ADDENDUM TO VULCAN PORTALS, INC. TEST REPORT FC07-070

FOR THE

ULTRA COMPACT LAPTOP, FLIPSTART E-1501A

FCC PART 22H & 24E

TESTING

DATE OF ISSUE: DECEMBER 13, 2007

PREPARED FOR:

Vulcan Portals, Inc.
505 5th Ave. South, Ste. 900
Seattle, WA 98104

P.O. No.: 20185-01046
W.O. No.: 86709

PREPARED BY:

Mary Ellen Clayton
CKC Laboratories, Inc.
5046 Sierra Pines Drive
Mariposa, CA 95338

Date of test: August 14-30, 2007

Report No.: FC07-070A

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ADMINISTRATIVE INFORMATION

DATE OF TEST: August 14-30, 2007

DATE OF RECEIPT: August 14, 2007

REPRESENTATIVE: Daniel Oar

MANUFACTURER:
Vulcan Portals, Inc.
505 5th Ave. South, Ste. 900
Seattle, WA 98104

TEST LOCATION:
CKC Laboratories, Inc.
14797 NE 95th
Redmond, WA 98052

FREQUENCY RANGE TESTED: 30 MHz-20 GHz

TEST METHOD: FCC Part 22H & 24E

PURPOSE OF TEST:
Original Report: To perform the testing of the Ultra Compact Laptop, Flipstart E-1501a with the requirements for FCC Part 22H & 24E devices.
Addendum A: To add a statement regarding the RBW on pages 9-27.

APPROVALS

Steve Behm, Director of Engineering Services

QUALITY ASSURANCE:

Joyce Walker, Quality Assurance Administrative Manager

Katie Molina, Senior EMC Engineer/Lab Manager

TEST PERSONNEL:

Ryan Rutledge, EMC Test Technologist

CONDITIONS DURING TESTING

No modifications to the EUT were necessary during testing.

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

The customer declares that the EUT tested by CKC Laboratories was a production unit. The following model name was referenced by CKC Laboratories during testing: **Flipstart E-1501s.**

The model name referenced was incorrect. The proper model name should have been **Flipstart E-1501a.** The data sheets in Appendix B are screen captures taken at the time of testing and will reflect the wrong model number. Any differences between the names do not affect their EMC characteristics and therefore meet the level of testing equivalent to the tested model name shown on the data sheets.

EQUIPMENT UNDER TEST

Ultra Compact Laptop
Manuf: Vulcan Portals, Inc.
Model: Flipstart E-1501a
Serial: MVT1-103
FCC ID: UIQE1500

PERIPHERAL DEVICES

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

FlipStart Battery
Manuf: Vulcan Portals, Inc.
Model: E-5000
Serial: 35560035

FlipStart AC adapter
Manuf: EOS
Model: ZVC36FS12S54
Serial: 0001

Call box
Manuf: Agilent
Model: 8960-E5515C
Serial: GB42361377

Call Box Antenna
Manuf: Electro-metrics
Model: RGA-60
Serial: 6154

TEMPERATURE AND HUMIDITY DURING TESTING
The temperature during testing was within +15°C and + 35°C.
The relative humidity was between 20% and 75%.

FCC 2.1033(c)(3) USER'S MANUAL
The necessary information is contained in a separate document.

FCC 2.1033 (c)(4) TYPE OF EMISSIONS
F9W, G7W and GXW

FCC 2.1033 (c)(5) FREQUENCY RANGE
Part 22: 824 MHz – 849 MHz and Part 24: 1850 MHz – 1910 MHz

FCC 2.1033 (c)(6) OPERATING POWER
Part 22: 3.902305 Watts and Part 24: 0.36159 Watts

FCC 2.1033 (c)(8) DC VOLTAGES
The necessary information is contained in a separate document.

FCC 2.1033 (c)(9) TUNE-UP PROCEDURE
The necessary information is contained in a separate document.

FCC 2.1033(c)(10) SCHEMATICS AND CIRCUITRY DESCRIPTION
The necessary information is contained in a separate document.

FCC 2.1033(c)(11) LABEL AND PLACEMENT
The necessary information is contained in a separate document.

FCC 2.1033(c)(12) SUBMITTAL PHOTOS
The necessary information is contained in a separate document.

FCC 2.1033 (c)(13) MODULATION INFORMATION
GSM, EDGE, HSDPA, WCDMA

FCC 2.1033(c)(14)/2.1046/ RF POWER OUTPUT

Test Equipment

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4440A	S/N: MY46186330	10/03/2007	10/03/2009	AN02872
Bothell 5m Cable Set	S/N: P05444	04/26/2007	04/26/2009	ANP05444
20' RG-214 Coax	S/N: 16	11/09/2006	11/09/2008	ANP05360
Chase BILOG	S/N: 2458	01/31/2007	01/31/2009	AN01993

Test Conditions: The EUT is placed on the wooden table on a foam spacer. Evaluation of Spurious Emissions is performed without peripherals attached to the EUT.

Test Setup Photos

Test Data

RF Output Power	EIRP Formula: **EIRP = $(Ed)^2$ / (30 * G)** E = Field strength of the measurement converted to V/m d = Measurement distance in meters G = Numerical gain of the EUT's antenna relative to Isotropic • To convert G, perform the following: G = 10^(dBi/10) **For ERP measurements, add 2.148 to EUT antenna's dBi value in the above equation.** **ERP(dB) = EIRP(dB) – 2.148** **Calculations below will use 2.14 to avoid rounding down** Where dBi = EUT antenna gain above isotropic $ERP(W) = \frac{\left(10^{\frac{ERP_{dBm}}{10}}\right)}{1000}$

RF POWER OUTPUT
FCC PART 22 & IC RSS 132
Limit: 6.3W ERP

GSM850 Band, GSM Modulation

ERP POWER OUTPUT					
Vertical			Horizontal		
f (MHz)	Band-width* (MHz)	Level (W)	f (MHz)	Band-width* (MHz)	Level (W)
824.200	3	0.678143	824.200	3	1.553536
836.400	3	0.893967	836.400	3	3.641843
848.800	3	1.003047	848.800	3	3.726673
Measurement uncertainty (dB)			.673 dB		

Tested By: Ryan Rutledge
Result: Pass

GSM850 Band, EDGE12 Modulation

ERP POWER OUTPUT					
Vertical			Horizontal		
f (MHz)	Band-width* (MHz)	Level (W)	f (MHz)	Band-width* (MHz)	Level (W)
824.200	3	0.710103	824.200	3	2.638282
836.400	3	0.914790	836.400	3	3.902305
848.800	3	0.980215	848.800	3	3.398766
Measurement uncertainty (dB)			.673 dB		

Tested By: Ryan Rutledge
Result: Pass

WCDMA Band V

ERP POWER OUTPUT					
Vertical			Horizontal		
f (MHz)	Band-width (MHz)	Level* (W)	f (MHz)	Band-width* (MHz)	Level (W)
826.400	3	0.207693	826.400	3	1.017235
836.400	3	0.267560	836.400	3	1.040929
846.600	3	0.025893	846.600	3	1.017235
Measurement uncertainty (dB)			.673 dB		

Tested By: Ryan Rutledge

Result: Pass

***** Due to limitations of the test equipment, readings were taken at 3 MHz Resolution Bandwidth (RBW) and corrected to the RBW ≥ Emissions Bandwidth (EBW) requirement by adding the following correction factor: 10 log (EBW/RBW)

WCDMA Band V, HSDPA Modulation

ERP POWER OUTPUT					
Vertical			Horizontal		
f (MHz)	Band-width (MHz)	Level* (W)	f (MHz)	Band-width* (MHz)	Level (W)
826.400	3	0.227730	826.400	3	1.040929
836.400	3	0.227730	836.400	3	1.280622
846.600	3	0.255518	846.600	3	1.141356
Measurement uncertainty (dB)			.673 dB		

Tested By: Ryan Rutledge

Result: Pass

***** Due to limitations of the test equipment, readings were taken at 3 MHz Resolution Bandwidth (RBW) and corrected to the RBW ≥ Emissions Bandwidth (EBW) requirement by adding the following correction factor: 10 log (EBW/RBW)

RF POWER OUTPUT
FCC PART 24 & IC RSS 133
Limit: 2W EIRP

PCS1900 Band, GSM Modulation

EIRP POWER OUTPUT					
Vertical			Horizontal		
f (MHz)	Band-width* (MHz)	Level (W)	f (MHz)	Band-width* (MHz)	Level (W)
1850.200	3	0.137	1850.200	3	0.307566
1880.000	3	0.122444	1880.000	3	0.300565
1909.800	3	0.143860	1909.800	3	0.329563
Measurement uncertainty (dB)			.673 dB		

Tested By: Ryan Rutledge
Result: Pass

PCS1900 Band, EDGE12 Modulation

EIRP POWER OUTPUT					
Vertical			Horizontal		
f (MHz)	Band-width* (MHz)	Level (W)	f (MHz)	Band-width* (MHz)	Level (W)
1850.200	3	0.137	1850.200	3	0.322061
1880.000	3	0.137385	1880.000	3	0.314730
1909.800	3	0.150639	1909.800	3	0.361359
Measurement uncertainty (dB)			.673 dB		

Tested By: Ryan Rutledge
Result: Pass

WCDMA Band II

EIRP POWER OUTPUT					
Vertical			Horizontal		
f (MHz)	Band-width (MHz)	Level* (W)	f (MHz)	Band-width* (MHz)	Level (W)
1852.400	3	0.072001	1852.400	3	0.247764
1880.000	3	0.085910	1880.000	3	0.196805
1907.600	3	0.073120	1907.600	3	0.074823
Measurement uncertainty (dB)			.673 dB		

Tested By: Ryan Rutledge

Result: Pass

***** Due to limitations of the test equipment, readings were taken at 3 MHz Resolution Bandwidth (RBW) and corrected to the RBW ≥ Emissions Bandwidth (EBW) requirement by adding the following correction factor: 10 log (EBW/RBW)

WCDMA Band II, HSDPA Modulation

EIRP POWER OUTPUT					
Vertical			Horizontal		
f (MHz)	Band-width (MHz)	Level* (W)	f (MHz)	Band-width* (MHz)	Level (W)
1852.400	3	0.099002	1852.400	3	0.206082
1880.000	3	0.085910	1880.000	3	0.175403
1907.600	3	0.059434	1907.600	3	0.163697
Measurement uncertainty (dB)			.673 dB		

Tested By: Ryan Rutledge

Result: Pass

***** Due to limitations of the test equipment, readings were taken at 3 MHz Resolution Bandwidth (RBW) and corrected to the RBW ≥ Emissions Bandwidth (EBW) requirement by adding the following correction factor: 10 log (EBW/RBW)

Test Location:	CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717		
Customer:	**Vulcan Portals, Inc.**		
Specification:	**Part 22 RF Power and Block Edge Block C (Radiated)**		
Work Order #:	**86709**	Date:	8/15/2007
Test Type:	**Radiated Scan**	Time:	15:30:49
Equipment:	**Ultra Compact Laptop**	Sequence#:	6
Manufacturer:	Vulcan Portals, Inc.	Tested By:	Ryan Rutledge
Model:	Flipstart E-1501s		
S/N:	MVT1-103		

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4440A	S/N: MY46186330	10/03/2007	10/03/2009	AN02872
Bothell 5m Cable Set	S/N: P05444	04/26/2007	04/26/2009	ANP05444
20' RG-214 Coax	S/N: 16	11/09/2006	11/09/2008	ANP05360
Chase BILOG	S/N: 2458	01/31/2007	01/31/2009	AN01993

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

Function	Manufacturer	Model #	S/N
Ultra Compact Laptop*	Vulcan Portals, Inc.	Flipstart E-1501s	MVT1-103

Support Devices:

Function	Manufacturer	Model #	S/N
FlipStart Battery	Vulcan Portals, Inc.	E-5000	35560035
FlipStart AC adapter	EOS	ZVC36FS12S54	0001
Call box	Agilent	8960-E5515C	GB42230675
Call box antenna	Electro-metrics	RGA-60	6154

Test Conditions / Notes:

The EUT is placed on the wooden table on a foam spacer. Evaluation of RF Output Power and Band Edges is performed without peripherals attached to the EUT. Carrier/Modulation: WCDMA Band V, WCDMA. RF Output Power. RBW=3 MHz, VBW=3 MHz Band Edge RBW=120 kHz, VBW=120 kHz 100 Sweep Average, exceptions noted. 120Vac, 60 Hz, 24°C, 39 % relative humidity. Due to limitations of the test equipment, readings were taken at 3 MHz Resolution Bandwidth (RBW) and corrected to the RBW ≥ Emissions Bandwidth (EBW) requirement by adding the following correction factor: 10 log (EBW/RBW).

Transducer Legend:

T1=ANT AN01993 25-1000MHz T2=CAB-ANP05444-042607 - CPC3 Cable Set
T3=CAB-ANP05360-110906

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	836.400M	97.7	+22.7	+2.7	+1.8		+0.0	124.9	134.4 Peak Power Reading 3 MHz RBW	-9.5	Horiz 226
2	846.600M	97.6	+22.8	+2.6	+1.8		+0.0 4	124.8	134.4 Peak Power Reading 3 MHz RBW	-9.6	Horiz 229

3	826.400M	97.8	+22.6	+2.6	+1.8	+0.0 360	124.8	134.4 Peak Power Reading 3 MHz RBW	-9.6	Horiz 230
4	824.000M Ave	45.5	+22.6	+2.6	+1.8	+0.0 360	72.5	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-9.8	Horiz 230
5	849.000M Ave	44.7	+22.9	+2.6	+1.8	+0.0 4	72.0	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-10.3	Horiz 229
6	836.400M	91.8	+22.7	+2.7	+1.8	+0.0 310	119.0	134.4 Peak Power Reading 3 MHz RBW	-15.4	Vert 217
7	824.000M Ave	39.5	+22.6	+2.6	+1.8	+0.0 309	66.5	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-15.8	Vert 210
8	846.600M	91.2	+22.8	+2.6	+1.8	+0.0 310	118.4	134.4 Peak Power Reading 3 MHz RBW	-16.0	Vert 217
9	849.000M Ave	38.8	+22.9	+2.6	+1.8	+0.0 310	66.1	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-16.2	Vert 217
10	826.400M	90.9	+22.6	+2.6	+1.8	+0.0 309	117.9	134.4 Peak Power Reading 3 MHz RBW	-16.5	Vert 210

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Vulcan Portals, Inc.**
Specification: **Part 22 RF Power and Block Edge Block C (Radiated)**
Work Order #: **86709** Date: 8/15/2007
Test Type: **Radiated Scan** Time: 14:25:04
Equipment: **Ultra Compact Laptop** Sequence#: 5
Manufacturer: Vulcan Portals, Inc. Tested By: Ryan Rutledge
Model: Flipstart E-1501s
S/N: MVT1-103

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4440A	S/N: MY46186330	10/03/2007	10/03/2009	AN02872
Bothell 5m Cable Set	S/N: P05444	04/26/2007	04/26/2009	ANP05444
20' RG-214 Coax	S/N: 16	11/09/2006	11/09/2008	ANP05360
Chase BILOG	S/N: 2458	01/31/2007	01/31/2009	AN01993

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

Function	Manufacturer	Model #	S/N
Ultra Compact Laptop*	Vulcan Portals, Inc.	Flipstart E-1501s	MVT1-103

Support Devices:

Function	Manufacturer	Model #	S/N
FlipStart Battery	Vulcan Portals, Inc.	E-5000	35560035
FlipStart AC adapter	EOS	ZVC36FS12S54	0001
Call box	Agilent	8960-E5515C	GB42230675
Call box antenna	Electro-metrics	RGA-60	6154

Test Conditions / Notes:

The EUT is placed on the wooden table on a foam spacer. Evaluation of RF Output Power and Band Edges is performed without peripherals attached to the EUT. Carrier/Modulation: WCDMA Band V, HSDPA. RF Output Power. RBW=3 MHz, VBW=3 MHz Band Edge RBW=120 kHz, VBW=120 kHz 100 Sweep Average, exceptions noted. 120Vac, 60 Hz, 24°C, 39 % relative humidity. Due to limitations of the test equipment, readings were taken at 3 MHz Resolution Bandwidth (RBW) and corrected to the RBW ≥ Emissions Bandwidth (EBW) requirement by adding the following correction factor: 10 log (EBW/RBW).

Transducer Legend:

T1=ANT AN01993 25-1000MHz	T2=CAB-ANP05444-042607 - CPC3 Cable Set
T3=CAB-ANP05360-110906	

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	836.400M	98.6	+22.7	+2.7	+1.8		+0.0	125.8	134.4 Peak Power Reading 3 MHz RBW	-8.6	Horiz 225
2	846.600M	98.1	+22.8	+2.6	+1.8		+0.0 360	125.3	134.4 Peak Power Reading 3 MHz RBW	-9.1	Horiz 230

3	826.400M	97.9	+22.6	+2.6	+1.8	+0.0 360	124.9	134.4 Peak Power Reading 3 MHz RBW	-9.5	Horiz 225
4	824.000M Ave	45.0	+22.6	+2.6	+1.8	+0.0 360	72.0	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-10.3	Horiz 225
5	849.000M Ave	43.7	+22.9	+2.6	+1.8	+0.0 360	71.0	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-11.3	Horiz 230
6	824.000M Ave	40.0	+22.6	+2.6	+1.8	+0.0 354	67.0	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-15.3	Vert 100
7	846.600M	91.6	+22.8	+2.6	+1.8	+0.0 311	118.8	134.4 Peak Power Reading 3 MHz RBW	-15.6	Vert 218
8	836.400M	91.1	+22.7	+2.7	+1.8	+0.0 307	118.3	134.4 Peak Power Reading 3 MHz RBW	-16.1	Vert 220
9	826.400M	91.3	+22.6	+2.6	+1.8	+0.0 354	118.3	134.4 Peak Power Reading 3 MHz RBW	-16.1	Vert 100
10	849.000M Ave	38.5	+22.9	+2.6	+1.8	+0.0 311	65.8	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-16.5	Vert 218

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Vulcan Portals, Inc.**
Specification: **Part 22 RF Power and Block Edge Block C (Radiated)**
Work Order #: **86709** Date: 8/15/2007
Test Type: **Radiated Scan** Time: 17:36:32
Equipment: **Ultra Compact Laptop** Sequence#: 7
Manufacturer: Vulcan Portals, Inc. Tested By: Ryan Rutledge
Model: Flipstart E-1501s
S/N: MVT1-103

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4440A	S/N: MY46186330	10/03/2007	10/03/2009	AN02872
Bothell 5m Cable Set	S/N: P05444	04/26/2007	04/26/2009	ANP05444
20' RG-214 Coax	S/N: 16	11/09/2006	11/09/2008	ANP05360
Chase BILOG	S/N: 2458	01/31/2007	01/31/2009	AN01993

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

Function	Manufacturer	Model #	S/N
Ultra Compact Laptop*	Vulcan Portals, Inc.	Flipstart E-1501s	MVT1-103

Support Devices:

Function	Manufacturer	Model #	S/N
FlipStart Battery	Vulcan Portals, Inc.	E-5000	35560035
FlipStart AC adapter	EOS	ZVC36FS12S54	0001
Call box	Agilent	8960-E5515C	GB42230675
Call box antenna	Electro-metrics	RGA-60	6154

Test Conditions / Notes:

The EUT is placed on the wooden table on a foam spacer. Evaluation of RF Output Power and Band Edges is performed without peripherals attached to the EUT. Carrier/Modulation: GSM850, GSM. RF Output Power RBW=3 MHz, VBW=3 MHz Band Edge RBW=120 kHz, VBW=120 kHz 100 Sweep Average, exceptions noted. 120Vac, 60 Hz, 24°C, 39% relative humidity. Due to limitations of the test equipment, readings were taken at 3 MHz Resolution Bandwidth (RBW) and corrected to the RBW ≥ Emissions Bandwidth (EBW) requirement by adding the following correction factor: 10 log (EBW/RBW).

Transducer Legend:

T1=ANT AN01993 25-1000MHz T2=CAB-ANP05444-042607 - CPC3 Cable Set
T3=CAB-ANP05360-110906

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	848.800M	104.9	+22.9	+2.6	+1.8		+0.0 1	132.2	134.4 Peak Power Reading 3 MHz RBW	-2.2	Horiz 233
2	836.400M	104.9	+22.7	+2.7	+1.8		+0.0 2	132.1	134.4 Peak Power Reading 3 MHz RBW	-2.3	Horiz 228

3	824.200M	101.4	+22.6	+2.6	+1.8	+0.0 151	128.4	134.4 Peak Power Reading 3 MHz RBW	-6.0	Horiz 212
4	848.800M	99.2	+22.9	+2.6	+1.8	+0.0 313	126.5	134.4 Peak Power Reading 3 MHz RBW	-7.9	Vert 201
5	836.400M	98.8	+22.7	+2.7	+1.8	+0.0 309	126.0	134.4 Peak Power Reading 3 MHz RBW	-8.4	Vert 207
6	824.200M	97.8	+22.6	+2.6	+1.8	+0.0 309	124.8	134.4 Peak Power Reading 3 MHz RBW	-9.6	Vert 202
7	824.000M Ave	21.9	+22.6	+2.6	+1.8	+0.0 151	48.9	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-33.4	Horiz 212
8	849.000M Ave	16.9	+22.9	+2.6	+1.8	+0.0 1	44.2	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-38.1	Horiz 233
9	824.000M Ave	16.7	+22.6	+2.6	+1.8	+0.0 309	43.7	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-38.6	Vert 202
10	849.000M Ave	12.3	+22.9	+2.6	+1.8	+0.0 313	39.6	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-42.7	Vert 201

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Vulcan Portals, Inc.**
Specification: **Part 22 RF Power and Block Edge Block C (Radiated)**
Work Order #: **86709** Date: 8/15/2007
Test Type: **Radiated Scan** Time: 18:17:44
Equipment: **Ultra Compact Laptop** Sequence#: 8
Manufacturer: Vulcan Portals, Inc. Tested By: Ryan Rutledge
Model: Flipstart E-1501s
S/N: MVT1-103

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4440A	S/N: MY46186330	10/03/2007	10/03/2009	AN02872
Bothell 5m Cable Set	S/N: P05444	04/26/2007	04/26/2009	ANP05444
20' RG-214 Coax	S/N: 16	11/09/2006	11/09/2008	ANP05360
Chase BILOG	S/N: 2458	01/31/2007	01/31/2009	AN01993

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

Function	Manufacturer	Model #	S/N
Ultra Compact Laptop*	Vulcan Portals, Inc.	Flipstart E-1501s	MVT1-103

Support Devices:

Function	Manufacturer	Model #	S/N
FlipStart Battery	Vulcan Portals, Inc.	E-5000	35560035
FlipStart AC adapter	EOS	ZVC36FS12S54	0001
Call box	Agilent	8960-E5515C	GB42230675
Call box antenna	Electro-metrics	RGA-60	6154

Test Conditions / Notes:

The EUT is placed on the wooden table on a foam spacer. Evaluation of RF Output Power and Band Edges is performed without peripherals attached to the EUT. Carrier/Modulation: GSM850, EDGE12. RF Output Power RBW=3 MHz, VBW=3 MHz Band Edge RBW=120 kHz, VBW=120 kHz 100 Sweep Average, exceptions noted. 120Vac, 60 Hz, 24°C, 39% relative humidity. Due to limitations of the test equipment, readings were taken at 3 MHz Resolution Bandwidth (RBW) and corrected to the RBW ≥ Emissions Bandwidth (EBW) requirement by adding the following correction factor: 10 log (EBW/RBW).

Transducer Legend:

T1=ANT AN01993 25-1000MHz T2=CAB-ANP05444-042607 - CPC3 Cable Set
T3=CAB-ANP05360-110906

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	836.400M	105.2	+22.7	+2.7	+1.8		+0.02	132.4	134.4 Peak Power Reading 3 MHz RBW	-2.0	Horiz 223
2	848.800M	104.5	+22.9	+2.6	+1.8		+0.03	131.8	134.4 Peak Power Reading 3 MHz RBW	-2.6	Horiz 209

3	824.200M	103.7	+22.6	+2.6	+1.8	+0.0	130.7	134.4	-3.7	Horiz
								Peak Power		236
								Reading 3 MHz		
								RBW		
4	848.800M	99.1	+22.9	+2.6	+1.8	+0.0	126.4	134.4	-8.0	Vert
						313		Peak Power		205
								Reading 3 MHz		
								RBW		
5	836.400M	98.9	+22.7	+2.7	+1.8	+0.0	126.1	134.4	-8.3	Vert
						314		Peak Power		207
								Reading 3 MHz		
								RBW		
6	824.200M	98.0	+22.6	+2.6	+1.8	+0.0	125.0	134.4	-9.4	Vert
						309		Peak Power		205
								Reading 3 MHz		
								RBW		
7	849.000M	39.5	+22.9	+2.6	+1.8	+0.0	66.8	82.3	-15.5	Horiz
	Ave					3		Bandedge reading		209
								100 sweep average		
								120 kHz RBW		
8	849.000M	38.7	+22.9	+2.6	+1.8	+0.0	66.0	82.3	-16.3	Vert
	Ave					313		Bandedge reading		205
								100 sweep average		
								120 kHz RBW		
9	824.000M	15.4	+22.6	+2.6	+1.8	+0.0	42.4	82.3	-39.9	Vert
	Ave					309		Bandedge reading		205
								100 sweep average		
								120 kHz RBW		
10	824.000M	13.7	+22.6	+2.6	+1.8	+0.0	40.7	82.3	-41.6	Horiz
	Ave							Bandedge reading		236
								100 sweep average		
								120 kHz RBW		

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Vulcan Portals, Inc.**
Specification: **Part 24 RF Power and Block Edge Plot Block C (Radiated)**
Work Order #: **86709** Date: 8/15/2007
Test Type: **Radiated Scan** Time: 10:10:14
Equipment: **Ultra Compact Laptop** Sequence#: 2
Manufacturer: Vulcan Portals, Inc. Tested By: Ryan Rutledge
Model: Flipstart E-1501s
S/N: MVT1-103

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4440A	S/N: MY46186330	10/03/2007	10/03/2009	AN02872
60" Pasternack 40 GHz Coax	S/N: N/A	05/11/2006	05/11/2008	AN05423
30' Andrews Heliax 18 GHz	S/N: N/A	06/19/2006	06/19/2008	AN05545
EMCO 3115 Horn Ant	S/N: 9606-4854	12/13/2005	12/13/2007	AN01412

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

Function	Manufacturer	Model #	S/N
Ultra Compact Laptop*	Vulcan Portals, Inc.	Flipstart E-1501s	MVT1-103

Support Devices:

Function	Manufacturer	Model #	S/N
FlipStart Battery	Vulcan Portals, Inc.	E-5000	35560035
FlipStart AC adapter	EOS	ZVC36FS12S54	0001
Call box	Agilent	8960-E5515C	GB42230675
Call box antenna	Electro-metrics	RGA-60	6154

Test Conditions / Notes:

The EUT is placed on the wooden table on a foam spacer. Evaluation of RF Output Power and Band Edges is performed without peripherals attached to the EUT. IMPORTANT NOTE: Measurements performed at 2 meters. Carrier/Modulation: PCS1900, GSM. RF Output Power RBW=3 MHz, VBW=3 MHz Band Edge RBW=120 kHz, VBW=120 kHz 100 Sweep Average, exceptions noted. 120Vac, 60 Hz, 25°C, 40% relative humidity. Due to limitations of the test equipment, readings were taken at 3 MHz Resolution Bandwidth (RBW) and corrected to the RBW ≥ Emissions Bandwidth (EBW) requirement by adding the following correction factor: 10 log (EBW/RBW).

Transducer Legend:

T1=CAB-ANP05545-061906 T2=ANT-AN01412-121305
T3=CAB-ANP05423-051006

Measurement Data: Reading listed by margin. Test Distance: 2 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1909.800M	96.2	+2.1	+26.2	+1.9		-4.0 215	122.4	130.7 Peak Power Reading 3 MHz RBW	-8.3	Horiz 100

2	1850.200M	96.0	+2.0	+26.2	+1.9	-4.0 210	122.1	130.7 Peak Power Reading 3 MHz RBW	-8.6	Horiz 106
3	1880.000M	95.9	+2.0	+26.2	+1.9	-4.0 215	122.0	130.7 Peak Power Reading 3 MHz RBW	-8.7	Horiz 102
4	1909.800M	92.6	+2.1	+26.2	+1.9	-4.0 277	118.8	130.7 Peak Power Reading 3 MHz RBW	-11.9	Vert 131
5	1850.200M	92.5	+2.0	+26.2	+1.9	-4.0 280	118.6	130.7 Peak Power Reading 3 MHz RBW	-12.1	Vert 112
6	1880.000M	92.0	+2.0	+26.2	+1.9	-4.0 260	118.1	130.7 Peak Power Reading 3 MHz RBW	-12.6	Vert 125
7	1910.000M Ave	17.7	+2.1	+26.2	+1.9	-4.0 215	43.9	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-38.4	Horiz 100
8	1910.000M Ave	16.0	+2.1	+26.2	+1.9	-4.0 277	42.2	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-40.1	Vert 131
9	1850.000M Ave	12.9	+2.0	+26.2	+1.9	-4.0 210	39.0	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-43.3	Horiz 106
10	1850.000M Ave	10.9	+2.0	+26.2	+1.9	-4.0 280	37.0	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-45.3	Vert 112

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Vulcan Portals, Inc.**
Specification: **Part 24 RF Power and Block Edge Plot Block C (Radiated)**
Work Order #: **86709** Date: 8/14/2007
Test Type: **Radiated Scan** Time: 14:41:30
Equipment: **Ultra Compact Laptop** Sequence#: 1
Manufacturer: Vulcan Portals, Inc. Tested By: Ryan Rutledge
Model: Flipstart E-1501s
S/N: MVT1-103

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4440A	S/N: MY46186330	10/03/2007	10/03/2009	AN02872
60" Pasternack 40 GHz Coax	S/N: N/A	05/11/2006	05/11/2008	AN05423
30' Andrews Heliax 18 GHz	S/N: N/A	06/19/2006	06/19/2008	AN05545
EMCO 3115 Horn Ant	S/N: 9606-4854	12/13/2005	12/13/2007	AN01412

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

Function	Manufacturer	Model #	S/N
Ultra Compact Laptop*	Vulcan Portals, Inc.	Flipstart E-1501s	MVT1-103

Support Devices:

Function	Manufacturer	Model #	S/N
FlipStart Battery	Vulcan Portals, Inc.	E-5000	35560035
FlipStart AC adapter	EOS	ZVC36FS12S54	0001
Call box	Agilent	8960-E5515C	GB42230675
Call box antenna	Electro-metrics	RGA-60	6154

Test Conditions / Notes:

The EUT is placed on the wooden table on a foam spacer. Evaluation of RF Output Power and Band Edges is performed without peripherals attached to the EUT. Carrier/Modulation: WCDMA Band II, WCDMA. RF Output Power RBW=3 MHz, VBW=3 MHz Band Edge RBW=120 kHz, VBW=120 kHz 100 Sweep Average, exceptions noted. 120Vac, 60 Hz, 25°C, 40 % relative humidity. Due to limitations of the test equipment, readings were taken at 3 MHz Resolution Bandwidth (RBW) and corrected to the RBW ≥ Emissions Bandwidth (EBW) requirement by adding the following correction factor: 10 log (EBW/RBW).

Transducer Legend:

T1=CAB-ANP05545-061906 T2=ANT-AN01412-121305
T3=CAB-ANP05423-051006

Measurement Data: Reading listed by margin. Test Distance: 2 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1852.400M	93.3	+2.0	+26.2	+1.9		-4.0 230	119.4	130.7 Peak Power Reading 3 MHz RBW	-11.3	Horiz 104

2	1880.000M	92.3	+2.0	+26.2	+1.9	-4.0 215	118.4	130.7 Peak Power Reading 3 MHz RBW	-12.3	Horiz 103
3	1880.000M	88.7	+2.0	+26.2	+1.9	-4.0 275	114.8	130.7 Peak Power Reading 3 MHz RBW	-15.9	Vert 111
4	1850.000M Ave	40.1	+2.0	+26.2	+1.9	-4.0 230	66.2	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-16.1	Horiz 104
5	1907.600M	88.0	+2.1	+26.2	+1.9	-4.0 333	114.2	130.7 Peak Power Reading 3 MHz RBW	-16.5	Horiz 134
6	1907.600M	87.9	+2.1	+26.2	+1.9	-4.0 285	114.1	130.7 Peak Power Reading 3 MHz RBW	-16.6	Vert 133
7	1852.400M	87.9	+2.0	+26.2	+1.9	-4.0 271	114.0	130.7 Peak Power Reading 3 MHz RBW	-16.7	Vert 146
8	1910.000M Ave	37.6	+2.1	+26.2	+1.9	-4.0 333	63.8	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-18.5	Horiz 134
9	1910.000M Ave	37.5	+2.1	+26.2	+1.9	-4.0 285	63.7	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-18.6	Vert 133
10	1850.000M Ave	36.2	+2.0	+26.2	+1.9	-4.0 271	62.3	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-20.0	Vert 146

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Vulcan Portals, Inc.**
Specification: **Part 24 RF Power and Block Edge Plot Block C (Radiated)**
Work Order #: **86709** Date: 8/15/2007
Test Type: **Radiated Scan** Time: 11:12:28
Equipment: **Ultra Compact Laptop** Sequence#: 3
Manufacturer: Vulcan Portals, Inc. Tested By: Ryan Rutledge
Model: Flipstart E-1501s
S/N: MVT1-103

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4440A	S/N: MY46186330	10/03/2007	10/03/2009	AN02872
60" Pasternack 40 GHz Coax	S/N: N/A	05/11/2006	05/11/2008	AN05423
30' Andrews Heliax 18 GHz	S/N: N/A	06/19/2006	06/19/2008	AN05545
EMCO 3115 Horn Ant	S/N: 9606-4854	12/13/2005	12/13/2007	AN01412

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

Function	Manufacturer	Model #	S/N
Ultra Compact Laptop*	Vulcan Portals, Inc.	Flipstart E-1501s	MVT1-103

Support Devices:

Function	Manufacturer	Model #	S/N
FlipStart Battery	Vulcan Portals, Inc.	E-5000	35560035
FlipStart AC adapter	EOS	ZVC36FS12S54	0001
Call box	Agilent	8960-E5515C	GB42230675
Call box antenna	Electro-metrics	RGA-60	6154

Test Conditions / Notes:

The EUT is placed on the wooden table on a foam spacer. Evaluation of RF Output Power and Band Edges is performed without peripherals attached to the EUT. Carrier/Modulation: PCS1900 , EDGE12. RF Output Power RBW=3 MHz, VBW=3 MHz Band Edge RBW=120 kHz, VBW=120 kHz 100 Sweep Average, exceptions noted. 120Vac, 60 Hz, 25°C, 40 % relative humidity. Due to limitations of the test equipment, readings were taken at 3 MHz Resolution Bandwidth (RBW) and corrected to the RBW ≥ Emissions Bandwidth (EBW) requirement by adding the following correction factor: 10 log (EBW/RBW).

Transducer Legend:

T1=CAB-ANP05545-061906 T2=ANT-AN01412-121305
T3=CAB-ANP05423-051006

Measurement Data: Reading listed by margin. Test Distance: 2 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1909.800M	96.6	+2.1	+26.2	+1.9		-4.0 213	122.8	130.7 Peak Power Reading 3 MHz RBW	-7.9	Horiz 100

2	1850.200M	96.2	+2.0	+26.2	+1.9	-4.0 208	122.3	130.7 Peak Power Reading 3 MHz RBW	-8.4	Horiz 105
3	1880.000M	96.1	+2.0	+26.2	+1.9	-4.0 214	122.2	130.7 Peak Power Reading 3 MHz RBW	-8.5	Horiz 101
4	1909.800M	92.8	+2.1	+26.2	+1.9	-4.0 281	119.0	130.7 Peak Power Reading 3 MHz RBW	-11.7	Vert 133
5	1880.000M	92.5	+2.0	+26.2	+1.9	-4.0 286	118.6	130.7 Peak Power Reading 3 MHz RBW	-12.1	Vert 153
6	1850.200M	92.5	+2.0	+26.2	+1.9	-4.0 275	118.6	130.7 Peak Power Reading 3 MHz RBW	-12.1	Vert 132
7	1850.000M Ave	35.2	+2.0	+26.2	+1.9	-4.0 275	61.3	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-21.0	Vert 132
8	1910.000M Ave	25.7	+2.1	+26.2	+1.9	-4.0 213	51.9	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-30.4	Horiz 100
9	1910.000M Ave	19.8	+2.1	+26.2	+1.9	-4.0 281	46.0	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-36.3	Vert 133
10	1850.000M Ave	16.4	+2.0	+26.2	+1.9	-4.0 208	42.5	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-39.8	Horiz 105

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Vulcan Portals, Inc.**
Specification: **Part 24 RF Power and Block Edge Plot Block C (Radiated)**
Work Order #: **86709** Date: 8/15/2007
Test Type: **Radiated Scan** Time: 12:08:02
Equipment: **Ultra Compact Laptop** Sequence#: 4
Manufacturer: Vulcan Portals, Inc. Tested By: Ryan Rutledge
Model: Flipstart E-1501s
S/N: MVT1-103

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4440A	S/N: MY46186330	10/03/2007	10/03/2009	AN02872
60" Pasternack 40 GHz Coax	S/N: N/A	05/11/2006	05/11/2008	AN05423
30' Andrews Heliax 18 GHz	S/N: N/A	06/19/2006	06/19/2008	AN05545
EMCO 3115 Horn Ant	S/N: 9606-4854	12/13/2005	12/13/2007	AN01412

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

Function	Manufacturer	Model #	S/N
Ultra Compact Laptop*	Vulcan Portals, Inc.	Flipstart E-1501s	MVT1-103

Support Devices:

Function	Manufacturer	Model #	S/N
FlipStart Battery	Vulcan Portals, Inc.	E-5000	35560035
FlipStart AC adapter	EOS	ZVC36FS12S54	0001
Call box	Agilent	8960-E5515C	GB42230675
Call box antenna	Electro-metrics	RGA-60	6154

Test Conditions / Notes:

The EUT is placed on the wooden table on a foam spacer. Evaluation of RF Output Power and Band Edges is performed without peripherals attached to the EUT. Carrier/Modulation: WCDMA Band II, HSDPA. RF Output Power RBW=3 MHz, VBW=3 MHz Band Edge RBW=120 kHz, VBW=120 kHz 100 Sweep Average, exceptions noted. 120Vac, 60 Hz, 25°C, 40 % relative humidity. Due to limitations of the test equipment, readings were taken at 3 MHz Resolution Bandwidth (RBW) and corrected to the RBW ≥ Emissions Bandwidth (EBW) requirement by adding the following correction factor: 10 log (EBW/RBW).

Transducer Legend:

T1=CAB-ANP05545-061906	T2=ANT-AN01412-121305
T3=CAB-ANP05423-051006	

Measurement Data: Reading listed by margin. Test Distance: 2 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1852.400M	92.5	+2.0	+26.2	+1.9		-4.0 214	118.6	130.7 Peak Power Reading 3 MHz RBW	-12.1	Horiz 103

2	1880.000M	91.8	+2.0	+26.2	+1.9	-4.0 225	117.9	130.7 Peak Power Reading 3 MHz RBW	-12.8	Horiz 100
3	1907.600M	91.4	+2.1	+26.2	+1.9	-4.0 212	117.6	130.7 Peak Power Reading 3 MHz RBW	-13.1	Horiz 100
4	1852.400M	89.3	+2.0	+26.2	+1.9	-4.0 273	115.4	130.7 Peak Power Reading 3 MHz RBW	-15.3	Vert 128
5	1880.000M	88.7	+2.0	+26.2	+1.9	-4.0 264	114.8	130.7 Peak Power Reading 3 MHz RBW	-15.9	Vert 124
6	1910.000M Ave	40.0	+2.1	+26.2	+1.9	-4.0 212	66.2	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-16.1	Horiz 100
7	1850.000M Ave	39.9	+2.0	+26.2	+1.9	-4.0 214	66.0	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-16.3	Horiz 103
8	1907.600M	87.0	+2.1	+26.2	+1.9	-4.0 279	113.2	130.7 Peak Power Reading 3 MHz RBW	-17.5	Vert 107
9	1850.000M Ave	36.3	+2.0	+26.2	+1.9	-4.0 273	62.4	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-19.9	Vert 128
10	1910.000M Ave	36.0	+2.1	+26.2	+1.9	-4.0 279	62.2	82.3 Bandedge reading 100 sweep average 120 kHz RBW	-20.1	Vert 107

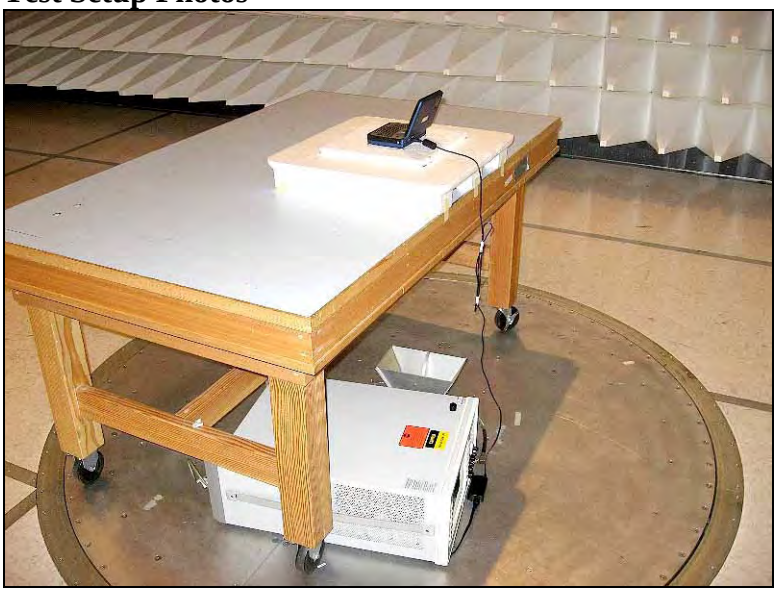
FCC 2.1051/2.1053 BANDEDGE

Test Equipment

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4440A	S/N: MY46186330	10/03/2007	10/03/2009	AN02872
Bothell 5m Cable Set	S/N: P05444	04/26/2007	04/26/2009	ANP05444
20' RG-214 Coax	S/N: 16	11/09/2006	11/09/2008	ANP05360
Chase BILOG	S/N: 2458	01/31/2007	01/31/2009	AN01993

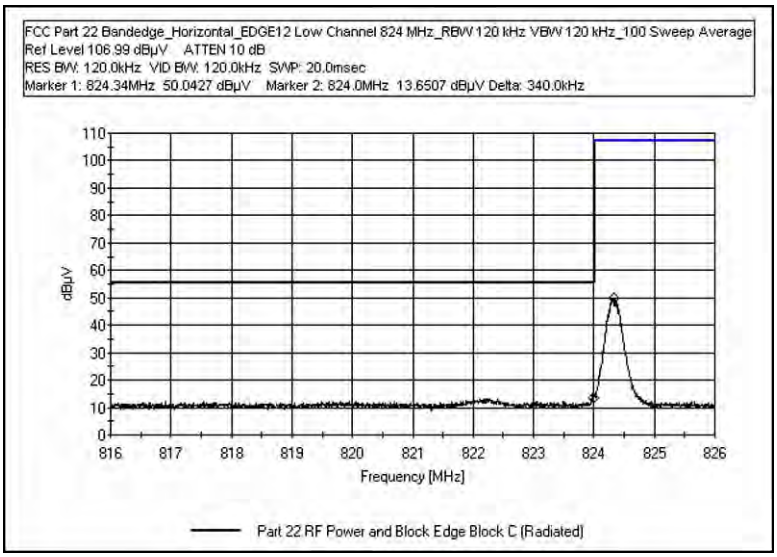
Test Conditions: The EUT is placed on the wooden table on a foam spacer. Evaluation of Spurious Emissions is performed without peripherals attached to the EUT.

Test Setup Photos

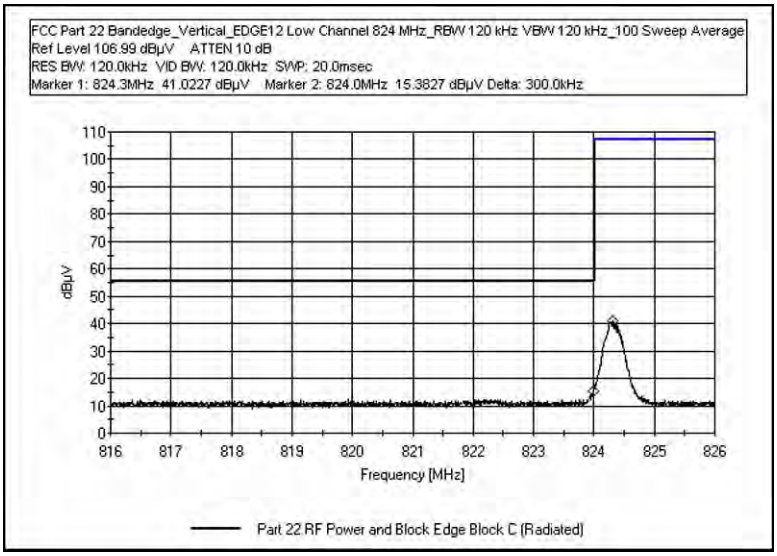


Test Plots

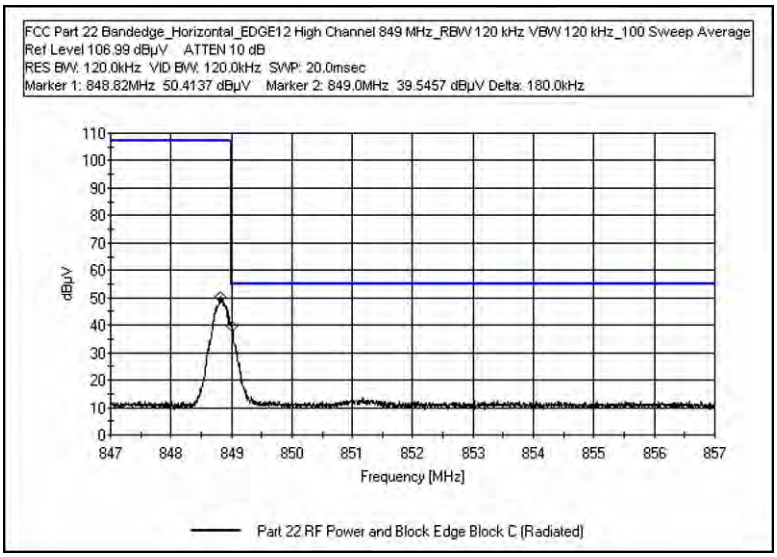
FCC PART 22 BANDEDGE - EDGE HORIZONTAL LOW CHANNEL 824 MHz



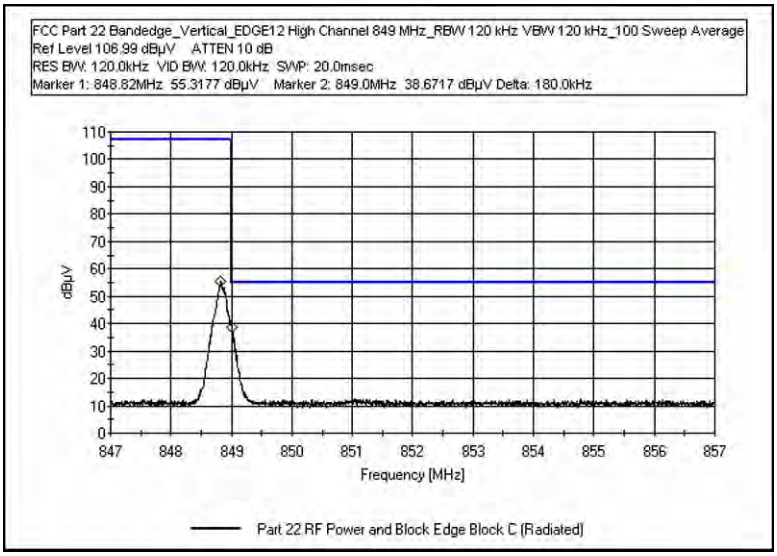
FCC PART 22 BANDEDGE - EDGE VERTICAL LOW CHANNEL 824 MHz



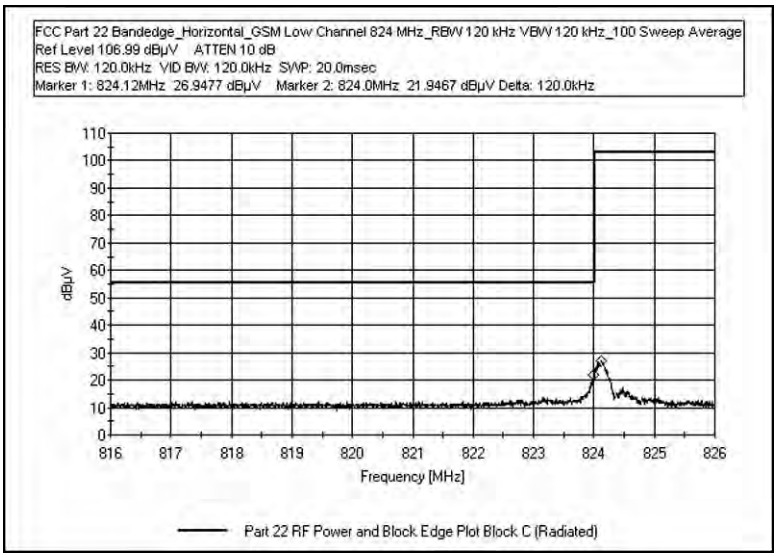
FCC PART 22 BANDEDGE - EDGE HORIZONTAL HIGH CHANNEL 849 MHz



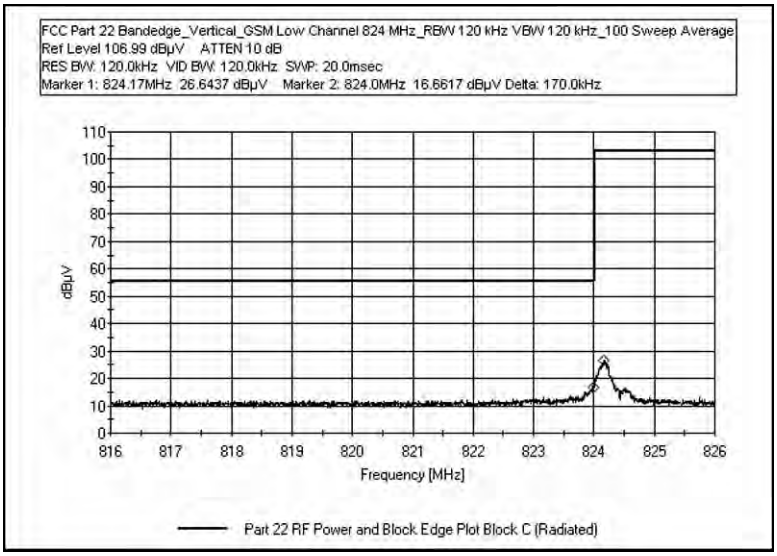
FCC PART 22 BANDEDGE - EDGE VERTICAL HIGH CHANNEL 849 MHz



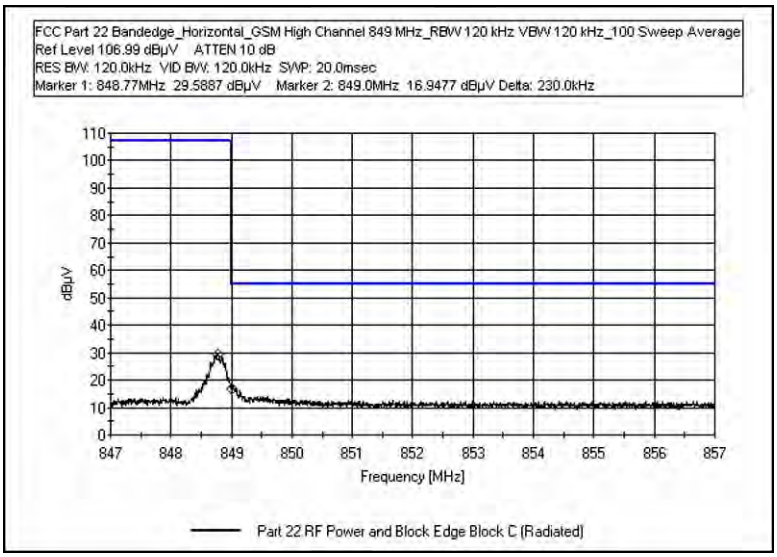
FCC PART 22 BANDEDGE - GSM HORIZONTAL LOW CHANNEL 824 MHz



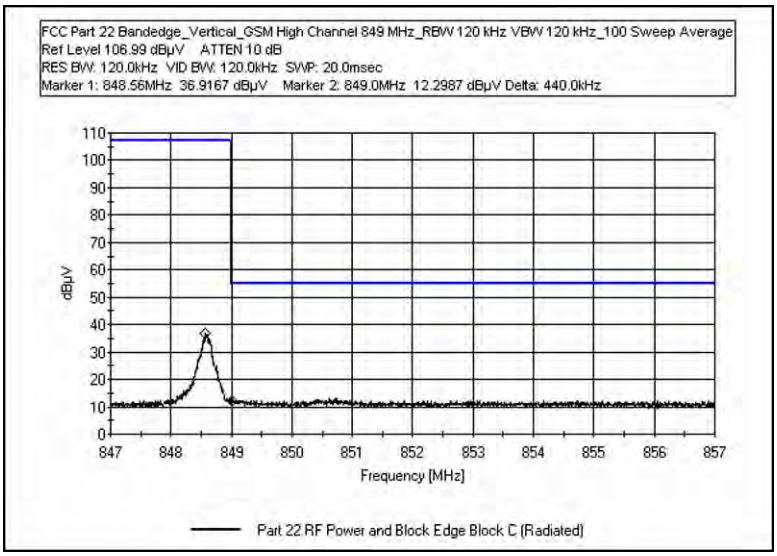
FCC PART 22 BANDEDGE - GSM VERTICAL LOW CHANNEL 824 MHz



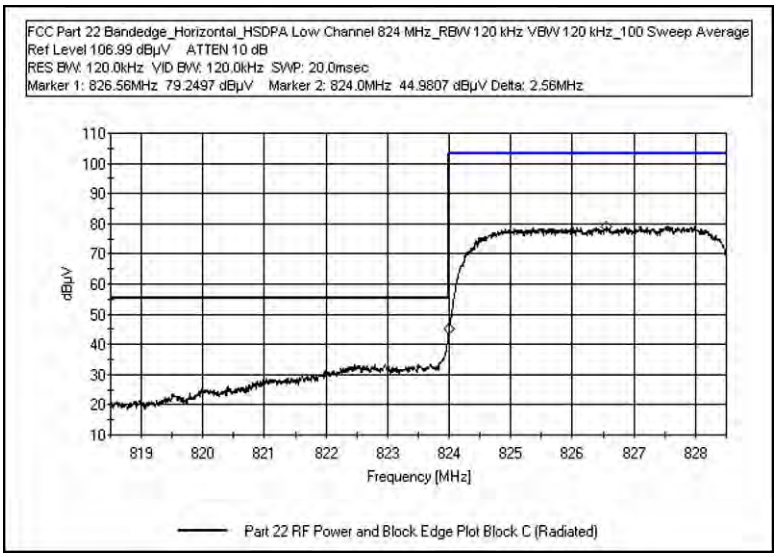
FCC PART 22 BANDEDGE - GSM HORIZONTAL HIGH CHANNEL 849 MHz



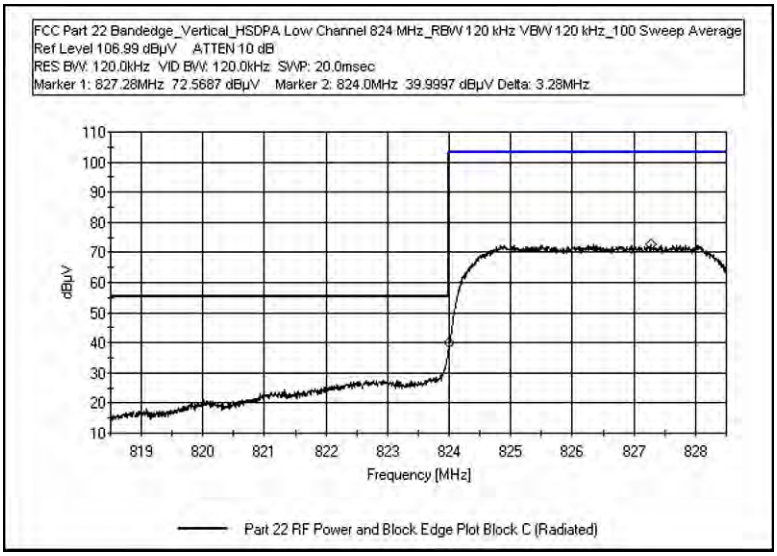
FCC PART 22 BANDEDGE - GSM VERTICAL HIGH CHANNEL 849 MHz



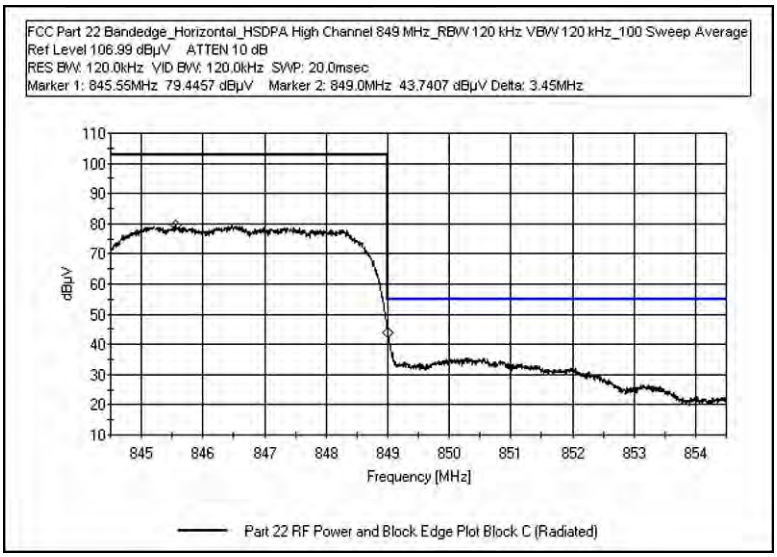
FCC PART 22 BANDEDGE - HSDPA HORIZONTAL LOW CHANNEL 824 MHz



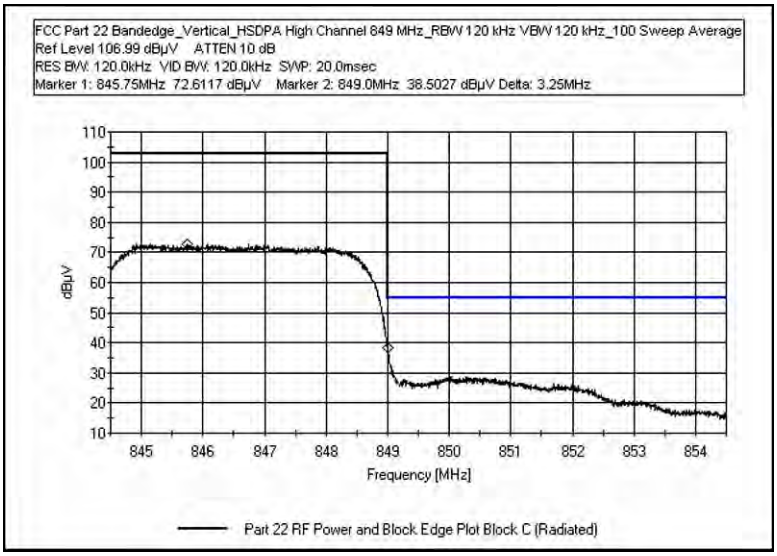
FCC PART 22 BANDEDGE - HSDPA VERTICAL LOW CHANNEL 824 MHz



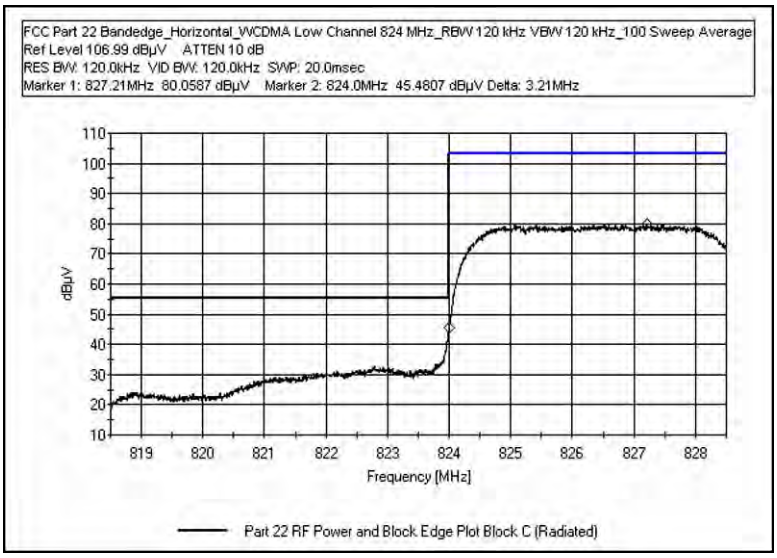
FCC PART 22 BANDEDGE - HSDPA HORIZONTAL HIGH CHANNEL 849 MHz



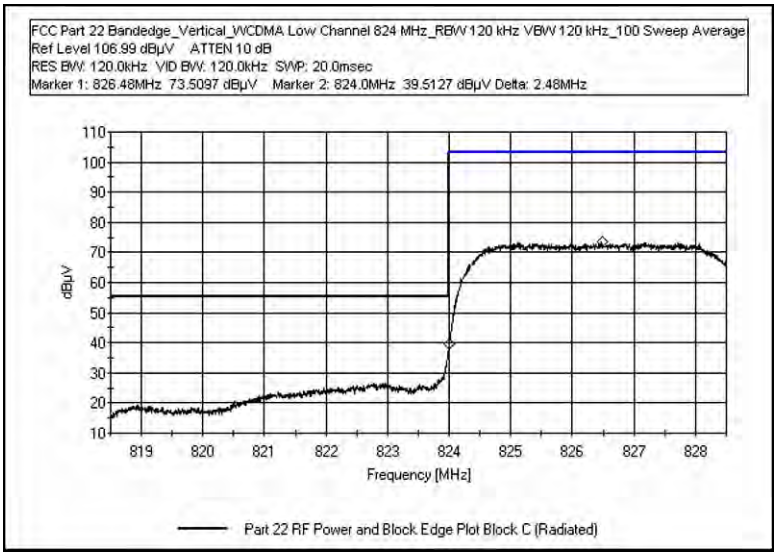
FCC PART 22 BANDEDGE - HSDPA VERTICAL HIGH CHANNEL 849 MHz



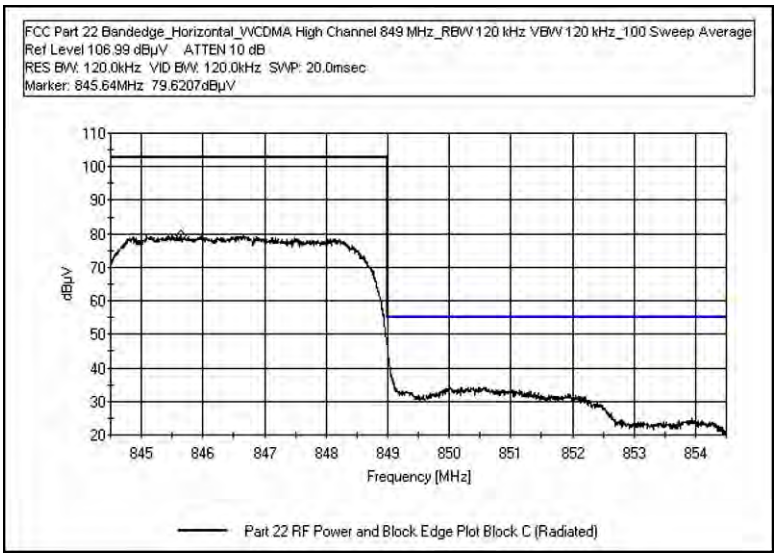
FCC PART 22 BANDEDGE - WCDMA HORIZONTAL LOW CHANNEL 824 MHz



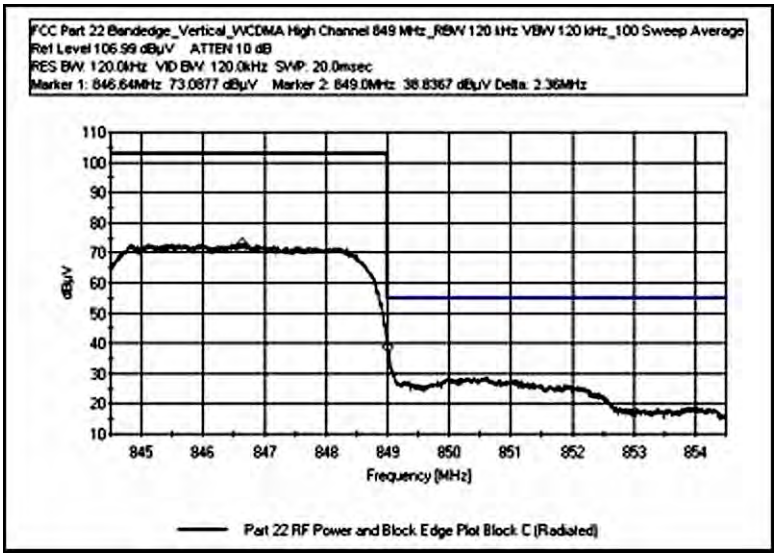
FCC PART 22 BANDEDGE - WCDMA VERTICAL LOW CHANNEL 824 MHz



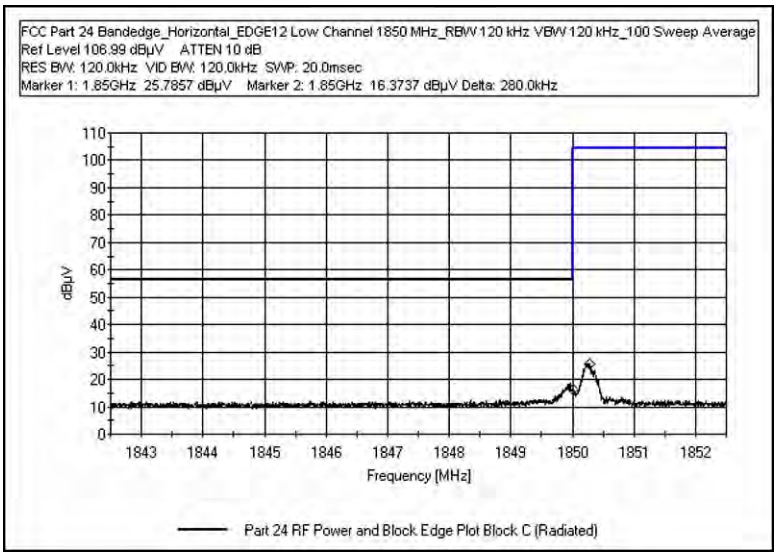
FCC PART 22 BANDEDGE - WCDMA HORIZONTAL HIGH CHANNEL 849 MHz



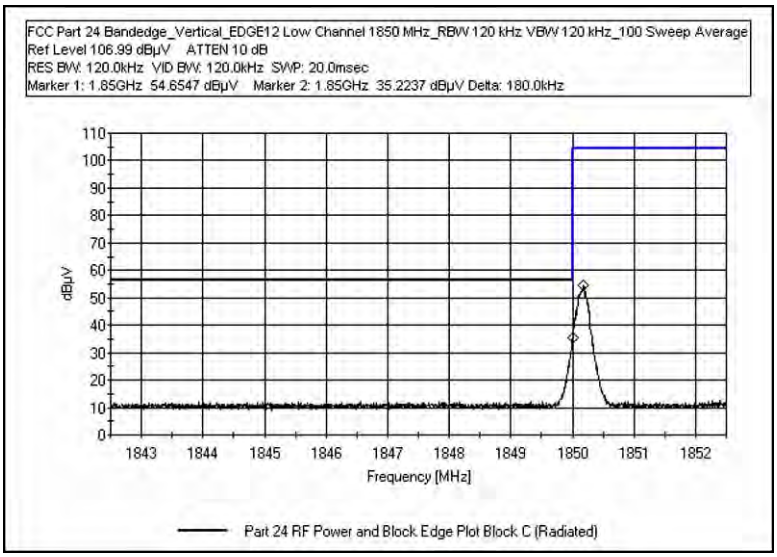
FCC PART 22 BANDEDGE - WCDMA VERTICAL HIGH CHANNEL 849 MHz



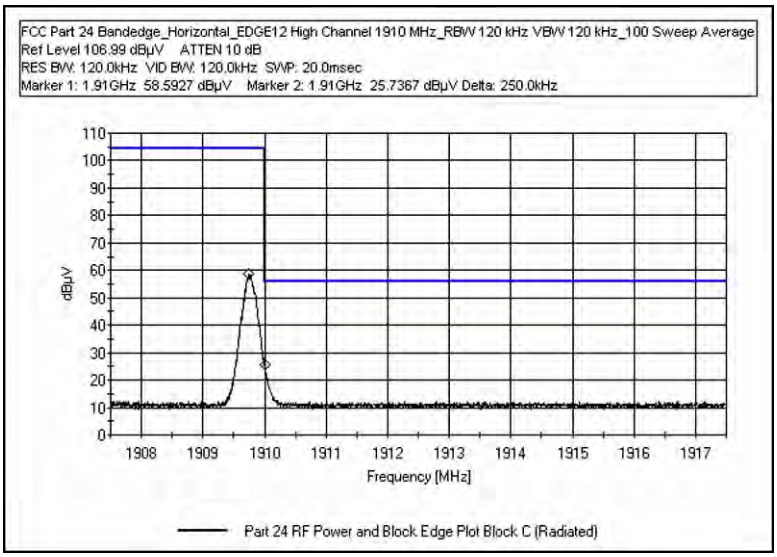
FCC PART 24 BANDEDGE - EDGE HORIZONTAL LOW CHANNEL 1850 MHz



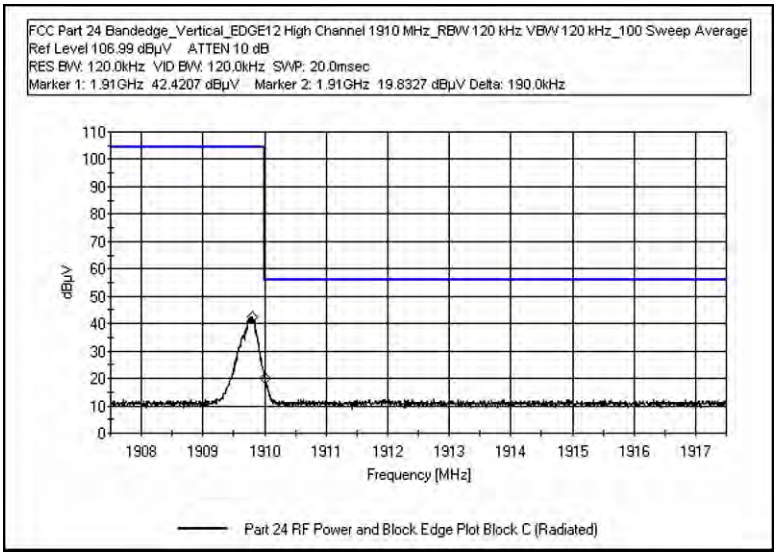
FCC PART 24 BANDEDGE - EDGE VERTICAL LOW CHANNEL 1850 MHz



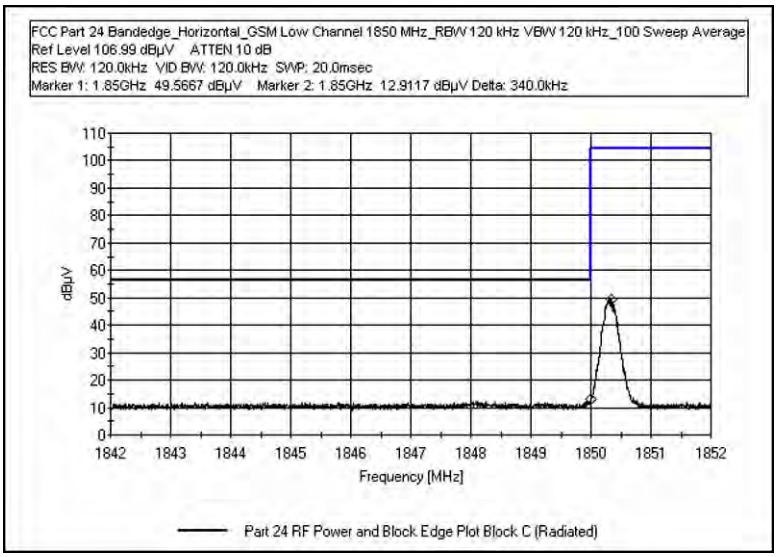
FCC PART 24 BANDEDGE - EDGE HORIZONTAL HIGH CHANNEL 1910 MHz



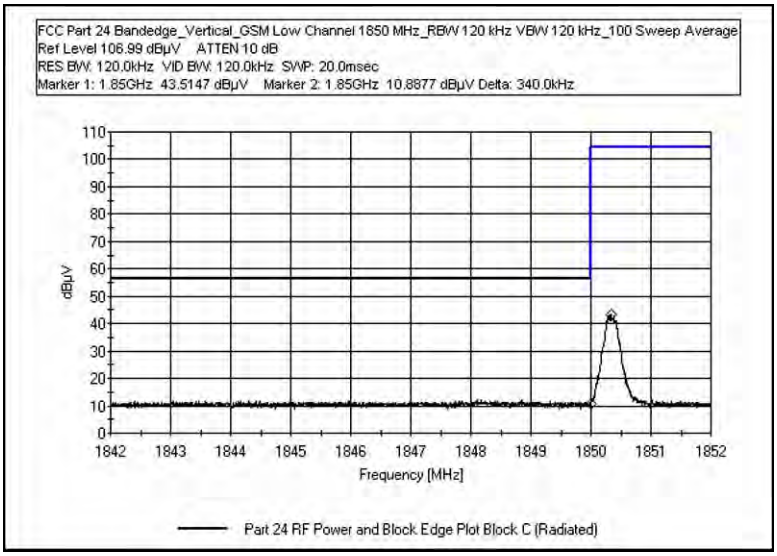
FCC PART 24 BANDEDGE - EDGE VERTICAL HIGH CHANNEL 1910 MHz



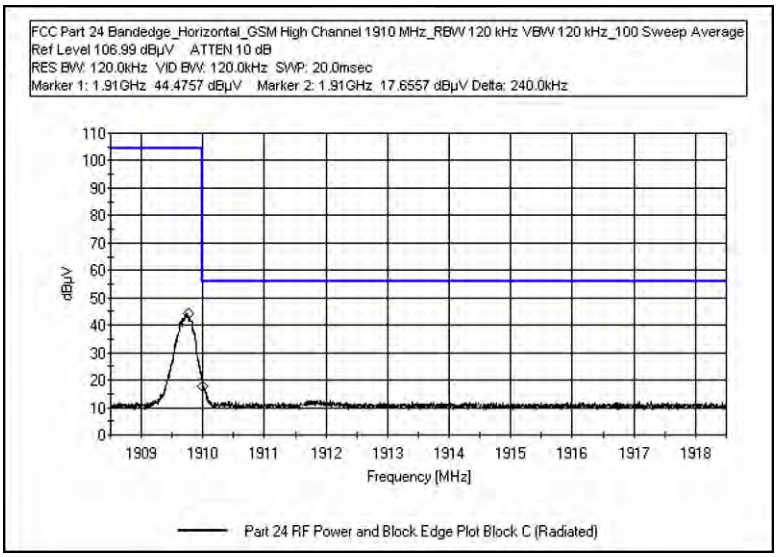
FCC PART 24 BANDEDGE - GSM HORIZONTAL LOW CHANNEL 1850 MHz



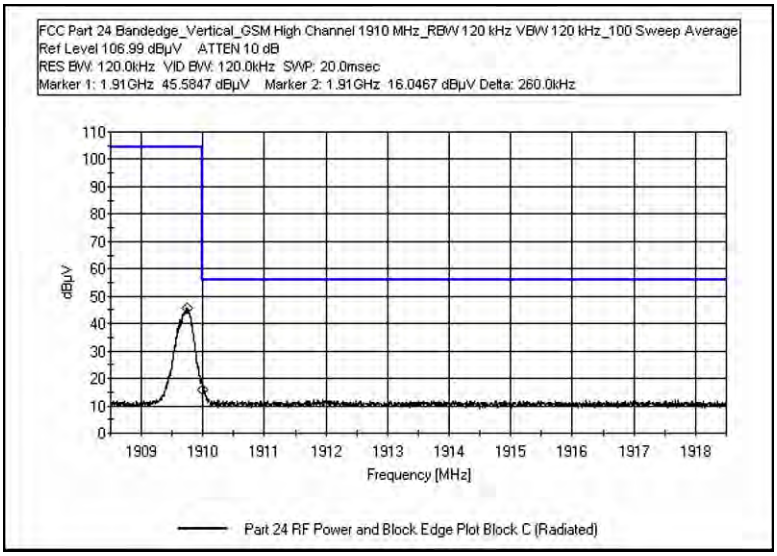
FCC PART 24 BANDEDGE - GSM VERTICAL LOW CHANNEL 1850 MHz



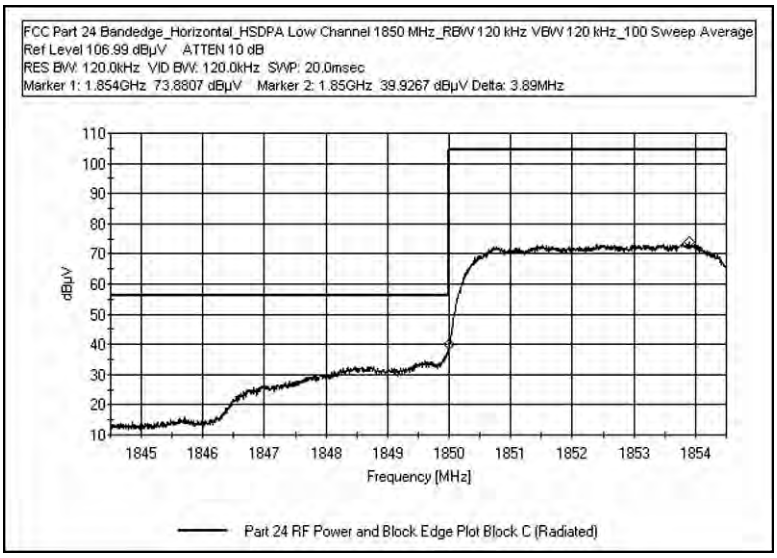
FCC PART 24 BANDEDGE - GSM HORIZONTAL HIGH CHANNEL 1910 MHz



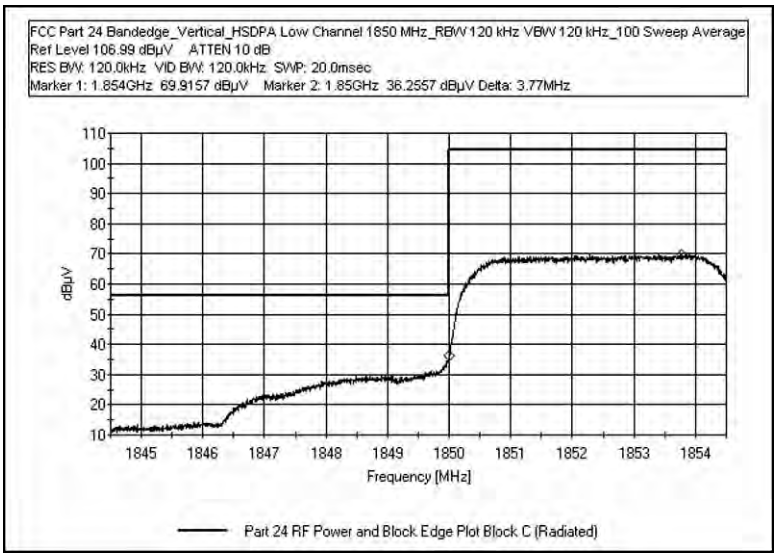
FCC PART 24 BANDEDGE - GSM VERTICAL HIGH CHANNEL 1910 MHz



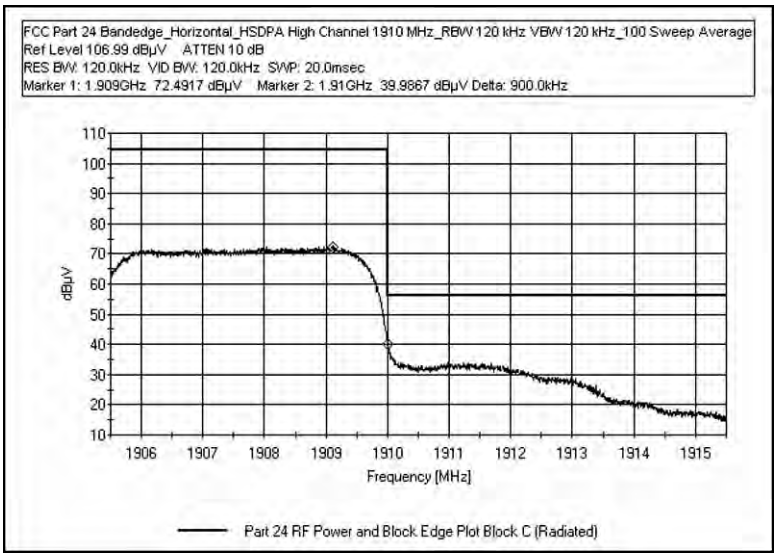
FCC PART 24 BANDEDGE - HSDPA HORIZONTAL LOW CHANNEL 1850 MHz



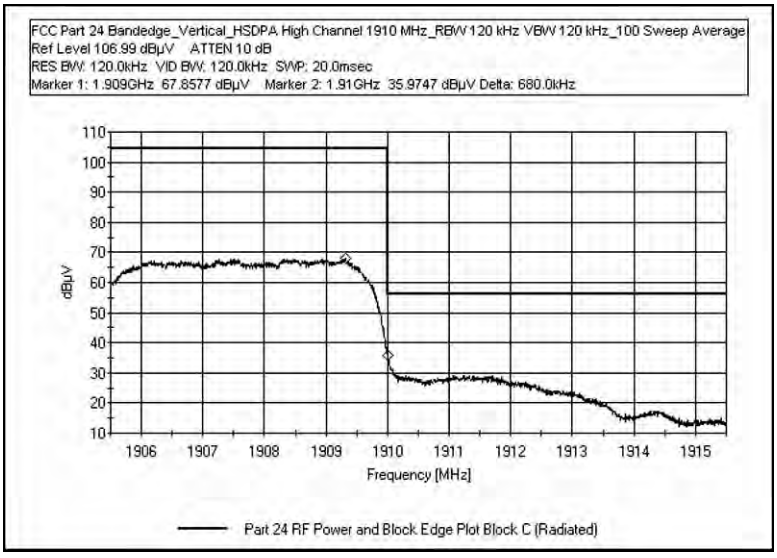
FCC PART 24 BANDEDGE - HSDPA VERTICAL LOW CHANNEL 1850 MHz



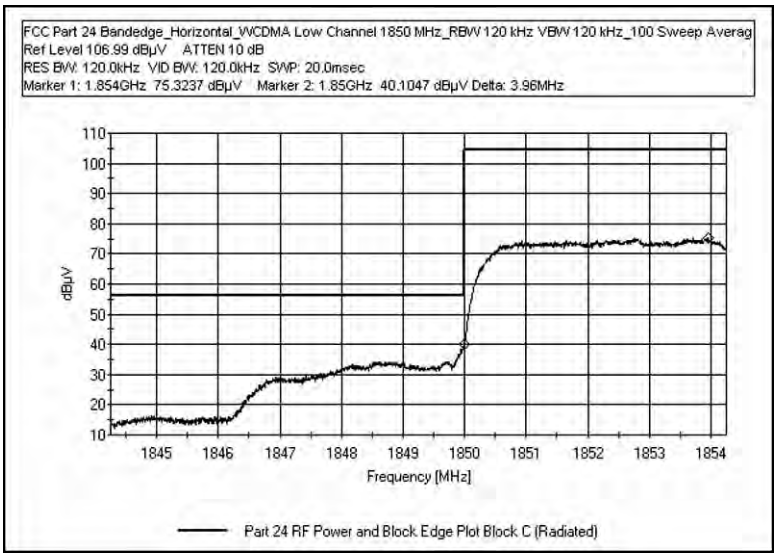
FCC PART 24 BANDEDGE - HSDPA HORIZONTAL HIGH CHANNEL 1910 MHz



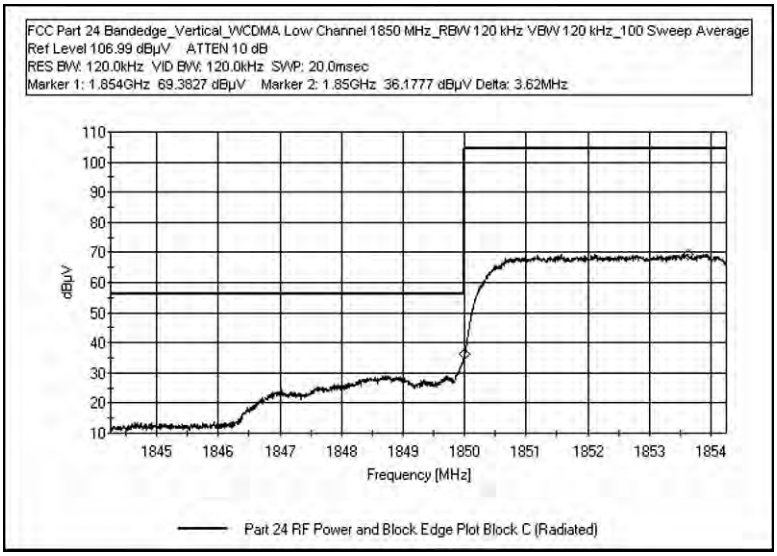
FCC PART 24 BANDEDGE - HSDPA VERTICAL HIGH CHANNEL 1910 MHz



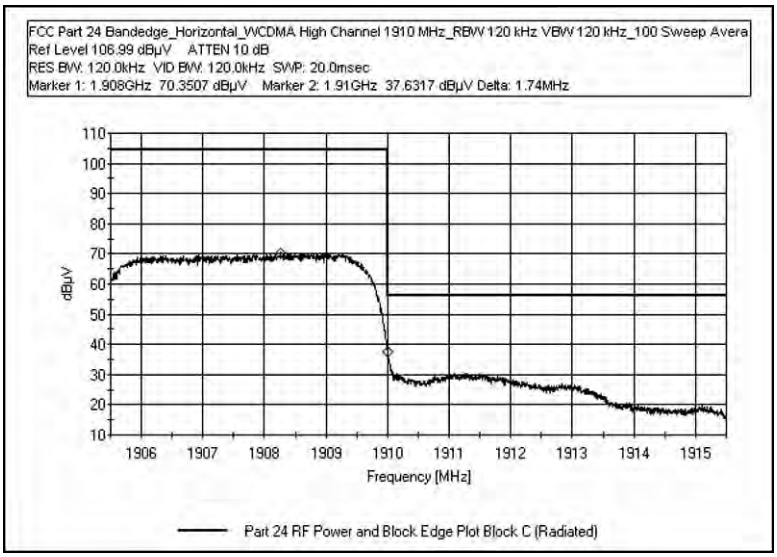
FCC PART 24 BANDEDGE - WCDMA HORIZONTAL LOW CHANNEL 1850 MHz



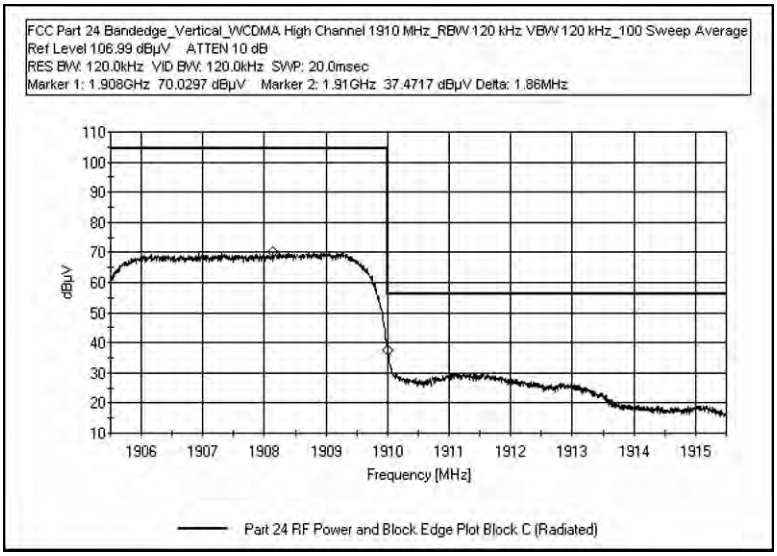
FCC PART 24 BANDEDGE - WCDMA VERTICAL LOW CHANNEL 1850 MHz



FCC PART 24 BANDEDGE - WCDMA HORIZONTAL HIGH CHANNEL 1910 MHz



FCC PART 24 BANDEDGE - WCDMA VERTICAL HIGH CHANNEL 1910 MHz



FCC 2.1033(c)(14)/2.1053/22.917 - FIELD STRENGTH OF SPURIOUS RADIATION

Test Setup Photos

Test Data Sheets

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Vulcan Portals, Inc.**
Specification: **FCC Part 22.917(a) Radiated Spurious Emissions**
Work Order #: **86709** Date: 8/20/2007
Test Type: **Radiated Scan** Time: 10:49:49
Equipment: **Ultra Compact Laptop** Sequence#: 9
Manufacturer: Vulcan Portals, Inc. Tested By: Ryan Rutledge
Model: Flipstart E-1501s
S/N: MVT1-103

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4440A	S/N: MY46186330	10/03/2007	10/03/2009	AN02872
60" Pasternack 40 GHz Coax	S/N: N/A	05/11/2006	05/11/2008	AN05423
30' Andrews Heliax 18 GHz	S/N: N/A	06/19/2006	06/19/2008	AN05545
HP 83017A .5 - 26.5 GHz Pre-amp	S/N: 3123A00464	10/03/2005	10/03/2007	AN01271
EMCO 3115 Horn Ant	S/N: 9606-4854	12/13/2005	12/13/2007	AN01412
1 GHz HP Filter	S/N: 2	03/07/2006	03/07/2008	AN02750
Bothell 5m Cable Set	S/N: P05444	04/26/2007	04/26/2009	ANP05444
20' RG-214 Coax	S/N: 16	11/09/2006	11/09/2008	ANP05360
Chase BILOG	S/N: 2458	01/31/2007	01/31/2009	AN01993

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

Function	Manufacturer	Model #	S/N
Ultra Compact Laptop*	Vulcan Portals, Inc.	Flipstart E-1501s	MVT1-103

Support Devices:

Function	Manufacturer	Model #	S/N
FlipStart Battery	Vulcan Portals, Inc.	E-5000	35560035
FlipStart AC adapter	EOS	ZVC36FS12S54	0001
Call box	Agilent	8960-E5515C	GB42230675
Call box antenna	Electro-metrics	RGA-60	6154

Test Conditions / Notes:

The EUT is placed on the wooden table on a foam spacer. Evaluation of Spurious Emissions is performed without peripherals attached to the EUT. Carrier/Modulation: GSM850, EDGE12. 30 - 1000 MHz RBW=120 kHz, VBW=120 kHz Quasi-peak 1 - 10 GHz RBW=1 MHz, VBW=1 MHz Average 120Vac, 60 Hz, 22°C, 45% relative humidity. Test Equipment Used: 30 - 1000 MHz Equipment 1, 7, 8, 9; 1 - 10 GHz Equipment 1, 2, 3, 4, 5, 6.

Transducer Legend:

T1=AMP-AN01271-100305 - .5-26.5 GHz	T2=CAB-ANP05545-061906
T3=ANT-AN01412-121305	T4=CAB-ANP05423-051006
T5=ANT AN01993 25-1000MHz	T6=CAB-ANP05444-042607 - CPC3 Cable Set
T7=CAB-ANP05360-110906	T8=Filter 1GHz HP AN02750

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

#	Freq	Rdng	T1 T5	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	124.720M	27.6	+0.0 +11.7	+0.0 +1.1	+0.0 +0.5	+0.0 +0.0	+0.0 123	40.9	82.3	-41.4	Vert 100
2	125.900M	26.8	+0.0 +11.7	+0.0 +1.0	+0.0 +0.5	+0.0 +0.0	+0.0 85	40.0	82.3	-42.3	Vert 100
3	1648.410M Ave	42.5	-34.9 +0.0	+2.0 +0.0	+26.2 +0.0	+1.8 +0.6	+0.0 203	38.2	82.3 Low Channel Harmonic	-44.1	Horiz 102
^	1648.480M	61.3	-34.9 +0.0	+2.0 +0.0	+26.2 +0.0	+1.8 +0.6	+0.0 203	57.0	82.3 Low Channel Harmonic	-25.3	Horiz 102
5	1672.795M Ave	41.9	-34.9 +0.0	+2.0 +0.0	+26.2 +0.0	+1.8 +0.5	+0.0 211	37.5	82.3 Mid Channel Harmonic	-44.8	Horiz 100
^	1672.725M	61.4	-34.9 +0.0	+2.0 +0.0	+26.2 +0.0	+1.8 +0.5	+0.0 211	57.0	82.3 Mid Channel Harmonic	-25.3	Horiz 100
7	1697.640M Ave	41.7	-34.9 +0.0	+2.0 +0.0	+26.2 +0.0	+1.8 +0.5	+0.0 219	37.3	82.3 High Channel Harmonic	-45.0	Horiz 100
^	1697.580M	60.3	-34.9 +0.0	+2.0 +0.0	+26.2 +0.0	+1.8 +0.5	+0.0 219	55.9	82.3 High Channel Harmonic	-26.4	Horiz 100
9	1697.600M Ave	40.5	-34.9 +0.0	+2.0 +0.0	+26.2 +0.0	+1.8 +0.5	+0.0 272	36.1	82.3 High Channel Harmonic	-46.2	Vert 100
^	1697.610M	59.0	-34.9 +0.0	+2.0 +0.0	+26.2 +0.0	+1.8 +0.5	+0.0 272	54.6	82.3 High Channel Harmonic	-27.7	Vert 100

11	2546.400M Ave	34.5	-33.8 +0.0	+2.3 +0.0	+29.3 +0.0	+2.2 +0.4	+0.0 113	34.9	82.3 High Channel Harmonic	-47.4	Horiz 129
^	2546.480M	53.1	-33.8 +0.0	+2.3 +0.0	+29.3 +0.0	+2.2 +0.4	+0.0 113	53.5	82.3 High Channel Harmonic	-28.8	Horiz 129
13	1648.400M Ave	38.8	-34.9 +0.0	+2.0 +0.0	+26.2 +0.0	+1.8 +0.6	+0.0 209	34.5	82.3 Low Channel Harmonic	-47.8	Vert 108
^	1648.360M	57.5	-34.9 +0.0	+2.0 +0.0	+26.2 +0.0	+1.8 +0.6	+0.0 209	53.2	82.3 Low Channel Harmonic	-29.1	Vert 108
15	1672.795M Ave	38.9	-34.9 +0.0	+2.0 +0.0	+26.2 +0.0	+1.8 +0.5	+0.0 212	34.5	82.3 Mid Channel Harmonic	-47.8	Vert 144
^	1672.810M	57.5	-34.9 +0.0	+2.0 +0.0	+26.2 +0.0	+1.8 +0.5	+0.0 212	53.1	82.3 Mid Channel Harmonic	-29.2	Vert 144
17	2509.180M Ave	30.7	-33.9 +0.0	+2.3 +0.0	+29.2 +0.0	+2.2 +0.4	+0.0 29	30.9	82.3 Mid Channel Harmonic	-51.4	Vert 120
^	2509.238M	47.6	-33.9 +0.0	+2.3 +0.0	+29.2 +0.0	+2.2 +0.4	+0.0 29	47.8	82.3 Mid Channel Harmonic	-34.5	Vert 120
19	2546.440M Ave	30.0	-33.8 +0.0	+2.3 +0.0	+29.3 +0.0	+2.2 +0.4	+0.0 173	30.4	82.3 High Channel Harmonic	-51.9	Vert 127
^	2546.500M	47.5	-33.8 +0.0	+2.3 +0.0	+29.3 +0.0	+2.2 +0.4	+0.0 173	47.9	82.3 High Channel Harmonic	-34.4	Vert 127
21	2472.600M Ave	29.6	-33.9 +0.0	+2.4 +0.0	+29.1 +0.0	+2.2 +0.4	+0.0 181	29.8	82.3 Low Channel Harmonic	-52.5	Horiz 108
^	2472.660M	45.9	-33.9 +0.0	+2.4 +0.0	+29.1 +0.0	+2.2 +0.4	+0.0 181	46.1	82.3 Low Channel Harmonic	-36.2	Horiz 108
23	2472.620M Ave	28.9	-33.9 +0.0	+2.4 +0.0	+29.1 +0.0	+2.2 +0.4	+0.0 323	29.1	82.3 Low Channel Harmonic	-53.2	Vert 108
^	2472.540M	43.8	-33.9 +0.0	+2.4 +0.0	+29.1 +0.0	+2.2 +0.4	+0.0 323	44.0	82.3 Low Channel Harmonic	-38.3	Vert 108
25	2509.180M Ave	28.5	-33.9 +0.0	+2.3 +0.0	+29.2 +0.0	+2.2 +0.4	+0.0 348	28.7	82.3 Mid Channel Harmonic	-53.6	Horiz 141
^	2509.215M	45.2	-33.9 +0.0	+2.3 +0.0	+29.2 +0.0	+2.2 +0.4	+0.0 348	45.4	82.3 Mid Channel Harmonic	-36.9	Horiz 141

FCC 2.1033(c)(14)/2.1053/24.238 - FIELD STRENGTH OF SPURIOUS RADIATION

Test Setup Photos

Test Data Sheets

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer:	**Vulcan Portals, Inc.**		
Specification:	**FCC Part 24.238 Radiated Spurious Emissions**		
Work Order #:	**86709**	Date:	8/20/2007
Test Type:	**Radiated Scan**	Time:	16:11:32
Equipment:	**Ultra Compact Laptop**	Sequence#:	11
Manufacturer:	Vulcan Portals, Inc.	Tested By:	Ryan Rutledge
Model:	Flipstart E-1501s		
S/N:	MVT1-103		

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4440A	S/N: MY46186330	10/03/2007	10/03/2009	AN02872
60" Pasternack 40 GHz Coax	S/N: N/A	05/11/2006	05/11/2008	AN05423
30' Andrews Heliax 18 GHz	S/N: N/A	06/19/2006	06/19/2008	AN05545
HP 83017A .5 - 26.5 GHz Pre-amp	S/N: 3123A00464	10/03/2005	10/03/2007	AN01271
EMCO 3115 Horn Ant	S/N: 9606-4854	12/13/2005	12/13/2007	AN01412
2.8 GHz HP Filter	S/N: 2	03/07/2006	03/07/2008	AN02745
Bothell 5m Cable Set	S/N: P05444	04/26/2007	04/26/2009	ANP05444
20' RG-214 Coax	S/N: 16	11/09/2006	11/09/2008	ANP05360
Chase BILOG	S/N: 2458	01/31/2007	01/31/2009	AN01993
12-18 GHz Horn	S/N: 1114019	04/13/2006	04/13/2008	AN02741
120" Pasternack 40 GHz Coax	S/N: N/A	07/20/2007	07/20/2009	AN05425
120" Pasternack 40 GHz Coax	S/N: N/A	07/20/2007	07/20/2009	AN05426
18-26 GHz Horn	S/N: 1114018	04/14/2006	04/14/2008	AN02742

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

Function	Manufacturer	Model #	S/N
Ultra Compact Laptop*	Vulcan Portals, Inc.	Flipstart E-1501s	MVT1-103

Support Devices:

Function	Manufacturer	Model #	S/N
FlipStart Battery	Vulcan Portals, Inc.	E-5000	35560035
FlipStart AC adapter	EOS	ZVC36FS12S54	0001
Call box	Agilent	8960-E5515C	GB42230675
Call box antenna	Electro-metrics	RGA-60	6154

Test Conditions / Notes:

The EUT is placed on the wooden table on a foam spacer. Evaluation of Spurious Emissions is performed without peripherals attached to the EUT. Carrier/Modulation: PCS1900, EDGE12. 30 - 1000 MHz RBW=120 kHz, VBW=120 kHz Quasi-peak 1 - 20 GHz RBW=1 MHz, VBW=1 MHz Average 120Vac, 60 Hz, 22°C, 45% relative humidity. Test Equipment Used: 30 - 1000 MHz Equipment 1, 7, 8, 9; 1 - 12 GHz Equipment 1, 2, 3, 4, 5, 6; 12 - 18 GHz Equipment 1, 2, 3, 10; 18 - 20 GHz Equipment 1, 2, 11, 12, 13.

Transducer Legend:

T1=AMP-AN01271-100305 - .5-26.5 GHz	T2=CAB-ANP05545-061906
T3=ANT-AN01412-121305	T4=CAB-ANP05423-051006
T5=ANT AN01993 25-1000MHz	T6=CAB-ANP05444-042607 - CPC3 Cable Set
T7=CAB-ANP05360-110906	T8=Filter 3GHz HP AN02745
T9=ANT-AN02741-041306	T10=ANT-AN02742-041406
T11=CAB-ANP05425-072007	T12=CAB-ANP05426-072007

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	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	16919.900M	56.9	+0.0 +0.0 -11.5	+7.8 +0.0	+0.0 +0.0	+6.3 +0.0	+0.0 147	59.5	82.3 Mid Channel Harmonic	-22.8	Horiz 110
2	11458.810M Ave	35.2	-33.7 +0.0	+5.9 +0.0	+38.4 +0.0	+5.0 +0.3	+0.0 169	51.1	82.3 High Channel Harmonic	-31.2	Vert 126
^	11458.860M	56.2	-33.7 +0.0	+5.9 +0.0	+38.4 +0.0	+5.0 +0.3	+0.0 169	72.1	82.3 High Channel Harmonic	-10.2	Vert 126
4	9549.020M Ave	35.4	-33.7 +0.0	+5.4 +0.0	+38.3 +0.0	+4.6 +0.3	+0.0 226	50.3	82.3 High Channel Harmonic	-32.0	Vert 108
^	9548.980M	54.9	-33.8 +0.0	+5.4 +0.0	+38.3 +0.0	+4.6 +0.3	+0.0 226	69.7	82.3 High Channel Harmonic	-12.6	Vert 108
6	9549.050M Ave	34.5	-33.7 +0.0	+5.4 +0.0	+38.3 +0.0	+4.6 +0.3	+0.0 91	49.4	82.3 High Channel Harmonic	-32.9	Horiz 117
^	9548.980M	53.5	-33.8 +0.0	+5.4 +0.0	+38.3 +0.0	+4.6 +0.3	+0.0 91	68.3	82.3 High Channel Harmonic	-14.0	Horiz 117

8	11280.020M	33.2	-33.7	+6.0	+38.4	+4.9	+0.0	49.2	82.3	-33.1	Vert
	Ave		+0.0	+0.0	+0.0	+0.4	174		Mid Channel		113
									Harmonic		
^	11279.970M	54.5	-33.7	+6.0	+38.4	+4.9	+0.0	70.5	82.3	-11.8	Vert
			+0.0	+0.0	+0.0	+0.4	174		Mid Channel		113
									Harmonic		
10	11101.160M	31.3	-33.8	+5.9	+38.3	+4.9	+0.0	47.0	82.3	-35.3	Vert
	Ave		+0.0	+0.0	+0.0	+0.4	167		Low Channel		112
									Harmonic		
^	11101.170M	50.7	-33.8	+5.9	+38.3	+4.9	+0.0	66.4	82.3	-15.9	Vert
			+0.0	+0.0	+0.0	+0.4	167		Low Channel		112
									Harmonic		
12	9400.000M	31.8	-33.7	+5.3	+38.4	+4.5	+0.0	46.5	82.3	-35.8	Vert
	Ave		+0.0	+0.0	+0.0	+0.2	150		Mid Channel		185
									Harmonic		
^	9400.040M	50.6	-33.7	+5.3	+38.4	+4.5	+0.0	65.3	82.3	-17.0	Vert
			+0.0	+0.0	+0.0	+0.2	150		Mid Channel		185
									Harmonic		
14	18799.880M	28.6	+0.0	+0.0	+0.0	+6.8	+0.0	45.4	82.3	-36.9	Vert
	Ave		+0.0	+0.0	+0.0	+0.0	159		Mid Channel		100
			+0.0	-11.9	+11.1	+10.8			Harmonic		
^	18799.940M	47.0	+0.0	+0.0	+0.0	+6.8	+0.0	63.8	82.3	-18.5	Vert
			+0.0	+0.0	+0.0	+0.0	159		Mid Channel		100
			+0.0	-11.9	+11.1	+10.8			Harmonic		
16	13160.030M	47.3	+0.0	+6.4	+0.0	+5.5	+0.0	45.2	82.3	-37.1	Vert
	Ave		+0.0	+0.0	+0.0	+0.0	187		Mid Channel		100
			-14.0						Harmonic		
^	13160.050M	68.5	+0.0	+6.4	+0.0	+5.5	+0.0	66.4	82.3	-15.9	Vert
			+0.0	+0.0	+0.0	+0.0	187		Mid Channel		100
			-14.0						Harmonic		
18	11458.840M	29.2	-33.7	+5.9	+38.4	+5.0	+0.0	45.1	82.3	-37.2	Horiz
	Ave		+0.0	+0.0	+0.0	+0.3	235		High Channel		119
									Harmonic		
^	11458.870M	48.2	-33.7	+5.9	+38.4	+5.0	+0.0	64.1	82.3	-18.2	Horiz
			+0.0	+0.0	+0.0	+0.3	235		High Channel		119
									Harmonic		
20	13368.640M	47.0	+0.0	+6.7	+0.0	+5.5	+0.0	45.0	82.3	-37.3	Horiz
	Ave		+0.0	+0.0	+0.0	+0.0	193		High Channel		100
			-14.2						Harmonic		
^	13368.690M	68.2	+0.0	+6.7	+0.0	+5.5	+0.0	66.2	82.3	-16.1	Horiz
			+0.0	+0.0	+0.0	+0.0	193		High Channel		100
			-14.2						Harmonic		
22	19098.300M	27.5	+0.0	+0.0	+0.0	+6.9	+0.0	44.8	82.3	-37.5	Vert
	Ave		+0.0	+0.0	+0.0	+0.0	162		High Channel		100
			+0.0	-11.7	+11.2	+10.9			Harmonic		
^	19098.340M	44.8	+0.0	+0.0	+0.0	+6.9	+0.0	62.1	82.3	-20.2	Vert
			+0.0	+0.0	+0.0	+0.0	163		High Channel		100
			+0.0	-11.7	+11.2	+10.9			Harmonic		

24	13368.610M Ave	46.8	+0.0 +0.0 -14.2	+6.7 +0.0	+0.0 +0.0	+5.5 +0.0	+0.0 226	44.8	82.3 High Channel Harmonic	-37.5	Vert 100
^	13368.660M	68.0	+0.0 +0.0 -14.2	+6.7 +0.0	+0.0 +0.0	+5.5 +0.0	+0.0 226	66.0	82.3 High Channel Harmonic	-16.3	Vert 100
26	34.000M	27.3	+0.0 +16.5	+0.0 +0.6	+0.0 +0.3	+0.0 +0.0	+0.0 295	44.7	82.3	-37.6	Horiz 100
27	18800.190M Ave	27.8	+0.0 +0.0 +0.0	+0.0 +0.0 -11.9	+0.0 +0.0 +11.1	+6.8 +0.0 +10.8	+0.0 150	44.6	82.3 Mid Channel Harmonic	-37.7	Horiz 107
^	18800.100M	45.3	+0.0 +0.0 +0.0	+0.0 +0.0 -11.9	+0.0 +0.0 +11.1	+6.8 +0.0 +10.8	+0.0 150	62.1	82.3 Mid Channel Harmonic	-20.2	Horiz 107
29	19097.740M Ave	27.2	+0.0 +0.0 +0.0	+0.0 +0.0 -11.7	+0.0 +0.0 +11.2	+6.9 +0.0 +10.9	+0.0 145	44.5	82.3 High Channel Harmonic	-37.8	Horiz 100
^	19097.760M	44.4	+0.0 +0.0 +0.0	+0.0 +0.0 -11.7	+0.0 +0.0 +11.2	+6.9 +0.0 +10.9	+0.0 145	61.7	82.3 High Channel Harmonic	-20.6	Horiz 100
31	18501.920M Ave	27.9	+0.0 +0.0 +0.0	+0.0 +0.0 -12.1	+0.0 +0.0 +11.0	+6.7 +0.0 +10.7	+0.0 156	44.2	82.3 Low Channel Harmonic	-38.1	Vert 100
^	18501.830M	47.0	+0.0 +0.0 +0.0	+0.0 +0.0 -12.1	+0.0 +0.0 +11.0	+6.7 +0.0 +10.7	+0.0 156	63.3	82.3 Low Channel Harmonic	-19.0	Vert 100
33	18502.260M Ave	27.7	+0.0 +0.0 +0.0	+0.0 +0.0 -12.1	+0.0 +0.0 +11.0	+6.7 +0.0 +10.7	+0.0 146	44.0	82.3 Low Channel Harmonic	-38.3	Horiz 116
^	18502.270M	46.1	+0.0 +0.0 +0.0	+0.0 +0.0 -12.1	+0.0 +0.0 +11.0	+6.7 +0.0 +10.7	+0.0 146	62.4	82.3 Low Channel Harmonic	-19.9	Horiz 116
35	15278.400M Ave	43.2	+0.0 +0.0 -12.8	+7.2 +0.0	+0.0 +0.0	+6.0 +0.0	+0.0 219	43.6	82.3 High Channel Harmonic	-38.7	Vert 100
^	15278.460M	65.0	+0.0 +0.0 -12.8	+7.2 +0.0	+0.0 +0.0	+6.0 +0.0	+0.0 219	65.4	82.3 High Channel Harmonic	-16.9	Vert 100
37	11280.080M Ave	27.3	-33.7 +0.0	+6.0 +0.0	+38.4 +0.0	+4.9 +0.4	+0.0 133	43.3	82.3 Mid Channel Harmonic	-39.0	Horiz 133
^	11280.070M	45.7	-33.7 +0.0	+6.0 +0.0	+38.4 +0.0	+4.9 +0.4	+0.0 133	61.7	82.3 Mid Channel Harmonic	-20.6	Horiz 133
39	9400.030M Ave	28.4	-33.7 +0.0	+5.3 +0.0	+38.4 +0.0	+4.5 +0.2	+0.0 40	43.1	82.3 Mid Channel Harmonic	-39.2	Horiz 133
^	9400.110M	46.5	-33.7 +0.0	+5.3 +0.0	+38.4 +0.0	+4.5 +0.2	+0.0 40	61.2	82.3 Mid Channel Harmonic	-21.1	Horiz 133

41	9250.980M Ave	27.8	-33.6 +0.0	+5.3 +0.0	+38.5 +0.0	+4.4 +0.2	+0.0 141	42.6	82.3 Low Channel Harmonic	-39.7	Vert 166
	^ 9250.890M	45.9	-33.6 +0.0	+5.3 +0.0	+38.5 +0.0	+4.4 +0.2	+0.0 141	60.7	82.3 Low Channel Harmonic	-21.6	Vert 166
43	12951.440M Ave	44.6	+0.0 +0.0 -13.9	+6.4 +0.0	+0.0 +0.0	+5.4 +0.0	+0.0 161	42.5	82.3 Low Channel Harmonic	-39.8	Vert 100
	^ 12951.480M	65.8	+0.0 +0.0 -13.9	+6.4 +0.0	+0.0 +0.0	+5.4 +0.0	+0.0 161	63.7	82.3 Low Channel Harmonic	-18.6	Vert 100
45	11101.200M Ave	26.7	-33.8 +0.0	+5.9 +0.0	+38.3 +0.0	+4.9 +0.4	+0.0 130	42.4	82.3 Low Channel Harmonic	-39.9	Horiz 112
	^ 11101.110M	45.0	-33.8 +0.0	+5.9 +0.0	+38.3 +0.0	+4.9 +0.4	+0.0 130	60.7	82.3 Low Channel Harmonic	-21.6	Horiz 112
47	15039.990M Ave	42.4	+0.0 +0.0 -13.0	+7.0 +0.0	+0.0 +0.0	+5.9 +0.0	+0.0 218	42.3	82.3 Mid Channel Harmonic	-40.0	Vert 100
	^ 15040.080M	64.0	+0.0 +0.0 -13.0	+7.0 +0.0	+0.0 +0.0	+5.9 +0.0	+0.0 218	63.9	82.3 Mid Channel Harmonic	-18.4	Vert 100
49	13160.010M Ave	44.3	+0.0 +0.0 -14.0	+6.4 +0.0	+0.0 +0.0	+5.5 +0.0	+0.0 191	42.2	82.3 Mid Channel Harmonic	-40.1	Horiz 110
	^ 13160.030M	65.4	+0.0 +0.0 -14.0	+6.4 +0.0	+0.0 +0.0	+5.5 +0.0	+0.0 191	63.3	82.3 Mid Channel Harmonic	-19.0	Horiz 110
51	15278.430M Ave	41.4	+0.0 +0.0 -12.8	+7.2 +0.0	+0.0 +0.0	+6.0 +0.0	+0.0 204	41.8	82.3 High Channel Harmonic	-40.5	Horiz 100
	^ 15278.460M	63.0	+0.0 +0.0 -12.8	+7.2 +0.0	+0.0 +0.0	+6.0 +0.0	+0.0 204	63.4	82.3 High Channel Harmonic	-18.9	Horiz 100
53	15040.070M Ave	41.9	+0.0 +0.0 -13.0	+7.0 +0.0	+0.0 +0.0	+5.9 +0.0	+0.0 153	41.8	82.3 Mid Channel Harmonic	-40.5	Horiz 110
	^ 15040.000M	63.3	+0.0 +0.0 -13.0	+7.0 +0.0	+0.0 +0.0	+5.9 +0.0	+0.0 153	63.2	82.3 Mid Channel Harmonic	-19.1	Horiz 110
55	9251.000M Ave	26.9	-33.6 +0.0	+5.3 +0.0	+38.5 +0.0	+4.4 +0.2	+0.0 125	41.7	82.3 Low Channel Harmonic	-40.6	Horiz 113
	^ 9251.010M	44.3	-33.6 +0.0	+5.3 +0.0	+38.5 +0.0	+4.4 +0.2	+0.0 125	59.1	82.3 Low Channel Harmonic	-23.2	Horiz 113

57	14801.660M Ave	41.8	+0.0 +0.0 -13.5	+6.9 +0.0	+0.0 +0.0	+5.9 +0.0	+0.0 196	41.1	82.3 Low Channel Harmonic	-41.2	Vert 100
^	14801.670M	63.2	+0.0 +0.0 -13.5	+6.9 +0.0	+0.0 +0.0	+5.9 +0.0	+0.0 196	62.5	82.3 Low Channel Harmonic	-19.8	Vert 100
59	7639.220M Ave	28.4	-33.8 +0.0	+4.7 +0.0	+36.8 +0.0	+4.0 +0.1	+0.0 133	40.2	82.3 High Channel Harmonic	-42.1	Vert 102
^	7639.130M	44.4	-33.8 +0.0	+4.7 +0.0	+36.8 +0.0	+4.0 +0.1	+0.0 133	56.2	82.3 High Channel Harmonic	-26.1	Vert 102
61	16651.860M Ave	37.8	+0.0 +0.0 -11.7	+7.8 +0.0	+0.0 +0.0	+6.2 +0.0	+0.0 218	40.1	82.3 Low Channel Harmonic	-42.2	Horiz 110
^	16651.840M	59.4	+0.0 +0.0 -11.7	+7.8 +0.0	+0.0 +0.0	+6.2 +0.0	+0.0 218	61.7	82.3 Low Channel Harmonic	-20.6	Horiz 110
63	125.900M	26.8	+0.0 +11.7	+0.0 +1.0	+0.0 +0.5	+0.0 +0.0	+0.0 199	40.0	82.3	-42.3	Vert 100
64	16919.960M Ave	36.6	+0.0 +0.0 -11.5	+7.8 +0.0	+0.0 +0.0	+6.3 +0.0	+0.0 176	39.2	82.3 Mid Channel Harmonic	-43.1	Vert 100
^	16920.030M	59.3	+0.0 +0.0 -11.5	+7.8 +0.0	+0.0 +0.0	+6.3 +0.0	+0.0 176	61.9	82.3 Mid Channel Harmonic	-20.4	Vert 100
66	16651.850M Ave	36.9	+0.0 +0.0 -11.7	+7.8 +0.0	+0.0 +0.0	+6.2 +0.0	+0.0 178	39.2	82.3 Low Channel Harmonic	-43.1	Vert 100
^	16651.750M	59.7	+0.0 +0.0 -11.7	+7.8 +0.0	+0.0 +0.0	+6.2 +0.0	+0.0 178	62.0	82.3 Low Channel Harmonic	-20.3	Vert 100
68	16920.000M Ave	35.7	+0.0 +0.0 -11.5	+7.8 +0.0	+0.0 +0.0	+6.3 +0.0	+0.0 147	38.3	82.3 Mid Channel Harmonic	-44.0	Horiz 110
69	14801.600M Ave	38.9	+0.0 +0.0 -13.5	+6.9 +0.0	+0.0 +0.0	+5.9 +0.0	+0.0 153	38.2	82.3 Low Channel Harmonic	-44.1	Horiz 110
^	14801.610M	59.9	+0.0 +0.0 -13.5	+6.9 +0.0	+0.0 +0.0	+5.9 +0.0	+0.0 153	59.2	82.3 Low Channel Harmonic	-23.1	Horiz 110
71	12951.420M Ave	39.9	+0.0 +0.0 -13.9	+6.4 +0.0	+0.0 +0.0	+5.4 +0.0	+0.0 206	37.8	82.3 Low Channel Harmonic	-44.5	Horiz 110
^	12951.480M	60.6	+0.0 +0.0 -13.9	+6.4 +0.0	+0.0 +0.0	+5.4 +0.0	+0.0 206	58.5	82.3 Low Channel Harmonic	-23.8	Horiz 110

73	7520.000M Ave	25.6	-33.6 +0.0	+4.7 +0.0	+36.8 +0.0	+4.0 +0.1	+0.0 151	37.6	82.3 Mid Channel Harmonic	-44.7	Vert 179
^	7519.910M	41.7	-33.6 +0.0	+4.7 +0.0	+36.8 +0.0	+4.0 +0.1	+0.0 151	53.7	82.3 Mid Channel Harmonic	-28.6	Vert 179
75	5640.020M Ave	27.6	-33.2 +0.0	+4.0 +0.0	+34.5 +0.0	+3.4 +0.1	+0.0 298	36.4	82.3 Mid Channel Harmonic	-45.9	Horiz 148
^	5640.010M	44.8	-33.2 +0.0	+4.0 +0.0	+34.5 +0.0	+3.4 +0.1	+0.0 298	53.6	82.3 Mid Channel Harmonic	-28.7	Horiz 148
77	7400.820M Ave	24.9	-33.7 +0.0	+4.6 +0.0	+36.6 +0.0	+3.9 +0.1	+0.0 142	36.4	82.3 Low Channel Harmonic	-45.9	Vert 165
^	7400.900M	40.3	-33.7 +0.0	+4.6 +0.0	+36.6 +0.0	+3.9 +0.1	+0.0 142	51.8	82.3 Low Channel Harmonic	-30.5	Vert 165
79	5729.420M Ave	27.4	-33.3 +0.0	+4.0 +0.0	+34.5 +0.0	+3.5 +0.2	+0.0 241	36.3	82.3 High Channel Harmonic	-46.0	Horiz 120
^	5729.360M	44.0	-33.3 +0.0	+4.0 +0.0	+34.5 +0.0	+3.5 +0.2	+0.0 241	52.9	82.3 High Channel Harmonic	-29.4	Horiz 120
81	5550.590M Ave	27.4	-33.1 +0.0	+4.0 +0.0	+34.4 +0.0	+3.4 +0.1	+0.0 293	36.2	82.3 Low Channel Harmonic	-46.1	Horiz 151
^	5550.580M	44.2	-33.1 +0.0	+4.0 +0.0	+34.4 +0.0	+3.4 +0.1	+0.0 293	53.0	82.3 Low Channel Harmonic	-29.3	Horiz 151
83	17188.180M Ave	33.7	+0.0 +0.0 -11.7	+7.8 +0.0	+0.0 +0.0	+6.3 +0.0	+0.0 219	36.1	82.3 High Channel Harmonic	-46.2	Horiz 100
^	17188.100M	54.0	+0.0 +0.0 -11.7	+7.8 +0.0	+0.0 +0.0	+6.3 +0.0	+0.0 219	56.4	82.3 High Channel Harmonic	-25.9	Horiz 100
85	17188.290M Ave	33.7	+0.0 +0.0 -11.7	+7.8 +0.0	+0.0 +0.0	+6.3 +0.0	+0.0 176	36.1	82.3 High Channel Harmonic	-46.2	Vert 100
^	17188.200M	56.8	+0.0 +0.0 -11.7	+7.8 +0.0	+0.0 +0.0	+6.3 +0.0	+0.0 176	59.2	82.3 High Channel Harmonic	-23.1	Vert 100
87	5550.640M Ave	27.2	-33.1 +0.0	+4.0 +0.0	+34.4 +0.0	+3.4 +0.1	+0.0 269	36.0	82.3 Low Channel Harmonic	-46.3	Vert 153
^	5550.680M	43.9	-33.1 +0.0	+4.0 +0.0	+34.4 +0.0	+3.4 +0.1	+0.0 269	52.7	82.3 Low Channel Harmonic	-29.6	Vert 153

89	5729.450M Ave	27.0	-33.3 +0.0	+4.0 +0.0	+34.5 +0.0	+3.5 +0.2	+0.0 180	35.9	82.3 High Channel Harmonic	-46.4	Vert 110
^	5729.370M	43.4	-33.3 +0.0	+4.0 +0.0	+34.5 +0.0	+3.5 +0.2	+0.0 180	52.3	82.3 High Channel Harmonic	-30.0	Vert 110
91	5640.010M Ave	26.5	-33.2 +0.0	+4.0 +0.0	+34.5 +0.0	+3.4 +0.1	+0.0 271	35.3	82.3 Mid Channel Harmonic	-47.0	Vert 185
^	5639.990M	42.9	-33.2 +0.0	+4.0 +0.0	+34.5 +0.0	+3.4 +0.1	+0.0 271	51.7	82.3 Mid Channel Harmonic	-30.6	Vert 185
93	3819.600M Ave	26.4	-33.2 +0.0	+3.0 +0.0	+32.1 +0.0	+2.8 +0.3	+0.0 25	31.4	82.3 High Channel Harmonic	-50.9	Vert 101
^	3819.530M	44.6	-33.2 +0.0	+3.0 +0.0	+32.1 +0.0	+2.8 +0.3	+0.0 25	49.6	82.3 High Channel Harmonic	-32.7	Vert 101
95	3819.620M Ave	25.6	-33.2 +0.0	+3.0 +0.0	+32.1 +0.0	+2.8 +0.3	+0.0 291	30.6	82.3 High Channel Harmonic	-51.7	Horiz 119
^	3819.580M	41.9	-33.2 +0.0	+3.0 +0.0	+32.1 +0.0	+2.8 +0.3	+0.0 291	46.9	82.3 High Channel Harmonic	-35.4	Horiz 119
97	3700.400M Ave	25.4	-33.2 +0.0	+3.0 +0.0	+31.7 +0.0	+2.7 +0.3	+0.0 148	29.9	82.3 Low Channel Harmonic	-52.4	Vert 130
^	3700.410M	44.5	-33.2 +0.0	+3.0 +0.0	+31.7 +0.0	+2.7 +0.3	+0.0 148	49.0	82.3 Low Channel Harmonic	-33.3	Vert 130
99	3759.920M Ave	24.9	-33.2 +0.0	+3.0 +0.0	+31.9 +0.0	+2.8 +0.3	+0.0 95	29.7	82.3 Mid Channel Harmonic	-52.6	Vert 130
^	3759.960M	42.1	-33.2 +0.0	+3.0 +0.0	+31.9 +0.0	+2.8 +0.3	+0.0 95	46.9	82.3 Mid Channel Harmonic	-35.4	Vert 130
101	3760.020M Ave	24.8	-33.2 +0.0	+3.0 +0.0	+31.9 +0.0	+2.8 +0.3	+0.0 93	29.6	82.3 Mid Channel Harmonic	-52.7	Horiz 165
^	3759.940M	41.9	-33.2 +0.0	+3.0 +0.0	+31.9 +0.0	+2.8 +0.3	+0.0 93	46.7	82.3 Mid Channel Harmonic	-35.6	Horiz 165
103	3700.420M Ave	24.8	-33.2 +0.0	+3.0 +0.0	+31.7 +0.0	+2.7 +0.3	+0.0 128	29.3	82.3 Low Channel Harmonic	-53.0	Horiz 122
^	3700.440M	40.8	-33.2 +0.0	+3.0 +0.0	+31.7 +0.0	+2.7 +0.3	+0.0 128	45.3	82.3 Low Channel Harmonic	-37.0	Horiz 122