

# 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.**

TEL: +886-3-263-8888 FAX: +886-3-263-8899

No. 120, Lane 180, Hsin Ho Rd., Lung-Tan Dist., Tao Yuan City 325,  
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

	<p>WLAN 5GHz Band</p> <p>802.11a                    U-NII-1        :   4 channels</p> <p>802.11a                    U-NII-3        :   5 channels</p> <p>802.11ac(VHT20)    U-NII-1        :   4 channels</p> <p>802.11ac(VHT20)    U-NII-3        :   5 channels</p> <p>802.11ac(VHT40)    U-NII-1        :   2 channels</p> <p>802.11ac(VHT40)    U-NII-3        :   2 channels</p> <p>802.11ac(VHT80)    U-NII-1        :   1 channels</p> <p>802.11ac(VHT80)    U-NII-3        :   1 channels</p>																																																																																																																						
Product HW Version:	RTL8822CU_WiFi_linux_v5																																																																																																																						
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Product FW Version:	RTL8822CU_WiFi_linux_v5																																																																																																																						
Test SW Version:	WLAN Test Tool Ver.2.8.0																																																																																																																						
RF power setting:	<table border="1"> <thead> <tr> <th rowspan="2">Mode</th> <th rowspan="2">Freq. (MHz)</th> <th colspan="4">power set</th> </tr> <tr> <th>Chain 0</th> <th>Chain 1</th> <th>Chain 2</th> <th>Chain 3</th> </tr> </thead> <tbody> <tr> <td rowspan="3">802.11b</td> <td>2412</td> <td>105</td> <td>105</td> <td>113</td> <td>113</td> </tr> <tr> <td>2437</td> <td>110</td> <td>105</td> <td>113</td> <td>113</td> </tr> <tr> <td>2462</td> <td>107</td> <td>104</td> <td>120</td> <td>115</td> </tr> <tr> <td rowspan="3">802.11g</td> <td>2412</td> <td>85</td> <td>85</td> <td>90</td> <td>90</td> </tr> <tr> <td>2437</td> <td>98</td> <td>96</td> <td>105</td> <td>102</td> </tr> <tr> <td>2462</td> <td>96</td> <td>94</td> <td>101</td> <td>93</td> </tr> <tr> <td rowspan="3">802.11n HT20</td> <td>2412</td> <td>90</td> <td>93</td> <td>98</td> <td>88</td> </tr> <tr> <td>2437</td> <td>97</td> <td>97</td> <td>103</td> <td>93</td> </tr> <tr> <td>2462</td> <td>95</td> <td>94</td> <td>101</td> <td>93</td> </tr> <tr> <td rowspan="3">802.11n HT40</td> <td>2422</td> <td>73</td> <td>73</td> <td>73</td> <td>73</td> </tr> <tr> <td>2437</td> <td>100</td> <td>92</td> <td>105</td> <td>95</td> </tr> <tr> <td>2452</td> <td>80</td> <td>80</td> <td>83</td> <td>83</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th rowspan="2">Band</th> <th rowspan="2">Mode</th> <th rowspan="2">Freq. (MHz)</th> <th colspan="4">Output Power (dBm)</th> </tr> <tr> <th>Chain 0</th> <th>Chain 1</th> <th>Chain 2</th> <th>Chain 3</th> </tr> </thead> <tbody> <tr> <td rowspan="6">UNII-1</td> <td rowspan="3">11a</td> <td>5180</td> <td>81</td> <td>80</td> <td>86</td> <td>70</td> </tr> <tr> <td>5220</td> <td>82</td> <td>77</td> <td>80</td> <td>68</td> </tr> <tr> <td>5240</td> <td>83</td> <td>78</td> <td>80</td> <td>70</td> </tr> <tr> <td rowspan="3">VHT20</td> <td>5180</td> <td>85</td> <td>78</td> <td>76</td> <td>73</td> </tr> <tr> <td>5220</td> <td>84</td> <td>78</td> <td>74</td> <td>71</td> </tr> <tr> <td>5240</td> <td>87</td> <td>80</td> <td>77</td> <td>77</td> </tr> </tbody> </table>	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
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	VHT40	5190	80	79	75	72	
		5230	100	97	96	91	
		VHT80	5210	93	87	87	80
	UNII-3	11a	Freq. (MHz)	Output Power (dBm)			
				Chain 0	Chain 1	Chain 2	Chain 3
		VHT20	5745	113	108	105	100
			5785	113	105	100	100
			5825	108	105	98	100
		VHT40	5745	115	110	104	105
			5785	110	107	96	100
5825			110	107	97	106	
VHT80		5755	110	105	107	102	
		5795	110	109	105	101	
VHT80	5775	110	108	104	103		

	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 Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	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 <sup>2</sup> )	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 <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
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 ~