NORTHWEST EMC

Esterline (Advanced Input Devices)

Medigenic DeskMini Wireless Keyboard and USB Dongle

FCC 2.1093:2015

Report # ESTE0018.8

NVLAP Lab Code: 200881-0

CERTIFICATE OF EVALUATION

Last Date of Test: February 16, 2015
Esterline (Advanced Input Devices)
Model: Medigenic DeskMini Wireless Dongle

Radio Equipment Testing

Standards

Specification	Method
FCC 2.1093:2015	447498 D01 General RF Exposure Guidance v05r02

Results

Method Clause	Test Description	Applied	Results	Comments
4.3	General SAR test reduction and exclusion guidance	Yes	Pass	

Deviations From Test Standards

None

Approved By:

Donald Facteau, IT Manager

Product compliance is the responsibility of the client; therefore, the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test.

REVISION HISTORY

NORTHWEST EMC
REV 2014.10.14

Revision Number	Description	Date	Page Number
00	None		

ACCREDITATIONS AND AUTHORIZATIONS

NORTHWEST EMC
REV 2014.10.08

United States

FCC - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

A2LA - Accredited by A2LA to ISO / IEC Guide 65 as a product certifier. This allows Northwest EMC to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

IC - Recognized by Industry Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with IC.

European Union

European Commission – Validated by the European Commission as a Conformity Assessment Body (CAB) under the EMC directive and as a Notified Body under the R&TTE Directive.

Australia/New Zealand

ACMA - Recognized by ACMA as a CAB for the acceptance of test data.

Korea

MSIP / RRA - Recognized by KCC's RRA as a CAB for the acceptance of test data.

Japan

VCCI - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

Taiwan

BSMI – Recognized by BSMI as a CAB for the acceptance of test data.

NCC - Recognized by NCC as a CAB for the acceptance of test data.

Singapore

IDA – Recognized by IDA as a CAB for the acceptance of test data.

Israel

MOC – Recognized by MOC as a CAB for the acceptance of test data.

Hong Kong

OFTA – Recognized by OFTA as a CAB for the acceptance of test data.

Vietnam

MIC – Recognized by MIC as a CAB for the acceptance of test data.

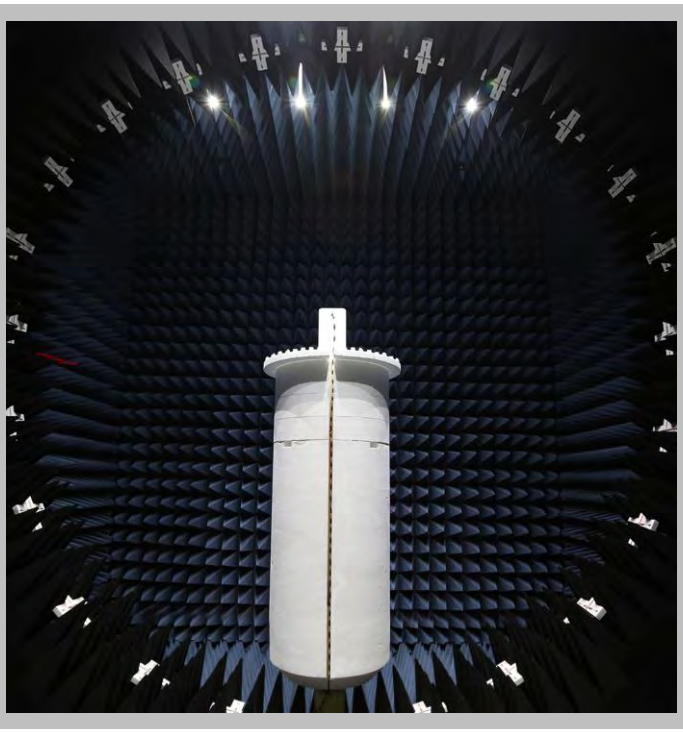
SCOPE

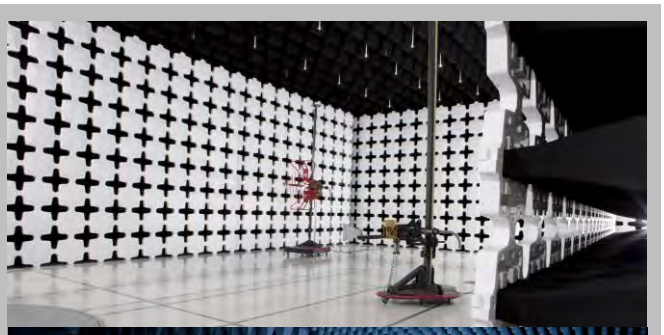
For details on the Scopes of our Accreditations, please visit:
http://www.nwemc.com/accreditations/

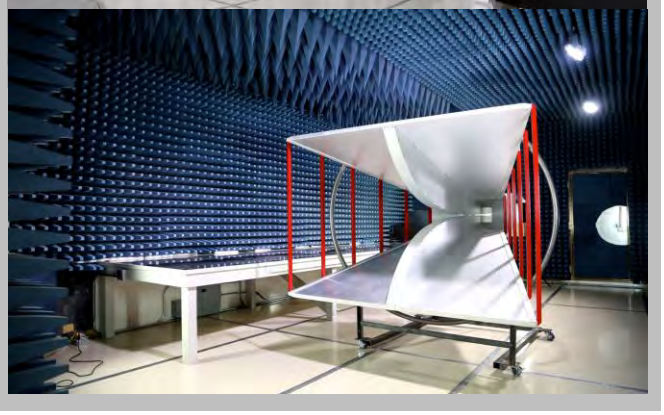
FACILITIES

NORTHWEST EMC
REV 2015.1.05

California	Minnesota	New York	Oregon	Texas	Washington
Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	Labs MN01-08, MN10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 685-0796	Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Labs NC01-05 19201 120th Ave NE Bothell, WA 9801 (425)984-6600
NVLAP					
NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200630-0	NVLAP Lab Code:201049-0	NVLAP Lab Code: 200629-0
Industry Canada					
2834B-1, 2834B-3	2834E-1	N/A	2834D-1, 2834D-2	2834G-1	2834F-1
BSMI					
SL2-IN-E-1154R	SL2-IN-E-1152R	N/A	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R
VCCI					
A-0029	A-0109	N/A	A-0108	A-0201	A-0110







PRODUCT DESCRIPTION

Client and Equipment Under Test (EUT) Information

Company Name:	Esterline (Advanced Input Devices)
Address:	600 W. Wilbur Avenue
City, State, Zip:	Coeur d'Alene, ID 83815
Test Requested By:	Wayne Hash
Model:	Medigenic DeskMini Wireless Dongle
Evaluation Date:	February 16, 2015

Information Provided by the Party Requesting the Test

Functional Description of the EUT:
Wireless Dongle operating as a hybrid radio in the 2.4 GHz band under FCC 15.247.

Testing Objective:
To demonstrate compliance with FCC requirements for RF exposure for 2.1093 portable devices.

SAR TEST EXCLUSION

NORTHWEST EMC
WTD.2014.12.17

OVERVIEW

The device is excluded from SAR evaluation and therefore deemed compliant with FCC RF exposure requirements as described below:

COMPLIANCE WITH FCC KDB 447498 D01 General RF Exposure Guidance v05r02

KDB 447498 D01 General RF Exposure Guidance v05r02, Section 4.3.1

"The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,
where

- *f(GHz) is the RF channel transmit frequency in GHz*
- *Power and distance are rounded to the nearest mW and mm before calculation*
- *The result is rounded to one decimal place for comparison*
- *3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below*

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion."

METHOD OF EVALUATION

The SAR Test Exclusion Threshold is summarized in the following table:

The device has a maximum output power of 0.14015 mW at 2480 MHz. The closest spacing of the antenna to the user's torso is 5 mm. The table below shows the results of the calculation. The value of 0.014 is well below the exclusion threshold of 3.0, therefore the unit is excluded from SAR evaluation and deemed compliant with FCC RF exposure requirements.

Output Power (mW)	**Test Separation** (mm)	**Transmit Frequency** (GHz)	**Exclusion Threshold**	**Specification**
0.14015	5	2.480	0.014	<=3.0

Signature