

APPENDIX 2: Data of EMI test

Peak Output Power (Conducted)

UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded room

COMPANY	KYOCERA Corporation	REPORT NO	26KE0199-HO
EQUIPMENT	iBurst User Terminal	REGULATION	FCC Part24 Section 24.232(b)
MODEL	UTD1900D-US-B	TEST METHOD	FCC Part2 Section 2.1046
S/N	01	TEST DISTANCE	-
POWER	AC 120V / 60Hz	DATE	08/09/2006
MODE	Tx Modulation 0 (Worst)	TEMPERATURE	25 deg.C.
		HUMIDITY	55 %
		ENGINEER	Kenichi Adachi

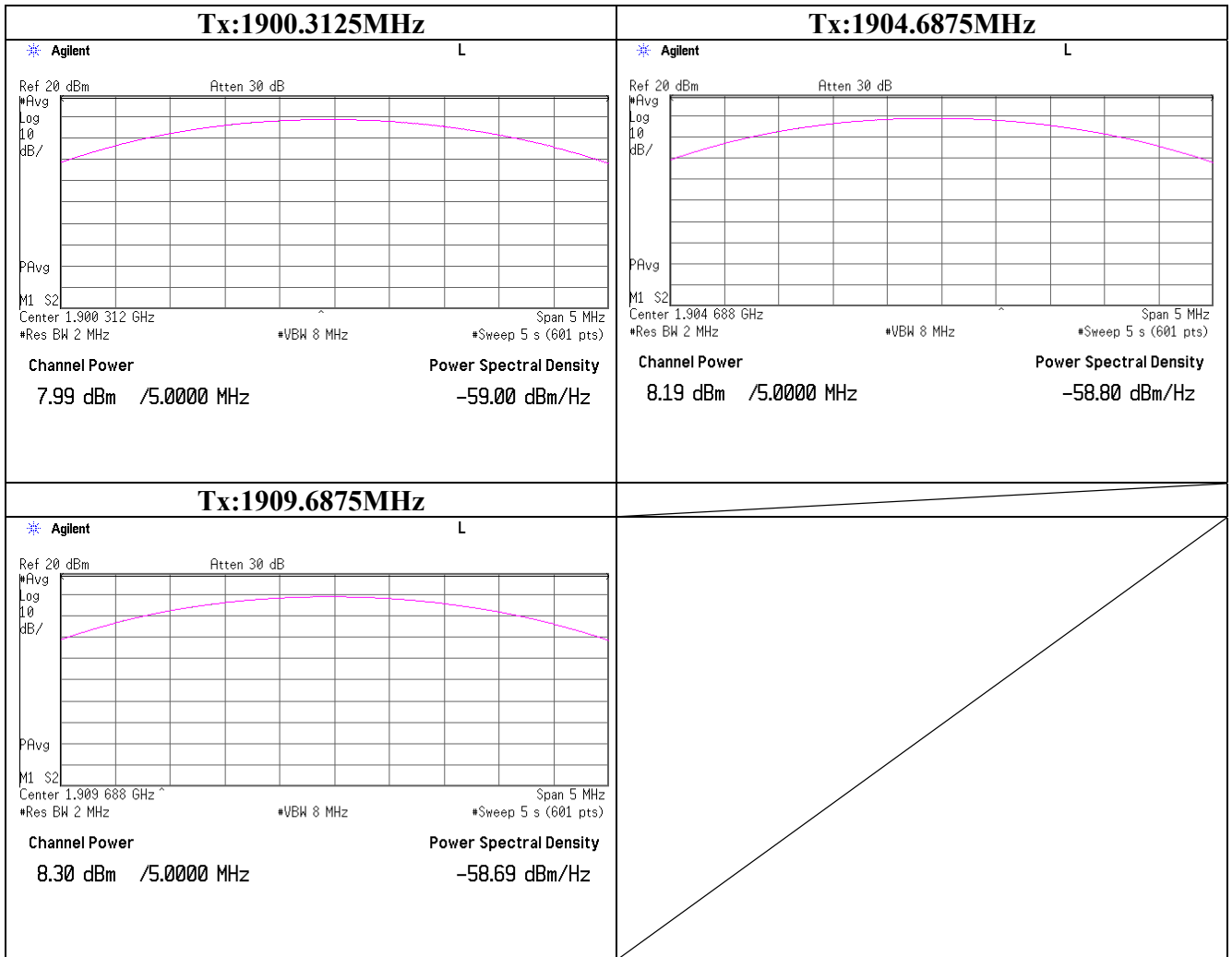
Ch	Frequency [MHz]	S/A Reading [dBm]	Atten. [dB]	Cable Loss [dB]	Duty Factor [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	1900.3125	7.99	10.09	1.85	4.95	24.88	33.00	8.12
Mid	1904.6875	8.19	10.09	1.86	4.95	25.09	33.00	7.91
High	1909.6875	8.30	10.09	1.86	4.95	25.20	33.00	7.80

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

* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

* Duty factor : (1 cycle time 5.0ms / on time 1.6ms = 3.125) : 4.95 dB

Peak Output Power (Conducted)



Peak Output Power (Radiated)

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY : KYOCERA Corporation
EQUIPMENT : iBurst User Terminal
MODEL : UTD1900D-US-B
S/ N : 01
POWER : AC 120V / 60Hz
MODE : Tx Modulation 7 (Worst)
POSITION : H: EUT:Y-axis, Ant:90deg./ V: EUT:X-axis, Ant:90deg.
Tx Antenna Height 0.8m

REPORT NO : 26KE0199-HO
REGULATION : FCC part24 (FCC 2.1053)
TEST DISTANCE : 3m
DATE : 08/07/2006
TEMPERATURE : 25 deg.C.
HUMIDITY : 62 %
ENGINEER : Kenichi Adachi

Ch.	FREQ [MHz]	S/A READING		SG READING		CABLE LOSS [dB]	ANT GAIN [dBi]	ATTEN [dB]	RESULT (EIRP)		LIMITS (EIRP) [dBm]	MARGIN	
		HOR	VER	HOR	VER				HOR	VER		HOR	VER
		[dBuV]		[dBm]					[dBm]			[dB]	
Low	1900.31	101.0	100.8	23.7	22.0	1.1	7.74	0.0	30.4	28.7	33.0	2.6	4.3
Mid	1904.69	101.6	101.3	24.3	22.5	1.1	7.73	0.0	31.0	29.2	33.0	2.0	3.8
High	1909.69	101.1	101.4	23.8	22.6	1.1	7.72	0.0	30.5	29.3	33.0	2.5	3.8

S/A RBW 3MHz , VBW 3MHz

CALCULATION:READING(SG)-LOSS(CABLE)+ANT.GAIN-ATTEN

The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

RxANTENNA:Biconical Antena(30-300MHz), Logperriodic Antenna(300-1000MHz), Horn Antenna(1-26.5GHz)

TxANTENNA:Dipole Antenna(30-1000MHz), Horn Anrenna(1-26.5GHz)

Emission Bandwidth and 99%Occupied Bandwidth

UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded room

COMPANY	KYOCERA Corporation	REPORT NO	26KE0199-HO
EQUIPMENT	iBurst User Terminal	REGULATION	FCC Part24 Section 24.238(b)
MODEL	UTD1900D-US-B	TEST METHOD	FCC Part2 Section 2.1049
S/N	01	TEST DISTANCE	-
POWER	AC 120V / 60Hz	DATE	08/11/2006
MODE	Tx	TEMPERATURE	24 deg.C.
	Modulation 0 (Worst)	HUMIDITY	55 %
		ENGINEER	Kenichi Adachi

Emission Bandwidth (-26dB Bandwidth)

PK DETECT(S/A: span 1MHz, RBW 10kHz, VBW 30kHz, sweep time 3sec)

CH	FREQ	Bandwidth	Limit
	[MHz]	[kHz]	[kHz]
Low	1900.3125	625.6	-
Mid	1904.6875	626.8	-
High	1909.6875	626.5	-

99% Occupied Bandwidth

PK DETECT(S/A: span 1MHz, RBW 10kHz, VBW 30kHz, sweep time 3sec)

CH	FREQ	Bandwidth	Limit
	[MHz]	[kHz]	[kHz]
Low	1900.3125	538.2	-
Mid	1904.6875	539.0	-
High	1909.6875	538.8	-

UL Apex Co., Ltd.

Head Office EMC Lab.

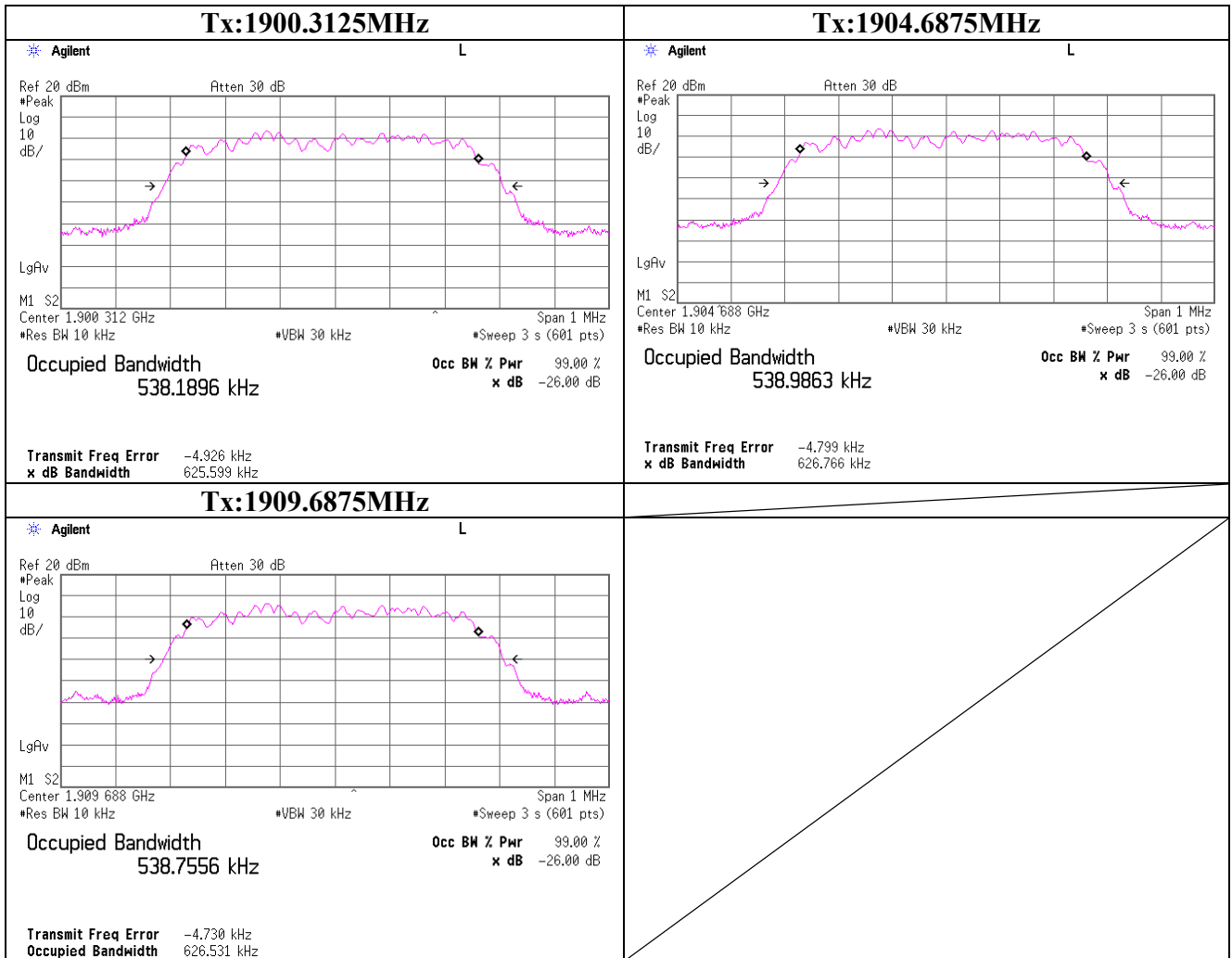
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Facsimile : +81 596 24 8124

MF060b(14.06.06)

Emission Bandwidth and 99% Occupied Bandwidth



Band Edge(Conducted)

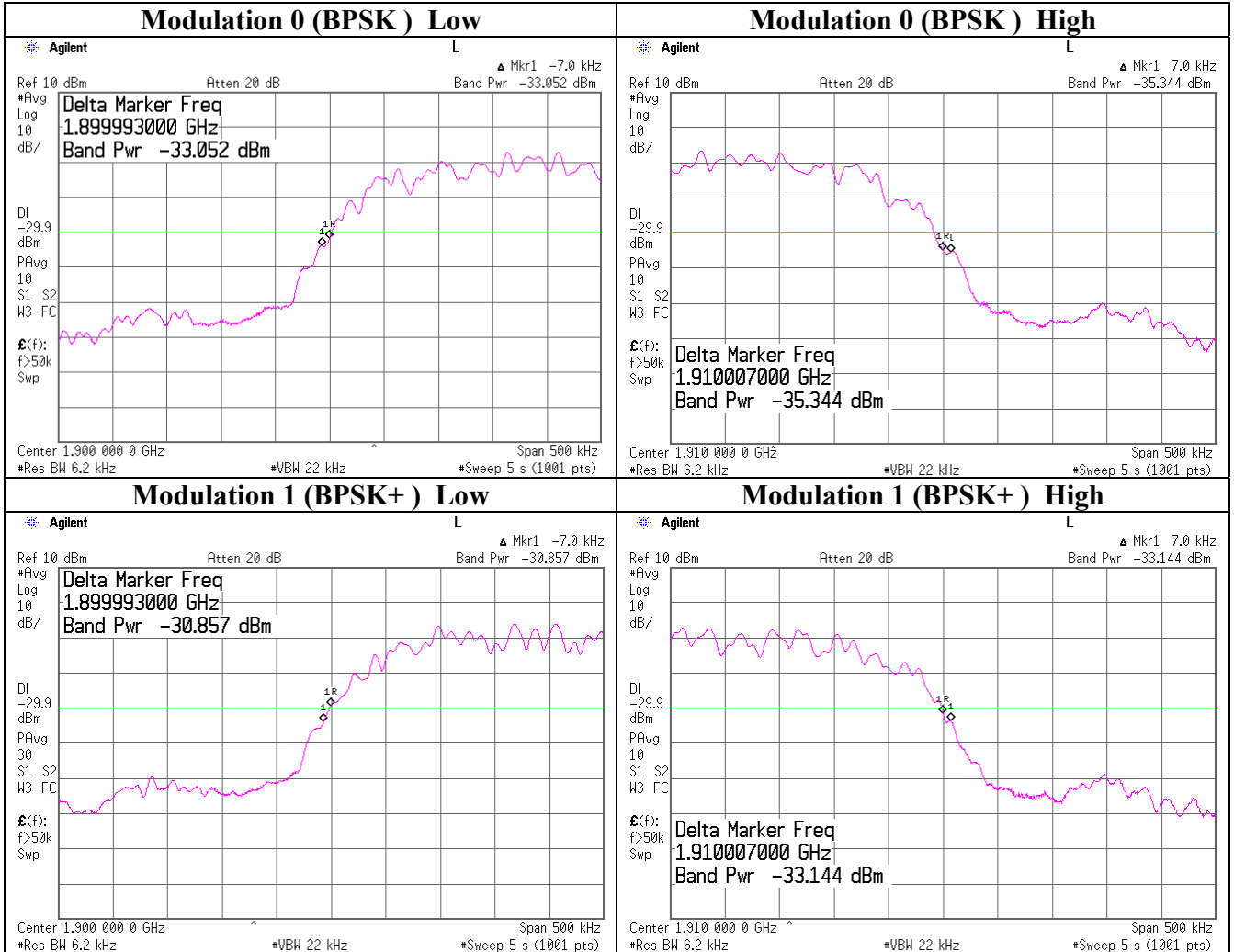
UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded room

COMPANY	KYOCERA Corporation	REPORT NO	26KE0199-HO
EQUIPMENT	iBurst User Terminal	REGULATION	FCC Part24 Section 24.238(b)
MODEL	UTD1900D-US-B	TEST METHOD	FCC Part2 Section 2.1049
S/N	01	TEST DISTANCE	-
POWER	AC 120V / 60Hz	DATE	08/11/2006
MODE	Tx (1900.3125MHz / 1909.6875MHz)	TEMPERATURE	24 deg.C.
		HUMIDITY	55 %
		ENGINEER	Kenichi Adachi

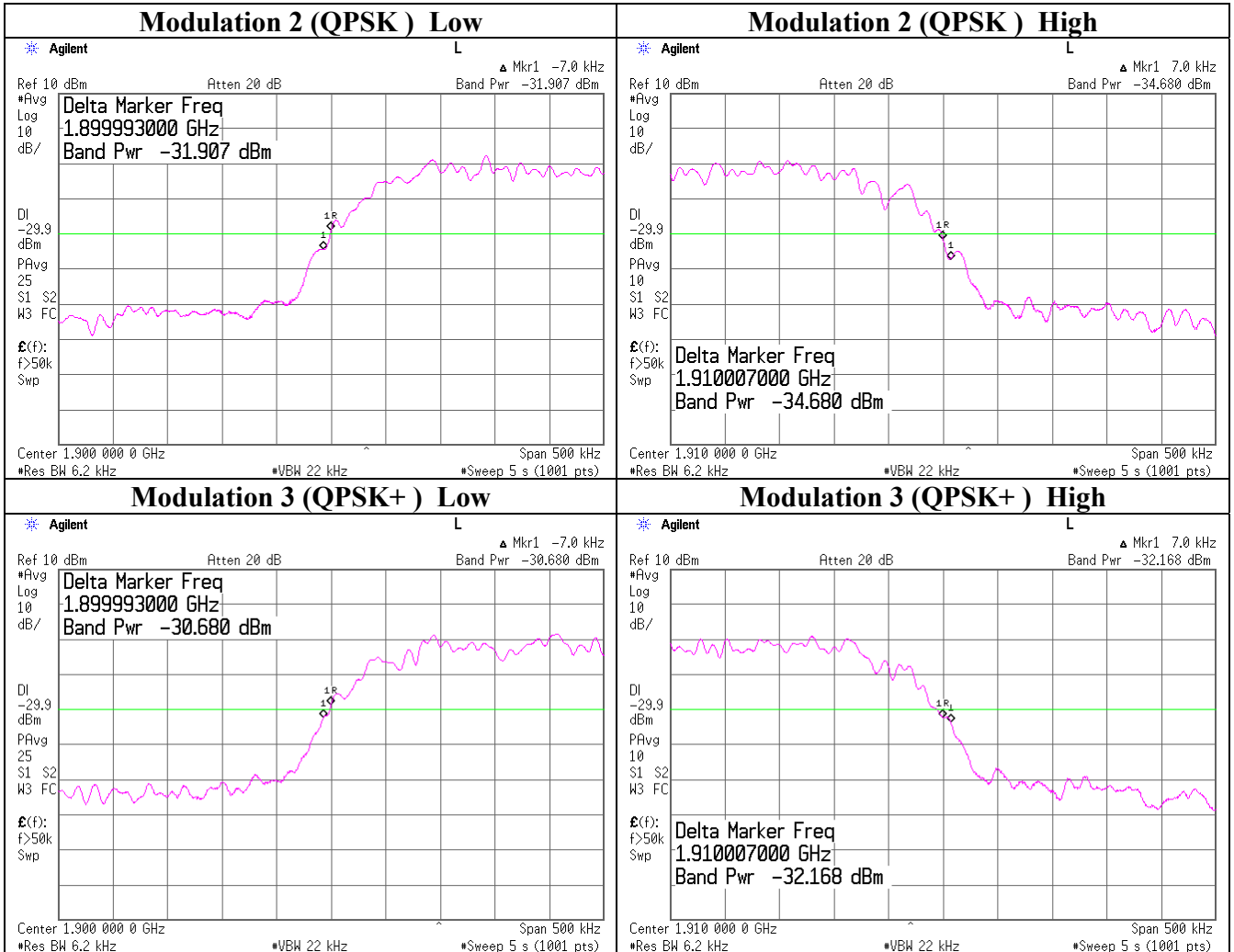
Modulation	Frequency [MHz]	S/A Reading [dBm]	Duty Rate [dB]	Atten. Loss [dB]	Cable Loss [dB]	Result [dBm]	Limit [dBm]	Margin [dB]	
0	BPSK	1900.0000	-33.05	4.95	10.09	1.85	-16.16	-13.00	3.16
		1910.0000	-35.34	4.95	10.09	1.86	-18.44	-13.00	5.44
1	BPSK+	1900.0000	-30.86	4.95	10.09	1.85	-13.97	-13.00	0.97
		1910.0000	-33.14	4.95	10.09	1.86	-16.24	-13.00	3.24
2	QPSK	1900.0000	-31.91	4.95	10.09	1.85	-15.02	-13.00	2.02
		1910.0000	-34.68	4.95	10.09	1.86	-17.78	-13.00	4.78
3	QPSK+	1900.0000	-30.68	4.95	10.09	1.85	-13.79	-13.00	0.79
		1910.0000	-32.17	4.95	10.09	1.86	-15.27	-13.00	2.27
4	8PSK	1900.0000	-33.16	4.95	10.09	1.85	-16.27	-13.00	3.27
		1910.0000	-32.31	4.95	10.09	1.86	-15.41	-13.00	2.41
5	8PSK+	1900.0000	-32.42	4.95	10.09	1.85	-15.53	-13.00	2.53
		1910.0000	-36.06	4.95	10.09	1.86	-19.16	-13.00	6.16
6	12QAM	1900.0000	-34.40	4.95	10.09	1.85	-17.51	-13.00	4.51
		1910.0000	-35.86	4.95	10.09	1.86	-18.96	-13.00	5.96
7	16QAM	1900.0000	-35.54	4.95	10.09	1.85	-18.65	-13.00	5.65
		1910.0000	-37.02	4.95	10.09	1.86	-20.12	-13.00	7.12

Sample Calculation : Result = Reading +Duty Rate + Atten. + Cable Loss
Duty Rate is on/off time of burst signal.

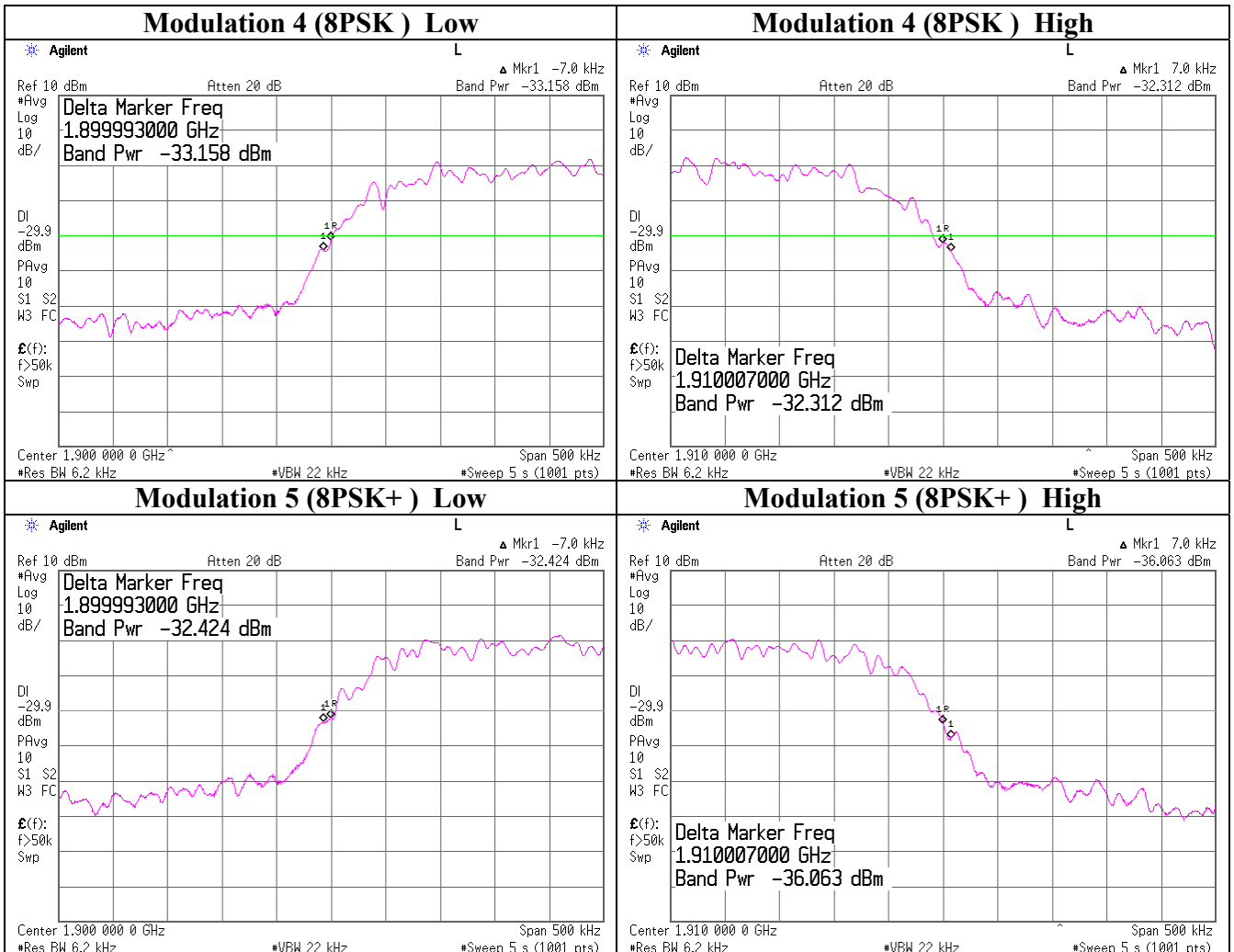
Band Edge(Conducted)



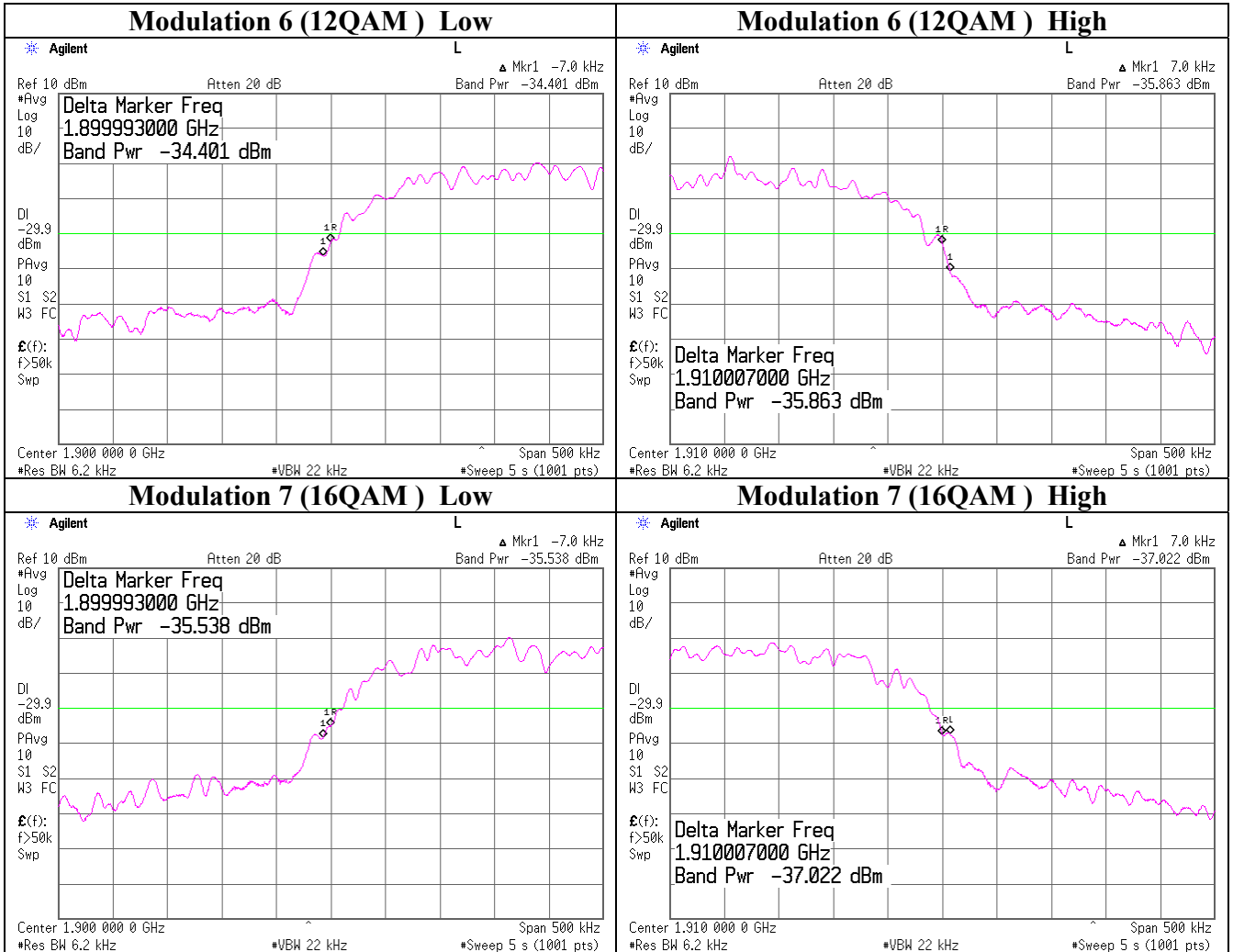
Band Edge(Conducted)



Band Edge(Conducted)



Band Edge(Conducted)



Band Edge (Radiated)

UL Apex Co., Ltd.
Head Office EMC Lab. Semi Anechoic Chamber : No3

COMPANY	KYOCERA Corporation	REPORT NO	26KE0199-HO	
EQUIPMENT	iBurst User Terminal	REGULATION	FCC part 24 Section 24.238 (b) / FCC part 2 Section 2.1049	
MODEL	UTD1900D-US-B	TEST DISTANCE	3m	
S/N	01	DATE	08/18/2006	
POWER	AC 120V / 60Hz	TEMPERATURE	25deg.C.	
MODE	Tx	HUMIDITY	62 %	
	Modulation 7 (Worst)	CALIBRATION	OK	
POSITION	H: Y-axis / V: X-axis	Ant-axis: H: 90deg / V: 90deg.	ENGINEER	Kenichi Adachi
Tx Antenna Height	0.8m			

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dB]	Tx Ant. Loss [dB]	RESULT (EIRP) [dBm]		LIMIT [dBm] (EIRP)	MARGIN [dB]		Mode	A/C	Remarks
		HOR	VER	HOR	VER				HOR	VER		HOR	VER			
1	1900.00	83.2	83.4	-24.5	-25.1	2.4	10.2	0.0	-16.7	-17.3	-13.0	3.7	4.2	Operating	No3	
2	1910.00	81.7	82.3	-26.0	-26.2	2.4	10.2	0.0	-18.2	-18.4	-13.0	5.2	5.4	Operating	No3	

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss
Rx-ANTENNA : Biconical Antenna(30-300MHz), Logperiodic Antenna(300-1000MHz), Horn Antenna(1-12.75GHz)
Tx-ANTENNA : Shorted Dipole Antenna(30-120MHz), Dipole Antenna(120-1000MHz), Horn Antenna(1-12.75GHz)
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.
Result is calculated to two places of decimals. Therefore, there may be 0.1 difference for the result.
Detector : S/A RBW 10kHz, VBW 30kHz, Sweep 5sec. , AV (10 times)

Spurious Emission (Conducted)

UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded Room

COMPANY KYOCERA Corporation
EQUIPMENT iBurst User Terminal
MODEL UTD1900D-US-B
S/N 01
POWER AC 120V / 60Hz
MODE Tx
Modulation 0 (Worst)

REPORT NO 26KE0199-HO
REGULATION Fcc Part 24 Section 24.238(a)
TEST METHOD Fcc Part 2 Section 2.1051
TEST DISTANCE -
DATE 08/11/2006
TEMPERATURE 24 deg.C.
HUMIDITY 55 %
ENGINEER Kenichi Adachi

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

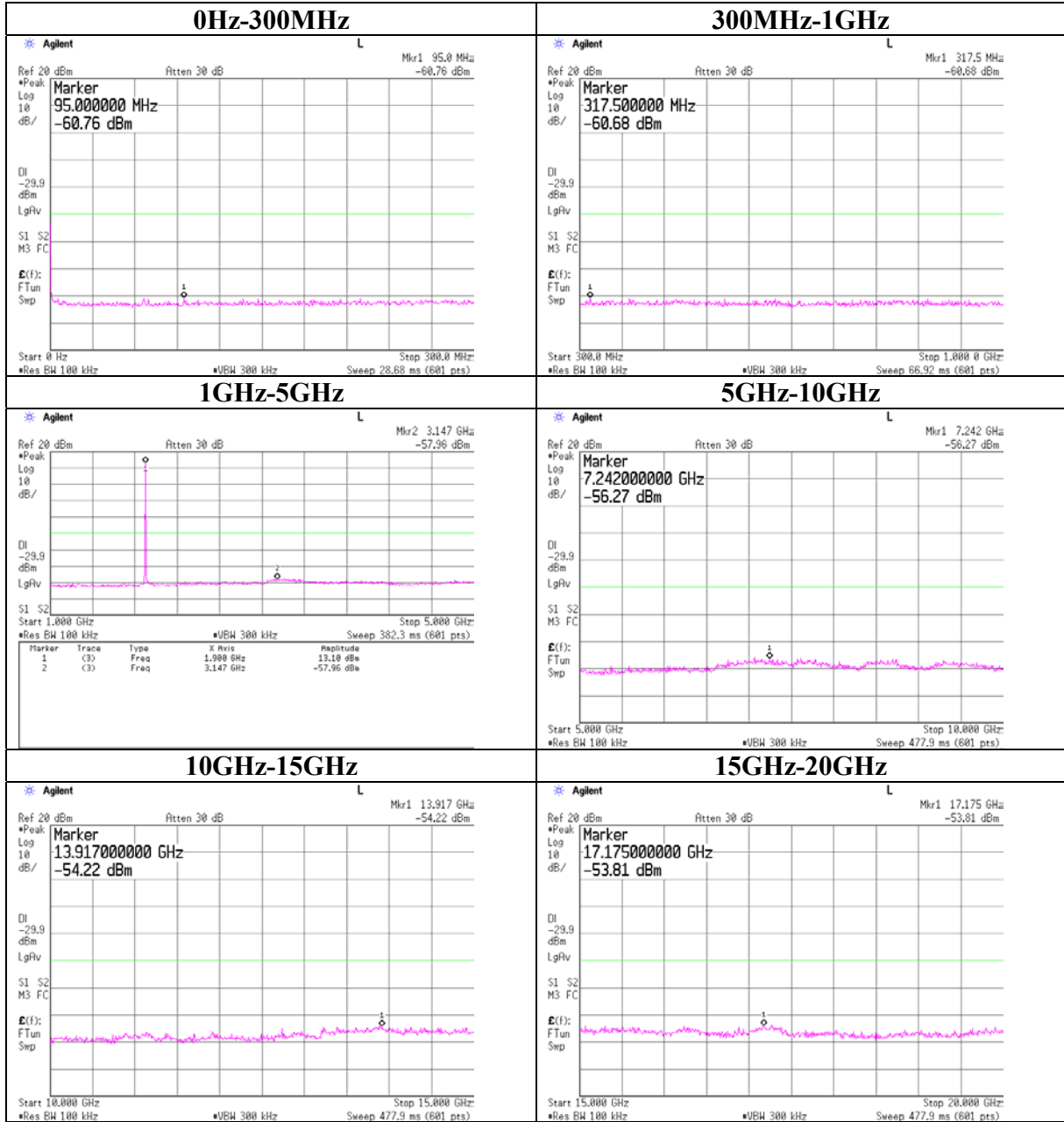
Limit Line

Limit [dBm]	Atten. [dB]	Cable Loss [dB]	Limit Line [dBm]
-13.00	10.09	1.85	-24.94

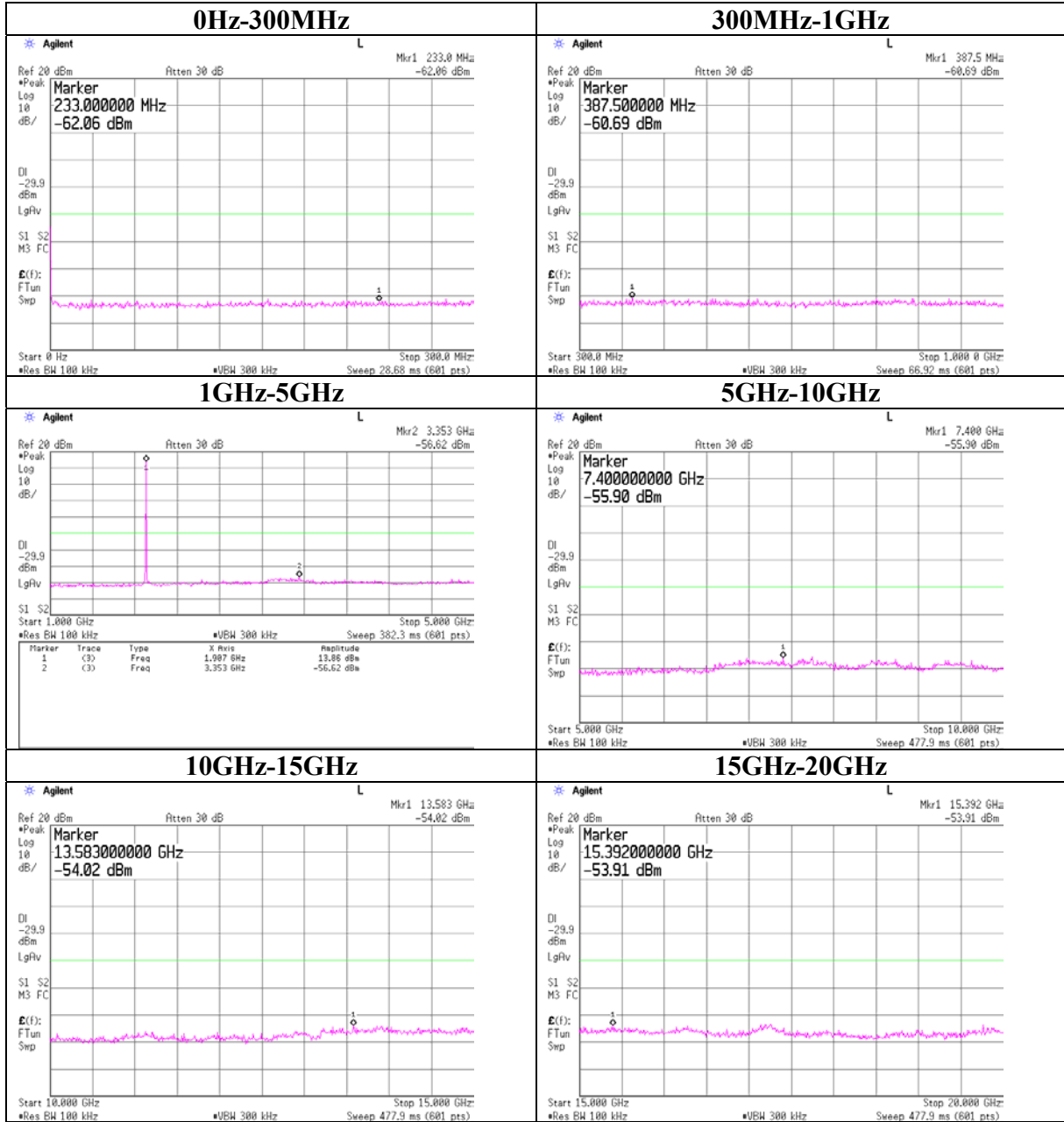
Sample Calculation : Limit Line = Limit - Atten. - Cable Loss

Result OK

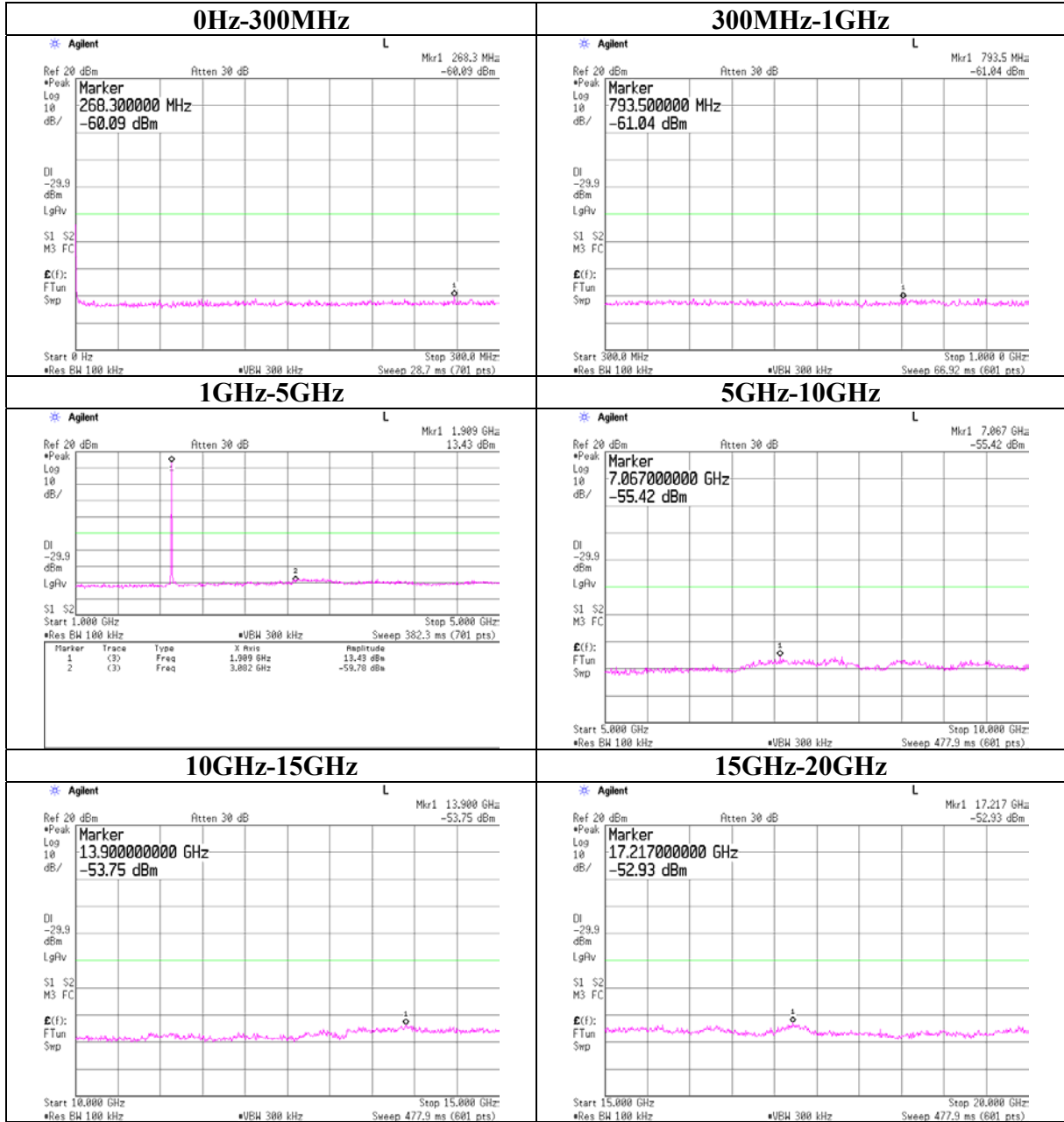
Spurious Emission (Conducted)
Tx:1900.3125MHz



Spurious Emission (Conducted)
Tx:1904.6875MHz



Spurious Emission (Conducted)
Tx:1909.6875MHz



Spurious Radiation

Head Office EMC Lab. Semi Anechoic Chamber : No3

COMPANY	KYOCERA Corporation	REPORT NO	26KE0199-HO
EQUIPMENT	iBurst User Terminal	REGULATION	FCC part 24 Section 24.238 (a) / FCC part 2 Section 2.1053
MODEL	UTD1900D-US-B	TEST DISTANCE	3m (below10GHz)/ 1m (above10GHz) / 0.5m (above 26.5GHz)
S/N	01	DATE	08/17/2006 08/18/2006
POWER	AC 120V / 60Hz	TEMPERATURE	26 deg.C. 25deg.C.
MODE	Tx 1900.3125 MHz	HUMIDITY	60% 62%
	Modulation 7 (Worst)	CALIBRATION	OK
POSITION	H: Y-axis / V: X-axis Ant-axis: H: 90deg. / V: 90deg.	ENGINEER	Kenichi Adachi
Tx Antenna Height	0.8m		

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 (EIRP) [dBm]	MARGIN [dB]		Mode	A/C	Remarks
		HOR	VER	HOR	VER				HOR	VER		HOR	VER			
		1	69.70	33.2	50.1				-40.1	-26.0		0.5	-11.3			
2	118.00	36.4	49.0	-52.2	-39.0	0.6	1.8	10.0	-61.0	-47.8	-13.0	48.0	34.8	Operating	No3	
3	274.98	41.6	41.7	-49.9	-42.6	0.9	2.2	9.9	-58.5	-51.2	-13.0	45.5	38.2	Operating	No3	
4	324.98	42.0	39.4	-49.7	-47.6	1.0	2.2	9.7	-58.2	-56.1	-13.0	45.2	43.1	Operating	No3	
5	575.80	42.9	42.0	-48.9	-47.9	1.4	2.2	10.1	-58.2	-57.2	-13.0	45.2	44.2	Operating	No3	
6	647.98	42.1	43.1	-48.8	-45.1	1.4	2.2	10.1	-58.1	-54.4	-13.0	45.1	41.4	Operating	No3	
7	1697.83	62.9	62.0	-43.0	-45.0	2.2	9.3	0.0	-35.9	-37.9	-13.0	22.9	24.9	Operating	No3	
8	3800.56	66.6	59.4	-42.2	-49.1	3.6	11.9	0.0	-33.9	-40.8	-13.0	20.9	27.8	Operating	No3	
9	5700.83	69.7	63.7	-38.1	-45.2	4.9	13.0	0.0	-30.0	-37.1	-13.0	17.0	24.1	Operating	No3	
10	7601.16	68.3	68.5	-34.9	-35.2	6.0	11.3	0.0	-29.6	-29.9	-13.0	16.6	16.9	Operating	No3	
11	9501.47	64.1	66.2	-36.4	-37.1	6.5	11.2	0.0	-31.7	-32.4	-13.0	18.7	19.4	Operating	No3	
12	11401.875	63.6	65.6	-45.7	-42.9	7.4	12.1	0.0	-41.0	-38.2	-13.0	28.0	25.2	Operating	No3	
13	13302.188	83.9	83.0	-25.7	-27.3	8.8	12.6	0.0	-21.9	-23.5	-13.0	8.9	10.5	Operating	No3	
14	15202.500	68.3	66.9	-43.4	-40.1	8.4	15.2	0.0	-36.6	-33.3	-13.0	23.6	20.3	Operating	No3	
15	17102.813	76.1	73.3	-32.5	-28.9	9.3	14.3	0.0	-27.5	-23.9	-13.0	14.5	10.9	Operating	No3	
16	19003.125	71.3	68.2	-31.1	-32.9	12.5	16.6	0.0	-27.0	-28.8	-13.0	14.0	15.8	Operating	No3	

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss
Rx-ANTENNA : Biconical Antenna(30-300MHz), Logperriodic Antenna(300-1000MHz), Horn Antenna(1-12.75GHz)
Tx-ANTENNA : Shorted Dipole Antenna(30-120MHz), Dipole Antenna(120-1000MHz), Horn Antenna(1-12.75GHz)
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.
Result is calculated to two places of decimals. Therefore, there may be 0.1 difference for the result.
Detector : S/A PK(RBW/VBW:1MHz)

Spurious Radiation

UL Apex Co., Ltd.
Head Office EMC Lab. Semi Anechoic Chamber : No3

COMPANY	KYOCERA Corporation	REPORT NO	26KE0199-HO
EQUIPMENT	iBurst User Terminal	REGULATION	FCC part 24 Section 24.238 (a) / FCC part 2 Section 2.1053
MODEL	UTD1900D-US-B	TEST DISTANCE	3m (below10GHz) / 1m (above10GHz) / 0.5m (above 26.5GHz)
S/N	01	DATE	08/17/2006 08/18/2006
POWER	AC 120V / 60Hz	TEMPERATURE	26 deg.C. 25deg.C.
MODE	Tx 1904.6875 MHz	HUMIDITY	60% 62 %
	Modulation 7 (Worst)	CALIBRATION	OK
POSITION	H: Y-axis / V: X-axis Ant-axis: H: 90deg. / V: 90deg.	ENGINEER	Kenichi Adachi
Tx Antenna Height	0.8m		

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 (EIRP) [dBm]	MARGIN [dB]		Mode	A/C	Remarks
		HOR	VER	HOR	VER				HOR	VER		HOR	VER			
		1	70.38	33.3	50.1				-40.3	-26.2		0.5	-11.1			
2	117.98	36.2	49.2	-52.3	-38.7	0.6	1.7	10.0	-61.2	-47.6	-13.0	48.2	34.6	Operating	No3	
3	274.98	41.7	41.5	-49.8	-42.8	0.9	2.2	9.9	-58.4	-51.4	-13.0	45.4	38.4	Operating	No3	
4	324.98	41.7	39.2	-50.0	-47.8	1.0	2.2	9.7	-58.5	-56.3	-13.0	45.5	43.3	Operating	No3	
5	575.90	43.0	42.2	-48.8	-47.7	1.4	2.2	10.1	-58.1	-57.0	-13.0	45.1	44.0	Operating	No3	
6	647.98	41.9	43.2	-49.0	-45.0	1.4	2.2	10.1	-58.3	-54.3	-13.0	45.3	41.3	Operating	No3	
7	1702.22	63.1	62.5	-42.9	-44.5	2.2	9.3	0.0	-35.8	-37.4	-13.0	22.8	24.4	Operating	No3	
8	3809.38	68.0	64.7	-40.9	-43.9	3.6	12.0	0.0	-32.5	-35.5	-13.0	19.5	22.5	Operating	No3	
9	5714.06	70.9	65.6	-36.9	-43.3	4.9	13.0	0.0	-28.8	-35.2	-13.0	15.8	22.2	Operating	No3	
10	7618.75	68.2	68.5	-35.0	-35.2	6.0	11.3	0.0	-29.7	-29.9	-13.0	16.7	16.9	Operating	No3	
11	9523.44	66.0	66.5	-34.5	-36.8	6.5	11.2	0.0	-29.8	-32.1	-13.0	16.8	19.1	Operating	No3	
12	11428.13	63.3	65.4	-46.1	-43.2	7.4	12.2	0.0	-41.3	-38.4	-13.0	28.3	25.4	Operating	No3	
13	13332.81	82.5	82.4	-27.4	-28.1	8.7	12.5	0.0	-23.6	-24.3	-13.0	10.6	11.3	Operating	No3	
14	15237.50	68.1	66.2	-43.3	-40.6	8.4	15.3	0.0	-36.4	-33.7	-13.0	23.4	20.7	Operating	No3	
15	17142.19	75.9	73.0	-32.9	-29.3	9.3	14.1	0.0	-28.1	-24.5	-13.0	15.1	11.5	Operating	No3	
16	19046.88	71.5	68.4	-30.9	-32.7	12.5	16.6	0.0	-26.8	-28.6	-13.0	13.8	15.6	Operating	No3	

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss
Rx-ANTENNA : Biconical Antenna(30-300MHz), Logperriodic Antenna(300-1000MHz), Horn Antenna(1-12.75GHz)
Tx-ANTENNA : Shorted Dipole Antenna(30-120MHz), Dipole Antenna(120-1000MHz), Horn Antenna(1-12.75GHz)
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.
Result is calculated to two places of decimals. Therefore, there may be 0.1 difference for the result.
Detector : S/A PK(RBW/VBW:1MHz)

Spurious Radiation

UL Apex Co., Ltd.
Head Office EMC Lab. Semi Anechoic Chamber : No3

COMPANY	KYOCERA Corporation	REPORT NO	26KE0199-HO
EQUIPMENT	iBurst User Terminal	REGULATION	FCC part 24 Section 24.238 (a) / FCC part 2 Section 2.1053
MODEL	UTD1900D-US-B	TEST DISTANCE	3m (below10GHz) / 1m (above10GHz) / 0.5m (above 26.5GHz)
S/N	01	DATE	08/17/2006 08/18/2006
POWER	AC 120V / 60Hz	TEMPERATURE	26 deg.C. 25deg.C.
MODE	Tx 1909.6875 MHz	HUMIDITY	60% 62 %
	Modulation 7 (Worst)	CALIBRATION	OK
POSITION	H: Y-axis / V: X-axis Ant-axis: H: 90deg. / V: 90deg.	ENGINEER	Kenichi Adachi
Tx Antenna Height	0.8m		

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	70.20	32.9	50.0				-40.6	-26.2		0.5	-11.2			
2	117.98	36.3	49.0	-52.2	-38.9	0.6	1.7	10.0	-61.1	-47.8	-13.0	48.1	34.8	Operating	No3	
3	274.98	41.5	41.4	-50.0	-42.9	0.9	2.2	9.9	-58.6	-51.5	-13.0	45.6	38.5	Operating	No3	
4	324.98	41.5	39.1	-50.2	-47.9	1.0	2.2	9.7	-58.7	-56.4	-13.0	45.7	43.4	Operating	No3	
5	575.91	43.1	41.9	-48.7	-48.0	1.4	2.2	10.1	-58.0	-57.3	-13.0	45.0	44.3	Operating	No3	
6	647.99	42.1	42.5	-48.8	-45.7	1.4	2.2	10.1	-58.1	-55.0	-13.0	45.1	42.0	Operating	No3	
7	1707.28	64.8	62.1	-41.3	-45.0	2.2	9.4	0.0	-34.1	-37.8	-13.0	21.1	24.8	Operating	No3	
8	3819.38	67.8	63.4	-41.1	-45.2	3.6	12.0	0.0	-32.7	-36.8	-13.0	19.7	23.8	Operating	No3	
9	5729.06	70.0	65.3	-37.7	-43.5	5.0	13.0	0.0	-29.7	-35.5	-13.0	16.7	22.5	Operating	No3	
10	7638.75	69.9	71.1	-33.3	-32.6	6.0	11.3	0.0	-28.0	-27.3	-13.0	15.0	14.3	Operating	No3	
11	9548.44	65.8	67.9	-34.7	-35.4	6.5	11.2	0.0	-30.0	-30.7	-13.0	17.0	17.7	Operating	No3	
12	11458.13	63.7	65.9	-45.7	-42.8	7.4	12.2	0.0	-40.9	-38.0	-13.0	27.9	25.0	Operating	No3	
13	13367.81	83.2	82.9	-26.8	-27.6	8.7	12.3	0.0	-23.2	-24.0	-13.0	10.2	11.0	Operating	No3	
14	15277.50	68.1	66.3	-43.1	-40.4	8.3	15.5	0.0	-35.9	-33.2	-13.0	22.9	20.2	Operating	No3	
15	17187.19	76.5	73.9	-32.5	-28.5	9.3	13.8	0.0	-28.0	-24.0	-13.0	15.0	11.0	Operating	No3	
16	19096.88	71.8	68.4	-30.6	-32.6	12.5	16.6	0.0	-26.5	-28.5	-13.0	13.5	15.5	Operating	No3	

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss
Rx-ANTENNA : Biconical Antenna(30-300MHz), Logperriodic Antenna(300-1000MHz), Horn Antenna(1-12.75GHz)
Tx-ANTENNA : Shorted Dipole Antenna(30-120MHz), Dipole Antenna(120-1000MHz), Horn Antenna(1-12.75GHz)
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.
Result is calculated to two places of decimals. Therefore, there may be 0.1 difference for the result.
Detector : S/A PK(RBW/VBW:1MHz)

Frequency Stability(Temperature/Voltage Variation)

UL Apex Co., Ltd.
Head Office EMC Lab. Shielded Room : No.7

COMPANY KYOCERA Corporation
EQUIPMENT iBurst User Terminal
MODEL UTD1900D-US-B
S/N 01
POWER AC 120 V / 60Hz
MODE Tx 1904.6875 MHz
Modulation 7

REPORT NO 26KE0199-HO
REGULATION FCC Part24 Section 24.235
TEST METHOD FCC Part2 Section 2.1055(a)(1) and(b)
FCC Part2 Section 2.1055(d)(1) and(2)
TEST DISTANCE -
DATE 08/08/2006
TEMPERATURE 26 deg.C.
HUMIDITY 47 %
ENGINEER Kenichi Adachi

Temp. [deg.C]	Volt. [V]	Carrier Frequency [MHz]	Frequency Deviation [Hz]	Frequency Deviation [ppm]	Limit (+/- 1 ppm) [kHz]
-30.0	120.0	1904.687500	+/-100 *	0.05	+/- 1.905
-20.0	120.0	1904.687500	+/- 100 *	0.05	+/- 1.905
-10.0	120.0	1904.687500	+/- 100 *	0.05	+/- 1.905
0.0	120.0	1904.687500	+/- 100 *	0.05	+/- 1.905
10.0	120.0	1904.687500	+/- 100 *	0.05	+/- 1.905
20.0	120.0	1904.687500	+/- 100 *	0.05	+/- 1.905
30.0	120.0	1904.687500	+/- 100 *	0.05	+/- 1.905
40.0	120.0	1904.687500	+/- 100 *	0.05	+/- 1.905
50.0	120.0	1904.687500	+/- 100 *	0.05	+/- 1.905

Temp. [deg.C]	Volt. [V]	Frequency Reading [MHz]	Frequency Deviation [Hz]	Frequency Deviation [ppm]	Limit (+/- 1 ppm) [kHz]
20.0	102.00	1904.687500	+/- 100 *	0.05	+/- 1.905
20.0	120.00	1904.687500	+/- 100 *	0.05	+/- 1.905
20.0	138.00	1904.687500	+/- 100 *	0.05	+/- 1.905

* The frequency deviation was less than 100Hz

APPENDIX 3: Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2006/04/10 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	RE	2006/06/02 * 12
MCC-25	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2005/08/30 * 12
MPA-10	Pre Amplifier	Agilent	8449B	RE	2005/09/07 * 12
MAT-22	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	RE / AT	2006/03/18 * 12
MAT-25	Attenuator(10dB)(above1GHz)	Agilent	8493C	RE	2006/06/02 * 12
MHF-05	High Pass Filter 3.5-24GHz	Tokimec	TF323DCA	RE	2006/01/24 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2005/08/30 * 12
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2006/01/09 * 12
MHA-02	Horn Antenna	EMCO	3160-09	RE	2006/01/09 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	RE	2004/11/25 * 24
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE	-
MSTW-19	Substitution measurement form	UL Apex	-	RE	-
MSA-07	Spectrum Analyzer	Advantest	R3272	RE	2005/11/22 * 12
MHF-07	High Pass Filter 3.5-24GHz	Tokimec	TF323DCA	RE	2006/05/20 * 12
MCH-01	Temperature and Humidity Chamber	Tabai Spec	PL-2KP	AT	2005/12/19 * 12
MBTR08	Rubidium Frequency Standard 10MHz	Datum	8040	AT	2006/01/20 * 12
MCC-05	Microwave Cable 1G-40GHz 2m	Storm	421-011 (90-1394-079)	AT	2006/01/04 * 12
MCC-26	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	AT	2005/08/30 * 12
MOS-04	Digital Humidity Indicator	N.T	NT-1800	AT	2004/11/25 * 24
MSA-03	Spectrum Analyzer	Agilent	E4448A	AT	2005/09/16 * 12
MCC-22	Microwave Cable 1G-40GHz	Storm	421-011 (90-011-080)	AT	2006/05/12 * 12
MAEC-03	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2006/03/03 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	RE	2006/06/02 * 12
MCC-51	Coaxial cable	UL Apex	-	RE	2006/03/11 * 12
MPA-13	Pre Amplifier	SONOA INSTRUMENT	310	RE	2006/03/25 * 12
MAT-30	Attenuator(6dB)	TME	UFA-01	RE	2006/03/11 * 12
MBA-03	Biconical Antenna	Schwarzbeck	BBA9106	RE	2006/01/29 * 12
MLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2006/01/29 * 12
MOS-12	Thermo-Hygrometer	Custom	CTH-180	RE	2006/01/19 * 24
MCC-56	Microwave Cable	Suhner	SUCOFLEX104	RE	2006/04/15 * 12
MPA-11	MicroWave System Amplifier	Agilent	83017A	RE	2006/03/27 * 12
MHA-05	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2006/01/09 * 12
MHA-01	Horn Antenna 18-26.5G	EMCO	3160-09	RE	2006/01/09 * 12

All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

Test Item: RE: Radiated emission,
AT: Antenna terminal measurements

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Head Office EMC Lab.

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MF060b(14.06.06)