Test Report

Product Name : Mozart

Model No. : SMC7004AWBR, WG3004A-17

FCC ID.: HEDWG3004A-17

Applicant : Accton Technology Corporation

Address : No. 1, Creation Rd. 3, Science-based Park
Hsinchu, Taiwan, R.O.C.

Date of Receipt : May 16, 2001

Date of Test : May 25, 2001

Report No. : 015H048FI

Test Report Certification

Test Date : May 25, 2001
Report No. : 015H048FI

QuieTek Corporation
Accredited by NIST (NVLAP)
NVLAP Lab Code: 200347-0

Product Name	:	Mozart
Applicant	:	Accton Technology Corporation
Address	:	No. 1, Creation Rd. 3, Science-based Park Hsinchu, Taiwan, R.O.C.
Manufacturer	:	Accton Technology Corporation
Model No.	:	SMC7004AWBR, WG3004A-17
FCC ID.	:	HEDWG3004A-17
Rated Voltage	:	AC 110V/60Hz (Input: DC 5V)
Trade Name	:	Accton
Measurement Standard	:	FCC Part 15 Subpart C Paragraph 15.247
Measurement Procedure	:	ANSI C63.4:1992
Test Result	:	Complied

The Test Results relate only to the samples tested.
The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.
This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

Documented By : Zoe Lee (Zoe Lee)

Tested By : Calien Kang (Calien Kang)

Approved By : (Gene Chang)

TABLE OF CONTENTS

Description Page

1. GENERAL INFORMATION 5

1.1. EUT Description 5
1.2. Tested System Details 6
1.3. Configuration of tested System 6
1.4. EUT Exercise Software 7
1.5. Test Facility 7

2. Conducted Emission 8

2.1. Test Equipment List 8
2.2. Test Setup 8
2.3. Limits 8
2.4. Test Procedure 9
2.5. Test Result of Conducted Emission 10

3. Peak Power Output 12

3.1. Test Equipment 12
3.2. Test Setup 12
3.3. Test Condition 12
3.4. Minimum Standard 12
3.5. Test Result of Peak Power Output 13

4. Radiated Emission 14

4.1. Test Equipment 14
4.2. Test Setup 14
4.3. Test Condition 15
4.4. Limits 15
4.5. Test Procedure 16
4.6. Test Result of Radiated Emission 17
4.7. Test Result of Band Edge 29

5. Occupied Bandwidth 31

5.1. Test Equipment 31
5.2. Test Setup 31
5.3. Test Condition 31
5.4. Standard Reqirement 31
5.5. Test Result of Occupied Bandwidth 32

6. Transmitter Power Density 35

6.1. Test Equipment 35
6.2. Test Setup 35
6.3. Test Condition 35
6.4. Standard Reqirement 35
6.5. Test Result of Transmitter Power Density 36

7. Processing Gain 39

7.1. Test Condition 39
7.2. Minimum Standard 39
7.3. Method of Measurement 39

7.4. Calculation of Processing Gain: 39
7.5. Test Result of Processing Gain 40

8. EMI Reduction Method During Compliance Testing 41

9. Attachment 42

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

Attachment 3: Processing Gain Test Report

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	:	Mozart	
Trade Name	:	Accton	
FCC ID.	:	HEDWG3004A-17	
Model No.	:	SMC7004AWBR, WG3004A-17	
Frequency Range	:	2400MHz to 2483.5MHz	
Channel Number	:	11	
Frequency of Each Channel (Working Frequency)	:	Channel 01: 2412MHz	Channel 07: 2442MHz
		Channel 02: 2417 MHz	Channel 08: 2447MHz
		Channel 03: 2422 MHz	Channel 09: 2452MHz
		Channel 04: 2427MHz	Channel 10: 2457MHz
		Channel 05: 2432MHz	Channel 11: 2462MHz
		Channel 06: 2437MHz	
Type of Modulation	:	Direct Sequence Spread Spectrum	
Channel Control	:	Auto	
Power Adapter	:	DVE, DSA-0151A-05A	
		Non-Shielded, 0.2m	

Note:

1. 4 kinds of transmission speed 1, 2, 5.5 and 11Mbps were selected as test mode.
2. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
3. The receiver part was tested in report ”015H048F” subjected to Part 15 paragraph 15.5.

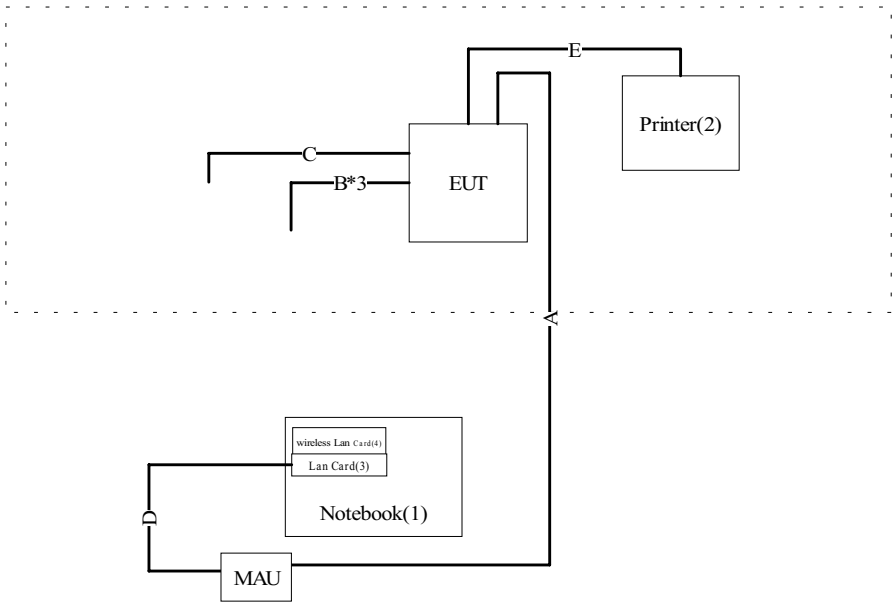
1.2. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
(1)	Notebook	Acer	370PCX	TZ65795	Shielded, 1.2m
(2)	Printer	HP	C2642A	MY75J1D1D2	Shielded, 1.2m
(3)	Ethernet PCMCIA Card	Accton	N/A	144226-001	
(4)	Cheetah Wireless Series	N/A	N/A	N/A	--

Signal Cable Type		Signal cable Description
A.	Lan Cable	Non-Shielded, 2.5m
B.	Lan Cable	Non-Shielded, 3m, 3pcs
C.	RS-232 Cable	Non-Shielded, 1.8m
D.	Data Cable	Shielded, 0.2m
E.	Printer Cabel	Shielded, 1.2m

1.3. Configuration of tested System



1.4. EUT Exercise Software

1.4.1 Setup the EUT and simulators as shown on 1.3.

1.4.2 Turn on the power of all equipment.

1.4.3 Notebook run “IE”.

1.4.4 http://192.168.2.1/test.htm
“Intial Command”

1.4.5 Setup the test channel.

1.4.6 Select the TX Data.

1.4.7 Modulation—“On”, Power Gain Adjust--:2”

1.4.8 Repeat the above procedure 1.4.6 to 1.4.7

1.5. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

Site Description: November 3, 1998 File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
Reference 31040/SIT1300F2

September 30, 1998 Accreditation on NVLAP
NVLAP Lab Code: 200347-0

Site Name: Quietek Corporation

Site Address: N0.75-1, Wang-Yeh Valley, Yung-Hsing,
Chiung-Lin, Hsin-Chu County,
Taiwa, R.O.C.

2. Conducted Emission

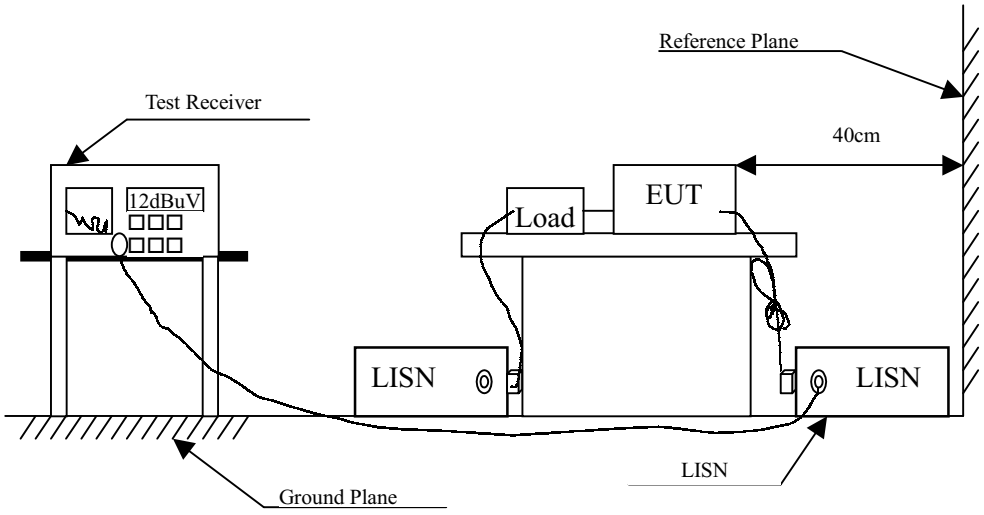
2.1. Test Equipment List

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2001	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2001	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2001	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	N/A	
5	N0.2 Shielded Room			N/A	

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Paragraph 15.207 (dBuV)		
Frequency MHz	Limits	
	uV	dBuV
0.45 - 30	250	48.0

2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4:1992 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.45MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Test Result of Conducted Emission

Product : Mozart
Test Item : Conducted Emission Test
Test Mode : Normal Operation (1Mbps)

	Frequency	Cable Loss	LISN Factor	Reading Level	Measurement Level	Limits
	MHz	dB	dB	dBuV	dBuV	dBuV
Line 1						
Quasi-Peak:						
*	0.540	0.07	0.10	41.37	41.54	48.00
	0.716	0.08	0.10	41.17	41.35	48.00
	0.954	0.10	0.10	41.33	41.53	48.00
	2.204	0.15	0.13	41.14	41.42	48.00
	3.180	0.17	0.15	40.64	40.96	48.00
	5.445	0.21	0.17	32.49	32.87	48.00
Line 2						
Quasi-Peak:						
	0.559	0.07	0.10	39.06	39.23	48.00
	0.720	0.08	0.10	39.11	39.29	48.00
*	0.958	0.10	0.10	39.24	39.44	48.00
	2.048	0.14	0.13	38.28	38.56	48.00
	3.122	0.17	0.15	33.74	34.06	48.00
	5.387	0.21	0.17	32.96	33.34	48.00

Remarks :

1. " * " means that this data is the worst emission level.

Product : Mozart
Test Item : Conducted Emission Test
Test Mode : Normal Operation (11Mbps)

	Frequency	Cable Loss	LISN Factor	Reading Level	Measurement Level	Limits
	MHz	dB	dB	dBuV	dBuV	dBuV
Line 1						
Quasi-Peak:						
*	0.540	0.07	0.10	40.44	40.61	48.00
	0.739	0.08	0.10	39.97	40.15	48.00
	0.985	0.10	0.10	39.94	40.14	48.00
	1.130	0.11	0.11	38.75	38.96	48.00
	2.036	0.14	0.13	38.80	39.07	48.00
	5.255	0.21	0.17	30.88	31.26	48.00
Line 2						
Quasi-Peak:						
*	0.552	0.07	0.10	39.20	39.37	48.00
	0.735	0.08	0.10	39.03	39.21	48.00
	0.998	0.10	0.10	37.18	37.38	48.00
	2.098	0.15	0.13	38.53	38.81	48.00
	3.145	0.17	0.15	33.90	34.22	48.00
	5.345	0.21	0.17	32.79	33.17	48.00

Remarks :

1. " * " means that this data is the worst emission level.

3. Peak Power Output

3.1. Test Equipment

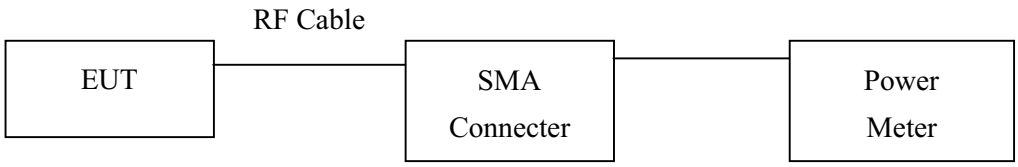
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Advantest	R3272 / 72421194	May, 2001
X	Power Meter	HP	EPM-441A	May, 2001

Note: 1. All equipment upon which need to calibrated are with calibration period of 1 year.
2. Mark "X" test instruments are used to measure the final test results.

3.2. Test Setup

Conduction Power Measurement



3.3. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

3.4. Minimum Standard

The maximum peak power shall be less 1 Watt.

3.5. Test Result of Peak Power Output

Product : Mozart
Test Item : Peak Power Output Data
Test Site : No.1 OATS
Test Mode : Normal Operation

Data Speed: 1Mbps

Channel No.	Frequency(MHz)	Measurement	Required Limit	Result
1	2412	10.45dBm	1Watt= 30 dBm	Pass
6	2437	10.66 dBm	1Watt= 30 dBm	Pass
11	2462	11.06 dBm	1Watt= 30 dBm	Pass

Data Speed: 2Mbps

Channel No.	Frequency(MHz)	Measurement	Required Limit	Result
1	2412	10.41dBm	1Watt= 30 dBm	Pass
6	2437	10.62dBm	1Watt= 30 dBm	Pass
11	2462	11.08 dBm	1Watt= 30 dBm	Pass

Data Speed: 5.5Mbps

Channel No.	Frequency(MHz)	Measurement	Required Limit	Result
1	2412	10.58dBm	1Watt= 30 dBm	Pass
6	2437	10.76 dBm	1Watt= 30 dBm	Pass
11	2462	11.25 dBm	1Watt= 30 dBm	Pass

Data Speed: 11Mbps

Channel No.	Frequency(MHz)	Measurement	Required Limit	Result
1	2412	10.49dBm	1Watt= 30 dBm	Pass
6	2437	10.74 dBm	1Watt= 30 dBm	Pass
11	2462	11.15 dBm	1Watt= 30 dBm	Pass

4. Radiated Emission

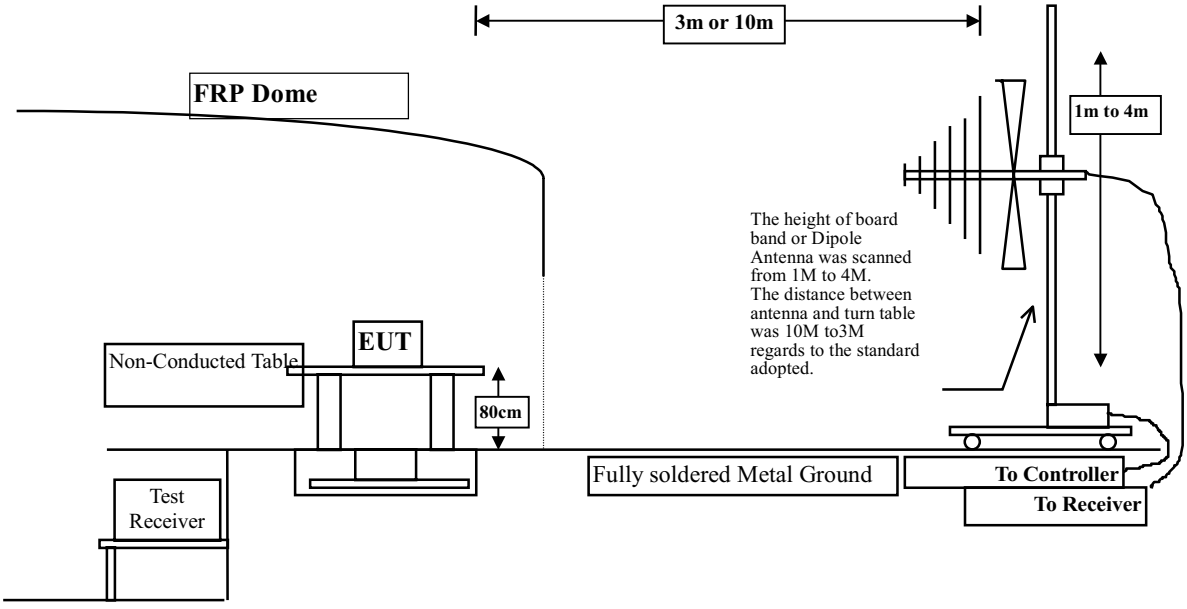
4.1. Test Equipment

The following test equipment are used during the radiated emission test:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 1	X	Test Receiver	R & S	ESCS 30 / 825442/14	May, 2001
		Spectrum Analyzer	Advantest	R3261C / 71720140	May, 2001
		Pre-Amplifier	HP	8447D/3307A01812	May, 2001
	X	Bilog Antenna	Chase	CBL6112B / 12452	Sep., 2000
	X	Horn Antenna	EM	EM6917 / 103325	May, 2001
Site # 2	X	Test Receiver	R & S	ESCS 30 / 825442/17	May, 2001
		Spectrum Analyzer	Advantest	R3261C / 71720609	May, 2001
		Pre-Amplifier	HP	8447D/3307A01814	May, 2001
	X	Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2000
	X	Horn Antenna	EM	EM6917 / 103325	May, 2001

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.
2. Mark "X" test instruments are used to measure the final test results.

4.2. Test Setup



Spurious Emissions
(Band Edge Antenna Radiated)

4.3. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

4.4. Limits

➢ **General Radiated Emission Limits**

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

Frequency MHz	50dB below of the fundamental (dBuV/m @3m)	15.209 Limits (dBuV/m @3m)	General Radiated Limits (dBuV/m @3m)
30-88	40	40	40
88-216	43.5	43.5	43.5
216-960	44	46	46
Above 960	44	54	54

Remarks : 1. RF Line Voltage (dBuV) = 20 log RF Line Voltage (uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.5. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:1992 on radiated measurement.
The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field dtrength of harmonics measurement.
The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCS 30)is 120 kHz, above 1GHz are 1 MHz.
The frequency range from **30MHz to 10th harminics** of working frequency of the transmitter (EUT) is checked.

4.6. Test Result of Radiated Emission

Product : Mozart
Test Item : Harmonic Radiated Emission Data
Test Site : No.1 OATS
Test Mode : Channel 1 (1Mbps)

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
Peak Detector (Horizontal)							
4823.960	6.27	33.50	34.77	43.66	< 48.66	25.34	74.00
7235.950	8.32	36.24	34.90	42.46	< 52.12	21.88	74.00
9647.870	10.18	37.43	35.10	44.40	< 56.91	17.09	74.00
12059.92	11.90	39.12	34.66	43.75	< 60.11	13.89	74.00
Average Detector (Horizontal)							
9647.920	10.18	37.43	35.10	32.63	< 45.14	8.86	54.00
12059.92	11.90	39.12	34.66	32.09	< 48.45	5.55	54.00
Peak Detector (Vertical)							
4824.100	6.27	33.50	34.77	48.68	< 53.68	20.32	74.00
7236.060	8.32	36.24	34.90	43.20	< 52.86	21.14	74.00
9648.090	10.18	37.43	35.10	42.94	< 55.45	18.55	74.00
12060.02	11.90	39.12	34.66	42.91	< 59.27	14.73	74.00
Average Detector (Vertical)							
9648.020	10.18	37.43	35.10	32.44	< 44.95	9.05	54.00
12060.02	11.90	39.12	34.66	32.19	< 48.55	5.45	54.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Emission Level = Reading Level + Probe Factor-PreAMP + Cable loss
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Mozart
Test Item : Harmonic Radiated Emission Data
Test Site : No.1 OATS
Test Mode : Channel 1 (11Mbps)

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
Peak Detector (Horizontal)							
4823.980	6.27	33.50	34.77	42.17	< 47.17	26.83	74.00
7235.880	8.32	36.24	34.90	43.48	< 53.14	20.86	74.00
9647.970	10.18	37.43	35.10	42.84	< 55.35	18.65	74.00
12060.00	11.90	39.12	34.66	42.49	< 58.85	15.15	74.00
Average Detector (Horizontal)							
9648.200	10.18	37.43	35.10	32.38	< 44.89	9.11	54.00
12060.00	11.90	39.12	34.66	32.29	< 48.65	5.35	54.00
Peak Detector (Vertical)							
4824.350	6.27	33.50	34.77	43.36	< 48.36	25.64	74.00
7236.270	8.32	36.24	34.90	43.06	< 52.72	21.28	74.00
9648.200	10.18	37.43	35.10	43.57	< 56.08	17.92	74.00
12060.19	11.90	39.12	34.66	43.43	< 59.79	14.21	74.00
Average Detector (Vertical)							
9648.190	10.18	37.43	35.10	32.34	< 44.85	9.15	54.00
12060.19	11.90	39.12	34.66	32.08	< 48.44	5.56	54.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Emission Level = Reading Level + Probe Factor-PreAMP + Cable loss
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Mozart
Test Item : Harmonic Radiated Emission Data
Test Site : No.1 OATS
Test Mode : Channel 6 (1Mbps)

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
Peak Detector (Horizontal)							
4876.370	6.32	33.56	34.75	43.61	< 48.74	25.26	74.00
7314.650	8.38	36.31	34.90	42.59	< 52.37	21.63	74.00
9752.830	10.25	37.45	35.10	43.63	< 56.23	17.77	74.00
12190.99	11.99	39.17	34.55	42.73	< 59.35	14.65	74.00
Average Detector (Horizontal)							
9752.790	10.25	37.45	35.10	32.21	< 44.81	9.19	54.00
12190.99	11.99	39.17	34.55	32.09	< 48.71	5.29	54.00
Peak Detector (Vertical)							
4874.130	6.32	33.56	34.75	44.48	< 49.61	24.39	74.00
7311.200	8.38	36.31	34.90	42.16	< 51.94	22.06	74.00
9748.220	10.24	37.45	35.10	42.88	< 55.47	18.53	74.00
12185.44	11.99	39.17	34.55	43.26	< 59.88	14.12	74.00
Average Detector (Vertical)							
9748.350	10.24	37.45	35.10	32.20	< 44.79	9.21	54.00
12185.44	11.99	39.17	34.55	32.10	< 48.72	5.28	54.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Emission Level = Reading Level + Probe Factor-PreAMP + Cable loss
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Mozart
Test Item : Harmonic Radiated Emission Data
Test Site : No.1 OATS
Test Mode : Channel 6 (11Mbps)

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
Peak Detector (Horizontal)							
4874.070	6.32	33.56	34.75	42.63	< 47.76	26.24	74.00
7311.150	8.38	36.31	34.90	42.24	< 52.02	21.98	74.00
9748.280	10.24	37.45	35.10	43.69	< 56.28	17.72	74.00
12185.46	11.99	39.17	34.55	43.20	< 59.82	14.18	74.00
Average Detector (Horizontal)							
9748.370	10.24	37.45	35.10	32.13	< 44.72	9.28	54.00
12185.46	11.99	39.17	34.55	31.88	< 48.50	5.50	54.00
Peak Detector (Vertical)							
4874.140	6.32	33.56	34.75	42.02	< 47.15	26.85	74.00
7311.120	8.38	36.31	34.90	43.04	< 52.82	21.18	74.00
9748.290	10.24	37.45	35.10	43.77	< 56.36	17.64	74.00
12185.40	11.99	39.17	34.55	41.95	< 58.57	15.43	74.00
Average Detector (Vertical)							
9748.310	10.24	37.45	35.10	32.13	< 44.72	9.28	54.00
12185.40	11.99	39.17	34.55	32.00	< 48.62	5.38	54.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Emission Level = Reading Level + Probe Factor-PreAMP + Cable loss
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Mozart
Test Item : Harmonic Radiated Emission Data
Test Site : No.1 OATS
Test Mode : Channel 11 (1Mbps)

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
Peak Detector (Horizontal)							
4924.200	6.37	33.62	34.73	42.71	< 47.97	26.03	74.00
7386.150	8.45	36.39	34.90	41.29	< 51.23	22.77	74.00
9848.450	10.32	37.47	35.10	42.82	< 55.50	18.50	74.00
12310.15	12.07	39.22	34.46	42.73	< 59.57	14.43	74.00
Average Detector (Horizontal)							
9848.330	10.32	37.47	35.10	32.04	< 44.72	9.28	54.00
12310.43	12.07	39.22	34.46	31.89	< 48.73	5.27	54.00
Peak Detector (Vertical)							
4923.680	6.37	33.62	34.73	44.29	< 49.55	24.45	74.00
7386.260	8.45	36.39	34.90	42.30	< 52.24	21.76	74.00
9848.260	10.32	37.47	35.10	43.09	< 55.77	18.23	74.00
12310.36	12.07	39.22	34.46	43.37	< 60.21	13.79	74.00
Average Detector (Vertical)							
9848.260	10.32	37.47	35.10	32.10	< 44.78	9.22	54.00
12310.36	12.07	39.22	34.46	31.87	< 48.71	5.29	54.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Emission Level = Reading Level + Probe Factor-PreAMP + Cable loss
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Mozart
Test Item : Harmonic Radiated Emission Data
Test Site : No.1 OATS
Test Mode : Channel 11 (11Mbps)

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
Peak Detector (Horizontal)							
4924.140	6.37	33.62	34.73	41.41	< 46.67	27.33	74.00
7386.340	8.45	36.39	34.90	42.35	< 52.29	21.71	74.00
9848.430	10.32	37.47	35.10	42.31	< 54.99	19.01	74.00
12310.52	12.07	39.22	34.46	42.59	< 59.43	14.57	74.00
Average Detector (Horizontal)							
9848.420	10.32	37.47	35.10	31.99	< 44.67	9.33	54.00
12310.52	12.07	39.22	34.46	31.74	< 48.58	5.42	54.00
Peak Detector (Vertical)							
4924.250	6.37	33.62	34.73	42.44	< 47.70	26.30	74.00
7386.410	8.45	36.39	34.90	41.14	< 51.08	22.92	74.00
9848.490	10.32	37.47	35.10	42.79	< 55.47	18.53	74.00
12310.56	12.07	39.22	34.46	42.84	59.68	14.32	74.00
Average Detector (Vertical)							
9848.460	10.32	37.47	35.10	32.02	< 44.70	9.30	54.00
12310.56	12.07	39.22	34.46	31.80	< 48.64	5.36	54.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Emission Level = Reading Level + Probe Factor-PreAMP + Cable loss
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Mozart
Test Item : General Radiated Emission Data
Test Site : No.1 OATS
Test Mode : Channel 1 (1Mbps)

	Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal:								
	81.410	1.23	8.98	26.87	50.20	33.54	6.46	40.00
	280.260	2.04	12.29	26.94	49.20	36.59	9.41	46.00
*	648.860	3.56	16.29	26.40	47.00	40.44	5.56	46.00
	697.360	3.76	16.08	26.33	46.40	39.92	6.08	46.00
	747.800	3.96	17.20	26.25	44.80	39.71	6.29	46.00
	796.300	4.16	17.34	26.17	42.00	37.33	8.67	46.00
Vertical:								
	85.290	1.24	9.59	26.87	49.40	33.36	6.64	40.00
	648.860	3.56	16.29	26.40	45.40	38.84	7.16	46.00
*	672.140	3.65	15.99	26.36	46.80	40.08	5.92	46.00
	679.900	3.68	15.98	26.35	46.00	39.31	6.69	46.00
	696.390	3.75	16.17	26.33	44.00	37.59	8.41	46.00
	796.300	4.16	17.34	26.17	42.60	37.93	8.07	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. " * ", means this data is the worst emission level.
3. Emission Level = Reading Level + Probe Factor-PreAMP + Cable loss

Product : Mozart
Test Item : General Radiated Emission Data
Test Site : No.1 OATS
Test Mode : Channel 1 (11Mbps)

	Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal:								
	85.290	1.24	9.59	26.87	50.20	34.16	5.84	40.00
	279.290	2.04	12.26	26.94	49.20	36.56	9.44	46.00
	648.860	3.56	16.29	26.40	46.60	40.04	5.96	46.00
	681.840	3.69	16.08	26.35	46.20	39.63	6.37	46.00
	698.330	3.76	16.08	26.32	46.40	39.92	6.08	46.00
*	796.300	4.16	17.34	26.17	46.80	42.13	3.87	46.00
Vertical:								
	86.260	1.25	9.69	26.87	50.60	34.66	5.34	40.00
	632.370	3.49	16.28	26.43	45.20	38.54	7.46	46.00
*	648.860	3.56	16.29	26.40	50.00	43.44	2.56	46.00
	666.320	3.63	15.97	26.37	47.20	40.43	5.57	46.00
	697.360	3.76	16.08	26.33	43.60	37.12	8.88	46.00
	796.300	4.16	17.34	26.17	44.60	39.93	6.07	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. " * ", means this data is the worst emission level.
3. Emission Level = Reading Level + Probe Factor-PreAMP + Cable loss

Product : Mozart
Test Item : General Radiated Emission Data
Test Site : No.1 OATS
Test Mode : Channel 6 (1Mbps)

	Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal:								
*	86.260	1.25	9.69	26.87	51.60	35.66	4.34	40.00
	280.260	2.04	12.29	26.94	49.60	36.99	9.01	46.00
	400.540	2.54	13.84	26.79	45.40	34.99	11.01	46.00
	648.860	3.56	16.29	26.40	45.00	38.44	7.56	46.00
	673.110	3.66	15.89	26.36	44.80	37.99	8.01	46.00
	747.800	3.96	17.20	26.25	44.00	38.91	7.09	46.00
Vertical:								
	85.290	1.24	9.59	26.87	51.20	35.16	4.84	40.00
	598.420	3.35	15.95	26.48	41.40	34.22	11.78	46.00
	633.340	3.50	16.38	26.43	42.60	36.05	9.95	46.00
*	647.890	3.55	16.29	26.40	51.20	44.64	1.36	46.00
	670.200	3.64	15.99	26.37	47.60	40.86	5.14	46.00
	796.300	4.16	17.34	26.17	45.80	41.13	4.87	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. " * ", means this data is the worst emission level.
3. Emission Level = Reading Level + Probe Factor-PreAMP + Cable loss

Product : Mozart
Test Item : General Radiated Emission Data
Test Site : No.1 OATS
Test Mode : Channel 6 (11Mbps)

	Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal:								
*	86.260	1.25	9.69	26.87	51.60	35.66	4.34	40.00
	279.290	2.04	12.26	26.94	49.20	36.56	9.44	46.00
	398.600	2.53	13.62	26.79	45.20	34.56	11.44	46.00
	666.320	3.63	15.97	26.37	46.80	40.03	5.97	46.00
	681.840	3.69	16.08	26.35	46.20	39.63	6.37	46.00
	746.830	3.96	17.19	26.25	44.60	39.50	6.50	46.00
Vertical:								
	85.290	1.24	9.59	26.87	51.40	35.36	4.64	40.00
	598.420	3.35	15.95	26.48	41.40	34.22	11.78	46.00
	630.430	3.48	16.36	26.43	42.60	36.02	9.98	46.00
*	648.860	3.56	16.29	26.40	49.60	43.04	2.96	46.00
	665.350	3.62	15.96	26.38	46.40	39.61	6.39	46.00
	796.300	4.16	17.34	26.17	45.00	40.33	5.67	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. " * ", means this data is the worst emission level.
3. Emission Level = Reading Level + Probe Factor-PreAMP + Cable loss

Product : Mozart
Test Item : General Radiated Emission Data
Test Site : No.1 OATS
Test Mode : Channel 11 (1Mbps)

	Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal:								
*	86.260	1.25	9.69	26.87	51.60	35.66	4.34	40.00
	279.290	2.04	12.26	26.94	49.20	36.56	9.44	46.00
	398.600	2.53	13.62	26.79	45.80	35.16	10.84	46.00
	646.920	3.55	16.29	26.40	47.20	40.63	5.37	46.00
	665.350	3.62	15.96	26.38	46.40	39.61	6.39	46.00
	698.330	3.76	16.08	26.32	46.20	39.72	6.28	46.00
Vertical:								
	86.260	1.25	9.69	26.87	49.80	33.86	6.14	40.00
	598.420	3.35	15.95	26.48	42.00	34.82	11.18	46.00
	633.340	3.50	16.38	26.43	44.80	38.25	7.75	46.00
*	648.860	3.56	16.29	26.40	50.00	43.44	2.56	46.00
	663.410	3.62	15.95	26.38	46.60	39.79	6.21	46.00
	796.300	4.16	17.34	26.17	45.20	40.53	5.47	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. " * ", means this data is the worst emission level.
3. Emission Level = Reading Level + Probe Factor-PreAMP + Cable loss

Product : Mozart
Test Item : General Radiated Emission Data
Test Site : No.1 OATS
Test Mode : Channel 11 (11Mbps)

	Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal:								
*	86.260	1.25	9.69	26.87	51.00	35.06	4.94	40.00
	280.260	2.04	12.29	26.94	49.00	36.39	9.61	46.00
	398.600	2.53	13.62	26.79	45.40	34.76	11.24	46.00
	648.860	3.56	16.29	26.40	47.00	40.44	5.56	46.00
	747.800	3.96	17.20	26.25	44.80	39.71	6.29	46.00
	796.300	4.16	17.34	26.17	42.60	37.93	8.07	46.00
Vertical:								
	86.260	1.25	9.69	26.87	50.60	34.66	5.34	40.00
	633.340	3.50	16.38	26.43	42.20	35.65	10.35	46.00
*	648.860	3.56	16.29	26.40	50.20	43.64	2.36	46.00
	665.350	3.62	15.96	26.38	48.40	41.61	4.39	46.00
	747.800	3.96	17.20	26.25	42.40	37.31	8.69	46.00
	796.300	4.16	17.34	26.17	45.20	40.53	5.47	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. " * ", means this data is the worst emission level.
3. Emission Level = Reading Level + Probe Factor-PreAMP + Cable loss

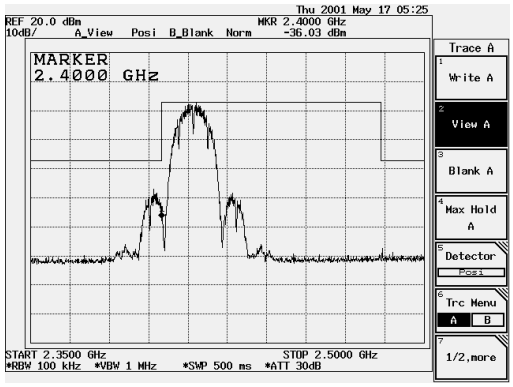
4.7. Test Result of Band Edge

Product : Mozart
Test Item : Band Edge Data
Test Site : No.1 OATS
Test Mode : Channel 1

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
1 (1Mbps)	<2400	>20	Pass
1 (2Mbps)	<2400	>20	Pass
1 (5.5Mbps)	<2400	>20	Pass
1 (11Mbps)	<2400	>20	Pass

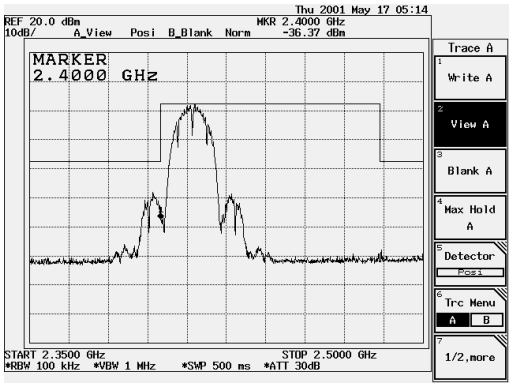
Figure: 1Mbps

20dBc



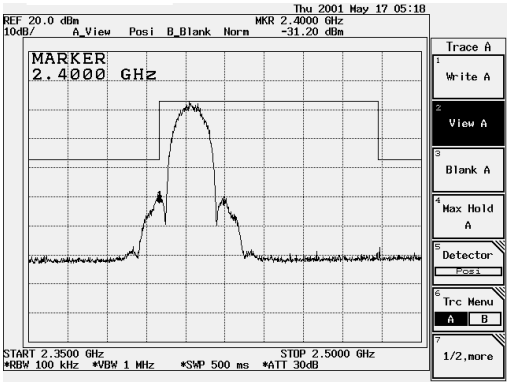
2Mbps

20dBc



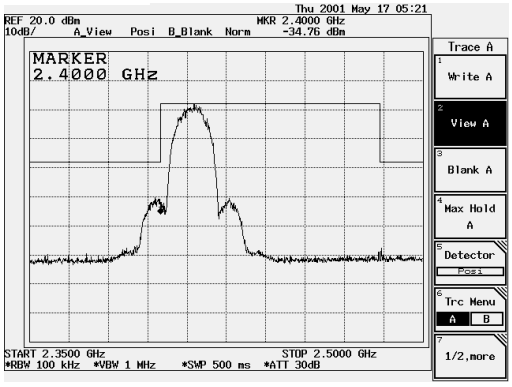
5.5Mbps

20dBc



11Mbps

20dBc

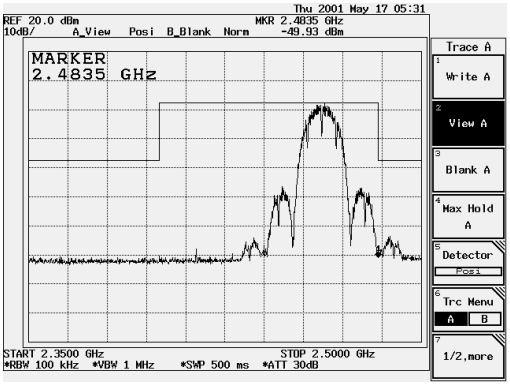


Product : Mozart
Test Item : Band Edge Data
Test Site : No.1 OATS
Test Mode : Channel 11

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
11 (1Mbps)	>2483.5	>20	Pass
11 (2Mbps)	>2483.5	>20	Pass
11 (5.5Mbps)	>2483.5	>20	Pass
11 (11Mbps)	>2483.5	>20	Pass

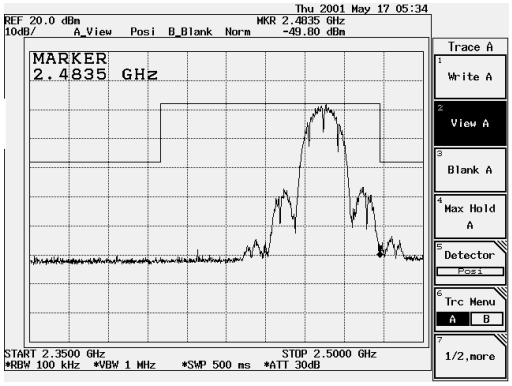
Figure: 1Mbps

20dBc



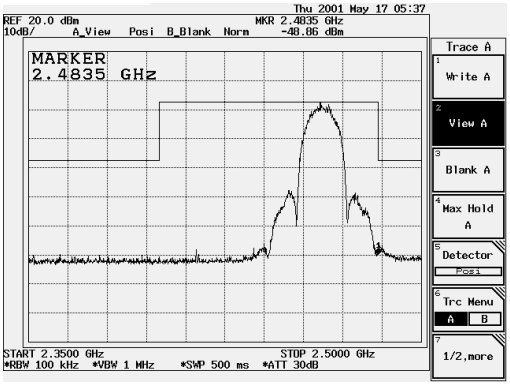
2Mbps

20dBc



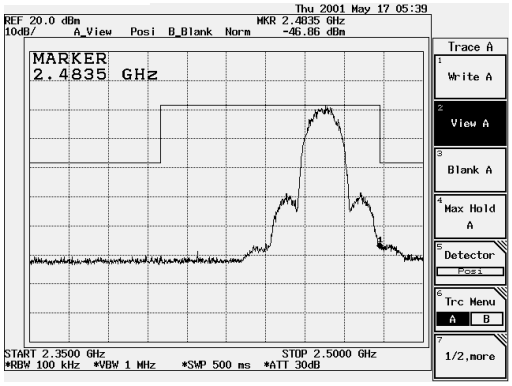
5.5Mbps

20dBc



11Mbps

20dBc



5. Occupied Bandwidth

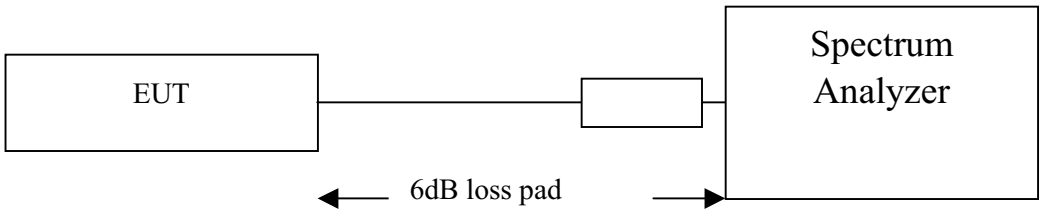
5.1. Test Equipment

The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Advantest	R3272 / 72421194	May, 2001
X	Horn Antenna	EM	EM6917 / 103325	May, 2001

Note: 1. All equipment upon which need to calibrated are with calibration period of 1 year.
2. Mark "X" test instruments are used to measure the final test results.

5.2. Test Setup



5.3. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

5.4. Standard Reqirement

The minimum bandwidth shall be at least 500kHz.

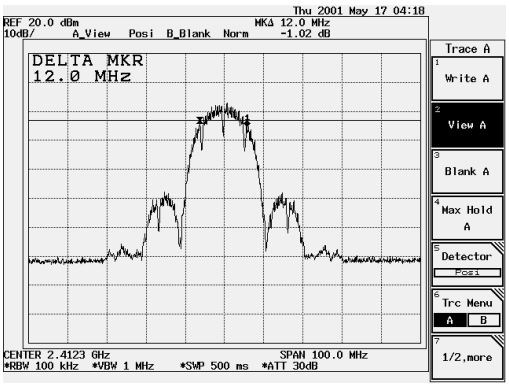
5.5. Test Result of Occupied Bandwidth

Product : Mozart
Test Item : Occupied Bandwidth Data
Test Site : No.1 OATS
Test Mode : Channel 1

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (1Mbps)	2412	12000	>500	Pass
1 (2Mbps)	2412	12100	>500	Pass
1 (5.5Mbps)	2412	10500	>500	Pass
1 (11Mbps)	2412	11100	>500	Pass

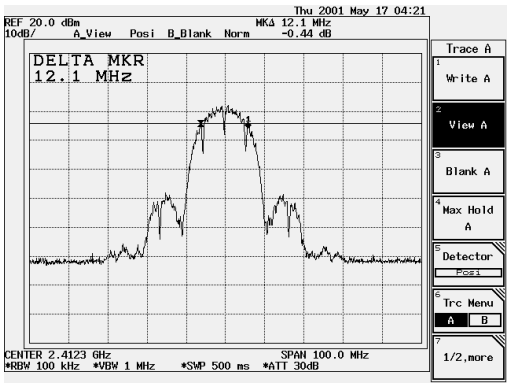
Figure Channel 1: 1Mbps

6dB



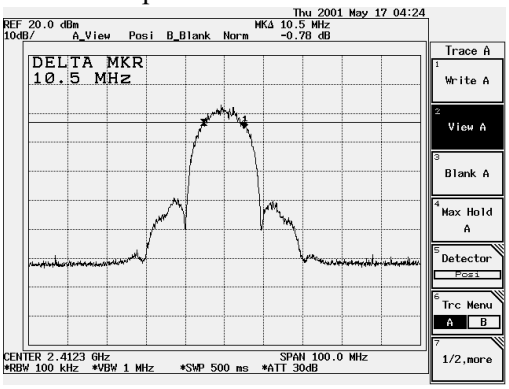
2Mbps

6dB



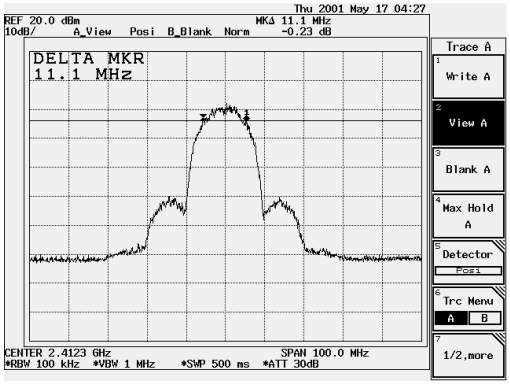
5.5Mbps

6dB



11Mbps

6dB

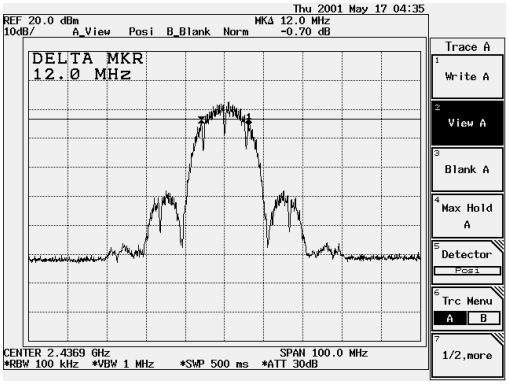


Product : Mozart
Test Item : Occupied Bandwidth Data
Test Site : No.1 OATS
Test Mode : Channel 6

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6 (1Mbps)	2437	12000	>500	Pass
6 (2Mbps)	2437	12000	>500	Pass
6(5.5Mbps)	2437	10000	>500	Pass
6 (11Mbps)	2437	11000	>500	Pass

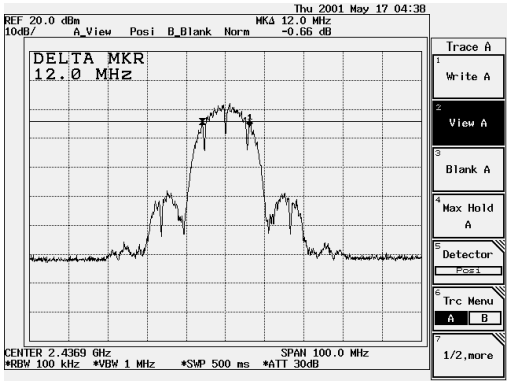
Figure Channel 6: 1Mbps

6dB



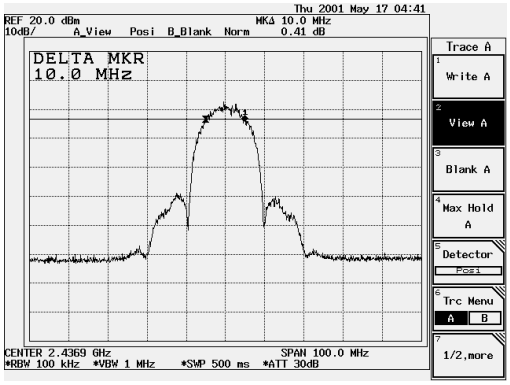
2Mbps

6dB



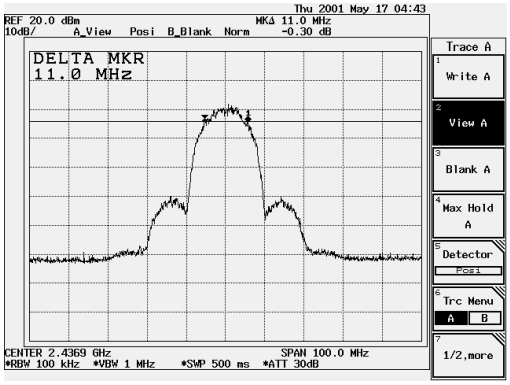
5.5Mbps

6dB



11Mbps

6dB

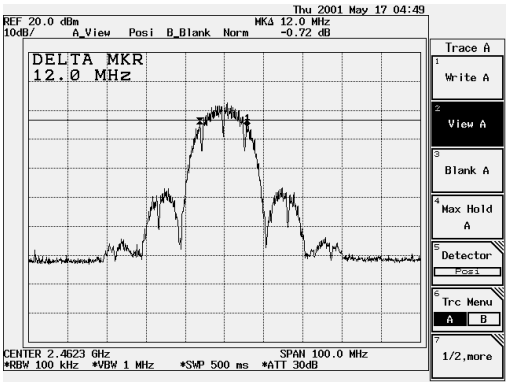


Product : Mozart
Test Item : Occupied Bandwidth Data
Test Site : No.1 OATS
Test Mode : Channel 11 (1Mbps)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11 (1Mbps)	2462	12000	>500	Pass
11 (2Mbps)	2462	12000	>500	Pass
11 (5.5Mbps)	2462	10000	>500	Pass
11 (11Mbps)	2462	10800	>500	Pass

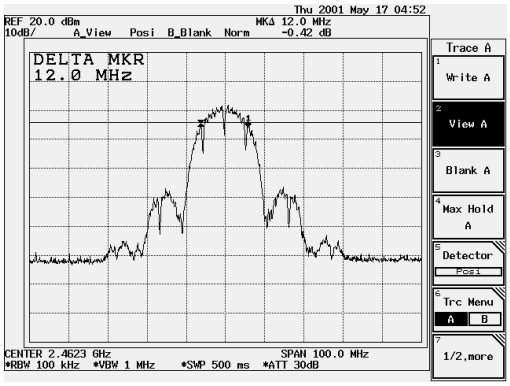
Figure Channel 11: 1Mbps

6dB



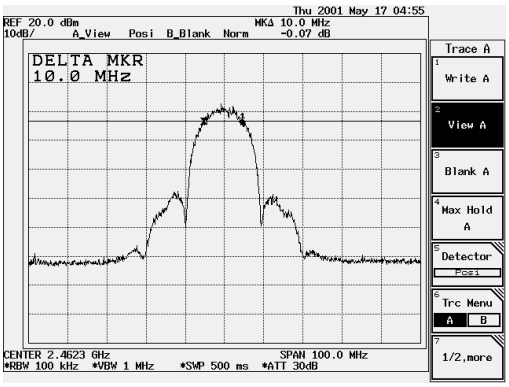
2Mbps

6dB



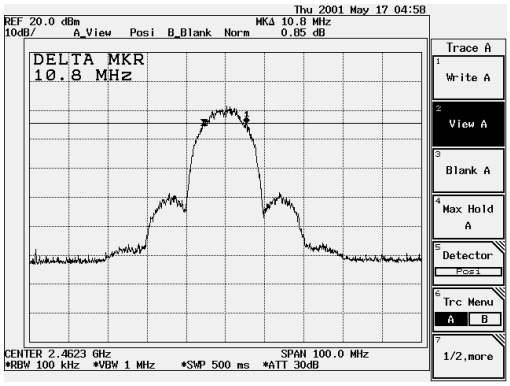
5.5Mbps

6dB



11Mbps

6dB



6. Transmitter Power Density

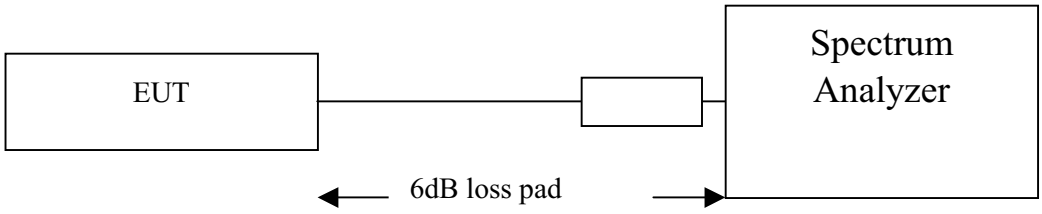
6.1. Test Equipment

The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Advantest	R3272 / 72421194	May, 2001
X	Attenuator	HP		May, 2001
X	Horn Antenna	EM	EM6917 / 103325	May, 2001

Note: 1. All equipment upon which need to calibrated are with calibration period of 1 year.
2. Mark "X" test instruments are used to measure the final test results.

6.2. Test Setup



6.3. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

6.4. Standard Reqirement

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.