ESTECH Co., Ltd. Rm 1015, World Venture Center II, 426-5 Gasan-dong, Guncheon-gu, Seoul, 158-803, Korea	MIC KOLAS VCI FC	Electromagnetic Interference Test Report

Compliance Test Report for FCC

Report Number		ESTF150506-001		
Applicant	Company name	VISION TECHNICS CO., LTD.		
	Address	#305, Daeryung Bldg, I, 327-24, Gasan-dong, Kumcheon-gu, Seoul, KOREA		
	Telephone	82-2-856-6841		
Product	Product name	Wireless Card		
	Model No.	VWM-1G01A	Manufacturer	VISION TECHNICS CO., LTD.
	Serial No.	NONE	Country of origin	KOREA
Test date	2005-4-8 ~ 2005-6-3		Date of issue	2005-06-03
Testing location	ESTECH. Co., Ltd. 97-1 Hoiuk-Ri Majang-Myon, Icheon-city, KyungKi-Do, Korea			
Standard	FCC PART 15 2002 , ANSI C 63.4 2003			
Test item	■ Conducted Emission	☐ Class A ■ Class B	Test result	OK
	■ Radiated Emission	☐ Class A ■ Class B	Test result	OK
Measurement facility registration number		94696		
Tested by	Engineer J.H.Kim	(Signature)		
Reviewed by	Manager Engineer J.M.Yang	(Signature)		
Abbreviation	OK, Pass = Passed, Fail = Failed, N/A = not applicable			

* Note

- This test report is not permitted to copy partly without our permission
- This test result is dependent on only equipment to be used
- This test result based on a single evaluation of one sample of the above mentioned

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Appendix 1. Spectral diagram

1. Laboratory Information

1.1 General

This EUT (Equipment Under Test) has been shown to be capable of compliance with the applicable technical standards and is tested in accordance with the measurement procedures as indicated in this report.
ESTECH Lab attests to accuracy of test data. All measurement reported herein were performed by ESTECH Co., Ltd.
ESTECH Lab assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

1.2 Test Lab.

Corporation Name : ESTECH Co. Ltd

Head Office : Rm 1015, World Venture Center II, 426-5, Gasan-dong, Geumcheon-gu, Seoul, Kor
(Safety & Telecom. Test Lab)

EMC Test Lab : 58-1 Osan-Ri, GaNam-Myon, YeoJoo-Gun, KyungKi-Do, Korea
97-1 Hoiuk-Ri Majang-Myon, Icheon-city, KyungKi-Do, Korea

1.3 Official Qualification(s)

MIC : Granted Accreditation from Ministry of Information & Communication for EMC, Safety and Telecommunication
KOLAS : Accredited Lab By Korea Laboratory Accreditation Schema base on CENELEC requirements
FCC : Filed Laboratory at Federal Communications Commission
VCCI : Granted Accreditation from Voluntary Control Council for Interference from ITE

2. Description of EUT

2.1 Summary of Equipment Under Test

Product Name	: Wireless Card
Model Number	: VWM-1G01A
Modulation Type	: DSSS
Transfer Rate	: 11Mbps
Number of Channe	: 11
Serial Number	: NONE
Manufacturer	: VISION TECHNICS CO., LTD.
Country of origin	: KOREA
Rating	: INPUT:AC120V / 60Hz
Receipt Date	: 2005-04-08

2.2 General descriptions of EUT

This device fully compatible with the 802.11b and g standard to provide a wireless data rate of 11Mbps.
For the detailed features, please refer to the manufacturer's specifications or User's Manual.

3. Test Standards

Test Standard : FCC PART 15 (2002)

This Standard sets out the regulations under which an intentional, unintentional, or incidental radiator may be operated without an individual license. It also contains the technical specifications, administrative requirements and other conditions relating to the marketing of Part 15 devices.

Test Method : ANSI C 63.4 (2003)

This standard sets forth uniform methods of measurement of radio-frequency (RF) signals and noise emitted from both unintentional and intentional emitters of RF energy in the frequency range 9 kHz to 40 GHz. Methods for the measurement of radiated and AC power-line conducted radio noise are covered and may be applied to any such equipment unless otherwise specified by individual equipment requirements. These methods cover measurement of certain decides that deliberately radiate energy, such as intentional emitters, but does not cover licensed transmitters. This standard is not intended for certification/approval of avionic equipment or for industrial, scientific, and medical (ISM) equipment These method apply to the measurement of individual units or systems comprised of multiple units

Summary of Test Results

Applied Satandard : 47 CFR Part 15, Subpart C				
Standard	Test Type	Result	Remark	Limit
15.207	AC Power Conducted Emission	Pass	Meet the requirement	
15.247(a)(2)	Spectrum Bandwidth of a DSSS System	Pass	Meet the requirement	Min. 500kHz
15.247(b)	Maximum Peak ouput power	Pass	Meet the requirement	Max. 30dBm
15.247(c)	Transmitter Radiated Emission	Pass	Meet the requirement	Table 15.209
15.247(d)	Power Spectral Density	Pass	Meet the requirement	Max. 8dBm
15.247(c)	Band Edge Measurement	Pass	Meet the requirement	20dB less

4. Measurement Condition

4.1 EUT Operation.

a. Channel

Ch.	Frequency	Ch.	Frequency
1	2412MHz	7	2442MHz
2	2417MHz	8	2447MHz
3	2422MHz	9	2452MHz
4	2427MHz	10	2457MHz
5	2432MHz	11	2462MHz
6	2437MHz		

b. Measurement Channel : Low(2412MHz), Middle(2437Mhz),High(2462MHz)

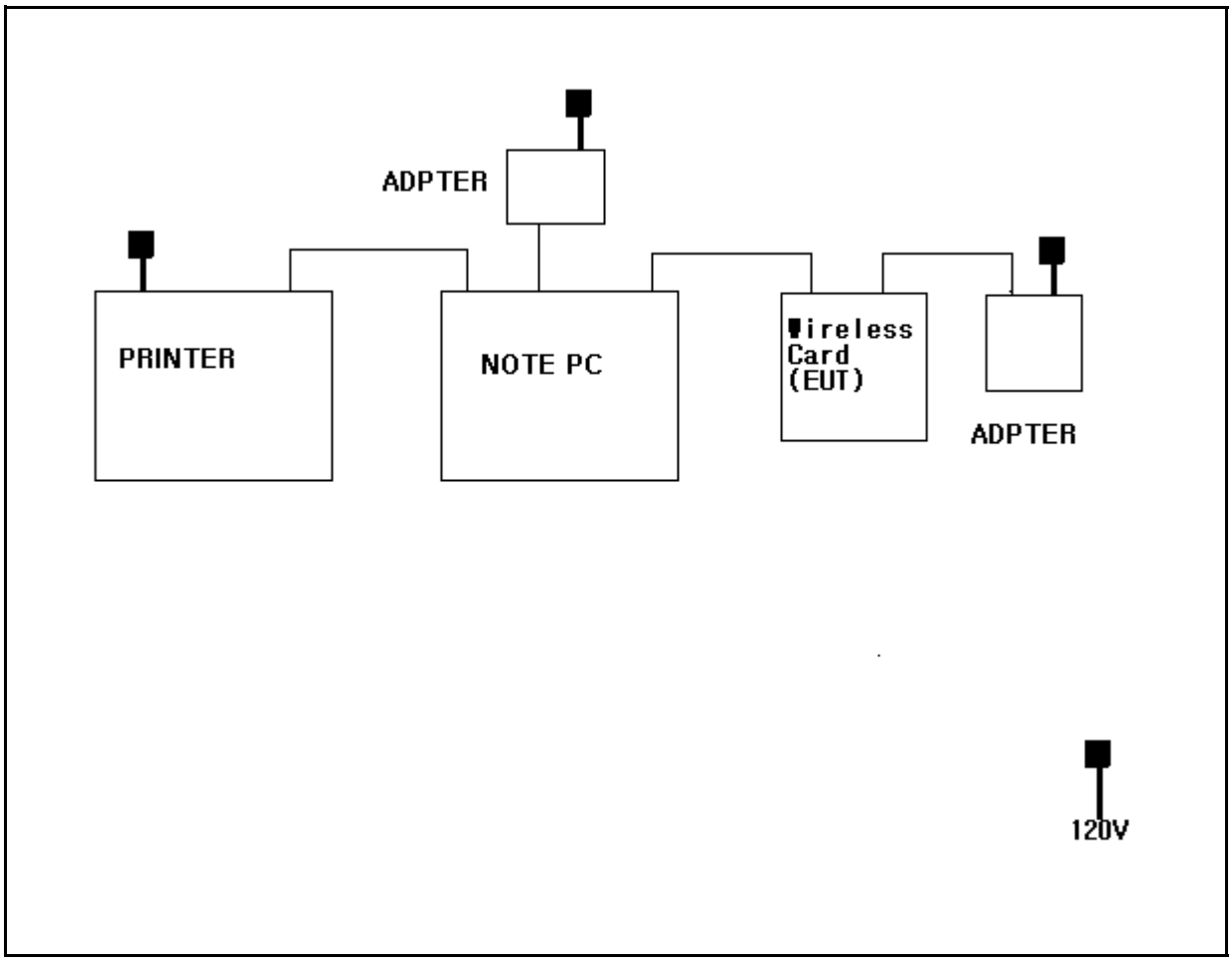
c. Test Mode : Continuous Output, DSSS

d. Test rate : the worst case of rate(11Mbps)

4.2 EUT Operation.

* The EUT was in the following operation mode during all testing
* The operational conditions of the EUT was determined by the manufacturer according to the typical use of the EUT with respect to the expected hightest level of emission

4.3 Configuration and Peripherals



4.4 EUT and Support equipment

Equipment Name	Model Name	S/N	Manufacturer	Remark (FCC ID)
Wireless Card	VWM-1G01A	NONE	VISION TECHNICS CO., LTD.	EUT
ADAPTER	PN003A1A(LG)	PN003A LG 0311000010 A	POWERNET Technologies	–
NOTE PC	PPIIL	35748823888	DELL COMPUTER	–
ADAPTER	PA-1650-05DK	DLLQQ	DONGGUANG LITE POWER 2ND PLANT	–
PRINTER	LQ-570H+	B1021095782	SAMBO COMPUTER	–

4.5 Cable Connecting

Start Equipment		End Equipment		Cable Standard		Remark
Name	I/O port	Name	I/O port	Length	Shielded	
Wireless Card	USB	NOTE PC	USB	2	Y	–
Wireless Card	POWER	ADAPTER	–	2	N	–
NOTE PC	PARALLEL	PRINTER	PARALLEL	2	Y	–
NOTE PC	POWER	ADAPTER	–	2	N	–

5. 6dB Bandwidth Measurement

5.1 Test procedure

The transmitter output was connected to the spectrum analyzer. The bandwidth of the fundamental frequency was measured by spectrum analyzer. The 6dB bandwidth is defined as the bandwidth at 6dB below from peak power point. The minimum of 6dB bandwidth measurement is 0.5MHz.

5.2 Test instruments and measurement setup

The spectrum analyzer is set to as following.

. RBW= 100KHz

. VBW= 100KHz

. Span= 20MHz

. Sweep= suitable duration based on the EUT specification.

6dB Bandwidth Test Instruments

Description	Model	Serial Number
Spectrum Analyzer	E4402B	US41192817
RF Cable	Length: 49cm	-
-Spectrum Analyzer <=> EUT	Loss: 1.0dB	-

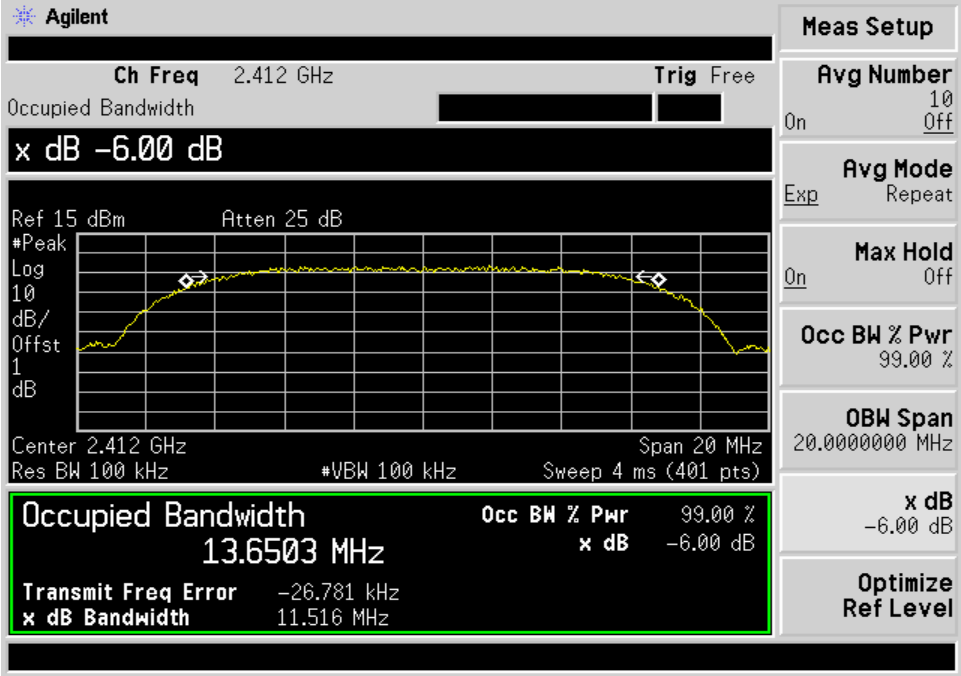
5.3 Measurement results

EUT	Wireless Card	MODEL	VWM-1G01A
MODE	CCK	ENVIRONMENTAL CONDITION	24℃, 41%RH
INPUT POWER	120Vac, 60Hz		

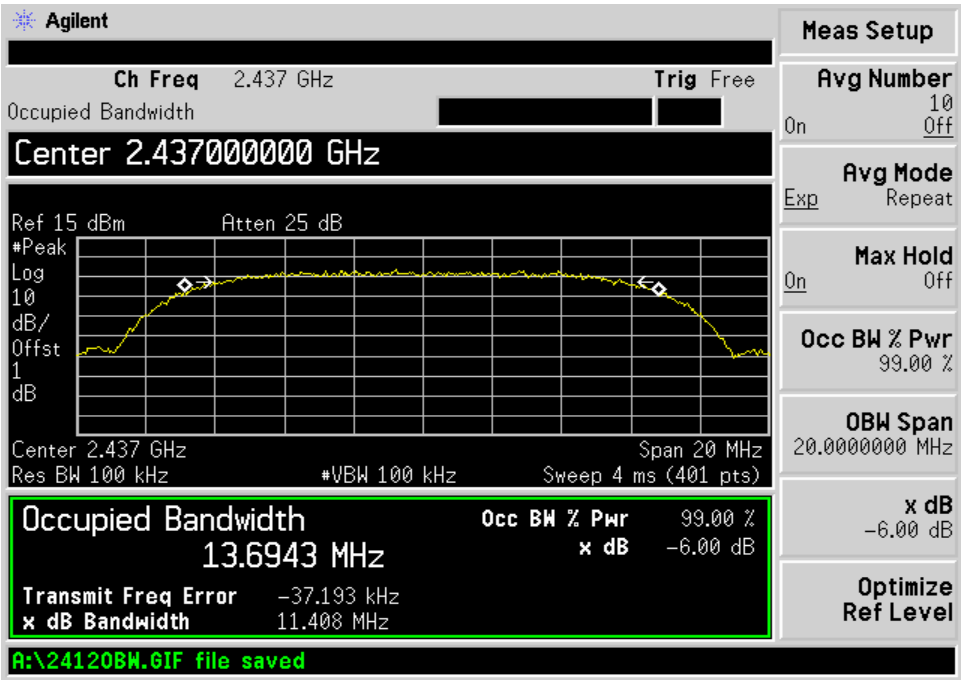
CHANNEL	Channel Frequency (MHz)	Bandwidth at 6dB below(MHz)	Minimum Limit (MHz)	PASS /FAIL
1	2412	11.52	0.5	PASS
6	2437	11.41	0.5	PASS
11	2462	11.70	0.5	PASS

5.4 Trace data

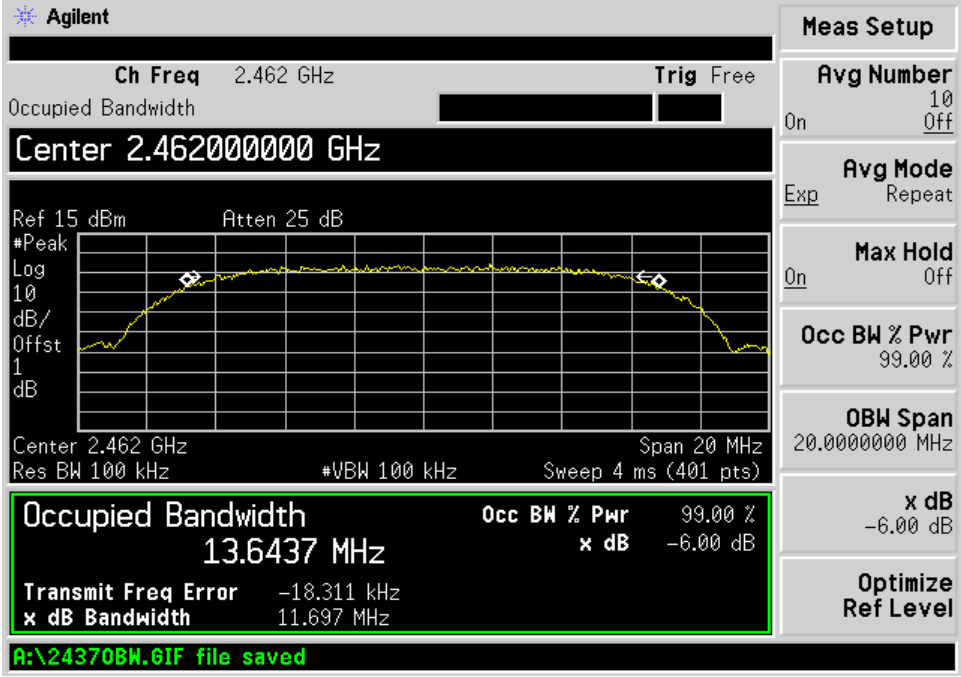
CCK (802.11b-1ch)



CCK (802.11b-6ch)



CCK (802.11b-11ch)



6. MAXIMUM PEAK OUTPUT POWER

6.1 Test procedure

The transmitter antenna terminal is connected to the input of a RF power sensor. Measurement is made while EUT is operating in transmission mode at the appropriate center frequency. The maximum peak output power measurement is 30dBm.

Maximum Peak Output Power Test Instruments

Description	Model	Serial Number
Power Meter	HP E4418A	GB38272717
Power Sensor	HP 8481A	3318A96478
RF Cable:	Length: 49cm	-
-Spectrum Analyzer <=> EUT	Loss: 1.0dB	-

6.2 Measurement results

EUT	Wireless Card	MODEL	VWM-1G01A
MODE	CCK	ENVIRONMENTAL CONDITION	24℃, 41%RH
INPUT POWER	120Vac, 60Hz		

CHANNEL	Channel Frequency (MHz)	Peak Power Output(dBm)		Limit[1W] (dBm)	PASS /FAIL
		(dBm)	(W)		
1	2412	8.7	0.007	30.0	PASS
6	2437	9.1	0.008	30.0	PASS
11	2462	8.8	0.008	30.0	PASS

7. Transmitter power spectral density

7.1 Test procedure

The peak power density was measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency. The maximum of power spectral dencity measurement is 8dBm.

7.2 Test instruments and measurement setup

The spectrum analyzer is set to as following.

. RBW= 3KHz

. VBW= 30KHz

. Span= 1.5MHz

. Sweep= 500 seconds (It is allowed to be longer than span/3kHz.)

The peak power density Test Instruments

Description	Model	Serial Number
Spectrum Analyzer	E4402B	US41192817
RF Cable	Length: 49cm	-
-Spectrum Analyzer <=> EUT	Loss: 1.0dB	

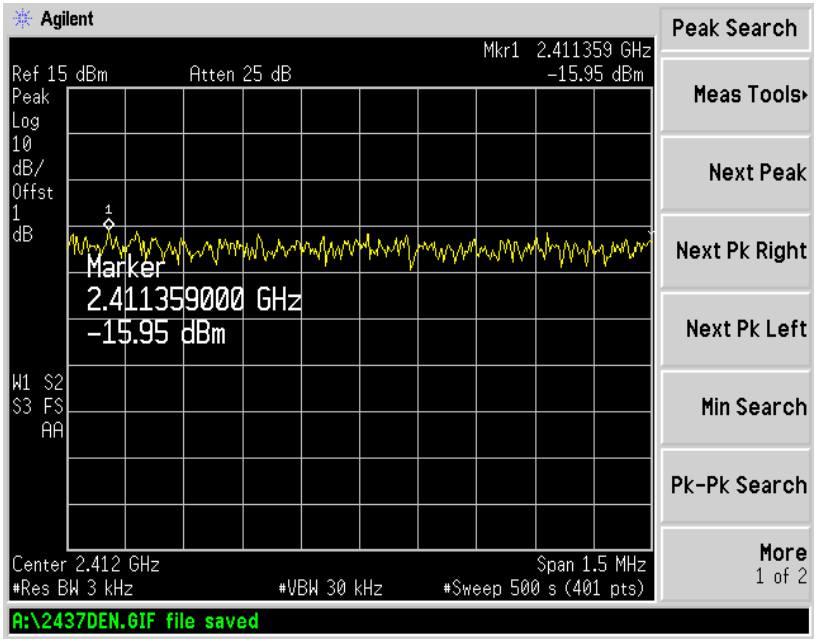
7.3 Measurement results

EUT	Wireless Card	MODEL	VWM-1G01A
MODE	CCK	ENVIRONMENTAL CONDITION	24℃, 41%RH
INPUT POWER	120Vac, 60Hz		

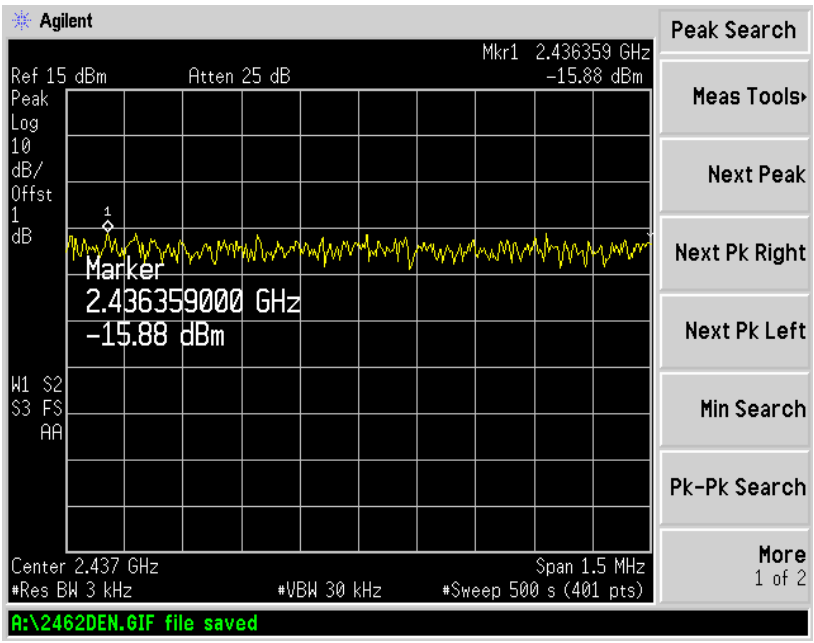
CHANNEL	Channel Frequency (MHz)	RF Power Spectral Density (dBm)	Maximum Limit (dBm)	PASS/ FAIL
1	2412.00	-15.95	8.0	PASS
6	2437.00	-15.88	8.0	PASS
11	2462.00	-15.40	8.0	PASS

7.4 Trace data

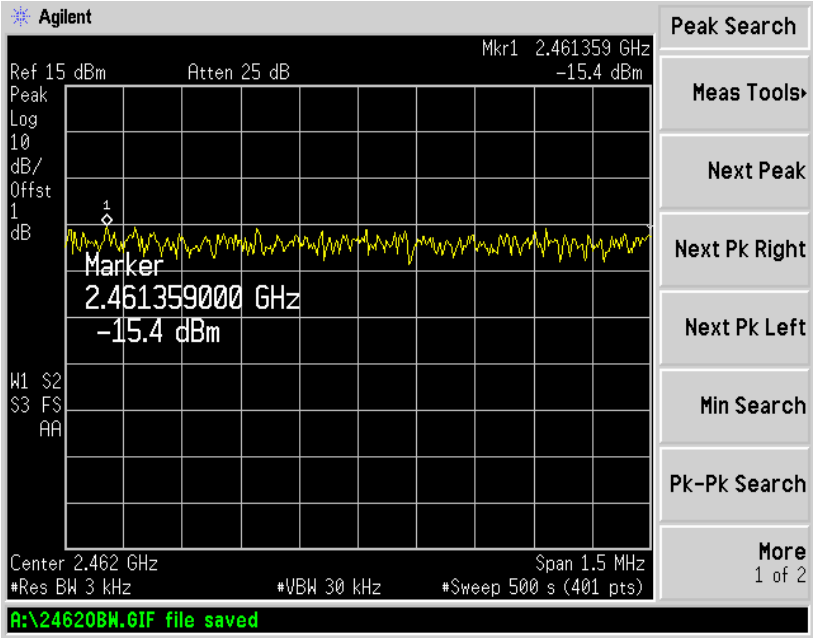
CCK (802.11b-1ch)



CCK (802.11b-6ch)



CCK (802.11b-11ch)



8. band-edge and out of band emissions.

8.1 Test procedure

The radio frequecy power at 20dB down from the highest inband power level is measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency. The band edge&out of band emission shall be at least 20dB below of the highest inband power level.

8.2 Test instruments and measurement setup

The spectrum analyzer is set to as following.

. RBW= 100KHz

. VBW= 100KHz

. Span= suitable frequency span

. Sweep= suitable duration based on the EUT specification.

Band Edge&Out of Emission Test Instruments

Description	Model	Serial Number
Spectrum Analyzer	E4402B	US41192817
RF Cable	Length: 49cm	-
-Spectrum Analyzer <=> EUT	Loss: 1.0dB	-

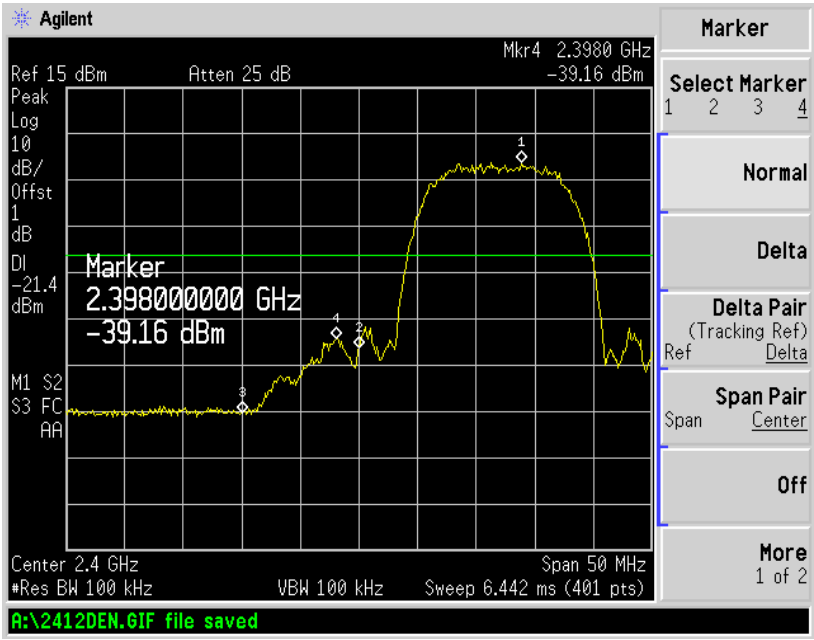
8.3 Measurement results of band-edge & out of emission

EUT	Wireless Card	MODEL	SWL-2700M
MODE	CCK	ENVIRONMENTAL CONDITION	24℃, 41%RH
INPUT POWER	120Vac, 60Hz		

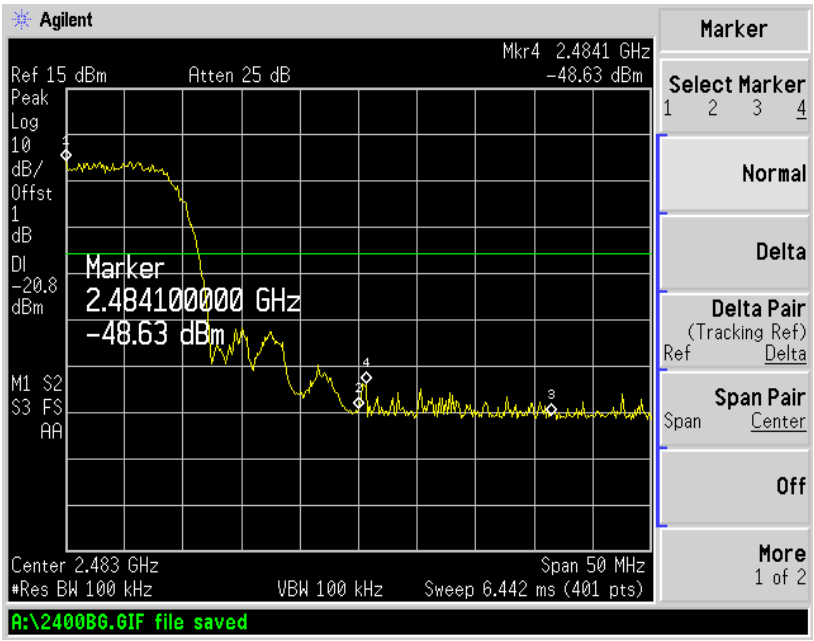
CHANNEL	Channel Frequency (MHz)	Measurement Frequency (MHz)	Peak Level at 20dB below(dBm)	Limit (MHz)
1	2412	2398.0	-39.16	Below 20dB from peak power level to band edge
11	2472	2484.1	-48.63	Below 20dB from peak power level to band edge

8.4 Trace data of band-edge & Out of Emission

CCK (802.11b-1ch)



CCK (802.11b-11ch)



9. Measurement of radiated disturbance

Above 30 MHz Electric Field strength was measured in accordance with FCC Part 15 (2002) & ANSI C 63.4 (2003). The test setup was made according to FCC Part 15 (2002) & ANSI C 63.4 (2003) on an open test site, which allows a 3m distance measurement. The EUT was placed in the center of wooden turntable. The height of this table was 0.8m. The measurement was conducted with both horizontal and vertical antenna polarization. The turntable has fully rotated. For further description of the configuration refer to the picture of the test set-up.

9.1 Measurement equipments

Equipment Name	Type	Manufacturer	Serial No.	Next Calibration date
TEST Receive	ESPI7	Rohde & Schwarz	100185	2005. 8. 20
Spectrum Analyzer	R3261C	ADVANTEST	61720116	2006. 4. 10
LogBicon Antenna	VULB 9160	S/B	3142	2005. 7. 06
Horn Antenna	BBHA 9120 D	SCHWARZBECK	352	2006. 4. 06
Spectrum Analyzer	8563E	HP	3623A05297	2006. 3. 3
Turn Table	2087	EMCO	2129	-
Antenna Mast	2070-01	EMCO	9702-203	-
ANT Mast Controller	2090	EMCO	1535	-
Turn Table Controller	2090	EMCO	1535	-

9.2 Environmental Condition

Test Place : Open site(3m)

Temperature (°C) : 24 ℃

Humidity (%) : 46 %

9.3 Test data

Measurement Distance : 3 m

Frequency (MHz)	Reading (dBμV)	Position (V/H)	Height (m)	Correction Factor		Result Value		
				Ant Factor (dB)	Cable (dB)	Limit (dBμV/m)	Result (dBμV/m)	Margin (dBμV/m)
48	13.20	V	1.0	12.78	1.0	40.0	26.99	-13.01
114	11.30	H	2.1	11.13	1.6	43.5	24.05	-19.45
144	12.60	H	2.0	13.40	1.9	43.5	27.87	-15.63
166.29	6.90	V	1.9	13.93	2.0	43.5	22.84	-20.66
204	9.10	H	1.4	10.48	2.2	43.5	21.78	-21.72
219.98	15.00	H	1.4	10.81	2.3	43.5	28.11	-15.39
240	21.30	H	1.3	11.71	2.4	46.0	35.41	-10.59
288	20.60	H	1.0	12.98	2.6	46.0	36.19	-9.82
308	19.50	H	1.0	13.36	2.7	46.0	35.60	-10.40
336	26.15	H	1.0	13.99	2.8	46.0	42.96	-3.04
384	24.60	H	1.0	14.97	3.1	46.0	42.63	-3.37
484.01	15.20	H	1.0	16.92	3.5	46.0	35.62	-10.38
528	17.40	H	1.0	17.47	3.6	46.0	38.46	-7.54
660	6.90	H	1.0	19.75	4.2	46.0	30.80	-15.20
836	10.90	H	1.0	22.00	4.8	46.0	37.68	-8.32
Remark	H : Horizontal, V : Vertical							

9.3-1 Test data(CH1)

Measurement Distance : 3 m

Frequency (MHz)	Reading (dBμV)	Position (V/H)	Height (m)	Correction Factor		Result Value		
				Ant Factor (dB)	Cable (dB)	Limit (dBμV/m)	Result (dBμV/m)	Margin (dBμV/m)
2412(AV)	99.83	H	1.5	27.62	-23.4		104.05	
2412(AV)	96.67	V	1.9	27.62	-23.4		100.89	
2412(PEAK)	107.33	H	1.5	27.62	-23.4		111.55	
2412(PEAK)	104.33	V	1.9	27.62	-23.4		108.55	
4824(AV)	41.00	H	2.0	31.30	-21.7	54.0	50.60	-3.40
4824(AV)	37.83	V	1.6	31.30	-21.7	54.0	47.43	-6.57
4824(PEAK)	55.33	H	2.0	31.30	-21.7	74.0	64.93	-9.07
4824(PEAK)	52.33	V	1.6	31.30	-21.7	74.0	61.93	-12.07
Remark	H : Horizontal, V : Vertical TEST MODE : CH 1(2412MHz) * The TX signal isn't detected from 3th harmonics.							

9.3-2 Test data(CH6)

Measurement Distance : 3 m

Frequency (MHz)	Reading (dBμV)	Position (V/H)	Height (m)	Correction Factor		Result Value		
				Ant Factor (dB)	Cable (dB)	Limit (dBμV/m)	Result (dBμV/m)	Margin (dBμV/m)
2437(AV)	95.00	H	1.8	27.61	-23.4		99.21	
2437(AV)	90.33	V	1.7	27.61	-23.4		94.54	
2437(PEAK)	102.33	H	1.8	27.61	-23.4		106.54	
2437(PEAK)	96.83	V	1.7	27.61	-23.4		101.04	
4874(AV)	37.83	H	1.9	31.37	-21.7	54.0	47.50	-6.50
4874(AV)	36.00	V	1.6	31.37	-21.7	54.0	45.67	-8.33
4874(PEAK)	47.00	H	1.9	31.37	-21.7	74.0	56.67	-17.33
4874(PEAK)	45.83	V	1.6	31.37	-21.7	74.0	55.50	-18.50
Remark	H : Horizontal, V : Vertical TEST MODE : CH 6 (2437MHz) * The TX signal isn't detected from 3th harmonics.							

9.3-3 Test data(CH11)

Measurement Distance : 3 m

Frequency (MHz)	Reading (dBμV)	Position (V/H)	Height (m)	Correction Factor		Result Value		
				Ant Factor (dB)	Cable (dB)	Limit (dBμV/m)	Result (dBμV/m)	Margin (dBμV/m)
2462(AV)	91.67	H	1.6	27.60	-23.4		95.87	
2462(AV)	96.50	V	1.9	27.60	-23.4		100.70	
2462(PEAK)	98.67	H	1.6	27.60	-23.4		102.87	
2462(PEAK)	104.33	V	1.9	27.60	-23.4		108.53	
4924(AV)	41.20	H	1.8	31.44	-21.7	54.0	50.94	-3.06
4924(AV)	36.67	V	1.6	31.44	-21.7	54.0	46.41	-7.59
4924(PEAK)	55.83	H	1.8	31.44	-21.7	74.0	65.57	-8.43
4924(PEAK)	50.67	V	1.6	31.44	-21.7	74.0	60.41	-13.59
Remark	H : Horizontal, V : Vertical TEST MODE : CH 11 (2462MHz) * The TX signal isn't detected from 3th harmonics.							

10. Measurement of conducted disturbance

The continuous disturbance voltage of AC Mains in the frequency from 0.15 to 30 MHz was measured in accordance to FCC Part 15 (2002) & ANSI C 63.4 (2003) The test setup was made according to FCC Part 15 (2002) & ANSI C 63.4 (2003) in a shielded. The EUT was placed on a non-conductive table at least 80 above the ground plan. A grounded vertical reference plane was positioned in a distance of 40cm from the EUT. The distance from the EUT to other metal surfaces was at least 0.8m. The EUT was only earthen by its power cord through the line impedance stabilizing network. The power cord has been bundled to a length of 1.0m.. The test receiver with Quasi Peak detector complies with CISPR 16.

10.1 Measurement equipments

Equipment Name	Type	Manufacturer	Serial No.	Next Calibration date
LISN	ESH3-Z5	Rohde & Schwarz	838979/010	2006. 2. 18
LISN	NNLA8120A	Schwarzbeck	NONE	2006. 2. 18
TEST Receive	ESPI7	Rohde & Schwarz	100185	2005. 8. 20
Pulse Limiter	ESH3Z2	Rohde & Schwarz	NONE	2005. 6. 15

10.2 Environmental Condition

Test Place : Shield Room

Temperature (°C) : 23 ℃

Humidity (%) : 44 %

10.3-1 Test data(CH1)

Frequency (MHz)	Correction Factor		Line (H/N)	Quasi-peak Value			Average Value		
	Lisn (dB)	Cable (dB)		Limit (dBμV)	Reading (dBμV)	Result (dBμV)	Limit (dBμV)	Reading (dBμV)	Result (dBμV)
0.18	0.07	0.0	H	64.44	33.81	33.90	54.44	30.60	30.69
0.22	0.07	0.0	H	62.89	35.78	35.90	52.89	33.89	34.01
0.25	0.07	0.1	H	61.63	35.16	35.30	51.63	33.98	34.12
0.29	0.07	0.1	H	60.52	30.71	30.87	50.52	28.19	28.35
0.40	0.07	0.1	H	57.90	30.41	30.63	47.90		
0.44	0.07	0.2	H	57.12	27.11	27.35	47.12	24.68	24.92
0.65	0.08	0.2	N	56.00	24.27	24.55	46.00	20.85	21.13
0.77	0.09	0.2	N	56.00	24.70	24.99	46.00		
1.09	0.09	0.2	H	56.00	24.62	24.92	46.00		
1.16	0.09	0.2	N	56.00	25.90	26.21	46.00		
1.27	0.10	0.2	H	56.00	25.19	25.51	46.00		
1.64	0.10	0.3	H	56.00	23.44	23.81	46.00		
7.86	0.30	0.5	H	60.00	21.61	22.37	50.00		
8.30	0.31	0.5	N	60.00	22.10	22.90	50.00	21.39	22.19
9.72	0.35	0.6	N	60.00	24.96	25.89	50.00	24.66	25.59
10.67	0.39	0.6	N	60.00	21.46	22.48	50.00	20.74	21.76
15.80	0.62	0.8	N	60.00	21.18	22.60	50.00	20.20	21.62
16.67	0.64	0.8	H	60.00	21.43	22.87	50.00	20.70	22.14
Remark	H : Hot Line, N : Neutral Line TEST MODE : CH 1(2412MHz)								

10.3-2 Test data(CH6)

Frequency (MHz)	Correction Factor		Line (H/N)	Quasi-peak Value			Average Value		
	Lisn (dB)	Cable (dB)		Limit (dBμV)	Reading (dBμV)	Result (dBμV)	Limit (dBμV)	Reading (dBμV)	Result (dBμV)
0.18	0.07	0.0	N	64.39	35.73	35.82	54.39	31.86	31.95
0.22	0.07	0.0	N	62.86	37.19	37.31	52.86	35.30	35.42
0.25	0.07	0.1	N	61.63	36.64	36.78	51.63	35.78	35.92
0.29	0.07	0.1	N	60.50	31.53	31.69	50.50	29.47	29.63
0.40	0.07	0.2	N	57.83	31.89	32.11	47.83	30.04	30.26
0.44	0.07	0.2	N	57.12	27.64	27.88	47.12	25.67	25.91
0.55	0.07	0.2	N	56.00	23.73	24.00	46.00		
0.69	0.08	0.2	N	56.00	25.42	25.70	46.00		
1.17	0.09	0.2	N	56.00	24.49	24.80	46.00		
1.20	0.09	0.2	H	56.00	25.51	25.82	46.00		
1.28	0.10	0.2	H	56.00	23.51	23.83	46.00	19.85	20.17
1.32	0.10	0.2	N	56.00	23.60	23.93	46.00		
8.30	0.31	0.5	N	60.00	23.49	24.29	50.00		
9.32	0.34	0.6	N	60.00	25.45	26.35	50.00		
9.72	0.35	0.6	H	60.00	24.43	25.36	50.00		
10.67	0.39	0.6	N	60.00	22.54	23.56	50.00		
16.67	0.64	0.8	N	60.00	22.77	24.21	50.00	22.26	23.70
20.42	0.71	0.8	N	60.00	21.77	23.29	50.00	20.88	22.40
Remark	H : Hot Line, N : Neutral Line TEST MODE : CH 6 (2437MHz)								

10.3-3 Test data(CH11)

Frequency (MHz)	Correction Factor		Line (H/N)	Quasi-peak Value			Average Value		
	Lisn (dB)	Cable (dB)		Limit (dBμV)	Reading (dBμV)	Result (dBμV)	Limit (dBμV)	Reading (dBμV)	Result (dBμV)
0.18	0.07	0.0	N	64.53	35.23	35.32	54.53	31.93	32.02
0.22	0.07	0.0	N	62.86	35.97	36.09	52.86	34.48	34.60
0.26	0.07	0.1	N	61.59	36.56	36.70	51.59	35.63	35.77
0.29	0.07	0.1	N	60.50	33.36	33.52	50.50	31.92	32.08
0.40	0.07	0.2	N	57.83	32.45	32.67	47.83	31.71	31.93
0.44	0.07	0.2	N	57.14	26.55	26.79	47.14		
0.58	0.08	0.2	H	56.00	23.71	23.99	46.00	19.78	20.06
0.66	0.08	0.2	N	56.00	23.54	23.82	46.00	21.01	21.29
0.73	0.09	0.2	N	56.00	26.14	26.43	46.00		
0.87	0.09	0.2	N	56.00	24.60	24.89	46.00		
1.24	0.09	0.2	N	56.00	26.29	26.61	46.00	22.50	22.82
1.28	0.10	0.2	H	56.00	25.63	25.95	46.00		
7.65	0.30	0.4	N	60.00	22.08	22.82	50.00		
9.61	0.35	0.6	N	60.00	25.63	26.55	50.00	25.33	26.25
10.49	0.38	0.6	N	60.00	22.43	23.43	50.00	21.74	22.74
14.32	0.58	0.8	N	60.00	21.76	23.11	50.00		
16.31	0.63	0.8	N	60.00	22.08	23.51	50.00	21.49	22.92
20.75	0.72	0.8	N	60.00	21.23	22.76	50.00	20.36	21.89
Remark	H : Hot Line, N : Neutral Line TEST MODE : CH 11 (2462MHz)								

11. Photographs of test setup

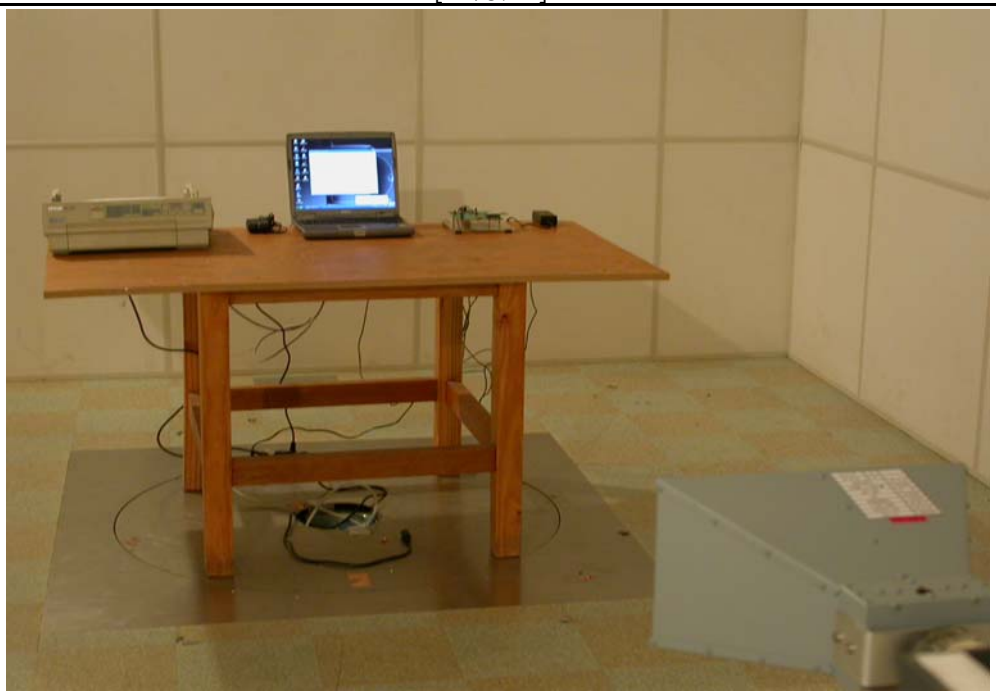
11.1 Setup for Radiated Test : 30 ~ 1000 MHz

[Front]

[Rear]

11.2 Setup for Radiated Test :Above 1000 MHz

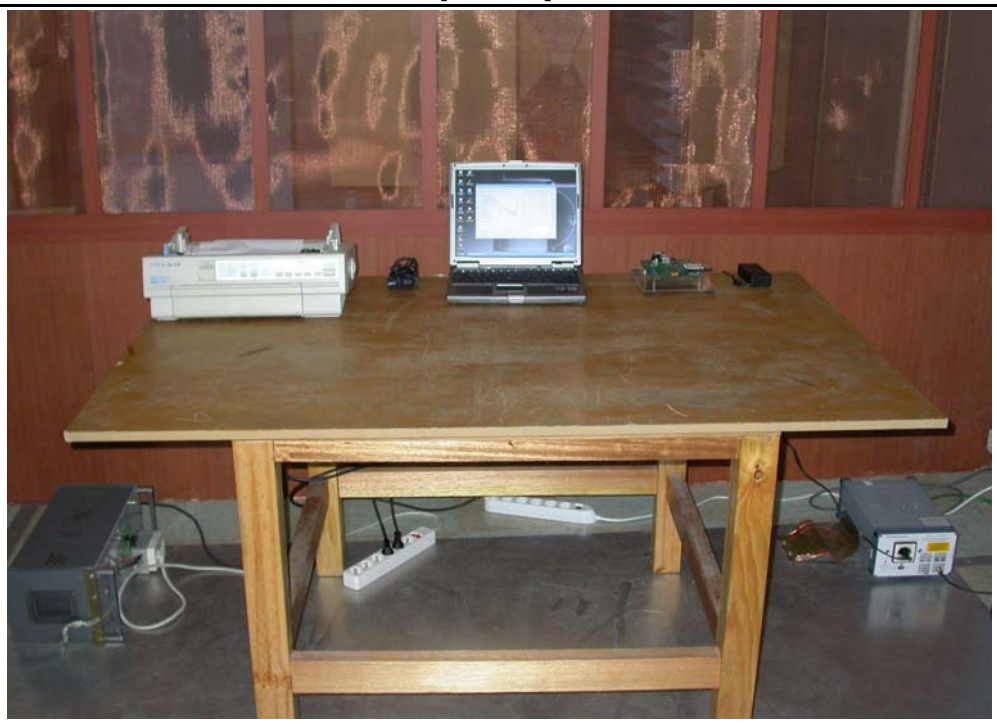
[Front]



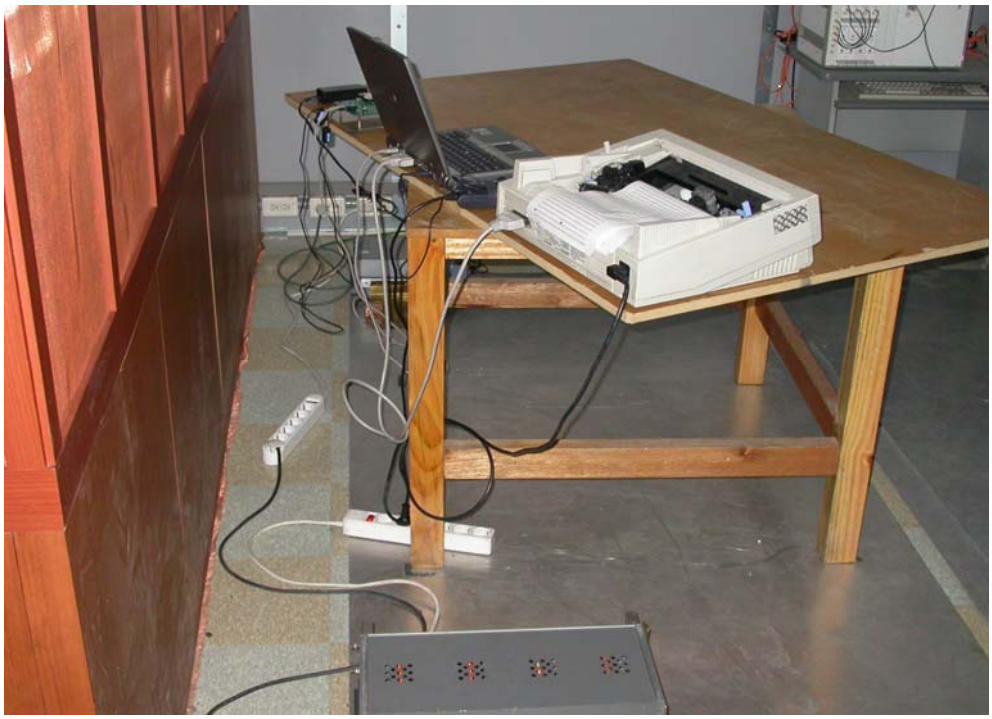
[Rear]

11.3 Setup for Conducted Test : 0.15 ~ 30 MHz

[Front]

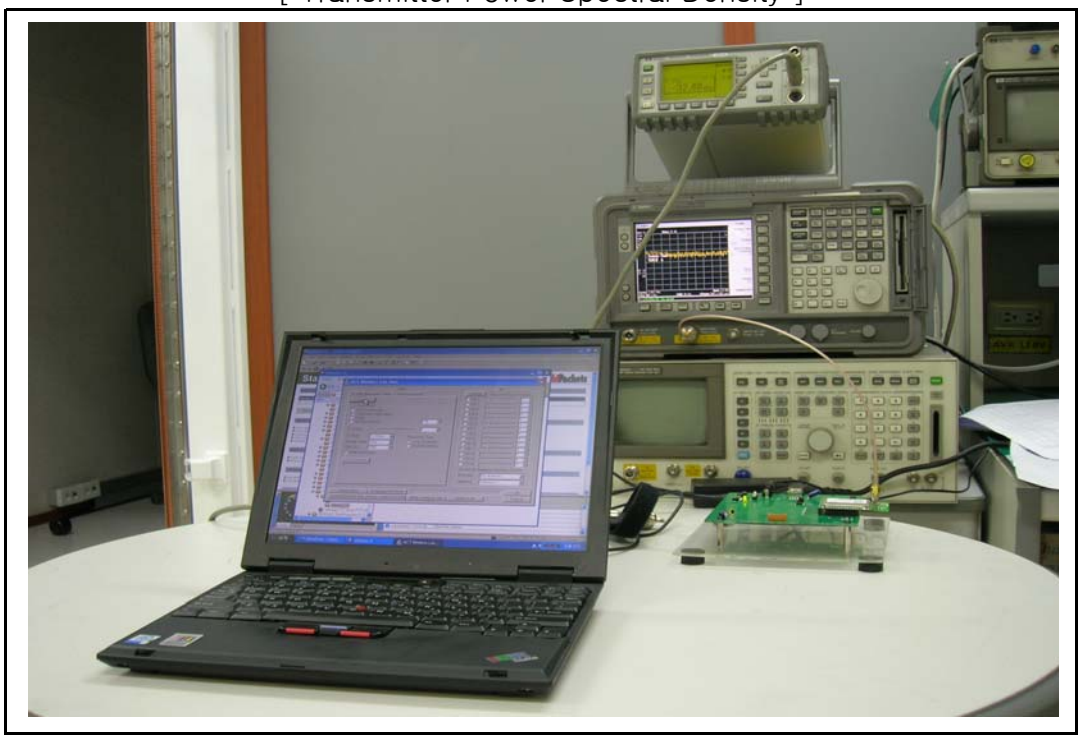


[Rear]

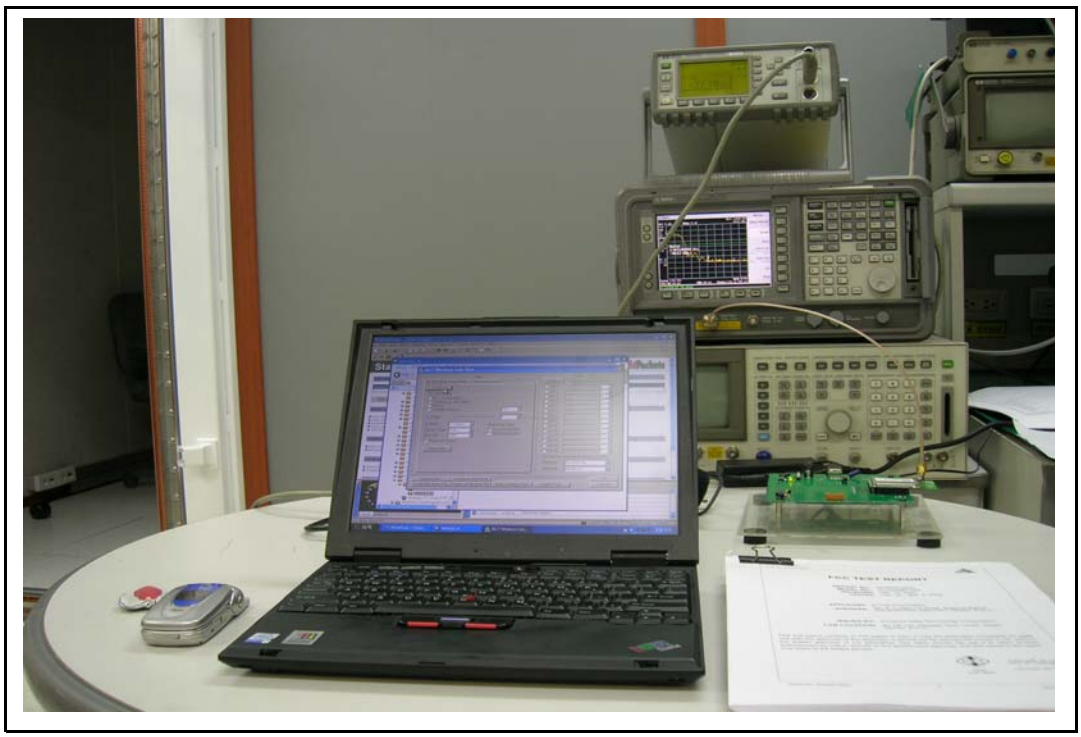


11.4 Setup for Conducted Test

[Transmitter Power Spectral Density]



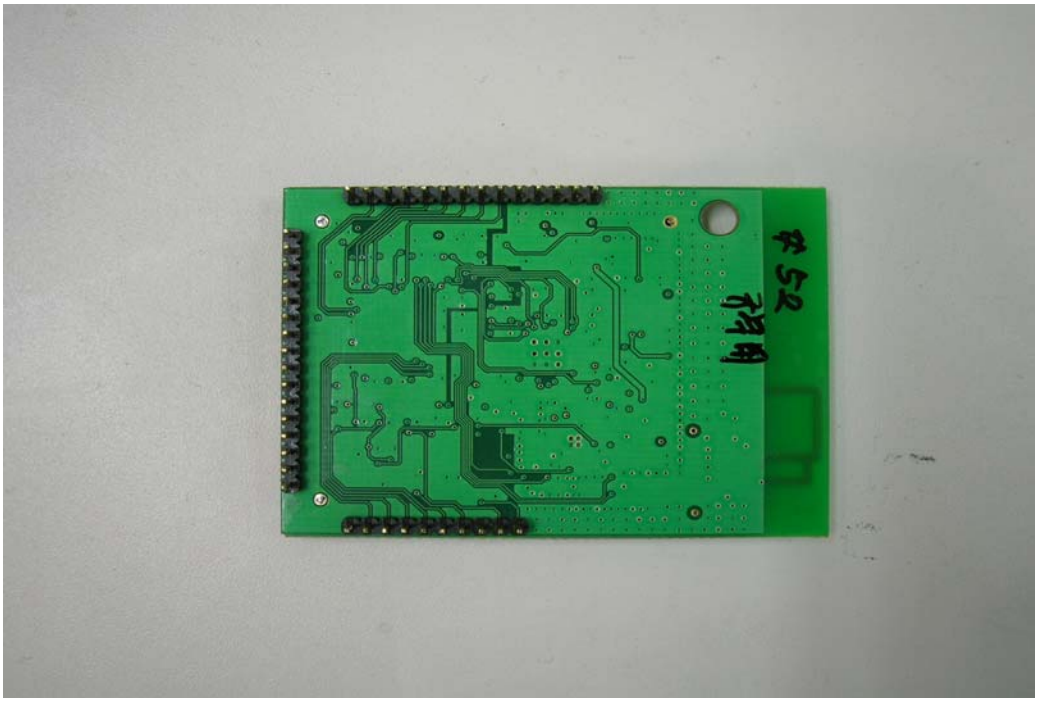
[Band-Edge and Out of Band Emissions]



12. Photographs of EUT

[Front]

[Rear]



13. Antenna Requirement

13.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

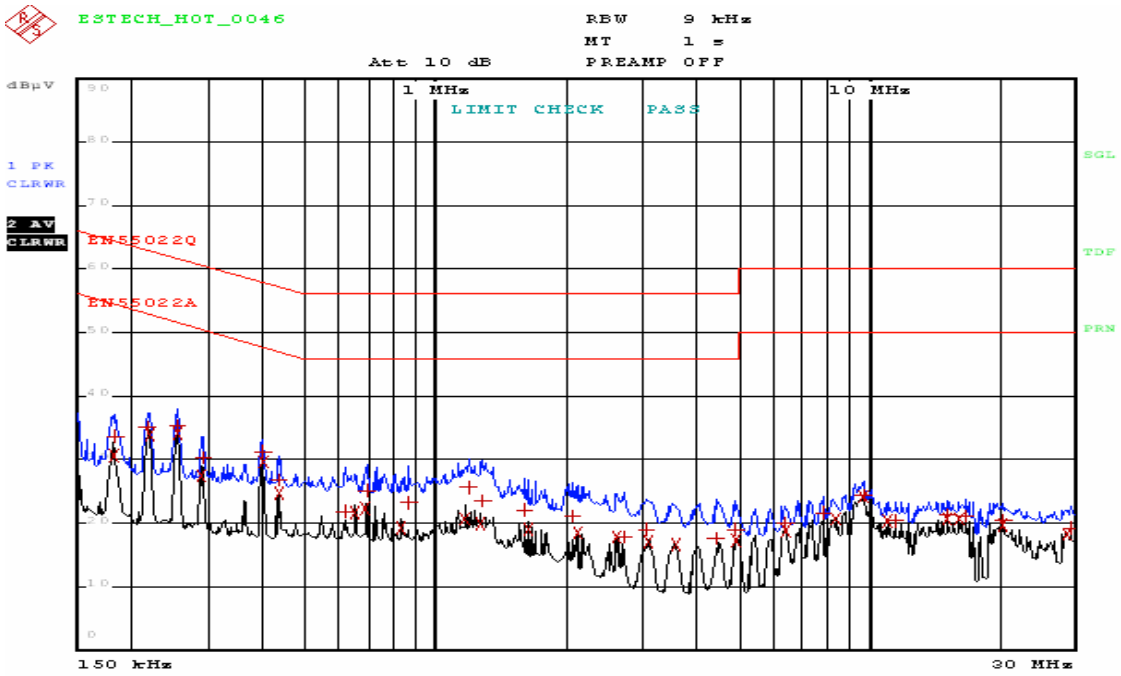
And according to FCC 47 CFR Section 15.24

13.2 Antenna Connected Construction

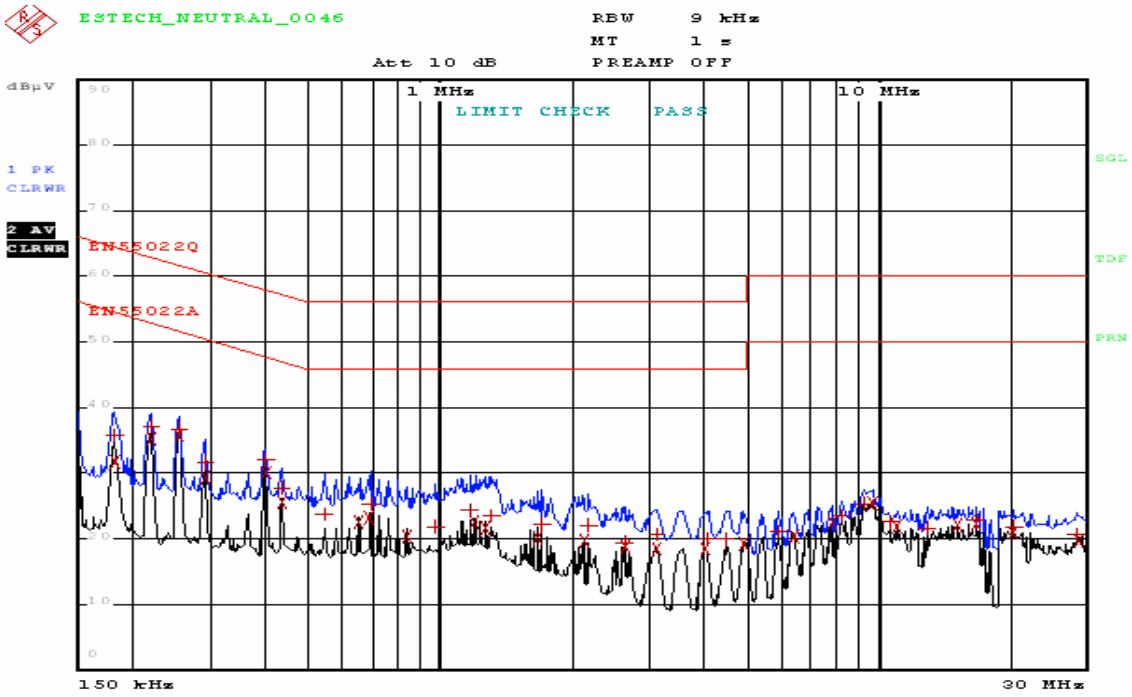
The antenna types used in this product are Intergrated PCB Pattern Antenna. The maximum Gain of this antenna is 2.15dBi.

Appendix 1. Spectral diagram

*HOT(CH1)

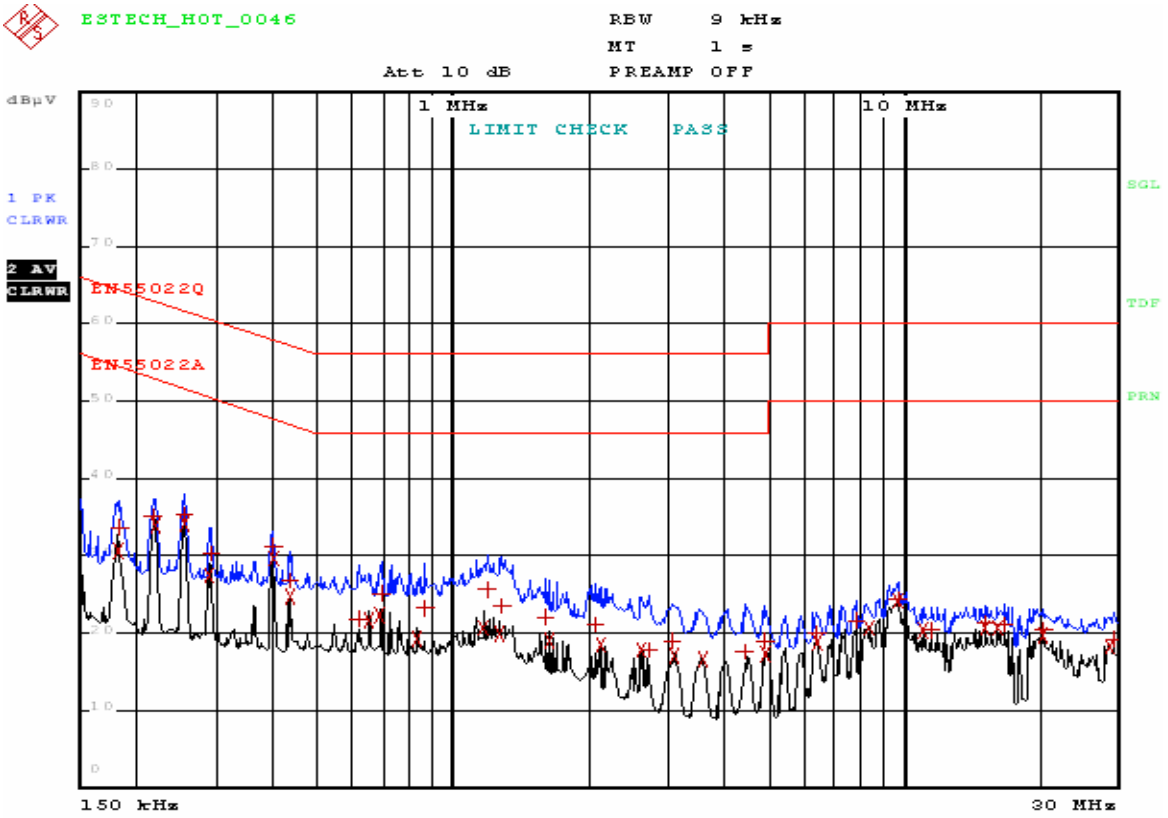


*NEUTRAL(CH1)

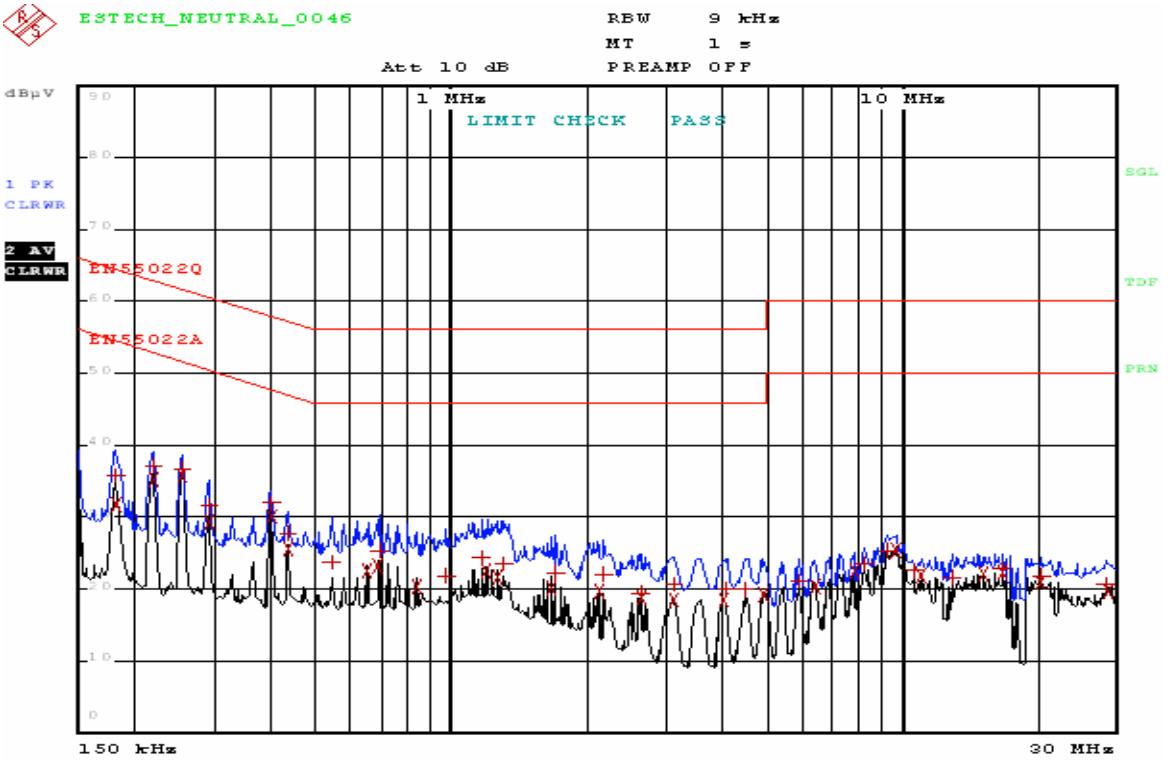


Appendix 1. Spectral diagram

*HOT(CH6)

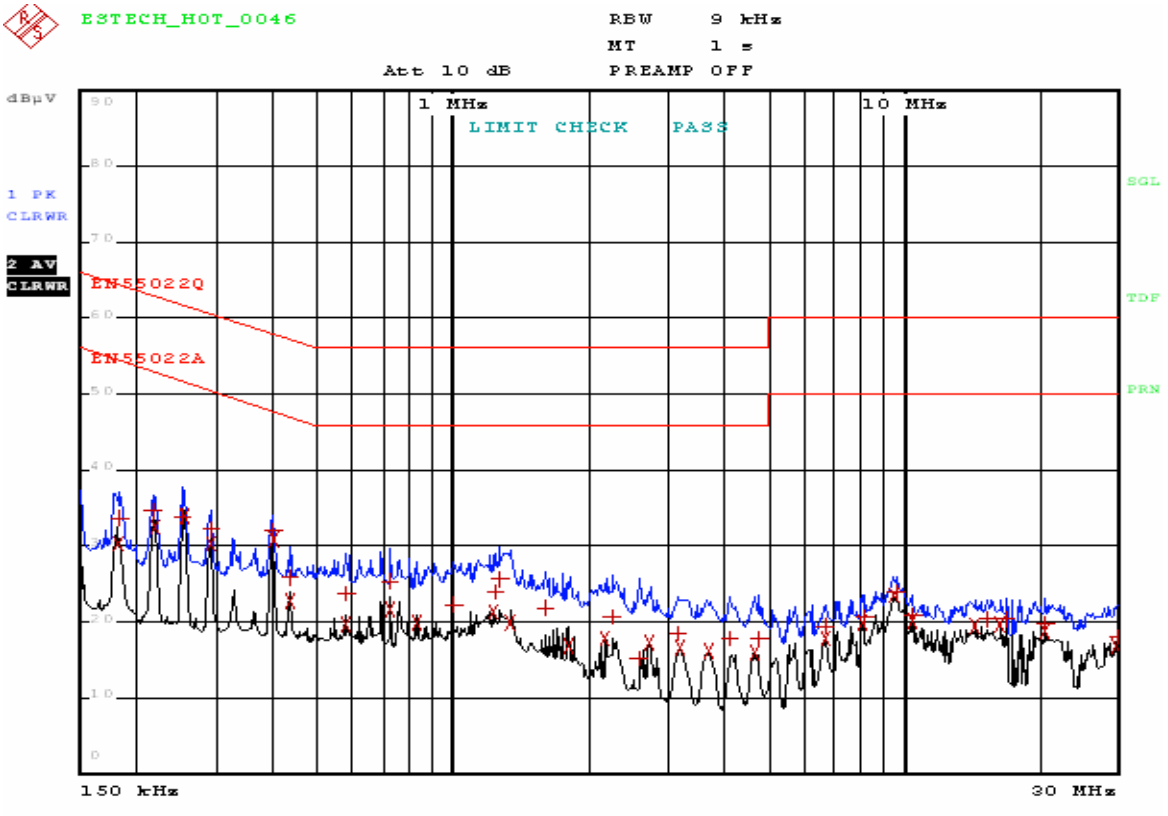
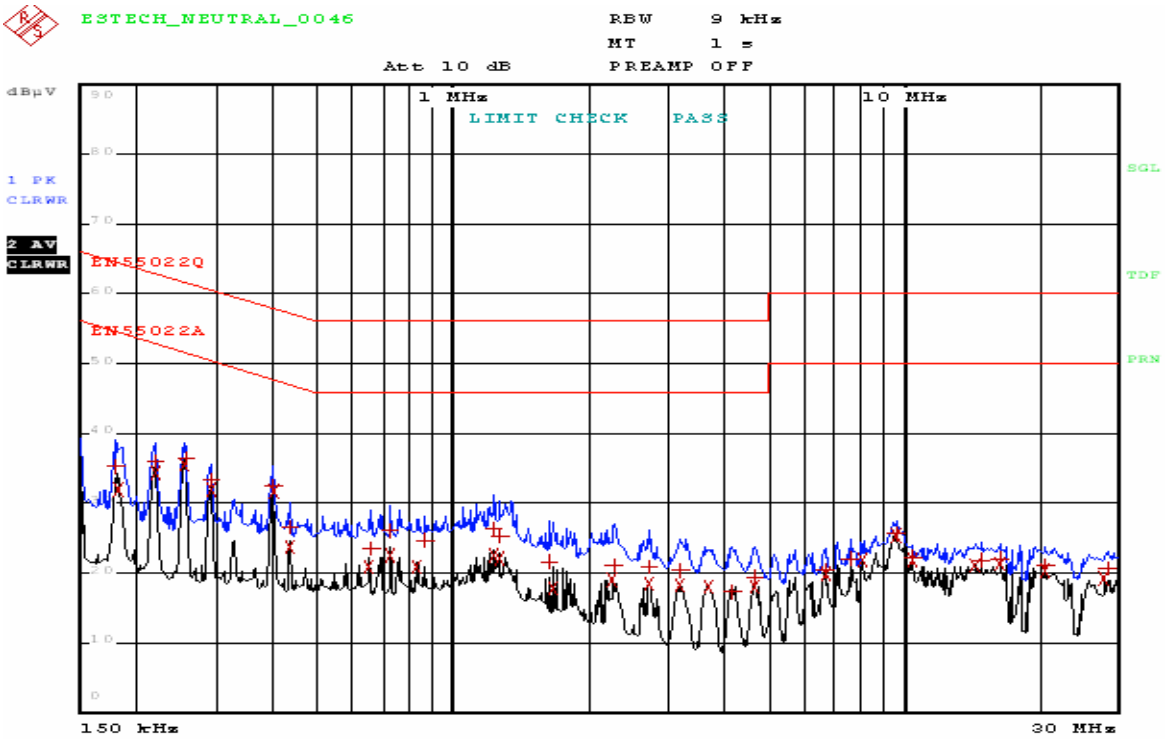


*NEUTRAL(CH6)



Appendix 1. Spectral diagram

*HOT(CH11)



*NEUTRAL(CH11)