



July 23, 2008

Checkolite International, Inc.
3464 Kennedy Blvd,
Jersey City NJ 07307, NEW JERSEY,
United States

Dear Reuben Bibi:

Enclosed you will find your file copy of a Part 15 report (FCC ID: WFXIHL32).

For your reference, TCB will normally take another 15-20 days for reviewing the report. Approval will then be granted when no query is sorted.

Please contact me if you have any questions regarding the enclosed material.

Sincerely,

A handwritten signature in black ink, appearing to read "Shawn Xing", with a stylized flourish at the end.

Shawn Xing
Assistant Manager

Enclosure

Checkolite International, Inc.

Application
For
Certification
(FCC ID: WFXIHL32)

Computer Peripheral

A handwritten signature in grey ink that reads "Billy Li".

GZ08060664-1
Billy Li
July 23, 2008

- The test results reported in this test report shall refer only to the sample actually tested and shall not refer or be deemed to refer to bulk from which such a sample may be said to have been obtained.
- This report shall not be reproduced except in full without prior authorization from Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
- For Terms And Conditions of the services, it can be provided upon request.
- The evaluation data of the report will be kept for 3 years from the date of issuance.

INTERTEK TESTING SERVICES

LIST OF EXHIBITS

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INTERTEK TESTING SERVICES

MEASUREMENT / TECHNICAL REPORT

Checkolite International, Inc. – MODEL: iHL32

FCC ID: WFXIHL32

July 23, 2008

This report concerns (check one:) Original Grant ☒ Class II Change ☐

Equipment Type: Class B Computing Device Peripheral (example: computer, printer, modem, etc.)

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)? Yes ☐ No ☒

If yes, defer until: _____
date

Company Name agrees to notify the Commission by: _____
date

of the intended date of announcement of the product so that the grant can be issued on that date.

Transition Rules Request per 15.37? Yes ☐ No ☒

If no, assumed Part 15, Subpart C for intentional radiator – the new 47 CFR [09-20-07 Edition] provision.

Report prepared by:

Shawn Xing
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List of attached file

Exhibit Type	File Description	Filename
Test Report	Test Report	report.pdf
Test Setup Photo	Radiated Emission	radiated photos.pdf
Test Setup Photo	Conducted Emission	conducted photos.pdf
External Photo	External Photo	external photos.pdf
Internal Photo	Internal Photo	internal photos.pdf
Block Diagram	Block Diagram	block.pdf
ID Label / Location	Label Artwork and Location	label.pdf
User Manual	User Manual	manual.pdf
Cover Letter	Letter of Agency	agency.pdf

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EXHIBIT 1

GENERAL DESCRIPTION

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1.0 **General Description**

1.1 Product Description

The Equipment Under Test (EUT) is an IPOD DOCKING SPEAKER LAMP, model: iHL32. The main function of the EUT is to play music from an iPod or other audio devices via the iPod and Line in port at the same time with the lamp. Besides, there is a USB port, via a USB cable attached the user can download music files to the iPod from a PC. The device is powered by an adapter (input AC 100-240V 50/60Hz, 1.5A, output DC 12.0V, 4.0A) for music playing mode and powered from PC USB port for data transfer mode.

1.2 Related Submittal(s) Grants

This is an application for certification of a computer peripheral.

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1.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2003). Radiated emission measurement was performed in semi-anechoic chamber and conducted emission measurement was performed in shield room. For radiated emission measurement, preliminary scans were performed in the semi-anechoic chamber only to determine the worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application.

1.4 Test Facility

The Semi-chamber facility used to collect the radiated data is **Interterk Testing Services Shenzhen Ltd. Kejiyuan Branch** and located at 6F, D Block, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. China. This test facility and site measurement data have been fully placed on file with the FCC.

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EXHIBIT 2

SYSTEM TEST CONFIGURATION

INTERTEK TESTING SERVICES

2.0 **System Test Configuration**

2.1 Justification

The system was configured for testing in a typical fashion (as a customer would normally use it), and in the confines as outlined in ANSI C63.4 (2003).

The device is powered by an adapter (input AC 100-240V 50/60Hz, 1.5A, output DC 12.0V, 4.0A) for music playing mode and powered from PC USB port for data transfer mode.

For maximizing emissions, the EUT was rotated through 360°, the antenna height was varied from 1 meter to 4 meters above the ground plane, and the antenna polarization was changed. The step by step procedure for maximizing emissions led to the data reported in Exhibit 3.0.

The rear of unit shall be flushed with the rear of the table.

The equipment under test (EUT) was configured for testing in a typical fashion (as a customer would normally use it). The EUT was placed on turntable, which enabled the engineer to maximize emissions through its placement in the three orthogonal axes.

The frequency range from 30MHz to 1GHz was searched for spurious emissions from the device. Only those emissions reported were detected. All other emissions were at least 20 dB below the applicable limits.

2.2 EUT Exercising Software

There was no special software to exercise the device.

2.3 Special Accessories

There are no special accessories necessary for compliance of this product.

2.4 Equipment Modification

Any modifications installed previous to testing by Checkolite International, Inc. will be incorporated in each production model sold / leased in the United States.

No modifications were installed by Intertek Testing Services.

INTERTEK TESTING SERVICES

2.5 Measurement Uncertainty

When determining the test conclusion, the Measurement Uncertainty of test has been considered.

2.6 Support Equipment List and Description

This product was tested in the following configuration:


Refer List:

Description	Manufacturer	Model No.
Test PC	Lenovo	T61
iPod	Apple	A1136
Hard Disk	Smart.drive	HD3-SU2FW
Cable with terminal (1.7m)	-	-

All the items listed under section 2.0 of this report are

Confirmed by:

Shawn Xing
Assistant Manager
Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch
Agent for Checkolite International, Inc.



Signature

July 23, 2008

Date

INTERTEK TESTING SERVICES

EXHIBIT 3

EMISSION RESULTS

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3.0 **Emission Results**

Data is included worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included.

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3.1 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

$$FS = RA + AF + CF - AG + PD + AV$$

where FS = Field Strength in dB μ V/m

RA = Receiver Amplitude (including preamplifier) in dB μ V

CF = Cable Attenuation Factor in dB

AF = Antenna Factor in dB

AG = Amplifier Gain in dB

PD = Pulse Desensitization in dB

AV = Average Factor in -dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

$$FS = RA + AF + CF - AG + PD + AV$$

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3.1 Field Strength Calculation (cont'd)

Example

Assume a receiver reading of 62.0dB μ V is obtained. The antenna factor of 7.4dB and cable factor of 1.6dB is added. The amplifier gain of 29dB is subtracted. The pulse desensitization factor of the spectrum analyzer was 0dB, and the resultant average factor was -10dB. The net field strength for comparison to the appropriate emission limit is 32dB μ V/m. This value in dB μ V/m was converted to its corresponding level in μ V/m.

$$RA = 62.0\text{dB}\mu\text{V}$$

$$AF = 7.4\text{dB}$$

$$CF = 1.6\text{dB}$$

$$AG = 29.0\text{dB}$$

$$PD = 0\text{dB}$$

$$AV = -10\text{dB}$$

$$FS = 62 + 7.4 + 1.6 - 29 + 0 + (-10) = 32\text{dB}\mu\text{V/m}$$

$$\text{Level in } \mu\text{V/m} = \text{Common Antilogarithm } [(32\text{dB}\mu\text{V/m})/20] = 39.8\mu\text{V/m}$$

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3.2 Radiated Emission Configuration Photograph

Worst Case Radiated Emission
At
168.000MHz (Data transfer Mode)

For electronic filing, the worst case radiated emission configuration photograph is saved with filename: radiated photos.pdf.

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3.3 Radiated Emission Data

The data on the following page lists the significant emission frequencies, the limit and the margin of compliance. Numbers with a minus sign are below the limit.

Judgment: Passed by 5.0dB margin (Data transfer Mode)

TEST PERSONNEL:



Signature

Billy Li, Engineer

Typed / Printed Name

July 23, 2008

Date

INTERTEK TESTING SERVICES

Company: Checkolite International, Inc.

Date of Test: July 7, 2008

Model: iHL32

Worst Case Operating Mode: Data Transfer

Table 1

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	168.000	48.3	20.0	10.2	38.5	43.5	-5.0
Vertical	34.845	33.4	20.0	15.9	29.3	40.0	-10.7
Vertical	37.765	35.4	20.0	14.2	29.6	40.0	-10.4
Vertical	44.552	31.7	20.0	11.1	22.8	40.0	-17.2
Vertical	71.996	42.1	20.0	7.4	29.5	40.0	-10.5
Vertical	192.228	39.1	20.0	11.1	30.2	43.5	-13.3

NOTES: 1. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distances were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.

2. Negative value in the margin column shows emission below limit.

3. All emissions are below the QP limit.

Test Engineer: Billy Li

INTERTEK TESTING SERVICES

Company: Checkolite International, Inc.

Date of Test: July 7, 2008

Model: iHL32

Worst Case Operating Mode: iPod Playing (iPod port)

Table 2

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
Vertical	127.005	41.9	20.0	8.2	30.1	43.5	-13.4
Vertical	131.842	42.9	20.0	8.3	31.2	43.5	-12.3
Vertical	139.612	46.1	20.0	8.7	34.8	43.5	-8.7
Vertical	151.253	38.4	20.0	9.5	27.9	43.5	-15.6
Vertical	179.383	36.2	20.0	10.7	26.9	43.5	-16.6
Vertical	191.021	40.5	20.0	11.0	31.5	43.5	-12.0

NOTES: 1. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distances were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.

4. Negative value in the margin column shows emission below limit.

5. All emissions are below the QP limit.

Test Engineer: Billy Li

INTERTEK TESTING SERVICES

3.4 Conducted Emission Configuration Photograph

Worst Case Line-Conducted Configuration
at
3.770 MHz (Data transfer Mode)

For electronic filing, the worst case conducted emission configuration photograph is saved with filename: conducted photos.pdf.

INTERTEK TESTING SERVICES

3.5 Conducted Emission Data

Judgement: Passed by 16.2 dB margin (Data transfer Mode)

TEST PERSONNEL:



Signature

Billy Li, Engineer
Typed/Printed Name

July 23, 2008
Date

INTERTEK TESTING SERVICES

Company: Checkolite International, Inc.
Model: iHL32
Worst Case Operating Mode: Data transfer

Date of Test: June 24, 2008

Table 3
Conducted Emissions

Live Line Data

Frequency (MHz)	Quasi-Peak		Average	
	Disturbance level dB(μ V)	Permitted limit dB(μ V)	Disturbance level dB(μ V)	Permitted limit dB(μ V)
0.178	43.2	64.6	37.0	54.6
2.862	36.5	56.0	29.7	46.0
3.770	35.8	56.0	29.8	46.0
3.835	35.1	56.0	24.1	46.0
14.655	33.3	60.0	25.4	50.0
16.350	36.7	60.0	28.5	50.0

Neutral Line Data

Frequency (MHz)	Quasi-Peak		Average	
	Disturbance level dB(μ V)	Permitted limit dB(μ V)	Disturbance level dB(μ V)	Permitted limit dB(μ V)
0.178	43.0	64.6	36.8	54.6
0.794	27.6	56.0	23.2	46.0
2.862	36.3	56.0	29.5	46.0
3.352	32.7	56.0	21.8	46.0
13.654	34.4	60.0	25.9	50.0
16.530	34.1	60.0	28.5	50.0

Test Engineer: Billy Li

INTERTEK TESTING SERVICES

Company: Checkolite International, Inc.

Date of Test: June 24, 2008

Model: iHL32

Worst Case Operating Mode: iPod Playing (Line in port)

Table 4
Conducted Emissions

Live Line Data

Frequency (MHz)	Quasi-Peak		Average	
	Disturbance level dB(μ V)	Permitted limit dB(μ V)	Disturbance level dB(μ V)	Permitted limit dB(μ V)
0.178	37.8	64.6	35.7	54.6
2.862	35.7	56.0	28.6	46.0
3.818	35.7	56.0	28.9	46.0
3.945	35.4	56.0	24.7	46.0
14.657	33.3	60.0	25.4	50.0
16.382	36.7	60.0	28.5	50.0

Neutral Line Data

Frequency (MHz)	Quasi-Peak		Average	
	Disturbance level dB(μ V)	Permitted limit dB(μ V)	Disturbance level dB(μ V)	Permitted limit dB(μ V)
0.178	38.1	64.6	35.9	54.6
2.846	35.9	56.0	28.5	46.0
3.738	36.0	56.0	29.2	46.0
3.852	32.7	56.0	22.0	46.0
13.525	34.9	60.0	25.1	50.0
16.746	35.3	60.0	28.7	50.0

Test Engineer: Billy Li

INTERTEK TESTING SERVICES

EXHIBIT 4

EQUIPMENT PHOTOGRAPHS

INTERTEK TESTING SERVICES

4.0 **Equipment Photographs**

For electronic filing, photographs of the tested EUT are saved with filename: external photos.pdf and internal photos.pdf.

INTERTEK TESTING SERVICES

EXHIBIT 5

PRODUCT LABELLING

INTERTEK TESTING SERVICES

5.0 **Product Labelling**

For electronics filing, the FCC ID label artwork and the label location are saved with filename: label.pdf.

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EXHIBIT 6

TECHNICAL SPECIFICATIONS

INTERTEK TESTING SERVICES

6.0 **Technical Specifications**

For electronic filing, the block diagram of the tested EUT is saved with filename: block.pdf.

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EXHIBIT 7

INSTRUCTION MANUAL

INTERTEK TESTING SERVICES

7.0 **Instruction Manual**

For electronic filing, a preliminary copy of the Instruction Manual is saved with filename: manual.pdf.

This manual will be provided to the end-user with each unit sold / leased in the United States.

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EXHIBIT 8

MISCELLANEOUS INFORMATION

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8.0 **Miscellaneous Information**

This miscellaneous information includes emission measuring procedure.

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8.1 Emissions Test Procedures

The following is a description of the test procedure used by Intertek Testing Services in the measurements of computer peripheral operating under Part 15, Subpart B rules.

The test set-up and procedures described below are designed to meet the requirements of ANSI C63.4 – 2003.

The computer peripheral equipment under test (EUT) is placed on a wooden turntable which is four feet in diameter and approximately one meter in height above the ground plane. During the radiated emissions test, the turntable is rotated and any cables leaving the EUT are manipulated to find the configuration resulting in maximum emissions. The antenna height and polarization are varied during the testing to search for maximum signal levels. The height of the antenna is varied from one to four meters.

Detector function for radiated emissions is in QP mode from the frequency band 30MHz to 1GHz and RBW setting is 120kHz. Detector function for conducted emissions are in QP & AV mode and IFBW setting is 9kHz from the frequency band 150kHz to 30MHz.

For radiated emission, the frequency range scanned is 30MHz to 1GHz. For line-conducted emissions, the range scanned is 150kHz to 30MHz.

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8.1 Emissions Test Procedures (cont'd)

The EUT is warmed up for 15 minutes prior to the test.

Conducted measurements are made as described in ANSI C63.4 – 2003.