

Radiated Spurious Emission Measurement Result (Above 1GHz)

Operation Mode: TX Mode(5.8GHz Band) Test Date : Mar. 07 2003
 Channel : Low(IEEE802.11a,Turbo Mode) Test By: James
 Temperature : 23 Pol: Ver./Hor
 Humidity : 58 % Test Host: BENQ

Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre-amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
5725.10	1.43	37.23	32.26	V	67.1	54.9	63.6	51.4	74.0	54.0	-10.4	-2.6
11522.20	1.89	36.85	40.06	V	50.3	39.6	55.4	44.7	74.0	54.0	-18.6	-9.3
17285.00	2.50	36.75	40.99	V	51.0	40.3	57.7	47.0	74.0	54.0	-16.3	-7.0
5725.20	1.43	37.23	32.26	H	58.8	46.8	55.3	43.3	74.0	54.0	-18.7	-10.7
11522.30	1.89	36.85	40.06	H	49.0	38.3	54.1	43.4	74.0	54.0	-19.9	-10.6
17266.30	2.51	36.74	40.90	H	49.2	38.4	55.9	45.1	74.0	54.0	-18.1	-8.9

Remark :

- (1) Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- (2) Datas of measurement within this frequency range shown “ - ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Emission.
- (4) Spectrum Peak Setting 1GHz- 40GHz, RBW= 1MHz, VBW= 1MHz, Sweep time= 200 ms.
Spectrum AV Setting 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.
- (5) $Emission(dBuV/m) = Reading(dBuV) + Cable\ loss(dB) + Ant.Fact.(dB/m) - Pre-amp.(dB)$

Radiated Spurious Emission Measurement Result (Above 1GHz)

Operation Mode: TX Mode(5.8GHz Band) Test Date : Mar. 07 2003
 Channel : High(IEEE802.11a,Turbo Mode) Test By: James
 Temperature : 23 Pol: Ver./Hor
 Humidity : 58 % Test Host: BENQ

Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre-amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
5850.30	1.37	37.25	32.42	V	53.2	40.1	49.7	36.6	74.0	54.0	-24.3	-17.4
11597.10	1.94	36.89	39.90	V	51.4	40.8	56.3	45.7	74.0	54.0	-17.7	-8.3
17399.40	2.43	36.80	41.49	V	54.0	42.1	61.1	49.2	74.0	54.0	-12.9	-4.8
5850.10	1.37	37.25	32.42	H	48.6	36.1	45.1	32.6	74.0	54.0	-28.9	-21.4
11602.10	1.95	36.90	39.88	H	50.0	39.0	54.9	43.9	74.0	54.0	-19.1	-10.1
17391.10	2.43	36.80	41.49	H	49.8	38.0	56.9	45.1	74.0	54.0	-17.1	-8.9

Remark :

- (1) Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- (2) Datas of measurement within this frequency range shown “ - ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Emission.
- (4) Spectrum Peak Setting 1GHz- 40GHz, RBW= 1MHz, VBW= 1MHz, Sweep time= 200 ms.
Spectrum AV Setting 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.
- (5) Emission(dBuV/m)=Reading(dBuV)+Cable loss(dB)+Ant.Fact.(dB/m)-Pre-amp.(dB)

6. AC POWER LINE CONDUCTED EMISSION TEST

6.1 Standard Applicable

According to §5.207, frequency within 150KHz to 30MHz shall not exceed

Frequency range MHz	Limits dB(uV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

Note

- 1.The lower limit shall apply at the transition frequencies
- 2.The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

6.2 EUT Setup

1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI C63.4-2000.
2. The EUT was plug-in the host Notebook via PCMCIA port. The host Notebook system was placed on the center of the back edge on the test table. The peripherals like printer, K/B, and mouse were placed on the side of the host Notebook system. The rear of the EUT and peripherals were placed flushed with the rear of the tabletop.
3. The keyboard was placed directly in the front of the Notebook, flushed with the front tabletop. The mouse was placed next to the Keyboard, flushed with the back of keyboard.
4. The spacing between the peripherals was 10 centimeters.
5. External I/O cables were draped along the edge of the test table and bundle when necessary.
6. The host Notebook system was connected with 110Vac/60Hz power source.

6.3 Measurement Procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.



6.4 Measurement Equipment Used:

Conducted Emission Test Site # 3					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EMI Test Receiver	R&S	ESHS30	828144/003	08/08/2002	08/07/2003
LISN	R&S	ESH2-Z5	843285/010	10/17/2002	10/16/2003
LISN	EMCO	3825/2	9003-1628	07/26/2002	07/25/2003
Spectrum Analyzer	ADVANTEST	R3261A	91720031	N/A	N/A
2X2 WIRE ISN	R&S	ENY22	100020	06/20/2002	06/19/2003
FOUR WIRE ISN	R&S	ENY41	100006	06/20/2002	06/19/2003

6.5 Measurement Result

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

Operation Mode: TX + RX Mode
 Temperature : 23
 Humidity : 58%

Test Date : Mar. 06 2003
 Test By: James
 Test host: IBM

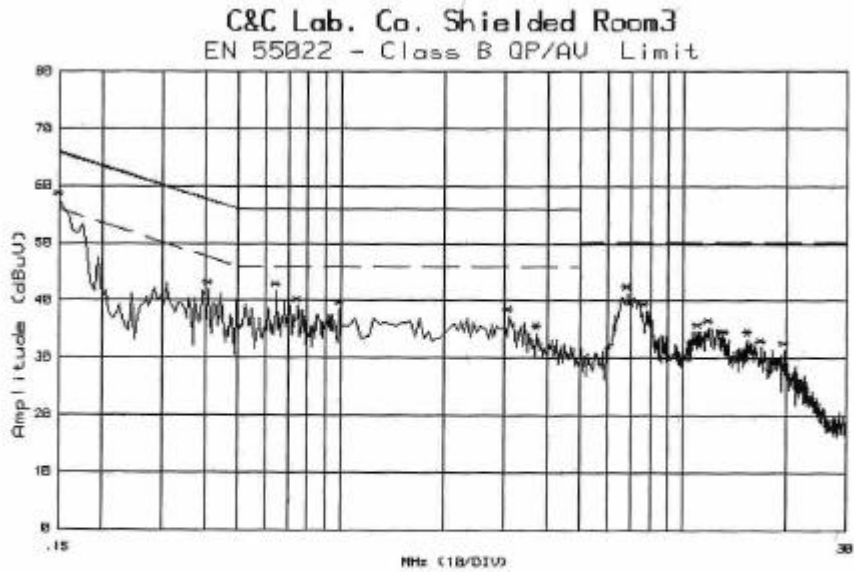
FREQ. (MHz)	Correct. Factor (dB)	Q.P. Read Value (dBuV)	AV. Read Value (dBuV)	Emission Level(Q.P.) (dBuV)	Emission Level(AV.) (dBuV)	Q.P. Limit (dBuV)	AV. Limit (dBuV)	Result	NOTE
0.152	0.3	52.0	36.8	52.3	37.1	65.89	55.89	PASS	L1
0.648	0.4	32.5	28.1	32.9	28.5	56.00	46.00	PASS	L1
0.998	0.4	34.0	31.8	34.4	32.2	56.00	46.00	PASS	L1
6.902	0.5	36.6	32.1	37.1	32.6	60.00	50.00	PASS	L1
11.957	0.5	27.4	21.2	27.9	21.7	60.00	50.00	PASS	L1
19.750	0.5	21.8	15.7	22.3	16.2	60.00	50.00	PASS	L1
0.150	0.3	50.8	30.0	51.1	30.3	66.00	56.00	PASS	L2
0.715	0.4	32.5	24.8	32.9	25.2	56.00	46.00	PASS	L2
1.934	0.4	33.0	30.4	33.4	30.8	56.00	46.00	PASS	L2
16.200	0.5	27.6	22.0	28.1	22.5	60.00	50.00	PASS	L2
18.752	0.5	31.7	26.2	32.2	26.7	60.00	50.00	PASS	L2
22.631	0.5	30.2	25.2	30.7	25.7	60.00	50.00	PASS	L2

Remark :

- (1) Measuring frequencies from 0.15 MHz to 30MHz,
- (2) The emissions measured in frequency range from 0.15 MHz to 30MHz were made with an instrument using Quasi-Peak detector and Average detector.
- (3) “---” denotes the emission level was or more than 2dB below the Average limit, so no re-check anymore.
- (4) The IF bandwidth of SPA between 0.15MHz to 30MHz was 10KHz;
The IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9KHz;
- (5) L1 = Line One (Hot side) / L2 = Line Two (Neutral side)

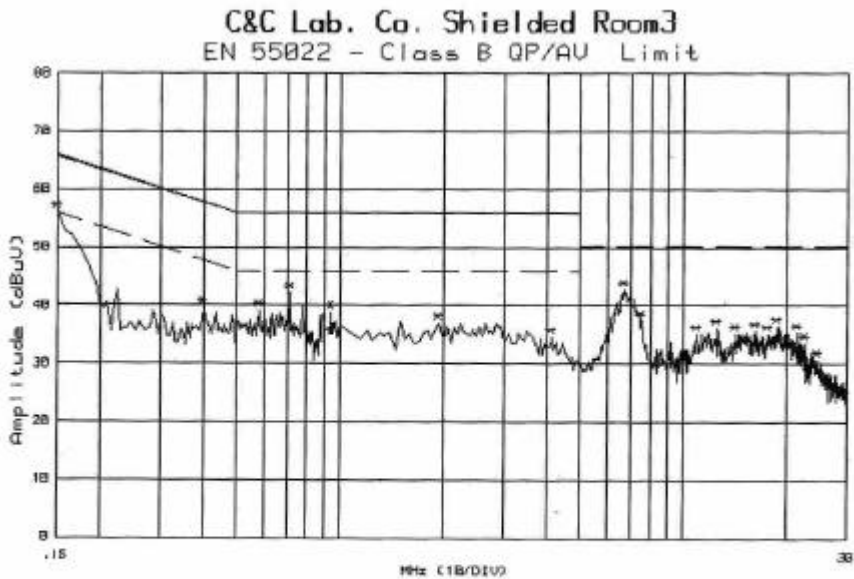


Conducted Emission Test Data L1



Customer:WINSTRON File#: 1501 Date : 6 Mar 2003 06:24:53
Model :WLAN(IBM) Humd.:58 (%) Temp. :23 (C)
Mode : Port :L1 Tested by:JAMES_LEE
Reading :Peak(R&S Receiver)
Remark :

Conducted Emission Test Data L2



Customer:WINSTRON File#: 1502 Date : 6 Mar 2003 06:32:39
Model :WLAN(IBM) Humd.:58 (%) Temp. :23 (C)
Mode : Port :L2 Tested by:JAMES_LEE
Reading :Peak(R&S Receiver)
Remark :

Operation Mode: TX + RX Mode
 Temperature : 23
 Humidity : 58%

Test Date : Mar. 06 2003
 Test By: James
 Test host: TOSHIBA

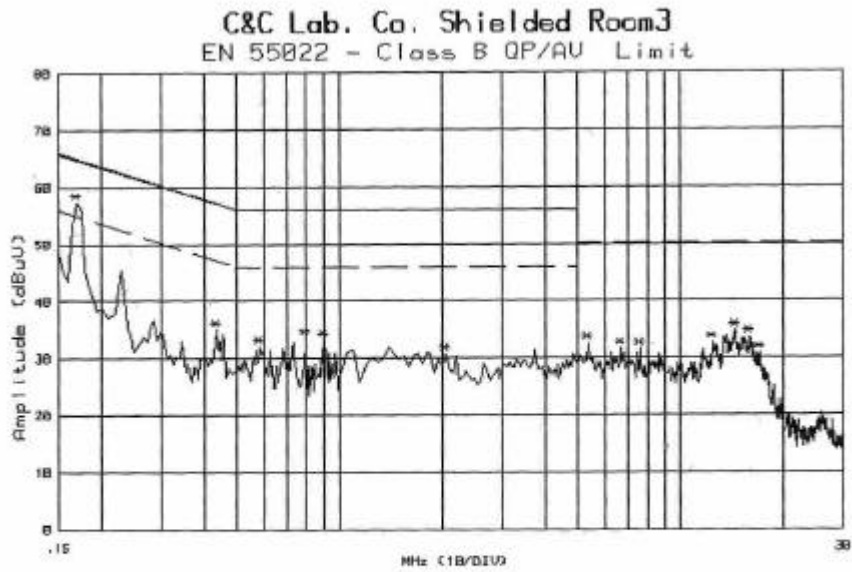
FREQ. (MHz)	Correct. Factor (dB)	Q.P. Read Value (dBuV)	AV. Read Value (dBuV)	Emission Level(Q.P.) (dBuV)	Emission Level(AV.) (dBuV)	Q.P. Limit (dBuV)	AV. Limit (dBuV)	Result	NOTE
0.159	0.3	46.2	32.6	46.5	32.9	65.52	55.52	PASS	L1
0.431	0.4	30.0	28.2	30.4	28.6	57.23	47.23	PASS	L1
0.808	0.4	26.3	20.9	26.7	21.3	56.00	46.00	PASS	L1
7.607	0.5	21.6	15.3	22.1	15.8	60.00	50.00	PASS	L1
12.449	0.5	27.8	22.7	28.3	23.2	60.00	50.00	PASS	L1
17.150	0.5	21.9	16.4	22.4	16.9	60.00	50.00	PASS	L1
0.153	0.3	47.8	36.1	48.1	36.4	65.84	55.84	PASS	L2
0.539	0.4	30.2	26.3	30.6	26.7	56.00	46.00	PASS	L2
0.857	0.4	27.3	23.5	27.7	23.9	56.00	46.00	PASS	L2
6.746	0.4	23.2	17.5	23.6	17.9	60.00	50.00	PASS	L2
12.400	0.5	28.0	22.9	28.5	23.4	60.00	50.00	PASS	L2
15.949	0.5	24.0	17.9	24.5	18.4	60.00	50.00	PASS	L2

Remark :

- (1) Measuring frequencies from 0.15 MHz to 30MHz,
- (2) The emissions measured in frequency range from 0.15 MHz to 30MHz were made with an instrument using Quasi-Peak detector and Average detector.
- (3) “---” denotes the emission level was or more than 2dB below the Average limit, so no re-check anymore.
- (4) The IF bandwidth of SPA between 0.15MHz to 30MHz was 10KHz;
The IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9KHz;
- (5) L1 = Line One (Hot side) / L2 = Line Two (Neutral side)

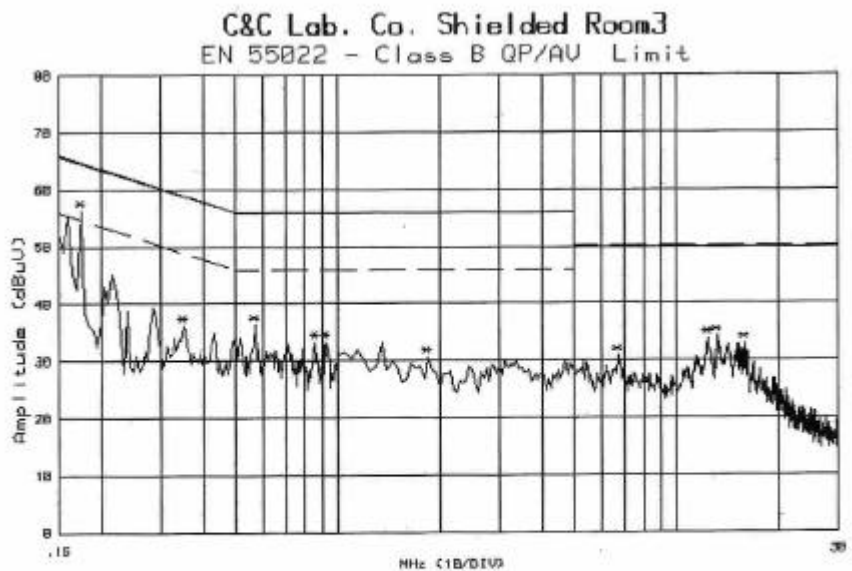


Conducted Emission Test Data L1



Customer:WINSTRON File#: 1499 Date : 6 Mar 2003 06:02:48
Model :WLAN(TOSHIBA) Humd.:58 (%) Temp. :23 (C)
Mode : Port :L1 Tested by:JAMES_LEE
Reading :Peak(R&S Receiver)
Remark :

Conducted Emission Test Data L2



Customer:WINSTRON File#: 1500 Date : 6 Mar 2003 06:10:53
Model :WLAN(TOSHIBA) Humd.:58 (%) Temp. :23 (C)
Mode : Port :L2 Tested by:JAMES_LEE
Reading :Peak(R&S Receiver)
Remark :

Operation Mode: TX + RX Mode
 Temperature : 23
 Humidity : 58%

Test Date : Mar. 06 2003
 Test By: James
 Test host: BENQ

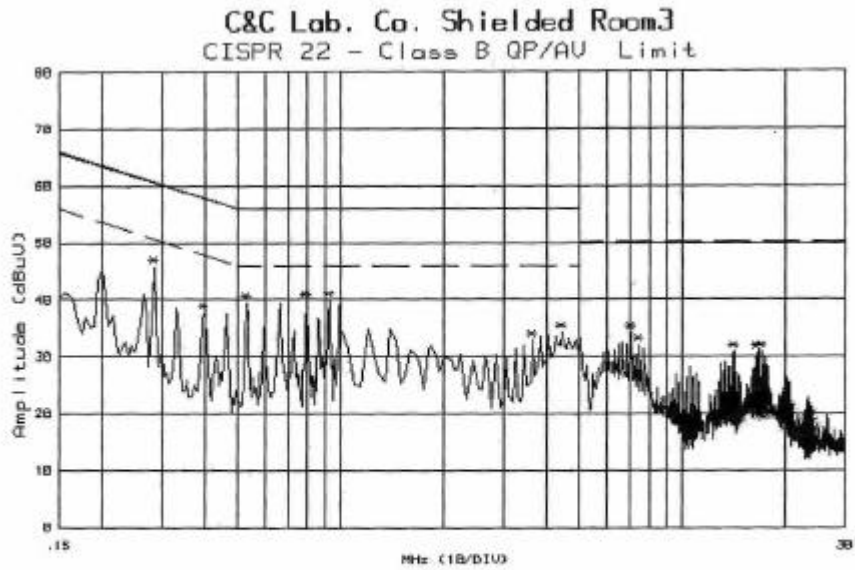
FREQ. (MHz)	Correct. Factor (dB)	Q.P. Read Value (dBuV)	AV. Read Value (dBuV)	Emission Level(Q.P.) (dBuV)	Emission Level(AV.) (dBuV)	Q.P. Limit (dBuV)	AV. Limit (dBuV)	Result	NOTE
0.198	0.4	42.3	35.1	42.7	35.5	63.69	53.69	PASS	L1
0.529	0.4	38.0	34.1	38.4	34.5	56.00	46.00	PASS	L1
0.928	0.4	38.8	35.1	39.2	35.5	56.00	46.00	PASS	L1
3.646	0.4	31.5	27.7	31.9	28.1	56.00	46.00	PASS	L1
7.094	0.5	28.8	23.0	29.3	23.5	60.00	50.00	PASS	L1
17.037	0.5	27.5	20.0	28.0	20.5	60.00	50.00	PASS	L1
0.199	0.4	38.9	33.2	39.3	33.6	63.65	53.65	PASS	L2
0.463	0.4	38.1	32.6	38.5	33.0	56.64	46.64	PASS	L2
0.795	0.4	37.8	34.2	38.2	34.6	56.00	46.00	PASS	L2
2.451	0.4	31.4	25.0	31.8	25.4	56.00	46.00	PASS	L2
17.093	0.5	28.4	20.9	28.9	21.4	56.00	50.00	PASS	L2

Remark :

- (1) Measuring frequencies from 0.15 MHz to 30MHz,
- (2) The emissions measured in frequency range from 0.15 MHz to 30MHz were made with an instrument using Quasi-Peak detector and Average detector.
- (3) “---” denotes the emission level was or more than 2dB below the Average limit, so no re-check anymore.
- (4) The IF bandwidth of SPA between 0.15MHz to 30MHz was 10KHz;
The IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9KHz;
- (5) L1 = Line One (Hot side) / L2 = Line Two (Neutral side)

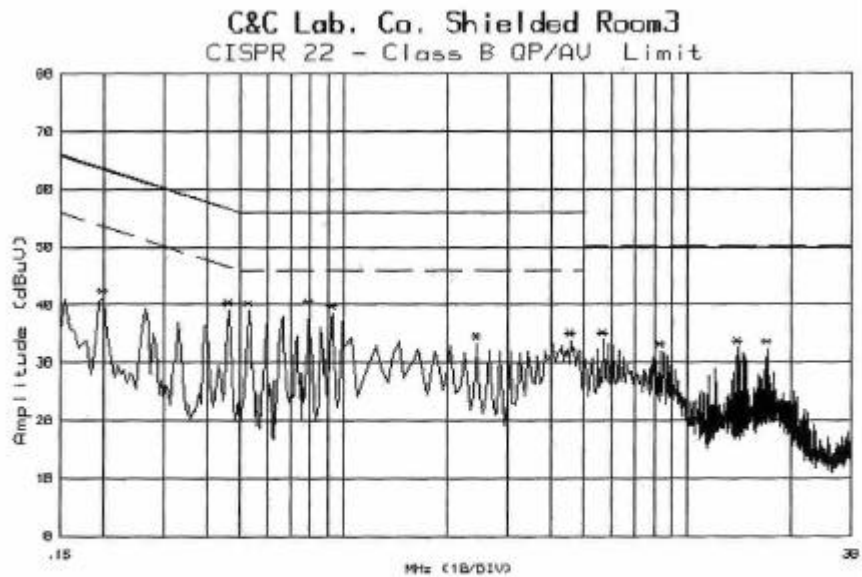


Conducted Emission Test Data L1



Customer:WINSTRON File#: 1497 Date : 6 Mar 2003 05:40:43
Model :WLAN(BENQ) Humd.:58 (%) Temp. :23 (C)
Mode : Port :L1 Tested by:JAMES_LEE
Reading :Peak(R&S Receiver)
Remark :

Conducted Emission Test Data L2



Customer:WINSTRON File#: 1498 Date : 6 Mar 2003 05:48:32
Model :WLAN(BENQ) Humd.:58 (%) Temp. :23 (C)
Mode : Port :L2 Tested by:JAMES_LEE
Reading :Peak(R&S Receiver)
Remark :

7. 6 dB Bandwidth Measurement

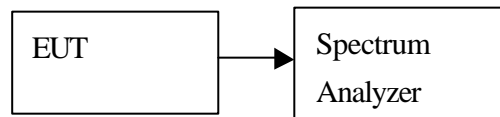
7.1 Standard Applicable

According to §15.247(a)(2), DSSS Systems operating in the 2400MHz-2483.5 MHz and 5725MHz – 5850MHz bands. The Minimum 6dB bandwidth shall be at least 500KHz.

7.2 Measurement Equipment Used:

EQUIPMENT TYPE	MFR	Model No.	Serial No.	LAST CAL.	Cal. Due.
Spectrum Analyzer	Advantest	R3182	110600647	11/16/2002	11/15/2003
Spectrum Analyzer	R&S	FSP30	1093.4495.30	07/23/2002	07/22/2003

7.3 Test Set-up:



The EUT was connected to a spectrum analyzer through a 50 RF cable.

7.4 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW=100KHz, VBW = RBW, Span= Applicable Span, Sweep=auto
4. Mark the peak frequency and –6dB (upper and lower) frequency.
5. Repeat above procedures until all frequency measured were complete.

7.5 Measurement Result**2.4 GHz Band, IEEE802.11b Mode**

Channel	Frequency (MHz)	6dB Down BW (kHz)	Minimum Limit (kHz)	Margin (kHz)
Low	2412	11600	500	11100
Middle	2437	11760	500	11260
High	2462	11760	500	11260

2.4 GHz Band, IEEE802.11g Mode

Channel	Frequency (MHz)	6dB Down BW (kHz)	Minimum Limit (kHz)	Margin (kHz)
Low	2412	16500	500	16000
Middle	2437	16500	500	16000
High	2462	16500	500	16000

2.4 GHz Band, IEEE802.11g Turbo Mode

Channel	Frequency (MHz)	6dB Down BW (kHz)	Minimum Limit (kHz)	Margin (kHz)
Middle	2437	32820	500	32320

5.8 GHz Band, IEEE802.11a Normal Mode

Channel	Frequency (MHz)	6dB Down BW (kHz)	Minimum Limit (kHz)	Margin (kHz)
Low	5745	16480	500	15920
Middle	5785	16520	500	16020
High	5825	16520	500	16020

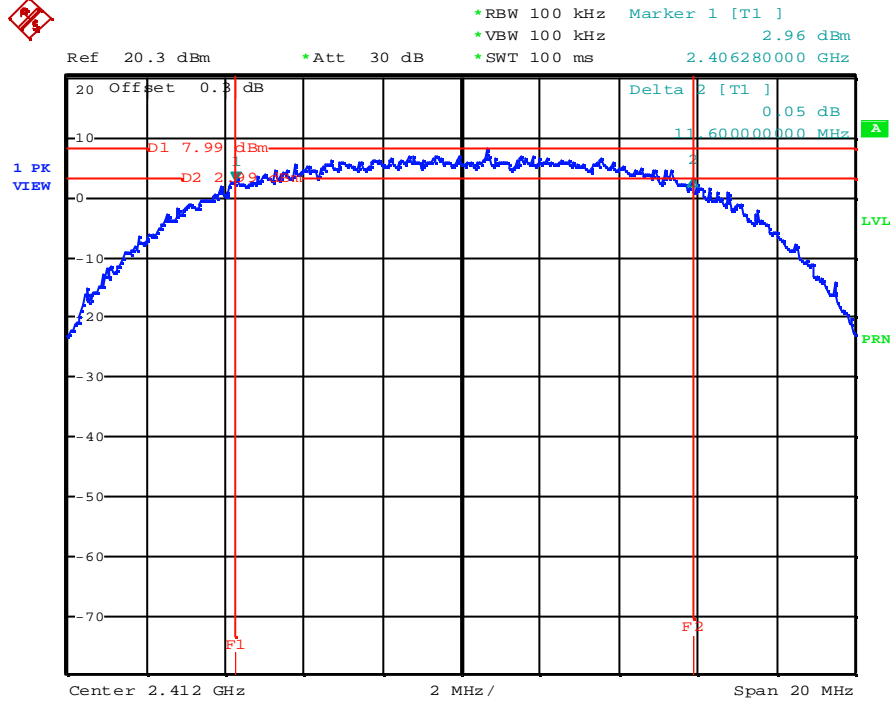
5.8 GHz Band, IEEE802.11a Turbo Mode

Channel	Frequency (MHz)	6dB Down BW (kHz)	Minimum Limit (kHz)	Margin (kHz)
Low	5760	32720	500	32220
High	5800	32720	500	32229



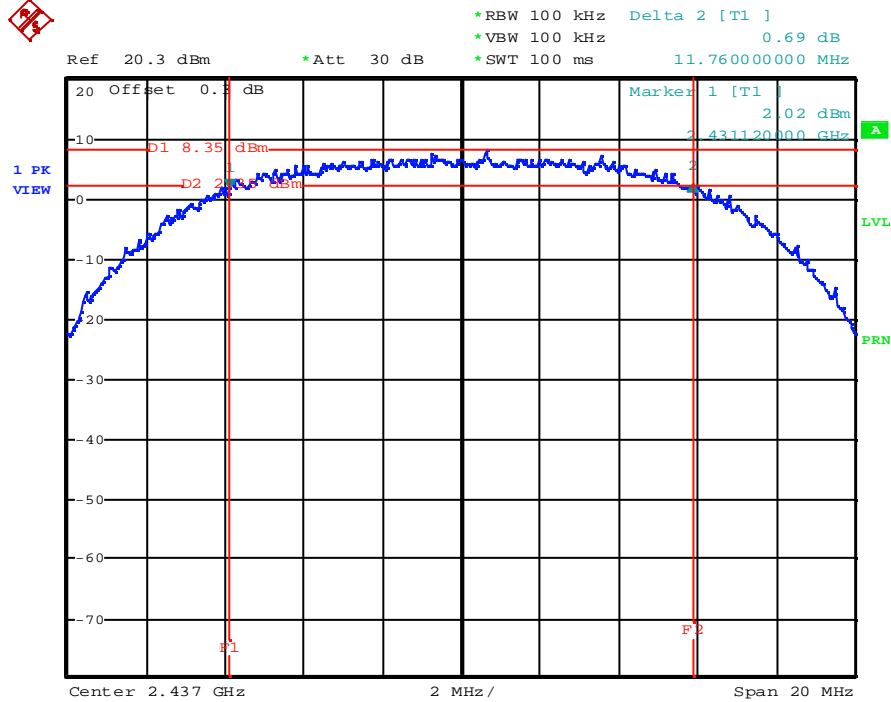
2.4GHz Band, IEEE802.11b Mode

6dB Band Width Test Data CH-Low



Date: 20.FEB.2003 11:17:09

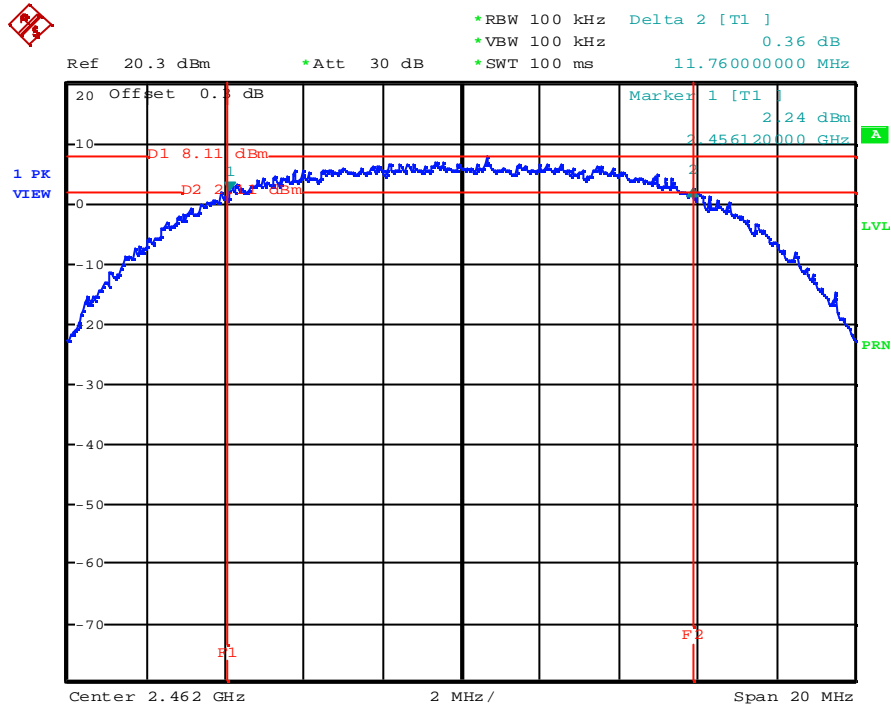
6dB Band Width Test Data CH-Middle



Date: 20.FEB.2003 11:22:16



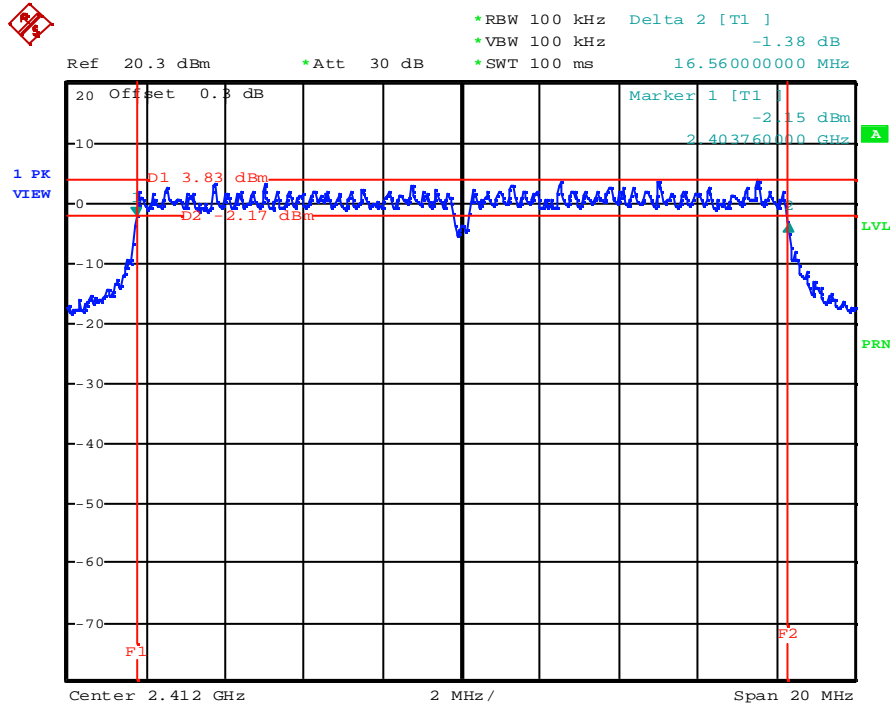
6dB Band Width Test Data CH-High



Date: 20.FEB.2003 11:11:37

2.4GHz Band, IEEE802.11g Mode

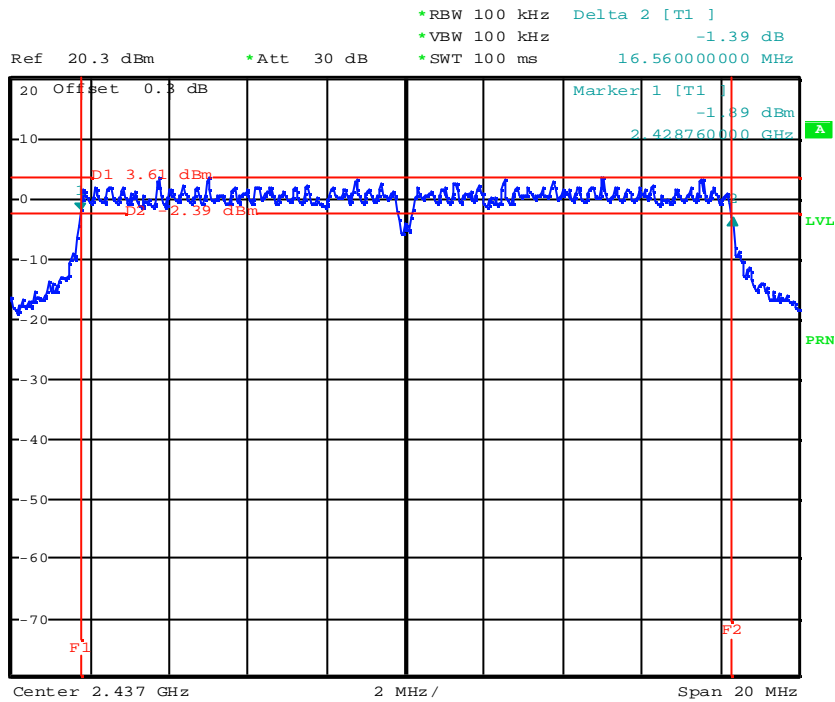
6dB Band Width Test Data CH-Low



Date: 20.FEB.2003 12:43:13

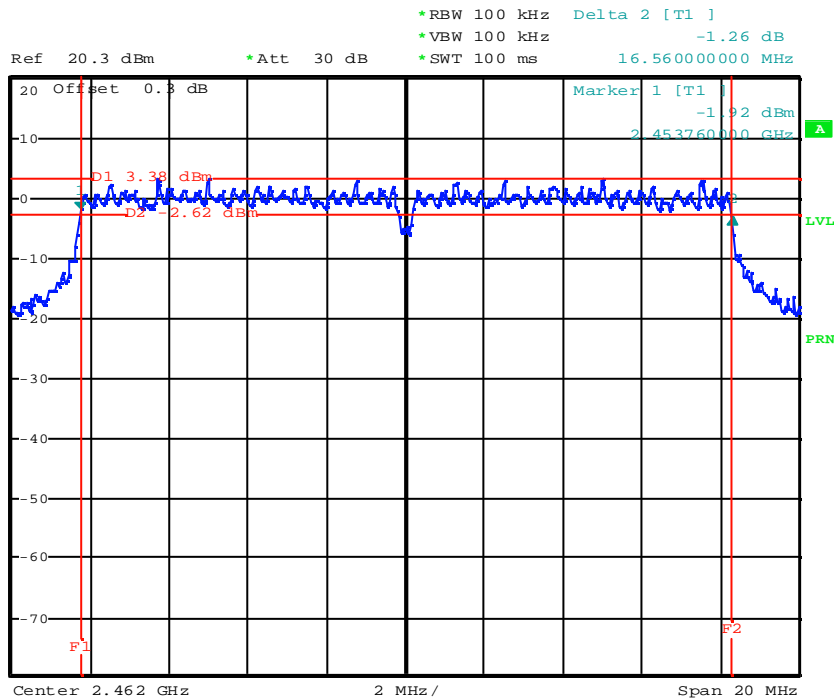


6dB Band Width Test Data CH-Middle



Date: 20.FEB.2003 12:45:54

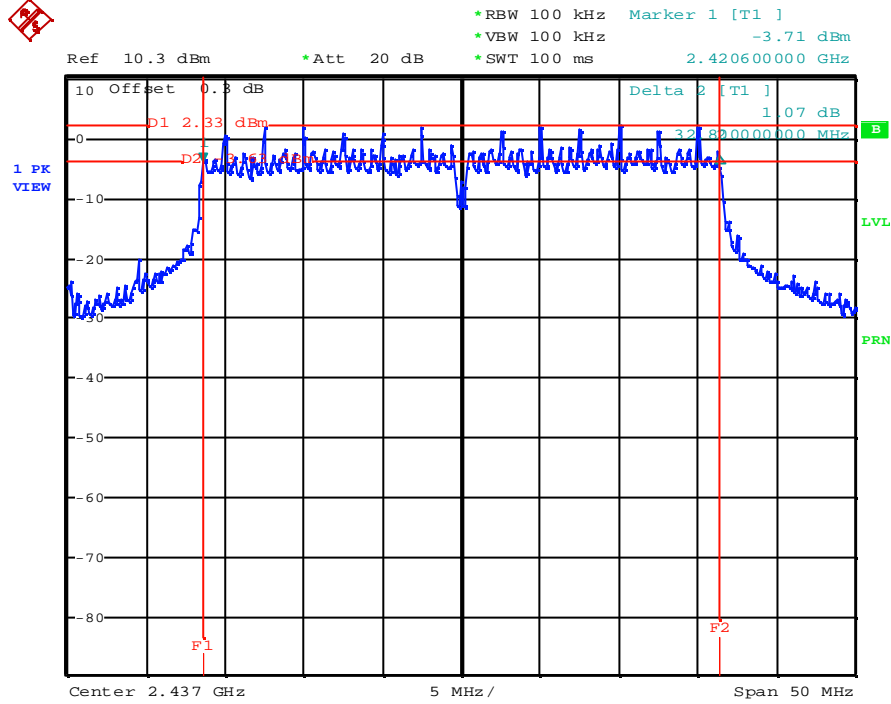
6dB Band Width Test Data CH-High



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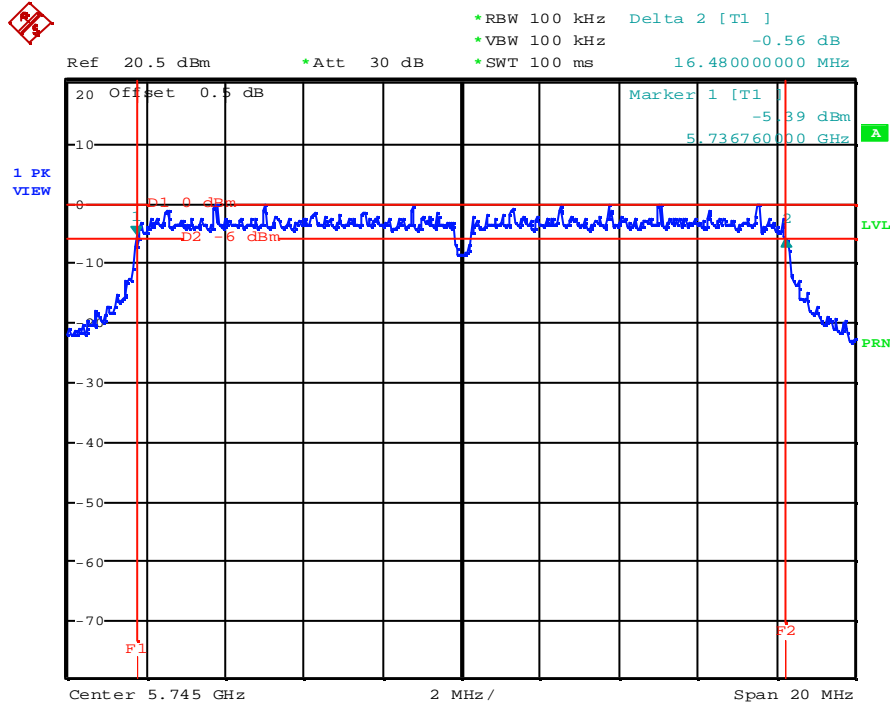


2.4GHz Band, IEEE802.11g Turbo Mode 6dB Band Width Test Data CH-Middle



Date: 25.FEB.2003 13:25:04

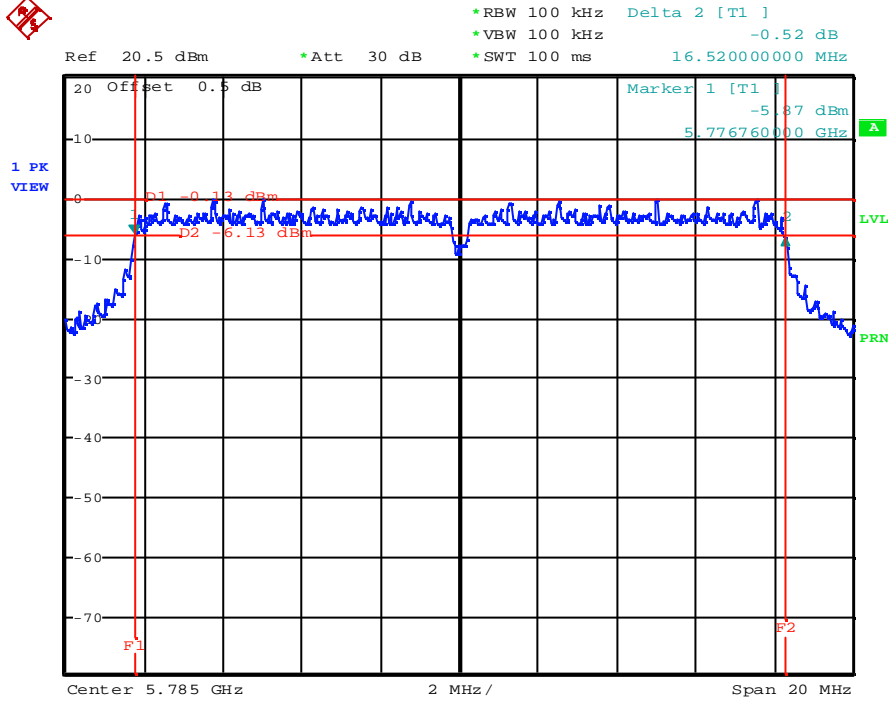
5.8GHz Band, IEEE802.11a Mode 6dB Band Width Test Data CH-Low



Date: 21.FEB.2003 05:45:39

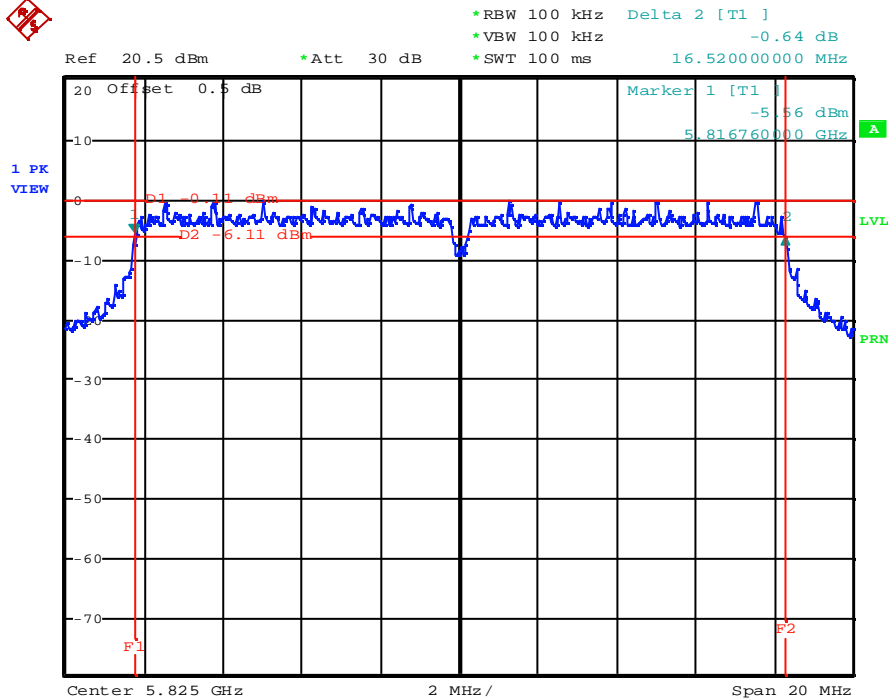


6dB Band Width Test Data CH-Middle



Date: 21.FEB.2003 05:43:41

6dB Band Width Test Data CH-High

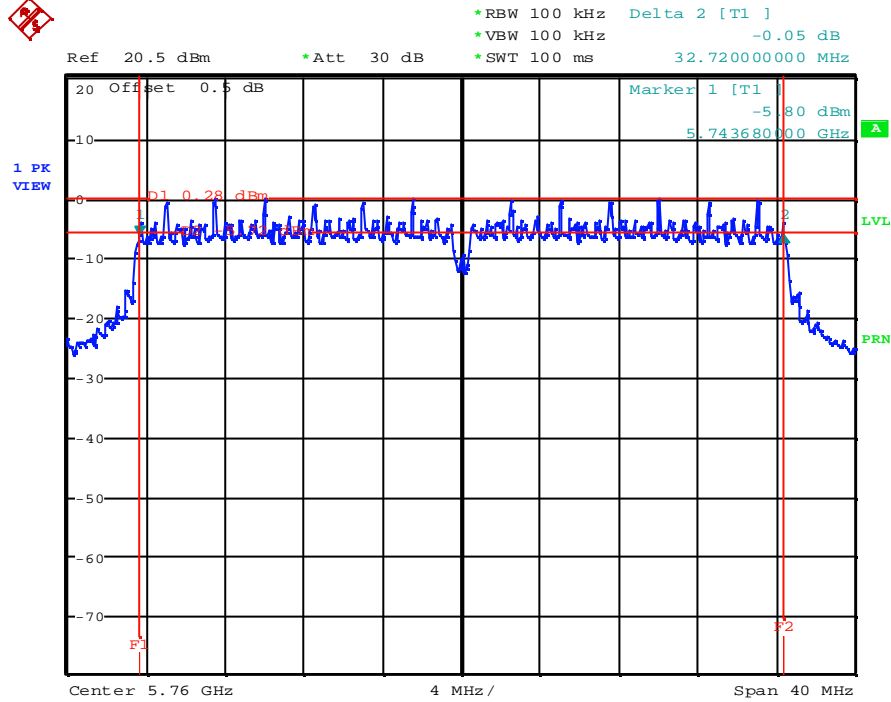


Date: 21.FEB.2003 05:47:42



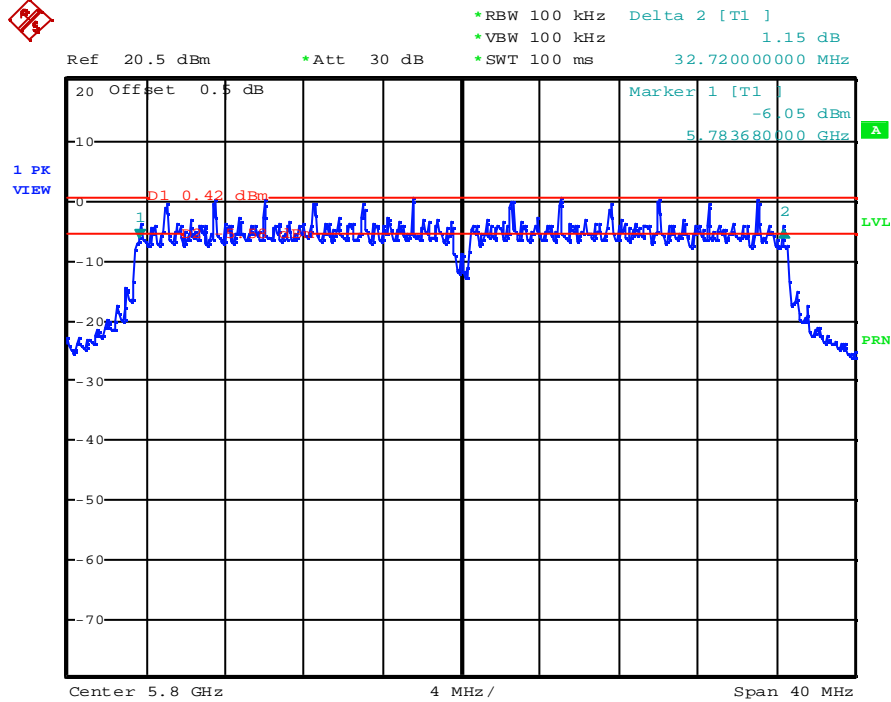
5.8GHz Band, IEEE802.11a Turbo Mode

6dB Band Width Test Data CH-Low



Date: 21.FEB.2003 05:51:28

6dB Band Width Test Data CH-High



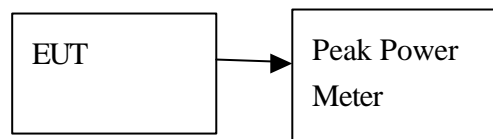
Date: 21.FEB.2003 05:49:37

8. PEAK OUTPUT POWER MEASUREMENT

8.1 Standard Applicable

According to §15.247(b)(2), for direct sequence systems, the maximum peak output power of the intentional radiator shall not exceed 1 Watt.

8.2 Test Setup



The EUT was connected to a power meter through a 50 RF cable.

8.3 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter or spectrum. (Channel power function, RBW, VBW = 1MHz, Bandwidth=26dB occupied Bandwidth)
3. Record the max. reading.
4. Repeat above procedures until all frequency measured were complete.

8.4 Measurement Equipment Used:

EQUIPMENT TYPE	MFR	Model No.	Serial No.	LAST CAL.	Cal. Due.
Power meter	BOONTON	4531	130601	1/03/2003	1/02/2004
Peak Power Sensor	BOONTON	56218	2240	1/03/2003	1/02/2004

8.5 Test Results:

2.4 GHz Band, IEEE802.11b Mode

Channel	Frequency (MHz)	Peak Power (dBm)	Average Power (dBm)Note1	Limit (dBm)	Margin (dB)
Low	2412	19.81	17.65	30	-10.19
Middle	2437	19.86	17.24	30	-10.14
High	2462	19.37	17.16	30	-10.63

2.4 GHz Band, IEEE802.11g Mode

Channel	Frequency (MHz)	Peak Power (dBm)	Average Power (dBm)Note1	Limit (dBm)	Margin (dB)
Low	2412	20.64	14.27	30	-9.36
Middle	2437	20.25	13.27	30	-9.75
High	2462	20.05	13.50	30	-9.95

2.4 GHz Band, IEEE802.11g TURBO Mode

Channel	Frequency (MHz)	Peak Power (dBm)	Average Power (dBm)Note1	Limit (dBm)	Margin (dB)
Middle	2437	19.31	13	30	-10.69

5.8 GHz Band, IEEE802.11a Mode

Channel	Frequency (MHz)	Peak Power (dBm)	Average Power (dBm)Note1	Limit (dBm)	Margin (dB)
Low	5745	20.29	11.62	30	-9.71
Middle	5785	20.34	12.01	30	-9.66
High	5825	20.16	11.52	30	-9.84

5.8 GHz Band, IEEE802.11a Turbo Mode

Channel	Frequency (MHz)	Peak Power (dBm)	Average Power (dBm)Note1	Limit (dBm)	Margin (dB)
Low	5760	18.90	11.64	30	-11.10
High	5800	18.91	11.73	30	-11.09

Note:

1.The average power was reporting in the test report.

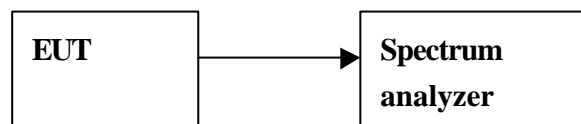
9. 100KHz BANDWIDTH OF BAND EDGES MEASUREMENT

9.1 Standard Applicable

According to §15.247(c), in any 100 KHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100KHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

9.2 Test Setup

1. Conducted test



The EUT was connected to the spectrum analyzer through a 50 Ω RF cable.

2. Radiation test

The EUT is placed on the wooden table. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4/2000.

9.3 Measurement Procedure

1. Conducted test:

The transmitter output is connected to the spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 100 kHz. The sweep time is coupled.

2. Radiation test

For measurements above 1 GHz, the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

9.4 Measurement Equipment Used:

Open Area Test Site # 3					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	ADVANTEST	R3261A	N/A	03/18/2003	03/17/2004
Spectrum Analyzer	Advantest	R3182	110600647	11/16/2002	11/15/2003
Spectrum Analyzer	ROHDE & SCHWARZ	FSP30	100112	06/29/2002	06/28/2003
EMI Test Receiver	R&S	ESVS20	838804/004	01/04/2003	01/03/2004
Pre-Amplifier	HP	8447D	2944A09173	03/03/2003	03/02/2004
Bi-log Antenna	SCHWAZBECK	VULB9163	145	07/06/2002	07/05/2003
Turn Table	EMCO	2081-1.21	9709-1885	N.C.R	N.C.R
Antenna Tower	EMCO	2075-2	9707-2060	N.C.R	N.C.R
Controller	EMCO	2090	9709-1256	N.C.R	N.C.R
RF Switch	ANRITSU	MP59B	M53867	N.C.R	N.C.R
Site NSA	C&C	N/A	N/A	11/17/2002	11/16/2003
Horn antenna	Schwarzbeck	BBHA 9120	D210	2/23/2003	2/22/2004
Horn antenna	EMCO	3116	2487	11/11/2002	11/10/2003
Pre-Amplifier	HP	8449B	3008B00965	10/01/2002	10/02/2003



9.5 Measurement Result

Refer to attach spectrum analyzer data chart.

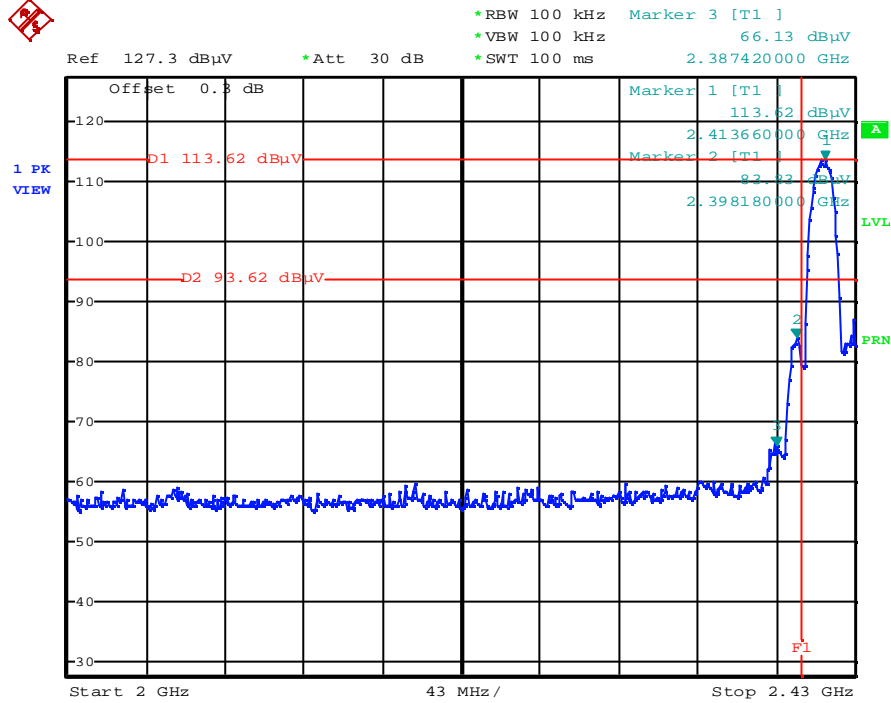
2.4 GHz Band, IEEE802.11b Mode

1. Conducted test

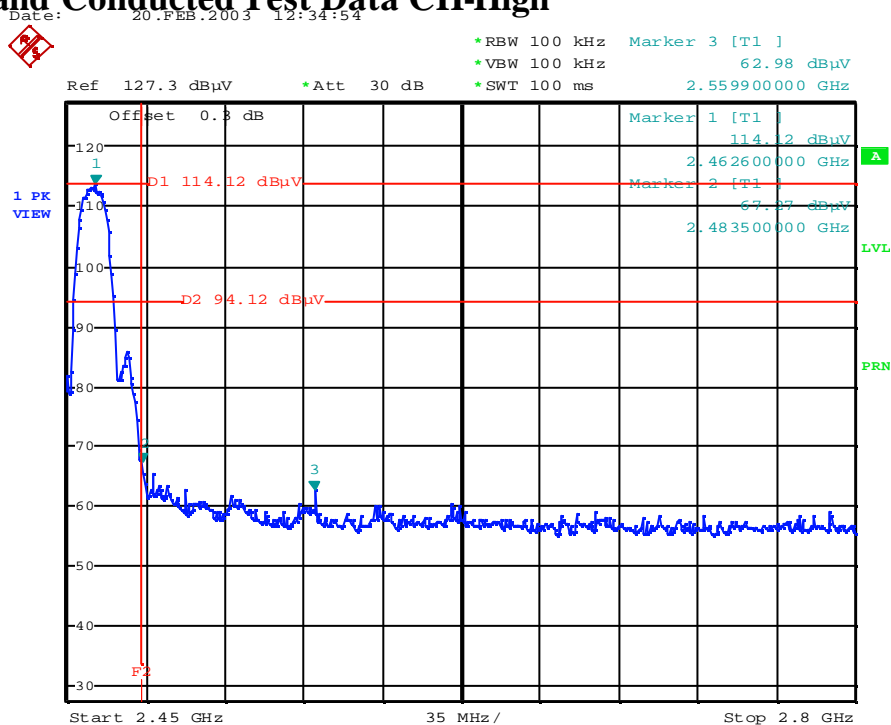
Frequency (MHz)	Emission level (dBuV)	Peak power read value (dBuV)	Result of Band edge (dBc)	Band edge limit (dBc)	Margin(dB)
2387.42	66.13	113.62	50.49	20	-30.49
2398.81	83.83	113.62	29.79	20	-9.79
2483.5	67.27	114.12	46.85	20	-26.85
2559.9	62.98	114.12	51.14	20	-31.14



2.4GHz Band, IEEE802.11b Mode Out of Band Conducted Test Data CH-Low



Out of Band Conducted Test Data CH-High



Date: 20.FEB.2003 12:28:39



2.Radiation test:

Operation Mode:	TX Mode	Test Date :	Mar. 07 2003
Temperature :	23	Test By:	James
Humidity :	58 %	Pol:	Ver./Hor
Test Host:	IBM		

Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre-amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
2387.00	4.42	37.44	27.06	V	64.0	52.4	58.0	46.4	74.0	54.0	-16.0	-7.6
2385.40	4.42	37.44	27.06	H	62.4	53.6	56.4	47.7	74.0	54.0	-17.6	-6.3
2483.50	4.49	37.39	27.34	V	65.3	56.3	59.8	50.7	74.0	54.0	-14.2	-3.3
2528.00	4.55	37.40	27.44	V	63.3	54.2	57.9	48.8	74.0	54.0	-16.1	-5.3
2483.50	4.49	37.39	27.34	H	59.7	50.3	54.1	44.8	74.0	54.0	-19.9	-9.2
2528.40	4.55	37.40	27.44	H	57.0	48.1	51.6	42.6	74.0	54.0	-22.4	-11.4

Operation Mode:	TX Mode	Test Date :	Mar. 07 2003
Temperature :	23	Test By:	James
Humidity :	58 %	Pol:	Ver./Hor
Test Host:	TOSHIBA		

Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre-amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
2387.00	4.42	37.44	27.06	V	62.3	53.8	56.3	47.8	74.0	54.0	-17.7	-6.2
2386.60	4.42	37.44	27.06	H	60.1	51.6	54.1	45.6	74.0	54.0	-19.9	-8.4
2483.50	4.49	37.39	27.34	V	64.9	57.1	59.4	51.5	74.0	54.0	-14.6	-2.5
2483.50	4.49	37.39	27.34	H	60.6	52.8	55.0	47.3	74.0	54.0	-19.0	-6.7



Operation Mode: TX Mode, Test Date : Mar. 07 2003
 Temperature : 23 Test By: James
 Humidity : 58 % Pol: Ver./Hor
 Test Host: BENQ

Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre-amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
2389.00	4.42	37.44	27.06	V	61.3	52.8	55.3	46.8	74.0	54.0	-18.7	-7.2
2386.20	4.42	37.44	27.06	H	69.7	51.0	63.7	45.0	74.0	54.0	-10.3	-9.0
2483.50	4.49	37.39	27.34	V	64.7	56.8	59.1	51.2	74.0	54.0	-14.9	-2.8
2483.50	4.49	37.39	27.34	H	60.2	52.3	54.6	46.7	74.0	54.0	-19.4	-7.3



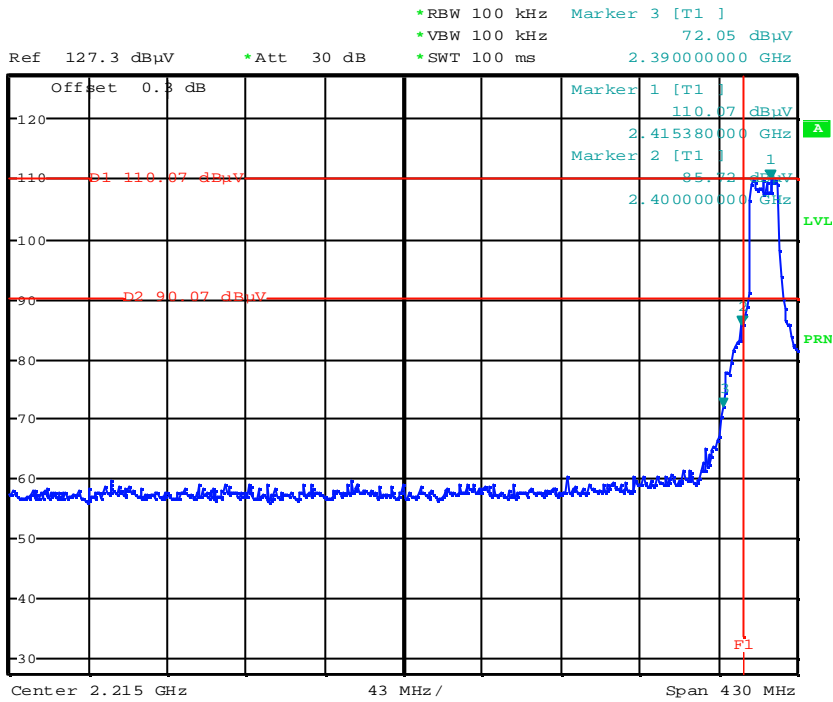
2.4 GHz Band, IEEE802.11G Mode

1. Conducted test

Frequency (MHz)	Emission level (dBuV)	Peak power read value (dBuV)	Result of Band edge (dBc)	Band edge limit (dBc)	Margin(dB)
2390.00	72.05	110.07	38.02	20	-8.02
2400.00	85.72	110.07	24.35	20	-4.35
2483.50	77.12	109.22	32.10	20	-12.10
2490.80	68.36	109.22	40.86	20	-20.86
2560.10	63.82	109.22	45.40	20	-25.40

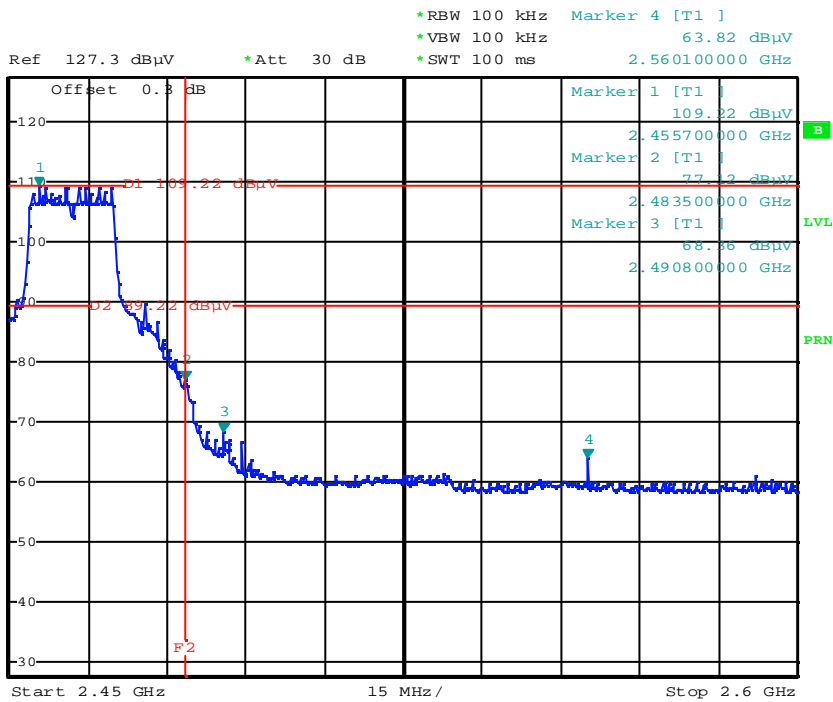


2.4GHz Band, IEEE802.11g Mode Out of Band Conducted Test Data CH-Low



Date: 20.FEB.2003 12:39:23

Out of Band Conducted Test Data CH-High



Date: 26.FEB.2003 07:28:47

2.Radiation test:

Operation Mode: TX Mode Test Date : Mar. 07 2003
 Temperature : 23 Test By: James
 Humidity : 58 % Pol: Ver./Hor
 Test Host: IBM

Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre-amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
2380.00	4.42	37.44	27.06	V	63.2	53.1	57.2	47.1	74.0	54.0	-16.8	-6.9
2390.00	4.43	37.43	27.09	V	76.3	58.2	70.4	52.3	74.0	54.0	-3.6	-1.7
2380.00	4.42	37.44	27.06	H	62.3	51.4	56.3	45.4	74.0	54.0	-17.7	-8.6
2390.00	4.43	37.43	27.09	H	74.8	56.6	68.9	50.7	74.0	54.0	-5.1	-3.3
2483.50	4.49	37.39	27.34	V	75.7	57.8	70.1	52.2	74.0	54.0	-3.9	-1.8
2494.20	4.49	37.38	27.37	V	66.1	53.3	60.6	47.8	74.0	54.0	-13.4	-6.2
2483.50	4.49	37.39	27.34	H	72.0	56.1	66.4	50.5	74.0	54.0	-7.6	-3.5
2494.00	4.49	37.38	27.37	H	60.8	53.2	55.2	47.6	74.0	54.0	-18.8	-6.4



Operation Mode: TX Mode Test Date : Mar. 07 2003
 Temperature : 23 Test By: James
 Humidity : 58 % Pol: Ver./Hor
 Test Host: TOSHIBA

Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre-amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
2379.80	4.41	37.44	27.04	V	62.0	50.6	56.0	44.6	74.0	54.0	-18.0	-9.4
2390.00	4.43	37.43	27.09	V	75.0	58.0	69.1	52.1	74.0	54.0	-4.9	-1.9
2379.20	4.41	37.44	27.04	H	57.0	48.5	51.0	42.5	74.0	54.0	-23.0	-11.5
2390.00	4.43	37.43	27.09	H	72.0	55.6	66.1	49.7	74.0	54.0	-7.9	-4.3
2483.50	4.49	37.39	27.34	V	75.1	57.6	69.5	52.0	74.0	54.0	-4.5	-2.0
2494.10	4.49	37.38	27.37	V	61.1	53.5	55.6	48.0	74.0	54.0	-18.4	-6.0
2483.50	4.49	37.39	27.34	H	73.1	56.0	67.5	50.5	74.0	54.0	-6.5	-3.5

Operation Mode: TX Mode Test Date : Mar. 07 2003
 Temperature : 23 Test By: James
 Humidity : 58 % Pol: Ver./Hor
 Test Host: BENQ

Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre-amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
2381.00	4.42	37.44	27.06	V	62.0	50.3	56.0	44.3	74.0	54.0	-18.0	-9.7
2390.00	4.43	37.43	27.09	V	74.8	57.6	68.9	51.7	74.0	54.0	-5.1	-2.3
2380.00	4.42	37.44	27.06	H	56.8	48.1	50.8	42.1	74.0	54.0	-23.2	-11.9
2390.00	4.43	37.43	27.09	H	71.8	55.2	65.9	49.3	74.0	54.0	-8.1	-4.7
2483.50	4.49	37.39	27.34	V	75.0	57.0	69.4	51.4	74.0	54.0	-4.6	-2.6
2494.00	4.49	37.38	27.37	V	61.0	53.2	55.5	47.7	74.0	54.0	-18.5	-6.3
2483.50	4.49	37.39	27.34	H	73.0	55.8	67.4	50.2	74.0	54.0	-6.6	-3.8



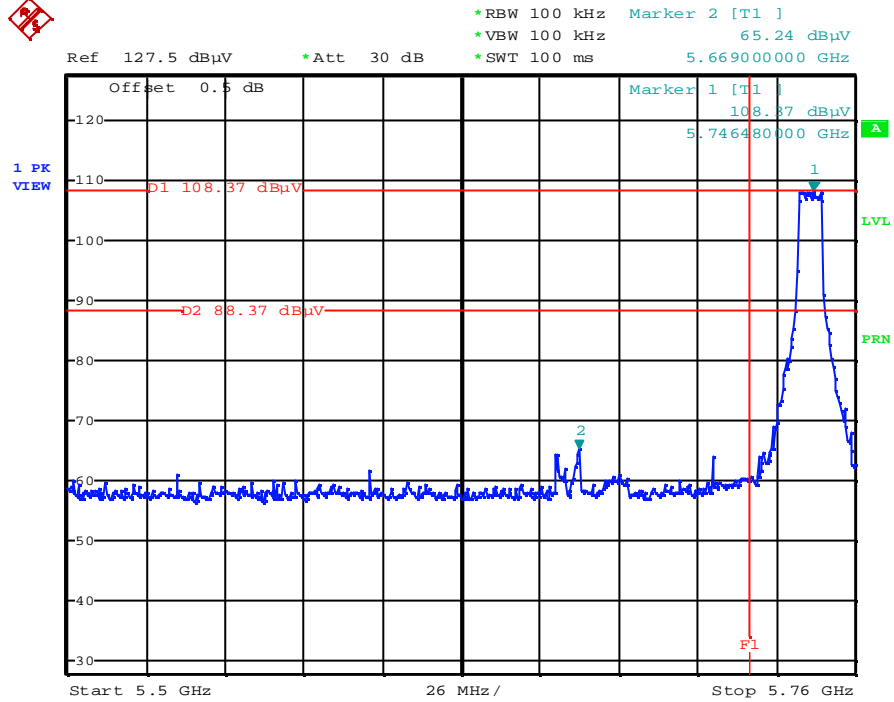
5.8 GHz Band, IEEE802.11a Mode

1. Conducted test

Frequency (MHz)	Emission level (dBuV)	Peak power read value (dBuV)	Result of Band edge (dBc)	Band edge limit (dBc)	Margin(dB)
5669.00	65.24	108.37	43.13	20	-23.13
5856.80	64.87	108.78	43.91	20	-23.91

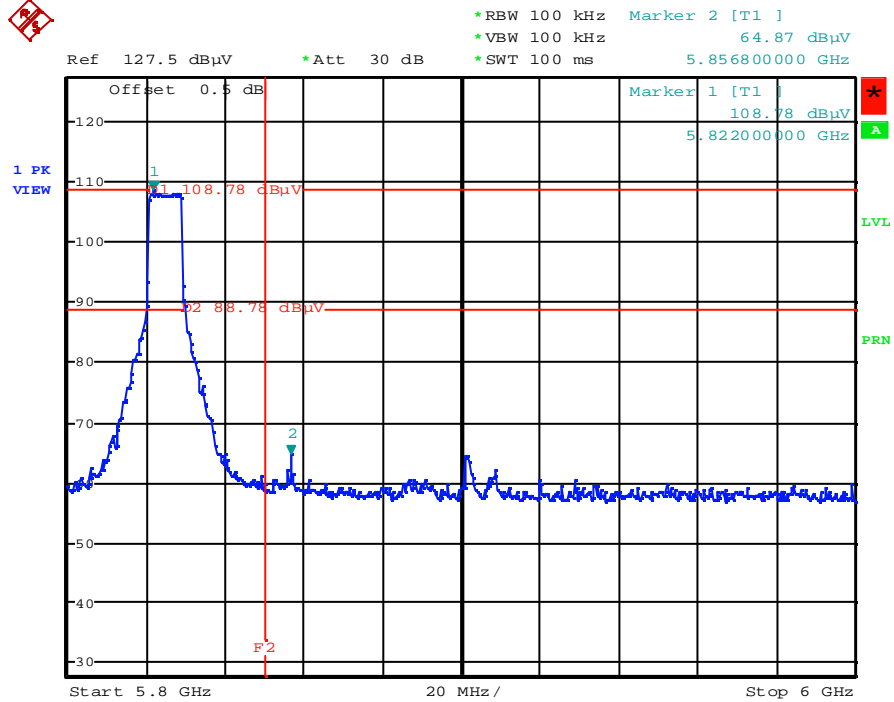


5.8GHz Band, IEEE802.11a Mode Out of Band Conducted Test Data CH-Low



Date: 22.FEB.2003 07:22:58

Out of Band Conducted Test Data CH-High



Date: 22.FEB.2003 07:24:38

2.Radiation test:

Operation Mode: TX Mode Test Date : Mar. 07 2003
 Temperature : 23 Test By: James
 Humidity : 58 % Pol: Ver./Hor
 Test Host: IBM

Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre-amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
5712.80	1.43	37.23	32.25	V	55.8	45.9	52.2	42.4	74.0	54.0	-21.8	-11.6
5725.00	1.43	37.23	32.26	V	67.6	52.1	64.1	48.6	74.0	54.0	-9.9	-5.4
5713.40	1.43	37.23	32.25	H	54.6	43.4	51.1	39.8	74.0	54.0	-22.9	-14.2
5725.00	1.43	37.23	32.26	H	64.4	50.1	60.9	46.6	74.0	54.0	-13.1	-7.4
5850.00	1.37	37.25	32.42	V	63.1	47.1	59.6	43.6	74.0	54.0	-14.4	-10.4
5857.80	1.37	37.25	32.42	V	58.9	47.1	55.4	43.7	74.0	54.0	-18.6	-10.3
5850.00	1.37	37.25	32.42	H	56.5	42.3	53.1	38.9	74.0	54.0	-20.9	-15.1
5857.20	1.37	37.25	32.42	H	51.7	41.7	48.2	38.2	74.0	54.0	-25.8	-15.8

Operation Mode: TX Mode Test Date : Mar. 07 2003
 Temperature : 23 Test By: James
 Humidity : 58 % Pol: Ver./Hor
 Test Host: TOSHIBA

Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre-amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
5713.00	1.43	37.23	32.25	V	56.9	45.1	53.4	41.5	74.0	54.0	-20.6	-12.5
5725.00	1.43	37.23	32.26	V	69.0	54.3	65.5	50.7	74.0	54.0	-8.5	-3.3
5713.20	1.43	37.23	32.25	H	52.2	39.6	48.7	36.1	74.0	54.0	-25.3	-17.9
5725.00	1.43	37.23	32.26	H	63.3	47.0	59.7	43.5	74.0	54.0	-14.3	-10.5
5850.00	1.37	37.25	32.42	V	61.6	45.0	58.1	41.6	74.0	54.0	-15.9	-12.4
5857.00	1.37	37.25	32.42	V	58.6	44.8	55.1	41.3	74.0	54.0	-18.9	-12.7
5850.00	1.37	37.25	32.42	H	54.5	40.1	51.0	36.7	74.0	54.0	-23.0	-17.3
5857.20	1.37	37.25	32.42	H	52.2	39.7	48.8	36.3	74.0	54.0	-25.2	-17.7



Operation Mode: TX Mode
 Temperature : 23
 Humidity : 58 %
 Test Host: BENQ

Test Date : Mar. 07 2003
 Test By: James
 Pol: Ver./Hor

Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre-amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
5713.10	1.43	37.23	32.25	V	56.3	45.0	52.8	41.5	74.0	54.0	-21.2	-12.5
5725.10	1.43	37.23	32.26	V	69.0	54.2	65.5	50.7	74.0	54.0	-8.5	-3.3
5713.10	1.43	37.23	32.25	H	52.1	39.4	48.6	35.9	74.0	54.0	-25.4	-18.1
5725.10	1.43	37.23	32.26	H	63.2	46.8	59.7	43.3	74.0	54.0	-14.3	-10.7
5850.20	1.37	37.25	32.42	V	61.2	44.2	57.7	40.7	74.0	54.0	-16.3	-13.3
5857.10	1.37	37.25	32.42	V	58.3	44.5	54.8	41.0	74.0	54.0	-19.2	-13.0
5849.90	1.37	37.25	32.41	H	54.5	40.1	51.0	36.6	74.0	54.0	-23.0	-17.4
5857.20	1.37	37.25	32.42	H	52.1	39.6	48.6	36.1	74.0	54.0	-25.4	-17.9



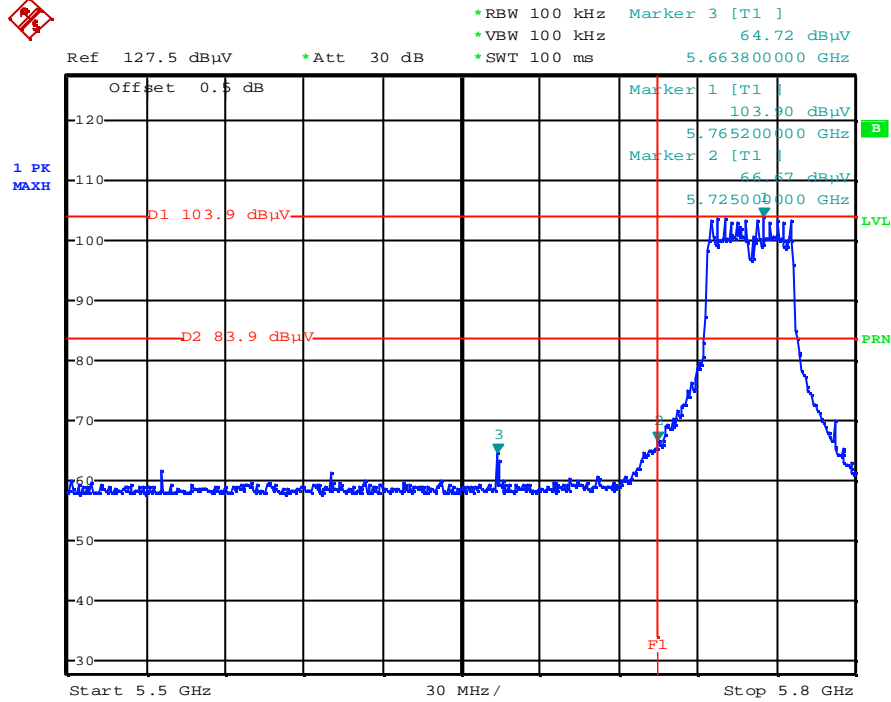
5.8 GHz Band, IEEE802.11a TURBO Mode

1. Conducted test

Frequency (MHz)	Emission level (dBuV)	Peak power read value (dBuV)	Result of Band edge (dBc)	Band edge limit (dBc)	Margin(dB)
5663.80	64.72	103.9	39.19	20	-19.19
5725.00	66.67	103.9	37.23	20	-17.23
5854.50	62.65	107.06	44.41	20	-24.41

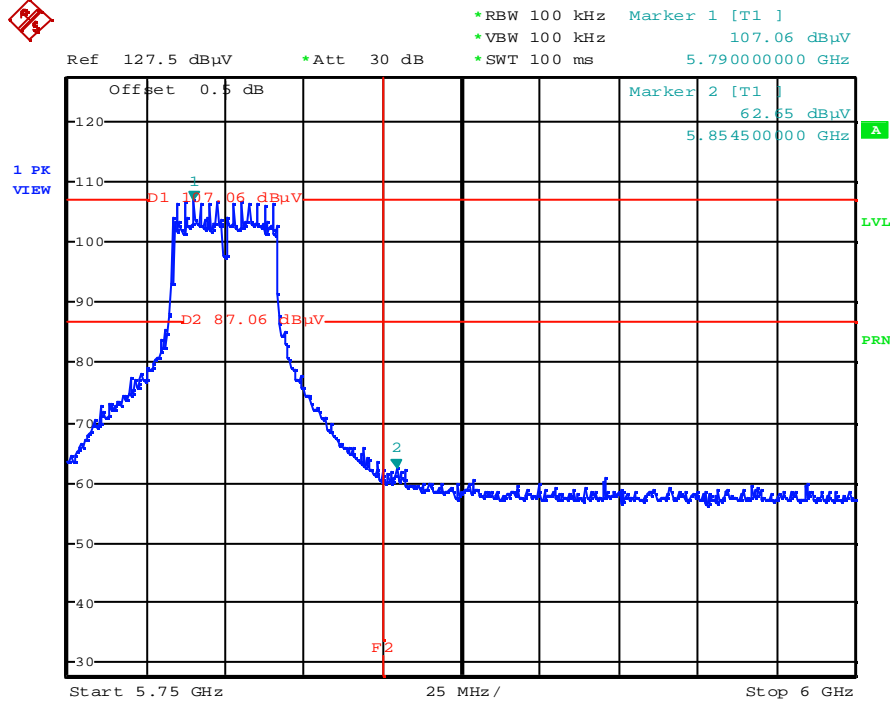


5.8GHz Band, IEEE802.11a Turbo Mode Out of Band Conducted Test Data CH-Low



Date: 24.FEB.2003 13:53:42

Out of Band Conducted Test Data CH-High



Date: 22.FEB.2003 07:17:01

2. Radiation test:

Operation Mode: TX Mode Test Date : Mar. 07 2003
 Temperature : 23 Test By: James
 Humidity : 58 % Pol: Ver./Hor
 Test Host: IBM

Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre-amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
5725.00	1.43	37.23	32.26	V	65.5	53.7	62.0	50.2	74.0	54.0	-12.0	-3.8
5725.00	1.43	37.23	32.26	H	62.8	50.7	59.3	47.2	74.0	54.0	-14.7	-6.8
5850.00	1.37	37.25	32.42	V	54.7	43.0	51.3	39.5	74.0	54.0	-22.7	-14.5
5850.00	1.37	37.25	32.42	H	49.7	49.7	46.2	46.2	74.0	54.0	-27.8	-7.8

Operation Mode: TX Mode Test Date : Mar. 07 2003
 Temperature : 23 Test By: James
 Humidity : 58 % Pol: Ver./Hor
 Test Host: TOSHIBA

Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre-amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
5725.00	1.43	37.23	32.26	V	67.0	54.8	63.5	51.2	74.0	54.0	-10.5	-2.8
5725.00	1.43	37.23	32.26	H	59.0	47.0	55.5	43.5	74.0	54.0	-18.5	-10.5
5850.00	1.37	37.25	32.42	V	53.5	40.4	50.1	36.9	74.0	54.0	-23.9	-17.1
5850.00	1.37	37.25	32.42	H	48.9	36.4	45.4	32.9	74.0	54.0	-28.6	-21.1

Operation Mode: TX Mode Test Date : Mar. 07 2003
 Temperature : 23 Test By: James
 Humidity : 58 % Pol: Ver./Hor
 Test Host: BENQ



Frequency (MHz)	Cable loss (dB)	Ant. Fact (dB/m)	Pre -amp (dB)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Margin (dBuV/m)	
					PK	AV	PK	AV	PK	AV	PK	AV
5725.10	1.43	37.23	32.26	V	67.1	54.9	63.6	51.4	74.0	54.0	-10.4	-2.6
5725.20	1.43	37.23	32.26	H	58.8	46.8	55.3	43.3	74.0	54.0	-18.7	-10.7
5850.30	1.37	37.25	32.42	V	53.2	40.1	49.7	36.6	74.0	54.0	-24.3	-17.4
5850.10	1.37	37.25	32.42	H	48.6	36.1	45.1	32.6	74.0	54.0	-28.9	-21.4

10. Peak Power Spectral Density

10.1 Standard Applicable

According to §5.247(d), for direct sequence systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3kHz band during any time interval of continuous transmission.

10.2 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW = 3KHz, VBW = 30KHz, Span = 300KHz, Sweep=100s
4. Record the max reading.
5. Repeat above procedures until all frequency measured were complete.

10.3 Measurement Equipment Used:

EQUIPMENT TYPE	MFR	Model No.	Serial No.	LAST CAL.	Cal. Due.
Spectrum Analyzer	Advantest	R3182	110600647	11/16/2002	11/15/2003
Spectrum Analyzer	R&S	FSP30	1093.4495.30	07/23/2002	07/22/2003

10.4 Measurement Result

2.4 GHz Band, IEEE802.11b Mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-4.69	8	-12.69
Middle	2437	-5.53	8	-13.53
High	2462	-5.6	8	-13.6

2.4 GHz Band, IEEE802.11g Mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-10.11	8	-18.11
Middle	2437	-10.62	8	-18.62
High	2462	-10.43	8	-18.43

2.4 GHz Band, IEEE802.11g TURBO Mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Middle	2437	-12.40	8	-20.40

5.8 GHz Band, IEEE802.11a Mode

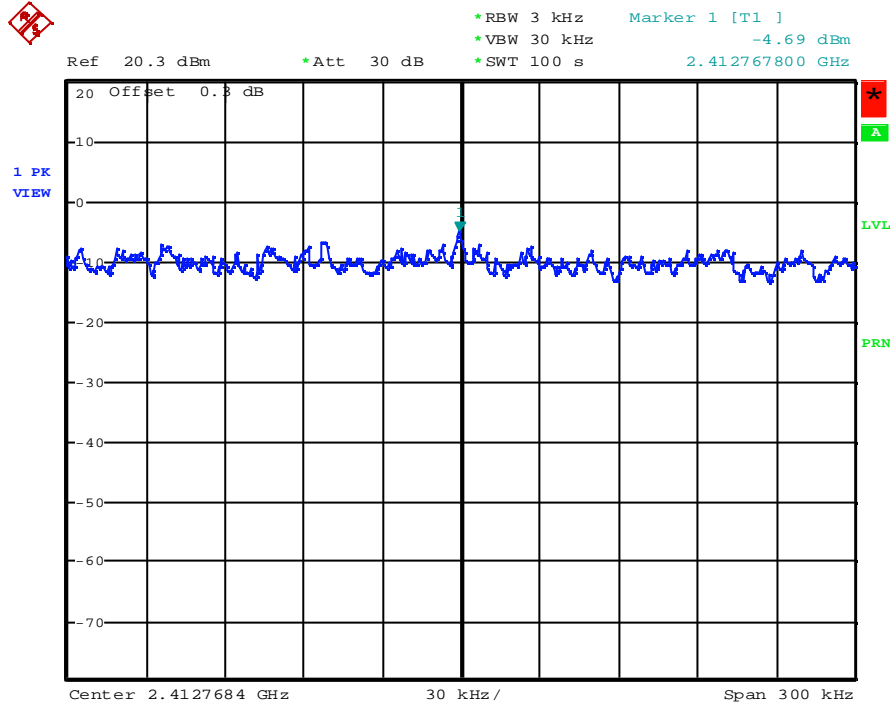
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5745	-9.69	8	-17.69
Middle	5785	-8.54	8	-16.54
High	5825	-9.50	8	-17.5

5.8 GHz Band, IEEE802.11a Turbo Mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5760	-13.79	8	-21.79
High	5800	-14.13	8	-22.13



2.4GHz Band, IEEE802.11b Mode Power Density Test Data CH-Low

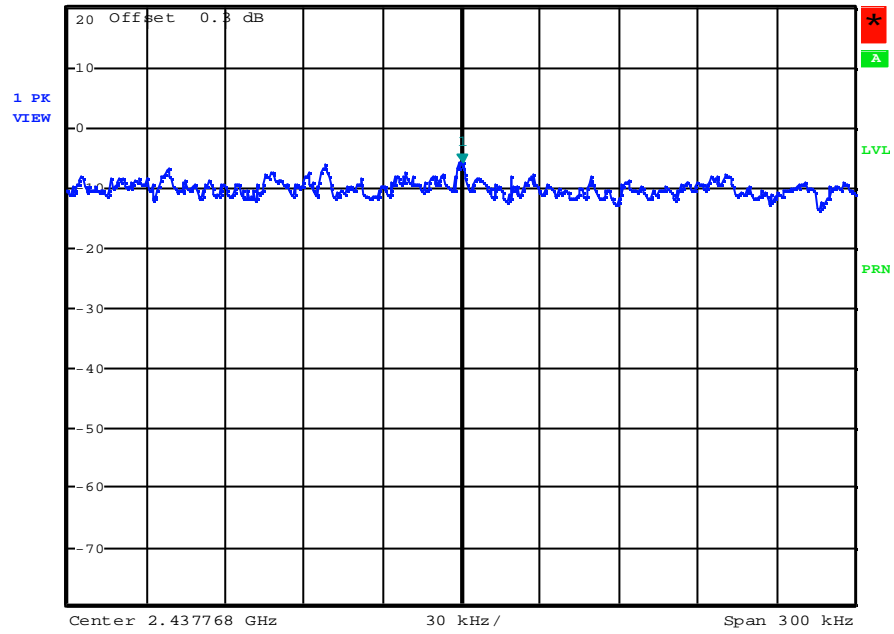


Date: 20.FEB.2003 12:17:25

Power Density Test Data CH-Middle



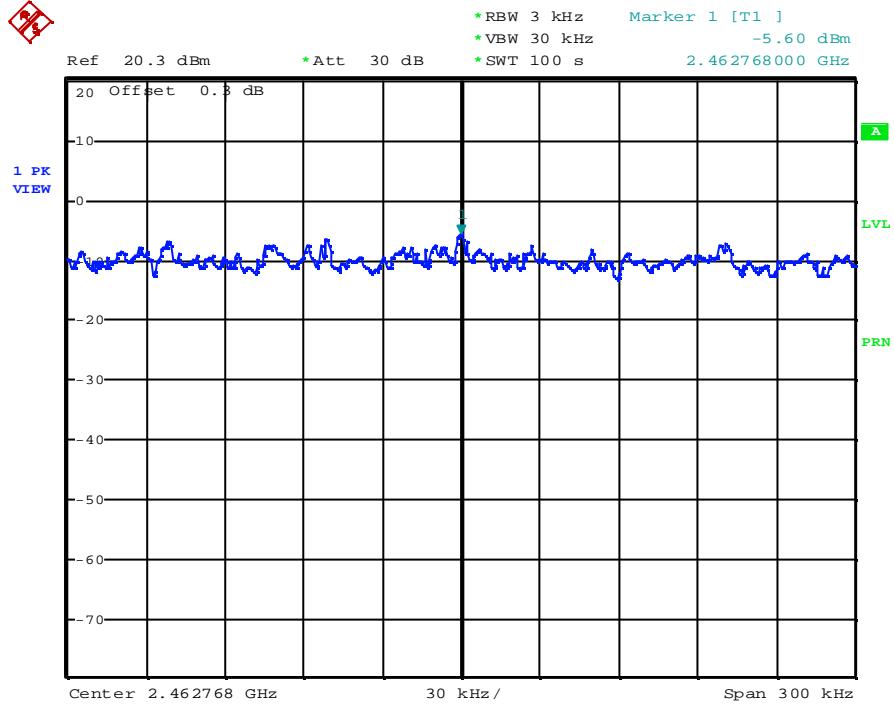
Ref 20.3 dBm *Att 30 dB *RBW 3 kHz *VBW 30 kHz *SWT 100 s Marker 1 [T1] -5.53 dBm
2.437768600 GHz



Date: 20.FEB.2003 12:09:12



Power Density Test Data CH-High

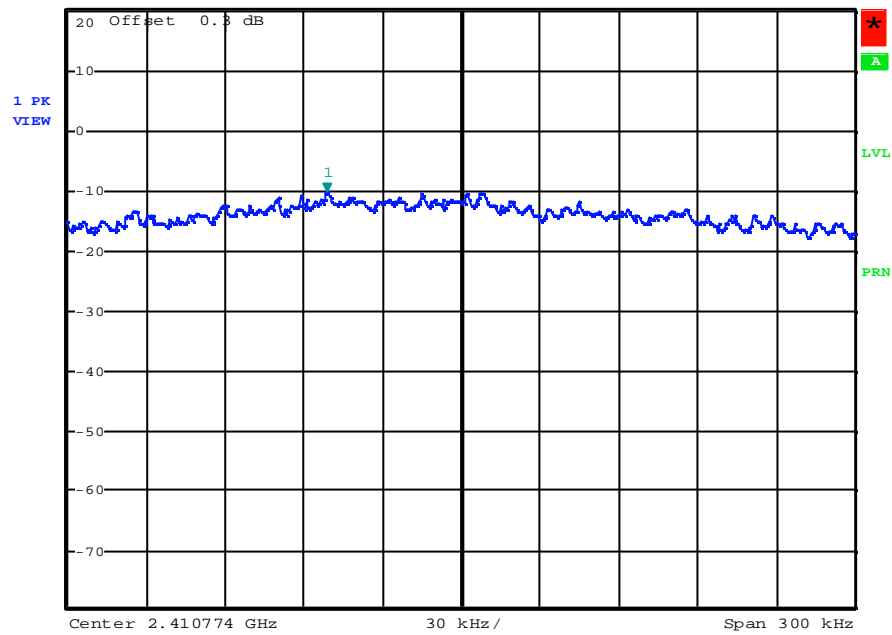


Date: 20.FEB.2003 12:22:22

2.4GHz Band, IEEE802.11gMode Power Density Test Data CH-Low



Ref 20.3 dBm *Att 30 dB *RBW 3 kHz *VBW 30 kHz *SWT 100 s Marker 1 [T1] -10.11 dBm 2.410723000 GHz

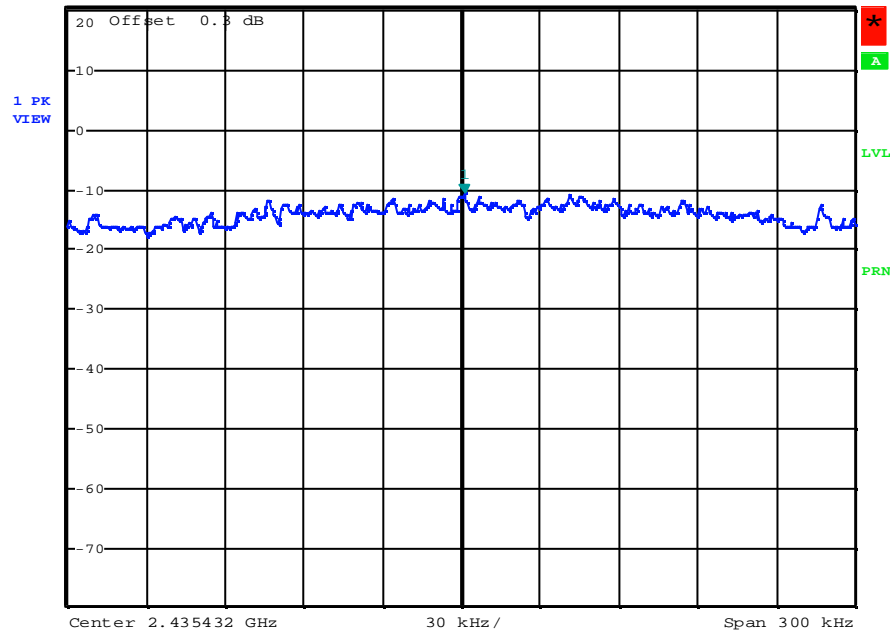


Date: 20.FEB.2003 13:09:46

Power Density Test Data CH-Middle



Ref 20.3 dBm *Att 30 dB *RBW 3 kHz *VBW 30 kHz *SWT 100 s Marker 1 [T1] -10.62 dBm 2.435433200 GHz

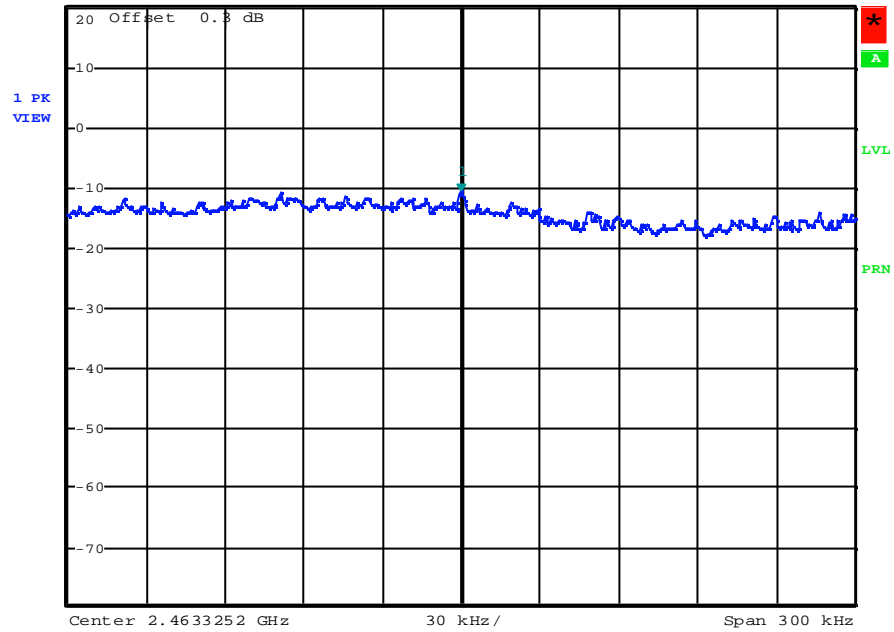


Date: 20.FEB.2003 13:05:38

Power Density Test Data CH-High



Ref 20.3 dBm *Att 30 dB *RBW 3 kHz *VBW 30 kHz *SWT 100 s Marker 1 [T1] -10.43 dBm

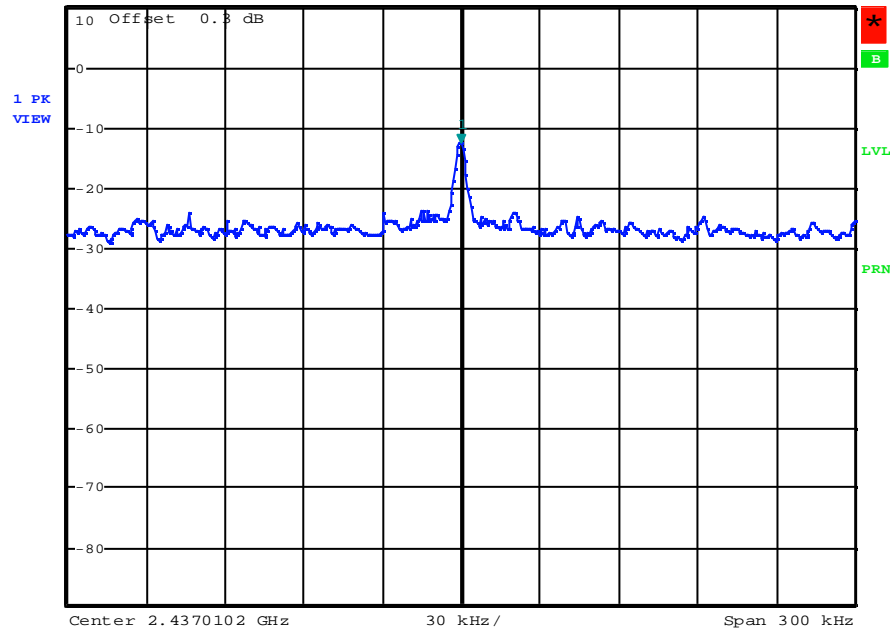


Date: 20.FEB.2003 13:01:12

2.4GHz Band, IEEE802.11g Turbo Mode Power Density Test Data CH-Middle



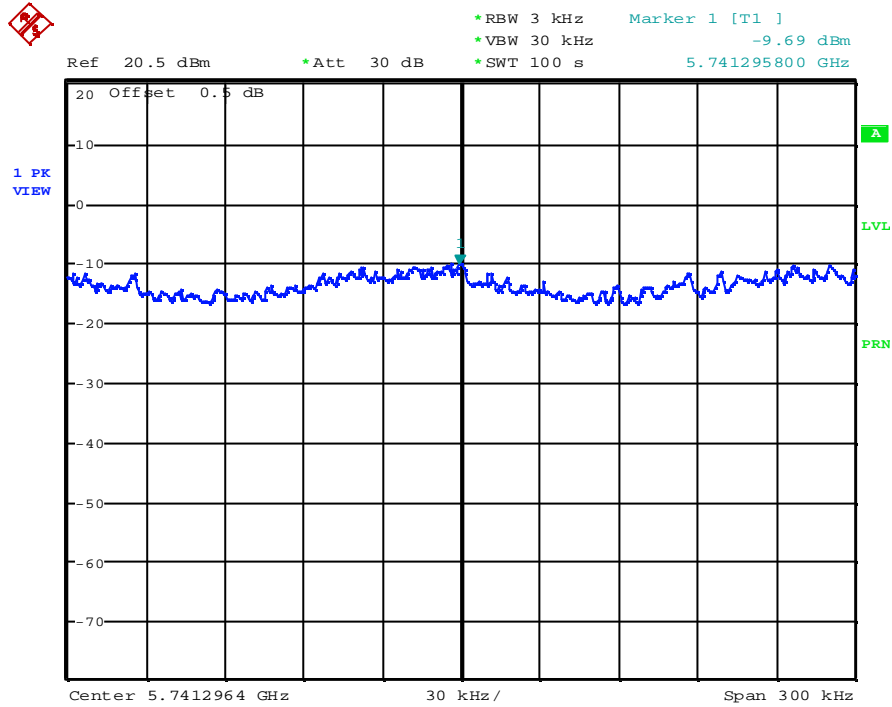
Ref 10.3 dBm *Att 20 dB *RBW 3 kHz *VBW 30 kHz *SWT 100 s Marker 1 [T1] -12.40 dBm



Date: 25.FEB.2003 13:29:28

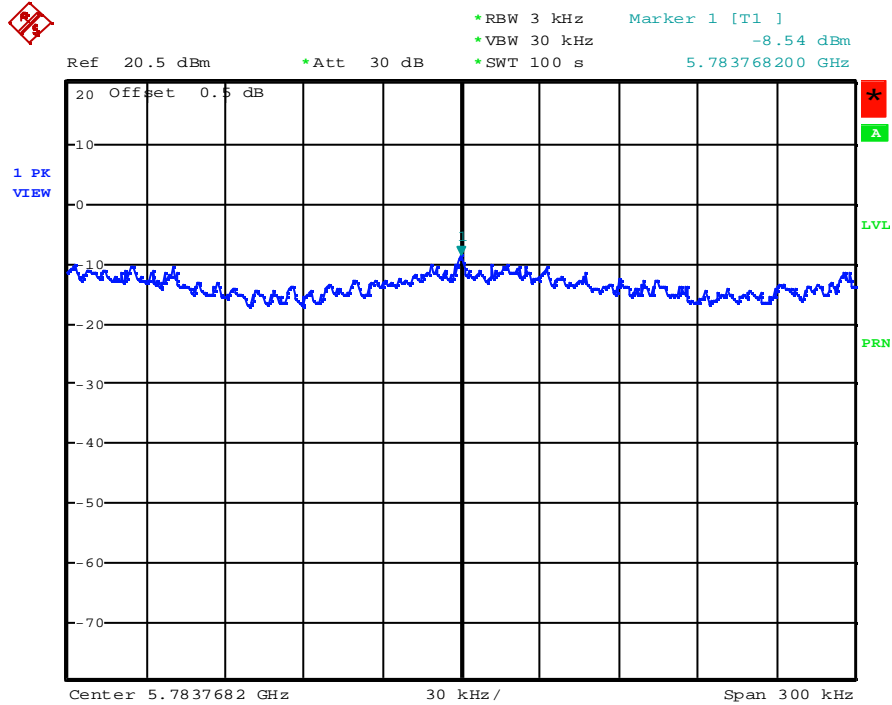


5.8GHz Band, IEEE802.11a Mode Power Density Test Data CH-Low



Date: 21.FEB.2003 07:01:29

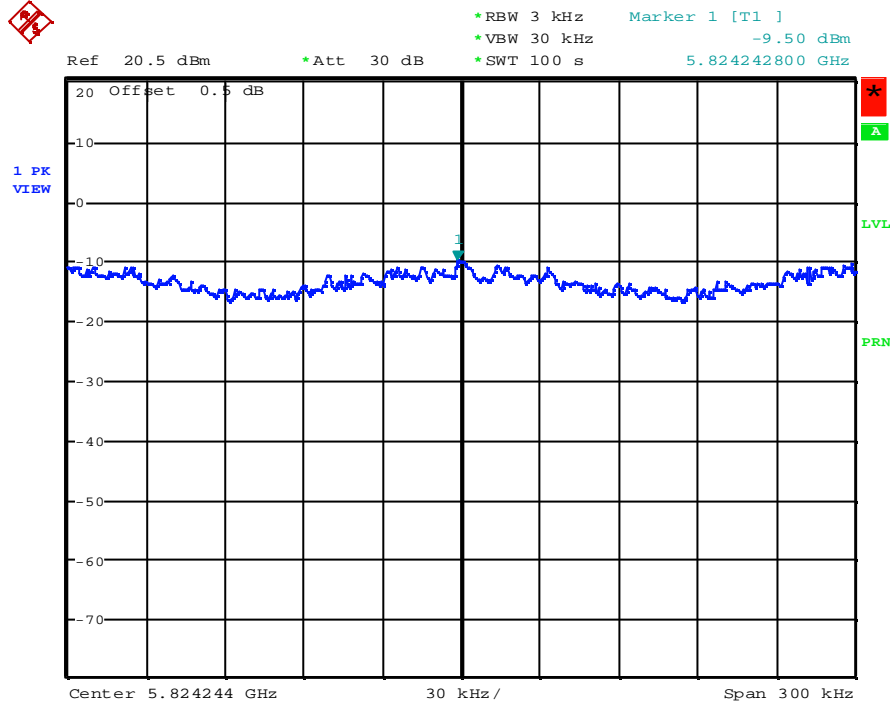
Power Density Test Data CH-Middle



Date: 21.FEB.2003 06:53:35



Power Density Test Data CH-High

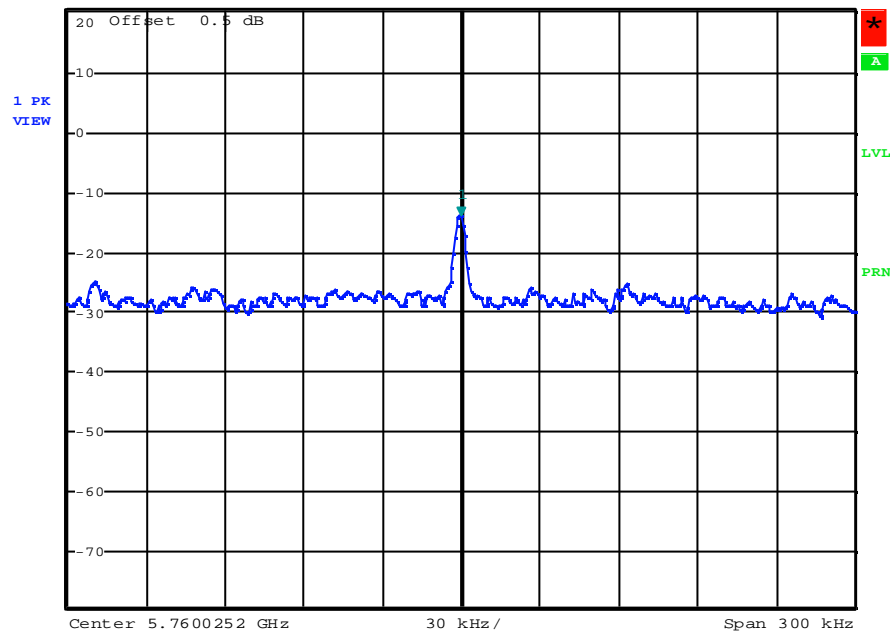


Date: 21.FEB.2003 06:43:02

5.8GHz Band, IEEE802.11a Turbo Mode Power Density Test Data CH-Low



Ref 20.5 dBm *Att 30 dB *RBW 3 kHz *VBW 30 kHz *SWT 100 s Marker 1 [T1] -13.79 dBm
5.760025200 GHz

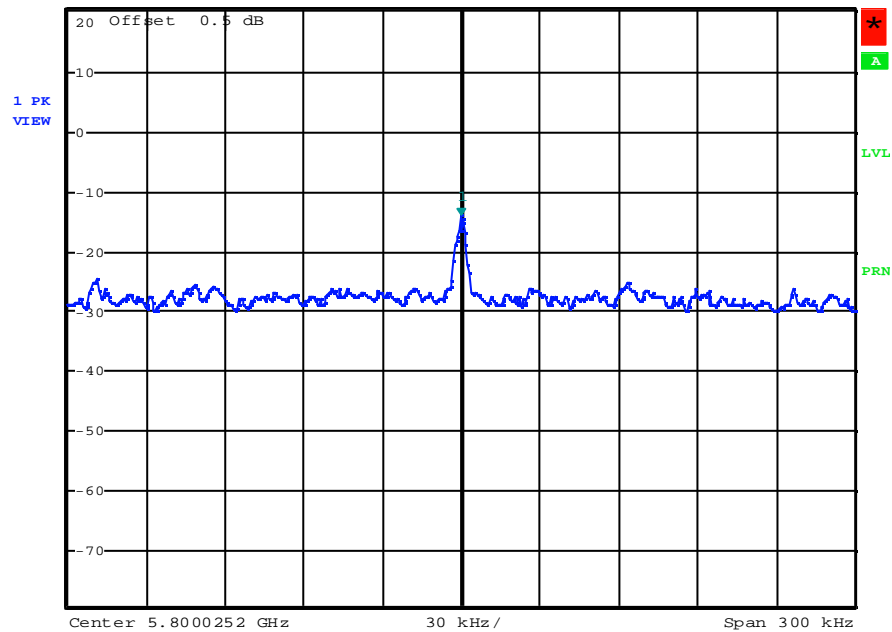


Date: 21.FEB.2003 06:26:13

Power Density Test Data CH-High



Ref 20.5 dBm *Att 30 dB *RBW 3 kHz *VBW 30 kHz *SWT 100 s Marker 1 [T1] -14.13 dBm
5.800025200 GHz



Date: 21.FEB.2003 06:29:10



11. ANTENNA REQUIREMENT

11.1 Standard Applicable

For intentional device, according to §5.203, an intentional radiator shall be designed to ensure that no antenna other than furnished by the responsible party shall be used with the device.

And according to §5.247(i), if transmitting antennas of directional gain greater than 6dBi are used the power shall be reduced by the amount in 1dB that the directional gain of the antenna exceeds 6 dBi.

11.2 Antenna Connected Construction

The directional gains of antenna used for transmitting is 2.0dBi(IEEE802.11b/g) and 1.5 dBi(IEEE802.11a), and the antenna connector is designed with permanent attachment and no consideration of replacement. Please see EUT photo for details.



12. RF Exposure

12.1 Standard Applicable

According to §5.247(b)(4) and §.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

12.2 Measurement Result:

The SAR test was attached.

13. TERMS OF ABRIVATION

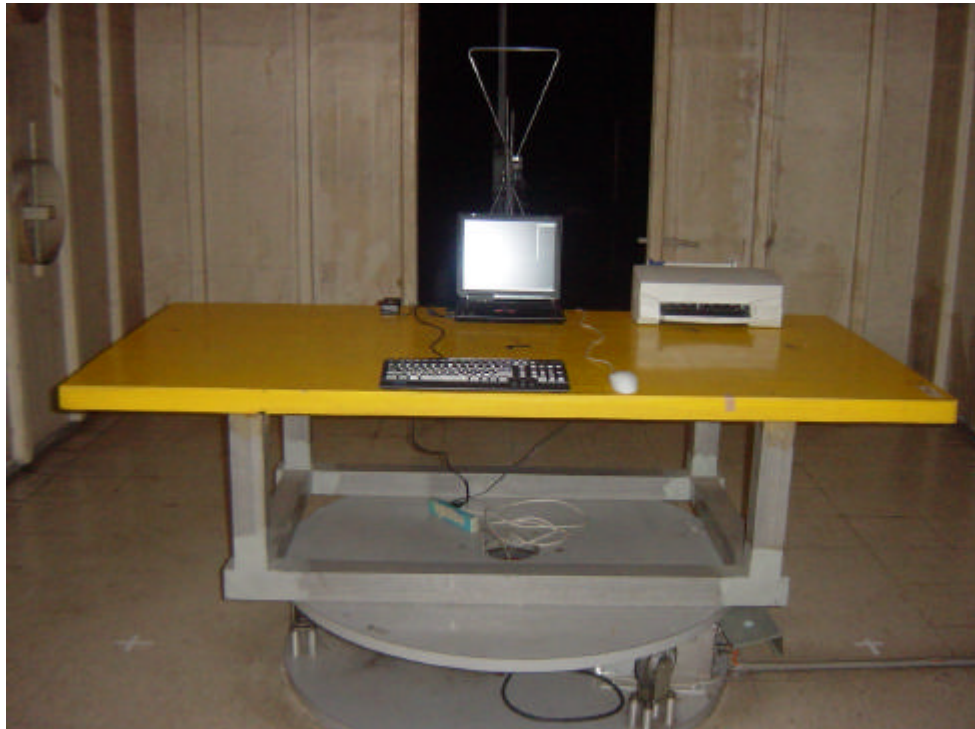
ACP	Adjacent Channel Power
ANSI	Americal National Standard Institute
Ant.	Antenna
AV.	Average detection
CAL.	Calibration
Correct.	Correction
dBc	dB relative to fundamental frequency level
dBi	Gain in decibels relative to an isotropic antenna
EUT	Equipment Under Test
FREQ.	Frequency
Hor.	Horizontal direction
IEEE	Institute of Electral and Electronic Engineer
LISN	Line Impedance Stabilization Network
MFR	Manufacturer
NSA	Normalized Site Attenuation
OFDM	Orthogonal Frequency Division Multiplexing
PK	Peak detection
PIFA	Printed Invert-F Antenna
Pol.	Polarization
PPSD	Peak Power Spectral Density
Pre-amp.	Pre-amplifier
Q.P.	Quasi-peak detection
RBW	Resolution bandwidth
SAR	Specific Absorption Rate
SRA	Spectrum analyzer
VBW	Video bandwidth
Vert.	Vertical direction



APPENDIX 1

PHOTOGRPHS OF SET UP

Radiated Emission Set up Photos



Conducted Emission Set Up Photos





APPENDIX 2

PHOTOGRPHS OF EUT

Front View of EUT



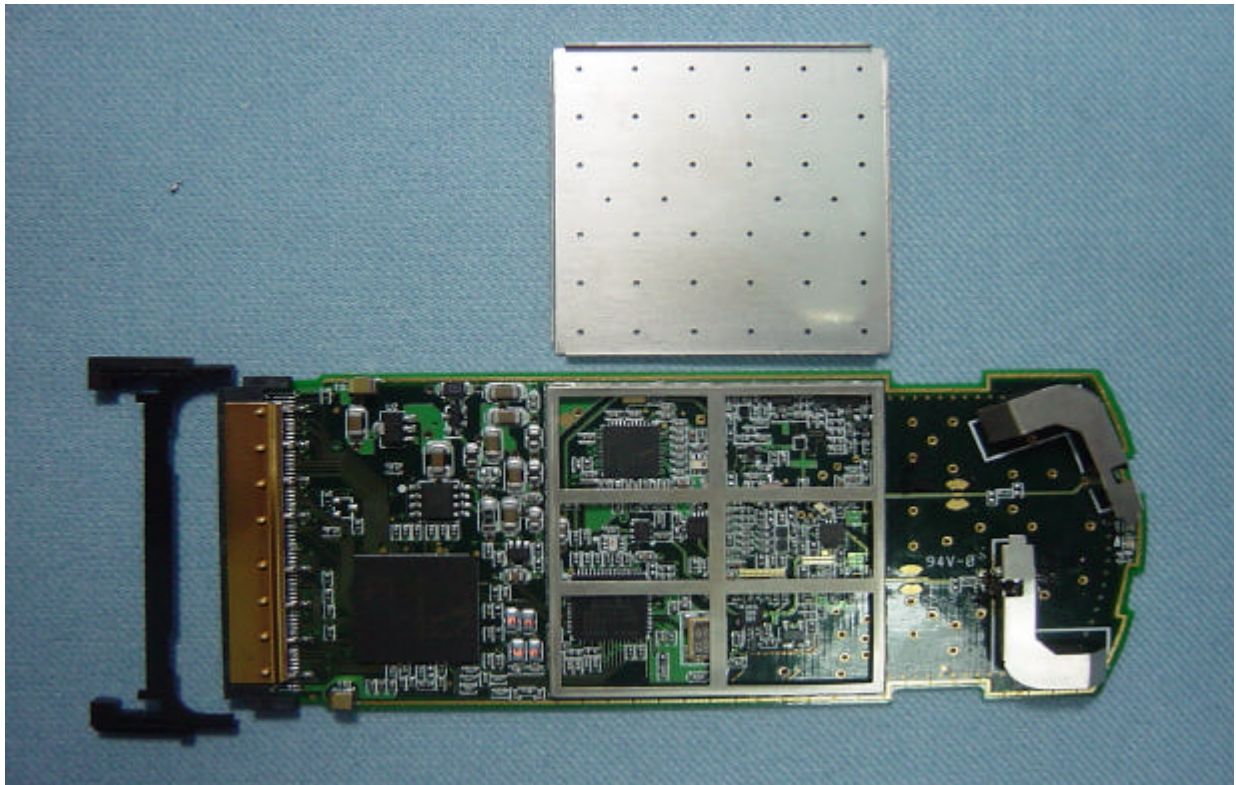
Back View of EUT



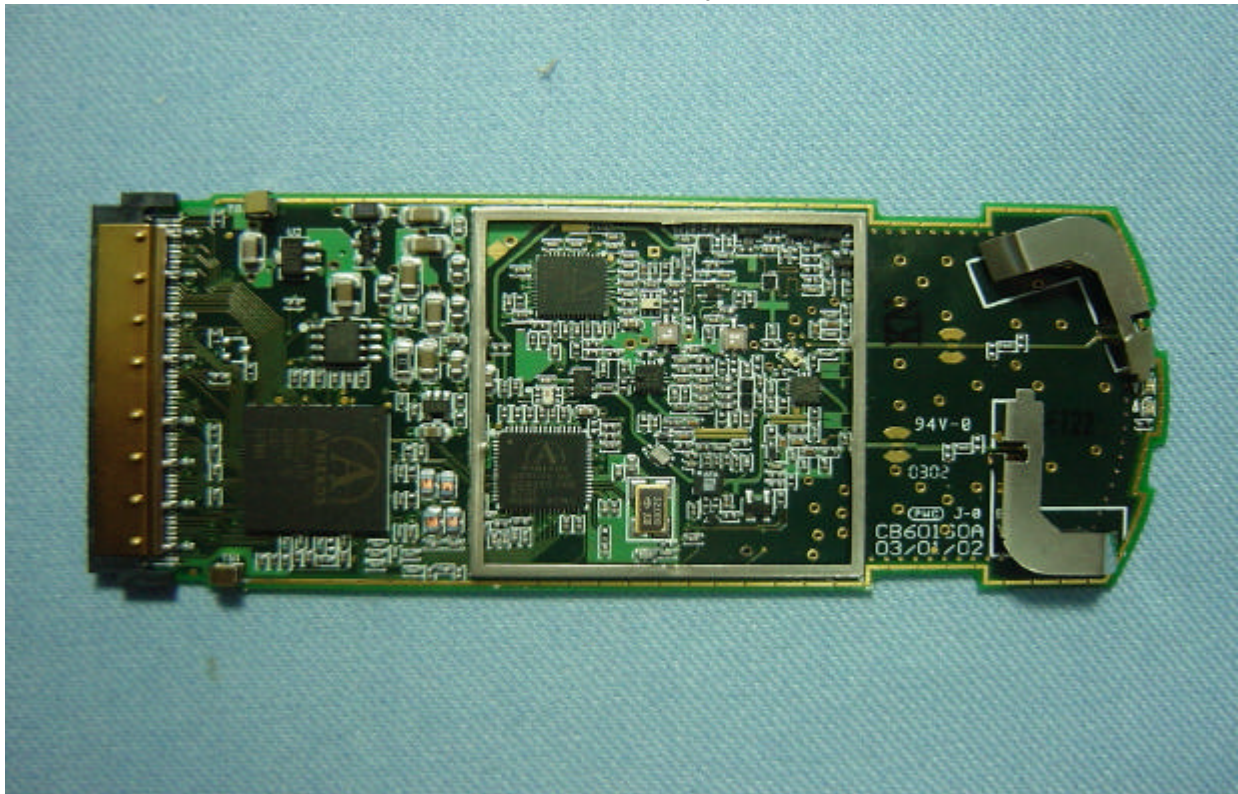
Dissolution View of EUT



Dissolution View of EUT



Internal PCB View of EUT



Internal PCB View of EUT

