DATA OF CONDUCTED EMISSION TEST

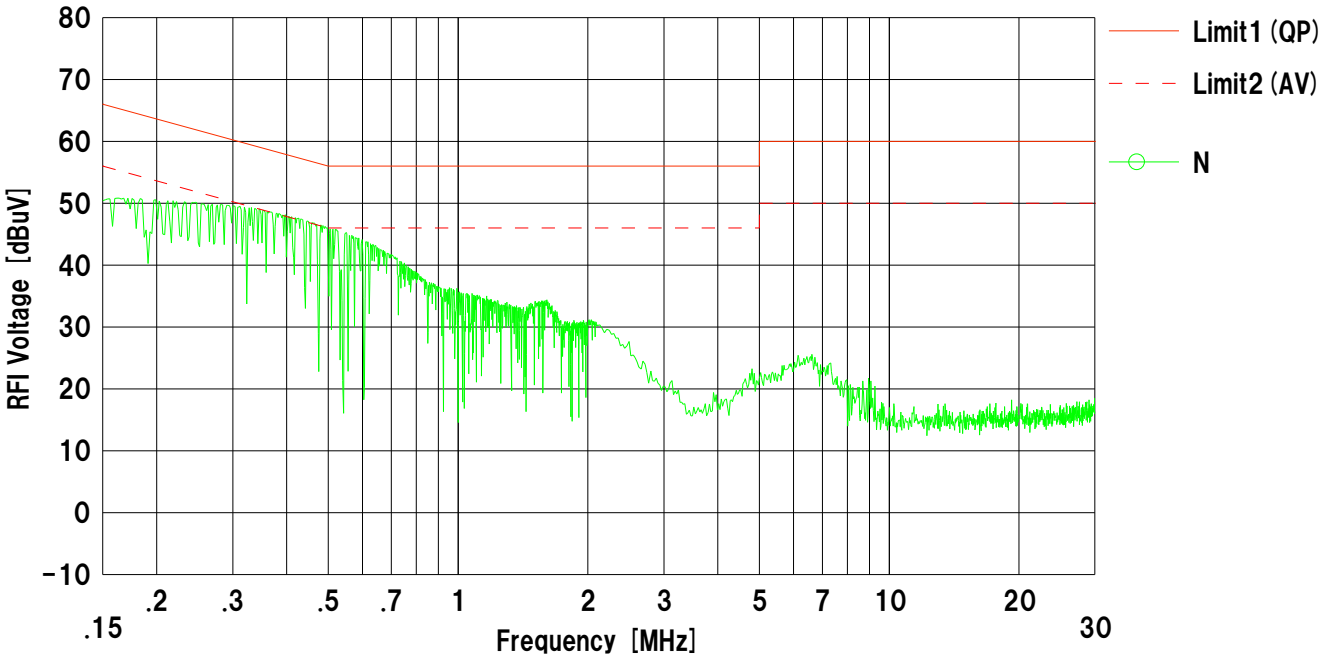
UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

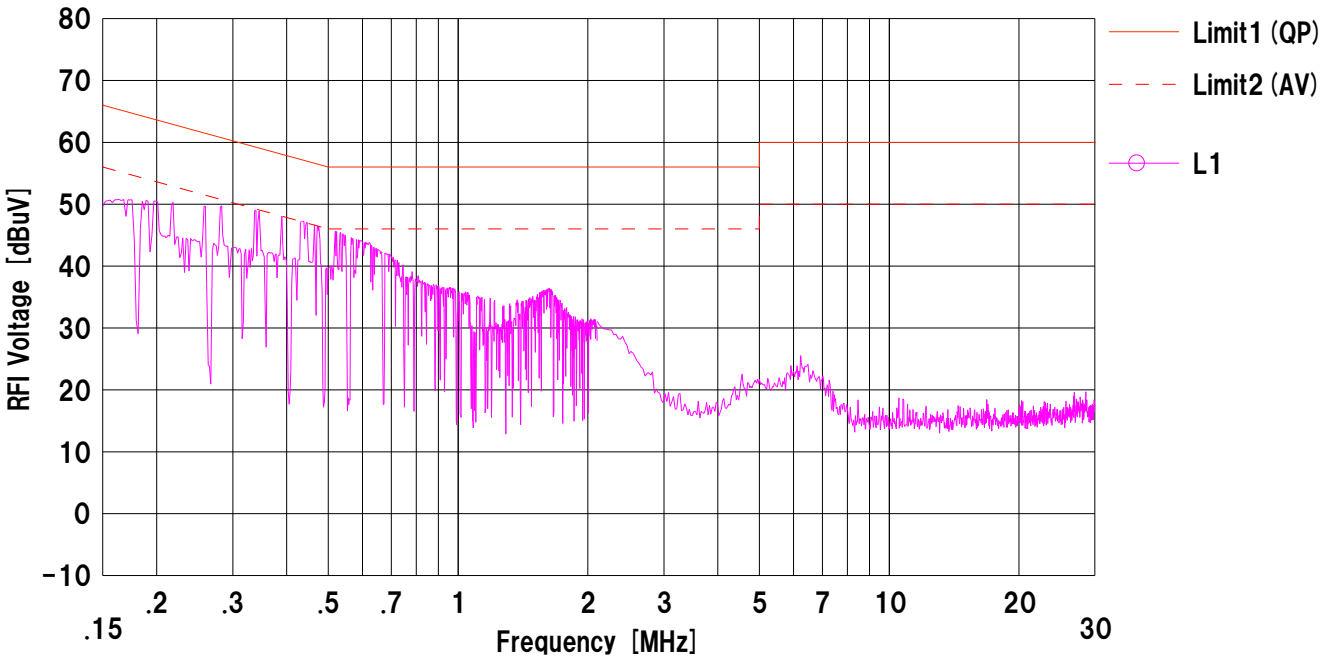
Company	: CANON INC.	Mode	: Tx 11a 5180MHz
Kind of EUT	: Wireless Module	Report No.	: 31CE0052-HO-01-K
Model No.	: CH9-1225	Power	: DC3.3V (AC120V/60Hz)
Serial No.	: ES4101	Temp./Humi.	: 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi





Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

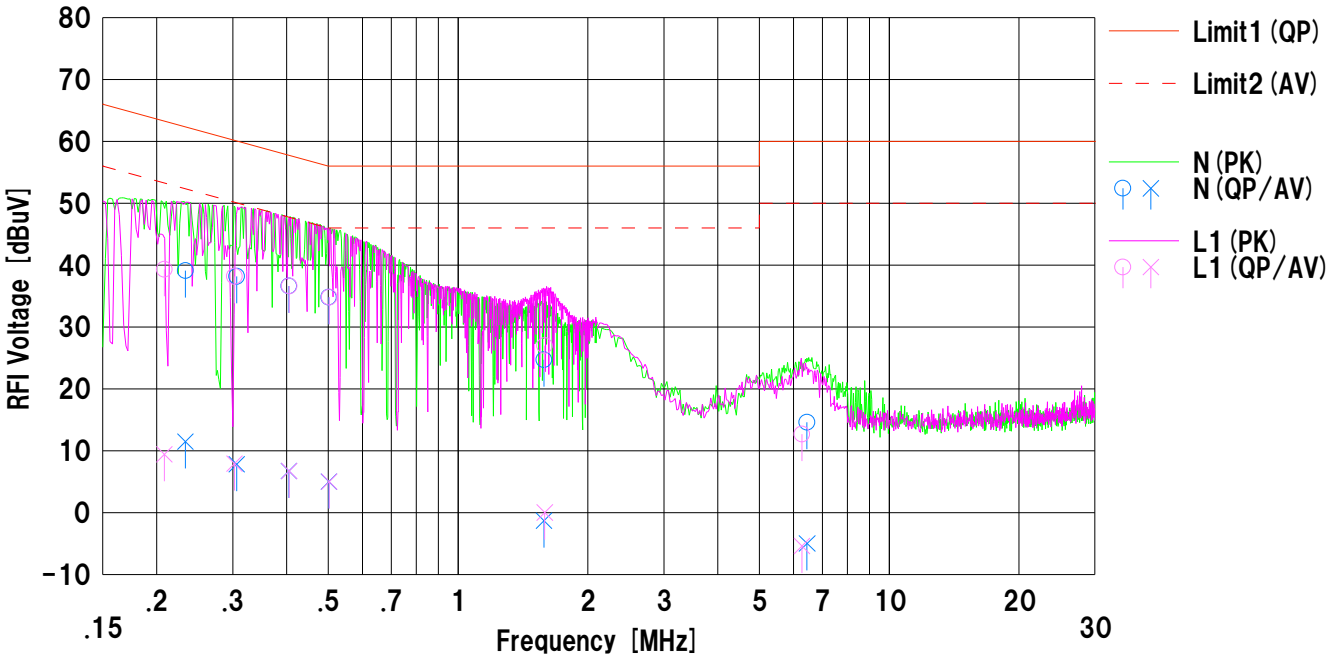
Company : CANON INC.
Kind of EUT : Wireless Module
Model No. : CH9-1225
Serial No. : ES4101

Mode : Tx 11a 5200MHz
Report No. : 31CE0052-HO-01-K
Power : DC3.3V (AC120V/60Hz)
Temp./Humi. : 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi



No.	Freq.	Reading <QP>	Reading <AV>	C.Fac	Results <QP>	Results <AV>	Limit <QP>	Limit <AV>	Margin <QP>	Margin <AV>	Phase	Comment
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	0.23314	26.5	-1.1	12.6	39.1	11.5	62.3	52.3	23.2	40.8	N	
2	0.30645	25.5	-4.9	12.7	38.2	7.8	60.0	50.0	21.8	42.2	N	
3	0.40513	23.9	-6.0	12.7	36.6	6.7	57.7	47.7	21.1	41.0	N	
4	0.50121	22.1	-7.7	12.7	34.8	5.0	56.0	46.0	21.2	41.0	N	
5	1.58160	11.9	-14.1	12.8	24.7	-1.3	56.0	46.0	31.3	47.3	N	
6	6.45420	1.5	-18.1	13.1	14.6	-5.0	60.0	50.0	45.4	55.0	N	
7	0.20823	26.7	-3.2	12.6	39.3	9.4	63.2	53.2	23.9	43.8	L1	
8	0.30260	25.5	-4.8	12.7	38.2	7.9	60.1	50.1	21.9	42.2	L1	
9	0.40545	23.9	-6.0	12.7	36.6	6.7	57.7	47.7	21.1	41.0	L1	
10	0.50254	22.1	-7.7	12.7	34.8	5.0	56.0	46.0	21.2	41.0	L1	
11	1.58850	14.2	-12.8	12.8	27.0	0.0	56.0	46.0	29.0	46.0	L1	
12	6.27130	-0.4	-18.5	13.1	12.7	-5.4	60.0	50.0	47.3	55.4	L1	

Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

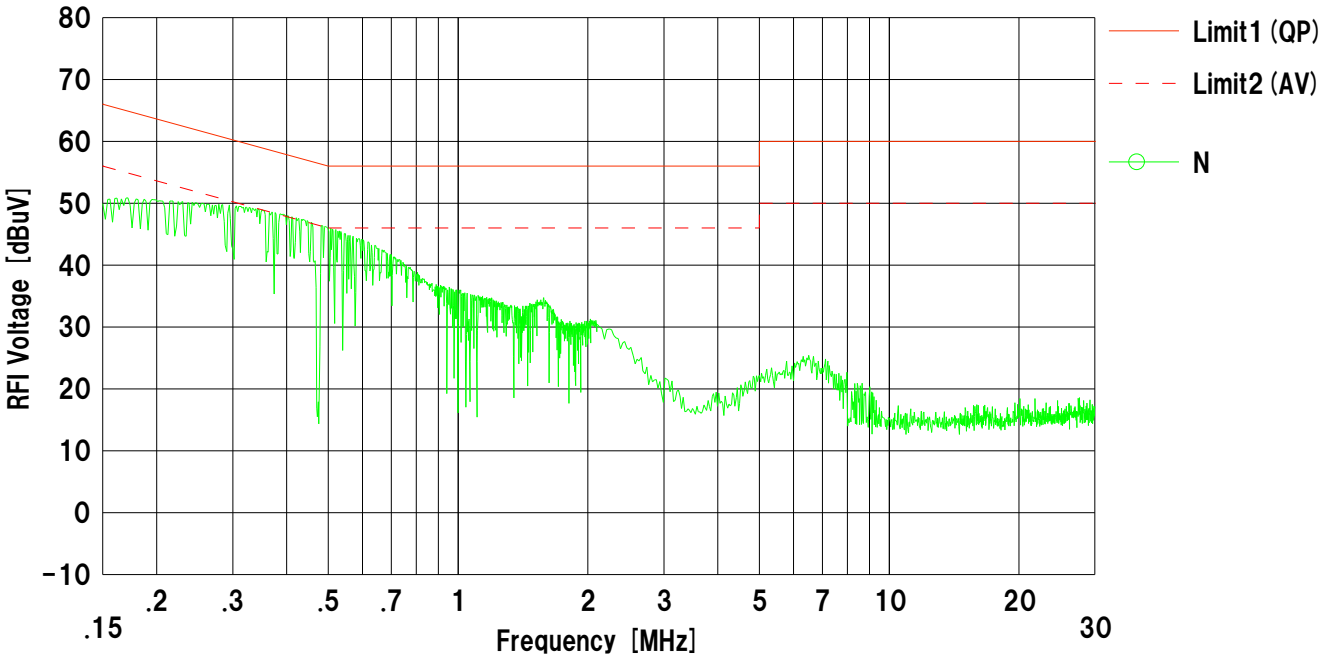
UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

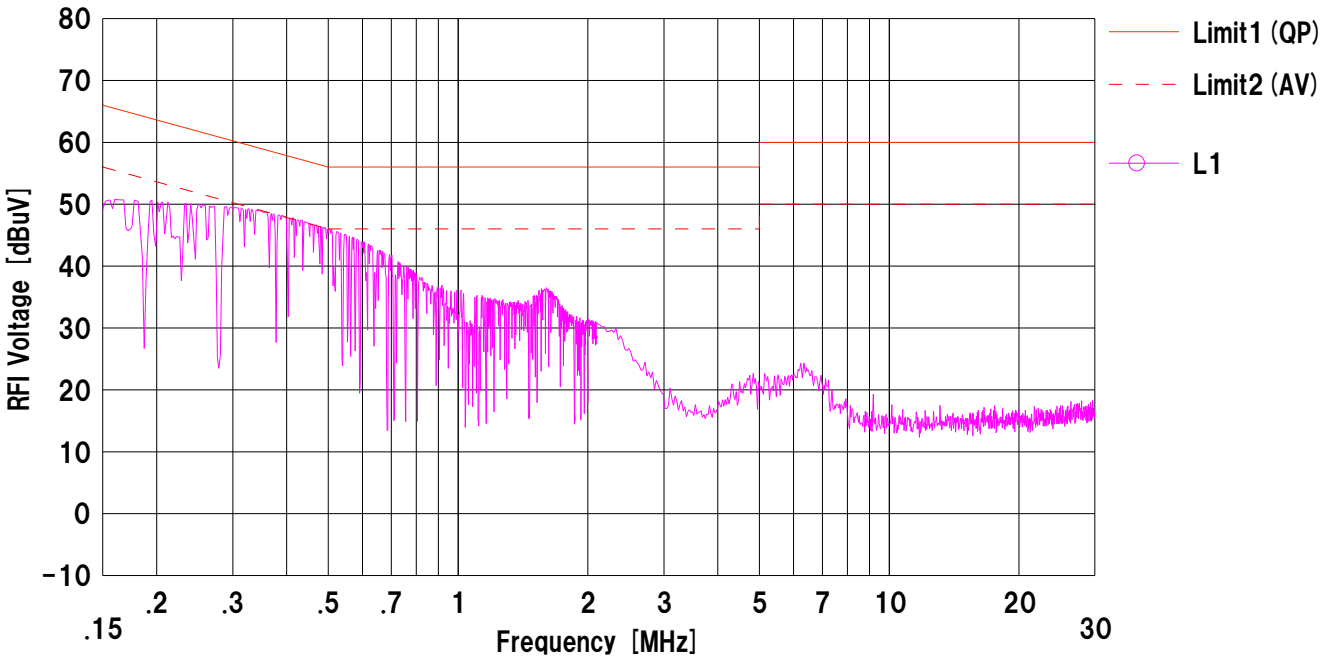
Company	: CANON INC.	Mode	: Tx 11a 5240MHz
Kind of EUT	: Wireless Module	Report No.	: 31CE0052-HO-01-K
Model No.	: CH9-1225	Power	: DC3.3V (AC120V/60Hz)
Serial No.	: ES4101	Temp./Humi.	: 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi





Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

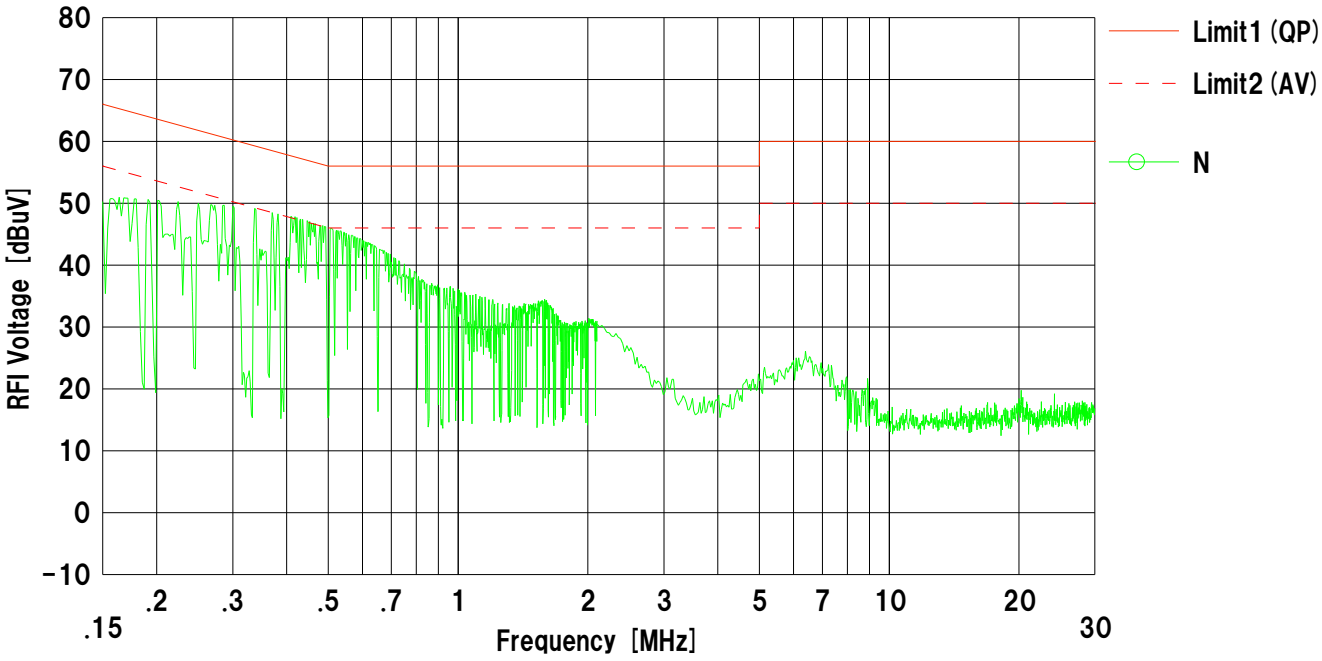
UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

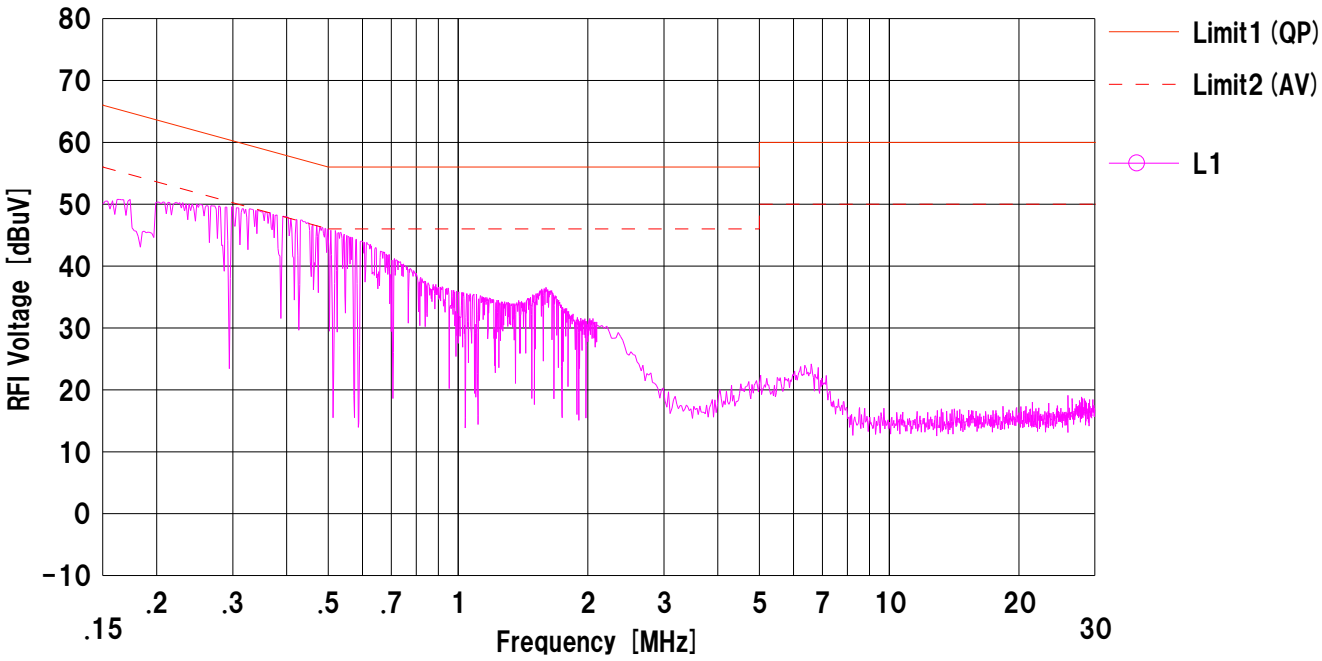
Company	: CANON INC.	Mode	: Tx 11a 5260MHz
Kind of EUT	: Wireless Module	Report No.	: 31CE0052-HO-01-K
Model No.	: CH9-1225	Power	: DC3.3V (AC120V/60Hz)
Serial No.	: ES4101	Temp./Humi.	: 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi





Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

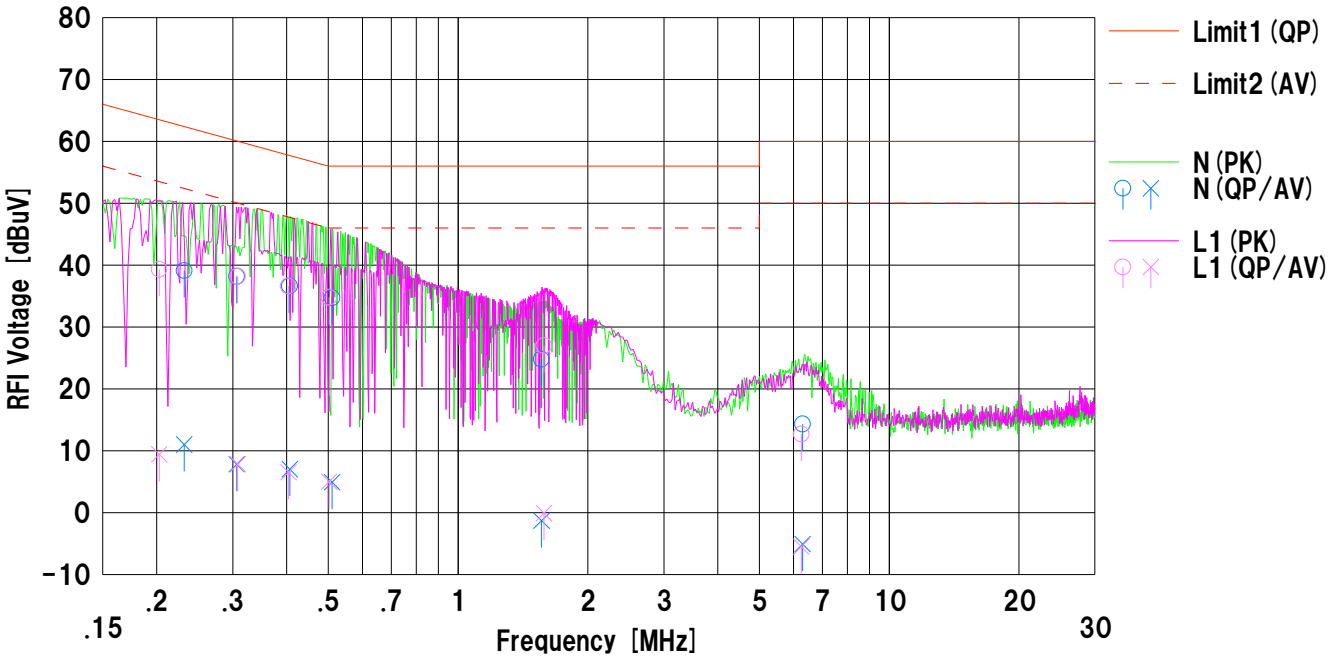
Company : CANON INC.
Kind of EUT : Wireless Module
Model No. : CH9-1225
Serial No. : ES4101

Mode : Tx 11a 5280MHz
Report No. : 31CE0052-HO-01-K
Power : DC3.3V (AC120V/60Hz)
Temp./Humi. : 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi



No.	Freq.	Reading <QP>	Reading <AV>	C.Fac	Results <QP>	Results <AV>	Limit <QP>	Limit <AV>	Margin <QP>	Margin <AV>	Phase	Comment
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	0.23155	26.5	-1.6	12.6	39.1	11.0	62.3	52.3	23.2	41.3	N	
2	0.30640	25.5	-4.9	12.7	38.2	7.8	60.0	50.0	21.8	42.2	N	
3	0.40690	23.9	-5.7	12.7	36.6	7.0	57.7	47.7	21.1	40.7	N	
4	0.51010	22.0	-7.8	12.7	34.7	4.9	56.0	46.0	21.3	41.1	N	
5	1.56211	12.0	-14.1	12.8	24.8	-1.3	56.0	46.0	31.2	47.3	N	
6	6.29940	1.2	-18.2	13.1	14.3	-5.1	60.0	50.0	45.7	55.1	N	
7	0.20280	26.7	-3.2	12.6	39.3	9.4	63.4	53.4	24.1	44.0	L1	
8	0.30822	25.5	-4.9	12.7	38.2	7.8	60.0	50.0	21.8	42.2	L1	
9	0.40393	23.9	-6.2	12.7	36.6	6.5	57.7	47.7	21.1	41.2	L1	
10	0.50220	22.1	-7.7	12.7	34.8	5.0	56.0	46.0	21.2	41.0	L1	
11	1.58310	14.2	-12.9	12.8	27.0	-0.1	56.0	46.0	29.0	46.1	L1	
12	6.25550	-0.4	-18.6	13.1	12.7	-5.5	60.0	50.0	47.3	55.5	L1	

Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

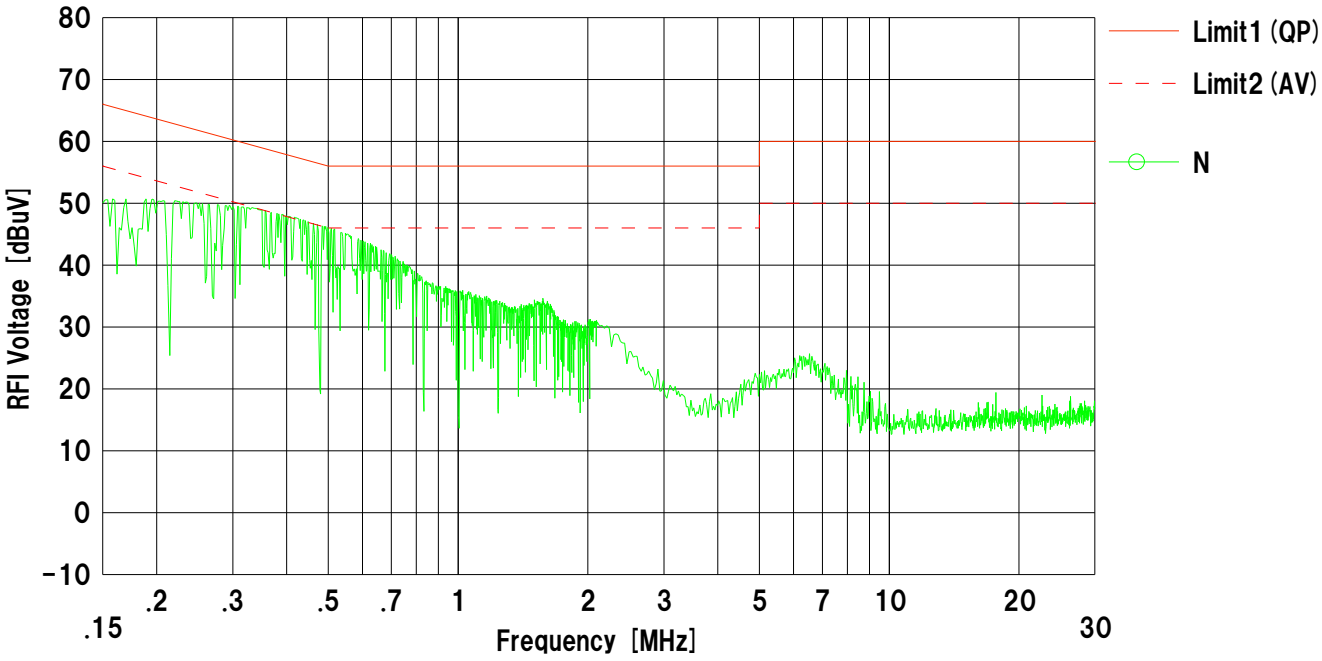
UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

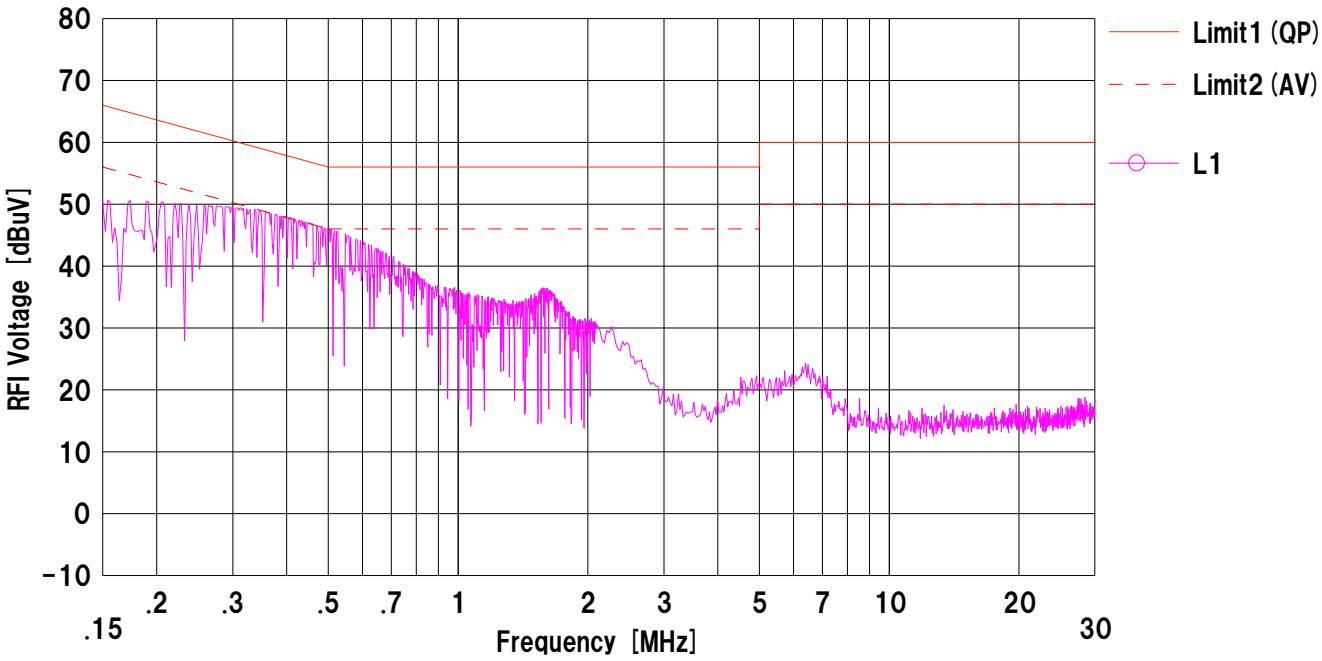
Company	: CANON INC.	Mode	: Tx 11a 5320MHz
Kind of EUT	: Wireless Module	Report No.	: 31CE0052-HO-01-K
Model No.	: CH9-1225	Power	: DC3.3V (AC120V/60Hz)
Serial No.	: ES4101	Temp./Humi.	: 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi





Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

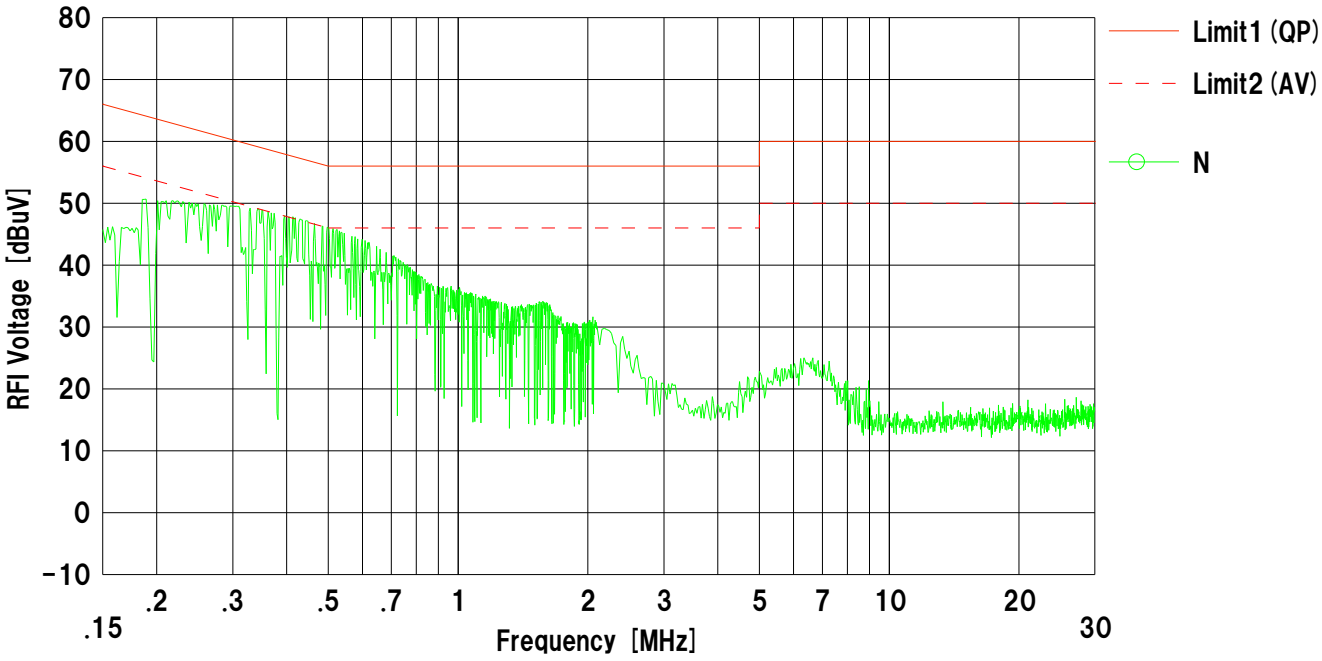
UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

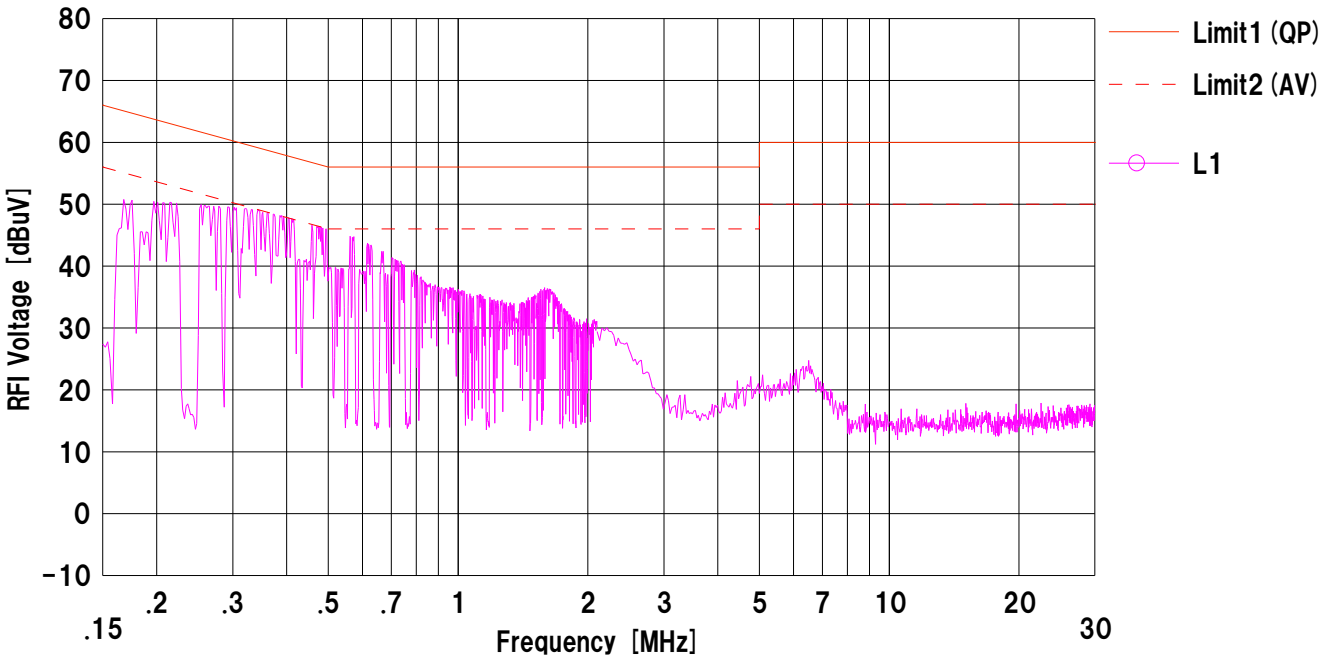
Company	: CANON INC.	Mode	: Tx 11n(HT20) 5180MHz
Kind of EUT	: Wireless Module	Report No.	: 31CE0052-HO-01-K
Model No.	: CH9-1225	Power	: DC3.3V(AC120V/60Hz)
Serial No.	: ES4101	Temp./Humi.	: 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C(15.207) QP
Limit2 : FCC 15C(15.207) AV

Engineer : Akio Hayashi





Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

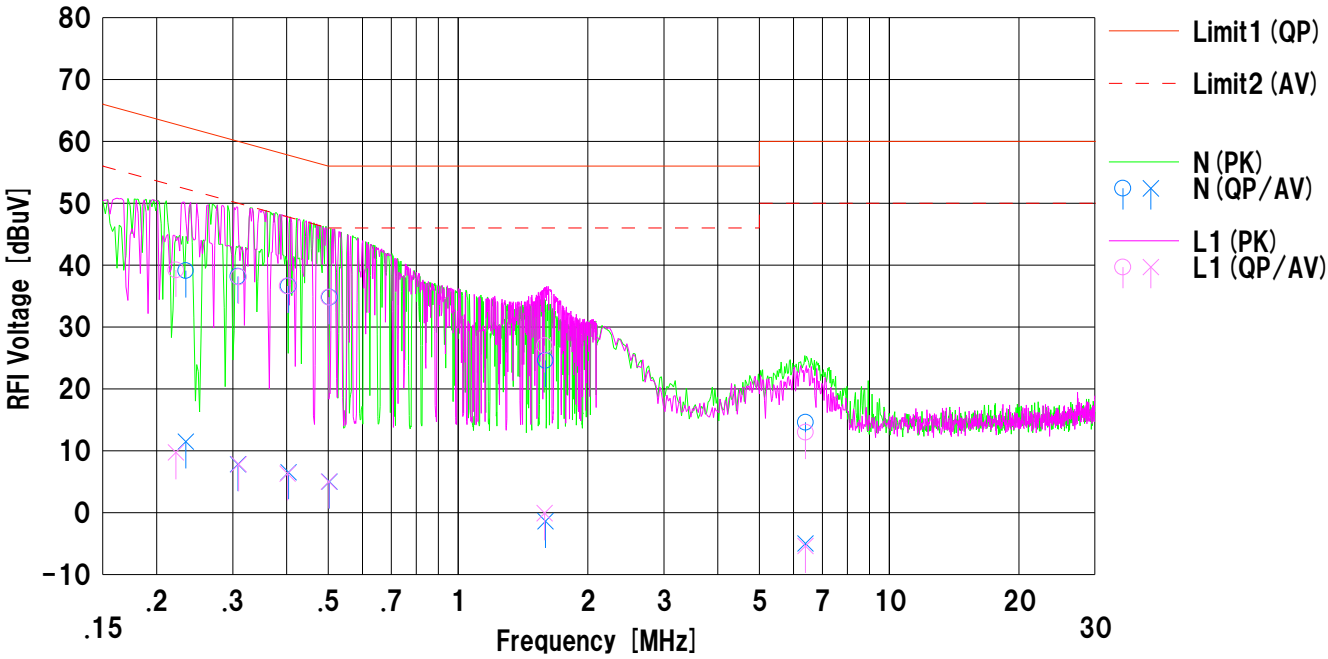
Company : CANON INC.
Kind of EUT : Wireless Module
Model No. : CH9-1225
Serial No. : ES4101

Mode : Tx 11n (HT20) 5200MHz
Report No. : 31CE0052-HO-01-K
Power : DC3.3V (AC120V/60Hz)
Temp./Humi. : 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi



No.	Freq.	Reading		C.Fac	Results		Limit		Margin		Phase	Comment
		<QP>	<AV>		<QP>	<AV>	<QP>	<AV>	<QP>	<AV>		
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	0.23332	26.5	-1.1	12.6	39.1	11.5	62.3	52.3	23.2	40.8	N	
2	0.30829	25.5	-4.9	12.7	38.2	7.8	60.0	50.0	21.8	42.2	N	
3	0.40402	23.9	-6.2	12.7	36.6	6.5	57.7	47.7	21.1	41.2	N	
4	0.50280	22.1	-7.7	12.7	34.8	5.0	56.0	46.0	21.2	41.0	N	
5	1.59456	11.8	-14.2	12.8	24.6	-1.4	56.0	46.0	31.4	47.4	N	
6	6.39450	1.5	-18.1	13.1	14.6	-5.0	60.0	50.0	45.4	55.0	N	
7	0.22150	26.6	-2.9	12.6	39.2	9.7	62.7	52.7	23.5	43.0	L1	
8	0.30970	25.4	-4.9	12.7	38.1	7.8	59.9	49.9	21.8	42.1	L1	
9	0.40214	23.9	-6.4	12.7	36.6	6.3	57.8	47.8	21.2	41.5	L1	
10	0.50104	22.1	-7.7	12.7	34.8	5.0	56.0	46.0	21.2	41.0	L1	
11	1.58786	14.2	-12.9	12.8	27.0	-0.1	56.0	46.0	29.0	46.1	L1	
12	6.39494	-0.1	-18.5	13.1	13.0	-5.4	60.0	50.0	47.0	55.4	L1	

Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

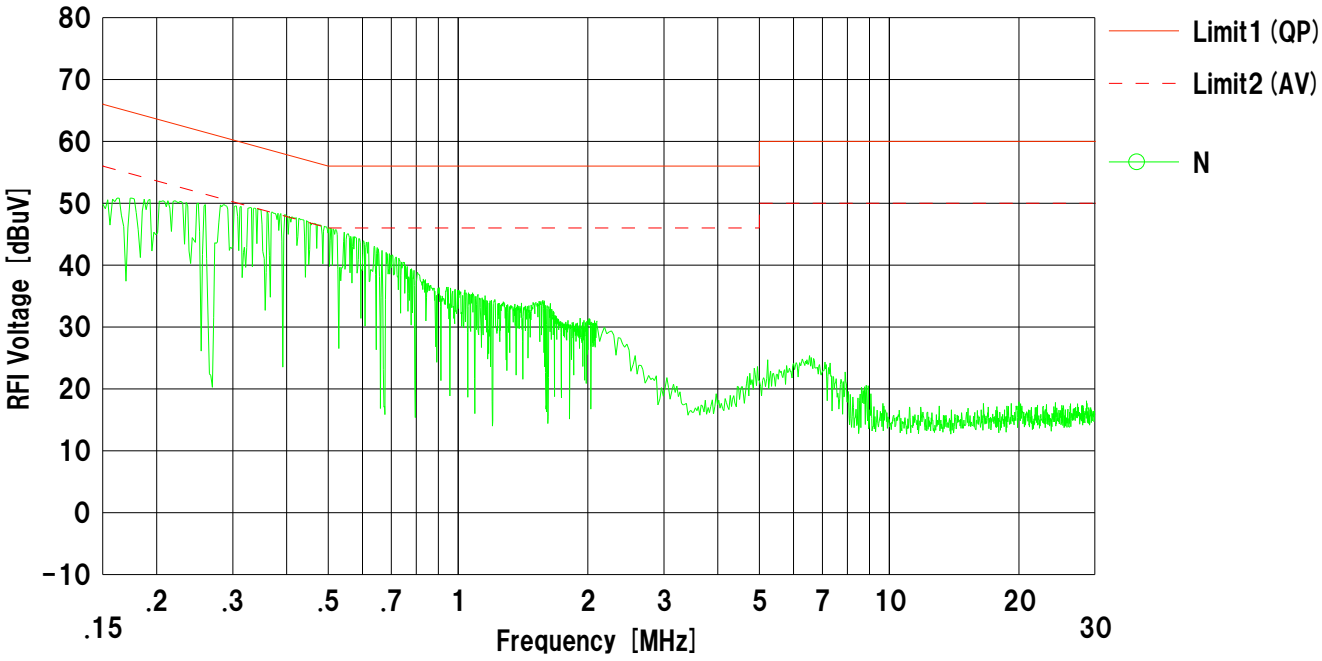
UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

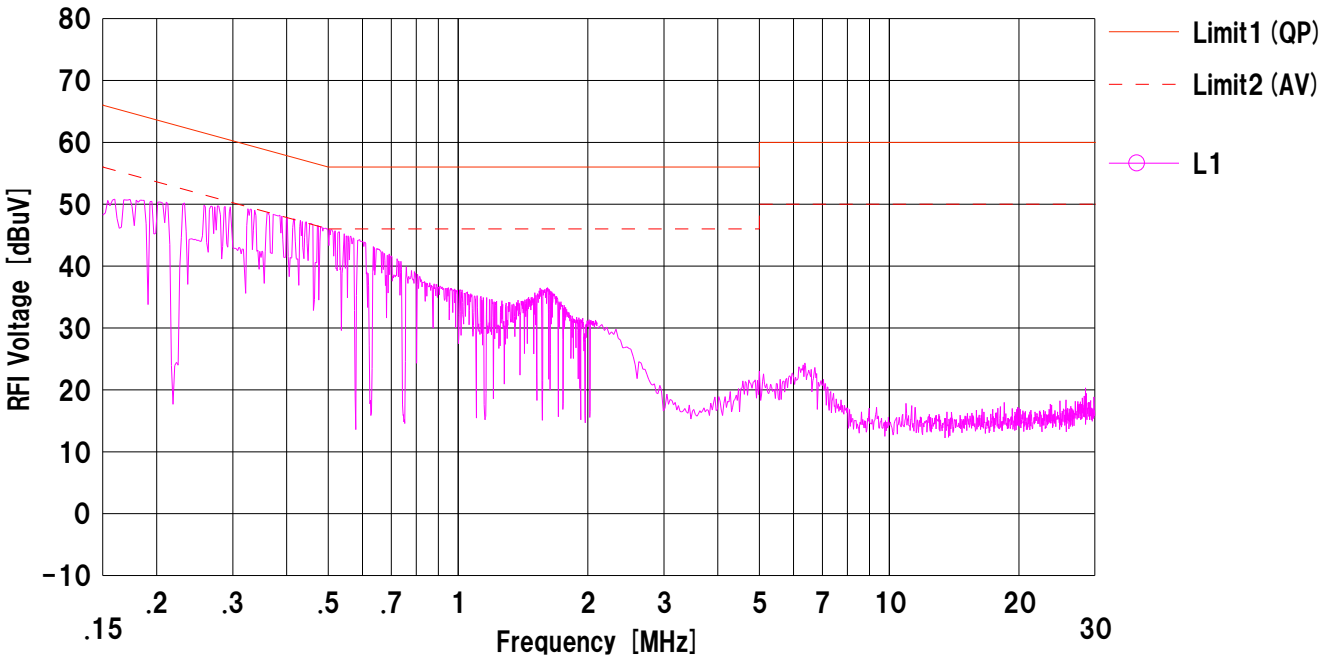
Company	: CANON INC.	Mode	: Tx 11n(HT20) 5240MHz
Kind of EUT	: Wireless Module	Report No.	: 31CE0052-HO-01-K
Model No.	: CH9-1225	Power	: DC3.3V(AC120V/60Hz)
Serial No.	: ES4101	Temp./Humi.	: 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C(15.207) QP
Limit2 : FCC 15C(15.207) AV

Engineer : Akio Hayashi





Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

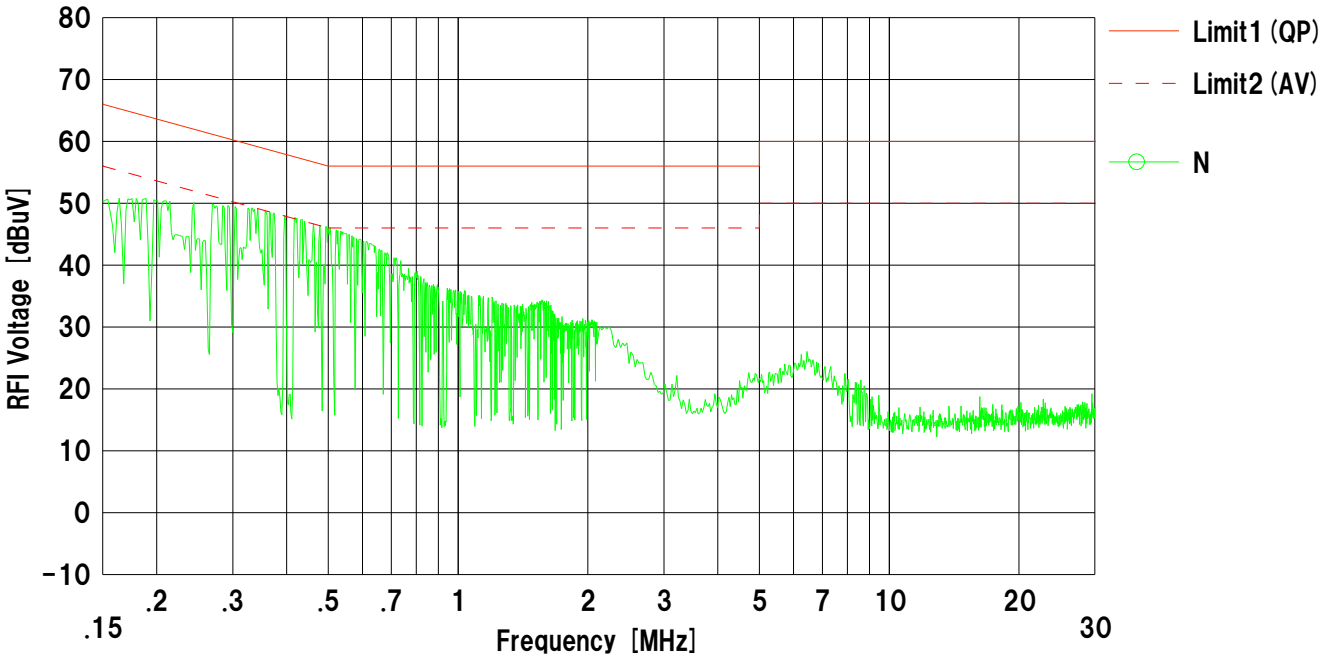
UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

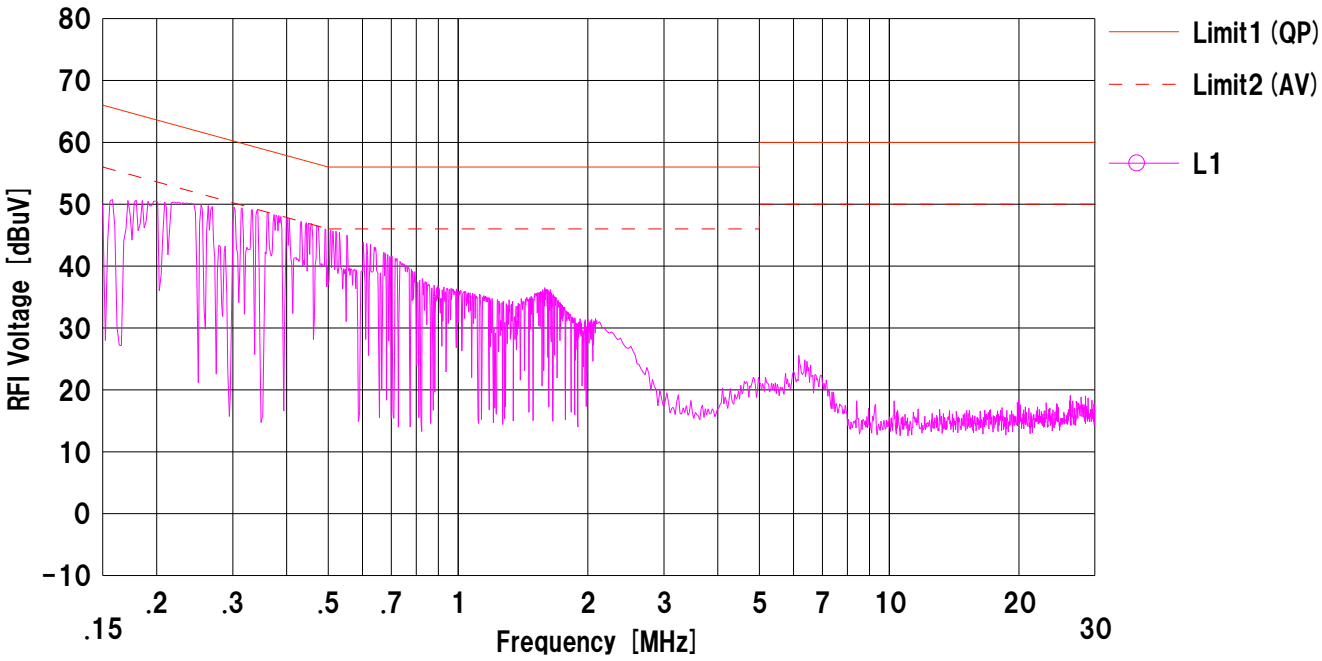
Company	: CANON INC.	Mode	: Tx 11n(HT20) 5260MHz
Kind of EUT	: Wireless Module	Report No.	: 31CE0052-HO-01-K
Model No.	: CH9-1225	Power	: DC3.3V(AC120V/60Hz)
Serial No.	: ES4101	Temp./Humi.	: 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C(15.207) QP
Limit2 : FCC 15C(15.207) AV

Engineer : Akio Hayashi





Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

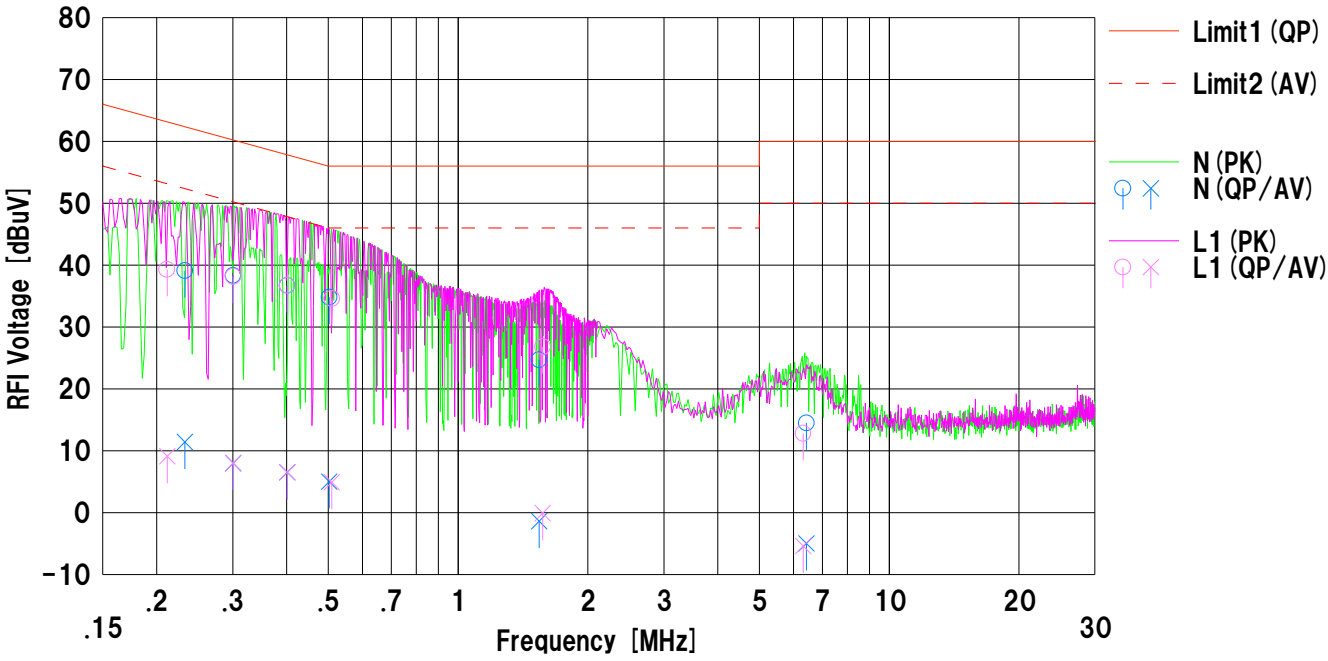
Company : CANON INC.
Kind of EUT : Wireless Module
Model No. : CH9-1225
Serial No. : ES4101

Mode : Tx 11n (HT20) 5280MHz
Report No. : 31CE0052-HO-01-K
Power : DC3.3V (AC120V/60Hz)
Temp./Humi. : 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi



No.	Freq.	Reading <QP>	Reading <AV>	C.Fac	Results <QP>	Results <AV>	Limit <QP>	Limit <AV>	Margin <QP>	Margin <AV>	Phase	Comment
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	0.23231	26.5	-1.2	12.6	39.1	11.4	62.3	52.3	23.2	40.9	N	
2	0.30063	25.6	-4.7	12.7	38.3	8.0	60.2	50.2	21.9	42.2	N	
3	0.40142	24.0	-6.2	12.7	36.7	6.5	57.8	47.8	21.1	41.3	N	
4	0.50243	22.1	-7.7	12.7	34.8	5.0	56.0	46.0	21.2	41.0	N	
5	1.54040	11.9	-14.2	12.8	24.7	-1.4	56.0	46.0	31.3	47.4	N	
6	6.42800	1.4	-18.1	13.1	14.5	-5.0	60.0	50.0	45.5	55.0	N	
7	0.21132	26.7	-3.5	12.6	39.3	9.1	63.1	53.1	23.8	44.0	L1	
8	0.30070	25.5	-4.7	12.7	38.2	8.0	60.2	50.2	22.0	42.2	L1	
9	0.40181	24.0	-6.2	12.7	36.7	6.5	57.8	47.8	21.1	41.3	L1	
10	0.50932	21.9	-7.8	12.7	34.6	4.9	56.0	46.0	21.4	41.1	L1	
11	1.57170	14.0	-12.9	12.8	26.8	-0.1	56.0	46.0	29.2	46.1	L1	
12	6.31150	-0.3	-18.5	13.1	12.8	-5.4	60.0	50.0	47.2	55.4	L1	

Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

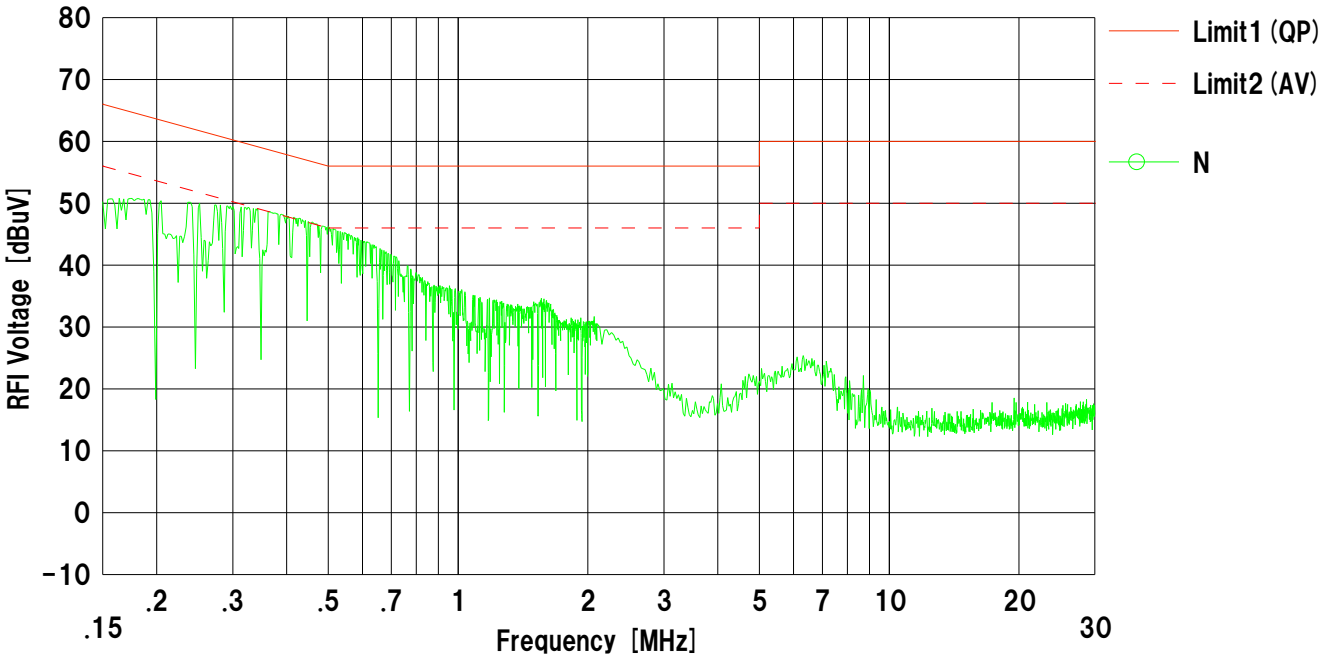
UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

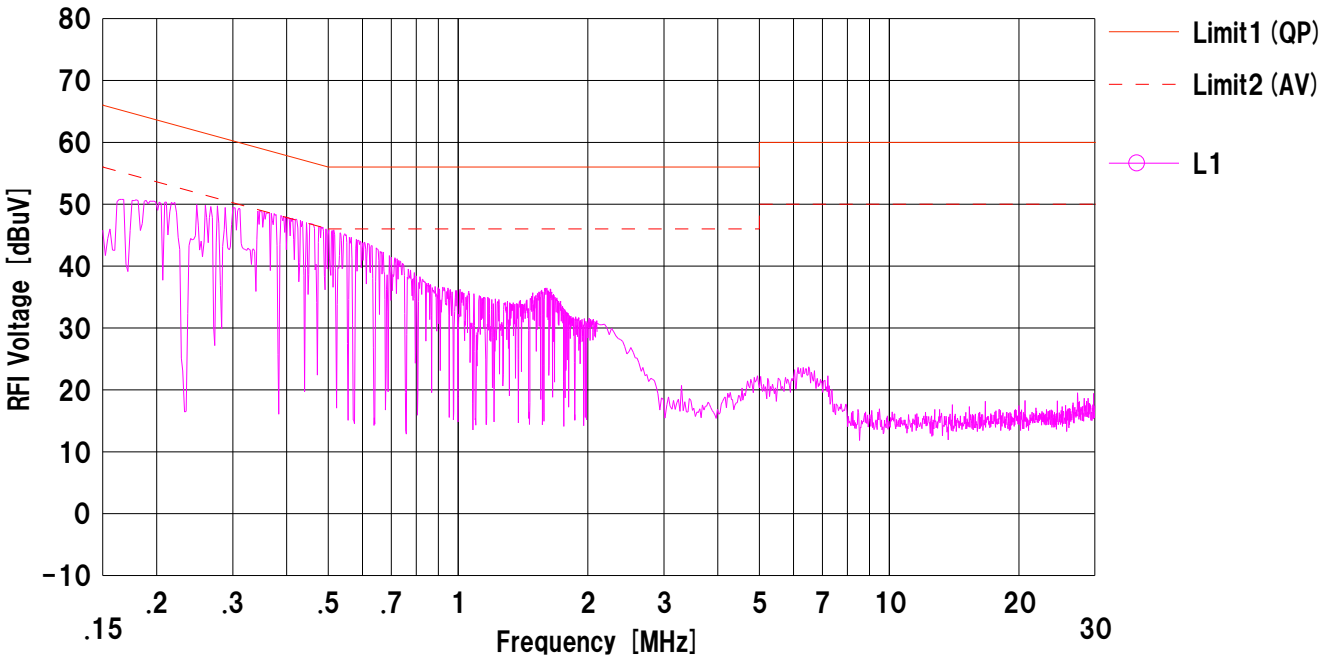
Company	: CANON INC.	Mode	: Tx 11n(HT20) 5320MHz
Kind of EUT	: Wireless Module	Report No.	: 31CE0052-HO-01-K
Model No.	: CH9-1225	Power	: DC3.3V(AC120V/60Hz)
Serial No.	: ES4101	Temp./Humi.	: 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C(15.207) QP
Limit2 : FCC 15C(15.207) AV

Engineer : Akio Hayashi





Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

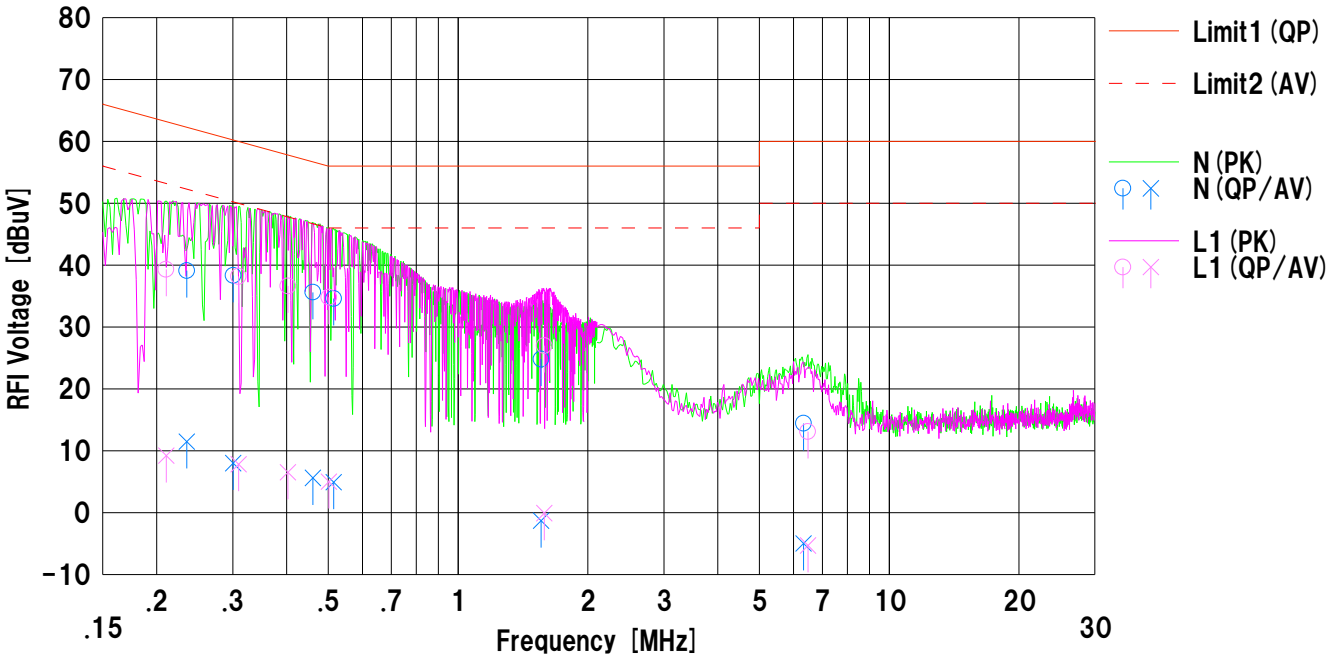
Company : CANON INC.
Kind of EUT : Wireless Module
Model No. : CH9-1225
Serial No. : ES4101

Mode : Tx 11n(HT40) 5190MHz
Report No. : 31CE0052-HO-01-K
Power : DC3.3V(AC120V/60Hz)
Temp./Humi. : 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C(15.207) QP
Limit2 : FCC 15C(15.207) AV

Engineer : Akio Hayashi



No.	Freq.	Reading <QP>	Reading <AV>	C.Fac	Results <QP>	Results <AV>	Limit <QP>	Limit <AV>	Margin <QP>	Margin <AV>	Phase	Comment
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	0.23460	26.5	-1.1	12.6	39.1	11.5	62.2	52.2	23.1	40.7	N	
2	0.30100	25.6	-4.7	12.7	38.3	8.0	60.2	50.2	21.9	42.2	N	
3	0.46040	22.9	-7.1	12.7	35.6	5.6	56.6	46.6	21.0	41.0	N	
4	0.51462	21.9	-7.8	12.7	34.6	4.9	56.0	46.0	21.4	41.1	N	
5	1.55676	12.0	-14.1	12.8	24.8	-1.3	56.0	46.0	31.2	47.3	N	
6	6.32740	1.3	-18.1	13.1	14.4	-5.0	60.0	50.0	45.6	55.0	N	
7	0.21020	26.7	-3.4	12.6	39.3	9.2	63.1	53.1	23.8	43.9	L1	
8	0.30953	25.5	-4.9	12.7	38.2	7.8	59.9	49.9	21.7	42.1	L1	
9	0.40304	23.9	-6.2	12.7	36.6	6.5	57.7	47.7	21.1	41.2	L1	
10	0.50150	22.1	-7.7	12.7	34.8	5.0	56.0	46.0	21.2	41.0	L1	
11	1.58554	14.2	-12.9	12.8	27.0	-0.1	56.0	46.0	29.0	46.1	L1	
12	6.47830	0.0	-18.4	13.1	13.1	-5.3	60.0	50.0	46.9	55.3	L1	

Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

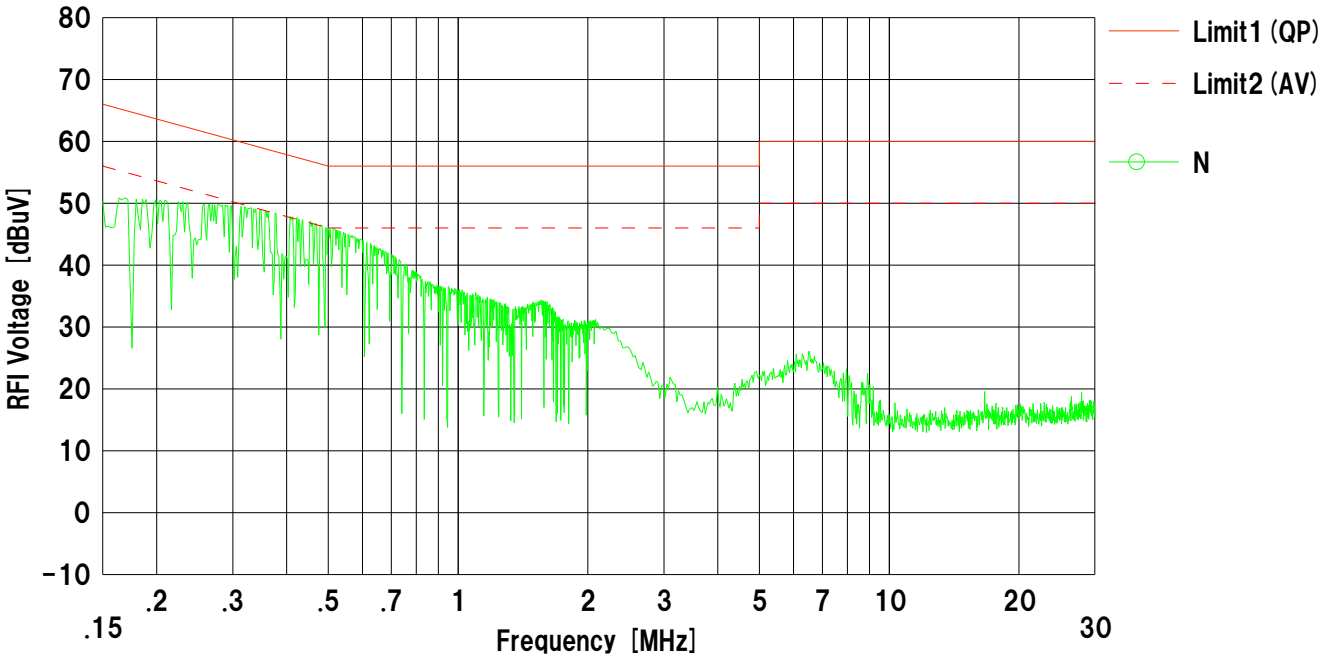
UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

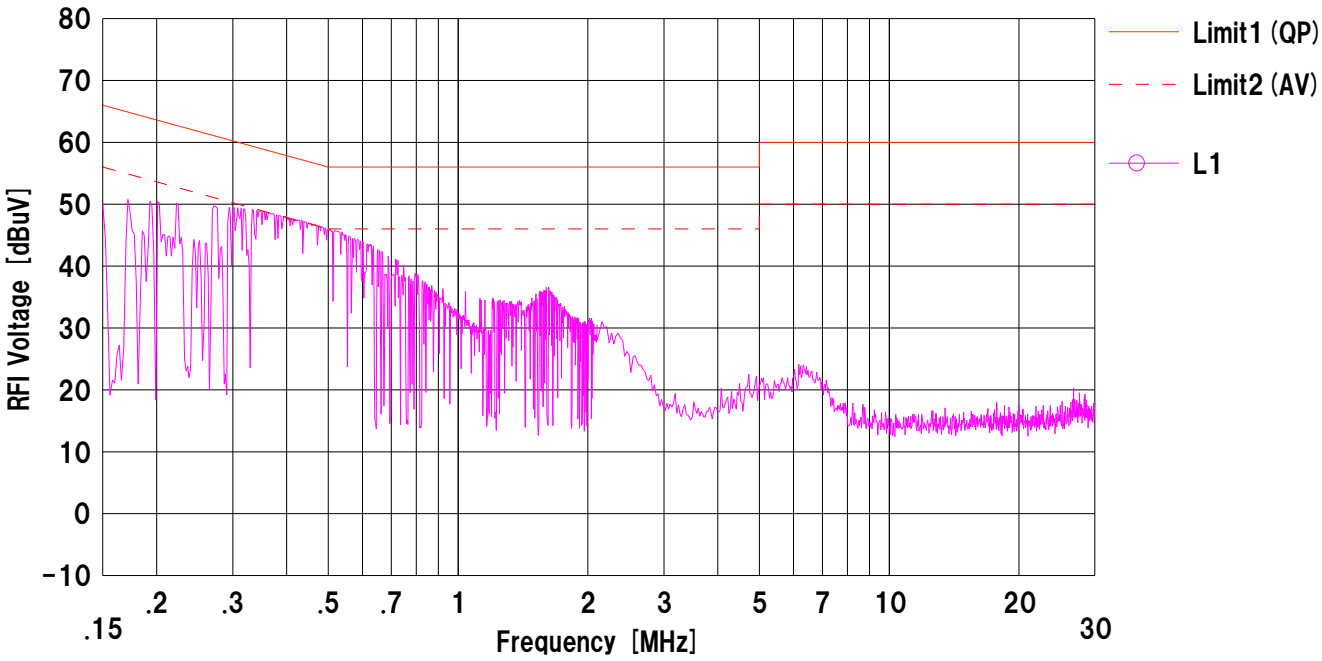
Company	: CANON INC.	Mode	: Tx 11n(HT40) 5230MHz
Kind of EUT	: Wireless Module	Report No.	: 31CE0052-HO-01-K
Model No.	: CH9-1225	Power	: DC3.3V(AC120V/60Hz)
Serial No.	: ES4101	Temp./Humi.	: 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C(15.207) QP
Limit2 : FCC 15C(15.207) AV

Engineer : Akio Hayashi





Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

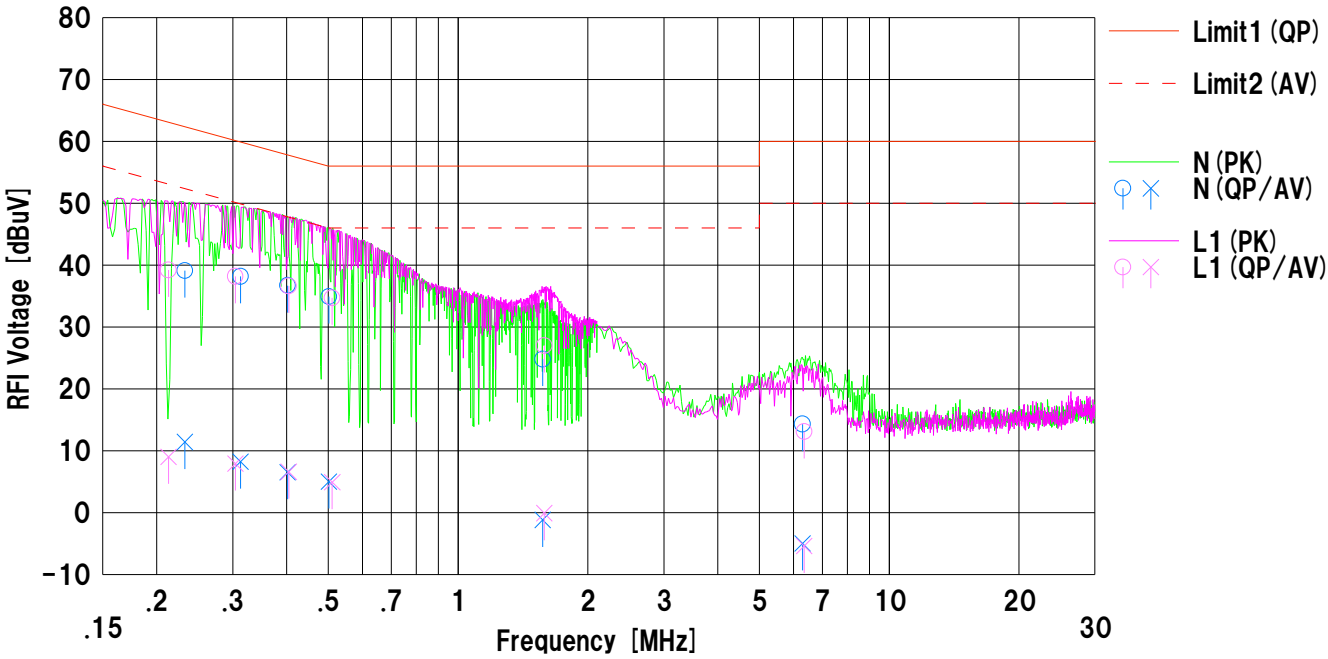
Company : CANON INC.
Kind of EUT : Wireless Module
Model No. : CH9-1225
Serial No. : ES4101

Mode : Tx 11n (HT40) 5270MHz
Report No. : 31CE0052-HO-01-K
Power : DC3.3V (AC120V/60Hz)
Temp./Humi. : 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi



No.	Freq.	Reading <QP>	Reading <AV>	C.Fac	Results <QP>	Results <AV>	Limit <QP>	Limit <AV>	Margin <QP>	Margin <AV>	Phase	Comment
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	0.23240	26.5	-1.2	12.6	39.1	11.4	62.3	52.3	23.2	40.9	N	
2	0.31284	25.5	-4.5	12.7	38.2	8.2	59.8	49.8	21.6	41.6	N	
3	0.40235	24.0	-6.2	12.7	36.7	6.5	57.8	47.8	21.1	41.3	N	
4	0.50130	22.2	-7.7	12.7	34.9	5.0	56.0	46.0	21.1	41.0	N	
5	1.57050	12.0	-14.0	12.8	24.8	-1.2	56.0	46.0	31.2	47.2	N	
6	6.29400	1.2	-18.1	13.1	14.3	-5.0	60.0	50.0	45.7	55.0	N	
7	0.21283	26.6	-3.6	12.6	39.2	9.0	63.0	53.0	23.8	44.0	L1	
8	0.30419	25.5	-4.8	12.7	38.2	7.9	60.1	50.1	21.9	42.2	L1	
9	0.40460	23.9	-6.1	12.7	36.6	6.6	57.7	47.7	21.1	41.1	L1	
10	0.51055	22.0	-7.8	12.7	34.7	4.9	56.0	46.0	21.3	41.1	L1	
11	1.58550	14.2	-12.9	12.8	27.0	-0.1	56.0	46.0	29.0	46.1	L1	
12	6.35565	0.0	-18.5	13.1	13.1	-5.4	60.0	50.0	46.9	55.4	L1	

Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

DATA OF CONDUCTED EMISSION TEST

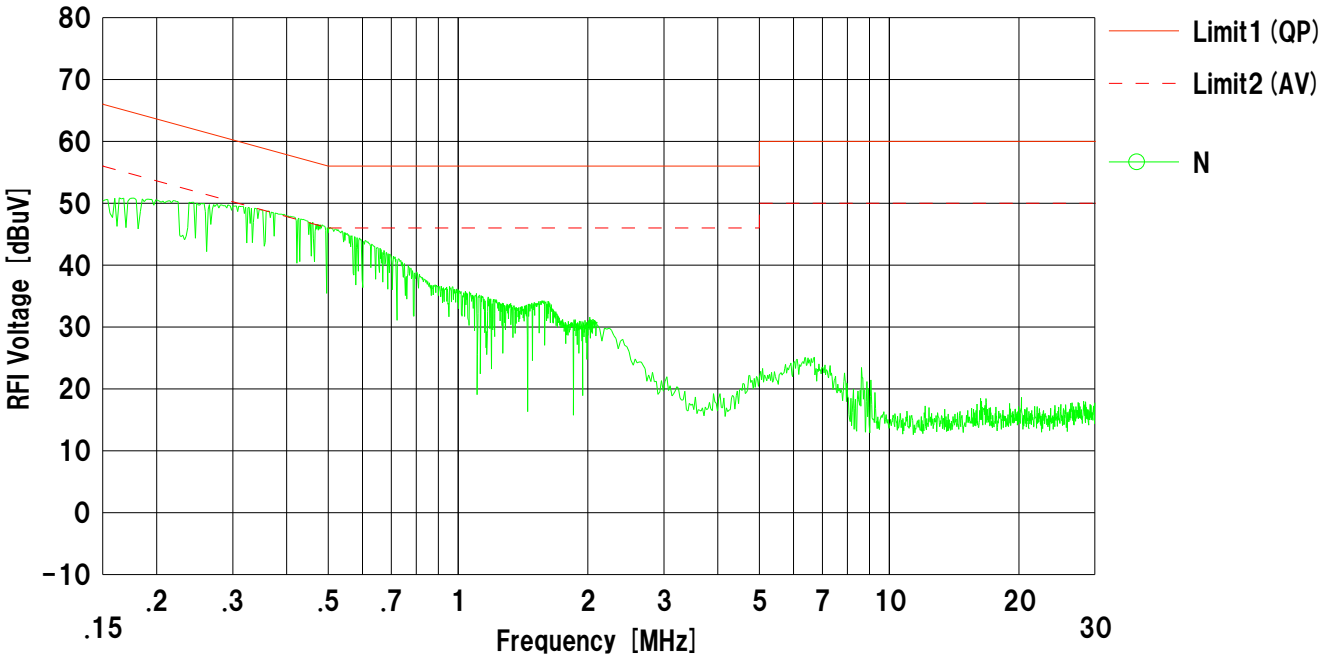
UL Japan,Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

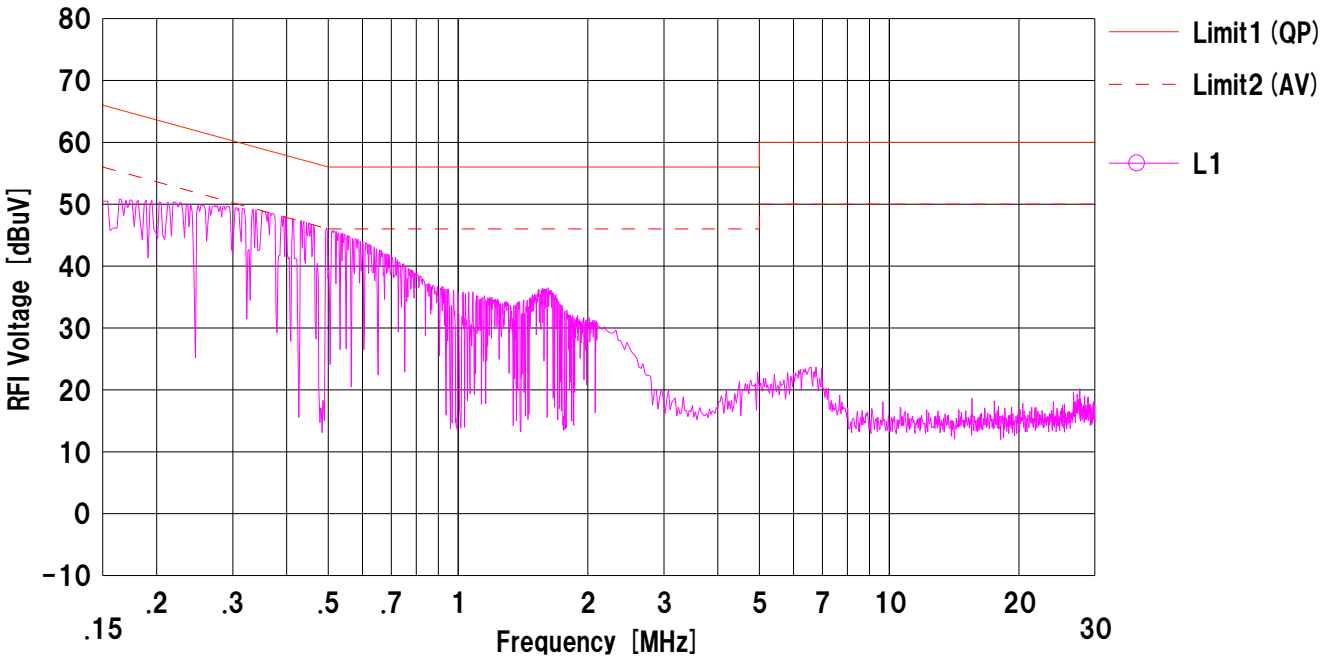
Company	: CANON INC.	Mode	: Tx 11n(HT40) 5310MHz
Kind of EUT	: Wireless Module	Report No.	: 31CE0052-HO-01-K
Model No.	: CH9-1225	Power	: DC3.3V(AC120V/60Hz)
Serial No.	: ES4101	Temp./Humi.	: 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C(15.207) QP
Limit2 : FCC 15C(15.207) AV

Engineer : Akio Hayashi





Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN:SLS-03

26dB Bandwidth and 99% Occupied Bandwidth

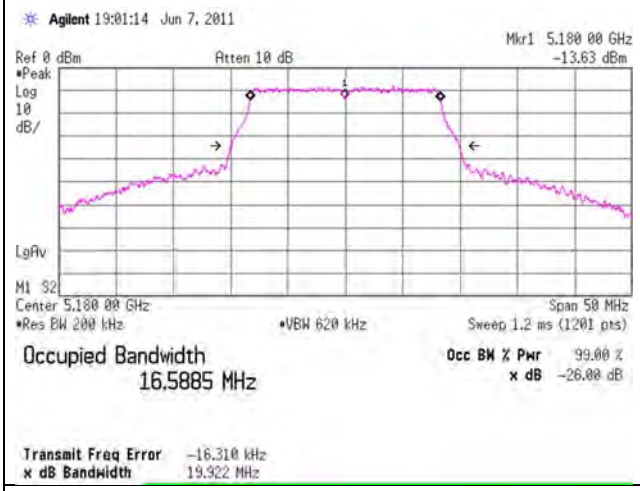
Test place	UL Japan, Inc. Shonan EMC Lab. No.6 Shielded Room
Date	2011/6/9
Temperature / Humidity	26deg.C. 62%RH
Engineer	Makoto Hosaka
Mode	11a, Tx, Worst rate: 6Mbps

Frequency [MHz]	26dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
5180	19.922	17.170
5200	19.918	17.084
5240	19.751	17.176
5260	19.834	17.104
5280	19.915	17.161
5320	19.885	17.181

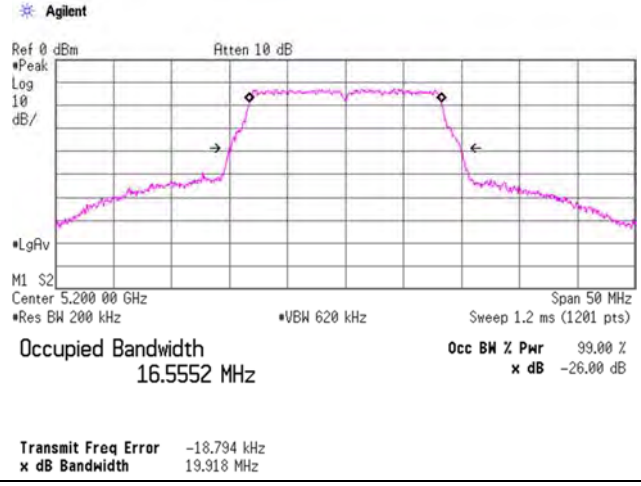
26dB Bandwidth

11a

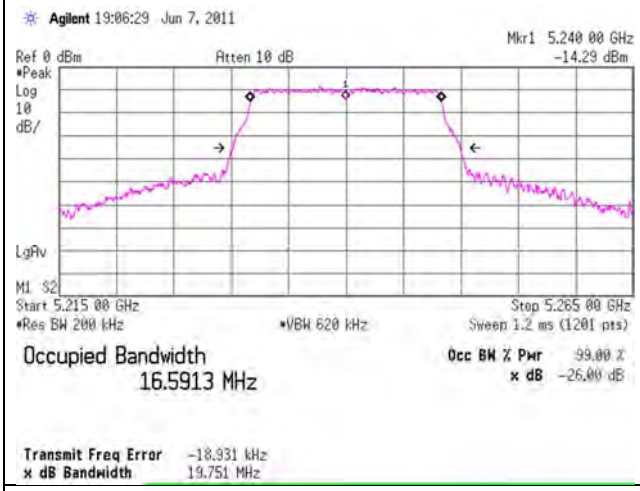
Tx, 5180MHz



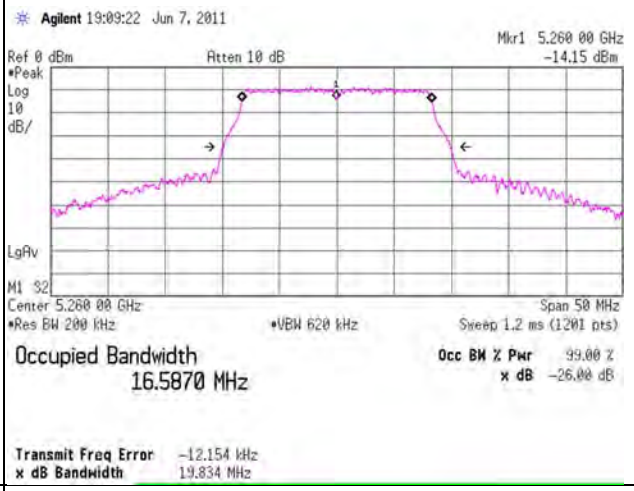
Tx, 5200MHz



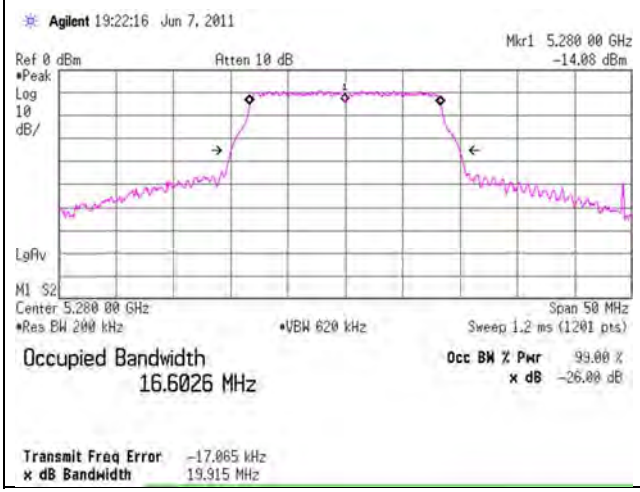
Tx, 5240MHz



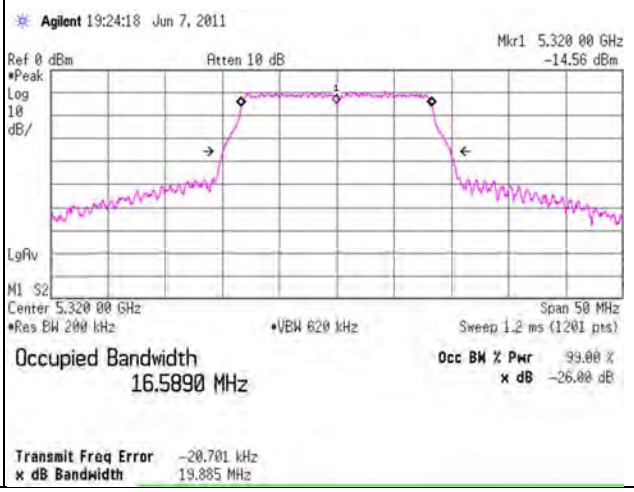
Tx, 5260MHz



Tx, 5280MHz



Tx, 5320MHz



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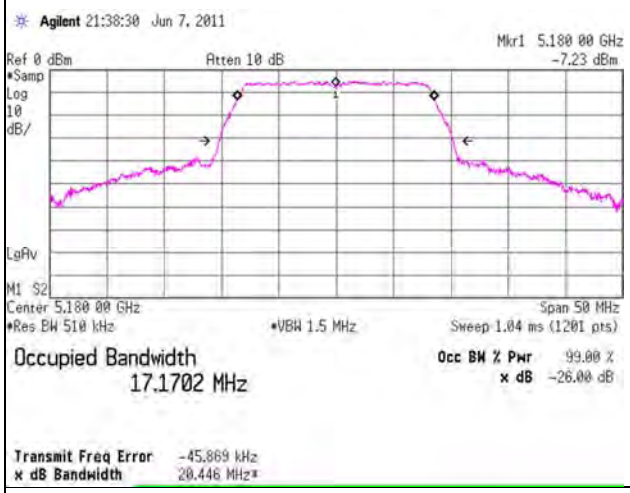
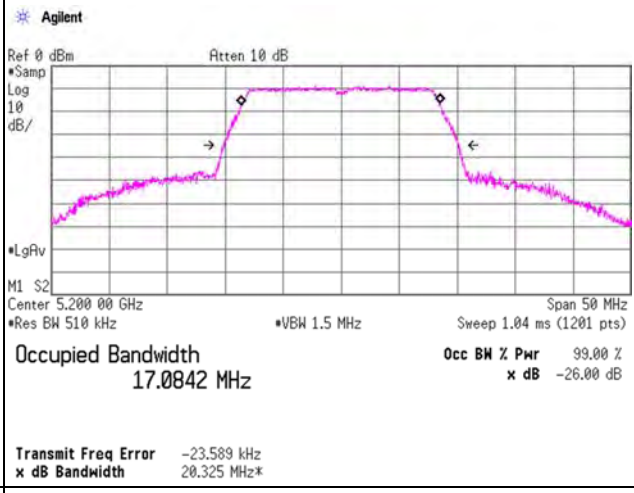
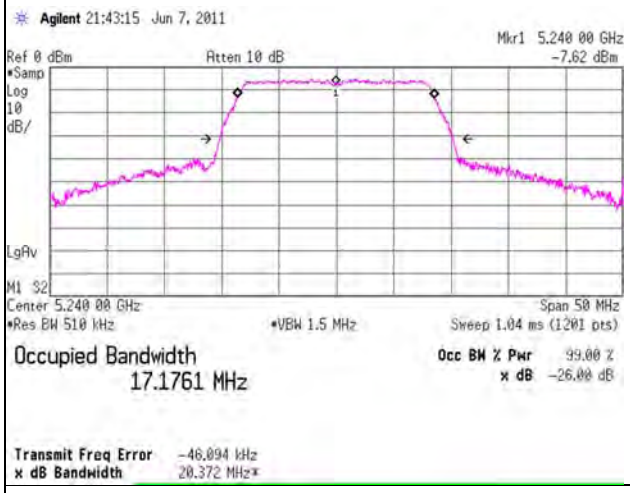
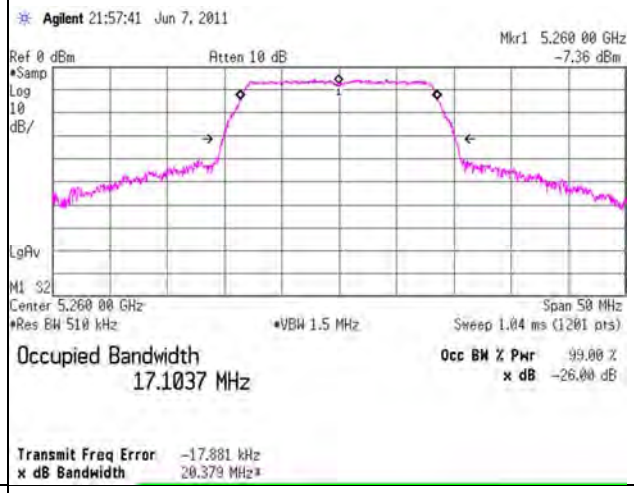
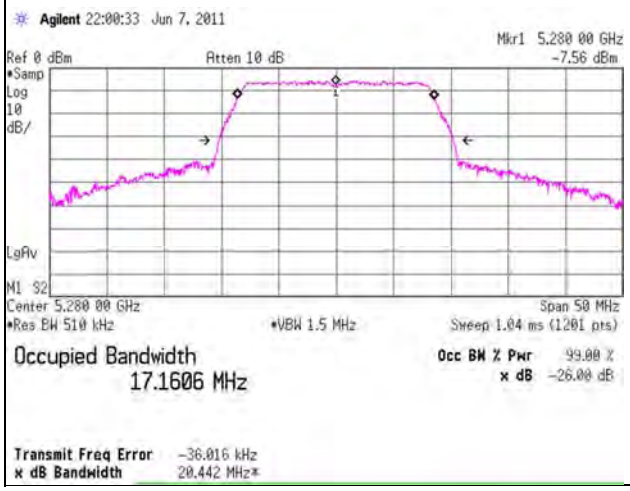
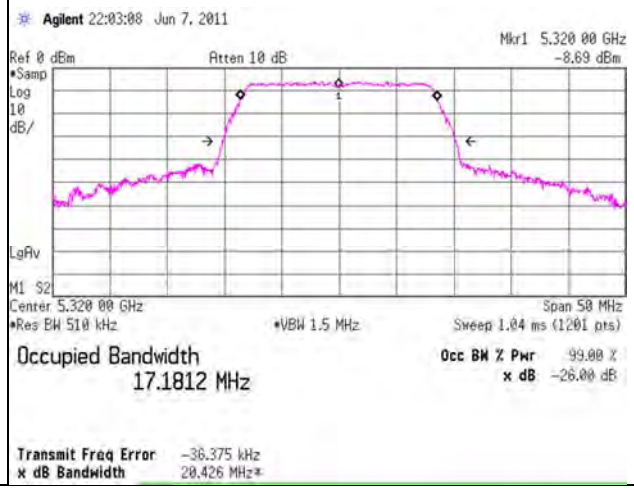
99% Occupied Bandwidth

11a	
Tx, 5180MHz	**Tx, 5200MHz**
	
Tx, 5240MHz	**Tx, 5260MHz**
	
Tx, 5280MHz	**Tx, 5320MHz**
	

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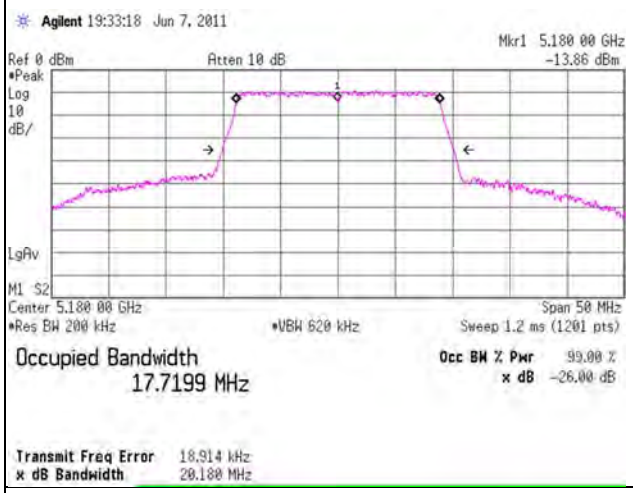
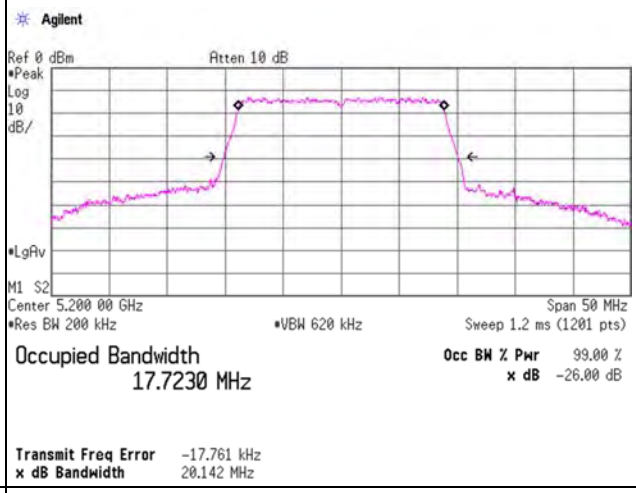
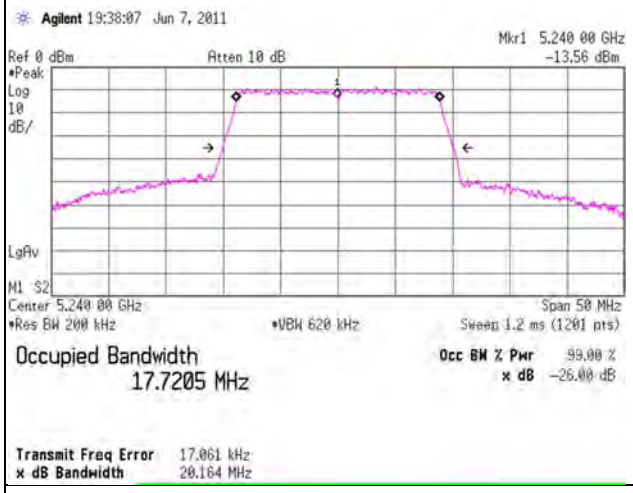
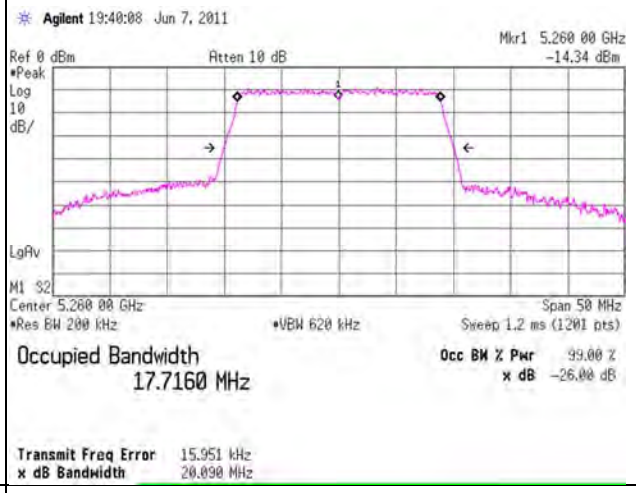
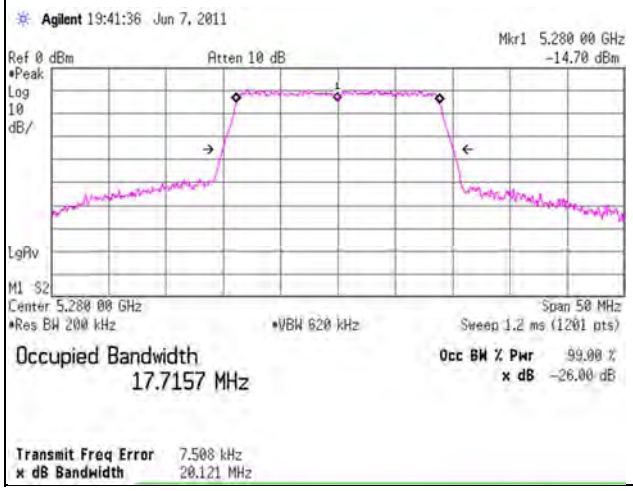
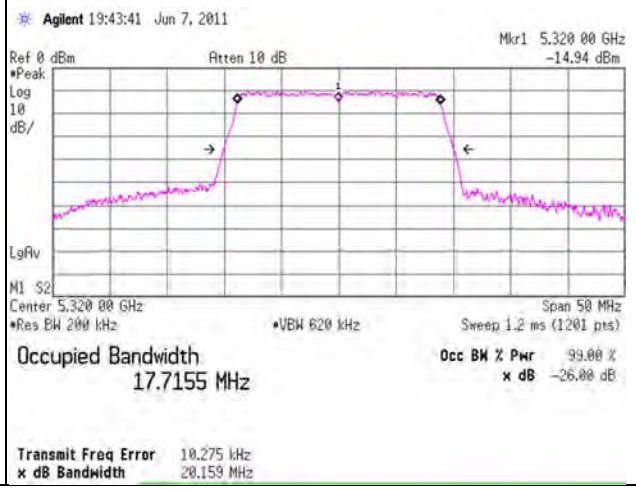
26dB Bandwidth and 99% Occupied Bandwidth

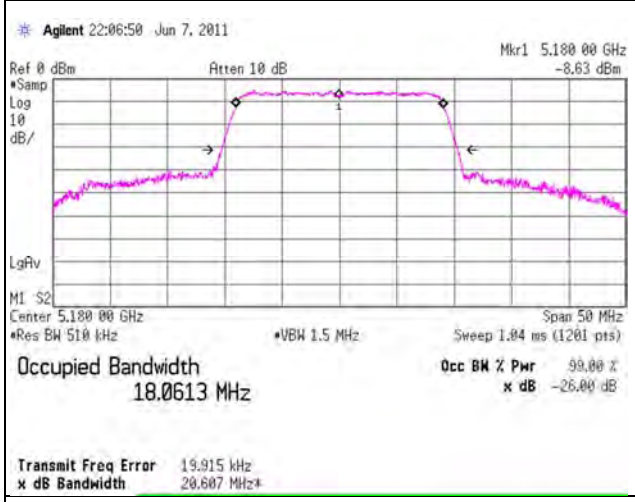
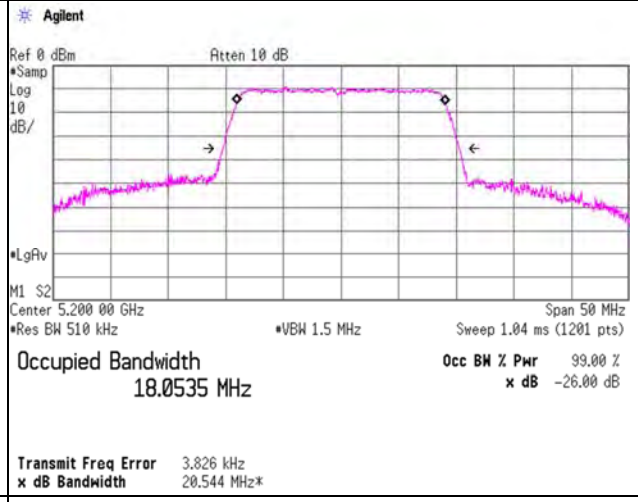
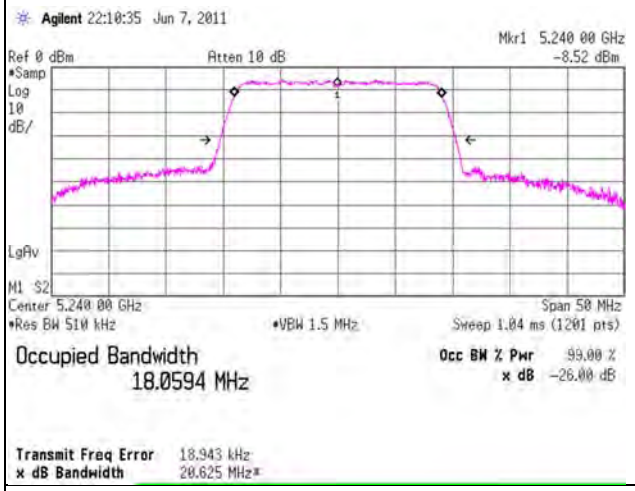
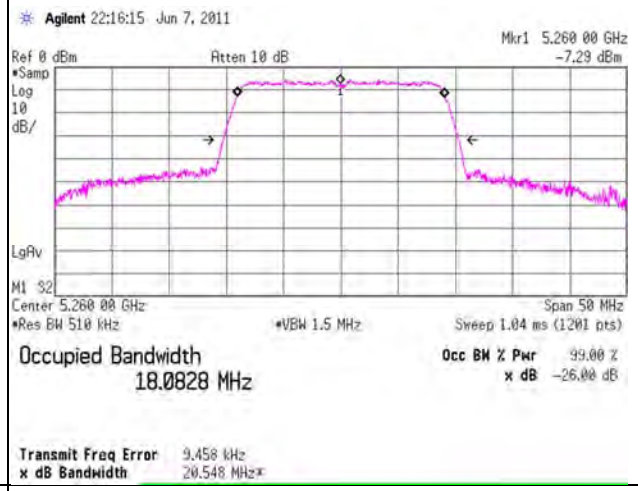
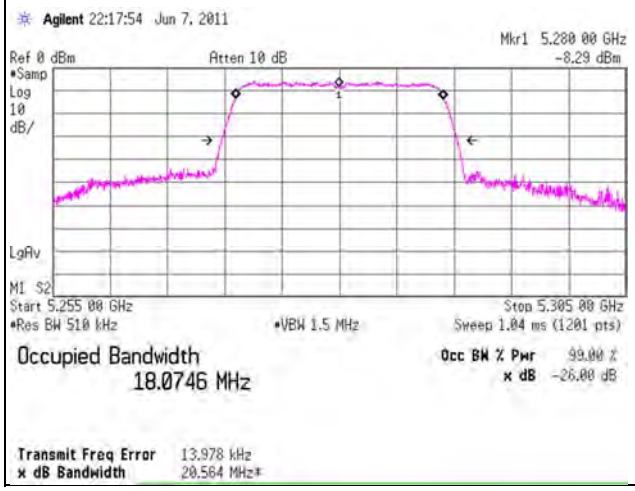
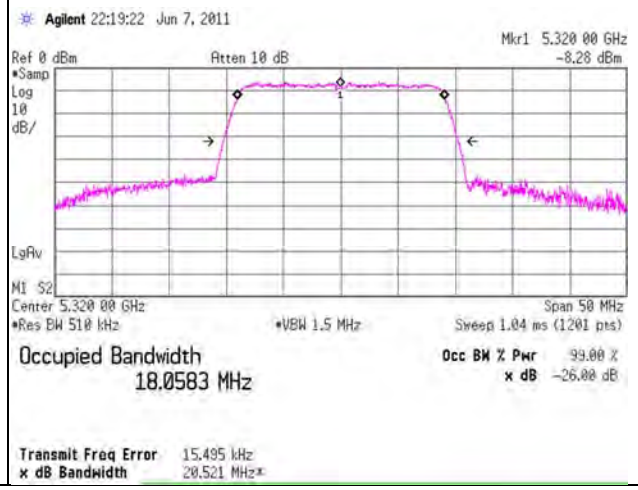
Test place	UL Japan, Inc. Shonan EMC Lab. No.6 Shielded Room
Date	2011/6/9
Temperature / Humidity	26deg.C. 62%RH
Engineer	Makoto Hosaka
Mode	11n (HT20), Tx, Worst rate: MCS2

Frequency [MHz]	26dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
5180	20.180	18.061
5200	20.142	18.054
5240	20.164	18.059
5260	20.090	18.083
5280	20.121	18.075
5320	20.159	18.058

26dB Bandwidth

11n (HT20)	
Tx, 5180MHz	**Tx, 5200MHz**
	
Tx, 5240MHz	**Tx, 5260MHz**
	
Tx, 5280MHz	**Tx, 5320MHz**
	

99% Occupied Bandwidth

11n (HT20)	
Tx, 5180MHz	**Tx, 5200MHz**
	
Tx, 5240MHz	**Tx, 5260MHz**
	
Tx, 5280MHz	**Tx, 5320MHz**
	

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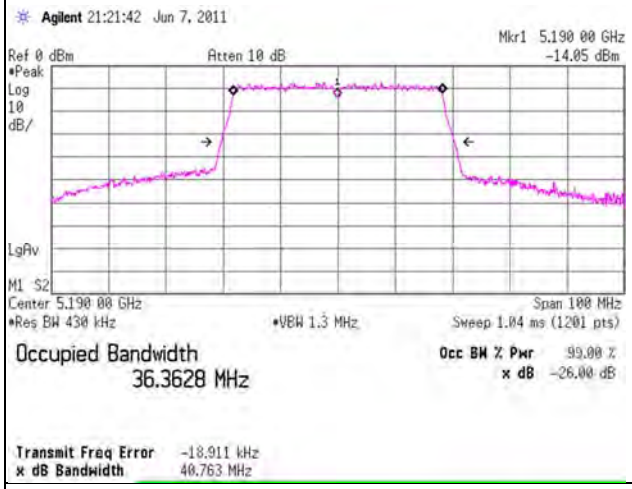
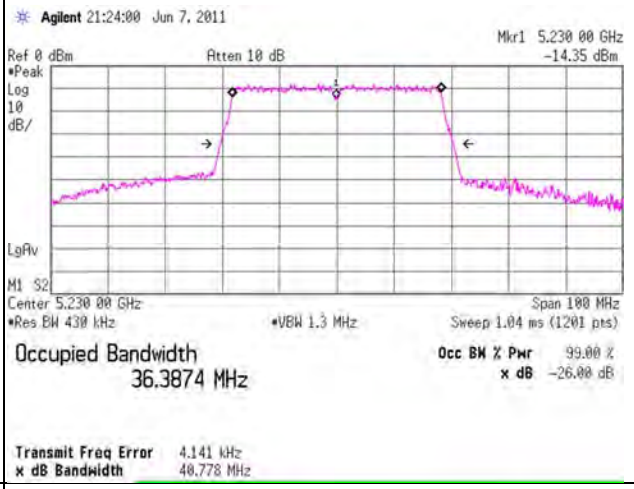
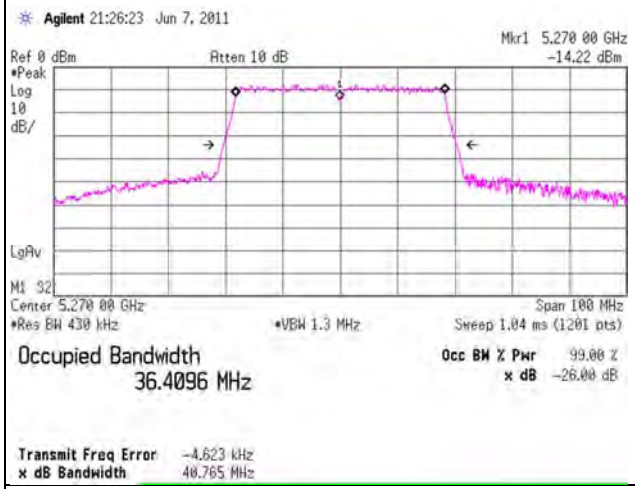
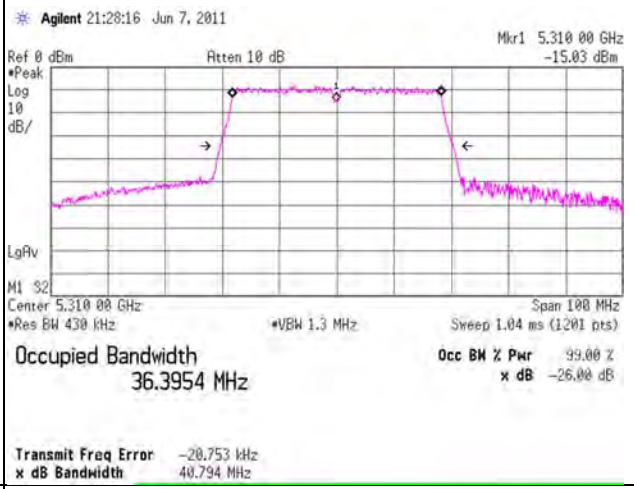
26dB Bandwidth and 99% Occupied Bandwidth

Test place	UL Japan, Inc. Shonan EMC Lab.	No.6 Shielded Room
Date	2011/6/9	
Temperature / Humidity	26deg.C.	62%RH
Engineer	Makoto Hosaka	
Mode	11n (HT40), Tx, Worst rate: MCS2	

Frequency [MHz]	26dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
5190	40.763	36.882
5230	40.778	36.854
5270	40.765	36.902
5310	40.794	36.827

26dB Bandwidth

11n (HT40)	
Tx, 5190MHz	**Tx, 5230MHz**
	
Tx, 5270MHz	**Tx, 5310MHz**
	

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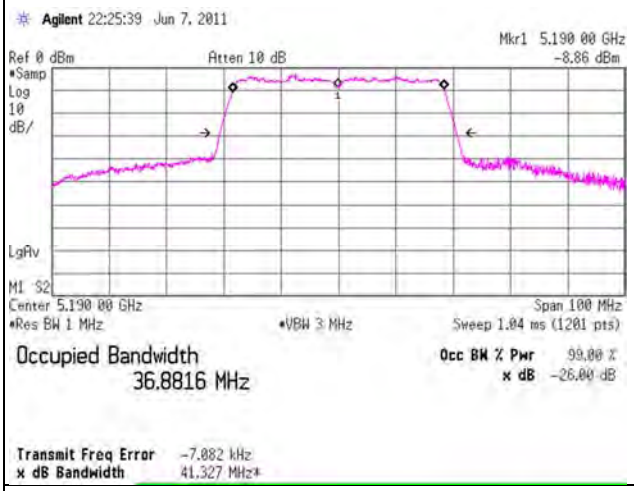
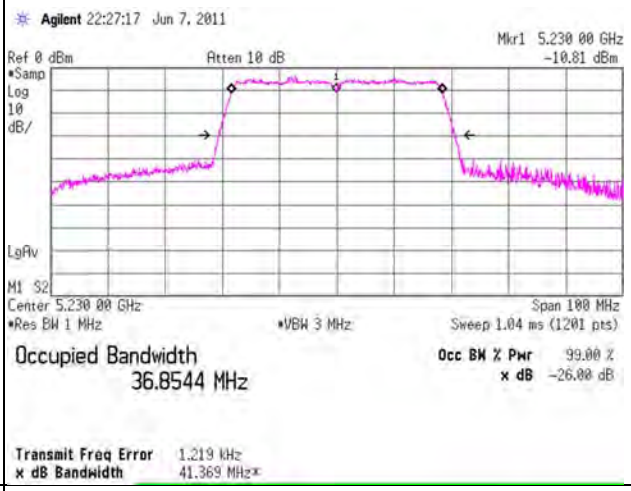
99% Occupied Bandwidth

11n (HT40)

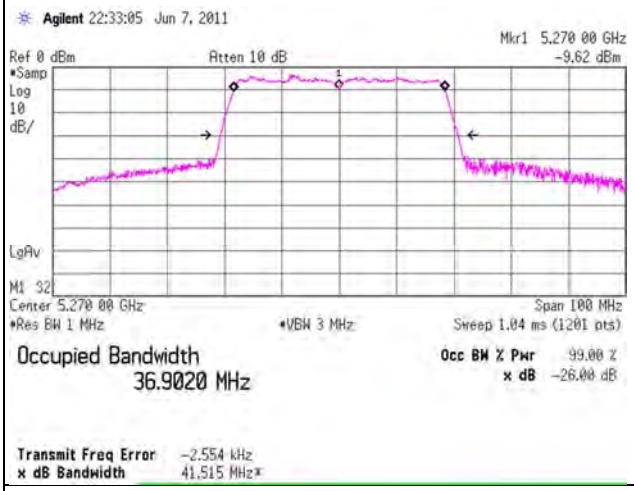
Tx, 5190MHz



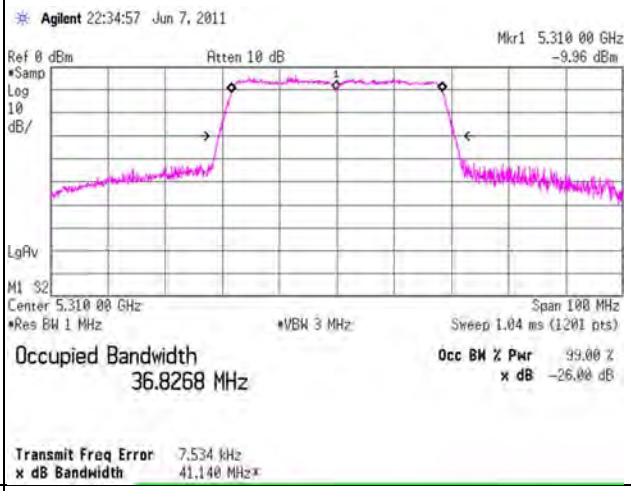
Tx, 5230MHz



Tx, 5270MHz



Tx, 5310MHz



UL Japan, Inc.
Shonan EMC Lab.

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Peak Output Power (Conducted)

Test place	UL Japan, Inc. Shonan EMC Lab. No.6 Shielded Room
Date	2011/5/19
Temperature / Humidity	24deg.C. 49%RH
Engineer	Tatsuya Arai
Mode	11a, Tx, Worst rate: 6Mbps

Ch	Freq.	S/A (AV) Reading	Cable Loss	Atten. Loss	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
Low band, Low	5180.0	2.84	0.90	9.64	13.38	21.78	16.99	50.00	3.61
Low band, Mid	5200.0	2.84	0.90	9.63	13.37	21.73	16.99	50.00	3.62
Low band, High	5240.0	2.71	0.90	9.62	13.23	21.04	16.96	49.61	3.73
Mid band, Low	5260.0	2.75	0.90	9.62	13.27	21.23	23.97	249.70	10.70
Mid band, Mid	5280.0	2.59	0.90	9.61	13.10	20.42	23.98	250.00	10.88
Mid band, High	5320.0	2.43	0.90	9.60	12.93	19.63	23.98	250.00	11.05

Sample Calculation:
Result = Reading + Cable Loss (supplied by customer) + Atten. Loss
* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.
*The test result is rounded off to one or two decimal places, so some differences might be observed.
*Limit: Low band: 50mW(Low and Mid ch), 4dBm+10logB (B=26dB Bandwidth, High ch),
Mid band: 250mW (Mid and High ch), 11dBm+10logB (B=26dB Bandwidth, Low ch)

[Pre check]

Data Rate	Freq.	S/A (AV) Reading	Cable Loss	Atten. Loss	Result		Limit		Margin
[Mbps]	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
6	5260.0	2.75	0.90	9.62	13.27	21.23	23.97	249.70	**10.70**
9	5260.0	2.60	0.90	9.62	13.12	20.51	23.97	249.70	10.85
12	5260.0	2.69	0.90	9.62	13.21	20.94	23.97	249.70	10.76
18	5260.0	2.67	0.90	9.62	13.19	20.84	23.97	249.70	10.78
24	5260.0	2.60	0.90	9.62	13.12	20.51	23.97	249.70	10.85
36	5260.0	2.69	0.90	9.62	13.21	20.94	23.97	249.70	10.76
48	5260.0	2.63	0.90	9.62	13.15	20.65	23.97	249.70	10.82
54	5260.0	2.63	0.90	9.62	13.15	20.65	23.97	249.70	10.82

Reference data for SAR testing

Data Rate	Freq.	P/M (PK) Reading	P/M (AV) Reading	loss	Result PK	Result AV
[Mbps]	[MHz]	[dBm]	[dBm]	[dB]	[dBm]	[dBm]
6	5260.0	12.32	2.93	10.52	22.84	13.45
9	5260.0	12.02	2.89	10.52	22.54	13.41
12	5260.0	12.20	2.90	10.52	22.72	13.42
18	5260.0	11.69	2.92	10.52	22.21	13.44
24	5260.0	12.45	2.89	10.52	22.97	13.41
36	5260.0	12.22	2.83	10.52	22.74	13.35
48	5260.0	11.98	2.85	10.52	22.50	13.37
54	5260.0	12.18	2.82	10.52	22.70	13.34

S/A: Spectrum analyzer
P/M: Power meter with Power sensor

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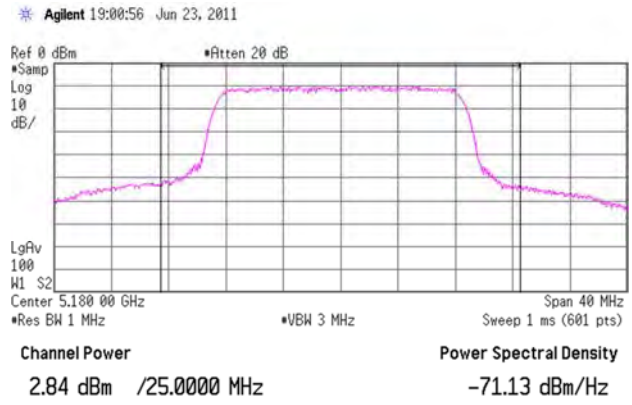
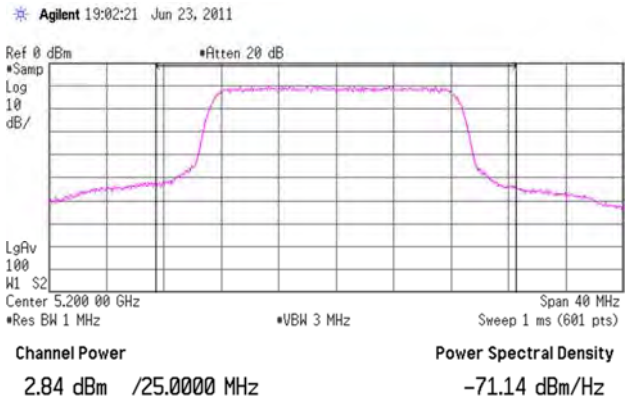
Peak Output Power (Conducted)

11a

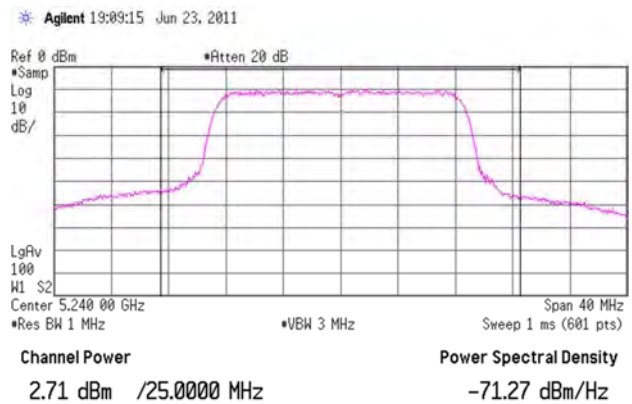
Tx, 5180MHz



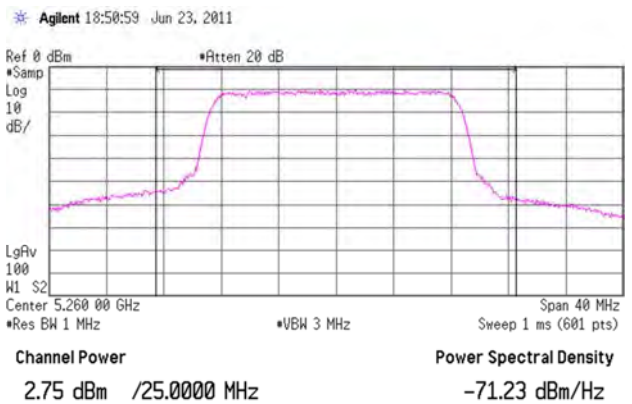
Tx, 5200MHz



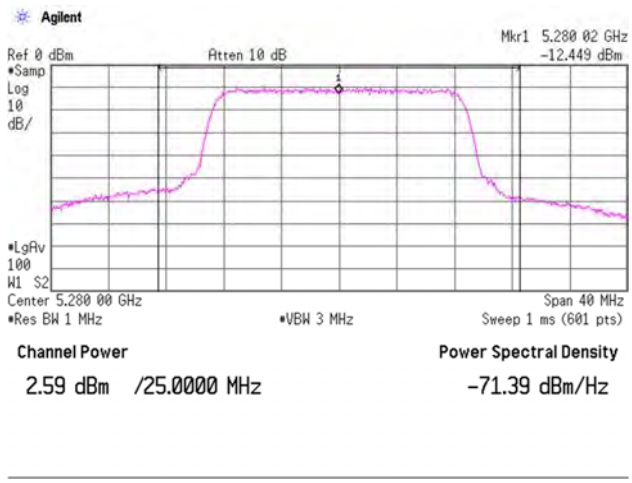
Tx, 5240MHz



Tx, 5260MHz



Tx, 5280MHz



Tx, 5320MHz

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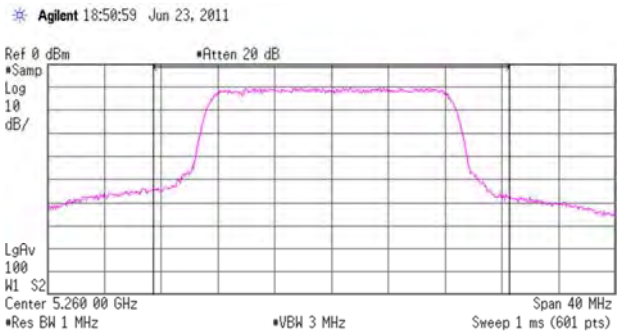
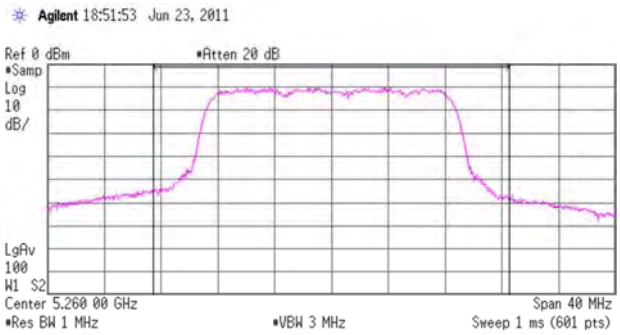
Peak Output Power (Conducted)

11a, Reference chart Tx 5260 MHz

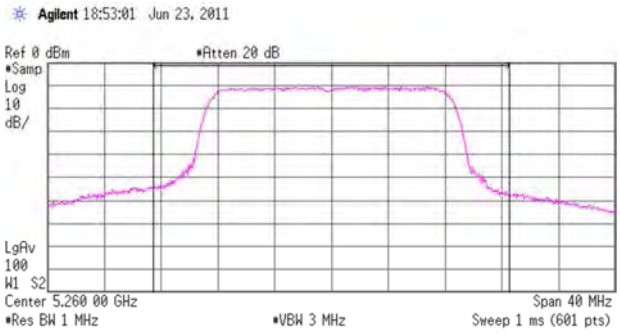
6Mbps



9Mbps



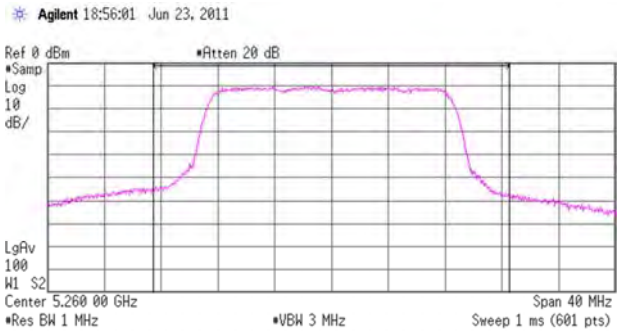
12Mbps



18Mbps

24Mbps

36Mbps



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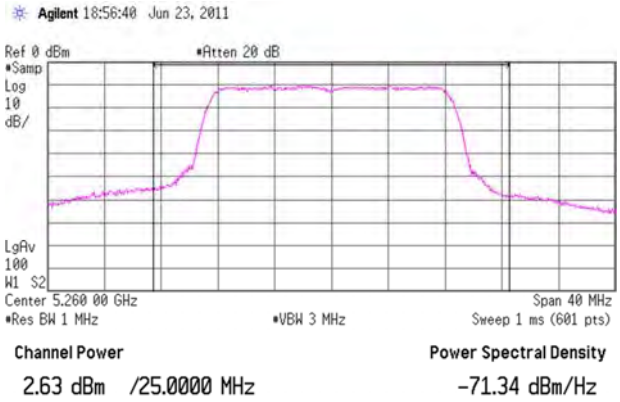
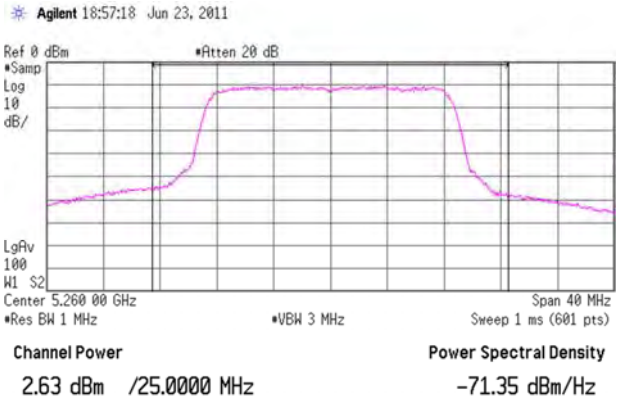
Peak Output Power (Conducted)

11a, Reference chart Tx 5260 MHz	
48Mbps	**54Mbps**
	

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Peak Output Power (Conducted)

Test place	UL Japan, Inc. Shonan EMC Lab. No.6 Shielded Room
Date	2011/5/19
Temperature / Humidity	24deg.C. 49%RH
Engineer	Tatsuya Arai
Mode	11n (HT20), Tx, Worst rate: MCS2

Ch	Freq.	S/A (AV) Reading	Cable Loss	Atten. Loss	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
Low band, Low	5180.0	2.87	0.90	9.64	13.41	21.93	16.99	50.00	3.58
Low band, Mid	5200.0	2.80	0.90	9.63	13.33	21.53	16.99	50.00	3.66
Low band, High	5240.0	2.69	0.90	9.62	13.21	20.94	16.99	50.00	3.78
Mid band, Low	5260.0	2.74	0.90	9.62	13.26	21.18	23.98	250.00	10.72
Mid band, Mid	5280.0	2.60	0.90	9.61	13.11	20.46	23.98	250.00	10.87
Mid band, High	5320.0	2.41	0.90	9.60	12.91	19.54	23.98	250.00	11.07

Sample Calculation:
Result = Reading + Cable Loss (supplied by customer) + Atten. Loss
* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.
*The test result is rounded off to one or two decimal places, so some differences might be observed.
*Limit: Low band: 50mW, Mid band: 250mW

[Pre check]

Data Rate	Freq.	S/A (AV) Reading	Cable Loss	Atten. Loss	Result		Limit		Margin
[MCS]	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
0	5260.0	2.63	0.90	9.62	13.15	20.65	23.98	250.00	10.83
1	5260.0	2.68	0.90	9.62	13.20	20.89	23.98	250.00	10.78
2	5260.0	2.74	0.90	9.62	13.26	21.18	23.98	250.00	**10.72**
3	5260.0	2.63	0.90	9.62	13.15	20.65	23.98	250.00	10.83
4	5260.0	2.69	0.90	9.62	13.21	20.94	23.98	250.00	10.77
5	5260.0	2.65	0.90	9.62	13.17	20.75	23.98	250.00	10.81
6	5260.0	2.69	0.90	9.62	13.21	20.94	23.98	250.00	10.77
7	5260.0	2.69	0.90	9.62	13.21	20.94	23.98	250.00	10.77

Reference data for SAR testing

Data Rate	Freq.	P/M (PK) Reading	P/M (AV) Reading	loss	Result PK	Result AV
[MCS]	[MHz]	[dBm]	[dBm]	[dB]	[dBm]	[dBm]
0	5260.0	11.71	2.93	10.52	22.23	13.45
1	5260.0	11.66	2.92	10.52	22.18	13.44
2	5260.0	11.62	2.95	10.52	22.14	13.47
3	5260.0	11.72	2.92	10.52	22.24	13.44
4	5260.0	11.72	2.94	10.52	22.24	13.46
5	5260.0	11.60	2.93	10.52	22.12	13.45
6	5260.0	11.73	2.92	10.52	22.25	13.44
7	5260.0	11.75	2.91	10.52	22.27	13.43

S/A: Spectrum analyzer
P/M: Power meter with Power sensor

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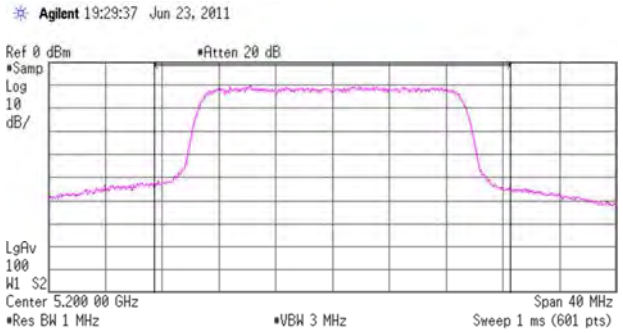
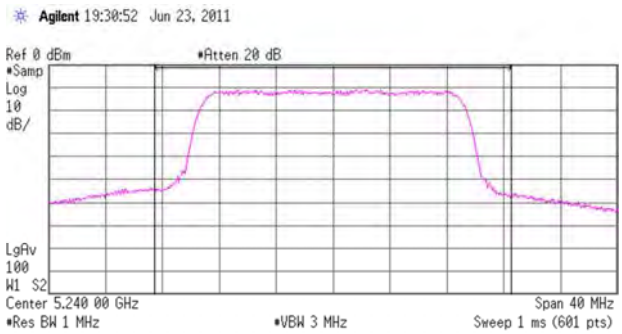
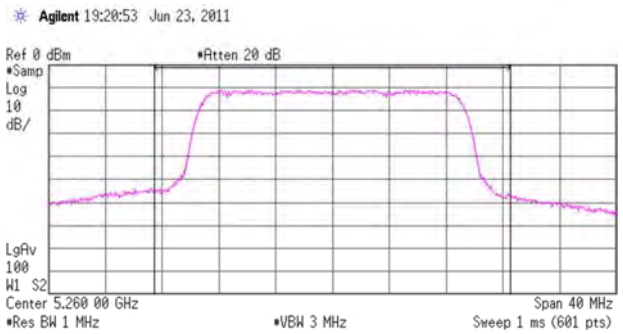
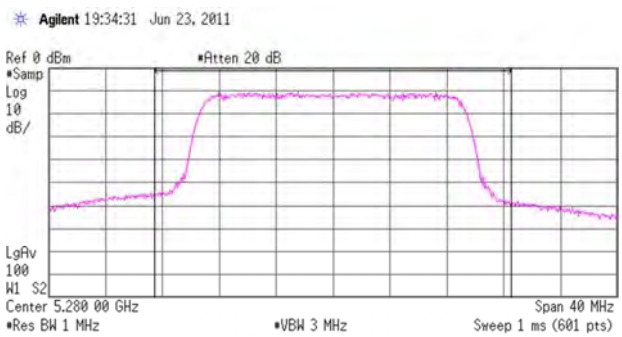
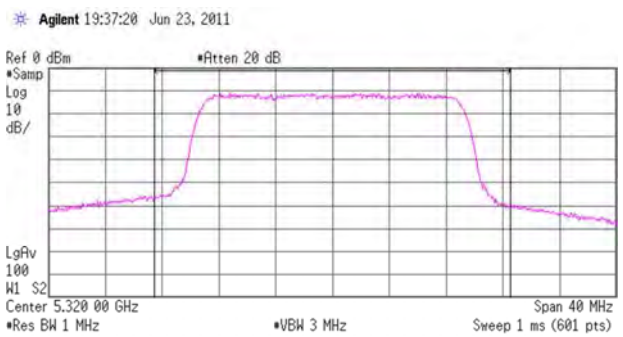
Peak Output Power (Conducted)

11n (HT20)	
Tx, 5180MHz	**Tx, 5200MHz**
	
Tx, 5240MHz	**Tx, 5260MHz**
	
Tx, 5280MHz	**Tx, 5320MHz**
	

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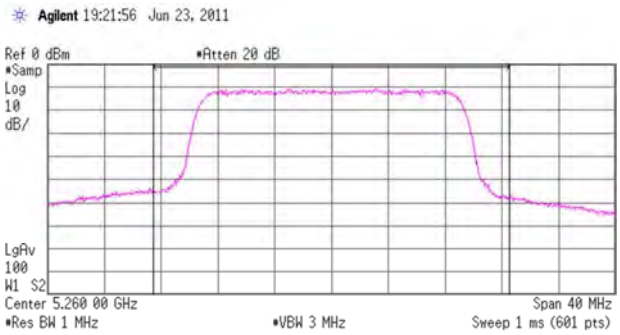
Peak Output Power (Conducted)

11n (HT20), Reference chart Tx 5260 MHz

MCS0



Channel Power: 2.63 dBm /25.0000 MHz

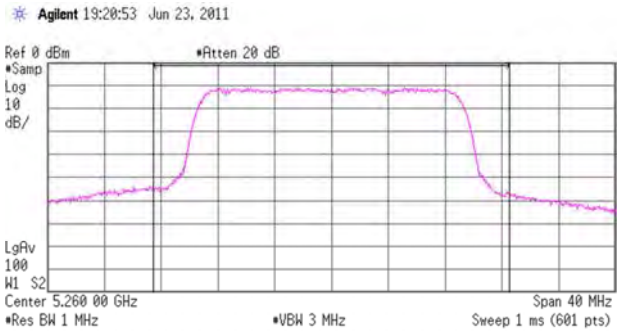
Power Spectral Density: -71.35 dBm/Hz

MCS1

Channel Power: 2.68 dBm /25.0000 MHz

Power Spectral Density: -71.30 dBm/Hz

MCS2



Channel Power: 2.74 dBm /25.0000 MHz

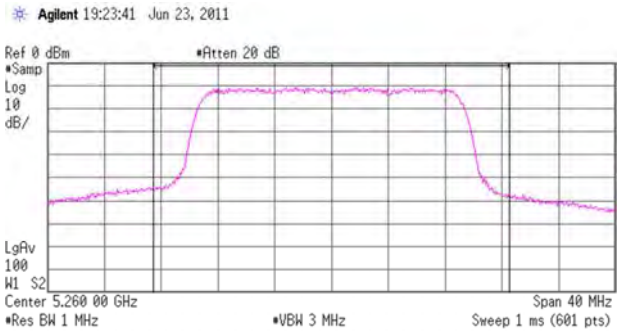
Power Spectral Density: -71.24 dBm/Hz

MCS3

Channel Power: 2.63 dBm /25.0000 MHz

Power Spectral Density: -71.35 dBm/Hz

MCS4



Channel Power: 2.69 dBm /25.0000 MHz

Power Spectral Density: -71.29 dBm/Hz

MCS5

Channel Power: 2.65 dBm /25.0000 MHz

Power Spectral Density: -71.33 dBm/Hz

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Peak Output Power (Conducted)

11n (HT20), Reference chart Tx 5260 MHz	
MCS6	**MCS7**
	

Peak Output Power (Conducted)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.6 Shielded Room
Date	2011/5/19	
Temperature / Humidity	24deg.C. 49%RH	
Engineer	Tatsuya Arai	
Mode	11n (HT40), Tx, Worst rate: MCS2	

Ch	Freq.	S/A (AV) Reading	Cable Loss	Atten. Loss	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
Low band, Low	5190.0	3.04	0.90	9.63	13.57	22.75	16.99	50.00	3.42
Low band, Mid	5230.0	2.71	0.90	9.62	13.23	21.04	16.99	50.00	3.76
Low band, High	-	-	-	-	-	-	-	-	-
Mid band, Low	5270.0	2.77	0.90	9.62	13.29	21.33	23.98	250.00	10.69
Mid band, Mid	5310.0	2.58	0.90	9.61	13.09	20.37	23.98	250.00	10.89
Mid band, High	-	-	-	-	-	-	-	-	-

Sample Calculation:
Result = Reading + Cable Loss (supplied by customer) + Atten. Loss
* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.
*The test result is rounded off to one or two decimal places, so some differences might be observed.
*Limit: Low band: 50mW, Mid band: 250mW

[Pre check]

Data Rate	Freq.	S/A (PK) Reading	Cable Loss	Atten. Loss	Result		Limit		Margin
[MCS]	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
0	5310.0	2.69	0.90	9.62	13.21	20.94	23.98	250.00	10.77
1	5270.0	2.70	0.90	9.62	13.22	20.99	23.98	250.00	10.76
2	5270.0	2.77	0.90	9.62	13.29	21.33	23.98	250.00	**10.69**
3	5270.0	2.76	0.90	9.62	13.28	21.28	23.98	250.00	10.70
4	5270.0	2.71	0.90	9.62	13.23	21.04	23.98	250.00	10.75
5	5270.0	2.75	0.90	9.62	13.27	21.23	23.98	250.00	10.71
6	5270.0	2.75	0.90	9.62	13.27	21.23	23.98	250.00	10.71
7	5270.0	2.75	0.90	9.62	13.27	21.23	23.98	250.00	10.71

Reference data for SAR testing

Data Rate	Freq.	P/M (PK) Reading	P/M (AV) Reading	loss	Result	
					PK	AV
[MCS]	[MHz]	[dBm]	[dBm]	[dB]	[dBm]	[dBm]
0	5260.0	11.75	2.97	10.52	22.27	13.49
1	5260.0	11.77	2.97	10.52	22.29	13.49
2	5260.0	11.71	2.98	10.52	22.23	13.50
3	5260.0	12.38	2.94	10.52	22.90	13.46
4	5260.0	12.13	2.97	10.52	22.65	13.49
5	5260.0	12.35	2.96	10.52	22.87	13.48
6	5260.0	12.08	2.97	10.52	22.60	13.49
7	5260.0	11.73	2.93	10.52	22.25	13.45

S/A: Spectrum analyzer
P/M: Power meter with Power sensor

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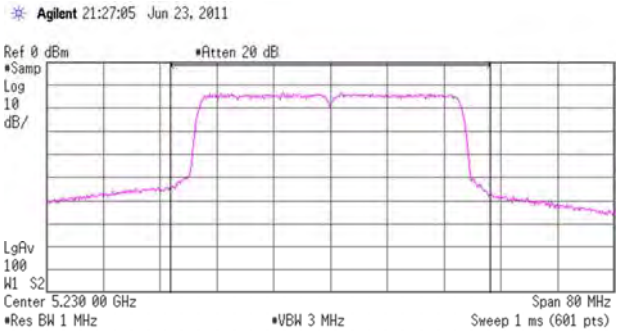
Peak Output Power (Conducted)

11n (HT40)

Tx, 5190MHz

Channel Power	Power Spectral Density
3.04 dBm /45.0000 MHz	-73.49 dBm/Hz

Tx, 5230MHz



Channel Power	Power Spectral Density
2.71 dBm /45.0000 MHz	-73.82 dBm/Hz

Tx, 5270MHz

Channel Power	Power Spectral Density
2.77 dBm /45.0000 MHz	-73.76 dBm/Hz

Tx, 5310MHz

Channel Power	Power Spectral Density
2.58 dBm /45.0000 MHz	-73.95 dBm/Hz

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Peak Output Power (Conducted)

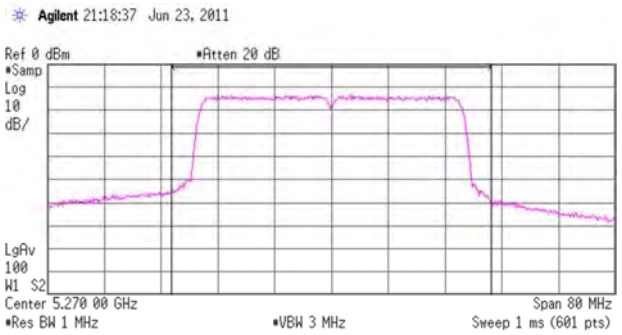
11n (HT40), Reference chart Tx 5270 MHz

MCS0

Channel Power: 2.69 dBm /45.0000 MHz

Power Spectral Density: -73.84 dBm/Hz

MCS1



Channel Power: 2.70 dBm /45.0000 MHz

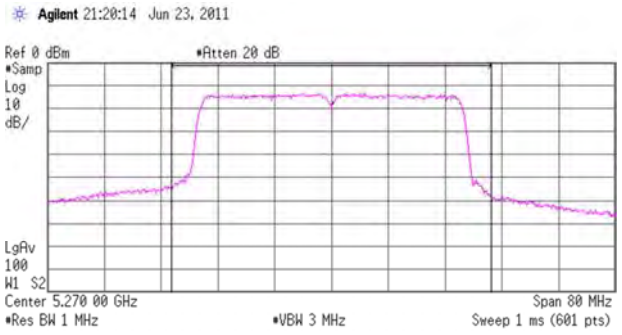
Power Spectral Density: -73.83 dBm/Hz

MCS2

Channel Power: 2.77 dBm /45.0000 MHz

Power Spectral Density: -73.76 dBm/Hz

MCS3



Channel Power: 2.76 dBm /45.0000 MHz

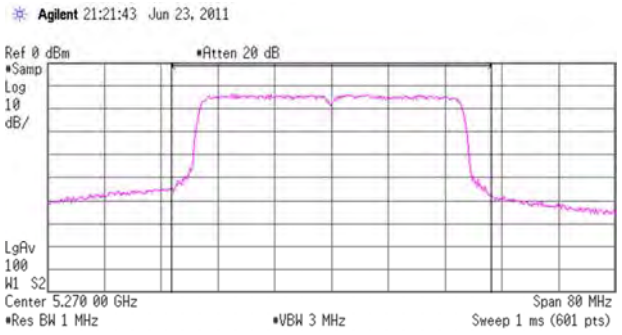
Power Spectral Density: -73.77 dBm/Hz

MCS4

Channel Power: 2.71 dBm /45.0000 MHz

Power Spectral Density: -73.82 dBm/Hz

MCS5



Channel Power: 2.75 dBm /45.0000 MHz

Power Spectral Density: -73.78 dBm/Hz

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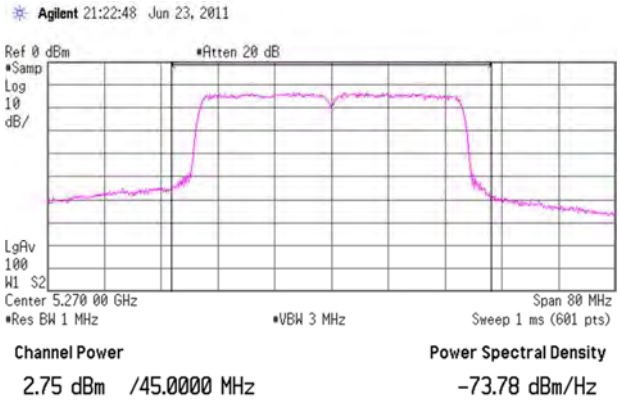
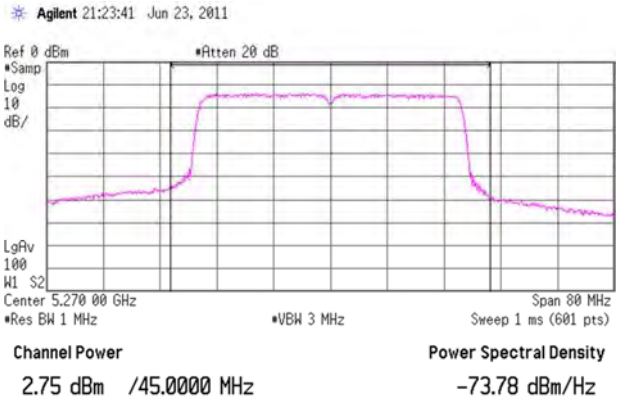
Peak Output Power (Conducted)

11n (HT40), Reference chart Tx 5270 MHz	
MCS6	**MCS7**
	

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Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber	
Date	June 5, 2011	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	22deg.C. , 65%RH	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Shinichi Takano	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5180 MHz 11a, 6Mbps			

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.1	13.0	8.3	31.8	11.6	43.5	31.9	100	0	
Hori.	384.000	QP	21.3	16.1	7.5	31.7	13.2	46.0	32.8	100	0	
Hori.	5150.000	PK	46.9	31.4	15.5	41.4	52.4	73.9	21.5	100	164	
Hori.	15540.000	PK	44.6	39.7	0.6	37.1	47.8	73.9	26.1	100	0	
Hori.	20720.000	PK	58.8	40.3	-2.7	47.4	49.0	73.9	24.9	100	97	
Hori.	5150.000	AV	35.1	31.4	15.5	41.4	40.6	53.9	13.3	100	164	VBW:10Hz
Hori.	15540.000	AV	33.9	39.7	0.6	37.1	37.1	53.9	16.8	100	0	VBW:10Hz
Hori.	20720.000	AV	47.5	40.3	-2.7	47.4	37.7	53.9	16.2	100	97	VBW:10Hz
Vert.	48.000	QP	22.0	12.2	7.2	31.9	9.5	40.0	30.5	100	0	
Vert.	5150.000	PK	46.4	31.4	15.5	41.4	51.9	73.9	22.0	109	133	
Vert.	15540.000	PK	44.7	39.7	0.6	37.1	47.9	73.9	26.0	100	0	
Vert.	20720.000	PK	54.3	40.3	-2.7	47.4	44.5	73.9	29.4	100	245	
Vert.	5150.000	AV	35.3	31.4	15.5	41.4	40.8	53.9	13.1	109	133	VBW:10Hz
Vert.	15540.000	AV	33.8	39.7	0.6	37.1	37.0	53.9	16.9	100	0	VBW:10Hz
Vert.	20720.000	AV	43.9	40.3	-2.7	47.4	34.1	53.9	19.8	100	245	VBW:10Hz

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

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

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

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Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber
Date	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5200 MHz		
	11a, 6Mbps		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.1	13.0	8.3	31.8	11.6	43.5	31.9	100	0	
Hori.	384.000	QP	21.5	16.1	7.5	31.7	13.4	46.0	32.6	100	0	
Hori.	15600.000	PK	43.7	39.5	0.7	37.1	46.8	73.9	27.1	100	0	
Hori.	20800.000	PK	60.9	40.3	-2.7	47.3	51.2	73.9	22.7	100	98	
Hori.	15600.000	AV	33.8	39.5	0.7	37.1	36.9	53.9	17.0	100	0	VBW:10Hz
Hori.	20800.000	AV	48.6	40.3	-2.7	47.3	38.9	53.9	15.0	100	98	VBW:10Hz
Vert.	48.000	QP	22.1	12.2	7.2	31.9	9.6	40.0	30.4	100	0	
Vert.	15600.000	PK	45.0	39.5	0.7	37.1	48.1	73.9	25.8	100	0	
Vert.	20800.000	PK	55.4	40.3	-2.7	47.3	45.7	73.9	28.2	100	132	
Vert.	15600.000	AV	33.8	39.5	0.7	37.1	36.9	53.9	17.0	100	0	VBW:10Hz
Vert.	20800.000	AV	43.7	40.3	-2.7	47.3	34.0	53.9	19.9	100	132	VBW:10Hz

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

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

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

Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber
Date	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5240 MHz		
	11a, 6Mbps		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.1	13.0	8.3	31.8	11.6	43.5	31.9	100	0	
Hori.	384.000	QP	21.4	16.1	7.5	31.7	13.3	46.0	32.7	100	0	
Hori.	15720.000	PK	43.8	39.2	0.8	37.2	46.6	73.9	27.3	100	0	
Hori.	20960.000	PK	56.2	40.3	-2.6	47.1	46.8	73.9	27.1	100	96	
Hori.	15720.000	AV	33.2	39.2	0.8	37.2	36.0	53.9	17.9	100	0	VBW:10Hz
Hori.	20960.000	AV	45.0	40.3	-2.6	47.1	35.6	53.9	18.3	100	96	VBW:10Hz
Vert.	48.000	QP	22.1	12.2	7.2	31.9	9.6	40.0	30.4	100	0	
Vert.	15720.000	PK	44.3	39.2	0.8	37.2	47.1	73.9	26.8	100	0	
Vert.	20960.000	PK	50.0	40.3	-2.6	47.1	40.6	73.9	33.3	100	37	
Vert.	15720.000	AV	33.3	39.2	0.8	37.2	36.1	53.9	17.8	100	0	VBW:10Hz
Vert.	20960.000	AV	40.9	40.3	-2.6	47.1	31.5	53.9	22.4	100	37	VBW:10Hz

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

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

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

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Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber
Date	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5260 MHz		
	11a, 6Mbps		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.2	13.0	8.3	31.8	11.7	43.5	31.8	100	0	
Hori.	384.000	QP	21.4	16.1	7.5	31.7	13.3	46.0	32.7	100	0	
Hori.	15780.000	PK	46.6	39.0	0.8	37.2	49.2	73.9	24.7	100	0	
Hori.	21040.000	PK	57.8	40.4	-2.6	47.1	48.5	73.9	25.4	100	96	
Hori.	15780.000	AV	35.3	39.0	0.8	37.2	37.9	53.9	16.0	100	0	VBW:10Hz
Hori.	21040.000	AV	46.3	40.4	-2.6	47.1	37.0	53.9	16.9	100	96	VBW:10Hz
Vert.	48.000	QP	22.0	12.2	7.2	31.9	9.5	40.0	30.5	100	0	
Vert.	15780.000	PK	44.2	39.0	0.8	37.2	46.8	73.9	27.1	100	0	
Vert.	21040.000	PK	52.6	40.4	-2.6	47.1	43.3	73.9	30.6	100	34	
Vert.	15780.000	AV	33.6	39.0	0.8	37.2	36.2	53.9	17.7	100	0	VBW:10Hz
Vert.	21040.000	AV	41.7	40.4	-2.6	47.1	32.4	53.9	21.5	100	34	VBW:10Hz

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

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

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

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Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber
Date	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5280 MHz		
	11a, 6Mbps		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.2	13.0	8.3	31.8	11.7	43.5	31.8	100	0	
Hori.	384.000	QP	21.4	16.1	7.5	31.7	13.3	46.0	32.7	100	0	
Hori.	15840.000	PK	45.9	38.9	0.9	37.2	48.5	73.9	25.4	100	0	
Hori.	21120.000	PK	57.6	40.4	-2.6	47.1	48.3	73.9	25.6	100	100	
Hori.	15840.000	AV	34.4	38.9	0.9	37.2	37.0	53.9	16.9	100	0	VBW:10Hz
Hori.	21120.000	AV	44.9	40.4	-2.6	47.1	35.6	53.9	18.3	100	100	VBW:10Hz
Vert.	48.000	QP	22.1	12.2	7.2	31.9	9.6	40.0	30.4	100	0	
Vert.	15840.000	PK	45.2	38.9	0.9	37.2	47.8	73.9	26.1	100	0	
Vert.	21120.000	PK	51.4	40.4	-2.6	47.1	42.1	73.9	31.8	100	21	
Vert.	15840.000	AV	33.7	38.9	0.9	37.2	36.3	53.9	17.6	100	0	VBW:10Hz
Vert.	21120.000	AV	40.3	40.4	-2.6	47.1	31.0	53.9	22.9	100	21	VBW:10Hz

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

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

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

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Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber	
Date	June 5, 2011	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	22deg.C. , 65%RH	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Shinichi Takano	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5320 MHz 11a, 6Mbps			

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.1	13.0	8.3	31.8	11.6	43.5	31.9	100	0	
Hori.	384.000	QP	21.4	16.1	7.5	31.7	13.3	46.0	32.7	100	0	
Hori.	5350.000	PK	46.0	31.7	15.6	41.3	52.0	73.9	21.9	100	230	
Hori.	10640.000	PK	44.6	39.8	8.6	36.9	56.1	73.9	17.8	100	0	
Hori.	15960.000	PK	45.3	38.6	1.0	37.3	47.6	73.9	26.3	100	0	
Hori.	21280.000	PK	56.1	40.4	-2.6	47.0	46.9	73.9	27.0	100	99	
Hori.	5350.000	AV	34.4	31.7	15.6	41.3	40.4	53.9	13.5	100	230	VBW:10Hz
Hori.	10640.000	AV	33.1	39.8	8.6	36.9	44.6	53.9	9.3	100	0	VBW:10Hz
Hori.	15960.000	AV	33.7	38.6	1.0	37.3	36.0	53.9	17.9	100	0	VBW:10Hz
Hori.	21280.000	AV	42.7	40.4	-2.6	47.0	33.5	53.9	20.4	100	99	VBW:10Hz
Vert.	48.000	QP	22.1	12.2	7.2	31.9	9.6	40.0	30.4	100	0	
Vert.	5350.000	PK	44.8	31.7	15.6	41.3	50.8	73.9	23.1	134	113	
Vert.	10640.000	PK	44.9	39.8	8.6	36.9	56.4	73.9	17.5	100	0	
Vert.	15960.000	PK	43.5	38.6	1.0	37.3	45.8	73.9	28.1	100	0	
Vert.	21280.000	PK	50.0	40.4	-2.6	47.0	40.8	73.9	33.1	100	329	
Vert.	5350.000	AV	34.2	31.7	15.6	41.3	40.2	53.9	13.7	134	113	VBW:10Hz
Vert.	10640.000	AV	33.2	39.8	8.6	36.9	44.7	53.9	9.2	100	0	VBW:10Hz
Vert.	15960.000	AV	33.1	38.6	1.0	37.3	35.4	53.9	18.5	100	0	VBW:10Hz
Vert.	21280.000	AV	40.9	40.4	-2.6	47.0	31.7	53.9	22.2	100	329	VBW:10Hz

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

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

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

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Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber	
Date	June 5, 2011	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	22deg.C. , 65%RH	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Shinichi Takano	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5180 MHz			
	11n (HT20), MCS2			

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.1	13.0	8.3	31.8	11.6	43.5	31.9	100	0	
Hori.	384.000	QP	21.4	16.1	7.5	31.7	13.3	46.0	32.7	100	0	
Hori.	5150.000	PK	51.0	31.4	15.5	41.4	56.5	73.9	17.4	100	165	
Hori.	15540.000	PK	46.3	39.7	0.6	37.1	49.5	73.9	24.4	100	353	
Hori.	20720.000	PK	60.1	40.3	-2.7	47.4	50.3	73.9	23.6	100	98	
Hori.	5150.000	AV	38.8	31.4	15.5	41.4	44.3	53.9	9.6	100	165	VBW:10Hz
Hori.	15540.000	AV	35.7	39.7	0.6	37.1	38.9	53.9	15.0	100	353	VBW:10Hz
Hori.	20720.000	AV	46.8	40.3	-2.7	47.4	37.0	53.9	16.9	100	98	VBW:10Hz
Vert.	48.000	QP	22.1	12.2	7.2	31.9	9.6	40.0	30.4	100	0	
Vert.	5150.000	PK	47.8	31.4	15.5	41.4	53.3	73.9	20.6	109	136	
Vert.	15540.000	PK	46.5	39.7	0.6	37.1	49.7	73.9	24.2	100	8	
Vert.	20720.000	PK	52.9	40.3	-2.7	47.4	43.1	73.9	30.8	100	121	
Vert.	5150.000	AV	36.1	31.4	15.5	41.4	41.6	53.9	12.3	109	136	VBW:10Hz
Vert.	15540.000	AV	35.0	39.7	0.6	37.1	38.2	53.9	15.7	100	8	VBW:10Hz
Vert.	20720.000	AV	40.9	40.3	-2.7	47.4	31.1	53.9	22.8	100	121	VBW:10Hz

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

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

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

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Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber
Date	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5200 MHz		
	11n (HT20), MCS2		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.1	13.0	8.3	31.8	11.6	43.5	31.9	100	0	
Hori.	384.000	QP	21.4	16.1	7.5	31.7	13.3	46.0	32.7	100	0	
Hori.	15600.000	PK	46.2	39.5	0.7	37.1	49.3	73.9	24.6	100	47	
Hori.	20800.000	PK	59.5	40.3	-2.7	47.3	49.8	73.9	24.1	100	94	
Hori.	15600.000	AV	33.9	39.5	0.7	37.1	37.0	53.9	16.9	100	47	VBW:10Hz
Hori.	20800.000	AV	46.8	40.3	-2.7	47.3	37.1	53.9	16.8	100	94	VBW:10Hz
Vert.	48.000	QP	22.1	12.2	7.2	31.9	9.6	40.0	30.4	100	0	
Vert.	15600.000	PK	44.7	39.5	0.7	37.1	47.8	73.9	26.1	100	8	
Vert.	20800.000	PK	50.5	40.3	-2.7	47.3	40.8	73.9	33.1	100	286	
Vert.	15600.000	AV	34.0	39.5	0.7	37.1	37.1	53.9	16.8	100	8	VBW:10Hz
Vert.	20800.000	AV	41.1	40.3	-2.7	47.3	31.4	53.9	22.5	100	286	VBW:10Hz

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

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

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

Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber
Date	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5240 MHz		
	11n (HT20), MCS2		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.1	13.0	8.3	31.8	11.6	43.5	31.9	100	0	
Hori.	384.000	QP	21.4	16.1	7.5	31.7	13.3	46.0	32.7	100	0	
Hori.	15720.000	PK	48.2	39.2	0.8	37.2	51.0	73.9	22.9	100	2	
Hori.	20960.000	PK	63.1	40.3	-2.6	47.1	53.7	73.9	20.2	100	86	
Hori.	15720.000	AV	36.4	39.2	0.8	37.2	39.2	53.9	14.7	100	2	
Hori.	20960.000	AV	51.0	40.3	-2.6	47.1	41.6	53.9	12.3	100	86	
Vert.	48.000	QP	22.1	12.2	7.2	31.9	9.6	40.0	30.4	100	0	
Vert.	15720.000	PK	46.0	39.2	0.8	37.2	48.8	73.9	25.1	100	8	
Vert.	20960.000	PK	53.3	40.3	-2.6	47.1	43.9	73.9	30.0	100	119	
Vert.	15720.000	AV	35.3	39.2	0.8	37.2	38.1	53.9	15.8	100	8	
Vert.	20960.000	AV	43.8	40.3	-2.6	47.1	34.4	53.9	19.5	100	119	

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

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

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

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Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber
Date	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5260 MHz		
	11n (HT20), MCS2		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.2	13.0	8.3	31.8	11.7	43.5	31.8	100	0	
Hori.	384.000	QP	21.5	16.1	7.5	31.7	13.4	46.0	32.6	100	0	
Hori.	15780.000	PK	45.2	39.0	0.8	37.2	47.8	73.9	26.1	100	0	
Hori.	21040.000	PK	56.7	40.4	-2.6	47.1	47.4	73.9	26.5	100	98	
Hori.	15780.000	AV	34.2	39.0	0.8	37.2	36.8	53.9	17.1	100	0	
Hori.	21040.000	AV	44.0	40.4	-2.6	47.1	34.7	53.9	19.2	100	98	
Vert.	48.000	QP	22.1	12.2	7.2	31.9	9.6	40.0	30.4	100	0	
Vert.	15780.000	PK	45.0	39.0	0.8	37.2	47.6	73.9	26.3	100	0	
Vert.	21040.000	PK	48.4	40.4	-2.6	47.1	39.1	73.9	34.8	100	274	
Vert.	15780.000	AV	33.5	39.0	0.8	37.2	36.1	53.9	17.8	100	0	
Vert.	21040.000	AV	40.5	40.4	-2.6	47.1	31.2	53.9	22.7	100	274	

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

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

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

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Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber
Date	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5280 MHz		
	11n (HT20), MCS2		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.1	13.0	8.3	31.8	11.6	43.5	31.9	100	0	
Hori.	384.000	QP	21.4	16.1	7.5	31.7	13.3	46.0	32.7	100	0	
Hori.	15840.000	PK	44.7	38.9	0.9	37.2	47.3	73.9	26.6	100	0	
Hori.	21120.000	PK	56.5	40.4	-2.6	47.1	47.2	73.9	26.7	100	103	
Hori.	15840.000	AV	33.9	38.9	0.9	37.2	36.5	53.9	17.4	100	0	
Hori.	21120.000	AV	44.0	40.4	-2.6	47.1	34.7	53.9	19.2	100	103	
Vert.	48.000	QP	22.1	12.2	7.2	31.9	9.6	40.0	30.4	100	0	
Vert.	15840.000	PK	45.0	38.9	0.9	37.2	47.6	73.9	26.3	100	0	
Vert.	21120.000	PK	49.4	40.4	-2.6	47.1	40.1	73.9	33.8	100	39	
Vert.	15840.000	AV	33.4	38.9	0.9	37.2	36.0	53.9	17.9	100	0	
Vert.	21120.000	AV	39.8	40.4	-2.6	47.1	30.5	53.9	23.4	100	39	

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

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

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

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Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber	
Date	June 5, 2011	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	22deg.C. , 65%RH	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Shinichi Takano	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5320 MHz			
	11n (HT20), MCS2			

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.1	13.0	8.3	31.8	11.6	43.5	31.9	100	0	
Hori.	384.000	QP	21.5	16.1	7.5	31.7	13.4	46.0	32.6	100	0	
Hori.	5350.000	PK	45.7	31.7	15.6	41.3	51.7	73.9	22.2	100	300	
Hori.	10640.000	PK	44.3	39.8	8.6	36.9	55.8	73.9	18.1	100	0	
Hori.	15960.000	PK	43.6	38.6	1.0	37.3	45.9	73.9	28.0	100	0	
Hori.	21280.000	PK	54.7	40.4	-2.6	47.0	45.5	73.9	28.4	100	97	
Hori.	5350.000	AV	34.4	31.7	15.6	41.3	40.4	53.9	13.5	100	300	
Hori.	10640.000	AV	33.1	39.8	8.6	36.9	44.6	53.9	9.3	100	0	
Hori.	15960.000	AV	33.1	38.6	1.0	37.3	35.4	53.9	18.5	100	0	
Hori.	21280.000	AV	42.0	40.4	-2.6	47.0	32.8	53.9	21.1	100	97	
Vert.	48.000	QP	22.1	12.2	7.2	31.9	9.6	40.0	30.4	100	0	
Vert.	5350.000	PK	45.6	31.7	15.6	41.3	51.6	73.9	22.3	134	156	
Vert.	10640.000	PK	44.7	39.8	8.6	36.9	56.2	73.9	17.7	100	0	
Vert.	15960.000	PK	43.1	38.6	1.0	37.3	45.4	73.9	28.5	100	0	
Vert.	21280.000	PK	48.4	40.4	-2.6	47.0	39.2	73.9	34.7	100	333	
Vert.	5350.000	AV	34.4	31.7	15.6	41.3	40.4	53.9	13.5	134	156	
Vert.	10640.000	AV	33.2	39.8	8.6	36.9	44.7	53.9	9.2	100	0	
Vert.	15960.000	AV	32.8	38.6	1.0	37.3	35.1	53.9	18.8	100	0	
Vert.	21280.000	AV	40.6	40.4	-2.6	47.0	31.4	53.9	22.5	100	333	

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

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

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

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Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber	
Date	June 5, 2011	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	22deg.C. , 65%RH	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Shinichi Takano	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5190 MHz			
	11n (HT40), MCS2			

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.1	13.0	8.3	31.8	11.6	43.5	31.9	100	0	
Hori.	384.000	QP	21.4	16.1	7.5	31.7	13.3	46.0	32.7	100	0	
Hori.	5150.000	PK	46.3	31.4	15.5	41.4	51.8	73.9	22.1	100	165	
Hori.	15570.000	PK	45.8	39.6	0.6	37.1	48.9	73.9	25.0	100	0	
Hori.	20760.000	PK	54.5	40.3	-2.7	47.4	44.7	73.9	29.2	100	96	
Hori.	5150.000	AV	35.2	31.4	15.5	41.4	40.7	53.9	13.2	100	165	VBW:10Hz
Hori.	15570.000	AV	35.6	39.6	0.6	37.1	38.7	53.9	15.2	100	0	VBW:10Hz
Hori.	20760.000	AV	43.5	40.3	-2.7	47.4	33.7	53.9	20.2	100	96	VBW:10Hz
Vert.	48.000	QP	22.1	12.2	7.2	31.9	9.6	40.0	30.4	100	0	
Vert.	5150.000	PK	47.3	31.4	15.5	41.4	52.8	73.9	21.1	109	136	
Vert.	15570.000	PK	46.4	39.6	0.6	37.1	49.5	73.9	24.4	100	0	
Vert.	20760.000	PK	50.1	40.3	-2.7	47.4	40.3	73.9	33.6	100	79	
Vert.	5150.000	AV	35.1	31.4	15.5	41.4	40.6	53.9	13.3	109	136	VBW:10Hz
Vert.	15570.000	AV	34.5	39.6	0.6	37.1	37.6	53.9	16.3	100	0	VBW:10Hz
Vert.	20760.000	AV	40.9	40.3	-2.7	47.4	31.1	53.9	22.8	100	79	VBW:10Hz

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

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

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

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Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber
Date	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5230 MHz		
	11n (HT40), MCS2		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.1	13.0	8.3	31.8	11.6	43.5	31.9	100	0	
Hori.	384.000	QP	21.5	16.1	7.5	31.7	13.4	46.0	32.6	100	0	
Hori.	15690.000	PK	45.2	39.3	0.8	37.2	48.1	73.9	25.8	100	0	
Hori.	20920.000	PK	52.7	40.3	-2.6	47.2	43.2	73.9	30.7	100	96	
Hori.	15690.000	AV	34.0	39.3	0.8	37.2	36.9	53.9	17.0	100	0	
Hori.	20920.000	AV	41.5	40.3	-2.6	47.2	32.0	53.9	21.9	100	96	
Vert.	48.000	QP	22.2	12.2	7.2	31.9	9.7	40.0	30.3	100	0	
Vert.	15690.000	PK	43.8	39.3	0.8	37.2	46.7	73.9	27.2	100	0	
Vert.	20920.000	PK	49.7	40.3	-2.6	47.2	40.2	73.9	33.7	100	17	
Vert.	15690.000	AV	33.5	39.3	0.8	37.2	36.4	53.9	17.5	100	0	
Vert.	20920.000	AV	40.5	40.3	-2.6	47.2	31.0	53.9	22.9	100	17	

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

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

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

Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber
Date	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5270 MHz		
	11n (HT40), MCS2		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.2	13.0	8.3	31.8	11.7	43.5	31.8	100	0	
Hori.	384.000	QP	21.5	16.1	7.5	31.7	13.4	46.0	32.6	100	0	
Hori.	15810.000	PK	44.1	39.0	0.9	37.2	46.8	73.9	27.1	100	0	
Hori.	21080.000	PK	51.4	40.4	-2.6	47.1	42.1	73.9	31.8	100	108	
Hori.	15810.000	AV	33.4	39.0	0.9	37.2	36.1	53.9	17.8	100	0	
Hori.	21080.000	AV	41.1	40.4	-2.6	47.1	31.8	53.9	22.1	100	108	
Vert.	48.000	QP	22.1	12.2	7.2	31.9	9.6	40.0	30.4	100	0	
Vert.	15810.000	PK	43.2	39.0	0.9	37.2	45.9	73.9	28.0	100	0	
Vert.	21080.000	PK	47.6	40.4	-2.6	47.1	38.3	73.9	35.6	100	331	
Vert.	15810.000	AV	33.2	39.0	0.9	37.2	35.9	53.9	18.0	100	0	
Vert.	21080.000	AV	40.0	40.4	-2.6	47.1	30.7	53.9	23.2	100	331	

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

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

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

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Radiated Emission (below 1GHz and above 1GHz Inside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber		
Date	June 5, 2011	June 8, 2011	June 9, 2011	June 21, 2011	June 23, 2011
Temperature / Humidity	22deg.C. , 65%RH	23deg.C. , 64%RH	23deg.C. , 64%RH	25deg.C. , 57%RH	25deg.C. , 58%RH
Engineer	Shinichi Takano	Tatsuya Arai	Tatsuya Arai	Akio Hayashi	Akio Hayashi
Mode	Tx, 5310 MHz				
	11n (HT40), MCS2				

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.000	QP	22.3	13.0	8.3	31.8	11.8	43.5	31.7	100	0	
Hori.	384.000	QP	21.5	16.1	7.5	31.7	13.4	46.0	32.6	100	0	
Hori.	5350.000	PK	48.2	31.7	15.6	41.3	54.2	73.9	19.7	100	300	
Hori.	10620.000	PK	43.9	39.8	8.6	36.8	55.5	73.9	18.4	100	0	
Hori.	15930.000	PK	43.5	38.6	1.0	37.3	45.8	73.9	28.1	100	0	
Hori.	21240.000	PK	52.5	40.4	-2.6	47.0	43.3	73.9	30.6	100	97	
Hori.	5350.000	AV	34.7	31.7	15.6	41.3	40.7	53.9	13.2	100	300	
Hori.	10620.000	AV	33.0	39.8	8.6	36.8	44.6	53.9	9.3	100	0	
Hori.	15930.000	AV	32.9	38.6	1.0	37.3	35.2	53.9	18.7	100	0	
Hori.	21240.000	AV	41.0	40.4	-2.6	47.0	31.8	53.9	22.1	100	97	
Vert.	48.000	QP	22.1	12.2	7.2	31.9	9.6	40.0	30.4	100	0	
Vert.	5350.000	PK	47.2	31.7	15.6	41.3	53.2	73.9	20.7	147	156	
Vert.	10620.000	PK	44.0	39.8	8.6	36.8	55.6	73.9	18.3	100	0	
Vert.	15930.000	PK	42.8	38.6	1.0	37.3	45.1	73.9	28.8	100	0	
Vert.	21240.000	PK	49.5	40.4	-2.6	47.0	40.3	73.9	33.6	100	22	
Vert.	5350.000	AV	34.9	31.7	15.6	41.3	40.9	53.9	13.0	147	156	
Vert.	10620.000	AV	33.1	39.8	8.6	36.8	44.7	53.9	9.2	100	0	
Vert.	15930.000	AV	32.7	38.6	1.0	37.3	35.0	53.9	18.9	100	0	
Vert.	21240.000	AV	39.8	40.4	-2.6	47.0	30.6	53.9	23.3	100	22	

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

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 7, 2011	June 21, 2011
Temperature / Humidity	24deg.C. , 60%RH	25deg.C. , 57%RH
Engineer	Tatsuya Arai	Akio Hayashi
Mode	Tx, 5180 MHz	
	11a, 6Mbps	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6908.000	PK	45.0	35.6	6.9	38.5	49.0	-46.2	-27.0	19.2	100	0	
Hori.	10360.000	PK	43.7	39.4	8.5	36.7	54.9	-40.3	-27.0	13.3	100	0	
Hori.	25900.000	PK	46.2	40.7	-1.4	46.8	38.7	-56.5	-27.0	29.5	100	0	
Vert.	6908.000	PK	44.9	35.6	6.9	38.5	48.9	-46.3	-27.0	19.3	100	0	
Vert.	10360.000	PK	44.3	39.4	8.5	36.7	55.5	-39.7	-27.0	12.7	100	0	
Vert.	25900.000	PK	46.9	40.7	-1.4	46.8	39.4	-55.8	-27.0	28.8	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.		No.3 Semi Anechoic Chamber
Date	June 7, 2011	June 21, 2011	
Temperature / Humidity	24deg.C. , 60%RH	25deg.C. , 57%RH	
Engineer	Tatsuya Arai	Akio Hayashi	
Mode	Tx, 5200 MHz		
	11a, 6Mbps		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6933.000	PK	44.6	35.7	6.9	38.5	48.7	-46.53	-27.0	19.5	100	0	
Hori.	10400.000	PK	43.4	39.5	8.5	36.7	54.7	-40.53	-27.0	13.5	100	0	
Hori.	26000.000	PK	46.7	40.7	-1.4	46.8	39.2	-56.03	-27.0	29.0	100	0	
Vert.	6933.000	PK	46.5	35.7	6.9	38.5	50.6	-44.63	-27.0	17.6	100	0	
Vert.	10400.000	PK	45.0	39.5	8.5	36.7	56.3	-38.93	-27.0	11.9	100	0	
Vert.	26000.000	PK	46.5	40.7	-1.4	46.8	39.0	-56.23	-27.0	29.2	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG(({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 7, 2011	June 21, 2011
Temperature / Humidity	24deg.C. , 60%RH	25deg.C. , 57%RH
Engineer	Tatsuya Arai	Akio Hayashi
Mode	Tx, 5240 MHz	
	11a, 6Mbps	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	10480.000	PK	44.8	39.6	8.5	36.6	56.3	-38.9	-27.0	11.9	100	0	
Hori.	26200.000	PK	46.7	40.4	-1.4	46.9	38.8	-56.4	-27.0	29.4	100	0	
Vert.	10480.000	PK	44.7	39.6	8.5	36.6	56.2	-39.0	-27.0	12.0	100	0	
Vert.	26200.000	PK	47.0	40.4	-1.4	46.9	39.1	-56.1	-27.0	29.1	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG(({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 8, 2011	June 21, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH
Engineer	Akio Hayashi	Akio Hayashi
Mode	Tx, 5260 MHz	
	11a, 6Mbps	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7012.000	PK	45.8	35.9	7.0	38.4	50.3	-44.9	-27.0	17.9	100	0	
Hori.	10520.000	PK	45.8	39.6	8.5	36.6	57.3	-37.9	-27.0	10.9	100	0	
Hori.	26300.000	PK	47.2	40.3	-1.4	46.9	39.2	-56.0	-27.0	29.0	100	0	
Vert.	7012.000	PK	46.0	35.9	7.0	38.4	50.5	-44.7	-27.0	17.7	100	0	
Vert.	10520.000	PK	44.3	39.6	8.5	36.6	55.8	-39.4	-27.0	12.4	100	0	
Vert.	26300.000	PK	46.8	40.3	-1.4	46.9	38.8	-56.4	-27.0	29.4	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 8, 2011	June 21, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH
Engineer	Akio Hayashi	Akio Hayashi
Mode	Tx, 5280 MHz	
	11a, 6Mbps	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7042.000	PK	47.0	35.9	7.0	38.4	51.5	-43.7	-27.0	16.7	100	0	
Hori.	10560.000	PK	45.1	39.7	8.5	36.7	56.6	-38.6	-27.0	11.6	100	0	
Hori.	26400.000	PK	45.9	40.1	-1.4	46.9	37.7	-57.5	-27.0	30.5	100	0	
Vert.	7042.000	PK	46.5	35.9	7.0	38.4	51.0	-44.2	-27.0	17.2	100	0	
Vert.	10560.000	PK	44.3	39.7	8.5	36.7	55.8	-39.4	-27.0	12.4	100	0	
Vert.	26400.000	PK	46.3	40.1	-1.4	46.9	38.1	-57.1	-27.0	30.1	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 8, 2011	June 22, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 56%RH
Engineer	Akio Hayashi	Akio Hayashi
Mode	Tx, 5320 MHz	
	11a, 6Mbps	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7092.000	PK	44.6	36.0	7.0	38.4	49.2	-46.0	-27.0	19.0	100	0	
Hori.	26600.000	PK	62.0	43.0	3.2	68.6	39.6	-55.6	-27.0	28.6	100	0	
Vert.	7092.000	PK	45.2	36.0	7.0	38.4	49.8	-45.4	-27.0	18.4	100	0	
Vert.	26600.000	PK	61.2	43.0	3.2	68.6	38.8	-56.4	-27.0	29.4	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 8, 2011	June 21, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH
Engineer	Akio Hayashi	Akio Hayashi
Mode	Tx, 5180 MHz	
	11n (HT20), MCS2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6908.000	PK	46.4	35.6	6.9	38.5	50.4	-44.8	-27.0	17.8	100	0	
Hori.	10360.000	PK	45.4	39.4	8.5	36.7	56.6	-38.6	-27.0	11.6	100	0	
Hori.	25900.000	PK	46.1	40.7	-1.4	46.8	38.6	-56.6	-27.0	29.6	100	0	
Vert.	6908.000	PK	46.0	35.6	6.9	38.5	50.0	-45.2	-27.0	18.2	100	0	
Vert.	10360.000	PK	45.9	39.4	8.5	36.7	57.1	-38.1	-27.0	11.1	100	0	
Vert.	25900.000	PK	46.8	40.7	-1.4	46.8	39.3	-55.9	-27.0	28.9	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 8, 2011	June 21, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH
Engineer	Akio Hayashi	Akio Hayashi
Mode	Tx, 5200 MHz	
	11n (HT20), MCS2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6933.000	PK	46.8	35.7	6.9	38.5	50.9	-44.33	-27.0	17.3	100	0	
Hori.	10400.000	PK	44.3	39.5	8.5	36.7	55.6	-39.63	-27.0	12.6	100	0	
Hori.	26000.000	PK	46.2	40.7	-1.4	46.8	38.7	-56.53	-27.0	29.5	100	0	
Vert.	6933.000	PK	46.6	35.7	6.9	38.5	50.7	-44.53	-27.0	17.5	100	0	
Vert.	10400.000	PK	44.2	39.5	8.5	36.7	55.5	-39.73	-27.0	12.7	100	0	
Vert.	26000.000	PK	46.5	40.7	-1.4	46.8	39.0	-56.23	-27.0	29.2	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 8, 2011	June 21, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH
Engineer	Akio Hayashi	Akio Hayashi
Mode	Tx, 5240 MHz	
	11n (HT20), MCS2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	10480.000	PK	45.3	39.6	8.5	36.6	56.8	-38.4	-27.0	11.4	100	0	
Hori.	26200.000	PK	47.8	40.4	-1.4	46.9	39.9	-55.3	-27.0	28.3	100	0	
Vert.	10480.000	PK	44.3	39.6	8.5	36.6	55.8	-39.4	-27.0	12.4	100	0	
Vert.	26200.000	PK	47.2	40.4	-1.4	46.9	39.3	-55.9	-27.0	28.9	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG(({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 8, 2011	June 21, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH
Engineer	Akio Hayashi	Akio Hayashi
Mode	Tx, 5260 MHz	
	11n (HT20), MCS2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7012.000	PK	46.3	35.9	7.0	38.4	50.8	-44.4	-27.0	17.4	100	0	
Hori.	10520.000	PK	43.8	39.6	8.5	36.6	55.3	-39.9	-27.0	12.9	100	0	
Hori.	26300.000	PK	47.2	40.3	-1.4	46.9	39.2	-56.0	-27.0	29.0	100	0	
Vert.	7012.000	PK	46.7	35.9	7.0	38.4	51.2	-44.0	-27.0	17.0	100	0	
Vert.	10520.000	PK	44.6	39.6	8.5	36.6	56.1	-39.1	-27.0	12.1	100	0	
Vert.	26300.000	PK	47.9	40.3	-1.4	46.9	39.9	-55.3	-27.0	28.3	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 8, 2011	June 21, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH
Engineer	Akio Hayashi	Akio Hayashi
Mode	Tx, 5280 MHz	
	11n (HT20), MCS2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7042.000	PK	46.7	35.9	7.0	38.4	51.2	-44.0	-27.0	17.0	100	0	
Hori.	10560.000	PK	44.3	39.7	8.5	36.7	55.8	-39.4	-27.0	12.4	100	0	
Hori.	26400.000	PK	46.5	40.1	-1.4	46.9	38.3	-56.9	-27.0	29.9	100	0	
Vert.	7042.000	PK	46.0	35.9	7.0	38.4	50.5	-44.7	-27.0	17.7	100	0	
Vert.	10560.000	PK	45.1	39.7	8.5	36.7	56.6	-38.6	-27.0	11.6	100	0	
Vert.	26400.000	PK	45.9	40.1	-1.4	46.9	37.7	-57.5	-27.0	30.5	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 8, 2011	June 22, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 56%RH
Engineer	Akio Hayashi	Akio Hayashi
Mode	Tx, 5320 MHz	
	11n (HT20), MCS2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7092.000	PK	45.7	36.0	7.0	38.4	50.3	-44.9	-7.0	37.9	100	0	
Hori.	26600.000	PK	60.7	43.0	3.2	68.6	38.3	-56.9	-7.0	49.9	100	0	
Vert.	7092.000	PK	46.2	36.0	7.0	38.4	50.8	-44.4	-7.0	37.4	100	0	
Vert.	26600.000	PK	61.7	43.0	3.2	68.6	39.3	-55.9	-7.0	48.9	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG(({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 8, 2011	June 21, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH
Engineer	Akio Hayashi	Akio Hayashi
Mode	Tx, 5190 MHz	
	11n (HT40), MCS2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6921.000	PK	45.7	35.7	6.9	38.5	49.8	-45.4	-27.0	18.4	100	0	
Hori.	10380.000	PK	44.3	39.4	8.5	36.7	55.5	-39.7	-27.0	12.7	100	0	
Hori.	25950.000	PK	45.9	40.7	-1.4	46.8	38.4	-56.8	-27.0	29.8	100	0	
Vert.	6921.000	PK	45.9	35.7	6.9	38.5	50.0	-45.2	-27.0	18.2	100	0	
Vert.	10380.000	PK	43.7	39.4	8.5	36.7	54.9	-40.3	-27.0	13.3	100	0	
Vert.	25950.000	PK	46.2	40.7	-1.4	46.8	38.7	-56.5	-27.0	29.5	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 8, 2011	June 21, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH
Engineer	Akio Hayashi	Akio Hayashi
Mode	Tx, 5230 MHz	
	11n (HT40), MCS2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	10460.000	PK	45.2	39.6	8.5	36.6	56.7	-38.53	-27.0	11.5	100	0	
Hori.	26150.000	PK	46.5	40.5	-1.4	46.8	38.8	-56.43	-27.0	29.4	100	0	
Vert.	10460.000	PK	44.6	39.6	8.5	36.6	56.1	-39.13	-27.0	12.1	100	0	
Vert.	26150.000	PK	47.5	40.5	-1.4	46.8	39.8	-55.43	-27.0	28.4	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG(({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place	UL Japan, Inc. Shonan EMC Lab.	No.3 Semi Anechoic Chamber
Date	June 8, 2011	June 21, 2011
Temperature / Humidity	23deg.C. , 64%RH	25deg.C. , 57%RH
Engineer	Tatsuya Arai	Akio Hayashi
Mode	Tx, 5270 MHz	
	11n (HT40), MCS2	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7025.000	PK	46.6	35.9	7.0	38.4	51.1	-44.1	-27.0	17.1	100	0	
Hori.	10540.000	PK	44.3	39.7	8.5	36.6	55.9	-39.3	-27.0	12.3	100	0	
Hori.	26350.000	PK	46.6	40.2	-1.4	46.9	38.5	-56.7	-27.0	29.7	100	0	
Vert.	7025.000	PK	47.0	35.9	7.0	38.4	51.5	-43.7	-27.0	16.7	100	0	
Vert.	10540.000	PK	44.6	39.7	8.5	36.6	56.2	-39.0	-27.0	12.0	100	0	
Vert.	26350.000	PK	46.9	40.2	-1.4	46.9	38.8	-56.4	-27.0	29.4	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

Resrult(EIRP[dBm])=10*LOG({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)

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

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

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Data of Spurious Emissions (Calculation)(above 1GHz Outside of the restricted band)

Test place UL Japan, Inc. Shonan EMC Lab. No.3 Semi Anechoic Chamber
Date June 22, 2011
Temperature / Humidity 25deg.C. , 56%RH
Engineer Akio Hayashi
Mode Tx, 5310 MHz
11n (HT40), MCS2

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP [dBm])	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	26550.000	PK	61.5	43.0	3.2	68.7	39.0	-56.2	-27.0	29.2	100	0	
Vert.	26550.000	PK	62.1	43.0	3.2	68.7	39.6	-55.6	-27.0	28.6	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)
Resrult(EIRP[dBm])=10*LOG({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
Distance factor: 13GHz-40GHz 20log(3.0m/1.0m)= 9.5dB

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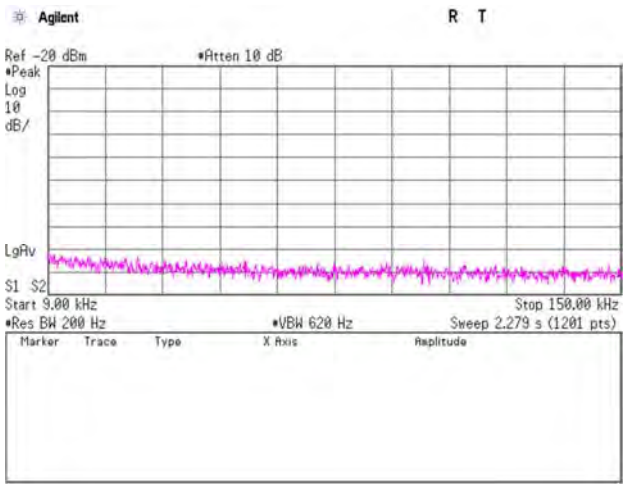
Spurious emission (Conducted)

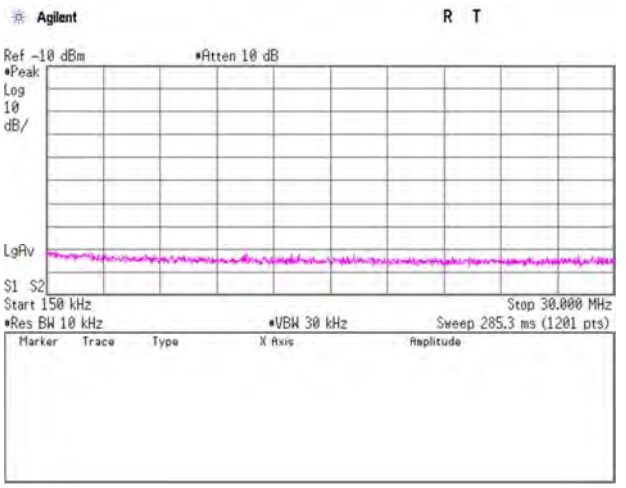
11a

Tx, 5180MHz

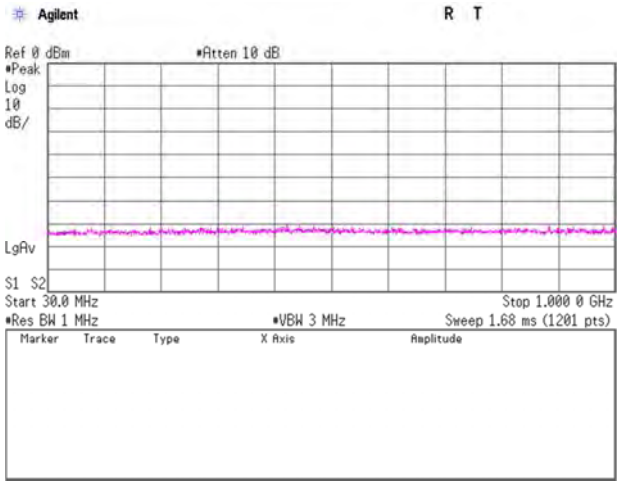
9kHz - 150kHz



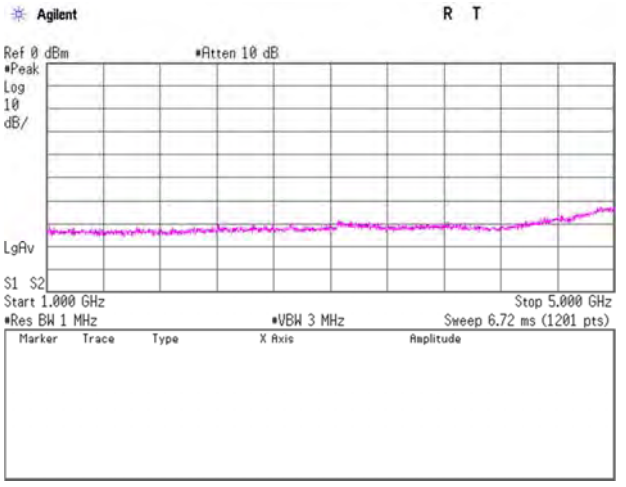
150kHz - 30MHz



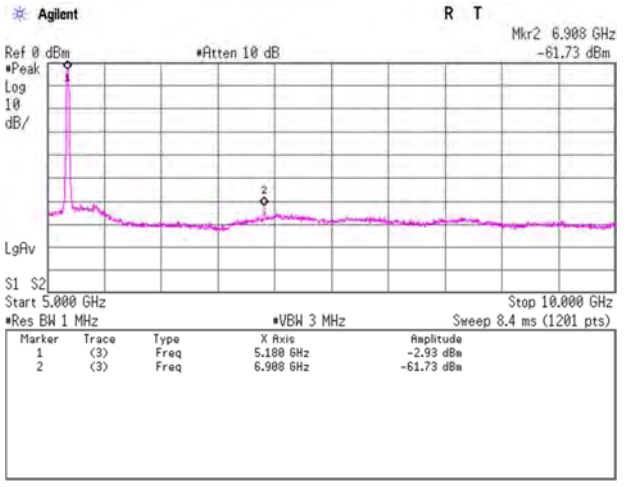
30MHz - 1GHz



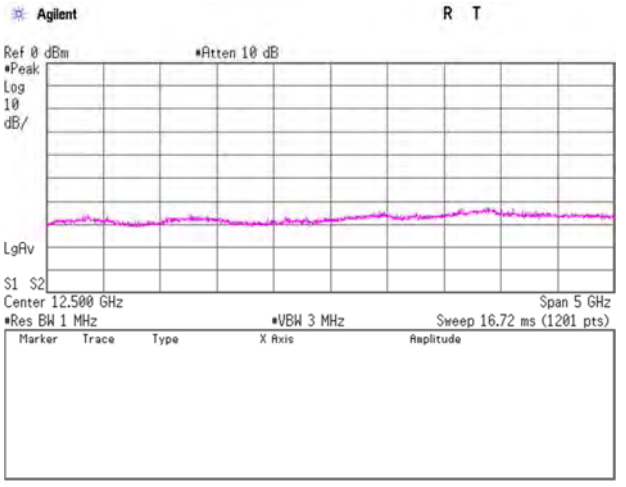
1GHz - 5GHz



5GHz - 10GHz



10GHz - 15GHz



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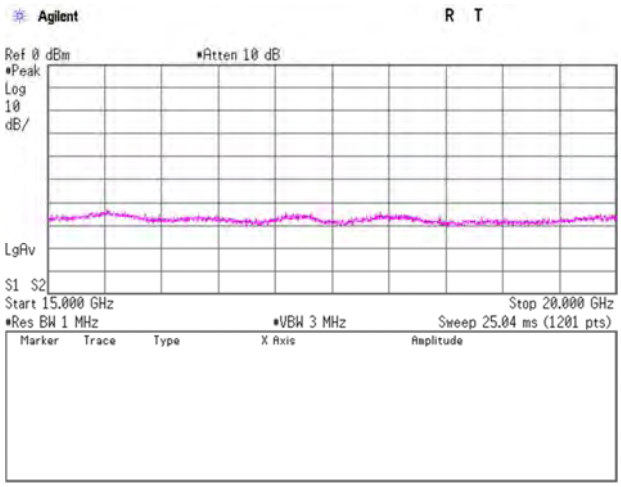
Spurious emission (Conducted)

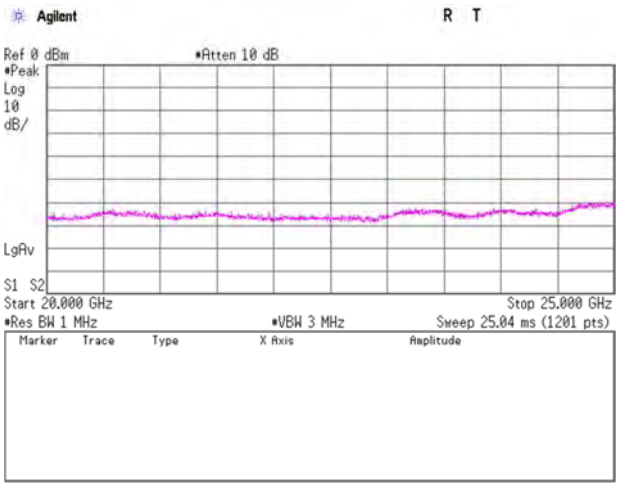
11a

Tx, 5180MHz

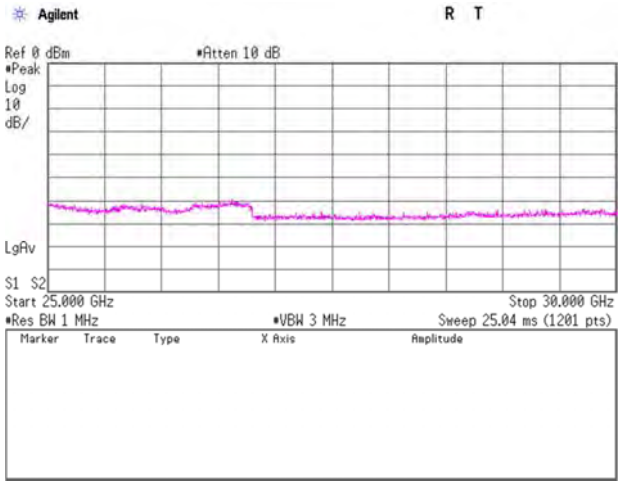
15GHz - 20GHz



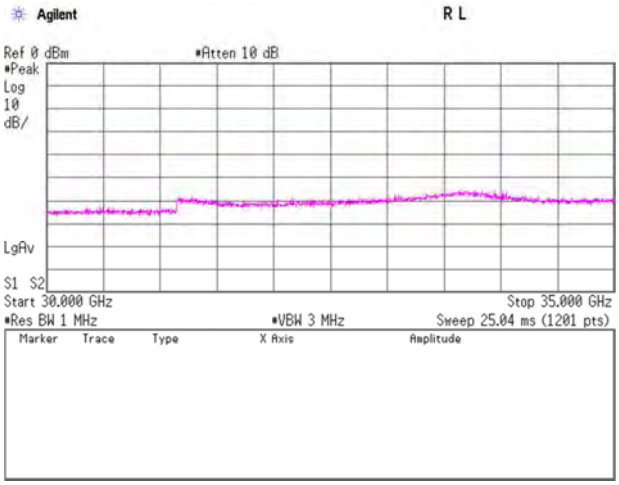
20GHz - 25GHz



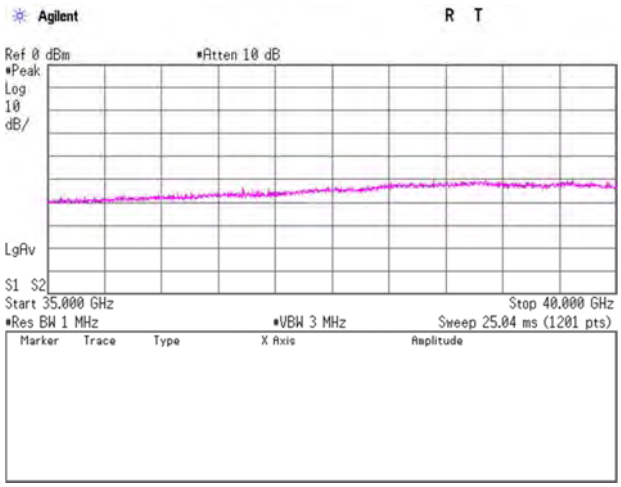
25GHz - 30GHz



30GHz - 35GHz



35GHz - 40GHz



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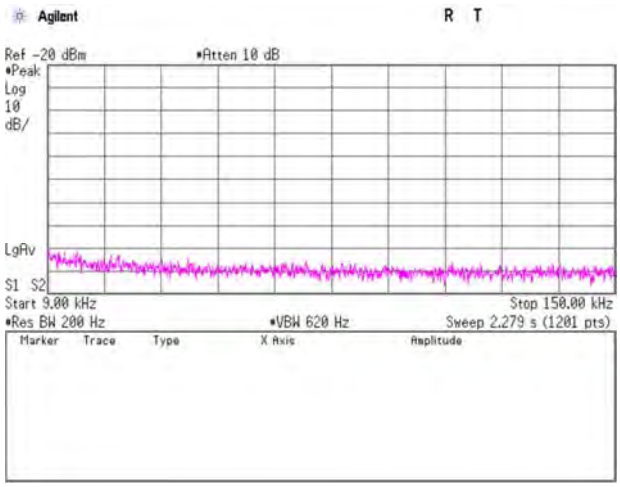
Spurious emission (Conducted)

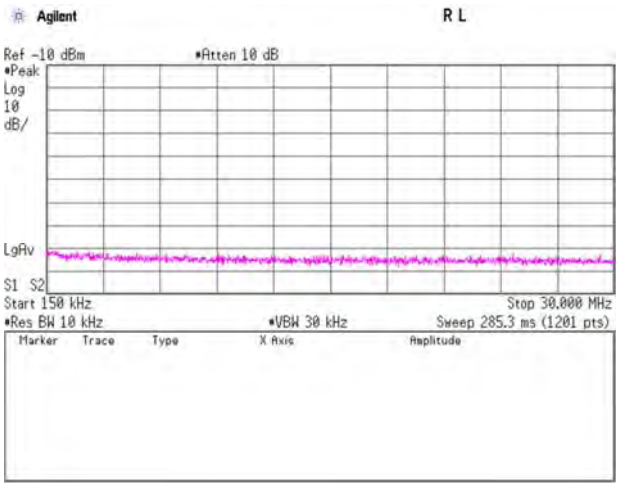
11a

Tx, 5200MHz

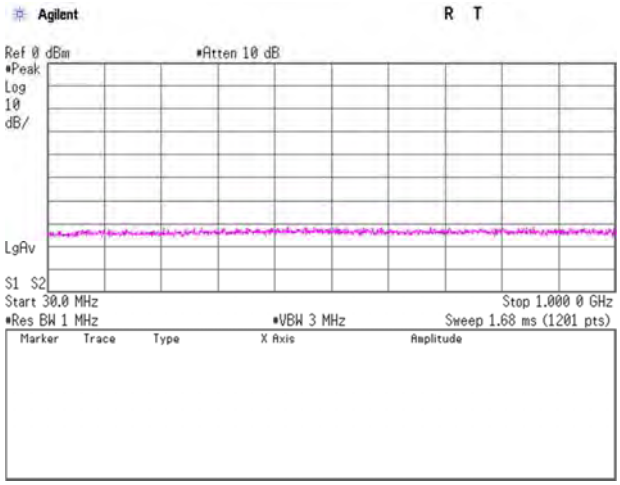
9kHz - 150kHz



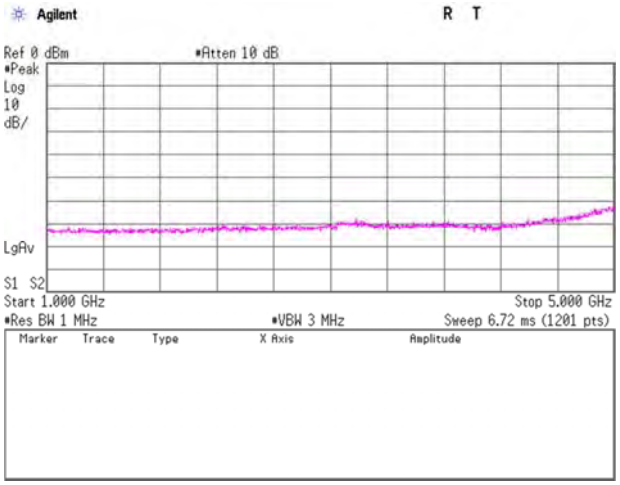
150kHz - 30MHz



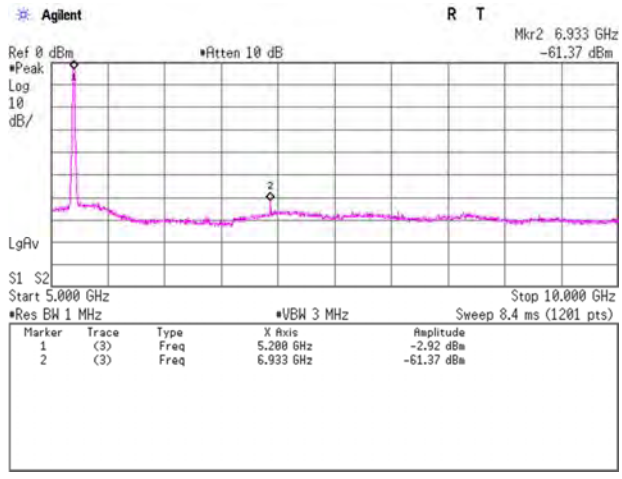
30MHz - 1GHz



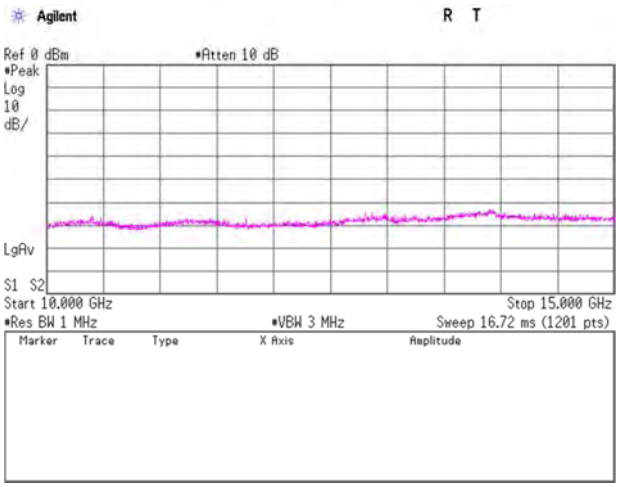
1GHz - 5GHz



5GHz - 10GHz



10GHz - 15GHz



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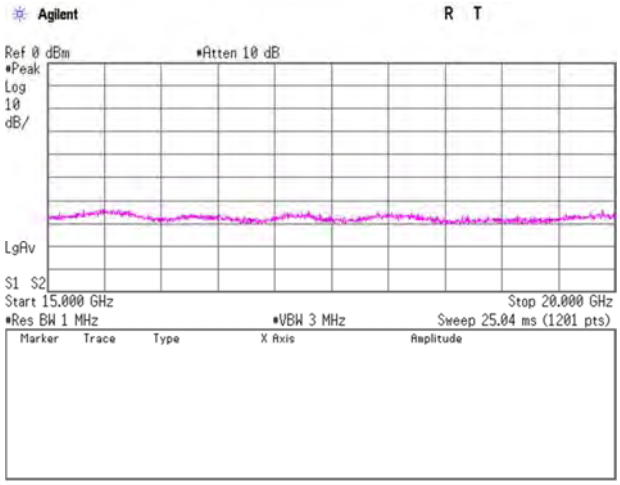
Spurious emission (Conducted)

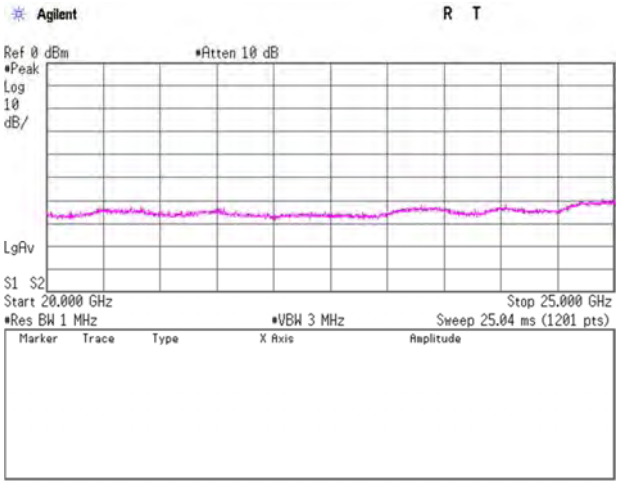
11a

Tx, 5200MHz

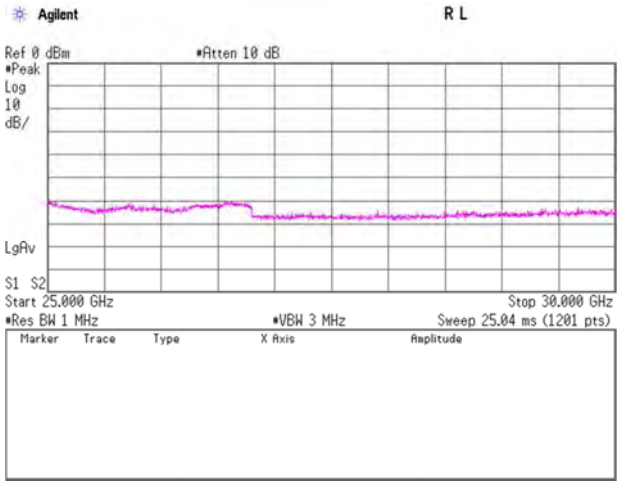
15GHz - 20GHz



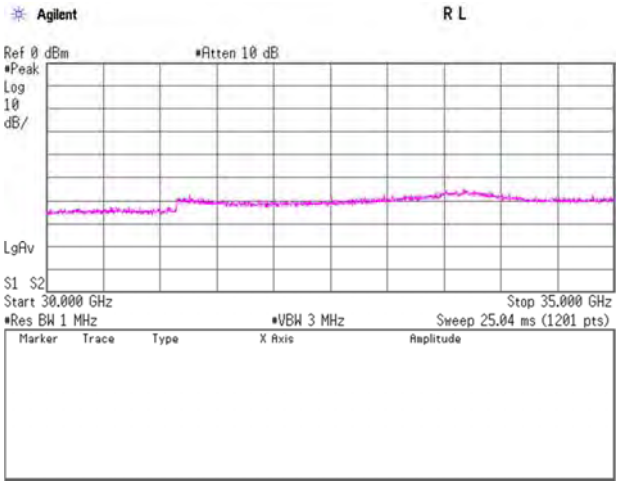
20GHz - 25GHz



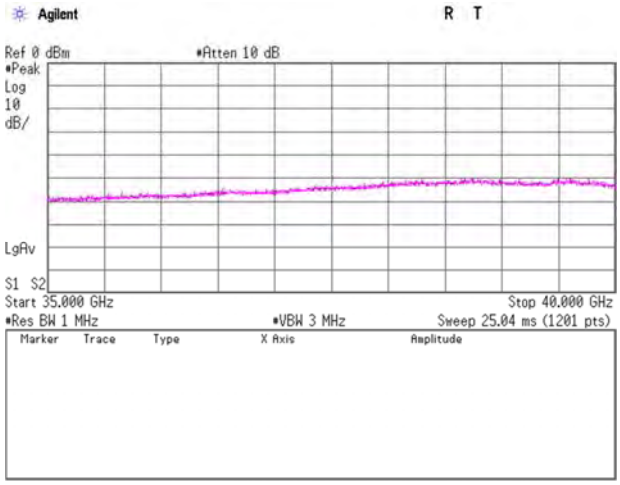
25GHz - 30GHz



30GHz - 35GHz



35GHz - 40GHz



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