

**EXHIBIT VI.**

Test Report

FCC ID: KBCIX260-PROAC555

IX260 GoBook PC

This Supplemental Test Report For

The WLAN Intentional Radiator

Under Part 15.247 DTS

Co-located with a Sierra Wireless AirCard 555

NOTE: The transmitters do not transmit at the same time

Prepared On Behalf Of

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By

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June 28, 2004

Exhibit VI

## Supplemental Test Report

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Note: Equipment list and EUT test set up photos are located in Exhibit 7

**Note:** Please refer to the OEM Certification exhibits under FCC ID: WM3B2200BG, Intel Model: WM3B2200BG for original test report data and confidential exhibits where appropriate. The original test report is uploaded as a supporting exhibit along with this report.

**EXHIBIT 6A - TEST: CONDUCTED RF POWER OUTPUT**

Applicant: ITRONIX, Corporation

Model: IX260 with AirCard 555 (WAN), &  
INTEL PRO WM3B2200BG, (WLAN)

Minimum Standard Specified: Part 15.247(b) (1) is 1 Watt for DTS

Test Results: The measured output power level shows compliance with the  
Limit and the power granted for the OEM module.

Authorization Procedure: Part 2.1046

Maximum Conducted Power Output: 17.41dBm or 0.05508 mW

Please be advised that we wish to reference the conducted power output in the original Intel Report Number: INTEL-031111F. Specifically, on page 60 of the report the Maximum conducted output power for either (b) or (g) mode of operation is reported. This power level is representative of the maximum conducted power output for this Intentional Radiator module, the INTEL PRO WM3B2200BG, (WLAN). A copy of this referenced INTEL test report was uploaded with this filing for the conducted measurements data applicable to this module.

Conducted RF Output Power and EIRP with the Rangestar Antenna

<b>WLAN</b>					
These conducted power output below are the maximum values from Page 60 the original Intel Report Number: INTEL-031111F.					
Frequency GHz	Power dBm	Cable loss	Corrected Level dBm	Ant. Gain dBi	EIRP
2.412	17.26	0.15	17.41	4.5	21.91
2.437	17.26	0.15	17.41	4.5	21.91
2.462	17.21	0.15	17.21	4.5	21.71

**EXHIBIT 6G - TEST: FIELD STRENGTH OF FUNDAMENTAL OPERATING FREQUENCIES**

Applicant: ITRONIX, Corporation

FCC ID: KBCIX260-PROAC555

Model: IX260 with AC555, (WAN), & INTEL PRO, WM3B2200BG, (WLAN)

Minimum Standard Specified: Part 15.247(c), 15.205 & 15.209(a)

Spectrum OATS at Fluke Park II Test Date: 06/21/04

Test Results: Equipment complies with standard

Authorization Procedure: Part 2.1053

Test Equipment Set Up: See Block Diagram in Exhibit 7

WLAN: 2412 – 2462 MHz band

**Field Strength for Low, Mid and High Channel**

WLAN 802.11(b) Channel & Frequency GHz 11 Mbps	Ant. Vert/ Horz	Spectrum Analyzer Reading dBuV	+ Ant Factor	- Amp Gain	+ Cable Loss	= dBuV/m @ 3 meters	or uV/m @ 3 meters
Ch. 1 Low 2.412	V	63.23	28.37	0	3.56	95.16	57280
Ch. 6 Mid 2.437	V	62.0	28.37	0	3.76	94.13	50874
Ch.11 High 2.462	V	60.30	28.37	0	3.85	92.52	42267
Ch. 1 Low 2.412	H	59.66	28.37	0	3.56	91.59	37975
Ch. 6 Mid 2.437	H	59.96	28.37	0	3.76	92.09	40225
Ch.11 High 2.462	H	57.77	28.37	0	3.85	89.99	31586

WLAN 802.11(g) Channel & Frequency GHz 54 Mbps	Ant. Vert/ Horz	Spectrum Analyzer Reading dBuV	+ Ant Factor	- Amp Gain	+ Cable Loss	= dBuV/m @ 3 meters	or uV/m @ 3 meters
Ch. 1 Low 2.412	V	61.16	28.37	0	3.56	93.09	45133
Ch. 6 Mid 2.437	V	60.45	28.37	0	3.76	92.58	42560
Ch.11 High 2.462	V	59.78	28.37	0	3.85	92.0	39811
Ch. 1 Low 2.412	H	58.22	28.37	0	3.56	90.15	32174
Ch. 6 Mid 2.437	H	58.0	28.37	0	3.76	90.13	32100
Ch.11 High 2.462	H	57.28	28.37	0	3.85	89.50	29854

**Note:**

- The gain was adjusted with the test software to the maximum conducted output power level for both modes of operation prior to starting the radiated emissions measurements.

## EXHIBIT 6 TEST: FIELD STRENGTH OF SPURIOUS RADIATED EMISSIONS

FCC ID: KBCIX260-PROAC555  
 Applicant: ITRONIX Corp.  
 Model: IX260 with AC555, (WAN), INTEL PRO, WM3B2200BG (WLAN)  
 Minimum Standard Specified: Part 15.247(c)  
 Authorization Procedure: Part 2.1053  
 Frequency Range Observed: 0 to 25 GHz Date: 6/21/04  
 Test Equipment Setup: See block diagram and photos in Exhibit 7

**NOTE: WLAN 802.11(b) set for maximum data transfer rate 11 Mbps and max. power output.**

RADIATED HARMONIC AND SPURIOUS EMISSIONS & RESTRICTED BANDS									
Frequency GHz	Max. SA Rdg. dBu/V	Ant. Vert. or Horiz.	Peak or Average Detector	Antenna Factor dB	Cable & filter loss dB	Amp Gain	Corrected Reading dBuV/m	Limit 74 Peak 54 Avg. dBu/V	Margin in dB below LIMIT
<b>Fo - 2.412</b>									
4.824	40.93	V	Peak	32.45	3.97	23.2	54.15	74	19.85
4.824	26.55	V	Average	32.45	3.97	23.2	39.77	54	14.23
7.236	38.39	V	Peak	36.77	3.42	25.9	52.68	74	21.32
7.236	25.08	V	Average	36.77	3.42	25.9	39.37	54	14.63
9.648	37.95	V	Peak	37.55	4.86	24.5	55.86	74	18.14
9.668	27.84	V	Average	37.55	4.86	24.5	45.75	54	8.25
<b>Fo - 2.437</b>									
4.874	40.78	V	Peak	32.45	3.97	23.2	54.00	74	20.00
4.874	25.81	V	Average	32.45	3.97	23.2	39.03	54	14.97
7.311	38.07	V	Peak	36.77	3.42	25.9	52.36	74	21.64
7.311	24.84	V	Average	36.77	3.42	25.9	39.13	54	14.87
9.748	37.75	V	Peak	37.55	4.86	24.7	55.46	74	18.54
9.748	27.55	V	Average	37.55	4.86	24.7	45.26	54	8.74
<b>Fo - 2.462</b>									
4.924	37.50	V	Peak	32.45	3.97	23.2	50.72	74	23.28
4.924	23.89	V	Average	32.45	3.97	23.2	37.11	54	16.89
7.386	38.12	V	Peak	36.77	3.42	25.9	52.41	74	21.59
7.386	24.92	V	Average	36.77	3.42	25.9	39.21	54	14.79
9.848	37.83	V	Peak	37.55	4.86	24.7	55.54	74	18.46
9.848	26.34	V	Average	37.55	4.86	24.7	44.05	54	9.95
<b>Harmonic emissions on all three channels (low, mid &amp; high) 5Fo - 10Fo at or below noise floor</b>									
Channel	Frequency in GHz	Harmonics Observed			Limit 74 dBuV/m Peak & 54 dBuV/m Average				
Low Ch.	2.412								
5Fo - 10Fo	12.060 - 24.120	None -at or < noise floor @3m			All emissions < 54 dBuV/m				
Mid Ch.	2.437								
5Fo - 10Fo	12.185 - 24.370	None -at or < noise floor @3m			All emissions < 54 dBuV/m				
High Ch.	2.4620								
5F o- 10Fo	12.400 - 24.620	None -at or < noise floor @3m			All emissions < 54 dBuV/m				

### EXHIBIT 6 TEST: FIELD STRENGTH OF SPURIOUS RADIATION EMISSIONS

FCC ID: KBCIX260-PROAC555  
 Applicant: ITRONIX Corp.  
 Model: IX260 with AC555, (WAN), Intel PRO, WM3B2200BG (WLAN)  
 Minimum Standard Specified: Part 15.247(c)  
 Authorization Procedure: Part 2.1053  
 Frequency Range Observed: 0 to 25 GHz Date: 6/21/04  
 Test Equipment Setup: See block diagram and photos in Exhibit 7

**NOTE: WLAN 802.11(b) set for maximum data transfer rate 11 Mbps and max. power output.**

RADIATED HARMONIC AND SPURIOUS EMISSIONS & RESTRICTED BANDS									
Frequency GHz	Max. SA Rdg. dBu/V	Ant. Vert. or Horz.	Peak or Average Detector	Antenna Factor dB	Cable & filter loss dB	Amp Gain	Corrected Reading dBuV/m	Limit 74 Peak 54 Avg. dBu/V	Margin in dB below LIMIT
<b>Fo - 2.412</b>									
4.824	37.96	H	Peak	32.45	3.97	23.2	51.18	74	22.82
4.824	25.29	H	Average	32.45	3.97	23.2	38.51	54	15.49
7.236	36.20	H	Peak	36.77	3.42	25.9	50.49	74	23.51
7.236	24.90	H	Average	36.77	3.42	25.9	39.19	54	14.81
9.648	37.23	H	Peak	37.55	4.86	24.5	55.14	74	18.86
9.648	25.24	H	Average	37.55	4.86	24.5	43.15	54	10.85
<b>Fo - 2.437</b>									
4.874	37.40	H	Peak	32.45	3.97	23.2	50.62	74	23.38
4.874	25.35	H	Average	32.45	3.97	23.2	38.57	54	15.43
7.311	38.36	H	Peak	36.77	3.42	25.9	52.65	74	21.35
7.311	25.47	H	Average	36.77	3.42	25.9	39.76	54	14.24
9.748	38.09	H	Peak	37.55	4.86	24.7	55.80	74	18.20
9.748	28.55	H	Average	37.55	4.86	24.7	46.26	54	7.74
<b>Fo - 2.462</b>									
4.924	35.54	H	Peak	32.45	3.97	23.2	48.76	74	25.24
4.924	23.80	H	Average	32.45	3.97	23.2	37.02	54	16.98
7.386	38.66	H	Peak	36.77	3.42	25.9	52.95	74	21.05
7.386	25.83	H	Average	36.77	3.42	25.9	40.12	54	13.88
9.848	37.54	H	Peak	37.55	4.86	24.7	55.25	74	18.75
9.848	26.22	H	Average	37.55	4.86	24.7	43.93	54	10.07
<b>Harmonic emissions on all three channels (low, mid &amp; high) 5Fo - 10Fo at or below noise floor</b>									
Channel	Frequency in GHz	Harmonics Observed			Limit 74 dBuV/m Peak & 54 dBuV/m Average				
Low Ch.	2.412								
5Fo - 10Fo	12.060 - 24.120	None -at or < noise floor @3m			All emissions < 54 dBuV/m				
Mid Ch.	2.437								
5Fo - 10Fo	12.185 - 24.370	None -at or < noise floor @3m			All emissions < 54 dBuV/m				
High Ch.	2.4620								
5F o- 10Fo	12.400 - 24.620	None -at or < noise floor @3m			All emissions < 54 dBuV/m				

## EXHIBIT 6 TEST: FIELD STRENGTH OF SPURIOUS RADIATED EMISSIONS

FCC ID: KBCIX260-PROAC555  
 Applicant: ITRONIX Corp.  
 Model: IX260 with AC555, (WAN), INTEL PRO, WM3B2200BG (WLAN)  
 Minimum Standard Specified: Part 15.247(c)  
 Authorization Procedure: Part 2.1053  
 Frequency Range Observed: 0 to 25 GHz  
 Test Equipment Setup: See block diagram and photos in Exhibit 7  
 Date: 6/21/04

**NOTE: WLAN 802.11(g) set for maximum data transfer rate 54 Mbps and max. power output.**

RADIATED HARMONIC AND SPURIOUS EMISSIONS & RESTRICTED BANDS									
Frequency GHz	Max. SA Rdg. dBu/V	Ant. Vert. or Horiz.	Peak or Average Detector	Antenna Factor dB	Cable & filter loss dB	Amp Gain	Corrected Reading dBuV/m	Limit 74 Peak 54 Avg. dBu/V	Margin in dB below LIMIT
<b>Fo - 2.412</b>									
4.824	37.31	V	Peak	32.45	3.97	23.2	50.53	74	23.47
4.824	24.21	V	Average	32.45	3.97	23.2	37.43	54	16.57
7.236	38.31	V	Peak	36.77	3.42	25.9	52.60	74	21.40
7.236	24.69	V	Average	36.77	3.42	25.9	38.98	54	15.02
9.648	37.08	V	Peak	37.55	4.86	24.5	54.99	74	19.01
9.668	23.71	V	Average	37.55	4.86	24.5	41.62	54	12.38
<b>Fo - 2.437</b>									
4.874	37.19	V	Peak	32.45	3.97	23.2	50.41	74	23.59
4.874	23.48	V	Average	32.45	3.97	23.2	36.70	54	17.30
7.311	38.07	V	Peak	36.77	3.42	25.9	52.36	74	21.64
7.311	24.72	V	Average	36.77	3.42	25.9	39.01	54	14.99
9.748	37.00	V	Peak	37.55	4.86	24.7	54.71	74	19.29
9.748	23.99	V	Average	37.55	4.86	24.7	41.70	54	12.30
<b>Fo - 2.462</b>									
4.924	34.94	V	Peak	32.45	3.97	23.2	48.16	74	25.84
4.924	22.28	V	Average	32.45	3.97	23.2	35.50	54	18.50
7.386	38.24	V	Peak	36.77	3.42	25.9	52.53	74	21.47
7.386	25.37	V	Average	36.77	3.42	25.9	39.66	54	14.34
9.848	36.78	V	Peak	37.55	4.86	24.7	54.49	74	19.51
9.848	23.58	V	Average	37.55	4.86	24.7	41.29	54	12.71
<b>Harmonic emissions on all three channels (low, mid &amp; high) 5Fo - 10Fo at or below noise floor</b>									
Channel	Frequency in GHz	Harmonics Observed			Limit 74 dBuV/m Peak & 54 dBuV/m Average				
Low Ch.	2.412								
5Fo - 10Fo	12.060 - 24.120	None -at or < noise floor @3m			All emissions < 54 dBuV/m				
Mid Ch.	2.437								
5Fo - 10Fo	12.185 - 24.370	None -at or < noise floor @3m			All emissions < 54 dBuV/m				
High Ch.	2.4620								
5F o- 10Fo	12.400 - 24.620	None -at or < noise floor @3m			All emissions < 54 dBuV/m				

### EXHIBIT 6 TEST: FIELD STRENGTH OF SPURIOUS RADIATION EMISSIONS

FCC ID: KBCIX260-PROAC555  
 Applicant: ITRONIX Corp.  
 Model: IX260 with AC555, (WAN), Intel PRO, WM3B2200BG, (WLAN)  
 Minimum Standard Specified: Part 15.247(c)  
 Authorization Procedure: Part 2.1053  
 Frequency Range Observed: 0 to 25 GHz Date: 6/21/04  
 Test Equipment Setup: See block diagram and photos in Exhibit 7

**NOTE: WLAN 802.11(g) set for maximum data transfer rate 54 Mbps and max. power output.**

RADIATED HARMONIC AND SPURIOUS EMISSIONS & RESTRICTED BANDS									
Frequency GHz	Max. SA Rdg. dBuV	Ant. Vert. or Horz.	Peak or Average Detector	Antenna Factor dB	Cable & filter loss dB	Amp Gain	Corrected Reading dBuV/m	Limit 74 Peak 54 Avg. dBuV	Margin in dB below LIMIT
<b>Fo - 2.412</b>									
4.824	34.77	H	Peak	32.45	3.97	23.2	47.99	74	26.01
4.824	24.50	H	Average	32.45	3.97	23.2	37.72	54	16.28
7.236	38.04	H	Peak	36.77	3.42	25.9	52.33	74	21.67
7.236	25.12	H	Average	36.77	3.42	25.9	39.41	54	14.59
9.648	37.22	H	Peak	37.55	4.86	24.5	55.13	74	18.87
9.648	24.47	H	Average	37.55	4.86	24.5	42.38	54	11.62
<b>Fo - 2.437</b>									
4.874	34.81	H	Peak	32.45	3.97	23.2	48.03	74	25.97
4.874	22.05	H	Average	32.45	3.97	23.2	35.27	54	18.73
7.311	38.63	H	Peak	36.77	3.42	25.9	52.92	74	21.08
7.311	25.32	H	Average	36.77	3.42	25.9	39.61	54	14.39
9.748	38.21	H	Peak	37.55	4.86	24.7	55.92	74	18.08
9.748	24.64	H	Average	37.55	4.86	24.7	42.35	54	11.65
<b>Fo - 2.462</b>									
4.924	35.21	H	Peak	32.45	3.97	23.2	48.43	74	25.57
4.924	22.01	H	Average	32.45	3.97	23.2	35.23	54	18.77
7.386	38.40	H	Peak	36.77	3.42	25.9	52.69	74	21.31
7.386	25.51	H	Average	36.77	3.42	25.9	39.80	54	14.20
9.848	36.99	H	Peak	37.55	4.86	24.7	54.70	74	19.30
9.848	24.10	H	Average	37.55	4.86	24.7	41.81	54	12.19
<b>Harmonic emissions on all three channels (low, mid &amp; high) 5Fo - 10Fo at or below noise floor</b>									
Channel	Frequency in GHz	Harmonics Observed			Limit 74 dBuV/m Peak & 54 dBuV/m Average				
Low Ch.	2.412								
5Fo - 10Fo	12.060 - 24.120	None -at or < noise floor @3m			All emissions < 54 dBuV/m				
Mid Ch.	2.437								
5Fo - 10Fo	12.185 - 24.370	None -at or < noise floor @3m			All emissions < 54 dBuV/m				
High Ch.	2.4620								
5F o- 10Fo	12.400 - 24.620	None -at or < noise floor @3m			All emissions < 54 dBuV/m				

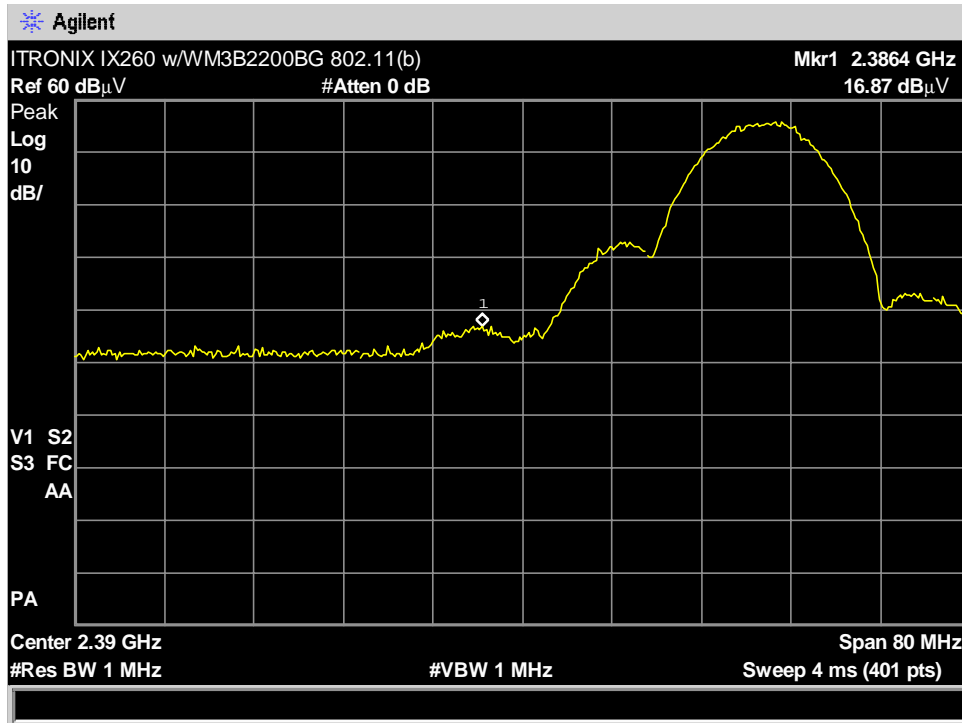


### Radiated Band Edge Measurements of the WM3B2200BG, in 802.11 (b) mode with Rangestar antenna in the IX260

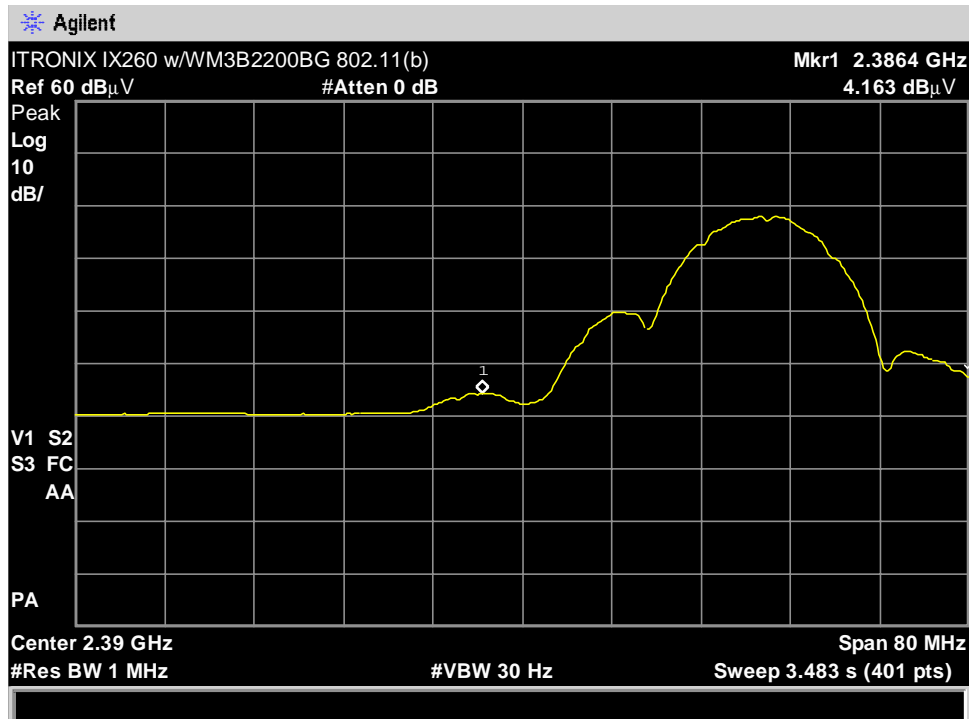
Vertical Peak

FO = 2412 MHz

Lower Band Edge



Vertical Average

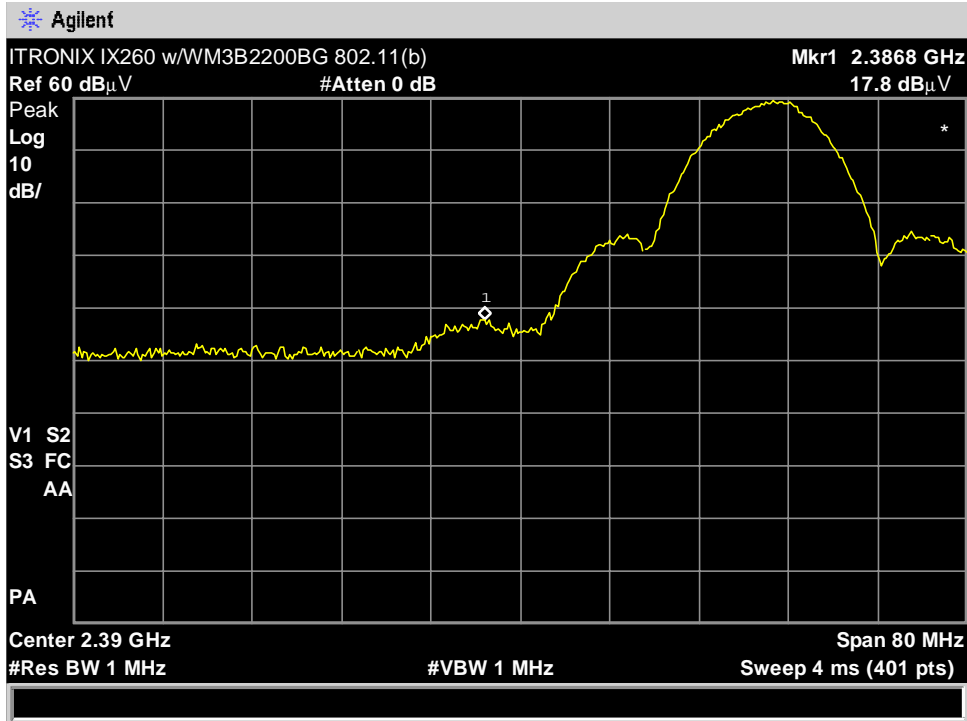


### Radiated Band Edge Measurements of the WM3B2200BG, in 802.11 (b) mode with Rangestar antenna in the IX260

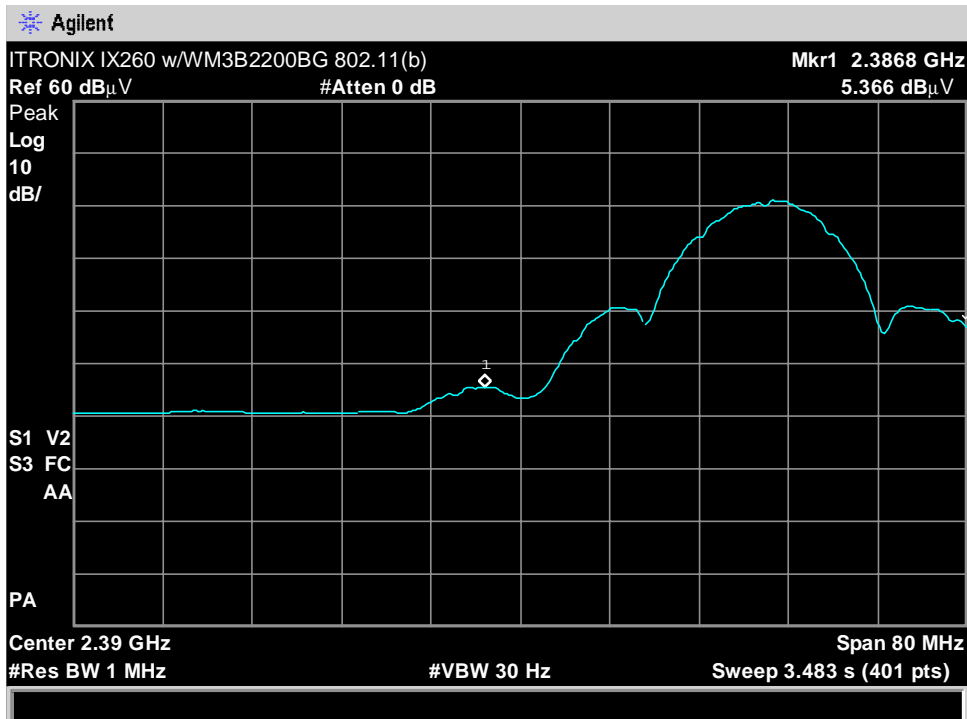
Horizontal Peak

FO = 2412 MHz

Lower Band Edge



Horizontal Average

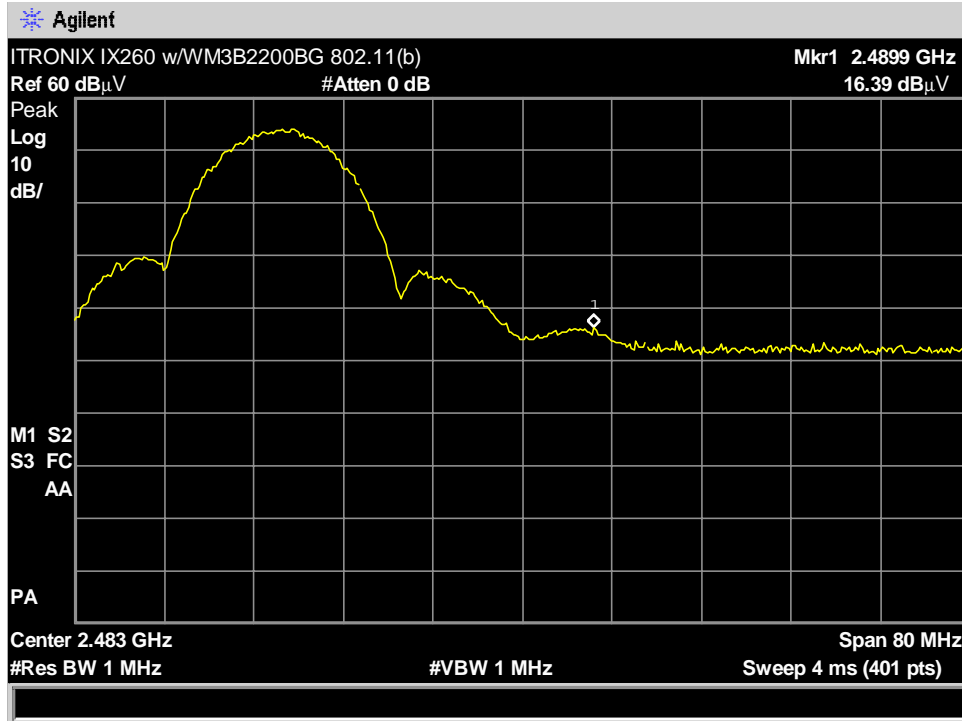


### Radiated Band Edge Measurements of the WM3B2200BG, in 802.11 (b) mode with Rangestar antenna in the IX260

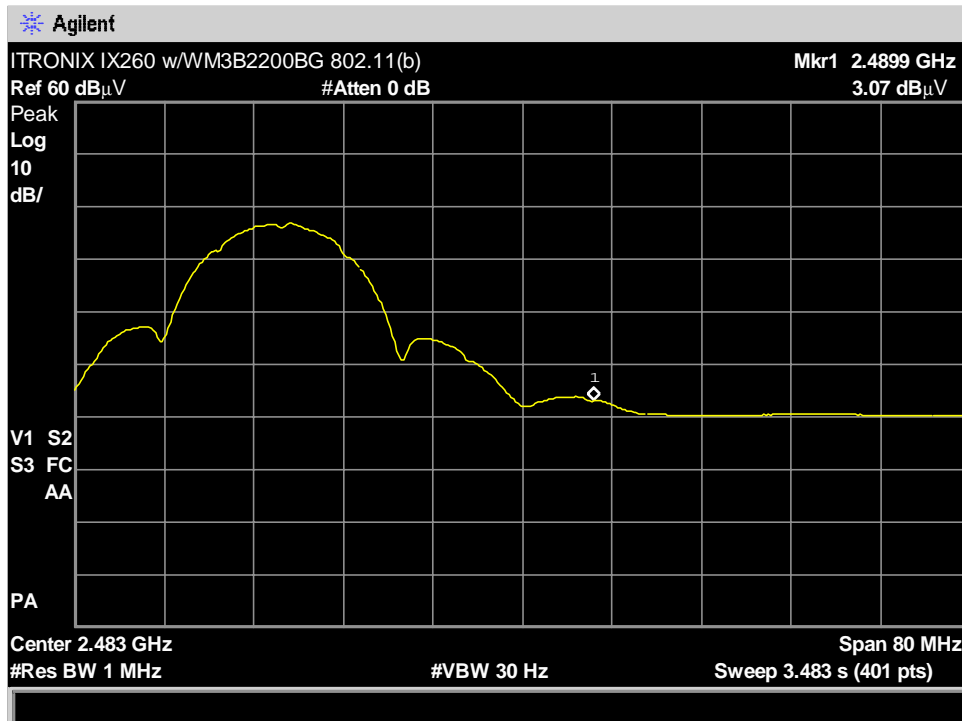
Vertical Peak

FO = 2462 MHz

Upper Band Edge



Vertical Average

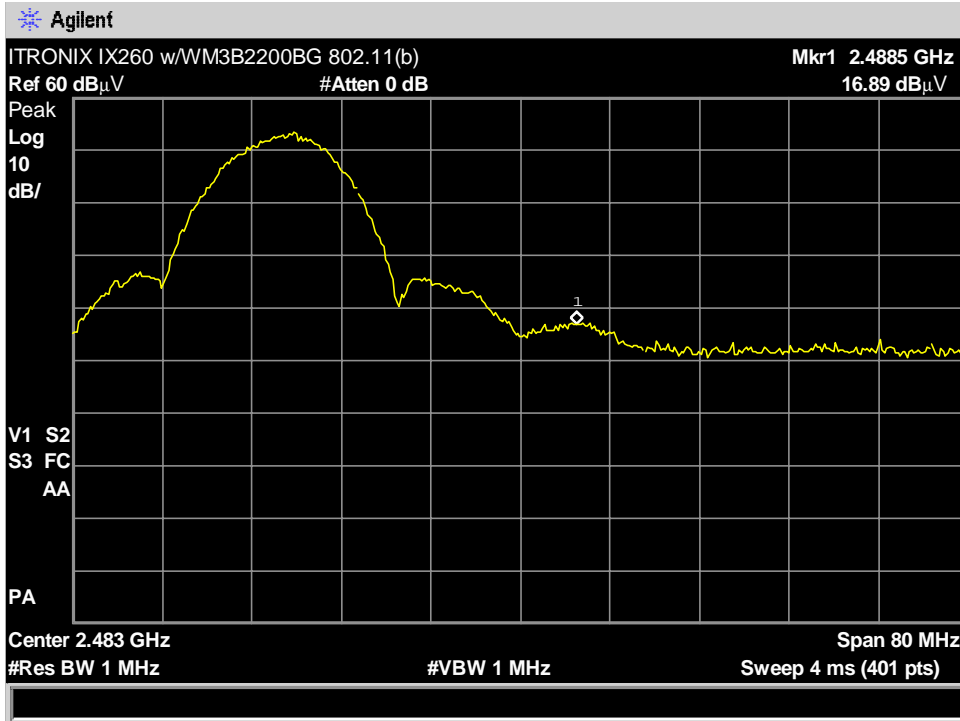


### Radiated Band Edge Measurements of the WM3B2200BG, in 802.11 (b) mode with Rangestar antenna in the IX260

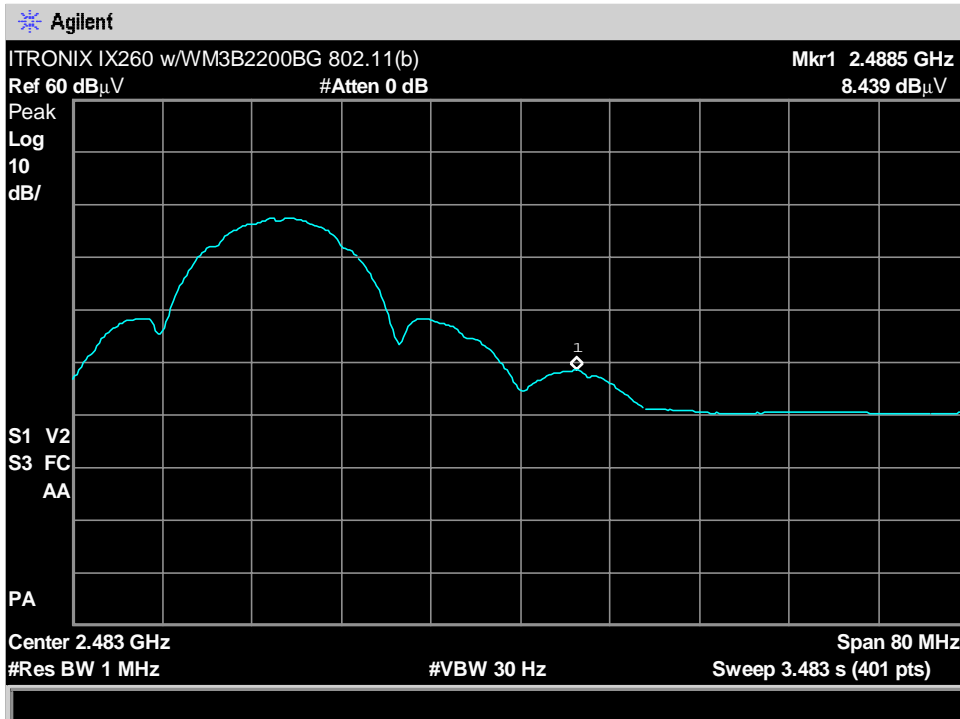
Horizontal Peak

FO = 2462 MHz

Upper Band Edge



Horizontal Average

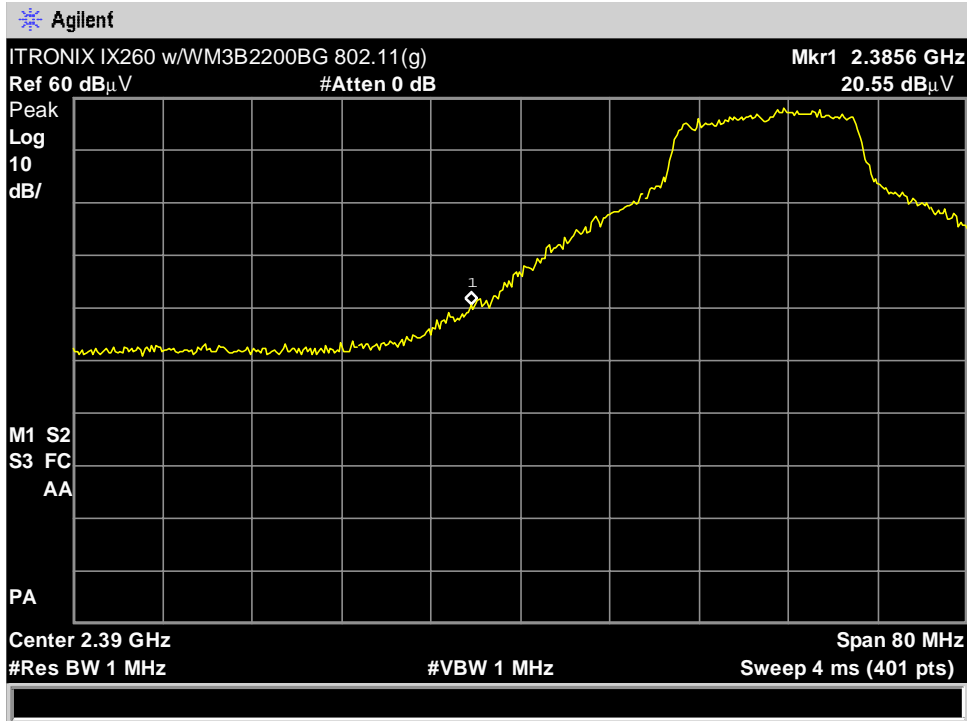


Radiated Band Edge Measurements of the WM3B2200BG, in 802.11 (g) mode with Rangestar antenna in the IX260

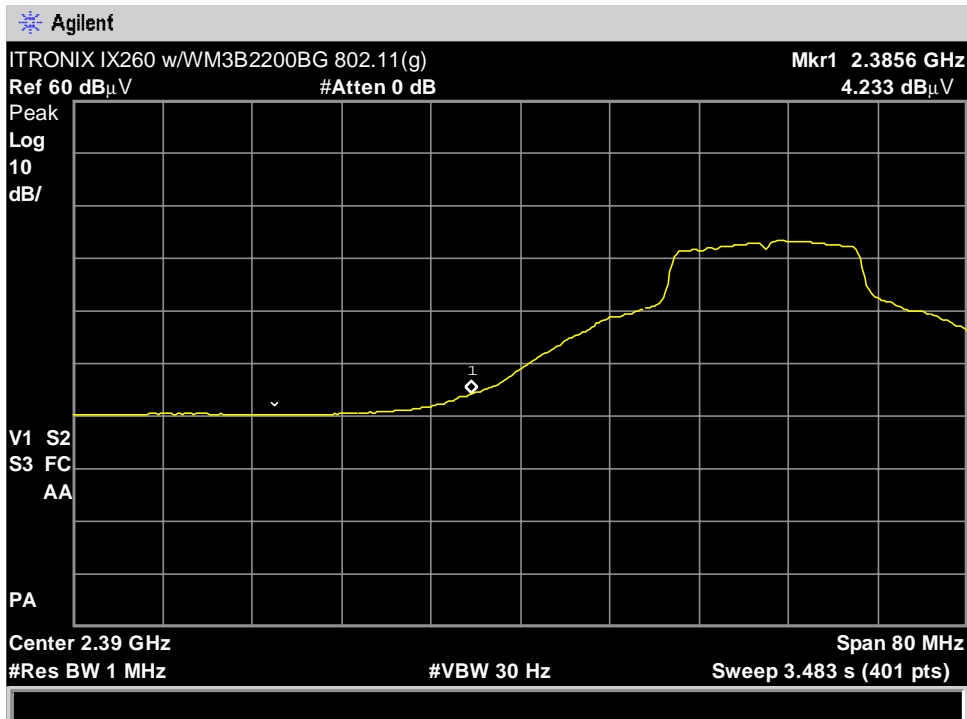
Vertical Peak

FO = 2412 MHz

Lower Band Edge



Vertical Average

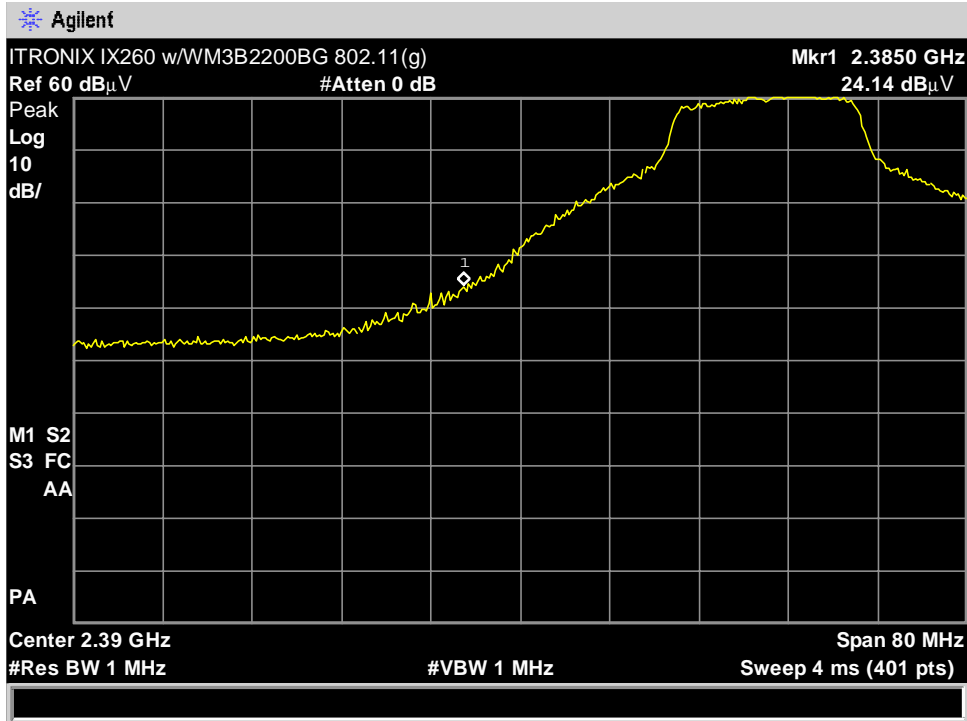


### Radiated Band Edge Measurements of the WM3B2200BG, in 802.11 (g) mode with Rangestar antenna in the IX260

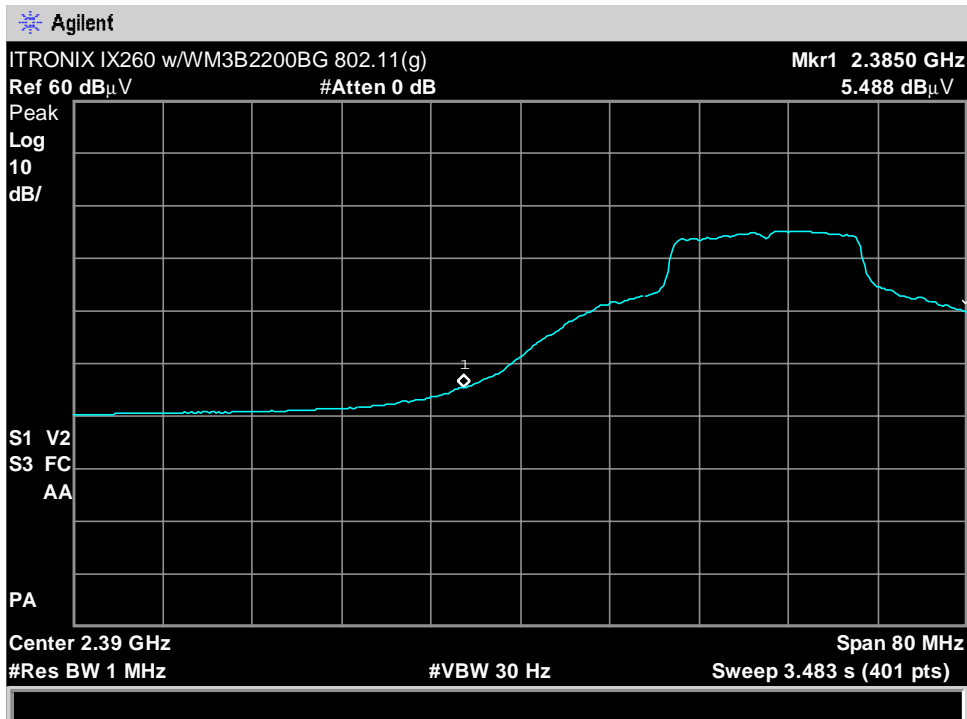
Horizontal Peak

FO = 2412 MHz

Lower Band Edge



Horizontal Average

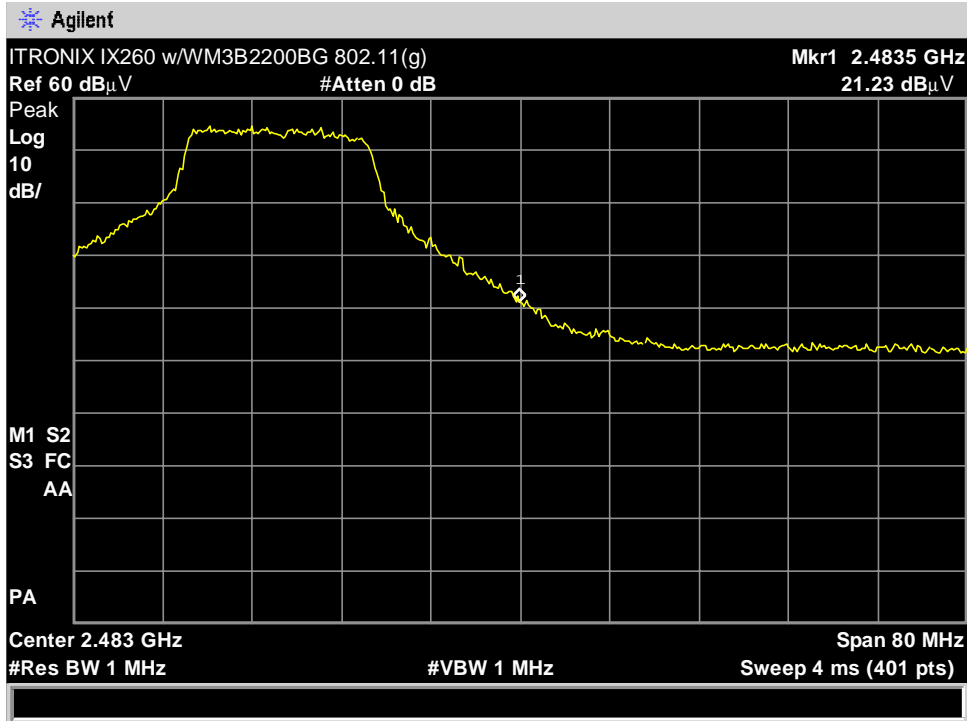


### Radiated Band Edge Measurements of the WM3B2200BG, in 802.11 (g) mode with Rangestar antenna in the IX260

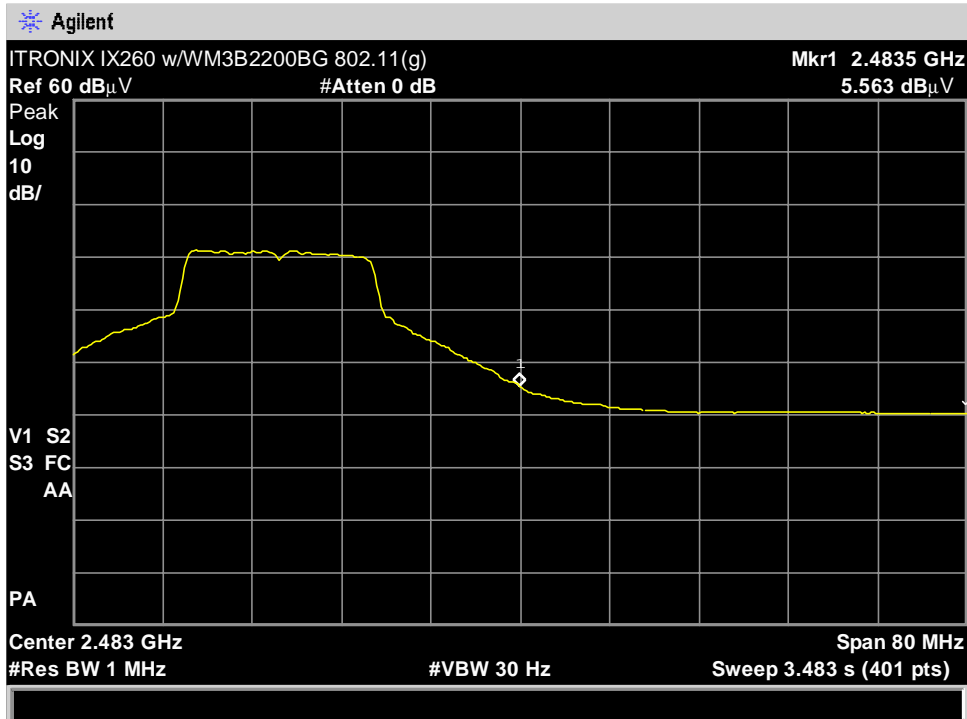
Vertical Peak

FO = 2462 MHz

Upper Band Edge



Vertical Average

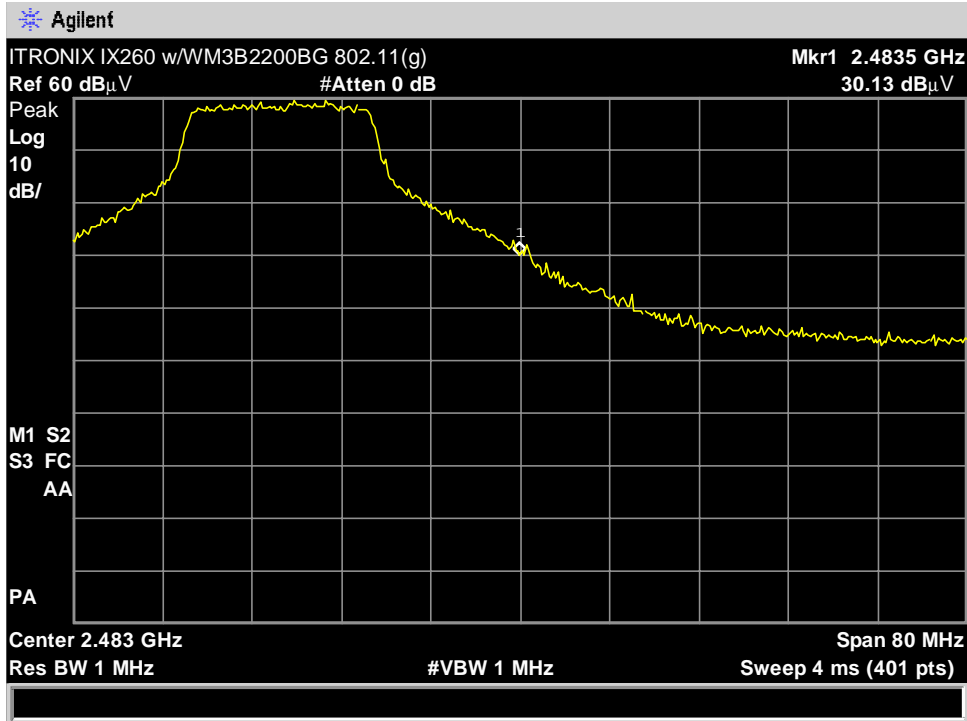


### Radiated Band Edge Measurements of the WM3B2200BG, in 802.11 (g) mode with Rangestar antenna in the IX260

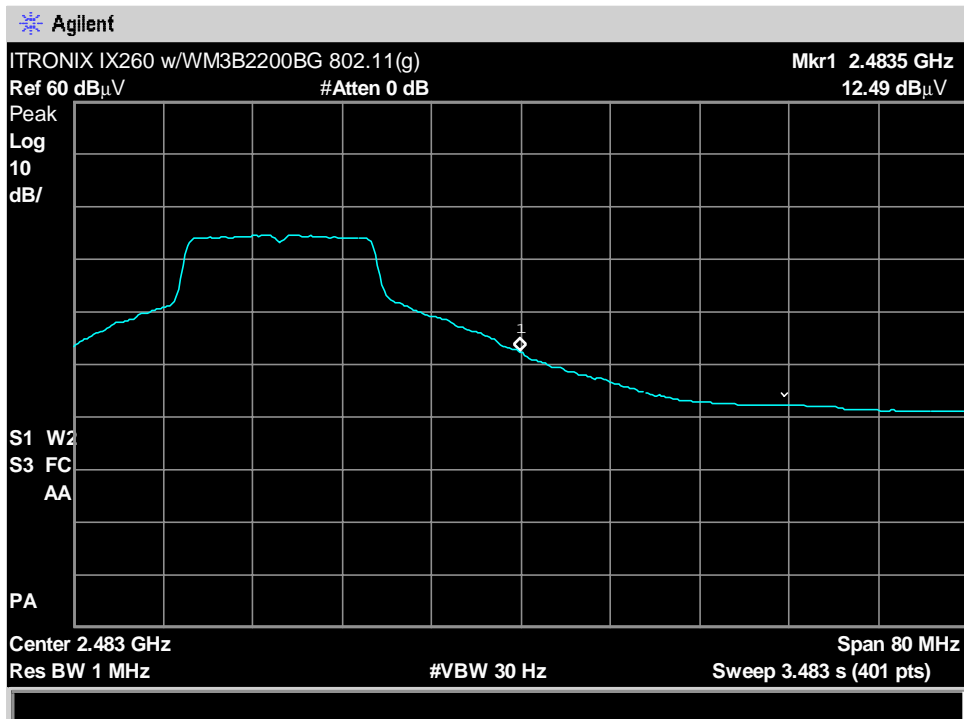
Horizontal Peak

FO = 2462 MHz

Upper Band Edge



Horizontal Average





**TEST: CONDUCTED SPURIOUS EMISSIONS**

Manufacturer: ITRONIX, Corporation.

Name: IX260 Laptop PC

Model: IX260 with AirCard 555 (WAN),  
INTEL PRO WM3B2200BG (WLAN)

**Setup:**

The equipment under test (EUT) was set up in accordance with the provisions of ANSI C63.4-2001, Section 7, on a 1 X 1.5-meter non-conductive test table at our Edmonds, Washington facility. The tabletop is 80 cm above a 2.5 x 2-meter horizontal ground plane and 40 cm forward from a 2.25 X 2.4-meter vertical ground plane. The two ground planes are continuously grounded along the common seam. The two 50 ohm/ 50 uHy Line Impedance Stabilization Networks (LISN) are grounded to the horizontal ground plane. The EUT was placed in a typical operational arrangement following the 10-cm spacing as detailed in Section 6.2 and 11.2, and the power cord of the EUT plugged into the first LISN. The signal output of this LISN was fed to the Agilent E7405 EMC analyzer using a 9 kHz bandwidth, which served as the measuring instrument. The peripheral equipment, if any was powered from a separate LISN.

**Discussion:**

Measurements of the AC power line conducted spurious emissions were made with the ITRONIX IX260 set up in a representative configuration. The frequency range from 150 kHz to 30 MHz was measured in detail. No modifications were made prior to the final compliance test.

Preliminary measurements were made as described in Section 7.2.3. The EUT was set up as an operational system. Measurements were made at the AC power input to the Delta Electronics 90 Watt AC adapter Model: ADP90AB REVB, which powered the IX260. Excess I/O cable lengths were draped .5 m straight down behind the equipment then back up to the device used to terminate the line. The system cables were carefully tuned during the preliminary measurements on all frequencies of significance endeavoring to maximize the emissions observed. The test setup photos in Exhibit 7 detail the exact cable and equipment configuration for this test.

This unit was set up to transmit with either the INTEL PRO WM3B2200BG (WLAN) or

the AirCard555 (WAN) transmitter. The transmitters do not transmit simultaneously so they were tested individually during the measurements. During the preliminary measurements this IX260 was set to transmit on the first the low, then mid and finally the high channels respectively in multiple sets of measurements covering operational range of both transmitters. Note that no measurable change in the conducted emissions activity was observed when the transmitters were turned on or off or varied over the channel combinations listed below.

The following channel combinations were individually investigated during the preliminary measurements:

AC555			WLAN	
Channel	Frequency MHz		Channel	Frequency MHz
128	824.2	Or	1	2412
190	836.6	Or	6	2437
251	848.8	Or	11	2462
512	1850.2	Or	1	2412
661	1880.0	Or	6	2437
810	1909.8	Or	11	2462

Final measurements were made as described in Section 7.2.3 while the EUT was fully functional as it would be in normal operation. The final measurements were made with the WLAN Intentional Radiator set at 2412 MHz for a representative worst case.

The plot on the following page shows the Peak results of the EUT emission profile for reference only. The highest level conducted emissions observed were measured with Quasi-peak and Average detectors during the testing. The emissions results are reported for the Line 1 the "hot" conductor and Line 2 the "neutral" conductor, each with respect to ground at the power terminal. Some of the emissions measured with the Average detector exceeded the Average limits however; none of the emissions measured with the Quasi-peak detector exceeded the referenced Quasi-Peak limits.

## Conclusion

The ITRONIX, Corporation IX260 with the transmitters listed above, met the conducted emissions requirements for Class B digital devices under Title 47 CFR, Para.15.107 (a), and for Intentional Radiators under 15.207(a).

**TEST: CONDUCTED SPURIOUS EMISSIONS**

Manufacturer: ITRONIX, Corporation.

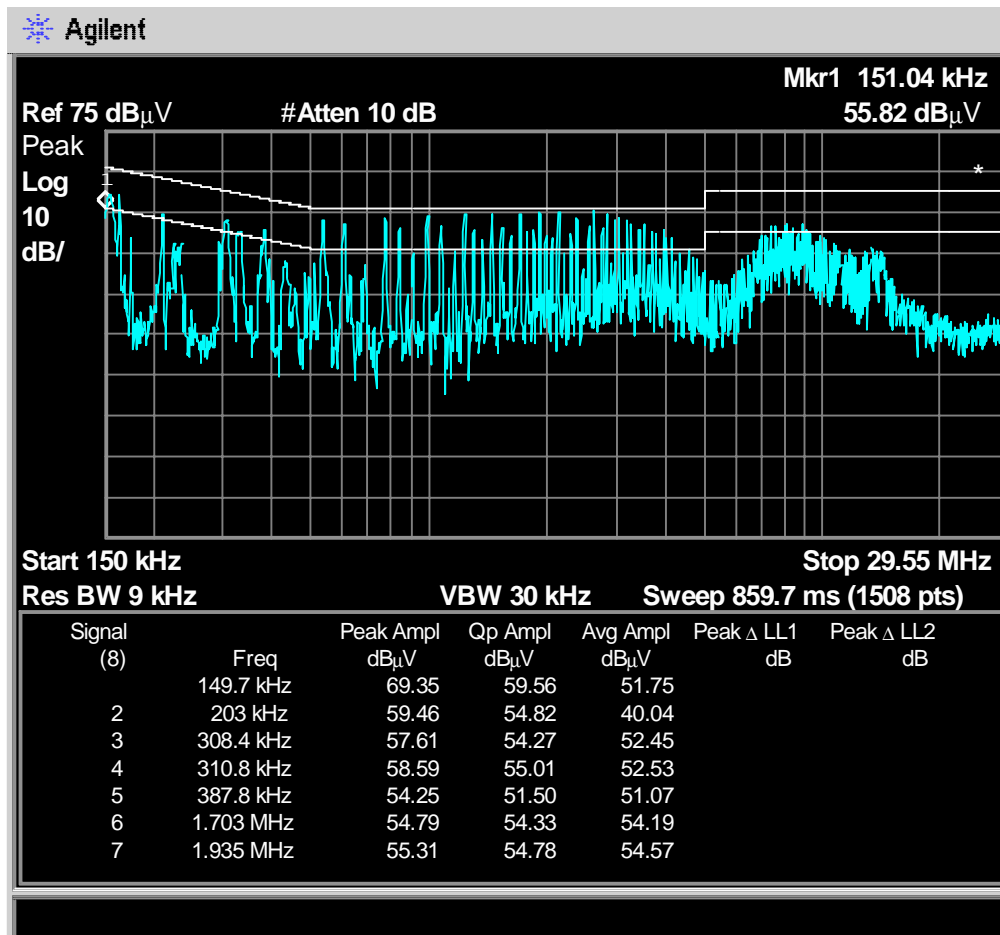
Name: IX260 Laptop PC

Model: IX260 with AirCard 555 (WAN), & INTEL PRO WM3B2200BG (WLAN)

	Quasi peak	Average	* decreasing with the log of the frequency
Part 15.107(a) & 15.207(a) limits:	66 -56 dBuV	56 to 46dBuV	* 0.15 to .5 MHz *
	56 dBuV	46 dBuV	.5 to 5 MHz
	60 dBuV	50 dBuV	5 to 30 MHz

The equipment complies with the Quasi-peak limit. The level measured closest to the QP limit was 310.8 kHz with a level of 55.01dBuV.

Note: Plot below is Line 1 Peak detector for *reference* only. Quasi-peak and Average values listed below.



**TEST: CONDUCTED SPURIOUS EMISSIONS**

Manufacturer: ITRONIX, Corporation.

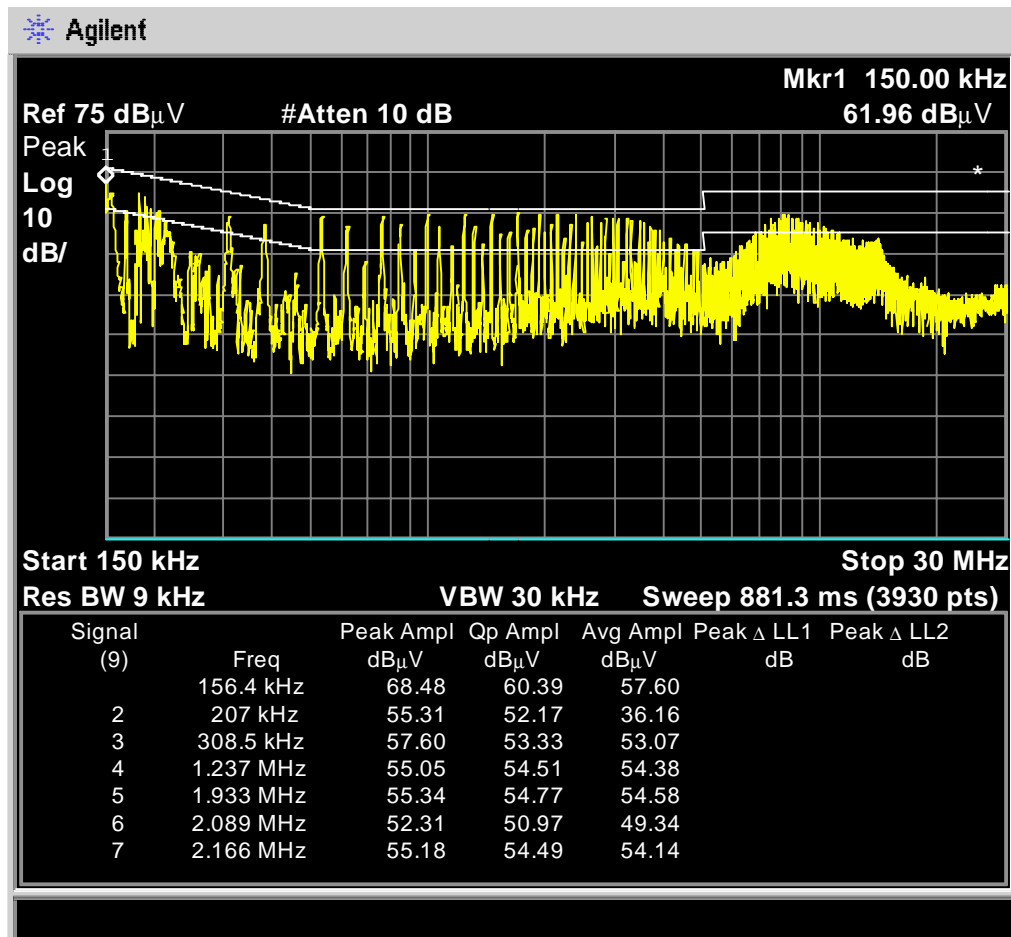
Name: IX260 Laptop PC

Model: IX260 with AirCard 555 (WAN), & INTEL PRO WM3B2200BG (WLAN)

	Quasi peak	Average	* decreasing with the log of the frequency
Part 15.107(a) & 15.207(a) limits:	66 -56 dBuV	56 to 46dBuV	0.15 to .5 MHz
	56 dBuV	46 dBuV	.5 to 5 MHz
	60 dBuV	50 dBuV	5 to 30 MHz

The equipment complies with the Quasi-peak limit. The level measured closest to the QP limit was 1.933 MHz with a level of 54.77dBuV.

Note: Plot below is Line 2 Peak detector for reference only. Quasi-peak and Average values listed below.



**TEST:** FIELD STRENGTH OF RADIATED EMISSIONS

**Manufacturer:** ITRONIX, Corporation.

**Name:** IX260 Laptop PC

**Model:** IX260 with AirCard 555 (WAN), &  
INTEL PRO WM3B2200BG, (WLAN)

**Setup:**

The equipment under test (EUT) was configured and operated in accordance with the applicable provisions of ANSI C63.4-2001, Section 6 and 8. The EUT was placed on a 80 cm height, 1 X 1.5 m non-metallic turntable that sits above the 15 X 30 meter ground plane at Spectrum's Open Area Test Site. The antennas (dipoles, bi-conical or log-periodic) were mounted on a tower spaced at a 3 meters distance, and arranged for adjustment in height (1-4 meters) and V/H orientation to maximize the emissions levels when combined with turntable rotation of the EUT. An Agilent E7405 EMC analyzer, using 120 kHz bandwidth and its internal amplifier were used for the making the measurements.

**Discussion:**

Measurements of the radiated spurious emissions were made with the ITRONIX IX260 set up in a representative configuration. The frequency range from 30 to 1000 MHz was measured in detail. No modifications were made prior to the final compliance test.

Preliminary measurements were made as described in Section 8.3.1.1. The EUT was set up as an operational system. The system cables were carefully tuned during the preliminary measurements on all frequencies of significance endeavoring to maximize the emissions observed. During the preliminary measurements the IX260 was set up at the OATS facility with the receive antenna in close proximity, about 1.0 meter distance. The transmitters in the IX260 were operated on the frequencies listed on the following page in an attempt to identify any measurable emission frequencies.

During the preliminary measurements the IX260 was set to transmit on the first the low, then mid and finally the high channels respectively in multiple preliminary sets of measurements covering operational range of both transmitters. Note that no measurable change in the radiated emissions activity was observed when the transmitters were turned

on or off or varied over the channel combinations listed below.

All of the following individual channels were investigated during the preliminary measurements:

AC555			WLAN	
Channel	Frequency MHz		Channel	Frequency MHz
128	824.2	Or	1	2412
190	836.6	Or	6	2437
251	848.8	Or	11	2462
512	1850.2	Or	1	2412
661	1880.0	Or	6	2437
810	1909.8	Or	11	2462

Preliminary measurements were made while the system was investigated operating in the following modes:

- 1) IX260 operating digital device active only, no transmitters turned on.
- 2) IX260 operating with the WLAN transmitter on low, mid and high channels respectively.
- 3) IX260 operating with the AirCard 555 transmitting on the high mid and low channels in the Cellular and PCS bands respectively with the transmitter output fed to a resistive termination.

For the final measurements, the IX260 was fully operational transmitting on the low channel 2412 MHz and considered representative of the worst case based on the similar results observed between frequencies previously during the preliminary measurements.

The final OATS test configuration is shown in photographs included in Exhibit 7 of this report. Final digital device measurements were made from 30 - 1000 MHz as specified in Section 8.3.1.2 and were made at three meters.

### **Conclusion:**

The ITRONIX, Inc. IX300 when operated as discussed above meets the radiated emissions requirements for a receivers and Class B digital devices under Title 47 CFR, Parts 15.109(a) and 15.209(a).

## EXHIBIT 6 TEST: FIELD STRENGTH OF SPURIOUS RADIATED EMISSIONS

FCC ID: KBCIX260-PROAC555

Applicant: ITRONIX Corp.

Model: IX260 with AirCard 555, (WAN), and a INTEL PRO, WM3B2200BG, (WLAN)

Minimum Standard Specified: Part 15.109(a), 15.209(a)

Frequency Range Observed: 30 to 1 GHz

Date: 6/20/04

Test Setup: See block diagram and photos following.

NOTE: The highest level radiated emissions observed are reported below.

Frequency GHz	Max. SA Rdg. dBu/V	Ant. Vert. or Horz.	Peak or Average Detector	Antenna Factor dB & cable loss	Amp Gain	Corrected Reading dBuV/m	Limit dBu/V	Margin in dB below LIMIT
119.00	15.16	H	Peak	15.5	-inc.-	30.66	43.5	12.84
119.00	22.87	V	Peak	15.5	-inc.-	38.37	43.5	5.13
238.23	20.56	H	Peak	14.8	-inc.-	35.36	46.0	10.64
238.23	14.76	V	Peak	14.8	-inc.-	29.56	46.0	16.44
259.80	21.14	H	Peak	16.3	-inc.-	37.44	46.0	8.56
259.80	16.96	V	Peak	16.3	-inc.-	33.26	46.0	12.74
270.30	24.74	H	Peak	16.7	-inc.-	41.44	46.0	4.56
270.30	19.51	V	Peak	16.7	-inc.-	36.21	46.0	9.79
302.50	19.54	H	Peak	18.6	-inc.-	38.14	46.0	7.86
302.50	17.32	V	Peak	18.6	-inc.-	35.92	46.0	10.08
320.50	16.46	H	Peak	17.9	-inc.-	34.36	46.0	11.64
320.50	17.06	V	Peak	17.9	-inc.-	34.96	46.0	11.04
325.00	17.00	H	Peak	17.9	-inc.-	34.90	46.0	11.10
325.00	17.06	V	Peak	17.9	-inc.-	34.96	46.0	11.04
375.60	13.44	H	Peak	19.0	-inc.-	32.44	46.0	13.56
375.60	17.93	V	Peak	19.0	-inc.-	36.93	46.0	9.07
390.00	10.10	H	Peak	19.7	-inc.-	29.80	46.0	16.2
390.00	15.16	V	Peak	19.7	-inc.-	34.86	46.0	11.14
435.50	7.43	H	Peak	21.3	-inc.-	28.73	46.0	17.27
435.50	16.93	V	Peak	21.3	-inc.-	38.23	46.0	7.77
715.00	5.22	H	Peak	26.9	-inc.-	32.12	46.0	13.88
715.00	10.74	V	Peak	26.9	-inc.-	37.64	46.0	8.36
922.00	<noise flr.	H	Peak	29.9	-inc.-	----	46.0	----
<b>922.00</b>	<b>14.3</b>	<b>V</b>	<b>Peak</b>	<b>29.9</b>	<b>-inc.-</b>	<b>44.2</b>	<b>46.0</b>	<b>1.8</b>

End of Report