ELECTROMAGNETIC EMISSION COMPLIANCE REPORT
FOR FCC CLASS B CERTIFICATION

Test Report No.	**: E05OR-029**
Applicant	**: Newport Scientific Research, LLC.**
Address	**: 660, Newport Center Drive Suite 760, Newport Beach, CA 92660, USA**
Manufacturer	**: CADLINE Ltd.**
Address	**: Keumbong Techno Valley 6F, 59-3, Dangjeong-Dong, Kunpo-City, Kyunggi-Do, Korea**
Type of Equipment	**: Fingerprint Biometric Identity Device and Portable Personal Security Storage Device (Peripheral Device for Class B Computing Device)**
FCC ID	**: SCJFBI3400HS**
Model Name	**: FBi3400HS-4G**
Multiple Model Name	**: FBi3400HS-128, FBi3400HS-256, FBi3400HS-512, FBi3400HS-1G, FBi3400HS-2G**
Serial Number	**: N/A**
Total page of Report	**: 12 pages (including this page)**
Date of Incoming	**: August 29, 2005**
Date of Issuing	**: October 12, 2005**

SUMMARY

The equipment complies with the requirements of **FCC CFR 47 PART 15 SUBPART B, Class B.**

This test report contains only the results of a single test of the sample supplied for the examination. It is not a general valid assessment of the features of the respective products of the mass-production.

Prepared by: _____
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ONETECH Corp.

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1. VERIFICATION OF COMPLIANCE

-. APPLICANT : Newport Scientific Research, LLC.
-. ADDRESS : 660, Newport Center Drive Suite 760, Newport Beach, CA 92660, USA
-. CONTACT PERSON : Mr. Gyu-Nam, Choi / Technical Director
-. TELEPHONE NO : 505-705-1000
-. FCC ID : SCJFBI3400HS
-. MODEL NAME : FBi3400HS-4G
-. BRAND NAME : FBi
-. SERIAL NUMBER : N/A
-. DATE : October 12, 2005

DEVICE TYPE	Peripheral Device for Class B Computing Device - Unintentional Radiator
E.U.T. DESCRIPTION	Fingerprint Biometric Identity Device and Portable Personal Security Storage Device
THIS REPORT CONCERNS	ORIGINAL GRANT
MEASUREMENT PROCEDURES	ANSI C63.4: 2003
TYPE OF EQUIPMENT TESTED	PRE-PRODUCTION
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	CERTIFICATION
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	FCC PART 15, SECTION 15.101
MODIFICATIONS ON THE EQUIPMENT TO ACHIEVE COMPLIANCE	No
FINAL TEST WAS CONDUCTED ON	3 METER OPEN AREA TEST SITE

-. This device has shown compliance with the conducted emissions limits in 15.107 adopted under FCC 02-107 (ET Docket 98-80). The device may be marketed after July 11, 2005 affected by the 15.37(j) transition provisions.

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

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2. GENERAL INFORMATION

2.1 Product Description

The Newport Scientific Research, LLC., Model FBi3400HS-4G (referred to as the EUT in this report) is a Fingerprint Biometric Identity Device and Portable Personal Security Storage Device that is connected to personal computer via USB port. Product specification described herein was obtained from product data sheet or user's manual.

CHASSIS TYPE	Plastic
LIST OF EACH OSC. or CRY. FREQ.(FREQ.>=1MHz)	12 MHz
NUMBER OF LAYERS	6 Layers
EXTERNAL CONNECTOR	USB

2.2 Model Differences:

-. The difference(s) compared to the EUT is as follows:

	Model Name	Model Differences
Basic Model	FBi3400HS-4G	-
Multiple Model	FBi3400HS-128, FBi3400HS-256, FBi3400HS-512, FBi3400HS-1G, FBi3400HS-2G	Only type designation except for the memory capacity.

2.3 Related Submittal(s) / Grant(s)

-. Original submittal only

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2.4 Test System Details

The model numbers for all the equipments that were used in the tested system is:

Model	Manufacturer	FCC ID	Description	Connected to
FBi3400HS-4G	Newport Scientific Research, LLC.	SCJFBI3400HS	Fingerprint Biometric Identity Device and Portable Personal Security Storage Device (EUT)	PC
DHP	DELL Computer Corp	DoC	PC	-
LCM17AA	KTV	BRFLCM17AA	Monitor	PC
SK-8110	Silitek	DoC	Keyboard	PC
M4	Mouse System Corp.	CWE7VT4	Mouse	PC
2225C	HP	DSI6XU2225	PRINTER	PC
020-0470	CARDINAL	GDE0196	MODEM	PC

2.5 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.4: 2003. Radiated testing was performed at a distance of 3 meters from EUT to the antenna.

2.6 Test Facility

The open area test site and conducted measurement facilities are located on at 307-51, Daessangryung-Ri, Chowol-Eup, Kwangju-City, Kyunggi-Do, 464-080, Korea. Description details of test facilities were submitted to the Commission on April 04, 2003. (Registration Number: 340658)

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3. SYSTEM TEST CONFIGURATION

3.1 Justification

This device was configured for testing in a typical way as a normal customer is supposed to be used. During the test, the following components were installed inside of the EUT.

DEVICE TYPE	MANUFACTURER	MODEL/PART NUMBER	FCC ID
MAIN BOARD	CADLINE	N/A	N/A

3.2 EUT exercise Software

-. After connecting the EUT to the PC, data were continuously read and written from the HDD of the PC to the EUT.

3.3 Cable Description

	Power Cord Shielded (Y/N)	I/O cable Shielded (Y/N)	Length (M)
Fingerprint Biometric Identity Device and Portable Personal Security Storage Device (EUT)	N/A	N/A	-
PC	N	-	1.5(P)
Monitor	N	Y	1.5(P), 1.5(D)
Keyboard	N/A	N	1.5(D)
Mouse	N/A	N	1.5(D)
Printer	N	Y	1.5(P), 1.5(D)
Modem	N	Y	1.5(P), 1.5(D)

* The marked "(P)" means the Power Cable and "D" means the I/O Cable.

3.4 Noise Suppression Parts on Cable

	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
Fingerprint Biometric Identity Device and Portable Personal Security Storage Device (EUT)	N	N/A	Y	PC END
PC	-	-	-	-
Monitor	Y	BOTH END	Y	BOTH END
Keyboard	N	N/A	Y	PC END
Mouse	N	N/A	Y	PC END
Printer	N	N/A	Y	BOTH END
Modem	N	N/A	Y	BOTH END

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3.5 Equipment Modifications

To achieve compliance to CLASS B levels, the following change(s) was made by ONETECH Corp. during compliance testing:

"There were no Modified items during EMI test"

3.6 Configuration of Test System

Line Conducted Test : The EUT was connected to USB port of PC and the power line of PC was connected to LISN. All supporting equipments were connected to another LISN. Preliminary Power line Conducted Emission test was performed by using the procedure in ANSI C63.4: 2003 7.2.3 to determine the worse operating conditions.

Radiated Emission Test : Preliminary radiated emission test was conducted using the procedure in ANSI C63.4: 2003 8.3.1.1 to determine the worse operating conditions. Final radiated emission test was conducted at 3 meters open area test site.

4. PRELIMINARY TEST

4.1 AC Power line Conducted Emission Test

During Preliminary Test, the following operating mode was investigated

Operation Mode	The Worse operating condition (Please check one only)
Data were continuously read and write via USB	X

4.2 Radiated Emission Test

During Preliminary Test, the following operating mode was investigated

Operation Mode	The Worse operating condition (Please check one only)
Data were continuously read and write via USB	X

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5. FINAL RESULT OF MEASURMENT

Preliminary test was done in normal operation mode. And the final measurement was selected for the maximized emission level

5.1 Conducted Emission Test

Humidity Level : 45 % Temperature: 21 °C
Limits apply to : FCC CFR 47, PART 15, SUBPART B, SECTION 15.107 (a)
Type of Test : CLASS B
Result : PASSED BY –6.73 dB at 12.21 MHz under average detector mode

EUT : Fingerprint Biometric Identity Device and Portable Personal Security Storage Device Date: August 31, 2005
Operating Condition : Data were continuously read and written.
Detector : CISPR Quasi-Peak (6 dB Bandwidth: 9 kHz)

Frequency (MHz)	Line	Peak (dBuV)		Margin (dB)
		Emission level	Q.P Limits	
0.78	N	41.78	56.00	-14.22
1.82	N	42.25	56.00	-13.75
12.21	N	49.13	60.00	-10.87
20.00	H	48.57	60.00	-11.43
20.53	N	47.23	60.00	-12.77
29.36	H	45.16	60.00	-14.84
Frequency (MHz)	**Line**	**Average (dBuV)**		**Margin (dB)**
		Emission level	**Limits**	
1.82	N	37.62	46.00	-8.38
12.21	N	43.27	50.00	-6.73
20.00	H	32.70	50.00	-17.30
20.53	N	39.56	50.00	-10.44

Line Conducted Emission Tabulated Data

Remark : "H": Hot Line, "N": Neutral line
See next page for an overview sweep performed with peak and average detector.

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Tested by: Dong-Yub, Lee / Test Engineer

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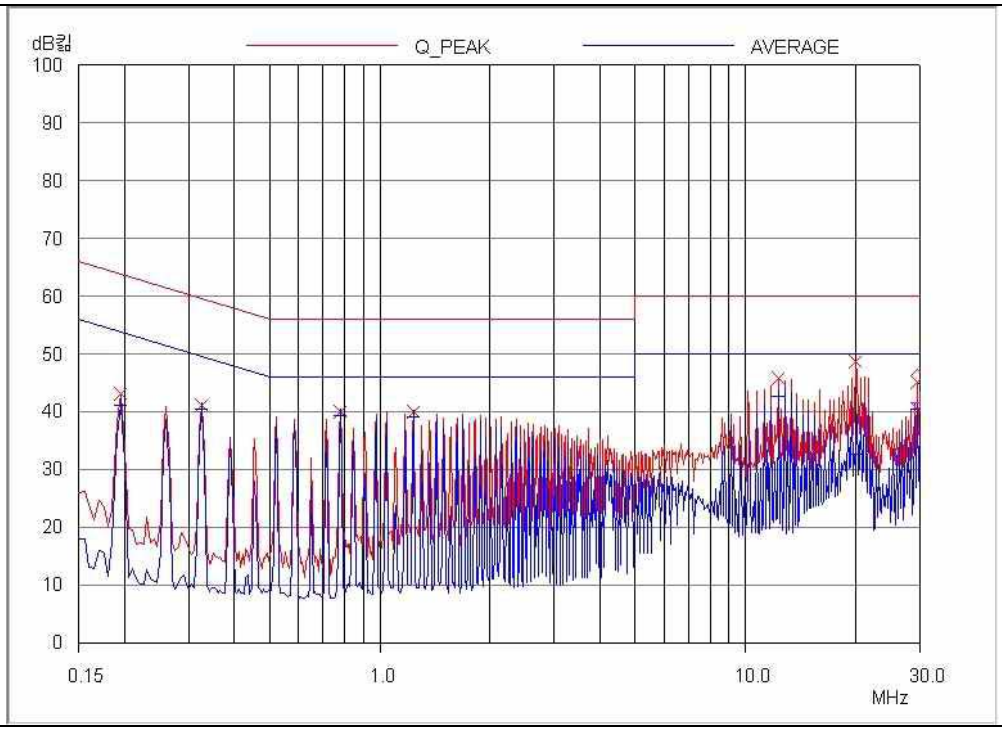
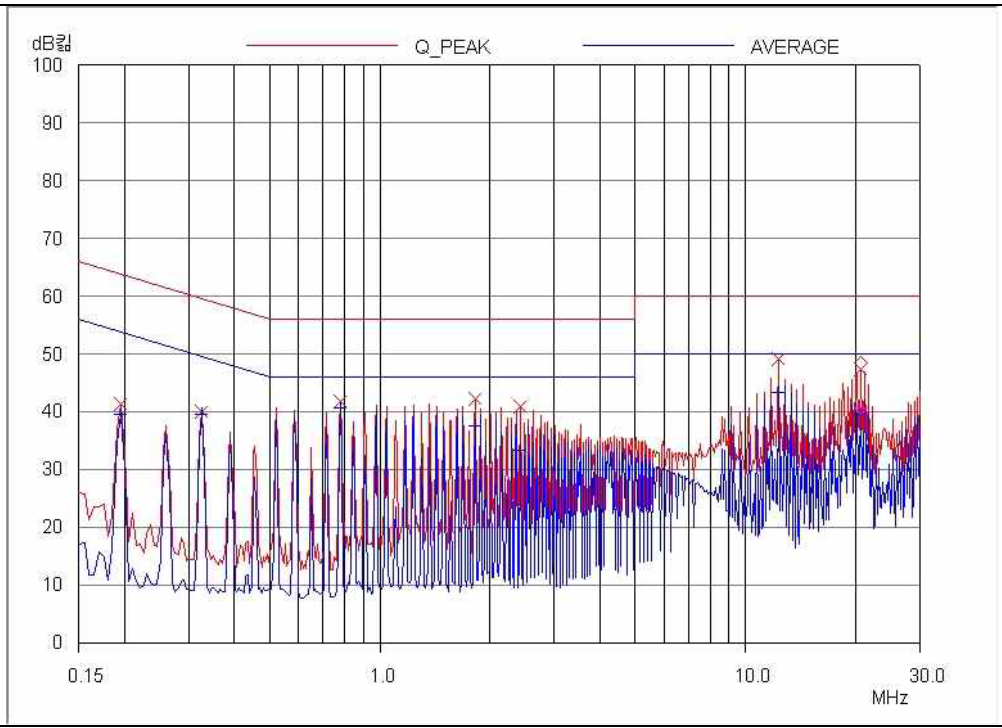


HOT LINE



NEUTRAL LINE

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5.2 Radiated Emission Test

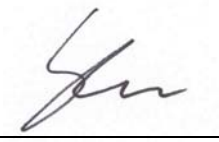
The following table shows the highest levels of radiated emission on both polarizations of horizontal and vertical.

Humidity Level : 42 % Temperature: 24 °C
Limits apply to : FCC CFR 47, PART 15, SUBPART B, SECTION 15.109 (a)
Type of Test : CLASS B
Result : PASSED BY -3.99 dB at 948.12 MHz

EUT : Fingerprint Biometric Identity Device and Portable Personal Security Storage Device Date: August 31, 2005
Operating Condition : Data were continuously read and written.
Frequency range : 30MHz – 1000MHz
Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)
Distance : 3 Meter

Radiated Emissions		Ant	Correction Factors		Total	FCC CLASS B	
Freq. (MHz)	Amp. (dBuV)	Pol.	Ant. (dBuV/m)	Cable (dB)	Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
240.00	15.90	H	16.78	3.24	35.92	46.02	-10.10
312.00	15.90	H	13.89	3.90	33.69	46.02	-12.33
468.00	13.20	H	16.93	4.86	34.99	46.02	-11.03
504.00	14.90	H	17.31	5.48	37.69	46.02	-8.33
720.00	10.00	H	20.83	6.60	37.43	46.02	-8.59
948.12	11.30	H	22.57	8.16	42.03	46.02	-3.99
959.90	10.40	H	22.57	8.22	41.19	46.02	-4.83
972.15	12.30	H	22.59	8.24	43.13	53.97	-10.84

Radiated Emissions Tabulated Data



Tested by: Dong-Yub, Lee / Test Engineer

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6. FIELD STRENGTH CALCULATION

Meter readings are compared to the specification limit correcting for antenna and cable losses

+	Meter reading	(dBuV)
+	Cable Loss	(dB)
+	Antenna Factor (Loss)	(dB/meter)
=	Corrected Reading	(dBuV/meter)
-	Specification Limit	(dBuV/meter)
=	dB Relative to Spec	(+/- dB)

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7. LIST OF TEST EQUIPMENT

No.	EQUIPMENTS	MFR.	MODEL	SER. NO.	LAST CAL	DUE CAL	USE
1.	Test receiver	R/S	ESVS10	827864/005	DEC/04	12MONTH	■
2.	Test receiver	R/S	ESHS 10	834467/007	MAY/05	12MONTH	■
3.	Spectrum analyzer	HP	8566B	3407A08547	JUL/05	12MONTH	
4.	Spectrum analyzer	HP	85680B	3001A04955	APR/05	12MONTH	■
5.	RF preselector	HP	85685A	3107A01264	APR/05	12MONTH	■
6.	Quasi-Peak Adapter	HP	8574B	2811A01432	APR/05	12MONTH	■
7.	TRILOG Broadband Antenna	Schwarzbeck	VULB9163	VULB9163 166	APR/05	12MONTH	
8.	Biconical antenna	EMCO	3110	9003-1121	FEB/05	12MONTH	
		Schwarzbeck	VHA9103	91031852	JAN/05		■
9.	Log Periodic antenna	EMCO	3146	9001-2614	FEB/05	12MONTH	
		Schwarzbeck	9108-A(494)	62281001	FEB/05		■
10.	LISN	EMCO	3825/2	9109-1867	JUL/05	12MONTH	
				9109-1869	JUL/05		■
		Schwarzbeck	NSLK 8128	8128-216	JUN/05		■
11.	Position Controller	HD GmbH	HD100	N/A	N/A	N/A	■
12.	Turn Table	HD GmbH	DS420S	N/A	N/A	N/A	■
13.	Antenna Master	HD GmbH	MA240	N/A	N/A	N/A	■

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