FCC TEST REPORT

REPORT NO.: RF920924R05
MODEL NO.: M275
OEM MODEL NO.: OA8
RECEIVED: Sep. 24, 2003
TESTED: Sep. 29 ~ Sep. 30, 2003

APPLICANT: QUANTA COMPUTER INC.

ADDRESS: 7F 116 Hou Kang St. Shih Lin, 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

Lab Code: 200102-0

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1. CERTIFICATION

PRODUCT :	Tablet
BRAND NAME :	Gateway
MODEL NO. :	M275
OEM BRAND NAME:	Quanta
OEM MODEL NO.:	OA8
TEST ITEM:	R&D SAMPLE
APPLICANT :	QUANTA COMPUTER INC.
STANDARDS :	47 CFR Part 15, Subpart C (Section 15.247), Subpart E (Section 15.407), ANSI C63.4-1992

We, **Advance Data Technology Corporation**, hereby certify that one sample of the designation has been tested in our facility from Sep. 29 ~ Sep. 30, 2003. 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: Landy Soong , **DATE:** Oct. 06, 2003
Landy Soong

APPROVED BY: , **DATE:** Oct. 06, 2003
Ellis Wu /
Technical Manager

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: 47 CFR Part 15, Subpart C			
Standard Section	**Test Type and Limit**	**Result**	**REMARK**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit Minimum passing margin is –19.55dB at 14.376MHz
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit
15.247(c)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit Minimum passing margin is –6.7dB at 376.01MHz
15.247(d)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit
15.247(c)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit

APPLIED STANDARD: 47 CFR Part 15, Subpart E			
Standard Section	**Test Type**	**Result**	**REMARK**
15.407(b)(5)	AC Power Conducted Emission	PASS	Meet the requirement of limit Minimum passing margin is –7.49dB at 14.290MHz
15.407(b/1/2/3) (b)(5)	Electric Field Strength Spurious Emissions, 30MHz ~ 40000MHz	PASS	Meet the requirement of limit Minimum passing margin is –6.7dB at 376.01MHz
15.407(a/1/2/3)	Peak Transmit Power	PASS	Meet the requirement of limit
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit
15.407(a/1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit
15.407(g)	Frequency Stability	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	Tablet
MODEL NO.	M275
BRAND	Gateway
OEM MODEL NO.:	OA8
OEM BRAND NO.:	Quanta
POWER SUPPLY	19VDC from AC adapter
MODULATION	CCK, OFDM
TRANSFER RATE	up to 54Mbps
FREQUENCY RANGE	802.11b and draft 802.11g: 2412~2462MHz 802.11a: 5150~5350MHz
NUMBER OF CHANNEL	802.11b and draft 802.11g: 11 802.11a: 8
CHANNEL SPACING	802.11b and draft 802.11g: 5MHz 802.11a: 20MHz
OUTPUT POWER	802.11b: 16.85dBm 802.11g: 15.42dBm 802.11a: 15.79dBm
DATA CABLE	NA
ANTENNA TYPE	802.11b and 11g: PIFA antenna with 0.81 antenna gain 802.11a: PIFA antenna with 1.31 antenna gain
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. The EUT operates in both the 5GHz and 2.4GHz Bands and compatibility with 802.11a and 802.11g technology.
2. IEEE 802.11a and Draft 802.11g Compliant.
3. The EUT was operated with following power adapter:

Brand:	Gateway
Model:	ADP-60DH REV. B
Input:	100-240 V ac, 1500 mA, 50-60Hz
Output:	19 V, 3160 mA

4. The Mini PCI card which collocated in Tablet, model no. is: BCM94309MP, brand name is Broadcom.
5. For more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

For 802.11b and draft 802.11g: Eleven channels are provided to this EUT.

Channel	Frequency	Channel	Frequency
1	2412 MHz	7	2442 MHz
2	2417 MHz	8	2447 MHz
3	2422 MHz	9	2452 MHz
4	2427 MHz	10	2457 MHz
5	2432 MHz	11	2462 MHz
6	2437 MHz		

NOTE:

1. Below 1GHz, the channel 1, 6, and 11 were pre-tested in chamber. The channel 11, worst case one, was chosen for final test.
2. Above 1GHz, the channel 1, 6, and 11 were tested individually.
3. 6Mbps with OFDM technique, the worst case, was chosen for final test.

For 802.11a: Eight channels are provided to this EUT.

Channel	Frequency	Channel	Frequency
1	5180 MHz	7	5300 MHz
2	5200 MHz	8	5320 MHz
3	5220 MHz		
4	5240 MHz		
5	5260 MHz		
6	5280 MHz		

NOTE:

1. The EUT allows data rates of up to 54Mbps and was tested at 6Mbps data rate that produced the highest output power.
2. Channel 1, 4, 5, and 8 which are the closest frequencies to the band edge, were chosen for final test.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC 47 CFR Part 15, Subpart C. (15.247),
Subpart E (15.407). ANSI C63.4 : 1992

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

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

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	NOTEBOOK	QUANTA	M275DAZ	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA

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

4. TEST TYPES AND RESULTS (FOR PART 802.11b & draft 802.11g)

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.

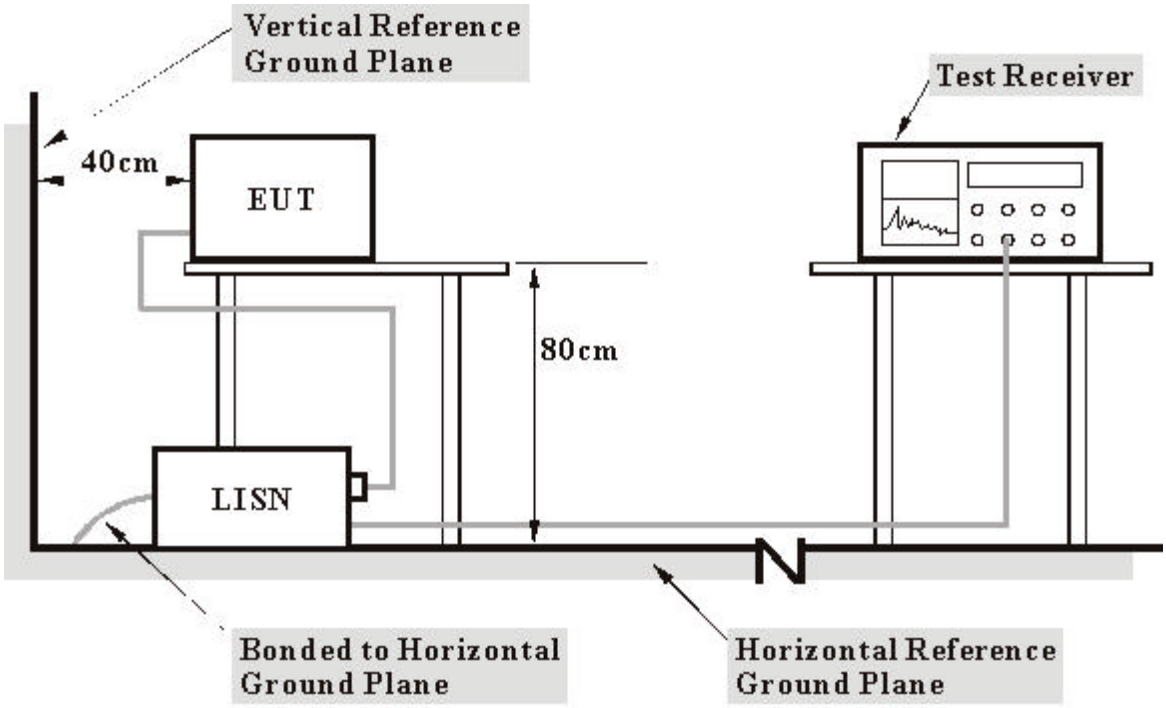
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150kHz to 30MHz was searched. Emission levels over 10dB under the prescribed limits could not be reported

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

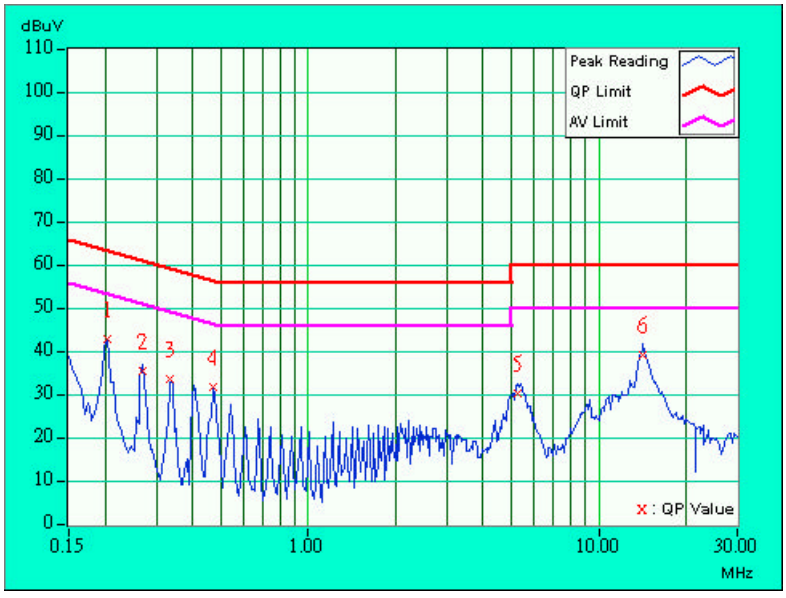
a. Plug the EUT into the computer system placed on a testing table.
b. The computer system ran a test program to enable EUT under transmission/receiving condition continuously at specific channel frequency.
c. The computer system sent "H" messages to its screen.
d. The computer system sent “H” messages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

4.1.7 TEST RESULTS

EUT	Tablet	**MODEL**	M275
MODE	Channel 1	**6dB BANDWIDTH**	9 kHz
TEST MODE	CCK, OFDM	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	30deg. C, 45%RH, 991hPa	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
TESTED BY	Steven Lu		

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	0.203	0.10	42.07	-	42.17	-	63.47	53.47	-21.30	-
2	0.270	0.13	34.57	-	34.70	-	61.12	51.12	-26.41	-
3	0.336	0.17	33.00	-	33.17	-	59.30	49.30	-26.13	-
4	0.473	0.20	31.10	-	31.30	-	56.46	46.46	-25.16	-
5	5.265	0.36	29.66	-	30.02	-	60.00	50.00	-29.98	-
6	14.239	0.85	38.44	-	39.29	-	60.00	50.00	-20.71	-

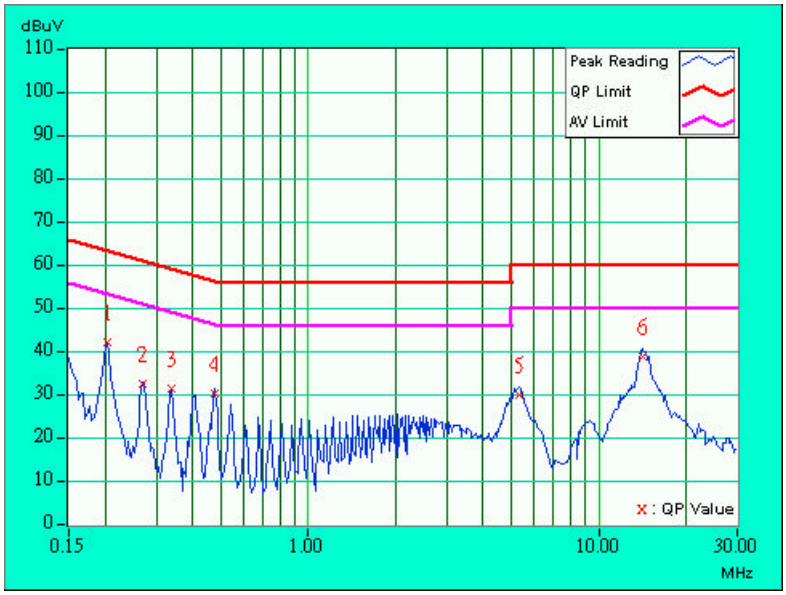
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Tablet	**MODEL**	M275
MODE	Channel 1	**6dB BANDWIDTH**	9 kHz
TEST MODE	CCK, OFDM	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	30deg. C, 45%RH, 991hPa	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
TESTED BY	Steven Lu		

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	0.204	0.10	41.49	-	41.59	-	63.44	53.44	-21.85	-
2	0.270	0.13	31.85	-	31.99	-	61.12	51.12	-29.13	-
3	0.338	0.17	30.61	-	30.78	-	59.25	49.25	-28.47	-
4	0.474	0.20	29.48	-	29.68	-	56.44	46.44	-26.76	-
5	5.336	0.27	29.35	-	29.62	-	60.00	50.00	-30.38	-
6	14.259	0.76	38.14	-	38.90	-	60.00	50.00	-21.10	-

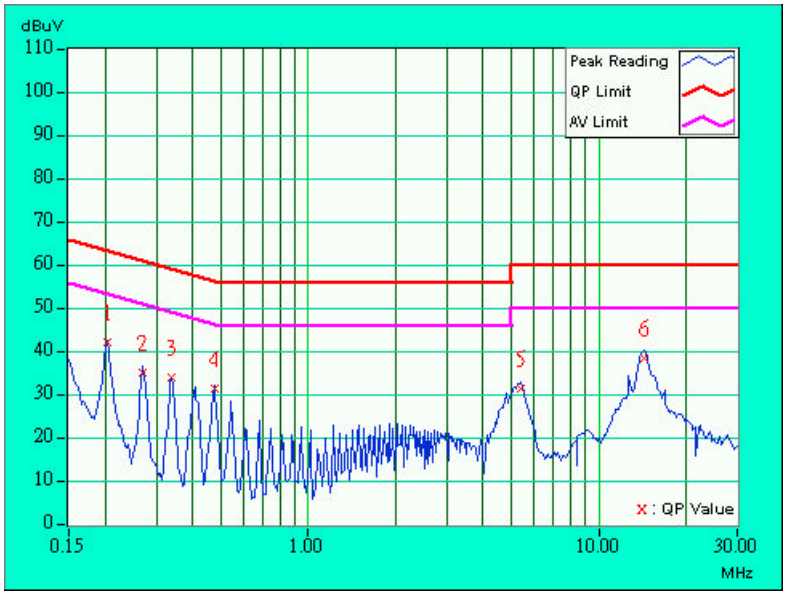
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Tablet	**MODEL**	M275
MODE	Channel 6	**6dB BANDWIDTH**	9 kHz
TEST MODE	CCK, OFDM	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	30deg. C, 45%RH, 991hPa	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
TESTED BY	Steven Lu		

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	0.204	0.10	41.35	-	41.45	-	63.45	53.45	-21.99	-
2	0.270	0.14	34.29	-	34.43	-	61.12	51.12	-26.69	-
3	0.339	0.17	33.18	-	33.35	-	59.23	49.23	-25.88	-
4	0.474	0.20	30.66	-	30.86	-	56.44	46.44	-25.58	-
5	5.414	0.37	30.62	-	30.99	-	60.00	50.00	-29.01	-
6	14.351	0.86	37.71	-	38.57	-	60.00	50.00	-21.43	-

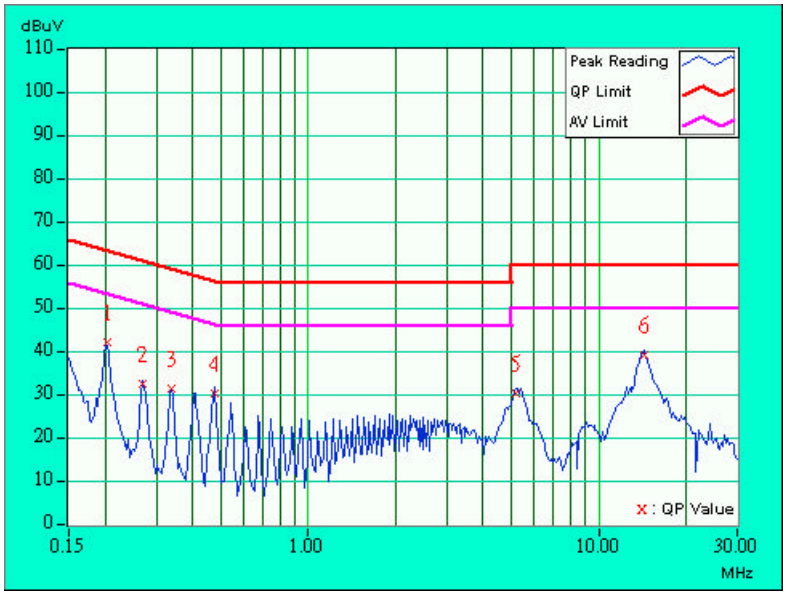
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Tablet	**MODEL**	M275
MODE	Channel 6	**6dB BANDWIDTH**	9 kHz
TEST MODE	CCK, OFDM	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	30deg. C, 45%RH, 991hPa	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
TESTED BY	Steven Lu		

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	0.204	0.10	41.31	-	41.41	-	63.45	53.45	-22.03	-
2	0.270	0.13	31.73	-	31.87	-	61.12	51.12	-29.25	-
3	0.339	0.17	30.57	-	30.74	-	59.23	49.23	-28.49	-
4	0.474	0.20	29.60	-	29.80	-	56.44	46.44	-26.64	-
5	5.210	0.26	29.50	-	29.76	-	60.00	50.00	-30.24	-
6	14.275	0.76	38.40	-	39.16	-	60.00	50.00	-20.84	-

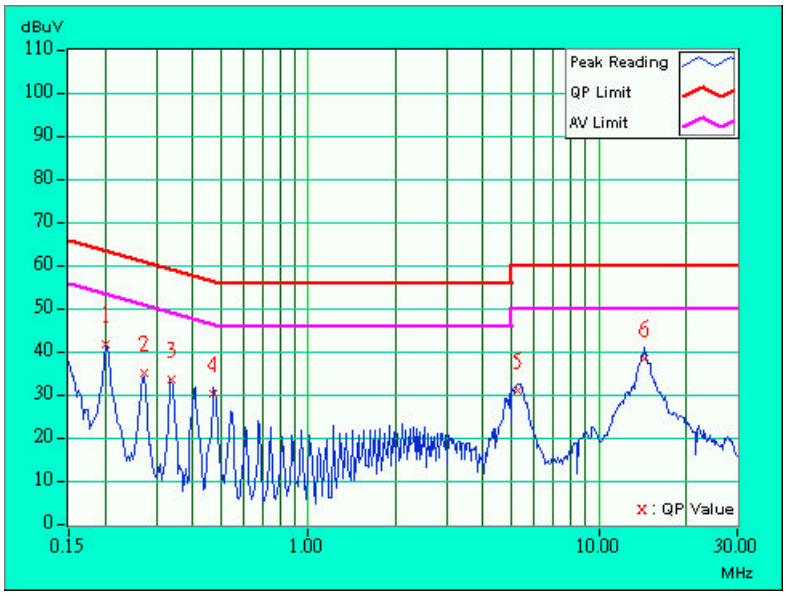
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Tablet	**MODEL**	M275
MODE	Channel 11	**6dB BANDWIDTH**	9 kHz
TEST MODE	CCK, OFDM	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	30deg. C, 45%RH, 991hPa	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
TESTED BY	Steven Lu		

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	0.202	0.10	40.91	-	41.01	-	63.53	53.53	-22.52	-
2	0.273	0.14	34.31	-	34.45	-	61.03	51.03	-26.58	-
3	0.338	0.17	32.92	-	33.09	-	59.25	49.25	-26.16	-
4	0.472	0.20	29.50	-	29.70	-	56.47	46.47	-26.77	-
5	5.281	0.36	30.30	-	30.66	-	60.00	50.00	-29.34	-
6	14.428	0.87	37.64	-	38.51	-	60.00	50.00	-21.49	-

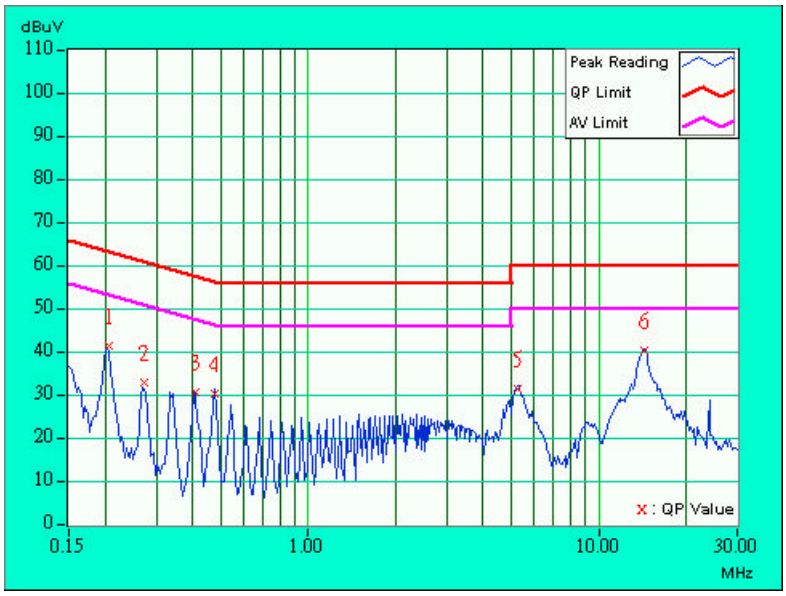
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Tablet	**MODEL**	M275
MODE	Channel 11	**6dB BANDWIDTH**	9 kHz
TEST MODE	CCK, OFDM	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	30deg. C, 45%RH, 991hPa	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
TESTED BY	Steven Lu		

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	0.206	0.10	40.55	-	40.65	-	63.38	53.38	-22.72	-
2	0.271	0.14	32.11	-	32.25	-	61.08	51.08	-28.84	-
3	0.408	0.20	30.16	-	30.36	-	57.69	47.69	-27.33	-
4	0.474	0.20	29.58	-	29.78	-	56.44	46.44	-26.66	-
5	5.289	0.26	30.81	-	31.07	-	60.00	50.00	-28.93	-
6	**14.376**	**0.76**	**39.69**	**-**	**40.45**	**-**	**60.00**	**50.00**	**-19.55**	**-**

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

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	8590L	3520A00667	Aug. 28, 2004
* CHASE Preamplifier	CPA9231A/4	3215	Nov. 06, 2003
* HP Preamplifier	8449B	3008A01201	Dec. 01, 2003
* HP Preamplifier	8449B	3008A01292	Aug. 11, 2004
* ROHDE & SCHWARZ TEST RECEIVER	ESVS10	846285/012	Aug. 28, 2004
* ROHDE & SCHWARZ TEST RECEIVER	ESMI	839013/007 839379/002	Feb. 13, 2004
SCHAFFNER Tunable Dipole Antenna SCHWARZBECK Tunable Dipole Antenna	VHBA 9123 UHA 9105	459 977	Nov. 22, 2003
* CHASE BILOG Antenna	CBL6112B	2751	Mar. 21, 2004
* SCHWARZBECK Horn Antenna	BBHA9120-D1	D130	Jun. 30, 2004
* EMCO Horn Antenna	3115	9312-4192	Mar. 23, 2004
* CHANCE Turn Table & Tower Controller	ACS-I	NA	NA
* Software	ADT_Radiated_V5.14	NA	NA
* ANRITSU RF Switches	MP59B	M51167	Aug. 16, 2004
* TIMES RF cable	LMR-600	CABLE-ST6-01	Aug. 20, 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 Open Site No. 6.
5. The VCCI Site Registration No. is R-728.

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.

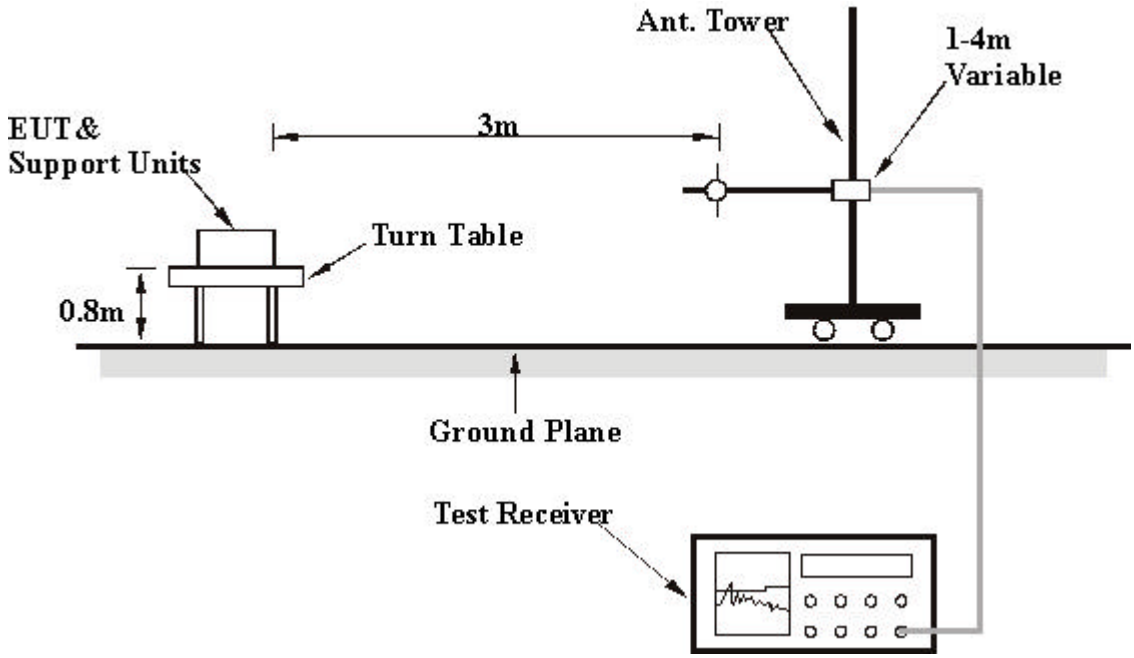
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection (PK) 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 4.1.6

4.2.7 TEST RESULTS

EUT	Tablet	**MODEL**	M275
MODE	Channel 11	**FREQUENCY RANGE**	Below 1000 MHz
TEST MODE	OFDM	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 50%RH, 991hPa	**DETECTOR FUNCTION**	Quasi-Peak
TESTED BY	Steven Lu		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 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	111.64	27.80 QP	43.50	-15.70	1.50 H	172	16.40	11.50
2	166.07	32.70 QP	43.50	-10.80	1.75 H	283	19.00	13.70
3	210.78	32.20 QP	43.50	-11.30	1.75 H	55	20.40	11.70
4	261.32	30.60 QP	46.00	-15.40	1.00 H	133	16.90	13.70
5	333.25	36.30 QP	46.00	-9.70	1.00 H	328	20.30	16.00
6	370.18	39.20 QP	46.00	-6.80	3.00 H	157	22.30	16.90
7	**376.01**	**39.30 QP**	**46.00**	**-6.70**	**1.00 H**	**25**	**22.20**	**17.10**
8	407.11	32.00 QP	46.00	-14.00	1.00 H	97	14.10	17.90
9	599.56	31.10 QP	46.00	-14.90	1.75 H	355	8.50	22.60
10	733.69	34.30 QP	46.00	-11.70	1.00 H	205	9.40	24.90
11	749.24	34.10 QP	46.00	-11.90	1.75 H	112	8.80	25.30
12	782.28	33.30 QP	46.00	-12.70	1.75 H	328	7.80	25.50
13	832.83	34.60 QP	46.00	-11.40	1.25 H	253	8.60	26.00

REMARKS: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
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	Tablet	**MODEL**	M275
MODE	Channel 11	**FREQUENCY RANGE**	Below 1000 MHz
TEST MODE	OFDM	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 50%RH, 991hPa	**DETECTOR FUNCTION**	Quasi-Peak
TESTED BY	Steven Lu		

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	166.07	30.30 QP	43.50	-13.20	1.00 V	268	16.50	13.70
2	210.78	27.80 QP	43.50	-15.70	2.00 V	271	16.10	11.70
3	261.32	30.20 QP	46.00	-15.80	2.00 V	325	16.60	13.70
4	300.20	30.40 QP	46.00	-15.60	1.75 V	343	15.30	15.10
5	333.25	35.70 QP	46.00	-10.30	1.25 V	169	19.70	16.00
6	377.96	39.10 QP	46.00	-6.90	1.00 V	193	22.00	17.10
7	455.71	31.60 QP	46.00	-14.40	1.00 V	169	12.20	19.40
8	521.80	31.60 QP	46.00	-14.40	1.00 V	1	11.10	20.50
9	554.85	32.30 QP	46.00	-13.70	1.00 V	355	11.10	21.30
10	599.56	34.80 QP	46.00	-11.20	1.00 V	358	12.20	22.60
11	619.00	31.30 QP	46.00	-14.70	1.00 V	355	8.40	22.80
12	718.14	35.20 QP	46.00	-10.80	1.25 V	19	10.70	24.50
13	749.24	34.90 QP	46.00	-11.10	1.25 V	40	9.60	25.30
14	782.28	35.30 QP	46.00	-10.70	1.25 V	31	9.70	25.50
15	830.88	38.00 QP	46.00	-8.00	2.50 V	64	12.00	25.90

REMARKS: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
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	Tablet	**MODEL**	M275
MODE	Channel 1	**FREQUENCY RANGE**	Above 1000 MHz
TEST MODE	CCK	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
ENVIRONMENTAL CONDITIONS	27deg. C, 70%RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TESTED BY	Jun Wu		

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	2390.00	50.33 PK	74.00	-23.67	1.48 H	346	16.77	33.55
2	*2412.00	101.33 PK			1.48 H	346	67.67	33.66
2	*2412.00	87.83 AV			1.48 H	346	54.17	33.66
3	4824.00	53.87 PK	74.00	-20.13	1.48 H	346	12.74	41.13
3	4824.00	41.20 AV	54.00	-12.80	1.48 H	346	0.07	41.13

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	2390.00	51.99 PK	74.00	-22.01	1.00 V	323	18.44	33.55
1	2390.00	38.16 AV	54.00	-15.84	1.00 V	323	4.60	33.55
2	*2412.00	102.99 PK			1.00 V	323	69.33	33.66
2	*2412.00	89.16 AV			1.00 V	323	55.50	33.66
3	4824.00	56.87 PK	74.00	-17.13	1.12 V	99	15.74	41.13
3	4824.00	42.20 AV	54.00	-11.80	1.12 V	99	1.07	41.13

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Tablet	MODEL	M275
MODE	Channel 6	FREQUENCY RANGE	Above 1000 MHz
TEST MODE	CCK	INPUT POWER (SYSTEM)	120Vac, 60Hz
ENVIRONMENTAL CONDITIONS	27deg. C, 70%RH, 991hPa	DETECTOR FUNCTION	Peak(PK) Average (AV)
TESTED BY	Jun Wu		

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	*2437.00	102.58 PK			1.13 H	140	68.83	33.75
1	*2437.00	88.25 AV			1.13 H	140	54.50	33.75
2	4874.00	53.00 PK	74.00	-21.00	1.32 H	174	11.73	41.26
2	4874.00	39.43 AV	54.00	-14.57	1.32 H	174	-1.84	41.26

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	*2437.00	104.42 PK			1.00 V	2	70.67	33.75
1	*2437.00	90.08 AV			1.00 V	2	56.33	33.75
2	4874.00	56.50 PK	74.00	-17.50	1.48 V	98	15.23	41.26
2	4874.00	41.93 AV	54.00	-12.07	1.48 V	98	0.66	41.26
3	9747.00	61.25 PK	74.00	-12.75	1.29 V	110	14.64	46.61
3	9747.00	48.25 AV	54.00	-5.75	1.29 V	110	1.64	46.61

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Tablet	**MODEL**	M275
MODE	Channel 11	**FREQUENCY RANGE**	Above 1000 MHz
TEST MODE	CCK	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
ENVIRONMENTAL CONDITIONS	27deg. C, 70%RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TESTED BY	Jun Wu		

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	*2462.00	101.68 PK			1.08 H	149	67.83	33.85
1	*2462.00	88.02 AV			1.08 H	149	54.17	33.85
2	2483.50	50.68 PK	74.00	-23.32	1.08 H	149	16.74	33.94
3	4924.00	51.96 PK	74.00	-22.04	1.12 H	224	10.56	41.39
3	4924.00	40.16 AV	54.00	-13.84	1.12 H	224	-1.24	41.39

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	*2462.00	105.35 PK			1.00 V	321	71.50	33.85
1	*2462.00	90.68 AV			1.00 V	321	56.83	33.85
2	2483.50	54.35 PK	74.00	-19.65	1.00 V	321	20.41	33.94
2	2483.50	39.68 AV	54.00	-14.32	1.00 V	321	5.74	33.94
3	4924.00	56.46 PK	74.00	-17.54	1.41 V	118	15.06	41.39
3	4924.00	41.76 AV	54.00	-12.24	1.41 V	118	0.36	41.39

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Tablet	**MODEL**	M275
MODE	Channel 1	**FREQUENCY RANGE**	Above 1000 MHz
TEST MODE	OFDM	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 55%RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TESTED BY	Steven Lu		

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)
2	*2412.00	96.60 PK			1.57 H	175	65.10	31.50
2	*2412.00	82.70 AV			1.57 H	175	51.20	31.50
3	4824.00	46.60 PK	74.00	-27.40	1.41 H	222	8.70	37.90

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)
2	*2412.00	99.00 PK			1.00 V	154	67.50	31.50
2	*2412.00	85.10 AV			1.00 V	154	53.60	31.50
3	4824.00	46.80 PK	74.00	-27.20	1.24 V	114	8.90	37.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Tablet	**MODEL**	M275
MODE	Channel 6	**FREQUENCY RANGE**	Above 1000 MHz
TEST MODE	OFDM	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 55%RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TESTED BY	Steven Lu		

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	*2437.00	97.40 PK			1.00 H	10	65.80	31.50
1	*2437.00	82.50 AV			1.00 H	10	51.00	31.50
2	4874.00	47.40 PK	74.00	-26.60	1.23 H	23	9.40	37.90

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	*2437.00	100.00 PK			1.00 V	45	68.50	31.50
1	*2437.00	85.20 AV			1.00 V	45	53.70	31.50
2	4874.00	47.90 PK	74.00	-26.10	1.14 V	10	9.90	37.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Tablet	**MODEL**	M275
MODE	Channel 11	**FREQUENCY RANGE**	Above 1000 MHz
TEST MODE	OFDM	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 55%RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TESTED BY	Steven Lu		

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	*2462.00	99.60 PK			1.00 H	310	68.10	31.60
1	*2462.00	84.80 AV			1.00 H	310	53.20	31.60
3	4924.00	46.60 PK	74.00	-27.40	1.35 H	22	8.60	38.00

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	*2462.00	100.80 PK			1.48 V	153	69.20	31.60
1	*2462.00	86.20 AV			1.48 V	153	54.70	31.60
3	4924.00	47.80 PK	74.00	-26.20	1.44 V	273	9.80	38.00

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

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

4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 100kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 TEST SETUP

4.3.6 EUT OPERATING CONDITIONS

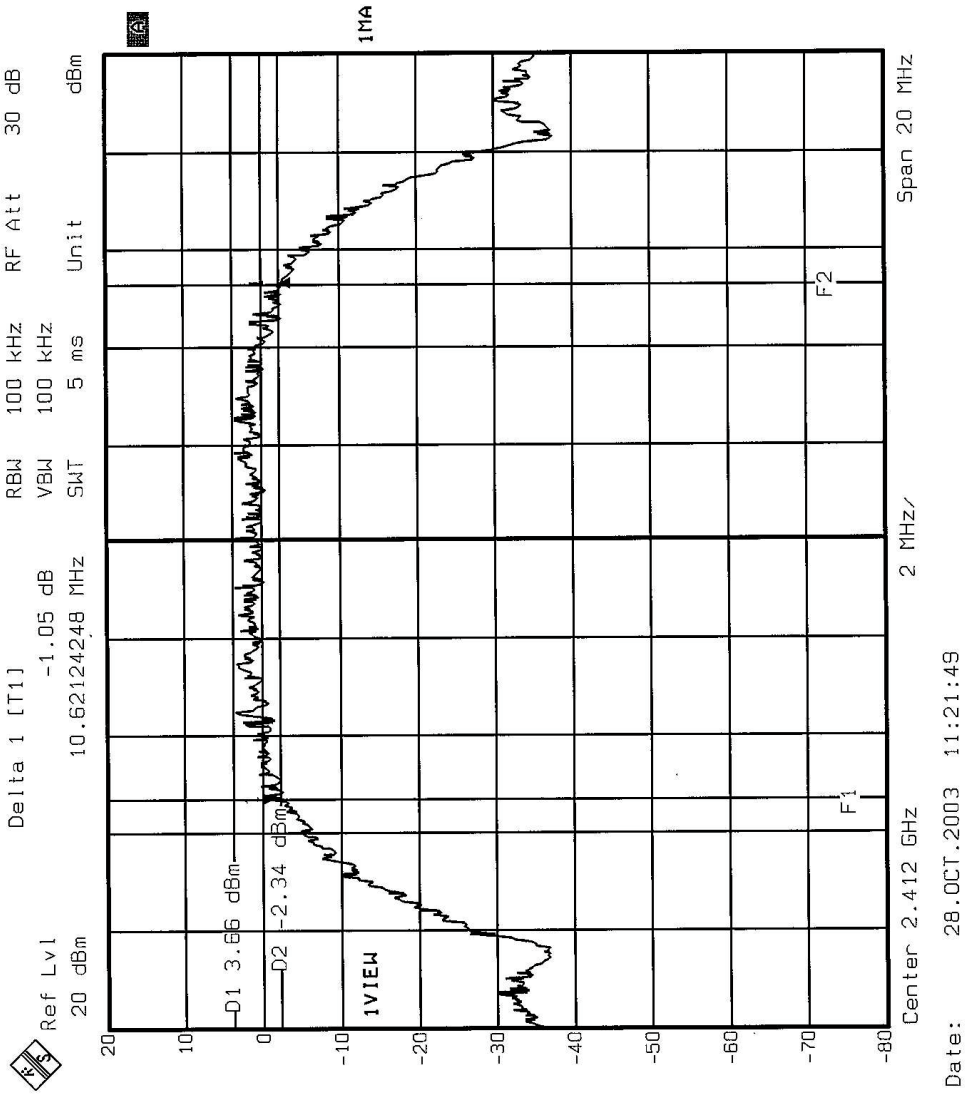
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 TEST RESULTS (CCK)

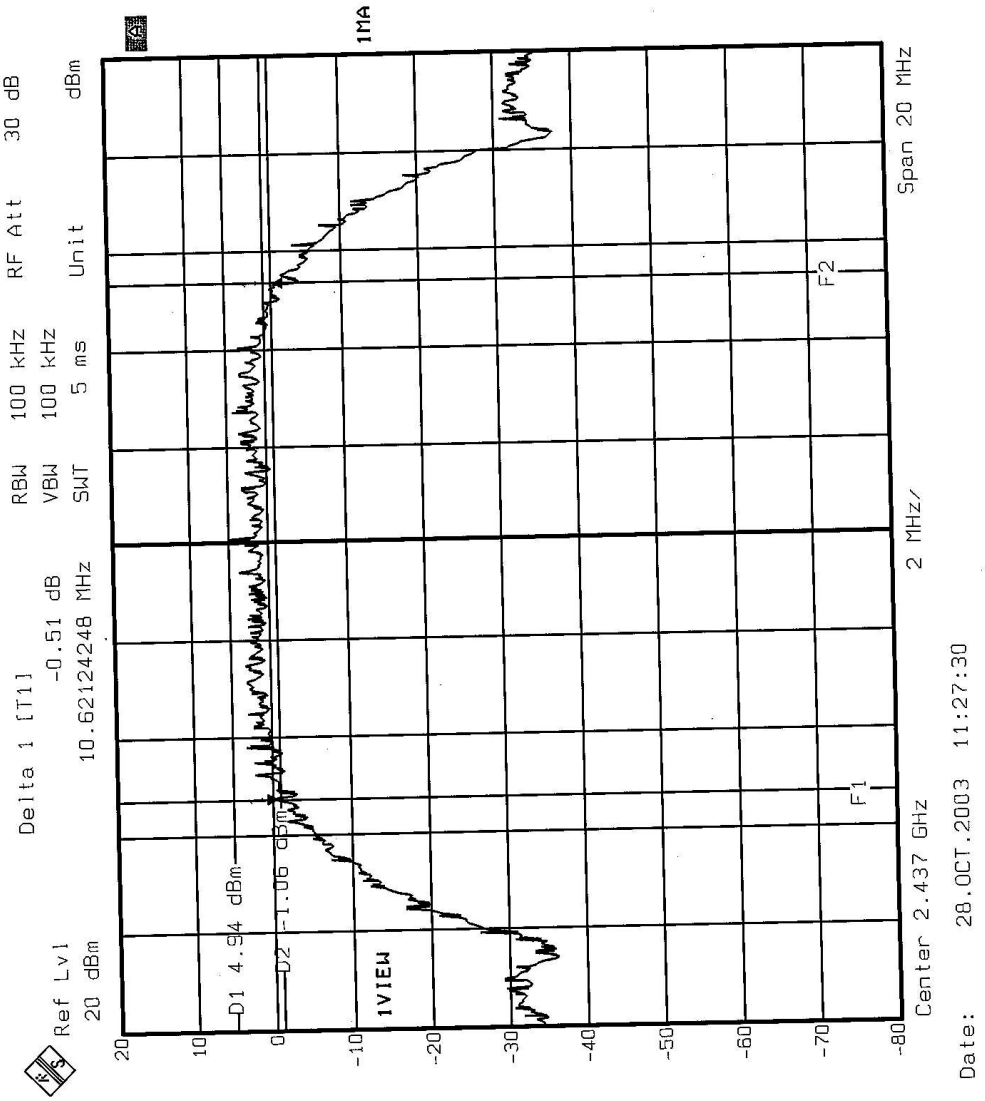
EUT	Tablet	MODEL	M275
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	24deg. C, 63%RH, 991hPa
TEST MODE	CCK	TESTED BY	Ansen Lei

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	10.62	0.5	PASS
6	2437	10.62	0.5	PASS
11	2462	10.42	0.5	PASS

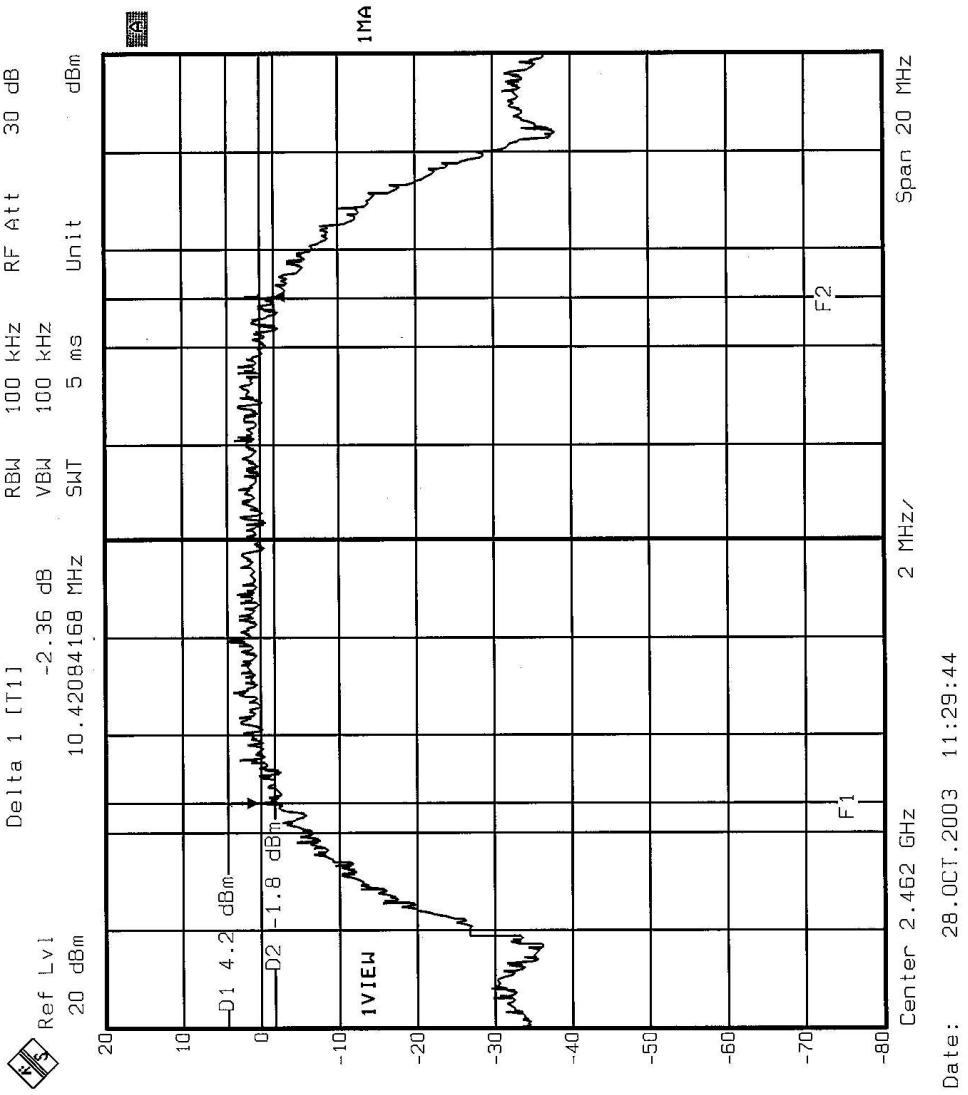
CH1


Ref Lvl
20 dBm
Delta 1 [T1]
-1.05 dB
10.62124248 MHz
RBW 100 kHz
VBW 100 kHz
SWT 5 ms
RF Att 30 dB
Unit dBm
1MA
D1 3.66 dBm
D2 -2.34 dBm
1VIEW
F1
F2
Center 2.412 GHz
2 MHz/
Span 20 MHz
Date: 28.OCT.2003 11:21:49

CH6


Ref Lvl
20 dBm
Delta 1 [T1]
-0.51 dB
10.62124248 MHz
RBW 100 kHz
VBW 100 kHz
SWT 5 ms
RF Att 30 dB
Unit dBm
1MA
1VIEW
D1 4.94 dBm
D2 -1.06 dBm
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz
Date: 28.OCT.2003 11:27:30

CH11

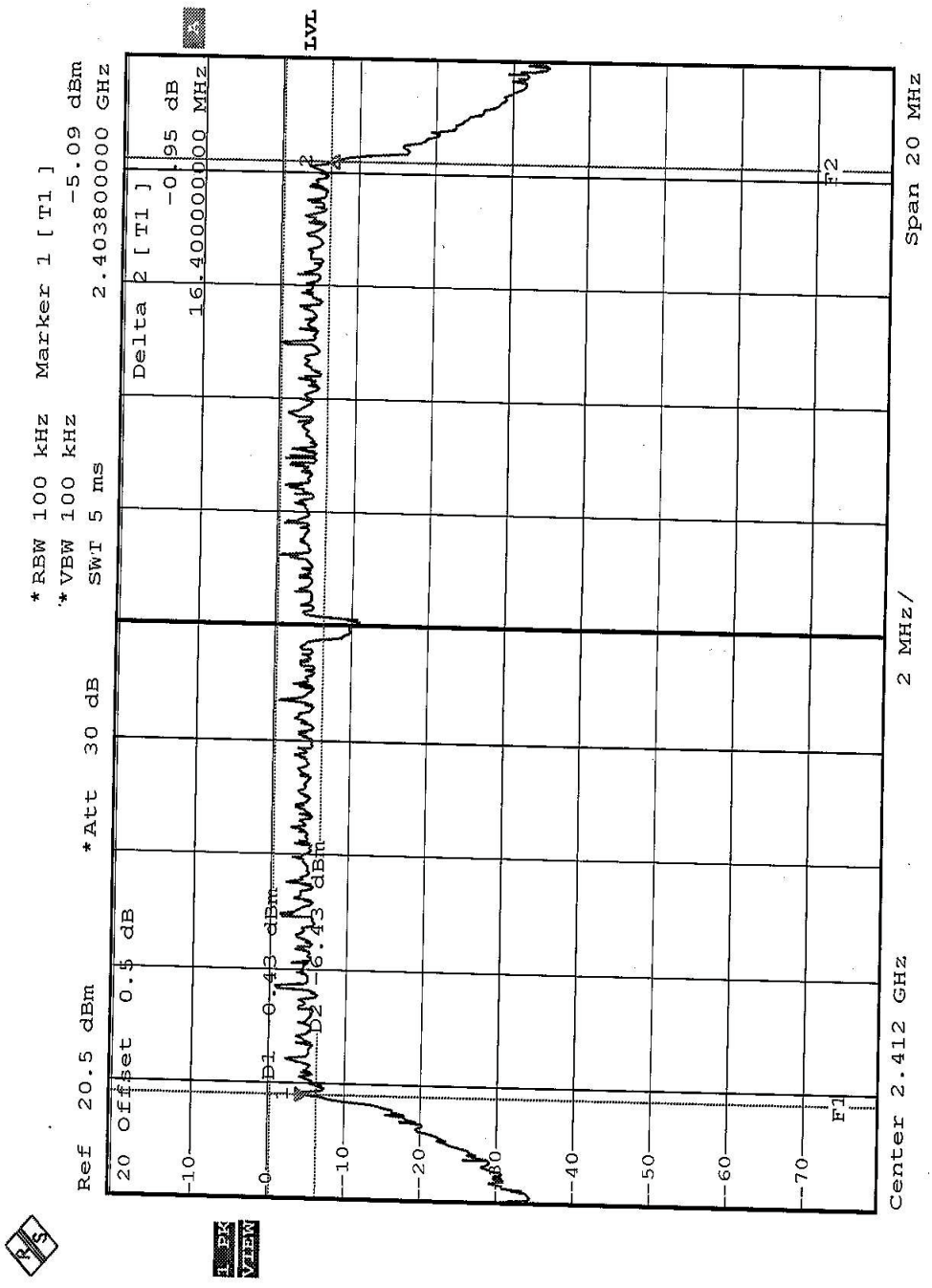

Ref Lvl
20 dBm
Delta 1 [T1]
-2.36 dB
10.42084168 MHz
RBW 100 kHz
VBW 100 kHz
SWT 5 ms
RF Att 30 dB
Unit dBm
1MA
1VIEW
D1 4.2 dBm
D2 -1.8 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
Date: 28.OCT.2003 11:29:44

4.3.8 TEST RESULTS (OFDM)

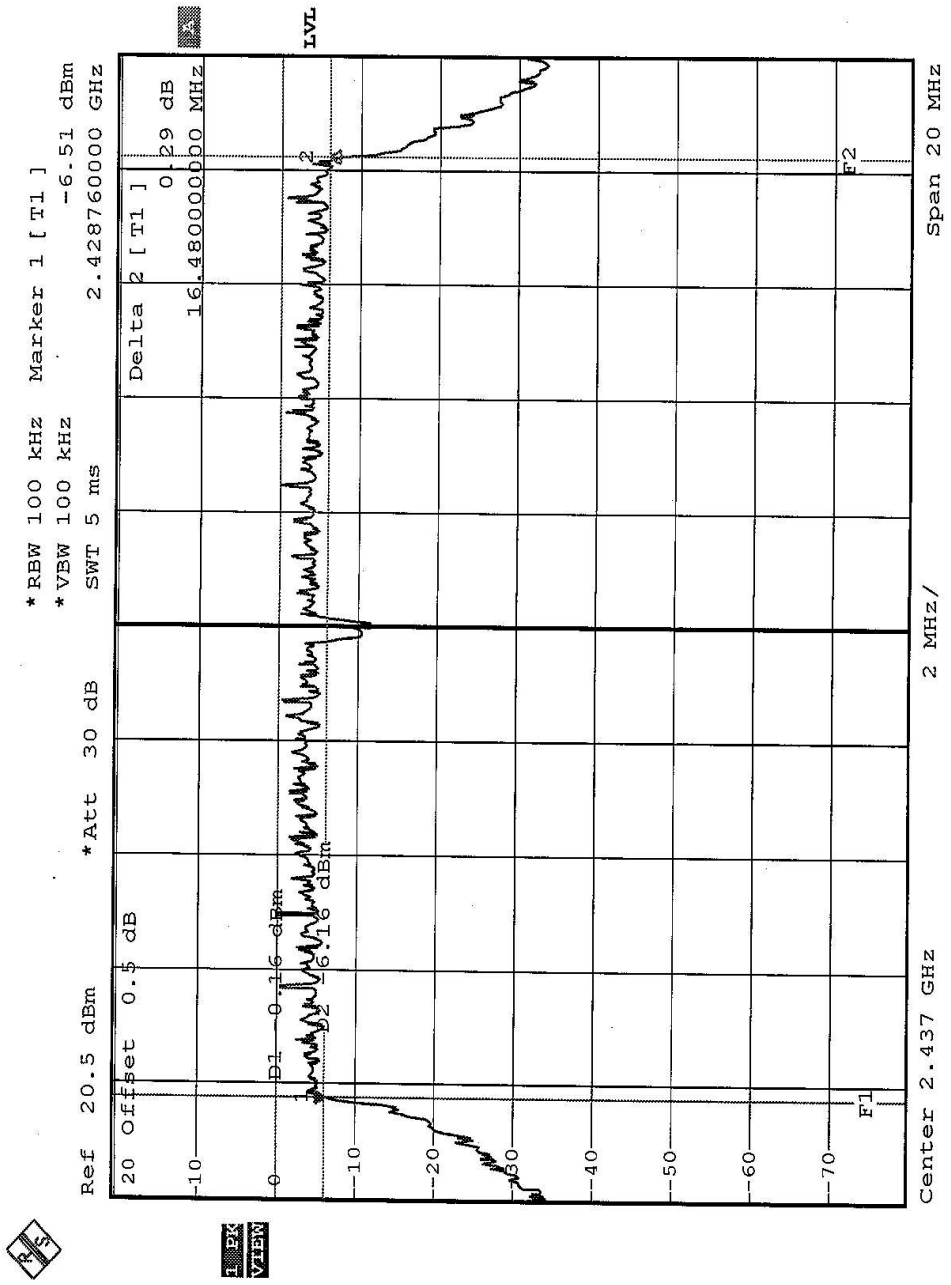
EUT	Tablet	MODEL	M275
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg. C, 63%RH, 991hPa
TEST MODE	OFDM	TESTED BY	Steven Lu

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	16.40	0.5	PASS
6	2437	16.48	0.5	PASS
11	2462	16.36	0.5	PASS

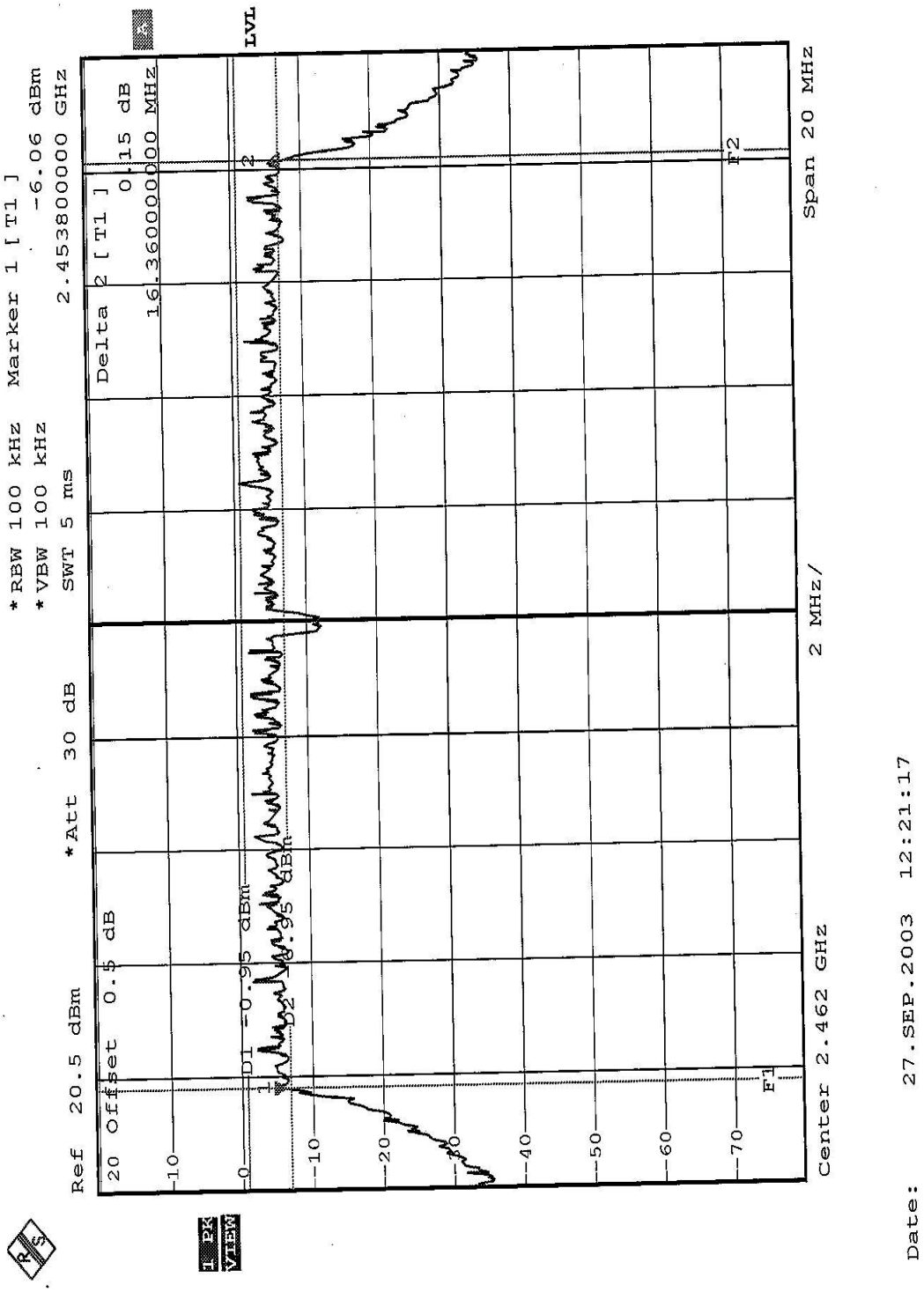
CH1


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
Marker 1 [T1]
-5.09 dBm
2.403800000 GHz
Delta 2 [T1]
-0.95 dB
16.400000000 MHz
Ref 20.5 dBm
Offset 0.5 dB
Att 30 dB
Center 2.412 GHz
2 MHz/
Span 20 MHz
Date: 27.SEP.2003 11:45:28

CH6


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
Marker 1 [T1]
-6.51 dBm
2.428760000 GHz
Delta 2 [T1]
0.29 dB
16.480000000 MHz
Ref 20.5 dBm
Offset 0.5 dB
Att 30 dB
D1 -0.16 dBm
6.16 dBm
Center 2.437 GHz
2 MHz/
Span 20 MHz
Date: 27.SEP.2003 12:04:23

CH11


*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Marker 1 [T1]
-6.06 dBm
2.453800000 GHz
Delta 2 [T1]
0.15 dB
16.360000000 MHz
LVL
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
D1 -0.95 dBm
Center 2.462 GHz
2 MHz/
Span 20 MHz
Date: 27.SEP.2003 12:21:17

4.4 MAXIMUM PEAK OUTPUT POWER

4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

4.4.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2004
R&S SIGNAL GENERATOR	SMP04	100011	May 28, 2004
TEKTRONIX OSCILLOSCOPE	TDS 220	B048470	Mar. 05, 2004
NARDA DETECTOR	4503A	FSCM99899	NA

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

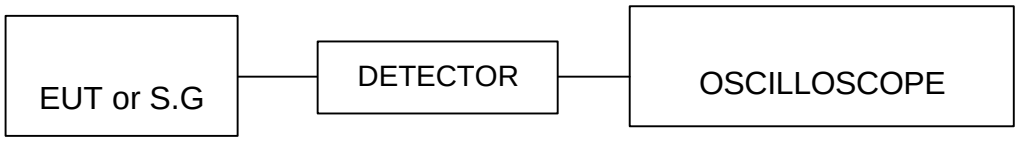
4.4.3 TEST PROCEDURES

1. A detector was used on the output port of the EUT. An oscilloscope was used to read the response of the detector.
2. Replaced the EUT by the signal generator . The center frequency of the S.G was adjusted to the center frequency of the measured channel.
3. Adjusted the power to have the same reading on oscilloscope. Record the power level.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6

4.4.7 TEST RESULTS (CCK)

EUT	Tablet	**MODEL**	M275
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24deg. C, 63%RH, 991hPa
TEST MODE	CCK	**TESTED BY**	Ansen Lei

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	16.72	30	PASS
6	2437	16.85	30	PASS
11	2462	16.20	30	PASS

4.4.8 TEST RESULTS (OFDM)

EUT	Tablet	**MODEL**	M275
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg. C, 63%RH, 991hPa
TEST MODE	OFDM	**TESTED BY**	Steven Lu

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	15.35	30	PASS
6	2437	15.42	30	PASS
11	2462	15.25	30	PASS

4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	Aug. 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.

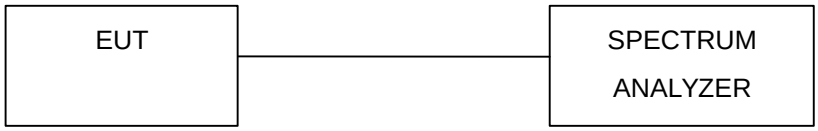
4.5.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.
The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITION

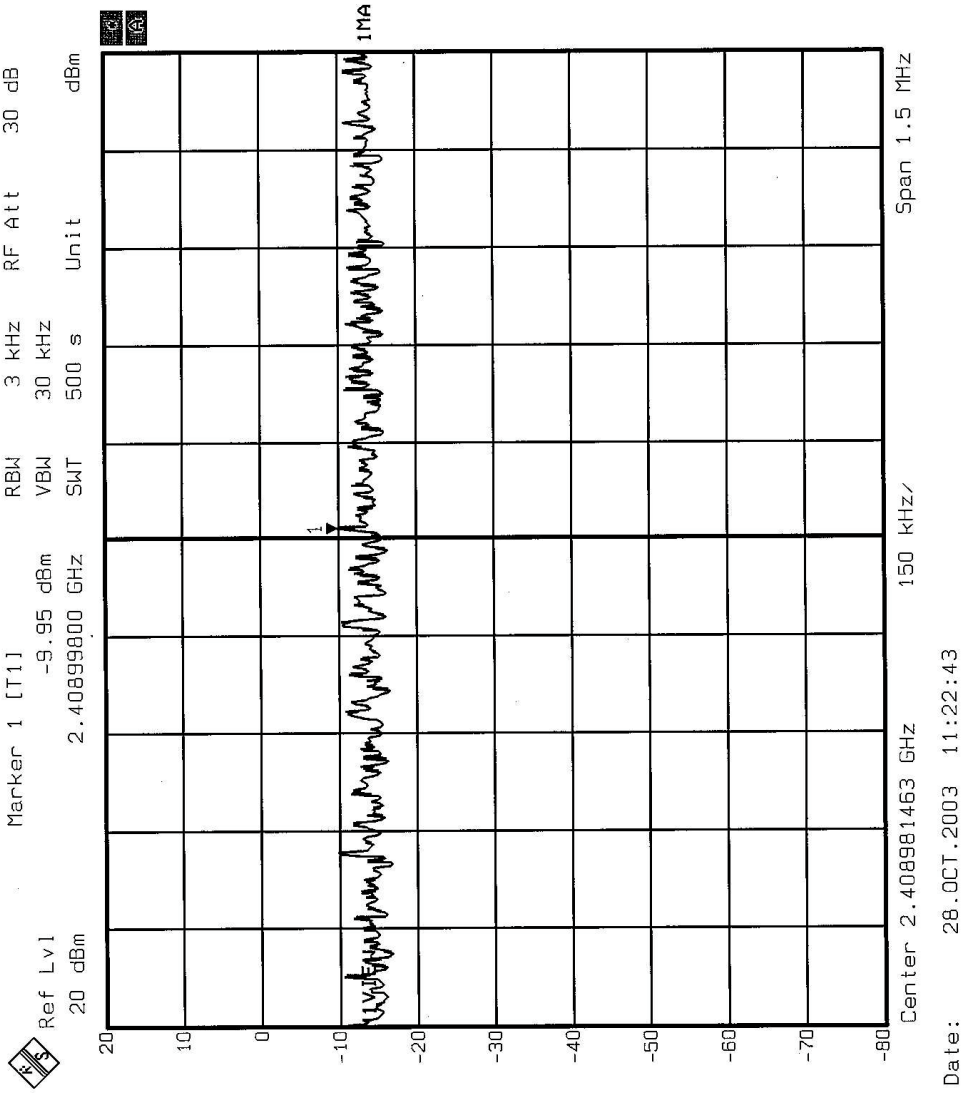
Same as Item 4.3.6

4.5.7 TEST RESULTS (CCK)

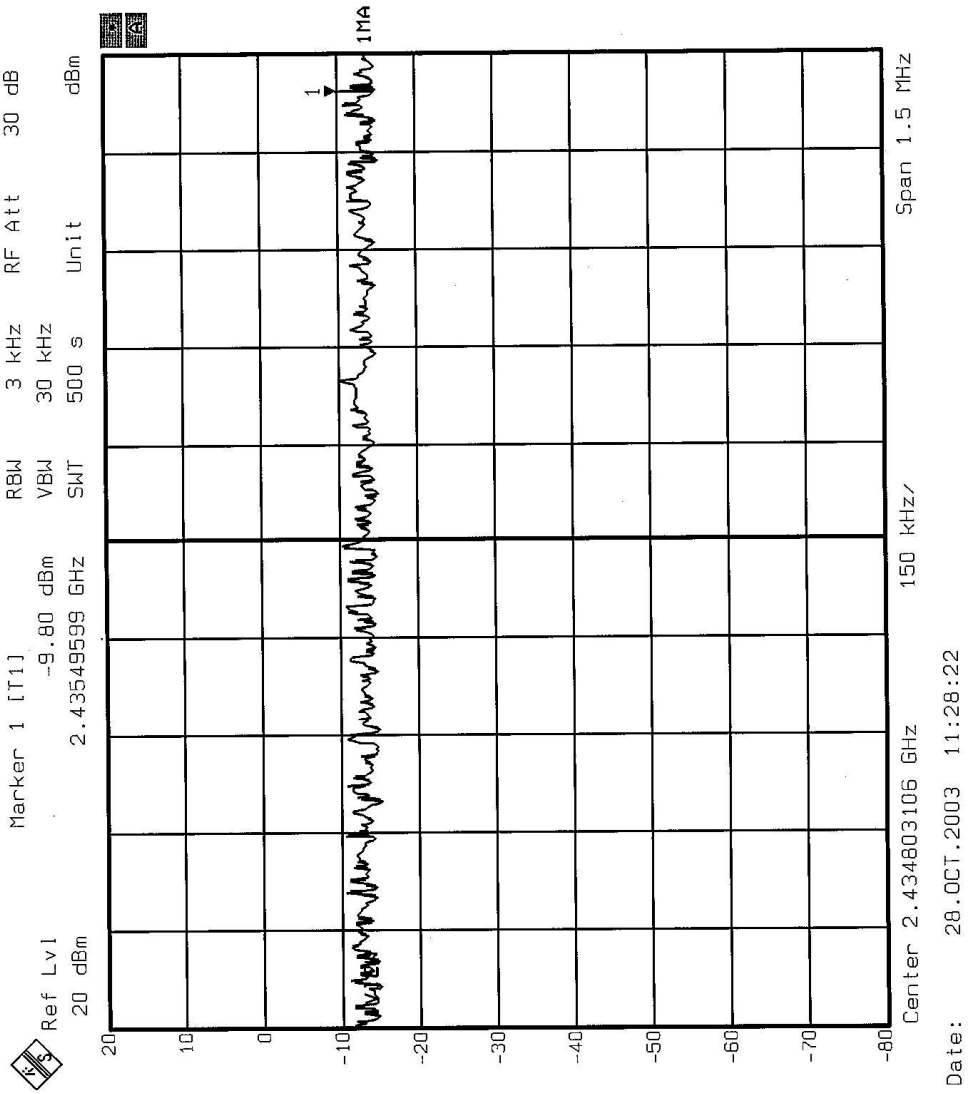
EUT	Tablet	MODEL	M275
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	24deg. C, 63%RH, 991hPa
TEST MODE	CCK	TESTED BY	Ansen Lei

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-9.95	8	PASS
6	2437	-9.80	8	PASS
11	2462	-10.34	8	PASS

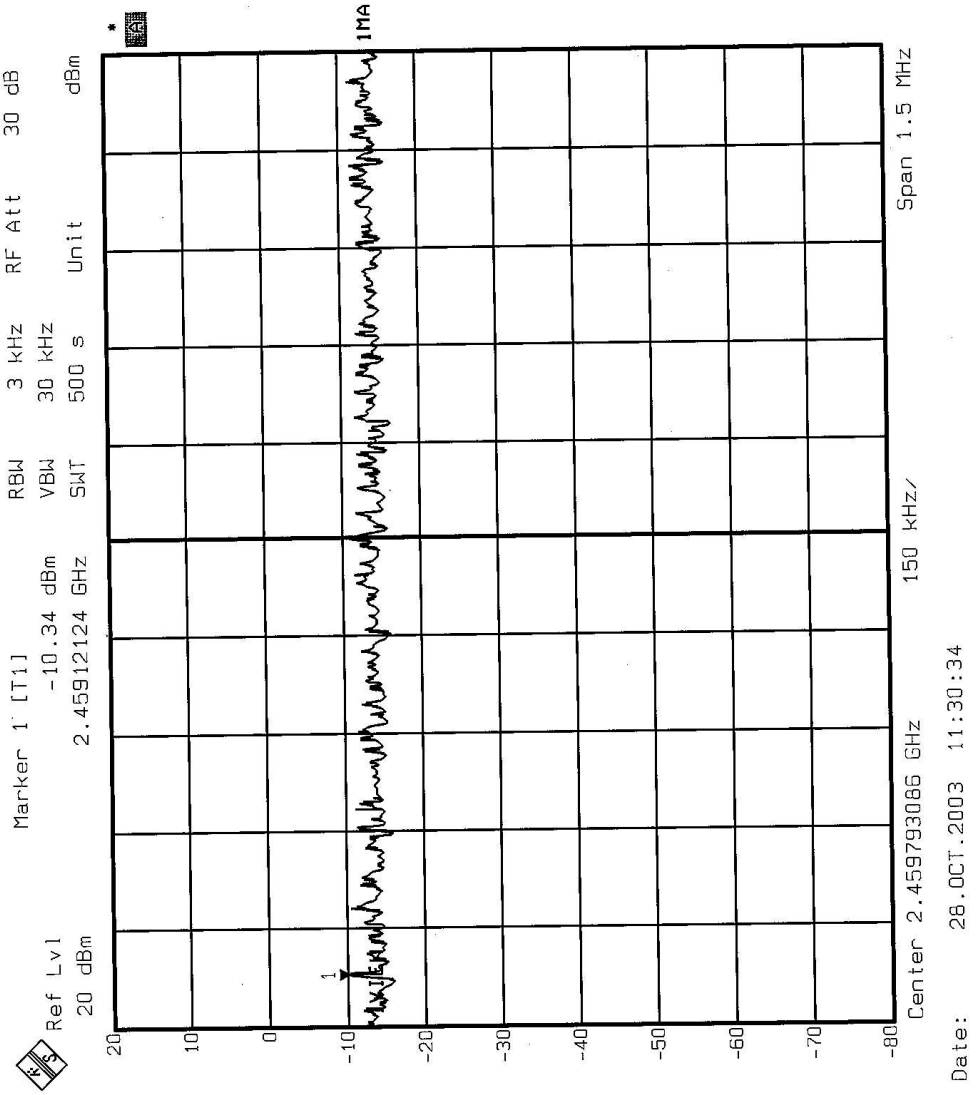
CH1


Ref Lvl
20 dBm
Marker 1 [T1]
-9.95 dBm
2.40899800 GHz
RBW 3 kHz
VBW 30 kHz
SWT 500 s
RF Att 30 dB
Unit dBm
1MA
Span 1.5 MHz
150 kHz/
Center 2.408981463 GHz
Date: 28.OCT.2003 11:22:43

CH6


Marker 1 [T1]
-9.80 dBm
2.43549599 GHz
RBW 3 kHz
VBW 30 kHz
SWT 500 s
RF Att 30 dB
Unit dBm
Ref Lvl
20 dBm
1MA
Span 1.5 MHz
150 kHz/
Center 2.434803106 GHz
Date: 28.OCT.2003 11:28:22

CH11

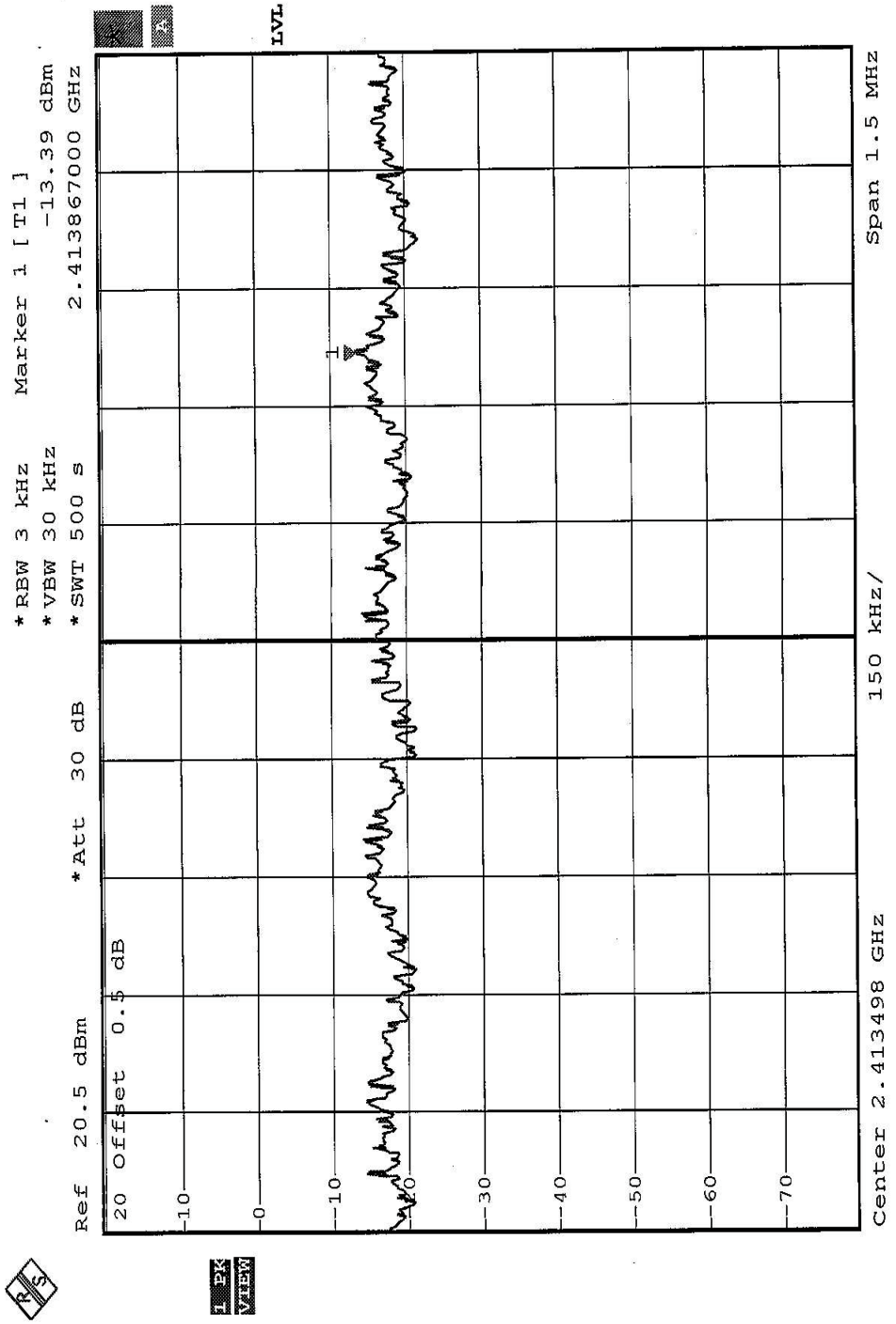

Ref Lvl
20 dBm
Marker 1 [T1]
-10.34 dBm
2.45912124 GHz
RBW 3 kHz
VBW 30 kHz
SWT 500 s
RF Att 30 dB
Unit dBm
1MA
Span 1.5 MHz
150 kHz/
Center 2.459793086 GHz
Date: 28.OCT.2003 11:30:34

4.5.8 TEST RESULTS (OFDM)

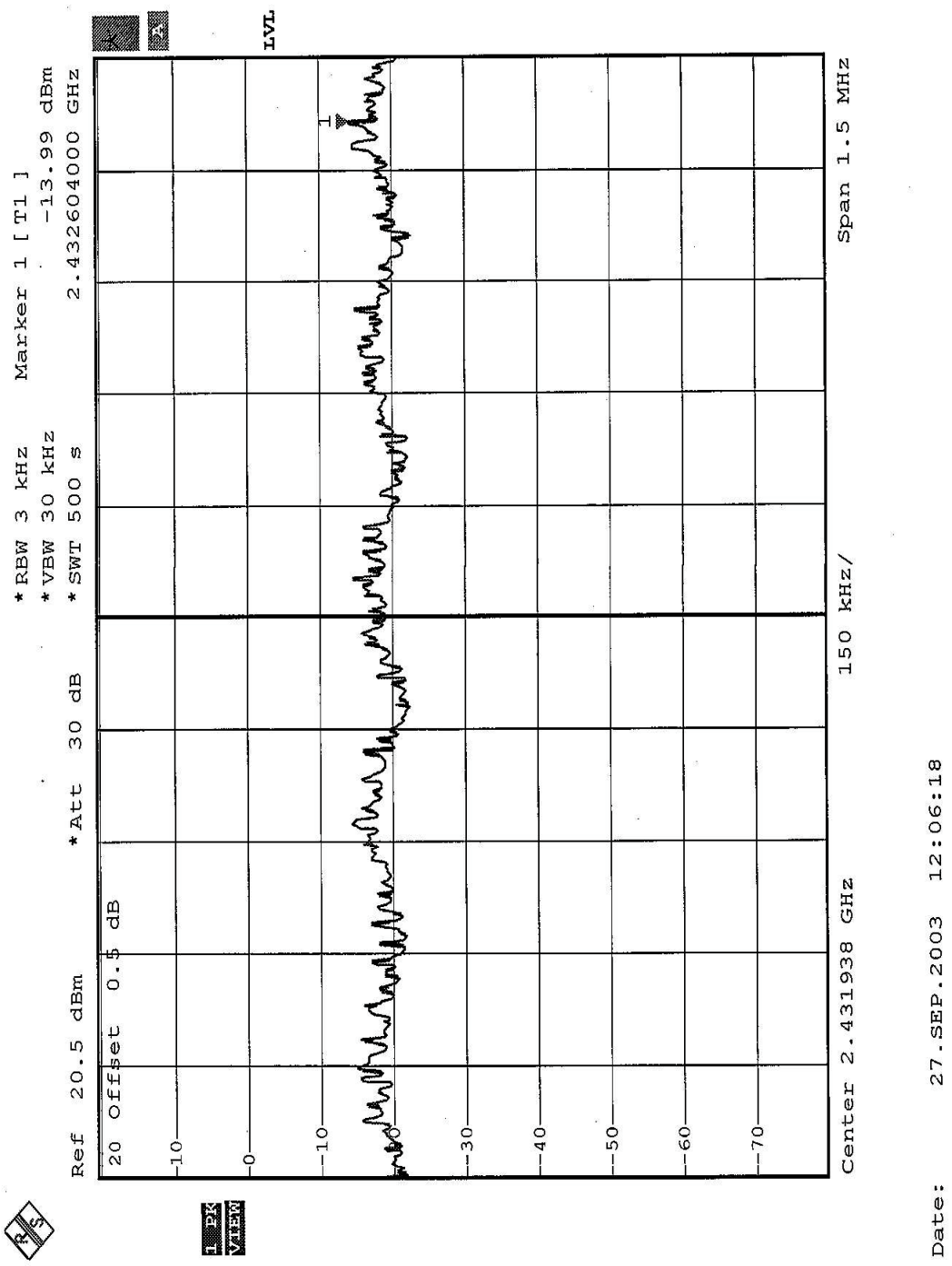
EUT	Tablet	MODEL	M275
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg. C, 63%RH, 991hPa
TEST MODE	OFDM	TESTED BY	Steven Lu

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-13.39	8	PASS
6	2437	-13.99	8	PASS
11	2462	-14.66	8	PASS

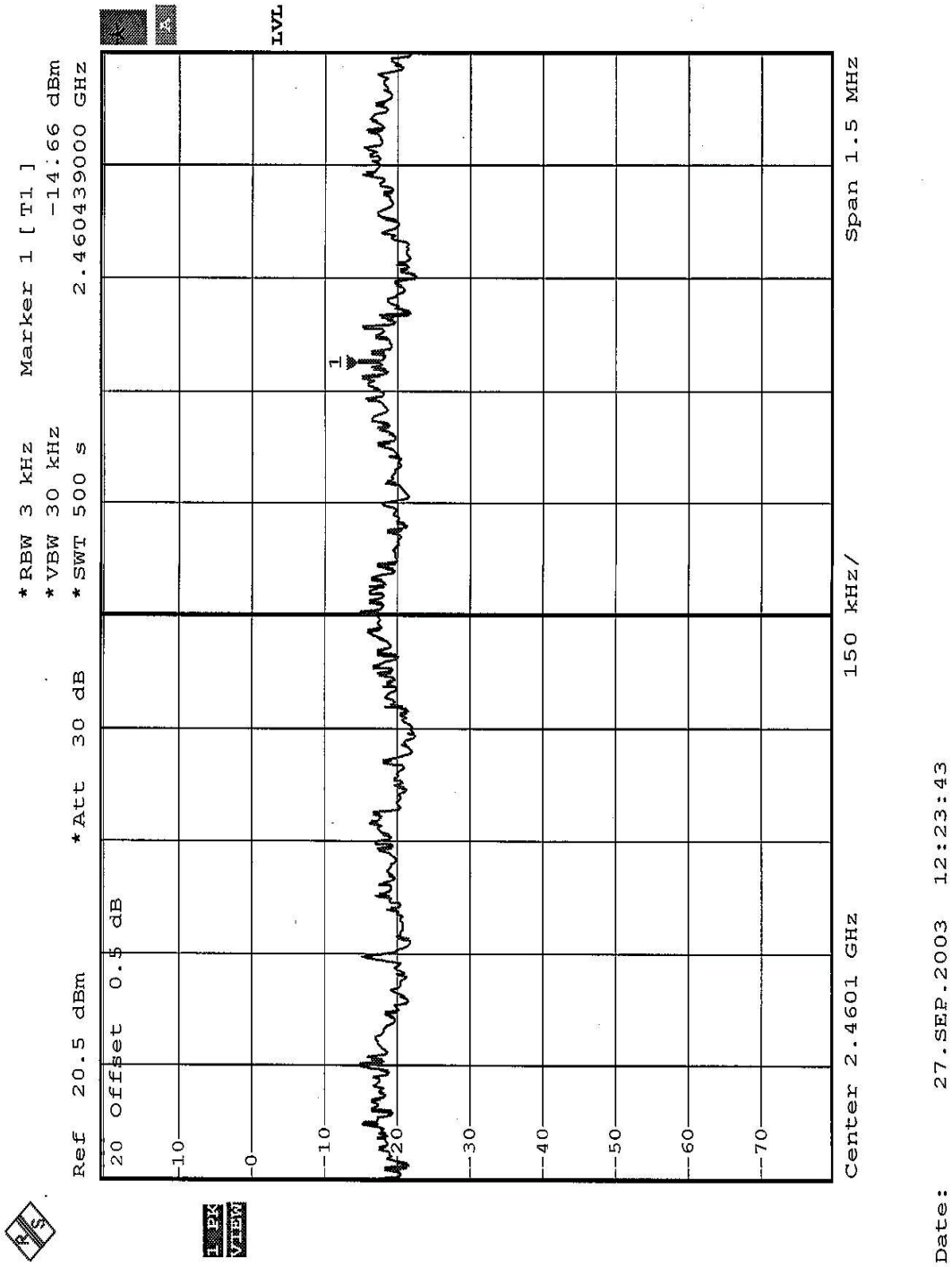
CH1


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-13.39 dBm
2.413867000 GHz
1 PK VIEW
Center 2.413498 GHz
150 kHz/
Span 1.5 MHz
Date: 27.SEP.2003 11:48:53

CH6


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-13.99 dBm
2.43260400 GHz
Center 2.431938 GHz
150 kHz/
Span 1.5 MHz
Date: 27.SEP.2003 12:06:18

CH11


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-14.66 dBm
2.46043900 GHz
LVL
Center 2.4601 GHz
150 kHz/
Span 1.5 MHz
Date: 27.SEP.2003 12:23:43
1 PK VIEW

4.6 BAND EDGES MEASUREMENT

4.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.6.2 TEST INSTRUMENTS

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

NOTE: The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.

4.6.3 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 100kHz and 100kz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 EUT OPERATING CONDITION

Same as Item 4.3.6

4.6.6 TEST RESULTS

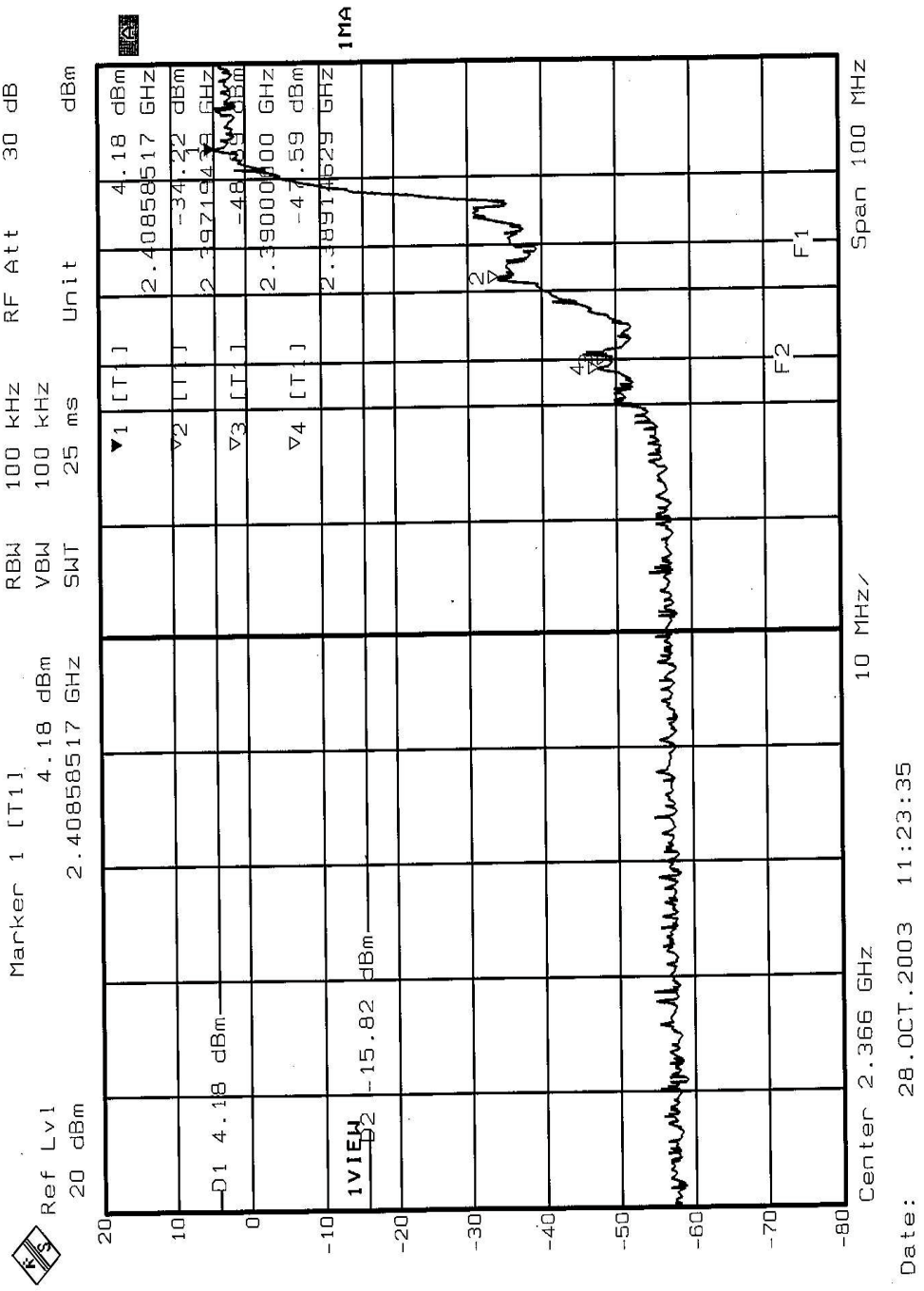
The spectrum plots are attached on the following 2 pages. D2 line indicates the highest level, D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(C).

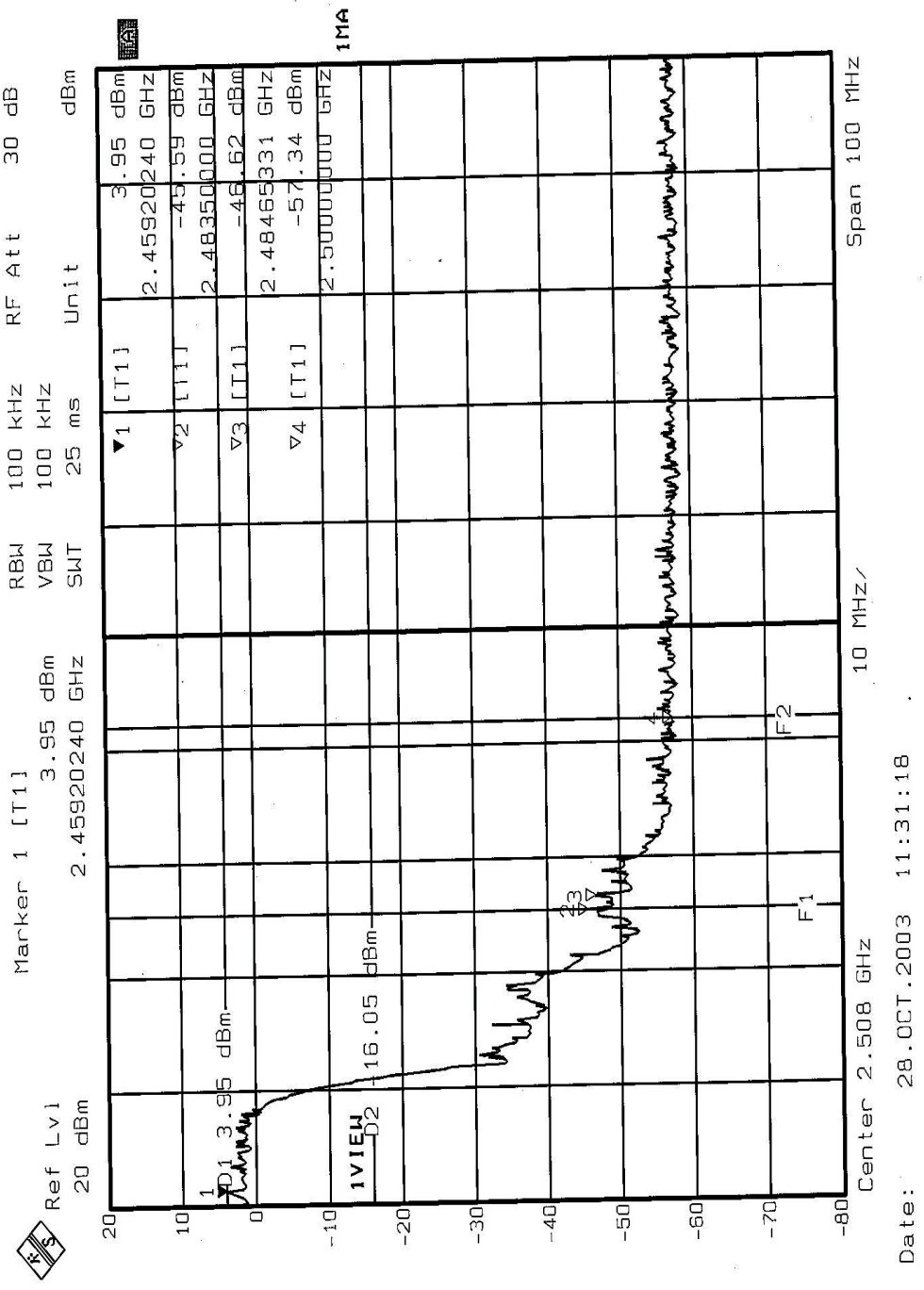
NOTE1: The band edge emission plot of CCK technique on the following page shows 51.77dB delta between carrier maximum power and local maximum emission in restrict band (2.3891GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 89.16BuV/m, so the maximum field strength in restrict band is 89.16-51.77=37.39dBuV/m which is under 54dBuV/m limit.

NOTE2: The band edge emission plot of CCK on the following page shows 49.54dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 90.68dBuV/m, so the maximum field strength in restrict band is 90.68-49.54=41.14dBuV/m which is under 54 dBuV/m limit.

NOTE3: The band edge emission plot of OFDM technique on the following page shows 46.03dB delta between carrier maximum power and local maximum emission in restrict band (2.387800GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 85.10BuV/m, so the maximum field strength in restrict band is 85.10-46.03=39.07dBuV/m which is under 54dBuV/m limit.

NOTE4: The band edge emission plot of OFDM on the following page shows 43.99dB delta between carrier maximum power and local maximum emission in restrict band (2.485600GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 86.20dBuV/m, so the maximum field strength in restrict band is 86.20-43.99=42.21dBuV/m which is under 54 dBuV/m limit.


Marker 1 [T1]
4.18 dBm
2.40858517 GHz
RBW 100 kHz
VBW 100 kHz
SWT 25 ms
RF Att 30 dB
Unit dBm
Ref Lvl
20 dBm
D1 4.18 dBm
1VIEW
D2 -15.82 dBm
1MA
Center 2.366 GHz
10 MHz/
Span 100 MHz
F1
F2
Date: 28.OCT.2003 11:23:35


Marker 1 [T1]
3.95 dBm
2.45920240 GHz
RBW 100 kHz
VBW 100 kHz
SWT 25 ms
RF Att 30 dB
Unit dBm
Ref Lvl
20 dBm
1 D1 3.95 dBm
D2 16.05 dBm
1VIEW
Center 2.508 GHz
10 MHz/
Span 100 MHz
Date: 28.OCT.2003 11:31:18
1MA
▼1 [T1] 3.95 dBm 2.45920240 GHz
▽2 [T1] -45.59 dBm 2.48350000 GHz
▽3 [T1] -46.62 dBm 2.48465331 GHz
▽4 [T1] -57.34 dBm 2.50000000 GHz
F1
F2