FCC TEST REPORT

REPORT NO.:	RF930206R03
MODEL NO.:	IBC-001 (for other model names please refer to page 5)
RECEIVED:	February 6, 2004
TESTED:	February 26, 2004 ~ March 2, 2004

APPLICANT:	QUANTA COMPUTER INC.
ADDRESS:	7F, 116, Hou Kang St., Shih Lin, Taipei, Taiwan, R.O.C.

ISSUED BY:	Advance Data Technology Corporation
LAB LOCATION:	47 14th Lin, Chiapau Tsun, Linko, Taipei, Taiwan, R.O.C.

0528
ILAC MRA

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1 CERTIFICATION

PRODUCT :	Countertop
MODEL NO.:	IBC-001 (for other model names please refer to page 5)
BRAND:	Quanta
APPLICANT :	QUANTA COMPUTER INC.
TEST ITEM:	ENGINEERING SAMPLE
STANDARDS :	FCC Part 15, Subpart C (Section 15.249), ANSI C63.4-1992

We, **Advance Data Technology Corporation**, hereby certify that one sample of the designation has been tested in our facility from February 26, 2004 to March 2, 2004. The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions herein specified.

PREPARED BY: Wendy Liao , **DATE:** March 3, 2004

Wendy Liao

APPROVED BY: Ellis Wu , **DATE:** March 3, 2004

Ellis Wu / Manager

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
STANDARD PARAGRAPH	**TEST TYPE**	**RESULT**	**REMARK**
15.207	Conducted Emission Test	PASS	Minimum passing margin is –4.95dB at 0.181MHz
15.209 15.249	Radiated Emission Test	PASS	Minimum passing margin is –0.60dB at 905.30MHz
15.249 (d)	Band Edge Measurement	PASS	Meet the requirement of limit

Note: The information of measurement uncertainty is available upon the customer's request.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Countertop
MODEL NO.	IBC-001 (for other model names please refer to following table)
BRAND	Quanta
POWER SUPPLY	6.0Vdc from host equipment
MODULATION TYPE	FSK
CARRIER FREQUENCY OF EACH CHANNEL	905.609756 ~ 924.390244MHz
NUMBER OF CHANNEL	28
ANTENNA TYPE	Dipole antenna with –2dBi gain
DATA CABLE	NA
I/O PORTS	NA

NOTE:

1. The EUT include Transmitter part and Receiver part.
2. The models as below are identical to each other except for their model due to marketing requirement.

Item	Model
1	IBC***
2	IBC***-WLAN
3	115**
4	IBC-002
5	IBC****

Note: the ** or *** or **** can be any character or blank

3. For more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

Twenty- eight channels are provided in the EUT

Channel	Freq. (MHz)	Channel	Freq. (MHz)
0	905.609756	14	915.609756
1	908.095238	15	918.095238
2	908.780488	16	918.780488
3	908.888889	17	918.888889
4	908.918919	18	918.918919
5	909.705882	19	919.705882
6	909.736842	20	919.736842
7	910.263158	21	920.236158
8	910.294118	22	920.294118
9	911.081081	23	921.081081
10	911.111111	24	921.111111
11	911.219512	25	921.219512
12	911.904762	26	921.904762
13	914.390244	27	924.390244

NOTE:

1. Below 1000MHz, the channel 0, 14, 27 were pre-tested in chamber. The channel 28,worst case one, was chosen for final test.
2. Above 1000MHz, the channel 0, 14, 27 were tested individually.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Countertop. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C. (15.249)
ANSI C63.4: 1992

All test items have been performed and recorded as per the above standards.

3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

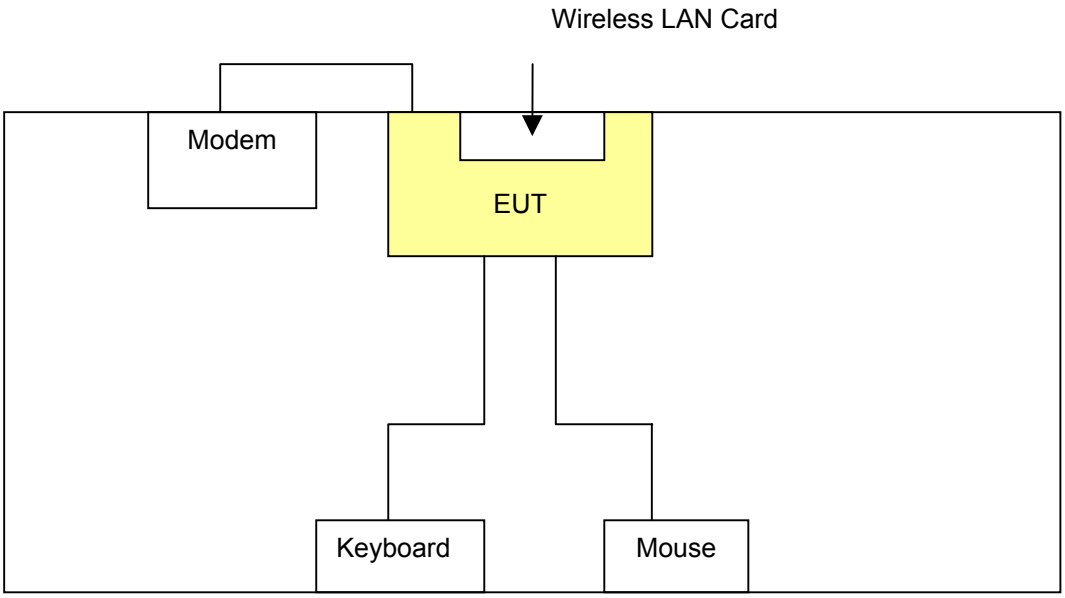
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	MODEM	ACEEX	1414	980020536	IFAXDM1414
2	PS/2 KEYBOARD	FORWARD	FDA-104GA	FDKB8110111	F4ZDA-104G
3	USB MOUSE	Logitech	M-BB48	LZA00354277	FCC DoC Approved
4	SANI CARD	Beyond	RFT-LS-B-US	031100000796	RTN-BCC-RFMV04
5	802.11b PCMCIA CARD	Tellus	C110	0000800F	PB6-03111

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	1.2 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.
2	1.5 m foil shielded wire, terminated with PS/2 connector via metallic frame, w/o core.
3	NA
4	NA
5	NA

NOTE: 1. All power cords of the above support units are non shielded (1.8m).

2. The PCMCIA and SANI cards are actually in operation during the testing.

3.5 CONFIGURATION OF SYSTEM UNDER TEST



4. TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

NOTE:
1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESHS 30	828765/002	July 15, 2004
ROHDE & SCHWARZ Artificial Mains Network (for EUT)	ESH3-Z5	835239/001	Apr. 28, 2004
ROHDE & SCHWARZ Artificial Mains Network (for peripherals)	ESH3-Z5	835239/002	Apr. 28, 2004
*ROHDE & SCHWARZ 4-wire ISN	ENY41	935154/007	Apr. 30, 2004
*ROHDE & SCHWARZ 2-wire ISN	ENY22	833823/026	Apr. 30, 2004
Software	Cond-V2M3	NA	NA
RF cable (JYEBAO)	5D-FB	Cable-C09.01	May 23, 2004
SUHNER Terminator (For ROHDE & SCHWARZ LISN)	65BNC-5001	E1-010789	Jun. 04, 2004

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. "*": These equipment are used for conducted telecom port test only (if tested).
3. The test was performed in ADT Shielded Room No. 9.
4. The VCCI Site Registration No. is C-1312.

4.1.3 TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

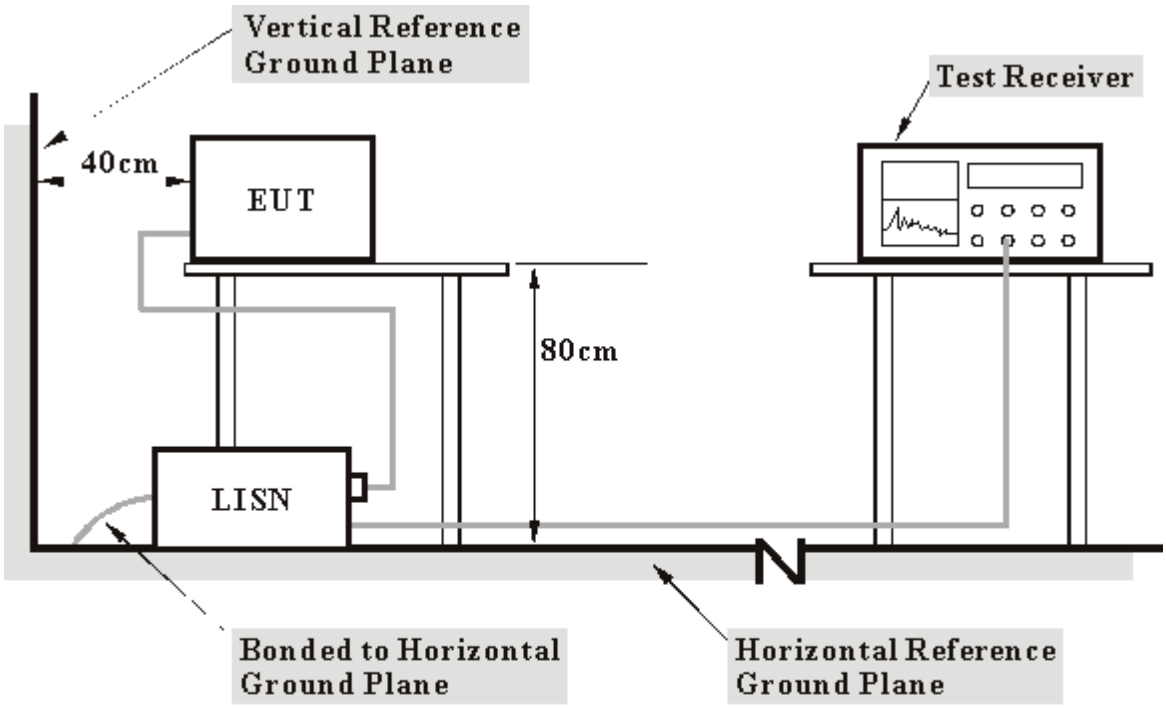
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under Limit –20dB was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.1.6 EUT OPERATING CONDITIONS

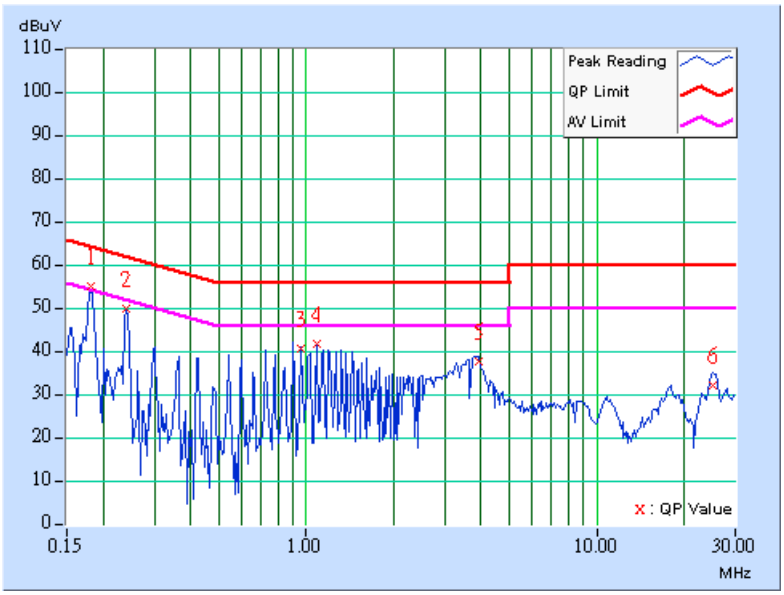
a. The EUT placed on a testing table.
b. The PC system ran a test program to enable EUT under transmission/receiving condition continuously at specific channel frequency.
c. The PC system sent "H" messages to its screen.
d. The PC system sent “H” messages to modem.
e. Repeated c~ d.

4.1.7 TEST RESULTS

EUT	Countertop	**MODEL**	IBC-001
MODE	Channel 0	**6dB BANDWIDTH**	9kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	25deg. C, 56%RH, 991hPa	**TESTED BY**: Jun Wu	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.181	0.10	53.96	-	54.06	-	64.46	54.46	-10.40	-
2	0.240	0.12	48.84	-	48.96	-	62.09	52.09	-13.13	-
3	0.960	0.20	39.62	-	39.82	-	56.00	46.00	-16.18	-
4	1.082	0.20	40.65	-	40.85	-	56.00	46.00	-15.15	-
5	3.918	0.30	36.58	-	36.88	-	56.00	46.00	-19.12	-
6	25.106	1.30	31.06	-	32.36	-	60.00	50.00	-27.64	-

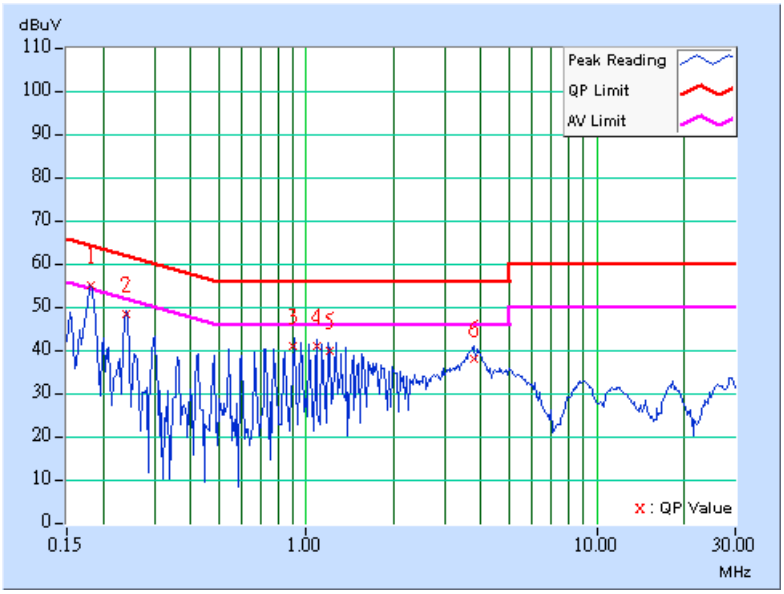
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	Countertop	**MODEL**	IBC-001
MODE	Channel 0	**6dB BANDWIDTH**	9kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	25deg. C, 56%RH, 991hPa	**TESTED BY**: Jun Wu	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.181**	**0.10**	**54.81**	**49.40**	**54.91**	**49.50**	**64.45**	**54.45**	**-9.54**	**-4.95**
2	0.240	0.12	48.19	-	48.31	-	62.10	52.10	-13.79	-
3	0.905	0.20	40.77	-	40.97	-	56.00	46.00	-15.03	-
4	1.083	0.20	40.79	-	40.99	-	56.00	46.00	-15.01	-
5	1.203	0.20	39.85	-	40.05	-	56.00	46.00	-15.95	-
6	3.789	0.20	38.08	-	38.28	-	56.00	46.00	-17.72	-

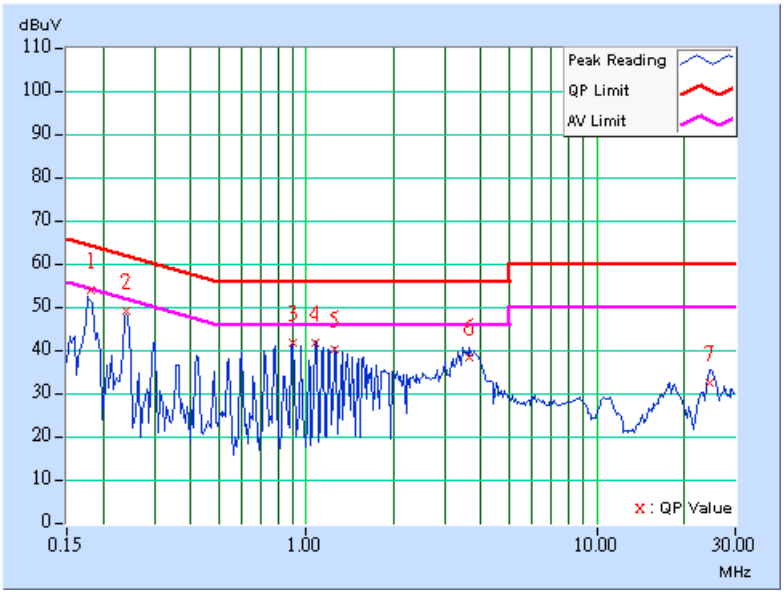
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	Countertop	**MODEL**	IBC-001
MODE	Channel 14	**6dB BANDWIDTH**	9kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	25deg. C, 56%RH, 991hPa	**TESTED BY**: Jun Wu	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.181	0.10	52.66	-	52.76	-	64.45	54.45	-11.69	-
2	0.240	0.12	47.89	-	48.01	-	62.10	52.10	-14.09	-
3	0.899	0.20	40.47	-	40.67	-	56.00	46.00	-15.33	-
4	1.077	0.20	40.41	-	40.61	-	56.00	46.00	-15.39	-
5	1.257	0.20	38.95	-	39.15	-	56.00	46.00	-16.85	-
6	3.660	0.28	37.14	-	37.42	-	56.00	46.00	-18.58	-
7	24.616	1.28	31.18	-	32.46	-	60.00	50.00	-27.54	-

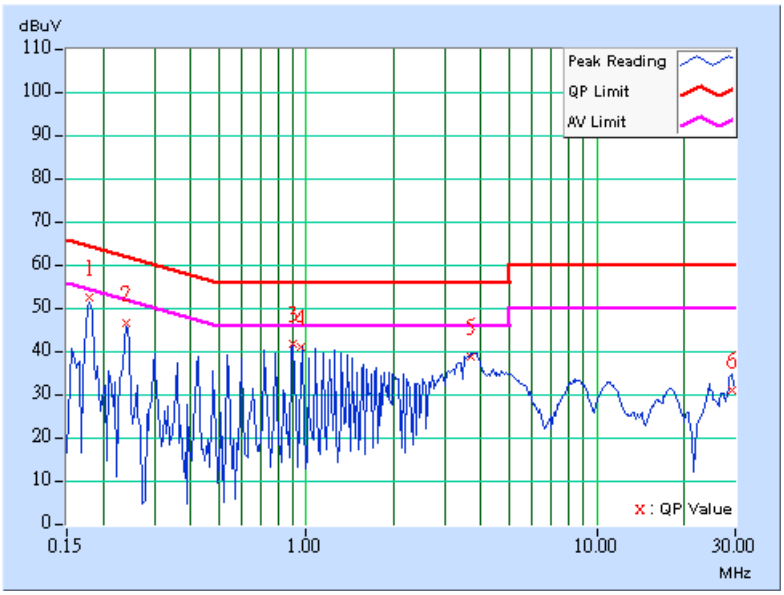
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	Countertop	**MODEL**	IBC-001
MODE	Channel 14	**6dB BANDWIDTH**	9kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	25deg. C, 56%RH, 991hPa	**TESTED BY**: Jun Wu	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.180	0.10	51.61	-	51.71	-	64.49	54.49	-12.78	-
2	0.240	0.12	45.68	-	45.80	-	62.10	52.10	-16.30	-
3	0.900	0.20	40.83	-	41.03	-	56.00	46.00	-14.97	-
4	0.962	0.20	40.06	-	40.26	-	56.00	46.00	-15.74	-
5	3.672	0.20	37.96	-	38.16	-	56.00	46.00	-17.84	-
6	29.123	1.08	30.07	-	31.15	-	60.00	50.00	-28.85	-

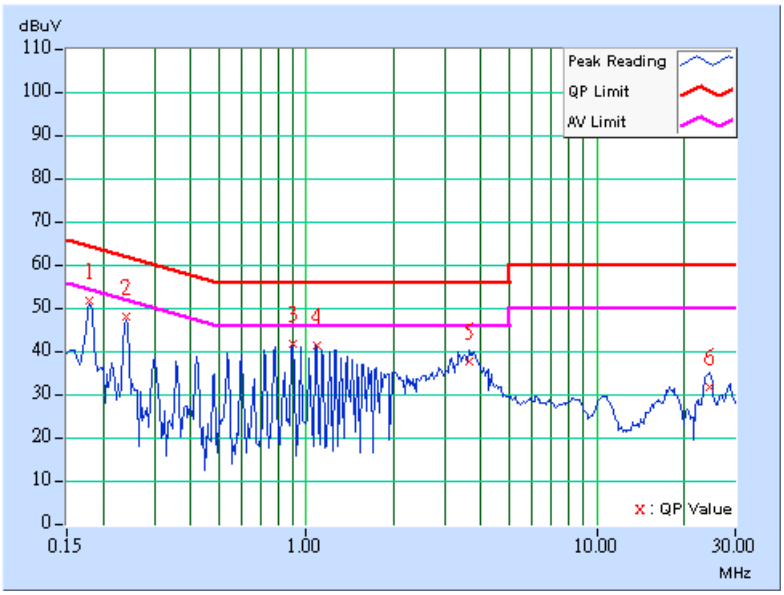
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	Countertop	**MODEL**	IBC-001
MODE	Channel 27	**6dB BANDWIDTH**	9kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	25deg. C, 56%RH, 991hPa	**TESTED BY**: Jun Wu	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.180	0.10	50.48	-	50.58	-	64.48	54.48	-13.90	-
2	0.240	0.12	46.69	-	46.81	-	62.09	52.09	-15.28	-
3	0.900	0.20	40.69	-	40.89	-	56.00	46.00	-15.11	-
4	1.083	0.20	40.19	-	40.39	-	56.00	46.00	-15.61	-
5	3.636	0.28	36.66	-	36.94	-	56.00	46.00	-19.06	-
6	24.371	1.27	30.49	-	31.76	-	60.00	50.00	-28.24	-

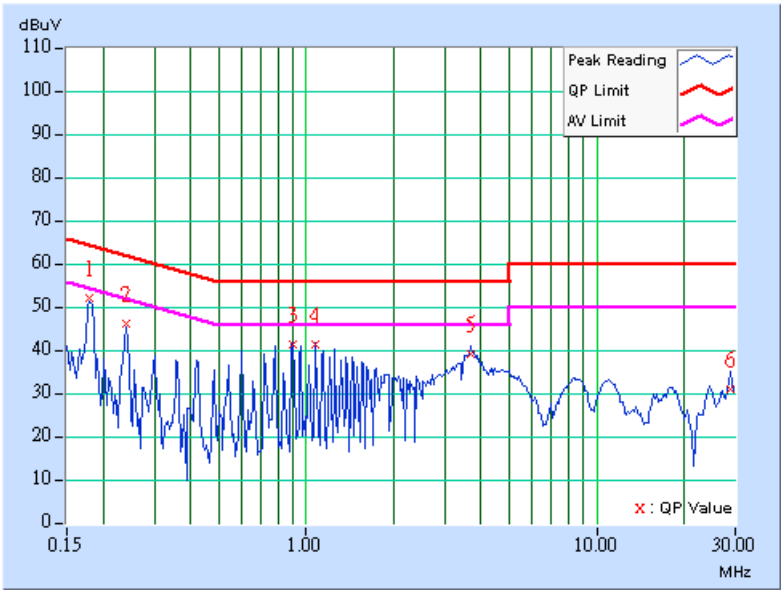
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	Countertop	**MODEL**	IBC-001
MODE	Channel 27	**6dB BANDWIDTH**	9kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	25deg. C, 56%RH, 991hPa	**TESTED BY**: Jun Wu	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.180	0.10	51.02	-	51.12	-	64.48	54.48	-13.36	-
2	0.240	0.12	45.40	-	45.52	-	62.10	52.10	-16.58	-
3	0.897	0.20	40.51	-	40.71	-	56.00	46.00	-15.29	-
4	1.077	0.20	40.31	-	40.51	-	56.00	46.00	-15.49	-
5	3.678	0.20	38.02	-	38.22	-	56.00	46.00	-17.78	-
6	28.960	1.08	30.08	-	31.16	-	60.00	50.00	-28.84	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The field strength of emission from fundamental frequency shall comply with the followng:

Frequencies (MHz)	Field strength (dBuV/m)	
	Peak	Average
902 ~ 928	114	94

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
* HP Spectrum Analyzer	8593E	3911A07465	Jul. 7, 2004
* HP Preamplifier	8447D	2432A03504	Jun. 10, 2004
* HP Preamplifier	8449B	3008A01292	Aug. 11, 2004
SCHAFFNER Tunable Dipole Antenna SCHWARZBECK Tunable Dipole Antenna	VHBA 9123 UHA 9105	459 977	Jun. 26, 2004
* ROHDE & SCHWARZ Test Receiver	ESMI	839013/007 839379/002	Feb. 12, 2005
* Schwarzbeck Antenna	VULB9168	137	Apr. 03, 2004
* SCHWARZBECK Horn Antenna	BBHA9120-D1	D130	Jun. 30, 2004
* ADT. Turn Table	TT100	0306	NA
* ADT. Tower	AT100	0306	NA
* Software	ADT_Radiated_V5.14	NA	NA
* TIMES RF cable	LL142	CABLE-CH6-01	Apr. 30, 2004

NOTE: 1. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.
2. "*" = These equipment are used for the final measurement.
3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The test was performed in ADT Chamber No. 6.

4.2.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using the quasi-peak method or average method as specified and then reported in Data sheet peak mode and QP mode.

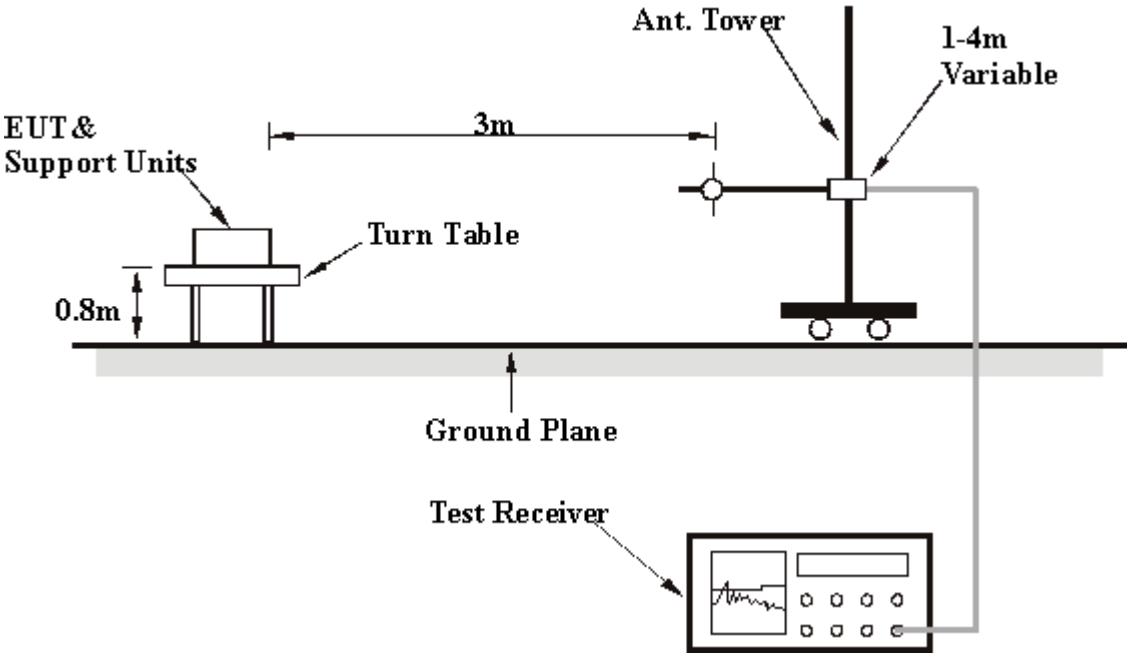
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.2.6 EUT OPERATING CONDITIONS

Same as item 4.1.6

4.2.7 TEST RESULTS

EUT	Countertop	**MODEL**	IBC-001
MODE	Channel 27	**FREQUENCY RANGE**	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	**TESTED BY**: Allen Chang	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	599.56	42.40 QP	46.00	-3.60	1.00 H	310	20.82	21.58
2	634.55	35.79 QP	46.00	-10.21	1.00 H	337	13.74	22.05
3	700.64	38.22 QP	46.00	-7.78	1.00 H	340	15.32	22.91
4	801.72	39.47 QP	46.00	-6.53	2.00 H	331	15.04	24.43
5	834.77	35.30 QP	46.00	-10.70	2.00 H	325	10.54	24.76
6	900.86	37.24 QP	46.00	-8.76	2.00 H	37	11.33	25.91

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	436.27	39.68 QP	46.00	-6.32	1.00 V	40	21.68	18.00
2	600.00	42.20 QP	46.00	-3.80	1.00 V	34	20.61	21.59
3	700.64	37.79 QP	46.00	-8.21	1.50 V	247	14.88	22.91
4	801.72	43.26 QP	46.00	-2.74	1.00 V	43	18.83	24.43
5	840.60	39.14 QP	46.00	-6.86	1.00 V	28	14.33	24.82
6	902.81	39.53 QP	46.00	-6.47	4.00 V	271	13.60	25.93

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

EUT	Countertop	**MODEL**	IBC-001
CHANNEL	Channel 0	**FREQUENCY RANGE**	1 ~25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz		
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	**DETECTOR FUNCTION**	Quasi-Peak (QP) Peak (PK)
TESTED BY: Allen Chang			

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*905.30	92.36 QP	94.00	-1.64	1.34 H	11	66.39	25.97
2	1807.62	41.30 PK	74.00	-32.70	1.08 H	252	10.28	31.02
3	2715.74	43.57 PK	74.00	-30.43	1.45 H	108	8.97	34.60
4	3626.01	46.49 PK	74.00	-27.51	1.14 H	298	9.39	37.10
5	4527.32	49.04 PK	74.00	-24.96	1.20 H	41	10.10	38.93
6	5430.20	48.90 PK	74.00	-25.10	1.12 H	62	7.98	40.92

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	***905.30**	**94.60 QP**	**94.00**	**-0.60**	**1.74 V**	**360**	**68.63**	**25.97**
2	1810.54	45.78 PK	74.00	-28.22	1.25 V	49	14.76	31.03
3	2715.51	44.38 PK	74.00	-29.62	1.34 V	211	9.78	34.60
4	3620.11	46.83 PK	74.00	-27.17	1.25 V	131	9.75	37.08
5	4525.28	49.16 PK	74.00	-24.84	1.30 V	329	10.23	38.93

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB) = Antenna Factor (dB) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. "*" = Fundamental frequency
6. The average value of fundamental frequency is: Average = Peak value + 20log(Duty cycle)
   Where the duty factor is calculated from following formula:

$$20\log(\text{Duty cycle}) = 20\log\frac{34\text{ms}}{152.4\text{ms}} = -13.03\text{dB}$$

please see page 26 for plotted duty

EUT	Countertop	**MODEL**	IBC-001
CHANNEL	Channel 14	**FREQUENCY RANGE**	1 ~25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz		
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	**DETECTOR FUNCTION**	Quasi-Peak (QP) Peak (PK)
TESTED BY: Allen Chang			

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*915.16	92.82 QP	94.00	-1.18	1.00 H	194	66.73	26.09
2	1829.82	40.94 PK	74.00	-33.06	1.36 H	135	9.87	31.07
3	2744.90	46.33 PK	74.00	-27.67	1.29 H	224	11.66	34.66
4	3660.18	46.25 PK	74.00	-27.75	1.15 H	36	9.07	37.18
5	4575.35	48.66 PK	74.00	-25.34	1.26 H	235	9.55	39.12
6	5489.93	49.84 PK	74.00	-24.16	1.09 H	4	8.90	40.94

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*915.16	93.06 QP	94.00	-0.94	1.52 V	1	66.97	26.09
2	1830.79	41.37 PK	74.00	-32.63	1.49 V	23	10.30	31.07
3	2745.16	44.37 PK	74.00	-29.63	1.30 V	109	9.70	34.66
4	3660.10	46.85 PK	74.00	-27.15	1.65 V	286	9.67	37.18
5	4575.10	47.69 PK	74.00	-26.31	1.00 V	75	8.57	39.12
6	5489.93	49.19 PK	74.00	-24.81	1.52 V	338	8.25	40.94

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB) = Antenna Factor (dB) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. "*" = Fundamental frequency
6. The average value of fundamental frequency is: Average = Peak value + 20log(Duty cycle)
   Where the duty factor is calculated from following formula:

$$20\log(\text{Duty cycle}) = 20\log\frac{34\text{ms}}{152.4\text{ms}} = -13.03\text{dB}$$

please see page 26 for plotted duty

EUT	Countertop	**MODEL**	IBC-001
CHANNEL	Channel 27	**FREQUENCY RANGE**	1 ~25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz		
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	**DETECTOR FUNCTION**	Quasi-Peak (QP) Peak (PK)
TESTED BY: Allen Chang			

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*924.80	92.85 QP	94.00	-1.15	1.33 H	125	66.64	26.21
2	1849.30	36.92 PK	74.00	-37.08	1.11 H	68	5.81	31.12
3	2774.37	46.57 PK	74.00	-27.43	1.32 H	288	11.84	34.73
4	3699.30	47.87 PK	74.00	-26.13	1.03 H	97	10.60	37.28
5	4624.10	48.97 PK	74.00	-25.03	1.43 H	297	9.69	39.28

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M

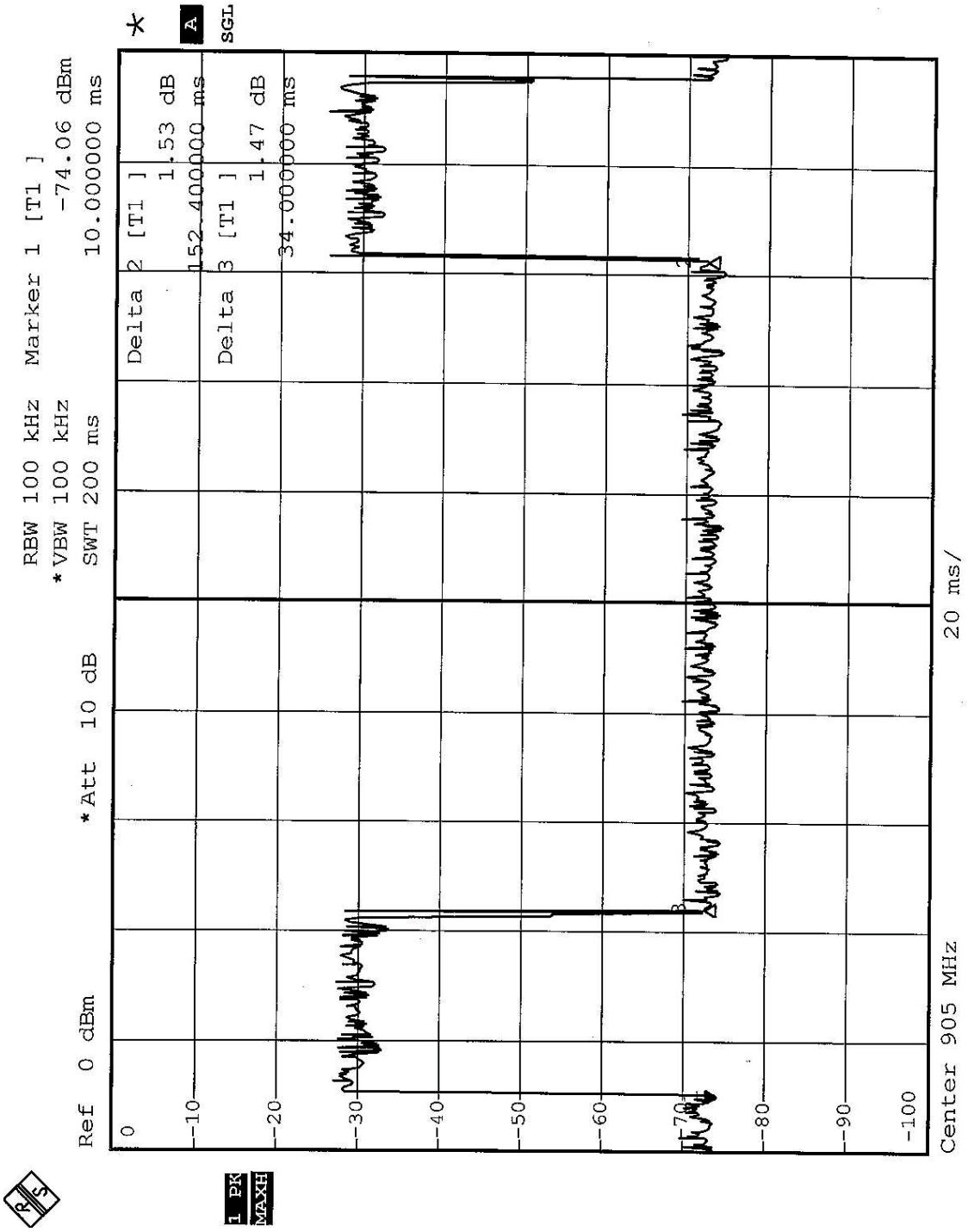
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*924.80	93.31 QP	94.00	-0.69	1.11 V	341	67.10	26.21
2	1849.00	40.38 PK	74.00	-33.62	1.61 V	360	9.26	31.12
3	2774.05	47.94 PK	74.00	-26.06	1.27 V	14	13.21	34.73
4	3699.39	46.50 PK	74.00	-27.50	1.18 V	194	9.22	37.28
5	4624.10	48.39 PK	74.00	-25.61	1.74 V	35	9.11	39.28

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB) = Antenna Factor (dB) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. "*" = Fundamental frequency
6. The average value of fundamental frequency is: Average = Peak value + 20log(Duty cycle)
   Where the duty factor is calculated from following formula:

$$20\log(\text{Duty cycle}) = 20\log\frac{34\text{ms}}{152.4\text{ms}} = -13.03\text{dB}$$

please see page 26 for plotted duty


RBW 100 kHz
*VBW 100 kHz
SWT 200 ms
Marker 1 [T1]
-74.06 dBm
10.000000 ms
*Att 10 dB
Ref 0 dBm
Delta 2 [T1]
1.53 dB
152.400000 ms
Delta 3 [T1]
1.47 dB
34.000000 ms
SGL
A
1 PK MAXH
Center 905 MHz
20 ms/

4.3 BAND EDGES MEASUREMENT

4.3.1 LIMITS OF BAND EDGES MEASUREMENT

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

4.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	August 12, 2004

NOTE:
The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100 kHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.

4.3.4 EUT OPERATING CONDITION

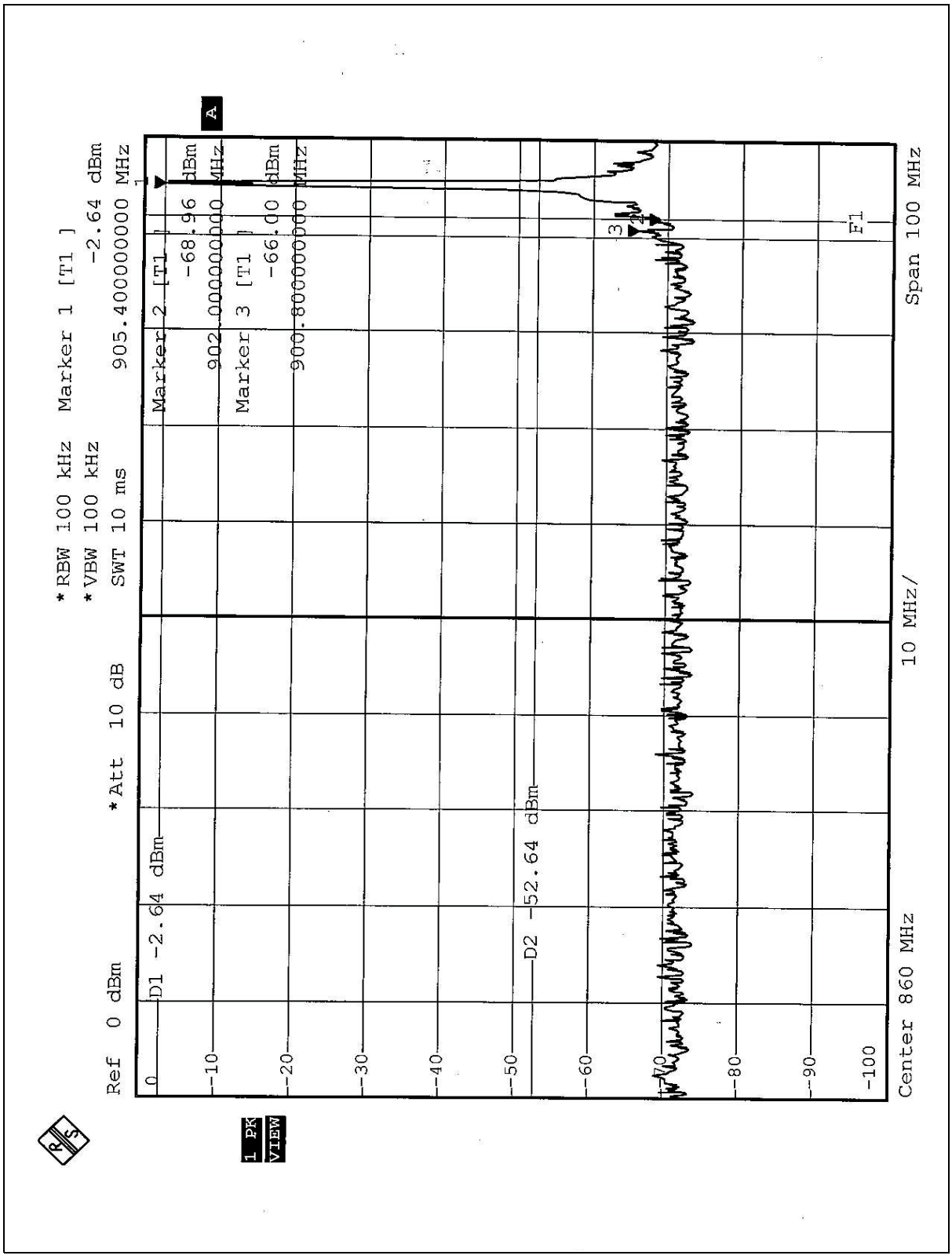
Enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

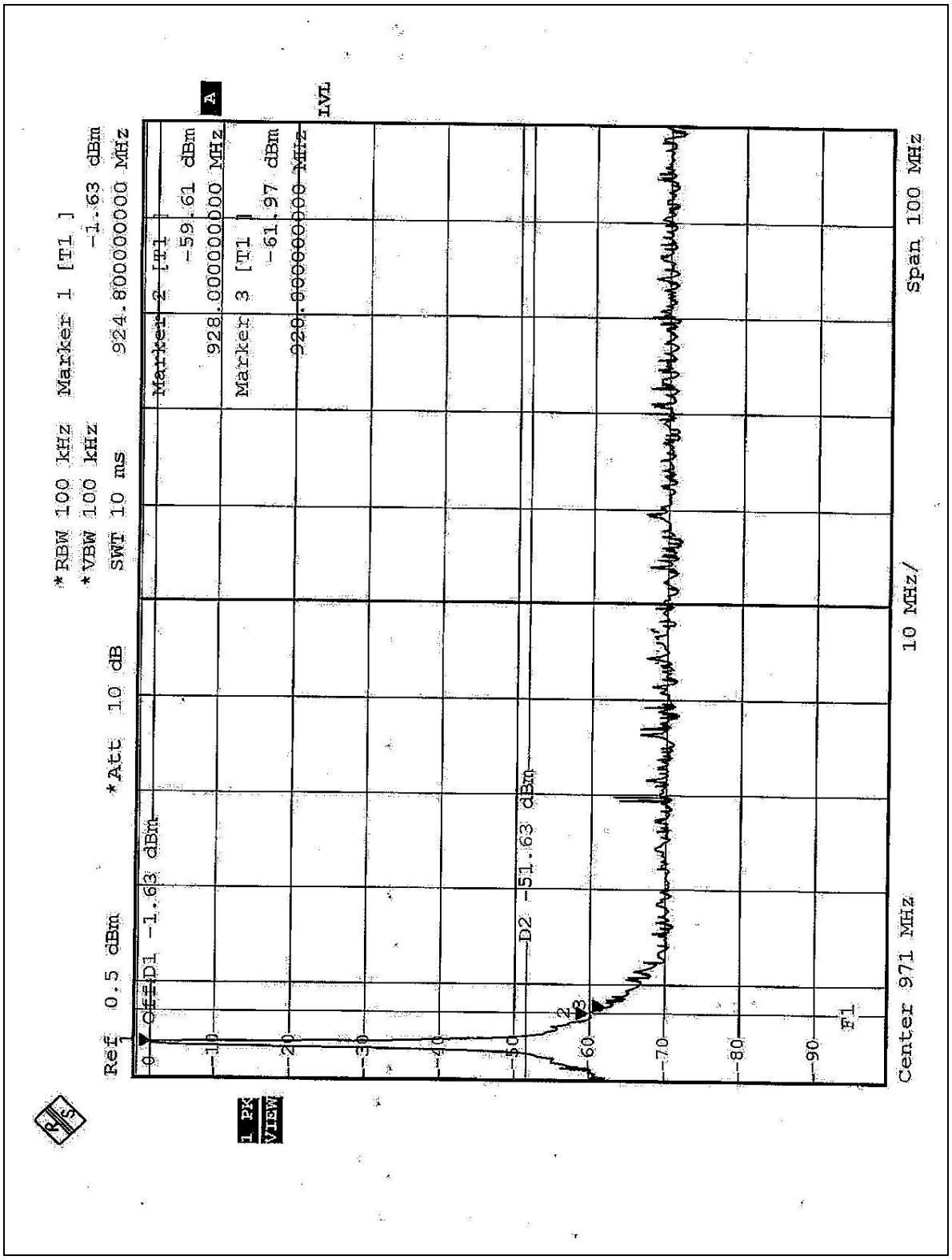
4.3.5 TEST RESULTS

The spectrum plots are attached on the following 2 pages. D2 line indicates the highest level, D1 line indicates the 50dB offset below D2. It shows compliance with the requirement in part 15.249(d).

NOTE1: The band edge emission plot on the following first page shows 63.36dB delta between carrier maximum power and local maximum emission in restrict band (900.80MHz). The emission of carrier strength list in the test result of channel 0 at the item 4.2.7 is 81.89dBuV/m, so the maximum field strength in restrict band is 81.89-63.36=18.53dBuV/m which is under 54dBuV/m limit.

NOTE2: The band edge emission plot on the following second page shows 57.98dB delta between carrier maximum power and local maximum emission in restrict band (928.00MHz). The emission of carrier strength list in the test result of channel 27 at the item 4.2.7 is 86.28dBuV/m, so the maximum field strength in restrict band is 86.28-57.98=28.30dBuV/m which is under 54dBuV/m limit.

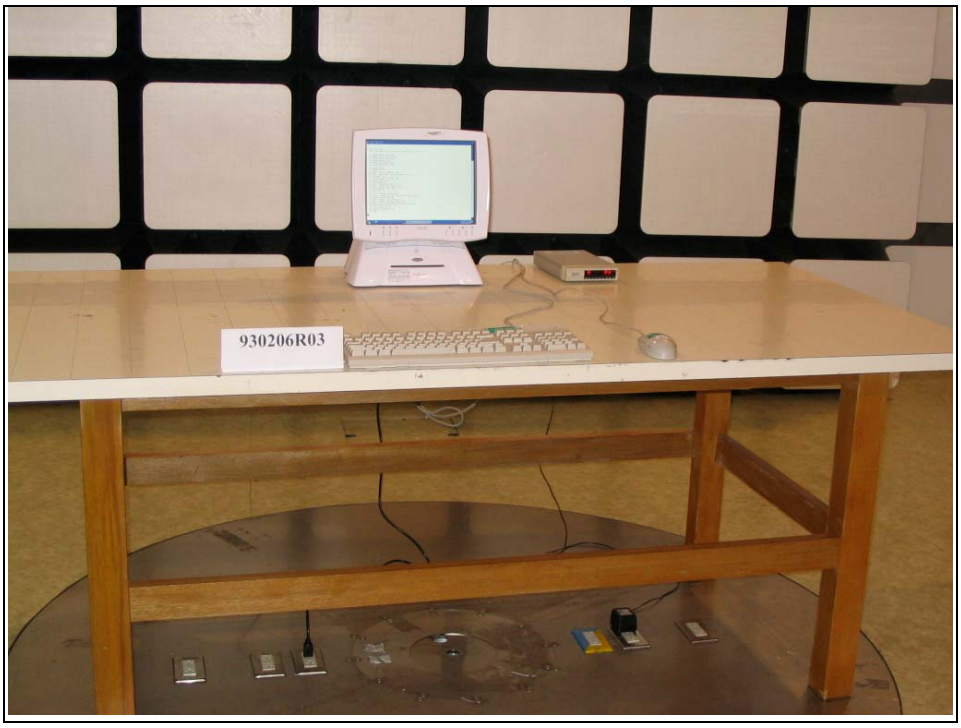

RBW 100 kHz
VBW 100 kHz
SWT 10 ms
Marker 1 [T1]
-2.64 dBm
905.400000000 MHz
Marker 2 [T1]
-68.96 dBm
902.000000000 MHz
Marker 3 [T1]
-66.00 dBm
900.800000000 MHz
Att 10 dB
Ref 0 dBm
D1 -2.64 dBm
D2 -52.64 dBm
Center 860 MHz
10 MHz/
Span 100 MHz
1 PK VIEW

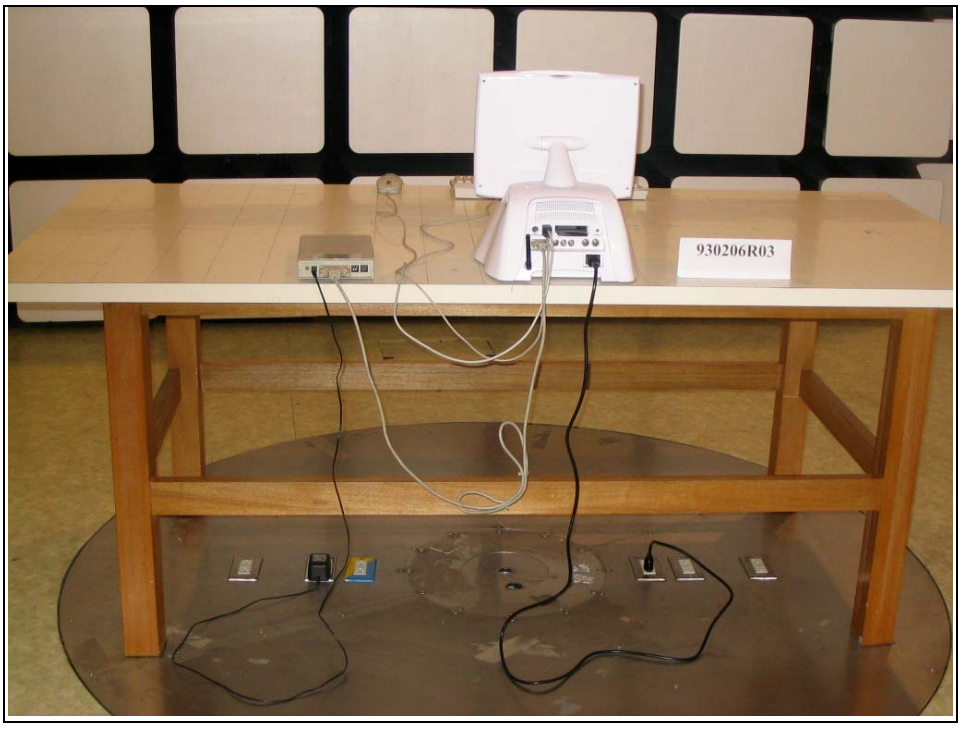

RBW 100 kHz
VBW 100 kHz
SWT 10 ms
Marker 1 [T1]
-1.63 dBm
924.800000000 MHz
Marker 2 [T1]
-59.61 dBm
928.000000000 MHz
Marker 3 [T1]
-61.97 dBm
920.000000000 MHz
Att 10 dB
Ref 0.5 dBm
D1 -1.63 dBm
D2 -51.63 dBm
Center 971 MHz
10 MHz/
Span 100 MHz
1 PK VIEW

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

CONDUCTED EMISSION TEST

RADIATED EMISSION TEST





6. INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025, Guide 25 or EN 45001:

USA	FCC, NVLAP, UL
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	CNLA, BSMI, DGT
Netherlands	Telefication
Singapore	PSB , GOST-ASIA(MOU)
Russia	CERTIS(MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26052943

Hsin Chu EMC/RF Lab:
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Lab:
Tel: 886-3-3183232
Fax: 886-3-3185050

Linko RF & Telecom Lab.
Tel: 886-3-3270910
Fax: 886-3-3270892

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Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.