

TEST REPORT

Test Report No.: 7265FC-2

Applicant : CANON INC.
EUT : Wireless LAN Module
Model No. : K30306
Serial No. : D6E750
FCC ID : AZDK30306
Issue Date : 19 June 2008
Date of Test : 19, 24, 25 March, 1-3 April 2008 (Radiated Emission Test)
24 March 2008 (Conducted Emission Test)
9, 14 April 2008 (Conducted RF Test via Antenna Terminal)
Test Standard : FCC Part 15 Subpart C § 15.207, 15.247 (10-1-07 Edition)
Procedure : ANSI C63.4-2003 PUBLIC NOTICE DA 00-705
Measurement of Digital Transmission System Operating
under § 15.247 (23 March 2005)
Test Results : PASS



NVLAP LAB CODE 200607-0

Approved By:


Manager / Kenzo Furuta

Reviewed By:


Chief Engineer / Takeshi Matsumura

Tested By:


Engineer / Yukihito Minegishi

:


Engineer / Kentaro Fukuda

Table of Contents

Revised Record	3
1 Test Report	4
2 General Information	4
2.1 Applicant Information	4
2.2 Product Description	4
2.3 Summary of Test and Inspection Result	5
2.4 Test Methodology	6
2.5 Test Facility	6
3 System Test Configuration	7
3.1 Justification	7
3.2 Operating Modes	8
3.3 Configuration of Tested System	9
3.4 Test Instruments	13
3.5 Special Test Condition	13
3.6 Equipment Modifications	13
4 Antenna Requirement	14
5 AC Powerline Conducted Emission	15
5.1 Test Setup	15
5.2 Conducted Emission Calculation	16
5.3 Test Results	17
6 6dB Bandwidth	23
6.1 Test Setup	23
6.2 Test Results	23
7 Maximum Peak Output Power	26
7.1 Test Setup	26
7.2 Test Results	26
8 Band Edge Compliance	27
8.1 Test Setup	27
8.2 Test Results	27
9 Spurious RF Conducted Emission	30
9.1 Test Setup	30
9.2 Test Results	30
10 Radiated Emission	43
10.1 Test Setup	43
10.2 Radiated Emission Calculation	43
10.3 Test Results	44
11 Peak Power Spectral Density	80
11.1 Test Setup	80
11.2 Test Results	80
12 Radiofrequency Radiation Exposure Evaluation	83
13 Photos of Tested EUT and Test Setup	84
Appendix 1: Certificate of Accreditation	85
Appendix 2: Test Instruments	86

Revised Record

Revised Record				
Number of Revised Time	Date	Person in Charge	Detail of Revision	Approved By
Initial	5 June 2008	K. Fukuda	-	K. Furuta
Δ1	19 June 2008	K. Fukuda	Addition of description (Page 43)	K. Furuta

1 Test Report

- (1) This report summarizes the result of a single investigation and test result relate only to tested sample.
- (2) The report shall not be reproduced except in full without the written approval of the TAIYO YUDEN Co., Ltd.
- (3) This test report must not be used by the client to claim product endorsement by any government agency.
- (4) We hereby certify that no party to the applications authorized hereunder is subject to a denial of benefits, including FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C 853(a).
- (5) The test results in this report are traceable to international standards.

2 General Information

2.1 Applicant Information

Company Name	CANON INC.
Address	451, Tsukagoshi 3-chome, Saiwai-ku, Kawasaki-shi, Kanagawa 212-8530, Japan

2.2 Product Description

EUT	Wireless LAN Module
Model No.	K30306
Serial No.	D6E750
FCC ID	AZDK30306
Production Stage	Pre-Production
Type of Wide Band Modulation	DSSS for 11b, OFDM for 11g
Type of Modulation	DBPSK (1Mbps), DQPSK (2Mbps) and CCK (5.5/11Mbps) for 11b BPSK (6/9Mbps), QPSK (12/18Mbps), 16QAM (24/36Mbps) and 64QAM (48/54Mbps) for 11g
ITU Code	D1D, G1D
Power Supply	DC 3.27V
Operating Voltage Range	DC 2.943V Min. DC 3.597V Max.
AC Adaptor	-
Operating Temperature Range	-5°C Min. +55°CMax.
Weight	6.6g
Dimensions of EUT	W 32mm × D 40mm × H 7mm
Antenna Type	Monopole
Max Antenna Gain	1.2dBi
Operating Clocks	40MHz
Receipt Date of Tested Sample	17 March 2008

This is a Wireless LAN module which conforms to IEEE802.11b/g Standards and operates in the unlicensed ISM band at 2.4GHz.

2.3 Summary of Test and Inspection Result

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst Margin	Results
1	AC Powerline Conducted Emission	ANSI C63.4: 2003*	FCC 15.207	Conducted Emission Test	N/A	Average: 13.5 dB Frequency: 0.48072MHz Tx & Rx Mode: 2412MHz Printer Model Number: K10325 Type of Modulation: 802.11g (6Mbps) Power Line: L2	Pass
2	6dB Bandwidth		FCC 15.247(a)(2)	Conducted RF Test via Antenna Terminal	N/A	-	Pass
3	Maximum Peak Output Power		FCC 15.247(b)(3)		N/A	-	Pass
4	Band Edge Compliance		FCC 15.247(d)		N/A	-	Pass
5	Spurious RF Conducted Emission		FCC 15.247(d)		N/A	-	Pass
6	Radiated Emission		FCC 15.247(d)	Radiated Emission Test	N/A	Quasi Peak: 2.5 dB Frequency: 240.008MHz Transmitting Mode: 2437MHz PCB Model Number: HN79 MAIN DE2 Type of Modulation: 802.11b (1Mbps) Axial Direction: ZX-Plane Antenna Polarization: Horizontal	Pass
7	Peak Power Spectral Density		FCC 15.247(e)	Conducted RF Test via Antenna Terminal	N/A	-	Pass

*: These tests were also referred to "Measurement of Digital Transmission Systems Operating under Section 15.247" (23 March 2005).

2.4 Test Methodology

Interference measurements were made in accordance with ANSI C63.4: 2003 Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

2.5 Test Facility

TAIYO YUDEN CO., LTD. EMC Center
5607-2, Nakamuroda-machi, Takasaki-shi, Gunma, 370-3347, Japan.

1. FCC 47CFR, Part 15 Subpart C regulation test were performed on the shielded room, and radiated interference field strength test was performed on the 10 meter semi-anechoic chamber located at TAIYO YUDEN CO., LTD. EMC Center, 5607-2 Nakamuroda-machi, Takasaki-shi, Gunma, 370-3347 Japan.
2. This Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) by United States Department of Commerce, National Institute of Standard and Technology (NIST) for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations.
3. These criteria encompass the requirements of ISO/IEC 17025:2005 and the relevant requirements of ISO 9002:1994 as suppliers of calibration or test results. Accreditation awarded for specific services, listed on the Scope of Accreditation for: Electromagnetic Compatibility and Telecommunications FCC. (NVLAP LAB CODE: 200607-0). Refer the certificate of the accreditation to Appendix 2.
4. This laboratory is listed by Federal Communications Commission, Equipment Authorization Division (Registration Number: 606514) and listed by Industry Canada (No.4389A-1).

3 System Test Configuration

3.1 Justification

1. Emission tests were performed with no deviation from the ANSI C63.4: 2003 and FCC 47CFR, Part 15, Section 15.247 regulation tests were performed with no deviation from the FCC Public Notice DA00-705 released March 30, 2000.
2. The system was configured for testing a typical fashion (as a customer would normally use it.).
3. Radiate testing in the range of 1 GHz to 25 GHz was investigated with the spectrum (peak detector function) under the FCC regulation section 15.209 (e) and 15.35 (b). Radiate testing in the range of 18GHz to 25GHz performed at an antenna to EUT distance of 1 meter. The level of any unwanted emissions from EUT did not exceed the level of the fundamental emission (Compliance with 15.209 (c)). And test result found to be compliance with FCC regulation section 15.209 (a) Radiated emission limits (500 micro-volts/meter). Data is presented for the “worst case” measurements, that EUT was normal operated.
4. Radiate testing in the range of 30 MHz to 1000 MHz was performed at an antenna to EUT distance of 3 meters under the 15.209 (e) and 15.31(f)(1).
5. Tests were performed with the representative channel operation as follows.
 - a. Lowest Frequency channel: CH0 2412MHz
 - b. Middle Frequency channel: CH6 2437MHz
 - c. Highest Frequency channel: CH11 2462MHz

3.2 Operating Modes

Transmitting Mode

Modulation	DBPSK (1Mbps) for IEEE 802.11b (DSSS)
	BPSK (6Mbps) for IEEE 802.11g (OFDM)
Representative Channel	CH1 2412MHz (Lowest Frequency Channel)
	CH6 2437MHz (Middle Frequency Channel)
	CH11 2462MHz (Highest Frequency Channel)

Remarks:

Signal Pattern PN9: Pseudo-Noise 2⁹-1

Duty Cycle: 50%

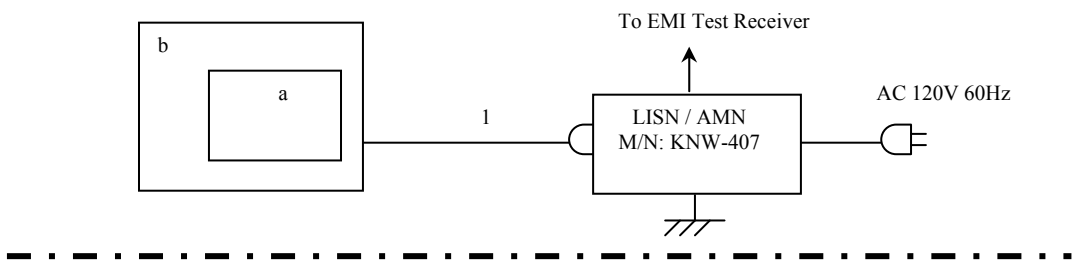
Software (Controller): CG-WLAPGMN software supplied by COREGA was used to set up to the Wireless LAN operating mode at Conducted Emission Test.

USB-8388PN MFG Tool Package version 2.0.1.4 software supplied by Marvell Semiconductor Inc. was used to set up to the wireless LAN operating mode at Radiated Emission Test and Conducted RF Test via Antenna Terminal.

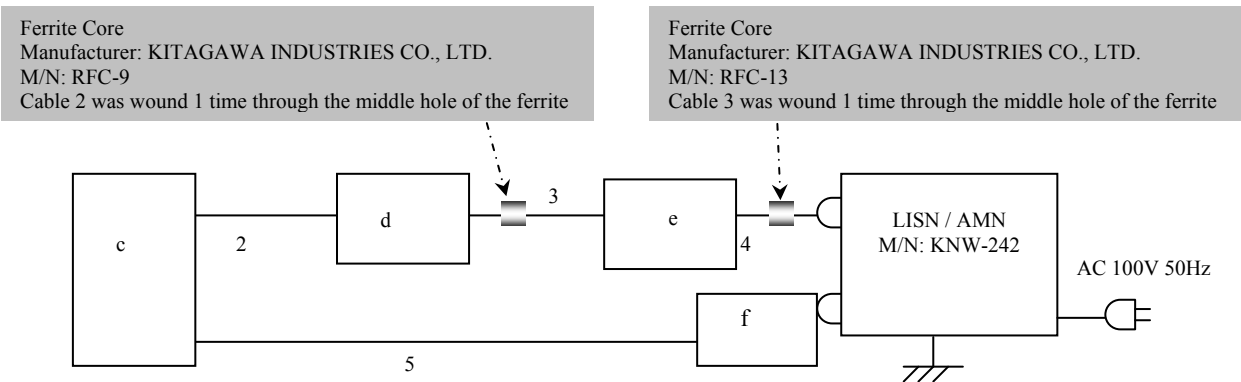
3.3 Configuration of Tested System

(1) Conducted Emission Test

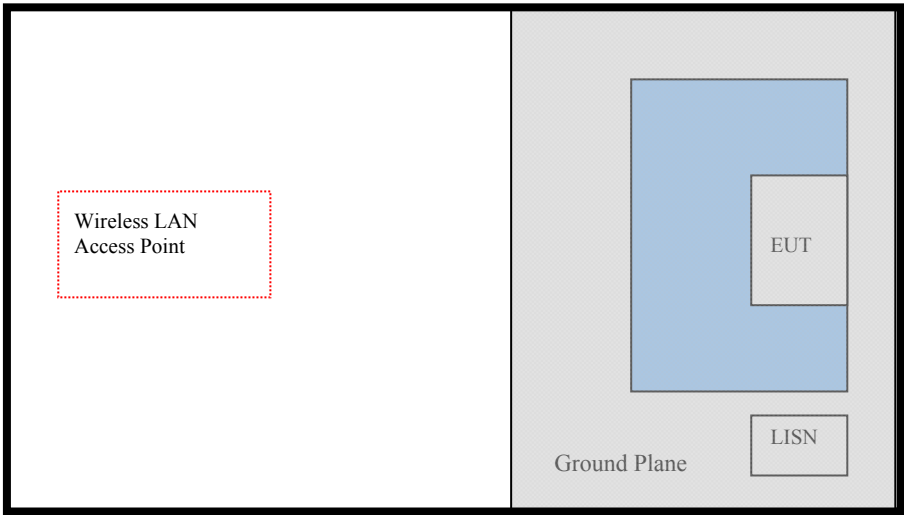
These numbers and the marks in the picture are corresponding to the numbers and the marks in Tables shown.



Wireless LAN Access Point



Position of Wireless LAN Access Point in Shielded Room (Top View)



List of EUT and Accessories

	Product Name	M/N	S/N	Manufacturer	EUT / Accessory	FCC ID / DoC / Note
a	Wireless LAN Module	K30306	D6E750	TAIYO YUDEN CO., LTD	EUT	AZDK30306
b	Printer	K10325	No.1	CANON Inc.	Accessory	*
		K10327	No.2			
c	Wireless LAN Access Point	CG-WLAPGUN	1037041060500350	corega	Accessory	-
d	Personal Computer	SS30 106 S/2W	Y6016424J	TOSHIBA	Accessory	-
e	AC Adapter for Personal Computer	PA324IU-2ACA	G71C00062210	TOSHIBA	Accessory	-
f	AC Adapter from Access Point	UL110-0520	604-0052053	corega	Accessory	-

Interface Cables

	Cable Type	M/N	Shielded	Ferrite Core	Material of Connector	Length	Treatment for the Extra Length
1	AC Cable	-	No	No	Plastic	1.80m	Fold back and forth in the center
2	LAN Cable	-	No	No	Plastic	1.00m	-
3	DC Cable	-	No	No	Plastic	1.78m	-
4	AC Cable	-	No	No	Plastic	2.00m	-
5	DC Cable	-	No	No	Plastic	1.81m	-

*: EUT (K30306) is installed to following printer.

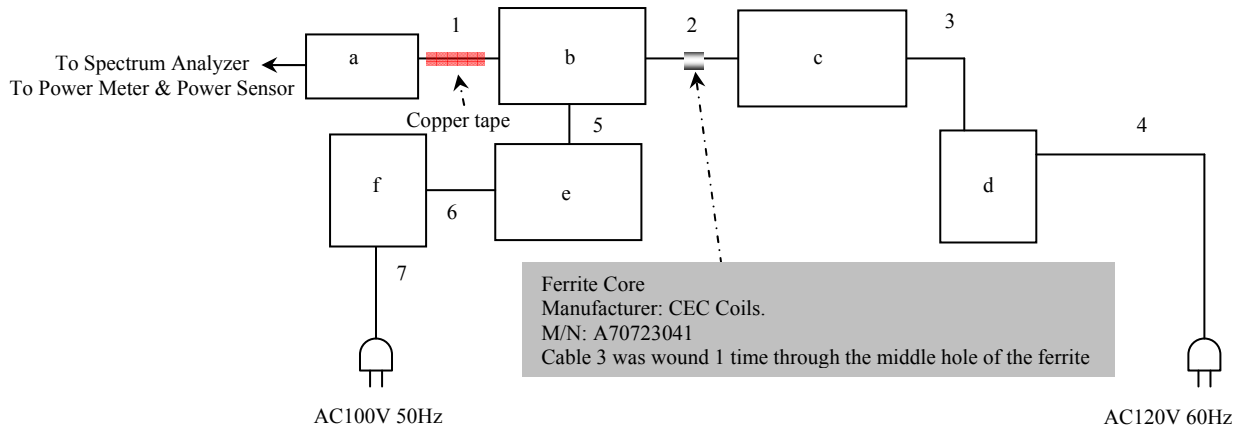
Regulated voltage is provided to EUT from Main PCB of printer.

	Printer Name	Main PCB of Printer	
		M/N	DC/DC Converter IC
1	K10325	HN76 MAIN DE2	TB62247FG
2	K10327	HN79 MAIN DE2	SI-8000TM

(2) Conducted RF Test via Antenna Terminal

These numbers and the marks in the picture are corresponding to the numbers and the marks in Tables shown.

Power Supply of EUT: DC 3.27V from PCB for Power Supply “c”.

**List of EUT and Accessories**

	Product Name	M/N	S/N	Manufacturer	EUT / Accessory	FCC ID / DoC / Note
a	Wireless LAN Module	K30306	D6E750	TAIYO YUDEN CO., LTD.	EUT	AZDK30306
b	Jig	WIRELESS LAN JIG-CARD	10	TAIYO YUDEN CO., LTD.	Accessory	-
c	PCB	HN76 MAIN DE2	0000858A271D	CANON INC.	Accessory	*
		HN79 MAIN DE2	0000858A26B1			
d	AC Adapter	0003	2	CANON INC.	Accessory	-
e	Personal Computer	PP04S	CN-0Y0119-36521-467-2020	DELL	Accessory	-
f	AC Adapter from Personal Computer	PA-1650-05D	CN-05U092-71615-44L-37FA	DELL	Accessory	-

Interface Cables

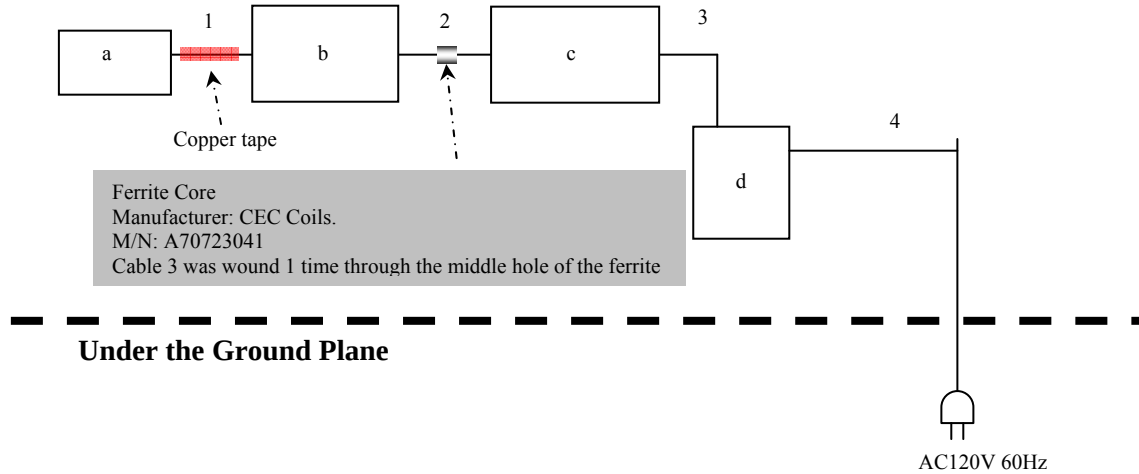
	Cable Type	M/N	Shielded	Ferrite Core	Material of Connector	Length	Treatment for the Extra Length
1	Flat Cable	-	No	No	Plastic	0.10m	-
2	Flat Cable	-	No	No	Plastic	0.11m	-
3	Flat Cable	-	No	Yes	Plastic	0.79m	-
4	AC Cable	-	No	No	Plastic	1.83m	-
5	USB Cable	-	No	No	Plastic	1.00m	-
6	DC Cable	-	No	Yes	Plastic	1.82m	-
7	AC Cable	-	No	No	Plastic	1.89m	-

*: Regulated voltage is provided to EUT from Main PCB of printer.

	Printer Name	Main PCB of Printer	
		M/N	DC/DC Converter IC
1	K10325	HN76 MAIN DE2	TB62247FG
2	K10327	HN79 MAIN DE2	SI-8000TM

(3) Radiated Emission Test

These numbers and the marks in the picture are corresponding to the numbers and the marks in Tables shown.
Power Supply of EUT: DC 3.27V from PCB for Power Supply “c”.

**List of EUT and Accessories**

	Product Name	M/N	S/N	Manufacturer	EUT / Accessory	Notes
a	Wireless LAN Module	K30306	D6E750	TAIYO YUDEN CO., LTD.	EUT	AZDK30306
b	Jig	WIRELESS LAN JIG-CARD	10	TAIYO YUDEN CO., LTD.	Accessory	-
c	PCB	HN76 MAIN DE2	0000858A271D	CANON INC.	Accessory	-
		HN79 MAIN DE2	0000858A26B1			
d	AC Adapter	0003	2	CANON INC.	Accessory	-

Interface Cables

	Cable Type	M/N	Shielded	Ferrite Core	Material of Connector	Length	Notes
1	Flat Cable	-	No	No	Plastic	0.10m	-
2	Flat Cable	-	No	No	Plastic	0.11m	-
3	Flat Cable	-	No	No	Plastic	0.79m	-
4	AC Cable	-	No	No	Plastic	1.83m	-

*: Regulated voltage is provided to EUT from Main PCB of printer.

	Printer Name	Main PCB of Printer	
		M/N	DC/DC Converter IC
1	K10325	HN76 MAIN DE2	TB62247FG
2	K10327	HN79 MAIN DE2	SI-8000TM

3.4 Test Instruments

About test instruments for all tests, please refer to appendix 2.

3.5 Special Test Condition

Nothing

3.6 Equipment Modifications

No modification has been carried out by TAIYO YUDEN CO., LTD. EMC Center.

4 Antenna Requirement

The EUT provides a permanently attached antenna and it was found to be compliant with FCC regulation section 15.203.

Antenna Type	Monopole
Antenna Gain	1.2dBi

5 AC Powerline Conducted Emission

5.1 Test Setup

Conducted emission measurements were performed from 150kHz to 30 MHz.

The test setup was made according to ANSI STD C63.4: 2003 clause 7 in the Shielded room.

The rear of non-conductive wooden table top was placed 0.4 m from a vertical metal reference plane that one of the wall.

Rears of the peripherals were all aligned and flush with rear of non-conductive wooden tabletop.

The height of this table was 0.8 m and 1.5 m wide x 1.0 m deep size.

The spacing between the each equipment was 10 cm.

Connection of the PC connected EUT USB Adaptor to the Artificial Mains Network (AMN)/ Line Impedance Stabilization Network (LISN) was required.

The distance between the closet surface of the EUT and the closet surface of the AMN (LISN) was 0.8 m.

Connection of the all other equipment to the second AMN (LISN) was required. The distance between the peripherals and the closet surface of the second AMN (LISN) was minimum 0.8 m.

The second artificial mains network is terminated with 50ohm terminator.

Where a mains flexible cord is provided by the manufacture this is 2.0 m long and excess cable was folded back and forth as far as possible to 0.8 m so as to form a bundle not exceeding 0.4 m in length.

Interconnecting cables of table top equipment that hang closer than 0.4 m to the floor ground plane were folded back and forth forming a bundle 30 to 40 cm long, hanging approximately in the middle between ground plane and table.

The measurement has been conducted with both L1 (Neutral) and L2 (Line) power supply polarization.

The maximum voltage emission was verified with the cable routing and the location of the peripherals.

The highest voltage emission has been recorded.

For further description of the configuration refer to separate document named "Test Setup Photos (7265FC-2)".

Test Receiver Setting:

150kHz ~ 30MHz:

Detector Mode	Quasi-Peak and Average
Bandwidth	10kHz

5.2 Conducted Emission Calculation

The basic equation with a sample calculation is as follows:

$$\begin{aligned} \text{c.f.} &= \text{CF} + \text{AL} \\ \text{CE} &= \text{RA} + \text{c.f.} \end{aligned}$$

Where	c.f.	:	Correction Factor [dB]
	CE	:	Conducted Emission (Emission Level - Result) [dBuV]
	RA	:	Receiver Amplitude (Reading Level) [dBuV]
	CF	:	Cable Attenuation Loss [dB]
	AL	:	Attenuator Loss [dB]

Assume a receiver reading of 40.8 dBuV is obtained.

The Factor of 3.4dB is added, giving a terminal voltage of 44.2 dBuV. The 44.2 dBuV value was mathematically converted to its corresponding level in uV.

$$\text{CE} = 40.8 + 3.4 = 44.2 \text{ dBuV}$$

$$\text{Level in uV} = \text{Common Antilogarithm: } 10^{(44.2 \text{ dBuV})/20} = 162.2 \text{ uV}$$

5.3 Test Results

Wireless LAN: Transmitting and Receiving Mode (IEEE 802.11b (1Mbps))

Product	: Wireless LAN Module	Model	: K30306
Serial No.	: D6E750	Test Standard	: FCC Part15 Subpart C §15.247(d)
Power Supply	: AC 120V / 60Hz	Temp. / Humid.	: 20.6°C / 45.4%
Operator	: Fukuda		
Remark	: Transmitting and Receiving Mode		
	IEEE 802.11b (1Mbps)		
	Printing: "H" Pattern		

Printer Model Number: K10327

AC Powerline Conducted Emission: Lch (2412MHz)

Frequency [MHz]	Line Phase	Reading [dB(uV)] QP / AV		Factor [dB]	Level [dB(uV)] QP / AV		Limit [dB(uV)] QP / AV		Margin [dB] QP / AV		Remark
0.17905	L1	42.4	30.6	3.5	45.9	34.1	64.5	54.5	18.6	20.4	
0.23781	L1	36.9	25.8	3.4	40.3	29.2	62.2	52.2	21.9	23.0	
0.29804	L1	33.0	24.1	3.4	36.4	27.5	60.3	50.3	23.9	22.8	
0.36043	L1	30.1	23.4	3.4	33.5	26.8	58.7	48.7	25.2	21.9	
0.48159	L1	27.5	24.0	3.3	30.8	27.3	56.3	46.3	25.5	19.0	
6.15473	L1	32.5	24.6	3.6	36.1	28.2	60.0	50.0	23.9	21.8	
0.18209	L2	42.5	30.0	3.4	45.9	33.4	64.4	54.4	18.5	21.0	
0.24104	L2	37.5	29.5	3.4	40.9	32.9	62.1	52.1	21.2	19.2	
0.30191	L2	33.3	28.1	3.3	36.6	31.4	60.2	50.2	23.6	18.8	
0.36096	L2	30.6	27.0	3.4	34.0	30.4	58.7	48.7	24.7	18.3	
0.4816	L2	28.2	26.0	3.3	31.5	29.3	56.3	46.3	24.8	17.0	
6.13582	L2	32.8	24.5	3.5	36.3	28.0	60.0	50.0	23.7	22.0	

AC Powerline Conducted Emission: Mch (2437MHz)

Frequency [MHz]	Line Phase	Reading [dB(uV)] QP / AV		Factor [dB]	Level [dB(uV)] QP / AV		Limit [dB(uV)] QP / AV		Margin [dB] QP / AV		Remark
0.17917	L1	42.1	30.6	3.5	45.6	34.1	64.5	54.5	18.9	20.4	
0.24124	L1	36.3	25.8	3.4	39.7	29.2	62.1	52.1	22.4	22.9	
0.29957	L1	33.1	23.4	3.4	36.5	26.8	60.3	50.3	23.8	23.5	
0.36077	L1	29.0	23.7	3.4	32.4	27.1	58.7	48.7	26.3	21.6	
0.48011	L1	27.2	25.1	3.3	30.5	28.4	56.3	46.3	25.8	17.9	
6.12934	L1	32.4	28.1	3.6	36.0	31.7	60.0	50.0	24.0	18.3	
0.179	L2	43.0	30.5	3.5	46.5	34.0	64.5	54.5	18.0	20.5	
0.24043	L2	37.2	30.0	3.4	40.6	33.4	62.1	52.1	21.5	18.7	
0.29917	L2	33.4	29.1	3.4	36.8	32.5	60.3	50.3	23.5	17.8	
0.36008	L2	30.4	27.3	3.4	33.8	30.7	58.7	48.7	24.9	18.0	
0.48038	L2	29.2	26.6	3.3	32.5	29.9	56.3	46.3	23.8	16.4	
6.12012	L2	32.4	27.6	3.5	35.9	31.1	60.0	50.0	24.1	18.9	

AC Powerline Conducted Emission: Hch (2462MHz)

Frequency [MHz]	Line Phase	Reading [dB(uV)] QP / AV		Factor [dB]	Level [dB(uV)] QP / AV		Limit [dB(uV)] QP / AV		Margin [dB] QP / AV		Remark
0.18011	L1	42.0	32.1	3.5	45.5	35.6	64.5	54.5	19.0	18.9	
0.23808	L1	36.3	26.3	3.4	39.7	29.7	62.2	52.2	22.5	22.5	
0.29963	L1	33.5	21.3	3.4	36.9	24.7	60.3	50.3	23.4	25.6	
0.35893	L1	29.3	22.1	3.4	32.7	25.5	58.8	48.8	26.1	23.3	
0.47978	L1	27.2	24.3	3.3	30.5	27.6	56.3	46.3	25.8	18.7	
6.13455	L1	32.6	28.6	3.6	36.2	32.2	60.0	50.0	23.8	17.8	
0.17997	L2	42.3	30.1	3.5	45.8	33.6	64.5	54.5	18.7	20.9	
0.23793	L2	37.2	30.1	3.4	40.6	33.5	62.2	52.2	21.6	18.7	
0.29924	L2	33.1	27.8	3.4	36.5	31.2	60.3	50.3	23.8	19.1	
0.35935	L2	30.5	27.3	3.4	33.9	30.7	58.7	48.7	24.8	18.0	
0.47859	L2	28.0	26.2	3.3	31.3	29.5	56.4	46.4	25.1	16.9	
6.13014	L2	32.0	24.8	3.5	35.5	28.3	60.0	50.0	24.5	21.7	

Printer Model Number: K10325AC Powerline Conducted Emission: Lch (2412MHz)

Frequency [MHz]	Line Phase	Reading [dB(uV)] QP / AV		Factor [dB]	Level [dB(uV)] QP / AV		Limit [dB(uV)] QP / AV		Margin [dB] QP / AV		Remark
0.18071	L1	42.7	30.8	3.4	46.1	34.2	64.5	54.5	18.4	20.3	
0.24162	L1	37.0	26.2	3.4	40.4	29.6	62.0	52.0	21.6	22.4	
0.30109	L1	32.9	23.8	3.3	36.2	27.1	60.2	50.2	24.0	23.1	
0.36152	L1	29.4	23.8	3.4	32.8	27.2	58.7	48.7	25.9	21.5	
0.48151	L1	27.6	23.5	3.3	30.9	26.8	56.3	46.3	25.4	19.5	
6.13483	L1	32.6	26.8	3.6	36.2	30.4	60.0	50.0	23.8	19.6	
0.18046	L2	42.6	31.1	3.5	46.1	34.6	64.5	54.5	18.4	19.9	
0.24062	L2	38.2	29.6	3.4	41.6	33.0	62.1	52.1	20.5	19.1	
0.30147	L2	35.7	29.8	3.3	39.0	33.1	60.2	50.2	21.2	17.1	
0.36127	L2	31.2	27.6	3.4	34.6	31.0	58.7	48.7	24.1	17.7	
0.4844	L2	30.4	29.3	3.3	33.7	32.6	56.3	46.3	22.6	13.7	
6.17401	L2	30.5	26.0	3.5	34.0	29.5	60.0	50.0	26.0	20.5	

AC Powerline Conducted Emission: Mch (2437MHz)

Frequency [MHz]	Line Phase	Reading [dB(uV)] QP / AV		Factor [dB]	Level [dB(uV)] QP / AV		Limit [dB(uV)] QP / AV		Margin [dB] QP / AV		Remark
0.18006	L1	42.6	30.6	3.5	46.1	34.1	64.5	54.5	18.4	20.4	
0.24087	L1	36.3	26.8	3.4	39.7	30.2	62.1	52.1	22.4	21.9	
0.30138	L1	32.8	23.4	3.3	36.1	26.7	60.2	50.2	24.1	23.5	
0.36306	L1	29.0	22.3	3.4	32.4	25.7	58.7	48.7	26.3	23.0	
0.48166	L1	27.8	23.4	3.3	31.1	26.7	56.3	46.3	25.2	19.6	
6.14614	L1	30.2	26.2	3.6	33.8	29.8	60.0	50.0	26.2	20.2	
0.18095	L2	42.7	30.5	3.4	46.1	33.9	64.4	54.4	18.3	20.5	
0.24077	L2	37.4	31.1	3.4	40.8	34.5	62.1	52.1	21.3	17.6	
0.30231	L2	35.2	29.1	3.3	38.5	32.4	60.2	50.2	21.7	17.8	
0.36098	L2	29.7	26.3	3.4	33.1	29.7	58.7	48.7	25.6	19.0	
0.48377	L2	29.8	28.2	3.3	33.1	31.5	56.3	46.3	23.2	14.8	
6.1435	L2	29.5	25.0	3.5	33.0	28.5	60.0	50.0	27.0	21.5	

AC Powerline Conducted Emission: Hch (2462MHz)

Frequency [MHz]	Line Phase	Reading [dB(uV)] QP / AV		Factor [dB]	Level [dB(uV)] QP / AV		Limit [dB(uV)] QP / AV		Margin [dB] QP / AV		Remark
0.18015	L1	42.3	30.2	3.5	45.8	33.7	64.5	54.5	18.7	20.8	
0.24114	L1	36.8	27.0	3.4	40.2	30.4	62.1	52.1	21.9	21.7	
0.30113	L1	33.2	23.1	3.3	36.5	26.4	60.2	50.2	23.7	23.8	
0.36213	L1	28.9	21.8	3.4	32.3	25.2	58.7	48.7	26.4	23.5	
0.48161	L1	27.6	23.2	3.3	30.9	26.5	56.3	46.3	25.4	19.8	
6.15281	L1	30.1	26.3	3.6	33.7	29.9	60.0	50.0	26.3	20.1	
0.18046	L2	42.2	30.6	3.5	45.7	34.1	64.5	54.5	18.8	20.4	
0.24081	L2	36.8	28.6	3.4	40.2	32.0	62.1	52.1	21.9	20.1	
0.30076	L2	33.8	29.1	3.3	37.1	32.4	60.2	50.2	23.1	17.8	
0.36042	L2	30.4	26.5	3.4	33.8	29.9	58.7	48.7	24.9	18.8	
0.48248	L2	29.6	28.9	3.3	32.9	32.2	56.3	46.3	23.4	14.1	
6.14713	L2	32.5	23.2	3.5	36.0	26.7	60.0	50.0	24.0	23.3	

Wireless LAN: Transmitting and Receiving Mode (IEEE 802.11g (6Mbps))

Product	: Wireless LAN Module	Model	: K30306
Serial No.	: D6E750	Test Standard	: FCC Part15 Subpart C §15.247(d)
Power Supply	: AC 120V / 60Hz	Temp. / Humid.	: 20.6°C / 45.4%
Operator	: Fukuda		
Remark	: Transmitting and Receiving Mode		
	IEEE 802.11g (6Mbps)		
	Printing: "H" Pattern		

Printer Model Number: K10327AC Powerline Conducted Emission: Lch (2412MHz)

Frequency [MHz]	Line Phase	Reading [dB(uV)] QP / AV		Factor [dB]	Level [dB(uV)] QP / AV		Limit [dB(uV)] QP / AV		Margin [dB] QP / AV		Remark
0.18159	L1	42.0	30.8	3.4	45.4	34.2	64.4	54.4	19.0	20.2	
0.24006	L1	36.2	24.8	3.4	39.6	28.2	62.1	52.1	22.5	23.9	
0.298	L1	33.9	24.1	3.4	37.3	27.5	60.3	50.3	23.0	22.8	
0.35797	L1	28.7	24.1	3.4	32.1	27.5	58.8	48.8	26.7	21.3	
0.47971	L1	26.9	24.2	3.3	30.2	27.5	56.3	46.3	26.1	18.8	
6.12825	L1	35.8	30.4	3.6	39.4	34.0	60.0	50.0	20.6	16.0	
0.17975	L2	42.1	31.4	3.5	45.6	34.9	64.5	54.5	18.9	19.6	
0.23908	L2	37.0	29.5	3.4	40.4	32.9	62.1	52.1	21.7	19.2	
0.29964	L2	34.2	28.2	3.4	37.6	31.6	60.3	50.3	22.7	18.7	
0.35905	L2	31.3	27.8	3.4	34.7	31.2	58.8	48.8	24.1	17.6	
0.47716	L2	29.9	27.0	3.3	33.2	30.3	56.4	46.4	23.2	16.1	
6.12896	L2	35.1	26.4	3.5	38.6	29.9	60.0	50.0	21.4	20.1	

AC Powerline Conducted Emission: Mch (2437MHz)

Frequency [MHz]	Line Phase	Reading [dB(uV)] QP / AV		Factor [dB]	Level [dB(uV)] QP / AV		Limit [dB(uV)] QP / AV		Margin [dB] QP / AV		Remark
0.17875	L1	42.0	30.7	3.5	45.5	34.2	64.5	54.5	19.0	20.3	
0.23942	L1	35.6	24.9	3.4	39.0	28.3	62.1	52.1	23.1	23.8	
0.29658	L1	33.6	24.5	3.4	37.0	27.9	60.3	50.3	23.3	22.4	
0.35623	L1	30.5	24.1	3.4	33.9	27.5	58.8	48.8	24.9	21.3	
0.4765	L1	27.8	25.6	3.3	31.1	28.9	56.4	46.4	25.3	17.5	
6.13612	L1	35.2	30.1	3.6	38.8	33.7	60.0	50.0	21.2	16.3	
0.17758	L2	42.0	30.0	3.5	45.5	33.5	64.6	54.6	19.1	21.1	
0.23809	L2	36.9	29.6	3.4	40.3	33.0	62.2	52.2	21.9	19.2	
0.29934	L2	35.2	26.7	3.4	38.6	30.1	60.3	50.3	21.7	20.2	
0.36002	L2	29.2	26.0	3.4	32.6	29.4	58.7	48.7	26.1	19.3	
0.47826	L2	28.9	26.4	3.3	32.2	29.7	56.4	46.4	24.2	16.7	
6.14092	L2	33.5	26.7	3.5	37.0	30.2	60.0	50.0	23.0	19.8	

AC Powerline Conducted Emission: Hch (2462MHz)

Frequency [MHz]	Line Phase	Reading [dB(uV)] QP / AV		Factor [dB]	Level [dB(uV)] QP / AV		Limit [dB(uV)] QP / AV		Margin [dB] QP / AV		Remark
0.17973	L1	41.2	29.1	3.5	44.7	32.6	64.5	54.5	19.8	21.9	
0.23803	L1	36.0	25.3	3.4	39.4	28.7	62.2	52.2	22.8	23.5	
0.29619	L1	33.4	24.6	3.4	36.8	28.0	60.3	50.3	23.5	22.3	
0.358	L1	29.4	23.6	3.4	32.8	27.0	58.8	48.8	26.0	21.8	
0.47491	L1	27.1	25.8	3.3	30.4	29.1	56.4	46.4	26.0	17.3	
6.1324	L1	36.2	29.4	3.6	39.8	33.0	60.0	50.0	20.2	17.0	
0.17985	L2	41.5	30.2	3.5	45.0	33.7	64.5	54.5	19.5	20.8	
0.24045	L2	35.5	28.2	3.4	38.9	31.6	62.1	52.1	23.2	20.5	
0.29765	L2	34.5	29.1	3.4	37.9	32.5	60.3	50.3	22.4	17.8	
0.35839	L2	30.6	28.1	3.4	34.0	31.5	58.8	48.8	24.8	17.3	
0.47549	L2	29.7	28.1	3.3	33.0	31.4	56.4	46.4	23.4	15.0	
6.13883	L2	33.8	27.9	3.5	37.3	31.4	60.0	50.0	22.7	18.6	

Printer Model Number: K10325AC Powerline Conducted Emission: Lch (2412MHz)

Frequency [MHz]	Line Phase	Reading [dB(uV)] QP / AV		Factor [dB]	Level [dB(uV)] QP / AV		Limit [dB(uV)] QP / AV		Margin [dB] QP / AV		Remark
0.17818	L1	42.3	30.9	3.5	45.8	34.4	64.6	54.6	18.8	20.2	
0.23986	L1	36.5	26.3	3.4	39.9	29.7	62.1	52.1	22.2	22.4	
0.30012	L1	34.1	26.6	3.3	37.4	29.9	60.2	50.2	22.8	20.3	
0.36078	L1	29.3	22.1	3.4	32.7	25.5	58.7	48.7	26.0	23.2	
0.48026	L1	26.8	22.2	3.3	30.1	25.5	56.3	46.3	26.2	20.8	
6.12628	L1	35.1	26.8	3.6	38.7	30.4	60.0	50.0	21.3	19.6	
0.18039	L2	42.1	31.3	3.5	45.6	34.8	64.5	54.5	18.9	19.7	
0.24044	L2	36.7	30.1	3.4	40.1	33.5	62.1	52.1	22.0	18.6	
0.30028	L2	36.2	30.5	3.3	39.5	33.8	60.2	50.2	20.7	16.4	
0.35928	L2	30.8	28.6	3.4	34.2	32.0	58.7	48.7	24.5	16.7	
0.48072	L2	30.2	29.5	3.3	33.5	32.8	56.3	46.3	22.8	13.5	
6.1341	L2	32.1	25.2	3.5	35.6	28.7	60.0	50.0	24.4	21.3	

AC Powerline Conducted Emission: Mch (2437MHz)

Frequency [MHz]	Line Phase	Reading [dB(uV)] QP / AV		Factor [dB]	Level [dB(uV)] QP / AV		Limit [dB(uV)] QP / AV		Margin [dB] QP / AV		Remark
0.18021	L1	42.0	29.4	3.5	45.5	32.9	64.5	54.5	19.0	21.6	
0.23938	L1	36.3	26.2	3.4	39.7	29.6	62.1	52.1	22.4	22.5	
0.3017	L1	32.5	25.9	3.3	35.8	29.2	60.2	50.2	24.4	21.0	
0.35922	L1	29.5	23.0	3.4	32.9	26.4	58.7	48.7	25.8	22.3	
0.48008	L1	27.6	22.2	3.3	30.9	25.5	56.3	46.3	25.4	20.8	
6.14182	L1	32.4	26.3	3.6	36.0	29.9	60.0	50.0	24.0	20.1	
0.17977	L2	42.1	30.0	3.5	45.6	33.5	64.5	54.5	18.9	21.0	
0.2399	L2	36.8	28.9	3.4	40.2	32.3	62.1	52.1	21.9	19.8	
0.30007	L2	35.8	30.0	3.3	39.1	33.3	60.2	50.2	21.1	16.9	
0.36039	L2	30.4	25.7	3.4	33.8	29.1	58.7	48.7	24.9	19.6	
0.47944	L2	30.3	29.4	3.3	33.6	32.7	56.3	46.3	22.7	13.6	
6.13895	L2	31.2	23.8	3.5	34.7	27.3	60.0	50.0	25.3	22.7	

AC Powerline Conducted Emission: Hch (2462MHz)

Frequency [MHz]	Line Phase	Reading [dB(uV)] QP / AV		Factor [dB]	Level [dB(uV)] QP / AV		Limit [dB(uV)] QP / AV		Margin [dB] QP / AV		Remark
0.18009	L1	41.9	29.4	3.5	45.4	32.9	64.5	54.5	19.1	21.6	
0.24021	L1	36.6	25.3	3.4	40.0	28.7	62.1	52.1	22.1	23.4	
0.2989	L1	33.1	26.3	3.4	36.5	29.7	60.3	50.3	23.8	20.6	
0.35955	L1	29.4	23.1	3.4	32.8	26.5	58.7	48.7	25.9	22.2	
0.47973	L1	27.5	22.3	3.3	30.8	25.6	56.3	46.3	25.5	20.7	
6.13437	L1	33.2	25.8	3.6	36.8	29.4	60.0	50.0	23.2	20.6	
0.18013	L2	42.1	30.0	3.5	45.6	33.5	64.5	54.5	18.9	21.0	
0.24013	L2	36.8	29.3	3.4	40.2	32.7	62.1	52.1	21.9	19.4	
0.29854	L2	35.6	29.9	3.4	39.0	33.3	60.3	50.3	21.3	17.0	
0.35803	L2	30.0	26.8	3.4	33.4	30.2	58.8	48.8	25.4	18.6	
0.47923	L2	30.3	28.6	3.3	33.6	31.9	56.4	46.4	22.8	14.5	
6.13896	L2	32.5	23.4	3.5	36.0	26.9	60.0	50.0	24.0	23.1	

6 6dB Bandwidth

6.1 Test Setup

The spectrum analyzer was connected to the transmitter output port through the RF cable.

Spectrum Analyzer Setting:

Detector Mode	Peak
RBW	100kHz
VBW	300kHz
Span	20MHz
Sweep Time	Auto

6.2 Test Results

Serial No. : D6E750
 Power : DC 3.27V
 Mode : Transmitting Mode (1CH, 6CH, 11CH)
 DBPSK (1Mbps) for IEEE 802.11b (DSSS)
 BPSK (6Mbps) for IEEE 802.11g (OFDM)
 Temperature : 21.6°C (9 April 2008)
 21.3°C (14 April 2008)
 Humidity : 55.2% (9 April 2008)
 55.9% (14 April 2008)
 Regulation : FCC Part15 C §15.247 (a)(2)

Print Circuit Board Model Number: HN76 MAIN DE2

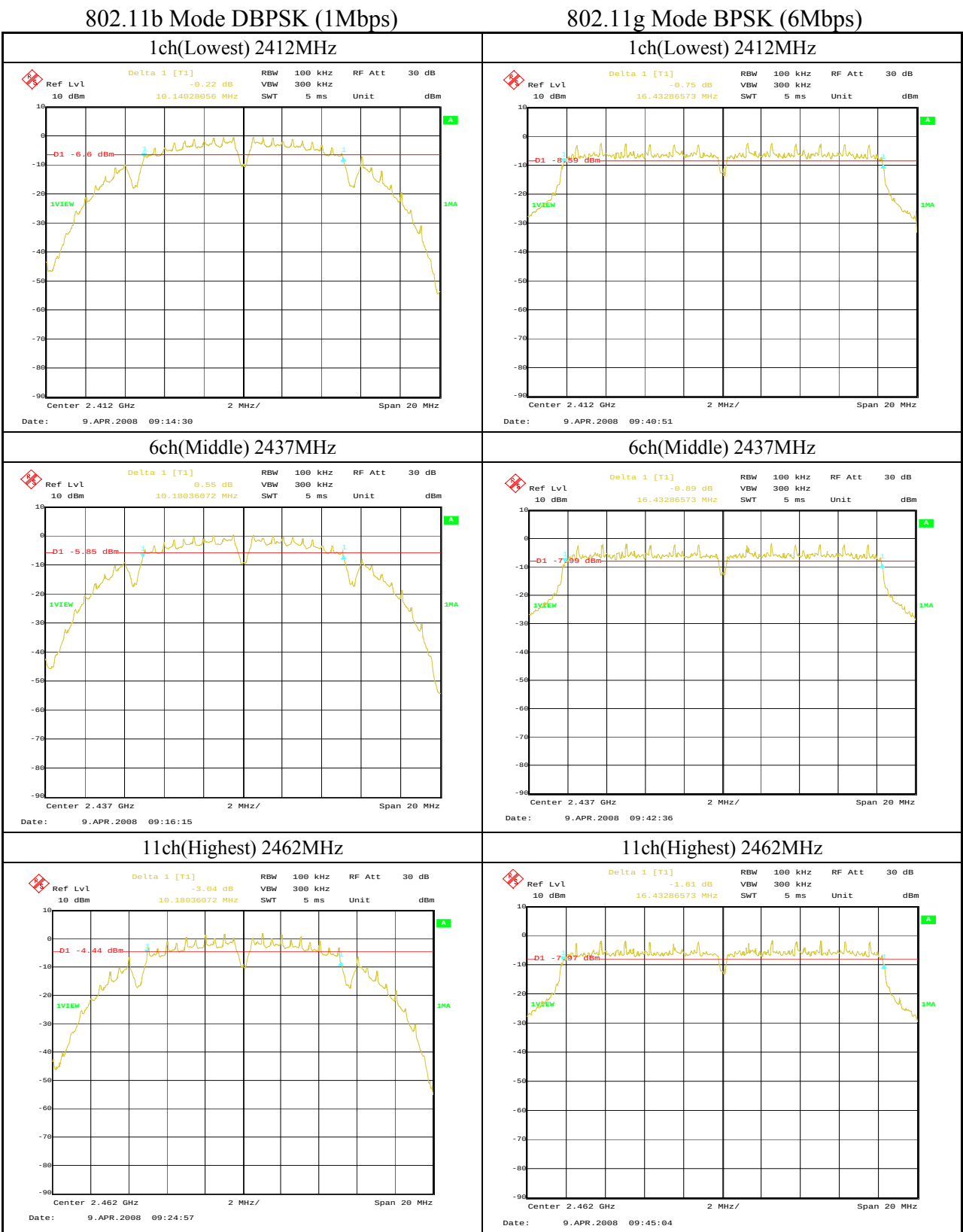
CH	Frequency [MHz]	6dB Bandwidth [MHz]	Limit [MHz]
802.11b Mode DBPSK (1Mbps)			
1ch (Lowest)	2412.0	10.14	>=0.5
6ch (Middle)	2437.0	10.18	>=0.5
11ch (Highest)	2462.0	10.18	>=0.5
802.11g Mode BPSK (6Mbps)			
1ch (Lowest)	2412.0	16.43	>=0.5
6ch (Middle)	2437.0	16.43	>=0.5
11ch (Highest)	2462.0	16.43	>=0.5

Print Circuit Board Model Number: HN79 MAIN DE2

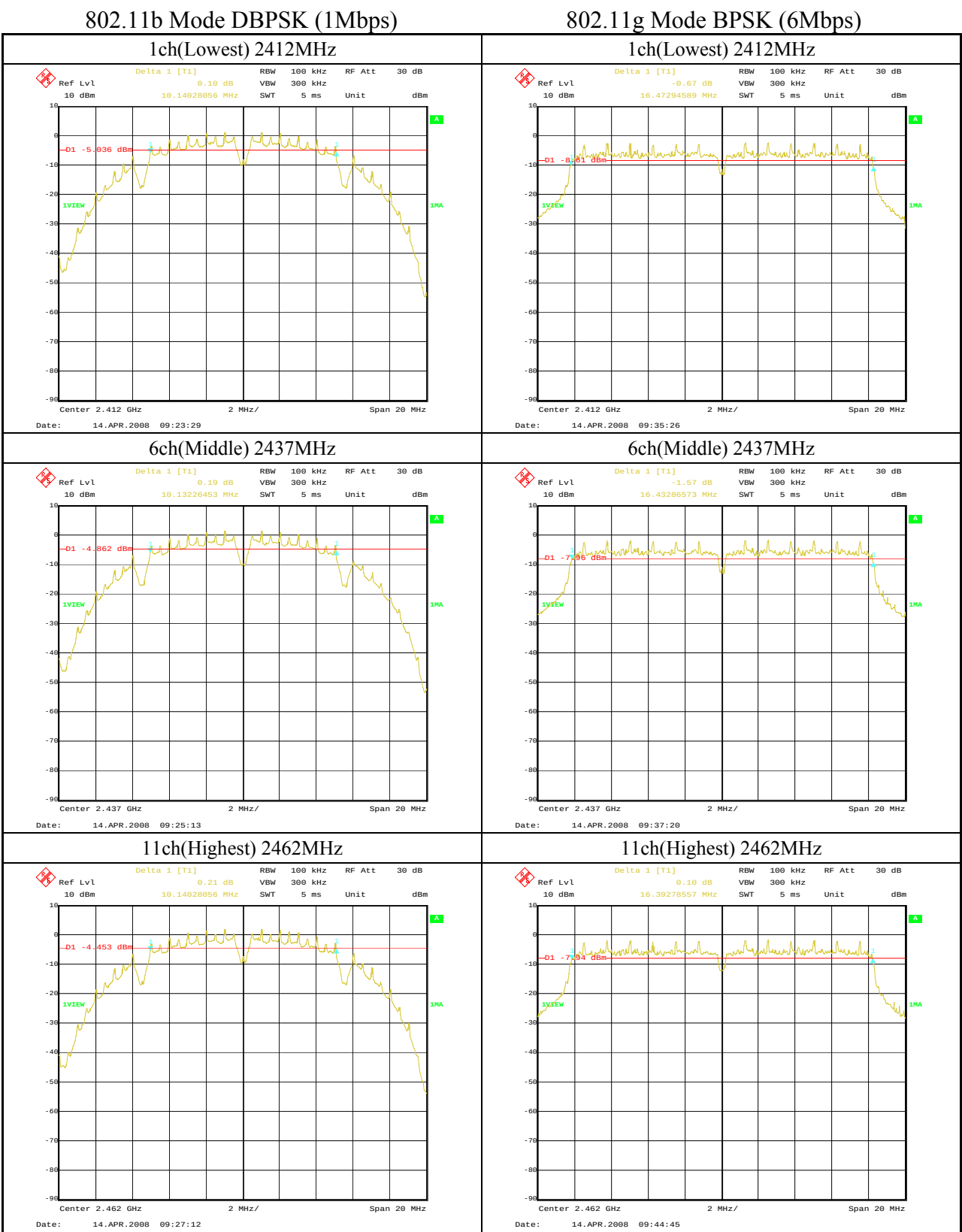
CH	Frequency [MHz]	6dB Bandwidth [MHz]	Limit [MHz]
802.11b Mode DBPSK (1Mbps)			
1ch (Lowest)	2412.0	10.14	>=0.5
6ch (Middle)	2437.0	10.13	>=0.5
11ch (Highest)	2462.0	10.14	>=0.5
802.11g Mode BPSK (6Mbps)			
1ch (Lowest)	2412.0	16.47	>=0.5
6ch (Middle)	2437.0	16.43	>=0.5
11ch (Highest)	2462.0	16.39	>=0.5

The spectrum data are attached next page. Display line indicates the 6dB offset below highest level.
 It shows compliance with the requirement in part 15.247(a)(2).

Data of 6dB Bandwidth
(Print Circuit Board Model Number: HN76 MAIN DE2)



Data of 6dB Bandwidth
(Print Circuit Board Model Number: HN79 MAIN DE2)



7 Maximum Peak Output Power

7.1 Test Setup

The peak power meter was connected to the transmitter output port through the RF cable.

7.2 Test Results

Serial No. : D6E750
 Power : DC 3.27V
 Mode : Transmitting Mode (1CH, 6CH, 11CH)
 DBPSK (1Mbps) for IEEE 802.11b (DSSS)
 BPSK (6Mbps) for IEEE 802.11g (OFDM)
 Temperature : 21.6°C (9 April 2008)
 21.3°C (14 April 2008)
 Humidity : 55.2% (9 April 2008)
 55.9% (14 April 2008)
 Regulation : FCC Part15 C §15.247 (b)(3)

Print Circuit Board Model Number: HN76 MAIN DE2

CH	Frequency [MHz]	Reading [dBm]	Cable Loss1 [dB]	Cable Loss2 [dB]	Result		Limit	
					[dBm]	[mW]	[dBm]	[mW]
802.11b Mode DBPSK (1Mbps)								
1ch(Lowest)	2412	12.88	0.58	0.40	13.86	24.32	30.0	1000
6ch(Middle)	2437	13.31	0.58	0.40	14.29	26.85	30.0	1000
11ch(Highest)	2462	13.60	0.63	0.40	14.63	29.04	30.0	1000
802.11g Mode BPSK (6Mbps)								
1ch(Lowest)	2412	18.56	0.58	0.40	19.54	89.95	30.0	1000
6ch(Middle)	2437	19.33	0.58	0.40	20.31	107.40	30.0	1000
11ch(Highest)	2462	19.18	0.63	0.40	20.21	104.95	30.0	1000

Print Circuit Board Model Number: HN79 MAIN DE2

CH	Frequency [MHz]	Reading [dBm]	Cable Loss1 [dB]	Cable Loss2 [dB]	Result		Limit	
					[dBm]	[mW]	[dBm]	[mW]
802.11b Mode DBPSK (1Mbps)								
1ch(Lowest)	2412	12.86	0.58	0.40	13.84	24.21	30.0	1000
6ch(Middle)	2437	13.40	0.58	0.40	14.38	27.42	30.0	1000
11ch(Highest)	2462	13.50	0.63	0.40	14.53	28.38	30.0	1000
802.11g Mode BPSK (6Mbps)								
1ch(Lowest)	2412	18.63	0.58	0.40	19.61	91.41	30.0	1000
6ch(Middle)	2437	19.17	0.58	0.40	20.15	103.51	30.0	1000
11ch(Highest)	2462	18.98	0.63	0.40	20.01	100.23	30.0	1000

Result = Reading + Cable Loss1 + Cable Loss2

Note: Cable Loss1: RF Cable

Cable Loss2: Conversion cable used for connecting to SMA type

8 Band Edge Compliance

8.1 Test Setup

The spectrum analyzer was connected to the transmitter output port through the RF cable.

Spectrum Analyzer Setting:

Detector Mode	Peak
RBW	100kHz
VBW	300kHz
Span	100MHz
Sweep Time	Auto

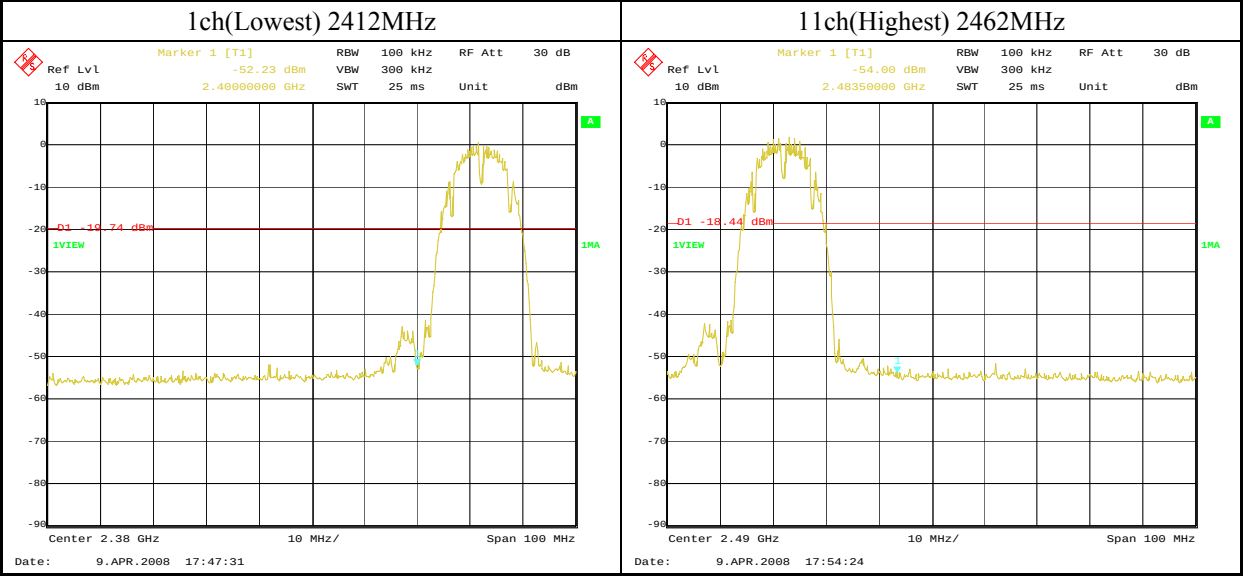
8.2 Test Results

Serial No.	:	D6E750
Power	:	DC 3.27V
Mode	:	Transmitting Mode (1CH, 6CH, 11CH) DBPSK (1Mbps) for IEEE 802.11b (DSSS) BPSK (6Mbps) for IEEE 802.11g (OFDM)
Temperature	:	21.6°C (9 April 2008) 21.3°C (14 April 2008)
Humidity	:	55.2% (9 April 2008) 55.9% (14 April 2008)
Regulation	:	FCC Part15 C §15.247 (d)

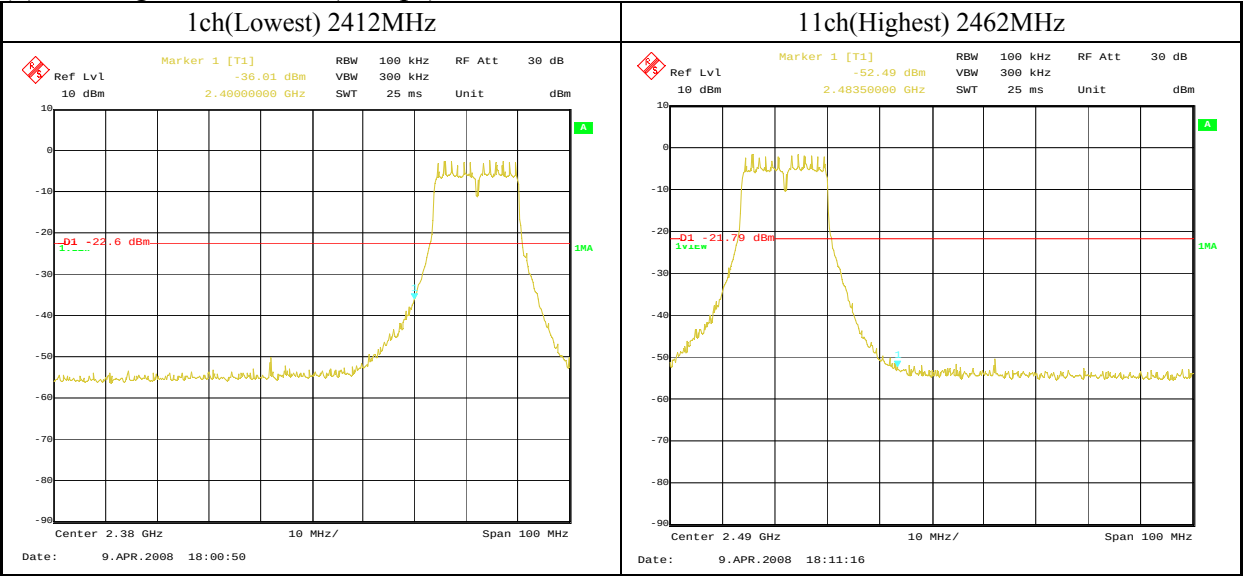
The spectrum data are attached next page. Display line indicates the 20dB offset below highest level. It shows compliance with the requirement in part 15.247(d).

Data of Band Edge Compliance
(Print Circuit Board Model Number: HN76 MAIN DE2)

(1) 802.11b Mode DBPSK (1Mbps)

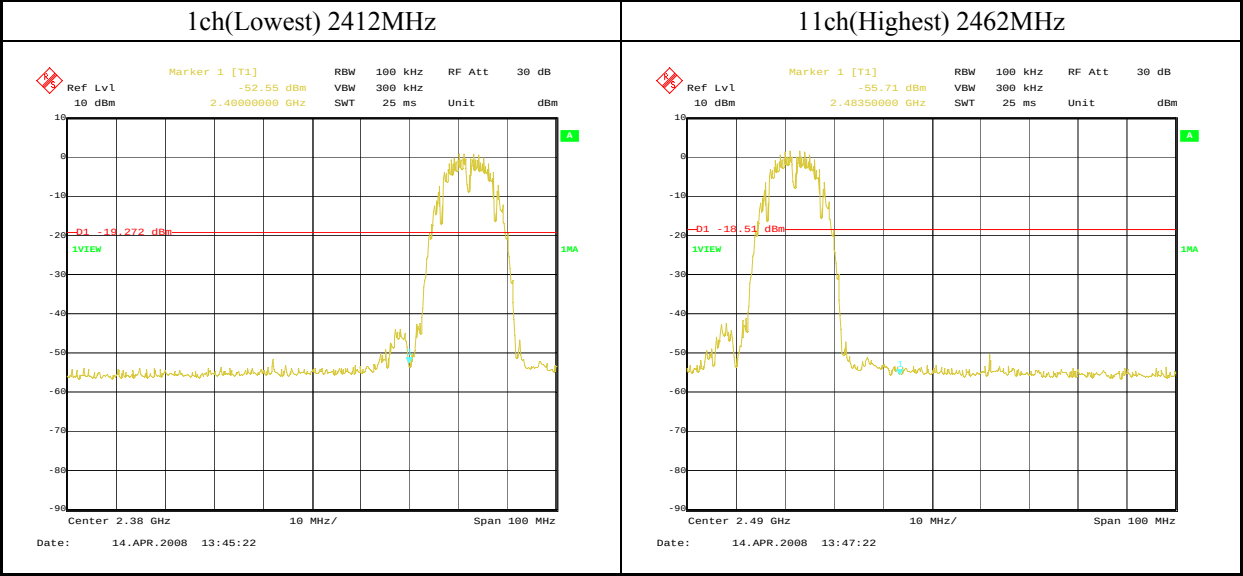


(2) 802.11g Mode BPSK (6Mbps)

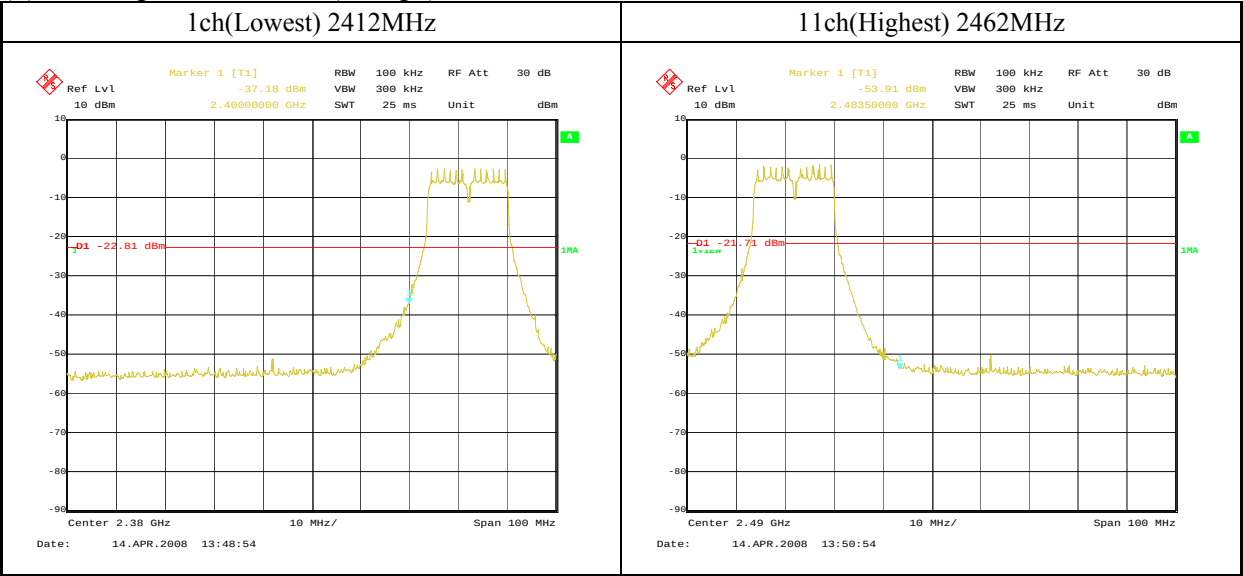


Data of Band Edge Compliance
(Print Circuit Board Model Number: HN79 MAIN DE2)

(1) 802.11b Mode DBPSK (1Mbps)



(2) 802.11g Mode BPSK (6Mbps)



9 Spurious RF Conducted Emission

9.1 Test Setup

The spectrum analyzer was connected to the transmitter output port through the RF cable.

Spectrum Analyzer Setting:

Detector Mode	Peak
RBW	100kHz
VBW	300kHz
Sweep Time	Auto

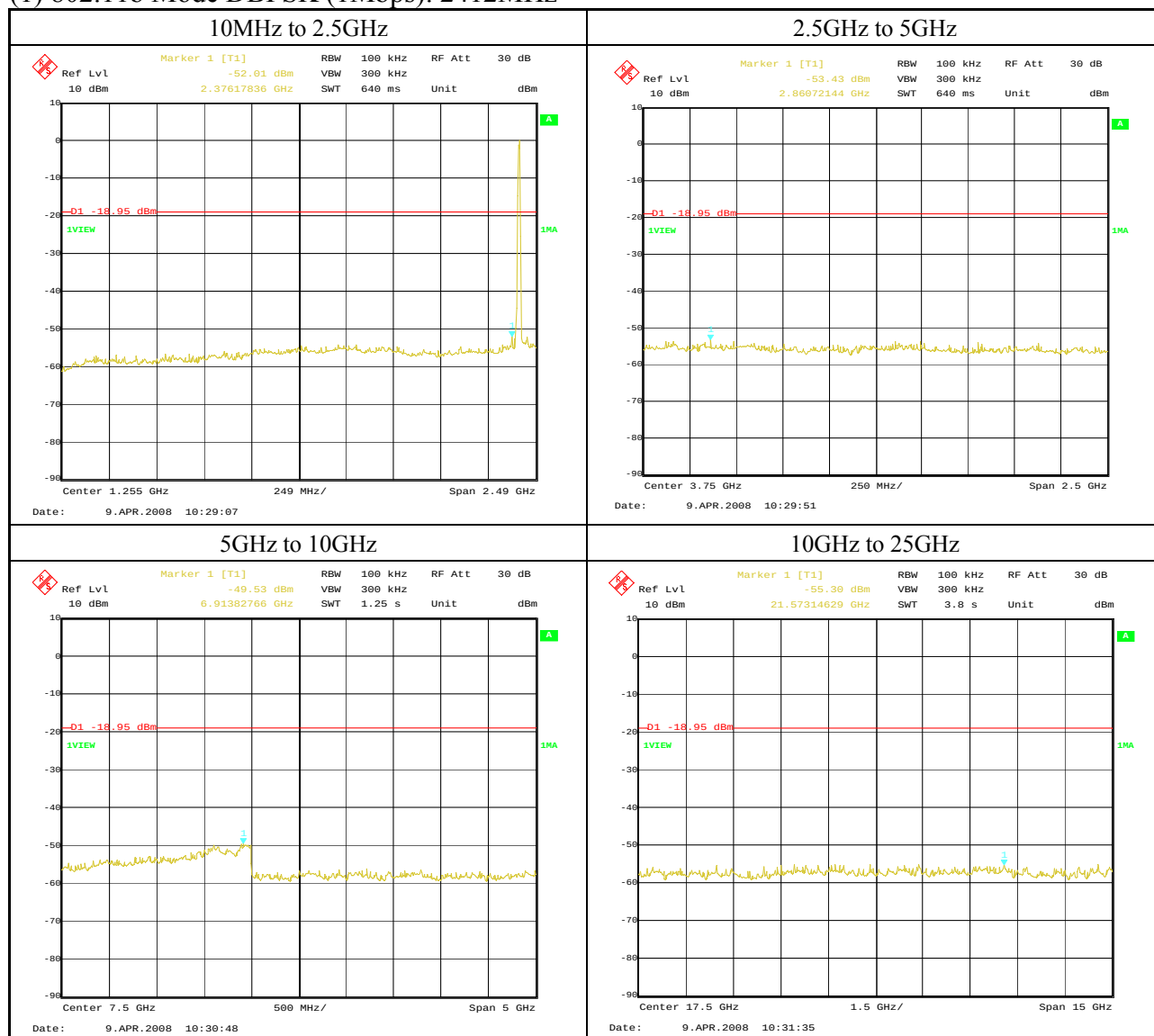
9.2 Test Results

Serial No.	:	D6E750
Power	:	DC 3.27V
Mode	:	Transmitting Mode (1CH, 6CH, 11CH) DBPSK (1Mbps) for IEEE 802.11b (DSSS) BPSK (6Mbps) for IEEE 802.11g (OFDM)
Temperature	:	21.6°C (9 April 2008) 21.3°C (14 April 2008)
Humidity	:	55.2% (9 April 2008) 55.9% (14 April 2008)
Regulation	:	FCC Part15 C §15.247 (d)

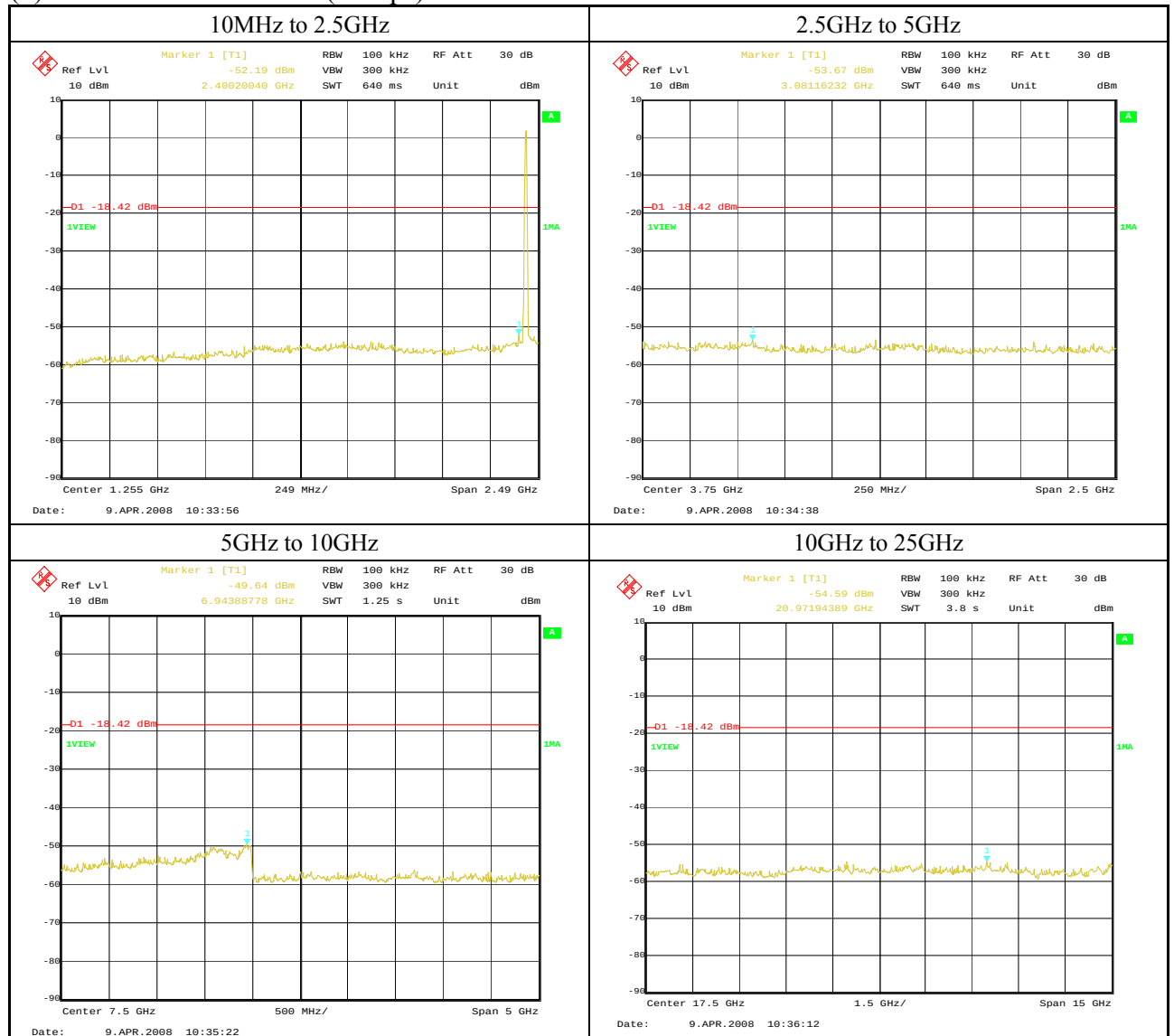
The spectrum data are attached next page. Display line indicates the 20dB offset below highest level.
It shows compliance with the requirement in part 15.247(d).

Data of Spurious Conducted Emission
(Print Circuit Board Model Number: HN76 MAIN DE2)

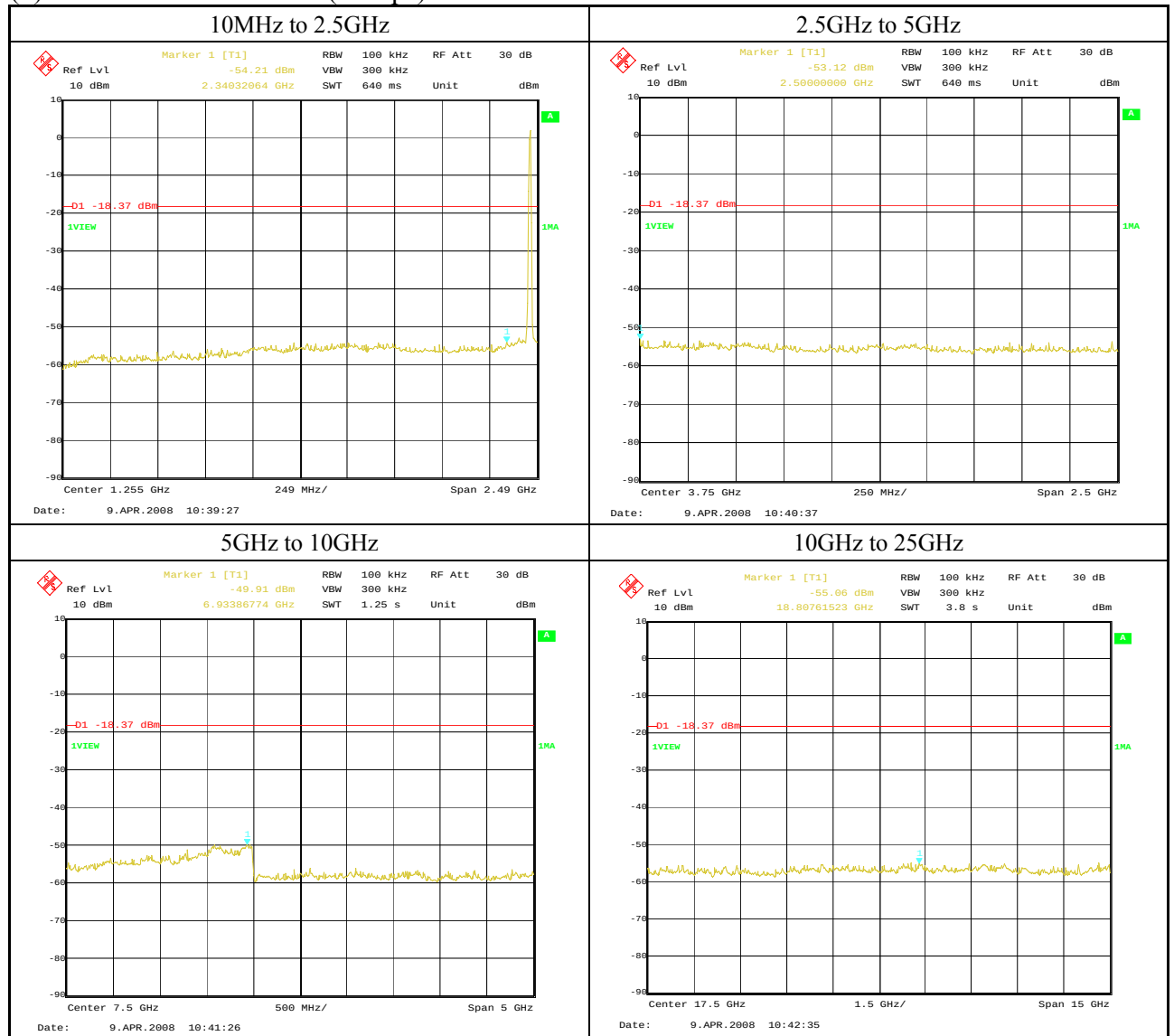
(1) 802.11b Mode DBPSK (1Mbps): 2412MHz



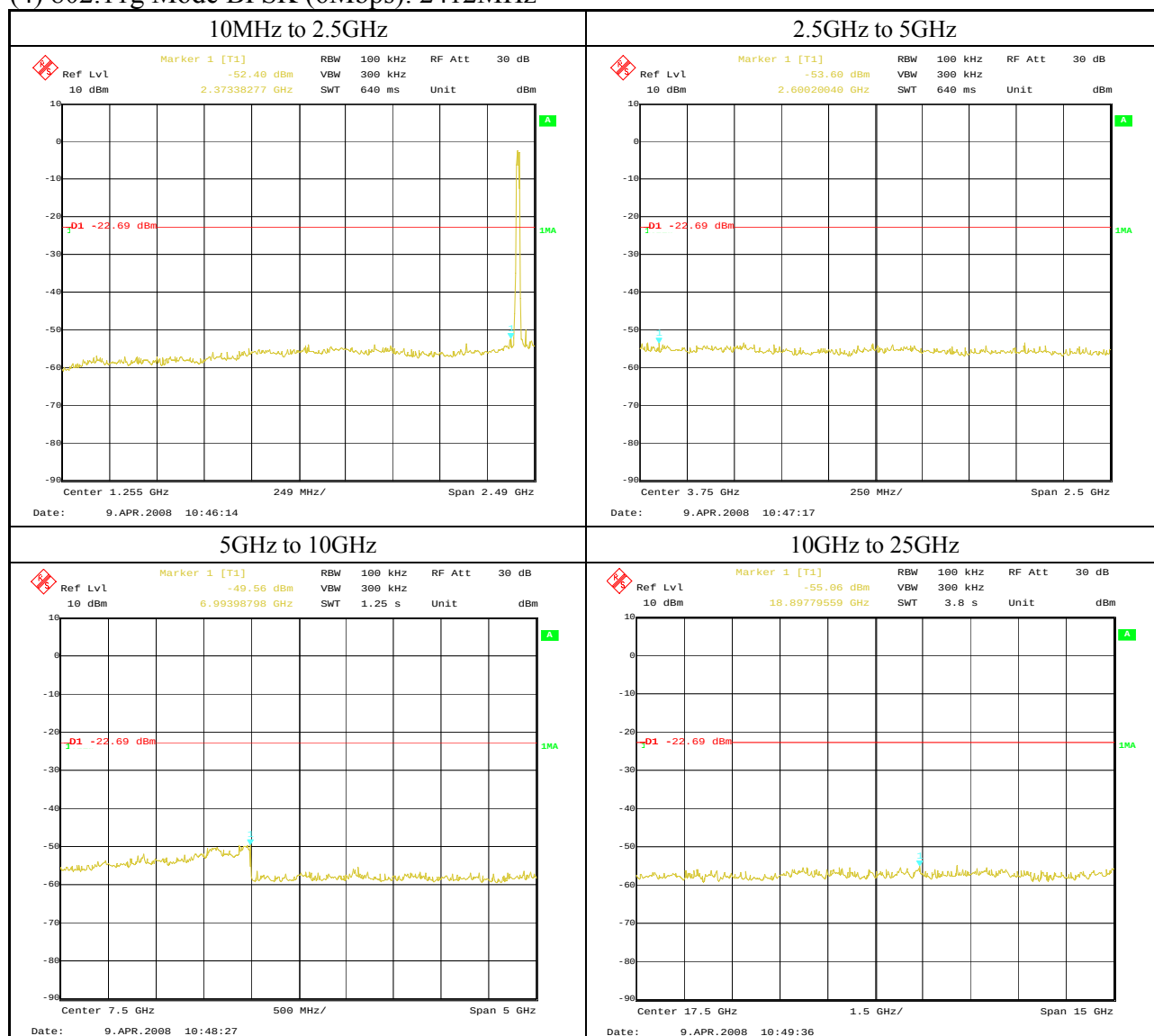
(2) 802.11b Mode DBPSK (1Mbps): 2437MHz



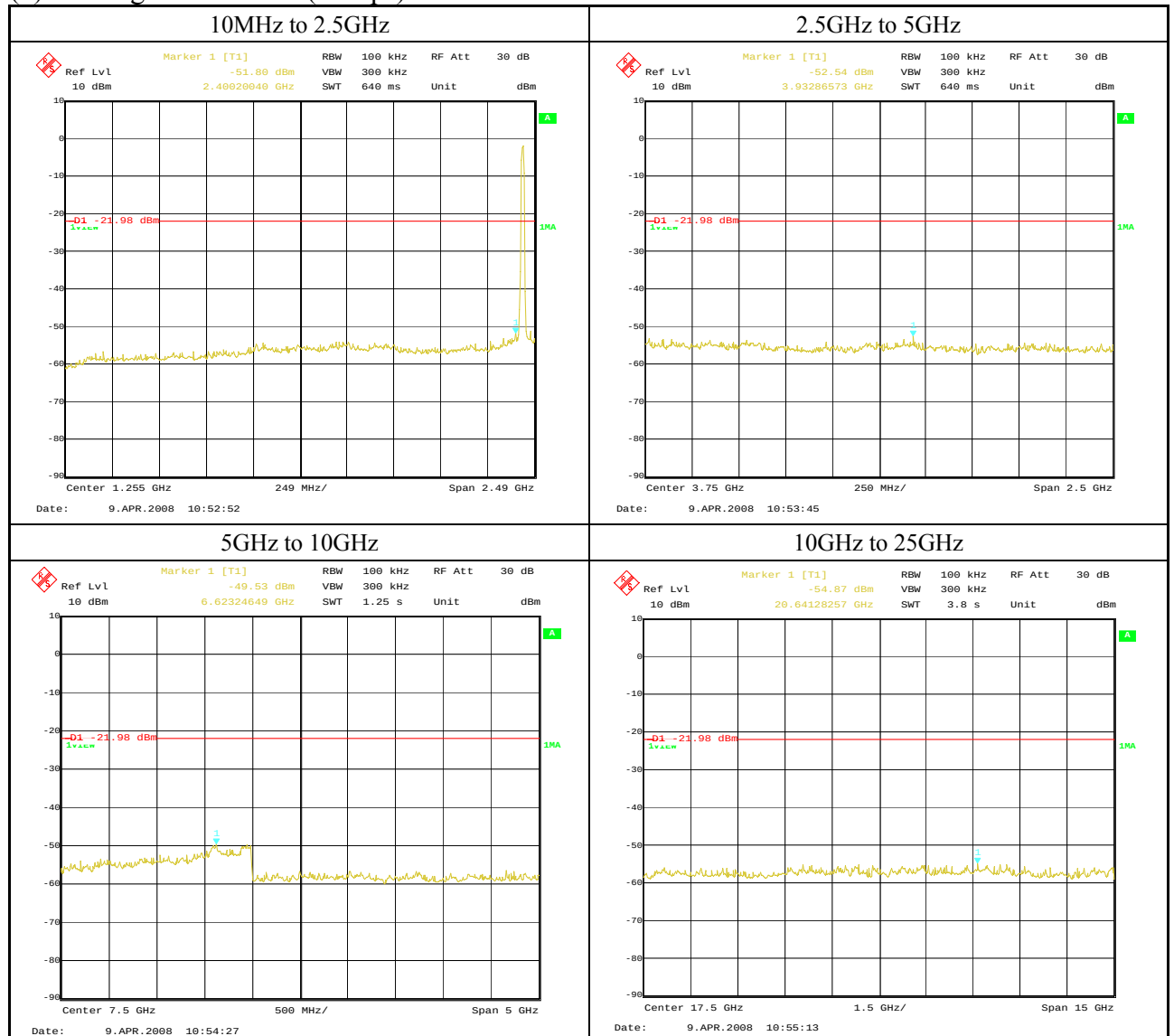
(3) 802.11b Mode DBPSK (1Mbps): 2462MHz



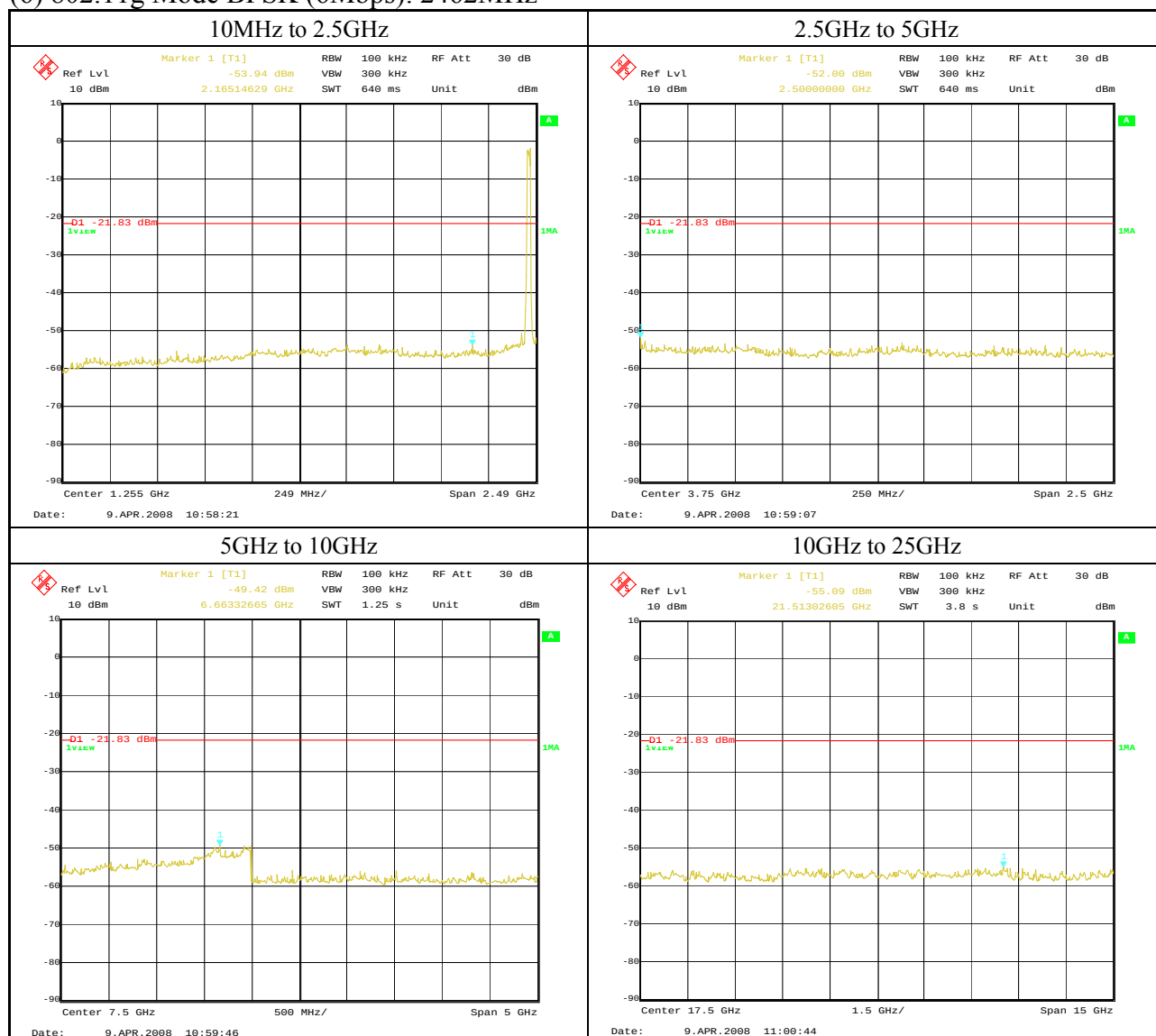
(4) 802.11g Mode BPSK (6Mbps): 2412MHz



(5) 802.11g Mode BPSK (6Mbps): 2437MHz

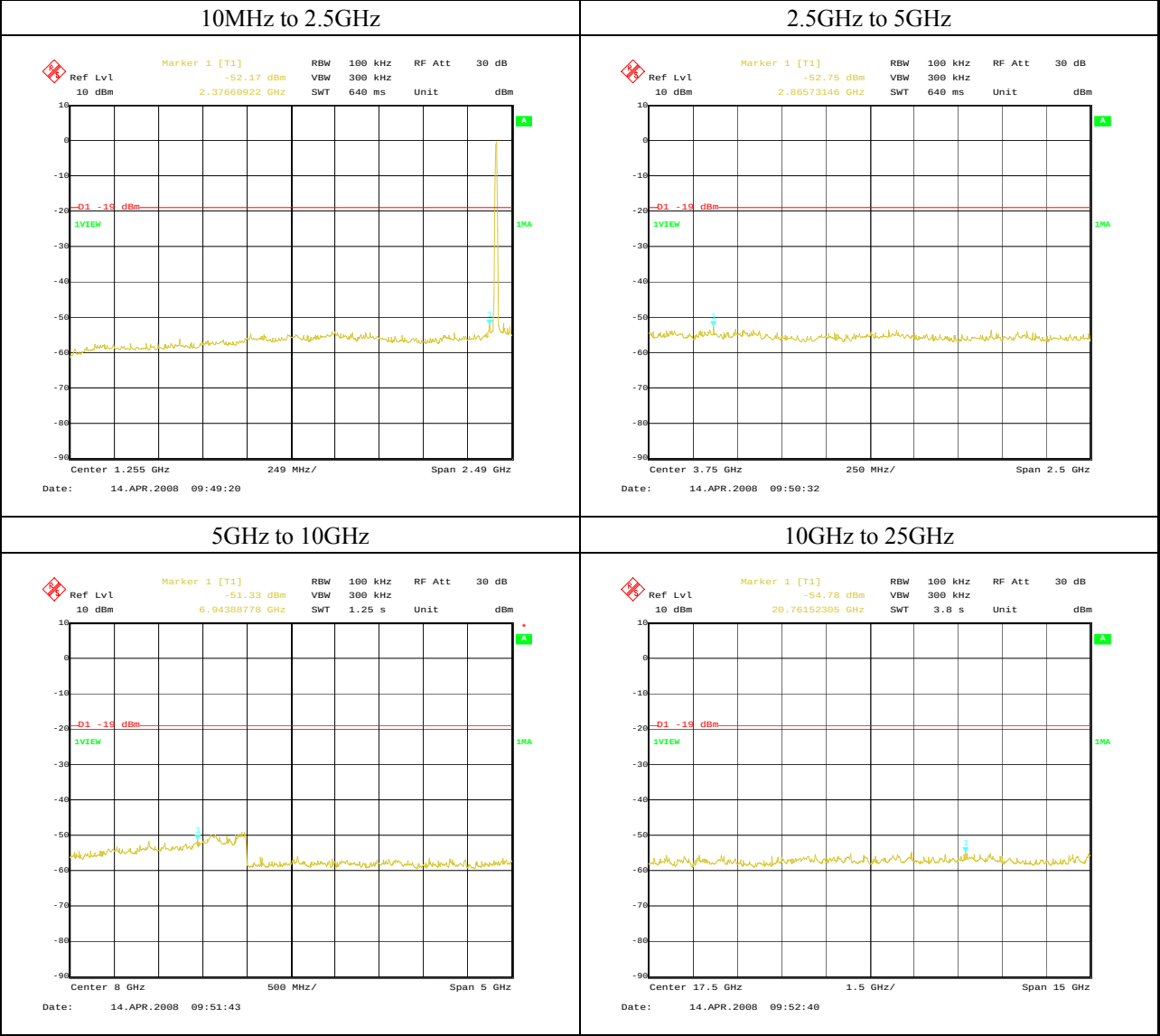


(6) 802.11g Mode BPSK (6Mbps): 2462MHz

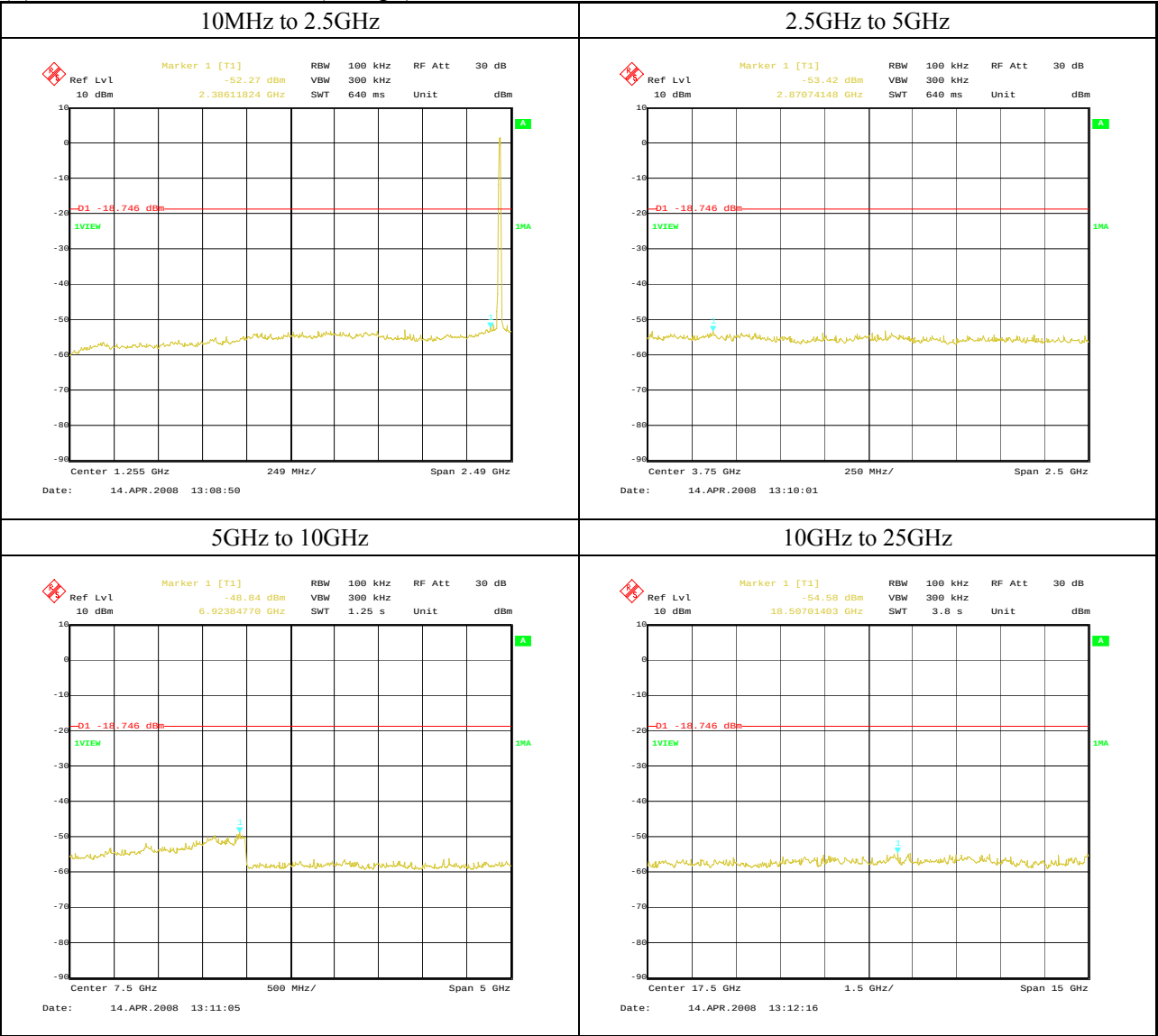


Data of Spurious Conducted Emission
(Print Circuit Board Model Number: HN79 MAIN DE2)

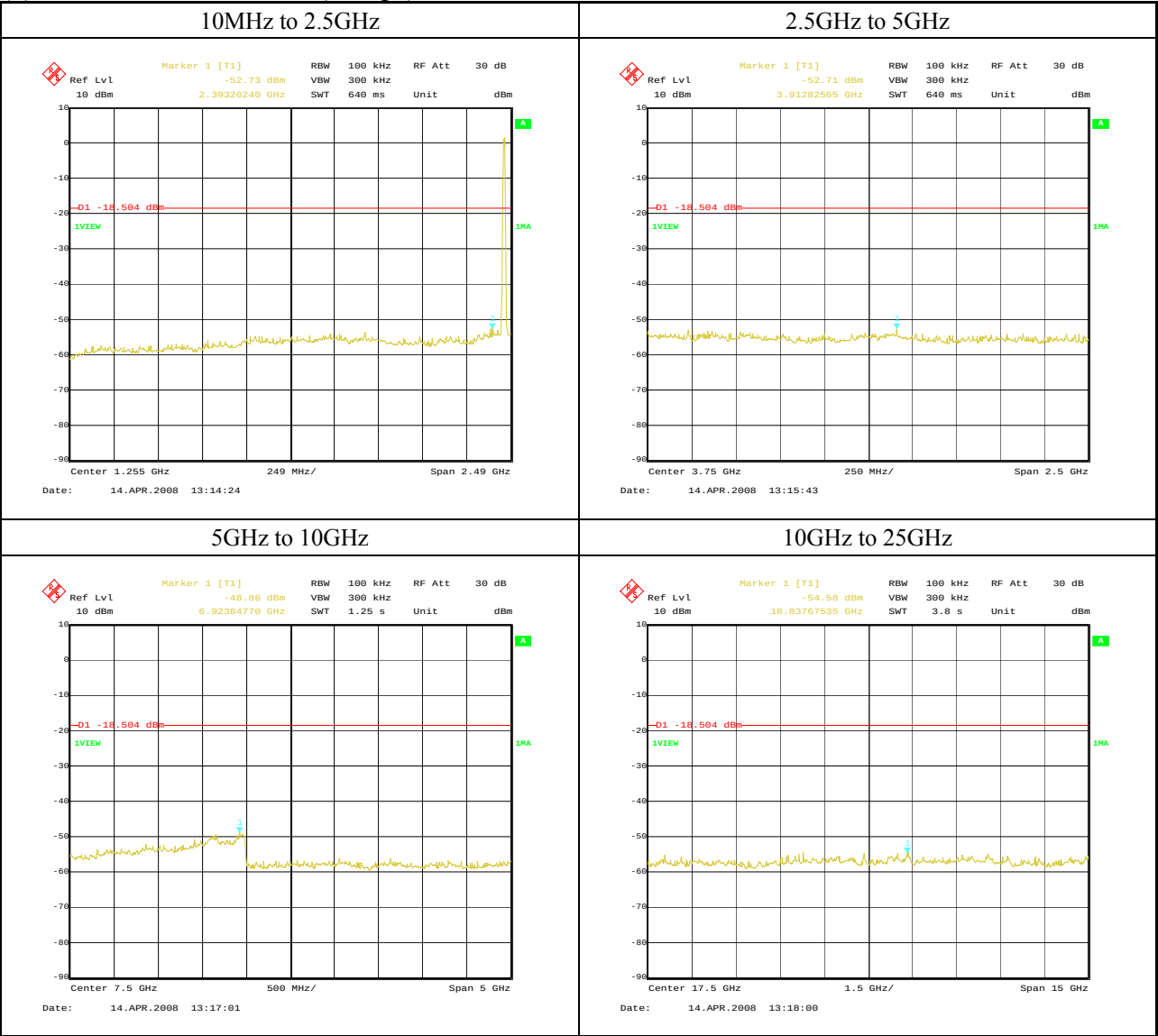
(1) 802.11b Mode DBPSK (1Mbps): 2412MHz



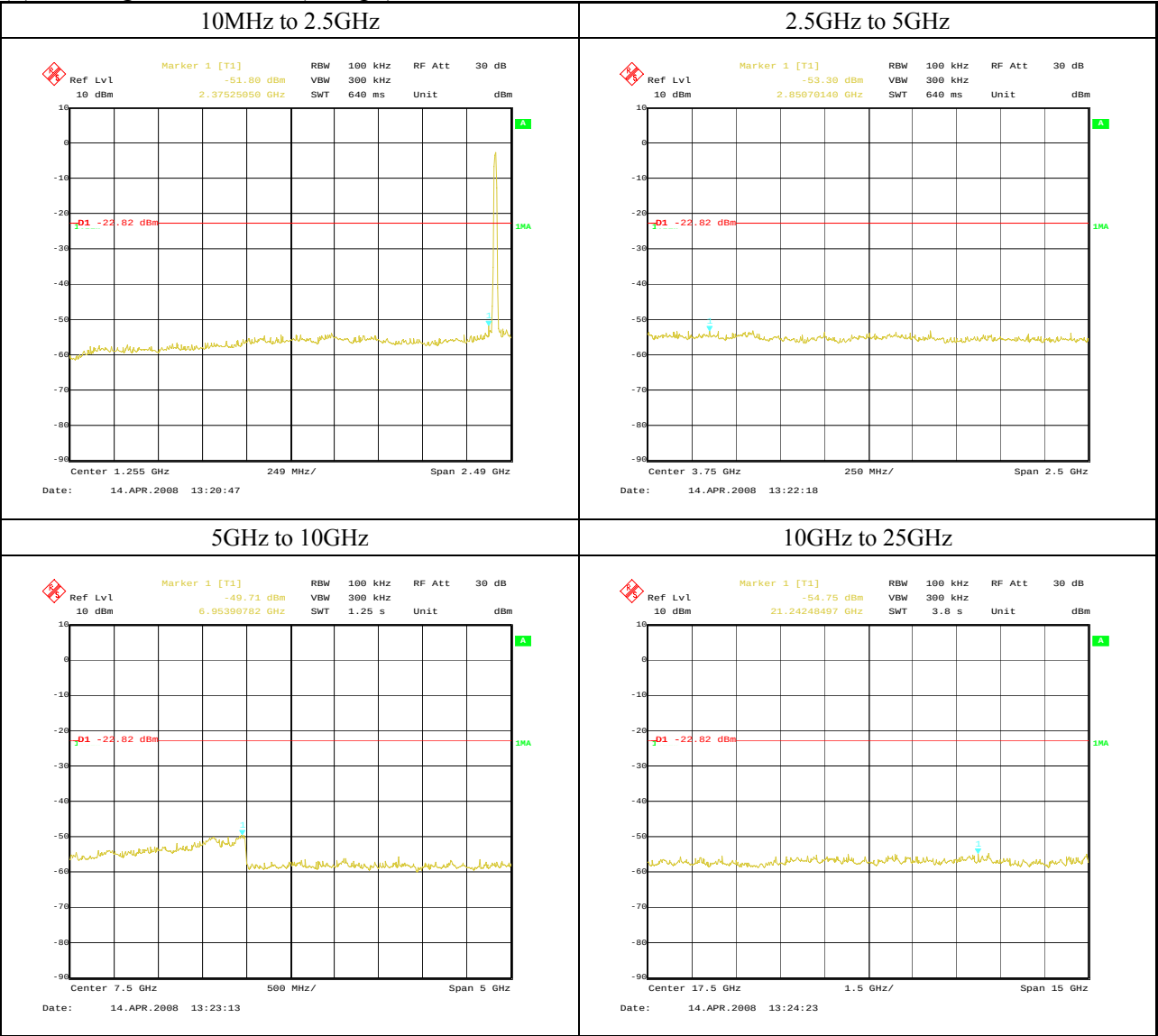
(2) 802.11b Mode DBPSK (1Mbps): 2437MHz



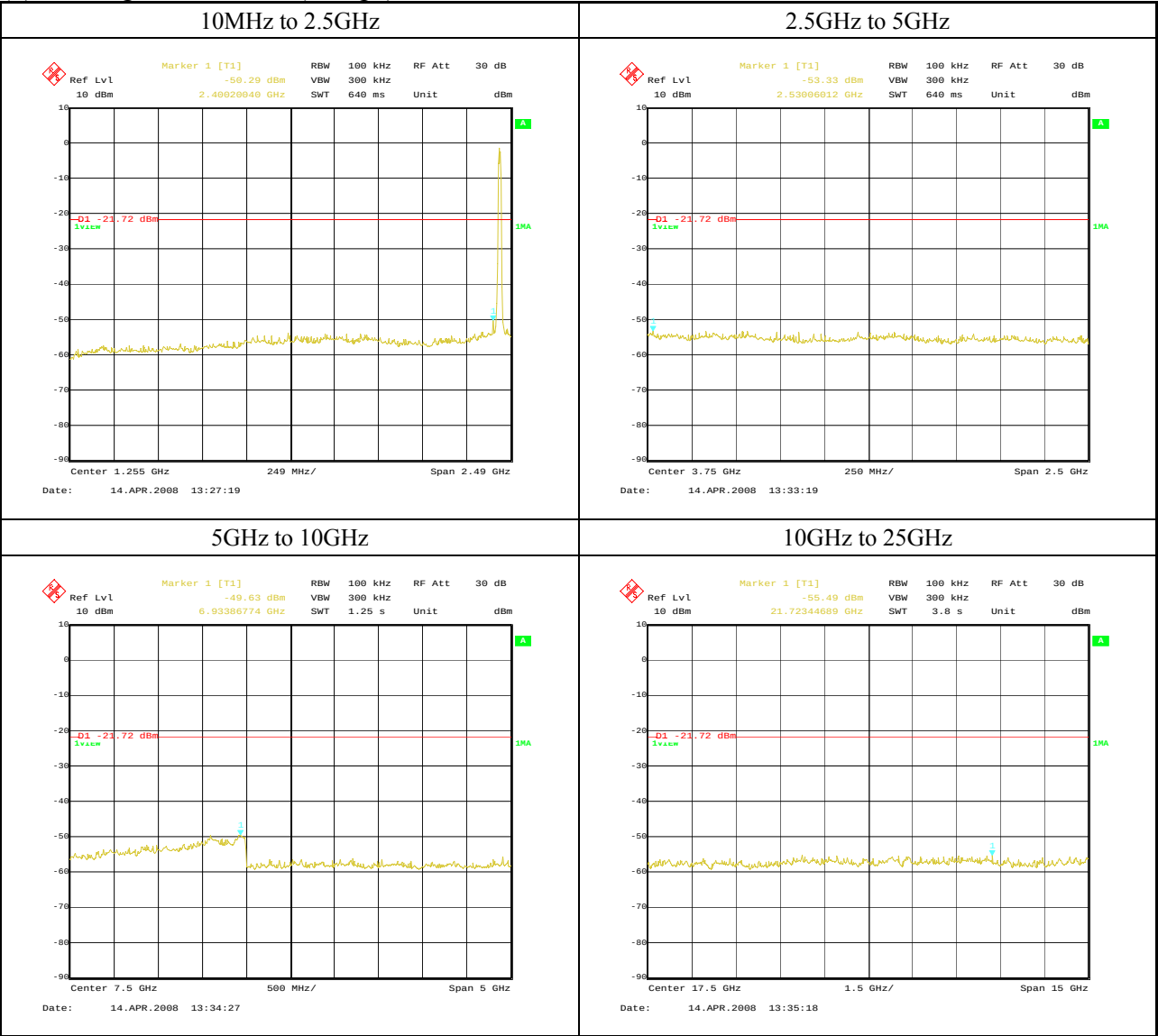
(3) 802.11b Mode DBPSK (1Mbps): 2462MHz



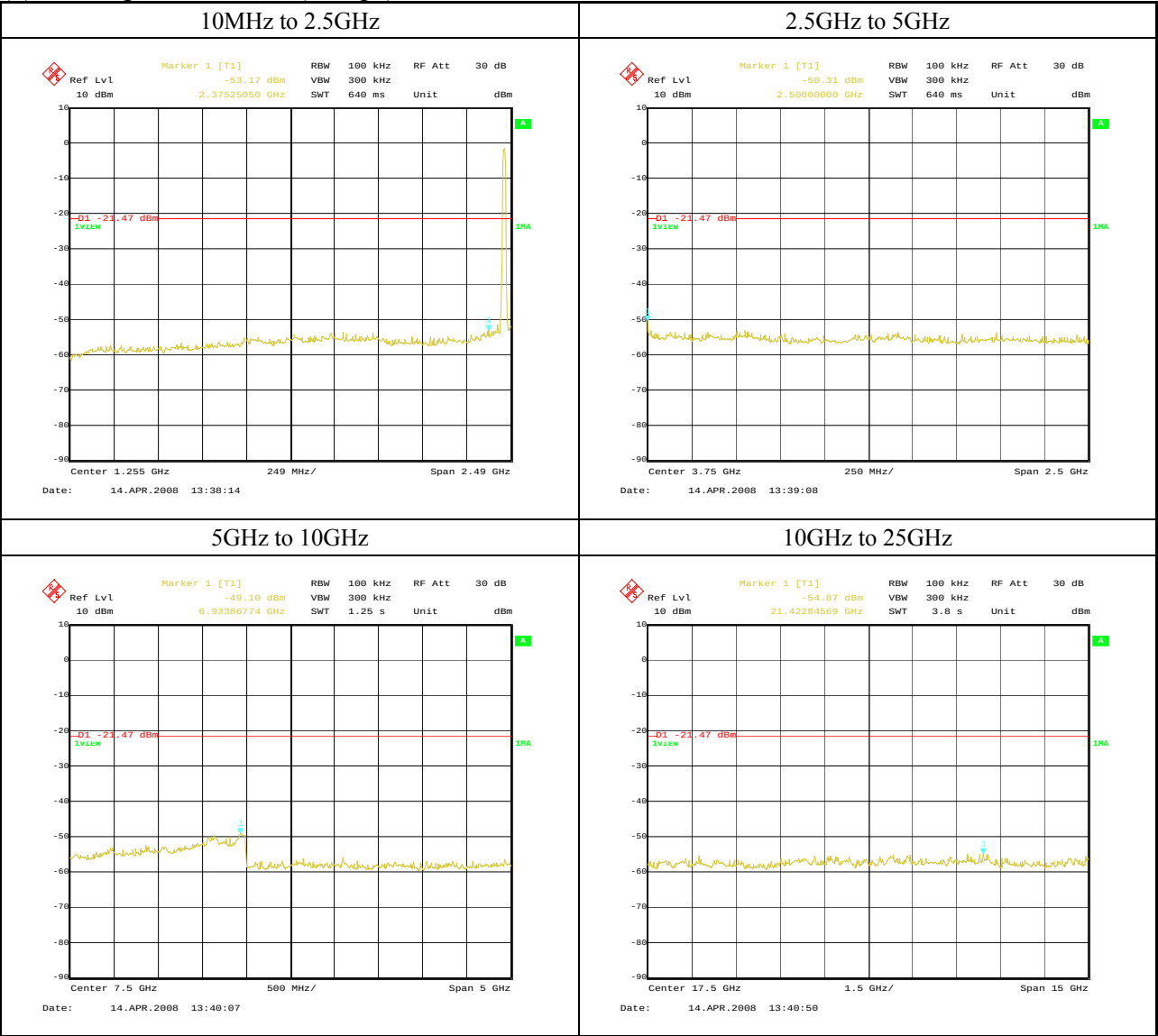
(4) 802.11g Mode BPSK (6Mbps): 2412MHz



(5) 802.11g Mode BPSK (6Mbps): 2437MHz



(6) 802.11g Mode BPSK (6Mbps): 2462MHz



10 Radiated Emission

10.1 Test Setup

- Δ1 The test setup was made according to ANSI STD C63.4: 2003 clause 8 on the 10-meter semi-anechoic chamber, which allows a 3 or 1 m distance measurement.
EUT was placed on non-conductive table (foam polystyrene) and arranged in three orthogonal axes.
The height of this table was 0.8 m.
The measurement has been conducted with both horizontal and vertical antenna polarization.
For above 1GHz, the receiving antenna is fixed in the height that EUT is in the illumination area of the 3dB beamwidth of the antenna.
The turntable has been fully rotated. The highest radiation of the equipment has been recorded.
For further description of the configuration refer to separate document named “Test Setup Photos (7265FC-2)”.

Distance between equipment and antenna : 3m (30MHz to 18GHz)
1m (18GHz to 25GHz)

Test Receiver Setting:

30~1000MHz:

Detector Mode	Quasi-Peak
Bandwidth	120kHz

Spectrum Analyzer Setting:

1~25GHz:

Detector Mode	Peak and Average
Bandwidth	Peak: RBW: 1MHz, VBW: 1MHz
	Average: RBW: 1MHz, VBW: 10Hz

10.2 Radiated Emission Calculation

The field strength is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain (if any) from the measured reading.

The basic equation with a sample calculation is as follows:

$$\begin{aligned} \text{c.f.} &= \text{AF} + \text{CF} + \text{AL} - \text{AG} - \text{DF} \\ \text{RE} &= \text{RA} + \text{c.f.} \end{aligned}$$

Where

c.f.	:	Correction Factor [dB(1/m)]
RE	:	Radiated Emission (Emission Level - Result) [dB(uV/m)]
RA	:	Receiver Amplitude (Reading Level) [dBuV]
AF	:	Antenna Factor [dB(1/m)]
CF	:	Cable Attenuation Loss [dB]
AG	:	Amplifier Gain [dB]
AL	:	Attenuator Loss [dB]
DF	:	Distance Factor
		Distance between equipment and antenna: 3m = 0 [dB]
		Distance between equipment and antenna: 1m = 9.5 [dB]

Assume a receiver reading of 36.5 dBuV is obtained.

The Correction Factor of -2.0 dB/m is added, giving a Radiated Emission of 34.5 dBuV/m.

The 34.5 dBuV/m value was mathematically converted to its corresponding level in uV/m.

$$\text{RE} = 36.5 + (-2.0) = 34.5 \text{ dBuV/m}$$

$$\text{Level in uV/m} = \text{Common Antilogarithm: } 10^{(34.5/20)} = 53.1 \text{ uV/m}$$

10.3 Test Results

Wireless LAN: Transmitting Mode (IEEE 802.11b (1Mbps))

Product	: Wireless LAN Module	Model	: K30306
Serial No.	: D6E750	Test Standard	: FCC Part15 Subpart C §15.247(d)
Power Supply	: DC 3.27V	Temp. / Humid.	: 22.8°C / 41.4%
Operator	: Fukuda		
Remark	: Transmitting Mode 802.11b (1Mbps)		

Print Circuit Board Model Number: HN76 MAIN DE2

Radiated Emission: Lch (2412MHz)

Axial Direction: XY-Plane

Below 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.006	H	43.5			-7.9	35.6			43.5	7.9			*

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.925	H			51.8	-7.0			44.8	74.0			29.2	
1679.925	H		45.3		-7.0		38.3		54.0		15.7		
1679.809	V			49.4	-7.0			42.4	74.0			31.6	
1679.809	V		40.6		-7.0		33.6		54.0		20.4		
4824.000	H			51.0	3.4			54.4	74.0			19.6	
4824.000	H		41.4		3.4		44.8		54.0		9.2		
4824.000	V			50.5	3.4			53.9	74.0			20.1	
4824.000	V		40.9		3.4		44.3		54.0		9.7		
7236.000	H			43.4	4.5			47.9	74.0			26.1	* Floor Noise
7236.000	H		31.2		4.5		35.7		54.0		18.3		* Floor Noise
9648.000	H			43.2	7.3			50.5	74.0			23.5	* Floor Noise
9648.000	H		30.9		7.3		38.2		54.0		15.8		* Floor Noise
12060.000	H			45.2	8.7			53.9	74.0			20.1	Floor Noise
12060.000	H		32.9		8.7		41.6		54.0		12.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: YZ-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	43.4			-7.9	35.5			43.5	8.0			*
240.010	H	46.7			-8.5	38.2			46.0	7.8			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.942	H			51.2	-7.0			44.2	74.0			29.8	
1679.942	H		44.5		-7.0		37.5		54.0		16.5		
1680.000	V			49.8	-7.0			42.8	74.0			31.2	
1680.000	V		40.5		-7.0		33.5		54.0		20.5		
4824.000	H			50.3	3.4			53.7	74.0			20.3	
4824.000	H		40.9		3.4		44.3		54.0		9.7		
4824.000	V			50.2	3.4			53.6	74.0			20.4	
4824.000	V		40.5		3.4		43.9		54.0		10.1		
7236.000	H			43.4	4.5			47.9	74.0			26.1	* Floor Noise
7236.000	H		31.2		4.5		35.7		54.0		18.3		* Floor Noise
9648.000	H			43.2	7.3			50.5	74.0			23.5	* Floor Noise
9648.000	H		30.9		7.3		38.2		54.0		15.8		* Floor Noise
12060.000	H			45.2	8.7			53.9	74.0			20.1	Floor Noise
12060.000	H		32.9		8.7		41.6		54.0		12.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: ZX-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.009	H	42.4			-7.9	34.5			43.5	9.0			*
240.010	H	47.9			-8.5	39.4			46.0	6.6			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.600	H			50.4	-7.0			43.4	74.0			30.6	
1679.600	H		42.6		-7.0		35.6		54.0		18.4		
1680.075	V			51.4	-7.0			44.4	74.0			29.6	
1680.075	V		44.2		-7.0		37.2		54.0		16.8		
4824.000	H			50.4	3.4			53.8	74.0			20.2	
4824.000	H		40.9		3.4		44.3		54.0		9.7		
4824.000	V			49.7	3.4			53.1	74.0			20.9	
4824.000	V		39.3		3.4		42.7		54.0		11.3		
7236.000	H			43.4	4.5			47.9	74.0			26.1	* Floor Noise
7236.000	H		31.2		4.5		35.7		54.0		18.3		* Floor Noise
9648.000	H			43.2	7.3			50.5	74.0			23.5	* Floor Noise
9648.000	H		30.9		7.3		38.2		54.0		15.8		* Floor Noise
12060.000	H			45.2	8.7			53.9	74.0			20.1	Floor Noise
12060.000	H		32.9		8.7		41.6		54.0		12.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Radiated Emission: Mch (2437MHz)**Axial Direction: XY-Plane****Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.009	H	40.7			-7.9	32.8			43.5	10.7			*
240.008	H	47.3			-8.5	38.8			46.0	7.2			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1680.050	H			52.4	-7.0			45.4	74.0			28.6	
1680.050	H		47.0		-7.0		40.0		54.0		14.0		
1680.075	V			50.6	-7.0			43.6	74.0			30.4	
1680.075	V		42.5		-7.0		35.5		54.0		18.5		
4874.000	H			50.8	3.5			54.3	74.0			19.7	
4874.000	H		41.1		3.5		44.6		54.0		9.4		
4874.000	V			50.0	3.5			53.5	74.0			20.5	
4874.000	V		40.5		3.5		44.0		54.0		10.0		
7311.000	H			44.6	5.0			49.6	74.0			24.4	Floor Noise
7311.000	H		31.6		5.0		36.6		54.0		17.4		Floor Noise
9748.000	H			42.5	7.4			49.9	74.0			24.1	* Floor Noise
9748.000	H		30.7		7.4		38.1		54.0		15.9		* Floor Noise
12185.000	H			44.8	8.6			53.4	74.0			20.6	Floor Noise
12185.000	H		32.0		8.6		40.6		54.0		13.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: YZ-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.007	H	43.8			-7.9	35.9			43.5	7.6			*
240.008	H	47.1			-8.5	38.6			46.0	7.4			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.742	H			52.4	-7.0			45.4	74.0			28.6	
1679.742	H		47.3		-7.0		40.3		54.0		13.7		
1680.000	V			50.0	-7.0			43.0	74.0			31.0	
1680.000	V		40.9		-7.0		33.9		54.0		20.1		
4874.000	H			51.0	3.5			54.5	74.0			19.5	
4874.000	H		41.2		3.5		44.7		54.0		9.3		
4874.000	V			50.2	3.5			53.7	74.0			20.3	
4874.000	V		40.6		3.5		44.1		54.0		9.9		
7311.000	H			44.6	5.0			49.6	74.0			24.4	Floor Noise
7311.000	H		31.6		5.0		36.6		54.0		17.4		Floor Noise
9748.000	H			42.5	7.4			49.9	74.0			24.1	* Floor Noise
9748.000	H		30.7		7.4		38.1		54.0		15.9		* Floor Noise
12185.000	H			44.8	8.6			53.4	74.0			20.6	Floor Noise
12185.000	H		32.0		8.6		40.6		54.0		13.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: ZX-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.009	H	40.5			-7.9	32.6			43.5	10.9			*
240.008	H	47.0			-8.5	38.5			46.0	7.5			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.917	H			51.1	-7.0			44.1	74.0			29.9	
1679.917	H		44.2		-7.0		37.2		54.0		16.8		
1680.175	V			51.0	-7.0			44.0	74.0			30.0	
1680.175	V		44.8		-7.0		37.8		54.0		16.2		
4874.000	H			49.7	3.5			53.2	74.0			20.8	
4874.000	H		40.0		3.5		43.5		54.0		10.5		
4874.000	V			49.4	3.5			52.9	74.0			21.1	
4874.000	V		39.9		3.5		43.4		54.0		10.6		
7311.000	H			44.6	5.0			49.6	74.0			24.4	Floor Noise
7311.000	H		31.6		5.0		36.6		54.0		17.4		Floor Noise
9748.000	H			42.5	7.4			49.9	74.0			24.1	* Floor Noise
9748.000	H		30.7		7.4		38.1		54.0		15.9		* Floor Noise
12185.000	H			44.8	8.6			53.4	74.0			20.6	Floor Noise
12185.000	H		32.0		8.6		40.6		54.0		13.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Radiated Emission: Hch (2462MHz)**Axial Direction: XY-Plane****Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	40.7			-7.9	32.8			43.5	10.7			*
240.010	H	47.0			-8.5	38.5			46.0	7.5			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1680.050	H			52.3	-7.0			45.3	74.0			28.7	
1680.050	H	46.9			-7.0		39.9		54.0		14.1		
1679.967	V			50.2	-7.0			43.2	74.0			30.8	
1679.967	V	42.5			-7.0		35.5		54.0		18.5		
4924.000	H			49.6	3.6			53.2	74.0			20.8	
4924.000	H	40.2			3.6		43.8		54.0		10.2		
4924.000	V			50.5	3.6			54.1	74.0			19.9	
4924.000	V	40.7			3.6		44.3		54.0		9.7		
7386.000	H			44.3	5.4			49.7	74.0			24.3	Floor Noise
7386.000	H	32.2			5.4		37.6		54.0		16.4		Floor Noise
9848.000	H			43.0	7.6			50.6	74.0			23.4	* Floor Noise
9848.000	H	31.0			7.6		38.6		54.0		15.4		* Floor Noise
12310.000	H			44.2	8.5			52.7	74.0			21.3	Floor Noise
12310.000	H	31.7			8.5		40.2		54.0		13.8		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: YZ-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.007	H	42.8			-7.9	34.9			43.5	8.6			*
240.007	H	47.7			-8.5	39.2			46.0	6.8			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1680.167	H			52.0	-7.0			45.0	74.0			29.0	
1680.167	H		45.8		-7.0		38.8		54.0		15.2		
1679.858	V			50.3	-7.0			43.3	74.0			30.7	
1679.858	V		42.6		-7.0		35.6		54.0		18.4		
4924.000	H			51.4	3.6			55.0	74.0			19.0	
4924.000	H		41.3		3.6		44.9		54.0		9.1		
4924.000	V			51.4	3.6			55.0	74.0			19.0	
4924.000	V		41.5		3.6		45.1		54.0		8.9		
7386.000	H			44.3	5.4			49.7	74.0			24.3	Floor Noise
7386.000	H		32.2		5.4		37.6		54.0		16.4		Floor Noise
9848.000	H			43.0	7.6			50.6	74.0			23.4	* Floor Noise
9848.000	H		31.0		7.6		38.6		54.0		15.4		* Floor Noise
12310.000	H			44.2	8.5			52.7	74.0			21.3	Floor Noise
12310.000	H		31.7		8.5		40.2		54.0		13.8		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: ZX-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	42.9			-7.9	35.0			43.5	8.5			*
240.008	H	46.6			-8.5	38.1			46.0	7.9			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.692	H			52.3	-7.0			45.3	74.0			28.7	
1679.692	H		46.8		-7.0		39.8		54.0		14.2		
1679.950	V			51.1	-7.0			44.1	74.0			29.9	
1679.950	V		44.0		-7.0		37.0		54.0		17.0		
4924.000	H			49.6	3.6			53.2	74.0			20.8	
4924.000	H		39.5		3.6		43.1		54.0		10.9		
4924.000	V			51.0	3.6			54.6	74.0			19.4	
4924.000	V		41.3		3.6		44.9		54.0		9.1		
7386.000	H			44.3	5.4			49.7	74.0			24.3	Floor Noise
7386.000	H		32.2		5.4		37.6		54.0		16.4		Floor Noise
9848.000	H			43.0	7.6			50.6	74.0			23.4	* Floor Noise
9848.000	H		31.0		7.6		38.6		54.0		15.4		* Floor Noise
12310.000	H			44.2	8.5			52.7	74.0			21.3	Floor Noise
12310.000	H		31.7		8.5		40.2		54.0		13.8		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Print Circuit Board Model Number: HN79 MAIN DE2

Radiated Emission: Lch (2412MHz)

Axial Direction: XY-Plane

Below 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.009	H	42.4			-7.9	34.5			43.5	9.0			*
240.007	H	45.3			-3.5	41.8			46.0	4.2			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.900	H			52.5	-7.0			45.5	74.0			28.5	
1679.900	H		47.8		-7.0		40.8		54.0		13.2		
1679.917	V			51.3	-7.0			44.3	74.0			29.7	
1679.917	V		44.2		-7.0		37.2		54.0		16.8		
4824.000	H			50.0	3.4			53.4	74.0			20.6	
4824.000	H		40.3		3.4		43.7		54.0		10.3		
4824.000	V			48.8	3.4			52.2	74.0			21.8	
4824.000	V		38.1		3.4		41.5		54.0		12.5		
7236.000	H			44.2	4.5			48.7	74.0			25.3	* Floor Noise
7236.000	H		31.3		4.5		35.8		54.0		18.2		* Floor Noise
9648.000	H			43.6	7.3			50.9	74.0			23.1	* Floor Noise
9648.000	H		30.9		7.3		38.2		54.0		15.8		* Floor Noise
12060.000	H			45.5	8.7			54.2	74.0			19.8	Floor Noise
12060.000	H		32.9		8.7		41.6		54.0		12.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: YZ-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	42.6			-7.9	34.7			43.5	8.8			*
240.008	H	45.0			-3.5	41.5			46.0	4.5			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.967	H			52.9	-7.0			45.9	74.0			28.1	
1679.967	H		48.0		-7.0		41.0		54.0		13.0		
1680.025	V			51.2	-7.0			44.2	74.0			29.8	
1680.025	V		43.8		-7.0		36.8		54.0		17.2		
4824.000	H			50.4	3.4			53.8	74.0			20.2	
4824.000	H		40.2		3.4		43.6		54.0		10.4		
4824.000	V			47.9	3.4			51.3	74.0			22.7	
4824.000	V		38.6		3.4		42.0		54.0		12.0		
7236.000	H			44.2	4.5			48.7	74.0			25.3	* Floor Noise
7236.000	H		31.3		4.5		35.8		54.0		18.2		* Floor Noise
9648.000	H			43.6	7.3			50.9	74.0			23.1	* Floor Noise
9648.000	H		30.9		7.3		38.2		54.0		15.8		* Floor Noise
12060.000	H			45.5	8.7			54.2	74.0			19.8	Floor Noise
12060.000	H		32.9		8.7		41.6		54.0		12.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: ZX-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	43.8			-7.9	35.9			43.5	7.6			*
240.008	H	45.6			-3.5	42.1			46.0	3.9			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.908	H			53.1	-7.0			46.1	74.0			27.9	
1679.908	H		48.2		-7.0		41.2		54.0		12.8		
1680.000	V			51.7	-7.0			44.7	74.0			29.3	
1680.000	V		46.1		-7.0		39.1		54.0		14.9		
4824.000	H			49.9	3.4			53.3	74.0			20.7	
4824.000	H		39.9		3.4		43.3		54.0		10.7		
4824.000	V			49.2	3.4			52.6	74.0			21.4	
4824.000	V		39.7		3.4		43.1		54.0		10.9		
7236.000	H			44.2	4.5			48.7	74.0			25.3	* Floor Noise
7236.000	H		31.3		4.5		35.8		54.0		18.2		* Floor Noise
9648.000	H			43.6	7.3			50.9	74.0			23.1	* Floor Noise
9648.000	H		30.9		7.3		38.2		54.0		15.8		* Floor Noise
12060.000	H			45.5	8.7			54.2	74.0			19.8	Floor Noise
12060.000	H		32.9		8.7		41.6		54.0		12.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Radiated Emission: Mch (2437MHz)**Axial Direction: XY-Plane****Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.006	H	42.1			-7.9	34.2			43.5	9.3			*
240.009	H	45.2			-3.5	41.7			46.0	4.3			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1680.058	H			53.2	-7.0			46.2	74.0			27.8	
1680.058	H	47.8			-7.0		40.8		54.0		13.2		
1680.167	V			50.8	-7.0			43.8	74.0			30.2	
1680.167	V	43.7			-7.0		36.7		54.0		17.3		
4874.000	H			50.0	3.5			53.5	74.0			20.5	
4874.000	H	39.8			3.5		43.3		54.0		10.7		
4874.000	V			48.5	3.5			52.0	74.0			22.0	
4874.000	V	38.8			3.5		42.3		54.0		11.7		
7311.000	H			44.1	5.0			49.1	74.0			24.9	Floor Noise
7311.000	H	31.7			5.0		36.7		54.0		17.3		Floor Noise
9748.000	H			42.8	7.4			50.2	74.0			23.8	* Floor Noise
9748.000	H	30.7			7.4		38.1		54.0		15.9		* Floor Noise
12185.000	H			45.3	8.6			53.9	74.0			20.1	Floor Noise
12185.000	H	32.0			8.6		40.6		54.0		13.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: YZ-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.010	H	43.7			-7.9	35.8			43.5	7.7			*
240.008	H	45.5			-3.5	42.0			46.0	4.0			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.908	H			52.8	-7.0			45.8	74.0			28.2	
1679.908	H		48.4		-7.0		41.4		54.0		12.6		
1680.025	V			51.4	-7.0			44.4	74.0			29.6	
1680.025	V		44.5		-7.0		37.5		54.0		16.5		
4874.000	H			47.9	3.5			51.4	74.0			22.6	
4874.000	H		38.3		3.5		41.8		54.0		12.2		
4874.000	V			48.5	3.5			52.0	74.0			22.0	
4874.000	V		39.2		3.5		42.7		54.0		11.3		
7311.000	H			44.1	5.0			49.1	74.0			24.9	Floor Noise
7311.000	H		31.7		5.0		36.7		54.0		17.3		Floor Noise
9748.000	H			42.8	7.4			50.2	74.0			23.8	* Floor Noise
9748.000	H		30.7		7.4		38.1		54.0		15.9		* Floor Noise
12185.000	H			45.3	8.6			53.9	74.0			20.1	Floor Noise
12185.000	H		32.0		8.6		40.6		54.0		13.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: ZX-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	41.1			-7.9	33.2			43.5	10.3			*
240.008	H	47.0			-3.5	43.5			46.0	2.5			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.933	H			52.6	-7.0			45.6	74.0			28.4	
1679.933	H		47.7		-7.0		40.7		54.0		13.3		
1679.975	V			53.0	-7.0			46.0	74.0			28.0	
1679.975	V		47.8		-7.0		40.8		54.0		13.2		
4874.000	H			50.0	3.5			53.5	74.0			20.5	
4874.000	H		40.4		3.5		43.9		54.0		10.1		
4874.000	V			49.7	3.5			53.2	74.0			20.8	
4874.000	V		40.1		3.5		43.6		54.0		10.4		
7311.000	H			44.1	5.0			49.1	74.0			24.9	Floor Noise
7311.000	H		31.7		5.0		36.7		54.0		17.3		Floor Noise
9748.000	H			42.8	7.4			50.2	74.0			23.8	* Floor Noise
9748.000	H		30.7		7.4		38.1		54.0		15.9		* Floor Noise
12185.000	H			45.3	8.6			53.9	74.0			20.1	Floor Noise
12185.000	H		32.0		8.6		40.6		54.0		13.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Radiated Emission: Hch (2462MHz)**Axial Direction: XY-Plane****Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.009	H	44.3			-7.9	36.4			43.5	7.1			*
240.009	H	44.1			-3.5	40.6			46.0	5.4			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1680.000	V			49.1	-7.0			42.1	74.0			31.9	
1680.000	V		39.1		-7.0		32.1		54.0		21.9		
1680.083	H			52.5	-7.0			45.5	74.0			28.5	
1680.083	H		47.7		-7.0		40.7		54.0		13.3		
4924.000	H			50.2	3.6			53.8	74.0			20.2	
4924.000	H		40.5		3.6		44.1		54.0		9.9		
4924.000	V			50.3	3.6			53.9	74.0			20.1	
4924.000	V		40.3		3.6		43.9		54.0		10.1		
7386.000	H			45.3	5.4			50.7	74.0			23.3	Floor Noise
7386.000	H		32.1		5.4		37.5		54.0		16.5		Floor Noise
9848.000	H			43.2	7.6			50.8	74.0			23.2	* Floor Noise
9848.000	H		30.9		7.6		38.5		54.0		15.5		* Floor Noise
12310.000	H			44.8	8.5			53.3	74.0			20.7	Floor Noise
12310.000	H		31.7		8.5		40.2		54.0		13.8		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: YZ-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	41.5			-7.9	33.6			43.5	9.9			*
240.008	H	44.1			-3.5	40.6			46.0	5.4			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.783	V			49.9	-7.0			42.9	74.0			31.1	
1679.783	V		42.1		-7.0		35.1		54.0		18.9		
1680.058	H			52.1	-7.0			45.1	74.0			28.9	
1680.058	H		47.1		-7.0		40.1		54.0		13.9		
4924.000	H			51.1	3.6			54.7	74.0			19.3	
4924.000	H		41.4		3.6		45.0		54.0		9.0		
4924.000	V			50.4	3.6			54.0	74.0			20.0	
4924.000	V		40.6		3.6		44.2		54.0		9.8		
7386.000	H			45.3	5.4			50.7	74.0			23.3	Floor Noise
7386.000	H		32.1		5.4		37.5		54.0		16.5		Floor Noise
9848.000	H			43.2	7.6			50.8	74.0			23.2	* Floor Noise
9848.000	H		30.9		7.6		38.5		54.0		15.5		* Floor Noise
12310.000	H			44.8	8.5			53.3	74.0			20.7	Floor Noise
12310.000	H		31.7		8.5		40.2		54.0		13.8		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: ZX-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	41.3			-7.9	33.4			43.5	10.1			*
240.008	H	45.2			-3.5	41.7			46.0	4.3			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1680.117	H			52.5	-7.0			45.5	74.0			28.5	
1680.117	H		47.2		-7.0		40.2		54.0		13.8		
1680.158	V			52.2	-7.0			45.2	74.0			28.8	
1680.158	V		46.7		-7.0		39.7		54.0		14.3		
4924.000	H			49.2	3.6			52.8	74.0			21.2	
4924.000	H		39.1		3.6		42.7		54.0		11.3		
4924.000	V			50.4	3.6			54.0	74.0			20.0	
4924.000	V		40.8		3.6		44.4		54.0		9.6		
7386.000	H			45.3	5.4			50.7	74.0			23.3	Floor Noise
7386.000	H		32.1		5.4		37.5		54.0		16.5		Floor Noise
9848.000	H			43.2	7.6			50.8	74.0			23.2	* Floor Noise
9848.000	H		30.9		7.6		38.5		54.0		15.5		* Floor Noise
12310.000	H			44.8	8.5			53.3	74.0			20.7	Floor Noise
12310.000	H		31.7		8.5		40.2		54.0		13.8		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Wireless LAN: Transmitting Mode (IEEE 802.11g (6Mbps))

Product	: Wireless LAN Module	Model	: K30306
Serial No.	: D6E750	Test Standard	: FCC Part15 Subpart C §15.247(d)
Power Supply	: DC 3.27V	Temp. / Humid.	: 22.8°C / 41.4%
Operator	: Fukuda		
Remark	: Transmitting Mode 802.11g (6Mbps)		

Print Circuit Board Model Number: HN76 MAIN DE2Radiated Emission: Lch (2412MHz)Axial Direction: XY-PlaneBelow 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.009	H	40.9			-7.9	33.0			43.5	10.5			*
240.010	H	46.9			-8.5	38.4			46.0	7.6			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1680.167	H			53.0	-7.0			46.0	74.0			28.0	
1680.167	H		47.8		-7.0		40.8		54.0		13.2		
1680.200	V			50.9	-7.0			43.9	74.0			30.1	
1680.200	V		43.9		-7.0		36.9		54.0		17.1		
4824.000	H			48.2	3.4			51.6	74.0			22.4	
4824.000	H		32.5		3.4		35.9		54.0		18.1		
4824.000	V			47.3	3.4			50.7	74.0			23.3	
4824.000	V		32.5		3.4		35.9		54.0		18.1		
7236.000	H			43.6	4.5			48.1	74.0			25.9	* Floor Noise
7236.000	H		31.5		4.5		36.0		54.0		18.0		* Floor Noise
9648.000	H			43.4	7.3			50.7	74.0			23.3	* Floor Noise
9648.000	H		31.0		7.3		38.3		54.0		15.7		* Floor Noise
12060.000	H			45.7	8.7			54.4	74.0			19.6	Floor Noise
12060.000	H		33.0		8.7		41.7		54.0		12.3		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: YZ-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.009	H	43.7			-7.9	35.8			43.5	7.7			*
240.008	H	46.8			-8.5	38.3			46.0	7.7			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.833	V			49.6	-7.0			42.6	74.0			31.4	
1679.833	V		41.9		-7.0		34.9		54.0		19.1		
1680.017	H			52.2	-7.0			45.2	74.0			28.8	
1680.017	H		46.5		-7.0		39.5		54.0		14.5		
4824.000	H			48.1	3.4			51.5	74.0			22.5	
4824.000	H		32.7		3.4		36.1		54.0		17.9		
4824.000	V			47.8	3.4			51.2	74.0			22.8	
4824.000	V		32.8		3.4		36.2		54.0		17.8		
7236.000	H			43.6	4.5			48.1	74.0			25.9	* Floor Noise
7236.000	H		31.5		4.5		36.0		54.0		18.0		* Floor Noise
9648.000	H			43.4	7.3			50.7	74.0			23.3	* Floor Noise
9648.000	H		31.0		7.3		38.3		54.0		15.7		* Floor Noise
12060.000	H			45.7	8.7			54.4	74.0			19.6	Floor Noise
12060.000	H		33.0		8.7		41.7		54.0		12.3		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: ZX-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.007	H	42.7			-7.9	34.8			43.5	8.7			*
240.006	H	47.4			-8.5	38.9			46.0	7.1			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.950	V			51.5	-7.0			44.5	74.0			29.5	
1679.950	V		45.7		-7.0		38.7		54.0		15.3		
1680.033	H			51.6	-7.0			44.6	74.0			29.4	
1680.033	H		45.7		-7.0		38.7		54.0		15.3		
4824.000	H			46.3	3.4			49.7	74.0			24.3	
4824.000	H		32.3		3.4		35.7		54.0		18.3		
4824.000	V			45.8	3.4			49.2	74.0			24.8	
4824.000	V		32.0		3.4		35.4		54.0		18.6		
7236.000	H			43.6	4.5			48.1	74.0			25.9	* Floor Noise
7236.000	H		31.5		4.5		36.0		54.0		18.0		* Floor Noise
9648.000	H			43.4	7.3			50.7	74.0			23.3	* Floor Noise
9648.000	H		31.0		7.3		38.3		54.0		15.7		* Floor Noise
12060.000	H			45.7	8.7			54.4	74.0			19.6	Floor Noise
12060.000	H		33.0		8.7		41.7		54.0		12.3		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Radiated Emission: Mch (2437MHz)**Axial Direction: XY-Plane**

Below 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.007	H	41.1			-7.9	33.2			43.5	10.3			*
240.009	H	46.4			-8.5	37.9			46.0	8.1			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.858	H			52.8	-7.0			45.8	74.0			28.2	
1679.858	H		47.8		-7.0		40.8		54.0		13.2		
1680.117	V			51.3	-7.0			44.3	74.0			29.7	
1680.117	V		44.6		-7.0		37.6		54.0		16.4		
4874.000	H			45.1	3.5			48.6	74.0			25.4	
4874.000	H		31.5		3.5		35.0		54.0		19.0		
4874.000	V			48.3	3.5			51.8	74.0			22.2	
4874.000	V		32.6		3.5		36.1		54.0		17.9		
7311.000	H			44.4	5.0			49.4	74.0			24.6	Floor Noise
7311.000	H		31.6		5.0		36.6		54.0		17.4		Floor Noise
9748.000	H			44.1	7.4			51.5	74.0			22.5	* Floor Noise
9748.000	H		30.7		7.4		38.1		54.0		15.9		* Floor Noise
12185.000	H			44.7	8.6			53.3	74.0			20.7	Floor Noise
12185.000	H		32.1		8.6		40.7		54.0		13.3		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: YZ-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.007	H	41.5			-7.9	33.6			43.5	9.9			*
240.007	H	46.3			-8.5	37.8			46.0	8.2			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1680.200	H			53.0	-7.0			46.0	74.0			28.0	
1680.200	H		48.1		-7.0		41.1		54.0		12.9		
1680.920	V			50.9	-7.0			43.9	74.0			30.1	
1680.920	V		43.4		-7.0		36.4		54.0		17.6		
4874.000	H			49.2	3.5			52.7	74.0			21.3	
4874.000	H		32.7		3.5		36.2		54.0		17.8		
4874.000	V			48.5	3.5			52.0	74.0			22.0	
4874.000	V		32.5		3.5		36.0		54.0		18.0		
7311.000	H			44.4	5.0			49.4	74.0			24.6	Floor Noise
7311.000	H		31.6		5.0		36.6		54.0		17.4		Floor Noise
9748.000	H			44.1	7.4			51.5	74.0			22.5	* Floor Noise
9748.000	H		30.7		7.4		38.1		54.0		15.9		* Floor Noise
12185.000	H			44.7	8.6			53.3	74.0			20.7	Floor Noise
12185.000	H		32.1		8.6		40.7		54.0		13.3		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: ZX-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	41.8			-7.9	33.9			43.5	9.6			*
240.008	H	48.1			-8.5	39.6			46.0	6.4			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1680.042	V			51.6	-7.0			44.6	74.0			29.4	
1680.042	V		45.3		-7.0		38.3		54.0		15.7		
1680.125	H			51.1	-7.0			44.1	74.0			29.9	
1680.125	H		43.7		-7.0		36.7		54.0		17.3		
4874.000	H			45.0	3.5			48.5	74.0			25.5	
4874.000	H		31.5		3.5		35.0		54.0		19.0		
4874.000	V			46.7	3.5			50.2	74.0			23.8	
4874.000	V		32.2		3.5		35.7		54.0		18.3		
7311.000	H			44.4	5.0			49.4	74.0			24.6	Floor Noise
7311.000	H		31.6		5.0		36.6		54.0		17.4		Floor Noise
9748.000	H			44.1	7.4			51.5	74.0			22.5	* Floor Noise
9748.000	H		30.7		7.4		38.1		54.0		15.9		* Floor Noise
12185.000	H			44.7	8.6			53.3	74.0			20.7	Floor Noise
12185.000	H		32.1		8.6		40.7		54.0		13.3		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Radiated Emission: Hch (2462MHz)**Axial Direction: XY-Plane**

Below 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.007	H	43.4			-7.9	35.5			43.5	8.0			*
240.008	H	46.8			-8.5	38.3			46.0	7.7			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1680.075	H			52.1	-7.0			45.1	74.0			28.9	
1680.075	H		46.5		-7.0		39.5		54.0		14.5		
1680.283	V			50.4	-7.0			43.4	74.0			30.6	
1680.283	V		43.2		-7.0		36.2		54.0		17.8		
4924.000	H			45.8	3.6			49.4	74.0			24.6	
4924.000	H		32.2		3.6		35.8		54.0		18.2		
4924.000	V			47.7	3.6			51.3	74.0			22.7	
4924.000	V		32.8		3.6		36.4		54.0		17.6		
7386.000	H			44.2	5.4			49.6	74.0			24.4	Floor Noise
7386.000	H		32.2		5.4		37.6		54.0		16.4		Floor Noise
9848.000	H			43.2	7.6			50.8	74.0			23.2	* Floor Noise
9848.000	H		31.0		7.6		38.6		54.0		15.4		* Floor Noise
12310.000	H			44.6	8.5			53.1	74.0			20.9	Floor Noise
12310.000	H		31.7		8.5		40.2		54.0		13.8		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: YZ-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	43.5			-7.9	35.6			43.5	7.9			*
240.007	H	47.0			-8.5	38.5			46.0	7.5			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1386.425	H			53.5	-7.9			45.6	74.0			28.4	
1386.425	H		35.6		-7.9		27.7		54.0		26.3		
1680.117	H			52.5	-7.0			45.5	74.0			28.5	
1680.117	H		47.7		-7.0		40.7		54.0		13.3		
1680.275	V			50.8	-7.0			43.8	74.0			30.2	
1680.275	V		43.3		-7.0		36.3		54.0		17.7		
4924.000	H			46.4	3.6			50.0	74.0			24.0	
4924.000	H		32.0		3.6		35.6		54.0		18.4		
4924.000	V			47.7	3.6			51.3	74.0			22.7	
4924.000	V		32.8		3.6		36.4		54.0		17.6		
7386.000	H			44.2	5.4			49.6	74.0			24.4	Floor Noise
7386.000	H		32.2		5.4		37.6		54.0		16.4		Floor Noise
9848.000	H			43.2	7.6			50.8	74.0			23.2	* Floor Noise
9848.000	H		31.0		7.6		38.6		54.0		15.4		* Floor Noise
12310.000	H			44.6	8.5			53.1	74.0			20.9	Floor Noise
12310.000	H		31.7		8.5		40.2		54.0		13.8		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: ZX-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	41.2			-7.9	33.3			43.5	10.2			*
240.008	H	47.4			-8.5	38.9			46.0	7.1			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.942	H			51.3	-7.0			44.3	74.0			29.7	
1679.942	H		44.8		-7.0		37.8		54.0		16.2		
1680.083	V			51.9	-7.0			44.9	74.0			29.1	
1680.083	V		45.6		-7.0		38.6		54.0		15.4		
4924.000	H			46.0	3.6			49.6	74.0			24.4	
4924.000	H		32.2		3.6		35.8		54.0		18.2		
4924.000	V			49.1	3.6			52.7	74.0			21.3	
4924.000	V		33.3		3.6		36.9		54.0		17.1		
7386.000	H			44.2	5.4			49.6	74.0			24.4	Floor Noise
7386.000	H		32.2		5.4		37.6		54.0		16.4		Floor Noise
9848.000	H			43.2	7.6			50.8	74.0			23.2	* Floor Noise
9848.000	H		31.0		7.6		38.6		54.0		15.4		* Floor Noise
12310.000	H			44.6	8.5			53.1	74.0			20.9	Floor Noise
12310.000	H		31.7		8.5		40.2		54.0		13.8		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Print Circuit Board Model Number: HN79 MAIN DE2

Radiated Emission: Lch (2412MHz)

Axial Direction: XY-Plane

Below 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	44.4			-7.9	36.5			43.5	7.0			*
240.008	H	45.5			-3.5	42.0			46.0	4.0			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1680.142	V			50.3	-7.0			43.3	74.0			30.7	
1680.142	V		43.3		-7.0		36.3		54.0		17.7		
1680.150	H			52.0	-7.0			45.0	74.0			29.0	
1680.150	H		46.7		-7.0		39.7		54.0		14.3		
4824.000	V			46.0	3.4			49.4	74.0			24.6	
4824.000	V		32.0		3.4		35.4		54.0		18.6		
4824.000	H			47.8	3.4			51.2	74.0			22.8	
4824.000	H		32.8		3.4		36.2		54.0		17.8		
7236.000	H			45.1	4.5			49.6	74.0			24.4	* Floor Noise
7236.000	H		31.3		4.5		35.8		54.0		18.2		* Floor Noise
9648.000	H			43.3	7.3			50.6	74.0			23.4	* Floor Noise
9648.000	H		30.9		7.3		38.2		54.0		15.8		* Floor Noise
12060.000	H			44.8	8.7			53.5	74.0			20.5	Floor Noise
12060.000	H		32.9		8.7		41.6		54.0		12.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: YZ-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	43.2			-7.9	35.3			43.5	8.2			*
240.008	H	44.8			-3.5	41.3			46.0	4.7			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.942	H			52.0	-7.0			45.0	74.0			29.0	
1679.942	H		45.7		-7.0		38.7		54.0		15.3		
1680.017	V			50.5	-7.0			43.5	74.0			30.5	
1680.017	V		43.4		-7.0		36.4		54.0		17.6		
4824.000	V			49.0	3.4			52.4	74.0			21.6	
4824.000	V		32.8		3.4		36.2		54.0		17.8		
4824.000	H			48.5	3.4			51.9	74.0			22.1	
4824.000	H		32.8		3.4		36.2		54.0		17.8		
7236.000	H			45.1	4.5			49.6	74.0			24.4	* Floor Noise
7236.000	H		31.3		4.5		35.8		54.0		18.2		* Floor Noise
9648.000	H			43.3	7.3			50.6	74.0			23.4	* Floor Noise
9648.000	H		30.9		7.3		38.2		54.0		15.8		* Floor Noise
12060.000	H			44.8	8.7			53.5	74.0			20.5	Floor Noise
12060.000	H		32.9		8.7		41.6		54.0		12.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: ZX-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.006	H	42.3			-7.9	34.4			43.5	9.1			*
240.009	H	45.4			-3.5	41.9			46.0	4.1			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.867	V			51.4	-7.0			44.4	74.0			29.6	
1679.867	V		45.5		-7.0		38.5		54.0		15.5		
1679.917	H			52.1	-7.0			45.1	74.0			28.9	
1679.917	H		46.7		-7.0		39.7		54.0		14.3		
4824.000	V			47.3	3.4			50.7	74.0			23.3	
4824.000	V		32.0		3.4		35.4		54.0		18.6		
4824.000	H			45.0	3.4			48.4	74.0			25.6	
4824.000	H		31.7		3.4		35.1		54.0		18.9		
7236.000	H			45.1	4.5			49.6	74.0			24.4	* Floor Noise
7236.000	H		31.3		4.5		35.8		54.0		18.2		* Floor Noise
9648.000	H			43.3	7.3			50.6	74.0			23.4	* Floor Noise
9648.000	H		30.9		7.3		38.2		54.0		15.8		* Floor Noise
12060.000	H			44.8	8.7			53.5	74.0			20.5	Floor Noise
12060.000	H		32.9		8.7		41.6		54.0		12.4		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Radiated Emission: Mch (2437MHz)**Axial Direction: XY-Plane**

Below 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	42.5			-7.9	34.6			43.5	8.9			*
240.009	H	45.6			-3.5	42.1			46.0	3.9			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.892	H			52.1	-7.0			45.1	74.0			28.9	
1679.892	H		47.0		-7.0		40.0		54.0		14.0		
1680.223	V			50.8	-7.0			43.8	74.0			30.2	
1680.223	V		43.8		-7.0		36.8		54.0		17.2		
4874.000	V			47.1	3.5			50.6	74.0			23.4	
4874.000	V		32.2		3.5		35.7		54.0		18.3		
4874.000	H			47.2	3.5			50.7	74.0			23.3	
4874.000	H		32.2		3.5		35.7		54.0		18.3		
7311.000	H			44.6	5.0			49.6	74.0			24.4	Floor Noise
7311.000	H		31.7		5.0		36.7		54.0		17.3		Floor Noise
9748.000	H			44.0	7.4			51.4	74.0			22.6	* Floor Noise
9748.000	H		30.7		7.4		38.1		54.0		15.9		* Floor Noise
12185.000	H			44.0	8.6			52.6	74.0			21.4	Floor Noise
12185.000	H		32.1		8.6		40.7		54.0		13.3		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: YZ-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.005	H	42.5			-7.9	34.6			43.5	8.9			*
240.008	H	45.7			-3.5	42.2			46.0	3.8			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.842	V			50.8	-7.0			43.8	74.0			30.2	
1679.842	V		44.9		-7.0		37.9		54.0		16.1		
1680.033	H			53.0	-7.0			46.0	74.0			28.0	
1680.033	H		47.7		-7.0		40.7		54.0		13.3		
4874.000	V			48.4	3.5			51.9	74.0			22.1	
4874.000	V		32.7		3.5		36.2		54.0		17.8		
4874.000	H			50.3	3.5			53.8	74.0			20.2	
4874.000	H		33.3		3.5		36.8		54.0		17.2		
7311.000	H			44.6	5.0			49.6	74.0			24.4	Floor Noise
7311.000	H		31.7		5.0		36.7		54.0		17.3		Floor Noise
9748.000	H			44.0	7.4			51.4	74.0			22.6	* Floor Noise
9748.000	H		30.7		7.4		38.1		54.0		15.9		* Floor Noise
12185.000	H			44.0	8.6			52.6	74.0			21.4	Floor Noise
12185.000	H		32.1		8.6		40.7		54.0		13.3		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: ZX-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	41.7			-7.9	33.8			43.5	9.7			*
240.009	H	46.3			-3.5	42.8			46.0	3.2			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.983	V			52.3	-7.0			45.3	74.0			28.7	
1679.983	V		47.5		-7.0		40.5		54.0		13.5		
1680.050	H			52.7	-7.0			45.7	74.0			28.3	
1680.050	H		47.9		-7.0		40.9		54.0		13.1		
4874.000	V			45.7	3.5			49.2	74.0			24.8	
4874.000	V		31.5		3.5		35.0		54.0		19.0		
4874.000	H			46.9	3.5			50.4	74.0			23.6	
4874.000	H		32.3		3.5		35.8		54.0		18.2		
7311.000	H			44.6	5.0			49.6	74.0			24.4	Floor Noise
7311.000	H		31.7		5.0		36.7		54.0		17.3		Floor Noise
9748.000	H			44.0	7.4			51.4	74.0			22.6	* Floor Noise
9748.000	H		30.7		7.4		38.1		54.0		15.9		* Floor Noise
12185.000	H			44.0	8.6			52.6	74.0			21.4	Floor Noise
12185.000	H		32.1		8.6		40.7		54.0		13.3		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Radiated Emission: Hch (2462MHz)**Axial Direction: XY-Plane****Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.009	H	42.1			-7.9	34.2			43.5	9.3			*
240.009	H	44.6			-3.5	41.1			46.0	4.9			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.908	H			51.8	-7.0			44.8	74.0			29.2	
1679.908	H		45.7		-7.0		38.7		54.0		15.3		
1680.050	V			50.3	-7.0			43.3	74.0			30.7	
1680.050	V		42.4		-7.0		35.4		54.0		18.6		
4924.000	V			45.3	3.6			48.9	74.0			25.1	
4924.000	V		31.9		3.6		35.5		54.0		18.5		
4924.000	H			46.3	3.6			49.9	74.0			24.1	
4924.000	H		31.9		3.6		35.5		54.0		18.5		
7386.000	H			45.3	5.4			50.7	74.0			23.3	Floor Noise
7386.000	H		32.1		5.4		37.5		54.0		16.5		Floor Noise
9848.000	H			43.6	7.6			51.2	74.0			22.8	* Floor Noise
9848.000	H		30.9		7.6		38.5		54.0		15.5		* Floor Noise
12310.000	H			44.8	8.5			53.3	74.0			20.7	Floor Noise
12310.000	H		31.7		8.5		40.2		54.0		13.8		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: YZ-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	42.0			-7.9	34.1			43.5	9.4			*
240.009	H	45.7			-3.5	42.2			46.0	3.8			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.775	H			52.3	-7.0			45.3	74.0			28.7	
1679.775	H		47.3		-7.0		40.3		54.0		13.7		
1680.017	V			51.5	-7.0			44.5	74.0			29.5	
1680.017	V		45.6		-7.0		38.6		54.0		15.4		
4924.000	V			45.9	3.6			49.5	74.0			24.5	
4924.000	V		32.2		3.6		35.8		54.0		18.2		
4924.000	H			50.4	3.6			54.0	74.0			20.0	
4924.000	H		33.2		3.6		36.8		54.0		17.2		
7386.000	H			45.3	5.4			50.7	74.0			23.3	Floor Noise
7386.000	H		32.1		5.4		37.5		54.0		16.5		Floor Noise
9848.000	H			43.6	7.6			51.2	74.0			22.8	* Floor Noise
9848.000	H		30.9		7.6		38.5		54.0		15.5		* Floor Noise
12310.000	H			44.8	8.5			53.3	74.0			20.7	Floor Noise
12310.000	H		31.7		8.5		40.2		54.0		13.8		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Axial Direction: ZX-Plane**Below 1GHz**

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
160.008	H	43.0			-7.9	35.1			43.5	8.4			*
240.007	H	45.2			-3.5	41.7			46.0	4.3			

Above 1GHz

Frequency [MHz]	Pol. [H / V]	Reading [dB(uV)] QP / AV / PK			Factor [dB/m]	Level [dB(uV/m)] QP / AV / PK			Limit [dB(uV/m)]	Margin [dB] QP / AV / PK			Remark
1679.833	V			51.3	-7.0			44.3	74.0			29.7	
1679.833	V		45.9		-7.0		38.9		54.0		15.1		
1679.900	H			51.6	-7.0			44.6	74.0			29.4	
1679.900	H		46.1		-7.0		39.1		54.0		14.9		
4924.000	V			46.3	3.6			49.9	74.0			24.1	
4924.000	V		32.1		3.6		35.7		54.0		18.3		
4924.000	H			47.0	3.6			50.6	74.0			23.4	
4924.000	H		32.5		3.6		36.1		54.0		17.9		
7386.000	H			45.3	5.4			50.7	74.0			23.3	Floor Noise
7386.000	H		32.1		5.4		37.5		54.0		16.5		Floor Noise
9848.000	H			43.6	7.6			51.2	74.0			22.8	* Floor Noise
9848.000	H		30.9		7.6		38.5		54.0		15.5		* Floor Noise
12310.000	H			44.8	8.5			53.3	74.0			20.7	Floor Noise
12310.000	H		31.7		8.5		40.2		54.0		13.8		Floor Noise

Note: * = Out of Restricted Band.

This frequency is out of the restricted bands, so radiated emission limits specified in Section 15.209 does not apply.

15.247(d):

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

11 Peak Power Spectral Density

11.1 Test Setup

The test is performed in accordance with FCC Document "Measurement of Transmission Systems Operating under section 15.247". PSD Option1 is used.

The spectrum analyzer was connected to the transmitter output port through the RF cable.

Spectrum Analyzer Setting:

Detector Mode	Peak
RBW	3kHz
VBW	10kHz
Span	1.5MHz
Sweep Time	500s

11.2 Test Results

Serial No. : D6E750
 Power : DC 3.27V
 Mode : Transmitting Mode (1CH, 6CH, 11CH)
 DBPSK (1Mbps) for IEEE 802.11b (DSSS)
 BPSK (6Mbps) for IEEE 802.11g (OFDM)
 Temperature : 9 April 2008: 21.6°C
 14 April 2008: 21.3°C
 Humidity : 9 April 2008: 55.2%
 14 April 2008: 55.9%
 Regulation : FCC Part15 C §15.247 (e)

Print Circuit Board Model Number: HN76 MAIN DE2

CH	Frequency [MHz]	Reading [dBm]	Cable Loss1 [dB]	Cable Loss2 [dB]	Result [dBm]	Limit [dBm/3kHz]
802.11b Mode DBPSK (1Mbps)						
1ch(Lowest)	2410.99	0.02	0.58	0.40	1.00	<=8
6ch(Middle)	2435.99	1.64	0.58	0.40	2.62	<=8
11ch(Highest)	2460.99	0.34	0.63	0.40	1.37	<=8
802.11g Mode BPSK (6Mbps)						
1ch(Lowest)	2413.87	-17.74	0.58	0.40	-16.76	<=8
6ch(Middle)	2436.41	-16.87	0.58	0.40	-15.89	<=8
11ch(Highest)	2461.40	-17.14	0.63	0.40	-16.11	<=8

Print Circuit Board Model Number: HN79 MAIN DE2

CH	Frequency [MHz]	Reading [dBm]	Cable Loss1 [dB]	Cable Loss2 [dB]	Result [dBm]	Limit [dBm/3kHz]
802.11b Mode DBPSK (1Mbps)						
1ch(Lowest)	2410.99	0.59	0.58	0.40	1.57	<=8
6ch(Middle)	2435.99	0.27	0.58	0.40	1.25	<=8
11ch(Highest)	2460.99	0.88	0.63	0.40	1.91	<=8
802.11g Mode BPSK (6Mbps)						
1ch(Lowest)	2414.99	-17.15	0.58	0.40	-16.17	<=8
6ch(Middle)	2439.50	-16.80	0.58	0.40	-15.82	<=8
11ch(Highest)	2464.45	-15.80	0.63	0.40	-14.77	<=8

Result = Reading + Cable Loss

Note: Cable Loss1: RF Cable

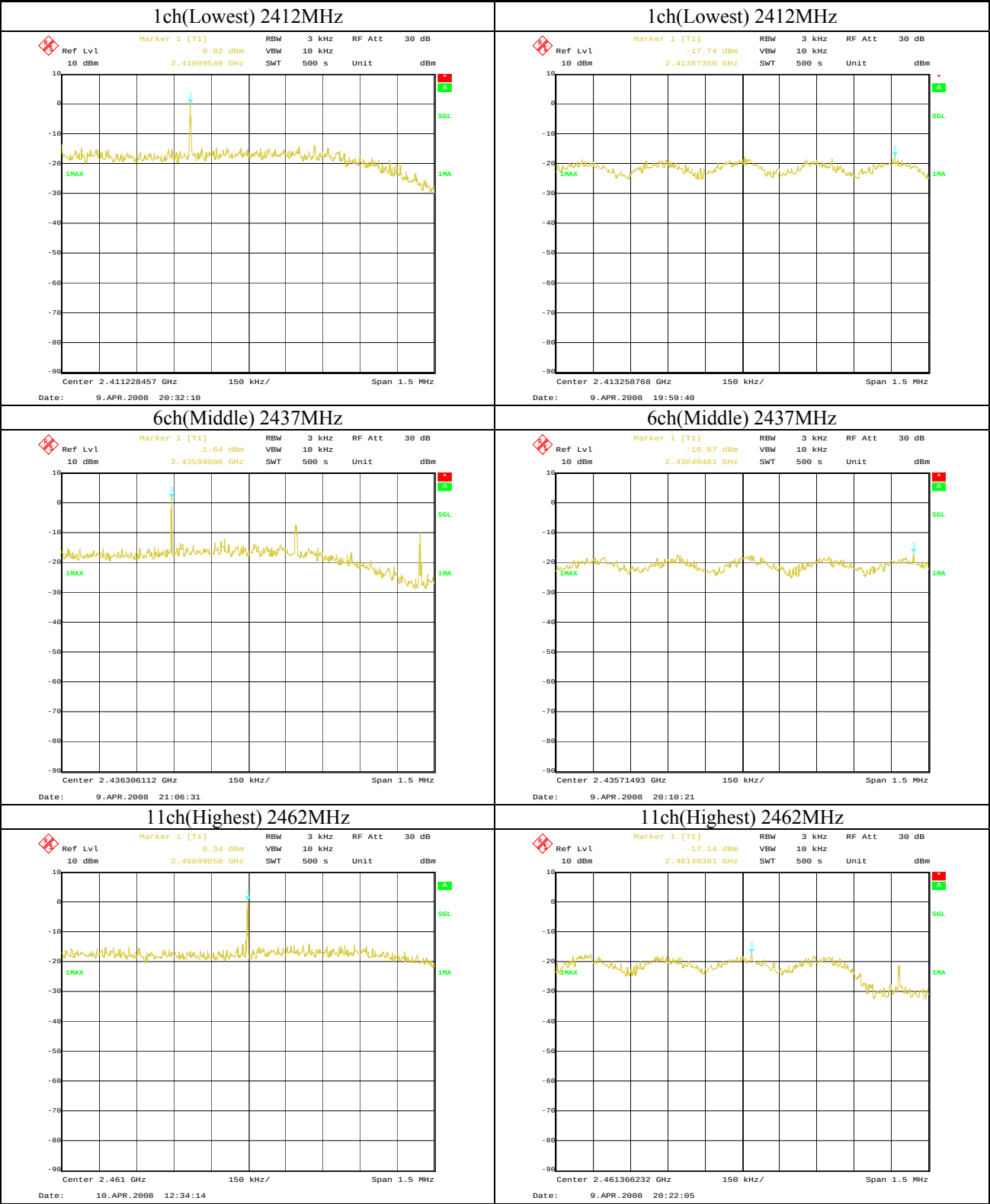
Cable Loss2: Conversion cable used for connecting to SMA type

The spectrum data are attached next page.

Data of Peak Power Spectral Density
(Print Circuit Board Model Number: HN76 MAIN DE2)

802.11b Mode DBPSK (1Mbps)

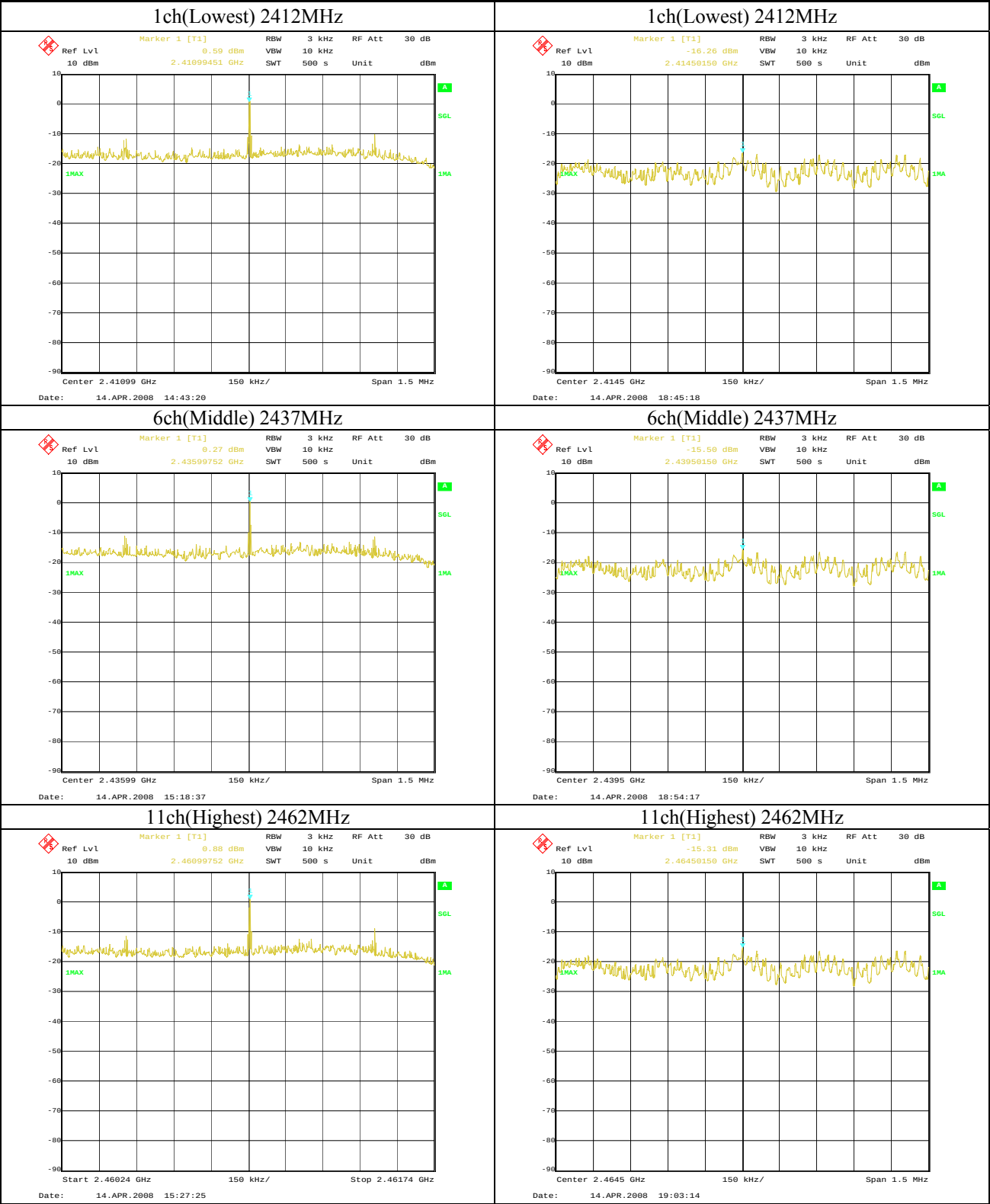
802.11g Mode BPSK (6Mbps)



Data of Peak Power Spectral Density
(Print Circuit Board Model Number: HN79 MAIN DE2)

802.11b Mode DBPSK (1Mbps)

802.11g Mode BPSK (6Mbps)



12 Radiofrequency Radiation Exposure Evaluation

- 15.247(i): Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this chapter.
- 1.1307(b)(1): The appropriate exposure limits in § 1.1310 and 2.1093 of this chapter are generally applicable to all facilities, operations and transmitters regulated by the Commission.
- 1.1310: The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in § 1.1307(b).

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

Limit = 1.0 [mW/cm²] at 2.5GHz

MPE Calculation:

A *	B	C **	D	Limit [mW/cm ²]
Specified Antenna Gain *	Max. RF Output Power at Antenna Terminal [mW]	Distance [cm] **	Power Density. [mW/cm ²]	
1.32	107.40	20	0.028	1.0

*: Numeric value of antenna gain (1.2dBi).

**: The shortest distance between transmitter's radiating structure and the body of the user or nearby person. This device should be used in separation distance of at least 20 centimeters maintained between transmitter's radiating structure and the body of the user or nearby persons. Refer to K30306 user manual.

$$\text{Calculation: } D = (A * B) / (4 * \pi * C^2) \quad (1)$$

For a truly worst-case prediction of power density at or near a surface, such as at groundlevel or on a rooftop, 100% reflection of incoming radiation can be assumed, resulting in a potential doubling of predicted field strength and a four-fold increase in power density. In that case Equations (1) can be modified to:

$$D = (2^2) * (A * B) / (4 * \pi * C^2) \quad (\text{worst-case})$$

$$\text{Power Density} = 0.112 \text{ mW/cm}^2$$

$$\text{MPE Limit} = 1.0 \text{ mW/cm}^2 > \text{Power Density in worst-case}$$

This means that according to OET Bulletin 65 (Edition 97-01), Supplement C (Edition 01-01), the equipment fulfills the requirements on power density for general population/uncontrolled exposure and therefore fulfills the requirements of 47 CFR Part 15.247(i).

13 Photos of Tested EUT and Test Setup

Setup photo with EUT has been submitted as separate document named “Test Setup Photos (7265FC-2)”.

Appendix 1: Certificate of Accreditation

United States Department of Commerce
National Institute of Standards and Technology

NVLAP[®]

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 200607-0

Taiyo Yuden Co., Ltd. EMC Center
Takasaki-shi Gunma 370-3347
JAPAN

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated 18 June 2005).*

2007-10-01 through 2008-09-30
Effective dates



Sally S. Bruce
For the National Institute of Standards and Technology

NVLAP-01C (REV. 2006-09-13)

Appendix 2: Test Instruments

1. Conducted Emission Test

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date (Interval (year))	
Shielded Room	TDK Co., Ltd	DA-06912	-	-	●
EMI Test Receiver	Rohde & Schwarz	ESHS 10	100005	28 July 2007 (1)	●
Spectrum Analyzer	Agilent Technologies	8567A	3001A00673	30 July 2007 (1)	●
AMN / LISN	KYORITSU ELECTRICAL WORK	KNW-407	8-680-1	30 July 2007 (2)	●
		KNW-242	8-818-8		●
Cable	SUHNER	RG223	CE-1	3 August 2007 (1)	●
		RG223	CE-2		●
		RG214	CE-3		●
Attenuator	KYORITSU	KPD-602	5K325		●
RF Selector	TDK Co., Ltd	NS4900	0302-009		●
Hygro Thermograph	SEKONIC	ST-200	HD01-000779	14 February 2008 (1)	●
Software	TOYO Corporation	EP5/CE Ver.2.0	0208085	-	●

2. Conducted RF Test via Antenna Terminal

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date (Interval (year))	
Spectrum Analyzer	Rohde & Schwarz	FSIQ26	840061/0004	22 February 2008 (1)	●
	Agilent Technologies	E4446A	US42070181	17 October 2007 (1)	○
Power Meter	Agilent Technologies	N1911A	MY45100612	8 June 2007 (1)	●
Power Sensor	Agilent Technologies	N1922A	MY45240439	8 June 2007 (1)	●
RF Cable	SUHNER	SUCOFLEX 104	RF2-2	3 July 2007 (1)	●
		SUCOFLEX 104E	RF3-3	4 April 2007 (1)	○
Power Divider	Aeroflex / Inmet	6005-03	RF-8	3 July 2007 (1)	○
Multi Meter	Advantest	R6451A	67840312	19 September 2007 (1)	●
	Agilent Technologies	34401A	MY41038383	5 June 2007 (1)	○
Temperature Chamber	TABAI ESPEC	SU-261	92002840	20 September 2007 (1)	○
Temperature Chamber	TABAI ESPEC	PU-2KTH	14006759	5 November 2007 (1)	○
Hygro Thermograph	SEKONIC	ST-200	HD01-000779	14 February 2008 (1)	●

Note:

●: Applied by measurement.

○: Not applied by measurement.

3. Radiated Emission Test

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date (Interval (year))	
10m Anechoic Chamber	TDK Co., Ltd.	DA-06912	-	12 February 2008 (1)	●
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100148	31 July 2007 (1)	●
Spectrum Analyzer	Agilent Technologies	E4407B	MY44221019	23 April 2007 (1)	●
		E4446A	US42070181	17 October 2007 (1)	●
Amplifier	Agilent Technologies	83017A	3950M00169	1 August 2007 (1)	●
		8447D	2944A06812		●
RF Selector	TDK Co., Ltd	NS4900	0302-010		●
Tunable Filter	TOYO Corporation	NF-49BT	No.1		●
RF Filter	Microtronics	ERM50702-01	020		●
RF Cable	SUHNER	RG214	RG1		●
		RG214	RG3		●
		RG214	RG5		●
		RG214	RG7		●
		RG214	RG8		●
	HP	HP8120-4782	163 9232		●
	SUHNER	SUCOFLEX 106	SU1		●
		SUCOFLEX 103	SU5		●
		SUCOFLEX 103	SU6		●
	HP	85381C	No.3		●
Attenuator	KYORITSU	KPD-602	220142		●
Antenna	Schwarzbeck	BBA9106	No.3	19 December 2007 (1)	○
		UHALP9108-A	0160		○
		VULB9160	3179		●
		VHA9103	No.3 (+D3-1, 2)		●
		UHA9105	No.3		○
	EMCO	3115	9403-4232	28 March 2007 (2)	●
		3116	9311-2227		●
Hygro Thermograph	SEKONIC	ST-50	HE01-00511	14 February 2008 (1)	●
Digital Multi Meter	ADVANTEST	R6451A	67840312	19 September 2007 (1)	●

Note:

●: Applied by measurement.

○: Not applied by measurement.