



ADDENDUM TO VULCAN PORTALS, INC. TEST REPORT FC07-012

FOR THE
FLIPSTART E-1000 SERIES
FCC PART 24
COMPLIANCE

DATE OF ISSUE: MARCH 21, 2007

PREPARED FOR:

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

P.O. No.: 2018500907
W.O. No.: 86066

PREPARED BY:

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

Date of test: January 29-31, 2007

Report No.: FC07-012A

This report contains a total of 14 pages and may be reproduced in full only. Partial reproduction may only be done with the written consent of CKC Laboratories, Inc. The results in this report apply only to the items tested, as identified herein.

TABLE OF CONTENTS

Administrative Information	3
Conditions for Compliance	4
Approvals.....	4
Equipment Under Test (EUT) Description	4
Equipment Under Test	5
Peripheral Devices	5
Temperature and Humidity During Testing.....	6
FCC 2.1033(c)(3) User's Manual	6
FCC 2.1033(c)(4) Type of Emissions.....	6
FCC 2.1033(c)(5) Frequency Range.....	6
FCC 2.1033(c)(6) Operating Power.....	6
FCC 2.1033(c)(7) Maximum Power Rating	6
FCC 2.1033(c)(8) DC Voltages	6
FCC 2.1033(c)(9) Tune-Up Procedure	6
FCC 2.1033(c)(10) Schematics and Circuitry Description.....	6
FCC 2.1033(c)(11) Label and Placement	6
FCC 2.1033(c)(12) Submittal Photos	6
FCC 2.1033(c)(13) Modulation Information	6
FCC 2.1033(c)(14)/2.1046/24.232 - RF Power Output	7
Bandedge.....	9
FCC 2.1033(c)(14)/2.1053/24 - Field Strength of Spurious Radiation	13



ADMINISTRATIVE INFORMATION

DATE OF TEST: January 29-31, 2007

DATE OF RECEIPT: January 29, 2007

FREQUENCY RANGE TESTED: 1-20 GHz

MANUFACTURER: Universal Scientific Industrial Co., Ltd.
141, Lane 351, Taiping Road, Sec. 1
Tsao Tuen, Nan-Tou, Taiwan

REPRESENTATIVE: Daniel Oar

TEST LOCATION: CKC Laboratories, Inc.
22116 23rd Drive S.E., Suite A
Bothell, WA 98021-4413

TEST METHOD: FCC Part 24

PURPOSE OF TEST: **Original Report:** To demonstrate the compliance of the FlipStart E-1000 series with the requirements for FCC Part 24 devices.
Addendum A: To clarify the RF Power output on page 7 with no new testing.

CONDITIONS FOR COMPLIANCE

No modifications to the EUT were necessary to comply.

APPROVALS

Steve Behm, Director of Engineering Services

QUALITY ASSURANCE:



Joyce Walker, Quality Assurance Administrative Manager

TEST PERSONNEL:



Ryan Rutledge, Test Technologist



Katie Molina, Senior EMC Engineer/Lab Manager

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

The customer declares the EUT tested by CKC Laboratories was representative of a production unit. FlipStart is a super compact PC with the form factor that's proven to work for mobile professionals, including everything you expect from your laptop – effortless application usage, communications, entertainment and Internet connectivity. Its familiar clamshell design is packed with innovative features that deliver unprecedented flexibility and productivity to mobile users. Built on the Intel platform, FlipStart has a QWERTY thumb keypad, 1024 X 600 high-resolution 5.6" display in a protective clamshell design. Built-in WiFi and Bluetooth®, and multiple carrier 3G WAN support allow users to stay connected.

The following model was tested by CKC Laboratories: **FlipStart Computer, E-1001**

Since the time of testing the manufacturer has chosen to use the following model name in its place. Any differences between the names does not affect their EMC characteristics and therefore complies to the level of testing equivalent to the tested model name shown on the data sheets: **FlipStart E-1000 series**

EQUIPMENT UNDER TEST

FlipStart

Manuf: Vulcan Portals, Inc.
Model: E-1000 Series
Serial: VULCANE1001 6BD01Y
FCC ID: UIQE1000 (pending)

FlipStart Battery

Manuf: Vulcan Portals, Inc.
Model: E-2160
Serial: 33560133
FCC ID: NA

FlipStart AC Adapter

Manuf: EOS
Model: ZVC36FS12S54
Serial: 0001
FCC ID: NA

The customer declares that the following module was part of the EUT during testing:

WAN Module

Manuf: Sierra Wireless
Model: MC5725
Serial: 603C6601
FCC ID: N7NMC5725

PERIPHERAL DEVICES

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

Call Box

Manuf: Agilent
Model: 8960-E5515C
Serial: GB42230675
FCC ID: NA

Call Box Antenna

Manuf: EMC0
Model: 3115
Serial: 9012-3604
FCC ID: NA

**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

FCC 2.1033 (c)(5) FREQUENCY RANGE

1850 MHz – 1910 MHz.

FCC 2.1033 (c)(6) OPERATING POWER

128.0 dB μ V/m @ 3 meters

FCC 2.1033 (c)(7) MAXIMUM POWER RATING

2 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

Tune-up is set at the factory and cannot be changed by the customer.

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

CDMA



FCC 2.1033(c)(14)/2.1046/24.232 - RF POWER OUTPUT

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 #: **86066** Date: 1/31/2007
Test Type: **Radiated Scan** Time: 11:24:41
Equipment: **FlipStart Computer** Sequence#: 2
Manufacturer: Vulcan Portals Inc. Tested By: Ryan Rutledge
Model: E-1001
S/N: VULCANE1001 6BD01Y

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A	S/N: US44300437	05/27/2006	05/27/2008	AN02673
Bothell 5m Cable Set	S/N: P05444	11/28/2005	11/28/2007	ANP05444
EMCO 3115 Horn	S/N: 9606-4854	12/13/2005	12/13/2007	AN01412
Ant				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
FlipStart Computer*	Vulcan Portals Inc.	E-1001	VULCANE1001 6BD01Y
FlipStart Battery	Vulcan Portals Inc.	E-2160	33560133
FlipStart AC adapter	EOS	ZVC36FS12S54	0001

Support Devices:

Function	Manufacturer	Model #	S/N
Call box	Agilent	8960-E5515C	GB42230675
Call box antenna	EMCO	3115	9012-3604

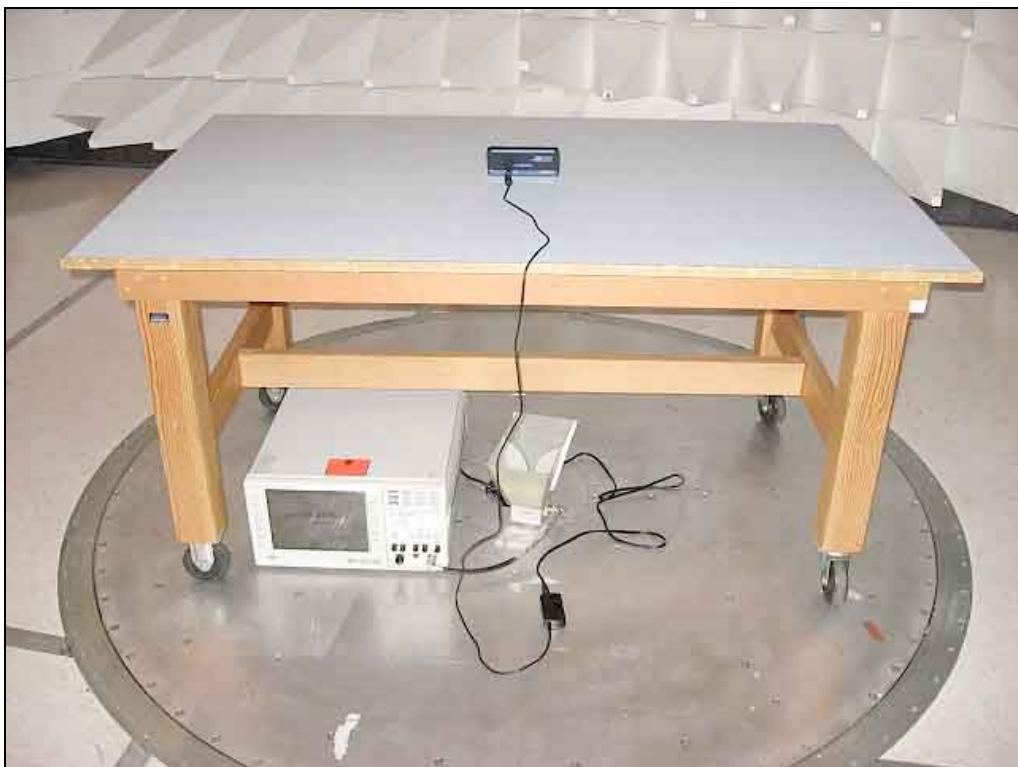
Test Conditions / Notes:

The EUT is placed on the wooden table. Evaluation of RF Output Power and Band Edges is performed without peripherals attached to the EUT. Modulation: CDMA, 1Xrtt. 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, 21°C, 24 % relative humidity.

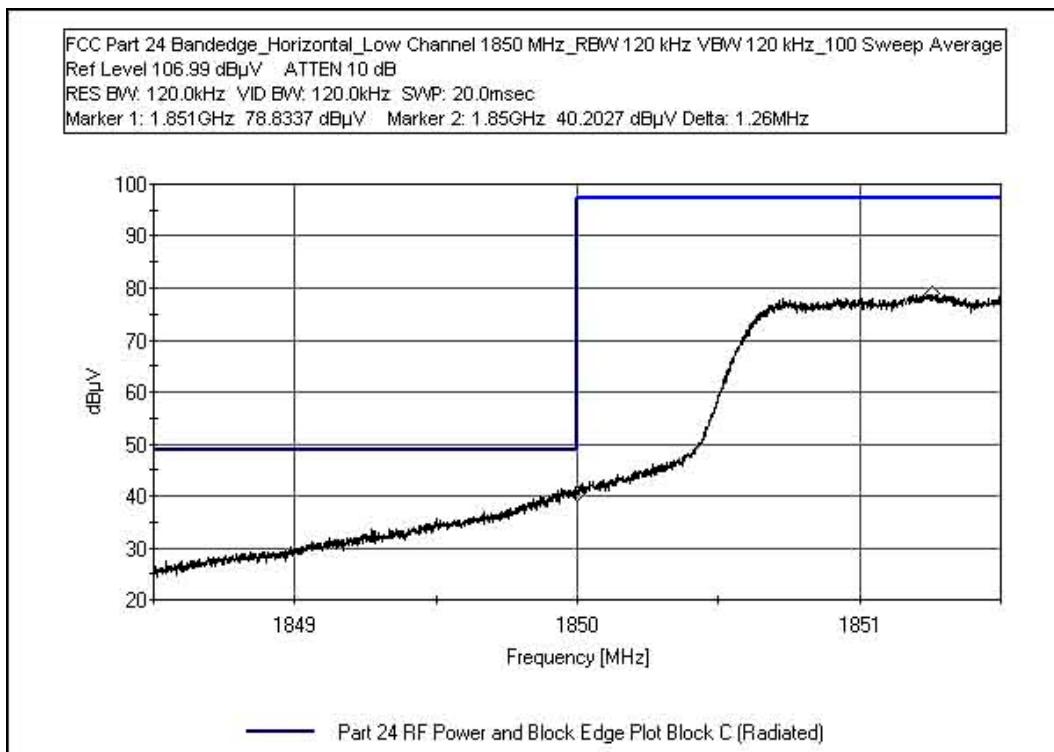
EIRP POWER OUTPUT					
Horizontal			Vertical		
f (MHz)	Bandwidth* (MHz)	Level (W)	f (MHz)	Bandwidth* (kHz)	Level (W)
1851.250	3	0.22	1851.250	3	0.83
1880.000	3	0.23	1880.000	3	1.07
1908.750	3	0.19	1908.750	3	0.81
Measurement uncertainty (dB)			.673 dB		

Tested By: Ryan Rutledge

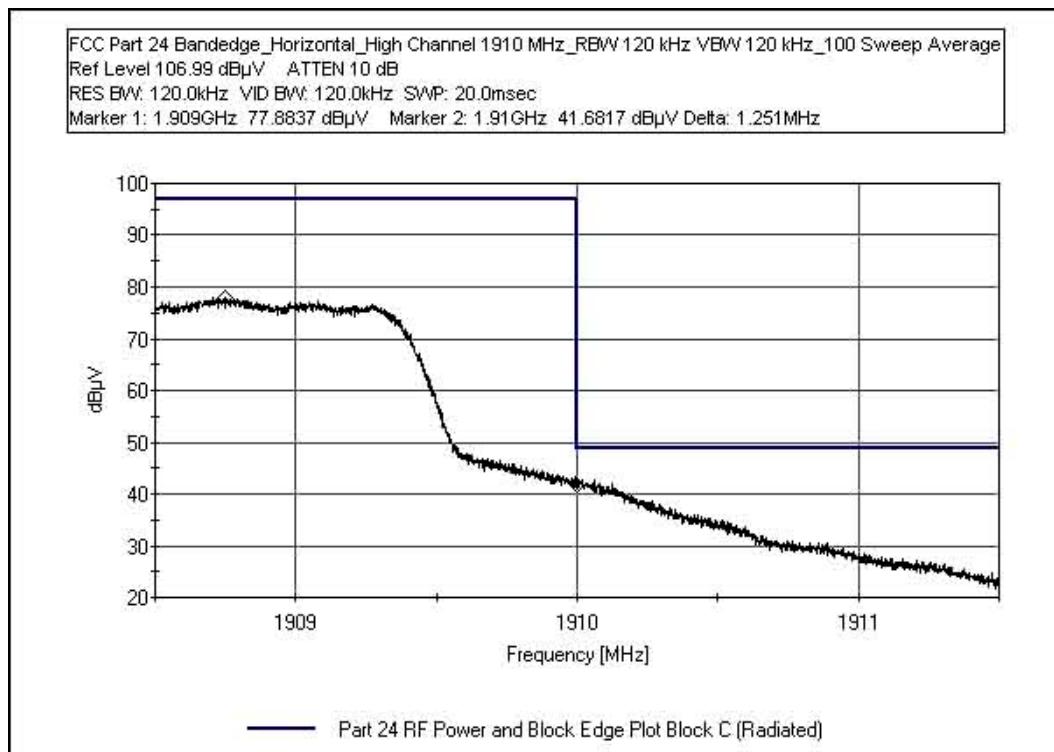
PHOTOGRAPH SHOWING RF POWER, BANDEDGE AND RADIATED EMISSIONS



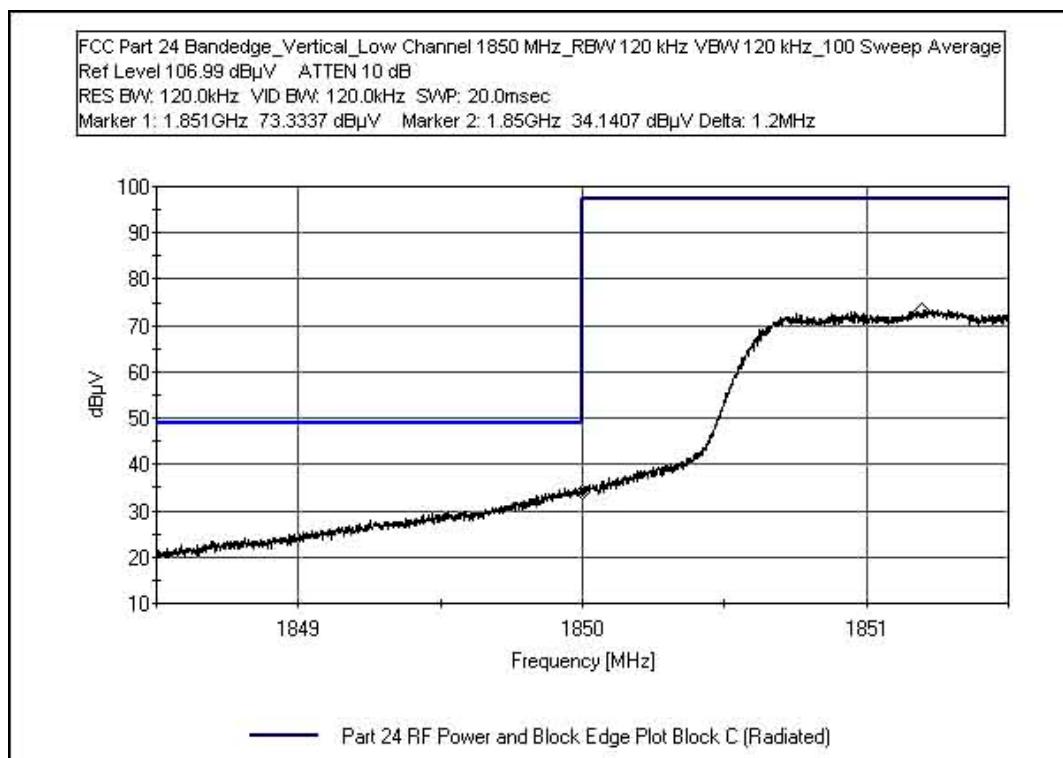
BANDEDGE HORIZONTAL LOW CHANNEL



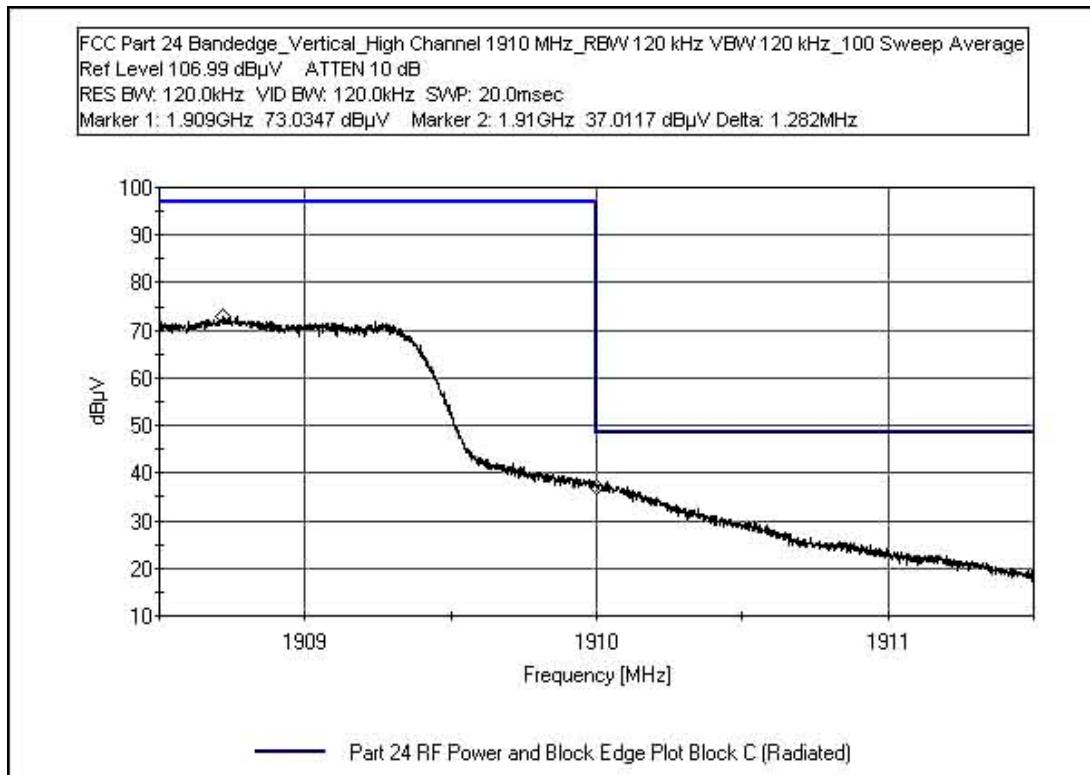
BANDEDGE HORIZONTAL HIGH CHANNEL



BANDEDGE VERTICAL LOW CHANNEL



BANDEDGE VERTICAL HIGH CHANNEL



FCC 2.1033(c)(14)/2.1053/24 - FIELD STRENGTH OF SPURIOUS RADIATION

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

Customer: **Vulcan Portals Inc.**
 Specification: **Part 24 Spurious and Block Edge Plot Block C (Radiated)**
 Work Order #: **86066** Date: 1/31/2007
 Test Type: **Radiated Scan** Time: 14:43:48
 Equipment: **FlipStart Computer** Sequence#: 3
 Manufacturer: Vulcan Portals Inc. Tested By: Ryan Rutledge
 Model: E-1001
 S/N: VULCANE1001 6BD01Y

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A	S/N: US44300437	06/13/2005	06/13/2007	AN02673
120" Pasternack 40 GHz Coax	S/N: N/A	05/10/2006	05/10/2008	AN05425
30' Andrews Heliax 18 GHz	S/N: N/A	06/19/2006	06/19/2008	AN05545
36" Pasternack 40 GHz Coax	S/N: N/A	02/08/2005	02/08/2007	AN05206
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

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
FlipStart Computer*	Vulcan Portals Inc.	E-1001	VULCANE1001 6BD01Y
FlipStart Battery	Vulcan Portals Inc.	E-2160	33560133
FlipStart AC adapter	EOS	ZVC36FS12S54	0001

Support Devices:

Function	Manufacturer	Model #	S/N
Call box	Agilent	8960-E5515C	GB42230675
Call box antenna	EMCO	3115	9012-3604

Test Conditions / Notes:

The EUT is placed on the wooden table. Evaluation of spurious emission is conducted without peripherals attached to the EUT. Checking Vertical and Horizontal polarity with each PCS channel operating at maximum power with modulation. Frequencies: 1851.25 MHz; 1880.00 MHz; 1908.75 MHz. Modulation: CDMA, pseudo random. Frequency range of measurement = 1 GHz - 20 GHz. Frequency 1000 MHz - 20000 MHz RBW=1 MHz, VBW=1 MHz. 120VAC, 60 Hz, 21°C, 22 % relative humidity.



Operating Frequency: 1851.25 MHz; 1880.00 MHz; 1908.75 MHz

Channels: Low, Mid and High

Highest Measured Output Power: 30.29 ERP(dBm)= 1.07 ERP(Watts)

Distance: 3 meters

Limit: $43 + 10 \log(P)$ 43.29 dBc

Freq. (MHz)	Reference Level (dBm)	Antenna Polarity (H/V)	dBc
3,816.95	-22.8	Horiz	53.09
7,635.56	-32.4	Horiz	62.69
3,817.08	-25.6	Vert	55.89
7,635.42	-33.8	Vert	64.09
3,759.90	-40.7	Vert	70.99
7,520.12	-32.2	Horiz	62.49
3,759.97	-38.8	Horiz	69.09
3,701.61	-44.1	Horiz	74.39
7,404.78	-30.5	Horiz	60.79
7,406.08	-35.7	Vert	65.99