

Walt Disney Parks and Resorts US, Inc.

TEST REPORT FOR

V1

Model: Radionode

Tested to The Following Standards:

FCC Part 15 Subpart C Section(s)

15.247

(DTS 2400-2483.5 MHz)

Report No.: 101978-15

Date of issue: January 23, 2019



Test Certificate # 803.02

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 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.

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ADMINISTRATIVE INFORMATION

Test Report Information

REPORT PREPARED FOR:

Walt Disney Parks and Resorts US, Inc.
PO Box 10000
Lake Buena Vista, FL 32830

Representative:

Synapse Product Development Inc. – Brian Piquette
Customer Reference Number: C-009498

DATE OF EQUIPMENT RECEIPT:**DATE(S) OF TESTING:****REPORT PREPARED BY:**

Terri Rayle
CKC Laboratories, Inc.
5046 Sierra Pines Drive
Mariposa, CA 95338

Project Number: 101978

December 14, 2018

December 14-25, 2018 and January 1-3, 2019

Report Authorization

The test data contained in this report documents the observed testing parameters pertaining to and are relevant for only the equipment provided by the client, 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.

A handwritten signature in black ink that reads "Steve Behm".

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	5.03.11

Site Registration & Accreditation Information

Location	NIST CB #	TAIWAN	CANADA	FCC	JAPAN
Brea D, CA	US0060	SL2-IN-E-1146R	3082D-2	US1025	A-0147

SUMMARY OF RESULTS

Standard / Specification: FCC Part 15 Subpart C - 15.247 (DTS)

Test Procedure	Description	Modifications	Results
15.247(a)(2)	6dB Bandwidth	NA	NP
15.247(b)(3)	Output Power	NA	NP
15.247(e)	Power Spectral Density	NA	NP
15.247(d)	RF Conducted Emissions & Band Edge	NA	NP
15.247(d)	Radiated Emissions & Band Edge	NA	Pass

NA = Not Applicable

NP = CKC Laboratories was not contracted to perform test.

ISO/IEC 17025 Decision Rule

The declaration of pass or fail herein is based upon assessment to the specification(s) listed above, including where applicable, assessment of measurement uncertainties. For performance related tests, equipment was monitored for specified criteria identified in that section of testing.

Modifications During Testing

This list is a summary of the modifications made to the equipment during testing.

Summary of Conditions

No modifications were made during testing.

Modifications listed above must be incorporated into all production units.

Conditions During Testing

This list is a summary of the conditions noted to the equipment during testing.

Summary of Conditions

None

EQUIPMENT UNDER TEST (EUT)

During testing, numerous configurations may have been utilized. The configurations listed below support compliance to the standard(s) listed in the Summary of Results section.

Configuration 1

Equipment Tested:

Device	Manufacturer	Model #	S/N
V1	Walt Disney Parks and Resorts US, Inc.	Radionode	E52

Support Equipment:

Device	Manufacturer	Model #	S/N
POE Power Supply	Netgear	UA3-8504240-011	NA
Gigabit Switch	Netgear	GS108PP	58617ADUA11A9
Laptop	HP	ProBook	SYNA0267

General Product Information:

Product Information	Manufacturer-Provided Details
Equipment Type:	Stand-Alone Equipment
Type of Wideband System:	BLE, DTS Proprietary
Operating Frequency Range:	2402-2480MHz, 2482MHz
Modulation Type(s):	BLE, DTS Proprietary
Maximum Duty Cycle:	98
Number of TX Chains:	2
Antenna Type(s) and Gain:	Antenna 1: PA2x2, 8dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz Antenna 2: MA510, 3.9dBi, integrated cable. Antenna 3: MA673, 4.1 dBi, integrated cable. Antenna 4: HG2458, 13dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz
Beamforming Type:	NA
Antenna Connection Type:	External Connector
Nominal Input Voltage:	120/60 POE
Firmware / Software used for Test:	0.10.4-125

FCC Part 15 Subpart C

15.247(d) Radiated Emissions & Band Edge

Test Setup / Conditions / Data

Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714 993- 6112
 Customer: **Walt Disney Parks and Resorts US, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **101978** Date: 12/20/2018
 Test Type: **Radiated Scan** Time: 13:42:59
 Tested By: E. Wong Sequence#: 3
 Software: EMITest 5.03.11

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 1			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 1			

Test Conditions / Notes:

The EUT is placed on the Styrofoam block. ETH0 is connected to remotely located support POE, Switch and laptop. ETH1 is connected to a section of UTP, USB ports are connected to section of USB cable, GPIO ports are terminated to simulated loads. RX port connects to a Dipole antenna. Micro USB Service port left unpopulated

Remote laptop runs test software to set the EUT into test mode.

Evaluation for Permissive Change II equipment authorization process with various antenna type and configurations.
 FCCID: 2AJS4-RN-R1G1

Radio port 7 and radio port 8 are connected to the antenna in accordance with available configuration.

Protocol:

BLE, 2402MHz, 2440MHz, 2480MHz

DTS (proprietary): 2482MHz single channel

Ant1: PA2X2, 8dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz

Ant2: MA510, 3.9dBi

Ant3: MA673, 4.1 dBi

Ant4: HG2458, 13dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz

Firmware power setting 0 dBm

Antenna under investigation: PA2x2

Frequency range of measurement = 9 kHz- 25 GHz.

9 kHz -150 kHz;RBW=200 Hz,VBW=200 Hz;150 kHz-30 MHz;RBW=9 kHz,VBW=9 kHz;30 MHz-1000 MHz;RBW=120 kHz,VBW=120 kHz,1000 MHz-25000MHz MHz;RBW=1 MHz,VBW=1 MHz.

Test environment conditions:

Temperature: 17.3°C, Relative Humidity: 54%, Pressure: 100.8kPa

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	8/10/2018	8/10/2019
T2	AN01646	Horn Antenna	3115	3/14/2018	3/14/2020
T3	ANP07247	Cable	32022-29094K-29094K-24TC	7/5/2018	7/5/2020
T4	AN00787	Preamp	83017A	6/9/2017	6/9/2019
T5	ANP07138	Cable	ANDL1-PNMNM-60	3/1/2017	3/1/2019
T6	ANP04382	Cable	LDF-50	6/2/2018	6/2/2020
T7	AN03385	High Pass Filter	11SH10-3000/T10000-O/O	6/2/2017	6/2/2019
T8	AN01994	Biconilog Antenna	CBL6111C	4/23/2018	4/23/2020
T9	ANP05283	Attenuator	ATT-0218-06-NNN-02	4/5/2018	4/5/2020
T10	ANP01911	Cable-Amplitude +15C to +45C (dB)	RG214/U	1/8/2018	1/8/2020
T11	AN00010	Preamp	8447D	2/19/2018	2/19/2020
T12	ANP06978	Cable	Sucoflex 104A	3/31/2018	3/31/2020
	AN00314	Loop Antenna	6502	5/13/2018	5/13/2020
	AN01413	Horn Antenna-ANSI C63.5 (dB/m)	84125-80008	10/17/2018	10/17/2020
	AN03367	Horn Antenna-ANSI C63.5 Calibration	62-GH-62-25.	8/24/2017	8/24/2019

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6 T10	T3 T7 T11	T4 T8 T12	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	38.075M	43.3	+0.0	+0.0	+0.0	+0.0	+0.0	37.4	40.0	-2.6	Vert
	QP		+0.0	+0.6	+0.0	+14.2			R7_A1_PA2X2_BL		
			+5.8	+0.6	-27.1	+0.0			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
^	38.075M	44.1	+0.0	+0.0	+0.0	+0.0	+0.0	38.2	40.0	-1.8	Vert
			+0.0	+0.6	+0.0	+14.2			R7_A1_PA2X2_BL		
			+5.8	+0.6	-27.1	+0.0			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
3	950.012M	33.0	+0.0	+0.0	+0.0	+0.0	+0.0	42.5	46.0	-3.5	Horiz
			+0.0	+3.4	+0.0	+24.0			R7_A1_PA2X2_BL		
			+5.9	+3.3	-27.4	+0.3			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		

4	38.823M	42.7	+0.0	+0.0	+0.0	+0.0	+0.0	36.4	40.0	-3.6	Vert
	QP		+0.0	+0.6	+0.0	+13.8			R7_A1_PA2X2_BL		
			+5.8	+0.6	-27.1	+0.0			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
^	38.823M	43.2	+0.0	+0.0	+0.0	+0.0	+0.0	36.9	40.0	-3.1	Vert
			+0.0	+0.6	+0.0	+13.8			R7_A1_PA2X2_BL		
			+5.8	+0.6	-27.1	+0.0			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
6	37.820M	41.9	+0.0	+0.0	+0.0	+0.0	+0.0	36.1	40.0	-3.9	Vert
	QP		+0.0	+0.6	+0.0	+14.3			R7_A1_PA2X2_BL		
			+5.8	+0.6	-27.1	+0.0			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
^	37.820M	42.5	+0.0	+0.0	+0.0	+0.0	+0.0	36.7	40.0	-3.3	Vert
			+0.0	+0.6	+0.0	+14.3			R7_A1_PA2X2_BL		
			+5.8	+0.6	-27.1	+0.0			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
8	850.004M	34.0	+0.0	+0.0	+0.0	+0.0	+0.0	41.8	46.0	-4.2	Horiz
			+0.0	+3.2	+0.0	+23.0			R7_A1_PA2X2_BL		
			+5.9	+3.0	-27.6	+0.3			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
9	950.012M	32.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.7	46.0	-4.3	Vert
			+0.0	+3.4	+0.0	+24.0			R7_A1_PA2X2_BL		
			+5.9	+3.3	-27.4	+0.3			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
10	850.003M	33.7	+0.0	+0.0	+0.0	+0.0	+0.0	41.5	46.0	-4.5	Vert
			+0.0	+3.2	+0.0	+23.0			R7_A1_PA2X2_BL		
			+5.9	+3.0	-27.6	+0.3			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
11	750.003M	35.5	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	46.0	-4.8	Vert
			+0.0	+2.9	+0.0	+21.6			R7_A1_PA2X2_BL		
			+5.9	+2.8	-27.8	+0.3			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		

12	38.565M	41.4	+0.0	+0.0	+0.0	+0.0	+0.0	35.2	40.0	-4.8	Vert
	QP		+0.0	+0.6	+0.0	+13.9			R7_A1_PA2X2_BL		
			+5.8	+0.6	-27.1	+0.0			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
^	38.565M	42.9	+0.0	+0.0	+0.0	+0.0	+0.0	36.7	40.0	-3.3	Vert
			+0.0	+0.6	+0.0	+13.9			R7_A1_PA2X2_BL		
			+5.8	+0.6	-27.1	+0.0			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
14	32.306M	38.0	+0.0	+0.0	+0.0	+0.0	+0.0	35.0	40.0	-5.0	Vert
	QP		+0.0	+0.5	+0.0	+17.3			R7_A1_PA2X2_BL		
			+5.8	+0.5	-27.1	+0.0			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
^	32.306M	38.4	+0.0	+0.0	+0.0	+0.0	+0.0	35.4	40.0	-4.6	Vert
			+0.0	+0.5	+0.0	+17.3			R7_A1_PA2X2_BL		
			+5.8	+0.5	-27.1	+0.0			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
16	900.003M	32.6	+0.0	+0.0	+0.0	+0.0	+0.0	41.0	46.0	-5.0	Vert
			+0.0	+3.2	+0.0	+23.4			R7_A1_PA2X2_BL		
			+5.9	+3.1	-27.5	+0.3			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
17	33.811M	38.7	+0.0	+0.0	+0.0	+0.0	+0.0	34.9	40.0	-5.1	Vert
			+0.0	+0.5	+0.0	+16.5			R7_A1_PA2X2_BL		
			+5.8	+0.5	-27.1	+0.0			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
18	34.063M	38.2	+0.0	+0.0	+0.0	+0.0	+0.0	34.3	40.0	-5.7	Vert
	QP		+0.0	+0.5	+0.0	+16.4			R7_A1_PA2X2_BL		
			+5.8	+0.5	-27.1	+0.0			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		
^	34.063M	39.0	+0.0	+0.0	+0.0	+0.0	+0.0	35.1	40.0	-4.9	Vert
			+0.0	+0.5	+0.0	+16.4			R7_A1_PA2X2_BL		
			+5.8	+0.5	-27.1	+0.0			E_LMH,R7_A1_P		
									A2X2_DTS,		
									R7_A1_PA2X2_BL		
									E_L_L2		

20	900.006M	31.6	+0.0 +0.0 +5.9	+0.0 +3.2 +3.1	+0.0 +0.0 -27.5	+0.0 +23.4 +0.3	+0.0	40.0	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-6.0	Horiz
21	750.003M	34.1	+0.0 +0.0 +5.9	+0.0 +2.9 +2.8	+0.0 +0.0 -27.8	+0.0 +21.6 +0.3	+0.0	39.8	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-6.2	Horiz
22	33.058M QP	37.2	+0.0 +0.0 +5.8	+0.0 +0.5 +0.5	+0.0 +0.0 -27.1	+0.0 +16.9 +0.0	+0.0	33.8	40.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-6.2	Vert
^	33.058M	38.1	+0.0 +0.0 +5.8	+0.0 +0.5 +0.5	+0.0 +0.0 -27.1	+0.0 +16.9 +0.0	+0.0	34.7	40.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-5.3	Vert
24	800.000M	32.8	+0.0 +0.0 +5.9	+0.0 +3.0 +2.9	+0.0 +0.0 -27.7	+0.0 +22.5 +0.3	+0.0	39.7	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-6.3	Horiz
25	550.001M	37.5	+0.0 +0.0 +5.8	+0.0 +2.5 +2.4	+0.0 +0.0 -28.0	+0.0 +19.2 +0.2	+0.0	39.6	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-6.4	Horiz
26	7446.187M	31.6	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	47.5	54.0 R7_A1_R8_A2_PA 2X2_DTS_BLE_H 2	-6.5	Vert
27	624.999M	35.3	+0.0 +0.0 +5.8	+0.0 +2.7 +2.5	+0.0 +0.0 -28.0	+0.0 +20.4 +0.3	+0.0	39.0	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-7.0	Vert
28	649.999M	35.1	+0.0 +0.0 +5.8	+0.0 +2.7 +2.6	+0.0 +0.0 -28.0	+0.0 +20.5 +0.3	+0.0	39.0	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-7.0	Horiz

29	7320.575M	31.8	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	46.9	54.0 R7_A1_R8_A2_PA 2X2_BLE_M_M	-7.1	Vert
30	124.999M	43.2	+0.0 +0.0 +5.8	+0.0 +1.1 +1.0	+0.0 +0.0 -26.9	+0.0 +11.6 +0.1	+0.0	35.9	43.5 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-7.6	Vert
31	800.001M	31.4	+0.0 +0.0 +5.9	+0.0 +3.0 +2.9	+0.0 +0.0 -27.7	+0.0 +22.5 +0.3	+0.0	38.3	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-7.7	Vert
32	7320.765M	31.0	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	46.1	54.0 R7_A1_R8_A2_PA 2X2_BLE_M_M	-7.9	Horiz
33	7428.550M	30.1	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	46.0	54.0 R7_A1_R8_A2_PA 2X2_DTS_BLE_H 2	-8.0	Vert
34	650.004M	33.7	+0.0 +0.0 +5.8	+0.0 +2.7 +2.6	+0.0 +0.0 -28.0	+0.0 +20.5 +0.3	+0.0	37.6	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-8.4	Vert
35	400.003M	38.6	+0.0 +0.0 +5.8	+0.0 +2.1 +2.0	+0.0 +0.0 -27.3	+0.0 +16.0 +0.2	+0.0	37.4	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-8.6	Vert
36	100.001M	43.7	+0.0 +0.0 +5.8	+0.0 +1.0 +0.9	+0.0 +0.0 -27.0	+0.0 +10.1 +0.1	+0.0	34.6	43.5 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-8.9	Vert
37	700.011M	32.6	+0.0 +0.0 +5.9	+0.0 +2.8 +2.7	+0.0 +0.0 -27.9	+0.0 +20.7 +0.3	+0.0	37.1	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-8.9	Horiz
38	4951.543M	35.9	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	45.0	54.0 R7_A1_R8_A2_PA 2X2_DTS_BLE_H 2	-9.0	Horiz

39	450.007M	37.1	+0.0 +0.0 +5.8	+0.0 +2.2 +2.1	+0.0 +0.0 -27.6	+0.0 +17.1 +0.2	+0.0	36.9	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-9.1	Horiz
40	449.993M	36.7	+0.0 +0.0 +5.8	+0.0 +2.2 +2.1	+0.0 +0.0 -27.6	+0.0 +17.1 +0.2	+0.0	36.5	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-9.5	Vert
41	400.003M	37.6	+0.0 +0.0 +5.8	+0.0 +2.1 +2.0	+0.0 +0.0 -27.3	+0.0 +16.0 +0.2	+0.0	36.4	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-9.6	Horiz
42	350.005M	38.2	+0.0 +0.0 +5.8	+0.0 +1.9 +1.8	+0.0 +0.0 -26.8	+0.0 +14.8 +0.2	+0.0	35.9	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-10.1	Horiz
43	300.004M	39.5	+0.0 +0.0 +5.8	+0.0 +1.8 +1.6	+0.0 +0.0 -26.5	+0.0 +13.4 +0.2	+0.0	35.8	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-10.2	Vert
44	4803.600M	35.5	+0.0 +6.1 +0.0	+33.2 +8.0 +0.0	+0.4 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	43.7	54.0 R7_A2_PA2X2_BL E_L	-10.3	Horiz
45	4952.557M	33.7	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	42.8	54.0 R7_A1_R8_A2_PA 2X2_DTS_BLE_H 2	-11.2	Vert
46	600.006M	31.5	+0.0 +0.0 +5.8	+0.0 +2.6 +2.4	+0.0 +0.0 -28.0	+0.0 +20.3 +0.2	+0.0	34.8	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-11.2	Vert
47	4880.566M	34.3	+0.0 +6.1 +0.0	+33.2 +8.2 +0.0	+0.4 +0.3 +0.0	-39.7 +0.0 +0.0	+0.0	42.8	54.0 R7_A1_R8_A2_PA 2X2_BLE_M_M	-11.2	Vert
48	4964.293M	33.4	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	42.5	54.0 R7_A1_R8_A2_PA 2X2_DTS_BLE_H 2	-11.5	Horiz

49	300.002M	37.6	+0.0 +0.0 +5.8	+0.0 +1.8 +1.6	+0.0 +0.0 -26.5	+0.0 +13.4 +0.2	+0.0	33.9	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-12.1	Horiz
50	4959.483M	32.0	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	41.1	54.0 R7_A1_PA2x2_BL E_H	-12.9	Horiz
51	250.007M	38.2	+0.0 +0.0 +5.8	+0.0 +1.6 +1.5	+0.0 +0.0 -26.5	+0.0 +12.2 +0.1	+0.0	32.9	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-13.1	Vert
52	350.008M	34.4	+0.0 +0.0 +5.8	+0.0 +1.9 +1.8	+0.0 +0.0 -26.8	+0.0 +14.8 +0.2	+0.0	32.1	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-13.9	Vert
53	500.002M	31.2	+0.0 +0.0 +5.8	+0.0 +2.4 +2.2	+0.0 +0.0 -27.9	+0.0 +18.0 +0.2	+0.0	31.9	46.0 R7_A1_PA2X2_BL E_LMH,R7_A1_P A2X2_DTS, R7_A1_PA2X2_BL E_L_L2	-14.1	Vert
54	4964.297M	29.5	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	38.6	54.0 R7_A1_R8_A2_PA 2X2_DTS_BLE_H 2	-15.4	Vert
55	7320.467M Ave	21.2	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	36.3	54.0 R8_A2_PA2X2_BL E_M	-17.7	Horiz
^	7320.467M	35.1	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	50.2	54.0 R8_A2_PA2X2_BL E_M	-3.8	Horiz
57	7427.377M Ave	20.4	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	36.3	54.0 R7_A1_R8_A2_PA 2X2_DTS_BLE_H 2	-17.7	Horiz
^	7427.377M	33.2	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	49.1	54.0 R7_A1_R8_A2_PA 2X2_DTS_BLE_H 2	-4.9	Horiz
59	7446.000M Ave	20.3	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	36.2	54.0 R7_A1_PA2X2_D TS	-17.8	Horiz
60	7440.000M Ave	20.3	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	36.2	54.0 R8_A2_PA2X2_BL E_H	-17.8	Horiz

61	7445.227M Ave	20.2	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	36.1	54.0 R8_A2_PA2X2_D TS-X	-17.9	Horiz
^	7445.227M	32.2	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	48.1	54.0 R8_A2_PA2X2_D TS-X	-5.9	Horiz
63	7206.917M Ave	20.8	+0.0 +7.5 +0.0	+35.8 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	35.5	54.0 R8_A2_PA2X2_BL E_L	-18.5	Horiz
64	7439.350M Ave	18.9	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	34.8	54.0 R7_A1_PA2x2_BL E_H	-19.2	Horiz
^	7439.350M	31.3	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	47.2	54.0 R7_A1_PA2x2_BL E_H	-6.8	Horiz
66	4804.617M Ave	26.4	+0.0 +6.1 +0.0	+33.2 +8.0 +0.0	+0.4 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	34.6	54.0 R8_A2_PA2X2_BL E_L	-19.4	Horiz
67	7440.550M Ave	18.7	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	34.6	54.0 R8_A1_PA2X2_BL E_H	-19.4	Horiz
^	7440.550M	31.8	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	47.7	54.0 R8_A1_PA2X2_BL E_H	-6.3	Horiz
69	7445.600M Ave	18.6	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	34.5	54.0 R8_A1_PA2X2_D TS_X	-19.5	Horiz
^	7445.600M	32.4	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	48.3	54.0 R8_A1_PA2X2_D TS_X	-5.7	Horiz
^	7445.517M	29.7	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	45.6	54.0 R7_A1_R8_A2_PA 2X2_DTS_BLE_H 2	-8.4	Horiz
72	7206.800M Ave	19.8	+0.0 +7.5 +0.0	+35.8 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	34.5	54.0 R7_A1_PA2x2_BL E_L	-19.5	Horiz
73	7320.000M Ave	19.4	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	34.5	54.0 R7_A1_PA2x2_BL E_M	-19.5	Horiz
74	7319.950M Ave	19.1	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	34.2	54.0 R8_A1_PA2X2_BL E_M	-19.8	Horiz
75	7440.000M Ave	18.3	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	34.2	54.0 R7_A2_PA2X2_BL E_H	-19.8	Horiz
^	7440.000M	32.1	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	48.0	54.0 R7_A2_PA2X2_BL E_H	-6.0	Horiz
^	7440.000M	31.3	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	47.2	54.0 R8_A2_PA2X2_BL E_H	-6.8	Horiz

78	7206.850M	19.5	+0.0	+35.8	+0.1	-39.6	+0.0	34.2	54.0	-19.8	Horiz
	Ave		+7.5	+10.7	+0.2	+0.0			R8_A1_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_L		
^	7206.917M	34.1	+0.0	+35.8	+0.1	-39.6	+0.0	48.8	54.0	-5.2	Horiz
			+7.5	+10.7	+0.2	+0.0			R8_A2_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_L		
^	7206.800M	33.0	+0.0	+35.8	+0.1	-39.6	+0.0	47.7	54.0	-6.3	Horiz
			+7.5	+10.7	+0.2	+0.0			R7_A1_PA2x2_BL		
			+0.0	+0.0	+0.0	+0.0			E_L		
^	7206.850M	32.8	+0.0	+35.8	+0.1	-39.6	+0.0	47.5	54.0	-6.5	Horiz
			+7.5	+10.7	+0.2	+0.0			R8_A1_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_L		
82	7446.000M	18.2	+0.0	+36.4	+0.2	-39.7	+0.0	34.1	54.0	-19.9	Horiz
	Ave		+7.7	+11.1	+0.2	+0.0			R7_A2_PA2X2_D		
			+0.0	+0.0	+0.0	+0.0			TS_X		
^	7446.000M	34.4	+0.0	+36.4	+0.2	-39.7	+0.0	50.3	54.0	-3.7	Horiz
			+7.7	+11.1	+0.2	+0.0			R7_A1_PA2X2_D		
			+0.0	+0.0	+0.0	+0.0			TS		
^	7446.000M	32.0	+0.0	+36.4	+0.2	-39.7	+0.0	47.9	54.0	-6.1	Horiz
			+7.7	+11.1	+0.2	+0.0			R7_A2_PA2X2_D		
			+0.0	+0.0	+0.0	+0.0			TS_X		
85	7320.000M	18.5	+0.0	+36.2	+0.1	-39.8	+0.0	33.6	54.0	-20.4	Horiz
	Ave		+7.6	+10.8	+0.2	+0.0			R7_A2_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_M		
^	7320.000M	33.5	+0.0	+36.2	+0.1	-39.8	+0.0	48.6	54.0	-5.4	Horiz
			+7.6	+10.8	+0.2	+0.0			R7_A1_PA2x2_BL		
			+0.0	+0.0	+0.0	+0.0			E_M		
^	7319.950M	32.6	+0.0	+36.2	+0.1	-39.8	+0.0	47.7	54.0	-6.3	Horiz
			+7.6	+10.8	+0.2	+0.0			R8_A1_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_M		
^	7320.000M	32.5	+0.0	+36.2	+0.1	-39.8	+0.0	47.6	54.0	-6.4	Horiz
			+7.6	+10.8	+0.2	+0.0			R7_A2_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_M		
89	4964.000M	24.5	+0.0	+33.5	+0.4	-39.6	+0.0	33.6	54.0	-20.4	Horiz
	Ave		+6.1	+8.4	+0.3	+0.0			R8_A2_PA2X2_D		
			+0.0	+0.0	+0.0	+0.0			TS-X		
^	4964.000M	37.0	+0.0	+33.5	+0.4	-39.6	+0.0	46.1	54.0	-7.9	Horiz
			+6.1	+8.4	+0.3	+0.0			R8_A2_PA2X2_D		
			+0.0	+0.0	+0.0	+0.0			TS-X		
^	4964.000M	34.8	+0.0	+33.5	+0.4	-39.6	+0.0	43.9	54.0	-10.1	Horiz
			+6.1	+8.4	+0.3	+0.0			R7_A1_PA2X2_D		
			+0.0	+0.0	+0.0	+0.0			TS		
^	4964.000M	34.7	+0.0	+33.5	+0.4	-39.6	+0.0	43.8	54.0	-10.2	Horiz
			+6.1	+8.4	+0.3	+0.0			R7_A2_PA2X2_D		
			+0.0	+0.0	+0.0	+0.0			TS_X		

93	4960.000M	24.3	+0.0	+33.5	+0.4	-39.6	+0.0	33.4	54.0	-20.6	Horiz
	Ave		+6.1	+8.4	+0.3	+0.0			R8_A2_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_H		
^	4960.000M	37.6	+0.0	+33.5	+0.4	-39.6	+0.0	46.7	54.0	-7.3	Horiz
			+6.1	+8.4	+0.3	+0.0			R8_A2_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_H		
^	4960.000M	33.9	+0.0	+33.5	+0.4	-39.6	+0.0	43.0	54.0	-11.0	Horiz
			+6.1	+8.4	+0.3	+0.0			R7_A2_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_H		
96	4804.567M	25.2	+0.0	+33.2	+0.4	-39.8	+0.0	33.4	54.0	-20.6	Horiz
	Ave		+6.1	+8.0	+0.3	+0.0			R8_A1_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_L		
^	4804.617M	40.0	+0.0	+33.2	+0.4	-39.8	+0.0	48.2	54.0	-5.8	Horiz
			+6.1	+8.0	+0.3	+0.0			R8_A2_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_L		
^	4804.567M	38.5	+0.0	+33.2	+0.4	-39.8	+0.0	46.7	54.0	-7.3	Horiz
			+6.1	+8.0	+0.3	+0.0			R8_A1_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_L		
^	4804.533M	34.6	+0.0	+33.2	+0.4	-39.8	+0.0	42.8	54.0	-11.2	Horiz
			+6.1	+8.0	+0.3	+0.0			R7_A1_PA2x2_BL		
			+0.0	+0.0	+0.0	+0.0			E_L		
100	7205.400M	18.6	+0.0	+35.8	+0.1	-39.6	+0.0	33.3	54.0	-20.7	Horiz
	Ave		+7.5	+10.7	+0.2	+0.0			R7_A2_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_L		
^	7205.400M	32.1	+0.0	+35.8	+0.1	-39.6	+0.0	46.8	54.0	-7.2	Horiz
			+7.5	+10.7	+0.2	+0.0			R7_A2_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_L		
102	4879.967M	23.8	+0.0	+33.2	+0.4	-39.7	+0.0	32.3	54.0	-21.7	Horiz
	Ave		+6.1	+8.2	+0.3	+0.0			R8_A1_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_M		
^	4879.967M	36.0	+0.0	+33.2	+0.4	-39.7	+0.0	44.5	54.0	-9.5	Horiz
			+6.1	+8.2	+0.3	+0.0			R8_A1_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_M		
^	4880.000M	35.1	+0.0	+33.2	+0.4	-39.7	+0.0	43.6	54.0	-10.4	Horiz
			+6.1	+8.2	+0.3	+0.0			R7_A1_PA2x2_BL		
			+0.0	+0.0	+0.0	+0.0			E_M		
^	4880.000M	34.2	+0.0	+33.2	+0.4	-39.7	+0.0	42.7	54.0	-11.3	Horiz
			+6.1	+8.2	+0.3	+0.0			R7_A2_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_M		
106	4880.467M	23.5	+0.0	+33.2	+0.4	-39.7	+0.0	32.0	54.0	-22.0	Horiz
	Ave		+6.1	+8.2	+0.3	+0.0			R8_A2_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_M		
^	4880.467M	36.9	+0.0	+33.2	+0.4	-39.7	+0.0	45.4	54.0	-8.6	Horiz
			+6.1	+8.2	+0.3	+0.0			R8_A2_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_M		
^	4880.553M	35.9	+0.0	+33.2	+0.4	-39.7	+0.0	44.4	54.0	-9.6	Horiz
			+6.1	+8.2	+0.3	+0.0			R7_A1_R8_A2_PA		
			+0.0	+0.0	+0.0	+0.0			2X2_BLE_M_M		

109	4960.367M	21.7	+0.0	+33.5	+0.4	-39.6	+0.0	30.8	54.0	-23.2	Horiz
	Ave		+6.1	+8.4	+0.3	+0.0			R8_A1_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_H		
^	4960.367M	35.6	+0.0	+33.5	+0.4	-39.6	+0.0	44.7	54.0	-9.3	Horiz
			+6.1	+8.4	+0.3	+0.0			R8_A1_PA2X2_BL		
			+0.0	+0.0	+0.0	+0.0			E_H		
111	4963.733M	21.6	+0.0	+33.5	+0.4	-39.6	+0.0	30.7	54.0	-23.3	Horiz
	Ave		+6.1	+8.4	+0.3	+0.0			R8_A1_PA2X2_D		
			+0.0	+0.0	+0.0	+0.0			TS_X		
^	4963.733M	35.9	+0.0	+33.5	+0.4	-39.6	+0.0	45.0	54.0	-9.0	Horiz
			+6.1	+8.4	+0.3	+0.0			R8_A1_PA2X2_D		
			+0.0	+0.0	+0.0	+0.0			TS_X		
113	4963.733M	20.7	+0.0	+33.5	+0.4	-39.6	+0.0	29.8	54.0	-24.2	Vert
	Ave		+6.1	+8.4	+0.3	+0.0			R8_A2_PA2X2_D		
			+0.0	+0.0	+0.0	+0.0			TS_X		
^	4963.733M	33.5	+0.0	+33.5	+0.4	-39.6	+0.0	42.6	54.0	-11.4	Vert
			+6.1	+8.4	+0.3	+0.0			R8_A2_PA2X2_D		
			+0.0	+0.0	+0.0	+0.0			TS_X		

Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714 993- 6112
 Customer: **Walt Disney Parks and Resorts US, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **101978** Date: 12/14/2018
 Test Type: **Radiated Scan** Time: 11:39:11
 Tested By: E. Wong Sequence#: 2
 Software: EMITest 5.03.11

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 1			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 1			

Test Conditions / Notes:

The EUT is placed on the Styrofoam block. ETH0 is connected to remotely located support POE, Switch and laptop. ETH1 is connected to a section of UTP, USB ports are connected to section of USB cable, GPIO ports are terminated to simulated loads. RX port connects to a Dipole antenna. Micro USB Service port left unpopulated

Remote laptop runs test software to set the EUT into test mode.

Evaluation for Permissive Change II equipment authorization process with various antenna type and configurations.

FCCID: 2AJS4-RN-R1G1

Radio port 7 and radio port 8 are connected to the antenna in accordance with available configuration.

Protocol:

BLE, 2402MHz, 2440MHz, 2480MHz

DTS (proprietary): 2482MHz single channel

Ant1: PA2X2, 8dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz

Ant2: MA510, 3.9dBi

Ant3:MA673, 4.1 dBi

Ant4: HG2458, 13dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz

Firmware power setting 0 dBm

Antenna under investigation: MA510

Frequency range of measurement = 9 kHz- 25 GHz.

9 kHz -150 kHz;RBW=200 Hz,VBW=200 Hz;150 kHz-30 MHz;RBW=9 kHz,VBW=9 kHz;30 MHz-1000 MHz;RBW=120 kHz,VBW=120 kHz,1000 MHz-25000MHz MHz;RBW=1 MHz,VBW=1 MHz.

Test environment conditions:

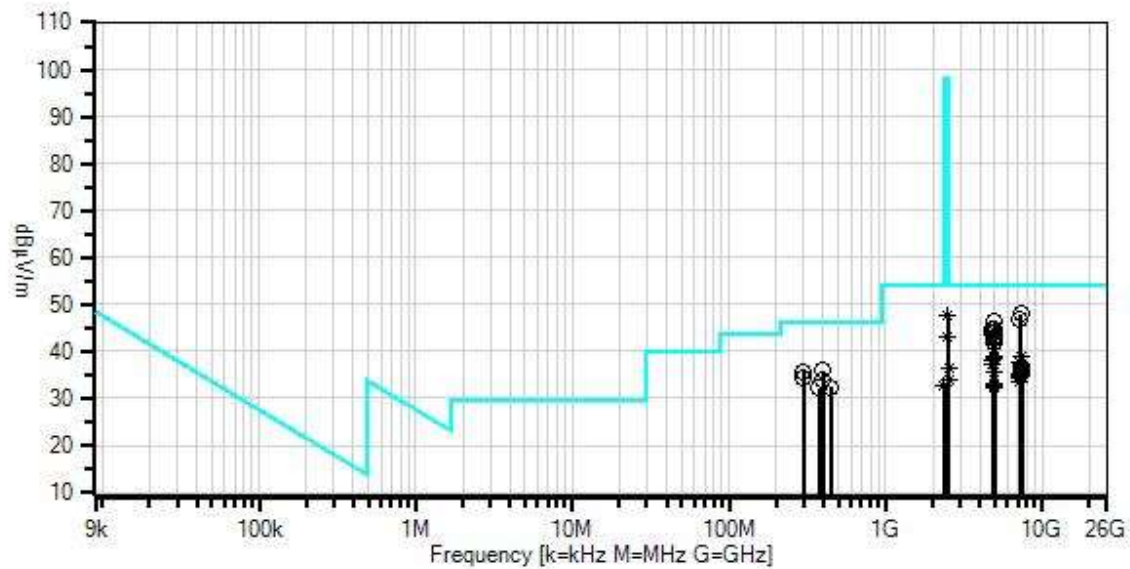
Temperature: 17.3°C, Relative Humidity: 54%, Pressure: 100.8kPa

Test method in accordance with FCC document: 558074 558074 D01 15.247 Meas Guidance v05. Investigation in all orientation, worst case orientation presented.

Site D

ANSI C63.10-2013

Walt Disney Parks and Resorts US, Inc. WO#: 101978 Sequence#: 2 Date: 12/14/2018
15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Horiz



— Readings
× QP Readings
▼ Ambient

○ Peak Readings
* Average Readings
Software Version: 5.03.11

1 - 15.247(d) / 15.209 Radiated Spurious Emissions

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	8/10/2018	8/10/2019
T2	AN01646	Horn Antenna	3115	3/14/2018	3/14/2020
T3	ANP07247	Cable	32022-29094K-29094K-24TC	7/5/2018	7/5/2020
T4	AN00787	Preamp	83017A	6/9/2017	6/9/2019
T5	ANP07138	Cable	ANDL1-PNMNM-60	3/1/2017	3/1/2019
T6	ANP04382	Cable	LDF-50	6/2/2018	6/2/2020
T7	AN03385	High Pass Filter	11SH10-3000/T10000-O/O	6/2/2017	6/2/2019
T8	AN01994	Biconilog Antenna	CBL6111C	4/23/2018	4/23/2020
T9	ANP05283	Attenuator	ATT-0218-06-NNN-02	4/5/2018	4/5/2020
T10	ANP01911	Cable-Amplitude +15C to +45C (dB)	RG214/U	1/8/2018	1/8/2020
T11	AN00010	Preamp	8447D	2/19/2018	2/19/2020
T12	ANP06978	Cable	Sucoflex 104A	3/31/2018	3/31/2020
	AN00314	Loop Antenna	6502	5/13/2018	5/13/2020
	AN01413	Horn Antenna-ANSI C63.5 (dB/m)	84125-80008	10/17/2018	10/17/2020
	AN03367	Horn Antenna-ANSI C63.5 Calibration	62-GH-62-25.	8/24/2017	8/24/2019

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6 T10	T3 T7 T11	T4 T8 T12	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	7320.033M	32.8	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	47.9	54.0 R7_A1_MA510_B LE_M	-6.1	Vert
2	2487.970M Ave	49.5	+0.0 +4.1 +0.0	+28.5 +5.5 +0.0	+0.3 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	47.7	54.0 R7_A1_R8_A2_M A510_BLE_H2_DT S	-6.3	Horiz
3	7206.850M	32.3	+0.0 +7.5 +0.0	+35.8 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	47.0	54.0 R7_A1_MA510_B LE_L	-7.0	Horiz
4	4952.050M	37.4	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	46.5	54.0 R7_A1_R8_A2_M A510_DTS_BLE_ H2	-7.5	Horiz
5	4952.000M	35.8	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	44.9	54.0 R7_A1_R8_A2_M A510_BLE_H2_DT S	-9.1	Horiz

6	4811.930M	36.4	+0.0 +6.1 +0.0	+33.2 +8.0 +0.0	+0.4 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	44.6	54.0 R7_A1_R8_A2_M A510_BLE_L_L2	-9.4	Horiz
7	4960.250M	34.9	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	44.0	54.0 R7_A2_MA510_B LE_H	-10.0	Horiz
8	4804.167M	35.7	+0.0 +6.1 +0.0	+33.2 +8.0 +0.0	+0.4 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	43.9	54.0 R7_A2_MA510_B LE_L	-10.1	Horiz
9	400.000M	37.1	+0.0 +0.0 +5.8	+0.0 +2.1 +2.0	+0.0 +0.0 -27.3	+0.0 +16.0 +0.2	+0.0	35.9	46.0 R8_A2_MA510_B LE_H	-10.1	Vert
10	300.000M	39.4	+0.0 +0.0 +5.8	+0.0 +1.8 +1.6	+0.0 +0.0 -26.5	+0.0 +13.4 +0.2	+0.0	35.7	46.0 R8_A2_MA510_B LE_H	-10.3	Horiz
11	2487.953M Ave	45.0	+0.0 +4.1 +0.0	+28.5 +5.5 +0.0	+0.3 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	43.2	54.0 R7_A1_R8_A2_M A510_DTS_BLE_ H2	-10.8	Horiz
^	2487.970M	65.5	+0.0 +4.1 +0.0	+28.5 +5.5 +0.0	+0.3 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	63.7	54.0 R7_A1_R8_A2_M A510_BLE_H2_DT S	+9.7	Horiz
^	2487.953M	62.9	+0.0 +4.1 +0.0	+28.5 +5.5 +0.0	+0.3 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	61.1	54.0 R7_A1_R8_A2_M A510_DTS_BLE_ H2	+7.1	Horiz
14	4964.680M	34.0	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	43.1	54.0 R7_A1_MA510_D TS	-10.9	Horiz
15	4951.333M	33.7	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	42.8	54.0 R7_A1_R8_A2_M A510_BLE_H_H2	-11.2	Horiz
16	4964.000M Ave	33.4	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	42.5	54.0 R8_A1_MA510_ DTS X	-11.5	Horiz
^	4964.000M	44.0	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	53.1	54.0 R8_A1_MA510_ DTS X	-0.9	Horiz
18	300.003M	38.2	+0.0 +0.0 +5.8	+0.0 +1.8 +1.6	+0.0 +0.0 -26.5	+0.0 +13.4 +0.2	+0.0	34.5	46.0 R8_A2_MA510_B LE_H	-11.5	Vert
19	399.920M	35.3	+0.0 +0.0 +5.8	+0.0 +2.1 +2.0	+0.0 +0.0 -27.3	+0.0 +16.0 +0.2	+0.0	34.1	46.0 R8_A2_MA510_B LE_H	-11.9	Horiz
20	4879.983M	33.2	+0.0 +6.1 +0.0	+33.2 +8.2 +0.0	+0.4 +0.3 +0.0	-39.7 +0.0 +0.0	+0.0	41.7	54.0 R7_A1_MA510_B LE_M	-12.3	Vert
21	449.080M	32.6	+0.0 +0.0 +5.8	+0.0 +2.2 +2.1	+0.0 +0.0 -27.6	+0.0 +17.0 +0.2	+0.0	32.3	46.0 R8_A2_MA510_B LE_H	-13.7	Horiz

22	374.970M	33.9	+0.0	+0.0	+0.0	+0.0	+0.0	32.1	46.0	-13.9	Vert
			+0.0	+2.0	+0.0	+15.4			R8_A2_MA510_B		
			+5.8	+1.9	-27.1	+0.2			LE_H		
23	4880.000M	30.6	+0.0	+33.2	+0.4	-39.7	+0.0	39.1	54.0	-14.9	Horiz
	Ave		+6.1	+8.2	+0.3	+0.0			R8_A1_MA510_		
			+0.0	+0.0	+0.0	+0.0			BLE_M		
^	4880.000M	42.4	+0.0	+33.2	+0.4	-39.7	+0.0	50.9	54.0	-3.1	Horiz
			+6.1	+8.2	+0.3	+0.0			R8_A1_MA510_		
			+0.0	+0.0	+0.0	+0.0			BLE_M		
^	4879.983M	35.4	+0.0	+33.2	+0.4	-39.7	+0.0	43.9	54.0	-10.1	Horiz
			+6.1	+8.2	+0.3	+0.0			R7_A1_MA510_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	4880.000M	35.1	+0.0	+33.2	+0.4	-39.7	+0.0	43.6	54.0	-10.4	Horiz
			+6.1	+8.2	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A510_BLE_M_M		
27	7445.333M	23.2	+0.0	+36.4	+0.2	-39.7	+0.0	39.1	54.0	-14.9	Horiz
	Ave		+7.7	+11.1	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A510_BLE_H2_DT		
									S		
^	7445.333M	36.0	+0.0	+36.4	+0.2	-39.7	+0.0	51.9	54.0	-2.1	Horiz
			+7.7	+11.1	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A510_BLE_H2_DT		
									S		
29	7319.600M	23.9	+0.0	+36.2	+0.1	-39.8	+0.0	39.0	54.0	-15.0	Vert
	Ave		+7.6	+10.8	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A510_BLE_M_M		
^	7319.600M	35.5	+0.0	+36.2	+0.1	-39.8	+0.0	50.6	54.0	-3.4	Vert
			+7.6	+10.8	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A510_BLE_M_M		
31	4959.483M	29.7	+0.0	+33.5	+0.4	-39.6	+0.0	38.8	54.0	-15.2	Horiz
	Ave		+6.1	+8.4	+0.3	+0.0			R8_A2_MA510_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	4959.483M	43.6	+0.0	+33.5	+0.4	-39.6	+0.0	52.7	54.0	-1.3	Horiz
			+6.1	+8.4	+0.3	+0.0			R8_A2_MA510_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
33	7320.000M	23.7	+0.0	+36.2	+0.1	-39.8	+0.0	38.8	54.0	-15.2	Horiz
	Ave		+7.6	+10.8	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A510_BLE_M_M		
^	7320.000M	38.1	+0.0	+36.2	+0.1	-39.8	+0.0	53.2	54.0	-0.8	Horiz
			+7.6	+10.8	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A510_BLE_M_M		
35	4964.367M	29.4	+0.0	+33.5	+0.4	-39.6	+0.0	38.5	54.0	-15.5	Horiz
	Ave		+6.1	+8.4	+0.3	+0.0			R8_A2_MA510_D		
			+0.0	+0.0	+0.0	+0.0			TS X		

36	4803.700M Ave	29.8	+0.0 +6.1 +0.0	+33.2 +8.0 +0.0	+0.4 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	38.0	54.0 R8_A2_MA510_B LE_L	-16.0	Horiz
^	4803.700M	42.4	+0.0 +6.1 +0.0	+33.2 +8.0 +0.0	+0.4 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	50.6	54.0 R8_A2_MA510_B LE_L	-3.4	Horiz
^	4803.770M	38.1	+0.0 +6.1 +0.0	+33.2 +8.0 +0.0	+0.4 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	46.3	54.0 R7_A1_R8_A2_M A510_BLE_L_L2	-7.7	Horiz
39	7218.500M Ave	22.8	+0.0 +7.5 +0.0	+35.9 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	37.6	54.0 R7_A1_R8_A2_M A510_BLE_L_L2	-16.4	Horiz
^	7218.500M	36.1	+0.0 +7.5 +0.0	+35.9 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	50.9	54.0 R7_A1_R8_A2_M A510_BLE_L_L2	-3.1	Horiz
41	7439.717M Ave	21.4	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	37.3	54.0 R8_A2_MA510_B LE_H	-16.7	Horiz
^	7439.717M	34.9	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	50.8	54.0 R8_A2_MA510_B LE_H	-3.2	Horiz
43	4804.483M Ave	28.9	+0.0 +6.1 +0.0	+33.2 +8.0 +0.0	+0.4 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	37.1	54.0 R8_A1_MA510_ BLE_L	-16.9	Horiz
^	4804.483M	42.4	+0.0 +6.1 +0.0	+33.2 +8.0 +0.0	+0.4 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	50.6	54.0 R8_A1_MA510_ BLE_L	-3.4	Horiz
^	4804.417M	34.7	+0.0 +6.1 +0.0	+33.2 +8.0 +0.0	+0.4 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	42.9	54.0 R7_A1_MA510_B LE_L	-11.1	Horiz
46	7319.300M Ave	21.6	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	36.7	54.0 R8_A1_MA510_ BLE_M	-17.3	Horiz
^	7319.300M	36.2	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	51.3	54.0 R8_A1_MA510_ BLE_M	-2.7	Horiz
48	2520.620M Ave	38.4	+0.0 +4.1 +0.0	+28.5 +5.5 +0.0	+0.3 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	36.6	54.0 R7_A1_R8_A2_M A510_DTS_BLE_ H2	-17.4	Horiz
^	2520.620M	51.0	+0.0 +4.1 +0.0	+28.5 +5.5 +0.0	+0.3 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	49.2	54.0 R7_A1_R8_A2_M A510_DTS_BLE_ H2	-4.8	Horiz
50	7320.600M Ave	21.4	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	36.5	54.0 R8_A2_MA510_B LE_M	-17.5	Horiz
^	7320.600M	34.9	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	50.0	54.0 R8_A2_MA510_B LE_M	-4.0	Horiz

52	7446.550M Ave	20.2	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	36.1	54.0 R8_A2_MA510_D TS X	-17.9	Horiz
53	7446.000M Ave	20.1	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	36.0	54.0 R8_A1_MA510_ DTS X	-18.0	Horiz
^	7446.000M	34.6	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	50.5	54.0 R8_A1_MA510_ DTS X	-3.5	Horiz
55	7439.500M Ave	20.0	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	35.9	54.0 R7_A1_MA510_B LE_H	-18.1	Horiz
^	7439.500M	33.2	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	49.1	54.0 R7_A1_MA510_B LE_H	-4.9	Horiz
57	7428.953M Ave	20.0	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	35.9	54.0 R7_A1_R8_A2_M A510_DTS_BLE_ H2	-18.1	Horiz
^	7428.953M	34.9	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	50.8	54.0 R7_A1_R8_A2_M A510_DTS_BLE_ H2	-3.2	Horiz
59	7440.683M Ave	20.0	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	35.9	54.0 R7_A2_MA510_B LE_H	-18.1	Horiz
^	7440.683M	32.8	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	48.7	54.0 R7_A2_MA510_B LE_H	-5.3	Horiz
61	7320.250M Ave	20.6	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	35.7	54.0 R7_A1_MA510_B LE_M	-18.3	Horiz
^	7320.250M	34.4	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	49.5	54.0 R7_A1_MA510_B LE_M	-4.5	Horiz
63	4960.000M Ave	26.5	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	35.6	54.0 R8_A1_MA510_ BLE_H	-18.4	Horiz
^	4960.000M	38.3	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	47.4	54.0 R8_A1_MA510_ BLE_H	-6.6	Horiz
65	7445.233M Ave	19.6	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	35.5	54.0 R8_A2_MA510_B LE_H	-18.5	Vert
^	7445.233M	33.8	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	49.7	54.0 R8_A2_MA510_B LE_H	-4.3	Vert
67	7440.000M Ave	19.5	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	35.4	54.0 R8_A1_MA510_ BLE_H	-18.6	Horiz

68	7440.000M Ave	19.3	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	35.2	54.0 R7_A1_R8_A2_M A510_BLE_H_H2	-18.8	Horiz
^	7440.000M	33.6	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	49.5	54.0 R8_A1_MA510_ BLE_H	-4.5	Horiz
^	7440.000M	33.1	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	49.0	54.0 R7_A1_R8_A2_M A510_BLE_H_H2	-5.0	Horiz
71	7206.500M Ave	20.3	+0.0 +7.5 +0.0	+35.8 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	35.0	54.0 R8_A2_MA510_B LE_L	-19.0	Horiz
72	7206.500M Ave	20.2	+0.0 +7.5 +0.0	+35.8 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	34.9	54.0 R7_A1_R8_A2_M A510_BLE_L_L2	-19.1	Horiz
73	7446.550M Ave	18.8	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	34.7	54.0 R7_A2_MA510_D TS X	-19.3	Horiz
^	7446.550M	34.9	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	50.8	54.0 R8_A2_MA510_D TS X	-3.2	Horiz
^	7446.550M	32.3	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	48.2	54.0 R7_A2_MA510_D TS X	-5.8	Horiz
76	7445.560M Ave	18.8	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	34.7	54.0 R7_A1_MA510_D TS	-19.3	Horiz
^	7445.560M	32.7	+0.0 +7.7 +0.0	+36.4 +11.1 +0.0	+0.2 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	48.6	54.0 R7_A1_MA510_D TS	-5.4	Horiz
78	7319.667M Ave	19.5	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	34.6	54.0 R7_A2_MA510_B LE_M	-19.4	Horiz
^	7319.667M	34.0	+0.0 +7.6 +0.0	+36.2 +10.8 +0.0	+0.1 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	49.1	54.0 R7_A2_MA510_B LE_M	-4.9	Horiz
80	7206.483M Ave	19.5	+0.0 +7.5 +0.0	+35.8 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	34.2	54.0 R8_A1_MA510_ BLE_L	-19.8	Horiz
^	7206.500M	35.7	+0.0 +7.5 +0.0	+35.8 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	50.4	54.0 R8_A2_MA510_B LE_L	-3.6	Horiz
^	7206.500M	33.3	+0.0 +7.5 +0.0	+35.8 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	48.0	54.0 R7_A1_R8_A2_M A510_BLE_L_L2	-6.0	Horiz
^	7206.483M	32.4	+0.0 +7.5 +0.0	+35.8 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	47.1	54.0 R8_A1_MA510_ BLE_L	-6.9	Horiz

84	2517.800M Ave	35.7	+0.0 +4.1 +0.0	+28.5 +5.5 +0.0	+0.3 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	33.9	54.0 R7_A1_R8_A2_M A510_BLE_H_H2	-20.1	Horiz
^	2517.800M	48.2	+0.0 +4.1 +0.0	+28.5 +5.5 +0.0	+0.3 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	46.4	54.0 R7_A1_R8_A2_M A510_BLE_H_H2	-7.6	Horiz
86	7206.950M Ave	18.9	+0.0 +7.5 +0.0	+35.8 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	33.6	54.0 R7_A1_MA510_B LE_L	-20.4	Horiz
87	7206.250M Ave	18.7	+0.0 +7.5 +0.0	+35.8 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	33.4	54.0 R7_A2_MA510_B LE_L	-20.6	Horiz
^	7206.250M	32.4	+0.0 +7.5 +0.0	+35.8 +10.7 +0.0	+0.1 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	47.1	54.0 R7_A2_MA510_B LE_L	-6.9	Horiz
89	4879.633M Ave	24.5	+0.0 +6.1 +0.0	+33.2 +8.2 +0.0	+0.4 +0.3 +0.0	-39.7 +0.0 +0.0	+0.0	33.0	54.0 R8_A2_MA510_B LE_M	-21.0	Horiz
^	4879.633M	38.4	+0.0 +6.1 +0.0	+33.2 +8.2 +0.0	+0.4 +0.3 +0.0	-39.7 +0.0 +0.0	+0.0	46.9	54.0 R8_A2_MA510_B LE_M	-7.1	Horiz
91	4963.517M Ave	23.4	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	32.5	54.0 R8_A2_MA510_B LE_H	-21.5	Vert
^	4963.517M	37.2	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	46.3	54.0 R8_A2_MA510_B LE_H	-7.7	Vert
93	2364.400M Ave	34.3	+0.0 +4.0 +0.0	+28.4 +5.4 +0.0	+0.3 +0.0 +0.0	-39.9 +0.0 +0.0	+0.0	32.5	54.0 R7_A1_R8_A2_M A510_BLE_L_L2	-21.5	Horiz
^	2364.400M	49.9	+0.0 +4.0 +0.0	+28.4 +5.4 +0.0	+0.3 +0.0 +0.0	-39.9 +0.0 +0.0	+0.0	48.1	54.0 R7_A1_R8_A2_M A510_BLE_L_L2	-5.9	Horiz
95	4964.367M Ave	23.3	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	32.4	54.0 R7_A2_MA510_D TS X	-21.6	Horiz
^	4964.367M	42.4	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	51.5	54.0 R8_A2_MA510_D TS X	-2.5	Horiz
^	4964.367M	36.7	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	45.8	54.0 R7_A2_MA510_D TS X	-8.2	Horiz
98	4959.750M Ave	23.1	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	32.2	54.0 R7_A1_MA510_B LE_H	-21.8	Horiz
^	4959.750M	36.6	+0.0 +6.1 +0.0	+33.5 +8.4 +0.0	+0.4 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	45.7	54.0 R7_A1_MA510_B LE_H	-8.3	Horiz



Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714 993- 6112
 Customer: **Walt Disney Parks and Resorts US, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **101978** Date: 12/20/2018
 Test Type: **Radiated Scan** Time: 13:35:55
 Tested By: S. Yamamoto Sequence#: 4
 Software: EMITest 5.03.11

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 1			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 1			

Test Conditions / Notes:

The EUT is placed on the Styrofoam block. ETH0 is connected to remotely located support POE, Switch and laptop. ETH1 is connected to a section of UTP, USB ports are connected to section of USB cable, GPIO ports are terminated to simulated loads. RX port connects to a Dipole antenna. Micro USB Service port left unpopulated

Remote laptop runs test software to set the EUT into test mode.

Evaluation for Permissive Change II equipment authorization process with various antenna type and configurations.
 FCCID: 2AJS4-RN-R1G1
 Radio port 7 and radio port 8 are connected to the antenna in accordance with available configuration.

Protocol:
 BLE, 2402MHz, 2440MHz, 2480MHz
 DTS (proprietary): 2482MHz single channel

Ant1: PA2X2, 8dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz
 Ant2: MA510, 3.9dBi
 Ant3:MA673, 4.1 dBi
 Ant4: HG2458, 13dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz

Firmware power setting 0 dBm
Antenna under investigation: MA673

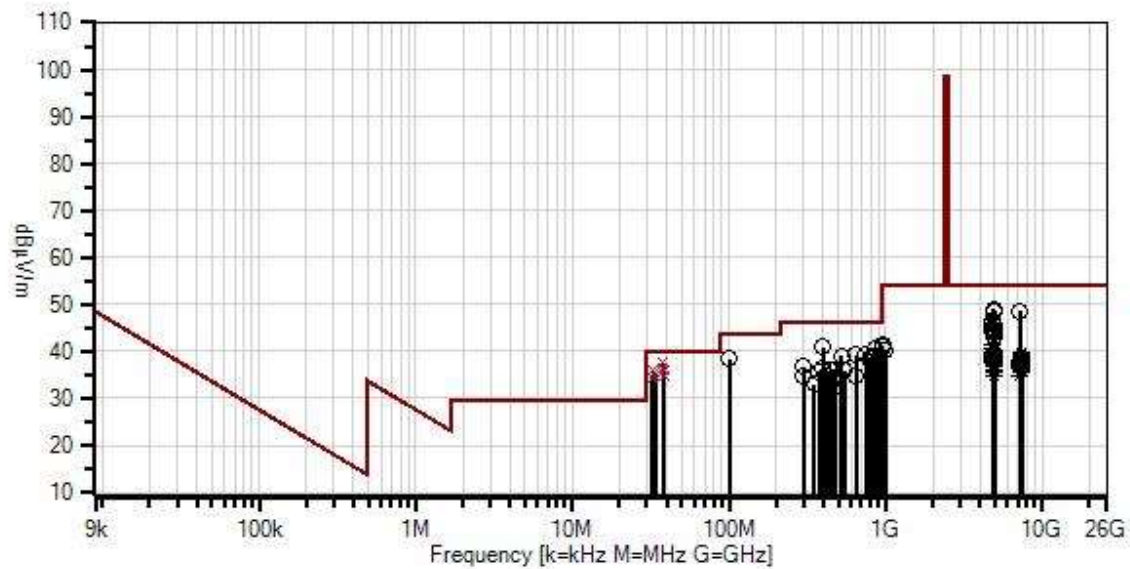
Frequency range of measurement = 9 kHz- 25 GHz.
 9 kH -150 kHz;RBW=200 Hz,VBW=200 Hz;150 kHz-30 MHz;RBW=9 kHz,VBW=9 kHz;30 MHz-1000 MHz;RBW=120 kHz,VBW=120 kHz,1000 MHz-25000MHz MHz;RBW=1 MHz,VBW=1 MHz.

Test environment conditions:
 Temperature: 18°C, Relative Humidity: 55%, Pressure: 99kPa

Test method in accordance with FCC document: 558074 558074 D01 15.247 Meas Guidance v05. Investigation in all orientation, worst case orientation presented.

Site D
 ANSI C63.10-2013

Walt Disney Parks and Resorts US, Inc. WO#: 101978 Sequence#: 4 Date: 12/20/2018
15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Vert



— Readings
× QP Readings
▼ Ambient
— 1 - 15.247(d) / 15.209 Radiated Spurious Emissions

○ Peak Readings
* Average Readings
Software Version: 5.03.11

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	8/10/2018	8/10/2019
T2	ANP04382	Cable	LDF-50	6/2/2018	6/2/2020
T3	ANP07138	Cable	ANDL1-PNMM-60	3/1/2017	3/1/2019
T4	AN00787	Preamp	83017A	6/9/2017	6/9/2019
T5	ANP07247	Cable	32022-29094K-29094K-24TC	7/5/2018	7/5/2020
T6	AN01646	Horn Antenna	3115	3/14/2018	3/14/2020
T7	AN03385	High Pass Filter	11SH10-3000/T10000-O/O	6/2/2017	6/2/2019
T8	AN01994	Biconilog Antenna	CBL6111C	4/23/2018	4/23/2020
T9	ANP05283	Attenuator	ATT-0218-06-NNN-02	4/5/2018	4/5/2020
T10	ANP01911	Cable-Amplitude +15C to +45C (dB)	RG214/U	1/8/2018	1/8/2020
T11	AN00010	Preamp	8447D	2/19/2018	2/19/2020
T12	ANP06978	Cable	Sucoflex 104A	3/31/2018	3/31/2020
	AN00314	Loop Antenna	6502	5/13/2018	5/13/2020
	AN01413	Horn Antenna-ANSI C63.5 (dB/m)	84125-80008	10/17/2018	10/17/2020
	AN03367	Horn Antenna-ANSI C63.5 Calibration	62-GH-62-25.	8/24/2017	8/24/2019

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6 T10	T3 T7 T11	T4 T8 T12	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	38.065M	43.4	+0.0 +0.0 +5.8	+0.6 +0.0 +0.6	+0.0 +0.0 -27.1	+0.0 +14.2 +0.0	+0.0	37.5	40.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-2.5	Vert
^	38.065M	44.1	+0.0 +0.0 +5.8	+0.6 +0.0 +0.6	+0.0 +0.0 -27.1	+0.0 +14.2 +0.0	+0.0	38.2	40.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-1.8	Vert
3	37.808M	42.4	+0.0 +0.0 +5.8	+0.6 +0.0 +0.6	+0.0 +0.0 -27.1	+0.0 +14.3 +0.0	+0.0	36.6	40.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-3.4	Vert
^	37.808M	42.6	+0.0 +0.0 +5.8	+0.6 +0.0 +0.6	+0.0 +0.0 -27.1	+0.0 +14.3 +0.0	+0.0	36.8	40.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-3.2	Vert

5	38.800M	42.5	+0.0	+0.6	+0.0	+0.0	+0.0	36.2	40.0	-3.8	Vert
	QP		+0.0	+0.0	+0.0	+13.8			R7_A1_MA673_B		
			+5.8	+0.6	-27.1	+0.0			LE_LMH,R7_A1_		
									MA673_DTS		
^	38.800M	42.9	+0.0	+0.6	+0.0	+0.0	+0.0	36.6	40.0	-3.4	Vert
			+0.0	+0.0	+0.0	+13.8			R7_A1_MA673_B		
			+5.8	+0.6	-27.1	+0.0			LE_LMH,R7_A1_		
									MA673_DTS		
7	33.052M	39.3	+0.0	+0.5	+0.0	+0.0	+0.0	35.9	40.0	-4.1	Vert
	QP		+0.0	+0.0	+0.0	+16.9			R7_A1_MA673_B		
			+5.8	+0.5	-27.1	+0.0			LE_LMH,R7_A1_		
									MA673_DTS		
^	33.052M	40.3	+0.0	+0.5	+0.0	+0.0	+0.0	36.9	40.0	-3.1	Vert
			+0.0	+0.0	+0.0	+16.9			R7_A1_MA673_B		
			+5.8	+0.5	-27.1	+0.0			LE_LMH,R7_A1_		
									MA673_DTS		
9	33.792M	39.2	+0.0	+0.5	+0.0	+0.0	+0.0	35.4	40.0	-4.6	Vert
	QP		+0.0	+0.0	+0.0	+16.5			R7_A1_MA673_B		
			+5.8	+0.5	-27.1	+0.0			LE_LMH,R7_A1_		
									MA673_DTS		
10	33.792M	39.2	+0.0	+0.5	+0.0	+0.0	+0.0	35.4	40.0	-4.6	Vert
	QP		+0.0	+0.0	+0.0	+16.5			R7_A1_MA673_B		
			+5.8	+0.5	-27.1	+0.0			LE_LMH,R7_A1_		
									MA673_DTS		
^	33.792M	40.3	+0.0	+0.5	+0.0	+0.0	+0.0	36.5	40.0	-3.5	Vert
			+0.0	+0.0	+0.0	+16.5			R7_A1_MA673_B		
			+5.8	+0.5	-27.1	+0.0			LE_LMH,R7_A1_		
									MA673_DTS		
12	949.977M	31.8	+0.0	+3.4	+0.0	+0.0	+0.0	41.3	46.0	-4.7	Horiz
			+0.0	+0.0	+0.0	+24.0			R7_A1_MA673_B		
			+5.9	+3.3	-27.4	+0.3			LE_LMH,R7_A1_		
									MA673_DTS		
13	4879.610M	40.5	+0.0	+8.2	+6.1	-39.7	+0.0	49.0	54.0	-5.0	Vert
			+0.4	+33.2	+0.3	+0.0			R8_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
14	100.001M	47.6	+0.0	+1.0	+0.0	+0.0	+0.0	38.5	43.5	-5.0	Vert
			+0.0	+0.0	+0.0	+10.1			R7_A1_MA673_B		
			+5.8	+0.9	-27.0	+0.1			LE_LMH,R7_A1_		
									MA673_DTS		
15	400.003M	42.1	+0.0	+2.1	+0.0	+0.0	+0.0	40.9	46.0	-5.1	Horiz
			+0.0	+0.0	+0.0	+16.0			R7_A1_MA673_B		
			+5.8	+2.0	-27.3	+0.2			LE_LMH,R7_A1_		
									MA673_DTS		
16	4963.630M	39.7	+0.0	+8.4	+6.1	-39.6	+0.0	48.8	54.0	-5.2	Vert
			+0.4	+33.5	+0.3	+0.0			R8_A3_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
17	950.015M	31.3	+0.0	+3.4	+0.0	+0.0	+0.0	40.8	46.0	-5.2	Vert
			+0.0	+0.0	+0.0	+24.0			R7_A1_MA673_B		
			+5.9	+3.3	-27.4	+0.3			LE_LMH,R7_A1_		
									MA673_DTS		

18	38.554M	41.0	+0.0	+0.6	+0.0	+0.0	+0.0	34.8	40.0	-5.2	Vert
	QP		+0.0	+0.0	+0.0	+13.9			R7_A1_MA673_B		
			+5.8	+0.6	-27.1	+0.0			LE_LMH,R7_A1_		
									MA673_DTS		
^	38.554M	41.8	+0.0	+0.6	+0.0	+0.0	+0.0	35.6	40.0	-4.4	Vert
			+0.0	+0.0	+0.0	+13.9			R7_A1_MA673_B		
			+5.8	+0.6	-27.1	+0.0			LE_LMH,R7_A1_		
									MA673_DTS		
20	34.084M	38.7	+0.0	+0.5	+0.0	+0.0	+0.0	34.8	40.0	-5.2	Vert
	QP		+0.0	+0.0	+0.0	+16.4			R7_A1_MA673_B		
			+5.8	+0.5	-27.1	+0.0			LE_LMH,R7_A1_		
									MA673_DTS		
^	34.084M	41.8	+0.0	+0.5	+0.0	+0.0	+0.0	37.9	40.0	-2.1	Vert
			+0.0	+0.0	+0.0	+16.4			R7_A1_MA673_B		
			+5.8	+0.5	-27.1	+0.0			LE_LMH,R7_A1_		
									MA673_DTS		
22	850.012M	32.9	+0.0	+3.2	+0.0	+0.0	+0.0	40.7	46.0	-5.3	Vert
			+0.0	+0.0	+0.0	+23.0			R7_A1_MA673_B		
			+5.9	+3.0	-27.6	+0.3			LE_LMH,R7_A1_		
									MA673_DTS		
23	7205.674M	33.9	+0.0	+10.7	+7.5	-39.6	+0.0	48.6	54.0	-5.4	Vert
			+0.1	+35.8	+0.2	+0.0			R7_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
24	32.296M	37.4	+0.0	+0.5	+0.0	+0.0	+0.0	34.4	40.0	-5.6	Vert
	QP		+0.0	+0.0	+0.0	+17.3			R7_A1_MA673_B		
			+5.8	+0.5	-27.1	+0.0			LE_LMH,R7_A1_		
									MA673_DTS		
^	32.296M	38.0	+0.0	+0.5	+0.0	+0.0	+0.0	35.0	40.0	-5.0	Vert
			+0.0	+0.0	+0.0	+17.3			R7_A1_MA673_B		
			+5.8	+0.5	-27.1	+0.0			LE_LMH,R7_A1_		
									MA673_DTS		
26	4963.948M	39.2	+0.0	+8.4	+6.1	-39.6	+0.0	48.3	54.0	-5.7	Horiz
			+0.4	+33.5	+0.3	+0.0			R8_A3_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
27	750.004M	33.8	+0.0	+2.9	+0.0	+0.0	+0.0	39.5	46.0	-6.5	Vert
			+0.0	+0.0	+0.0	+21.6			R7_A1_MA673_B		
			+5.9	+2.8	-27.8	+0.3			LE_LMH,R7_A1_		
									MA673_DTS		
28	650.000M	35.4	+0.0	+2.7	+0.0	+0.0	+0.0	39.3	46.0	-6.7	Horiz
			+0.0	+0.0	+0.0	+20.5			R7_A1_MA673_B		
			+5.8	+2.6	-28.0	+0.3			LE_LMH,R7_A1_		
									MA673_DTS		
29	750.001M	33.6	+0.0	+2.9	+0.0	+0.0	+0.0	39.3	46.0	-6.7	Horiz
			+0.0	+0.0	+0.0	+21.6			R7_A1_MA673_B		
			+5.9	+2.8	-27.8	+0.3			LE_LMH,R7_A1_		
									MA673_DTS		
30	525.001M	37.7	+0.0	+2.5	+0.0	+0.0	+0.0	39.1	46.0	-6.9	Vert
			+0.0	+0.0	+0.0	+18.6			R7_A1_MA673_B		
			+5.8	+2.3	-28.0	+0.2			LE_LMH,R7_A1_		
									MA673_DTS		

31	849.998M	31.3	+0.0 +0.0 +5.9	+3.2 +0.0 +3.0	+0.0 +0.0 -27.6	+0.0 +23.0 +0.3	+0.0	39.1	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-6.9	Horiz
32	900.025M	30.7	+0.0 +0.0 +5.9	+3.2 +0.0 +3.1	+0.0 +0.0 -27.5	+0.0 +23.4 +0.3	+0.0	39.1	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-6.9	Vert
33	900.017M	30.4	+0.0 +0.0 +5.9	+3.2 +0.0 +3.1	+0.0 +0.0 -27.5	+0.0 +23.4 +0.3	+0.0	38.8	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-7.2	Horiz
34	799.991M	31.8	+0.0 +0.0 +5.9	+3.0 +0.0 +2.9	+0.0 +0.0 -27.7	+0.0 +22.5 +0.3	+0.0	38.7	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-7.3	Horiz
35	4804.415M	38.3	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	46.5	54.0 R7_A2_MA673_B LE_L	-7.5	Vert
36	4804.108M	37.6	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	45.8	54.0 R7_A1_R8_A2_M A673_BLE_L_L2	-8.2	Vert
37	4952.691M	36.5	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	45.6	54.0 R7_A1_R8_A2_M A673_BLE_H2_DT S	-8.4	Horiz
38	4960.400M	36.5	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	45.6	54.0 R7_A2_MA673_B LE_H	-8.4	Vert
39	800.018M	30.7	+0.0 +0.0 +5.9	+3.0 +0.0 +2.9	+0.0 +0.0 -27.7	+0.0 +22.5 +0.3	+0.0	37.6	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-8.4	Vert
40	4951.470M	35.8	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	44.9	54.0 R7_A1_R8_A2_M A673_BLE_H2_DT S	-9.1	Vert
41	300.004M	40.5	+0.0 +0.0 +5.8	+1.8 +0.0 +1.6	+0.0 +0.0 -26.5	+0.0 +13.4 +0.2	+0.0	36.8	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-9.2	Horiz
42	4803.912M	36.5	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	44.7	54.0 R7_A3_MA673_B LE_L	-9.3	Horiz
43	4804.782M	36.5	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	44.7	54.0 R7_A3_MA673_B LE_L	-9.3	Vert
44	399.991M	37.6	+0.0 +0.0 +5.8	+2.1 +0.0 +2.0	+0.0 +0.0 -27.3	+0.0 +16.0 +0.2	+0.0	36.4	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-9.6	Vert

45	4880.275M	35.8	+0.0 +0.4 +0.0	+8.2 +33.2 +0.0	+6.1 +0.3 +0.0	-39.7 +0.0 +0.0	+0.0	44.3	54.0 R7_A2_MA673_B LE_M	-9.7	Horiz
46	4804.100M	36.0	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	44.2	54.0 R7_A1_R8_A2_M A673_BLE_L_L2	-9.8	Horiz
47	4964.223M	35.1	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	44.2	54.0 R7_A2_MA673_D TS	-9.8	Vert
48	4962.921M	35.1	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	44.2	54.0 R7_A3_MA673_D TS	-9.8	Horiz
49	4963.655M	35.0	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	44.1	54.0 R7_A2_MA673_D TS	-9.9	Horiz
50	475.002M	35.9	+0.0 +0.0 +5.8	+2.3 +0.0 +2.2	+0.0 +0.0 -27.8	+0.0 +17.5 +0.2	+0.0	36.1	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-9.9	Vert
51	450.009M	36.2	+0.0 +0.0 +5.8	+2.2 +0.0 +2.1	+0.0 +0.0 -27.6	+0.0 +17.1 +0.2	+0.0	36.0	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-10.0	Vert
52	550.011M	33.9	+0.0 +0.0 +5.8	+2.5 +0.0 +2.4	+0.0 +0.0 -28.0	+0.0 +19.2 +0.2	+0.0	36.0	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-10.0	Horiz
53	375.008M	37.6	+0.0 +0.0 +5.8	+2.0 +0.0 +1.9	+0.0 +0.0 -27.1	+0.0 +15.4 +0.2	+0.0	35.8	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-10.2	Vert
54	4962.939M	34.1	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	43.2	54.0 R7_A3_MA673_D TS	-10.8	Vert
55	4880.723M	34.5	+0.0 +0.4 +0.0	+8.2 +33.2 +0.0	+6.1 +0.3 +0.0	-39.7 +0.0 +0.0	+0.0	43.0	54.0 R7_A3_MA673_B LE_M	-11.0	Horiz
56	299.999M	38.4	+0.0 +0.0 +5.8	+1.8 +0.0 +1.6	+0.0 +0.0 -26.5	+0.0 +13.4 +0.2	+0.0	34.7	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-11.3	Vert
57	650.003M	30.7	+0.0 +0.0 +5.8	+2.7 +0.0 +2.6	+0.0 +0.0 -28.0	+0.0 +20.5 +0.3	+0.0	34.6	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-11.4	Vert
58	424.990M	35.3	+0.0 +0.0 +5.8	+2.2 +0.0 +2.1	+0.0 +0.0 -27.5	+0.0 +16.5 +0.2	+0.0	34.6	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-11.4	Vert

59	4804.553M Ave	33.1	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	41.3	54.0 R8_A2_MA673_B LE_L	-12.7	Vert
^	4804.553M	45.6	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	53.8	54.0 R8_A2_MA673_B LE_L	-0.2	Vert
61	350.002M	35.2	+0.0 +0.0 +5.8	+1.9 +0.0 +1.8	+0.0 +0.0 -26.8	+0.0 +14.8 +0.2	+0.0	32.9	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-13.1	Horiz
62	450.011M	33.1	+0.0 +0.0 +5.8	+2.2 +0.0 +2.1	+0.0 +0.0 -27.6	+0.0 +17.1 +0.2	+0.0	32.9	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-13.1	Horiz
63	4804.567M Ave	32.5	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	40.7	54.0 R8_A2_MA673_B LE_L	-13.3	Horiz
64	999.998M	30.0	+0.0 +0.0 +5.9	+3.5 +0.0 +3.4	+0.0 +0.0 -27.3	+0.0 +24.5 +0.3	+0.0	40.3	54.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-13.7	Vert
65	4879.837M Ave	31.7	+0.0 +0.4 +0.0	+8.2 +33.2 +0.0	+6.1 +0.3 +0.0	-39.7 +0.0 +0.0	+0.0	40.2	54.0 R7_A1_R8_A2_M A673_BLE_M_M	-13.8	Horiz
^	4879.837M	44.1	+0.0 +0.4 +0.0	+8.2 +33.2 +0.0	+6.1 +0.3 +0.0	-39.7 +0.0 +0.0	+0.0	52.6	54.0 R7_A1_R8_A2_M A673_BLE_M_M	-1.4	Horiz
^	4879.887M	38.9	+0.0 +0.4 +0.0	+8.2 +33.2 +0.0	+6.1 +0.3 +0.0	-39.7 +0.0 +0.0	+0.0	47.4	54.0 R7_A1_MA673_B LE_M	-6.6	Horiz
68	474.998M	31.9	+0.0 +0.0 +5.8	+2.3 +0.0 +2.2	+0.0 +0.0 -27.8	+0.0 +17.5 +0.2	+0.0	32.1	46.0 R7_A1_MA673_B LE_LMH,R7_A1_ MA673_DTS	-13.9	Horiz
69	7440.690M Ave	24.0	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	39.9	54.0 R8_A3_MA673_B LE_H	-14.1	Horiz
^	7440.690M	37.4	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	53.3	54.0 R8_A3_MA673_B LE_H	-0.7	Horiz
71	7319.279M Ave	24.7	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	39.8	54.0 R7_A1_R8_A2_M A673_BLE_M_M	-14.2	Vert
^	7319.279M	38.6	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	53.7	54.0 R7_A1_R8_A2_M A673_BLE_M_M	-0.3	Vert
73	7445.209M Ave	23.8	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	39.7	54.0 R8_A3_MA673_D TS	-14.3	Horiz
^	7445.209M	38.0	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	53.9	54.0 R8_A3_MA673_D TS	-0.1	Horiz

75	4880.314M	31.2	+0.0	+8.2	+6.1	-39.7	+0.0	39.7	54.0	-14.3	Vert
	Ave		+0.4	+33.2	+0.3	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	4880.314M	43.6	+0.0	+8.2	+6.1	-39.7	+0.0	52.1	54.0	-1.9	Vert
			+0.4	+33.2	+0.3	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	4880.233M	39.8	+0.0	+8.2	+6.1	-39.7	+0.0	48.3	54.0	-5.7	Vert
			+0.4	+33.2	+0.3	+0.0			R7_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
78	4811.500M	31.4	+0.0	+8.0	+6.1	-39.8	+0.0	39.6	54.0	-14.4	Horiz
	Ave		+0.4	+33.2	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_L_L2		
^	4811.500M	44.3	+0.0	+8.0	+6.1	-39.8	+0.0	52.5	54.0	-1.5	Horiz
			+0.4	+33.2	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_L_L2		
80	4803.547M	31.2	+0.0	+8.0	+6.1	-39.8	+0.0	39.4	54.0	-14.6	Vert
	Ave		+0.4	+33.2	+0.3	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
^	4803.547M	44.0	+0.0	+8.0	+6.1	-39.8	+0.0	52.2	54.0	-1.8	Vert
			+0.4	+33.2	+0.3	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
82	7440.898M	23.4	+0.0	+11.1	+7.7	-39.7	+0.0	39.3	54.0	-14.7	Horiz
	Ave		+0.2	+36.4	+0.2	+0.0			R7_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
83	4952.440M	30.1	+0.0	+8.4	+6.1	-39.6	+0.0	39.2	54.0	-14.8	Horiz
	Ave		+0.4	+33.5	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H_H2		
^	4952.440M	42.4	+0.0	+8.4	+6.1	-39.6	+0.0	51.5	54.0	-2.5	Horiz
			+0.4	+33.5	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H_H2		
85	7445.948M	23.1	+0.0	+11.1	+7.7	-39.7	+0.0	39.0	54.0	-15.0	Horiz
	Ave		+0.2	+36.4	+0.2	+0.0			R7_A3_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
^	7445.948M	37.5	+0.0	+11.1	+7.7	-39.7	+0.0	53.4	54.0	-0.6	Horiz
			+0.2	+36.4	+0.2	+0.0			R7_A3_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
87	4804.556M	30.7	+0.0	+8.0	+6.1	-39.8	+0.0	38.9	54.0	-15.1	Horiz
	Ave		+0.4	+33.2	+0.3	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
^	4804.567M	44.5	+0.0	+8.0	+6.1	-39.8	+0.0	52.7	54.0	-1.3	Horiz
			+0.4	+33.2	+0.3	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
89	4879.540M	30.4	+0.0	+8.2	+6.1	-39.7	+0.0	38.9	54.0	-15.1	Horiz
	Ave		+0.4	+33.2	+0.3	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
90	7446.680M	22.8	+0.0	+11.1	+7.7	-39.7	+0.0	38.7	54.0	-15.3	Horiz
	Ave		+0.2	+36.4	+0.2	+0.0			R8_A2_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
^	7446.680M	36.7	+0.0	+11.1	+7.7	-39.7	+0.0	52.6	54.0	-1.4	Horiz
			+0.2	+36.4	+0.2	+0.0			R8_A2_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		

92	4951.743M	29.5	+0.0	+8.4	+6.1	-39.6	+0.0	38.6	54.0	-15.4	Vert
	Ave		+0.4	+33.5	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H_H2		
^	4951.743M	42.0	+0.0	+8.4	+6.1	-39.6	+0.0	51.1	54.0	-2.9	Vert
			+0.4	+33.5	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H_H2		
94	4811.501M	30.4	+0.0	+8.0	+6.1	-39.8	+0.0	38.6	54.0	-15.4	Vert
	Ave		+0.4	+33.2	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_L_L2		
^	4811.501M	43.4	+0.0	+8.0	+6.1	-39.8	+0.0	51.6	54.0	-2.4	Vert
			+0.4	+33.2	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_L_L2		
96	4804.458M	30.4	+0.0	+8.0	+6.1	-39.8	+0.0	38.6	54.0	-15.4	Horiz
	Ave		+0.4	+33.2	+0.3	+0.0			R8_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
^	4804.556M	43.8	+0.0	+8.0	+6.1	-39.8	+0.0	52.0	54.0	-2.0	Horiz
			+0.4	+33.2	+0.3	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
^	4804.458M	42.9	+0.0	+8.0	+6.1	-39.8	+0.0	51.1	54.0	-2.9	Horiz
			+0.4	+33.2	+0.3	+0.0			R8_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
99	4880.487M	30.0	+0.0	+8.2	+6.1	-39.7	+0.0	38.5	54.0	-15.5	Vert
	Ave		+0.4	+33.2	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_M_M		
^	4880.487M	42.6	+0.0	+8.2	+6.1	-39.7	+0.0	51.1	54.0	-2.9	Vert
			+0.4	+33.2	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_M_M		
^	4880.542M	35.6	+0.0	+8.2	+6.1	-39.7	+0.0	44.1	54.0	-9.9	Vert
			+0.4	+33.2	+0.3	+0.0			R7_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
102	7319.420M	23.2	+0.0	+10.8	+7.6	-39.8	+0.0	38.3	54.0	-15.7	Horiz
	Ave		+0.1	+36.2	+0.2	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
103	4879.837M	29.7	+0.0	+8.2	+6.1	-39.7	+0.0	38.2	54.0	-15.8	Vert
	Ave		+0.4	+33.2	+0.3	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	4879.837M	41.6	+0.0	+8.2	+6.1	-39.7	+0.0	50.1	54.0	-3.9	Vert
			+0.4	+33.2	+0.3	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	4879.792M	36.5	+0.0	+8.2	+6.1	-39.7	+0.0	45.0	54.0	-9.0	Vert
			+0.4	+33.2	+0.3	+0.0			R7_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
106	7320.802M	23.1	+0.0	+10.8	+7.6	-39.8	+0.0	38.2	54.0	-15.8	Vert
	Ave		+0.1	+36.2	+0.2	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
107	7445.288M	22.2	+0.0	+11.1	+7.7	-39.7	+0.0	38.1	54.0	-15.9	Vert
	Ave		+0.2	+36.4	+0.2	+0.0			R8_A3_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		

108	4803.703M Ave	29.9	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	38.1	54.0 R8_A3_MA673_B LE_L	-15.9	Vert
^	4803.703M	42.8	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	51.0	54.0 R8_A3_MA673_B LE_L	-3.0	Vert
^	4803.750M	39.3	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	47.5	54.0 R7_A1_MA673_B LE_L	-6.5	Vert
111	7446.780M Ave	22.2	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	38.1	54.0 R7_A1_R8_A2_M A673_BLE_H2_DT S	-15.9	Vert
112	7427.467M Ave	22.1	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	38.0	54.0 R7_A1_R8_A2_M A673_BLE_H_H2	-16.0	Horiz
^	7427.467M	36.0	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	51.9	54.0 R7_A1_R8_A2_M A673_BLE_H_H2	-2.1	Horiz
114	7445.316M Ave	22.0	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	37.9	54.0 R8_A2_MA673_D TS	-16.1	Vert
^	7445.288M	35.6	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	51.5	54.0 R8_A3_MA673_D TS	-2.5	Vert
^	7445.316M	35.3	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	51.2	54.0 R8_A2_MA673_D TS	-2.8	Vert
117	4959.888M Ave	28.8	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	37.9	54.0 R8_A1_MA673_B LE_H	-16.1	Vert
^	4959.888M	40.7	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	49.8	54.0 R8_A1_MA673_B LE_H	-4.2	Vert
119	7320.810M Ave	22.8	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	37.9	54.0 R8_A1_MA673_B LE_M	-16.1	Vert
120	7446.807M Ave	22.0	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	37.9	54.0 R7_A1_MA673_D TS	-16.1	Vert

121	7446.849M Ave	22.0	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	37.9	54.0 R7_A2_MA673_D TS	-16.1	Vert
^	7446.807M	35.5	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	51.4	54.0 R7_A1_MA673_D TS	-2.6	Vert
^	7446.780M	35.2	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	51.1	54.0 R7_A1_R8_A2_M A673_BLE_H2_DT S	-2.9	Vert
^	7446.849M	34.4	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	50.3	54.0 R7_A2_MA673_D TS	-3.7	Vert
125	7321.027M Ave	22.8	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	37.9	54.0 R8_A3_MA673_B LE_M	-16.1	Horiz
^	7321.027M	37.9	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	53.0	54.0 R8_A3_MA673_B LE_M	-1.0	Horiz
127	7319.500M Ave	22.8	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	37.9	54.0 R7_A2_MA673_B LE_M	-16.1	Horiz
^	7319.500M	36.9	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	52.0	54.0 R7_A2_MA673_B LE_M	-2.0	Horiz
129	7320.917M Ave	22.8	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	37.9	54.0 R7_A1_R8_A2_M A673_BLE_M_M	-16.1	Horiz
^	7320.917M	38.4	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	53.5	54.0 R7_A1_R8_A2_M A673_BLE_M_M	-0.5	Horiz
131	7206.845M Ave	23.2	+0.0 +0.1 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	37.9	54.0 R8_A3_MA673_B LE_L	-16.1	Horiz
132	7445.399M Ave	21.9	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	37.8	54.0 R7_A1_MA673_D TS	-16.2	Horiz
^	7445.399M	35.9	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	51.8	54.0 R7_A1_MA673_D TS	-2.2	Horiz
134	4964.570M Ave	28.7	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	37.8	54.0 R8_A1_MA673_D TS	-16.2	Horiz
^	4964.570M	41.8	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	50.9	54.0 R8_A1_MA673_D TS	-3.1	Horiz

136	4964.417M	28.7	+0.0	+8.4	+6.1	-39.6	+0.0	37.8	54.0	-16.2	Horiz
	Ave		+0.4	+33.5	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H2_DT		
									S		
^	4964.417M	41.4	+0.0	+8.4	+6.1	-39.6	+0.0	50.5	54.0	-3.5	Horiz
			+0.4	+33.5	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H2_DT		
									S		
138	7428.370M	21.9	+0.0	+11.1	+7.7	-39.7	+0.0	37.8	54.0	-16.2	Vert
	Ave		+0.2	+36.4	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H_H2		
^	7428.370M	36.5	+0.0	+11.1	+7.7	-39.7	+0.0	52.4	54.0	-1.6	Vert
			+0.2	+36.4	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H_H2		
140	4879.547M	29.3	+0.0	+8.2	+6.1	-39.7	+0.0	37.8	54.0	-16.2	Horiz
	Ave		+0.4	+33.2	+0.3	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	4879.540M	43.5	+0.0	+8.2	+6.1	-39.7	+0.0	52.0	54.0	-2.0	Horiz
			+0.4	+33.2	+0.3	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	4879.547M	42.3	+0.0	+8.2	+6.1	-39.7	+0.0	50.8	54.0	-3.2	Horiz
			+0.4	+33.2	+0.3	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
143	4959.535M	28.7	+0.0	+8.4	+6.1	-39.6	+0.0	37.8	54.0	-16.2	Horiz
	Ave		+0.4	+33.5	+0.3	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	4959.535M	41.9	+0.0	+8.4	+6.1	-39.6	+0.0	51.0	54.0	-3.0	Horiz
			+0.4	+33.5	+0.3	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	4959.595M	38.7	+0.0	+8.4	+6.1	-39.6	+0.0	47.8	54.0	-6.2	Horiz
			+0.4	+33.5	+0.3	+0.0			R8_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	4959.550M	38.5	+0.0	+8.4	+6.1	-39.6	+0.0	47.6	54.0	-6.4	Horiz
			+0.4	+33.5	+0.3	+0.0			R7_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	4959.569M	36.3	+0.0	+8.4	+6.1	-39.6	+0.0	45.4	54.0	-8.6	Horiz
			+0.4	+33.5	+0.3	+0.0			R7_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	4959.587M	35.8	+0.0	+8.4	+6.1	-39.6	+0.0	44.9	54.0	-9.1	Horiz
			+0.4	+33.5	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H_H2		
^	4959.550M	35.3	+0.0	+8.4	+6.1	-39.6	+0.0	44.4	54.0	-9.6	Horiz
			+0.4	+33.5	+0.3	+0.0			R7_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		

150	4803.543M Ave	29.6	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	37.8	54.0 R7_A2_MA673_B LE_L	-16.2	Horiz
^	4803.543M	43.6	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	51.8	54.0 R7_A2_MA673_B LE_L	-2.2	Horiz
^	4803.553M	39.1	+0.0 +0.4 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0 +0.0	+0.0	47.3	54.0 R7_A1_MA673_B LE_L	-6.7	Horiz
153	4959.529M Ave	28.6	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	37.7	54.0 R8_A2_MA673_B LE_H	-16.3	Vert
^	4959.529M	42.3	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	51.4	54.0 R8_A2_MA673_B LE_H	-2.6	Vert
^	4959.541M	39.6	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	48.7	54.0 R8_A3_MA673_B LE_H	-5.3	Vert
156	7319.348M Ave	22.6	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	37.7	54.0 R7_A3_MA673_B LE_M	-16.3	Horiz
157	7446.844M Ave	21.8	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	37.7	54.0 R8_A1_MA673_D TS	-16.3	Horiz
^	7446.844M	35.4	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	51.3	54.0 R8_A1_MA673_D TS	-2.7	Horiz
^	7446.807M	33.9	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	49.8	54.0 R7_A2_MA673_D TS	-4.2	Horiz
160	7445.559M Ave	21.8	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	37.7	54.0 R7_A3_MA673_D TS	-16.3	Vert
^	7445.559M	35.7	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	51.6	54.0 R7_A3_MA673_D TS	-2.4	Vert
162	7320.900M Ave	22.5	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	37.6	54.0 R7_A2_MA673_B LE_M	-16.4	Vert
^	7320.900M	36.2	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	51.3	54.0 R7_A2_MA673_B LE_M	-2.7	Vert
164	4960.559M Ave	28.5	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	37.6	54.0 R8_A1_MA673_B LE_H	-16.4	Horiz
^	4960.559M	42.3	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	51.4	54.0 R8_A1_MA673_B LE_H	-2.6	Horiz
166	7440.835M Ave	21.7	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	37.6	54.0 R8_A2_MA673_B LE_H	-16.4	Horiz

167	7206.773M Ave	22.9	+0.0 +0.1 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	37.6	54.0 R7_A2_MA673_B LE_L	-16.4	Horiz
168	7206.793M Ave	22.8	+0.0 +0.1 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	37.5	54.0 R8_A2_MA673_B LE_L	-16.5	Vert
^	7206.793M	36.5	+0.0 +0.1 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	51.2	54.0 R8_A2_MA673_B LE_L	-2.8	Vert
170	7440.843M Ave	21.6	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	37.5	54.0 R8_A2_MA673_B LE_H	-16.5	Vert
171	7428.557M Ave	21.6	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	37.5	54.0 R7_A1_R8_A2_M A673_BLE_H2_DT S	-16.5	Vert
^	7428.557M	36.0	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	51.9	54.0 R7_A1_R8_A2_M A673_BLE_H2_DT S	-2.1	Vert
173	7440.857M Ave	21.5	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	37.4	54.0 R7_A1_MA673_B LE_H	-16.6	Horiz
^	7440.898M	37.0	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	52.9	54.0 R7_A3_MA673_B LE_H	-1.1	Horiz
^	7440.835M	36.1	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	52.0	54.0 R8_A2_MA673_B LE_H	-2.0	Horiz
^	7440.857M	35.9	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	51.8	54.0 R7_A1_MA673_B LE_H	-2.2	Horiz
177	7440.867M Ave	21.5	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	37.4	54.0 R7_A1_R8_A2_M A673_BLE_H_H2	-16.6	Vert
178	7218.782M Ave	22.6	+0.0 +0.1 +0.0	+10.7 +35.9 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	37.4	54.0 R7_A1_R8_A2_M A673_BLE_L_L2	-16.6	Vert
^	7218.782M	36.3	+0.0 +0.1 +0.0	+10.7 +35.9 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	51.1	54.0 R7_A1_R8_A2_M A673_BLE_L_L2	-2.9	Vert
180	7440.713M Ave	21.5	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	37.4	54.0 R7_A3_MA673_B LE_H	-16.6	Vert
^	7440.713M	35.7	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	51.6	54.0 R7_A3_MA673_B LE_H	-2.4	Vert

182	4963.540M	28.2	+0.0	+8.4	+6.1	-39.6	+0.0	37.3	54.0	-16.7	Horiz
	Ave		+0.4	+33.5	+0.3	+0.0			R8_A2_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
^	4963.540M	40.9	+0.0	+8.4	+6.1	-39.6	+0.0	50.0	54.0	-4.0	Horiz
			+0.4	+33.5	+0.3	+0.0			R8_A2_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
^	4963.607M	37.6	+0.0	+8.4	+6.1	-39.6	+0.0	46.7	54.0	-7.3	Horiz
			+0.4	+33.5	+0.3	+0.0			R7_A1_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
185	7446.318M	21.3	+0.0	+11.1	+7.7	-39.7	+0.0	37.2	54.0	-16.8	Vert
	Ave		+0.2	+36.4	+0.2	+0.0			R8_A1_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
^	7446.318M	35.6	+0.0	+11.1	+7.7	-39.7	+0.0	51.5	54.0	-2.5	Vert
			+0.2	+36.4	+0.2	+0.0			R8_A1_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
187	7320.742M	22.1	+0.0	+10.8	+7.6	-39.8	+0.0	37.2	54.0	-16.8	Vert
	Ave		+0.1	+36.2	+0.2	+0.0			R7_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
188	7440.913M	21.3	+0.0	+11.1	+7.7	-39.7	+0.0	37.2	54.0	-16.8	Vert
	Ave		+0.2	+36.4	+0.2	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	7440.867M	36.2	+0.0	+11.1	+7.7	-39.7	+0.0	52.1	54.0	-1.9	Vert
			+0.2	+36.4	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H_H2		
^	7440.843M	36.2	+0.0	+11.1	+7.7	-39.7	+0.0	52.1	54.0	-1.9	Vert
			+0.2	+36.4	+0.2	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
191	7439.458M	21.2	+0.0	+11.1	+7.7	-39.7	+0.0	37.1	54.0	-16.9	Horiz
	Ave		+0.2	+36.4	+0.2	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
192	7206.780M	22.4	+0.0	+10.7	+7.5	-39.6	+0.0	37.1	54.0	-16.9	Horiz
	Ave		+0.1	+35.8	+0.2	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
^	7206.845M	36.5	+0.0	+10.7	+7.5	-39.6	+0.0	51.2	54.0	-2.8	Horiz
			+0.1	+35.8	+0.2	+0.0			R8_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
194	7439.317M	21.2	+0.0	+11.1	+7.7	-39.7	+0.0	37.1	54.0	-16.9	Vert
	Ave		+0.2	+36.4	+0.2	+0.0			R7_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	7439.317M	35.3	+0.0	+11.1	+7.7	-39.7	+0.0	51.2	54.0	-2.8	Vert
			+0.2	+36.4	+0.2	+0.0			R7_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
196	7439.384M	21.1	+0.0	+11.1	+7.7	-39.7	+0.0	37.0	54.0	-17.0	Horiz
	Ave		+0.2	+36.4	+0.2	+0.0			R7_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	7439.458M	35.2	+0.0	+11.1	+7.7	-39.7	+0.0	51.1	54.0	-2.9	Horiz
			+0.2	+36.4	+0.2	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	7439.384M	35.0	+0.0	+11.1	+7.7	-39.7	+0.0	50.9	54.0	-3.1	Horiz
			+0.2	+36.4	+0.2	+0.0			R7_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		

199	7205.445M Ave	22.2	+0.0 +0.1 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	36.9	54.0 R7_A2_MA673_B LE_L	-17.1	Vert
^	7205.445M	35.5	+0.0 +0.1 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	50.2	54.0 R7_A2_MA673_B LE_L	-3.8	Vert
201	7217.168M Ave	22.1	+0.0 +0.1 +0.0	+10.7 +35.9 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	36.9	54.0 R7_A1_R8_A2_M A673_BLE_L_L2	-17.1	Horiz
^	7217.168M	36.8	+0.0 +0.1 +0.0	+10.7 +35.9 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	51.6	54.0 R7_A1_R8_A2_M A673_BLE_L_L2	-2.4	Horiz
203	7320.800M Ave	21.7	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	36.8	54.0 R7_A1_MA673_B LE_M	-17.2	Horiz
^	7320.800M	35.3	+0.0 +0.1 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0 +0.0	+0.0	50.4	54.0 R7_A1_MA673_B LE_M	-3.6	Horiz
205	4964.574M Ave	27.7	+0.0 +0.4 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	36.8	54.0 R8_A1_MA673_D TS	-17.2	Vert
206	7439.451M Ave	20.9	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	36.8	54.0 R8_A3_MA673_B LE_H	-17.2	Vert
^	7439.451M	34.9	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	50.8	54.0 R8_A3_MA673_B LE_H	-3.2	Vert
208	7206.657M Ave	22.0	+0.0 +0.1 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	36.7	54.0 R7_A1_R8_A2_M A673_BLE_L_L2	-17.3	Vert
^	7206.657M	36.3	+0.0 +0.1 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	51.0	54.0 R7_A1_R8_A2_M A673_BLE_L_L2	-3.0	Vert
210	7447.137M Ave	20.8	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	36.7	54.0 R7_A1_R8_A2_M A673_BLE_H2_DT S	-17.3	Horiz
^	7447.137M	35.3	+0.0 +0.2 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0 +0.0	+0.0	51.2	54.0 R7_A1_R8_A2_M A673_BLE_H2_DT S	-2.8	Horiz
212	7206.019M Ave	22.0	+0.0 +0.1 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	36.7	54.0 R7_A3_MA673_B LE_L	-17.3	Horiz
^	7206.019M	36.3	+0.0 +0.1 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0 +0.0	+0.0	51.0	54.0 R7_A3_MA673_B LE_L	-3.0	Horiz

214	7440.587M	20.8	+0.0	+11.1	+7.7	-39.7	+0.0	36.7	54.0	-17.3	Horiz
	Ave		+0.2	+36.4	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H_H2		
^	7440.587M	34.6	+0.0	+11.1	+7.7	-39.7	+0.0	50.5	54.0	-3.5	Horiz
			+0.2	+36.4	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H_H2		
216	7319.360M	21.5	+0.0	+10.8	+7.6	-39.8	+0.0	36.6	54.0	-17.4	Horiz
	Ave		+0.1	+36.2	+0.2	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	7319.420M	36.9	+0.0	+10.8	+7.6	-39.8	+0.0	52.0	54.0	-2.0	Horiz
			+0.1	+36.2	+0.2	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	7319.348M	36.8	+0.0	+10.8	+7.6	-39.8	+0.0	51.9	54.0	-2.1	Horiz
			+0.1	+36.2	+0.2	+0.0			R7_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	7319.360M	35.1	+0.0	+10.8	+7.6	-39.8	+0.0	50.2	54.0	-3.8	Horiz
			+0.1	+36.2	+0.2	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
220	7428.992M	20.6	+0.0	+11.1	+7.7	-39.7	+0.0	36.5	54.0	-17.5	Horiz
	Ave		+0.2	+36.4	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H2_DT		
									S		
^	7428.992M	34.9	+0.0	+11.1	+7.7	-39.7	+0.0	50.8	54.0	-3.2	Horiz
			+0.2	+36.4	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H2_DT		
									S		
222	7205.593M	21.8	+0.0	+10.7	+7.5	-39.6	+0.0	36.5	54.0	-17.5	Horiz
	Ave		+0.1	+35.8	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_L_L2		
^	7205.593M	35.8	+0.0	+10.7	+7.5	-39.6	+0.0	50.5	54.0	-3.5	Horiz
			+0.1	+35.8	+0.2	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_L_L2		
224	7206.265M	21.7	+0.0	+10.7	+7.5	-39.6	+0.0	36.4	54.0	-17.6	Vert
	Ave		+0.1	+35.8	+0.2	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
225	7205.158M	21.7	+0.0	+10.7	+7.5	-39.6	+0.0	36.4	54.0	-17.6	Vert
	Ave		+0.1	+35.8	+0.2	+0.0			R7_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
^	7205.158M	35.7	+0.0	+10.7	+7.5	-39.6	+0.0	50.4	54.0	-3.6	Vert
			+0.1	+35.8	+0.2	+0.0			R7_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
227	7206.677M	21.6	+0.0	+10.7	+7.5	-39.6	+0.0	36.3	54.0	-17.7	Horiz
	Ave		+0.1	+35.8	+0.2	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		

228	7206.687M	21.6	+0.0	+10.7	+7.5	-39.6	+0.0	36.3	54.0	-17.7	Horiz
	Ave		+0.1	+35.8	+0.2	+0.0			R7_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
^	7206.773M	37.5	+0.0	+10.7	+7.5	-39.6	+0.0	52.2	54.0	-1.8	Horiz
			+0.1	+35.8	+0.2	+0.0			R7_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
^	7206.780M	36.9	+0.0	+10.7	+7.5	-39.6	+0.0	51.6	54.0	-2.4	Horiz
			+0.1	+35.8	+0.2	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
^	7206.687M	36.6	+0.0	+10.7	+7.5	-39.6	+0.0	51.3	54.0	-2.7	Horiz
			+0.1	+35.8	+0.2	+0.0			R7_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
^	7206.677M	35.2	+0.0	+10.7	+7.5	-39.6	+0.0	49.9	54.0	-4.1	Horiz
			+0.1	+35.8	+0.2	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
233	4964.567M	27.1	+0.0	+8.4	+6.1	-39.6	+0.0	36.2	54.0	-17.8	Vert
	Ave		+0.4	+33.5	+0.3	+0.0			R8_A2_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
234	7320.795M	20.8	+0.0	+10.8	+7.6	-39.8	+0.0	35.9	54.0	-18.1	Vert
	Ave		+0.1	+36.2	+0.2	+0.0			R8_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	7320.810M	37.0	+0.0	+10.8	+7.6	-39.8	+0.0	52.1	54.0	-1.9	Vert
			+0.1	+36.2	+0.2	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	7320.802M	36.7	+0.0	+10.8	+7.6	-39.8	+0.0	51.8	54.0	-2.2	Vert
			+0.1	+36.2	+0.2	+0.0			R8_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	7320.742M	35.2	+0.0	+10.8	+7.6	-39.8	+0.0	50.3	54.0	-3.7	Vert
			+0.1	+36.2	+0.2	+0.0			R7_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	7320.795M	34.7	+0.0	+10.8	+7.6	-39.8	+0.0	49.8	54.0	-4.2	Vert
			+0.1	+36.2	+0.2	+0.0			R8_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
239	7441.000M	19.9	+0.0	+11.1	+7.7	-39.7	+0.0	35.8	54.0	-18.2	Vert
	Ave		+0.2	+36.4	+0.2	+0.0			R7_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	7440.913M	35.2	+0.0	+11.1	+7.7	-39.7	+0.0	51.1	54.0	-2.9	Vert
			+0.2	+36.4	+0.2	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	7441.000M	34.7	+0.0	+11.1	+7.7	-39.7	+0.0	50.6	54.0	-3.4	Vert
			+0.2	+36.4	+0.2	+0.0			R7_A2_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
242	7319.428M	20.6	+0.0	+10.8	+7.6	-39.8	+0.0	35.7	54.0	-18.3	Vert
	Ave		+0.1	+36.2	+0.2	+0.0			R7_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	7319.428M	34.9	+0.0	+10.8	+7.6	-39.8	+0.0	50.0	54.0	-4.0	Vert
			+0.1	+36.2	+0.2	+0.0			R7_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		

244	4880.594M	26.9	+0.0	+8.2	+6.1	-39.7	+0.0	35.4	54.0	-18.6	Horiz
	Ave		+0.4	+33.2	+0.3	+0.0			R8_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
^	4880.594M	40.2	+0.0	+8.2	+6.1	-39.7	+0.0	48.7	54.0	-5.3	Horiz
			+0.4	+33.2	+0.3	+0.0			R8_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
246	7206.314M	20.1	+0.0	+10.7	+7.5	-39.6	+0.0	34.8	54.0	-19.2	Vert
	Ave		+0.1	+35.8	+0.2	+0.0			R8_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
^	7206.265M	35.9	+0.0	+10.7	+7.5	-39.6	+0.0	50.6	54.0	-3.4	Vert
			+0.1	+35.8	+0.2	+0.0			R8_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
^	7206.314M	34.6	+0.0	+10.7	+7.5	-39.6	+0.0	49.3	54.0	-4.7	Vert
			+0.1	+35.8	+0.2	+0.0			R8_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
249	4960.567M	25.7	+0.0	+8.4	+6.1	-39.6	+0.0	34.8	54.0	-19.2	Vert
	Ave		+0.4	+33.5	+0.3	+0.0			R7_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	4960.567M	39.9	+0.0	+8.4	+6.1	-39.6	+0.0	49.0	54.0	-5.0	Vert
			+0.4	+33.5	+0.3	+0.0			R7_A1_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
^	4960.507M	36.4	+0.0	+8.4	+6.1	-39.6	+0.0	45.5	54.0	-8.5	Vert
			+0.4	+33.5	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H_H2		
^	4960.513M	35.1	+0.0	+8.4	+6.1	-39.6	+0.0	44.2	54.0	-9.8	Vert
			+0.4	+33.5	+0.3	+0.0			R7_A3_MA673_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
253	4964.607M	25.6	+0.0	+8.4	+6.1	-39.6	+0.0	34.7	54.0	-19.3	Vert
	Ave		+0.4	+33.5	+0.3	+0.0			R7_A1_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
^	4964.574M	40.7	+0.0	+8.4	+6.1	-39.6	+0.0	49.8	54.0	-4.2	Vert
			+0.4	+33.5	+0.3	+0.0			R8_A1_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
^	4964.567M	40.5	+0.0	+8.4	+6.1	-39.6	+0.0	49.6	54.0	-4.4	Vert
			+0.4	+33.5	+0.3	+0.0			R8_A2_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		
^	4964.513M	40.1	+0.0	+8.4	+6.1	-39.6	+0.0	49.2	54.0	-4.8	Vert
			+0.4	+33.5	+0.3	+0.0			R7_A1_R8_A2_M		
			+0.0	+0.0	+0.0	+0.0			A673_BLE_H2_DT		
									S		
^	4964.607M	39.1	+0.0	+8.4	+6.1	-39.6	+0.0	48.2	54.0	-5.8	Vert
			+0.4	+33.5	+0.3	+0.0			R7_A1_MA673_D		
			+0.0	+0.0	+0.0	+0.0			TS		



Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714 993- 6112
 Customer: **Walt Disney Parks and Resorts US, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **101978** Date: 12/25/2018
 Test Type: **Radiated Scan** Time: 13:30:23
 Tested By: S. Yamamoto Sequence#: 5
 Software: EMITest 5.03.11

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 1			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 1			

Test Conditions / Notes:

The EUT is placed on the Styrofoam block. ETHO is connected to remotely located support POE, Switch and laptop. ETH1 is connected to a section of UTP, USB ports are connected to section of USB cable, GPIO ports are terminated to simulated loads. RX port connects to a Dipole antenna. Micro USB Service port left unpopulated

Remote laptop runs test software to set the EUT into test mode.

Evaluation for Permissive Change II equipment authorization process with various antenna type and configurations.
 FCCID: 2AJS4-RN-R1G1
 Radio port 7 and radio port 8 are connected to the antenna in accordance with available configuration.

Protocol:
 BLE, 2402MHz, 2440MHz, 2480MHz
 DTS (proprietary): 2482MHz single channel

Ant1: PA2X2, 8dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz
 Ant2: MA510, 3.9dBi
 Ant3:MA673, 4.1 dBi
 Ant4: HG2458, 13dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz

Firmware power setting 0 dBm
Antenna under investigation: HG2458

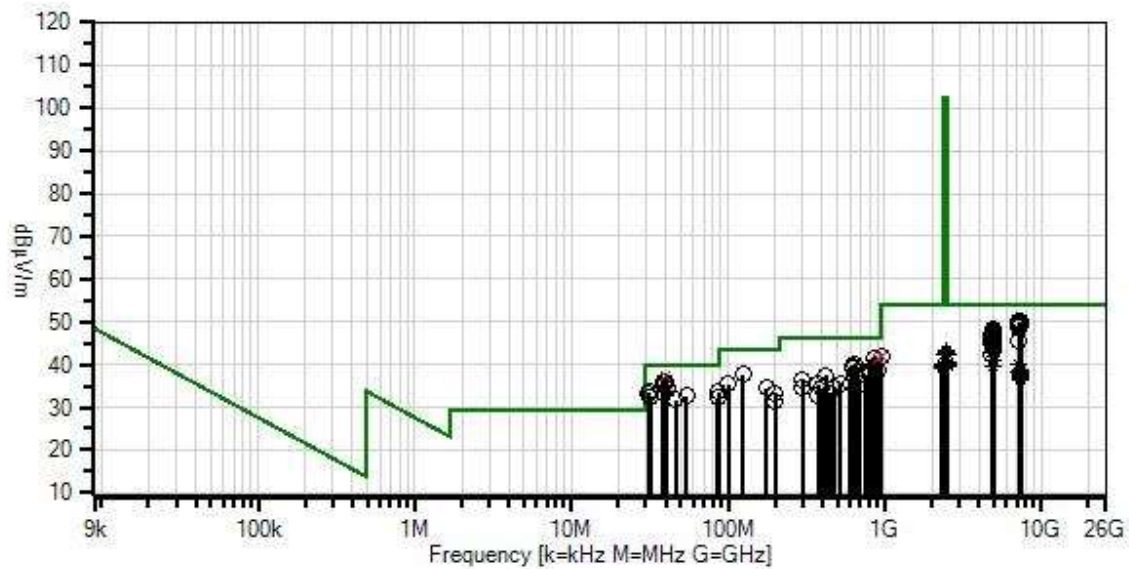
Frequency range of measurement = 9 kHz- 25 GHz.
 9 kH -150 kHz;RBW=200 Hz,VBW=200 Hz;150 kHz-30 MHz;RBW=9 kHz,VBW=9 kHz;30 MHz-1000 MHz;RBW=120 kHz,VBW=120 kHz,1000 MHz-25000MHz MHz;RBW=1 MHz,VBW=1 MHz.

Test environment conditions:
 Temperature: 18°C, Relative Humidity: 53%, Pressure: 99kPa

Test method in accordance with FCC document: 558074 558074 D01 15.247 Meas Guidance v05. Investigation in all orientation, worst case orientation presented.

Site D
 ANSI C63.10-2013

Walt Disney Parks and Resorts US, Inc. WO#: 101978 Sequence#: 5 Date: 12/25/2018
 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Horiz



— Readings
 × QP Readings
 ▼ Ambient
 — 1 - 15.247(d) / 15.209 Radiated Spurious Emissions

○ Peak Readings
 * Average Readings
 Software Version: 5.03.11

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	8/10/2018	8/10/2019
T2	ANP04382	Cable	LDF-50	6/2/2018	6/2/2020
T3	ANP07138	Cable	ANDL1- PNMNM-60	3/1/2017	3/1/2019
T4	AN00787	Preamp	83017A	6/9/2017	6/9/2019
T5	ANP07247	Cable	32022-29094K- 29094K-24TC	7/5/2018	7/5/2020
T6	AN01646	Horn Antenna	3115	3/14/2018	3/14/2020
T7	AN03385	High Pass Filter	11SH10- 3000/T10000- O/O	6/2/2017	6/2/2019
T8	AN01994	Biconilog Antenna	CBL6111C	4/23/2018	4/23/2020
T9	ANP05283	Attenuator	ATT-0218-06- NNN-02	4/5/2018	4/5/2020
T10	ANP01911	Cable-Amplitude +15C to +45C (dB)	RG214/U	1/8/2018	1/8/2020
T11	AN00010	Preamp	8447D	2/19/2018	2/19/2020
T12	ANP06978	Cable	Sucoflex 104A	3/31/2018	3/31/2020
T13	AN03430	Attenuator	75A-10-12	12/19/2017	12/19/2019
	AN00314	Loop Antenna	6502	5/13/2018	5/13/2020
	AN01413	Horn Antenna-ANSI C63.5 (dB/m)	84125-80008	10/17/2018	10/17/2020
	AN03367	Horn Antenna-ANSI C63.5 Calibration	62-GH-62-25.	8/24/2017	8/24/2019

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1 T5 T9 T13	T2 T6 T10	T3 T7 T11	T4 T8 T12	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	39.567M	43.9	+0.0	+0.6	+0.0	+0.0	+0.0	37.2	40.0	-2.8	Vert
	QP		+0.0	+0.0	+0.0	+13.4			R7_A1_HG2458_B		
			+5.8	+0.6	-27.1	+0.0			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
^	39.567M	44.5	+0.0	+0.6	+0.0	+0.0	+0.0	37.8	40.0	-2.2	Vert
			+0.0	+0.0	+0.0	+13.4			R7_A1_HG2458_B		
			+5.8	+0.6	-27.1	+0.0			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
3	7445.514M	34.1	+0.0	+11.1	+7.7	-39.7	+0.0	50.0	54.0	-4.0	Horiz
			+0.2	+36.4	+0.2	+0.0			R7_A2_HG2458_D		
			+0.0	+0.0	+0.0	+0.0			TS		
			+0.0								
4	950.004M	32.5	+0.0	+3.4	+0.0	+0.0	+0.0	42.0	46.0	-4.0	Horiz
			+0.0	+0.0	+0.0	+24.0			R7_A1_HG2458_B		
			+5.9	+3.3	-27.4	+0.3			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		

5	40.319M	43.1	+0.0 +0.0 +5.8 +0.0	+0.6 +0.0 +0.6	+0.0 +0.0 -27.1	+0.0 +13.0 +0.0	+0.0	36.0	40.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-4.0	Vert
6	7218.627M	35.2	+0.0 +0.1 +0.0 +0.0	+10.7 +35.9 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0	+0.0	50.0	54.0 R7_A1_R8_A2_H G2458_BLE_L_L2	-4.0	Horiz
7	7440.758M	34.0	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	49.9	54.0 R7_A4_HG2458_B LE_H	-4.1	Vert
8	38.808M	42.2	+0.0 +0.0 +5.8 +0.0	+0.6 +0.0 +0.6	+0.0 +0.0 -27.1	+0.0 +13.8 +0.0	+0.0	35.9	40.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-4.1	Vert
9	950.002M QP	32.3	+0.0 +0.0 +5.9 +0.0	+3.4 +0.0 +3.3	+0.0 +0.0 -27.4	+0.0 +24.0 +0.3	+0.0	41.8	46.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-4.2	Vert
^	950.002M	33.0	+0.0 +0.0 +5.9 +0.0	+3.4 +0.0 +3.3	+0.0 +0.0 -27.4	+0.0 +24.0 +0.3	+0.0	42.5	46.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-3.5	Vert
11	7445.433M	33.8	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	49.7	54.0 R7_A4_HG2458_D TS	-4.3	Vert
12	7320.653M	34.6	+0.0 +0.1 +0.0 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0	+0.0	49.7	54.0 R7_A3_HG2458_B LE_M	-4.3	Vert
13	7440.275M	33.8	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	49.7	54.0 R7_A1_R8_A2_H G2458_BLE_H_H2	-4.3	Horiz
14	7320.765M	34.5	+0.0 +0.1 +0.0 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0	+0.0	49.6	54.0 R8_A1_HG2458_B LE_M	-4.4	Horiz
15	7441.000M	33.7	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	49.6	54.0 R8_A3_HG2458_B LE_H	-4.4	Vert
16	7446.193M	33.6	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	49.5	54.0 R7_A1_R8_A2_H G2458_BLE_H2_D TS	-4.5	Horiz

17	900.015M	33.0	+0.0	+3.2	+0.0	+0.0	+0.0	41.4	46.0	-4.6	Vert
	QP		+0.0	+0.0	+0.0	+23.4			R7_A1_HG2458_B		
			+5.9	+3.1	-27.5	+0.3			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
^	900.015M	34.7	+0.0	+3.2	+0.0	+0.0	+0.0	43.1	46.0	-2.9	Vert
			+0.0	+0.0	+0.0	+23.4			R7_A1_HG2458_B		
			+5.9	+3.1	-27.5	+0.3			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
19	7440.969M	33.4	+0.0	+11.1	+7.7	-39.7	+0.0	49.3	54.0	-4.7	Horiz
			+0.2	+36.4	+0.2	+0.0			R8_A1_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
			+0.0								
20	7445.530M	33.4	+0.0	+11.1	+7.7	-39.7	+0.0	49.3	54.0	-4.7	Vert
			+0.2	+36.4	+0.2	+0.0			R7_A3_HG2458_D		
			+0.0	+0.0	+0.0	+0.0			TS		
			+0.0								
21	850.004M	33.5	+0.0	+3.2	+0.0	+0.0	+0.0	41.3	46.0	-4.7	Vert
			+0.0	+0.0	+0.0	+23.0			R7_A1_HG2458_B		
			+5.9	+3.0	-27.6	+0.3			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
22	7207.021M	34.5	+0.0	+10.7	+7.5	-39.6	+0.0	49.2	54.0	-4.8	Horiz
			+0.1	+35.8	+0.2	+0.0			R7_A1_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
			+0.0								
23	7206.603M	34.5	+0.0	+10.7	+7.5	-39.6	+0.0	49.2	54.0	-4.8	Horiz
			+0.1	+35.8	+0.2	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_L_L2		
			+0.0								
24	7446.782M	33.3	+0.0	+11.1	+7.7	-39.7	+0.0	49.2	54.0	-4.8	Horiz
			+0.2	+36.4	+0.2	+0.0			R8_A2_HG2458_D		
			+0.0	+0.0	+0.0	+0.0			TS		
			+0.0								
25	7428.398M	33.2	+0.0	+11.1	+7.7	-39.7	+0.0	49.1	54.0	-4.9	Horiz
			+0.2	+36.4	+0.2	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_H_H2		
			+0.0								
26	39.317M	41.7	+0.0	+0.6	+0.0	+0.0	+0.0	35.1	40.0	-4.9	Vert
			+0.0	+0.0	+0.0	+13.5			R7_A1_HG2458_B		
			+5.8	+0.6	-27.1	+0.0			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
27	7439.435M	33.1	+0.0	+11.1	+7.7	-39.7	+0.0	49.0	54.0	-5.0	Vert
			+0.2	+36.4	+0.2	+0.0			R8_A4_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
			+0.0								
28	7446.560M	33.1	+0.0	+11.1	+7.7	-39.7	+0.0	49.0	54.0	-5.0	Vert
			+0.2	+36.4	+0.2	+0.0			R8_A4_HG2458_D		
			+0.0	+0.0	+0.0	+0.0			TS		
			+0.0								
29	7445.305M	33.1	+0.0	+11.1	+7.7	-39.7	+0.0	49.0	54.0	-5.0	Vert
			+0.2	+36.4	+0.2	+0.0			R8_A3_HG2458_D		
			+0.0	+0.0	+0.0	+0.0			TS		
			+0.0								

30	7206.883M	34.1	+0.0	+10.7	+7.5	-39.6	+0.0	48.8	54.0	-5.2	Horiz
			+0.1	+35.8	+0.2	+0.0			R8_A1_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
			+0.0								
31	41.043M	42.1	+0.0	+0.6	+0.0	+0.0	+0.0	34.7	40.0	-5.3	Vert
			+0.0	+0.0	+0.0	+12.7			R7_A1_HG2458_B		
			+5.8	+0.6	-27.1	+0.0			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
32	7205.430M	34.0	+0.0	+10.7	+7.5	-39.6	+0.0	48.7	54.0	-5.3	Vert
			+0.1	+35.8	+0.2	+0.0			R7_A4_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
			+0.0								
33	4951.585M	39.2	+0.0	+8.4	+6.1	-39.6	+0.0	48.3	54.0	-5.7	Horiz
			+0.4	+33.5	+0.3	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_H2_D		
			+0.0						TS		
34	40.572M	41.4	+0.0	+0.6	+0.0	+0.0	+0.0	34.2	40.0	-5.8	Vert
			+0.0	+0.0	+0.0	+12.9			R7_A1_HG2458_B		
			+5.8	+0.6	-27.1	+0.0			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
35	649.995M	36.3	+0.0	+2.7	+0.0	+0.0	+0.0	40.2	46.0	-5.8	Horiz
			+0.0	+0.0	+0.0	+20.5			R7_A1_HG2458_B		
			+5.8	+2.6	-28.0	+0.3			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
36	125.001M	45.0	+0.0	+1.1	+0.0	+0.0	+0.0	37.7	43.5	-5.8	Vert
			+0.0	+0.0	+0.0	+11.6			R7_A1_HG2458_B		
			+5.8	+1.0	-26.9	+0.1			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
37	4959.620M	38.8	+0.0	+8.4	+6.1	-39.6	+0.0	47.9	54.0	-6.1	Horiz
			+0.4	+33.5	+0.3	+0.0			R7_A1_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
			+0.0								
38	625.008M	36.0	+0.0	+2.7	+0.0	+0.0	+0.0	39.7	46.0	-6.3	Horiz
			+0.0	+0.0	+0.0	+20.4			R7_A1_HG2458_B		
			+5.8	+2.5	-28.0	+0.3			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
39	850.007M	31.8	+0.0	+3.2	+0.0	+0.0	+0.0	39.6	46.0	-6.4	Horiz
			+0.0	+0.0	+0.0	+23.0			R7_A1_HG2458_B		
			+5.9	+3.0	-27.6	+0.3			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
40	87.487M	44.3	+0.0	+0.9	+0.0	+0.0	+0.0	33.5	40.0	-6.5	Vert
			+0.0	+0.0	+0.0	+8.5			R7_A1_HG2458_B		
			+5.8	+0.9	-27.0	+0.1			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
41	31.550M	36.2	+0.0	+0.4	+0.0	+0.0	+0.0	33.5	40.0	-6.5	Vert
			+0.0	+0.0	+0.0	+0.0			R7_A1_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
42	4880.457M	39.0	+0.0	+8.2	+6.1	-39.7	+0.0	47.5	54.0	-6.5	Vert
			+0.4	+33.2	+0.3	+0.0			R7_A3_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								

43	31.300M	35.9	+0.0	+0.4	+0.0	+0.0	+0.0	33.4	40.0	-6.6	Vert
			+0.0	+0.0	+0.0	+17.9			R7_A1_HG2458_B		
			+5.8	+0.5	-27.1	+0.0			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
44	38.583M	39.6	+0.0	+0.6	+0.0	+0.0	+0.0	33.4	40.0	-6.6	Vert
			+0.0	+0.0	+0.0	+13.9			R7_A1_HG2458_B		
			+5.8	+0.6	-27.1	+0.0			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
45	4959.585M	38.2	+0.0	+8.4	+6.1	-39.6	+0.0	47.3	54.0	-6.7	Vert
			+0.4	+33.5	+0.3	+0.0			R7_A3_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
			+0.0								
46	4964.503M	38.2	+0.0	+8.4	+6.1	-39.6	+0.0	47.3	54.0	-6.7	Vert
			+0.4	+33.5	+0.3	+0.0			R7_A4_HG2458_D		
			+0.0	+0.0	+0.0	+0.0			TS		
			+0.0								
47	4880.773M	38.6	+0.0	+8.2	+6.1	-39.7	+0.0	47.1	54.0	-6.9	Vert
			+0.4	+33.2	+0.3	+0.0			R7_A4_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
48	4960.485M	37.9	+0.0	+8.4	+6.1	-39.6	+0.0	47.0	54.0	-7.0	Horiz
			+0.4	+33.5	+0.3	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_H_H2		
			+0.0								
49	625.002M	35.3	+0.0	+2.7	+0.0	+0.0	+0.0	39.0	46.0	-7.0	Vert
			+0.0	+0.0	+0.0	+20.4			R7_A1_HG2458_B		
			+5.8	+2.5	-28.0	+0.3			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
50	4804.533M	38.8	+0.0	+8.0	+6.1	-39.8	+0.0	47.0	54.0	-7.0	Vert
			+0.4	+33.2	+0.3	+0.0			R7_A3_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
			+0.0								
51	900.012M	30.5	+0.0	+3.2	+0.0	+0.0	+0.0	38.9	46.0	-7.1	Horiz
			+0.0	+0.0	+0.0	+23.4			R7_A1_HG2458_B		
			+5.9	+3.1	-27.5	+0.3			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
52	4963.485M	37.8	+0.0	+8.4	+6.1	-39.6	+0.0	46.9	54.0	-7.1	Vert
			+0.4	+33.5	+0.3	+0.0			R7_A3_HG2458_D		
			+0.0	+0.0	+0.0	+0.0			TS		
			+0.0								
53	4963.547M	37.7	+0.0	+8.4	+6.1	-39.6	+0.0	46.8	54.0	-7.2	Horiz
			+0.4	+33.5	+0.3	+0.0			R7_A1_HG2458_D		
			+0.0	+0.0	+0.0	+0.0			TS		
			+0.0								
54	800.006M	31.9	+0.0	+3.0	+0.0	+0.0	+0.0	38.8	46.0	-7.2	Horiz
			+0.0	+0.0	+0.0	+22.5			R7_A1_HG2458_B		
			+5.9	+2.9	-27.7	+0.3			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
55	4959.613M	37.6	+0.0	+8.4	+6.1	-39.6	+0.0	46.7	54.0	-7.3	Vert
			+0.4	+33.5	+0.3	+0.0			R7_A4_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_H		
			+0.0								

56	4959.690M	37.5	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	46.6	54.0 R7_A2_HG2458_B LE_H	-7.4	Horiz
57	54.255M	45.5	+0.0 +0.0 +5.8 +0.0	+0.7 +0.0 +0.6	+0.0 +0.0 -27.1	+0.0 +7.1 +0.0	+0.0	32.6	40.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-7.4	Vert
58	31.800M	35.1	+0.0 +0.0 +5.8 +0.0	+0.4 +0.0 +0.5	+0.0 +0.0 -27.1	+0.0 +17.6 +0.0	+0.0	32.3	40.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-7.7	Vert
59	4804.550M	38.0	+0.0 +0.4 +0.0 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0	+0.0	46.2	54.0 R7_A1_R8_A2_H G2458_BLE_L_L2	-7.8	Horiz
60	4804.605M	38.0	+0.0 +0.4 +0.0 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0	+0.0	46.2	54.0 R7_A4_HG2458_B LE_L	-7.8	Vert
61	86.096M	43.2	+0.0 +0.0 +5.8 +0.0	+0.9 +0.0 +0.9	+0.0 +0.0 -27.0	+0.0 +8.3 +0.1	+0.0	32.2	40.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-7.8	Vert
62	4879.551M	37.6	+0.0 +0.4 +0.0 +0.0	+8.2 +33.2 +0.0	+6.1 +0.3 +0.0	-39.7 +0.0	+0.0	46.1	54.0 R7_A2_HG2458_B LE_M	-7.9	Horiz
63	4811.838M	37.8	+0.0 +0.4 +0.0 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0	+0.0	46.0	54.0 R7_A1_R8_A2_H G2458_BLE_L_L2	-8.0	Vert
64	4803.621M	37.8	+0.0 +0.4 +0.0 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0	+0.0	46.0	54.0 R7_A2_HG2458_B LE_L	-8.0	Horiz
65	800.004M	31.0	+0.0 +0.0 +5.9 +0.0	+3.0 +0.0 +2.9	+0.0 +0.0 -27.7	+0.0 +22.5 +0.3	+0.0	37.9	46.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-8.1	Vert
66	100.001M	44.5	+0.0 +0.0 +5.8 +0.0	+1.0 +0.0 +0.9	+0.0 +0.0 -27.0	+0.0 +10.1 +0.1	+0.0	35.4	43.5 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-8.1	Vert
67	46.593M	41.9	+0.0 +0.0 +5.8 +0.0	+0.7 +0.0 +0.6	+0.0 +0.0 -27.1	+0.0 +9.9 +0.0	+0.0	31.8	40.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-8.2	Vert
68	4803.377M	37.5	+0.0 +0.4 +0.0 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0	+0.0	45.7	54.0 R7_A2_HG2458_B LE_L	-8.3	Vert

69	750.005M	32.0	+0.0	+2.9	+0.0	+0.0	+0.0	37.7	46.0	-8.3	Horiz
			+0.0	+0.0	+0.0	+21.6			R7_A1_HG2458_B		
			+5.9	+2.8	-27.8	+0.3			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
70	4963.712M	36.6	+0.0	+8.4	+6.1	-39.6	+0.0	45.7	54.0	-8.3	Horiz
			+0.4	+33.5	+0.3	+0.0			R7_A2_HG2458_D		
			+0.0	+0.0	+0.0	+0.0			TS		
			+0.0								
71	750.004M	31.9	+0.0	+2.9	+0.0	+0.0	+0.0	37.6	46.0	-8.4	Vert
			+0.0	+0.0	+0.0	+21.6			R7_A1_HG2458_B		
			+5.9	+2.8	-27.8	+0.3			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
72	4804.000M Ave	37.3	+0.0	+8.0	+6.1	-39.8	+0.0	45.5	54.0	-8.5	Vert
			+0.4	+33.2	+0.3	+0.0			R8_A4_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
			+0.0								
73	424.995M	38.2	+0.0	+2.2	+0.0	+0.0	+0.0	37.5	46.0	-8.5	Vert
			+0.0	+0.0	+0.0	+16.5			R7_A1_HG2458_B		
			+5.8	+2.1	-27.5	+0.2			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
74	4804.605M	37.2	+0.0	+8.0	+6.1	-39.8	+0.0	45.4	54.0	-8.6	Horiz
			+0.4	+33.2	+0.3	+0.0			R8_A3_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
			+0.0								
75	7206.005M	30.7	+0.0	+10.7	+7.5	-39.6	+0.0	45.4	54.0	-8.6	Horiz
			+0.1	+35.8	+0.2	+0.0			R7_A3_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
			+0.0								
76	4804.000M Ave	37.2	+0.0	+8.0	+6.1	-39.8	+0.0	45.4	54.0	-8.6	Vert
			+0.4	+33.2	+0.3	+0.0			R8_A3_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
			+0.0								
^	4804.000M	47.8	+0.0	+8.0	+6.1	-39.8	+0.0	56.0	54.0	+2.0	Vert
			+0.4	+33.2	+0.3	+0.0			R8_A4_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
			+0.0								
^	4804.000M	47.6	+0.0	+8.0	+6.1	-39.8	+0.0	55.8	54.0	+1.8	Vert
			+0.4	+33.2	+0.3	+0.0			R8_A3_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
			+0.0								
79	4951.993M	36.0	+0.0	+8.4	+6.1	-39.6	+0.0	45.1	54.0	-8.9	Vert
			+0.4	+33.5	+0.3	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_H_H2		
			+0.0								
80	650.002M	33.2	+0.0	+2.7	+0.0	+0.0	+0.0	37.1	46.0	-8.9	Vert
			+0.0	+0.0	+0.0	+20.5			R7_A1_HG2458_B		
			+5.8	+2.6	-28.0	+0.3			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
81	4879.404M	36.6	+0.0	+8.2	+6.1	-39.7	+0.0	45.1	54.0	-8.9	Vert
			+0.4	+33.2	+0.3	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_M_M		
			+0.0								

82	4960.000M Ave	35.9	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	45.0	54.0 R8_A3_HG2458_B LE_H	-9.0	Vert
83	175.008M	43.4	+0.0 +0.0 +5.8 +0.0	+1.3 +0.0 +1.2	+0.0 +0.0 -26.7	+0.0 +9.3 +0.1	+0.0	34.4	43.5 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-9.1	Vert
84	4804.000M Ave	36.7	+0.0 +0.4 +0.0 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0	+0.0	44.9	54.0 R8_A2_HG2458_B LE_L	-9.1	Horiz
85	4804.000M Ave	36.6	+0.0 +0.4 +0.0 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0	+0.0	44.8	54.0 R8_A1_HG2458_B LE_L	-9.2	Horiz
^	4804.000M	46.7	+0.0 +0.4 +0.0 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0	+0.0	54.9	54.0 R8_A1_HG2458_B LE_L	+0.9	Horiz
^	4804.000M	46.3	+0.0 +0.4 +0.0 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0	+0.0	54.5	54.0 R8_A2_HG2458_B LE_L	+0.5	Horiz
^	4803.978M	38.4	+0.0 +0.4 +0.0 +0.0	+8.0 +33.2 +0.0	+6.1 +0.3 +0.0	-39.8 +0.0	+0.0	46.6	54.0 R7_A1_HG2458_B LE_L	-7.4	Horiz
89	4960.000M Ave	35.5	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	44.6	54.0 R8_A1_HG2458_B LE_H	-9.4	Horiz
90	4960.000M Ave	35.3	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	44.4	54.0 R8_A4_HG2458_B LE_H	-9.6	Vert
^	4960.000M	46.4	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	55.5	54.0 R8_A3_HG2458_B LE_H	+1.5	Vert
^	4960.000M	46.2	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	55.3	54.0 R8_A4_HG2458_B LE_H	+1.3	Vert
93	4880.000M Ave	35.8	+0.0 +0.4 +0.0 +0.0	+8.2 +33.2 +0.0	+6.1 +0.3 +0.0	-39.7 +0.0	+0.0	44.3	54.0 R8_A3_HG2458_B LE_M	-9.7	Vert
94	300.001M	39.9	+0.0 +0.0 +5.8 +0.0	+1.8 +0.0 +1.6	+0.0 +0.0 -26.5	+0.0 +13.4 +0.2	+0.0	36.2	46.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-9.8	Horiz

95	4964.000M Ave	34.9	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	44.0	54.0 R8_A1_HG2458_D TS	-10.0	Horiz
96	200.008M	42.3	+0.0 +0.0 +5.8 +0.0	+1.4 +0.0 +1.3	+0.0 +0.0 -26.6	+0.0 +9.0 +0.1	+0.0	33.3	43.5 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-10.2	Vert
97	699.973M	31.1	+0.0 +0.0 +5.9 +0.0	+2.8 +0.0 +2.7	+0.0 +0.0 -27.9	+0.0 +20.7 +0.3	+0.0	35.6	46.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-10.4	Horiz
98	4964.000M Ave	34.5	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	43.6	54.0 R8_A3_HG2458_D TS	-10.4	Vert
99	525.000M	34.1	+0.0 +0.0 +5.8 +0.0	+2.5 +0.0 +2.3	+0.0 +0.0 -28.0	+0.0 +18.6 +0.2	+0.0	35.5	46.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-10.5	Vert
100	4880.000M Ave	35.0	+0.0 +0.4 +0.0 +0.0	+8.2 +33.2 +0.0	+6.1 +0.3 +0.0	-39.7 +0.0	+0.0	43.5	54.0 R8_A1_HG2458_B LE_M	-10.5	Horiz
101	4960.000M Ave	34.3	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	43.4	54.0 R8_A2_HG2458_B LE_H	-10.6	Horiz
^	4960.000M	46.2	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	55.3	54.0 R8_A1_HG2458_B LE_H	+1.3	Horiz
^	4960.000M	45.3	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	54.4	54.0 R8_A2_HG2458_B LE_H	+0.4	Horiz
104	4964.000M Ave	34.2	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	43.3	54.0 R8_A4_HG2458_D TS	-10.7	Vert
^	4964.000M	45.1	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	54.2	54.0 R8_A3_HG2458_D TS	+0.2	Vert
^	4964.000M	44.8	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	53.9	54.0 R8_A4_HG2458_D TS	-0.1	Vert
^	4964.002M	36.1	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	45.2	54.0 R7_A1_R8_A2_H G2458_BLE_H2_D TS	-8.8	Vert

108	599.999M	32.0	+0.0	+2.6	+0.0	+0.0	+0.0	35.3	46.0	-10.7	Horiz
			+0.0	+0.0	+0.0	+20.3			R7_A1_HG2458_B		
			+5.8	+2.4	-28.0	+0.2			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
109	375.006M	37.1	+0.0	+2.0	+0.0	+0.0	+0.0	35.3	46.0	-10.7	Vert
			+0.0	+0.0	+0.0	+15.4			R7_A1_HG2458_B		
			+5.8	+1.9	-27.1	+0.2			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
110	2484.910M	34.9	+0.0	+5.5	+4.1	-40.2	+0.0	43.3	54.0	-10.7	Horiz
	Ave		+0.3	+28.5	+0.0	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_M_M		
			+10.2								
^	2484.910M	45.1	+0.0	+5.5	+4.1	-40.2	+0.0	53.5	54.0	-0.5	Horiz
			+0.3	+28.5	+0.0	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_M_M		
			+10.2								
112	4880.090M	34.7	+0.0	+8.2	+6.1	-39.7	+0.0	43.2	54.0	-10.8	Vert
	Ave		+0.4	+33.2	+0.3	+0.0			R8_A4_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
^	4880.000M	45.9	+0.0	+8.2	+6.1	-39.7	+0.0	54.4	54.0	+0.4	Vert
			+0.4	+33.2	+0.3	+0.0			R8_A3_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
^	4880.090M	45.2	+0.0	+8.2	+6.1	-39.7	+0.0	53.7	54.0	-0.3	Vert
			+0.4	+33.2	+0.3	+0.0			R8_A4_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
115	4879.700M	34.5	+0.0	+8.2	+6.1	-39.7	+0.0	43.0	54.0	-11.0	Horiz
	Ave		+0.4	+33.2	+0.3	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_M_M		
			+0.0								
^	4879.700M	47.5	+0.0	+8.2	+6.1	-39.7	+0.0	56.0	54.0	+2.0	Horiz
			+0.4	+33.2	+0.3	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_M_M		
			+0.0								
117	2504.017M	34.6	+0.0	+5.5	+4.1	-40.2	+0.0	43.0	54.0	-11.0	Horiz
	Ave		+0.3	+28.5	+0.0	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_M_M		
			+10.2								
^	2504.017M	45.4	+0.0	+5.5	+4.1	-40.2	+0.0	53.8	54.0	-0.2	Horiz
			+0.3	+28.5	+0.0	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_M_M		
			+10.2								
119	4811.546M	34.7	+0.0	+8.0	+6.1	-39.8	+0.0	42.9	54.0	-11.1	Horiz
	Ave		+0.4	+33.2	+0.3	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_L_L2		
			+0.0								
^	4811.546M	47.0	+0.0	+8.0	+6.1	-39.8	+0.0	55.2	54.0	+1.2	Horiz
			+0.4	+33.2	+0.3	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_L_L2		
			+0.0								

121	4964.000M	33.7	+0.0	+8.4	+6.1	-39.6	+0.0	42.8	54.0	-11.2	Horiz
	Ave		+0.4	+33.5	+0.3	+0.0			R8_A2_HG2458_D		
			+0.0	+0.0	+0.0	+0.0			TS		
			+0.0								
^	4964.000M	45.5	+0.0	+8.4	+6.1	-39.6	+0.0	54.6	54.0	+0.6	Horiz
			+0.4	+33.5	+0.3	+0.0			R8_A1_HG2458_D		
			+0.0	+0.0	+0.0	+0.0			TS		
			+0.0								
^	4964.000M	44.6	+0.0	+8.4	+6.1	-39.6	+0.0	53.7	54.0	-0.3	Horiz
			+0.4	+33.5	+0.3	+0.0			R8_A2_HG2458_D		
			+0.0	+0.0	+0.0	+0.0			TS		
			+0.0								
124	474.992M	34.5	+0.0	+2.3	+0.0	+0.0	+0.0	34.7	46.0	-11.3	Vert
			+0.0	+0.0	+0.0	+17.5			R7_A1_HG2458_B		
			+5.8	+2.2	-27.8	+0.2			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
125	4880.000M	34.1	+0.0	+8.2	+6.1	-39.7	+0.0	42.6	54.0	-11.4	Horiz
	Ave		+0.4	+33.2	+0.3	+0.0			R8_A2_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
^	4880.000M	45.4	+0.0	+8.2	+6.1	-39.7	+0.0	53.9	54.0	-0.1	Horiz
			+0.4	+33.2	+0.3	+0.0			R8_A1_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
^	4880.000M	42.9	+0.0	+8.2	+6.1	-39.7	+0.0	51.4	54.0	-2.6	Horiz
			+0.4	+33.2	+0.3	+0.0			R8_A2_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
^	4880.059M	37.8	+0.0	+8.2	+6.1	-39.7	+0.0	46.3	54.0	-7.7	Horiz
			+0.4	+33.2	+0.3	+0.0			R7_A1_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
129	300.005M	38.2	+0.0	+1.8	+0.0	+0.0	+0.0	34.5	46.0	-11.5	Vert
			+0.0	+0.0	+0.0	+13.4			R7_A1_HG2458_B		
			+5.8	+1.6	-26.5	+0.2			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
130	400.005M	35.6	+0.0	+2.1	+0.0	+0.0	+0.0	34.4	46.0	-11.6	Horiz
			+0.0	+0.0	+0.0	+16.0			R7_A1_HG2458_B		
			+5.8	+2.0	-27.3	+0.2			LE_LMH,R7_A1_		
			+0.0						HG2458_DTS		
131	2520.877M	33.9	+0.0	+5.5	+4.1	-40.2	+0.0	42.3	54.0	-11.7	Horiz
	Ave		+0.3	+28.5	+0.0	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_H2_D		
			+10.2						TS		
^	2520.877M	45.3	+0.0	+5.5	+4.1	-40.2	+0.0	53.7	54.0	-0.3	Horiz
			+0.3	+28.5	+0.0	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_H2_D		
			+10.2						TS		
133	4803.870M	34.1	+0.0	+8.0	+6.1	-39.8	+0.0	42.3	54.0	-11.7	Horiz
			+0.4	+33.2	+0.3	+0.0			R7_A3_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_L		
			+0.0								

134	2376.102M Ave	34.1	+0.0 +0.3 +0.0 +10.1	+5.4 +28.3 +0.0	+4.0 +0.0 +0.0	-39.9 +0.0 +0.0	+0.0	42.3	54.0 R7_A1_R8_A2_H G2458_BLE_M_M	-11.7	Horiz
135	200.010M	40.5	+0.0 +0.0 +5.8 +0.0	+1.4 +0.0 +1.3	+0.0 +0.0 -26.6	+0.0 +9.0 +0.1	+0.0	31.5	43.5 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-12.0	Horiz
136	450.006M	33.5	+0.0 +0.0 +5.8 +0.0	+2.2 +0.0 +2.1	+0.0 +0.0 -27.6	+0.0 +17.1 +0.2	+0.0	33.3	46.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-12.7	Horiz
137	4963.440M Ave	32.0	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	41.1	54.0 R7_A1_R8_A2_H G2458_BLE_H2_D TS	-12.9	Horiz
^	4963.440M	45.2	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0 +0.0	+0.0	54.3	54.0 R7_A1_R8_A2_H G2458_BLE_H2_D TS	+0.3	Horiz
139	375.003M	34.5	+0.0 +0.0 +5.8 +0.0	+2.0 +0.0 +1.9	+0.0 +0.0 -27.1	+0.0 +15.4 +0.2	+0.0	32.7	46.0 R7_A1_HG2458_B LE_LMH,R7_A1_ HG2458_DTS	-13.3	Horiz
140	2524.913M Ave	31.9	+0.0 +0.3 +0.0 +10.2	+5.5 +28.6 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	40.4	54.0 R7_A1_HG2458_B LE_H	-13.6	Horiz
^	2524.913M	44.2	+0.0 +0.3 +0.0 +10.2	+5.5 +28.6 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	52.7	54.0 R7_A1_HG2458_B LE_H	-1.3	Horiz
142	2520.419M Ave	32.0	+0.0 +0.3 +0.0 +10.2	+5.5 +28.5 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	40.4	54.0 R7_A1_HG2458_D TS	-13.6	Horiz
^	2520.419M	44.8	+0.0 +0.3 +0.0 +10.2	+5.5 +28.5 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	53.2	54.0 R7_A1_HG2458_D TS	-0.8	Horiz
144	2526.730M Ave	31.7	+0.0 +0.3 +0.0 +10.2	+5.5 +28.6 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	40.2	54.0 R7_A1_HG2458_D TS	-13.8	Horiz
^	2526.730M	42.8	+0.0 +0.3 +0.0 +10.2	+5.5 +28.6 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0 +0.0	+0.0	51.3	54.0 R7_A1_HG2458_D TS	-2.7	Horiz

146	2366.906M Ave	31.8	+0.0 +0.3 +0.0 +10.1	+5.4 +28.4 +0.0	+4.0 +0.0 +0.0	-39.9 +0.0	+0.0	40.1	54.0 R7_A1_R8_A2_H G2458_BLE_L_L2	-13.9	Horiz
^	2366.906M	45.2	+0.0 +0.3 +0.0 +10.1	+5.4 +28.4 +0.0	+4.0 +0.0 +0.0	-39.9 +0.0	+0.0	53.5	54.0 R7_A1_R8_A2_H G2458_BLE_L_L2	-0.5	Horiz
148	7205.295M Ave	25.3	+0.0 +0.1 +0.0 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0	+0.0	40.0	54.0 R8_A3_HG2458_B LE_L	-14.0	Vert
^	7205.295M	38.0	+0.0 +0.1 +0.0 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0	+0.0	52.7	54.0 R8_A3_HG2458_B LE_L	-1.3	Vert
150	2515.032M Ave	31.5	+0.0 +0.3 +0.0 +10.2	+5.5 +28.5 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0	+0.0	39.9	54.0 R7_A1_R8_A2_H G2458_BLE_H2_D TS	-14.1	Horiz
^	2515.032M	44.4	+0.0 +0.3 +0.0 +10.2	+5.5 +28.5 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0	+0.0	52.8	54.0 R7_A1_R8_A2_H G2458_BLE_H2_D TS	-1.2	Horiz
152	2363.717M Ave	31.5	+0.0 +0.3 +0.0 +10.1	+5.4 +28.4 +0.0	+4.0 +0.0 +0.0	-39.9 +0.0	+0.0	39.8	54.0 R7_A1_HG2458_B LE_L	-14.2	Horiz
^	2363.717M	44.5	+0.0 +0.3 +0.0 +10.1	+5.4 +28.4 +0.0	+4.0 +0.0 +0.0	-39.9 +0.0	+0.0	52.8	54.0 R7_A1_HG2458_B LE_L	-1.2	Horiz
154	2518.728M Ave	31.4	+0.0 +0.3 +0.0 +10.2	+5.5 +28.5 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0	+0.0	39.8	54.0 R7_A1_HG2458_B LE_H	-14.2	Horiz
^	2518.728M	44.5	+0.0 +0.3 +0.0 +10.2	+5.5 +28.5 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0	+0.0	52.9	54.0 R7_A1_HG2458_B LE_H	-1.1	Horiz
156	2342.200M Ave	31.7	+0.0 +0.3 +0.0 +10.1	+5.3 +28.4 +0.0	+3.9 +0.0 +0.0	-39.9 +0.0	+0.0	39.8	54.0 R7_A1_R8_A2_H G2458_BLE_L_L2	-14.2	Horiz
^	2342.200M	44.2	+0.0 +0.3 +0.0 +10.1	+5.3 +28.4 +0.0	+3.9 +0.0 +0.0	-39.9 +0.0	+0.0	52.3	54.0 R7_A1_R8_A2_H G2458_BLE_L_L2	-1.7	Horiz

158	2518.870M Ave	31.3	+0.0 +0.3 +0.0 +10.2	+5.5 +28.5 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0	+0.0	39.7	54.0 R7_A1_R8_A2_H G2458_BLE_H_H2	-14.3	Horiz
^	2518.870M	44.5	+0.0 +0.3 +0.0 +10.2	+5.5 +28.5 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0	+0.0	52.9	54.0 R7_A1_R8_A2_H G2458_BLE_H_H2	-1.1	Horiz
160	2540.000M Ave	31.2	+0.0 +0.3 +0.0 +10.2	+5.5 +28.6 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0	+0.0	39.7	54.0 R7_A1_R8_A2_H G2458_BLE_H2_D TS	-14.3	Horiz
^	2540.000M	43.5	+0.0 +0.3 +0.0 +10.2	+5.5 +28.6 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0	+0.0	52.0	54.0 R7_A1_R8_A2_H G2458_BLE_H2_D TS	-2.0	Horiz
162	2515.314M Ave	31.3	+0.0 +0.3 +0.0 +10.2	+5.5 +28.5 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0	+0.0	39.7	54.0 R7_A1_R8_A2_H G2458_BLE_H_H2	-14.3	Horiz
^	2515.314M	45.0	+0.0 +0.3 +0.0 +10.2	+5.5 +28.5 +0.0	+4.1 +0.0 +0.0	-40.2 +0.0	+0.0	53.4	54.0 R7_A1_R8_A2_H G2458_BLE_H_H2	-0.6	Horiz
164	4951.387M Ave	30.3	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	39.4	54.0 R7_A1_R8_A2_H G2458_BLE_H_H2	-14.6	Horiz
^	4951.387M	44.0	+0.0 +0.4 +0.0 +0.0	+8.4 +33.5 +0.0	+6.1 +0.3 +0.0	-39.6 +0.0	+0.0	53.1	54.0 R7_A1_R8_A2_H G2458_BLE_H_H2	-0.9	Horiz
166	2338.025M Ave	31.3	+0.0 +0.3 +0.0 +10.1	+5.3 +28.3 +0.0	+3.9 +0.0 +0.0	-39.9 +0.0	+0.0	39.3	54.0 R7_A1_HG2458_B LE_L	-14.7	Horiz
^	2338.025M	45.4	+0.0 +0.3 +0.0 +10.1	+5.3 +28.3 +0.0	+3.9 +0.0 +0.0	-39.9 +0.0	+0.0	53.4	54.0 R7_A1_HG2458_B LE_L	-0.6	Horiz
168	2376.066M Ave	31.0	+0.0 +0.3 +0.0 +10.1	+5.4 +28.3 +0.0	+4.0 +0.0 +0.0	-39.9 +0.0	+0.0	39.2	54.0 R7_A1_HG2458_B LE_M	-14.8	Horiz
^	2376.102M	45.4	+0.0 +0.3 +0.0 +10.1	+5.4 +28.3 +0.0	+4.0 +0.0 +0.0	-39.9 +0.0	+0.0	53.6	54.0 R7_A1_R8_A2_H G2458_BLE_M_M	-0.4	Horiz
^	2376.066M	44.8	+0.0 +0.3 +0.0 +10.1	+5.4 +28.3 +0.0	+4.0 +0.0 +0.0	-39.9 +0.0	+0.0	53.0	54.0 R7_A1_HG2458_B LE_M	-1.0	Horiz

171	7319.487M Ave	23.4	+0.0 +0.1 +0.0 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0	+0.0	38.5	54.0 R7_A1_R8_A2_H G2458_BLE_M_M	-15.5	Horiz
^	7319.487M	37.3	+0.0 +0.1 +0.0 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0	+0.0	52.4	54.0 R7_A1_R8_A2_H G2458_BLE_M_M	-1.6	Horiz
173	7206.790M Ave	23.6	+0.0 +0.1 +0.0 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0	+0.0	38.3	54.0 R8_A4_HG2458_B LE_L	-15.7	Vert
^	7206.790M	36.6	+0.0 +0.1 +0.0 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0	+0.0	51.3	54.0 R8_A4_HG2458_B LE_L	-2.7	Vert
^	7206.872M	34.6	+0.0 +0.1 +0.0 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0	+0.0	49.3	54.0 R7_A3_HG2458_B LE_L	-4.7	Vert
176	7319.353M Ave	23.2	+0.0 +0.1 +0.0 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0	+0.0	38.3	54.0 R7_A4_HG2458_B LE_M	-15.7	Vert
177	7205.453M Ave	23.5	+0.0 +0.1 +0.0 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0	+0.0	38.2	54.0 R8_A2_HG2458_B LE_L	-15.8	Horiz
^	7205.453M	35.9	+0.0 +0.1 +0.0 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0	+0.0	50.6	54.0 R8_A2_HG2458_B LE_L	-3.4	Horiz
^	7205.410M	34.4	+0.0 +0.1 +0.0 +0.0	+10.7 +35.8 +0.0	+7.5 +0.2 +0.0	-39.6 +0.0	+0.0	49.1	54.0 R7_A2_HG2458_B LE_L	-4.9	Horiz
180	7440.650M Ave	21.8	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	37.7	54.0 R7_A3_HG2458_B LE_H	-16.3	Vert
^	7440.650M	34.2	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	50.1	54.0 R7_A3_HG2458_B LE_H	-3.9	Vert

182	7319.335M Ave	22.6	+0.0 +0.1 +0.0 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0	+0.0	37.7	54.0 R8_A3_HG2458_B LE_M	-16.3	Vert
^	7319.353M	36.2	+0.0 +0.1 +0.0 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0	+0.0	51.3	54.0 R7_A4_HG2458_B LE_M	-2.7	Vert
^	7319.335M	35.5	+0.0 +0.1 +0.0 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0	+0.0	50.6	54.0 R8_A3_HG2458_B LE_M	-3.4	Vert
185	7440.816M Ave	21.5	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	37.4	54.0 R7_A2_HG2458_B LE_H	-16.6	Horiz
^	7440.816M	35.7	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	51.6	54.0 R7_A2_HG2458_B LE_H	-2.4	Horiz
^	7440.735M	33.6	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	49.5	54.0 R8_A2_HG2458_B LE_H	-4.5	Horiz
188	7319.283M Ave	22.2	+0.0 +0.1 +0.0 +0.0	+10.8 +36.2 +0.0	+7.6 +0.2 +0.0	-39.8 +0.0	+0.0	37.3	54.0 R7_A1_HG2458_B LE_M	-16.7	Horiz
189	7440.593M Ave	21.4	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	37.3	54.0 R7_A1_HG2458_B LE_H	-16.7	Horiz
^	7440.593M	34.7	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	50.6	54.0 R7_A1_HG2458_B LE_H	-3.4	Horiz
191	7446.592M Ave	21.3	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	37.2	54.0 R7_A1_HG2458_D TS	-16.8	Horiz
^	7446.592M	34.3	+0.0 +0.2 +0.0 +0.0	+11.1 +36.4 +0.0	+7.7 +0.2 +0.0	-39.7 +0.0	+0.0	50.2	54.0 R7_A1_HG2458_D TS	-3.8	Horiz

193	7319.323M	22.0	+0.0	+10.8	+7.6	-39.8	+0.0	37.1	54.0	-16.9	Horiz
	Ave		+0.1	+36.2	+0.2	+0.0			R8_A2_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
^	7319.323M	35.0	+0.0	+10.8	+7.6	-39.8	+0.0	50.1	54.0	-3.9	Horiz
			+0.1	+36.2	+0.2	+0.0			R8_A2_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
^	7319.283M	34.9	+0.0	+10.8	+7.6	-39.8	+0.0	50.0	54.0	-4.0	Horiz
			+0.1	+36.2	+0.2	+0.0			R7_A1_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
^	7319.412M	34.2	+0.0	+10.8	+7.6	-39.8	+0.0	49.3	54.0	-4.7	Horiz
			+0.1	+36.2	+0.2	+0.0			R7_A2_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
197	7321.035M	21.7	+0.0	+10.8	+7.6	-39.8	+0.0	36.8	54.0	-17.2	Vert
	Ave		+0.1	+36.2	+0.2	+0.0			R8_A4_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
^	7321.035M	35.3	+0.0	+10.8	+7.6	-39.8	+0.0	50.4	54.0	-3.6	Vert
			+0.1	+36.2	+0.2	+0.0			R8_A4_HG2458_B		
			+0.0	+0.0	+0.0	+0.0			LE_M		
			+0.0								
199	7427.835M	20.5	+0.0	+11.1	+7.7	-39.7	+0.0	36.4	54.0	-17.6	Horiz
	Ave		+0.2	+36.4	+0.2	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_H2_D		
			+0.0						TS		
^	7427.835M	35.0	+0.0	+11.1	+7.7	-39.7	+0.0	50.9	54.0	-3.1	Horiz
			+0.2	+36.4	+0.2	+0.0			R7_A1_R8_A2_H		
			+0.0	+0.0	+0.0	+0.0			G2458_BLE_H2_D		
			+0.0						TS		

Band Edge

Band Edge Summary – Antenna 1

Frequency (MHz)	Modulation	Ant. Type	Field Strength (dBuV/m @3m)	Limit (dBuV/m @3m)	Results
2390.0	BLE	PA2x2	38.1 pk	<54	Pass
2400.0	BLE	PA2x2	64.6 pk	<76.8	Pass
2483.5	BLE	PA2x2	31.5 ave	<54	Pass
2483.5	DTS	PA2x2	51.3 pk*	<74	Pass
2483.5	DTS	PA2x2	45.3 ave	<54	Pass
2390	BLE + BLE (L, L+2)	PA2x2	43.0 pk	<54	Pass
2400	BLE + BLE (L, L+2)	PA2x2	64.2 pk	<76.8	Pass
2483.5	BLE+BLE (H, H-2)	PA2x2	36.2 ave	<54	Pass
2483.5	BLE(H-2) + DTS	PA2x2	52.3 pk *	<74	Pass
2483.5	BLE(H-2) + DTS	PA2x2	49.3 ave	<54	Pass

*delta marker corrected

Band Edge Summary – Antenna 2

Frequency (MHz)	Modulation	Ant. Type	Field Strength (dBuV/m @3m)	Limit (dBuV/m @3m)	Results
2390.0	BLE	MA510 R7	43.2 pk	<54	Pass
2400.0	BLE	MA510 R7	68.5 pk	<76.8	Pass
2483.5	BLE	MA510 R7	32.1 ave	<54	Pass
2483.5	DTS	MA510 R7	52.9 pk*	<74	Pass
2483.5	DTS	MA510 R7	46.6 ave	<54	Pass
2390.0	BLE + BLE (L, L+2)	MA510 R7 R8	44.8 pk	<54	Pass
2400.0	BLE + BLE (L, L+2)	MA510 R7 R8	66.5 pk	<76.8	Pass
2483.5	BLE+BLE (H, H-2)	MA510 R7 R8	41.7 ave	<54	Pass
2483.5	BLE(H-2) + DTS	MA510 R7 R8	50.2 pk*	<74	Pass
2483.5	BLE(H-2) + DTS	MA510 R7 R8	48.5 ave	<54	Pass

*delta marker corrected (100kHz)

Band Edge Summary – Antenna 3					
Frequency (MHz)	Modulation	Ant. Type	Field Strength (dBuV/m @3m)	Limit (dBuV/m @3m)	Results
2390.0	BLE	MA673 R7A1	42.5pk	<54	Pass
2400.0	BLE	MA673 R7A1	69.1pk	<78.5	Pass
2483.5	BLE	MA673 R7A1	33.1ave	<54	Pass
2483.5	BLE	MA673 R7A1	58.6pk	<74	Pass
2483.5	DTS	MA673 R7A1	47.5ave	<54	Pass
2483.5	DTS	MA673 R7A1	51.1pk*	<74	Pass
2390.0	BLE + BLE (L, L+2)	MA673 R7A1R8A2	50.3pk	<54	Pass
2400.0	BLE + BLE (L, L+2)	MA673 R7A1R8A2	68.3pk	<78.5	Pass
2483.5	BLE+BLE (H, H-2)	MA673 R7A1R8A2	34.5ave	<54	Pass
2483.5	BLE(H-2) + DTS	MA673 R7A1R8A2	49.7pk*	<74	Pass
2483.5	BLE(H-2) + DTS	MA673 R7A1R8A2	47.5 ave	<54	Pass

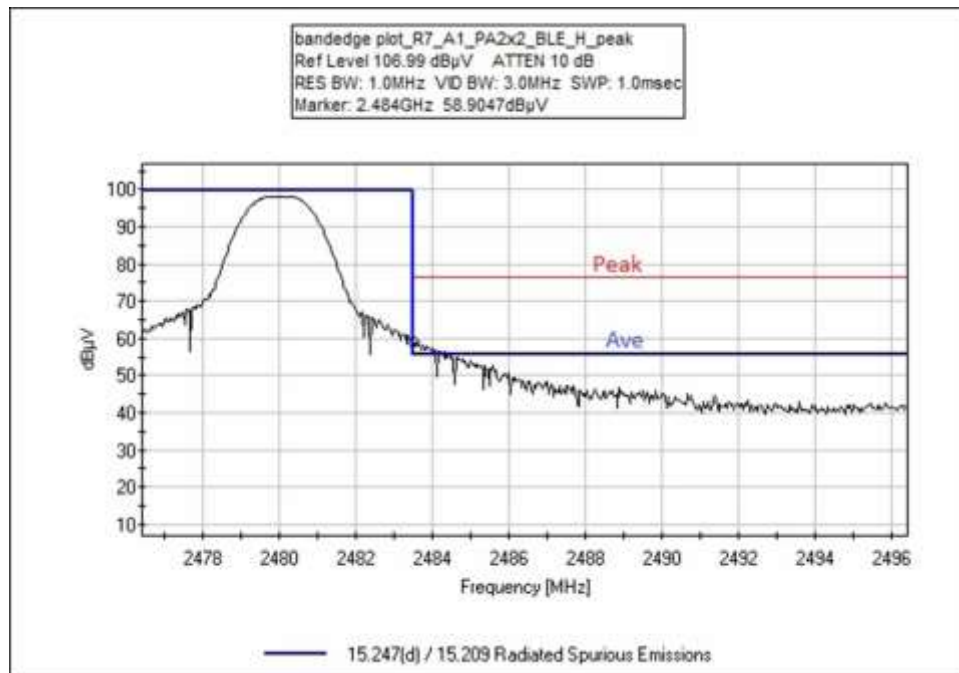
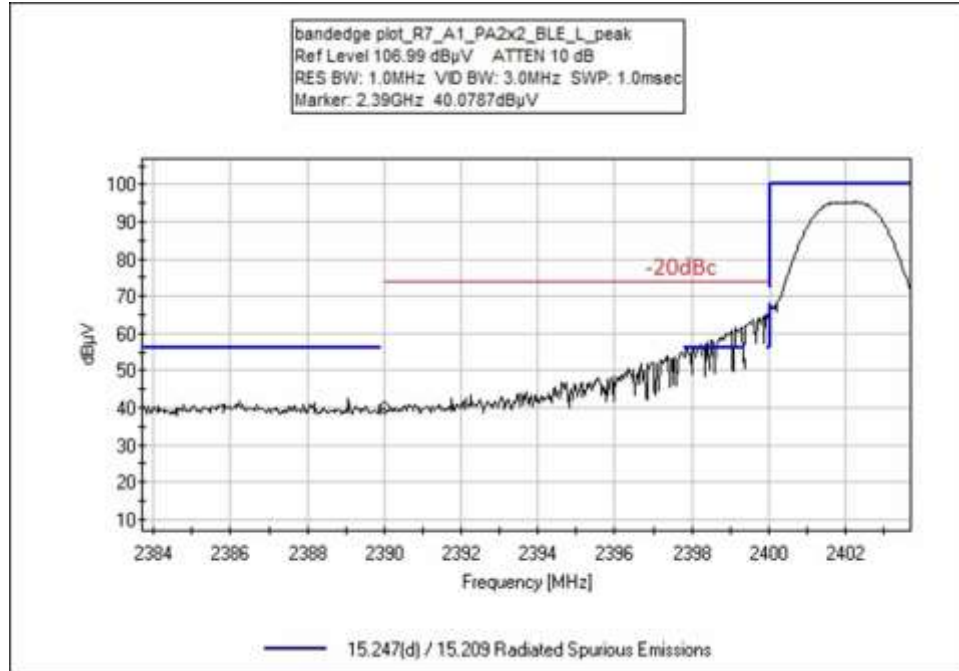
*delta marker corrected

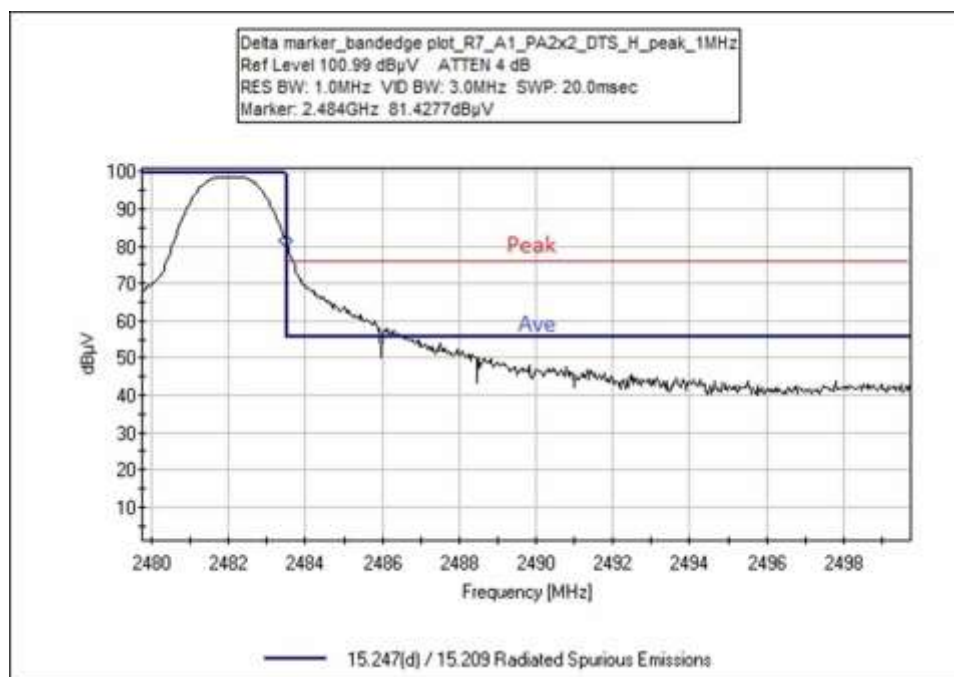
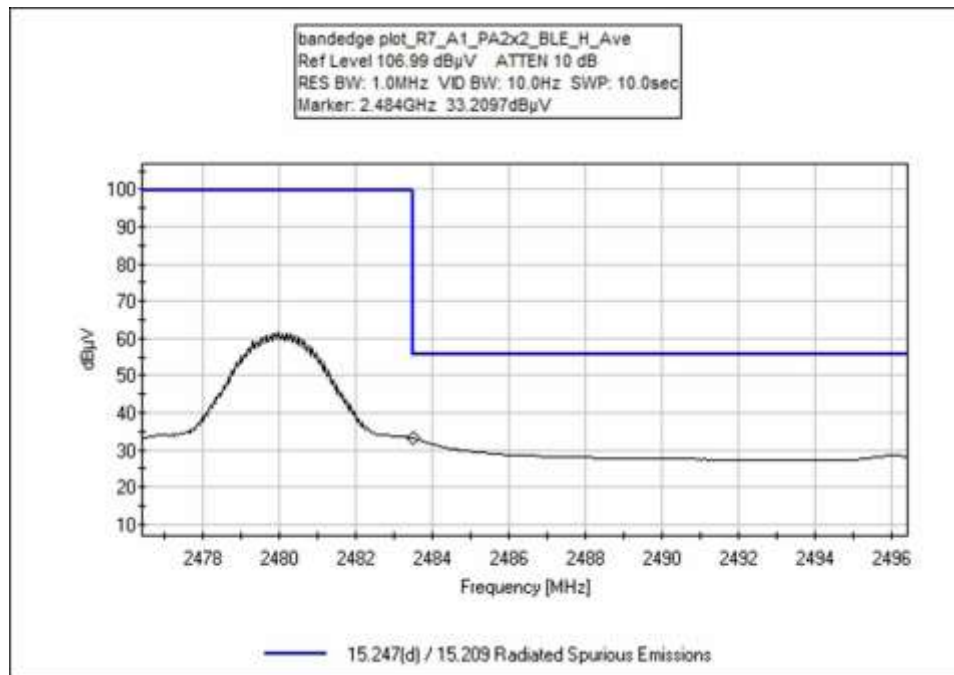
Band Edge Summary – Antenna 4					
Frequency (MHz)	Modulation	Ant. Type	Field Strength (dBuV/m @3m)	Limit (dBuV/m @3m)	Results
2390.0	BLE	HG2458 R7A1	45.6pk	<54	Pass
2400.0	BLE	HG2458 R7A1	72.4pk	<82.9	Pass
2483.5	BLE	HG2458 R7A1	35.6ave	<54	Pass
2483.5	BLE	HG2458 R7A1	63.5pk	<74	Pass
2483.5	DTS	HG2458 R7A1	50.1ave	<54	Pass
2483.5	DTS	HG2458 R7A1	50.8pk*	<74	Pass
2390.0	BLE + BLE (L, L+2)	HG2458 R7A1R8A2	46.1 pk	<54	Pass
2400.0	BLE + BLE (L, L+2)	HG2458 R7A1R8A2	72.1 pk	<82.9	Pass
2483.5	BLE+BLE (H, H-2)	HG2458 R7A1R8A2	37.8 ave	<54	Pass
2483.5	BLE(H-2) + DTS	HG2458 R7A1R8A2	52.1pk*	<74	Pass
2483.5	BLE(H-2) + DTS	HG2458 R7A1R8A2	52.2ave	<54	Pass

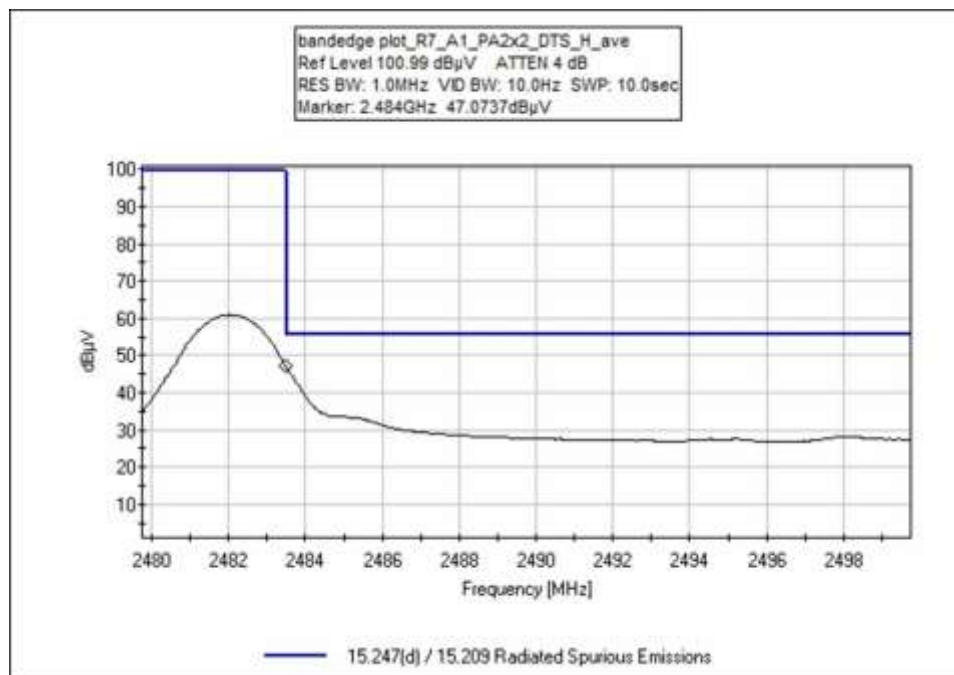
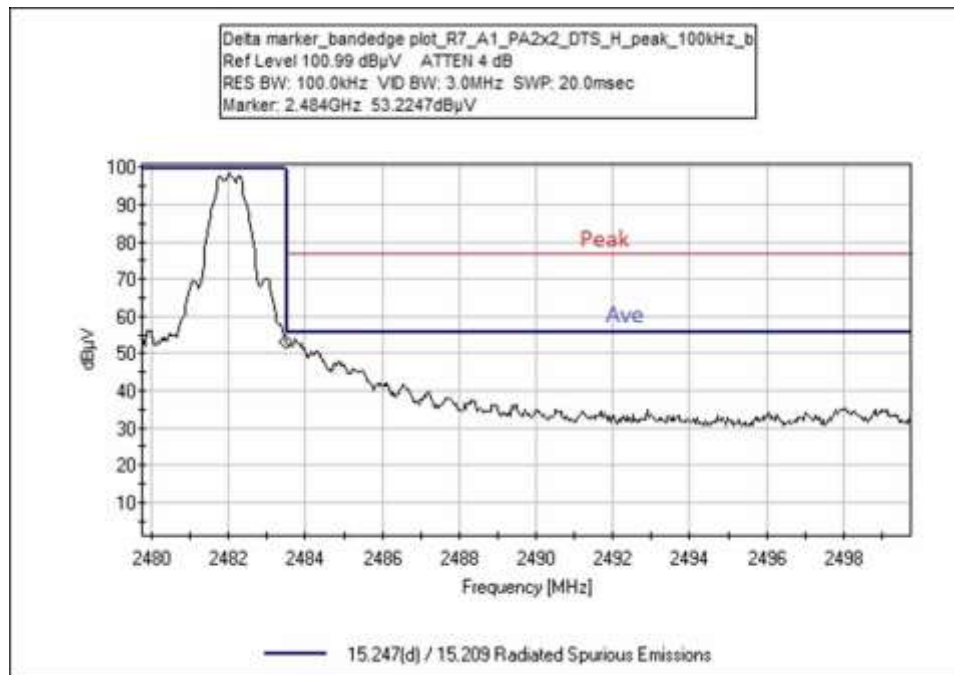
*delta marker corrected

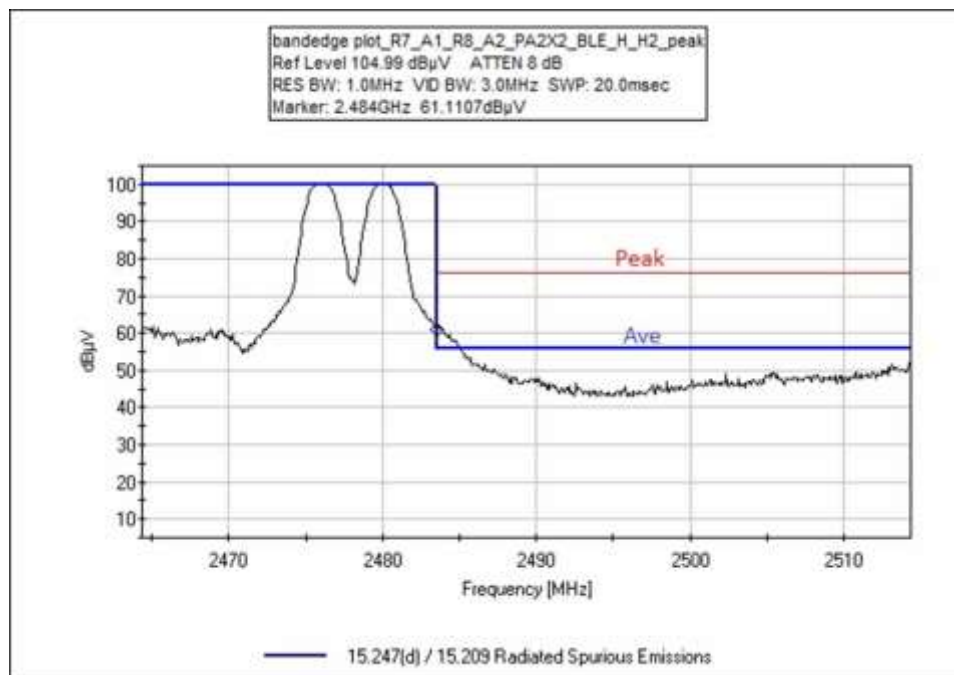
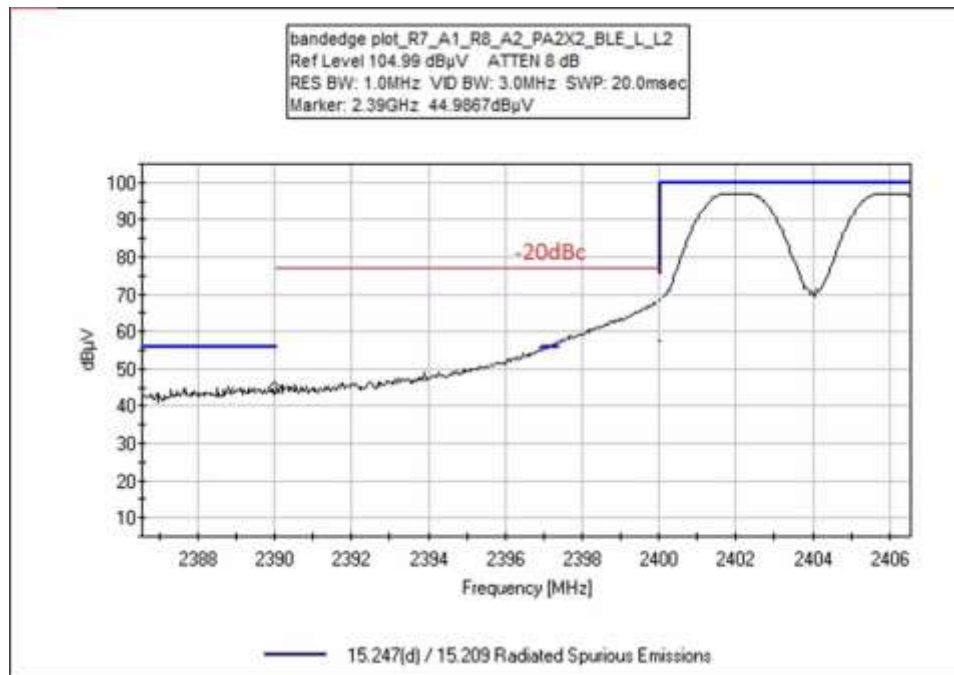
Band Edge Plots

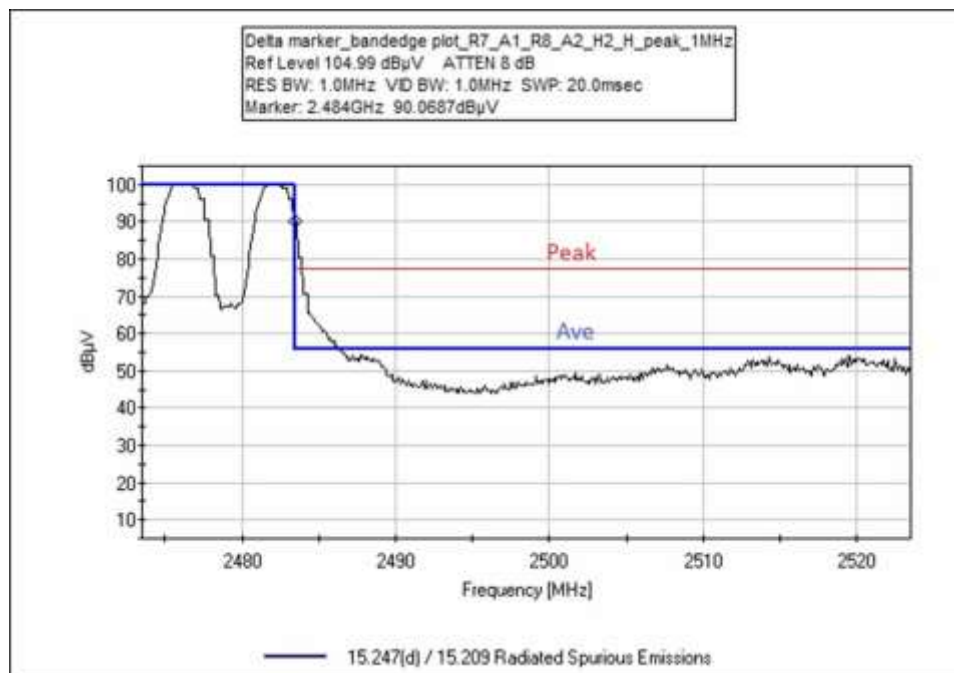
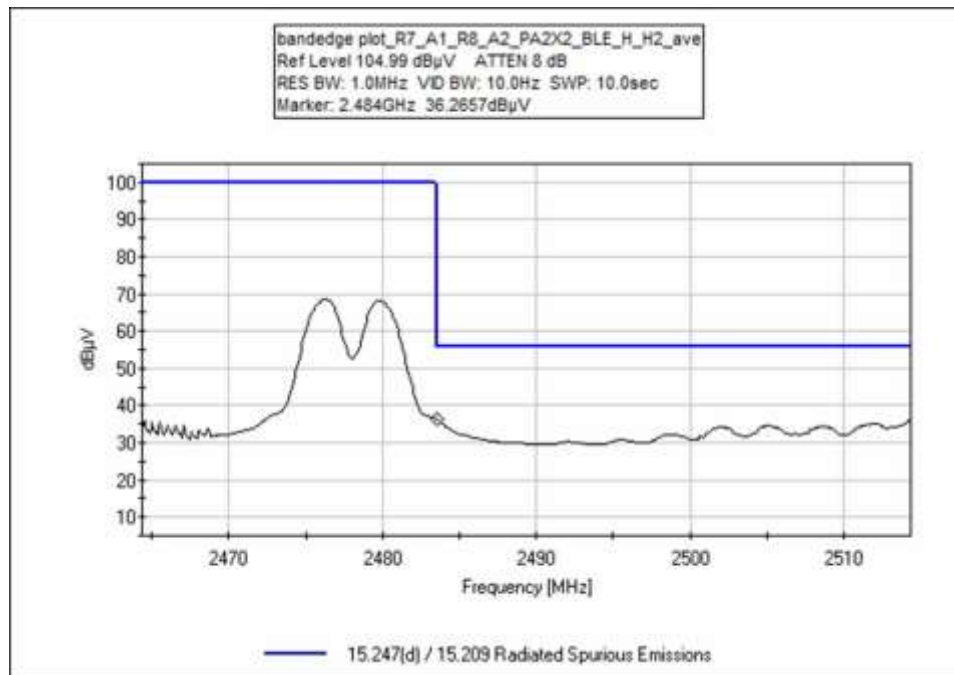
Antenna 1

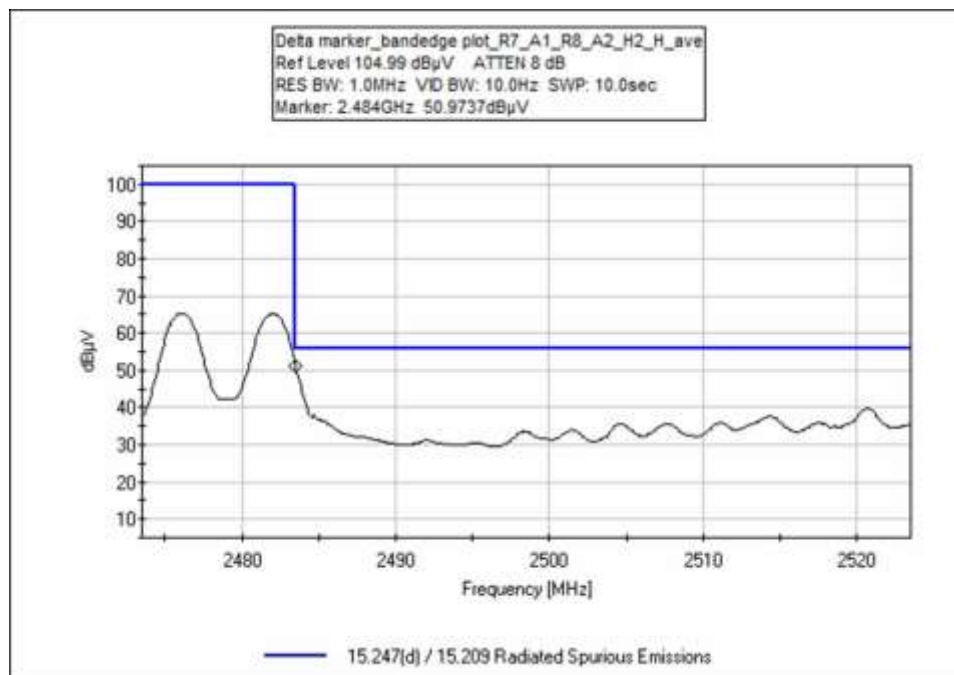
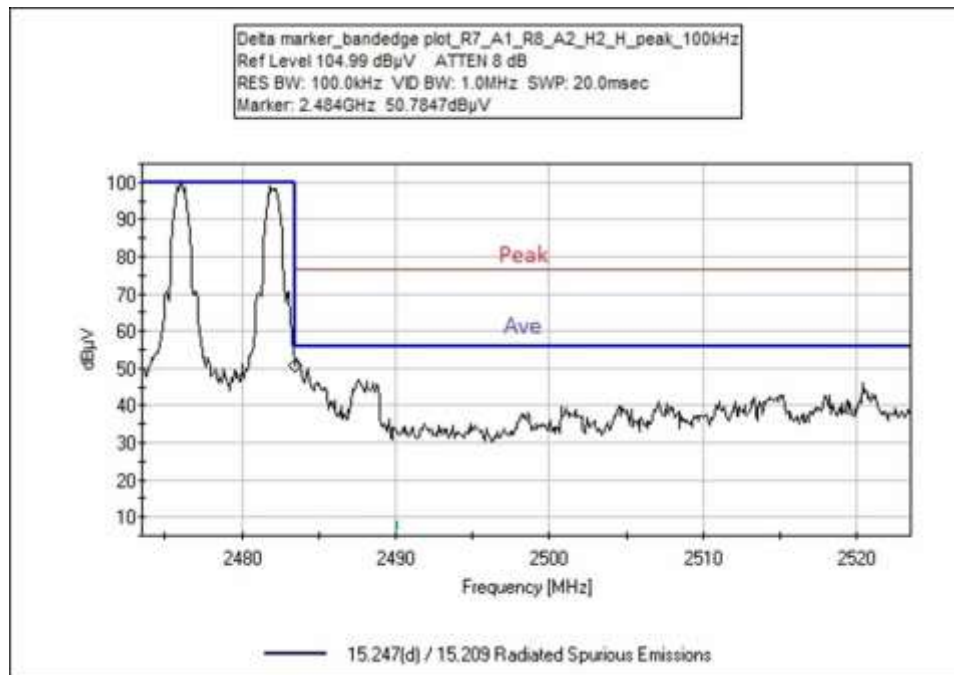




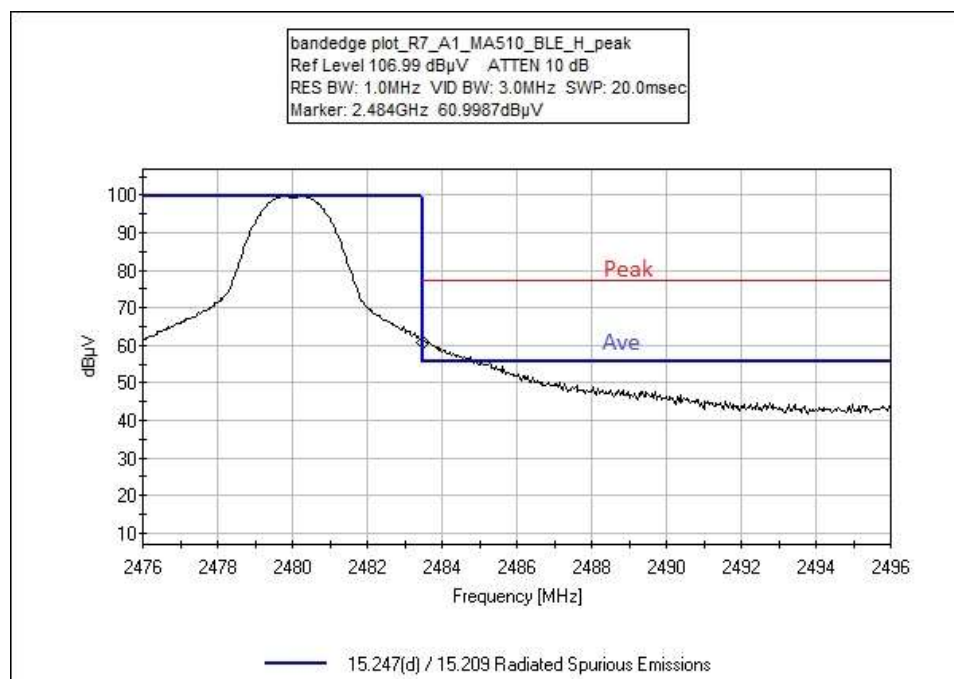
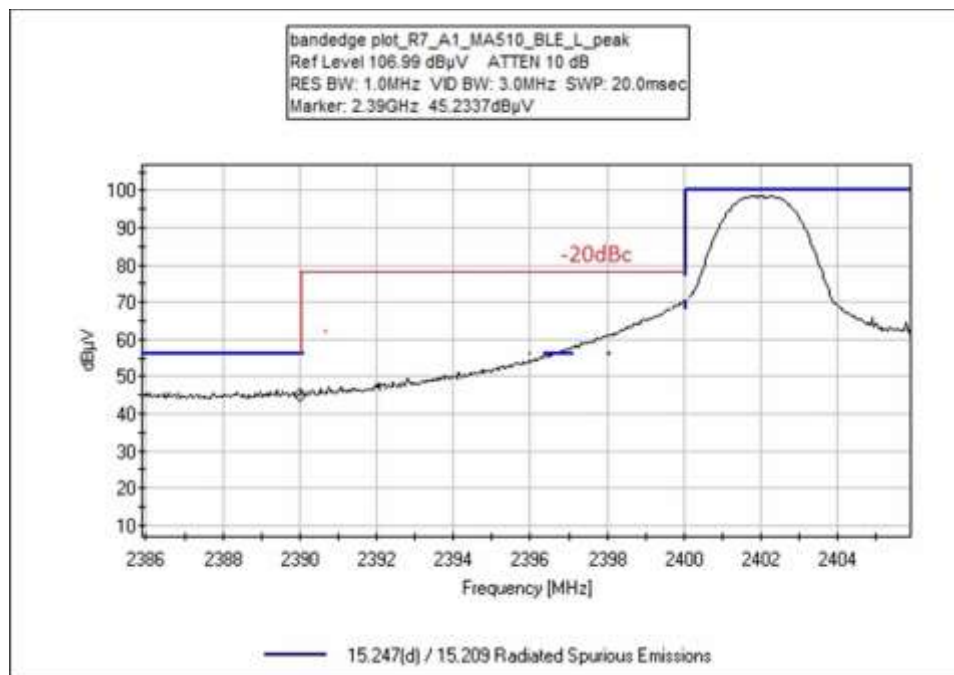


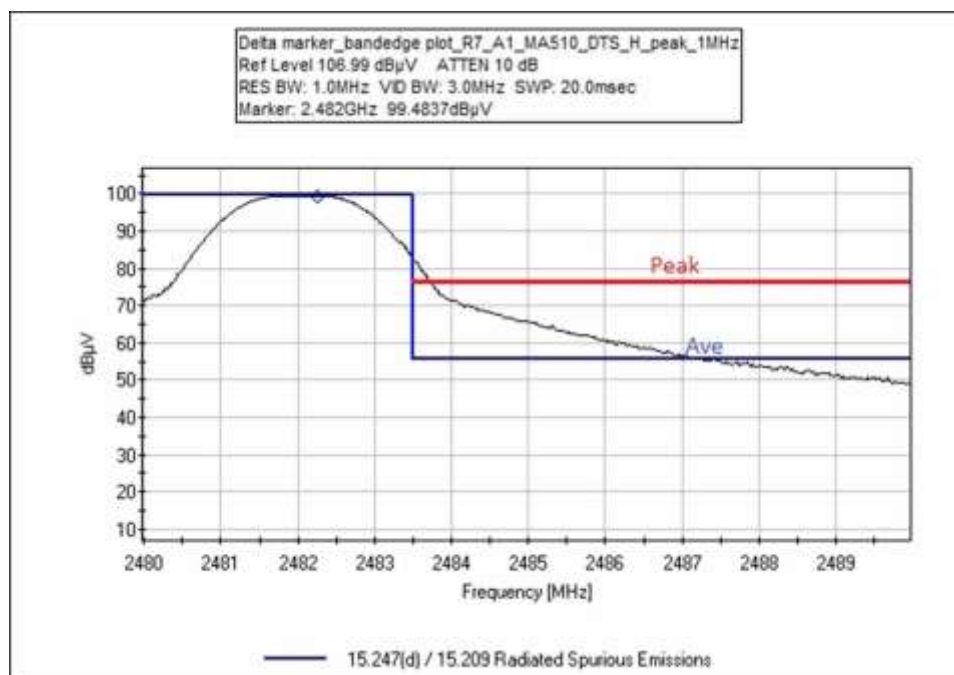
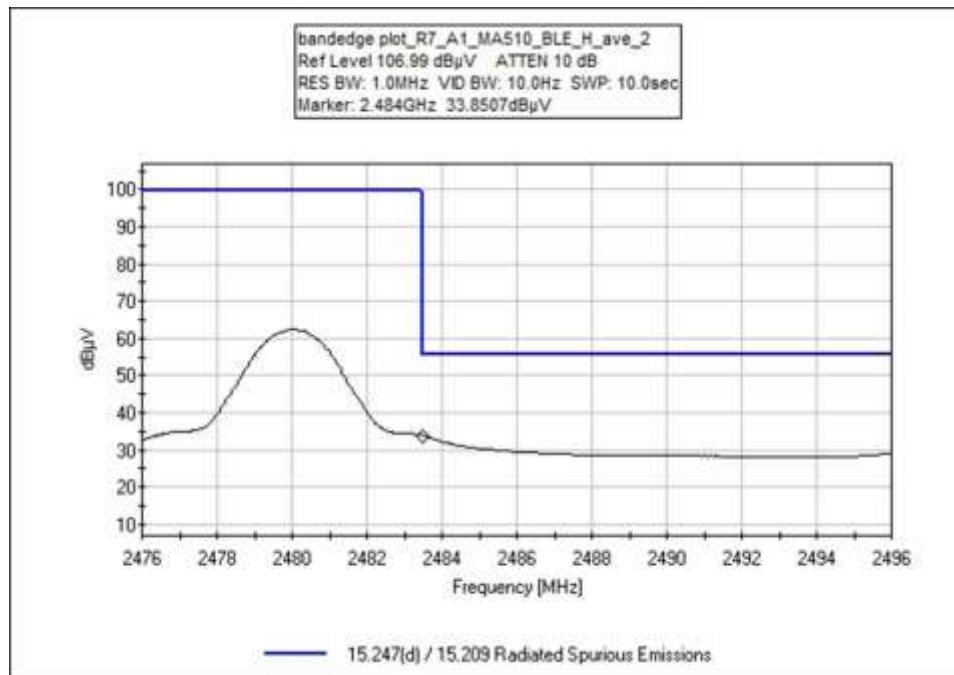


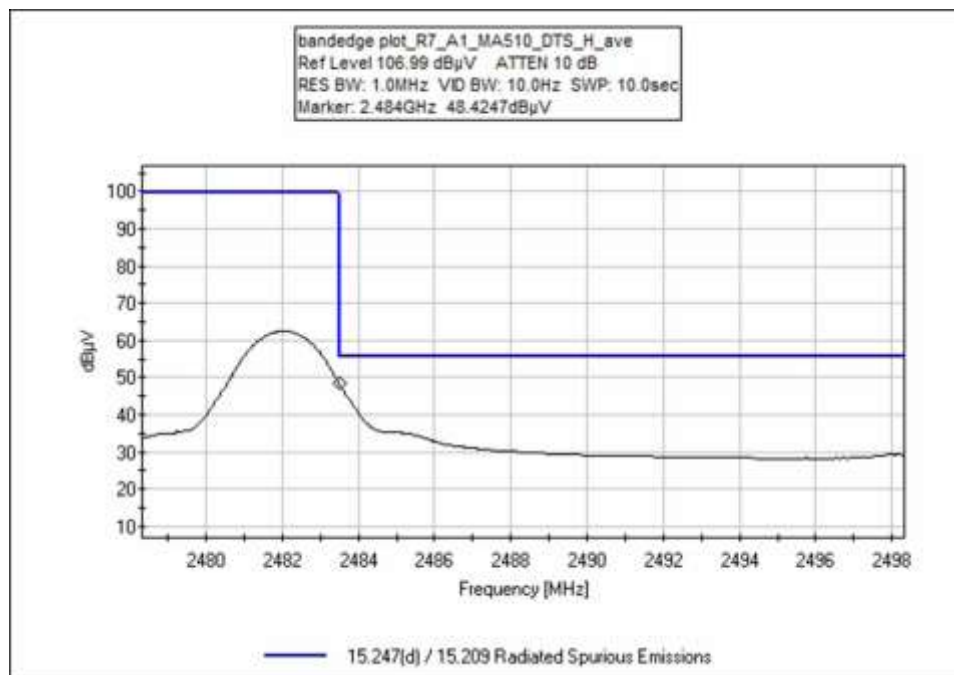
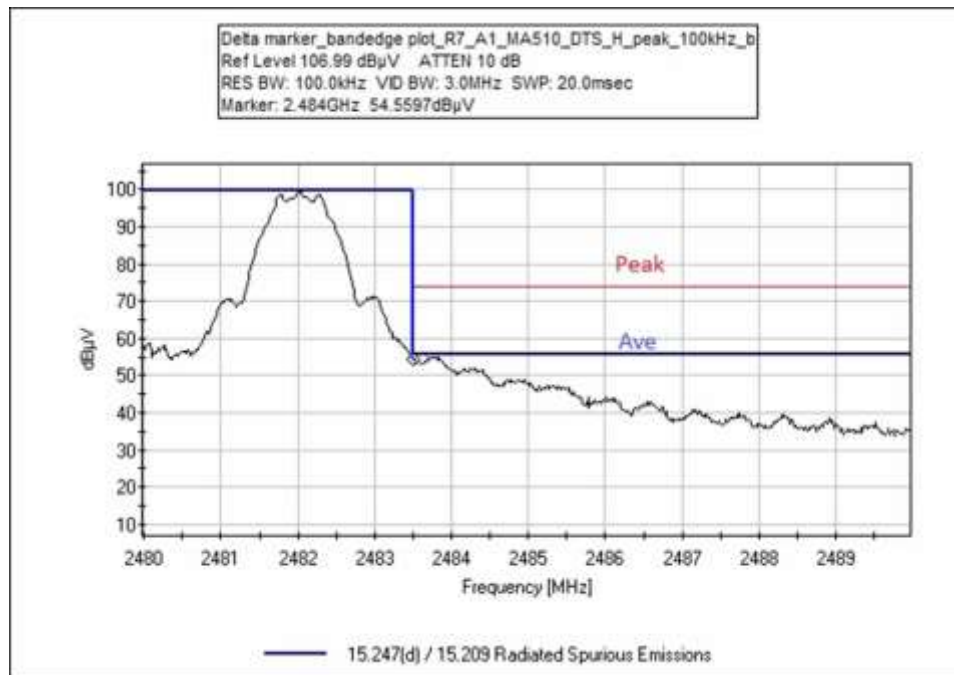


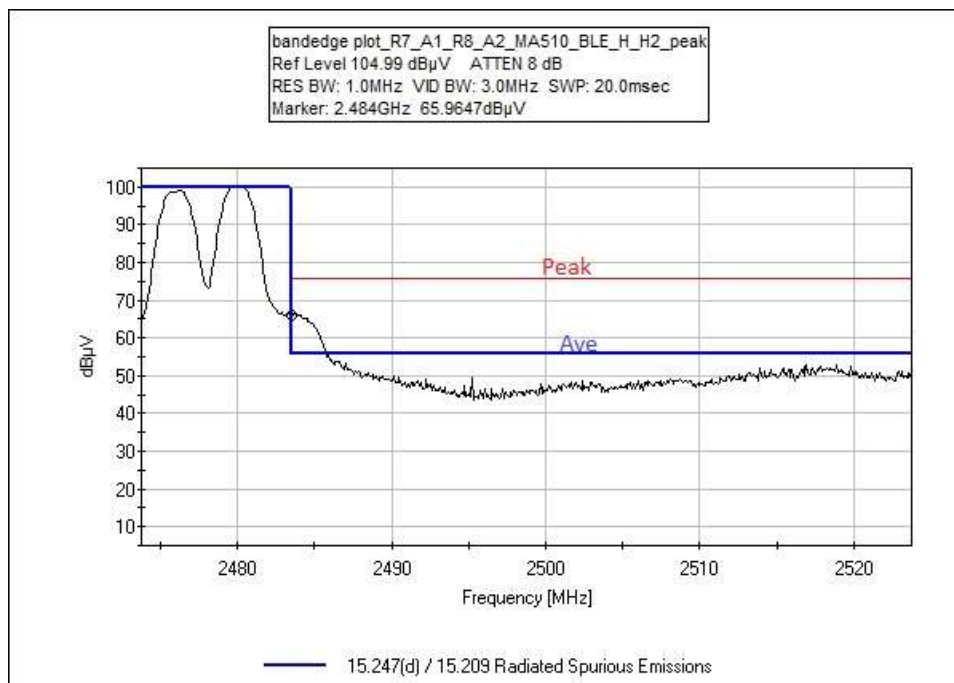
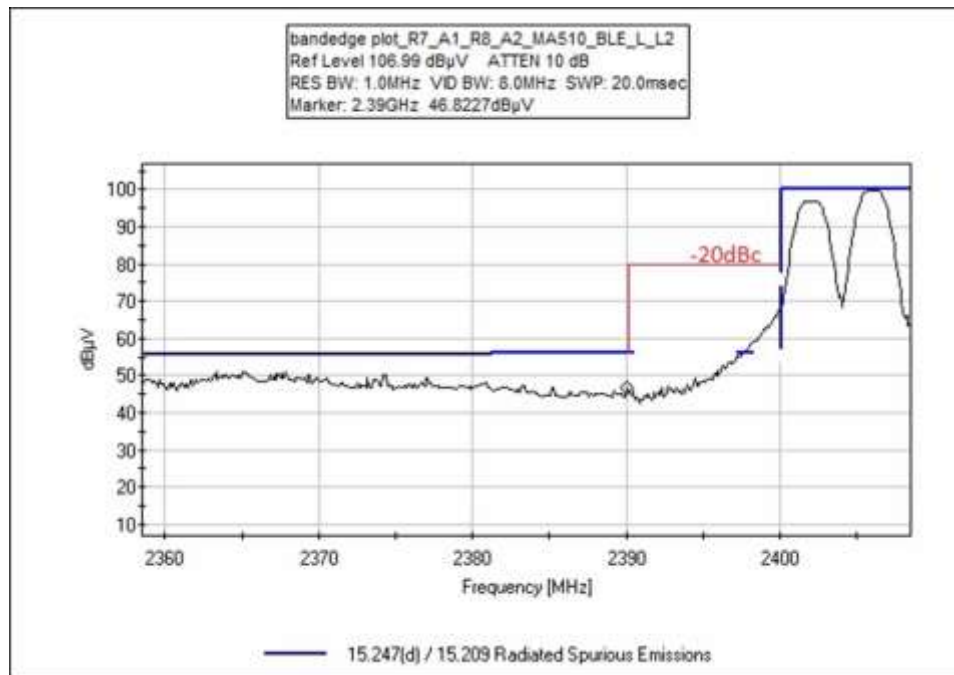


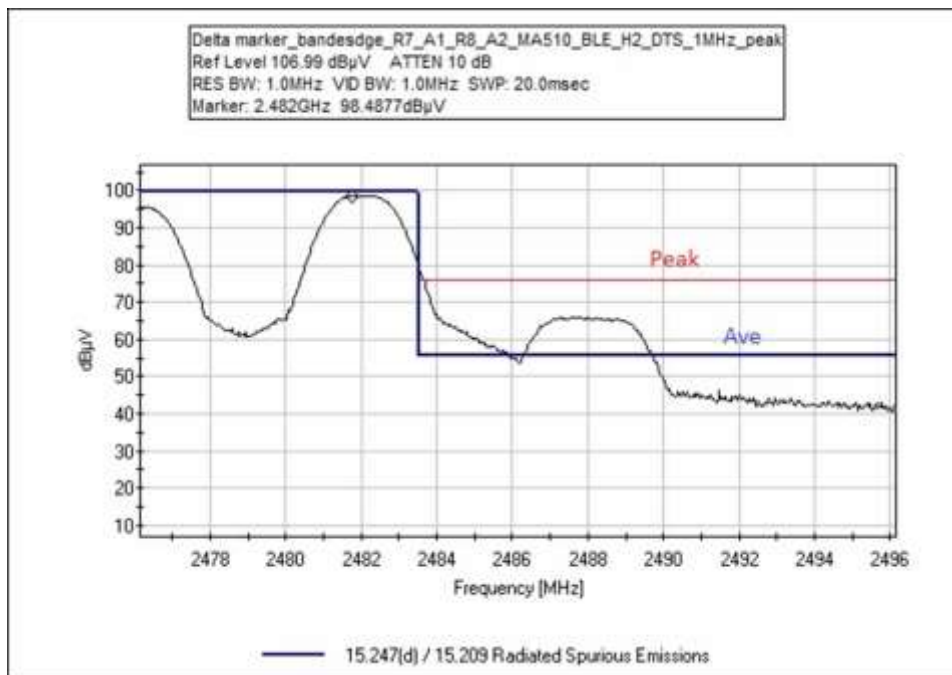
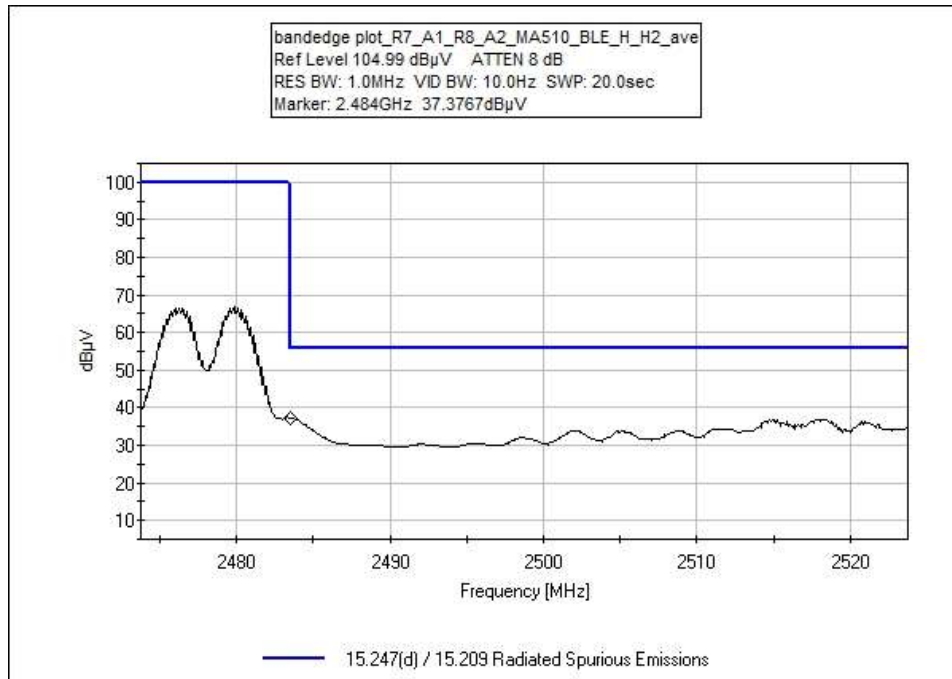
Antenna 2

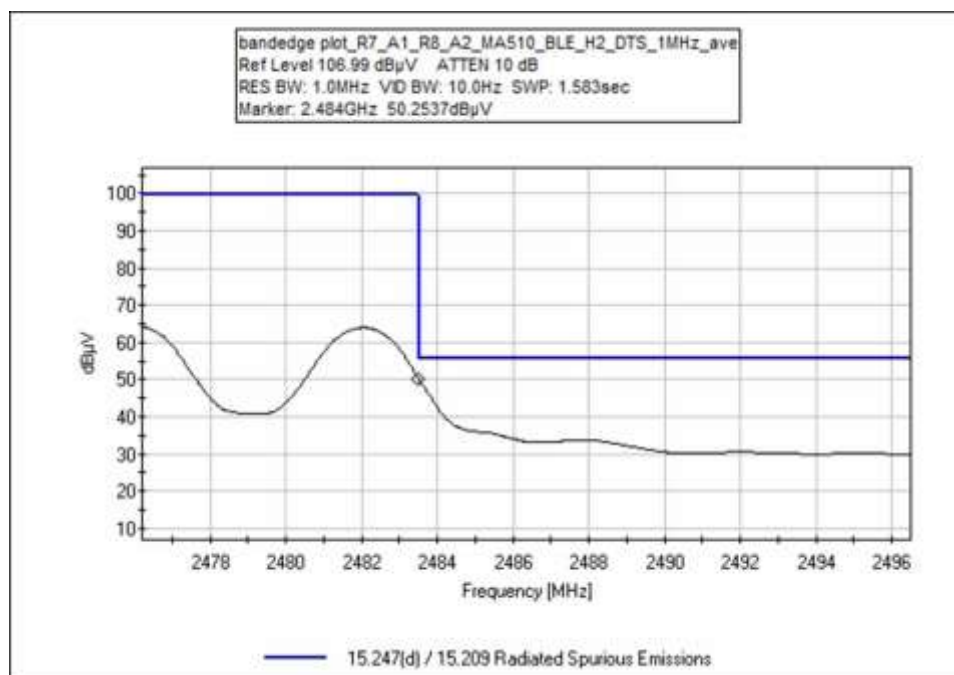
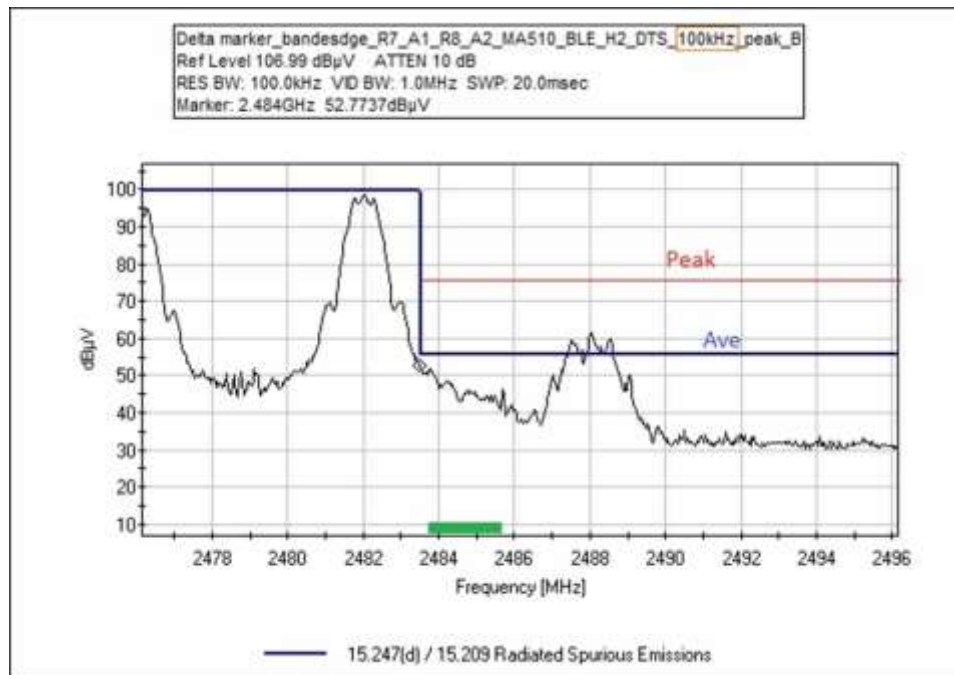




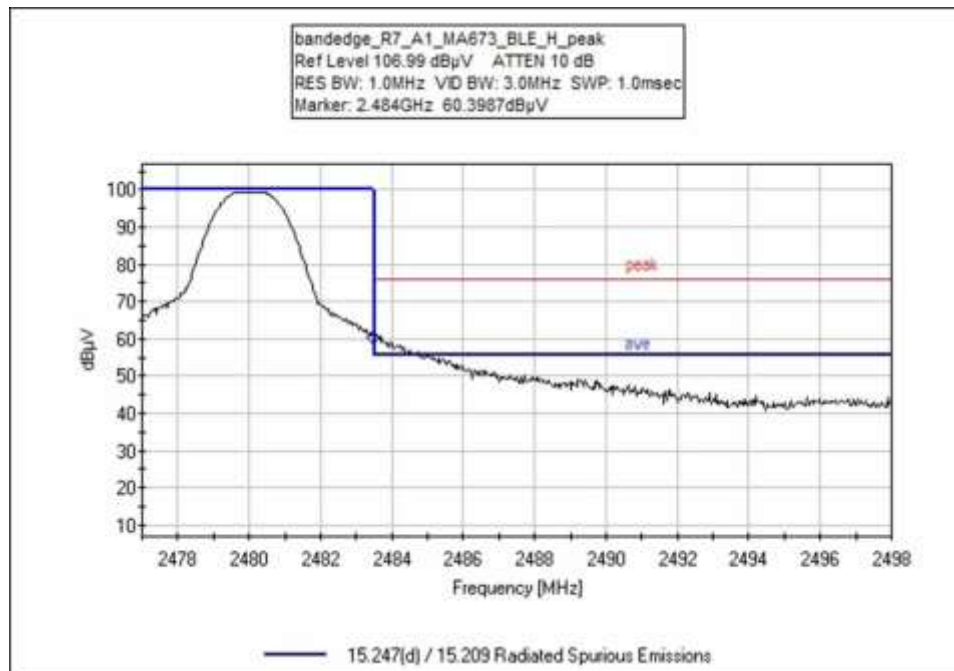
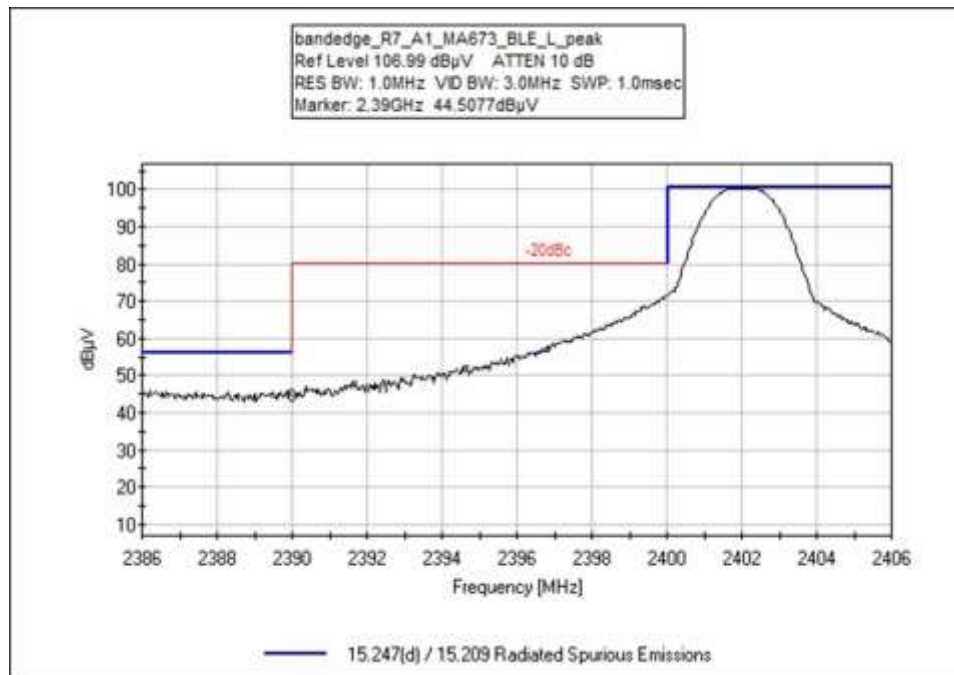


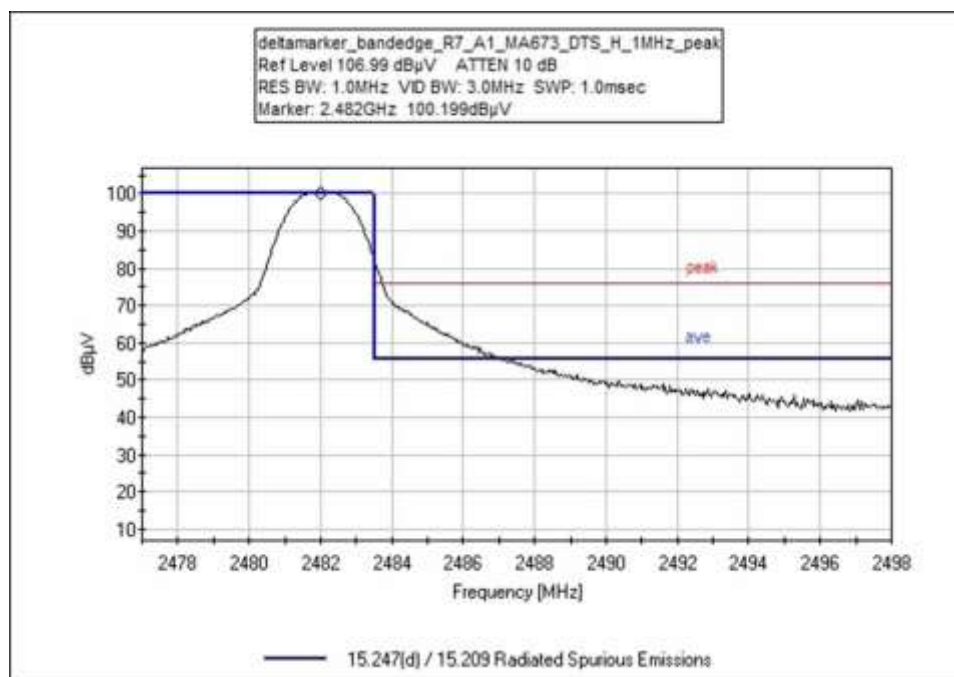
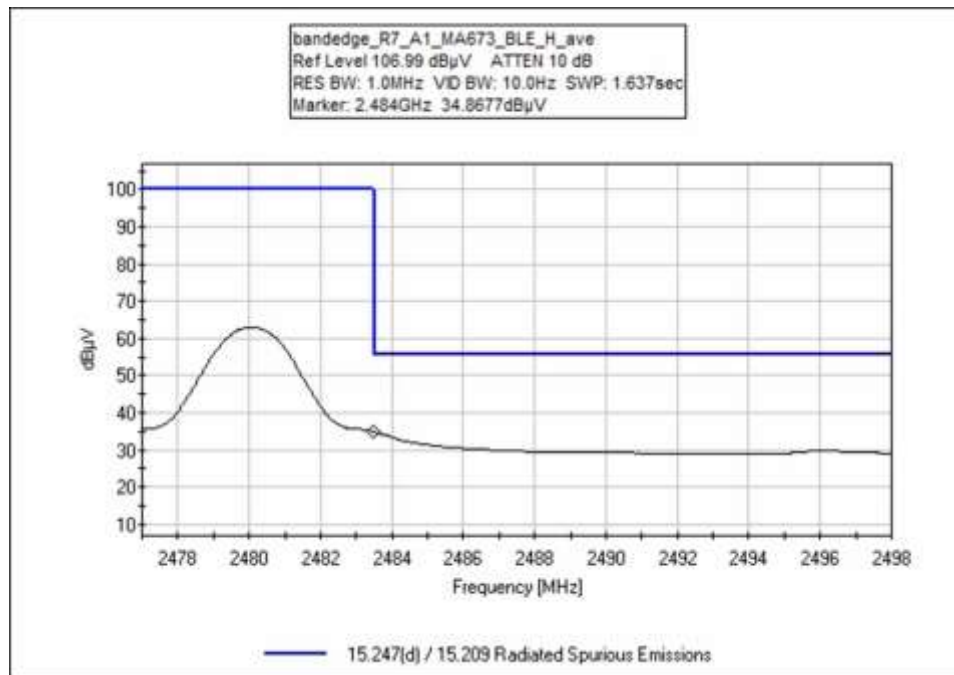


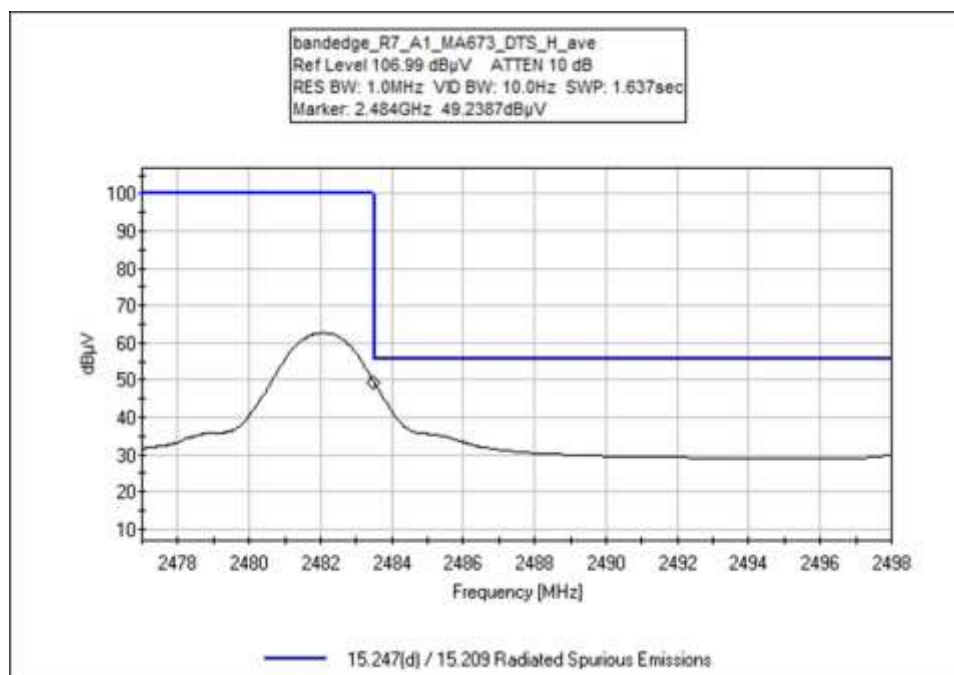
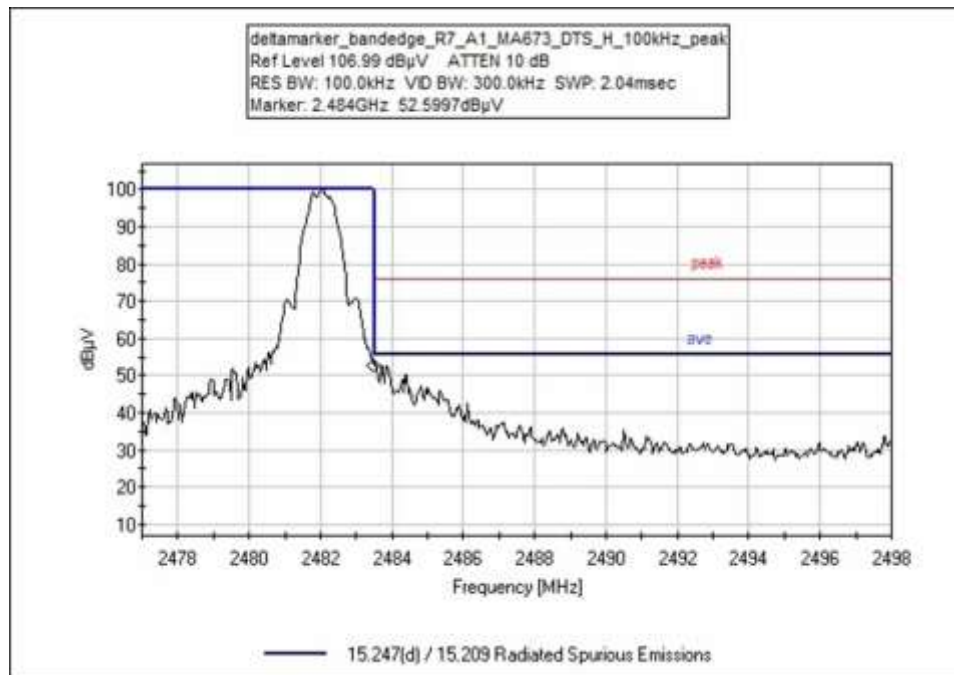


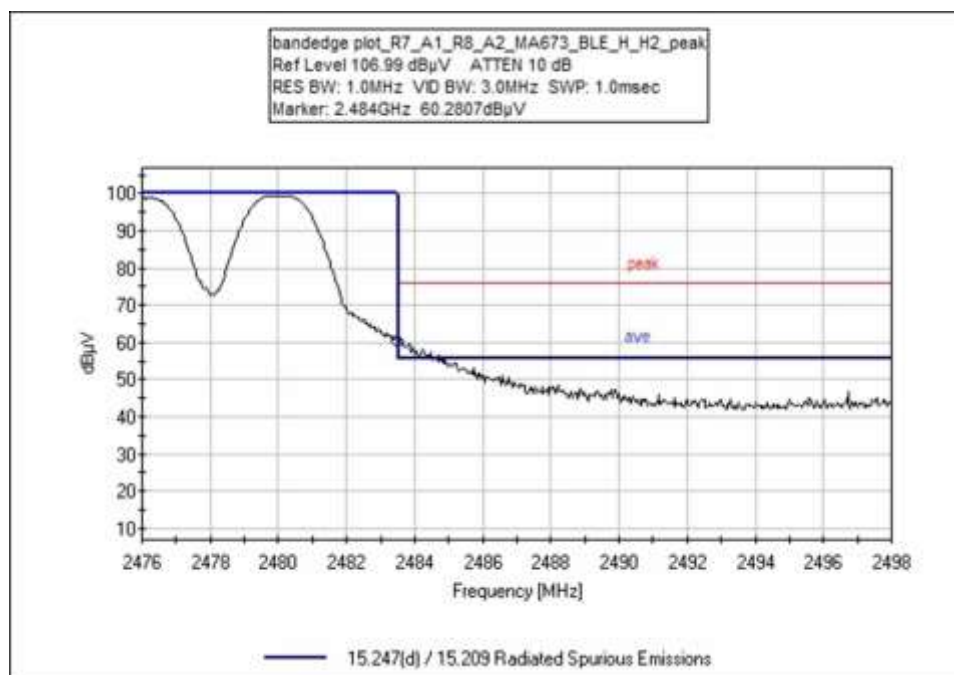
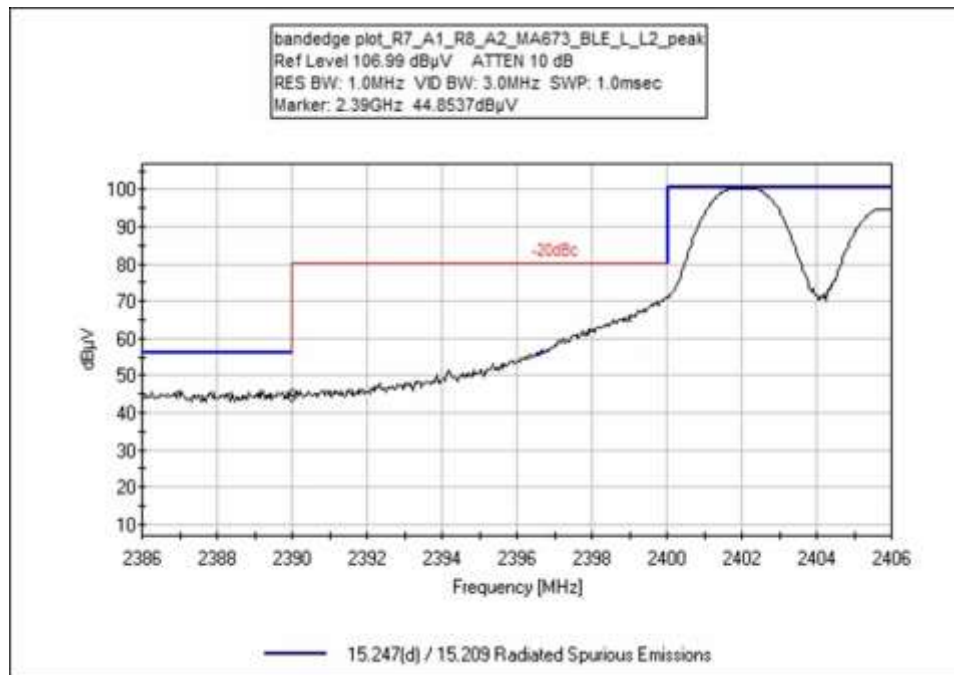


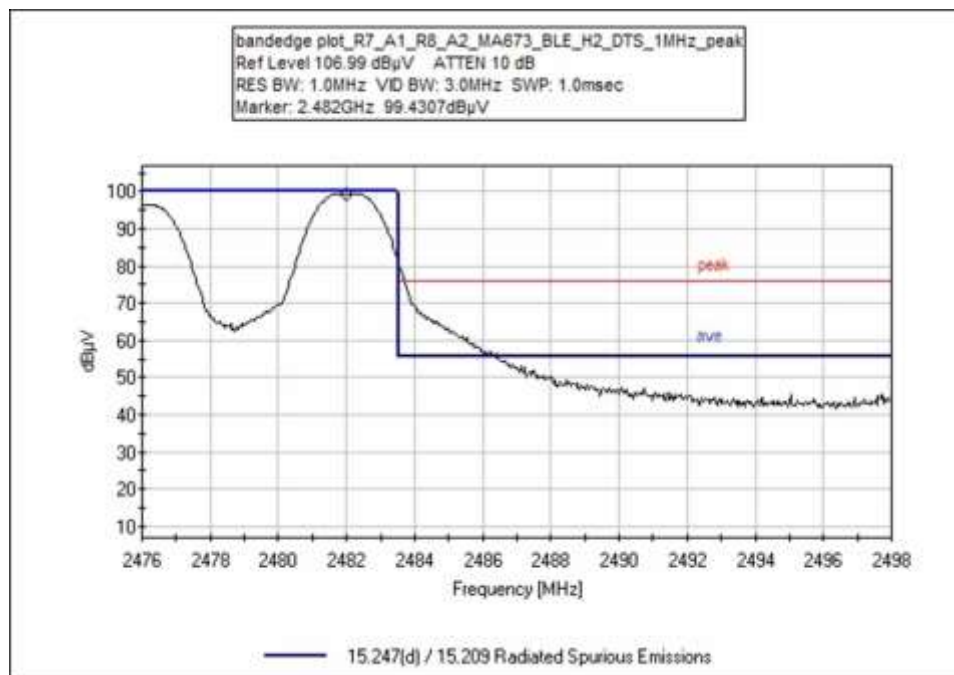
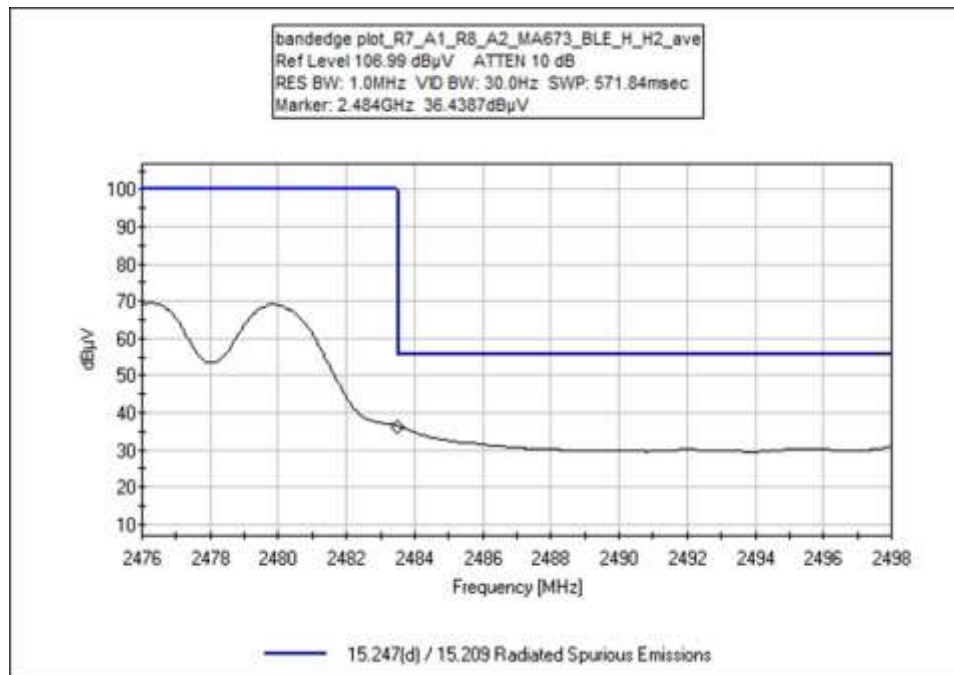
Antenna 3

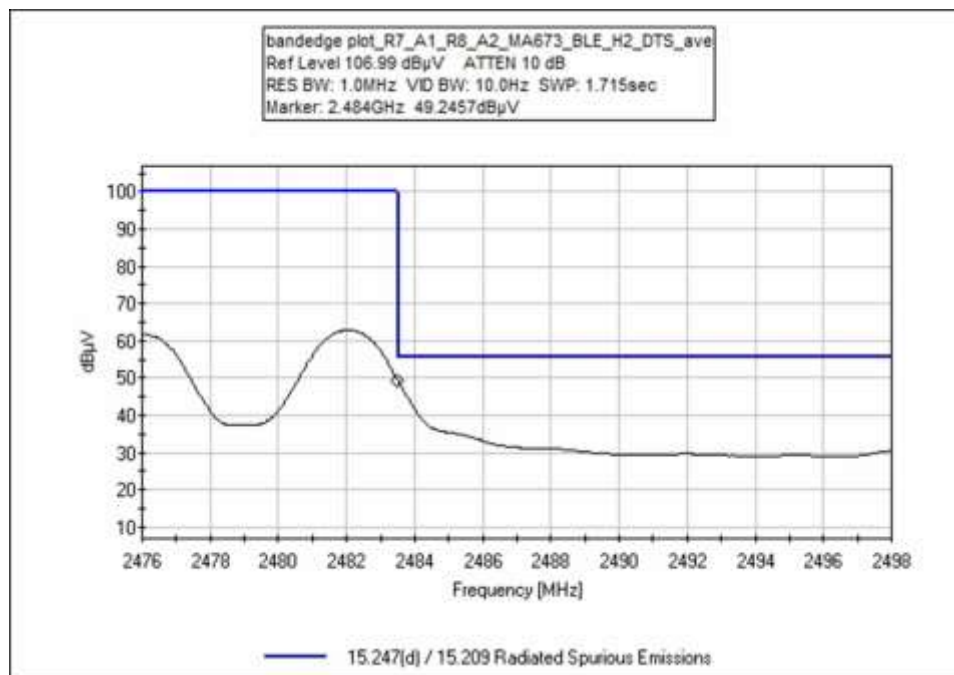
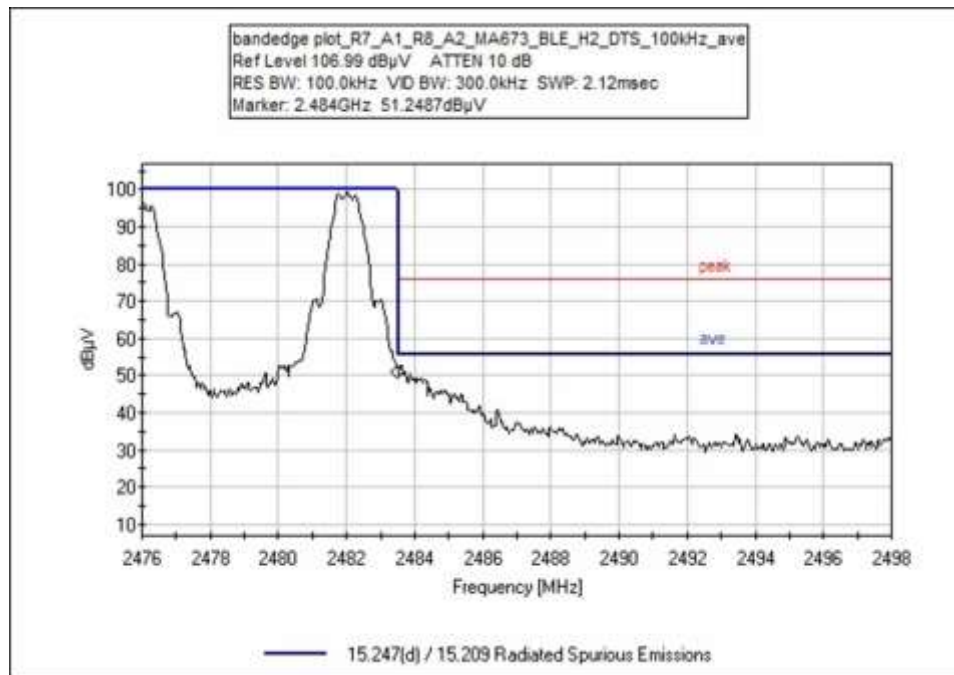




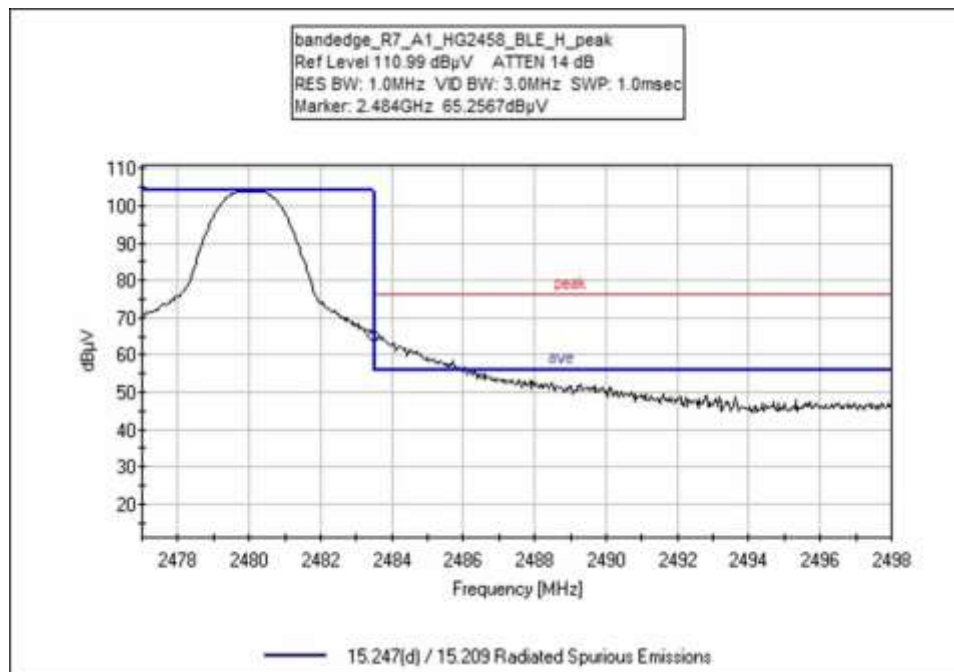
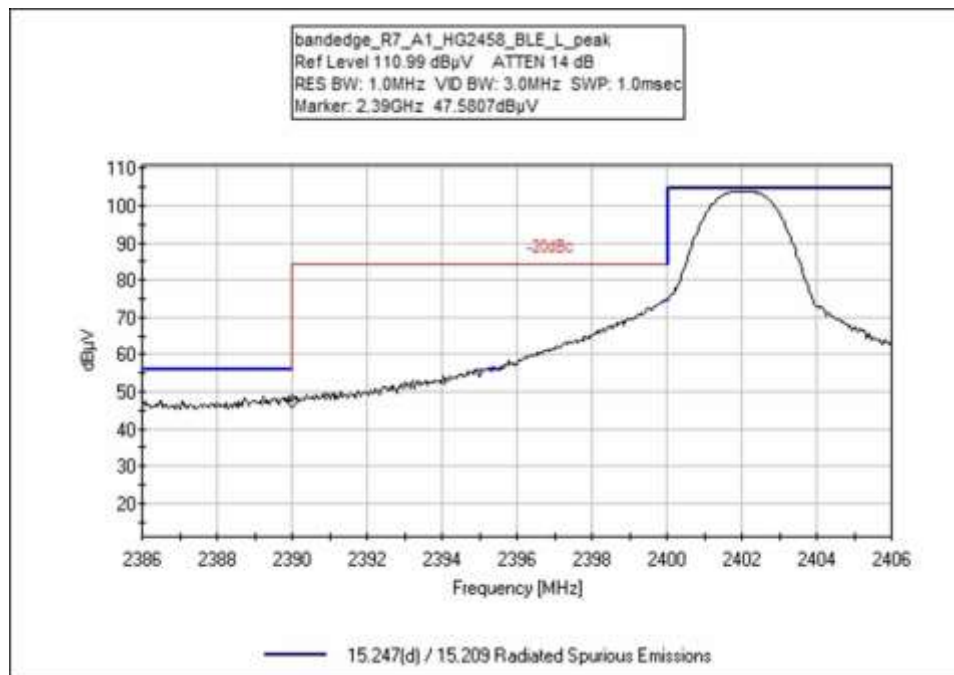


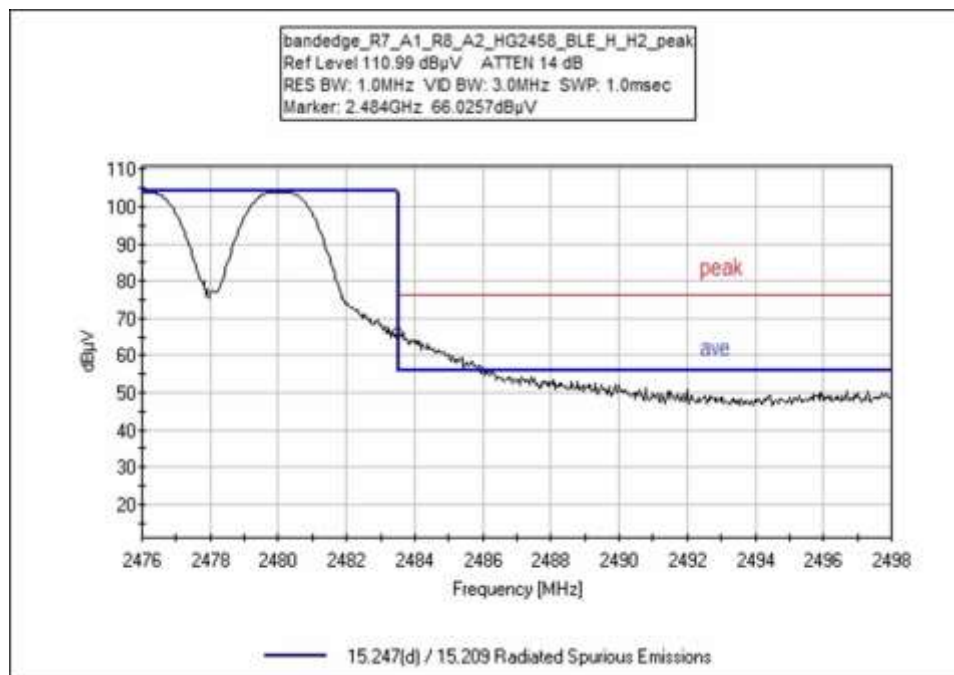
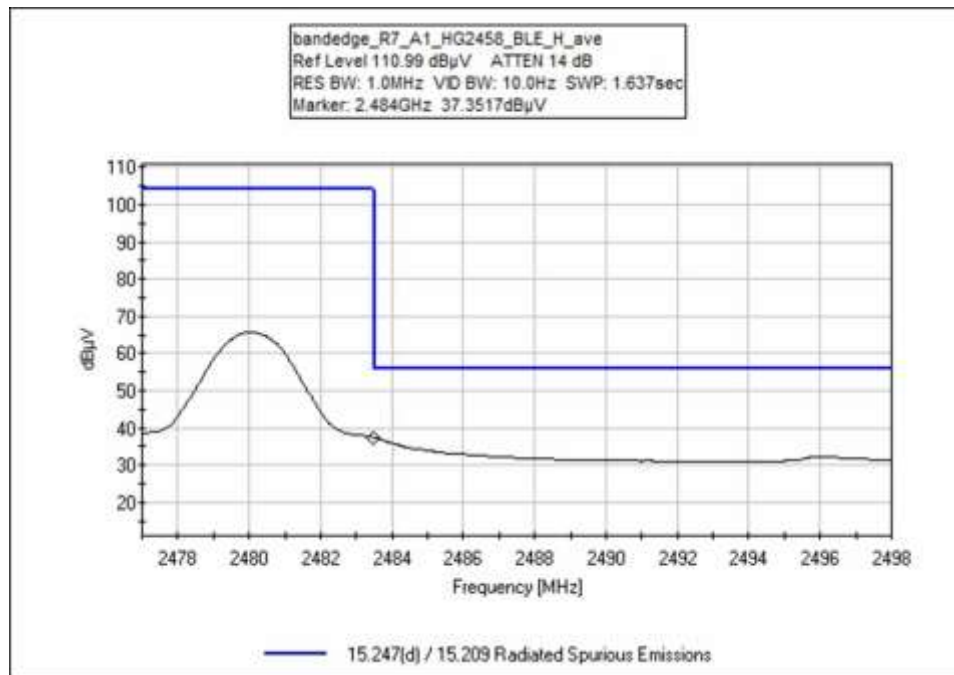


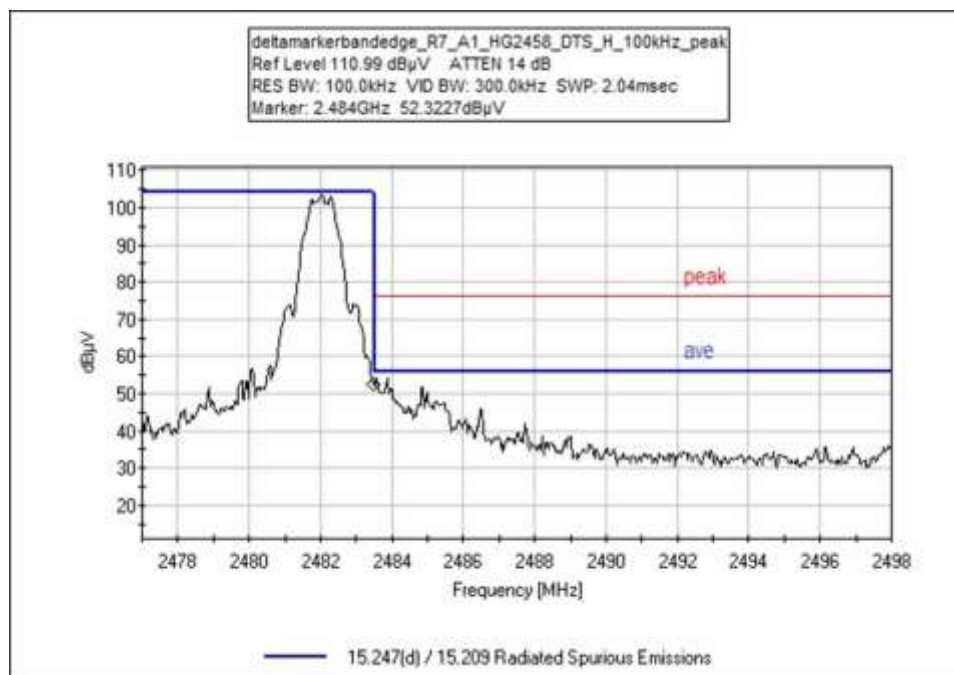
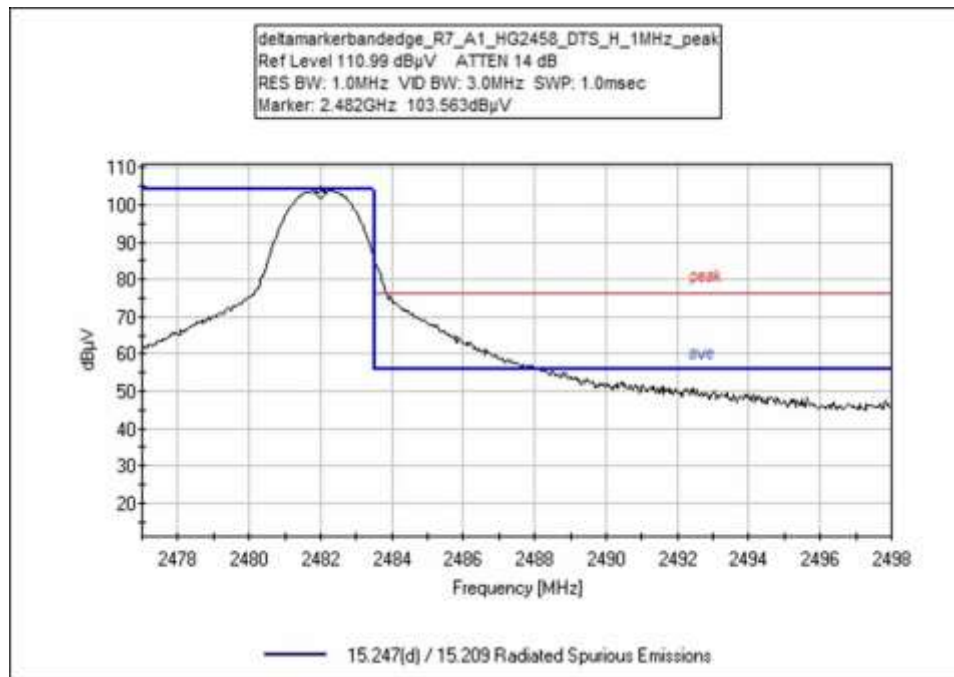


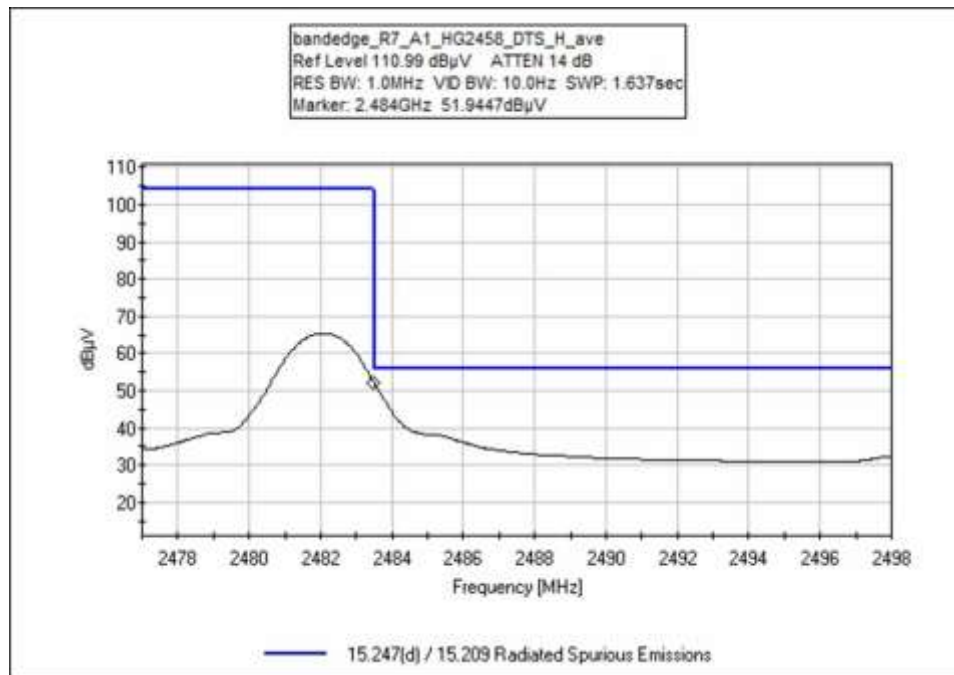


Antenna 4

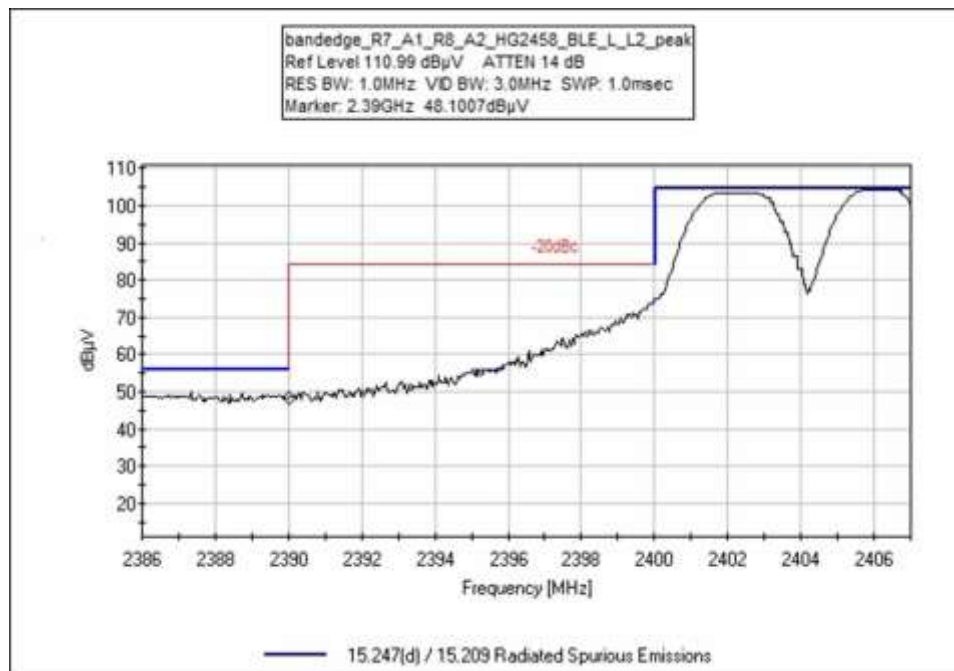


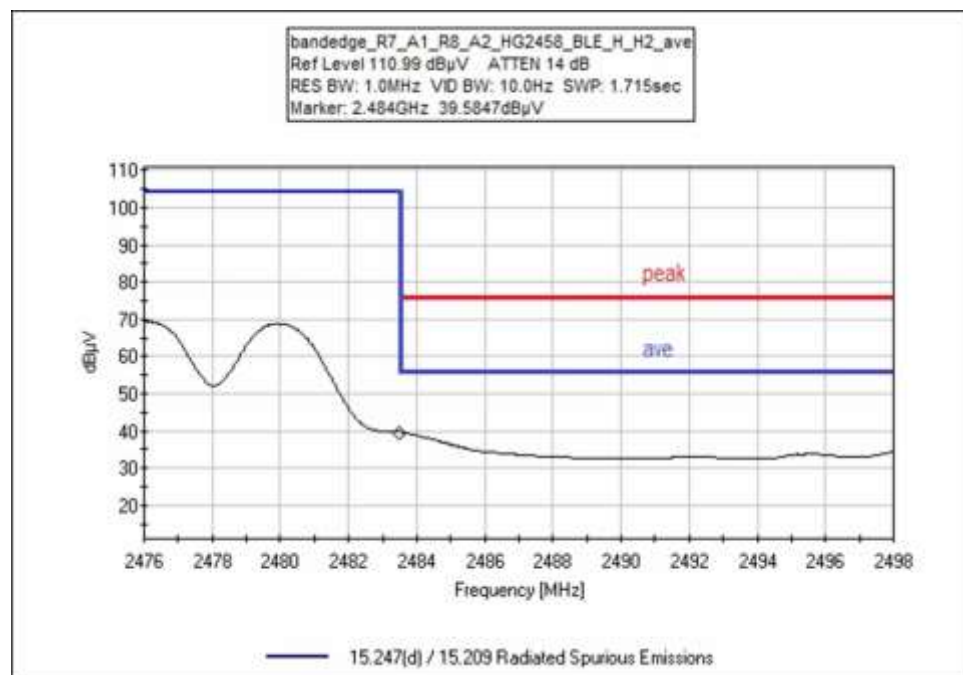
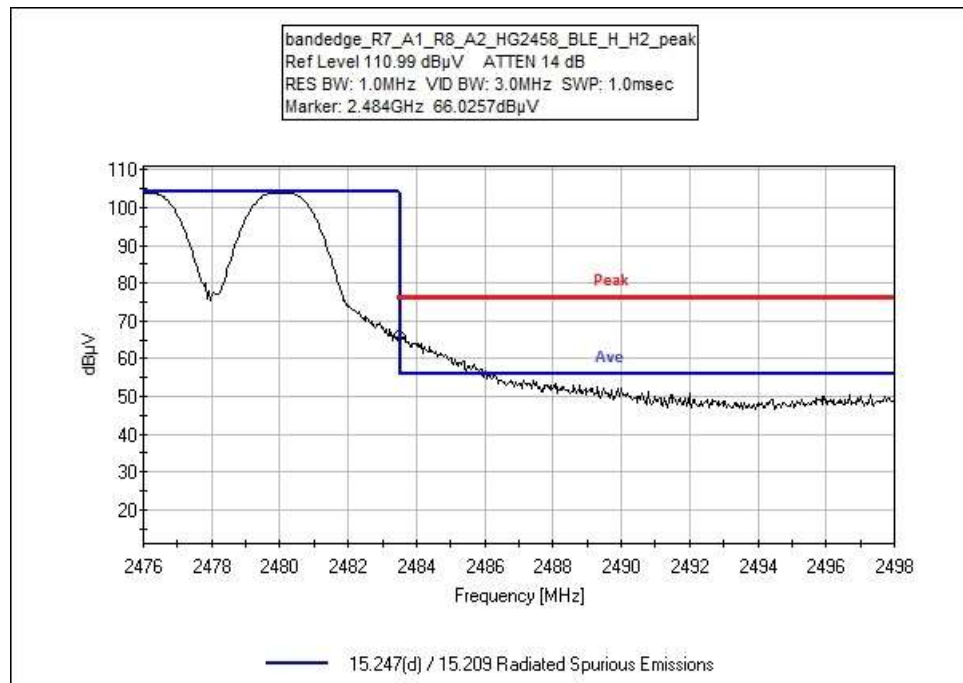


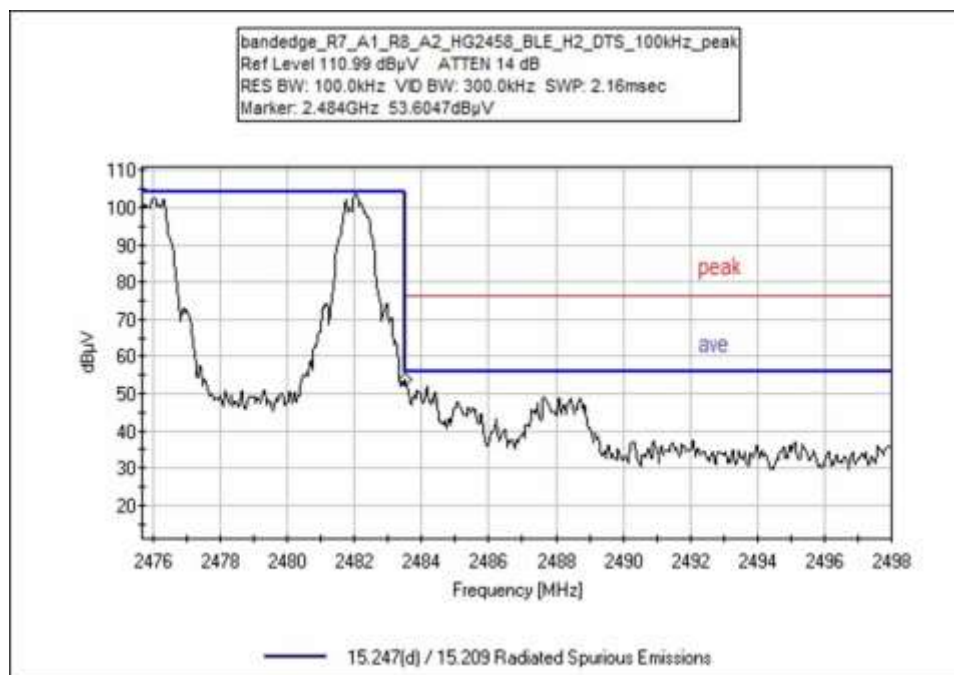
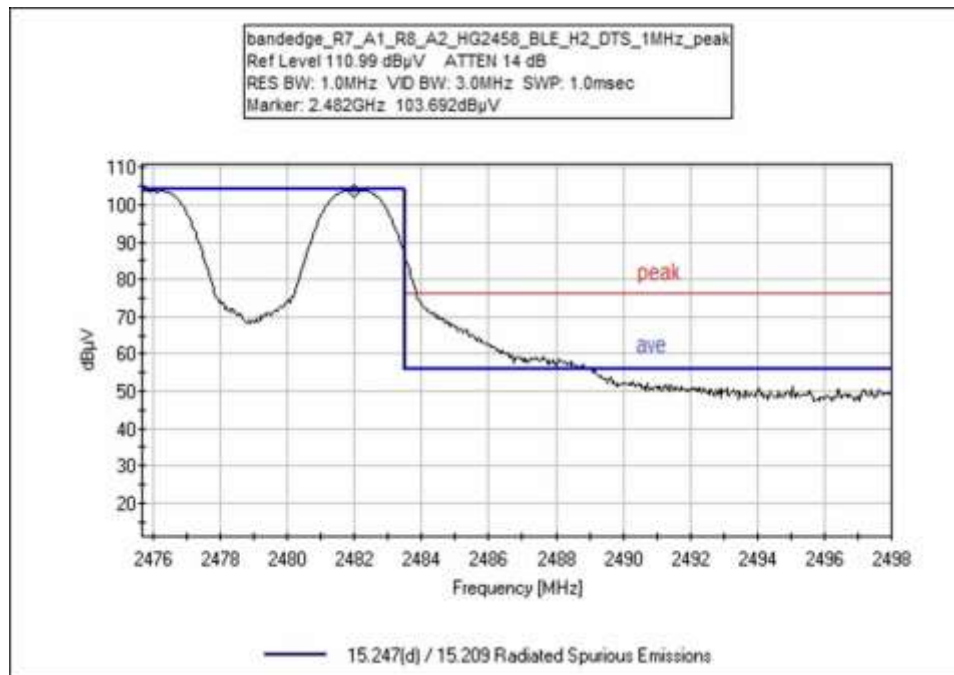


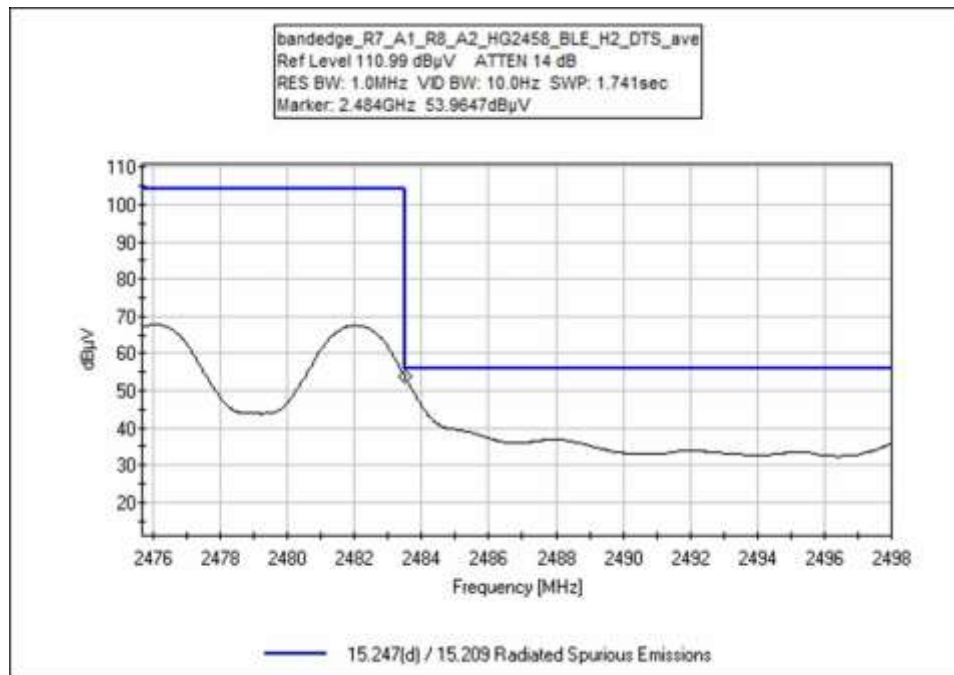


Intermod









Test Setup / Conditions / Data

Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714 993- 6112
 Customer: **Walt Disney Parks and Resorts US, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **101978** Date: 1/2/2019
 Test Type: **Radiated Scan** Time: 15:46:54
 Tested By: E. Wong Sequence#: 3
 Software: EMITest 5.03.11

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 1			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 1			

Test Conditions / Notes:

The EUT is placed on the Styrofoam block. ETH0 is connected to remotely located support POE, Switch and laptop. ETH1 is connected to a section of UTP, USB ports are connected to section of USB cable, GPIO ports are terminated to simulated loads. RX port connects to a Dipole antenna. Micro USB Service port left unpopulated

Remote laptop runs test software to set the EUT into test mode.

Evaluation for Permissive Change II equipment authorization process with various antenna type and configurations.
FCCID: 2AJS4-RN-R1G1

Radio port 7 and radio port 8 are connected to the antenna in accordance with available configuration.

Protocol:

BLE, 2402MHz, 2440MHz, 2480MHz

DTS (proprietary): 2482MHz single channel

Ant1: PA2X2, 8dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz

Ant2: MA510, 3.9dBi

Ant3:MA673, 4.1 dBi

Ant4: HG2458, 13dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz

Firmware power setting 0 dBm

Antenna under investigation: PA2x2

Frequency range of measurement = 2.39-2.4835 GHz. RBW=1 MHz,VBW=1 MHz unless otherwise noted.

Test environment conditions:

Temperature: 17.3°C, Relative Humidity: 54%, Pressure: 100.8kPa

Test method in accordance with FCC document: 558074 558074 D01 15.247 Meas Guidance v05. Investigation in all orientation, worst case orientation presented.

Site D

ANSI C63.10-2013

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	8/10/2018	8/10/2019
T2	AN01646	Horn Antenna	3115	3/14/2018	3/14/2020
T3	ANP07247	Cable	32022-29094K-29094K-24TC	7/5/2018	7/5/2020
T4	AN00787	Preamplifier	83017A	6/9/2017	6/9/2019
T5	ANP07138	Cable	ANDL1-PNMNM-60	3/1/2017	3/1/2019
T6	ANP04382	Cable	LDF-50	6/2/2018	6/2/2020

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	2483.500M Ave	51.1	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	49.3	54.0 bandedge plot_R7_A1_R8_A 2_H2_X_ave	-4.7	Horiz
2	2483.500M Ave	47.1	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	45.3	54.0 bandedge plot_R7_A1_PA2x 2_DTS_H_peak	-8.7	Horiz
3	2483.500M Ave	47.1	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	45.3	54.0 bandedge plot_R7_A1_PA2x 2_DTS	-8.7	Horiz
4	2390.000M	45.0	+0.0 +4.0	+28.3 +5.4	+0.3	-40.0	+0.0	43.0	54.0 bandedge_R7_A1_ R8_A2_PA2X2_L_ L2	-11.0	Horiz
5	2400.000M	66.6	+0.0 +4.0	+28.3 +5.4	+0.3	-40.0	+0.0	64.6	76.8 bandedge plot_R7_A1_PA2x 2_BLE	-12.2	Horiz
6	2400.000M	66.2	+0.0 +4.0	+28.3 +5.4	+0.3	-40.0	+0.0	64.2	76.8 bandedge_R7_A1_ R8_A2_PA2X2_L_ L2	-12.6	Horiz
7	2390.000M	40.1	+0.0 +4.0	+28.3 +5.4	+0.3	-40.0	+0.0	38.1	54.0 bandedge_R7_A1_ PA2X2_BLE_L	-15.9	Horiz
8	2483.500M Ave	38.0	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	36.2	54.0 bandedge plot_R7_A1_R8_A 2_PA2X2_BLE_H_ H2	-17.8	Horiz

9	2483.500M	33.3	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	31.5	54.0 bandedge plot_R7_A1_PA2x 2_BLE	-22.5	Horiz
^	2483.500M	60.7	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	58.9	74.0 bandedge plot_R7_A1_PA2x 2_BLE	-15.1	Horiz
^	2483.500M	53.1	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	51.3	74.0 Delta marker_R7_A1_PA 2X2_DTS_X_corre cted 0.1dB	-22.7	Horiz
^	2483.500M	51.1	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	49.3	74.0 Delta marker_bandedge plot_R7_A1_R8_A 2_H2_X_peak_100 kHz_corrected 0.3dB	-24.7	Horiz



Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714 993- 6112
 Customer: **Walt Disney Parks and Resorts US, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **101978** Date: 12/14/2018
 Test Type: **Radiated Scan** Time: 11:39:11
 Tested By: E. Wong Sequence#: 2
 Software: EMITest 5.03.11

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 1			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 1			

Test Conditions / Notes:

The EUT is placed on the Styrofoam block. ETH0 is connected to remotely located support POE, Switch and laptop. ETH1 is connected to a section of UTP, USB ports are connected to section of USB cable, GPIO ports are terminated to simulated loads. RX port connects to a Dipole antenna. Micro USB Service port left unpopulated

Remote laptop runs test software to set the EUT into test mode.

Evaluation for Permissive Change II equipment authorization process with various antenna type and configurations.
 FCCID: 2AJS4-RN-R1G1
 Radio port 7 and radio port 8 are connected to the antenna in accordance with available configuration.

Protocol:
 BLE, 2402MHz, 2440MHz, 2480MHz
 DTS (proprietary): 2482MHz single channel
 Ant1: PA2X2, 8dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz
 Ant2: MA510, 3.9dBi
 Ant3:MA673, 4.1 dBi
 Ant4: HG2458, 13dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz

Firmware power setting 0 dBm
Antenna under investigation: MA510

Frequency range of measurement = 2.39-2.4835 GHz. RBW=1 MHz,VBW=1 MHz unless otherwise noted.
 Test environment conditions:
 Temperature: 17.3°C, Relative Humidity: 54%, Pressure: 100.8kPa

Test method in accordance with FCC document: 558074 558074 D01 15.247 Meas Guidance v05. Investigation in all orientation, worst case orientation presented.

Site D
 ANSI C63.10-2013

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	8/10/2018	8/10/2019
T2	AN01646	Horn Antenna	3115	3/14/2018	3/14/2020
T3	ANP07247	Cable	32022-29094K-29094K-24TC	7/5/2018	7/5/2020
T4	AN00787	Preamplifier	83017A	6/9/2017	6/9/2019
T5	ANP07138	Cable	ANDL1-PNMNM-60	3/1/2017	3/1/2019
T6	ANP04382	Cable	LDF-50	6/2/2018	6/2/2020

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	2483.500M Ave	48.4	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	46.6	54.0 Bandedge_R7_A1_ MA510_DTS	-7.4	Horiz
2	2400.000M	70.5	+0.0 +4.0	+28.3 +5.4	+0.3	-40.0	+0.0	68.5	76.8 R7_A1_MA510_B LE	-8.3	Horiz
3	2390.000M	46.8	+0.0 +4.0	+28.3 +5.4	+0.3	-40.0	+0.0	44.8	54.0 R7_A1_R8_A2_M5 10_BLE_L_L2	-9.2	Horiz
4	2400.000M	68.5	+0.0 +4.0	+28.3 +5.4	+0.3	-40.0	+0.0	66.5	76.8 R7_A1_R8_A2_M5 10_BLE_L_L2	-10.3	Horiz
5	2390.000M	45.2	+0.0 +4.0	+28.3 +5.4	+0.3	-40.0	+0.0	43.2	54.0 R7_A1_MA510_B LE	-10.8	Horiz
6	2483.500M Ave	43.5	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	41.7	54.0 R7_A1_R8_A2_M A510_BLE_H_H2	-12.3	Horiz
7	2483.500M Ave	33.9	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	32.1	54.0 Bandedge_R7_A1_ MA510_BLE	-21.9	Horiz

8	2483.500M	53.4	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	51.6	74.0	-22.4	Horiz
	Ave								Bandedge_R7_A1_ R8_A2_MA510_B LE_H2_DTS		
^	2483.500M	52.0	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	50.2	54.0	-3.8	Horiz
									bandesedge_R7_A1_ R8_A2_MA510_B LE_H2_DTS_100k Hz_Deltam marker corrected 0.5		
^	2483.500M	50.3	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	48.5	54.0	-5.5	Horiz
									bandedge plot_R7_A1_R8_A 2_MA510_BLE_H 2_DTS_1MHz_ave		
^	2483.500M	61.4	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	59.6	74.0	-14.4	Horiz
									Bandedge_R7_A1_ MA510_BLE		
^	2483.500M	54.7	+0.0 +4.1	+28.5 +5.5	+0.3	-40.2	+0.0	52.9	74.0	-21.1	Horiz
									Bandedge_R7_A1_ MA510_DTS_100k Hz_Delta marker 0.1dB added		



Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714 993- 6112
 Customer: **Walt Disney Parks and Resorts US, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **101978** Date: 1/3/2019
 Test Type: **Radiated Scan** Time: 14:32:00
 Tested By: S. Yamamoto Sequence#: 4
 Software: EMITest 5.03.11

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 1			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 1			

Test Conditions / Notes:

The EUT is placed on the Styrofoam block. ETHO is connected to remotely located support POE, Switch and laptop. ETH1 is connected to a section of UTP, USB ports are connected to section of USB cable, GPIO ports are terminated to simulated loads. RX port connects to a Dipole antenna. Micro USB Service port left unpopulated

Remote laptop runs test software to set the EUT into test mode.

Evaluation for Permissive Change II equipment authorization process with various antenna type and configurations.
 FCCID: 2AJS4-RN-R1G1
 Radio port 7 and radio port 8 are connected to the antenna in accordance with available configuration.

Protocol:
 BLE, 2402MHz, 2440MHz, 2480MHz
 DTS (proprietary): 2482MHz single channel

Ant1: PA2X2, 8dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz
 Ant2: MA510, 3.9dBi
 Ant3:MA673, 4.1 dBi
 Ant4: HG2458, 13dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz

Firmware power setting 0 dBm
Antenna under investigation: MA673

Frequency range of measurement = 2.39-2.4835 GHz. RBW=1 MHz,VBW=1 MHz unless otherwise noted.
 Test environment conditions:
 Temperature: 18°C, Relative Humidity: 53%, Pressure: 99kPa

Test method in accordance with FCC document: 558074 558074 D01 15.247 Meas Guidance v05. Investigation in all orientation, worst case orientation presented.

Site D
 ANSI C63.10-2013

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	8/10/2018	8/10/2019
T2	ANP04382	Cable	LDF-50	6/2/2018	6/2/2020
T3	ANP07138	Cable	ANDL1-PNMNM-60	3/1/2017	3/1/2019
T4	AN00787	Preamp	83017A	6/9/2017	6/9/2019
T5	ANP07247	Cable	32022-29094K-29094K-24TC	7/5/2018	7/5/2020
T6	AN01646	Horn Antenna	3115	3/14/2018	3/14/2020

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	2390.000M	44.9	+0.0 +0.0	+5.4 +0.0	+0.0	+0.0	+0.0	50.3	54.0 bandedge plot_R7_A1_R8_A 2_MA673_BLE_L_ L2_peak	-3.7	Vert
2	2483.500M Ave	49.3	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	47.5	54.0 bandedge_R7_A1_ MA673_DTS_H_av e	-6.5	Vert
3	2483.500M Ave	49.3	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	47.5	54.0 bandedge plot_R7_A1_R8_A 2_MA673_BLE_H 2_DTS_ave	-6.5	Vert
4	2400.000M	71.1	+0.0 +0.3	+5.4 +28.3	+4.0	-40.0	+0.0	69.1	78.5 bandedge_R7_A1_ MA673_BLE_L_pe ak	-9.4	Vert
5	2400.000M	70.3	+0.0 +0.3	+5.4 +28.3	+4.0	-40.0	+0.0	68.3	78.5 bandedge plot_R7_A1_R8_A 2_MA673_BLE_L_ L2_peak	-10.2	Vert
6	2390.000M	44.5	+0.0 +0.3	+5.4 +28.3	+4.0	-40.0	+0.0	42.5	54.0 bandedge_R7_A1_ MA673_BLE_L_pe ak	-11.5	Vert
7	2483.500M Ave	36.3	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	34.5	54.0 bandedge plot_R7_A1_R8_A 2_MA673_BLE_H _H2_ave	-19.5	Vert

8	2483.500M	34.9	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	33.1	54.0	-20.9	Vert
	Ave								bandedge_R7_A1_ MA673_BLE_H_av e		
^	2483.500M	52.9	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	51.1	54.0	-2.9	Vert
									deltamarker_banded ge_R7_A1_MA673 _DTS_H_100kHz_ peak corrected 0.3dB		
^	2483.500M	51.5	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	49.7	54.0	-4.3	Vert
									deltamarker_banded ge plot_R7_A1_R8_A 2_MA673_BLE_H 2_DTS_100kHz_pe ak_corrected 0.3dB		
^	2483.500M	60.4	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	58.6	74.0	-15.4	Vert
									bandedge_R7_A1_ MA673_BLE_H_pe ak		
^	2483.500M	60.3	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	58.5	74.0	-15.5	Vert
									bandedge plot_R7_A1_R8_A 2_MA673_BLE_H _H2_peak		



Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • 714 993- 6112
 Customer: **Walt Disney Parks and Resorts US, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **101978** Date: 12/25/2018
 Test Type: **Radiated Scan** Time: 13:30:23
 Tested By: S. Yamamoto Sequence#: 5
 Software: EMITest 5.03.11

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 1			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 1			

Test Conditions / Notes:

The EUT is placed on the Styrofoam block. ETH0 is connected to remotely located support POE, Switch and laptop. ETH1 is connected to a section of UTP, USB ports are connected to section of USB cable, GPIO ports are terminated to simulated loads. RX port connects to a Dipole antenna. Micro USB Service port left unpopulated

Remote laptop runs test software to set the EUT into test mode.

Evaluation for Permissive Change II equipment authorization process with various antenna type and configurations.
 FCCID: 2AJS4-RN-R1G1
 Radio port 7 and radio port 8 are connected to the antenna in accordance with available configuration.

Protocol:
 BLE, 2402MHz, 2440MHz, 2480MHz
 DTS (proprietary): 2482MHz single channel

Ant1: PA2X2, 8dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz
 Ant2: MA510, 3.9dBi
 Ant3:MA673, 4.1 dBi
 Ant4: HG2458, 13dBi + 2 x 10ft Pasternack RG223/ U 2 with 6dB loss at 2440MHz

Firmware power setting 0 dBm
Antenna under investigation: HG2458

Frequency range of measurement = 2.39-2.4835 GHz. RBW=1 MHz,VBW=1 MHz unless otherwise noted.
 Test environment conditions:
 Temperature: 18°C, Relative Humidity: 53%, Pressure: 99kPa

Test method in accordance with FCC document: 558074 558074 D01 15.247 Meas Guidance v05. Investigation in all orientation, worst case orientation presented.

Site D
 ANSI C63.10-2013

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02869	Spectrum Analyzer	E4440A	8/10/2018	8/10/2019
T2	ANP04382	Cable	LDF-50	6/2/2018	6/2/2020
T3	ANP07138	Cable	ANDL1-PNMNM-60	3/1/2017	3/1/2019
T4	AN00787	Preamp	83017A	6/9/2017	6/9/2019
T5	ANP07247	Cable	32022-29094K-29094K-24TC	7/5/2018	7/5/2020
T6	AN01646	Horn Antenna	3115	3/14/2018	3/14/2020

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	2483.500M Ave	54.0	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	52.2	54.0 bandedge_R7_A1_ R8_A2_HG2458_B LE_H2_DTS_ave	-1.8	Horiz
2	2483.500M Ave	51.9	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	50.1	54.0 bandedge_R7_A1_ HG2458_DTS_H_a ve	-3.9	Horiz
3	2390.000M	48.1	+0.0 +0.3	+5.4 +28.3	+4.0	-40.0	+0.0	46.1	54.0 bandedge_R7_A1_ R8_A2_HG2458_B LE_L_L2_peak	-7.9	Horiz
4	2390.000M	47.6	+0.0 +0.3	+5.4 +28.3	+4.0	-40.0	+0.0	45.6	54.0 bandedge_R7_A1_ HG2458_BLE_L_p eak	-8.4	Horiz
5	2400.000M	74.4	+0.0 +0.3	+5.4 +28.3	+4.0	-40.0	+0.0	72.4	82.9 bandedge_R7_A1_ HG2458_BLE_L_p eak	-10.5	Horiz
6	2400.000M	74.1	+0.0 +0.3	+5.4 +28.3	+4.0	-40.0	+0.0	72.1	82.9 bandedge_R7_A1_ R8_A2_HG2458_B LE_L_L2_peak	-10.8	Horiz
7	2483.500M Ave	39.6	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	37.8	54.0 bandedge_R7_A1_ R8_A2_HG2458_B LE_H_H2_ave	-16.2	Horiz

8	2483.500M	37.4	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	35.6	54.0	-18.4	Horiz
	Ave								bandedge_R7_A1_ HG2458_BLE_H_a ve		
^	2483.500M	65.3	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	63.5	74.0	-10.5	Horiz
									bandedge_R7_A1_ HG2458_BLE_H_p eak		
^	2483.500M	53.9	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	52.1	74.0	-21.9	Horiz
									deltamarker_banded ge_R7_A1_R8_A2 _HG2458_BLE_H2 _DTS_100kHz_pea k_corrected0.3dB		
^	2483.500M	52.6	+0.0 +0.3	+5.5 +28.5	+4.1	-40.2	+0.0	50.8	74.0	-23.2	Horiz
									deltamarkerbandedg e_R7_A1_HG2458 _DTS_H_100kHz_ peak_corrected0.3d B		

Test Setup Photo(s)



Antenna 1



Antenna 1



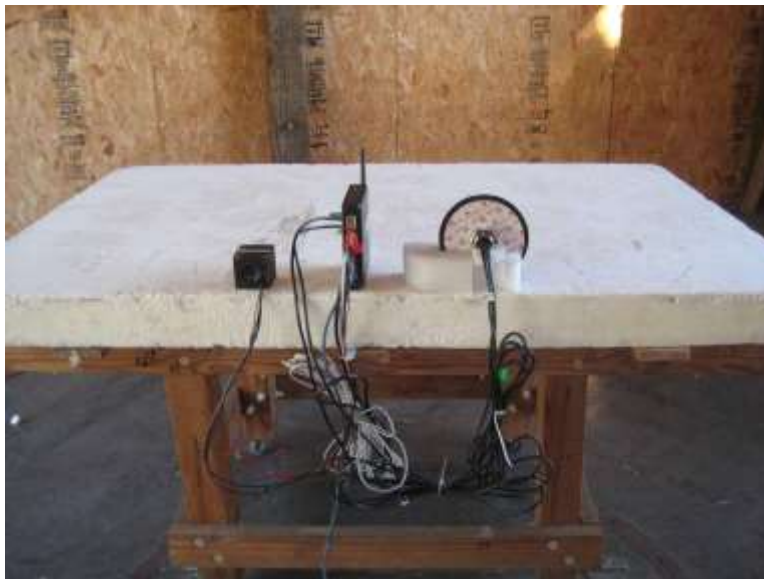
Antenna 2



Antenna 2



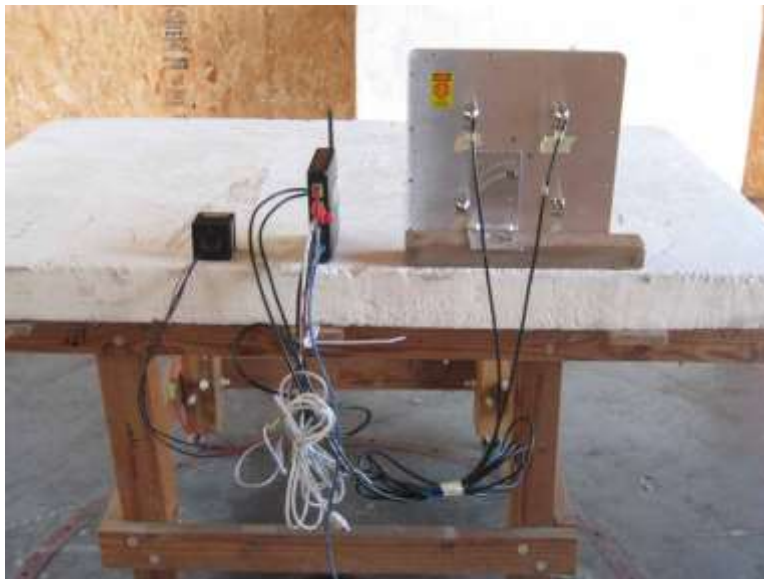
Antenna 3



Antenna 3



Antenna 4



Antenna 4



Above 1GHz, Cone placement



Above 1GHz, Cone placement

SUPPLEMENTAL INFORMATION

Measurement Uncertainty

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

Uncertainties reported are worst case for all CKC Laboratories' sites and 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 $\text{dB}\mu\text{V}/\text{m}$, the spectrum analyzer reading in $\text{dB}\mu\text{V}$ was corrected by using the following formula. This reading was then compared to the applicable specification limit. Individual measurements were compared with the displayed limit value in the margin column. The margin was calculated based on subtracting the limit value from the corrected measurement value; a positive margin represents a measurement exceeding the limit, while a negative margin represents a measurement less than the limit.

SAMPLE CALCULATIONS		
	Meter reading	($\text{dB}\mu\text{V}$)
+	Antenna Factor	(dB/m)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	($\text{dB}\mu\text{V}/\text{m}$)

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 caret ("^") 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.