

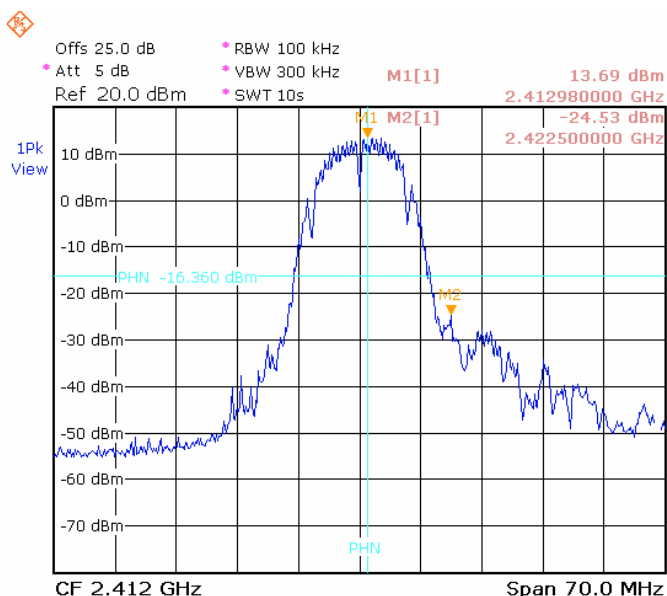
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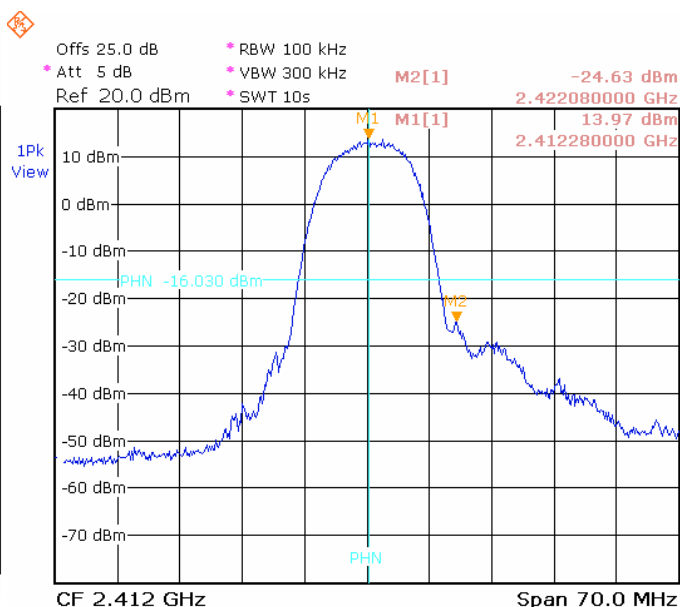
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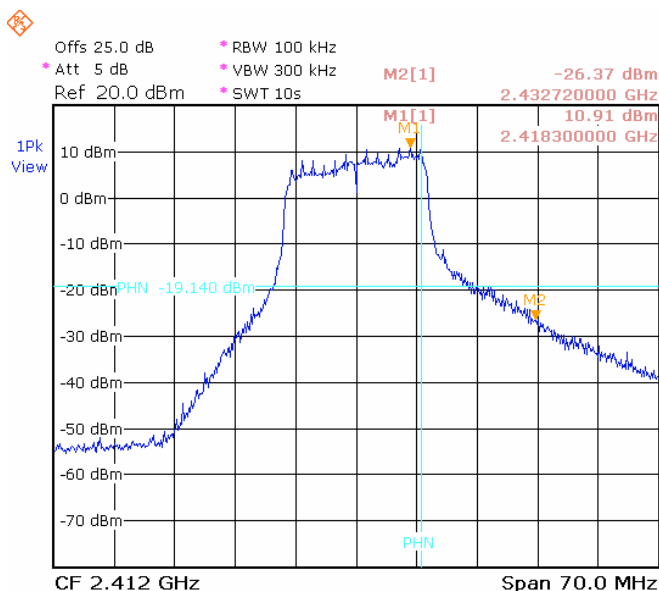
Plot # 271.

Combined Output. Low frequency bandedge.  
802.11b mode. 1Mbps rate.



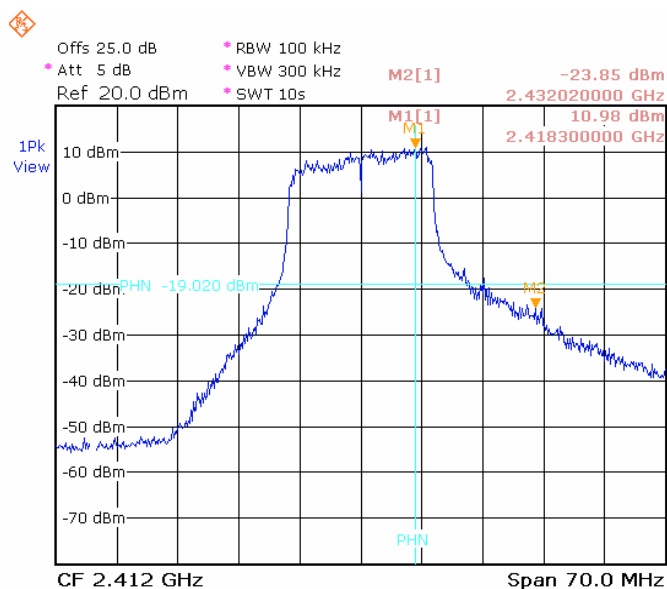
Plot # 272.

Combined Output. Low frequency bandedge..  
802.11b mode. 11Mbps rate.



Plot # 273.

Combined Output. Low frequency bandedge..  
802.11g mode. 6Mbps rate.



Plot # 274.

Combined Output. Low frequency bandedge..  
802.11g mode. 54Mbps rate.

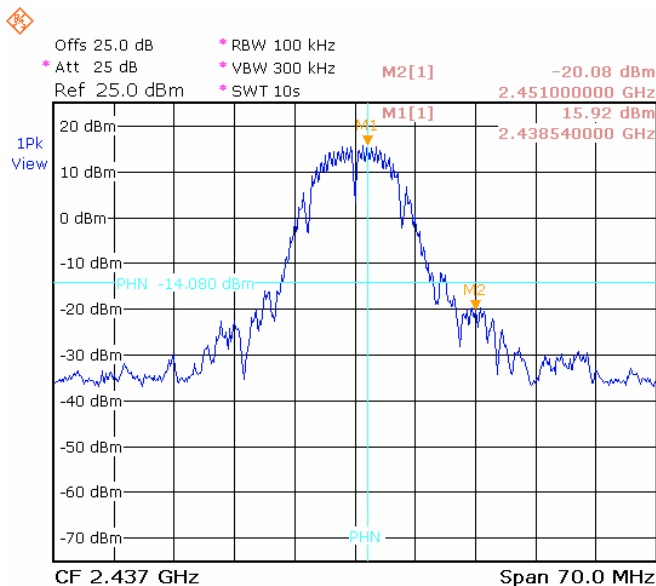
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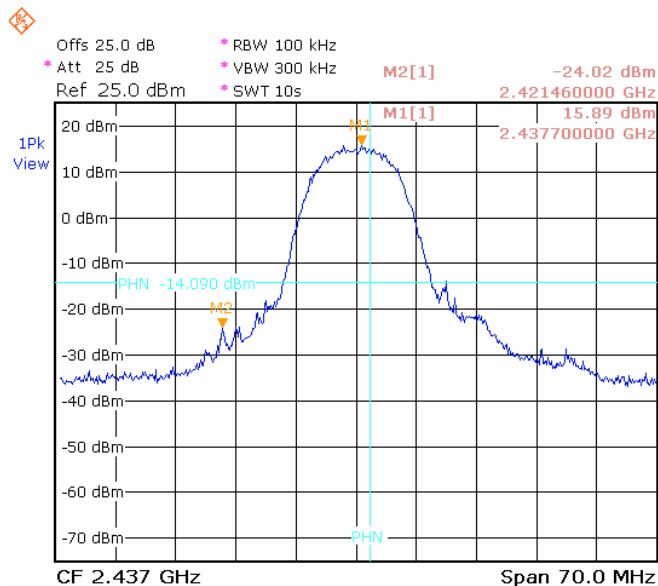
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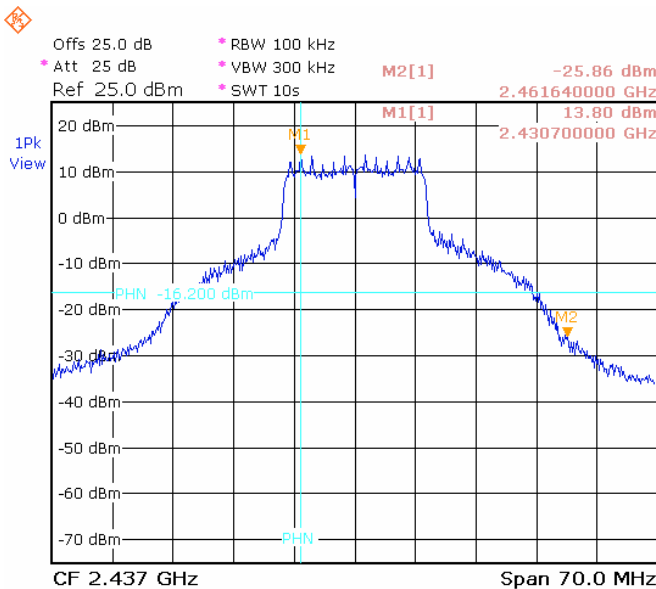
Plot # 275.

Combined Output. Middle frequency bandedge.  
802.11b mode. 1Mbps rate.



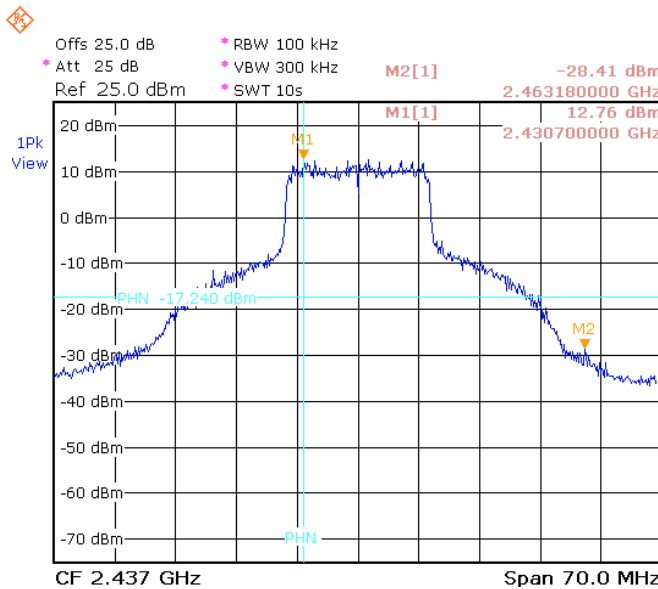
Plot # 276.

Combined Output. Middle frequency bandedge.  
802.11b mode. 11Mbps rate.



Plot # 277.

Combined Output. Middle frequency bandedge.  
802.11g mode. 6Mbps rate.



Plot # 278.

Combined Output. Middle frequency bandedge.  
802.11g mode. 54Mbps rate.

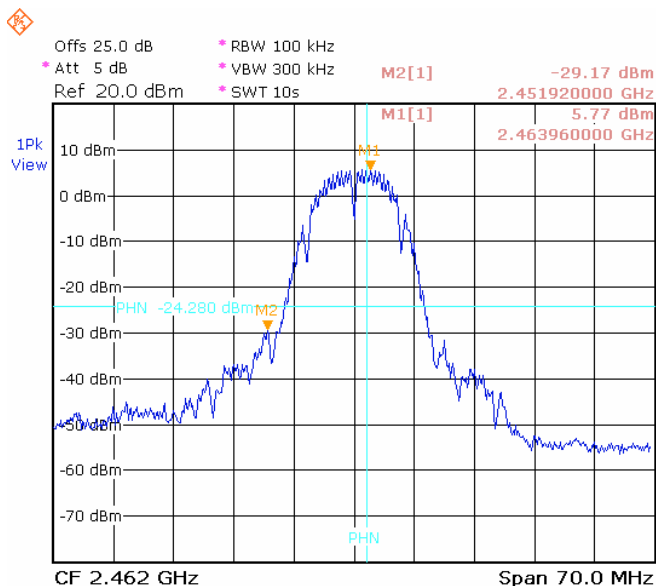
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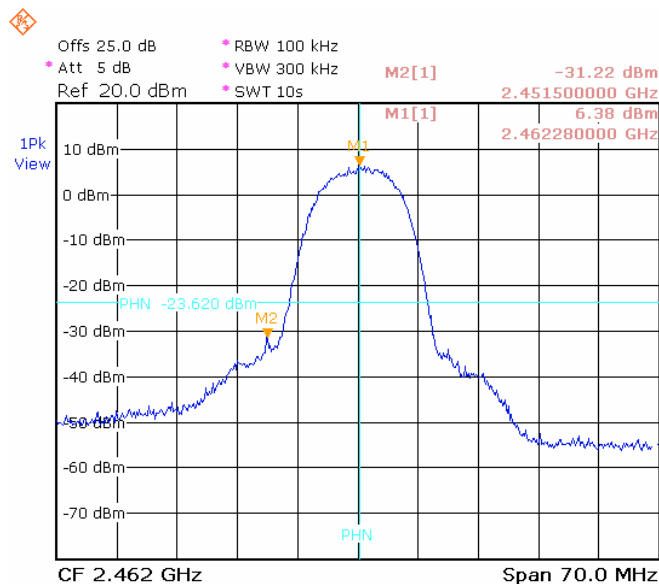
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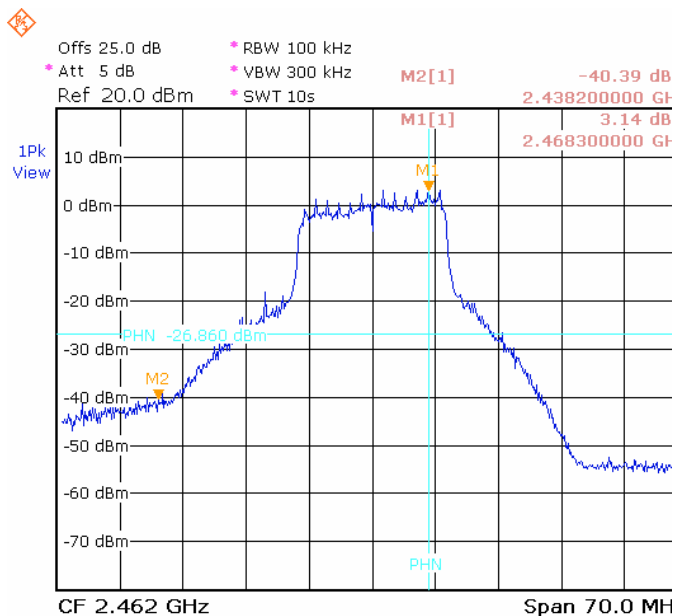
Plot # 279.

Combined Output. High frequency bandedge.  
802.11b mode. 1Mbps rate.



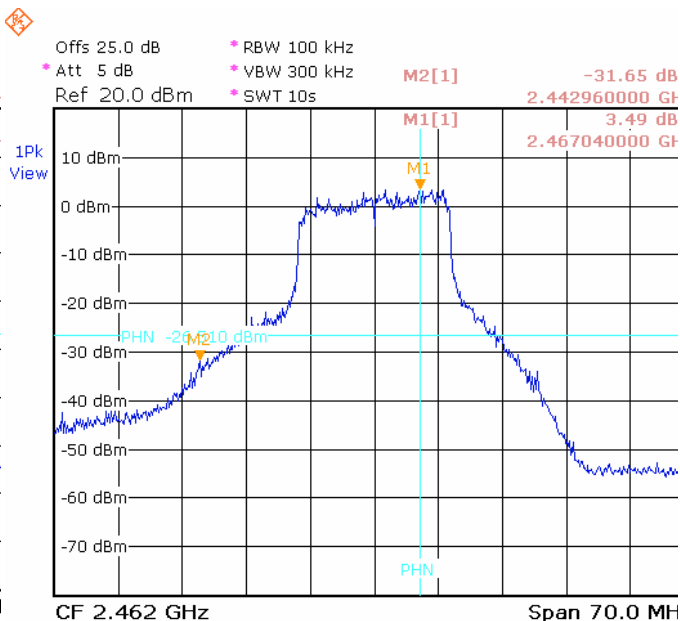
Plot # 280.

Combined Output. High frequency bandedge.  
802.11b mode. 11Mbps rate.



Plot # 281.

Combined Output. High frequency bandedge.  
802.11g mode. 6Mbps rate.



Plot # 282.

Combined Output. High frequency bandedge.  
802.11g mode. 54Mbps rate.

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## 9. Appendix 1: Test equipment used

All measurements equipment is on SII calibration schedule with a recalibration interval not exceeding one year.

Instrument	Manufacturer	Model	Serial No.	Last calibration date	Next calibration date
Spectrum analyzer 10 KHz-26.5 GHz	HP	E7405a	SII 4944	02/05	02/07
Spectrum analyzer 9 KHz-50 GHz	HP	8565E	3517A00347	07/05	07/06
Signal Analyzer	Rohde&Schwarz	FSQ 8	100647	09/05	09/06
Antenna Double Ridge 1-18 GHz	EMCO	3115	SII4873	04/06	04/07
Antenna Standard Gain Horn 18-40 GHz	WILTRON	Alpha TRG A361	861A/590	01/06	01/07
Biconilog Antenna 30 – 2000 MHz	Schaffner- Chase	CBL-6112B	S/N 2531	12/05	12/06
Antenna Mast	R&S	HCM	-	N/A	N/A
Metallic turntable	R&S	HCT12	100001	N/A	N/A
Positioning controller	R&S	HCC	-	N/A	N/A
LISN 9 kHz – 30 MHz	FCC	LISN- 50/250-32-4- 16	SII 5023	02/05	02/07
Transient limiter 0.009-200 MHz	HP	11947A	31074A3105	01/06	01/07

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## 10. Appendix 2 Antenna Factor and Cable Loss

Cable Loss (10m cable + Mast)

Point	Frequency (MHz)	Cable Loss (dB)	Point	Frequency (MHz)	Cable Loss (dB)
1	30	0.53	21	1000	3.68
2	50	0.75	22	1100	3.82
3	100	1.08	23	1200	4.07
4	150	1.39	24	1300	4.24
5	200	1.61	25	1400	4.43
6	250	1.752	26	1500	4.6
7	300	2.00	27	1600	4.7
8	350	2.15	28	1700	4.85
9	400	2.26	29	1800	4.98
10	450	2.383	30	1900	5.19
11	500	2.52	31	2000	5.34
12	550	2.606	32	2100	5.51
13	600	2.75	33	2200	5.69
14	650	2.856	34	2300	5.89
15	700	3.06	35	2400	6.07
16	750	3.201	36	2500	6.22
17	800	3.27	37	2600	6.28
18	850	3.38	38	2700	6.41
19	900	3.46	39	2800	6.53
20	950	3.55	40	2900	6.84



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**Antenna Factor**

**For Biconilog Antenna, Model Number: CBL-6112B, S/N: 2531**  
**10 m Calibration**

Frequency (MHz)	Antenna Factor (dB/m)	Frequency (MHz)	Antenna Factor (dB/m)	Frequency (MHz)	Antenna Factor (dB/m)	Frequency (MHz)	Antenna Factor (dB/m)
Vertical Polarization				Horizontal Polarization			
26.00	20.77	625.00	19.10	26.00	20.39	625.00	19.08
28.00	19.77	650.00	19.20	28.00	19.15	650.00	19.26
30.00	18.72	675.00	19.05	30.00	18.29	675.00	19.12
40.00	14.76	700.00	19.26	40.00	12.64	700.00	19.11
50.00	8.32	725.00	19.73	50.00	7.99	725.00	19.49
60.00	6.15	750.00	20.11	60.00	5.95	750.00	19.94
70.00	6.49	775.00	20.41	70.00	6.04	775.00	20.07
80.00	7.26	800.00	20.50	80.00	7.60	800.00	20.18
90.00	8.83	825.00	20.57	90.00	9.07	825.00	20.36
100.00	10.55	850.00	20.73	100.00	10.34	850.00	20.57
110.00	11.38	875.00	20.92	110.00	11.12	875.00	20.83
120.00	11.71	900.00	20.79	120.00	11.46	900.00	20.74
130.00	11.57	925.00	21.02	130.00	11.47	925.00	21.17
140.00	11.09	950.00	21.32	140.00	11.15	950.00	21.11
150.00	10.46	975.00	21.76	150.00	10.50	975.00	21.52
160.00	9.82	1,000.00	21.97	160.00	9.86	1,000.00	21.64
170.00	9.52	1,050.00	22.55	170.00	9.58	1,050.00	22.02
180.00	9.18	1,100.00	22.47	180.00	9.28	1,100.00	22.16
190.00	8.90	1,150.00	22.78	190.00	9.54	1,150.00	22.44
200.00	9.11	1,200.00	22.77	200.00	9.82	1,200.00	22.86
225.00	9.70	1,250.00	23.36	225.00	10.42	1,250.00	23.37
250.00	12.41	1,300.00	23.90	250.00	12.43	1,300.00	23.86
275.00	12.81	1,350.00	24.19	275.00	13.19	1,350.00	24.02
300.00	13.37	1,400.00	24.42	300.00	13.48	1,400.00	24.42
325.00	13.70	1,450.00	24.83	325.00	13.73	1,450.00	24.61
350.00	14.45	1,500.00	24.88	350.00	14.61	1,500.00	25.02
375.00	14.90	1,550.00	24.85	375.00	15.15	1,550.00	25.27
400.00	15.63	1,600.00	25.06	400.00	15.74	1,600.00	25.27
425.00	16.38	1,650.00	25.55	425.00	16.52	1,650.00	25.50
450.00	16.43	1,700.00	26.20	450.00	16.54	1,700.00	25.48
475.00	17.28	1,750.00	26.45	475.00	17.28	1,750.00	26.35
500.00	17.41	1,800.00	26.58	500.00	17.47	1,800.00	26.51
525.00	17.35	1,850.00	27.30	525.00	17.31	1,850.00	26.63
550.00	18.97	1,900.00	27.96	550.00	18.64	1,900.00	27.04
575.00	18.87	1,950.00	27.80	575.00	18.60	1,950.00	27.13
600.00	18.82	2,000.00	27.73	600.00	19.04	2,000.00	27.20





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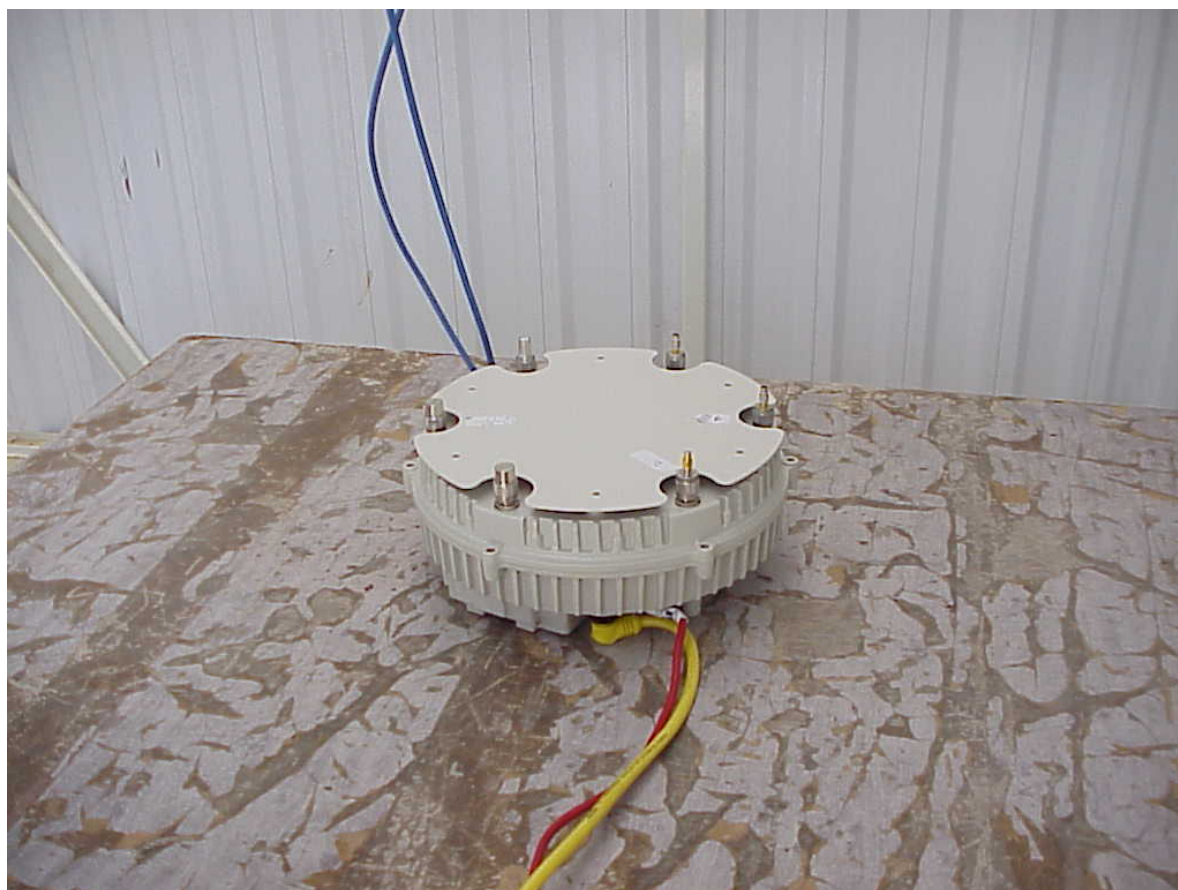
**Antenna Factor**

**For Double Ridge Guide Antenna Model Number: 3115, S/N: 5802**  
**3 m Calibration (Vertical and Horizontal polarizations)**

Frequency (MHz)	Vertical Polarization			Horizontal Polarization		
	Antenna Factor (dB/m)	Gain Numeric	Gain (dBi)	Antenna Factor (dB/m)	Gain Numeric	Gain (dBi)
1,000.00	24.14	4.05	6.07	25.62	2.88	4.59
1,500.00	25.92	6.04	7.81	26.90	4.82	6.83
2,000.00	28.54	5.87	7.69	29.04	5.24	7.19
2,500.00	30.13	6.36	8.03	30.12	6.38	8.05
3,000.00	31.57	6.58	8.18	31.77	6.28	7.98
3,500.00	32.61	7.06	8.49	33.24	6.09	7.85
4,000.00	33.69	7.17	8.56	34.62	5.80	7.64
4,500.00	33.49	9.51	9.78	34.82	7.01	8.46
5,000.00	34.79	8.71	9.40	36.05	6.52	8.14
5,500.00	35.60	8.74	9.42	36.77	6.68	8.25
6,000.00	36.16	9.14	9.61	37.37	6.92	8.40
6,500.00	35.88	11.45	10.59	37.29	8.28	9.18
7,000.00	36.61	11.24	10.51	38.33	7.56	8.79
7,500.00	37.82	9.75	9.89	39.50	6.62	8.21
8,000.00	38.14	10.32	10.14	39.91	6.86	8.36
8,500.00	38.81	9.98	9.99	40.00	7.57	8.79
9,000.00	39.17	10.30	10.13	41.03	6.71	8.27
9,500.00	39.56	10.48	10.20	41.06	7.42	8.70
10,000.00	39.97	10.56	10.24	41.56	7.32	8.65
10,500.00	40.13	11.23	10.50	41.66	7.90	8.98
11,000.00	39.96	12.83	11.08	41.87	8.26	9.17
11,500.00	40.19	13.28	11.23	41.28	10.34	10.15
12,000.00	40.61	13.14	11.18	41.37	11.01	10.42
12,500.00	40.43	14.85	11.72	42.29	9.68	9.86
13,000.00	41.27	13.25	11.22	43.07	8.74	9.41
13,500.00	40.96	15.34	11.86	43.20	9.15	9.61
14,000.00	41.28	15.32	11.85	42.95	10.42	10.18
14,500.00	41.68	15.00	11.76	43.08	10.87	10.36
15,000.00	42.65	12.82	11.08	43.87	9.68	9.86
15,500.00	40.35	23.28	13.67	41.50	17.84	12.51
16,000.00	40.00	26.90	14.30	40.82	22.23	13.47
16,500.00	40.61	24.81	13.95	41.61	19.72	12.95
17,000.00	42.74	16.15	12.08	43.53	13.46	11.29
17,500.00	44.95	10.27	10.12	44.73	10.81	10.34
18,000.00	47.37	6.22	7.94	46.12	8.31	9.20

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## 11. Appendix 3: Test configuration illustration



**Photo # 1.**

**WS410**

**Radiated emission test on open site  
Front side / overall view**



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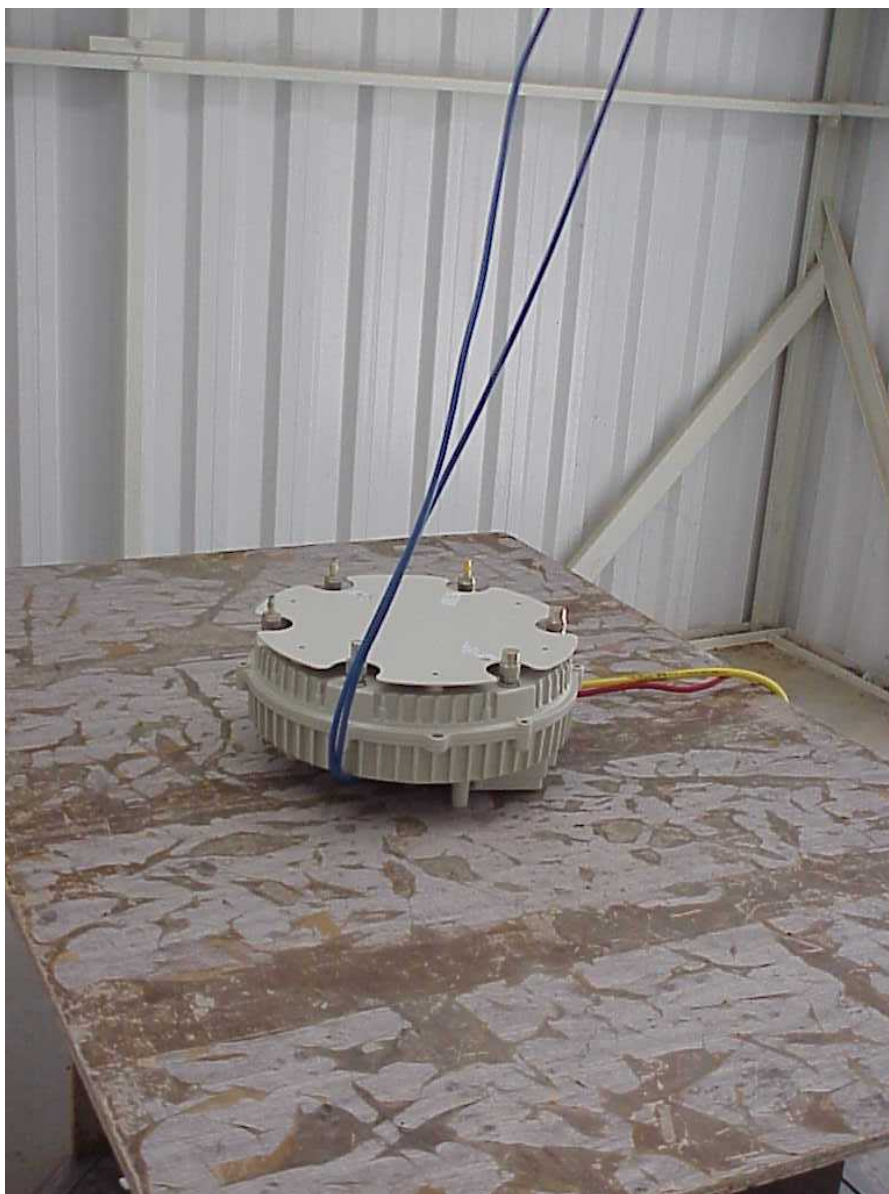


Photo # 2.

**WS410**  
Radiated emission test on open site  
Rear view

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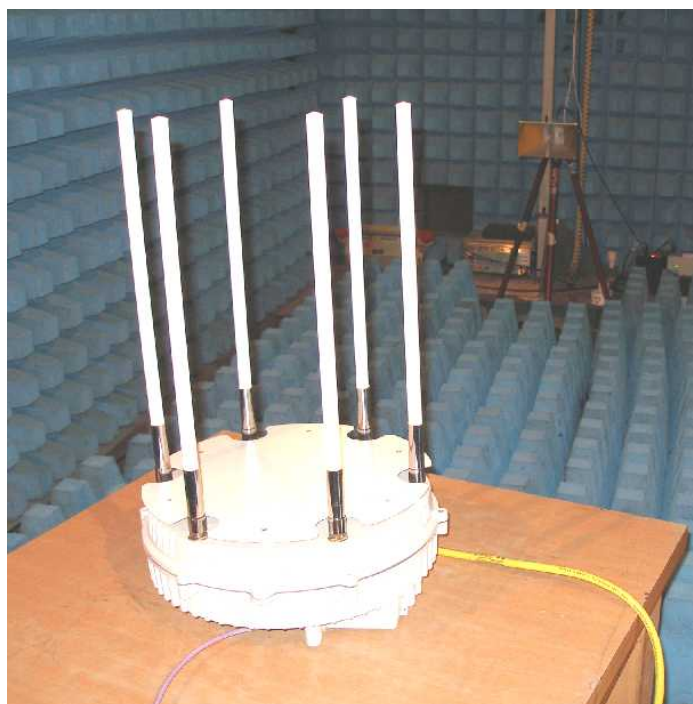
Model: WS410

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**Photo # 3.**

**Radiated emission test on Radio Unit – spurious & restricted bands.**



**Photo # 4.**

**Radiated emission test on Radio Unit – spurious & restricted bands.**



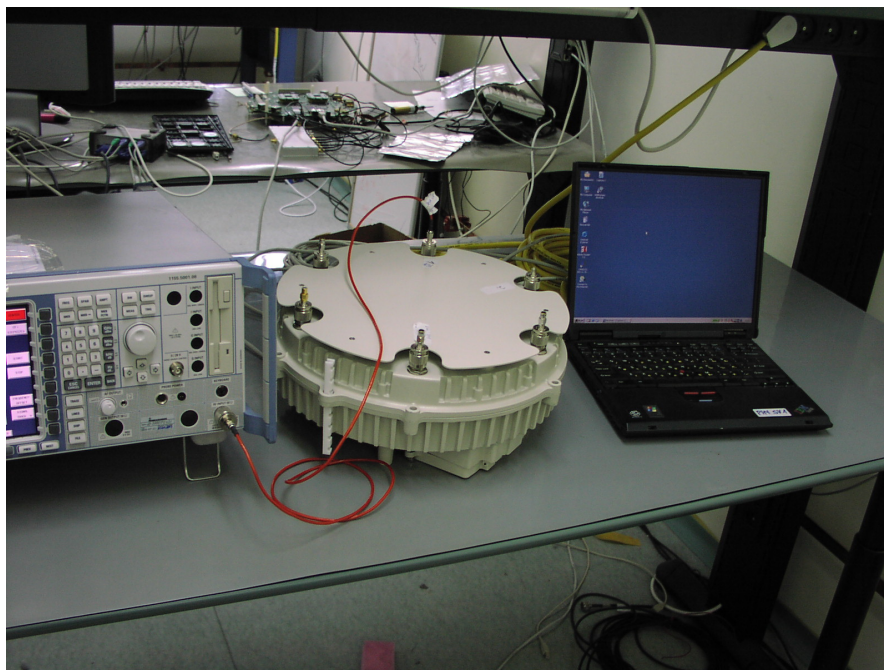
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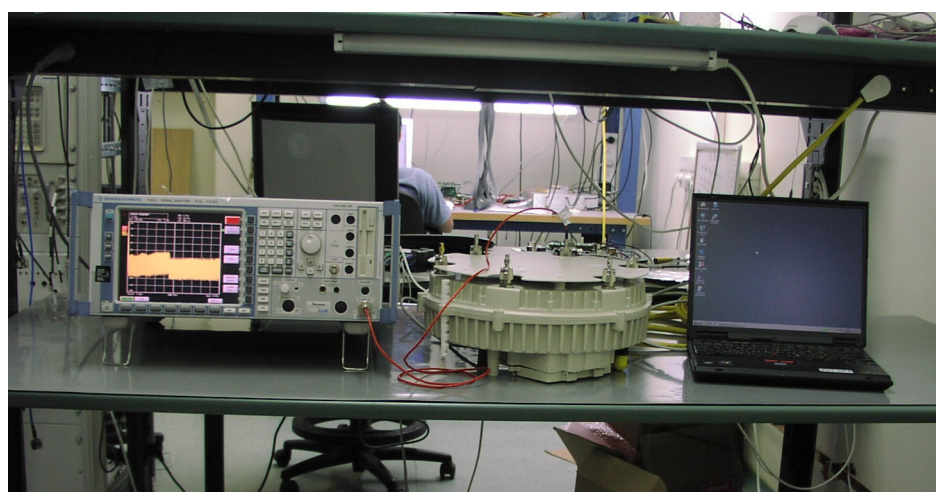
Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

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**Photo # 5.**  
**Spurious emission test**



**Photo # 6.**  
**Spurious emission test**

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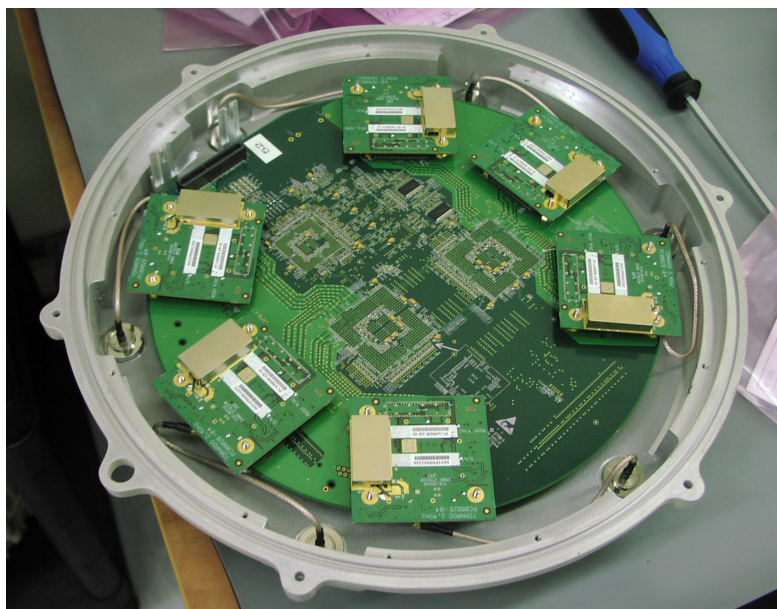


Photo # 7. Radio Unit. Open cover

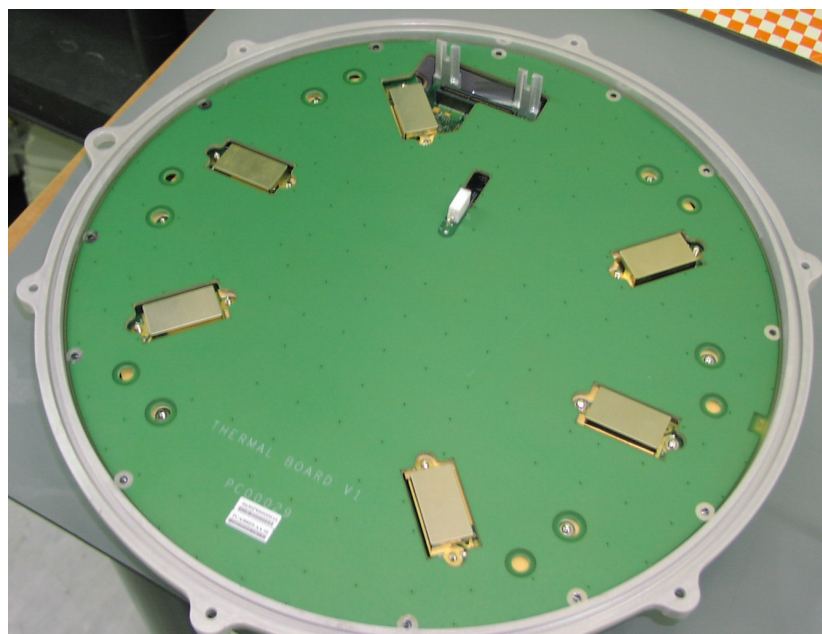


Photo # 8. Radio unit, PCB print side