

APPENDIX 2: Data of EMI test

Output Power (Conducted)

(Reference data)

Company	KYOCERA Corporation	UL Japan, Inc.
Equipment	iBurst USER TERMINAL Desktop TYPE	Head Office EMC Lab. No.2 anechoic chamber
Model	UTD-1890F-US-A	Regulation FCC part 24 Section 24.232(c),
S/N	0Z08AX00063	Test Method FCC Part 2 Section 2.1046
Power	AC 120V / 60Hz	Test Distance -
Mode	Transmitting	Date March 11, 2009
		Temperature 21 deg. C.
		Humidity 38 %
		Engineer Kazufumi Nakai

Modulation I(AV Worst) (Gate on)

Ch	Frequency [MHz]	P/M (AV) Reading [dBm]	Atten. [dB]	Cable Loss [dB]	Conducted Power Result [dBm]	Antenna Gain [dBi]	E.I.R.P. Result [dBm]	Limit (E.I.R.P.) [dBm]	Margin [dB]
Low	1890.3125	11.22	10.09	0.00	21.31	3.90	25.21	33.00	7.79
Mid	1899.6875	10.64	10.09	0.00	20.73	3.90	24.63	33.00	8.37
High	1909.6875	10.52	10.09	0.00	20.61	3.90	24.51	33.00	8.49

Sample Calculation : E.I.R.P. Result = P/M (AV) Reading + Atten. + Cable Loss + Antenna Gain
Conducted Power Result = P/M (AV) Reading + Atten. + Cable Loss.

*The limit is rounded down to one decimal place.

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

(Reference data (Precheck))

(Gate On)

Mod.	Frequency [MHz]	P/M(AV) Reading [dBm]	Atten. [dB]	Cable Loss [dB]	Conducted Power Result [dBm]	Antenna Gain [dBi]	E.I.R.P. Result [dBm]	Limit (E.I.R.P.) [dBm]	Margin [dB]
0	1899.6875	10.54	10.09	0.00	20.63	3.90	24.53	33.00	8.47
1	1899.6875	10.64	10.09	0.00	20.73	3.90	24.63	33.00	8.37
2	1899.6875	9.62	10.09	0.00	19.71	3.90	23.61	33.00	9.39
3	1899.6875	9.63	10.09	0.00	19.72	3.90	23.62	33.00	9.38
4	1899.6875	9.56	10.09	0.00	19.65	3.90	23.55	33.00	9.45
5	1899.6875	9.55	10.09	0.00	19.64	3.90	23.54	33.00	9.46
6	1899.6875	8.82	10.09	0.00	18.91	3.90	22.81	33.00	10.19
7	1899.6875	8.39	10.09	0.00	18.48	3.90	22.38	33.00	10.62

Sample Calculation : E.I.R.P. Result = P/M (AV) Reading + Atten. + Cable Loss + Antenna Gain
Conducted Power Result = P/M (AV) Reading + Atten. + Cable Loss.

Output Power (Radiated)

Company KYOCERA Corporation
Equipment iBurst USER TERMINAL Desktop TYPE
Model UTD-1890F-US-A
S/N 0Z08AX00063
Power AC 120V / 60Hz
Mode Transmitting
Modulation 1 (Worst)
EUT-Position H: X-axis / V: Y-axis
Antenna- Position H: 0deg. / V: 0deg.
Tx Antenna 0.8m Height

UL Japan, Inc.
Head Office EMC Lab. No.3 Semi Anechoic Chamber
Regulation FCC part 24 Section 24.232(c)
Test Method FCC part 2 Section 2.1053
Test Distance 3m
Date April 17, 2009
Temperature 24 deg. C.
Humidity 40 %
Engineer Kazufumi Nakai

No.	Frequency [MHz]	P/M Reading (AV) [dBm]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Rx Amp Gain [dB]	RESULT (EIRP) [dBm]		LIMIT [dBm] (EIRP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER		HOR	VER		
		1	1890.3125	-12.2	-13.4				-11.8	-14.2		5.3	10.0		
2	1899.6875	-12.7	-14.4	-11.9	-14.8	5.3	10.0	32.9	25.7	22.8	33.0	7.3	10.2	Operating	No3
3	1909.6875	-12.8	-14.9	-11.7	-14.7	5.3	10.0	32.9	25.9	22.9	33.0	7.1	10.1	Operating	No3

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

Rx-ANTENNA : Biconical Antenna(30M-300MHz), Logperiodic Antenna(300M-1000MHz), Horn Antenna(1G-12.75GHz)

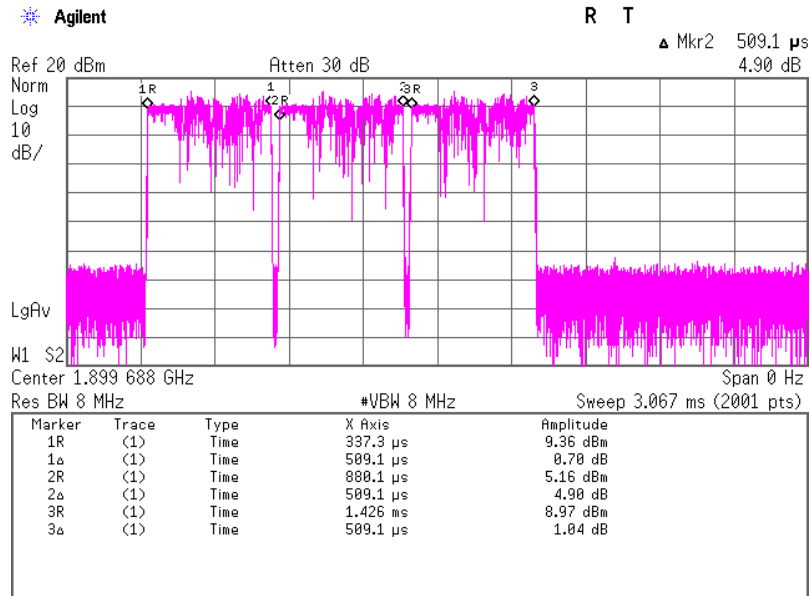
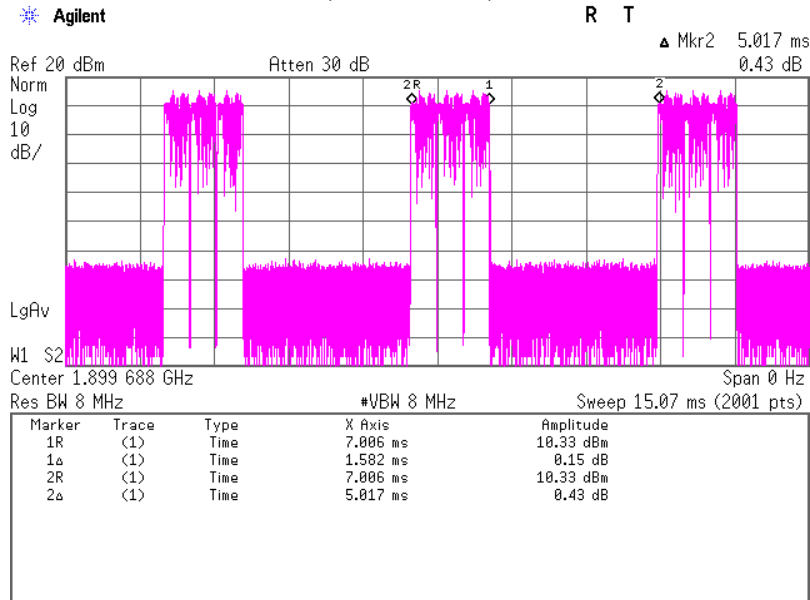
Tx-ANTENNA : 120MHz tuned Dipole Antenna(30M-120MHz), Dipole Antenna(120M-1000MHz), Horn Antenna(1G-12.75GHz)

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.

Timeslot evidence
 (Reference data)



Emission Bandwidth and 99%Occupied Bandwidth

Company	KYOCERA Corporation	UL Japan, Inc.
Equipment	iBurst USER TERMINAL Desktop TYPE	Head Office EMC Lab. No.11 measurement room
Model	UTD-1890F-US-A	Regulation FCC part 24 Section 24.238(b)
S/N	0Z08AX00063	Test Method FCC Part 2 Section 2.1049
Power	AC 120V / 60Hz	Test Distance -
Mode	Transmitting, 1899.6875MHz	Date March 3, 2009
	Modulation 4 (Worst)	Temperature 20 deg. C.
		Humidity 40 %
		Engineer Kazufumi Nakai

Emission Bandwidth 1 (-26dB Bandwidth)

PK DETECT(S/A: span 1MHz, RBW 10kHz ,VBW 30kHz)

CH	FREQ	Bandwidth	Limit
	[MHz]	[kHz]	[kHz]
Low	1890.3125	630.545	-
Mid	1899.6875	631.191	-
High	1909.6875	630.850	-

Emission Bandwidth 2 (-6dB Bandwidth)

PK DETECT(S/A: span 1MHz, RBW 10kHz ,VBW 30kHz)

CH	FREQ	Bandwidth	Limit
	[MHz]	[kHz]	[kHz]
Low	1890.3125	469.804	-
Mid	1899.6875	470.687	-
High	1909.6875	471.188	-

99% Occupied Bandwidth

PK DETECT(S/A: span 1MHz, RBW 10kHz ,VBW 30kHz)

CH	FREQ	Bandwidth	Limit
	[MHz]	[kHz]	[kHz]
Low	1890.3125	560.329	-
Mid	1899.6875	560.259	-
High	1909.6875	560.233	-

UL Japan, Inc.

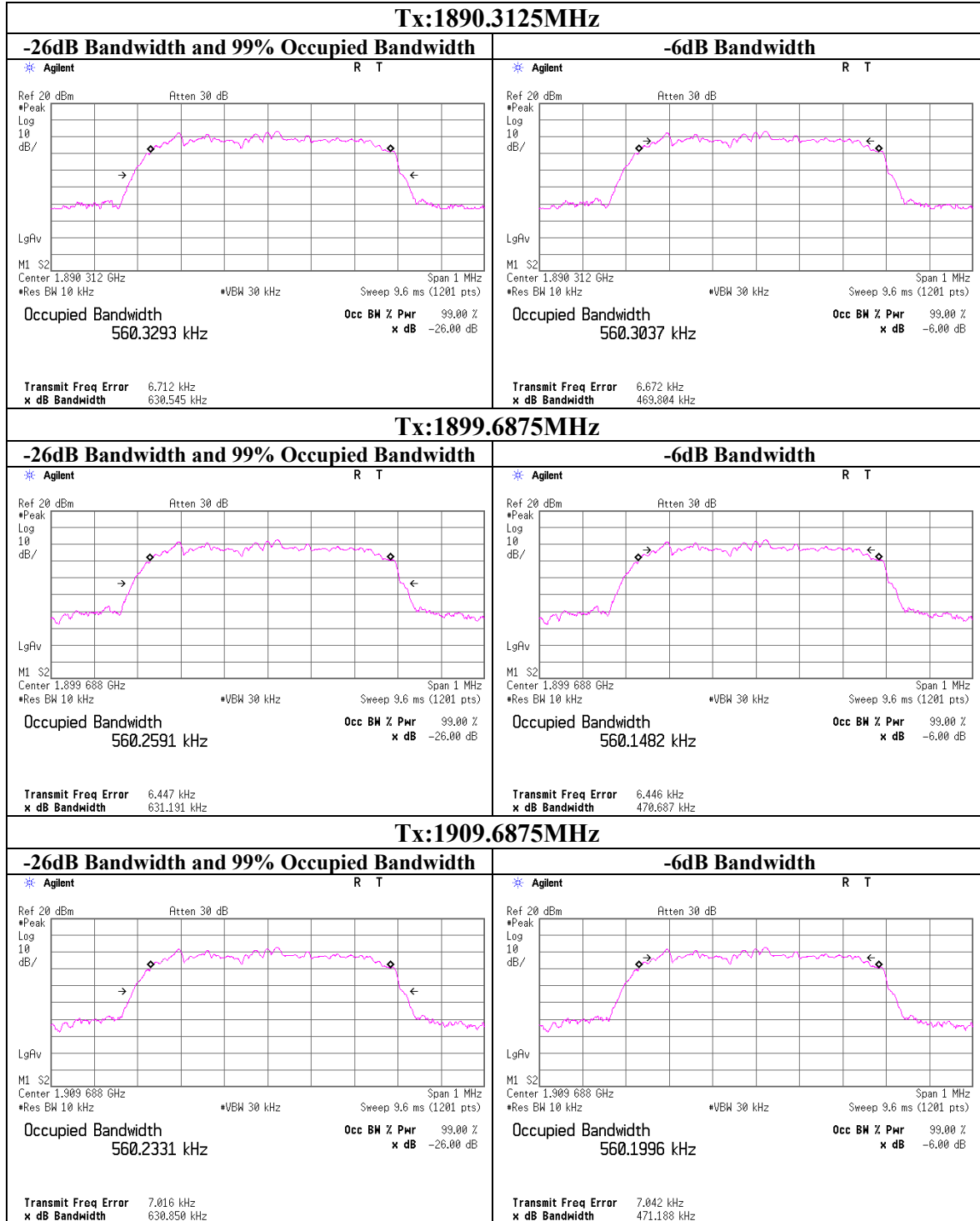
Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

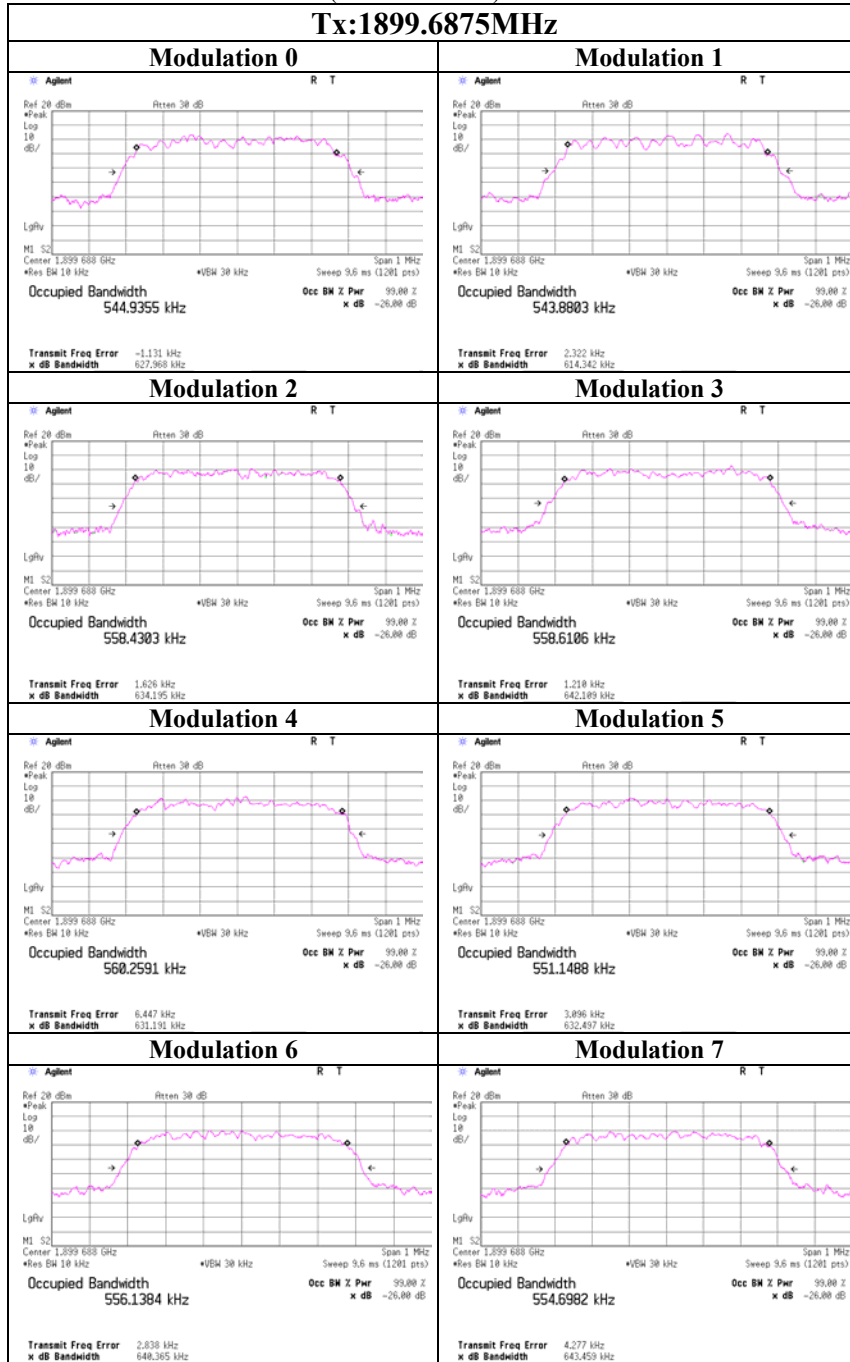
Emission Bandwidth and 99% Occupied Bandwidth



Emission Bandwidth and 99% Occupied Bandwidth

(Reference data)

Tx:1899.6875MHz



Band Edge(Conducted)

(Reference data)

UL Japan, Inc.

Head Office EMC Lab. No. 2 anechoic chamber

Company KYOCERA Corporation
Equipment iBurst USER TERMINAL Desktop TYPE
Model UTD-1890F-US-A
S/N 0Z08AX00063
Power AC 120V / 60Hz
Mode Transmitting, 1899.6875MHz

Regulation FCC part 24 Section 24.238(a),(b)
Test Method FCC Part 2 Section 2.1051
Test Distance -
Date March 11, 2009
Temperature 21 deg.C.
Humidity 38 %
Engineer Kazufumi Nakai

Modulation	Frequency [MHz]	S/A Reading [dBm]	Atten. Loss [dB]	Cable Loss [dB]	Result [dBm]	
0	BPSK	1890.0000	-33.59	10.09	0.79	-22.71
		1910.0000	-35.56	10.09	0.79	-24.68
1	BPSK+	1890.0000	-35.89	10.09	0.79	-25.01
		1910.0000	-37.12	10.09	0.79	-26.24
2	QPSK	1890.0000	-33.95	10.09	0.79	-23.07
		1910.0000	-37.26	10.09	0.79	-26.38
3	QPSK+	1890.0000	-31.56	10.09	0.79	-20.68
		1910.0000	-35.97	10.09	0.79	-25.09
4	8PSK	1890.0000	-35.74	10.09	0.79	-24.86
		1910.0000	-35.53	10.09	0.79	-24.65
5	8PSK+	1890.0000	-34.15	10.09	0.79	-23.27
		1910.0000	-37.42	10.09	0.79	-26.54
6	12QAM	1890.0000	-35.21	10.09	0.79	-24.33
		1910.0000	-35.29	10.09	0.79	-24.41
7	16QAM	1890.0000	-36.22	10.09	0.79	-25.34
		1910.0000	-36.92	10.09	0.79	-26.04

Worst

Worst

Sample Calculation : Result = Reading + Atten. + Cable Loss

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

UL Japan, Inc.

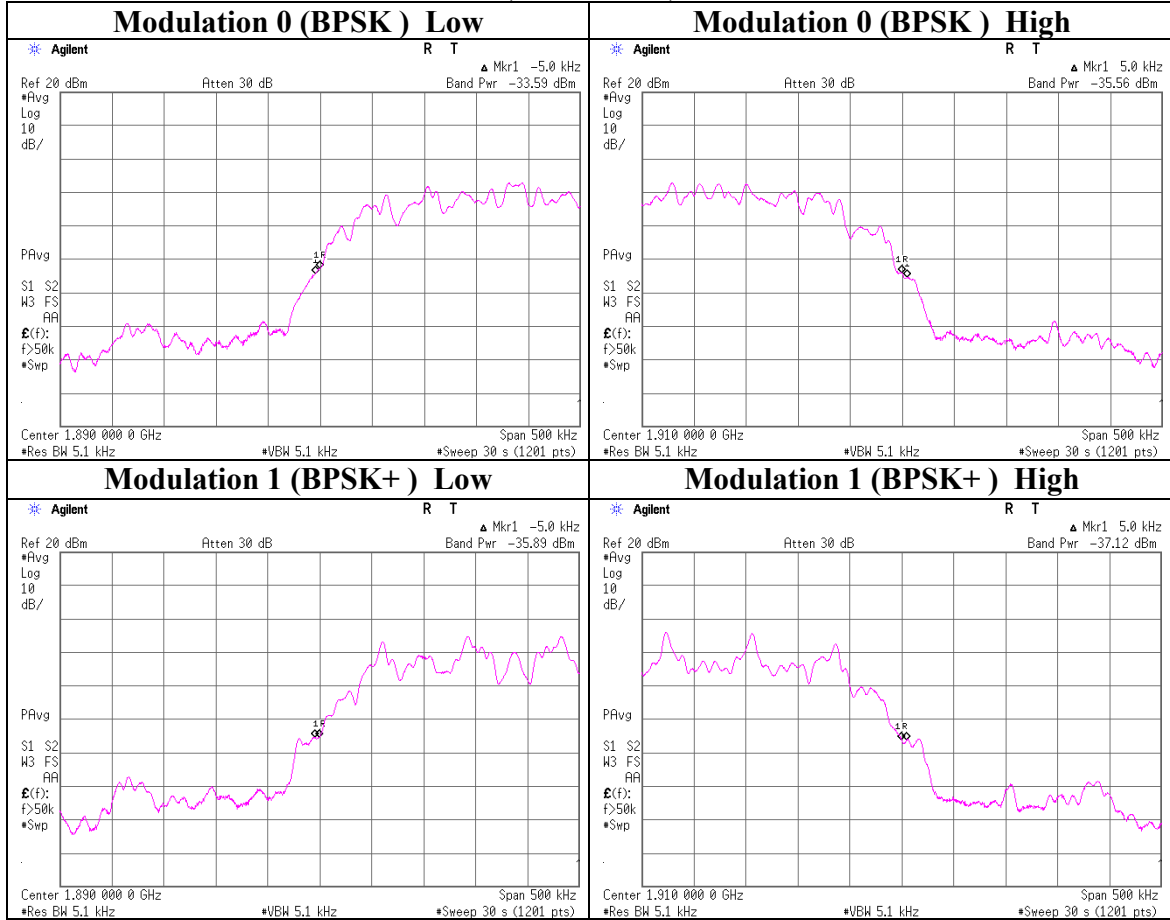
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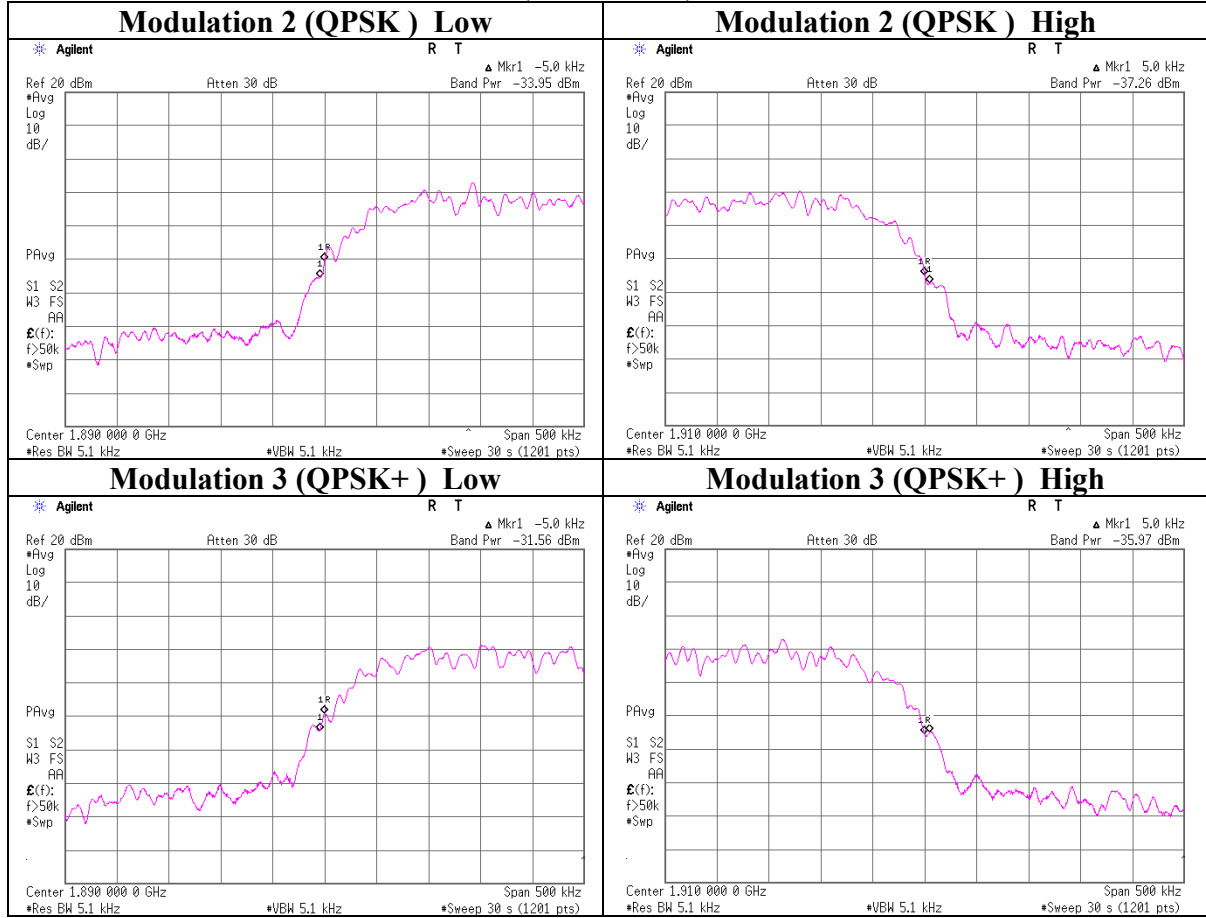
Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

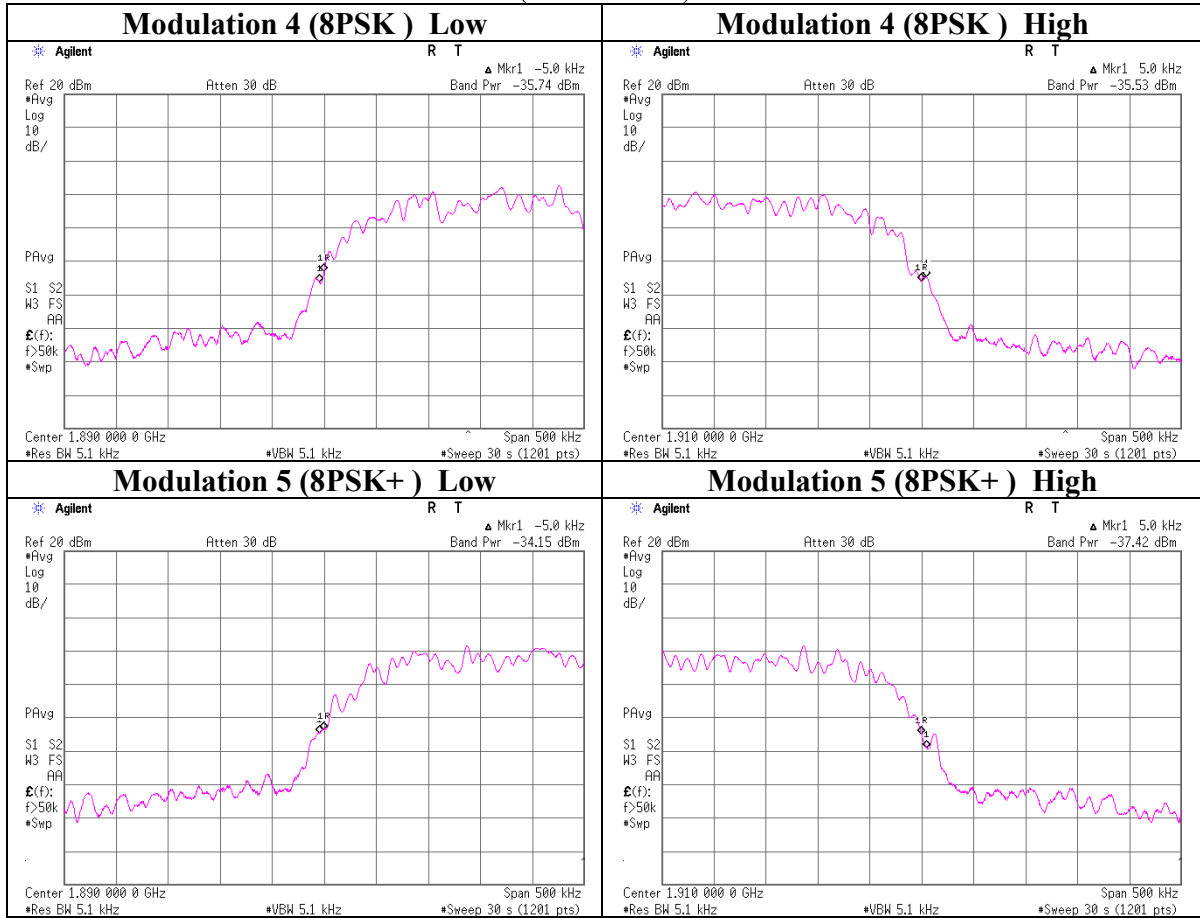
Band Edge(Conducted)
 (Reference data)



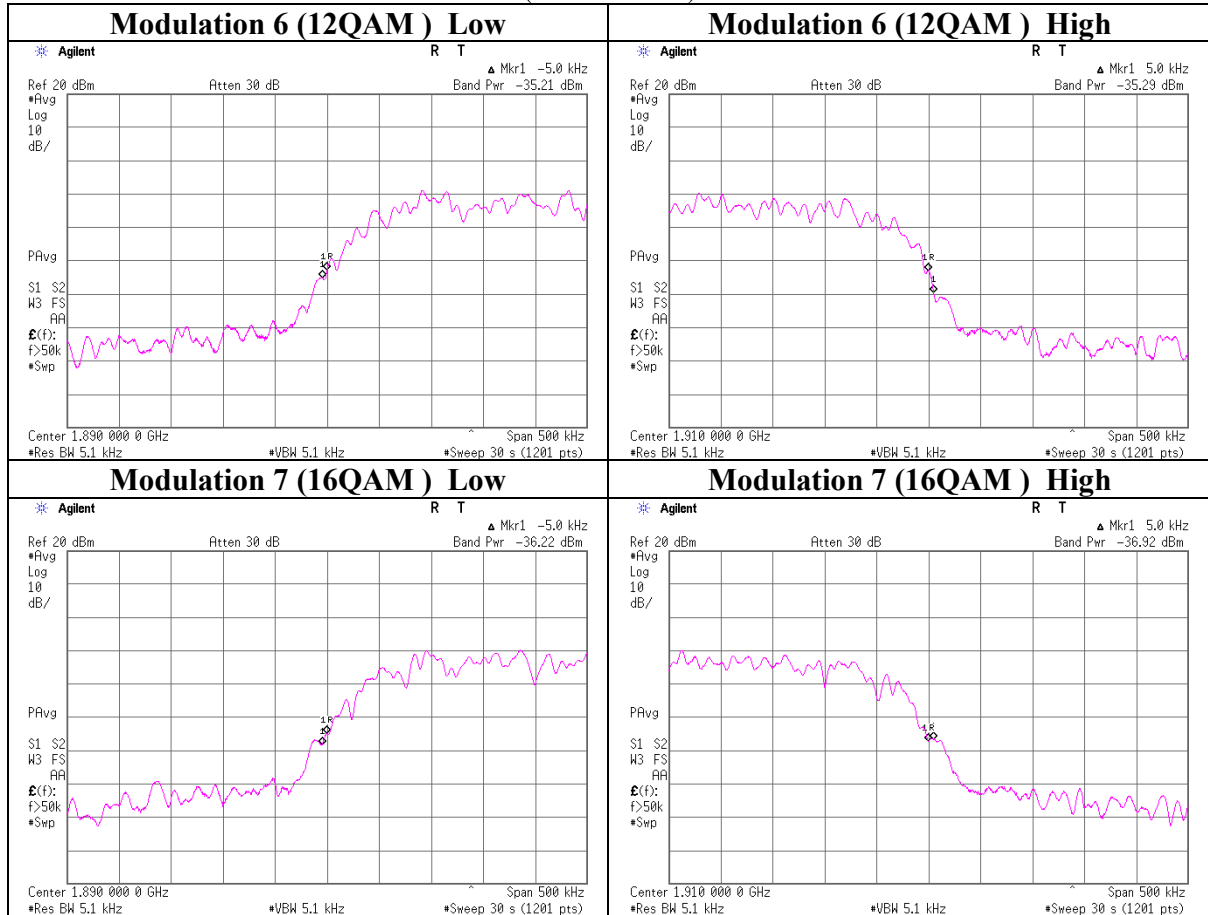
Band Edge(Conducted)
 (Reference data)



Band Edge(Conducted)
 (Reference data)



Band Edge(Conducted)
 (Reference data)



Band Edge (Radiated)

UL Japan, Inc.

Head Office EMC Lab. No.3 Semi Anechoic Chamber

Company KYOCERA Corporation
Equipment iBurst USER TERMINAL Desktop TYPE
Model UTD-1890F-US-A
S/N 0Z08AX00063
Power AC 120V / 60Hz
Mode Transmitting, 1890.3125MHz, Modulation 3 (Worst)
Transmitting, 1909.6875MHz Modulation 6 (Worst)
EUT-Position H: X-axis / V: Y-axis
Antenna- Position H: 0deg. / V: 0deg.
Tx Antenna 0.8m Height

Regulation FCC part 24. Section24. 238(a),(b)
Test Method FCC part 2 Section 2.1053
Test Distance 3m
Date April 17, 2009
Temperature 24 deg. C.
Humidity 40 %
Engineer Kazufumi Nakai

No.	Frequency [MHz]	S/A Reading (AV) [dBm]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	RESULT (EIRP) [dBm]		LIMIT [dBm] (EIRP)	MARGIN [dB]		Mode	A/C	Remarks
		HOR	VER	HOR	VER			HOR	VER		HOR	VER			
		1	1890.0000	-54.4	-55.8			-22.0	-24.5		5.3	10.0			
2	1910.0000	-57.5	-60.1	-25.0	-27.8	5.3	10.0	-20.3	-23.1	-13.0	7.3	10.1	Operating	No3	

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

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 : S/A, AV, RBW 5.1kHz, VBW5.1kHz, Sweep 30sec, Gate On mode.

UL Japan, Inc.

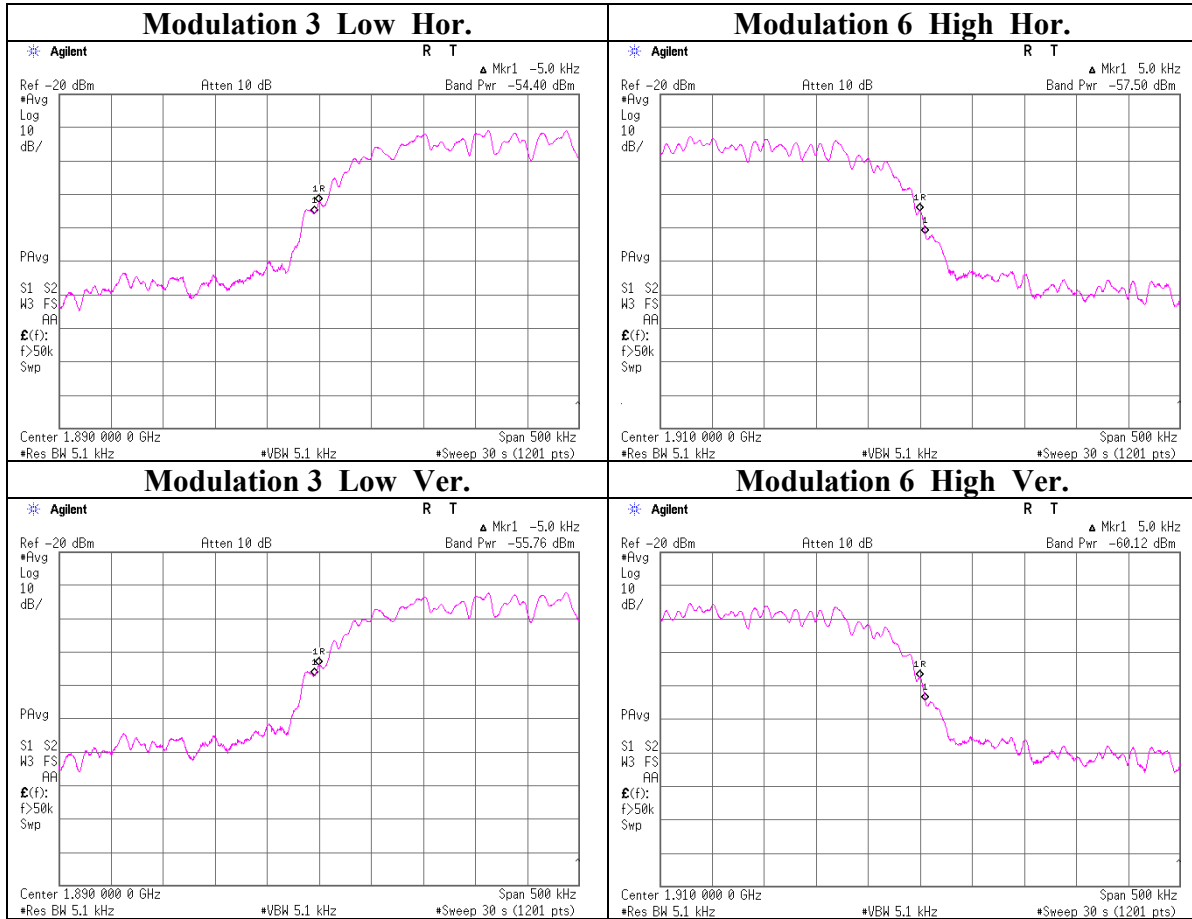
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Band Edge(Radiated)



Spurious Emission (Conducted)

(Reference data)

UL Japan, Inc.
Head Office EMC Lab. No.11 measurement room

Company	KYOCERA Corporation	Regulation	FCC part 24 Section 24.238(a)
Equipment	iBurst USER TERMINAL Desktop TYPE	Test Method	FCC Part 2 Section 2.1051
Model	UTD-1890F-US-A	Test Distance	-
S/N	0Z08AX00063	Date	March 3, 2009
Power	AC 120V / 60Hz	Temperature	20 deg. C.
Mode	Transmitting	Humidity	40 %
	Modulation 7 (Worst)	Engineer	Kazufumi Nakai

PK DETECT(S/A : RBW 100kHz ,VBW 300kHz, sweep time AUTO)

Limit Line

Limit [dBm]	Atten. [dB]	Cable Loss [dB]	Antenna Gain [dBi]	Limit Line [dBm]
-13.00	9.98	0.79	3.90	-27.67

Sample Calculation : Limit Line = Limit - Atten. - Cable Loss - Antenna Gain

Result OK

UL Japan, Inc.

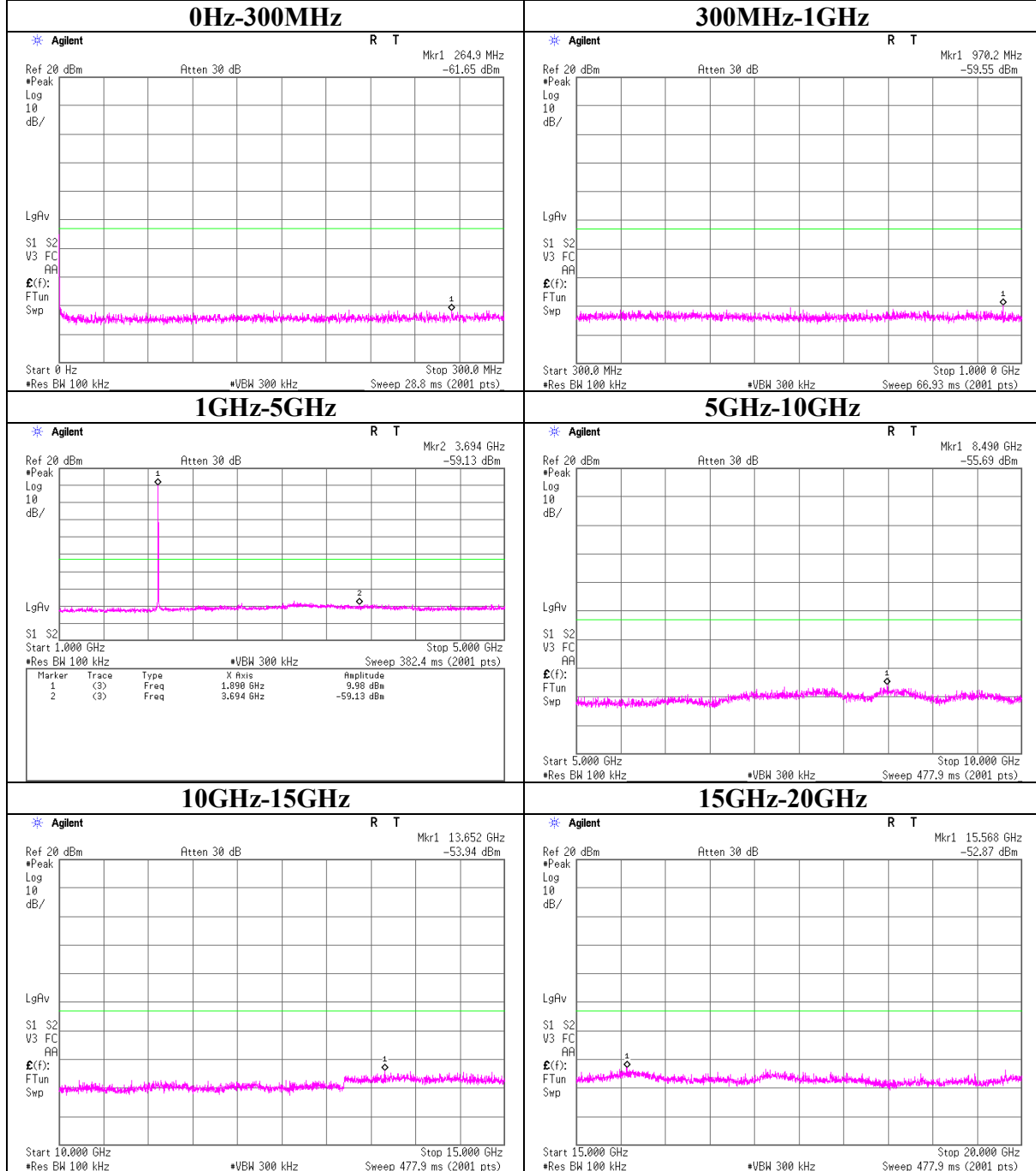
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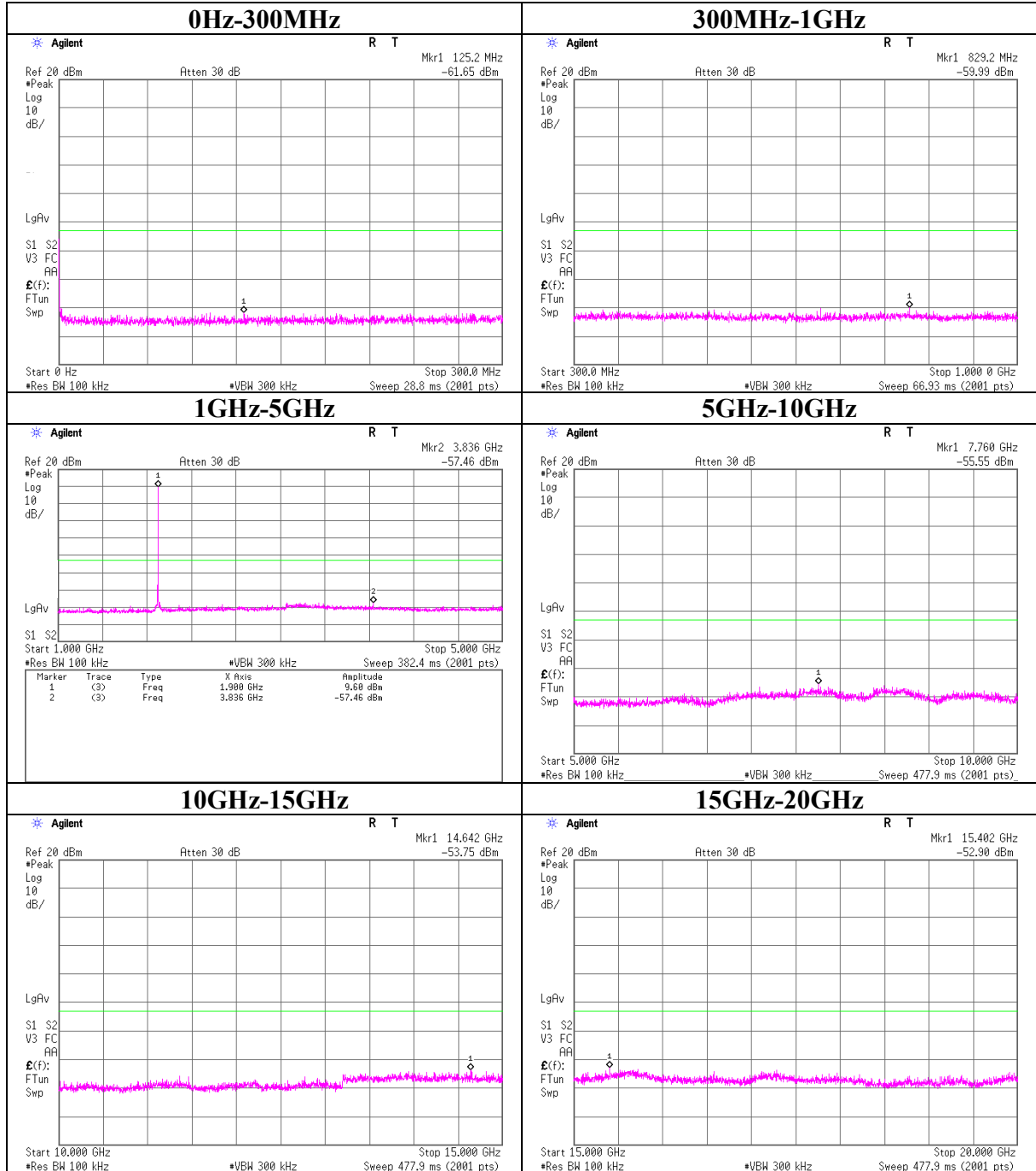
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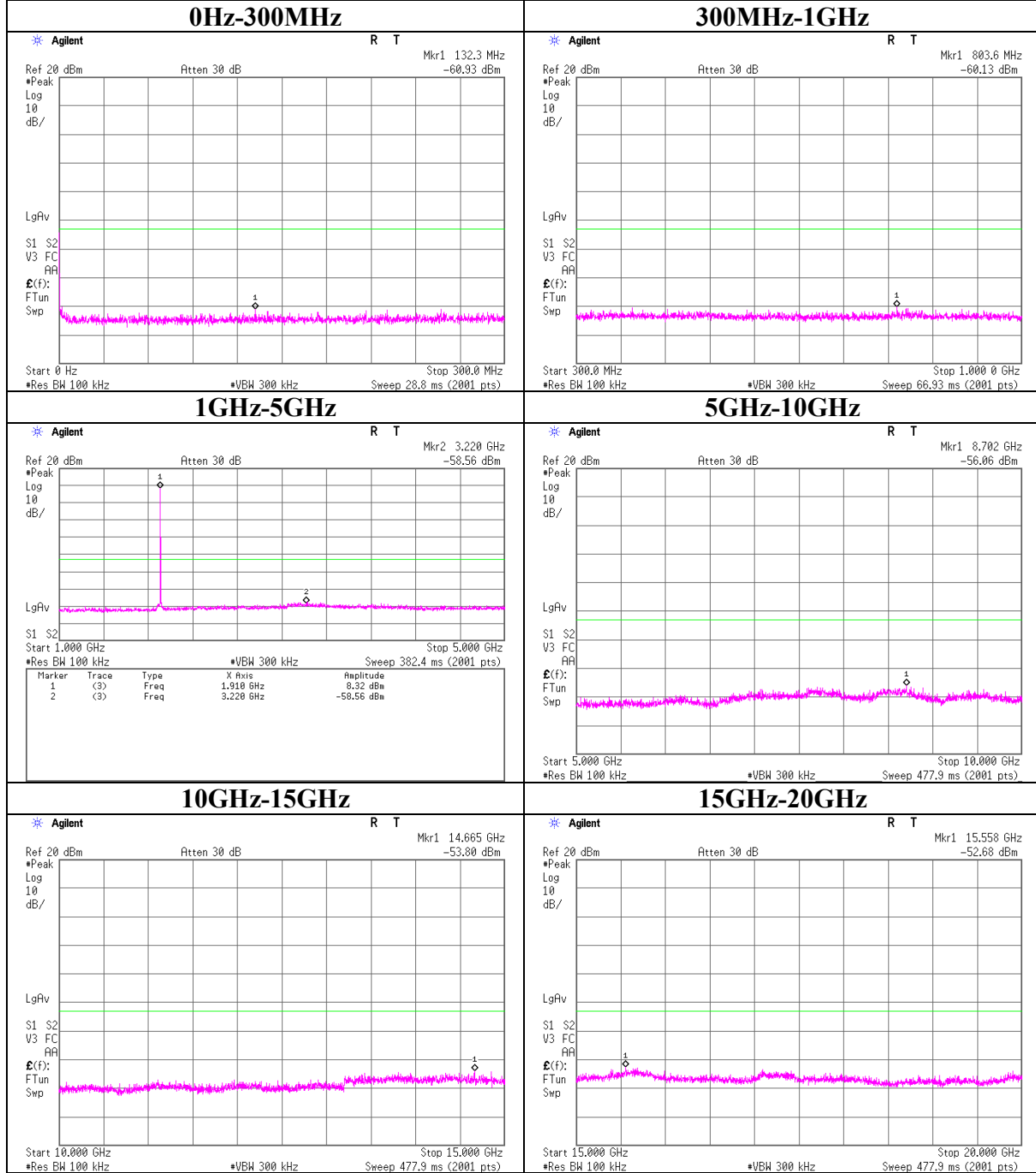
Spurious Emission (Conducted)
(Reference data)
Tx:1890.3125MHz



Spurious Emission (Conducted)
 (Reference data)
Tx:1899.6875MHz



Spurious Emission (Conducted)
 (Reference data)
Tx:1909.6875MHz



Spurious Radiated Emission

Company KYOCERA Corporation
Equipment iBurst USER TERMINAL Desktop TYPE
Model UTD-1890F-US-A
S/N 0Z08AX00063
Power AC 120V / 60Hz
Mode Transmitting, 1890.3125MHz
Modulation 7
EUT-Position H: X-axis / V: Y-axis
Antenna- Position H: 0deg. / V: 0deg.
Tx Antenna 0.8m Height

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
Regulation FCC part 24. Section 24.238(a)
Test Method FCC part 2 Section 2.1053
Test Distance 3m (below 10GHz), 1m (above 10GHz)
Date March 5, 2009
Temperature 21 deg. C.
Humidity 37 %
Engineer Kazufumi Nakai

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx	Tx	Tx Ant.	RESULT (EIRP) [dBm]		LIMIT	MARGIN [dB]		Mode	A/C	Remarks
		HOR	VER	HOR	VER	Cable Loss [dB]	Ant. Gain [dBi]	ATT. Loss [dB]	HOR	VER	[dBm] (EIRP)	HOR	VER			
1	34.85	33.8	52.5	-17.3	-11.2	0.2	-27.4	10.6	-55.4	-49.4	-13.0	42.4	36.4	Operating	No2	
2	933.10	55.9	52.7	-33.7	-34.3	1.9	2.2	9.6	-43.1	-43.7	-13.0	30.1	30.7	Operating	No2	
3	3780.63	50.8	58.0	-51.9	-44.2	5.4	12.7	0.0	-44.6	-36.9	-13.0	31.6	23.9	Operating	No2	
4	5670.94	48.6	50.5	-52.7	-51.5	6.8	13.3	0.0	-46.1	-44.9	-13.0	33.1	31.9	Operating	No2	
5	7561.25	60.0	59.7	-40.0	-41.4	8.0	11.5	0.0	-36.4	-37.8	-13.0	23.4	24.8	Operating	No2	
6	9451.56	62.9	64.3	-35.5	-36.8	8.9	11.5	0.0	-32.9	-34.2	-13.0	19.9	21.2	Operating	No2	
7	11341.88	67.9	70.5	-39.7	-36.7	9.6	11.6	0.0	-37.7	-34.7	-13.0	24.7	21.7	Operating	No2	
8	13232.19	77.2	79.2	-26.4	-26.7	10.3	13.0	0.0	-23.7	-24.0	-13.0	10.7	11.0	Operating	No2	
9	15122.50	65.3	64.6	-39.3	-36.1	11.1	14.2	0.0	-36.2	-33.1	-13.0	23.2	20.1	Operating	No2	
10	17012.81	65.0	69.5	-33.3	-23.1	12.4	14.5	0.0	-31.1	-21.0	-13.0	18.1	8.0	Operating	No2	
11	18903.13	65.2	73.2	-36.3	-28.3	13.0	14.7	0.0	-34.6	-26.6	-13.0	21.6	13.6	Operating	No2	

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

Rx-ANTENNA : Biconical Antenna(30M-300MHz), Logperiodic Antenna(300M-1000MHz), Horn Antenna(1G-20GHz)

Tx-ANTENNA : 120MHz tuned Dipole Antenna(30M-120MHz), Dipole Antenna(120M-1000MHz), Horn Antenna(1G-20GHz)

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 : Below 1GHz : S/A PK(RBW/VBW:1MHz), Above 1GHz : S/A PK(RBW/VBW:1MHz)

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Spurious Radiated Emission

Company KYOCERA Corporation
Equipment iBurst USER TERMINAL Desktop TYPE
Model UTD-1890F-US-A
S/N 0Z08AX00063
Power AC 120V / 60Hz
Mode Transmitting, 1899.6875MHz
Modulation 7
EUT-Position H: X-axis / V: Y-axis
Antenna- Position H: 0deg. / V: 0deg.
Tx Antenna 0.8m Height

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
Regulation FCC part 24. Section 24.238(a)
Test Method FCC part 2 Section 2.1053
Test Distance 3m (below 10GHz), 1m (above 10GHz)
Date March 4 and 5, 2009
Temperature 21 deg. C.
Humidity 37 %
Engineer Kazufumi Nakai

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx	Tx	Tx Ant.	RESULT (EIRP) [dBm]		LIMIT	MARGIN [dB]		Mode	A/C	Remarks	
		HOR	VER	HOR	VER	Cable Loss [dB]	Ant. Gain [dBi]	ATT. Loss [dB]	HOR	VER	[dBm]	(EIRP)	HOR				VER
1	35.27	32.6	51.5	-18.8	-12.4	0.2	-27.1	10.5	-56.6	-50.3	-13.0	43.6	37.3	Operating	No2		
2	931.13	55.4	54.4	-34.3	-32.6	1.9	2.2	9.6	-43.6	-42.0	-13.0	30.6	29.0	Operating	No2		
3	3799.38	52.1	57.4	-50.6	-44.8	5.4	12.7	0.0	-43.3	-37.5	-13.0	30.3	24.5	Operating	No2		
4	5699.06	49.4	50.0	-51.9	-51.9	6.8	13.3	0.0	-45.3	-45.4	-13.0	32.3	32.4	Operating	No2		
5	7598.75	58.7	58.4	-41.2	-42.7	8.0	11.5	0.0	-37.7	-39.1	-13.0	24.7	26.1	Operating	No2		
6	9498.44	62.8	63.3	-35.6	-37.8	8.9	11.5	0.0	-33.0	-35.2	-13.0	20.0	22.2	Operating	No2		
7	11398.13	66.6	68.5	-40.8	-38.6	9.6	11.7	0.0	-38.7	-36.6	-13.0	25.7	23.6	Operating	No2		
8	13297.81	76.1	77.1	-27.8	-28.9	10.3	12.8	0.0	-25.2	-26.4	-13.0	12.2	13.4	Operating	No2		
9	15197.50	63.4	64.8	-40.5	-35.2	11.2	14.4	0.0	-37.3	-32.0	-13.0	24.3	19.0	Operating	No2		
10	17097.19	66.6	69.2	-32.9	-24.2	12.4	13.9	0.0	-31.4	-22.7	-13.0	18.4	9.7	Operating	No2		
11	18996.88	66.1	74.3	-35.4	-27.2	13.1	14.7	0.0	-33.8	-25.6	-13.0	20.8	12.6	Operating	No2		

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss
Rx-ANTENNA : Biconical Antenna(30M-300MHz), Logperiodic Antenna(300M-1000MHz), Horn Antenna(1G-20GHz)
Tx-ANTENNA : 120MHz tuned Dipole Antenna(30M-120MHz), Dipole Antenna(120M-1000MHz), Horn Antenna(1G-20GHz)
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 : Below 1GHz : S/A PK(RBW/VBW:1MHz), Above 1GHz : S/A PK(RBW/VBW:1MHz)

Spurious Radiated Emission

UL Japan, Inc.

Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company KYOCERA Corporation
Equipment iBurst USER TERMINAL Desktop TYPE
Model UTD-1890F-US-A
S/N 0Z08AX00063
Power AC 120V / 60Hz
Mode Transmitting, 1909.6875MHz
Modulation 7

Regulation FCC part 24. Section 24.238(a)
Test Method FCC part 2 Section 2.1053
Test Distance 3m (below 10GHz), 1m (above 10GHz)
Date March 5, 2009
Temperature 21 deg. C.
Humidity 37 %
Engineer Kazufumi Nakai

EUT-Position H: X-axis / V: Y-axis
Antenna- Position H: 0deg. / V: 0deg.
Tx Antenna 0.8m Height

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx Ant. ATT. Loss [dB]	RESULT (EIRP) [dBm]		LIMIT [dBm] (EIRP)	MARGIN [dB]		Mode	A/C	Remarks
		HOR	VER	HOR	VER				HOR	VER		HOR	VER			
		1	34.73	33.1	52.1				-17.9	-11.6		0.2	-27.5			
2	934.67	55.7	54.0	-33.9	-33.0	1.9	2.2	9.7	-43.3	-42.4	-13.0	30.3	29.4	Operating	No2	
3	3819.38	52.2	59.1	-50.6	-43.1	5.4	12.7	0.0	-43.2	-35.8	-13.0	30.2	22.8	Operating	No2	
4	5729.06	46.7	49.8	-54.6	-52.0	6.8	13.4	0.0	-48.0	-45.5	-13.0	35.0	32.5	Operating	No2	
5	7638.75	58.5	58.9	-41.4	-42.2	8.0	11.5	0.0	-37.9	-38.6	-13.0	24.9	25.6	Operating	No2	
6	9548.44	56.1	61.1	-42.2	-40.0	8.9	11.4	0.0	-39.7	-37.5	-13.0	26.7	24.5	Operating	No2	
7	11458.13	67.9	66.5	-39.3	-40.6	9.6	11.8	0.0	-37.1	-38.4	-13.0	24.1	25.4	Operating	No2	
8	13367.81	75.4	78.7	-28.7	-27.3	10.4	12.7	0.0	-26.4	-25.0	-13.0	13.4	12.0	Operating	No2	
9	15277.50	63.4	65.7	-39.8	-33.6	11.2	14.7	0.0	-36.3	-30.1	-13.0	23.3	17.1	Operating	No2	
10	17187.19	67.6	71.0	-33.2	-23.3	12.4	13.2	0.0	-32.4	-22.4	-13.0	19.4	9.4	Operating	No2	
11	19096.88	65.1	74.9	-36.4	-26.6	13.1	14.7	0.0	-34.8	-25.0	-13.0	21.8	12.0	Operating	No2	

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

Rx-ANTENNA : Biconical Antenna(30M-300MHz), Logperiodic Antenna(300M-1000MHz), Horn Antenna(1G-20GHz)

Tx-ANTENNA : 120MHz tuned Dipole Antenna(30M-120MHz), Dipole Antenna(120M-1000MHz), Horn Antenna(1G-20GHz)

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 : Below 1GHz : S/A PK(RBW/VBW:1MHz), Above 1GHz : S/A PK(RBW/VBW:1MHz)

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Frequency Stability(Temperature/Voltage Variation)

Company KYOCERA Corporation
Equipment iBurst USER TERMINAL Desktop TYPE
Model UTD-1890F-US-A
S/N 0Z08AX00063
Power AC 120V / 60Hz
Mode Transmitting, 1899.6875MHz
Modulation 7

UL Japan, Inc.
Head Office EMC Lab. No.11 measurement room
Regulation FCC part 24 Section 24.235
Test Method FCC Part 2 Section 2.1055(a)(1) and (b)
FCC Part 2 Section 2.1055(d)(1)
Test Distance -
Date March 2, 2009
Temperature 20 deg. C.
Humidity 30 %
Engineer Kazufumi Nakai

Temp. [deg.C]	Volt. [V]	Frequency Deviation [Hz]	Frequency Result [MHz]	Frequency Deviation [ppm]	Limit [ppm]
-30	120.0	-30.43	1909.687470	-0.0159	+/- 2.500
-20	120.0	-38.80	1909.687461	-0.0203	+/- 2.500
-10	120.0	-40.51	1909.687459	-0.0212	+/- 2.500
0	120.0	-42.58	1909.687457	-0.0223	+/- 2.500
10	120.0	-38.97	1909.687461	-0.0204	+/- 2.500
20	120.0	-44.85	1909.687455	-0.0235	+/- 2.500
30	120.0	-57.51	1909.687442	-0.0301	+/- 2.500
40	120.0	-45.78	1909.687454	-0.0240	+/- 2.500
50	120.0	-55.16	1909.687445	-0.0289	+/- 2.500

Temp. [deg.C]	Volt. [V]	Frequency Deviation [Hz]	Frequency Result [MHz]	Frequency Deviation [ppm]	Limit [ppm]
20	102.0	-42.17	1909.687458	-0.0221	+/- 2.500
20	120.0	-44.85	1909.687455	-0.0235	+/- 2.500
20	138.0	-47.60	1909.687452	-0.0249	+/- 2.500

* "Frequency Deviation [Hz]" was average of 5 times measurement value.

Peak-to-Average Ratio

(Reference data)

Company	KYOCERA Corporation	UL Japan, Inc.
Equipment	iBurst USER TERMINAL Desktop TYPE	Head Office EMC Lab. No.2 anechoic chamber
Model	UTD-1890F-US-A	Regulation FCC part 24 Section 24.232 (d)
S/N	0Z08AX00063	Test Method -
Power	AC 120V / 60Hz	Test Distance -
Mode	Transmitting	Date March 11, 2009
		Temperature 21 deg. C.
		Humidity 38 %
		Engineer Kazufumi Nakai

(Gate On)

Mod.	Frequency [MHz]	S/A Reading [dB]	Limit (E.I.R.P.) [dBm]	Margin [dB]
0	1899.6875	2.40	13.00	10.60
1	1899.6875	2.52	13.00	10.48
2	1899.6875	3.94	13.00	9.06
3	1899.6875	4.33	13.00	8.67
4	1899.6875	3.83	13.00	9.17
5	1899.6875	4.51	13.00	8.49
6	1899.6875	5.43	13.00	7.57
7	1899.6875	7.27	13.00	5.73

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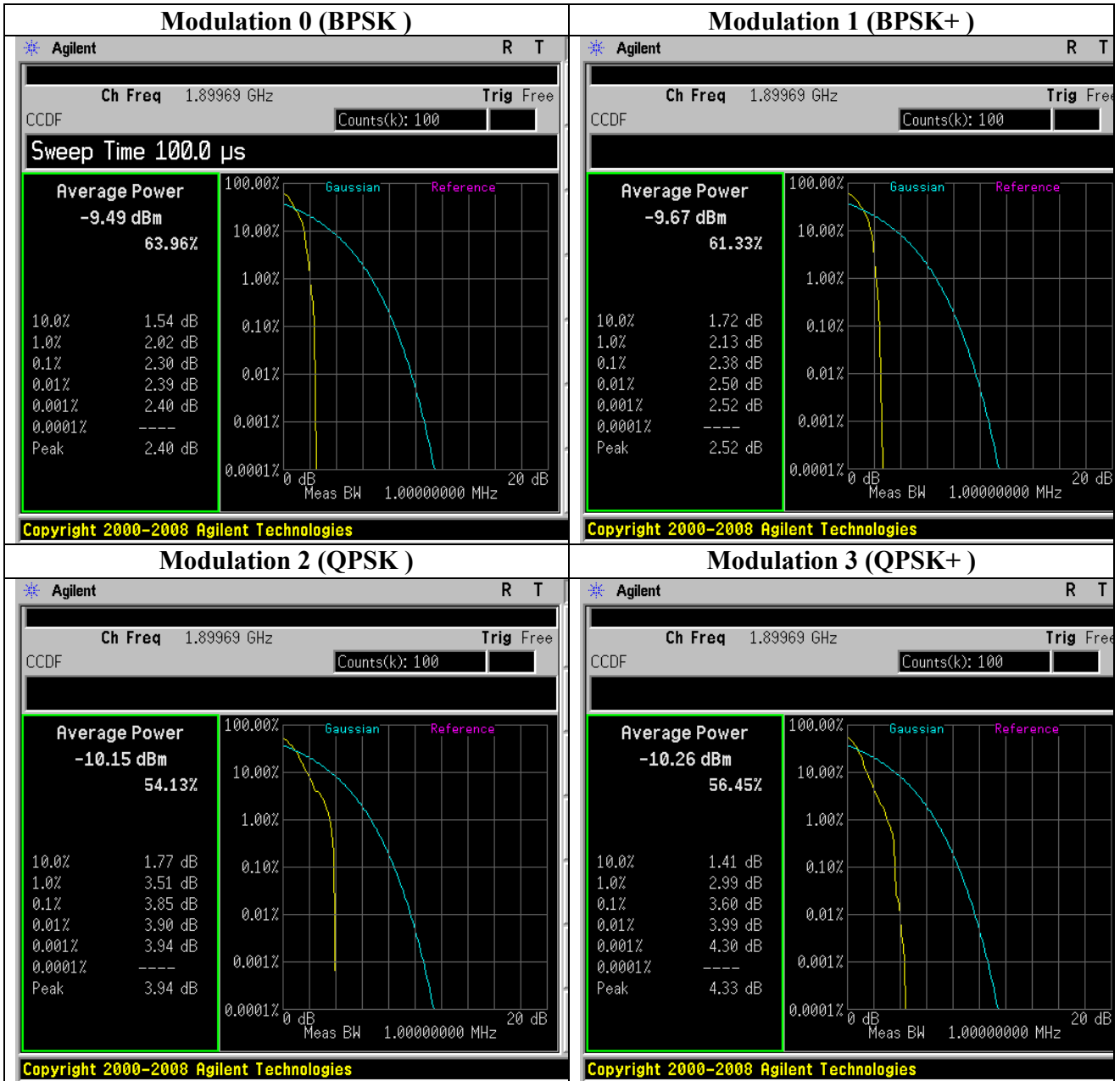
Head Office EMC Lab.

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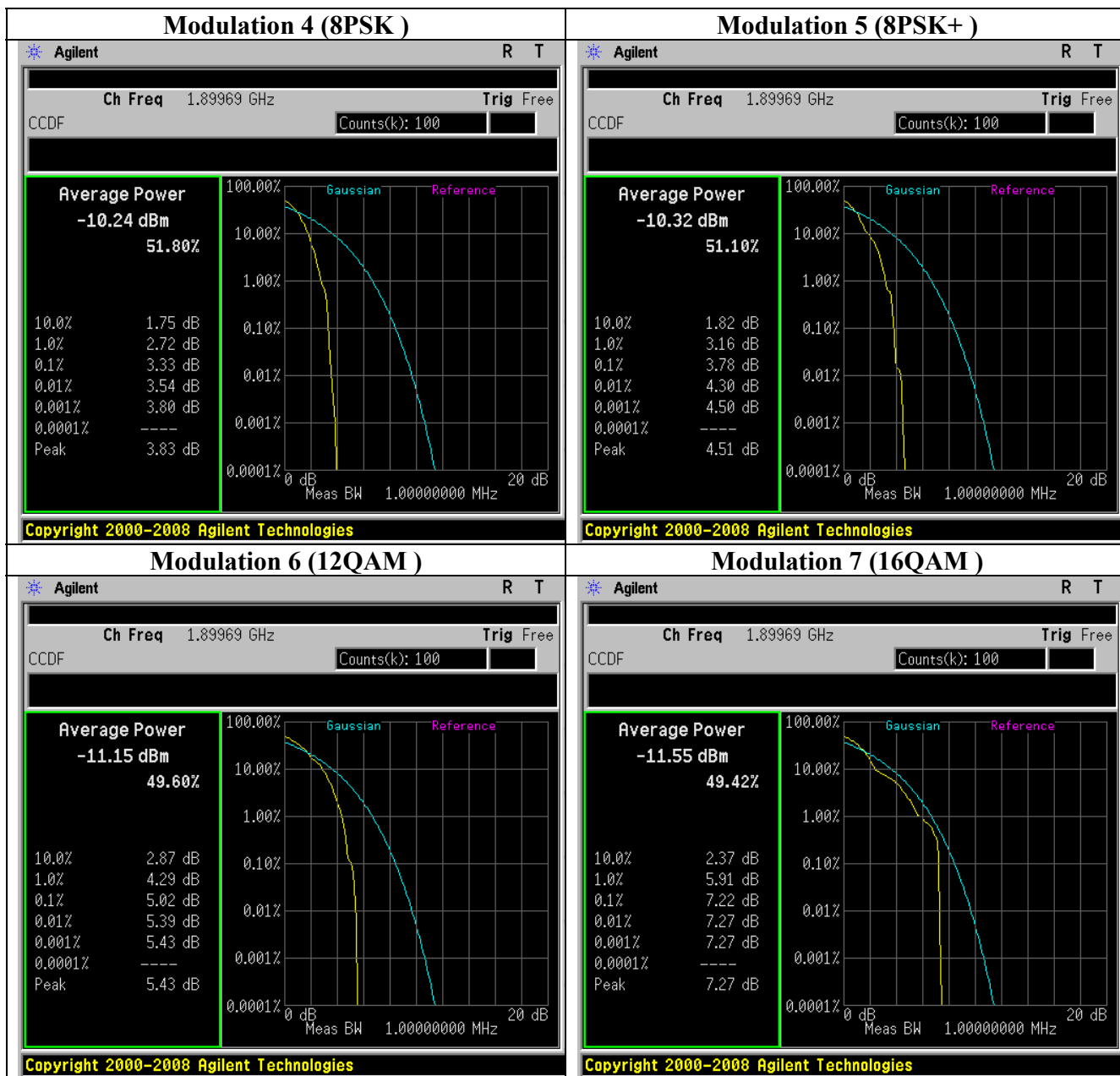
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Peak-to-Average Ratio



Peak-to-Average Ratio



APPENDIX 3: Test instruments

EMI test equipment (1/2)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MOS-19	Thermo-Hygrometer	Custom	CTH-201	0001	FT/AT	2008/12/08 * 12
MMM-17	DIGITAL HiTESTER	Hioki	3805	070900530	FT	2009/01/14 * 12
MCC-116	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	290221/4	FT/AT	2008/08/04 * 12
MCC-91	Microwave Cable 1G-40GHz	Schner	SUCOFLEX102	30812/2	FT	2008/05/16 * 12
MCC-92	Microwave Cable 1G-40GHz	Schner	SUCOFLEX102	30813/2	FT	2008/05/16 * 12
MAT-20	Attenuator(10dB) (above1GHz)	HIROSE ELECTRIC CO.,LTD.	AT-110	-	FT	2009/01/16 * 12
MAT-24	Attenuator(10dB) (above1GHz)	Agilent	8493C	71389	FT/AT	2008/06/25 * 12
MCH-05	Temperature and Humidity Chamber	Espec	PL-1KP	14019569	FT	2008/05/30 * 12
MRENT-77	Vector Signal Analyzer	Agilent/HP	HP89441A/AX4, AYA,UFG	3416A02277 / (RF SECTION) 3509A01094	FT	Pre Check
MPM-09	Power Meter	Anritsu	ML2495A	6K00003348	AT/RE	2008/09/04 * 12
MPSE-12	Power sensor	Anritsu	MA2411B	011598	AT/RE	2008/09/04 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	AT	2008/08/18 * 12
MAEC-02	Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	RE	2008/04/17 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	0003	RE/AT	2009/02/05 * 12
MJM-05	Measure	PROMART	SEN1955	-	RE	-
CUST-MSTW- 14	EMI measurement program	TSJ	TEPTO-DV	-	RE	-
MRENT-62	Spectrum Analyzer	Agilent	E4448A	MY46180856	RE/AT	2008/11/25 * 12
MHA-06	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	254	RE	2009/01/31 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	295123(5m) / 287573(1m)	RE	2008/11/27 * 12
MPA-10	Pre Amplifier	Agilent	8449B	3008A02142	RE	2008/09/17 * 12
MHA-02	Horn Antenna 18-26.5GHz	EMCO	3160-09	1265	RE	2009/01/31 * 12
MSG-02	Signal Generator	Rohde & Schwarz	SML03	100332	RE	2008/10/24 * 12
MHA-05	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	253	RE	2009/01/31 * 12
MCC-48	Microwave Cable 1G-26.5GHz 7m	Suhner	SUCOFLEX102	23771/2	RE	2008/08/22 * 12

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EMI test equipment (2/2)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	VHA91032008	RE	2008/10/18 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	201	RE	2008/10/18 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	-	RE	2009/02/16 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	BK7970	RE	2008/11/14 * 12
MPA-09	Pre Amplifier	Agilent	8447D	2944A10845	RE	2008/09/04 * 12
MHF-18	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCA	7002	RE	2008/12/16 * 12
MCC-77	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	278942/4	RE	2008/12/17 * 12
MCC-114	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	290212/4	AT	2008/08/01 * 12
MAT-39	Attenuator(20dB) 1-40GHz	Weinschel	54A-20	S8124	AT	2008/12/18 * 12
MAT-23	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	-	AT	2009/03/24 * 12
MAEC-03	Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE	2009/02/02 * 12
MOS-13	Thermo-Hygrometer	Custom	CTH-180	-	RE	2009/02/06 * 12

The expiration date of the calibration is the end of the expired month.

All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards. As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

Test Item:

RE: Output Power(Radiated), Band Edge(Radiated), Spurious emission (Radiated)

AT: Output Power(Conducted), Band Edge(Conducted), Spurious emission (Conducted), Bandwidth

FT: Frequency Stability

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