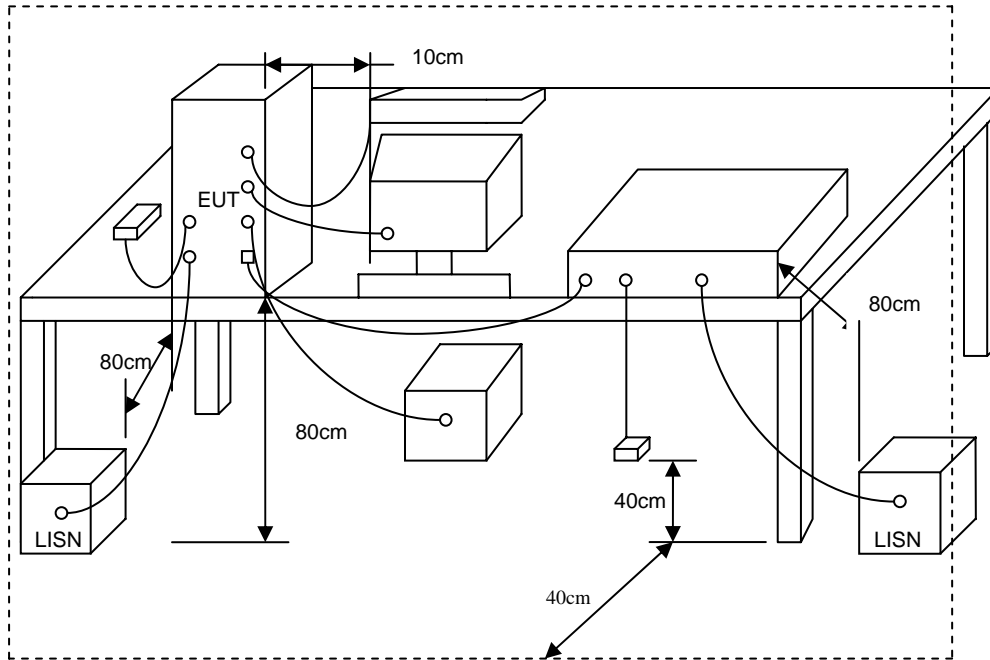


10.3 Typical Test Setup



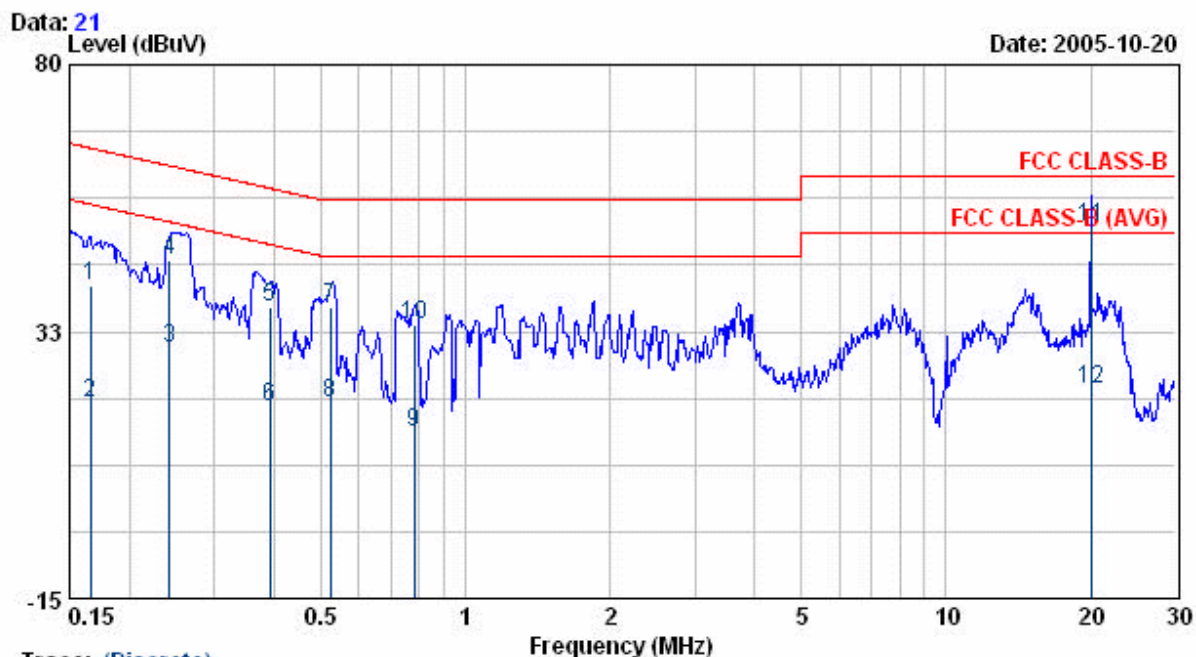
10.4 Measurement equipment

Instrument/Ancillary	Type	Manufacturer	Next Cal. Dat
Receiver	SCR3501	Schaffner	2005/11/03
LISN	NNB-2/16Z	MESS TEC	2006/03/30
LISN	NNB-2/16Z	ROLF HEINE	2006/05/01

10.5 Test Result and Data

Power : AC 120V
 Test Mode : 802.11a CH9
 Memo :

Pol/Phase : NEUTRAL
 Temperature : 25 °C
 Humidity : 57 %



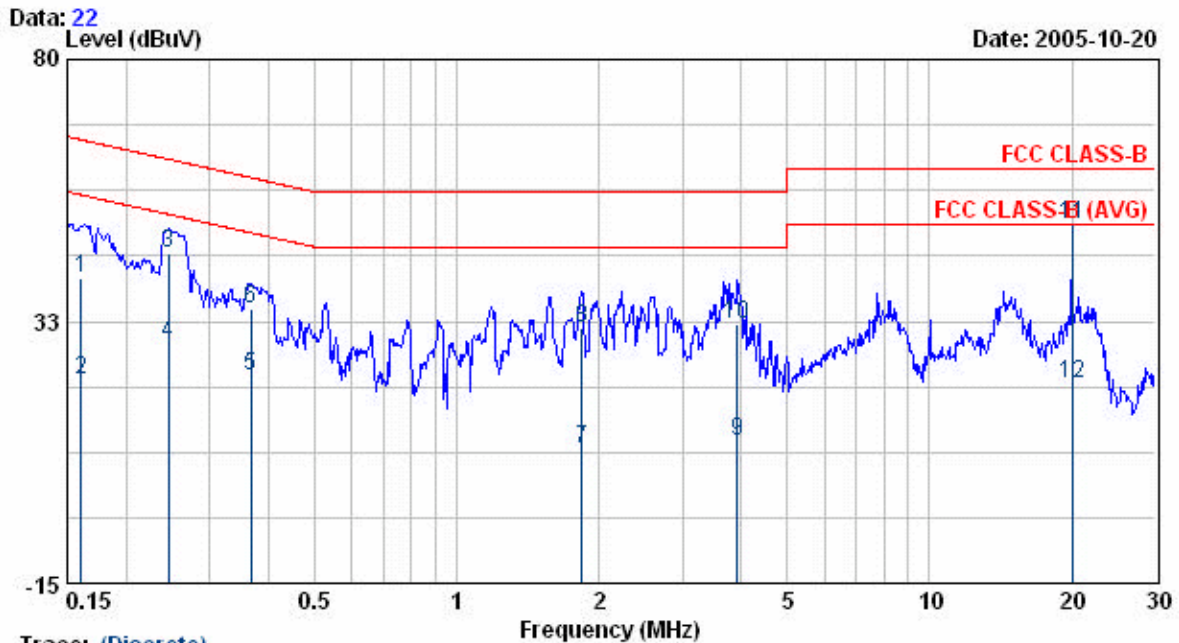
Trace: (Discrete)

Freq	Read	Factor	Level	Limit	Over	Remark
MHz	dBuV	dB	dBuV	dBuV	dBuV	
0.17	40.45	0.28	40.73	65.18	-24.45	QP
0.17	19.42	0.28	19.70	55.18	-35.48	AVERAGE
0.24	29.35	0.28	29.63	52.02	-22.39	AVERAGE
0.24	44.83	0.28	45.11	62.02	-16.91	QP
0.39	36.26	0.49	36.75	58.01	-21.25	QP
0.39	18.58	0.49	19.07	48.01	-28.93	AVERAGE
0.52	36.24	0.50	36.74	56.00	-19.26	QP
0.52	19.29	0.50	19.79	46.00	-26.21	AVERAGE
0.78	14.23	0.50	14.73	46.00	-31.27	AVERAGE
0.78	33.14	0.50	33.64	56.00	-22.36	QP
20.00	50.27	0.80	51.07	60.00	-8.93	QP
20.00	21.35	0.80	22.15	50.00	-27.85	AVERAGE

Remarks: 1. Level = Read Level + Factor
 2. Factor = LISN(ISN) Factor + Cable Loss

Power : AC 120V
 Test Mode : 802.11a CH9
 Memo :

Pol/Phase : LINE
 Temperature : 25 °C
 Humidity : 57 %



Trace: (Discrete)

Freq	Read Level	Factor	Level	Limit	Over Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dBuV	
0.16	39.96	0.36	40.32	65.44	-25.12	QP
0.16	21.56	0.36	21.92	55.44	-33.52	AVERAGE
0.25	44.63	0.39	45.02	61.91	-16.89	QP
0.25	27.95	0.39	28.34	51.91	-23.57	AVERAGE
0.37	22.18	0.56	22.74	48.58	-25.84	AVERAGE
0.37	34.35	0.56	34.91	58.58	-23.67	QP
1.84	8.55	0.68	9.23	46.00	-36.77	AVERAGE
1.84	30.77	0.68	31.45	56.00	-24.55	QP
3.93	10.12	0.70	10.82	46.00	-35.18	AVERAGE
3.93	31.22	0.70	31.92	56.00	-24.08	QP
20.00	49.56	0.60	50.16	60.00	-9.84	QP
20.00	20.53	0.60	21.13	50.00	-28.87	AVERAGE

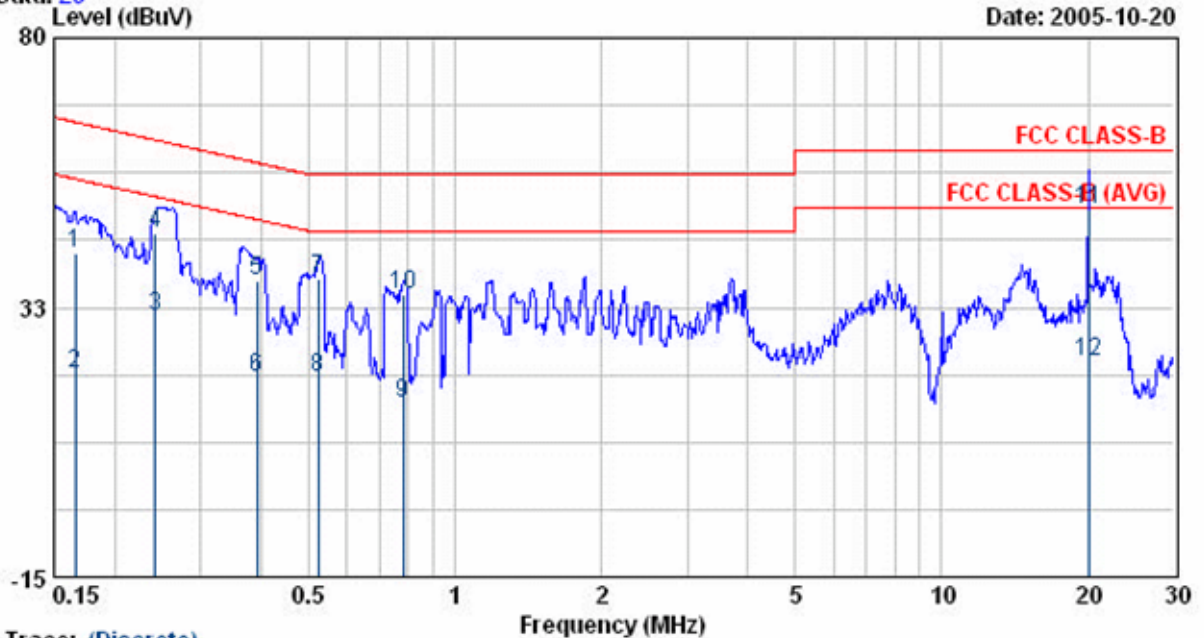
Remarks: 1. Level = Read Level + Factor
 2. Factor = LISN(ISN) Factor + Cable Loss

Power : AC 120V
 Test Mode : 802.11a CH11
 Memo :

Pol/Phase : NEUTRAL
 Temperature : 25 °C
 Humidity : 57 %

Data: 23

Date: 2005-10-20



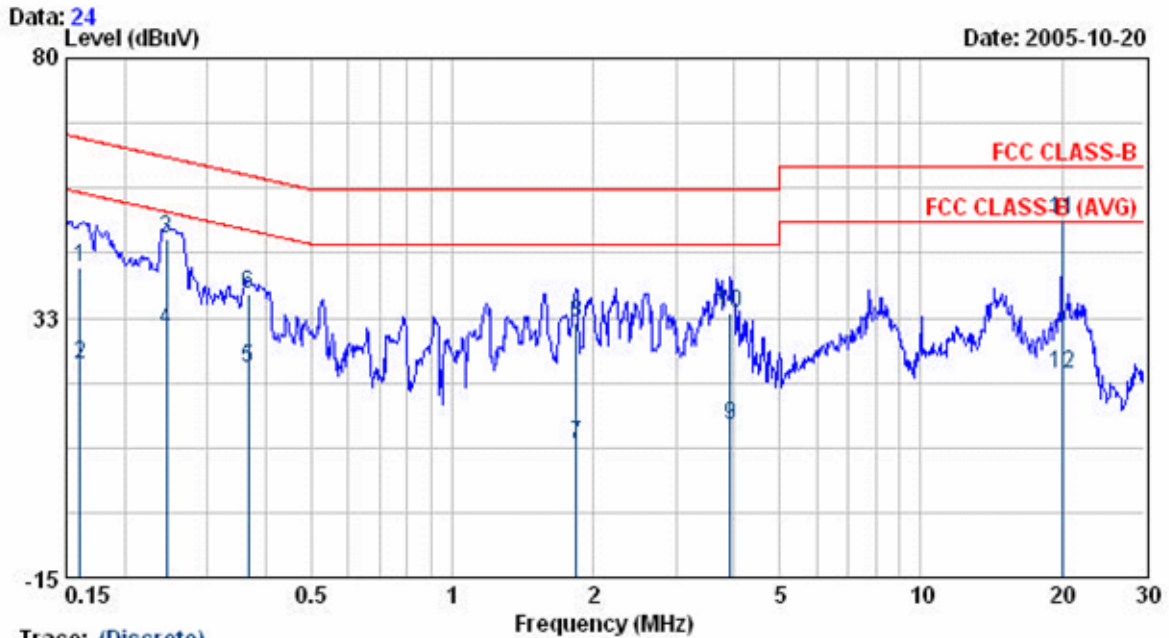
Trace: (Discrete)

Freq	Read Level	Factor	Level	Limit	Over Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dBuV	
0.17	41.63	0.28	41.91	65.18	-23.27	QP
0.17	20.64	0.28	20.92	55.18	-34.26	AVERAGE
0.24	30.61	0.28	30.89	52.02	-21.13	AVERAGE
0.24	45.34	0.28	45.62	62.02	-16.40	QP
0.39	36.73	0.49	37.22	58.01	-20.78	QP
0.39	19.61	0.49	20.10	48.01	-27.90	AVERAGE
0.52	36.91	0.50	37.41	56.00	-18.59	QP
0.52	19.55	0.50	20.05	46.00	-25.95	AVERAGE
0.78	15.23	0.50	15.73	46.00	-30.27	AVERAGE
0.78	34.14	0.50	34.64	56.00	-21.36	QP
20.00	49.01	0.80	49.81	60.00	-10.19	QP
20.00	22.19	0.80	22.99	50.00	-27.01	AVERAGE

Remarks: 1. Level = Read Level + Factor
 2. Factor = LISN(ISN) Factor + Cable Loss

Power : AC 120V
 Test Mode : 802.11a CH11
 Memo :

Pol/Phase : LINE
 Temperature : 25 °C
 Humidity : 57 %



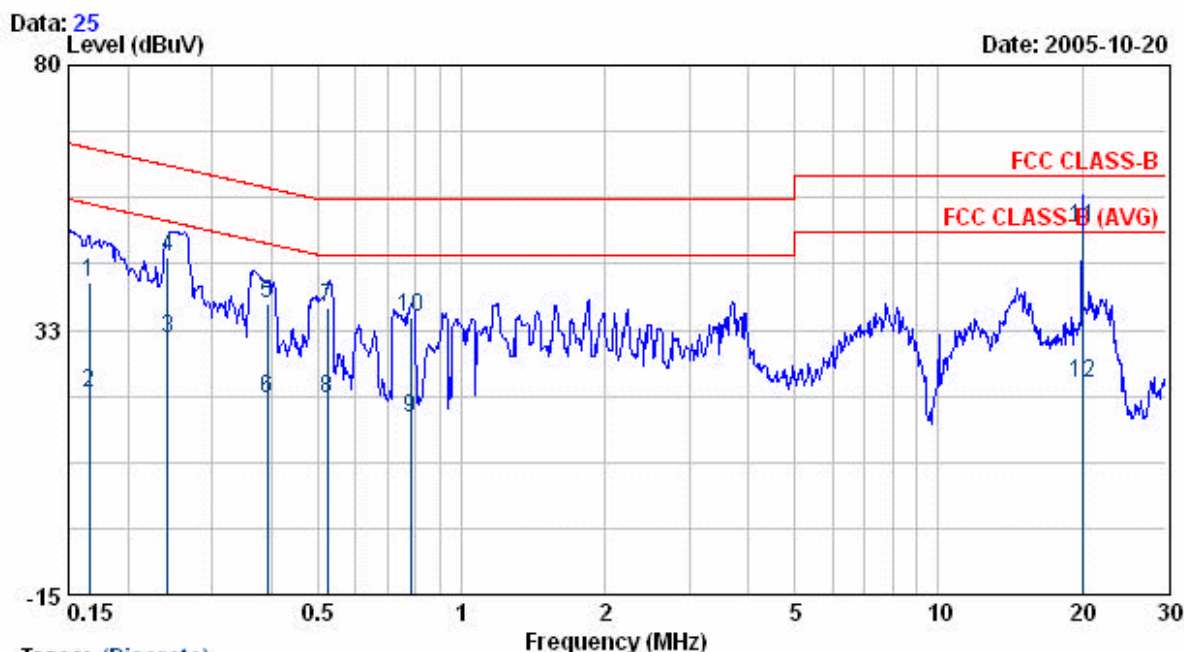
Trace: (Discrete)

Freq	Read Level	Factor	Level	Limit	Over Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dBuV	
0.16	41.44	0.36	41.80	65.44	-23.64	QP
0.16	23.64	0.36	24.00	55.44	-31.44	AVERAGE
0.25	46.63	0.39	47.02	61.91	-14.89	QP
0.25	29.95	0.39	30.34	51.91	-21.57	AVERAGE
0.37	22.76	0.56	23.32	48.58	-25.26	AVERAGE
0.37	36.44	0.56	37.00	58.58	-21.58	QP
1.84	8.55	0.68	9.23	46.00	-36.77	AVERAGE
1.84	31.04	0.68	31.72	56.00	-24.28	QP
3.93	12.12	0.70	12.82	46.00	-33.18	AVERAGE
3.93	32.63	0.70	33.33	56.00	-22.67	QP
20.00	49.99	0.60	50.59	60.00	-9.41	QP
20.00	21.66	0.60	22.26	50.00	-27.74	AVERAGE

Remarks: 1. Level = Read Level + Factor
 2. Factor = LISN(ISN) Factor + Cable Loss

Power : AC 120V
 Test Mode : 802.11a CH13
 Memo :

Pol/Phase : NEUTRAL
 Temperature : 25 °C
 Humidity : 57 %



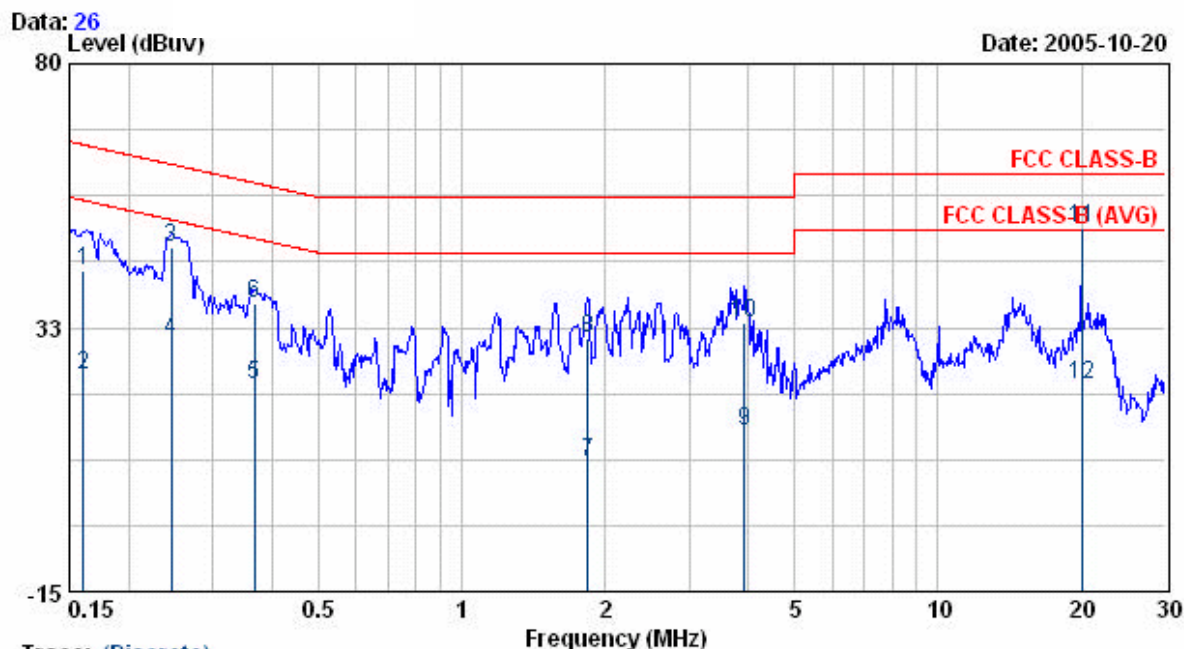
Trace: (Discrete)

Freq	Read Level	Factor	Level	Limit	Over Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dBuV	
0.17	40.63	0.28	40.91	65.18	-24.27	QP
0.17	20.99	0.28	21.27	55.18	-33.91	AVERAGE
0.24	30.61	0.28	30.89	52.02	-21.13	AVERAGE
0.24	45.34	0.28	45.62	62.02	-16.40	QP
0.39	36.73	0.49	37.22	58.01	-20.78	QP
0.39	19.61	0.49	20.10	48.01	-27.90	AVERAGE
0.52	35.91	0.50	36.41	56.00	-19.59	QP
0.52	19.55	0.50	20.05	46.00	-25.95	AVERAGE
0.78	16.23	0.50	16.73	46.00	-29.27	AVERAGE
0.78	34.14	0.50	34.64	56.00	-21.36	QP
20.00	50.01	0.80	50.81	60.00	-9.19	QP
20.00	22.19	0.80	22.99	50.00	-27.01	AVERAGE

Remarks: 1. Level = Read Level + Factor
 2. Factor = LISN(ISN) Factor + Cable Loss

Power : AC 120V
 Test Mode : 802.11a CH13
 Memo : DSA-0131F-12

Pol/Phase : LINE
 Temperature : 25 °C
 Humidity : 57 %



Trace: (Discrete)

Freq	Read Level	Factor	Level	Limit	Over Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dBuV	
0.16	42.44	0.36	42.80	65.44	-22.64	QP
0.16	23.64	0.36	24.00	55.44	-31.44	AVERAGE
0.25	46.63	0.39	47.02	61.91	-14.89	QP
0.25	29.95	0.39	30.34	51.91	-21.57	AVERAGE
0.37	21.76	0.56	22.32	48.58	-26.26	AVERAGE
0.37	36.44	0.56	37.00	58.58	-21.58	QP
1.84	7.55	0.68	8.23	46.00	-37.77	AVERAGE
1.84	30.04	0.68	30.72	56.00	-25.28	QP
3.93	13.12	0.70	13.82	46.00	-32.18	AVERAGE
3.93	32.63	0.70	33.33	56.00	-22.67	QP
20.00	49.99	0.60	50.59	60.00	-9.41	QP
20.00	21.66	0.60	22.26	50.00	-27.74	AVERAGE

Remarks: 1. Level = Read Level + Factor
 2. Factor = LISN(ISN) Factor + Cable Loss

11. Test of Radiated Emission (For 802.11a device)

11.1 Test Limit

Radiated emissions from 30 MHz to 25 GHz were measured according to the methods defines in ANSI C63.4-2003. The EUT was placed, 0.8 meter above the ground plane, as shown in section 5.6.3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions. For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Distance Meters	Radiated (μ V / M)	Radiated (dB μ V/ M)
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0

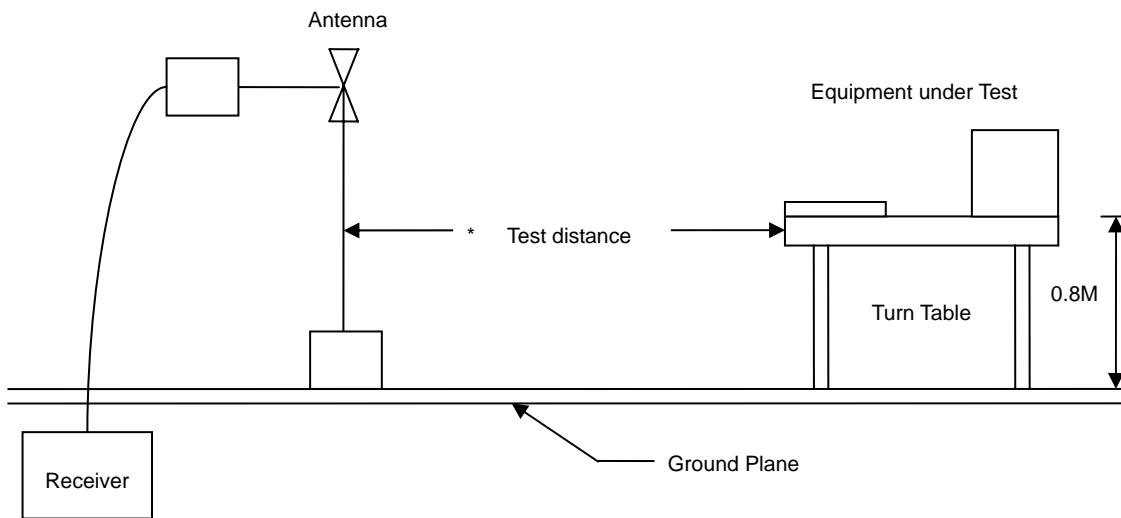
For unintentional device, according to CISPR PUB.22, for Class B digital devices, the general requirement of field strength of radiated emissions from intentional radiators at a distance of 10 meters shall not exceed the above table.

Frequency (MHz)	Distance Meters	Radiated (dB μ V/ M)
30-230	10	30
230-1000	10	37

11.2 Test Procedures

1. The EUT was placed on a rotatable table top 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
5. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
8. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

11.3 Typical Test Setup



11.4 Measurement equipment

Instrument/Ancillary	Type	Manufacturer	Valid Date
EMI Receiver	8546A	HP	2006/04/13
Spectrum Analyzer	FSP40	R&S	2005/12/28
Horn Antenna	3115	EMCO	2006/02/21
Horn Antenna	3116	EMCO	2006/02/21
Bilog Antenna	CBL6112B	Schaffner	2006/04/12
Amplifier	8447D	Agilent	2006/02/14
Amplifier	8447D	Agilent	2006/02/22

11.5 Test Result and Data

Test Mode 1:

Emission frequencies below 1 GHz Channel 01

Test Date: Oct. 20, 2005 Temperature: 22 Humidity: 70% Atmospheric pressure: 1020mmHg

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
143.30	H	52.72	-14.44	38.28	43.5	-5.22	Q.P	75	1.1
150.73	H	49.13	-14.53	34.60	43.5	-8.90	Peak	75	1.1
200.23	H	49.88	-17.09	32.78	43.5	-10.71	Peak	0	1.1
232.80	H	52.17	-10.91	41.26	46.0	-4.74	Q.P	20	1.1
248.30	H	52.60	-10.47	42.13	46.0	-3.87	Q.P	100	1.1
249.18	H	56.10	-13.47	42.63	46.0	-3.37	Q.P	0	1.1
598.90	H	46.77	-4.55	42.22	46.0	-3.87	Q.P	100	1.1
997.90	H	45.88	2.78	48.66	54.0	-5.34	Q.P	0	1.1
148.11	V	55.50	-14.43	41.07	43.5	-2.43	Q.P	0	1.0
170.80	V	51.84	-16.83	35.01	43.5	-8.49	Peak	0	1.0
194.73	V	52.75	-17.06	35.69	43.5	-7.81	Peak	215	1.0
249.73	V	57.22	-13.36	43.86	46.0	-2.14	Q.P	200	1.0
323.80	V	53.41	-10.91	42.50	46.0	-3.50	Q.P	0	1.0
348.30	V	54.45	-10.47	43.98	46.0	-2.02	Q.P	215	1.0
449.80	V	51.33	-8.81	42.52	46.0	-3.48	Q.P	30	1.0
498.80	V	50.70	-7.05	43.65	46.0	-2.35	Q.P	30	1.0

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 09, Transmit Rate: 54Mbps

Test Date: Oct. 20, 2005 Temperature: 22 Humidity: 70% Atmospheric pressure: 1020mmHg

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
11490.00	H	---	16.85	---	54.0	---	Peak	---	---
17235.00	H	---	22.41	---	68.3	---	Ave	---	---
22980.00	H	---	31.49	---	54.0	---	Ave	---	---
28725.00	H	---	33.65	---	68.3	---	Peak	--	--
11491.30	V	40.55	16.54	57.09	74.0	-16.91	Peak	350	1.0
17235.00	V	---	21.99	---	68.3	---	Ave	---	---
22980.00	V	---	31.49	---	54.0	---	Ave	---	---
28725.00	V	---	33.65	---	68.3	---	Peak	---	--

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 11, Transmit Rate: 54Mbps

Test Date: Oct. 20, 2005 Temperature: 22 Humidity: 70% Atmospheric pressure: 1020mmHg

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
11570.00	H	---	16.72	---	54.0	---	Peak	---	---
17355.00	H	---	23.04	---	68.3	---	Ave	---	---
23140.00	H	---	31.62	---	54.0	---	Ave	---	---
28925.00	H	---	33.61	---	68.3	---	Peak	--	--
11571.80	V	40.92	16.49	57.41	74.0	-16.59	Peak	350	1.0
17355.00	V	---	22.77	---	68.3	---	Ave	---	---
23140.00	V	---	31.62	---	54.0	---	Ave	---	---
28925.00	V	---	33.61	---	68.3	---	Peak	---	--

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 13, Transmit Rate: 54Mbps

Test Date: Oct. 20, 2005 Temperature: 22 Humidity: 70% Atmospheric pressure: 1020mmHg

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
11650.00	H	---	16.56	---	54.0	---	Peak	---	---
17475.00	H	---	23.67	---	68.3	---	Ave	---	---
23300.00	H	---	31.83	---	54.0	---	Ave	---	---
29125.00	H	---	33.66	---	68.3	---	Peak	--	--
11651.50	V	40.83	16.41	57.24	74.0	-16.76	Peak	350	1.0
17475.00	V	---	23.54	---	68.3	---	Ave	---	---
23300.00	V	---	31.83	---	54.0	---	Ave	---	---
29125.00	V	---	33.66	---	68.3	---	Peak	---	--

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Test Mode 2:

Emission frequencies below 1 GHz Channel 01

Test Date: Oct. 20, 2005 Temperature: 22 Humidity: 70% Atmospheric pressure: 1020mmHg

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
124.60	H	47.72	-16.01	31.71	43.5	-11.79	Peak	75	1.1
136.98	H	51.16	-14.69	36.347	43.5	-7.03	Peak	75	1.1
141.65	H	47.44	-14.46	32.98	43.5	-10.52	Peak	75	1.1
268.43	H	53.08	-12.06	41.02	46.0	-4.98	Q.P	0	1.1
325.00	H	54.48	-10.88	43.60	46.0	-2.40	Q.P	20	1.1
348.30	H	54.02	-10.47	43.55	46.0	-2.45	Q.P	100	1.1
449.80	H	46.72	-8.81	37.91	46.0	-8.09	Peak	0	1.1
997.90	H	45.85	2.78	48.63	54.0	-5.37	Q.P	0	1.1
51.73	V	52.26	-15.88	36.38	40.0	-3.62	Q.P	40	1.0
138.63	V	47.82	-14.57	33.25	43.5	-10.25	Peak	0	1.0
249.73	V	56.98	-13.36	43.62	46.0	-2.38	Q.P	200	1.0
268.98	V	55.50	-12.02	43.48	46.0	-2.52	Q.P	200	1.0
348.30	V	53.50	-10.47	43.03	46.0	-2.97	Q.P	215	1.0
400.80	V	49.75	-8.87	40.88	46.0	-5.12	Q.P	30	1.0
498.80	V	50.90	-7.05	43.85	46.0	-2.15	Q.P	30	1.0
747.30	V	44.67	-1.52	43.15	46.0	-2.85	Q.P	0	1.0

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 09, Transmit Rate: 54Mbps

Test Date: Oct. 20, 2005 Temperature: 22 Humidity: 70% Atmospheric pressure: 1020mmHg

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
11490.00	H	---	16.85	---	54.0	---	Peak	---	---
17235.00	H	---	22.41	---	68.3	---	Ave	---	---
22980.00	H	---	31.49	---	54.0	---	Ave	---	---
28725.00	H	---	33.65	---	68.3	---	Peak	--	--
11491.30	V	40.70	16.54	57.24	74.0	-16.91	Peak	350	1.0
17235.00	V	---	21.99	---	68.3	---	Ave	---	---
22980.00	V	---	31.49	---	54.0	---	Ave	---	---
28725.00	V	---	33.65	---	68.3	---	Peak	---	--

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 11, Transmit Rate: 54Mbps

Test Date: Oct. 20, 2005 Temperature: 22 Humidity: 70% Atmospheric pressure: 1020mmHg

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
11570.00	H	---	16.72	---	54.0	---	Peak	---	---
17355.00	H	---	23.04	---	68.3	---	Ave	---	---
23140.00	H	---	31.62	---	54.0	---	Ave	---	---
28925.00	H	---	33.61	---	68.3	---	Peak	--	--
11571.80	V	41.14	16.49	57.63	74.0	-16.37	Peak	350	1.0
17355.00	V	---	22.77	---	68.3	---	Ave	---	---
23140.00	V	---	31.62	---	54.0	---	Ave	---	---
28925.00	V	---	33.61	---	68.3	---	Peak	---	--

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 13, Transmit Rate: 54Mbps

Test Date: Oct. 20, 2005 Temperature: 22 Humidity: 70% Atmospheric pressure: 1020mmHg

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
11650.00	H	---	16.56	---	54.0	---	Peak	---	---
17475.00	H	---	23.67	---	68.3	---	Ave	---	---
23300.00	H	---	31.83	---	54.0	---	Ave	---	---
29125.00	H	---	33.66	---	68.3	---	Peak	--	--
11651.50	V	40.76	16.41	57.17	74.0	-16.83	Peak	350	1.0
17475.00	V	---	23.54	---	68.3	---	Ave	---	---
23300.00	V	---	31.83	---	54.0	---	Ave	---	---
29125.00	V	---	33.66	---	68.3	---	Peak	---	--

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

12. 6dB Bandwidth Measurement Data (For 802.11a device)

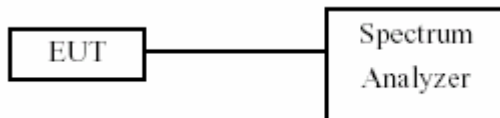
12.1 Test Limit

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

12.2 Test Procedures

1. The transmitter output was connected to the spectrum analyzer.
2. Set RBW of spectrum analyzer to 100 KHz and VBW to 100 KHz.
3. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.

12.3 Test Setup Layout



12.4 Measurement equipment

Instrument/Ancillary	Type	Manufacturer	Serial No.	Valid Date.
Spectrum Analyzer	FSP40	R&S	100047	2005/12/28

12.5 Test Result and Data

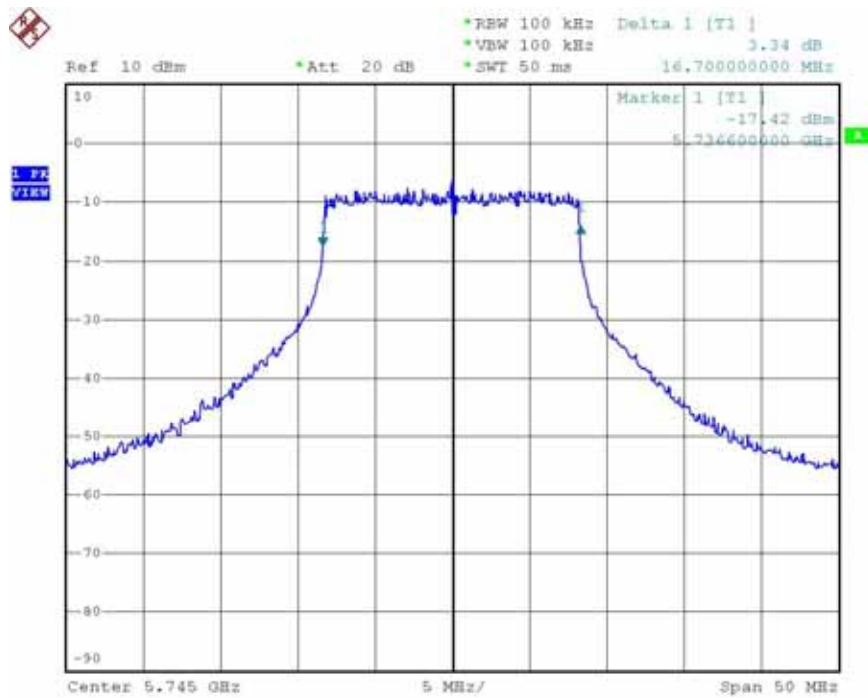
(1) Modulation Standard: IEEE 802.11a (54Mbps)

Test Date: Oct. 20, 2005 Temperature: 25 Humidity: 64% Atmospheric pressure: 1023mmHg

Channel	Frequency (MHz)	6dB Bandwidth (MHz)
9	5745	16.70
11	5785	16.70
13	5825	16.60

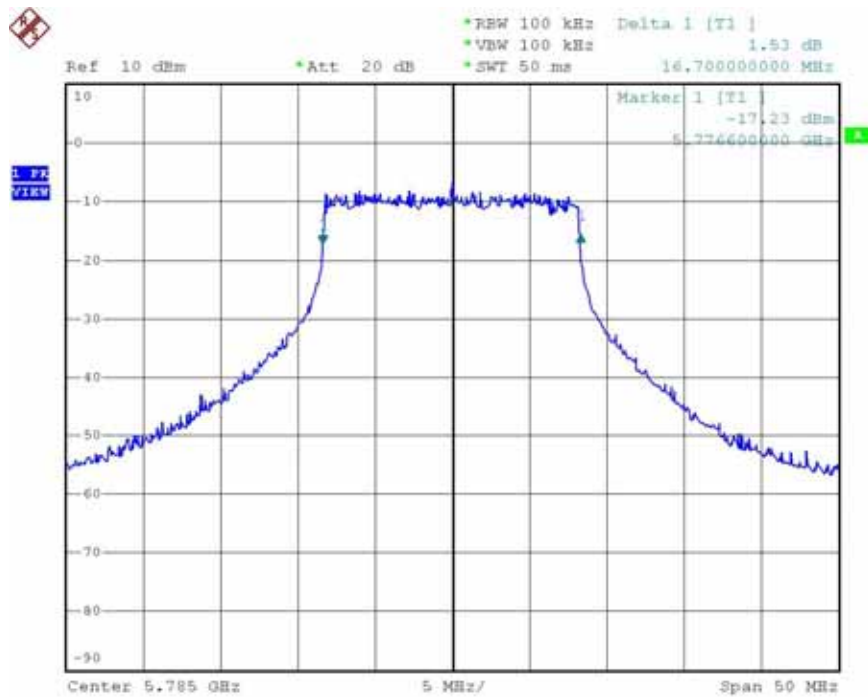
Modulation Standard: 802.11a (54Mbps)

Channel: 09



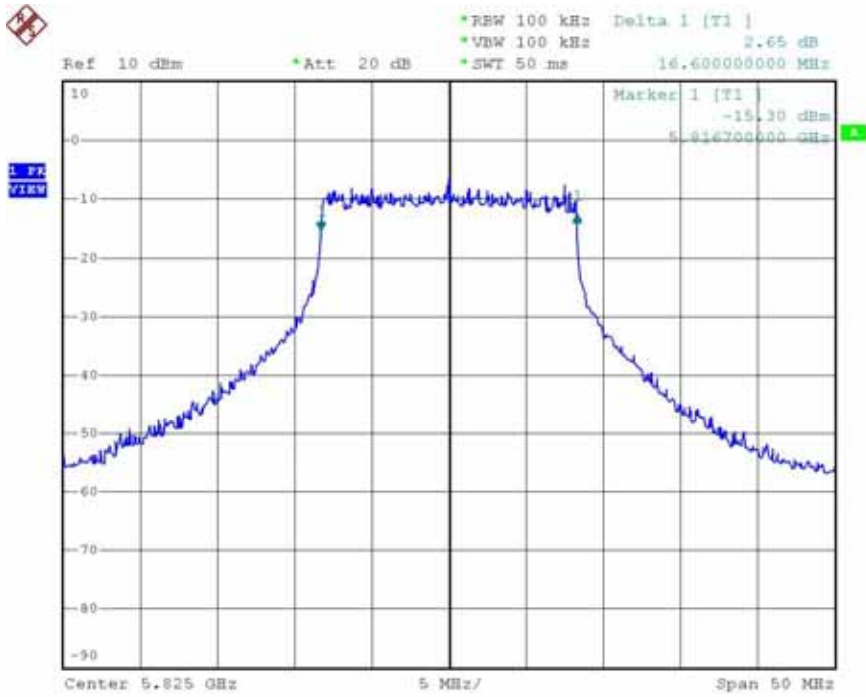
Date: 20.OCT.2005 12:12:16

Channel:11



Date: 20.OCT.2005 12:14:17

Channel: 13



Date: 20.OCT.2005 12:15:27

13. Maximum Peak Output Power (For 802.11a device)

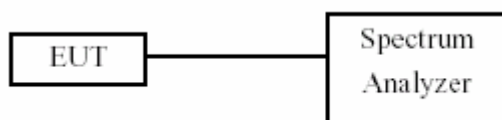
13.1 Test Limit

The Maximum Peak Output Power Measurement is 30dBm.

13.2 Test Procedures

The antenna port(RF output)of the EUT was connected to the input(RF input)of a power meter. Power was read directly from the meter and cable loss connection was added to the reading to obtain power at the EUT antenna terminal. The EUT Output Power was set to maximum to produce the worse case test result.

13.3 Test Setup Layout



13.4 List of Measuring Equipment Used

Instrument/Ancillary	Type	Manufacturer	Serial No.	Valid Date.
Spectrum Analyzer	FSP40	R&S	100047	2005/12/28

13.5 Test Result and Data

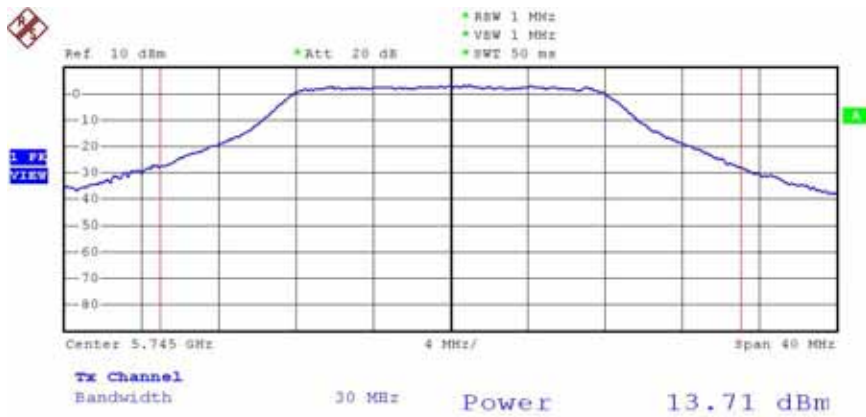
(1) Modulation Standard: IEEE 802.11a (54Mbps)

Test Date: Oct. 19, 2005 Temperature: 24 Humidity: 64% Atmospheric pressure: 1021mmHg

Channel	Frequency (MHz)	Peak Power Output (dBm)	Peak Power Output (mW)
9	5745	13.71	23.496
11	5785	13.87	24.378
13	5825	13.75	23.714

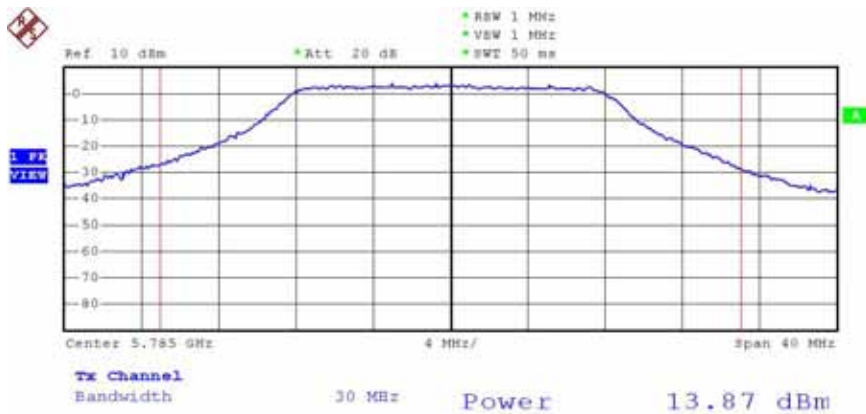
Modulation Standard: 802.11a (54Mbps)

Channel: 09



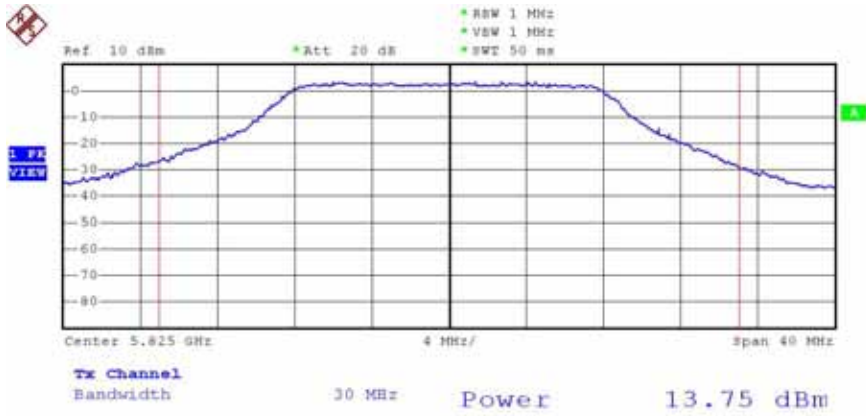
Date: 19.OCT.2005 17:59:51

Channel:11



Date: 19.OCT.2005 17:57:38

Channel: 13



Date: 19.OCT.2005 17:55:34

14. Band Edges Measurement (For 802.11a device)

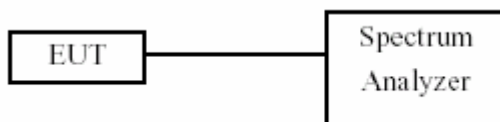
14.1 Test Limit

Below -20dB of the highest emission level of operating band
(in 100kHz Resolution Bandwidth).

14.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer via a low lose cable.
2. Set both RBW and VBW of spectrum analyzer to 100 KHz with convenient frequency span including 100 KHz bandwidth from band edge.
3. The band edges was measured and recorded.

14.3 Test Setup Layout



14.4 List of Measuring Equipment Used

Instrument/Ancillary	Type	Manufacturer	Serial No.	Valid Date.
Spectrum Analyzer	FSP40	R&S	100047	2005/12/28

14.5 Test Result and Data

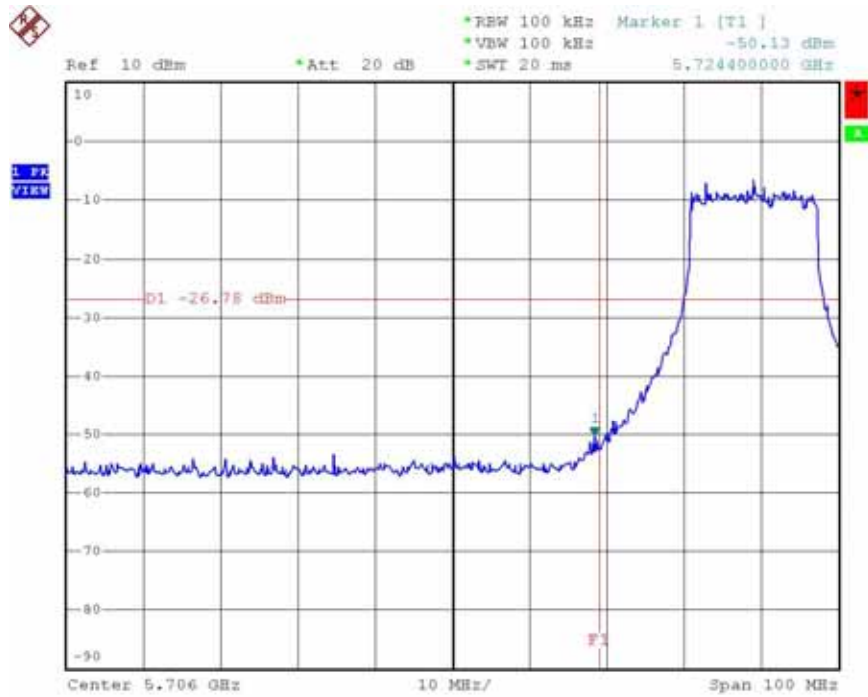
(1) Modulation Standard: IEEE 802.11a (54Mbps)

Test Date: Oct. 25, 2005 Temperature: 25 Humidity: 68% Atmospheric pressure: 1028 mmHg

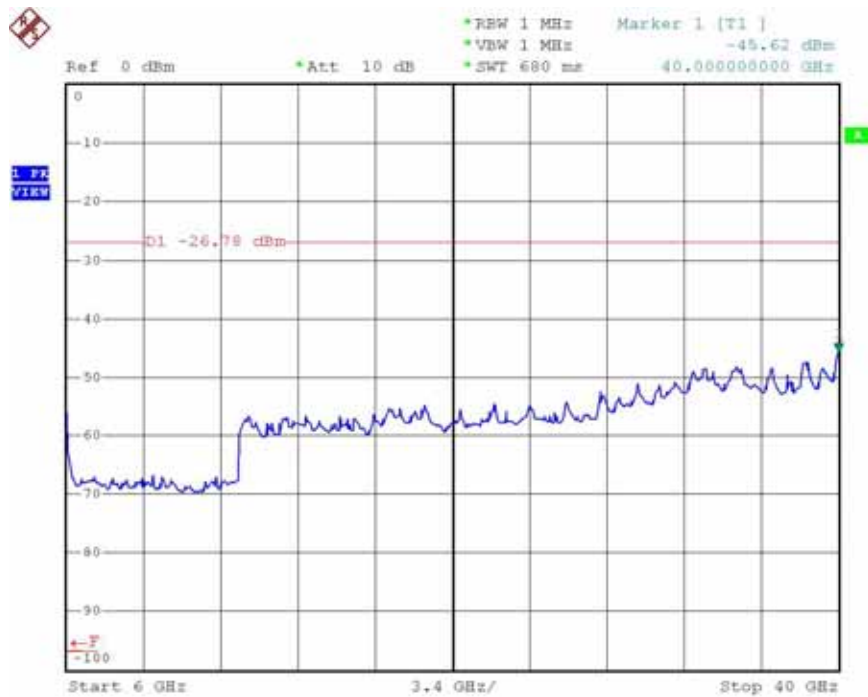
Channel	Frequency	maximum value in frequency (MHz)	maximum value is (dBm)
9	5745	40000.00	-45.62
13	5825	40000.00	-45.41

Modulation Standard: 802.11a (54Mbps)

Channel: 09

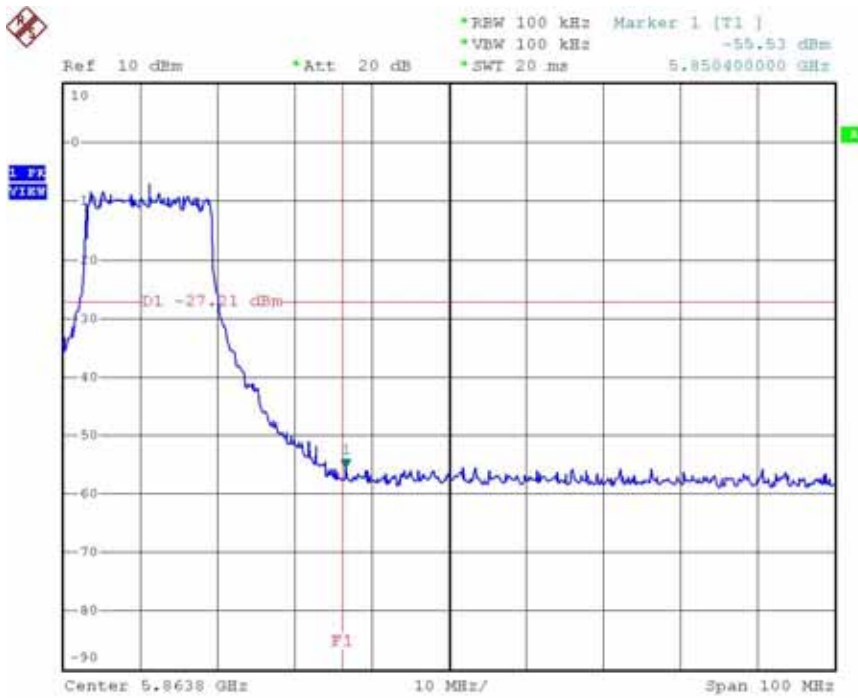


Date: 19.OCT.2005 18:13:03

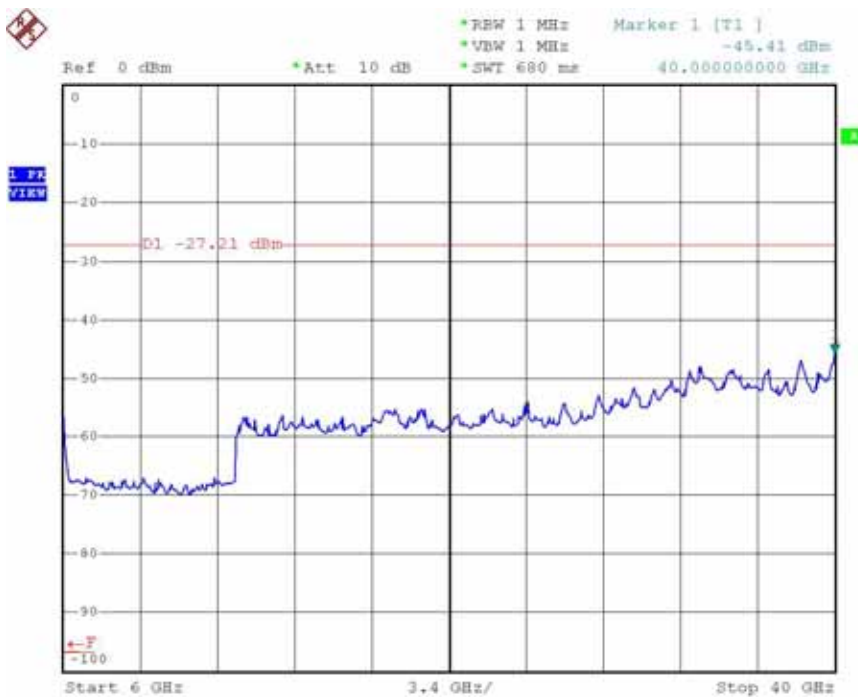


Date: 19.OCT.2005 18:14:25

Channel: 13



Date: 19.OCT.2005 18:18:01



Date: 19.OCT.2005 18:18:56

15. Power Spectral Density (For 802.11a device)

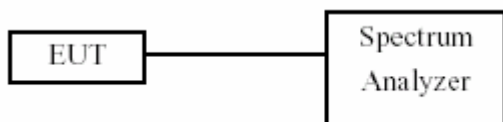
15.1 Test Limit

The Maximum of Power Spectral Density Measurement is 8dBm.

15.2 Test Procedures

- 1.The transmitter output was connected to spectrum analyzer.
- 2.The spectrum analyzer's resolution bandwidth were set at 3KHz RBW and 30KHz VBW as that of the fundamental frequency. Set the sweep time=span/3KHz.
- 3.The power spectral density was measured and recorded.
- 4.The Sweep time is allowed to be longer than span/3KHz for a full response of the mixer in the spectrum analyzer.

15.3 Test Setup Layout :



15.4 List of Measuring Equipment Used

Instrument/Ancillary	Type	Manufacturer	Serial No.	Valid Date.
Spectrum Analyzer	FSP40	R&S	100047	2005/12/28

15.5 Test Result and Data

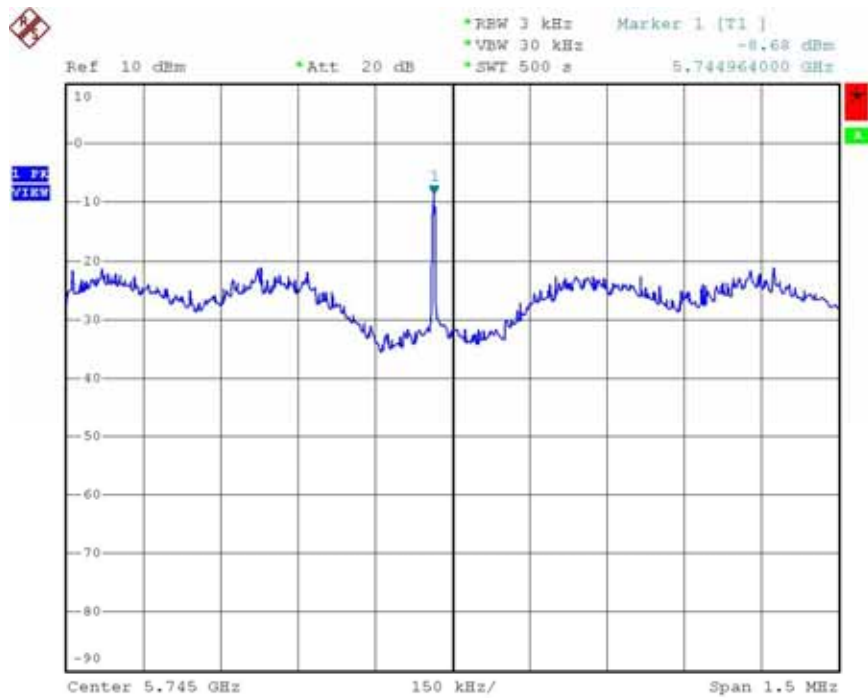
(1) Modulation Standard: IEEE 802.11b (11Mbps)

Test Date: Oct. 25, 2005 Temperature: 25 Humidity: 68% Atmospheric pressure: 1028 mmHg

Channel	Frequency	Maximum Power Density of 3 kHz Bandwidth (dBm)
09	5745	-8.68
11	5785	-8.80
13	5825	-9.12

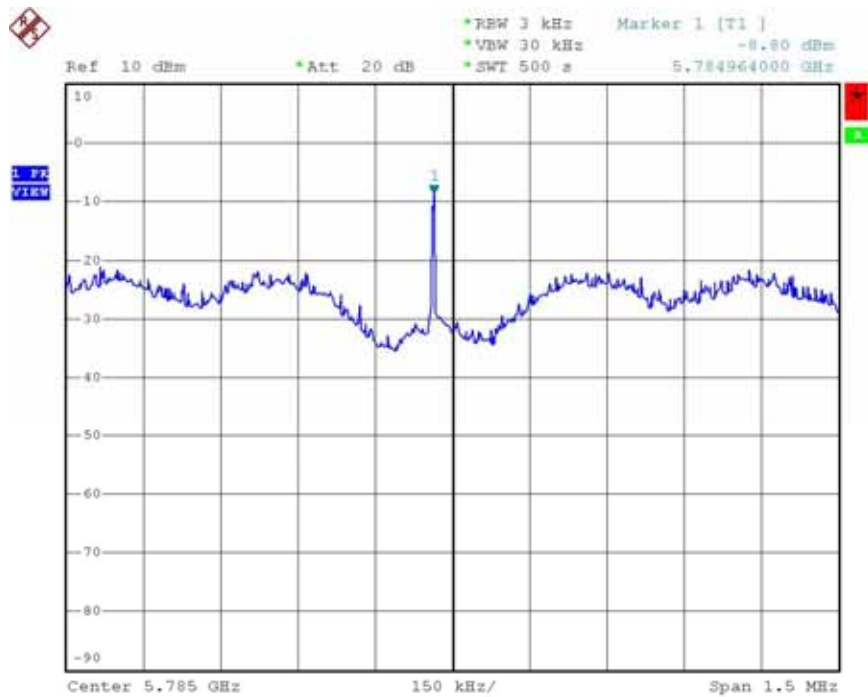
Modulation Standard: 802.11a (54Mbps)

Channel: 09



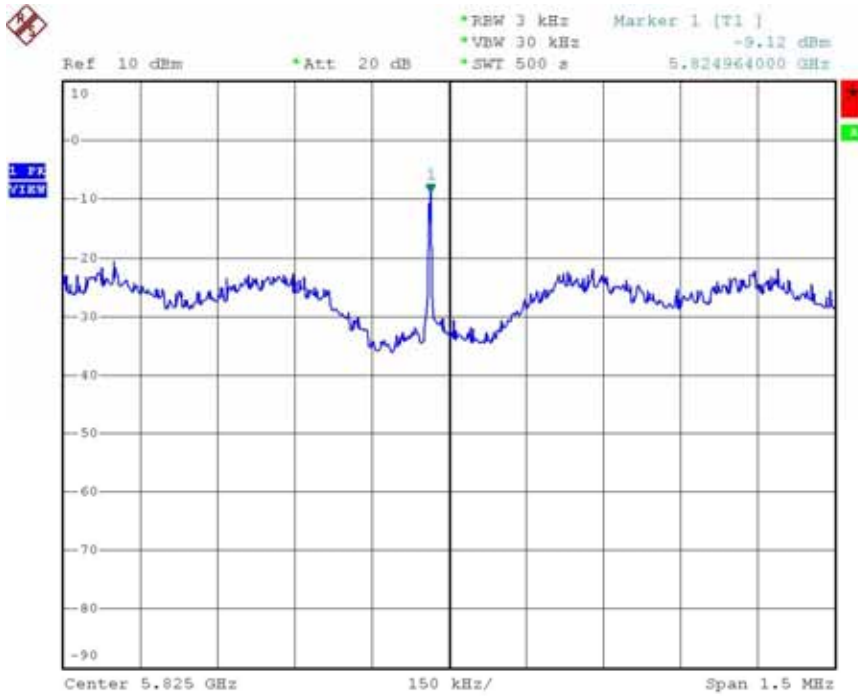
Date: 19.OCT.2005 18:01:44

Channel:11



Date: 19.OCT.2005 18:02:52

Channel: 13



Date: 19.OCT.2005 18:04:05

16. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.250
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

** : Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

16.1 Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.