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## 1 GENERAL INFORMATION

APPLICANT : Matsushita Electric Industrial Co.,Ltd.  
AVC Company Personal Computer Division.

ADDRESS : 1-10-12 Yakumohigashi-machi, Moriguchi City  
Osaka 570-0021 Japan  
Tel: +81-6-6907-4050  
Fax: +81-6-6907-4041

REGULATION(S) : FCC Part15 Subpart C, Section 15.247

MODEL NUMBER : CF-M34

SERIAL NUMBER : CF-M34JA2BEM 0JKSA01049

KIND OF EQUIPMENT : Wireless LAN built in personal computer  
(Cisco LAN Card)

TESTED DATE : January 10, 19 and 20, 2002

RECEIPT DATE OF SAMPLE : January 10 and 19, 2002

REPORT FILE NUMBER : 22EE0038-YW

TEST SITE : A-PEX Yokowa No.2 and No.3 Open Test Sites

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**A-pex International Co., Ltd.**  
**YOKOWA LAB.**

108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN

Telephone: int +81 596 39 1485

Facsimile: int +81 596 39 0232

## 1.1 Tested Methodology

The measurement was performed according to the procedures in ANSI C63.4(1992).

## 1.2 Test Facility

The open area site measurement facilities used to collect the radiated data are located at 108, Yokowa-cho, Ise-shi, Mie-ken, 516-1106 Japan.

These sites have been fully described in reports submitted to the FCC office.

No.2 test site has filed to the FCC on October 26, 2000 as number: 90411 and is accepted by Industry Canada on May 01,2001 as number IC2973-2.

No.3 test site has filed to the FCC on September 12, 2000 as number: 90412 and is accepted by Industry Canada on May 01,2001 as number IC2973-3.

## 2 PRODUCT DESCRIPTION

Matsushita Electric Industrial Co.,Ltd, Model CF-M34 (referred to as the EUT in this report) is a Wireless LAN built in Personal Computer(Cisco LAN Card).  
The specification is as following :

Wireless LAN : Direct sequence spread spectrum.(IEEE 802.11b)  
2412 through 2462MHz (11channels / each 5MHz wide)  
Antenna Type:Dipole Antenna  
Antenna Gain: 2.14dBi  
Antenna Part No:NIBZBJA00001  
I/F:PCMCIA-bus

\*Fcc Part 15.31(e)

The host device CF-M34 provide the LAN Module with stable power supply(DC3.3V), and the LAN module complies power supply regulation.

\*Fcc Part 15.203 Antenna requirement

The wireless LAN card is installed in the host device and cannot be removed by the user.  
Connector used between the wireless LAN card and antenna cable is special one (manufacturer's unique specification: TC-1 plug) , and antenna and its cable are solder-mounted so that antenna is unremoved.  
Due to the above reasons, the wireless LAN card meets the antenna requirements of FCC 15. 203.

### 2.1 Test System Details

Model	FCC ID	Description
(1) Matsushita Electric Industrial Co.,Ltd. M/N: CF-M34 S/N: CF-M34JA2BEM 0JKSA01049 *FccPart15 Subpart B Class B Digital Device	ACJ9TGCF-M342  DOC	Wireless LAN built in PC (Cisco LAN Card)
(2)Matsushita Electric Industrial Co.,Ltd. M/N: CF-AA1527 C4 S/N: C010901919A	DOC	AC Adapter

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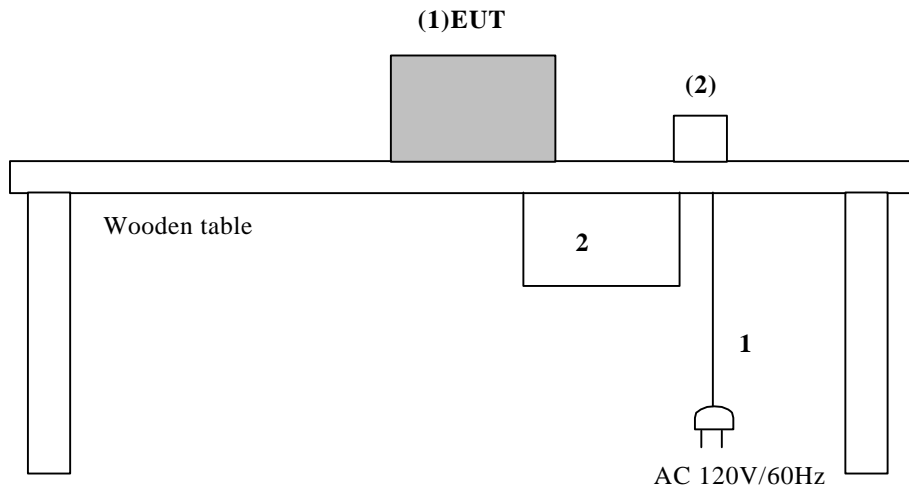
### 3 SYSTEM TEST CONFIGURATION

#### 3.1 Justification

The system was configured in typical fashion (as a customer would normally use it) for testing.

Test mode : Data Transmitting mode(bit rate : 11Mbps)  
 Performed the test about channels 1(low), 6(mid) and 11(high) among 11 channels of all Carrier frequencies.

#### 3.2 Configuration of Tested System



\* Cabling was taken into consideration and test data was taken under worst case conditions.

#### List of cables used

No.	Name	Length (m)	Shield	Remark
1	AC Power Cable	1.8	N	Polyvinyl chloride
2	DC Power Cable	1.9	N	Polyvinyl chloride

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## 4 Measurement Uncertainty

### Conducted Emission Test

The measurement uncertainty (with a 95% confidence level) for this test was  $\pm 2.0$ dB.

The data listed in this test report has enough margin, more than site margin.

### Radiated Emission Test

The measurement uncertainty (with a 95% confidence level) for this test using Biconical antenna is  $\pm 4.4$ dB.

The measurement uncertainty (with a 95% confidence level) for this test using Logperiodic antenna is  $\pm 3.2$ dB.

The measurement uncertainty (with a 95% confidence level) for this test using Horn antenna is  $\pm 5.8$ dB.

The data listed in this test report may exceed the test limit because it does not have enough margin.

**Test report****FCC ID** : ACJ9TGCF-M342**Our reference** : 22EE0038-YW**Page** : 8 of 14**Issued date** : January 24, 2002**5 TEST EQUIPMENT USED**

<u>Name</u>	<u>Manufacturer</u>	<u>Model</u>	<u>Control No.</u>	<u>Calibrated Until</u>
Pre Amplifier	Hewlett Packard	MH648A	AF-03	March 30, 2002
Pre Amplifier	Hewlett Packard	8449B	AF-04	November 3, 2002
Attenuator(6dB)	Anritsu	MP721B	AT-04	March 30, 2002
Attenuator(10dB)	Weinshel	2	AT-15	May 1, 2002
Biconical Antenna	Schwarzbeck	BBA9106	BA-05	April 30, 2002
Logperiodic Antenna	Schwarzbeck	UHAL9108	LA-05	November 16, 2002
LISN	Rohde & Schwarz	ESH3-Z5	LS-02	November 5, 2002
Horn Antenna	AH System, Inc	SAS-200/571	HA-02	May 19, 2002
Horn Antenna	Schwarzbeck	BBHA9170	EST-10	October 16, 2004
High Pass Filter	Tokimec	TF323DCA	HF-04	October 14, 2002
Spectrum Analyzer	Hewlett packard	8567A	SA-03	March 30, 2002
Spectrum Analyzer	Advantest	R3273	SA-06	November 19, 2002
Test Receiver	Rohde & Schwarz	ESHS30	TR-03	April 23, 2002
Test Receiver	Rohde & Schwarz	ESVS10	TR-04	April 23, 2002
Power Sensor	Hewlett packard	ECP-E18A	PS-01	May 28, 2002
Power Meter	Hewlett packard	EPM-442A	PM-01	May 28, 2002
Microwave Cable	Suhner	SUCOFLEX	CC-C12	January 12, 2003
Microwave Cable	Suhner	SUCOFLEX	CC-C14	January 12, 2003
Yokowa No.2 open Coaxial(0.01-1000MHz)	A-PEX	CC-21~CC-27, SW-21,SW-22	CC-2ORC	March 30, 2002
Yokowa No.2 shield Coaxial(0.01-30MHz)	A-PEX	CC-25~CC-29, SW-21,SW-22	CC-2SC	March 30, 2002
No.2 Open Test Site	JSE	10m	YOATS-02	May 3, 2002
No.3 Open Test Site	JSE	10m	YOATS-03	April 30, 2002

All measurement equipment is traceable to national standards.

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## 6 SUMMARY OF TESTS

### 6.1 §15.207 Conducted Emissions

#### Test Procedure

EUT was placed on a platform of nominal size, 1m by 1.5m, raised 80cm above the conducting ground plane. The rear of tabletop was located 40cm to the vertical conducting plane. The rear of EUT, including peripherals aligned and flushes with rear of tabletop. All other surfaces of tabletop were at least 80cm from any other grounded conducting surface. I/O cables and AC cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 30cm to 40cm long and were hanged at a 40cm height to the ground plane. Each EUT current-carrying power lead, except the ground (safety) lead, was individually connected through a LISN to the input power source. All unused 50ohm connectors of the LISN were resistively terminated in 50ohm when not connected to the measuring equipment.

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT on a shielded room.

The EUT was connected to a Line Impedance Stabilization Network (LISN).

An overview sweep with peak detection has been performed.

The measurements have been performed with a CISPR quasi-peak detector(IF BW 10kHz) .

(Measurement range : 450kHz to 30MHz)

**Test data** : APPENDIX A1 to A5  
**Photographs of test setup** : Page 12(1)  
**Test result** : Pass  
**Test instruments** : LS-02, SA-03, TR-03, CC-2SC

### 6.2 § 15.247(a)(2) 6dB Bandwidth

#### Test Procedure

The minimum 6dB bandwidth was measured with a spectrum analyzer connected to the antenna port.

1. 2412MHz(Low) : 10.02MHz > 500kHz
2. 2437MHz(Mid) : 10.23MHz > 500kHz
3. 2462MHz(High) : 10.39MHz > 500kHz

**Test data** : APPENDIX A6  
**Test result** : Pass  
**Test instruments** : SA-06

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### **6.3 § 15.247(b) Maximum Peak Out Put Power(Conducted)**

#### **Test Procedure**

The Maximum Peak Output power was measured with a power meter connected to the antenna port.

\* Antenna Gain dose not exceed 6dBi.

**Test data** : APPENDIX A7  
**Test result** : Pass  
**Test instruments** : PS-01, PM-01, SA-06

### **6.4 § 15.247(c) Out of Band Emissions(Radiated)**

#### **Test Procedure**

EUT was placed on a platform of nominal size, 1m by 1m, raised 80cm above the conducting ground plane.

I/O cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 30cm to 40cm long and were hanged 40cm height to the ground plane. Test was made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength.

The Radiated Electric Field Strength intensity has been measured on an open test site with a ground plane and at a distance of 3m.

The measuring antenna height was varied between 1 to 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.

The measurements were performed for both vertical and horizontal antenna polarization.

EUT emission levels were compared when the EUT antenna position was vertical polarization and horizontal polarization.

For EUT antenna position was vertical polarization, EUT emission level became higher when the measurement antenna was vertical polarization.

Then for EUT antenna position was horizontal polarization, the emission level became higher when measurement antenna was horizontal polarization.

Therefore measurement was performed with following conditions:

EUT antenna position was vertical polarization: measurement antenna was vertical polarization

EUT antenna position was horizontal polarization: measurement antenna was horizontal polarization

#### **Radiated Spurious emissions**

In any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator confirmed 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on a radiated measurement. The result was also satisfied the general limits specified in Sec.15.209(a).

Measurement range : 30MHz to 1000MHz CISPR QP Detector, IF BW 120kHz  
: 1GHz to 26GHz PK and AV Detector

**Test data** : APPENDIX A8 to A10(30 - 1000MHz)  
: APPENDIX A11 to A13(1 - 26GHz)  
: APEENDIX A14 to A18(Band Edges: 2.39GHz and 2.4835GHz)  
**Photographs of test setup** : Page13(2)  
**Test result** : Pass  
**Test instruments** : AF-03, AF-04, AT-04, AT-15, BA-05, LA-05, HA-02, EST-10, HF-04, SA-03,  
SA-06, TR-04, CC-2ORC, CC-12, CC-14, YOATS-02, YOATS-03

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Test report  
FCC ID : ACJ9TGCF-M342  
Our reference : 22EE0038-YW  
Page : 11 of 14  
Issued date : January 24, 2002

### **6.5 § 15.247(c) Out of Band Emissions(Conducted)**

#### **Test Procedure**

The Out of Band Emissions(Conducted) was measured with a spectrum analyzer connected to the antenna port.

**Test data** : APPENDIX A19 to A27  
**Test result** : Pass  
**Test instruments** : AT-15, SA-06

### **6.6 § 15.247(d) Power Density(Conducted)**

#### **Test Procedure**

The Power Density was measured with a spectrum analyzer connected to the antenna port.

**Test data** : APPENDIX A28 to A29  
**Test result** : Pass  
**Test instruments** : AT-15, SA-06

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**Photographs of test setup(1)**



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**Photographs of test setup(2)**



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## **APPENDIX**

### **Test Data**

- |   |                   |
|---|-------------------|
| 1. Conducted Emission (6.1)                   | <u>A1 to A5</u>   |
| 2. 6dB Bandwidth (6.2)                        | <u>A6</u>         |
| 3. Maximum peak output power(Conducted) (6.3) | <u>A7</u>         |
| 4. Out of band emissions(Radiated) (6.4)      | <u>A8 to A18</u>  |
| 5. Out of band emissions(Conducted) (6.5)     | <u>A19 to A27</u> |
| 6. Power density (6.6)                        | <u>A28 to A29</u> |

# DATA OF CONDUCTION TEST

A-PEX INTERNATIONAL CO., LTD.  
YOKOWA No.2 OPEN TEST SITE  
Report No. : 22EE0038—YW

Applicant : Matsushita Electric Industrial Co., Ltd.  
Kind of Equipment : Wireless LAN built-in PC(Cisco LAN Card)  
Model No. : CF-M34  
Serial No. : CF-M34JA2BEM 0JKSA01049  
Power : AC120V/60Hz  
Mode : Transmitting(ch: 1)  
Remarks : FCC ID : ACJ9TGCF-M342  
Date : 1/10/2002  
Phase : Single Phase  
Temperature : 22 °C  
Humidity : 33 %  
Regulation : FCC Part15. 207

  
Engineer : Makoto Kosaka

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dBuV]	AV	QP [dBuV]	AV				QP [dBuV]	AV	QP [dBuV]	AV		
1.	0.4733	23.2	-	27.0	-	0.1	0.2	0.0	27.3	-	48.0	0.0	20.7	-
2.	0.5441	19.8	-	23.0	-	0.2	0.2	0.0	23.4	-	48.0	0.0	24.6	-
3.	1.8334	23.5	-	36.6	-	0.2	0.3	0.0	37.1	-	48.0	0.0	10.9	-
4.	4.7548	30.7	-	32.7	-	0.3	0.4	0.0	33.4	-	48.0	0.0	14.6	-
5.	5.6382	36.5	-	32.8	-	0.3	0.4	0.0	37.2	-	48.0	0.0	10.8	-
6.	6.2453	35.3	-	38.0	-	0.4	0.4	0.0	38.8	-	48.0	0.0	9.2	-
7.	18.8844	22.4	-	24.6	-	0.8	0.6	0.0	26.0	-	48.0	0.0	22.0	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

All other spurious emissions were less than 20dB for the limit.


# DATA OF CONDUCTION TEST CHART

A-PEX INTERNATIONAL CO., LTD.

YOKOWA No.2 OPEN TEST SITE

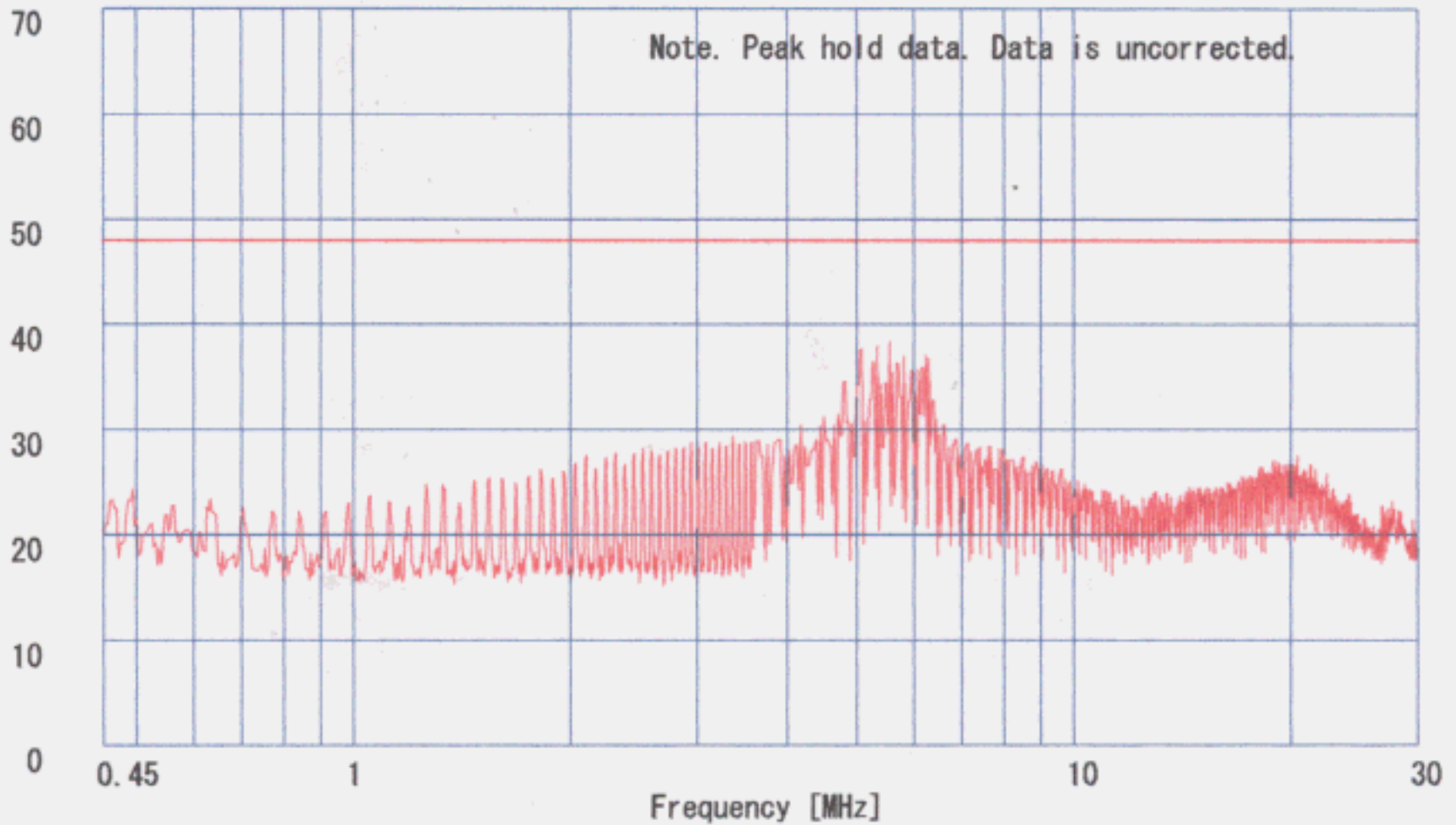
Report No. : 22EE0038—YW

Applicant : Matsushita Electric Industrial Co., Ltd.  
Kind of Equipment : Wireless LAN built-in PC(Cisco LAN Card)  
Model No. : CF-M34  
Serial No. : CF-M34JA2BEM 0JKSA01049  
Power : AC120V/60Hz  
Mode : Transmitting(ch: 1)  
Remarks : FCC ID : ACJ9TGCF-M342  
Date : 1/10/2002  
Phase : Single Phase  
Temperature : 22 °C  
Humidity : 33 %  
Regulation 1 : FCC Part15.207  
Regulation 2 : None

  
Engineer : Makoto Kosaka

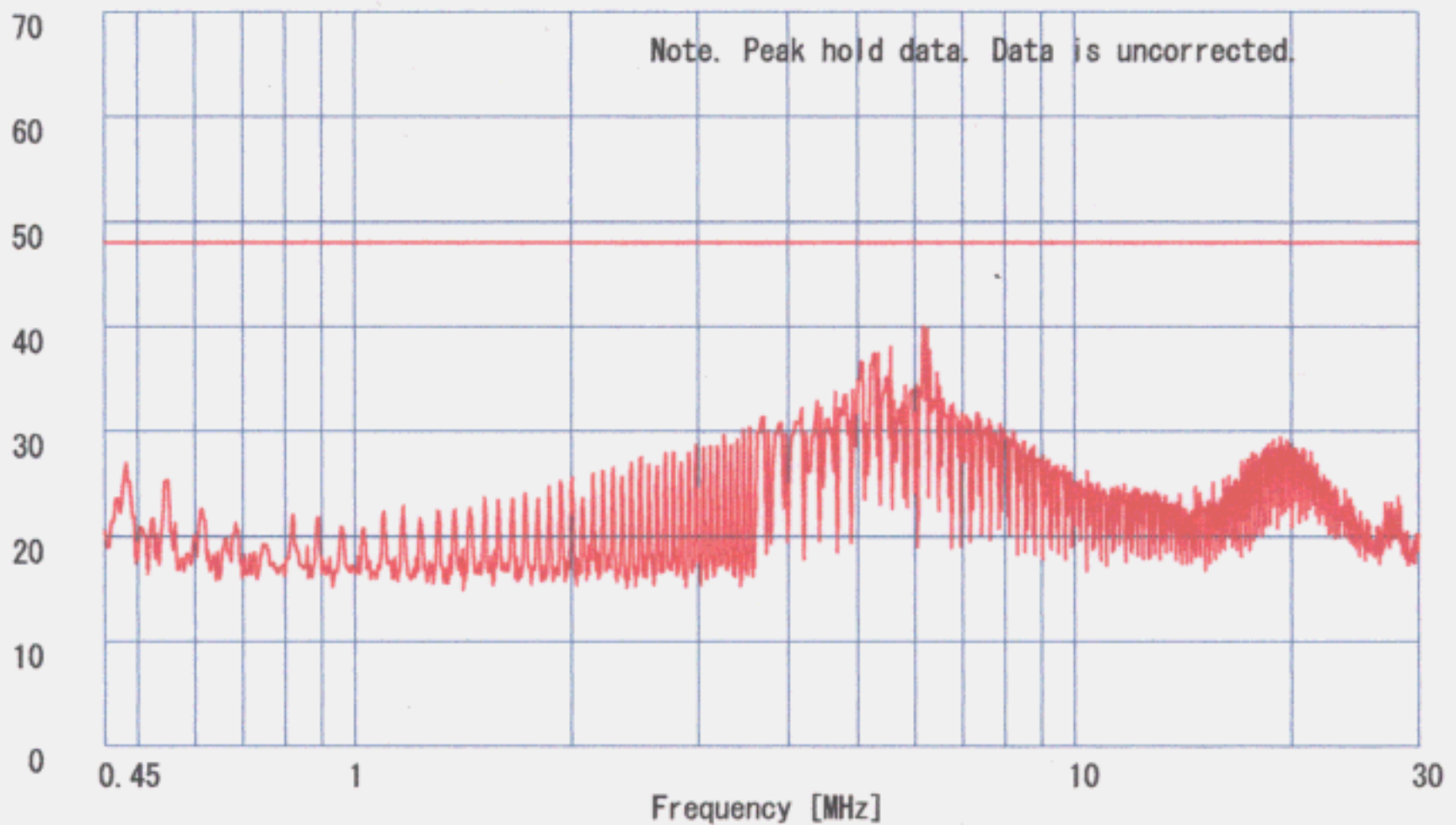
Emission Level [dB $\mu$ V]

PHASE:N



Emission Level [dB $\mu$ V]

PHASE:L1



# DATA OF CONDUCTION TEST CHART

A-PEX INTERNATIONAL CO., LTD.

YOKOWA No.2 OPEN TEST SITE

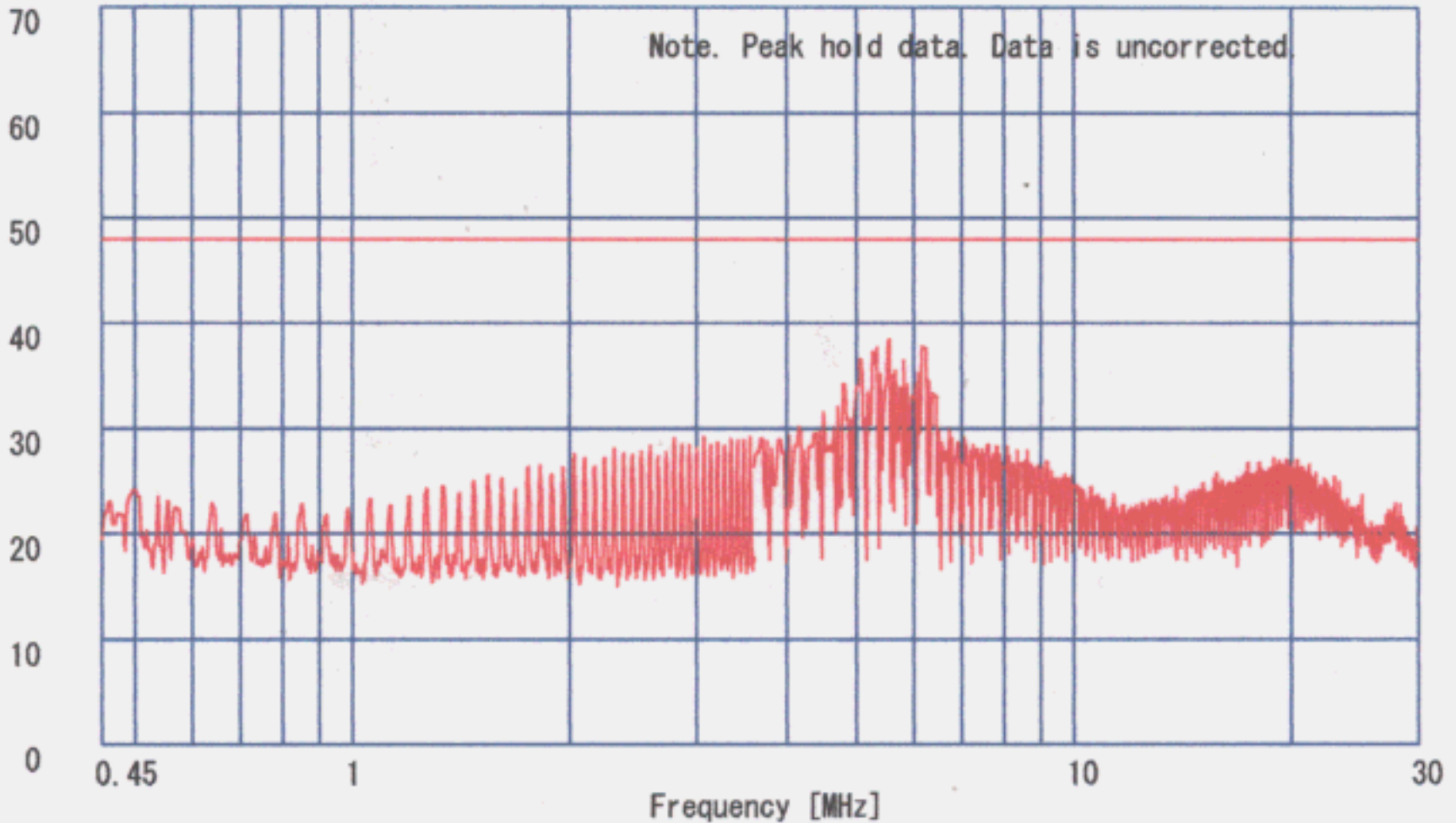
Report No. : 22EE0038—YW

Applicant : Matsushita Electric Industrial Co., Ltd.  
Kind of Equipment : Wireless LAN built-in PC(Cisco LAN Card)  
Model No. : CF-M34  
Serial No. : CF-M34JA2BEM 0JKSA01049  
Power : AC120V/60Hz  
Mode : Transmitting(ch: 6)  
Remarks : FCC ID : ACJ9TGCF-M342  
Date : 1/10/2002  
Phase : Single Phase  
Temperature : 22 °C  
Humidity : 33 %  
Regulation 1 : FCC Part15.207  
Regulation 2 : None

  
Engineer : Makoto Kosaka

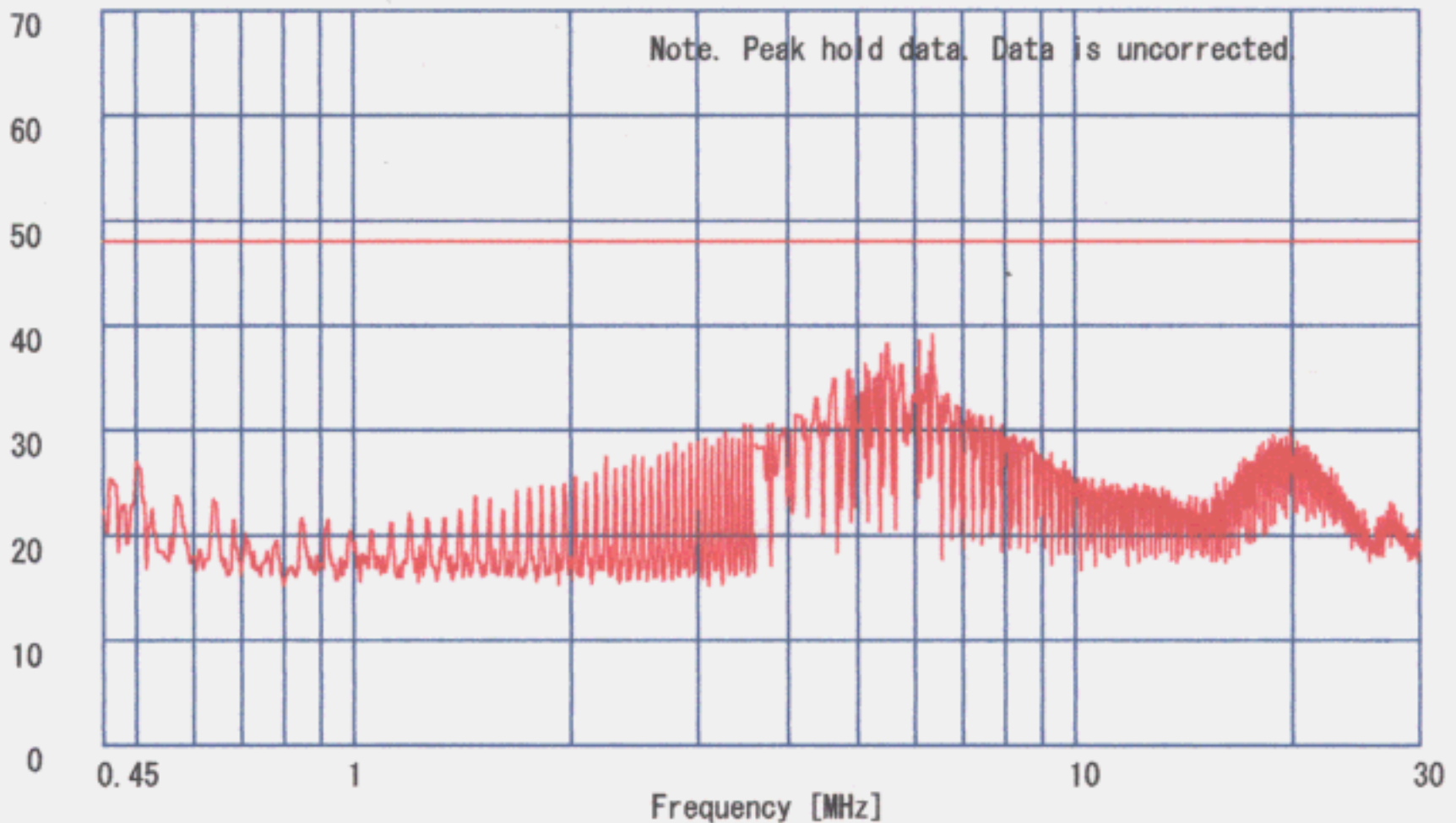
Emission Level [dB $\mu$ V]

PHASE:N



Emission Level [dB $\mu$ V]

PHASE:L1



# DATA OF CONDUCTION TEST CHART

A-PEX INTERNATIONAL CO., LTD.

YOKOWA No.2 OPEN TEST SITE

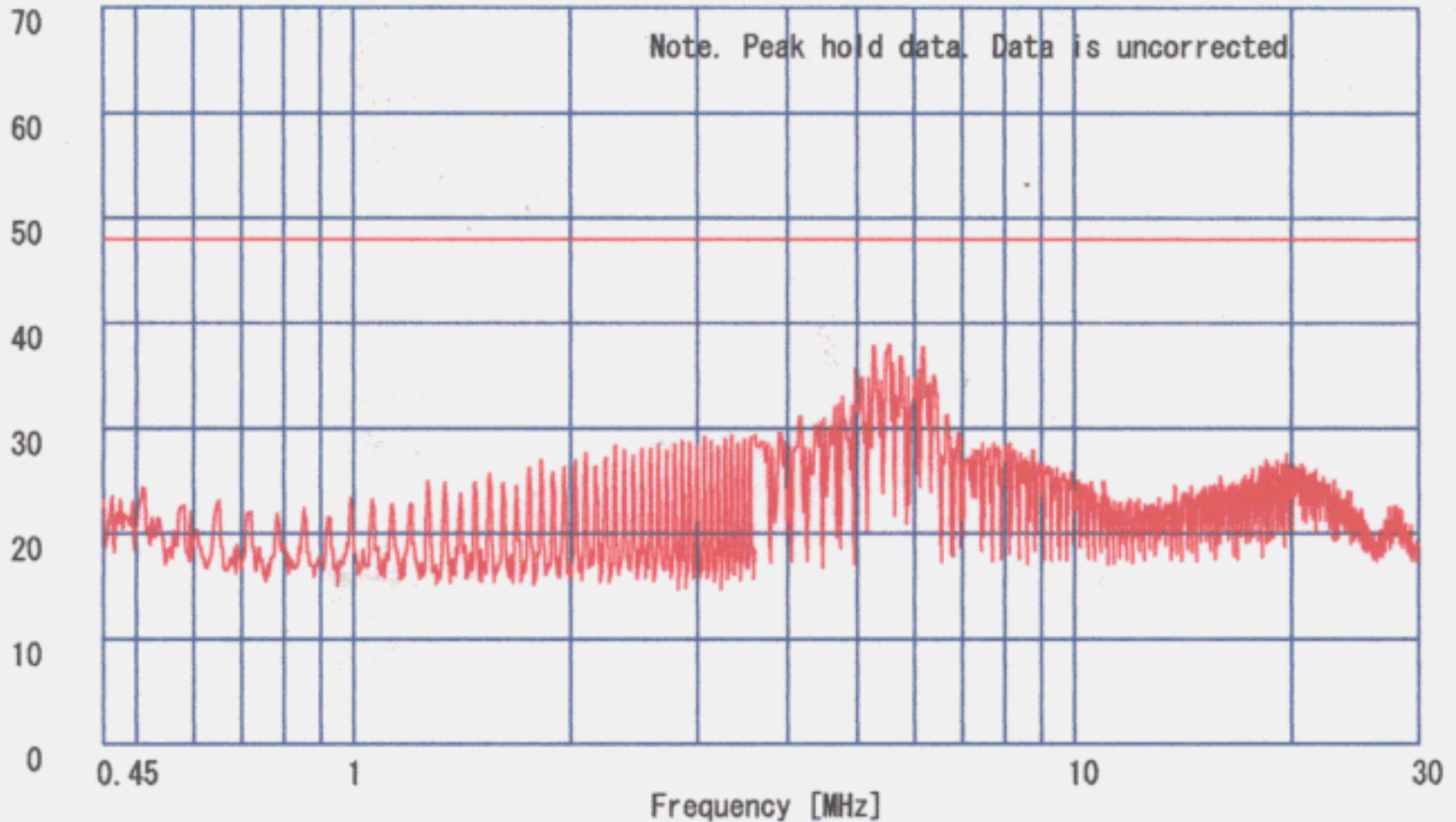
Report No. : 22EE0038—YW

Applicant : Matsushita Electric Industrial Co., Ltd.  
Kind of Equipment : Wireless LAN built-in PC(Cisco LAN Card)  
Model No. : CF-M34  
Serial No. : CF-M34JA2BEM 0JKSA01049  
Power : AC120V/60Hz  
Mode : Transmitting(ch: 11)  
Remarks : FCC ID : ACJ9TGCF-M342  
Date : 1/10/2002  
Phase : Single Phase  
Temperature : 22 °C  
Humidity : 33 %  
Regulation 1 : FCC Part15.207  
Regulation 2 : None

  
Engineer : Makoto Kosaka

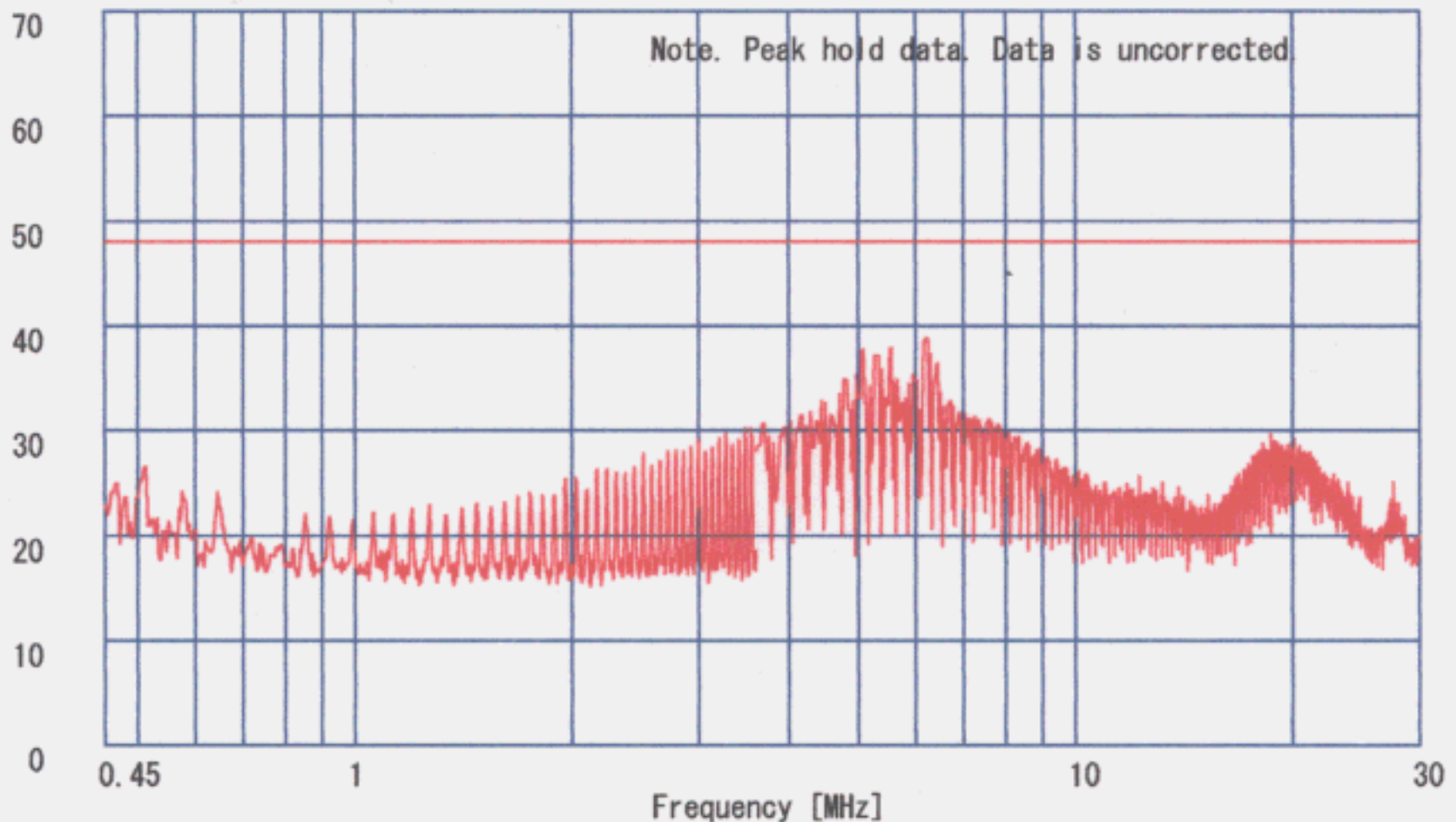
Emission Level [dB $\mu$ V]

PHASE:N



Emission Level [dB $\mu$ V]

PHASE:L1



# DATA OF CONDUCTION TEST CHART

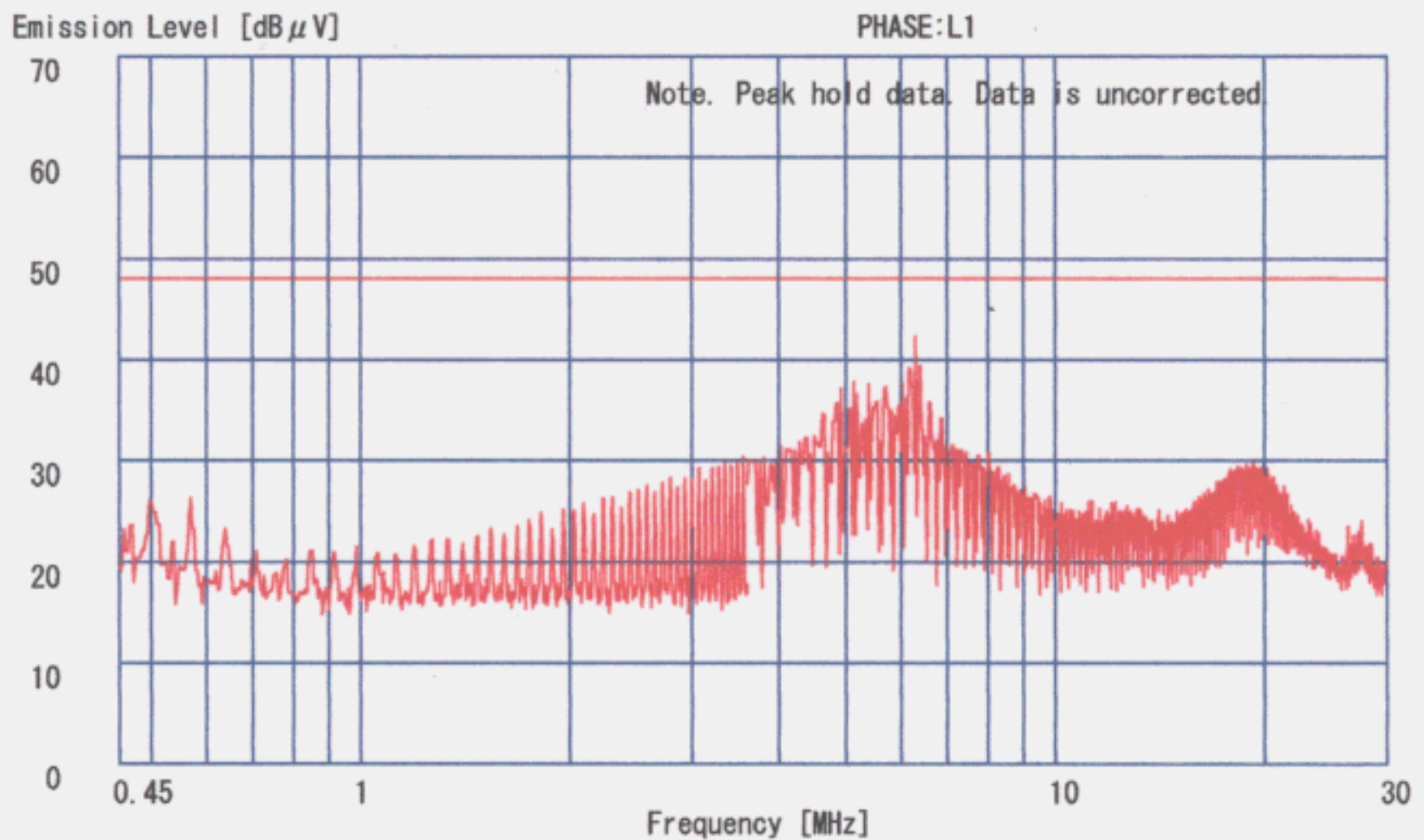
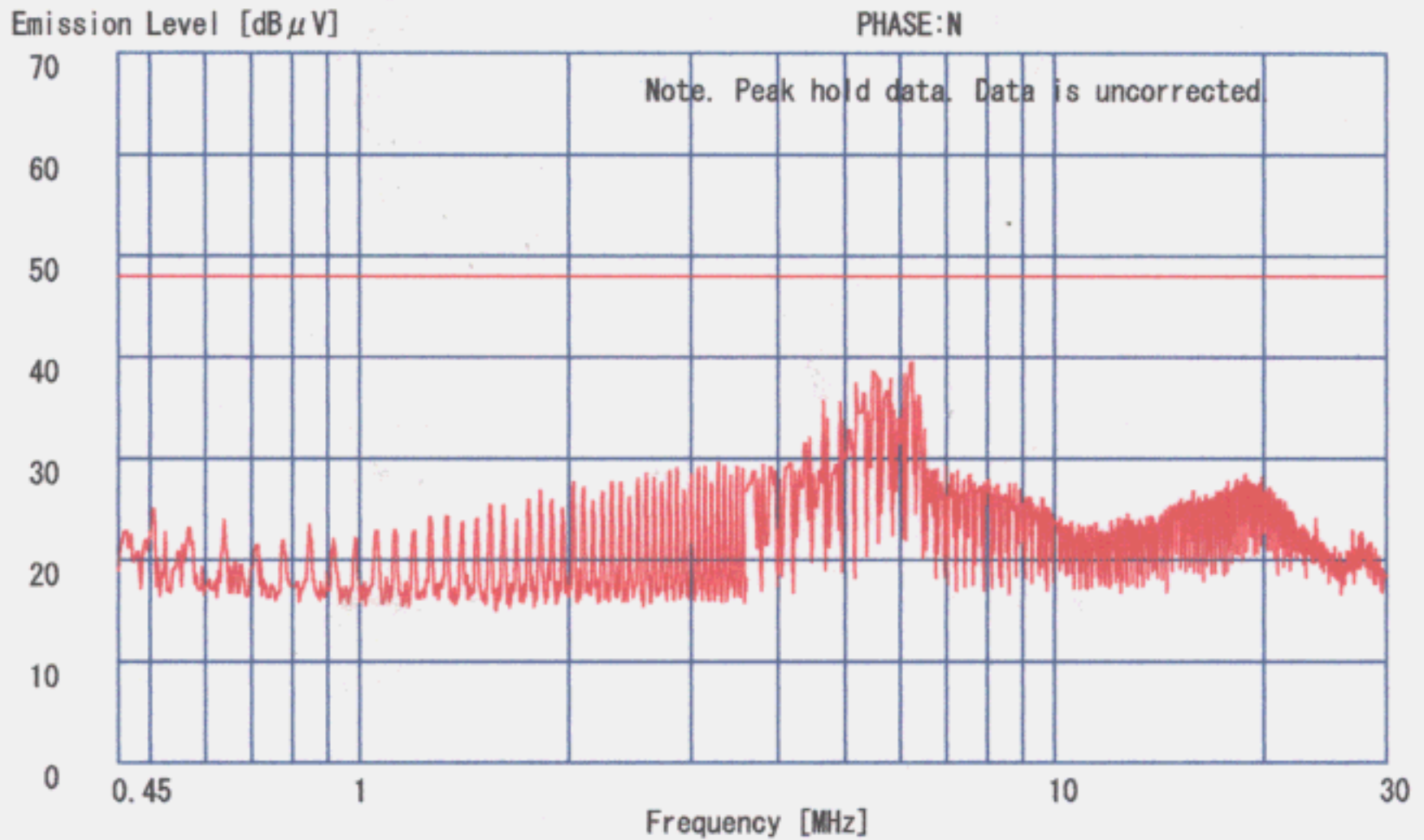
A-PEX INTERNATIONAL CO., LTD.

YOKOWA No.2 OPEN TEST SITE

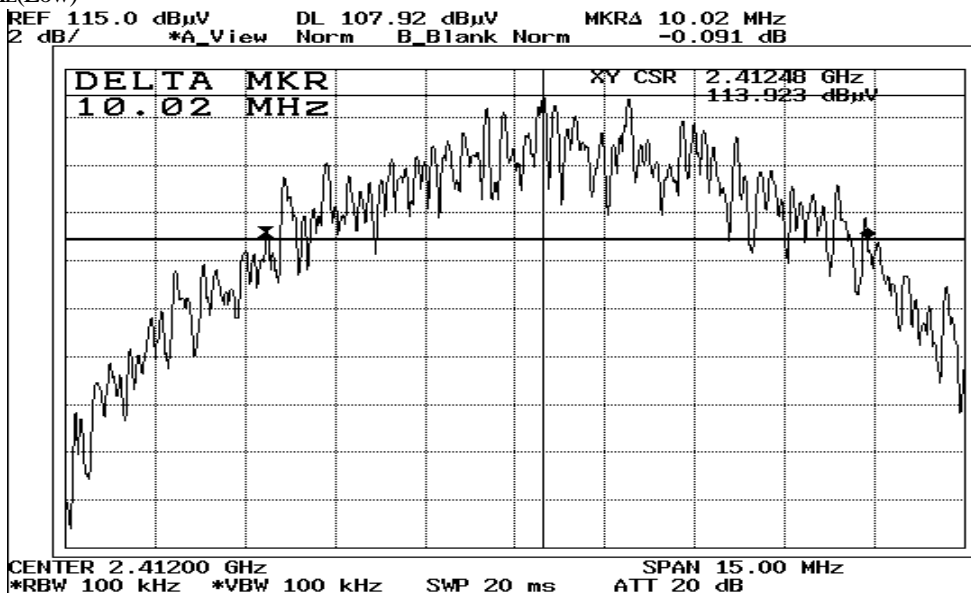
Report No. : 22EE0038—YW

Applicant : Matsushita Electric Industrial Co., Ltd.  
Kind of Equipment : Wireless LAN built-in PC(Cisco LAN Card)  
Model No. : CF-M34  
Serial No. : CF-M34JA2BEM 0JKSA01049  
Power : AC120V/60Hz  
Mode : Stand-by  
Remarks : FCC ID : ACJ9TGCF-M342  
Date : 1/10/2002  
Phase : Single Phase  
Temperature : 22 °C  
Humidity : 33 %  
Regulation 1 : FCC Part15.207  
Regulation 2 : None

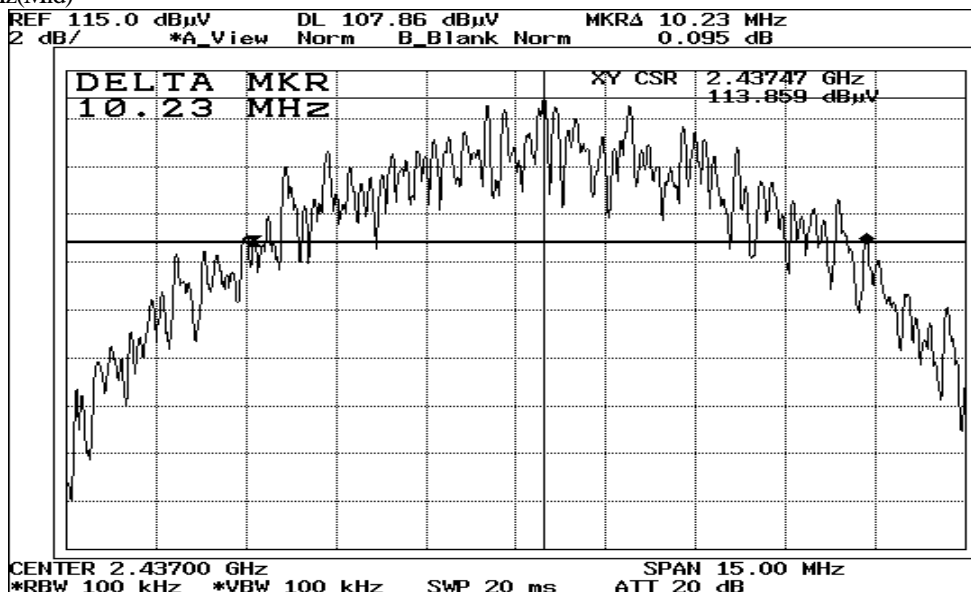
  
Engineer : Makoto Kosaka



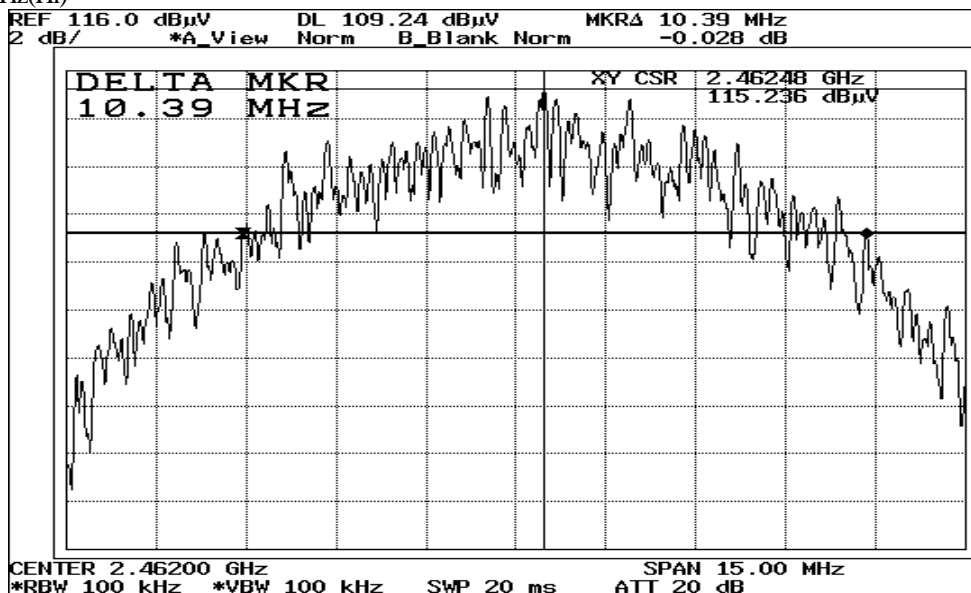
1. Ch1: 2412MHz(Low)



2. Ch6: 2437MHz(Mid)



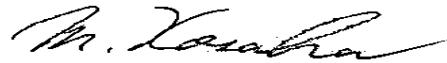
3. Ch11: 2462MHz(Hi)



# Maximum Peak Output Power (Conducted)

A-PEX INTERNATIONAL CO., LTD.  
YOKOWA NO.3 OPEN SITE

COMPANY : Matsushita Electric Industrial Co., Ltd. REPORT NO : 22EE0038-YW  
EQUIPMENT : Wireless LAN built-in PC (Cisco LAN Card) REGULATION : FCC Part 15 Subpart C 247(b)(1)  
MODEL : CF-M34  
S/N : CF-M34NPFZPM 1KKSAA00013 DATE : 2002/1/20  
FCC ID : ACJ9TGCF-M342 Temperature : 27 degrees centigrade  
POWER : AC120V/60Hz Humidity : 30%  
Mode : Transmitting (ch1, 6, 11 / 5.5Mbps)



ENGINEER : Makoto Kosaka

ch	FREQ [MHz]	P/M Reading [dBm]	ATTEN. [dB]	RESULT [dBm]	convert [mW]	Limit (1W) [dBm]	Margin [dB]
ch1	2412.0	8.6	10.0	18.6	72.4	30.0	11.4
ch6	2437.0	8.4	10.0	18.4	69.2	30.0	11.6
ch11	2462.0	9.5	10.0	19.5	89.1	30.0	10.5

REMARKS:

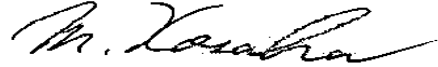
CALCULATION : P = Power Meter Reading + ATTEN

# DATA OF SUPURIOUS EMISSIONS(30MHz to 1000MHz)

A-PEX INTERNATIONAL CO., LTD.  
YOKOWA NO.2 OPEN SITE

COMPANY : Matsushita Electric Industrial Co., Ltd.  
EQUIPMENT : Wireless LAN builtin PC(Cisco LAN Card)  
MODEL : CF-M34  
S/N : CF-M34JA2BEM 0JKSA01049  
FCC ID : ACJ9TGCF-M342  
POWER : AC120V/60Hz  
Mode : Transmitting (ch1: 2412MHz / 11Mbps)

REPORT NO : 22EE0038-YW  
REGULATION : Fcc Part15SubpartC 247 / 209(a)  
TEST DISTANCE : 3m  
DATE : 2002/01/10  
Temperature : 21degrees centigrade  
Humidity : 37%



ENGINEER : Makoto Kosaka

**QP DETECT(Test Receiver: BW 120kHz)**

No.	FREQ [MHz]	READING		ANT Factor [dB]	ATTEN [dB]	CABLE LOSS [dB]	AMP GAIN [dB]	RESULT		LIMIT [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	[dB]
1	40.070	30.8	37.3	14.7	6.0	1.4	29.8	23.1	29.6	40.0	16.9	10.4
2	99.230	36.4	39.4	9.9	5.9	2.2	29.7	24.7	27.7	43.5	18.8	15.8
3	120.260	44.7	45.5	13.4	5.9	2.4	29.7	36.7	37.5	43.5	6.8	6.0
4	152.040	32.5	32.0	14.6	5.8	2.8	29.7	26.0	25.5	43.5	17.5	18.0
5	240.040	35.0	34.6	16.8	5.8	3.5	29.7	31.4	31.0	46.0	14.6	15.0
6	257.740	39.4	32.9	17.3	5.8	3.7	29.7	36.5	30.0	46.0	9.5	16.0
7	320.730	40.3	38.0	16.8	5.8	4.1	29.8	37.2	34.9	46.0	8.8	11.1
8	336.060	45.9	46.1	17.0	5.8	4.2	29.8	43.1	43.3	46.0	2.9	2.7
9	386.600	30.0	31.9	17.7	5.8	4.7	29.9	28.3	30.2	46.0	17.7	15.8
10	432.080	32.2	30.0	18.5	5.8	5.0	29.9	31.6	29.4	46.0	14.4	16.6
11	441.010	35.2	39.0	18.7	5.8	5.1	29.9	34.9	38.7	46.0	11.1	7.3
12	624.120	36.2	33.4	20.7	6.0	6.5	30.0	39.4	36.6	46.0	6.6	9.4

**REMARKS**

ANTENNA TYPE: 30-300MHz Biconical / 300-1000MHz Logperiodic

CALCULATION(30MHz to 1000MHz) : READING + ANT Factor + ATTEN + Cable Loss - AMP Gain

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

# DATA OF SUPURIOUS EMISSIONS(30MHz to 1000MHz)

A-PEX INTERNATIONAL CO., LTD.  
YOKOWA NO.2 OPEN SITE

COMPANY : Matsushita Electric Industrial Co., Ltd.  
EQUIPMENT : Wireless LAN builtin PC(Cisco LAN Card)  
MODEL : CF-M34  
S/N : CF-M34JA2BEM 0JKSA01049  
FCC ID : ACJ9TGCF-M342  
POWER : AC120V/60Hz  
Mode : Transmitting (ch6: 2437MHz / 11Mbps)

REPORT NO : 22EE0038-YW  
REGULATION : Fcc Part15SubpartC 247 / 209(a)  
TEST DISTANCE : 3m  
DATE : 2002/01/10  
Temperature : 21degrees centigrade  
Humidity : 37%



ENGINEER : Makoto Kosaka

**QP DETECT(Test Receiver: BW 120kHz)**

No.	FREQ [MHz]	READING		ANT Factor [dB]	ATTEN [dB]	CABLE LOSS [dB]	AMP GAIN [dB]	RESULT		LIMIT [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	[dB]
1	40.090	29.7	36.9	14.7	6.0	1.4	29.8	22.0	29.2	40.0	18.0	10.8
2	99.250	36.4	39.2	9.9	5.9	2.2	29.7	24.7	27.5	43.5	18.8	16.0
3	120.270	43.2	46.0	13.4	5.9	2.4	29.7	35.2	38.0	43.5	8.3	5.5
4	152.050	32.2	32.2	14.6	5.8	2.8	29.7	25.7	25.7	43.5	17.8	17.8
5	240.030	33.4	34.7	16.8	5.8	3.5	29.7	29.8	31.1	46.0	16.2	14.9
6	257.750	35.0	31.2	17.3	5.8	3.7	29.7	32.1	28.3	46.0	13.9	17.7
7	320.740	39.6	36.8	16.8	5.8	4.1	29.8	36.5	33.7	46.0	9.5	12.3
8	336.000	46.7	45.1	17.0	5.8	4.2	29.8	43.9	42.3	46.0	2.1	3.7
9	386.570	32.1	32.8	17.7	5.8	4.7	29.9	30.4	31.1	46.0	15.6	14.9
10	432.050	31.0	30.6	18.5	5.8	5.0	29.9	30.4	30.0	46.0	15.6	16.0
11	441.020	33.4	37.3	18.7	5.8	5.1	29.9	33.1	37.0	46.0	12.9	9.0
12	624.120	36.8	31.5	20.7	6.0	6.5	30.0	40.0	34.7	46.0	6.0	11.3

**REMARKS**

ANTENNA TYPE: 30-300MHz Biconical / 300-1000MHz Logperiodic

CALCULATION(30MHz to 1000MHz) : READING + ANT Factor + ATTEN + Cable Loss - AMP Gain

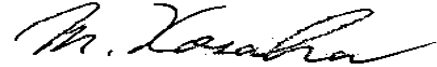
\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

# DATA OF SUPURIOUS EMISSIONS(30MHz to 1000MHz)

A-PEX INTERNATIONAL CO., LTD.  
YOKOWA NO.2 OPEN SITE

COMPANY : Matsushita Electric Industrial Co., Ltd.  
EQUIPMENT : Wireless LAN builtin PC(Cisco LAN Card)  
MODEL : CF-M34  
S/N : CF-M34JA2BEM 0JKSA01049  
FCC ID : ACJ9TGCF-M342  
POWER : AC120V/60Hz  
Mode : Transmitting (ch11: 2462MHz / 11Mbps)

REPORT NO : 22EE0038-YW  
REGULATION : Fcc Part15SubpartC 247 / 209(a)  
TEST DISTANCE : 3m  
DATE : 2002/01/10  
Temperature : 21degrees centigrade  
Humidity : 37%



ENGINEER : Makoto Kosaka

**QP DETECT(Test Receiver: BW 120kHz)**

No.	FREQ [MHz]	READING		ANT Factor [dB]	ATTEN [dB]	CABLE LOSS [dB]	AMP GAIN [dB]	RESULT		LIMIT [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	[dB]
1	40.100	30.1	37.6	14.7	6.0	1.4	29.8	22.4	29.9	40.0	17.6	10.1
2	99.240	37.0	38.8	9.9	5.9	2.2	29.7	25.3	27.1	43.5	18.2	16.4
3	120.280	42.5	44.8	13.4	5.9	2.4	29.7	34.5	36.8	43.5	9.0	6.7
4	152.060	33.5	32.9	14.6	5.8	2.8	29.7	27.0	26.4	43.5	16.5	17.1
5	240.040	32.8	37.6	16.8	5.8	3.5	29.7	29.2	34.0	46.0	16.8	12.0
6	257.720	38.5	29.8	17.3	5.8	3.7	29.7	35.6	26.9	46.0	10.4	19.1
7	320.740	43.4	38.2	16.8	5.8	4.1	29.8	40.3	35.1	46.0	5.7	10.9
8	336.050	45.6	46.2	17.0	5.8	4.2	29.8	42.8	43.4	46.0	3.2	2.6
9	386.600	32.8	29.8	17.7	5.8	4.7	29.9	31.1	28.1	46.0	14.9	17.9
10	432.070	32.4	32.8	18.5	5.8	5.0	29.9	31.8	32.2	46.0	14.2	13.8
11	440.990	37.4	36.1	18.7	5.8	5.1	29.9	37.1	35.8	46.0	8.9	10.2
12	624.100	36.3	37.0	20.7	6.0	6.5	30.0	39.5	40.2	46.0	6.5	5.8

**REMARKS**

ANTENNA TYPE: 30-300MHz Biconical / 300-1000MHz Logperiodic

CALCULATION(30MHz to 1000MHz) : READING + ANT Factor + ATTEN + Cable Loss - AMP Gain

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

# DATA OF SUPURIOUS EMISSIONS(1GHz to 26GHz)

A-PEX INTERNATIONAL CO., LTD.  
YOKOWA NO.3 OPEN SITE

COMPANY : Matsushita Electric Industrial Co., Ltd.  
EQUIPMENT : Wireless LAN builtin PC(Cisco LAN Card)  
MODEL : CF-M34  
S/N : CF-M34JA2BEM 0JKSA01049  
FCC ID : ACJ9TGCF-M342  
POWER : AC120V/60Hz  
Mode : Transmitting (ch1: 2412MHz / 11Mbps)

REPORT NO : 22EE0038-YW  
REGULATION : Fcc Part15SubpartC 247(b)(1)  
TEST DISTANCE : 3m  
DATE : 2002/1/19  
Temperature : 23degrees centigrade  
Humidity : 34%

  
ENGINEER : Makoto Kosaka

**PK DETECT(S/A : RBW 1MHz and VBW 1MHz)**

No.	FREQ [GHz]	S/A READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	H-Pass Filter [dB]	ATTEN [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]						HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (High Pass or ATTEN).</b>													
1	1.50300	45.9	42.9	26.8	34.7	1.8	0.0	10.0	49.8	46.8	74.0	24.2	27.2
2	4.82400	42.5	41.6	35.3	34.5	4.6	1.1	0.0	49.0	48.1	74.0	25.0	25.9
3	7.23600	41.9	40.7	38.5	34.8	5.8	0.5	0.0	51.9	50.7	74.0	22.1	23.3
4	9.64800	43.3	42.6	38.4	35.0	7.4	0.5	0.0	54.6	53.9	74.0	19.5	20.1
<b>Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass - Dfac</b>													
5	12.06000	42.8	41.1	43.0	34.4	7.8	0.5	0.0	44.1	42.4	74.0	29.9	31.6
6	14.47283	41.3	40.0	41.8	33.1	8.8	0.6	0.0	43.8	42.5	74.0	30.2	31.5
7	16.88484	43.8	43.6	38.6	33.4	9.5	0.6	0.0	43.5	43.3	74.0	30.5	30.7
8	19.29685	45.1	45.0	38.4	33.4	10.3	1.1	0.0	45.9	45.8	74.0	28.1	28.2
9	21.70885	45.5	45.3	38.8	33.0	10.7	0.5	0.0	46.9	46.7	74.0	27.1	27.3
10	24.12085	46.5	46.3	39.3	33.2	12.3	0.7	0.0	50.0	49.8	74.0	24.0	24.2

**AV DETECT(S/A : RBW 1MHz and VBW 10Hz)**

No.	FREQ [GHz]	S/A READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	H-Pass Filter [dB]	ATTEN [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]						HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (High Pass or ATTEN).</b>													
1	1.50300	35.1	32.3	26.8	34.7	1.8	0.0	10.0	39.0	36.2	54.0	15.0	17.8
2	4.82400	30.7	30.8	35.3	34.5	4.6	1.1	0.0	37.2	37.3	54.0	16.8	16.7
3	7.23600	30.6	30.2	38.5	34.8	5.8	0.5	0.0	40.6	40.2	54.0	13.4	13.8
4	9.64882	31.9	31.6	38.4	35.0	7.4	0.5	0.0	43.2	42.9	54.0	10.8	11.1
<b>Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass - Dfac</b>													
5	12.06082	30.9	30.4	43.0	34.4	7.8	0.5	0.0	32.2	31.7	54.0	21.8	22.3
6	14.47283	30.3	30.2	41.8	33.1	8.8	0.6	0.0	32.8	32.7	54.0	21.2	21.3
7	16.88484	32.2	32.1	38.6	33.4	9.5	0.6	0.0	31.9	31.8	54.0	22.1	22.2
8	19.29685	32.8	32.5	38.4	33.4	10.3	1.1	0.0	33.6	33.3	54.0	20.4	20.7
9	21.70885	33.0	33.0	38.8	33.0	10.7	0.5	0.0	34.4	34.4	54.0	19.6	19.6
10	24.12085	34.2	34.3	39.3	33.2	12.3	0.7	0.0	37.7	37.8	54.0	16.3	16.2

Test Distance 0.5m : Distance Factor(Dfac) = 20log(3/0.5) = 15.6 dB

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

# DATA OF SUPURIOUS EMISSIONS(1GHz to 26GHz)

A-PEX INTERNATIONAL CO., LTD.  
YOKOWA NO.3 OPEN SITE

COMPANY : Matsushita Electric Industrial Co., Ltd.  
EQUIPMENT : Wireless LAN builtin PC(Cisco LAN Card)  
MODEL : CF-M34  
S/N : CF-M34JA2BEM 0JKSA01049  
FCC ID : ACJ9TGCF-M342  
POWER : AC120V/60Hz  
Mode : Transmitting (ch6: 2437MHz)

REPORT NO : 22EE0038-YW  
REGULATION : Fcc Part15SubpartC 247(b)(1)  
TEST DISTANCE : 3m  
DATE : 2002/1/19  
Temperature : 23degrees centigrade  
Humidity : 34%

  
ENGINEER : Makoto Kosaka

## PK DETECT(S/A : RBW 1MHz and VBW 1MHz)

No.	FREQ [GHz]	S/A READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	H-Pass Filter [dB]	ATTEN [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]						HOR [dB]	VER [dB]			
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (High Pass or ATTEN).</b>													
1	1.54082	42.5	42.0	27.1	34.7	1.8	0.0	10.0	46.7	46.2	74.0	27.3	27.8
2	4.87400	42.0	40.8	35.5	34.5	4.7	1.1	0.0	48.8	47.6	74.0	25.2	26.4
3	7.31100	41.9	40.3	38.6	34.9	5.8	0.5	0.0	51.9	50.3	74.0	22.1	23.7
4	9.74800	43.4	42.6	38.4	35.0	7.5	0.5	0.0	54.8	54.0	74.0	19.2	20.0
<b>Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass - Dfac</b>													
5	12.18500	42.8	41.0	43.1	34.3	8.5	0.5	0.0	45.0	43.2	74.0	29.0	30.8
6	14.62200	41.5	40.0	42.1	33.1	8.9	0.5	0.0	44.3	42.8	74.0	29.7	31.2
7	17.05900	43.8	43.6	38.5	33.2	8.7	0.6	0.0	42.8	42.6	74.0	31.2	31.4
8	19.49600	45.3	44.8	38.1	33.4	9.9	1.3	0.0	45.6	45.1	74.0	28.4	28.9
9	21.93300	45.5	45.3	38.7	33.0	10.5	0.3	0.0	46.4	46.2	74.0	27.6	27.8
10	24.37000	46.2	46.3	39.4	33.2	11.6	0.8	0.0	49.2	49.3	74.0	24.8	24.7

## AV DETECT(S/A : RBW 1MHz and VBW 10Hz)

No.	FREQ [GHz]	S/A READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	H-Pass Filter [dB]	ATTEN [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]						HOR [dB]	VER [dB]			
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (High Pass or ATTEN).</b>													
1	1.54082	35.3	32.4	27.1	34.7	1.8	0.0	10.0	39.5	36.6	54.0	14.5	17.4
2	4.87400	30.4	30.3	35.5	34.5	4.7	1.1	0.0	37.2	37.1	54.0	16.8	16.9
3	7.31100	30.6	30.5	38.6	34.9	5.8	0.5	0.0	40.6	40.5	54.0	13.4	13.5
4	9.74800	32.0	31.6	38.4	35.0	7.5	0.5	0.0	43.4	43.0	54.0	10.6	11.0
<b>Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass - Dfac</b>													
5	12.18500	30.9	30.4	43.1	34.3	8.5	0.5	0.0	33.1	32.6	54.0	20.9	21.4
6	14.62200	30.3	30.2	42.1	33.1	8.9	0.5	0.0	33.1	33.0	54.0	20.9	21.0
7	17.05900	32.2	32.1	38.5	33.2	8.7	0.6	0.0	31.2	31.1	54.0	22.8	22.9
8	19.49600	32.8	32.5	38.1	33.4	9.9	1.3	0.0	33.1	32.8	54.0	20.9	21.2
9	21.93300	33.0	33.0	38.7	33.0	10.5	0.3	0.0	33.9	33.9	54.0	20.1	20.1
10	24.37000	34.2	34.3	39.4	33.2	11.6	0.8	0.0	37.2	37.3	54.0	16.8	16.7

Test Distance 0.5m : Distance Factor(Dfac) = 20log(3/0.5) = 15.6 dB

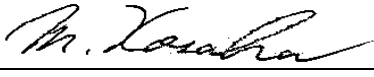
\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

# DATA OF SUPURIOUS EMISSIONS(1GHz to 26GHz)

A-PEX INTERNATIONAL CO., LTD.  
YOKOWA NO.3 OPEN SITE

COMPANY : Matsushita Electric Industrial Co., Ltd.  
EQUIPMENT : Wireless LAN builtin PC(Cisco LAN Card)  
MODEL : CF-M34  
S/N : CF-M34JA2BEM 0JKSA01049  
FCC ID : ACJ9TGCF-M342  
POWER : AC120V/60Hz  
Mode : Transmitting (ch11: 2462MHz)

REPORT NO : 22EE0038-YW  
REGULATION : Fcc Part15SubpartC 247(b)(1)  
TEST DISTANCE : 3m  
DATE : 2002/1/19  
Temperature : 23degrees centigrade  
Humidity : 34%

  
ENGINEER : Makoto Kosaka

**PK DETECT(S/A : RBW 1MHz and VBW 1MHz)**

No.	FREQ [GHz]	S/A READING [dBuV]		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	H-Pass Filter [dB]	ATTEN [dB]	RESULT [dBuV/m]		Limit PK [dBuV/m]	MARGIN	
		HOR	VER						HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (High Pass or ATTEN).</b>													
1	1.57830	46.8	43.4	27.4	34.6	1.8	0.0	10.0	51.4	48.0	74.0	22.6	26.0
2	4.92600	42.3	41.1	35.8	34.5	4.8	1.1	0.0	49.5	48.3	74.0	24.5	25.7
3	7.38654	42.5	41.1	38.7	34.9	5.9	0.5	0.0	52.7	51.3	74.0	21.3	22.7
4	9.84830	43.4	42.6	38.5	34.9	7.6	0.5	0.0	55.1	54.3	74.0	18.9	19.7
<b>Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass - Dfac</b>													
5	12.31000	42.8	41.0	43.3	34.2	8.4	0.5	0.0	45.2	43.4	74.0	28.8	30.6
6	14.77200	41.5	41.0	42.3	33.0	9.1	0.5	0.0	44.8	44.3	74.0	29.2	29.7
7	17.23400	43.7	43.6	38.2	33.1	8.9	0.6	0.0	42.7	42.6	74.0	31.3	31.4
8	19.69600	45.3	44.8	38.3	33.4	10.0	1.5	0.0	46.1	45.6	74.0	27.9	28.4
9	22.15800	45.5	45.3	38.7	33.0	10.6	0.3	0.0	46.5	46.3	74.0	27.5	27.7
10	24.62000	46.4	46.3	39.4	33.2	11.9	0.9	0.0	49.8	49.7	74.0	24.2	24.3

**AV DETECT(S/A : RBW 1MHz and VBW 10Hz)**

No.	FREQ [GHz]	S/A READING [dBuV]		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	H-Pass Filter [dB]	ATTEN [dB]	RESULT [dBuV/m]		Limit AV [dBuV/m]	MARGIN	
		HOR	VER						HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (High Pass or ATTEN).</b>													
1	1.57830	35.3	32.4	27.4	34.6	1.8	0.0	10.0	39.9	37.0	54.0	14.1	17.0
2	4.92600	30.4	30.3	35.8	34.5	4.8	1.1	0.0	37.6	37.5	54.0	16.4	16.5
3	7.38654	30.6	30.8	38.7	34.9	5.9	0.5	0.0	40.8	41.0	54.0	13.2	13.0
4	9.84830	32.3	31.6	38.5	34.9	7.6	0.5	0.0	44.0	43.3	54.0	10.0	10.7
<b>Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass - Dfac</b>													
5	12.31000	30.9	30.4	43.3	34.2	8.4	0.5	0.0	33.3	32.8	54.0	20.7	21.2
6	14.77200	30.6	30.2	42.3	33.0	9.1	0.5	0.0	33.9	33.5	54.0	20.1	20.5
7	17.23400	32.2	32.1	38.2	33.1	8.9	0.6	0.0	31.2	31.1	54.0	22.8	22.9
8	19.69600	32.8	32.6	38.3	33.4	10.0	1.5	0.0	33.6	33.4	54.0	20.4	20.6
9	22.15800	33.0	33.0	38.7	33.0	10.6	0.3	0.0	34.0	34.0	54.0	20.0	20.0
10	24.62000	34.3	34.3	39.4	33.2	11.9	0.9	0.0	37.7	37.7	54.0	16.3	16.3

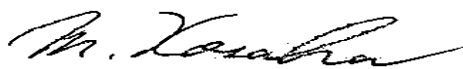
Test Distance 0.5m : Distance Factor(Dfac) = 20log(3/0.5) = 15.6 dB

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

## Restricted Band Edges(Radiated)

A-PEX INTERNATIONAL CO., LTD.  
YOKOWA NO.3 OPEN SITE

COMPANY : Matsushita Electric Industrial Co., L REPORT NO : 22EE0038-YW  
 EQUIPMENT : Wireless LAN builtin PC(Cisco LAN REGULATION : Fcc Part15SubpartC 247(b)(1)  
 MODEL : CF-M34 TEST DISTANCE : 3m  
 S/N : CF-M34JA2BEM 0JKSA01049 DATE : 2002/1/19  
 FCC ID : ACJ9TGCF-M342 Temperature : 29degrees centigrade  
 POWER : AC120V/60Hz Humidity : 20%  
 Mode : Transmitting



ENGINEER : Makoto Kosaka

PK DETECT(S/A : RBW 1MHz and VBW 1MHz)

No.	FREQ [GHz]	S/A READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]					HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
Ch1	2.3900	45.4	44.6	31.2	38.1	2.5	10.0	51.0	50.2	74.0	23.0	23.8
Ch11	2.4835	51.1	46.5	31.4	38.1	2.6	10.0	57.0	52.4	74.0	17.1	21.6

AV DETECT(S/A : RBW 1MHz and VBW 10Hz)

No.	FREQ [GHz]	S/A READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]					HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
Ch1	2.3900	34.5	33.2	31.2	38.1	2.5	10.0	40.1	38.8	54.0	14.0	15.2
Ch11	2.4835	40.0	36.2	31.4	38.1	2.6	10.0	45.9	42.1	54.0	8.1	11.9

Sample Calculation :

RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + ATTEN

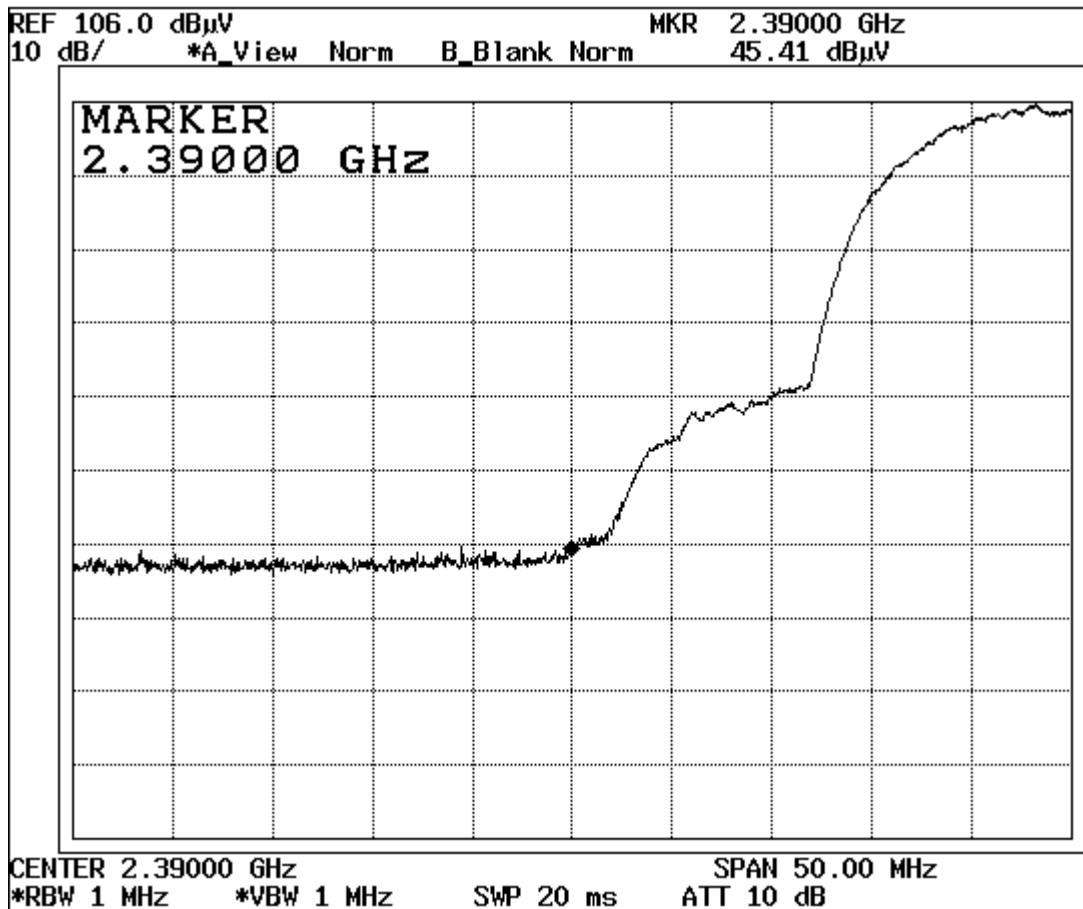
\*Ch1: 2412MHz Transmitting

\*C11: 2462MHz Transmitting

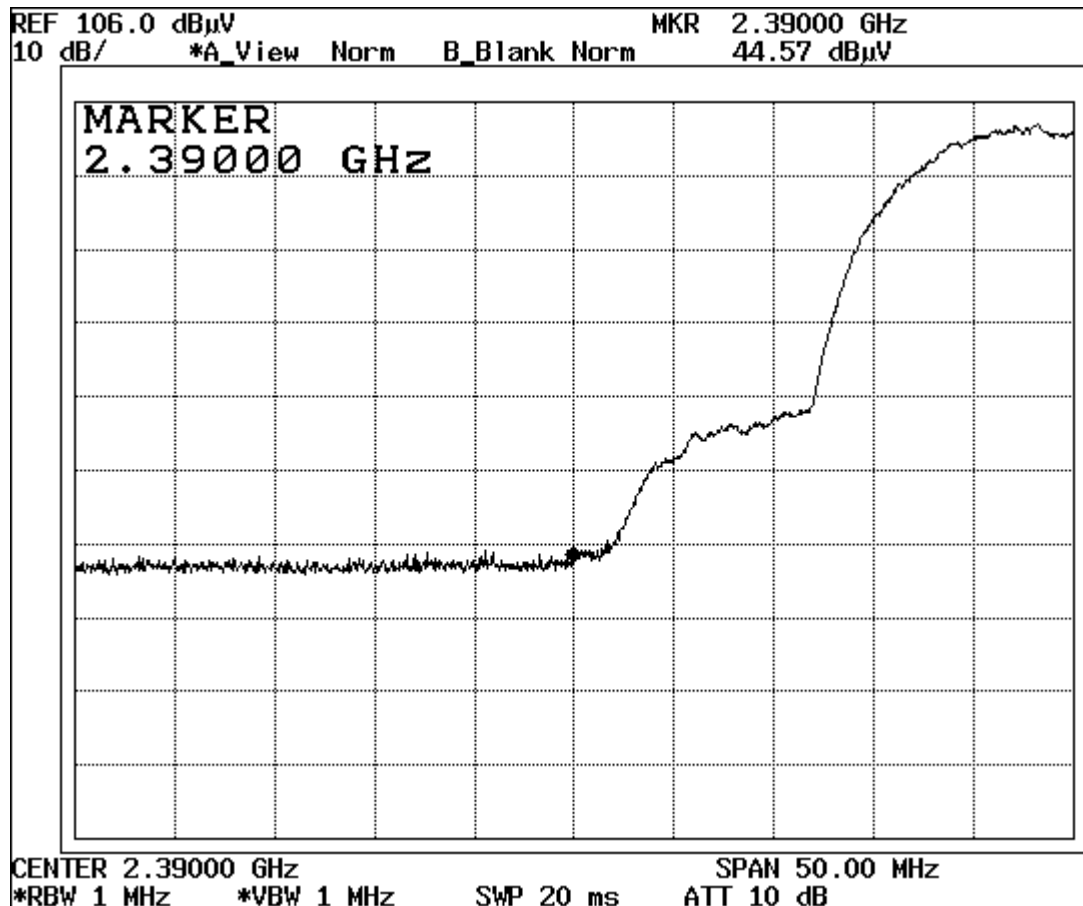
**2.39GHz(Ch1)**

PK Detector

1. Horizontal



2. Vertical



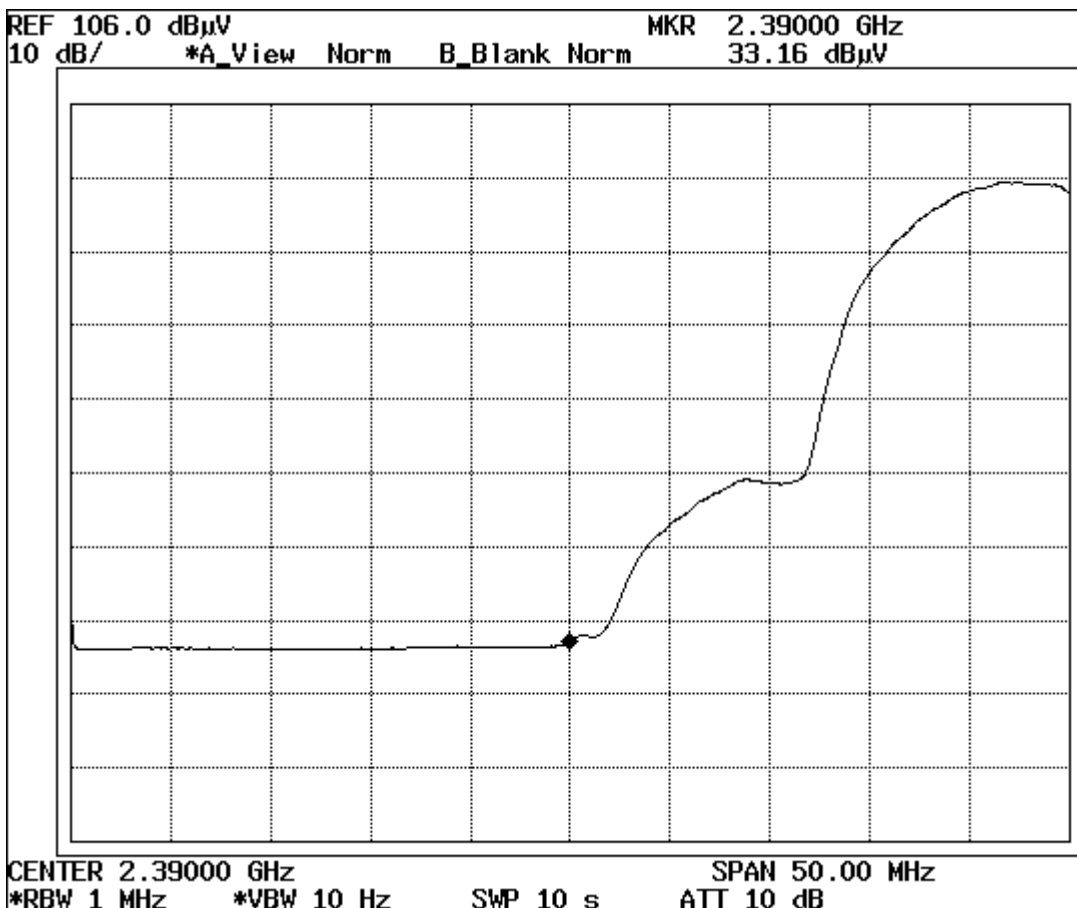
**2.39GHz(Ch1)**

AV Detector

1. Horizontal



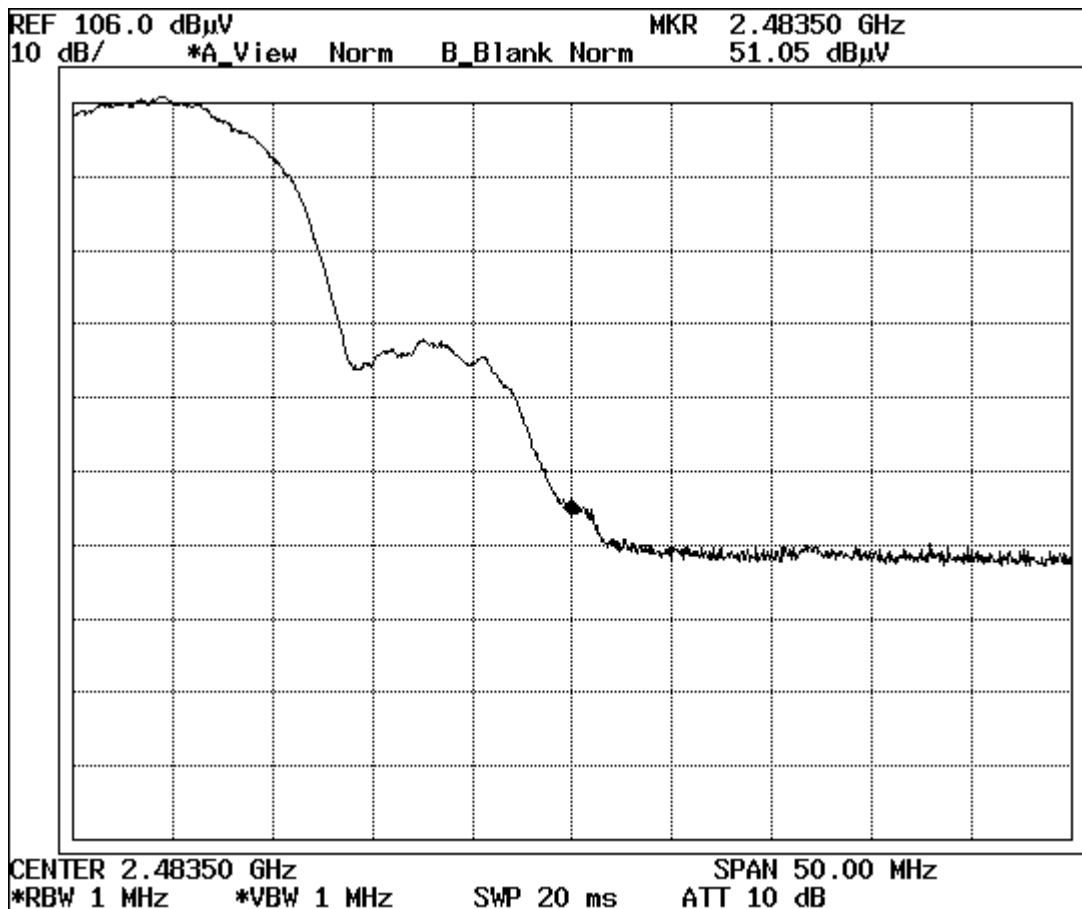
2. Vertical



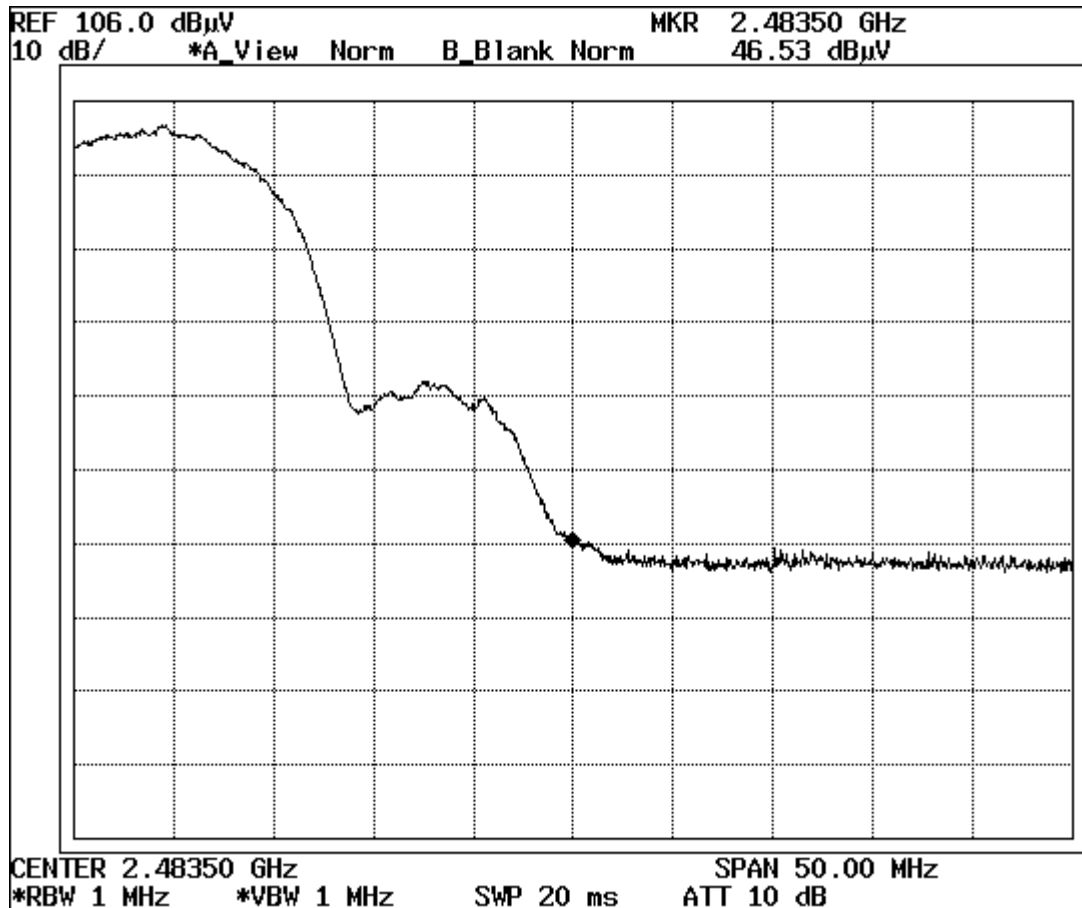
**2.4835GHz(Ch11)**

PK Detector

1. Horizontal



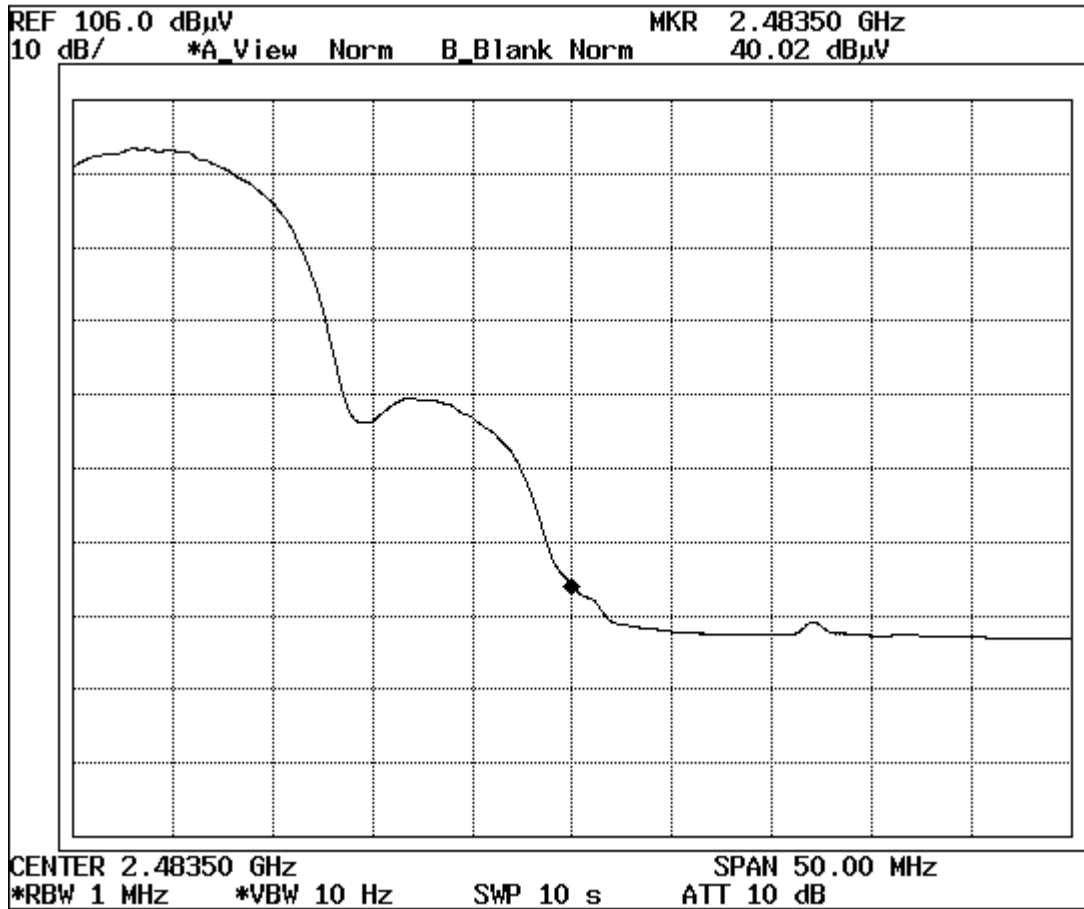
2. Vertical



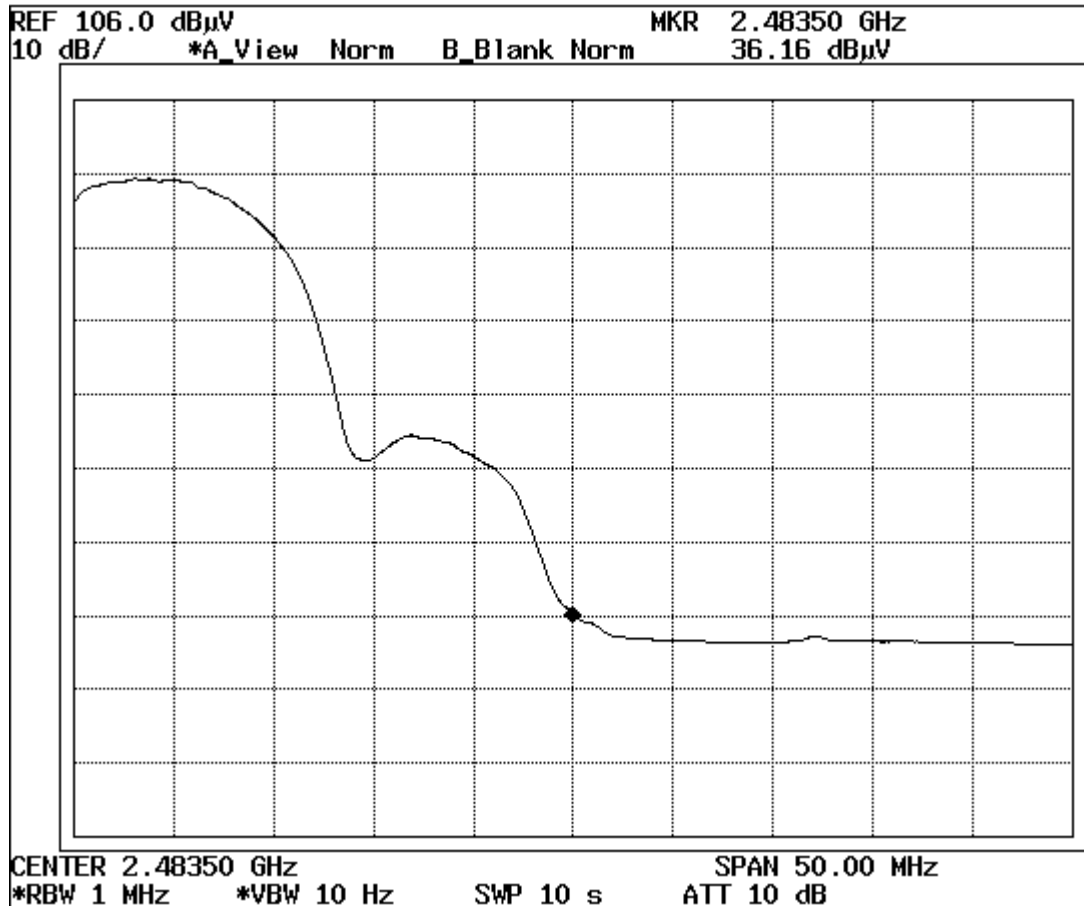
**2.4835GHz(Ch11)**

AV Detector

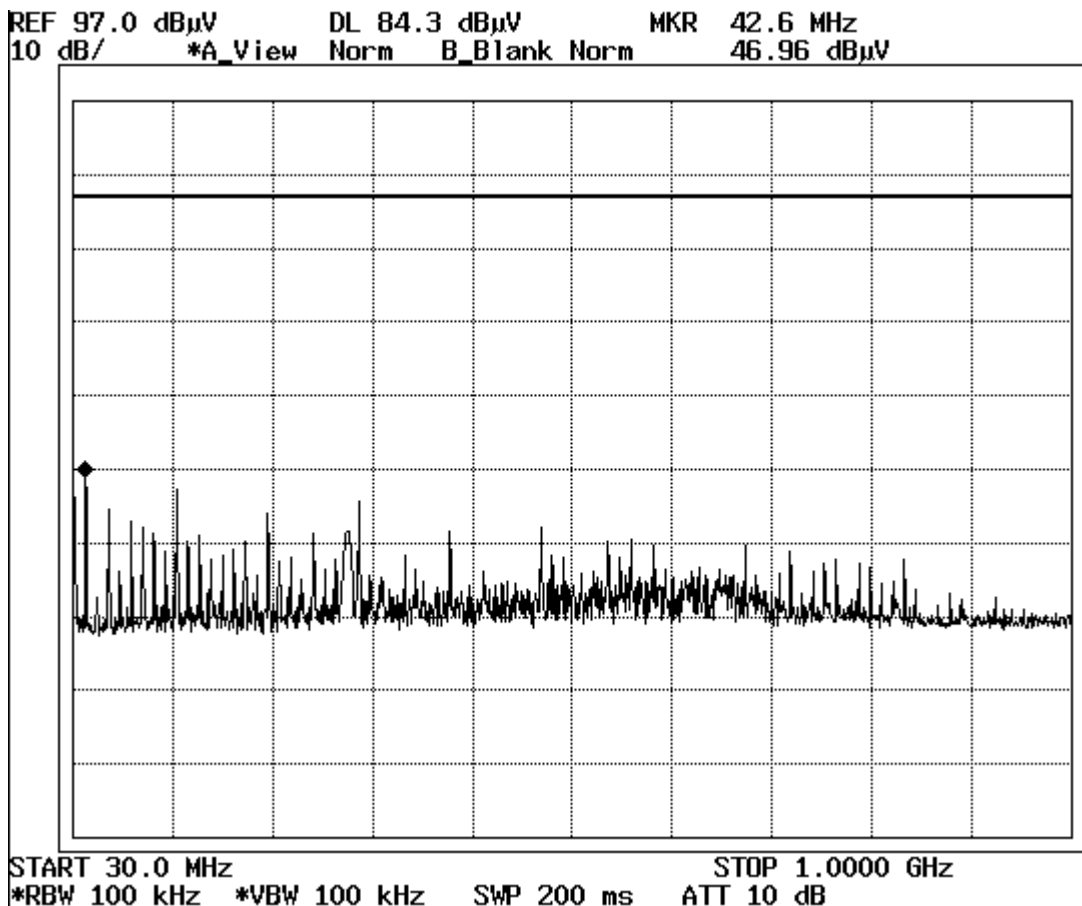
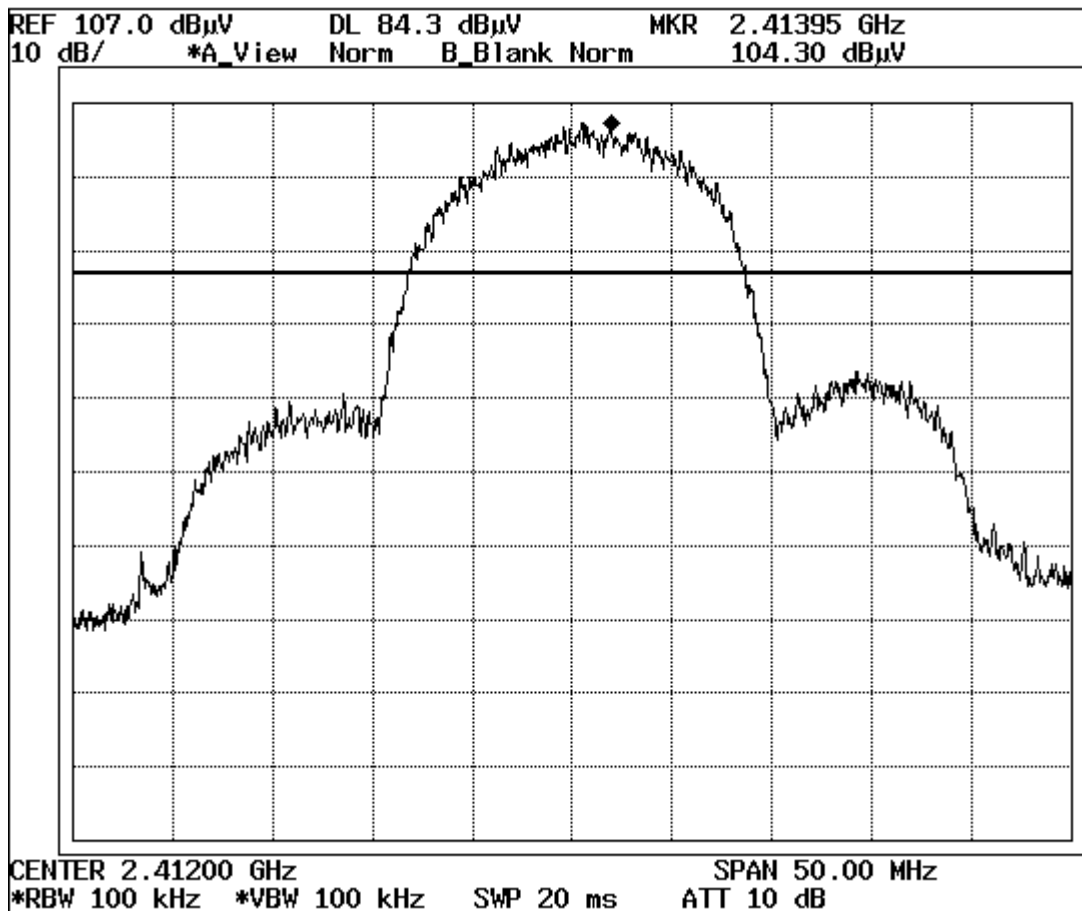
2. Horizontal

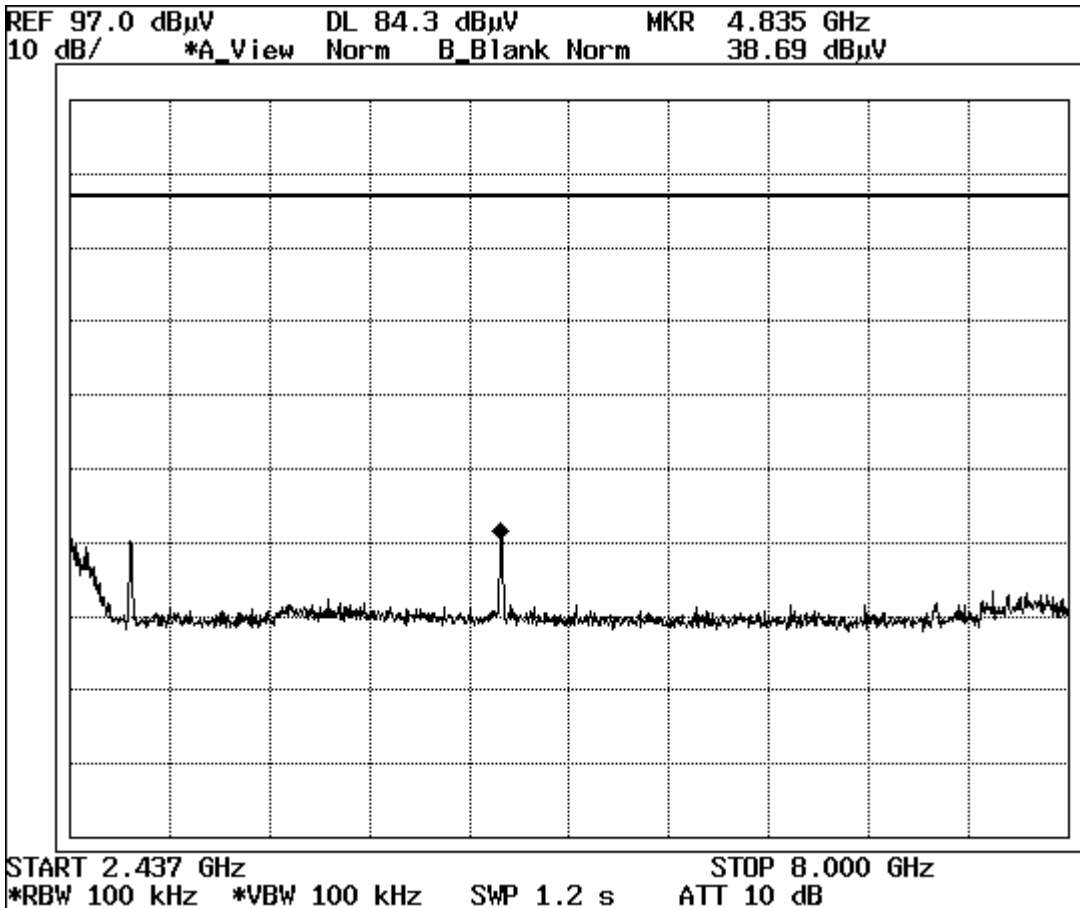
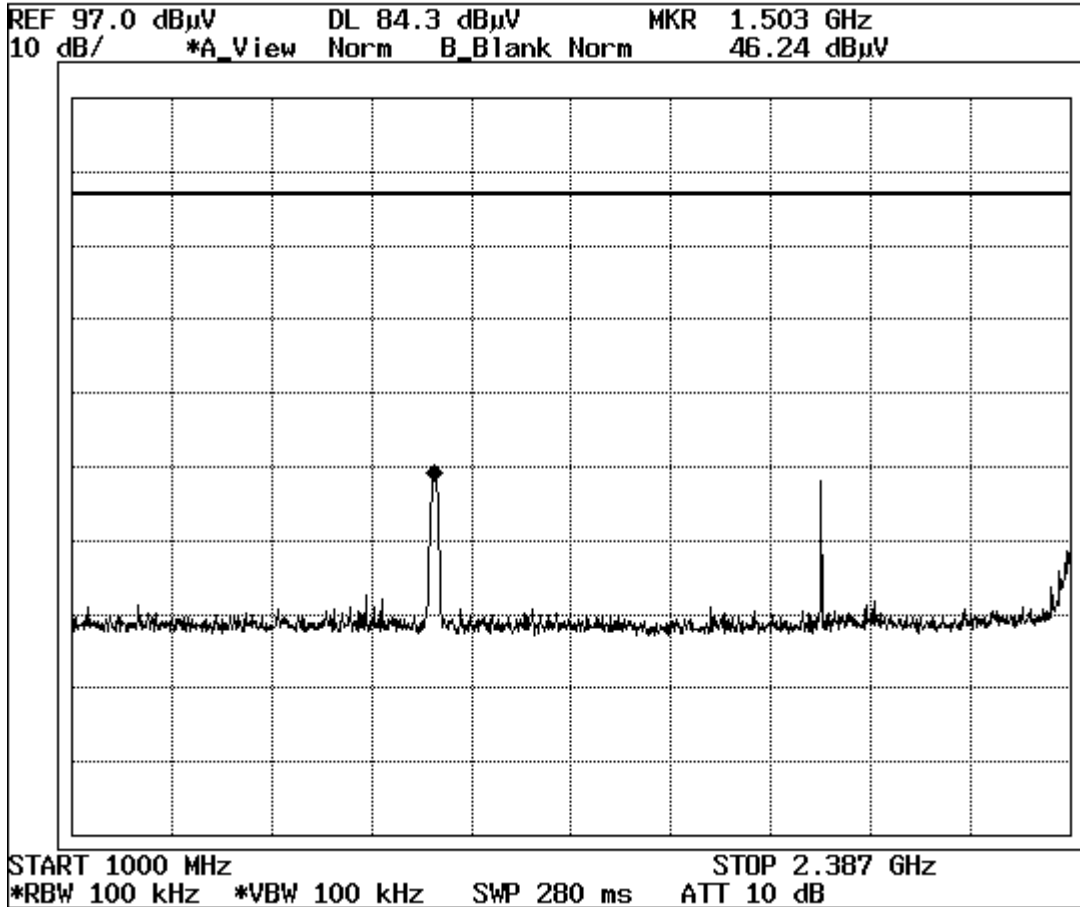


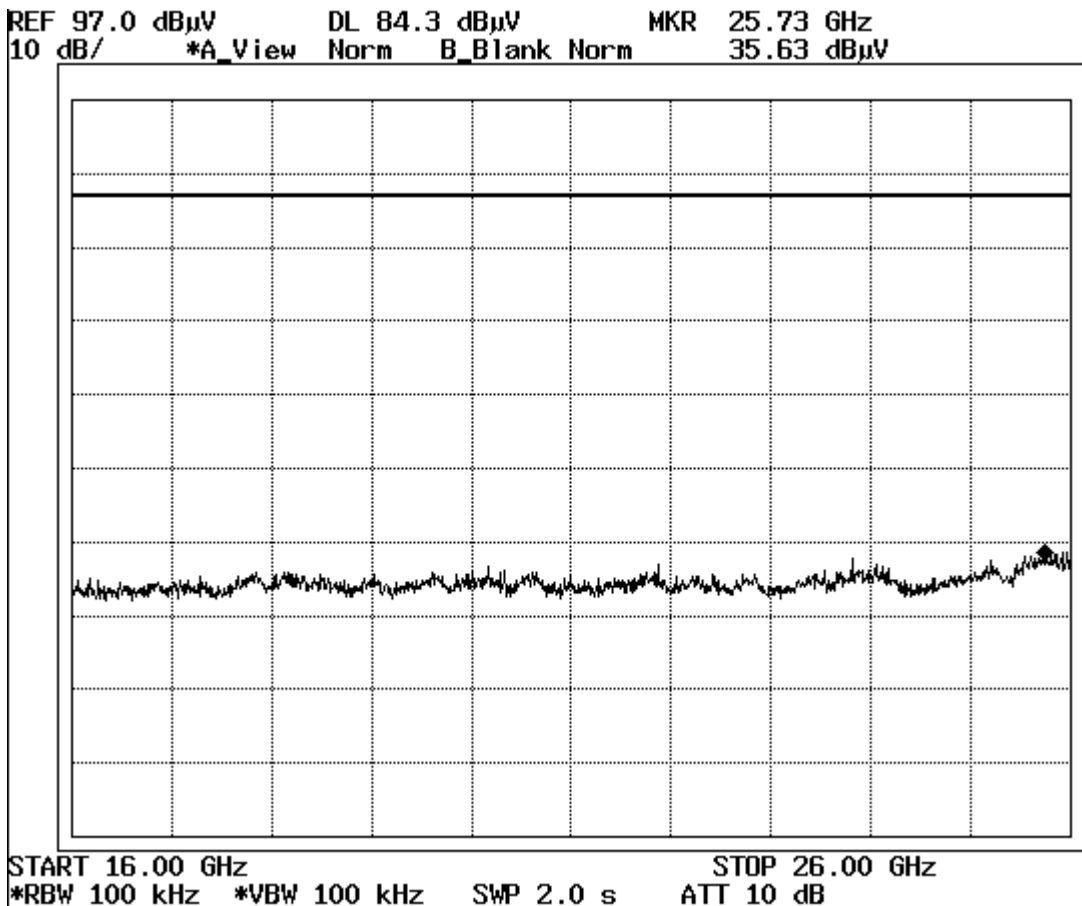
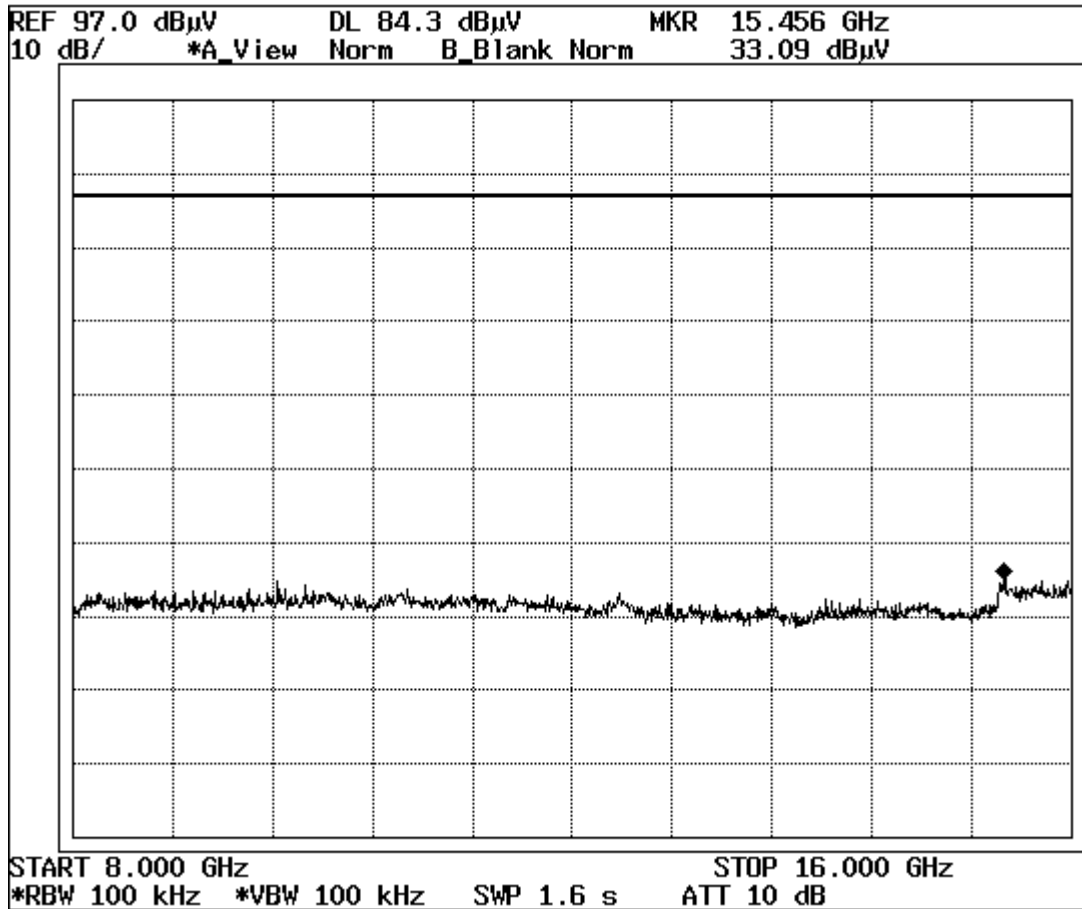
2. Vertical



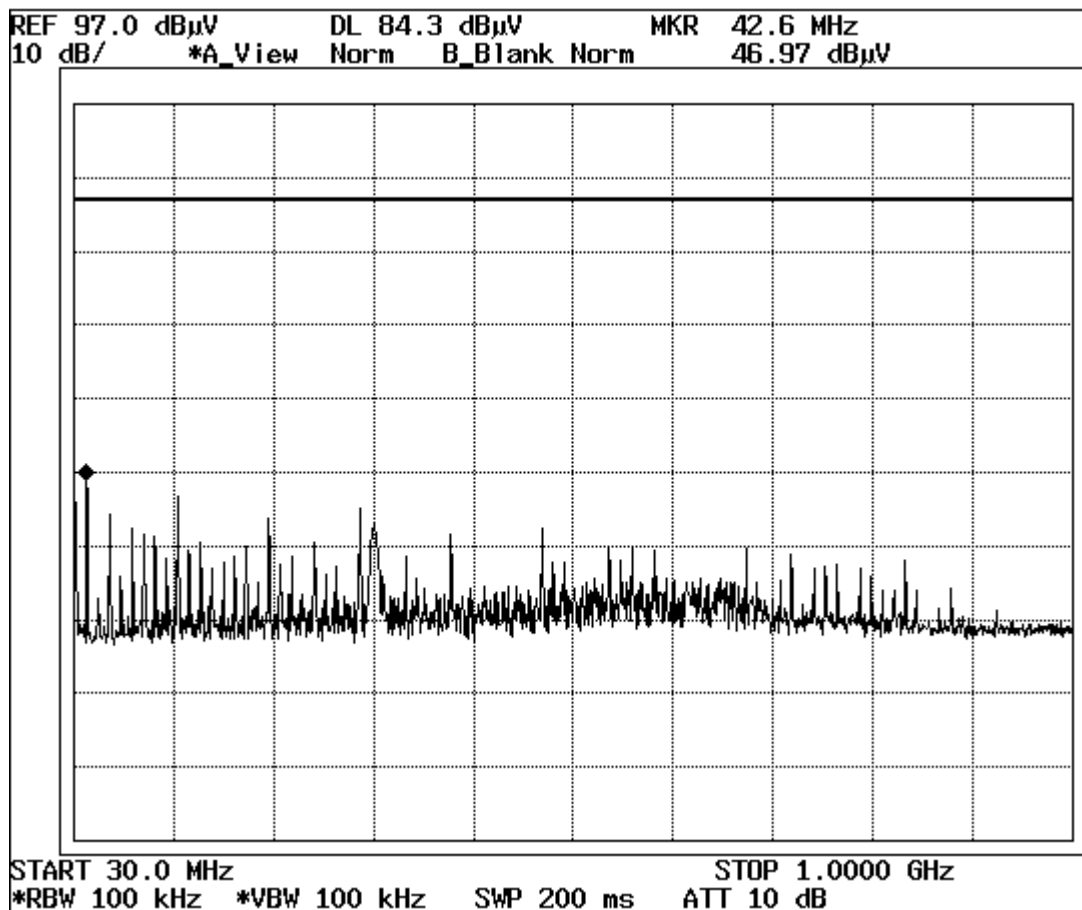
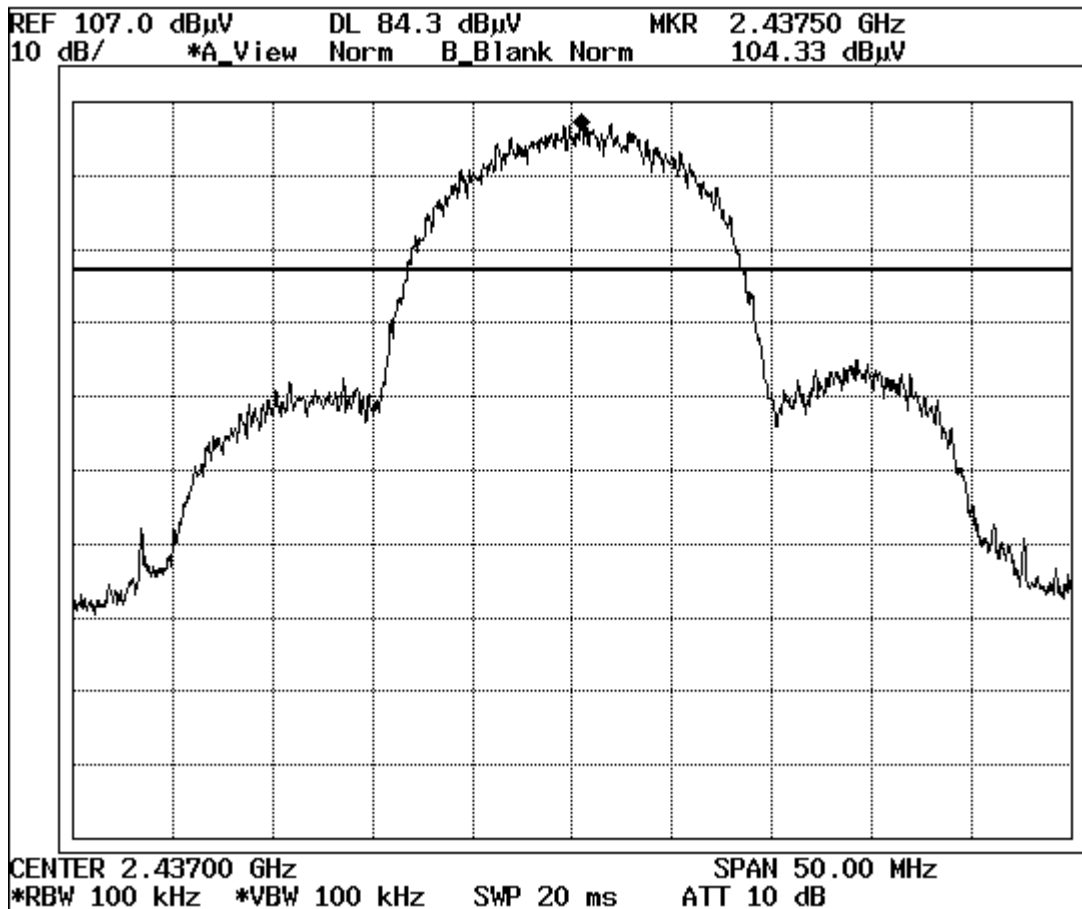
**Ch1: 2412MHz(Low)**

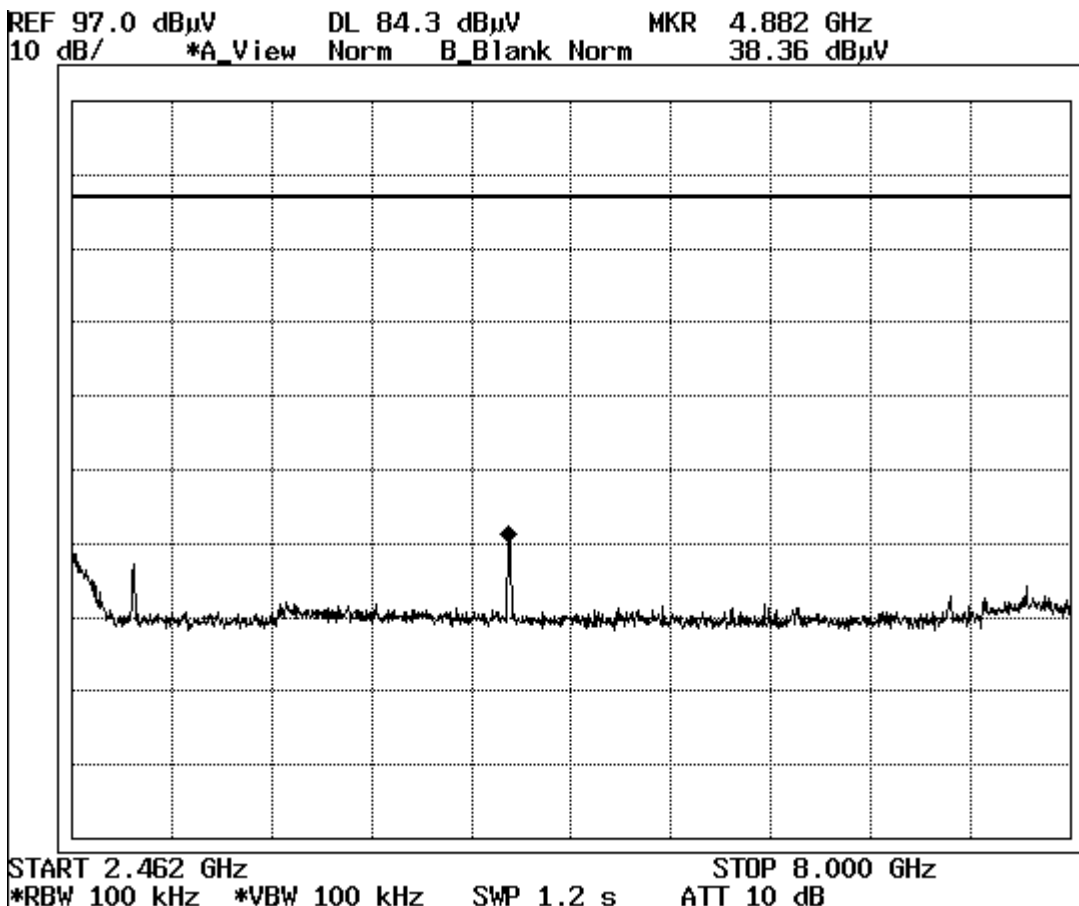
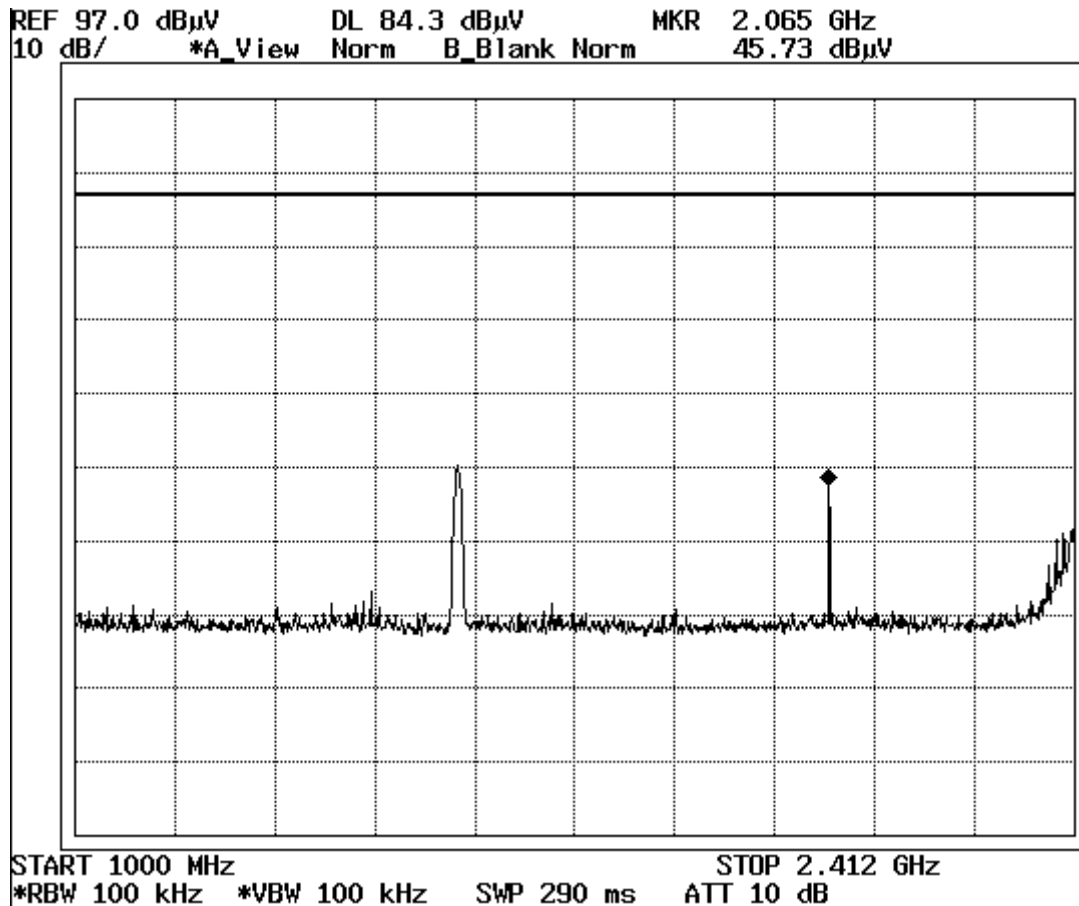


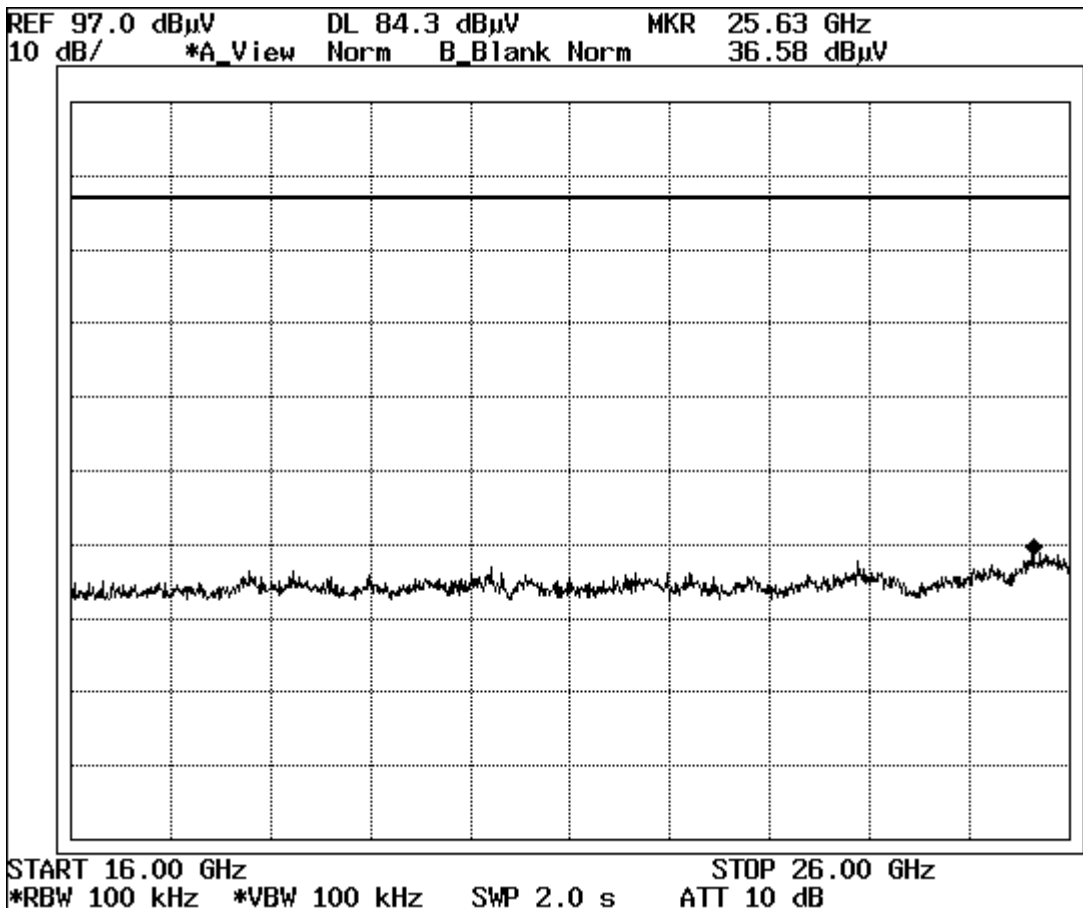
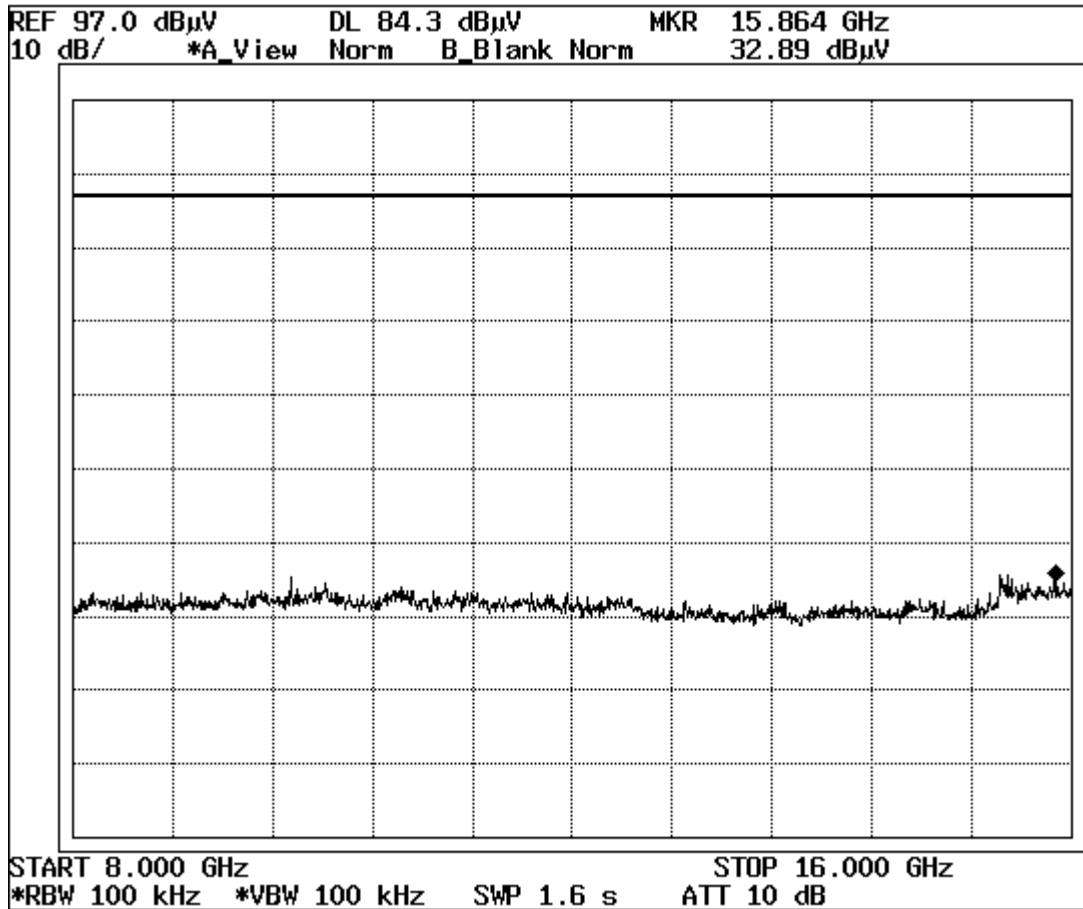




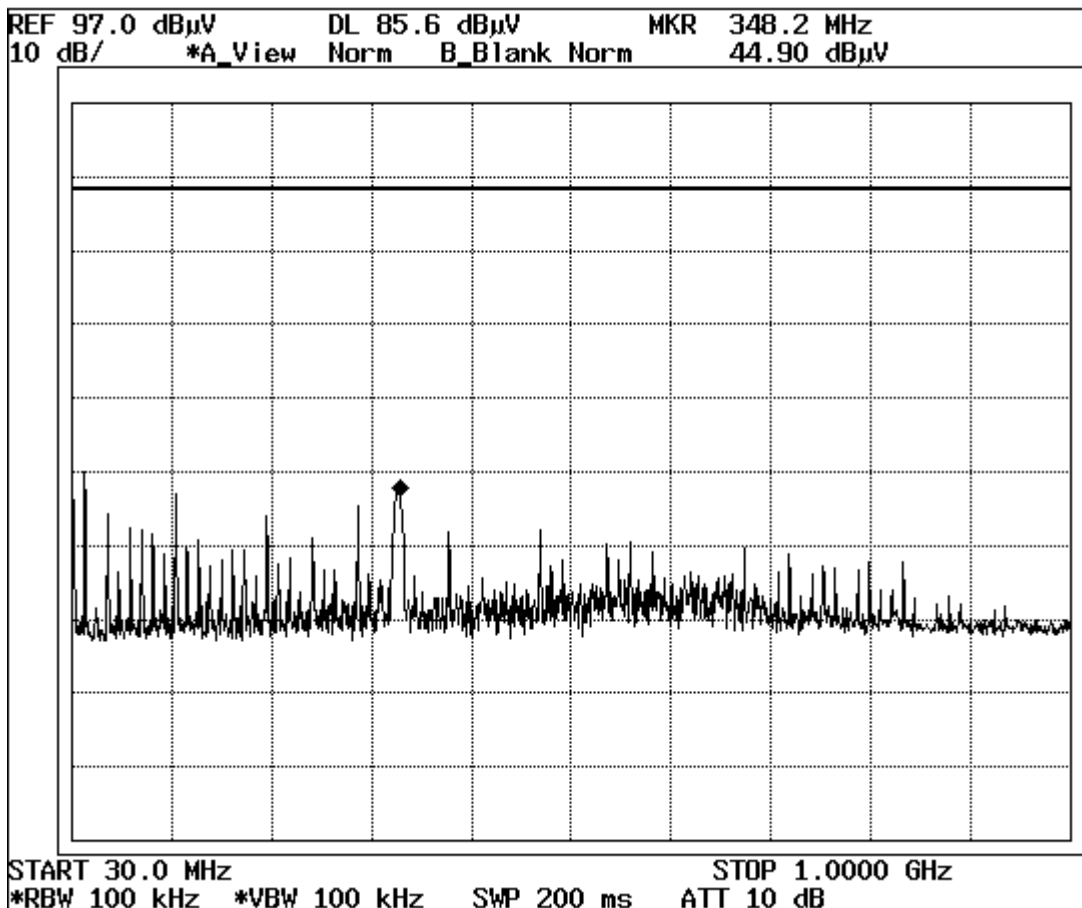
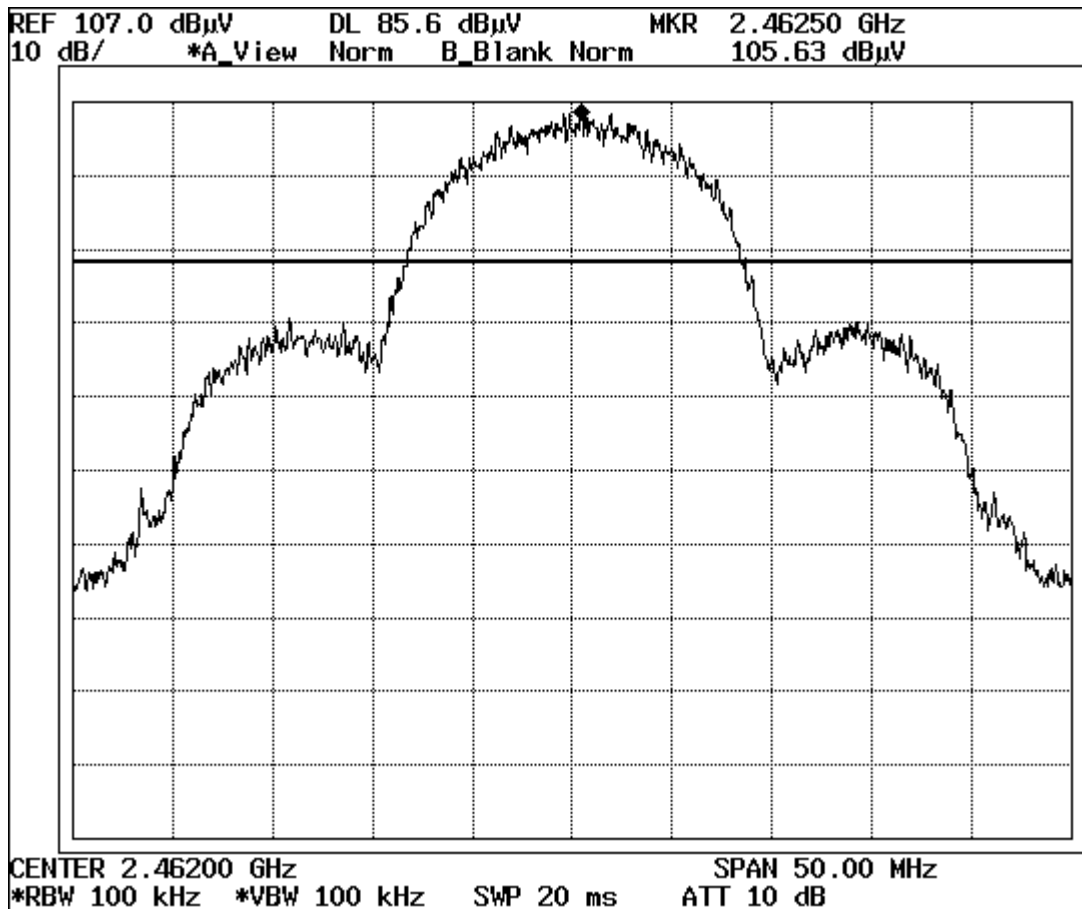
**Ch6: 2437MHz(Mid)**

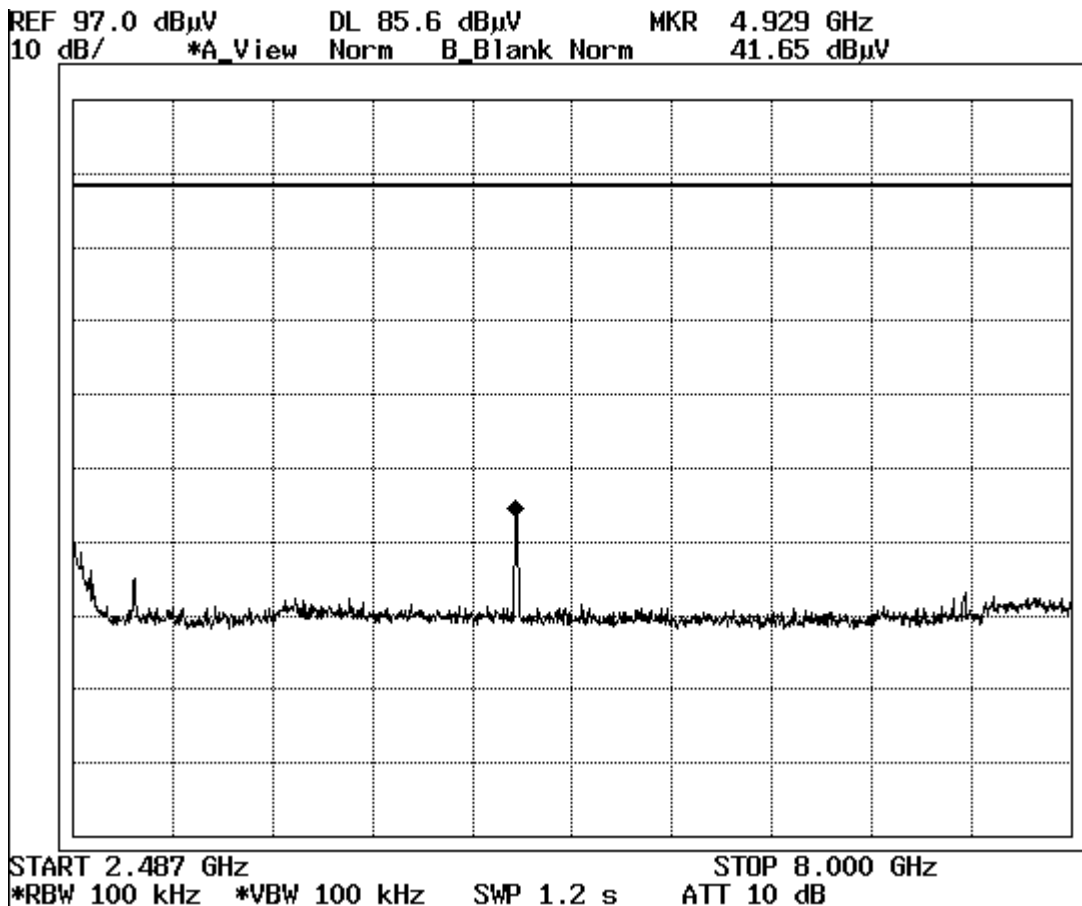
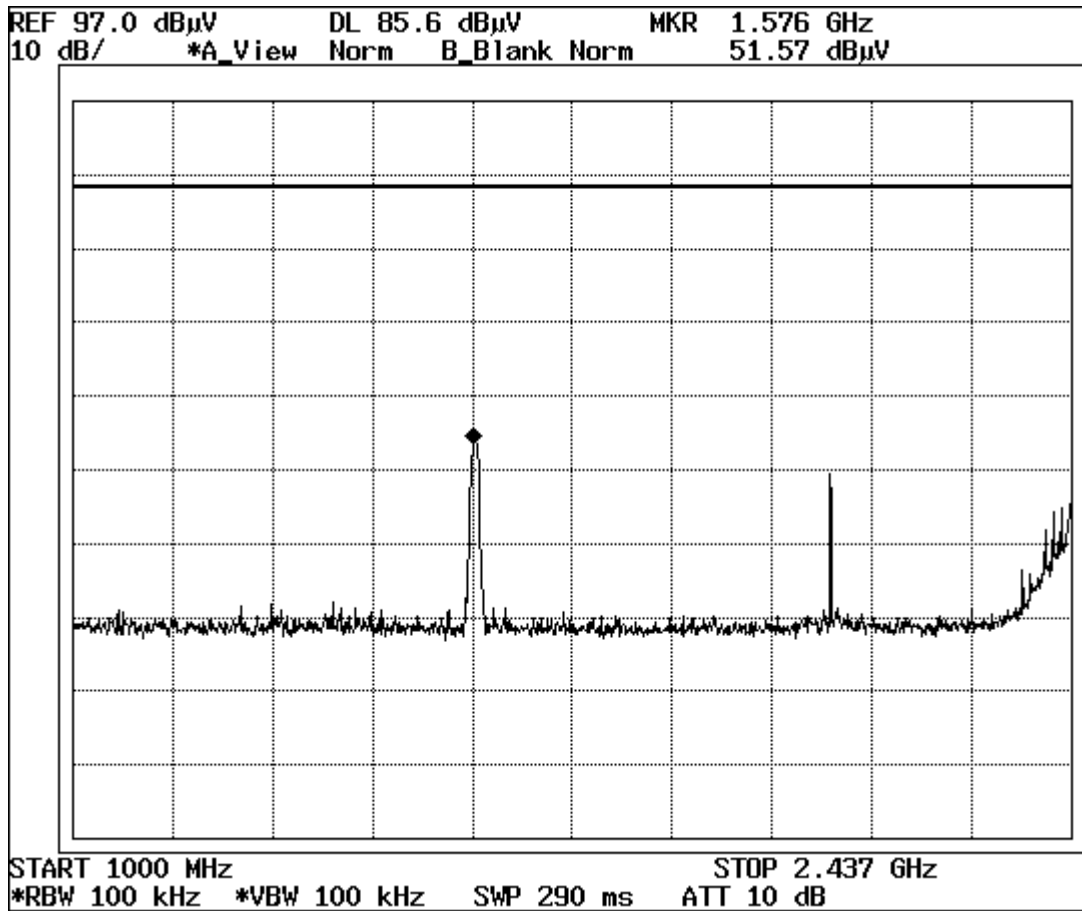


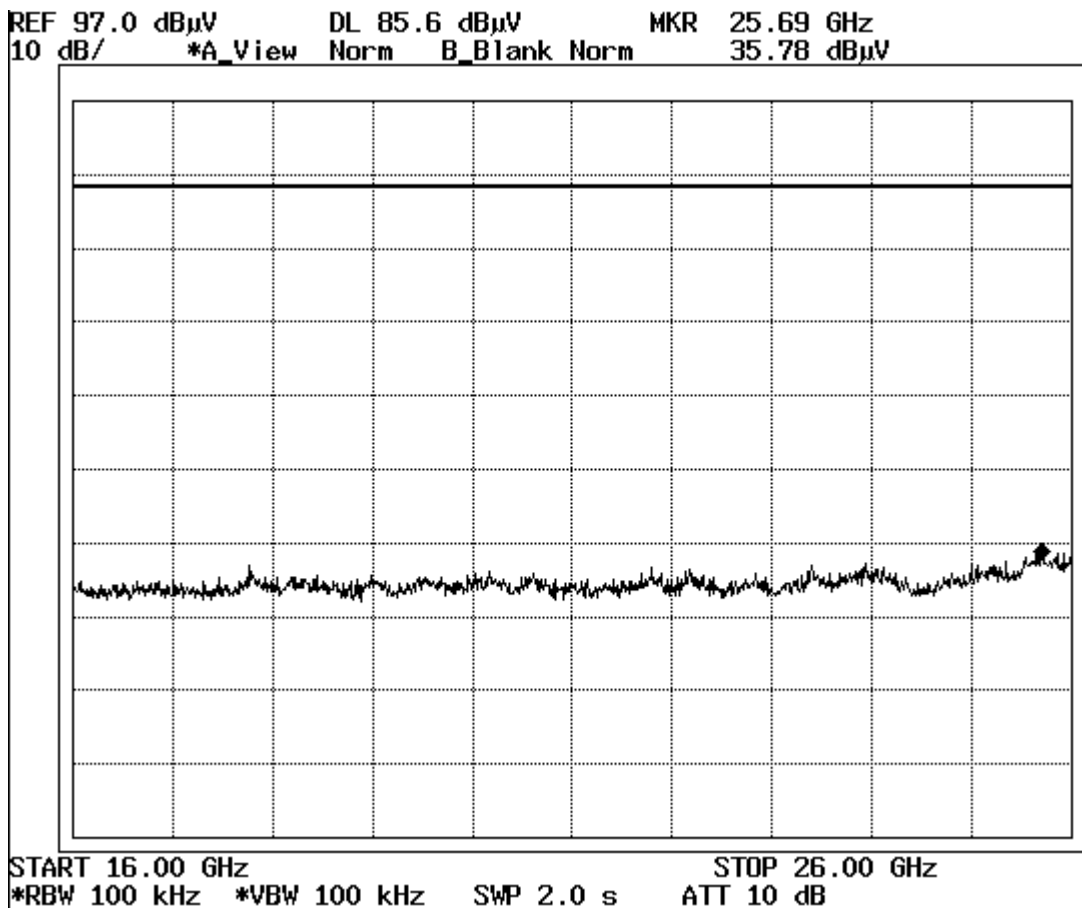
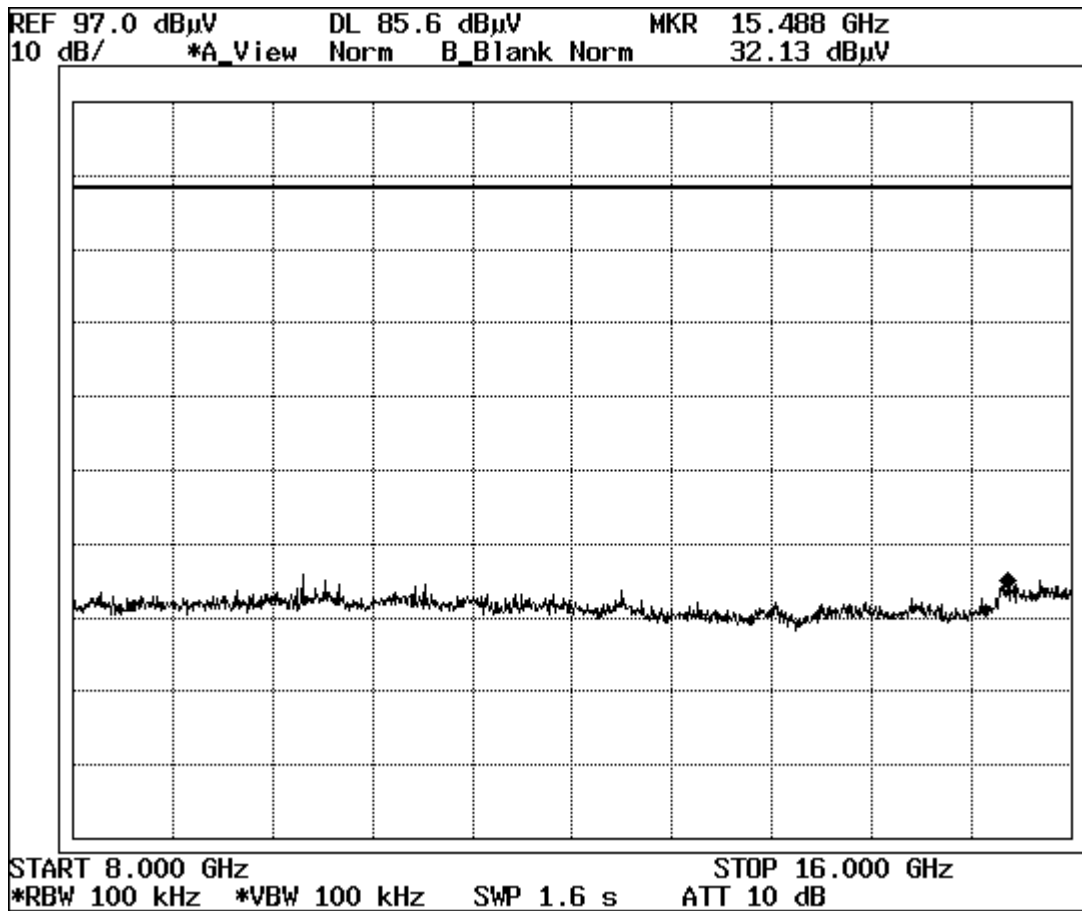




**Ch11: 2462MHz(High)**







# Peak Power Density(Conducted)

A-PEX INTERNATIONAL CO., LTD.  
YOKOWA NO.3 OPEN SITE

COMPANY : Matsushita Electric Industrial Co., Ltd.  
EQUIPMENT : Wireless LAN builtin PC(Cisco LAN Card)  
MODEL : CF-M34  
S/N : CF-M34JA2BEM 0JKSA01049  
FCC ID : ACJ9TGCF-M342  
POWER : AC120V/60Hz  
Mode : Transmitting(Ch1,6,11 / 11Mbps)

REPORT NO : 22EE0038-YW  
REGULATION : Fcc Part15SubpartC 247(d)  
DATE : 2002/1/20  
Temperature : 21degrees centigrade  
Humidity : 34%



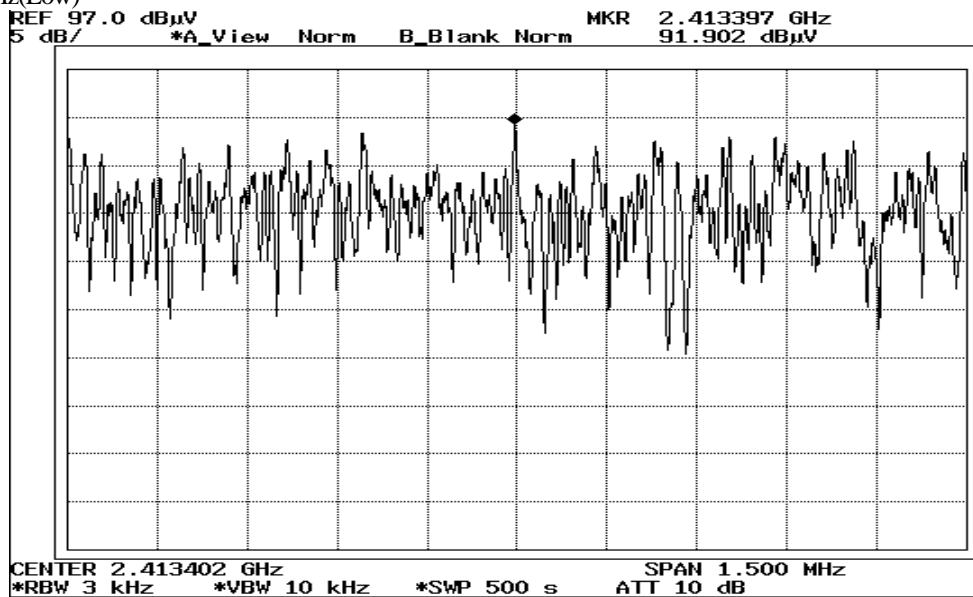
ENGINEER : Makoto Kosaka

ch	FREQ [GHz]	S/A Reading [dBuV]	Cable Loss [dB]	ATTEN. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
ch1: 2412MHz	2.4134	91.9	0.5	10.0	-4.6	8.0	12.6
ch6: 2437MHz	2.4384	92.0	0.5	10.0	-4.5	8.0	12.5
ch11: 2462MHz	2.4634	93.2	0.5	10.0	-3.3	8.0	11.3

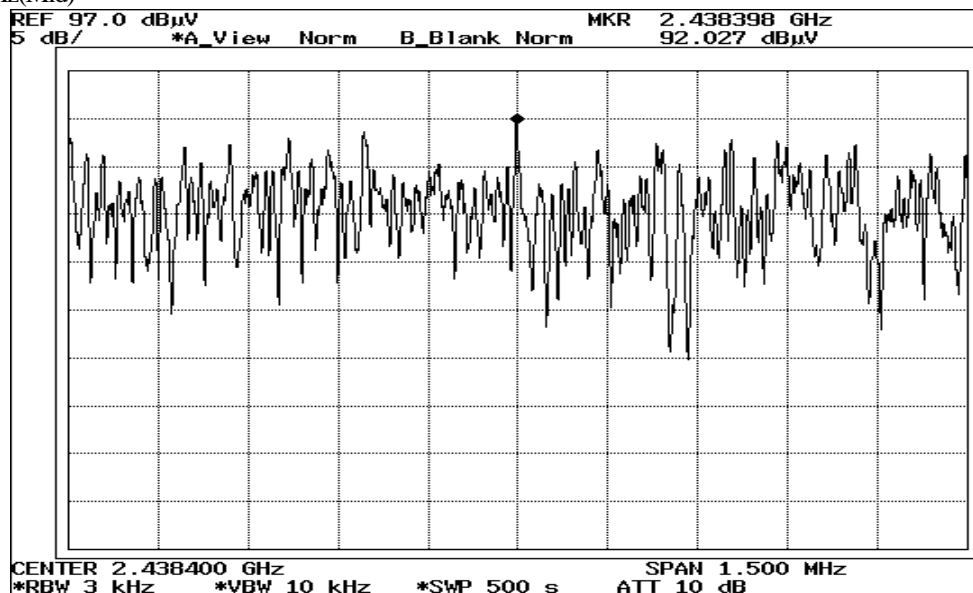
Sample Calculation :

RESULT=Reading (-107:Converted to dBm) + CABLE LOSS + ATTEN.

1. Ch1: 2412MHz(Low)



2. Ch6: 2437MHz(Mid)



3. Ch11: 2462MHz(Hi)

