OET Bulletin 65 (MPE)
Test Report

Report No.: AGC00370140203FE07

FCC ID	:	XAO-CC2500PATR
APPLICAN/AON PURPOSE	:	Original Equipment
PRODUCT DESIGNATION	:	Wireless transmission module
BRAND NAME	:	CHAUVET & SONS,INC.
MODEL NAME	:	CC2500PATR2.4S
CLIENT	:	CHAUVET & SONS,INC.
DATE OF ISSUE	:	Mar.21, 2014
STANDARD(S)	:	FCC Part 15 Rules
REPORT VERSION	:	V1.0

Attestation of ***G***lobal ***C***ompliance (Shenzhen) Co., Ltd

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Mar.21, 2014	Valid	Original Report

TABALE OF CONTENTS

1. TEST RESULT CERTIFICATION

Applicant Name:	CHAUVET & SONS,INC.
Address:	5200 NW 108TH AVENUE SUNRISE, FLORIDA, 33351, USA
Manufacturer Name:	CHAUVET & SONS,INC.
Address:	5200 NW 108TH AVENUE SUNRISE, FLORIDA, 33351, USA
Product Designation	Wireless transmission module
Brand Name	CHAUVET & SONS,INC.
Test Model	CC2500PATR2.4S
Test Standard	OET Bulletin 65
Date of Test:	Mar.18, 2014 to Mar. 20, 2014

We (AGC), Attestation of Global Compliance (Shenzhen) Co., Ltd. for compliance with the requirements set forth in the FCC Standard OET Bulletin 65 (Edition 97-01) Supplement C (Edition 01-01). The results of testing in this report apply to the product/system which was tested only.

Prepared By

Wall Huang Mar.21, 2014

Checked By

Kidd Yang Mar.21, 2014

Authorized By

Solger Zhang Mar.21, 2014

2. TECHNICAL INFORMATION

Note: the following data is based on the information by the applicant.

The EUT is “Wireless transmission module” designed as a “Communication Device”. It is designed by way of utilizing the FHSS technology to achieve the system operation.
A major technical description of EUT is described as following

Operation Frequency	2.402 GHz to 2.450GHz
RF Output Power	19.47dBm(Max)
Spread-Spectrum Technique	FHSS
Modulation	MSK
Number of channels	16
Antenna Designation	PIFA antenna
Antenna Gain	2.0dBi
Power Supply	DC 3.3V

3. RF EXPOSURE MEASUREMENT

3.1 INTRODUCTION

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 20 cm or more from persons.

The 1992 ANSI/IEEE standard (See Listed limit table) specifies a minimum separation distance of 20 cm for performing reliable field measurements to determine adherence to MPE limits.

If the minimum separation distance between a transmitter and nearby persons is more than 20 cm under normal operating conditions, compliance with MPE limits may be determined at such distance from the transmitter. When applicable, operation instructions and prominent warning labels may be used to alert the exposed persons to maintain a specified distance from the transmitter or to limit their exposure durations and usage conditions to ensure compliance.

3.2 FCC LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (Minutes)
0.3 -- 1.34	614	1.63	(100)*	30
1.34 -- 30	824/f	2.19/f	($180/f^2$)*	30
30 -- 300	27.5	0.073	0.2	30
300 -- 1500	--	--	f/1500	30
1500 -- 100,000	--	--	1.0	30

*Note:

1. f= Frequency in MHz * Plane-wave Equivalent Power Density
2. The averaging time for General Population/Uncontrolled exposure to fixed transmitters is not applicable for mobile and portable transmitters. See 47 CFR §§2.1091 and 2.1093 on source-based time-averaging requirement for mobile and portable transmitters.

4. CLASSIFICATION OF THE ASSESSMENT METHODS

According to user manual, The antenna of the product, under normal use condition is at least 0.2m away from the body of the user. Warning statement to the user for keeping at least 0.2m separation distance and the prohibition of operating to a person has been printed on the user's manual. So, this product under normal use is located on electromagnetic far field between the human body.

$S=PG/4\pi R^2$
Where:
S=power density
P=power input to antenna
G=power gain of the antenna in the direction of interest relative to an isotropic radiator R=distance to the center of radiation of the antenna

5. EUT OPERATION CONDITION

Make the EUT to transmit at lowest, middle and highest channel individually.

6. TEST RESULTS

Note: report the worst result in this part

Antenna Gain=2dBi (Numeric 1.6), π=3.141

Frequency	Output Power	Output Power	Power Density	Power Density Limit	Result
MHz	dBm	mW	mW/cm^2	mW/cm^2	Pass/Fail
2402	19.47	88.51	0.03	1.0	Pass

Note: *The output power is refer to AGC00370140203FE03.*
According to the user manual, the minimum separate distance which used for MPE calculate is 0.2m.