IDT Sonicvision Limited

Application
For
Certification

iBall (Transmitter Dock Unit)

(FCC ID: S92IB368TXV1)

0514925
DL/ Sandy Lee
August 12, 2005

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2741 1693 Website: www.hk.intertek-etlsemko.com

LIST OF EXHIBITS

MEASUREMENT/TECHNICAL REPORT

IDT Sonicvision Limited - MODEL: Oregon Scientific IB368
FCC ID: S92IB368TXV1

This report concerns (check one) Original Grant X Class II Change

Equipment Type: DSS-Part 15 Spread Spectrum Transmitter and JBP-Part 15 Class B Computer Peripheral

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

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 X

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [10-01-04 Edition] provision.

Report prepared by:

Derek Leung
Intertek Testing Services
2/F., Garment Centre,
576 Castle Peak Road,
Kowloon, Hong Kong.
Phone: 852-2173-8539
Fax: 852-2371-0521

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Test Report	Test Report	report.pdf
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Test Setup Photo	Radiated Emission	config photos.doc
Test Report	Maximum Output Power Plot	hmaxop.pdf
Test Report	20 dB Bandwidth Plot	h20dB.pdf
Test Report	Minimum Number of Hopping Frequencies	hchno.pdf
Test Report	Minimum Hopping Channel Carrier Frequency Separation	hfsepa.pdf
Test Report	Average Channel Occupancy Time	havetime.pdf
Test Report	Out Band Antenna Conducted Emission Plot	hobantcon.pdf
Test Report	Duty Cycle Calculation and Measurement	hdcc.pdf
Test Setup Photo	Conducted Emission	config photos.doc
Test Report	Conducted Emission Test Result	conduct.pdf
External Photo	External Photo	external photos.doc
Internal Photo	Internal Photo	internal photos.doc
Block Diagram	Block Diagram	block.pdf
Schematics	Circuit Diagram	circuit.pdf
ID Label/Location	Label Artwork and Location	label.pdf
User Manual	User Manual	manual.pdf

EXHIBIT 1
SUMMARY OF TEST RESULTS

1.0 Summary of Test

IDT Sonicvision Limited - MODEL: Oregon Scientific IB368
FCC ID: S92IB368TXV1

TEST	REFERENCE	RESULTS
Max. Output Power	15.247(b)	Pass
Min. No. of Hopping Frequencies	15.247(a)(1)	Pass
Min. Hopping Channel Carrier Frequency Separation	15.247(a)(1)	Pass
Average Time of Occupancy	15.247(a)(1)	Pass
Out of Band Antenna Conducted Emission	15.247(c)	Pass
Radiated Emission in Restricted Bands	15.247(c)	Pass
AC Conducted Emission	15.207	Pass
Radiated Emission from Digital Part	15.109	Pass
Antenna Requirement	15.203	Pass (See Notes)

Notes: The EUT uses a permanently attached antenna which, in accordance to Section 15.203, is considered sufficient to comply with the provisions of this section.

EXHIBIT 2
GENERAL DESCRIPTION

2.0 **General Description**

2.1 Product Description

The Equipment Under Test (EUT) is a transmitter dock unit of 2.4GHz iBall Wireless Stereo Speaker with iPod Transmitter Dock System operating between 2403.364 and 2479.156MHz. The EUT is powered by 9V d.c. (AC 120V 60Hz input, DC 9V 800mA output adaptor). iPod and 1 external audio source can be plugged into this unit. iPod or analog audio signal will then convert into digital signal and pass to 2.4GHz wireless RF module using frequency hopping technique for transmission. 15 hop channels out of 38 channels will be used at one time. If the performance of the channel is poor, it will swap to another channel. On the wireless remote speaker, user can select to playback one of the two audio sources. Also, the speaker unit can transmit control signal to the EUT through the RF channels to control basic playback functions of iPod. Besides, EUT can allow file transfer between iPod and computer.

Antenna Type : Integral, Internal

The circuit descriptions are saved with filename: descri1.pdf and descri2.pdf.

2.2 Related Submittal(s) Grants

This is an application for Certification of a DSS-Part 15 Spread Spectrum Transmitter and JBP-Part 15 Class B Computer Peripheral. The receiver portion associated with this transmitter is exempted from technical requirement of this Part.

The wireless remote speaker unit associated with this EUT has FCC ID: S92IB368RXV1 and will be filed at the same time.

2.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2003). All measurements were performed in Open Area Test Sites. Preliminary scans were performed in the Open Area Test Sites only to determine 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. All other measurements were made in accordance with the procedures in part 2 of CFR 47.

2.4 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data is located at Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong. This test facility and site measurement data have been fully placed on file with the FCC.

EXHIBIT 3
SYSTEM TEST CONFIGURATION

3.0 **System Test Configuration**

3.1 Justification

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables were manipulated to produce worst case emissions. It was powered by AC 120V 60Hz input, DC 9V 800mA output adaptor.

The signal is maximized through rotation and placement in a typical fashion (as a customer would normally use it). The antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters. Detector function is in peak mode. Radiated emissions are taken at three meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance.

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater for frequencies below 1000MHz. The resolution is 1MHz or greater for frequencies above 1000MHz.

Radiated emission measurement was performed from the lowest radio frequency signal generated in the device which is greater than 9kHz to 25GHz.

3.2 EUT Exercising Software

iPod driver was installed for transferring files between the iPod and computer and the supplied software was used to exercise the device's download mode. Also, once the EUT is powered up, the unit transmits the typical signal. For simplicity of testing, the unit was set to transmit continuously.

3.3 Support Equipment List and Description

The FCC ID's for all equipment, plus descriptions of all cables used in the tested system (included inserted cards, which have grants) are:

HARDWARE:

The unit was operated in a system configuration. AC adaptor (provided with the unit) was used to power the device. The description is listed below.

Model: KU4A-9-800D
Input: AC 120V 60Hz, 7W
Output: DC 9V 800mA

CABLES:

(1) 2 x 1m telephone line with termination
(2) 1 x serial cable with 1m long
(3) 1 x parallel cable with 1m long
(4) 1 x IEEE 1394 cable with 1m long
(5) 1 x 1.6m long audio cable

OTHERS:

1. HP Computer
   Model: Vectra VL420
   S/N: SG20409996
   DOC Product
2. Philips LCD Monitor
   Model: 150B4CG
   S/N: CX000409301774
   DOC Product
3. HP Keyboard
   Model: SDM4700P
   S/N: 323686-B31
   DOC Product
4. HP Mouse
   Model: M-S69
   S/N: 323614-001
   FCCID: JNZ211443
5. HP Printer
   Model: C2642A
   S/N: SG67B131RY
   FCCID: B94C2642X
6. Hayes Modem
   Model: 6800CN
   S/N: A00900153317
   FCCID: BFJ9D907-00038
7. iPod Photo 60GB
8. Software: iTune

1. IBM Computer
   Model: NetVista M42
   S/N: S99GMHN1
   DOC Product
2. Samsung Monitor
   Model: 152N SM
   S/N: NB15HMEWA08810A
   DOC Product
3. IBM Keyboard
   Model: KB-0225
   S/N: 1203496
   DOC Product
4. HP Mouse
   Model: M-S34
   S/N: LZB21702883
   FCCID: DZL211029
5. HP Printer
   Model: HP Deskjet 948c
   S/N: CN23B680ZP
   DOC Product
6. Genius Modem
   Model: GM56EX
   S/N: ZT5505000355
   DOC Product

3.4 Measurement Uncertainty

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

3.5 Equipment Modification

Any modifications installed previous to testing by IDT Sonicvision Limited will be incorporated in each production model sold/leased in the United States.

No modifications were installed by ETL Division, Intertek Testing Services Hong Kong Ltd.

All the items listed under section 3.0 of this report are confirmed by:

Confirmed by:

Derek Leung
Assistant Manager
Intertek Testing Services Hong Kong Ltd.
Agent for IDT Sonicvision Limited

Signature

August 12, 2005 Date

EXHIBIT 4
MEASUREMENT RESULTS

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

4.0 Measurement Results

4.1 Maximum Conducted Output Power at Antenna Terminals, FCC Rules 15.247(b) :

[ ] The antenna power of the EUT was connected to the input of a power meter. Power was read directly and cable loss correction was added to the reading to obtain power at the EUT antenna terminals.

[×] The antenna port of the EUT was connected to the input of a spectrum analyzer. The analyzer was set for RBW>20dB bandwidth and power was read directly in dBm. External attenuation and cable loss were compensated for using the OFFSET function of the analyzer.

For antennas with gains of 6 dBi or less, maximum allowed transmitter output is 0.125 watt (+21 dBm).

Antenna Gain = -6.3 dBi		
Frequency (MHz)	Output in dBm	Output in mWatt
2404.260	17.66	58.3
2441.440	16.81	48.0
2478.990	15.68	37.0

Cable loss : 0.5 dB External Attenuation : N/A dB

Cable loss, external attenuation: [ ] included in OFFSET function
[x] added to SA raw reading

dBm max. output level = 17.66 dBm (21 dBm or less)

Please refer to the attached plots for details:

Plot H1a: Low Channel Output Power
Plot H1b: Middle Channel Output Power
Plot H1c: High Channel Output Power

For electronic filing, the above plots are saved with filename: hmaxop.pdf.

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

4.2 Hopping Channel 20 dB RF Bandwidth, FCC Rules 15.247(a)(1):

The center frequency of the analyzer was set to the hopping channel under investigation. The RBW of the spectrum analyzer was chosen so that the display was a result of the hopping channel modulation, rather than the internal response of the analyzer. The RBW was chosen to be as close as possible to the emission bandwidth of the EUT. The RBW shall be ≥1% of the 20 dB bandwidth.

Channel (Frequency, MHz)		20 dB Bandwidth (kHz)
Low:	2403.364	1776
Middle:	2442.288	1776
High:	2479.156	1764

Refer to the following plots for 20 dB bandwidth sharp:

Plot H2a: Low Channel 20 dB RF Bandwidth
Plot H2b: Middle Channel 20 dB RF Bandwidth
Plot H2c: High Channel 20 dB RF Bandwidth

For electronic filing, the above plots are saved with filename: h20dB.pdf.

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

4.3 Minimum Number of Hopping Frequencies, FCC Rule 15.247(a)(1)(iii) :

The RF passband of the EUT was divided into approximately equal bands. With the analyzer set to MAX HOLD readings were taken for 2-3 minutes in each band. The channel peaks so recorded were added together, and the total number compared to the minimum number of channels required in the regulation.

No. of hopping channels	15

Minimum Requirements: at least 15 non-overlapping channels for 2400MHz-2483.5MHz.

For electronic filing, the above plots are saved with filename: hchno.pdf.

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

4.4 Minimum Hopping Channel Carrier Frequency Separation, FCC Ref: 15.247(a)(1) :

Using the DELTA MARKER function of the analyzer, the frequency separation between two adjacent channels was measured and compared against the limit.

[ ] 25 kHz [x] Two thirds of the 20 dB bandwidth of hopping channel: 1184 kHz

Channel Separation	2050 kHz

Plot H4: Channel 24 and Channel 25

Requirement: The frequency separation is more than 20dB bandwidth of hopping channel.

For electronic filing, the above plots are saved with filename: hfsepa.pdf.

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

4.5 Average Channel Occupancy Time, FCC Ref: 15.247(a)(1)(iii)

The spectrum analyzer center frequency was set to one of the known hopping channels. The SWEEP was set to 10ms, the SPAN was set to ZERO SPAN, and the TRIGGER was set to VIDEO. The time duration of the transmission so captured was measured with the MARKER DELTA function.

The SWEEP was then set to the time required by the regulation (20 seconds for 902-928 MHz devices, if the 20dB bandwidth is less than 250kHz, 10 seconds for 902-928 MHz if the 20dB bandwidth is or greater than 250kHz, "0.4 seconds x Number of hopping channels employed" seconds for 2400-2483.5 MHz, 30 seconds for 5725-5850 MHz). The analyzer was set to SINGLE SWEEP, the total ON time was added and compared against the limit (0.4 seconds).

Average 0.4 seconds maximum occupancy in 6 seconds, (0.4sec. x 15) for 2400MHz-2483.5MHz.

Average Occupancy Time = 4300μs x 75	0.323 ms

Refer to attached spectrum analyzer plots H5a-e.

For electronic filing, the above plots are saved with filename: havetime.pdf.

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

4.6 Out of Band Radiated Emissions, FCC Rule 15.247(c):

In any 100 kHz bandwidth outside the EUT passband, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20 dB below that of the maximum in-band 100 kHz emission, or else shall meet the general limits for radiated emissions at frequencies outside the passband, whichever results in lower attenuation.

All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the passband.

Refer to the following plots for out of band conducted emissions data:

Plot H6a.1- H6a.2: Low Channel Emissions
Plot H6b.1- H6b.2: Middle Channel Emissions
Plot H6c.1- H6c.2: High Channel Emissions
Plot H6d.1- H6d.2: Modulation Products Emissions*

The plots showed the 2nd harmonic and modulation products at the band edges of 2400 MHz and 2483.5 MHz. In addition, all spurious emission and up to the tenth harmonic was measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

Furthermore, delta measurement technique for measuring bandedge emissions was incorporated in the test of the edge at 2483.5MHz.

*These 3 plots are shown the worst-case which has been already considered between enable and disable the hopping function of the EUT.

For electronic filing, the above plots are saved with filenames: hobantcon.pdf.

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

4.7 Out of Band Radiated Emissions (for emissions in 2.5 above that are less than 20 dB below carrier), FCC Rule 15.247(c):

For out of band emissions that are close to or that exceed the 20dB attenuation requirement described in the specification, radiated measurements were performed at a 3m separation distance to determine whether these emissions complied with the general radiated emission requirement.

The EUT was placed on a non-conductive turntable at a height of approximately 1 meter above the ground plane of a 3 meter open test site. For each frequency investigated, the turntable was rotated 360 degrees, and the search antenna was raised and lowered in both horizontal and vertical polarizations, in an attempt to maximize the signal. The maximum level was recorded, along with the search antenna polarity (Vertical or Horizontal).

[×] Not required, all emissions more than 20dB below fundamental
[ ] See attached data sheet

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

4.8 Transmitter Radiated Emissions in Restricted Bands, FCC Rule 15.35(b), (c):

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photos and data tables of the emissions are included. All measurements were performed with peak detection unless otherwise specified.

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

4.9 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 dBμV/m
RA = Receiver Amplitude (including preamplifier) in dBμV
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

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

RA = 62.0 dBμV
AF = 7.4 dB
CF = 1.6 dB
AG = 29.0 dB
PD = 0 dB
AV = -10 dB
FS = 62 + 7.4 + 1.6 - 29 + 0 + (-10) = 32 dBμV/m

Level in mV/m = Common Antilogarithm [(32 dBμV/m)/20] = 39.8 μV/m

Applicant: IDT Sonicvision Limited
Model: Oregon Scientific IB368

Date of Test: July 25, 2005

4.10 Radiated Emission Configuration Photograph

Worst Case Radiated Emission
at
55.290 MHz

For electronic filing, the worst case radiated emission configuration photographs are saved with filename: config photos.doc

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

4.11 Radiated Emission Data

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

Judgement : Passed by 12.1 dB margin

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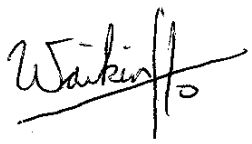
TEST PERSONNEL:



Tester Signature

Ben W. K. Ho, Compliance Engineer
Typed/Printed Name

August 12, 2005
Date

Applicant: IDT Sonicvision Limited
Model: Oregon Scientific IB368
Mode : TX-Channel 0

Date of Test: July 25, 2005

Table 1

Radiated Emissions

Polari-zation	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Average Factor (-dB)	Average at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	4806.660	43.8	34	34.9	44.7	27.4	17.3	54	-36.7
V	12016.650	46.7	34	40.5	53.2	27.4	25.8	54	-28.2
V	19226.640	39.2	34	45.3	50.5	27.4	23.1	54	-30.9

NOTES: 1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance 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.

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

4. Horn antenna used for the emission over 1000MHz.

Test Engineer: Ben W. K. Ho

Applicant: IDT Sonicvision Limited
Model: Oregon Scientific IB368
Mode : TX-Channel 19

Date of Test: July 25, 2005

Table 2

Radiated Emissions

Polari-zation	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Average Factor (-dB)	Average at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	4884.480	43.9	34	34.9	44.8	27.4	17.4	54	-36.6
V	7326.720	56.2	34	37.9	60.1	27.4	32.7	54	-21.3
V	12211.200	46.8	34	40.5	53.3	27.4	25.9	54	-28.1
V	19537.920	39.1	34	45.3	50.4	27.4	23.0	54	-31.0

NOTES:
1. Peak detector is used for the emission measurement.
2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance 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.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna used for the emission over 1000MHz.

Test Engineer: Ben W. K. Ho

Applicant: IDT Sonicvision Limited
Model: Oregon Scientific IB368
Mode : TX-Channel 37

Date of Test: July 25, 2005

Table 3

Radiated Emissions

Polari-zation	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Average Factor (-dB)	Average at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	4958.200	44.0	34	34.9	44.9	27.4	17.5	54	-36.5
V	7437.300	53.5	34	37.9	57.4	27.4	30.0	54	-24.0
V	12395.500	47.2	34	40.5	53.7	27.4	26.3	54	-27.7
V	19832.800	39.0	34	45.3	50.3	27.4	22.9	54	-31.1

NOTES:
1. Peak detector is used for the emission measurement.
2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance 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.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna used for the emission over 1000MHz.

Test Engineer: Ben W. K. Ho

Applicant: IDT Sonicvision Limited
Model: Oregon Scientific IB368

Date of Test: July 25, 2005

4.12 AC Line Conducted Emission, FCC Rule 15.207:

[ ] Not required; battery operation only

[×] Test data attached

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

4.13 Line Conducted Configuration Photograph

Worst Case Line-Conducted Configuration
at
0.200 MHz

For electronic filing, the worst case line conducted configuration photographs are saved with filename: config photos.doc

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

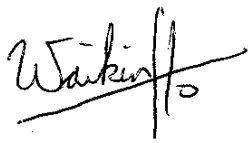
4.14 Line Conducted Emission Data

The data on the following pages list the significant emission frequencies, the limit, and the margin of compliance.

Judgement : Passed by 8.5 dB margin

For electronic filing, the worst case line conducted emission data are saved with filename: conduct.pdf

TEST PERSONNEL:



Tester Signature

Ben W. K. Ho, Compliance Engineer
Typed/Printed Name

August 12, 2005
Date

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

4.15 Radiated Emissions from Digital Section of Transceiver (Transmitter) and Class B Personal Computer Peripheral, FCC Ref: 15.109

[ ] Not required - No digital part

[×] Test results are attached

[ ] Included in the separated DOC report.

Applicant: IDT Sonicvision Limited
Model: Oregon Scientific IB368
Mode: PC Download

Date of Test: July 25, 2005

Table 4

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)
V	30.070	30.9	16	10.0	24.9	40.0	-15.1
V	36.850	32.1	16	10.0	26.1	40.0	-13.9
V	42.990	32.4	16	10.0	26.4	40.0	-13.6
V	49.140	32.0	16	11.0	27.0	40.0	-13.0
V	55.290	32.9	16	11.0	27.9	40.0	-12.1
V	61.430	33.4	16	10.0	27.4	40.0	-12.6

NOTES: 1. Quasi-peak detector is used for the emission below or equal to 1000 MHz.

2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance 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.

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

Test Engineer: Ben W. K. Ho

Applicant: IDT Sonicvision Limited Date of Test: July 25, 2005
Model: Oregon Scientific IB368

4.16 Transmitter Duty Cycle Calculation and Measurements, FCC Rule 15.35(b), (c)

The EUT antenna output port was connected to the input of the spectrum analyzer. The analyzer center frequency was set to EUT RF channel carriers. The SWEP function on the analyzer was set to ZERO SPAN. The transmitter ON time was determined from the resultant time-amplitude display:

Base Unit:

Duty cycle (DC) = Maximum ON time is 3.4ms/80ms

Duty cycle correction, dB = 20* log (DC)
= 20* log (0.0425)
= -27.4 dB

X	See attached spectrum analyzer chart(s) for transmitter timing Base Unit: Plot H7
	See transmitter timing diagram provided by manufacturer
	Not applicable, duty cycle was not used.

For electronic filing, the above plots are saved with filenames: hdcc.pdf.

EXHIBIT 5
EQUIPMENT PHOTOGRAPHS

5.0 **Equipment Photographs**

For electronic filing, the photographs are saved with filename: external photos.doc & internal photos.doc

EXHIBIT 6
PRODUCT LABELLING

6.0 **Product Labelling**

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

EXHIBIT 7
TECHNICAL SPECIFICATIONS

7.0 **Technical Specifications**

For electronic filing, the block diagram and circuit diagram are saved with filename: block.pdf and circuit.pdf respectively.

EXHIBIT 8
INSTRUCTION MANUAL

8.0 **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.

EXHIBIT 9
CONFIDENTIALITY REQUEST

9.0 **Confidentiality Request**

The applicant would like to have confidential protection of the following documents:

- Schematic
- Block Diagram
- Technical Descriptions

For electronic filing, the request letter is saved with filename: request.pdf.