

APPENDIX 2: Data of EMI test

RF Output Power

Company Sony Corporation
Equipment UHF Synthesized Transmitter
Model UTX-B2(42)
S/N 8022
Power DC 3.0V (Battery)
Mode Continuous Transmitting,
High / Low power
EUT-axis H: X-axis, V: Y-axis
EUT Height 1.0m

UL Japan, Inc.
Head Office EMC Lab. No.2 and No.3 Semi Anechoic Chamber
Regulation FCC 74.861(e)(1) / RSS-123 Section 6.2
FCC 2.1046
Test Distance 3m
Date March 6, 2008 April 30, 2008
Temperature 24 deg.C. 25 deg.C.
Humidity 38 % 42 %
Engineer Takahiro Hatakeda Kazufumi Nakai
(Radiated) (Conducted)

[Radiated Measurement]

High power

ch.	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 (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C	Remarks
		HOR	VER	HOR	VER				HOR	VER		HOR	VER			
L	638.125	117.9	111.8	28.0	23.9	1.4	2.2	10.1	16.5	12.4	23.9	7.4	11.5	Operating	No2	
M	650.125	117.8	112.6	28.2	25.1	1.5	2.2	10.1	16.7	13.6	23.9	7.2	10.3	Operating	No2	
H	661.875	117.6	112.6	28.2	25.4	1.5	2.2	10.1	16.7	13.9	23.9	7.2	10.0	Operating	No2	

Low power

ch.	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 (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C	Remarks
		HOR	VER	HOR	VER				HOR	VER		HOR	VER			
L	638.125	111.2	104.4	21.3	16.5	1.4	2.2	10.1	9.8	5.0	23.9	14.1	18.9	Operating	No2	
M	650.125	111.3	104.9	21.7	17.4	1.5	2.2	10.1	10.2	5.9	23.9	13.7	18.0	Operating	No2	
H	661.875	110.2	105.1	20.8	17.9	1.5	2.2	10.1	9.3	6.4	23.9	14.6	17.5	Operating	No2	

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15

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)

The carrier was measured at each position of all three axes X, Y and Z to compare the level, and the maximum carrier level.

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

- for the calibration data on the substitution measurement.

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

Detector : Below 1GHz : T/R AV(BW:120kHz)

[Antenna Terminal Conducted Measurement]

High power

Channel	Frequency [MHz]	P/M Reading AV [dBm]	Cable loss [dB]	Atten loss [dB]	Result		Limit		Margin	
					[dBm]	[mW]	[dBm]	[mW]	[dB]	[mW]
L	566.125	4.84	0.54	9.93	15.31	33.96	23.97	250	8.66	216.04
M	578.125	4.85	0.54	9.93	15.32	34.04	23.97	250	8.65	215.96
H	589.875	4.66	0.55	9.93	15.14	32.66	23.97	250	8.83	217.34

Low power

Channel	Frequency [MHz]	P/M Reading AV [dBm]	Cable loss [dB]	Atten loss [dB]	Result		Limit		Margin	
					[dBm]	[mW]	[dBm]	[mW]	[dB]	[mW]
L	566.125	-2.47	0.54	9.93	8.00	6.31	23.97	250	15.97	243.69
M	578.125	-2.61	0.54	9.93	7.86	6.11	23.97	250	16.11	243.89
H	589.875	-2.64	0.55	9.93	7.84	6.08	23.97	250	16.13	243.92

Result = P/M Reading + Cable loss + Atten 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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Modulation Characteristics

Company Sony Corporation
Equipment UHF Synthesized Transmitter
Model UTX-B2(42)
S/N 8022
Power DC 3.0V (Battery)
Mode Continuous Transmitting 638.125MHz,
High power

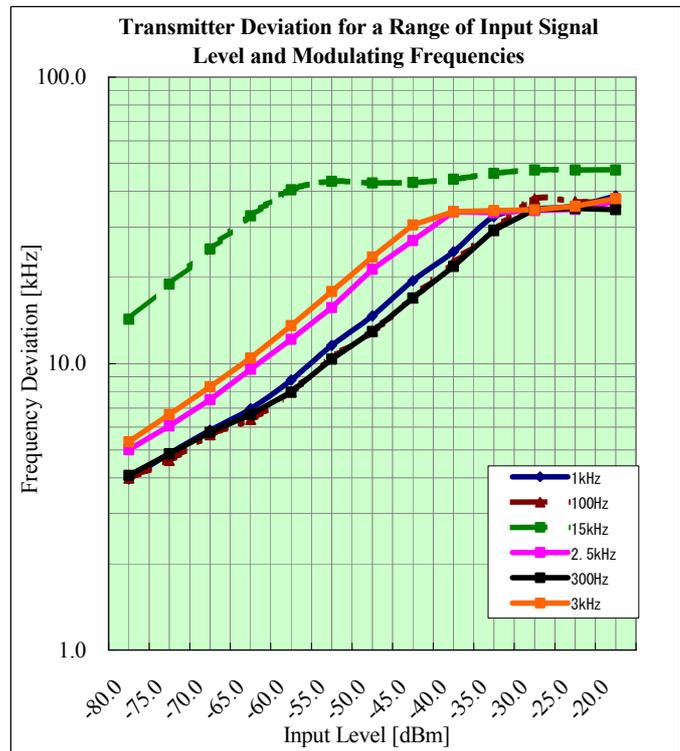
UL Japan, Inc.
Head Office EMC Lab. No.2 shielded room
Regulation FCC 74.861(e)(3) / RSS-123 Section 5.5
FCC 2.1047(b)
Test Distance -
Date March 4, 2008
Temperature 23 deg.C.
Humidity 30 %
Engineer Kenichi Adachi

Input [dBV]	Deviation [kHz](PK)					
	100Hz	300Hz	1kHz	2.5kHz	3kHz	15kHz
-80.0	3.98	4.07	3.96	5.01	5.34	14.29
-75.0	4.60	4.84	4.85	6.06	6.64	18.93
-70.0	5.65	5.76	5.85	7.48	8.30	25.12
-65.0	6.39	6.65	6.95	9.56	10.45	32.85
-60.0	7.96	7.95	8.76	12.15	13.56	40.48
-55.0	10.45	10.36	11.57	15.69	17.86	43.28
-50.0	12.96	12.94	14.67	21.35	23.57	42.74
-45.0	16.96	16.93	19.46	26.89	30.50	42.92
-40.0	22.54	21.85	24.58	33.87	33.94	43.96
-35.0	29.15	29.24	32.56	33.67	34.24	46.17
-30.0	37.56	34.56	34.58	34.21	34.41	47.45
-25.0	36.77	34.81	35.52	34.55	35.42	47.44
-20.0	36.57	34.46	38.47	36.70	37.67	47.45
-15.0	37.89	36.71	40.17	38.25	37.59	47.41
-10.0	47.17	42.35	45.81	42.01	42.87	47.09
-5.0	52.89	46.48	45.67	47.85	47.95	47.33
0.0	57.26	49.22	49.54	48.38	47.85	47.74

* Input Frequency 100Hz, 300Hz, 1kHz, 2.5kHz, 3kHz, 15kHz
* Center frequency 638.125 MHz
* Measurement setting filter OFF

(Reference data) (for 50% and 85% modulation level)

Input [dBV]	Deviation [kHz](PK)	
	1kHz	2.5kHz
-52.00	13.68	20.12
-43.00	20.23	29.12
-33.50	33.59	34.01
-33.00	34.23	34.11



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Model UTX-B2(42)
S/N 8022
Power DC 3.0V (Battery)
Mode Continuous Transmitting 650.125MHz,
High power

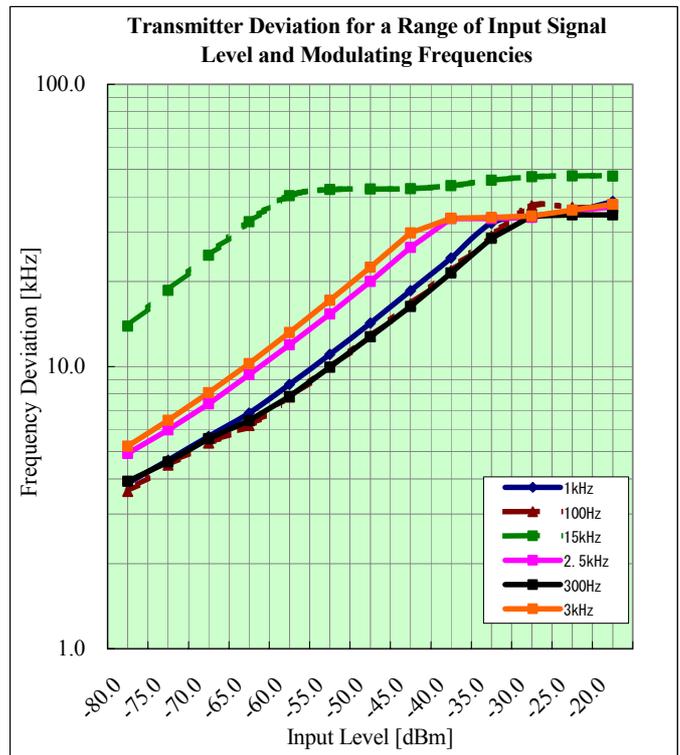
UL Japan, Inc.
Head Office EMC Lab. No.2 shielded room
Regulation FCC 74.861(e)(3) / RSS-123 Section 5.5
FCC 2.1047(b)
Test Distance -
Date March 4, 2008
Temperature 23 deg.C.
Humidity 30 %
Engineer Kenichi Adachi

Input [dBV]	Deviation [kHz](PK)					
	100Hz	300Hz	1kHz	2.5kHz	3kHz	15kHz
-80.0	3.61	3.92	3.85	4.91	5.21	13.90
-75.0	4.48	4.58	4.66	5.96	6.45	18.61
-70.0	5.35	5.55	5.65	7.37	8.08	24.80
-65.0	6.18	6.42	6.83	9.36	10.23	32.55
-60.0	7.79	7.83	8.64	11.93	13.20	40.26
-55.0	9.96	9.94	11.03	15.34	17.14	42.37
-50.0	12.80	12.73	14.24	20.01	22.47	42.47
-45.0	16.64	16.30	18.54	26.41	29.75	42.68
-40.0	21.84	21.44	24.24	33.41	33.51	43.74
-35.0	28.91	28.44	32.15	33.41	33.72	45.74
-30.0	37.10	34.14	34.15	33.72	34.15	47.00
-25.0	36.57	34.44	35.40	35.62	35.84	47.32
-20.0	36.57	34.46	38.47	36.70	37.52	47.22
-15.0	38.78	36.57	40.05	38.04	38.46	47.21
-10.0	46.90	41.73	44.48	41.21	42.90	46.90
-5.0	53.77	46.37	45.53	48.05	47.74	47.01
0.0	57.76	49.22	49.54	48.38	47.85	47.74

* Input Frequency 100Hz, 300Hz, 1kHz, 2.5kHz, 3kHz, 15kHz
* Center frequency 650.125 MHz
* Measurement setting filter OFF

(Reference data) (for 50% and 85% modulation level)

Input [dBV]	Deviation [kHz](PK)	
	1kHz	2.5kHz
-50.00	14.24	20.01
-42.00	20.14	31.56
-30.50	33.98	33.56
-27.50	34.78	34.12



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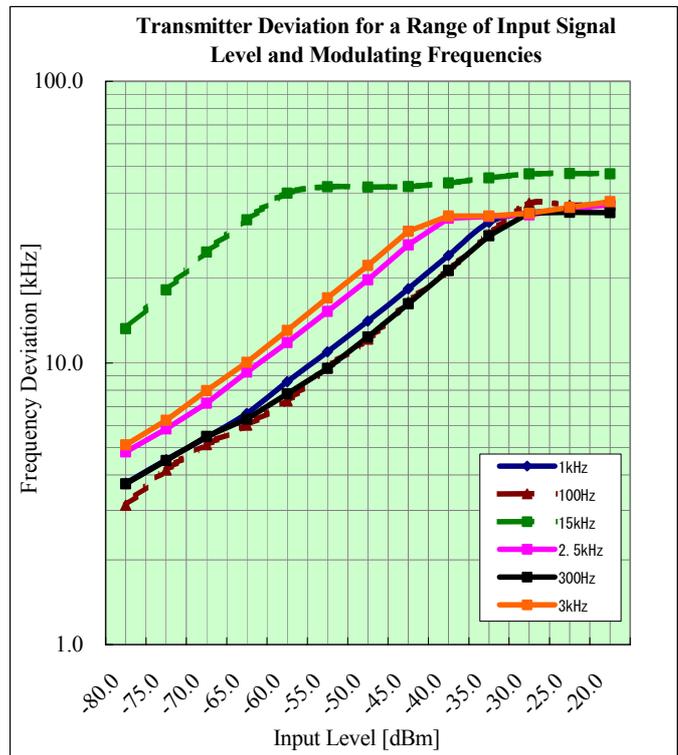
UL Japan, Inc.
Head Office EMC Lab. No.2 shielded room
Regulation FCC 74.861(e)(3) / RSS-123 Section 5.5
FCC 2.1047(b)
Test Distance -
Date March 4, 2008
Temperature 23 deg.C.
Humidity 30 %
Engineer Kenichi Adachi

Input [dBV]	Deviation [kHz](PK)					
	100Hz	300Hz	1kHz	2.5kHz	3kHz	15kHz
-80.0	3.12	3.72	3.74	4.83	5.11	13.24
-75.0	4.17	4.50	4.54	5.83	6.25	18.16
-70.0	5.13	5.49	5.45	7.19	7.98	24.78
-65.0	6.02	6.32	6.62	9.27	10.04	32.19
-60.0	7.35	7.77	8.58	11.82	13.03	40.04
-55.0	9.64	9.55	10.94	15.21	17.01	42.23
-50.0	12.16	12.35	14.08	19.73	22.19	42.14
-45.0	16.42	16.23	18.35	26.24	29.36	42.28
-40.0	21.34	21.31	24.07	32.61	33.25	43.57
-35.0	28.55	28.29	31.56	33.12	33.24	45.41
-30.0	36.81	34.05	34.09	33.56	34.02	46.88
-25.0	36.26	34.23	34.80	35.25	35.71	47.02
-20.0	36.35	34.18	37.25	36.35	37.35	46.93
-15.0	38.21	36.22	39.56	37.86	38.27	47.02
-10.0	46.31	41.33	44.24	41.04	42.25	46.77
-5.0	53.24	46.19	45.38	47.89	47.35	46.92
0.0	57.34	49.02	49.33	48.19	47.45	47.92

* Input Frequency 100Hz, 300Hz, 1kHz, 2.5kHz, 3kHz, 15kHz
* Center frequency 661.875 MHz
* Measurement setting filter OFF

(Reference data) (for 50% and 85% modulation level)

Input [dBV]	Deviation [kHz](PK)	
	1kHz	2.5kHz
-49.00	15.69	20.24
-42.50	20.45	30.49
-30.00	34.09	33.56
-29.00	34.26	34.14



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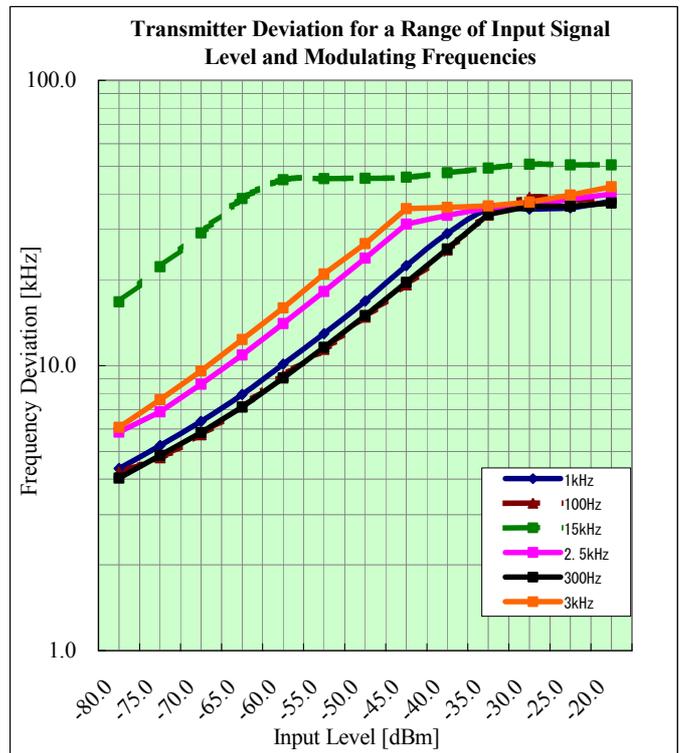
UL Japan, Inc.
Head Office EMC Lab. No.2 shielded room
Regulation FCC 74.861(e)(3) / RSS-123 Section 5.5
FCC 2.1047(b)
Test Distance -
Date March 7, 2008
Temperature 23 deg.C.
Humidity 30 %
Engineer Kenichi Adachi

Input [dBV]	Deviation [kHz](PK)					
	100Hz	300Hz	1kHz	2.5kHz	3kHz	15kHz
-80.0	4.24	4.03	4.36	5.84	6.08	16.70
-75.0	4.75	4.84	5.24	6.88	7.59	22.20
-70.0	5.72	5.82	6.37	8.61	9.56	29.21
-65.0	7.19	7.16	7.92	10.89	12.33	38.47
-60.0	9.22	9.04	10.11	14.03	15.93	44.79
-55.0	11.39	11.58	12.93	18.20	20.94	45.21
-50.0	14.79	14.96	16.83	23.80	26.77	45.32
-45.0	19.20	19.59	22.40	31.31	35.51	45.74
-40.0	25.42	25.60	29.01	33.62	35.84	47.44
-35.0	33.68	33.86	35.30	35.72	36.25	49.22
-30.0	38.84	36.18	35.41	36.25	37.40	50.80
-25.0	38.15	36.18	35.72	38.36	39.63	50.48
-20.0	38.57	37.13	37.73	39.94	42.36	50.48
-15.0	42.74	41.35	40.05	41.31	43.00	49.96
-10.0	50.69	47.05	43.63	48.98	49.32	50.06
-5.0	57.54	51.26	48.43	51.43	51.22	50.59
0.0	62.60	53.86	52.70	51.85	51.20	51.33

* Input Frequency 100Hz, 300Hz, 1kHz, 2.5kHz, 3kHz, 15kHz
* Center frequency 638.125 MHz
* Measurement setting filter OFF

(Reference data) (for 50% and 85% modulation level)

Input [dBV]	Deviation [kHz](PK)	
	1kHz	2.5kHz
-53.00	14.56	20.12
-47.50	20.46	28.98
-38.50	33.56	34.56
-36.50	34.24	35.12



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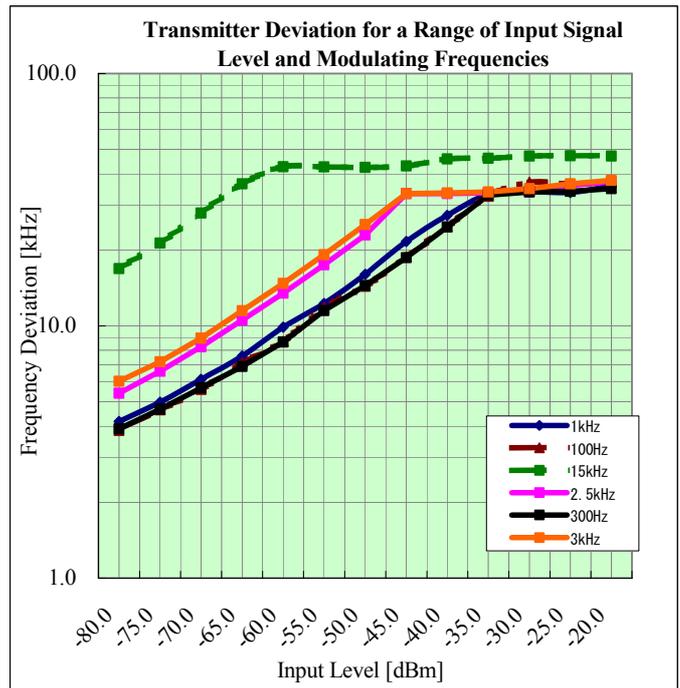
UL Japan, Inc.
Head Office EMC Lab. No.2 shielded room
Regulation FCC 74.861(e)(3) / RSS-123 Section 5.5
FCC 2.1047(b)
Test Distance -
Date March 6, 2008
Temperature 23 deg.C.
Humidity 23 %
Engineer Kenichi Adachi

Input [dBV]	Deviation [kHz](PK)					
	100Hz	300Hz	1kHz	2.5kHz	3kHz	15kHz
-80.0	3.86	3.91	4.17	5.40	6.03	16.87
-75.0	4.66	4.67	4.98	6.61	7.20	21.28
-70.0	5.60	5.67	6.13	8.26	8.93	28.01
-65.0	7.13	6.91	7.58	10.54	11.47	36.57
-60.0	8.68	8.63	9.87	13.47	14.73	42.69
-55.0	11.80	11.50	12.27	17.47	19.14	42.58
-50.0	14.37	14.44	16.01	22.91	25.18	42.48
-45.0	18.74	18.61	21.61	33.41	33.41	43.00
-40.0	24.71	24.68	27.35	33.41	33.62	45.80
-35.0	32.68	32.92	33.20	33.62	33.94	46.17
-30.0	37.00	33.94	34.04	34.04	35.00	47.11
-25.0	36.57	34.15	33.73	36.05	36.57	47.22
-20.0	37.10	34.99	35.84	37.21	37.73	47.11
-15.0	41.32	39.00	37.92	38.79	39.10	47.01
-10.0	49.22	43.95	41.21	45.74	46.17	46.80
-5.0	55.34	47.85	45.02	48.48	47.54	47.22
0.0	59.66	50.07	50.47	48.49	47.64	47.85

* Input Frequency 100Hz, 300Hz, 1kHz, 2.5kHz, 3kHz, 15kHz
* Center frequency 650.125 MHz
* Measurement setting filter OFF

(Reference data) (for 50% and 85% modulation level)

Input [dBV]	Deviation [kHz](PK)	
	1kHz	2.5kHz
-52.50	14.24	20.44
-46.00	20.45	31.98
-30.00	34.04	34.04



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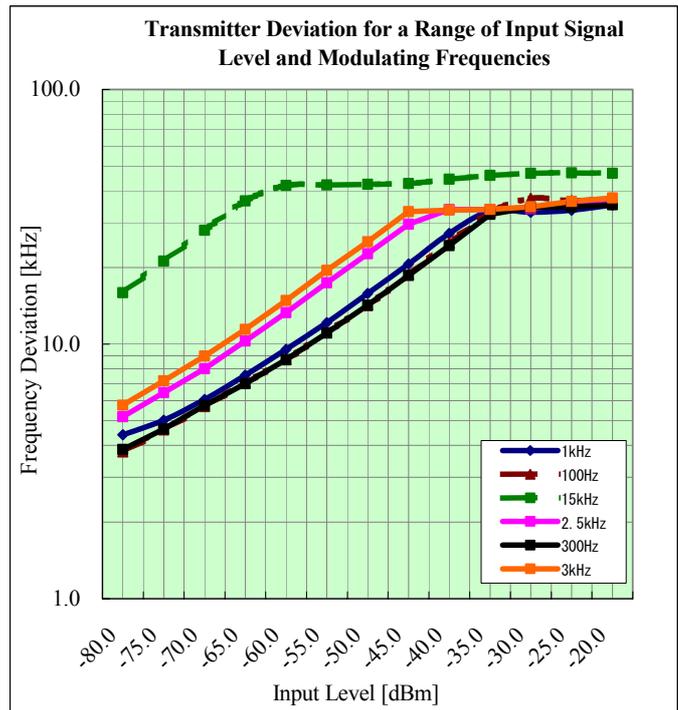
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Head Office EMC Lab. No.2 shielded room
Regulation FCC 74.861(e)(3) / RSS-123 Section 5.5
FCC 2.1047(b)
Test Distance -
Date March 6, 2008
Temperature 23 deg.C.
Humidity 23 %
Engineer Kenichi Adachi

Input [dBV]	Deviation [kHz](PK)					
	100Hz	300Hz	1kHz	2.5kHz	3kHz	15kHz
-80.0	3.77	3.86	4.40	5.18	5.76	15.91
-75.0	4.61	4.63	5.03	6.45	7.18	21.18
-70.0	5.69	5.74	6.07	8.01	8.97	27.98
-65.0	7.04	6.99	7.54	10.28	11.40	36.47
-60.0	8.67	8.68	9.54	13.30	14.81	41.95
-55.0	11.14	11.04	12.14	17.41	19.47	42.16
-50.0	14.17	14.24	15.81	22.64	25.21	42.38
-45.0	18.78	18.61	20.61	29.55	33.09	42.69
-40.0	24.94	24.34	27.18	33.73	33.52	44.37
-35.0	32.88	32.32	33.31	33.73	33.84	45.96
-30.0	37.31	34.40	32.92	34.04	34.57	46.80
-25.0	36.57	34.57	33.52	35.62	36.36	47.01
-20.0	37.21	35.23	35.20	37.00	37.52	46.80
-15.0	41.63	38.68	37.21	38.15	38.79	46.38
-10.0	49.43	43.53	40.26	44.90	45.96	46.80
-5.0	55.43	47.22	44.48	47.75	47.54	47.01
0.0	59.66	49.64	50.17	48.06	47.63	47.64

* Input Frequency 100Hz, 300Hz, 1kHz, 2.5kHz, 3kHz, 15kHz
* Center frequency 661.875 MHz
* Measurement setting filter OFF

(Reference data) (for 50% and 85% modulation level)

Input [dBV]	Deviation [kHz](PK)	
	1kHz	2.5kHz
-52.00	14.67	20.46
-45.00	20.61	29.55
-30.00	32.92	34.04
-23.00	20.47	36.34



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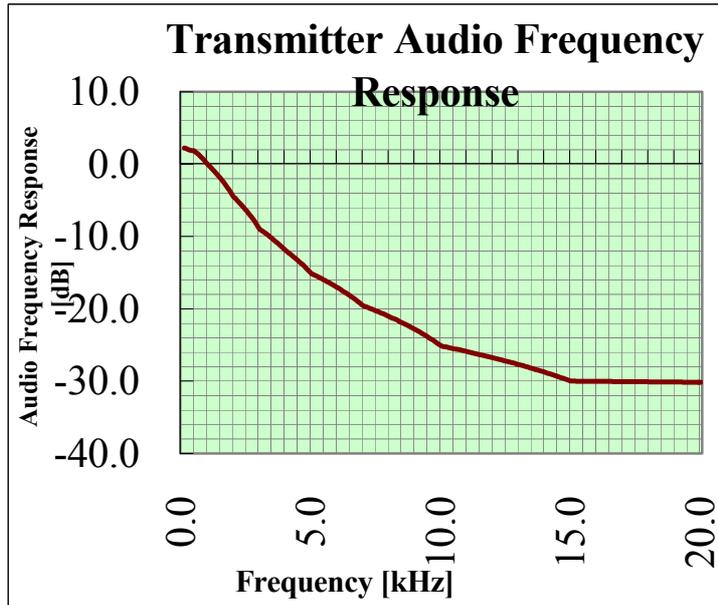
Audio Frequency Response

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Equipment UHF Synthesized Transmitter
Model UTX-B2(42)
S/N 8022
Power DC 3.0V (Battery)
Mode Continuous Transmitting 638.125MHz,
High power

UL Japan, Inc.
Head Office EMC Lab. No.2 shielded room
Regulation FCC 74.861(e)(3),
FCC 2.1047(a)
Test Distance -
Date March 7, 2008
Temperature 23 deg.C.
Humidity 30 %
Engineer Kenichi Adachi

Transmitting 638.125MHz, High power

Frequency [kHz]	50% Modulation Input level [mV]	Audio Response [dB]
0.1	10.5240	2.2568
0.2	10.3780	2.1354
0.3	10.1460	1.9391
0.5	10.0138	1.8251
0.7	9.2780	1.1622
1.0	8.1160	0.0000
2.0	4.8370	-4.4953
3.0	2.8970	-8.9479
4.0	2.0539	-11.9353
5.0	1.4238	-15.1179
7.0	0.8519	-19.5791
10.0	0.4493	-25.1361
15.0	0.2567	-29.9983
20.0	0.2521	-30.1554



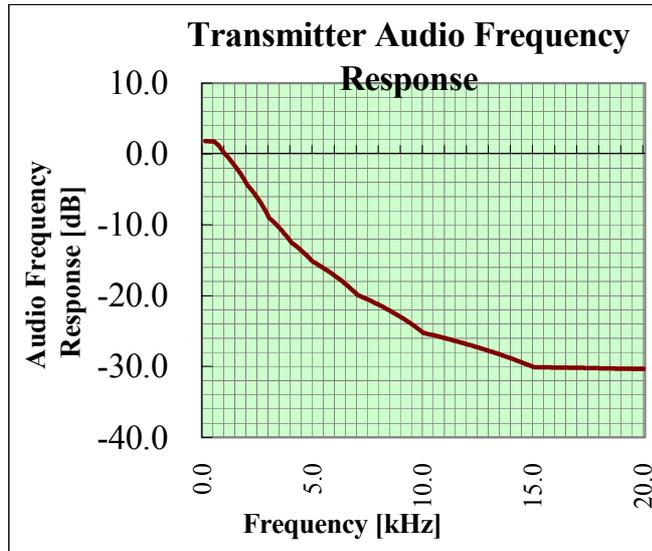
Audio Frequency Response

Company Sony Corporation
Equipment UHF Synthesized Transmitter
Model UTX-B2(42)
S/N 8022
Power DC 3.0V (Battery)
Mode Continuous Transmitting 650.125MHz,
High power

UL Japan, Inc.
Head Office EMC Lab. No.2 shielded room
Regulation FCC 74.861(e)(3),
FCC 2.1047(a)
Test Distance -
Date March 7, 2008
Temperature 23 deg.C.
Humidity 30 %
Engineer Kenichi Adachi

Transmitting 650.125MHz, High power

Frequency [kHz]	50% Modulation Input level [mV]	Audio Response [dB]
0.1	11.2590	1.8282
0.2	11.2378	1.8118
0.3	11.1980	1.7810
0.5	11.1642	1.7548
0.7	10.5324	1.2487
1.0	9.1220	0.0000
2.0	5.5670	-4.2894
3.0	3.2441	-8.9799
4.0	2.1793	-12.4355
5.0	1.5798	-15.2298
7.0	0.9244	-19.8846
10.0	0.4984	-25.2502
15.0	0.2858	-30.0806
20.0	0.2769	-30.3553



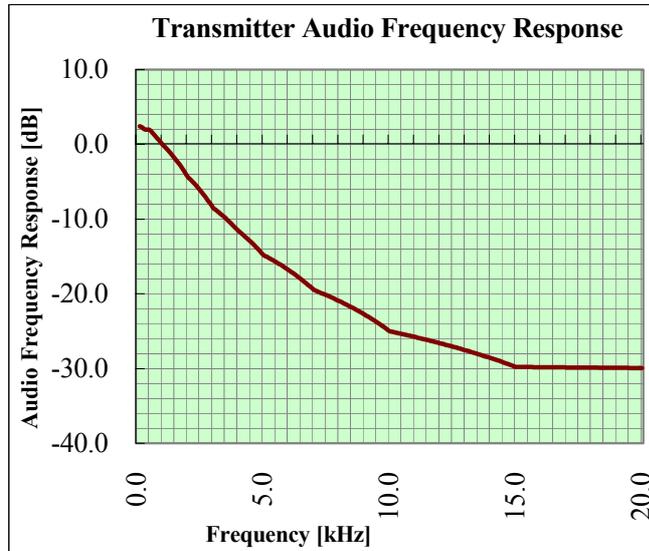
Audio Frequency Response

Company Sony Corporation
Equipment UHF Synthesized Transmitter
Model UTX-B2(42)
S/N 8022
Power DC 3.0V (Battery)
Mode Continuous Transmitting 661.875MHz,
High power

UL Japan, Inc.
Head Office EMC Lab. No.2 shielded room
Regulation FCC 74.861(e)(3),
FCC 2.1047(a)
Test Distance -
Date March 7, 2008
Temperature 23 deg.C.
Humidity 30 %
Engineer Kenichi Adachi

Transmitting 661.875MHz, High power

Frequency [kHz]	50% Modulation Input level [mV]	Audio Response [dB]
0.1	10.7892	2.4302
0.2	10.5943	2.2719
0.3	10.2678	2.0000
0.5	10.1789	1.9245
0.7	9.3580	1.1941
1.0	8.1560	0.0000
2.0	4.9570	-4.3252
3.0	3.0770	-8.4670
4.0	2.1559	-11.5570
5.0	1.4848	-14.7962
7.0	0.8658	-19.4812
10.0	0.4584	-25.0047
15.0	0.2643	-29.7876
20.0	0.2598	-29.9368



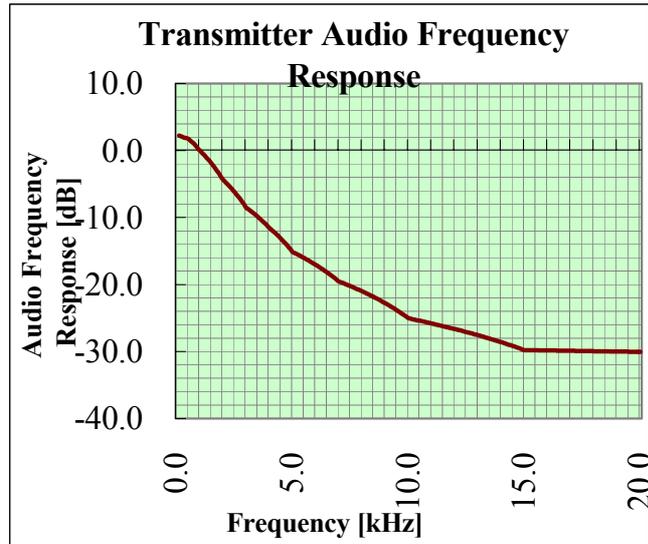
Audio Frequency Response

Company Sony Corporation
Equipment UHF Synthesized Transmitter
Model UTX-B2(42)
S/N 8022
Power DC 3.0V (Battery)
Mode Continuous Transmitting 638.125MHz,
Low power

UL Japan, Inc.
Head Office EMC Lab. No.2 shielded room
Regulation FCC 74.861(e)(3),
FCC 2.1047(a)
Test Distance -
Date March 7, 2008
Temperature 23 deg.C.
Humidity 30 %
Engineer Kenichi Adachi

Transmitting 638.125MHz, Low power

Frequency [kHz]	50% Modulation Input level [mV]	Audio Response [dB]
0.1	10.6260	2.2448
0.2	10.4930	2.1354
0.3	10.2780	1.9555
0.5	10.0378	1.7501
0.7	9.3690	1.1512
1.0	8.2060	0.0000
2.0	4.9670	-4.3607
3.0	3.0770	-8.5201
4.0	2.1689	-11.5578
5.0	1.4348	-15.1468
7.0	0.8649	-19.5433
10.0	0.4589	-25.0483
15.0	0.2657	-29.7948
20.0	0.2578	-30.0570



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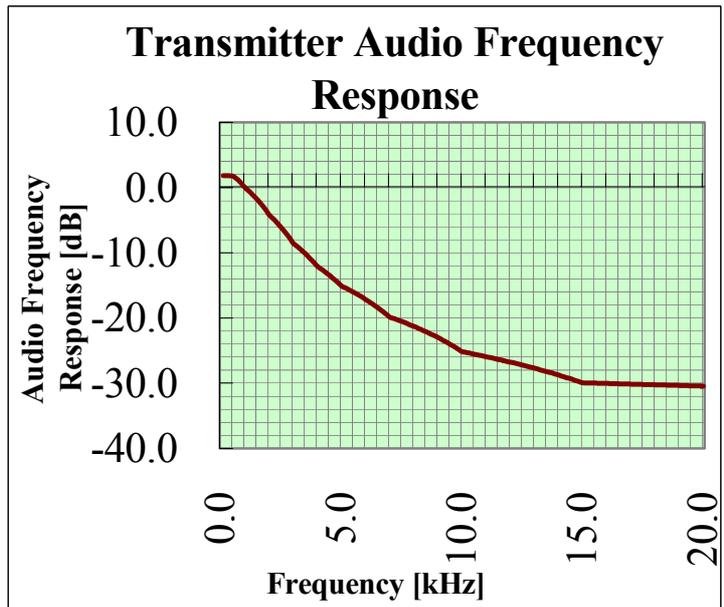
Audio Frequency Response

Company Sony Corporation
Equipment UHF Synthesized Transmitter
Model UTX-B2(42)
S/N 8022
Power DC 3.0V (Battery)
Mode Continuous Transmitting 650.125MHz,
Low power

UL Japan, Inc.
Head Office EMC Lab. No.2 shielded room
Regulation FCC 74.861(e)(3),
FCC 2.1047(a)
Test Distance -
Date March 7, 2008
Temperature 23 deg.C.
Humidity 30 %
Engineer Kenichi Adachi

Transmitting 650.125MHz, Low power

Frequency [kHz]	50% Modulation Input level [mV]	Audio Response [dB]
0.1	11.3790	1.8350
0.2	11.3678	1.8264
0.3	11.3780	1.8342
0.5	11.2670	1.7491
0.7	10.5930	1.2133
1.0	9.2120	0.0000
2.0	5.7070	-4.1589
3.0	3.4401	-8.5557
4.0	2.2873	-12.1006
5.0	1.6193	-15.1005
7.0	0.9364	-19.8579
10.0	0.5081	-25.1681
15.0	0.2928	-29.9557
20.0	0.2767	-30.4469



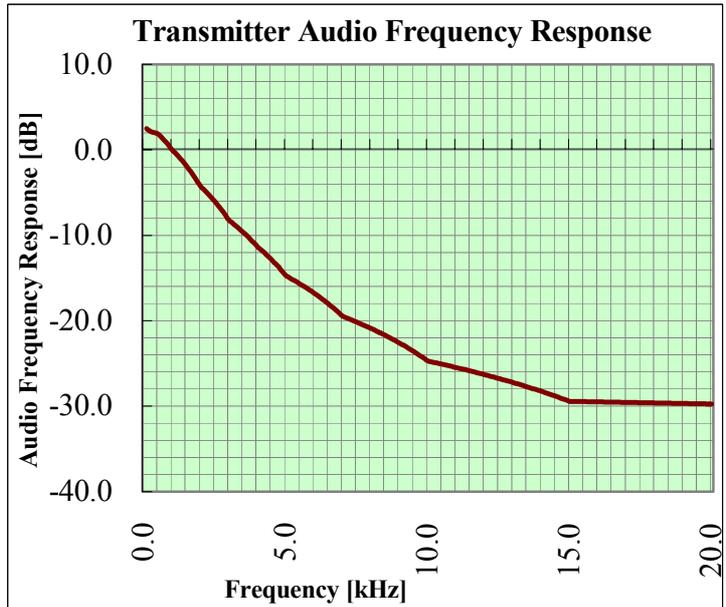
Audio Frequency Response

Company Sony Corporation
Equipment UHF Synthesized Transmitter
Model UTX-B2(42)
S/N 8022
Power DC 3.0V (Battery)
Mode Continuous Transmitting 661.875MHz,
Low power

UL Japan, Inc.
Head Office EMC Lab. No.2 shielded room
Regulation FCC 74.861(e)(3),
FCC 2.1047(a)
Test Distance -
Date March 7, 2008
Temperature 23 deg.C.
Humidity 30 %
Engineer Kenichi Adachi

Transmitting 661.875MHz, Low power

Frequency [kHz]	50% Modulation Input level [mV]	Audio Response [dB]
0.1	10.9920	2.4967
0.2	10.6930	2.2571
0.3	10.4780	2.0807
0.5	10.2388	1.8801
0.7	9.4780	1.2095
1.0	8.2460	0.0000
2.0	5.0370	-4.2814
3.0	3.1970	-8.2300
4.0	2.2359	-11.3358
5.0	1.5148	-14.7178
7.0	0.8758	-19.4768
10.0	0.4794	-24.7109
15.0	0.2783	-29.4346
20.0	0.2688	-29.7363



UL Japan, Inc.

Head Office EMC Lab.

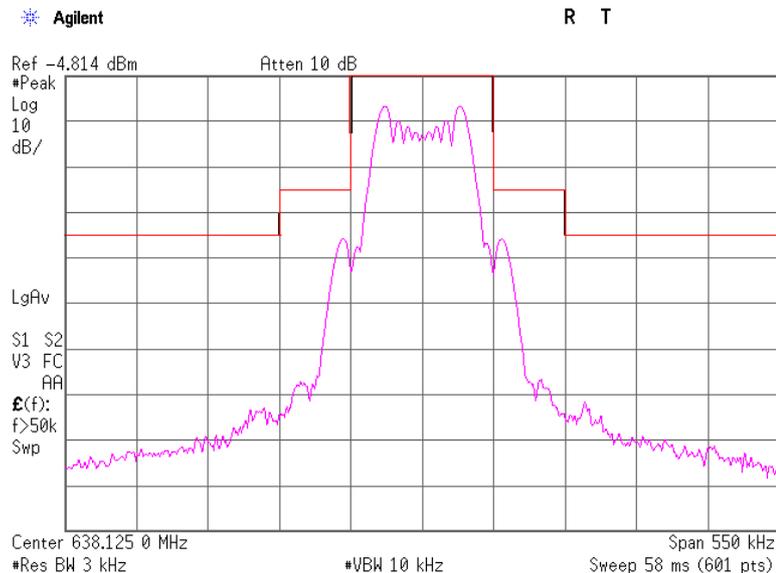
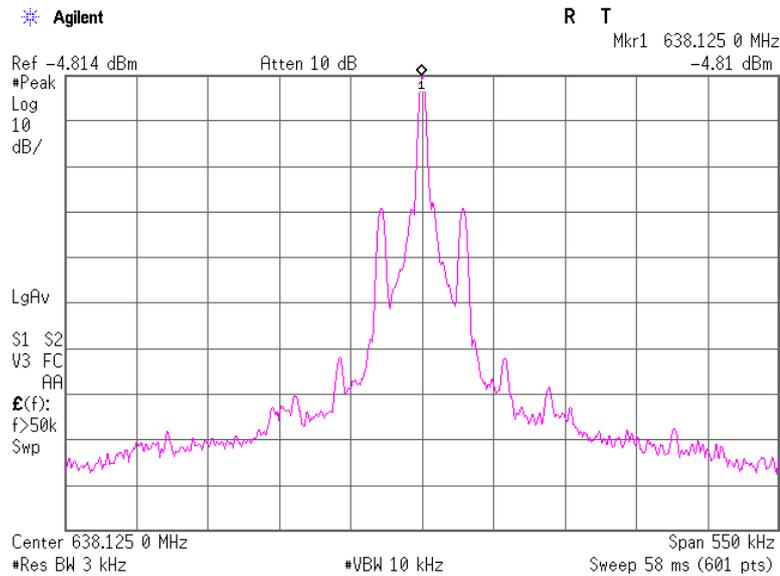
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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Emission Bandwidth

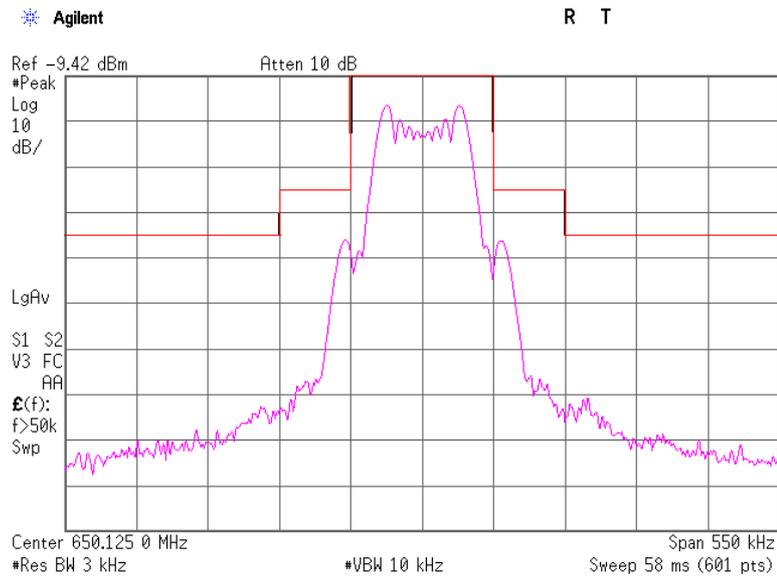
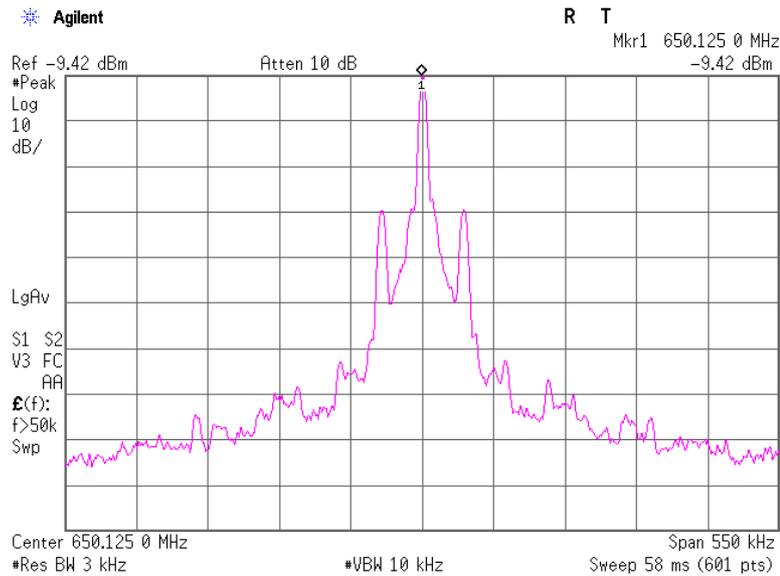
	UL Japan, Inc.	
	Head Office EMC Lab. No.2 shielded room	
Company	Sony Corporation	Regulation
Equipment	UHF Synthesized Transmitter	FCC 74.861(e)(6) / RSS-123 Section 6.3
Model	UTX-B2(42)	FCC 2.1049
S/N	8022	Test Distance
Power	DC 3.0V (Battery)	-
Mode	Continuous Transmitting 638.125MHz,	Date
Input audio	High power	March 7, 2008
	-33.5dBV (85% modulation level)	Temperature
		24 deg.C.
		Humidity
		32 %
		Engineer
		Takahiro Hatakeda



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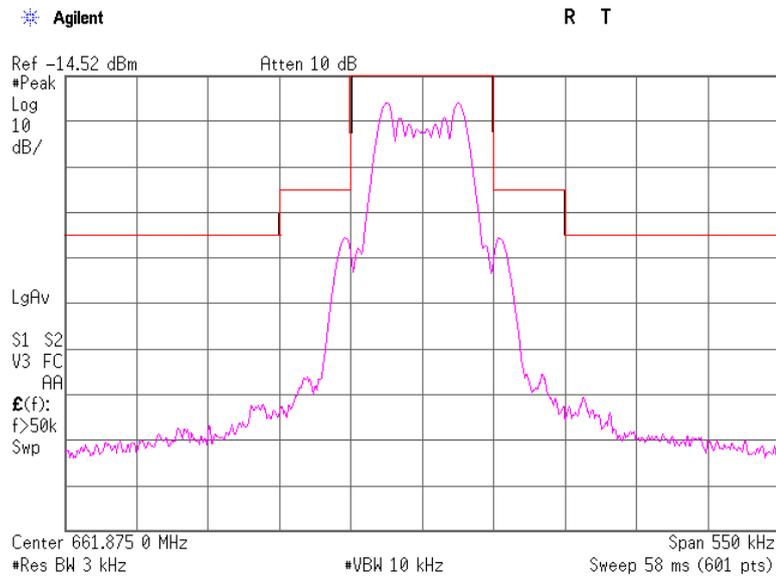
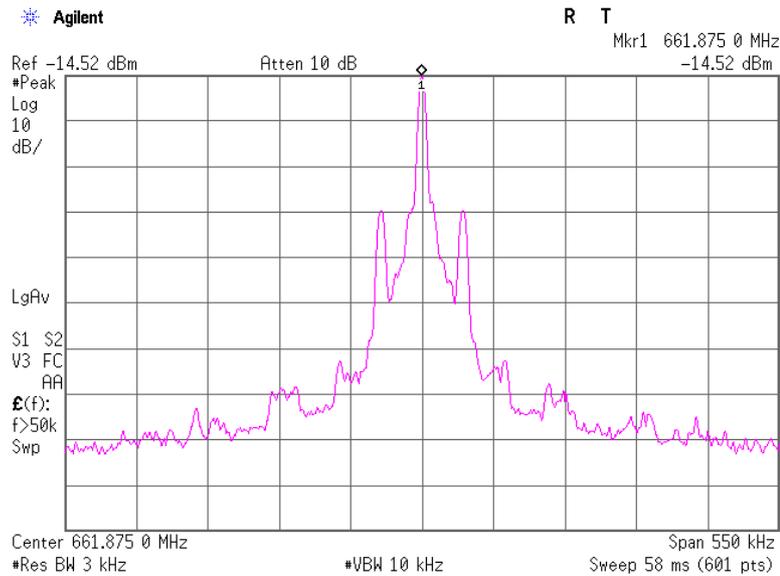
Emission Bandwidth

	UL Japan, Inc.	
	Head Office EMC Lab. No.2 shielded room	
Company	Sony Corporation	Regulation
Equipment	UHF Synthesized Transmitter	FCC 74.861(e)(6) / RSS-123 Section 6.3
Model	UTX-B2(42)	FCC 2.1049
S/N	8022	Test Distance
Power	DC 3.0V (Battery)	-
Mode	Continuous Transmitting 650.125MHz,	Date
Input audio	High power	March 7, 2008
	-27.5dBV (85% modulation level)	Temperature
		24 deg.C.
		Humidity
		32 %
		Engineer
		Takahiro Hatakeda



Emission Bandwidth

	UL Japan, Inc.	
	Head Office EMC Lab. No.2 shielded room	
Company	Sony Corporation	Regulation
Equipment	UHF Synthesized Transmitter	FCC 74.861(e)(6) / RSS-123 Section 6.3
Model	UTX-B2(42)	FCC 2.1049
S/N	8022	Test Distance
Power	DC 3.0V (Battery)	-
Mode	Continuous Transmitting 661.875MHz,	Date
	High power	March 7, 2008
Input audio	-29.0dBV (85% modulation level)	Temperature
		24 deg.C.
		Humidity
		32 %
		Engineer
		Takahiro Hatakeda



UL Japan, Inc.

Head Office EMC Lab.

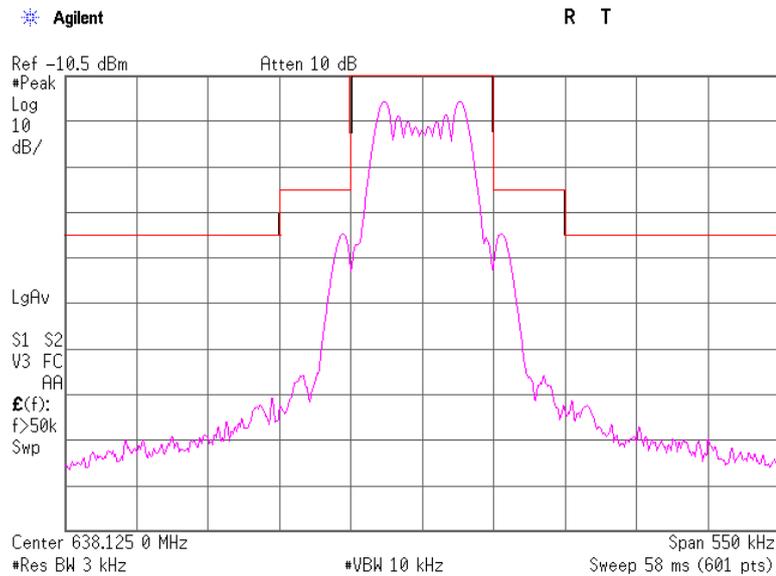
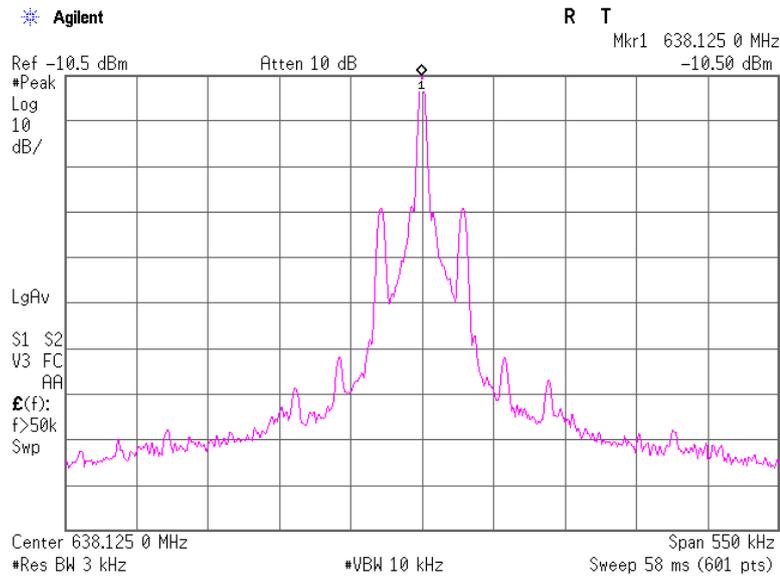
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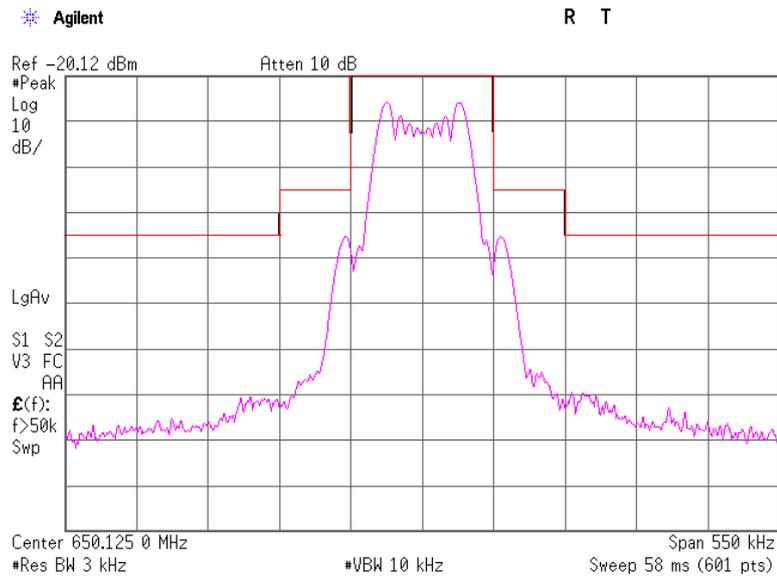
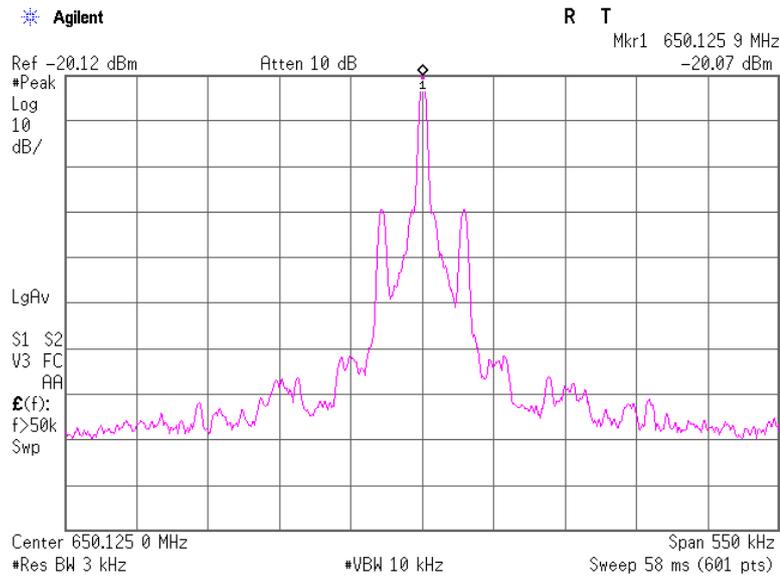
Emission Bandwidth

	UL Japan, Inc.	
	Head Office EMC Lab. No.2 shielded room	
Company	Sony Corporation	Regulation
Equipment	UHF Synthesized Transmitter	FCC 74.861(e)(6) / RSS-123 Section 6.3
Model	UTX-B2(42)	FCC 2.1049
S/N	8022	Test Distance
Power	DC 3.0V (Battery)	-
Mode	Continuous Transmitting 638.125MHz,	Date
Input audio	Low power	March 7, 2008
	-38.5dBV (85% modulation level)	Temperature
		24 deg.C.
		Humidity
		32 %
		Engineer
		Takahiro Hatakeda



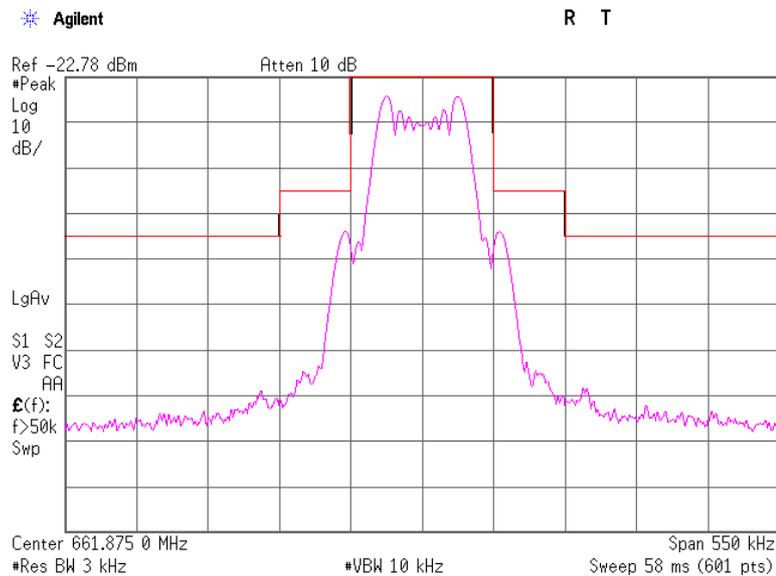
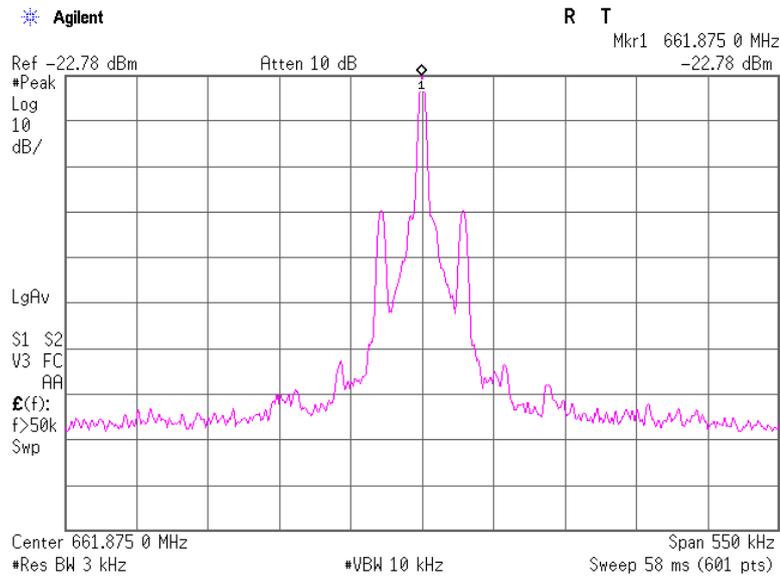
Emission Bandwidth

	UL Japan, Inc.	
	Head Office EMC Lab. No.2 shielded room	
Company	Sony Corporation	Regulation
Equipment	UHF Synthesized Transmitter	FCC 74.861(e)(6) / RSS-123 Section 6.3
Model	UTX-B2(42)	FCC 2.1049
S/N	8022	Test Distance
Power	DC 3.0V (Battery)	-
Mode	Continuous Transmitting 650.125MHz,	Date
	Low power	March 7, 2008
Input audio	-30.0dBV (85% modulation level)	Temperature
		24 deg.C.
		Humidity
		32 %
		Engineer
		Takahiro Hatakeda



Emission Bandwidth

	UL Japan, Inc.	
	Head Office EMC Lab. No.2 shielded room	
Company	Sony Corporation	Regulation
Equipment	UHF Synthesized Transmitter	FCC 74.861(e)(6) / RSS-123 Section 6.3
Model	UTX-B2(42)	FCC 2.1049
S/N	8022	Test Distance
Power	DC 3.0V (Battery)	-
Mode	Continuous Transmitting 661.875MHz,	Date
Input audio	Low power	March 7, 2008
	-30.0dBV (85% modulation level)	Temperature
		24 deg.C.
		Humidity
		32 %
		Engineer
		Takahiro Hatakeda



UL Japan, Inc.

Head Office EMC Lab.

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Spurious Emissions (Radiated) (Transmitting)

	UL Japan, Inc.	
	Head Office EMC Lab. No.2 Semi Anechoic Chamber	
Company	Sony Corporation	Regulation
Equipment	UHF Synthesized Transmitter	FCC 74.861(e)(6) / RSS-123 Section 6.3
Model	UTX-B2(42)	FCC 2.1053
S/N	8022	Test Distance
Power	DC 3.0V (Battery)	3m
Mode	Continuous Transmitting 638.125MHz, High power	Date
EUT-axis	H: X-axis, V: Y-axis	March 6, 2008
EUT Height	1.0m	Temperature
		24 deg.C.
		Humidity
		38 %
		Engineer
		Takahiro Hatakeda

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx	Tx	Tx Ant.	RESULT (ERP) [dBm]		LIMIT	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER	Cable Loss [dB]	Ant. Gain [dBi]	ATT. Loss [dB]	HOR	VER	[dBm] (ERP)	HOR	VER		
1	40.00	7.3	7.3	-47.6	-58.4	0.3	-24.6	10.4	-85.0	-95.8	-13.0	72.0	82.8	Operating	No2
2	638.13	30.1	28.5	-59.8	-59.4	1.4	2.2	10.1	-71.3	-70.9	-13.0	58.3	57.9	Operating	No2
3	1276.25	42.6	41.3	-57.7	-59.6	3.1	6.7	0.0	-56.3	-58.2	-13.0	43.3	45.2	Operating	No2
4	1914.38	37.7	39.3	-64.1	-62.7	3.8	9.9	0.0	-60.2	-58.8	-13.0	47.2	45.8	Operating	No2
5	2552.50	35.3	40.8	-67.7	-61.5	4.5	10.9	0.0	-63.5	-57.2	-13.0	50.5	44.2	Operating	No2
6	3190.63	31.9	32.3	-70.4	-70.3	5.0	11.7	0.0	-65.9	-65.8	-13.0	52.9	52.8	Operating	No2
7	3828.75	35.3	40.0	-67.5	-62.2	5.4	12.7	0.0	-62.3	-57.0	-13.0	49.3	44.0	Operating	No2
8	4466.88	36.0	35.7	-66.2	-66.9	5.9	12.9	0.0	-61.3	-61.9	-13.0	48.3	48.9	Operating	No2
9	5105.00	39.5	40.6	-61.9	-62.3	6.3	12.9	0.0	-57.5	-57.9	-13.0	44.5	44.9	Operating	No2
10	5743.13	47.9	47.3	-53.4	-54.5	6.8	13.4	0.0	-49.0	-50.1	-13.0	36.0	37.1	Operating	No2

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15

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)

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

The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.

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

- for the calibration data on the substitution measurement.

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

Detector : Below 1GHz : T/R AV(BW:120kHz), Above 1GHz : S/A PK(RBW:1MHz/VBW:10Hz)

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Facsimile : +81 596 24 8124

Spurious Emissions (Radiated) (Transmitting)

	UL Japan, Inc.
	Head Office EMC Lab. No.2 Semi Anechoic Chamber
Company	Sony Corporation
Equipment	UHF Synthesized Transmitter
Model	UTX-B2(42)
S/N	8022
Power	DC 3.0V (Battery)
Mode	Continuous Transmitting 650.125MHz, High power
EUT-axis	H: X-axis, V: Y-axis
EUT Height	1.0m
Regulation	FCC 74.861(e)(6) / RSS-123 Section 6.3 FCC 2.1053
Test Distance	3m
Date	March 6, 2008
Temperature	24 deg.C.
Humidity	38 %
Engineer	Takahiro Hatakeda

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx	Tx	Tx Ant.	RESULT (ERP) [dBm]		LIMIT	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER	Cable Loss [dB]	Ant. Gain [dBi]	ATT. Loss [dB]	HOR	VER	[dBm] (ERP)	HOR	VER		
1	40.00	7.3	7.4	-47.6	-58.3	0.3	-24.6	10.4	-85.0	-95.7	-13.0	72.0	82.7	Operating	No2
2	650.13	32.8	32.0	-56.8	-55.5	1.5	2.2	10.1	-68.3	-67.0	-13.0	55.3	54.0	Operating	No2
3	1300.25	39.6	38.5	-60.8	-62.5	3.1	6.8	0.0	-59.3	-61.0	-13.0	46.3	48.0	Operating	No2
4	1950.38	35.3	36.3	-66.6	-65.7	3.9	10.0	0.0	-62.6	-61.7	-13.0	49.6	48.7	Operating	No2
5	2600.50	35.2	40.0	-67.7	-62.3	4.5	10.9	0.0	-63.5	-58.1	-13.0	50.5	45.1	Operating	No2
6	3250.63	32.5	32.6	-69.8	-69.9	5.1	11.8	0.0	-65.2	-65.4	-13.0	52.2	52.4	Operating	No2
7	3900.75	35.5	40.5	-67.3	-61.7	5.4	12.9	0.0	-62.0	-56.4	-13.0	49.0	43.4	Operating	No2
8	4550.88	36.3	36.3	-65.8	-66.4	5.9	12.9	0.0	-60.9	-61.5	-13.0	47.9	48.5	Operating	No2
9	5201.00	39.0	38.8	-62.4	-64.0	6.4	13.0	0.0	-57.9	-59.6	-13.0	44.9	46.6	Operating	No2
10	5851.13	43.3	43.8	-57.9	-57.8	6.9	13.4	0.0	-53.6	-53.4	-13.0	40.6	40.4	Operating	No2

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15

Rx-ANTENNA : Biconical Antenna(30M-300MHz), Logperriodic 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)

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

The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.

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

- for the calibration data on the substitution measurement.

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

Detector : Below 1GHz : T/R AV(BW:120kHz), Above 1GHz : S/A PK(RBW:1MHz/VBW:10Hz)

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Spurious Emissions (Radiated) (Transmitting)

	UL Japan, Inc.
	Head Office EMC Lab. No.2 Semi Anechoic Chamber
Company	Sony Corporation
Equipment	UHF Synthesized Transmitter
Model	UTX-B2(42)
S/N	8022
Power	DC 3.0V (Battery)
Mode	Continuous Transmitting 661.875MHz, High power
EUT-axis	H: X-axis, V: Y-axis
EUT Height	1.0m
Regulation	FCC 74.861(e)(6) / RSS-123 Section 6.3 FCC 2.1053
Test Distance	3m
Date	March 6, 2008
Temperature	24 deg.C.
Humidity	38 %
Engineer	Takahiro Hatakeda

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 (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER		HOR	VER		
		1	40.00	7.4	7.2				-47.5	-58.5		0.3	-24.6		
2	661.88	36.9	38.0	-52.5	-49.2	1.5	2.2	10.1	-64.0	-60.7	-13.0	51.0	47.7	Operating	No2
3	1323.75	33.6	33.4	-66.8	-67.6	3.2	6.9	0.0	-65.3	-66.0	-13.0	52.3	53.0	Operating	No2
4	1985.63	33.2	34.5	-68.8	-67.6	3.9	10.2	0.0	-64.6	-63.4	-13.0	51.6	50.4	Operating	No2
5	2647.50	32.1	34.4	-70.7	-67.9	4.6	11.0	0.0	-66.5	-63.7	-13.0	53.5	50.7	Operating	No2
6	3309.38	32.7	32.9	-69.6	-69.6	5.1	11.9	0.0	-65.0	-65.0	-13.0	52.0	52.0	Operating	No2
7	3971.25	34.9	35.5	-68.0	-66.6	5.5	13.0	0.0	-62.6	-61.3	-13.0	49.6	48.3	Operating	No2
8	4633.13	36.8	36.8	-65.2	-65.9	6.0	12.9	0.0	-60.4	-61.2	-13.0	47.4	48.2	Operating	No2
9	5295.00	39.3	39.3	-62.0	-63.3	6.5	13.0	0.0	-57.6	-58.9	-13.0	44.6	45.9	Operating	No2
10	5956.88	42.3	42.3	-58.9	-59.1	7.0	13.5	0.0	-54.6	-54.7	-13.0	41.6	41.7	Operating	No2

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15

Rx-ANTENNA : Biconical Antenna(30M-300MHz), Logperriodic 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)

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

The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.

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

- for the calibration data on the substitution measurement.

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

Detector : Below 1GHz : T/R AV(BW:120kHz), Above 1GHz : S/A PK(RBW:1MHz/VBW:10Hz)

UL Japan, Inc.

Head Office EMC Lab.

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Facsimile : +81 596 24 8124

Spurious Emissions (Radiated) (Transmitting)

	UL Japan, Inc.	
	Head Office EMC Lab. No.2 Semi Anechoic Chamber	
Company	Sony Corporation	Regulation
Equipment	UHF Synthesized Transmitter	FCC 74.861(e)(6) / RSS-123 Section 6.3
Model	UTX-B2(42)	FCC 2.1053
S/N	8022	Test Distance
Power	DC 3.0V (Battery)	3m
Mode	Continuous Transmitting 638.125MHz, Low power	Date
EUT-axis	H: X-axis, V: Y-axis	March 6, 2008
EUT Height	1.0m	Temperature
		24 deg.C.
		Humidity
		38 %
		Engineer
		Takahiro Hatakeda

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx	Tx	Tx Ant.	RESULT (ERP) [dBm]		LIMIT	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER	Cable Loss [dB]	Ant. Gain [dBi]	ATT. Loss [dB]	HOR	VER	[dBm] (ERP)	HOR	VER		
1	40.00	7.3	7.4	-47.6	-58.3	0.3	-24.6	10.4	-85.0	-95.7	-13.0	72.0	82.7	Operating	No2
2	638.13	37.5	34.9	-52.4	-53.0	1.4	2.2	10.1	-63.9	-64.5	-13.0	50.9	51.5	Operating	No2
3	1276.25	32.9	31.7	-67.4	-69.2	3.1	6.7	0.0	-66.0	-67.8	-13.0	53.0	54.8	Operating	No2
4	1914.38	34.3	36.3	-67.5	-65.7	3.8	9.9	0.0	-63.6	-61.8	-13.0	50.6	48.8	Operating	No2
5	2552.50	31.9	35.3	-71.1	-67.0	4.5	10.9	0.0	-66.9	-62.7	-13.0	53.9	49.7	Operating	No2
6	3190.63	32.6	34.7	-69.7	-67.9	5.0	11.7	0.0	-65.2	-63.4	-13.0	52.2	50.4	Operating	No2
7	3828.75	35.2	39.6	-67.6	-62.6	5.4	12.7	0.0	-62.4	-57.4	-13.0	49.4	44.4	Operating	No2
8	4466.88	37.5	36.4	-64.7	-66.2	5.9	12.9	0.0	-59.8	-61.2	-13.0	46.8	48.2	Operating	No2
9	5105.00	38.4	38.6	-63.0	-64.3	6.3	12.9	0.0	-58.6	-59.9	-13.0	45.6	46.9	Operating	No2
10	5743.13	49.3	48.5	-52.0	-53.3	6.8	13.4	0.0	-47.6	-48.9	-13.0	34.6	35.9	Operating	No2

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15

Rx-ANTENNA : Biconical Antenna(30M-300MHz), Logperriodic 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)

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

The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.

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

- for the calibration data on the substitution measurement.

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

Detector : Below 1GHz : T/R AV(BW:120kHz), Above 1GHz : S/A PK(RBW:1MHz/VBW:10Hz)

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Spurious Emissions (Radiated) (Transmitting)

	UL Japan, Inc.
	Head Office EMC Lab. No.2 Semi Anechoic Chamber
Company	Sony Corporation
Equipment	UHF Synthesized Transmitter
Model	UTX-B2(42)
S/N	8022
Power	DC 3.0V (Battery)
Mode	Continuous Transmitting 650.125MHz, Low power
EUT-axis	H: X-axis, V: Y-axis
EUT Height	1.0m
Regulation	FCC 74.861(e)(6) / RSS-123 Section 6.3 FCC 2.1053
Test Distance	3m
Date	March 6, 2008
Temperature	24 deg.C.
Humidity	38 %
Engineer	Takahiro Hatakeda

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 (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER					
1	40.00	7.4	7.4	-47.5	-58.3	0.3	-24.6	10.4	-84.9	-95.7	-13.0	71.9	82.7	Operating	No2
2	650.13	40.2	40.2	-49.4	-47.3	1.5	2.2	10.1	-60.9	-58.8	-13.0	47.9	45.8	Operating	No2
3	1300.25	33.2	30.8	-67.2	-70.2	3.1	6.8	0.0	-65.7	-68.7	-13.0	52.7	55.7	Operating	No2
4	1950.38	34.8	35.9	-67.1	-66.1	3.9	10.0	0.0	-63.1	-62.1	-13.0	50.1	49.1	Operating	No2
5	2600.50	37.6	41.9	-65.3	-60.4	4.5	10.9	0.0	-61.1	-56.2	-13.0	48.1	43.2	Operating	No2
6	3250.63	32.8	33.4	-69.5	-69.1	5.1	11.8	0.0	-64.9	-64.6	-13.0	51.9	51.6	Operating	No2
7	3900.75	35.6	40.9	-67.2	-61.3	5.4	12.9	0.0	-61.9	-56.0	-13.0	48.9	43.0	Operating	No2
8	4550.88	37.1	36.5	-65.0	-66.2	5.9	12.9	0.0	-60.1	-61.3	-13.0	47.1	48.3	Operating	No2
9	5201.00	38.8	38.9	-62.6	-63.9	6.4	13.0	0.0	-58.1	-59.5	-13.0	45.1	46.5	Operating	No2
10	5851.13	45.7	45.9	-55.5	-55.7	6.9	13.4	0.0	-51.2	-51.3	-13.0	38.2	38.3	Operating	No2

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15

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)

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

The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.

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

- for the calibration data on the substitution measurement.

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

Detector : Below 1GHz : T/R AV(BW:120kHz), Above 1GHz : S/A PK(RBW:1MHz/VBW:10Hz)

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Spurious Emissions (Radiated) (Transmitting)

	UL Japan, Inc.	
	Head Office EMC Lab. No.2 Semi Anechoic Chamber	
Company	Sony Corporation	Regulation
Equipment	UHF Synthesized Transmitter	FCC 74.861(e)(6) / RSS-123 Section 6.3
Model	UTX-B2(42)	FCC 2.1053
S/N	8022	Test Distance
Power	DC 3.0V (Battery)	3m
Mode	Continuous Transmitting 661.875MHz, Low power	Date
EUT-axis	H: X-axis, V: Y-axis	March 6, 2008
EUT Height	1.0m	Temperature
		24 deg.C.
		Humidity
		38 %
		Engineer
		Takahiro Hatakeda

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 (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER					
1	40.00	7.3	7.2	-47.6	-58.5	0.3	-24.6	10.4	-85.0	-95.9	-13.0	72.0	82.9	Operating	No2
2	661.88	44.3	44.9	-45.1	-42.3	1.5	2.2	10.1	-56.6	-53.8	-13.0	43.6	40.8	Operating	No2
3	1323.75	30.5	30.1	-69.9	-70.9	3.2	6.9	0.0	-68.4	-69.3	-13.0	55.4	56.3	Operating	No2
4	1985.63	37.4	39.3	-64.6	-62.8	3.9	10.2	0.0	-60.4	-58.6	-13.0	47.4	45.6	Operating	No2
5	2647.50	32.9	36.1	-69.9	-66.2	4.6	11.0	0.0	-65.7	-62.0	-13.0	52.7	49.0	Operating	No2
6	3309.38	33.2	33.2	-69.1	-69.3	5.1	11.9	0.0	-64.5	-64.7	-13.0	51.5	51.7	Operating	No2
7	3971.25	37.1	41.6	-65.8	-60.5	5.5	13.0	0.0	-60.4	-55.2	-13.0	47.4	42.2	Operating	No2
8	4633.13	37.2	36.8	-64.8	-65.9	6.0	12.9	0.0	-60.0	-61.2	-13.0	47.0	48.2	Operating	No2
9	5295.00	39.4	39.4	-61.9	-63.2	6.5	13.0	0.0	-57.5	-58.8	-13.0	44.5	45.8	Operating	No2
10	5956.88	43.9	43.2	-57.3	-58.2	7.0	13.5	0.0	-53.0	-53.8	-13.0	40.0	40.8	Operating	No2

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15

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)

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

The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.

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

- for the calibration data on the substitution measurement.

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

Detector : Below 1GHz : T/R AV(BW:120kHz), Above 1GHz : S/A PK(RBW:1MHz/VBW:10Hz)

UL Japan, Inc.

Head Office EMC Lab.

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Telephone : +81 596 24 8116

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Frequency Stability

Company Sony Corporation
Equipment UHF Synthesized Transmitter
Model UTX-B2(42)
S/N 8022
Power DC 3.0V
Mode Continuous Transmitting (No Modulation)
638.125MHz / 650.125MHz / 661.875MHz

UL Japan, Inc.
Head Office EMC Lab. No.7 Shielded Room
Regulation FCC74.861 (e) (4) / RSS-123_7(a)
Test Distance -
Date March 5, 2008
Temperature 25 deg.C.
Humidity 30 %
Engineer Shinya Watanabe

638.125MHz

Test Condition	Measured freq [MHz]	Freq error [MHz]	Result [ppm]	Limit (+/- 0.005%) [+/- ppm]	Margin [ppm]
T max 50deg.C.	638.12220236	-0.00279764	-4.38	50.00	45.62
40deg.C.	638.12398145	-0.00101855	-1.60	50.00	48.40
30deg.C.	638.12578017	0.00078017	1.22	50.00	48.78
T nom 20deg.C.	638.12738824	0.00238824	3.74	50.00	46.26
10deg.C.	638.12796822	0.00296822	4.65	50.00	45.35
0deg.C.	638.12823036	0.00323036	5.06	50.00	44.94
-10deg.C.	638.12784981	0.00284981	4.47	50.00	45.53
-20deg.C.	638.12746947	0.00246947	3.87	50.00	46.13
T min -30deg.C	638.12799512	0.00299512	4.69	50.00	45.31

638.125 MHz +/-0.005 % (+/- 50ppm) = +/- 0.031906 MHz

650.125MHz

Test Condition	Measured freq [MHz]	Freq error [MHz]	Result [ppm]	Limit (+/- 0.005%) [+/- ppm]	Margin [ppm]
T max 50deg.C.	650.12245431	-0.00254569	-3.92	50.00	46.08
40deg.C.	650.12406678	-0.00093322	-1.44	50.00	48.56
30deg.C.	650.12580256	0.00080256	1.23	50.00	48.77
T nom 20deg.C.	650.12711094	0.00211094	3.25	50.00	46.75
10deg.C.	650.12777124	0.00277124	4.26	50.00	45.74
0deg.C.	650.12837154	0.00337154	5.19	50.00	44.81
-10deg.C.	650.12817239	0.00317239	4.88	50.00	45.12
-20deg.C.	650.12706595	0.00206595	3.18	50.00	46.82
T min -30deg.C	650.12807493	0.00307493	4.73	50.00	45.27

650.125 MHz +/-0.005 % (+/- 50ppm) = +/- 0.032506 MHz

661.875MHz

Test Condition	Measured freq [MHz]	Freq error [MHz]	Result [ppm]	Limit (+/- 0.005%) [+/- ppm]	Margin [ppm]
T max 50deg.C.	661.87268919	-0.00231081	-3.49	50.00	46.51
40deg.C.	661.87389017	-0.00110983	-1.68	50.00	48.32
30deg.C.	661.87579340	0.00079340	1.20	50.00	48.80
T nom 20deg.C.	661.87702642	0.00202642	3.06	50.00	46.94
10deg.C.	661.87813104	0.00313104	4.73	50.00	45.27
0deg.C.	661.87837416	0.00337416	5.10	50.00	44.90
-10deg.C.	661.87814429	0.00314429	4.75	50.00	45.25
-20deg.C.	661.87725633	0.00225633	3.41	50.00	46.59
T min -30deg.C	661.87795847	0.00295847	4.47	50.00	45.53

661.875 MHz +/-0.005 % (+/-50ppm) = +/- 0.033094 MHz

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Frequency Stability

Company Sony Corporation
Equipment UHF Synthesized Transmitter
Model UTX-B2(42)
S/N 8022
Power DC 2.058V (end point)
Mode Continuous Transmitting (No Modulation)
638.125MHz / 650.125MHz / 661.875MHz

UL Japan, Inc.
Head Office EMC Lab. No.7Shielded Room
Regulation FCC74.861 (e) (4) / RSS-123_7(a)
Test Distance -
Date March 5, 2008
Temperature 25 deg.C.
Humidity 30 %
Engineer Shinya Watanabe

638.125MHz

Test Condition	Measured freq [MHz]	Freq error [MHz]	Result [ppm]	Limit (+/- 0.005%) [+/- ppm]	Margin [ppm]
T max 50deg.C.	638.12265193	-0.00234807	-3.68	50.00	46.32
40deg.C.	638.12397500	-0.00102500	-1.61	50.00	48.39
30deg.C.	638.12521672	0.00021672	0.34	50.00	49.66
T nom 20deg.C.	638.12662541	0.00162541	2.55	50.00	47.45
10deg.C.	638.12781987	0.00281987	4.42	50.00	45.58
0deg.C.	638.12793756	0.00293756	4.60	50.00	45.40
-10deg.C.	638.12898989	0.00398989	6.25	50.00	43.75
-20deg.C.	638.12752039	0.00252039	3.95	50.00	46.05
T min -30deg.C.	638.12713728	0.00213728	3.35	50.00	46.65

638.125 MHz +/-0.005 % (+/- 50ppm) = +/- 0.031906 MHz

650.125MHz

Test Condition	Measured freq [MHz]	Freq error [MHz]	Result [ppm]	Limit (+/- 0.005%) [+/- ppm]	Margin [ppm]
T max 50deg.C.	650.12301487	-0.00198513	-3.05	50.00	46.95
40deg.C.	650.12380913	-0.00119087	-1.83	50.00	48.17
30deg.C.	650.12527129	0.00027129	0.42	50.00	49.58
T nom 20deg.C.	650.12680156	0.00180156	2.77	50.00	47.23
10deg.C.	650.12751068	0.00251068	3.86	50.00	46.14
0deg.C.	650.12816937	0.00316937	4.88	50.00	45.12
-10deg.C.	650.12801205	0.00301205	4.63	50.00	45.37
-20deg.C.	650.12660092	0.00160092	2.46	50.00	47.54
T min -30deg.C.	650.12760242	0.00260242	4.00	50.00	46.00

650.125 MHz +/-0.005 % (+/- 50ppm) = +/- 0.032506 MHz

661.875MHz

Test Condition	Measured freq [MHz]	Freq error [MHz]	Result [ppm]	Limit (+/- 0.005%) [+/- ppm]	Margin [ppm]
T max 50deg.C.	661.87289374	-0.00210626	-3.18	50.00	46.82
40deg.C.	661.87391203	-0.00108797	-1.64	50.00	48.36
30deg.C.	661.87524815	0.00024815	0.37	50.00	49.63
T nom 20deg.C.	661.87675652	0.00175652	2.65	50.00	47.35
10deg.C.	661.87767289	0.00267289	4.04	50.00	45.96
0deg.C.	661.87809670	0.00309670	4.68	50.00	45.32
-10deg.C.	661.87812347	0.00312347	4.72	50.00	45.28
-20deg.C.	661.87742873	0.00242873	3.67	50.00	46.33
T min -30deg.C.	661.87786728	0.00286728	4.33	50.00	45.67

661.875 MHz +/-0.005 % (+/-50ppm) = +/- 0.033094 MHz

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Frequency Stability

Company Sony Corporation
Equipment UHF Synthesized Transmitter
Model UTX-B2(42)
S/N 8022
Power DC 3.0V / DC 2.55V / DC 3.45V
Mode Continuous Transmitting (No Modulation)
638.125MHz / 650.125MHz / 661.875MHz

UL Japan, Inc.
Head Office EMC Lab. No.7Shielded Room
Regulation RSS-123_7(b)
Test Distance -
Date March 9, 2008
Temperature 22 deg.C.
Humidity 35 %
Engineer Shinya Watanabe

638.125MHz(S/N:8022)

Test Condition	Measured freq [MHz]	Freq error [MHz]	Result [ppm]	Limit (+/- 0.005%) [+/- ppm]	Margin [ppm]
T nom 20deg.C. / Vnom 3.0V	638.12738824	0.00238824	3.74	50.00	46.26
T nom 20deg.C. / Vmin 2.55V	638.12695643	0.00195643	3.07	50.00	46.93
T nom 20deg.C. / Vmax 3.45V	638.12696085	0.00196085	3.07	50.00	46.93

638.125 MHz +/-0.005 % (+/- 50ppm) = +/- 0.031906 MHz

650.125MHz(S/N:8022)

Test Condition	Measured freq [MHz]	Freq error [MHz]	Result [ppm]	Limit (+/- 0.005%) [+/- ppm]	Margin [ppm]
T nom 20deg.C. / Vnom 3.0V	650.12711094	0.00211094	3.25	50.00	46.75
T nom 20deg.C. / Vmin 2.55V	650.12686087	0.00186087	2.86	50.00	47.14
T nom 20deg.C. / Vmax 3.45V	650.12686082	0.00186082	2.86	50.00	47.14

650.125 MHz +/-0.005 % (+/- 50ppm) = +/- 0.032506 MHz

661.875MHz(S/N:8022)

Test Condition	Measured freq [MHz]	Freq error [MHz]	Result [ppm]	Limit (+/- 0.005%) [+/- ppm]	Margin [ppm]
T nom 20deg.C. Vnom 3.0V	661.87702642	0.00202642	3.06	50.00	46.94
T nom 20deg.C. Vmin 2.55V	661.87678053	0.00178053	2.69	50.00	47.31
T nom 20deg.C. Vnom 3.45V	661.87681920	0.00181920	2.75	50.00	47.25

661.875 MHz +/-0.005 % (+/-50ppm) = +/- 0.033094 MHz

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APPENDIX 3: Test Instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE	-
MRENT-63	Audio Analyzer	KENWOOD	VA-2230	MOD	Pre Check
MRS-01	Radiocommunication Service Monitor	Rohde & Schwarz	CMS54	MOD	2008/02/27 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	MOD	2007/12/27 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE, MOD	2008/02/15 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE, MOD	2007/10/21 * 12
MUC-01	Universal Counter	Agilent	53132A	FT	2007/05/23 * 12
MCH-01	Temperature and Humidity Chamber	Tabai Espec	PL-2KP	FT	2007/12/27 * 12
MDPS-05	DC Power Supply	KENWOOD TMI	PW8-3ATP	FT	Pre Check
MMM-14	DIGITAL HiTESTER	Hioki	3805	FT	2007/06/07 * 12
MOS-04	Digital Humidity Indicator	N.T	NT-1800	FT	2007/11/12 * 12
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2007/04/02 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	RE	2007/03/01 * 12
MRENT-62	Spectrum Analyzer	Agilent	E4448A	RE	2007/11/27 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2007/10/21 * 12
MPA-09	Pre Amplifier	Agilent	8447D	RE	2007/09/13 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	RE	2007/11/12 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2007/11/13 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/08/28 * 12
MPA-10	Pre Amplifier	Agilent	8449B	RE	2007/09/27 * 12
MCC-16	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2008/02/08 * 12
MHF-04	High Pass Filter 1.22-4.6GHz	Mini-Circuit	VHF-1200	RE	2008/02/01 * 12
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2008/01/19 * 12
MJM-05	Measure	PROMART	SEN1955	RE	-
MPM-09	Power Meter	Anritsu	ML2495A	AT	2007/09/22 * 12
MPSE-12	Power sensor	Anritsu	MA2411B	AT	2007/09/22 * 12
MAT-10	Attenuator(10dB)	Weinschel Corp	2	AT	2007/11/14 * 12
MCC-64	Coaxial Cable	TOYO Technica Corporation	-	AT	2008/03/11 * 12
MOS-12	Thermo-Hygrometer	Custom	CTH-180	AT	2008/01/10 * 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:

MOD : Modulation Characteristics
FT : Frequency Tolerance
RE : Radiated emission (Other tests)
AT : Antenna terminal

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