
CE MPE Evaluation Report

Report No: WD-RE-R-190581-D0

Product Name : Ultra Short Throw Outdoor Portable LED Projector
Model Name : MGFU
Applicant : Elite Screens Visual & Sound Co., Ltd.
Received Date : Aug. 29, 2019
Tested Date : Aug. 30, 2019 ~ Sep. 18, 2019
Applicable Standard : EN 62311
European Council Recommendation 1999/519/EC
REDCA TGN.20 SAR Guidance Document



Wendell Industrial Co., Ltd
Wendell Electrical Testing Lab.

Caution:

This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment.

Please note that the measurement uncertainty are provided for informational purpose only and are not used in determining the Pass/Fail results.

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Test Report

Issued Date: September 18, 2019

Project No.: 19Q082903

Product Name	Ultra Short Throw Outdoor Portable LED Projector
Trade Name	MosaicGO™
Model Name	MGFU
Applicant	Elite Screens Visual & Sound Co., Ltd.
Manufacturer	Elite Screens Visual & Sound Co., Ltd.
EUT Rated Voltage	AC 100 ~ 240V / 50 or 60Hz , Battery 14.52V
EUT Test Voltage	AC 230V / 50Hz
EUT Supports Radios Application	Bluetooth BR/EDR
Applicable Standard	EN 62311
RF Evaluation	0.0069 W/m ²
Test Result	Complied

Documented :



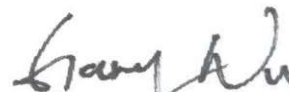
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Document Revision History

Report No.	Issue date	Description
WD-RE-R-190581-D0	September 18, 2019	Initial report

Reference Testing Standard

Standard	Description	Version
EN 62311	Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz – 300 GHz)	2008
European Council Recommendation	limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)	1999/519/EC
REDCA TGN.20	SAR Testing and Assessment Guidance	V3.0

1 Generation Information

1.1 Applicant

Elite Screens Visual & Sound Co., Ltd.
 3F., No. 88, Wugong Rd., Xinzhuang Dist., New Taipei City 242, Taiwan (R.O.C.)

1.2 Manufacturer

Elite Screens Visual & Sound Co., Ltd.
 3F., No. 88, Wugong Rd., Xinzhuang Dist., New Taipei City 242, Taiwan (R.O.C.)

1.3 Description of Equipment under Test

Product Name	Ultra Short Throw Outdoor Portable LED Projector
Model No.	MGFU
Frequency Range	2402 ~ 2480 MHz
Number of Channels	79CH
Antenna Information	Refer to the table "Antenna List"

The EUT uses following adapter.

Trade Name	EDACPOWER Electronics Co. ,Ltd
Model No.	EA11013M-1900
Input Power	AC 100-240V , 2.0A , 50-60Hz
Output Power	DC 19V / 6.31A
Power Line	Shielded, 1 Core, 1.2m

Antenna List

No.	Manufacturer	Model No.	Antenna Type	Peak Gain
1	N/A	N/A	Printed Antenna	4.85 dBi for 2.4GHz

1.4 Test Facility

Items	Required	Actual
Temperature (°C)	15-35	25
Humidity (% RH)	20-75	55
Barometric pressure (mbar)	860-1060	1001

Description : Accredited by TAF
Accredited Number : 2965

Issued by : Wendell Industrial Co., Ltd

Lab Address : 6F/6F-1, No.188, Baoqiao Rd., Xindian Dist.,
New Taipei City 23145, Taiwan R.O.C

Test Lab : Wendell Electrical Testing Lab.

Test Location : No.67-9, Shimen Rd., Tucheng Dist.,
New Taipei City 236, Taiwan R.O.C

2 Mobile device Assessment Procedure

A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. In this context, the term “fixed location” means that the device is physically secured at one location and is not able to be easily moved to another location.

A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.

3 RF Exposure Assessment

Estimation of the expected exposure in power density can be made with the following equation:

$$S = \frac{P \times G}{4\pi \times R^2}$$

S: power density

P: power input to the 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.

4 Limit requirement

Reference levels for electric, magnetic and electromagnetic fields (0 Hz to 300 GHz, unperturbed rms values)

Frequency range	E-field strength V/m	H-field strength V/m	B-field μT	Equivalent plane wave Power density S_{eq} W/m^2
Up to 1 Hz	--	$3.2 * 10^4$	$4 * 10^4$	--
1 Hz - 8 Hz	10000	$3.2 * 10^4 / f^2$	$4 * 10^4 / f^2$	--
8 Hz - 25 Hz	10000	$4000/f$	$5000/f$	--
0.025 kHz - 0.8 kHz	$250/f$	$4/f$	$5/f$	--
0.8 kHz - 3 kHz	$250/f$	5	6.25	--
3 kHz - 150 kHz	87	5	6.25	--
0.15 MHz - 1 MHz	87	$0.73/f^{1/2}$	$0.92/f^{1/2}$	--
1 MHz - 10 MHz	$87/f^{1/2}$	$0.73/f^{1/2}$	$0.92/f^{1/2}$	--
10 MHz - 400 MHz	28	0.073	0.092	2
400 MHz - 2000 MHz	$1.375 f^{1/2}$	$0.0037 f^{1/2}$	$0.0046 f^{1/2}$	$f/200$
2 GHz - 300 GHz	61	0.16	0.20	10

Note: f as indicated in the frequency range column.

5 Test Results

Mode	Max. Average Power (E.I.R.P)		Distance (m)	Power Density (W/m ²)	Limit (W/m ²)	Result
	dBm	W				
BT	5.40	0.0035	0.2	0.0069	10	Pass

Note :

- * The Numeric Gain calculated by $10^{(dBi/10)}$.
- * Each Function of the max power which perform MPE of any configurations.
- * The Max total MPE = BT = 0.0069 (W/m²)

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