



Test Report

Product Name : Access Point

Model No. : RTW020

FCC ID.: H8N-RTW020

Applicant : ASKEY COMPUTER CORP.

Address : RM 202, BLDG.53, 195-69 SEC. 4, CHUNG HSING
RD., CHUTUNG, HSINCHU, TAIWAN 310, R.O.C

Date of Receipt : June 29, 2001

Date of Test : Aug. 7, 2001

Report No. : 017H010FI

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

Test Report Certification

Test Date : Aug. 7, 2001

Report No. : 017H010FI



Accredited by NIST (NVLAP)

NVLAP Lab Code: 200347-0

Product Name	:	Access Point
Applicant	:	ASKEY COMPUTER CORP.
Address	:	RM 202, BLDG.53, 195-69 SEC. 4, CHUNG HSING RD., CHUTUNG, HSINCHU, TAIWAN 310, R.O.C
Manufacturer	:	ASKEY COMPUTER CORP.
Model No.	:	RTW020
FCC ID.	:	H6N-RTW020
Rated Voltage	:	AC 120V/60Hz
Trade Name	:	ASKEY
Measurement Standard	:	FCC Part 15 Subpart C Paragraph 15.247
Measurement Procedure	:	ANSI C63.4:1992
Test Result	:	Complied

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Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	: Access Point	
Trade Name	: ASKEY	
FCC ID.	: H8N-RTW020	
Model No.	: RTW020	
Frequency Range	: 2400MHz to 2483.5MHz	
Channel Number	: 11	
Frequency of Each	: Channel 01: 2412MHz	Channel 07: 2442MHz
Channel	Channel 02: 2417 MHz	Channel 08: 2447MHz
(Working Frequency)	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	
Selection of		
Operating Frequency	: By software	
USB Cable	: Shielded, 1m, a ferrite core bonded	
Power Adapter	: Non-shielded, 1.2m, a ferrite core bonded	

Note:

1. This device is a 2.4GHz Access Point included a 2.4GHz receiving function, a 2.4GHz transmitting function.
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. This device is a composite device in accordance with Part 15 regulations. The function receiving was measured and made a test report that the report number is 017H010F under Declaration of Conformity.

1.2. Operation Description

EUT is a spread spectrum 2.4 GHz wireless access point which follows IEEE 802.11b. 11 channels were provided by EUT. The max transmission speed is 11Mbps with CCK, DQPSK and DBPSK modulation. Two antennas soldered on PCB directly and provide function of diversity. An USB console port provides configuration setup. 11 chip barker sequence is used for spreading of spectrum. An USB port provides setup of configuration. The Ethernet interface provides the IEEE 802.3 10/100 Mbps data transmission.

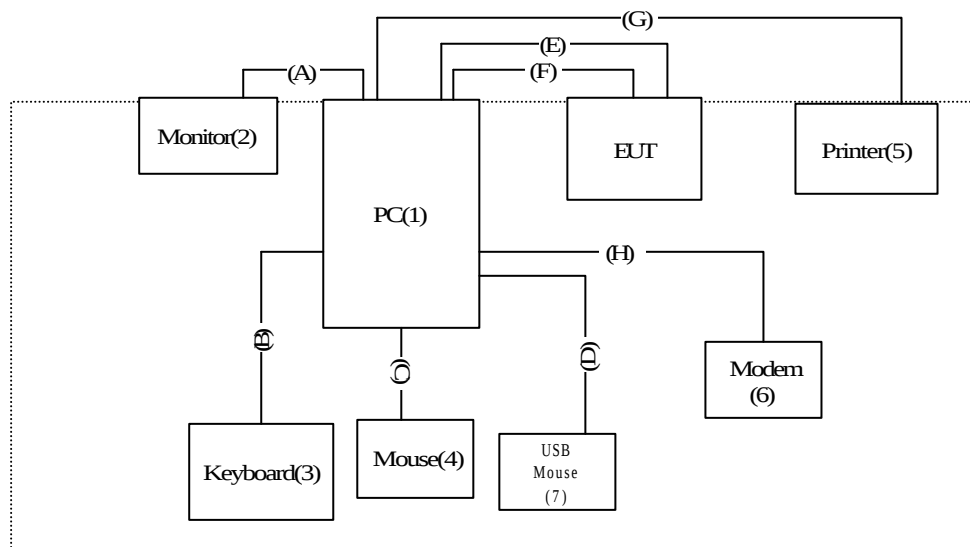
1.3. Tested System Details

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	FCC ID
(1)	PC	IBM	16W	BNL676N	Non-shielded,1.8m	DoC
(2)	Monitor	HITACHI	CM752ET-311	T8E004439	Non-shielded,1.7m	DoC
(3)	Keyboard	IBM	KB-9930	0073491	--	DoC
(4)	Mouse	IBM	M-SAU-IBM6	23-022685	--	JNZ211220
(5)	Printer	HP	C2642A	MY75J1D1D0	Non-shielded,1.2m	B94C2642X
(6)	Modem	ACEEX	2814	960018054	Non-shielded,1.5m	IFAXDM2814
(7)	USB Mouse	Logitech	M-UE55	DVT-324	--	DoC

	Signal Cable Type	Signal Cable Description
A.	VGA Cable	Shielded, 1.5m, two ferrite cores bonded.
B.	Keyboard Cable	Non-shielded, 0.8m
C.	Mouse Cable	Non-shielded, 1.8m
D.	USB Mouse Cable	Non-shielded, 0.5m
E.	USB Cable	Shielded, 1m, a ferrite core bonded
F.	LAN Cable	Non-shielded, 0.8m
G.	Printer Cable	Shielded, 1m
H.	Modem Cable	Non-shielded, 1m

1.4. Configuration of tested System



1.5. 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 Personal Computer reads data from disk.
- 1.4.4 Data will be transmitted through EUT.
- 1.4.5 The transmission status will be shown on the monitor.
- 1.4.6 Repeat the above procedure 1.4.4 to 1.4.5

1.6. 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,
Taiwan, R.O.C.

2. Conducted Emission

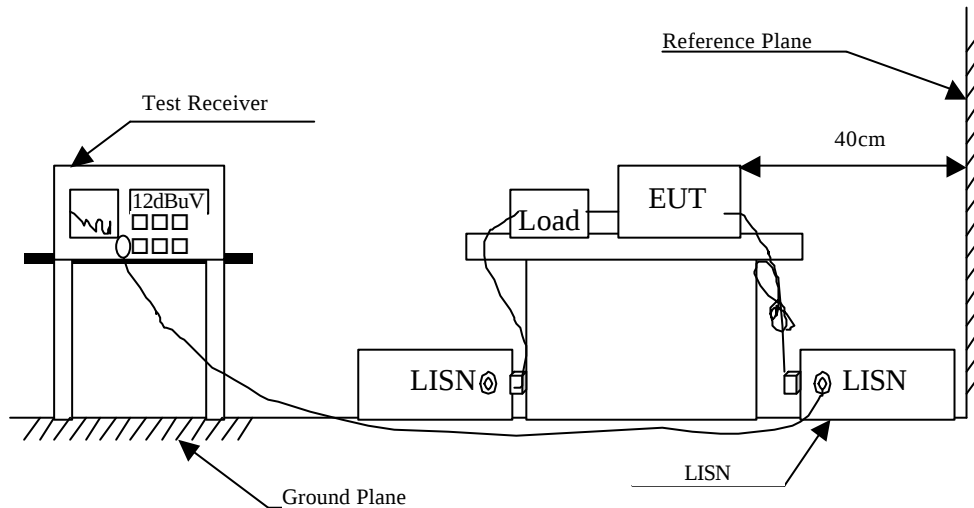
2.1. Test Equipment List

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 : Access Point
 Test Item : Conducted Emission Test
 Test Mode : Normal Operation (1Mbps)

Frequency	Cable	LISN	Reading Level	Measurement Level	Limits
	Loss	Factor			
MHz	dB	dB	dBuV	dBuV	dBuV

Line 1

Quasi-Peak:

2.122	0.15	0.13	46.62	46.90	48.00
2.278	0.15	0.14	46.30	46.59	48.00
*2.563	0.16	0.14	46.70	47.00	48.00
3.091	0.17	0.15	40.80	41.12	48.00
3.680	0.18	0.16	46.20	46.54	48.00
4.841	0.20	0.17	43.00	43.37	48.00

Line 2

Quasi-Peak:

1.856	0.14	0.13	44.30	44.57	48.00
2.302	0.15	0.14	46.10	46.39	48.00
2.571	0.16	0.14	45.60	45.90	48.00
3.036	0.17	0.15	42.70	43.02	48.00
*3.700	0.18	0.16	46.30	46.64	48.00
4.880	0.20	0.17	45.90	46.27	48.00

Remarks :

1. “ * ” means that this data is the worst emission level.
2. The average measurement was not performed when the peak measured data under the limit of average detection.

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

Frequency	Cable	LISN	Reading Level	Measurement Level	Limits
	Loss	Factor			
MHz	dB	dB	dBuV	dBuV	dBuV
=====					

Line 1

Quasi-Peak:

2.138	0.15	0.13	45.50	45.78	48.00
2.294	0.15	0.14	46.10	46.39	48.00
2.587	0.16	0.14	45.30	45.60	48.00
3.243	0.17	0.15	39.90	40.22	48.00
*3.704	0.18	0.16	46.20	46.54	48.00
4.884	0.20	0.17	42.60	42.97	48.00

Line 2

Quasi-Peak:

*2.298	0.15	0.14	46.10	46.39	48.00
2.591	0.16	0.14	45.80	46.10	48.00
3.001	0.17	0.15	42.10	42.42	48.00
3.704	0.18	0.16	44.00	44.34	48.00
4.005	0.19	0.16	37.80	38.15	48.00
4.825	0.20	0.17	45.30	45.67	48.00

Remarks :

- 1.“ * ” means that this data is the worst emission level.
2. The average measurement was not performed when the peak measured data under the limit of average detection.

3. Peak Power Output

3.1. Test Equipment

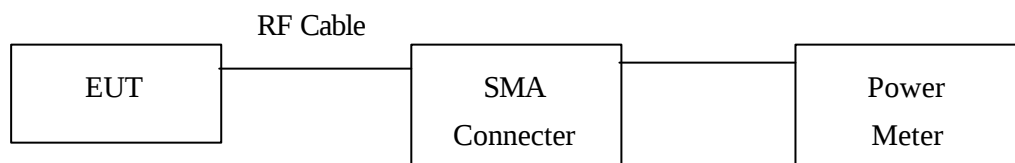
The following test equipments are used during the radiated emission tests:

	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 : Access Point
 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	18.00 dBm	1Watt= 30 dBm	Pass
6	2437	17.70 dBm	1Watt= 30 dBm	Pass
11	2462	18.80 dBm	1Watt= 30 dBm	Pass

Data Speed: 11Mbps

Channel No.	Frequency(MHz)	Measurement	Required Limit	Result
1	2412	17.90 dBm	1Watt= 30 dBm	Pass
6	2437	17.60 dBm	1Watt= 30 dBm	Pass
11	2462	18.78 dBm	1Watt= 30 dBm	Pass

4. RF Exposure Evaluation

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

4.1. Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

4.2. EUT Operation condition

A software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

4.3. Test Result of RF Exposure Evaluation

Product : Access Point
 Test Item : RF Exposure Evaluation Data
 Test Site : No.1 OATS
 Test Mode : Normal Operation

4.3.1 Antenna Gain

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.6dBi or 1.45in linear scale.

4.3.2 Output Power Into Antenna & RF Exposure Evaluation Distance

Channel	Channel Frequency (MHz)	Output Power to Antenna (dBm)	Minimum Allowable Distance @From Skin(cm)
1 (1Mbps)	2412	18.00	2.7
1 (11Mbps)	2412	17.90	2.6
6 (1Mbps)	2437	17.70	2.6
6 (11Mbps)	2437	17.60	2.6
11 (1Mbps)	2462	18.80	2.9
11 (11Mbps)	2462	18.78	2.9

The distance r (4th column) calculated from the Friis transmission formula is far shorter than 20 cm separation requirement. So, RF exposure limit warning or SAR test are not required.

5. Radiated Emission

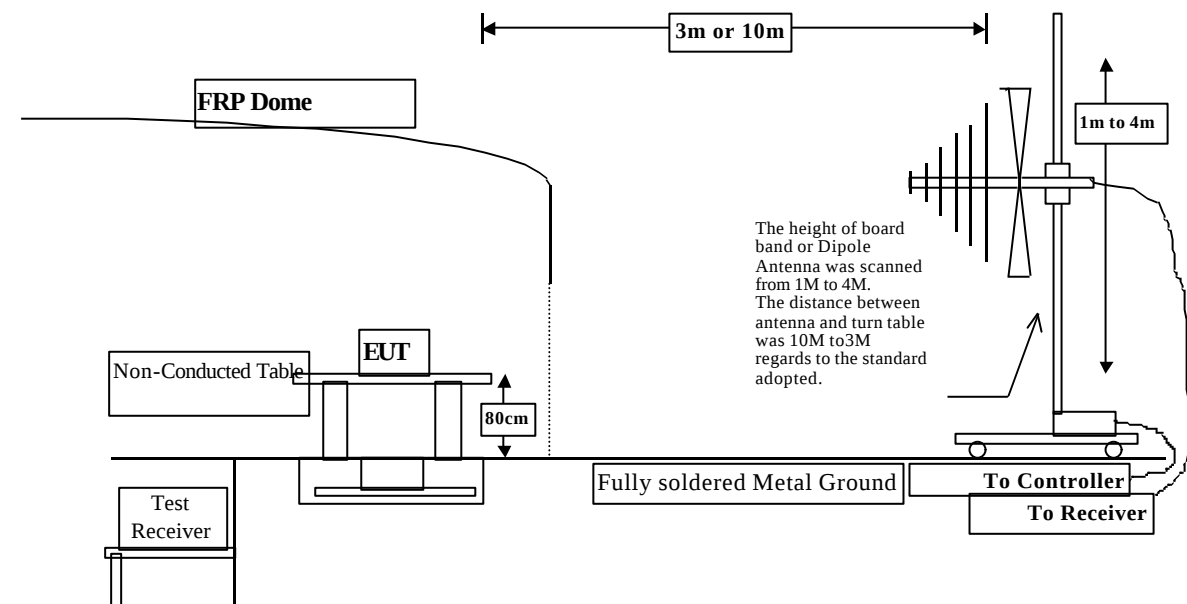
5.1. Test Equipment

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
Site # 2	X	Horn Antenna	EM	EM6917 / 103325	May, 2001
	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.

5.2. Test Setup



Spurious Emissions
(Band Edge Antenna Radiated)

5.3. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

5.4. 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.

5.5. 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 strength 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 harmonics** is checked.

5.6. Test Result of Radiated Emission

Product : Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Channel 1(1Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
MHz	Loss	Factor		Level			
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
=====							
Peak Detector (Horizontal)							
4825.100	6.27	33.50	0.00	20.01	59.78	14.22	74.00
7236.200	8.32	36.24	0.00	17.21	61.77	12.23	74.00
9648.110	10.18	37.43	0.00	17.78	65.39	8.61	74.00
Average Detector (Horizontal)							
4824.000	6.27	33.50	0.00	6.42	46.19	7.81	54.00
7236.000	8.32	36.24	0.00	4.97	49.53	4.47	54.00
9648.110	10.18	37.43	0.00	5.15	52.76	1.24	54.00
Peak Detector (Vertical)							
4824.000	6.27	33.50	0.00	19.33	59.10	14.90	74.00
7236.500	8.32	36.24	0.00	18.58	63.14	10.86	74.00
9647.740	10.18	37.43	0.00	18.97	66.58	7.42	74.00
Average Detector (Vertical)							
4824.000	6.27	33.50	0.00	7.20	46.97	7.03	54.00
7236.000	8.32	36.24	0.00	5.56	50.12	3.88	54.00
9648.000	10.18	37.43	0.00	6.27	51.88	2.12	54.00

Note:

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

Product : Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Channel 1(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
MHz	Loss	Factor		Level			
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

=====

Peak Detector (Horizontal)

4824.400	6.27	33.50	0.00	18.78	58.55	15.45	74.00
7236.190	8.32	36.24	0.00	17.63	62.19	11.81	74.00
9647.640	10.18	37.43	0.00	18.23	65.84	8.16	74.00

Average Detector (Horizontal)

4824.000	6.27	33.50	0.00	6.35	46.12	7.88	54.00
7236.000	8.32	36.24	0.00	4.92	49.48	4.52	54.00
9647.640	10.18	37.43	0.00	5.12	52.73	1.27	54.00

Peak Detector (Vertical)

4823.390	6.27	33.50	0.00	20.52	60.29	13.71	74.00
7235.890	8.32	36.24	0.00	18.03	62.59	11.41	74.00
9647.540	10.18	37.43	0.00	18.69	66.30	7.70	74.00

Average Detector (Vertical)

4824.000	6.27	33.50	0.00	6.92	46.69	7.31	54.00
7235.890	8.32	36.24	0.00	5.77	50.33	3.67	54.00
9647.750	10.18	37.43	0.00	6.11	52.72	1.28	54.00

Note:

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

Product : Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Channel 6(1Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
MHz	Loss	Factor		Level			
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

=====

Peak Detector (Horizontal)

4874.200	6.32	33.56	0.00	18.79	58.67	15.33	74.00
7311.050	8.38	36.31	0.00	17.73	62.41	11.59	74.00
9747.300	10.24	37.45	0.00	19.10	66.79	7.21	74.00

Average Detector (Horizontal)

4874.000	6.32	33.56	0.00	6.27	46.15	7.85	54.00
7311.000	8.38	36.31	0.00	4.91	49.59	4.41	54.00
9748.900	10.25	37.45	0.00	5.26	52.96	1.04	54.00

Peak Detector (Vertical)

4874.210	6.32	33.56	0.00	20.32	60.20	13.80	74.00
7311.300	8.38	36.31	0.00	18.10	62.78	11.22	74.00
9748.250	10.24	37.45	0.00	19.56	67.25	6.75	74.00

Average Detector (Vertical)

4874.150	6.32	33.56	0.00	7.34	47.22	6.78	54.00
7311.000	8.38	36.31	0.00	5.58	50.26	3.74	54.00
9747.940	10.24	37.45	0.00	6.01	52.70	1.30	54.00

Note:

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

Product : Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Channel 6(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
MHz	Loss	Factor		Level			
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

=====

Peak Detector (Horizontal)

4874.400	6.32	33.56	0.00	18.79	58.67	15.33	74.00
7310.690	8.38	36.31	0.00	17.77	62.45	11.55	74.00
9748.400	10.24	37.45	0.00	17.47	65.16	8.84	74.00

Average Detector (Horizontal)

4874.000	6.32	33.56	0.00	6.25	46.13	7.87	54.00
7311.300	8.38	36.31	0.00	5.08	49.76	4.24	54.00
9748.200	10.24	37.45	0.00	5.29	52.98	1.02	54.00

Peak Detector (Vertical)

4874.300	6.32	33.56	0.00	19.27	59.15	14.85	74.00
7311.100	8.38	36.31	0.00	17.97	62.65	11.35	74.00
9748.150	10.24	37.45	0.00	17.85	65.54	8.46	74.00

Average Detector (Vertical)

4874.300	6.32	33.56	0.00	6.77	46.65	7.35	54.00
7311.000	8.38	36.31	0.00	5.77	50.45	3.55	54.00
9748.050	10.24	37.45	0.00	5.50	52.19	1.81	54.00

Note:

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

Product : Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Channel 11(1Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
MHz	Loss	Factor		Level			
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

=====

Peak Detector (Horizontal)

4924.300	6.37	33.62	0.00	18.58	58.57	15.43	74.00
7386.210	8.45	36.39	0.00	17.60	62.44	11.56	74.00
9847.790	10.32	37.47	0.00	18.24	66.02	7.98	74.00

Average Detector (Horizontal)

4924.300	6.37	33.62	0.00	6.32	46.31	7.69	54.00
7386.000	8.45	36.39	0.00	5.09	49.93	4.07	54.00
9848.000	10.32	37.47	0.00	5.54	52.32	1.68	54.00

Peak Detector (Vertical)

4924.000	6.37	33.62	0.00	18.71	58.70	15.30	74.00
7385.890	8.45	36.39	0.00	17.38	62.22	11.78	74.00
9847.790	10.32	37.47	0.00	18.04	65.82	8.18	74.00

Average Detector (Vertical)

4923.940	6.37	33.62	0.00	6.97	46.96	7.04	54.00
7386.500	8.45	36.39	0.00	5.64	50.48	3.52	54.00
9848.000	10.32	37.47	0.00	5.80	52.58	1.42	54.00

Note:

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

Product : Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Channel 11(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
MHz	Loss	Factor		Level			
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

=====

Peak Detector (Horizontal)

4924.200	6.37	33.62	0.00	18.47	58.46	15.54	74.00
7386.410	8.45	36.39	0.00	17.80	62.64	11.36	74.00
9847.390	10.32	37.47	0.00	18.07	65.85	8.15	74.00

Average Detector (Horizontal)

4924.100	6.37	33.62	0.00	6.26	46.25	7.75	54.00
7385.900	8.45	36.39	0.00	5.18	50.02	3.98	54.00
9848.000	10.32	37.47	0.00	5.53	52.31	1.69	54.00

Peak Detector (Vertical)

4924.200	6.37	33.62	0.00	18.76	58.75	15.25	74.00
7386.000	8.45	36.39	0.00	17.79	62.63	11.37	74.00
9848.400	10.32	37.47	0.00	19.81	67.59	6.41	74.00

Average Detector (Vertical)

4924.000	6.37	33.62	0.00	6.26	46.25	7.75	54.00
7386.000	8.45	36.39	0.00	5.76	50.60	3.40	54.00
9848.200	10.32	37.47	0.00	5.62	52.40	1.60	54.00

Note:

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

Product : Access Point
 Test Item : General Radiated Emission Data
 Test Mode : Channel 1(1Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
	Loss	Factor		Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

Horizontal:

218.180	0.97	8.40	25.50	55.20	39.08	6.92	46.00
307.420	1.14	11.93	25.27	51.60	39.39	6.61	46.00
320.030	1.14	12.39	25.26	50.00	38.27	7.73	46.00
500.450	1.31	16.57	26.55	44.40	35.73	10.27	46.00
*701.240	2.04	18.26	26.41	47.20	41.09	4.91	46.00
747.800	2.21	19.24	26.37	43.20	38.28	7.72	46.00

Vertical:

220.120	0.99	9.65	25.48	47.80	32.96	13.04	46.00
309.360	1.14	13.38	25.27	47.40	36.64	9.36	46.00
499.480	1.32	16.65	26.55	46.40	37.83	8.17	46.00
*700.270	2.05	19.06	26.42	43.60	38.29	7.71	46.00
720.640	1.78	19.43	26.30	40.20	35.11	10.89	46.00
749.740	2.25	19.36	26.38	40.60	35.83	10.17	46.00

Note:

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

Product : Access Point
 Test Item : General Radiated Emission Data
 Test Site : Chamber
 Test Mode : Channel 1(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
	Loss	Factor		Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

=====

Horizontal:

219.150	0.98	8.44	25.49	54.80	38.73	7.27	46.00
309.360	1.14	12.05	25.27	50.00	37.92	8.08	46.00
321.000	1.14	12.49	25.26	48.60	36.97	9.03	46.00
501.420	1.33	16.37	26.55	44.20	35.35	10.65	46.00
*701.240	2.04	18.26	26.41	46.00	39.89	6.11	46.00
747.800	2.21	19.24	26.37	41.60	36.68	9.32	46.00

Vertical:

219.150	0.98	9.46	25.49	51.00	35.95	10.05	46.00
307.420	1.14	13.25	25.27	46.80	35.91	10.09	46.00
320.030	1.14	13.41	25.26	44.80	34.09	11.91	46.00
501.420	1.33	16.65	26.55	45.60	37.03	8.97	46.00
624.610	2.05	18.57	26.42	42.00	36.20	9.80	46.00
*700.270	2.05	19.06	26.42	46.40	41.09	4.91	46.00

Note:

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

Product : Access Point
 Test Item : General Radiated Emission Data
 Test Mode : Channel 6(1Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
	Loss	Factor		Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
=====							
Horizontal:							
219.150	0.98	8.44	25.49	53.60	37.53	8.47	46.00
309.360	1.14	12.05	25.27	49.80	37.72	8.28	46.00
320.030	1.14	12.39	25.26	47.40	35.67	10.33	46.00
499.480	1.32	16.34	26.55	44.60	35.72	10.28	46.00
*701.240	2.04	18.26	26.41	47.20	41.09	4.91	46.00
747.800	2.21	19.24	26.37	43.20	38.28	7.72	46.00

Vertical:							
220.120	0.99	9.65	25.48	51.60	36.76	9.24	46.00
307.420	1.14	13.25	25.27	45.20	34.31	11.69	46.00
501.420	1.33	16.65	26.55	45.60	37.03	8.97	46.00
624.610	2.05	18.57	26.42	42.60	36.80	9.20	46.00
*701.240	2.04	18.97	26.41	46.20	40.80	5.20	46.00
749.740	2.25	19.36	26.38	41.20	36.43	9.57	46.00

Note:

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

Product : Access Point
 Test Item : General Radiated Emission Data
 Test Site : Chamber
 Test Mode : Channel 6(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
MHz	Loss	Factor		Level			
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
=====							
Horizontal:							
219.150	0.98	8.44	25.49	53.80	37.73	8.27	46.00
307.420	1.14	11.93	25.27	50.00	37.79	8.21	46.00
500.450	1.31	16.57	26.55	44.60	35.93	10.07	46.00
*700.270	2.05	18.16	26.42	47.00	40.79	5.21	46.00
718.700	1.81	18.70	26.31	41.80	36.00	10.00	46.00
748.770	2.23	19.25	26.38	41.80	36.91	9.09	46.00

Vertical:							
220.120	0.99	9.65	25.48	50.80	35.96	10.04	46.00
308.390	1.14	13.25	25.27	46.00	35.11	10.89	46.00
499.480	1.32	16.65	26.55	45.40	36.83	9.17	46.00
624.610	2.05	18.57	26.42	41.40	35.60	10.40	46.00
*700.270	2.05	19.06	26.42	45.60	40.29	5.71	46.00
749.740	2.25	19.36	26.38	41.00	36.23	9.77	46.00

Note:

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

Product : Access Point
 Test Item : General Radiated Emission Data
 Test Mode : Channel 11(1Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
MHz	Loss	Factor		Level			
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

Horizontal:

219.150	0.98	8.44	25.49	53.80	37.73	8.27	46.00
307.420	1.14	11.93	25.27	49.80	37.59	8.41	46.00
499.480	1.32	16.34	26.55	44.40	35.52	10.48	46.00
*701.240	2.04	18.26	26.41	46.20	40.09	5.91	46.00
720.640	1.78	18.80	26.30	42.60	36.89	9.11	46.00
748.770	2.23	19.25	26.38	42.80	37.91	8.09	46.00

Vertical:

220.120	0.99	9.65	25.48	50.20	35.36	10.64	46.00
309.360	1.14	13.38	25.27	45.80	35.04	10.96	46.00
500.450	1.31	16.65	26.55	45.20	36.61	9.39	46.00
624.610	2.05	18.57	26.42	42.00	36.20	9.80	46.00
*701.240	2.04	18.97	26.41	44.80	39.40	6.60	46.00
720.640	1.78	19.43	26.30	40.40	35.31	10.69	46.00

Note:

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

Product : Access Point
 Test Item : General Radiated Emission Data
 Test Site : Chamber
 Test Mode : Channel 11(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
	Loss	Factor		Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m
=====							
Horizontal:							
219.150	0.98	8.44	25.49	53.20	37.13	8.87	46.00
308.390	1.14	11.95	25.27	49.20	37.02	8.98	46.00
318.090	1.14	12.34	25.27	47.40	35.62	10.38	46.00
*701.240	2.04	18.26	26.41	46.40	40.29	5.71	46.00
721.610	1.77	18.80	26.29	42.20	36.48	9.52	46.00
749.740	2.25	19.25	26.38	40.80	35.92	10.08	46.00

Vertical:							
218.180	0.97	9.26	25.50	50.40	35.13	10.87	46.00
307.420	1.14	13.25	25.27	45.00	34.11	11.89	46.00
319.060	1.14	13.41	25.26	44.40	33.69	12.31	46.00
499.480	1.32	16.65	26.55	45.40	36.83	9.17	46.00
624.610	2.05	18.57	26.42	41.00	35.20	10.80	46.00
*699.300	2.05	19.06	26.42	45.60	40.29	5.71	46.00

Note:

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

5.7. Test Result of Band Edge

Product : Access Point
 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 (11Mbps)	<2400	>20	Pass

Figure Channel 1: 1Mbps

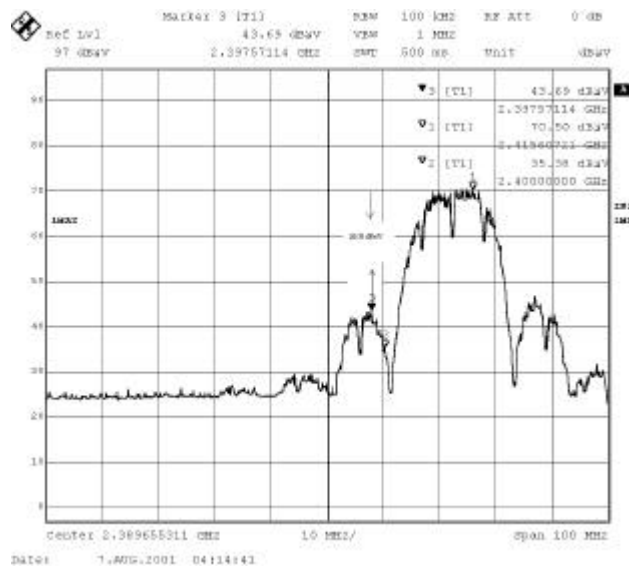
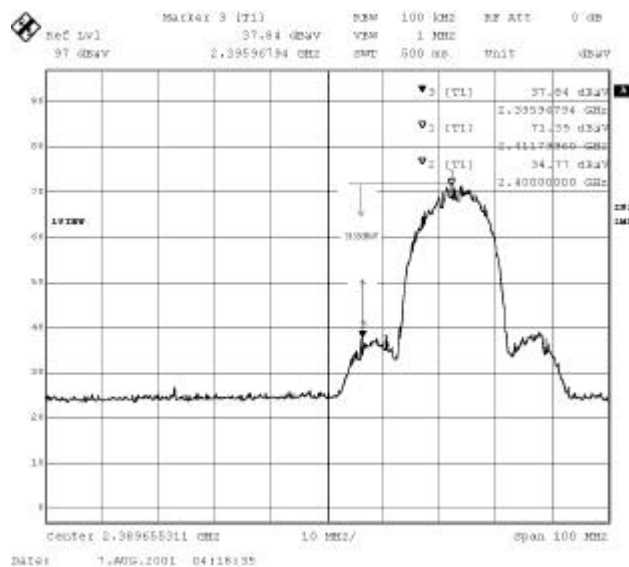


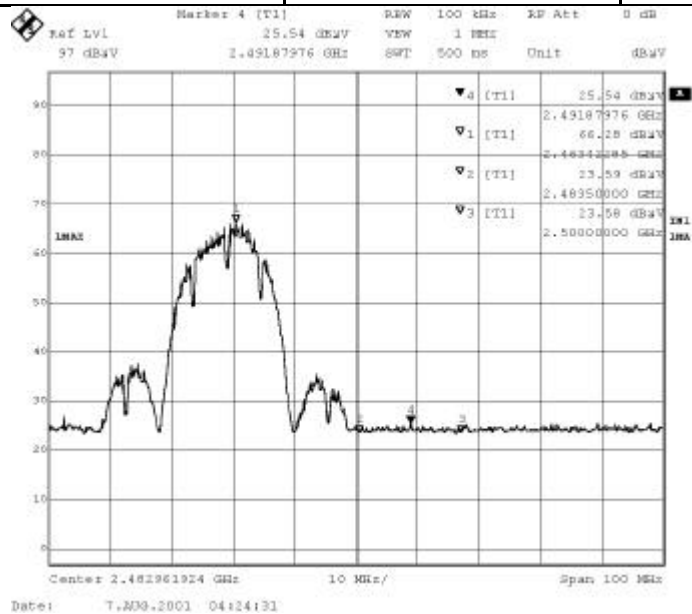
Figure Channel 1:11Mbps



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

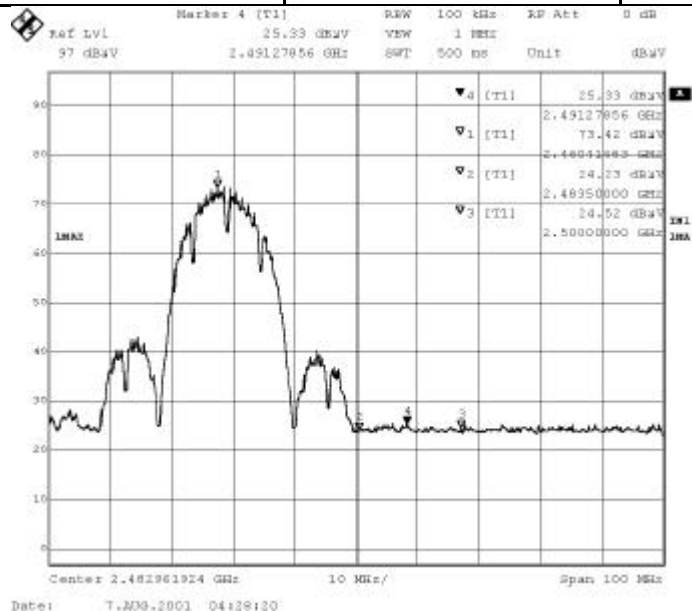
Band Edge-1 Mbps (Horizontal)

Frequency (MHz).	Reading (dBuV)	Measure (dBuV/m)	Result
2491.87	25.54	52.95	Pass



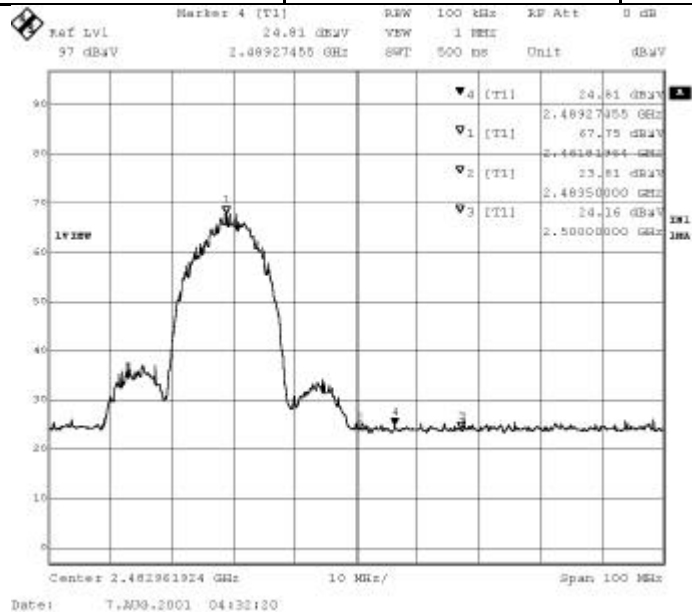
Band Edge-1 Mbps (Vertical)

Frequency (MHz).	Reading (dBuV)	Measure (dBuV/m)	Result
2483.767	48.32	50.77	Pass



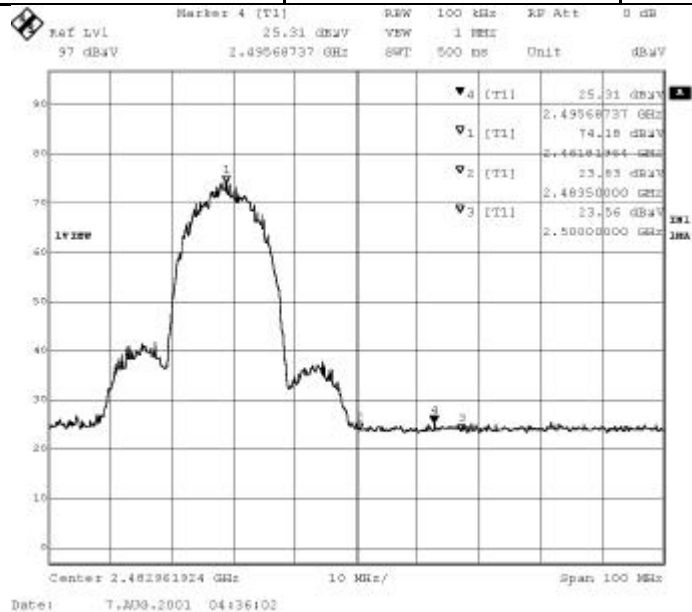
Band Edge-11 Mbps (Horizontal)

Frequency (MHz).	Reading (dBuV)	Measure (dBuV/m)	Result
2489.27	24.81	52.22	Pass



Band Edge-11 Mbps (Vertical)

Frequency (MHz).	Reading (dBuV)	Measure (dBuV/m)	Result
2495.68	25.31	50.71	Pass



6. Occupied Bandwidth

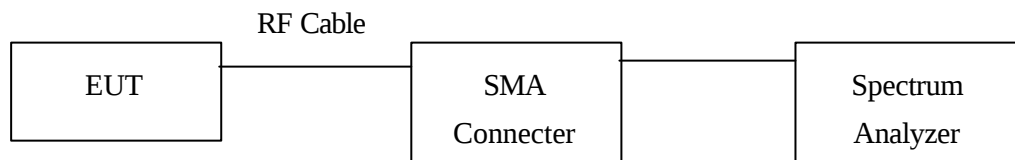
6.1. Test Equipment

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	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 Requirement

The minimum bandwidth shall be at least 500kHz.

6.5. Test Result of Occupied Bandwidth

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

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (kHz)	Result
1 (1Mbps)	2412.4789	10.96181	>500	Pass
1 (11Mbps)	2412.4789	11.60035	>500	Pass

Figure Channel 1: 1Mbps

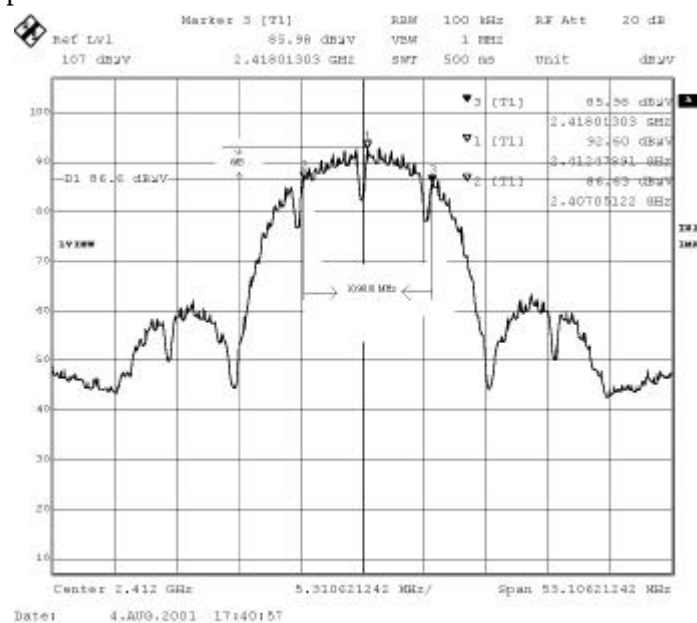
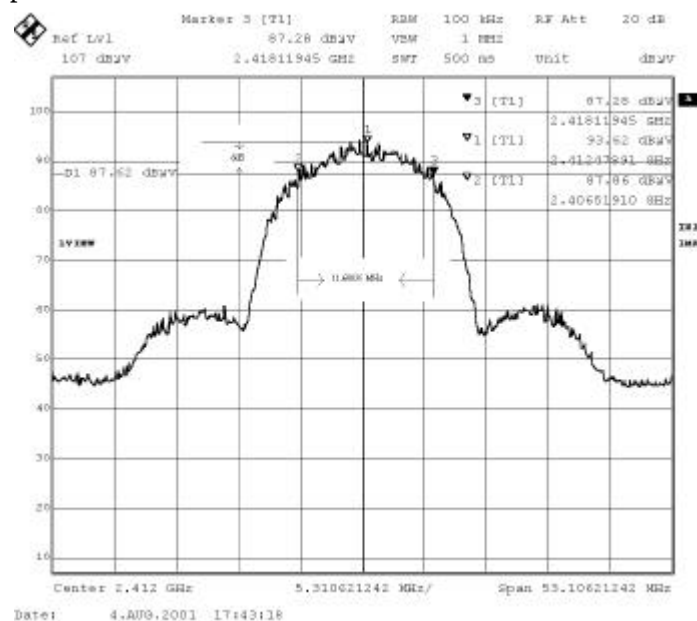


Figure Channel 1: 11Mbps



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

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (kHz)	Result
6 (1Mbps)	2437.5511	11.02204	>500	Pass
6 (11Mbps)	2436.7495	11.52304	>500	Pass

Figure Channel 6: 1Mbps

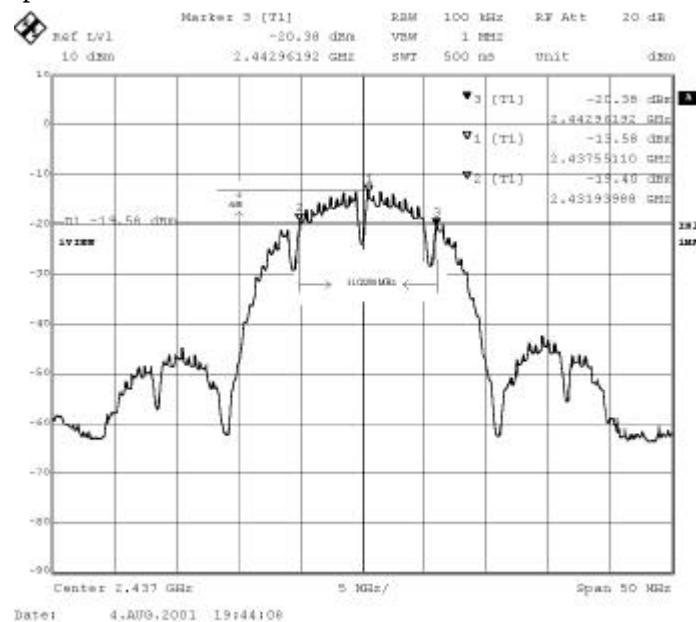
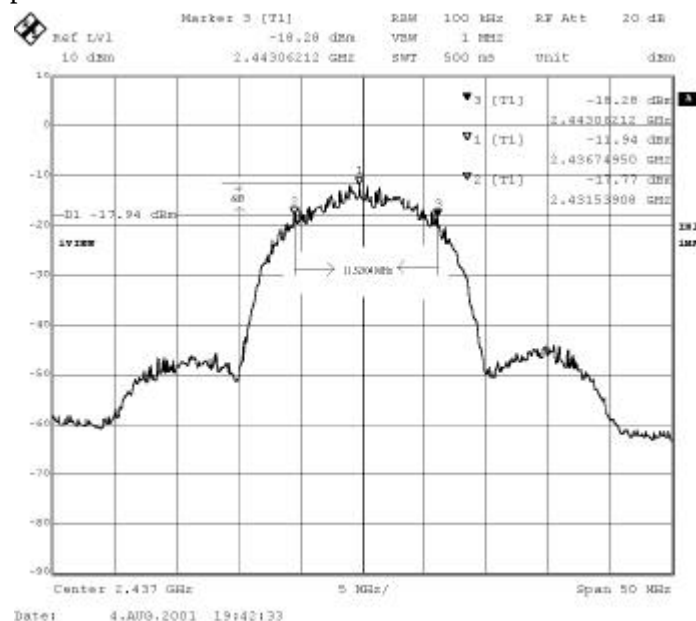


Figure Channel 6: 11Mbps



Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.1 OATS
 Test Mode : Channel 11

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (kHz)	Result
11 (1Mbps)	2461.4639	10.21682	>500	Pass
11 (11Mbps)	2461.7832	10.74895	>500	Pass

Figure Channel 11: 1Mbps

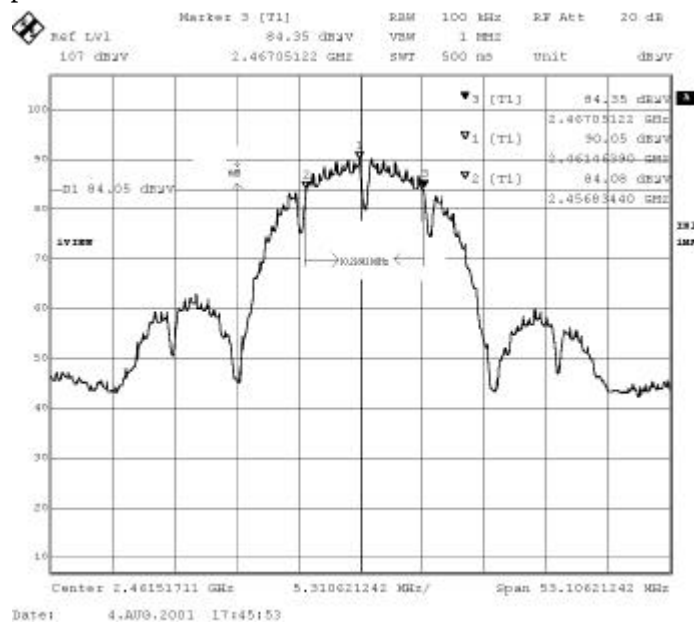
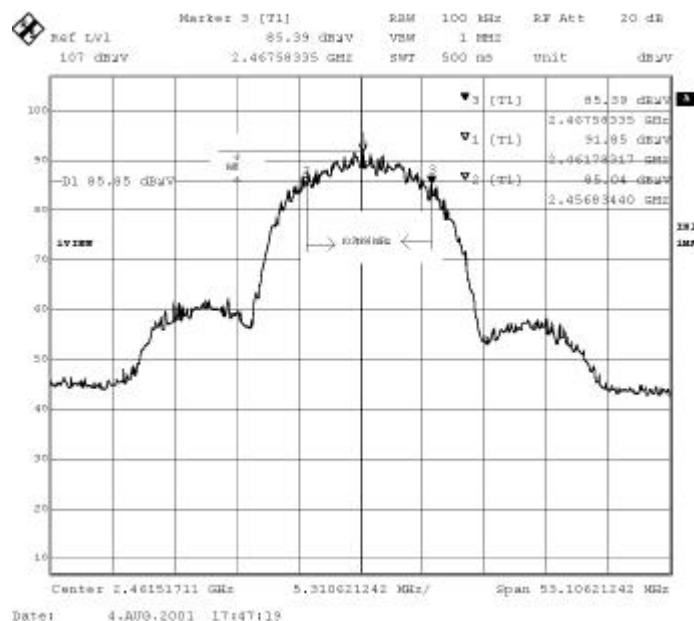


Figure Channel 11: 11Mbps



7. Transmitter Power Density

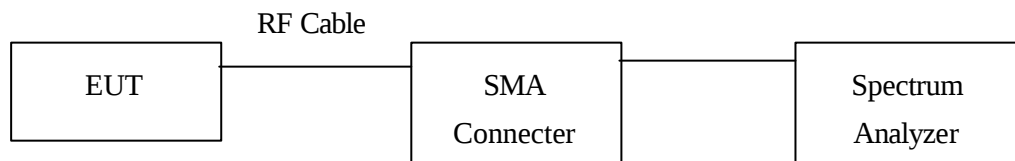
7.1. Test Equipment

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.

7.2. Test Setup



7.3. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

7.4. Standard Requirement

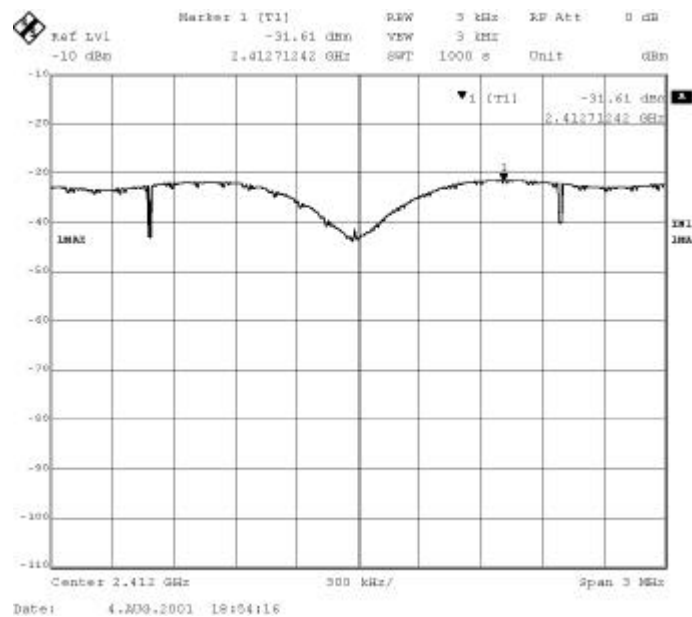
The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

7.5. Test Result of Transmitter Power Density

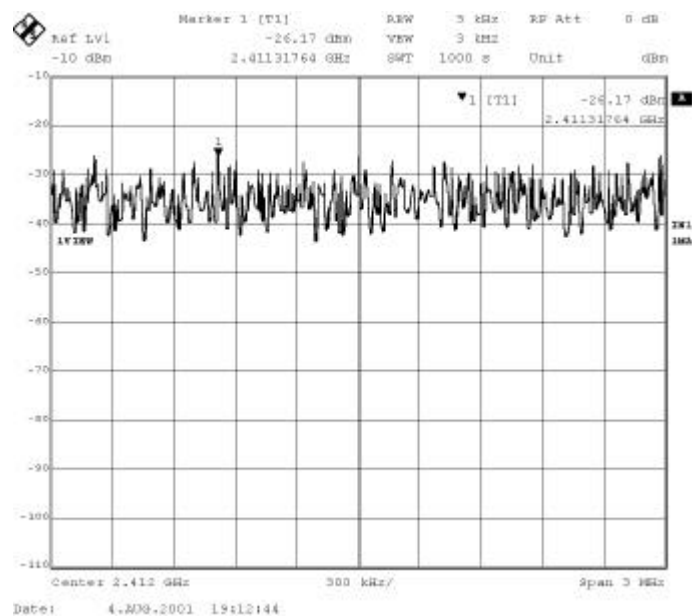
Product : Access Point
 Test Item : Transmitter Power Density Data
 Test Site : No.1 OATS
 Test Mode : Normal Operation

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
1 (1Mbps)	2412.7124	-31.61dBm	< 8dBm	Pass
1 (11Mbps)	2411.3176	-26.17dBm	< 8dBm	Pass

1Mbps



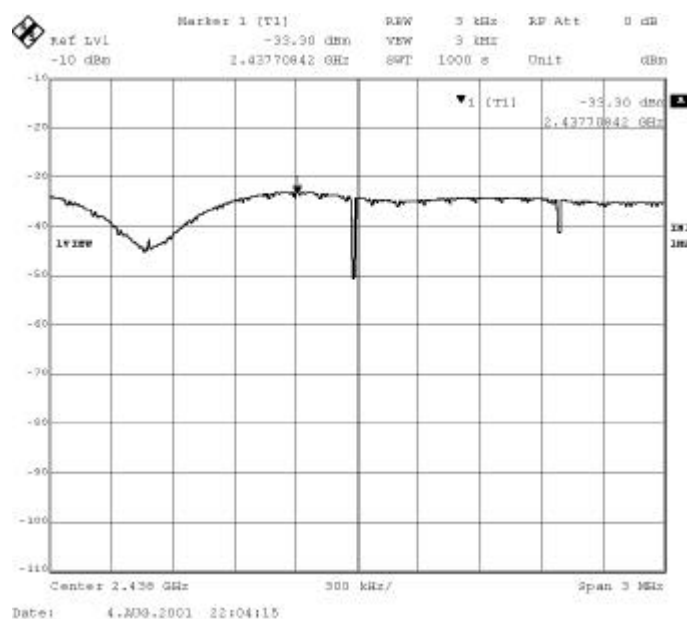
11Mbps



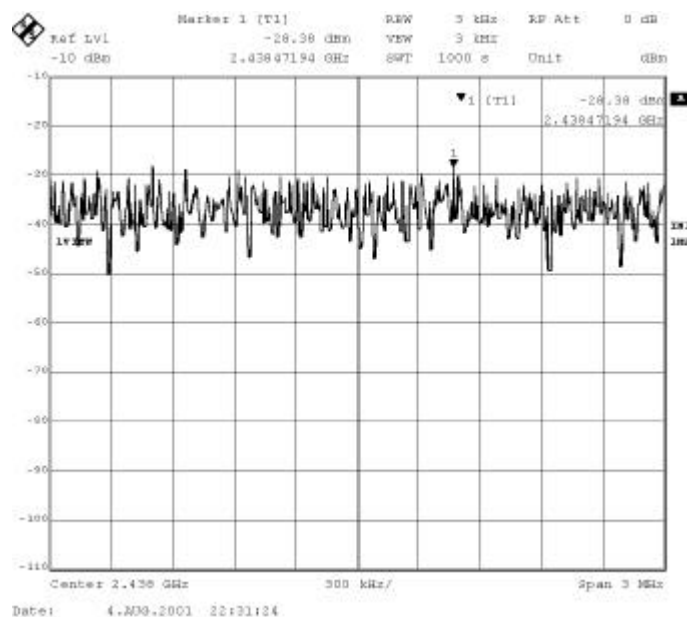
Product : Access Point
 Test Item : Transmitter Power Density Data
 Test Site : No.1 OATS
 Test Mode : Normal Operation

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6 (1Mbps)	2437.7084	-33.30dBm	< 8dBm	Pass
6 (11Mbps)	2438.7194	-28.38dBm	< 8dBm	Pass

1Mbps



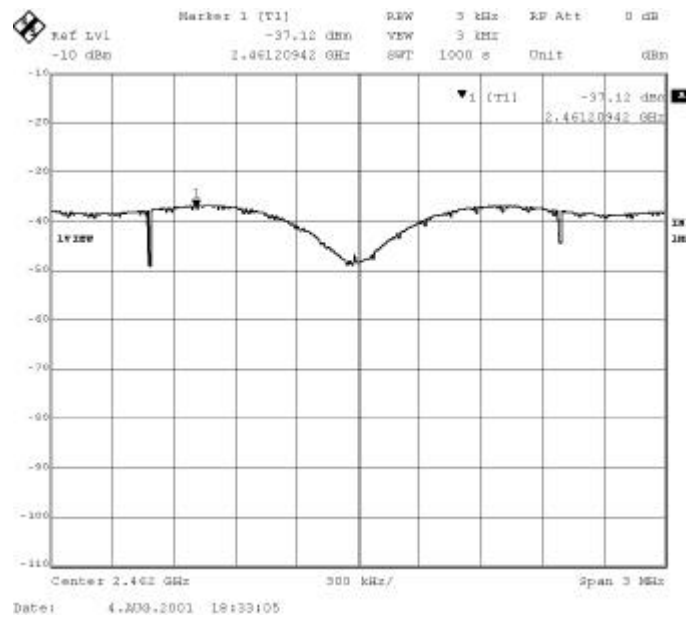
11Mbps



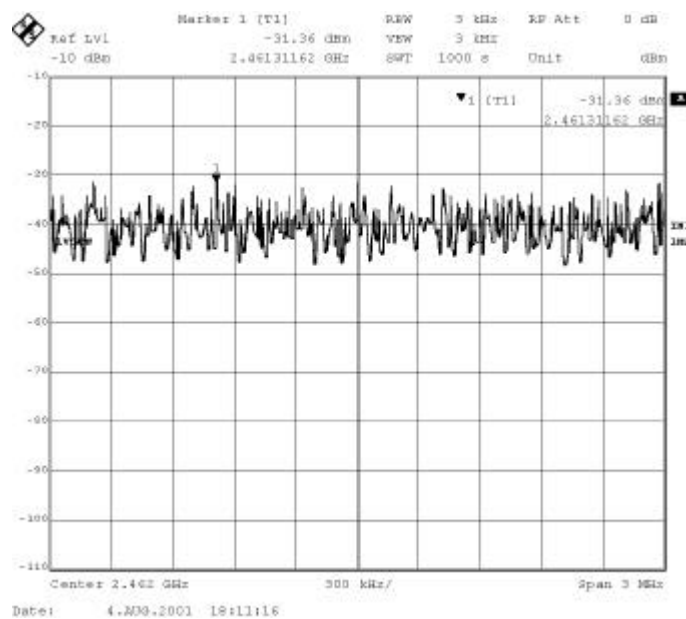
Product : Access Point
 Test Item : Transmitter Power Density Data
 Test Site : No.1 OATS
 Test Mode : Normal Operation

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11 (1Mbps)	2461.2094	-37.12dBm	< 8dBm	Pass
11 (11Mbps)	2461.3116	-31.36dBm	< 8dBm	Pass

1Mbps

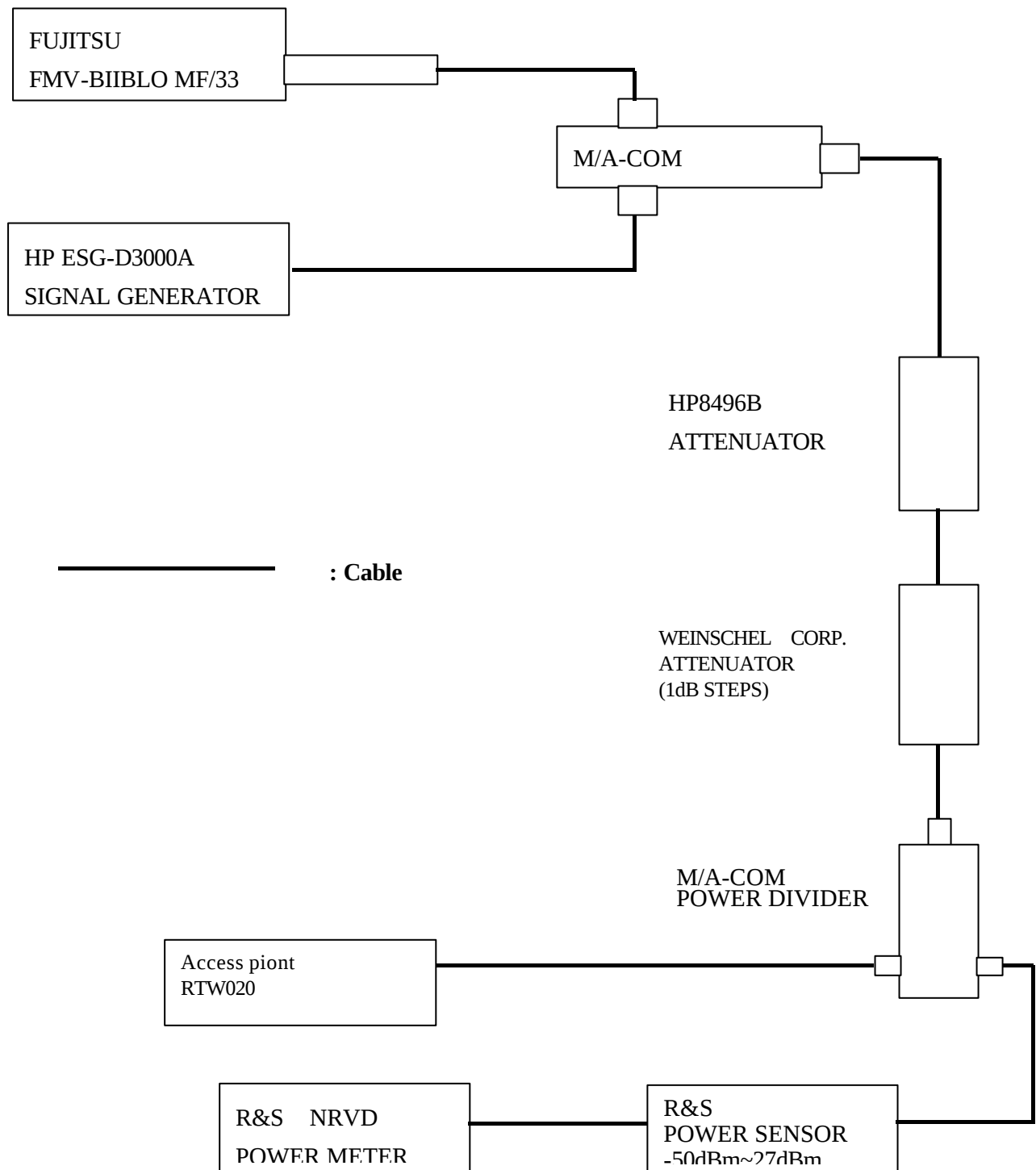


11Mbps



8. Processing Gain

8.1. Test Setup



8.2. Test Condition

Standard Temperature and Humidity, Standard Test Voltage. Test condition as follows:

Transmitter Signal Level at Rx = -40.5 dBm
 Firmware = 1.4f.8
 Transmit Data rate = 11Mbps @CH1=2412MHz, CH6=2437MHz,
 Measure Range = central frequency +/- 2MHz
 Packet size = 1000 bytes
 Intersil Chip versions on card : HFA3983 , HFA3683A ,
 AT76C510
 All Test Data is under 8% Frame Error Rate

8.3. Minimum Standard

The processing gain shall be at least 10 dB.

8.4. Method of Measurement

The processing gain of this spread spectrum was measured the CW jamming method. The Section 9.1 illustrates the measurement setup. The output power of the spread spectrum transmitter is fixed and the output power of jammer is adjustable. The frequency of jammer was stepped through the pass band of nominal channel in 50kHz steps. In each frequency step of the jammer, the output power of jammer is adjusted to cause the Bit Error Rate (BER) to be 1.0×10^{-6} . The power levels are recorded to calculate the J/S as shown in Table 1.

8.5. Calculation of Processing Gain:

The processing gain was determined by measuring the jamming margin of the EUT and using the following formula:

$$G_p = (S/N)_o + M_j + L_{sys}$$

Where $(S/N)_o$ is the required signal to noise ratio at the receiver output

M_j is the jammer to signal ratio (J/S)

L_{sys} is the system loss

The $(S/N)_o$ is calculated from:

$$P_e = 1/2 \exp(-1/2(S/N)_o) \quad ; P_e = \text{probability of error (BER)}$$

For the $P_e(\text{BER}) = 1.0 \times 10^{-6}$, the required $(S/N)_o$ is 14.2dB

From Measurement, the minimum J/S(M_j) is -3.4dB

We assume the system loss is 1dB.

Therefore the processing gain is calculated below:

$$G_p = (S/N)_o + M_j + L_{sys} = 14.2 + (-3.4) + 1 = 11.8 \text{ (dB)}$$

8.6. Test Result of Processing Gain

Product : Access Point
 Test Item : Processing Gain Data
 Test Site : No.1 OATS
 Test Mode : Normal Operation (Channel 1-1Mbps)

Freq. (GHz)	Gp (dB)	(S/N)o (dB)	Mj=J/S (dB)	Lsys (dB)	Jammer (dBm)
2.41	11.2	16.4	-7.2	2	-47.7
2.4101	11.4	16.4	-7	2	-47.5
2.4102	11.6	16.4	-6.8	2	-47.3
2.4103	11.5	16.4	-6.9	2	-47.4
2.4104	11.5	16.4	-6.9	2	-47.4
2.4105	11.5	16.4	-6.9	2	-47.4
2.4106	11.5	16.4	-6.9	2	-47.4
2.4107	11.5	16.4	-6.9	2	-47.4
2.4108	11.8	16.4	-6.6	2	-47.1
2.4109	11.9	16.4	-6.5	2	-47
2.411	12.1	16.4	-6.3	2	-46.8
2.4111	12.1	16.4	-6.3	2	-46.8
2.4112	12.1	16.4	-6.3	2	-46.8
2.4113	11.9	16.4	-6.5	2	-47
2.4114	12.1	16.4	-6.3	2	-46.8
2.4115	12.1	16.4	-6.3	2	-46.8
2.4116	12.4	16.4	-6	2	-46.5
2.4117	12.5	16.4	-5.9	2	-46.4
2.4118	12.7	16.4	-5.7	2	-46.2
2.4119	12.6	16.4	-5.8	2	-46.3
2.412	12.6	16.4	-5.8	2	-46.3
2.4121	12.5	16.4	-5.9	2	-46.4
2.4122	12.6	16.4	-5.8	2	-46.3
2.4123	12.6	16.4	-5.8	2	-46.3
2.4124	12.6	16.4	-5.8	2	-46.3
2.4125	12.2	16.4	-6.2	2	-46.7
2.4126	12.2	16.4	-6.2	2	-46.7
2.4127	12.1	16.4	-6.3	2	-46.8
2.4128	11.8	16.4	-6.6	2	-47.1
2.4129	11.8	16.4	-6.6	2	-47.1
2.413	11.6	16.4	-6.8	2	-47.3
2.4131	11.6	16.4	-6.8	2	-47.3
2.4132	11.6	16.4	-6.8	2	-47.3
2.4133	11.6	16.4	-6.8	2	-47.3
2.4134	11.5	16.4	-6.9	2	-47.4
2.4135	11.5	16.4	-6.9	2	-47.4
2.4136	11.4	16.4	-7	2	-47.5
2.4137	11.4	16.4	-7	2	-47.5
2.4138	11.3	16.4	-7.1	2	-47.6
2.4139	11.2	16.4	-7.2	2	-47.7
2.414	11.1	16.4	-7.3	2	-47.8

Product : Access Point
 Test Item : Processing Gain Data
 Test Site : No.1 OATS
 Test Mode : Normal Operation (Channel 1-11Mbps)

Freq. (GHz)	Gp (dB)	(S/N)o (dB)	Mj=J/S (dB)	Lsys (dB)	Jammer (dBm)
2.41	11.2	16.4	-7.2	2	-47.7
2.4101	11.4	16.4	-7	2	-47.5
2.4102	11.6	16.4	-6.8	2	-47.3
2.4103	11.5	16.4	-6.9	2	-47.4
2.4104	11.5	16.4	-6.9	2	-47.4
2.4105	11.5	16.4	-6.9	2	-47.4
2.4106	11.5	16.4	-6.9	2	-47.4
2.4107	11.5	16.4	-6.9	2	-47.4
2.4108	11.8	16.4	-6.6	2	-47.1
2.4109	11.9	16.4	-6.5	2	-47
2.411	12.1	16.4	-6.3	2	-46.8
2.4111	12.1	16.4	-6.3	2	-46.8
2.4112	12.1	16.4	-6.3	2	-46.8
2.4113	11.9	16.4	-6.5	2	-47
2.4114	12.1	16.4	-6.3	2	-46.8
2.4115	12.1	16.4	-6.3	2	-46.8
2.4116	12.4	16.4	-6	2	-46.5
2.4117	12.5	16.4	-5.9	2	-46.4
2.4118	12.7	16.4	-5.7	2	-46.2
2.4119	12.6	16.4	-5.8	2	-46.3
2.412	12.6	16.4	-5.8	2	-46.3
2.4121	12.5	16.4	-5.9	2	-46.4
2.4122	12.6	16.4	-5.8	2	-46.3
2.4123	12.6	16.4	-5.8	2	-46.3
2.4124	12.6	16.4	-5.8	2	-46.3
2.4125	12.2	16.4	-6.2	2	-46.7
2.4126	12.2	16.4	-6.2	2	-46.7
2.4127	12.1	16.4	-6.3	2	-46.8
2.4128	11.8	16.4	-6.6	2	-47.1
2.4129	11.8	16.4	-6.6	2	-47.1
2.413	11.6	16.4	-6.8	2	-47.3
2.4131	11.6	16.4	-6.8	2	-47.3
2.4132	11.6	16.4	-6.8	2	-47.3
2.4133	11.6	16.4	-6.8	2	-47.3
2.4134	11.5	16.4	-6.9	2	-47.4
2.4135	11.5	16.4	-6.9	2	-47.4
2.4136	11.4	16.4	-7	2	-47.5
2.4137	11.4	16.4	-7	2	-47.5
2.4138	11.3	16.4	-7.1	2	-47.6
2.4139	11.2	16.4	-7.2	2	-47.7
2.414	11.1	16.4	-7.3	2	-47.8

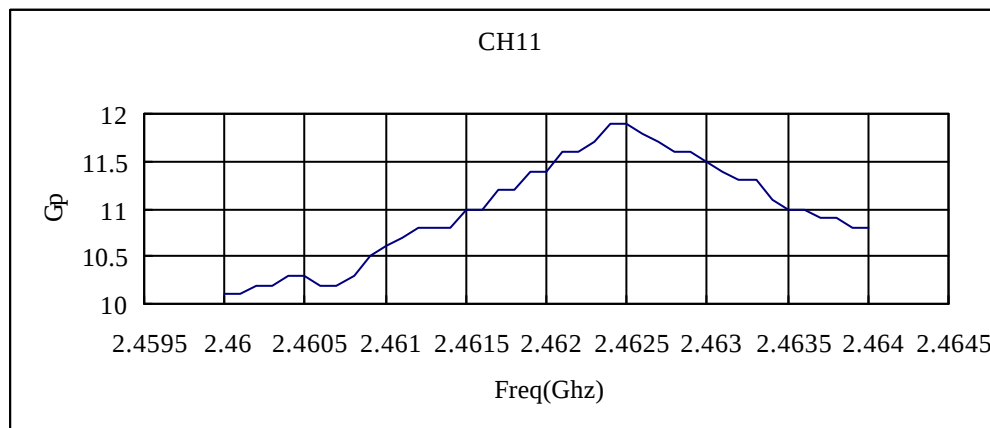
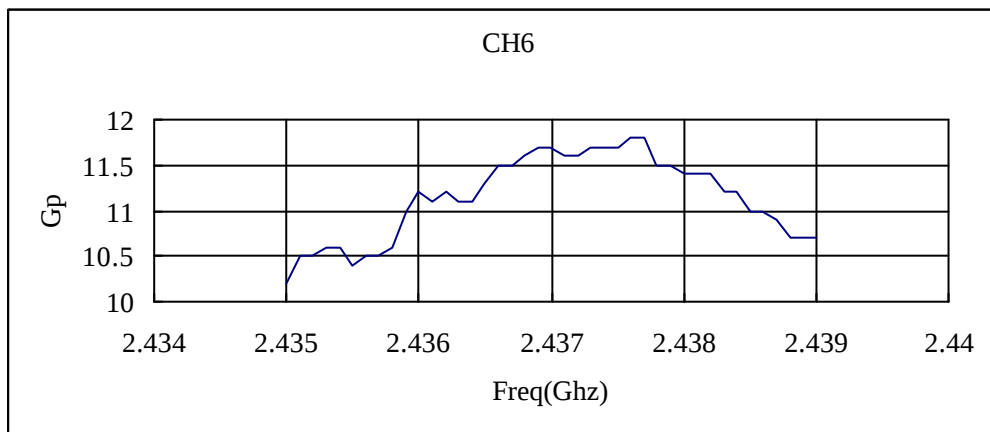
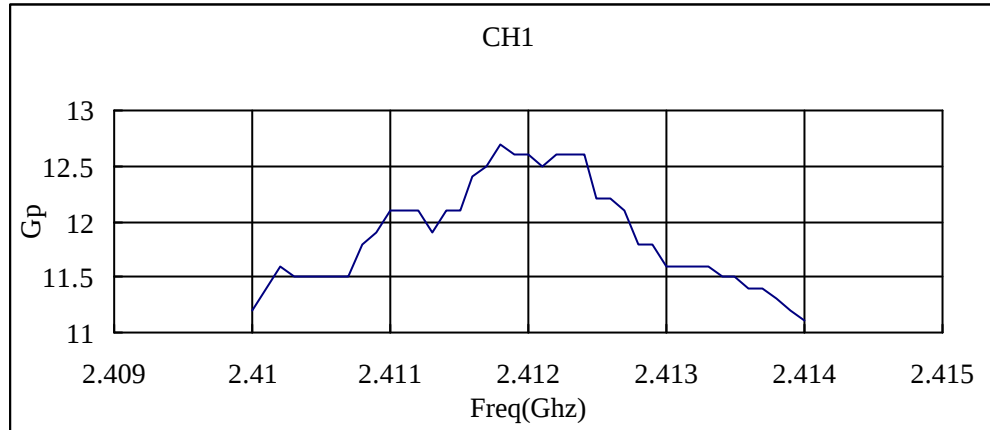
Product : Access Point
 Test Item : Processing Gain Data
 Test Site : No.1 OATS
 Test Mode : Normal Operation (Channel 6-11Mbps)

Freq. (GHz)	Gp (dB)	(S/N)o (dB)	Mj=J/S (dB)	Lsys (dB)	Jammer (dBm)
2.435	10.2	16.4	-8.2	2	-48.7
2.4351	10.5	16.4	-7.9	2	-48.4
2.4352	10.5	16.4	-7.9	2	-48.4
2.4353	10.6	16.4	-7.8	2	-48.3
2.4354	10.6	16.4	-7.8	2	-48.3
2.4355	10.4	16.4	-8	2	-48.5
2.4356	10.5	16.4	-7.9	2	-48.4
2.4357	10.5	16.4	-7.9	2	-48.4
2.4358	10.6	16.4	-7.8	2	-48.3
2.4359	11	16.4	-7.4	2	-47.9
2.436	11.2	16.4	-7.2	2	-47.7
2.4361	11.1	16.4	-7.3	2	-47.8
2.4362	11.2	16.4	-7.2	2	-47.7
2.4363	11.1	16.4	-7.3	2	-47.8
2.4364	11.1	16.4	-7.3	2	-47.8
2.4365	11.3	16.4	-7.1	2	-47.6
2.4366	11.5	16.4	-6.9	2	-47.4
2.4367	11.5	16.4	-6.9	2	-47.4
2.4368	11.6	16.4	-6.8	2	-47.3
2.4369	11.7	16.4	-6.7	2	-47.2
2.437	11.7	16.4	-6.7	2	-47.2
2.4371	11.6	16.4	-6.8	2	-47.3
2.4372	11.6	16.4	-6.8	2	-47.3
2.4373	11.7	16.4	-6.7	2	-47.2
2.4374	11.7	16.4	-6.7	2	-47.2
2.4375	11.7	16.4	-6.7	2	-47.2
2.4376	11.8	16.4	-6.6	2	-47.1
2.4377	11.8	16.4	-6.6	2	-47.1
2.4378	11.5	16.4	-6.9	2	-47.4
2.4379	11.5	16.4	-6.9	2	-47.4
2.438	11.4	16.4	-7	2	-47.5
2.4381	11.4	16.4	-7	2	-47.5
2.4382	11.4	16.4	-7	2	-47.5
2.4383	11.2	16.4	-7.2	2	-47.7
2.4384	11.2	16.4	-7.2	2	-47.7
2.4385	11	16.4	-7.4	2	-47.9
2.4386	11	16.4	-7.4	2	-47.9
2.4387	10.9	16.4	-7.5	2	-48
2.4388	10.7	16.4	-7.7	2	-48.2
2.4389	10.7	16.4	-7.7	2	-48.2
2.439	10.7	16.4	-7.7	2	-48.2

Product : Access Point
 Test Item : Processing Gain Data
 Test Site : No.1 OATS
 Test Mode : Normal Operation (Channel 11-11Mbps)

Freq. (GHz)	Gp (dB)	(S/N)o (dB)	Mj=J/S (dB)	Lsys (dB)	Jammer (dBm)
2.46	10.1	16.4	-8.3	2	-48.8
2.4601	10.1	16.4	-8.3	2	-48.8
2.4602	10.2	16.4	-8.2	2	-48.7
2.4603	10.2	16.4	-8.2	2	-48.7
2.4604	10.3	16.4	-8.1	2	-48.6
2.4605	10.3	16.4	-8.1	2	-48.6
2.4606	10.2	16.4	-8.2	2	-48.7
2.4607	10.2	16.4	-8.2	2	-48.7
2.4608	10.3	16.4	-8.1	2	-48.6
2.4609	10.5	16.4	-7.9	2	-48.4
2.461	10.6	16.4	-7.8	2	-48.3
2.4611	10.7	16.4	-7.7	2	-48.2
2.4612	10.8	16.4	-7.6	2	-48.1
2.4613	10.8	16.4	-7.6	2	-48.1
2.4614	10.8	16.4	-7.6	2	-48.1
2.4615	11	16.4	-7.4	2	-47.9
2.4616	11	16.4	-7.4	2	-47.9
2.4617	11.2	16.4	-7.2	2	-47.7
2.4618	11.2	16.4	-7.2	2	-47.7
2.4619	11.4	16.4	-7	2	-47.5
2.462	11.4	16.4	-7	2	-47.5
2.4621	11.6	16.4	-6.8	2	-47.3
2.4622	11.6	16.4	-6.8	2	-47.3
2.4623	11.7	16.4	-6.7	2	-47.2
2.4624	11.9	16.4	-6.5	2	-47
2.4625	11.9	16.4	-6.5	2	-47
2.4626	11.8	16.4	-6.6	2	-47.1
2.4627	11.7	16.4	-6.7	2	-47.2
2.4628	11.6	16.4	-6.8	2	-47.3
2.4629	11.6	16.4	-6.8	2	-47.3
2.463	11.5	16.4	-6.9	2	-47.4
2.4631	11.4	16.4	-7	2	-47.5
2.4632	11.3	16.4	-7.1	2	-47.6
2.4633	11.3	16.4	-7.1	2	-47.6
2.4634	11.1	16.4	-7.3	2	-47.8
2.4635	11	16.4	-7.4	2	-47.9
2.4636	11	16.4	-7.4	2	-47.9
2.4637	10.9	16.4	-7.5	2	-48
2.4638	10.9	16.4	-7.5	2	-48
2.4639	10.8	16.4	-7.6	2	-48.1
2.464	10.8	16.4	-7.6	2	-48.1

Product : Access Point
 Test Item : Processing Gain Data (Figure)
 Test Site : No.1 OATS
 Test Mode : Normal Operation



9. EMI Reduction Method During Compliance Testing

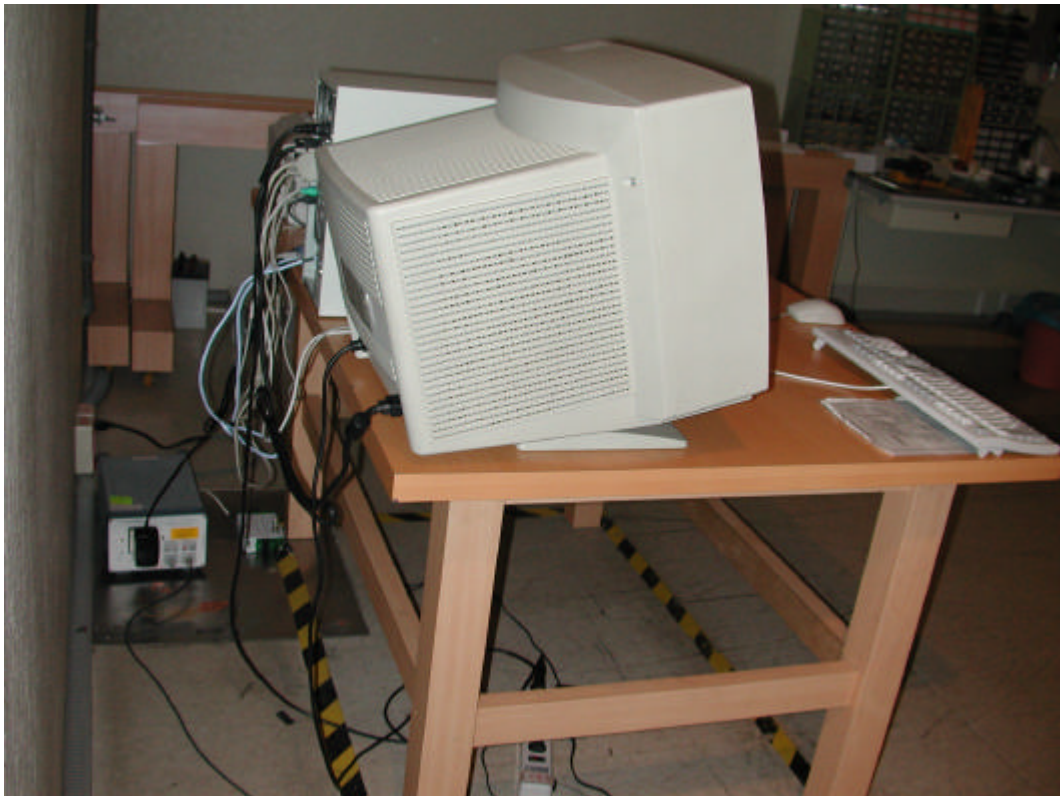
No modification was made during testing.

Attachment 1: EUT Test Setup Photographs

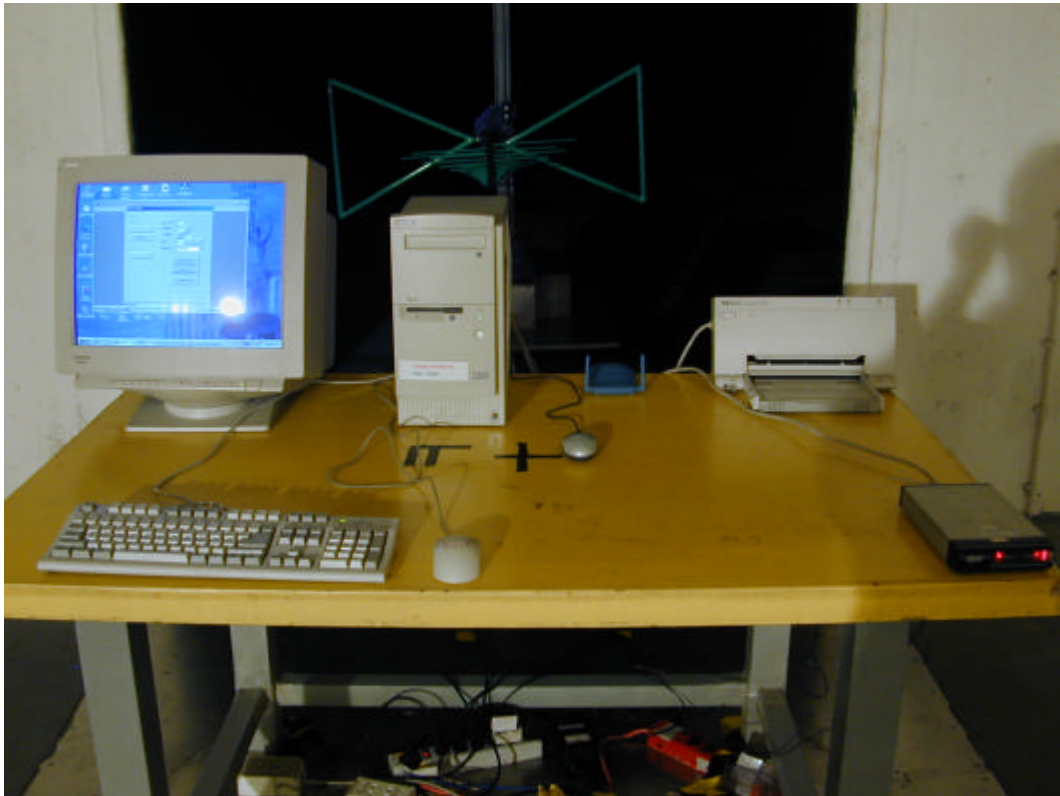
Front View of Conducted Test



Back View of Conducted Test



Front View of Radiated Test



Back View of Radiated Test



Front View of Radiated Test (Horn)

