

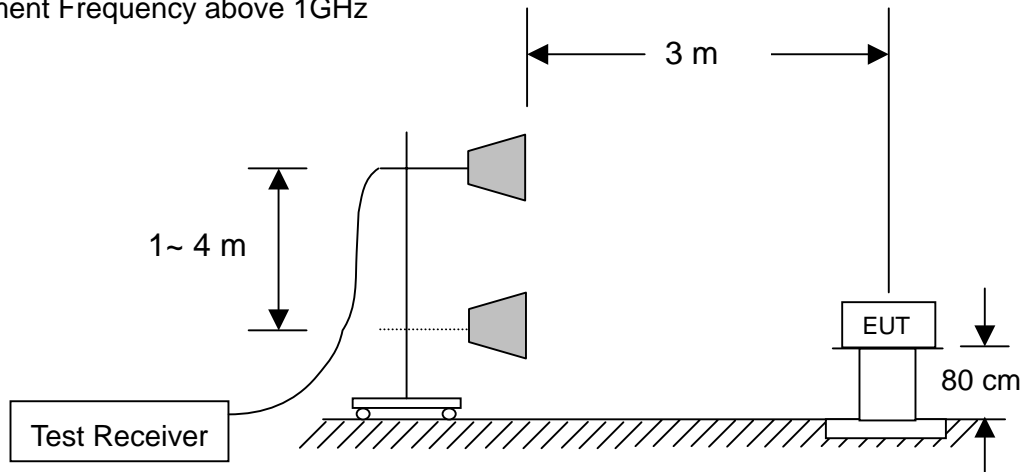
## 7 Emission on the Band Edge test

### 7.1 Limit

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 shall be at least 20 dB below that in the 100 KHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

### 7.2 Configuration of Measurement

Measurement Frequency above 1GHz



### 7.3 Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW =1M, VBW= RBW for peak, and VBW=10Hz for average.

The EUT for testing is arranged on a wooden turntable. If some peripherals apply to the EUT, the peripherals will be connected to EUT and the whole system. During the test, all cables were arranged to produce worst-case emissions. The signal is maximized through rotation. The height of antenna and polarization is changing constantly for exploring for maximum signal level. The height of antenna can be up to 4 meter and down to 1 meter.

### 7.4 Test Result

**PASS.**

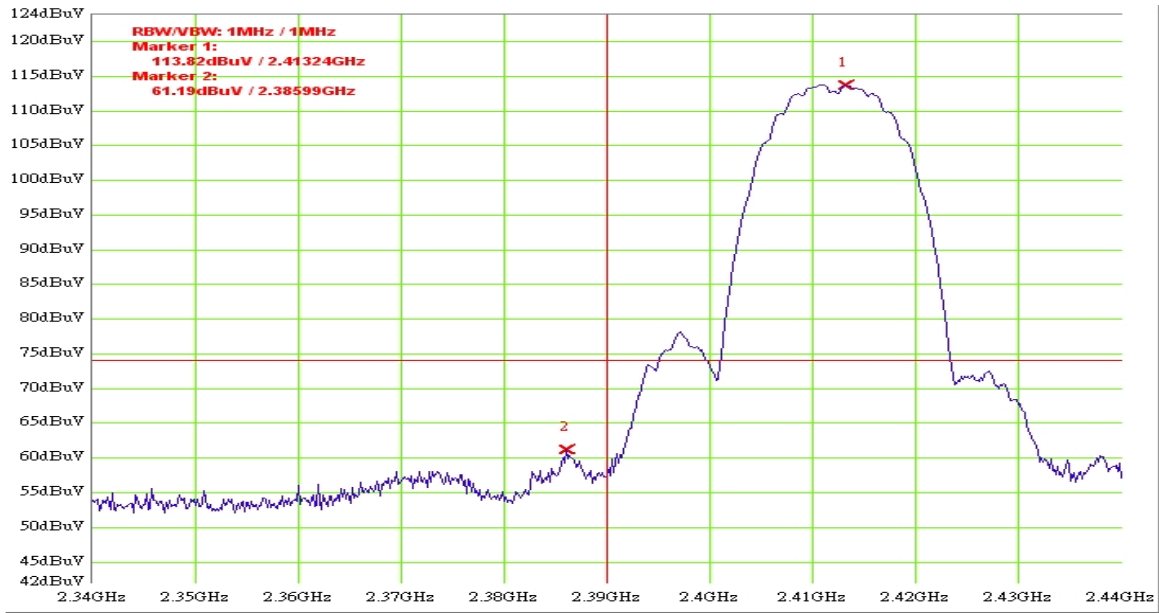
The final test data is shown on as following pages.

## Band edge

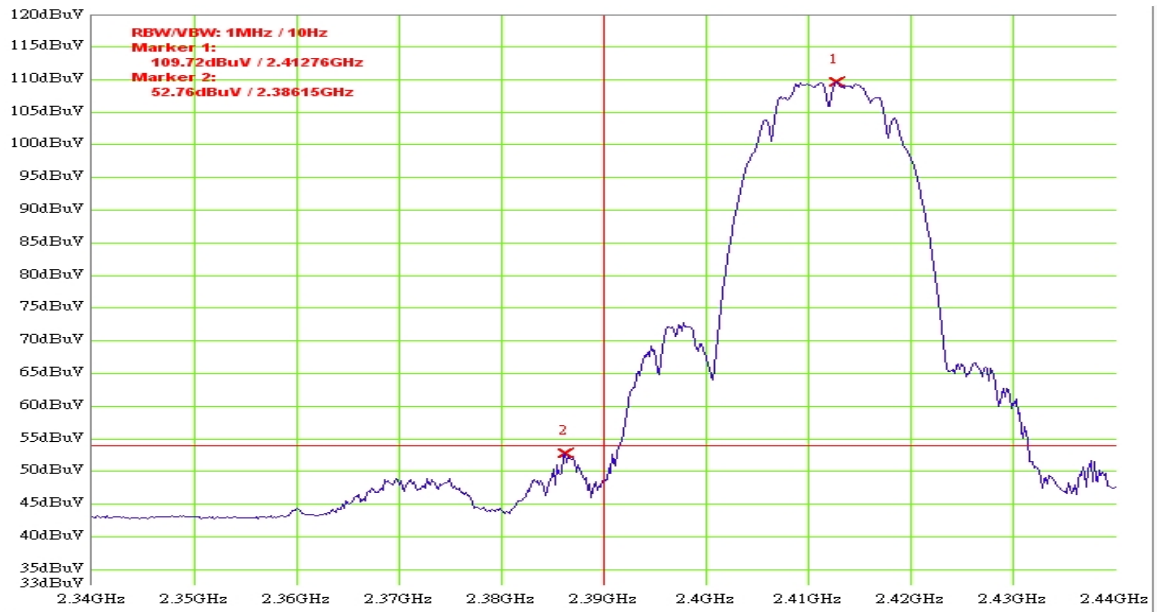
<b>2.4G</b>					
<b>802.11b</b>					
<b>CH</b>	<b>Restrict Freq. Band (MHz)</b>	<b>Detector Mode</b>	<b>Maximum level (dB<math>\mu</math>V/m)</b>	<b>Limit (dBm)</b>	<b>Margin (dB)</b>
1	2310~2390	PK	61.19	74	-12.81
		AV	52.76	54	-1.24
11	2483.5~2500	PK	61.53	74	-12.47
		AV	53.12	54	-0.88

<b>802.11g</b>					
<b>CH</b>	<b>Restrict Freq. Band (MHz)</b>	<b>Detector Mode</b>	<b>Maximum level (dB<math>\mu</math>V/m)</b>	<b>Limit (dBm)</b>	<b>Margin (dB)</b>
1	2310~2390	PK	71.49	74	-2.51
		AV	53.05	54	-0.95
11	2483.5~2500	PK	70.42	74	-3.58
		AV	53.37	54	-0.63

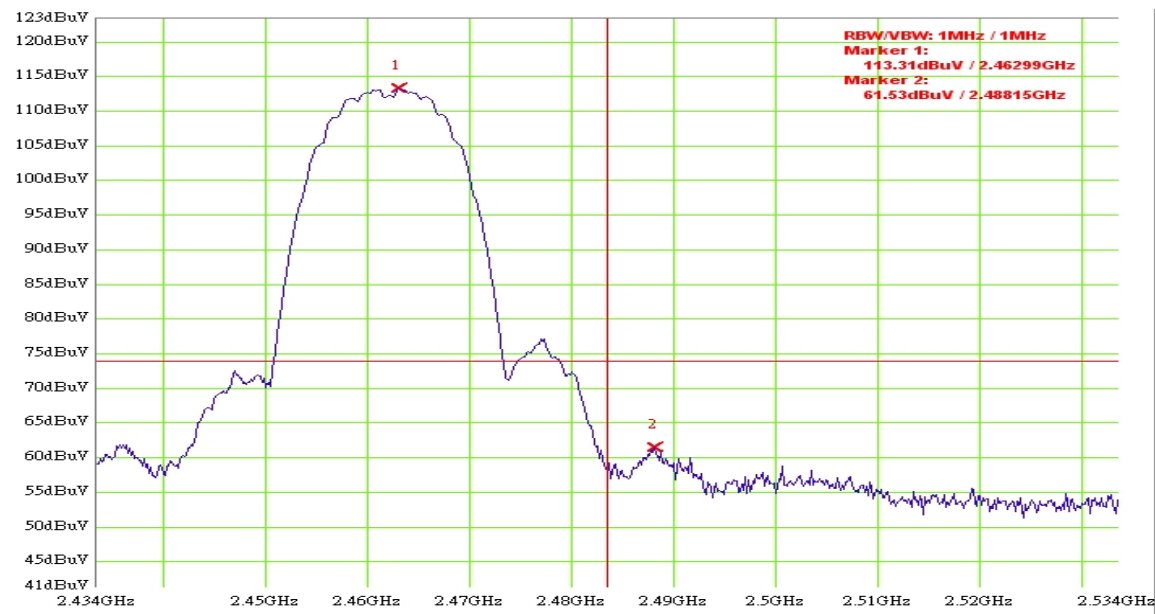
### 802.11b CH01 PK



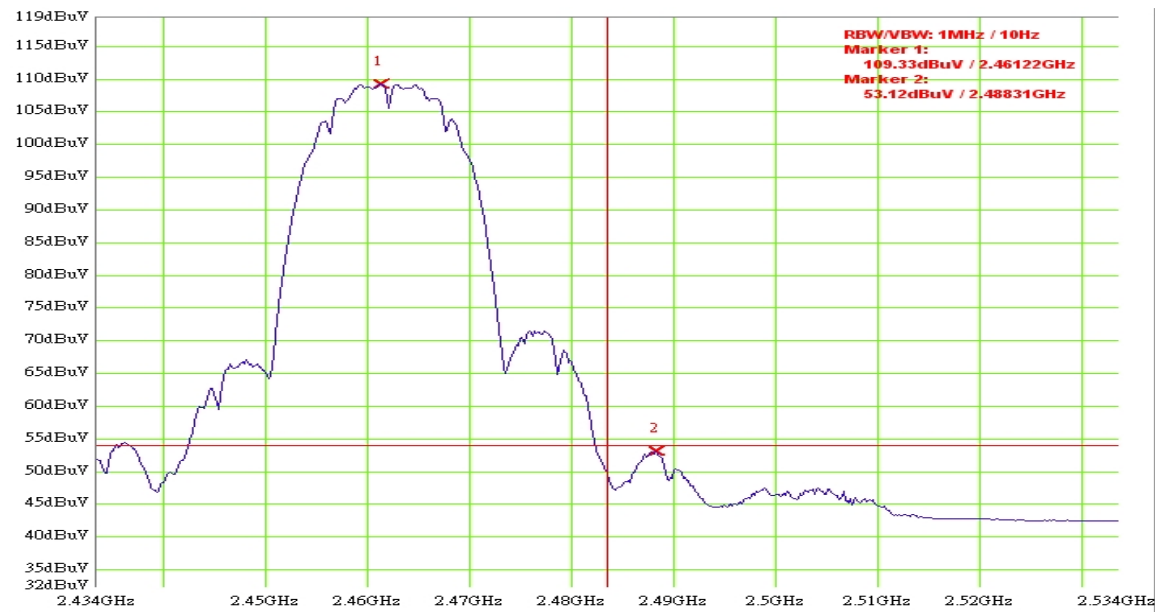
### 802.11b CH01 AV



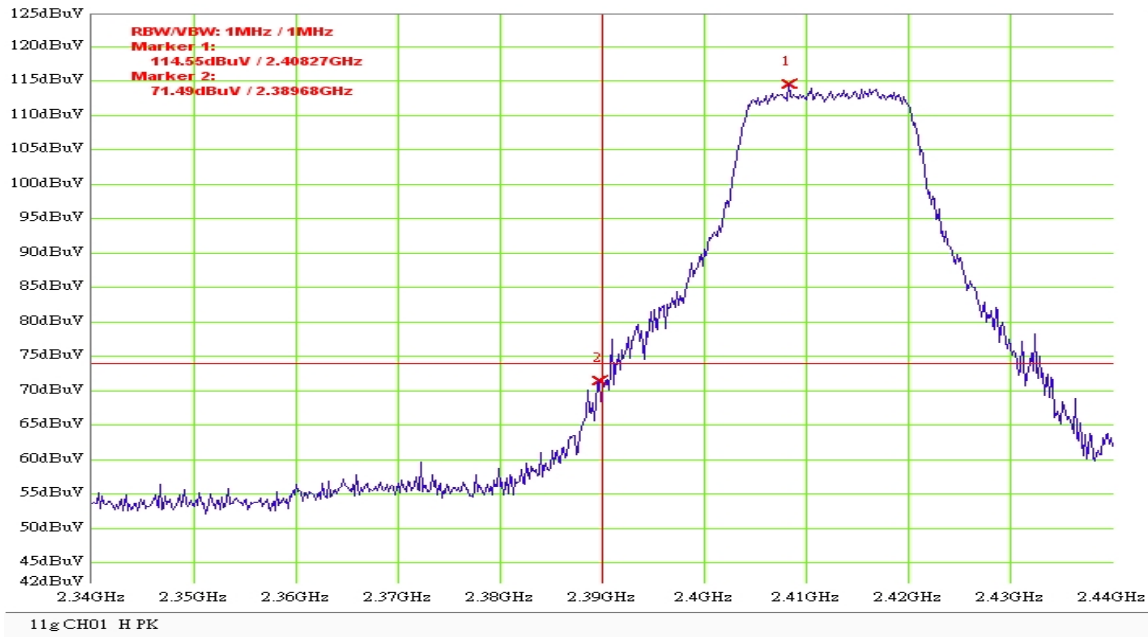
### 802.11b CH11 PK



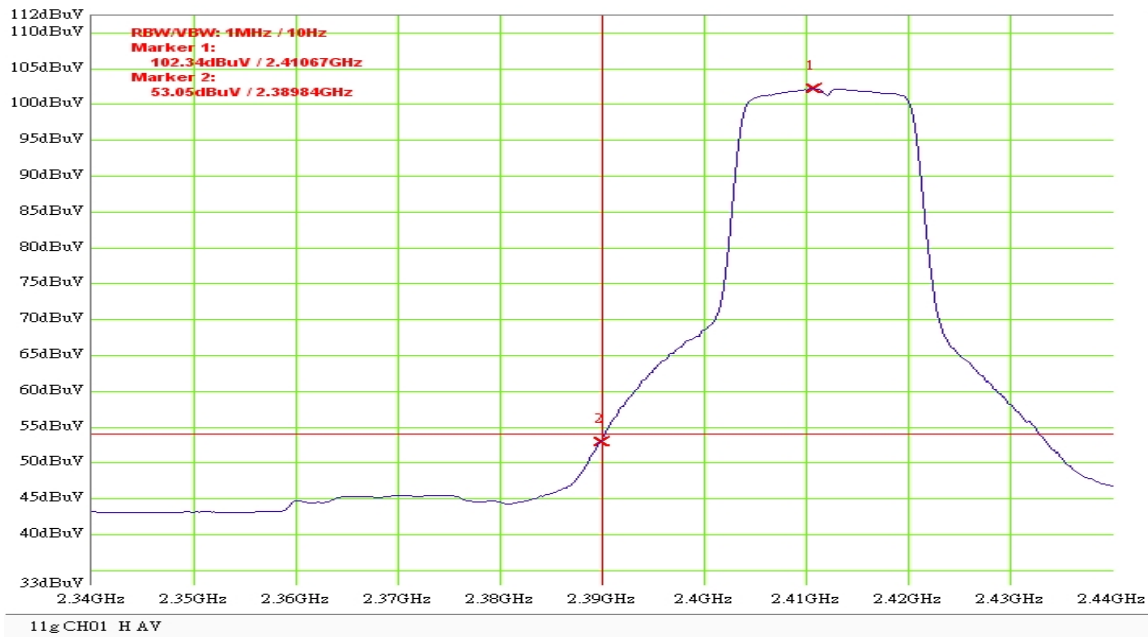
### 802.11b CH11 AV



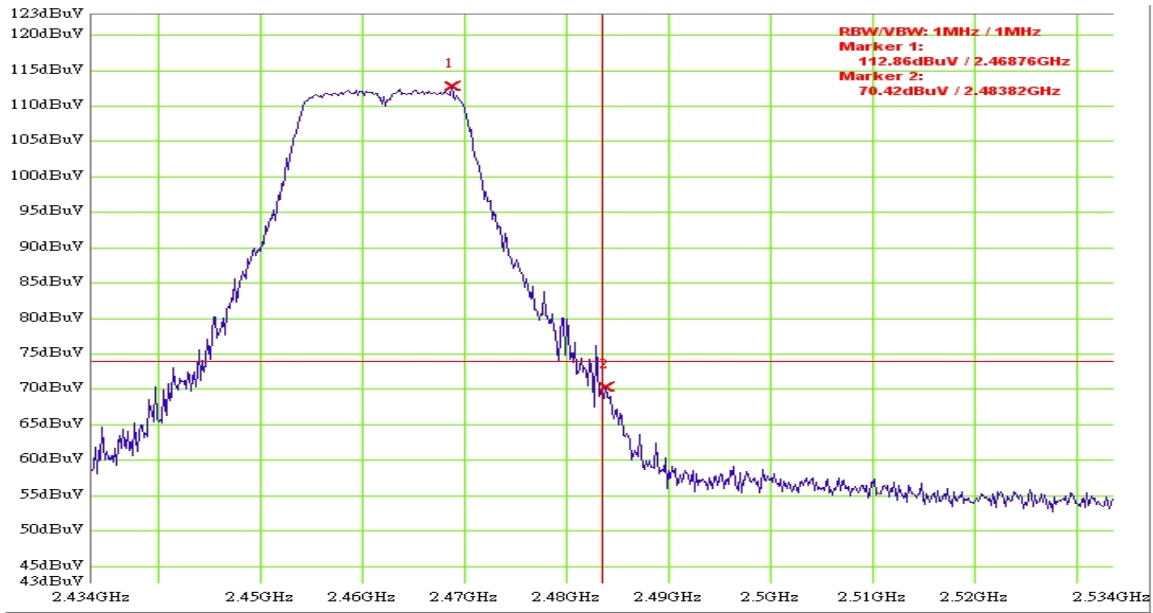
### 802.11g CH01 PK



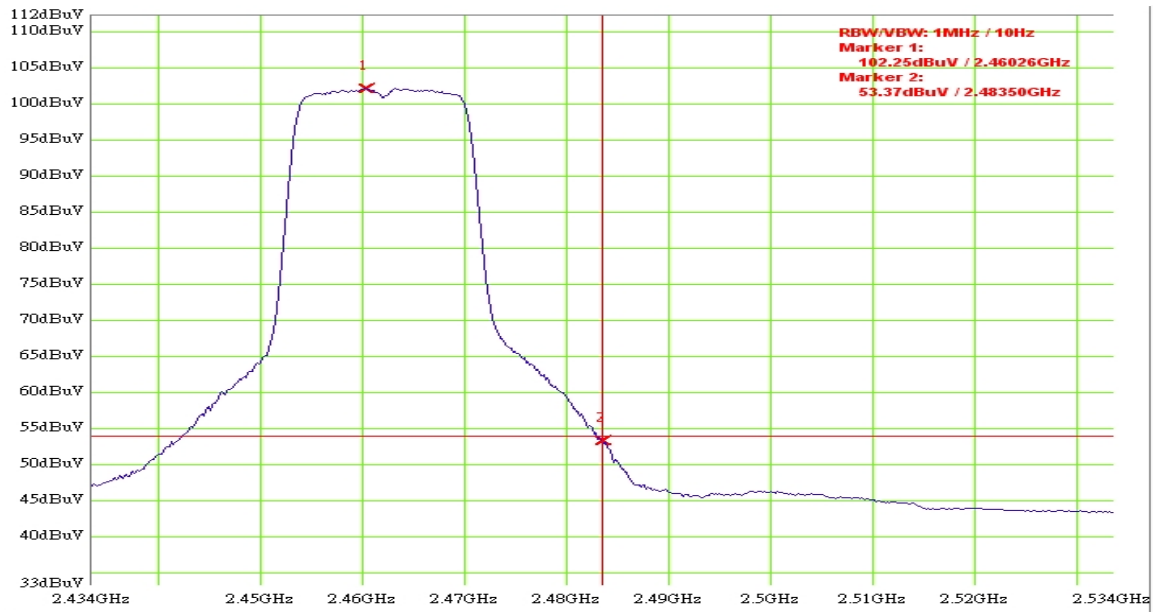
### 802.11g CH01 AV



### 802.11g CH11 PK



### 802.11g CH11 AV



## 8 AC Power Line Conducted Emission test

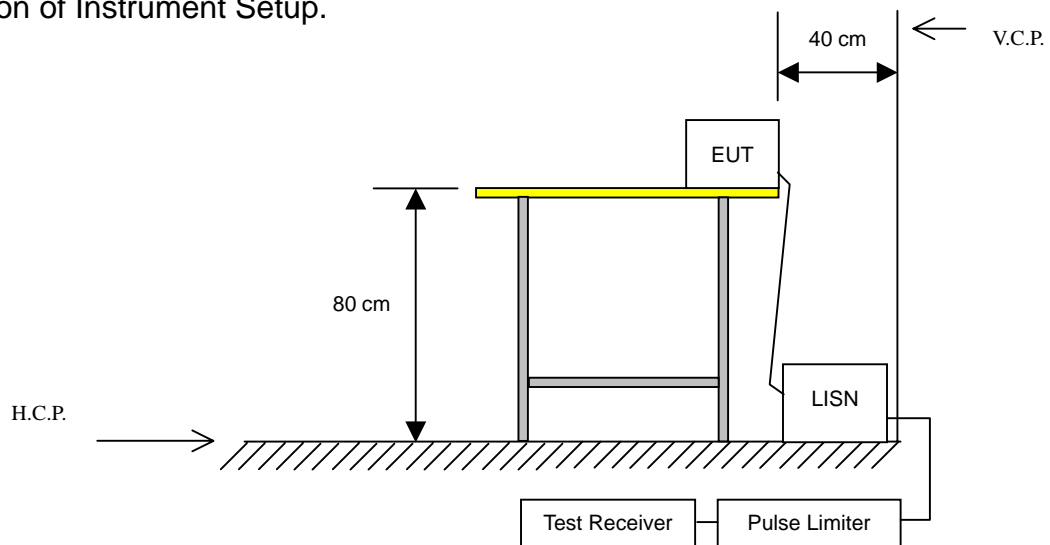
### 8.1 Limit

Frequency (MHz)	Quasi-Peak (dB $\mu$ V)	Average (dB $\mu$ V)
0.15 to 0.5	66 to 56	56 to 46
> 0.5 to 5	56	46
> 5 to 30	60	50

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

### 8.2 Configuration of Measurement

Configuration of Instrument Setup.



### 8.3 Test Procedures

- 8.3.1 The EUT was placed 80cm height above ground on a non-conductive table and vertical conducting plane located 40cm to the rear of the EUT.
- 8.3.2 The EUT was connected to the main power through Line Impedance Stabilization Networks (LISN). This setup provided a 50ohm/50mH coupling impedance for the measuring equipment. The auxiliary equipment will place in secondary LISN.
- 8.3.3 Both sides (Line and Neutral) of AC line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4/2003 on conducted measurement.
- 8.3.4 The bandwidth of the field strength meter (R & S Test Receiver ESCS 30) is set at 9kHz.

### 8.4 Test Result

**PASS.**

The final test data is shown on as following pages.

## Power Line Conducted Test Data

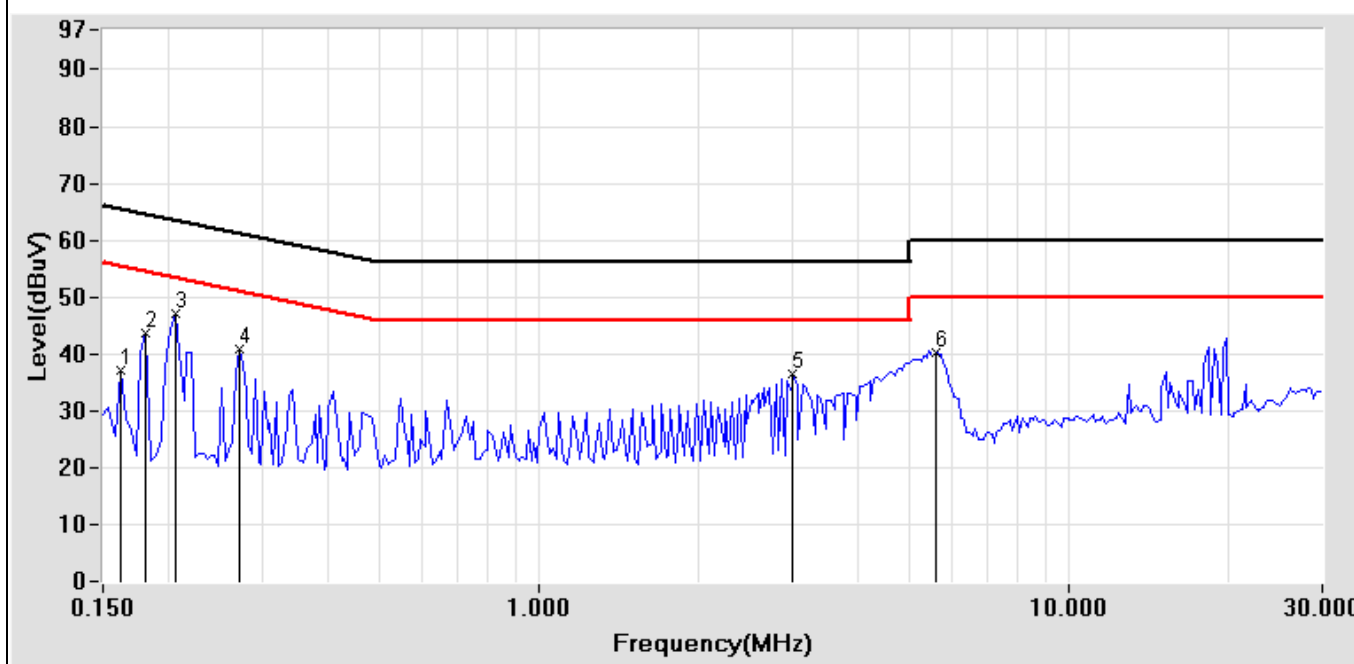
EUT: NoteBook PC CLIENT: MiTAC MODEL: 8212X RATING: 120V/60Hz Temperature: 25.0 °C Humidity: 62 %	POLARITY: Line DISTANCE: Serial No.: FILE/DATA# MiTAC.emi/198 OPERATOR: Raymond TEST SITE: Conduction1
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Frequency (MHz)	Factor (dB)	Meter Reading (dBμV)		Emission Level (dBμV)		Limits (dBμV)		Margin (dB)	
		Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.162	0.14	39.69	22.32	39.83	22.46	65.36	55.36	-25.53	-32.90
0.181	0.12	35.05	16.25	35.17	16.37	64.44	54.44	-29.27	-38.07
0.205	0.10	45.67	37.50	45.77	37.60	63.41	53.41	-17.64	-15.81
0.271	0.10	39.54	31.95	39.64	32.05	61.09	51.09	-21.45	-19.04
2.994	0.30	33.75	32.33	34.05	32.63	56.00	46.00	-21.95	-13.37
5.580	0.34	37.41	35.12	37.75	35.46	60.00	50.00	-22.25	-14.54

**Remark:**

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CISPR 22-B(QP).LMT



Test Mode: LCD+D-Sub: 1280\*800, 60Hz (LAN: 1Gbps) (SKU B)



## Power Line Conducted Test Data

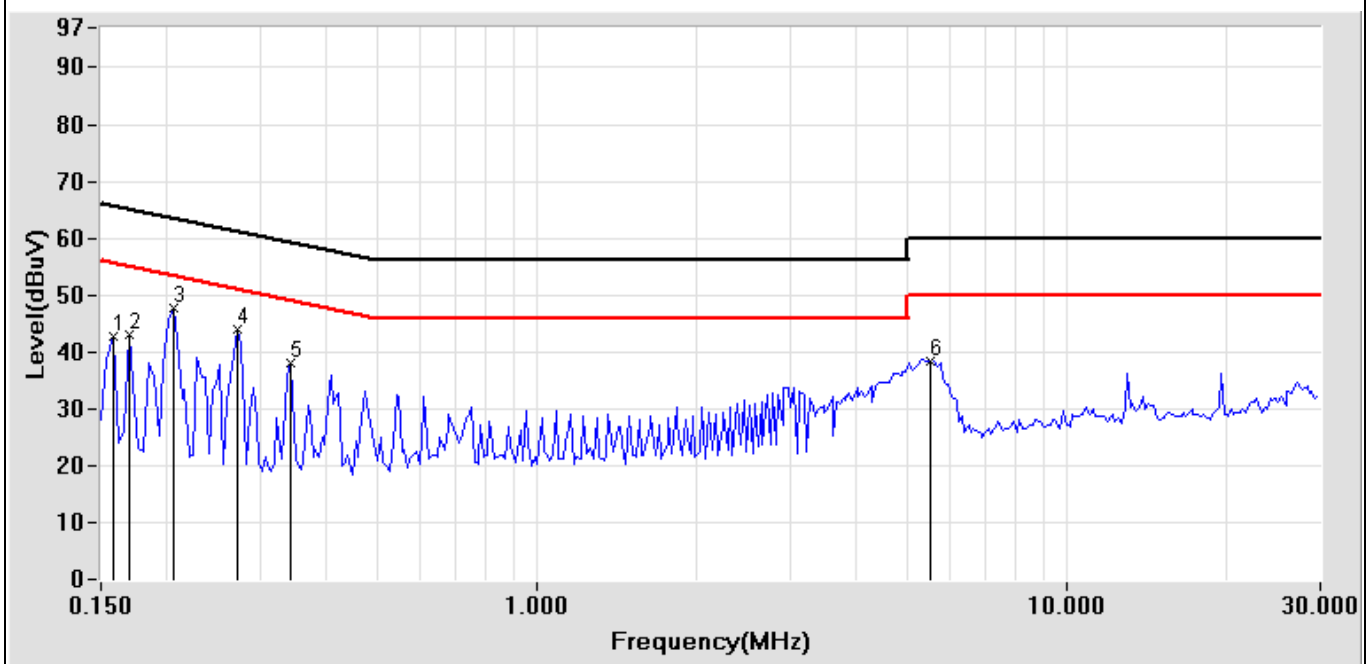
EUT: NoteBook PC CLIENT: MiTAC MODEL: 8212X RATING: 120V/60Hz Temperature: 25.0 °C Humidity: 62 %	POLARITY: Neutral DISTANCE: Serial No.: FILE/DATA# MiTAC.emi/197 OPERATOR: Raymond TEST SITE: Conduction1
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Frequency (MHz)	Factor (dB)	Meter Reading (dBμV)		Emission Level (dBμV)		Limits (dBμV)		Margin (dB)	
		Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.158	0.14	41.25	21.52	41.39	21.66	65.57	55.57	-24.18	-33.91
0.170	0.13	38.13	20.32	38.26	20.45	64.96	54.96	-26.70	-34.51
0.205	0.10	47.22	38.50	47.32	38.60	63.41	53.41	-16.09	-14.81
0.271	0.10	42.56	33.97	42.66	34.07	61.09	51.09	-18.43	-17.02
0.341	0.10	33.51	25.78	33.61	25.88	59.18	49.18	-25.57	-23.30
5.494	0.36	37.50	36.20	37.86	36.56	60.00	50.00	-22.14	-13.44

**Remark:**

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CISPR 22-B(QP).LMT



Test Mode: LCD+D-Sub: 1280\*800, 60Hz (LAN: 1Gbps) (SKU B)