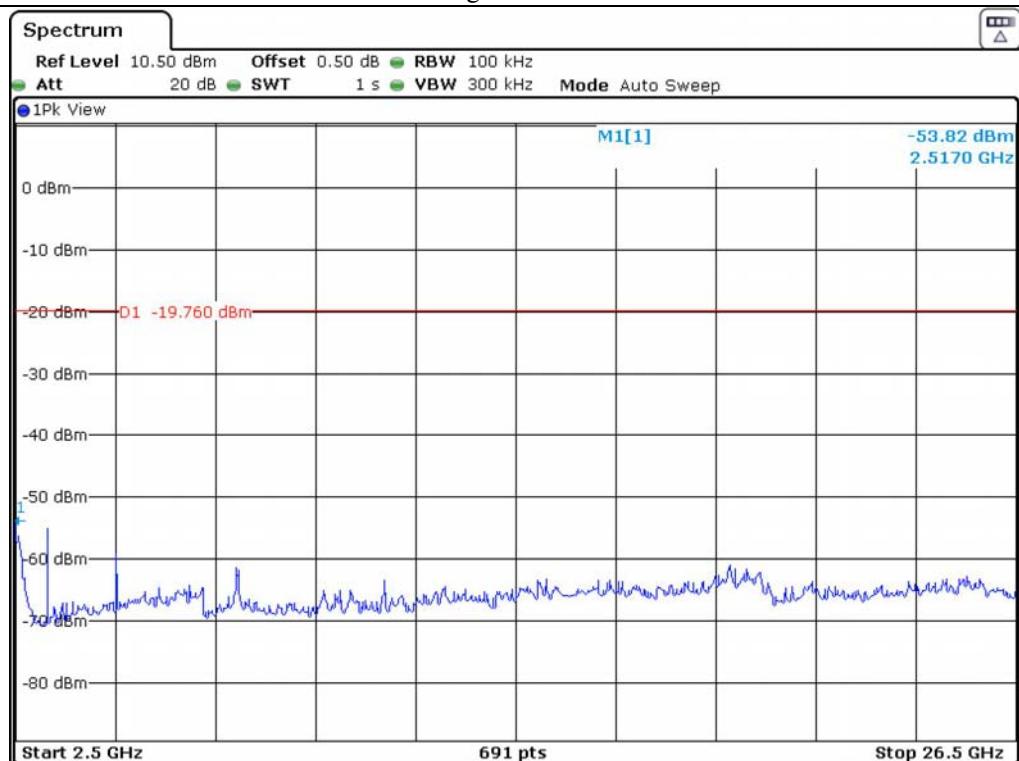


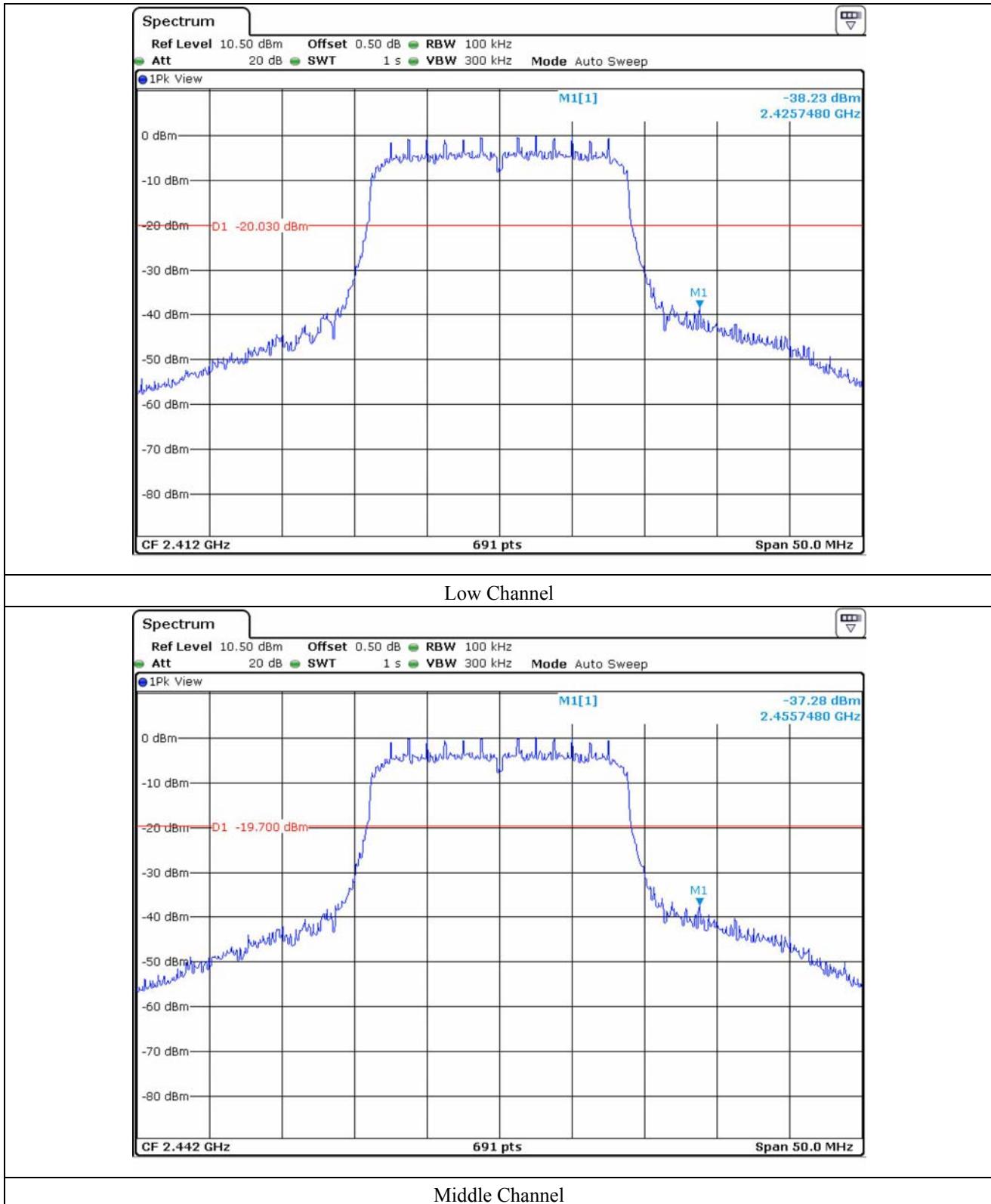
High Channel

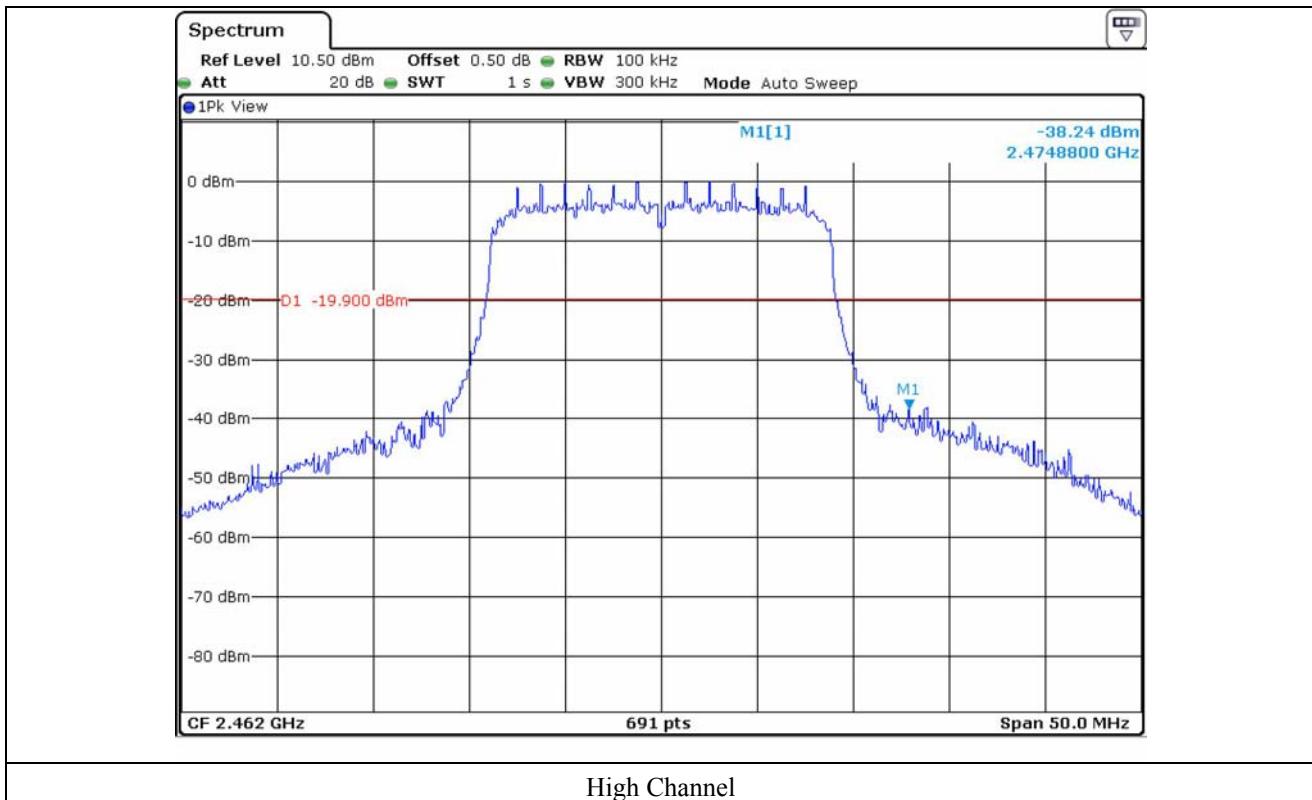


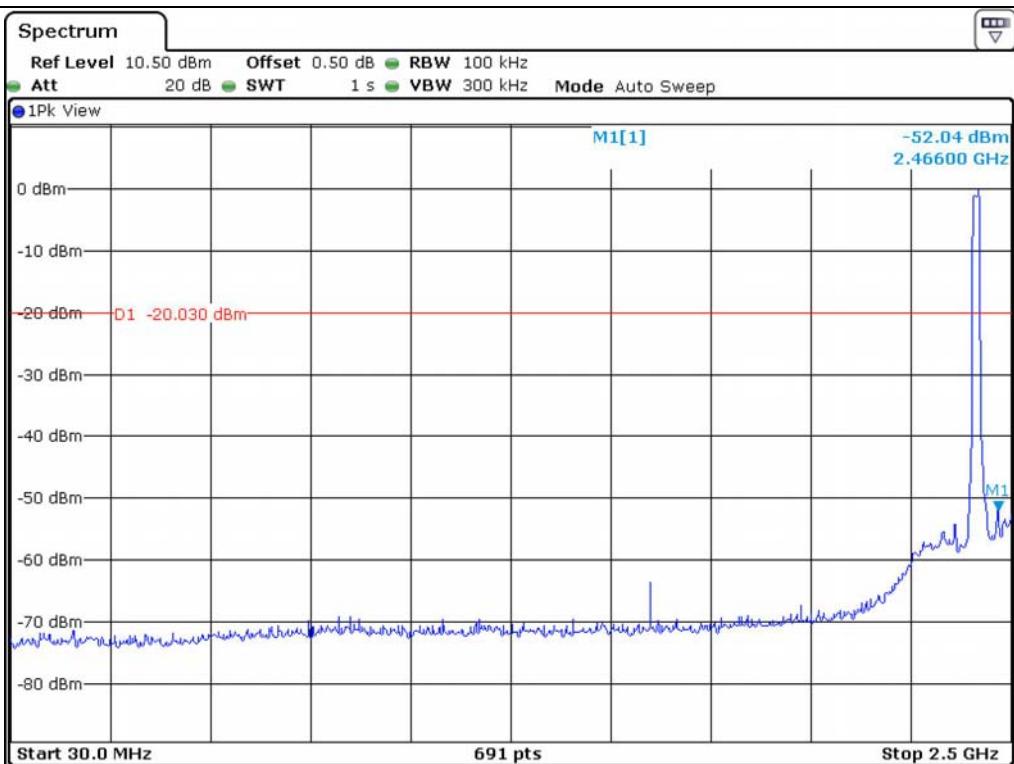
High Channel

9.5.3 Test data for 802.11n_HT20 WLAN Mode

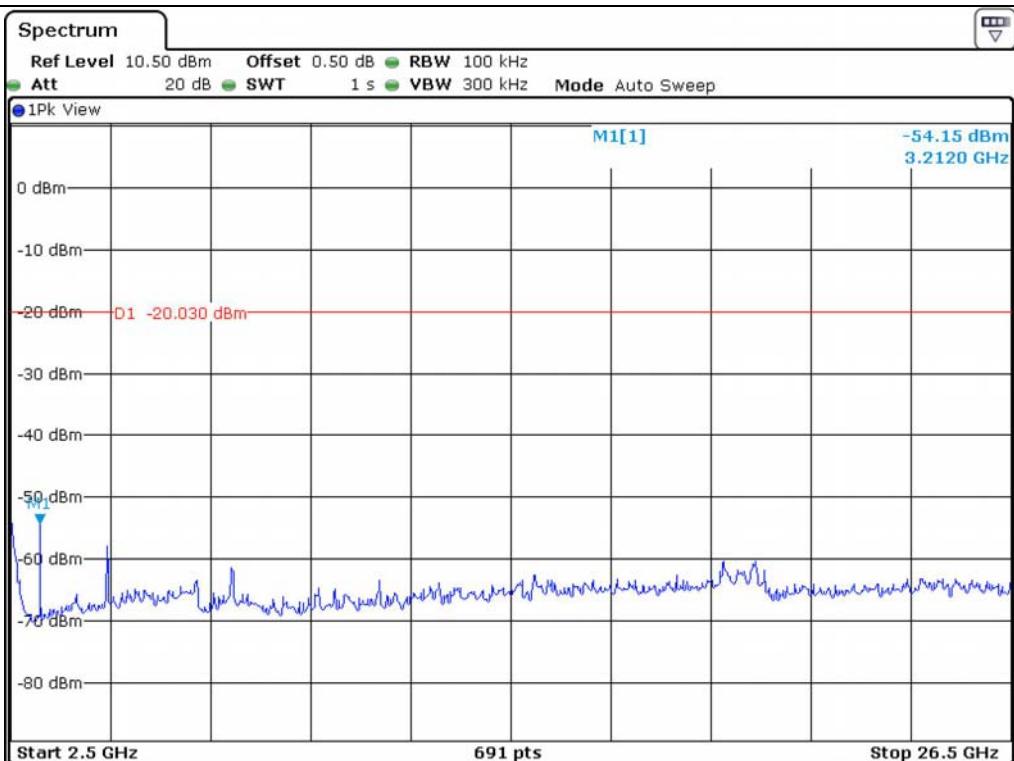
9.5.3.1 Test data for Antenna 0



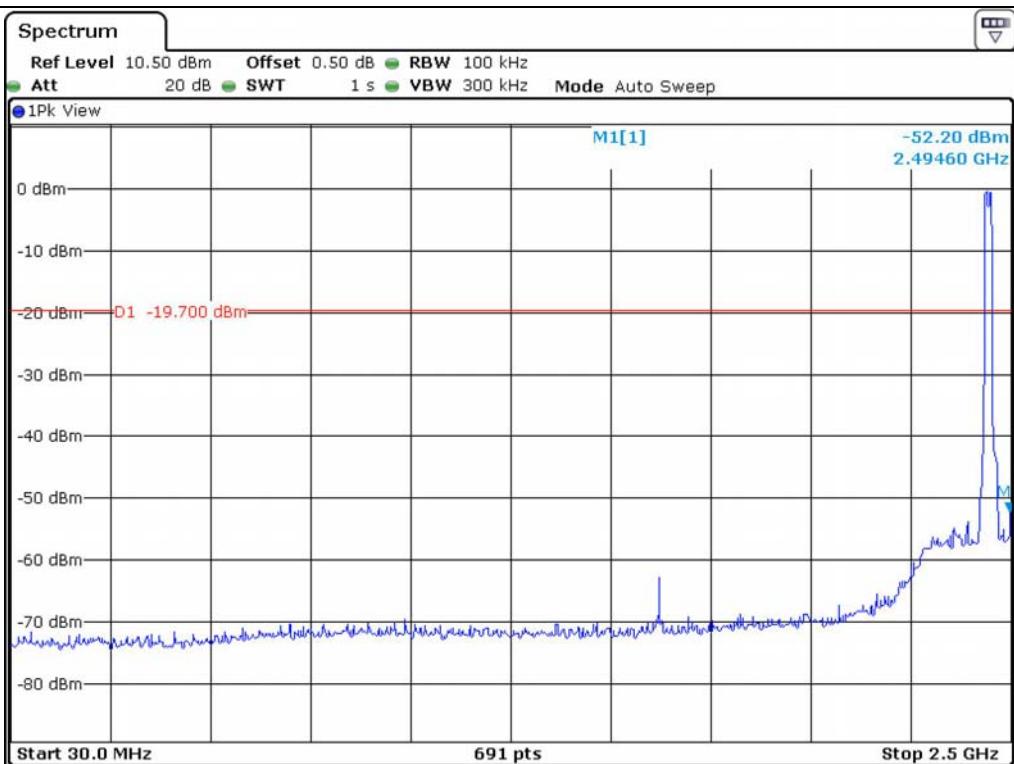




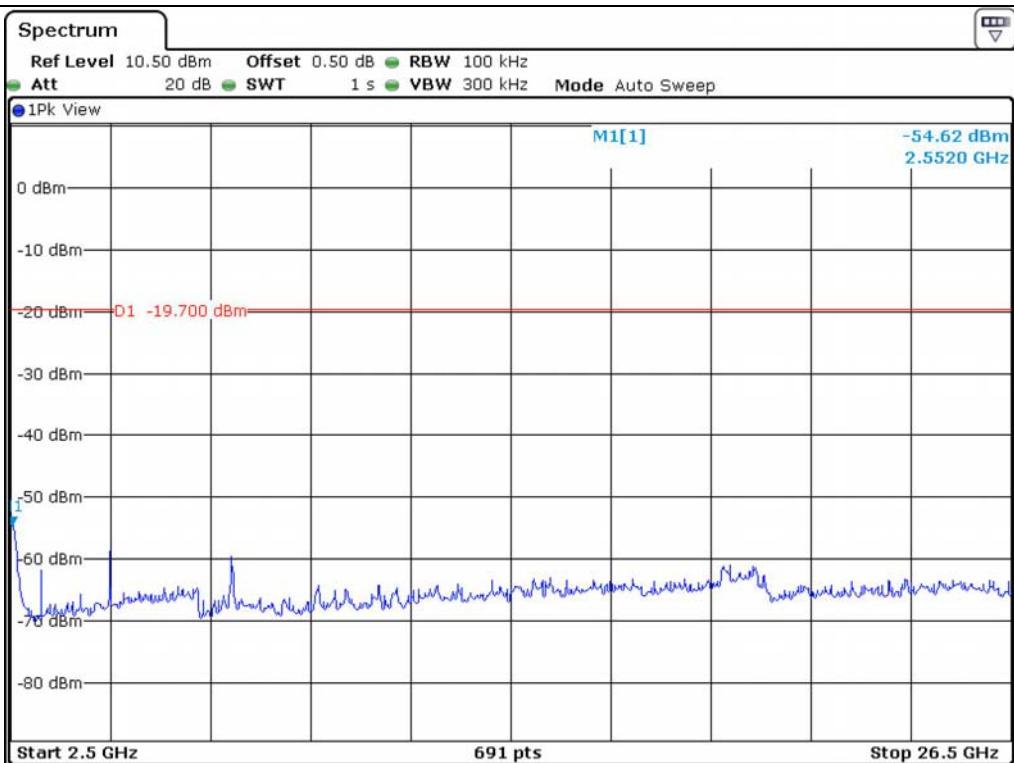
Low Channel



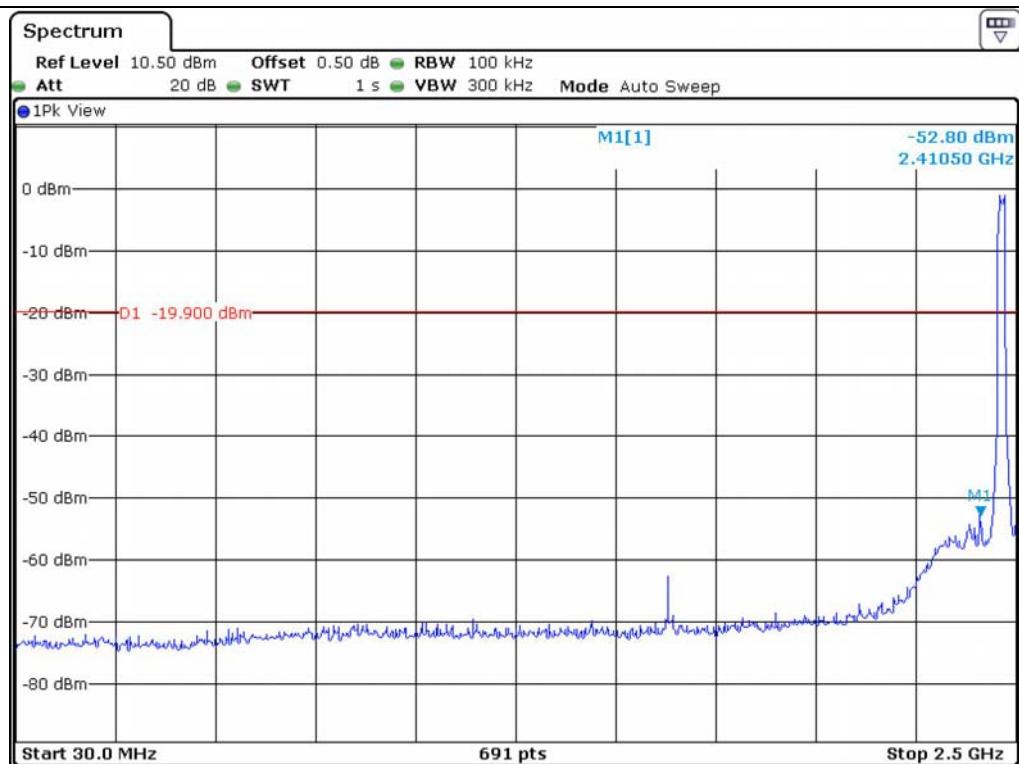
Low Channel



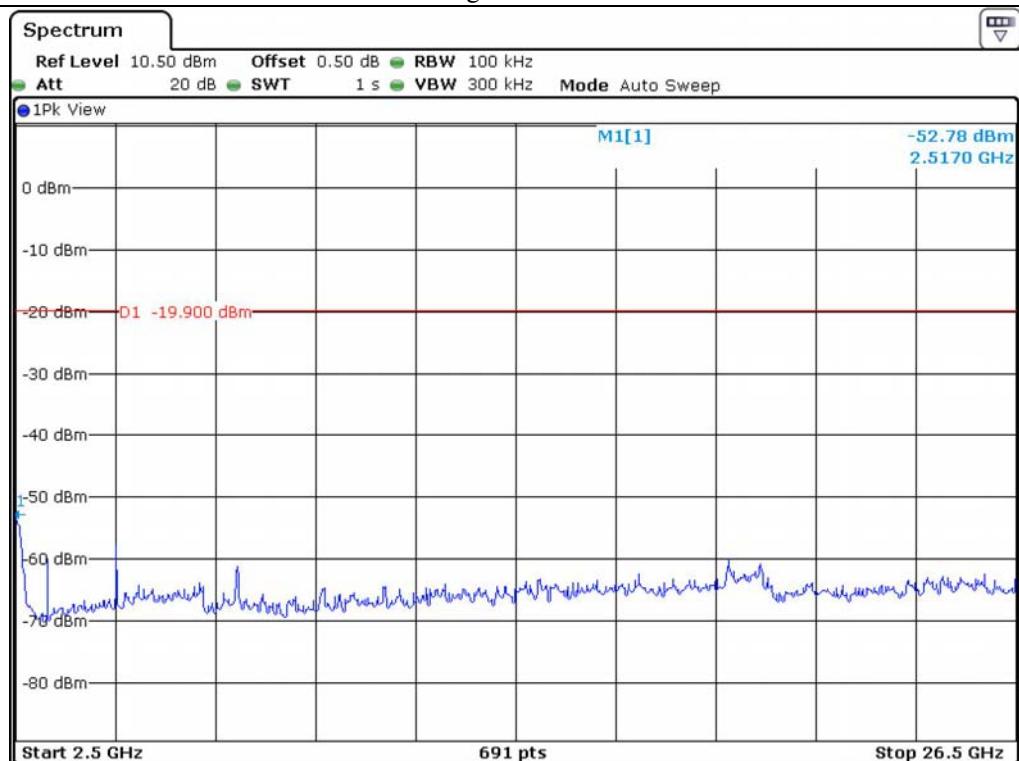
Middle Channel



Middle Channel

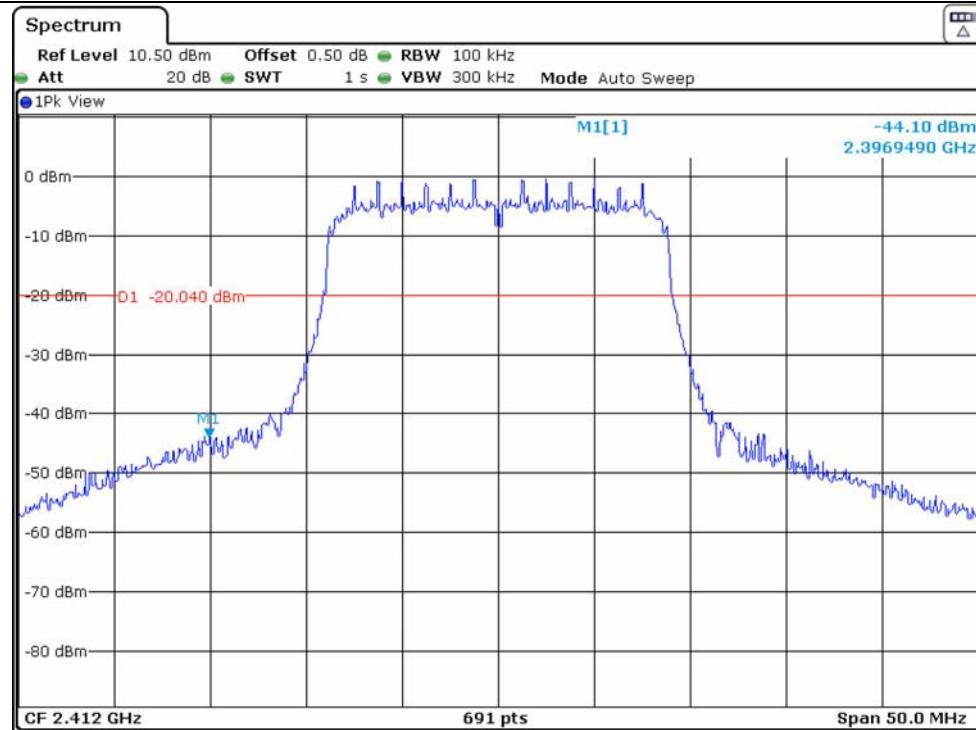


High Channel

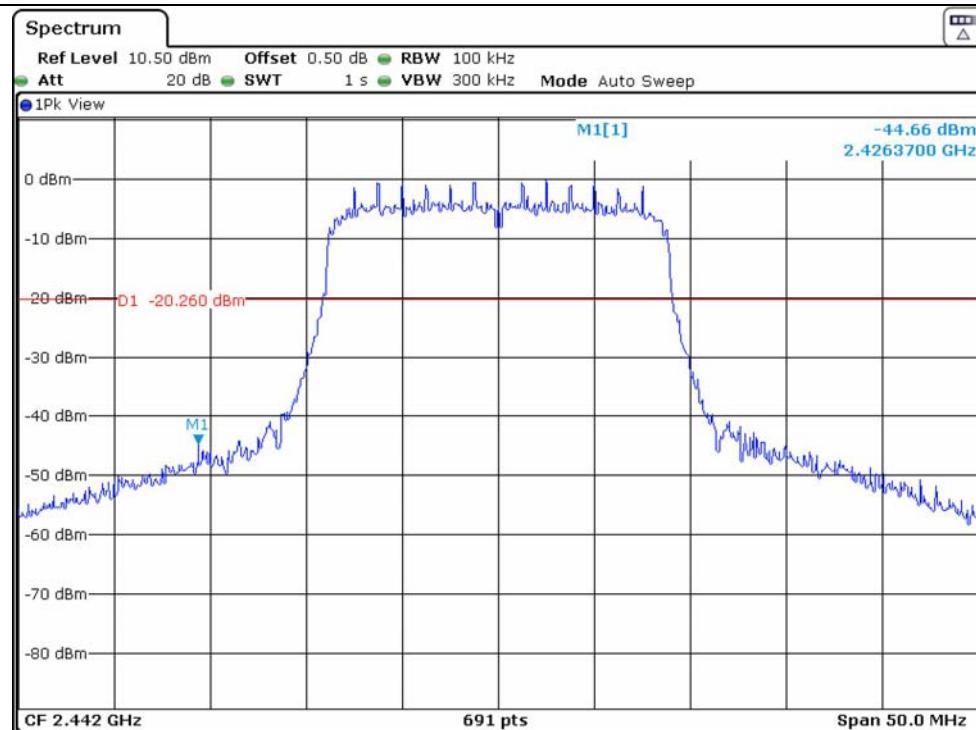


High Channel

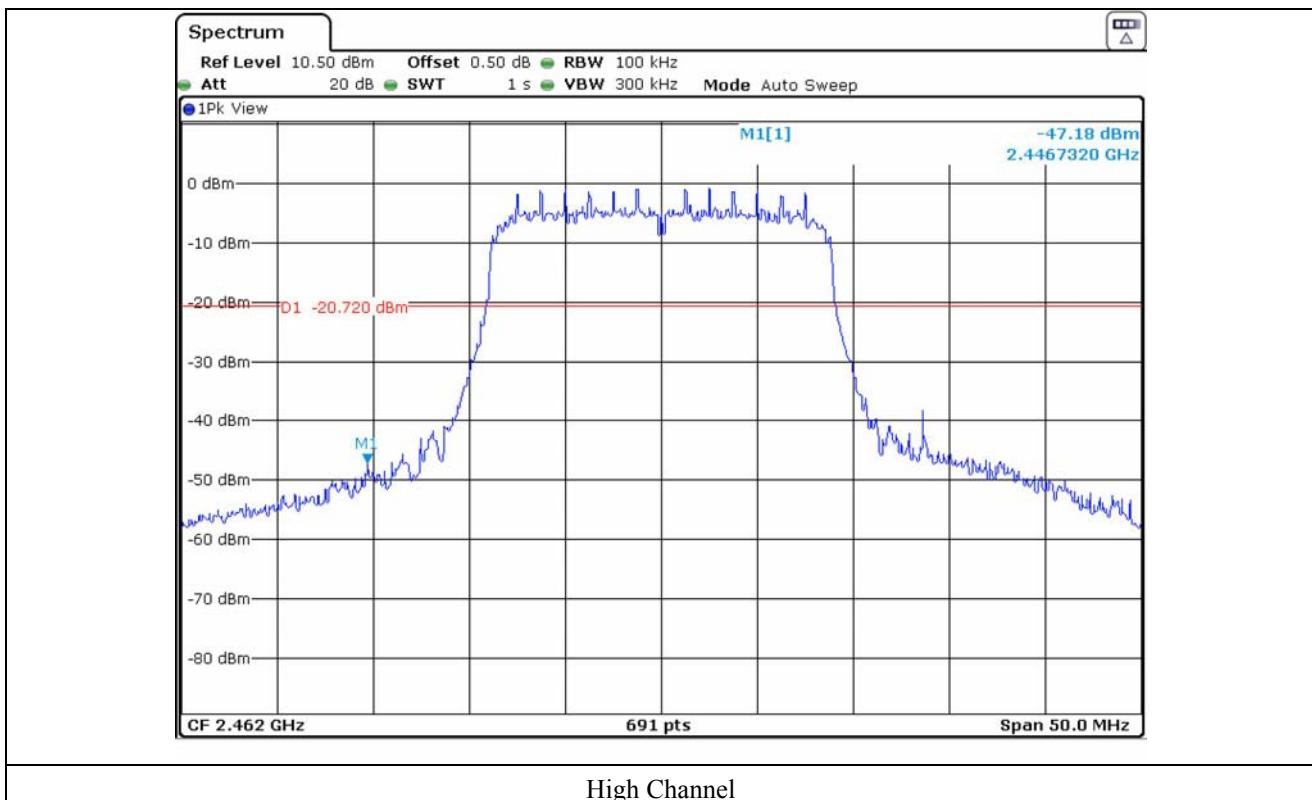
9.5.3.2 Test data for Antenna 1

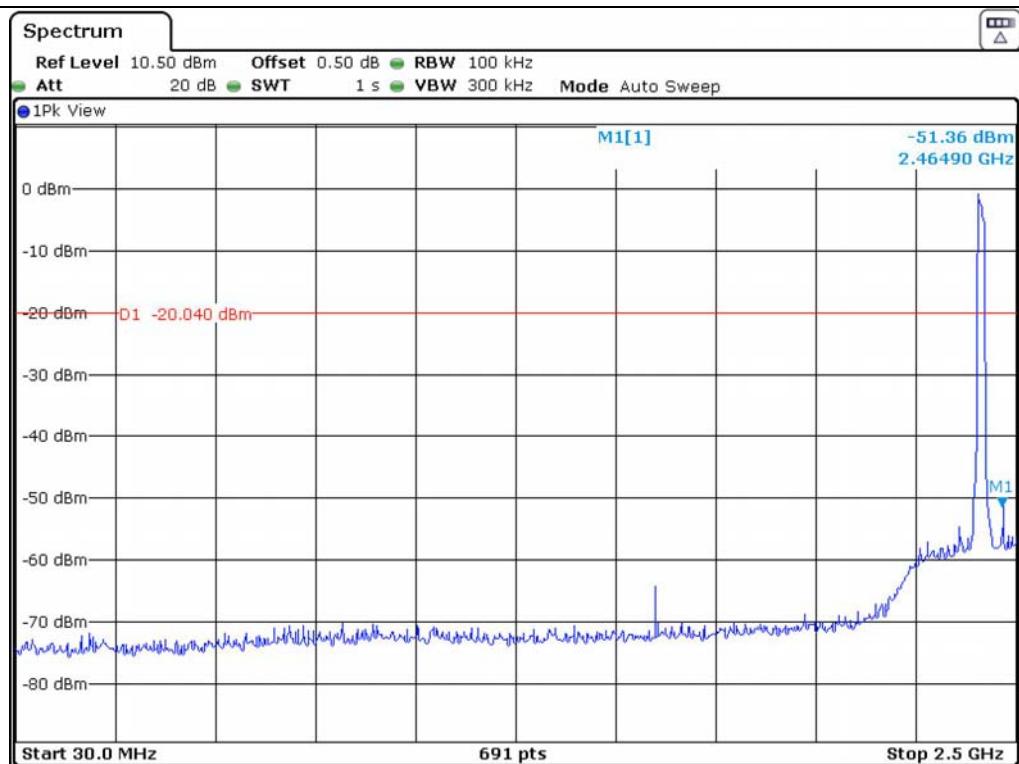


Low Channel

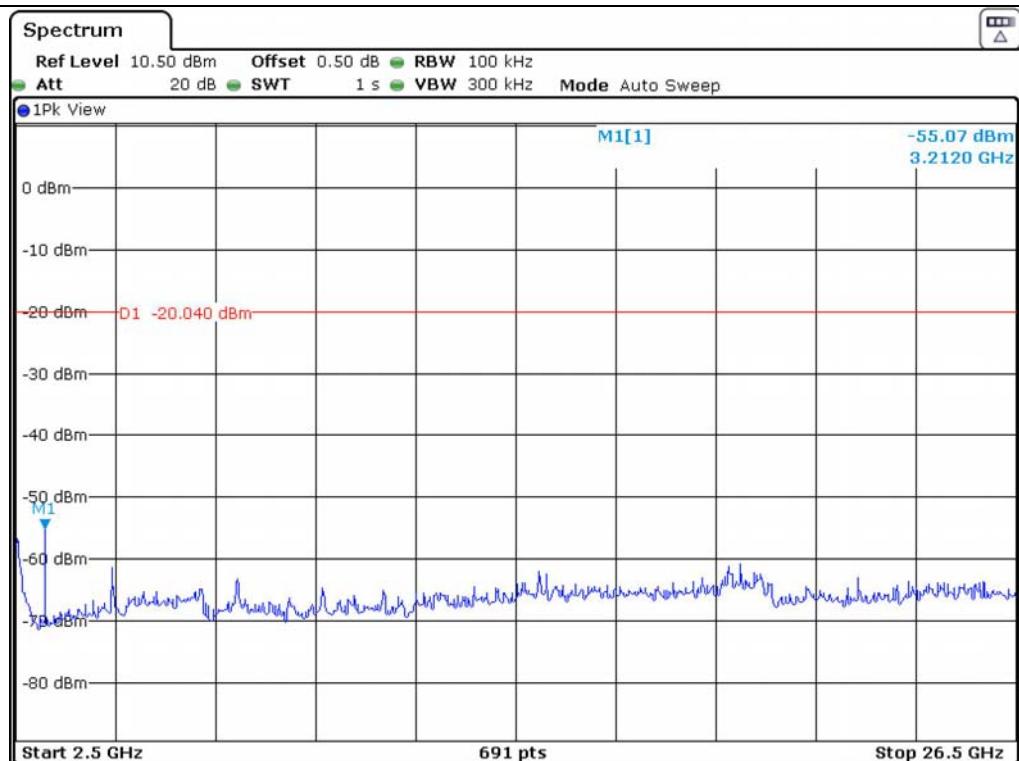


Middle Channel

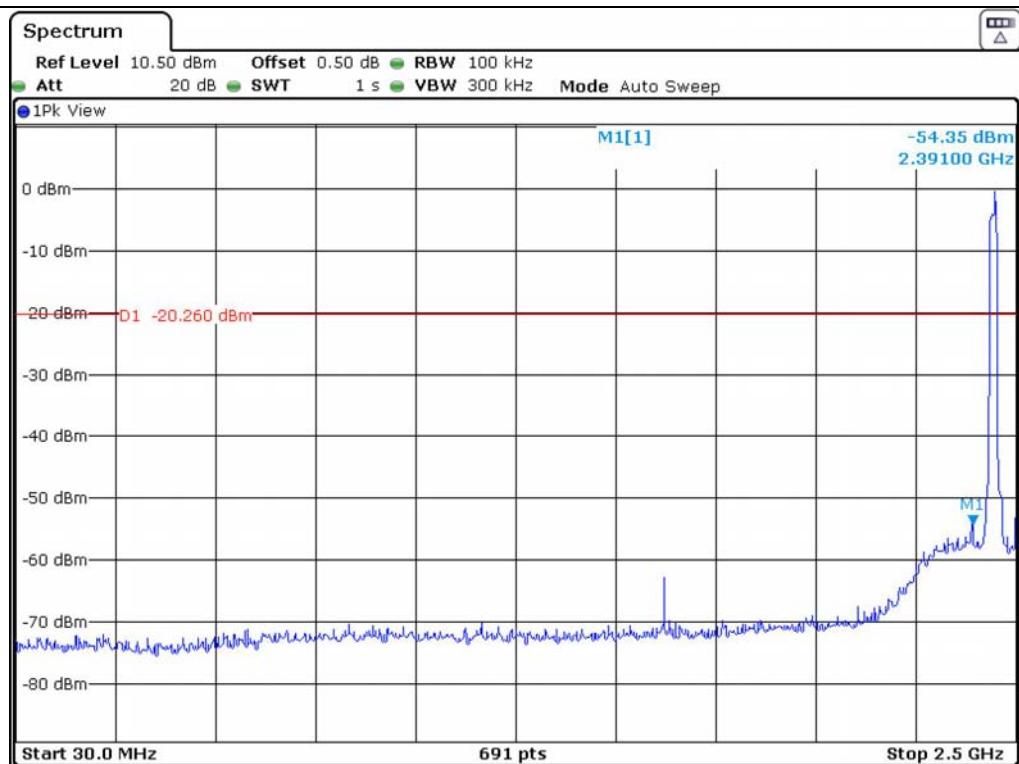




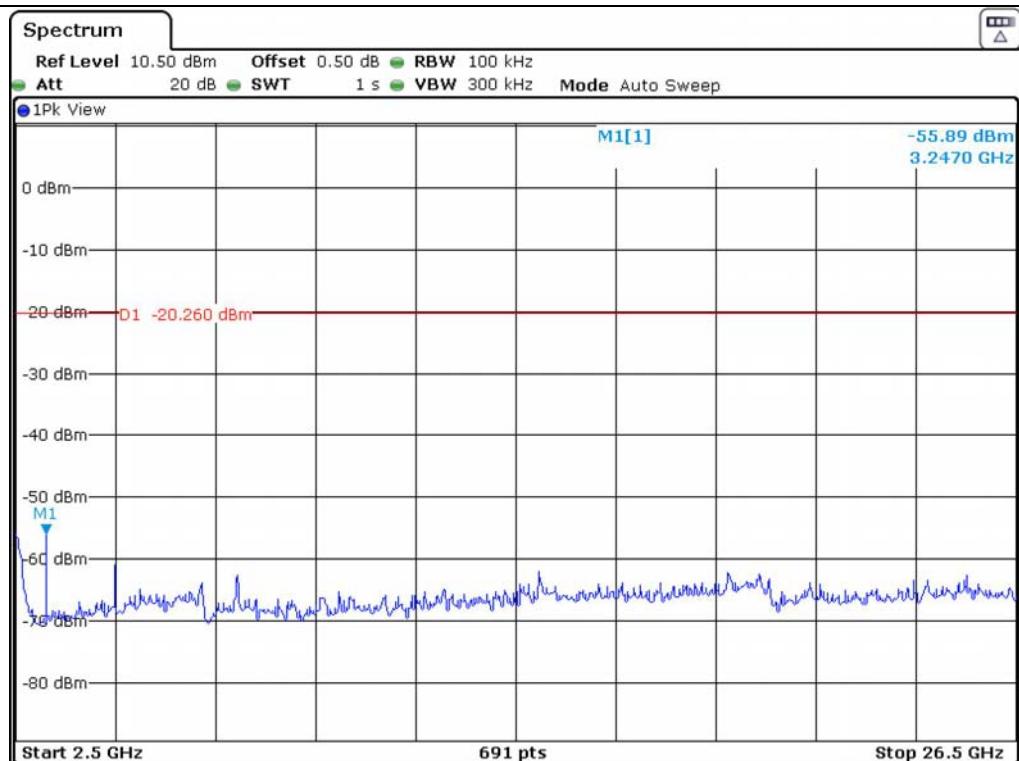
Low Channel



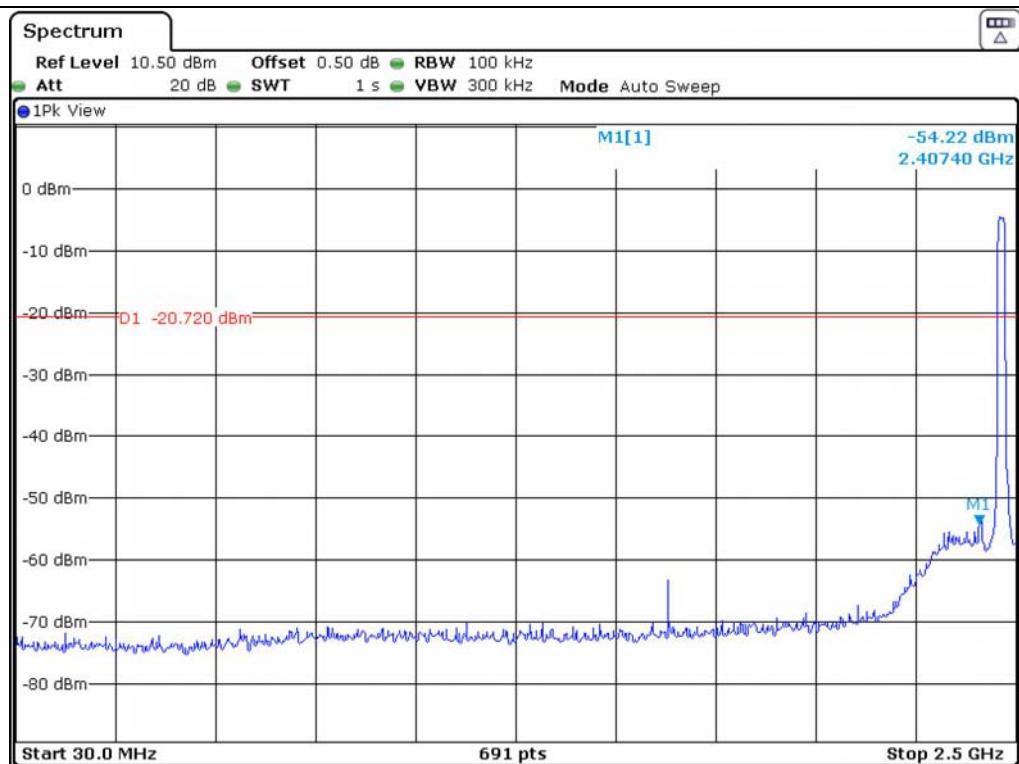
Low Channel



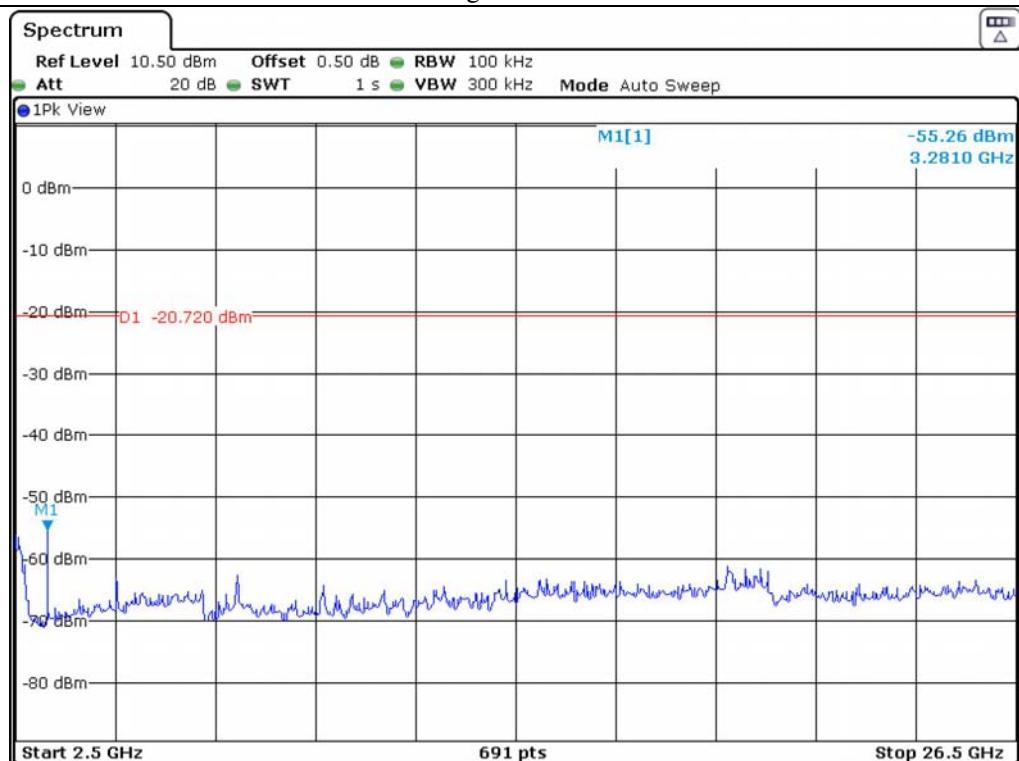
Middle Channel



Middle Channel



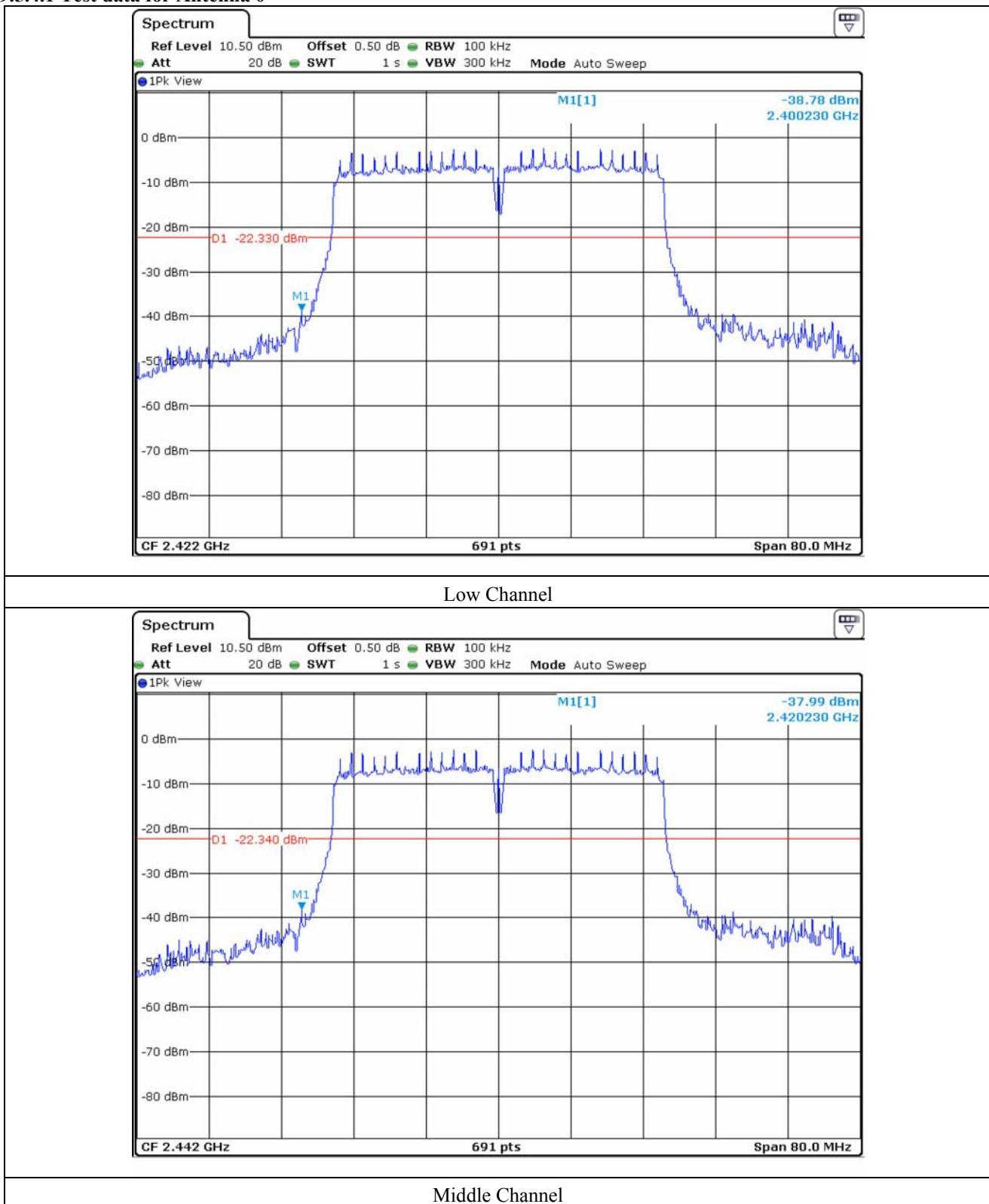
High Channel

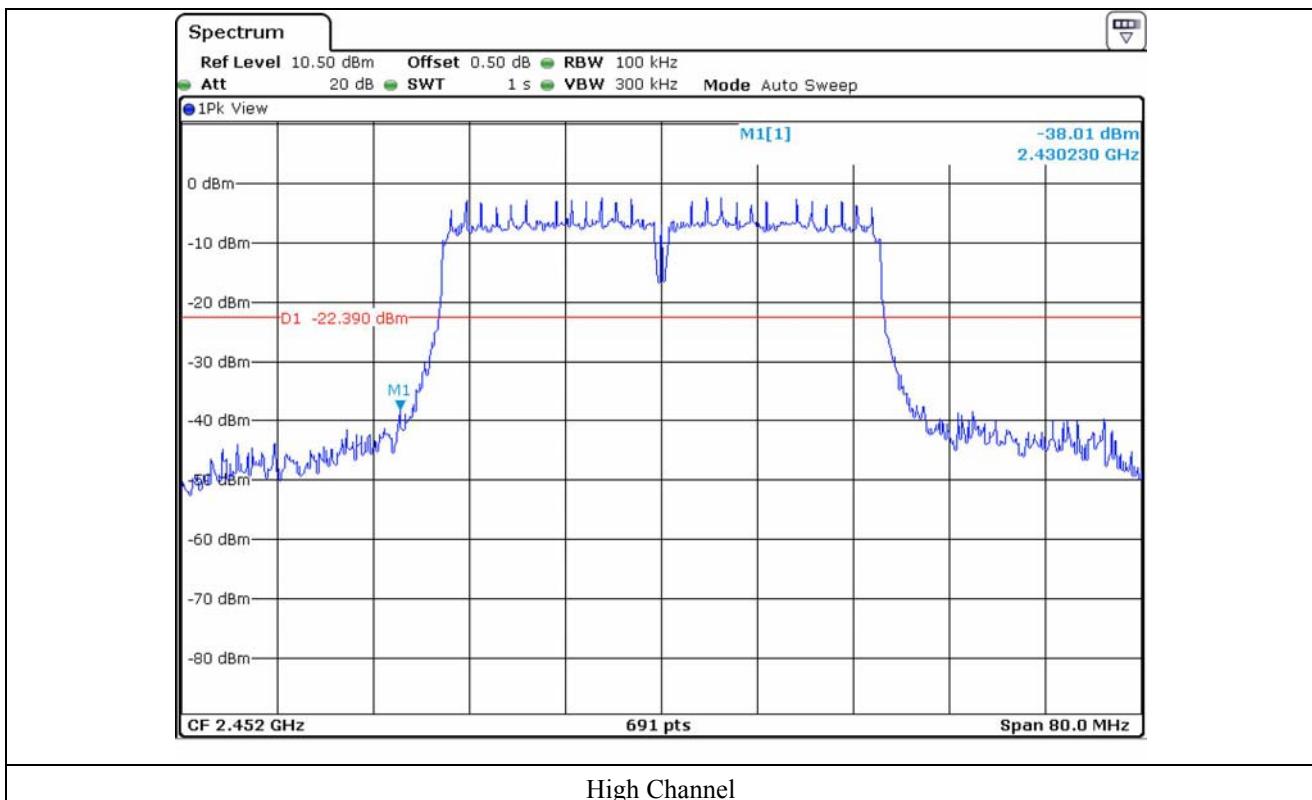


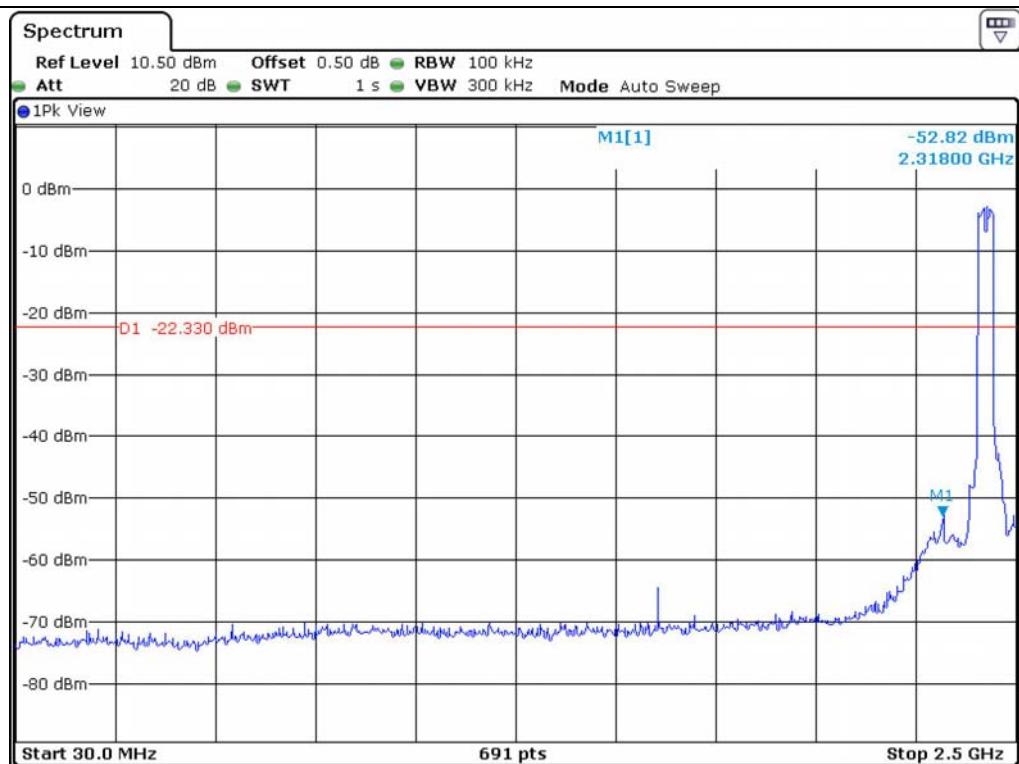
High Channel

9.5.4 Test data for 802.11n_HT40 WLAN Mode

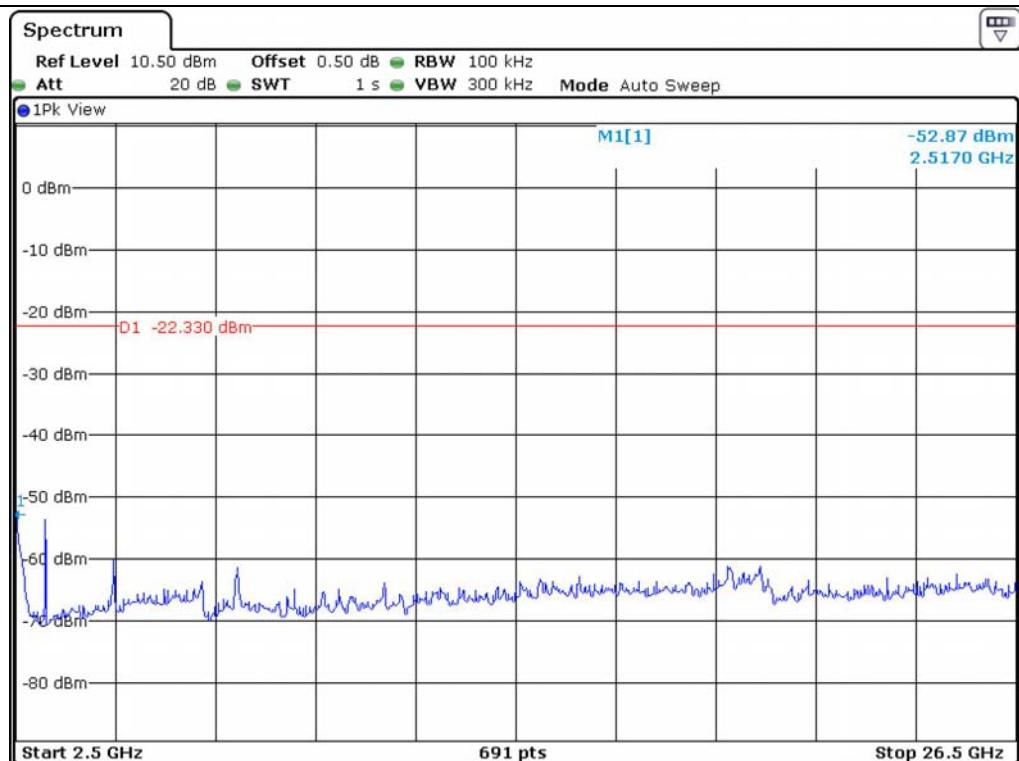
9.5.4.1 Test data for Antenna 0



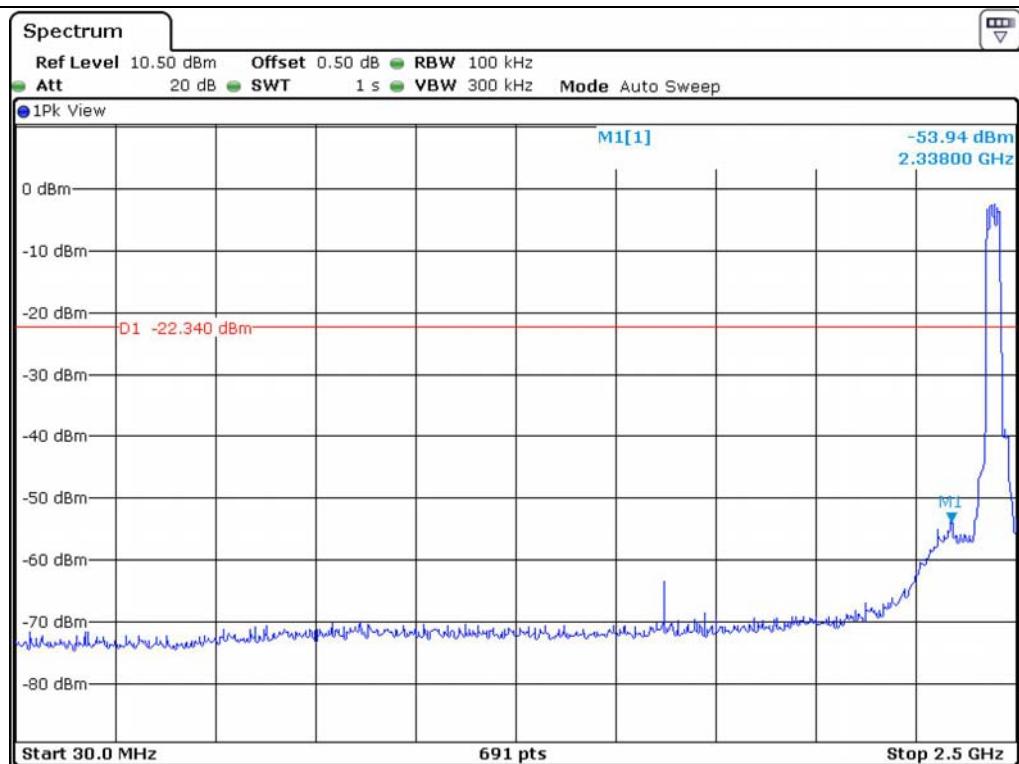




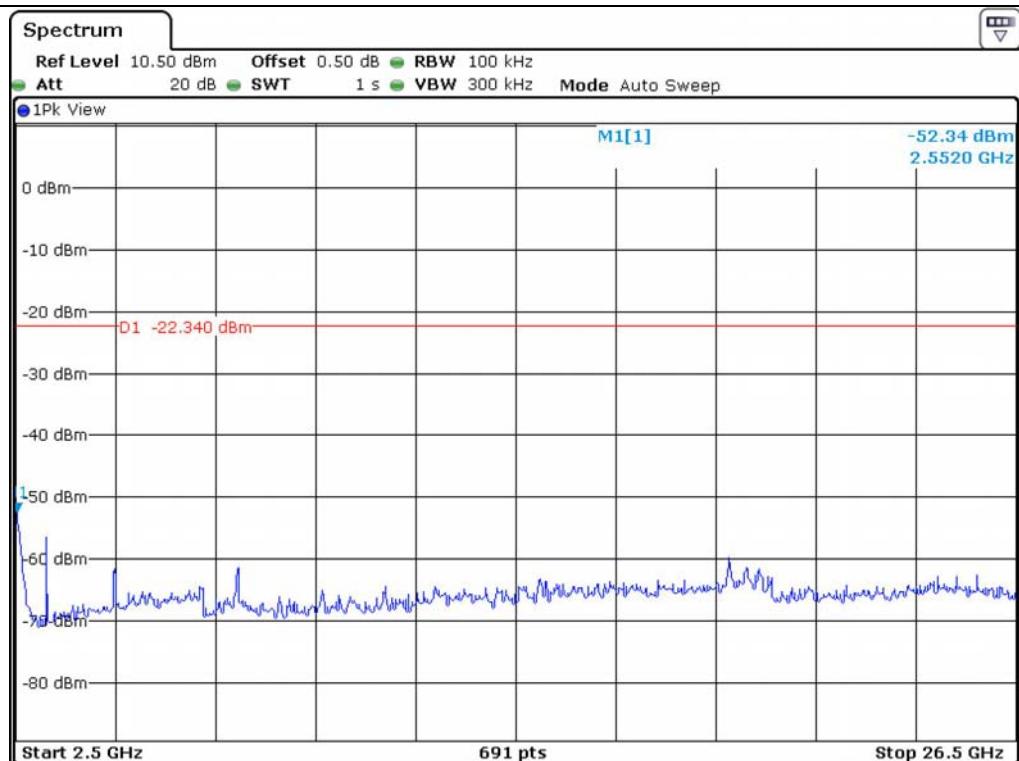
Low Channel



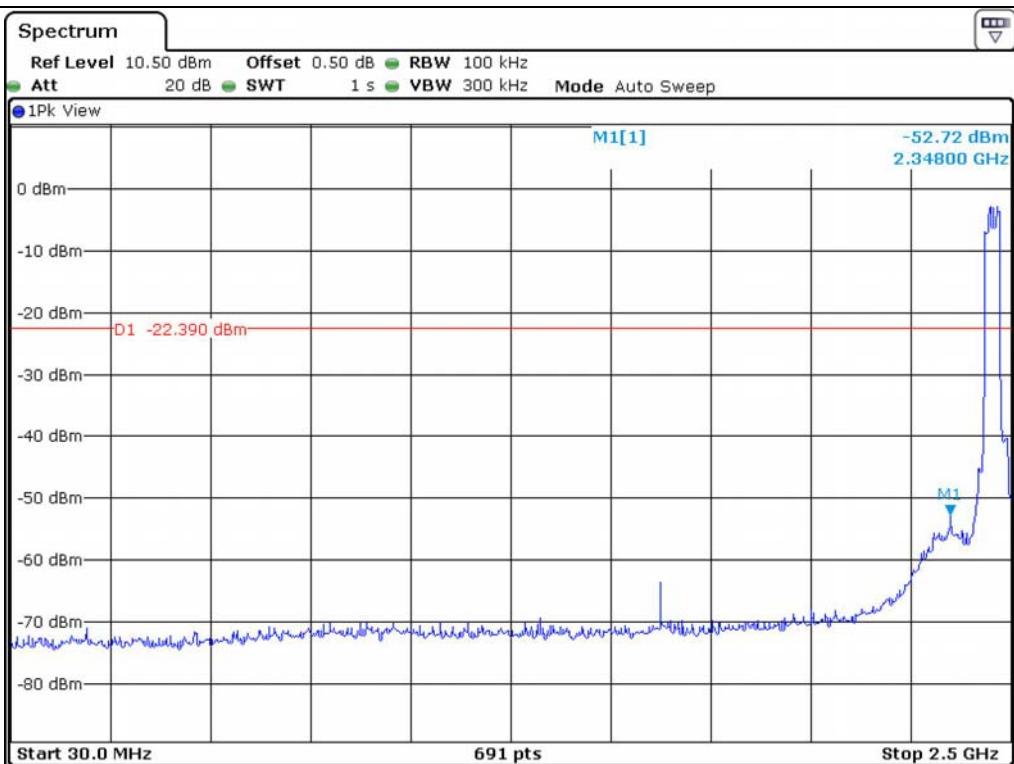
Low Channel



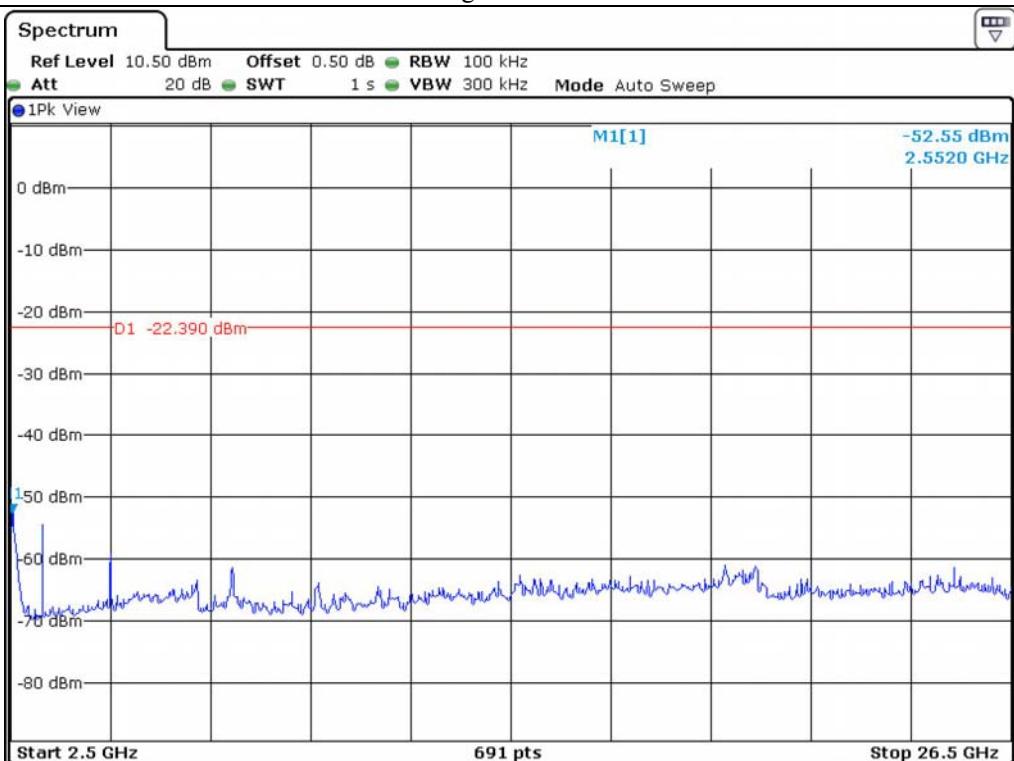
Middle Channel



Middle Channel

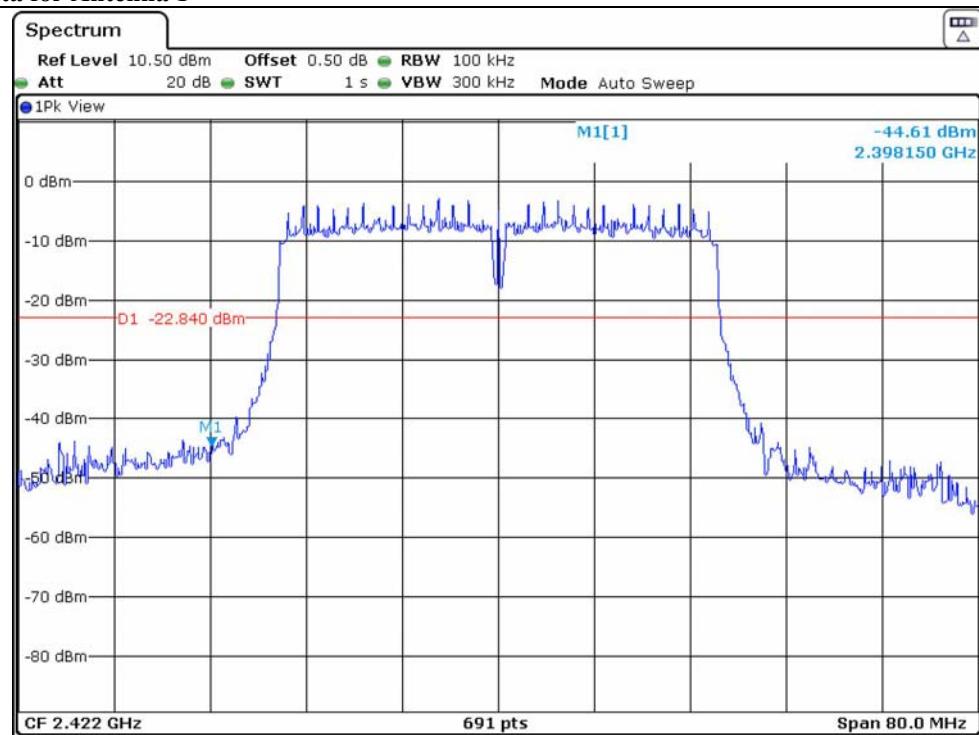


High Channel

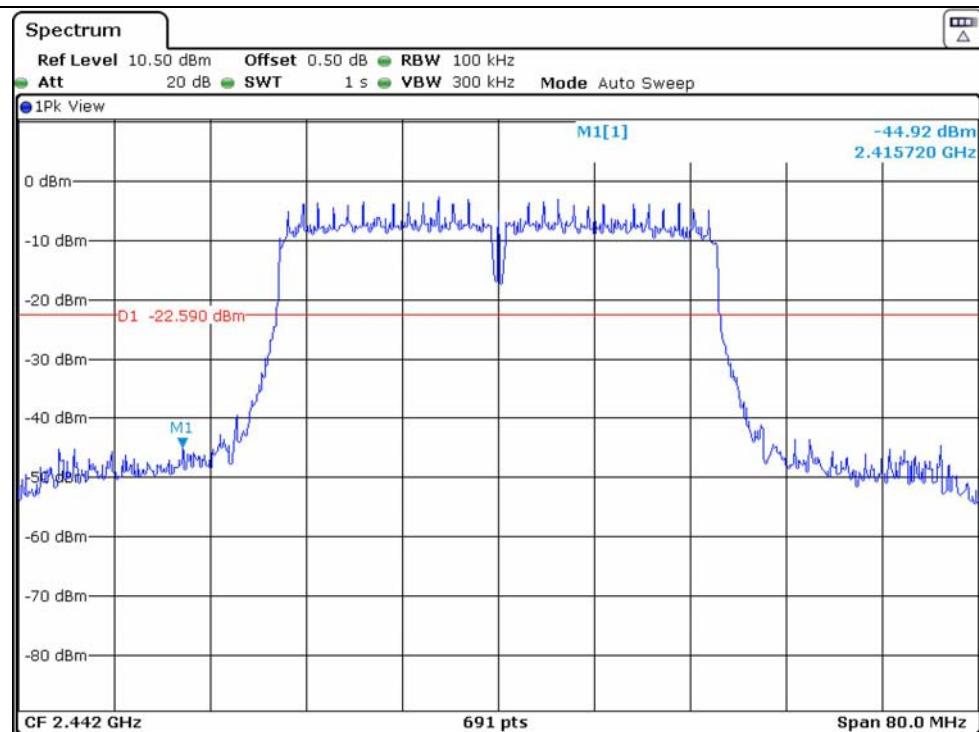


High Channel

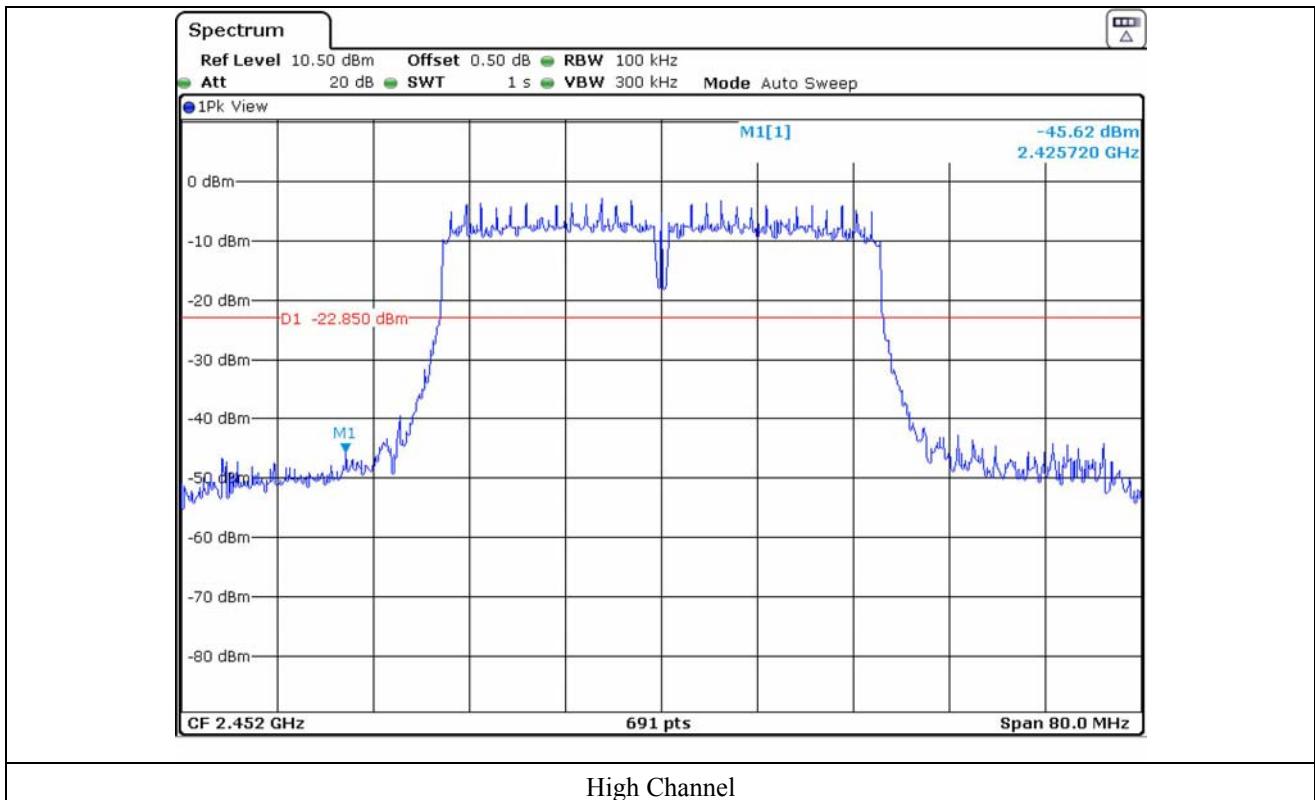
9.5.4.2 Test data for Antenna 1

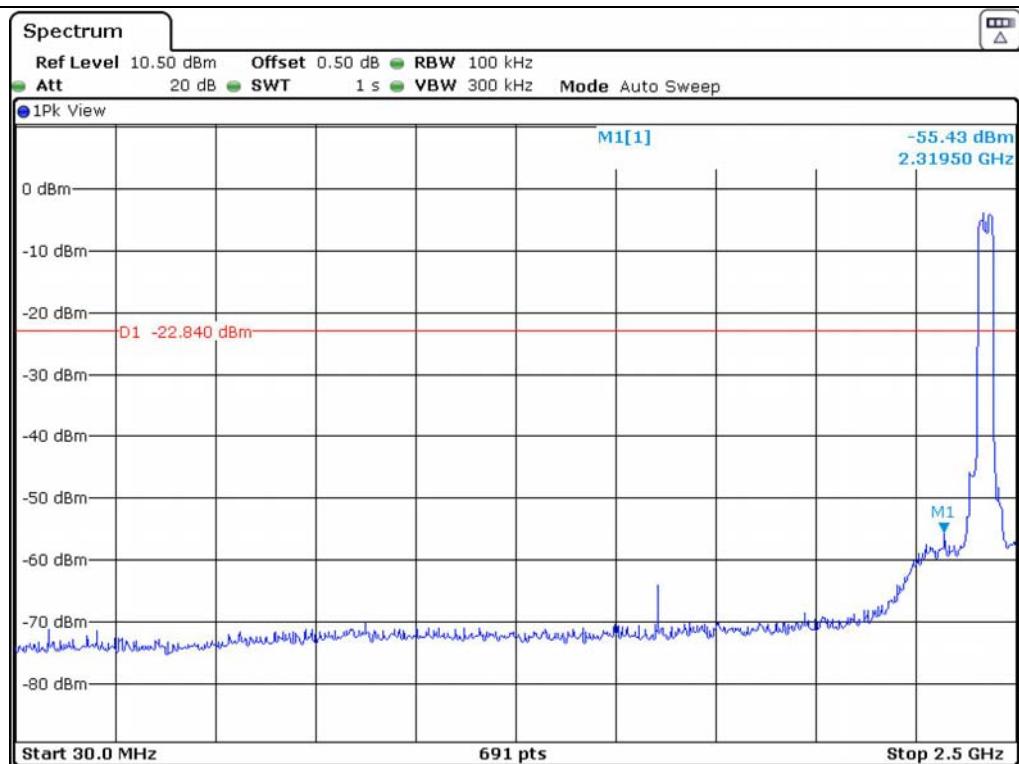


Low Channel

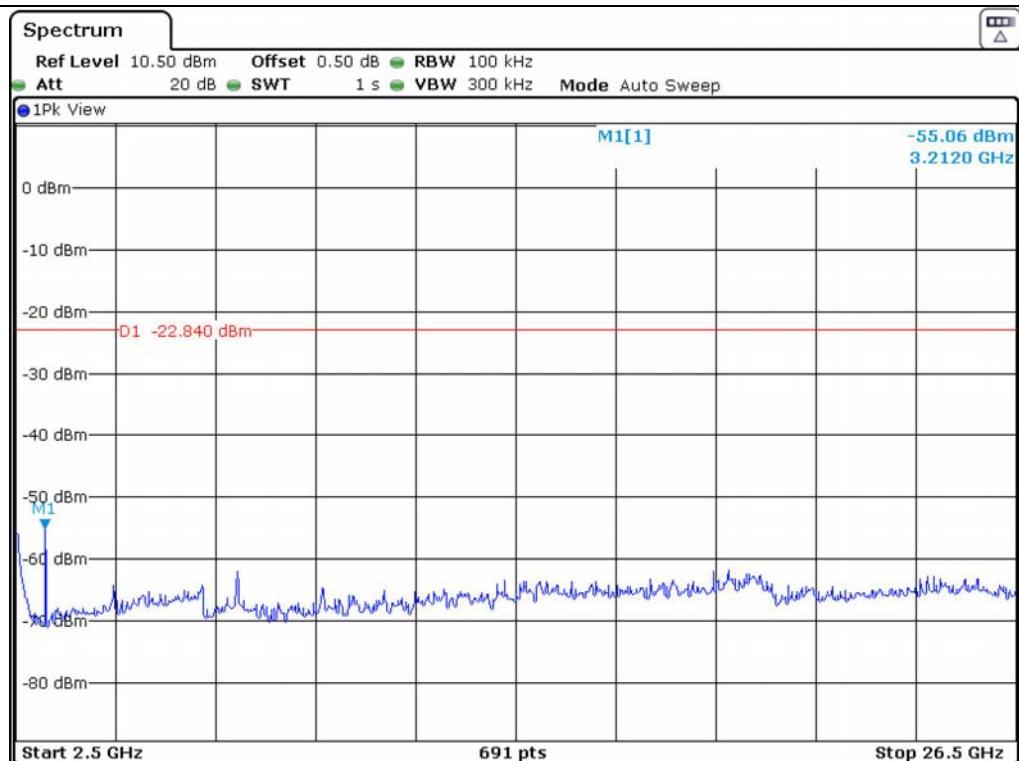


Middle Channel

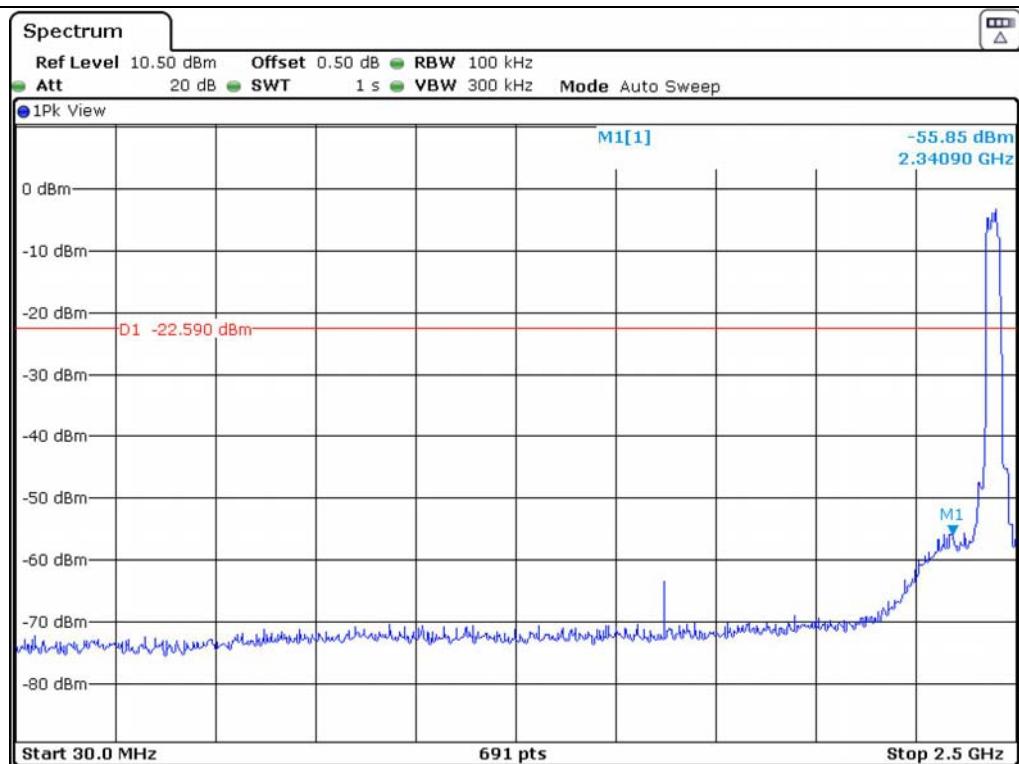




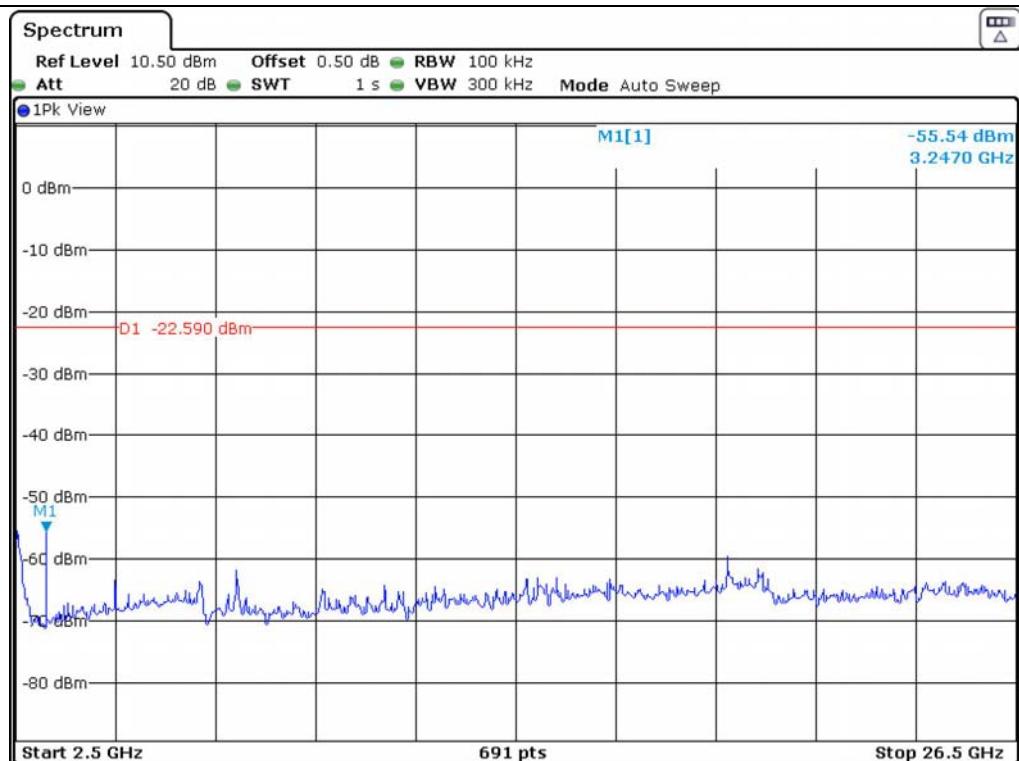
Low Channel



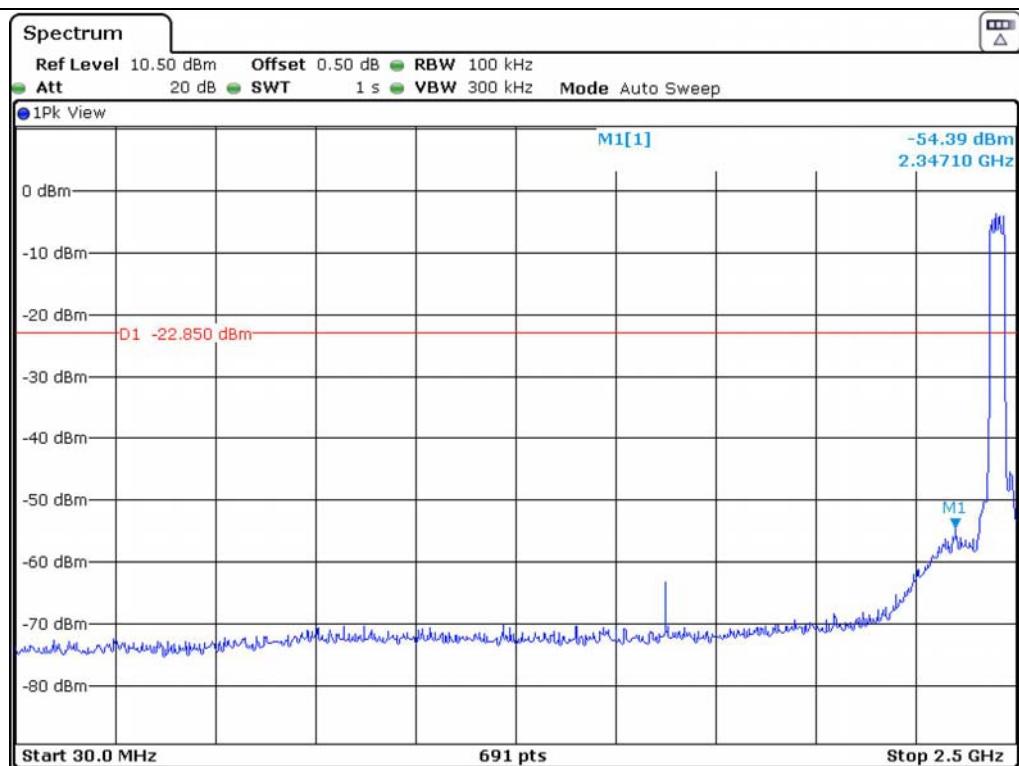
Low Channel



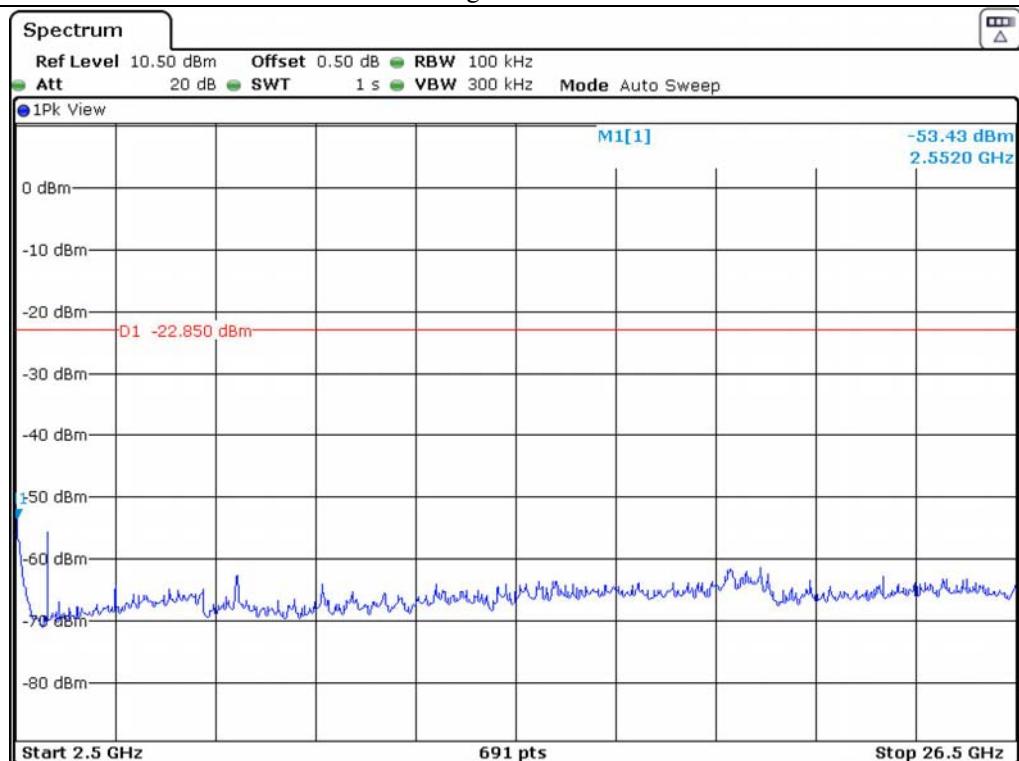
Middle Channel



Middle Channel



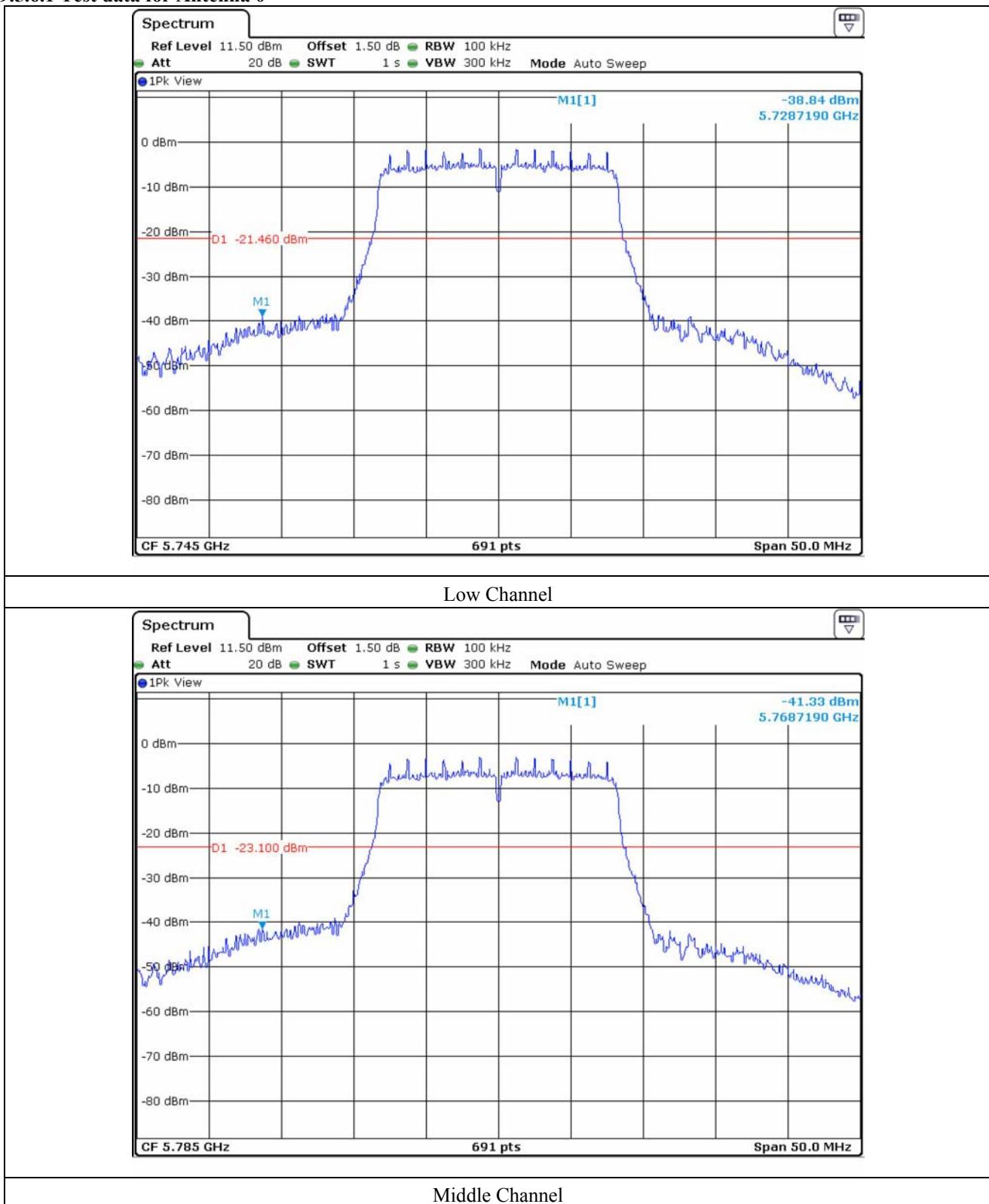
High Channel

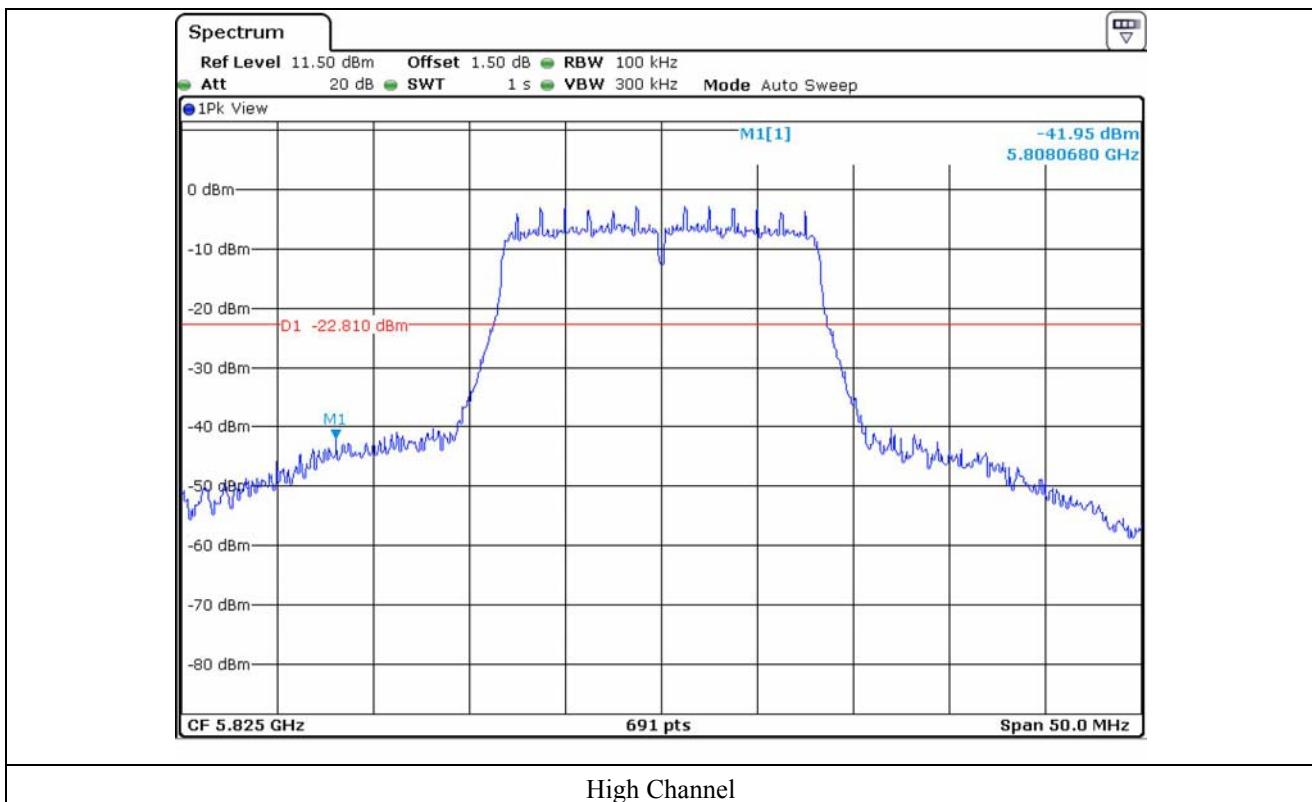


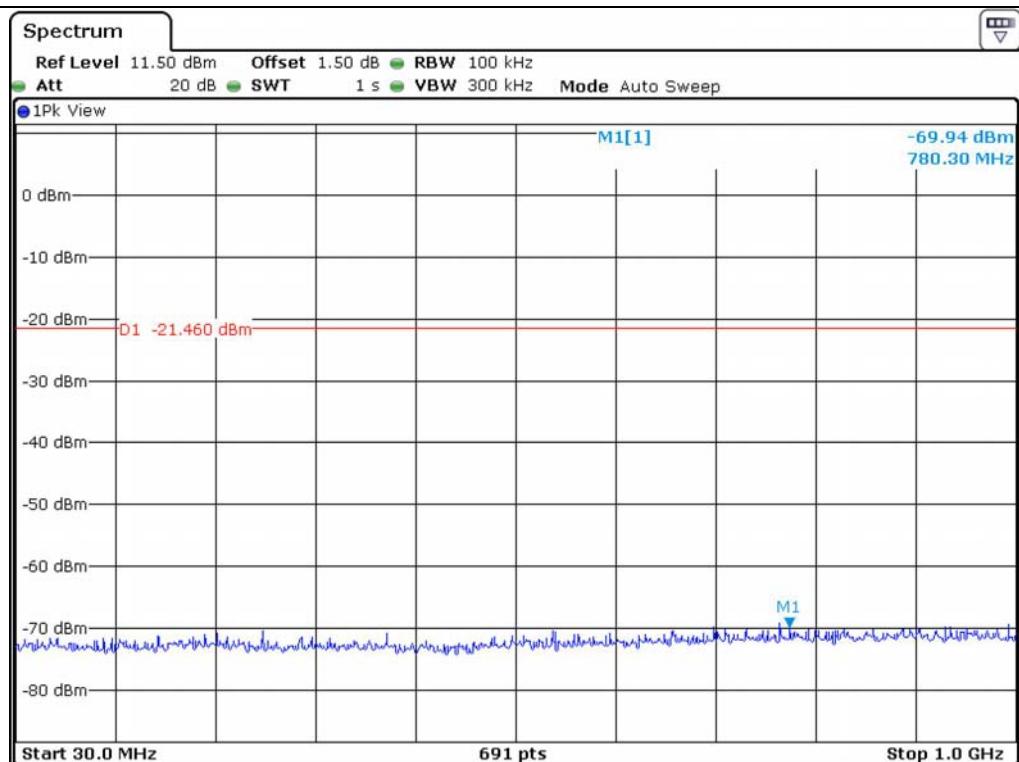
High Channel

9.5.6 Test data for 802.11a RLAN Mode

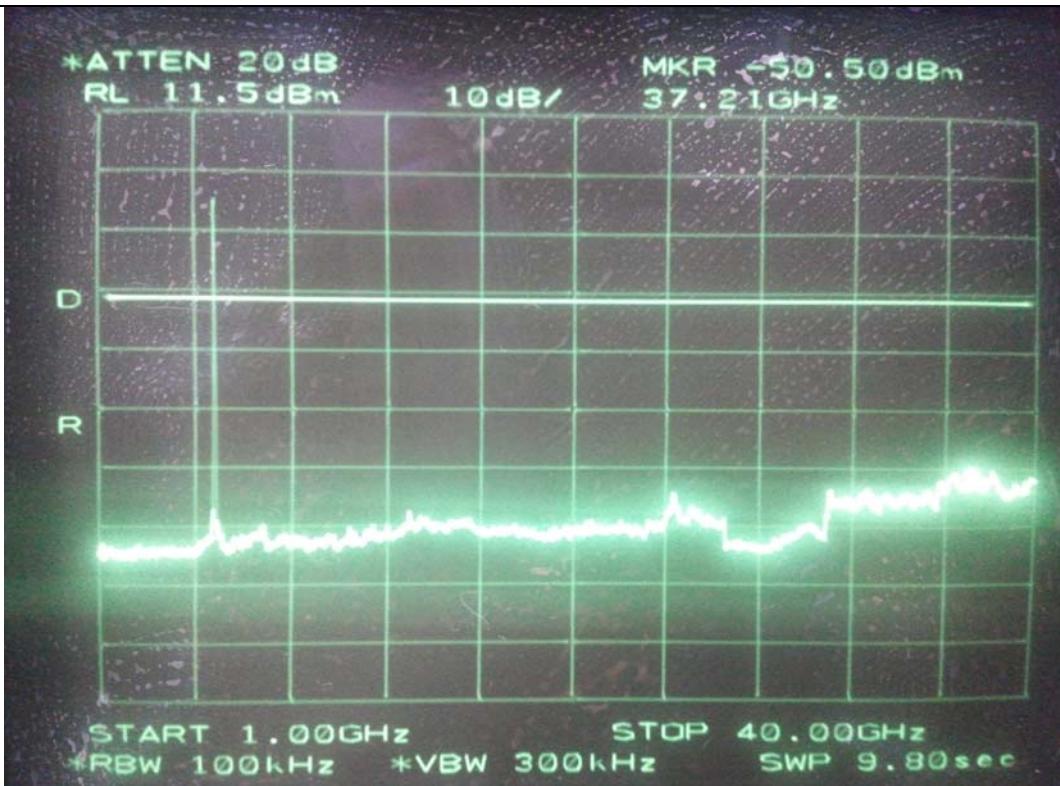
9.5.6.1 Test data for Antenna 0



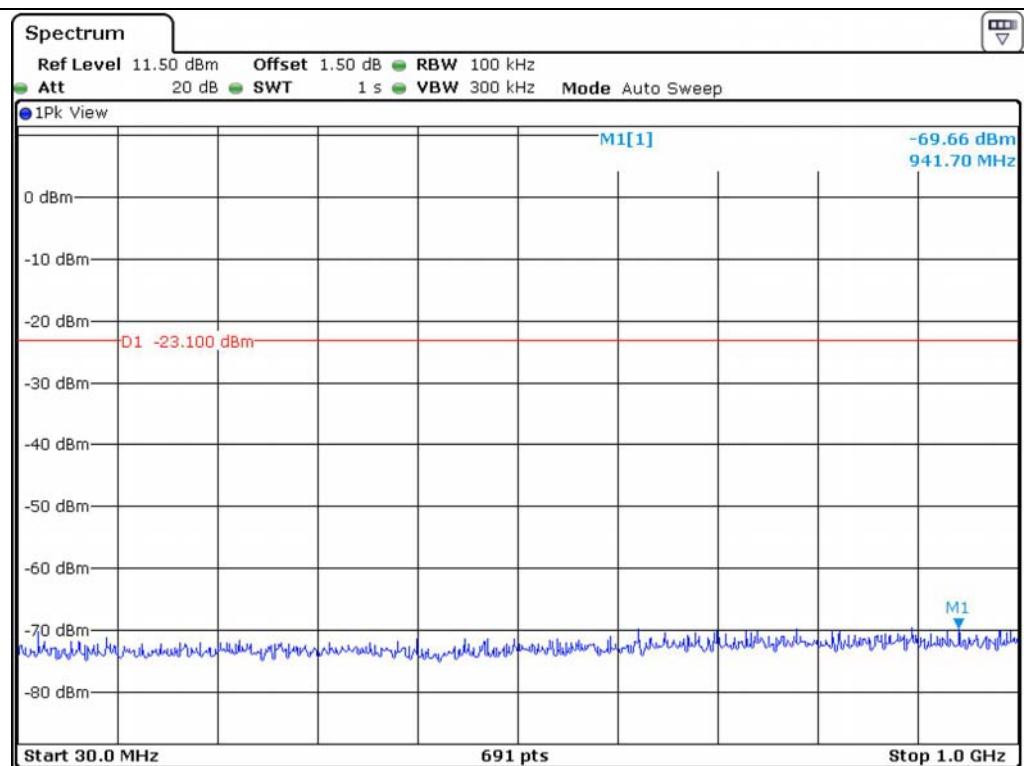




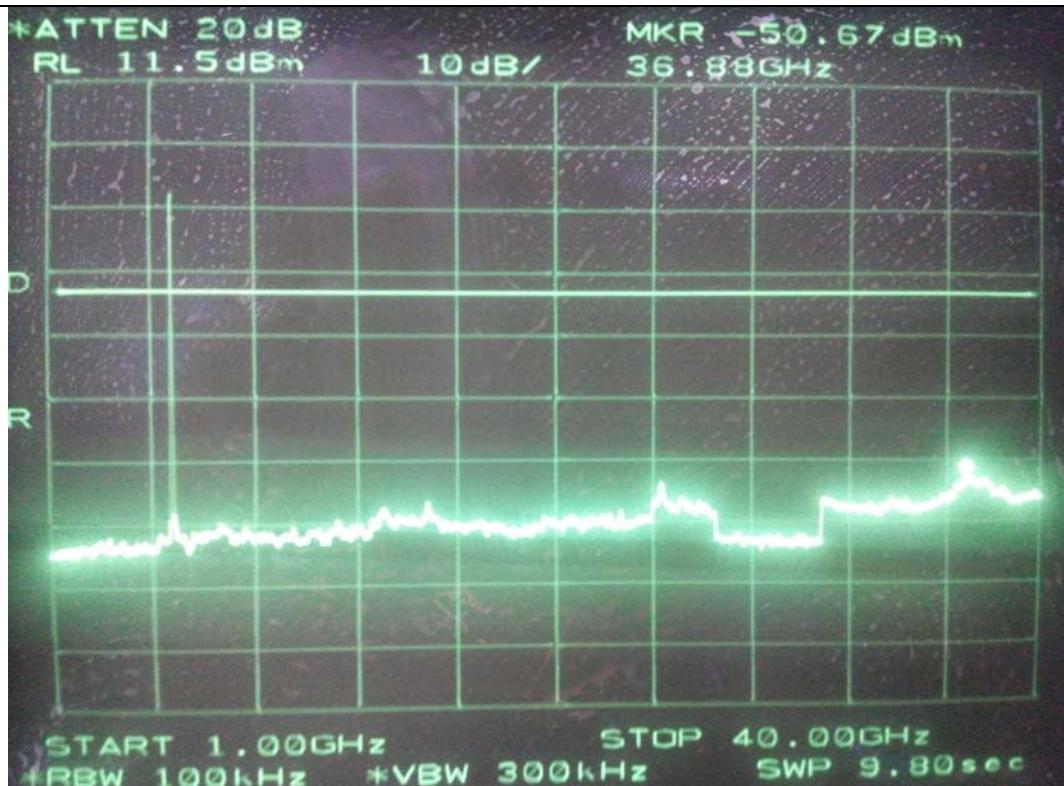
Low Channel



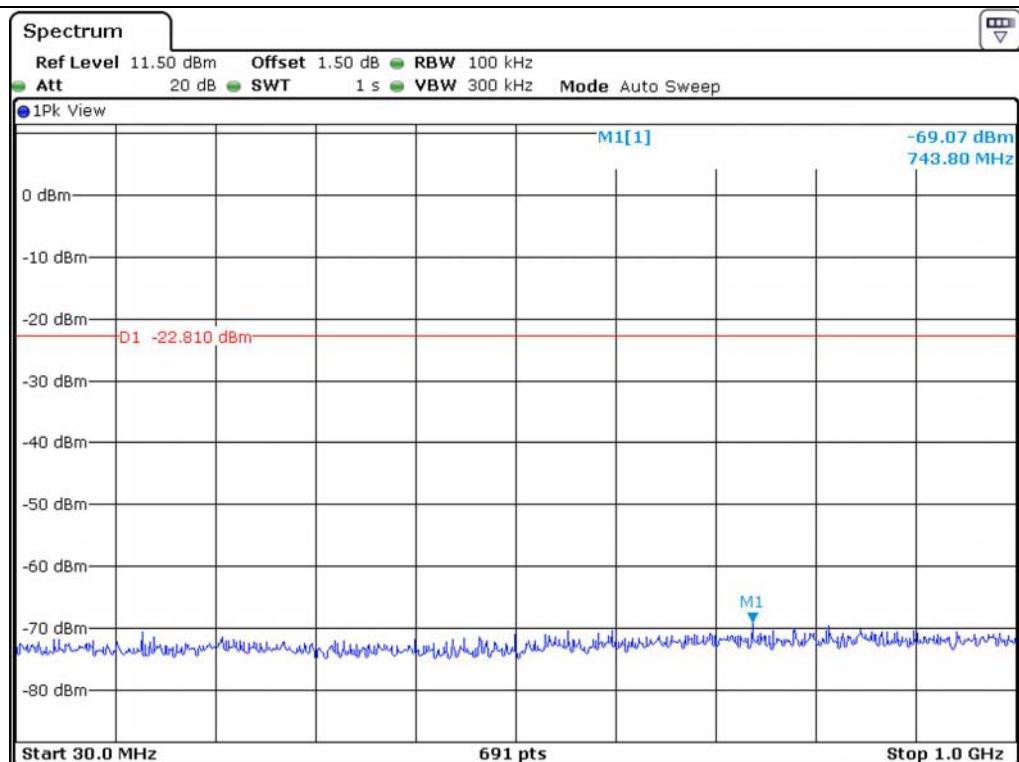
Low Channel



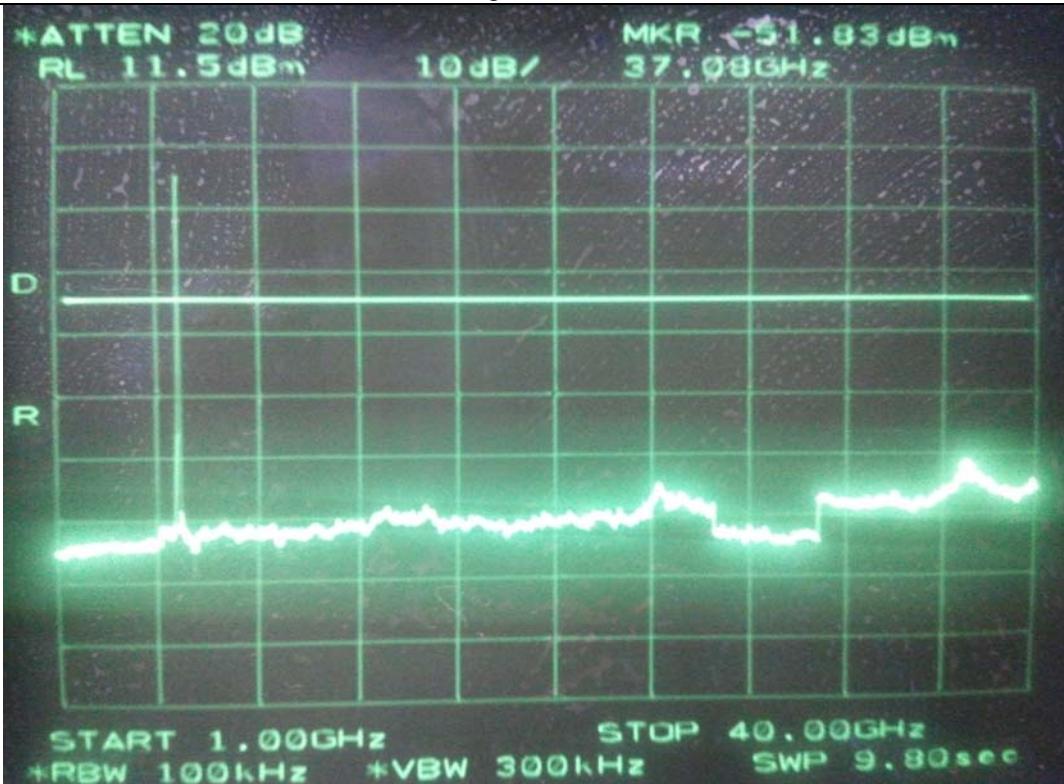
Middle Channel



Middle Channel

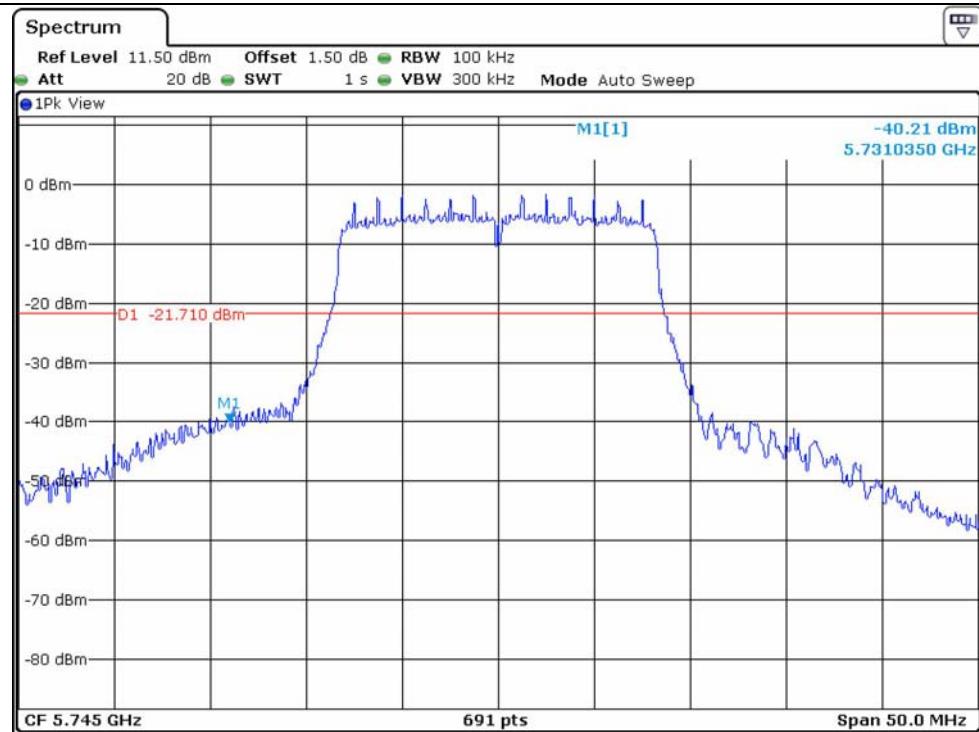


High Channel

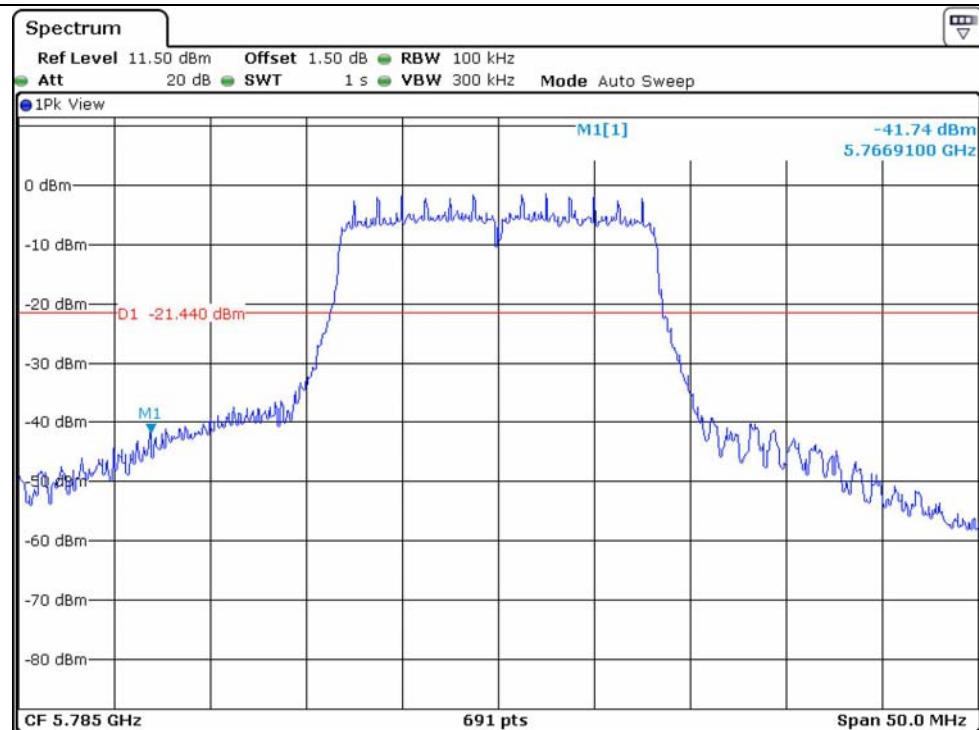


High Channel

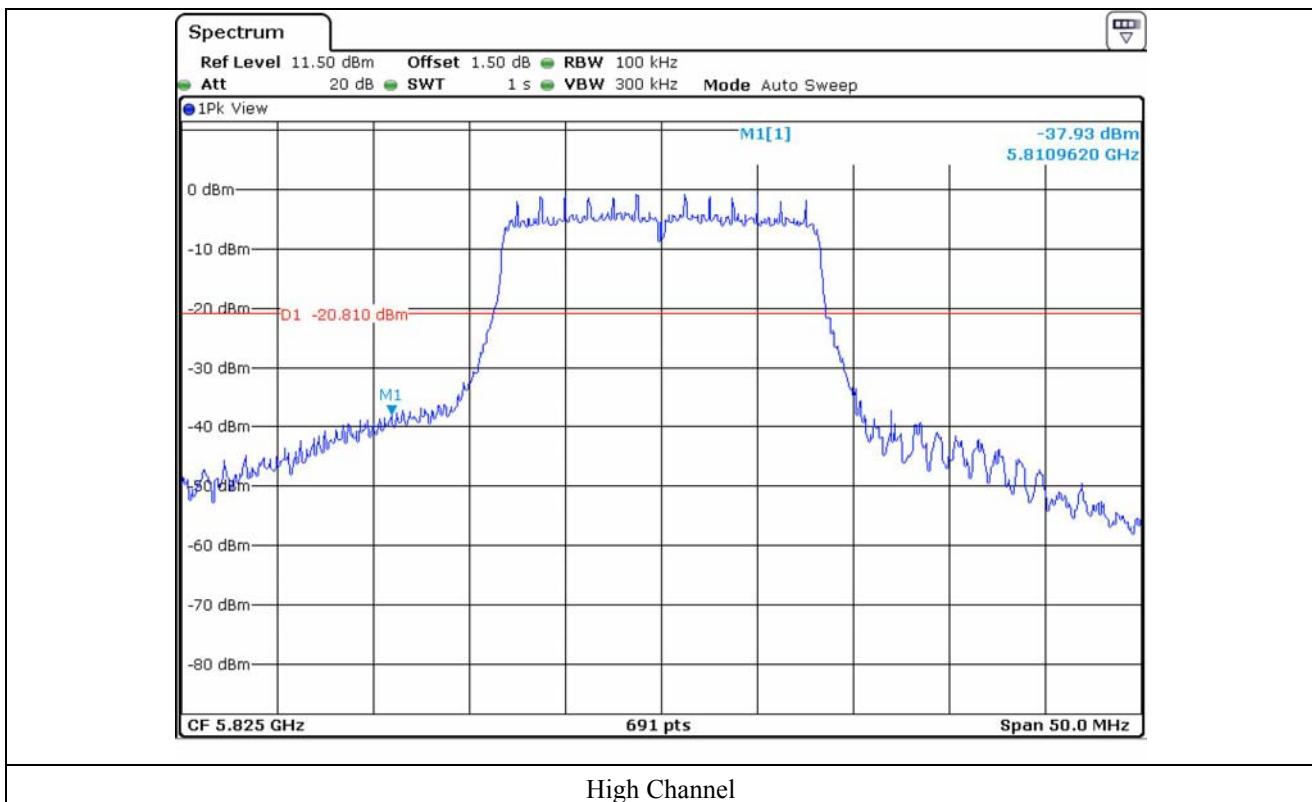
9.5.6.2 Test data for Antenna 1

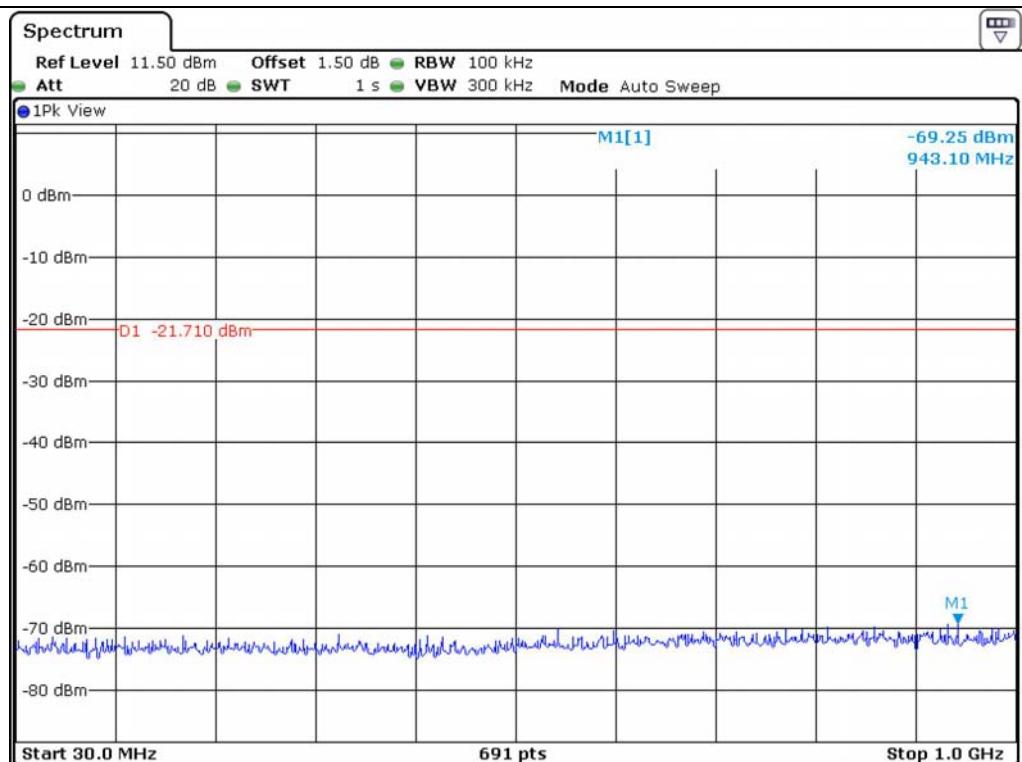


Low Channel

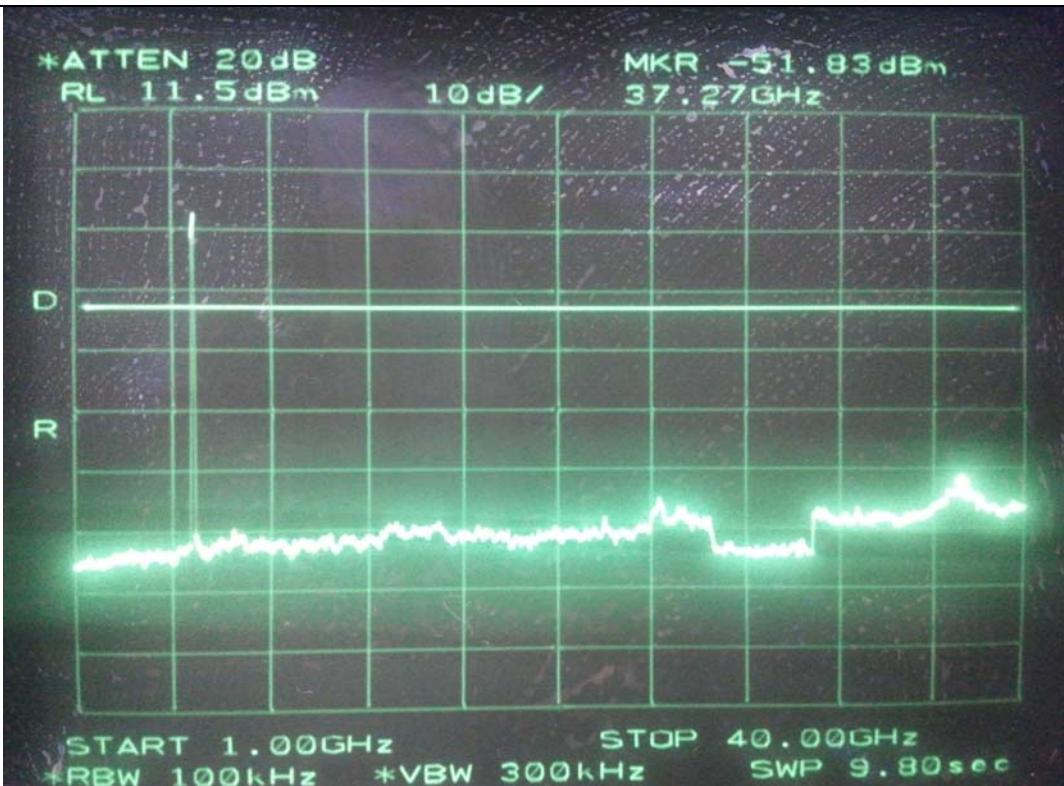


Middle Channel

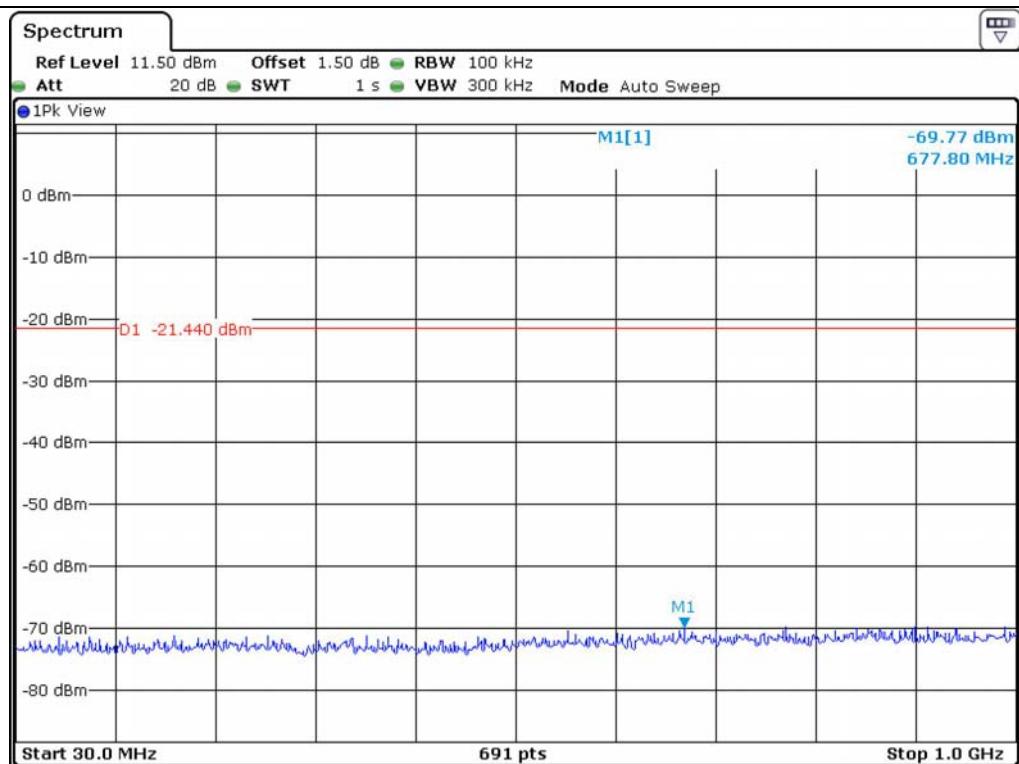




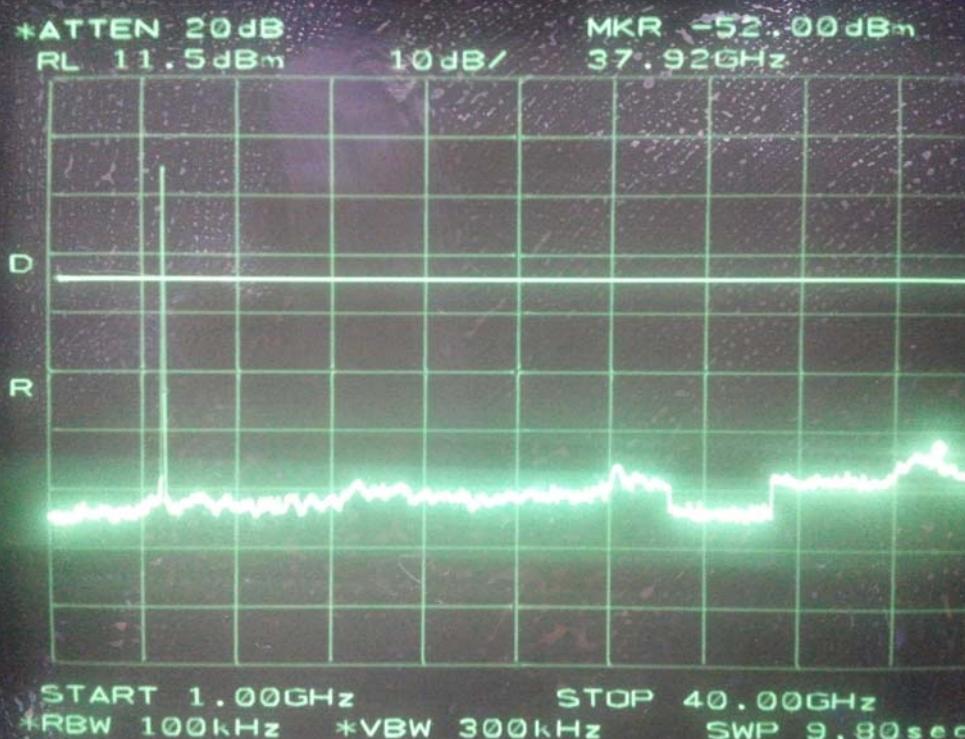
Low Channel



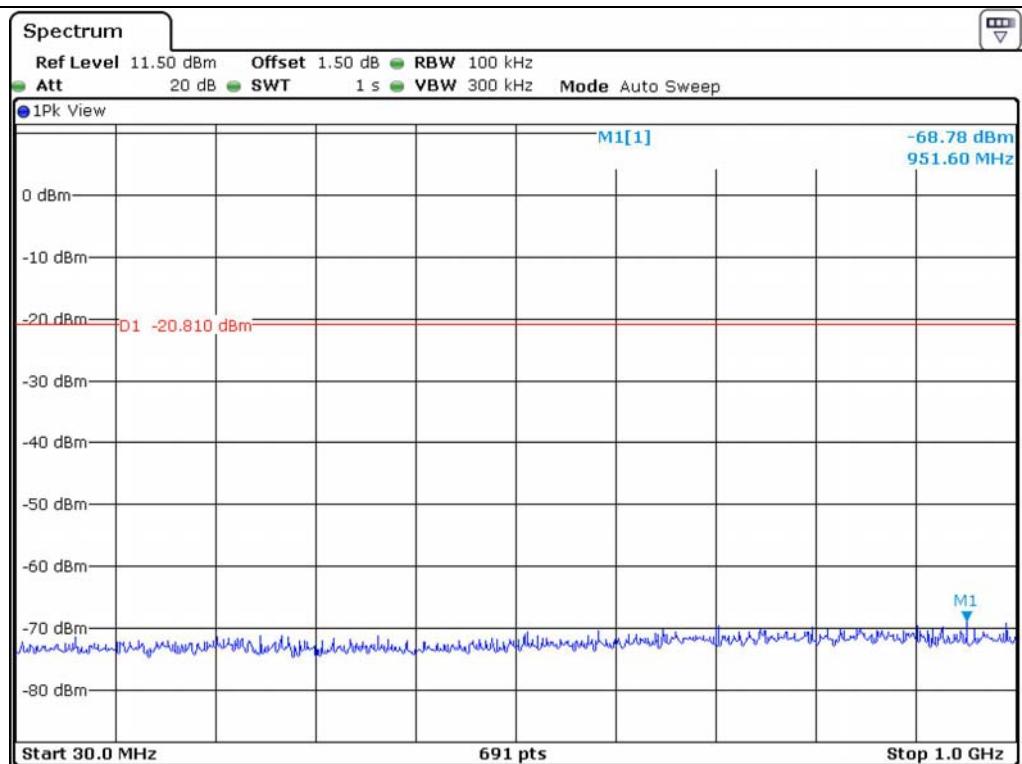
Low Channel



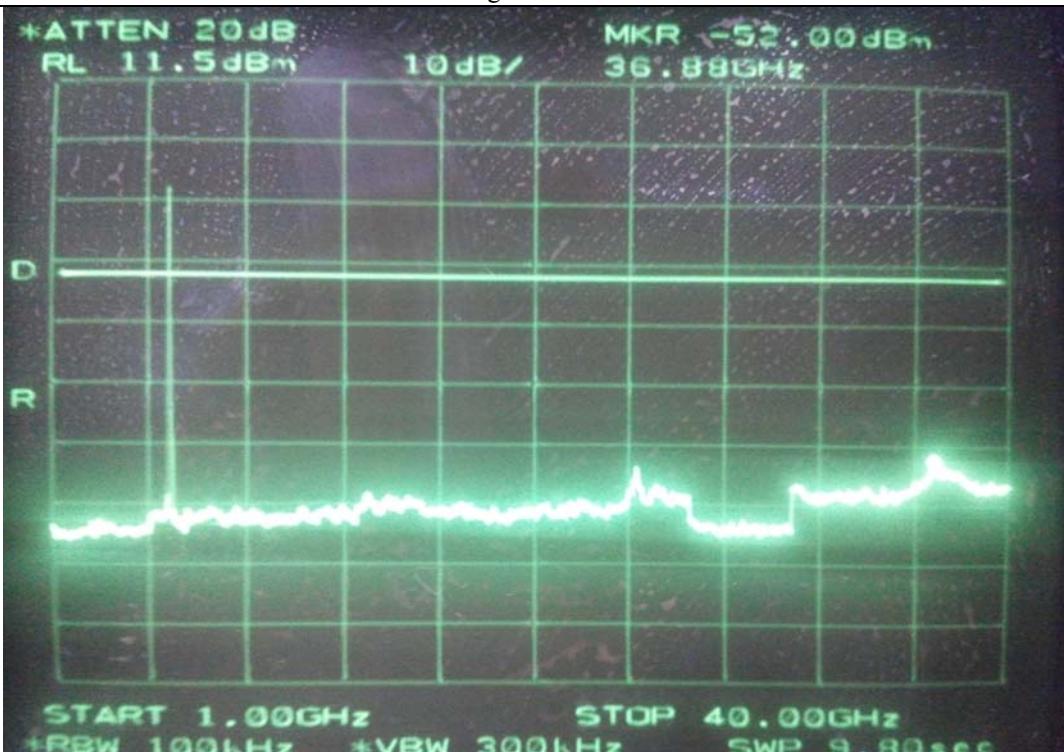
Middle Channel



Middle Channel



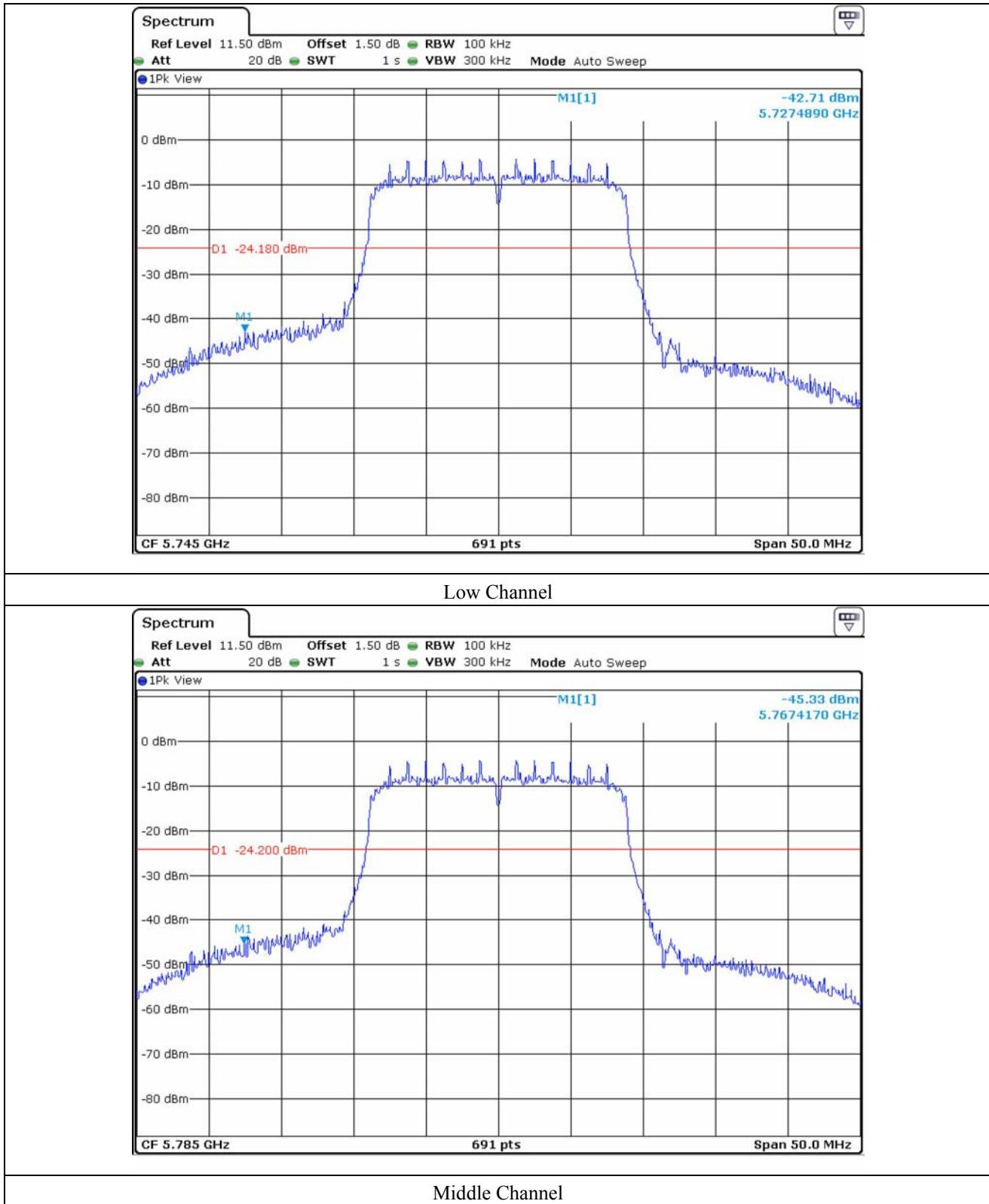
High Channel

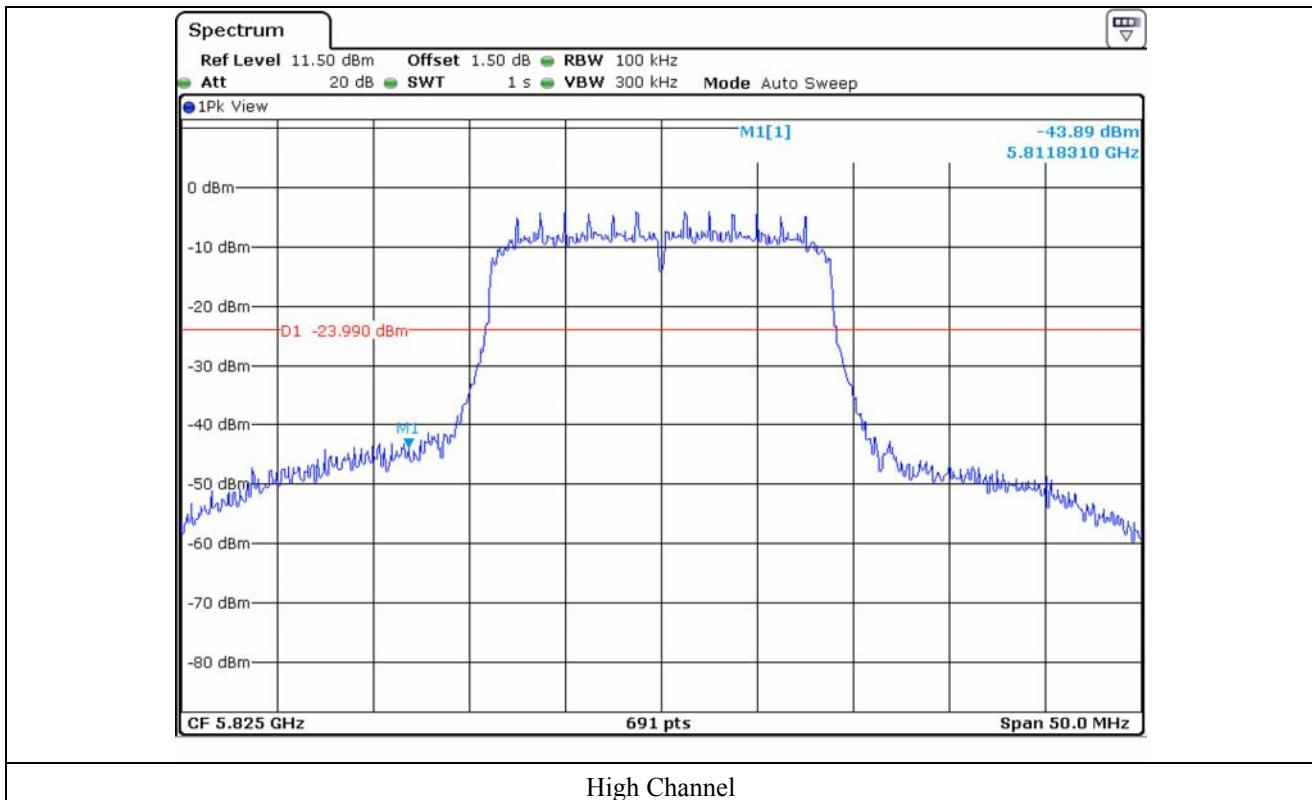


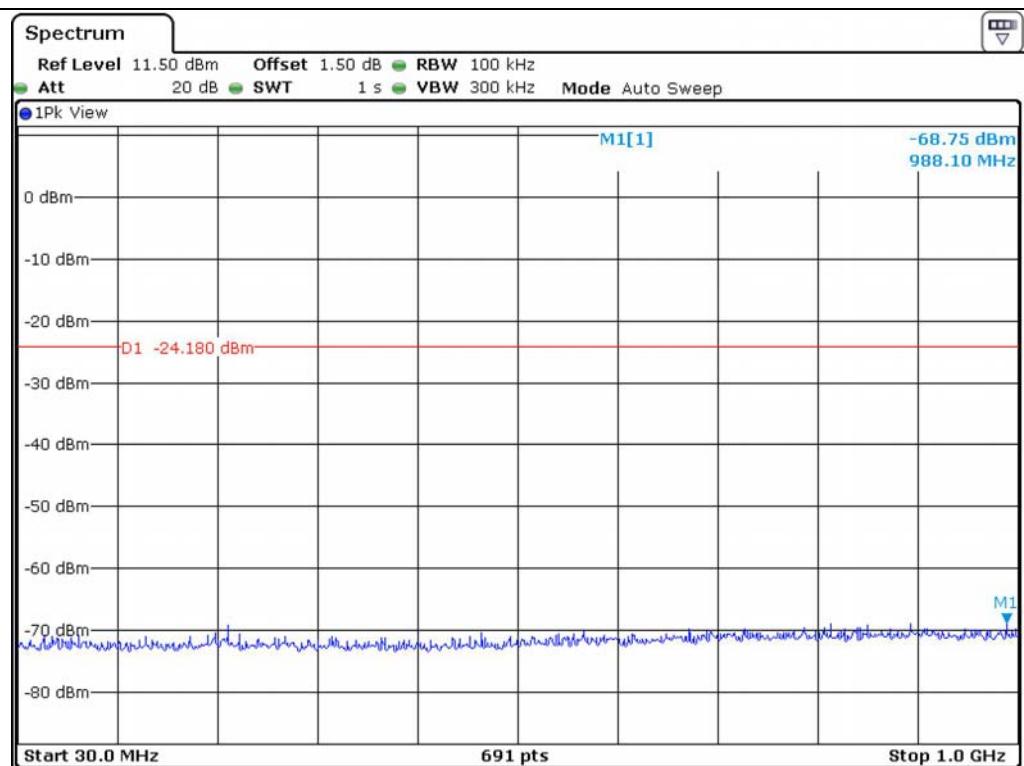
High Channel

9.5.7 Test data for 802.11n_HT20 RLAN Mode

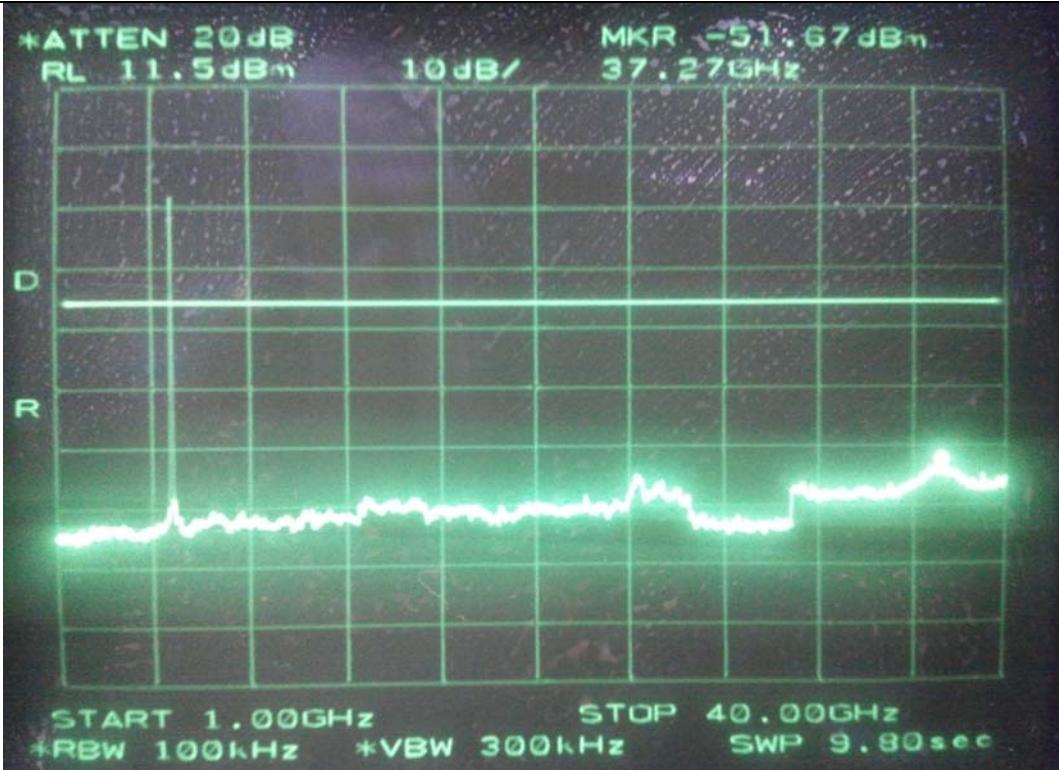
9.5.7.1 Test data for Antenna 0



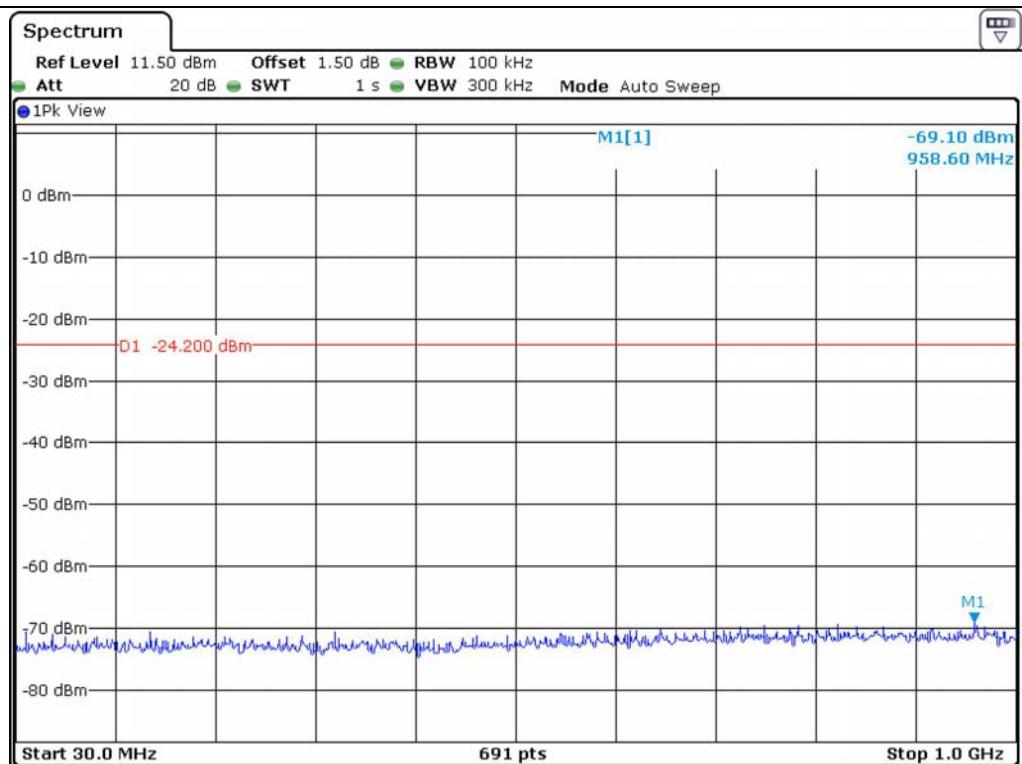




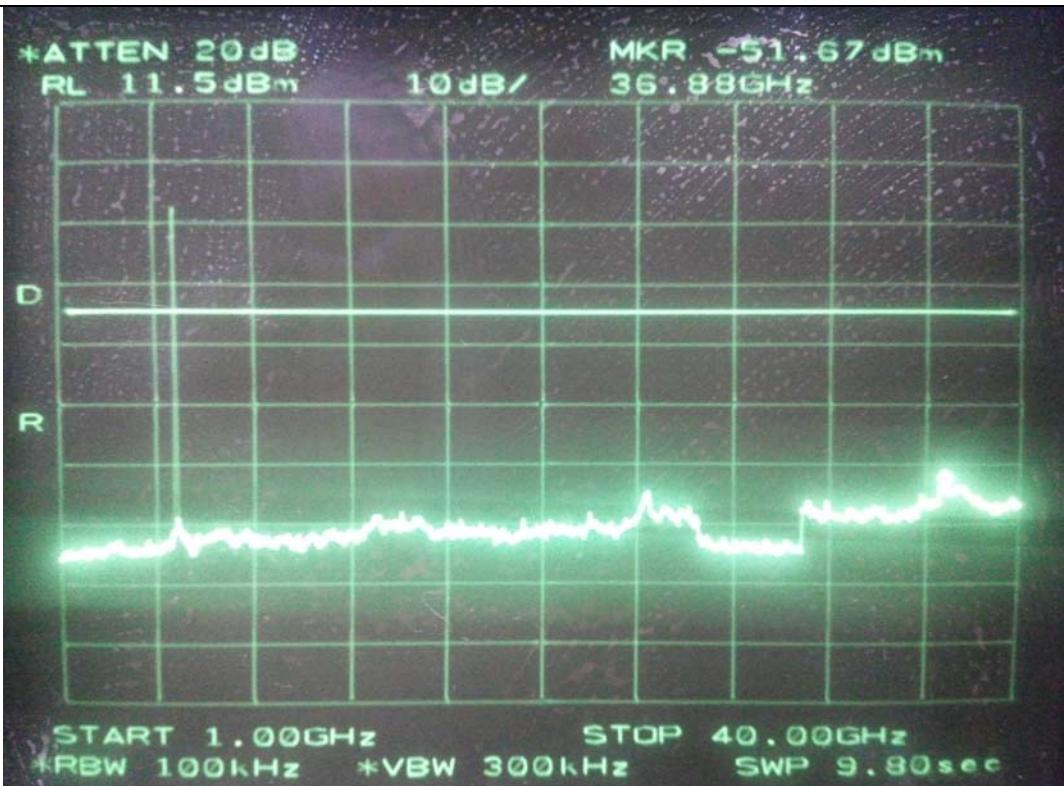
Low Channel



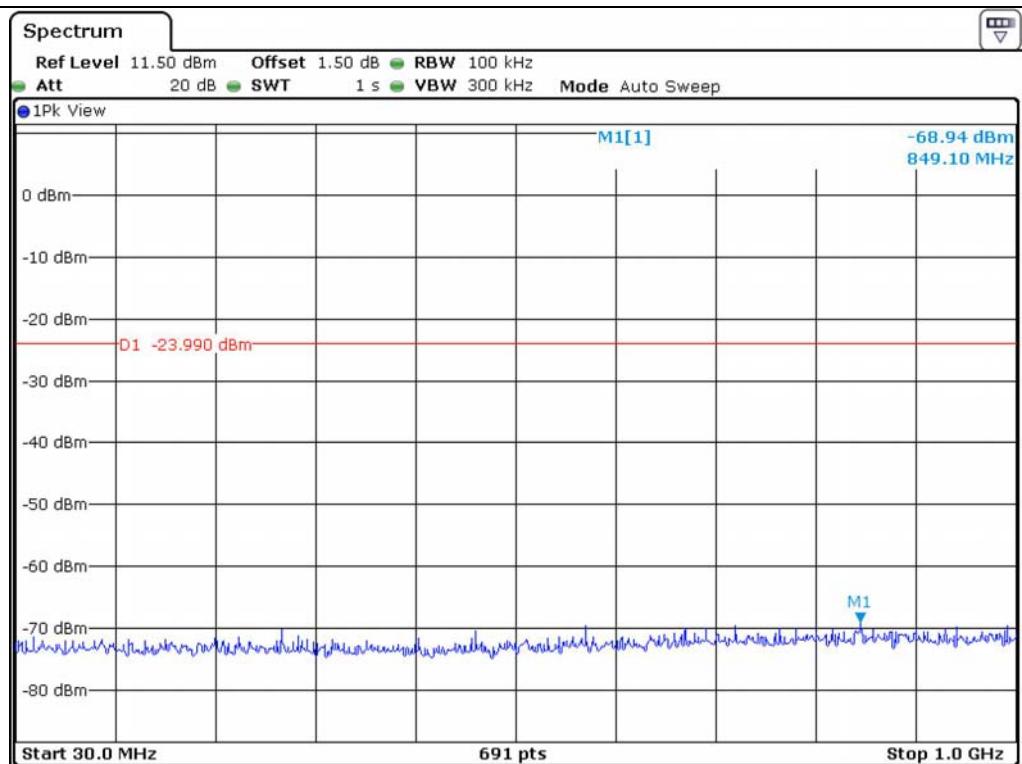
Low Channel



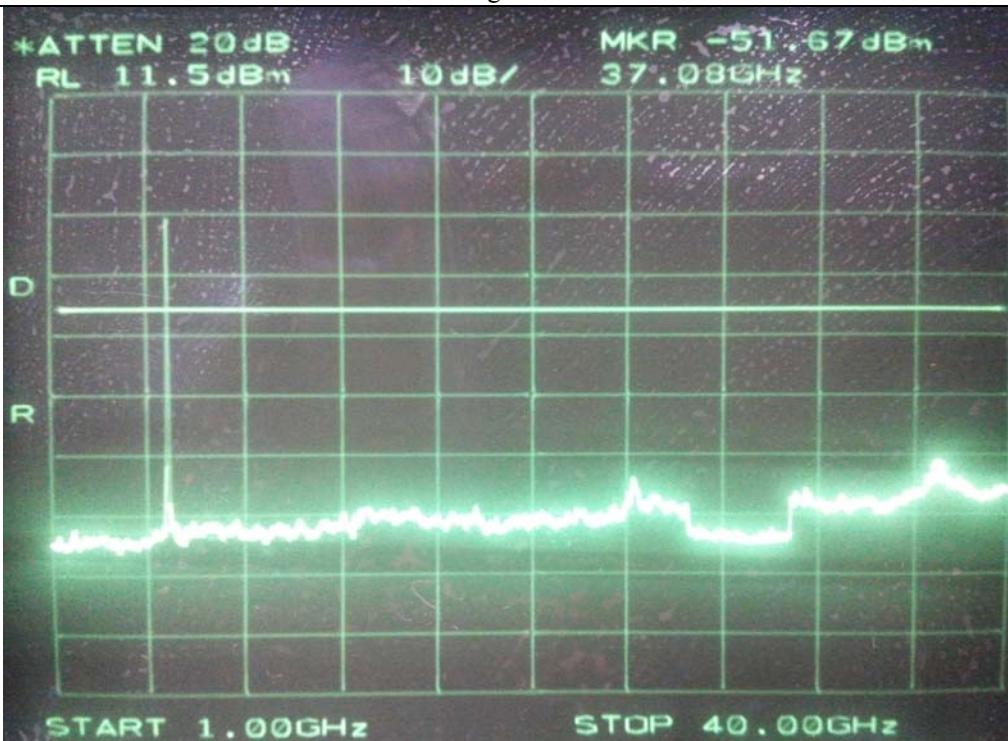
Middle Channel



Middle Channel

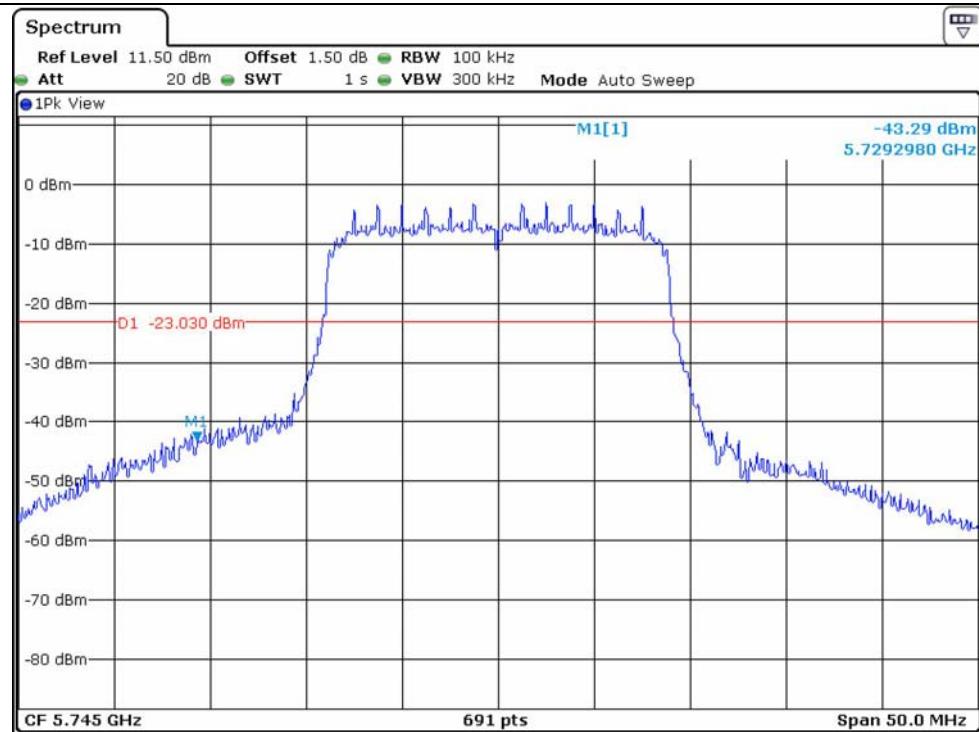


High Channel

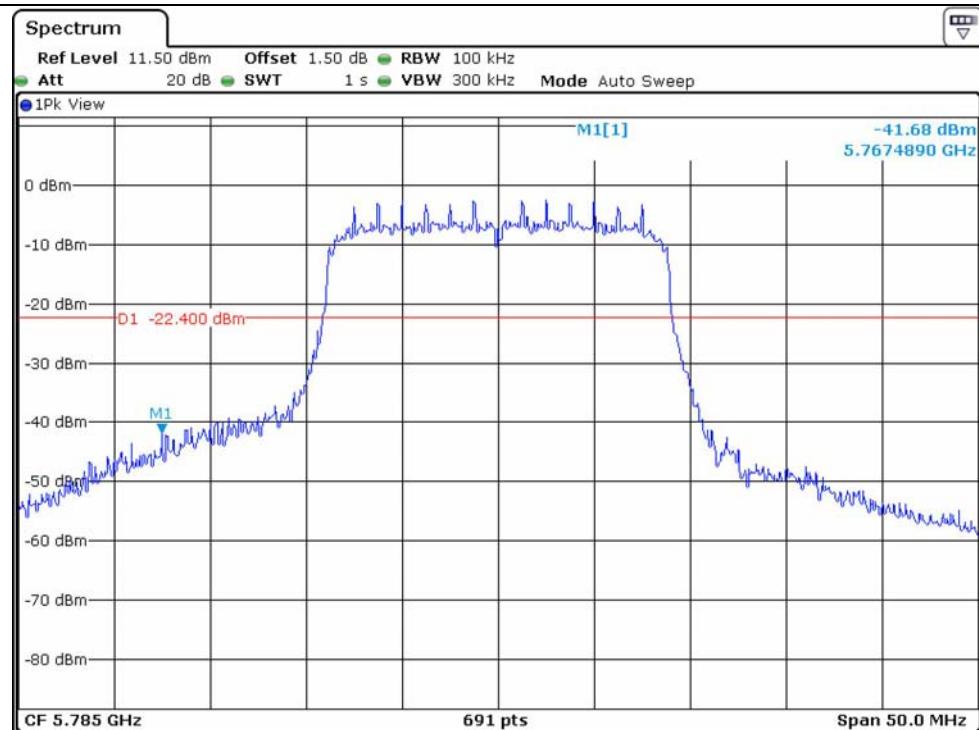


High Channel

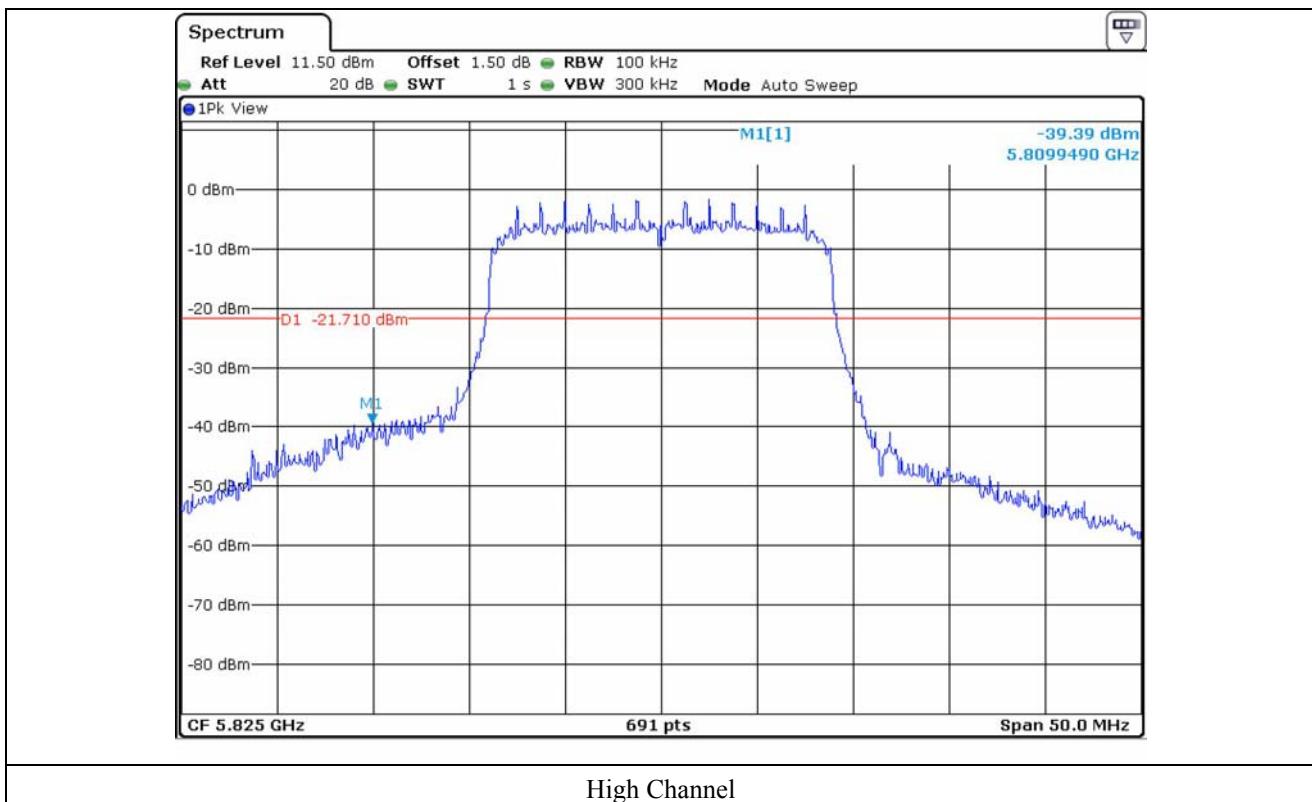
9.5.7.2 Test data for Antenna 1

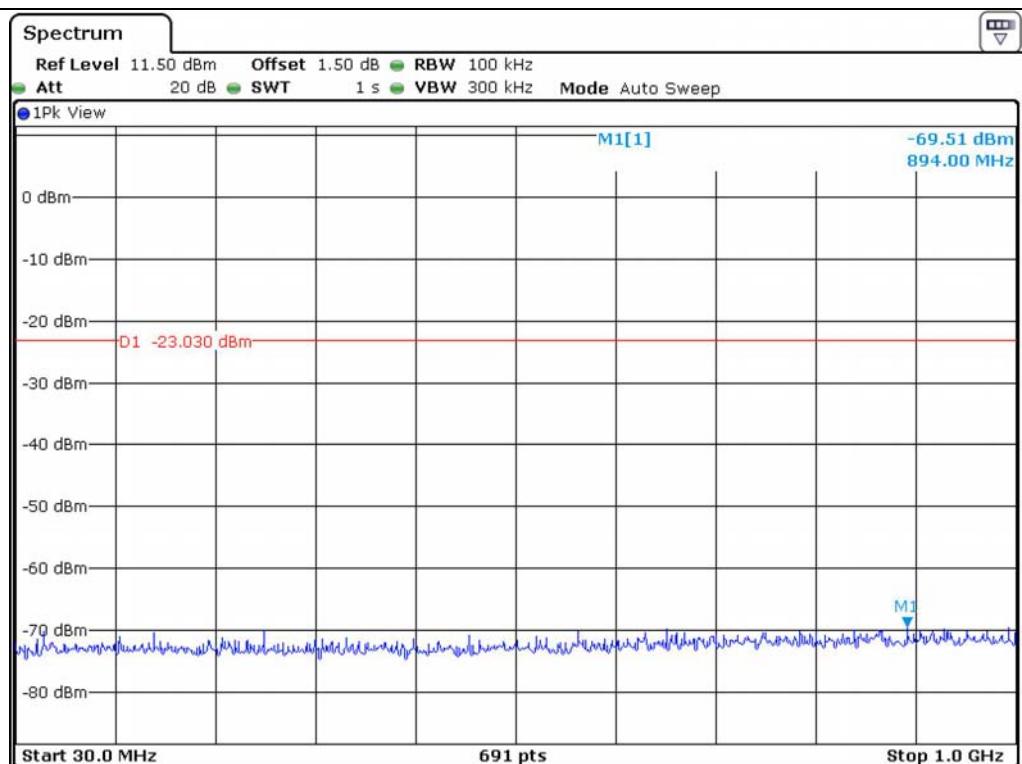


Low Channel

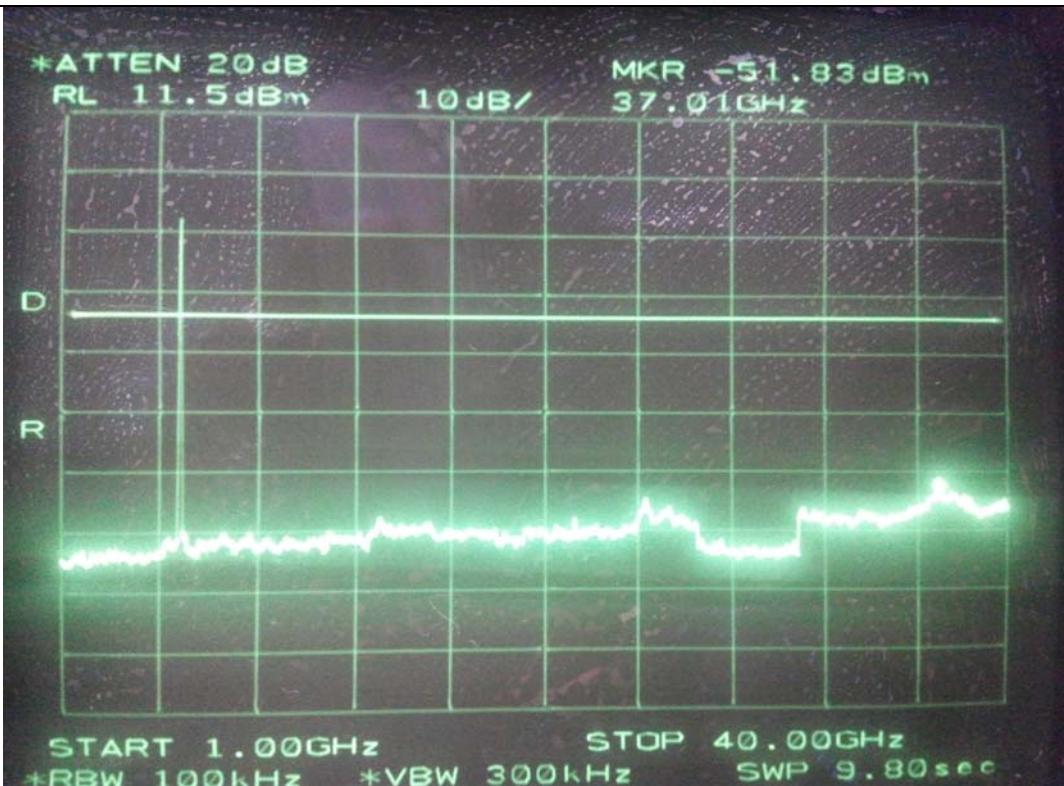


Middle Channel

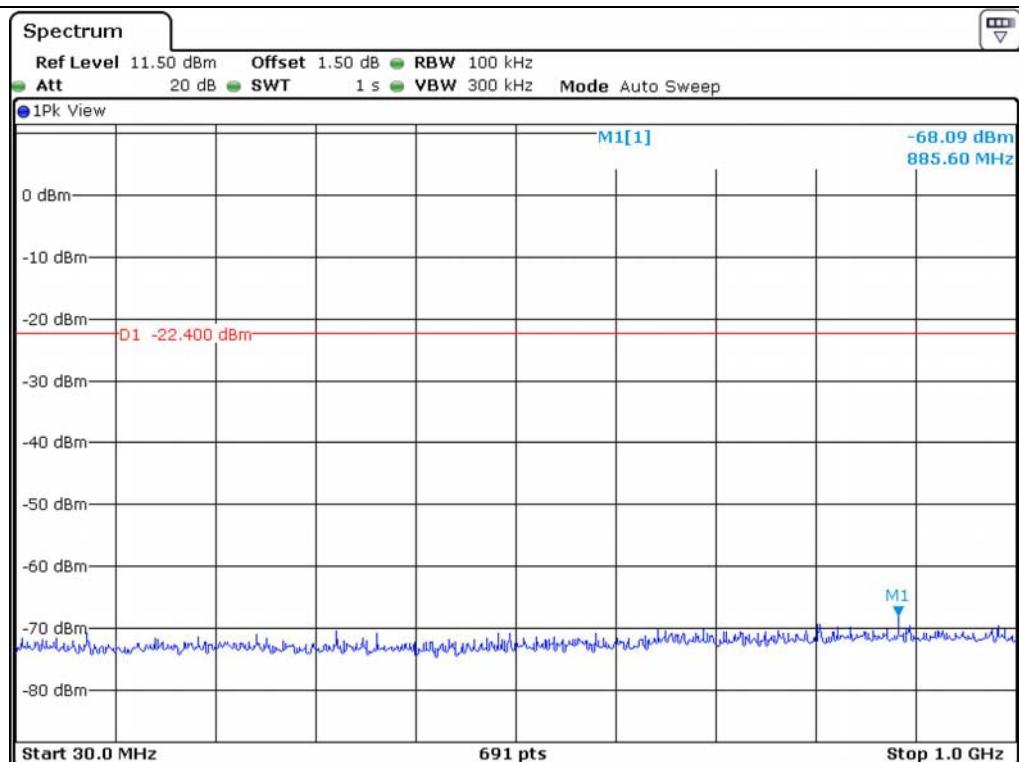




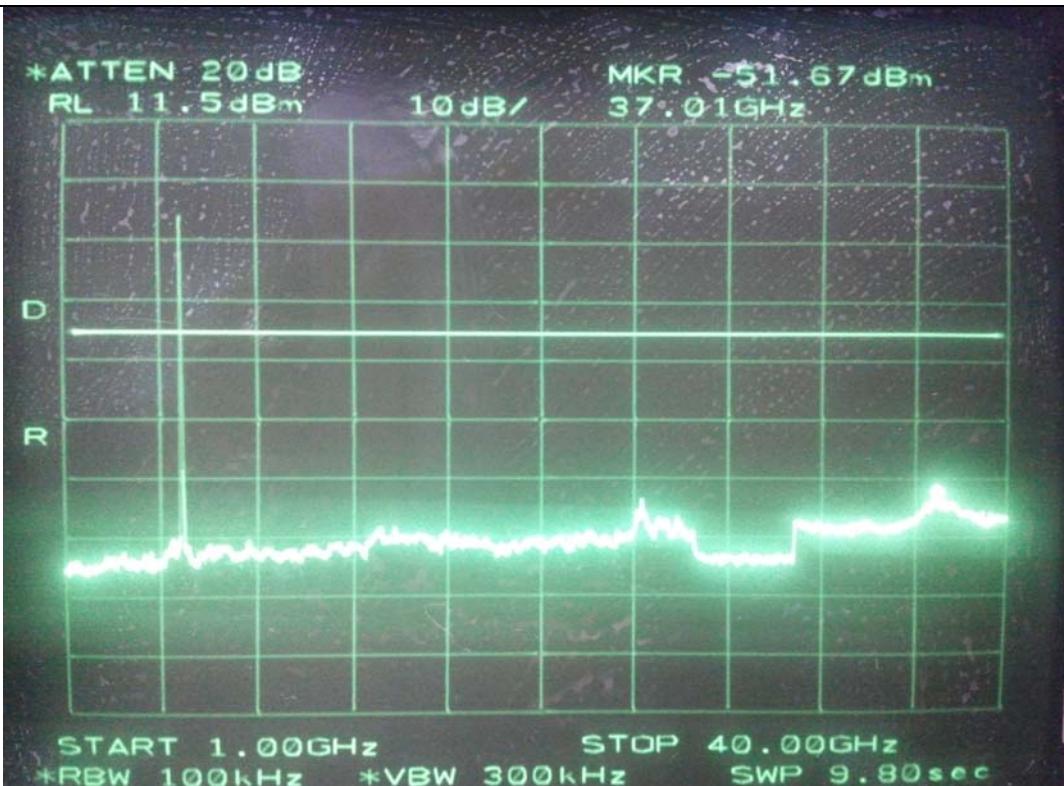
Low Channel



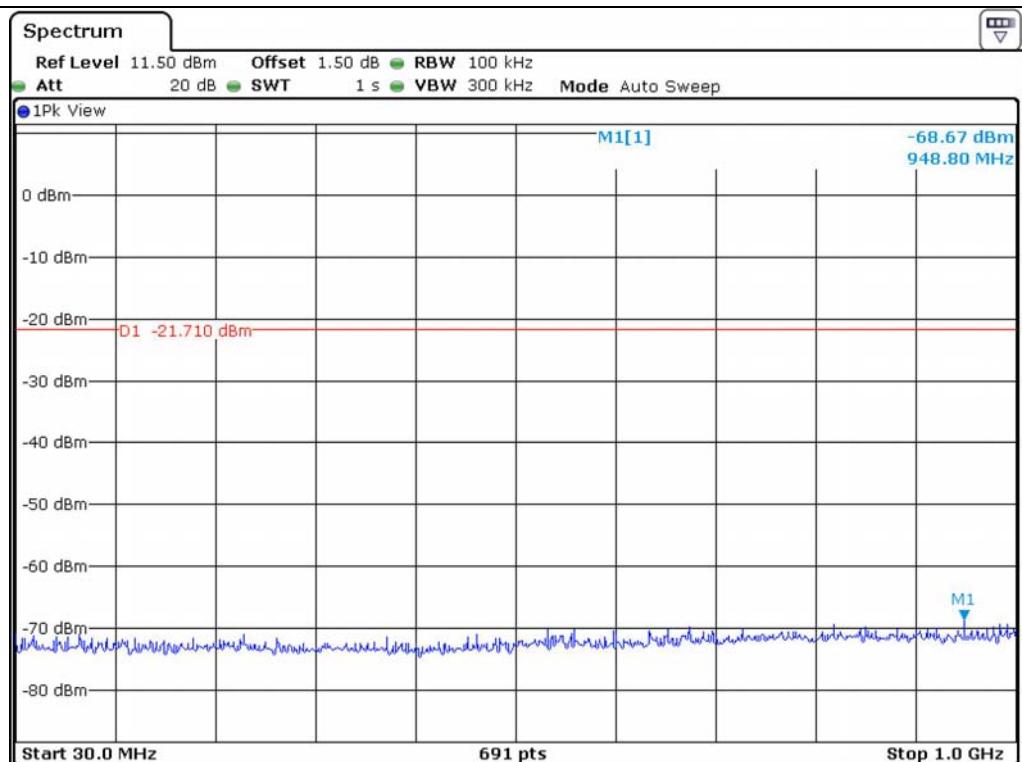
Low Channel



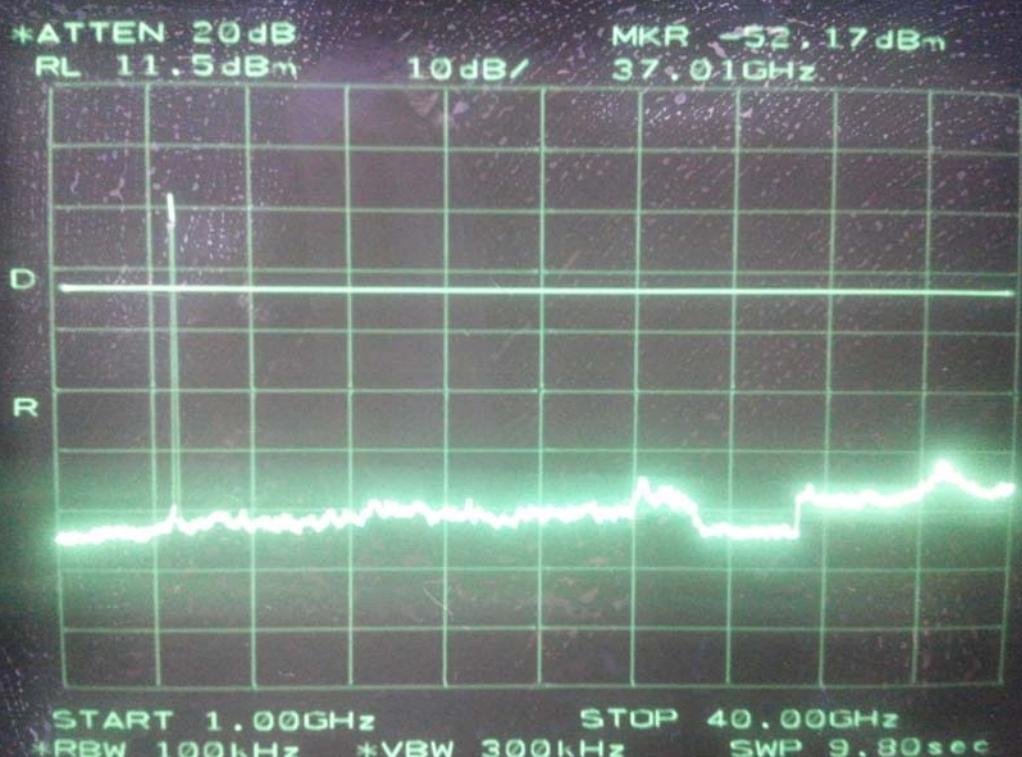
Middle Channel



Middle Channel



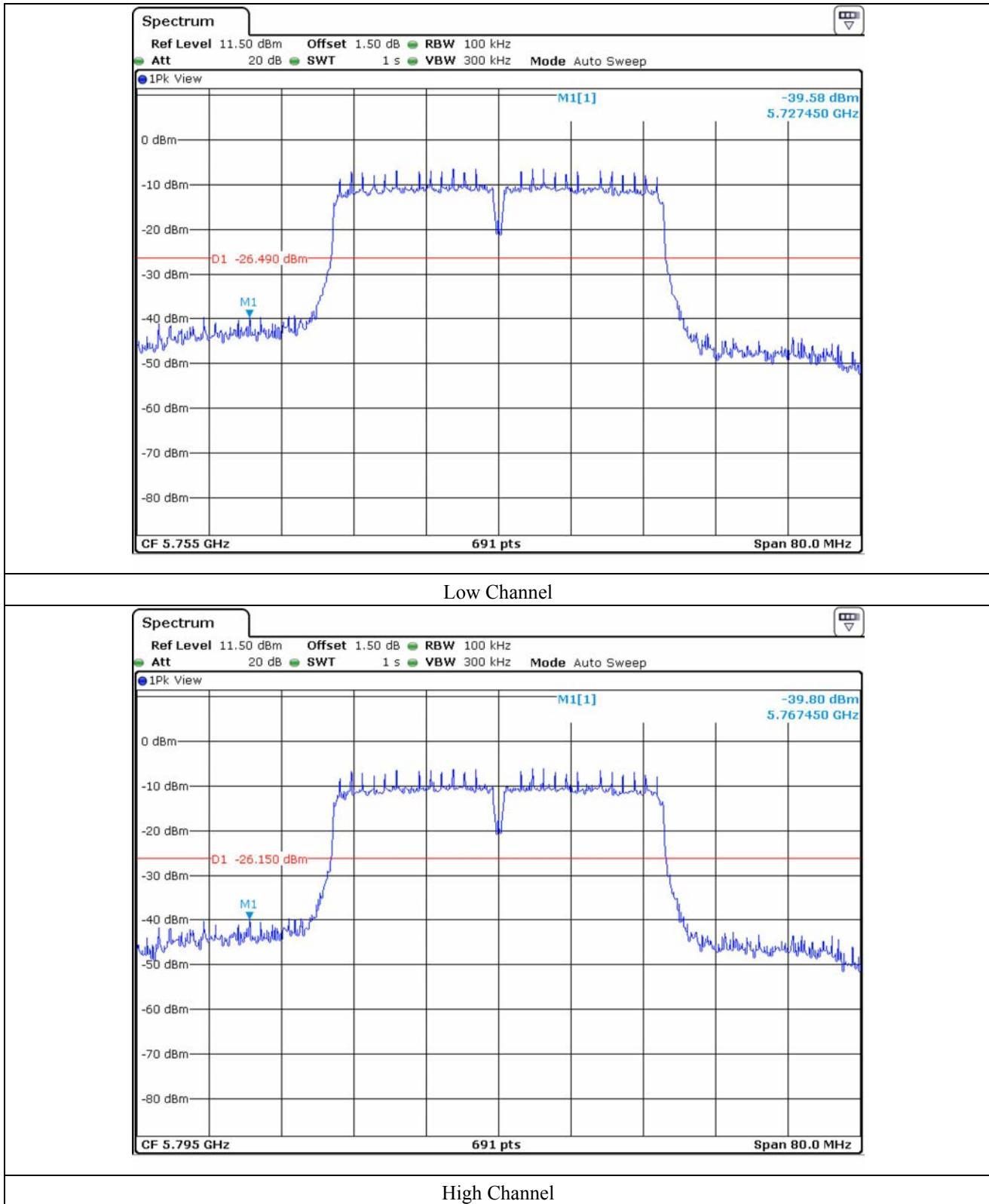
High Channel

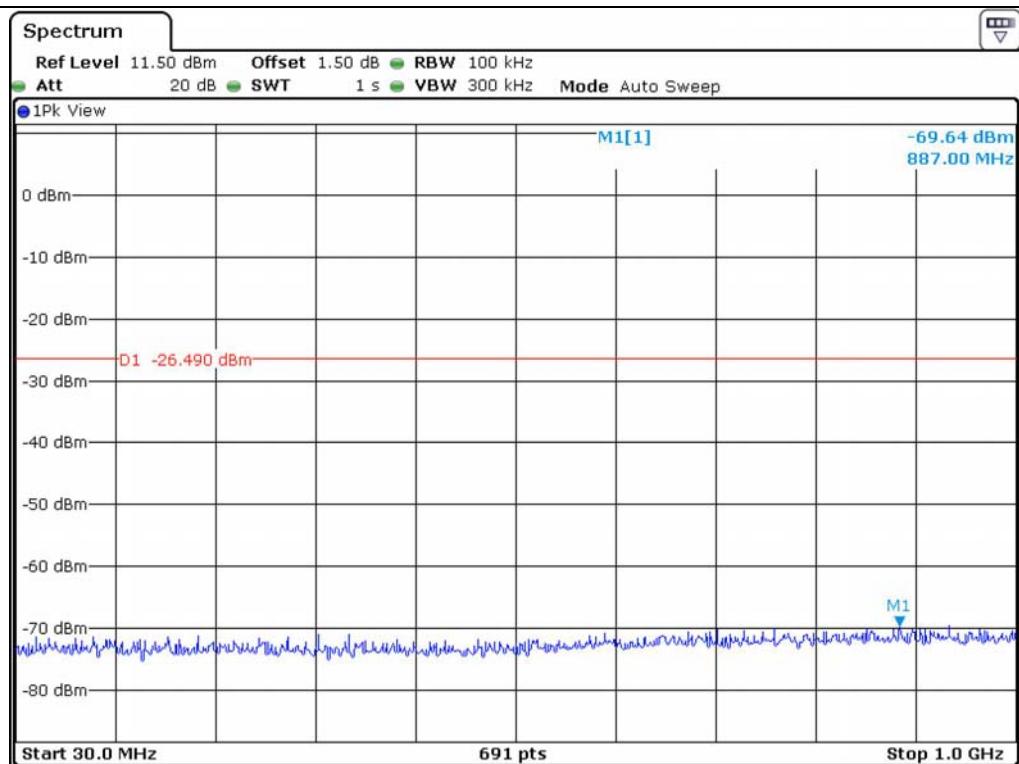


High Channel

9.5.8 Test data for 802.11n_HT40 RLAN Mode

9.5.8.1 Test data for Antenna 0

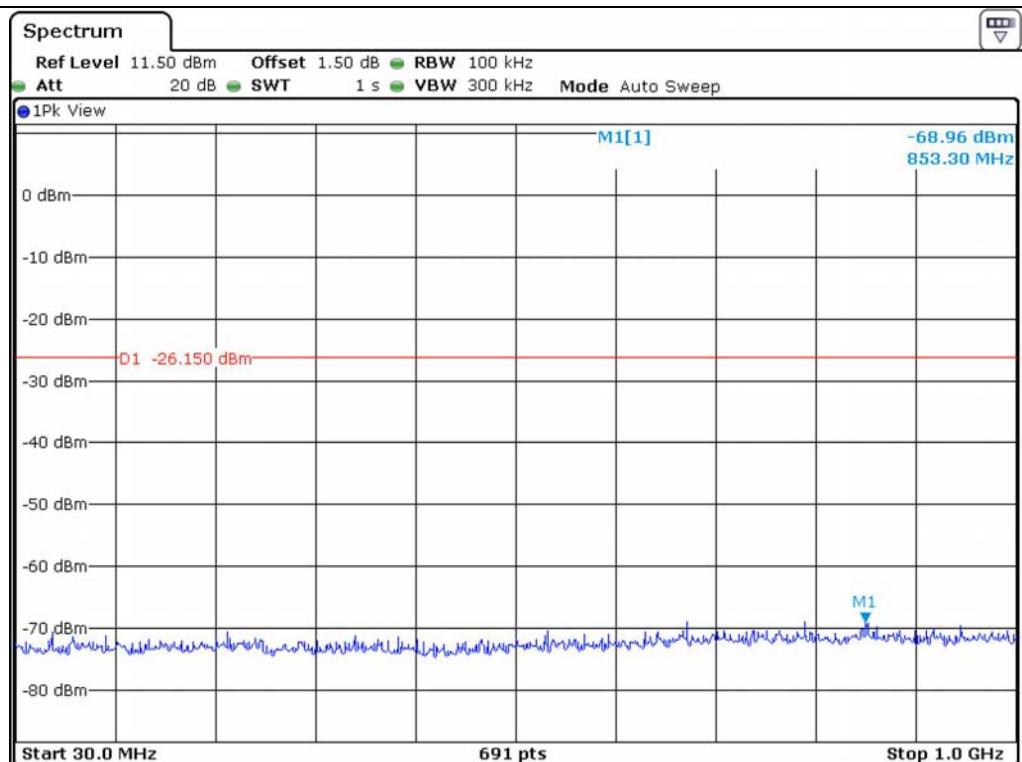




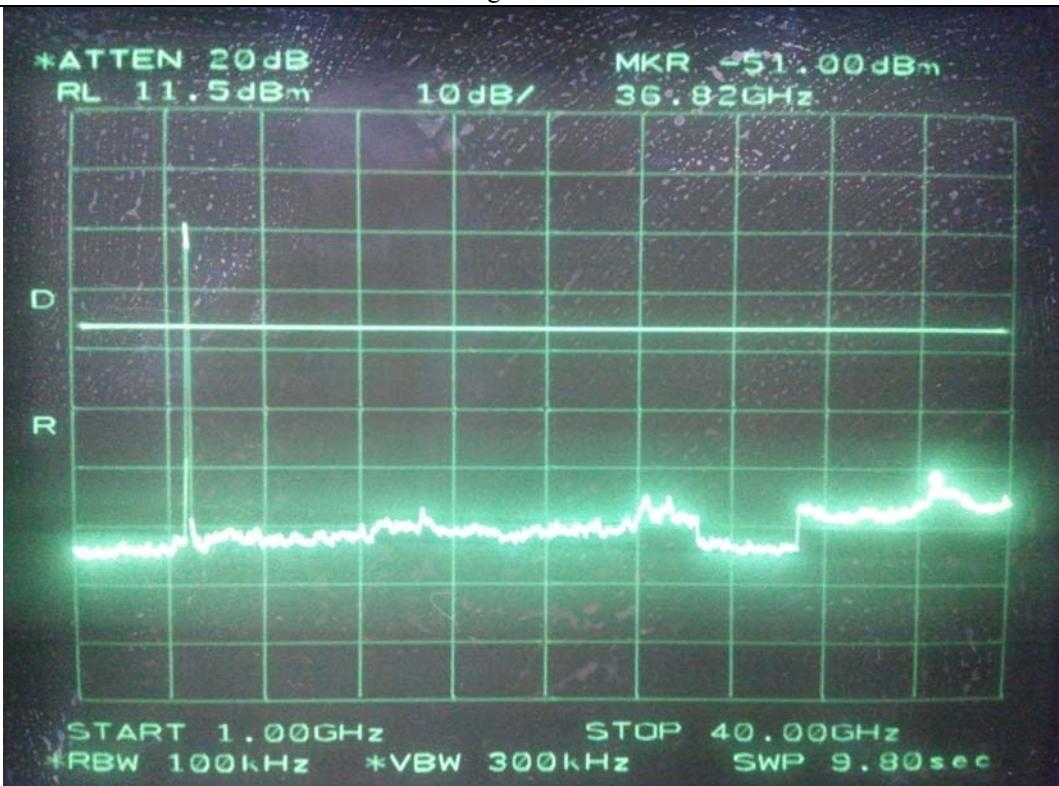
Low Channel



Low Channel

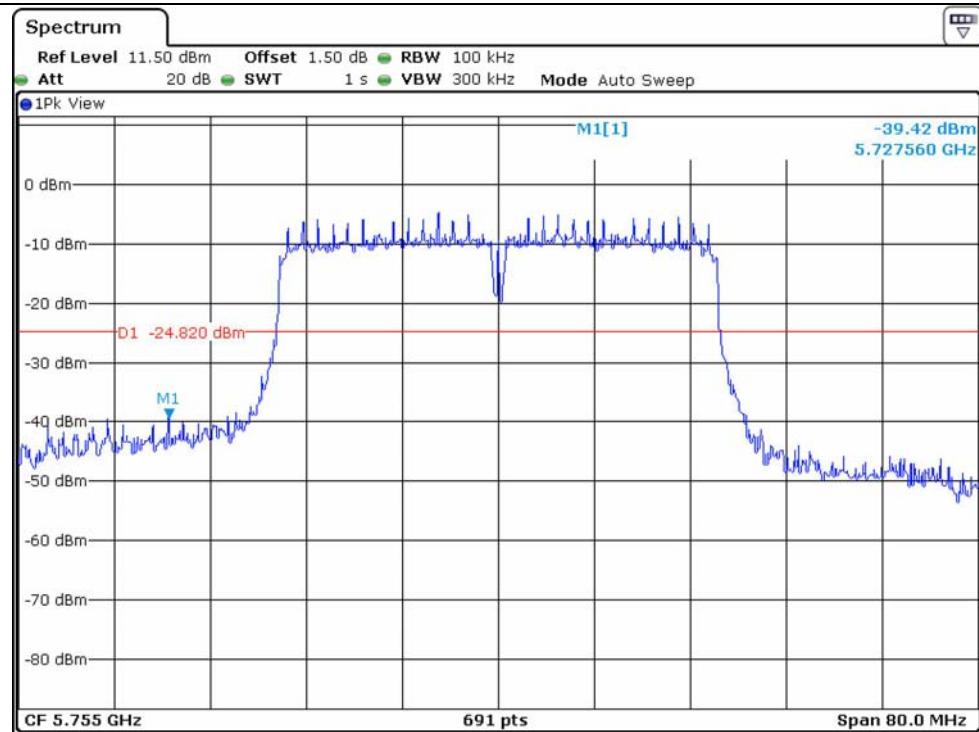


High Channel

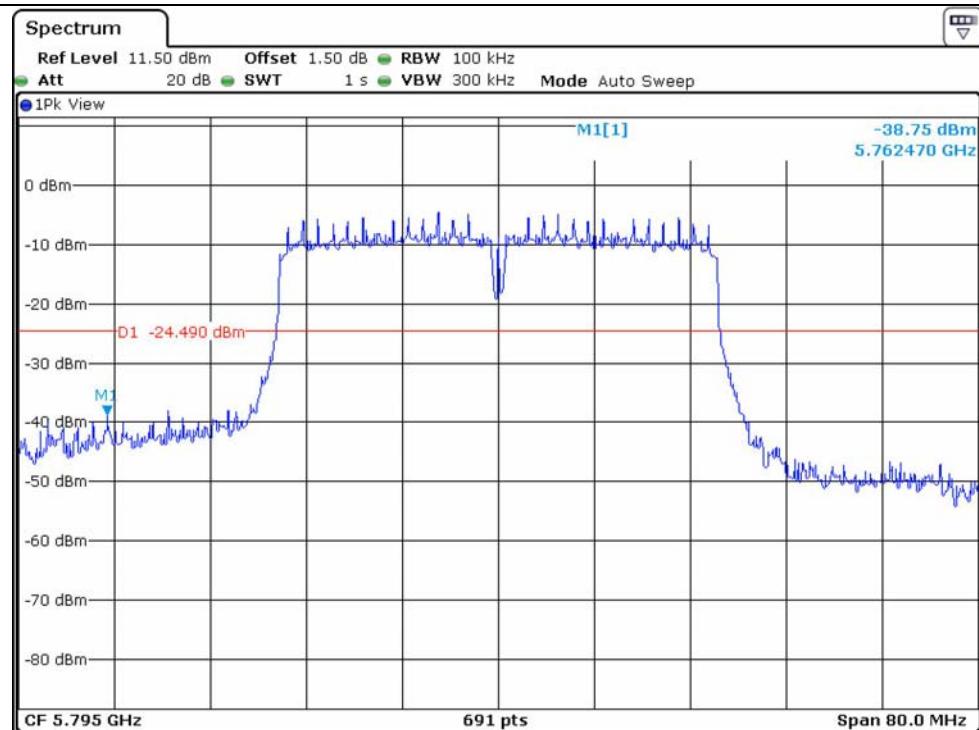


High Channel

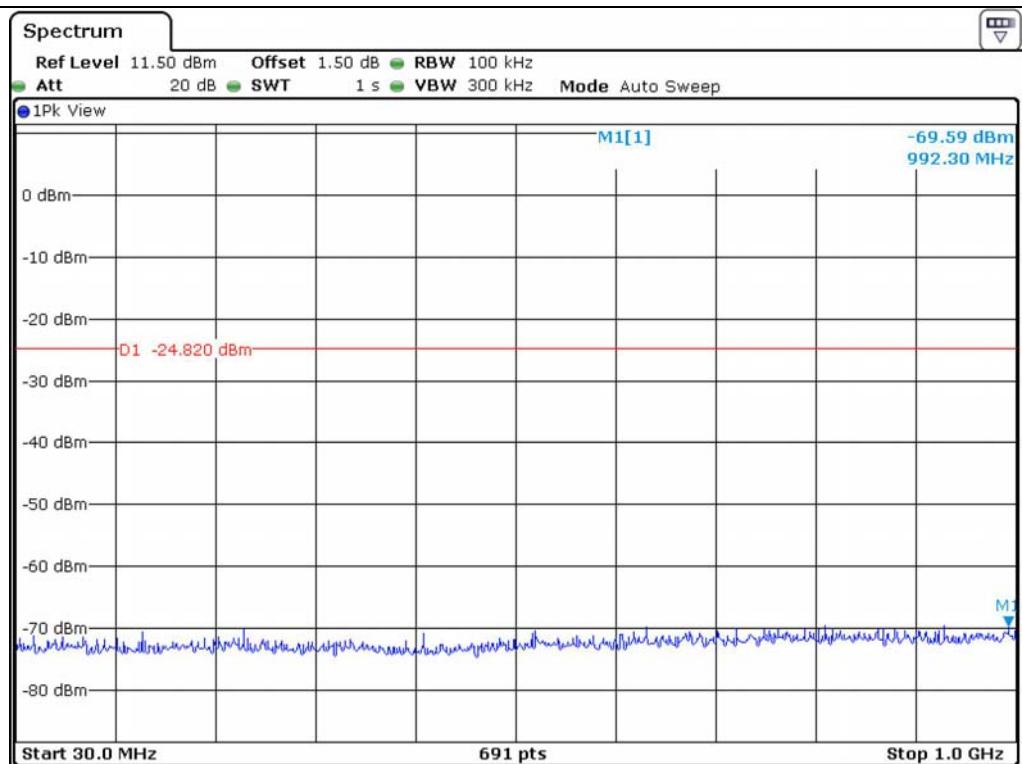
9.5.8.2 Test data for Antenna 1



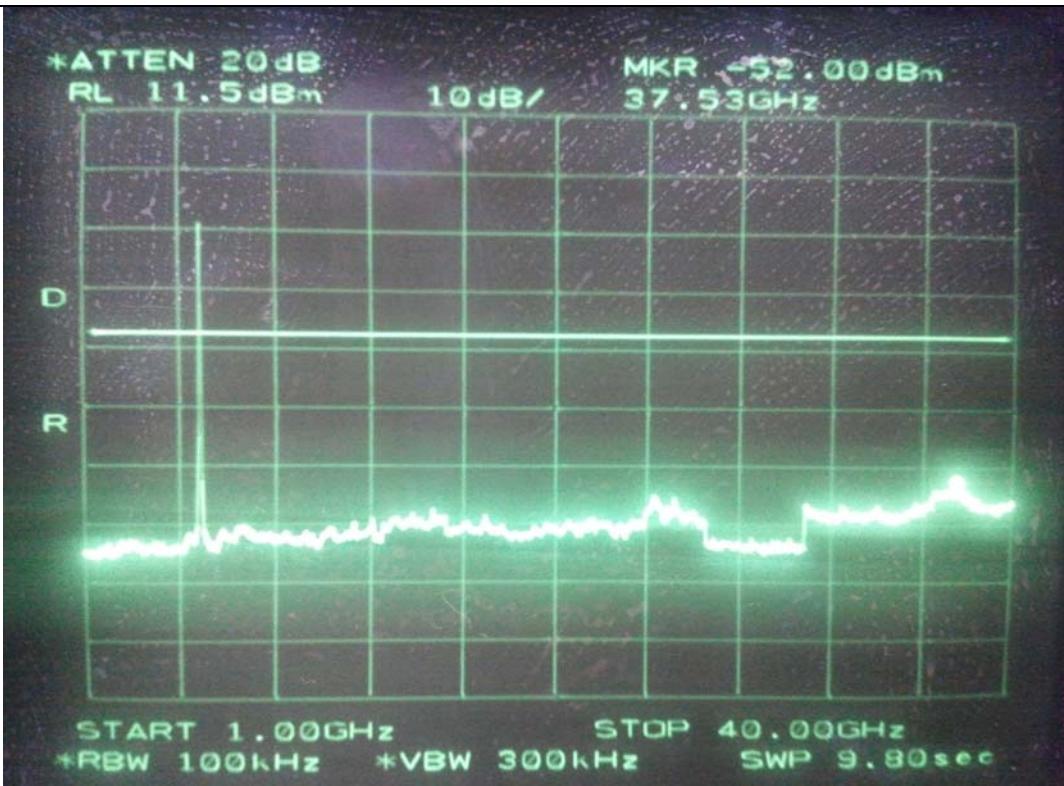
Low Channel



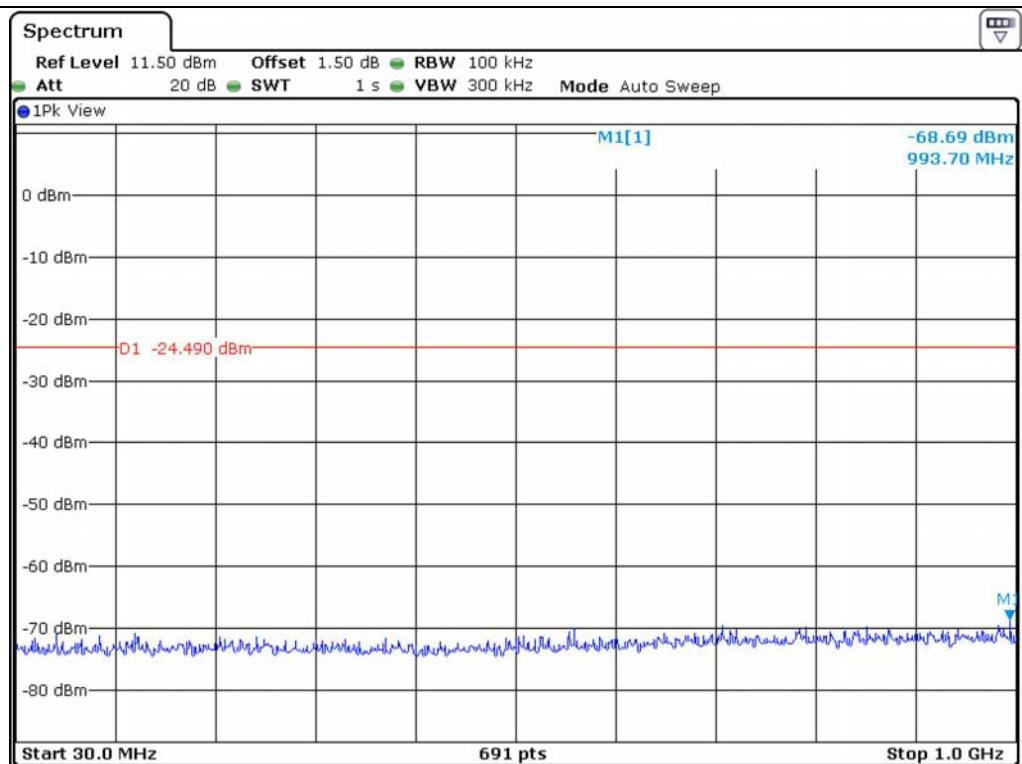
High Channel



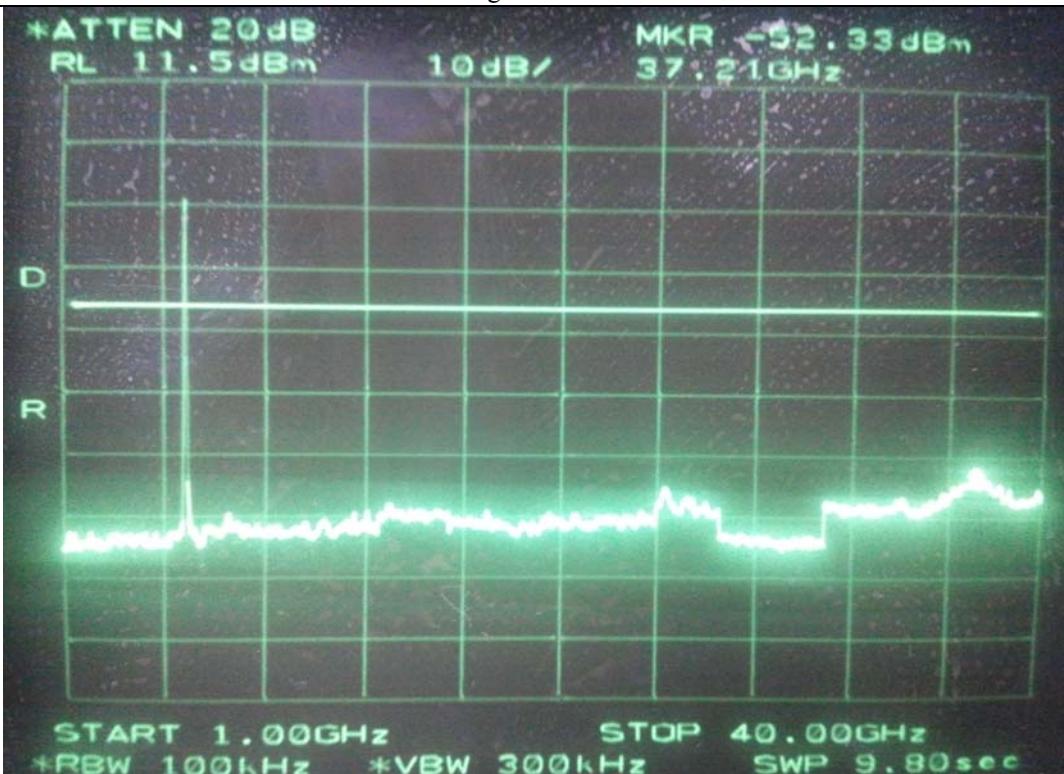
Low Channel



Low Channel



High Channel



High Channel

9.6 Test data for radiated emission

9.6.1 Radiated Emission which fall in the Restricted Band

9.6.1.1 Test data for 802.11b WLAN Mode

9.6.1.1.1 Test data for Antenna 0

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
2 386.16	59.53	Peak	H	27.10	7.50	43.00	51.13	74.00	22.87
	52.01	Average	H				43.61	54.00	10.39
2 385.92	56.73	Peak	V	27.10	7.50	43.00	48.33	74.00	25.67
	48.55	Average	V				40.15	54.00	13.85
Test Data for High Channel									
2 487.82	57.21	Peak	H	27.10	7.50	43.00	48.81	74.00	25.19
	49.87	Average	H				41.47	54.00	12.53
2 483.58	54.18	Peak	V	27.10	7.50	43.00	45.78	74.00	28.22
	46.54	Average	V				38.14	54.00	15.86

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.1.2 Test data for Antenna 1

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
2 387.60	55.04	Peak	H	27.10	7.50	43.00	46.64	74.00	27.36
	46.95	Average	H				38.55	54.00	15.45
2 387.20	59.42	Peak	V	27.10	7.50	43.00	51.02	74.00	22.98
	51.63	Average	V				43.23	54.00	10.77
Test Data for High Channel									
2 483.77	50.46	Peak	H	27.10	7.50	43.00	42.06	74.00	31.94
	41.14	Average	H				32.74	54.00	21.26
2 483.91	55.94	Peak	V	27.10	7.50	43.00	47.54	74.00	26.46
	47.25	Average	V				38.85	54.00	15.15

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$

0 | 30.2

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.2 Test data for 802.11g WLAN Mode

9.6.1.2.1 Test data for Antenna 0

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
2389.60	76.11	Peak	H	27.00	7.50	43.00	67.61	74.00	6.39
	56.29	Average	H				47.79	54.00	6.21
2389.52	72.84	Peak	V	27.40	7.70	43.00	64.34	74.00	9.66
	53.18	Average	V				44.68	54.00	9.32
Test Data for High Channel									
2483.74	75.30	Peak	H	27.40	7.70	43.00	67.40	74.00	6.60
	55.61	Average	H				47.71	54.00	6.29
2483.56	70.99	Peak	V	27.40	7.70	43.00	63.09	74.00	10.91
	52.50	Average	V				44.60	54.00	9.40

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$

0 | 30m.

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.2.2 Test data for Antenna 1

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
2 389.76	63.48	Peak	H	27.00	7.50	43.00	54.98	74.00	19.02
	45.67	Average	H				37.17	54.00	16.83
2 389.84	72.22	Peak	V				63.72	74.00	10.28
	55.14	Average	V				46.64	54.00	7.36
Test Data for High Channel									
2 483.50	59.91	Peak	H	27.40	7.70	43.00	52.01	74.00	21.99
	42.19	Average	H				34.29	54.00	19.71
2 483.54	74.56	Peak	V				66.66	74.00	7.34
	55.73	Average	V				47.83	54.00	6.17

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$

0 | 3021.

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.3 Test data for 802.11n_HT20 WLAN Mode

9.6.1.3.1 Test data for Antenna 0

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
2 389.68	75.68	Peak	H	27.00	7.50	43.00	67.18	74.00	6.82
	56.06	Average	H				47.56	54.00	6.44
2 388.80	74.82	Peak	V	27.40	7.70	43.00	66.32	74.00	7.68
	55.17	Average	V				46.67	54.00	7.33
Test Data for High Channel									
2 484.68	75.16	Peak	H	27.40	7.70	43.00	67.26	74.00	6.74
	55.28	Average	H				47.38	54.00	6.62
2 484.67	71.17	Peak	V	27.40	7.70	43.00	63.27	74.00	10.73
	51.18	Average	V				43.28	54.00	10.72

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$

0 | 30m.

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.3.2 Test data for Antenna 1

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
2 389.92	64.12	Peak	H	27.00	7.50	43.00	55.62	74.00	18.38
	44.29	Average	H				35.79	54.00	18.21
2 388.96	72.38	Peak	V				63.88	74.00	10.12
	54.37	Average	V				45.87	54.00	8.13
Test Data for High Channel									
2 483.50	61.04	Peak	H	27.40	7.70	43.00	53.14	74.00	20.86
	42.42	Average	H				34.52	54.00	19.48
2 483.61	75.46	Peak	V				67.56	74.00	6.44
	55.43	Average	V				47.53	54.00	6.47

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$

0 | 3021.

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.3.3 Test data for Multiple transmit

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
2 389.92	75.97	Peak	H	27.00	7.50	43.00	67.47	74.00	6.53
	56.29	Average	H				47.79	54.00	6.21
2 388.96	75.06	Peak	V				66.56	74.00	7.44
	55.31	Average	V				46.81	54.00	7.19
Test Data for High Channel									
2 483.50	76.65	Peak	H	27.40	7.70	43.00	68.75	74.00	5.25
	56.72	Average	H				48.82	54.00	5.18
2 483.61	72.78	Peak	V				64.88	74.00	9.12
	52.92	Average	V				45.02	54.00	8.98

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$

0 | 3021

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.4 Test data for 802.11n_HT40 WLAN Mode

9.6.1.4.1 Test data for Antenna 0

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
2 387.04	74.35	Peak	H	27.00	7.50	43.00	65.85	74.00	8.15
	54.78	Average	H				46.28	54.00	7.72
2 386.96	72.35	Peak	V	27.40	7.70	43.00	63.85	74.00	10.15
	51.86	Average	V				43.36	54.00	10.64
Test Data for High Channel									
2 485.44	75.17	Peak	H	27.40	7.70	43.00	67.27	74.00	6.73
	55.22	Average	H				47.32	54.00	6.68
2 485.59	72.32	Peak	V				64.42	74.00	9.58
	51.40	Average	V				43.50	54.00	10.50

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$

0 | 30m.

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.4.2 Test data for Antenna 1

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
2 386.80	67.99	Peak	H	27.00	7.50	43.00	59.49	74.00	14.51
	47.13	Average	H				38.63	54.00	15.37
2 387.04	76.01	Peak	V	27.40	7.70	43.00	67.51	74.00	6.49
	56.13	Average	V				47.63	54.00	6.37
Test Data for High Channel									
2 485.44	61.21	Peak	H	27.40	7.70	43.00	53.31	74.00	20.69
	41.63	Average	H				33.73	54.00	20.27
2 487.80	74.01	Peak	V	27.40	7.70	43.00	66.11	74.00	7.89
	54.23	Average	V				46.33	54.00	7.67

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dB μ V/m) - Total Level (dB μ V/m)

Total Level = Reading + Antenna Factor + Cable Loss – Pre-Amplifier Gain

0 | 30.2

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.4.3 Test data for Multiple transmit

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
2 386.80	75.03	Peak	H	27.00	7.50	43.00	66.53	74.00	7.47
	55.42	Average	H				46.92	54.00	7.08
2 387.04	73.02	Peak	V				64.52	74.00	9.48
	52.45	Average	V				43.95	54.00	10.05
Test Data for High Channel									
2 485.44	75.88	Peak	H	27.40	7.70	43.00	67.98	74.00	6.02
	55.81	Average	H				47.91	54.00	6.09
2 487.80	73.24	Peak	V				65.34	74.00	8.66
	53.14	Average	V				45.24	54.00	8.76

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dB μ V/m) - Total Level (dB μ V/m)

Total Level = Reading + Antenna Factor + Cable Loss – Pre-Amplifier Gain

0 | 30.2

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.5 Test data for 802.11a RLAN Mode

9.6.1.5.1 Test data for Antenna 0

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 40 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
5 725.00	48.44	Peak	H	31.90	12.10	42.20	50.24	74.00	23.76
	31.73	Average	H				33.53	54.00	20.47
5 725.00	51.04	Peak	V	32.10	12.20	42.20	52.84	74.00	21.16
	35.22	Average	V				37.02	54.00	16.98
Test Data for High Channel									
5 850.00	39.40	Peak	H	32.10	12.20	42.20	41.50	74.00	32.50
	28.22	Average	H				30.32	54.00	23.68
5 850.00	39.35	Peak	V	32.10	12.20	42.20	41.45	74.00	32.55
	27.24	Average	V				29.34	54.00	24.66

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$

0 | 30m.

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.5.2 Test data for Antenna 1

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 40 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
5 725.00	49.00	Peak	H	31.90	12.10	42.20	50.80	74.00	23.20
	32.56	Average	H				34.36	54.00	19.64
5 725.00	51.75	Peak	V				53.55	74.00	20.45
	35.85	Average	V				37.65	54.00	16.35
Test Data for High Channel									
5 850.00	39.97	Peak	H	32.10	12.20	42.20	42.07	74.00	31.93
	28.77	Average	H				30.87	54.00	23.13
5 850.00	39.65	Peak	V				41.75	74.00	32.25
	28.00	Average	V				30.10	54.00	23.90

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$

0 | 30.2

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.6 Test data for 802.11n_HT20 RLAN Mode

9.6.1.6.1 Test data for Antenna 0

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 40 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
5 725.00	48.21	Peak	H	31.90	12.10	42.20	50.01	74.00	23.99
	31.54	Average	H				33.34	54.00	20.66
5 725.00	50.79	Peak	V	32.10	12.20	42.20	52.59	74.00	21.41
	35.01	Average	V				36.81	54.00	17.19
Test Data for High Channel									
5 850.00	39.17	Peak	H	32.10	12.20	42.20	41.27	74.00	32.73
	28.03	Average	H				30.13	54.00	23.87
5 850.00	39.09	Peak	V	32.10	12.20	42.20	41.19	74.00	32.81
	27.02	Average	V				29.12	54.00	24.88

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$

0 | 30m.

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.6.2 Test data for Antenna 1

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 40 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
5 725.00	49.15	Peak	H	31.90	12.10	42.20	50.95	74.00	23.05
	32.32	Average	H				34.12	54.00	19.88
5 725.00	51.65	Peak	V				53.45	74.00	20.55
	35.83	Average	V				37.63	54.00	16.37
Test Data for High Channel									
5 850.00	39.76	Peak	H	32.10	12.20	42.20	41.86	74.00	32.14
	28.59	Average	H				30.69	54.00	23.31
5 850.00	39.90	Peak	V				42.00	74.00	32.00
	27.76	Average	V				29.86	54.00	24.14

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dB μ V/m) - Total Level (dB μ V/m)

Total Level = Reading + Antenna Factor + Cable Loss – Pre-Amplifier Gain

0 | 30.2

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.6.3 Test data for Multiple transmit

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 40 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
5 725.00	49.48	Peak	H	31.90	12.10	42.20	51.28	74.00	22.72
	32.57	Average	H				34.37	54.00	19.63
5 725.00	51.90	Peak	V				53.70	74.00	20.30
	36.00	Average	V				37.80	54.00	16.20
Test Data for High Channel									
5 850.00	40.08	Peak	H	32.10	12.20	42.20	42.18	74.00	31.82
	28.92	Average	H				31.02	54.00	22.98
5 850.00	40.10	Peak	V				42.20	74.00	31.80
	27.92	Average	V				30.02	54.00	23.98

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$

0 | 30.2

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.7 Test data for 802.11n_HT40 RLAN Mode

9.6.1.7.1 Test data for Antenna 0

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 40 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
5 725.00	47.88	Peak	H	31.90	12.10	42.20	49.68	74.00	24.32
	33.74	Average	H				35.54	54.00	18.46
5 725.00	49.75	Peak	V	32.10	12.20	42.20	51.55	74.00	22.45
	36.22	Average	V				38.02	54.00	15.98
Test Data for High Channel									
5 850.00	39.26	Peak	H	32.10	12.20	42.20	41.36	74.00	32.64
	26.54	Average	H				28.64	54.00	25.36
5 871.80	39.24	Peak	V	32.10	12.20	42.20	41.34	74.00	32.66
	26.04	Average	V				28.14	54.00	25.86

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$

0 | 30m.

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.7.2 Test data for Antenna 1

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 40 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
5 725.00	48.41	Peak	H	31.90	12.10	42.20	50.21	74.00	23.79
	34.48	Average	H				36.28	54.00	17.72
5 725.00	50.38	Peak	V				52.18	74.00	21.82
	36.99	Average	V				38.79	54.00	15.21
Test Data for High Channel									
5 850.00	39.89	Peak	H	32.10	12.20	42.20	41.99	74.00	32.01
	27.16	Average	H				29.26	54.00	24.74
5 871.80	39.76	Peak	V				41.86	74.00	32.14
	26.82	Average	V				28.92	54.00	25.08

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dB μ V/m) - Total Level (dB μ V/m)

Total Level = Reading + Antenna Factor + Cable Loss – Pre-Amplifier Gain

0 | 30.21

Tested by: Hong-Kyu, Lee/ Engineer

9.6.1.7.3 Test data for Multiple transmit

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 30 MHz ~ 40 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
5 725.00	50.42	Peak	H	31.90	12.10	42.20	52.22	74.00	21.78
	36.78	Average	H				38.58	54.00	15.42
5 725.00	52.53	Peak	V				54.33	74.00	19.67
	39.12	Average	V				40.92	54.00	13.08
Test Data for High Channel									
5 850.00	42.32	Peak	H	32.10	12.20	42.20	44.42	74.00	29.58
	29.66	Average	H				31.76	54.00	22.24
5 871.80	41.90	Peak	V				44.00	74.00	30.00
	29.18	Average	V				31.28	54.00	22.72

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dB μ V/m) - Total Level (dB μ V/m)

Total Level = Reading + Antenna Factor + Cable Loss – Pre-Amplifier Gain

0 | 30.2

Tested by: Hong-Kyu, Lee/ Engineer

9.6.2 Spurious & Harmonic Radiated Emission

9.6.2.1 Test data for 802.11b WLAN Mode

9.6.2.1.1 Test data for Antenna 0

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode for the emissions fall in restricted band,
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (GHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
2 412.00	100.88	Peak	H	27.20	7.50	42.80	92.78	113.98	21.20
	97.45	Average	H				89.35	93.98	4.63
	99.90	Peak	V				91.80	113.98	22.18
	96.71	Average	V				88.61	93.98	5.37
4 824.00	46.84	Peak	H	30.70	11.10	42.50	46.14	73.98	27.84
	45.06	Average	H				44.36	53.98	9.62
	49.55	Peak	V				48.85	73.98	25.13
	47.98	Average	V				47.28	53.98	6.70
Test Data for Middle Channel									
2 442.00	100.41	Peak	H	27.30	7.60	42.90	92.41	113.98	21.57
	97.65	Average	H				89.65	93.98	4.33
	100.24	Peak	V				92.24	113.98	21.74
	97.51	Average	V				89.51	93.98	4.47
4 884.00	46.71	Peak	H	30.70	11.20	42.40	46.21	73.98	27.77
	45.38	Average	H				44.88	53.98	9.10
	49.97	Peak	V				49.47	73.98	24.51
	48.56	Average	V				48.06	53.98	5.92

Test Data for High Channel									
2 462.00	100.77	Peak	H	27.40	7.70	42.90	92.97	113.98	21.01
	98.12	Average	H				90.32	93.98	3.66
	100.44	Peak	V				92.64	113.98	21.34
	97.42	Average	V				89.62	93.98	4.36
4 924.00	45.93	Peak	H	30.80	11.80	42.30	46.23	73.98	27.75
	44.71	Average	H				45.01	53.98	8.97
	49.26	Peak	V				49.56	73.98	24.42
	47.84	Average	V				48.14	53.98	5.84

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dB μ V/m) - Total Level (dB μ V/m)

Total Level = Reading + Antenna Factor + Cable Loss – Pre-Amplifier Gain

0 | 30.80

Tested by: Hong-Kyu, Lee/ Engineer

9.6.2.1.2 Test data for Antenna 1

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode for the emissions fall in restricted band,
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (GHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
2 412.00	101.83	Peak	H	27.20	7.50	42.80	93.73	113.98	20.25
	90.46	Average	H				82.36	93.98	11.62
	103.35	Peak	V				95.25	113.98	18.73
	91.87	Average	V				83.77	93.98	10.21
4 824.00	39.77	Peak	H	30.70	11.10	42.50	39.07	73.98	34.91
	37.43	Average	H				36.73	53.98	17.25
	42.21	Peak	V				41.51	73.98	32.47
	40.01	Average	V				39.31	53.98	14.67
Test Data for Middle Channel									
2 442.00	100.81	Peak	H	27.30	7.60	42.90	92.81	113.98	21.17
	88.67	Average	H				80.67	93.98	13.31
	102.90	Peak	V				94.90	113.98	19.08
	91.28	Average	V				83.28	93.98	10.70
4 884.00	38.88	Peak	H	30.70	11.20	42.40	38.38	73.98	35.60
	36.53	Average	H				36.03	53.98	17.95
	41.94	Peak	V				41.44	73.98	32.54
	39.72	Average	V				39.22	53.98	14.76

Test Data for High Channel									
	100.37	Peak	H	27.40	7.70	42.90	92.57	113.98	21.41
2 462.00	89.49	Average	H				81.69	93.98	12.29
	102.54	Peak	V				94.74	113.98	19.24
	92.11	Average	V				84.31	93.98	9.67
4 924.00	38.42	Peak	H	30.80	11.80	42.30	38.72	73.98	35.26
	36.17	Average	H				36.47	53.98	17.51
	41.52	Peak	V				41.82	73.98	32.16
	39.63	Average	V				39.93	53.98	14.05

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dB μ V/m) - Total Level (dB μ V/m)

Total Level = Reading + Antenna Factor + Cable Loss – Pre-Amplifier Gain

0 | 3321

Tested by: Hong-Kyu, Lee/ Engineer

9.6.2.2 Test data for 802.11g WLAN Mode

9.6.2.2.1 Test data for Antenna 0

- Test Date : December 17, 2013
- Resolution bandwidth : 1 MHz for Peak and Average Mode for the emissions fall in restricted band,
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (GHz)	Reading (dB μ V)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)
Test Data for Low Channel									
2 412.00	103.99	Peak	H	27.20	7.50	42.80	95.89	113.98	18.09
	93.49	Average	H				85.39	93.98	8.59
	103.40	Peak	V				95.30	113.98	18.68
	91.88	Average	V				83.78	93.98	10.20
4 824.00	46.62	Peak	H	30.70	11.10	42.50	45.92	73.98	28.06
	29.13	Average	H				28.43	53.98	25.55
	49.34	Peak	V				48.64	73.98	25.34
	31.90	Average	V				31.20	53.98	22.78
Test Data for Middle Channel									
2 442.00	104.39	Peak	H	27.30	7.60	42.90	96.39	113.98	17.59
	93.89	Average	H				85.89	93.98	8.09
	103.41	Peak	V				95.41	113.98	18.57
	92.83	Average	V				84.83	93.98	9.15
4 884.00	47.25	Peak	H	30.70	11.20	42.50	46.65	73.98	27.33
	30.38	Average	H				29.78	53.98	24.20
	50.31	Peak	V				49.71	73.98	24.27
	32.84	Average	V				32.24	53.98	21.74