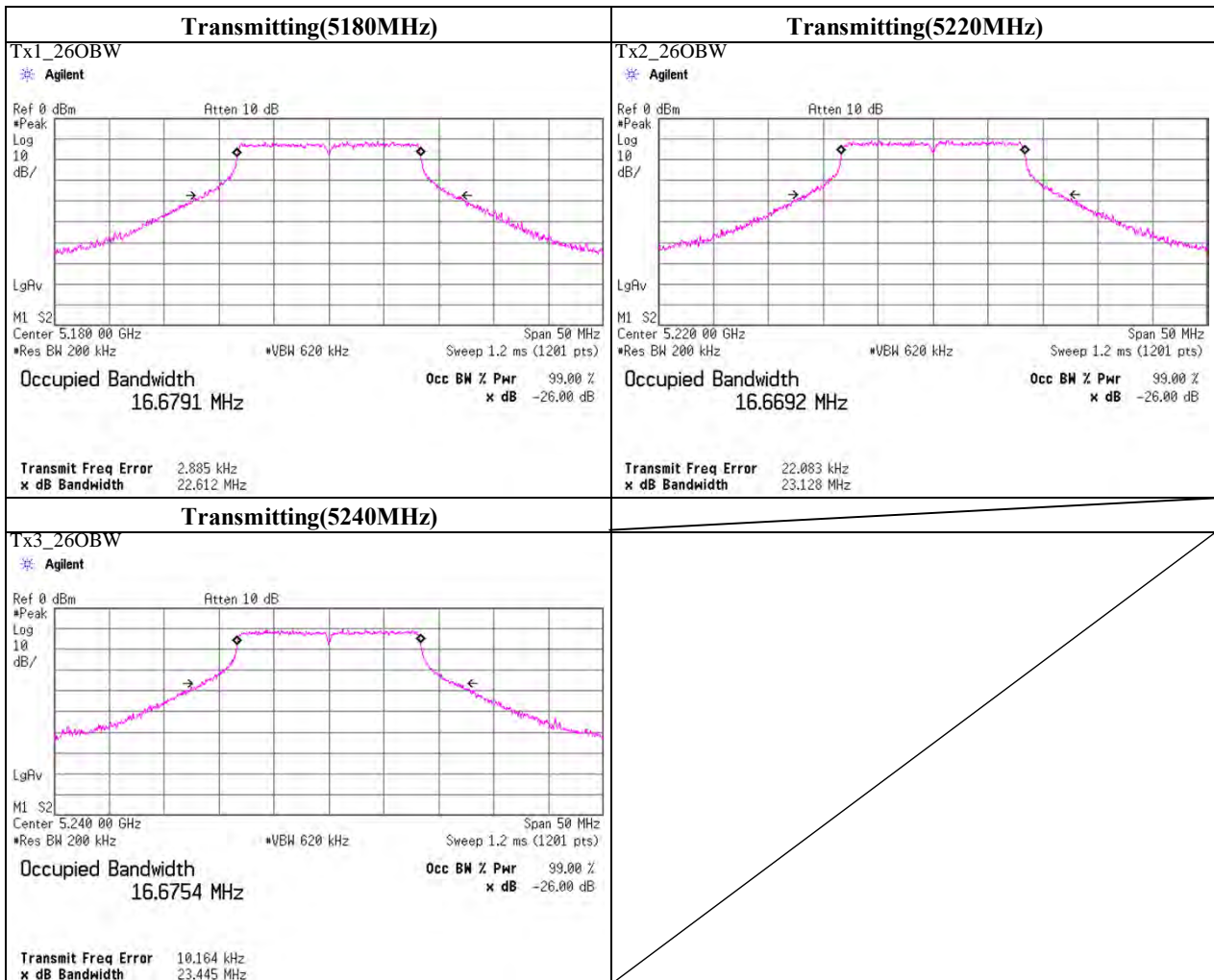


-26dB Bandwidth

Test place	UL Japan, Inc. Shonan EMC Lab.	No.6 Shielded Room
Date	August 25, 2011	
Temperature / Humidity	27deg.C , 60%RH	
Engineer	Tatsuya Arai	
Mode	Tx, IEEE802.11a, PN9, worst antenna port Main, worst data mode 24Mbps	

Freq. [MHz]	-26dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
5180.0000	22.612	17.668
5220.0000	23.128	17.645
5240.0000	23.445	17.685

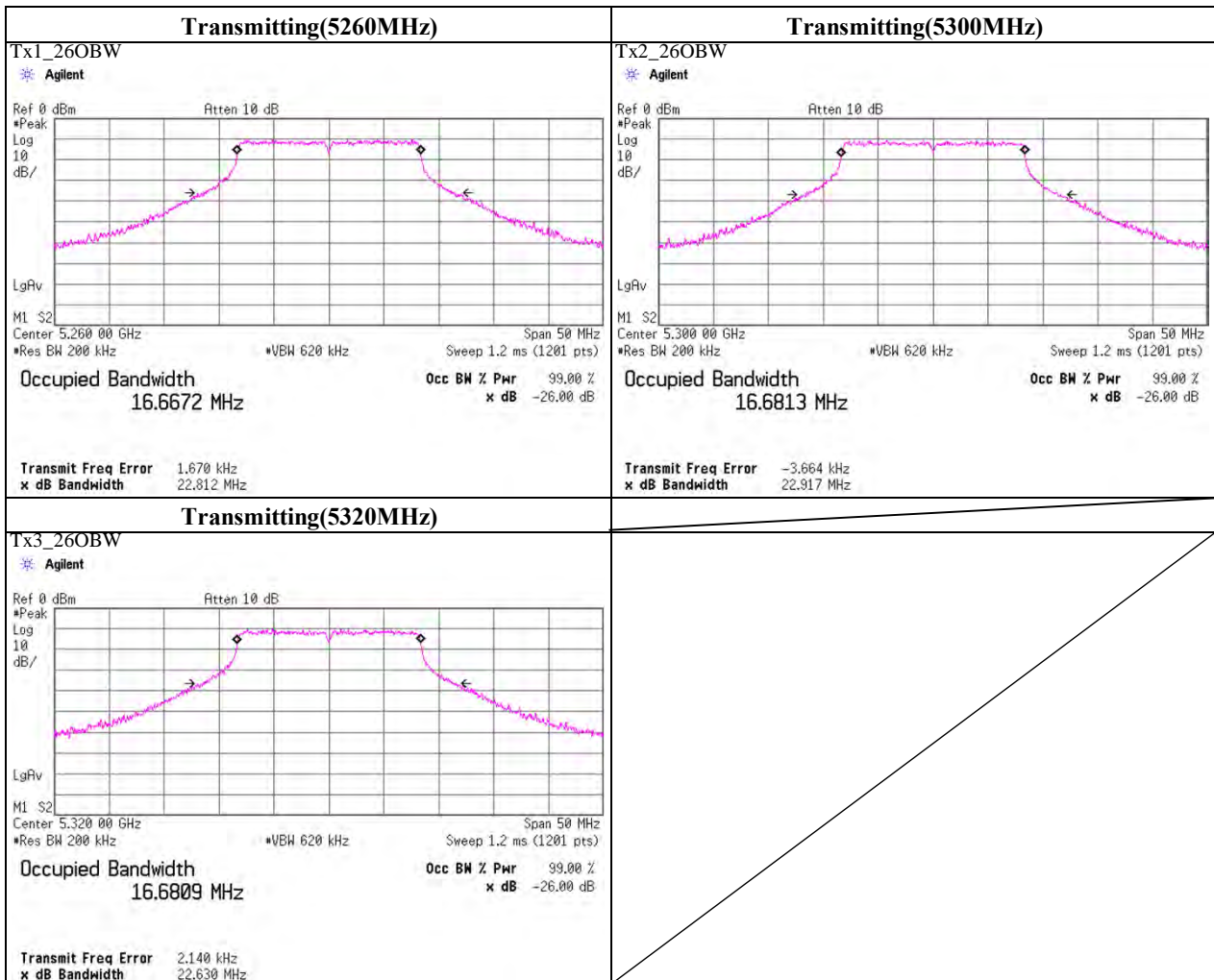


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-26dB Bandwidth

Test place	UL Japan, Inc. Shonan EMC Lab.	No.6 Shielded Room
Date	August 25, 2011	
Temperature / Humidity	27deg.C , 60%RH	
Engineer	Tatsuya Arai	
Mode	Tx, IEEE802.11a, PN9, worst antenna port Main, worst data mode 24Mbps	

Freq. [MHz]	-26dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
5260.0000	22.812	17.641
5300.0000	22.917	17.653
5320.0000	22.630	17.689

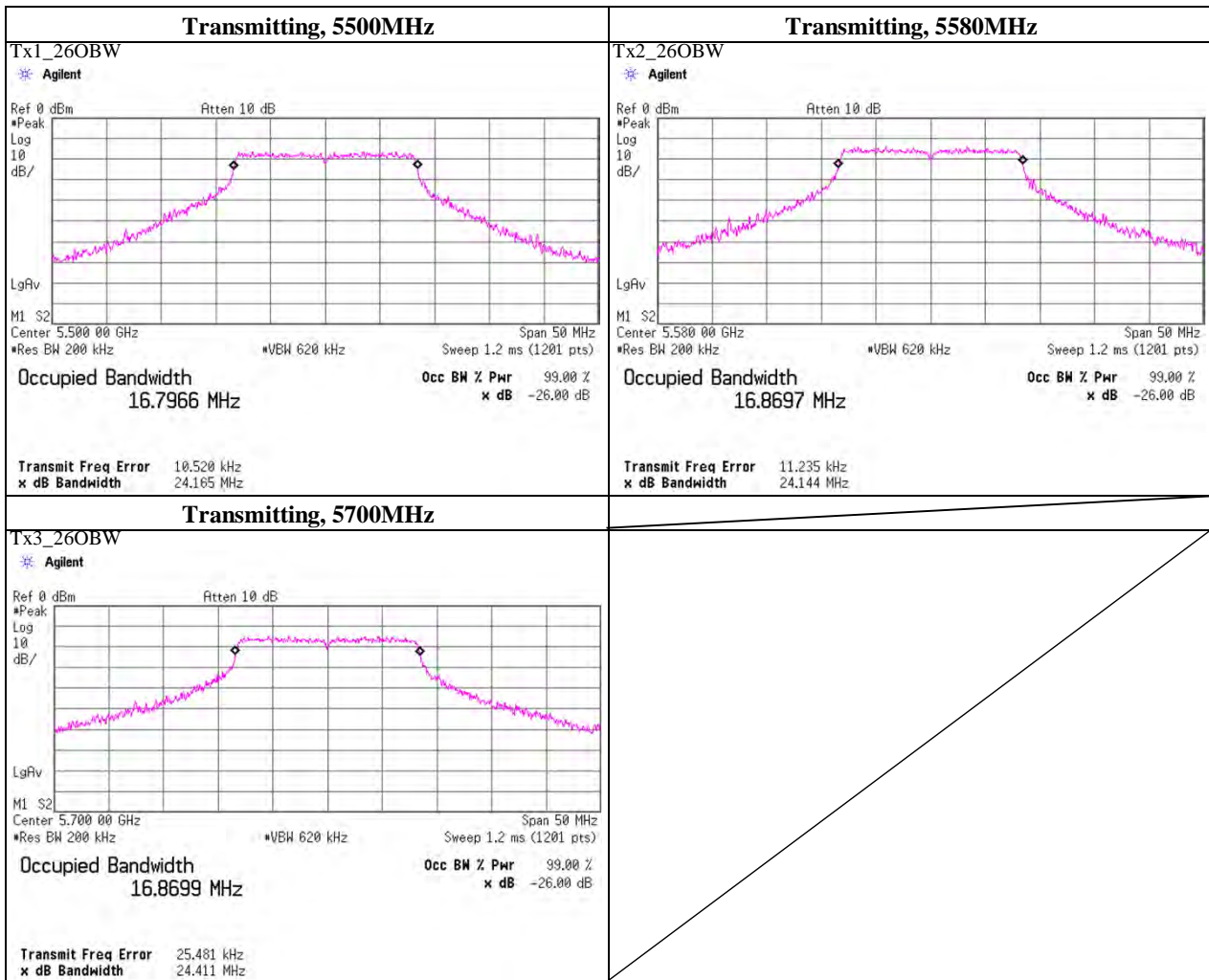


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-26dB Bandwidth

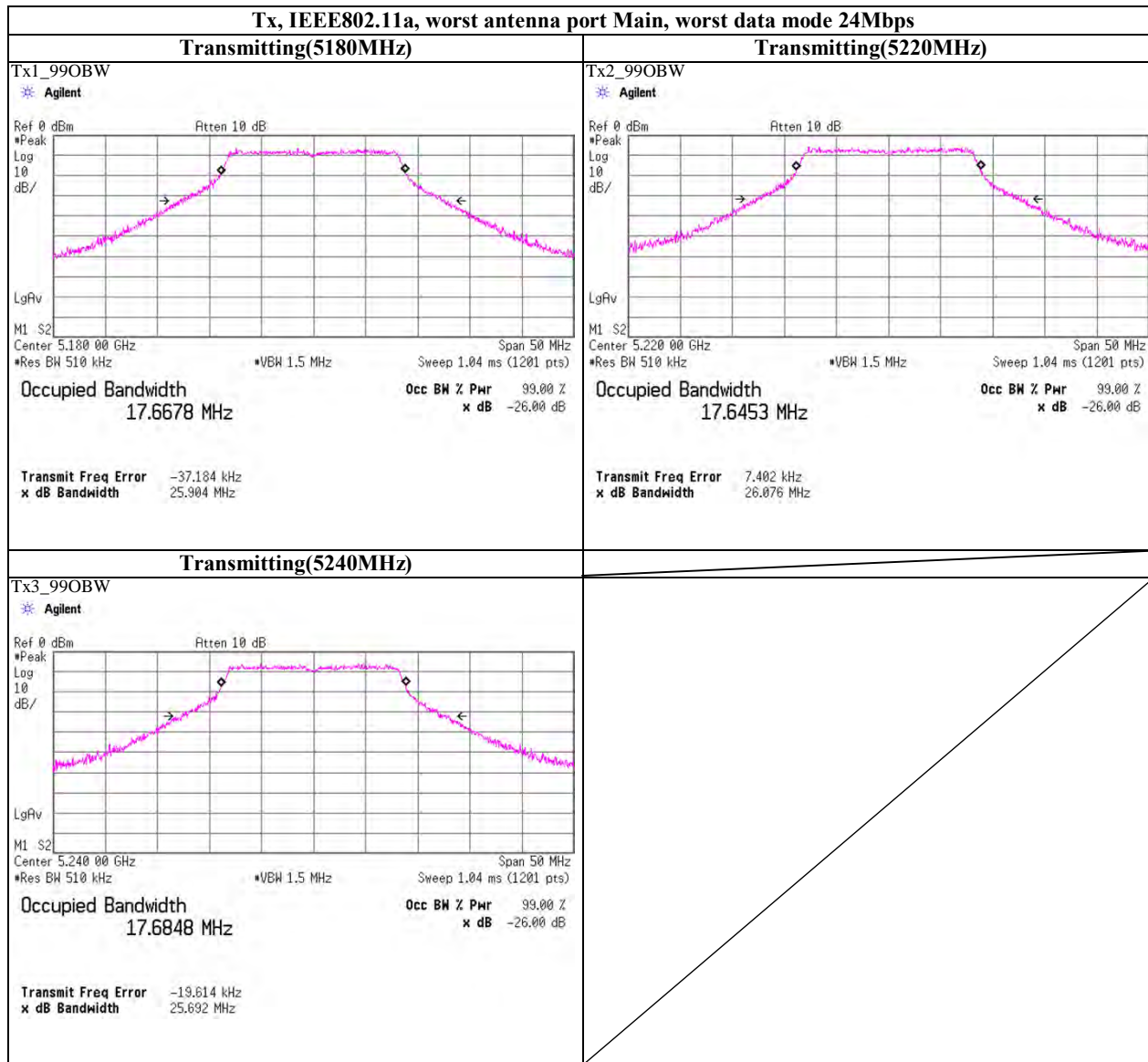
Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	November 17, 2011	
Temperature / Humidity	23deg.C , 46%RH	
Engineer	Tatsuya Arai	
Mode	Tx, IEEE802.11a, PN9, worst antenna port Main, worst data mode 6Mbps	

Freq. [MHz]	-26dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
5500.0000	24.165	17.859
5580.0000	24.144	17.884
5700.0000	24.411	17.897



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99% Occupied Bandwidth



UL Japan, Inc.

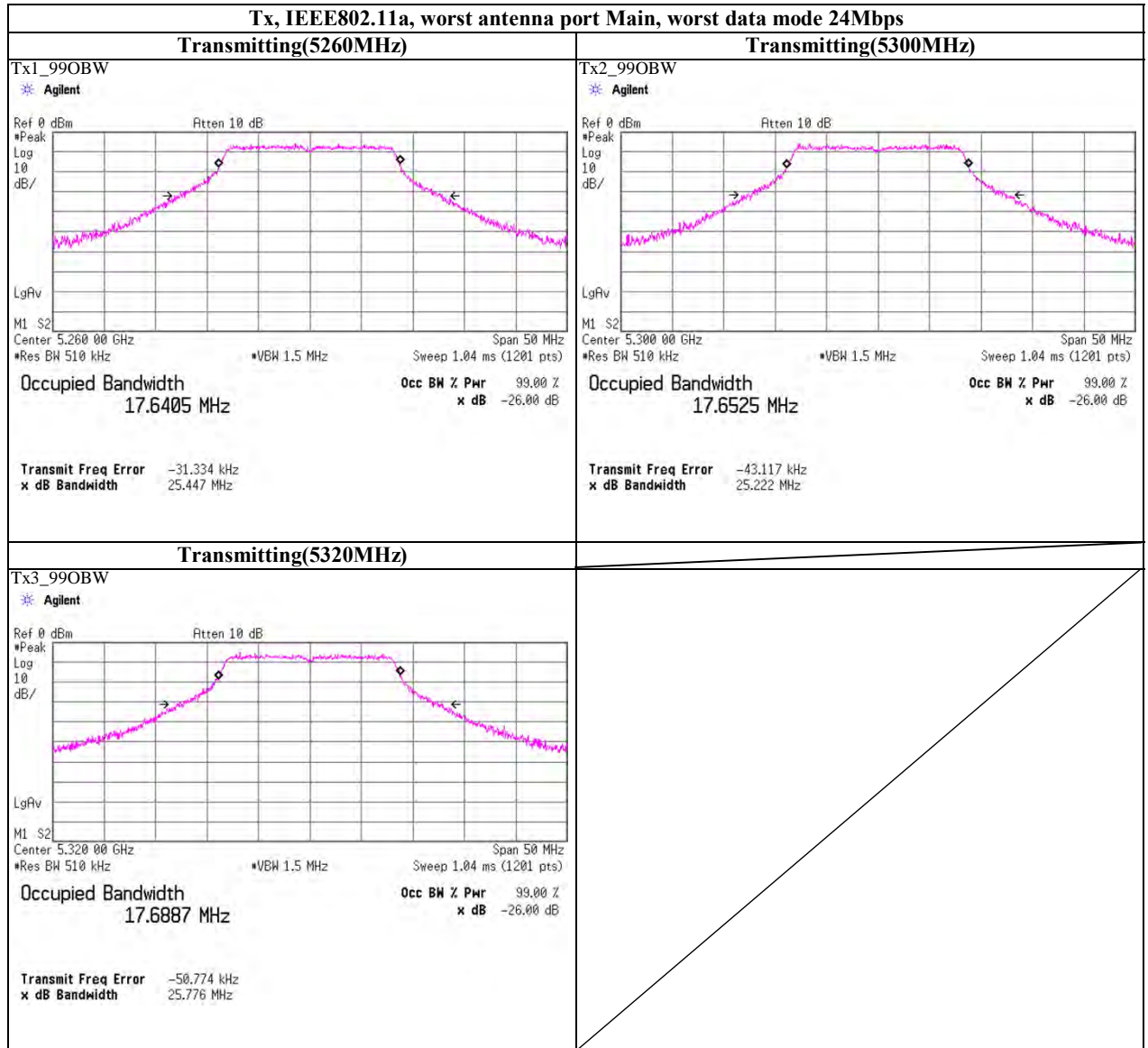
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99% Occupied Bandwidth



UL Japan, Inc.

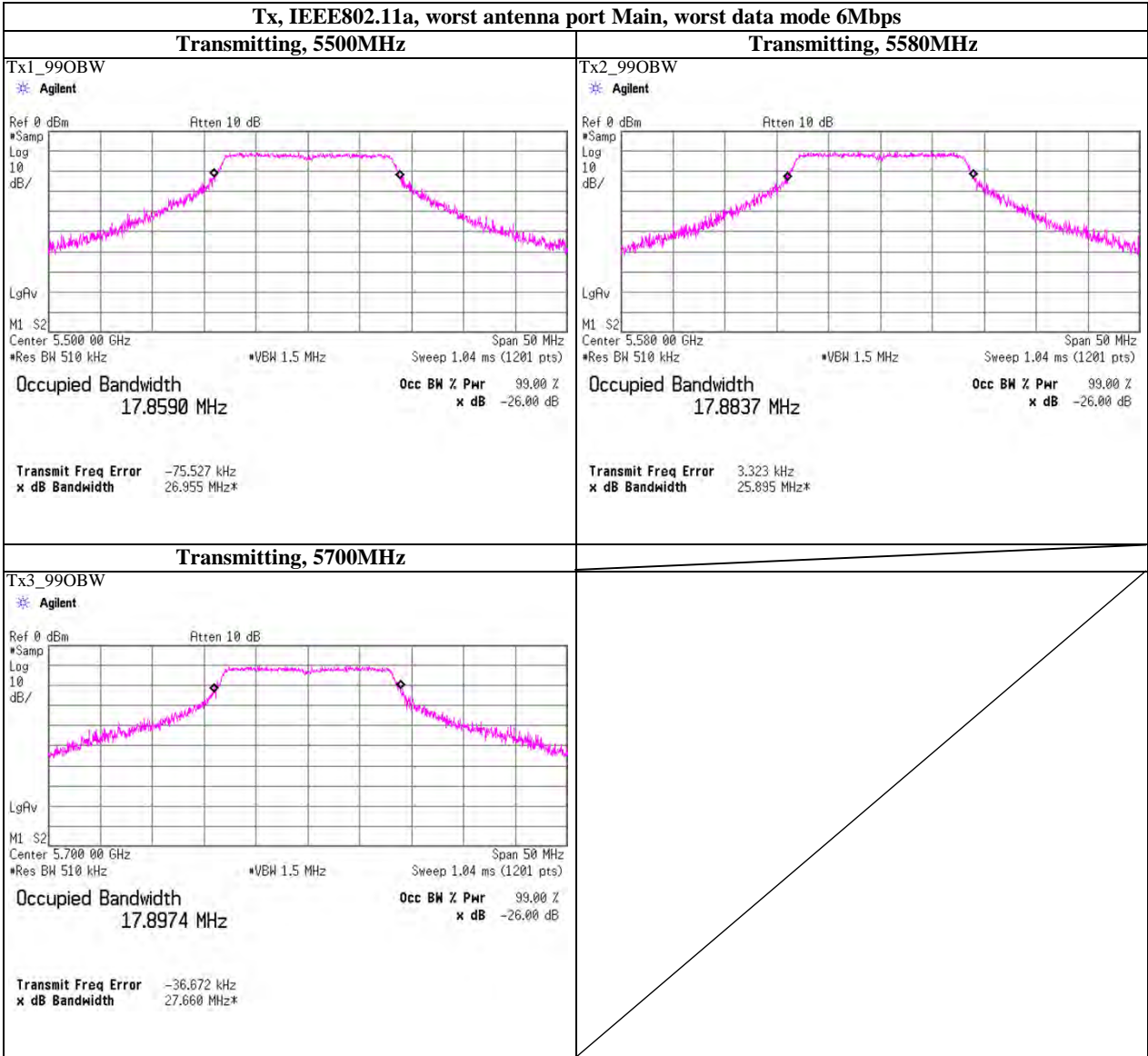
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99% Occupied Bandwidth



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Peak Output Power (Conducted)

Test place UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room
 Date August 19, 2011
 Temperature / Humidity 28deg.C , 47%RH
 Engineer Shinichi Takano
 Mode Tx, IEEE802.11a, PN9, worst antenna : Main worst data mode : 24 Mbps

(* S/A: Spectrum Analyzer)

Ch	Freq. [MHz]	S/A (Average) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	5180.0	-1.10	2.54	9.64	11.08	12.82	16.99	50.00	5.91
Mid	5220.0	-1.15	2.60	9.63	11.08	12.82	16.99	50.00	5.91
High	5240.0	-1.10	2.60	9.62	11.12	12.94	16.99	50.00	5.87
Low	5260.0	-1.14	2.59	9.62	11.07	12.79	23.98	250.00	12.91
Mid	5300.0	-1.21	2.54	9.61	10.94	12.42	23.98	250.00	13.04
High	5320.0	-1.28	2.52	9.60	10.84	12.13	23.98	250.00	13.14

Sample Calculation:

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

[Pre check]

Antenna Main

	Data rate [Mbps]	Freq. [MHz]	S/A (Average) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result		Limit		Margin [dB]
						[dBm]	[mW]	[dBm]	[mW]	
Main	6	5260.0	-1.21	2.59	9.62	11.00	12.59	23.98	250.00	12.98
Main	9	5260.0	-1.17	2.59	9.62	11.04	12.71	23.98	250.00	12.94
Main	12	5260.0	-1.24	2.59	9.62	10.97	12.50	23.98	250.00	13.01
Main	18	5260.0	-1.19	2.59	9.62	11.02	12.65	23.98	250.00	12.96
Main	24	5260.0	-1.14	2.59	9.62	11.07	12.79	23.98	250.00	12.91
Main	36	5260.0	-1.27	2.59	9.62	10.94	12.42	23.98	250.00	13.04
Main	48	5260.0	-1.20	2.59	9.62	11.01	12.62	23.98	250.00	12.97
Main	54	5260.0	-1.23	2.59	9.62	10.98	12.53	23.98	250.00	13.00

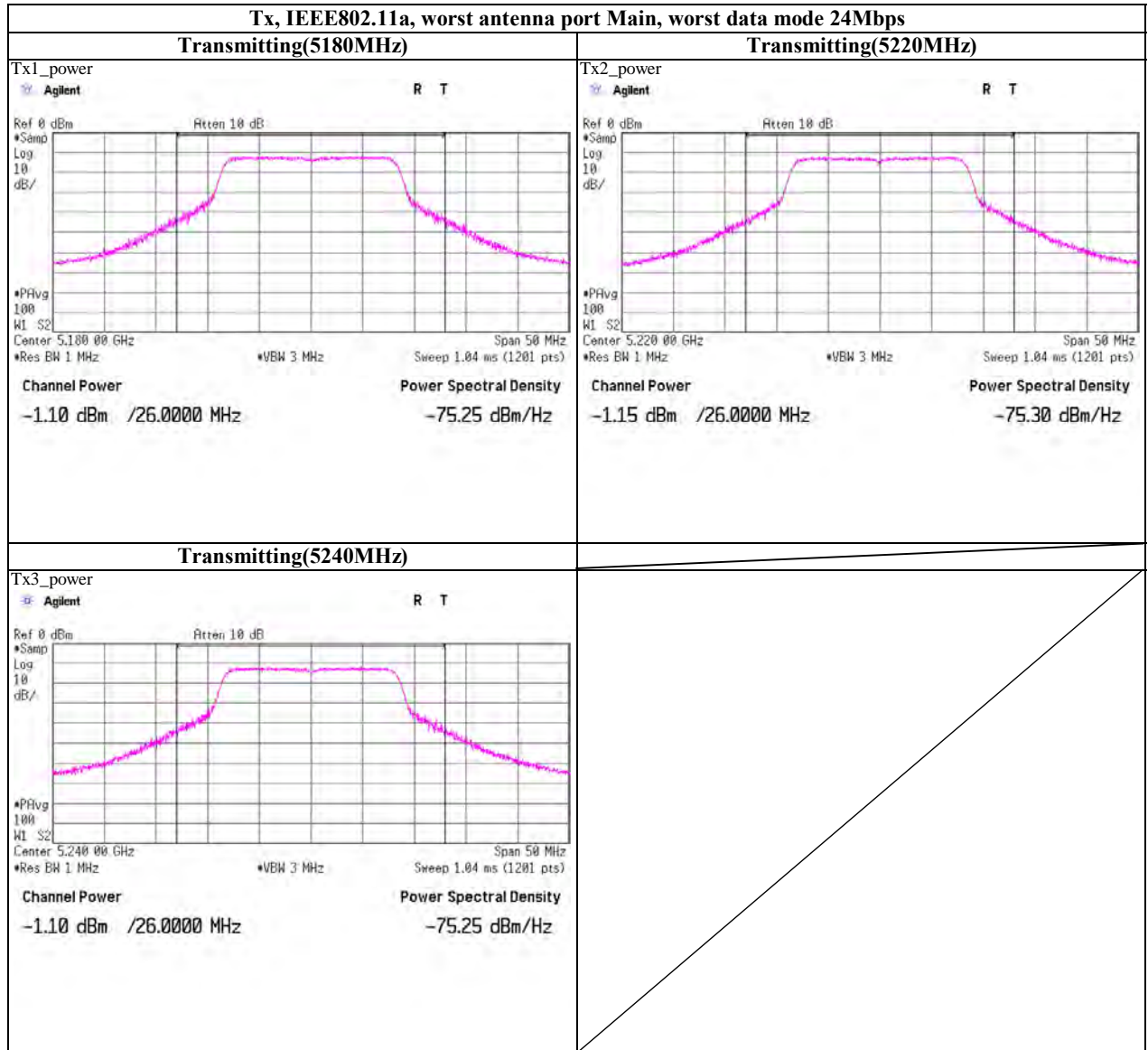
Antenna Sub

	Data rate [Mbps]	Freq. [MHz]	S/A (Average) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result		Limit		Margin [dB]
						[dBm]	[mW]	[dBm]	[mW]	
Sub	6	5260.0	-2.20	2.59	9.62	10.01	10.02	23.98	250.00	13.97
Sub	9	5260.0	-2.34	2.59	9.62	9.87	9.71	23.98	250.00	14.11
Sub	12	5260.0	-2.24	2.59	9.62	9.97	9.93	23.98	250.00	14.01
Sub	18	5260.0	-2.32	2.59	9.62	9.89	9.75	23.98	250.00	14.09
Sub	24	5260.0	-2.16	2.59	9.62	10.05	10.12	23.98	250.00	13.93
Sub	36	5260.0	-2.36	2.59	9.62	9.85	9.66	23.98	250.00	14.13
Sub	48	5260.0	-2.32	2.59	9.62	9.89	9.75	23.98	250.00	14.09
Sub	54	5260.0	-2.21	2.59	9.62	10.00	10.00	23.98	250.00	13.98

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Peak Output Power (Conducted)



UL Japan, Inc.

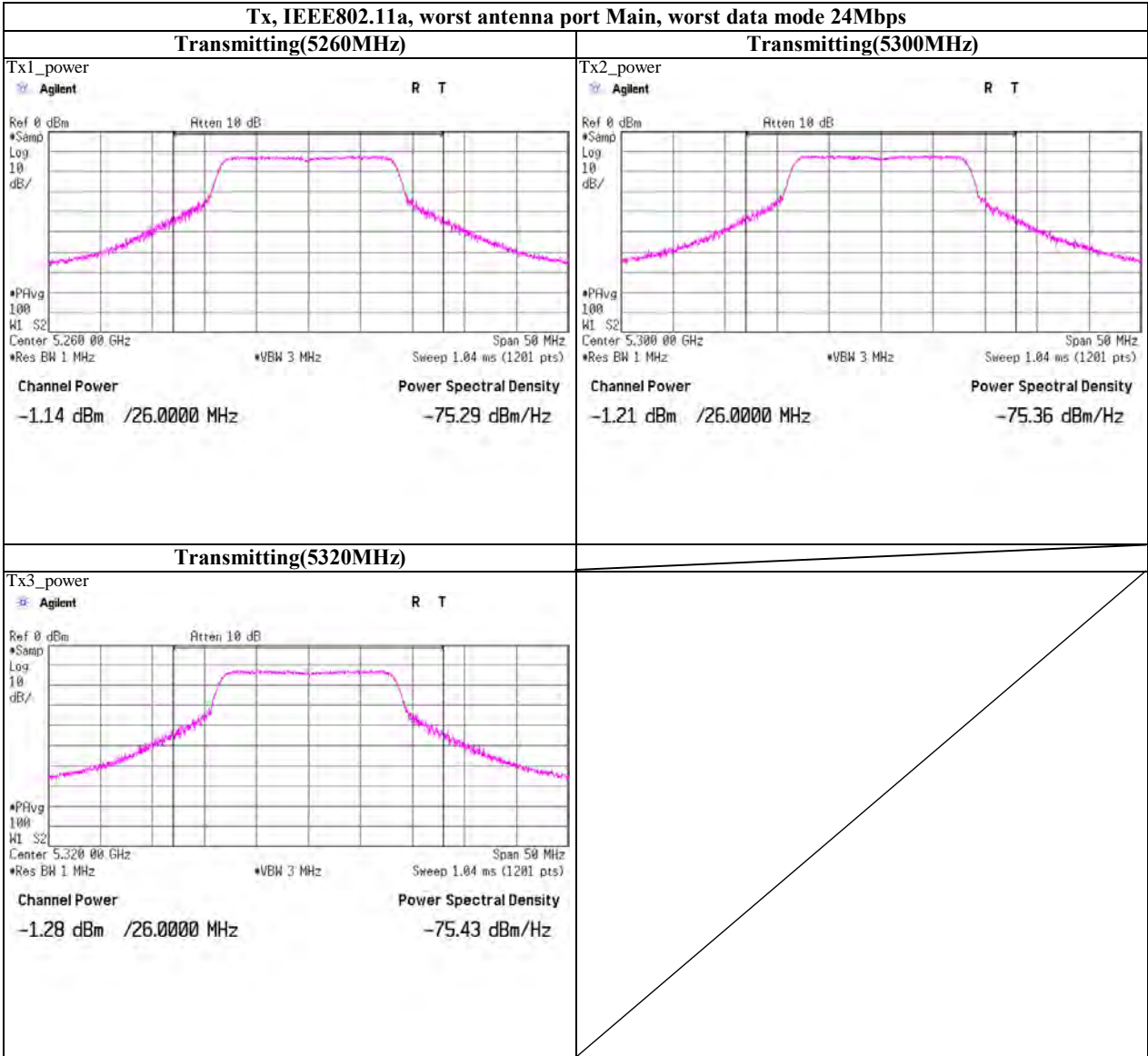
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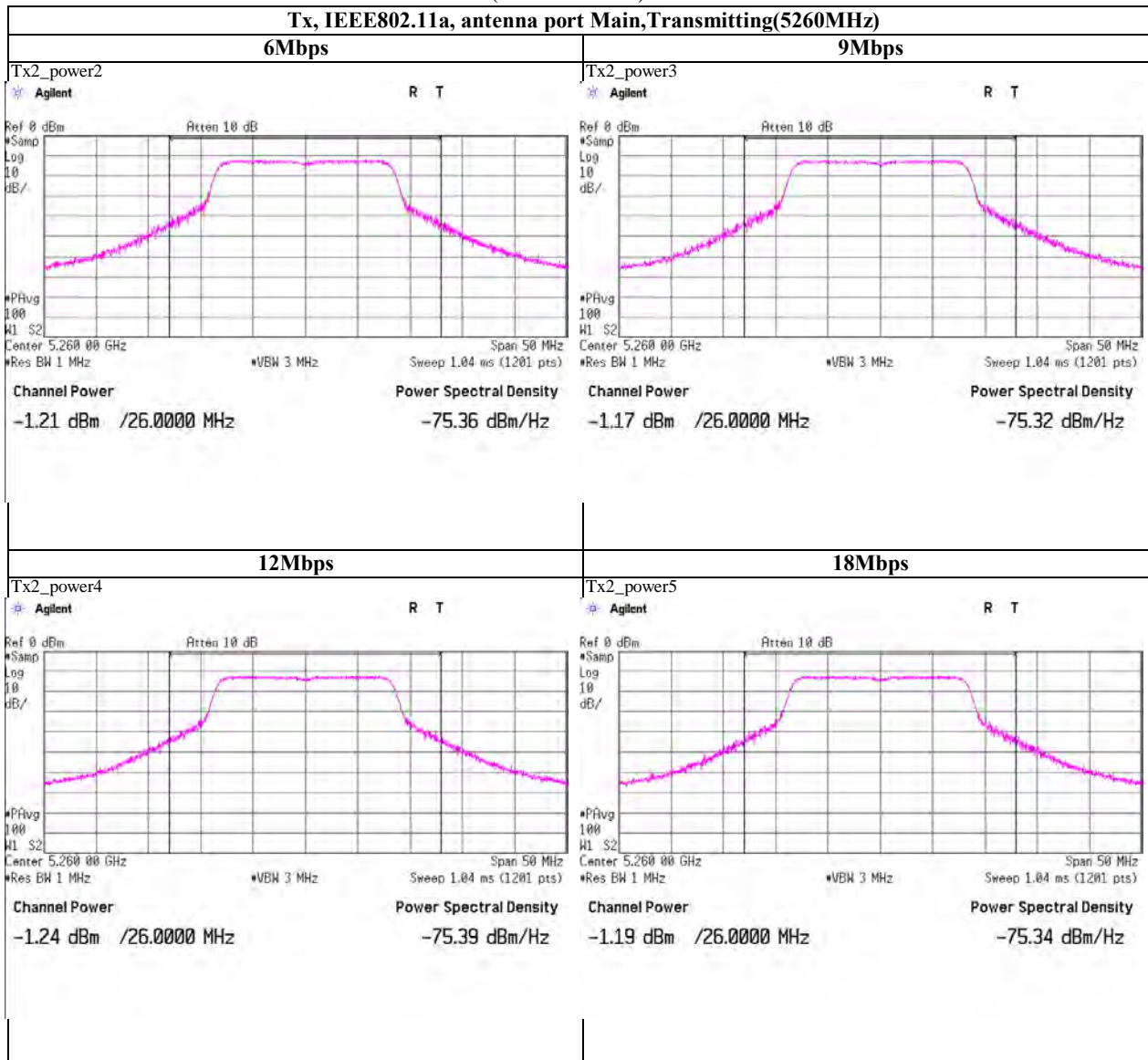
Peak Output Power (Conducted)



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Peak Output Power (Conducted)

(Reference chart)



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Shonan EMC Lab.

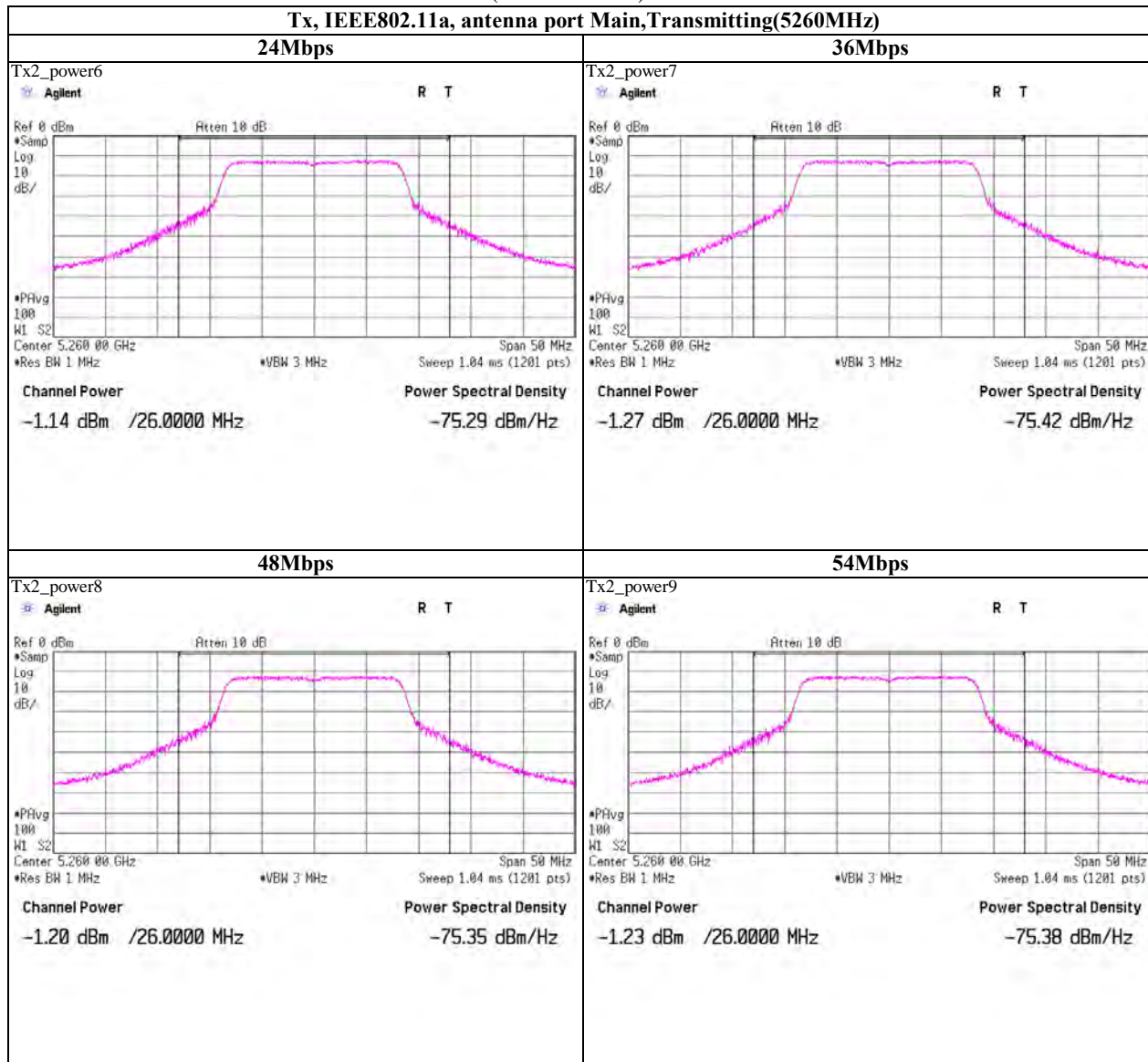
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Peak Output Power (Conducted)

(Reference chart)



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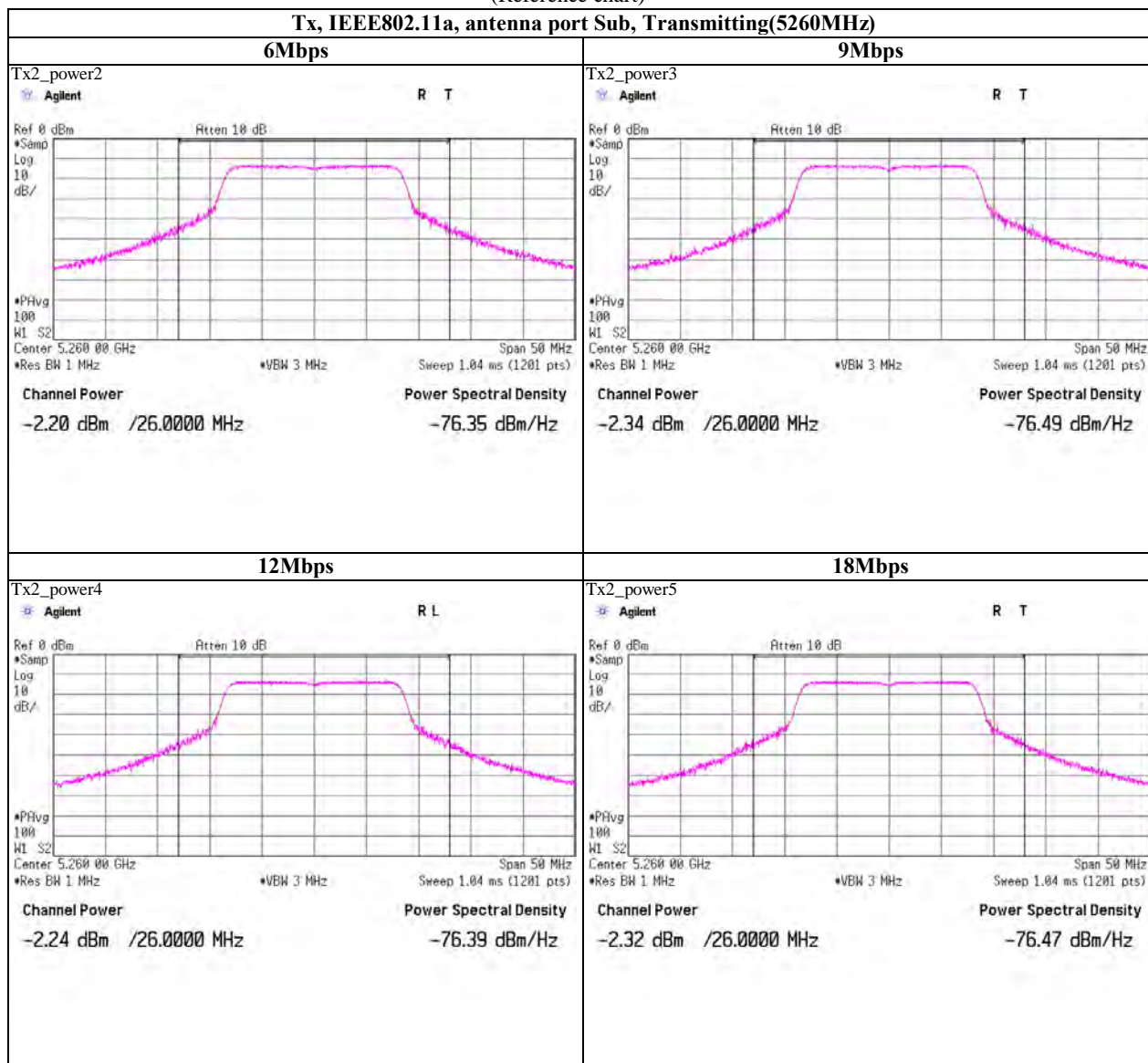
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

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Peak Output Power (Conducted)

(Reference chart)



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Shonan EMC Lab.

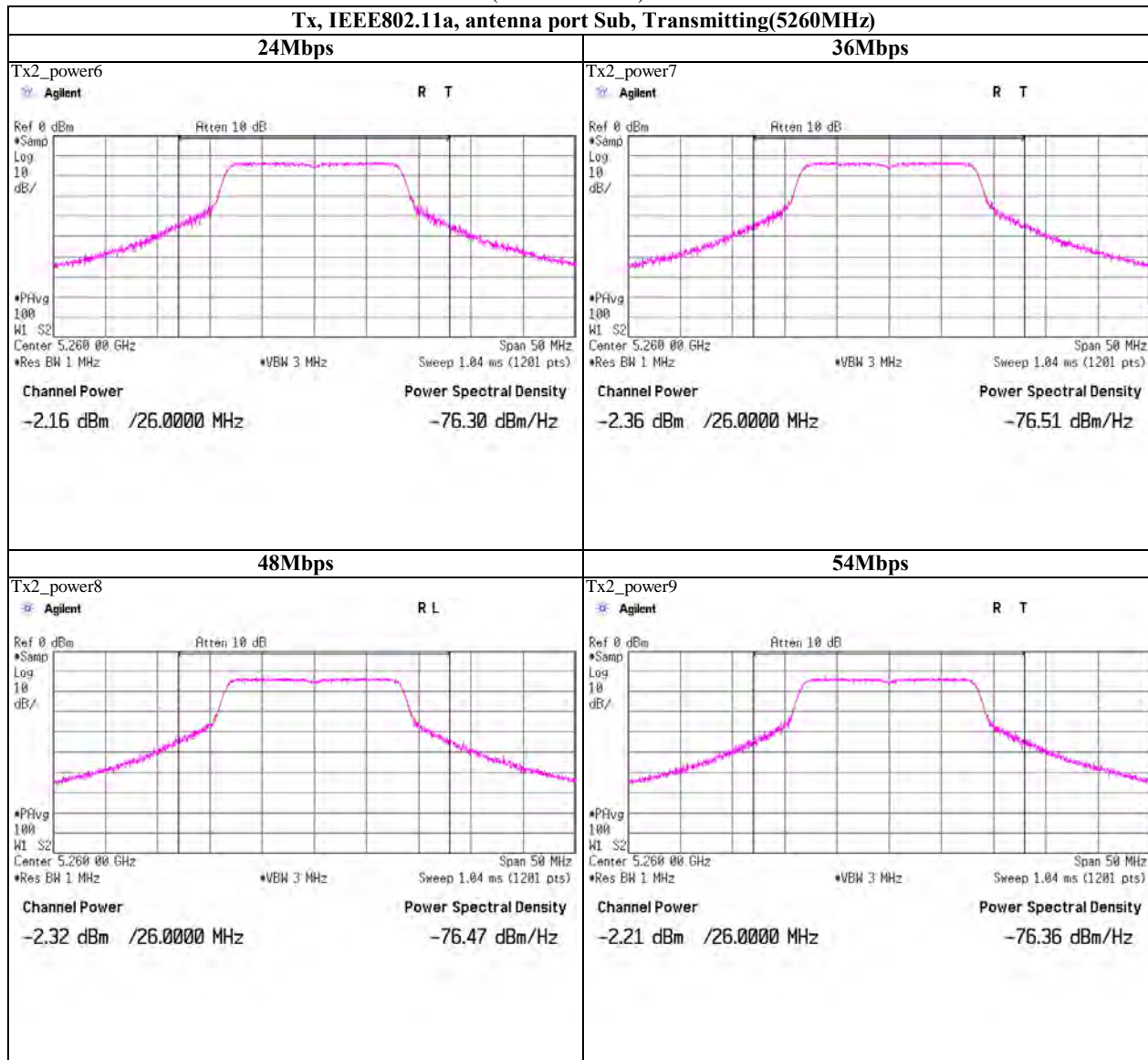
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Peak Output Power (Conducted)

(Reference chart)



UL Japan, Inc.

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Peak Output Power (Conducted)

Test place UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room
 Date November 02, 2011
 Temperature / Humidity 26deg.C , 48%RH
 Engineer Tatsuya Arai
 Mode Tx, IEEE802.11a, PN9, worst antenna : Main worst data mode : 6 Mbps

(* S/A: Spectrum Analyzer)

Ch	Freq. [MHz]	S/A (Average) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	5500.0	-3.25	2.68	9.56	8.99	7.93	23.98	250.00	14.99
Mid	5580.0	-2.92	2.58	9.57	9.23	8.38	23.98	250.00	14.75
High	5700.0	-3.08	2.65	9.60	9.17	8.26	23.98	250.00	14.81

Sample Calculation:

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

[Pre check]

Antenna Main

	Data rate [Mbps]	Freq. [MHz]	S/A (Average) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result		Limit		Margin [dB]
						[dBm]	[mW]	[dBm]	[mW]	
Main	6	5580.0	-2.92	2.58	9.57	9.23	8.38	23.98	250.00	14.75
Main	9	5580.0	-2.98	2.58	9.57	9.17	8.26	23.98	250.00	14.81
Main	12	5580.0	-3.14	2.58	9.57	9.01	7.96	23.98	250.00	14.97
Main	18	5580.0	-3.14	2.58	9.57	9.01	7.96	23.98	250.00	14.97
Main	24	5580.0	-3.08	2.58	9.57	9.07	8.07	23.98	250.00	14.91
Main	36	5580.0	-3.13	2.58	9.57	9.02	7.98	23.98	250.00	14.96
Main	48	5580.0	-3.16	2.58	9.57	8.99	7.93	23.98	250.00	14.99
Main	54	5580.0	-3.05	2.58	9.57	9.10	8.13	23.98	250.00	14.88

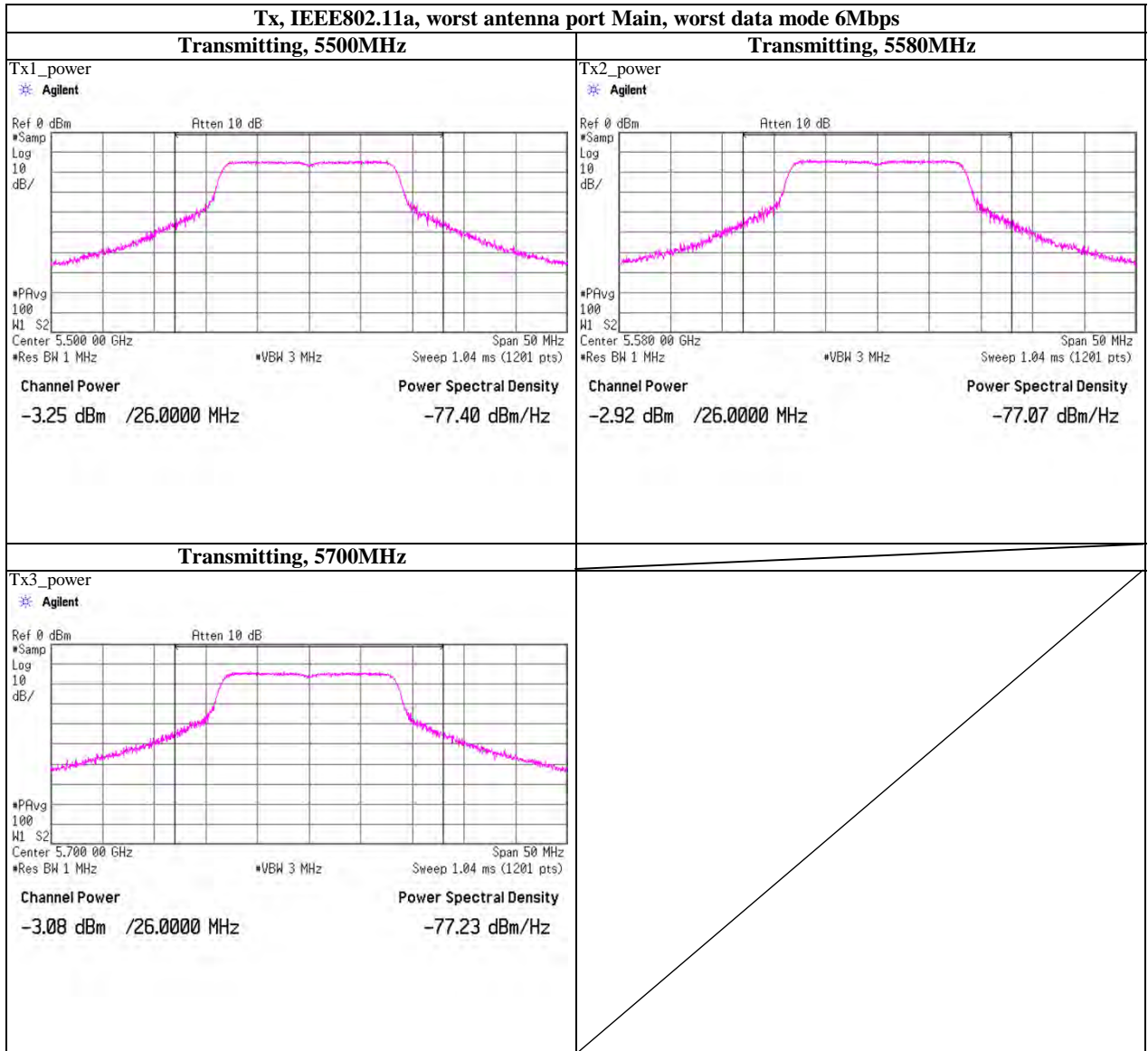
Antenna Sub

	Data rate [Mbps]	Freq. [MHz]	S/A (Average) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result		Limit		Margin [dB]
						[dBm]	[mW]	[dBm]	[mW]	
Sub	6	5580.0	-3.38	2.62	9.57	8.81	7.60	23.98	250.00	15.17
Sub	9	5580.0	-3.55	2.62	9.57	8.64	7.31	23.98	250.00	15.34
Sub	12	5580.0	-3.41	2.62	9.57	8.78	7.55	23.98	250.00	15.20
Sub	18	5580.0	-3.45	2.62	9.57	8.74	7.48	23.98	250.00	15.24
Sub	24	5580.0	-3.56	2.62	9.57	8.63	7.29	23.98	250.00	15.35
Sub	36	5580.0	-3.46	2.62	9.57	8.73	7.46	23.98	250.00	15.25
Sub	48	5580.0	-3.43	2.62	9.57	8.76	7.52	23.98	250.00	15.22
Sub	54	5580.0	-3.49	2.62	9.57	8.70	7.41	23.98	250.00	15.28

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Peak Output Power (Conducted)



UL Japan, Inc.

Shonan EMC Lab.

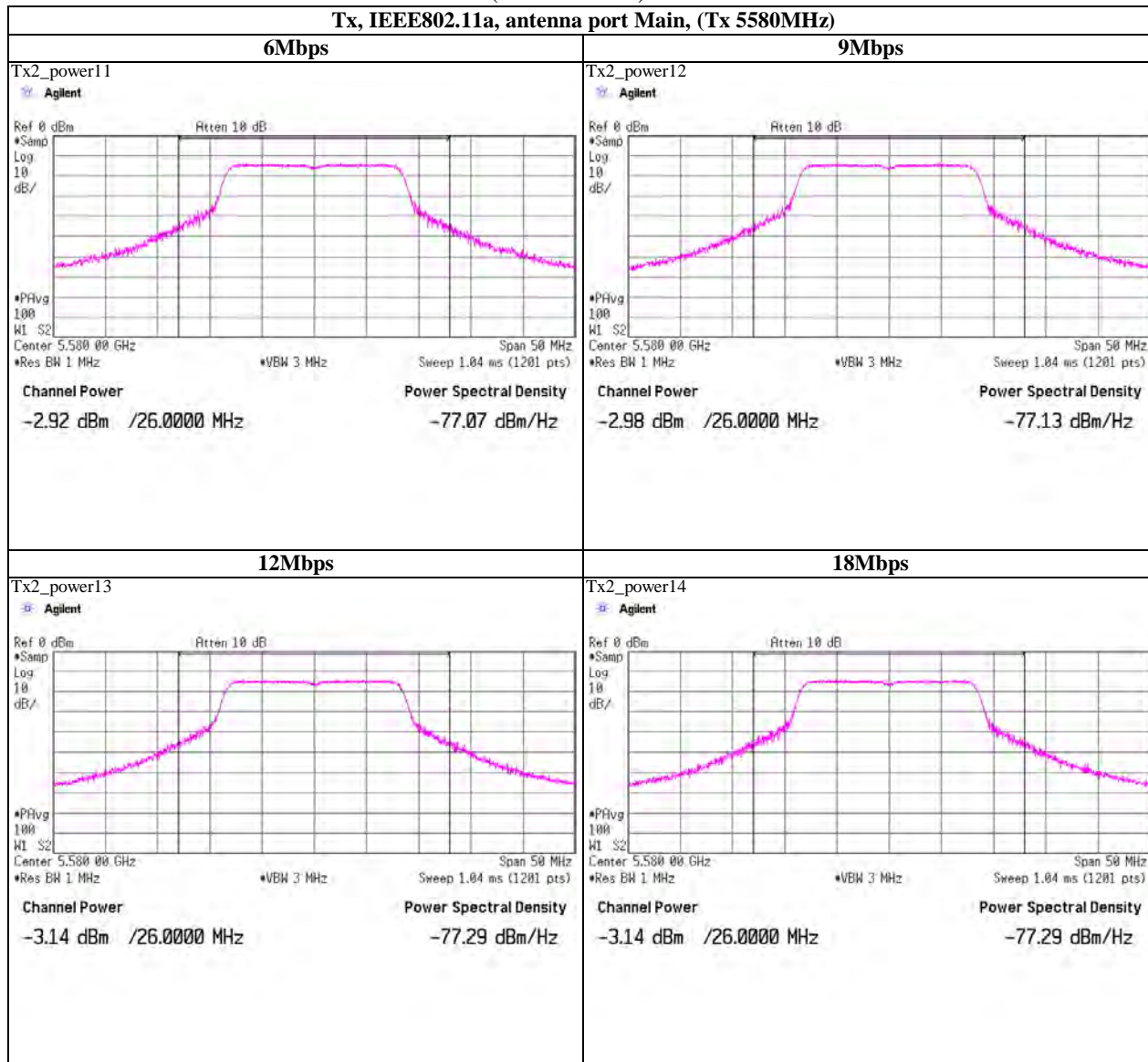
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Peak Output Power (Conducted)

(Reference chart)



UL Japan, Inc.

Shonan EMC Lab.

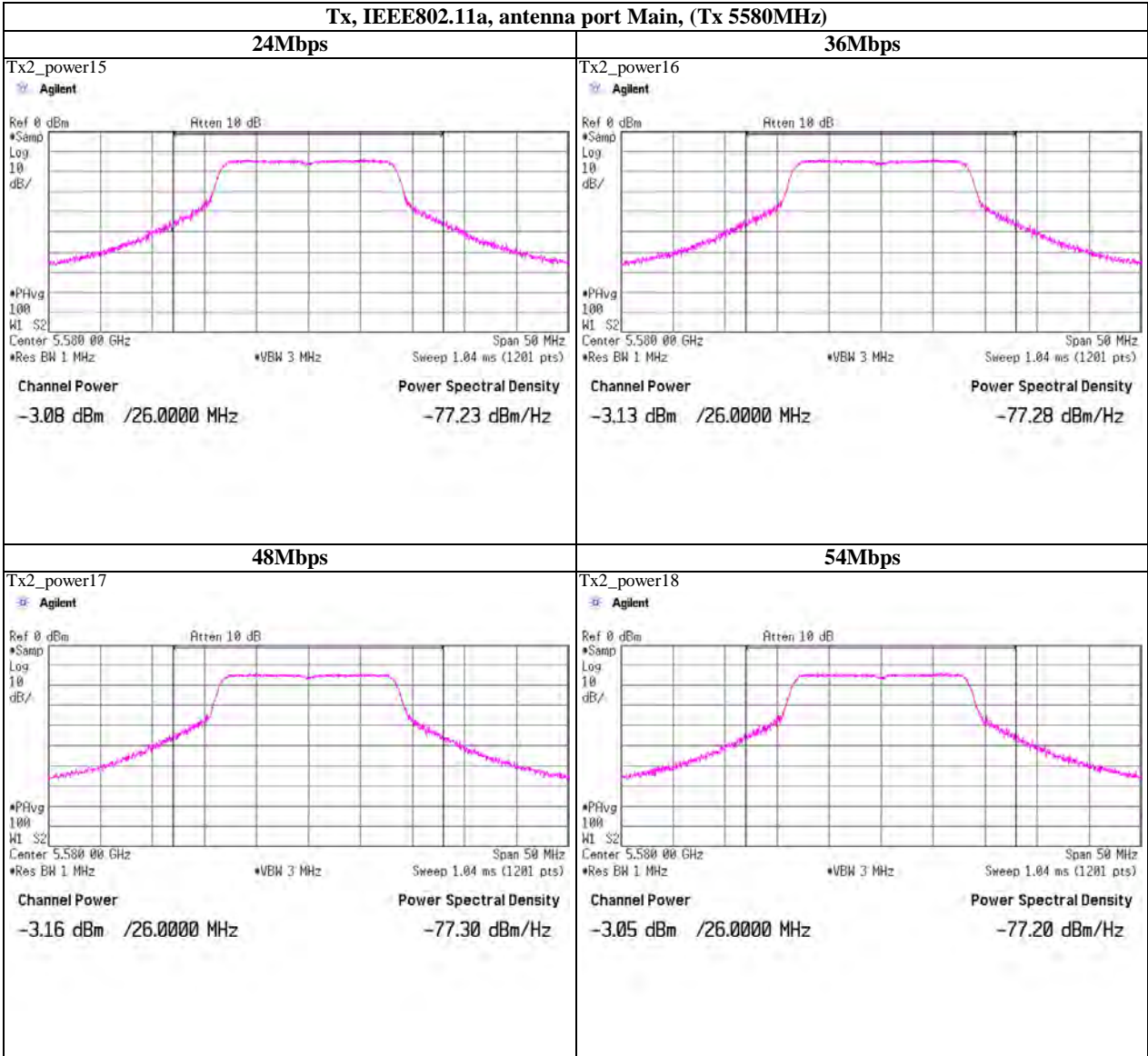
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Peak Output Power (Conducted)

(Reference chart)



UL Japan, Inc.

Shonan EMC Lab.

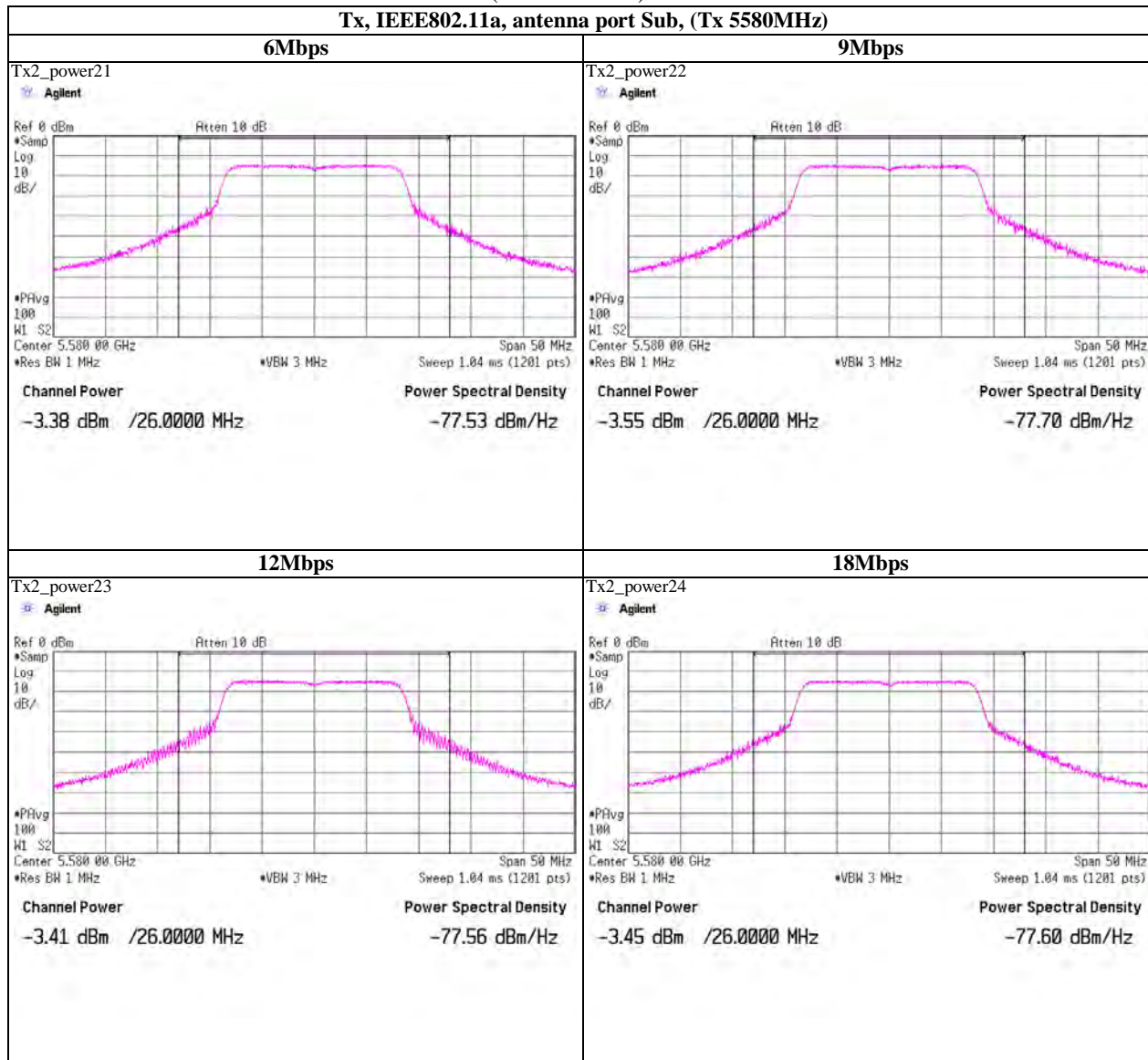
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

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Peak Output Power (Conducted)

(Reference chart)



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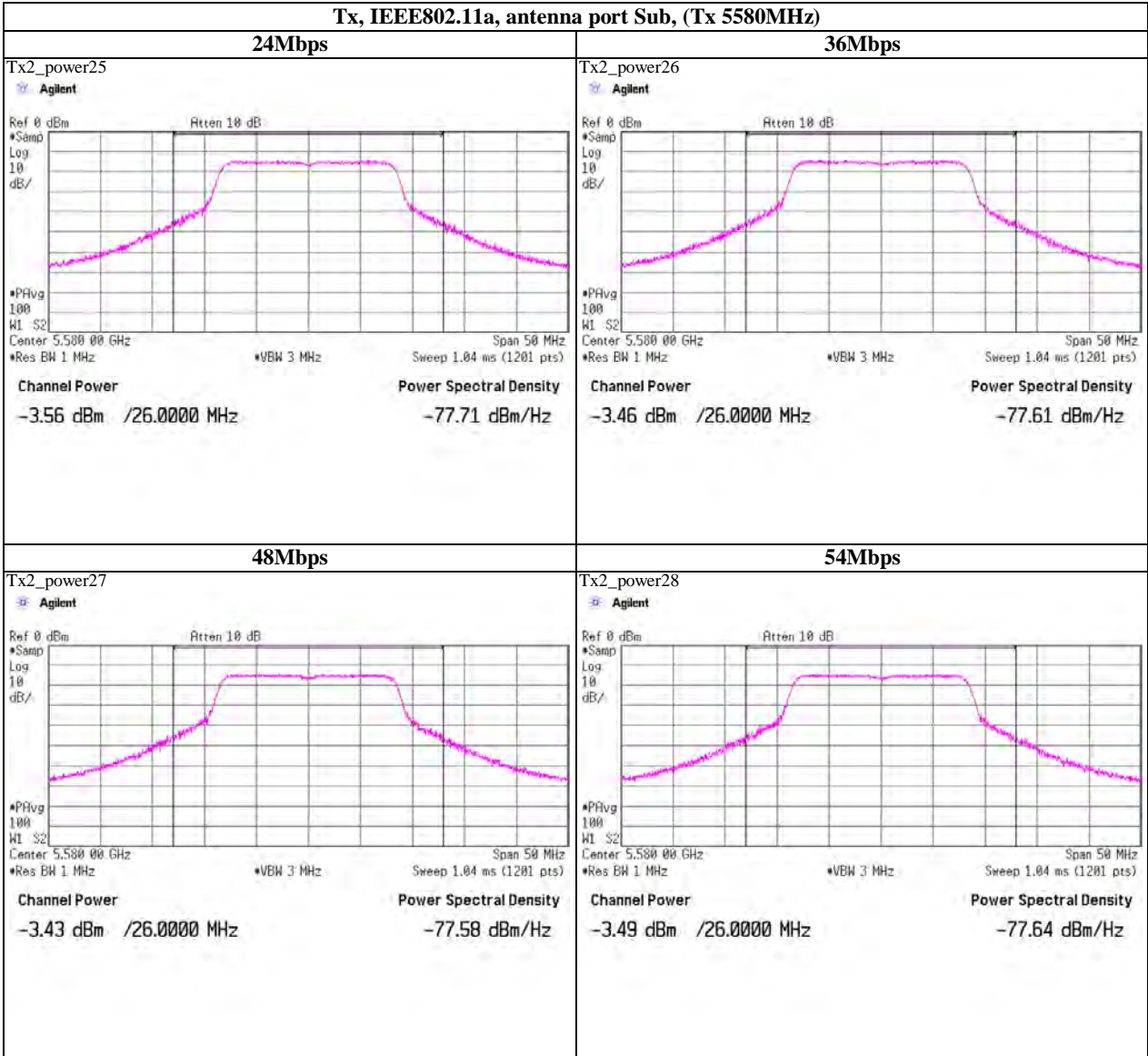
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Peak Output Power (Conducted)

(Reference chart)



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Peak Output Power (Conducted)**Reference data for SAR testing**

Test place UL Japan, Inc. Shonan EMC Lab. No.7 Shielded Room
Date 2011/8/22 2011/11/21
Temperature / Humidity 25deg.C. , 60%RH 24deg.C. , 49%RH
Engineer Hiroshi Naka Hiroshi Naka
Mode Tx,
 11a, 6Mbps

Main Antenna

(* P/M: Power meter)

Ch	Freq. [MHz]	P/M (Average) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result	
					[dBm]	[mW]
Low	5180.0	-0.31	1.98	10.06	11.73	14.89
Mid	5220.0	-0.57	2.03	10.06	11.52	14.19
High	5240.0	-0.35	2.03	10.06	11.74	14.93
Low	5260.0	-0.39	2.02	10.06	11.69	14.76
Mid	5300.0	-0.21	1.97	10.06	11.82	15.21
High	5320.0	-0.31	1.94	10.06	11.69	14.76
Low	5500.0	-1.13	2.09	10.06	11.02	12.65
Mid	5580.0	-0.65	2.01	10.06	11.42	13.87
High	5700.0	-1.20	2.07	10.06	10.93	12.39

Sub Antenna

Ch	Freq. [MHz]	P/M (Average) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result	
					[dBm]	[mW]
Low	5180.0	-1.79	2.04	10.06	10.31	10.74
Mid	5220.0	-1.97	2.07	10.06	10.16	10.38
High	5240.0	-1.95	2.08	10.06	10.19	10.45
Low	5260.0	-1.52	2.06	10.06	10.60	11.48
Mid	5300.0	-1.24	2.00	10.06	10.82	12.08
High	5320.0	-1.50	1.97	10.06	10.53	11.30
Low	5500.0	-2.06	2.15	10.06	10.15	10.35
Mid	5580.0	-1.12	2.05	10.06	10.99	12.56
High	5700.0	-1.85	2.12	10.06	10.33	10.79

Sample Calculation:

Result = Reading + Cable Loss + Atten. Loss

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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 August 22, 2011 August 28, 2011 August 29, 2011
 Temperature / Humidity 27deg.C , 63%RH 23deg.C , 62%RH 23deg.C , 55%RH
 Engineer Tatsuya Arai Tatsuya Arai Tatsuya Arai
 Mode Tx, 5180 MHz
 Tx, IEEE802.11a, PN9, worst antenna port Main, worst data mode 24Mbps

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.	52.000	QP	22.8	10.6	7.3	31.9	8.8	40.0	31.2	200	0	
Hori.	840.390	QP	24.6	21.4	9.7	31.2	24.5	46.0	21.5	100	171	
Hori.	5150.000	PK	49.0	32.1	15.5	40.7	55.9	73.9	18.0	103	0	
Hori.	15540.000	PK	46.8	40.1	0.9	38.7	49.1	73.9	24.8	100	0	
Hori.	20720.000	PK	45.5	40.6	-2.6	43.8	39.7	73.9	34.2	100	0	
Hori.	5150.000	AV	36.5	32.1	15.5	40.7	43.4	53.9	10.5	103	0	
Hori.	15540.000	AV	35.6	40.1	0.9	38.7	37.9	53.9	16.0	100	0	
Hori.	20720.000	AV	35.3	40.6	-2.6	43.8	29.5	53.9	24.4	100	0	
Vert.	52.000	QP	23.0	10.6	7.3	31.9	9.0	40.0	31.0	100	0	
Vert.	840.390	QP	23.5	21.4	9.7	31.2	23.4	46.0	22.6	100	0	
Vert.	5150.000	PK	47.8	32.1	15.5	40.7	54.7	73.9	19.2	107	127	
Vert.	15540.000	PK	46.0	40.1	0.9	38.7	48.3	73.9	25.6	100	0	
Vert.	20720.000	PK	46.3	40.6	-2.6	43.8	40.5	73.9	33.4	100	0	
Vert.	5150.000	AV	36.3	32.1	15.5	40.7	43.2	53.9	10.7	107	127	
Vert.	15540.000	AV	35.5	40.1	0.9	38.7	37.8	53.9	16.1	100	0	
Vert.	20720.000	AV	35.8	40.6	-2.6	43.8	30.0	53.9	23.9	100	0	

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

*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 August 22, 2011 August 28, 2011 August 29, 2011
 Temperature / Humidity 27deg.C , 63%RH 23deg.C , 62%RH 23deg.C , 55%RH
 Engineer Tatsuya Arai Tatsuya Arai Tatsuya Arai
 Mode Tx, 5220 MHz
 Tx, IEEE802.11a, PN9, worst antenna port Main, worst data mode 24Mbps

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.	52.000	QP	23.0	10.6	7.3	31.9	9.0	40.0	31.0	200	0	
Hori.	906.985	QP	23.8	22.0	10.0	30.8	25.0	46.0	21.0	100	225	
Hori.	15660.000	PK	45.4	39.9	1.0	38.9	47.4	73.9	26.5	100	0	
Hori.	20880.000	PK	47.5	40.7	-2.5	44.0	41.7	73.9	32.2	100	0	
Hori.	15660.000	AV	34.8	39.9	1.0	38.9	36.8	53.9	17.1	100	0	
Hori.	20880.000	AV	35.5	40.7	-2.5	44.0	29.7	53.9	24.2	100	0	
Vert.	52.000	QP	22.9	10.6	7.3	31.9	8.9	40.0	31.1	100	0	
Vert.	906.985	QP	23.3	22.0	10.0	30.8	24.5	46.0	21.5	100	0	
Vert.	15660.000	PK	46.3	39.9	1.0	38.9	48.3	73.9	25.6	100	0	
Vert.	20880.000	PK	46.8	40.7	-2.5	44.0	41.0	73.9	32.9	100	0	
Vert.	15660.000	AV	34.9	39.9	1.0	38.9	36.9	53.9	17.0	100	0	
Vert.	20880.000	AV	35.6	40.7	-2.5	44.0	29.8	53.9	24.1	100	0	

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

*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 August 22, 2011 August 28, 2011 August 29, 2011
 Temperature / Humidity 27deg.C , 63%RH 23deg.C , 62%RH 23deg.C , 55%RH
 Engineer Tatsuya Arai Tatsuya Arai Tatsuya Arai
 Mode Tx, 5240 MHz
 Tx, IEEE802.11a, PN9, worst antenna port Main, worst data mode 24Mbps

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.	52.000	QP	23.0	10.6	7.3	31.9	9.0	40.0	31.0	200	0	
Hori.	797.668	QP	23.5	21.0	9.5	31.4	22.6	46.0	23.4	100	220	
Hori.	15720.000	PK	45.7	39.7	1.2	39.0	47.6	73.9	26.3	100	0	
Hori.	20960.000	PK	43.4	40.7	-2.5	44.1	37.5	73.9	36.4	100	0	
Hori.	15720.000	AV	35.0	39.7	1.2	39.0	36.9	53.9	17.0	100	0	
Hori.	20960.000	AV	33.5	40.7	-2.5	44.1	27.6	53.9	26.3	100	0	
Vert.	52.000	QP	22.9	10.6	7.3	31.9	8.9	40.0	31.1	100	0	
Vert.	797.668	QP	23.4	21.0	9.5	31.4	22.5	46.0	23.5	100	10	
Vert.	15720.000	PK	46.2	39.7	1.2	39.0	48.1	73.9	25.8	100	0	
Vert.	20960.000	PK	42.7	40.7	-2.5	44.1	36.8	73.9	37.1	100	0	
Vert.	15720.000	AV	34.9	39.7	1.2	39.0	36.8	53.9	17.1	100	0	
Vert.	20960.000	AV	33.6	40.7	-2.5	44.1	27.7	53.9	26.2	100	0	

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

*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 August 22, 2011 August 28, 2011 August 29, 2011
 Temperature / Humidity 27deg.C , 63%RH 23deg.C , 62%RH 23deg.C , 55%RH
 Engineer Tatsuya Arai Tatsuya Arai Tatsuya Arai
 Mode Tx, 5260 MHz
 Tx, IEEE802.11a, PN9, worst antenna port Main, worst data mode 24Mbps

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.	52.000	QP	23.0	10.6	7.3	31.9	9.0	40.0	31.0	200	0	
Hori.	900.640	QP	23.3	22.0	10.0	30.8	24.5	46.0	21.5	100	178	
Hori.	15780.000	PK	45.6	39.6	1.2	39.0	47.4	73.9	26.5	100	0	
Hori.	21040.000	PK	44.9	40.7	-2.5	44.1	39.0	73.9	34.9	100	0	
Hori.	15780.000	AV	35.1	39.6	1.2	39.0	36.9	53.9	17.0	100	0	
Hori.	21040.000	AV	33.5	40.7	-2.5	44.1	27.6	53.9	26.3	100	0	
Vert.	52.000	QP	23.0	10.6	7.3	31.9	9.0	40.0	31.0	100	0	
Vert.	900.640	QP	22.9	22.0	10.0	30.8	24.1	46.0	21.9	100	0	
Vert.	15780.000	PK	45.8	39.6	1.2	39.0	47.6	73.9	26.3	100	0	
Vert.	21040.000	PK	44.5	40.7	-2.5	44.1	38.6	73.9	35.3	100	0	
Vert.	15780.000	AV	35.0	39.6	1.2	39.0	36.8	53.9	17.1	100	0	
Vert.	21040.000	AV	33.7	40.7	-2.5	44.1	27.8	53.9	26.1	100	0	

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

*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 August 22, 2011 August 28, 2011 August 29, 2011
 Temperature / Humidity 27deg.C , 63%RH 23deg.C , 62%RH 23deg.C , 55%RH
 Engineer Tatsuya Arai Tatsuya Arai Tatsuya Arai
 Mode Tx, 5300 MHz
 Tx, IEEE802.11a, PN9, worst antenna port Main, worst data mode 24Mbps

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.	52.000	QP	23.0	10.6	7.3	31.9	9.0	40.0	31.0	200	0	
Hori.	910.000	QP	23.4	22.1	10.0	30.8	24.7	46.0	21.3	100	228	
Hori.	10600.000	PK	52.4	40.0	8.9	38.6	62.7	73.9	11.2	100	232	
Hori.	15900.000	PK	46.8	39.4	1.3	39.2	48.3	73.9	25.6	100	0	
Hori.	21040.000	PK	44.1	40.7	-2.5	44.1	38.2	73.9	35.7	100	0	
Hori.	10600.000	AV	39.8	40.0	8.9	38.6	50.1	53.9	3.8	100	232	
Hori.	15900.000	AV	35.2	39.4	1.3	39.2	36.7	53.9	17.2	100	0	
Hori.	21040.000	AV	33.1	40.7	-2.5	44.1	27.2	53.9	26.7	100	0	
Hori.	26500.000	AV	36.9	40.0	-1.6	46.0	29.3	53.9	24.6	100	0	
Vert.	52.000	QP	23.1	10.6	7.3	31.9	9.1	40.0	30.9	100	0	
Vert.	910.000	QP	23.0	22.1	10.0	30.8	24.3	46.0	21.7	100	0	
Vert.	10600.000	PK	56.9	40.0	8.9	38.6	67.2	73.9	6.7	101	54	
Vert.	15900.000	PK	46.0	39.4	1.3	39.2	47.5	73.9	26.4	100	0	
Vert.	21040.000	PK	44.5	40.7	-2.5	44.1	38.6	73.9	35.3	100	0	
Vert.	10600.000	AV	43.1	40.0	8.9	38.6	53.4	53.9	0.5	101	54	
Vert.	15900.000	AV	35.0	39.4	1.3	39.2	36.5	53.9	17.4	100	0	
Vert.	21040.000	AV	33.4	40.7	-2.5	44.1	27.5	53.9	26.4	100	0	
Vert.	26500.000	AV	36.9	40.0	-1.6	46.0	29.3	53.9	24.6	100	0	

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

*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 August 22, 2011 August 28, 2011 August 29, 2011
 Temperature / Humidity 27deg.C , 63%RH 23deg.C , 62%RH 23deg.C , 55%RH
 Engineer Tatsuya Arai Tatsuya Arai Tatsuya Arai
 Mode Tx, 5320 MHz
 Tx, IEEE802.11a, PN9, worst antenna port Main, worst data mode 24Mbps

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.	52.000	QP	23.0	10.6	7.3	31.9	9.0	40.0	31.0	200	0	
Hori.	948.984	QP	22.5	22.5	10.2	30.6	24.6	46.0	21.4	100	212	
Hori.	5350.000	PK	51.5	32.3	15.7	40.6	58.9	73.9	15.0	100	4	
Hori.	10640.000	PK	52.9	40.0	9.0	38.7	63.2	73.9	10.7	100	268	
Hori.	15960.000	PK	45.2	39.2	1.3	39.3	46.4	73.9	27.5	100	0	
Hori.	21040.000	PK	44.1	40.7	-2.5	44.1	38.2	73.9	35.7	100	0	
Hori.	5350.000	AV	36.8	32.3	15.7	40.6	44.2	53.9	9.7	100	4	
Hori.	10640.000	AV	39.5	40.0	9.0	38.7	49.8	53.9	4.1	100	268	
Hori.	15960.000	AV	35.2	39.2	1.3	39.3	36.4	53.9	17.5	100	0	
Hori.	21040.000	AV	33.1	40.7	-2.5	44.1	27.2	53.9	26.7	100	0	
Vert.	52.000	QP	23.0	10.6	7.3	31.9	9.0	40.0	31.0	100	0	
Vert.	948.984	QP	22.7	22.5	10.2	30.6	24.8	46.0	21.2	100	6	
Vert.	5350.000	PK	51.6	32.3	15.7	40.6	59.0	73.9	14.9	129	90	
Vert.	10640.000	PK	56.4	40.0	9.0	38.7	66.7	73.9	7.2	100	51	
Vert.	15960.000	PK	45.6	39.2	1.3	39.3	46.8	73.9	27.1	100	0	
Vert.	21040.000	PK	44.5	40.7	-2.5	44.1	38.6	73.9	35.3	100	0	
Vert.	5350.000	AV	36.8	32.3	15.7	40.6	44.2	53.9	9.7	129	90	
Vert.	10640.000	AV	42.9	40.0	9.0	38.7	53.2	53.9	0.7	100	51	
Vert.	15960.000	AV	35.3	39.2	1.3	39.3	36.5	53.9	17.4	100	0	
Vert.	21040.000	AV	33.4	40.7	-2.5	44.1	27.5	53.9	26.4	100	0	

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

*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 November 03, 2011 November 04, 2011
 Temperature / Humidity 24deg.C , 50%RH 25deg.C
 Engineer Tatsuya Arai Tatsuya Arai
 Mode Tx, 5500 MHz
 Tx, IEEE802.11a, PN9, worst antenna port Main, worst data mode 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.	52.000	QP	22.4	10.4	7.3	31.9	8.2	40.0	31.8	150	0	
Hori.	520.000	QP	21.9	18.8	8.2	31.6	17.3	46.0	28.7	150	0	
Hori.	3667.000	PK	47.0	29.6	14.6	41.7	49.5	73.9	24.4	100	286	
Hori.	5460.000	PK	46.6	31.9	15.7	40.5	53.7	73.9	20.2	100	3	
Hori.	11000.000	PK	44.7	40.4	9.0	39.2	54.9	73.9	19.0	100	0	
Hori.	22000.000	PK	44.5	40.8	-2.3	44.5	38.5	73.9	35.4	100	0	
Hori.	3667.000	AV	37.6	29.6	14.6	41.7	40.1	53.9	13.8	100	286	
Hori.	5460.000	AV	35.4	31.9	15.7	40.5	42.5	53.9	11.4	100	3	
Hori.	11000.000	AV	34.7	40.4	9.0	39.2	44.9	53.9	9.0	100	0	
Hori.	22000.000	AV	34.4	40.8	-2.3	44.5	28.4	53.9	25.5	100	0	
Vert.	52.000	QP	22.3	10.4	7.3	31.9	8.1	40.0	31.9	100	0	
Vert.	520.000	QP	21.5	18.8	8.2	31.6	16.9	46.0	29.1	100	0	
Vert.	3667.000	PK	46.8	29.6	14.6	41.7	49.3	73.9	24.6	100	75	
Vert.	5460.000	PK	45.8	31.9	15.7	40.5	52.9	73.9	21.0	100	146	
Vert.	11000.000	PK	52.5	40.4	9.0	39.2	62.7	73.9	11.2	105	62	
Vert.	22000.000	PK	45.2	40.8	-2.3	44.5	39.2	73.9	34.7	100	0	
Vert.	3667.000	AV	36.5	29.6	14.6	41.7	39.0	53.9	14.9	100	75	
Vert.	5460.000	AV	35.0	31.9	15.7	40.5	42.1	53.9	11.8	100	146	
Vert.	11000.000	AV	38.9	40.4	9.0	39.2	49.1	53.9	4.8	105	62	
Vert.	22000.000	AV	34.7	40.8	-2.3	44.5	28.7	53.9	25.2	100	0	

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

*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 November 03, 2011 November 04, 2011
 Temperature / Humidity 24deg.C , 50%RH 25deg.C
 Engineer Tatsuya Arai Tatsuya Arai
 Mode Tx, 5580 MHz
 Tx, IEEE802.11a, PN9, worst antenna port Main, worst data mode 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.	52.000	QP	22.4	10.4	7.3	31.9	8.2	40.0	31.8	150	0	
Hori.	520.000	QP	22.0	18.8	8.2	31.6	17.4	46.0	28.6	150	0	
Hori.	3720.000	PK	47.3	29.6	14.7	41.7	49.9	73.9	24.0	100	284	
Hori.	11160.000	PK	46.5	40.3	9.0	39.3	56.5	73.9	17.4	100	357	
Hori.	22320.000	PK	45.9	40.6	-2.3	44.5	39.7	73.9	34.2	100	0	
Hori.	3720.000	AV	39.6	29.6	14.7	41.7	42.2	53.9	11.7	100	284	
Hori.	11160.000	AV	35.9	40.3	9.0	39.3	45.9	53.9	8.0	100	357	
Hori.	22320.000	AV	34.8	40.6	-2.3	44.5	28.6	53.9	25.3	100	0	
Vert.	52.000	QP	22.3	10.4	7.3	31.9	8.1	40.0	31.9	100	0	
Vert.	520.000	QP	21.5	18.8	8.2	31.6	16.9	46.0	29.1	100	0	
Vert.	3720.000	PK	47.0	29.6	14.7	41.7	49.6	73.9	24.3	100	115	
Vert.	11160.000	PK	53.1	40.3	9.0	39.3	63.1	73.9	10.8	100	48	
Vert.	22320.000	PK	46.1	40.6	-2.3	44.5	39.9	73.9	34.0	100	0	
Vert.	3720.000	AV	37.6	29.6	14.7	41.7	40.2	53.9	13.7	100	115	
Vert.	11160.000	AV	41.5	40.3	9.0	39.3	51.5	53.9	2.4	100	48	
Vert.	22320.000	AV	34.9	40.6	-2.3	44.5	28.7	53.9	25.2	100	0	

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

*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 November 03, 2011 November 04, 2011
 Temperature / Humidity 24deg.C , 50%RH 25deg.C
 Engineer Tatsuya Arai Tatsuya Arai
 Mode Tx, 5700 MHz
 Tx, IEEE802.11a, PN9, worst antenna port Main, worst data mode 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.	52.000	QP	22.4	10.4	7.3	31.9	8.2	40.0	31.8	150	0	
Hori.	520.000	QP	21.8	18.8	8.2	31.6	17.2	46.0	28.8	150	0	
Hori.	3800.000	PK	48.0	29.7	14.7	41.7	50.7	73.9	23.2	100	281	
Hori.	11400.000	PK	44.8	40.2	9.1	39.5	54.6	73.9	19.3	100	359	
Hori.	22800.000	PK	46.9	40.5	-2.2	44.9	40.3	73.9	33.6	100	0	
Hori.	3800.000	AV	41.0	29.7	14.7	41.7	43.7	53.9	10.2	100	281	
Hori.	11400.000	AV	34.7	40.2	9.1	39.5	44.5	53.9	9.4	100	359	
Hori.	22800.000	AV	36.7	40.5	-2.2	44.9	30.1	53.9	23.8	100	0	
Vert.	52.000	QP	22.3	10.4	7.3	31.9	8.1	40.0	31.9	100	0	
Vert.	520.000	QP	21.4	18.8	8.2	31.6	16.8	46.0	29.2	100	0	
Vert.	3800.000	PK	47.2	29.7	14.7	41.7	49.9	73.9	24.0	100	153	
Vert.	11400.000	PK	49.8	40.2	9.1	39.5	59.6	73.9	14.3	100	27	
Vert.	22800.000	PK	47.7	40.5	-2.2	44.9	41.1	73.9	32.8	100	0	
Vert.	3800.000	AV	37.8	29.7	14.7	41.7	40.5	53.9	13.4	100	153	
Vert.	11400.000	AV	38.4	40.2	9.1	39.5	48.2	53.9	5.7	100	27	
Vert.	22800.000	AV	36.7	40.5	-2.2	44.9	30.1	53.9	23.8	100	0	

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

*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 (Substitution)(above 1GHz Outside of the restricted band)

UL Japan, Inc.
 Shonan EMC Lab. Semi Anechoic Chamber : No3

MODE Tx 5180 MHz
 11a, 24Mbps, Main Antenna

TEST DISTANCE 3m (below13GHz)/ 1m (above13GHz)
 DATE August 22, 2011 August 28, 2011 August 29, 2011
 TEMPERATURE 27deg.C 23deg.C 23deg.C
 HUMIDITY 63%RH 62%RH 55%RH
 ENGINEER Tatsuya Arai Tatsuya Arai Tatsuya Arai

Tx Antenna Height 0.8m

(* S/A: Spectrum Analyzer, SG: Signal Generator)

Frequency [MHz]	Rx, S/A Reading [dBuV]		Tx, SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx, Ant. Atten. Loss [dB]	RESULT (EIRP) [dBm]		LIMIT [dBm] (EIRP)	MARGIN [dB]		Horizontal Rx, Ant. Turn Height Table [cm] [deg.]		Vertical Rx, Ant. Turn Height Table [cm] [deg.]		Remarks				
	HOR	VER	HOR	VER				HOR	VER		HOR	VER	HOR	VER	HOR	VER		Rx, Ant. Height [cm]	Turn Table [deg.]	Rx, Ant. Height [cm]	Turn Table [deg.]
10360.00	55.4	58.4	-30.90	-29.60	12.58	11.22	0.00	-32.26	-30.96	-27.00	5.26	3.96	103	230	100	38					
25900.00	43.3	43.9	-69.10	-67.70	21.32	11.87	0.00	-78.55	-77.15	-27.00	51.55	50.15	100	0	100	0					

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss

Rx-ANTENNA : Horn Antenna(1G-40GHz)

Tx-ANTENNA : Horn Antenna(1G-40GHz)

All other emissions were at least 20dB below the specification limit.

With the result above, the equivalent isotropic radiated power was calculated on the basis of the reference value

- for the calibration data on the substitution measurement.

*The test result is rounded off to one or two decimal places, so some differences might be observed.

Detector : Above 1GHz : S/A PK(RBW:1MHz/VBW:3MHz)

UL Japan, Inc.

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

UL Japan, Inc.
 Shonan EMC Lab. Semi Anechoic Chamber : No3

MODE Tx 5220 MHz
 11a, 24Mbps, Main Antenna

TEST DISTANCE 3m (below13GHz)/ 1m (above13GHz)
 DATE August 22, 2011 August 28, 2011 August 29, 2011
 TEMPERATURE 27deg.C 23deg.C 23deg.C
 HUMIDITY 63%RH 62%RH 55%RH
 ENGINEER Tatsuya Arai Tatsuya Arai Tatsuya Arai

Tx Antenna Height 0.8m

(* S/A: Spectrum Analyzer, SG: Signal Generator)

Frequency [MHz]	Rx, S/A Reading [dBuV]		Tx, SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx, Ant. Atten. Loss [dB]	RESULT (EIRP) [dBm]		LIMIT [dBm] (EIRP)	MARGIN [dB]		Horizontal Rx, Ant. Turn Height Table [cm] [deg.]		Vertical Rx, Ant. Turn Height Table [cm] [deg.]		Remarks				
	HOR	VER	HOR	VER				HOR	VER		HOR	VER	HOR	VER	HOR	VER		Rx, Ant. Height [cm]	Turn Table [deg.]	Rx, Ant. Height [cm]	Turn Table [deg.]
10440.00	56.3	59.1	-29.50	-28.10	12.63	11.19	0.00	-30.94	-29.54	-27.00	3.94	2.54	101	267	100	30					
26100.00	47.1	46.8	-65.10	-64.90	21.40	11.72	0.00	-74.78	-74.58	-27.00	47.78	47.58	100	0	100	0					

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss

Rx-ANTENNA : Horn Antenna(1G-40GHz)

Tx-ANTENNA : Horn Antenna(1G-40GHz)

All other emissions were at least 20dB below the specification limit.

With the result above, the equivalent isotropic radiated power was calculated on the basis of the reference value
 - for the calibration data on the substitution measurement.

*The test result is rounded off to one or two decimal places, so some differences might be observed.

Detector : Above 1GHz : S/A PK(RBW:1MHz/VBW:3MHz)

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

UL Japan, Inc.
 Shonan EMC Lab. Semi Anechoic Chamber : No3

MODE Tx 5240 MHz
 11a, 24Mbps, Main Antenna

TEST DISTANCE 3m (below13GHz)/ 1m (above13GHz)
 DATE August 22, 2011 August 28, 2011 August 29, 2011
 TEMPERATURE 27deg.C 23deg.C 23deg.C
 HUMIDITY 63%RH 62%RH 55%RH
 ENGINEER Tatsuya Arai Tatsuya Arai Tatsuya Arai

Tx Antenna Height 0.8m

(* S/A: Spectrum Analyzer, SG: Signal Generator)

Frequency [MHz]	Rx, S/A Reading [dBuV]		Tx, SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx, Ant. Loss [dB]	RESULT (EIRP) [dBm]		LIMIT [dBm] (EIRP)	MARGIN [dB]		Horizontal Rx, Ant. Turn Height Table [cm] [deg.]		Vertical Rx, Ant. Turn Height Table [cm] [deg.]		Remarks				
	HOR	VER	HOR	VER				HOR	VER		HOR	VER	HOR	VER	HOR	VER		HOR	VER	HOR	VER
10480.00	55.9	57.1	-31.30	-30.63	12.65	11.18	0.00	-32.77	-32.10	-27.00	5.77	5.10	102	231	100	31					
26200.00	46.4	46.9	-67.50	-66.00	21.42	11.70	0.00	-77.22	-75.72	-27.00	50.22	48.72	100	0	100	0					

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss
 Rx-ANTENNA : Horn Antenna(1G-40GHz)
 Tx-ANTENNA : Horn Antenna(1G-40GHz)
 All other emissions were at least 20dB below the specification limit.
 With the result above, the equivalent isotropic radiated power was calculated on the basis of the reference value
 - for the calibration data on the substitution measurement.
 *The test result is rounded off to one or two decimal places, so some differences might be observed.
 Detector : Above 1GHz : S/A PK(RBW:1MHz/VBW:3MHz)

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

UL Japan, Inc.
 Shonan EMC Lab. Semi Anechoic Chamber : No3

MODE Tx 5260 MHz
 11a, 24Mbps, Main Antenna

TEST DISTANCE 3m (below13GHz)/ 1m (above13GHz)
 DATE August 22, 2011 August 28, 2011 August 29, 2011
 TEMPERATURE 27deg.C 23deg.C 23deg.C
 HUMIDITY 63%RH 62%RH 55%RH
 ENGINEER Tatsuya Arai Tatsuya Arai Tatsuya Arai

Tx Antenna Height 0.8m

(* S/A: Spectrum Analyzer, SG: Signal Generator)

Frequency [MHz]	Rx, S/A Reading [dBuV]		Tx, SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx, Ant. Atten. Loss [dB]	RESULT (EIRP) [dBm]		LIMIT [dBm] (EIRP)	MARGIN [dB]		Horizontal Rx, Ant. Turn Height Table [cm] [deg.]		Vertical Rx, Ant. Turn Height Table [cm] [deg.]		Remarks				
	HOR	VER	HOR	VER				HOR	VER		HOR	VER	HOR	VER	HOR	VER		Rx, Ant. Height [cm]	Turn Table [deg.]	Rx, Ant. Height [cm]	Turn Table [deg.]
10520.00	54.3	56.3	-32.91	-31.40	12.68	11.17	0.00	-34.42	-32.91	-27.00	7.42	5.91	100	231	103	31					
26300.00	46.2	46.8	-66.70	-64.70	21.45	11.69	0.00	-76.46	-74.46	-27.00	49.46	47.46	100	0	100	0					

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss

Rx-ANTENNA : Horn Antenna(1G-40GHz)

Tx-ANTENNA : Horn Antenna(1G-40GHz)

All other emissions were at least 20dB below the specification limit.

With the result above, the equivalent isotropic radiated power was calculated on the basis of the reference value
 - for the calibration data on the substitution measurement.

*The test result is rounded off to one or two decimal places, so some differences might be observed.

Detector : Above 1GHz : S/A PK(RBW:1MHz/VBW:3MHz)

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

UL Japan, Inc.
 Shonan EMC Lab. Semi Anechoic Chamber : No3

MODE Tx 5300 MHz
 11a, 24Mbps, Main Antenna

TEST DISTANCE 3m (below13GHz)/ 1m (above13GHz)
 DATE August 22, 2011 August 28, 2011 August 29, 2011
 TEMPERATURE 27deg.C 23deg.C 23deg.C
 HUMIDITY 63%RH 62%RH 55%RH
 ENGINEER Tatsuya Arai Tatsuya Arai Tatsuya Arai

Tx Antenna Height 0.8m

(* S/A: Spectrum Analyzer, SG: Signal Generator)

Frequency [MHz]	Rx, S/A Reading [dBuV]		Tx, SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx, Ant. Atten. Loss [dB]	RESULT (EIRP) [dBm]		LIMIT [dBm] (EIRP)	MARGIN [dB]		Horizontal Rx, Ant. Turn Height Table [cm] [deg.]		Vertical Rx, Ant. Turn Height Table [cm] [deg.]		Remarks				
	HOR	VER	HOR	VER				HOR	VER		HOR	VER	HOR	VER	HOR	VER		Rx, Ant. Height [cm]	Turn Table [deg.]	Rx, Ant. Height [cm]	Turn Table [deg.]
26500.00	46.1	45.3	-67.90	-68.40	21.49	11.65	0.00	-77.74	-78.24	-27.00	50.74	51.24	100	0	100	0					

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss

Rx-ANTENNA : Horn Antenna(1G-40GHz)

Tx-ANTENNA : Horn Antenna(1G-40GHz)

All other emissions were at least 20dB below the specification limit.

With the result above, the equivalent isotropic radiated power was calculated on the basis of the reference value
 - for the calibration data on the substitution measurement.

*The test result is rounded off to one or two decimal places, so some differences might be observed.

Detector : Above 1GHz : S/A PK(RBW:1MHz/VBW:3MHz)

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

UL Japan, Inc.
 Shonan EMC Lab. Semi Anechoic Chamber : No3

MODE Tx 5320 MHz
 11a, 24Mbps, Main Antenna

TEST DISTANCE 3m (below13GHz)/ 1m (above13GHz)
 DATE August 22, 2011 August 28, 2011 August 29, 2011
 TEMPERATURE 27deg.C 23deg.C 23deg.C
 HUMIDITY 63%RH 62%RH 55%RH
 ENGINEER Tatsuya Arai Tatsuya Arai Tatsuya Arai

Tx Antenna Height 0.8m

(* S/A: Spectrum Analyzer, SG: Signal Generator)

Frequency [MHz]	Rx, S/A Reading [dBuV]		Tx, SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx, Ant. Loss [dB]	RESULT (EIRP) [dBm]		LIMIT [dBm] (EIRP)	MARGIN [dB]		Horizontal Rx, Ant. Turn Height Table [cm] [deg.]		Vertical Rx, Ant. Turn Height Table [cm] [deg.]		Remarks				
	HOR	VER	HOR	VER				HOR	VER		HOR	VER	HOR	VER	HOR	VER		HOR	VER	HOR	VER
26600.00	56.4	55.0	-67.20	-68.40	21.60	11.63	0.00	-77.17	-78.37	-27.00	50.17	51.37	100	0	100	0					

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss
 Rx-ANTENNA : Horn Antenna(1G-40GHz)
 Tx-ANTENNA : Horn Antenna(1G-40GHz)
 All other emissions were at least 20dB below the specification limit.
 With the result above, the equivalent isotropic radiated power was calculated on the basis of the reference value
 - for the calibration data on the substitution measurement.
 *The test result is rounded off to one or two decimal places, so some differences might be observed.
 Detector : Above 1GHz : S/A PK(RBW:1MHz/VBW:3MHz)

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

UL Japan, Inc.
 Shonan EMC Lab. Semi Anechoic Chamber : No3

MODE Tx 5500 MHz
 11a, 6Mbps, Main Antenna

TEST DISTANCE 3m (below13GHz)/ 1m (above13GHz)
 DATE November 03, 2011 November 04, 2011
 TEMPERATURE 24deg.C 25deg.C
 HUMIDITY 50%RH 51%RH
 ENGINEER Tatsuya Arai Tatsuya Arai

Tx Antenna Height 0.8m

(* S/A: Spectrum Analyzer, SG: Signal Generator)

Frequency [MHz]	Rx, S/A Reading [dBuV]		Tx, SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx, Ant. Atten. Loss [dB]	RESULT (EIRP) [dBm]		LIMIT [dBm] (EIRP)	MARGIN [dB]		Horizontal Rx, Ant. Turn Height Table [cm] [deg.]		Vertical Rx, Ant. Turn Height Table [cm] [deg.]		Remarks				
	HOR	VER	HOR	VER				HOR	VER		HOR	VER	HOR	VER	HOR	VER		Rx, Ant. Height [cm]	Turn Table [deg.]	Rx, Ant. Height [cm]	Turn Table [deg.]
5470.00	46.8	45.5	-47.61	-45.53	9.06	12.34	0.00	-44.33	-42.25	-27.00	17.33	15.25	100	3	100	146					
16500.00	45.9	46.2	-48.50	-48.10	16.61	14.19	0.00	-50.92	-50.52	-27.00	23.92	23.52	100	0	100	0					
27500.00	62.5	62.6	-68.20	-68.10	22.14	11.37	0.00	-78.97	-78.87	-27.00	51.97	51.87	100	0	100	0					

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss

Rx-ANTENNA : Horn Antenna(1G-40GHz)

Tx-ANTENNA : Horn Antenna(1G-40GHz)

All other emissions were at least 20dB below the specification limit.

With the result above, the equivalent isotropic radiated power was calculated on the basis of the reference value
 - for the calibration data on the substitution measurement.

*The test result is rounded off to one or two decimal places, so some differences might be observed.

Detector : Above 1GHz : S/A PK(RBW:1MHz/VBW:3MHz)

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

UL Japan, Inc.
 Shonan EMC Lab. Semi Anechoic Chamber : No3

MODE Tx 5580 MHz
 11a, 6Mbps, Main Antenna

TEST DISTANCE 3m (below13GHz)/ 1m (above13GHz)
 DATE November 03, 2011 November 04, 2011
 TEMPERATURE 24deg.C 25deg.C
 HUMIDITY 50%RH 51%RH
 ENGINEER Tatsuya Arai Tatsuya Arai

Tx Antenna Height 0.8m

(* S/A: Spectrum Analyzer, SG: Signal Generator)

Frequency [MHz]	Rx, S/A Reading [dBuV]		Tx, SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx, Ant. Atten. Loss [dB]	RESULT (EIRP) [dBm]		LIMIT [dBm] (EIRP)	MARGIN [dB]		Horizontal Rx, Ant. Turn Height Table [cm] [deg.]		Vertical Rx, Ant. Turn Height Table [cm] [deg.]		Remarks				
	HOR	VER	HOR	VER				HOR	VER		HOR	VER	HOR	VER	HOR	VER		Rx, Ant. Height [cm]	Turn Table [deg.]	Rx, Ant. Height [cm]	Turn Table [deg.]
16740.00	45.9	45.5	-47.90	-48.30	16.70	13.55	0.00	-51.05	-51.45	-27.00	24.05	24.45	100	0	100	0					
27900.00	62.8	64.1	-67.80	-68.20	22.38	11.21	0.00	-78.97	-79.37	-27.00	51.97	52.37	100	0	100	0					

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss

Rx-ANTENNA : Horn Antenna(1G-40GHz)

Tx-ANTENNA : Horn Antenna(1G-40GHz)

All other emissions were at least 20dB below the specification limit.

With the result above, the equivalent isotropic radiated power was calculated on the basis of the reference value

- for the calibration data on the substitution measurement.

*The test result is rounded off to one or two decimal places, so some differences might be observed.

Detector : Above 1GHz : S/A PK(RBW:1MHz/VBW:3MHz)

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

UL Japan, Inc.
 Shonan EMC Lab. Semi Anechoic Chamber : No3

MODE Tx 5700 MHz
 11a, 6Mbps, Main Antenna

TEST DISTANCE 3m (below13GHz)/ 1m (above13GHz)
 DATE November 03, 2011 November 04, 2011
 TEMPERATURE 24deg.C 25deg.C
 HUMIDITY 50%RH 51%RH
 ENGINEER Tatsuya Arai Tatsuya Arai

Tx Antenna Height 0.8m

(* S/A: Spectrum Analyzer, SG: Signal Generator)

Frequency [MHz]	Rx, S/A Reading [dBuV]		Tx, SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx, Ant. Atten. Loss [dB]	RESULT (EIRP) [dBm]		LIMIT [dBm] (EIRP)	MARGIN [dB]		Horizontal		Vertical		Remarks		
	HOR	VER	HOR	VER				HOR	VER		HOR	VER	HOR	VER	Rx, Ant. Height [cm]	Turn Table [deg.]		Rx, Ant. Height [cm]	Turn Table [deg.]
5725.00	52.1	52.4	-47.30	-46.40	9.30	12.45	0.00	-44.15	-43.25	-27.00	17.15	16.25	100	0	100	84			
17100.00	45.6	46.4	-47.90	-48.30	16.86	12.23	0.00	-52.53	-52.93	-27.00	25.53	25.93	100	0	100	0			
28500.00	61.0	60.9	-68.00	-68.50	22.69	11.85	0.00	-78.84	-79.34	-27.00	51.84	52.34	100	0	100	0			

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss

Rx-ANTENNA : Horn Antenna(1G-40GHz)

Tx-ANTENNA : Horn Antenna(1G-40GHz)

All other emissions were at least 20dB below the specification limit.

With the result above, the equivalent isotropic radiated power was calculated on the basis of the reference value
 - for the calibration data on the substitution measurement.

*The test result is rounded off to one or two decimal places, so some differences might be observed.

Detector : Above 1GHz : S/A PK(RBW:1MHz/VBW:3MHz)

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