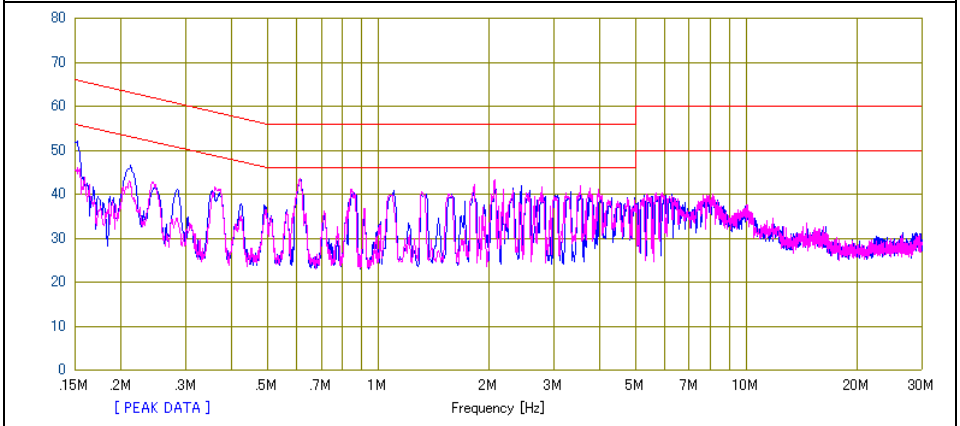
APPENDIX 2: Data of EMI test

Conducted Emission

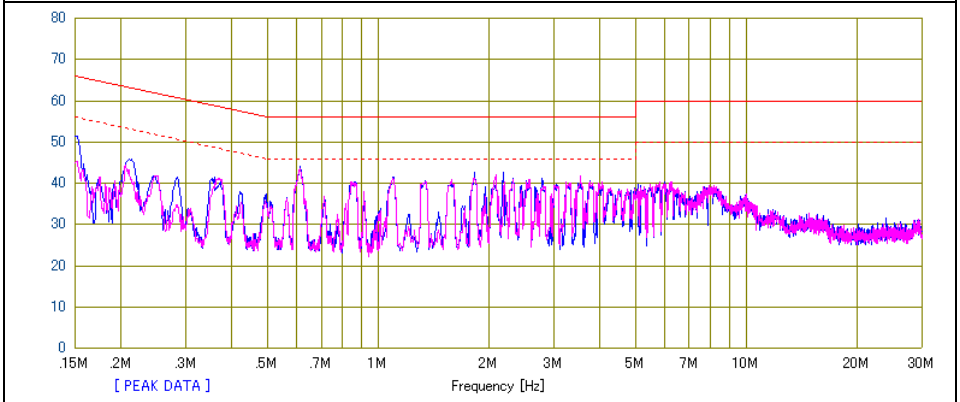
DH5, Ant: 1, Tx

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/19/2010
Temperature/ Humidity	24 deg.C./ 57%
Engineer	Hiroshi Kukita
Mode	Tx DH5

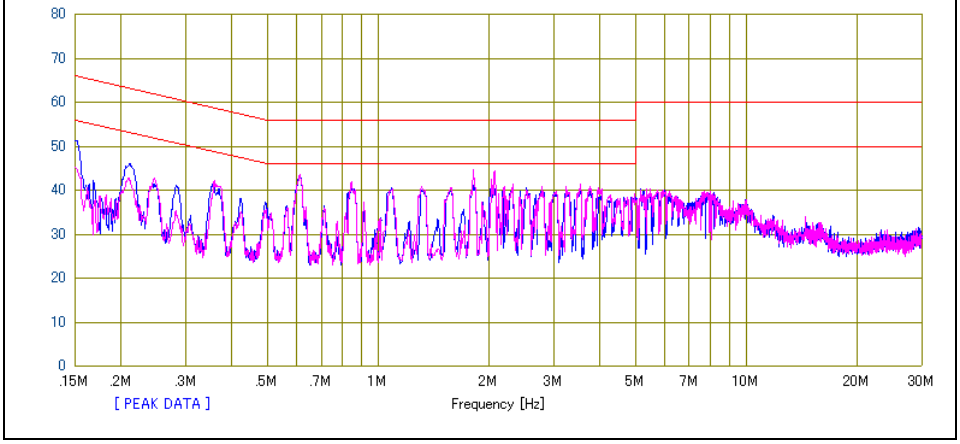
2402MHz



2441MHz



2480MHz



Conducted Emission
DH5, Ant: 1, Tx, Ch: Mid

-

DATA OF CONDUCTED EMISSION TEST

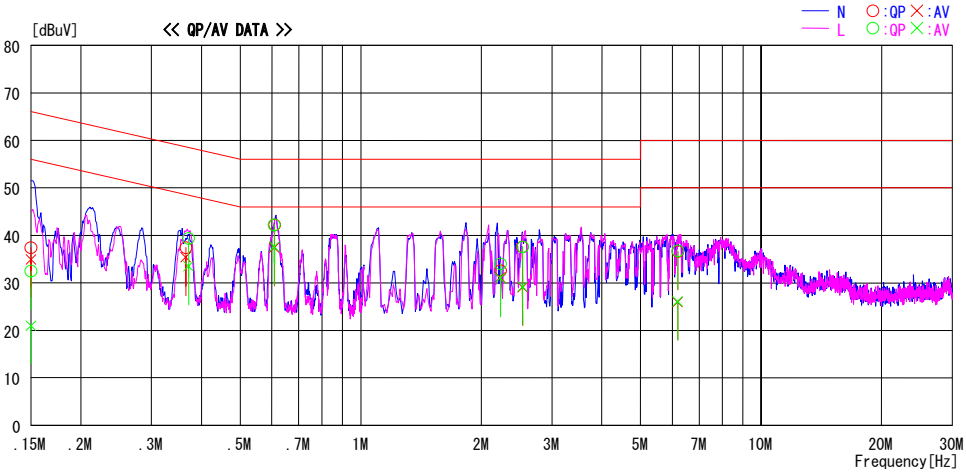
UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2010/05/19

Report No. : 30IE0279-HO-01

Temp./Humi. : 24deg.C. / 57%
Engineer : Hiroshi Kukita

Mode / Remarks : BT, Tx 2441MHz, DH5, Ant:1,

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.15000	24.1	21.7	13.3	37.4	35.0	66.0	56.0	28.6	21.0	N	
0.36545	24.1	22.1	13.3	37.4	35.4	58.6	48.6	21.2	13.2	N	
0.60840	28.9	24.1	13.3	42.2	37.4	56.0	46.0	13.8	8.6	N	
2.23136	19.3	17.9	13.3	32.6	31.2	56.0	46.0	23.4	14.8	N	
2.53548	24.2	15.7	13.4	37.6	29.1	56.0	46.0	18.4	16.9	N	
6.18634	22.9	12.3	13.7	36.6	26.0	60.0	50.0	23.4	24.0	N	
0.15000	19.2	7.7	13.3	32.5	21.0	66.0	56.0	33.5	35.0	L	
0.37128	26.1	20.2	13.3	39.4	33.5	58.5	48.5	19.1	15.0	L	
0.60818	28.9	24.3	13.3	42.2	37.6	56.0	46.0	13.8	8.4	L	
2.23156	20.7	17.7	13.3	34.0	31.0	56.0	46.0	22.0	15.0	L	
2.53600	24.2	15.8	13.4	37.6	29.2	56.0	46.0	18.4	16.8	L	
6.18730	23.1	12.4	13.7	36.8	26.1	60.0	50.0	23.2	23.9	L	

CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

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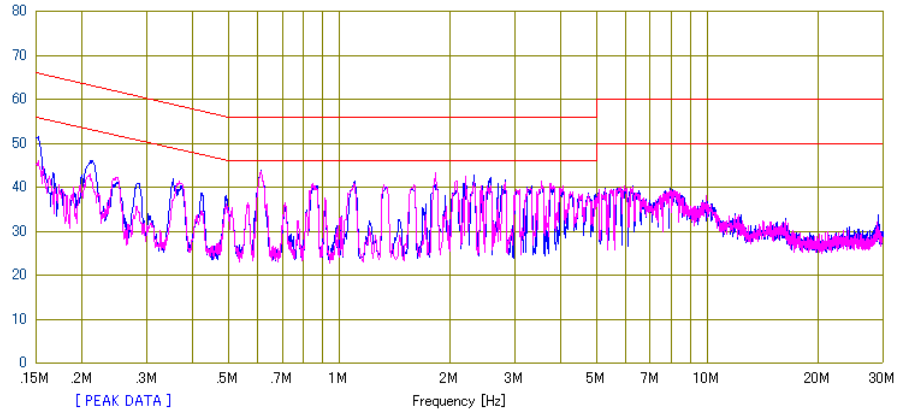
Conducted Emission

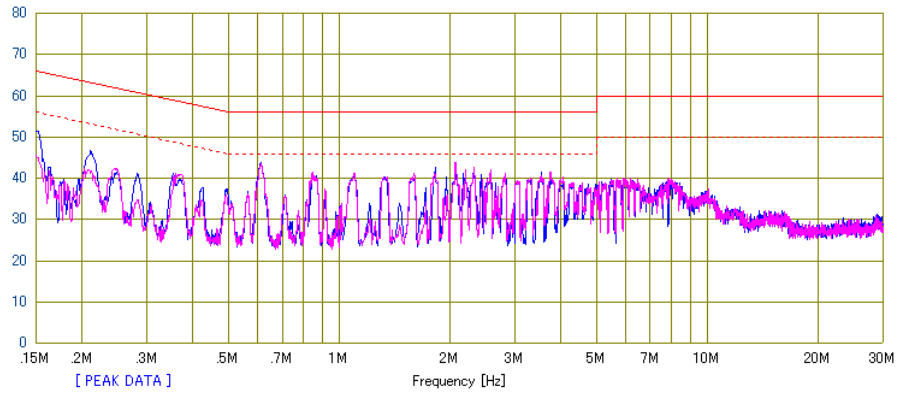
DH5, Ant: 2, Tx

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/19/2010
Temperature/ Humidity	24 deg.C./ 57%
Engineer	Hiroshi Kukita
Mode	Tx DH5

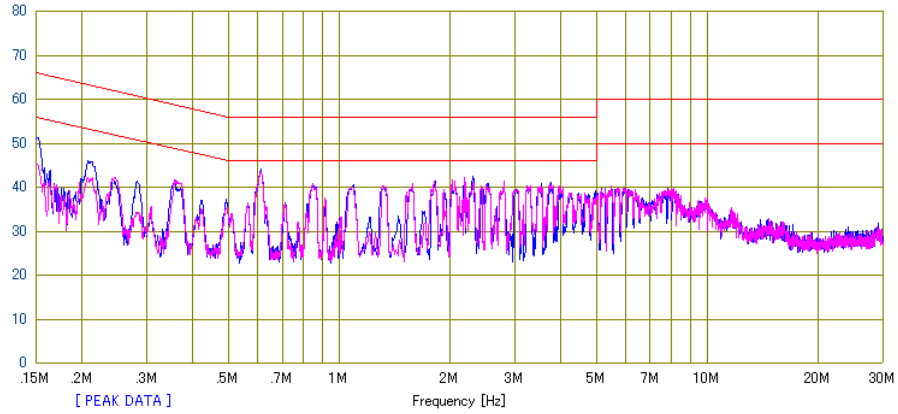
2402MHz



2441MHz



2480MHz



Conducted Emission
DH5, Ant: 2, Tx, Ch: Mid

-

DATA OF CONDUCTED EMISSION TEST

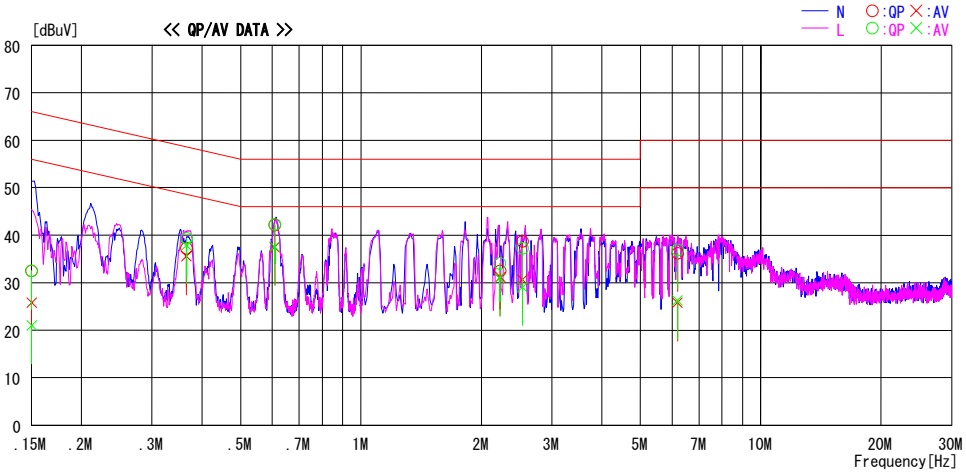
UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2010/05/19

Report No. : 30IE0279-HO-01

Temp./Humi. : 24deg.C. / 57%
Engineer : Hiroshi Kukita

Mode / Remarks : BT, Tx 2441MHz, DH5, Ant:2,

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.15000	19.2	12.5	13.3	32.5	25.8	66.0	56.0	33.5	30.2	N	
0.36602	24.0	22.2	13.3	37.3	35.5	58.6	48.6	21.3	13.1	N	
0.60826	28.9	24.2	13.3	42.2	37.5	56.0	46.0	13.8	8.5	N	
2.23082	19.2	17.9	13.3	32.5	31.2	56.0	46.0	23.5	14.8	N	
2.53550	25.3	17.3	13.4	38.7	30.7	56.0	46.0	17.3	15.3	N	
6.18573	22.5	12.1	13.7	36.2	25.8	60.0	50.0	23.8	24.2	N	
0.15000	19.2	7.7	13.3	32.5	21.0	66.0	56.0	33.5	35.0	L	
0.36632	26.1	24.6	13.3	39.4	37.9	58.6	48.6	19.2	10.7	L	
0.60860	29.0	24.3	13.3	42.3	37.6	56.0	46.0	13.7	8.4	L	
2.22309	20.8	17.7	13.3	34.1	31.0	56.0	46.0	21.9	15.0	L	
2.53532	23.9	15.7	13.4	37.3	29.1	56.0	46.0	18.7	16.9	L	
6.18518	23.2	12.5	13.7	36.9	26.2	60.0	50.0	23.1	23.8	L	

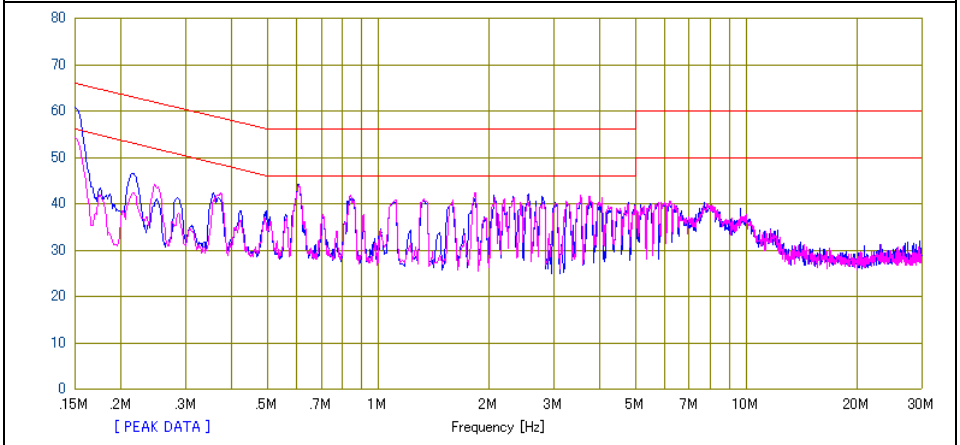
CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

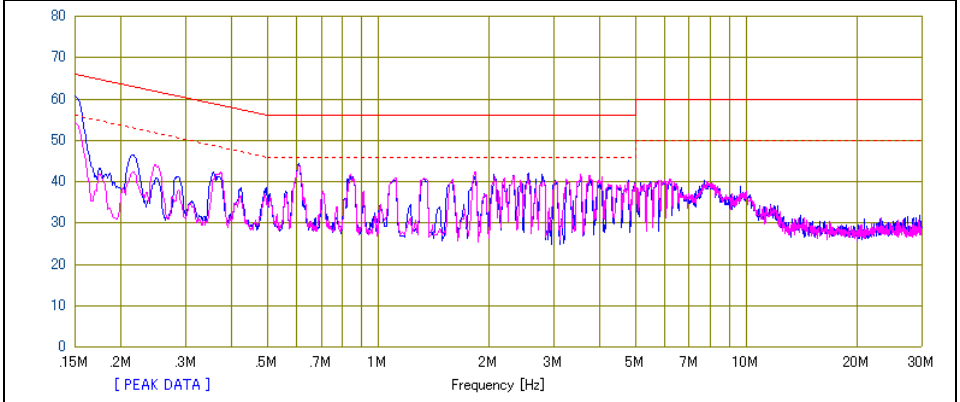
3DH5, Ant: 1, Tx

Test place	Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/13/2010
Temperature/ Humidity	21 deg.C./ 38%
Engineer	Hiroshi Kukita
Mode	Tx 3DH5

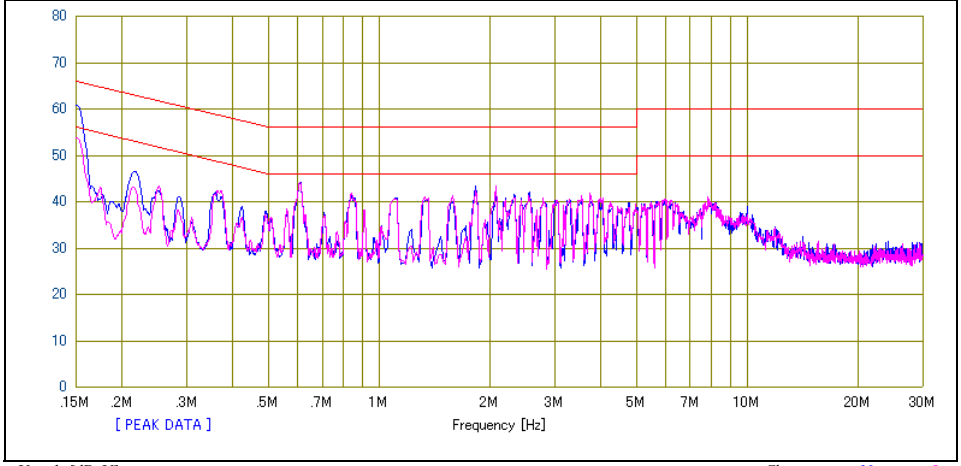
2402MHz



2441MHz



2480MHz



Y scale [dBuV] Chart — N — L

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Conducted Emission
3DH5, Ant: 1, Tx, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

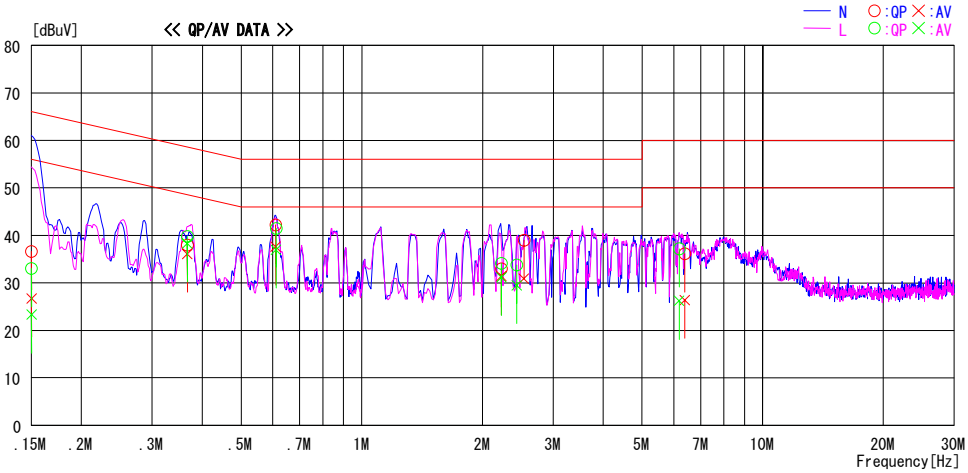
UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2010/05/14

Report No. : 30IE0279-HO-01

Temp./Humi. : 21deg.C. / 38%
Engineer : Hiroshi Kukita

Mode / Remarks : BT, Tx 2441MHz, 3DH5, Ant:1

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.15000	23.3	13.4	13.3	36.6	26.7	66.0	56.0	29.4	29.3	N	
0.36710	24.7	22.8	13.3	38.0	36.1	58.6	48.6	20.6	12.5	N	
0.60984	28.9	24.3	13.3	42.2	37.6	56.0	46.0	13.8	8.4	N	
2.23103	19.6	18.0	13.4	33.0	31.4	56.0	46.0	23.0	14.6	N	
2.53657	25.5	17.4	13.5	39.0	30.9	56.0	46.0	17.0	15.1	N	
6.38988	22.2	12.5	13.9	36.1	26.4	60.0	50.0	23.9	23.6	N	
0.15000	19.8	10.0	13.3	33.1	23.3	66.0	56.0	32.9	32.7	L	
0.36730	26.5	25.0	13.3	39.8	38.3	58.6	48.6	18.8	10.3	L	
0.61090	28.2	23.7	13.3	41.5	37.0	56.0	46.0	14.5	9.0	L	
2.23113	20.7	17.8	13.4	34.1	31.2	56.0	46.0	21.9	14.8	L	
2.43335	20.3	16.0	13.5	33.8	29.5	56.0	46.0	22.2	16.5	L	
6.18645	23.3	12.3	13.9	37.2	26.2	60.0	50.0	22.8	23.8	L	

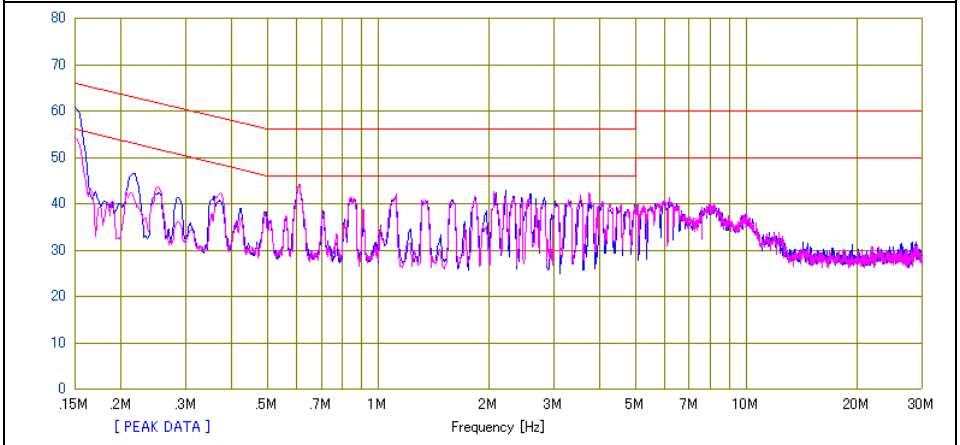
CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

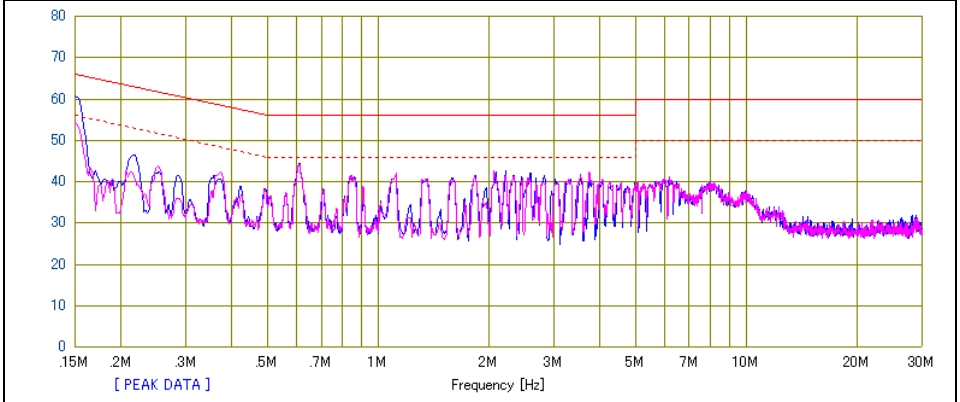
3DH5, Ant: 2, Tx

Test place	Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/13/2010
Temperature/ Humidity	21 deg.C./ 38%
Engineer	Hiroshi Kukita
Mode	Tx 3DH5

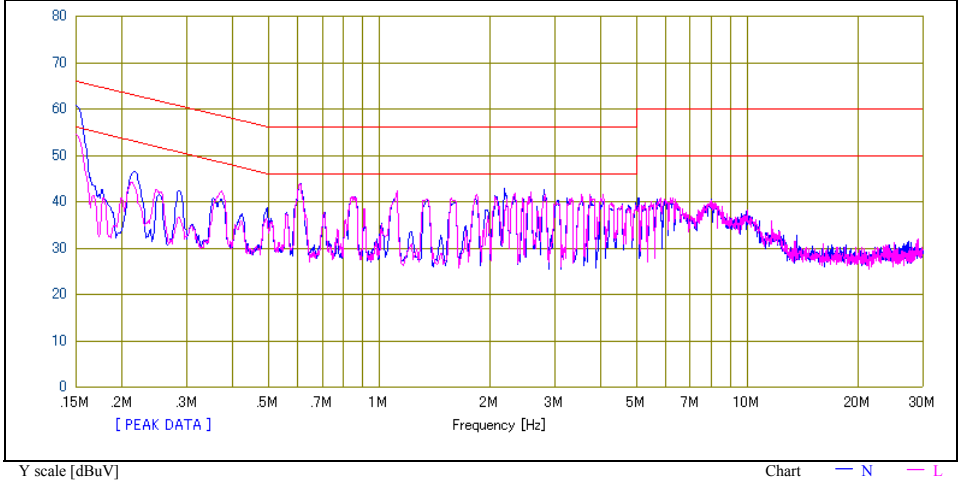
2402MHz



2441MHz



2480MHz



Y scale [dBuV] Chart — N — L

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Conducted Emission
3DH5, Ant: 2, Tx, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

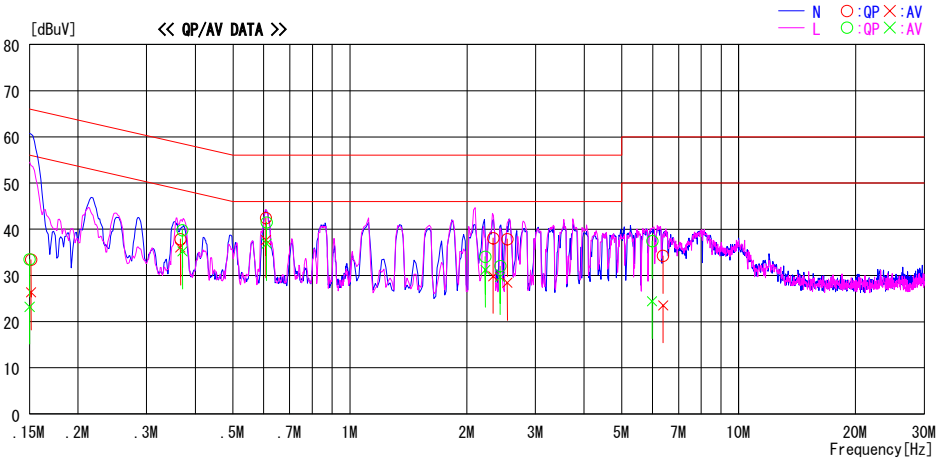
UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2010/05/14

Report No. : 30IE0279-HO-01

Temp./Humi. : 21deg.C. / 38%
Engineer : Hiroshi Kukita

Mode / Remarks : BT, Tx 2441MHz, 3DH5, Ant:2

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.15000	20.2	9.9	13.3	33.5	23.2	66.0	56.0	32.5	32.8	L	
0.15145	20.1	13.0	13.3	33.4	26.3	65.9	55.9	32.5	29.6	N	
0.36640	24.5	22.7	13.3	37.8	36.0	58.6	48.6	20.8	12.6	N	
0.37062	26.5	21.9	13.3	39.8	35.2	58.5	48.5	18.7	13.3	L	
0.60788	29.1	24.3	13.3	42.4	37.6	56.0	46.0	13.6	8.4	N	
0.61072	28.2	23.6	13.3	41.5	36.9	56.0	46.0	14.5	9.1	L	
2.23036	20.6	17.8	13.4	34.0	31.2	56.0	46.0	22.0	14.8	L	
2.33560	24.7	16.4	13.4	38.1	29.8	56.0	46.0	17.9	16.2	N	
2.43328	18.5	16.1	13.5	32.0	29.6	56.0	46.0	24.0	16.4	L	
2.53960	24.3	14.9	13.5	37.8	28.4	56.0	46.0	18.2	17.6	N	
5.98822	23.5	10.5	13.9	37.4	24.4	60.0	50.0	22.6	25.6	L	
6.39080	20.3	9.6	13.9	34.2	23.5	60.0	50.0	25.8	26.5	N	

CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
Ant: 1, Rx, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

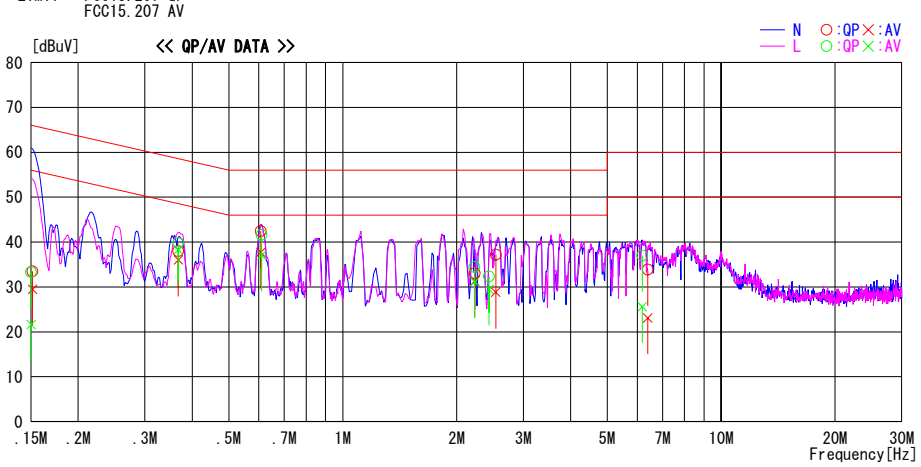
UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2010/05/14

Report No. : 30IE0279-HO-01

Temp./Humi. : 21deg.C. / 38%
Engineer : Hiroshi Kukita

Mode / Remarks : BT, Rx 2441MHz, 3DH5, Ant:1

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.15145	20.2	16.2	13.3	33.5	29.5	65.9	55.9	32.4	26.4	N	
0.36740	24.7	22.7	13.3	38.0	36.0	58.6	48.6	20.6	12.6	N	
0.60743	29.1	24.4	13.3	42.4	37.7	56.0	46.0	13.6	8.3	N	
2.23164	19.7	17.9	13.4	33.1	31.3	56.0	46.0	22.9	14.7	N	
2.53628	23.7	15.3	13.5	37.2	28.8	56.0	46.0	18.8	17.2	N	
6.39312	20.0	9.2	13.9	33.9	23.1	60.0	50.0	26.1	26.9	N	
0.15000	20.0	8.3	13.3	33.3	21.6	66.0	56.0	32.7	34.4	L	
0.36740	26.5	25.0	13.3	39.8	38.3	58.6	48.6	18.8	10.3	L	
0.61070	28.3	23.8	13.3	41.6	37.1	56.0	46.0	14.4	8.9	L	
2.23099	21.0	17.8	13.4	34.4	31.2	56.0	46.0	21.6	14.8	L	
2.43444	18.8	16.0	13.5	32.3	29.5	56.0	46.0	23.7	16.5	L	
6.18828	23.1	11.7	13.9	37.0	25.6	60.0	50.0	23.0	24.4	L	

CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
Ant: 2, Rx, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

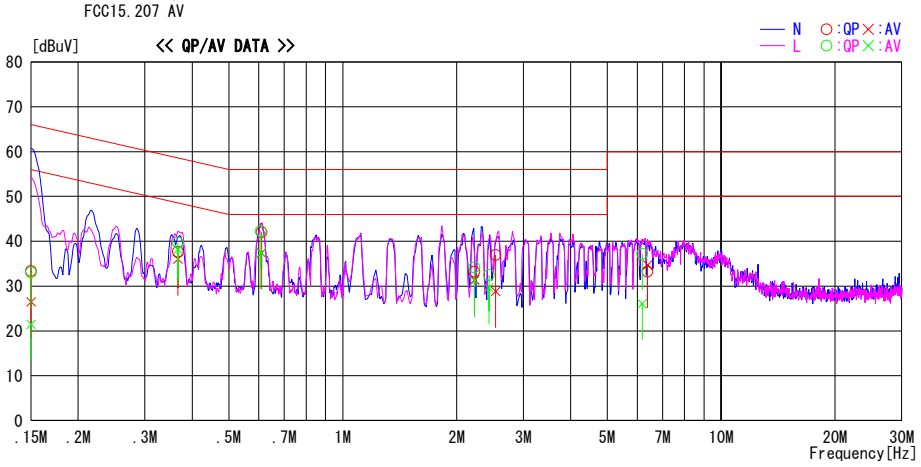
UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2010/05/14

Report No. : 30IE0279-HO-01

Temp./Humi. : 21deg.C. / 38%
Engineer : Hiroshi Kukita

Mode / Remarks : BT, Rx 2441MHz, 3DH5, Ant:2

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.15000	20.1	13.2	13.3	33.4	26.5	66.0	56.0	32.6	29.5	N	
0.36660	24.4	22.7	13.3	37.7	36.0	58.6	48.6	20.9	12.6	N	
0.61021	28.7	24.1	13.3	42.0	37.4	56.0	46.0	14.0	8.6	N	
2.23110	19.8	18.0	13.4	33.2	31.4	56.0	46.0	22.8	14.6	N	
2.53440	23.4	15.3	13.5	36.9	28.8	56.0	46.0	19.1	17.2	N	
6.38902	19.3	20.8	13.9	33.2	34.7	60.0	50.0	26.8	15.3	N	
0.15000	19.8	8.2	13.3	33.1	21.5	66.0	56.0	32.9	34.5	L	
0.36681	26.4	24.9	13.3	39.7	38.2	58.6	48.6	18.9	10.4	L	
0.60770	29.0	24.1	13.3	42.3	37.4	56.0	46.0	13.7	8.6	L	
2.23090	20.8	17.8	13.4	34.2	31.2	56.0	46.0	21.8	14.8	L	
2.43320	19.0	16.1	13.5	32.5	29.6	56.0	46.0	23.5	16.4	L	
6.18440	23.3	12.2	13.9	37.2	26.1	60.0	50.0	22.8	23.9	L	

CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

20dB Bandwidth and Carrier Frequency Separation

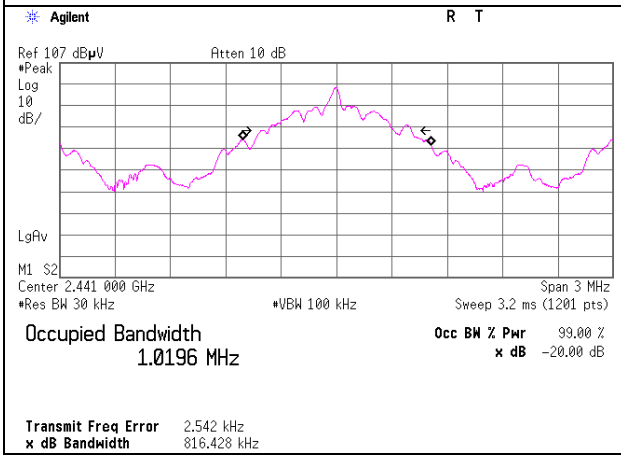
Test place	Head Office EMC Lab. No.7 Shielded Room / Semi	
Report No.	30IE0279-HO-01	
Date	05/14/2010	05/15/2010
Temperature/ Humidity	23 deg.C./ 33%	21 deg.C./ 38%
Engineer	Takumi Shimada	Takeshi Choda
Mode	Tx (Hopping on) DH5/3DH5/Inquiry	

Mode	Freq. [MHz]	20dB Bandwidth [MHz]	Carrier Frequency Separation [MHz]	Limit for Carrier Frequency separation [MHz]
DH5	2402.0	0.934	1.000	>= 0.622
DH5	2441.0	0.928	1.000	>= 0.619
DH5	2480.0	0.935	1.000	>= 0.623
3DH5	2402.0	1.254	1.000	>= 0.836
3DH5	2441.0	1.251	1.000	>= 0.834
3DH5	2480.0	1.252	1.000	>= 0.835
Inquiry	2441.0	0.816	2.004	>= 0.544

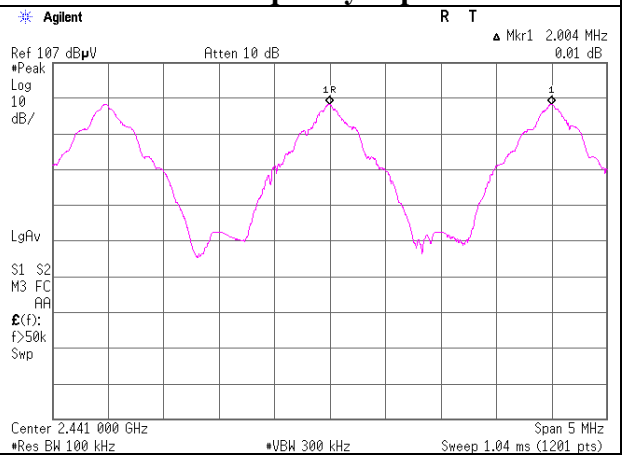
Limit: Two-thirds of 20dB Bandwidth or 25kHz (whichever is greater).
No limit applies to 20dB Bandwidth.

Inquiry

20dB Bandwidth



Carrier Frequency Separation

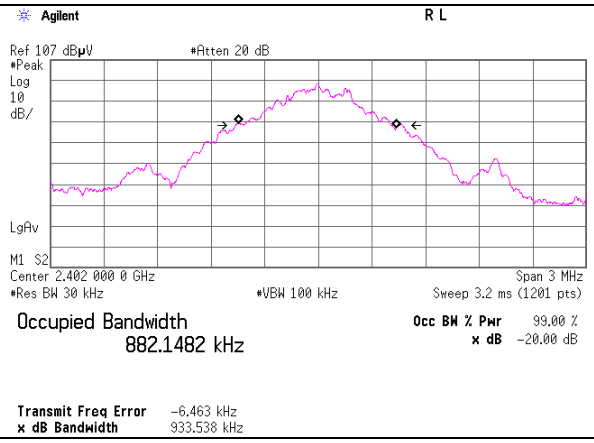


20dB Bandwidth and Carrier Frequency Separation

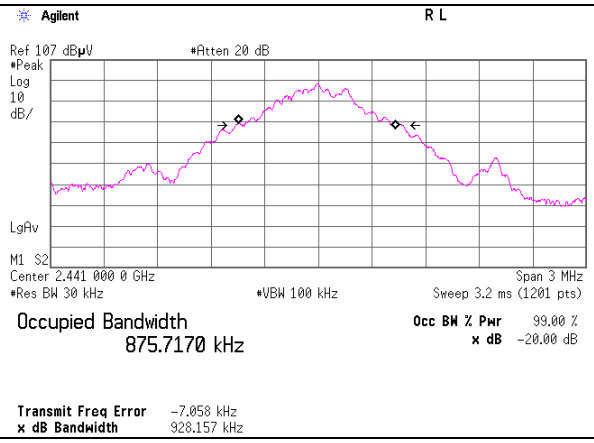
Tx DH5

20dB Bandwidth

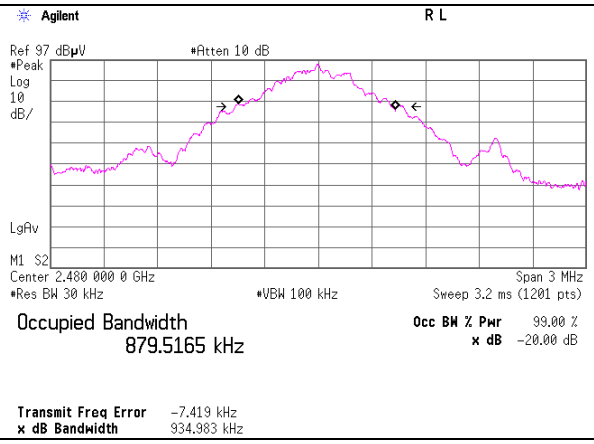
2402MHz



2441MHz

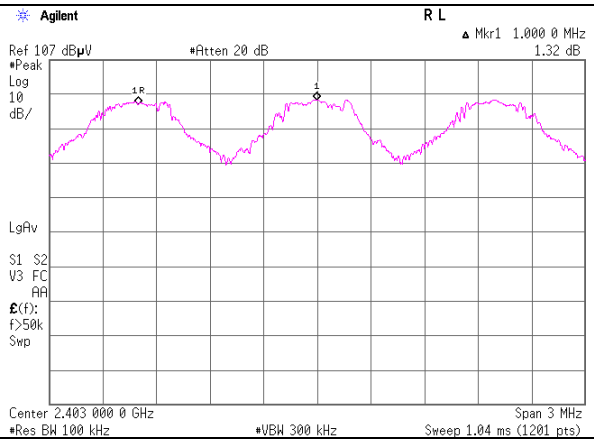


2480MHz

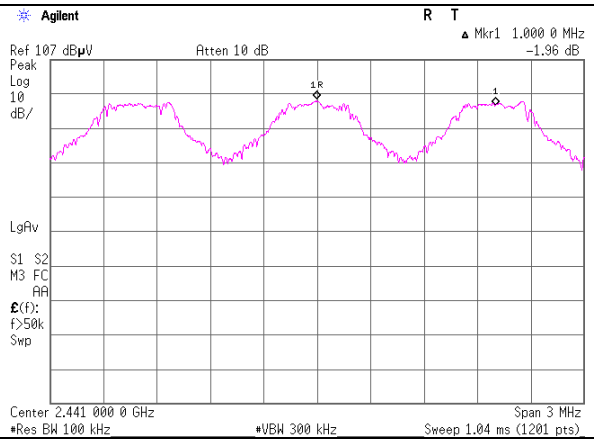


Carrier Frequency Separation

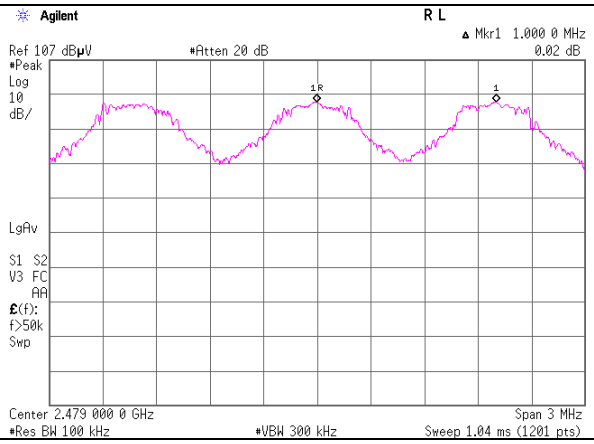
2402MHz



2441MHz



2480MHz



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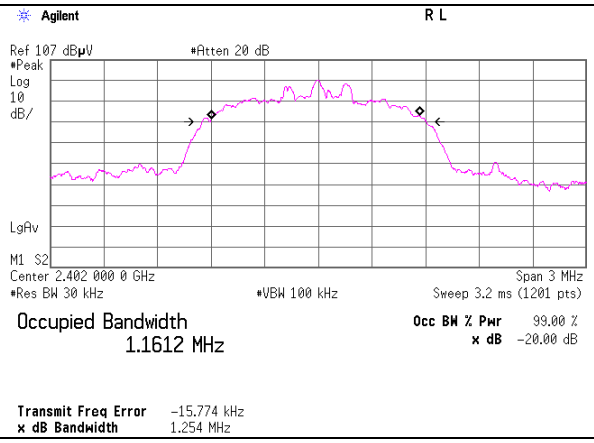
20dB Bandwidth and Carrier Frequency Separation

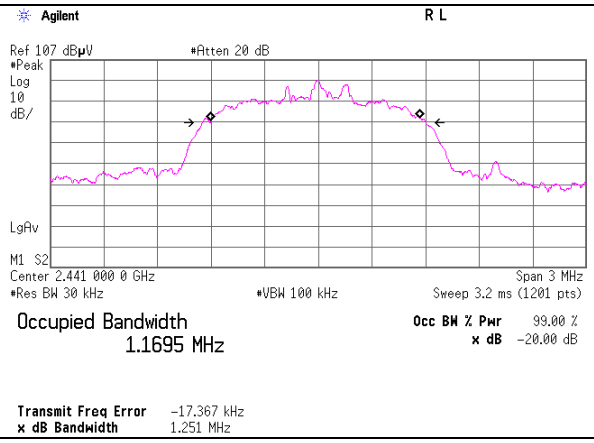
Tx 3DH5

20dB Bandwidth

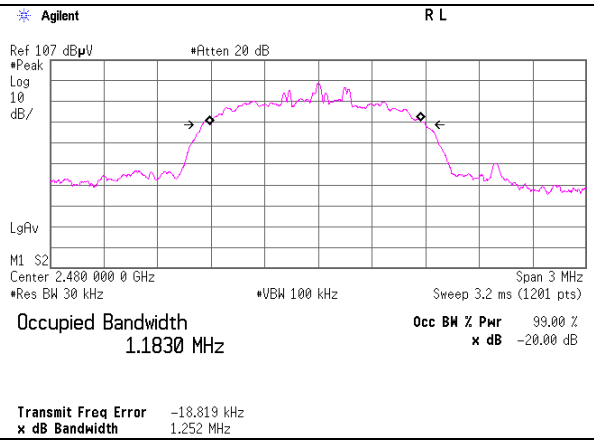
2402MHz



2441MHz

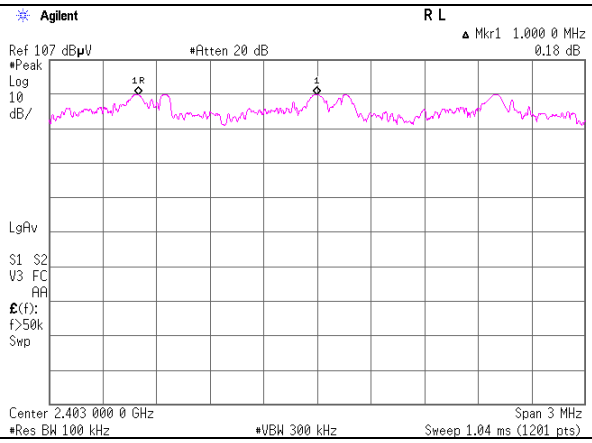


2480MHz

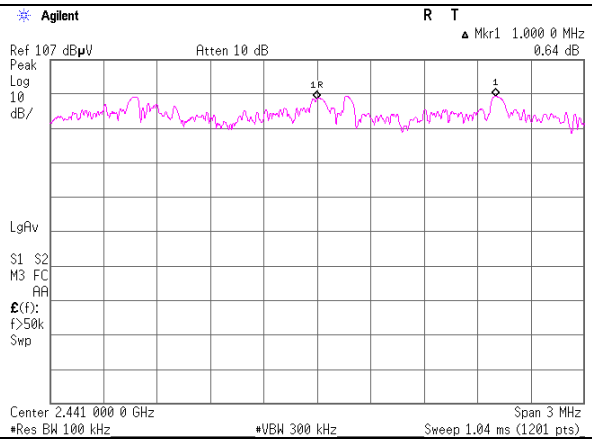


Carrier Frequency Separation

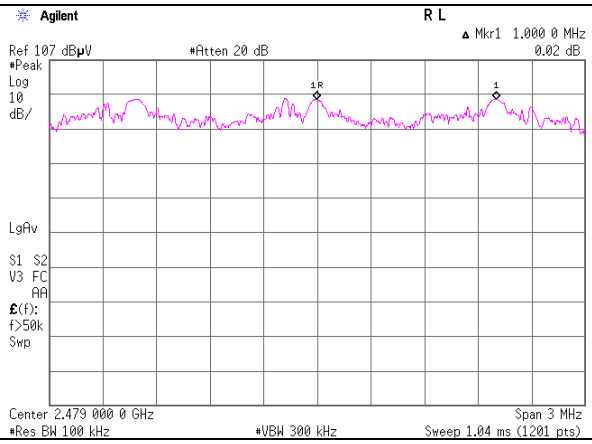
2402MHz



2441MHz



2480MHz



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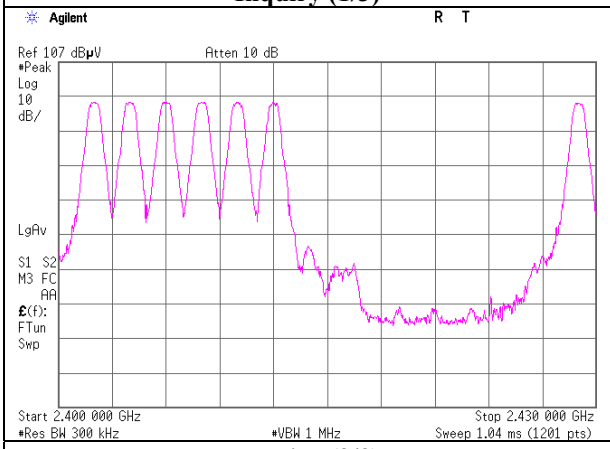
Number of Hopping Frequency

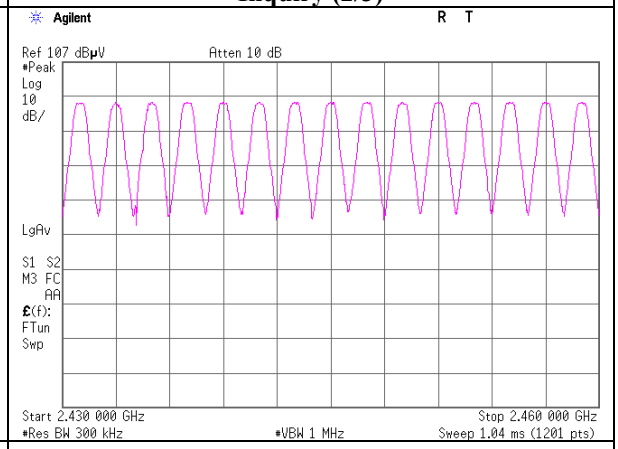
Test place	Head Office EMC Lab. No.7 Shielded Room
Report No.	30IE0279-HO-01
Date	05/15/2010
Temperature/ Humidity	21 deg.C./ 38%
Engineer	Takeshi Choda
Mode	Tx (Hopping on) DH5/3DH5/Inquiry

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

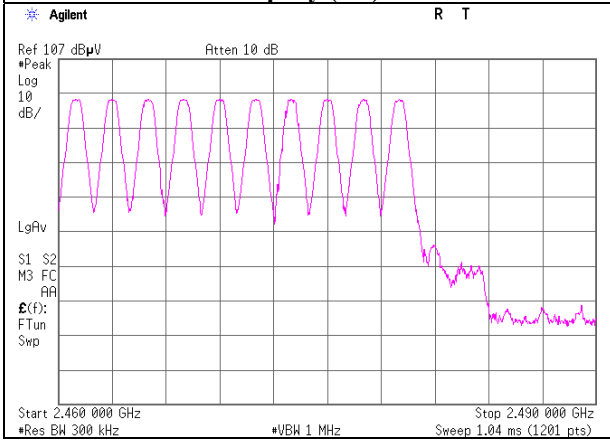
Inquiry (1/3)



Inquiry (2/3)



Inquiry (3/3)



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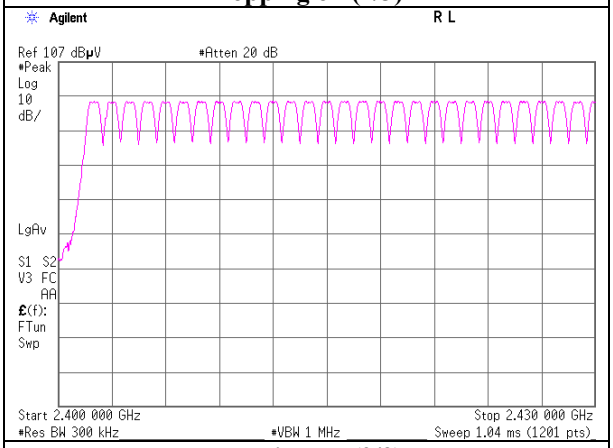
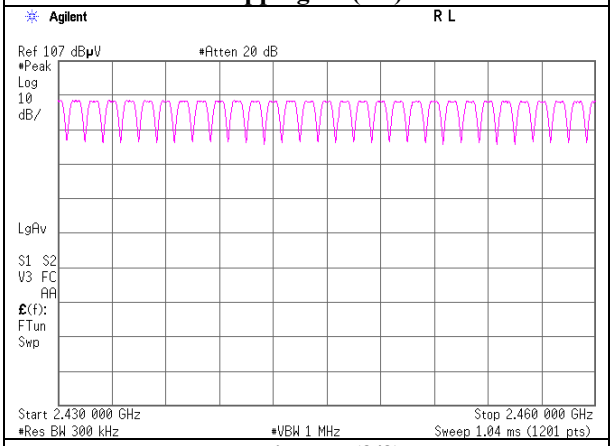
Number of Hopping Frequency

Tx DH5

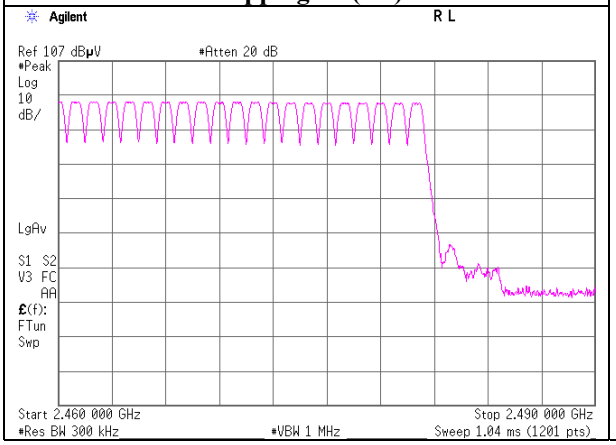
Hopping on (1/3)



Hopping on (2/3)

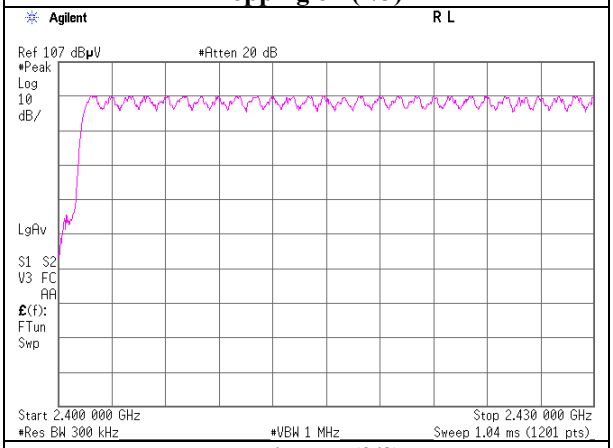


Hopping on (3/3)

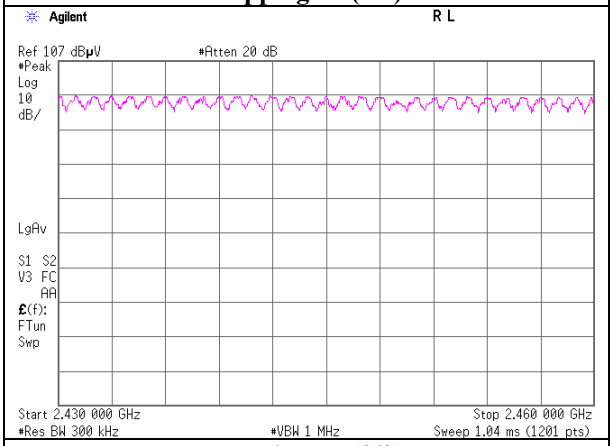


Tx 3DH5

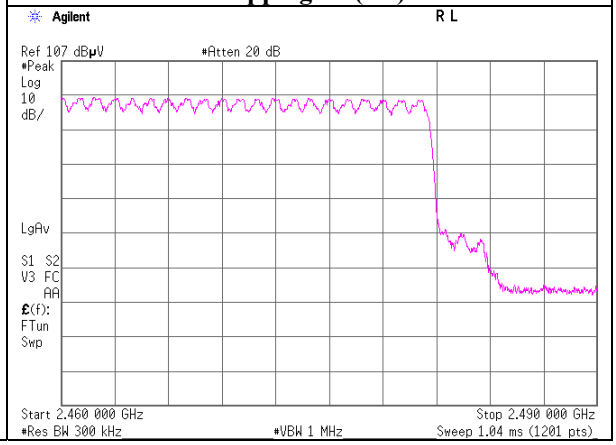
Hopping on (1/3)



Hopping on (2/3)



Hopping on (3/3)



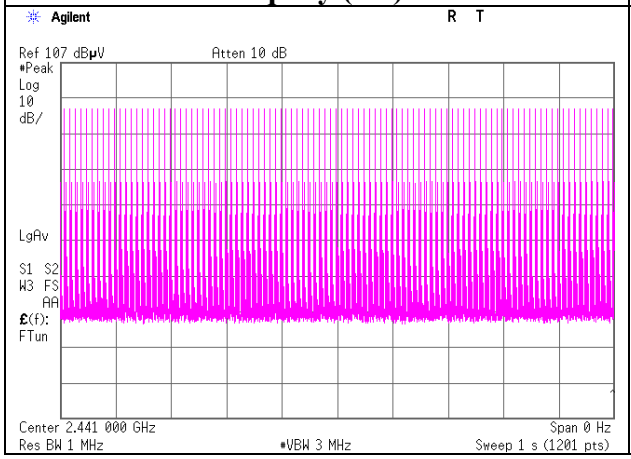
Dwell time

Test place	Head Office EMC Lab. No.7 Shielded Room
Report No.	30IE0279-HO-01
Date	05/15/2010
Temperature/ Humidity	21 deg.C./ 38%
Engineer	Takeshi Choda
Mode	Tx (Hopping on) DH5/3DH5/Inquiry

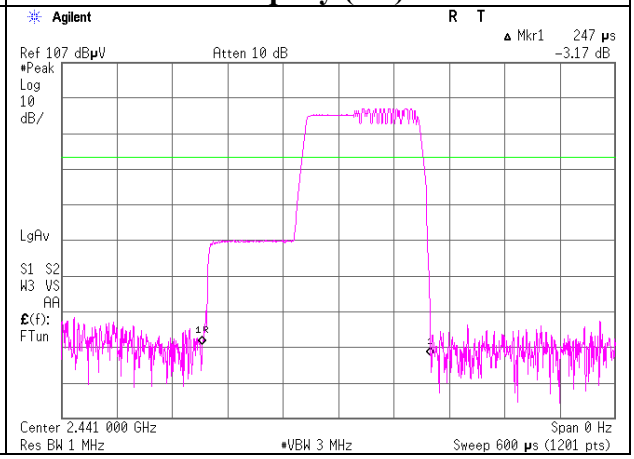
Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period					Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	50.0 times	/	5 sec.	x	31.6 sec. = 316 times	0.541	171	400
DH3	25.0 times	/	5 sec.	x	31.6 sec. = 158 times	1.801	285	400
DH5	17.0 times	/	5 sec.	x	31.6 sec. = 108 times	3.058	330	400
3DH1	50.0 times	/	5 sec.	x	31.6 sec. = 316 times	0.557	176	400
3DH3	25.0 times	/	5 sec.	x	31.6 sec. = 158 times	1.811	286	400
3DH5	17.0 times	/	5 sec.	x	31.6 sec. = 108 times	3.066	331	400
Inquiry	100.0 times	/	1 sec.	x	12.8 sec. = 1280 times	0.247	316	400

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

Inquiry (1/2)

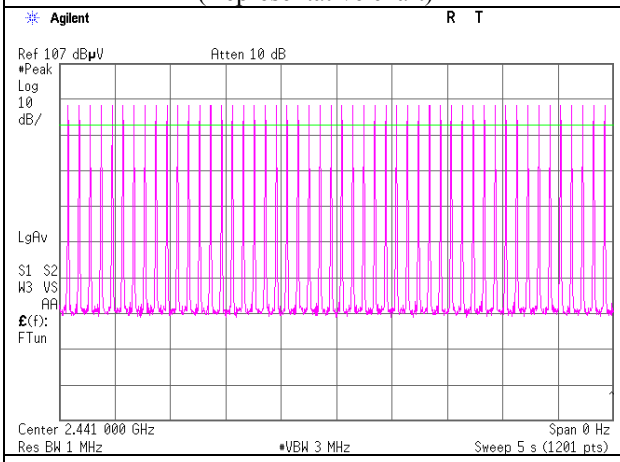


Inquiry (2/2)

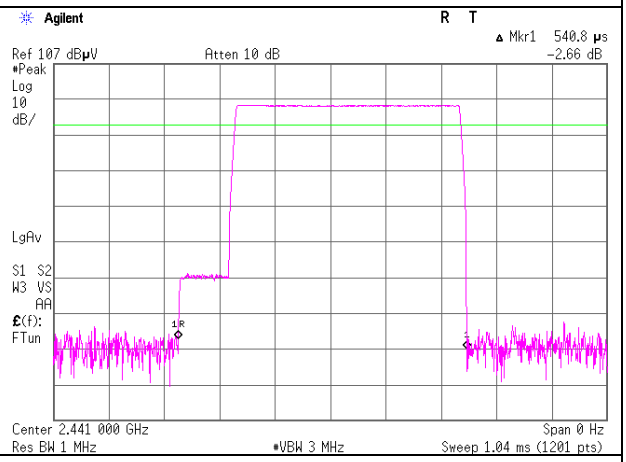


Dwell time

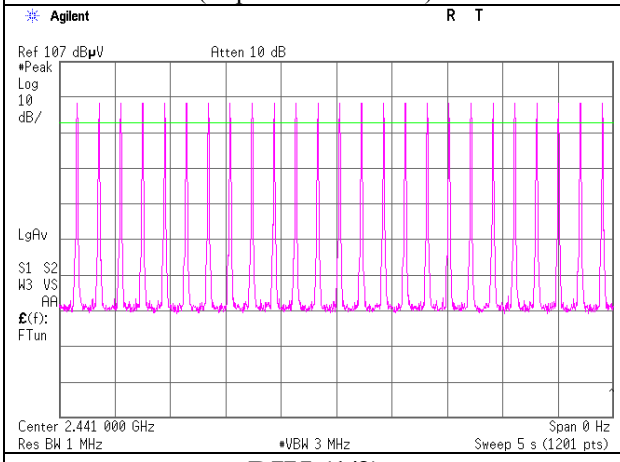
DH1 (1/2)
(Representative chart)



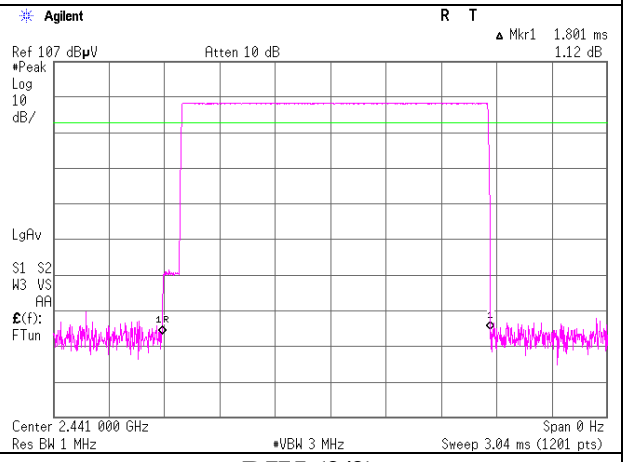
DH1 (2/2)



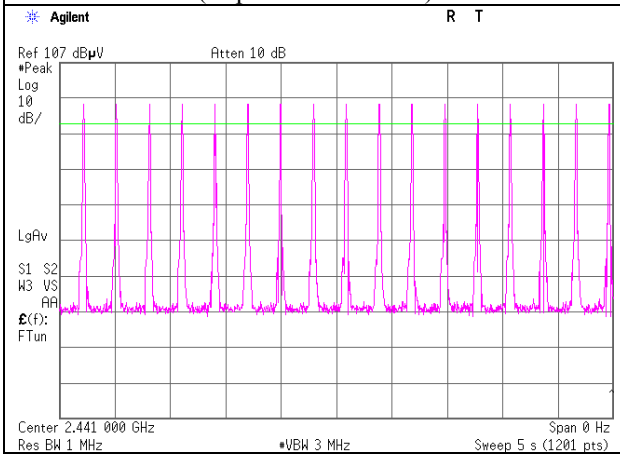
DH3 (1/2)
(Representative chart)



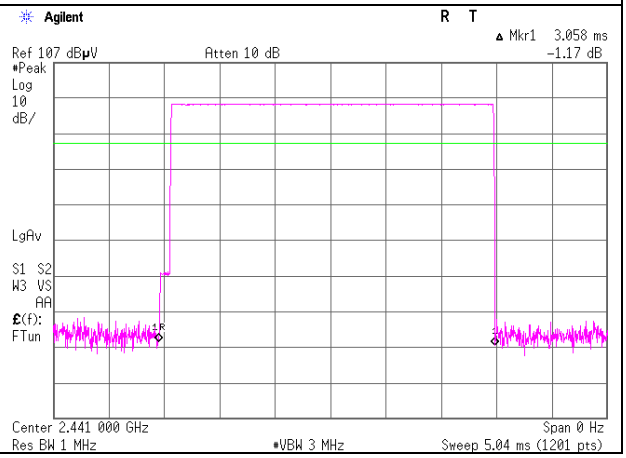
DH3 (2/2)



DH5 (1/2)
(Representative chart)

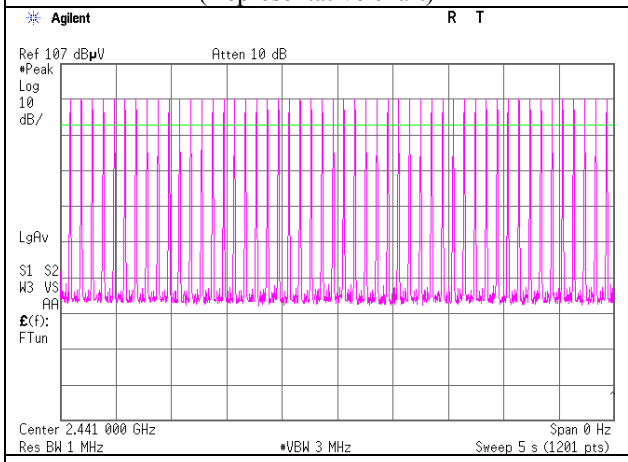


DH5 (2/2)

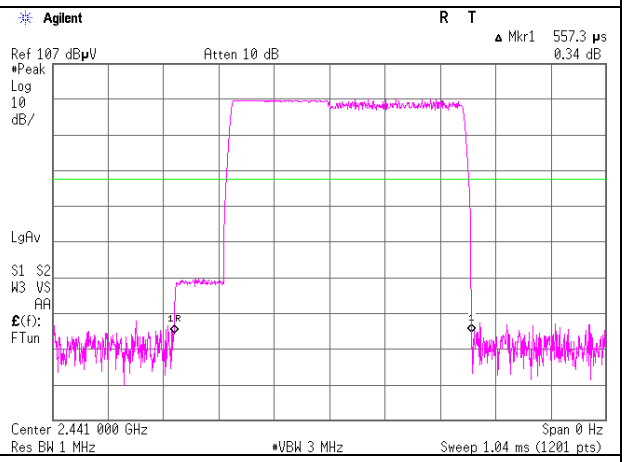


Dwell time

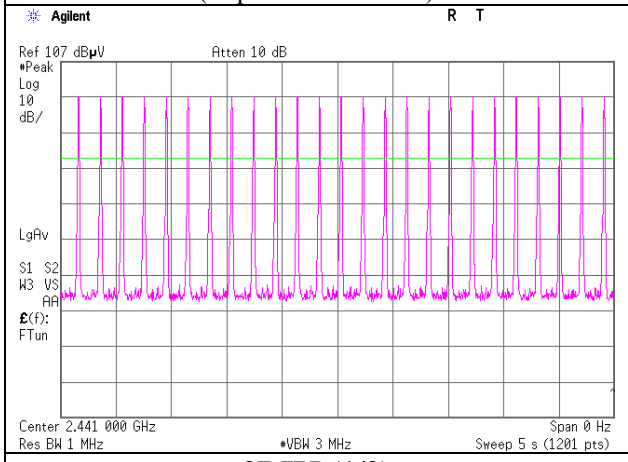
3DH1 (1/2)
(Representative chart)



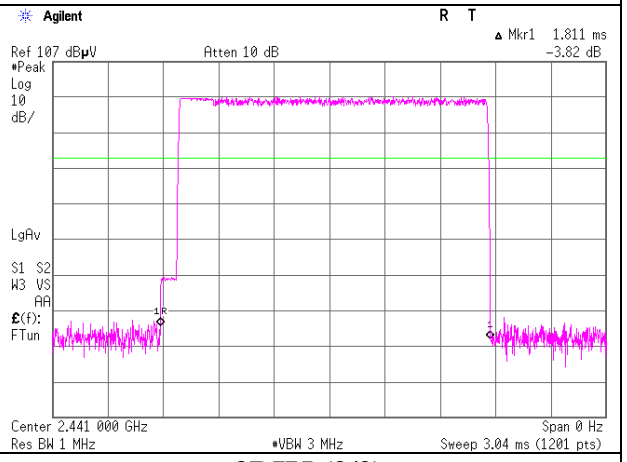
3DH1 (2/2)



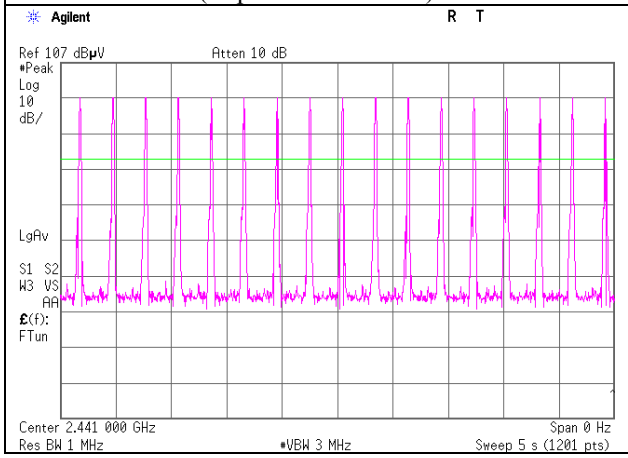
3DH3 (1/2)
(Representative chart)



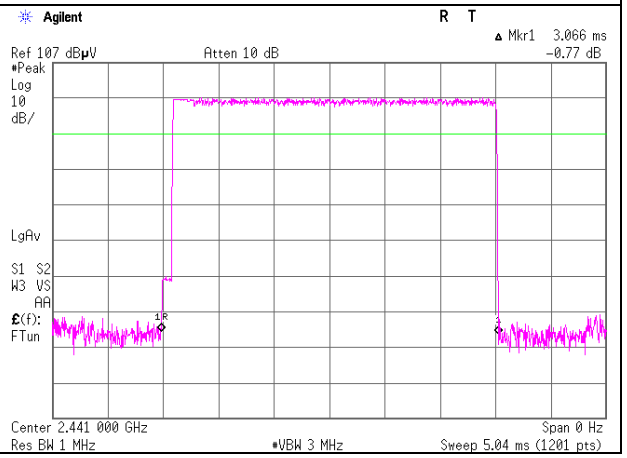
3DH3 (2/2)



3DH5 (1/2)
(Representative chart)



3DH5 (2/2)



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Maximum Peak Output Power

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/11/2010
Temperature/ Humidity	23 deg.C./ 48%
Engineer	Takumi Shimada
Mode	Tx (Hopping off) DH5/2DH5/3DH5 Ant:1

Mode	Freq.	Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
DH5	2402.0	-10.33	0.60	10.00	0.27	1.06	20.97	125	20.70
DH5	2441.0	-10.48	0.60	10.00	0.12	1.03	20.97	125	20.85
DH5	2480.0	-10.99	0.60	10.00	-0.39	0.91	20.97	125	21.36
2DH5	2402.0	-8.08	0.60	10.00	2.52	1.79	20.97	125	18.45
2DH5	2441.0	-8.43	0.60	10.00	2.17	1.65	20.97	125	18.80
2DH5	2480.0	-8.97	0.60	10.00	1.63	1.46	20.97	125	19.34
3DH5	2402.0	-8.00	0.60	10.00	2.60	1.82	20.97	125	18.37
3DH5	2441.0	-8.31	0.60	10.00	2.29	1.69	20.97	125	18.68
3DH5	2480.0	-8.72	0.60	10.00	1.88	1.54	20.97	125	19.09

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.

*Compared to the original test report: 29DE0085-HO-01-A, difference in Maximum Peak Output Power is within +/- 0.5dB.

Maximum Peak Output Power

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/11/2010
Temperature/ Humidity	23 deg.C./ 48%
Engineer	Takumi Shimada
Mode	Tx (Hopping off) DH5/2DH5/3DH5/Inquiry Ant:2

Mode	Freq.	Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
DH5	2402.0	-10.50	0.60	10.00	0.10	1.02	20.97	125	20.87
DH5	2441.0	-10.51	0.60	10.00	0.09	1.02	20.97	125	20.88
DH5	2480.0	-10.59	0.60	10.00	0.01	1.00	20.97	125	20.96
2DH5	2402.0	-8.13	0.60	10.00	2.47	1.77	20.97	125	18.50
2DH5	2441.0	-8.51	0.60	10.00	2.09	1.62	20.97	125	18.88
2DH5	2480.0	-8.70	0.60	10.00	1.90	1.55	20.97	125	19.07
3DH5	2402.0	-8.08	0.60	10.00	2.52	1.79	20.97	125	18.45
3DH5	2441.0	-8.43	0.60	10.00	2.17	1.65	20.97	125	18.80
3DH5	2480.0	-8.63	0.60	10.00	1.97	1.57	20.97	125	19.00
Inquiry	2441.0	-10.47	0.60	10.00	0.13	1.03	20.97	125	20.84

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.

*Compared to the original test report: 29DE0085-HO-01-A, difference in Maximum Peak Output Power is within +/- 0.5dB

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/17/2010
Temperature/ Humidity	25 deg.C./ 49%
Engineer	Takumi Shimada
	(30-1000MHz)
Mode	Tx, DH5 2402MHz, Ant:1

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	36.017	QP	30.9	16.2	7.1	32.0	22.2	40.0	17.8	
Hori	84.040	QP	51.2	7.2	7.8	32.1	34.1	40.0	5.9	
Hori	250.001	QP	45.5	17.4	9.3	31.9	40.3	46.0	5.7	
Hori	405.016	QP	33.9	17.6	10.4	31.9	30.0	46.0	16.0	
Hori	799.993	QP	32.5	23.1	12.5	31.8	36.3	46.0	9.7	
Hori	959.999	QP	30.8	25.7	13.2	31.1	38.6	46.0	7.4	
Vert	36.017	QP	39.3	16.2	7.1	32.0	30.6	40.0	9.4	
Vert	84.030	QP	47.9	7.2	7.8	32.1	30.8	40.0	9.2	
Vert	250.003	QP	38.0	17.4	9.3	31.9	32.8	46.0	13.2	
Vert	405.017	QP	36.9	17.6	10.4	31.9	33.0	46.0	13.0	
Vert	800.007	QP	35.2	23.1	12.5	31.8	39.0	46.0	7.0	
Vert	959.999	QP	29.0	25.7	13.2	31.1	36.8	46.0	9.2	

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).

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	30IE0279-HO-01	
Date	05/18/2010	05/18/2010
Temperature/ Humidity	23 deg.C./ 49%	23 deg.C./ 49%
Engineer	Keisuke Kawamura	Takumi Shimada
	(1-10GHz)	(above 10GHz)
Mode	Tx, DH5 2402MHz, Ant:1	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1593.254	PK	57.1	25.4	2.5	33.1	51.9	73.9	22.0	
Hori	1622.018	PK	51.0	25.5	2.5	33.1	45.9	73.9	28.0	
Hori	1945.162	PK	62.7	25.9	2.7	32.4	58.9	73.9	15.0	
Hori	2390.000	PK	49.8	26.7	2.9	32.1	47.3	73.9	26.7	
Hori	2400.000	PK	57.5	26.7	2.9	32.1	55.0	-	-	See 20dBc Data Sheet
Hori	3191.653	PK	49.0	28.5	3.3	31.8	49.0	73.9	24.9	
Hori	4804.000	PK	40.4	30.8	5.3	31.4	45.1	73.9	28.9	
Hori	6383.425	PK	43.9	34.0	5.7	31.9	51.7	73.9	22.2	
Hori	7206.000	PK	44.2	35.9	5.7	32.3	53.5	73.9	20.4	
Hori	9608.000	PK	42.9	37.9	6.8	33.0	54.6	73.9	19.3	
Hori	24020.000	PK	48.7	38.1	-1.2	31.7	53.9	73.9	20.0	
Hori	1593.254	AV	44.9	25.4	2.5	33.1	39.7	53.9	14.2	
Hori	1622.018	AV	33.9	25.5	2.5	33.1	28.8	53.9	25.1	
Hori	1945.162	AV	35.1	25.9	2.7	32.4	31.3	53.9	22.6	
Hori	2390.000	AV	36.6	26.7	2.9	32.1	34.1	53.9	19.8	
Hori	2400.000	AV	51.4	26.7	2.9	32.1	48.9	-	-	See 20dBc Data Sheet
Hori	3191.653	AV	35.7	28.5	3.3	31.8	35.7	53.9	18.2	
Hori	4804.000	AV	30.4	30.8	5.3	31.4	35.1	53.9	18.8	
Hori	6383.425	AV	32.5	34.0	5.7	31.9	40.3	53.9	13.7	
Hori	7206.000	AV	32.3	35.9	5.7	32.3	41.6	53.9	12.3	
Hori	9608.000	AV	32.4	37.9	6.8	33.0	44.1	53.9	9.8	
Hori	24020.000	AV	35.7	38.1	-1.2	31.7	40.9	53.9	13.0	
Vert	1595.883	PK	57.6	25.4	2.5	33.1	52.4	73.9	21.5	
Vert	1620.074	PK	54.7	25.5	2.5	33.1	49.6	73.9	24.3	
Vert	1943.962	PK	67.3	25.9	2.7	32.4	63.5	73.9	10.4	
Vert	2390.000	PK	47.4	26.7	2.9	32.1	44.9	73.9	29.0	
Vert	2400.000	PK	56.0	26.7	2.9	32.1	53.5	73.9	20.4	See 20dBc Data Sheet
Vert	3191.653	PK	51.9	28.5	3.3	31.8	51.9	73.9	22.0	
Vert	4804.000	PK	40.9	30.8	5.3	31.4	45.6	73.9	28.3	
Vert	6383.425	PK	45.6	34.0	5.7	31.9	53.4	73.9	20.5	
Vert	7206.000	PK	42.4	35.9	5.7	32.3	51.7	73.9	22.2	
Vert	9608.000	PK	42.1	37.9	6.8	33.0	53.8	73.9	20.1	
Vert	24020.000	PK	48.8	38.1	-1.2	31.7	54.0	73.9	19.9	
Vert	1595.883	AV	45.3	25.4	2.5	33.1	40.1	53.9	13.8	
Vert	1620.074	AV	37.6	25.5	2.5	33.1	32.5	53.9	21.4	
Vert	1943.962	AV	37.3	25.9	2.7	32.4	33.5	53.9	20.4	
Vert	2390.000	AV	34.7	26.7	2.9	32.1	32.2	53.9	21.7	
Vert	2400.000	AV	50.6	26.7	2.9	32.1	48.1	-	-	See 20dBc Data Sheet
Vert	3191.653	AV	37.5	28.5	3.3	31.8	37.5	53.9	16.4	
Vert	4804.000	AV	30.6	30.8	5.3	31.4	35.3	53.9	18.6	
Vert	6383.425	AV	32.5	34.0	5.7	31.9	40.3	53.9	13.6	
Vert	7206.000	AV	32.2	35.9	5.7	32.3	41.5	53.9	12.4	
Vert	9608.000	AV	32.3	37.9	6.8	33.0	44.0	53.9	9.9	
Vert	24020.000	AV	35.7	38.1	-1.2	31.7	40.9	53.9	13.0	

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

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

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

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

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Radiated Spurious Emission
(20dBc Data Sheet)

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/18/2010
Temperature/ Humidity	23 deg.C./ 49%
Engineer	Keisuke Kawamura (1-10GHz)
Mode	Tx, DH5 2402MHz, Ant:1

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
Hor	2402.000	PK	98.1	26.7	2.9	32.1	95.6	-	-	Carrier
Hor	2400.000	PK	52.0	26.7	2.9	32.1	49.5	75.6	26.1	
Ver	2402.000	PK	97.7	26.7	2.9	32.1	95.2	-	-	Carrier
Ver	2400.000	PK	50.1	26.7	2.9	32.1	47.6	75.2	27.6	

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

Radiated Spurious Emission

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 30IE0279-HO-01
Date 05/17/2010
Temperature/ Humidity 25 deg.C./ 49%
Engineer Takumi Shimada
(30-1000MHz)
Mode Tx, DH5 2441MHz, Ant:1

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	36.024	QP	30.8	16.1	7.1	32.0	22.0	40.0	18.0	
Hori	84.029	QP	50.7	7.2	7.8	32.1	33.6	40.0	6.4	
Hori	250.002	QP	45.6	17.4	9.3	31.9	40.4	46.0	5.6	
Hori	405.012	QP	34.0	17.6	10.4	31.9	30.1	46.0	15.9	
Hori	800.002	QP	32.4	23.1	12.5	31.8	36.2	46.0	9.8	
Hori	959.999	QP	30.8	25.7	13.2	31.1	38.6	46.0	7.4	
Vert	36.024	QP	39.3	16.1	7.1	32.0	30.5	40.0	9.5	
Vert	84.033	QP	47.8	7.2	7.8	32.1	30.7	40.0	9.3	
Vert	250.002	QP	38.3	17.4	9.3	31.9	33.1	46.0	12.9	
Vert	405.015	QP	36.1	17.6	10.4	31.9	32.2	46.0	13.8	
Vert	800.002	QP	36.8	23.1	12.5	31.8	40.6	46.0	5.4	
Vert	959.999	QP	30.2	25.7	13.2	31.1	38.0	46.0	8.0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	30IE0279-HO-01	
Date	05/18/2010	05/18/2010
Temperature/ Humidity	23 deg.C./ 49%	23 deg.C./ 49%
Engineer	Keisuke Kawamura	Takumi Shimada
	(1-10GHz)	(above 10GHz)
Mode	Tx, DH5 2441MHz, Ant:1	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1595.937	PK	58.4	25.4	2.5	33.1	53.2	73.9	20.7	
Hori	1622.018	PK	56.2	25.5	2.5	33.1	51.1	73.9	22.8	
Hori	1945.162	PK	65.0	25.9	2.7	32.4	61.2	73.9	12.7	
Hori	3191.653	PK	50.0	28.5	3.3	31.8	50.0	73.9	24.0	
Hori	4882.000	PK	40.1	31.1	5.3	31.4	45.1	73.9	28.8	
Hori	6383.425	PK	43.9	34.0	5.7	31.9	51.7	73.9	22.2	
Hori	7323.000	PK	42.6	36.1	5.7	32.4	52.0	73.9	22.0	
Hori	9764.000	PK	43.6	38.1	6.9	33.0	55.6	73.9	18.3	
Hori	24410.000	PK	47.8	38.3	-1.1	31.6	53.4	73.9	20.5	
Hori	1595.937	AV	46.1	25.4	2.5	33.1	40.9	53.9	13.1	
Hori	1622.018	AV	35.7	25.5	2.5	33.1	30.6	53.9	23.3	
Hori	1945.162	AV	35.5	25.9	2.7	32.4	31.7	53.9	22.2	
Hori	3191.653	AV	36.1	28.5	3.3	31.8	36.1	53.9	17.8	
Hori	4882.000	AV	30.5	31.1	5.3	31.4	35.5	53.9	18.4	
Hori	6383.425	AV	32.2	34.0	5.7	31.9	40.0	53.9	14.0	
Hori	7323.000	AV	32.0	36.1	5.7	32.4	41.4	53.9	12.5	
Hori	9764.000	AV	31.8	38.1	6.9	33.0	43.8	53.9	10.1	
Hori	24410.000	AV	35.0	38.3	-1.1	31.6	40.6	53.9	13.3	
Vert	1595.883	PK	56.6	25.4	2.5	33.1	51.4	73.9	22.5	
Vert	1620.074	PK	55.0	25.5	2.5	33.1	49.9	73.9	24.0	
Vert	1945.195	PK	66.7	25.9	2.7	32.4	62.9	73.9	11.0	
Vert	3191.653	PK	51.6	28.5	3.3	31.8	51.6	73.9	22.3	
Vert	4882.000	PK	40.6	31.1	5.3	31.4	45.6	73.9	28.3	
Vert	6383.425	PK	44.9	34.0	5.7	31.9	52.7	73.9	21.2	
Vert	7323.000	PK	42.0	36.1	5.7	32.4	51.4	73.9	22.5	
Vert	9764.000	PK	43.5	38.1	6.9	33.0	55.5	73.9	18.4	
Vert	24410.000	PK	47.7	38.3	-1.1	31.6	53.3	73.9	20.6	
Vert	1595.883	AV	44.8	25.4	2.5	33.1	39.6	53.9	14.3	
Vert	1620.074	AV	38.0	25.5	2.5	33.1	32.9	53.9	21.0	
Vert	1945.195	AV	36.8	25.9	2.7	32.4	33.0	53.9	20.9	
Vert	3191.653	AV	37.8	28.5	3.3	31.8	37.8	53.9	16.1	
Vert	4882.000	AV	30.5	31.1	5.3	31.4	35.5	53.9	18.4	
Vert	6383.425	AV	32.5	34.0	5.7	31.9	40.3	53.9	13.7	
Vert	7323.000	AV	32.0	36.1	5.7	32.4	41.4	53.9	12.5	
Vert	9764.000	AV	31.8	38.1	6.9	33.0	43.8	53.9	10.1	
Vert	24410.000	AV	34.9	38.3	-1.1	31.6	40.5	53.9	13.4	

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
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/17/2010
Temperature/ Humidity	25 deg.C./ 49%
Engineer	Takumi Shimada
	(30-1000MHz)
Mode	Tx, DH5 2480MHz, Ant:1

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	36.010	QP	30.9	16.2	7.1	32.0	22.2	40.0	17.8	
Hori	84.036	QP	51.0	7.2	7.8	32.1	33.9	40.0	6.1	
Hori	250.005	QP	45.6	17.4	9.3	31.9	40.4	46.0	5.6	
Hori	405.019	QP	34.7	17.6	10.4	31.9	30.8	46.0	15.2	
Hori	800.001	QP	32.3	23.1	12.5	31.8	36.1	46.0	9.9	
Hori	959.999	QP	30.2	25.7	13.2	31.1	38.0	46.0	8.0	
Vert	36.013	QP	39.3	16.2	7.1	32.0	30.6	40.0	9.4	
Vert	84.032	QP	48.0	7.2	7.8	32.1	30.9	40.0	9.1	
Vert	250.003	QP	38.2	17.4	9.3	31.9	33.0	46.0	13.0	
Vert	405.008	QP	36.3	17.6	10.4	31.9	32.4	46.0	13.6	
Vert	800.002	QP	36.3	23.1	12.5	31.8	40.1	46.0	5.9	
Vert	959.999	QP	30.2	25.7	13.2	31.1	38.0	46.0	8.0	

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

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

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	30IE0279-HO-01	
Date	05/18/2010	05/18/2010
Temperature/ Humidity	23 deg.C./ 49%	23 deg.C./ 49%
Engineer	Keisuke Kawamura	Takumi Shimada
	(1-10GHz)	(above 10GHz)
Mode	Tx, DH5 2480MHz, Ant:1	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1595.937	PK	57.4	25.4	2.5	33.1	52.2	73.9	21.7	
Hori	1622.018	PK	55.7	25.5	2.5	33.1	50.6	73.9	23.4	
Hori	1945.162	PK	63.0	25.9	2.7	32.4	59.2	73.9	14.7	
Hori	2483.500	PK	55.1	26.9	2.9	32.1	52.8	73.9	21.1	
Hori	3191.653	PK	51.2	28.5	3.3	31.8	51.2	73.9	22.7	
Hori	4960.000	PK	41.5	31.3	5.4	31.4	46.8	73.9	27.1	
Hori	6383.425	PK	45.2	34.0	5.7	31.9	53.0	73.9	20.9	
Hori	7440.000	PK	42.8	36.3	5.7	32.4	52.4	73.9	21.5	
Hori	9920.000	PK	42.5	38.3	7.1	33.0	54.9	73.9	19.0	
Hori	24800.000	PK	48.9	38.4	-1.0	31.5	54.8	73.9	19.1	
Hori	1595.937	AV	45.2	25.4	2.5	33.1	40.0	53.9	13.9	
Hori	1622.018	AV	36.2	25.5	2.5	33.1	31.1	53.9	22.8	
Hori	1945.162	AV	34.6	25.9	2.7	32.4	30.8	53.9	23.1	
Hori	2483.500	AV	46.3	26.9	2.9	32.1	44.0	53.9	9.9	
Hori	3191.653	AV	37.7	28.5	3.3	31.8	37.7	53.9	16.2	
Hori	4960.000	AV	30.6	31.3	5.4	31.4	35.9	53.9	18.0	
Hori	6383.425	AV	32.5	34.0	5.7	31.9	40.3	53.9	13.6	
Hori	7440.000	AV	32.1	36.3	5.7	32.4	41.7	53.9	12.2	
Hori	9920.000	AV	32.2	38.3	7.1	33.0	44.6	53.9	9.3	
Hori	24800.000	AV	37.0	38.4	-1.0	31.5	42.9	53.9	11.0	
Vert	1595.883	PK	56.5	25.4	2.5	33.1	51.3	73.9	22.6	
Vert	1620.074	PK	54.9	25.5	2.5	33.1	49.8	73.9	24.1	
Vert	1945.195	PK	67.6	25.9	2.7	32.4	63.8	73.9	10.1	
Vert	2483.500	PK	52.3	26.9	2.9	32.1	50.0	73.9	23.9	
Vert	3191.653	PK	51.9	28.5	3.3	31.8	51.9	73.9	22.0	
Vert	4960.000	PK	41.1	31.3	5.4	31.4	46.4	73.9	27.5	
Vert	6383.425	PK	44.9	34.0	5.7	31.9	52.7	73.9	21.2	
Vert	7440.000	PK	42.9	36.3	5.7	32.4	52.5	73.9	21.5	
Vert	9920.000	PK	42.2	38.3	7.1	33.0	54.6	73.9	19.3	
Vert	24800.000	PK	49.0	38.4	-1.0	31.5	54.9	73.9	19.0	
Vert	1595.883	AV	44.8	25.4	2.5	33.1	39.6	53.9	14.3	
Vert	1620.074	AV	38.2	25.5	2.5	33.1	33.1	53.9	20.9	
Vert	1945.195	AV	37.0	25.9	2.7	32.4	33.2	53.9	20.7	
Vert	2483.500	AV	42.9	26.9	2.9	32.1	40.6	53.9	13.3	
Vert	3191.653	AV	37.9	28.5	3.3	31.8	37.9	53.9	16.0	
Vert	4960.000	AV	30.0	31.3	5.4	31.4	35.3	53.9	18.7	
Vert	6383.425	AV	32.5	34.0	5.7	31.9	40.3	53.9	13.6	
Vert	7440.000	AV	32.1	36.3	5.7	32.4	41.7	53.9	12.3	
Vert	9920.000	AV	32.2	38.3	7.1	33.0	44.6	53.9	9.3	
Vert	24800.000	AV	37.1	38.4	-1.0	31.5	43.0	53.9	10.9	

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

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

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

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

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/17/2010
Temperature/ Humidity	25 deg.C./ 49%
Engineer	Takumi Shimada
	(30-1000MHz)
Mode	Tx, DH5 2402MHz, Ant:2

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	36.009	QP	30.7	16.2	7.1	32.0	22.0	40.0	18.0	
Hori	84.021	QP	50.9	7.2	7.8	32.1	33.8	40.0	6.2	
Hori	250.002	QP	45.3	17.4	9.3	31.9	40.1	46.0	5.9	
Hori	405.016	QP	32.1	17.6	10.4	31.9	28.2	46.0	17.8	
Hori	800.003	QP	32.0	23.1	12.5	31.8	35.8	46.0	10.2	
Hori	959.999	QP	32.0	25.7	13.2	31.1	39.8	46.0	6.2	
Vert	36.007	QP	39.1	16.2	7.1	32.0	30.4	40.0	9.6	
Vert	84.031	QP	48.1	7.2	7.8	32.1	31.0	40.0	9.0	
Vert	250.001	QP	38.3	17.4	9.3	31.9	33.1	46.0	12.9	
Vert	405.023	QP	33.3	17.6	10.4	31.9	29.4	46.0	16.6	
Vert	800.007	QP	36.3	23.1	12.5	31.8	40.1	46.0	5.9	
Vert	959.999	QP	30.9	25.7	13.2	31.1	38.7	46.0	7.3	

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).

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	30IE0279-HO-01	
Date	05/18/2010	05/18/2010
Temperature/ Humidity	23 deg.C./ 49%	23 deg.C./ 49%
Engineer	Takumi Shimada (1-10GHz)	Takumi Shimada (above 10GHz)
Mode	Tx, DH5 2402MHz, Ant:2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1594.872	PK	54.5	25.4	2.5	33.1	49.3	73.9	24.6	
Hori	1622.628	PK	55.3	25.5	2.5	33.1	50.2	73.9	23.7	
Hori	1943.057	PK	57.3	25.9	2.7	32.4	53.5	73.9	20.4	
Hori	2390.000	PK	45.1	26.7	2.9	32.1	42.6	73.9	31.3	
Hori	2400.000	PK	60.3	26.7	2.9	32.1	57.8	-	-	See 20dBc Data Sheet
Hori	3192.267	PK	48.3	28.5	3.3	31.8	48.3	73.9	25.6	
Hori	4804.000	PK	41.0	30.8	5.3	31.4	45.7	73.9	28.2	
Hori	6381.150	PK	42.4	34.0	5.7	31.9	50.2	73.9	23.8	
Hori	7206.000	PK	43.4	35.9	5.7	32.3	52.7	73.9	21.2	
Hori	9608.000	PK	42.9	37.9	6.8	33.0	54.6	73.9	19.3	
Hori	24020.000	PK	48.5	38.1	-1.2	31.7	53.7	73.9	20.2	
Hori	1594.872	AV	39.4	25.4	2.5	33.1	34.2	53.9	19.7	
Hori	1622.628	AV	31.4	25.5	2.5	33.1	26.3	53.9	27.6	
Hori	1943.057	AV	31.4	25.9	2.7	32.4	27.6	53.9	26.4	
Hori	2390.000	AV	33.0	26.7	2.9	32.1	30.5	53.9	23.4	
Hori	2400.000	AV	48.7	26.7	2.9	32.1	46.2	-	-	See 20dBc Data Sheet
Hori	3192.267	AV	32.4	28.5	3.3	31.8	32.4	53.9	21.5	
Hori	4804.000	AV	28.7	30.8	5.3	31.4	33.4	53.9	20.5	
Hori	6381.150	AV	29.1	34.0	5.7	31.9	36.9	53.9	17.0	
Hori	7206.000	AV	30.2	35.9	5.7	32.3	39.5	53.9	14.4	
Hori	9608.000	AV	30.4	37.9	6.8	33.0	42.1	53.9	11.8	
Hori	24020.000	AV	35.6	38.1	-1.2	31.7	40.8	53.9	13.1	
Vert	1596.604	PK	55.5	25.4	2.5	33.1	50.3	73.9	23.6	
Vert	1620.007	PK	53.8	25.5	2.5	33.1	48.7	73.9	25.2	
Vert	1943.993	PK	66.8	25.9	2.7	32.4	63.0	73.9	10.9	
Vert	2390.000	PK	46.5	26.7	2.9	32.1	44.0	73.9	29.9	
Vert	2400.000	PK	62.4	26.7	2.9	32.1	59.9	-	-	See 20dBc Data Sheet
Vert	3186.833	PK	52.2	28.5	3.3	31.8	52.2	73.9	21.7	
Vert	4804.000	PK	40.9	30.8	5.3	31.4	45.6	73.9	28.3	
Vert	6382.400	PK	45.5	34.0	5.7	31.9	53.3	73.9	20.6	
Vert	7206.000	PK	42.3	35.9	5.7	32.3	51.6	73.9	22.3	
Vert	9608.000	PK	43.4	37.9	6.8	33.0	55.1	73.9	18.8	
Vert	24020.000	PK	48.4	38.1	-1.2	31.7	53.6	73.9	20.3	
Vert	1596.604	AV	40.4	25.4	2.5	33.1	35.2	53.9	18.8	
Vert	1620.007	AV	37.5	25.5	2.5	33.1	32.4	53.9	21.5	
Vert	1943.993	AV	35.3	25.9	2.7	32.4	31.5	53.9	22.4	
Vert	2390.000	AV	34.6	26.7	2.9	32.1	32.1	53.9	21.8	
Vert	2400.000	AV	50.8	26.7	2.9	32.1	48.3	-	-	See 20dBc Data Sheet
Vert	3186.833	AV	34.8	28.5	3.3	31.8	34.8	53.9	19.2	
Vert	4804.000	AV	29.0	30.8	5.3	31.4	33.7	53.9	20.2	
Vert	6382.400	AV	30.1	34.0	5.7	31.9	37.9	53.9	16.0	
Vert	7206.000	AV	30.2	35.9	5.7	32.3	39.5	53.9	14.4	
Vert	9608.000	AV	30.5	37.9	6.8	33.0	42.2	53.9	11.7	
Vert	24020.000	AV	35.7	38.1	-1.2	31.7	40.9	53.9	13.0	

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

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

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

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

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Radiated Spurious Emission
(20dBc Data Sheet)

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/18/2010
Temperature/ Humidity	23 deg.C./ 49%
Engineer	Takumi Shimada
	(1-10GHz)
Mode	Tx, DH5 2402MHz, Ant:2

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
Hor	2402.000	PK	101.8	26.7	2.9	32.1	99.3	-	-	Carrier
Hor	2400.000	PK	52.8	26.7	2.9	32.1	50.3	79.3	29.0	
Ver	2402.000	PK	103.3	26.7	2.9	32.1	100.8	-	-	Carrier
Ver	2400.000	PK	54.7	26.7	2.9	32.1	52.2	80.8	28.6	

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

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/17/2010
Temperature/ Humidity	25 deg.C./ 49%
Engineer	Takumi Shimada (30-1000MHz)
Mode	Tx, DH5 2441MHz, Ant:2

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	36.012	QP	30.3	16.2	7.1	32.0	21.6	40.0	18.4	
Hori	84.026	QP	51.2	7.2	7.8	32.1	34.1	40.0	5.9	
Hori	250.012	QP	45.1	17.4	9.3	31.9	39.9	46.0	6.1	
Hori	405.027	QP	32.4	17.6	10.4	31.9	28.5	46.0	17.5	
Hori	800.002	QP	32.1	23.1	12.5	31.8	35.9	46.0	10.1	
Hori	959.999	QP	31.9	25.7	13.2	31.1	39.7	46.0	6.3	
Vert	36.011	QP	39.3	16.2	7.1	32.0	30.6	40.0	9.4	
Vert	84.026	QP	48.0	7.2	7.8	32.1	30.9	40.0	9.1	
Vert	250.002	QP	38.1	17.4	9.3	31.9	32.9	46.0	13.1	
Vert	405.026	QP	33.0	17.6	10.4	31.9	29.1	46.0	16.9	
Vert	800.003	QP	36.5	23.1	12.5	31.8	40.3	46.0	5.7	
Vert	959.999	QP	31.1	25.7	13.2	31.1	38.9	46.0	7.1	

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).

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	30IE0279-HO-01	
Date	05/18/2010	05/18/2010
Temperature/ Humidity	23 deg.C./ 49%	23 deg.C./ 49%
Engineer	Takumi Shimada	Takumi Shimada
	(1-10GHz)	(above 10GHz)
Mode	Tx, DH5 2441MHz, Ant:2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1595.822	PK	53.2	25.4	2.5	33.1	48.0	73.9	26.0	
Hori	1619.528	PK	56.9	25.5	2.5	33.1	51.8	73.9	22.1	
Hori	1945.940	PK	61.1	25.9	2.7	32.4	57.3	73.9	16.6	
Hori	3189.667	PK	47.5	28.5	3.3	31.8	47.5	73.9	26.5	
Hori	4882.000	PK	41.3	31.1	5.3	31.4	46.3	73.9	27.6	
Hori	6391.020	PK	42.9	34.1	5.7	31.9	50.8	73.9	23.2	
Hori	7323.000	PK	42.3	36.1	5.7	32.4	51.7	73.9	22.2	
Hori	9764.000	PK	42.3	38.1	6.9	33.0	54.3	73.9	19.6	
Hori	24410.000	PK	47.9	38.3	-1.1	31.6	53.5	73.9	20.4	
Hori	1595.822	AV	38.4	25.4	2.5	33.1	33.2	53.9	20.7	
Hori	1619.528	AV	32.4	25.5	2.5	33.1	27.3	53.9	26.6	
Hori	1945.940	AV	31.7	25.9	2.7	32.4	27.9	53.9	26.0	
Hori	3189.667	AV	32.3	28.5	3.3	31.8	32.3	53.9	21.6	
Hori	4882.000	AV	29.1	31.1	5.3	31.4	34.1	53.9	19.8	
Hori	6391.020	AV	29.5	34.1	5.7	31.9	37.4	53.9	16.5	
Hori	7323.000	AV	30.4	36.1	5.7	32.4	39.8	53.9	14.1	
Hori	9764.000	AV	30.2	38.1	6.9	33.0	42.2	53.9	11.7	
Hori	24410.000	AV	34.9	38.3	-1.1	31.6	40.5	53.9	13.5	
Vert	1596.652	PK	56.2	25.4	2.5	33.1	51.0	73.9	22.9	
Vert	1619.970	PK	54.4	25.5	2.5	33.1	49.3	73.9	24.6	
Vert	1946.293	PK	66.7	25.9	2.7	32.4	62.9	73.9	11.1	
Vert	3189.797	PK	50.9	28.5	3.3	31.8	50.9	73.9	23.0	
Vert	4882.000	PK	41.0	31.1	5.3	31.4	46.0	73.9	27.9	
Vert	6379.067	PK	44.4	34.0	5.7	31.9	52.2	73.9	21.7	
Vert	7323.000	PK	42.4	36.1	5.7	32.4	51.8	73.9	22.1	
Vert	9764.000	PK	41.8	38.1	6.9	33.0	53.8	73.9	20.1	
Vert	24410.000	PK	47.7	38.3	-1.1	31.6	53.3	73.9	20.6	
Vert	1596.652	AV	41.5	25.4	2.5	33.1	36.3	53.9	17.6	
Vert	1619.970	AV	37.6	25.5	2.5	33.1	32.5	53.9	21.4	
Vert	1946.293	AV	34.3	25.9	2.7	32.4	30.5	53.9	23.4	
Vert	3189.797	AV	34.3	28.5	3.3	31.8	34.3	53.9	19.6	
Vert	4882.000	AV	29.1	31.1	5.3	31.4	34.1	53.9	19.8	
Vert	6379.067	AV	29.7	34.0	5.7	31.9	37.5	53.9	16.4	
Vert	7323.000	AV	30.4	36.1	5.7	32.4	39.8	53.9	14.1	
Vert	9764.000	AV	30.2	38.1	6.9	33.0	42.2	53.9	11.7	
Vert	24410.000	AV	35.1	38.3	-1.1	31.6	40.7	53.9	13.2	

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
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/17/2010
Temperature/ Humidity	25 deg.C./ 49%
Engineer	Takumi Shimada (30-1000MHz)
Mode	Tx, DH5 2480MHz, Ant:2

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	36.020	QP	30.4	16.1	7.1	32.0	21.6	40.0	18.4	
Hori	84.040	QP	50.9	7.2	7.8	32.1	33.8	40.0	6.2	
Hori	249.999	QP	44.9	17.4	9.3	31.9	39.7	46.0	6.3	
Hori	405.019	QP	32.6	17.6	10.4	31.9	28.7	46.0	17.3	
Hori	800.002	QP	32.3	23.1	12.5	31.8	36.1	46.0	9.9	
Hori	959.999	QP	32.0	25.7	13.2	31.1	39.8	46.0	6.2	
Vert	36.005	QP	38.9	16.2	7.1	32.0	30.2	40.0	9.8	
Vert	84.033	QP	47.8	7.2	7.8	32.1	30.7	40.0	9.3	
Vert	250.000	QP	38.3	17.4	9.3	31.9	33.1	46.0	12.9	
Vert	405.006	QP	34.5	17.6	10.4	31.9	30.6	46.0	15.4	
Vert	800.001	QP	36.2	23.1	12.5	31.8	40.0	46.0	6.0	
Vert	959.999	QP	30.7	25.7	13.2	31.1	38.5	46.0	7.5	

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

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

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	30IE0279-HO-01	
Date	05/18/2010	05/18/2010
Temperature/ Humidity	23 deg.C./ 49%	23 deg.C./ 49%
Engineer	Keisuke Kawamura (1-10GHz)	Takumi Shimada (above 10GHz)
Mode	Tx, DH5 2480MHz, Ant:2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1595.937	PK	54.6	25.4	2.5	33.1	49.4	73.9	24.5	
Hori	1622.018	PK	52.4	25.5	2.5	33.1	47.3	73.9	26.6	
Hori	1945.162	PK	60.1	25.9	2.7	32.4	56.3	73.9	17.6	
Hori	2483.500	PK	58.8	26.9	2.9	32.1	56.5	73.9	17.4	
Hori	3191.653	PK	49.8	28.5	3.3	31.8	49.8	73.9	24.1	
Hori	4960.000	PK	39.5	31.3	5.4	31.4	44.8	73.9	29.1	
Hori	6383.425	PK	43.9	34.0	5.7	31.9	51.7	73.9	22.2	
Hori	7440.000	PK	43.1	36.3	5.7	32.4	52.7	73.9	21.2	
Hori	9920.000	PK	42.5	38.3	7.1	33.0	54.9	73.9	19.0	
Hori	24800.000	PK	49.1	38.4	-1.0	31.5	55.0	73.9	18.9	
Hori	1595.937	AV	43.2	25.4	2.5	33.1	38.0	53.9	15.9	
Hori	1622.018	AV	37.5	25.5	2.5	33.1	32.4	53.9	21.6	
Hori	1945.162	AV	34.1	25.9	2.7	32.4	30.3	53.9	23.6	
Hori	2483.500	AV	50.0	26.9	2.9	32.1	47.7	53.9	6.2	
Hori	3191.653	AV	36.7	28.5	3.3	31.8	36.7	53.9	17.2	
Hori	4960.000	AV	30.5	31.3	5.4	31.4	35.8	53.9	18.1	
Hori	6383.425	AV	29.0	34.0	5.7	31.9	36.8	53.9	17.1	
Hori	7440.000	AV	32.0	36.3	5.7	32.4	41.6	53.9	12.3	
Hori	9920.000	AV	30.5	38.3	7.1	33.0	42.9	53.9	11.0	
Hori	24800.000	AV	37.1	38.4	-1.0	31.5	43.0	53.9	10.9	
Vert	1595.883	PK	56.5	25.4	2.5	33.1	51.3	73.9	22.6	
Vert	1620.074	PK	52.8	25.5	2.5	33.1	47.7	73.9	26.2	
Vert	1945.195	PK	66.8	25.9	2.7	32.4	63.0	73.9	10.9	
Vert	2483.500	PK	60.1	26.9	2.9	32.1	57.8	73.9	16.1	
Vert	3191.653	PK	51.7	28.5	3.3	31.8	51.7	73.9	22.2	
Vert	4960.000	PK	40.6	31.3	5.4	31.4	45.9	73.9	28.1	
Vert	6383.425	PK	42.9	34.0	5.7	31.9	50.7	73.9	23.3	
Vert	7440.000	PK	42.9	36.3	5.7	32.4	52.5	73.9	21.5	
Vert	9920.000	PK	42.7	38.3	7.1	33.0	55.1	73.9	18.8	
Vert	24800.000	PK	48.5	38.4	-1.0	31.5	54.4	73.9	19.5	
Vert	1595.883	AV	44.8	25.4	2.5	33.1	39.6	53.9	14.3	
Vert	1620.074	AV	37.9	25.5	2.5	33.1	32.8	53.9	21.1	
Vert	1945.195	AV	37.0	25.9	2.7	32.4	33.2	53.9	20.7	
Vert	2483.500	AV	51.2	26.9	2.9	32.1	48.9	53.9	5.0	
Vert	3191.653	AV	36.9	28.5	3.3	31.8	36.9	53.9	17.0	
Vert	4960.000	AV	28.0	31.3	5.4	31.4	33.3	53.9	20.6	
Vert	6383.425	AV	30.3	34.0	5.7	31.9	38.1	53.9	15.9	
Vert	7440.000	AV	30.5	36.3	5.7	32.4	40.1	53.9	13.8	
Vert	9920.000	AV	30.6	38.3	7.1	33.0	43.0	53.9	10.9	
Vert	24800.000	AV	37.1	38.4	-1.0	31.5	43.0	53.9	11.0	

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

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

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

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

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Radiated Spurious Emission

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 30IE0279-HO-01
Date 05/12/2010
Temperature/ Humidity 23 deg.C./ 48%
Engineer Tomotaka Sasagawa
(30-1000MHz)
Mode Tx, 3DH5 2402MHz, Ant:1

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	36.004	QP	28.8	16.2	7.1	32.0	20.1	40.0	19.9	
Hori	76.832	QP	53.8	6.5	7.7	32.1	35.9	40.0	4.1	
Hori	250.005	QP	43.2	17.4	9.3	31.9	38.0	46.0	8.0	
Hori	312.833	QP	42.7	14.5	9.7	31.9	35.0	46.0	11.0	
Hori	498.013	QP	35.1	18.2	10.9	32.0	32.2	46.0	13.8	
Hori	959.995	QP	33.4	22.5	13.2	31.1	38.0	46.0	8.0	
Vert	36.009	QP	41.0	16.2	7.1	32.0	32.3	40.0	7.7	
Vert	80.385	QP	45.4	6.6	7.7	32.1	27.6	40.0	12.4	
Vert	250.000	QP	39.2	17.4	9.3	31.9	34.0	46.0	12.0	
Vert	302.626	QP	44.2	14.1	9.7	31.9	36.1	46.0	9.9	
Vert	498.779	QP	38.1	18.2	10.9	32.0	35.2	46.0	10.8	
Vert	959.976	QP	32.5	22.5	13.2	31.1	37.1	46.0	8.9	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	30IE0279-HO-01	
Date	05/11/2010	05/12/2010
Temperature/ Humidity	23 deg.C./ 48%	23 deg.C./ 48%
Engineer	Takumi Shimada	Tomotaka Sasagawa
	(1-10GHz)	(above 10GHz)
Mode	Tx, 3DH5 2402MHz, Ant:1	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1593.783	PK	55.5	25.4	2.5	33.1	50.3	73.9	23.6	
Hori	1622.017	PK	58.7	25.5	2.5	33.1	53.6	73.9	20.3	
Hori	1944.733	PK	61.8	25.9	2.7	32.4	58.0	73.9	15.9	
Hori	2390.000	PK	49.7	26.7	2.9	32.1	47.2	73.9	26.7	
Hori	2400.000	PK	65.0	26.7	2.9	32.1	62.5	-	-	See 20dBc Data Sheet
Hori	3189.649	PK	48.8	28.5	3.3	31.8	48.8	73.9	25.1	
Hori	4804.000	PK	41.2	30.8	5.3	31.4	45.9	73.9	28.0	
Hori	6390.083	PK	44.0	34.0	5.7	31.9	51.8	73.9	22.1	
Hori	7206.000	PK	42.4	35.9	5.7	32.3	51.7	73.9	22.3	
Hori	9608.000	PK	42.5	37.9	6.8	33.0	54.2	73.9	19.7	
Hori	24020.000	PK	48.5	38.1	-1.2	31.7	53.7	73.9	20.2	
Hori	1593.783	AV	41.1	25.4	2.5	33.1	35.9	53.9	18.0	
Hori	1622.017	AV	32.3	25.5	2.5	33.1	27.2	53.9	26.7	
Hori	1944.733	AV	32.2	25.9	2.7	32.4	28.4	53.9	25.5	
Hori	2390.000	AV	36.4	26.7	2.9	32.1	33.9	53.9	20.0	
Hori	2400.000	AV	52.8	26.7	2.9	32.1	50.3	-	-	See 20dBc Data Sheet
Hori	3189.649	AV	32.9	28.5	3.3	31.8	32.9	53.9	21.0	
Hori	4804.000	AV	29.2	30.8	5.3	31.4	33.9	53.9	20.0	
Hori	6390.083	AV	29.8	34.0	5.7	31.9	37.6	53.9	16.4	
Hori	7206.000	AV	30.6	35.9	5.7	32.3	39.9	53.9	14.0	
Hori	9608.000	AV	30.9	37.9	6.8	33.0	42.6	53.9	11.3	
Hori	24020.000	AV	35.3	38.1	-1.2	31.7	40.5	53.9	13.4	
Vert	1597.150	PK	59.4	25.4	2.5	33.1	54.2	73.9	19.7	
Vert	1621.507	PK	52.1	25.5	2.5	33.1	47.0	73.9	26.9	
Vert	1946.712	PK	65.6	25.9	2.7	32.4	61.8	73.9	12.1	
Vert	2390.000	PK	45.8	26.7	2.9	32.1	43.3	73.9	30.6	
Vert	2400.000	PK	63.3	26.7	2.9	32.1	60.8	-	-	See 20dBc Data Sheet
Vert	3192.833	PK	50.5	28.5	3.3	31.8	50.5	73.9	23.4	
Vert	4804.000	PK	40.0	30.8	5.3	31.4	44.7	73.9	29.2	
Vert	6390.667	PK	41.2	34.0	5.7	31.9	49.0	73.9	24.9	
Vert	7206.000	PK	41.8	35.9	5.7	32.3	51.1	73.9	22.9	
Vert	9608.000	PK	42.0	37.9	6.8	33.0	53.7	73.9	20.2	
Vert	24020.000	PK	48.7	38.1	-1.2	31.7	53.9	73.9	20.0	
Vert	1597.150	AV	43.8	25.4	2.5	33.1	38.6	53.9	15.4	
Vert	1621.507	AV	39.4	25.5	2.5	33.1	34.3	53.9	19.6	
Vert	1946.712	AV	33.9	25.9	2.7	32.4	30.1	53.9	23.8	
Vert	2390.000	AV	34.5	26.7	2.9	32.1	32.0	53.9	21.9	
Vert	2400.000	AV	51.1	26.7	2.9	32.1	48.6	-	-	See 20dBc Data Sheet
Vert	3192.833	AV	34.2	28.5	3.3	31.8	34.2	53.9	19.8	
Vert	4804.000	AV	29.2	30.8	5.3	31.4	33.9	53.9	20.0	
Vert	6390.667	AV	29.3	34.0	5.7	31.9	37.1	53.9	16.8	
Vert	7206.000	AV	30.6	35.9	5.7	32.3	39.9	53.9	14.0	
Vert	9608.000	AV	30.5	37.9	6.8	33.0	42.2	53.9	11.7	
Vert	24020.000	AV	34.9	38.1	-1.2	31.7	40.1	53.9	13.8	

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

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

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

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

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Radiated Spurious Emission
(20dBc Data Sheet)

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/11/2010
Temperature/ Humidity	23 deg.C./ 48%
Engineer	Takumi Shimada (1-10GHz)
Mode	Tx, 3DH5 2402MHz, Ant:1

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
Hor	2402.000	PK	100.9	26.7	2.9	32.1	98.4	-	-	Carrier
Hor	2400.000	PK	53.8	26.7	2.9	32.1	51.3	78.4	27.1	
Ver	2402.000	PK	99.8	26.7	2.9	32.1	97.3	-	-	Carrier
Ver	2400.000	PK	50.6	26.7	2.9	32.1	48.1	77.3	29.2	

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

Radiated Spurious Emission

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 30IE0279-HO-01
Date 05/12/2010
Temperature/ Humidity 23 deg.C./ 48%
Engineer Tomotaka Sasagawa
(30-1000MHz)
Mode Tx, 3DH5 2441MHz, Ant:1

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	36.000	QP	28.9	16.2	7.1	32.0	20.2	40.0	19.8	
Hori	76.842	QP	53.5	6.5	7.7	32.1	35.6	40.0	4.4	
Hori	250.003	QP	43.6	17.4	9.3	31.9	38.4	46.0	7.6	
Hori	312.832	QP	42.9	14.5	9.7	31.9	35.2	46.0	10.8	
Hori	498.032	QP	35.4	18.2	10.9	32.0	32.5	46.0	13.5	
Hori	959.963	QP	33.7	22.5	13.2	31.1	38.3	46.0	7.7	
Vert	36.009	QP	41.2	16.2	7.1	32.0	32.5	40.0	7.5	
Vert	80.356	QP	45.6	6.6	7.7	32.1	27.8	40.0	12.2	
Vert	250.041	QP	39.9	17.4	9.3	31.9	34.7	46.0	11.3	
Vert	302.413	QP	44.5	14.1	9.7	31.9	36.4	46.0	9.6	
Vert	498.983	QP	38.9	18.2	10.9	32.0	36.0	46.0	10.0	
Vert	959.932	QP	32.9	22.5	13.2	31.1	37.5	46.0	8.5	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	30IE0279-HO-01	
Date	05/11/2010	05/12/2010
Temperature/ Humidity	23 deg.C./ 48%	23 deg.C./ 48%
Engineer	Takumi Shimada	Tomotaka Sasagawa
	(1-10GHz)	(above 10GHz)
Mode	Tx, 3DH5 2441MHz, Ant:1	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1597.883	PK	56.2	25.4	2.5	33.1	51.0	73.9	22.9	
Hori	1621.933	PK	59.0	25.5	2.5	33.1	53.9	73.9	20.1	
Hori	1943.366	PK	61.8	25.9	2.7	32.4	58.0	73.9	15.9	
Hori	3190.140	PK	48.3	28.5	3.3	31.8	48.3	73.9	25.7	
Hori	4882.000	PK	40.9	31.1	5.3	31.4	45.9	73.9	28.0	
Hori	6385.374	PK	43.0	34.0	5.7	31.9	50.8	73.9	23.1	
Hori	7323.000	PK	41.1	36.1	5.7	32.4	50.5	73.9	23.4	
Hori	9764.000	PK	42.1	38.1	6.9	33.0	54.1	73.9	19.8	
Hori	24410.000	PK	49.2	38.3	-1.1	31.6	54.8	73.9	19.1	
Hori	1597.883	AV	41.1	25.4	2.5	33.1	35.9	53.9	18.0	
Hori	1621.933	AV	32.3	25.5	2.5	33.1	27.2	53.9	26.7	
Hori	1943.366	AV	32.1	25.9	2.7	32.4	28.3	53.9	25.6	
Hori	3190.140	AV	32.5	28.5	3.3	31.8	32.5	53.9	21.4	
Hori	4882.000	AV	28.7	31.1	5.3	31.4	33.7	53.9	20.2	
Hori	6385.374	AV	29.5	34.0	5.7	31.9	37.3	53.9	16.6	
Hori	7323.000	AV	30.1	36.1	5.7	32.4	39.5	53.9	14.4	
Hori	9764.000	AV	30.1	38.1	6.9	33.0	42.1	53.9	11.8	
Hori	24410.000	AV	36.2	38.3	-1.1	31.6	41.8	53.9	12.1	
Vert	1597.206	PK	58.6	25.4	2.5	33.1	53.4	73.9	20.5	
Vert	1621.185	PK	52.2	25.5	2.5	33.1	47.1	73.9	26.8	
Vert	1946.412	PK	65.2	25.9	2.7	32.4	61.4	73.9	12.5	
Vert	3186.700	PK	50.8	28.5	3.3	31.8	50.8	73.9	23.1	
Vert	4882.000	PK	39.8	31.1	5.3	31.4	44.8	73.9	29.1	
Vert	6392.684	PK	40.7	34.1	5.7	31.9	48.6	73.9	25.3	
Vert	7323.000	PK	41.8	36.1	5.7	32.4	51.2	73.9	22.7	
Vert	9764.000	PK	41.6	38.1	6.9	33.0	53.6	73.9	20.3	
Vert	24410.000	PK	49.5	38.3	-1.1	31.6	55.1	73.9	18.8	
Vert	1597.206	AV	42.9	25.4	2.5	33.1	37.7	53.9	16.2	
Vert	1621.185	AV	40.0	25.5	2.5	33.1	34.9	53.9	19.0	
Vert	1946.412	AV	33.3	25.9	2.7	32.4	29.5	53.9	24.4	
Vert	3186.700	AV	34.0	28.5	3.3	31.8	34.0	53.9	19.9	
Vert	4882.000	AV	28.7	31.1	5.3	31.4	33.7	53.9	20.2	
Vert	6392.684	AV	29.1	34.1	5.7	31.9	37.0	53.9	16.9	
Vert	7323.000	AV	29.9	36.1	5.7	32.4	39.3	53.9	14.6	
Vert	9764.000	AV	30.0	38.1	6.9	33.0	42.0	53.9	11.9	
Vert	24410.000	AV	35.9	38.3	-1.1	31.6	41.5	53.9	12.4	

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
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

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Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/12/2010
Temperature/ Humidity	23 deg.C./ 48%
Engineer	Tomotaka Sasagawa
	(30-1000MHz)
Mode	Tx, 3DH5 2480MHz, Ant:1

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	35.850	QP	29.1	16.2	7.1	32.0	20.4	40.0	19.6	
Hori	76.832	QP	54.1	6.5	7.7	32.1	36.2	40.0	3.8	
Hori	250.004	QP	43.5	17.4	9.3	31.9	38.3	46.0	7.7	
Hori	312.842	QP	41.9	14.5	9.7	31.9	34.2	46.0	11.8	
Hori	498.003	QP	35.8	18.2	10.9	32.0	32.9	46.0	13.1	
Hori	959.994	QP	33.9	22.5	13.2	31.1	38.5	46.0	7.5	
Vert	36.000	QP	41.2	16.2	7.1	32.0	32.5	40.0	7.5	
Vert	80.354	QP	45.6	6.6	7.7	32.1	27.8	40.0	12.2	
Vert	250.049	QP	39.9	17.4	9.3	31.9	34.7	46.0	11.3	
Vert	307.000	QP	44.5	14.3	9.7	31.9	36.6	46.0	9.4	
Vert	498.332	QP	38.7	18.2	10.9	32.0	35.8	46.0	10.2	
Vert	959.993	QP	32.9	22.5	13.2	31.1	37.5	46.0	8.5	

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

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

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	30IE0279-HO-01	
Date	05/11/2010	05/12/2010
Temperature/ Humidity	23 deg.C./ 48%	23 deg.C./ 48%
Engineer	Takumi Shimada	Tomotaka Sasagawa
	(1-10GHz)	(above 10GHz)
Mode	Tx, 3DH5 2480MHz, Ant:1	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1595.238	PK	56.2	25.4	2.5	33.1	51.0	73.9	22.9	
Hori	1623.013	PK	58.1	25.5	2.5	33.1	53.0	73.9	20.9	
Hori	1942.653	PK	61.8	25.9	2.7	32.4	58.0	73.9	15.9	
Hori	2483.500	PK	62.4	26.9	2.9	32.1	60.1	73.9	13.8	
Hori	3188.328	PK	48.5	28.5	3.3	31.8	48.5	73.9	25.4	
Hori	4960.000	PK	40.2	31.3	5.4	31.4	45.5	73.9	28.4	
Hori	6377.230	PK	42.9	34.0	5.7	31.9	50.7	73.9	23.3	
Hori	7440.000	PK	41.6	36.3	5.7	32.4	51.2	73.9	22.7	
Hori	9920.000	PK	41.5	38.3	7.1	33.0	53.9	73.9	20.0	
Hori	24800.000	PK	48.6	38.4	-1.0	31.5	54.5	73.9	19.4	
Hori	1595.238	AV	41.3	25.4	2.5	33.1	36.1	53.9	17.8	
Hori	1623.013	AV	32.1	25.5	2.5	33.1	27.0	53.9	26.9	
Hori	1942.653	AV	32.2	25.9	2.7	32.4	28.4	53.9	25.5	
Hori	2483.500	AV	49.8	26.9	2.9	32.1	47.5	53.9	6.4	
Hori	3188.328	AV	33.1	28.5	3.3	31.8	33.1	53.9	20.8	
Hori	4960.000	AV	28.6	31.3	5.4	31.4	33.9	53.9	20.0	
Hori	6377.230	AV	29.3	34.0	5.7	31.9	37.1	53.9	16.8	
Hori	7440.000	AV	30.1	36.3	5.7	32.4	39.7	53.9	14.2	
Hori	9920.000	AV	30.1	38.3	7.1	33.0	42.5	53.9	11.4	
Hori	24800.000	AV	35.2	38.4	-1.0	31.5	41.1	53.9	12.8	
Vert	1597.875	PK	58.3	25.4	2.5	33.1	53.1	73.9	20.8	
Vert	1621.381	PK	52.6	25.5	2.5	33.1	47.5	73.9	26.5	
Vert	1945.100	PK	68.1	25.9	2.7	32.4	64.3	73.9	9.6	
Vert	2483.500	PK	60.5	26.9	2.9	32.1	58.2	73.9	15.7	
Vert	3189.333	PK	50.3	28.5	3.3	31.8	50.3	73.9	23.6	
Vert	4960.000	PK	40.3	31.3	5.4	31.4	45.6	73.9	28.3	
Vert	6391.330	PK	42.1	34.1	5.7	31.9	50.0	73.9	23.9	
Vert	7440.000	PK	42.1	36.3	5.7	32.4	51.7	73.9	22.2	
Vert	9920.000	PK	42.2	38.3	7.1	33.0	54.6	73.9	19.3	
Vert	24800.000	PK	48.9	38.4	-1.0	31.5	54.8	73.9	19.1	
Vert	1597.875	AV	42.3	25.4	2.5	33.1	37.1	53.9	16.8	
Vert	1621.381	AV	39.9	25.5	2.5	33.1	34.8	53.9	19.1	
Vert	1945.100	AV	34.7	25.9	2.7	32.4	30.9	53.9	23.0	
Vert	2483.500	AV	48.1	26.9	2.9	32.1	45.8	53.9	8.1	
Vert	3189.333	AV	34.0	28.5	3.3	31.8	34.0	53.9	19.9	
Vert	4960.000	AV	28.5	31.3	5.4	31.4	33.8	53.9	20.1	
Vert	6391.330	AV	29.4	34.1	5.7	31.9	37.3	53.9	16.6	
Vert	7440.000	AV	30.0	36.3	5.7	32.4	39.6	53.9	14.3	
Vert	9920.000	AV	30.1	38.3	7.1	33.0	42.5	53.9	11.4	
Vert	24800.000	AV	35.3	38.4	-1.0	31.5	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
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

Radiated Spurious Emission

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 30IE0279-HO-01
Date 05/12/2010
Temperature/ Humidity 23 deg.C./ 48%
Engineer Tomotaka Sasagawa
(30-1000MHz)
Mode Tx, 3DH5 2402MHz, Ant:2

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	36.003	QP	28.9	16.2	7.1	32.0	20.2	40.0	19.8	
Hori	76.843	QP	53.6	6.5	7.7	32.1	35.7	40.0	4.3	
Hori	250.049	QP	43.5	17.4	9.3	31.9	38.3	46.0	7.7	
Hori	312.833	QP	42.1	14.5	9.7	31.9	34.4	46.0	11.6	
Hori	499.498	QP	34.9	18.2	10.9	32.0	32.0	46.0	14.0	
Hori	959.994	QP	33.9	22.5	13.2	31.1	38.5	46.0	7.5	
Vert	35.850	QP	41.1	16.2	7.1	32.0	32.4	40.0	7.6	
Vert	80.942	QP	45.6	6.7	7.7	32.1	27.9	40.0	12.1	
Vert	250.049	QP	39.5	17.4	9.3	31.9	34.3	46.0	11.7	
Vert	315.167	QP	44.9	14.6	9.8	31.9	37.4	46.0	8.6	
Vert	499.498	QP	37.6	18.2	10.9	32.0	34.7	46.0	11.3	
Vert	959.932	QP	33.1	22.5	13.2	31.1	37.7	46.0	8.3	

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).

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	30IE0279-HO-01	
Date	05/11/2010	05/12/2010
Temperature/ Humidity	22 deg.C./ 45%	23 deg.C./ 48%
Engineer	Hiroshi Kukita (1-10GHz)	Tomotaka Sasagawa (above 10GHz)
Mode	Tx, 3DH5 2402MHz, Ant:2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1596.733	PK	57.8	25.4	2.5	33.1	52.6	73.9	21.3	
Hori	1622.550	PK	56.4	25.5	2.5	33.1	51.3	73.9	22.6	
Hori	1945.567	PK	59.8	25.9	2.7	32.4	56.0	73.9	17.9	
Hori	2390.000	PK	49.8	26.7	2.9	32.1	47.3	73.9	26.6	
Hori	2400.000	PK	72.9	26.7	2.9	32.1	70.4	-	-	See 20dBc Data Sheet
Hori	3192.667	PK	46.9	28.5	3.3	31.8	46.9	73.9	27.0	
Hori	4804.000	PK	29.1	30.8	5.3	31.4	33.8	73.9	40.1	
Hori	6392.661	PK	41.5	34.1	5.7	31.9	49.4	73.9	24.5	
Hori	7206.000	PK	41.9	35.9	5.7	32.3	51.2	73.9	22.7	
Hori	9608.000	PK	41.8	37.9	6.8	33.0	53.5	73.9	20.4	
Hori	24020.000	PK	48.2	38.1	-1.2	31.7	53.4	73.9	20.5	
Hori	1596.733	AV	44.5	25.4	2.5	33.1	39.3	53.9	14.6	
Hori	1622.550	AV	31.0	25.5	2.5	33.1	25.9	53.9	28.0	
Hori	1945.567	AV	31.7	25.9	2.7	32.4	27.9	53.9	26.0	
Hori	2390.000	AV	35.3	26.7	2.9	32.1	32.8	53.9	21.1	
Hori	2400.000	AV	58.9	26.7	2.9	32.1	56.4	-	-	See 20dBc Data Sheet
Hori	3192.667	AV	33.9	28.5	3.3	31.8	33.9	53.9	20.0	
Hori	4804.000	AV	40.4	30.8	5.3	31.4	45.1	53.9	8.8	
Hori	6392.661	AV	29.0	34.1	5.7	31.9	36.9	53.9	17.0	
Hori	7206.000	AV	30.0	35.9	5.7	32.3	39.3	53.9	14.6	
Hori	9608.000	AV	30.1	37.9	6.8	33.0	41.8	53.9	12.1	
Hori	24020.000	AV	35.4	38.1	-1.2	31.7	40.6	53.9	13.3	
Vert	1596.733	PK	59.7	25.4	2.5	33.1	54.5	73.9	19.4	
Vert	1622.550	PK	59.1	25.5	2.5	33.1	54.0	73.9	19.9	
Vert	1945.567	PK	68.0	25.9	2.7	32.4	64.2	73.9	9.7	
Vert	2390.000	PK	51.6	26.7	2.9	32.1	49.1	73.9	24.8	
Vert	2400.000	PK	77.2	26.7	2.9	32.1	74.7	-	-	See 20dBc Data Sheet
Vert	3192.667	PK	51.8	28.5	3.3	31.8	51.8	73.9	22.1	
Vert	4804.000	PK	40.1	30.8	5.3	31.4	44.8	73.9	29.1	
Vert	6392.661	PK	45.0	34.1	5.7	31.9	52.9	73.9	21.0	
Vert	7206.000	PK	41.9	35.9	5.7	32.3	51.2	73.9	22.7	
Vert	9608.000	PK	42.2	37.9	6.8	33.0	53.9	73.9	20.0	
Vert	24020.000	PK	48.6	38.1	-1.2	31.7	53.8	73.9	20.1	
Vert	1596.733	AV	43.8	25.4	2.5	33.1	38.6	53.9	15.3	
Vert	1622.550	AV	33.0	25.5	2.5	33.1	27.9	53.9	26.0	
Vert	1945.567	AV	34.5	25.9	2.7	32.4	30.7	53.9	23.2	
Vert	2390.000	AV	38.8	26.7	2.9	32.1	36.3	53.9	17.6	
Vert	2400.000	AV	62.8	26.7	2.9	32.1	60.3	-	-	See 20dBc Data Sheet
Vert	3192.667	AV	34.0	28.5	3.3	31.8	34.0	53.9	19.9	
Vert	4804.000	AV	30.2	30.8	5.3	31.4	34.9	53.9	19.0	
Vert	6392.661	AV	30.2	34.1	5.7	31.9	38.1	53.9	15.8	
Vert	7206.000	AV	30.1	35.9	5.7	32.3	39.4	53.9	14.5	
Vert	9608.000	AV	30.3	37.9	6.8	33.0	42.0	53.9	11.9	
Vert	24020.000	AV	35.6	38.1	-1.2	31.7	40.8	53.9	13.1	

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
(20dBc Data Sheet)

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/11/2010
Temperature/ Humidity	22 deg.C./ 45%
Engineer	Hiroshi Kukita (1-10GHz)
Mode	Tx, 3DH5 2402MHz, Ant:2

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
Hor	2402.000	PK	102.9	26.7	2.9	32.1	100.4	-	-	Carrier
Hor	2400.000	PK	52.3	26.7	2.9	32.1	49.8	80.4	30.6	
Ver	2402.000	PK	105.9	26.7	2.9	32.1	103.4	-	-	Carrier
Ver	2400.000	PK	56.9	26.7	2.9	32.1	54.4	83.4	29.0	

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

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/12/2010
Temperature/ Humidity	23 deg.C./ 48%
Engineer	Tomotaka Sasagawa
	(30-1000MHz)
Mode	Tx, 3DH5 2441MHz, Ant:2

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	35.998	QP	28.1	16.2	7.1	32.0	19.4	40.0	20.6	
Hori	76.832	QP	52.1	6.5	7.7	32.1	34.2	40.0	5.8	
Hori	250.049	QP	44.5	17.4	9.3	31.9	39.3	46.0	6.7	
Hori	312.833	QP	42.8	14.5	9.7	31.9	35.1	46.0	10.9	
Hori	499.941	QP	35.7	18.2	10.9	32.0	32.8	46.0	13.2	
Hori	959.993	QP	33.8	22.5	13.2	31.1	38.4	46.0	7.6	
Vert	36.003	QP	40.9	16.2	7.1	32.0	32.2	40.0	7.8	
Vert	80.421	QP	45.6	6.6	7.7	32.1	27.8	40.0	12.2	
Vert	250.049	QP	39.5	17.4	9.3	31.9	34.3	46.0	11.7	
Vert	311.667	QP	43.9	14.5	9.7	31.9	36.2	46.0	9.8	
Vert	498.332	QP	37.9	18.2	10.9	32.0	35.0	46.0	11.0	
Vert	959.976	QP	33.4	22.5	13.2	31.1	38.0	46.0	8.0	

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

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

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	30IE0279-HO-01	
Date	05/11/2010	05/12/2010
Temperature/ Humidity	22 deg.C./ 45%	23 deg.C./ 48%
Engineer	Hiroshi Kukita	Tomotaka Sasagawa
	(1-10GHz)	(above 10GHz)
Mode	Tx, 3DH5 2441MHz, Ant:2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1598.311	PK	58.4	25.4	2.5	33.1	53.2	73.9	20.7	
Hori	1622.283	PK	56.7	25.5	2.5	33.1	51.6	73.9	22.3	
Hori	1942.745	PK	60.1	25.9	2.7	32.4	56.3	73.9	17.6	
Hori	3191.767	PK	47.8	28.5	3.3	31.8	47.8	73.9	26.1	
Hori	4882.000	PK	40.5	31.1	5.3	31.4	45.5	73.9	28.4	
Hori	6387.450	PK	41.5	34.0	5.7	31.9	49.3	73.9	24.6	
Hori	7323.000	PK	42.3	36.1	5.7	32.4	51.7	73.9	22.2	
Hori	9764.000	PK	42.0	38.1	6.9	33.0	54.0	73.9	19.9	
Hori	24410.000	PK	47.9	38.3	-1.1	31.6	53.5	73.9	20.4	
Hori	1598.311	AV	44.1	25.4	2.5	33.1	38.9	53.9	15.0	
Hori	1622.283	AV	33.3	25.5	2.5	33.1	28.2	53.9	25.7	
Hori	1942.745	AV	32.0	25.9	2.7	32.4	28.2	53.9	25.7	
Hori	3191.767	AV	34.3	28.5	3.3	31.8	34.3	53.9	19.6	
Hori	4882.000	AV	29.0	31.1	5.3	31.4	34.0	53.9	19.9	
Hori	6387.450	AV	29.4	34.0	5.7	31.9	37.2	53.9	16.7	
Hori	7323.000	AV	30.1	36.1	5.7	32.4	39.5	53.9	14.4	
Hori	9764.000	AV	30.1	38.1	6.9	33.0	42.1	53.9	11.8	
Hori	24410.000	AV	35.4	38.3	-1.1	31.6	41.0	53.9	12.9	
Vert	1598.311	PK	58.3	25.4	2.5	33.1	53.1	73.9	20.8	
Vert	1622.283	PK	54.0	25.5	2.5	33.1	48.9	73.9	25.0	
Vert	1942.745	PK	66.6	25.9	2.7	32.4	62.8	73.9	11.1	
Vert	3191.767	PK	50.1	28.5	3.3	31.8	50.1	73.9	23.8	
Vert	4882.000	PK	40.9	31.1	5.3	31.4	45.9	73.9	28.0	
Vert	6392.684	PK	44.5	34.1	5.7	31.9	52.4	73.9	21.5	
Vert	7323.000	PK	42.1	36.1	5.7	32.4	51.5	73.9	22.4	
Vert	9764.000	PK	42.2	38.1	6.9	33.0	54.2	73.9	19.7	
Vert	24410.000	PK	47.8	38.3	-1.1	31.6	53.4	73.9	20.5	
Vert	1598.311	AV	42.8	25.4	2.5	33.1	37.6	53.9	16.3	
Vert	1622.283	AV	39.2	25.5	2.5	33.1	34.1	53.9	19.8	
Vert	1942.745	AV	34.7	25.9	2.7	32.4	30.9	53.9	23.0	
Vert	3191.767	AV	33.0	28.5	3.3	31.8	33.0	53.9	20.9	
Vert	4882.000	AV	28.7	31.1	5.3	31.4	33.7	53.9	20.2	
Vert	6392.684	AV	30.8	34.1	5.7	31.9	38.7	53.9	15.2	
Vert	7323.000	AV	30.1	36.1	5.7	32.4	39.5	53.9	14.4	
Vert	9764.000	AV	30.1	38.1	6.9	33.0	42.1	53.9	11.8	
Vert	24410.000	AV	35.8	38.3	-1.1	31.6	41.4	53.9	12.5	

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

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

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

Distance factor: 10GHz-26.5GHz 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.4 Semi Anechoic Chamber
Report No. 30IE0279-HO-01
Date 05/12/2010
Temperature/ Humidity 23 deg.C./ 48%
Engineer Tomotaka Sasagawa
(30-1000MHz)
Mode Tx, 3DH5 2480MHz, Ant:2

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	35.998	QP	27.8	16.2	7.1	32.0	19.1	40.0	20.9	
Hori	76.842	QP	54.0	6.5	7.7	32.1	36.1	40.0	3.9	
Hori	250.049	QP	43.5	17.4	9.3	31.9	38.3	46.0	7.7	
Hori	312.833	QP	42.1	14.5	9.7	31.9	34.4	46.0	11.6	
Hori	498.332	QP	34.5	18.2	10.9	32.0	31.6	46.0	14.4	
Hori	959.924	QP	33.1	22.5	13.2	31.1	37.7	46.0	8.3	
Vert	36.093	QP	41.2	16.1	7.1	32.0	32.4	40.0	7.6	
Vert	80.384	QP	45.6	6.6	7.7	32.1	27.8	40.0	12.2	
Vert	250.049	QP	39.6	17.4	9.3	31.9	34.4	46.0	11.6	
Vert	311.667	QP	44.7	14.5	9.7	31.9	37.0	46.0	9.0	
Vert	499.498	QP	38.9	18.2	10.9	32.0	36.0	46.0	10.0	
Vert	959.974	QP	33.0	22.5	13.2	31.1	37.6	46.0	8.4	

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).

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	30IE0279-HO-01		
Date	05/11/2010	05/17/2010	05/12/2010
Temperature/ Humidity	22 deg.C./ 45%	22 deg.C./ 52%	23 deg.C./ 48%
Engineer	Hiroshi Kukita (1-10GHz)	Takeshi Choda (1-10GHz)	Tomotaka Sasagawa (above 10GHz)
Mode	Tx, 3DH5 2480MHz, Ant:2		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1597.364	PK	60.3	25.4	2.5	33.1	55.1	73.9	18.8	
Hori	1620.920	PK	56.5	25.5	2.5	33.1	51.4	73.9	22.5	
Hori	1947.250	PK	60.4	25.9	2.7	32.4	56.6	73.9	17.3	
Hori	2483.500	PK	68.0	26.9	2.9	32.1	65.7	-	-	See Delta Marker method data
Hori	3190.425	PK	48.0	28.5	3.3	31.8	48.0	73.9	25.9	
Hori	4960.000	PK	40.1	31.3	5.4	31.4	45.4	73.9	28.5	
Hori	6377.230	PK	41.6	34.0	5.7	31.9	49.4	73.9	24.5	
Hori	7440.000	PK	41.8	36.3	5.7	32.4	51.4	73.9	22.5	
Hori	9920.000	PK	41.9	38.3	7.1	33.0	54.3	73.9	19.6	
Hori	24800.000	PK	48.2	38.4	-1.0	31.5	54.1	73.9	19.8	
Hori	1597.364	AV	45.1	25.4	2.5	33.1	39.9	53.9	14.0	
Hori	1620.920	AV	32.8	25.5	2.5	33.1	27.7	53.9	26.2	
Hori	1947.250	AV	31.9	25.9	2.7	32.4	28.1	53.9	25.8	
Hori	2483.500	AV	54.4	26.9	2.9	32.1	52.1	-	-	See Delta Marker method data
Hori	3190.425	AV	34.2	28.5	3.3	31.8	34.2	53.9	19.7	
Hori	4960.000	AV	28.9	31.3	5.4	31.4	34.2	53.9	19.7	
Hori	6377.230	AV	29.3	34.0	5.7	31.9	37.1	53.9	16.8	
Hori	7440.000	AV	30.0	36.3	5.7	32.4	39.6	53.9	14.3	
Hori	9920.000	AV	30.1	38.3	7.1	33.0	42.5	53.9	11.4	
Hori	24800.000	AV	35.7	38.4	-1.0	31.5	41.6	53.9	12.3	
Vert	1597.364	PK	58.4	25.4	2.5	33.1	53.2	73.9	20.7	
Vert	1620.920	PK	61.2	25.5	2.5	33.1	56.1	73.9	17.8	
Vert	1947.250	PK	66.2	25.9	2.7	32.4	62.4	73.9	11.5	
Vert	2483.500	PK	68.9	26.9	2.9	32.1	66.6	-	-	See Delta Marker method data
Vert	3190.425	PK	51.0	28.5	3.3	31.8	51.0	73.9	22.9	
Vert	4960.000	PK	40.5	31.3	5.4	31.4	45.8	73.9	28.1	
Vert	6391.693	PK	44.7	34.1	5.7	31.9	52.6	73.9	21.3	
Vert	7440.000	PK	42.2	36.3	5.7	32.4	51.8	73.9	22.1	
Vert	9920.000	PK	42.3	38.3	7.1	33.0	54.7	73.9	19.2	
Vert	24800.000	PK	48.5	38.4	-1.0	31.5	54.4	73.9	19.5	
Vert	1597.364	AV	43.1	25.4	2.5	33.1	37.9	53.9	16.0	
Vert	1620.920	AV	33.1	25.5	2.5	33.1	28.0	53.9	25.9	
Vert	1947.250	AV	34.3	25.9	2.7	32.4	30.5	53.9	23.4	
Vert	2483.500	AV	55.8	26.9	2.9	32.1	53.5	-	-	See Delta Marker method data
Vert	3190.425	AV	33.5	28.5	3.3	31.8	33.5	53.9	20.4	
Vert	4960.000	AV	28.6	31.3	5.4	31.4	33.9	53.9	20.0	
Vert	6391.693	AV	30.9	34.1	5.7	31.9	38.8	53.9	15.1	
Vert	7440.000	AV	30.1	36.3	5.7	32.4	39.7	53.9	14.2	
Vert	9920.000	AV	30.1	38.3	7.1	33.0	42.5	53.9	11.4	
Vert	24800.000	AV	35.9	38.4	-1.0	31.5	41.8	53.9	12.1	

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

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

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

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

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Radiated Spurious Emission
(Marker-Delta Method data)

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	30IE0279-HO-01	
Date	05/11/2010	05/17/2010
Temperature/ Humidity	22 deg.C./ 45%	22 deg.C./ 52%
Engineer	Hiroshi Kukita (1-10GHz)	Takeshi Choda (1-10GHz)
Mode	Tx, 3DH5 2480MHz, Ant:2	

Marker-Delta Method (RBW:30kHz)

No.	FREQ	Field strength of band-edge*		ANT	AMP	CABLE	ATT	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS		HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
PK DETECT												
3	2483.5	55.2	56.0	26.9	32.1	2.9	0.0	52.9	53.7	74.0	21.1	20.3
AV DETECT												
3	2483.5	50.7	51.2	26.9	32.1	2.9	0.0	48.4	48.9	54.0	5.6	5.1

*Reference data
S/A Reading

		Polarity	Hor [dBuV]		Ver [dBuV]	
		Detector	PK	AV	PK	AV
		RBW \ VBW	3MHz	270Hz	3MHz	270Hz
Step 1)	Fundamental(2480MHz)	1MHz	104.8	100.3	105.5	100.7
Step 2)	Fundamental(2480MHz)	30kHz	103.7	-	104.5	-
	Band-edge(2483.5MHz)	30kHz	54.1	-	55.0	-
	Amplitude delta *1	-	49.6	49.6	49.5	49.5
Step 3)	Field strength of band-edge *2	-	55.2	50.7	56.0	51.2

*1 Amplitude delta = Fundamental(RBW:30kHz) - Band-edge(RBW:30kHz)
*2 Field strength of band-edge = Fundamental(RBW:1MHz) - Amplitude delta

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/12/2010
Temperature/ Humidity	23 deg.C./ 48%
Engineer	Tomotaka Sasagawa
	(30-1000MHz)
Mode	Rx, 2441MHz, Ant:1

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	36.003	QP	28.9	16.2	7.1	32.0	20.2	40.0	19.8	
Hori	76.812	QP	53.0	6.5	7.7	32.1	35.1	40.0	4.9	
Hori	250.049	QP	43.5	17.4	9.3	31.9	38.3	46.0	7.7	
Hori	312.833	QP	42.8	14.5	9.7	31.9	35.1	46.0	10.9	
Hori	499.498	QP	36.2	18.2	10.9	32.0	33.3	46.0	12.7	
Hori	959.993	QP	33.2	22.5	13.2	31.1	37.8	46.0	8.2	
Vert	35.850	QP	41.1	16.2	7.1	32.0	32.4	40.0	7.6	
Vert	80.410	QP	45.3	6.6	7.7	32.1	27.5	40.0	12.5	
Vert	250.049	QP	39.8	17.4	9.3	31.9	34.6	46.0	11.4	
Vert	312.833	QP	43.3	14.5	9.7	31.9	35.6	46.0	10.4	
Vert	498.332	QP	38.9	18.2	10.9	32.0	36.0	46.0	10.0	
Vert	959.943	QP	32.9	22.5	13.2	31.1	37.5	46.0	8.5	

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

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

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/18/2010
Temperature/ Humidity	23 deg.C./ 49%
Engineer	Takumi Shimada
	(1-10GHz)
Mode	Rx, 2441MHz, Ant:1

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1594.837	PK	55.9	25.4	2.5	33.1	50.7	73.9	23.2	
Hori	1620.358	PK	56.3	25.5	2.5	33.1	51.2	73.9	22.7	
Hori	1945.844	PK	62.5	25.9	2.7	32.4	58.7	73.9	15.2	
Hori	3190.459	PK	48.2	28.5	3.3	31.8	48.2	73.9	25.7	
Hori	4882.000	PK	42.3	31.1	3.9	31.4	45.9	73.9	28.0	
Hori	6393.486	PK	43.2	34.1	4.3	31.9	49.7	73.9	24.2	
Hori	7323.000	PK	44.3	36.1	4.3	32.4	52.3	73.9	21.6	
Hori	1594.837	AV	39.2	25.4	2.5	33.1	34.0	53.9	19.9	
Hori	1620.358	AV	32.1	25.5	2.5	33.1	27.0	53.9	26.9	
Hori	1945.844	AV	32.3	25.9	2.7	32.4	28.5	53.9	25.4	
Hori	3190.459	AV	33.2	28.5	3.3	31.8	33.2	53.9	20.7	
Hori	4882.000	AV	29.5	31.1	3.9	31.4	33.1	53.9	20.8	
Hori	6393.486	AV	29.8	34.1	4.3	31.9	36.3	53.9	17.6	
Hori	7323.000	AV	30.2	36.1	4.3	32.4	38.2	53.9	15.7	
Vert	1597.328	PK	57.1	25.4	2.5	33.1	51.9	73.9	22.0	
Vert	1620.583	PK	53.8	25.5	2.5	33.1	48.7	73.9	25.2	
Vert	1943.535	PK	66.5	25.9	2.7	32.4	62.7	73.9	11.2	
Vert	3190.432	PK	50.1	28.5	3.3	31.8	50.1	73.9	23.8	
Vert	4882.000	PK	43.0	31.1	3.9	31.4	46.6	73.9	27.3	
Vert	6380.359	PK	44.3	34.0	4.3	31.9	50.7	73.9	23.2	
Vert	7323.000	PK	42.3	36.1	4.3	32.4	50.3	73.9	23.6	
Vert	1597.328	AV	42.2	25.4	2.5	33.1	37.0	53.9	16.9	
Vert	1620.583	AV	36.9	25.5	2.5	33.1	31.8	53.9	22.1	
Vert	1943.535	AV	34.4	25.9	2.7	32.4	30.6	53.9	23.3	
Vert	3190.432	AV	33.9	28.5	3.3	31.8	33.9	53.9	20.0	
Vert	4882.000	AV	29.3	31.1	3.9	31.4	32.9	53.9	21.0	
Vert	6380.359	AV	30.1	34.0	4.3	31.9	36.5	53.9	17.4	
Vert	7323.000	AV	30.1	36.1	4.3	32.4	38.1	53.9	15.8	

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

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

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/12/2010
Temperature/ Humidity	23 deg.C./ 48%
Engineer	Tomotaka Sasagawa
	(30-1000MHz)
Mode	Rx, 2441MHz, Ant:2

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	36.003	QP	27.8	16.2	7.1	32.0	19.1	40.0	20.9	
Hori	76.842	QP	53.4	6.5	7.7	32.1	35.5	40.0	4.5	
Hori	250.049	QP	43.1	17.4	9.3	31.9	37.9	46.0	8.1	
Hori	311.667	QP	41.9	14.5	9.7	31.9	34.2	46.0	11.8	
Hori	499.498	QP	36.8	18.2	10.9	32.0	33.9	46.0	12.1	
Hori	959.994	QP	32.1	22.5	13.2	31.1	36.7	46.0	9.3	
Vert	35.850	QP	41.2	16.2	7.1	32.0	32.5	40.0	7.5	
Vert	80.412	QP	44.9	6.6	7.7	32.1	27.1	40.0	12.9	
Vert	250.049	QP	38.9	17.4	9.3	31.9	33.7	46.0	12.3	
Vert	310.500	QP	44.9	14.4	9.7	31.9	37.1	46.0	8.9	
Vert	498.332	QP	38.7	18.2	10.9	32.0	35.8	46.0	10.2	
Vert	959.931	QP	32.9	22.5	13.2	31.1	37.5	46.0	8.5	

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

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

Radiated Spurious Emission

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30IE0279-HO-01
Date	05/11/2010
Temperature/ Humidity	22 deg.C./ 45%
Engineer	Hiroshi Kukita
	(1-10GHz)
Mode	Rx, 2441MHz, Ant:2

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1598.321	PK	58.0	25.4	2.5	33.1	52.8	73.9	21.1	
Hori	1621.540	PK	56.0	25.5	2.5	33.1	50.9	73.9	23.0	
Hori	1943.033	PK	60.1	25.9	2.7	32.4	56.3	73.9	17.6	
Hori	2441.000	PK	42.6	26.8	2.9	32.1	40.2	73.9	33.7	
Hori	2442.583	PK	43.8	26.8	2.9	32.1	41.4	73.9	32.5	
Hori	3191.752	PK	47.9	28.5	3.3	31.8	47.9	73.9	26.0	
Hori	4882.000	PK	41.2	31.1	3.9	31.4	44.8	73.9	29.1	
Hori	6387.450	PK	41.4	34.0	4.3	31.9	47.8	73.9	26.1	
Hori	7323.000	PK	41.3	36.1	4.3	32.4	49.3	73.9	24.6	
Hori	1598.321	AV	43.7	25.4	2.5	33.1	38.5	53.9	15.4	
Hori	1621.540	AV	33.1	25.5	2.5	33.1	28.0	53.9	25.9	
Hori	1943.033	AV	32.1	25.9	2.7	32.4	28.3	53.9	25.6	
Hori	2441.000	AV	30.3	26.8	2.9	32.1	27.9	53.9	26.0	
Hori	2442.583	AV	31.9	26.8	2.9	32.1	29.5	53.9	24.5	
Hori	3191.752	AV	34.2	28.5	3.3	31.8	34.2	53.9	19.7	
Hori	4882.000	AV	28.8	31.1	3.9	31.4	32.4	53.9	21.5	
Hori	6387.450	AV	29.0	34.0	4.3	31.9	35.4	53.9	18.5	
Hori	7323.000	AV	30.0	36.1	4.3	32.4	38.0	53.9	15.9	
Vert	1598.321	PK	58.9	25.4	2.5	33.1	53.7	73.9	20.2	
Vert	1621.540	PK	57.0	25.5	2.5	33.1	51.9	73.9	22.0	
Vert	1943.033	PK	67.6	25.9	2.7	32.4	63.8	73.9	10.1	
Vert	2441.000	PK	42.4	26.8	2.9	32.1	40.0	73.9	33.9	
Vert	2442.583	PK	43.4	26.8	2.9	32.1	41.0	73.9	32.9	
Vert	3191.752	PK	49.4	28.5	3.3	31.8	49.4	73.9	24.5	
Vert	4882.000	PK	41.0	31.1	3.9	31.4	44.6	73.9	29.3	
Vert	6387.450	PK	44.7	34.0	4.3	31.9	51.1	73.9	22.8	
Vert	7323.000	PK	42.4	36.1	4.3	32.4	50.4	73.9	23.5	
Vert	1598.321	AV	43.0	25.4	2.5	33.1	37.8	53.9	16.1	
Vert	1621.540	AV	39.8	25.5	2.5	33.1	34.7	53.9	19.2	
Vert	1943.033	AV	34.9	25.9	2.7	32.4	31.1	53.9	22.8	
Vert	2441.000	AV	30.2	26.8	2.9	32.1	27.8	53.9	26.1	
Vert	2442.583	AV	34.1	26.8	2.9	32.1	31.7	53.9	22.2	
Vert	3191.752	AV	32.8	28.5	3.3	31.8	32.8	53.9	21.1	
Vert	4882.000	AV	29.0	31.1	3.9	31.4	32.6	53.9	21.3	
Vert	6387.450	AV	30.9	34.0	4.3	31.9	37.3	53.9	16.6	
Vert	7323.000	AV	30.1	36.1	5.7	32.4	39.5	53.9	14.4	

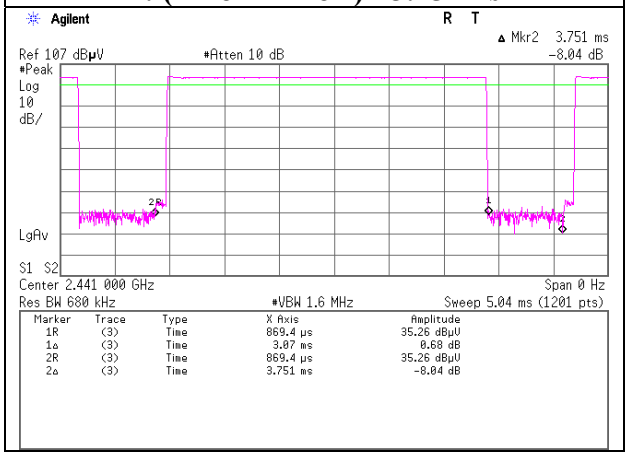
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

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

VBW (AV) Calculation

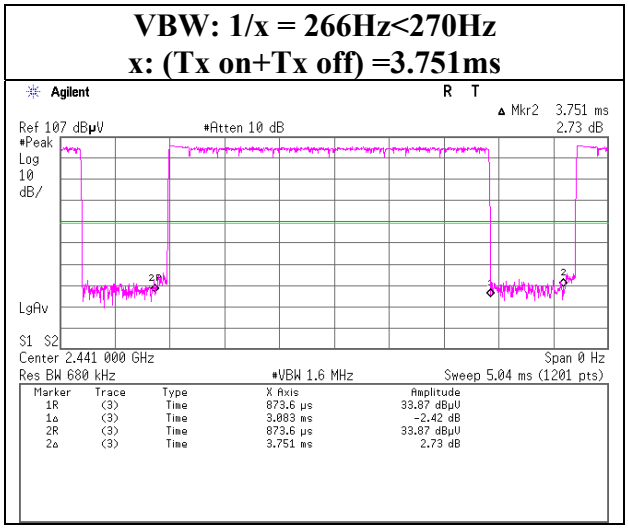
DH5

VBW: 1/x = 266Hz<270Hz
x: (Tx on+Tx off) =3.751ms



3DH5

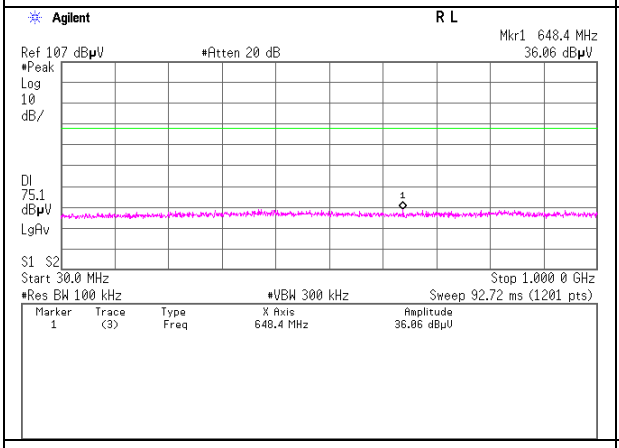
VBW: 1/x = 266Hz<270Hz
x: (Tx on+Tx off) =3.751ms



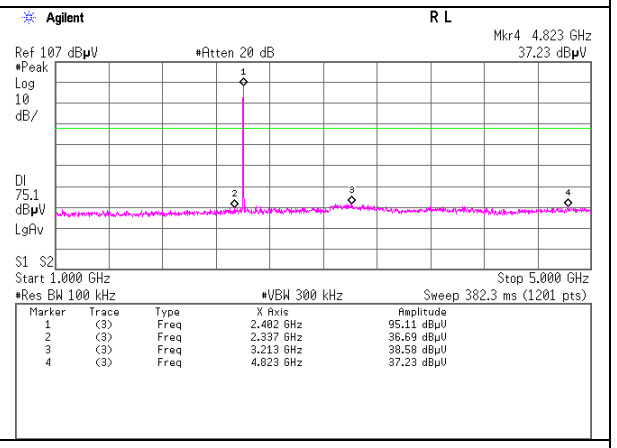
Conducted Spurious Emission

Tx DH5 2402MHz

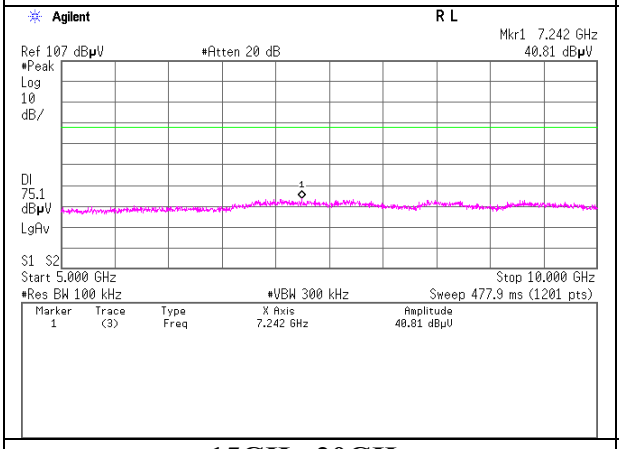
30MHz-1GHz



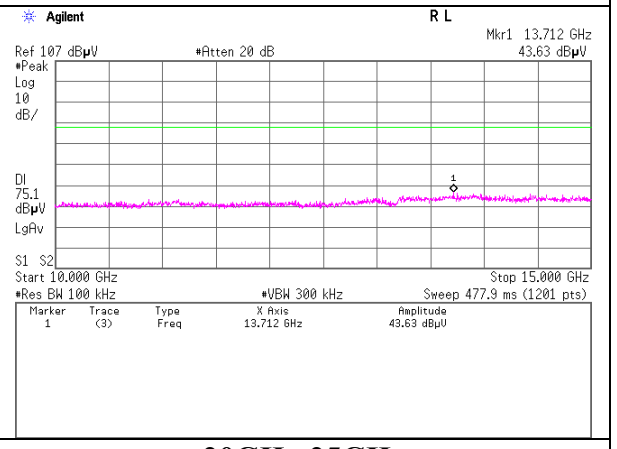
1GHz-5GHz



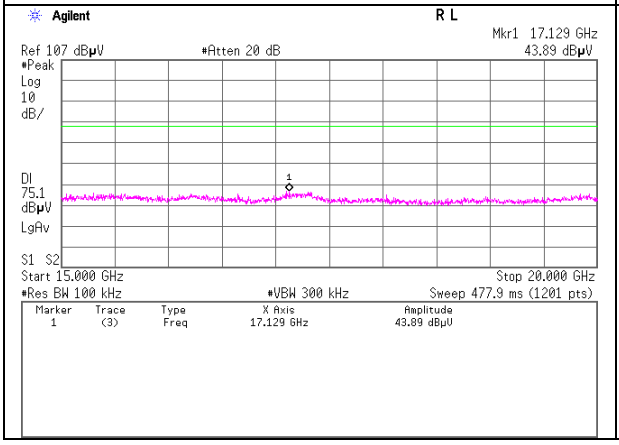
5GHz-10GHz



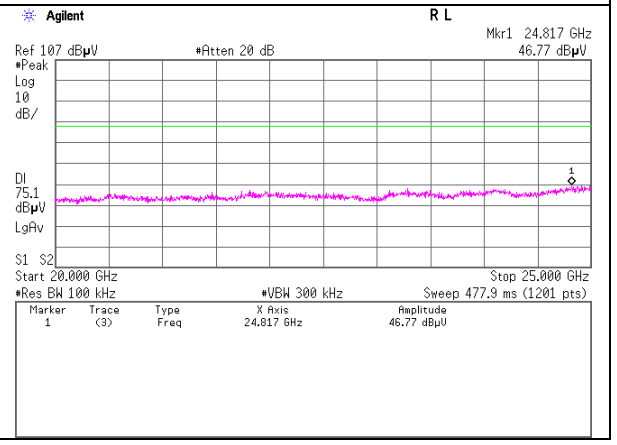
10GHz-15GHz



15GHz-20GHz



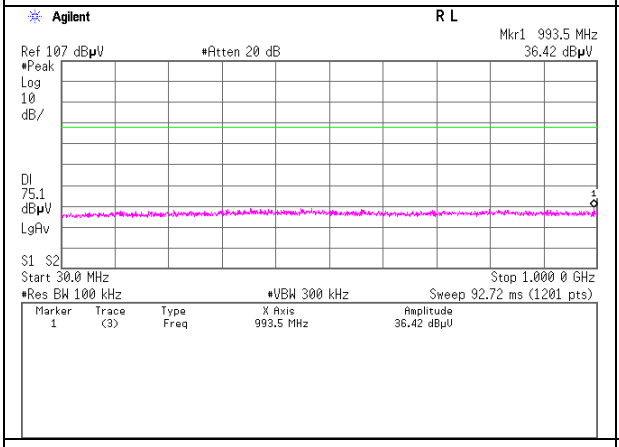
20GHz-25GHz



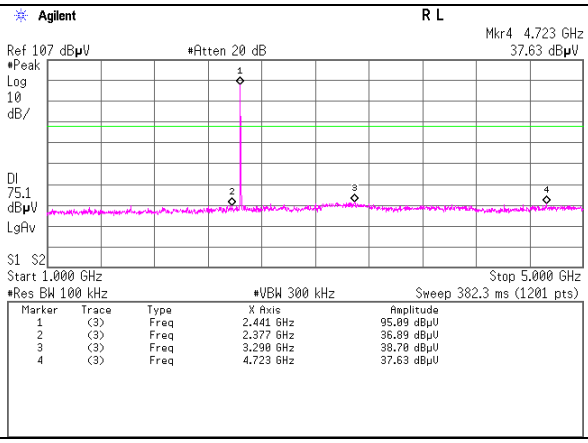
Conducted Spurious Emission

Tx DH5 2441MHz

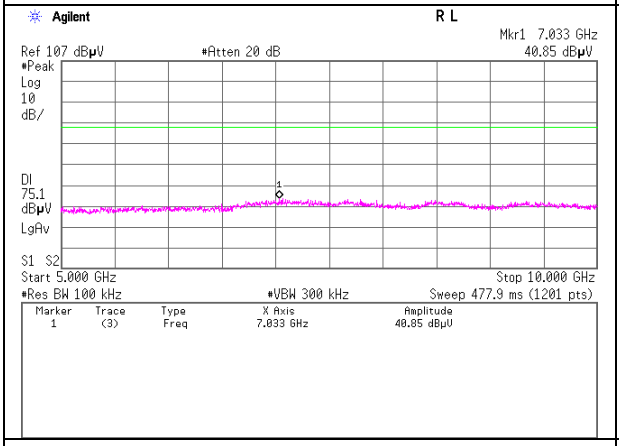
30MHz-1GHz



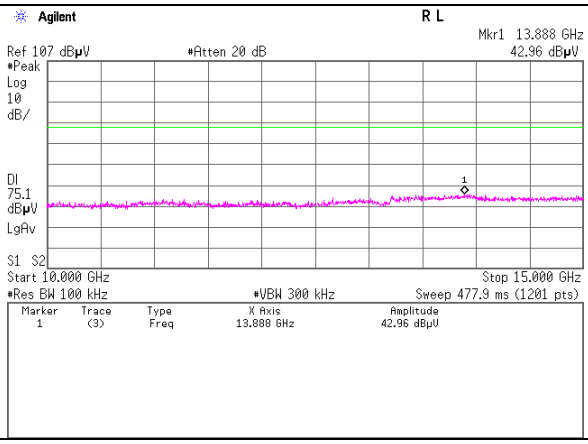
1GHz-5GHz



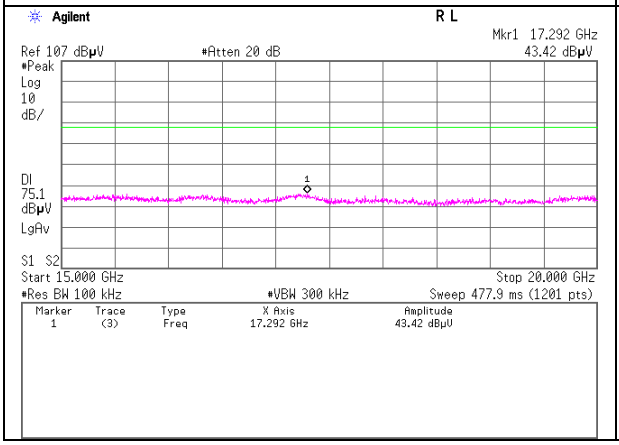
5GHz-10GHz



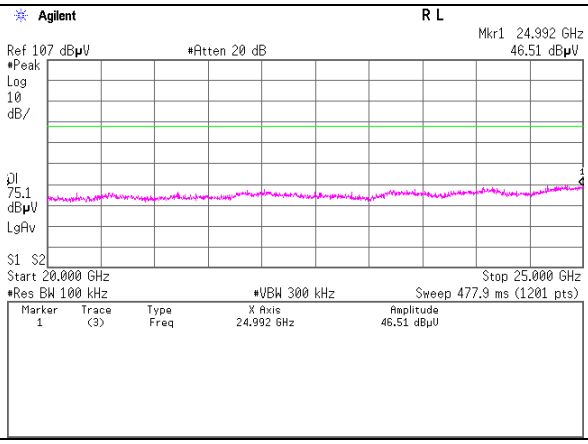
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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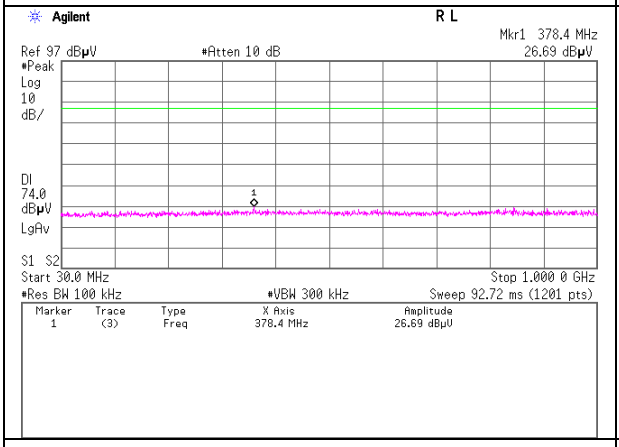
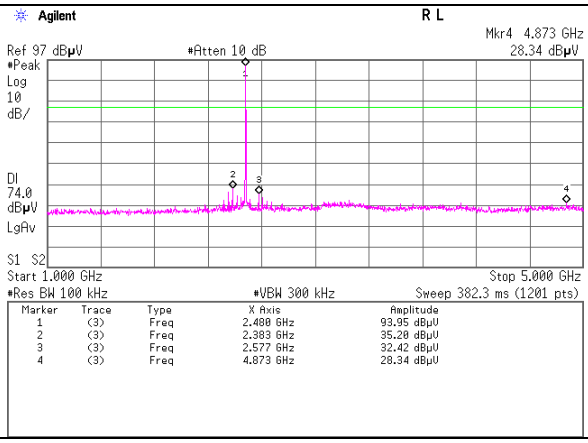
Conducted Spurious Emission

Tx DH5 2480MHz

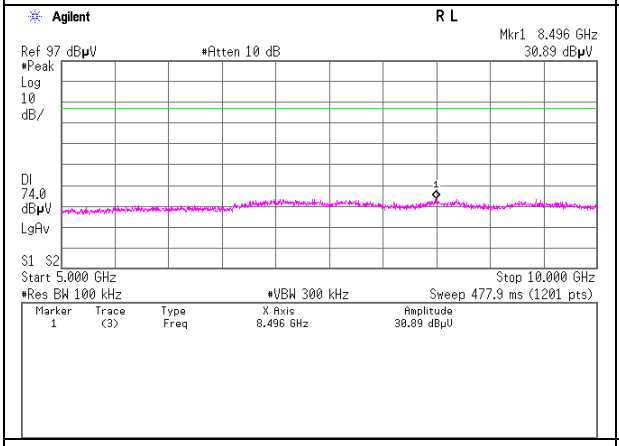
30MHz-1GHz



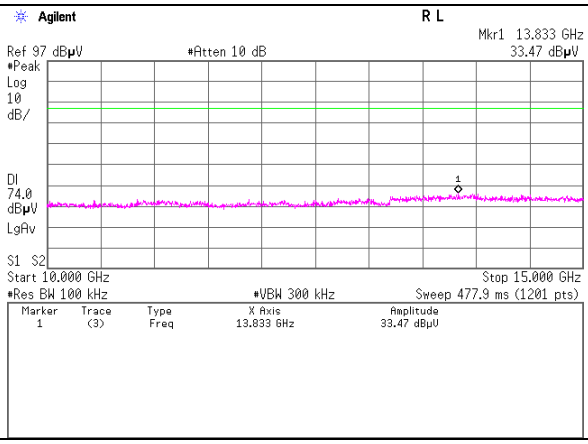
1GHz-5GHz



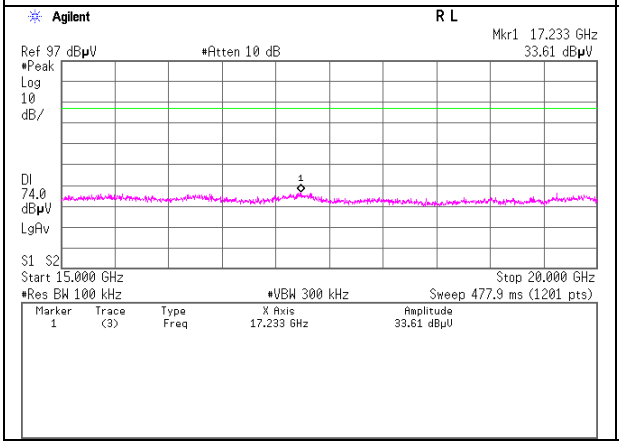
5GHz-10GHz



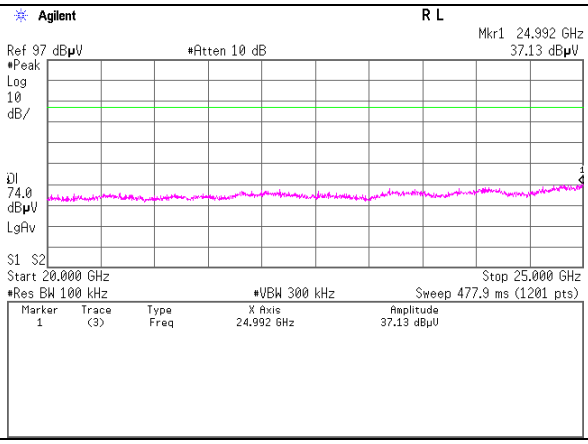
10GHz-15GHz



15GHz-20GHz



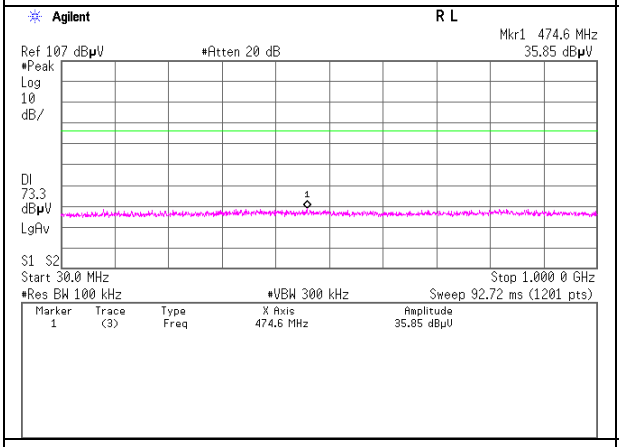
20GHz-25GHz



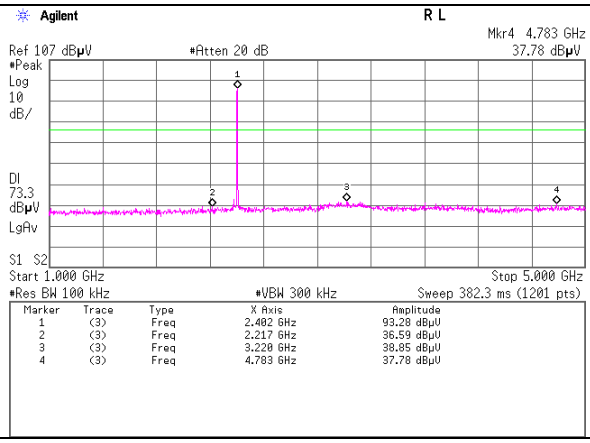
Conducted Spurious Emission

Tx 3DH5 2402MHz

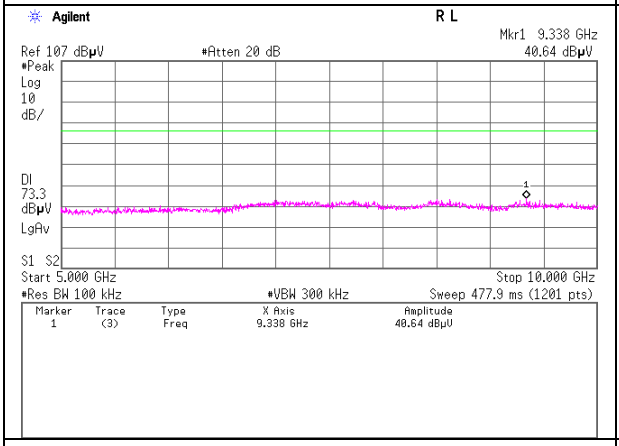
30MHz-1GHz



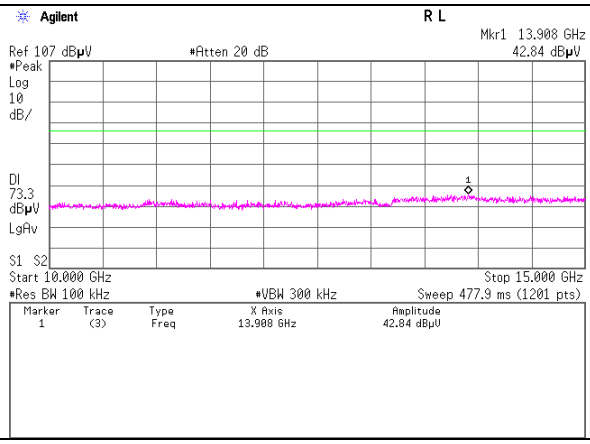
1GHz-5GHz



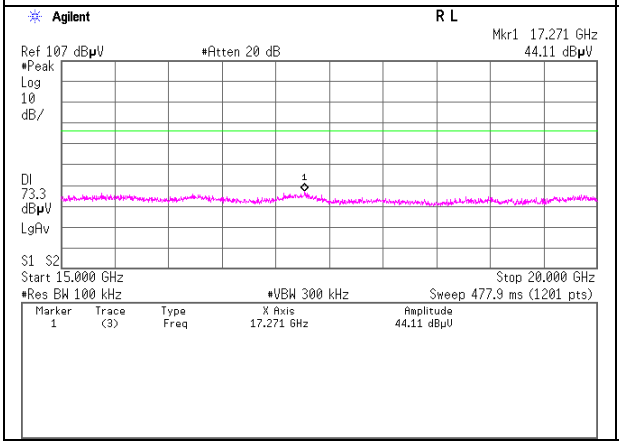
5GHz-10GHz



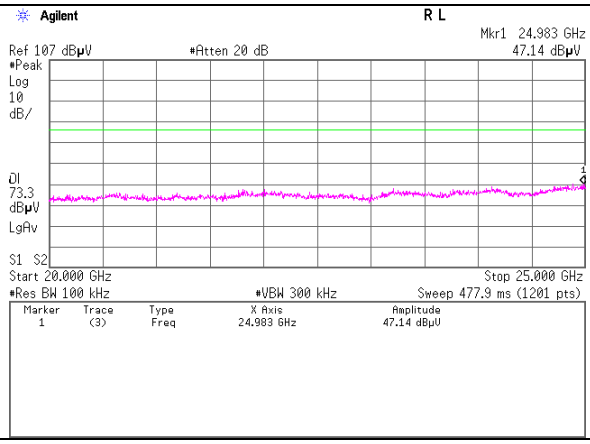
10GHz-15GHz



15GHz-20GHz



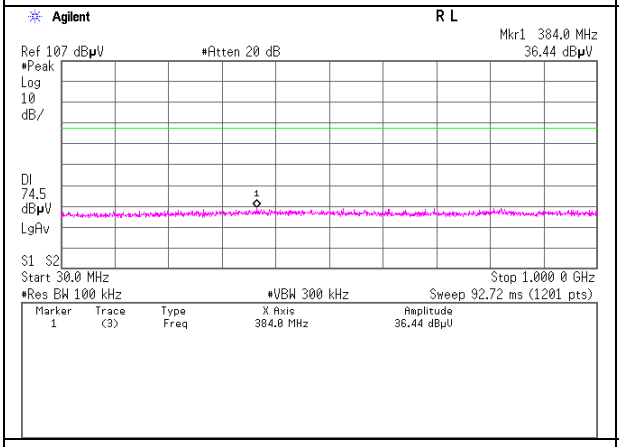
20GHz-25GHz



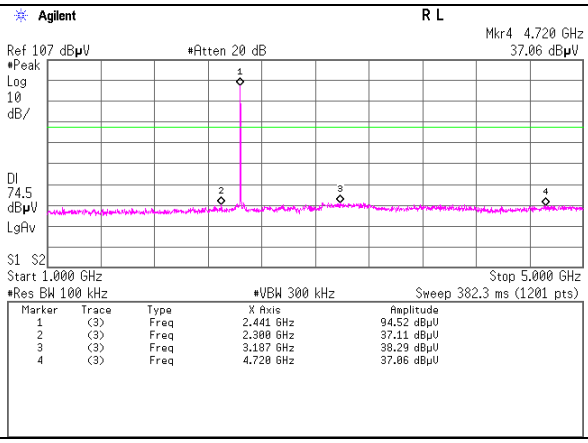
Conducted Spurious Emission

Tx 3DH5 2441MHz

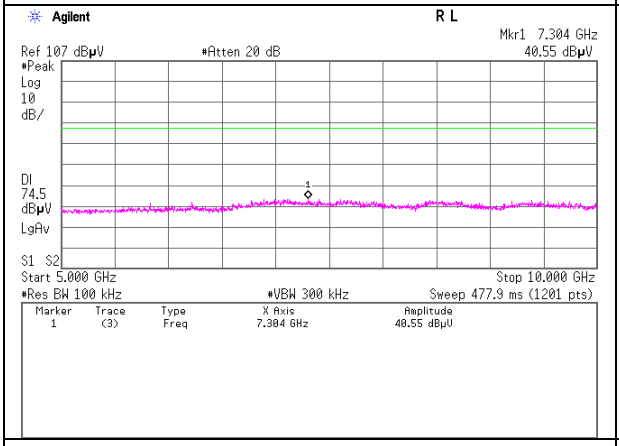
30MHz-1GHz



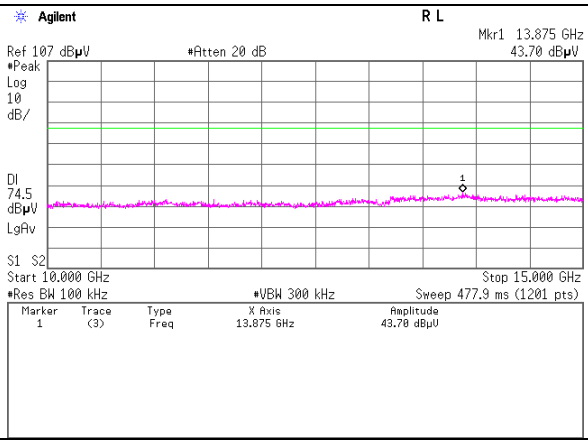
1GHz-5GHz



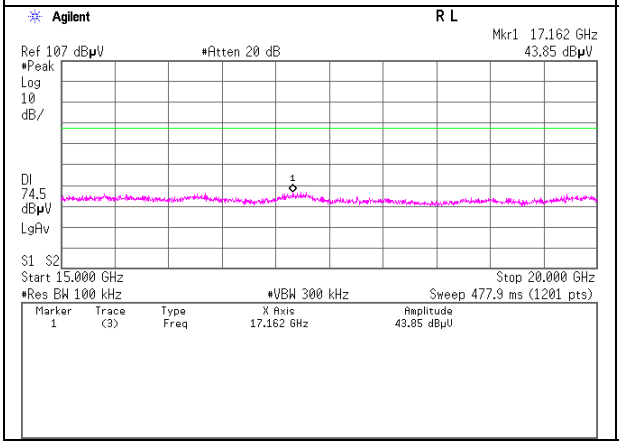
5GHz-10GHz



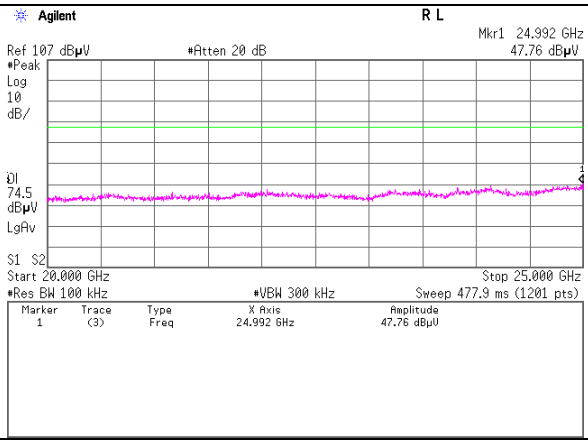
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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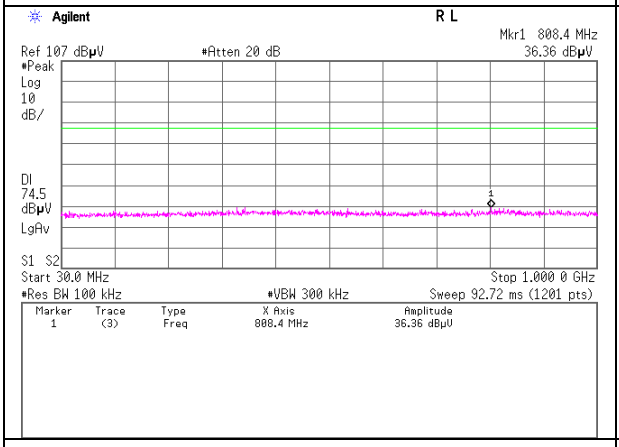
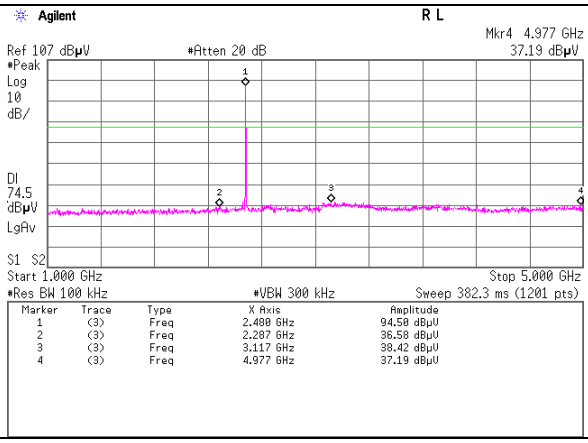
Conducted Spurious Emission

Tx 3DH5 2480MHz

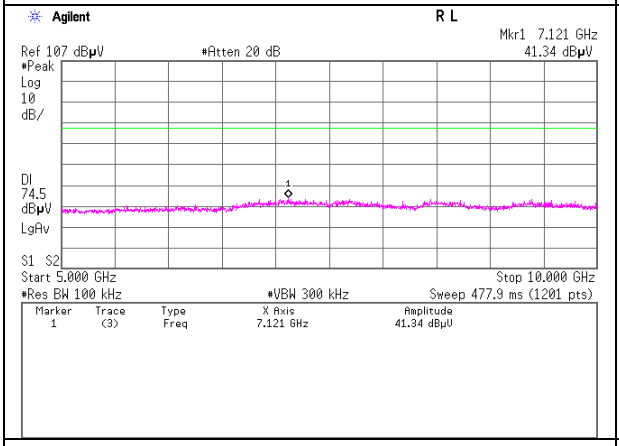
30MHz-1GHz



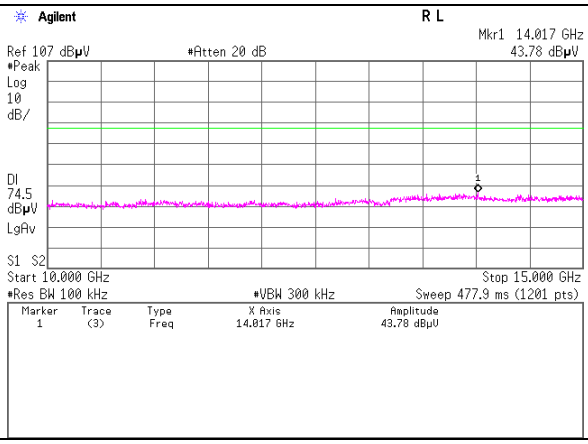
1GHz-5GHz



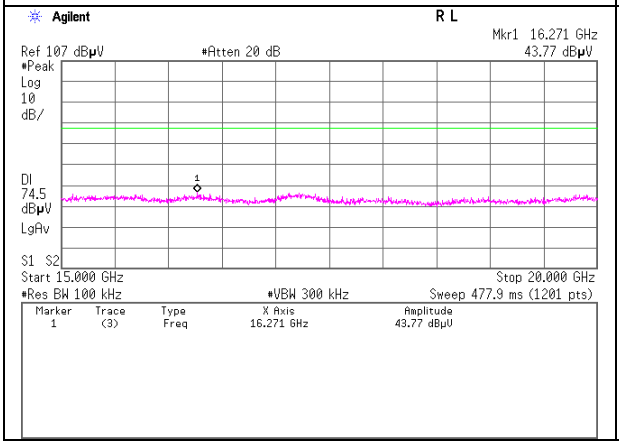
5GHz-10GHz



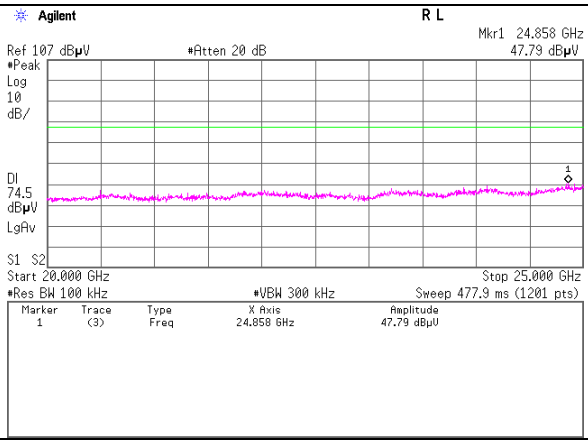
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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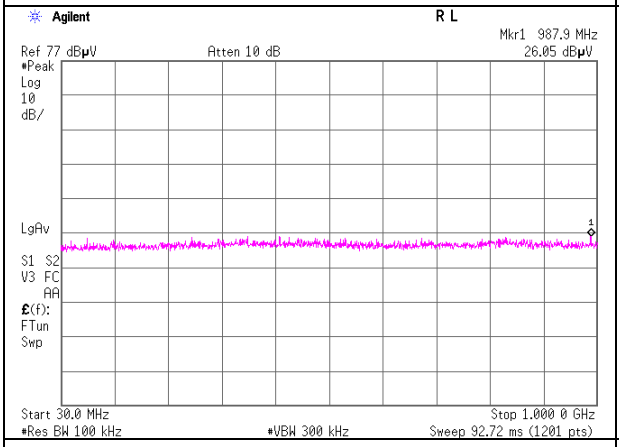
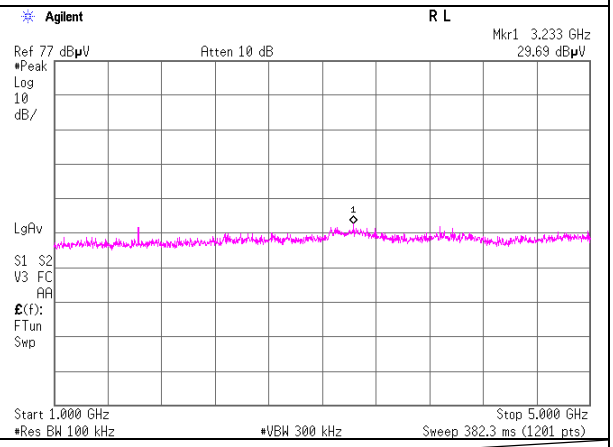
Conducted Spurious Emission

Rx 2441MHz

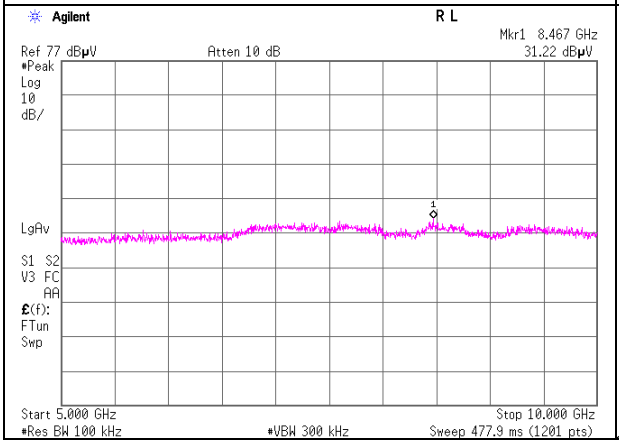
30MHz-1GHz



1GHz-5GHz



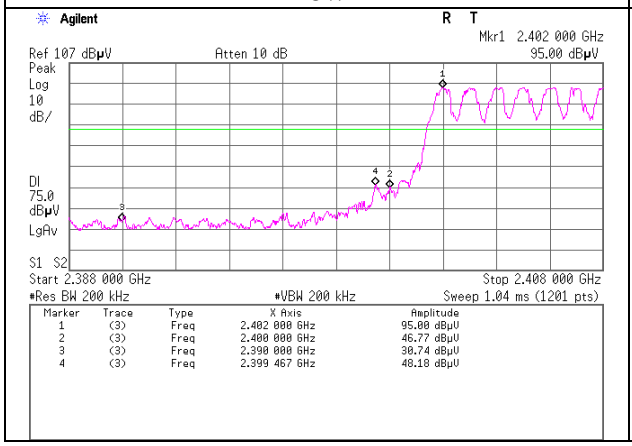
5GHz-10GHz



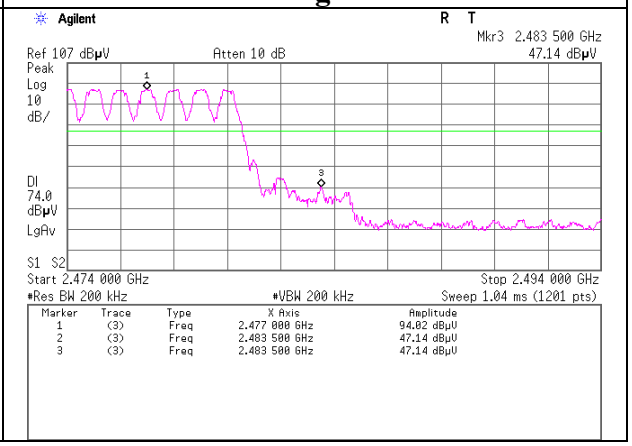
Conducted Emission Band Edge compliance

Tx DH5, Hopping on

Low

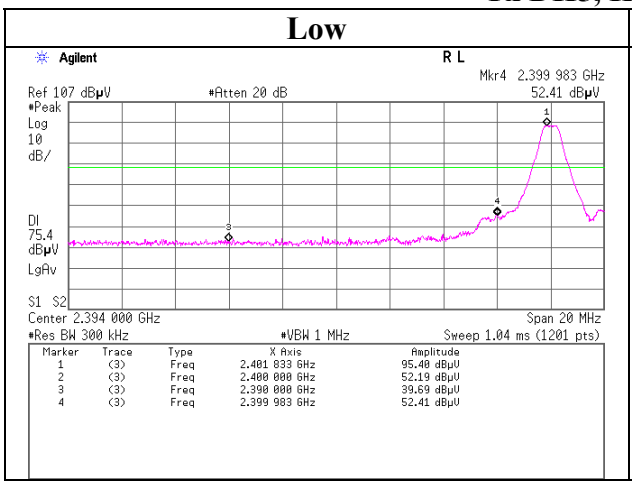


High

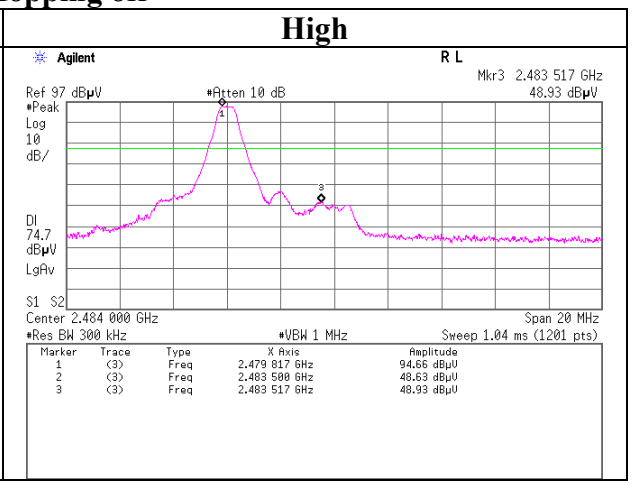


Tx DH5, Hopping off

Low



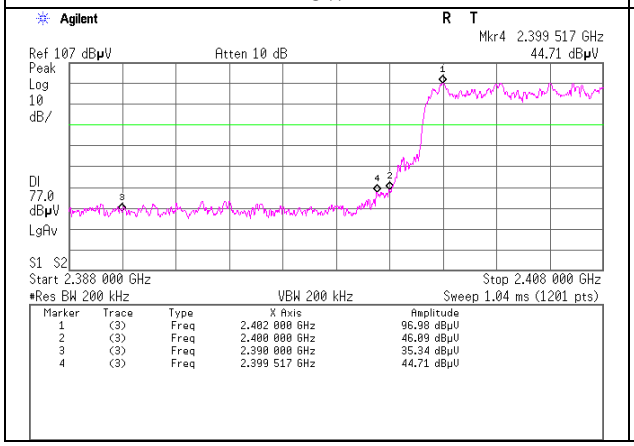
High



Conducted Emission Band Edge compliance

Tx 3DH5, Hopping on

Low



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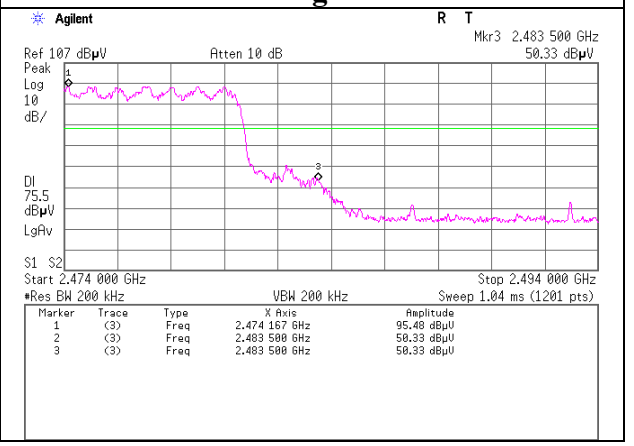
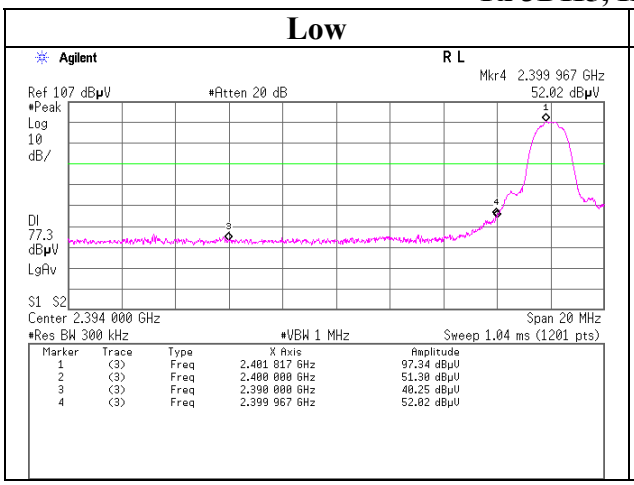
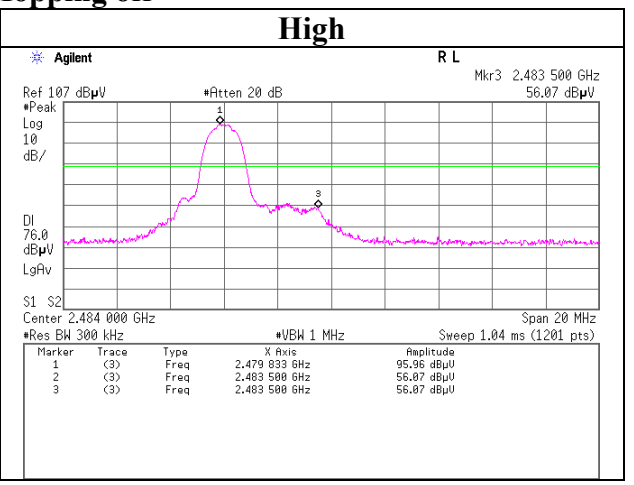


Tx 3DH5, Hopping off

Low



High



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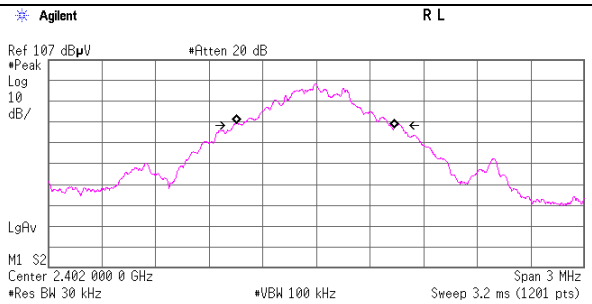
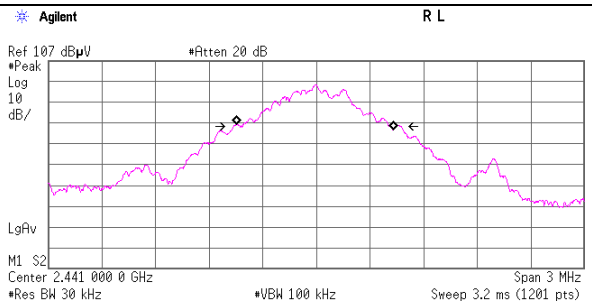
99%Occupied Bandwidth

Tx DH5, Hopping off

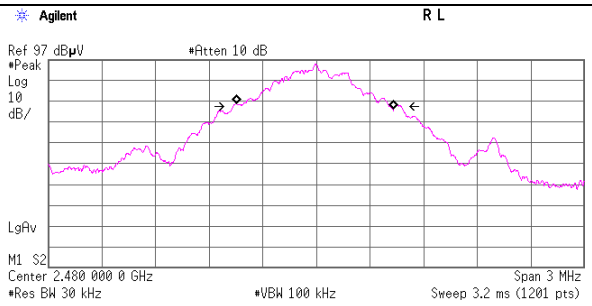
2402MHz



2441MHz

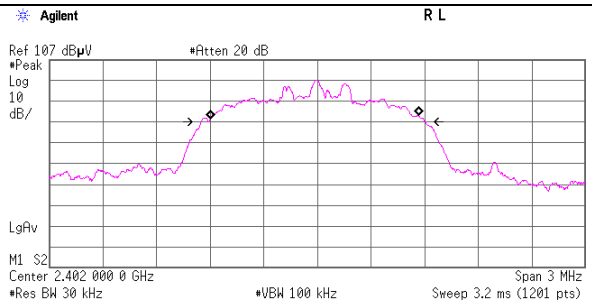


2480MHz

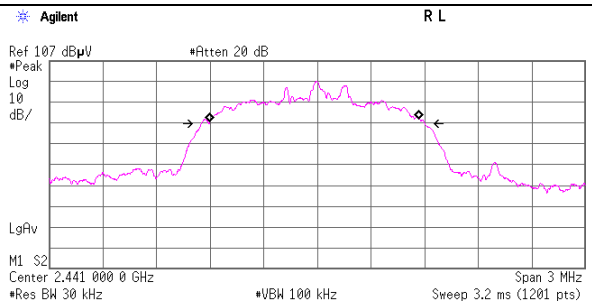


Tx 3DH5, Hopping off

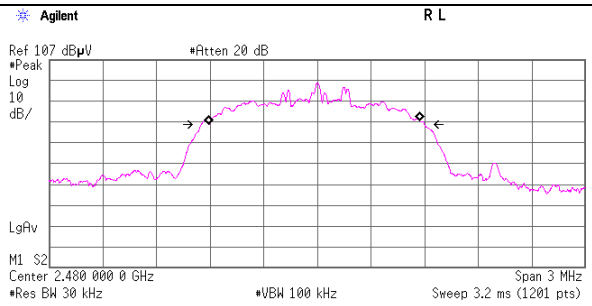
2402MHz



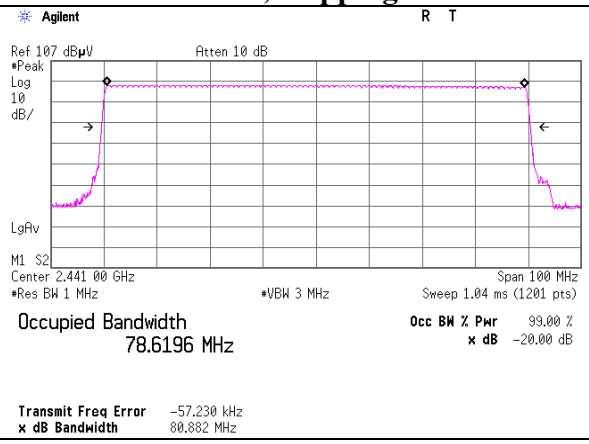
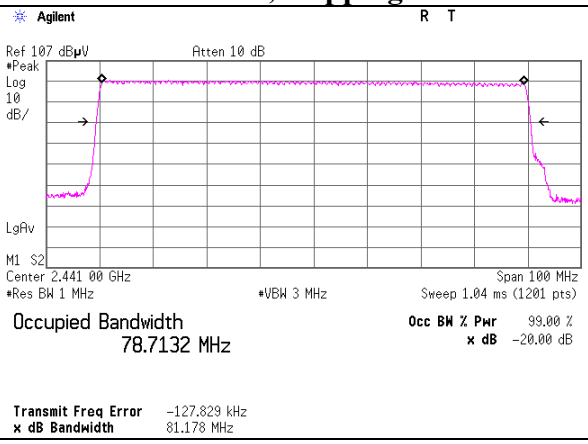
2441MHz



2480MHz



99% Occupied Bandwidth

Tx DH5, Hopping on	Tx 3DH5, Hopping on
	

***Refer to 20dB Bandwidth for 99% Bandwidth inquiry mode.**

APPENDIX 3: Test instruments

EMI test equipment (1/2)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-04	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE	2010/02/02 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	-	RE	2010/02/09 * 12
MJM-07	Measure	PROMART	SEN1955	-	RE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE/CE	-
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	RE	2009/08/25 * 12
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	9120D-557	RE	2009/08/10 * 12
MCC-57	Microwave Cable	Suhner	SUCOFLEX104	246769(1m) / 292411(5m)	RE	2009/11/17 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	MY39500780	RE	2010/03/16 * 12
MHA-17	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	BBHA9170307	RE	2009/06/18 * 12
MCC-79	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	278923/4	RE	2009/12/19 * 12
MHF-20	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCC	607	RE	2009/12/19 * 12
MSA-05	Spectrum Analyzer	Advantest	R3273	160400285	RE/CE	2009/12/15 * 12
MTR-07	Test Receiver	Rohde & Schwarz	ESCI	100635	RE	2009/10/23 * 12
MBA-05	Biconical Antenna	Schwarzbeck	BBA9106	1302	RE	2010/03/22 * 12
KLA-04	Logperiodic Antenna	Schwarzbeck	USLP9143	361	RE	2009/07/12 * 12
MLA-08	Logperiodic Antenna	Schwarzbeck	UKLP9140-A	N/A	RE	2010/01/23 * 12
MCC-50	Coaxial cable	UL Japan	-	-	RE	2010/03/18 * 12
MAT-51	Attenuator(6dB)	Weinschel	2	AS3557	RE	2010/01/20 * 12
MPA-14	Pre Amplifier	SONOMA INSTRUMENT	310	260833	RE	2010/03/05 * 12
MAEC-02	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	CE	2009/08/17 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	0003	CE	2010/02/09 * 12
MJM-05	Measure	PROMART	SEN1955	-	CE	-
MSA-03	Spectrum Analyzer	Agilent	E4448A	MY44020357	CE	2009/11/20 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	100300	CE	2010/04/19 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	8127363	CE(EUT)	2010/02/04 * 12
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	8127364	CE(AE)	2010/02/05 * 12
MTA-31	Terminator	TME	CT-01	-	CE	2010/01/20 * 12
MCC-13	Coaxial Cable	Fujikura	3D-2W(12m)/5D-2W(5m)/5D-2W(0.8m)/5D-2W(1m)	-	CE	2010/02/22 * 12

EMI test equipment (2/2)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAT-65	Attenuator(13dB)	JFW Industries, Inc.	50FP-013H2 N	-	CE	2010/02/04 * 12
MPM-08	Power Meter	Anritsu	ML2495A	6K00003338	AT	2009/09/09 * 12
MPSE-11	Power sensor	Anritsu	MA2411B	011737	AT	2009/09/09 * 12
MAT-22	Attenuator(10dB) 1-18GHz	Orient Microwave	BX10-0476-00	-	AT	2010/03/01 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	MY44020357	AT	2009/11/20 * 12
MCC-66	Microwave Cable 1G-40GHz	Schner	SUCOFLEX102	28636/2	AT	2010/04/27 * 12
MOS-04	Digital Humidity Indicator	N.T	NT-1800	MOS04	AT	2010/02/09 * 12
MCC-113	Coaxial cable	Fujikura/Suhner/TSJ	5D-2W(10m)/SFM141(5m)/421-010(1m)/sucoform141-PE(1m)/RFM-E121(Switcher)	-/04178	CE	2009/07/01 * 12
MAT-67	Attenuator(13dB)	JFW Industries, Inc.	50FP-013H2 N	-	CE	2010/02/04 * 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: CE: Conducted Emission
RE: Radiated Emission
AT: Antenna Terminal Conducted test