



Electromagnetic Compatibility Test Report

Tests Performed on a Primex Wireless, Inc.

AC Temperature Humidity Sensor Transciever, Model SNSATHX

Radiometrics Document RP-7072



Product Detail:

FCC ID: PZ3-SNSH

IC: 4256A-SNSH

Equipment type: 2.4 GHz Wifi device

Test Standards:

US CFR Title 47, Chapter I, FCC Part 15 Subpart C

FCC Part 15 CFR Title 47: 2011

Industry Canada RSS-210, Issue 8: 2010 as required for Category I Equipment

This report concerns: Original Grant for Certification

Tests Performed For:

Primex Wireless, Inc.

N3211 Highway H

Lake Geneva Wisconsin 53147

Test Facility:

Radiometrics Midwest Corporation

12 East Devonwood

Romeoville, IL 60446

(815) 293-0772

Test Date(s): (Month-Day-Year)

July 14 to 27, 2011

Document RP-7072 Revisions:

Rev.	Issue Date	Affected Sections	Revised By
0	October 24, 2011		


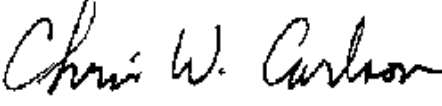
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Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

1 ADMINISTRATIVE DATA

<i>Equipment Under Test:</i> A Primex Wireless, Inc., AC Temperature Humidity Sensor Model: SNSATHX Serial Number: None This will be referred to as the EUT in this Report	
<i>Date EUT Received at Radiometrics: (Month-Day-Year)</i> July 14, 2011	<i>Test Date(s): (Month-Day-Year)</i> July 14 to 27, 2011
<i>Test Report Written By:</i> Joseph Strzelecki Senior EMC Engineer	<i>Test Witnessed By:</i> Mike Jonely Primex Wireless, Inc.
<i>Radiometrics' Personnel Responsible for Test:</i> 	<i>Test Report Approved By</i> 
Joseph Strzelecki Senior EMC Engineer NARTE EMC-000877-NE	Chris W. Carlson Director of Engineering NARTE EMC-000921-NE

2 TEST SUMMARY AND RESULTS

The EUT (Equipment Under Test) is an AC Temperature Humidity Sensor, Model SNSATHX, manufactured by Primex Wireless, Inc. The detailed test results are presented in a separate section. The following is a summary of the test results.

Spread Spectrum Transmitter Requirements

Environmental Phenomena	Frequency Range	FCC Section	RSS- Section	Test Result
RF AC Mains Conducted Emissions	0.15 - 30 MHz	15.207	GEN; 7.2.2	Pass
RF Radiated Emissions	30-25,000 MHz	15.209	GEN; 7.2.5	Pass
Time of Occupancy (Dwell Time)	2400 to 2483 MHz	15.247 a	210; A8.1 (2)	Pass
6 dB Bandwidth Test	2400 to 2483 MHz	15.247 a	210; A8.1 (4)	Pass
20 dB Bandwidth Test	2400 to 2483 MHz	15.247 a	210; A8.1 (4)	Pass
Peak Output Power	2400 to 2483 MHz	15.247 b	210; A8.1 (1)	Pass
Band-edge Compliance of RF Conducted Emissions	2400 to 2483 MHz	15.247 d	210; A8.4 (2)	Pass
Spurious Radiated Emissions	30 MHz to 25 GHz	15.247 d	210; A8.5	Pass
Power Spectral Density	2400 to 2483 MHz	15.247 e	210; A8.2 (1)	Pass

Note: The RSS-210 specification is not currently covered in Radiometrics' Scope of Accreditation. This is technically very similar to FCC, CFR 47 Part 15 which is on Radiometrics scope.

2.1 RF Exposure Compliance Requirements

Since EUT is not handheld and the minimum separation distance is less than 20 cm, the EUT meets the FCC requirement for RF exposure. Since EUT is not handheld and the peak power output is 251 mW, the EUT is exempt from RSS-102.

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

There are no power level adjustments and the antenna is permanently attached. The detailed calculations for RF Exposure are presented in a separate document.

3 EQUIPMENT UNDER TEST (EUT) DETAILS

3.1 EUT Description

The EUT is an AC Temperature Humidity Sensor, Model SNSATHX, manufactured by Primex Wireless, Inc. The EUT was in good working condition during the tests, with no known defects.

3.1.1 FCC Section 15.203 & RSS-GEN Antenna Requirements

The antenna is permanently attached to the PCB via a trace on the circuit board. The antenna is internal to the EUT and it is not readily available to be modified by the end user. Therefore, it meets the 15.203 Requirements.

3.2 Related Submittals

Primex, Inc. is not submitting any other products simultaneously for equipment authorization related to the EUT.

4 TESTED SYSTEM DETAILS

4.1 Tested System Configuration

The system was configured for testing in a typical fashion. The EUT was placed on an 80-cm high, nonconductive test stand. The testing was performed in conditions as close as possible to installed conditions. Wiring was consistent with manufacturer's recommendations.

Since the EUT is wall mounted, it was placed in an upright configuration during the tests. The EUT was tested as a stand-alone device. Power was supplied at 115 VAC, 60 Hz single-phase to its external power supply.

The identification for all equipment, plus descriptions of all cables used in the tested system, are:

Tested System Configuration List

Item	Description	Type*	Manufacturer	Model Number	Serial Number
1	AC Temperature Humidity Sensor	E	Primex, Inc.	SNSATHX	00:1E:B3:00:8F:3E
2	Power Supply 120V	E	Vinfinity	EPS090166UHP-SZ	None

* Type: E = EUT, P = Peripheral, S = Support Equipment; H = Host Computer

List of System Cables

QTY	Length (m)	Cable Description	Shielded?
1	1.8	DC Cord	No
1	20	Ethernet Cable Connect to Hub	Yes

4.2 Special Accessories

No special accessories were used during the tests in order to achieve compliance.

4.3 Equipment Modifications

No modifications were made to the EUT at Radiometrics' test facility in order to comply with the standards listed in this report.

5 TEST SPECIFICATIONS AND RELATED DOCUMENTS

Document	Date	Title
FCC CFR Title 47	2011	Code of Federal Regulations Title 47, Chapter 1, Federal Communications Commission, Part 15 - Radio Frequency Devices
ANSI C63.4-2003	2003	Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
IC RSS-210 Issue 8	2010	Low Power Licence-Exempt Radiocommunication Devices (All Frequency Bands) Category I Equipment
IC RSS-Gen Issue 3	2010	General Requirements and Information for the Certification of Radiocommunication Equipment (RSS-Gen)
FCC 558074	2005	Measurement of Digital Transmission Systems Operating under Section 15.247

The test procedures used are in accordance with the FCC 558074, Industry Canada RSS-GEN and ANSI document C63.4-2003, "Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz". The specific procedures are described herein. Radiated testing was performed at an antenna to EUT distance of 3 meters. The antenna was raised and lowered from 1 to 4 meters.

6 RADIOMETRICS' TEST FACILITIES

The results of these tests were obtained at Radiometrics Midwest Corp. in Romeoville, Illinois, USA. Radiometrics is accredited by A2LA (American Association for Laboratory Accreditation) to conform to ISO/IEC 17025: 2005 "General Requirements for the Competence of Calibration and Testing Laboratories". Radiometrics' Lab Code is 121191 and Certification Number is 1495.01. Radiometrics' scope of accreditation includes all of the test methods listed herein. A copy of the accreditation can be accessed on our web site (www.radiomet.com). Radiometrics accreditation status can be verified at A2LA's web site (www.a2la2.org).

The following is a list of shielded enclosures located in Romeoville, Illinois used during the tests:

Chamber A: Is an anechoic chamber that measures 24' L X 12' W X 12' H. The walls and ceiling are fully lined with ferrite absorber tiles. The floor has a 10' x 10' section of ferrite absorber tiles located in the center. Panashield of Rowayton, Connecticut manufactured the chamber. The enclosure is NAMAS certified.

Chamber E: Is a custom made anechoic chamber that measures 52' L X 30' W X 18' H. The walls and ceiling are fully lined with RF absorber. Pro-shield of Collinsville, Oklahoma manufactured the chamber.

Test Station F: Is an area that measures 10' D X 12' W X 10' H. The floor and back wall are metal shielded. This area is used for conducted emissions measurements.

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

A separate ten-foot long, brass plated, steel ground rod attached via a 6 inch copper braid grounds each of the above chambers. Each enclosure is also equipped with low-pass power line filters.

The FCC has accepted these sites as test site number US1065. The FCC test site Registration Number is 732175. Details of the site characteristics are on file with the Industry Canada as site number IC3124A-1.

A complete list of the test equipment is provided herein. The calibration due dates are indicated on the equipment list. The equipment is calibrated in accordance to ANSI/NCSL Z540-1 with traceability to the National Institute of Standards and Technology (NIST).

7 DEVIATIONS AND EXCLUSIONS FROM THE TEST SPECIFICATIONS

There were no deviations or exclusions from the test specifications.

8 CERTIFICATION

Radiometrics Midwest Corporation certifies that the data contained herein was taken under conditions that meet or exceed the requirements of the test specification and the data contained herein was taken with calibrated test equipment. The results relate only to the EUT listed herein.

9 TEST EQUIPMENT TABLE

RMC ID	Manufacturer	Description	Model No.	Serial No.	Frequency Range	Cal Period	Cal Date
AMP-05	RMC/Celeritek	Pre-amplifier	MW110G	1001	1.0-12GHz	12 Mo.	01/19/11
AMP-20	Avantek	Pre-amplifier	SF8-0652	15221	8-18GHz	12 Mo.	01/18/11
AMP-22	Anritsu	Pre-amplifier	MH648A	M23969	0.1-1200MHz	12 Mo.	01/18/11
AMP-29	HP / Agilent	Amplifier	11975A	2304A00158	2-8 GHz	12 Mo.	04/05/11
ANT-13	EMCO	Horn Antenna	3115	2502	1.0-18GHz	24 Mo.	11/18/10
ANT-44	Impossible Machine	Super Log Antenna	SL-20M2G	1002	20-2000MHz	24 Mo.	11/25/09
ANT-48	RMC	Std Gain Horn	HW2020	1001	18-26 GHz	12 Mo.	04/05/11
ANT-53	EMCO	Loop Antenna	6507	1453	1 kHz-30 MHz	24 Mo.	11/04/09
HPF-01	Solar	High Pass Filter	7930-100	HPF-1	0.15-30MHz	24 Mo.	10/27/09
HPF-03	Mini-Circuits	High Pass Filter	VHP-39	HPF-03	3-10 GHz	24 Mo.	10/27/09
LSN-01	Electrometrics	50 uH LISN	FCC/VDE 50/2	1001	0.01-30MHz	24 Mo.	06/14/11
LSN-03	Farnell	50 uH LISN	1EXLSN30B	000314	0.01-30MHz	24 Mo.	06/14/11
MXR-02	HP / Agilent	Harmonic Mixer	11970K	2332A00489	18-26.5GHz	12 Mo.	04/05/11
PRE-01	Hewlett Packard	Preselector	85685A	2510A00143	20 Hz-2GHz	12 Mo.	01/11/10
REC-01	Hewlett Packard	Spectrum Analyzer	8566A	2106A02115, 2209A01349	30Hz-22GHz	24 Mo.	10/29/10
REC-03	Anritsu	Spectrum Analyzer	MS2601B	MT94589	0.01-2200MHz	12 Mo.	03/18/11
REC-07	Anritsu	Spectrum Analyzer	MS2601A	MT53067	0.01-2200MHz	12 Mo.	01/21/11
REC-08	Hewlett Packard	Spectrum Analyzer	8566B	2648A13481 2209A01436	30Hz-22GHz	24 Mo.	08/21/09
THM-02	Fluke	Temp/Humid Meter	971	93490471	N/A	24 Mo.	04/01/10

Note: All calibrated equipment is subject to periodic checks.

10 TEST SECTIONS

10.1 AC Conducted Emissions

The tests and limits are in accordance with FCC section 15.207 and RSS Gen section 7.2.2.

A computer-controlled analyzer was used to perform the conducted emissions measurements. The frequency range was divided into 500 subranges equally spaced on a logarithmic scale. The computer recorded the peak of each subrange. This data was then plotted on semi-log graph paper generated by the computer and plotter. Adjusting the positions of the cables and orientation of the test system then maximizes the highest emissions.

Mains Conducted emission measurements were performed using a 50 Ohm/50 uH Line Impedance Stabilization Network (LISN) as the pick-up device. Measurements were repeated on both leads within the power cord. If the EUT power cord exceeded 80 cm in length, the excess length of the power cord was made into a 30 to 40 cm bundle near the center of the cord. The LISN was placed on the floor at the base of the test platform and electrically bonded to the ground plane.

FCC Limits of Conducted Emissions at the AC Mains Ports

Frequency Range (MHz)	Class B Limits (dBuV)	
	Quasi-Peak	Average
0.150 - 0.50*	66 - 56	56 - 46
0.5 - 5.0	56	46
5.0 - 30	60	50
* The limit decreases linearly with the logarithm of the frequency in this range.		

The initial step in collecting conducted data is a peak detector scan and the plotting of the measurement range. Significant peaks are then marked as shown on the following table, and these signals are then measured with the quasi-peak detector. The following represents the worst case emissions from the EUT, after testing all modes of operation.

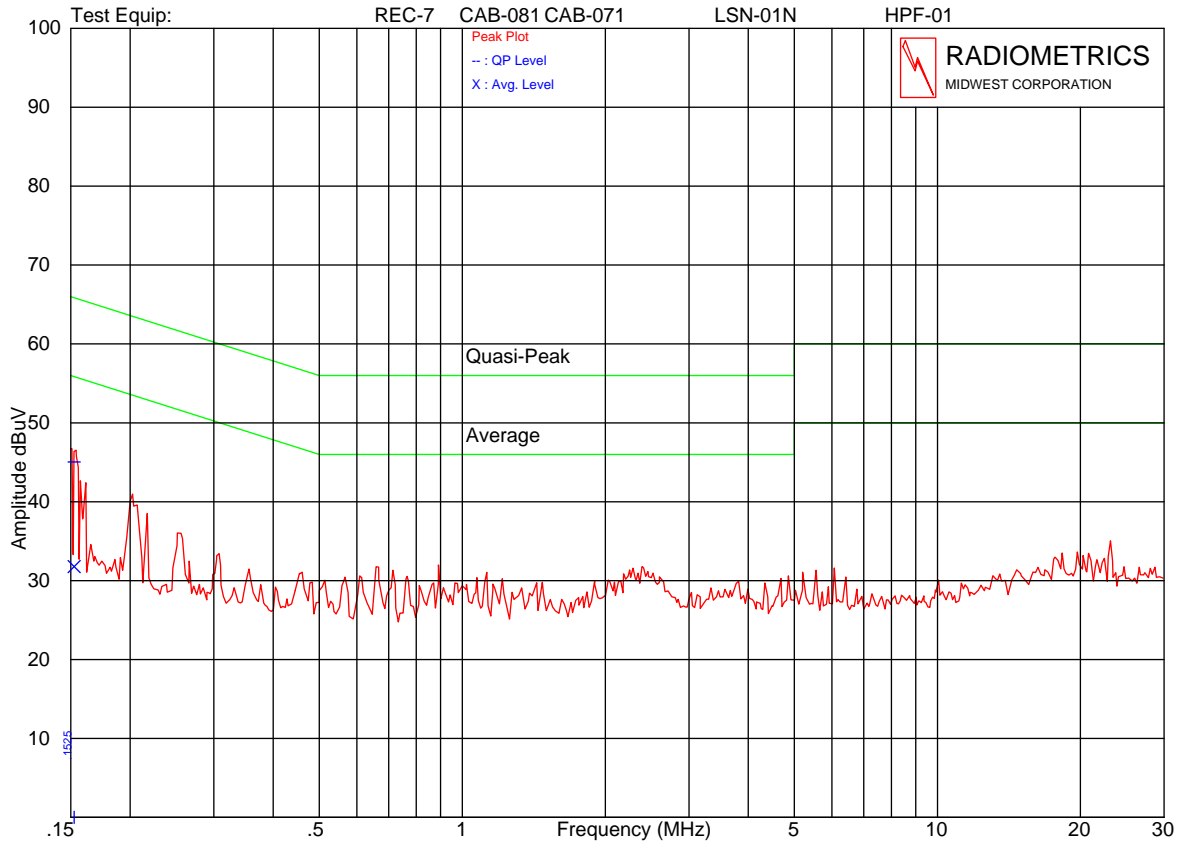
Test Date : July 14 to 27, 2011

The Amplitude is the final corrected value with cable and LISN Loss.

The above are the worst case results with three frequencies test for each EUT

* QP readings are quasi-peak with a 9 kHz bandwidth and no video filter.

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

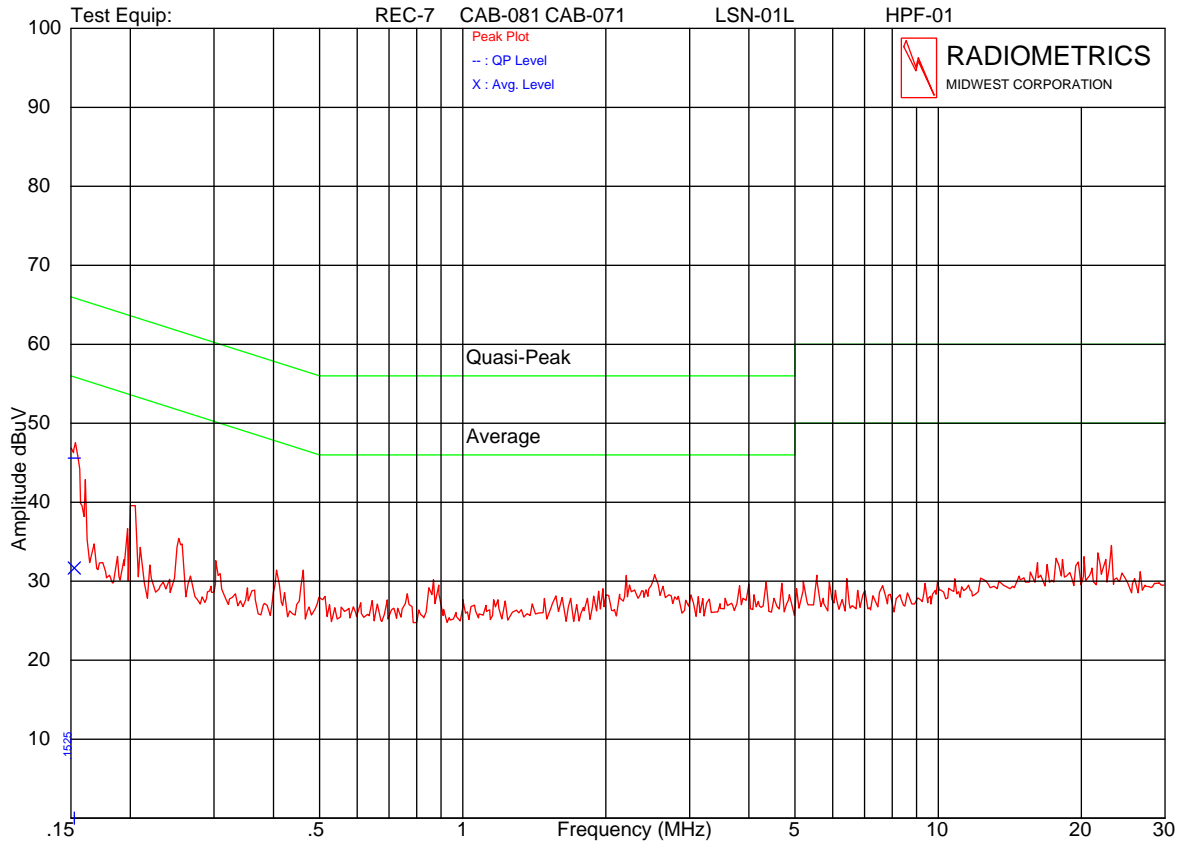


Company: Primex
 Lead Tested: AC Neutral 120 VAC
 Notes: FCC 15 & EN55022 Class B Conducted Emission Test; Mains Port Disturbances.

Model: SNSTHS
 S/N : 00:1E:B3:00:8F:3E

Date :07-14-2011
 Time:12:43
 Tested By: JRS
 RP-7072 | 120-2

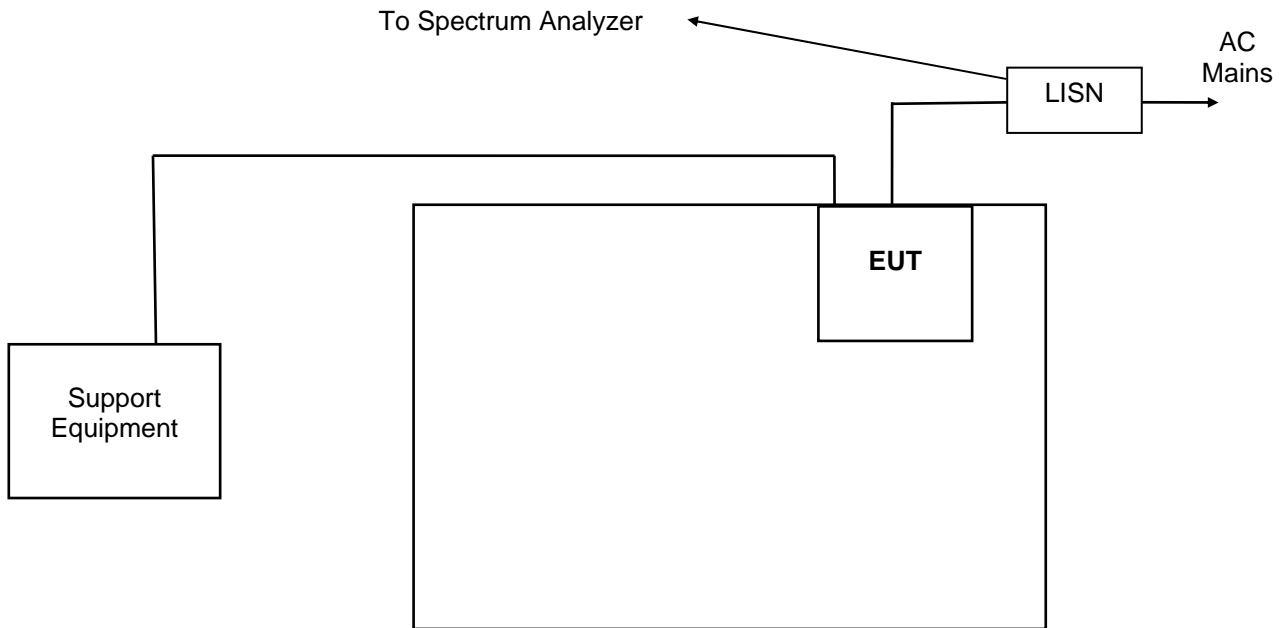
Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor



Company: Primex
 Lead Tested: AC Hot 120 VAC
 Notes: FCC 15 & EN55022 Class B Conducted Emission Test; Mains Port Disturbances.

Model: SNSATHS
 S/N : 00:1E:B3:00:8F:3E
 Date :07-14-2011
 Time:12:39
 Tested By: JRS
 RP-7072 | 120-1

Judgment: Passed by at least 10 dB

Figure 1. Conducted Emissions Test Setup**Notes:**

- LISN's at least 80 cm from EUT chassis
- Vertical conductive plane 40 cm from rear of table top
- EUT power cord bundled

1x1.5m surface

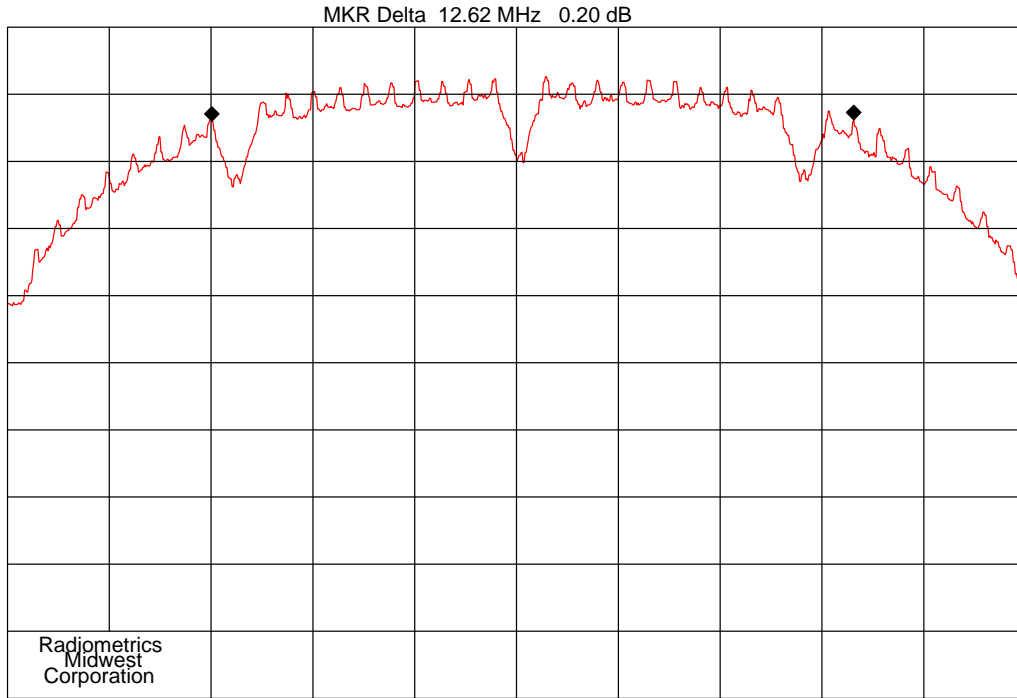
10.2 Occupied Bandwidth (20 dB or 99%)

The spectrum analyzer was set to the MAX HOLD mode to record the worst case of the modulation. The EUT was transmitting at its maximum data rate. The trace was allowed to stabilize.

The marker-to-peak function was set to the peak of the emission. Then the marker-delta function was used to measure 20 or 6 dB down one side of the emission. The marker-delta function was reset and then moved to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20 dB bandwidth of the emission.

Channel	802.11b	802.11b	802.11g	802.11g
	6 dB EBW MHz	20 dB EBW MHz	6 dB EBW MHz	20 dB EBW MHz
1	12.62	18.24	16.64	17.84
6	12.72	18.24	16.66	18.02
11	12.62	18.08	16.52	17.90

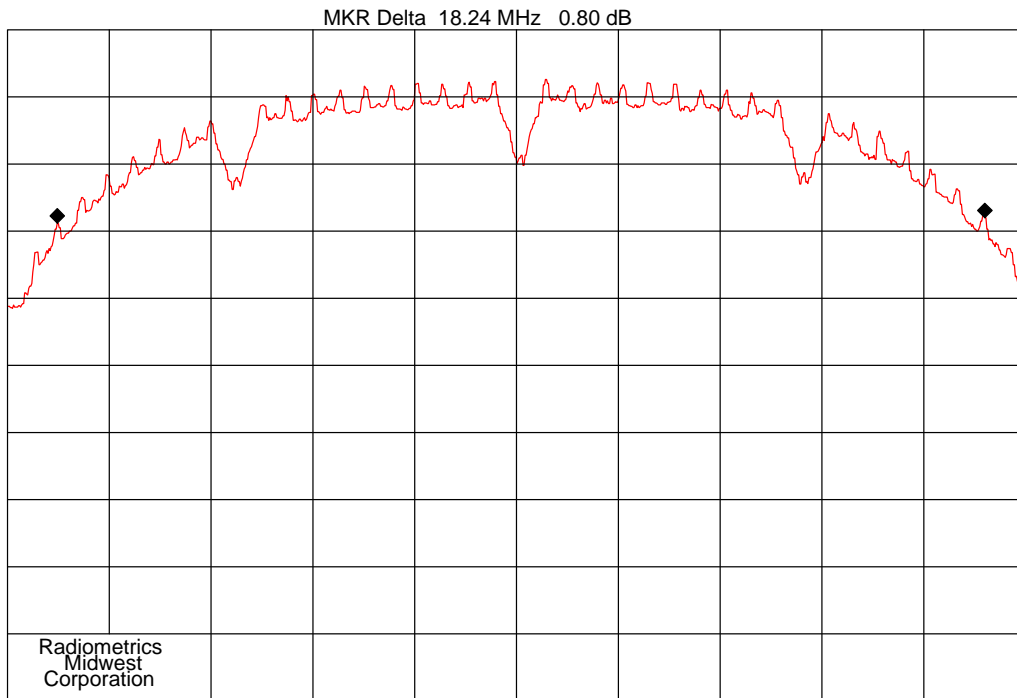
Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor



Company: Primex
 CENTER 2.412 0 GHz
 RES BW 100 kHz
 10 dB/
 Notes: 6 dB Bandwidth, Chan 1; b mode

ITEM : SNSATHX
 REF 117.0 dBuV
 VBW 300 kHz
 Time: 12:06

Date : 07-26-2011
 SPAN 20.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BW1B-6

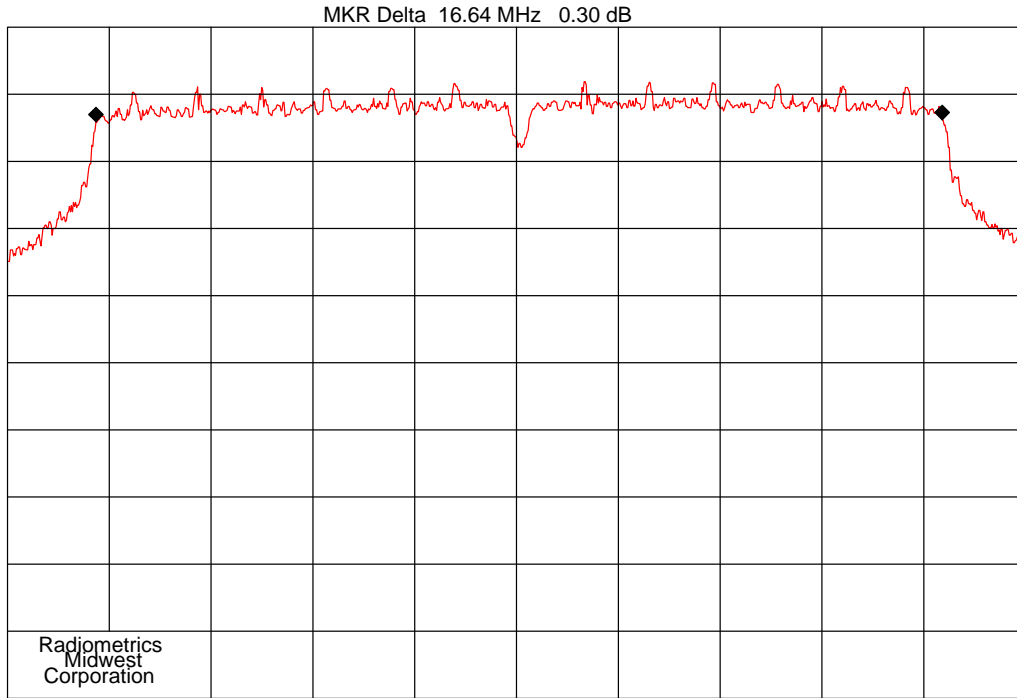


Company: Primex
 CENTER 2.412 0 GHz
 RES BW 100 kHz
 10 dB/
 Notes: 20dB Bandwidth, Chan 1; b mode

ITEM : SNSATHX
 REF 117.0 dBuV
 VBW 300 kHz
 Time: 12:07

Date : 07-26-2011
 SPAN 20.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BW1B-20

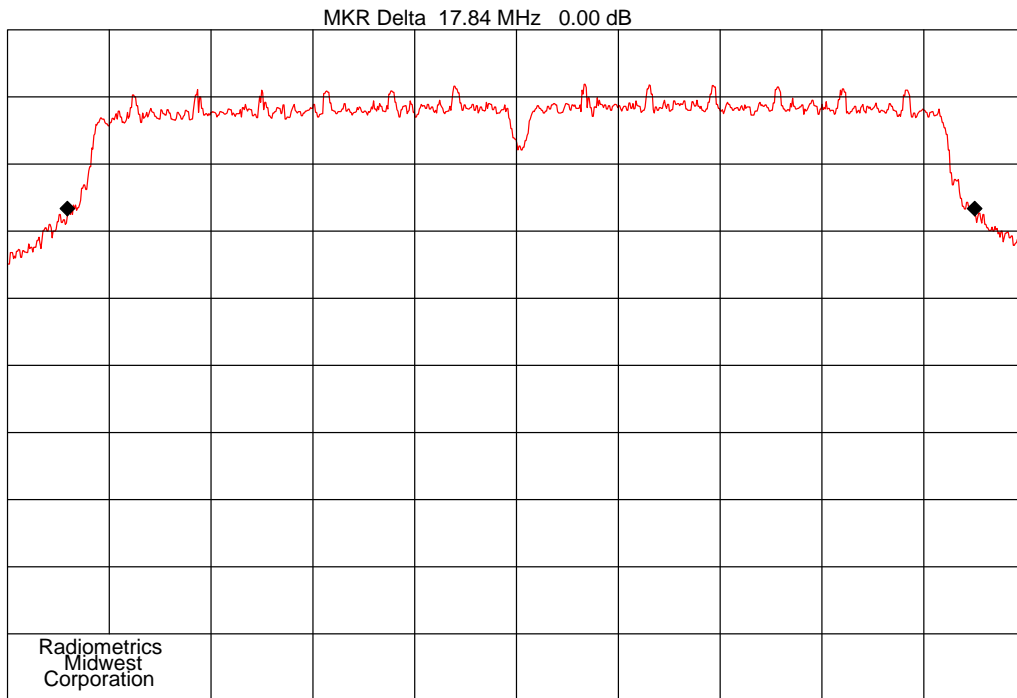
Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor



Company: Primex
 CENTER 2.412 0 GHz
 RES BW 100 kHz
 10 dB/
 Notes: 6 dB Bandwidth, Chan 1; g mode

ITEM : SNSATHX
 REF 117.0 dBuV
 VBW 300 kHz
 Time: 12:10

Date : 07-26-2011
 SPAN 20.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BW1G-6

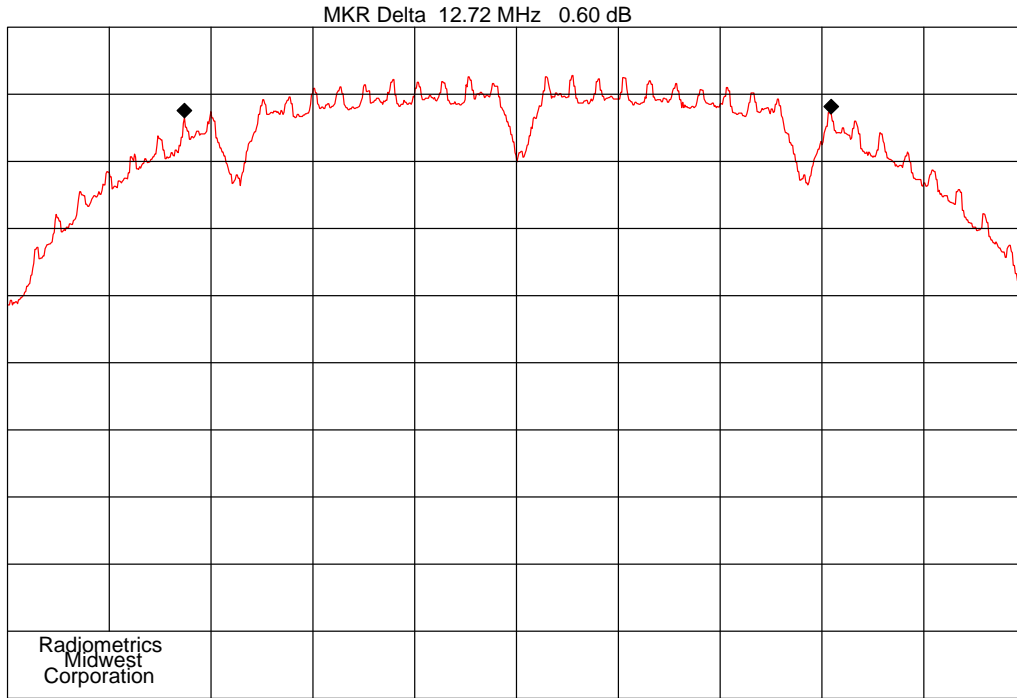


Company: Primex
 CENTER 2.412 0 GHz
 RES BW 100 kHz
 10 dB/
 Notes: 20dB Bandwidth, Chan 1; g mode

ITEM : SNSATHX
 REF 117.0 dBuV
 VBW 300 kHz
 Time: 12:09

Date : 07-26-2011
 SPAN 20.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BW1G-20

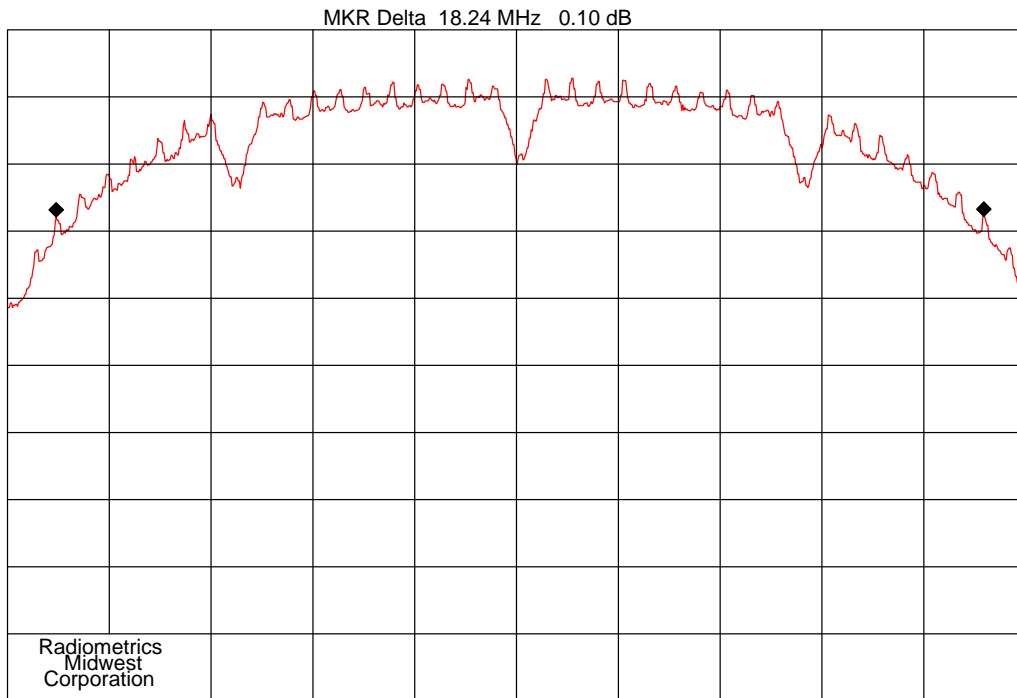
Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor



Company: Primex
 CENTER 2.437 0 GHz
 RES BW 100 kHz
 10 dB/
 Notes: 6 dB Bandwidth, Chan 6; b mode

ITEM : SNSATHX
 REF 117.0 dBuV
 VBW 300 kHz
 Time: 12:04

Date : 07-26-2011
 SPAN 20.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BW6b-6

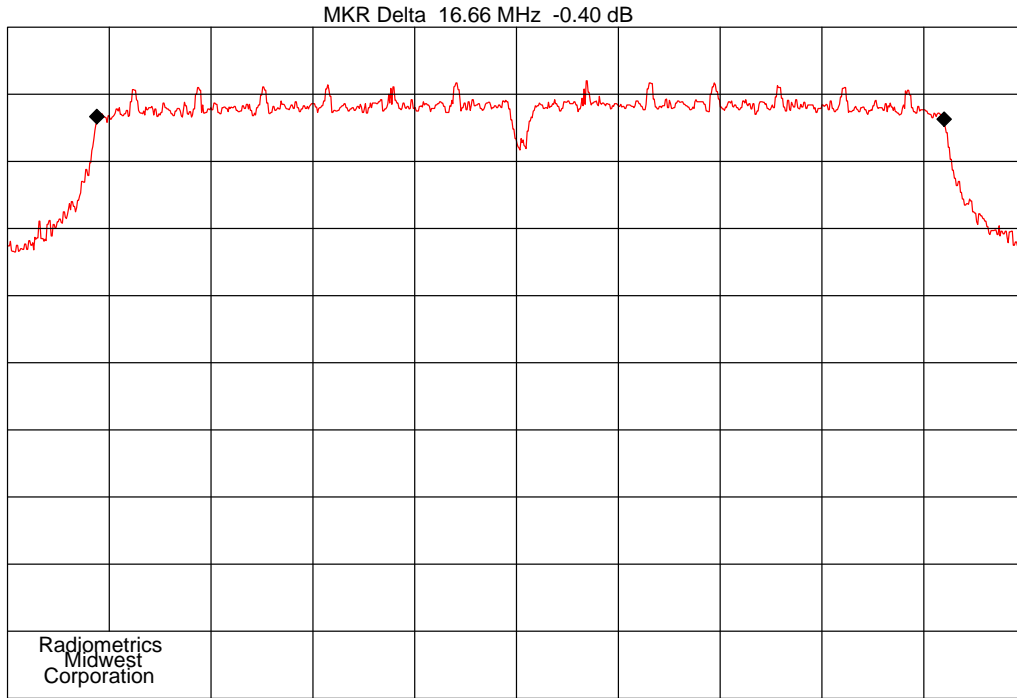


Company: Primex
 CENTER 2.437 0 GHz
 RES BW 100 kHz
 10 dB/
 Notes: 20dB Bandwidth, Chan 6; b mode

ITEM : SNSATHX
 REF 117.0 dBuV
 VBW 300 kHz
 Time: 12:03

Date : 07-26-2011
 SPAN 20.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BW6b-20

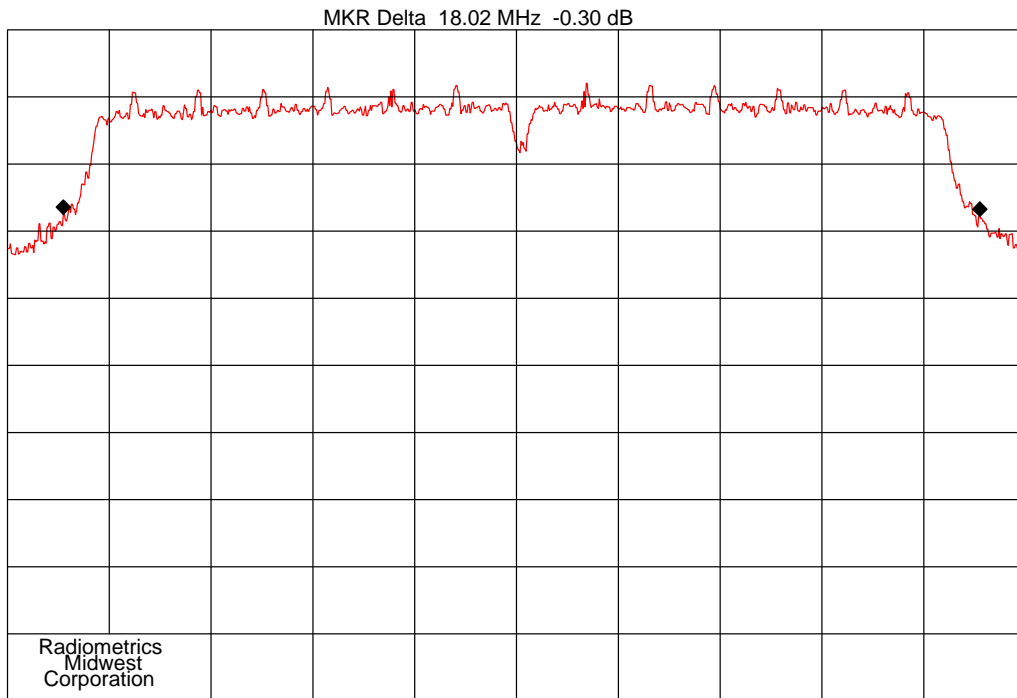
Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor



Company: Primex
 CENTER 2.437 0 GHz
 RES BW 100 kHz
 10 dB/
 Notes: 6 dB Bandwidth, Chan 6; g mode

ITEM : SNSATHX
 REF 117.0 dBuV
 VBW 300 kHz
 Time: 11:58

Date : 07-26-2011
 SPAN 20.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BW6g-6

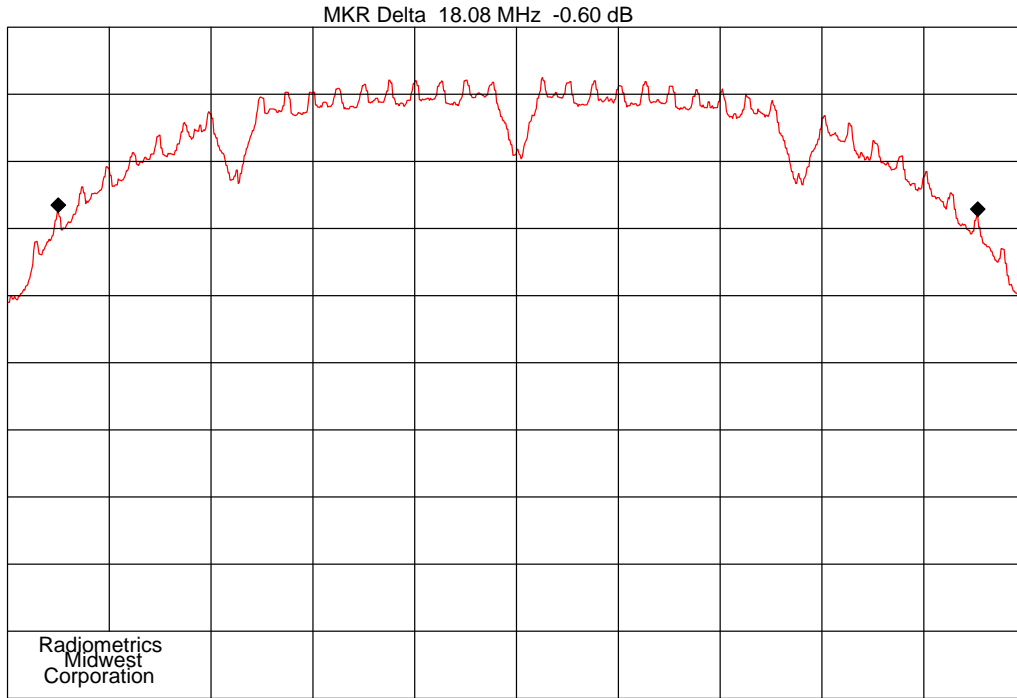


Company: Primex
 CENTER 2.437 0 GHz
 RES BW 100 kHz
 10 dB/
 Notes: 20dB Bandwidth, Chan 6; g mode

ITEM : SNSATHX
 REF 117.0 dBuV
 VBW 300 kHz
 Time: 11:59

Date : 07-26-2011
 SPAN 20.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BW6g-20

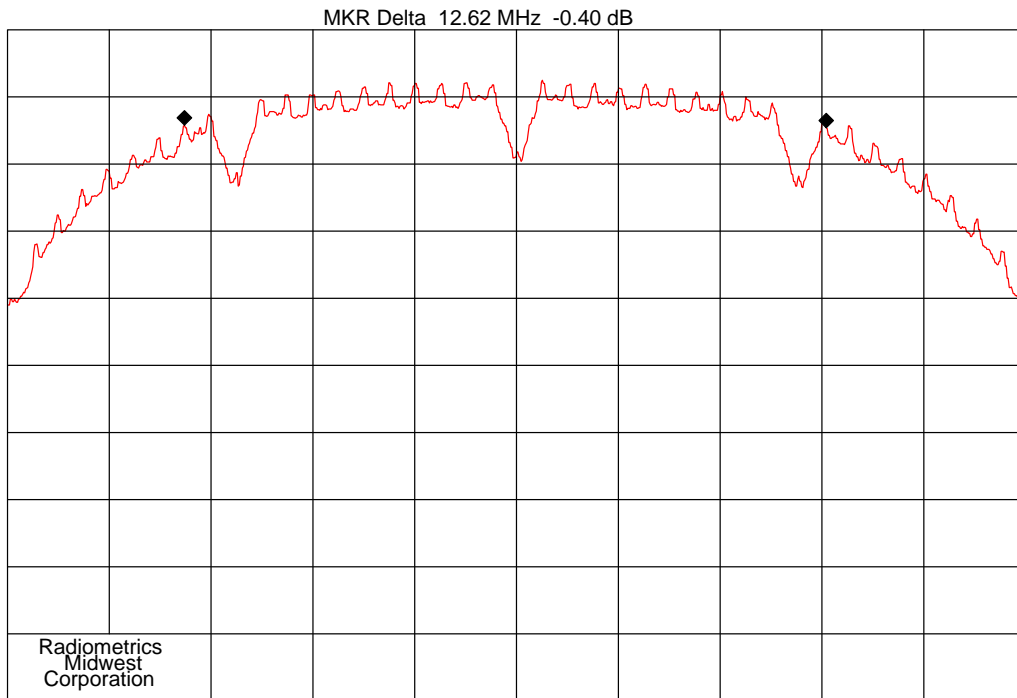
Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor



Company: Primex
 CENTER 2.462 0 GHz
 RES BW 100 kHz
 10 dB/
 Notes: 20dB Bandwidth, Chan 11; b mode

ITEM : SNSATHX
 REF 117.0 dBuV
 VBW 300 kHz
 Time: 12:17

Date : 07-26-2011
 SPAN 20.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BW11B20

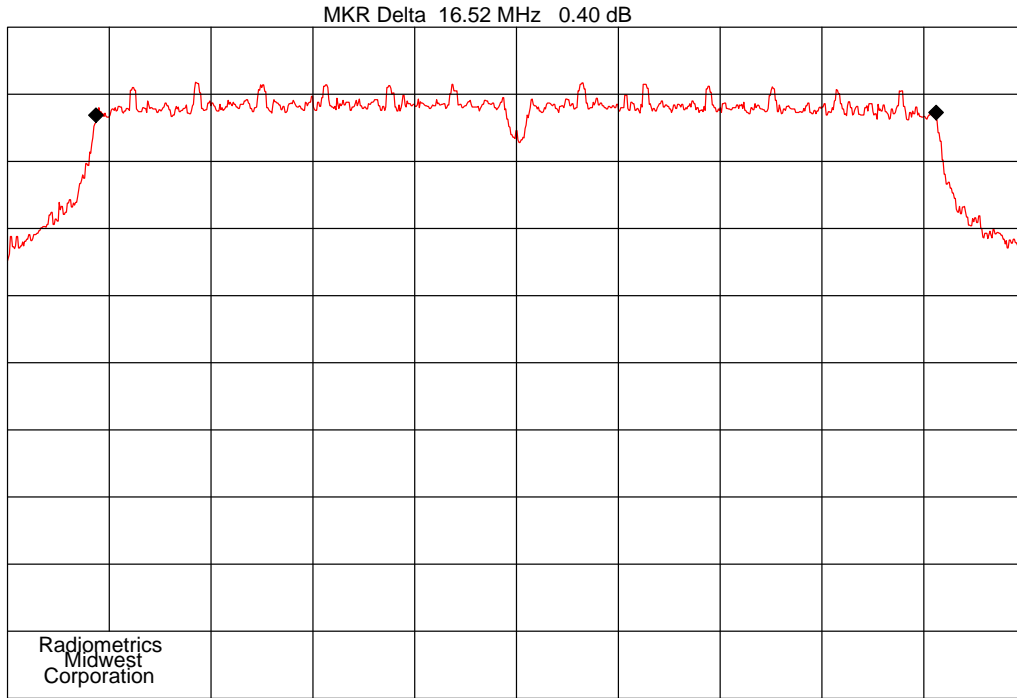


Company: Primex
 CENTER 2.462 0 GHz
 RES BW 100 kHz
 10 dB/
 Notes: 6 dB Bandwidth, Chan 11; b mode

ITEM : SNSATHX
 REF 117.0 dBuV
 VBW 300 kHz
 Time: 12:23

Date : 07-26-2011
 SPAN 20.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BW11B-6

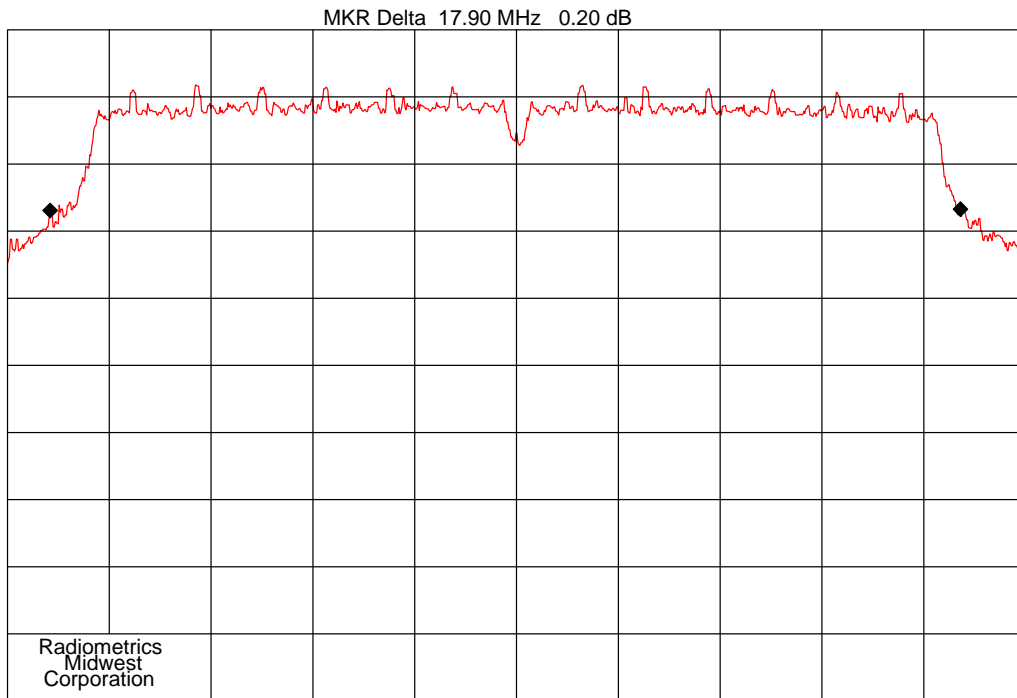
Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor



Company: Primex
 CENTER 2.462 0 GHz
 RES BW 100 kHz
 10 dB/
 Notes: 6 dB Bandwidth, Chan 11; g mode

ITEM : SNSATHX
 REF 117.0 dBuV
 VBW 300 kHz
 Time: 12:13

Date : 07-26-2011
 SPAN 20.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BW11G6



Company: Primex
 CENTER 2.462 0 GHz
 RES BW 100 kHz
 10 dB/
 Notes: 20dB Bandwidth, Chan 11; g mode

ITEM : SNSATHX
 REF 117.0 dBuV
 VBW 300 kHz
 Time: 12:14

Date : 07-26-2011
 SPAN 20.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BW11G20

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

10.3 Peak Output Power

The EUT antenna port was connected to the spectrum analyzer via a low loss coaxial cable.

The power output option 2; Method #3 from FCC rules 558074 was used for this test. The spectrum analyzer was set to the following settings:

Span = 2 MHz
 RBW = 1 MHz
 VBW = 3 MHz
 Sweep = auto
 Detector function = peak
 Trace = max hold

The trace was allowed to stabilize. The marker-to-peak function was used to measure the peak of the emission. The indicated level is the peak output power. The BW correction factor is $10 \cdot \log(BW)$. Note $30 \text{ dBm} = 1 \text{ watt}$. Since the gain of the antenna is always less than 6 dB, the limit is not reduced.

Mode	Freq. (MHz)	Reading (dBm)	BW Corr Factor (dB)	Cable Loss (dB)	Total Power (dBm)		Limit (dBm)
					dBm	Watts	
802.11b	2412	7.4	11.0	0.3	18.7	0.074	30
802.11b	2437	7.6	11.0	0.3	18.9	0.078	30
802.11b	2462	7.8	11.0	0.3	19.1	0.081	30
802.11g	2412	11.5	12.2	0.3	24.0	0.251	30
802.11g	2437	11.0	12.2	0.3	23.5	0.225	30
802.11g	2462	11.3	12.2	0.3	23.8	0.239	30

Judgement: Pass by 6.0 dB

10.4 Power Spectral Density

PSD option 1 was used for this test. No external attenuator was used. The spectrum analyzer was set to the following settings:

Span = 500 kHz
 RBW = 3 kHz
 VBW = 10 kHz
 Sweep = 167 seconds
 Detector function = Peak

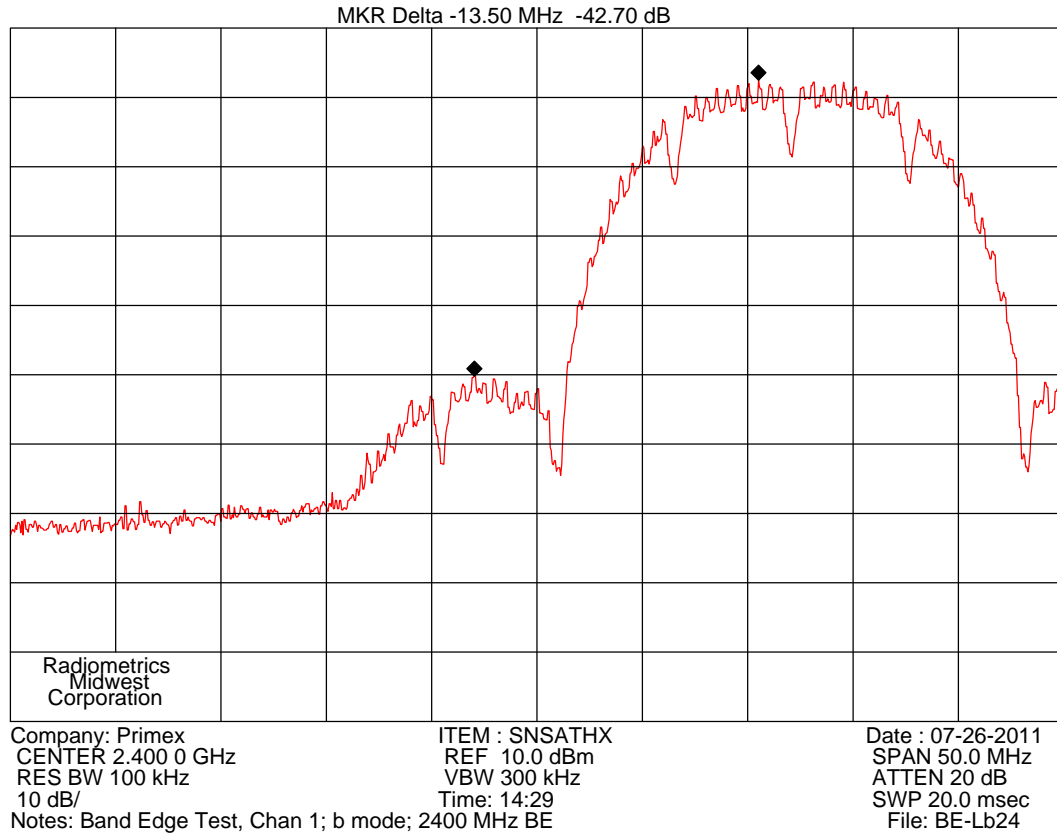
Mode	Frequency (MHz)	Reading dBm	Cable Loss (dB)	3 kHz Spectral Density (dBm)	Limit (dBm)
802.11b	2412	-11.0	0.3	-10.7	8.0
802.11b	2437	-9.9	0.3	-9.6	8.0
802.11b	2462	-10.1	0.3	-9.8	8.0
802.11g	2412	-11.5	0.3	-11.2	8.0
802.11g	2437	-10.3	0.3	-10.0	8.0
802.11g	2462	-11.0	0.3	-10.7	8.0

Overall Test result: Pass by 17.6 dB

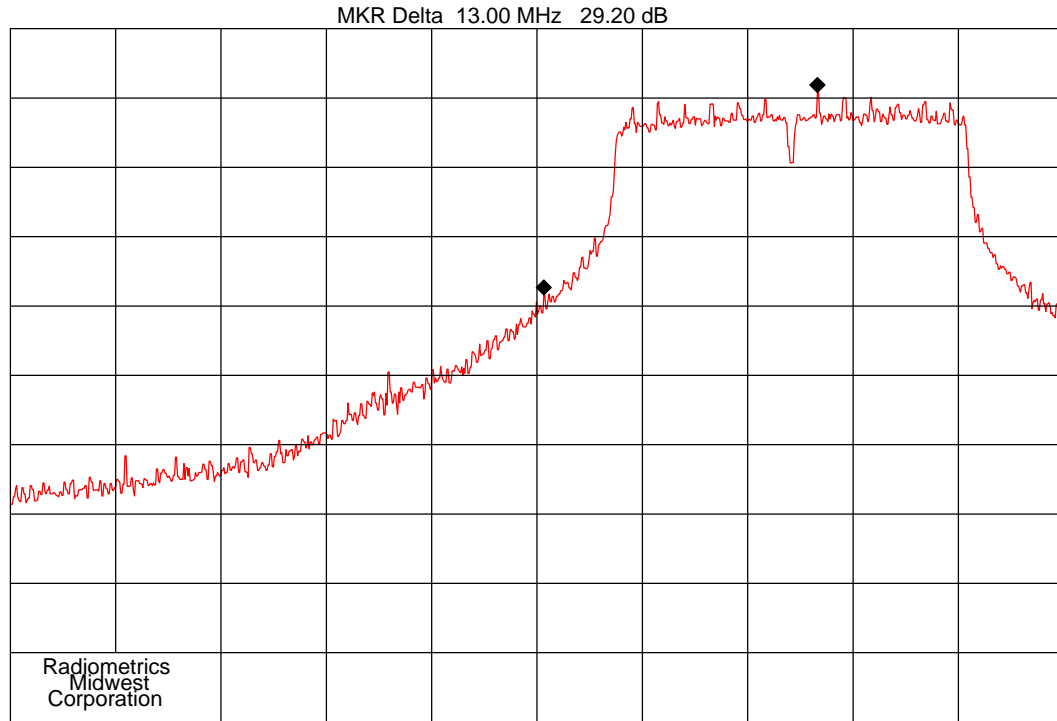
Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

10.5 Band-edge Compliance of RF Conducted Emissions

The spectrum analyzer was set to the MAX HOLD mode to record the worst case of the modulation at the band-edge, with the EUT set to the lowest frequency. The trace was allowed to stabilize.



Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor



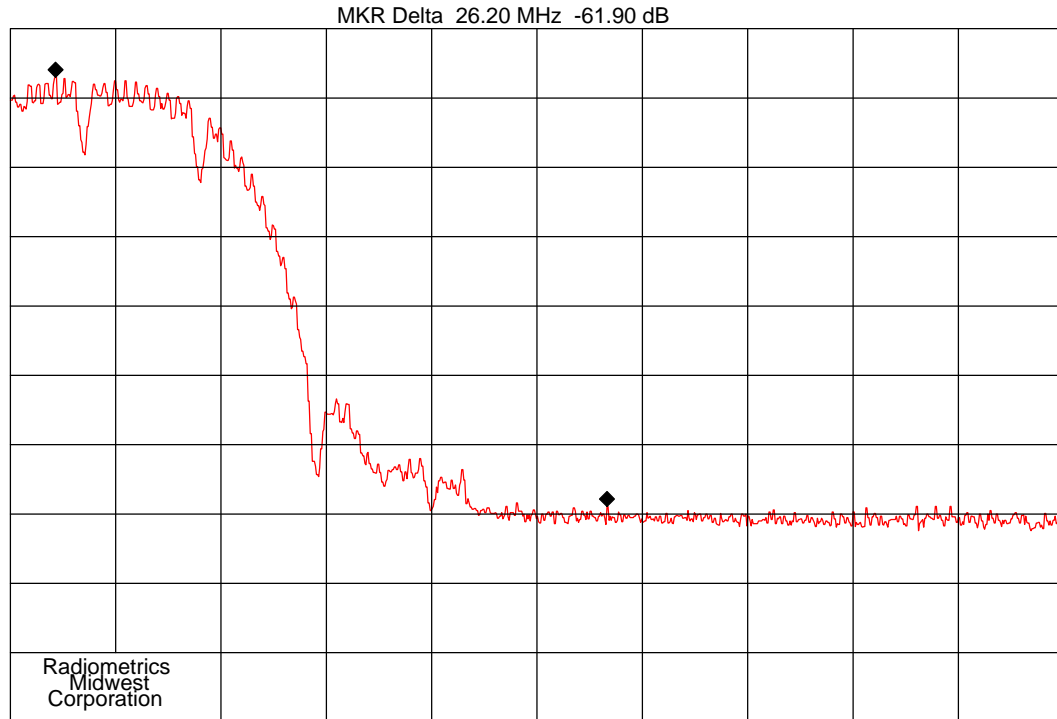
Company: Primex
CENTER 2.400 0 GHz
RES BW 100 kHz
10 dB/

ITEM : SNSATHX
REF 10.0 dBm
VBW 300 kHz
Time: 14:24

Date : 07-26-2011
SPAN 50.0 MHz
ATTEN 20 dB
SWP 20.0 msec
File: BE-Lg4a

Notes: Band Edge Test, Chan 1; g mode; 14 dBm

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

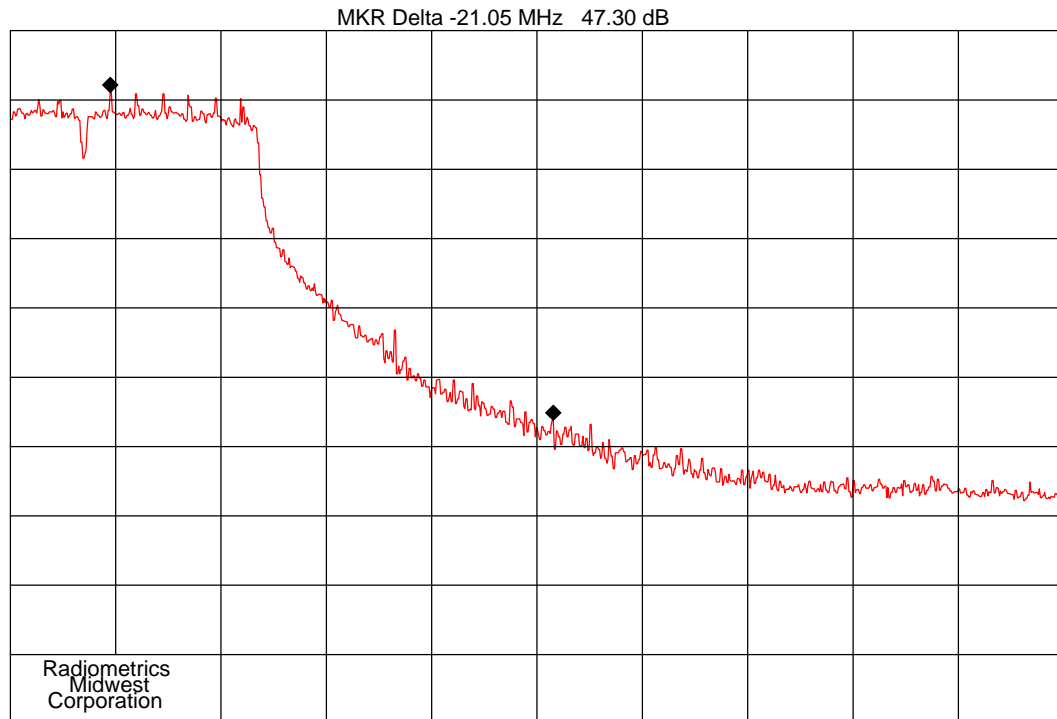


Company: Primex
 CENTER 2.483 5 GHz
 RES BW 100 kHz
 10 dB/

ITEM : SNSATHX
 REF 10.0 dBm
 VBW 300 kHz
 Time: 13:24

Date : 07-26-2011
 SPAN 50.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BE-Ub

Notes: Band Edge Test, Chan 11; b mode



Company: Primex
 CENTER 2.483 5 GHz
 RES BW 100 kHz
 10 dB/

ITEM : SNSATHX
 REF 10.0 dBm
 VBW 300 kHz
 Time: 14:17

Date : 07-26-2011
 SPAN 50.0 MHz
 ATTEN 20 dB
 SWP 20.0 msec
 File: BE-U-g4

Notes: Band Edge Test, Chan 11; g mode; 14 dBm

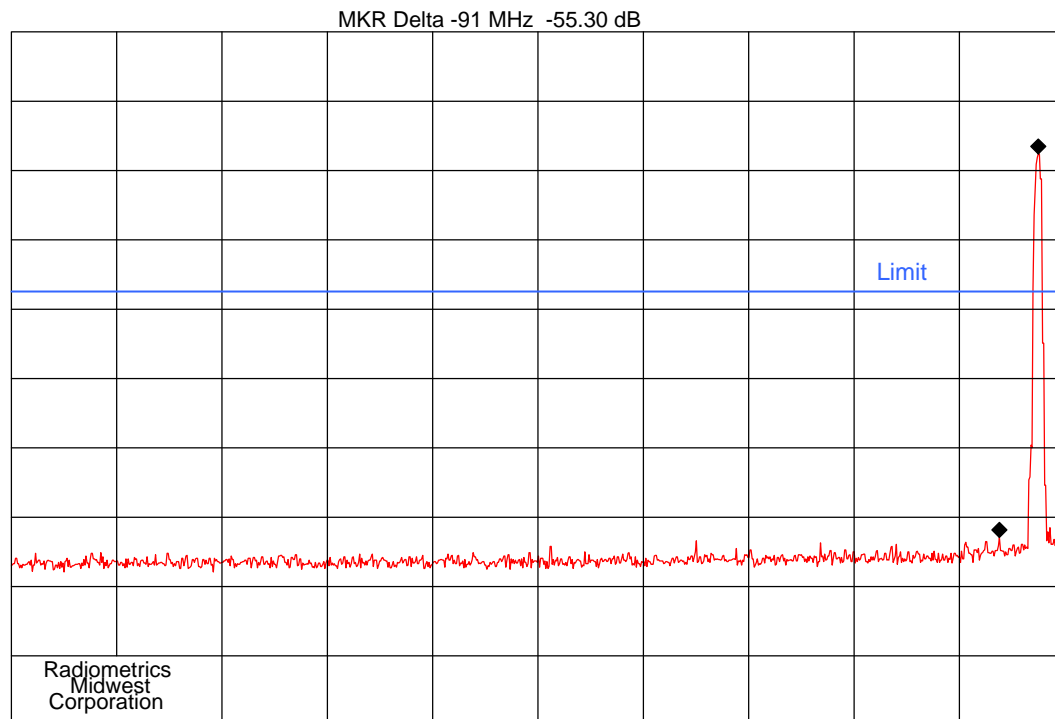
Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

Channel	Band Edge Delta Readings in dB		
	802.11b	802.11g	Limit
2412 Lower Band edge	42.7	29.2	20
2462 Upper Band edge	61.9	47.2	20

Judgement: Pass by 9 dB

10.6 Spurious RF Conducted Emissions

The spectrum analyzer was set to the MAX HOLD mode to record all spurious emissions from the lowest frequency generated in the EUT up through the 10th harmonic. The trace was allowed to stabilize. The first two plots were made while stepping through three frequencies (Low middle and high). Each frequency was on for 30 seconds.

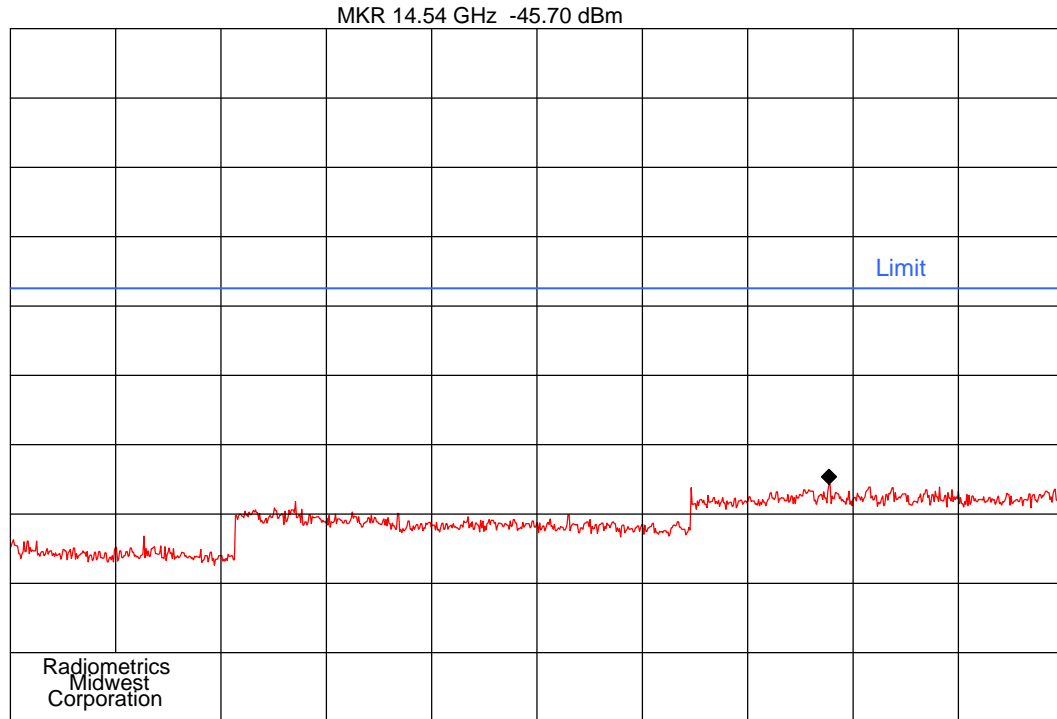


Company: Primex
START 1 MHz
RES BW 100 kHz
10 dB/
Notes: Ant Conducted, Chan 1; b mode

ITEM : SNSATHX
REF 20.0 dBm
VBW 300 kHz
Time: 14:53

Date : 07-26-2011
STOP 2.47 GHz
ATTEN 30 dB
SWP 741 msec
File: ACE-1b

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

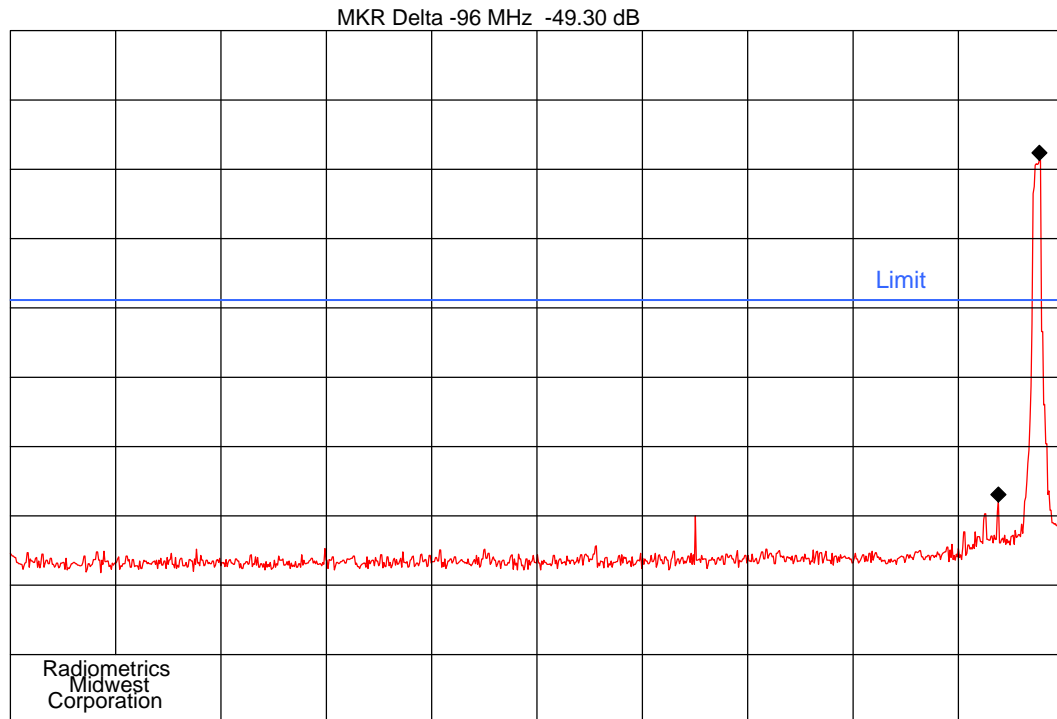


Company: Primex
START 2.5 GHz
RES BW 100 kHz
10 dB/

ITEM : SNSATHX
REF 20.0 dBm
VBW 300 kHz
Time: 14:54

Date : 07-26-2011
STOP 18.0 GHz
ATTEN 30 dB
SWP 4.65 sec
File: ACE-1b2

Notes: Ant Conducted, Chan 1; b mode



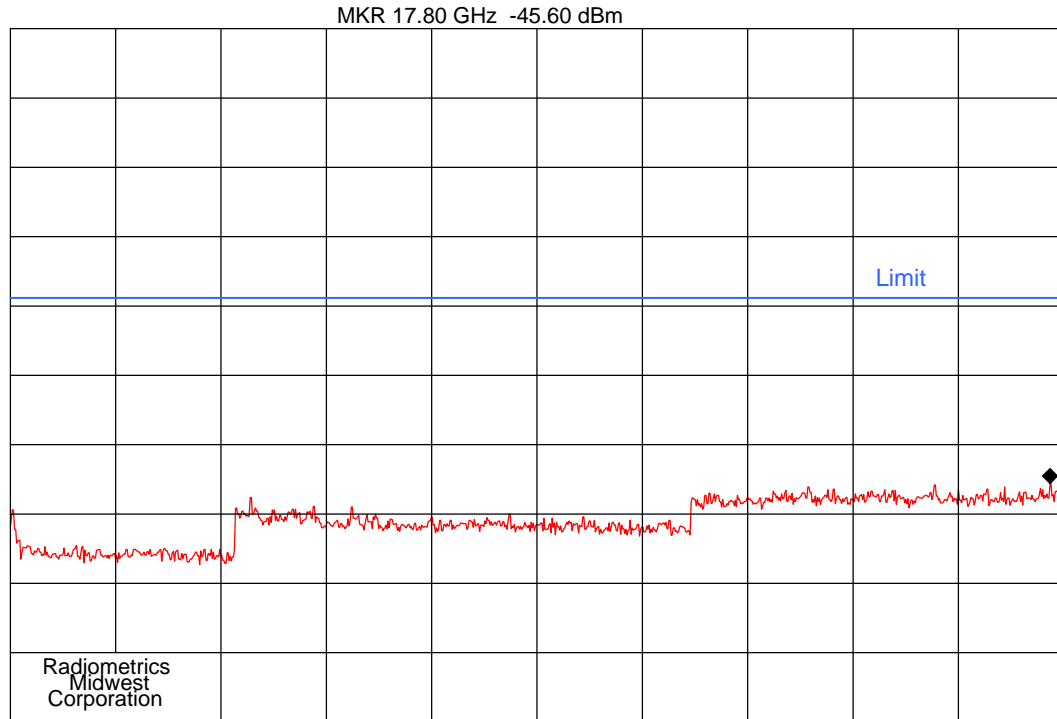
Company: Primex
START 1 MHz
RES BW 100 kHz
10 dB/

ITEM : SNSATHX
REF 20.0 dBm
VBW 300 kHz
Time: 14:38

Date : 07-26-2011
STOP 2.47 GHz
ATTEN 30 dB
SWP 741 msec
File: ACE-1g

Notes: Ant Conducted, Chan 1; g mode

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

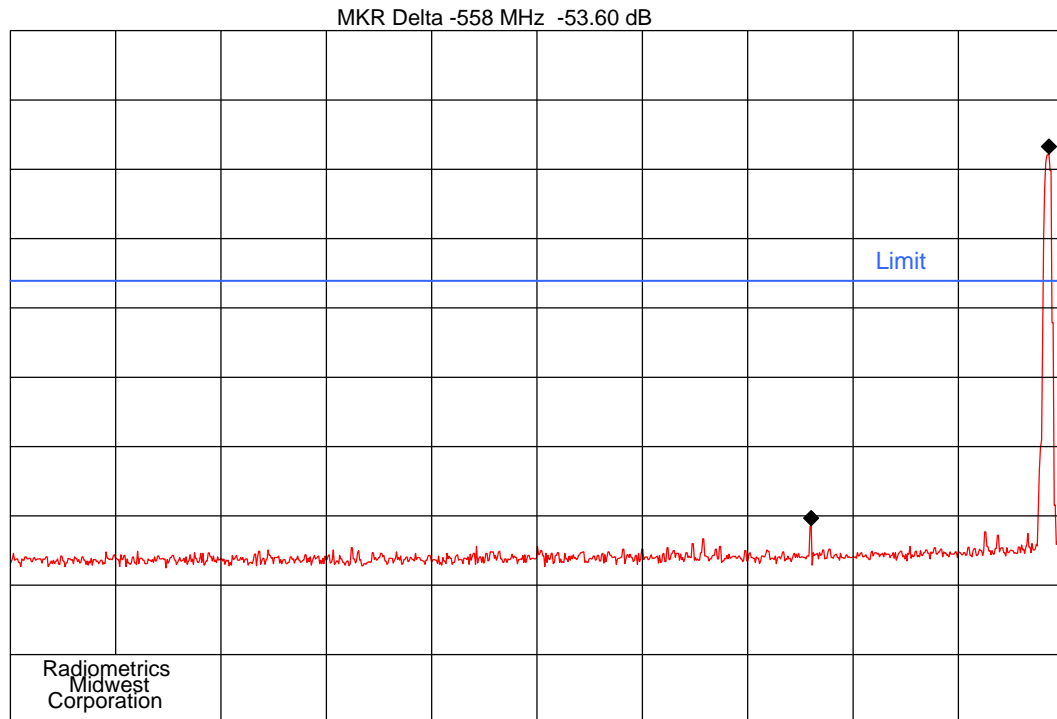


Company: Primex
START 2.5 GHz
RES BW 100 kHz
10 dB/

ITEM : SNSATHX
REF 20.0 dBm
VBW 300 kHz
Time: 15:00

Date : 07-26-2011
STOP 18.0 GHz
ATTEN 30 dB
SWP 4.65 sec
File: ACE-1g2

Notes: Ant Conducted, Chan 1; g mode



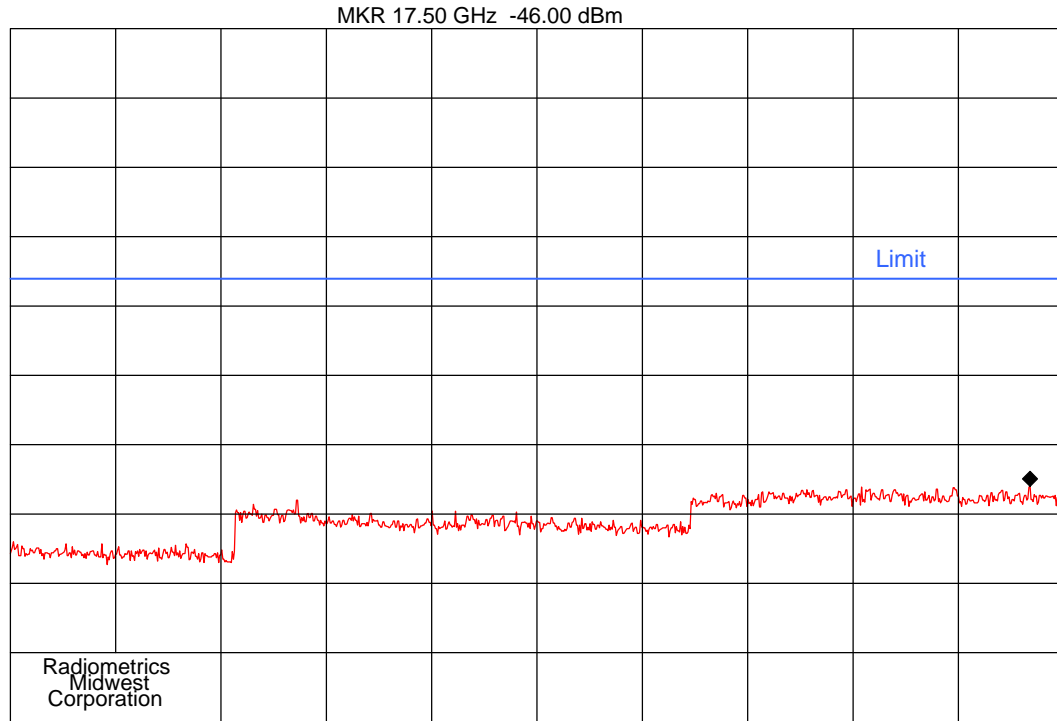
Company: Primex
START 1 MHz
RES BW 100 kHz
10 dB/

ITEM : SNSATHX
REF 20.0 dBm
VBW 300 kHz
Time: 14:51

Date : 07-26-2011
STOP 2.47 GHz
ATTEN 30 dB
SWP 741 msec
File: ACE-6b

Notes: Ant Conducted, Chan 6; b mode

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor



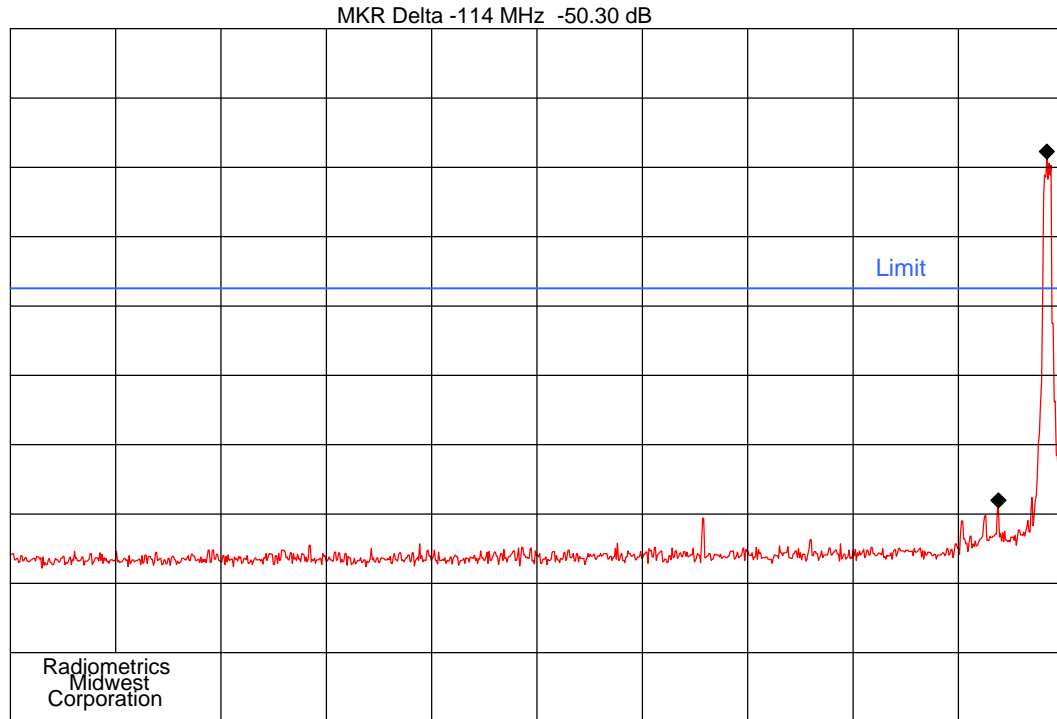
Company: Primex
START 2.5 GHz
RES BW 100 kHz
10 dB/

ITEM : SNSATHX
REF 20.0 dBm
VBW 300 kHz
Time: 14:56

Date : 07-26-2011
STOP 18.0 GHz
ATTEN 30 dB
SWP 4.65 sec
File: ACE-6b2

Notes: Ant Conducted, Chan 6; b mode

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

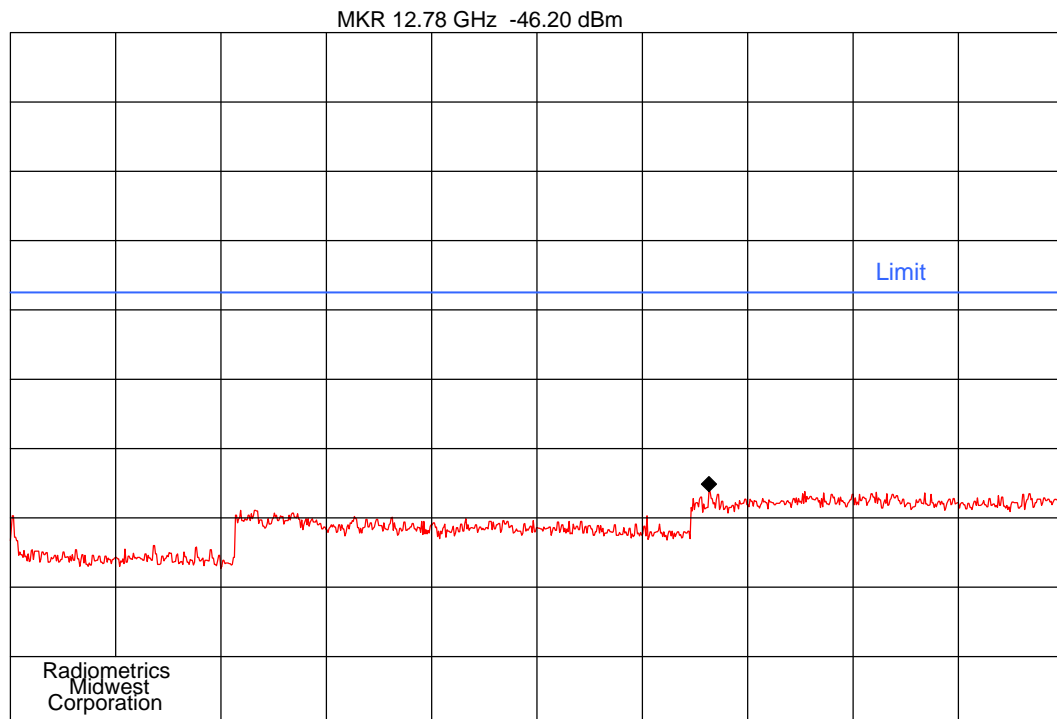


Company: Primex
START 1 MHz
RES BW 100 kHz
10 dB/

ITEM : SNSATHX
REF 20.0 dBm
VBW 300 kHz
Time: 14:39

Date : 07-26-2011
STOP 2.47 GHz
ATTEN 30 dB
SWP 741 msec
File: ACE-6g

Notes: Ant Conducted, Chan 6; g mode



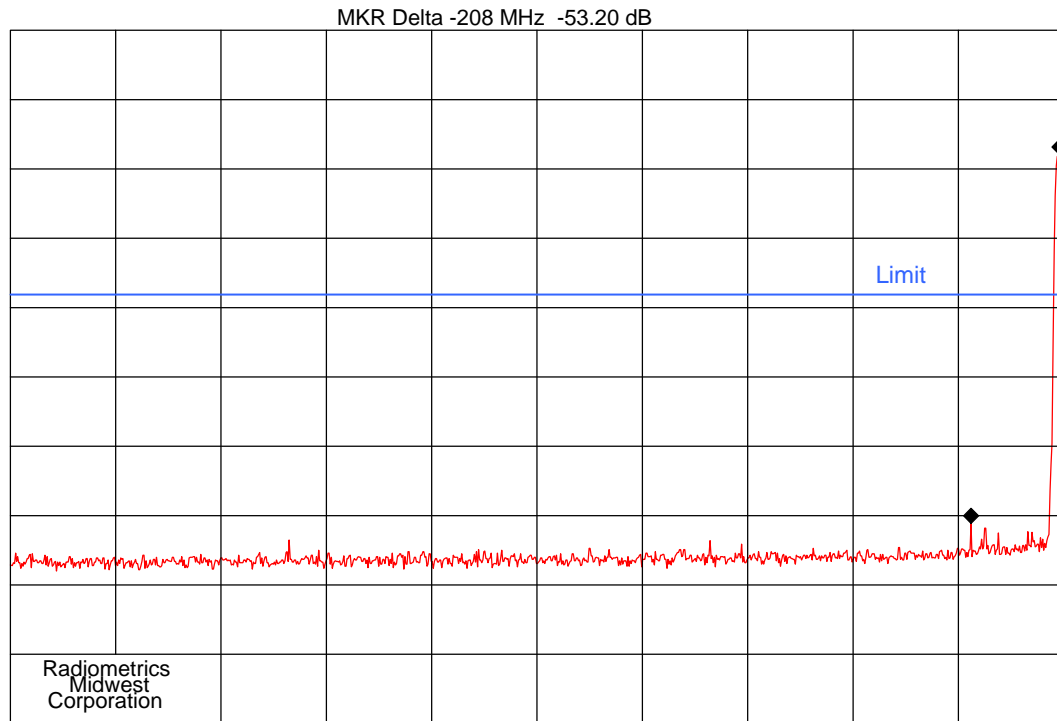
Company: Primex
START 2.5 GHz
RES BW 100 kHz
10 dB/

ITEM : SNSATHX
REF 20.0 dBm
VBW 300 kHz
Time: 14:59

Date : 07-26-2011
STOP 18.0 GHz
ATTEN 30 dB
SWP 4.65 sec
File: ACE-6g2

Notes: Ant Conducted, Chan 6; g mode

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor



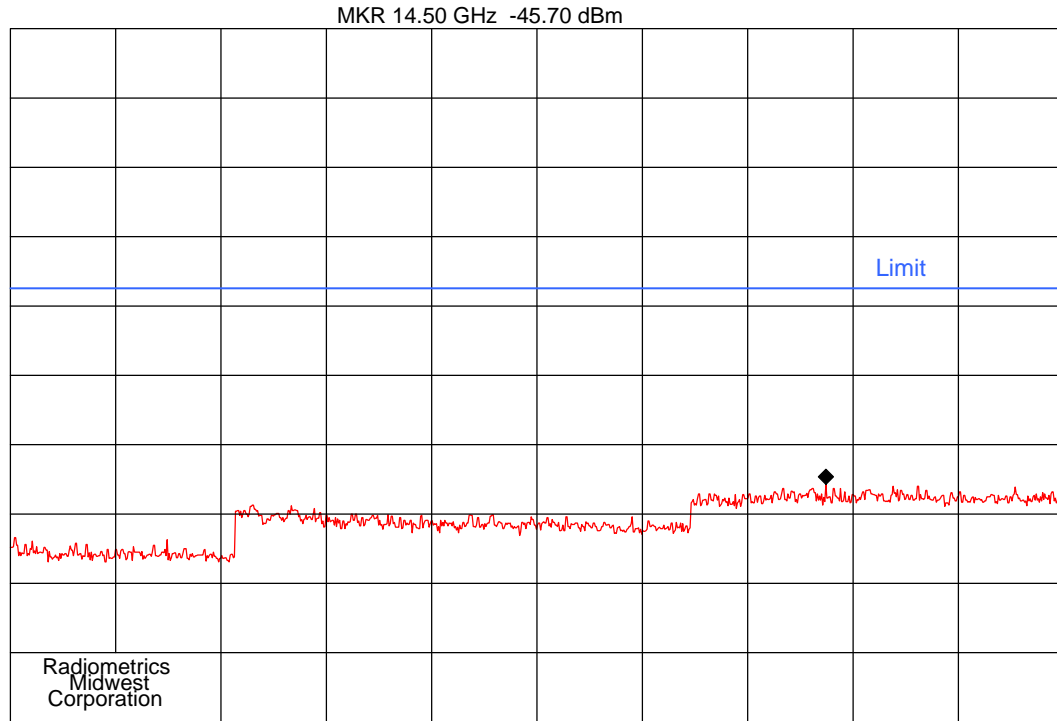
Company: Primex
START 1 MHz
RES BW 100 kHz
10 dB/

ITEM : SNSATHX
REF 20.0 dBm
VBW 300 kHz
Time: 14:49

Date : 07-26-2011
STOP 2.47 GHz
ATTEN 30 dB
SWP 741 msec
File: ACE-11b

Notes: Ant Conducted, Chan 11; b mode

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor



Radiometrics
Midwest
Corporation

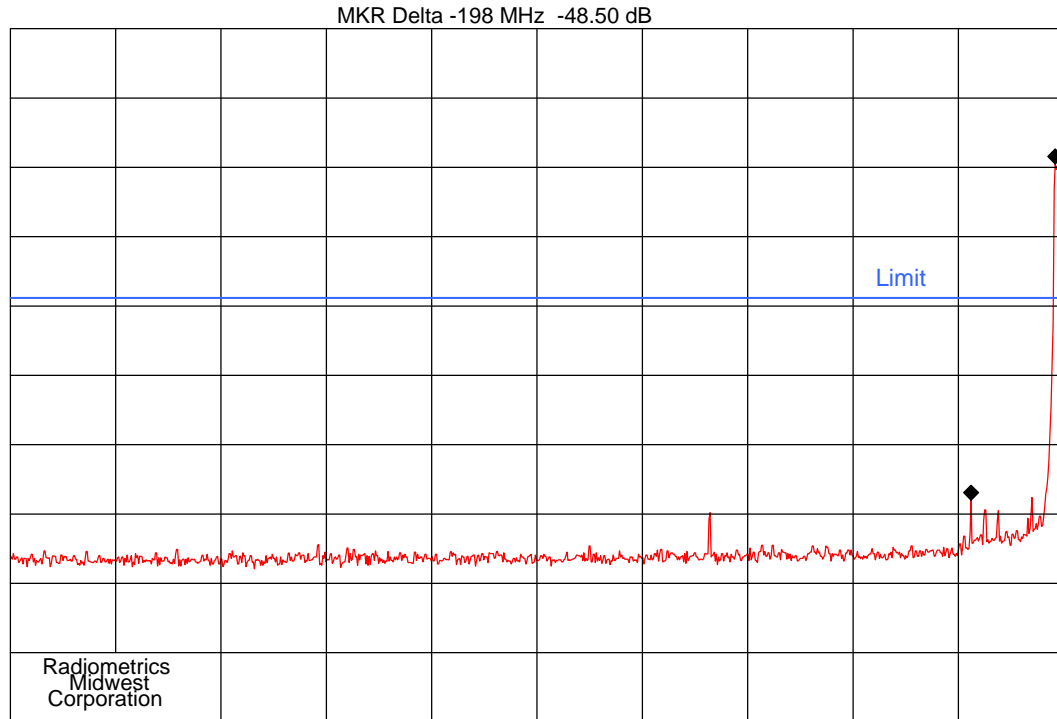
Company: Primex
START 2.5 GHz
RES BW 100 kHz
10 dB/

ITEM : SNSATHX
REF 20.0 dBm
VBW 300 kHz
Time: 14:57

Date : 07-26-2011
STOP 18.0 GHz
ATTEN 30 dB
SWP 4.65 sec
File: ACE-11b2

Notes: Ant Conducted, Chan 11; b mode

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

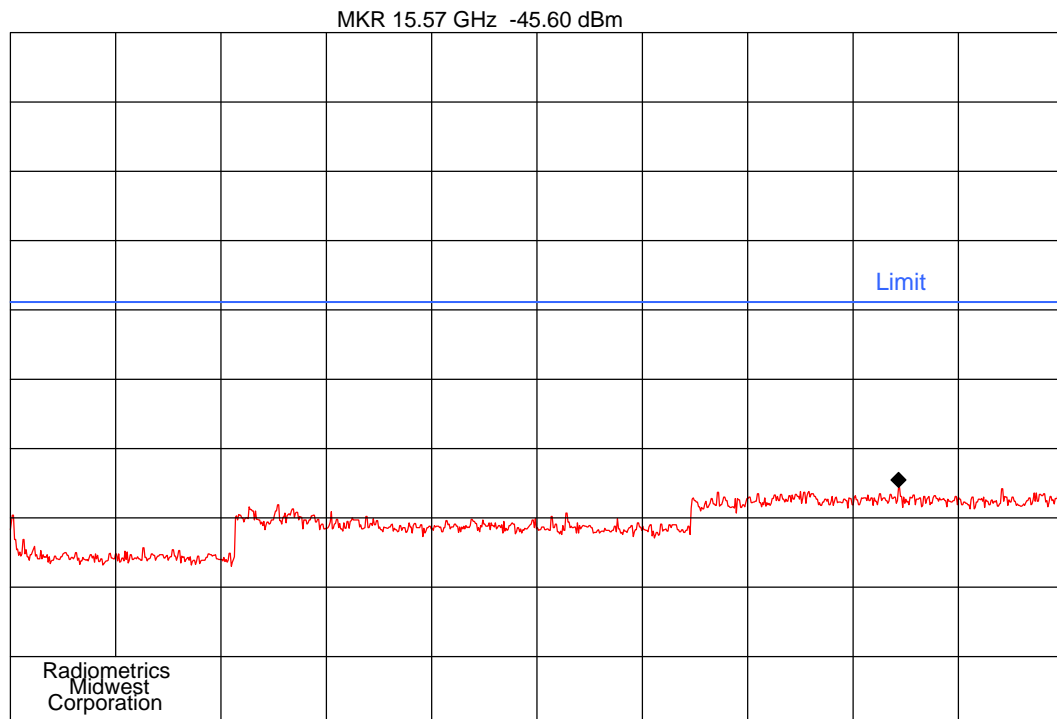


Company: Primex
START 1 MHz
RES BW 100 kHz
10 dB/

ITEM : SNSATHX
REF 20.0 dBm
VBW 300 kHz
Time: 14:48

Date : 07-26-2011
STOP 2.47 GHz
ATTEN 30 dB
SWP 741 msec
File: ACE-11g

Notes: Ant Conducted, Chan 11; g mode



Company: Primex
START 2.5 GHz
RES BW 100 kHz
10 dB/

ITEM : SNSATHX
REF 20.0 dBm
VBW 300 kHz
Time: 14:58

Date : 07-26-2011
STOP 18.0 GHz
ATTEN 30 dB
SWP 4.65 sec
File: ACE-11g2

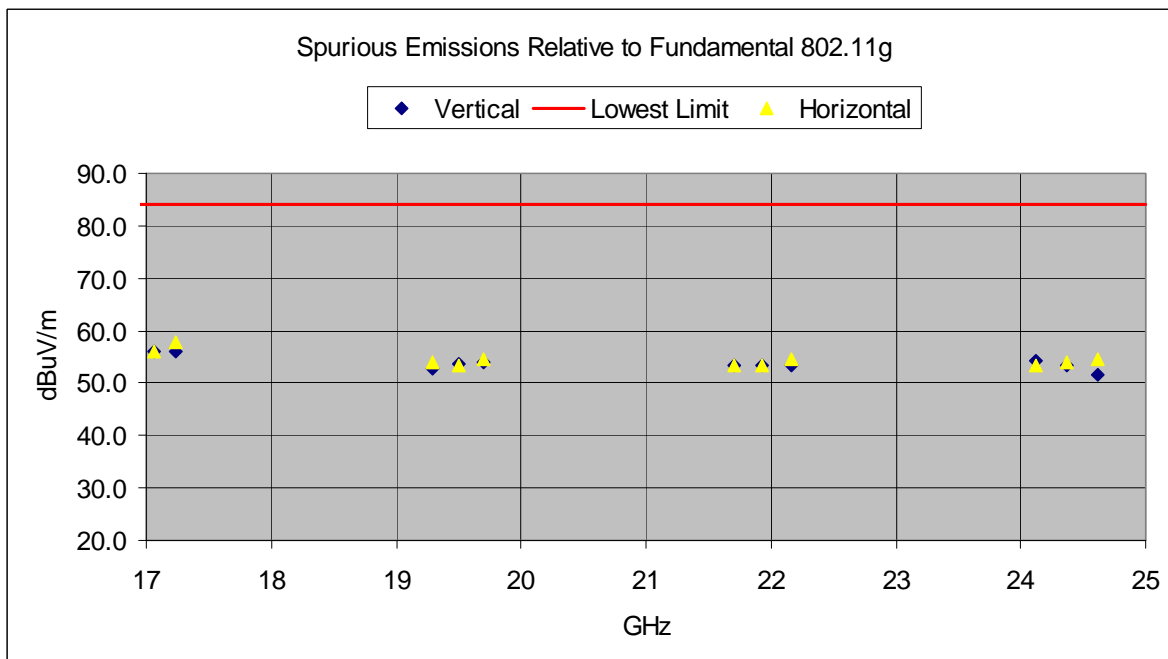
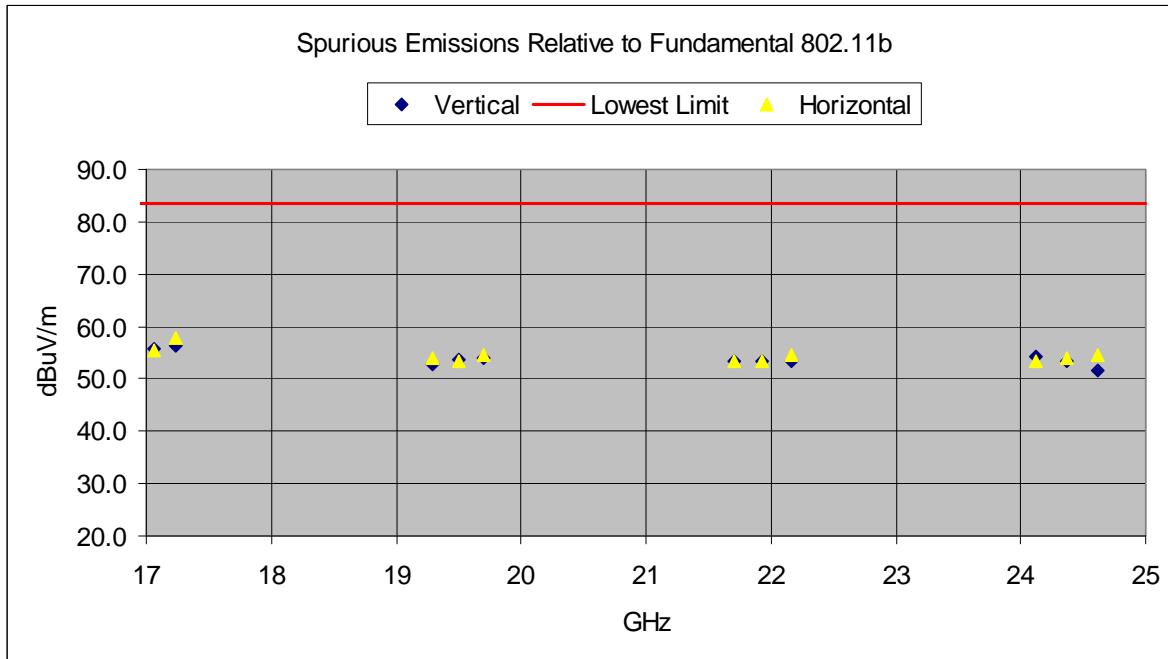
Notes: Ant Conducted, Chan 11; g mode

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

10.6.1 Radiated Method (18 - 25 GHz)

Due to limitations on the cable and connectors, conducted emissions could not be performed on the EUT above 18 GHz. Therefore, radiated tests were performed to show compliance with this requirement from 18 to 25 GHz.

The EUT was tested in continuous mode and peak readings were made from 2.5 GHz up through the 10th harmonic. The limit is 20 dB lower than the peak of the lowest fundamental. The data is shown graphically.



Judgement: Pass by 16 dB

10.7 Spurious Radiated Emissions (Restricted Band)

Radiated emission measurements were performed with linearly polarized broadband antennas. The results obtained with these antennas can be correlated with results obtained with a tuned dipole antenna. The radiated emission measurements were performed with a spectrum analyzer. The bandwidth used from 150 kHz to 30 MHz is 9 or 10 kHz and the bandwidth from 30 MHz to 1000 MHz is 100 or 120 kHz. Above 1 GHz, a 1 MHz bandwidth is used. A 10 dB linearity check is performed prior to start of testing in order to determine if an overload condition exists.

From 30 to 1000 MHz, an Anritsu spectrum analyzer was used. For tests from 1 to 25 GHz, an HP 8566 spectrum analyzer was used. For tests from 1 to 10 GHz, a high pass filter was used to reduce the fundamental emission. A harmonic mixer was used from 18 to 25 GHz. Figure 4 herein lists the details of the test equipment used during radiated emissions tests. In addition, a high pass filter was used to reduce the fundamental emission.

Final radiated emissions measurements were performed inside of an anechoic chamber at a test distance of 3 meters. The anechoic chamber is designated as Chamber E. This Chamber meets the Site Attenuation requirements of ANSI C63.4 and CISPR 16-1. Chamber E is located at 12 East Devonwood Ave. Romeoville, Illinois EMI test lab.

The entire frequency range from 30 to 25000 MHz was slowly scanned with particular attention paid to those frequency ranges which appeared high. Measurements were performed using two antenna polarizations, (vertical and horizontal). The worst case emissions were recorded. All measurements may be performed using either the peak, average or quasi-peak detector functions. If the peak detector data exceeds or is marginally close to the limits, the measurements are repeated using a quasi-peak detector or average function as required by the specification for final determination of compliance.

The detected emission levels were maximized by rotating the EUT, adjusting the positions of all cables, and by scanning the measurement antenna from 1 to 4 meters above the ground.

10.7.1 Radiated Emissions Field Strength Sample Calculation

The field strength is calculated by adding the Antenna Factor and Cable Loss, and by subtracting the Amplifier Gain from the measured reading. The basic equation is as follows:

$$FS = RA + AF + CF - AG$$

Where: FS = Field Strength

RA = Receiver Amplitude

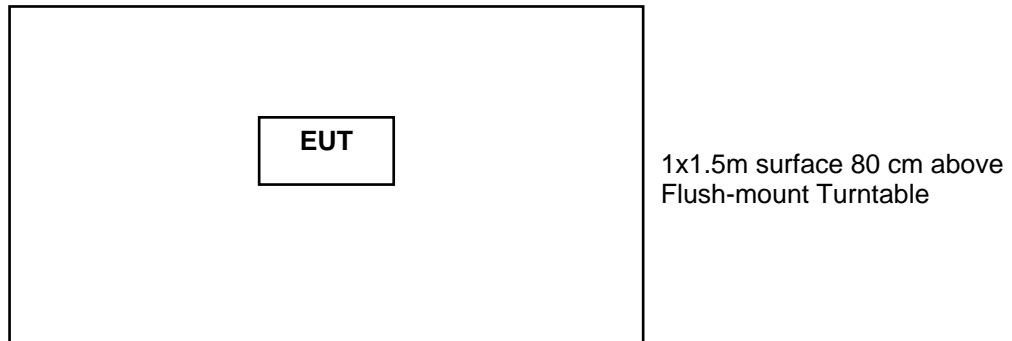
AF = Antenna Factor

CF = Cable Attenuation Factor

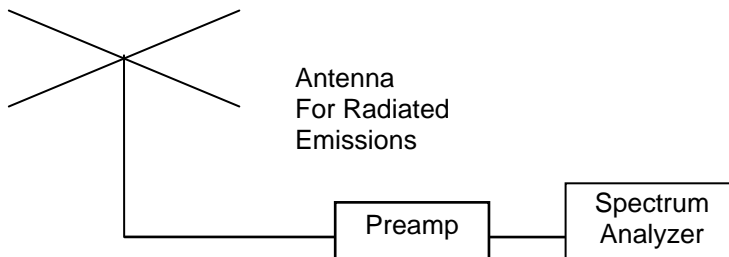
AG = Amplifier Gain

HPF = High pass Filter Loss

The Peak to average factor is used when average measurements are required. It is calculated by the highest duty cycle in percent over any 100mS transmission. The factor in dB is $20 * \text{Log}(\text{Duty cycle}/100)$.

Figure 2. Drawing of Radiated Emissions Setup**Notes:**

- AC outlet with low-pass filter at the base of the turntable
- Antenna height varied from 1 to 4 meters
- Distance from antenna to tested system is 3 meters
- Not to Scale

**10.7.2 Radiated Emissions Test Results**

The following spectrum analyzer settings were used.

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz

VBW \geq RBW

Sweep = auto

Detector function = peak

Trace = max hold

A Video Bandwidth of 10 Hz was used for Average measurements above 1 GHz.

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

Manufacturer	Primex, Inc.	Specification	FCC Part 15 Subpart C & RSS-210
Model	SNSATHX	Test Date	July 16, 2011
Serial Number	None	Test Distance	3 Meters
Abbreviations	Pol = Antenna Polarization; V = Vertical; H = Horizontal; BC = Biconical (ANT-3); LP = Log-Periodic (ANT-6); HN = Horn (ANT-13) P = peak; Q = QP		
Notes	Corr. Factors = Cable Loss – Preamp Gain		
Configuration	Transmit mode		

Emissions below 1 GHz

Freq. MHz	Meter Reading dBuV	Dect. Type	Antenna		Corr. Factors dB	Field Strength dBuV/m		Margin Under Limit dB
			Factor dB	Pol/ ID#		EUT	Limit	
34.4	29.5	P	16.0	H/44	-18.5	27.0	40.0	13.0
66.4	30.5	P	8.5	H/44	-18.3	20.7	40.0	19.3
82.0	31.3	P	7.0	H/44	-18.2	20.1	40.0	19.9
88.0	33.9	P	7.7	H/44	-18.2	23.4	43.5	20.1
149.6	31.6	P	10.0	H/44	-18.1	23.5	43.5	20.0
183.2	44.0	P	9.3	H/44	-17.7	35.6	43.5	7.9
184.0	45.4	P	9.3	H/44	-17.7	37.0	43.5	6.5
199.2	30.6	P	9.6	H/44	-17.8	22.4	43.5	21.1
250.2	40.8	P	12.6	H/44	-17.8	35.6	46.0	10.4
300.6	34.5	P	13.1	H/44	-17.7	29.9	46.0	16.1
325.2	32.0	P	13.5	H/44	-17.7	27.8	46.0	18.2
349.9	32.6	P	14.9	H/44	-17.8	29.7	46.0	16.3
375.1	33.2	P	14.8	H/44	-17.7	30.3	46.0	15.7
416.5	34.3	P	16.8	H/44	-17.7	33.4	46.0	12.6
447.9	31.4	P	16.1	H/44	-17.6	29.9	46.0	16.1
499.4	36.1	P	17.0	H/44	-17.5	35.6	46.0	10.4
501.0	33.7	P	17.0	H/44	-17.5	33.2	46.0	12.8
750.0	33.5	P	21.1	H/44	-16.3	38.3	46.0	7.7
1000.0	32.7	P	23.2	H/44	-15.2	40.7	54.0	13.3
39.2	34.6	P	15.6	V/44	-18.5	31.7	40.0	8.3
55.6	37.9	P	12.3	V/44	-18.4	31.8	40.0	8.2
58.7	43.0	Q	11.1	V/44	-18.4	35.7	40.0	4.3
60.2	44.1	Q	10.6	V/44	-18.4	36.3	40.0	3.7
65.2	43.3	P	8.9	V/44	-18.3	33.9	40.0	6.1
75.2	39.6	P	6.8	V/44	-18.2	28.2	40.0	11.8
94.4	36.4	P	8.4	V/44	-18.1	26.7	43.5	16.8
159.6	34.6	P	10.4	V/44	-17.9	27.1	43.5	16.4
183.2	38.4	P	9.3	V/44	-17.7	30.0	43.5	13.5
236.8	32.8	P	12.0	V/44	-17.7	27.1	46.0	18.9
250.2	37.7	P	12.6	V/44	-17.8	32.5	46.0	13.5
266.4	36.7	P	12.8	V/44	-17.8	31.7	46.0	14.3
291.1	40.0	P	12.6	V/44	-17.7	34.9	46.0	11.1
349.9	33.4	P	14.9	V/44	-17.8	30.5	46.0	15.5
399.7	36.3	P	15.7	V/44	-17.6	34.4	46.0	11.6
499.4	39.6	P	17.0	V/44	-17.5	39.1	46.0	6.9
500.0	40.0	Q	17.0	V/44	-17.5	39.5	46.0	6.5
519.0	35.4	P	17.7	V/44	-17.4	35.7	46.0	10.3
750.0	32.7	P	21.1	V/44	-16.3	37.5	46.0	8.5
750.1	36.1	P	21.1	V/44	-16.3	40.9	46.0	5.1
891.0	31.4	P	21.5	V/44	-15.6	37.3	46.0	8.7

Judgement: Pass by 3.7 dB

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

802.11b Radiated emissions

		Spectrum Analyzer Readings					EUT	Peak	Ave	Peak	Ave	Margin
hrm	Tx	Vertical Polarization		Horizontal Polarization		Corr.	Emission	Tot. FS		Limit		Under
#	Freq	Peak	Ave	Peak	Ave	Fact.	Freq MHz	dBuV/m		dBuV/m		Limit
1	2412	99.6	95.0	102.0	95.0	4.1	2412	106.1	99.1	125	115	15.9
BE	2412	40.1	35.5	42.5	35.5	4.1	2390	46.6	39.6	74	54	14.4
2	2412	41.8	35.8	41.2	36.4	11.5	4824	53.3	47.9	74	54	6.1
3	2412	37.0	26.5	36.5	27.0	16.6	7236	53.6	43.6	74	54	10.4
4	2412	46.4	43.2	48.6	45.6	5.2	9648	53.8	50.8	94	74	23.2
5	2412	39.7	35.0	39.8	30.2	5.4	12060	45.2	40.4	74	54	13.6
6	2412	41.4	31.8	41.8	32.2	9.6	14472	51.4	41.8	94	74	32.2
1	2437	97.9	88.3	99.4	0.0	4.2	2437	103.6	92.5	125	115	21.4
2	2437	34.5	27.4	34.5	23.9	11.4	4874	45.9	38.8	74	54	15.2
3	2437	36.7	26.8	36.8	26.7	17.2	7311	54.0	44.0	74	54	10.0
4	2437	51.7	39.6	54.2	53.7	5.2	9748	59.4	58.9	94	74	15.1
5	2437	40.2	27.7	39.9	32.2	4.9	12185	45.1	37.1	74	54	16.9
6	2437	42.0	32.4	41.8	32.2	9.5	14622	51.5	41.9	94	74	32.1
1	2462	101.0	91.4	101.3	95.3	4.3	2462	105.6	99.6	125	115	15.4
BE	2462	39.1	29.5	39.4	29.8	4.3	2484	43.7	34.1	74	54	19.9
2	2462	42.6	29.3	39.5	35.6	11.5	4924	54.1	47.1	74	54	6.9
3	2462	37.1	25.5	36.7	25.8	17.5	7386	54.6	43.3	74	54	10.7
4	2462	55.8	47.3	59.8	56.8	5.4	9848	65.2	62.2	94	74	11.8
5	2462	41.0	31.4	42.0	32.4	4.3	12310	46.3	36.7	74	54	17.3
6	2462	41.5	31.9	41.8	32.2	9.4	14772	51.2	41.6	94	74	32.4
Column numbers (see below for explanations)												
1	2	3	6	7	10	11	12	13	14	15	16	17

Judgment: Passed by 6.1 dB

No other emissions were detected from 10 to 25 GHz.

Column #1. hrm = Harmonic; BE = Band Edge emissions

Column #2. Frequency of Transmitter.

Column #3. Uncorrected readings from the spectrum analyzer with First Axis Rotation.

Column #4. Uncorrected readings from the spectrum analyzer with Second Axis Rotation.

Column #5. Uncorrected readings from the spectrum analyzer with Third Axis Rotation.

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

- Column #6. Average Reading based on peak reading reduced by the Duty cycle correction
- Column #7. Uncorrected readings from the spectrum analyzer with First Axis Rotation.
- Column #8. Uncorrected readings from the spectrum analyzer with Second Axis Rotation.
- Column #9. Uncorrected readings from the spectrum analyzer with Third Axis Rotation.
- Column #10. Average Reading based on peak reading reduced by the Duty cycle correction
- Column #11. Corr. Factors = Cable Loss – Preamp Gain + Antenna Factor
- Column #12. Frequency of Tested Emission
- Column #13. Highest peak field strength at listed frequency.
- Column #14. Highest Average field strength at listed frequency.
- Column #15. Peak Limit. Non Restricted band limit is 94
- Column #16. Average Limit. Non Restricted band limit is 74
- Column #17. The margin (last column) is the worst case margin under the peak or average limits for that row.

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

802.11g Radiated emissions

hrm	Tx	Spectrum Analyzer Readings				Corr. Fact.	EUT Emission Freq MHz	Peak	Ave	Peak	Ave	Margin				
		Vertical Polarization		Horizontal Polarization									Tot. FS	Limit		Under
		Peak	Ave	Peak	Ave									dBuV/m	dBuV/m	
1	2412	99.1	92.7	101.1	95.0	4.1	2412	105.2	99.1	125	115	15.9				
BE	2412	51.0	44.6	53.0	46.9	4.1	2390	57.1	51.0	74	54	3.0				
2	2412	35.8	26.1	36.2	28.8	11.5	4824	47.7	40.3	74	54	13.7				
3	2412	37.2	27.5	38.1	26.5	16.6	7236	54.7	44.1	74	54	9.9				
4	2412	44.5	38.4	47.0	39.3	5.2	9648	52.2	44.5	94	74	29.5				
5	2412	39.4	29.8	39.9	30.3	5.4	12060	45.3	35.7	74	54	18.3				
6	2412	42.1	32.5	42.0	32.4	9.6	14472	51.7	42.1	94	74	31.9				
1	2437	101.3	91.7	103.0	0.0	4.2	2437	107.2	95.9	125	115	17.8				
2	2437	36.7	27.4	36.1	26.6	11.4	4874	48.1	38.8	74	54	15.2				
3	2437	37.3	26.8	37.0	27.0	17.2	7311	54.5	44.2	74	54	9.8				
4	2437	44.9	39.6	47.5	44.6	5.2	9748	52.7	49.8	94	74	24.2				
5	2437	40.3	27.7	40.0	27.7	4.9	12185	45.2	32.6	74	54	21.4				
6	2437	42.1	32.5	42.2	32.6	9.5	14622	51.7	42.1	94	74	31.9				
1	2462	100.8	91.2	101.3	95.3	4.3	2462	105.6	99.6	125	115	15.4				
BE	2462	55.8	46.2	56.3	46.7	4.3	2484	60.6	51.0	74	54	3.0				
2	2462	37.4	29.3	36.6	27.0	11.5	4924	48.9	40.8	74	54	13.2				
3	2462	37.4	25.5	37.2	27.6	17.5	7386	54.9	45.1	74	54	8.9				
4	2462	54.6	47.3	51.3	41.7	5.4	9848	60.0	52.7	94	74	21.3				
5	2462	40.0	30.4	40.3	30.7	4.3	12310	44.6	35.0	74	54	19.0				
6	2462	41.9	32.3	42.0	32.4	9.4	14772	51.4	41.8	94	74	32.2				
Column numbers (see below for explanations)																
1	2	3	6	7	10	11	12	13	14	15	16	17				

Judgment: Passed by 3.0 dB

No other emissions were detected from 10 to 25 GHz.

Column #1. hrm = Harmonic; BE = Band Edge emissions

Column #2. Frequency of Transmitter.

Column #3. Uncorrected readings from the spectrum analyzer with First Axis Rotation.

Column #4. Uncorrected readings from the spectrum analyzer with Second Axis Rotation.

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

- Column #5. Uncorrected readings from the spectrum analyzer with Third Axis Rotation.
 Column #6. Average Reading based on peak reading reduced by the Duty cycle correction
 Column #7. Uncorrected readings from the spectrum analyzer with First Axis Rotation.
 Column #8. Uncorrected readings from the spectrum analyzer with Second Axis Rotation.
 Column #9. Uncorrected readings from the spectrum analyzer with Third Axis Rotation.
 Column #10. Average Reading based on peak reading reduced by the Duty cycle correction
 Column #11. Corr. Factors = Cable Loss – Preamp Gain + Antenna Factor
 Column #12. Frequency of Tested Emission
 Column #13. Highest peak field strength at listed frequency.
 Column #14. Highest Average field strength at listed frequency.
 Column #15. Peak Limit. Non Restricted band limit is 94
 Column #16. Average Limit. Non Restricted band limit is 74
 Column #17. The margin (last column) is the worst case margin under the peak or average limits for that row.

10.8 Unintentional Emissions (Receive Mode)

Manufacturer	Primex Wireless	Specification	FCC Part 15.247 & RSS-210
Model	SNSATHX	Test Date	07/16/2011
Serial Number	none	Test Distance	3 Meters
Abbreviations	Pol = Antenna Polarization; V = Vertical; H = Horizontal; P = peak; Q = QP		
Notes	Corr. Factors = Cable Loss – Preamp Gain		
Configuration	Receive mode		

Freq. MHz	Meter Reading dBuV	Dect. Type	Antenna		Corr. Factors dB	Field Strength dBuV/m		Margin Under Limit dB
			Factor dB	Pol/ ID#		EUT	Limit	
33.2	29.0	P	16.2	H/44	-18.6	26.6	40.0	13.4
98.4	29.0	P	9.2	H/44	-18.1	20.1	43.5	23.4
183.2	42.6	P	9.3	H/44	-17.7	34.2	43.5	9.3
199.2	31.7	P	9.6	H/44	-17.8	23.5	43.5	20.0
218.4	29.6	P	11.4	H/44	-17.8	23.2	46.0	22.8
250.2	38.7	P	12.6	H/44	-17.8	33.5	46.0	12.5
276.5	31.1	P	13.1	H/44	-17.8	26.4	46.0	19.6
300.6	34.1	P	13.1	H/44	-17.7	29.5	46.0	16.5
350.4	33.2	P	14.9	H/44	-17.8	30.3	46.0	15.7
375.1	33.1	P	14.8	H/44	-17.7	30.2	46.0	15.8
499.4	33.7	P	17.0	H/44	-17.5	33.2	46.0	12.8
500.4	33.2	P	17.0	H/44	-17.5	32.7	46.0	13.3
601.3	29.9	P	18.7	H/44	-16.9	31.7	46.0	14.3
651.2	31.0	P	18.7	H/44	-16.6	33.1	46.0	12.9
752.1	31.5	P	20.8	H/44	-16.3	36.0	46.0	10.0
1002.7	32.8	P	23.2	H/44	-15.2	40.8	54.0	13.2
50.8	32.3	P	13.6	V/44	-18.4	27.5	40.0	12.5
58.8	39.6	P	11.1	V/44	-18.4	32.3	40.0	7.7
71.2	39.6	P	7.3	V/44	-18.3	28.6	40.0	11.4
81.2	37.8	P	6.9	V/44	-18.2	26.5	40.0	13.5
98.4	35.2	P	9.2	V/44	-18.1	26.3	43.5	17.2
124.8	31.0	P	14.5	V/44	-18.1	27.4	43.5	16.1
198.0	32.5	P	9.6	V/44	-17.7	24.4	43.5	19.1
250.2	39.5	P	12.6	V/44	-17.8	34.3	46.0	11.7
300.6	31.0	P	13.1	V/44	-17.7	26.4	46.0	19.6

Testing of the Primex, Inc., Model SNSATHX, AC Temperature Humidity Sensor

Freq. MHz	Meter Reading dBuV	Dect. Type	Antenna		Corr. Factors dB	Field Strength dBuV/m		Margin Under Limit dB
			Factor dB	Pol/ ID#		EUT	Limit	
350.4	30.4	P	14.9	V/44	-17.8	27.5	46.0	18.5
375.1	30.7	P	14.8	V/44	-17.7	27.8	46.0	18.2
399.7	37.0	P	15.7	V/44	-17.6	35.1	46.0	10.9
500.4	41.8	P	17.0	V/44	-17.5	41.3	46.0	4.7
752.1	32.1	P	20.8	V/44	-16.3	36.6	46.0	9.4
876.9	31.3	P	21.3	V/44	-15.7	36.9	46.0	9.1
1002.7	29.2	P	23.2	V/44	-15.2	37.2	54.0	16.8

Judgement: Pass by 4.7 dB