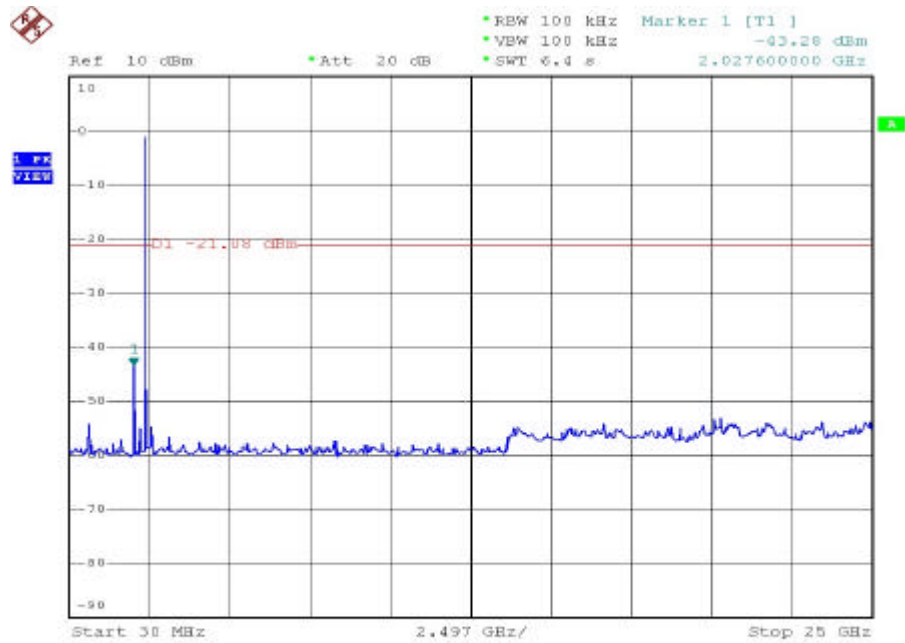
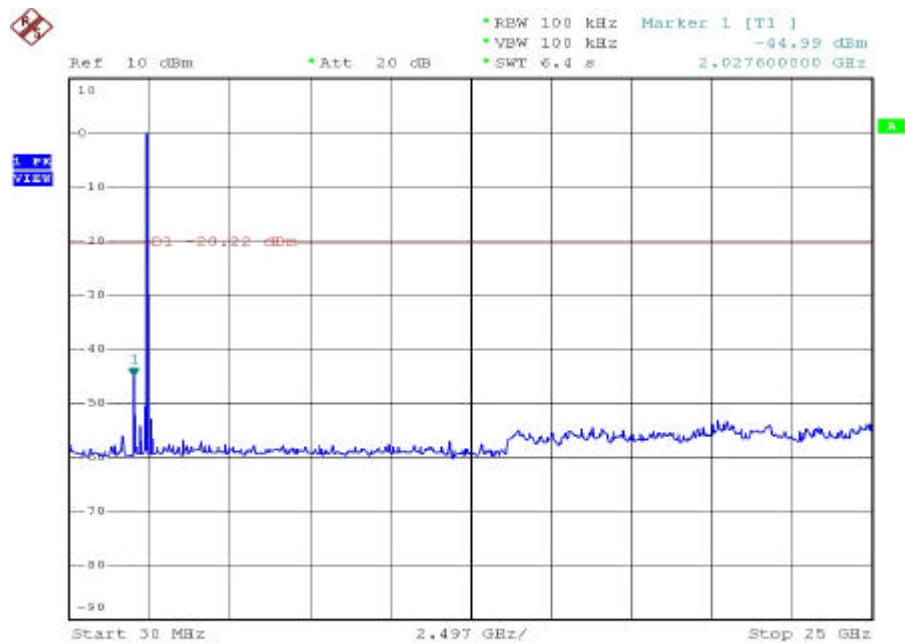


4.3. RF Portion

4.3.1. Test Result of Conducted Emission



Date: 15.SEP.2004 14:30:27



Date: 15.SEP.2004 14:32:13



4.3.2. Test Result of Radiated Emission

Modulation Standard: IEEE 802.11b

a) Emission frequencies below 1 GHz Channel LO

Test Date: Oct. 08, 2004 Temperature: 24°C Humidity: 59%

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)
290.93	H	54.13	-12.56	41.57	46.0	-4.43	Peak	160	1.0
99.84	V	55.77	-17.47	38.30	43.5	-5.20	Peak	130	1.0
124.09	V	55.42	-15.74	39.68	43.5	-3.82	Peak	100	1.0
911.73	V	39.06	3.32	42.38	46.0	-3.62	Peak	155	1.0
936.02	V	38.53	3.96	42.49	46.0	-3.51	Peak	166	1.0

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier

b) Emission frequencies above 1 GHz Channel LO

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)
1840.40	H	57.15	-2.84	54.30	74.0	-19.70	Peak	204	1.5
1840.40	H	42.58	-2.87	39.70	54.0	-14.30	Avg	204	1.5
2038.00	H	58.53	-1.81	56.72	74.0	-17.28	Peak	216	1.5
2038.00	H	50.19	-1.80	48.39	54.0	-5.61	Avg	216	1.5
4823.80	H	52.19	7.22	60.13	74.0	-13.87	Peak	188	1.5
4823.80	H	31.89	7.25	39.14	54.0	-14.86	Avg	188	1.5
2605.50	H	50.63	0.20	50.83	74.0	-23.17	Peak	182	1.5
2033.50	V	53.35	-2.51	50.83	74.0	-23.17	Peak	196	1.5

Modulation Standard: IEEE 802.11b

a) Emission frequencies below 1 GHz Channel MID

Test Date: Oct. 08, 2004 Temperature: 24°C Humidity: 59%

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)
290.93	H	54.36	-12.56	41.78	46.0	-4.22	Peak	150	1.0
124.09	V	55.46	-15.74	39.72	43.5	-3.78	Peak	120	1.0
935.98	V	38.97	3.96	42.93	46.0	-3.07	Peak	150	1.0

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier

b) Emission frequencies above 1 GHz Channel MID

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)
1845.00	H	56.22	-2.84	53.38	74.00	-20.62	Peak	193	1.5
1845.00	H	43.96	-2.84	41.12	54.00	-12.88	Avg	193	1.5
2053.00	H	54.94	-1.75	53.19	74.00	-20.81	Peak	212	1.5
2053.00	H	42.83	-1.75	41.08	54.00	-12.92	Avg	212	1.5
2605.50	H	50.55	0.20	50.75	74.00	-23.25	Peak	198	1.5
4874.80	H	49.73	7.40	57.14	74.00	-16.86	Peak	200	1.5
4874.80	H	37.05	7.43	44.47	54.00	-9.53	Avg	200	1.5
1845.00	V	54.94	-3.48	51.46	74.00	-22.54	Peak	181	1.5
2063.00	V	56.66	-2.45	54.22	74.00	-19.78	Peak	183	1.5
2063.00	V	48.89	-2.41	46.48	54.00	-7.52	Avg	183	1.5

Modulation Standard: IEEE 802.11b

a) Emission frequencies below 1 GHz Channel HI

Test Date: Oct. 08, 2004 Temperature: 24°C Humidity: 59%

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)
502.39	H	48.11	-6.22	41.89	46.0	-4.11	Peak	250	1.0
124.09	V	54.99	-15.74	39.25	43.5	-4.25	Peak	100	1.0
911.73	V	38.57	3.32	41.89	46.0	-4.11	Peak	150	1.0
953.98	V	39.63	3.96	43.59	46.0	-2.41	Q.P	115	1.0

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier

b) Emission frequencies above 1 GHz Channel HI

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)
1845.00	H	56.40	-2.84	53.56	74.0	-20.44	Peak	200	1.5
2079.00	H	51.81	-1.66	50.15	74.0	-23.85	Peak	182	1.5
2293.50	H	52.74	-0.92	51.82	74.0	-22.18	Peak	196	1.5
2605.50	H	51.97	0.20	52.18	74.0	-21.82	Peak	201	1.5
4924.40	H	49.11	7.58	56.69	74.0	-17.31	Peak	213	1.5
4924.40	H	33.57	7.60	41.17	54.0	-12.83	Avg	213	1.5
1845.00	V	54.54	-3.48	51.05	74.0	-22.95	Peak	214	1.5
2079.00	V	52.67	-2.36	50.31	74.0	-23.69	Peak	219	1.5

4.3.3. Photographs of Radiated Emission Test

FRONT VIEW



REAR VIEW

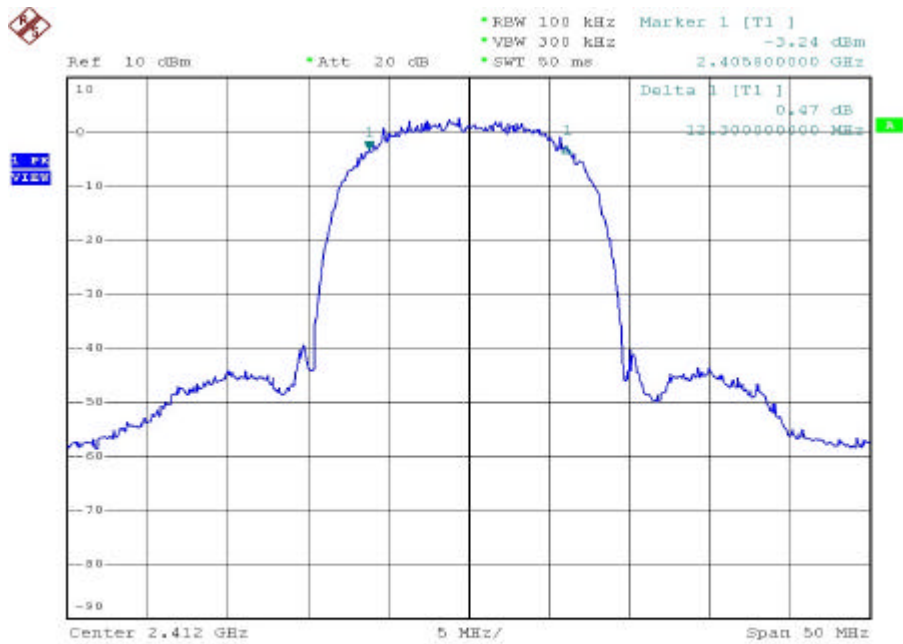


4.4. 6dB Bandwidth Measurement Data

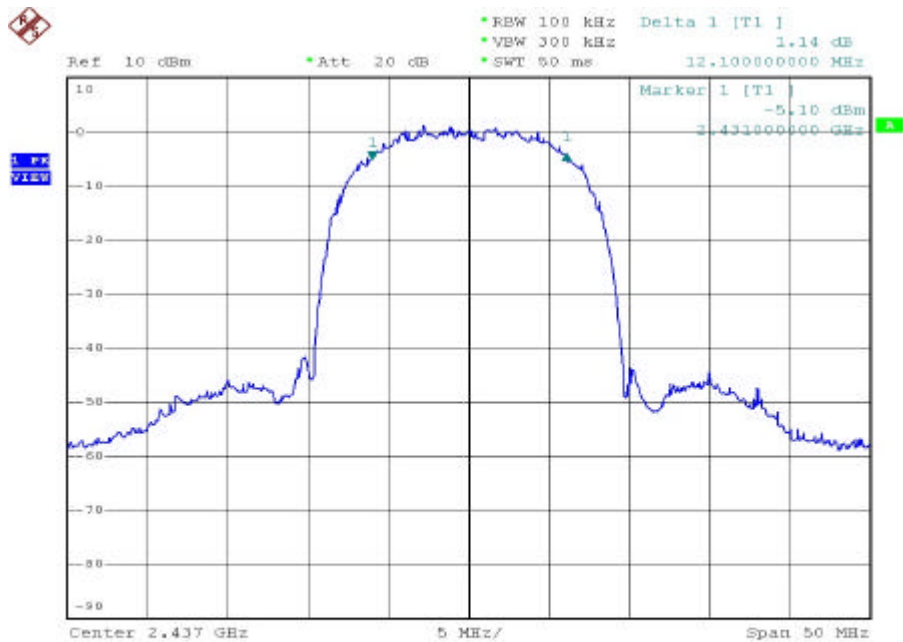
Modulation Standard: IEEE 802.11b

Test Date: Sep. 15, 2004 Temperature: 27°C Humidity: 58%

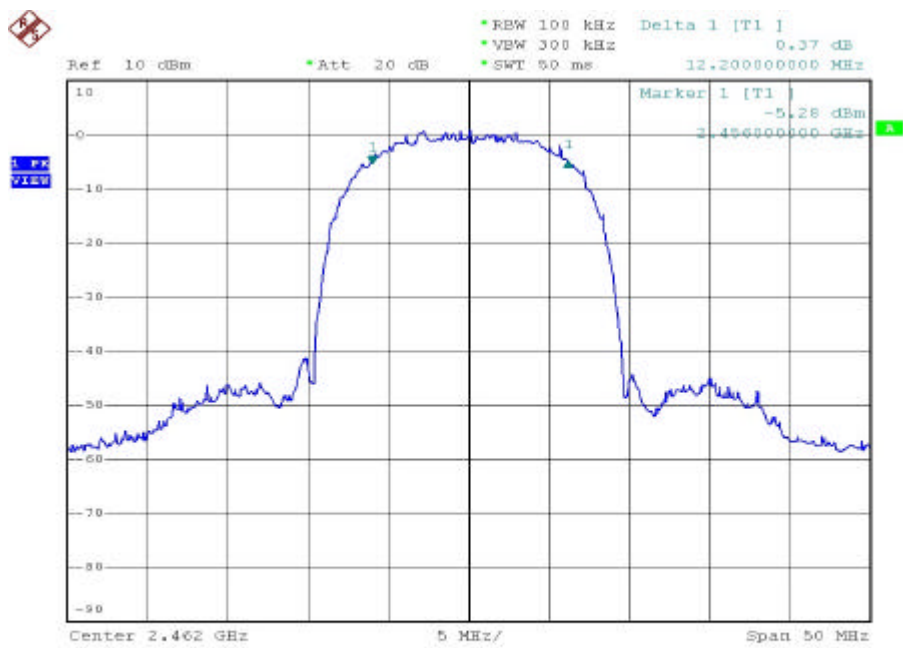
- a) Channel 01: 6dB Emission Bandwidth is 12.3 MHz
- b) Channel 06: 6dB Emission Bandwidth is 12.1 MHz
- c) Channel 11: 6dB Emission Bandwidth is 12.2 MHz



Date: 15.SEP.2004 12:16:42



Date: 15.SEP.2004 12:19:07



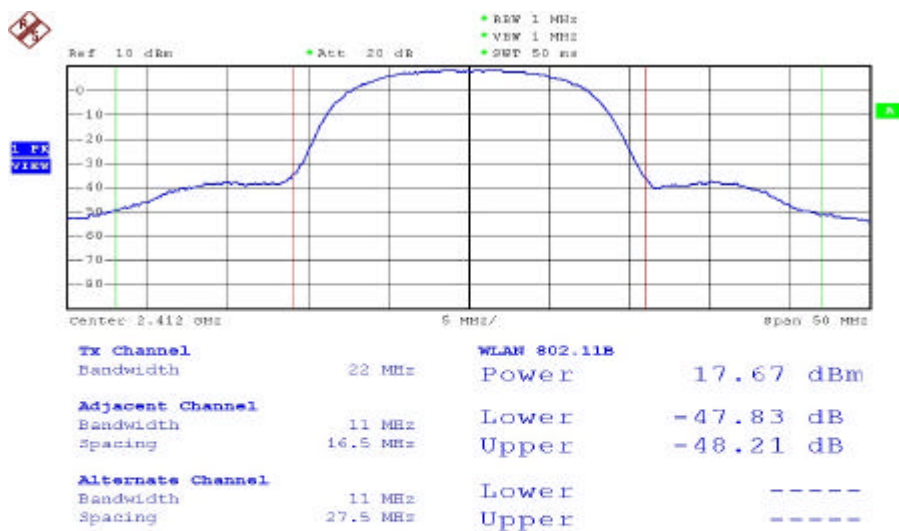
Date: 15.SEP.2004 12:21:28

4.5. Peak Output Power Measurement Data

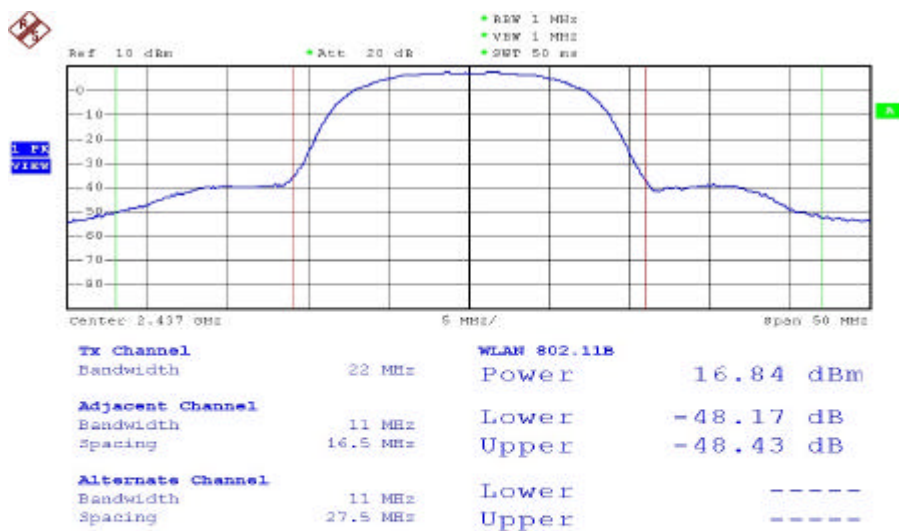
Modulation Standard: IEEE 802.11b

Test Date: Sep. 15, 2004 Temperature: 27°C Humidity: 58%

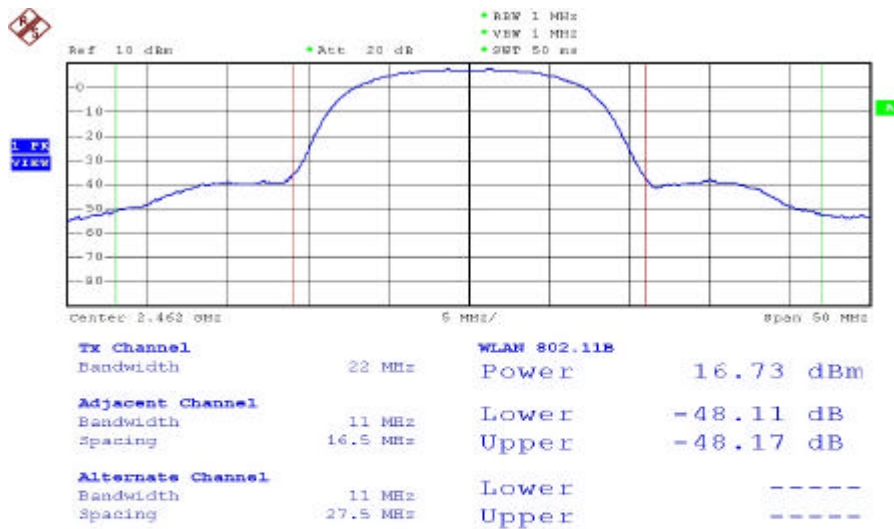
a) Channel 01: Output Peak Power is	<u>17.67</u>	dBm or	<u>58.479</u>	mW
b) Channel 06: Output Peak Power is	<u>16.84</u>	dBm or	<u>48.306</u>	mW
c) Channel 11: Output Peak Power is	<u>16.73</u>	dBm or	<u>47.098</u>	mW



Date: 15.SEP.2004 11:21:22



Date: 15.SEP.2004 11:22:50



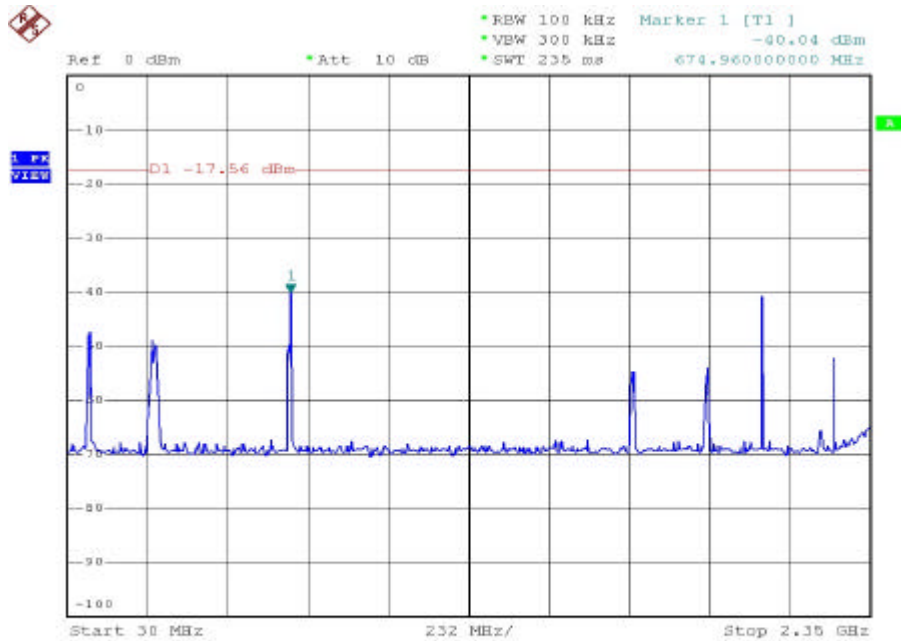
Date: 15.SEP.2004 11:24:57

4.6. Band Edges Measurement Data

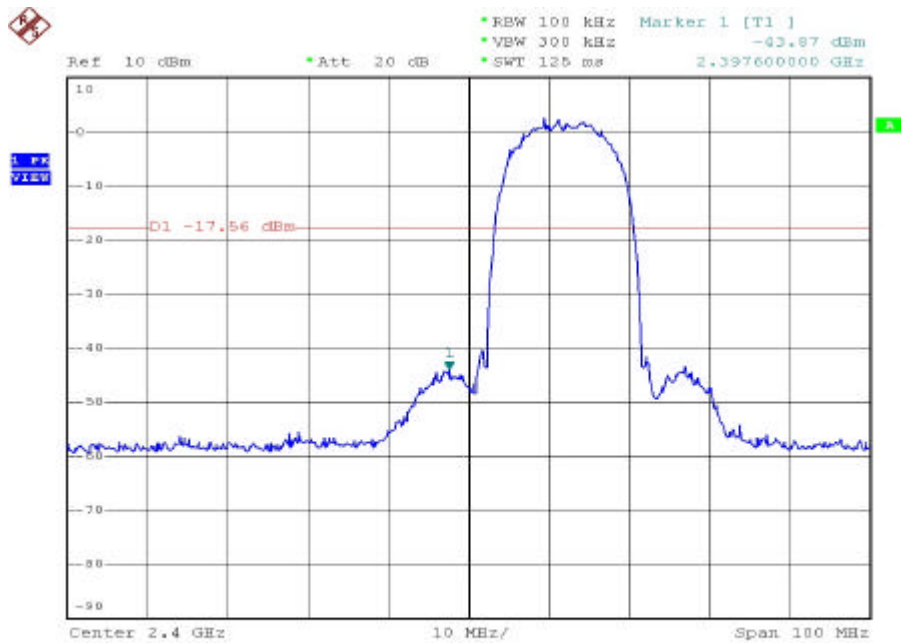
Modulation Standard: IEEE 802.11b

Test Date: Sep. 15, 2004 Temperature: 27°C Humidity: 58%

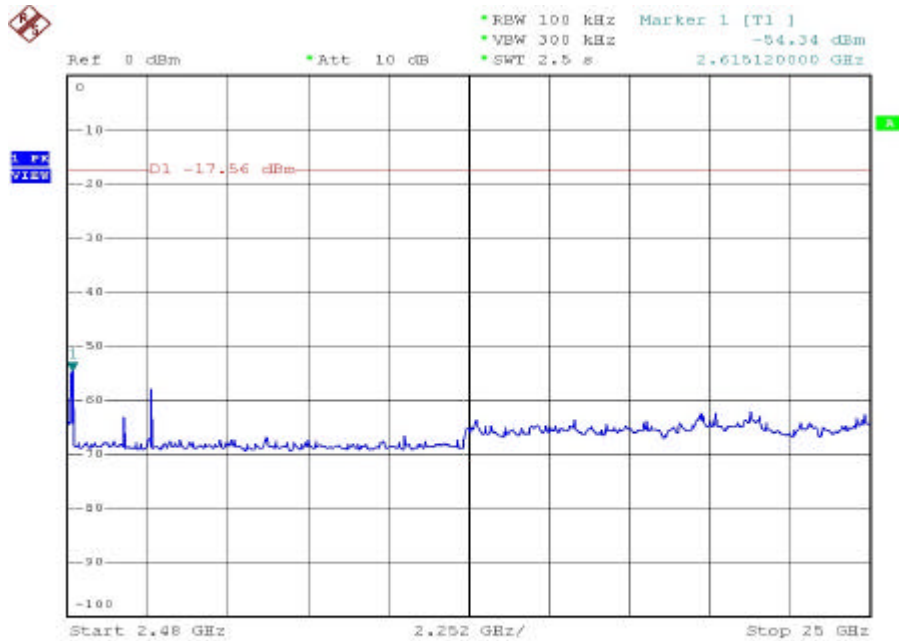
- a) Lower Band Edge: maximum value is -40.04 dBm that is attenuated more than 20dB
- b) Upper Band Edge: maximum value is -44.40 dBm that is attenuated more than 20dB



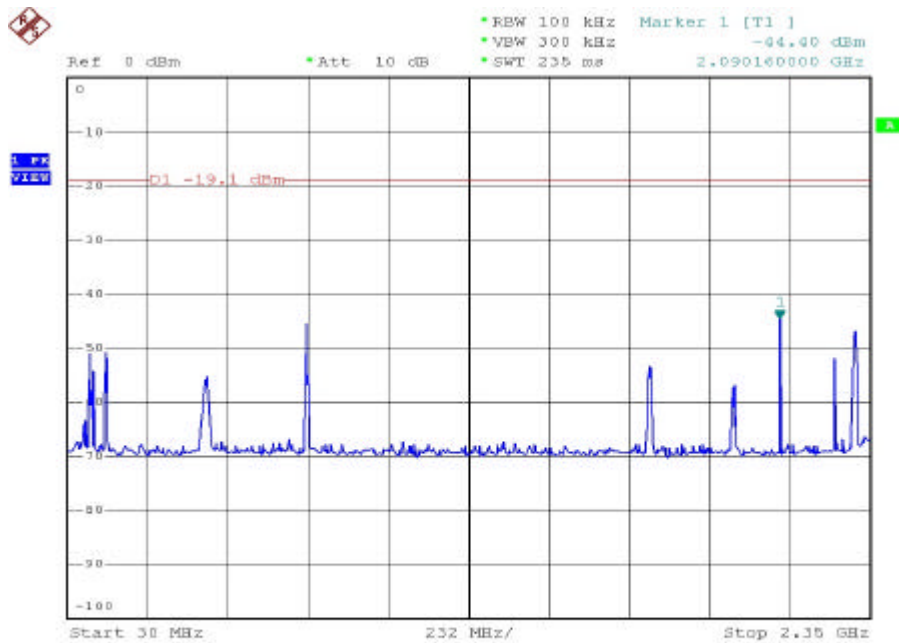
Date: 15.SEP.2004 13:37:16



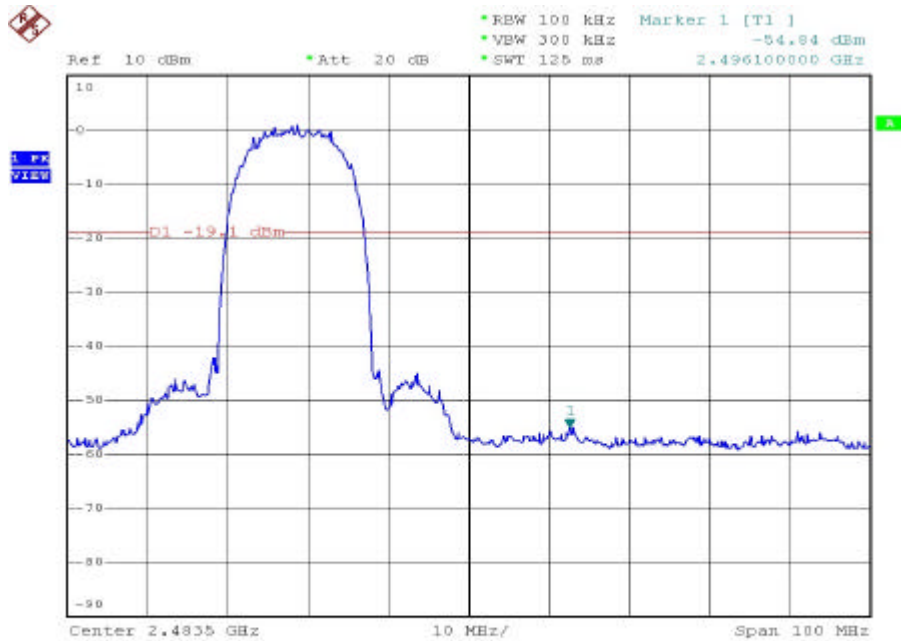
Date: 15.SEP.2004 13:36:01



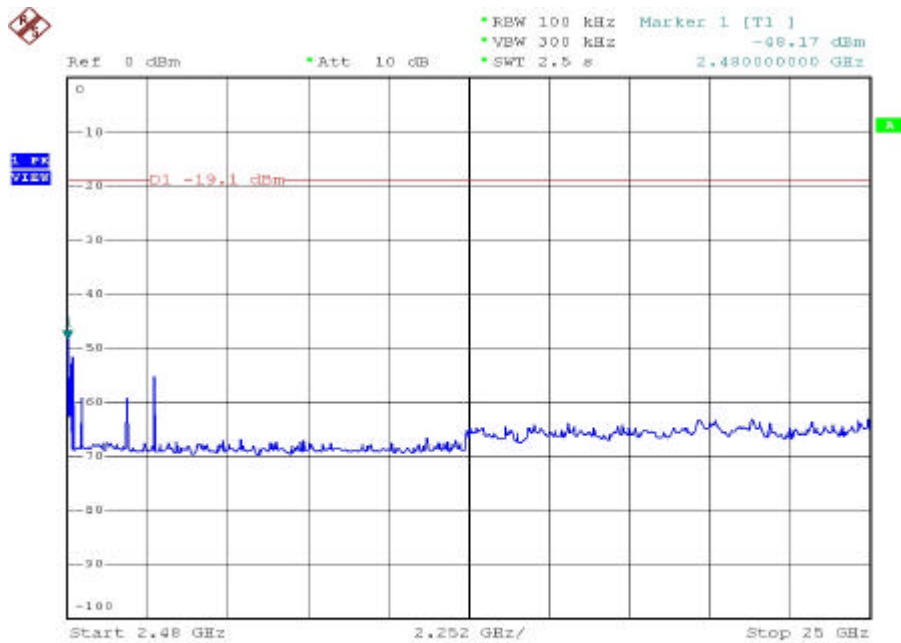
Date: 15.SEP.2004 13:38:28



Date: 15.SEP.2004 13:45:03



Date: 15.SEP.2004 13:43:34



Date: 15.SEP.2004 13:46:20

4.7. Note on Band edge Emission

Modulation Standard: IEEE 802.11b

Test Date: Oct. 08, 2004 Temperature: 24°C Humidity: 59%

a) Channel 1

Fundamental Frequency: 2412 MHz

Frequency (MHz)	Level (dBuV/m)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
				Peak	Ave.			
2388.540	51.21	H	Peak	74	54	-22.79	199	1.5
2388.540	---	H	Ave.	74	54	---	---	---
2317.956	49.75	V	Peak	74	54	-24.25	181	1.5
2317.956	---	V	Ave.	74	54	---	---	---

b) Channel 11

Fundamental Frequency: 2462 MHz

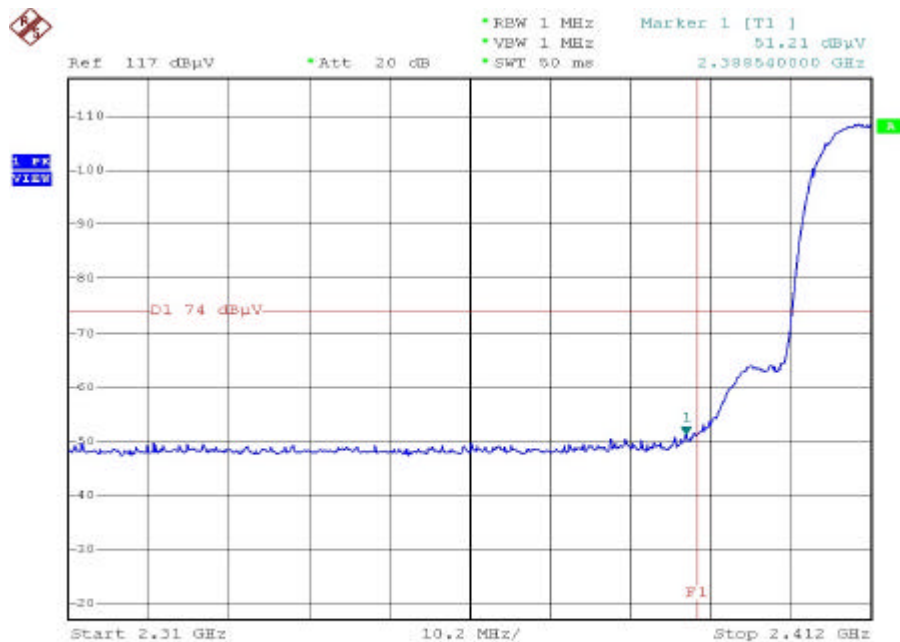
Frequency (MHz)	Level (dBuV/m)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
				Peak	Ave.			
2495.440	51.27	H	Peak	74	54	-22.73	214	1.5
2495.440	---	H	Ave.	74	54	---	---	---
2491.108	49.51	V	Peak	74	54	-24.49	198	1.5
2491.108	---	V	Ave.	74	54	---	---	---

Notes:

1. Level = Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier Factor

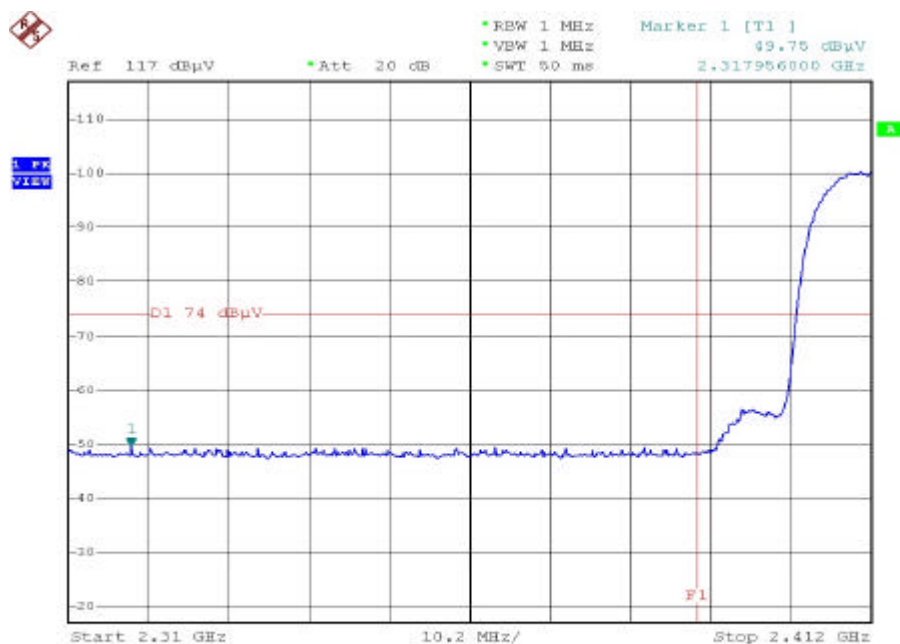
Modulation Standard: IEEE 802.11b

Pol/Phase: Horizontal



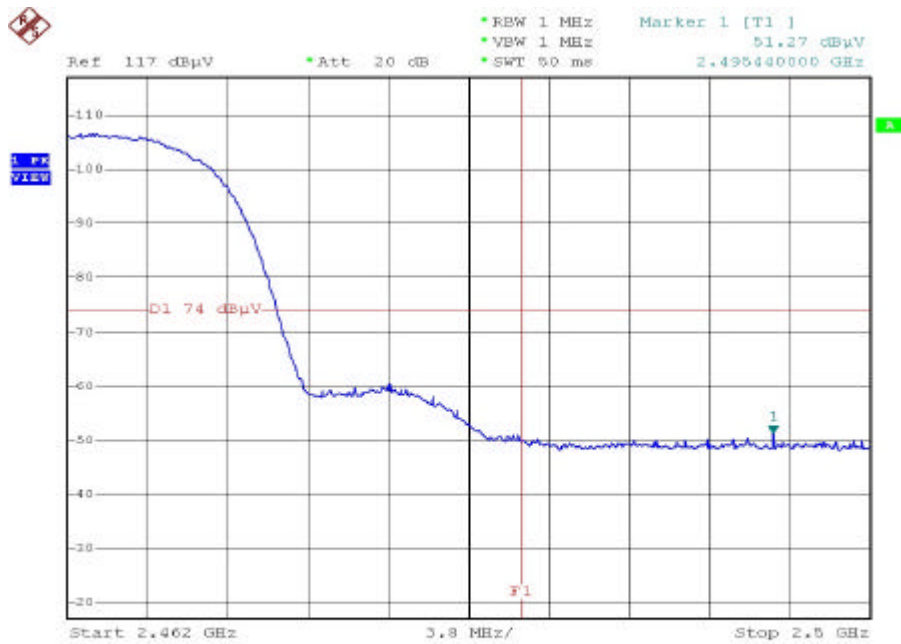
Date: 8.OCT.2004 11:58:10

Pol/Phase: Vertical



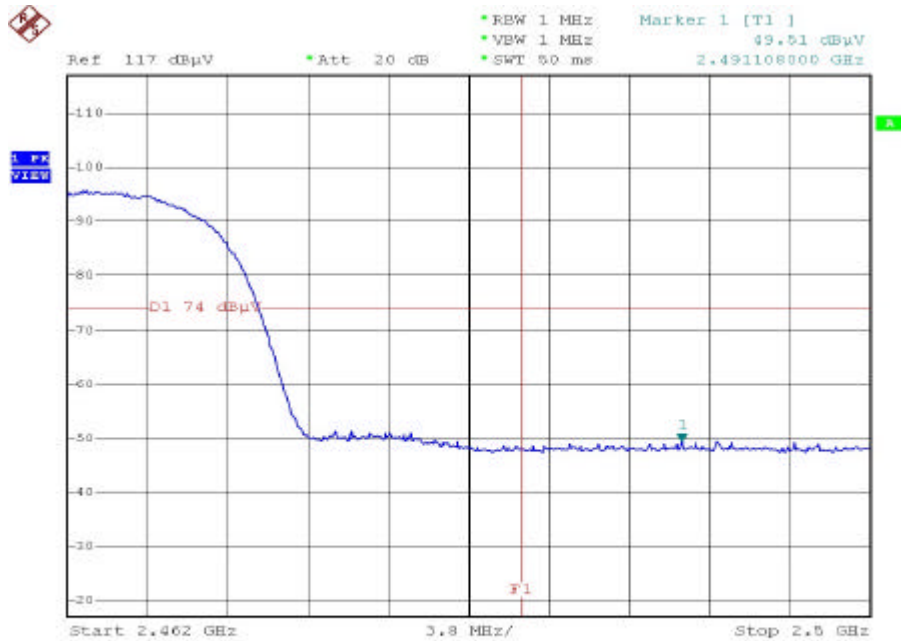
Date: 8.OCT.2004 11:31:16

Pol/Phase: Horizontal



Date: 8.OCT.2004 11:48:41

Pol/Phase: Vertical



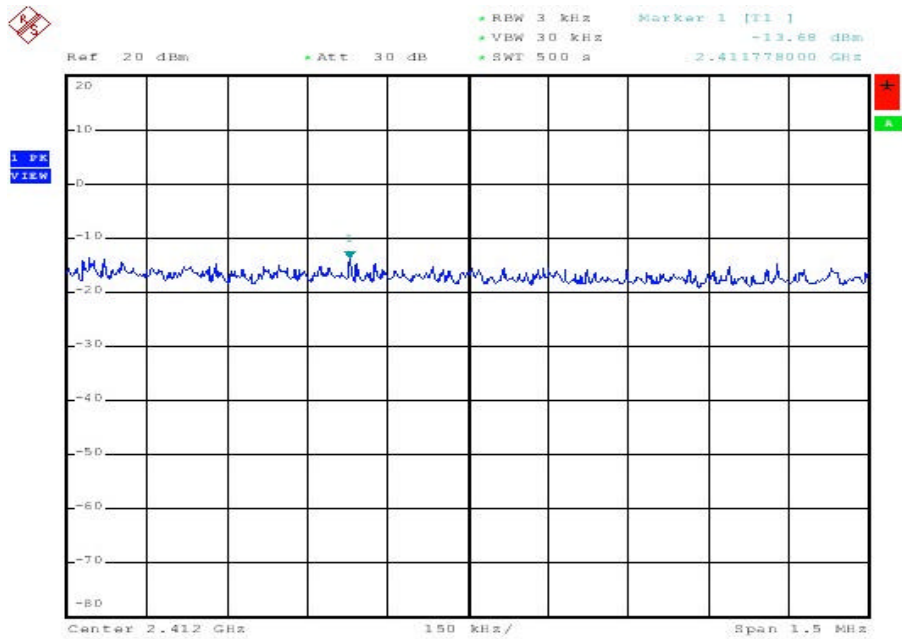
Date: 8.OCT.2004 11:45:06

4.8. Power Spectral Density Measurement Data

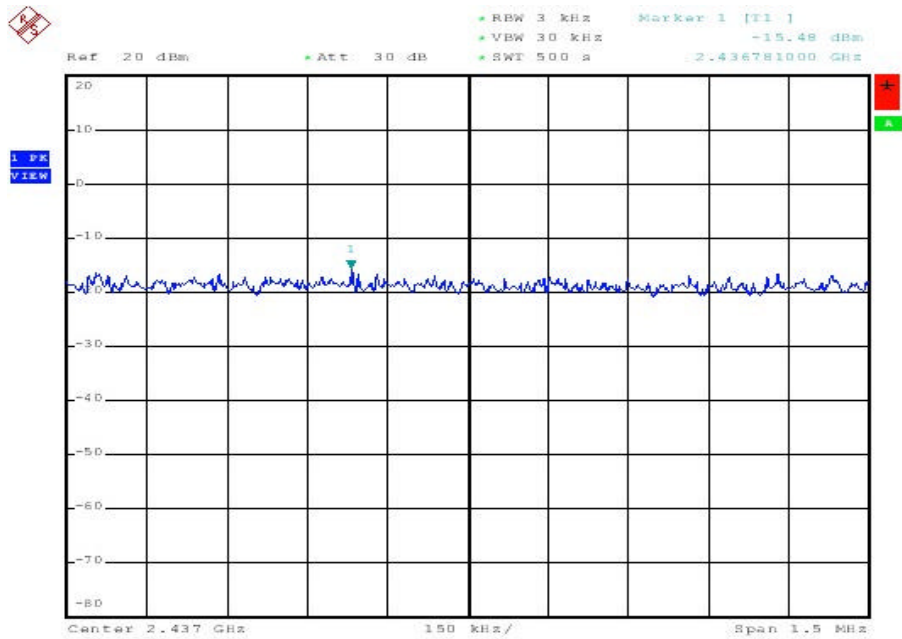
Modulation Standard: IEEE 802.11b

Test Date: Sep. 27, 2004 Temperature: 26°C Humidity: 59%

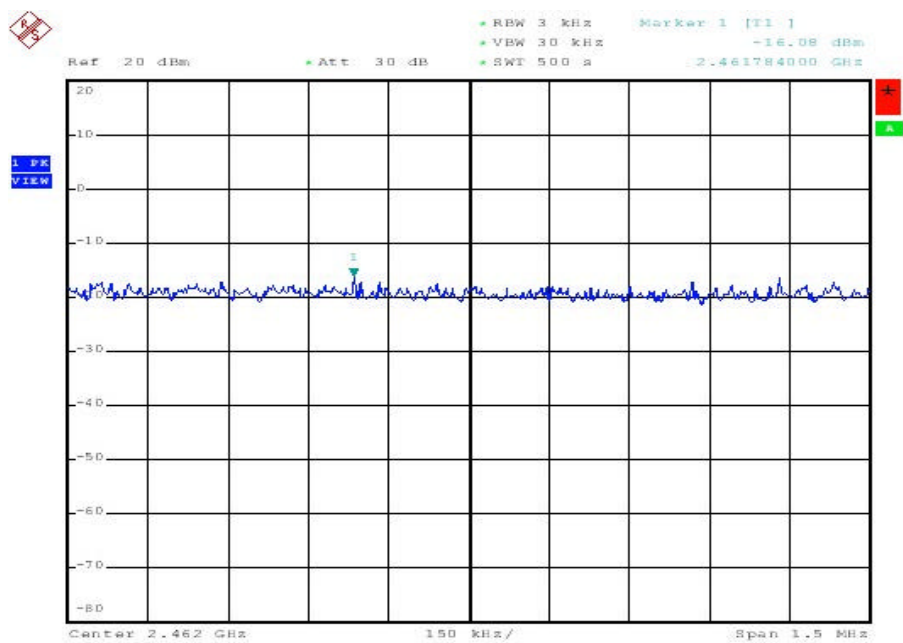
- a) Channel 01: Maximum Power Density of 3 kHz Bandwidth is -13.68 dBm
- b) Channel 06: Maximum Power Density of 3 kHz Bandwidth is -15.48 dBm
- c) Channel 11: Maximum Power Density of 3 kHz Bandwidth is -16.08 dBm



Date: 27.SEP.2004 13:45:41



Date: 27.SEP.2004 13:55:09



Date: 27.SEP.2004 14:04:36

5. List of Measuring Equipment Used

No	Instrument/Ancillary	Type	Manufacturer	Serial No.	Valid Date.
1	BILOG ANTENNA	CBL6111C	SCHAFFNER	2762	2004/11/03
2	PREAMPLIFIER	RFP4002	SCHAFFNER	010	2004/11/03
3	RECEIVER	SCR3501	SCHAFFNER	437	2004/11/03
4	SIGNAL GENERATOR	8648B	HP	3629U00612	2006/02/08
5	SPECTRUM ANALYZER	8594E	HP	3520A01913	2005/01/15
6	AMPLIFIER	8447D	AGILENT	2443A04650	2005/02/02
7	AMPLIFIER	8447D	AGILENT	2944A10531	2005/06/30
8	SERIES POWER METER	E4416A	AGILENT	GB41292146	2005/10/11
9	POWER SENSOR	E9327A	AGILENT	US40441392	2005/10/11
10	DIPOLE ANTENNA	AD-100	COM-POWER	721011	2004/12/02
11	DIPOLE ANTENNA	AD-100	COM-POWER	721010	2004/12/02
12	SPECTRUM ANALYZER	R3131A	ADVANTEST	131000021	2004/11/24
13	SPECTRUM ANALYZER	FSP40	R&S	100047	2004/12/16
14	PREAMPLIFIER	8449B	AGILENT	3008A01954	2005/01/04
15	HORN ANTENNA	3115	EMCO	31601	2005/01/13
16	HORN ANTENNA	3115	EMCO	31589	2005/01/14
17	HORN ANTENNA	3116	EMCO	31970	2005/01/29
18	HORN ANTENNA	3116	EMCO	31974	2005/01/29
19	EMI RECEIVER	8546A	HP	3807A00454	2005/02/12
20	RF FILTER SECTION	85460A	HP	3704A00386	2005/02/12
21	SIGNAL GENERATOR	83640A	HP	2927A00107	2006/03/16
22	ATTENUATOR	8491B	AGILENT	50703	2004/12/16
23	ATTENUATOR	8491B	AGILENT	50705	2004/12/16
24	TEMPERATURE CHAMBER	TMJ-9712	T MACHINE	T-12-040111	2005/03/05
25	HIGH PASS FILTER	84300-80038	HP	002	N/A
26	HIGH PASS FILTER	84300-80038	HP	006	N/A
27	DC Power Supply	GPD-3030	GM	7020936	N/A
28	AC POWER CONVERTER	AFC-11005	APC	F103120008	N/A