





Report No.: FA882303-01



# Radio Exposure Evaluation Report

FCC ID : 2AKWYXBP202

: Digital Transmission System Equipment

: DynaScan Technology Corp. **Brand Name** 

: XBP202 **Model Name** 

: DYNASCAN TECHNOLOGY CORP. **Applicant** 

7F, 66 Huaya 1st Road, Guishan Taoyuan

33383.Taiwan

: DYNASCAN TECHNOLOGY CORP. Manufacturer

7F, 66 Huaya 1st Road, Guishan Taoyuan

33383, Taiwan

Standard : 47 CFR Part 2.1091

This report was evaluated for permissive change. The product was received on Aug. 27, 2018, and testing was started from Oct. 29, 2018 and completed on Oct. 29, 2018. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR Part 2.1091 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of United States government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Alen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

: 1 of 7 TEL: 886-3-327-3456 Page Number

: Nov. 28, 2018 FAX: 886-3-327-0973 Issued Date

Report Template No.: HE1-A1 Ver2.1 Report Version : 01

2AKWYXBP202: 2AKWYXBP202

# **Table of Contents**

Report No.: FA882303-01

HISTO	RY OF THIS TEST REPORT	.3
	GENERAL DESCRIPTION	
	EUT General Information	
	Table for Permissive Change	
1.3	Testing Location	.5
2	MAXIMUM PERMISSIBLE EXPOSURE	.6
2.1	Limit of Maximum Permissible Exposure	.6
2.2	MPE Calculation Method	
2.3	Calculated Result and Limit	.7

Photographs of EUT V01

TEL: 886-3-327-3456 Page Number : 2 of 7

Report Template No.: HE1-A1 Ver2.1 Report Version : 01 2AKWYXBP202: 2AKWYXBP202



# History of this test report

Report No.: FA882303-01

Report No.	Version	Description	Issued Date
FA882303-01	01	Initial issue of report	Nov. 28, 2018

TEL: 886-3-327-3456 Page Number : 3 of 7

FAX: 886-3-327-0973 Issued Date : Nov. 28, 2018

Report Template No.: HE1-A1 Ver2.1 Report Version : 01 2AKWYXBP202: 2AKWYXBP202



# **Summary of Test Result**

Report No.: FA882303-01

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
2	-	Exposure evaluation	PASS	-

#### **Declaration of Conformity:**

The judgment of conformity in the report is based on the measurement results excluding the measurement uncertainty.

#### **Comments and Explanations:**

None.

Reviewed by: Sam Tsai

Report Producer: Jenny Yang

2AKWYXBP202: 2AKWYXBP202

TEL: 886-3-327-3456 Page Number : 4 of 7

Report Template No.: HE1-A1 Ver2.1 Report Version : 01



# 1 General Description

#### 1.1 EUT General Information

		RF General	Information
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
2.4GHz WLAN	2400-2483.5	2412-2462	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM)

Report No.: FA882303-01

### 1.2 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FA882303 Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
1. The dipole Antenna was added.	
2. Host System were added	Maximum Permissible Exposure was evaluated
(DO552LR4, DO552LR5, DO552LT4, DO552LT5)	

### 1.3 Testing Location

	Testing Location								
$\boxtimes$	HWA YA ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)								
	TEL: 886-3-327-3456 FAX: 886-3-327-0973								
	Test site Designation No. TW1190 with FCC.								
	JHUBEI ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)								
	TEL : 886-3-656-9065 FAX : 886-3-656-9085								
	Test site Designation No. TW0006 with FCC.								

TEL: 886-3-327-3456 Page Number : 5 of 7

FAX: 886-3-327-0973 Issued Date : Nov. 28, 2018

Report Template No.: HE1-A1 Ver2.1 Report Version : 01

2AKWYXBP202: 2AKWYXBP202



### 2 Maximum Permissible Exposure

#### 2.1 Limit of Maximum Permissible Exposure

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time  E ², H ² or S (minutes)	
0.3-3.0	614	614 1.63		6	
3.0-30	1842 / f	4.89 / f	(900 / f <sup>2</sup> )*	6	
30-300	61.4	0.163	1.0	6	
300-1500	-	-	F/300	6	
1500-100,000	-	-	5	6	

Report No.: FA882303-01

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Power Density (S) Strength (H) (A/m) (mW/ cm²)		wagnetic rield Power Density (5)		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 <sup>2</sup> )*	30		
30-300	27.5	0.073	0.2	30		
300-1500	-	-	F/1500	30		
1500-100,000	-	-	1.0	30		

Note: f = frequency in MHz; \*Plane-wave equivalent power density Note: f = frequency in MHz; \*Plane-wave equivalent power density

#### 2.2 MPE Calculation Method

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$E (V/m) = \frac{\sqrt{30 \times P \times G}}{d}$$

Power Density:  $Pd(W/m^2) = \frac{E^2}{377}$ 

E = Electric field (V/m)

**P** = RF output power (W)

**G** = EUT Antenna numeric gain (numeric)

**d** = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

TEL: 886-3-327-3456 Page Number : 6 of 7

FAX: 886-3-327-0973 Issued Date : Nov. 28, 2018

Report Template No.: HE1-A1 Ver2.1 Report Version : 01

2AKWYXBP202: 2AKWYXBP202



#### 2.3 Calculated Result and Limit

**Exposure Environment: General Population / Uncontrolled Exposure** 

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm²)	S Limit (mW/cm²)
2.4G;G1D	2.00	21.65	23.65	0.50	24.15	0.26002	20	0.05173	1.00000
2.4G;D1D	2.00	18.90	20.90	0.50	21.40	0.13804	20	0.02746	1.00000

Report No.: FA882303-01

——THE END——

TEL: 886-3-327-3456 Page Number : 7 of 7

Report Template No.: HE1-A1 Ver2.1 Report Version : 01 2AKWYXBP202: 2AKWYXBP202