

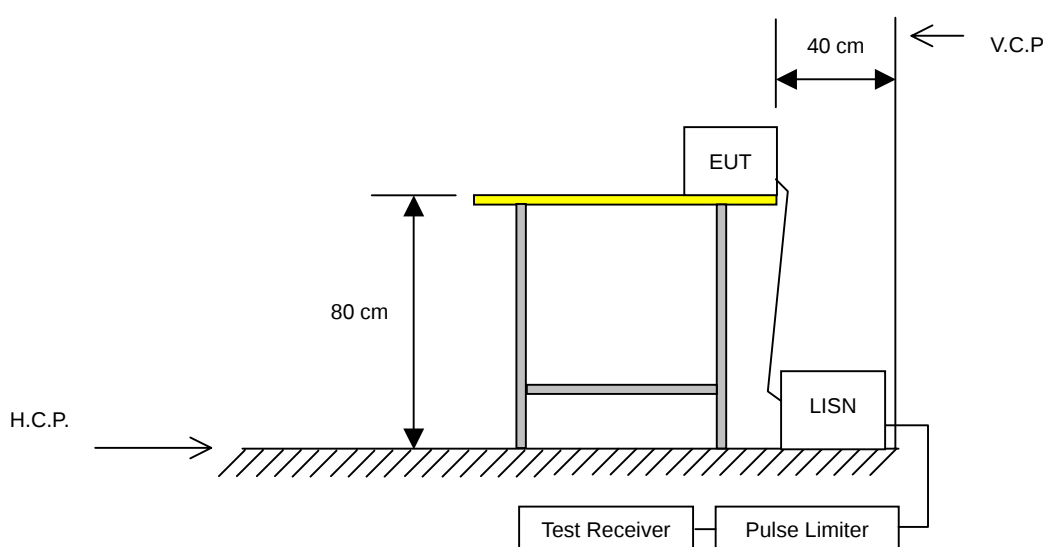
10 AC Power Line Conducted Emission test

10.1 Limit

Frequency (MHz)	Quasi-Peak (dB μ V)	Average (dB μ 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.

10.2 Configuration of Measurement



10.3 Test Procedure

- 10.3.1 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.
- 10.3.2 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.
- 10.3.3 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.
- 10.3.4 The bandwidth of the field strength meter (R & S Test Receiver ESCS 30) is set at 9kHz.

10.4 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: 23.9 °C
Humidity: 55 %

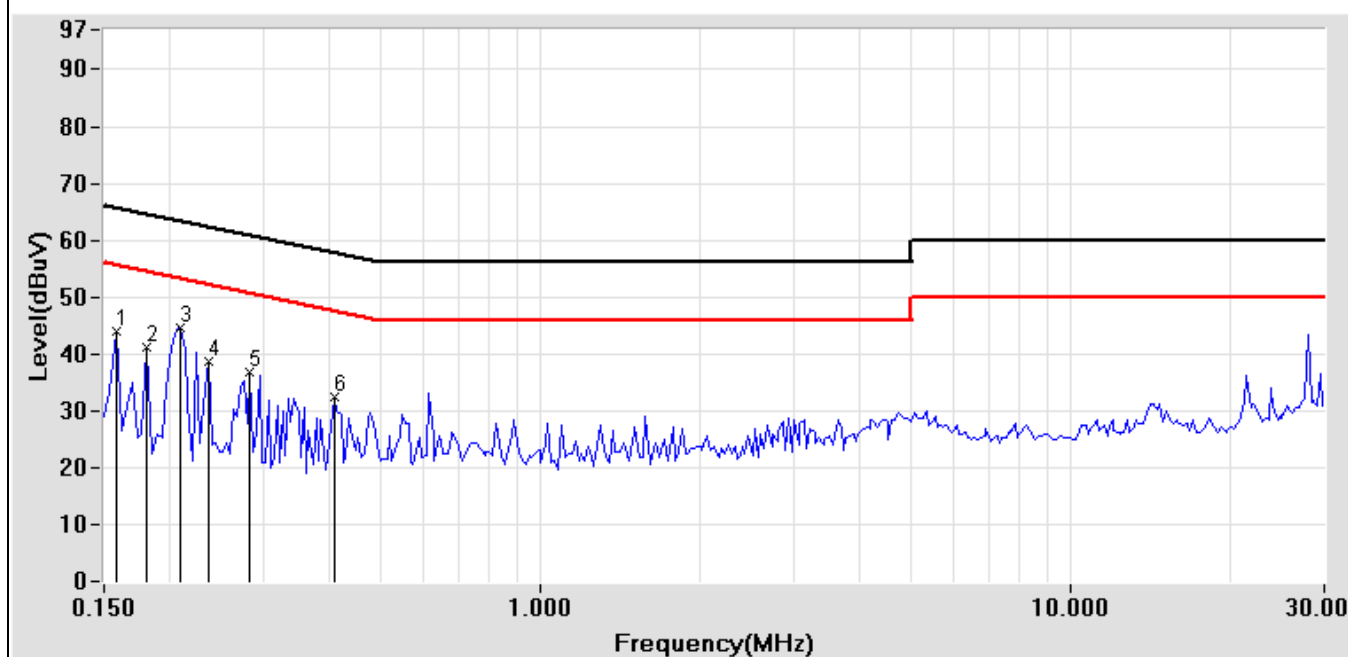
POLARITY: Line
DISTANCE:
Serial No.:
FILE/DATA# MiTAC.emi/207
OPERATOR: Raymond
TEST SITE: Conduction1

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	40.32	22.30	40.46	22.44	65.57	55.57	-25.11	-33.13
0.181	0.12	36.84	17.64	36.96	17.76	64.44	54.44	-27.48	-36.68
0.209	0.10	43.20	33.20	43.30	33.30	63.24	53.24	-19.94	-19.94
0.236	0.10	31.96	11.94	32.06	12.04	62.24	52.24	-30.18	-40.20
0.283	0.10	33.20	24.50	33.30	24.60	60.73	50.73	-27.43	-26.13
0.408	0.10	27.67	21.69	27.77	21.79	57.69	47.69	-29.92	-25.90

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 A)

Power Line Conducted Test Data

EUT: NoteBook PC
CLIENT: MiTAC
MODEL: 8212X
RATING: 120V/60Hz
Temperature: 23.9 °C
Humidity: 55 %

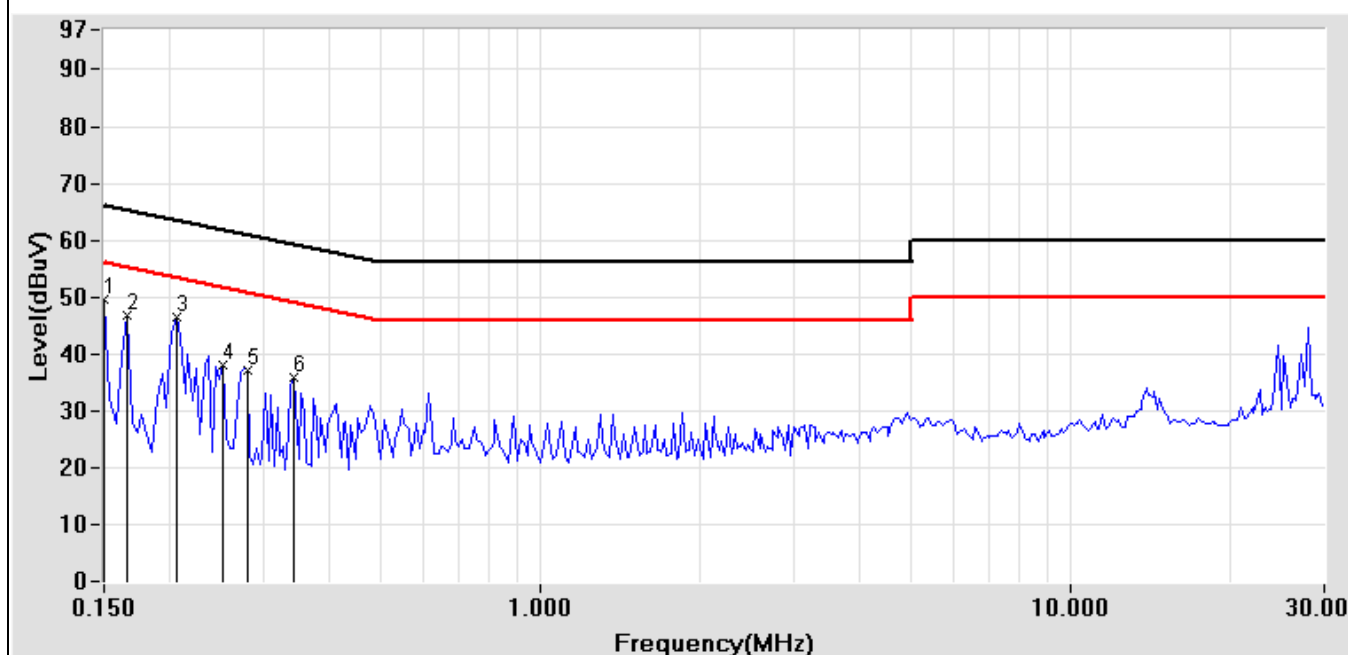
POLARITY: Neutral
DISTANCE:
Serial No.:
FILE/DATA# MiTAC.emi/206
OPERATOR: Raymond
TEST SITE: Conduction1

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
0.150	0.15	41.45	21.99	41.60	22.14	66.00	56.00	-24.40	-33.86
0.166	0.13	39.64	22.92	39.77	23.05	65.16	55.16	-25.39	-32.11
0.205	0.10	44.78	32.29	44.88	32.39	63.41	53.41	-18.53	-21.02
0.252	0.10	30.30	13.17	30.40	13.27	61.69	51.69	-31.29	-38.42
0.279	0.10	35.30	24.80	35.40	24.90	60.85	50.85	-25.45	-25.95
0.341	0.10	32.18	24.24	32.28	24.34	59.18	49.18	-26.90	-24.84

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 A)

Power Line Conducted Test Data

EUT: NoteBook PC
CLIENT: MiTAC
MODEL: 8212X
RATING: 120V/60Hz
Temperature: 25.0 °C
Humidity: 62 %

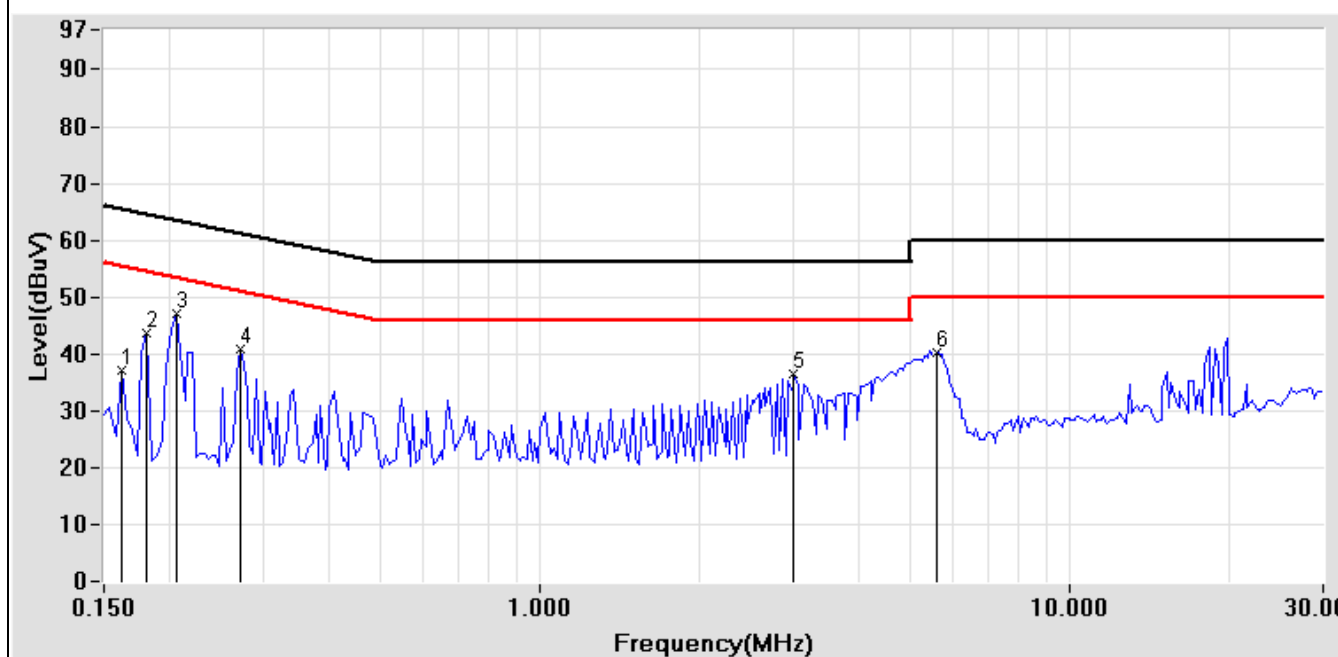
POLARITY: Line
DISTANCE:
Serial No.:
FILE/DATA# MiTAC.emi/198
OPERATOR: Raymond
TEST SITE: Conduction1

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

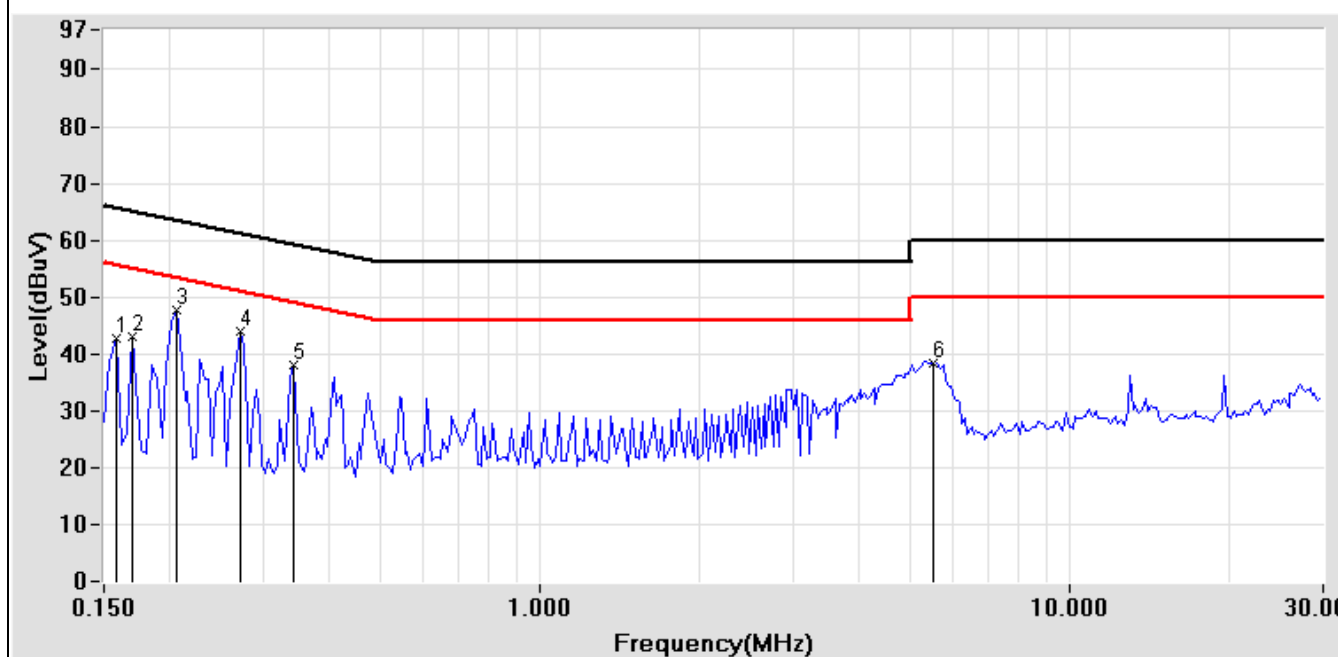
EUT: Notebook PC	POLARITY: Neutral
CLIENT: MiTAC	DISTANCE:
MODEL: 8212X	Serial No.:
RATING: 120V/60Hz	FILE/DATA# MiTAC.emi/197
Temperature: 25.0 °C	OPERATOR: Raymond
Humidity: 62 %	TEST SITE: Conduction1

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



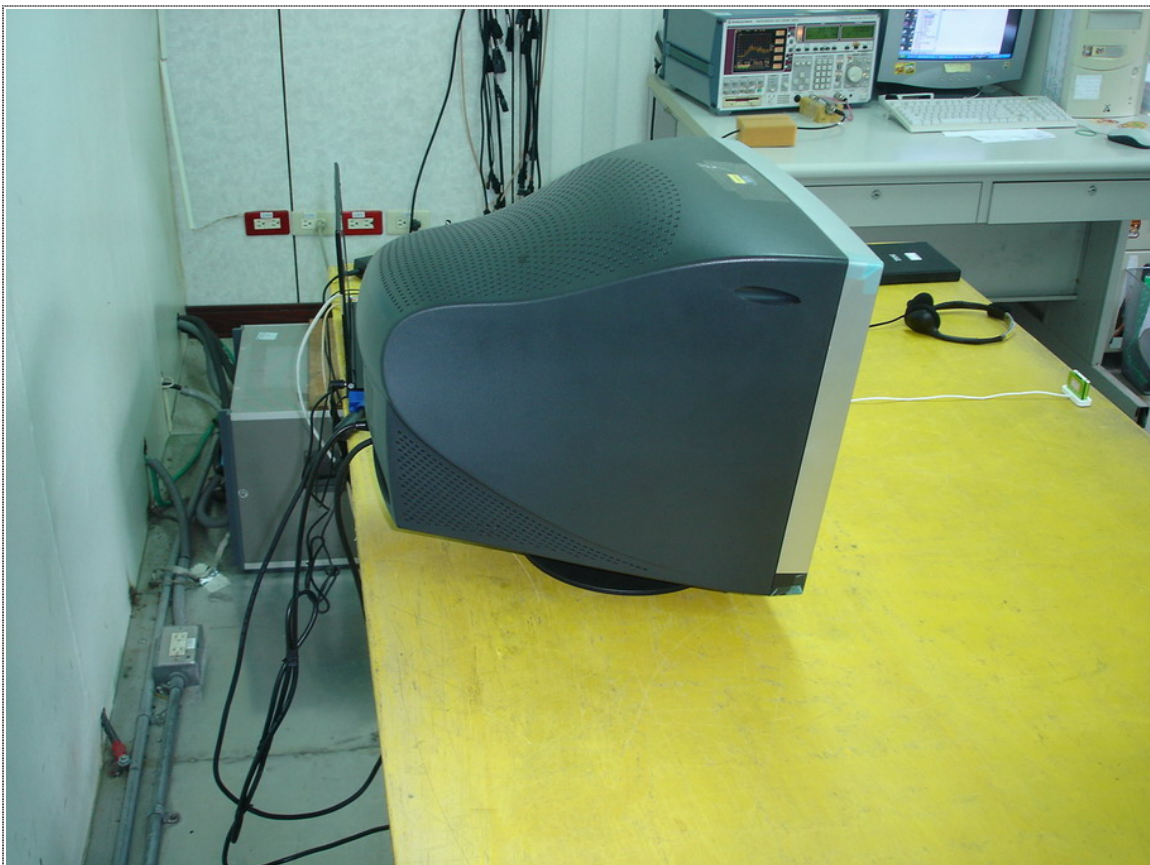
Test Mode: LCD+D-Sub: 1280*800, 60Hz (LAN: 1Gbps) (SKU B)

11 Photographs of Test

11.1 Power Line Conducted Emission Measurement



Front View



Rear View

11.2 Radiated Emission Measurement



Front View (Frequency under 1GHz)



Rear View (Frequency under 1GHz)



Front View (Frequency above 1GHz)



Rear View (Frequency above 1GHz)

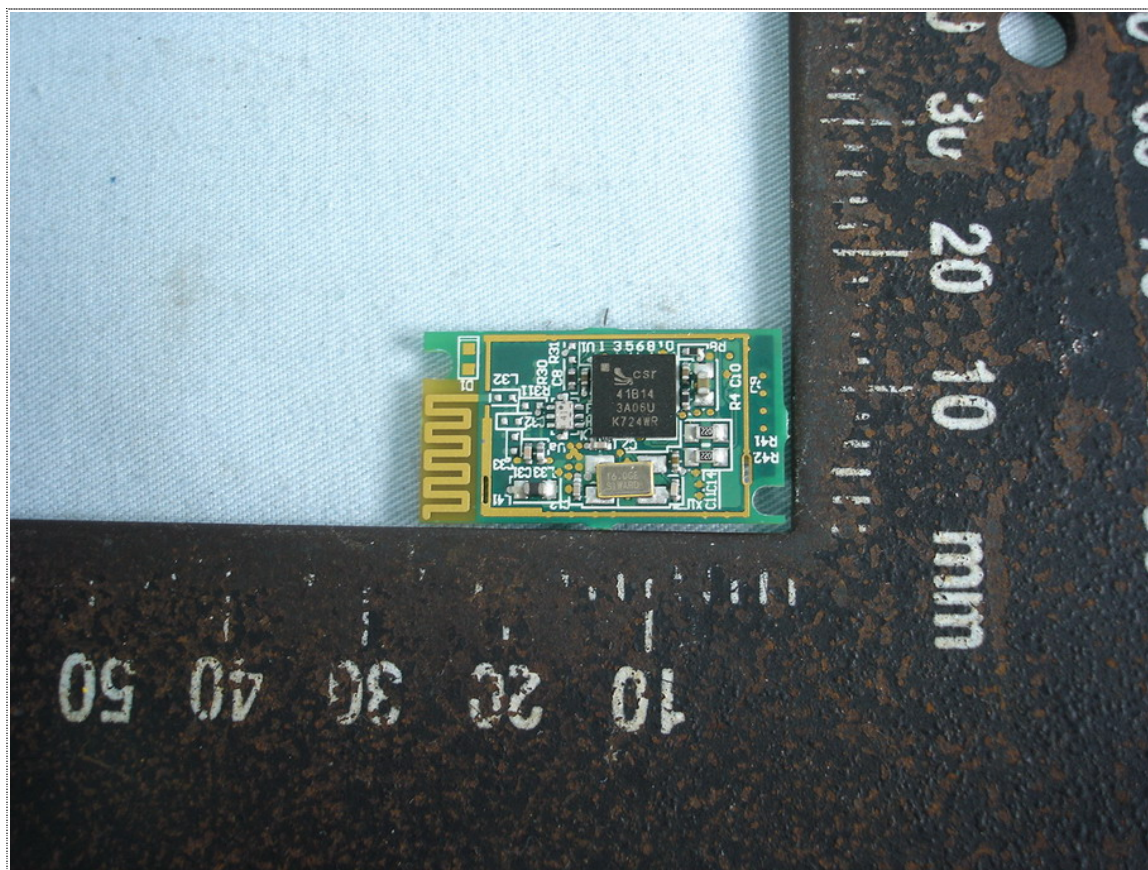
12 Photographs of EUT



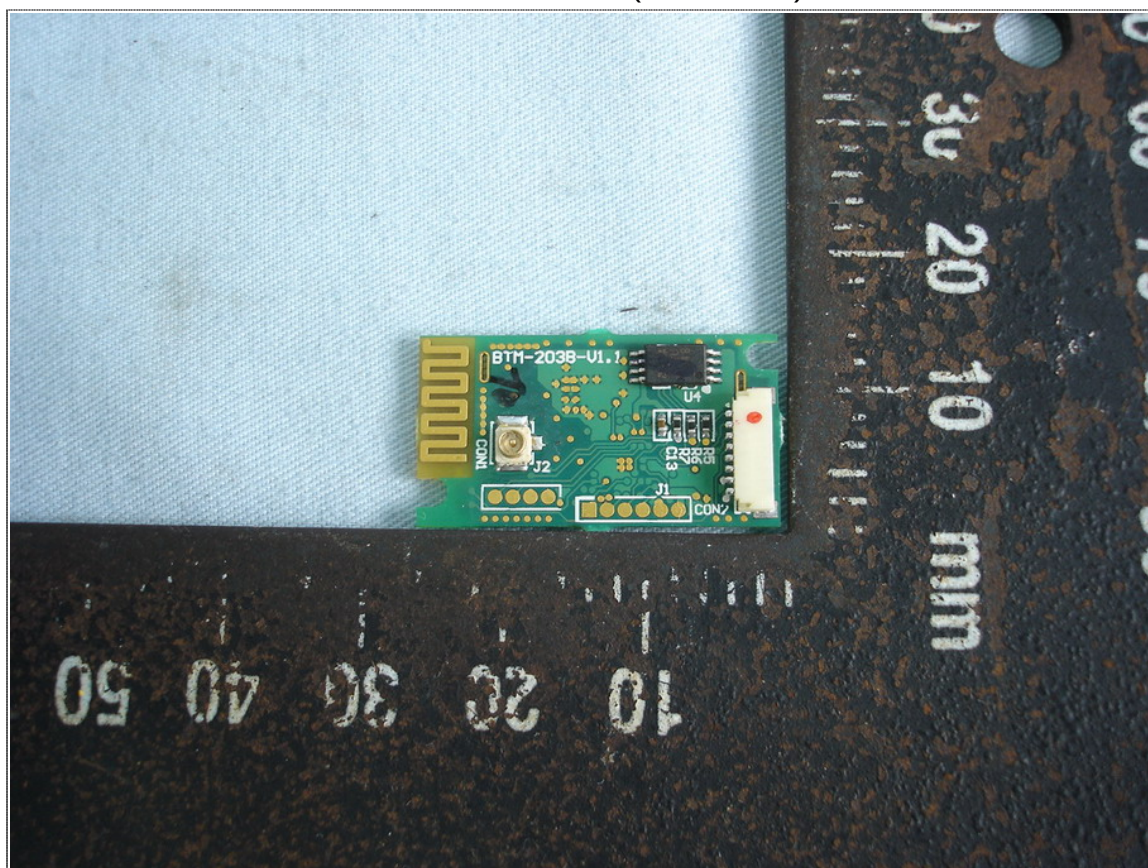
Front View of 8212X Notebook



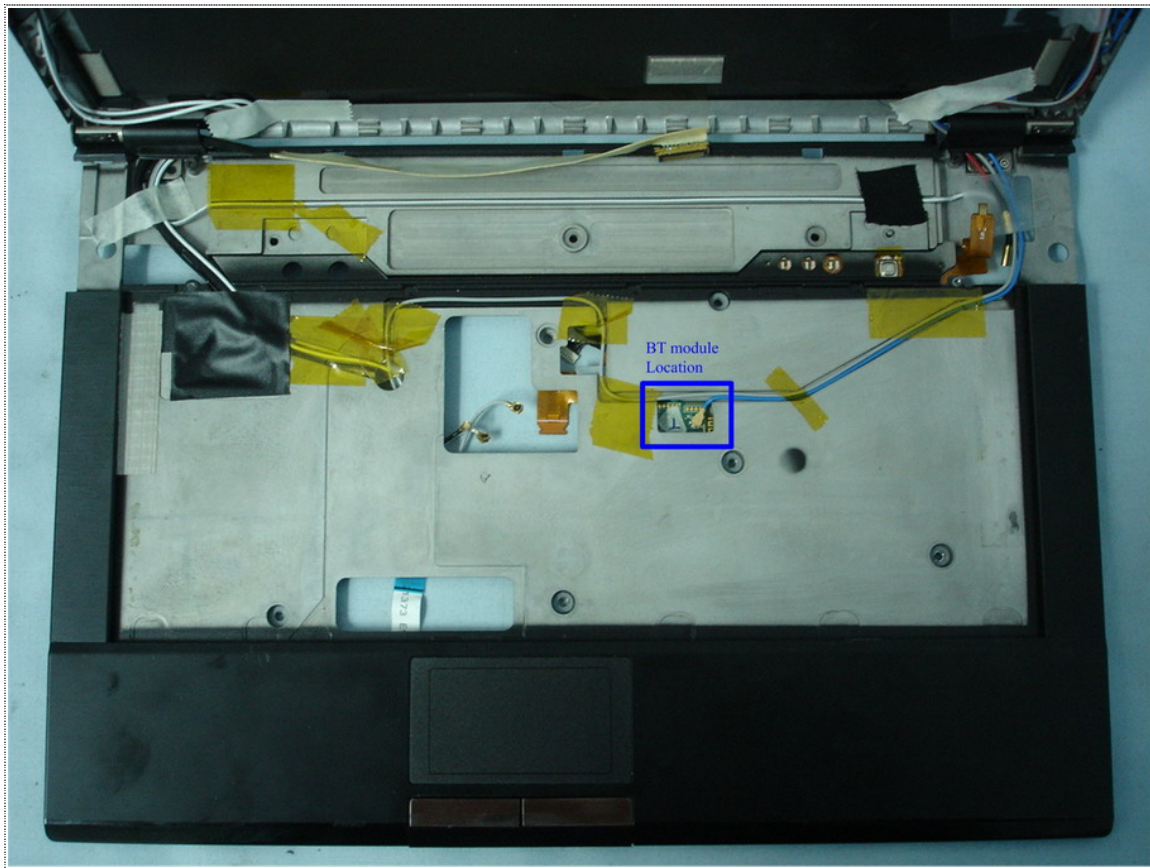
Rear View of 8212X Notebook



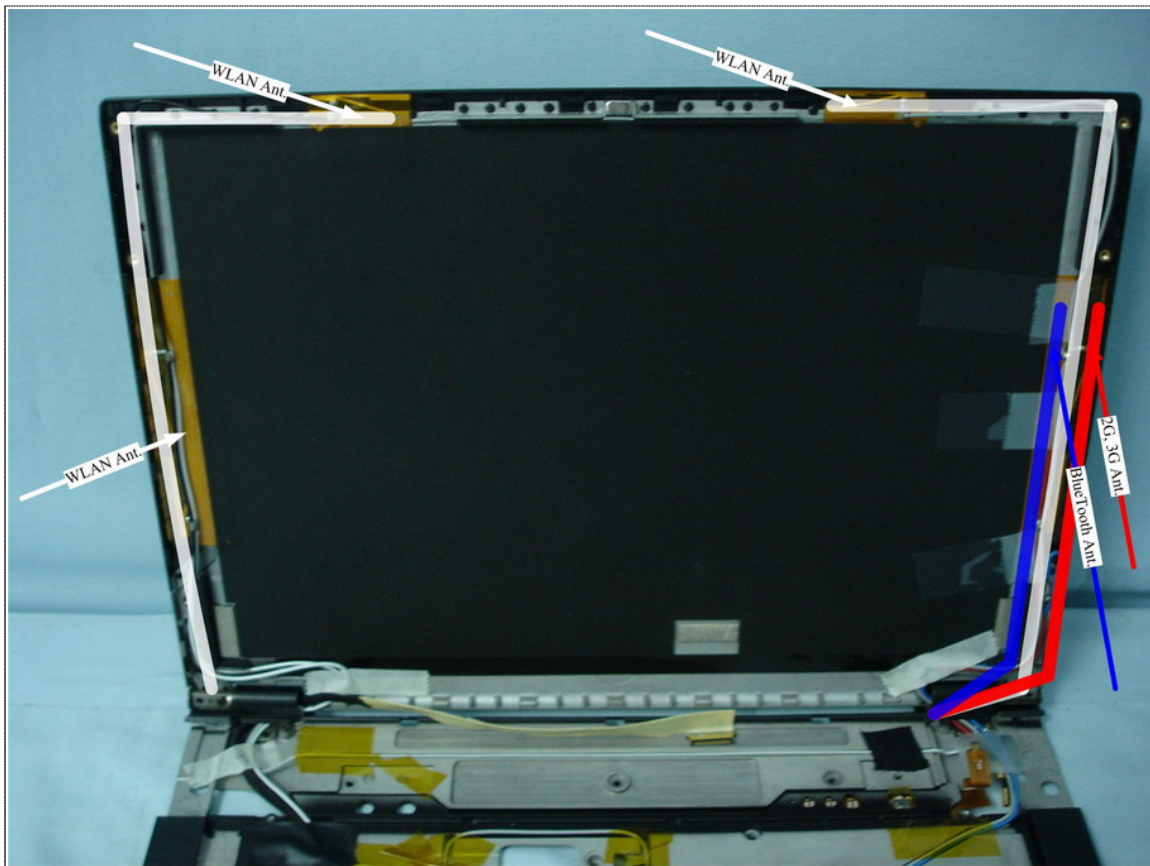
Front View of EUT (BTM-203B)



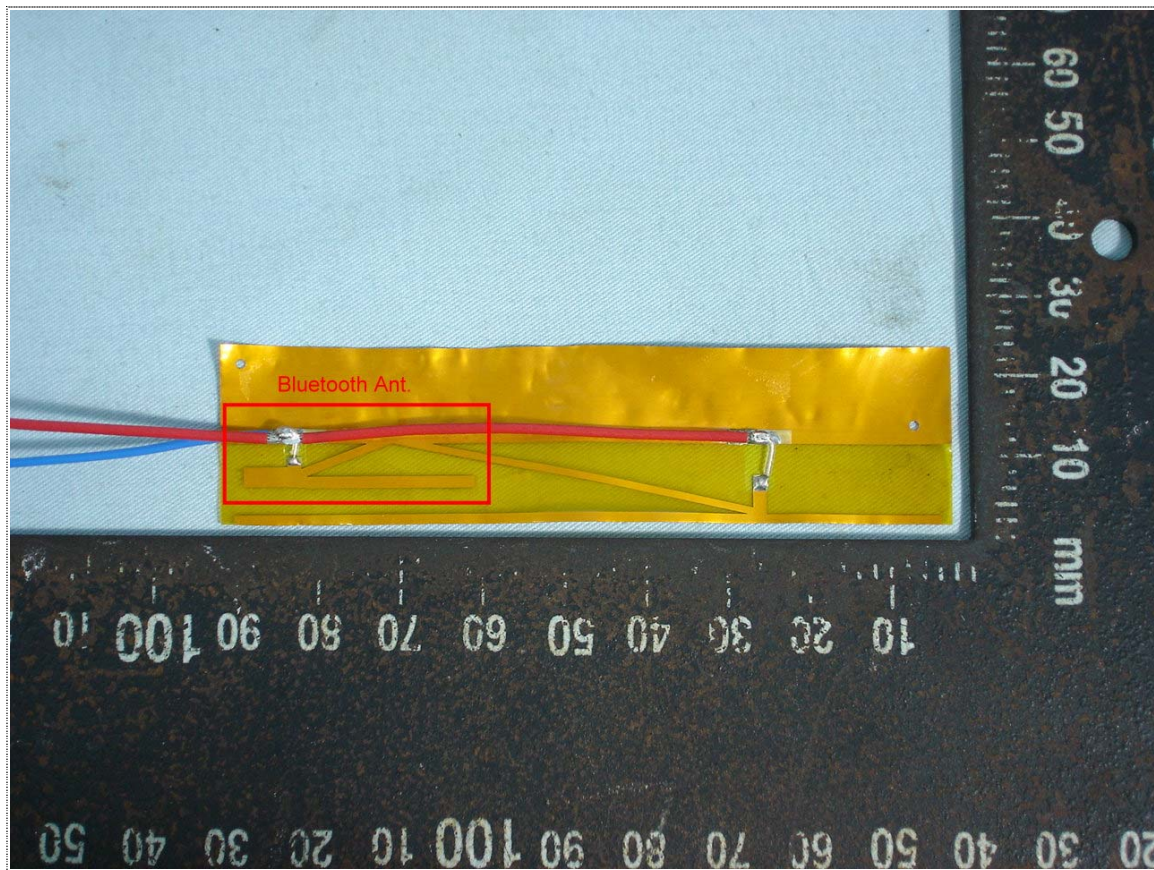
Rear View of EUT (BTM-203B)



Bluetooth module Location



Antenna Location



View of Antenna



Front View of Adapter



Rear View of Adapter