

TEST REPORT

Product Name : Isuzu Digital Screen 21.5 inch
Model Number : P-5372
FCC ID : 2AW6M-P5372

Prepared for : DEKKERS International
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Table of Contents

1. TEST RESULT CERTIFICATION	3
2. EUT SPECIFICATION	5
3. TEST REQUIREMENT:	6
RF EXPOSURE EVALUATION	6
4. MEASUREMENT RESULT	7



1. TEST RESULT CERTIFICATION

Applicant : DEKKERS International
Address : Beukenlaan 115, 5616VC Eindhoven, The Netherlands
Manufacturer : DEKKERS International
Address : Beukenlaan 115, 5616VC Eindhoven, The Netherlands
EUT : Isuzu Digital Screen 21.5 inch
Model Name : P-5372
Trademark : N/A

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
§ 15.247(i), § 2.1093	PASS

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1093.

The test results of this report relate only to the tested sample identified in this report

Date of Test : January 17, 2024 to April 30, 2024

Prepared by :

Warren Deng

Warren Deng /Editor

Reviewer :

Tim Dong

Tim Dong /Supervisor

Approve & Authorized Signer :

 

Sam Lv / Manager

Modified History

Version	Report No.	Revision Date	Summary
	EDG2401170132E00305R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	Isuzu Digital Screen 21.5 inch
Model Number:	P-5372
Sample:	1#
Data Rate:	1Mbps for GFSK modulation 2Mbps for $\pi/4$ -DQPSK modulation 3Mbps for 8DPSK modulation 1Mbps for GFSK modulation DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n;
Modulation:	GFSK, $\pi/4$ -DQPSK, 8DPSK, DSSS, OFDM
Operating Frequency Range(s) :	2402-2480MHz for BT & BLE; 2412-2462MHz for 802.11b/g/n(HT20); 2422-2452MHz for 802.11n(HT40); 5180-5240MHz for 802.11a/n(HT20); 5190-5230MHz for 802.11n(HT40)/ac(VHT40); 5210MHz for 802.11ac(VHT80); 5745-5825MHz for 802.11a/n(HT20); 5755-5795MHz for 802.11n(HT40)/ac(VHT40); 5775MHz for 802.11ac(VHT80);
Number of Channels:	BT: 79 channels BLE:40 channels 11 channels for 802.11b/g/n(HT20); 7 Channels for 802.11n(HT40);
Transmit Power Max:	BT: 1.58 dBm(0.001439 W) BLE: -0.62 dBm(0.000867 W) 2.4G WIFI:13.69dBm(0.023388 W) UNII-1 Band: 11.91 dBm(0.015524 mW) UNII-3 Band: 13.27 dBm(0.021232 mW)
Antenna Gain:	BT&BLE: 3 dBi 2.4G WIFI: 3 dBi UNII-1 Band: -1.81 dBi UNII-3 Band: -0.42 dBi
Power supply:	DC 24V 3A from Adapter
Evaluation applied:	☐ MPE Evaluation ☒ SAR Evaluation

3. Test Requirement:

RF EXPOSURE EVALUATION

According to §15.247(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

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:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,²⁴ where

- $f_{(\text{GHz})}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation²⁵
- 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.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval. One antenna is available for the EUT. The minimum separation distance is 5mm.

4. Measurement Result

gain:	3	BT FCC MPE							
Mode	Frequency (MHz)	Output Power(dBm)	E.I.R.P(dBm)	Target Power W/tolerance (dBm)	Max tune up power(dBm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Verdict
GFSK	2402	0.83	3.83	3±1	4	2.51	0.000997	1	PASS
	2441	1.01	4.01	4±1	5	3.16	0.001255	1	PASS
	2480	-0.26	2.74	6±1	3	2.00	0.000792	1	PASS
pi/4-DQPSK	2402	1.05	4.05	4±1	5	3.16	0.001255	1	PASS
	2441	0.89	3.89	3±1	4	2.51	0.000997	1	PASS
	2480	-0.21	2.79	2±1	3	2.00	0.000792	1	PASS
8-DPSK	2402	1.58	4.58	4±1	5	3.16	0.001255	1	PASS
	2441	1.29	4.29	4±1	5	3.16	0.001255	1	PASS
	2480	-0.15	2.85	2±1	3	2.00	0.000792	1	PASS

gain:	3	BLE FCC MPE							
Mode	Frequency (MHz)	Output Power(dBm)	E.I.R.P(dBm)	Target Power W/tolerance (dBm)	Max tune up power(dBm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Verdict
GFSK	2402	0.68	3.68	3±1	4	2.51	0.000997	1	PASS
	2441	0.64	3.64	3±1	4	2.51	0.000997	1	PASS
	2480	-0.6	2.4	2±1	3	2.00	0.000792	1	PASS

gain:	3	WIFI 2.4G FCC EMF							
Mode	Frequen cy (MHz)	Outp ut Pow er (dBm)	E.I.R.P(dB m)	Target Power W/toleran ce (dBm)	Max tune up power(dB m) tolerance	Max tuneup power(m W) tolerance	Power Density at R=20cm (mW/cm 2)	Limit (mW/cm 2)	Verdi ct
802.11b	2412	13.6 9	16.69	16±1	17	50.12	0.01989 4	1	PAS S
	2437	12.7	15.70	15±1	16	39.81	0.01580 3	1	PAS S
	2462	12.9 4	15.94	15±1	16	39.81	0.01580 3	1	PAS S
802.11g	2412	8.3	11.30	11±1	12	15.85	0.00629 1	1	PAS S
	2437	8.01	11.01	11±1	12	15.85	0.00629 1	1	PAS S
	2462	7.95	10.95	10±1	11	12.59	0.00499 7	1	PAS S
802.11n(HT 20)	2412	8.3	11.30	11±1	12	15.85	0.00629 1	1	PAS S
	2437	7.94	10.94	10±1	11	12.59	0.00499 7	1	PAS S
	2462	7.97	10.97	10±1	11	12.59	0.00499 7	1	PAS S
802.11n(HT 40)	2422	8.28	11.28	11±1	12	15.85	0.00629 1	1	PAS S
	2437	7.98	10.98	10±1	11	12.59	0.00499 7	1	PAS S
	2452	7.96	10.96	10±1	11	12.59	0.00499 7	1	PAS S

gain:	UNII-1 Band: -1.81 dBi UNII-3 Band: -0.42 dBi								
Mode	Frequency (MHz)	Output Power (dBm)	E.I.R.P(d Bm)	Target Power W/tolerance (dBm)	Max tune up power(d Bm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Verdict
802.11a	5180	10.17	8.36	10±1	11	12.59	0.00165 ₁	1	Pass
	5200	10.54	8.73	10±1	11	12.59	0.00165 ₁	1	Pass
	5240	9.02	7.21	9±1	10	10.00	0.00131 ₁	1	Pass
	5745	12.16	11.74	12±1	13	19.95	0.00360 ₄	1	Pass
	5785	11.52	11.1	11±1	12	15.85	0.00286 ₂	1	Pass
	5825	10.88	10.46	10±1	11	12.59	0.00227 ₄	1	Pass
802.11n(HT 20)	5180	9.93	8.12	9±1	10	10.00	0.00131 ₁	1	Pass
	5200	10.68	8.87	10±1	11	12.59	0.00165 ₁	1	Pass
	5240	9.32	7.51	9±1	10	10.00	0.00131 ₁	1	Pass
	5745	12.18	11.76	12±1	13	19.95	0.00360 ₄	1	Pass
	5785	10.09	9.67	10±1	11	12.59	0.00227 ₄	1	Pass
	5825	10.62	10.2	10±1	11	12.59	0.00227 ₄	1	Pass
802.11n(HT 40)	5190	11.22	9.41	11±1	12	15.85	0.00207 ₈	1	Pass
	5230	10.80	8.99	10±1	11	12.59	0.00165 ₁	1	Pass
	5755	13.15	12.73	13±1	14	25.12	0.00453 ₇	1	Pass
	5795	12.64	12.22	12±1	13	19.95	0.00360 ₄	1	Pass
802.11ac(V HT20)	5180	10.40	8.59	10±1	11	12.59	0.00165 ₁	1	Pass
	5200	11.11	9.3	11±1	12	15.85	0.00207 ₈	1	Pass
	5240	9.96	8.15	9±1	10	10.00	0.00131 ₁	1	Pass
	5745	12.22	11.8	12±1	13	19.95	0.00360 ₄	1	Pass
	5785	11.41	10.99	11±1	12	15.85	0.00286 ₂	1	Pass
	5825	10.98	10.56	10±1	11	12.59	0.00227 ₄	1	Pass
802.11ac(V	5190	11.27	9.46	11±1	12	15.85	0.00207	1	Pass

HT40)							8		
	5230	10.85	9.04	10±1	11	12.59	0.00165 1	1	Pass
	5755	12.39	11.97	12±1	13	19.95	0.00360 4	1	Pass
	5795	12.35	11.93	12±1	13	19.95	0.00360 4	1	Pass
802.11ac(V HT80)	5210	11.91	10.1	11±1	12	15.85	0.00207 8	1	Pass
	5775	13.27	12.85	13±1	14	25.12	0.00453 7	1	Pass

Simultaneous launch

MAX Power Density at R=20cm (mW/cm2)

Wireless specification	BT	BLE	2.4G WIFI	5GWIFI
MAX Power Density at R=20cm (mW/cm2)	0.001255	0.000997	0.019894	0.004537
business accounting	0.032117	Limit (mW/cm2)	1	
Verdict	Pass			

According to KDB 447498, no stand-alone required for WIFI antenna, and no simultaneous SAR measurement is required.

*** End of Report ***