Silicon Laboratories, Inc.

TEST REPORT FOR

Thin ZigBee-to-Ethernet Gateway
Model: 130-0880-000-A0

Tested To The Following Standards:

FCC Part 15 Subpart C Section(s) 15.207 and 15.247

Report No.: 95499-6

Date of issue: September 29, 2014

ACCREDITED
Testing Certificates:
803.01, 803.02, 803.05, 803.06

This test report bears the accreditation symbol indicating that the testing performed herein meets the test and reporting requirements of ISO/IEC 17025 under the applicable scope of EMC testing for CKC Laboratories, Inc.

We strive to create long-term, trust based relationships by providing sound, adaptive, customer first testing services. We embrace each of our customers' unique EMC challenges, not as an interruption to set processes, but rather as the reason we are in business.

Testing the Future
CKC LABORATORIES, INC.

TABLE OF CONTENTS

ADMINISTRATIVE INFORMATION

Test Report Information

REPORT PREPARED FOR:

Silicon Laboratories, Inc.
400 West Cesar Chavez
Austin, TX 78701

Representative: Kumar Chaklashiya - Global Testing
Customer Reference Number: KC332

REPORT PREPARED BY:

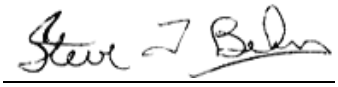
Dianne Dudley
CKC Laboratories, Inc.
5046 Sierra Pines Drive
Mariposa, CA 95338

Project Number: 95499

DATE OF EQUIPMENT RECEIPT: September 5, 2014
DATE(S) OF TESTING: September 5-14, 2014

Report Authorization

The test data contained in this report documents the observed testing parameters pertaining to and are relevant for only the sample equipment tested in the agreed upon operational mode(s) and configuration(s) as identified herein. Compliance assessment remains the client's responsibility. This report may not be used to claim product endorsement by A2LA or any government agencies. This test report has been authorized for release under quality control from CKC Laboratories, Inc.



Steve Behm
Director of Quality Assurance & Engineering Services
CKC Laboratories, Inc.

Test Facility Information

Our laboratories are configured to effectively test a wide variety of product types. CKC utilizes first class test equipment, anechoic chambers, data acquisition and information services to create accurate, repeatable and affordable test results.

TEST LOCATION(S):
CKC Laboratories, Inc.
110 Olinda Place
Brea, CA 92823

Software Versions

CKC Laboratories Proprietary Software	Version
EMITest Emissions	5.00.14
Immunity	5.00.07

Site Registration & Accreditation Information

Location	CB #	TAIWAN	CANADA	FCC	JAPAN
Brea A	US0060	SL2-IN-E-1146R	3082D-1	90473	A-0147
Brea D	US0060	SL2-IN-E-1146R	3082D-2	100638	A-0147

SUMMARY OF RESULTS

Standard / Specification: FCC Part 15 Subpart C

Test Procedure/Method	Description	Modifications *	Results
15.207 / ANSI C63.4	Conducted Emissions	NA	Pass
15.247(a)(2) / 15.215(c) / 558074 D01 DTS Meas Guidance v03r02	-6dB Occupied Bandwidth	NA	Pass
15.247(b)(3)/ 558074 D01 DTS Meas Guidance v03r02	RF Power Output	NA	Pass
15.31(e) / 2.1055(d)	Voltage Variation	NA	Pass
15.247(d) / 558074 D01 DTS Meas Guidance v03r02 / ITU-R/551	Radiated Spurious Emissions and Band Edge	NA	Pass
15.247(e) / 558074 D01 DTS Meas Guidance v03r02	Power Spectral Density	NA	Pass

Modifications*/Conditions During Testing

This list is a summary of the conditions noted for or modifications made to the equipment during testing.

Summary of Conditions
No modifications were made to the EUT during testing.
Note: See Appendix A for Duty Cycle Correction Factor Calculation.

***Modifications listed above must be incorporated into all production units.**

EQUIPMENT UNDER TEST (EUT)

EQUIPMENT UNDER TEST

Thin ZigBee-to-Ethernet Gateway
Manuf: Silicon Laboratories, Inc.
Model: 130-0880-000-A0
Serial: 70B3D555902A

PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

Laptop Computer
Manuf: Lenovo
Model: Thinkpad T500
Serial: L3B3906

AC to 6VDC Power Adapter
Manuf: Triad
Model: WDU6-800
Serial: NA

DC Power Supply
Manuf: Xantrex
Model: XTS-30-2X
Serial: 58738

FCC PART 15 SUBPART C

This report contains EMC emissions test results under United States Federal Communications Commission (FCC) CFR 47 Section 15 Subpart C requirements for Intentional Radiators.

15.207 AC Conducted Emissions

Test Data

Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714-993-6112

Customer:	**Silicon Laboratories, Inc.**		
Specification:	**15.207 AC Mains - Average**		
Work Order #:	**95499**	Date:	9/12/2014
Test Type:	**Conducted Emissions**	Time:	4:36:58 PM
Equipment:	**Thin ZigBee-to-Ethernet gateway**	Sequence#:	3
Manufacturer:	Silicon Laboratories, Inc.	Tested By:	S. Yamamoto
Model:	130-0880-000-A0		120V 60Hz
S/N:	70B3D555902A		

***Test Equipment*:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02869	Spectrum Analyzer	E4440A	7/10/2014	7/10/2015
T1	AN02343	High Pass Filter	HE9615-150K-50-720B	1/10/2013	1/10/2015
T2	ANP01910	Cable	RG-142	1/8/2014	1/8/2016
T3	ANP06085	Attenuator	SA18N10W-09	12/14/2012	12/14/2014
T4	AN00847.1	50uH LISN-Line 1 (dB)	3816/2NM	6/26/2014	6/26/2015
	AN00847.1	50uH LISN-Line 2 (dB)	3816/2NM	6/26/2014	6/26/2015

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Thin ZigBee-to-Ethernet gateway*	Silicon Laboratories, Inc.	130-0880-000-A0	70B3D555902A

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	Thinkpad T500	L3B3906
AC to 6VDC power adapter	Triad	WDU6-800	NA

Test Conditions / Notes:

The equipment under test (EUT) and power supply are adjacent to each other on the table top. The EUT is connected to a remotely located laptop computer via unshielded cat 5e cable. The computer is running Telnet which can command the EUT to various test frequencies.
The EUT is set to the channel with the highest power level which is 2405MHz and +19dBm.
The EUT is on and continuously transmitting.

Frequency range of data sheet, 150kHz to 30MHz. RBW=9kHz, VBW=9kHz.

Temperature: 22°C
Relative Humidity: 44%
Pressure: 100kPa

Site D

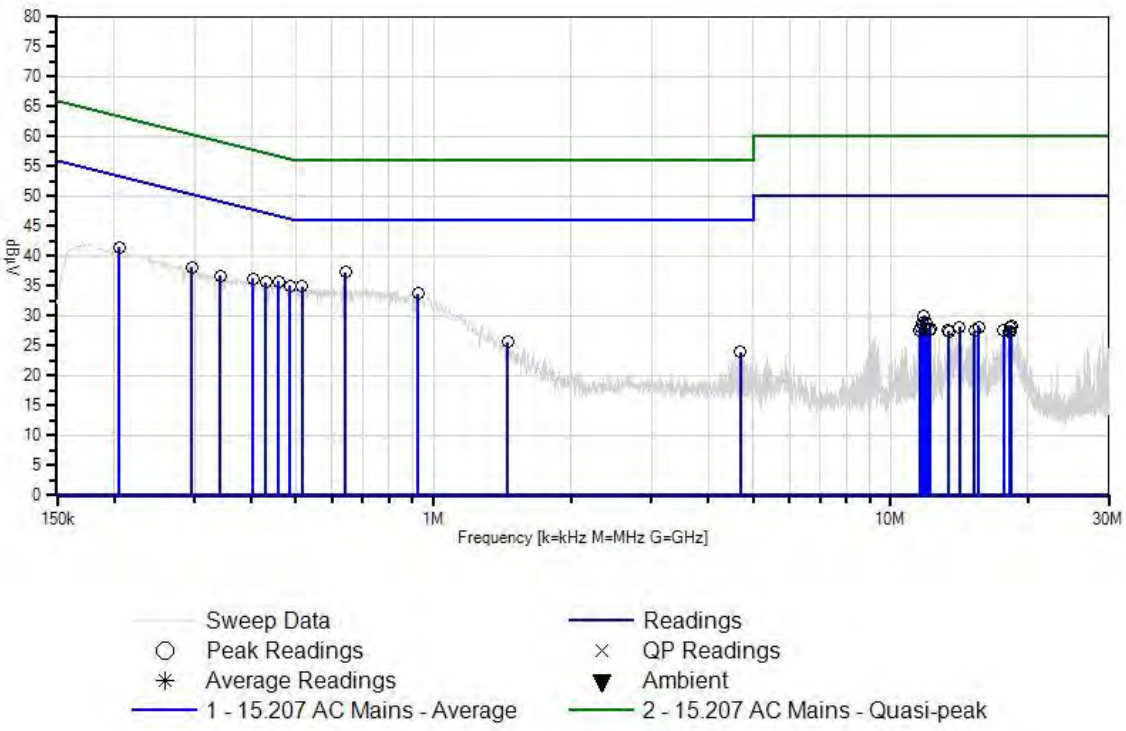
Ext Attn: 0 dB

Measurement Data: Reading listed by margin. Test Lead: L1(L)

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	642.318k	31.4	+0.2	+0.0	+5.7	+0.0	+0.0	37.3	46.0	-8.7	L1(L)
2	458.335k	29.9	+0.2	+0.0	+5.7	+0.0	+0.0	35.8	46.7	-10.9	L1(L)
3	485.242k	29.2	+0.2	+0.0	+5.7	+0.0	+0.0	35.1	46.2	-11.1	L1(L)
4	515.785k	29.0	+0.2	+0.0	+5.7	+0.0	+0.0	34.9	46.0	-11.1	L1(L)
5	403.068k	30.4	+0.2	+0.0	+5.7	+0.0	+0.0	36.3	47.8	-11.5	L1(L)
6	429.247k	29.7	+0.2	+0.0	+5.7	+0.0	+0.0	35.6	47.3	-11.7	L1(L)
7	205.268k	35.6	+0.2	+0.0	+5.7	+0.0	+0.0	41.5	53.4	-11.9	L1(L)
8	296.168k	32.2	+0.2	+0.0	+5.7	+0.0	+0.0	38.1	50.3	-12.2	L1(L)
9	923.985k	27.9	+0.1	+0.0	+5.7	+0.0	+0.0	33.7	46.0	-12.3	L1(L)
10	341.255k	30.8	+0.2	+0.0	+5.7	+0.0	+0.0	36.7	49.2	-12.5	L1(L)
11	11.824M	23.8	+0.2	+0.2	+5.8	+0.1	+0.0	30.1	50.0	-19.9	L1(L)
12	1.456M	19.7	+0.2	+0.0	+5.7	+0.0	+0.0	25.6	46.0	-20.4	L1(L)
13	11.716M	22.6	+0.2	+0.2	+5.8	+0.1	+0.0	28.9	50.0	-21.1	L1(L)
14	11.950M	22.5	+0.2	+0.2	+5.8	+0.1	+0.0	28.8	50.0	-21.2	L1(L)
15	18.364M	21.8	+0.2	+0.4	+5.8	+0.2	+0.0	28.4	50.0	-21.6	L1(L)
16	14.148M	21.8	+0.2	+0.3	+5.8	+0.1	+0.0	28.2	50.0	-21.8	L1(L)
17	18.247M	21.6	+0.2	+0.4	+5.8	+0.2	+0.0	28.2	50.0	-21.8	L1(L)

18	15.616M	21.7	+0.2	+0.3	+5.8	+0.1	+0.0	28.1	50.0	-21.9	L1(L)
19	4.696M	18.0	+0.1	+0.2	+5.7	+0.0	+0.0	24.0	46.0	-22.0	L1(L)
20	11.652M	21.7	+0.2	+0.2	+5.8	+0.1	+0.0	28.0	50.0	-22.0	L1(L)
21	11.896M	21.6	+0.2	+0.2	+5.8	+0.1	+0.0	27.9	50.0	-22.1	L1(L)
22	12.202M	21.6	+0.2	+0.2	+5.8	+0.1	+0.0	27.9	50.0	-22.1	L1(L)
23	12.139M	21.4	+0.2	+0.2	+5.8	+0.1	+0.0	27.7	50.0	-22.3	L1(L)
24	17.697M	21.1	+0.2	+0.4	+5.8	+0.2	+0.0	27.7	50.0	-22.3	L1(L)
25	13.355M	21.2	+0.2	+0.3	+5.8	+0.1	+0.0	27.6	50.0	-22.4	L1(L)
26	15.247M	21.2	+0.2	+0.3	+5.8	+0.1	+0.0	27.6	50.0	-22.4	L1(L)
27	11.589M	21.2	+0.2	+0.2	+5.8	+0.1	+0.0	27.5	50.0	-22.5	L1(L)
28	13.418M	21.0	+0.2	+0.3	+5.8	+0.1	+0.0	27.4	50.0	-22.6	L1(L)
29	18.184M	20.8	+0.2	+0.4	+5.8	+0.2	+0.0	27.4	50.0	-22.6	L1(L)
30	18.301M	20.8	+0.2	+0.4	+5.8	+0.2	+0.0	27.4	50.0	-22.6	L1(L)

CKC Laboratories, Inc. Date: 9/12/2014 Time: 4:36:58 PM Silicon Laboratories, Inc. WO#: 95499
15.207 AC Mains - Average Test Lead: L1(L) 120V 60Hz Sequence#: 3 Ext ATTN: 0 dB



Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Silicon Laboratories, Inc.**
Specification: **15.207 AC Mains - Average**
Work Order #: **95499** Date: 9/12/2014
Test Type: **Conducted Emissions** Time: 4:41:18 PM
Equipment: **Thin ZigBee-to-Ethernet gateway** Sequence#: 4
Manufacturer: Silicon Laboratories, Inc. Tested By: S. Yamamoto
Model: 130-0880-000-A0 120V 60Hz
S/N: 70B3D555902A

***Test Equipment*:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02869	Spectrum Analyzer	E4440A	7/10/2014	7/10/2015
T1	AN02343	High Pass Filter	HE9615-150K-50-720B	1/10/2013	1/10/2015
T2	ANP01910	Cable	RG-142	1/8/2014	1/8/2016
T3	ANP06085	Attenuator	SA18N10W-09	12/14/2012	12/14/2014
	AN00847.1	50uH LISN-Line 1 (dB)	3816/2NM	6/26/2014	6/26/2015
T4	AN00847.1	50uH LISN-Line 2 (dB)	3816/2NM	6/26/2014	6/26/2015

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Thin ZigBee-to-Ethernet gateway*	Silicon Laboratories, Inc.	130-0880-000-A0	70B3D555902A

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	Thinkpad T500	L3B3906
AC to 6VDC power adapter	Triad	WDU6-800	NA

Test Conditions / Notes:

The equipment under test (EUT) and power supply are adjacent to each other on the table top. The EUT is connected to a remotely located laptop computer via unshielded cat 5e cable. The computer is running Telnet which can command the EUT to various test frequencies.
The EUT is set to the channel with the highest power level which is 2405MHz and +19dBm.
The EUT is on and continuously transmitting.

Frequency range of data sheet, 150kHz to 30MHz. RBW=9kHz, VBW=9kHz.

Temperature: 22°C
Relative Humidity: 44%
Pressure: 100kPa

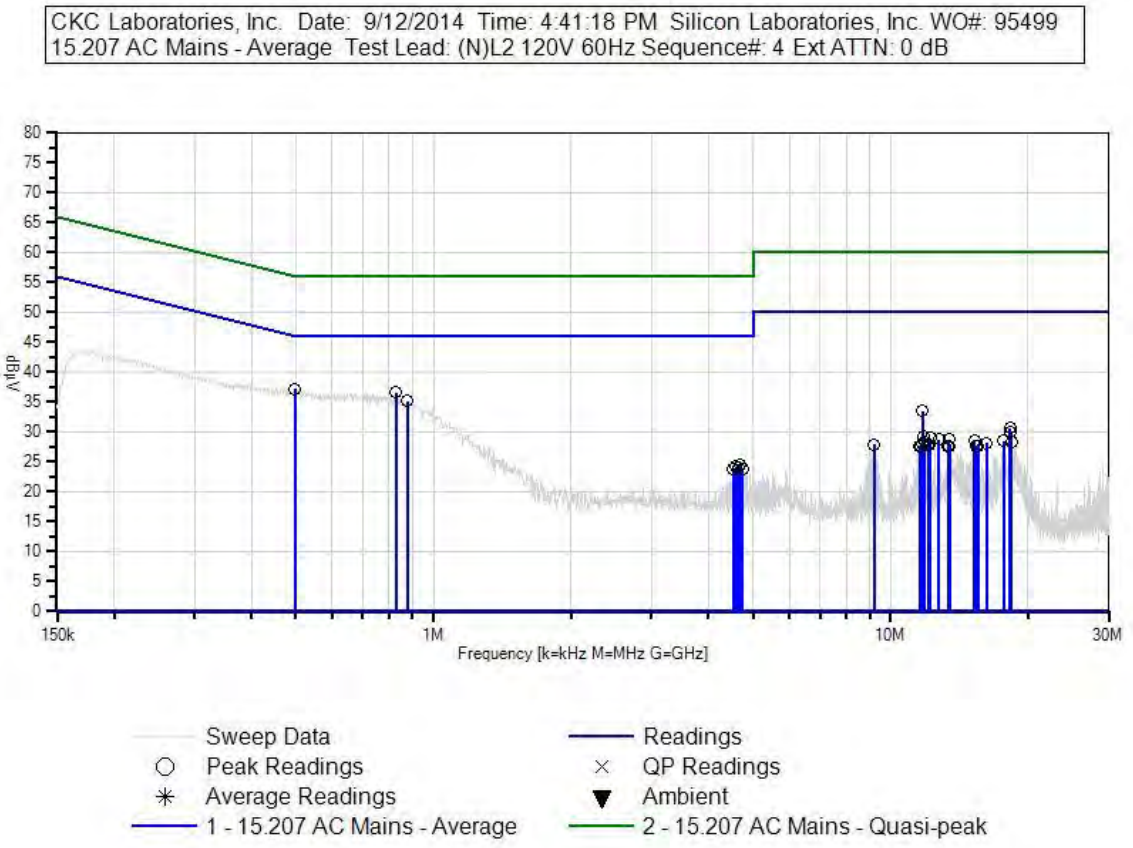
Site D

Ext Attn: 0 dB

Measurement Data: Reading listed by margin. Test Lead: (N)L2

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	497.604k	31.3	+0.2	+0.0	+5.7	+0.0	+0.0	37.2	46.0	-8.8	(N)L2
2	827.029k	30.8	+0.1	+0.0	+5.7	+0.0	+0.0	36.6	46.0	-9.4	(N)L2
3	877.205k	29.4	+0.1	+0.0	+5.7	+0.0	+0.0	35.2	46.0	-10.8	(N)L2
4	11.761M	27.1	+0.2	+0.2	+5.8	+0.2	+0.0	33.5	50.0	-16.5	(N)L2
5	18.238M	23.9	+0.2	+0.4	+5.8	+0.3	+0.0	30.6	50.0	-19.4	(N)L2
6	18.301M	23.3	+0.2	+0.4	+5.8	+0.3	+0.0	30.0	50.0	-20.0	(N)L2
7	11.824M	23.0	+0.2	+0.2	+5.8	+0.2	+0.0	29.4	50.0	-20.6	(N)L2
8	12.202M	22.6	+0.2	+0.2	+5.8	+0.2	+0.0	29.0	50.0	-21.0	(N)L2
9	13.418M	22.3	+0.2	+0.3	+5.8	+0.2	+0.0	28.8	50.0	-21.2	(N)L2
10	12.743M	22.2	+0.2	+0.3	+5.8	+0.2	+0.0	28.7	50.0	-21.3	(N)L2
11	15.247M	22.1	+0.2	+0.3	+5.8	+0.2	+0.0	28.6	50.0	-21.4	(N)L2
12	4.696M	18.4	+0.1	+0.2	+5.7	+0.1	+0.0	24.5	46.0	-21.5	(N)L2
13	17.697M	21.9	+0.2	+0.4	+5.8	+0.2	+0.0	28.5	50.0	-21.5	(N)L2
14	11.887M	21.9	+0.2	+0.2	+5.8	+0.2	+0.0	28.3	50.0	-21.7	(N)L2
15	18.364M	21.6	+0.2	+0.4	+5.8	+0.3	+0.0	28.3	50.0	-21.7	(N)L2
16	4.586M	18.1	+0.1	+0.2	+5.7	+0.1	+0.0	24.2	46.0	-21.8	(N)L2
17	16.229M	21.7	+0.2	+0.3	+5.8	+0.2	+0.0	28.2	50.0	-21.8	(N)L2
18	11.706M	21.7	+0.2	+0.2	+5.8	+0.2	+0.0	28.1	50.0	-21.9	(N)L2
19	4.641M	17.9	+0.1	+0.2	+5.7	+0.1	+0.0	24.0	46.0	-22.0	(N)L2
20	4.526M	17.8	+0.1	+0.2	+5.7	+0.1	+0.0	23.9	46.0	-22.1	(N)L2
21	9.220M	21.5	+0.2	+0.2	+5.8	+0.2	+0.0	27.9	50.0	-22.1	(N)L2
22	12.139M	21.5	+0.2	+0.2	+5.8	+0.2	+0.0	27.9	50.0	-22.1	(N)L2
23	12.103M	21.4	+0.2	+0.2	+5.8	+0.2	+0.0	27.8	50.0	-22.2	(N)L2
24	11.589M	21.3	+0.2	+0.2	+5.8	+0.2	+0.0	27.7	50.0	-22.3	(N)L2

25	4.747M	17.6	+0.1	+0.2	+5.7	+0.1	+0.0	23.7	46.0	-22.3	(N)L2
26	13.355M	21.2	+0.2	+0.3	+5.8	+0.2	+0.0	27.7	50.0	-22.3	(N)L2
27	15.553M	21.2	+0.2	+0.3	+5.8	+0.2	+0.0	27.7	50.0	-22.3	(N)L2
28	13.481M	21.2	+0.2	+0.3	+5.8	+0.2	+0.0	27.7	50.0	-22.3	(N)L2
29	11.652M	21.2	+0.2	+0.2	+5.8	+0.2	+0.0	27.6	50.0	-22.4	(N)L2
30	15.436M	21.0	+0.2	+0.3	+5.8	+0.2	+0.0	27.5	50.0	-22.5	(N)L2



Test Setup Photos

15.247(a)(2) / 15.215(c) -6dB Occupied Bandwidth

Test Conditions / Setup

Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Silicon Laboratories, Inc.**
Specification: **15.247(a)(2) 6dB Bandwidth**
Work Order #: **95499** Date: 09/10/2014
Test Type: **Maximized Emissions**
Equipment: **Thin ZigBee-to-Ethernet gateway**
Manufacturer: Silicon Laboratories, Inc. Tested By: S. Yamamoto
Model: 130-0880-000-A0
S/N: 70B3D555902A

***Test Equipment*:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	7/10/2014	7/10/2015
T2	ANP05421	Cable	Sucoflex 104A	1/8/2014	1/8/2016
T3	ANP06661	Cable	LDF1-50	4/15/2014	4/15/2016
T4	AN00849	Horn Antenna	3115	3/18/2014	3/18/2016

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Thin ZigBee-to-Ethernet gateway*	Silicon Laboratories, Inc.	130-0880-000-A0	70B3D555902A

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	Thinkpad T500	L3B3906
AC to 6VDC Power Supply	Triad	WDU6-800	NA

Test Conditions / Notes:

The equipment under test (EUT) is stand alone on the Styrofoam table top. The EUT is connected to a remotely located laptop computer via unshielded cat 5e cable. The computer is running Telnet which is commanding the EUT to the appropriate test frequencies.

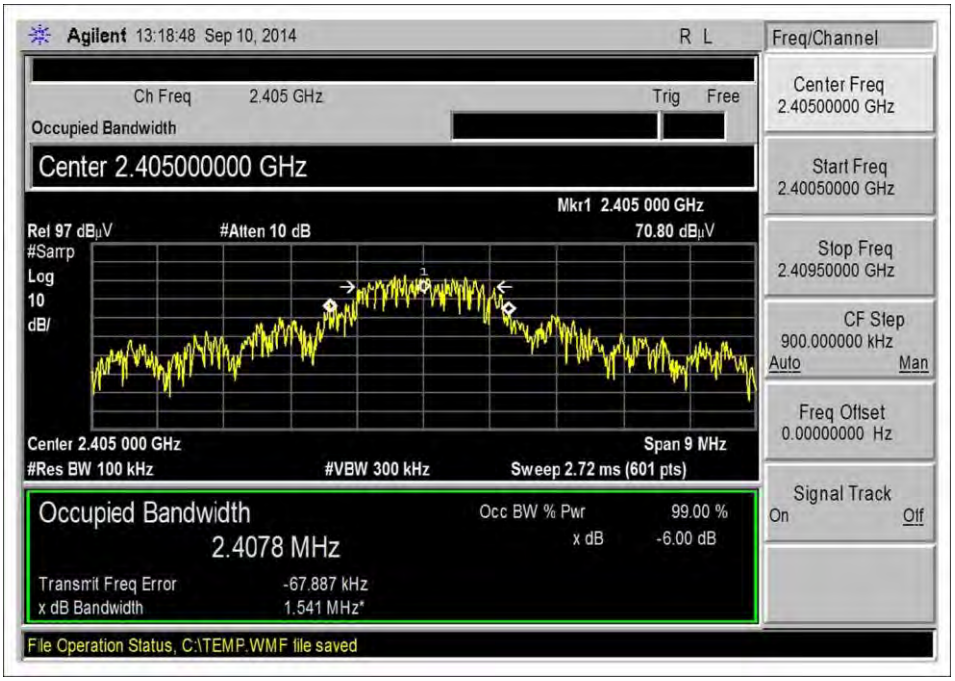
The test frequencies are 2405MHz, 2440MHz, and 2480MHz.
An external AC to DC power supply is also connected to the EUT.
Nominal voltage of the EUT is 6VDC.

Frequency range of measurement, 2400MHz to 2483.5MHz.

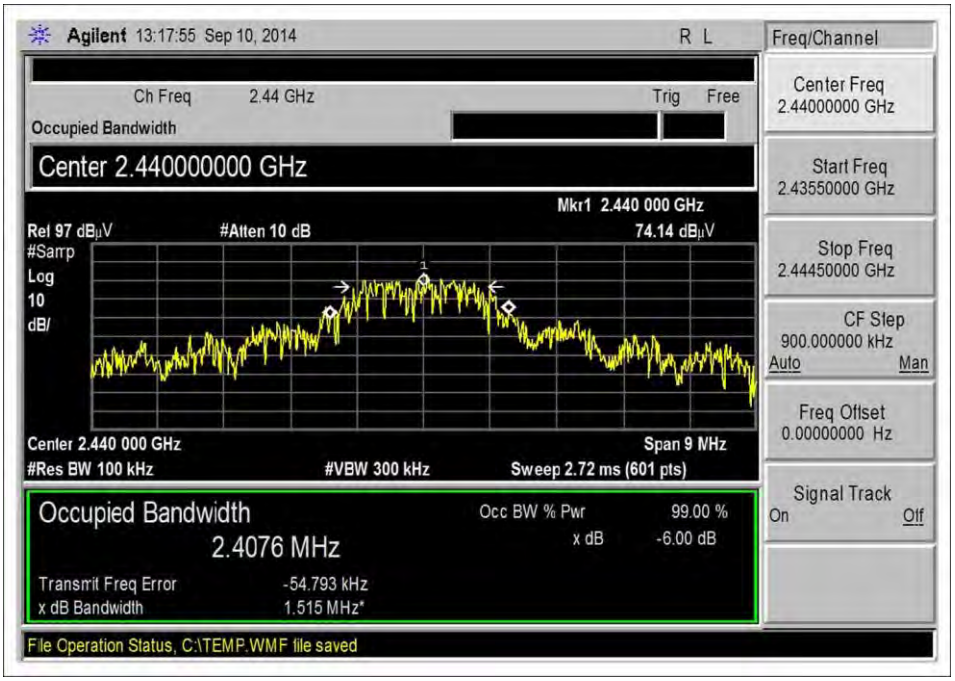
Temperature: 31°C
Relative Humidity: 44%
Pressure: 100kPa

Site D

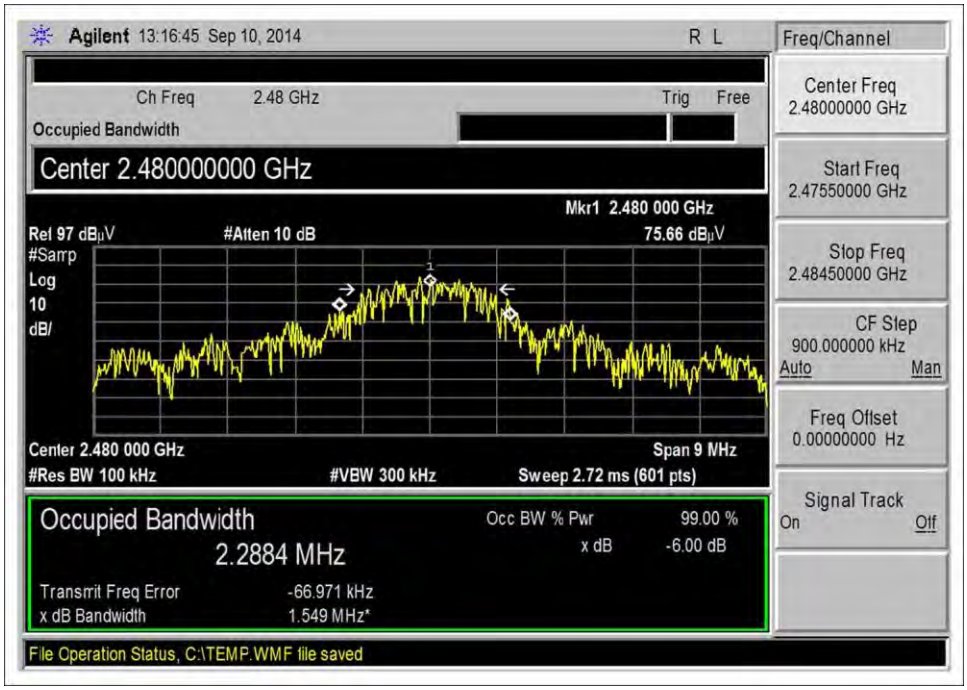
Test Data



-6dB Bandwidth, 2405MHz Low Channel



-6dB Bandwidth, 2440MHz Middle Channel



-6dB Bandwidth, 2480MHz High Channel

Test Setup Photo

15.247(b)(3) RF Power Output

Test Conditions / Setup

Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Silicon Laboratories, Inc.**
Specification: **15.247(b)(3) Power Output (2400-2483.5 MHz)**
Work Order #: **95499**
Test Type: **Maximized Emissions** Test Date: 09/05/2014
Equipment: **Thin ZigBee-to-Ethernet gateway**
Manufacturer: Silicon Laboratories, Inc. Tested By: S. Yamamoto
Model: 130-0880-000-A0
S/N: 70B3D555902A

***Test Equipment*:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	7/10/2014	7/10/2015
T2	ANP05421	Cable	Sucoflex 104A	1/8/2014	1/8/2016
T3	ANP06661	Cable	LDF1-50	4/15/2014	4/15/2016
T4	AN00849	Horn Antenna	3115	3/18/2014	3/18/2016

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Thin ZigBee-to-Ethernet gateway*	Silicon Laboratories, Inc.	130-0880-000-A0	70B3D555902A

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	Thinkpad T500	L3B3906
AC to 6VDC Power Supply	Triad	WDU6-800	NA

Test Conditions / Notes:

The equipment under test (EUT) is stand alone on the Styrofoam table top. The EUT is connected to a remotely located laptop computer via unshielded cat 5e cable. The computer is running Telnet which is commanding the EUT to the appropriate test frequencies.
The test frequencies are 2405MHz, 2440MHz, and 2480MHz. RBW=1.8MHz, VBW=6MHz. n external AC to DC power supply is also connected to the EUT.
Nominal voltage of the EUT is 6VDC.

Frequency range of measurement, 2400MHz to 2483.5MHz.

Temperature: 30°C
Relative Humidity: 46%
Pressure: 100kPa

Site D

Frequency: 2405MHz. Firmware power setting = 0xff, +19dBm
Frequency: 2440MHz. Firmware power setting = 0xfe, +18dBm
Frequency: 2480MHz. Firmware power setting = 0xe6, -6dBm

Test Conditions / Notes: (continued)

Data presented below is representative of worst case emissions.
Calculations sample as follows:
From ANSI C63.10
$P_t = (E \times d)^2/(30 * G_t)$
Where:
P_t = the power in watts
G_t = the numeric gain of the radiating antenna
E = the measured peak field strength in V/m
d = the distance at which the measurement was made in meters

P_t = **TBD**
G_t = 2.75 (Manufacturers declared gain)
E = 115.9 dBuV/m = 0.624 V/m
d = 3

$P_t = (0.624 \times 3)^2/(30 * 2.75)$
P_t = 0.0425 W

Frequency (MHz)	Peak output power calculated from measured peak field strength (W)	15.247(b)(3) Peak output power limit (W)
2405	0.0425	1
2440	0.0361	1
2480	0.00013	1

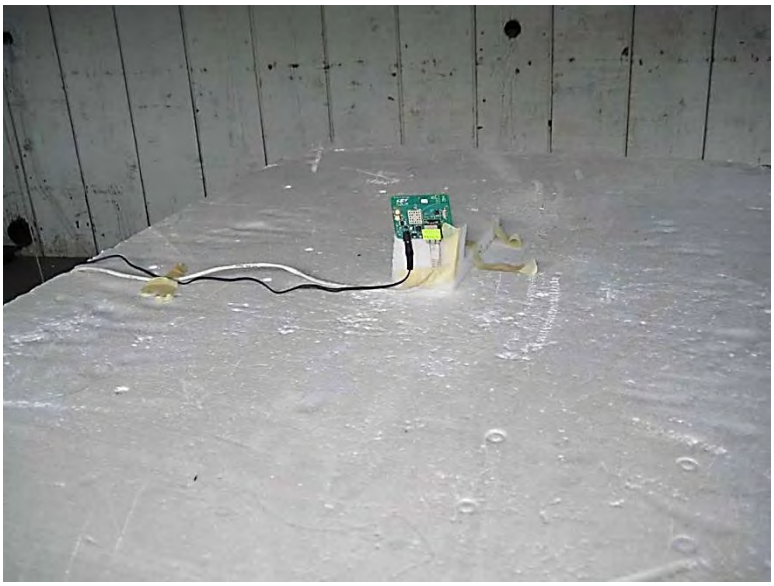
Note: The high channel power is lower than the other two channels because it is nearer to the band edge. Due to this, the power level was reduced in order to fall within the band edge requirements.

Test Data

Measurement Data: Reading listed by frequency. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	2405.000M	85.4	+0.0	+1.1	+4.1	+25.3	+0.0	115.9	127.4	-11.5	Horiz
2	2440.000M	84.5	+0.0	+1.2	+4.1	+25.4	+0.0	115.2	127.4	-12.2	Vert
3	2480.000M	60.0	+0.0	+1.3	+4.2	+25.4	+0.0	90.9	127.4	-36.5	Horiz

Test Setup Photo



15.31(e) Voltage Variations

Test Conditions / Setup

Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Silicon Laboratories, Inc.**
Specification: **15.31(e) Voltage Variation on Power**
Work Order #: **95499** Date: 9/10/2014
Test Type: **Maximized Emissions**
Equipment: **Thin ZigBee-to-Ethernet gateway**
Manufacturer: Silicon Laboratories, Inc. Tested By: S. Yamamoto
Model: 130-0880-000-A0
S/N: 70B3D555902A

***Test Equipment*:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	7/10/2014	7/10/2015
T2	ANP05421	Cable	Sucoflex 104A	1/8/2014	1/8/2016
T3	ANP06661	Cable	LDF1-50	4/15/2014	4/15/2016
T4	AN00849	Horn Antenna	3115	3/18/2014	3/18/2016

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Thin ZigBee-to-Ethernet gateway*	Silicon Laboratories, Inc.	130-0880-000-A0	70B3D555902A

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	Thinkpad T500	L3B3906
DC Power Supply	Xantrex	XTS 30-2X	58738

Test Conditions / Notes:

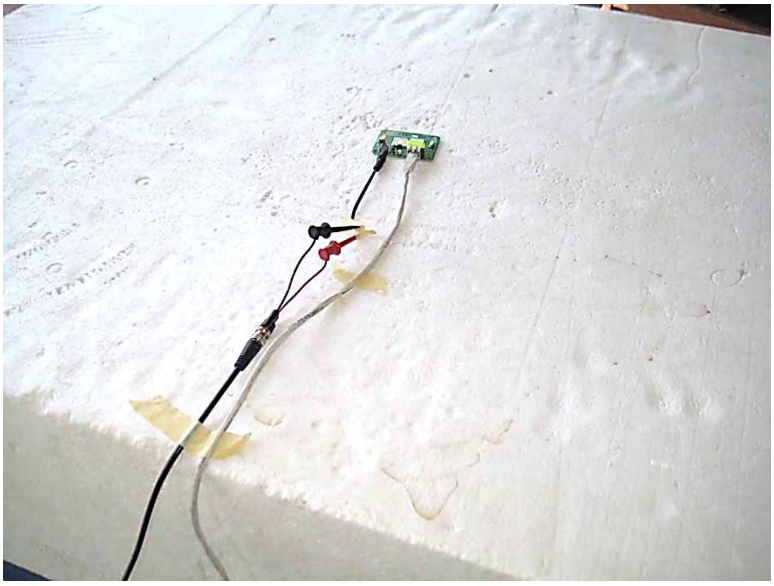
The equipment under test (EUT) is stand alone on the Styrofoam table top. The EUT is connected to a remotely located laptop computer via unshielded cat 5e cable. The computer is running Telnet which is commanding the EUT to the appropriate test frequencies. The EUT is set at the rated output power.
The test frequencies are 2405MHz, 2440MHz, and 2480MHz.
An external AC to DC power supply is also connected to the EUT.
Nominal voltage of the EUT is 6VDC.

Frequency range of measurement, 2400MHz to 2483.5MHz. RBW=1.8MHz, VBW=6MHz.

Temperature: 31°C
Relative Humidity: 44%
Pressure: 100kPa
Site D
Firmware power setting: 2405MHz 0xff 19dBm, 2440MHz 0xfe 18dBm, 2480MHz 0xe6 -6dBm

15.31(e) Compliance: The supply voltage was varied between 85% and 115% of the nominal rated voltage of 6.0VDC.
No change in the fundamental signal level was observed.

Test Setup Photo



15.247(d) Radiated Spurious Emissions and Band Edge

Test Conditions / Setup / Data

Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Silicon Laboratories, Inc.**
Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
Work Order #: **95499** Date: 9/14/2014
Test Type: **Maximized Emissions** Time: 13:44:41
Equipment: **Thin ZigBee-to-Ethernet gateway** Sequence#: 2
Manufacturer: Silicon Laboratories, Inc. Tested By: S. Yamamoto
Model: 130-0880-000-A0
S/N: 70B3D555902A

***Test Equipment*:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	7/10/2014	7/10/2015
T2	ANP05421	Cable	Sucoflex 104A	1/8/2014	1/8/2016
T3	ANP06661	Cable	LDF1-50	4/15/2014	4/15/2016
T4	AN00786	Preamp	83017A	4/25/2014	4/25/2016
T5	AN02946	Cable	32022-2-2909K-36TC	7/31/2013	7/31/2015
T6	AN00849	Horn Antenna	3115	3/18/2014	3/18/2016
T7	AN03385	High Pass Filter	11SH10-3000/T10000-O/O	6/5/2013	6/5/2015
T9	AN01413	Horn Antenna-ANSI C63.5 (dB/m)	84125-80008	11/9/2012	11/9/2014
	AN01413	Horn Antenna-SAE ARP958 (dB/m)	84125-80008	11/9/2012	11/9/2014
T10	ANP06543	Cable	32022-29094K-29094K-24TC	11/20/2013	11/20/2015
T11	AN03158	Active Horn Antenna	AMFW-5F-26004000-33-8P	12/18/2012	12/18/2014
	AN00309	Preamp	8447D	3/12/2014	3/12/2016
	AN01995	Biconilog Antenna	CBL6111C	4/30/2014	4/30/2016
	ANP05050	Cable	RG223/U	1/21/2013	1/21/2015
	ANP05198	Cable-Amplitude 15 to 45degC (dB)	8268	12/11/2012	12/11/2014
	ANP05198	Cable-Amplitude -15 to 15degC	8268	12/11/2012	12/11/2014
	AN00314	Loop Antenna	6502	7/2/2014	7/2/2016
T11	AN	Duty Cycle Correction Factor		NCR	NCR

NCR = No Calibration Required

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Thin ZigBee-to-Ethernet gateway*	Silicon Laboratories, Inc.	130-0880-000-A0	70B3D555902A

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	Thinkpad T500	L3B3906
AC to 6VDC power adapter	Triad	WDU6-800	NA

Test Conditions / Notes:

The equipment under test (EUT) is stand alone on the Styrofoam table top. The EUT is connected to a remotely located laptop computer via unshielded cat 5e cable. The computer is running Telnet which is commanding the EUT to the test frequencies.
The EUT is set at its rated output power for each of the test frequencies: 2405MHz, 2440MHz, and 2480MHz. An external AC to 6VDC power adapter is also connected to the EUT.
Data contained within this report is worst case emissions with the EUT in three different axis systems (X, Y, and Z).
Highest frequency used or generated in the device is 4.800GHz.
Frequency range of data sheet, 9kHz to 40000MHz. 9kHz to 150kHz RBW=200Hz=VBW. 150kHz to 30MHz RBW=9kHz=VBW. 30MHz to 1000MHz RBW=120kHz=VBW. 1GHz to 40GHz RBW=1MHz=VBW.

Temperature: 30°C
Relative Humidity: 59%
Pressure: 100kPa

Site D

Data is representative of worst case emissions.
Duty Cycle Correction Factor: The Manufacturer declares maximum duty cycle applicable to the standard is 66%. 20 Log (66/100) = -3.6 (See Appendix A for Duty Cycle Correction Factor Calculation).

Ext Attn: 0 dB

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6 T10	T3 T7 T11	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	12022.420 M Ave	43.1	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	53.7	54.0	-0.3	Vert
2	14880.980 M	32.7	+0.0 +1.9 +0.0	+3.4 +38.8 +0.0	+11.5 +0.3 +0.0	-35.1 +0.0	+0.0	53.5	54.0	-0.5	Vert
3	17356.070 M	27.6	+0.0 +1.9 +0.0	+3.7 +40.0 +0.0	+12.7 +1.7 +0.0	-34.2 +0.0	+0.0	53.4	54.0	-0.6	Vert
4	12397.180 M	38.5	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 +0.0	-36.5 +0.0	+0.0	53.4	54.0	-0.6	Vert
5	9617.767M	40.4	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	53.1	54.0	-0.9	Vert

6	12397.320 M Ave	41.7	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 -3.6	-36.5 +0.0	+0.0	53.0	54.0	-1.0	Vert
7	9757.838M	40.2	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	52.9	54.0	-1.1	Horiz
8	9621.980M	40.2	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	52.9	54.0	-1.1	Vert
9	9621.667M	40.2	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	52.9	54.0	-1.1	Vert
10	12402.270 M	37.9	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 +0.0	-36.5 +0.0	+0.0	52.8	54.0	-1.2	Vert
11	14642.600 M	31.7	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	52.8	54.0	-1.2	Horiz
12	16832.120 M	29.6	+0.0 +2.2 +0.0	+3.6 +38.3 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	52.7	54.0	-1.3	Vert
13	9617.933M	39.9	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	52.6	54.0	-1.4	Vert
14	12402.430 M Ave	41.3	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 -3.6	-36.5 +0.0	+0.0	52.6	54.0	-1.4	Vert
15	9761.871M	39.9	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	52.6	54.0	-1.4	Horiz
16	12027.400 M Ave	42.0	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	52.6	54.0	-1.4	Vert
17	14882.480 M	31.7	+0.0 +1.9 +0.0	+3.4 +38.8 +0.0	+11.5 +0.3 +0.0	-35.1 +0.0	+0.0	52.5	54.0	-1.5	Vert
18	14427.100 M	31.5	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	52.5	54.0	-1.5	Horiz
19	12397.100 M	37.6	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 +0.0	-36.5 +0.0	+0.0	52.5	54.0	-1.5	Vert
20	16832.200 M	29.4	+0.0 +2.2 +0.0	+3.6 +38.3 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	52.5	54.0	-1.5	Horiz
21	9921.882M	39.4	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.1 +0.0	-36.3 +0.0	+0.0	52.5	54.0	-1.5	Vert
22	7438.508M	45.2	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	52.4	54.0	-1.6	Vert

23	14876.770 M	31.6	+0.0 +1.9 +0.0	+3.4 +38.8 +0.0	+11.5 +0.3 +0.0	-35.1 +0.0	+0.0	52.4	54.0	-1.6	Horiz
24	9621.883M	39.6	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	52.3	54.0	-1.7	Vert
25	17082.450 M	27.7	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	52.2	54.0	-1.8	Vert
26	9917.848M	39.0	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.2 +0.0	-36.3 +0.0	+0.0	52.2	54.0	-1.8	Vert
27	14876.840 M	31.0	+0.0 +1.9 +0.0	+3.4 +38.8 +0.0	+11.5 +0.3 +0.0	-35.1 +0.0	+0.0	51.8	54.0	-2.2	Horiz
28	7321.542M	44.3	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	51.7	54.0	-2.3	Horiz
29	17082.220 M	27.2	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	51.7	54.0	-2.3	Vert
30	12202.470 M Ave	41.0	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 -3.6	-36.6 +0.0	+0.0	51.7	54.0	-2.3	Vert
31	9921.692M	38.4	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.1 +0.0	-36.3 +0.0	+0.0	51.5	54.0	-2.5	Horiz
32	9617.847M	38.8	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	51.5	54.0	-2.5	Vert
33	9917.795M	38.2	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.2 +0.0	-36.3 +0.0	+0.0	51.4	54.0	-2.6	Vert
34	9617.850M	38.6	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	51.3	54.0	-2.7	Vert
35	9917.938M	38.0	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.2 +0.0	-36.3 +0.0	+0.0	51.2	54.0	-2.8	Horiz
36	14882.400 M	30.3	+0.0 +1.9 +0.0	+3.4 +38.8 +0.0	+11.5 +0.3 +0.0	-35.1 +0.0	+0.0	51.1	54.0	-2.9	Vert
37	9922.063M	38.0	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.1 +0.0	-36.3 +0.0	+0.0	51.1	54.0	-2.9	Horiz
38	9758.041M	38.3	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	51.0	54.0	-3.0	Horiz
39	14644.930 M	29.9	+0.0 +1.8 +0.0	+3.3 +39.3 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	50.9	54.0	-3.1	Vert

40	9621.933M	38.1	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	50.8	54.0	-3.2	Vert
41	14877.130 M	29.9	+0.0 +1.9 +0.0	+3.4 +38.8 +0.0	+11.5 +0.3 +0.0	-35.1 +0.0	+0.0	50.7	54.0	-3.3	Horiz
42	9621.742M	38.0	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	50.7	54.0	-3.3	Vert
43	14642.700 M	29.6	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	50.7	54.0	-3.3	Vert
44	12197.510 M Ave	40.0	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 -3.6	-36.6 +0.0	+0.0	50.7	54.0	-3.3	Vert
45	9917.893M	37.4	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.2 +0.0	-36.3 +0.0	+0.0	50.6	54.0	-3.4	Vert
46	9917.742M	37.4	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.2 +0.0	-36.3 +0.0	+0.0	50.6	54.0	-3.4	Vert
47	9921.927M	37.4	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.1 +0.0	-36.3 +0.0	+0.0	50.5	54.0	-3.5	Vert
48	16839.070 M	27.2	+0.0 +2.2 +0.0	+3.6 +38.4 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	50.4	54.0	-3.6	Horiz
49	9917.990M	37.1	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.2 +0.0	-36.3 +0.0	+0.0	50.3	54.0	-3.7	Vert
50	9761.925M	37.5	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	50.2	54.0	-3.8	Vert
51	9761.941M	37.5	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	50.2	54.0	-3.8	Horiz
52	9757.907M	37.4	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	50.1	54.0	-3.9	Vert
53	9917.640M	36.8	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.2 +0.0	-36.3 +0.0	+0.0	50.0	54.0	-4.0	Horiz
54	9921.980M	36.8	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.1 +0.0	-36.3 +0.0	+0.0	49.9	54.0	-4.1	Vert
55	9762.057M	37.2	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	49.9	54.0	-4.1	Vert
56	14637.600 M	28.6	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	49.7	54.0	-4.3	Vert

57	9921.680M	36.6	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.1 +0.0	-36.3 +0.0	+0.0	49.7	54.0	-4.3	Vert
58	7318.208M	42.3	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	49.7	54.0	-4.3	Vert
59	9757.783M	37.0	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	49.7	54.0	-4.3	Vert
60	9621.870M	36.8	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	49.5	54.0	-4.5	Vert
61	12027.370 M Ave	38.8	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	49.4	54.0	-4.6	Horiz
^	12027.370 M	45.9	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	60.1	54.0	+6.1	Horiz
^	12027.450 M	45.9	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	60.1	54.0	+6.1	Horiz
^	12027.400 M	45.4	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	59.6	54.0	+5.6	Horiz
^	12027.450 M	45.0	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	59.2	54.0	+5.2	Horiz
^	12027.330 M	44.8	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	59.0	54.0	+5.0	Horiz
^	12027.360 M	41.9	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	56.1	54.0	+2.1	Horiz
68	12027.450 M Ave	38.7	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	49.3	54.0	-4.7	Horiz
69	12022.320 M Ave	38.7	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	49.3	54.0	-4.7	Horiz
^	12022.290 M	46.1	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	60.3	54.0	+6.3	Horiz
^	12022.370 M	45.9	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	60.1	54.0	+6.1	Horiz
^	12022.320 M	45.8	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	60.0	54.0	+6.0	Horiz
^	12022.330 M	45.5	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	59.7	54.0	+5.7	Horiz

^	12022.330 M	44.4	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	58.6	54.0	+4.6	Horiz
^	12022.260 M	41.8	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	56.0	54.0	+2.0	Horiz
76	12022.290 M Ave	38.7	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	49.3	54.0	-4.7	Horiz
77	9761.863M	36.6	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	49.3	54.0	-4.7	Horiz
78	9757.740M	36.4	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	49.1	54.0	-4.9	Vert
79	7213.417M Ave	45.0	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 -3.6	-37.0 +0.0	+0.0	49.1	54.0	-4.9	Vert
80	7441.413M Ave	41.8	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	49.0	54.0	-5.0	Horiz
^	7441.413M	49.1	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	56.3	54.0	+2.3	Horiz
^	7441.367M	47.0	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	54.2	54.0	+0.2	Horiz
^	7441.422M	46.2	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	53.4	54.0	-0.6	Horiz
^	7441.465M	46.2	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	53.4	54.0	-0.6	Horiz
^	7441.425M	45.5	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	52.7	54.0	-1.3	Horiz
^	7441.440M	44.1	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	51.3	54.0	-2.7	Horiz
87	9761.667M	36.3	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	49.0	54.0	-5.0	Horiz
88	9757.918M	36.3	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	49.0	54.0	-5.0	Horiz
89	9917.813M Ave	35.7	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.2 +0.0	-36.3 +0.0	+0.0	48.9	54.0	-5.1	Horiz
^	9917.813M	43.7	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.2 +0.0	-36.3 +0.0	+0.0	56.9	54.0	+2.9	Horiz

^	9917.810M	40.1	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.2 +0.0	-36.3 +0.0	+0.0	53.3	54.0	-0.7	Horiz
^	9917.808M	37.3	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.2 +0.0	-36.3 +0.0	+0.0	50.5	54.0	-3.5	Horiz
93	12027.200 M Ave	38.3	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	48.9	54.0	-5.1	Horiz
^	12027.200 M	46.2	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	60.4	54.0	+6.4	Horiz
95	17363.360 M Ave	23.1	+0.0 +1.9 +0.0	+3.7 +40.0 +0.0	+12.7 +1.7 +0.0	-34.2 +0.0	+0.0	48.9	54.0	-5.1	Vert
^	17363.350 M	31.4	+0.0 +1.9 +0.0	+3.7 +40.0 +0.0	+12.7 +1.7 +0.0	-34.2 +0.0	+0.0	57.2	54.0	+3.2	Vert
97	12022.330 M Ave	38.3	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	48.9	54.0	-5.1	Vert
^	12022.420 M	50.8	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	65.0	54.0	+11.0	Vert
^	12022.330 M	45.4	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	59.6	54.0	+5.6	Vert
^	12022.310 M	44.2	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	58.4	54.0	+4.4	Vert
^	12022.330 M	44.2	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	58.4	54.0	+4.4	Vert
^	12022.250 M	42.9	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	57.1	54.0	+3.1	Vert
^	12022.320 M	41.9	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	56.1	54.0	+2.1	Vert
104	7216.417M Ave	44.8	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 -3.6	-37.0 +0.0	+0.0	48.9	54.0	-5.1	Vert
105	9757.980M	36.2	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	48.9	54.0	-5.1	Vert
106	9921.938M Ave	35.7	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.1 +0.0	-36.3 +0.0	+0.0	48.8	54.0	-5.2	Horiz
^	9921.938M	43.4	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.1 +0.0	-36.3 +0.0	+0.0	56.5	54.0	+2.5	Horiz

^	9921.860M	40.0	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.1 +0.0	-36.3 +0.0	+0.0	53.1	54.0	-0.9	Horiz
^	9921.920M	35.7	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.1 +0.0	-36.3 +0.0	+0.0	48.8	54.0	-5.2	Horiz
110	9761.867M	36.0	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	48.7	54.0	-5.3	Vert
111	9757.783M	36.0	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	48.7	54.0	-5.3	Horiz
112	17356.220 M Ave	22.9	+0.0 +1.9 +0.0	+3.7 +40.0 +0.0	+12.7 +1.7 +0.0	-34.2 +0.0	+0.0	48.7	54.0	-5.3	Vert
113	14875.760 M	27.8	+0.0 +1.9 +0.0	+3.4 +38.8 +0.0	+11.5 +0.3 +0.0	-35.1 +0.0	+0.0	48.6	54.0	-5.4	Horiz
114	17076.680 M Ave	27.7	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 -3.6	-34.3 +0.0	+0.0	48.6	54.0	-5.4	Vert
^	17076.680 M	29.7	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	54.2	54.0	+0.2	Vert
116	17075.780 M Ave	27.7	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 -3.6	-34.3 +0.0	+0.0	48.6	54.0	-5.4	Vert
^	17075.780 M	29.6	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	54.1	54.0	+0.1	Vert
118	12027.410 M Ave	38.0	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	48.6	54.0	-5.4	Vert
^	12027.400 M	48.9	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	63.1	54.0	+9.1	Vert
^	12027.410 M	45.4	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	59.6	54.0	+5.6	Vert
^	12027.420 M	44.4	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	58.6	54.0	+4.6	Vert
^	12027.380 M	44.3	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	58.5	54.0	+4.5	Vert
^	12027.370 M	43.6	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	57.8	54.0	+3.8	Vert
^	12027.370 M	42.1	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 +0.0	-36.5 +0.0	+0.0	56.3	54.0	+2.3	Vert

125	9762.030M	35.9	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	48.6	54.0	-5.4	Horiz
126	9921.947M	35.3	+0.0 +1.5 +0.0	+2.7 +36.0 +0.0	+9.1 +0.1 +0.0	-36.3 +0.0	+0.0	48.4	54.0	-5.6	Vert
127	12022.370 M Ave	37.8	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	48.4	54.0	-5.6	Horiz
128	7318.617M	41.0	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	48.4	54.0	-5.6	Vert
129	9761.870M	35.6	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	48.3	54.0	-5.7	Vert
130	9621.965M	35.5	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	48.2	54.0	-5.8	Horiz
131	9617.842M	35.5	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	48.2	54.0	-5.8	Vert
132	12022.330 M Ave	37.6	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	48.2	54.0	-5.8	Horiz
133	12197.380 M Ave	33.9	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	48.2	54.0	-5.8	Horiz
^	12197.290 M	44.1	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	58.4	54.0	+4.4	Horiz
^	12197.310 M	43.3	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	57.6	54.0	+3.6	Horiz
^	12197.380 M	42.3	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	56.6	54.0	+2.6	Horiz
^	12197.320 M	41.1	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	55.4	54.0	+1.4	Horiz
138	12027.400 M Ave	37.6	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	48.2	54.0	-5.8	Horiz
139	17363.250 M Ave	22.4	+0.0 +1.9 +0.0	+3.7 +40.0 +0.0	+12.7 +1.7 +0.0	-34.2 +0.0	+0.0	48.2	54.0	-5.8	Horiz
^	17363.250 M	32.4	+0.0 +1.9 +0.0	+3.7 +40.0 +0.0	+12.7 +1.7 +0.0	-34.2 +0.0	+0.0	58.2	54.0	+4.2	Horiz
141	7321.430M Ave	40.7	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	48.1	54.0	-5.9	Horiz

142	12027.450	37.5	+0.0	+3.1	+10.4	-36.5	+0.0	48.1	54.0	-5.9	Horiz
	M		+1.5	+35.6	+0.1	+0.0					
	Ave		+0.0	+0.0	-3.6						
143	9922.090M	35.0	+0.0	+2.7	+9.1	-36.3	+0.0	48.1	54.0	-5.9	Horiz
			+1.5	+36.0	+0.1	+0.0					
			+0.0	+0.0	+0.0						
144	12402.460	33.1	+0.0	+3.2	+10.5	-36.5	+0.0	48.0	54.0	-6.0	Vert
	M		+1.5	+35.8	+0.4	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	12402.430	48.5	+0.0	+3.2	+10.5	-36.5	+0.0	63.4	54.0	+9.4	Vert
	M		+1.5	+35.8	+0.4	+0.0					
			+0.0	+0.0	+0.0						
^	12402.390	42.9	+0.0	+3.2	+10.5	-36.5	+0.0	57.8	54.0	+3.8	Vert
	M		+1.5	+35.8	+0.4	+0.0					
			+0.0	+0.0	+0.0						
^	12402.460	40.7	+0.0	+3.2	+10.5	-36.5	+0.0	55.6	54.0	+1.6	Vert
	M		+1.5	+35.8	+0.4	+0.0					
			+0.0	+0.0	+0.0						
^	12402.400	38.8	+0.0	+3.2	+10.5	-36.5	+0.0	53.7	54.0	-0.3	Vert
	M		+1.5	+35.8	+0.4	+0.0					
			+0.0	+0.0	+0.0						
149	12397.420	33.1	+0.0	+3.2	+10.5	-36.5	+0.0	48.0	54.0	-6.0	Vert
	M		+1.5	+35.8	+0.4	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	12397.350	42.8	+0.0	+3.2	+10.5	-36.5	+0.0	57.7	54.0	+3.7	Vert
	M		+1.5	+35.8	+0.4	+0.0					
			+0.0	+0.0	+0.0						
^	12397.420	41.3	+0.0	+3.2	+10.5	-36.5	+0.0	56.2	54.0	+2.2	Vert
	M		+1.5	+35.8	+0.4	+0.0					
			+0.0	+0.0	+0.0						
152	14636.830	26.9	+0.0	+3.3	+11.6	-35.2	+0.0	48.0	54.0	-6.0	Horiz
	M		+1.8	+39.4	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
153	7216.448M	43.9	+0.0	+2.4	+7.8	-37.0	+0.0	48.0	54.0	-6.0	Horiz
	Ave		+1.2	+33.1	+0.2	+0.0					
			+0.0	+0.0	-3.6						
154	9621.856M	38.8	+0.0	+2.7	+9.0	-36.1	+0.0	47.9	54.0	-6.1	Horiz
	Ave		+1.5	+35.6	+0.0	+0.0					
			+0.0	+0.0	-3.6						
^	9621.925M	40.7	+0.0	+2.7	+9.0	-36.1	+0.0	53.4	54.0	-0.6	Horiz
			+1.5	+35.6	+0.0	+0.0					
			+0.0	+0.0	+0.0						
^	9621.896M	38.9	+0.0	+2.7	+9.0	-36.1	+0.0	51.6	54.0	-2.4	Horiz
			+1.5	+35.6	+0.0	+0.0					
			+0.0	+0.0	+0.0						
^	9621.925M	37.5	+0.0	+2.7	+9.0	-36.1	+0.0	50.2	54.0	-3.8	Horiz
			+1.5	+35.6	+0.0	+0.0					
			+0.0	+0.0	+0.0						
158	17076.330	27.0	+0.0	+3.6	+12.5	-34.3	+0.0	47.9	54.0	-6.1	Horiz
	M		+2.1	+39.2	+1.4	+0.0					
	Ave		+0.0	+0.0	-3.6						

^	17076.330 M	35.9	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	60.4	54.0	+6.4	Horiz
^	17076.300 M	32.9	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	57.4	54.0	+3.4	Horiz
^	17076.270 M	30.4	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	54.9	54.0	+0.9	Horiz
162	21955.100 M	46.4	+0.0 +2.3 +1.4	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	-33.2 +40.5	-9.5	47.9	54.0	-6.1	Vert
163	9757.866M	35.2	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	47.9	54.0	-6.1	Vert
164	7213.423M Ave	43.8	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 -3.6	-37.0 +0.0	+0.0	47.9	54.0	-6.1	Horiz
165	17083.480 M Ave	27.0	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 -3.6	-34.3 +0.0	+0.0	47.9	54.0	-6.1	Horiz
^	17083.480 M	35.4	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	59.9	54.0	+5.9	Horiz
^	17083.430 M	32.5	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	57.0	54.0	+3.0	Horiz
168	12022.330 M Ave	37.2	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	47.8	54.0	-6.2	Horiz
169	17083.300 M Ave	23.3	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	47.8	54.0	-6.2	Horiz
^	17083.300 M	32.4	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	56.9	54.0	+2.9	Horiz
171	12027.330 M Ave	37.2	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	47.8	54.0	-6.2	Horiz
172	17076.330 M Ave	23.3	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	47.8	54.0	-6.2	Vert
^	17076.330 M	33.7	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	58.2	54.0	+4.2	Vert
174	12027.420 M Ave	37.1	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	47.7	54.0	-6.3	Vert
175	17083.430 M Ave	23.2	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	47.7	54.0	-6.3	Vert

^	17083.430 M	32.8	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	57.3	54.0	+3.3	Vert
^	17083.360 M	29.6	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	54.1	54.0	+0.1	Vert
178	21955.050 M	46.2	+0.0 +2.3 +1.4	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	-33.2 +40.5	-9.5	47.7	54.0	-6.3	Horiz
179	7438.398M Ave	40.5	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	47.7	54.0	-6.3	Vert
180	9761.675M	35.0	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	47.7	54.0	-6.3	Vert
181	7441.499M Ave	40.4	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	47.6	54.0	-6.4	Vert
182	7213.400M Ave	43.5	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 -3.6	-37.0 +0.0	+0.0	47.6	54.0	-6.4	Horiz
183	12197.290 M Ave	36.9	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 -3.6	-36.6 +0.0	+0.0	47.6	54.0	-6.4	Horiz
184	14432.980 M Ave	26.5	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	47.5	54.0	-6.5	Horiz
^	14432.980 M	35.4	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	56.4	54.0	+2.4	Horiz
^	14432.950 M	35.2	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	56.2	54.0	+2.2	Horiz
^	14433.010 M	30.2	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	51.2	54.0	-2.8	Horiz
188	12202.350 M Ave	36.8	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 -3.6	-36.6 +0.0	+0.0	47.5	54.0	-6.5	Horiz
^	12202.280 M	43.2	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	57.5	54.0	+3.5	Horiz
190	12022.330 M Ave	36.9	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	47.5	54.0	-6.5	Vert
191	7318.533M Ave	40.1	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	47.5	54.0	-6.5	Horiz
^	7318.533M	47.8	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	55.2	54.0	+1.2	Horiz

193	14426.640 M Ave	26.5	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	47.5	54.0	-6.5	Horiz
^	14426.600 M	36.1	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	57.1	54.0	+3.1	Horiz
^	14426.640 M	36.0	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	57.0	54.0	+3.0	Horiz
196	7216.450M Ave	43.4	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 -3.6	-37.0 +0.0	+0.0	47.5	54.0	-6.5	Horiz
197	9761.917M	34.8	+0.0 +1.5 +0.0	+2.6 +35.8 +0.0	+9.0 +0.2 +0.0	-36.4 +0.0	+0.0	47.5	54.0	-6.5	Vert
198	9617.807M Ave	38.4	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 -3.6	-36.1 +0.0	+0.0	47.5	54.0	-6.5	Horiz
^	9617.807M	45.3	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	58.0	54.0	+4.0	Horiz
^	9617.780M	39.8	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	52.5	54.0	-1.5	Horiz
^	9617.825M	39.3	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	52.0	54.0	-2.0	Horiz
^	9617.779M	39.0	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	51.7	54.0	-2.3	Horiz
^	9617.818M	38.8	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	51.5	54.0	-2.5	Horiz
^	9617.765M	36.0	+0.0 +1.5 +0.0	+2.7 +35.6 +0.0	+9.0 +0.0 +0.0	-36.1 +0.0	+0.0	48.7	54.0	-5.3	Horiz
205	14643.030 M Ave	26.3	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	47.4	54.0	-6.6	Horiz
206	12197.320 M Ave	33.1	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	47.4	54.0	-6.6	Horiz
207	7321.414M Ave	40.0	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	47.4	54.0	-6.6	Horiz
^	7321.430M	48.3	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	55.7	54.0	+1.7	Horiz
^	7321.414M	47.4	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	54.8	54.0	+0.8	Horiz

^	7321.422M	47.0	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	54.4	54.0	+0.4	Horiz
^	7321.438M	46.5	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	53.9	54.0	-0.1	Horiz
212	12197.410 M Ave	33.1	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	47.4	54.0	-6.6	Vert
^	12197.510 M	47.6	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	61.9	54.0	+7.9	Vert
^	12197.320 M	42.0	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	56.3	54.0	+2.3	Vert
^	12197.410 M	41.6	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	55.9	54.0	+1.9	Vert
^	12197.350 M	40.4	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	54.7	54.0	+0.7	Vert
^	12197.450 M	39.2	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	53.5	54.0	-0.5	Vert
^	12197.420 M	37.0	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	51.3	54.0	-2.7	Vert
219	12202.540 M Ave	33.0	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	47.3	54.0	-6.7	Vert
^	12202.470 M	48.8	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	63.1	54.0	+9.1	Vert
^	12202.450 M	41.4	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	55.7	54.0	+1.7	Vert
^	12202.540 M	40.7	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	55.0	54.0	+1.0	Vert
^	12202.520 M	38.6	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	52.9	54.0	-1.1	Vert
224	12202.390 M Ave	33.0	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	47.3	54.0	-6.7	Horiz
225	16838.380 M Ave	24.1	+0.0 +2.2 +0.0	+3.6 +38.4 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	47.3	54.0	-6.7	Vert
^	16838.380 M	32.6	+0.0 +2.2 +0.0	+3.6 +38.4 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	55.8	54.0	+1.8	Vert

227	14432.950	26.3	+0.0	+3.3	+11.6	-35.3	+0.0	47.3	54.0	-6.7	Horiz
	M		+1.7	+39.5	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
228	12397.280	35.9	+0.0	+3.2	+10.5	-36.5	+0.0	47.2	54.0	-6.8	Horiz
	M		+1.5	+35.8	+0.4	+0.0					
	Ave		+0.0	+0.0	-3.6						
229	14426.850	26.2	+0.0	+3.3	+11.6	-35.3	+0.0	47.2	54.0	-6.8	Horiz
	M		+1.7	+39.5	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
230	16831.180	24.1	+0.0	+3.6	+12.3	-34.5	+0.0	47.2	54.0	-6.8	Vert
	M		+2.2	+38.3	+1.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
231	12197.350	32.9	+0.0	+3.1	+10.4	-36.6	+0.0	47.2	54.0	-6.8	Vert
	M		+1.5	+35.7	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	12197.290	38.7	+0.0	+3.1	+10.4	-36.6	+0.0	53.0	54.0	-1.0	Vert
	M		+1.5	+35.7	+0.2	+0.0					
			+0.0	+0.0	+0.0						
233	17076.270	22.6	+0.0	+3.6	+12.5	-34.3	+0.0	47.1	54.0	-6.9	Horiz
	M		+2.1	+39.2	+1.4	+0.0					
	Ave		+0.0	+0.0	+0.0						
234	12027.380	36.5	+0.0	+3.1	+10.4	-36.5	+0.0	47.1	54.0	-6.9	Vert
	M		+1.5	+35.6	+0.1	+0.0					
	Ave		+0.0	+0.0	-3.6						
235	16831.180	24.0	+0.0	+3.6	+12.3	-34.5	+0.0	47.1	54.0	-6.9	Horiz
	M		+2.2	+38.3	+1.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	16831.230	31.7	+0.0	+3.6	+12.3	-34.5	+0.0	54.8	54.0	+0.8	Horiz
	M		+2.2	+38.3	+1.2	+0.0					
			+0.0	+0.0	+0.0						
237	12202.450	32.8	+0.0	+3.1	+10.4	-36.6	+0.0	47.1	54.0	-6.9	Vert
	M		+1.5	+35.7	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	12202.370	42.6	+0.0	+3.1	+10.4	-36.6	+0.0	56.9	54.0	+2.9	Vert
	M		+1.5	+35.7	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	12202.370	39.8	+0.0	+3.1	+10.4	-36.6	+0.0	54.1	54.0	+0.1	Vert
	M		+1.5	+35.7	+0.2	+0.0					
			+0.0	+0.0	+0.0						
240	14636.730	26.0	+0.0	+3.3	+11.6	-35.2	+0.0	47.1	54.0	-6.9	Horiz
	M		+1.8	+39.4	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
241	9918.000M	33.9	+0.0	+2.7	+9.1	-36.3	+0.0	47.1	54.0	-6.9	Vert
			+1.5	+36.0	+0.2	+0.0					
			+0.0	+0.0	+0.0						
242	14432.800	25.9	+0.0	+3.3	+11.6	-35.3	+0.0	46.9	54.0	-7.1	Horiz
	M		+1.7	+39.5	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	14432.770	35.6	+0.0	+3.3	+11.6	-35.3	+0.0	56.6	54.0	+2.6	Horiz
	M		+1.7	+39.5	+0.2	+0.0					
			+0.0	+0.0	+0.0						

^	14432.800	35.3	+0.0	+3.3	+11.6	-35.3	+0.0	56.3	54.0	+2.3	Horiz
	M		+1.7	+39.5	+0.2	+0.0					
			+0.0	+0.0	+0.0						
245	12022.310	36.3	+0.0	+3.1	+10.4	-36.5	+0.0	46.9	54.0	-7.1	Vert
	M		+1.5	+35.6	+0.1	+0.0					
	Ave		+0.0	+0.0	-3.6						
246	12397.320	35.6	+0.0	+3.2	+10.5	-36.5	+0.0	46.9	54.0	-7.1	Horiz
	M		+1.5	+35.8	+0.4	+0.0					
	Ave		+0.0	+0.0	-3.6						
^	12397.280	44.3	+0.0	+3.2	+10.5	-36.5	+0.0	59.2	54.0	+5.2	Horiz
	M		+1.5	+35.8	+0.4	+0.0					
			+0.0	+0.0	+0.0						
^	12397.320	43.0	+0.0	+3.2	+10.5	-36.5	+0.0	57.9	54.0	+3.9	Horiz
	M		+1.5	+35.8	+0.4	+0.0					
			+0.0	+0.0	+0.0						
^	12397.320	42.8	+0.0	+3.2	+10.5	-36.5	+0.0	57.7	54.0	+3.7	Horiz
	M		+1.5	+35.8	+0.4	+0.0					
			+0.0	+0.0	+0.0						
^	12397.310	42.2	+0.0	+3.2	+10.5	-36.5	+0.0	57.1	54.0	+3.1	Horiz
	M		+1.5	+35.8	+0.4	+0.0					
			+0.0	+0.0	+0.0						
^	12397.340	41.9	+0.0	+3.2	+10.5	-36.5	+0.0	56.8	54.0	+2.8	Horiz
	M		+1.5	+35.8	+0.4	+0.0					
			+0.0	+0.0	+0.0						
^	12397.360	40.0	+0.0	+3.2	+10.5	-36.5	+0.0	54.9	54.0	+0.9	Horiz
	M		+1.5	+35.8	+0.4	+0.0					
			+0.0	+0.0	+0.0						
253	12397.350	35.6	+0.0	+3.2	+10.5	-36.5	+0.0	46.9	54.0	-7.1	Vert
	M		+1.5	+35.8	+0.4	+0.0					
	Ave		+0.0	+0.0	-3.6						
^	12397.320	49.1	+0.0	+3.2	+10.5	-36.5	+0.0	64.0	54.0	+10.0	Vert
	M		+1.5	+35.8	+0.4	+0.0					
			+0.0	+0.0	+0.0						
255	17356.410	21.1	+0.0	+3.7	+12.7	-34.2	+0.0	46.9	54.0	-7.1	Horiz
	M		+1.9	+40.0	+1.7	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	17356.410	32.5	+0.0	+3.7	+12.7	-34.2	+0.0	58.3	54.0	+4.3	Horiz
	M		+1.9	+40.0	+1.7	+0.0					
			+0.0	+0.0	+0.0						
257	14432.770	25.9	+0.0	+3.3	+11.6	-35.3	+0.0	46.9	54.0	-7.1	Horiz
	M		+1.7	+39.5	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
258	7213.383M	42.7	+0.0	+2.4	+7.8	-37.0	+0.0	46.8	54.0	-7.2	Vert
	Ave		+1.2	+33.1	+0.2	+0.0					
			+0.0	+0.0	-3.6						
^	7213.417M	51.7	+0.0	+2.4	+7.8	-37.0	+0.0	59.4	54.0	+5.4	Vert
			+1.2	+33.1	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	7213.383M	50.2	+0.0	+2.4	+7.8	-37.0	+0.0	57.9	54.0	+3.9	Vert
			+1.2	+33.1	+0.2	+0.0					
			+0.0	+0.0	+0.0						

^	7213.392M	47.8	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	55.5	54.0	+1.5	Vert
^	7213.358M	43.2	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	50.9	54.0	-3.1	Vert
^	7213.383M	42.1	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	49.8	54.0	-4.2	Vert
264	7216.463M Ave	42.7	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 -3.6	-37.0 +0.0	+0.0	46.8	54.0	-7.2	Vert
^	7216.417M	53.1	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	60.8	54.0	+6.8	Vert
^	7216.463M	49.8	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	57.5	54.0	+3.5	Vert
^	7216.420M	48.4	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	56.1	54.0	+2.1	Vert
^	7216.392M	47.8	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	55.5	54.0	+1.5	Vert
^	7216.475M	42.4	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	50.1	54.0	-3.9	Vert
270	12402.390 M Ave	35.5	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 -3.6	-36.5 +0.0	+0.0	46.8	54.0	-7.2	Vert
^	12402.300 M	37.9	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 +0.0	-36.5 +0.0	+0.0	52.8	54.0	-1.2	Vert
272	21964.250 M	45.3	+0.0 +2.3 +1.4	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	-33.2 +40.5	-9.5	46.8	54.0	-7.2	Vert
273	14876.960 M Ave	26.0	+0.0 +1.9 +0.0	+3.4 +38.8 +0.0	+11.5 +0.3 +0.0	-35.1 +0.0	+0.0	46.8	54.0	-7.2	Horiz
^	14876.960 M	36.2	+0.0 +1.9 +0.0	+3.4 +38.8 +0.0	+11.5 +0.3 +0.0	-35.1 +0.0	+0.0	57.0	54.0	+3.0	Horiz
275	14426.860 M Ave	25.7	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	46.7	54.0	-7.3	Horiz
^	14426.850 M	34.2	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	55.2	54.0	+1.2	Horiz
^	14426.860 M	34.2	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	55.2	54.0	+1.2	Horiz

^	14426.910 M	32.6	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	53.6	54.0	-0.4	Horiz
279	12402.400 M Ave	35.4	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 -3.6	-36.5 +0.0	+0.0	46.7	54.0	-7.3	Horiz
280	12402.450 M Ave	35.4	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 -3.6	-36.5 +0.0	+0.0	46.7	54.0	-7.3	Horiz
^	12402.450 M	43.4	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 +0.0	-36.5 +0.0	+0.0	58.3	54.0	+4.3	Horiz
^	12402.400 M	43.1	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 +0.0	-36.5 +0.0	+0.0	58.0	54.0	+4.0	Horiz
^	12402.430 M	42.1	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 +0.0	-36.5 +0.0	+0.0	57.0	54.0	+3.0	Horiz
^	12402.410 M	41.9	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 +0.0	-36.5 +0.0	+0.0	56.8	54.0	+2.8	Horiz
^	12402.390 M	41.7	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 +0.0	-36.5 +0.0	+0.0	56.6	54.0	+2.6	Horiz
^	12402.370 M	38.6	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 +0.0	-36.5 +0.0	+0.0	53.5	54.0	-0.5	Horiz
287	21964.250 M	45.2	+0.0 +2.3 +1.4	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	-33.2 +40.5	-9.5	46.7	54.0	-7.3	Horiz
288	14642.780 M Ave	25.6	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	46.7	54.0	-7.3	Horiz
^	14642.780 M	35.5	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	56.6	54.0	+2.6	Horiz
290	12397.360 M Ave	31.7	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 +0.0	-36.5 +0.0	+0.0	46.6	54.0	-7.4	Horiz
291	14636.820 M Ave	25.5	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	46.6	54.0	-7.4	Vert
^	14636.820 M	34.7	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	55.8	54.0	+1.8	Vert
^	14636.730 M	32.9	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	54.0	54.0	+0.0	Vert
^	14636.890 M	32.7	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	53.8	54.0	-0.2	Vert

295	12202.360	35.8	+0.0	+3.1	+10.4	-36.6	+0.0	46.5	54.0	-7.5	Horiz
	M		+1.5	+35.7	+0.2	+0.0					
	Ave		+0.0	+0.0	-3.6						
296	14426.600	25.5	+0.0	+3.3	+11.6	-35.3	+0.0	46.5	54.0	-7.5	Horiz
	M		+1.7	+39.5	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
297	17075.990	22.0	+0.0	+3.6	+12.5	-34.3	+0.0	46.5	54.0	-7.5	Horiz
	M		+2.1	+39.2	+1.4	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	17075.990	30.4	+0.0	+3.6	+12.5	-34.3	+0.0	54.9	54.0	+0.9	Horiz
	M		+2.1	+39.2	+1.4	+0.0					
			+0.0	+0.0	+0.0						
299	9621.770M	33.8	+0.0	+2.7	+9.0	-36.1	+0.0	46.5	54.0	-7.5	Horiz
	Ave		+1.5	+35.6	+0.0	+0.0					
			+0.0	+0.0	+0.0						
^	9621.856M	46.0	+0.0	+2.7	+9.0	-36.1	+0.0	58.7	54.0	+4.7	Horiz
			+1.5	+35.6	+0.0	+0.0					
			+0.0	+0.0	+0.0						
^	9621.770M	42.0	+0.0	+2.7	+9.0	-36.1	+0.0	54.7	54.0	+0.7	Horiz
			+1.5	+35.6	+0.0	+0.0					
			+0.0	+0.0	+0.0						
302	17355.760	20.7	+0.0	+3.7	+12.7	-34.2	+0.0	46.5	54.0	-7.5	Horiz
	M		+1.9	+40.0	+1.7	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	17355.760	29.9	+0.0	+3.7	+12.7	-34.2	+0.0	55.7	54.0	+1.7	Horiz
	M		+1.9	+40.0	+1.7	+0.0					
			+0.0	+0.0	+0.0						
304	12197.310	35.8	+0.0	+3.1	+10.4	-36.6	+0.0	46.5	54.0	-7.5	Horiz
	M		+1.5	+35.7	+0.2	+0.0					
	Ave		+0.0	+0.0	-3.6						
305	12022.250	35.9	+0.0	+3.1	+10.4	-36.5	+0.0	46.5	54.0	-7.5	Vert
	M		+1.5	+35.6	+0.1	+0.0					
	Ave		+0.0	+0.0	-3.6						
306	17356.250	24.2	+0.0	+3.7	+12.7	-34.2	+0.0	46.4	54.0	-7.6	Vert
	M		+1.9	+40.0	+1.7	+0.0					
	Ave		+0.0	+0.0	-3.6						
^	17356.250	34.8	+0.0	+3.7	+12.7	-34.2	+0.0	60.6	54.0	+6.6	Vert
	M		+1.9	+40.0	+1.7	+0.0					
			+0.0	+0.0	+0.0						
^	17356.220	32.5	+0.0	+3.7	+12.7	-34.2	+0.0	58.3	54.0	+4.3	Vert
	M		+1.9	+40.0	+1.7	+0.0					
			+0.0	+0.0	+0.0						
309	14882.860	25.6	+0.0	+3.4	+11.5	-35.1	+0.0	46.4	54.0	-7.6	Horiz
	M		+1.9	+38.8	+0.3	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	14882.860	34.4	+0.0	+3.4	+11.5	-35.1	+0.0	55.2	54.0	+1.2	Horiz
	M		+1.9	+38.8	+0.3	+0.0					
			+0.0	+0.0	+0.0						
^	14882.930	33.0	+0.0	+3.4	+11.5	-35.1	+0.0	53.8	54.0	-0.2	Horiz
	M		+1.9	+38.8	+0.3	+0.0					
			+0.0	+0.0	+0.0						

312	7321.440M Ave	42.6	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 -3.6	-37.4 +0.0	+0.0	46.4	54.0	-7.6	Vert
313	12027.370 M Ave	35.8	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	46.4	54.0	-7.6	Vert
314	17355.470 M Ave	20.5	+0.0 +1.9 +0.0	+3.7 +40.0 +0.0	+12.7 +1.7 +0.0	-34.2 +0.0	+0.0	46.3	54.0	-7.7	Vert
^	17355.470 M	31.6	+0.0 +1.9 +0.0	+3.7 +40.0 +0.0	+12.7 +1.7 +0.0	-34.2 +0.0	+0.0	57.4	54.0	+3.4	Vert
316	17363.650 M Ave	24.1	+0.0 +1.9 +0.0	+3.7 +40.0 +0.0	+12.7 +1.7 -3.6	-34.2 +0.0	+0.0	46.3	54.0	-7.7	Vert
^	17363.650 M	32.4	+0.0 +1.9 +0.0	+3.7 +40.0 +0.0	+12.7 +1.7 +0.0	-34.2 +0.0	+0.0	58.2	54.0	+4.2	Vert
318	16837.870 M Ave	26.7	+0.0 +2.2 +0.0	+3.6 +38.4 +0.0	+12.3 +1.2 -3.6	-34.5 +0.0	+0.0	46.3	54.0	-7.7	Vert
^	16837.870 M	30.7	+0.0 +2.2 +0.0	+3.6 +38.4 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	53.9	54.0	-0.1	Vert
320	17076.220 M Ave	21.8	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	46.3	54.0	-7.7	Vert
^	17076.220 M	30.6	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	55.1	54.0	+1.1	Vert
322	12402.430 M Ave	35.0	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 -3.6	-36.5 +0.0	+0.0	46.3	54.0	-7.7	Horiz
323	7438.325M Ave	39.0	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	46.2	54.0	-7.8	Horiz
^	7438.413M	49.4	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	56.6	54.0	+2.6	Horiz
^	7438.325M	47.6	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	54.8	54.0	+0.8	Horiz
^	7438.342M	47.0	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	54.2	54.0	+0.2	Horiz
^	7438.370M	46.5	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	53.7	54.0	-0.3	Horiz
^	7438.357M	46.4	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	53.6	54.0	-0.4	Horiz

^	7438.413M	43.6	+0.0	+2.4	+7.8	-37.5	+0.0	50.8	54.0	-3.2	Horiz
			+1.2	+33.2	+0.1	+0.0					
			+0.0	+0.0	+0.0						
330	17353.820	20.4	+0.0	+3.7	+12.7	-34.2	+0.0	46.2	54.0	-7.8	Horiz
	M		+1.9	+40.0	+1.7	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	17353.820	30.2	+0.0	+3.7	+12.7	-34.2	+0.0	56.0	54.0	+2.0	Horiz
	M		+1.9	+40.0	+1.7	+0.0					
			+0.0	+0.0	+0.0						
332	7216.425M	42.1	+0.0	+2.4	+7.8	-37.0	+0.0	46.2	54.0	-7.8	Horiz
	Ave		+1.2	+33.1	+0.2	+0.0					
			+0.0	+0.0	-3.6						
^	7216.448M	52.0	+0.0	+2.4	+7.8	-37.0	+0.0	59.7	54.0	+5.7	Horiz
			+1.2	+33.1	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	7216.450M	51.0	+0.0	+2.4	+7.8	-37.0	+0.0	58.7	54.0	+4.7	Horiz
			+1.2	+33.1	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	7216.425M	49.5	+0.0	+2.4	+7.8	-37.0	+0.0	57.2	54.0	+3.2	Horiz
			+1.2	+33.1	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	7216.400M	49.1	+0.0	+2.4	+7.8	-37.0	+0.0	56.8	54.0	+2.8	Horiz
			+1.2	+33.1	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	7216.383M	48.9	+0.0	+2.4	+7.8	-37.0	+0.0	56.6	54.0	+2.6	Horiz
			+1.2	+33.1	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	7216.408M	43.7	+0.0	+2.4	+7.8	-37.0	+0.0	51.4	54.0	-2.6	Horiz
			+1.2	+33.1	+0.2	+0.0					
			+0.0	+0.0	+0.0						
339	16838.530	26.6	+0.0	+3.6	+12.3	-34.5	+0.0	46.2	54.0	-7.8	Horiz
	M		+2.2	+38.4	+1.2	+0.0					
	Ave		+0.0	+0.0	-3.6						
^	16838.530	31.1	+0.0	+3.6	+12.3	-34.5	+0.0	54.3	54.0	+0.3	Horiz
	M		+2.2	+38.4	+1.2	+0.0					
			+0.0	+0.0	+0.0						
341	7318.414M	42.4	+0.0	+2.4	+7.8	-37.4	+0.0	46.2	54.0	-7.8	Vert
	Ave		+1.2	+33.2	+0.2	+0.0					
			+0.0	+0.0	-3.6						
342	17357.140	20.3	+0.0	+3.7	+12.7	-34.2	+0.0	46.1	54.0	-7.9	Horiz
	M		+1.9	+40.0	+1.7	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	17357.190	30.1	+0.0	+3.7	+12.7	-34.2	+0.0	55.9	54.0	+1.9	Horiz
	M		+1.9	+40.0	+1.7	+0.0					
			+0.0	+0.0	+0.0						
^	17357.140	30.0	+0.0	+3.7	+12.7	-34.2	+0.0	55.8	54.0	+1.8	Horiz
	M		+1.9	+40.0	+1.7	+0.0					
			+0.0	+0.0	+0.0						
345	14433.010	25.1	+0.0	+3.3	+11.6	-35.3	+0.0	46.1	54.0	-7.9	Vert
	M		+1.7	+39.5	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						

^	14433.080	34.0	+0.0	+3.3	+11.6	-35.3	+0.0	55.0	54.0	+1.0	Vert
	M		+1.7	+39.5	+0.2	+0.0					
			+0.0	+0.0	+0.0						
347	17357.850	20.3	+0.0	+3.7	+12.7	-34.2	+0.0	46.1	54.0	-7.9	Vert
	M		+1.9	+40.0	+1.7	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	17357.850	30.9	+0.0	+3.7	+12.7	-34.2	+0.0	56.7	54.0	+2.7	Vert
	M		+1.9	+40.0	+1.7	+0.0					
			+0.0	+0.0	+0.0						
349	17357.190	20.3	+0.0	+3.7	+12.7	-34.2	+0.0	46.1	54.0	-7.9	Horiz
	M		+1.9	+40.0	+1.7	+0.0					
	Ave		+0.0	+0.0	+0.0						
350	7441.417M	38.9	+0.0	+2.4	+7.8	-37.5	+0.0	46.1	54.0	-7.9	Vert
	Ave		+1.2	+33.2	+0.1	+0.0					
			+0.0	+0.0	+0.0						
^	7441.325M	41.7	+0.0	+2.4	+7.8	-37.5	+0.0	48.9	54.0	-5.1	Vert
			+1.2	+33.2	+0.1	+0.0					
			+0.0	+0.0	+0.0						
352	12397.310	34.8	+0.0	+3.2	+10.5	-36.5	+0.0	46.1	54.0	-7.9	Horiz
	M		+1.5	+35.8	+0.4	+0.0					
	Ave		+0.0	+0.0	-3.6						
353	14643.070	24.9	+0.0	+3.3	+11.6	-35.2	+0.0	46.0	54.0	-8.0	Vert
	M		+1.8	+39.4	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	14643.070	35.3	+0.0	+3.3	+11.6	-35.2	+0.0	56.4	54.0	+2.4	Vert
	M		+1.8	+39.4	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	14643.080	32.7	+0.0	+3.3	+11.6	-35.2	+0.0	53.8	54.0	-0.2	Vert
	M		+1.8	+39.4	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	14643.000	32.6	+0.0	+3.3	+11.6	-35.2	+0.0	53.7	54.0	-0.3	Vert
	M		+1.8	+39.4	+0.2	+0.0					
			+0.0	+0.0	+0.0						
357	12397.320	34.7	+0.0	+3.2	+10.5	-36.5	+0.0	46.0	54.0	-8.0	Horiz
	M		+1.5	+35.8	+0.4	+0.0					
	Ave		+0.0	+0.0	-3.6						
358	7216.400M	41.9	+0.0	+2.4	+7.8	-37.0	+0.0	46.0	54.0	-8.0	Horiz
	Ave		+1.2	+33.1	+0.2	+0.0					
			+0.0	+0.0	-3.6						
359	17357.310	20.2	+0.0	+3.7	+12.7	-34.2	+0.0	46.0	54.0	-8.0	Vert
	M		+1.9	+40.0	+1.7	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	17357.310	29.4	+0.0	+3.7	+12.7	-34.2	+0.0	55.2	54.0	+1.2	Vert
	M		+1.9	+40.0	+1.7	+0.0					
			+0.0	+0.0	+0.0						
361	14636.840	24.9	+0.0	+3.3	+11.6	-35.2	+0.0	46.0	54.0	-8.0	Horiz
	M		+1.8	+39.4	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	14636.830	35.0	+0.0	+3.3	+11.6	-35.2	+0.0	56.1	54.0	+2.1	Horiz
	M		+1.8	+39.4	+0.2	+0.0					
			+0.0	+0.0	+0.0						

^	14636.820 M	33.6	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	54.7	54.0	+0.7	Horiz
^	14636.840 M	33.2	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	54.3	54.0	+0.3	Horiz
365	7213.365M Ave	41.8	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 -3.6	-37.0 +0.0	+0.0	45.9	54.0	-8.1	Horiz
^	7213.423M	50.8	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	58.5	54.0	+4.5	Horiz
^	7213.400M	50.3	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	58.0	54.0	+4.0	Horiz
^	7213.365M	48.9	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	56.6	54.0	+2.6	Horiz
^	7213.446M	48.8	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	56.5	54.0	+2.5	Horiz
^	7213.383M	47.4	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	55.1	54.0	+1.1	Horiz
^	7213.458M	42.8	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	50.5	54.0	-3.5	Horiz
372	12202.370 M Ave	35.1	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 -3.6	-36.6 +0.0	+0.0	45.8	54.0	-8.2	Vert
^	12202.340 M	39.0	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	53.3	54.0	-0.7	Vert
374	12402.410 M Ave	34.4	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 -3.6	-36.5 +0.0	+0.0	45.7	54.0	-8.3	Horiz
375	7213.446M Ave	41.6	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 -3.6	-37.0 +0.0	+0.0	45.7	54.0	-8.3	Horiz
376	7438.413M Ave	42.1	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 -3.6	-37.5 +0.0	+0.0	45.7	54.0	-8.3	Horiz
377	17076.230 M Ave	24.8	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 -3.6	-34.3 +0.0	+0.0	45.7	54.0	-8.3	Horiz
^	17076.230 M	33.6	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	58.1	54.0	+4.1	Horiz
379	4809.000M	44.2	+0.0 +1.2 +0.0	+1.9 +29.9 +0.0	+6.1 +0.1 +0.0	-37.8 +0.0	+0.0	45.6	54.0	-8.4	Vert

380	14636.820	24.5	+0.0	+3.3	+11.6	-35.2	+0.0	45.6	54.0	-8.4	Horiz
	M		+1.8	+39.4	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	14636.730	34.6	+0.0	+3.3	+11.6	-35.2	+0.0	55.7	54.0	+1.7	Horiz
	M		+1.8	+39.4	+0.2	+0.0					
			+0.0	+0.0	+0.0						
382	16838.530	22.4	+0.0	+3.6	+12.3	-34.5	+0.0	45.6	54.0	-8.4	Vert
	M		+2.2	+38.4	+1.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	16838.530	31.9	+0.0	+3.6	+12.3	-34.5	+0.0	55.1	54.0	+1.1	Vert
	M		+2.2	+38.4	+1.2	+0.0					
			+0.0	+0.0	+0.0						
384	7213.420M	41.4	+0.0	+2.4	+7.8	-37.0	+0.0	45.5	54.0	-8.5	Vert
	Ave		+1.2	+33.1	+0.2	+0.0					
			+0.0	+0.0	-3.6						
385	14643.010	24.4	+0.0	+3.3	+11.6	-35.2	+0.0	45.5	54.0	-8.5	Horiz
	M		+1.8	+39.4	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	14643.030	37.1	+0.0	+3.3	+11.6	-35.2	+0.0	58.2	54.0	+4.2	Horiz
	M		+1.8	+39.4	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	14642.970	34.4	+0.0	+3.3	+11.6	-35.2	+0.0	55.5	54.0	+1.5	Horiz
	M		+1.8	+39.4	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	14643.010	34.0	+0.0	+3.3	+11.6	-35.2	+0.0	55.1	54.0	+1.1	Horiz
	M		+1.8	+39.4	+0.2	+0.0					
			+0.0	+0.0	+0.0						
389	4810.900M	44.1	+0.0	+1.9	+6.1	-37.8	+0.0	45.5	54.0	-8.5	Vert
			+1.2	+29.9	+0.1	+0.0					
			+0.0	+0.0	+0.0						
390	14426.610	28.1	+0.0	+3.3	+11.6	-35.3	+0.0	45.5	54.0	-8.5	Vert
	M		+1.7	+39.5	+0.2	+0.0					
	Ave		+0.0	+0.0	-3.6						
^	14426.610	33.6	+0.0	+3.3	+11.6	-35.3	+0.0	54.6	54.0	+0.6	Vert
	M		+1.7	+39.5	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	14426.680	32.0	+0.0	+3.3	+11.6	-35.3	+0.0	53.0	54.0	-1.0	Vert
	M		+1.7	+39.5	+0.2	+0.0					
			+0.0	+0.0	+0.0						
393	14432.930	24.5	+0.0	+3.3	+11.6	-35.3	+0.0	45.5	54.0	-8.5	Vert
	M		+1.7	+39.5	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	14432.930	33.8	+0.0	+3.3	+11.6	-35.3	+0.0	54.8	54.0	+0.8	Vert
	M		+1.7	+39.5	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	14433.010	33.7	+0.0	+3.3	+11.6	-35.3	+0.0	54.7	54.0	+0.7	Vert
	M		+1.7	+39.5	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	14432.870	33.0	+0.0	+3.3	+11.6	-35.3	+0.0	54.0	54.0	+0.0	Vert
	M		+1.7	+39.5	+0.2	+0.0					
			+0.0	+0.0	+0.0						

^	14432.880 M	32.3	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	53.3	54.0	-0.7	Vert
398	16831.080 M Ave	25.9	+0.0 +2.2 +0.0	+3.6 +38.3 +0.0	+12.3 +1.2 -3.6	-34.5 +0.0	+0.0	45.4	54.0	-8.6	Horiz
^	16831.180 M	33.9	+0.0 +2.2 +0.0	+3.6 +38.3 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	57.0	54.0	+3.0	Horiz
^	16831.080 M	33.6	+0.0 +2.2 +0.0	+3.6 +38.3 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	56.7	54.0	+2.7	Horiz
401	7441.440M Ave	41.8	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 -3.6	-37.5 +0.0	+0.0	45.4	54.0	-8.6	Vert
^	7441.440M	48.8	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	56.0	54.0	+2.0	Vert
^	7441.499M	47.7	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	54.9	54.0	+0.9	Vert
^	7441.417M	47.5	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	54.7	54.0	+0.7	Vert
^	7441.470M	46.5	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	53.7	54.0	-0.3	Vert
^	7441.467M	44.9	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.1 +0.0	-37.5 +0.0	+0.0	52.1	54.0	-1.9	Vert
407	12202.370 M Ave	31.1	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 +0.0	-36.6 +0.0	+0.0	45.4	54.0	-8.6	Vert
408	16838.360 M Ave	22.2	+0.0 +2.2 +0.0	+3.6 +38.4 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	45.4	54.0	-8.6	Horiz
409	12197.320 M Ave	34.6	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 -3.6	-36.6 +0.0	+0.0	45.3	54.0	-8.7	Vert
410	16838.290 M Ave	25.7	+0.0 +2.2 +0.0	+3.6 +38.4 +0.0	+12.3 +1.2 -3.6	-34.5 +0.0	+0.0	45.3	54.0	-8.7	Horiz
^	16838.290 M	35.2	+0.0 +2.2 +0.0	+3.6 +38.4 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	58.4	54.0	+4.4	Horiz
^	16838.360 M	32.1	+0.0 +2.2 +0.0	+3.6 +38.4 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	55.3	54.0	+1.3	Horiz
413	17083.430 M Ave	24.4	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 -3.6	-34.3 +0.0	+0.0	45.3	54.0	-8.7	Horiz

414	14426.830	24.3	+0.0	+3.3	+11.6	-35.3	+0.0	45.3	54.0	-8.7	Vert
	M		+1.7	+39.5	+0.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	14426.830	34.8	+0.0	+3.3	+11.6	-35.3	+0.0	55.8	54.0	+1.8	Vert
	M		+1.7	+39.5	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	14426.740	32.7	+0.0	+3.3	+11.6	-35.3	+0.0	53.7	54.0	-0.3	Vert
	M		+1.7	+39.5	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	14426.930	31.2	+0.0	+3.3	+11.6	-35.3	+0.0	52.2	54.0	-1.8	Vert
	M		+1.7	+39.5	+0.2	+0.0					
			+0.0	+0.0	+0.0						
418	7438.350M	41.6	+0.0	+2.4	+7.8	-37.5	+0.0	45.2	54.0	-8.8	Vert
	Ave		+1.2	+33.2	+0.1	+0.0					
			+0.0	+0.0	-3.6						
^	7438.350M	49.3	+0.0	+2.4	+7.8	-37.5	+0.0	56.5	54.0	+2.5	Vert
			+1.2	+33.2	+0.1	+0.0					
			+0.0	+0.0	+0.0						
^	7438.398M	47.8	+0.0	+2.4	+7.8	-37.5	+0.0	55.0	54.0	+1.0	Vert
			+1.2	+33.2	+0.1	+0.0					
			+0.0	+0.0	+0.0						
^	7438.392M	47.3	+0.0	+2.4	+7.8	-37.5	+0.0	54.5	54.0	+0.5	Vert
			+1.2	+33.2	+0.1	+0.0					
			+0.0	+0.0	+0.0						
^	7438.390M	46.9	+0.0	+2.4	+7.8	-37.5	+0.0	54.1	54.0	+0.1	Vert
			+1.2	+33.2	+0.1	+0.0					
			+0.0	+0.0	+0.0						
^	7438.375M	41.1	+0.0	+2.4	+7.8	-37.5	+0.0	48.3	54.0	-5.7	Vert
			+1.2	+33.2	+0.1	+0.0					
			+0.0	+0.0	+0.0						
424	4810.792M	43.8	+0.0	+1.9	+6.1	-37.8	+0.0	45.2	54.0	-8.8	Horiz
			+1.2	+29.9	+0.1	+0.0					
			+0.0	+0.0	+0.0						
425	12202.420	34.4	+0.0	+3.1	+10.4	-36.6	+0.0	45.1	54.0	-8.9	Horiz
	M		+1.5	+35.7	+0.2	+0.0					
	Ave		+0.0	+0.0	-3.6						
^	12202.350	44.4	+0.0	+3.1	+10.4	-36.6	+0.0	58.7	54.0	+4.7	Horiz
	M		+1.5	+35.7	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	12202.360	43.4	+0.0	+3.1	+10.4	-36.6	+0.0	57.7	54.0	+3.7	Horiz
	M		+1.5	+35.7	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	12202.420	42.6	+0.0	+3.1	+10.4	-36.6	+0.0	56.9	54.0	+2.9	Horiz
	M		+1.5	+35.7	+0.2	+0.0					
			+0.0	+0.0	+0.0						
^	12202.390	40.4	+0.0	+3.1	+10.4	-36.6	+0.0	54.7	54.0	+0.7	Horiz
	M		+1.5	+35.7	+0.2	+0.0					
			+0.0	+0.0	+0.0						
430	12397.340	33.8	+0.0	+3.2	+10.5	-36.5	+0.0	45.1	54.0	-8.9	Horiz
	M		+1.5	+35.8	+0.4	+0.0					
	Ave		+0.0	+0.0	-3.6						

431	7216.420M Ave	41.0	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 -3.6	-37.0 +0.0	+0.0	45.1	54.0	-8.9	Vert
^	7216.358M	43.3	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 +0.0	-37.0 +0.0	+0.0	51.0	54.0	-3.0	Vert
433	14642.970 M Ave	23.9	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	45.0	54.0	-9.0	Horiz
434	12402.390 M Ave	33.7	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 -3.6	-36.5 +0.0	+0.0	45.0	54.0	-9.0	Horiz
435	16831.230 M Ave	21.9	+0.0 +2.2 +0.0	+3.6 +38.3 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	45.0	54.0	-9.0	Horiz
436	7318.400M Ave	41.2	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 -3.6	-37.4 +0.0	+0.0	45.0	54.0	-9.0	Vert
^	7318.414M	49.5	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	56.9	54.0	+2.9	Vert
^	7318.400M	48.3	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	55.7	54.0	+1.7	Vert
^	7318.425M	46.6	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	54.0	54.0	+0.0	Vert
^	7318.458M	46.5	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	53.9	54.0	-0.1	Vert
^	7318.433M	45.9	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	53.3	54.0	-0.7	Vert
442	17076.450 M Ave	24.1	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 -3.6	-34.3 +0.0	+0.0	45.0	54.0	-9.0	Vert
^	17076.450 M	31.2	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	55.7	54.0	+1.7	Vert
444	12022.260 M Ave	34.3	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	44.9	54.0	-9.1	Horiz
445	12202.280 M Ave	34.2	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 -3.6	-36.6 +0.0	+0.0	44.9	54.0	-9.1	Horiz
446	17356.100 M Ave	22.7	+0.0 +1.9 +0.0	+3.7 +40.0 +0.0	+12.7 +1.7 -3.6	-34.2 +0.0	+0.0	44.9	54.0	-9.1	Horiz
^	17356.100 M	29.9	+0.0 +1.9 +0.0	+3.7 +40.0 +0.0	+12.7 +1.7 +0.0	-34.2 +0.0	+0.0	55.7	54.0	+1.7	Horiz

448	4958.925M	43.4	+0.0 +1.2 +0.0	+2.0 +30.1 +0.0	+6.0 +0.2 +0.0	-38.1 +0.0	+0.0	44.8	54.0	-9.2	Vert
449	4809.000M	43.4	+0.0 +1.2 +0.0	+1.9 +29.9 +0.0	+6.1 +0.1 +0.0	-37.8 +0.0	+0.0	44.8	54.0	-9.2	Horiz
450	7321.450M Ave	41.0	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 -3.6	-37.4 +0.0	+0.0	44.8	54.0	-9.2	Vert
^	7321.440M	49.6	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	57.0	54.0	+3.0	Vert
^	7321.450M	49.0	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	56.4	54.0	+2.4	Vert
^	7321.433M	46.5	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	53.9	54.0	-0.1	Vert
^	7321.425M	46.3	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	53.7	54.0	-0.3	Vert
^	7321.417M	46.0	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	53.4	54.0	-0.6	Vert
^	7321.467M	42.0	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	49.4	54.0	-4.6	Vert
^	7321.442M	40.9	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	48.3	54.0	-5.7	Vert
458	7213.383M Ave	40.6	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 -3.6	-37.0 +0.0	+0.0	44.7	54.0	-9.3	Horiz
459	7213.392M Ave	40.6	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 -3.6	-37.0 +0.0	+0.0	44.7	54.0	-9.3	Vert
460	12197.380 M Ave	33.9	+0.0 +1.5 +0.0	+3.1 +35.7 +0.0	+10.4 +0.2 -3.6	-36.6 +0.0	+0.0	44.6	54.0	-9.4	Horiz
461	7216.392M Ave	40.5	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 -3.6	-37.0 +0.0	+0.0	44.6	54.0	-9.4	Vert
462	12027.370 M Ave	34.0	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	44.6	54.0	-9.4	Vert
463	7318.380M Ave	40.8	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 -3.6	-37.4 +0.0	+0.0	44.6	54.0	-9.4	Horiz
^	7318.380M	48.2	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	55.6	54.0	+1.6	Horiz

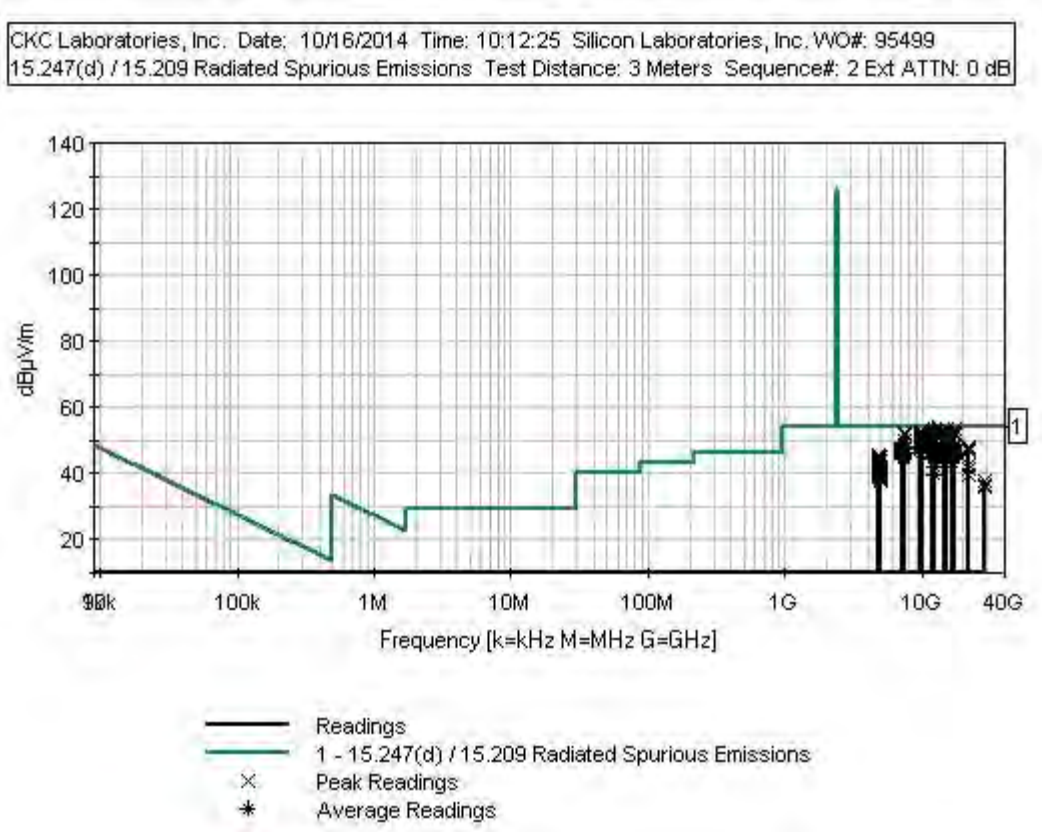
^	7318.371M	47.0	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	54.4	54.0	+0.4	Horiz
^	7318.380M	46.8	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	54.2	54.0	+0.2	Horiz
^	7318.417M	44.8	+0.0 +1.2 +0.0	+2.4 +33.2 +0.0	+7.8 +0.2 +0.0	-37.4 +0.0	+0.0	52.2	54.0	-1.8	Horiz
468	7216.383M Ave	40.5	+0.0 +1.2 +0.0	+2.4 +33.1 +0.0	+7.8 +0.2 -3.6	-37.0 +0.0	+0.0	44.6	54.0	-9.4	Horiz
469	12022.320 M Ave	33.9	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	44.5	54.0	-9.5	Vert
470	12027.360 M Ave	33.9	+0.0 +1.5 +0.0	+3.1 +35.6 +0.0	+10.4 +0.1 -3.6	-36.5 +0.0	+0.0	44.5	54.0	-9.5	Horiz
471	17076.300 M Ave	23.6	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 -3.6	-34.3 +0.0	+0.0	44.5	54.0	-9.5	Horiz
472	4880.900M	43.1	+0.0 +1.2 +0.0	+2.0 +30.0 +0.0	+6.0 +0.2 +0.0	-38.0 +0.0	+0.0	44.5	54.0	-9.5	Vert
473	14433.080 M Ave	23.4	+0.0 +1.7 +0.0	+3.3 +39.5 +0.0	+11.6 +0.2 +0.0	-35.3 +0.0	+0.0	44.4	54.0	-9.6	Vert
474	17075.980 M Ave	19.9	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	44.4	54.0	-9.6	Vert
^	17075.980 M	30.2	+0.0 +2.1 +0.0	+3.6 +39.2 +0.0	+12.5 +1.4 +0.0	-34.3 +0.0	+0.0	54.7	54.0	+0.7	Vert
476	14636.670 M Ave	23.1	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	44.2	54.0	-9.8	Vert
^	14636.670 M	34.5	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	55.6	54.0	+1.6	Vert
^	14636.680 M	30.5	+0.0 +1.8 +0.0	+3.3 +39.4 +0.0	+11.6 +0.2 +0.0	-35.2 +0.0	+0.0	51.6	54.0	-2.4	Vert
479	14883.050 M Ave	27.0	+0.0 +1.9 +0.0	+3.4 +38.8 +0.0	+11.5 +0.3 -3.6	-35.1 +0.0	+0.0	44.2	54.0	-9.8	Vert
^	14883.050 M	33.6	+0.0 +1.9 +0.0	+3.4 +38.8 +0.0	+11.5 +0.3 +0.0	-35.1 +0.0	+0.0	54.4	54.0	+0.4	Vert
^	14882.970 M	33.0	+0.0 +1.9 +0.0	+3.4 +38.8 +0.0	+11.5 +0.3 +0.0	-35.1 +0.0	+0.0	53.8	54.0	-0.2	Vert

^	14883.030	30.1	+0.0	+3.4	+11.5	-35.1	+0.0	50.9	54.0	-3.1	Vert
	M		+1.9	+38.8	+0.3	+0.0					
			+0.0	+0.0	+0.0						
483	14876.830	27.0	+0.0	+3.4	+11.5	-35.1	+0.0	44.2	54.0	-9.8	Vert
	M		+1.9	+38.8	+0.3	+0.0					
	Ave		+0.0	+0.0	-3.6						
^	14876.830	33.4	+0.0	+3.4	+11.5	-35.1	+0.0	54.2	54.0	+0.2	Vert
	M		+1.9	+38.8	+0.3	+0.0					
			+0.0	+0.0	+0.0						
485	14876.700	27.0	+0.0	+3.4	+11.5	-35.1	+0.0	44.2	54.0	-9.8	Vert
	M		+1.9	+38.8	+0.3	+0.0					
	Ave		+0.0	+0.0	-3.6						
^	14876.700	33.6	+0.0	+3.4	+11.5	-35.1	+0.0	54.4	54.0	+0.4	Vert
	M		+1.9	+38.8	+0.3	+0.0					
			+0.0	+0.0	+0.0						
^	14876.720	32.7	+0.0	+3.4	+11.5	-35.1	+0.0	53.5	54.0	-0.5	Vert
	M		+1.9	+38.8	+0.3	+0.0					
			+0.0	+0.0	+0.0						
488	14876.660	27.0	+0.0	+3.4	+11.5	-35.1	+0.0	44.2	54.0	-9.8	Horiz
	M		+1.9	+38.8	+0.3	+0.0					
	Ave		+0.0	+0.0	-3.6						
^	14876.660	33.4	+0.0	+3.4	+11.5	-35.1	+0.0	54.2	54.0	+0.2	Horiz
	M		+1.9	+38.8	+0.3	+0.0					
			+0.0	+0.0	+0.0						
490	16831.230	21.1	+0.0	+3.6	+12.3	-34.5	+0.0	44.2	54.0	-9.8	Vert
	M		+2.2	+38.3	+1.2	+0.0					
	Ave		+0.0	+0.0	+0.0						
^	16831.180	34.4	+0.0	+3.6	+12.3	-34.5	+0.0	57.5	54.0	+3.5	Vert
	M		+2.2	+38.3	+1.2	+0.0					
			+0.0	+0.0	+0.0						
^	16831.150	31.0	+0.0	+3.6	+12.3	-34.5	+0.0	54.1	54.0	+0.1	Vert
	M		+2.2	+38.3	+1.2	+0.0					
			+0.0	+0.0	+0.0						
^	16831.230	30.1	+0.0	+3.6	+12.3	-34.5	+0.0	53.2	54.0	-0.8	Vert
	M		+2.2	+38.3	+1.2	+0.0					
			+0.0	+0.0	+0.0						
^	16831.140	29.3	+0.0	+3.6	+12.3	-34.5	+0.0	52.4	54.0	-1.6	Vert
	M		+2.2	+38.3	+1.2	+0.0					
			+0.0	+0.0	+0.0						
^	16831.290	29.1	+0.0	+3.6	+12.3	-34.5	+0.0	52.2	54.0	-1.8	Vert
	M		+2.2	+38.3	+1.2	+0.0					
			+0.0	+0.0	+0.0						
496	4960.908M	42.6	+0.0	+2.0	+6.0	-38.1	+0.0	43.9	54.0	-10.1	Vert
			+1.2	+30.1	+0.1	+0.0					
			+0.0	+0.0	+0.0						
497	4810.975M	42.5	+0.0	+1.9	+6.1	-37.8	+0.0	43.9	54.0	-10.1	Horiz
			+1.2	+29.9	+0.1	+0.0					
			+0.0	+0.0	+0.0						
498	4878.858M	42.4	+0.0	+2.0	+6.0	-38.0	+0.0	43.8	54.0	-10.2	Vert
			+1.2	+30.0	+0.2	+0.0					
			+0.0	+0.0	+0.0						

499	4879.005M	41.8	+0.0 +1.2 +0.0	+2.0 +30.0 +0.0	+6.0 +0.2 +0.0	-38.0 +0.0	+0.0	43.2	54.0	-10.8	Horiz
500	16831.540 M Ave	20.0	+0.0 +2.2 +0.0	+3.6 +38.3 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	43.1	54.0	-10.9	Horiz
^	16831.440 M	27.8	+0.0 +2.2 +0.0	+3.6 +38.3 +0.0	+12.3 +1.2 +0.0	-34.5 +0.0	+0.0	50.9	54.0	-3.1	Horiz
502	4808.795M	41.4	+0.0 +1.2 +0.0	+1.9 +29.9 +0.0	+6.1 +0.1 +0.0	-37.8 +0.0	+0.0	42.8	54.0	-11.2	Horiz
503	21649.390 M	41.0	+0.0 +2.3 +1.4	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	-33.3 +40.6	-9.5	42.5	54.0	-11.5	Vert
504	21640.150 M	40.9	+0.0 +2.3 +1.4	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	-33.3 +40.6	-9.5	42.4	54.0	-11.6	Horiz
505	4958.988M	40.8	+0.0 +1.2 +0.0	+2.0 +30.1 +0.0	+6.0 +0.2 +0.0	-38.1 +0.0	+0.0	42.2	54.0	-11.8	Horiz
506	4958.958M	40.6	+0.0 +1.2 +0.0	+2.0 +30.1 +0.0	+6.0 +0.2 +0.0	-38.1 +0.0	+0.0	42.0	54.0	-12.0	Horiz
507	4879.155M	40.6	+0.0 +1.2 +0.0	+2.0 +30.0 +0.0	+6.0 +0.2 +0.0	-38.0 +0.0	+0.0	42.0	54.0	-12.0	Horiz
508	12397.530 M Ave	30.6	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 -3.6	-36.5 +0.0	+0.0	41.9	54.0	-12.1	Vert
^	12397.530 M	39.1	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 +0.0	-36.5 +0.0	+0.0	54.0	54.0	+0.0	Vert
510	4960.980M	40.2	+0.0 +1.2 +0.0	+2.0 +30.1 +0.0	+6.0 +0.1 +0.0	-38.1 +0.0	+0.0	41.5	54.0	-12.5	Horiz
511	21640.220 M	40.0	+0.0 +2.3 +1.4	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	-33.3 +40.6	-9.5	41.5	54.0	-12.5	Vert
512	4959.083M	39.9	+0.0 +1.2 +0.0	+2.0 +30.1 +0.0	+6.0 +0.2 +0.0	-38.1 +0.0	+0.0	41.3	54.0	-12.7	Horiz
513	4880.862M	39.8	+0.0 +1.2 +0.0	+2.0 +30.0 +0.0	+6.0 +0.2 +0.0	-38.0 +0.0	+0.0	41.2	54.0	-12.8	Horiz
514	4812.242M	39.7	+0.0 +1.2 +0.0	+1.9 +29.9 +0.0	+6.1 +0.1 +0.0	-37.8 +0.0	+0.0	41.1	54.0	-12.9	Horiz
515	4808.825M	39.7	+0.0 +1.2 +0.0	+1.9 +29.9 +0.0	+6.1 +0.1 +0.0	-37.8 +0.0	+0.0	41.1	54.0	-12.9	Horiz

516	4810.872M	39.6	+0.0 +1.2 +0.0	+1.9 +29.9 +0.0	+6.1 +0.1 +0.0	-37.8 +0.0	+0.0	41.0	54.0	-13.0	Vert
517	4961.067M	39.6	+0.0 +1.2 +0.0	+2.0 +30.1 +0.0	+6.0 +0.1 +0.0	-38.1 +0.0	+0.0	40.9	54.0	-13.1	Horiz
518	4880.556M	39.5	+0.0 +1.2 +0.0	+2.0 +30.0 +0.0	+6.0 +0.2 +0.0	-38.0 +0.0	+0.0	40.9	54.0	-13.1	Vert
519	4878.875M	39.5	+0.0 +1.2 +0.0	+2.0 +30.0 +0.0	+6.0 +0.2 +0.0	-38.0 +0.0	+0.0	40.9	54.0	-13.1	Vert
520	4958.740M	39.1	+0.0 +1.2 +0.0	+2.0 +30.1 +0.0	+6.0 +0.2 +0.0	-38.1 +0.0	+0.0	40.5	54.0	-13.5	Vert
521	4880.692M	39.1	+0.0 +1.2 +0.0	+2.0 +30.0 +0.0	+6.0 +0.2 +0.0	-38.0 +0.0	+0.0	40.5	54.0	-13.5	Horiz
522	4959.598M	39.0	+0.0 +1.2 +0.0	+2.0 +30.1 +0.0	+6.0 +0.1 +0.0	-38.1 +0.0	+0.0	40.3	54.0	-13.7	Vert
523	4809.433M	38.9	+0.0 +1.2 +0.0	+1.9 +29.9 +0.0	+6.1 +0.1 +0.0	-37.8 +0.0	+0.0	40.3	54.0	-13.7	Vert
524	4880.325M	38.5	+0.0 +1.2 +0.0	+2.0 +30.0 +0.0	+6.0 +0.2 +0.0	-38.0 +0.0	+0.0	39.9	54.0	-14.1	Vert
525	21649.390 M	38.3	+0.0 +2.3 +1.4	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	-33.3 +40.6	-9.5	39.8	54.0	-14.2	Vert
526	4959.200M	38.4	+0.0 +1.2 +0.0	+2.0 +30.1 +0.0	+6.0 +0.1 +0.0	-38.1 +0.0	+0.0	39.7	54.0	-14.3	Horiz
527	4812.067M	38.3	+0.0 +1.2 +0.0	+1.9 +29.9 +0.0	+6.1 +0.1 +0.0	-37.8 +0.0	+0.0	39.7	54.0	-14.3	Vert
528	12397.420 M Ave	24.8	+0.0 +1.5 +0.0	+3.2 +35.8 +0.0	+10.5 +0.4 +0.0	-36.5 +0.0	+0.0	39.7	54.0	-14.3	Vert
529	4808.992M	38.2	+0.0 +1.2 +0.0	+1.9 +29.9 +0.0	+6.1 +0.1 +0.0	-37.8 +0.0	+0.0	39.6	54.0	-14.4	Vert
530	4880.617M	38.2	+0.0 +1.2 +0.0	+2.0 +30.0 +0.0	+6.0 +0.2 +0.0	-38.0 +0.0	+0.0	39.6	54.0	-14.4	Horiz
531	4880.025M	37.8	+0.0 +1.2 +0.0	+2.0 +30.0 +0.0	+6.0 +0.2 +0.0	-38.0 +0.0	+0.0	39.2	54.0	-14.8	Vert
532	4958.492M	37.7	+0.0 +1.2 +0.0	+2.0 +30.1 +0.0	+6.0 +0.2 +0.0	-38.1 +0.0	+0.0	39.1	54.0	-14.9	Vert

533	4877.950M	37.7	+0.0 +1.2 +0.0	+2.0 +30.0 +0.0	+6.0 +0.2 +0.0	-38.0 +0.0	+0.0	39.1	54.0	-14.9	Vert
534	4958.882M	37.3	+0.0 +1.2 +0.0	+2.0 +30.1 +0.0	+6.0 +0.2 +0.0	-38.1 +0.0	+0.0	38.7	54.0	-15.3	Horiz
535	4959.042M	36.7	+0.0 +1.2 +0.0	+2.0 +30.1 +0.0	+6.0 +0.2 +0.0	-38.1 +0.0	+0.0	38.1	54.0	-15.9	Vert
536	28865.650 M	39.1	+0.0 +2.8 +1.7	+0.0 +0.0 +3.8	+0.0 +0.0 +0.0	+0.0 +0.0	-9.5	37.9	54.0	-16.1	Horiz
537	28853.550 M	38.0	+0.0 +2.8 +1.7	+0.0 +0.0 +3.8	+0.0 +0.0 +0.0	+0.0 +0.0	-9.5	36.8	54.0	-17.2	Horiz
538	28853.550 M	37.4	+0.0 +2.8 +1.7	+0.0 +0.0 +3.8	+0.0 +0.0 +0.0	+0.0 +0.0	-9.5	36.2	54.0	-17.8	Vert
539	28853.750 M	37.2	+0.0 +2.8 +1.7	+0.0 +0.0 +3.8	+0.0 +0.0 +0.0	+0.0 +0.0	-9.5	36.0	54.0	-18.0	Vert



Note: The plot was revised to correct an error and the date and time stamp were accidently updated to the current time. They should read 9/14/2014 at 13:44:41

Band Edge

Test Conditions / Setup

Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Silicon Laboratories, Inc.**
Specification: **Band Edge Compliance**
Work Order #: **95499**
Test Type: **Maximized Emissions** Test Date: 09/10/2014
Equipment: **Thin ZigBee-to-Ethernet gateway**
Manufacturer: Silicon Laboratories, Inc. Tested By: S. Yamamoto
Model: 130-0880-000-A0
S/N: 70B3D555902A

***Test Equipment*:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	7/10/2014	7/10/2015
T2	ANP05421	Cable	Sucoflex 104A	1/8/2014	1/8/2016
T3	ANP06661	Cable	LDF1-50	4/15/2014	4/15/2016
T4	AN00849	Horn Antenna	3115	3/18/2014	3/18/2016

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Thin ZigBee-to-Ethernet gateway*	Silicon Laboratories, Inc.	130-0880-000-A0	70B3D555902A

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	Thinkpad T500	L3B3906
AC to 6VDC Power Supply	Triad	WDU6-800	NA

Test Conditions / Notes:

The equipment under test (EUT) is stand alone on the Styrofoam table top. The EUT is connected to a remotely located laptop computer via unshielded cat 5e cable. The computer is running Telnet which is commanding the EUT to the appropriate test frequencies.
The test frequencies are 2405MHz, 2440MHz, and 2480MHz.
An external AC to DC power supply is also connected to the EUT.
Nominal voltage of the EUT is 6VDC.

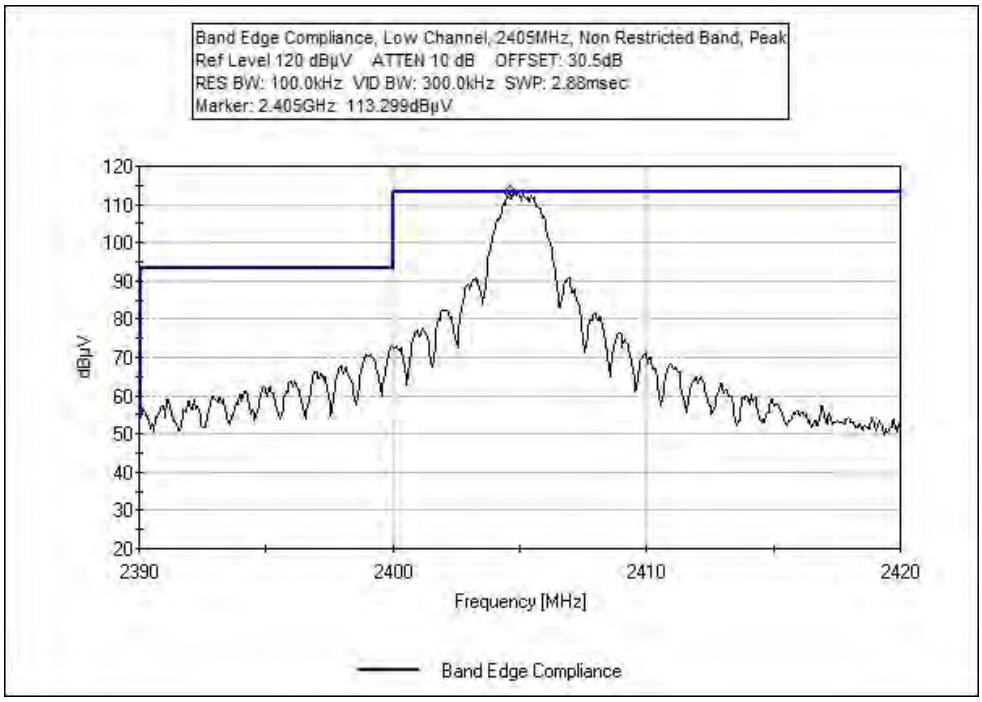
Frequency range of measurement, 2400MHz to 2483.5MHz.

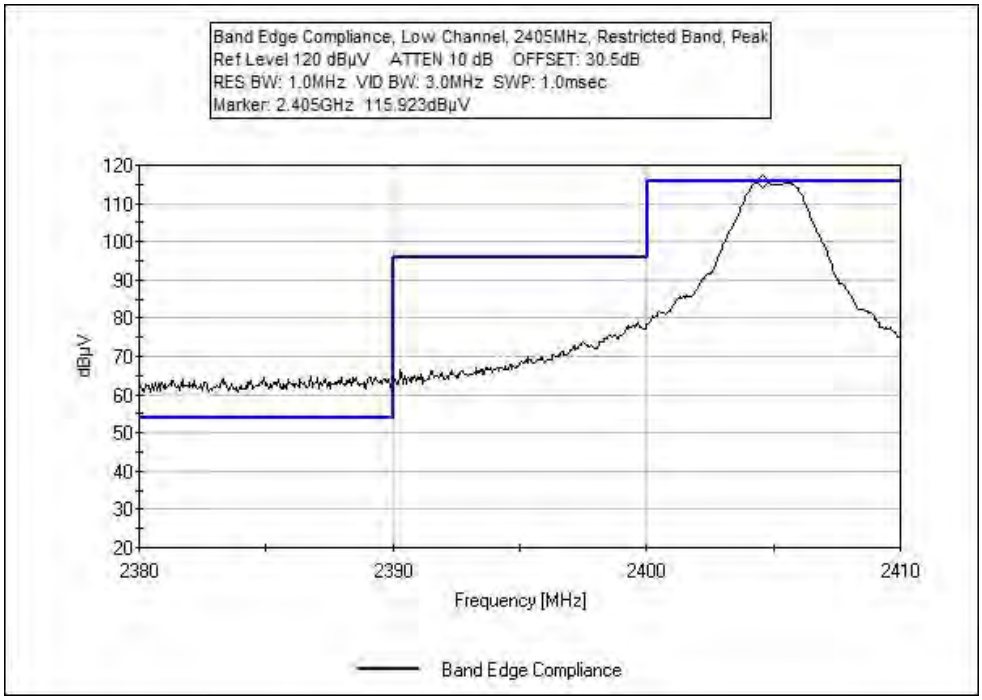
Temperature: 30°C
Relative Humidity: 46%
Pressure: 100kPa

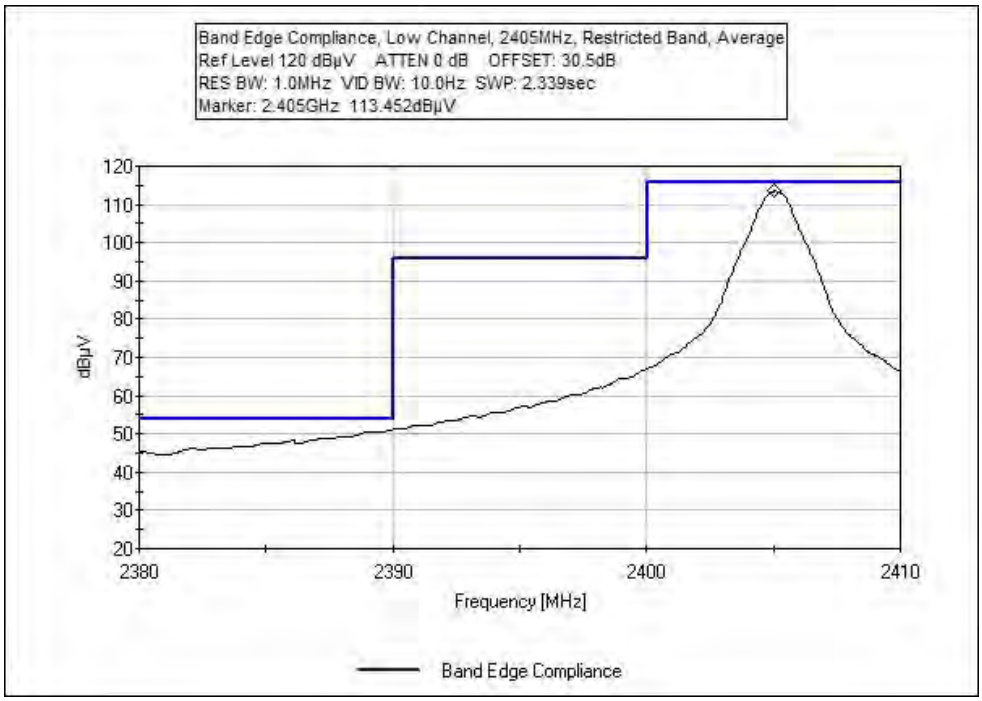
Site D

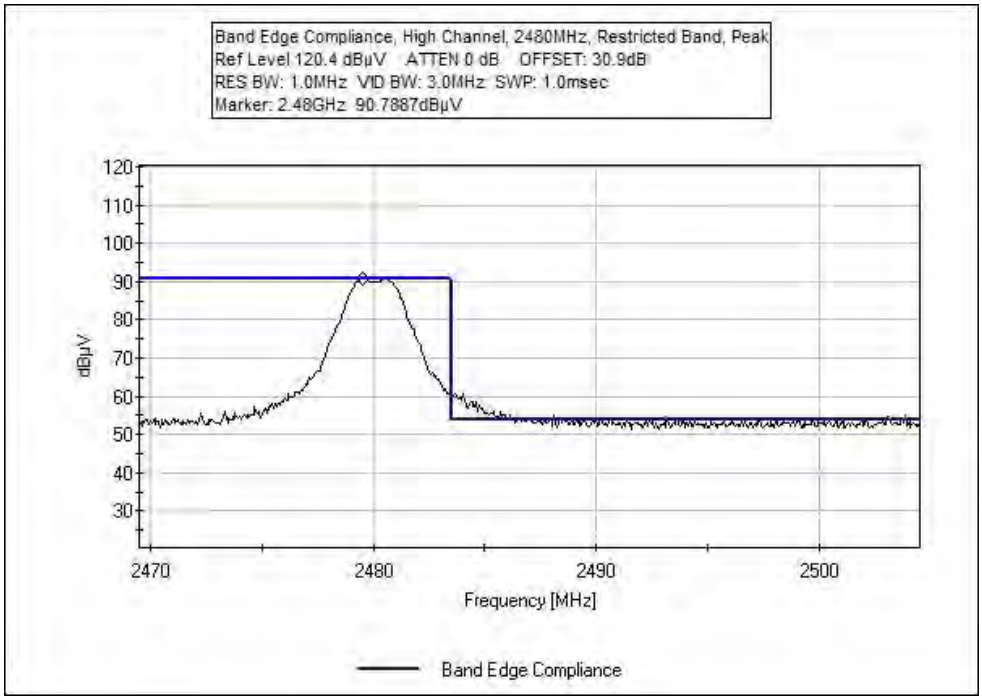
Frequency: 2405MHz. Firmware power setting = 0xff, +19dBm
Frequency: 2440MHz. Firmware power setting = 0xfe, +18dBm
Frequency: 2480MHz. Firmware power setting = 0xe6, -6dBm

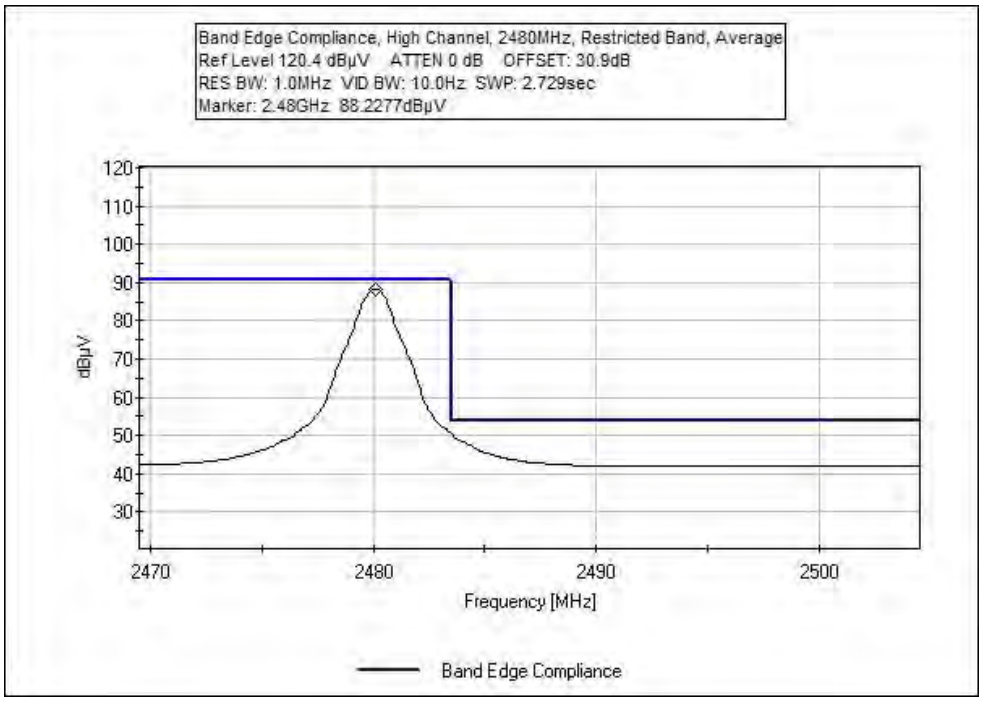
Test Data


Band Edge Compliance, Low Channel, 2405MHz, Non Restricted Band, Peak
Ref Level 120 dBµV ATTEN 10 dB OFFSET: 30.5dB
RES BW: 100.0kHz VID BW: 300.0kHz SWP: 2.88msec
Marker: 2.405GHz 113.299dBµV
dBµV
120
110
100
90
80
70
60
50
40
30
20
2390
2400
2410
2420
Frequency [MHz]
Band Edge Compliance

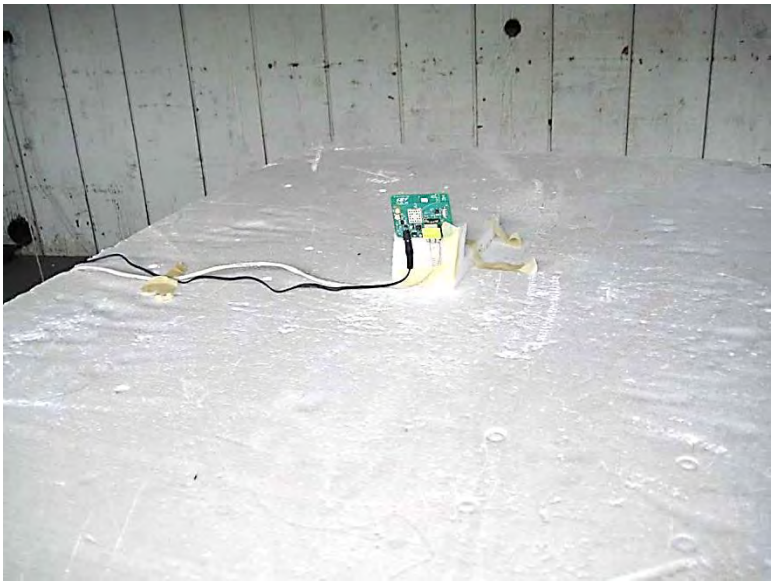

Band Edge Compliance, Low Channel, 2405MHz, Restricted Band, Peak
Ref Level 120 dBµV ATTEN 10 dB OFFSET: 30.5dB
RES BW: 1.0MHz VID BW: 3.0MHz SWP: 1.0msec
Marker: 2.405GHz 115.923dBµV
dBµV
120
110
100
90
80
70
60
50
40
30
20
2380
2390
2400
2410
Frequency [MHz]
Band Edge Compliance


Band Edge Compliance, Low Channel, 2405MHz, Restricted Band, Average
Ref Level 120 dBµV ATTEN 0 dB OFFSET: 30.5dB
RES BW: 1.0MHz VID BW: 10.0Hz SWP: 2.339sec
Marker: 2.405GHz 113.452dBµV
dBµV
120
110
100
90
80
70
60
50
40
30
20
2380
2390
2400
2410
Frequency [MHz]
Band Edge Compliance

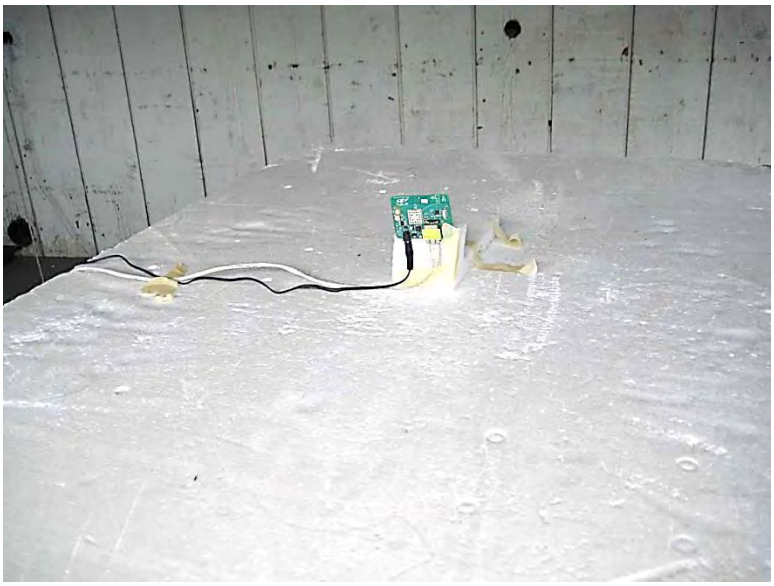

Band Edge Compliance, High Channel, 2480MHz, Restricted Band, Peak
Ref Level 120.4 dBµV ATTEN 0 dB OFFSET: 30.9dB
RES BW: 1.0MHz VID BW: 3.0MHz SWP: 1.0msec
Marker: 2.48GHz 90.7887dBµV
dBµV
120
110
100
90
80
70
60
50
40
30
2470
2480
2490
2500
Frequency [MHz]
Band Edge Compliance


Band Edge Compliance, High Channel, 2480MHz, Restricted Band, Average
Ref Level 120.4 dBµV ATTEN 0 dB OFFSET: 30.9dB
RES BW: 1.0MHz VID BW: 10.0Hz SWP: 2.729sec
Marker: 2.48GHz 88.2277dBµV
120
110
100
90
80
70
60
50
40
30
dBµV
2470
2480
2490
2500
Frequency [MHz]
Band Edge Compliance

Test Setup Photos



Radiated Spurious Emissions, 9kHz-40GHz Overall Test Setup



Band Edge Overall Test Setup

15. 247(e) Power Spectral Density

Test Conditions / Setup

Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Silicon Laboratories, Inc.**
Specification: **15.247(e) Power Spectral Density**
Work Order #: **95499**
Test Type: **Maximized Emissions** Test Date: 09/10/2014
Equipment: **Thin ZigBee-to-Ethernet gateway**
Manufacturer: Silicon Laboratories, Inc. Tested By: S. Yamamoto
Model: 130-0880-000-A0
S/N: 70B3D555902A

***Test Equipment*:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	7/10/2014	7/10/2015
T2	ANP05421	Cable	Sucoflex 104A	1/8/2014	1/8/2016
T3	ANP06661	Cable	LDF1-50	4/15/2014	4/15/2016
T4	AN00849	Horn Antenna	3115	3/18/2014	3/18/2016

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Thin ZigBee-to-Ethernet gateway*	Silicon Laboratories, Inc.	130-0880-000-A0	70B3D555902A

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	Thinkpad T500	L3B3906
AC to 6Vdc Power Supply	Triad	WDU6-800	NA

Test Conditions / Notes:

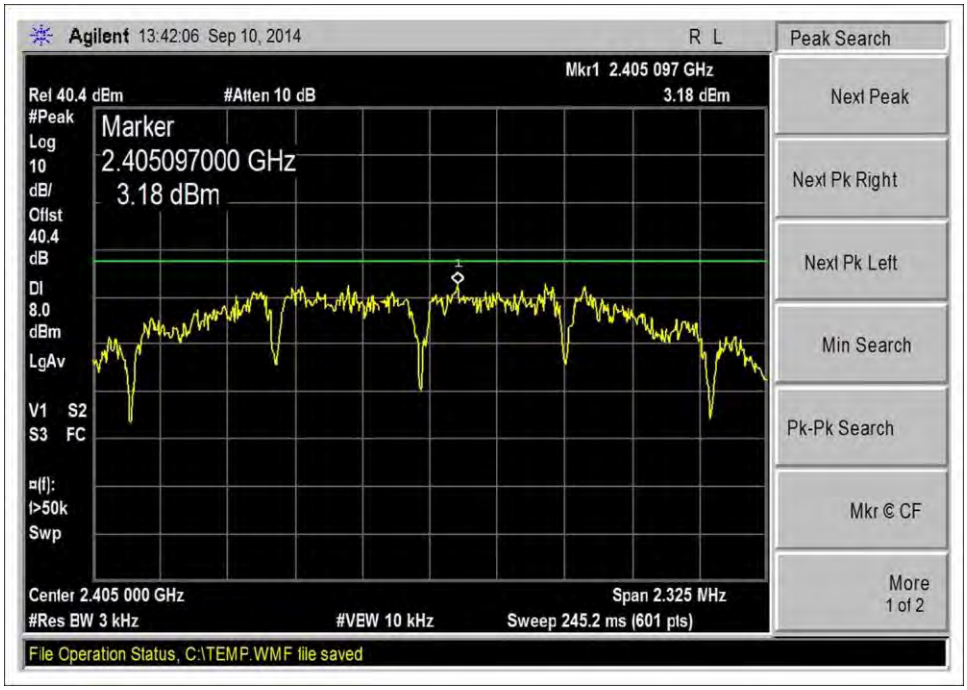
The equipment under test (EUT) is stand alone on the Styrofoam table top. The EUT is connected to a remotely located laptop computer via unshielded cat 5e cable. The computer is running Telnet which is commanding the EUT to the appropriate test frequencies.
The test frequencies are 2405MHz, 2440MHz, and 2480MHz.
An external AC to DC power supply is also connected to the EUT.
Nominal voltage of the EUT is 6VDC.

Frequency range of measurement, 2400MHz to 2483.5MHz.

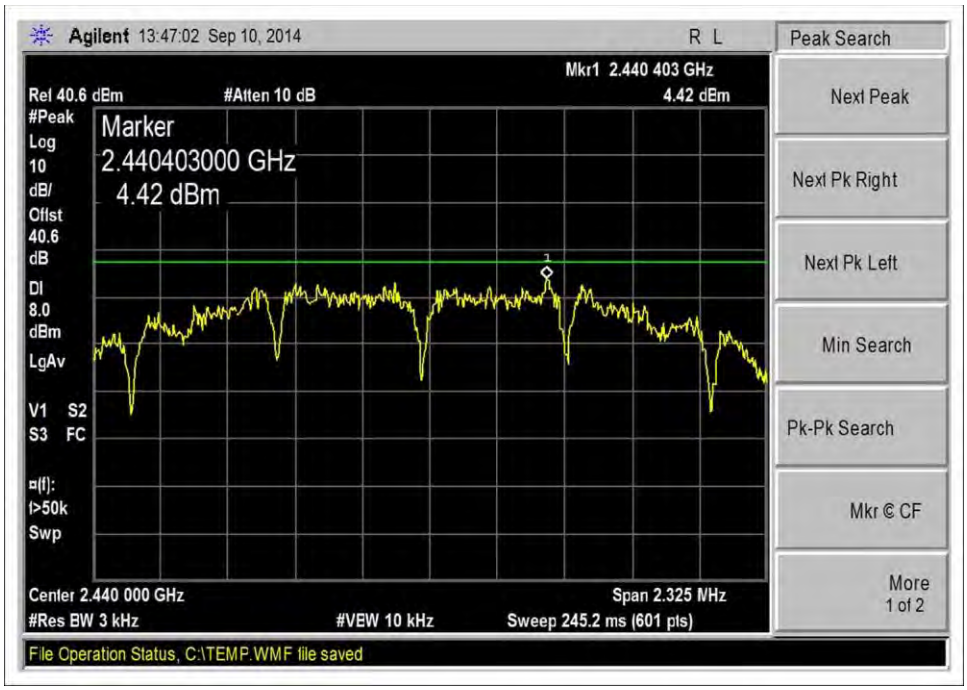
Temperature: 30°C
Relative Humidity: 46%
Pressure: 100kPa
Site D

Frequency: 2405MHz. Firmware power setting = 0xff, +19dBm
Frequency: 2440MHz. Firmware power setting = 0xfe, +18dBm
Frequency: 2480MHz. Firmware power setting = 0xe6, -6dBm

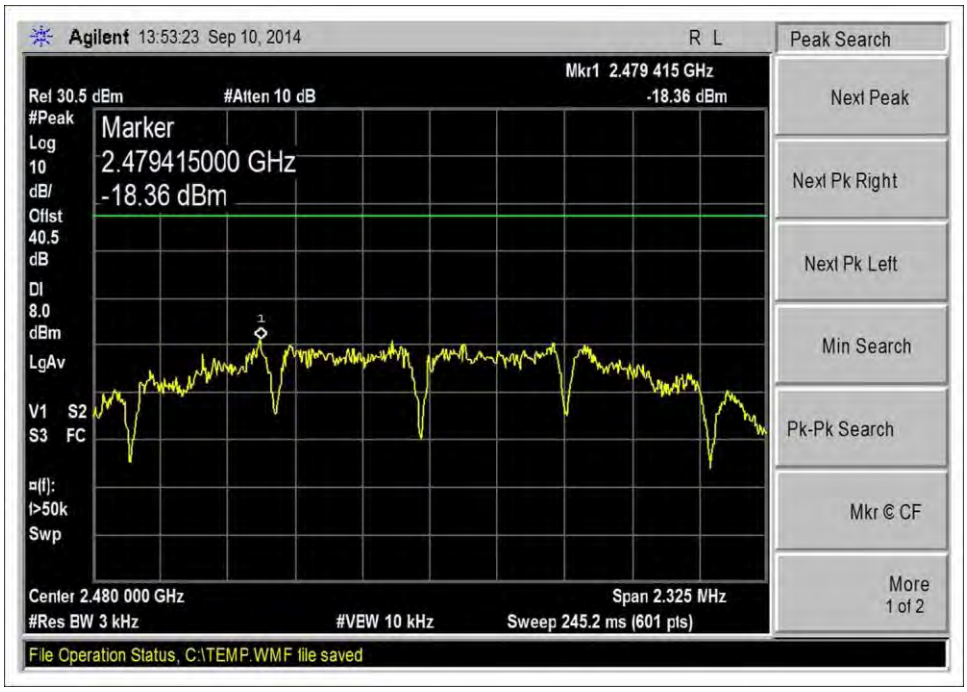
Test Data



Low Channel, 2405MHz

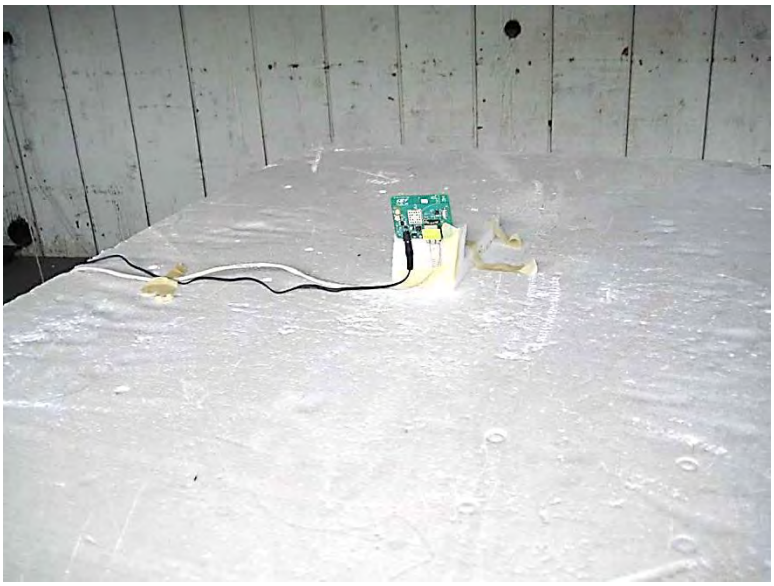


Middle Channel, 2440MHz



High Channel, 2480MHz

Test Setup Photo



APPENDIX A: CUSTOMER PROVIDED INFORMATION

DUTY CYCLE CORRECTION FACTOR CALCULATION

CONSTANTS
One symbol time = 0.016 msec
One byte = 2 symbols
One byte time = 0.032 msec
802.15.4 packet overhead = 6 bytes
802.15.4 maximum packet size, excluding payload = 127 bytes
802.15.4 maximum total packet size = 133 bytes
802.15.4 ACK packet size = 5 bytes plus 6 bytes overhead = 11 bytes
802.15.4 backoff period after receipt of msg = 70 symbols
802.15.4 clear channel assessment (CCA) period before tx = 8 symbols

ON TIME
802.15.4 Max packet TX time = 133 bytes * 0.032 ms/byte = 4.256 msec
TOTAL ON TIME = 4.256 msec

OFF TIME
Minimum delay before start of recepit of ACK = 0.192 msec
Time to receive ACK = 11 bytes * 0.032 ms/byte = 0.352 msec
802.15.4 backoff time = 70 symbols * 0.016 ms/symbol = 1.12 msec
Minimum ACK processing time = 0.2 msec
802.15.4 CCA time = 8 symbols * 0.016 ms/sym = 0.128 msec
RX-to-TX hardware turnaround time = 0.192 msec
TOTAL OFF TIME = 0.192+0.352+1.12+.2+0.128+0.192 = 2.184 msec

DUTY CYCLE
Since the total cycle time is less than 100 msec, we assume continuous transmission over a 100msec window, but the overall on and off times will be multiples of the above numbers.
Thus, the worst- case duty cycle is:
(TOTAL ON TIME) / (TOTAL ON TIME + TOTAL OFF TIME)
4.256 / (4.256 + 2.184)
4.256 / 6.44 = 0.6609 or 66.09 %,

DUTY CYCLE CORRECTION FACTOR
DCCF = 20 * log10 (duty cycle)
= 20 * log10 (0.6609)
= -3.597 dB

P_t = 0.0425 W

SUPPLEMENTAL INFORMATION

Measurement Uncertainty

Uncertainty Value	Parameter
4.73 dB	Radiated Emissions
3.34 dB	Mains Conducted Emissions
3.30 dB	Disturbance Power

The reported measurement uncertainties are calculated based on the worst case of all laboratory environments from CKC Laboratories, Inc. test sites. Only those parameters which require estimation of measurement uncertainty are reported. The reported worst case measurement uncertainty is less than the maximum values derived in CISPR 16-4-2. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k=2. Compliance is deemed to occur provided measurements are below the specified limits.

Emissions Test Details

TESTING PARAMETERS

Unless otherwise indicated, the following configuration parameters are used for equipment setup: The cables were routed consistent with the typical application by varying the configuration of the test sample. Interface cables were connected to the available ports of the test unit. The effect of varying the position of the cables was investigated to find the configuration that produced maximum emissions. Cables were of the type and length specified in the individual requirements. The length of cable that produced maximum emissions was selected.

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the setup photographs. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables.

The emissions data was taken with a spectrum analyzer or receiver. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in the table below. The corrected data was then compared to the applicable emission limits. Preliminary and final measurements were taken in order to ensure that all emissions from the EUT were found and maximized.

CORRECTION FACTORS

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in the tables. For radiated emissions in dBµV/m, the spectrum analyzer reading in dBµV was corrected by using the following formula. This reading was then compared to the applicable specification limit.

SAMPLE CALCULATIONS		
	Meter reading	(dBµV)
+	Antenna Factor	(dB)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	(dBµV/m)

TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed were used to collect the emissions data. A spectrum analyzer or receiver was used for all measurements. Unless otherwise specified, the following table shows the measuring equipment bandwidth settings that were used in designated frequency bands. For testing emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used.

MEASURING EQUIPMENT BANDWIDTH SETTINGS PER FREQUENCY RANGE			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	9 kHz	150 kHz	200 Hz
RADIATED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	>1 GHz	1 MHz

SPECTRUM ANALYZER/RECEIVER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the emissions tables indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "positive peak" detector mode. Whenever a "quasi-peak" or "average" reading was recorded, the measurement was annotated with a "QP" or an "Ave" on the appropriate rows of the data sheets. In cases where quasi-peak or average limits were employed and data exists for multiple measurement types for the same frequency then the peak measurement was retained in the report for reference, however the numbering for the affected row was removed and an arrow or carrot ("^") was placed in the far left-hand column indicating that the row above takes precedence for comparison to the limit. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data.

Peak

In this mode, the spectrum analyzer or receiver recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature called "peak hold," the measurement device had the ability to measure intermittent or low duty cycle transient emission peak levels. In this mode the measuring device made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

Quasi-Peak

Quasi-peak measurements were taken using the quasi-peak detector when the true peak values exceeded or were within 2 dB of a quasi-peak specification limit. Additional QP measurements may have been taken at the discretion of the operator.

Average

Average measurements were taken using the average detector when the true peak values exceeded or were within 2 dB of an average specification limit. Additional average measurements may have been taken at the discretion of the operator. If the specification or test procedure requires trace averaging, then the averaging was performed using 100 samples or as required by the specification. All other average measurements are performed using video bandwidth averaging. To make these measurements, the test engineer reduces the video bandwidth on the measuring device until the modulation of the signal is filtered out. At this point the measuring device is set into the linear mode and the scan time is reduced.