APPENDIX 3: EMI test data for WT30-M01-FLK (Serial master)

Conducted Emission

(Tx, Low, Magnet-base Antenna)

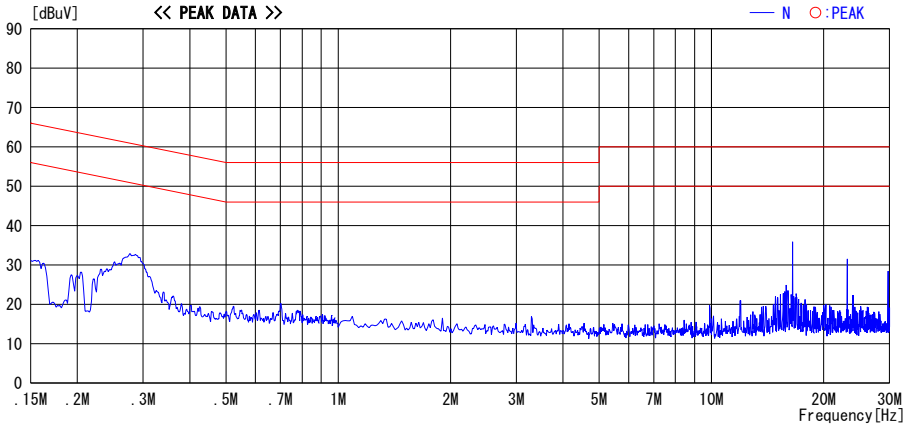
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals	Power	: DC 24V
Model No.	: WT30-M01-FLK (Serial master)	Temp./Humi.	: 25deg.C / 30%
Serial No.	: M01-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:L 2402.2MHz, ANT1, Magnet-base Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



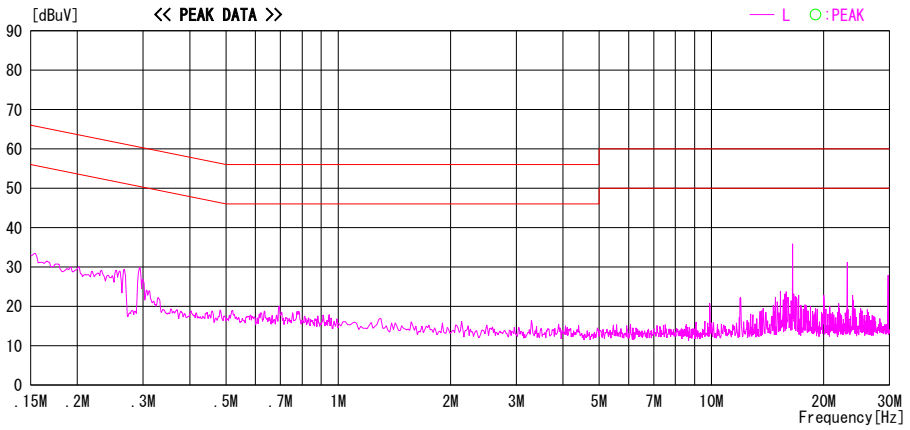


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Mid, Magnet-base Antenna)

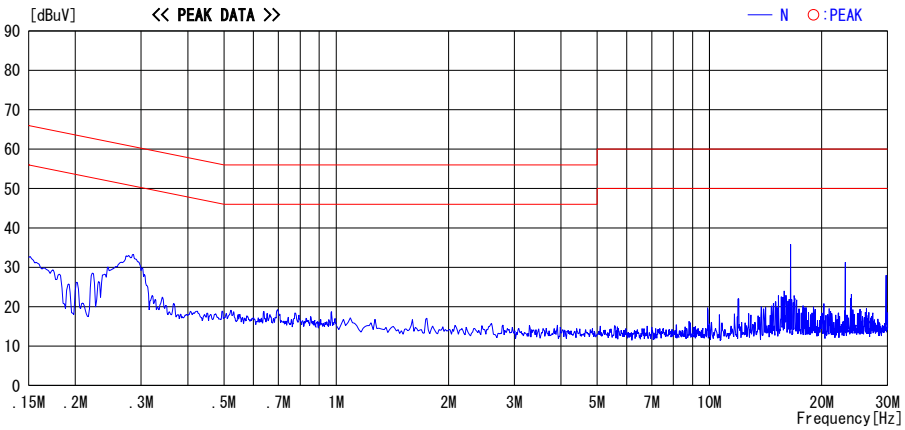
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals	Power	: DC 24V
Model No.	: WT30-M01-FLK (Serial master)	Temp./Humi.	: 25deg.C / 30%
Serial No.	: M01-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:M 2441.8MHz, ANT1, Magnet-base Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



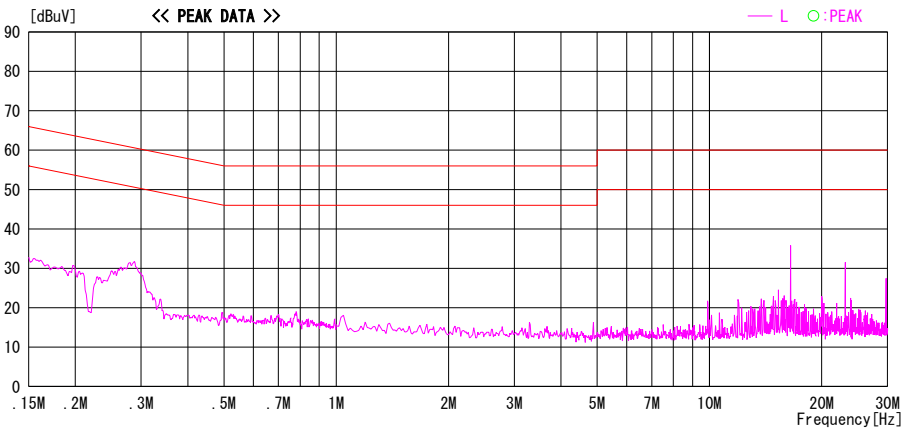


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Mid, Magnet-base Antenna)

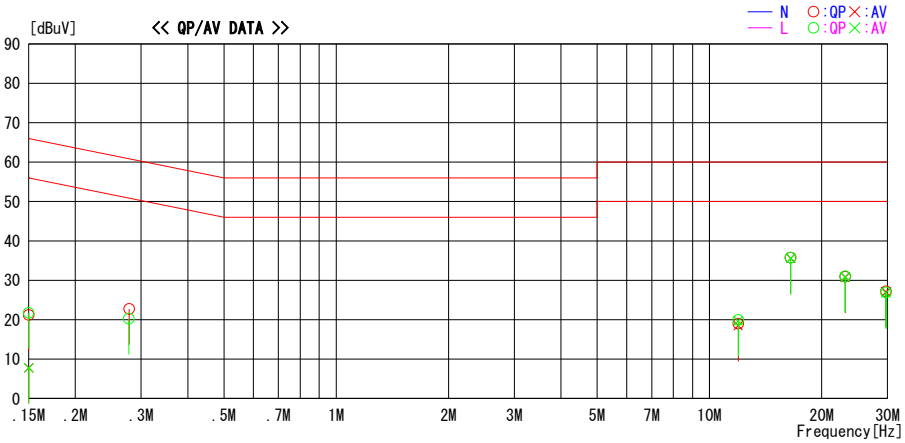
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals
Model No. : WT30-M01-FLK (Serial master)
Serial No. : M01-4
Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 25deg.C / 30%
Operator : Kenichi Adachi

Mode / Remarks : Tx mode, ch:M 2441.8MHz, ANT1, Magnet-base Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase
	QP	AV	Factor	QP	AV	QP	AV	QP	AV	
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]	
0.15000	20.9	7.5	0.3	21.2	7.8	66.0	56.0	44.8	48.2	N
0.27860	22.5	----	0.3	22.8	----	60.9	----	38.1	----	N
11.94945	17.4	16.9	1.6	19.0	18.5	60.0	50.0	41.0	31.5	N
16.50000	33.8	33.7	1.9	35.7	35.6	60.0	50.0	24.3	14.4	N
23.10004	28.6	28.5	2.3	30.9	30.8	60.0	50.0	29.1	19.2	N
29.69987	24.7	24.6	2.5	27.2	27.1	60.0	50.0	32.8	22.9	N
0.15000	21.4	7.5	0.3	21.7	7.8	66.0	56.0	44.3	48.2	L
0.27802	20.0	----	0.3	20.3	----	60.9	----	40.6	----	L
11.94945	18.3	18.1	1.6	19.9	19.7	60.0	50.0	40.1	30.3	L
16.50000	33.8	33.7	1.9	35.7	35.6	60.0	50.0	24.3	14.4	L
23.10004	28.7	28.6	2.3	31.0	30.9	60.0	50.0	29.0	19.1	L
29.69987	24.4	24.3	2.5	26.9	26.8	60.0	50.0	33.1	23.2	L

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, High, Magnet-base Antenna)

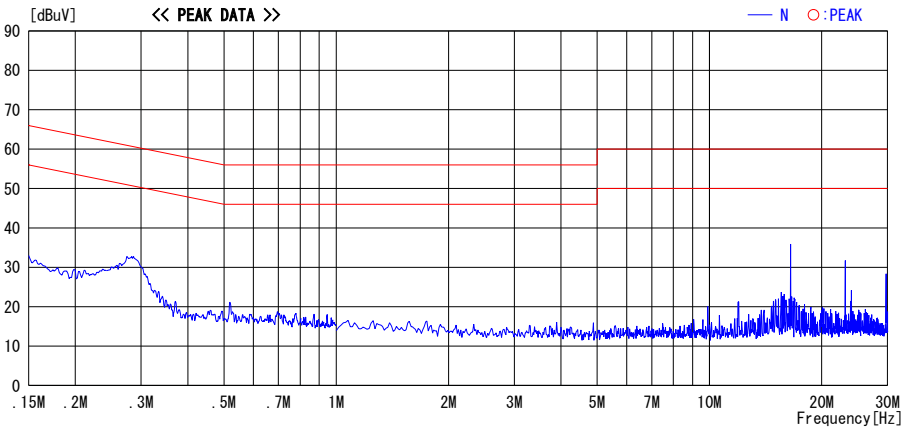
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals	Power	: DC 24V
Model No.	: WT30-M01-FLK (Serial master)	Temp./Humi.	: 25deg.C / 30%
Serial No.	: M01-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:H 2480.2MHz, ANT1, Magnet-base Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



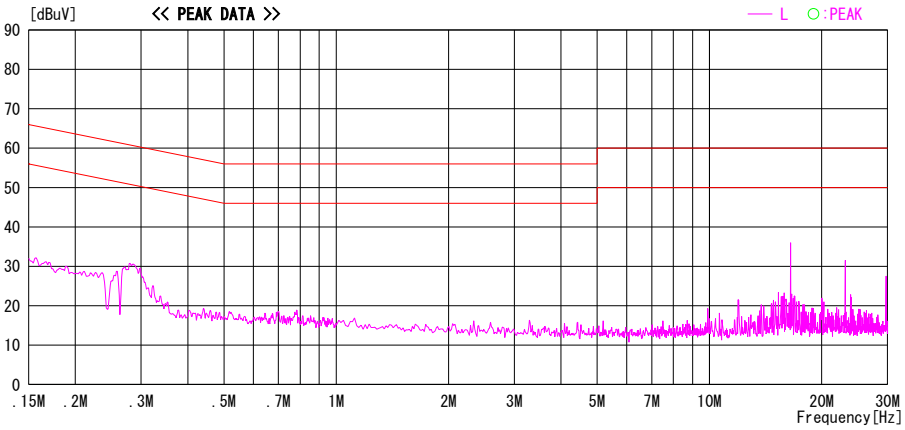


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Rx, Mid, Magnet-base Antenna)

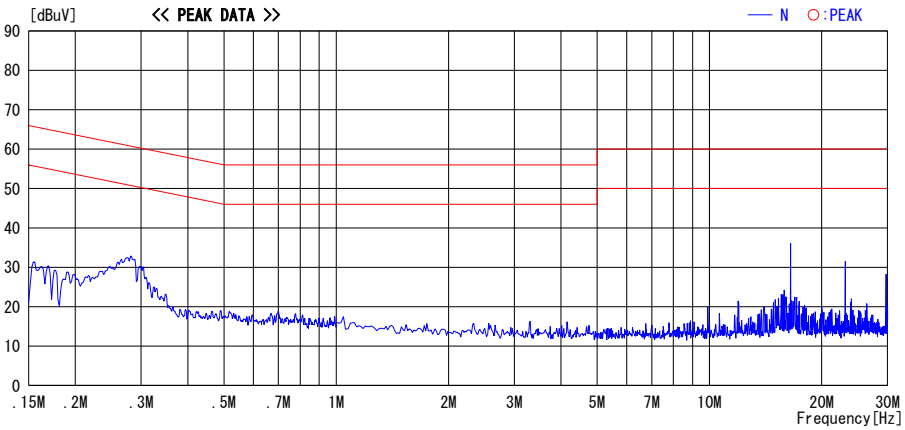
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals	Power	: DC 24V
Model No.	: WT30-M01-FLK (Serial master)	Temp./Humi.	: 25deg.C / 30%
Serial No.	: M01-4	Operator	: Kenichi Adachi

Mode / Remarks : Rx mode, ch:M 2441.8MHz, ANT1, Magnet-base Antenna

LIMIT : FCC15.107(a) QP
FCC15.107(a) AV



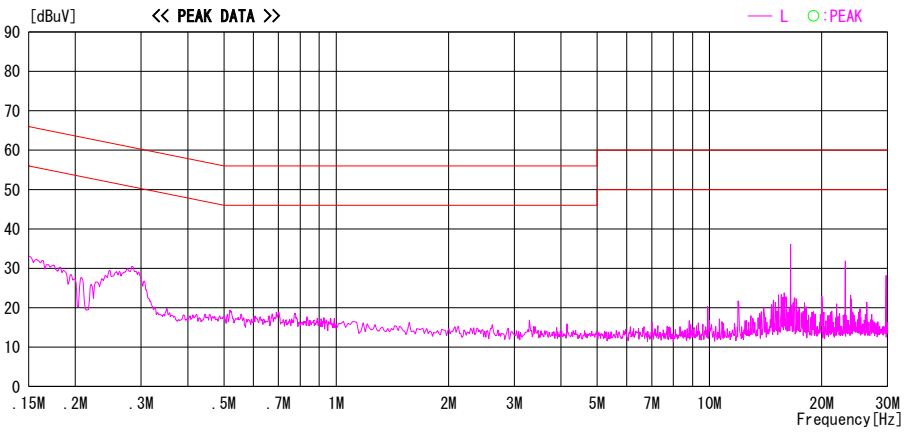


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Low, Flat Diversity Antenna)

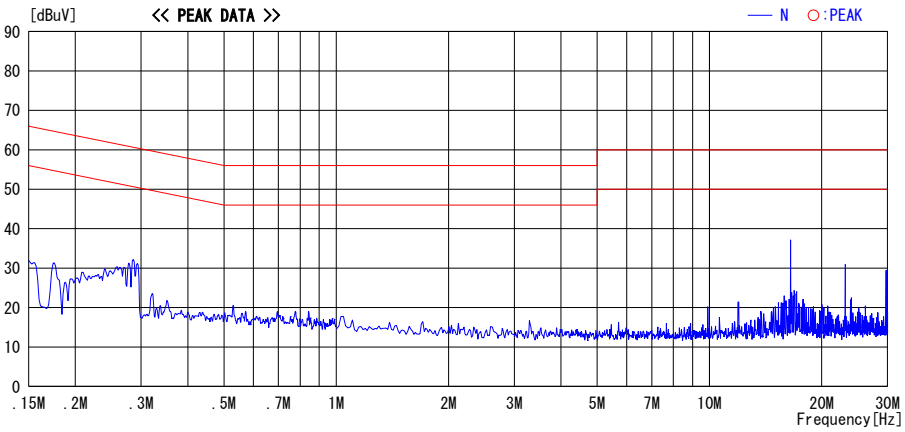
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals	Power	: DC 24V
Model No.	: WT30-M01-FLK (Serial master)	Temp./Humi.	: 25deg.C / 30%
Serial No.	: M01-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:L 2402.2MHz, ANT1, Flat Diversity Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



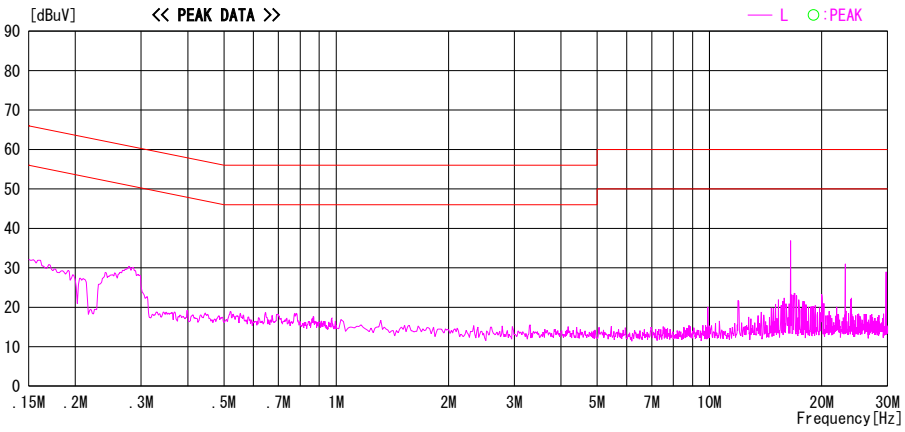


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Mid, Flat Diversity Antenna)

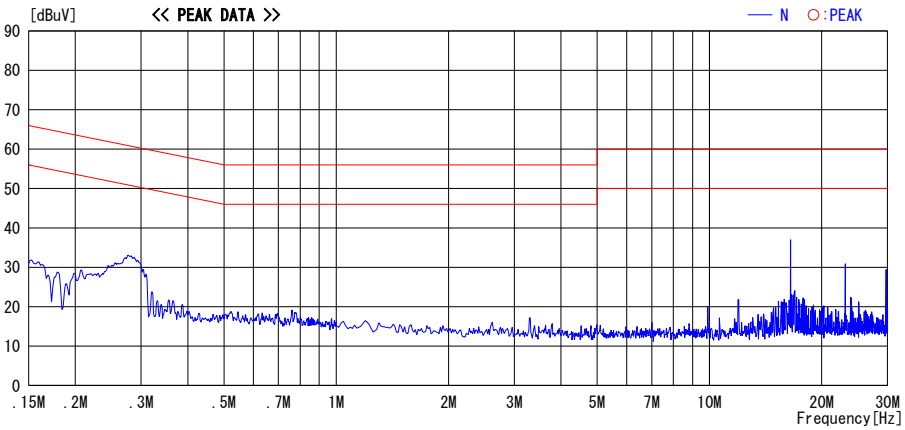
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals	Power	: DC 24V
Model No.	: WT30-M01-FLK (Serial master)	Temp./Humi.	: 25deg.C / 30%
Serial No.	: M01-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:M 2441.8MHz, ANT1, Flat Diversity Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



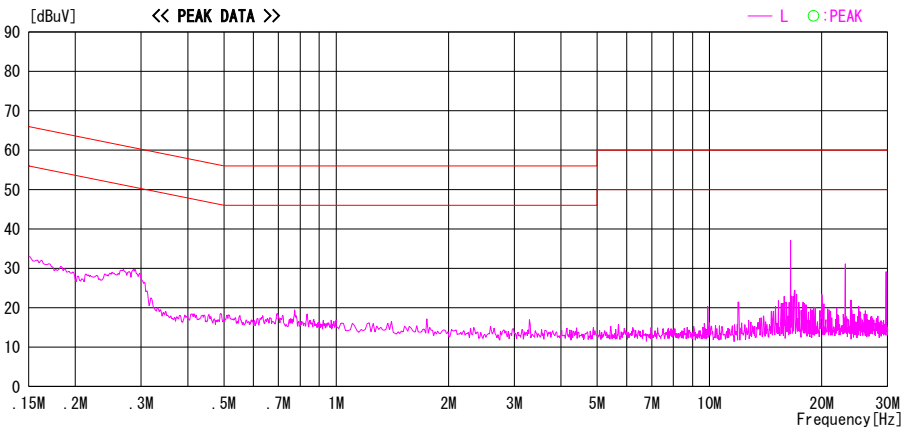


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Mid, Flat Diversity Antenna)

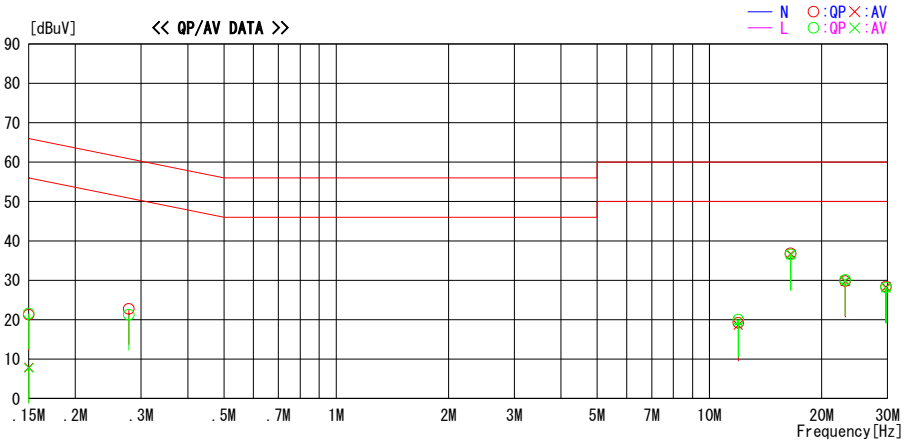
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals
Model No. : WT30-M01-FLK (Serial master)
Serial No. : M01-4
Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 25deg.C / 30%
Operator : Kenichi Adachi

Mode / Remarks : Tx mode, ch:M 2441.8MHz, ANT1, Flat Diversity Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase
	QP	AV	Factor	QP	AV	QP	AV	QP	AV	
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]	
0.15000	21.0	7.6	0.3	21.3	7.9	66.0	56.0	44.7	48.1	N
0.27818	22.4	----	0.3	22.7	----	60.9	----	38.2	----	N
11.94953	17.6	17.0	1.6	19.2	18.6	60.0	50.0	40.8	31.4	N
16.50002	34.9	34.8	1.9	36.8	36.7	60.0	50.0	23.2	13.3	N
23.10001	27.5	27.4	2.3	29.8	29.7	60.0	50.0	30.2	20.3	N
29.69997	25.9	25.8	2.5	28.4	28.3	60.0	50.0	31.6	21.7	N
0.15000	21.3	7.5	0.3	21.6	7.8	66.0	56.0	44.4	48.2	L
0.27818	21.0	----	0.3	21.3	----	60.9	----	39.6	----	L
11.94953	18.4	17.9	1.6	20.0	19.5	60.0	50.0	40.0	30.5	L
16.50002	34.7	34.6	1.9	36.6	36.5	60.0	50.0	23.4	13.5	L
23.10001	27.8	27.7	2.3	30.1	30.0	60.0	50.0	29.9	20.0	L
29.69997	25.7	25.6	2.5	28.2	28.1	60.0	50.0	31.8	21.9	L

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, High, Flat Diversity Antenna)

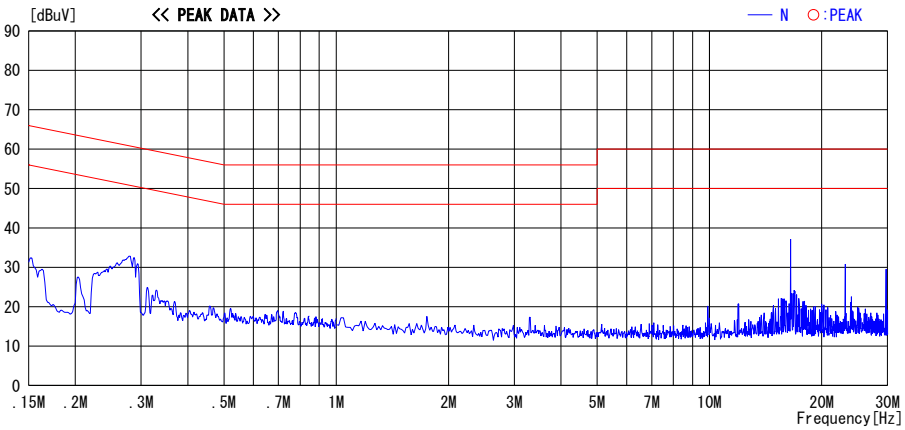
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals	Power	: DC 24V
Model No.	: WT30-M01-FLK (Serial master)	Temp./Humi.	: 25deg.C / 30%
Serial No.	: M01-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:H 2480.2MHz, ANT1, Flat Diversity Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



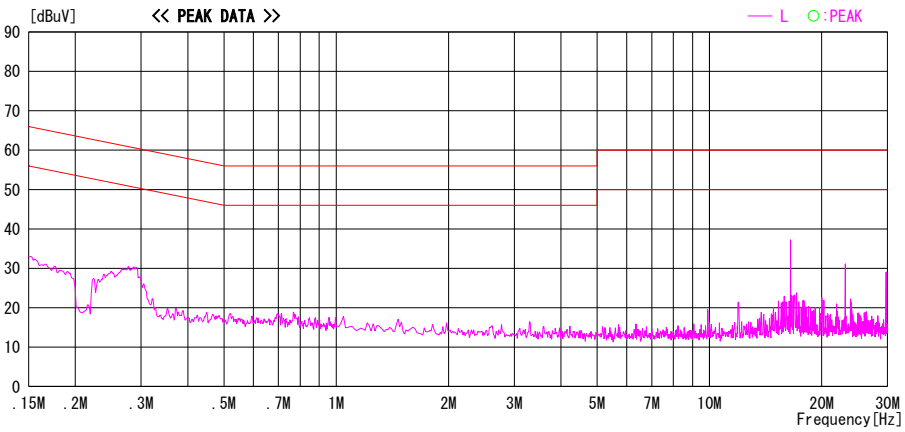


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Rx, Mid, Flat Diversity Antenna)

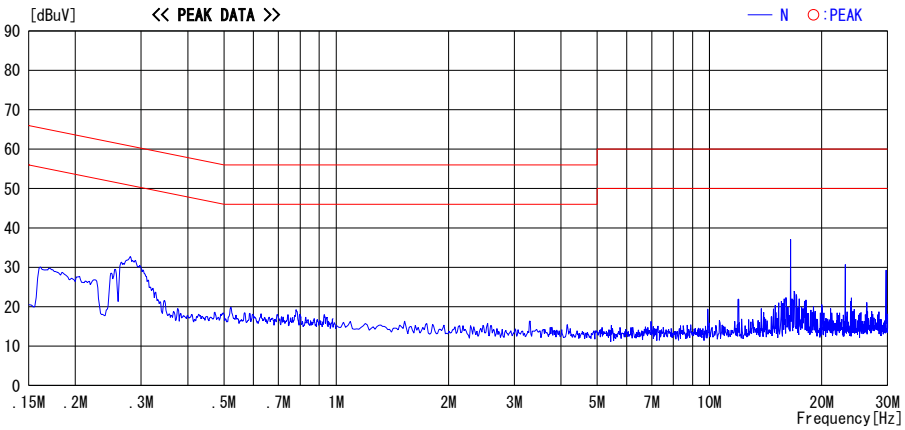
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals	Power	: DC 24V
Model No.	: WT30-M01-FLK (Serial master)	Temp./Humi.	: 25deg.C / 30%
Serial No.	: M01-4	Operator	: Kenichi Adachi

Mode / Remarks : Rx mode, ch:M 2441.8MHz, ANT1, Flat Diversity Antenna

LIMIT : FCC15.107(a) QP
FCC15.107(a) AV



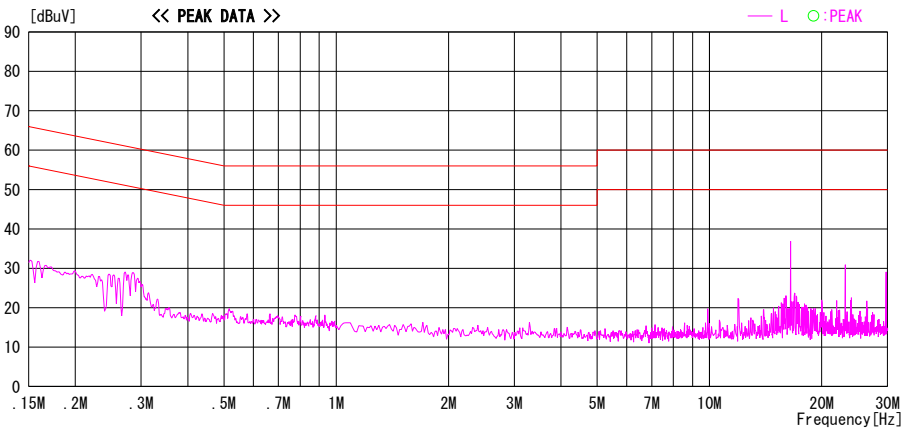


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Low, Pencil Antenna)

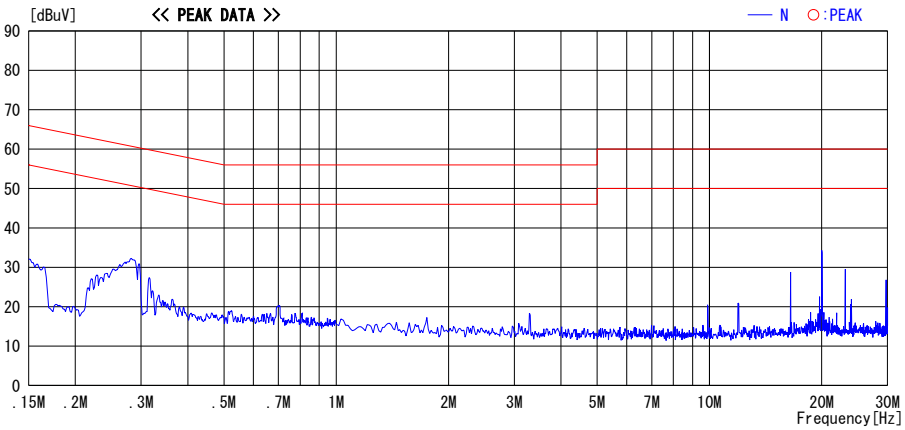
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals	Power	: DC 24V
Model No.	: WT30-M01-FLK (Serial master)	Temp./Humi.	: 25deg.C / 30%
Serial No.	: M01-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:L 2402.2MHz, ANT1, Pencil Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



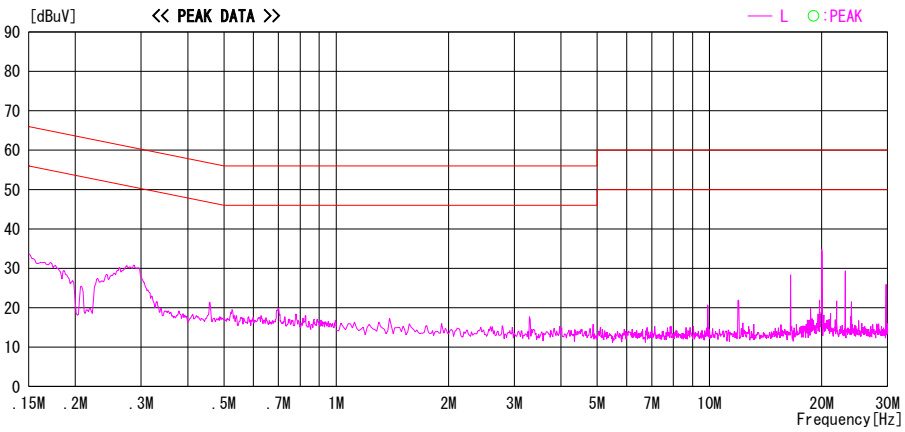


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Mid, Pencil Antenna)

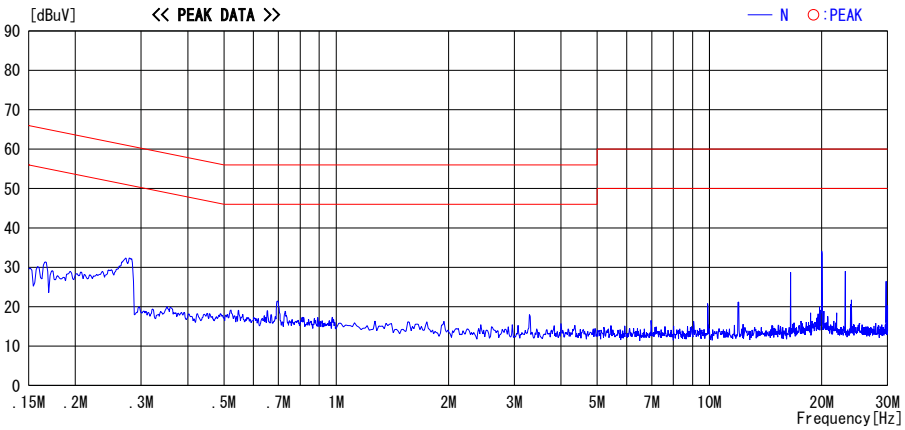
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals	Power	: DC 24V
Model No.	: WT30-M01-FLK (Serial master)	Temp./Humi.	: 25deg.C / 30%
Serial No.	: M01-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:M 2441.8MHz, ANT1, Pencil Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



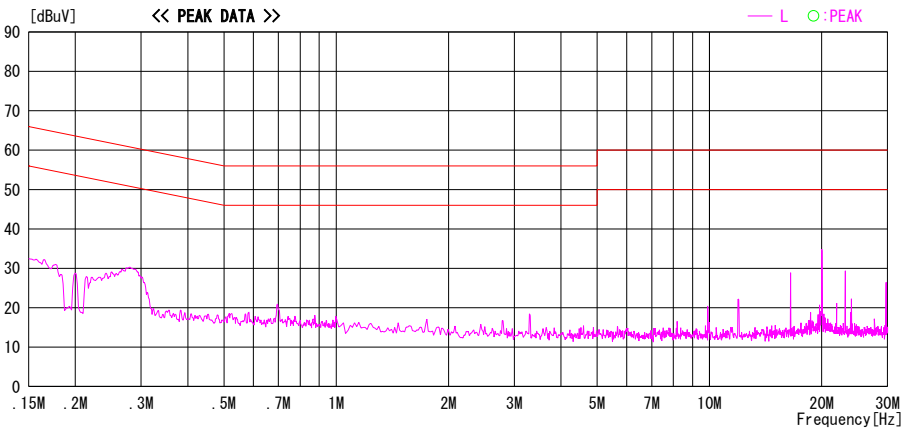


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Mid, Pencil Antenna)

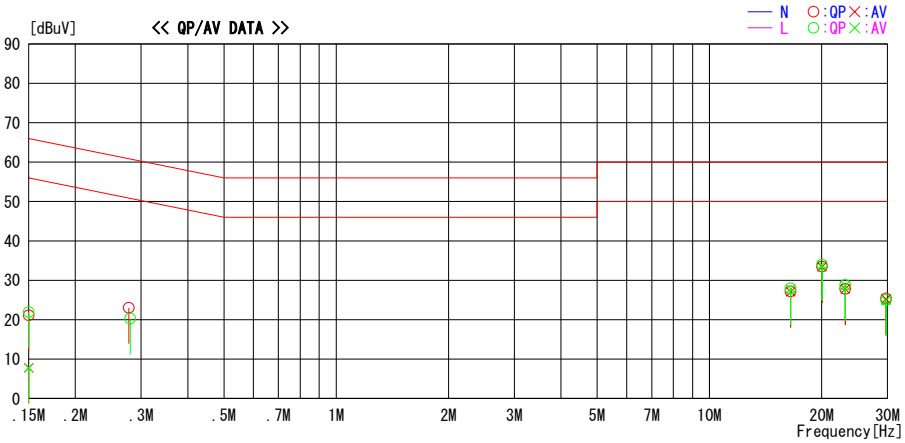
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals
Model No. : WT30-M01-FLK (Serial master)
Serial No. : M01-4
Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 25deg.C / 30%
Operator : Kenichi Adachi

Mode / Remarks : Tx mode, ch:M 2441.8MHz, ANT1, Pencil Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase
	QP	AV	Factor	QP	AV	QP	AV	QP	AV	
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]	
0.15000	20.8	7.5	0.3	21.1	7.8	66.0	56.0	44.9	48.2	N
0.27835	22.7	----	0.3	23.0	----	60.9	----	37.9	----	N
16.50002	25.3	25.2	1.9	27.2	27.1	60.0	50.0	32.8	22.9	N
20.01421	31.3	31.2	2.2	33.5	33.4	60.0	50.0	26.5	16.6	N
23.10002	25.6	25.5	2.3	27.9	27.8	60.0	50.0	32.2	22.2	N
29.69997	22.8	22.7	2.5	25.3	25.2	60.0	50.0	34.7	24.8	N
0.15000	21.6	7.5	0.3	21.9	7.8	66.0	56.0	44.1	48.2	L
0.28033	20.0	----	0.3	20.3	----	60.8	----	40.5	----	L
16.50007	26.0	25.9	1.9	27.9	27.8	60.0	50.0	32.1	22.2	L
20.01421	31.8	31.7	2.2	34.0	33.9	60.0	50.0	26.0	16.1	L
23.10002	26.5	26.4	2.3	28.8	28.7	60.0	50.0	31.2	21.3	L
29.69997	22.5	22.4	2.5	25.0	24.9	60.0	50.0	35.0	25.1	L

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, High, Pencil Antenna)

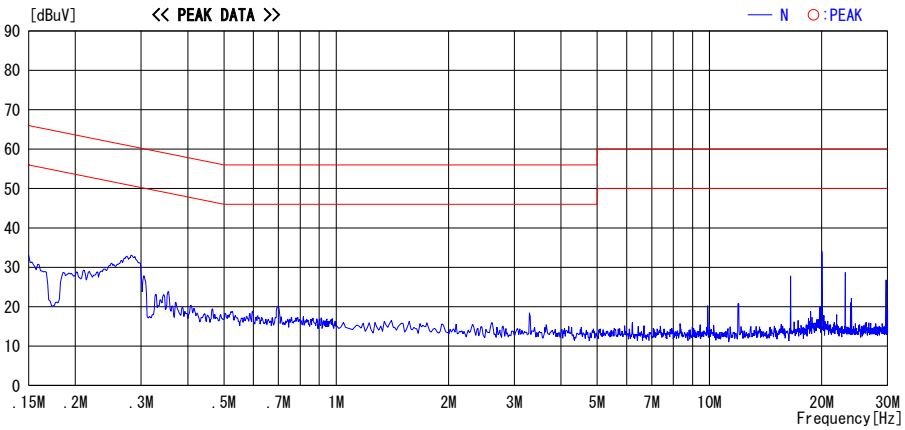
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals	Power	: DC 24V
Model No.	: WT30-M01-FLK (Serial master)	Temp./Humi.	: 25deg.C / 30%
Serial No.	: M01-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:H 2480.2MHz, ANT1, Pencil Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



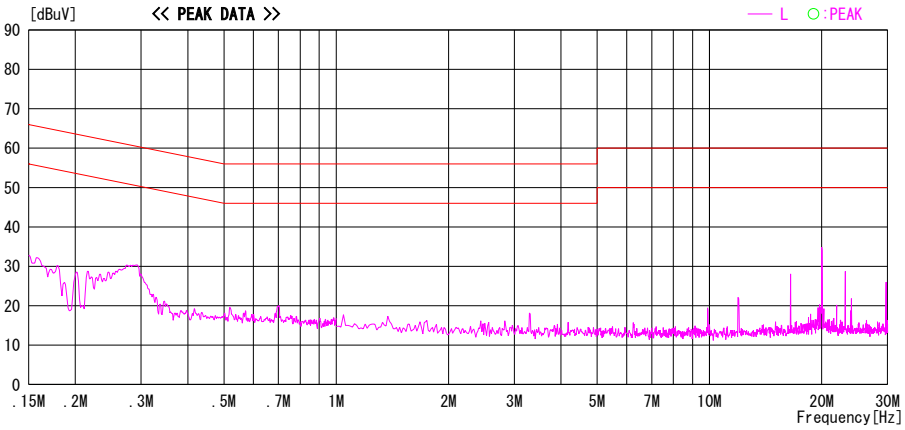


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Rx, Mid, Pencil Antenna)

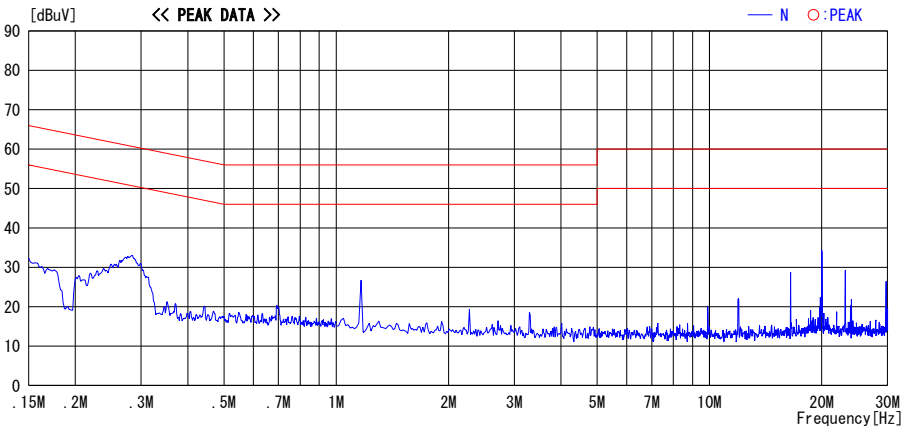
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals
Model No. : WT30-M01-FLK (Serial master)
Serial No. : M01-4
Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 25deg.C / 30%
Operator : Kenichi Adachi

Mode / Remarks : Rx mode, ch:M 2441.8MHz, ANT1, Pencil Antenna

LIMIT : FCC15.107(a) QP
FCC15.107(a) AV



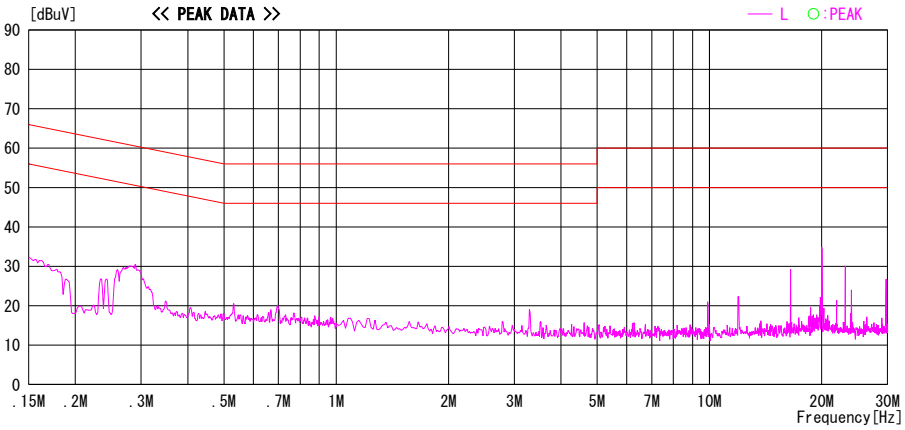


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

6dB Bandwidth

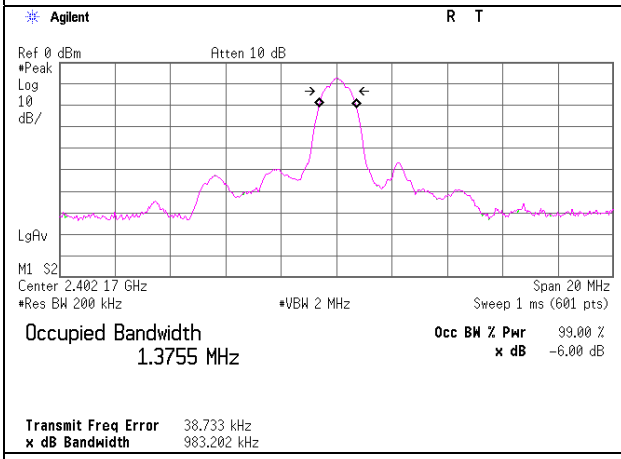
UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded Room

COMPANY	: Omron Corporation Okayama Factory	REGULATION	: FCC15.247(a)(2)/RSS-210A8.2(1)
QUIPMENT	: FA Wireless SS Terminals	TEST DISTANCE	: -
MODEL	: WT30-M01-FLK	DATE	: 12/19/2006
SAMPLE NO.	: M01-4	TEMPERATURE	: 23℃
POWER	: DC24V	HUMIDITY	: 35%
MODE	: Tx (Ch L, M, H) , ANT1	ENGINEER	: Takumi Shimada

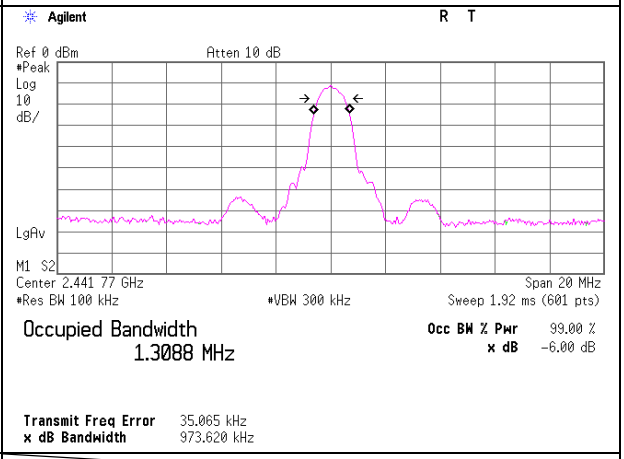
Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2402.2	0.983	>500
Mid	2441.8	0.974	>500
High	2480.2	0.914	>500

6dB Bandwidth

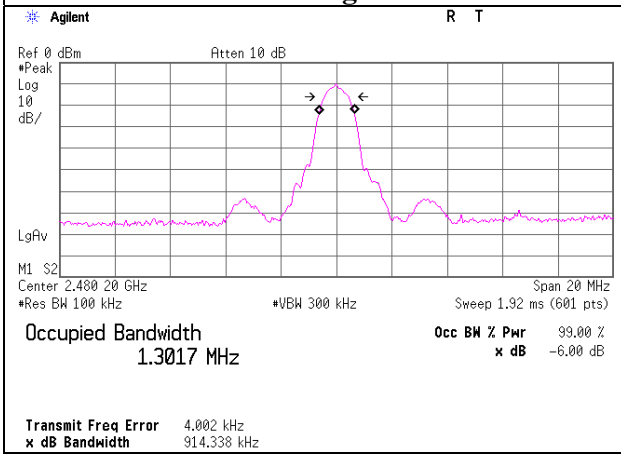
Ch:Low



Ch:Mid



Ch:High



Maximum Peak Output Power

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

COMPANY	: Omron Corporation Okayama Factory	REGULATION	: FCC15.247(b)(3)/RSS-210A8.4(4)
QUIPMENT	: FA Wireless SS Terminals	TEST DISTANCE	: -
MODEL	: WT30-M01-FLK	DATE	: 12/19/2006
SAMPLE NO.	: M01-4	TEMPERATURE	: 23℃
POWER	: DC24V	HUMIDITY	: 34%
MODE	: Tx (Ch L, M, H)	ENGINEER	: Takumi Shimada

(ANT1)

Ch	Freq.	P/M Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
Low	2402.2	-2.95	0.55	10.12	7.72	5.92	30.00	1000	22.28
Mid	2441.8	-3.30	0.56	10.12	7.38	5.47	30.00	1000	22.62
High	2480.2	-3.13	0.59	10.12	7.58	5.73	30.00	1000	22.42

Sample Calculation:
Result = Reading + Cable Loss + Attenuator

(ANT2)

Ch	Freq.	P/M Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
Low	2402.2	-3.05	0.55	10.12	7.62	5.78	30.00	1000	22.38
Mid	2441.8	-3.32	0.56	10.12	7.36	5.45	30.00	1000	22.64
High	2480.2	-3.21	0.59	10.12	7.50	5.62	30.00	1000	22.50

Sample Calculation:
Result = Reading + Cable Loss + Attenuator

Radiated Spurious Emission (below 1GHz)

Magnet-base Antenna

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

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DATA OF RADIATED EMISSION TEST

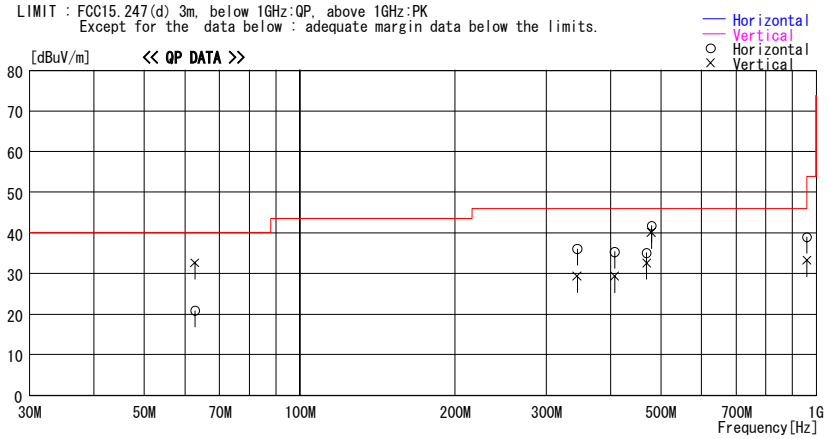
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/01/14 21:19:09

Company : OMRON Corporation Okayama Factory
Kind of EUT : Wireless Terminal
Model No. : WT30-M01-FLK
Serial No. : M01-4

Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 23deg.C. / 33%
Operator : Takumi Shimada

Mode / Remarks : Tx mode, ch:L 2402.2MHz, EUT(H:Y-axis,V:X-axis) ,ANT1(Magnet)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
62.702	34.8	QP	7.9	-21.8	20.9	323	370	Hori.	40.0	19.2
62.699	46.5	QP	7.9	-21.8	32.6	7	100	Vert.	40.0	7.4
344.674	39.5	QP	16.1	-19.5	36.1	36	100	Hori.	46.0	9.9
344.676	32.8	QP	16.1	-19.5	29.4	188	148	Vert.	46.0	16.6
407.346	37.3	QP	17.9	-19.9	35.3	310	100	Hori.	46.0	10.7
407.348	31.4	QP	17.9	-19.9	29.4	134	125	Vert.	46.0	16.6
469.403	36.8	QP	18.3	-20.0	35.1	344	100	Hori.	46.0	10.9
470.021	34.2	QP	18.3	-20.0	32.5	290	120	Vert.	46.0	13.5
480.007	43.4	QP	18.4	-20.0	41.8	329	100	Hori.	46.0	4.2
480.007	41.7	QP	18.4	-20.0	40.1	55	120	Vert.	46.0	5.9
960.003	27.5	QP	22.9	-17.1	33.3	0	120	Vert.	53.9	20.6
960.002	33.2	QP	22.9	-17.1	39.0	180	100	Hori.	53.9	14.9

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)

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

DATA OF RADIATED EMISSION TEST

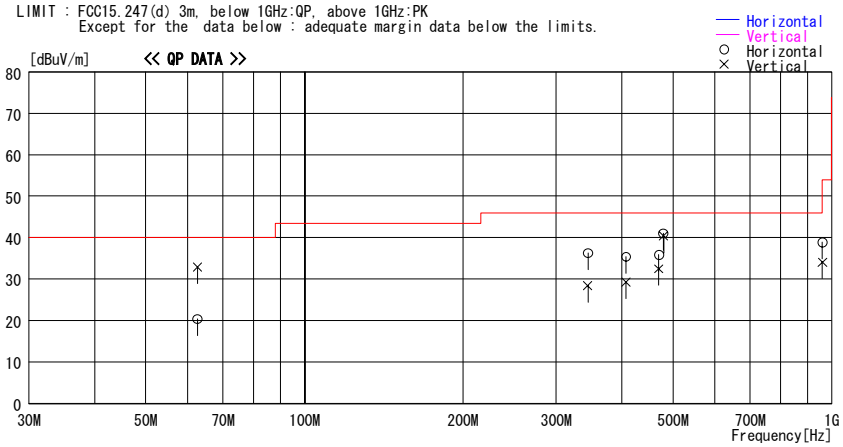
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/01/14 23:25:29

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals
Model No. : WT30-M01-FLK
Serial No. : M01-4

Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 23deg.C. / 33%
Operator : Takumi Shimada

Mode / Remarks : Tx mode, ch:M 2441.8MHz, EUT(H:Y-axis,V:X-axis) ,ANT1(Magnet)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
62.605	34.3	QP	7.9	-21.8	20.4	270	358	Hori.	40.0	19.6
62.702	46.8	QP	7.9	-21.8	32.9	26	100	Vert.	40.0	7.1
344.670	31.9	QP	16.1	-19.5	28.5	183	117	Vert.	46.0	17.6
344.673	39.7	QP	16.1	-19.5	36.3	34	100	Hori.	46.0	9.7
407.347	37.4	QP	17.9	-19.9	35.4	215	100	Hori.	46.0	10.6
407.348	31.3	QP	17.9	-19.9	29.3	126	120	Vert.	46.0	16.7
470.025	34.2	QP	18.3	-20.0	32.5	294	118	Vert.	46.0	13.5
470.025	37.6	QP	18.3	-20.0	35.9	335	100	Hori.	46.0	10.2
479.203	42.7	QP	18.4	-20.0	41.1	337	100	Hori.	46.0	4.9
480.007	42.0	QP	18.4	-20.0	40.4	58	125	Vert.	46.0	5.6
960.004	28.3	QP	22.9	-17.1	34.1	194	120	Vert.	53.9	19.8
960.007	33.1	QP	22.9	-17.1	38.9	190	100	Hori.	53.9	15.0

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)

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

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DATA OF RADIATED EMISSION TEST

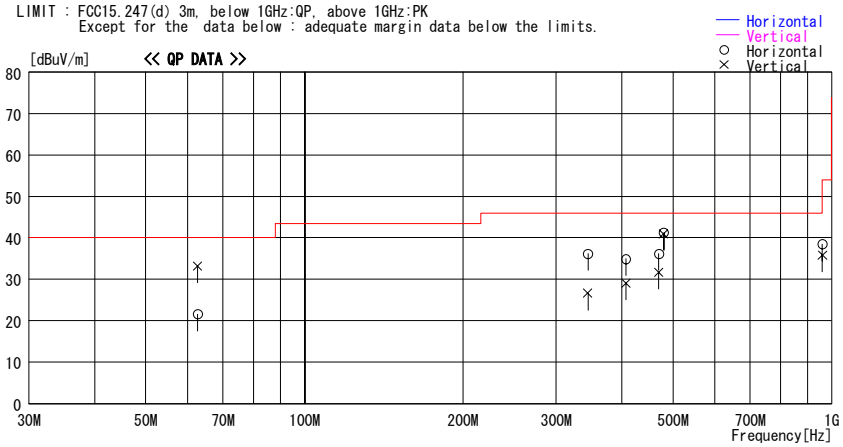
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/01/14 23:45:41

Company : OMRON Corporation Okayama Factory
Kind of EUT : W FA Wireless SS Terminals
Model No. : WT30-M01-FLK
Serial No. : M01-4

Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 23deg.C. / 33%
Operator : Takumi Shimada

Mode / Remarks : Tx mode, ch:H 2480.2MHz, EUT(H:Y-axis,V:X-axis) ,ANT1(Magnet)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
62.702	35.5	QP	7.9	-21.8	21.6	286	379	Hori.	40.0	18.4
62.702	47.1	QP	7.9	-21.8	33.2	10	100	Vert.	40.0	6.8
344.686	39.5	QP	16.1	-19.5	36.1	35	100	Hori.	46.0	9.9
344.669	30.0	QP	16.1	-19.5	26.6	182	129	Vert.	46.0	19.4
407.345	36.9	QP	17.9	-19.9	34.9	235	100	Hori.	46.0	11.1
407.351	31.0	QP	17.9	-19.9	29.0	122	100	Vert.	46.0	17.0
470.001	37.8	QP	18.3	-20.0	36.1	336	100	Hori.	46.0	9.9
470.020	33.4	QP	18.3	-20.0	31.7	306	113	Vert.	46.0	14.4
480.000	42.8	QP	18.4	-20.0	41.2	340	100	Hori.	46.0	4.8
480.002	42.5	QP	18.4	-20.0	40.9	58	125	Vert.	46.0	5.1
960.003	32.7	QP	22.9	-17.1	38.5	164	100	Hori.	53.9	15.4
960.001	30.0	QP	22.9	-17.1	35.8	197	120	Vert.	53.9	18.1

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)

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

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DATA OF RADIATED EMISSION TEST

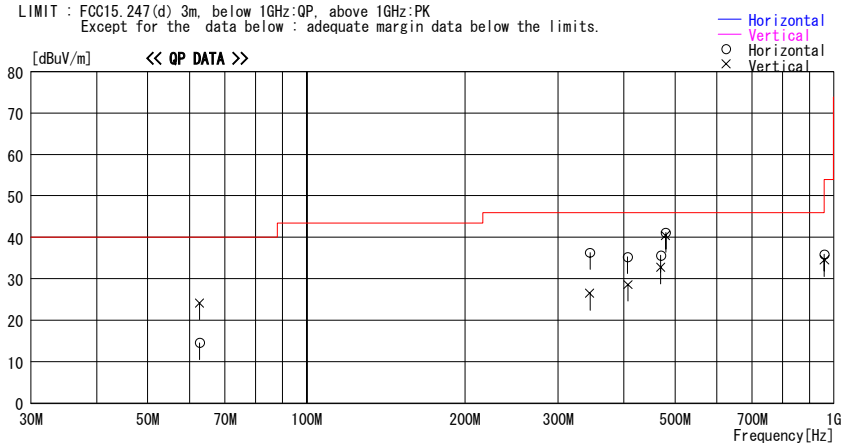
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/01/15 00:06:40

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals
Model No. : WT30-M01-FLK
Serial No. : M01-4

Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 23deg.C. / 33%
Operator : Takumi Shimada

Mode / Remarks : Rx mode, ch:M 2441.8MHz, EUT(H:Y-axis,V:X-axis) ,ANT1(Magnet)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
62.705	28.4	QP	7.9	-21.8	14.5	303	362	Hori.	40.0	25.5
62.706	38.1	QP	7.9	-21.8	24.2	23	100	Vert.	40.0	15.8
344.688	39.7	QP	16.1	-19.5	36.3	15	100	Hori.	46.0	9.7
344.676	29.9	QP	16.1	-19.5	26.5	192	100	Vert.	46.0	19.5
406.402	37.1	QP	17.9	-19.8	35.2	235	100	Hori.	46.0	10.8
407.363	30.6	QP	17.9	-19.9	28.6	123	100	Vert.	46.0	17.4
470.010	37.3	QP	18.3	-20.0	35.6	336	100	Hori.	46.0	10.4
470.015	34.5	QP	18.3	-20.0	32.8	271	110	Vert.	46.0	13.2
480.007	42.7	QP	18.4	-20.0	41.1	342	100	Hori.	46.0	4.9
480.000	42.0	QP	18.4	-20.0	40.4	50	126	Vert.	46.0	5.6
960.006	30.1	QP	22.9	-17.1	35.9	174	100	Hori.	53.9	18.0
960.005	28.8	QP	22.9	-17.1	34.6	207	120	Vert.	53.9	19.4

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)

Flat Diversity Antenna

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

DATA OF RADIATED EMISSION TEST

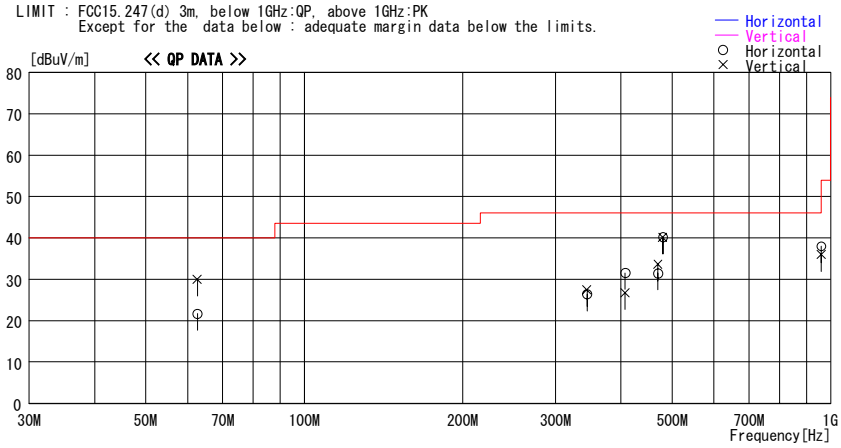
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/01/15 00:29:45

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals
Model No. : WT30-M01-FLK
Serial No. : M01-4

Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 23deg.C. / 33%
Operator : Takumi Shimada

Mode / Remarks : Tx mode, ch:M 2441.8MHz, EUT(H:Y-axis,V:X-axis) ,ANT1(Diversity)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
62.709	35.6	QP	7.9	-21.8	21.7	346	378	Hori.	40.0	18.4
62.697	43.9	QP	7.9	-21.8	30.0	56	100	Vert.	40.0	10.0
344.682	29.8	QP	16.1	-19.5	26.4	10	100	Hori.	46.0	19.6
344.686	30.9	QP	16.1	-19.5	27.5	180	137	Vert.	46.0	18.5
407.355	33.5	QP	17.9	-19.9	31.5	333	100	Hori.	46.0	14.5
407.331	28.7	QP	17.9	-19.9	26.7	348	100	Vert.	46.0	19.4
470.005	33.2	QP	18.3	-20.0	31.5	200	100	Hori.	46.0	14.6
470.016	35.3	QP	18.3	-20.0	33.6	167	112	Vert.	46.0	12.4
480.007	41.8	QP	18.4	-20.0	40.2	176	100	Hori.	46.0	5.8
480.002	41.7	QP	18.4	-20.0	40.1	166	115	Vert.	46.0	5.9
960.003	32.2	QP	22.9	-17.1	38.0	180	100	Hori.	53.9	16.0
960.006	30.1	QP	22.9	-17.1	35.9	36	100	Vert.	53.9	18.0

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)

Pencil Antenna

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

DATA OF RADIATED EMISSION TEST

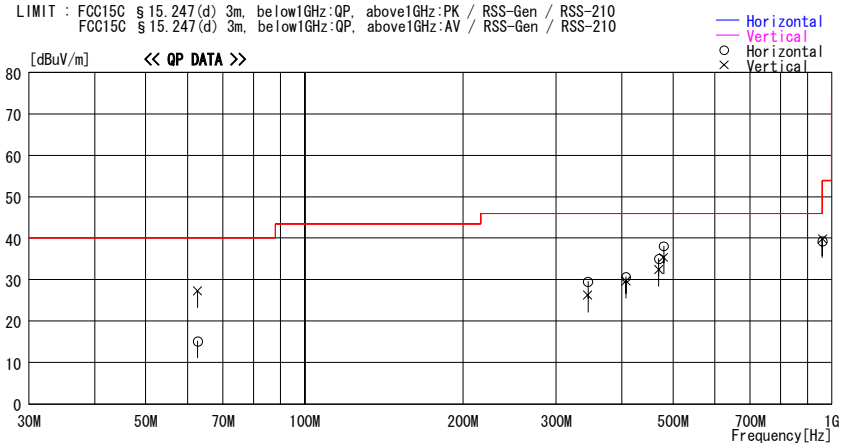
UL Apex Co., Ltd. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2006/12/13 17:01:20

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals
Model No. : WT30-M01-FLK
Serial No. : M01-4

Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 23deg.C. / 41%
Operator : Norihisa Hashimoto

Mode / Remarks : Tx mode, ch:M 2441.8MHz, EUT(H:Y-axis,V:X-axis) ,ANT1(Pencil)

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK / RSS-Gen / RSS-210
FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:AV / RSS-Gen / RSS-210



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
62.704	31.0	QP	8.4	-24.3	15.1	359	278	Hori.	40.0	24.9
62.704	43.2	QP	8.4	-24.3	27.3	267	121	Vert.	40.0	12.7
344.681	33.8	QP	17.3	-21.6	29.5	238	100	Hori.	46.0	16.5
344.682	30.5	QP	17.3	-21.6	26.2	187	142	Vert.	46.0	19.8
407.340	33.6	QP	18.2	-21.2	30.6	359	100	Hori.	46.0	15.4
407.344	32.6	QP	18.2	-21.2	29.6	202	119	Vert.	46.0	16.4
470.018	36.4	QP	19.4	-20.8	35.0	242	100	Hori.	46.0	11.0
470.021	33.8	QP	19.4	-20.8	32.4	176	131	Vert.	46.0	13.6
480.005	39.3	QP	19.6	-20.8	38.1	247	100	Hori.	46.0	7.9
480.002	36.6	QP	19.6	-20.8	35.4	181	120	Vert.	46.0	10.6
960.004	31.0	QP	25.8	-17.5	39.3	67	100	Hori.	53.9	14.6
960.005	31.5	QP	25.8	-17.5	39.8	191	121	Vert.	53.9	14.1

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (above 1GHz)

Magnet-base Antenna

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

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

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-M01-FLK	Test distance	: 3/1m
Sample No.	: M01-4	Date	: 01/09/2007
Power	: DC 24.0V	Temperature	: 23deg.C
Mode	: Tx 2402.2MHz	Humidity	: 33%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Magnet		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2162.4	45.6	47.1	31.0	32.4	3.3	0.0	47.5	49.0	74.0	26.5	25.0
2	2390.0	43.4	43.7	30.6	32.3	3.5	0.0	45.2	45.5	74.0	28.8	28.5
3*	2400.0	75.2	73.3	30.6	32.3	3.6	0.0	77.1	75.2	74.0	-	-
4	4804.4	43.3	41.6	35.7	31.6	4.8	0.1	52.3	50.6	74.0	21.7	23.4
5	7206.6	40.7	40.7	37.5	31.4	5.5	0.4	52.7	52.7	74.0	21.3	21.3
6	9608.8	41.5	42.6	36.6	31.9	6.4	0.7	53.3	54.4	74.0	20.7	19.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12011.0	-	-	-	-	-	-	-	-	74.0	-	-
8	14413.2	-	-	-	-	-	-	-	-	74.0	-	-
9	16815.4	-	-	-	-	-	-	-	-	74.0	-	-
10	19217.6	-	-	-	-	-	-	-	-	74.0	-	-
11	21619.8	-	-	-	-	-	-	-	-	74.0	-	-
12	24022.0	42.6	43.0	39.1	30.7	10.6	0.0	52.1	52.5	74.0	21.9	21.5

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2162.4	39.6	42.4	31.0	32.4	3.3	0.0	41.5	44.3	54.0	12.5	9.7
2	2390.0	31.5	31.8	30.6	32.3	3.5	0.0	33.3	33.6	54.0	20.7	20.4
3*	2400.0	73.6	70.9	30.6	32.3	3.6	0.0	75.5	72.8	54.0	-	-
4	4804.4	30.2	30.0	35.7	31.6	4.8	0.1	39.2	39.0	54.0	14.8	15.0
5	7206.6	29.6	29.5	37.5	31.4	5.5	0.4	41.6	41.5	54.0	12.4	12.5
6	9608.8	30.6	30.7	36.6	31.9	6.4	0.7	42.4	42.5	54.0	11.6	11.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12011.0	-	-	-	-	-	-	-	-	54.0	-	-
8	14413.2	-	-	-	-	-	-	-	-	54.0	-	-
9	16815.4	-	-	-	-	-	-	-	-	54.0	-	-
10	19217.6	-	-	-	-	-	-	-	-	54.0	-	-
11	21619.8	-	-	-	-	-	-	-	-	54.0	-	-
12	24022.0	30.8	30.8	39.1	30.7	10.6	0.0	40.3	40.3	54.0	13.7	13.7

* Reference data

20dBc(Fundamental 2402.2MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2402.2	99.4	94.5	30.6	32.3	3.6	0.0	101.3	96.4	-	-	-
3	2400.0	53.8	51.8	30.6	32.3	3.6	0.0	55.7	53.7	Funda-20dB	25.6	22.7

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

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

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

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-M01-FLK	Test distance	: 3/1m
Sample No.	: M01-4	Date	: 01/09/2007
Power	: DC 24.0V	Temperature	: 23deg.C
Mode	: Tx 2441.8MHz	Humidity	: 33%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Magnet		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.8	47.4	47.0	30.9	32.4	3.3	0.0	49.2	48.8	74.0	24.8	25.2
2*	2400.0	65.1	60.8	30.6	32.3	3.6	0.0	67.0	62.7	74.0	-	-
3	2483.5	62.4	60.4	30.4	32.3	3.5	0.0	64.0	62.0	74.0	10.0	12.0
4	4883.6	42.0	41.3	36.2	31.6	4.8	0.0	51.4	50.7	74.0	22.6	23.3
5	7325.4	41.1	41.0	37.9	31.4	5.6	0.4	53.6	53.5	74.0	20.4	20.5
6	9767.2	41.9	41.6	36.6	32.0	6.4	0.7	53.6	53.3	74.0	20.4	20.7
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12209.0	-	-	-	-	-	-	-	-	74.0	-	-
8	14650.8	-	-	-	-	-	-	-	-	74.0	-	-
9	17092.6	-	-	-	-	-	-	-	-	74.0	-	-
10	19534.4	-	-	-	-	-	-	-	-	74.0	-	-
11	21976.2	-	-	-	-	-	-	-	-	74.0	-	-
12	24418.0	45.0	44.4	39.1	30.6	10.8	0.0	54.8	54.2	74.0	19.2	19.8

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.8	42.6	42.2	30.9	32.4	3.3	0.0	44.4	44.0	54.0	9.6	10.0
2*	2400.0	61.7	57.0	30.6	32.3	3.6	0.0	63.6	58.9	54.0	-	-
3	2483.5	47.7	45.3	30.4	32.3	3.5	0.0	49.3	46.9	54.0	4.7	7.1
4	4883.6	29.9	29.7	36.2	31.6	4.8	0.0	39.3	39.1	54.0	14.7	14.9
5	7325.4	29.7	29.7	37.9	31.4	5.6	0.4	42.2	42.2	54.0	11.8	11.8
6	9767.2	30.6	30.3	36.6	32.0	6.4	0.7	42.3	42.0	54.0	11.7	12.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12209.0	-	-	-	-	-	-	-	-	54.0	-	-
8	14650.8	-	-	-	-	-	-	-	-	54.0	-	-
9	17092.6	-	-	-	-	-	-	-	-	54.0	-	-
10	19534.4	-	-	-	-	-	-	-	-	54.0	-	-
11	21976.2	-	-	-	-	-	-	-	-	54.0	-	-
12	24418.0	32.3	32.2	39.1	30.6	10.8	0.0	42.1	42.0	54.0	11.9	12.0

* Reference data

20dBc(Fundamental 2441.8MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2441.8	96.1	95.3	30.5	32.3	3.6	0.0	97.9	97.1	-	-	-
2	2400.0	62.6	58.8	30.6	32.3	3.6	0.0	64.5	60.7	Funda-20dB	13.4	16.4

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

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

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

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-M01-FLK	Test distance	: 3/1m
Sample No.	: M01-4	Date	: 01/09/2007
Power	: DC 24.0V	Temperature	: 23deg.C
Mode	: Tx 2480.2MHz	Humidity	: 33%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Magnet		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2240.2	45.7	46.4	30.9	32.4	3.4	0.0	47.6	48.3	74.0	26.4	25.7
2*	2400.0	67.2	63.5	30.6	32.3	3.6	0.0	69.1	65.4	74.0	-	-
3*	2483.5	66.9	63.8	30.4	32.3	3.5	0.0	68.5	65.4	74.0	-	-
4	2960.2	50.7	46.0	31.8	32.4	3.9	0.0	54.0	49.3	74.0	20.0	24.7
5	4960.4	41.8	42.2	36.6	31.6	4.9	0.0	51.7	52.1	74.0	22.3	21.9
6	7440.6	40.8	41.1	38.2	31.4	5.7	0.5	53.8	54.1	74.0	20.2	19.9
7	9920.8	42.0	41.9	36.5	32.0	6.4	0.7	53.6	53.5	74.0	20.4	20.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	12401.0	-	-	-	-	-	-	-	-	74.0	-	-
9	14881.2	-	-	-	-	-	-	-	-	74.0	-	-
10	17361.4	-	-	-	-	-	-	-	-	74.0	-	-
11	19841.6	-	-	-	-	-	-	-	-	74.0	-	-
12	22321.8	-	-	-	-	-	-	-	-	74.0	-	-
13	24802.0	45.5	45.0	39.3	30.5	11.0	0.0	55.8	55.3	74.0	18.2	18.7

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2240.2	39.3	40.1	30.9	32.4	3.4	0.0	41.2	42.0	54.0	12.8	12.0
2*	2400.0	63.7	59.9	30.6	32.3	3.6	0.0	65.1	61.8	54.0	-	-
3*	2483.5	63.2	60.1	30.4	32.3	3.5	0.0	64.8	61.7	54.0	-	-
4	2960.2	43.1	35.9	31.8	32.4	3.9	0.0	46.4	39.2	54.0	7.6	14.8
5	4960.4	30.2	29.7	36.6	31.6	4.9	0.0	40.1	39.6	54.0	13.9	14.4
6	7440.6	29.6	29.7	38.2	31.4	5.7	0.5	42.6	42.7	54.0	11.4	11.3
7	9920.8	30.8	30.8	36.5	32.0	6.4	0.7	42.4	42.4	54.0	11.6	11.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	12401.0	-	-	-	-	-	-	-	-	54.0	-	-
9	14881.2	-	-	-	-	-	-	-	-	54.0	-	-
10	17361.4	-	-	-	-	-	-	-	-	54.0	-	-
11	19841.6	-	-	-	-	-	-	-	-	54.0	-	-
12	22321.8	-	-	-	-	-	-	-	-	54.0	-	-
13	24802.0	32.3	32.3	39.3	30.5	11.0	0.0	42.6	42.6	54.0	11.4	11.4

20dBc(Fundamental 2480.2MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2480.2	99.5	96.3	30.4	32.3	3.5	0.0	101.1	97.9	-	-	-
2	2400.0	64.8	61.1	30.6	32.3	3.6	0.0	66.7	63.0	Funda-20dB	14.4	14.9

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Marker-Delta Method (RBW:30kHz)

No.	FREQ	Field strength of band-edge*		ANT	AMP	CABLE	ATT	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS		HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
PK DETECT												
3	2483.5	54.5	53.1	30.4	32.3	3.5	0.0	56.1	54.7	74.0	17.9	19.3
AV DETECT												
3	2483.5	43.6	43.7	30.4	32.3	3.5	0.0	45.2	45.3	54.0	8.8	8.7

*Reference data
S/A Reading

		Polarity	Hor [dBuV]		Ver [dBuV]	
		Detector	PK	AV	PK	AV
		RBW \ VBW	1MHz	10Hz	1MHz	10Hz
Step 1)	Fundamental(2480.2MHz)	1MHz	106.7	99.9	104.4	96.9
Step 2)	Fundamental(2480.2MHz)	30kHz	93.2	84.3	90.5	81.4
	Band-edge(2483.5MHz)	30kHz	41.0	28.0	39.2	28.2
	Amplitude delta *1	-	52.2	56.3	51.3	53.2
Step 3)	Field strength of band-edge *2	-	54.5	43.6	53.1	43.7

*1 Amplitude delta = Fundamental(RBW:30kHz) - Band-edge(RBW:30kHz)
*2 Field strength of band-edge = Fundamental(RBW:1MHz) - Amplitude delta

Radiated Spurious Emission (above 1GHz)

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

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

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-M01-FLK	Test distance	: 3m
Sample No.	: M01-4	Date	: 01/09/2007
Power	: DC 24.0V	Temperature	: 23deg.C
Mode	: Rx 2441.8MHz	Humidity	: 33%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Magnet		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.7	46.9	48.6	30.9	32.4	3.3	0.0	48.7	50.4	74.0	25.3	23.6
2	2441.8	42.4	41.7	30.5	32.3	3.6	0.0	44.2	43.5	74.0	29.8	30.5
3	4883.6	42.4	40.7	36.2	31.6	4.8	0.0	51.8	50.1	74.0	22.2	23.9
4	7325.4	42.4	40.9	37.9	31.4	5.6	0.0	54.5	53.0	74.0	19.5	21.0

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.7	40.9	44.5	30.9	32.4	3.3	0.0	42.7	46.3	54.0	11.3	7.7
2	2441.8	30.2	30.2	30.5	32.3	3.6	0.0	42.7	32.0	54.0	11.3	22.0
3	4883.6	29.7	29.8	36.2	31.6	4.8	0.0	39.1	39.2	54.0	14.9	14.8
4	7325.4	29.8	29.8	37.9	31.4	5.6	0.0	41.9	41.9	54.0	12.1	12.1

*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

Flat Diversity Antenna

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

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

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-M01-FLK	Test distance	: 3m
Sample No.	: M01-4	Date	: 01/09/2007
Power	: DC 24.0V	Temperature	: 23deg.C
Mode	: Tx 2402.2MHz	Humidity	: 33%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Diversity		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	43.1	43.2	30.6	32.3	3.5	0.0	44.9	45.0	74.0	29.1	29.0
2*	2400.0	78.4	72.5	30.6	32.3	3.6	0.0	80.3	74.4	74.0	-	-

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	31.0	31.5	30.6	32.3	3.5	0.0	32.8	33.3	54.0	21.2	20.7
2*	2400.0	75.8	69.8	30.6	32.3	3.6	0.0	77.7	71.7	54.0	-	-

* Reference data

20dBc(Fundamental 2402.2MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2402.2	99.3	93.4	30.6	32.3	3.6	0.0	101.2	95.3	-	-	-
2	2400.0	57.3	51.1	30.6	32.3	3.6	0.0	59.2	53.0	Funda-20dB	22.0	22.3

*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

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

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

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-M01-FLK	Test distance	: 3/1m
Sample No.	: M01-4	Date	: 01/09/2007
Power	: DC 24.0V	Temperature	: 23deg.C
Mode	: Tx 2441.8MHz	Humidity	: 33%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Diversity		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.7	49.1	48.2	30.9	32.4	3.3	0.0	50.9	50.0	74.0	23.1	24.0
2*	2400.0	63.4	63.8	30.6	32.3	3.6	0.0	65.3	65.7	74.0	-	-
3	2483.5	63.0	59.3	30.4	32.3	3.5	0.0	64.6	60.9	74.0	9.4	13.1
4	4883.6	41.5	41.9	36.2	31.6	4.8	0.0	50.9	51.3	74.0	23.1	22.7
5	7325.4	41.2	40.9	37.9	31.4	5.6	0.4	53.7	53.4	74.0	20.3	20.6
6	9767.2	42.0	41.5	36.6	32.0	6.4	0.7	53.7	53.2	74.0	20.3	20.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12209.0	-	-	-	-	-	-	-	-	74.0	-	-
8	14650.8	-	-	-	-	-	-	-	-	74.0	-	-
9	17092.6	-	-	-	-	-	-	-	-	74.0	-	-
10	19534.4	-	-	-	-	-	-	-	-	74.0	-	-
11	21976.2	-	-	-	-	-	-	-	-	74.0	-	-
12	24418.0	43.8	44.1	39.1	30.6	10.8	0.0	53.6	53.9	74.0	20.4	20.1

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.7	44.9	43.7	30.9	32.4	3.3	0.0	46.7	45.5	54.0	7.3	8.5
2*	2400.0	59.9	60.6	30.6	32.3	3.6	0.0	61.8	62.5	54.0	-	-
3	2483.5	48.7	43.6	30.4	32.3	3.5	0.0	50.3	45.2	54.0	3.7	8.8
4	4883.6	29.9	29.8	36.2	31.6	4.8	0.0	39.3	39.2	54.0	14.7	14.8
5	7325.4	30.0	29.9	37.9	31.4	5.6	0.4	42.5	42.4	54.0	11.5	11.6
6	9767.2	30.4	30.5	36.6	32.0	6.4	0.7	42.1	42.2	54.0	11.9	11.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12209.0	-	-	-	-	-	-	-	-	54.0	-	-
8	14650.8	-	-	-	-	-	-	-	-	54.0	-	-
9	17092.6	-	-	-	-	-	-	-	-	54.0	-	-
10	19534.4	-	-	-	-	-	-	-	-	54.0	-	-
11	21976.2	-	-	-	-	-	-	-	-	54.0	-	-
12	24418.0	32.3	32.3	39.1	30.6	10.8	0.0	42.1	42.1	54.0	11.9	11.9

* Reference data

20dBc(Fundamental 2441.8MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2441.8	95.4	95.0	30.5	32.3	3.6	0.0	97.2	96.8	-	-	-
2	2400.0	61.2	61.5	30.6	32.3	3.6	0.0	63.1	63.4	Funda-20dB	14.1	13.4

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

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

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

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-M01-FLK	Test distance	: 3m
Sample No.	: M01-4	Date	: 01/09/2007
Power	: DC 24.0V	Temperature	: 23deg.C
Mode	: Tx 2480.2MHz	Humidity	: 33%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Diversity		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1*	2483.5	66.5	63.8	30.4	32.3	3.5	0.0	68.1	65.4	74.0	-	-

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1*	2483.5	62.7	60.1	30.4	32.3	3.5	0.0	64.3	61.7	54.0	-	-

*Reference data

Marker-Delta Method (RBW:30kHz)

No.	FREQ	Field strength of band-edge*		ANT	AMP	CABLE	ATT	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS		HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
PK DETECT												
1	2483.5	52.8	51.7	30.4	32.3	3.5	0.0	54.4	53.3	74.0	19.6	20.7
AV DETECT												
1	2483.5	43.2	40.7	30.4	32.3	3.5	0.0	44.8	42.3	54.0	9.2	11.7

*Reference data

S/A Reading

		Polarity	Hor [dBuV]		Ver [dBuV]	
		Detector	PK	AV	PK	AV
		RBW \ VBW	1MHz	10Hz	1MHz	10Hz
Step 1)	Fundamental(2480.2MHz)	1MHz	105.4	99.5	103.7	96.9
Step 2)	Fundamental(2480.2MHz)	30kHz	92.8	83.9	90.2	81.4
	Band-edge(2483.5MHz)	30kHz	40.2	27.6	38.2	25.2
	Amplitude delta *1	-	52.6	56.3	52.0	56.2
Step 3)	Field strength of band-edge *2	-	52.8	43.2	51.7	40.7

*1 Amplitude delta = Fundamental(RBW:30kHz) - Band-edge(RBW:30kHz)
*2 Field strength of band-edge = Fundamental(RBW:1MHz) - Amplitude delta

Radiated Spurious Emission (above 1GHz)

Pencil Antenna

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

UL Apex Co., Ltd.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-M01-FLK	Test distance	: 3m
Sample No.	: M01-4	Date	: 12/11/2006
Power	: DC 24.0V	Temperature	: 23deg.C
Mode	: Tx 2402.2MHz	Humidity	: 30%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Pencil		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	46.6	44.2	26.6	32.7	2.1	0.0	42.6	40.2	74.0	31.4	33.8
2*	2400.0	73.6	71.5	26.6	32.7	2.1	0.0	69.6	67.5	74.0	-	-

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	33.4	32.1	26.6	32.7	2.1	0.0	29.4	28.1	54.0	24.6	25.9
2*	2400.0	71.0	68.8	26.6	32.7	2.1	0.0	67.0	64.8	54.0	-	-

* Reference data

20dBc(Fundamental 2402.2MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2402.2	95.4	93.2	26.6	32.7	2.1	0.0	91.4	89.2	-	-	-
2	2400.0	52.0	50.1	26.6	32.7	2.1	0.0	48.0	46.1	Funda-20dB	23.4	23.1

*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

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

UL Apex Co., Ltd.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-M01-FLK	Test distance	: 3/1m
Sample No.	: M01-4	Date	: 12/11/2006
Power	: DC 24.0V	Temperature	: 23deg.C
Mode	: Tx 2441.8MHz	Humidity	: 30%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Pencil		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.9	45.6	46.7	26.1	32.8	2.0	0.0	40.9	42.0	74.0	33.1	32.0
2*	2400.0	63.7	61.0	26.6	32.7	2.1	0.0	59.7	57.0	74.0	-	-
3	2483.5	59.4	59.1	26.8	32.6	2.2	0.0	55.8	55.5	74.0	18.2	18.5
4	4883.6	42.5	41.7	31.0	31.5	3.2	1.4	46.6	45.8	74.0	27.4	28.2
5	7325.4	42.7	41.5	35.4	32.5	3.9	1.1	50.6	49.4	74.0	23.4	24.6
6	9767.2	41.8	40.8	37.6	33.1	4.9	1.1	52.3	51.3	74.0	21.7	22.7
7	12209.0	-	-	-	-	-	-	-	-	74.0	-	-
8	14650.8	-	-	-	-	-	-	-	-	74.0	-	-
9	17092.6	-	-	-	-	-	-	-	-	74.0	-	-
10	19534.4	-	-	-	-	-	-	-	-	74.0	-	-
11	21976.2	-	-	-	-	-	-	-	-	74.0	-	-
12	24418.0	46.3	46.3	38.3	31.6	8.0	0.0	51.5	51.5	74.0	22.5	22.5

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.9	34.5	35.7	26.1	32.8	2.0	0.0	29.8	31.0	54.0	24.2	23.0
2*	2400.0	60.2	57.4	26.6	32.7	2.1	0.0	56.2	53.4	54.0	-	-
3	2483.5	46.1	45.4	26.8	32.6	2.2	0.0	42.5	41.8	54.0	11.5	12.2
4	4883.6	29.4	29.3	31.0	31.5	3.2	1.4	33.5	33.4	54.0	20.5	20.6
5	7325.4	30.6	30.6	35.4	32.5	3.9	1.1	38.5	38.5	54.0	15.5	15.5
6	9767.2	30.7	29.5	37.6	33.1	4.9	1.1	41.2	40.0	54.0	12.8	14.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12209.0	-	-	-	-	-	-	-	-	54.0	-	-
8	14650.8	-	-	-	-	-	-	-	-	54.0	-	-
9	17092.6	-	-	-	-	-	-	-	-	54.0	-	-
10	19534.4	-	-	-	-	-	-	-	-	54.0	-	-
11	21976.2	-	-	-	-	-	-	-	-	54.0	-	-
12	24418.0	33.1	33.1	38.3	31.6	8.0	0.0	38.3	38.3	54.0	15.7	15.7

* Reference data

20dBc(Fundamental 2441.8MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2441.8	95.2	92.9	26.7	32.6	2.1	0.0	91.4	89.1	-	-	-
2	2400.0	61.2	58.5	26.6	32.7	2.1	0.0	57.2	54.5	Funda-20dB	14.2	14.6

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

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

UL Apex Co., Ltd.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-M01-FLK	Test distance	: 3m
Sample No.	: M01-4	Date	: 12/11/2006
Power	: DC 24.0V	Temperature	: 23deg.C
Mode	: Tx 2480.2MHz	Humidity	: 30%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Pencil		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1*	2483.5	60.7	58.2	26.8	32.6	2.2	0.0	57.1	54.6	74.0	-	-

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1*	2483.5	56.9	54.6	26.8	32.6	2.2	0.0	53.3	51.0	54.0	-	-

* Reference data

Marker-Delta Method (RBW:30kHz)

No.	FREQ	Field strength of band-edge*		ANT	AMP	CABLE	ATT	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS		HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
PK DETECT												
1	2483.5	52.1	50.8	26.8	32.6	2.2	0.0	48.5	47.2	74.0	25.5	26.8
AV DETECT												
1	2483.5	41.5	40.4	26.8	32.6	2.2	0.0	37.9	36.8	54.0	16.1	17.2

*Reference data
S/A Reading

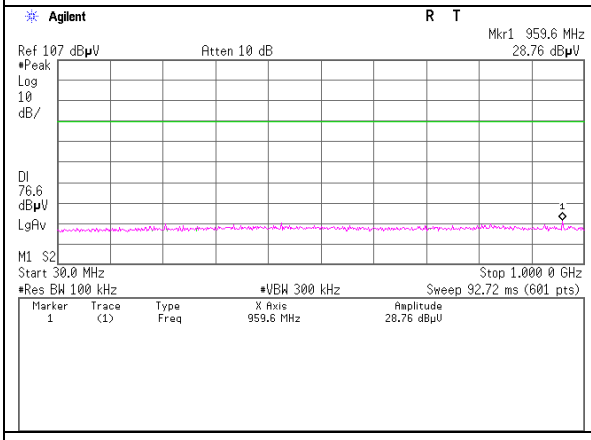
		Polarity	Hor [dBuV]		Ver [dBuV]	
		Detector	PK	AV	PK	AV
		RBW \ VBW	1MHz	10Hz	1MHz	10Hz
Step 1)	Fundamental(2480.2MHz)	1MHz	103.0	96.1	100.6	93.8
Step 2)	Fundamental(2480.2MHz)	30kHz	89.5	80.5	87.1	78.1
	Band-edge(2483.5MHz)	30kHz	38.6	25.9	37.3	24.7
	Amplitude delta *1	-	50.9	54.6	49.8	53.4
Step 3)	Field strength of band-edge *2	-	52.1	41.5	50.8	40.4

*1 Amplitude delta = Fundamental(RBW:30kHz) - Band-edge(RBW:30kHz)
*2 Field strength of band-edge = Fundamental(RBW:1MHz) - Amplitude delta

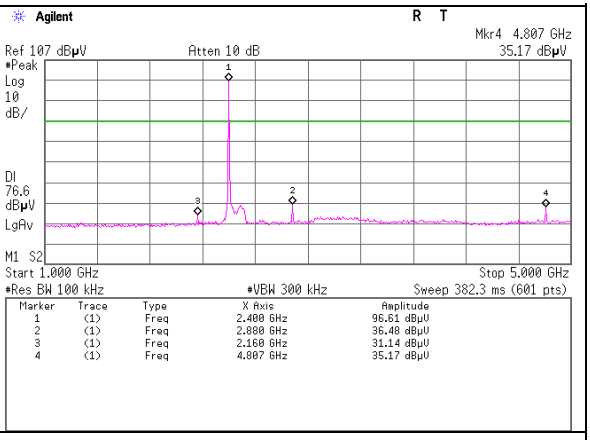
Conducted Spurious Emission

Ch: Low

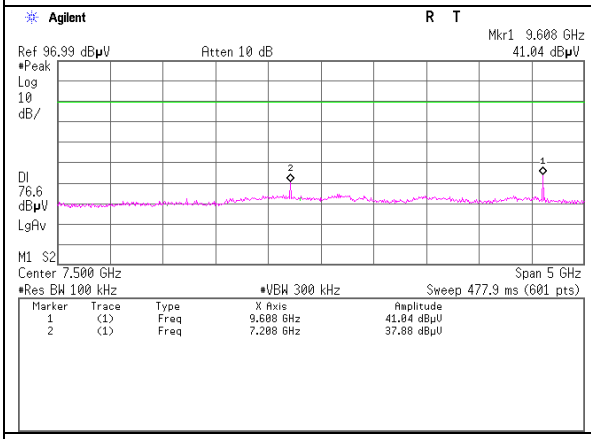
30MHz-1GHz



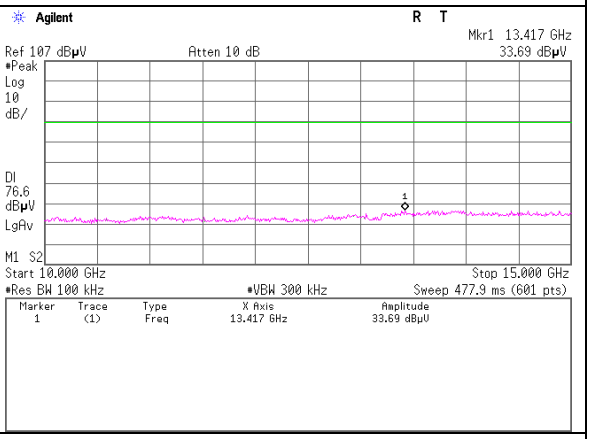
1GHz-5GHz



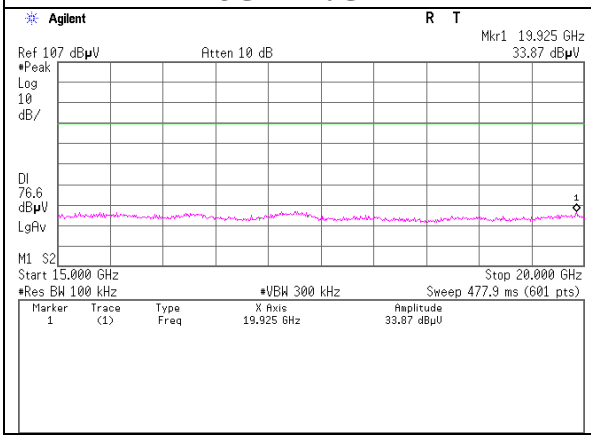
5GHz-10GHz



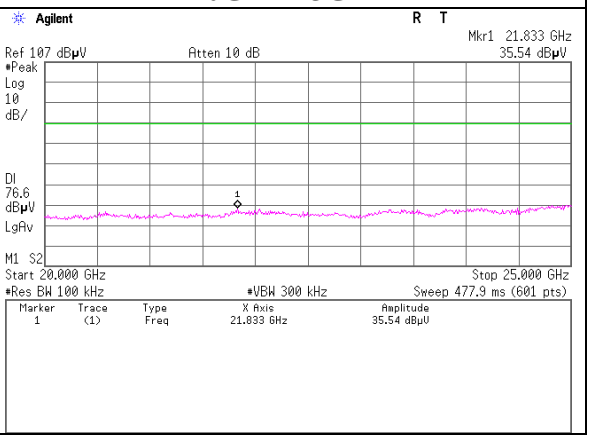
10GHz-15GHz



15GHz-20GHz

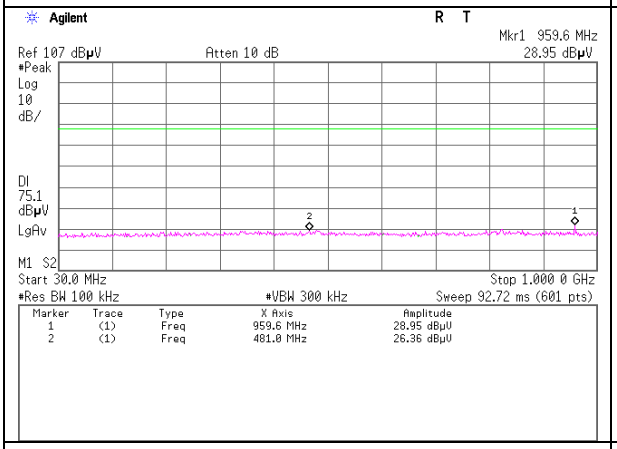


20GHz-25GHz

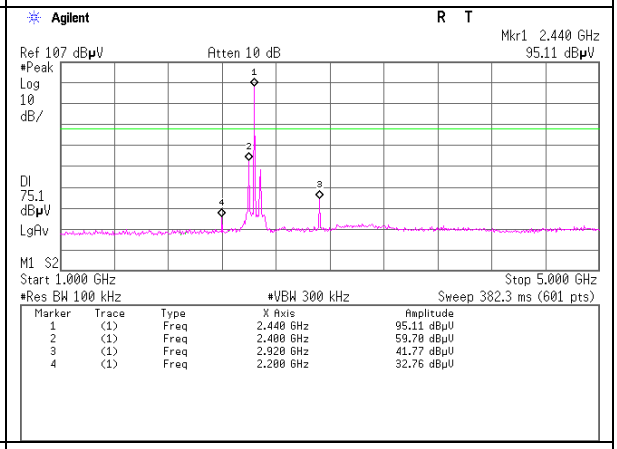


Conducted Spurious Emission
Ch: Mid

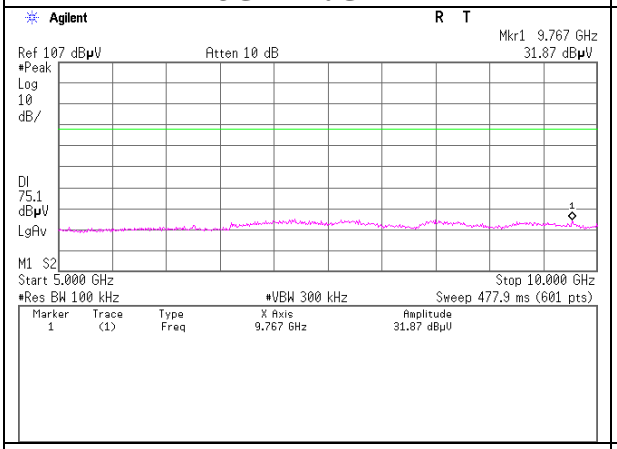
30MHz-1GHz



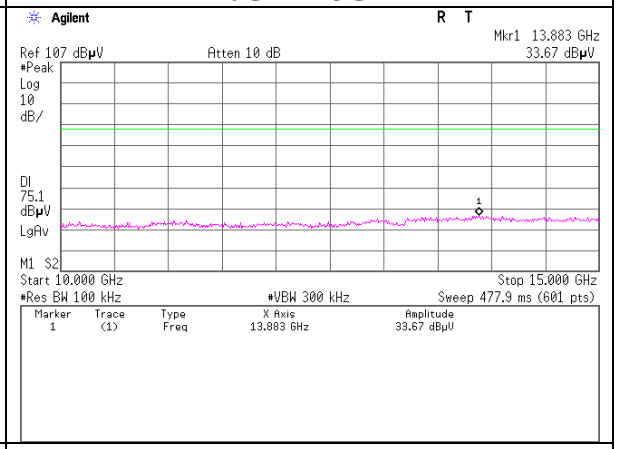
1GHz-5GHz



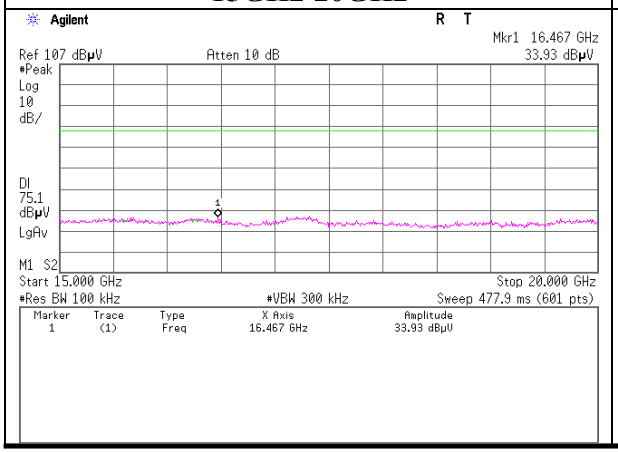
5GHz-10GHz



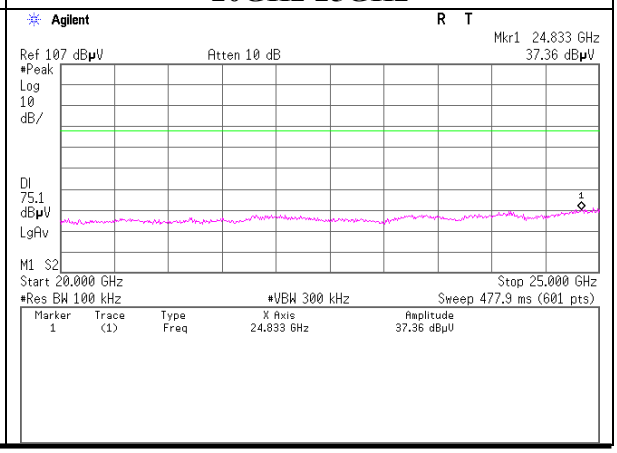
10GHz-15GHz



15GHz-20GHz

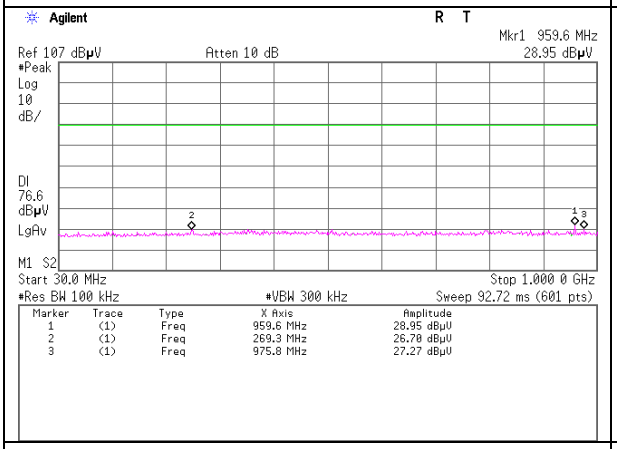


20GHz-25GHz

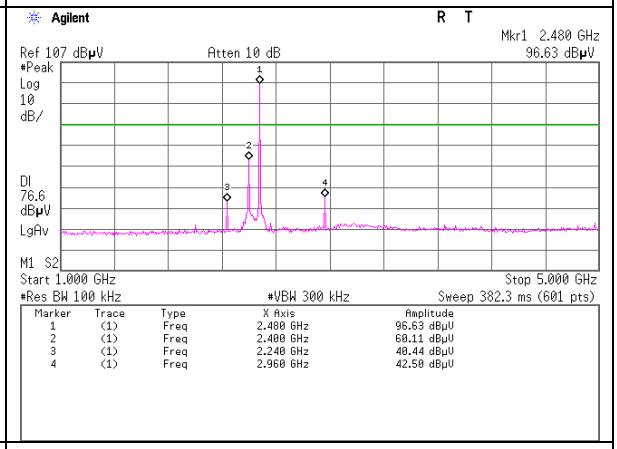


Conducted Spurious Emission
Ch: High

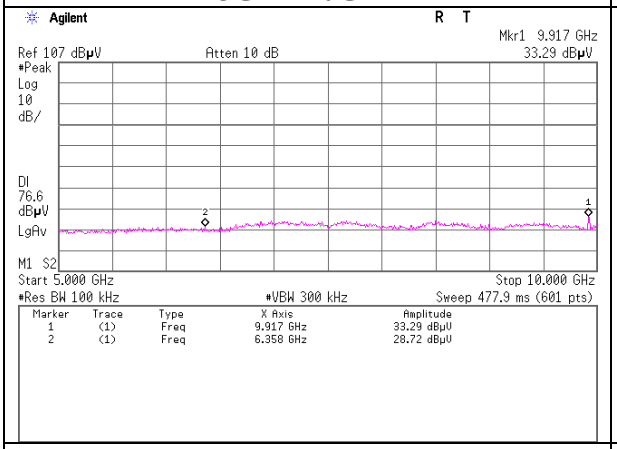
30MHz-1GHz



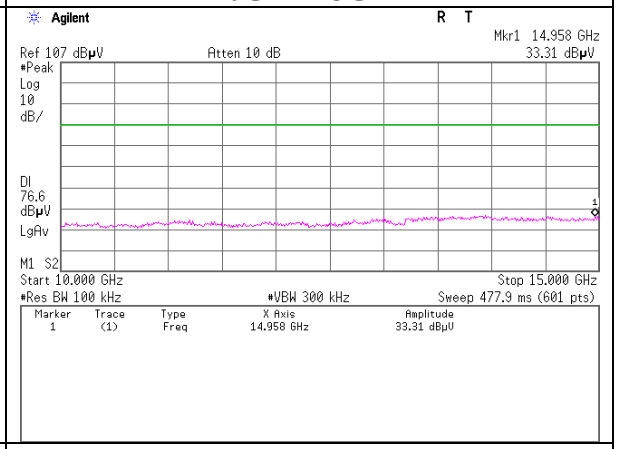
1GHz-5GHz



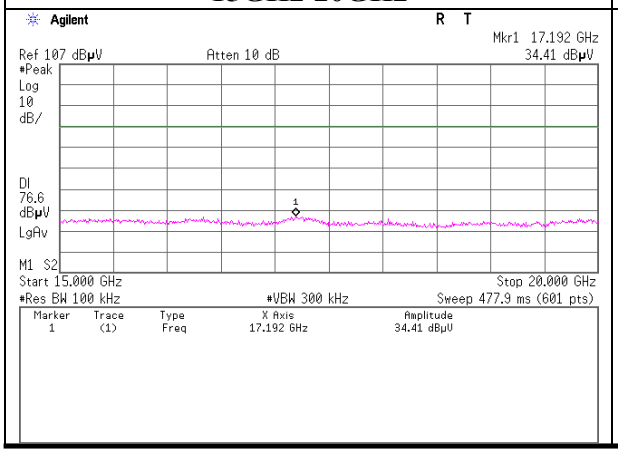
5GHz-10GHz



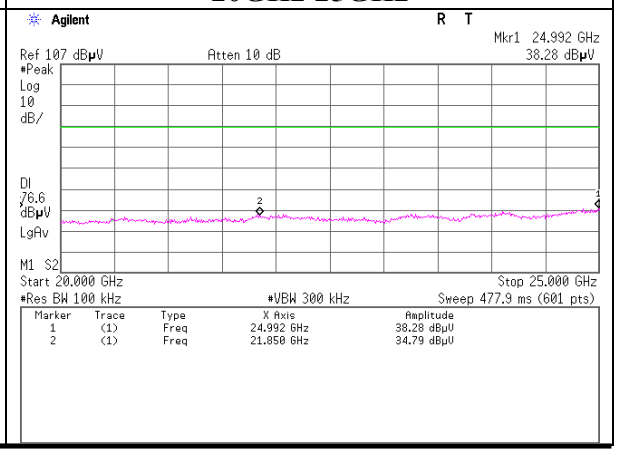
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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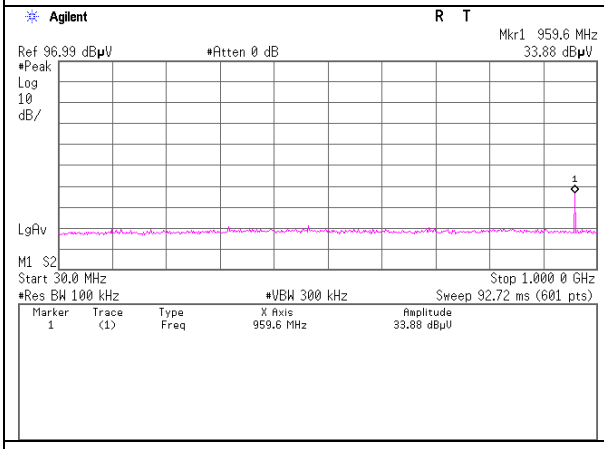
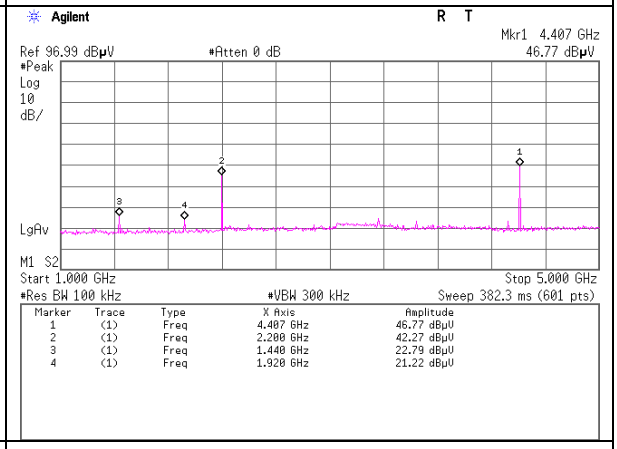
Facsimile : +81 596 24 8124

Conducted Spurious Emission
Rx(Ch:Mid)

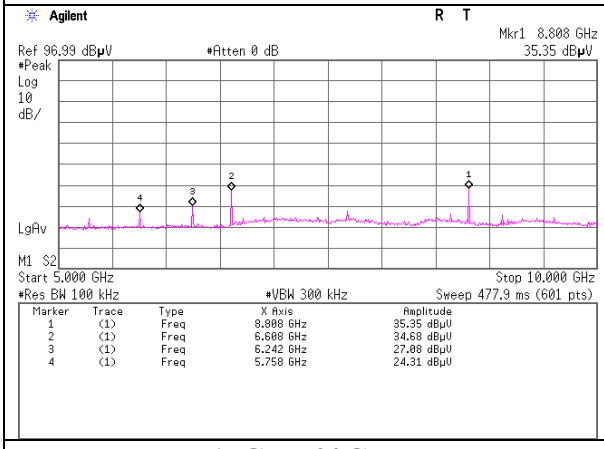
30MHz-1GHz



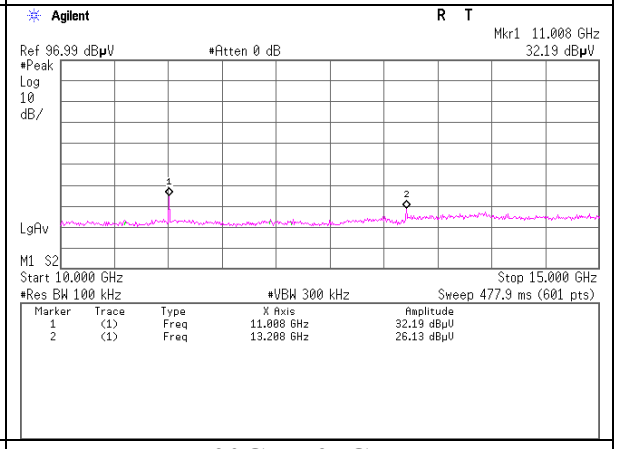
1GHz-5GHz



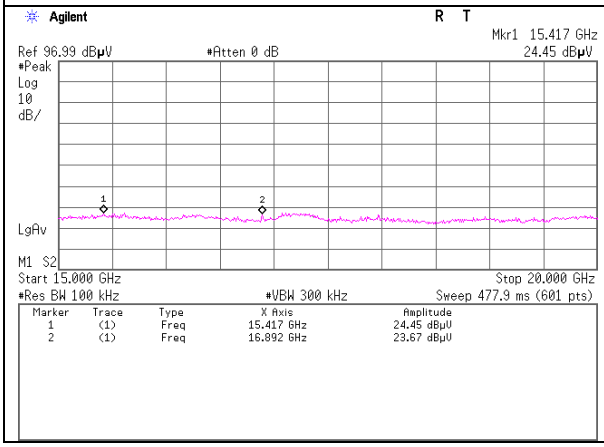
5GHz-10GHz



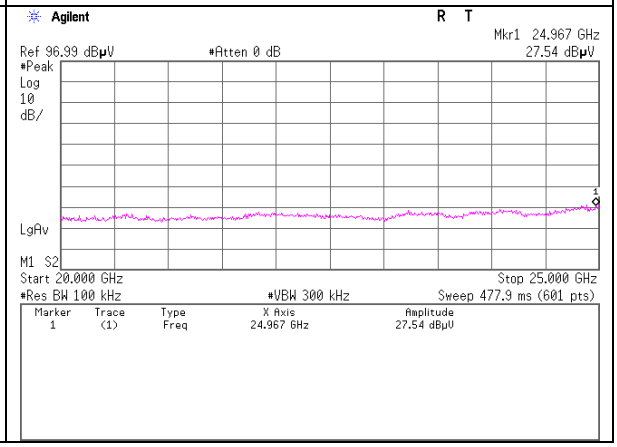
10GHz-15GHz



15GHz-20GHz

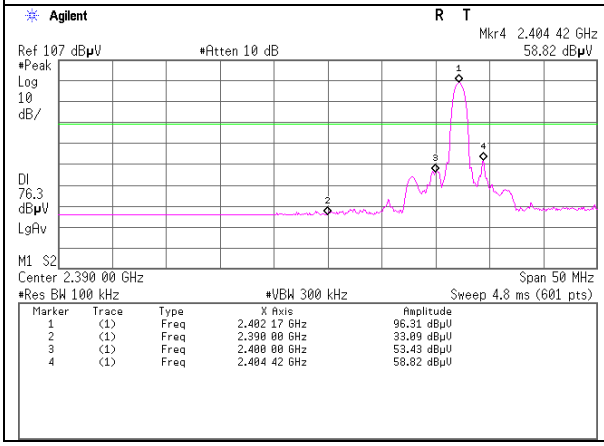


20GHz-25GHz

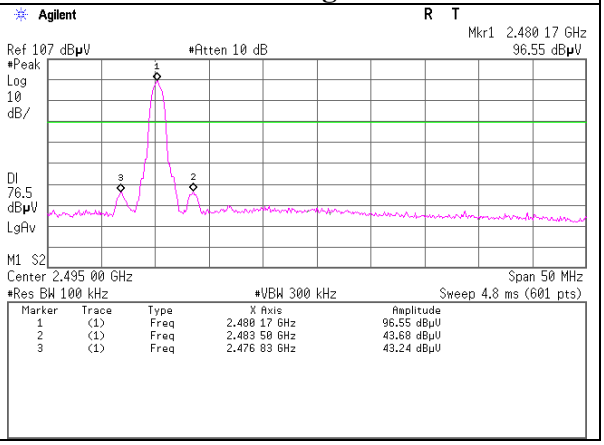


Conducted emission Band Edge compliance

Ch:Low



Ch:High



Power Density

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

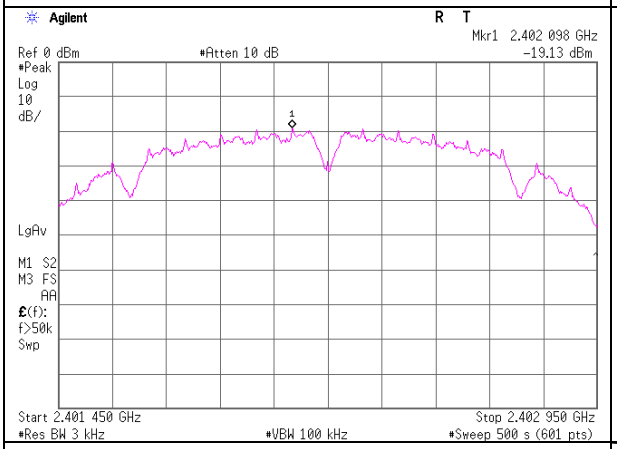
COMPANY	: Omron Corporation Okayama Factory	REGULATION	: FCC15.247(e)/RSS-210A8.2(2)
QUIPMENT	: FA Wireless SS Terminals	TEST DISTANCE	: -
MODEL	: WT30-M01-FLK	DATE	: 12/19/2006
SAMPLE NO.	: M01-4	TEMPERATURE	: 23℃
POWER	: DC24V	HUMIDITY	: 34%
MODE	: Tx (Ch L, M, H) , ANT1	ENGINEER	: Takumi Shimada

Ch	Freq. [MHz]	Reading [dBm]	Cable [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2402.1	-19.13	0.55	10.12	-8.46	8.00	16.46
Mid	2441.7	-20.34	0.56	10.12	-9.66	8.00	17.66
High	2480.1	-19.93	0.59	10.12	-9.22	8.00	17.22

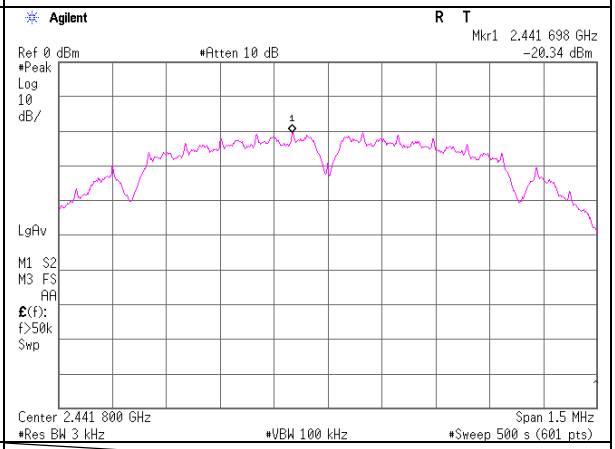
Sample Calculation:
Result = Reading + Cable Loss + Attenuator

Power Density

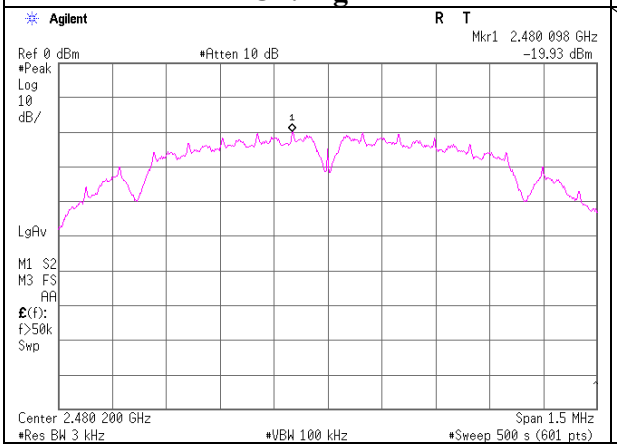
Ch:Low



Ch:Mid

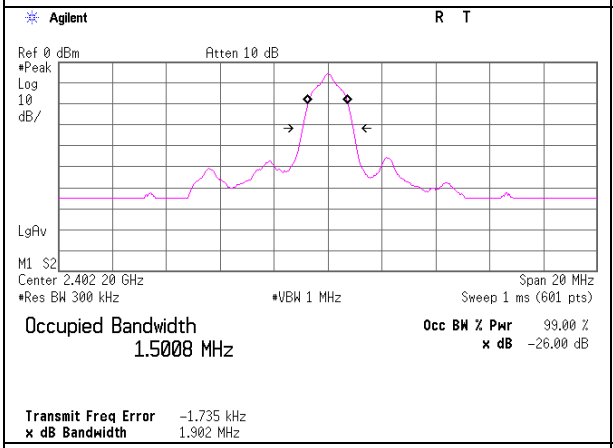


Ch:High

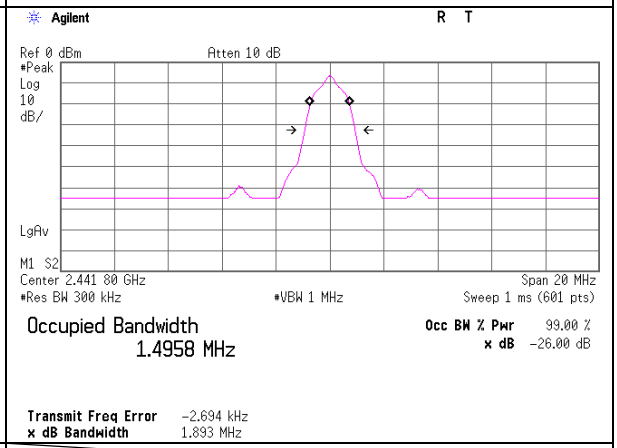


99%Occupied Bandwidth

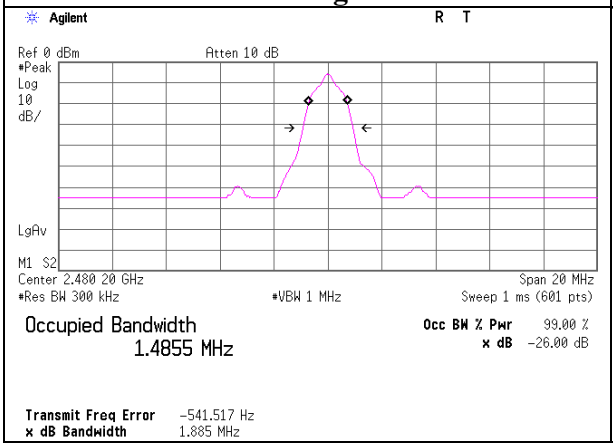
Ch:Low



Ch:Mid



Ch:High



APPENDIX 4: EMI test data for WT30-SMD16-1 (I/O slave)

Conducted Emission

(Tx, Low, Magnet-base Antenna)

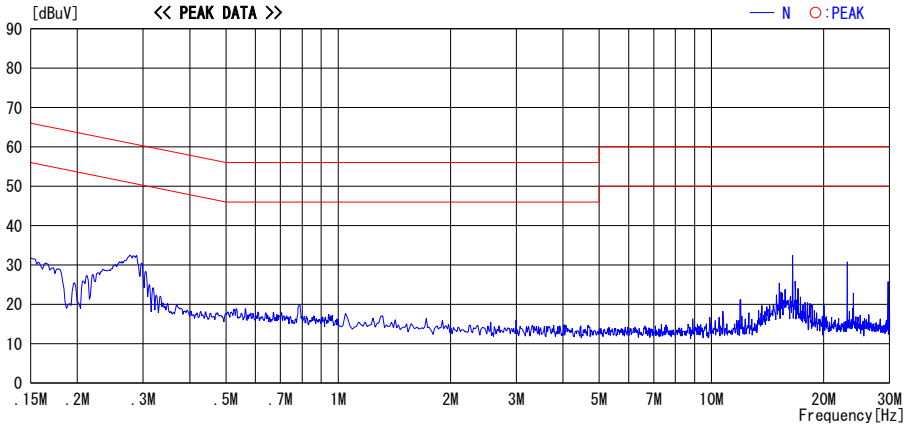
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals (I/O slave)	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 25deg.C / 30%
Serial No.	: SMD-1-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:L 2402.2MHz, ANT1, Magnet-base Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



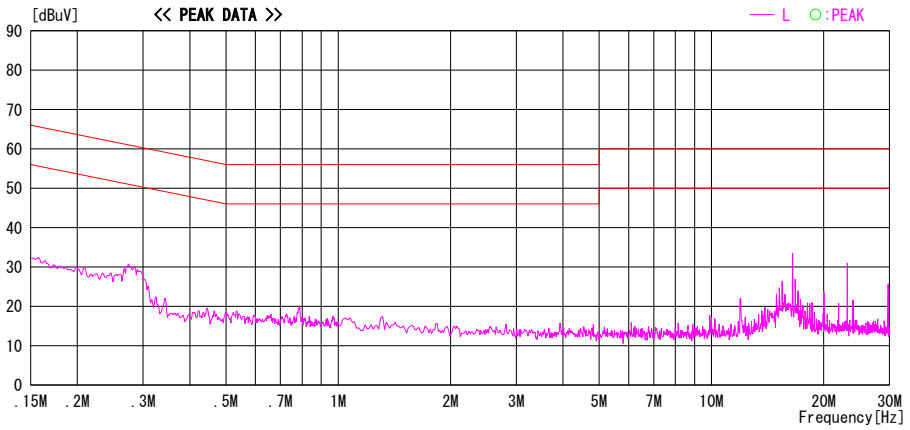


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Mid, Magnet-base Antenna)

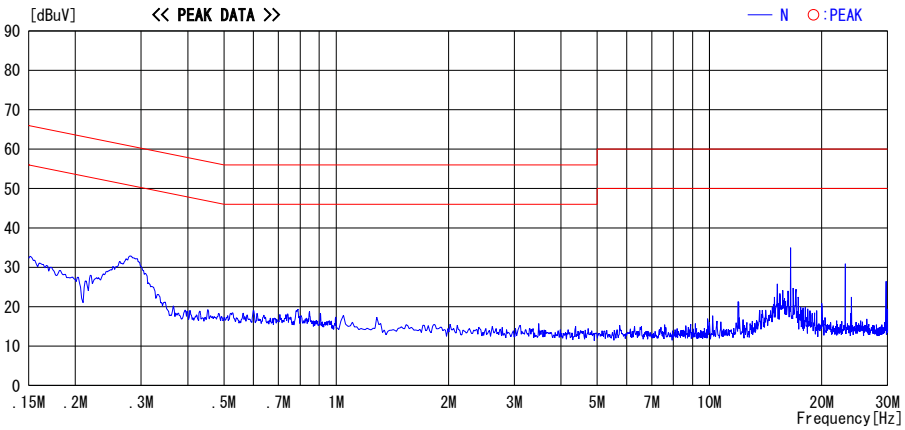
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals (I/O slave)	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 25deg.C / 30%
Serial No.	: SMD-1-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:M 2441.8MHz, ANT1, Magnet-base Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



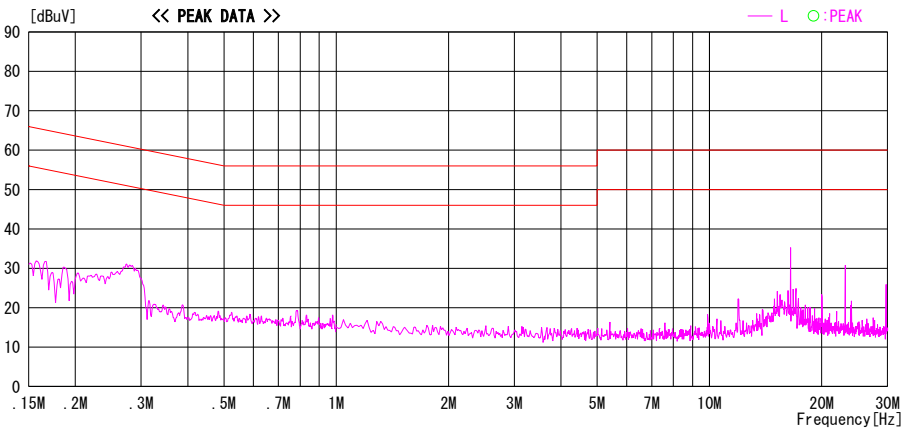


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Mid, Magnet-base Antenna)

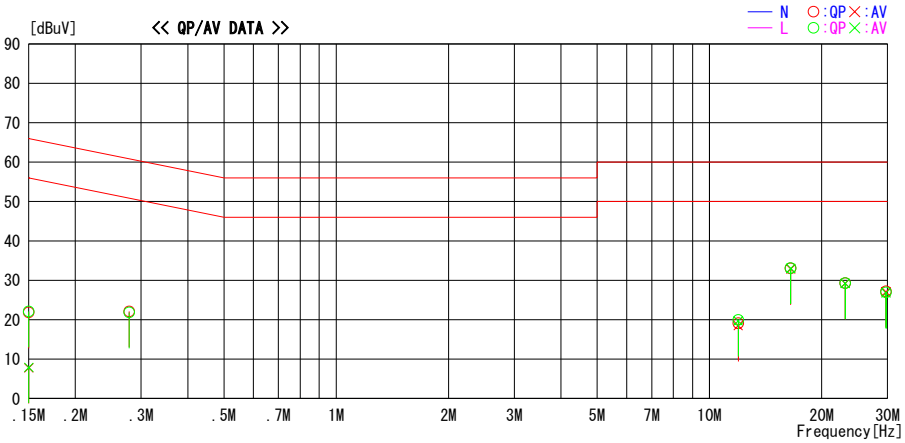
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals (I/O slave)	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 25deg.C / 30%
Serial No.	: SMD-1-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:M 2441.8MHz, ANT1, Magnet-base Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase
	QP	AV	Factor	QP	AV	QP	AV	QP	AV	
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]	
0.15000	21.5	7.5	0.3	21.8	7.8	66.0	56.0	44.2	48.2	N
0.27892	21.8	----	0.3	22.1	----	60.8	----	38.7	----	N
11.94929	17.5	16.9	1.6	19.1	18.5	60.0	50.0	40.9	31.5	N
16.50009	31.1	31.0	1.9	33.0	32.9	60.0	50.0	27.0	17.1	N
23.10071	27.0	26.9	2.3	29.3	29.2	60.0	50.0	30.7	20.8	N
29.69987	24.7	24.6	2.5	27.2	27.1	60.0	50.0	32.8	22.9	N
0.15000	21.8	7.6	0.3	22.1	7.9	66.0	56.0	43.9	48.1	L
0.27892	21.5	----	0.3	21.8	----	60.8	----	39.0	----	L
11.94929	18.3	18.1	1.6	19.9	19.7	60.0	50.0	40.1	30.3	L
16.50009	31.2	31.2	1.9	33.1	33.1	60.0	50.0	26.9	16.9	L
23.10071	27.0	26.9	2.3	29.3	29.2	60.0	50.0	30.7	20.8	L
29.69997	24.4	24.3	2.5	26.9	26.8	60.0	50.0	33.1	23.2	L

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, High, Magnet-base Antenna)

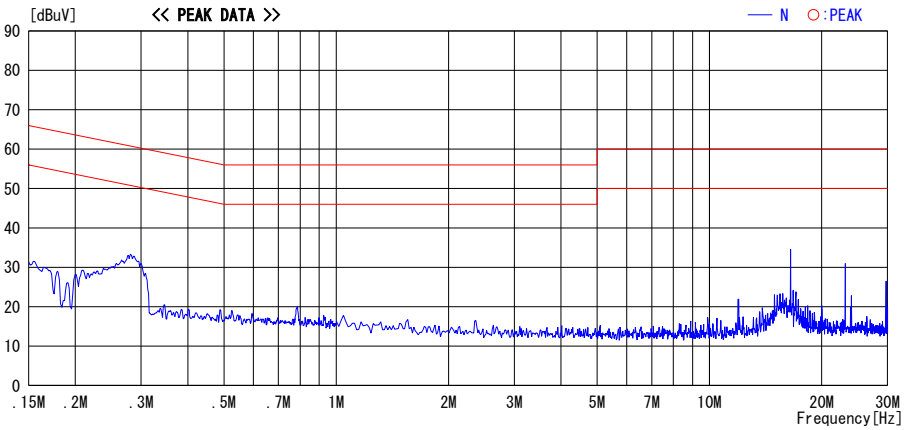
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals (I/O slave)	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 25deg.C / 30%
Serial No.	: SMD-1-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:H 2480.2MHz, ANT1, Magnet-base Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



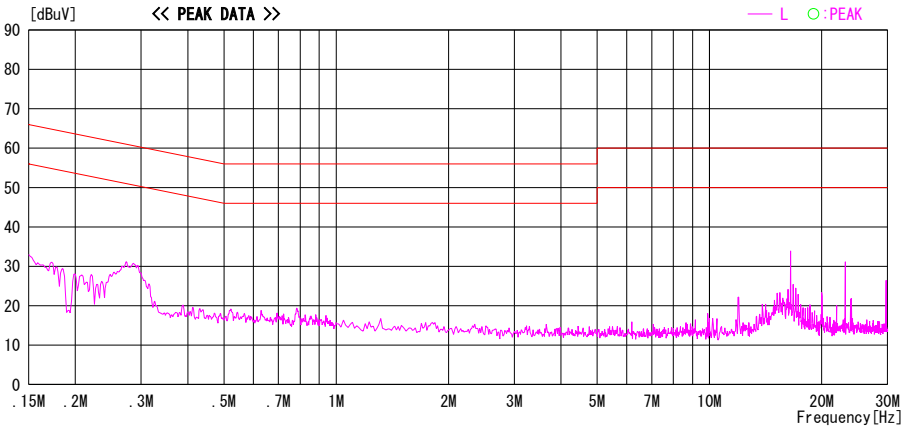


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Rx, Mid, Magnet-base Antenna)

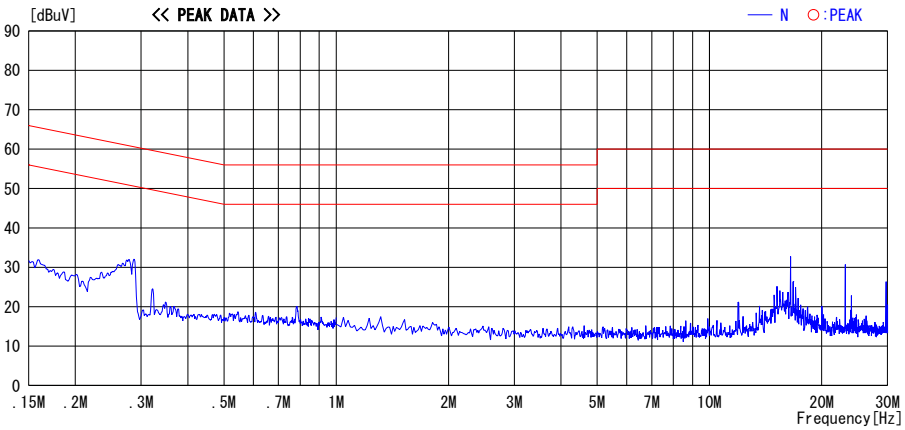
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals (I/O slave)	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 25deg.C / 30%
Serial No.	: SMD-1-4	Operator	: Kenichi Adachi

Mode / Remarks : Rx mode, ch:M 2441.8MHz, ANT1, Magnet-base Antenna

LIMIT : FCC15.107(a) QP
FCC15.107(a) AV



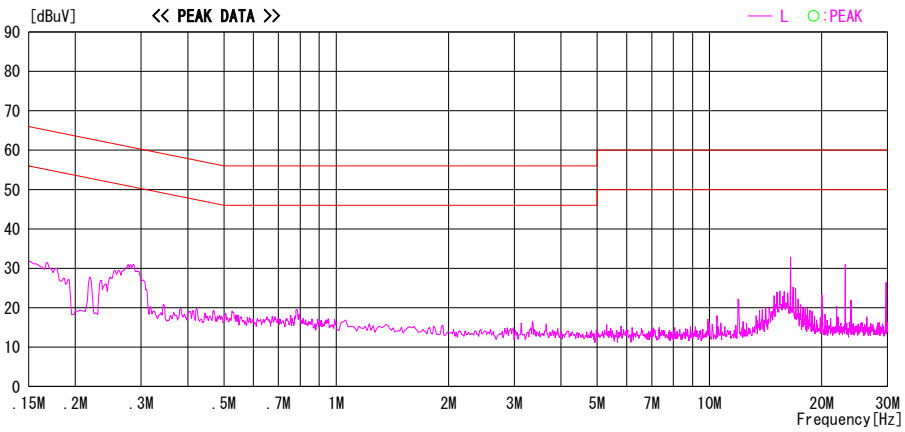


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Low, Flat Diversity Antenna)

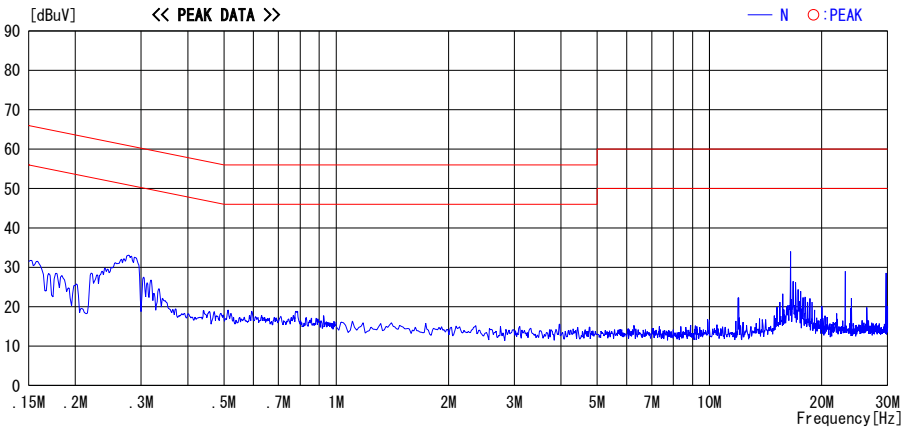
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals (I/O slave)	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 25deg.C / 30%
Serial No.	: SMD-1-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:L 2402.2MHz, ANT1, Flat Diversity Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



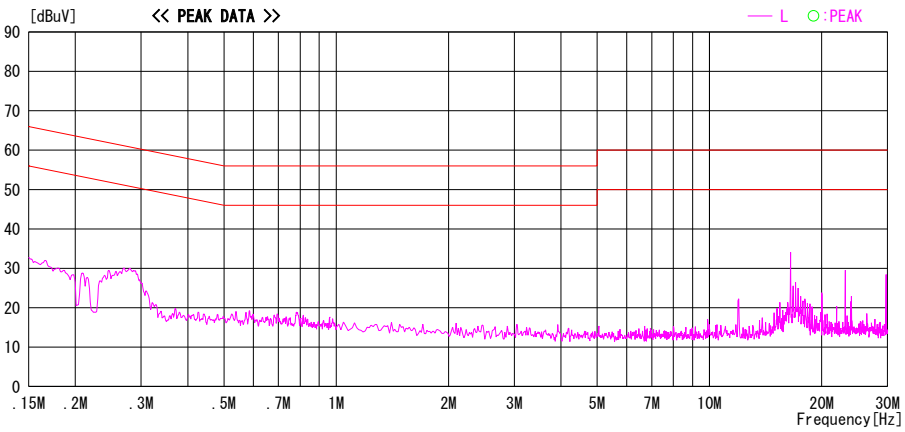


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Mid, Flat Diversity Antenna)

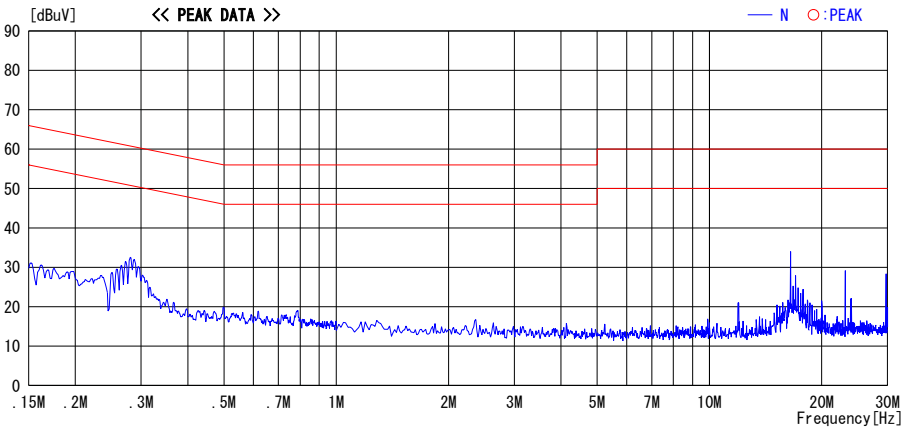
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals (I/O slave)	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 25deg.C / 30%
Serial No.	: SMD-1-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:M 2441.8MHz, ANT1, Flat Diversity Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



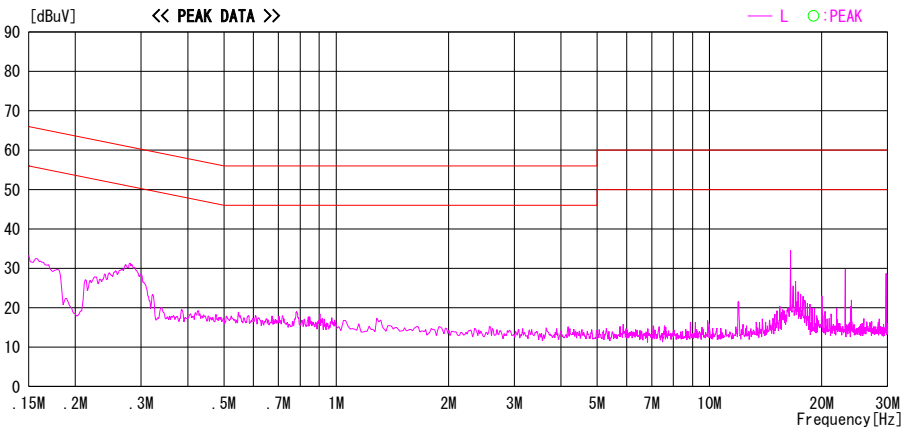


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Mid, Flat Diversity Antenna)

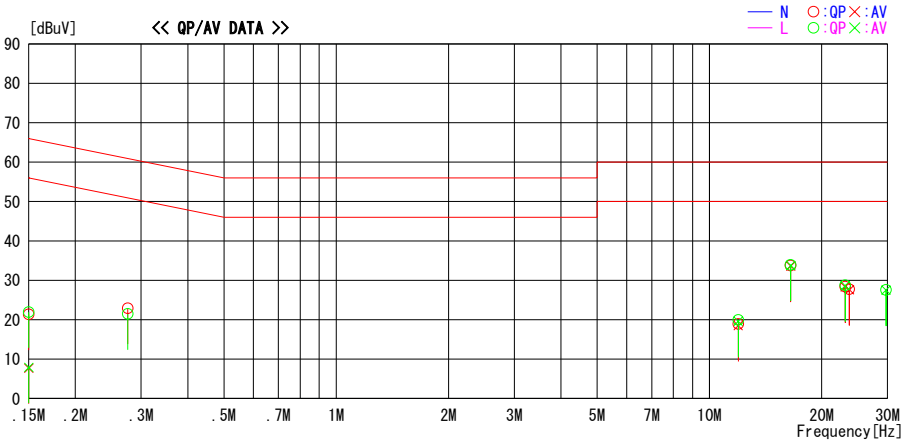
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals (I/O slave)
Model No. : WT30-SMD16-1
Serial No. : SMD-1-4
Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 25deg.C / 30%
Operator : Kenichi Adachi

Mode / Remarks : Tx mode, ch:M 2441.8MHz, ANT1, Flat Diversity Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase
	QP	AV	Factor	QP	AV	QP	AV	QP	AV	
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]	
0.15000	21.1	7.4	0.3	21.4	7.7	66.0	56.0	44.6	48.3	N
0.27634	22.6	----	0.3	22.9	----	60.9	----	38.0	----	N
11.94900	17.3	16.9	1.6	18.9	18.5	60.0	50.0	41.1	31.5	N
16.49932	31.8	31.7	1.9	33.7	33.6	60.0	50.0	26.3	16.4	N
23.10017	26.1	26.0	2.3	28.4	28.3	60.0	50.0	31.6	21.7	N
23.69998	25.4	25.3	2.3	27.7	27.6	60.0	50.0	32.3	22.4	N
0.15000	21.6	7.6	0.3	21.9	7.9	66.0	56.0	44.1	48.1	L
0.27634	21.2	----	0.3	21.5	----	60.9	----	39.4	----	L
11.94881	18.3	18.0	1.6	19.9	19.6	60.0	50.0	40.1	30.4	L
16.49932	32.0	31.9	1.9	33.9	33.8	60.0	50.0	26.1	16.2	L
23.10017	26.4	26.3	2.3	28.7	28.6	60.0	50.0	31.3	21.4	L
29.69987	25.1	25.0	2.5	27.6	27.5	60.0	50.0	32.4	22.5	L

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, High, Flat Diversity Antenna)

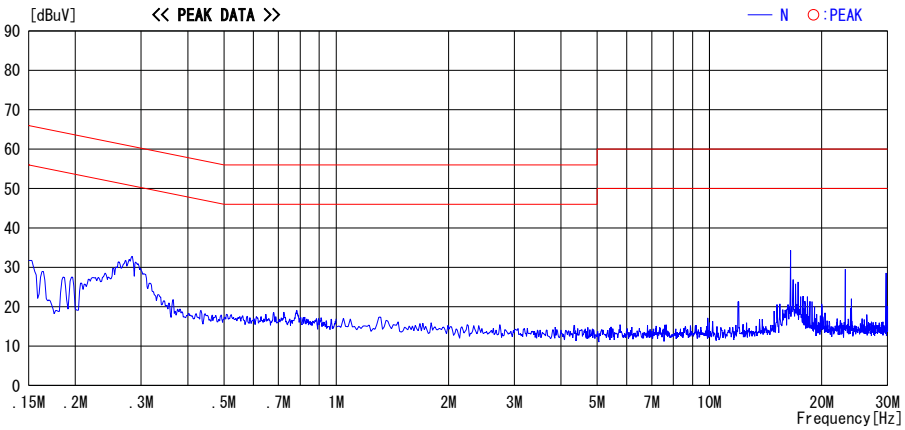
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals (I/O slave)	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 25deg.C / 30%
Serial No.	: SMD-1-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:H 2480.2MHz, ANT1, Flat Diversity Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



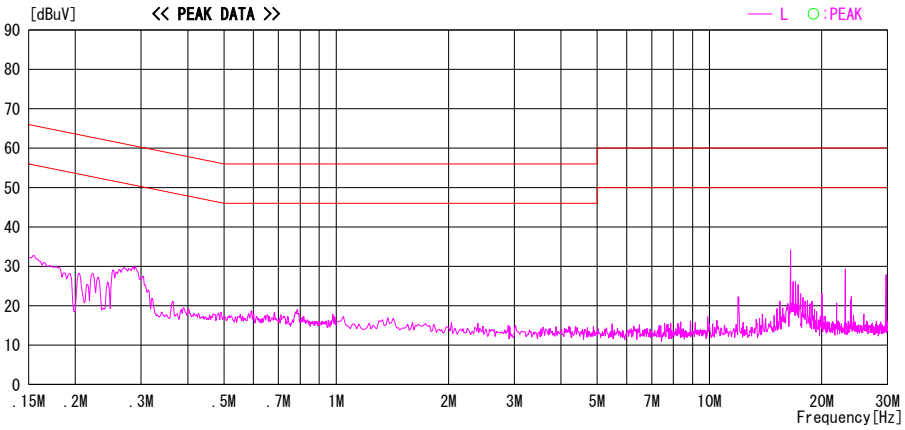


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Rx, Mid, Flat Diversity Antenna)

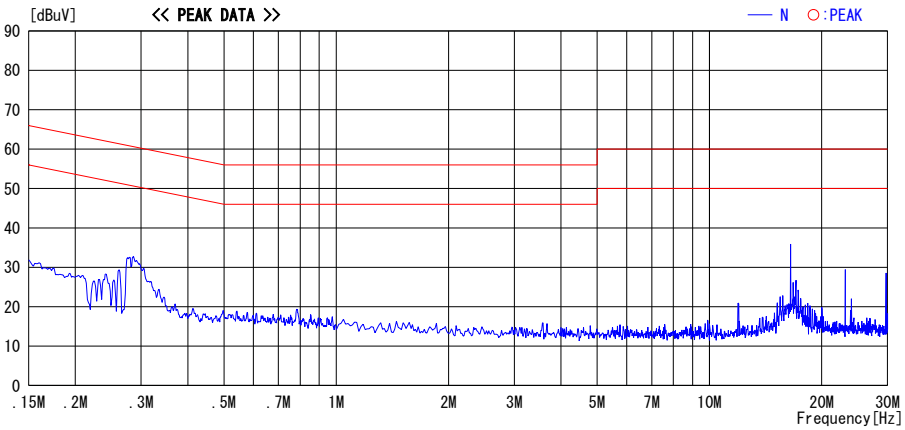
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals (I/O slave)	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 25deg.C / 30%
Serial No.	: SMD-1-4	Operator	: Kenichi Adachi

Mode / Remarks : Rx mode, ch:M 2441.8MHz, ANT1, Flat Diversity Antenna

LIMIT : FCC15.107(a) QP
FCC15.107(a) AV



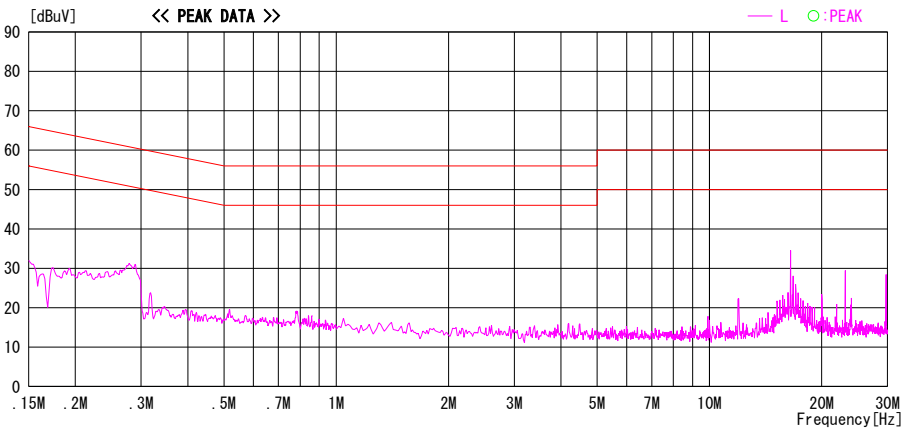


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Low, Pencil Antenna)

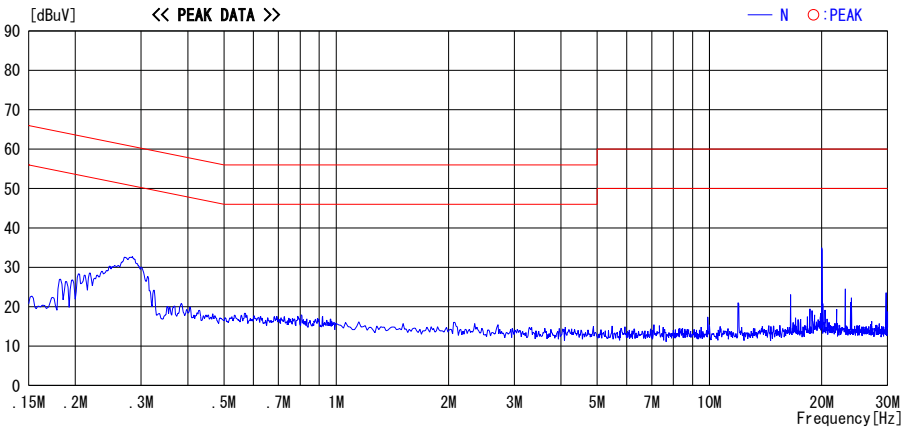
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals (I/O slave)	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 25deg.C / 30%
Serial No.	: SMD-1-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:L 2402.2MHz, ANT1, Pencil Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



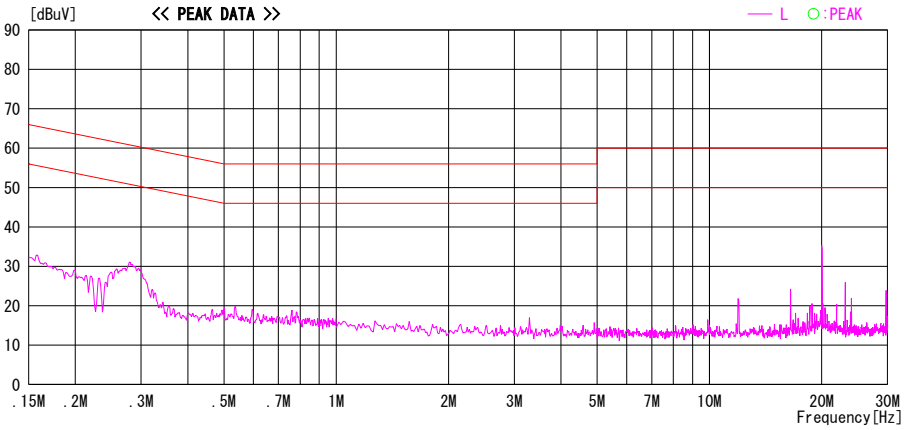


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Mid, Pencil Antenna)

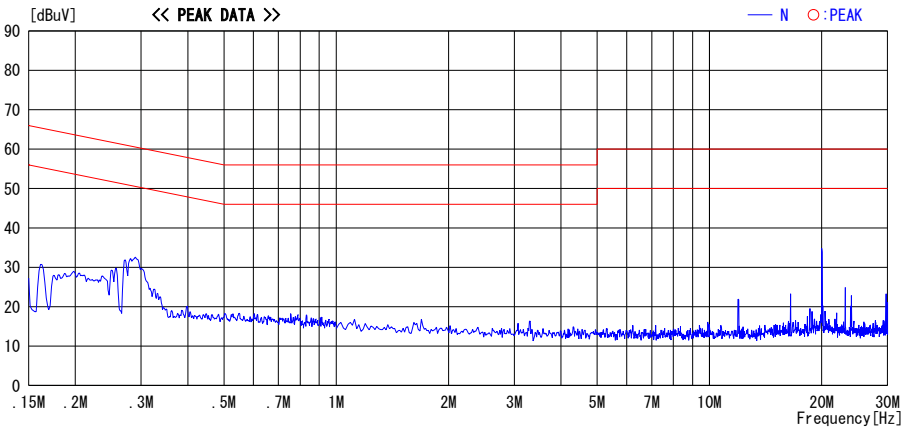
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals (I/O slave)	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 25deg.C / 30%
Serial No.	: SMD-1-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:M 2441.8MHz, ANT1, Pencil Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



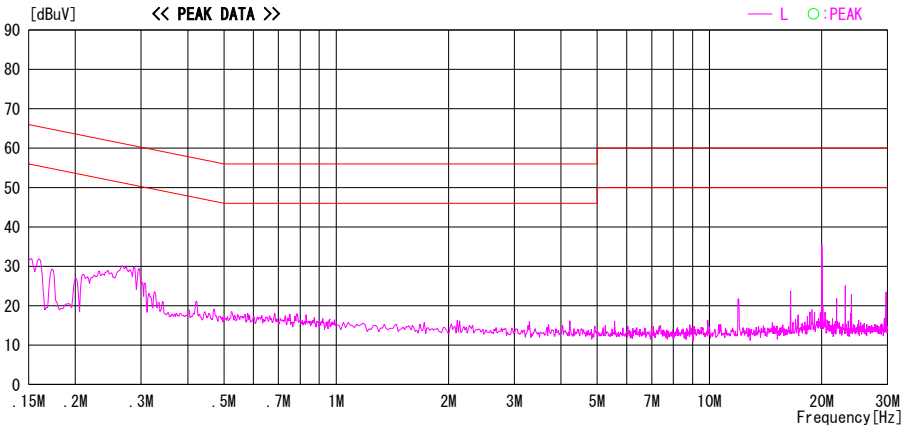


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, Mid, Pencil Antenna)

DATA OF CONDUCTED EMISSION TEST

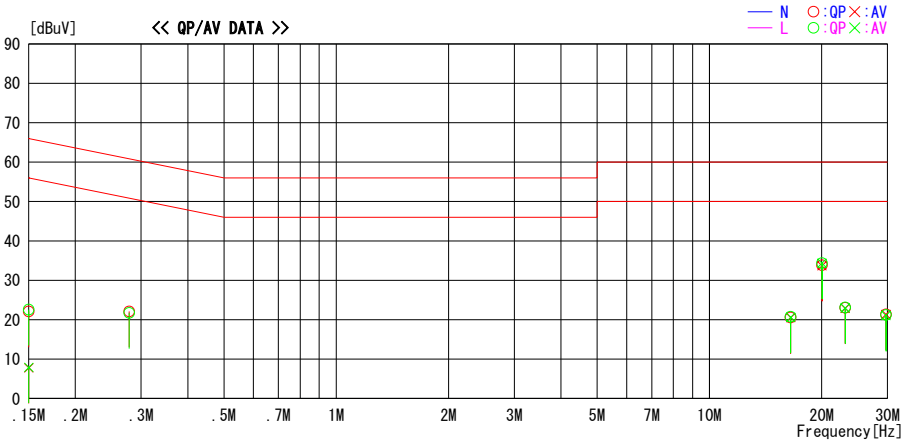
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals (I/O slave)
Model No. : WT30-SMD16-1
Serial No. : SMD-1-4

Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 25deg.C / 30%
Operator : Kenichi Adachi

Mode / Remarks : Tx mode, ch:M 2441.8MHz, ANT1, Pencil Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase
	QP	AV	Factor	QP	AV	QP	AV	QP	AV	
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]	
0.15000	21.8	7.5	0.3	22.1	7.8	66.0	56.0	43.9	48.2	N
0.27871	21.8	----	0.3	22.1	----	60.9	----	38.8	----	N
16.50107	18.7	18.6	1.9	20.6	20.5	60.0	50.0	39.4	29.5	N
20.01395	31.6	31.5	2.2	33.8	33.7	60.0	50.0	26.2	16.3	N
23.10106	20.7	20.6	2.3	23.0	22.9	60.0	50.0	37.0	27.1	N
29.69901	18.9	18.8	2.5	21.4	21.3	60.0	50.0	38.6	28.7	N
0.15000	22.3	7.6	0.3	22.6	7.9	66.0	56.0	43.4	48.1	L
0.27871	21.4	----	0.3	21.7	----	60.9	----	39.2	----	L
16.50107	18.8	18.7	1.9	20.7	20.6	60.0	50.0	39.3	29.4	L
20.01416	32.2	32.1	2.2	34.4	34.3	60.0	50.0	25.6	15.7	L
23.10106	20.8	20.7	2.3	23.1	23.0	60.0	50.0	36.9	27.0	L
29.69901	18.7	18.6	2.5	21.2	21.1	60.0	50.0	38.8	29.0	L

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Tx, High, Pencil Antenna)

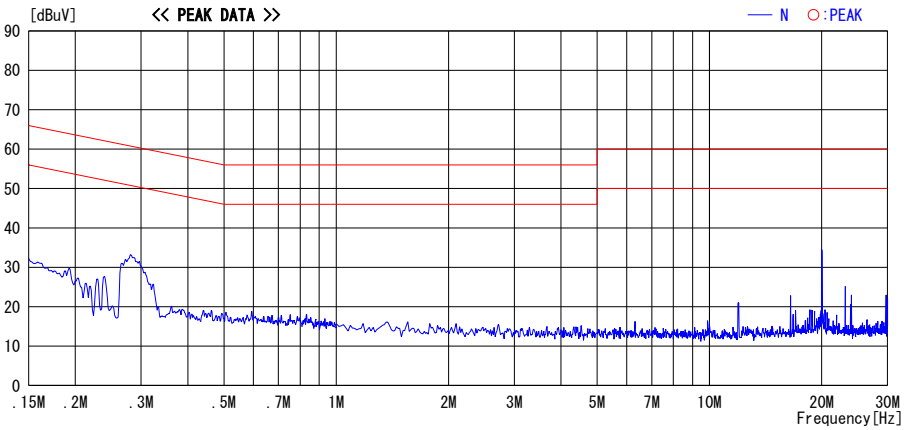
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals (I/O slave)	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 25deg.C / 30%
Serial No.	: SMD-1-4	Operator	: Kenichi Adachi

Mode / Remarks : Tx mode, ch:H 2480.2MHz, ANT1, Pencil Antenna

LIMIT : FCC15.207 QP
FCC15.207 AV



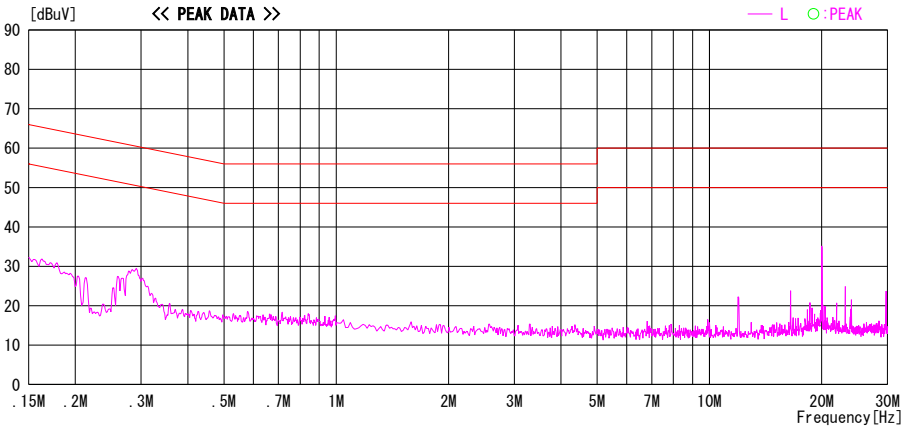


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

(Rx, Mid, Pencil Antenna)

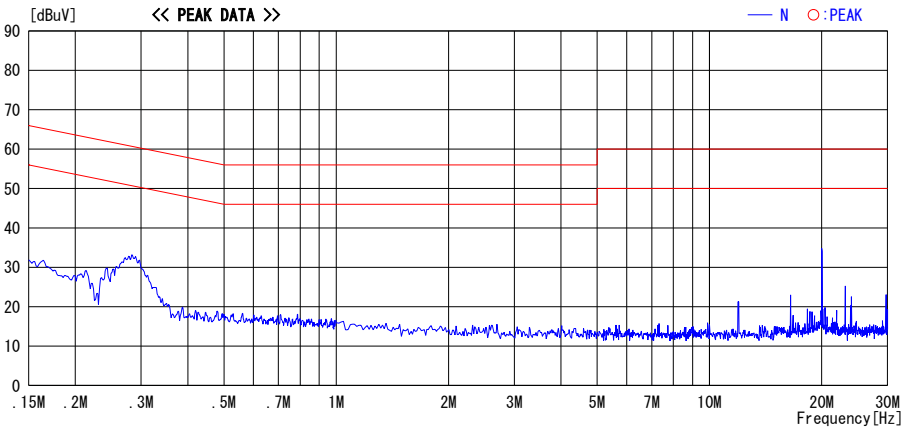
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/03/01

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals (I/O slave)	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 25deg.C / 30%
Serial No.	: SMD-1-4	Operator	: Kenichi Adachi

Mode / Remarks : Rx mode, ch:M 2441.8MHz, ANT1, Pencil Antenna

LIMIT : FCC15.107(a) QP
FCC15.107(a) AV



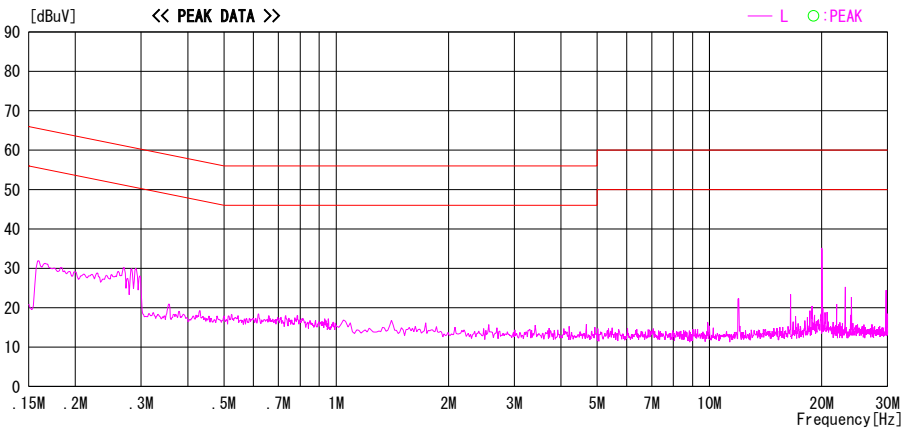


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

6dB Bandwidth

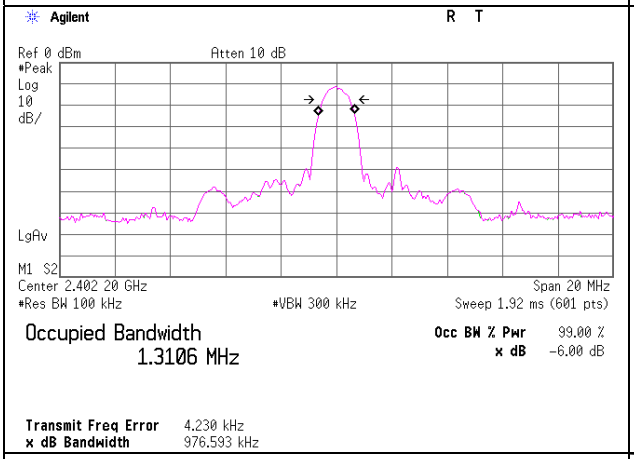
UL Apex Co., Ltd.
Head Office EMC Lab. No.6 Shielded Room

COMPANY	: Omron Corporation Okayama Factory	REGULATION	: FCC15.247(a)(2)/RSS-210A8.2(1)
QUIPMENT	: FA Wireless SS Terminals	TEST DISTANCE	: -
MODEL	: WT30-SMD16-1	DATE	: 12/08/2006
SAMPLE NO.	: SMD-1-4	TEMPERATURE	: 22℃
POWER	: DC24V	HUMIDITY	: 52%
MODE	: Tx (Ch L, M, H) , ANT1	ENGINEER	: Takumi Shimada

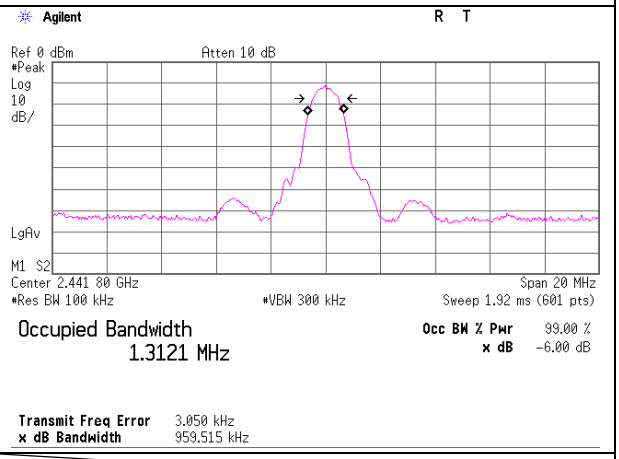
Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2402.2	0.976	>500
Mid	2441.8	0.959	>500
High	2480.2	0.897	>500

6dB Bandwidth

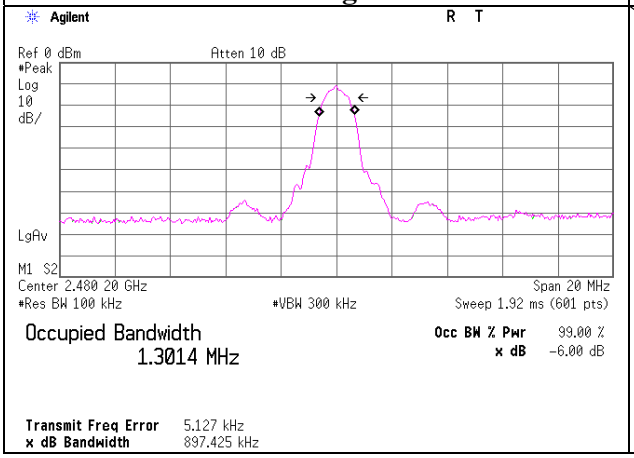
Ch:Low



Ch:Mid



Ch:High



Maximum Peak Output Power

UL Apex Co., Ltd.
Head Office EMC Lab. No.6 Shielded Room

COMPANY	: Omron Corporation Okayama Factory	REGULATION	: FCC15.247(b)(3)/RSS-210A8.4(4)
QUIPMENT	: FA Wireless SS Terminals	TEST DISTANCE	: -
MODEL	: WT30-SMD16-1	DATE	: 12/08/2006
SAMPLE NO.	: SMD-1-4	TEMPERATURE	: 22℃
POWER	: DC24V	HUMIDITY	: 52%
MODE	: Tx (Ch L, M, H)	ENGINEER	: Takumi Shimada

(ANT1)

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Result [mW]	Limit [dBm]	Limit [mW]	Margin [dB]
Low	2402.2	-2.85	0.55	10.12	7.82	6.05	30.00	1000	22.18
Mid	2441.8	-3.18	0.56	10.12	7.50	5.62	30.00	1000	22.50
High	2480.2	-3.11	0.59	10.12	7.60	5.75	30.00	1000	22.40

Sample Calculation:
Result = Reading + Cable Loss + Attenuator

(ANT2)

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Result [mW]	Limit [dBm]	Limit [mW]	Margin [dB]
Low	2402.2	-3.02	0.55	10.12	7.65	5.82	30.00	1000	22.35
Mid	2441.8	-3.24	0.56	10.12	7.44	5.55	30.00	1000	22.56
High	2480.2	-3.22	0.59	10.12	7.49	5.61	30.00	1000	22.51

Sample Calculation:
Result = Reading + Cable Loss + Attenuator

Radiated Spurious Emission (below 1GHz)

Magnet-base Antenna

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

DATA OF RADIATED EMISSION TEST

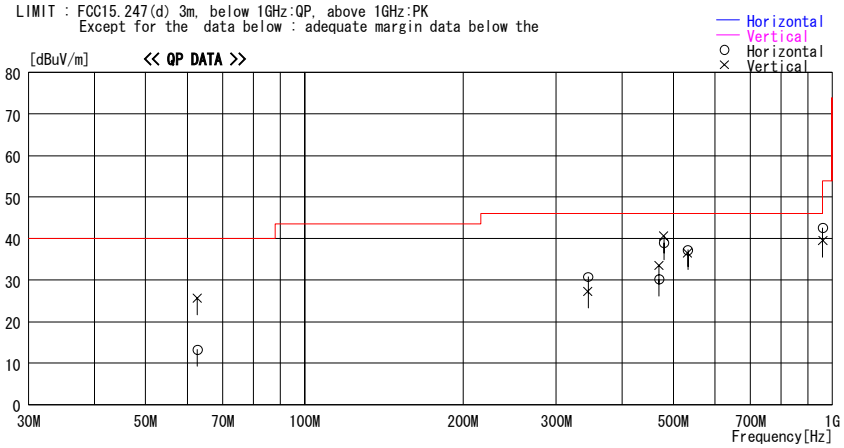
UL Apex Co., Ltd. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2007/01/14

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals
Model No. : WT30-SMD16-1
Serial No. : SMD-1-4

Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 23deg.C. / 38%
Operator : Takumi Shimada

Mode / Remarks : Tx mode, ch:L 2402.2MHz, EUT(H:Y-axis,V:X-axis) ,ANT1 (Magnet)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
Except for the data below : adequate margin data below the



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
62.699	41.6	QP	8.4	-24.3	25.7	163	100	Vert.	40.0	14.3
62.706	29.2	QP	8.4	-24.3	13.3	154	212	Hori.	40.0	26.7
344.673	35.1	QP	17.3	-21.6	30.8	189	100	Hori.	46.0	15.2
344.673	31.6	QP	17.3	-21.6	27.3	267	127	Vert.	46.0	18.7
470.007	34.9	QP	19.4	-20.8	33.5	168	109	Vert.	46.0	12.5
470.020	31.6	QP	19.4	-20.8	30.2	117	100	Hori.	46.0	15.8
480.002	41.8	QP	19.6	-20.8	40.6	178	114	Vert.	46.0	5.4
480.008	40.2	QP	19.6	-20.8	39.0	120	100	Hori.	46.0	7.0
532.667	37.0	QP	20.1	-20.5	36.6	194	100	Vert.	46.0	9.4
532.681	37.7	QP	20.1	-20.5	37.3	213	100	Hori.	46.0	8.7
959.999	31.2	QP	25.8	-17.5	39.5	8	100	Vert.	46.0	6.5
959.999	34.3	QP	25.8	-17.5	42.6	359	269	Hori.	46.0	3.4

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)

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

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DATA OF RADIATED EMISSION TEST

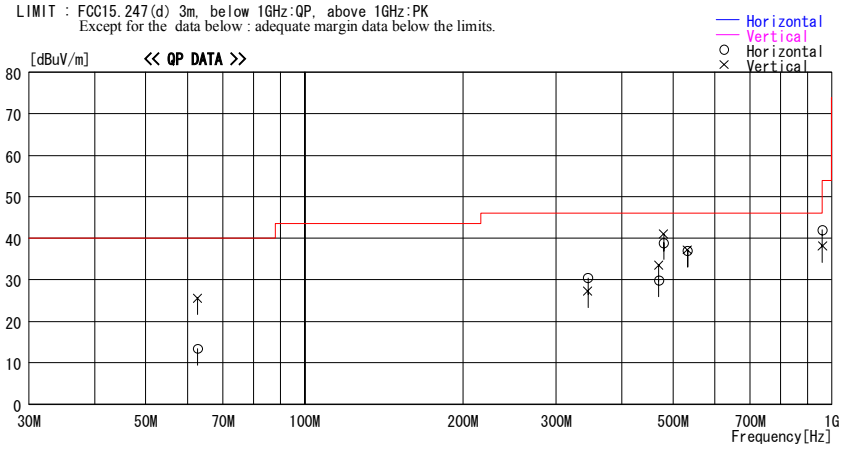
UL Apex Co., Ltd. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2007/01/14

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals
Model No. : WT30-SMD16-1
Serial No. : SMD-1-4

Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 23deg.C. / 38%
Operator : Takumi Shimada

Mode / Remarks : Tx mode, ch:M 2441.8MHz, EUT(H:Y-axis,V:X-axis) ,ANT1 (Magnet)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
62.707	29.3	QP	8.4	-24.3	13.4	144	313	Hori.	40.0	26.6
62.707	41.5	QP	8.4	-24.3	25.6	185	100	Vert.	40.0	14.4
344.671	34.8	QP	17.3	-21.6	30.5	185	100	Hori.	46.0	15.5
344.674	31.6	QP	17.3	-21.6	27.3	263	139	Vert.	46.0	18.7
470.003	35.0	QP	19.4	-20.8	33.6	170	114	Vert.	46.0	12.4
470.008	31.3	QP	19.4	-20.8	29.9	116	100	Hori.	46.0	16.1
480.001	40.1	QP	19.6	-20.8	38.9	130	100	Hori.	46.0	7.1
480.005	42.2	QP	19.6	-20.8	41.0	168	115	Vert.	46.0	5.0
532.683	37.4	QP	20.1	-20.5	37.0	315	100	Hori.	46.0	9.0
532.684	37.6	QP	20.1	-20.5	37.2	190	100	Vert.	46.0	8.8
959.999	33.7	QP	25.8	-17.5	42.0	359	269	Hori.	46.0	4.0
959.999	29.9	QP	25.8	-17.5	38.2	0	100	Vert.	46.0	7.8

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)

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

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DATA OF RADIATED EMISSION TEST

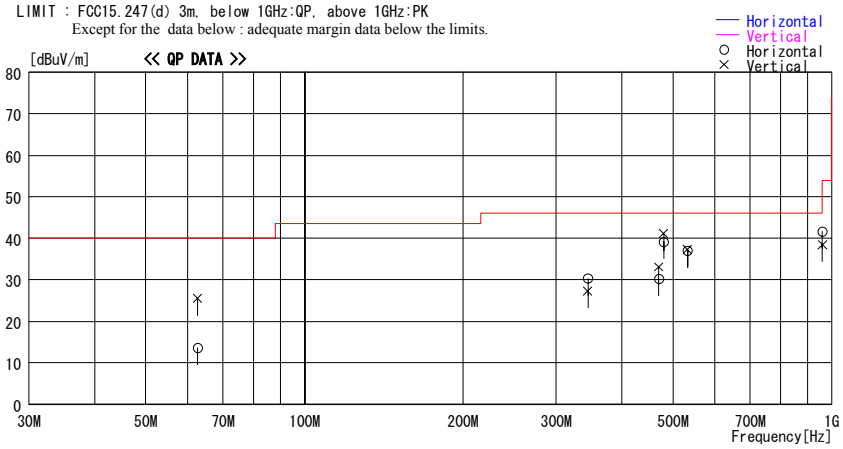
UL Apex Co., Ltd. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2007/01/14

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals
Model No. : WT30-SMD16-1
Serial No. : SMD-1-4

Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 23deg.C. / 38%
Operator : Takumi Shimada

Mode / Remarks : Tx mode, ch:H 2482.2MHz, EUT(H:Y-axis,V:X-axis) ,ANT1 (Magnet)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
62.705	29.5	QP	8.4	-24.3	13.6	134	258	Hori.	40.0	26.4
62.705	41.4	QP	8.4	-24.3	25.5	146	100	Vert.	40.0	14.5
344.672	31.6	QP	17.3	-21.6	27.3	263	137	Vert.	46.0	18.7
344.691	34.6	QP	17.3	-21.6	30.3	190	100	Hori.	46.0	15.7
470.004	31.6	QP	19.4	-20.8	30.2	129	100	Hori.	46.0	15.8
470.008	34.5	QP	19.4	-20.8	33.1	173	100	Vert.	46.0	12.9
480.004	42.3	QP	19.6	-20.8	41.1	170	127	Vert.	46.0	4.9
480.006	40.3	QP	19.6	-20.8	39.1	126	100	Hori.	46.0	6.9
532.685	37.7	QP	20.1	-20.5	37.3	189	100	Vert.	46.0	8.7
532.688	37.3	QP	20.1	-20.5	36.9	310	100	Hori.	46.0	9.1
959.999	33.3	QP	25.8	-17.5	41.6	359	272	Hori.	46.0	4.4
959.999	30.1	QP	25.8	-17.5	38.4	3	100	Vert.	46.0	7.6

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)

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

DATA OF RADIATED EMISSION TEST

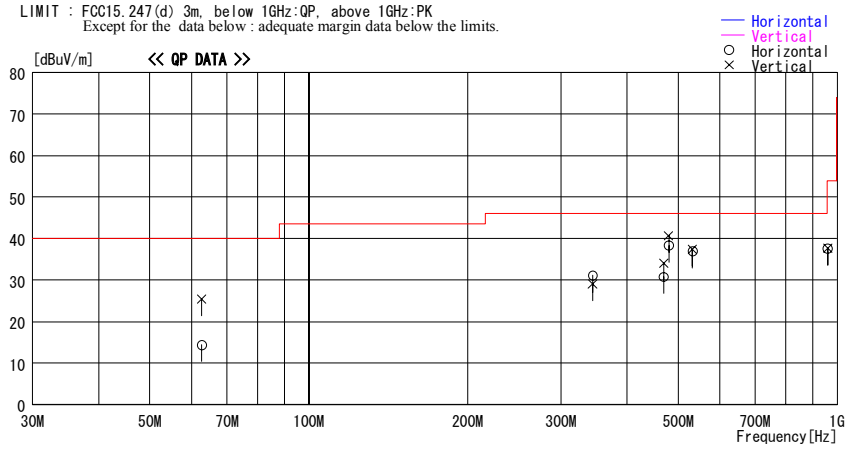
UL Apex Co., Ltd. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2007/01/14

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals
Model No. : WT30-SMD16-1
Serial No. : SMD-1-4

Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 23deg.C. / 38%
Operator : Takumi Shimada

Mode / Remarks : Rx mode, ch:M 2441.8MHz, EUT(H:Y-axis,V:X-axis) ,ANT1 (Magnet)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
62.708	30.3	QP	8.4	-24.3	14.4	178	300	Hori.	40.0	25.6
62.708	41.3	QP	8.4	-24.3	25.4	220	100	Vert.	40.0	14.6
344.678	35.4	QP	17.3	-21.6	31.1	74	100	Hori.	46.0	14.9
344.672	33.3	QP	17.3	-21.6	29.0	314	137	Vert.	46.0	17.0
470.005	32.2	QP	19.4	-20.8	30.8	131	100	Hori.	46.0	15.2
470.005	35.4	QP	19.4	-20.8	34.0	175	118	Vert.	46.0	12.0
480.005	39.5	QP	19.6	-20.8	38.3	123	100	Hori.	46.0	7.7
480.005	41.9	QP	19.6	-20.8	40.7	175	125	Vert.	46.0	5.3
532.687	37.3	QP	20.1	-20.5	36.9	317	100	Hori.	46.0	9.1
532.682	37.8	QP	20.1	-20.5	37.4	195	100	Vert.	46.0	8.6
959.999	29.3	QP	25.8	-17.5	37.6	359	293	Hori.	46.0	8.4
959.999	29.4	QP	25.8	-17.5	37.7	359	100	Vert.	46.0	8.3

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)

Flat Diversity Antenna

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

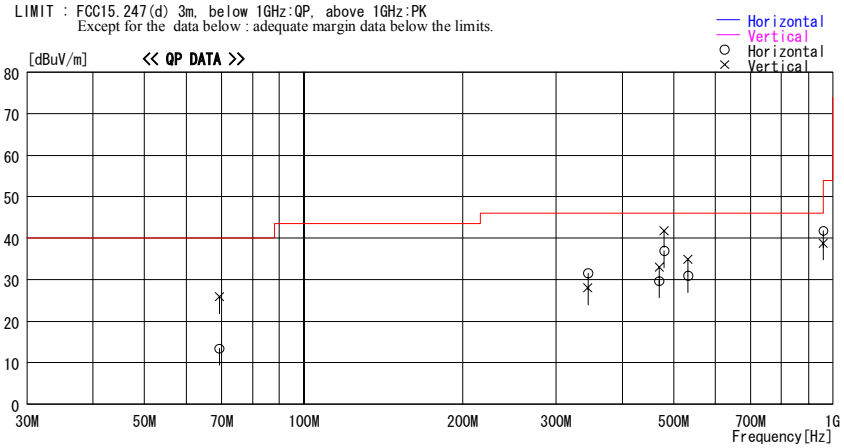
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2007/01/14

Company	: OMRON Corporation Okayama Factory	Report No.	: 27EE0053-HO
Kind of EUT	: FA Wireless SS Terminals	Power	: DC 24V
Model No.	: WT30-SMD16-1	Temp./Humi.	: 23deg.C. / 38%
Serial No.	: SMD-1-4	Operator	: Takumi Shimada

Mode / Remarks : Tx mode, ch:M 2441.8MHz, EUT(H:Y-axis,V:X-axis) ,ANT1 (Diversity)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
69.288	30.1	QP	7.5	-24.2	13.4	135	234	Hori.	40.0	26.6
69.288	42.6	QP	7.5	-24.2	25.9	206	100	Vert.	40.0	14.1
344.673	35.9	QP	17.3	-21.6	31.6	181	100	Hori.	46.0	14.4
344.677	32.3	QP	17.3	-21.6	28.0	112	158	Vert.	46.0	18.0
470.002	34.4	QP	19.4	-20.8	33.0	223	138	Vert.	46.0	13.0
470.010	31.1	QP	19.4	-20.8	29.7	101	100	Hori.	46.0	16.3
480.002	43.0	QP	19.6	-20.8	41.8	218	120	Vert.	46.0	4.2
480.010	38.1	QP	19.6	-20.8	36.9	160	100	Hori.	46.0	9.1
532.678	35.4	QP	20.1	-20.5	35.0	174	100	Vert.	46.0	11.0
532.689	31.4	QP	20.1	-20.5	31.0	275	210	Hori.	46.0	15.0
959.999	33.5	QP	25.8	-17.5	41.8	290	220	Hori.	46.0	4.2
959.999	30.5	QP	25.8	-17.5	38.8	186	161	Vert.	46.0	7.2

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)
Pencil Antenna

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

DATA OF RADIATED EMISSION TEST

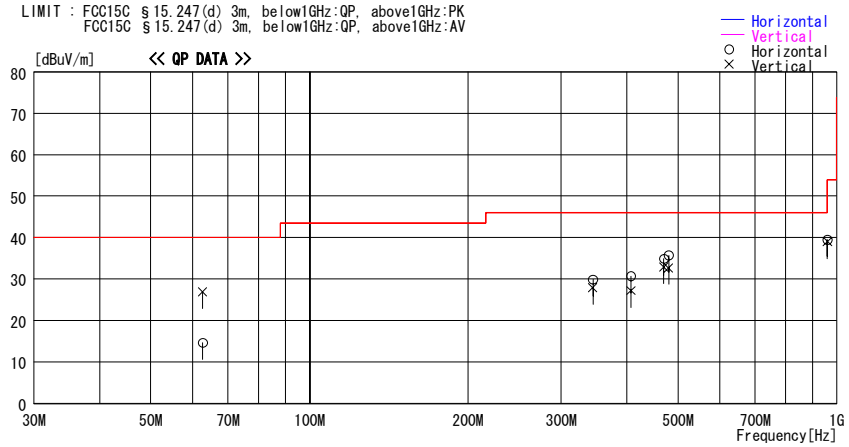
UL Apex Co., Ltd. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2006/12/12 16:52:54

Company : OMRON Corporation Okayama Factory
Kind of EUT : FA Wireless SS Terminals
Model No. : WT30-SMD16-1
Serial No. : SMD-1-4

Report No. : 27EE0053-HO
Power : DC 24V
Temp./Humi. : 23deg.C. / 41%
Operator : Norihisa Hashimoto

Mode / Remarks : Tx mode, ch:M 2441.8MHz, EUT(H:Y-axis,V:X-axis) ,ANT1 (Pencil)

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:AV



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
62.705	30.5	QP	8.4	-24.3	14.6	288	289	Hori.	40.0	25.4
62.704	42.8	QP	8.4	-24.3	26.9	190	100	Vert.	40.0	13.1
344.682	34.2	QP	17.3	-21.6	29.9	249	100	Hori.	46.0	16.1
344.683	32.2	QP	17.3	-21.6	27.9	180	154	Vert.	46.0	18.1
407.348	33.7	QP	18.2	-21.2	30.7	233	100	Hori.	46.0	15.3
407.347	30.2	QP	18.2	-21.2	27.2	182	127	Vert.	46.0	18.8
470.018	36.3	QP	19.4	-20.8	34.9	246	100	Hori.	46.0	11.1
470.014	34.3	QP	19.4	-20.8	32.9	177	107	Vert.	46.0	13.1
480.004	36.9	QP	19.6	-20.8	35.7	243	100	Hori.	46.0	10.3
480.006	33.9	QP	19.6	-20.8	32.7	176	109	Vert.	46.0	13.3
960.003	31.2	QP	25.8	-17.5	39.5	250	100	Hori.	53.9	14.4
960.005	30.7	QP	25.8	-17.5	39.0	350	118	Vert.	53.9	14.9

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (above 1GHz)

Magnet-base Antenna

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

UL Apex Co., Ltd.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-SMD16-1	Test distance	: 3/1m
Sample No.	: SMD-1-4	Date	: 01/15/2007
Power	: DC 24.0V	Temperature	: 24deg.C
Mode	: Tx 2402.2MHz	Humidity	: 32%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Magnet		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2162.2	48.2	52.2	26.0	32.8	2.0	0.0	43.4	47.4	74.0	30.6	26.6
2	2390.0	46.9	46.3	26.6	32.7	2.1	0.0	42.9	42.3	74.0	31.1	31.7
3*	2400.0	76.2	74.6	26.6	32.7	2.1	0.0	72.2	70.6	74.0	-	-
4	4804.4	40.7	43.1	30.8	31.5	3.2	0.1	43.3	45.7	74.0	30.7	28.3
5	7206.6	42.1	42.5	35.2	32.4	3.9	0.4	49.2	49.6	74.0	24.8	24.4
6	9608.8	42.6	42.0	37.6	33.0	4.8	0.7	52.7	52.1	74.0	21.3	21.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12011.0	-	-	-	-	-	-	-	-	74.0	-	-
8	14413.2	-	-	-	-	-	-	-	-	74.0	-	-
9	16815.4	-	-	-	-	-	-	-	-	74.0	-	-
10	19217.6	-	-	-	-	-	-	-	-	74.0	-	-
11	21619.8	-	-	-	-	-	-	-	-	74.0	-	-
12	24022.0	46.0	45.9	38.8	31.9	7.9	0.0	51.3	51.2	74.0	22.7	22.8

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2162.2	41.6	50.3	26.0	32.8	2.0	0.0	36.8	45.5	54.0	17.2	8.5
2	2390.0	33.7	33.3	26.6	32.7	2.1	0.0	29.7	29.3	54.0	24.3	24.7
3*	2400.0	73.5	71.9	26.6	32.7	2.1	0.0	69.5	67.9	54.0	-	-
4	4804.4	30.0	31.2	30.8	31.5	3.2	0.1	32.6	33.8	54.0	21.4	20.2
5	7206.6	30.5	30.7	35.2	32.4	3.9	0.4	37.6	37.8	54.0	16.4	16.2
6	9608.8	31.0	29.8	37.6	33.0	4.8	0.7	41.1	39.9	54.0	12.9	14.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12011.0	-	-	-	-	-	-	-	-	54.0	-	-
8	14413.2	-	-	-	-	-	-	-	-	54.0	-	-
9	16815.4	-	-	-	-	-	-	-	-	54.0	-	-
10	19217.6	-	-	-	-	-	-	-	-	54.0	-	-
11	21619.8	-	-	-	-	-	-	-	-	54.0	-	-
12	24022.0	33.4	33.4	38.8	31.9	7.9	0.0	38.7	38.7	54.0	15.3	15.3

* Reference data

20dBc(Fundamental 2402.2MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2402.2	97.6	96.2	26.6	32.7	2.1	0.0	93.6	92.2	-	-	-
3	2400.0	56.2	54.9	26.6	32.7	2.1	0.0	52.2	50.9	Funda-20dB	21.4	21.3

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

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

UL Apex Co., Ltd.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-SMD16-1	Test distance	: 3/1m
Sample No.	: SMD-1-4	Date	: 01/15/2007
Power	: DC 24.0V	Temperature	: 24deg.C
Mode	: Tx 2441.8MHz	Humidity	: 32%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Magnet		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.6	48.3	52.3	26.1	32.8	2.0	0.0	43.6	47.6	74.0	30.4	26.4
2*	2400.0	63.8	65.8	26.6	32.7	2.1	0.0	59.8	61.8	74.0	-	-
3	2483.5	62.8	61.7	26.8	32.6	2.2	0.0	59.2	58.1	74.0	14.8	15.9
4	4883.6	40.8	42.6	31.0	31.5	3.2	0.0	43.5	45.3	74.0	30.5	28.7
5	7325.4	42.3	43.1	35.4	32.5	3.9	0.4	49.5	50.3	74.0	24.5	23.7
6	9767.2	42.8	42.0	37.6	33.1	4.9	0.7	52.9	52.1	74.0	21.1	21.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12209.0	-	-	-	-	-	-	-	-	74.0	-	-
8	14650.8	-	-	-	-	-	-	-	-	74.0	-	-
9	17092.6	-	-	-	-	-	-	-	-	74.0	-	-
10	19534.4	-	-	-	-	-	-	-	-	74.0	-	-
11	21976.2	-	-	-	-	-	-	-	-	74.0	-	-
12	24418.0	46.6	45.7	38.3	31.6	8.0	0.0	51.8	50.9	74.0	22.2	23.1

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.6	41.4	49.4	26.1	32.8	2.0	0.0	36.7	44.7	54.0	17.3	9.3
2*	2400.0	59.9	61.6	26.6	32.7	2.1	0.0	55.9	57.6	54.0	-	-
3	2483.5	53.9	53.0	26.8	32.6	2.2	0.0	50.3	49.4	54.0	3.7	4.6
4	4883.6	29.7	29.5	31.0	31.5	3.2	0.0	32.4	32.2	54.0	21.6	21.8
5	7325.4	30.5	30.6	35.4	32.5	3.9	0.4	37.7	37.8	54.0	16.3	16.2
6	9767.2	30.3	30.1	37.6	33.1	4.9	0.7	40.4	40.2	54.0	13.6	13.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12209.0	-	-	-	-	-	-	-	-	54.0	-	-
8	14650.8	-	-	-	-	-	-	-	-	54.0	-	-
9	17092.6	-	-	-	-	-	-	-	-	54.0	-	-
10	19534.4	-	-	-	-	-	-	-	-	54.0	-	-
11	21976.2	-	-	-	-	-	-	-	-	54.0	-	-
12	24418.0	33.6	33.5	38.3	31.6	8.0	0.0	38.8	38.7	54.0	15.2	15.3

* Reference data

20dBc(Fundamental 2441.8MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2441.8	97.2	96.5	26.6	32.7	2.1	0.0	93.2	92.5	-	-	-
2	2400.0	60.9	62.6	26.7	32.6	2.1	0.0	57.1	58.8	Funda-20dB	16.1	13.7

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

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

UL Apex Co., Ltd.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-SMD16-1	Test distance	: 3/1m
Sample No.	: SMD-1-4	Date	: 01/15/2007
Power	: DC 24.0V	Temperature	: 24deg.C
Mode	: Tx 2480.2MHz	Humidity	: 32%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Magnet		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2240.2	51.1	52.3	26.2	32.8	2.1	0.0	46.6	47.8	74.0	27.4	26.2
2*	2400.0	69.3	65.6	26.6	32.7	2.1	0.0	65.3	61.6	74.0	-	-
3*	2483.5	61.9	61.4	26.8	32.6	2.2	0.0	58.3	57.8	74.0	-	-
4	2960.3	47.8	45.1	27.5	32.4	2.4	0.0	45.3	42.6	74.0	28.7	31.4
5	4960.4	41.7	41.8	31.1	31.5	3.2	0.0	44.5	44.6	74.0	29.5	29.4
6	7440.6	42.8	41.7	35.6	32.5	4.0	0.5	50.4	49.3	74.0	23.6	24.7
7	9920.8	42.3	42.4	37.7	33.1	4.9	0.7	52.5	52.6	74.0	21.5	21.4
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	12401.0	-	-	-	-	-	-	-	-	74.0	-	-
9	14881.2	-	-	-	-	-	-	-	-	74.0	-	-
10	17361.4	-	-	-	-	-	-	-	-	74.0	-	-
11	19841.6	-	-	-	-	-	-	-	-	74.0	-	-
12	22321.8	-	-	-	-	-	-	-	-	74.0	-	-
13	24802.0	45.7	45.5	38.5	31.4	8.1	0.0	51.4	51.2	74.0	22.6	22.8

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2240.2	46.1	48.7	26.2	32.8	2.1	0.0	41.6	44.2	54.0	12.4	9.8
2*	2400.0	61.4	58.6	26.6	32.7	2.1	0.0	57.4	54.6	54.0	-	-
3*	2483.5	58.1	58.4	26.8	32.6	2.2	0.0	54.5	54.8	54.0	-	-
4	2960.3	40.1	34.6	27.5	32.4	2.4	0.0	37.6	32.1	54.0	16.4	21.9
5	4960.4	29.7	29.6	31.1	31.5	3.2	0.0	32.5	32.4	54.0	21.5	21.6
6	7440.6	30.5	30.5	35.6	32.5	4.0	0.5	38.1	38.1	54.0	15.9	15.9
7	9920.8	30.7	30.7	37.7	33.1	4.9	0.7	40.9	40.9	54.0	13.1	13.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	12401.0	-	-	-	-	-	-	-	-	54.0	-	-
9	14881.2	-	-	-	-	-	-	-	-	54.0	-	-
10	17361.4	-	-	-	-	-	-	-	-	54.0	-	-
11	19841.6	-	-	-	-	-	-	-	-	54.0	-	-
12	22321.8	-	-	-	-	-	-	-	-	54.0	-	-
13	24802.0	33.6	33.5	38.5	31.4	8.1	0.0	39.3	39.2	54.0	14.7	14.8

* Reference data

20dBc(Fundamental 2480.2MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2480.2	97.4	97.2	26.8	32.6	2.2	0.0	93.8	93.6	-	-	-
2	2400.0	53.9	61.1	26.6	32.7	2.1	0.0	49.9	57.1	Funda-20dB	23.9	16.5

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Marker-Delta Method (RBW:30kHz)

No.	FREQ	Field strength of band-edge*		ANT	AMP	CABLE	ATT	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS		HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
PK DETECT												
3	2483.5	52.0	51.3	26.8	32.6	2.2	0.0	48.4	47.7	74.0	25.6	26.3
AV DETECT												
3	2483.5	40.0	40.1	26.8	32.6	2.2	0.0	36.4	36.5	54.0	17.6	17.5

*Reference data
S/A Reading

		Polarity	Hor [dBuV]		Ver [dBuV]	
		Detector	PK	AV	PK	AV
		RBW \ VBW	1MHz	10Hz	1MHz	10Hz
Step 1)	Fundamental(2480.2MHz)	1MHz	104.2	97.5	104.1	97.3
Step 2)	Fundamental(2480.2MHz)	30kHz	91.2	84.1	91.0	83.8
	Band-edge(2483.5MHz)	30kHz	39.0	26.6	38.2	26.6
	Amplitude delta *1	-	52.2	57.5	52.8	57.2
Step 3)	Field strength of band-edge *2	-	52.0	40.0	51.3	40.1

*1 Amplitude delta = Fundamental(RBW:30kHz) - Band-edge(RBW:30kHz)
*2 Field strength of band-edge = Fundamental(RBW:1MHz) - Amplitude delta

Radiated Spurious Emission (above 1GHz)

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

UL Apex Co., Ltd.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-SMD16-1	Test distance	: 3m
Sample No.	: SMD-1-4	Date	: 01/15/2007
Power	: DC 24.0V	Temperature	: 24deg.C
Mode	: Rx 2441.8MHz	Humidity	: 32%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Magnet		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.8	49.0	52.3	26.1	32.8	2.0	0.0	44.3	47.6	74.0	29.7	26.4
2	2441.8	41.8	41.5	26.7	32.6	2.1	0.0	38.0	37.7	74.0	36.0	36.3
3	4883.6	40.4	40.6	31.0	31.5	3.2	0.0	43.1	43.3	74.0	30.9	30.7
4	7325.4	42.0	41.9	35.4	32.5	3.9	0.0	48.8	48.7	74.0	25.2	25.3

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.8	44.7	49.6	26.1	32.8	2.0	0.0	40.0	44.9	54.0	14.0	9.1
2	2441.8	30.2	30.3	26.7	32.6	2.1	0.0	26.4	26.5	54.0	27.6	27.5
3	4883.6	29.4	29.5	31.0	31.5	3.2	0.0	32.1	32.2	54.0	21.9	21.8
4	7325.4	30.6	30.4	35.4	32.5	3.9	0.0	37.4	37.2	54.0	16.6	16.8

*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

Flat Diversity Antenna

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

UL Apex Co., Ltd.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-SMD16-1	Test distance	: 3m
Sample No.	: SMD-1-4	Date	: 01/15/2007
Power	: DC 24.0V	Temperature	: 24deg.C
Mode	: Tx 2402.2MHz	Humidity	: 32%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Diversity		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	48.3	45.0	26.6	32.7	2.1	0.0	44.3	41.0	74.0	29.7	33.0
2*	2400.0	77.8	72.6	26.6	32.7	2.1	0.0	73.8	68.6	74.0	-	-

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	35.0	32.9	26.6	32.7	2.1	0.0	31.0	28.9	54.0	23.0	25.1
2*	2400.0	75.4	70.3	26.6	32.7	2.1	0.0	71.4	66.3	54.0	-	-

* Reference data

20dBc(Fundamental 2402.2MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2402.2	99.9	94.9	26.6	32.7	2.1	0.0	95.9	90.9	-	-	-
2	2400.0	56.1	51.8	26.6	32.7	2.1	0.0	52.1	47.8	Funda-20dB	23.8	23.1

*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

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

UL Apex Co., Ltd.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-SMD16-1	Test distance	: 3/1m
Sample No.	: SMD-1-4	Date	: 01/15/2007
Power	: DC 24.0V	Temperature	: 24deg.C
Mode	: Tx 2441.8MHz	Humidity	: 32%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Diversity		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.8	46.4	50.6	26.1	32.8	2.0	0.0	41.7	45.9	74.0	32.3	28.1
2*	2400.0	69.7	62.3	26.6	32.7	2.1	0.0	65.7	58.3	74.0	-	-
3	2483.5	62.1	59.2	26.8	32.6	2.2	0.0	58.5	55.6	74.0	15.5	18.4
4	4883.6	42.5	43.0	31.0	31.5	3.2	0.0	45.2	45.7	74.0	28.8	28.3
5	7325.4	42.0	41.9	35.4	32.5	3.9	0.4	49.2	49.1	74.0	24.8	24.9
6	9767.2	41.8	41.8	37.6	33.1	4.9	0.7	51.9	51.9	74.0	22.1	22.1
7	12209.0	-	-	-	-	-	-	-	-	74.0	-	-
8	14650.8	-	-	-	-	-	-	-	-	74.0	-	-
9	17092.6	-	-	-	-	-	-	-	-	74.0	-	-
10	19534.4	-	-	-	-	-	-	-	-	74.0	-	-
11	21976.2	-	-	-	-	-	-	-	-	74.0	-	-
12	24418.0	45.8	45.5	38.3	31.6	8.0	0.0	51.0	50.7	74.0	23.0	23.3

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.8	39.6	46.3	26.1	32.8	2.0	0.0	34.9	41.6	54.0	19.1	12.4
2*	2400.0	64.9	58.0	26.6	32.7	2.1	0.0	60.9	54.0	54.0	-	-
3	2483.5	53.6	50.3	26.8	32.6	2.2	0.0	50.0	46.7	54.0	4.0	7.3
4	4883.6	29.7	29.5	31.0	31.5	3.2	0.0	32.4	32.2	54.0	21.6	21.8
5	7325.4	30.6	30.6	35.4	32.5	3.9	0.4	37.8	37.8	54.0	16.2	16.2
6	9767.2	29.7	29.4	37.6	33.1	4.9	0.7	39.8	39.5	54.0	14.2	14.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12209.0	-	-	-	-	-	-	-	-	54.0	-	-
8	14650.8	-	-	-	-	-	-	-	-	54.0	-	-
9	17092.6	-	-	-	-	-	-	-	-	54.0	-	-
10	19534.4	-	-	-	-	-	-	-	-	54.0	-	-
11	21976.2	-	-	-	-	-	-	-	-	54.0	-	-
12	24418.0	33.3	33.2	38.3	31.6	8.0	0.0	38.5	38.4	54.0	15.5	15.6

* Reference data

20dBc(Fundamental 2441.8MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2441.8	97.1	92.9	26.7	32.6	2.1	0.0	93.3	89.1	-	-	-
2	2400.0	66.8	59.1	26.6	32.7	2.1	0.0	62.8	55.1	Funda-20dB	10.5	14.0

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

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

UL Apex Co., Ltd.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-SMD16-1	Test distance	: 3m
Sample No.	: SMD-1-4	Date	: 01/15/2007
Power	: DC 24.0V	Temperature	: 24deg.C
Mode	: Tx 2480.2MHz	Humidity	: 32%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Diversity		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1*	2483.5	61.6	59.2	26.8	32.6	2.2	0.0	58.0	55.6	74.0	-	-

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1*	2483.5	57.8	55.5	26.8	32.6	2.2	0.0	54.2	51.9	54.0	-	-

* Reference data

Marker-Delta Method (RBW:30kHz)

No.	FREQ	Field strength of band-edge*		ANT	AMP	CABLE	ATT	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS		HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
PK DETECT												
1	2483.5	51.2	51.2	26.8	32.6	2.2	0.0	47.6	47.6	74.0	26.4	26.4
AV DETECT												
1	2483.5	40.3	38.2	26.8	32.6	2.2	0.0	36.7	34.6	54.0	17.3	19.4

*Reference data
S/A Reading

		Polarity	Hor [dBuV]		Ver [dBuV]	
		Detector	PK	AV	PK	AV
		RBW \ VBW	1MHz	10Hz	1MHz	10Hz
Step 1)	Fundamental(2480.2MHz)	1MHz	103.6	97.3	102.0	95.1
Step 2)	Fundamental(2480.2MHz)	30kHz	91.0	83.4	88.7	81.7
	Band-edge(2483.5MHz)	30kHz	38.6	26.4	37.9	24.8
	Amplitude delta *1	-	52.4	57.0	50.8	56.9
Step 3)	Field strength of band-edge *2	-	51.2	40.3	51.2	38.2

*1 Amplitude delta = Fundamental(RBW:30kHz) - Band-edge(RBW:30kHz)
*2 Field strength of band-edge = Fundamental(RBW:1MHz) - Amplitude delta

Radiated Spurious Emission (above 1GHz)

Pencil Antenna

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

UL Apex Co., Ltd.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-SMD16-1	Test distance	: 3m
Sample No.	: SMD-1-4	Date	: 12/11/2006
Power	: DC 24.0V	Temperature	: 23deg.C
Mode	: Tx 2402.2MHz	Humidity	: 30%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Pencil		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	42.8	42.8	26.6	32.7	2.1	0.0	38.8	38.8	74.0	35.2	35.2
2*	2400.0	71.9	71.4	26.6	32.7	2.1	0.0	67.9	67.4	74.0	-	-

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	32.2	32.8	26.6	32.7	2.1	0.0	28.2	28.8	54.0	25.8	25.2
2*	2400.0	69.2	68.7	26.6	32.7	2.1	0.0	65.2	64.7	54.0	-	-

* Reference data

20dBc(Fundamental 2402.2MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2402.2	95.3	93.7	26.6	32.7	2.1	0.0	91.3	89.7	-	-	-
2	2400.0	49.9	49.7	26.6	32.7	2.1	0.0	45.9	45.7	Funda-20dB	25.4	24.0

*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

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

UL Apex Co., Ltd.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-SMD16-1	Test distance	: 3/1m
Sample No.	: SMD-1-4	Date	: 12/11/2006
Power	: DC 24.0V	Temperature	: 23deg.C
Mode	: Tx 2441.8MHz	Humidity	: 30%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Pencil		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.8	46.7	47.7	26.1	32.8	2.0	0.0	42.0	43.0	74.0	32.0	31.0
2*	2400.0	65.1	60.7	26.6	32.7	2.1	0.0	61.1	56.7	74.0	-	-
3	2483.5	59.5	57.8	26.8	32.6	2.2	0.0	55.9	54.2	74.0	18.1	19.8
4	4883.6	42.1	41.9	31.0	31.5	3.2	1.4	46.2	46.0	74.0	27.8	28.0
5	7325.4	41.9	43.2	35.4	32.5	3.9	1.1	49.8	51.1	74.0	24.2	22.9
6	9767.2	41.3	41.5	37.6	33.1	4.9	1.1	51.8	52.0	74.0	22.2	22.0
7	12209.0	-	-	-	-	-	-	-	-	74.0	-	-
8	14650.8	-	-	-	-	-	-	-	-	74.0	-	-
9	17092.6	-	-	-	-	-	-	-	-	74.0	-	-
10	19534.4	-	-	-	-	-	-	-	-	74.0	-	-
11	21976.2	-	-	-	-	-	-	-	-	74.0	-	-
12	24418.0	45.6	45.8	38.3	31.6	8.0	0.0	50.8	51.0	74.0	23.2	23.0

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2201.8	39.0	42.4	26.1	32.8	2.0	0.0	34.3	37.7	54.0	19.7	16.3
2*	2400.0	60.9	56.7	26.6	32.7	2.1	0.0	56.9	52.7	54.0	-	-
3	2483.5	50.1	48.9	26.8	32.6	2.2	0.0	46.5	45.3	54.0	7.5	8.7
4	4883.6	29.3	29.3	31.0	31.5	3.2	1.4	33.4	33.4	54.0	20.6	20.6
5	7325.4	30.6	30.7	35.4	32.5	3.9	1.1	38.5	38.6	54.0	15.5	15.4
6	9767.2	30.0	29.9	37.6	33.1	4.9	1.1	40.5	40.4	54.0	13.5	13.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12209.0	-	-	-	-	-	-	-	-	54.0	-	-
8	14650.8	-	-	-	-	-	-	-	-	54.0	-	-
9	17092.6	-	-	-	-	-	-	-	-	54.0	-	-
10	19534.4	-	-	-	-	-	-	-	-	54.0	-	-
11	21976.2	-	-	-	-	-	-	-	-	54.0	-	-
12	24418.0	32.9	32.9	38.3	31.6	8.0	0.0	38.1	38.1	54.0	15.9	15.9

* Reference data

20dBc(Fundamental 2441.8MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2441.8	95.2	92.8	26.7	32.6	2.1	0.0	91.4	89.0	-	-	-
2	2400.0	62.0	58.0	26.6	32.7	2.1	0.0	58.0	54.0	Funda-20dB	13.4	15.0

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)

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

UL Apex Co., Ltd.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	: Omron Corporation Okayama Factory	Report No.	: 27EE0053-HO
Equipment	: FA Wireless SS Terminals	Regulation	: Fcc Part15 Subpart C 15.247(d)
Model	: WT30-SMD16-1	Test distance	: 3m
Sample No.	: SMD-1-4	Date	: 12/11/2006
Power	: DC 24.0V	Temperature	: 23deg.C
Mode	: Tx 2480.2MHz	Humidity	: 30%
Remarks	: Hor Y-axis / Ver X-axis	Engineer	: Takumi Shimada
Antenna	: Pencil		

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1*	2483.5	58.7	56.5	26.8	32.6	2.2	0.0	55.1	52.9	74.0	-	-

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1*	2483.5	55.1	52.5	26.8	32.6	2.2	0.0	51.5	48.9	54.0	-	-

* Reference data

Marker-Delta Method (RBW:30kHz)

No.	FREQ	Field strength of band-edge*		ANT	AMP	CABLE	ATT	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS		HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
PK DETECT												
1	2483.5	49.8	48.9	26.8	32.6	2.2	0.0	46.2	45.3	74.0	27.8	28.7
AV DETECT												
1	2483.5	38.9	37.3	26.8	32.6	2.2	0.0	35.3	33.7	54.0	18.7	20.3

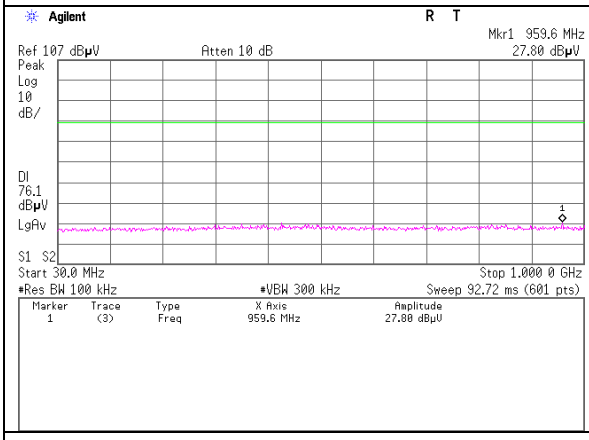
*Reference data
S/A Reading

		Polarity	Hor [dBuV]		Ver [dBuV]	
		Detector	PK	AV	PK	AV
		RBW \ VBW	1MHz	10Hz	1MHz	10Hz
Step 1)	Fundamental(2480.2MHz)	1MHz	101.1	94.6	98.9	92.3
Step 2)	Fundamental(2480.2MHz)	30kHz	88.2	81.4	86.0	79.3
	Band-edge(2483.5MHz)	30kHz	36.9	25.7	36.0	24.3
	Amplitude delta *1	-	51.3	55.7	50.0	55.0
Step 3)	Field strength of band-edge *2	-	49.8	38.9	48.9	37.3

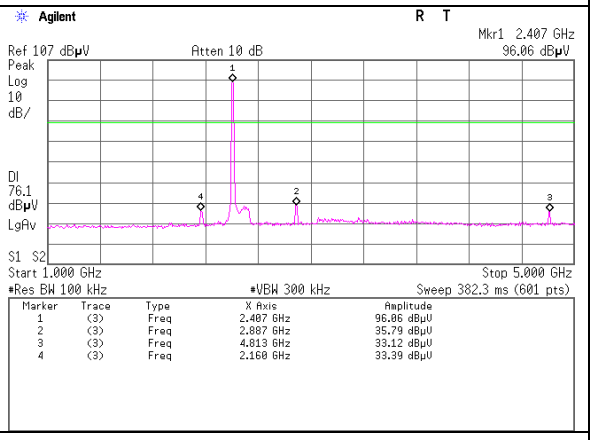
*1 Amplitude delta = Fundamental(RBW:30kHz) - Band-edge(RBW:30kHz)
*2 Field strength of band-edge = Fundamental(RBW:1MHz) - Amplitude delta

Conducted Spurious Emission
Ch: Low

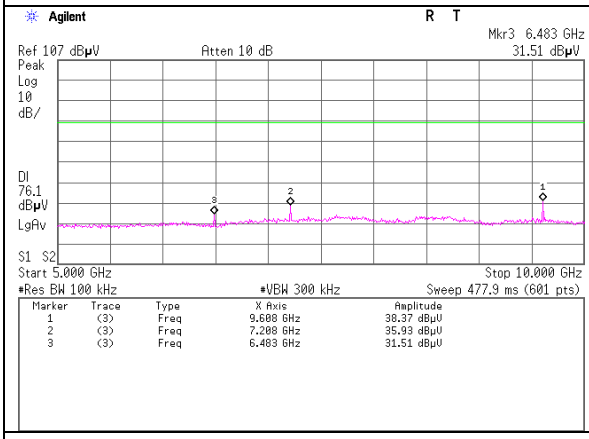
30MHz-1GHz



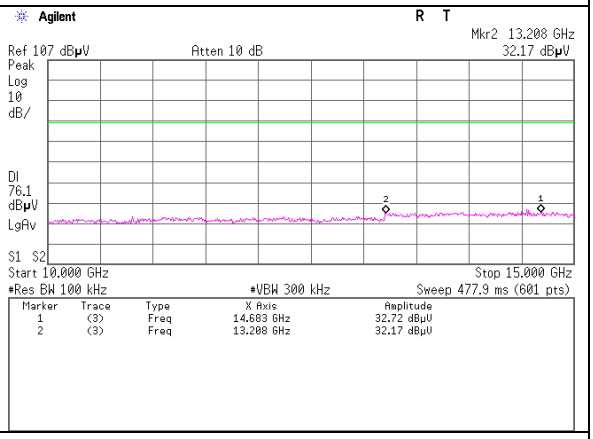
1GHz-5GHz



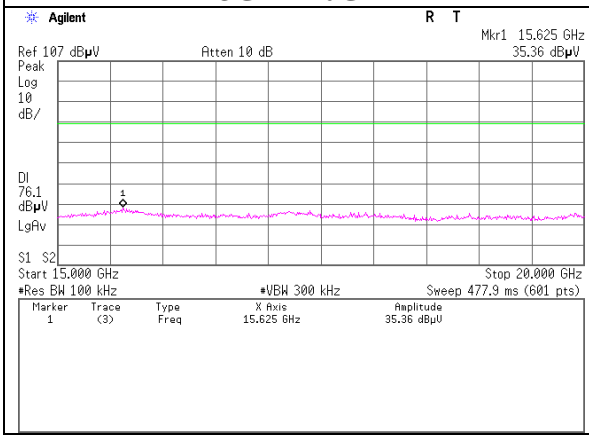
5GHz-10GHz



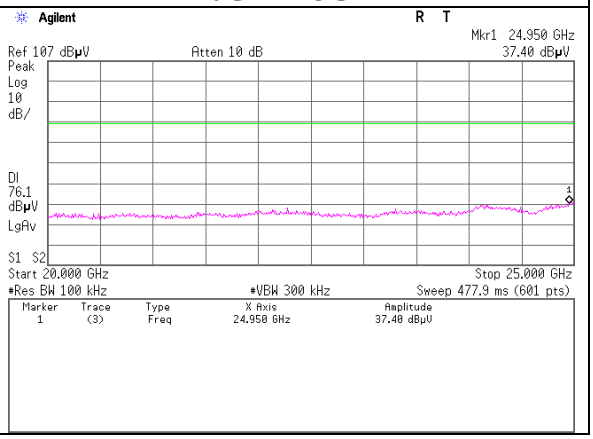
10GHz-15GHz



15GHz-20GHz

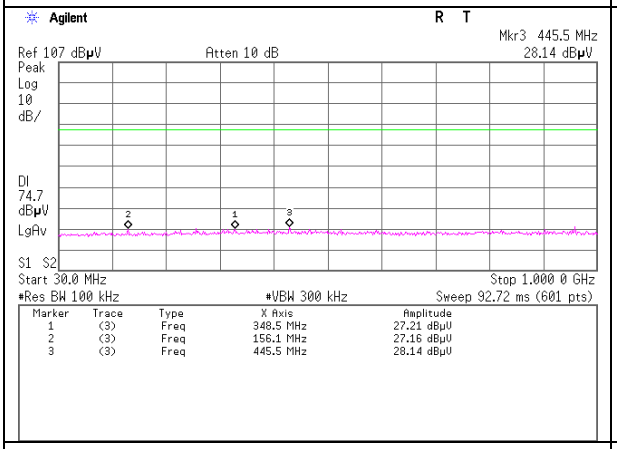


20GHz-25GHz

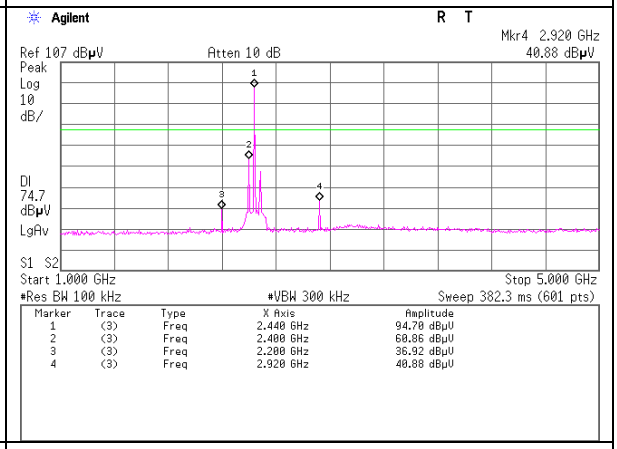


Conducted Spurious Emission
Ch: Mid

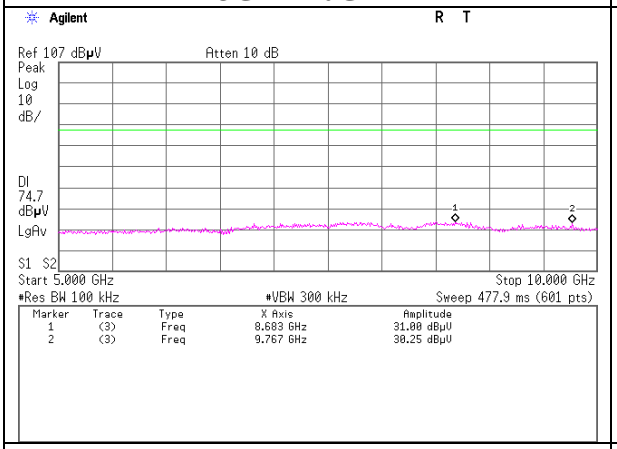
30MHz-1GHz



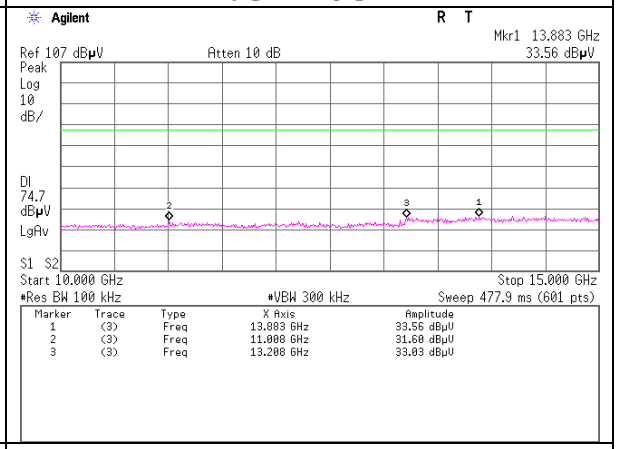
1GHz-5GHz



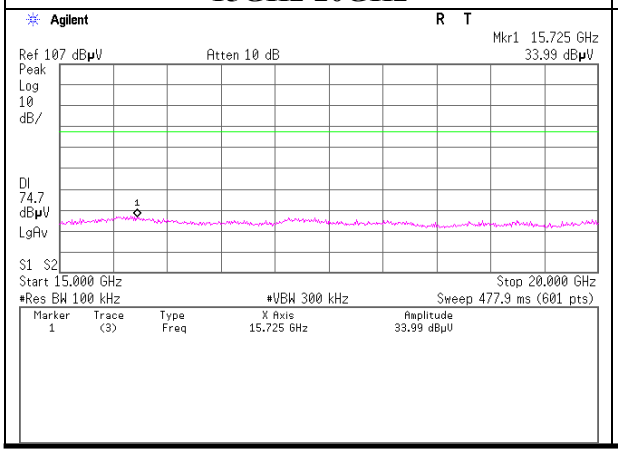
5GHz-10GHz



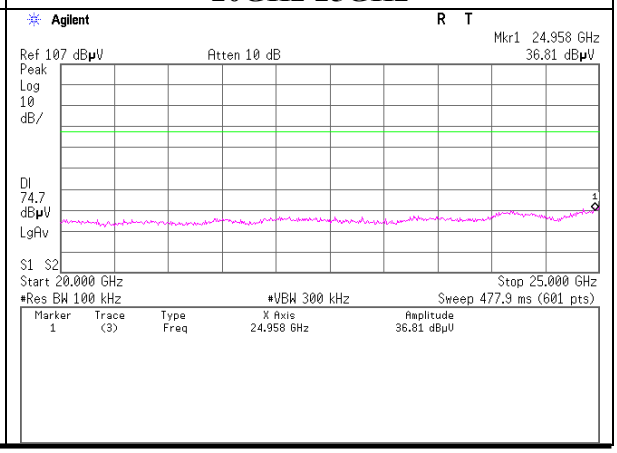
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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Telephone : +81 596 24 8116
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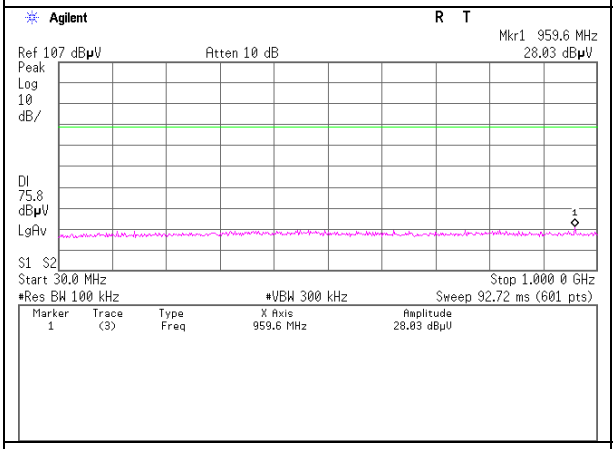
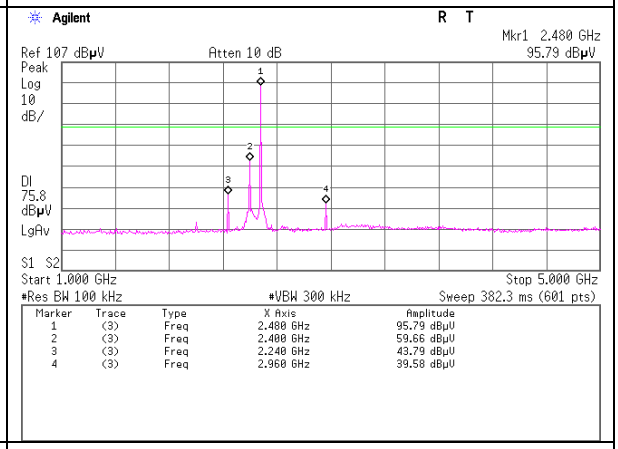
Conducted Spurious Emission
Ch: High

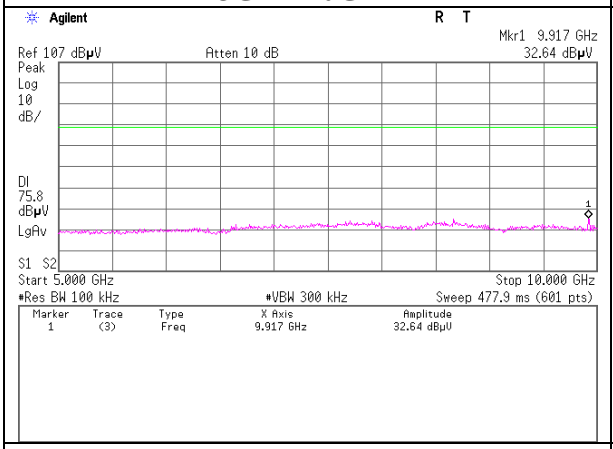
30MHz-1GHz



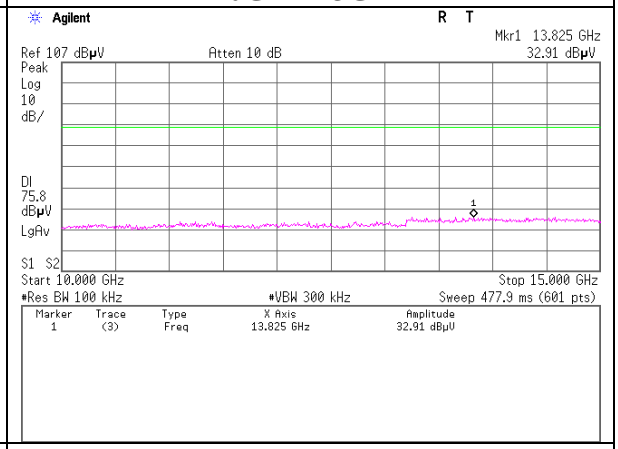
1GHz-5GHz



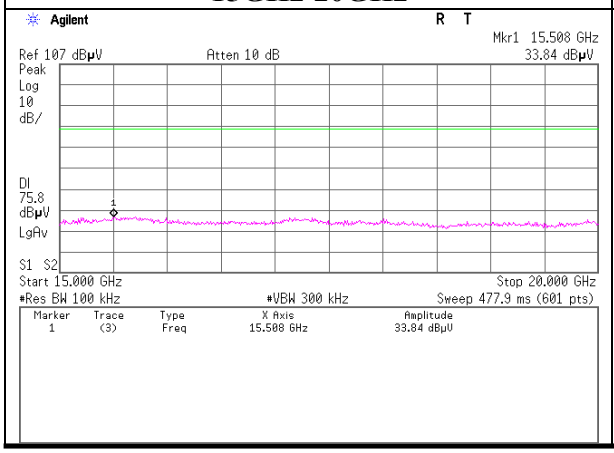
5GHz-10GHz



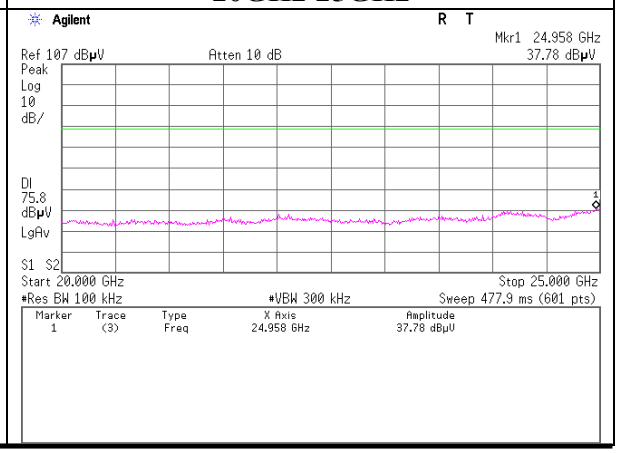
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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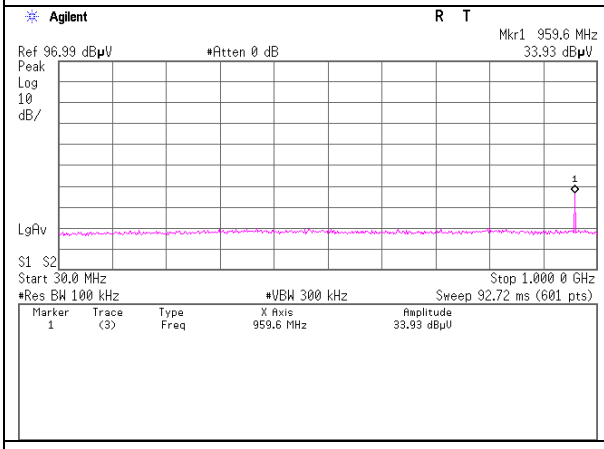
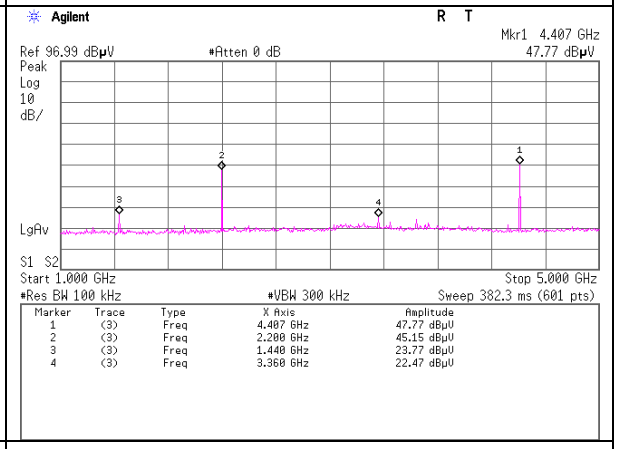
Conducted Spurious Emission
Rx(Ch:Mid)

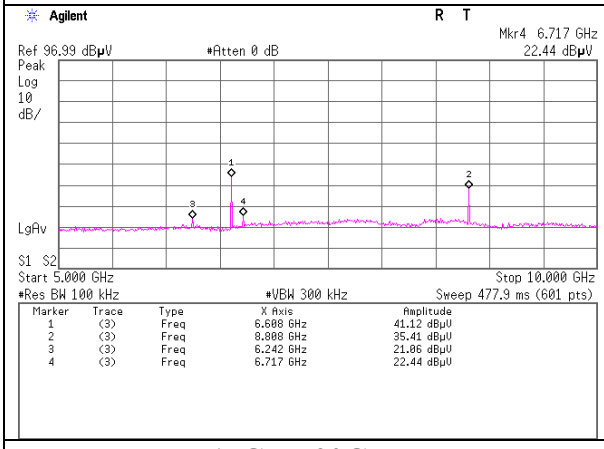
30MHz-1GHz



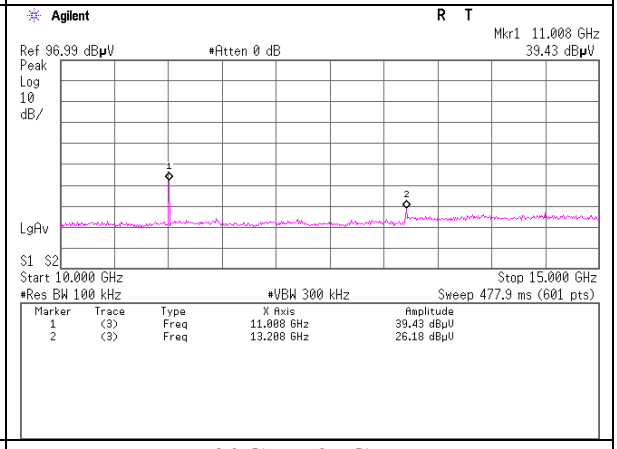
1GHz-5GHz



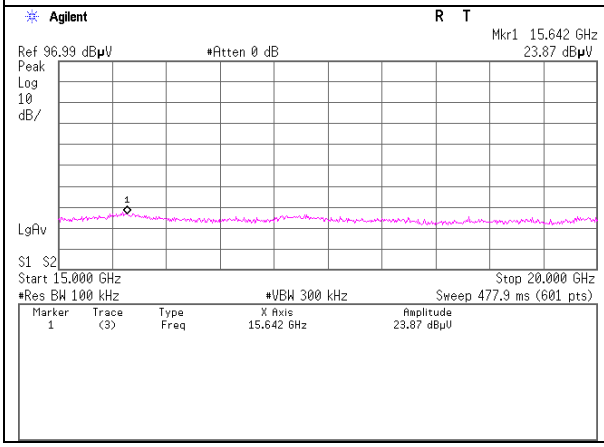
5GHz-10GHz



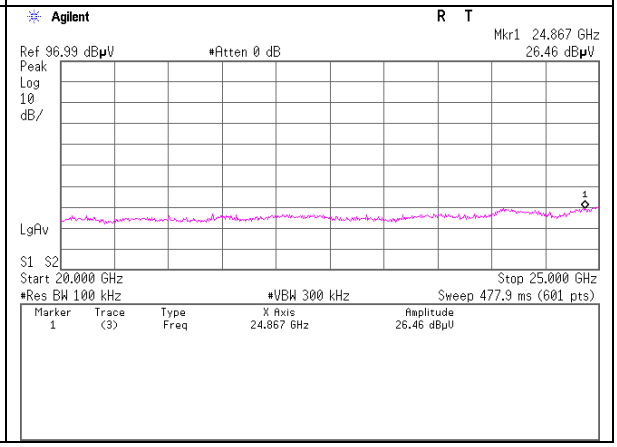
10GHz-15GHz



15GHz-20GHz

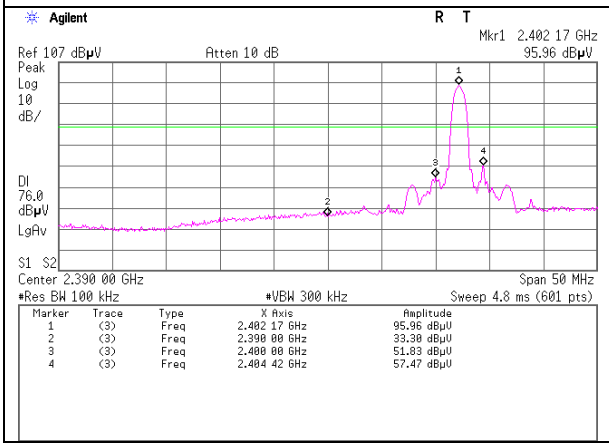


20GHz-25GHz

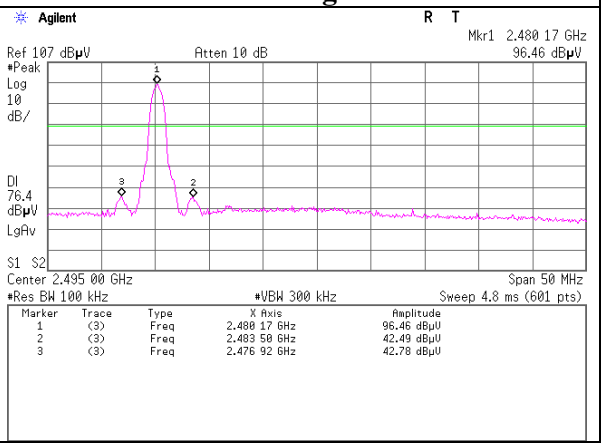


Conducted emission Band Edge compliance

Ch:Low



Ch:High



Power Density

UL Apex Co., Ltd.
Head Office EMC Lab. No.6 Shielded Room

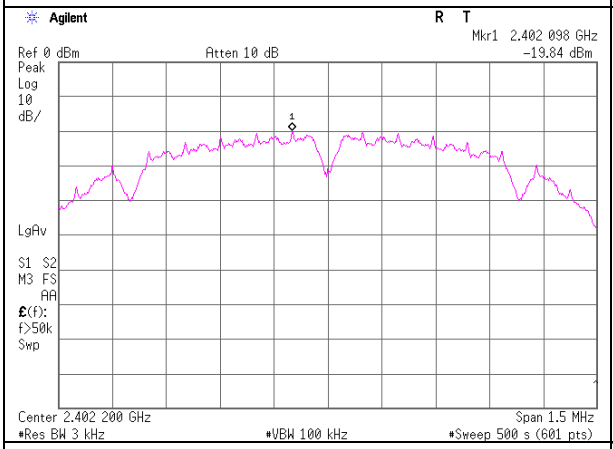
COMPANY	: Omron Corporation Okayama Factory	REGULATION	: FCC15.247(e)/RSS-210A8.2(2)
QUIPMENT	: FA Wireless SS Terminals	TEST DISTANCE	: -
MODEL	: WT30-SMD16-1	DATE	: 12/08/2006
SAMPLE NO.	: SMD-1-4	TEMPERATURE	: 22℃
POWER	: DC24V	HUMIDITY	: 52%
MODE	: Tx (Ch L, M, H) , ANT1	ENGINEER	: Takumi Shimada

Ch	Freq. [MHz]	Reading [dBm]	Cable [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2402.1	-19.84	0.55	10.12	-9.17	8.00	17.17
Mid	2441.7	-20.70	0.56	10.12	-10.02	8.00	18.02
High	2480.3	-20.64	0.59	10.12	-9.93	8.00	17.93

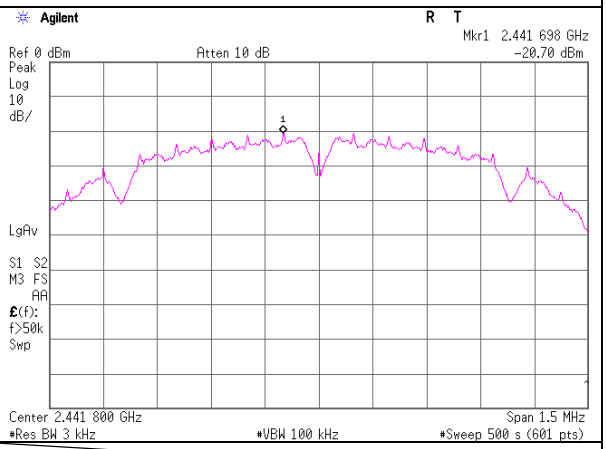
Sample Calculation:
Result = Reading + Cable Loss + Attenuator

Power Density

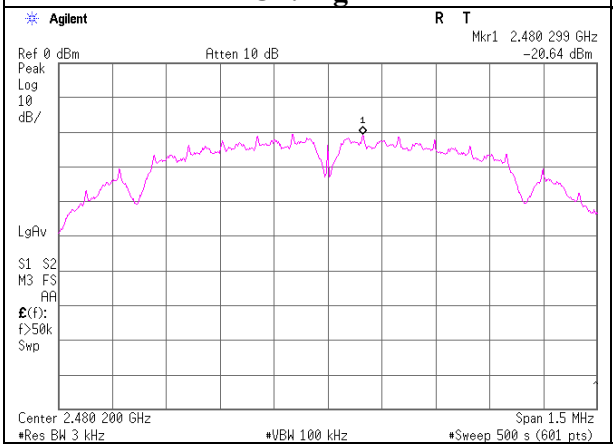
Ch:Low



Ch:Mid

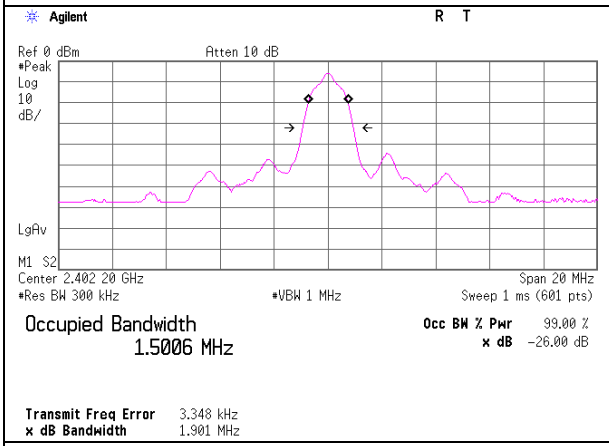


Ch:High

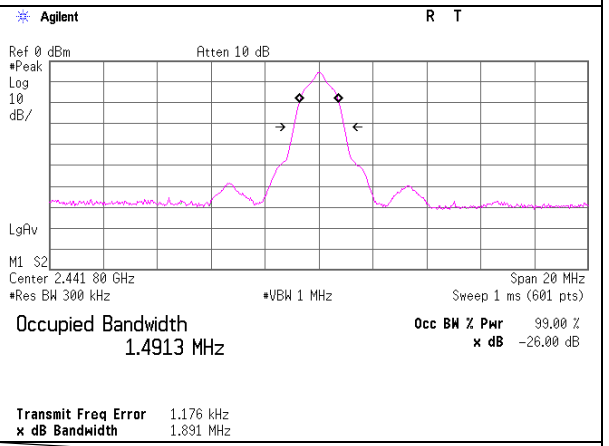


99%Occupied Bandwidth

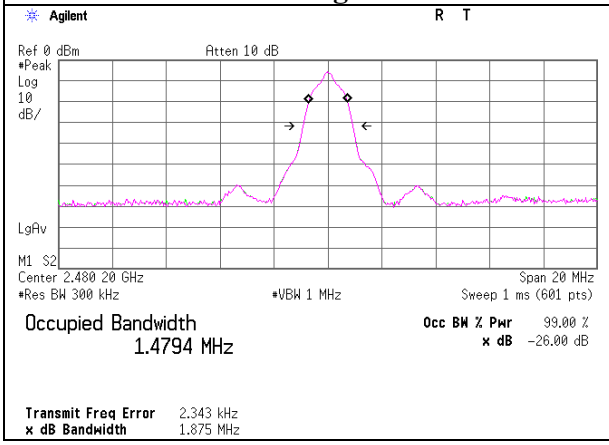
Ch:Low



Ch:Mid



Ch:High



APPENDIX 5:Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-04	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2006/03/06 * 12
MBA-05	Biconical Antenna	Schwarzbeck	BBA9106	RE	2006/01/29 * 12
MLA-08	Logperiodic Antenna	Schwarzbeck	UKLP9140-A	RE	2006/01/29 * 12
MAT-31	Attenuator(6dB)	TME	UFA-01	RE	2006/03/11 * 12
MCC-50	Coaxial cable	UL Apex	-	RE	2006/03/09 * 12
MSA-05	Spectrum Analyzer	Advantest	R3273	RE	2006/05/20 * 12
TR-02	Test Receiver	Rohde & Schwarz	ESVS30	RE	2006/05/10 * 12
MPA-14	Pre Amplifier	SONOA INSTRUMENT	310	RE	2006/03/25 * 12
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE / CE	-
MOS-15	Thermo-Hygrometer	Custom	CTH-180	RE	2006/01/19 * 24
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2006/08/17 * 12
MCC-57	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2006/04/15 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	RE	2006/03/27 * 12
MHF-05	High Pass Filter 3.5-24GHz	Tokimec	TF323DCA	RE	2006/01/24 * 12
MHA-17	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	RE	2006/04/15 * 12
MOS-14	Thermo-Hygrometer	Custom	CTH-180	AT	2006/01/19 * 24
MSA-04	Spectrum Analyzer	Agilent	E4448A	AT / CE	2006/06/02 * 12
MCC-15	Microwave Cable 1G-26.5GHz 1m	Suhner	SUCOFLEX 104	AT	2006/02/02 * 12
MAT-22	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	AT	2006/03/18 * 12
MDPS-13	DC Power Supply	Kikusui	PAK35-10A	AT	Pre Check
MPM-09	Power Meter	Anritsu	ML2495A	AT	2006/09/20 * 12
MPSE-11	Power sensor	Anritsu	MA2411B	AT	2006/09/20 * 12
MMM-11	Digital HiTESTER	Hioki	3805	AT	2006/04/25 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	AT	2006/09/13 * 12
MDPS-12	DC Power Supply	Kikusui	PAK35-10A	AT	Pre Check

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE / CE	2006/04/10 * 12
MRENT-39	Spectrum Analyzer	Advantest	R3273	RE	2006/07/25 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	RE / CE	2006/03/04 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2006/02/23 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2006/10/07 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2006/10/07 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2006/12/27 * 12
MPA-09	Pre Amplifier	Agilent	8447D	RE	2006/09/07 * 12
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2006/01/09 * 12
MHA-02	Horn Antenna	EMCO	3160-09	RE	2006/01/09 * 12
MCC-16	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2006/02/02 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2006/08/29 * 12
MHF-06	High Pass Filter 3.5-24GHz	Tokimec	TF323DCA	RE	2006/05/20 * 12
MPA-10	Pre Amplifier	Agilent	8449B	RE	2006/09/11 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	RE / CE	2006/11/27 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	CE	2007/02/27 * 12
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	CE (EUT)	2007/02/22 * 12
MDPS-02	DC Power Supply	Agilent	6654A	CE	Pre Check
MJM-05	Measure	PROMART	SEN1955	CE	-

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.

Test Item:

CE: Conducted Emission
RE: Radiated Spurious Emission
AT: Antenna terminal measurements