

**The Wiremold Company**

**Application  
For  
Certification  
(FCC ID: 073-AUDMTM1C)**

**Digital Music Kit**

**Model: AUDMTM1C  
Additional Model: AUDMBK1C, AUDMWH1C**

**2.4GHz Transceiver**

We hereby certify that the sample of the above item is considered to comply with the requirements of FCC Part 15, Subpart C for Intentional Radiator, mention 47 CFR [10-1-11]

Prepared and Checked by:

Approved by:

Sign on file

Chris Chen  
Engineer

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Billy Li  
Team Leader  
Date: 5 June, 2012

- 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 is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to copy or distribute this report. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results referenced from this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.
- 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.

TRF No.: FCC 15C\_TXb  
FCC ID: 073-AUDMTM1C  
Report No.: SZ12030584-1

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## INTERTEK TESTING SERVICES

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### LIST OF EXHIBITS

#### *INTRODUCTION*

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## INTERTEK TESTING SERVICES

### MEASUREMENT/TECHNICAL REPORT

The Wiremold Company - Model: AUDMTM1C  
Additional Model: AUDMBK1C, AUDMWH1C

FCC ID: O73-AUDMTM1C

5 June, 2012

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

Equipment Type: DXX - Part 15 Low Power Communication Device Transmitter

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 [10-1-11 Edition] provision.

Report prepared by:

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# INTERTEK TESTING SERVICES

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## INTERTEK TESTING SERVICES

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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
Test Report	Bandedge Plot	bandedge.pdf
Test Report	20dB BW Plot	bw.pdf
External Photo	External Photo	external photos.pdf
Internal Photo	Internal Photo	internal photos.pdf
Block Diagram	Block Diagram	block.pdf
Schematics	Circuit Diagram	circuit.pdf
Operation Description	Technical Description	descri.pdf
ID Label/Location	Label Artwork and Location	label.pdf
User Manual	User Manual	manual.pdf
Cover Letter	Confidentiality Letter	request.pdf
Cover Letter	Letter of Agency	agency.pdf

# **INTERTEK TESTING SERVICES**

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## **EXHIBIT 1**

### **GENERAL DESCRIPTION**

## **INTERTEK TESTING SERVICES**

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### **1.0 General Description**

#### **1.1 Product Description**

The Equipment under Test (EUT) is a Control Speaker for Digital Music Kit model: AUDMTM1C operating at 2.4GHz band. The EUT was powered by AC 120V/60Hz.

Antenna Type: Integral antenna

Type of modulation: 8FSK modulation

The Models: AUDMBK1C, AUDMWH1C are the same as the Model: AUDMTM1C in hardware aspect. The difference in model number serves as marketing strategy.

For electronic filing, the brief circuit description is saved with filename: descri.pdf.

#### **1.2 Related Submittal(s) Grants**

This is an application for certification of a transceiver for the Digital Music Kit which is control speaker, and there has a Satellite Speaker which associated with this EUT, has FCC ID: O73-AUDMTM1S and has been filed at the same time.

## INTERTEK TESTING SERVICES

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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 (2009). 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. All other measurements were made in accordance with the procedures in part 2 of CFR 47.

### 1.4 Test Facility

The Semi-Anechoic chamber and shield room used to collect the radiated data and conducted data are **Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch** and located at 6F, Block D, 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 (Registration Number: 242492).



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### **EXHIBIT 2**

### **SYSTEM TEST CONFIGURATION**

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### 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 (2009).

The EUT was powered by AC 120V/60Hz during the test and only the worst data was reported in this report.

For maximizing emissions below 30 MHz, the EUT was rotated through 360°, the centre of the loop antenna was placed 1 meter above the ground, and the antenna polarization was changed. For maximizing emission at and above 30 MHz, 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. This step by step procedure for maximizing emissions led to the data report 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 a turn table, which enabled the engineer to maximize emissions through its placement in the three orthogonal axes.

#### 2.2 EUT Exercising Software

The EUT exercise program (provided by client) used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use. The worst case configuration is used in all specified testing.

The parameters of test software setting:

During the test, Channel and power controlling software provided by the applicant was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the application and is going to be fixed on the firmware of the end product.

#### 2.3 Special Accessories

No special accessories used.

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### 2.4 Equipment Modification

Any modifications installed previous to testing by The Wiremold Company will be incorporated in each production model sold / leased in the United States.

No modifications were installed by Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch.

### 2.5 Measurement Uncertainty

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

### 2.6 Support Equipment List and Description

Description	Manufacturer	Model No.
iPhone	Apple	L100403
iPod	Apple	A1136
iTouch	Apple	A1367
Apple Dock connector to USB cable	XinNengDa	shielded, Length 28.5cm
Audio Line	NAN GUDI	shielded, Length 25cm
Satellite Speaker	Wiremold	AUDMTM1S

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## **INTERTEK TESTING SERVICES**

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### **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). The simultaneous transmission mode for spurious emissions test were considered.

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## INTERTEK TESTING SERVICES

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### 3.1 **Radiated Test Results**

A sample calculation, configuration photographs and data tables of the emissions are included.

#### 3.1.1 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 (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

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

Where      FS = Field Strength in dB $\mu$ V/m  
              RA = Receiver Amplitude (including preamplifier) in dB $\mu$ V  
              CF = Cable Attenuation Factor in dB  
              AF = Antenna Factor in dB  
              AG = Amplifier Gain 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:

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

Assume a receiver reading of 62.0 dB $\mu$ V 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 net field strength for comparison to the appropriate emission limit is 42 dB $\mu$ V/m. This value in dB $\mu$ V/m was converted to its corresponding level in  $\mu$ V/m.

RA = 62.0 dB $\mu$ V  
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 = 42 dB $\mu$ V/m

Level in  $\mu$ V/m = Common Antilogarithm [(42 dB $\mu$ V/m)/20] = 125.9  $\mu$ V/m

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### 3.1.2 Radiated Emission Configuration Photograph

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

### 3.1.3 Radiated Emissions

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.

Worst Case Radiated Emission  
at  
55.240 MHz

Judgement: Passed by 9.5 dB

#### **TEST PERSONNEL:**

*Sign on file*

Chris Chen, Engineer  
*Typed/Printed Name*

5 June, 2012  
*Date*

## INTERTEK TESTING SERVICES

Applicant: The Wiremold Company  
Model: AUDMTM1C  
Sample: 1/1  
Worst Case Operating Mode: Transmit

Date of Test: 5 June, 2012

Table 1

### Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Horizontal	97.900	34.3	20.0	8.8	23.1	43.5	-20.4
Horizontal	122.660	33.4	20.0	11.9	25.3	43.5	-18.2
Horizontal	196.355	34.5	20.0	12.6	27.1	43.5	-16.4
Vertical	55.240	41.5	20.0	9.0	30.5	40.0	-9.5
Vertical	96.870	38.4	20.0	8.8	27.2	43.5	-16.3
Vertical	196.355	30.6	20.0	14.7	25.3	43.5	-18.2

- NOTES: 1. Quasi-Peak detector is used except for others stated.
2. 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.
3. Negative value in the margin column shows emission below limit.
4. All emissions are below the QP limit.



## INTERTEK TESTING SERVICES

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### 3.1.4 Transmitter Spurious Emissions (Radiated)

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.

Worst Case Radiated Emission  
at  
4812.000 MHz

Judgement: Passed by 8.0 dB

#### ***TEST PERSONNEL:***

*Sign on file*

Chris Chen, Engineer  
*Typed/Printed Name*

5 June, 2012  
Date

## INTERTEK TESTING SERVICES

Applicant: The Wiremold Company  
Model: AUDMTM1C  
Sample: 1/1  
Worst Case Operating Mode: Transmit

Date of Test: 5 June, 2012

Table 2

### Radiated Emissions

(2406.000MHz)

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Peak Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	2406.000	92.7	36.7	28.5	84.5	114.0	-29.5
Vertical	4812.000	55.3	36.7	34.6	53.2	74.0	-20.8

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Average Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	2406.000	87.4	36.7	28.5	79.2	94.0	-14.8
Vertical	4812.000	48.1	36.7	34.6	46.0	54.0	-8.0

- Notes: 1. Peak detector Data unless otherwise stated. Above 1000 MHz, RBW=1MHz, VBW=3MHz is used for Peak measurement, RBW=1MHz, VBW=10Hz is used for Average measurement.
2. All measurements were made at 3 meter. 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 is used for the emission over 1000MHz.

Test Engineer: Chris Chen

## INTERTEK TESTING SERVICES

Applicant: The Wiremold Company  
Model: AUDMTM1C  
Sample: 1/1  
Worst Case Operating Mode: Transmit

Date of Test: 5 June, 2012

Table 3

### Radiated Emissions

(2438.000MHz)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
Vertical	2438.000	92.3	36.7	28.5	84.1	114.0	-29.9
Vertical	4876.000	54.8	36.7	34.8	52.9	74.0	-21.1

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
Vertical	2438.000	87.7	36.7	28.5	79.5	94.0	-14.5
Vertical	4876.000	47.6	36.7	34.8	45.7	54.0	-8.3

- Notes: 1. Peak detector Data unless otherwise stated. Above 1000 MHz, RBW=1MHz, VBW=3MHz is used for Peak measurement, RBW=1MHz, VBW=10Hz is used for Average measurement.
2. All measurements were made at 3 meter. 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 is used for the emission over 1000MHz.

Test Engineer: Chris Chen

## INTERTEK TESTING SERVICES

Applicant: The Wiremold Company  
Model: AUDMTM1C  
Sample: 1/1  
Worst Case Operating Mode: Transmit

Date of Test: 5 June, 2012

Table 4

### Radiated Emissions

(2474.000MHz)

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Peak Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	2474.000	91.5	36.7	28.6	83.4	114.0	-30.6
Vertical	4948.000	53.5	36.7	35.0	51.8	74.0	-22.2

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Average Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	2474.000	87.0	36.7	28.6	78.9	94.0	-15.1
Vertical	4948.000	46.5	36.7	35.0	44.8	54.0	-9.2

- Notes:
1. Peak detector Data unless otherwise stated. Above 1000 MHz, RBW=1MHz, VBW=3MHz is used for Peak measurement, RBW=1MHz, VBW=10Hz is used for Average measurement.
  2. All measurements were made at 3 meter. 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 is used for the emission over 1000MHz.

Test Engineer: Chris Chen

## INTERTEK TESTING SERVICES

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### 3.2 Conducted Emission at Mains Terminal

#### 3.2.1 Conducted Emissions Configuration Photograph

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

#### 3.2.2 Conducted Emissions

Worst Case Live-Conducted Configuration  
at  
0.506 MHz

Judgement: Passed by 13.2 dB margin

#### **TEST PERSONNEL:**

*Sign on file*

Chris Chen, Engineer  
*Typed/Printed Name*

5 June, 2012  
*Date*

## INTERTEK TESTING SERVICES

Applicant: The Wiremold Company

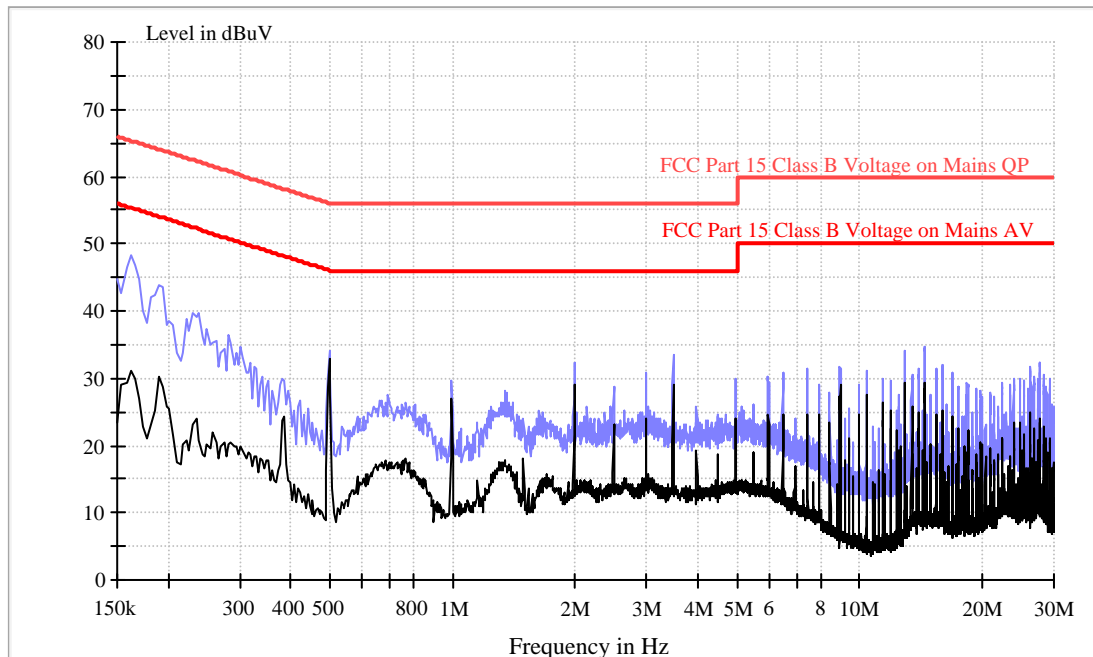
Date of Test: 5 June, 2012

Model: AUDMTM1C

Sample: 1/1

Worst Case Operating Mode: Transmit (2438MHz)

### Conducted Emission Test - FCC



### Result Table QP

Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.506	33.2	L1	9.6	22.8	56.0
1.003	28.3	L1	9.6	27.7	56.0
2.014	32.5	L1	9.7	23.5	56.0
3.560	33.2	L1	9.8	22.8	56.0
8.986	30.1	L1	9.9	29.9	60.0
15.865	33.8	L1	9.1	26.2	60.0

### Result Table AV

Frequency (MHz)	Average (dB $\mu$ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.506	32.8	L1	9.6	13.2	46.0
1.003	27.5	L1	9.6	18.5	46.0
2.014	29.2	L1	9.7	16.8	46.0
3.560	29.1	L1	9.8	16.9	46.0
8.986	29.1	L1	9.9	20.9	50.0
15.865	29.8	L1	9.1	20.2	50.0

TRF No.: FCC 15C\_TXb  
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Report No.: SZ12030584-1

## INTERTEK TESTING SERVICES

Applicant: The Wiremold Company

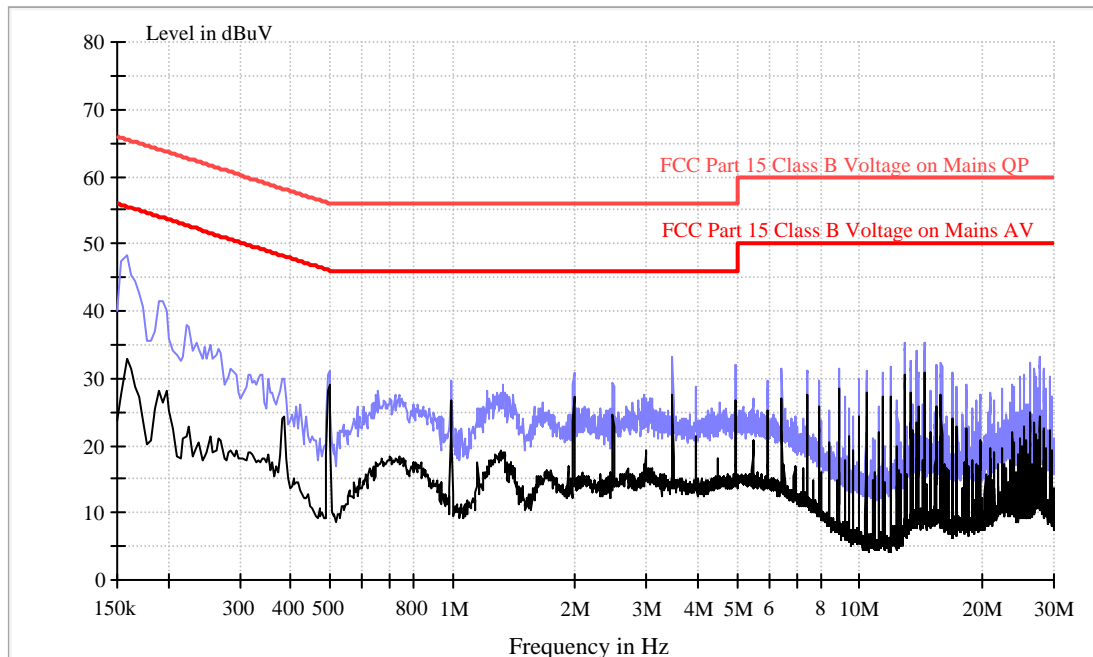
Date of Test: 5 June, 2012

Model: AUDMTM1C

Sample: 1/1

Worst Case Operating Mode: Transmit (2438MHz)

### Conducted Emission Test - FCC



### Result Table QP

Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.162	45.1	N	10.2	20.0	65.1
0.502	29.8	N	9.6	26.2	56.0
1.035	27.9	N	9.6	28.1	56.0
3.498	33.9	N	9.4	22.1	56.0
13.860	32.8	N	9.2	27.2	60.0
15.865	33.5	N	9.1	26.5	60.0

### Result Table AV

Frequency (MHz)	Average (dB $\mu$ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.162	32.3	N	10.2	22.8	55.1
0.502	28.1	N	9.6	17.9	46.0
1.035	26.2	N	9.6	19.8	46.0
3.498	27.3	N	9.4	18.7	46.0
13.860	30.5	N	9.2	19.5	50.0
15.865	30.4	N	9.1	19.6	50.0

TRF No.: FCC 15C\_TXb  
FCC ID: O73-AUDMTM1C  
Report No.: SZ12030584-1

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## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 4**

### **EQUIPMENT PHOTOGRAPHS**



## INTERTEK TESTING SERVICES

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### 4.0 **Equipment Photographs**

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

**EXHIBIT 5**  
**PRODUCT LABELLING**

## INTERTEK TESTING SERVICES

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### 5.0 **Product Labelling**

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

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## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 6**

### **TECHNICAL SPECIFICATIONS**

## INTERTEK TESTING SERVICES

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### 6.0 Technical Specifications

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

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## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 7**

### **INSTRUCTION MANUAL**

## INTERTEK TESTING SERVICES

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### 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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## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 8**

### **MISCELLANEOUS INFORMATION**



## INTERTEK TESTING SERVICES

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### 8.0 **Miscellaneous Information**

This miscellaneous information includes details of the measured bandedge and the test procedure.

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## INTERTEK TESTING SERVICES

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### 8.1 Bandedge Plot

For electronic filing, the plot shows the fundamental emission when modulated is saved with filename: be.pdf. From the plot, the field strength of any emissions outside of the specified frequency band are attenuated to the general radiated emission limits in section 15.209. It fulfils the requirement of 15.249(d).

#### Peak Measurement

Bandedge compliance is determined by applying marker-delta method, i.e ( Bandedge Plot).

#### **(i) Lower channel 2406.000MHz:**

Peak Resultant field strength = Fundamental emissions (peak value) – delta  
from the bandedge plot

$$\begin{aligned} &= 84.50 \text{ dB}\mu\text{v/m} - 33.74 \text{ dB} \\ &= 50.76 \text{ dB}\mu\text{v/m} \end{aligned}$$

Average Resultant field strength = Fundamental emissions (Average value) –  
delta from the bandedge plot

$$\begin{aligned} &= 79.20 \text{ dB}\mu\text{v/m} - 33.74 \text{ dB} \\ &= 45.46 \text{ dB}\mu\text{v/m} \end{aligned}$$

#### **(ii) Upper channel 2474.000MHz:**

Peak Resultant field strength = Fundamental emissions (peak value) – delta  
from the bandedge plot

$$\begin{aligned} &= 83.40 \text{ dB}\mu\text{v/m} - 26.95 \text{ dB} \\ &= 56.45 \text{ dB}\mu\text{v/m} \end{aligned}$$

Average Resultant field strength = Fundamental emissions (Average value) –  
delta from the bandedge plot

$$\begin{aligned} &= 78.90 \text{ dB}\mu\text{v/m} - 26.95 \text{ dB} \\ &= 51.95 \text{ dB}\mu\text{v/m} \end{aligned}$$

The resultant field strength meets the general radiated emission limit in section 15.209, which does not exceed 74dB $\mu$ v/m (Peak Limit) and 54dB $\mu$ v/m (Average Limit).

## INTERTEK TESTING SERVICES

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### 8.1 Bandedge Plot (cont'd)

Pursuant to FCC part 15 Section 15.215(c), the 20dB bandwidth of the emission was contained within the frequency band designated (mentioned as above) which the EUT operated. The effects, if any, from frequency sweeping, frequency hopping, other modulation techniques and frequency stability over excepted variations in temperature and supply voltage were considered.

Figure 8.1 Bandwidth

## INTERTEK TESTING SERVICES

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### 8.2 Emissions Test Procedures

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

The test set-up and procedures described below are designed to meet the requirements of ANSI C63.4 - 2009.

The transmitting 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 EUT is adjusted through all three orthogonal axes to obtain maximum emission levels. The antenna height and polarization are varied during the testing to search for maximum signal levels.

Detector function for radiated emissions above 1GHz is in peak mode and Quasi-Peak mode is used below 1GHz.

The frequency range scanned is from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or 40 GHz, whichever is lower.

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### 8.2 Emissions Test Procedures (cont'd)

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

AC power to the unit is varied from 85% to 115% nominal and variation in the fundamental emission field strength is recorded. If battery powered, a new, fully charged battery is used.

Conducted measurements are made as described in ANSI C63.4 - 2009.

The IF bandwidth used for measurement of radiated signal strength was 10 kHz for emission below 30 MHz and 120 kHz for emission from 30 MHz to 1000 MHz. Above 1000 MHz, a resolution bandwidth of 1 MHz is used.

Transmitter measurements are normally conducted at a measurement distance of three meters. However, to assure low enough noise floor in the restricted bands and above 1 GHz, signals are acquired at a distance of one meter or less. All measurements are extrapolated to three meters using inverse scaling, but those measurements taken at a closer distance are so marked.

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### **EXHIBIT 9**

### **CONFIDENTIALITY REQUEST**

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### 9.0 **Confidentiality Request**

For electronic filing, the confidentiality request of the tested EUT is saved with filename: request.pdf.

**EXHIBIT 10**  
**TEST EQUIPMENT LIST**



## INTERTEK TESTING SERVICES

### 10.0 Test Equipment List

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ061-03	BiConiLog Antenna	ETS	3142C	00066460	02-Jul-11	02-Jan-13
SZ185-01	EMI Receiver	R&S	ESCI	100547	11-Mar-12	11-Mar-13
SZ061-08	Horn Antenna	ETS	3115	00092346	15-Oct-11	15-Oct-12
SZ061-06	Active Loop Antenna	Electro-Metrics	EM-6876	217	11-Mar-12	11-Mar-13
SZ056-03	Spectrum Analyzer	R&S	FSP 30	101148	11-Mar-12	11-Mar-13
SZ181-04	Preamplifier	Agilent	8449B	3008A02474	11-Mar-12	11-Mar-13
SZ188-01	Anechoic Chamber	ETS	RFD-F/A-100	4102	03-Mar-12	03-Mar-13
SZ062-02	RF Cable	RADIAL	RG 213U	--	17-Mar-12	17-Sep-12
SZ062-06	RF Cable	RADIAL	0.04-26.5GHz	--	01-Nov-11	01-Nov-12
SZ062-12	RF Cable	RADIAL	0.04-26.5GHz	--	25-Feb-12	25-Aug-12
SZ067-04	Notch Filter	Micro-Tronics	BRM5070 2-02	--	15-Jul-11	15-Jul-12
SZ185-02	EMI Test Receiver	R&S	ESCI	100692	05-Nov-11	05-Nov-12
SZ187-01	Two-Line V-Network	R&S	ENV216	100072	05-Nov-11	05-Nov-12
SZ187-02	Two-Line V-Network	R&S	ENV216	100073	05-Nov-11	05-Nov-12
SZ188-03	Shielding Room	ETS	RFD-100	4100	16-Sep-10	16-Sep-13