.2	32.4	41.6	53.9	12.3	
Vert	9608.000	AV	30.3	38.0	6.8	32.9	42.2	53.9	11.7	
Vert	24020.000	AV	34.1	37.9	-1.3	31.0	39.7	53.9	14.2	

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

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

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

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

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Radiated Spurious Emission

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber	
Report No.	30KE0284-HO-01	
Date	11/10/2010	11/11/2010
Temperature/ Humidity	24 deg.C./ 39%	24 deg.C./ 45%
Engineer	Tomohisa Nakagawa	Hiroyuki Furutaka
	above 1GHz	below 1GHz
Mode	Tx, DH5 2441MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	332.320	QP	37.4	16.0	10.2	31.8	31.8	46.0	14.2	
Hori	454.483	QP	34.7	17.8	11.0	31.9	31.6	46.0	14.4	
Hori	629.031	QP	34.4	19.7	12.0	32.0	34.1	46.0	11.9	
Hori	654.195	QP	34.7	20.0	12.1	32.0	34.8	46.0	11.2	
Hori	817.739	QP	31.0	21.9	13.0	31.4	34.5	46.0	11.5	
Hori	850.476	QP	31.3	22.0	13.1	31.2	35.2	46.0	10.8	
Hori	1000.001	PK	54.2	24.9	1.6	35.2	45.5	73.9	28.4	
Hori	1499.958	PK	51.5	26.9	2.0	33.8	46.6	73.9	27.3	
Hori	1627.000	PK	44.5	27.3	2.1	33.5	40.4	73.9	33.5	
Hori	2441.000	PK	0.0	27.7	2.7	32.4	-2.0	73.9	75.9	
Hori	3257.000	PK	46.6	29.4	3.1	32.1	47.0	73.9	26.9	
Hori	4882.000	PK	47.0	31.9	5.3	31.8	52.4	73.9	21.5	
Hori	7323.000	PK	43.6	36.2	6.2	32.4	53.6	73.9	20.3	
Hori	9764.000	PK	43.6	38.1	6.9	32.9	55.7	73.9	18.2	
Hori	24410.000	PK	44.2	37.9	-1.2	30.8	50.1	73.9	23.8	
Hori	1000.001	AV	49.3	24.9	1.6	35.2	40.6	53.9	13.3	
Hori	1499.958	AV	45.7	26.9	2.0	33.8	40.8	53.9	13.1	
Hori	1627.000	AV	30.1	27.3	2.1	33.5	26.0	53.9	27.9	
Hori	2441.000	AV	0.0	27.7	2.7	32.4	-2.0	53.9	55.9	
Hori	3257.000	AV	40.2	29.4	3.1	32.1	40.6	53.9	13.3	
Hori	4882.000	AV	39.2	31.9	5.3	31.8	44.6	53.9	9.3	
Hori	7323.000	AV	30.4	36.2	6.2	32.4	40.4	53.9	13.5	
Hori	9764.000	AV	30.1	38.1	6.9	32.9	42.2	53.9	11.7	
Hori	24410.000	AV	32.7	37.9	-1.2	30.8	38.6	53.9	15.3	
Vert	48.002	QP	35.5	12.4	7.4	32.2	23.1	40.0	16.9	
Vert	564.946	QP	36.5	19.0	11.7	32.0	35.2	46.0	10.8	
Vert	603.868	QP	35.5	19.4	11.9	32.0	34.8	46.0	11.2	
Vert	629.035	QP	40.0	19.7	12.0	32.0	39.7	46.0	6.3	
Vert	654.192	QP	35.8	20.0	12.1	32.0	35.9	46.0	10.1	
Vert	817.743	QP	32.4	21.9	13.0	31.4	35.9	46.0	10.1	
Vert	1000.001	PK	54.9	24.9	1.6	35.2	46.2	73.9	27.7	
Vert	1499.958	PK	49.9	26.9	2.0	33.8	45.0	73.9	28.9	
Vert	1627.000	PK	44.1	27.3	2.1	33.5	40.0	73.9	33.9	
Vert	2441.000	PK	0.0	27.7	2.7	32.4	-2.0	73.9	75.9	
Vert	3257.000	PK	50.1	29.4	3.1	32.1	50.5	73.9	23.4	
Vert	4882.000	PK	46.2	31.9	5.3	31.8	51.6	73.9	22.3	
Vert	7323.000	PK	43.4	36.2	6.2	32.4	53.4	73.9	20.5	
Vert	9764.000	PK	43.4	38.1	6.9	32.9	55.5	73.9	18.4	
Vert	24410.000	PK	43.7	37.9	-1.2	30.8	49.6	73.9	24.3	
Vert	1000.001	AV	49.3	24.9	1.6	35.2	40.6	53.9	13.3	
Vert	1499.958	AV	42.6	26.9	2.0	33.8	37.7	53.9	16.2	
Vert	1627.000	AV	30.1	27.3	2.1	33.5	26.0	53.9	27.9	
Vert	2441.000	AV	0.0	27.7	2.7	32.4	-2.0	53.9	55.9	
Vert	3257.000	AV	45.4	29.4	3.1	32.1	45.8	53.9	8.1	
Vert	4882.000	AV	38.5	31.9	5.3	31.8	43.9	53.9	10.0	
Vert	7323.000	AV	30.4	36.2	6.2	32.4	40.4	53.9	13.5	
Vert	9764.000	AV	30.2	38.1	6.9	32.9	42.3	53.9	11.6	
Vert	24410.000	AV	32.8	37.9	-1.2	30.8	38.7	53.9	15.3	

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

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

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

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

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Radiated Spurious Emission

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber	
Report No.	30KE0284-HO-01	
Date	11/10/2010	11/11/2010
Temperature/ Humidity	24 deg.C./ 39%	24 deg.C./ 45%
Engineer	Tomohisa Nakagawa	Hiroyuki Furutaka
	above 1GHz	below 1GHz
Mode	Tx, DH5 2480MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	332.320	QP	37.4	16.0	10.2	31.8	31.8	46.0	14.2	
Hori	454.483	QP	34.7	17.8	11.0	31.9	31.6	46.0	14.4	
Hori	629.031	QP	34.4	19.7	12.0	32.0	34.1	46.0	11.9	
Hori	654.195	QP	34.7	20.0	12.1	32.0	34.8	46.0	11.2	
Hori	817.739	QP	31.0	21.9	13.0	31.4	34.5	46.0	11.5	
Hori	850.476	QP	31.3	22.0	13.1	31.2	35.2	46.0	10.8	
Hori	1000.000	PK	54.5	24.9	1.6	35.2	45.8	53.9	8.1	
Hori	1500.000	PK	51.4	26.9	2.0	33.8	46.5	73.9	27.4	
Hori	1653.000	PK	43.2	27.3	2.2	33.4	39.3	73.9	34.6	
Hori	2483.500	PK	51.4	27.6	2.7	32.4	49.3	73.9	24.6	
Hori	3307.000	PK	47.3	29.4	3.1	32.1	47.7	73.9	26.2	
Hori	4960.000	PK	48.2	32.2	5.3	31.8	53.9	73.9	20.0	
Hori	7440.000	PK	44.7	36.2	6.2	32.5	54.6	73.9	19.3	
Hori	9920.000	PK	43.3	38.2	7.0	33.0	55.5	73.9	18.4	
Hori	24800.000	PK	47.3	38.0	-1.1	30.5	53.7	73.9	20.2	
Hori	1000.000	AV	49.4	24.9	1.6	35.2	40.7	53.9	13.2	
Hori	1500.000	AV	46.0	26.9	2.0	33.8	41.1	53.9	12.8	
Hori	1653.000	AV	30.0	27.3	2.2	33.4	26.1	53.9	27.8	
Hori	2483.500	AV	36.4	27.6	2.7	32.4	34.3	53.9	19.6	
Hori	3307.000	AV	40.9	29.4	3.1	32.1	41.3	53.9	12.6	
Hori	4960.000	AV	42.1	32.2	5.3	31.8	47.8	53.9	6.1	
Hori	7440.000	AV	31.2	36.2	6.2	32.5	41.1	53.9	12.8	
Hori	9920.000	AV	30.1	38.2	7.0	33.0	42.3	53.9	11.6	
Hori	24800.000	AV	35.3	38.0	-1.1	30.5	41.7	53.9	12.2	
Vert	48.002	QP	35.5	12.4	7.4	32.2	23.1	40.0	16.9	
Vert	564.946	QP	36.5	19.0	11.7	32.0	35.2	46.0	10.8	
Vert	603.868	QP	35.5	19.4	11.9	32.0	34.8	46.0	11.2	
Vert	629.035	QP	40.0	19.7	12.0	32.0	39.7	46.0	6.3	
Vert	654.192	QP	35.8	20.0	12.1	32.0	35.9	46.0	10.1	
Vert	817.743	QP	32.4	21.9	13.0	31.4	35.9	46.0	10.1	
Vert	1000.000	PK	55.8	24.9	1.6	35.2	47.1	53.9	6.8	
Vert	1500.000	PK	50.3	26.9	2.0	33.8	45.4	73.9	28.5	
Vert	1653.000	PK	42.0	27.3	2.2	33.4	38.1	73.9	35.8	
Vert	2483.500	PK	48.3	27.6	2.7	32.4	46.2	73.9	27.7	
Vert	3307.000	PK	51.2	29.4	3.1	32.1	51.6	73.9	22.3	
Vert	4960.000	PK	44.2	32.2	5.3	31.8	49.9	73.9	24.0	
Vert	7440.000	PK	44.7	36.2	6.2	32.5	54.6	73.9	19.3	
Vert	9920.000	PK	43.8	38.2	7.0	33.0	56.0	73.9	17.9	
Vert	24800.000	PK	45.9	38.0	-1.1	30.5	52.3	73.9	21.6	
Vert	1000.000	AV	50.4	24.9	1.6	35.2	41.7	53.9	12.2	
Vert	1500.000	AV	44.4	26.9	2.0	33.8	39.5	53.9	14.4	
Vert	1653.000	AV	30.0	27.3	2.2	33.4	26.1	53.9	27.8	
Vert	2483.500	AV	32.7	27.6	2.7	32.4	30.6	53.9	23.3	
Vert	3307.000	AV	47.7	29.4	3.1	32.1	48.1	53.9	5.8	
Vert	4960.000	AV	36.4	32.2	5.3	31.8	42.1	53.9	11.8	
Vert	7440.000	AV	31.3	36.2	6.2	32.5	41.2	53.9	12.7	
Vert	9920.000	AV	30.4	38.2	7.0	33.0	42.6	53.9	11.3	
Vert	24800.000	AV	35.3	38.0	-1.1	30.5	41.7	53.9	12.2	

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

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

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

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

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Radiated Spurious Emission

Test place Head Office EMC Lab. No.3 Semi Anechoic Chamber
Report No. 30KE0284-HO-01
Date 11/11/2010
Temperature/ Humidity 24 deg.C./ 45%
Engineer Hiroyuki Furutaka
below 1GHz
Mode Tx, 3DH5 2402MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	629.036	QP	33.3	19.7	12.0	32.0	33.0	46.0	13.0	
Hori	654.194	QP	35.4	20.0	12.1	32.0	35.5	46.0	10.5	
Hori	704.607	QP	30.0	20.5	12.4	32.0	30.9	46.0	15.1	
Hori	767.418	QP	31.0	21.4	12.7	31.6	33.5	46.0	12.5	
Hori	817.737	QP	29.5	21.9	13.0	31.4	33.0	46.0	13.0	
Hori	850.482	QP	30.1	22.0	13.1	31.2	34.0	46.0	12.0	
Vert	432.013	QP	38.7	17.7	10.9	31.9	35.4	46.0	10.6	
Vert	564.938	QP	36.7	19.0	11.7	32.0	35.4	46.0	10.6	
Vert	629.034	QP	39.4	19.7	12.0	32.0	39.1	46.0	6.9	
Vert	631.412	QP	36.7	19.7	12.0	32.0	36.4	46.0	9.6	
Vert	654.193	QP	37.2	20.0	12.1	32.0	37.3	46.0	8.7	
Vert	817.747	QP	32.3	21.9	13.0	31.4	35.8	46.0	10.2	

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

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

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

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

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber
Report No.	30KE0284-HO-01
Date	11/10/2010
Temperature/ Humidity	24 deg.C./ 39%
Engineer	Tomohisa Nakagawa
	above 1GHz
Mode	Tx, 3DH5 2402MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1000.120	PK	53.3	24.9	1.6	35.2	44.6	73.9	29.3	
Hori	1500.185	PK	51.5	26.9	2.0	33.8	46.6	73.9	27.3	
Hori	1603.000	PK	44.0	27.2	2.1	33.5	39.8	73.9	34.1	
Hori	2390.000	PK	46.1	27.7	2.6	32.5	43.9	73.9	30.0	
Hori	2399.650	PK	69.8	27.7	2.6	32.5	67.6	73.9	6.3	
Hori	2400.000	PK	77.1	27.7	2.6	32.5	74.9	-	-	See 20dBc Data Sheet
Hori	3203.000	PK	50.0	29.4	3.1	32.1	50.4	73.9	23.5	
Hori	4804.000	PK	45.9	31.6	5.2	31.8	50.9	73.9	23.1	
Hori	7206.000	PK	43.8	36.2	6.2	32.4	53.8	73.9	20.1	
Hori	9608.000	PK	44.2	38.0	6.8	32.9	56.1	73.9	17.8	
Hori	24020.000	PK	45.0	37.9	-1.3	31.0	50.6	73.9	23.3	
Hori	1000.120	AV	47.8	24.9	1.6	35.2	39.1	53.9	14.8	
Hori	1500.185	AV	46.5	26.9	2.0	33.8	41.6	53.9	12.3	
Hori	1603.000	AV	30.1	27.2	2.1	33.5	25.9	53.9	28.0	
Hori	2390.000	AV	32.7	27.7	2.6	32.5	30.5	53.9	23.4	
Hori	2399.650	AV	52.1	27.7	2.6	32.5	49.9	53.9	4.0	
Hori	2400.000	AV	57.4	27.7	2.6	32.5	55.2	-	-	See 20dBc Data Sheet
Hori	3203.000	AV	44.4	29.4	3.1	32.1	44.8	53.9	9.1	
Hori	4804.000	AV	34.6	31.6	5.2	31.8	39.6	53.9	14.3	
Hori	7206.000	AV	30.3	36.2	6.2	32.4	40.3	53.9	13.6	
Hori	9608.000	AV	30.2	38.0	6.8	32.9	42.1	53.9	11.8	
Hori	24020.000	AV	34.0	37.9	-1.3	31.0	39.6	53.9	14.3	
Vert	1000.120	PK	53.3	24.9	1.6	35.2	44.6	73.9	29.3	
Vert	1500.185	PK	50.0	26.9	2.0	33.8	45.1	73.9	28.8	
Vert	1603.000	PK	44.5	27.2	2.1	33.5	40.3	73.9	33.6	
Vert	2390.000	PK	43.7	27.7	2.6	32.5	41.5	73.9	32.4	
Vert	2399.650	PK	61.0	27.7	2.6	32.5	58.8	73.9	15.1	
Vert	2400.000	PK	68.1	27.7	2.6	32.5	65.9	73.9	8.0	
Vert	2400.000	PK	45.8	27.7	2.6	32.5	43.6	-	-	See 20dBc Data Sheet
Vert	2402.000	PK	94.1	27.7	2.6	32.5	91.9	73.9	-18.0	
Vert	3203.000	PK	52.5	29.4	3.1	32.1	52.9	73.9	21.1	
Vert	4804.000	PK	46.2	31.6	5.2	31.8	51.2	73.9	22.7	
Vert	7206.000	PK	43.5	36.2	6.2	32.4	53.5	73.9	20.4	
Vert	9608.000	PK	43.2	38.0	6.8	32.9	55.1	73.9	18.8	
Vert	24020.000	PK	45.3	37.9	-1.3	31.0	50.9	73.9	23.0	
Vert	1000.120	AV	47.8	24.9	1.6	35.2	39.1	53.9	14.8	
Vert	1500.185	AV	43.1	26.9	2.0	33.8	38.2	53.9	15.7	
Vert	1603.000	AV	30.1	27.2	2.1	33.5	25.9	53.9	28.0	
Vert	2390.000	AV	30.5	27.7	2.6	32.5	28.3	53.9	25.6	
Vert	2399.650	AV	43.1	27.7	2.6	32.5	40.9	53.9	13.0	
Vert	2400.000	AV	48.3	27.7	2.6	32.5	46.1	-	-	See 20dBc Data Sheet
Vert	3203.000	AV	48.2	29.4	3.1	32.1	48.6	53.9	5.3	
Vert	4804.000	AV	33.4	31.6	5.2	31.8	38.4	53.9	15.5	
Vert	7206.000	AV	30.4	36.2	6.2	32.4	40.4	53.9	13.5	
Vert	9608.000	AV	30.2	38.0	6.8	32.9	42.1	53.9	11.8	
Vert	24020.000	AV	33.9	37.9	-1.3	31.0	39.5	53.9	14.4	

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

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

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

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

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Radiated Spurious Emission
20dBc Data Sheet

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber
Report No.	30KE0284-HO-01
Date	11/10/2010
Temperature/ Humidity	24 deg.C./ 39%
Engineer	Tomohisa Nakagawa
Mode	Tx, 3DH5 2402MHz

20dBc Data Sheet

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	103.0	27.7	2.6	32.5	100.8	-	-	Carrier
Hori	2400.000	PK	77.1	27.7	2.6	32.5	74.9	80.8	5.9	
Vert	2402.000	PK	94.1	27.7	2.6	32.5	91.9	-	-	Carrier
Vert	2400.000	PK	68.1	27.7	2.6	32.5	65.9	71.9	6.0	

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

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber	
Report No.	30KE0284-HO-01	
Date	11/10/2010	11/11/2010
Temperature/ Humidity	24 deg.C./ 39%	24 deg.C./ 45%
Engineer	Tomohisa Nakagawa	Hiroyuki Furutaka
	above 1GHz	below 1GHz
Mode	Tx, 3DH5 2441MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	629.019	QP	33.2	19.7	12.0	32.0	32.9	46.0	13.1	
Hori	631.406	QP	34.0	19.7	12.0	32.0	33.7	46.0	12.3	
Hori	654.193	QP	35.0	20.0	12.1	32.0	35.1	46.0	10.9	
Hori	704.513	QP	29.9	20.5	12.4	32.0	30.8	46.0	15.2	
Hori	767.418	QP	31.0	21.4	12.7	31.6	33.5	46.0	12.5	
Hori	850.483	QP	30.2	22.0	13.1	31.2	34.1	46.0	11.9	
Hori	1000.001	PK	53.9	24.9	1.6	35.2	45.2	73.9	28.7	
Hori	1500.010	PK	51.3	26.9	2.0	33.8	46.4	73.9	27.6	
Hori	1627.000	PK	43.8	27.3	2.1	33.5	39.7	73.9	34.2	
Hori	3257.000	PK	47.6	29.4	3.1	32.1	48.0	73.9	25.9	
Hori	4882.000	PK	41.8	31.9	5.3	31.8	47.2	73.9	26.7	
Hori	7323.000	PK	43.1	36.2	6.2	32.4	53.1	73.9	20.8	
Hori	9764.000	PK	42.6	38.1	6.9	32.9	54.7	73.9	19.2	
Hori	24410.000	PK	44.3	37.9	-1.2	30.8	50.2	73.9	23.7	
Hori	1000.001	AV	49.3	24.9	1.6	35.2	40.6	53.9	13.3	
Hori	1500.010	AV	45.7	26.9	2.0	33.8	40.8	53.9	13.1	
Hori	1627.000	AV	30.2	27.3	2.1	33.5	26.1	53.9	27.8	
Hori	3257.000	AV	43.8	29.4	3.1	32.1	44.2	53.9	9.7	
Hori	4882.000	AV	30.7	31.9	5.3	31.8	36.1	53.9	17.8	
Hori	7323.000	AV	31.2	36.2	6.2	32.4	41.2	53.9	12.7	
Hori	9764.000	AV	30.1	38.1	6.9	32.9	42.2	53.9	11.7	
Hori	24410.000	AV	32.8	37.9	-1.2	30.8	38.7	53.9	15.2	
Vert	564.940	QP	36.3	19.0	11.7	32.0	35.0	46.0	11.0	
Vert	603.865	QP	35.0	19.4	11.9	32.0	34.3	46.0	11.7	
Vert	654.190	QP	39.4	19.7	12.0	32.0	39.1	46.0	6.9	
Vert	631.402	QP	38.5	19.7	12.0	32.0	38.2	46.0	7.8	
Vert	654.190	QP	37.2	20.0	12.1	32.0	37.3	46.0	8.7	
Vert	817.737	QP	32.5	21.9	13.0	31.4	36.0	46.0	10.0	
Vert	1000.001	PK	52.7	24.9	1.6	35.2	44.0	73.9	29.9	
Vert	1500.010	PK	49.0	26.9	2.0	33.8	44.1	73.9	29.8	
Vert	1627.000	PK	42.9	27.3	2.1	33.5	38.8	73.9	35.1	
Vert	3257.000	PK	49.9	29.4	3.1	32.1	50.3	73.9	23.6	
Vert	4882.000	PK	44.1	31.9	5.3	31.8	49.5	73.9	24.4	
Vert	7323.000	PK	42.5	36.2	6.2	32.4	52.5	73.9	21.4	
Vert	9764.000	PK	42.6	38.1	6.9	32.9	54.7	73.9	19.2	
Vert	24410.000	PK	44.0	37.9	-1.2	30.8	49.9	73.9	24.0	
Vert	1000.001	AV	47.5	24.9	1.6	35.2	38.8	53.9	15.1	
Vert	1500.010	AV	43.8	26.9	2.0	33.8	38.9	53.9	15.1	
Vert	1627.000	AV	30.2	27.3	2.1	33.5	26.1	53.9	27.8	
Vert	3257.000	AV	47.4	29.4	3.1	32.1	47.8	53.9	6.1	
Vert	4882.000	AV	30.9	31.9	5.3	31.8	36.3	53.9	17.6	
Vert	7323.000	AV	30.3	36.2	6.2	32.4	40.3	53.9	13.6	
Vert	9764.000	AV	30.3	38.1	6.9	32.9	42.4	53.9	11.5	
Vert	24410.000	AV	32.9	37.9	-1.2	30.8	38.8	53.9	15.1	

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

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

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber	
Report No.	30KE0284-HO-01	
Date	11/10/2010	11/11/2010
Temperature/ Humidity	24 deg.C./ 39%	24 deg.C./ 45%
Engineer	Tomohisa Nakagawa	Hiroyuki Furutaka
	above 1GHz	below 1GHz
Mode	Tx, 3DH5 2480MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	607.483	QP	33.7	19.5	11.9	32.0	33.1	46.0	12.9	
Hori	629.037	QP	33.9	19.7	12.0	32.0	33.6	46.0	12.4	
Hori	654.188	QP	33.9	20.0	12.1	32.0	34.0	46.0	12.0	
Hori	704.513	QP	28.7	20.5	12.4	32.0	29.6	46.0	16.4	
Hori	817.740	QP	29.4	21.9	13.0	31.4	32.9	46.0	13.1	
Hori	850.476	QP	29.4	22.0	13.1	31.2	33.3	46.0	12.7	
Hori	1000.125	PK	53.7	24.9	1.6	35.2	45.0	73.9	28.9	
Hori	1500.197	PK	50.7	26.9	2.0	33.8	45.8	73.9	28.1	
Hori	1653.000	PK	44.2	27.3	2.2	33.4	40.3	73.9	33.6	
Hori	2483.500	PK	62.3	27.6	2.7	32.4	60.2	73.9	13.7	
Hori	2486.900	PK	46.6	27.6	2.7	32.4	44.5	73.9	29.4	
Hori	3307.000	PK	45.7	29.4	3.1	32.1	46.1	73.9	27.8	
Hori	4960.000	PK	41.4	32.2	3.9	31.8	45.7	73.9	28.2	
Hori	7440.000	PK	42.2	36.2	4.7	32.5	50.6	73.9	23.3	
Hori	9920.000	PK	42.6	38.2	5.3	33.0	53.1	73.9	20.8	
Hori	24800.000	PK	46.9	38.0	-1.1	30.5	53.3	73.9	20.6	
Hori	1000.125	AV	49.9	24.9	1.6	35.2	41.2	53.9	12.7	
Hori	1500.197	AV	45.9	26.9	2.0	33.8	41.0	53.9	12.9	
Hori	1653.000	AV	30.2	27.3	2.2	33.4	26.3	53.9	27.6	
Hori	2483.500	AV	51.5	27.6	2.7	32.4	49.4	53.9	4.5	
Hori	2486.900	AV	34.0	27.6	2.7	32.4	31.9	53.9	22.0	
Hori	3307.000	AV	38.7	29.4	3.1	32.1	39.1	53.9	14.8	
Hori	4960.000	AV	30.0	32.2	3.9	31.8	34.3	53.9	19.6	
Hori	7440.000	AV	30.9	36.2	4.7	32.5	39.3	53.9	14.6	
Hori	9920.000	AV	30.4	38.2	5.3	33.0	40.9	53.9	13.0	
Hori	24800.000	AV	34.9	38.0	-1.1	30.5	41.3	53.9	12.6	
Vert	603.869	QP	35.4	19.4	11.9	32.0	34.7	46.0	11.3	
Vert	629.035	QP	39.8	19.7	12.0	32.0	39.5	46.0	6.5	
Vert	631.405	QP	36.0	19.7	12.0	32.0	35.7	46.0	10.3	
Vert	641.613	QP	33.3	19.9	12.1	32.0	33.3	46.0	12.7	
Vert	654.196	QP	37.4	20.0	12.1	32.0	37.5	46.0	8.5	
Vert	817.742	QP	32.7	21.9	13.0	31.4	36.2	46.0	9.8	
Vert	1000.125	PK	52.4	24.9	1.6	35.2	43.7	73.9	30.2	
Vert	1500.197	PK	49.3	26.9	2.0	33.8	44.4	73.9	29.5	
Vert	1653.000	PK	44.2	27.3	2.2	33.4	40.3	73.9	33.6	
Vert	2483.500	PK	54.5	27.6	2.7	32.4	52.4	73.9	21.5	
Vert	2486.900	PK	42.8	27.6	2.7	32.4	40.7	73.9	33.2	
Vert	3307.000	PK	50.2	29.4	3.1	32.1	50.6	73.9	23.3	
Vert	4960.000	PK	42.8	32.2	3.9	31.8	47.1	73.9	26.8	
Vert	7440.000	PK	42.2	36.2	4.7	32.5	50.6	73.9	23.3	
Vert	9920.000	PK	42.5	38.2	5.3	33.0	53.0	73.9	20.9	
Vert	24800.000	PK	46.3	38.0	-1.1	30.5	52.7	73.9	21.2	
Vert	1000.125	AV	47.0	24.9	1.6	35.2	38.3	53.9	15.6	
Vert	1500.197	AV	43.3	26.9	2.0	33.8	38.4	53.9	15.5	
Vert	1653.000	AV	30.2	27.3	2.2	33.4	26.3	53.9	27.6	
Vert	2483.500	AV	43.8	27.6	2.7	32.4	41.7	53.9	12.2	
Vert	2486.900	AV	30.8	27.6	2.7	32.4	28.7	53.9	25.2	
Vert	3307.000	AV	47.5	29.4	3.1	32.1	47.9	53.9	6.0	
Vert	4960.000	AV	31.6	32.2	3.9	31.8	35.9	53.9	18.0	
Vert	7440.000	AV	31.0	36.2	4.7	32.5	39.4	53.9	14.5	
Vert	9920.000	AV	30.3	38.2	5.3	33.0	40.8	53.9	13.1	
Vert	24800.000	AV	34.8	38.0	-1.1	30.5	41.2	53.9	12.7	

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

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

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

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

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Radiated Spurious Emission

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber	
Report No.	30KE0284-HO-01	
Date	11/10/2010	11/11/2010
Temperature/ Humidity	24 deg.C./ 39%	24 deg.C./ 45%
Engineer	Tomohisa Nakagawa	Hiroyuki Furutaka
	above 1GHz	below 1GHz
Mode	Rx 2441MHz	

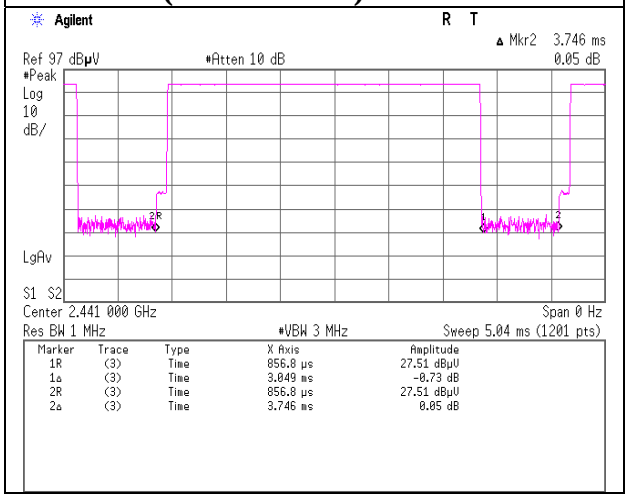
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	607.480	QP	33.6	19.5	11.9	32.0	33.0	46.0	13.0	
Hori	629.040	QP	33.1	19.7	12.0	32.0	32.8	46.0	13.2	
Hori	654.181	QP	33.7	20.0	12.1	32.0	33.8	46.0	12.2	
Hori	767.424	QP	29.8	21.4	12.7	31.6	32.3	46.0	13.7	
Hori	817.742	QP	30.0	21.9	13.0	31.4	33.5	46.0	12.5	
Hori	850.483	QP	29.0	22.0	13.1	31.2	32.9	46.0	13.1	
Hori	1000.111	PK	54.5	24.9	1.6	35.2	45.8	73.9	28.1	
Hori	1500.197	PK	50.4	26.9	2.0	33.8	45.5	73.9	28.4	
Hori	1627.000	PK	42.1	27.3	2.1	33.5	38.0	73.9	35.9	
Hori	2441.000	PK	42.0	27.7	2.7	32.4	40.0	73.9	33.9	
Hori	4882.000	PK	40.9	31.9	3.9	31.8	44.9	73.9	29.0	
Hori	7323.000	PK	42.0	36.2	4.7	32.4	50.5	73.9	23.4	
Hori	1000.111	AV	49.5	24.9	1.6	35.2	40.8	53.9	13.1	VBW:10Hz
Hori	1500.197	AV	45.7	26.9	2.0	33.8	40.8	53.9	13.1	VBW:10Hz
Hori	1627.000	AV	29.9	27.3	2.1	33.5	25.8	53.9	28.1	VBW:10Hz
Hori	2441.000	AV	30.1	27.7	2.7	32.4	28.1	53.9	25.8	VBW:10Hz
Hori	4882.000	AV	28.5	31.9	3.9	31.8	32.5	53.9	21.4	VBW:10Hz
Hori	7323.000	AV	30.2	36.2	4.7	32.4	38.7	53.9	15.2	VBW:10Hz
Vert	564.935	QP	36.1	19.0	11.7	32.0	34.8	46.0	11.2	
Vert	629.030	QP	39.8	19.7	12.0	32.0	39.5	46.0	6.5	
Vert	631.405	QP	35.5	19.7	12.0	32.0	35.2	46.0	10.8	
Vert	641.615	QP	33.6	19.9	12.1	32.0	33.6	46.0	12.4	
Vert	654.195	QP	37.5	20.0	12.1	32.0	37.6	46.0	8.4	
Vert	817.742	QP	32.3	21.9	13.0	31.4	35.8	46.0	10.2	
Vert	1000.111	PK	52.8	24.9	1.6	35.2	44.1	73.9	29.8	
Vert	1500.197	PK	48.4	26.9	2.0	33.8	43.5	73.9	30.4	
Vert	1627.000	PK	42.0	27.3	2.1	33.5	37.9	73.9	36.0	
Vert	2441.000	PK	42.2	27.7	2.7	32.4	40.2	73.9	33.7	
Vert	4882.000	PK	40.3	31.9	3.9	31.8	44.3	73.9	29.6	
Vert	7323.000	PK	42.9	36.2	4.7	32.4	51.4	73.9	22.5	
Vert	1000.111	AV	46.7	24.9	1.6	35.2	38.0	53.9	15.9	VBW:10Hz
Vert	1500.197	AV	42.5	26.9	2.0	33.8	37.6	53.9	16.3	VBW:10Hz
Vert	1627.000	AV	29.8	27.3	2.1	33.5	25.7	53.9	28.2	VBW:10Hz
Vert	2441.000	AV	30.1	27.7	2.7	32.4	28.1	53.9	25.8	VBW:10Hz
Vert	4882.000	AV	28.5	31.9	3.9	31.8	32.5	53.9	21.4	VBW:10Hz
Vert	7323.000	AV	30.2	36.2	4.7	32.4	38.7	53.9	15.2	VBW:10Hz

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).
Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

VBW (AV) Calculation

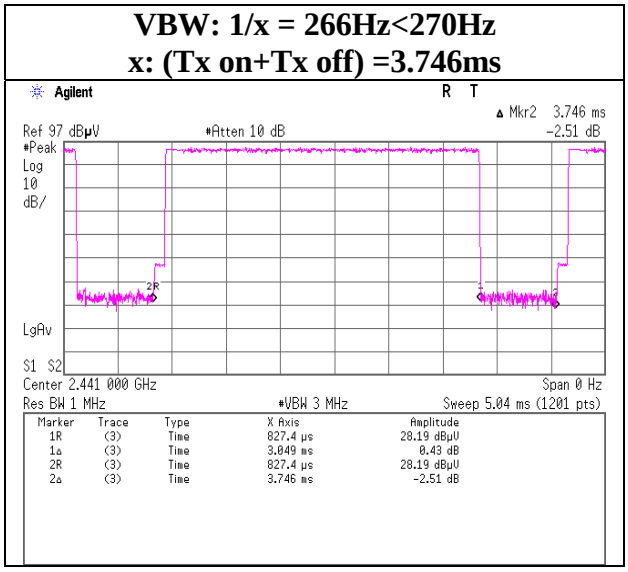
DH5

VBW: 1/x = 266Hz<270Hz
x: (Tx on+Tx off) =3.746ms



3DH5

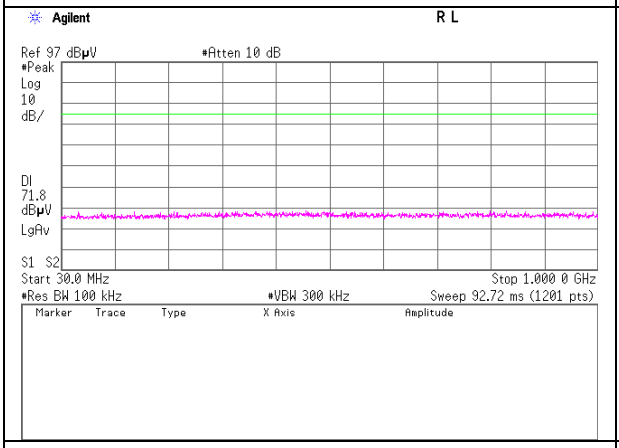
VBW: 1/x = 266Hz<270Hz
x: (Tx on+Tx off) =3.746ms



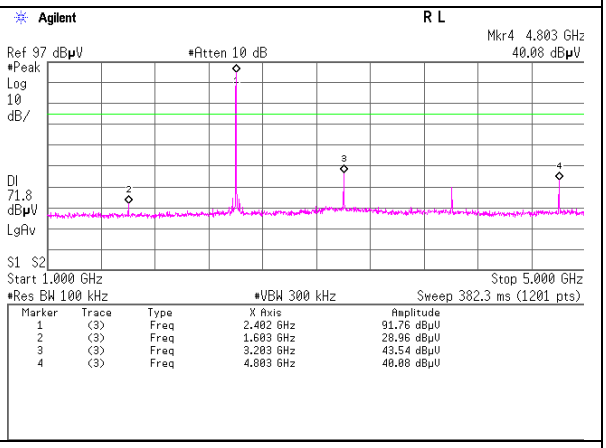
Conducted Spurious Emission

Tx DH5 2402MHz

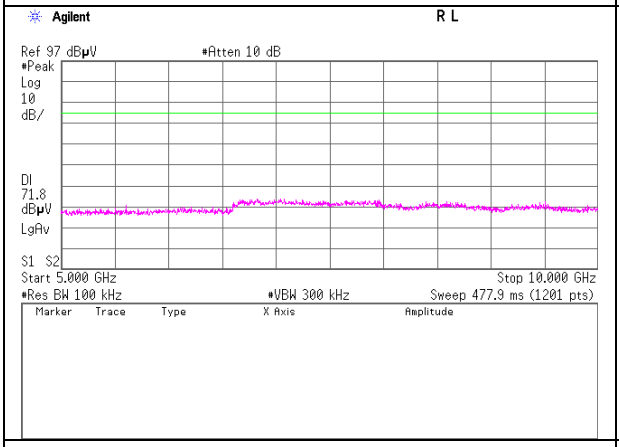
30MHz-1GHz



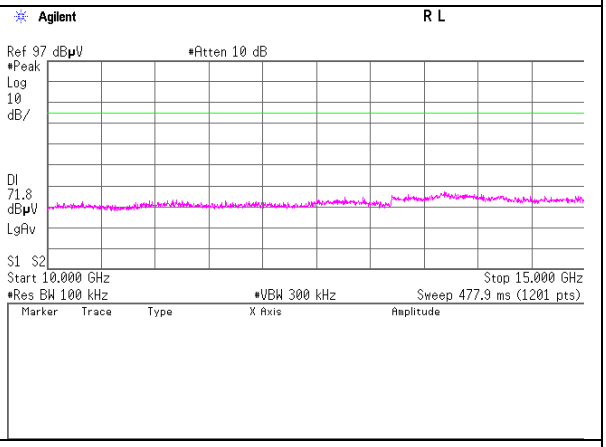
1GHz-5GHz



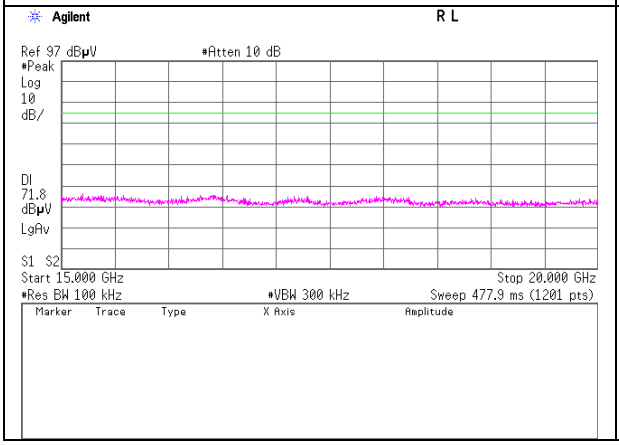
5GHz-10GHz



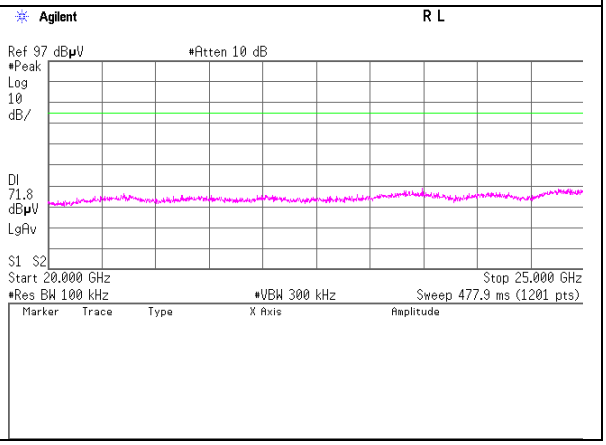
10GHz-15GHz



15GHz-20GHz



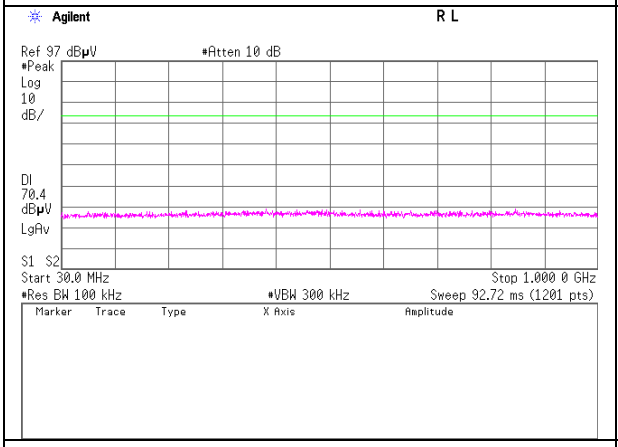
20GHz-25GHz



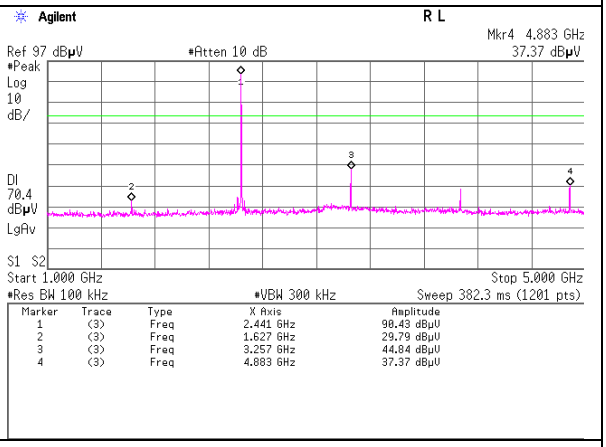
Conducted Spurious Emission

Tx DH5 2441MHz

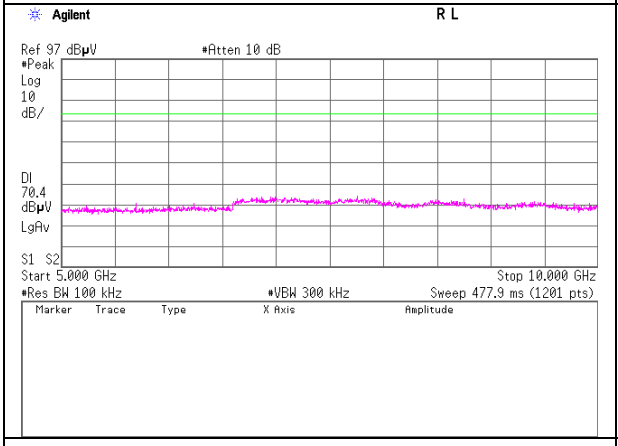
30MHz-1GHz



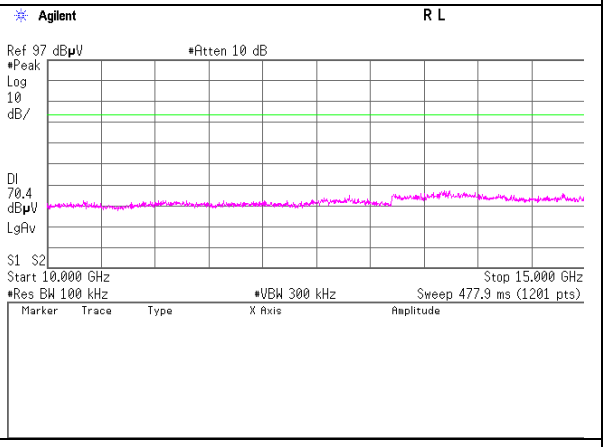
1GHz-5GHz



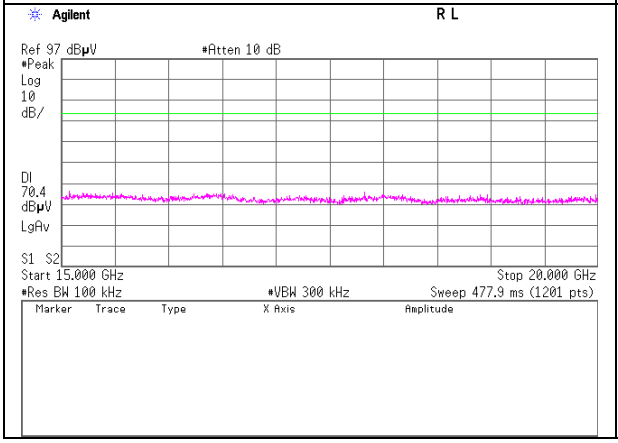
5GHz-10GHz



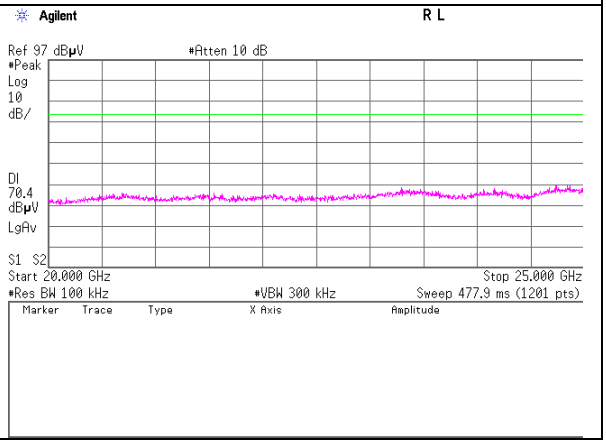
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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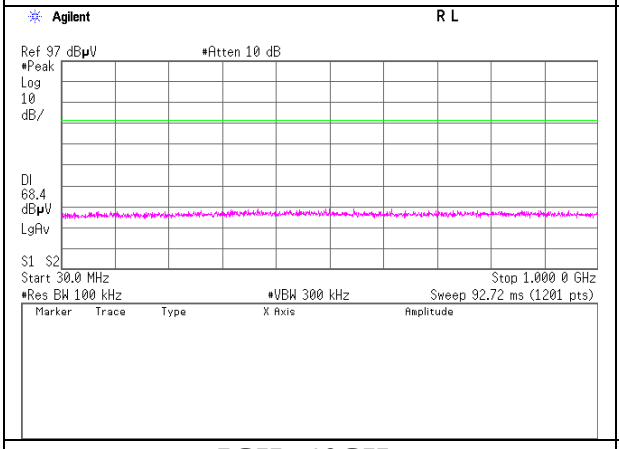
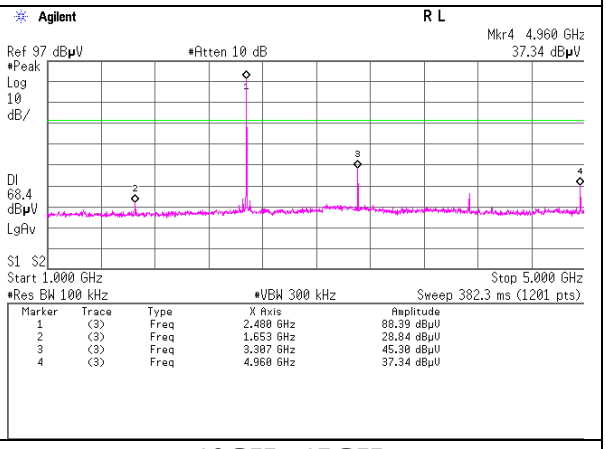
Conducted Spurious Emission

Tx DH5 2480MHz

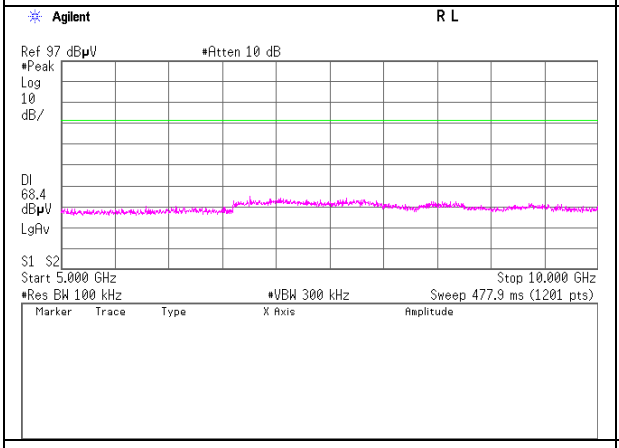
30MHz-1GHz



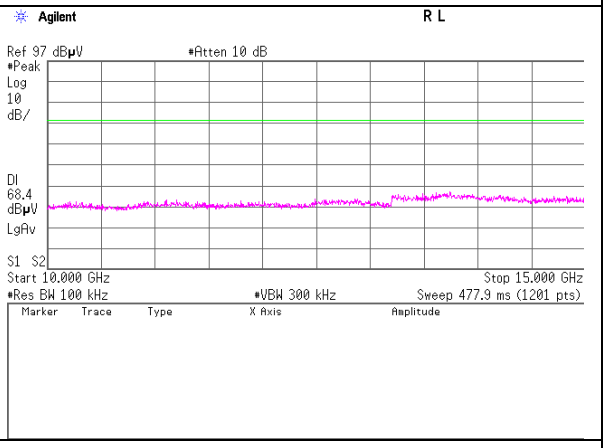
1GHz-5GHz



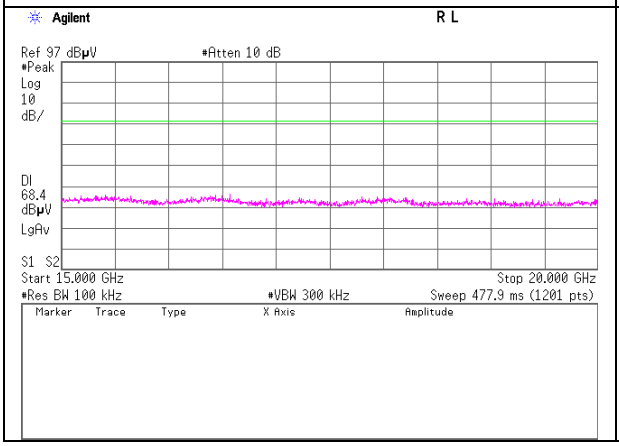
5GHz-10GHz



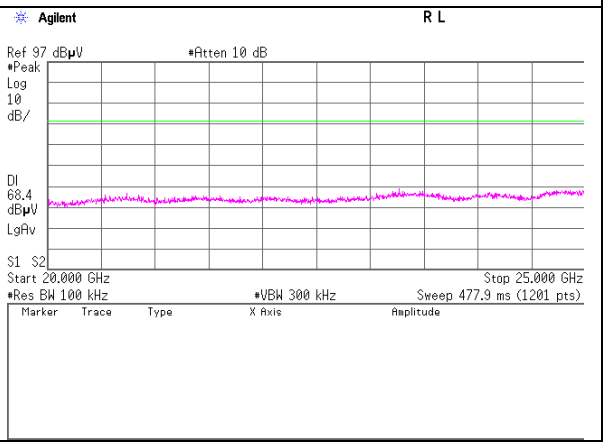
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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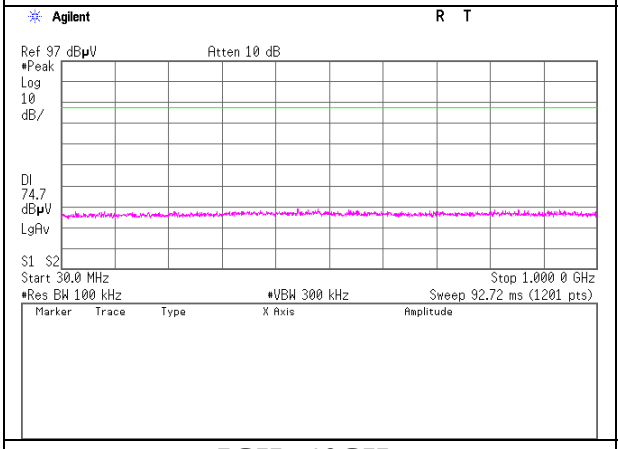
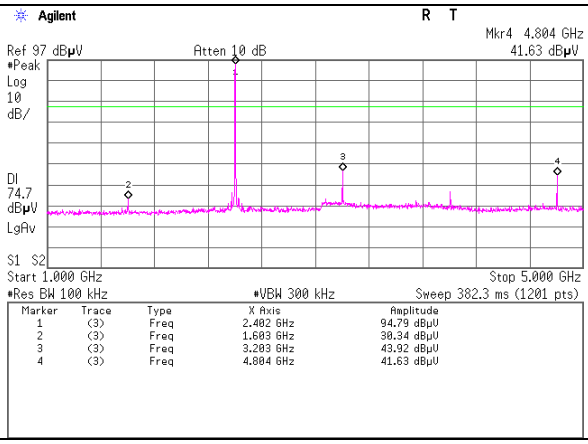
Conducted Spurious Emission

Tx 3DH5 2402MHz

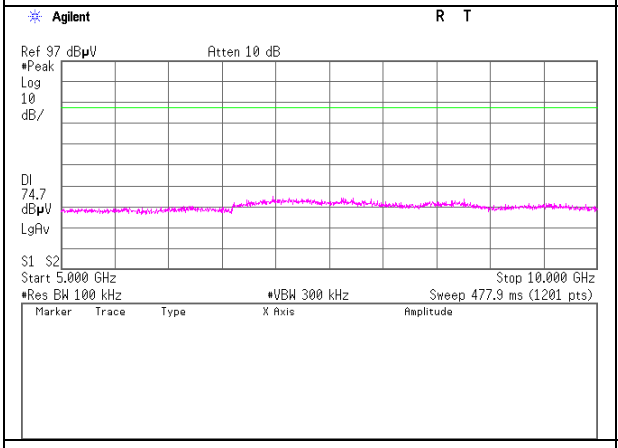
30MHz-1GHz



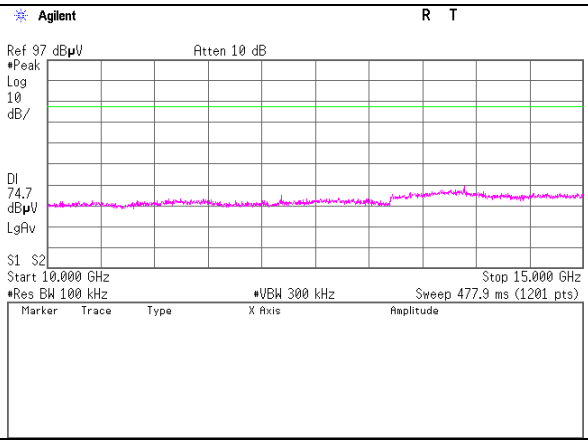
1GHz-5GHz



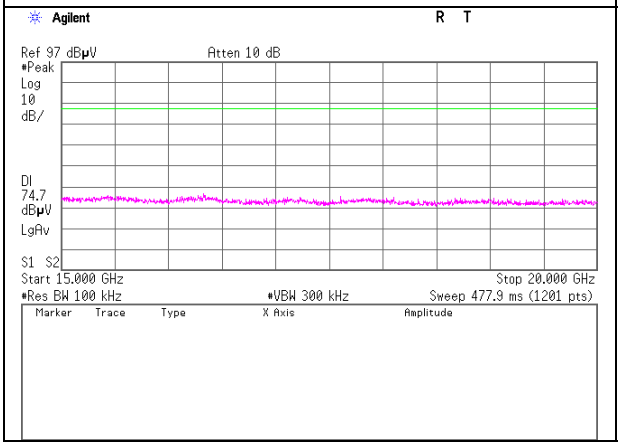
5GHz-10GHz



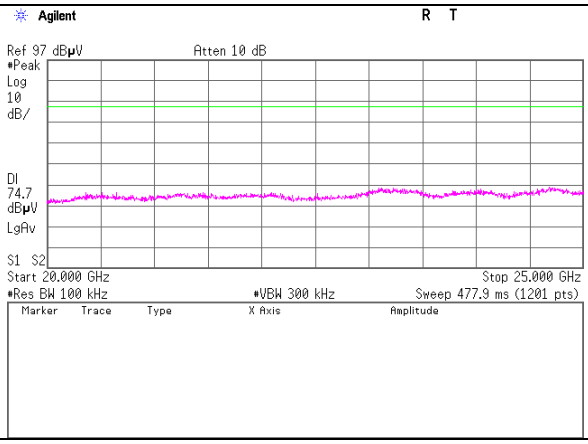
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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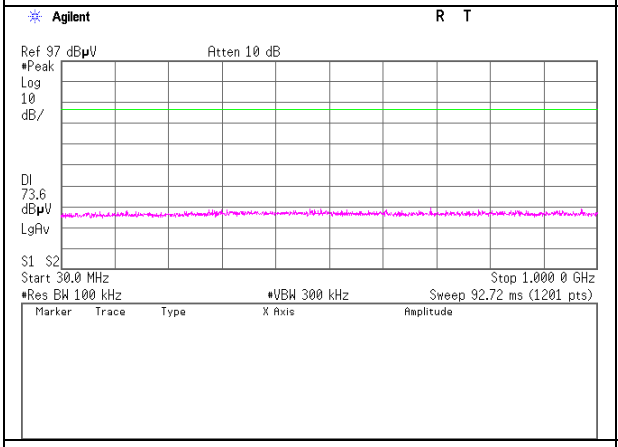
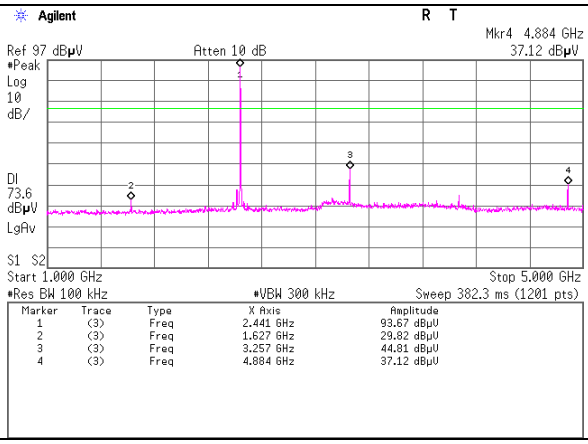
Conducted Spurious Emission

Tx 3DH5 2441MHz

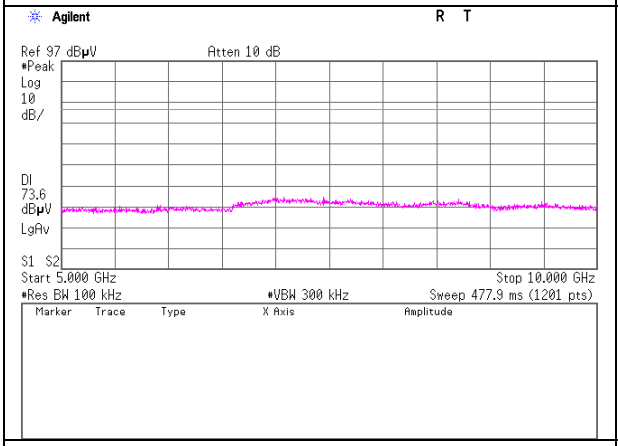
30MHz-1GHz



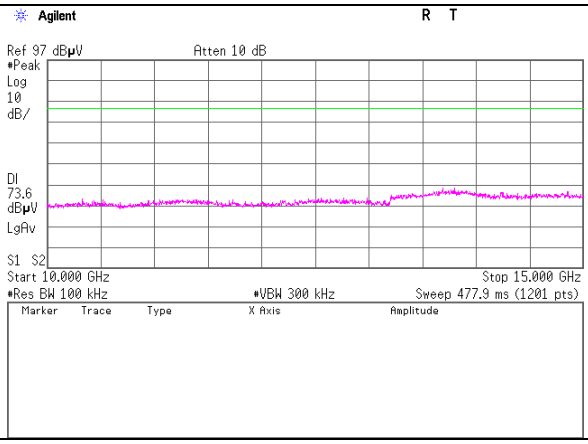
1GHz-5GHz



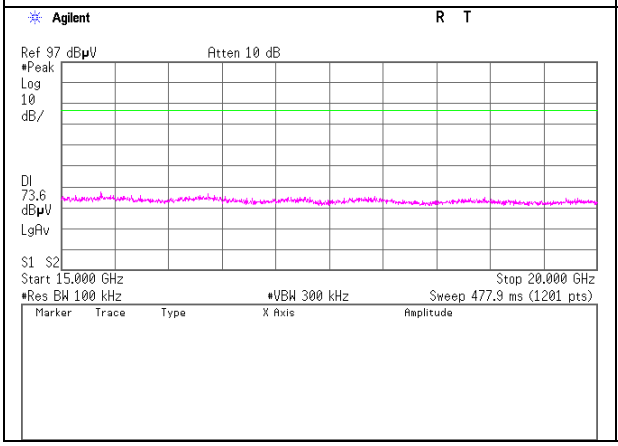
5GHz-10GHz



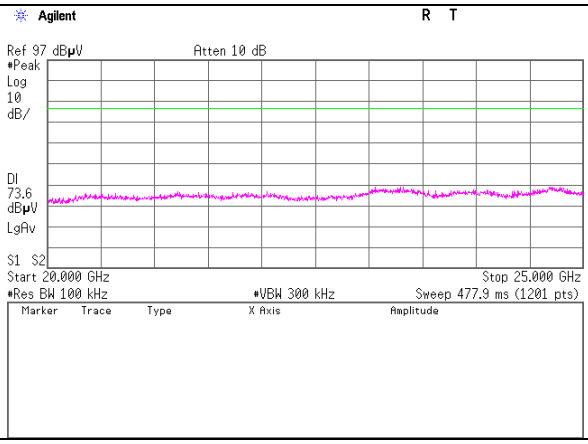
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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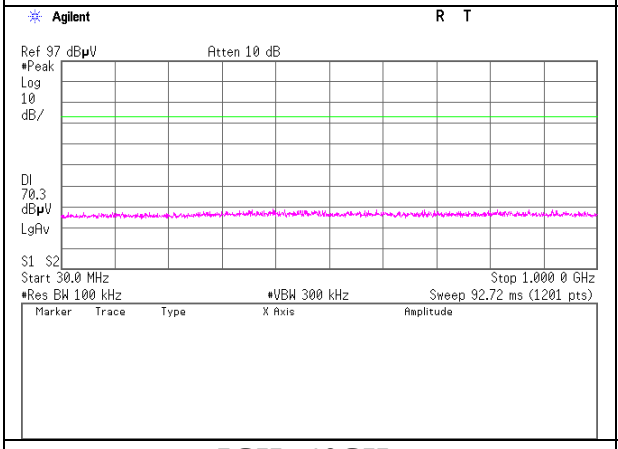
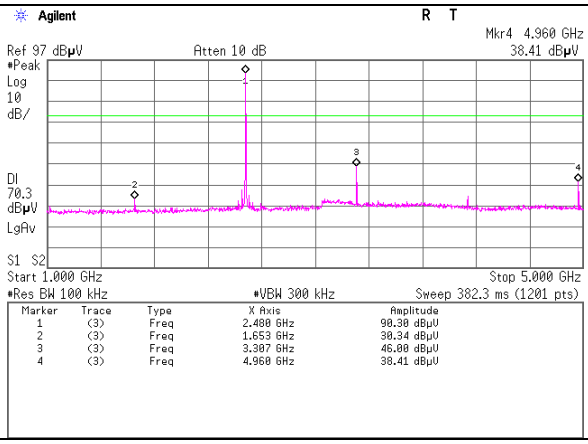
Conducted Spurious Emission

Tx 3DH5 2480MHz

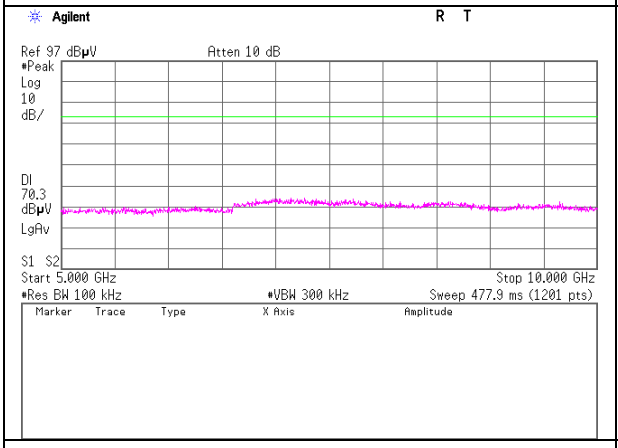
30MHz-1GHz



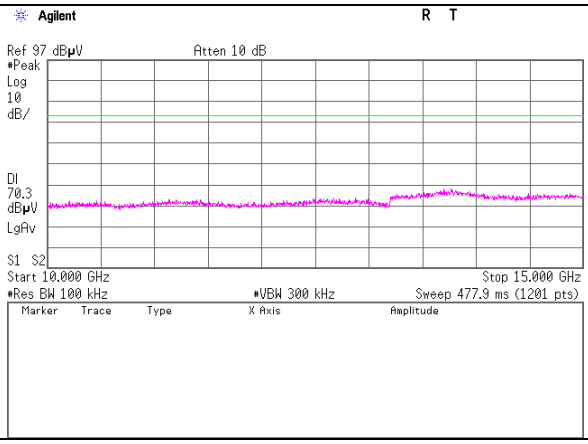
1GHz-5GHz



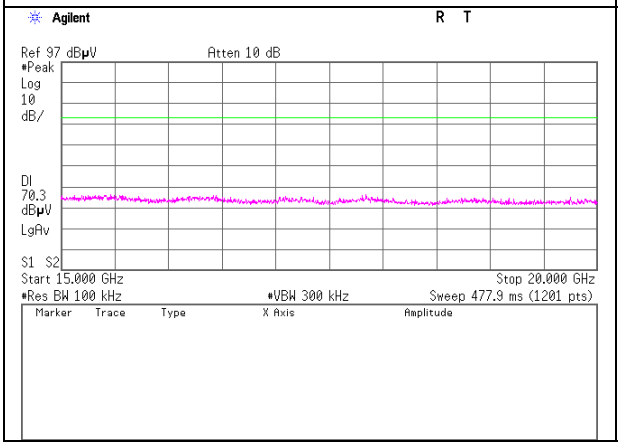
5GHz-10GHz



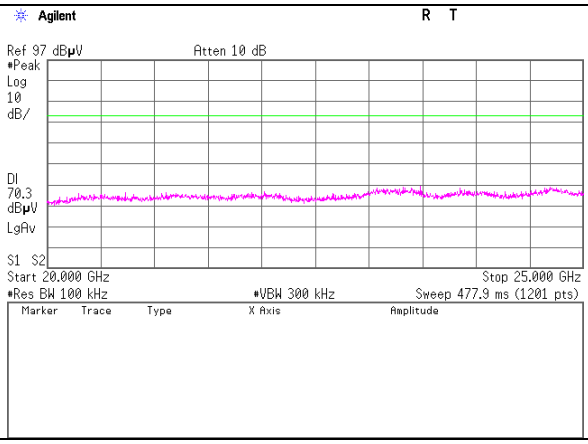
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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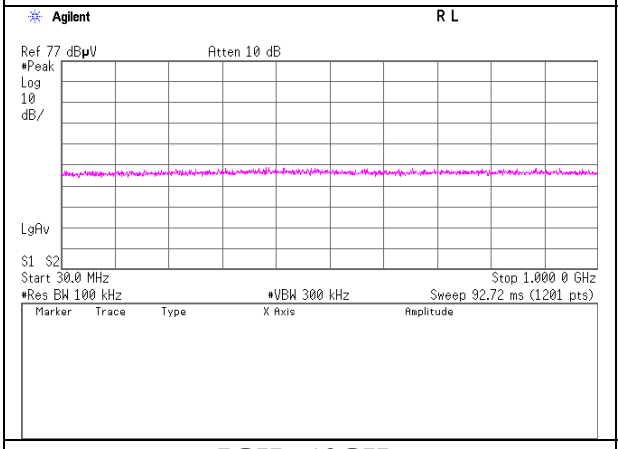
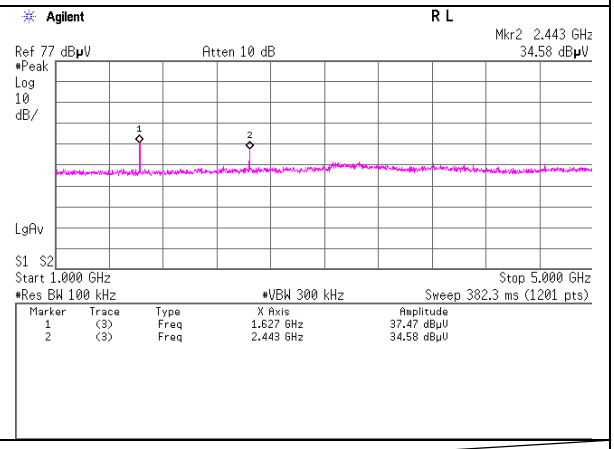
Conducted Spurious Emission

Rx 2441MHz

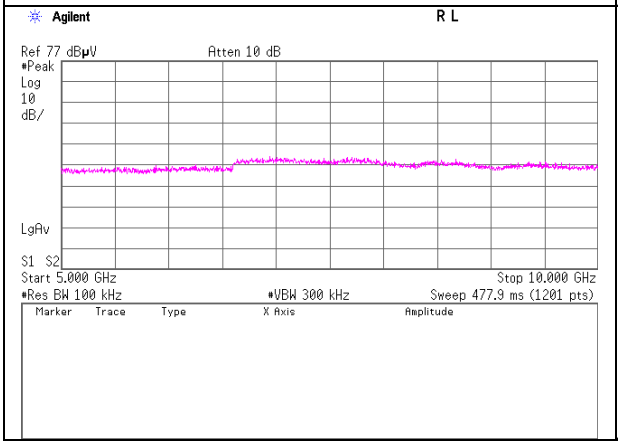
30MHz-1GHz



1GHz-5GHz



5GHz-10GHz



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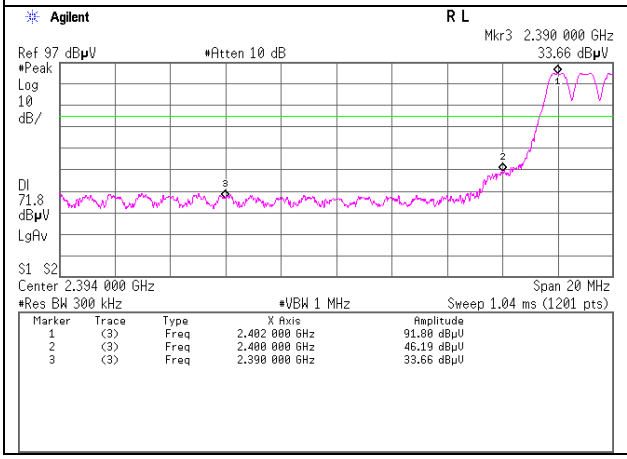
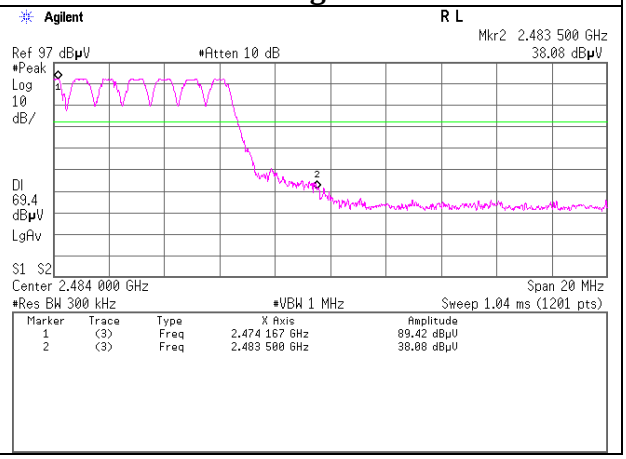
Conducted Emission Band Edge compliance

Tx DH5, Hopping on

Low

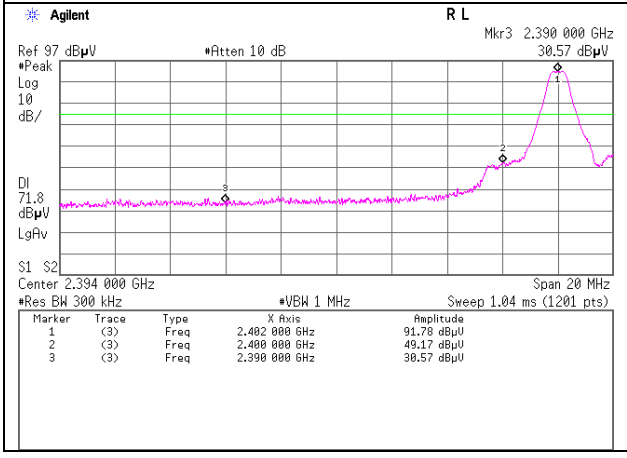


High

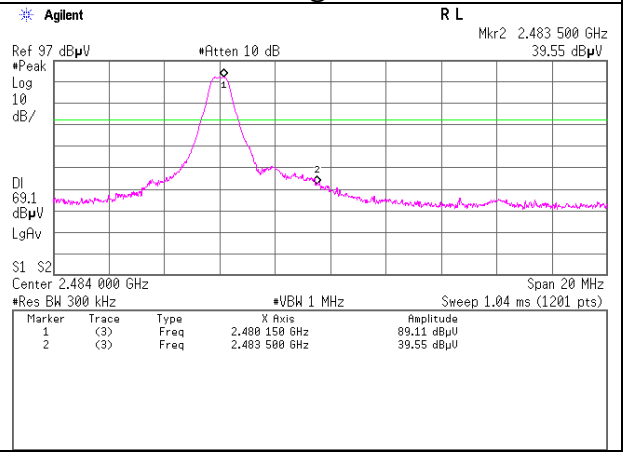


Tx DH5, Hopping off

Low



High



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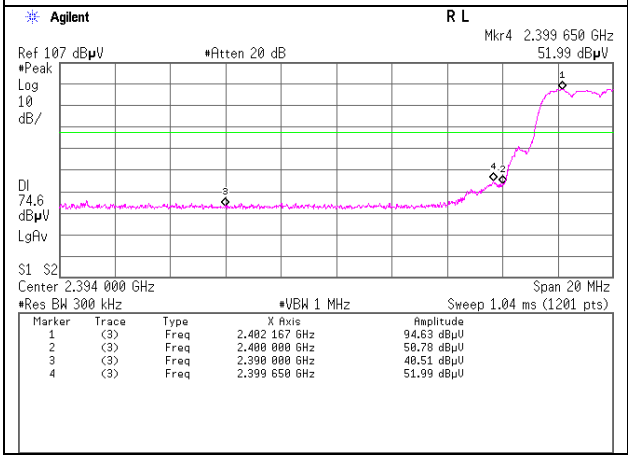
Conducted Emission Band Edge compliance

Tx 3DH5, Hopping on

Low



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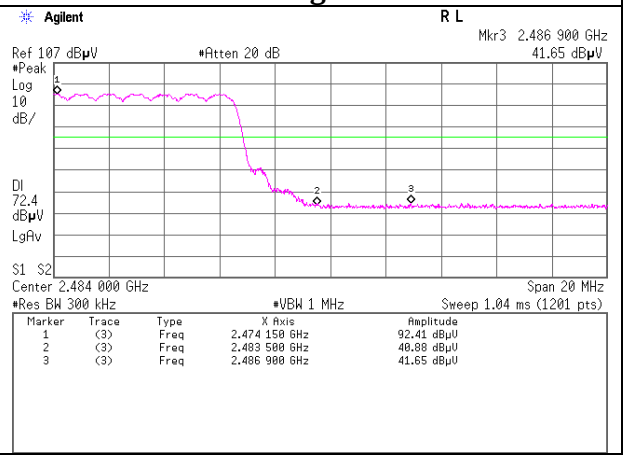
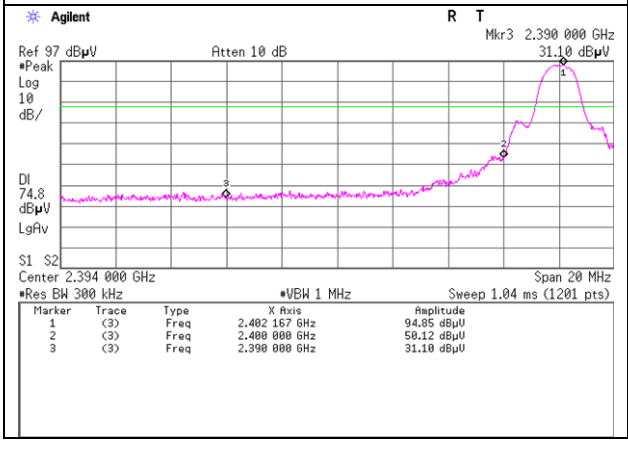
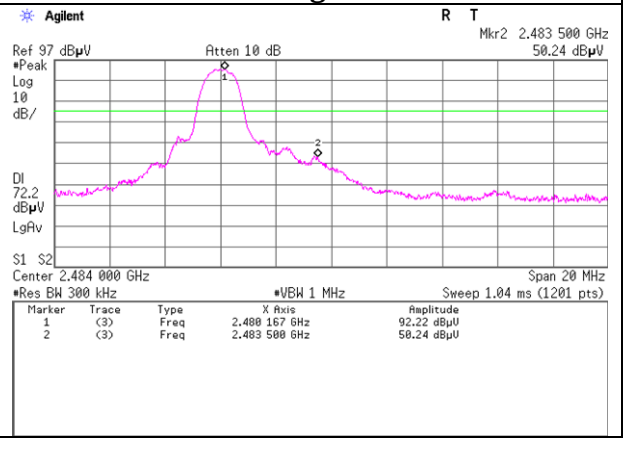


Tx 3DH5, Hopping off

Low



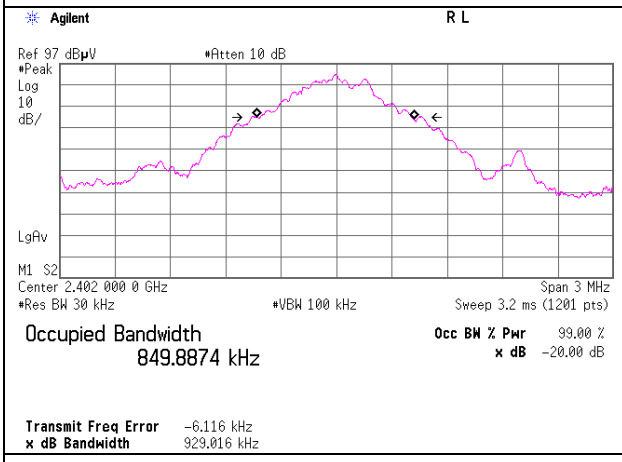
High



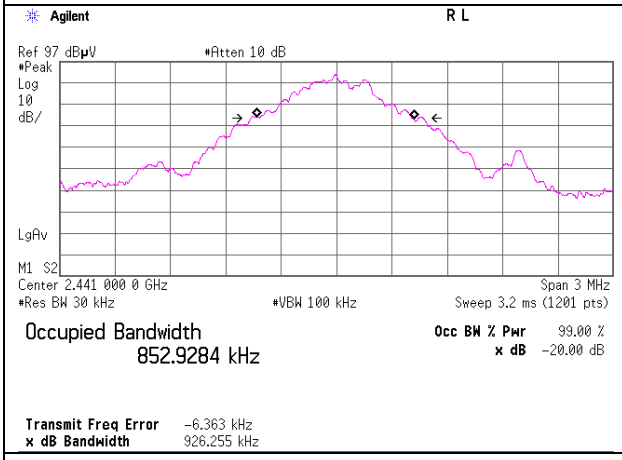
99%Occupied Bandwidth

Tx DH5, Hopping off

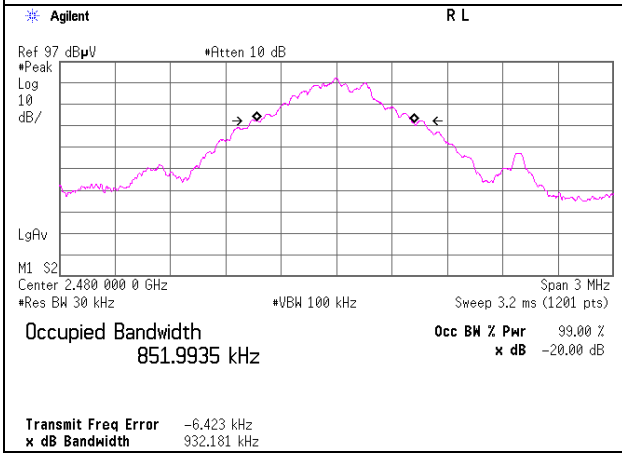
2402MHz



2441MHz

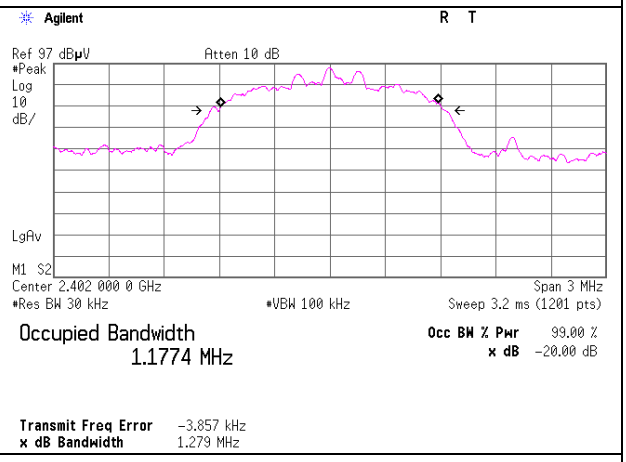


2480MHz

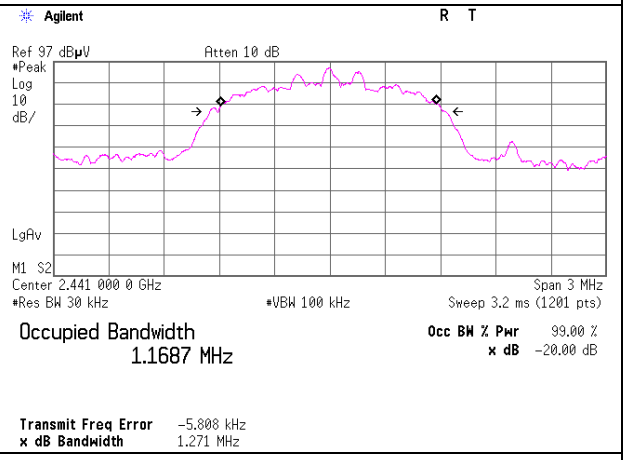


Tx 3DH5, Hopping off

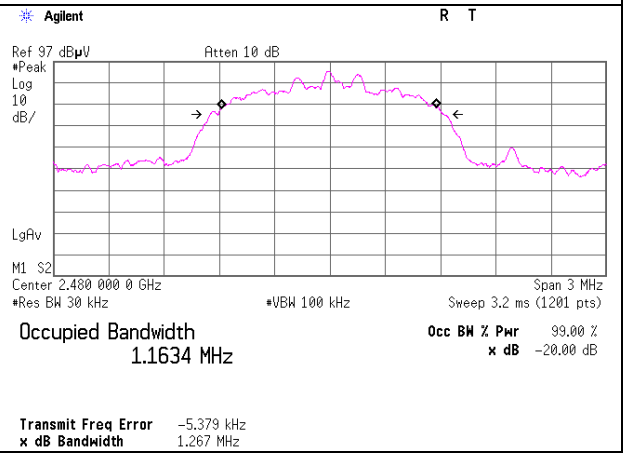
2402MHz



2441MHz

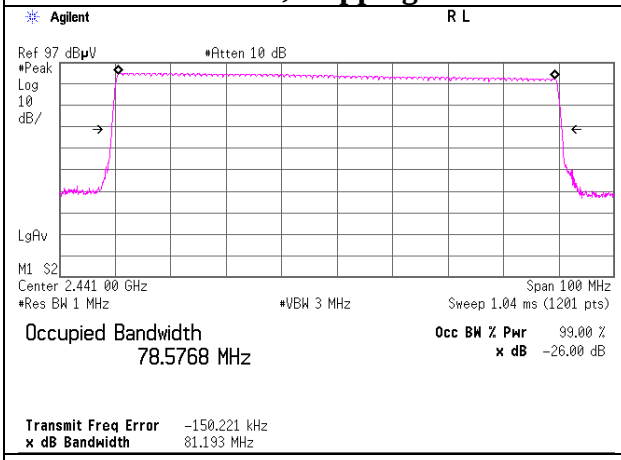


2480MHz

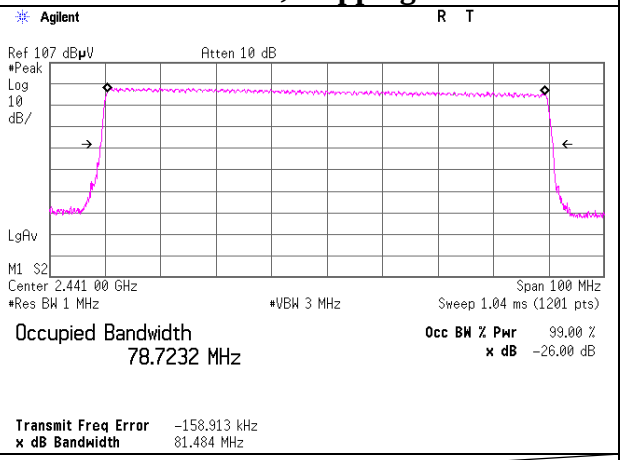


99% Occupied Bandwidth

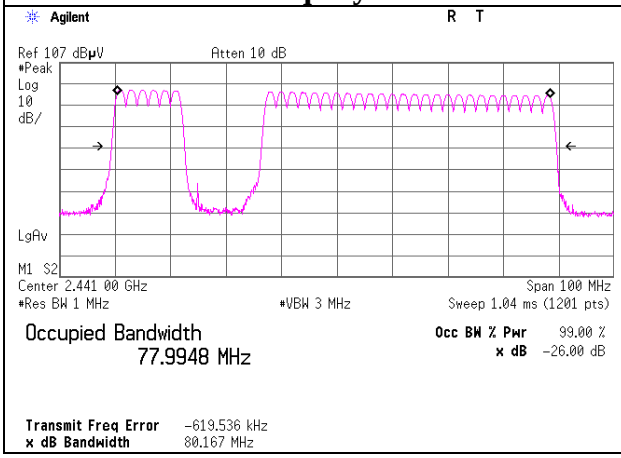
Tx DH5, Hopping on



Tx 3DH5, Hopping on



Inquiry



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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)
MOS-13	Thermo-Hygrometer	Custom	CTH-180	-	AT/RE	2010/02/09 * 12
MOTS-MATM	Antenna Terminal Measurement Software	UL Japan	-	-	AT	-
MSA-10	Spectrum Analyzer	Agilent	E4448A	MY46180655	AT/RE	2010/02/03 * 12
MPM-12	Power Meter	Anritsu	ML2495A	0825002	AT	2010/08/20 * 12
MPSE-17	Power sensor	Anritsu	MA2411B	0738285	AT	2010/08/20 * 12
MAT-23	Attenuator(10dB) 1-18GHz	Orient Microwave	BX10-0476-00	-	AT	2010/03/01 * 12
MCC-114	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	290212/4	AT	2010/08/05 * 12
MPM-08	Power Meter	Anritsu	ML2495A	6K00003338	AT	2010/09/10 * 12
MPSE-11	Power sensor	Anritsu	MA2411B	011737	AT	2010/09/10 * 12
MOS-14	Thermo-Hygrometer	Custom	CTH-201	-	AT	2010/05/19 * 12
MAEC-03	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE	2010/02/01 * 12
MJM-06	Measure	PROMART	SEN1955	-	RE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE	-
MSA-09	Spectrum Analyzer	Advantest	R3273	95090115	RE	2009/12/11 * 12
MTR-08	Test Receiver	Rohde & Schwarz	ESCI	100767	RE	2010/08/23 * 12
MBA-03	Biconical Antenna	Schwarzbeck	BBA9106	1915	RE	2010/10/11 * 12
MLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	174	RE	2010/10/11 * 12
MCC-51	Coaxial cable	UL Japan	-	-	RE	2010/07/06 * 12
MAT-09	Attenuator(6dB)	Weinschel Corp	2	BK7973	RE	2009/11/12 * 12
MPA-13	Pre Amplifier	SONOMA INSTRUMENT	310	260834	RE	2010/03/23 * 12
MHA-20	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	258	RE	2010/05/07 * 12
MCC-56	Microwave Cable	Suhner	SUCOFLEX104	174410(1m) / 284655(5m)	RE	2010/01/25 * 12
MPA-11	MicroWave System Amplifier	Agilent	83017A	MY39500779	RE	2010/03/03 * 12
MHF-17	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCA	7001	RE	2010/09/21 * 12
MCC-79	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	278923/4	RE	2009/12/19 * 12
MHA-17	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	BBHA9170307	RE	2010/06/29 * 12

The expiration date of the calibration is the end of the expired month.
All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

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

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