

TEST REPORT

of

FCC MPE REQUIREMENT

Product : Digital Transmission Systems

Brand Name: DynaScan

Model: FBP206

Model Difference: N/A

Applicant: Dynascan Technology Corp.

Address: 6F., No. 88, Wenmao Rd., Guishan Dist.,
Taoyuan City 333001, Taiwan

Test Performed by:

 **International Standards Laboratory Corp. LT Lab.**
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Taiwan

Report No.: **ISL-23LR0131FMPE**
Issue Date : **October 31, 2023**



Test results given in this report apply only to the specific sample(s) tested and are traceable to national or international standard through calibration of the equipment and evaluating measurement uncertainty herein.

The uncertainty of the measurement does not include in consideration of the test result unless the customer required the determination of uncertainty via the agreement, regulation or standard document specification.

This test report shall not be reproduced except in full, without the written approval of International Standards Laboratory Corp.

VERIFICATION OF COMPLIANCE

Applicant: Dynascan Technology Corp.
Product Description: Digital Transmission Systems
Brand Name: DynaScan
Model No.: FBP206
Model Difference: N/A
Date of test: September 18, 2023 ~ October 31, 2023
Date of EUT Received: September 18, 2023

We hereby certify that:

All the tests in this report have been performed and recorded in accordance with the standards described above and performed by an independent electromagnetic compatibility consultant, International Standards Laboratory Corp.

The test results contained in this report accurately represent the measurements of the characteristics and the energy generated by sample equipment under test at the time of the test. The sample equipment tested as described in this report is in compliance with the limits of above standards.

Test By:

Jason Chao

Date:

October 31, 2023

Jason Chao / Senior Engineer

Prepared By:

Gigi Yeh

Date:

October 31, 2023

Gigi Yeh / Senior Engineer

Approved By:

Jerry Liu

Date:

October 31, 2023

Jerry Liu / Manager

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1. Description of Equipment under Test (EUT)

General:

General Information		
Product Name:	Digital Transmission Systems	
Brand Name:	DynaScan	
Model Name:	FBP206	
Model Difference:	N/A	
Rated Power:	DC 3.3V	
Host Information		
Product Name:	Display	
Model Name:	65514	
Temperature Range:	0°C to +45°C	
Power Supply:	120Vac/60Hz	
	Battery:	Model: CR2032W; Supplier: KTS
	Power Supply:	Model: LRS-100-24 ; Supplier: Mean Well
		Model: UHP-350-24 ; Supplier: Mean Well
	Model: EPP-200-12 ; Supplier: Mean Well	
WiFi Information		
Frequency Range:	WLAN 2.4GHz Band 802.11b/g 2412~2462MHz 802.11n(HT20) 2412~2462MHz 802.11n(HT40) 2422~2452MHz WLAN 5GHz Band U-NII-1 5150~5250MHz U-NII-3 5725~5850MHz	
Max Output Power:	2412MHz ~ 2472MHz:19.87dBm 5150MHz ~ 5250MHz:16.23dBm 5725MHz ~ 5850MHz:20.8dBm	
Channel number:	WLAN 2.4GHz Band 802.11b/g : 11 channels 802.11n(HT20) : 11 channels 802.11n(HT40) : 7 channels	

	WLAN 5GHz Band						
	802.11a	U-NII-1	:	4 channels			
	802.11a	U-NII-3	:	5 channels			
	802.11ac(VHT20)	U-NII-1	:	4 channels			
	802.11ac(VHT20)	U-NII-3	:	5 channels			
	802.11ac(VHT40)	U-NII-1	:	2 channels			
	802.11ac(VHT40)	U-NII-3	:	2 channels			
	802.11ac(VHT80)	U-NII-1	:	1 channels			
	802.11ac(VHT80)	U-NII-3	:	1 channels			
Product HW Version:	RTL8822CU_WiFi_linux_v5						
Product SW Version:	RTL8822CU_WiFi_linux_v5						
Product FW Version:	RTL8822CU_WiFi_linux_v5						
Test SW Version:	WLAN Test Tool Ver.2.8.0						
RF power setting:							
	Mode	Freq. (MHz)	power set				
			Chain 0	Chain 1	Chain 2	Chain 3	
	802.11b	2412	105	105	113	113	
		2437	110	105	113	113	
		2462	107	104	120	115	
	802.11g	2412	85	85	90	90	
		2437	98	96	105	102	
		2462	96	94	101	93	
	802.11n HT20	2412	90	93	98	88	
		2437	97	97	103	93	
		2462	95	94	101	93	
	802.11n HT40	2422	73	73	73	73	
		2437	100	92	105	95	
		2452	80	80	83	83	
	Band	Mode	Freq. (MHz)	Output Power (dBm)			
				Chain 0	Chain 1	Chain 2	Chain 3
	UNII-1	11a	5180	81	80	86	70
			5220	82	77	80	68
			5240	83	78	80	70
		VHT20	5180	85	78	76	73
			5220	84	78	74	71
			5240	87	80	77	77

		VHT40	5190	80	79	75	72
			5230	100	97	96	91
		VHT80	5210	93	87	87	80
	UNII-3	Band	Mode	Freq. (MHz)	Output Power (dBm)		
					Chain 0	Chain 1	Chain 2
		11a		5745	113	108	105
				5785	113	105	100
				5825	108	105	98
		VHT20		5745	115	110	104
				5785	110	107	96
				5825	110	107	97
		VHT40		5755	110	105	107
				5795	110	109	105
		VHT80		5775	110	108	104

	Antenna Type	Brand	Model	Peak Gain (dBi)	Frequency Range	Connector Type
1	PIFA	INPAQ	RFMTA34071AIMLB401	-3.04 dB	2400-2500MHz	IPEX(Gold)
				-2.31 dB	5150-5850MHz	

2. Maximum Permissible Exposure (MPE)

2.1 Standard Applicable

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

This is a Mobile device, the MPE is required.

According to §1.1310 and §2.1091 RF exposure is calculated.

Limits for Maximum Permissive Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for General Population/Uncontrolled Exposure				
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
1500-15000	/	/	1.0	30

F = frequency in MHz

* = Plane-wave equipment power density

3. Evaluation Result:

Frequency Band (MHz)	Conducted power (dBm)	Antenna gain (dBi)	Tune-Up Tolerance (dB)	EIRP (dBm)	MPE (mW/cm ²)	LIMIT (mW/cm ²)
2412 - 2462	19.87	-3.04	1	17.830	0.01208	1
5180 - 5240	16.23	-2.31	1	14.920	0.00618	1
5745 - 5825	20.8	-2.31	1	19.490	0.01770	1

~ End ~