

Report No.: TW2205149-01E File reference No.: 2022-06-07

Applicant: GLORY STAR TECHNICS (SHENZHEN) CO., LTD.

Product: Commercial Kiosk Tablet

Model No.: TAD321-A

Trademark: Glory Star

Test Standards: FCC Part 15.247

Test result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.10, FCC Part 15.247 for the

evaluation of electromagnetic compatibility

Approved By

rend land

Terry Tang

Manager

Dated: June 07, 2022

Results appearing herein relate only to the sample tested

The technical reports is issued errors and omissions exempt and is subject to withdrawal at

SHENZHEN TIMEWAY TESTING LABORATORIES

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China

Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com

Date: 2022-06-07



22-00-07

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Special Statement:

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meets with ISO/IEC-17025 requirements, which is approved by CNAS. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAS-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2017 General Requirements) for the Competence of testing Laboratories.

FCC-Registration No.: 744189

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 744189.

Industry Canada (IC) — **Registration No.:5205A**

The EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5205A.

A2LA (Certification Number: 5013.01)

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

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Test Report Conclusion

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1.0 General Details

1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES.

Address: Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le

Village, Nanshan District, Shenzhen, China

Telephone: (755) 83448688 Fax: (755) 83442996

1.2 Applicant Details

Applicant: GLORY STAR TECHNICS (SHENZHEN) CO., LTD.

Address: Bldg., 9, 4/F., Zong Yuntai Technology Industrial Park, Songbai Road, Shiyan Street, Boan,

Shenzhen

Telephone: (755)-26001808-305 Fax: (755)-26002933

1.3 Description of EUT

Product: Commercial Kiosk Tablet

Manufacturer: GLORY STAR TECHNICS (SHENZHEN) CO., LTD.

Address: Bldg., 9, 4/F., ZongYuntai Technology Industrial Park, Songbai Road, Shiyan Street,

Boan, Shenzhen

Trademark: Glory Star Model Number: TAD321-A Additional Model Number: N/A

Hardware Version: V1.9 Software Version: Android 9 Serial No.: GS321220400027

Type of Modulation GFSK, 月/4DQPSK, 8DPSK for Bluetooth

Frequency range 2402-2480MHz for Bluetooth

Channel Spacing 1MHz for Bluetooth

Frequency Selection By software

Channel Number 79 channels for Bluetooth

Antenna: Dipole Antenna with reverse polarity SMA antenna connector. The gain of the

antennas is 2.2dBi (Declared by the applicant)

Rating: 100-240V~, 50/60Hz, 60W

1.4 Submitted Sample: 1 Samples

1.5 Test Duration

2022-05-14 to 2022-06-07

The report refers only to the sample tested and does not apply to the bulk.

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Test Uncertainty 1.6

Conducted Emissions Uncertainty =3.6dB

Radiated Emissions below 1GHz Uncertainty =4.7dB

Radiated Emissions above 1GHz Uncertainty =6.0dB

Conducted Power Uncertainty =6.0dB

Occupied Channel Bandwidth Uncertainty =5%

Note: The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

1.7 Test Engineer

The sample tested by

Print Name: Andy Xing

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2.0 Test Equipment					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2021-06-18	2022-06-17
TWO Line-V-NETW	R&S	EZH3-Z5	100294	2021-06-18	2022-06-17
TWO Line-V-NETW	R&S	EZH3-Z5	100253	2021-06-18	2022-06-17
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2021-06-18	2022-06-17
Loop Antenna	EMCO	6507	00078608	2021-06-18	2022-06-17
Spectrum	R&S	FSIQ26	100292	2021-06-18	2022-06-17
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2021-06-18	2022-06-17
Horn Antenna	R&S	BBHA 9120D	9120D-631	2021-07-02	2024-07-01
Power meter	Anritsu	ML2487A	6K00003613	2021-06-18	2022-06-17
Power sensor	Anritsu	MA2491A	32263	2021-06-18	2022-06-17
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2021-07-02	2024-07-01
9*6*6 Anechoic	-		N/A	2021-07-02	2024-07-01
EMI Test Receiver	RS	ESVB	826156/011	2021-06-18	2022-06-17
EMI Test Receiver	RS	ESH3	860904/006	2021-06-18	2022-06-17
Spectrum	HP/Agilent	ESA-L1500A	US37451154	2021-06-18	2022-06-17
Spectrum	HP/Agilent	E4407B	MY50441392	2021-06-18	2022-06-17
Spectrum	RS	FSP	1164.4391.38	2022-01-14	2023-01-13
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/F A		2021-06-18	2022-06-17
RF Cable	Zhengdi	7m		2021-06-18	2022-06-17
RF Switch	EM	EMSW18	060391	2021-06-18	2022-06-17
Pre-Amplifier	Schwarebeck	BBV9743	#218	2021-06-18	2022-06-17
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2021-06-18	2022-06-17
LISN	SCHAFFNER	NNB42	00012	2022-01-05	2023-01-04

2.2 Automation Test Software

For Conducted Emission Test

Name	Version
EZ-EMC	Ver.EMC-CON 3A1.1
For Radiated Emissions	
Name	Version
EMI Test Software BL410-EV18.91	V18.905
EMI Test Software BL410-EV18.806 High Frequency	V18.06

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3.0 **Technical Details**

3.1 **Summary of test results**

The EUT has been tested according to the following specifications:

Requirement	CFR 47 Section	Result	Notes
Antenna Requirement	15.203, 15.247(b)(4)	Pass	Complies
Maximum Peak Out Power	15.247 (b)(1), (4)	Pass	Complies
Carrier Frequency Separation	15.247(a)(1)	Pass	Complies
20dB Channel Bandwidth	15.247 (a)(1)	Pass	Complies
Number of Hopping Channels	15.247(a)(iii), 15.247(b)(1)	Pass	Complies
Time of Occupancy (Dwell Time)	15.247(a)(iii)	Pass	Complies
Spurious Emission, Band Edge, and Restricted bands	15.247(d),15.205(a), 15.209 (a),15.109	Pass	Complies
Conducted Emissions	15.207(a), 15.107	Pass	Complies
RF Exposure	15.247(i), 1.1307(b)(1)	Pass	Complies

3.2 **Test Standards**

FCC Part 15 Subpart & Subpart C, Paragraph 15.247

4.0 **EUT Modification**

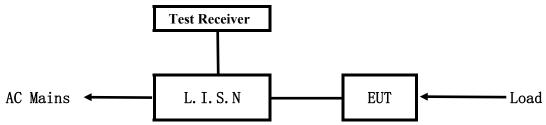
No modification by SHENZHEN TIMEWAY TESTING LABORATORIES.

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5. Power Line Conducted Emission Test

5.1 Schematics of the test

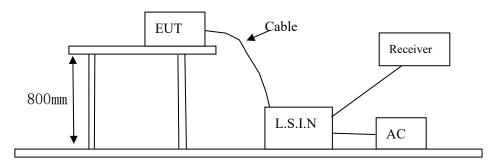


EUT: Equipment Under Test

5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.10-2013.

Test Voltage: 120V~, 60Hz Block diagram of Test setup



5.3 Configuration of The EUT

The EUT was configured according to ANSI C63.10-2013. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A. EUT

Device	Manufacturer	Model	FCC ID	
Commercial Kiosk	GLORY STAR TECHNICS	TAD321-A	2AACS-TAD321-A	
Tablet	(SHENZHEN) CO., LTD.	1AD321-A		

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В. Internal Device

Device	Manufacturer	Model	Rating	

C. Peripherals

Device	Manufacturer	Model	Rating
N/A			

5.4 **EUT Operating Condition**

Operating condition is according to ANSI C63.10-2013.

- Setup the EUT and simulators as shown on follow Α
- В Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.207

Frequency	Limits (dB μ V)				
(MHz)	Quasi-peak Level	Average Level			
$0.15 \sim 0.50$	66.0~56.0*	56.0~46.0*			
$0.50 \sim 5.00$	56.0	46.0			
5.00 ~ 30.00	60.0	50.0			

Notes:

- 1. *Decreasing linearly with logarithm of frequency.
- 2. The tighter limit shall apply at the transition frequencies

5.6 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

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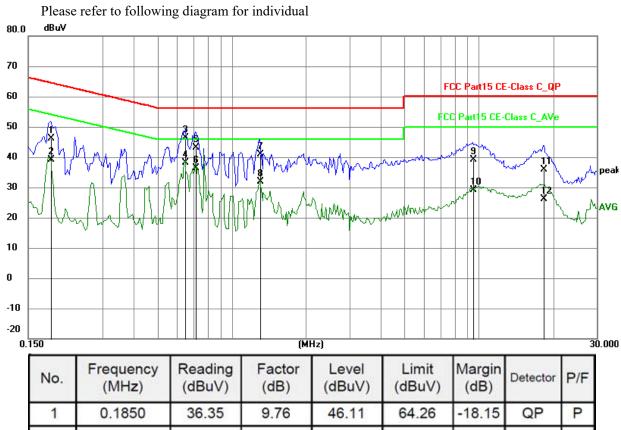
Conducted Emission on Live Terminal (150kHz to 30MHz) A:

EUT Operating Environment

Humidity: 65%RH Atmospheric Pressure: 101 kPa Temperature: 26°C

EUT set Condition: Keep Bluetooth Transmitting

Results: Pass



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1850	36.35	9.76	46.11	64.26	-18.15	QP	Р
2	0.1850	29.48	9.76	39.24	54.26	-15.02	AVG	Р
3	0.6492	36.65	9.78	46.43	56.00	-9.57	QP	Р
4	0.6492	28.37	9.78	38.15	46.00	-7.85	AVG	Р
5	0.7155	33.31	9.78	43.09	56.00	-12.91	QP	Р
6	0.7155	26.66	9.78	36.44	46.00	-9.56	AVG	Р
7	1.2966	31.11	9.79	40.90	56.00	-15.10	QP	Р
8	1.2966	22.00	9.79	31.79	46.00	-14.21	AVG	Р
9	9.4662	29.07	10.13	39.20	60.00	-20.80	QP	Р
10	9.4662	19.03	10.13	29.16	50.00	-20.84	AVG	Р
11	18.3192	25.40	10.58	35.98	60.00	-24.02	QP	Р
12	18.3192	15.56	10.58	26.14	50.00	-23.86	AVG	Р

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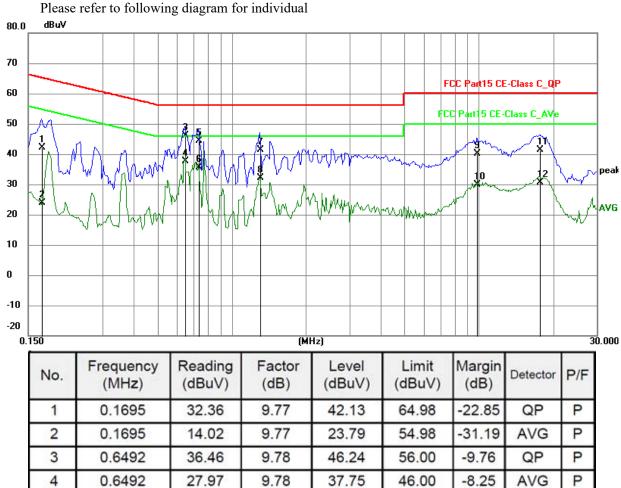
B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

EUT Operating Environment

Humidity: 65%RH Atmospheric Pressure: 101 kPa Temperature: 26°C

EUT set Condition: Keep Bluetooth Transmitting

Results: Pass



No.	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	Detector	P/F
1	0.1695	32.36	9.77	42.13	64.98	-22.85	QP	Р
2	0.1695	14.02	9.77	23.79	54.98	-31.19	AVG	Р
3	0.6492	36.46	9.78	46.24	56.00	-9.76	QP	Р
4	0.6492	27.97	9.78	37.75	46.00	-8.25	AVG	Р
5	0.7350	34.65	9.78	44.43	56.00	-11.57	QP	Р
6	0.7350	25.94	9.78	35.72	46.00	-10.28	AVG	Р
7	1.2966	31.70	9.79	41.49	56.00	-14.51	QP	Р
8	1.2966	22.42	9.79	32.21	46.00	-13.79	AVG	Р
9	9.8562	30.05	10.15	40.20	60.00	-19.80	QP	Р
10	9.8562	19.79	10.15	29.94	50.00	-20.06	AVG	Р
11	17.5860	30.85	10.54	41.39	60.00	-18.61	QP	Р
12	17.5860	20.01	10.54	30.55	50.00	-19.45	AVG	Р

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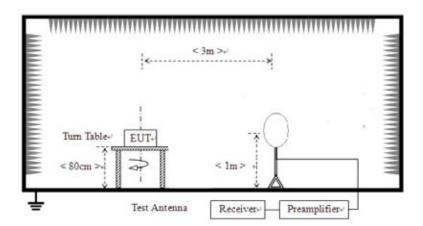
6 Radiated Emission Test

6.1 Test Method and test Procedure:

- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 30 MHz to 25GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 kHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK detector. Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
- (6) The antenna polarization: Vertical polarization and Horizontal polarization.

Block diagram of Test setup

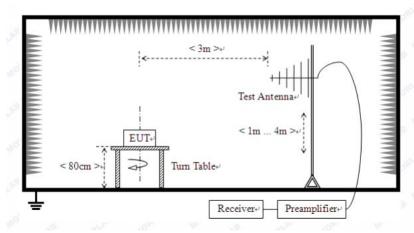
For radiated emissions from 9kHz to 30MHz



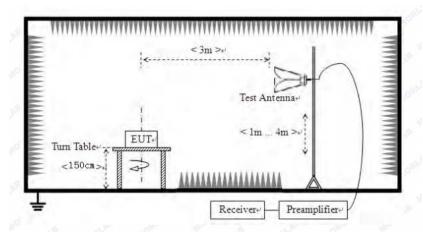
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For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



- 6.2 Configuration of The EUT
 Same as section 5.3 of this report
- 6.3 EUT Operating Condition
 Same as section 5.4 of this report.
- 6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

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Frequencies in restricted band are complied to limit on Paragraph 15.209

	•	
Frequency Range (MHz)	Distance (m)	Field strength (dB μ V/m)
0.009-0.490	3	20log(2400/F(kHz)) +40log (300/3)
0.490-1.705	3	20log(24000/F(kHz)) +40log (30/3)
1.705-30	3	69.5
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note:

- 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- 4. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-25G, the final emission level got using PK. For fundamental measurement, PK detector used.
- 5. For radiated emissions from 9kHz to 30MHz, the emission level is much less than the limit for more than 20dB. No necessary to take down the record.
- 6. Three modulation types wert tested and only the worst case was reported and 8DPSK was the worst case.

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Test result

General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal/Vertical (30MHz----1000MHz)

Keep Bluetooth Transmitting EUT set Condition:

Results: Pass

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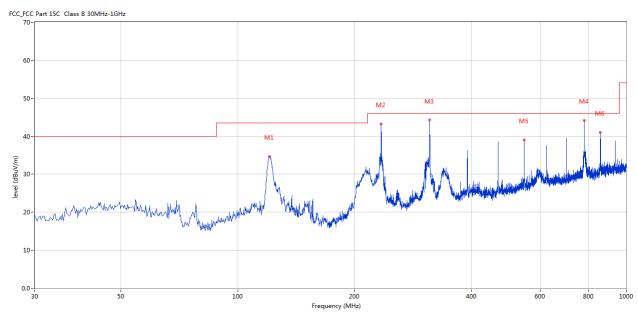
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Test Figure:

H



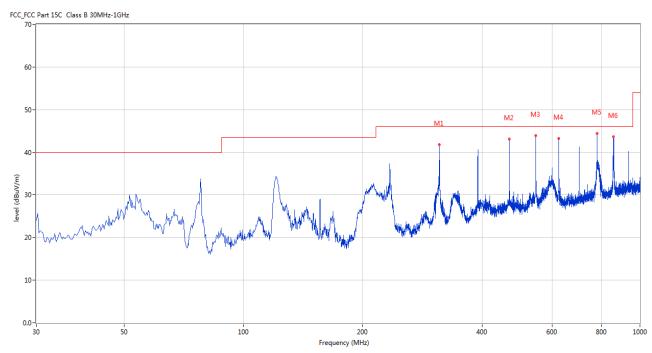
No.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(0)	(cm)		
1	120.672	34.62	-15.49	43.5	-8.88	Peak	310.00	100	Horizontal	Pass
2	233.892	43.20	-12.53	46.0	-2.80	Peak	88.00	100	Horizontal	Pass
3	311.957	44.24	-10.76	46.0	-1.76	Peak	310.00	100	Horizontal	Pass
4	780.107	44.13	-3.19	46.0	-1.87	Peak	43.00	100	Horizontal	Pass
5	546.153	39.07	-6.22	46.0	-6.93	Peak	62.00	100	Horizontal	Pass
6	858.173	41.01	-2.36	46.0	-4.99	Peak	99.00	100	Horizontal	Pass

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Test Figure:



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	311.957	41.84	-10.76	46.0	-4.16	Peak	102.00	100	Vertical	Pass
2	468.088	43.09	-7.57	46.0	-2.91	Peak	331.00	100	Vertical	Pass
3	546.153	43.88	-6.22	46.0	-2.12	Peak	43.00	100	Vertical	Pass
4	623.977	43.22	-4.89	46.0	-2.78	Peak	129.00	100	Vertical	Pass
5	780.107	44.45	-3.19	46.0	-1.55	Peak	291.00	100	Vertical	Pass
6	857.931	43.62	-2.37	46.0	-2.38	Peak	329.00	100	Vertical	Pass

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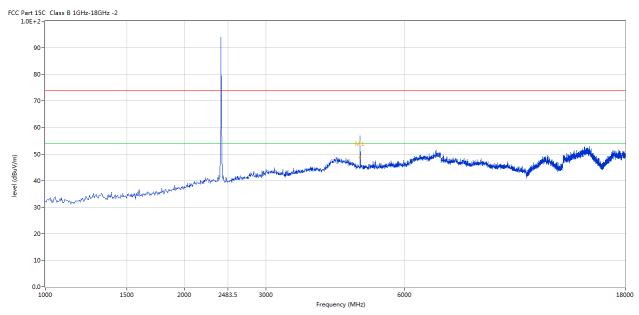
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Test Figures above 1GHz:

Please refer to the following test plots for details:

Low Channel: Horizontal



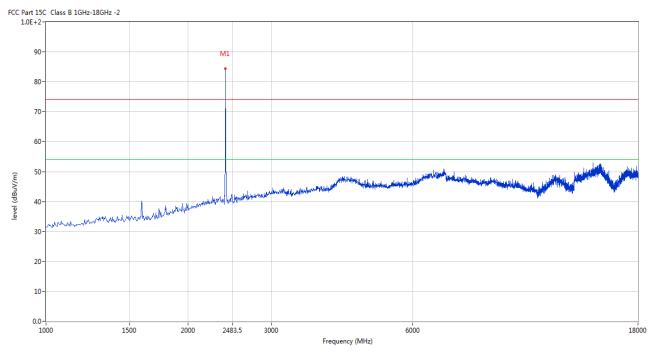
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	4802.799	56.93	3.12	74.0	-17.07	Peak	143.00	100	Horizontal	Pass
1**	4802.799	48.78	3.12	54.0	-5.22	AV	143.00	100	Horizontal	Pass

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Low Channel: Vertical



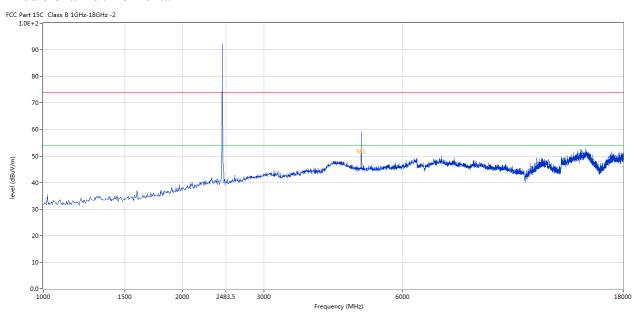
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2402	84.37	-3.57	74.0	10.37	Peak	205.00	100	Vertical	N/A

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Middle Channel: Horizontal



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	4883.529	59.08	3.20	74.0	-14.92	Peak	141.00	100	Horizontal	Pass
1**	4883.529	46.82	3.20	54.0	-7.18	AV	141.00	100	Horizontal	Pass

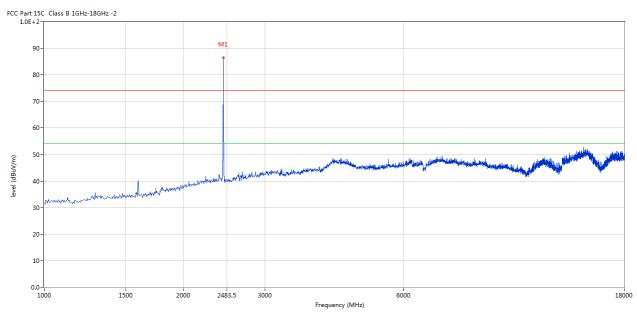
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Middle Channel: Vertical



	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
Ī	1	2441	86.48	-3.57	74.0	12.48	Peak	193.00	100	Vertical	N/A

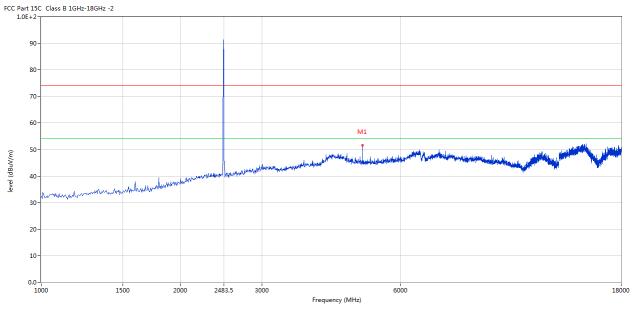
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High Channel: Horizontal



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(0)	(cm)		
1	4960.010	51.64	3.36	74.0	-22.36	Peak	134.00	100	Horizontal	Pass

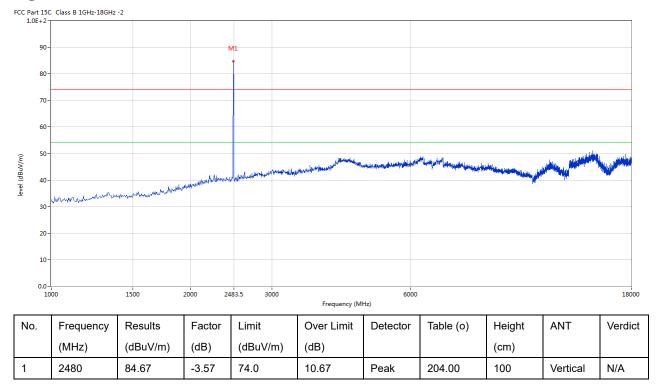
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High Channel: Vertical



Note: 1. for the radiated emissions above 18G and below 30MHz, it is the floor noise.

2. the measured PK radiated emissions level less than the AV limit, so no necessary to take down the AV result

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7.0 20dB Bandwidth Measurement

7.1 Regulation

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

7.2 Limits of 20dB Bandwidth Measurement

N/A

7.3 Test Procedure.

- 1. Check the calibration of the measuring instrument (spectrum analyzer) using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: Span =3MHz, RBW =30 kHz, VBW=100 kHz, Sweep = auto Detector function = peak, Trace = max hold
- 3. Measure the highest amplitude appearing on spectral display and record the level to calculate results. 6. Repeat above procedures until all frequencies measured were complete.

7.4 Test Result

Type of Modulation: GFSK

EUT	Commerc	cial Kiosk Tablet	Model	TAD321-A
Mode	Keep	Transmitting	Input Voltage	120V~
Temperat	ure 2	4 deg. C,	Humidity	56% RH
Channel	Channel Frequency (MHz)	20 dB Bandwidth (kHz)	Minimum Limit (kHz)	Pass/ Fail
Low	2402	1040		Pass
Middle	2441	1040		Pass
High	2480	1040		Pass

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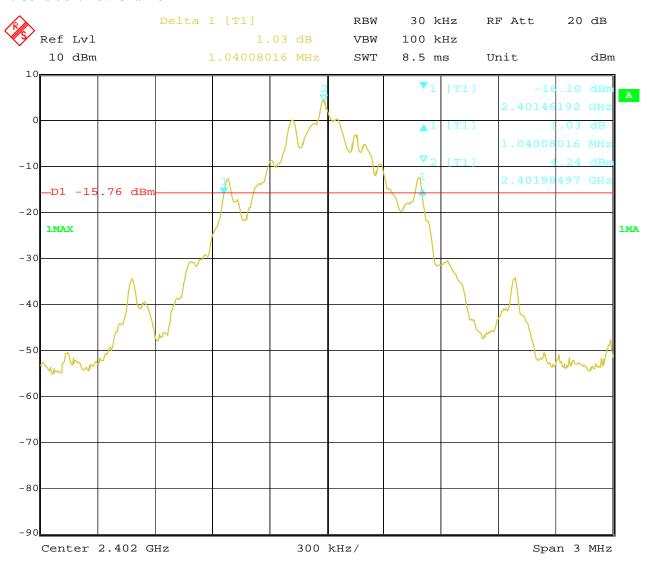
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Test Figure:

1. Condition: Low Channel



Date: 24.MAY.2022 15:13:35

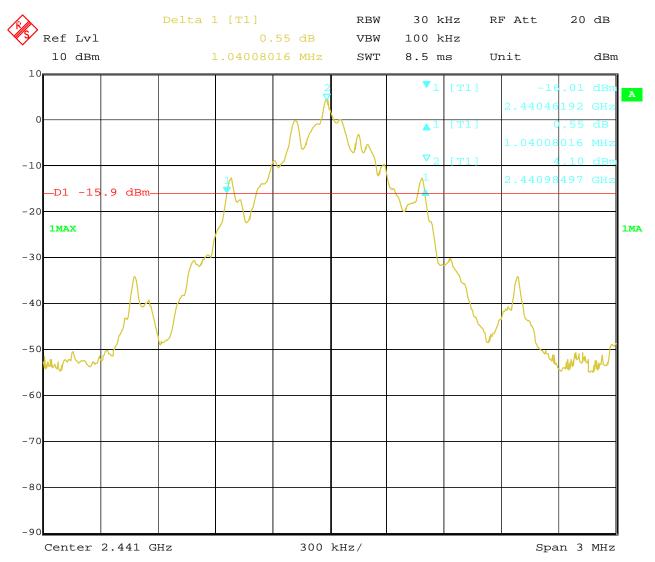
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2. Condition: Middle Channel



Date: 24.MAY.2022 15:04:03

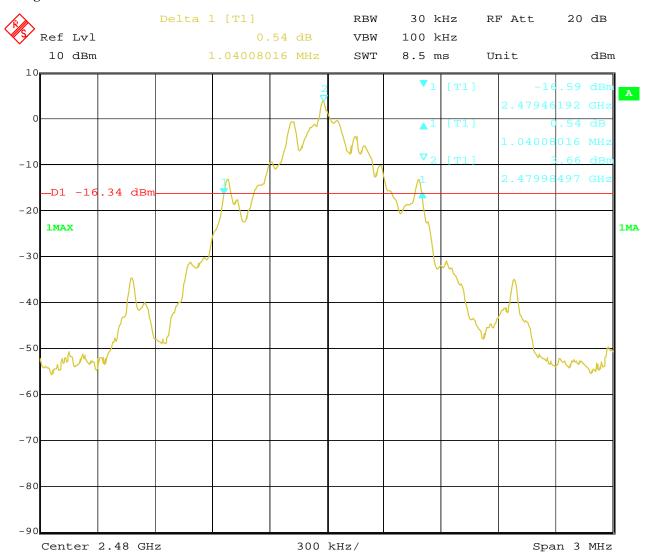
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3. High Channel



Date: 24.MAY.2022 15:00:08

Date: 2022-06-07



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Test Result

Type of Modulation: $\sqrt{1/4}$ DQPSK

EUT	Comme	rcial Kiosk Tablet	Model	TAD321-A
Mode	Keep	Transmitting	Input Voltage	120V~
Temperature		24 deg. C,	Humidity	56% RH
Channel	Channel Frequency (MHz) Channel 20 dB Bandwidth (kHz)		Maximum Limit (kHz)	Pass/ Fail
Low	2402	1136		Pass
Middle	2441	1130		Pass
High	2480	1130		Pass

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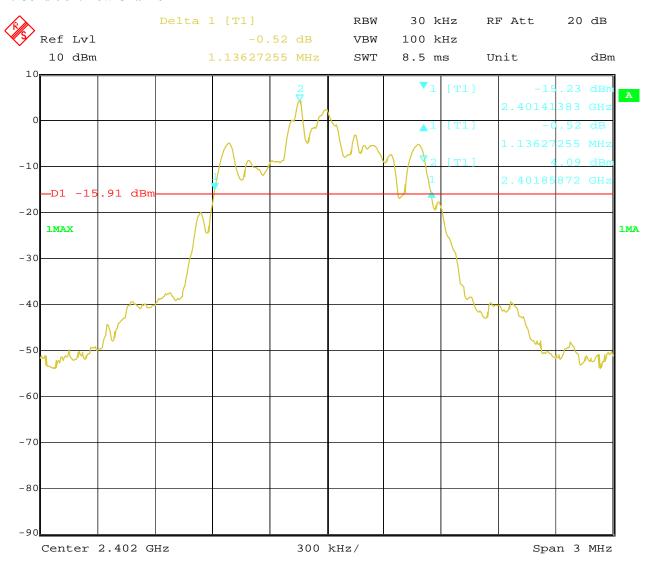
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Test Figure:

1. Condition: Low Channel



Date: 24.MAY.2022 15:27:48

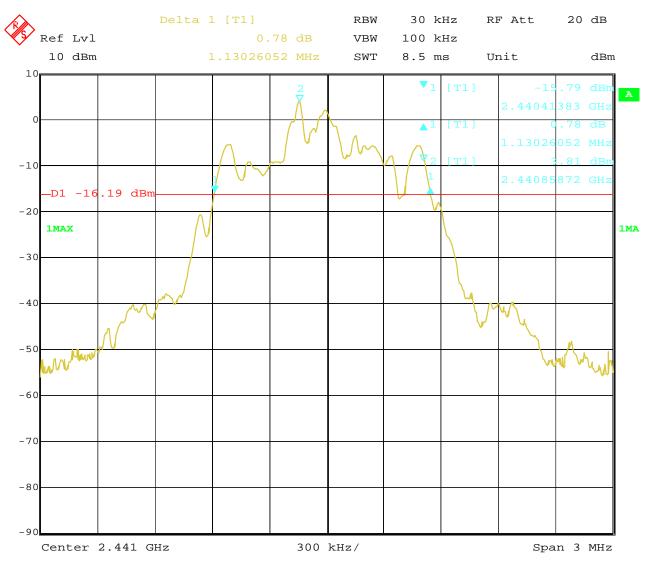
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2. Condition: Middle Channel



Date: 24.MAY.2022 15:29:36

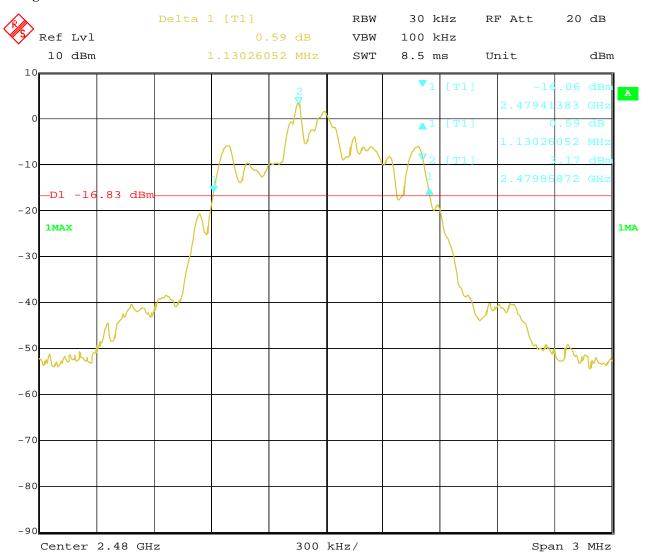
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3. High Channel



Date: 24.MAY.2022 15:38:36

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Test Result

Type of Modulation: 8DPSK

EUT	Commerc	cial Kiosk Tablet	Model	TAD321-A	
Mode	Keep	Transmitting	Input Voltage	120V~	
Temperature	2.	4 deg. C,	Humidity	56% RH	
Channel	Channel Frequency (MHz)	20 dB Bandwidth (kHz)	Maximum Limit (kHz)	Pass/ Fail	
Low	2402	1251		Pass	
Middle	2441	1244		Pass	
High	2480	1244		Pass	

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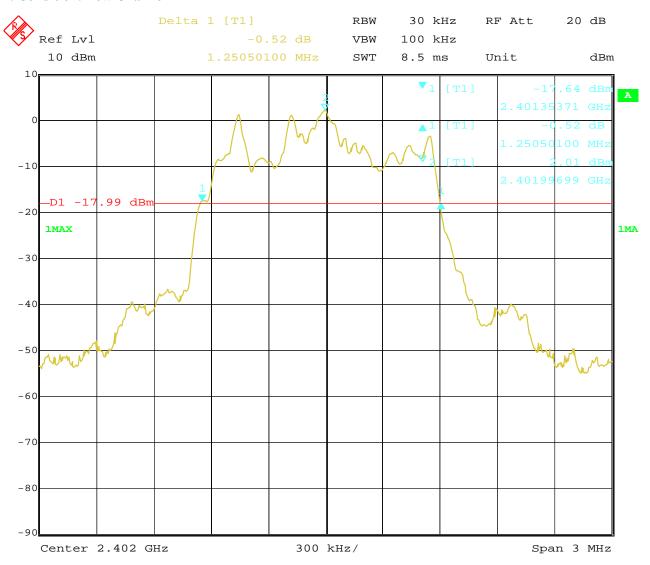
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Test Figure:

1. Condition: Low Channel



Date: 24.MAY.2022 15:48:07

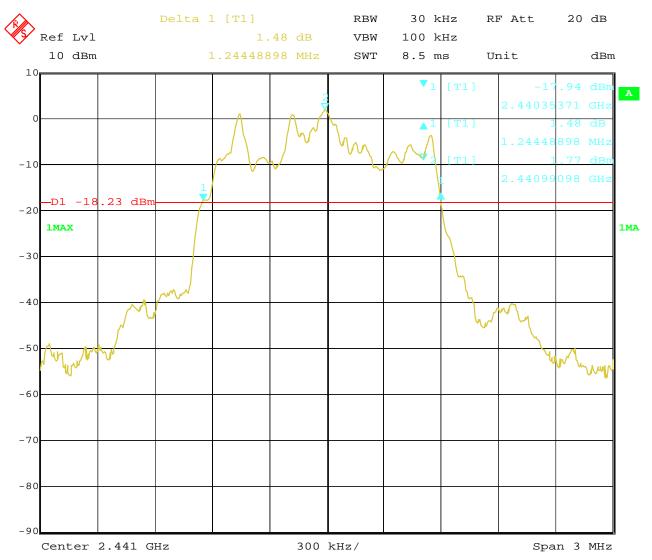
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2. Condition: Middle Channel



Date: 24.MAY.2022 15:43:37

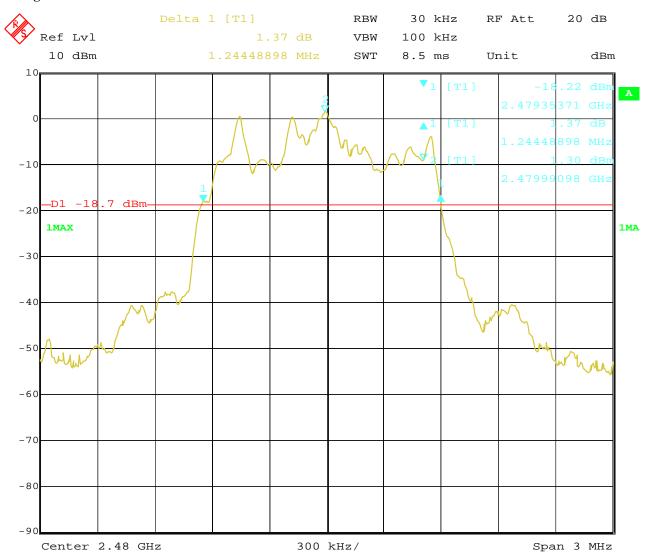
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3. High Channel



Date: 24.MAY.2022 15:42:00

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8. Maximum Output Power

8.1 Regulation

According to §15.247(b)(1), for frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5MHz band:0.125 watts. According to §15.247(b)(4), the conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

8.2 Limits of Maximum Output Power

The Maximum Output Power Measurement is 30dBm.

8.3 Test Procedure

- 1. Check the calibration of the measuring instrument (spectrum analyzer) using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel; RBW > the 20 dB bandwidth of the emission being measured; VBW = RBW=3MHz; Sweep = 60s; Detector function = PK; Trace = max hold
- 3. Measure the highest amplitude appearing on spectral display and record the level to calculate results.
- 4. Repeat above procedures until all frequencies measured were complete.

Note: The PK power were measured

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8.4Test Results

Type of Modulation: GFSK

EUT	Commercial Kiosk Tablet		Model	TAD321-A
Mode	Keep Transmitting		Input Voltage	120V~
Temperature		24 deg. C,	Humidity	56% RH
Channel	Channel Frequency (MHz)	Max. Power Output (dBm) Peak	Peak Power Limit (dBm)	Pass/ Fail
Low	2402	5.50	30	Pass
Middle	2441	5.30	30	Pass
High	2480	4.75	30	Pass

Note: 1. the result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

2. The worse case was recorded

3. The PK power was measured

Type of Modulation: Л/4DQPSK

EUT	Commercial Kiosk Tablet		Model	TAD321-A
Mode	Keep Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		Humidity	56% RH
Channel	Channel Frequency	Max. Power Output (dBm)	Peak Power Limit	Pass/ Fail
	(MHz)	Peak	(dBm)	
Low	2402	7.28	30	Pass
Middle	2441	7.04	30	Pass
High	2480	6.56	30	Pass

Note: 1. the result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

- 2. The worse case was recorded
- 3. The PK power was measured

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Type of Modulation: 8DPSK

EUT	Comm	Commercial Kiosk Tablet		TAD321-A		
Mode	Ke	Keep Transmitting		Keep Transmitting		120V~
Temperature	e	24 deg. C,		56% RH		
Channel	Channel Frequency	Frequency Max. Power Output (dBm) Peak Power Limit		Pass/ Fail		
Chamier	(MHz)	Peak	(dBm)			
Low	2402	7.59	30	Pass		
Middle	2441	2441 7.28		Pass		
High	2480	2480 6.90		Pass		

Note: 1. the result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

- 2. The worse case was recorded
- 3. The PK power was measured

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9. Carrier Frequency Separation

9.1 Regulation

According to §15.247(a)(1), frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

9.2 Limits of Carrier Frequency Separation

The Maximum Power Spectral Density Measurement is 25kHz or two-thirds of the 20dB bandwidth of the hopping Channel which is great.

9.3 Test Procedure

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: Span = wide enough to capture the peaks of two adjacent channels: Resolution (or IF) Bandwidth (RBW) \geq 1% of the span; Video (or Average) Bandwidth (VBW) \geq RBW; Sweep = auto; Detector function = peak; Trace = max hold
- 3. Measure the separation between the peaks of the adjacent channels using the marker-delta function.
- 4. Repeat above procedures until all frequencies measured were complete.

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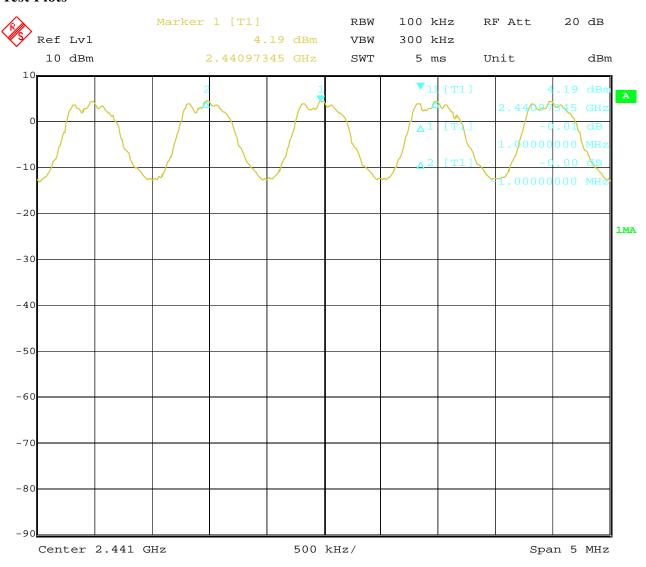


9.4Test Result

Type of Modulation: GFSK

EUT	Commercial Kios	Model	Т	AD321-A	
Mode	Hopping O	Input Voltage		120V~	
Temperature	24 deg. C,	,	Humidity		56% RH
Carrier]	Frequency Separation		Limit		Pass/ Fail
	1.000MHz	≥ 25 kHz or 2/3	of the 20 dB ban	dwidth	Pass

Test Plots



23.MAY.2022 11:40:46 Date:

The report refers only to the sample tested and does not apply to the bulk.

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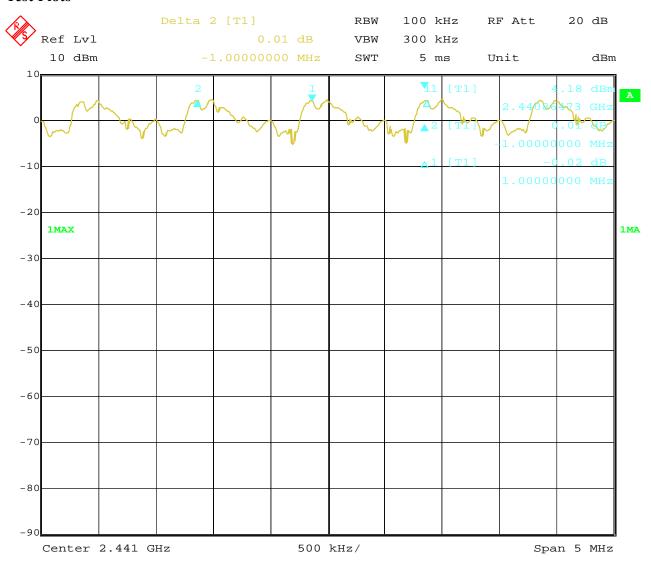
Date: 2022-06-07



Type of Modulation: √1/4DQPSK

EUT	Commercial Kios	Model	7	ГАD321-A	
Mode	Hopping On I		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Carrier I	Frequency Separation		Limit		Pass/ Fail
	1.000MHz	≥ 25 kHz or 2	/3 of 20 dB bands	width	Pass

Test Plots



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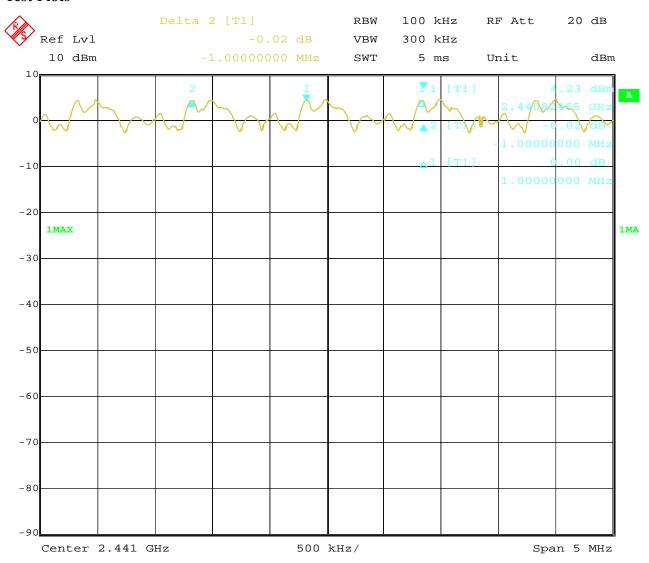
Date: 2022-06-07



Type of Modulation: 8DPSK

EUT	Commercial Kios	Model	7	ГАD321-A	
Mode	Hopping On I		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Carrier I	Frequency Separation		Limit		Pass/ Fail
	1.000MHz	≥ 25 kHz or 2	2/3 of 20 dB bandy	width	Pass

Test Plots



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10. Number of Hopping Channels

10.1 Regulation

According to §15.247(a)(1)(iii), frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used. According to §15.247(b)(1), for frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

10.2 Limits of Number of Hopping Channels

The frequency hopping systems in the 2400-2483.5MHz band shall use at least 15 channels.

10.3 Test Procedure

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: Span = the frequency band of operation; RBW=100 kHz, VBW=300 kHz; Sweep = auto; Detector function = peak; Trace = max hold
- 3. Record the number of hopping channels.

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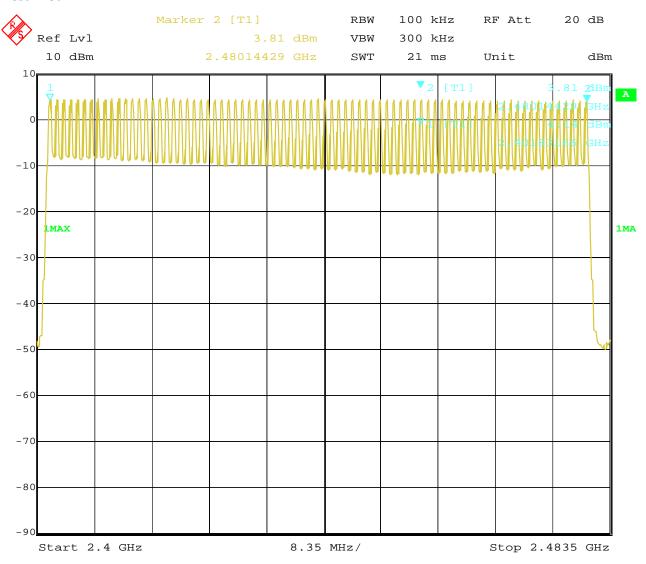


10.4Test Result

Type of Modulation: GFSK

EUT	Commercial Kiosk Tablet		Model	7	ГАD321-А	
Mode	Hopping On		Input Voltage	120V~		
Temperature	2	24 deg. C,	Humidity	56% RH		
Operating Frequency		Number of hopping channels		Limit	Pass/ Fail	
2402-2480MHz		79		≥ 15	Pass	

Test Plot



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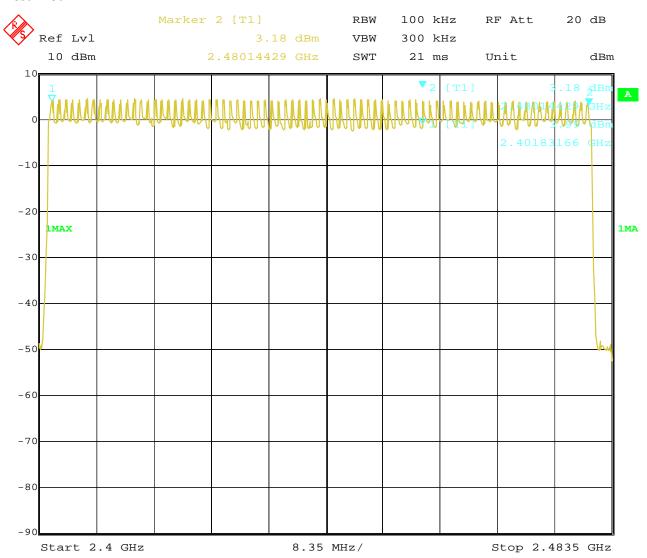
Date: 2022-06-07



Type of Modulation: √1/4DQPSK

EUT	Commercial Kiosk Tablet		Mode	el		TAD321-A
Mode	Hopping On		Input Voltage		120V~	
Temperature	24 deg. C,		Humidity			56% RH
Operating Frequency		Number of hoppin channels	g	Lir	nit	Pass/ Fail
2402-2480MHz		79		≥	15	Pass

Test Plot



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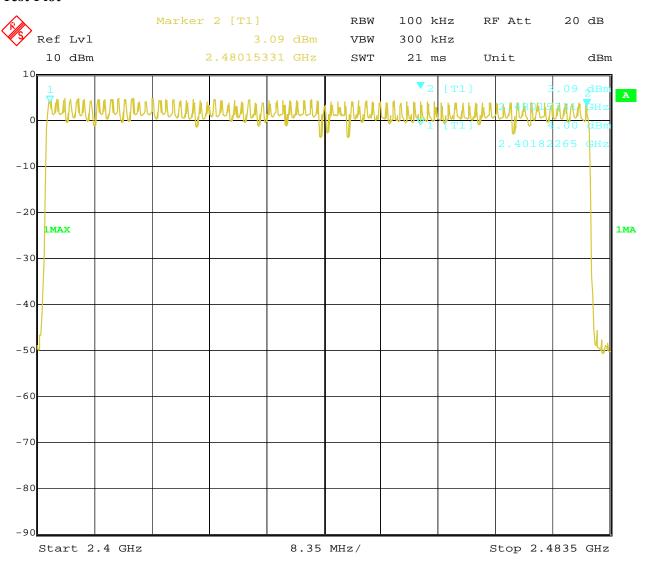
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Type of Modulation: 8DPSK

EUT	Commercial Kiosk Tablet		Model		TAD321-A	
Mode	Н	opping On	Input V	oltage		120V~
Temperature	2	24 deg. C,		Humidity		56% RH
Operating Frequency		Number of hopp channels	oing	Liı	nit	Pass/ Fail
2402-2480MHz		79		≥	15	Pass

Test Plot



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11. Time of Occupancy (Dwell Time)

11.1 Regulation

According to §15.247(a)(1)(iii), frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

11.2 Limits of Carrier Frequency Separation

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed

11.3 Test Procedure

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: Span = zero span, centered on a hopping channel; RBW = 1 MHz; VBW \geq RBW; Sweep = as necessary to capture the entire dwell time per hopping channel; Detector function = peak; Trace = max hold
- 3. Measure the dwell time using the marker-delta function.
- 4. Repeat above procedures until all frequencies measured were complete.
- 5. Repeat this test for different modes of operation (e.g., data rate, modulation format, etc.), if applicable.

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11.4 Test Result

Type of Modulation: GFSK

EUT	Commo	Commercial Kiosk Tablet			,	TAD321-A
Mode	Kee	p Transmitting	Input Volt	tage		120V~
Temperature	e	24 deg. C,	Humidity		56% RH	
Channel	Reading	Hoping Rate		Actual		Limit
		DH5				
Middle	2.966ms	266.667 hop/s			0.316s	0.4s
		DH3				
Middle	1.663ms	400 hop/s	0.266s 0.4s			0.4s
	DH1					
Middle	0.421ms	800 hop/s			0.135s	0.4s

Actual = Reading \times (Hopping rate / Number of channels) \times Test period, Test period = 0.4 [seconds / channel] \times 79 [channel] = 31.6 [seconds] NOTE: The EUT makes worst case 1600 hops per second or 1 time slot has a length of 625 μ s with 79 channels.

A DH5 Packet needs 5 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 266.667 hops per second with 79 channels.

A DH3 Packet needs 3 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 400 hops per second with 79 channels.

A DH1 Packet needs 1 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 800 hops per second with 79 channels.

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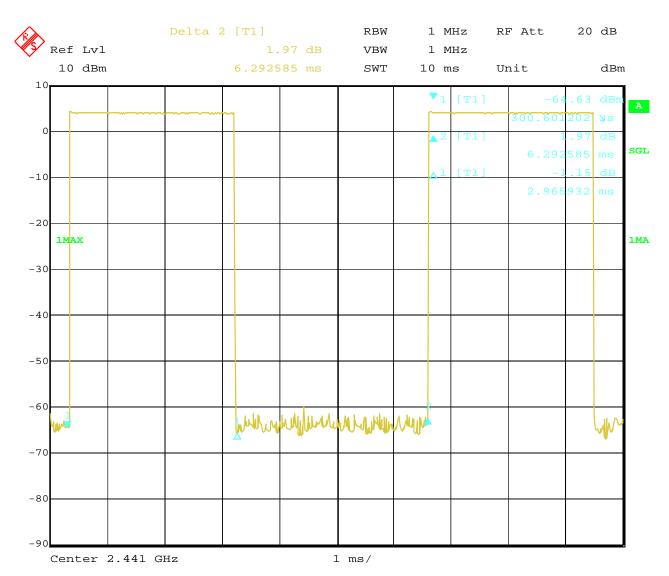
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Test Plots:

DH5



Date: 24.MAY.2022 16:15:46

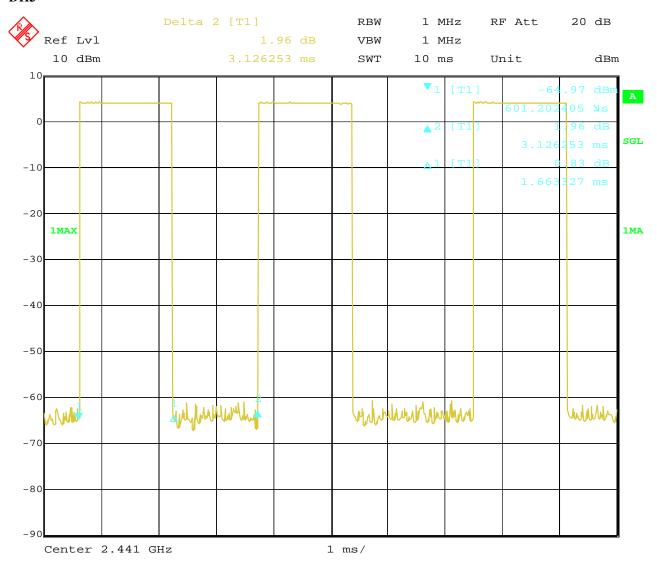
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DH3



Date: 24.MAY.2022 16:14:18

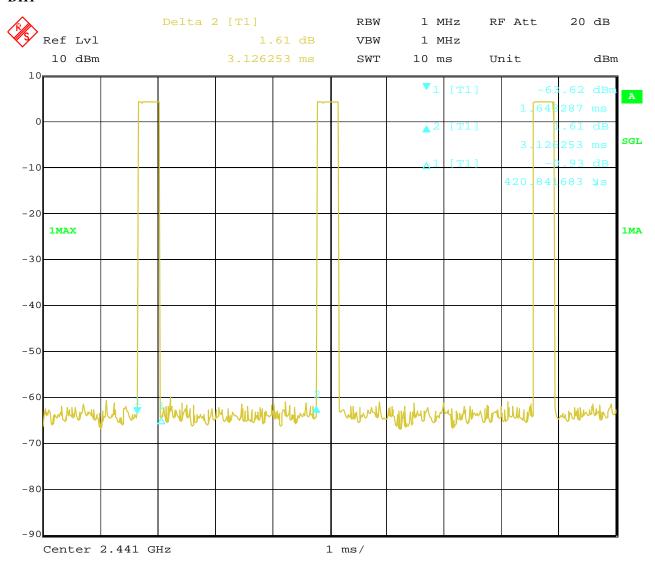
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DH1



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Test Result

Type of Modulation: $\sqrt{1/4}$ DQPSK

EUT	Comme	Commercial Kiosk Tablet		el		TAD321-A
Mode	Kee	p Transmitting	Input Voltage			120V~
Temperatur	·e	24 deg. C,	Humidity			56% RH
Channel	Reading	Hoping Rate		Ac	tual	Limit
	2DH5					
Middle	2.946ms	266.667 hop/s		0.3	14s	0.4s
		2DH3				
Middle	1.683ms	400 hop/s	400 hop/s 0.2		269s 0.4s	
2DH1						
Middle	0.441ms	800 hop/s	·	0.1	41s	0.4s

Actual = Reading \times (Hopping rate / Number of channels) \times Test period, Test period = 0.4 [seconds / channel] \times 79 [channel] = 31.6 [seconds] NOTE: The EUT makes worst case 1600 hops per second or 1 time slot has a length of 625 μ s with 79 channels.

A DH5 Packet needs 5 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 266.667 hops per second with 79 channels.

A DH3 Packet needs 3 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 400 hops per second with 79 channels.

A DH1 Packet needs 1 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 800 hops per second with 79 channels.

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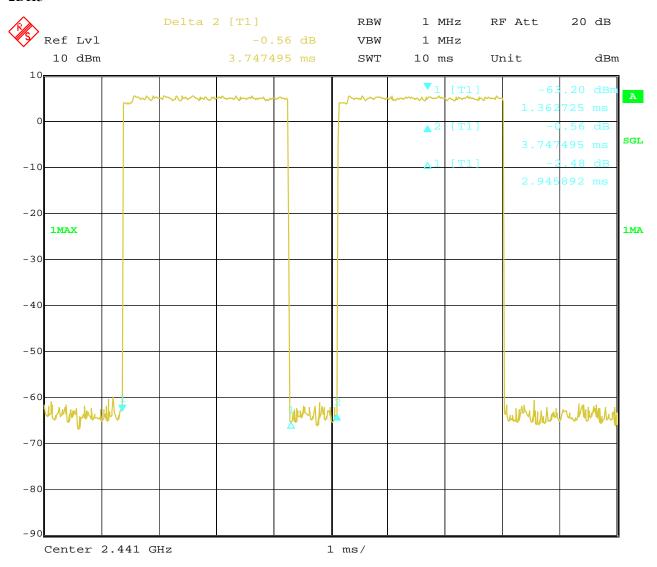
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Test Plots:

2DH5



24.MAY.2022 16:19:35 Date:

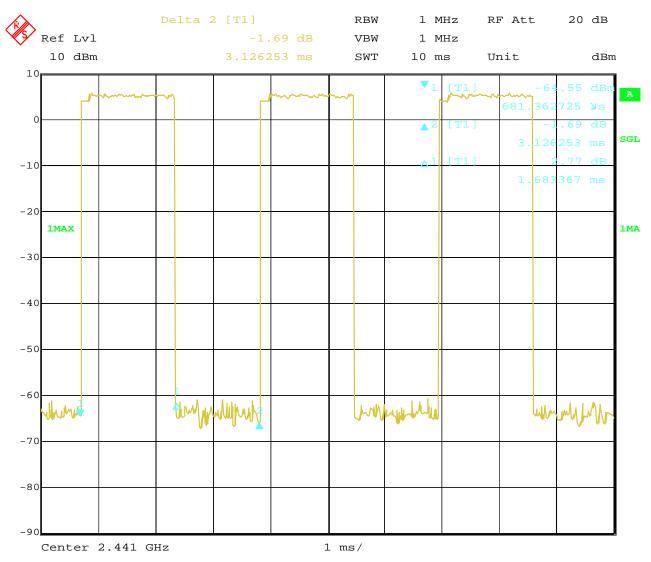
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2DH3



Date: 24.MAY.2022 16:18:31

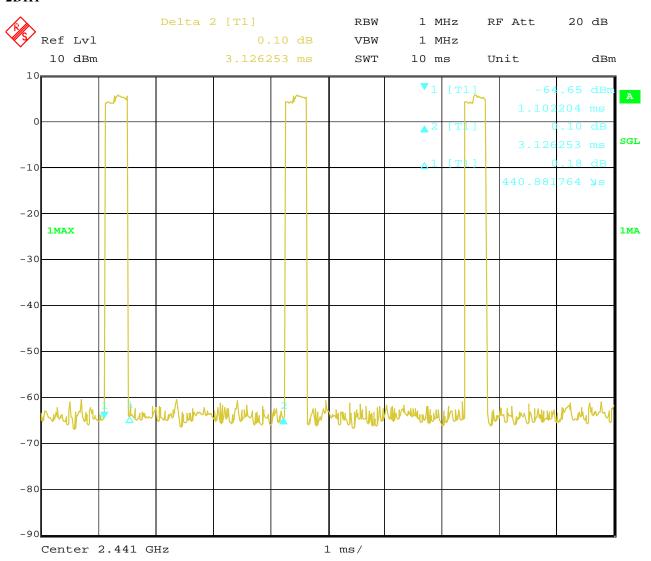
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2DH1



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Type of Modulation: 8DPSK

EUT	Comm	Commercial Kiosk Tablet		del		TAD321-A	
Mode	Kee	Keep Transmitting		Input Voltage		120V~	
Temperatur	·e	24 deg. C,	Humi	idity		56% RH	
Channel	Reading	Hoping Rate		Ac	tual	Limit	
	3DH5						
Middle	2.946ms	266.667 hop/s		0.3	14s	0.4s	
		3DH3					
Middle	1.683ms	400 hop/s 0.2		69s	0.4s		
3DH1							
Middle	0.441ms	800 hop/s		0.1	41s	0.4s	

Actual = Reading × (Hopping rate / Number of channels) × Test period, Test period = 0.4 [seconds / channel] × 79 [channel] = 31.6 [seconds] NOTE: The EUT makes worst case 1600 hops per second or 1 time slot has a length of 625µs with 79 channels.

A DH5 Packet needs 5 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 266.667 hops per second with 79 channels.

A DH3 Packet needs 3 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 400 hops per second with 79 channels.

A DH1 Packet needs 1 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 800 hops per second with 79 channels.

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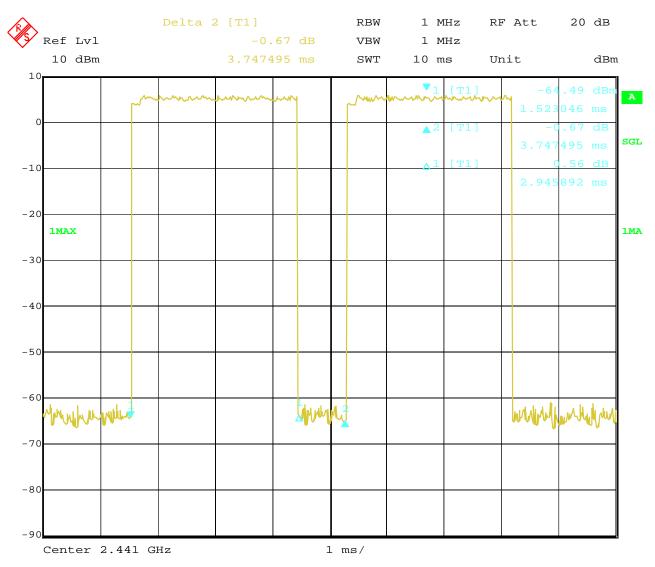
Report No.: TW2205149-01E

Date: 2022-06-07



Test Plots:

3DH5



Date: 24.MAY.2022 16:25:32

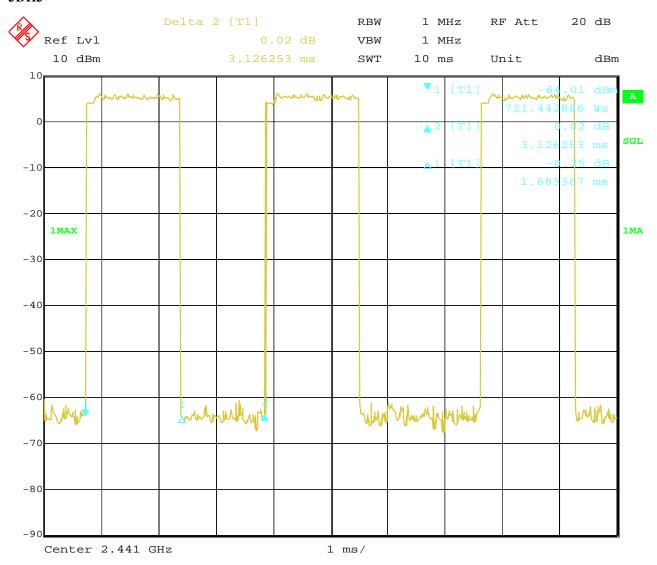
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Report No.: TW2205149-01E

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3DH3



Date: 24.MAY.2022 16:24:37

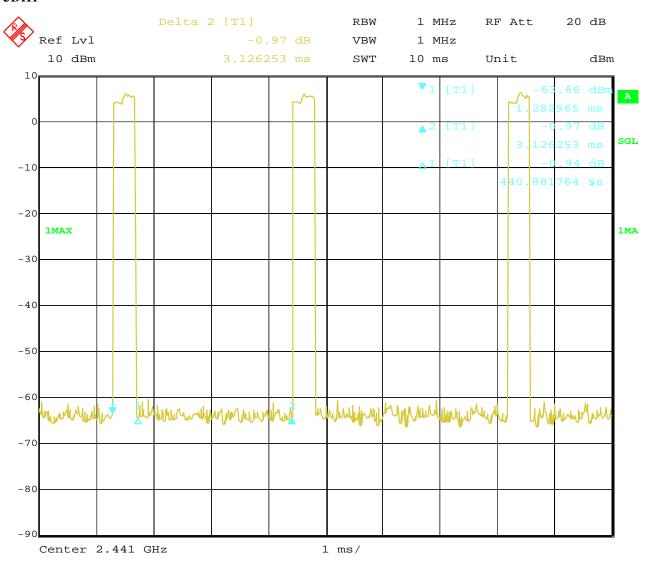
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Report No.: TW2205149-01E

Date: 2022-06-07



3DH1



Date: 24.MAY.2022 16:21:39 Report No.: TW2205149-01E

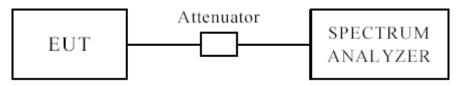
Date: 2022-06-07



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12 Out of Band Measurement

12.1 Test Setup



The restricted band requirement based on radiated emission test; please see the clause 6 for the test setup

12.2 Limits of Out of Band Emissions Measurement

- 1. Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).
- 2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

12.3 Test Procedure

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of radiated emission test. Peak values with RBW=VBW=1MHz and PK detector.

For bandage test, the spectrum set as follows: RBW=100kHz, VBW=300 kHz. A conducted measurement used

Note: 1. For band-edge measurement, the frequency from 30MHz-25GHz was tested. And It met the FCC rule.

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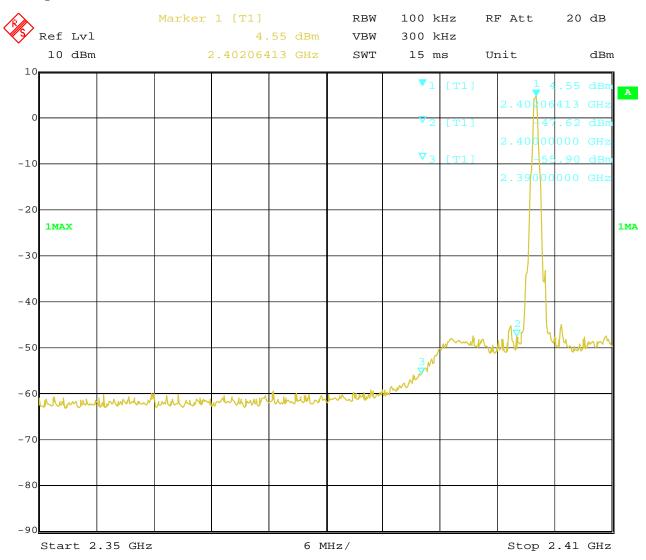


Type of Modulation: GFSK

Band Edge Test Result 12.4

Product:	Commercial Kiosk Tablet	Test Mode:	TAD321-A
Mode	Keeping Transmitting	Input Voltage	120V~
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



24.MAY.2022 Date: 14:34:43

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Report No.: TW2205149-01E

Date: 2022-06-07

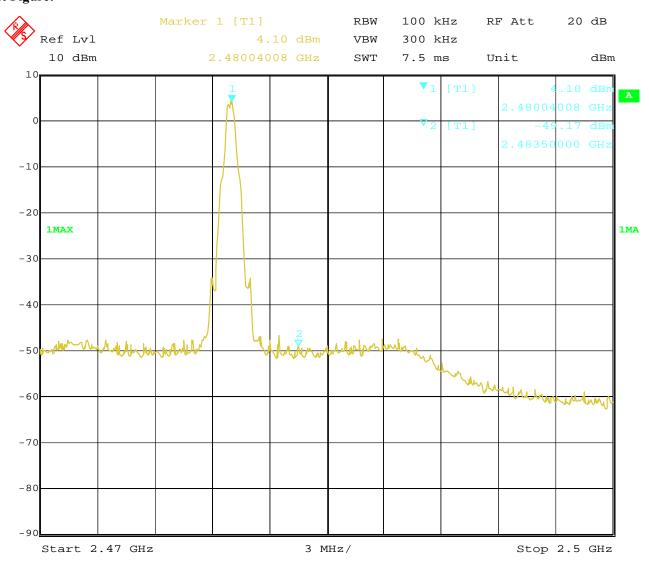


Type of Modulation: GFSK

12.4 Band Edge Test Result

Product:	Commercial Kiosk Tablet	Test Mode:	TAD321-A
Mode	Keeping Transmitting	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



24.MAY.2022 Date: 14:54:49

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Report No.: TW2205149-01E

Date: 2022-06-07

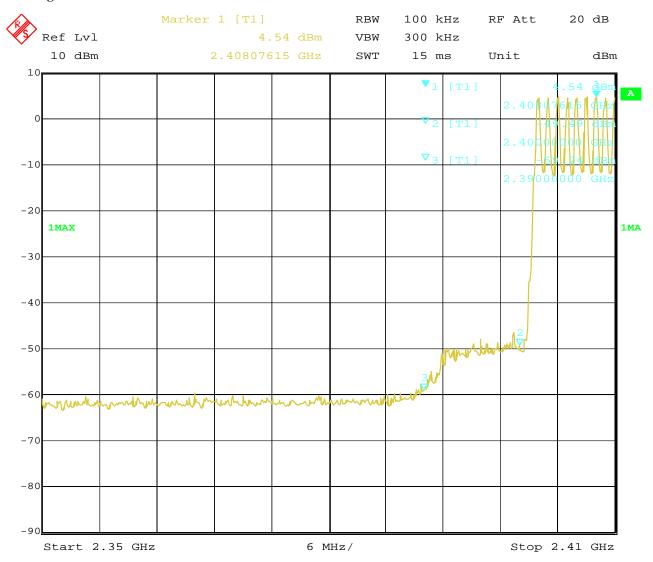


Type of Modulation: GFSK

Band Edge Test Result

Product:	Commercial Kiosk Tablet	Test Mode:	TAD321-A
Mode	Hopping On	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



24.MAY.2022 Date: 14:30:03

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Report No.: TW2205149-01E

Date: 2022-06-07

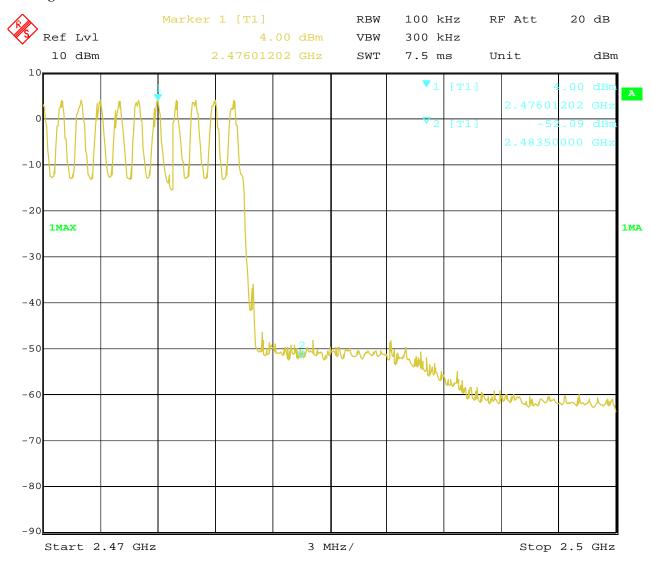


Type of Modulation: GFSK

Band Edge Test Result

Product:	Commercial Kiosk Tablet	Test Mode:	TAD321-A
Mode	Hopping On	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



24.MAY.2022 Date: 14:22:56

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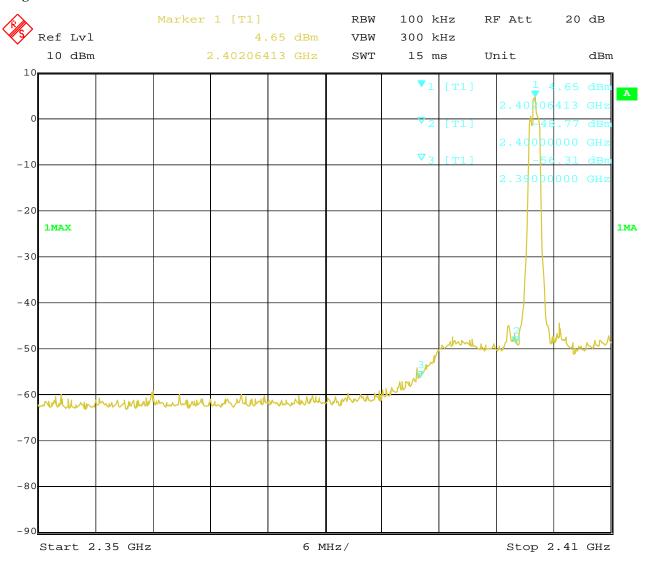


Type of Modulation: √√4DQPSK

Out of Band Test Result 12.4

Product:	Commercial Kiosk Tablet	Test Mode:	TAD321-A
Mode	Keeping Transmitting	Input Voltage	120V~
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



24.MAY.2022 Date: 14:38:47

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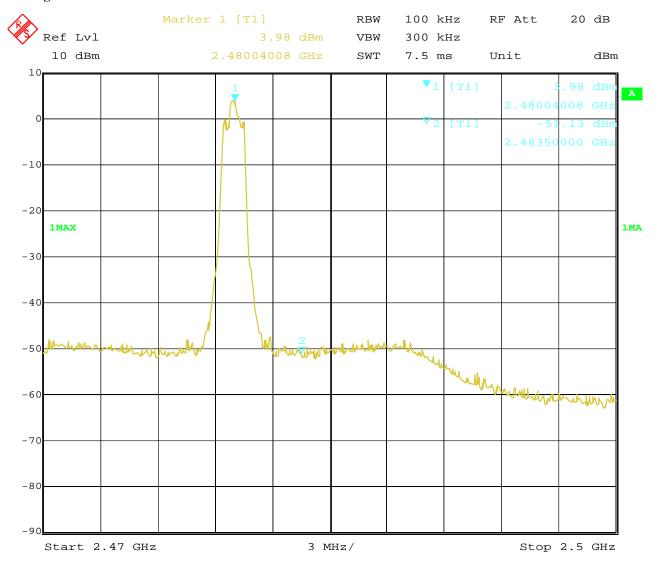


Type of Modulation: √ //4DQPSK

Band Edge Test Result 12.4

Product:	Commercial Kiosk Tablet	Test Mode:	TAD321-A
Mode	Keeping Transmitting	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



24.MAY.2022 Date: 14:49:47

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Report No.: TW2205149-01E

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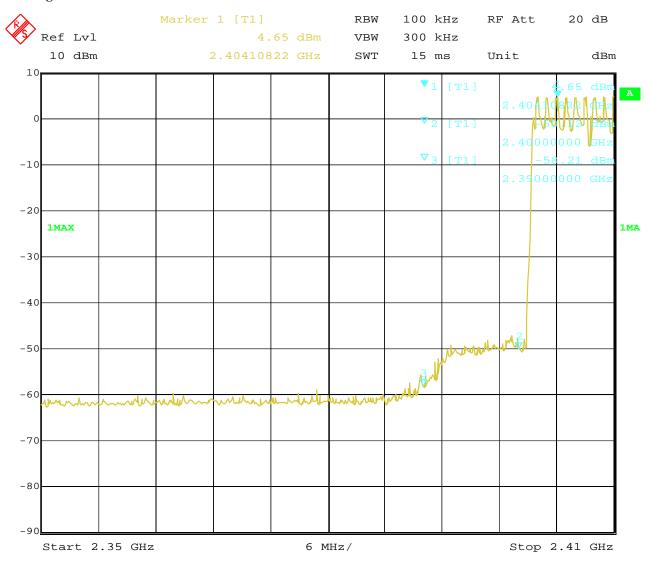


Type of Modulation: √ //4DQPSK

Out of Band Test Result

Product:	Commercial Kiosk Tablet	Test Mode:	TAD321-A
Mode	Hopping On	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



24.MAY.2022 Date: 14:08:50

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Report No.: TW2205149-01E

Date: 2022-06-07

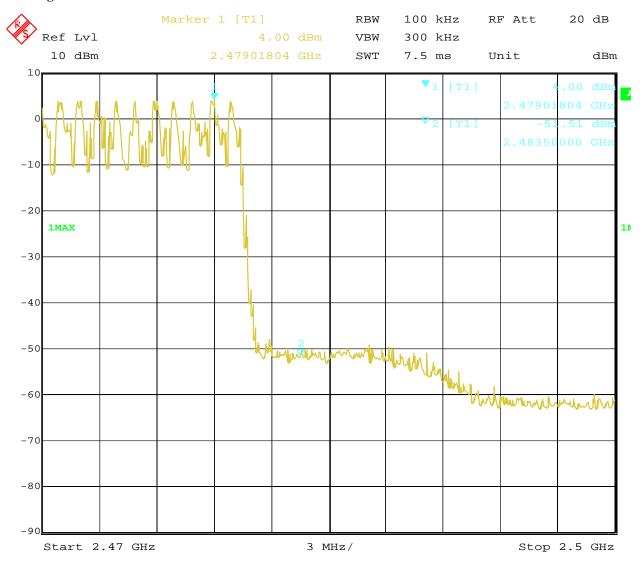


Type of Modulation: √ //4DQPSK

Out of Band Test Result

Product:	Commercial Kiosk Tablet	Test Mode:	TAD321-A
Mode	Hopping On	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



24.MAY.2022 Date: 14:13:11

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Report No.: TW2205149-01E

Date: 2022-06-07

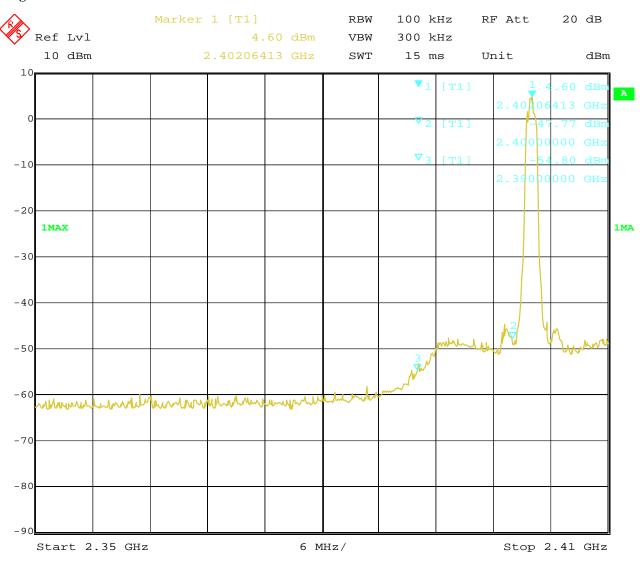


Type of Modulation: 8DPSK

12.4 Band Edge Test Result

Product:	Commercial Kiosk Tablet	Test Mode:	TAD321-A
Mode	Keeping Transmitting	Input Voltage	120V∼
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



24.MAY.2022 Date: 14:42:26

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Date: 2022-06-07

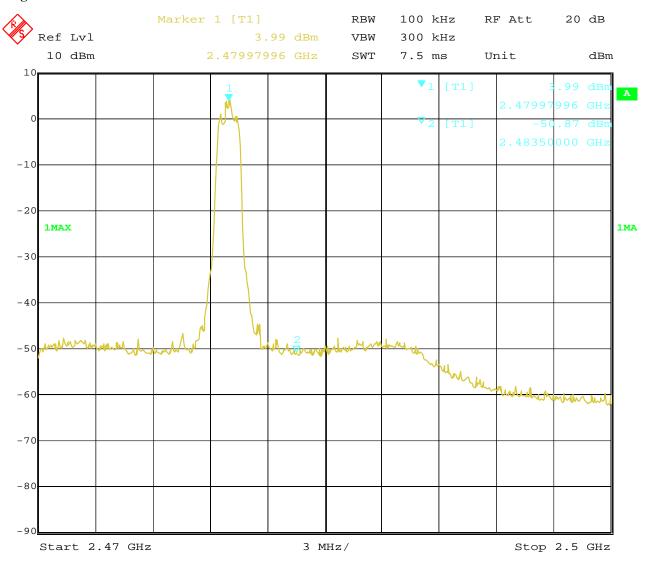


Type of Modulation: 8DPSK

Band Edge Test Result

Product:	Commercial Kiosk Tablet	Test Mode:	TAD321-A
Mode	Keeping Transmitting	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



24.MAY.2022 Date: 14:47:01

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Report No.: TW2205149-01E

Date: 2022-06-07

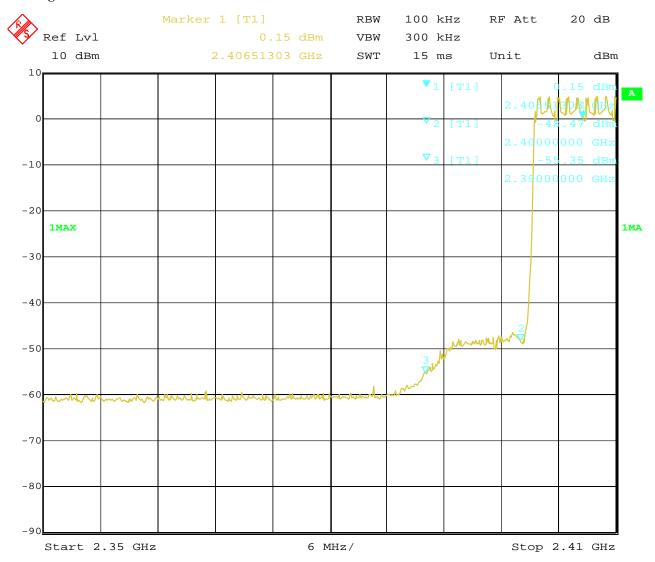


Type of Modulation: 8DPSK

Band Edge Test Result

Product:	Commercial Kiosk Tablet	Test Mode:	TAD321-A
Mode	Hopping On	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



24.MAY.2022 Date: 13:59:07

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Date: 2022-06-07

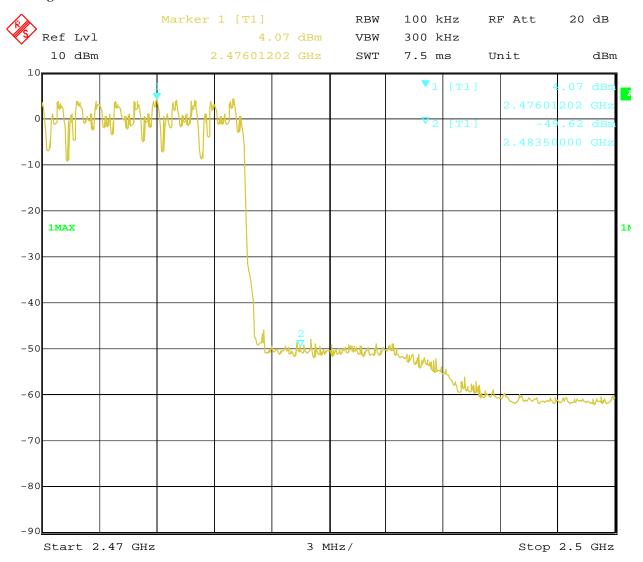


Type of Modulation: 8DPSK

Band Edge Test Result

Product:	Commercial Kiosk Tablet	Test Mode:	TAD321-A
Mode	Hopping On	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



24.MAY.2022 Date: 12:22:18

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12.4 Restrict Band Measurement

	EUT	Co	mmercial	Kiosk Table	t		Model		TAD3	21-A
	Mode		Keep Tra	nsmitting		Inp	ut Voltag	je	120	V~
Temperature		24 deg. C,			Humidity			56% RH		
Te	est Result:		Pa	ass		Modu	ılation Ty	ype	8DP	SK
Part	15C Class B 1GHz-18GHz	: -2								
8	30-									
(50-									
									<u> </u>	
	50 -					M1	natural parties, in	in indiale)		la produ
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4	10-	the hold country have designed by the last	arthadala, parkatin		المفدرية المعارض أمارينا والمرازينة	M1	p ^{olik} al polikal kan	WINN	Wyth .	
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3	20-	d place i known i place and a sign of the first and its light	niethe de de peniet este en		Frequency (MHz)	M1	yan da karan k	- Amman		2410
3	20-	Results	Factor			Detector	Table	Height	ANT	2410 Verdict
2 2 2 0 0	20 - 10 - .0 - 2350				Frequency (MHz)				ANT	ı

Note: The measured PK value less than the AV limit, no necessary to take down the AV measurement result.

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Restrict Band Measurement 12.4

	EUT	(Commercial	Kiosk Table	t]	Model		TAD3	21-A
	Mode		Keep Tra	ansmitting		Inpu	ıt Voltag	je	120	V~
Τ	Temperature		24 d	eg. C,		Н	umidity		56%	RH
]	Test Result:		Pa	ass		Modu	lation Ty	ype	8DP	SK
	rt 15C Class B 1GHz-18GF	z -2								
	90-									
	90-							\wedge	\	
	80-								\	
	70-								$\overline{}$	
	60-							f	L.	
	00							1	1\	
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	40-	أخباء معتبة المعادمة	والمالية المالية	the desirement of the second	was in the ball of the ball		-fallblakel best			prhydd
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	40-	Made a resident de la ferio de la constitución de l	خياليا الأمعلي أيافا لياجا هذب	ilki Abdudina dan Phiash on da	artesia quadriculus des des des des des des des des des de		upadahan dahari		1	prhyddi
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	30 - 20 - 10 - 2350	Results	Factor	(ggy sheet) y troug (goods) () trou skilling		Detector	Table	Height	ANT	2410 Verdict
	30 - 20 - 10 - 2350	Annual and and a series of consequences and		Fre	equency (MHz)		Table (o)	Height (cm)	ANT	1

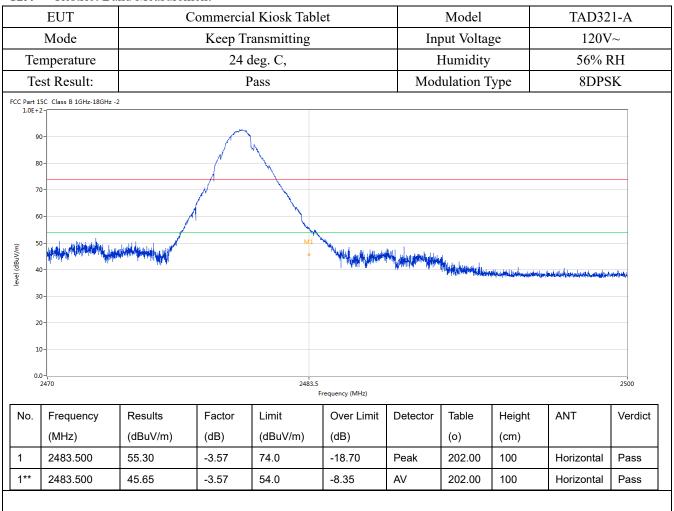
Note: The measured PK value less than the AV limit, no necessary to take down the AV measurement result.

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12.4 Restrict Band Measurement



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12.4 Restrict Band Measurement

	EUT	C	Commercial	l Kiosk Tabl	et		Model		TAD3	21-A
Mode		Keep Transmitting				Input Voltage			120V~	
Temperature		24 deg. C,			Humidity			56% RH		
Test Result:			Pass			Modu	ılation Ty	pe 8DP		SK
C Part 1	15C Class B 1GHz-18GHz	-2								
9	10-		45°							
8	0-		- / ` `							
7	70-			1						
			- 1	λ.						
6	60-		/							
_				M ₁						
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_	10-	Andrew Control of the State of	<u>/</u>	M.	Waterpalaise Albandon	der godd bellydd yl acon		ndánhe ski fir fir nhiệu với je vi	hala da la desta de a compada la	h laborate
. 5	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	tivelians or the said to be a second	<u>/</u>	M	^{Now} Washington of the State o	earged Nedlands of Lands	. i de china de la companya de la c	holdeske, ski filo fij, eskiqui di j, esk	المياد والدينو والمدرسية كال	
. 5	0-	Airelland and active house produce of		M	^{Open} i den kanan ada ing a ^{pal} ah dan ada a	errywitheliodd Liveri	negularisi padadis kulu	ndanka di ka Kadugu di kana	his shift the state of the stat	de laber har
3 2		Andrew Andrews and Andrews		MI	Marie and the state of the stat	والمسترية والمعاونة	ang salawan di salawan da ki	hidade ahilo Nicharya ki zani	hija deletaka nemperi k	A. los sales
5 4 3 2	0-	Hardiday Law Hardina hada baraka ka		2483.5 F	requency (MHz)	eszentékedésékesék járosák	negalamai pikikin da id	helada ad do Arakupi da garil	his dela de compet à	2500
5 4 3		Results	Factor			Detector	Table	Height	ANT	
3 3 2 2 0.	0-2470	Results (dBuV/m)	Factor (dB)	F	requency (MHz)					2500

Note: 1. For Restricted band test, only the worst case was reported and 8DPSK was the worst case

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13.0 Antenna Requirement

13.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitter antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the mount in dB that the directional gain of the antenna exceeds 6 dBi.

13.2 Antenna Connected constructions

Dipole Antenna with reverse polarity SMA antenna connector. The gain of the antennas is 2.2dBi (Declared by the applicant)

Date: 2022-06-07



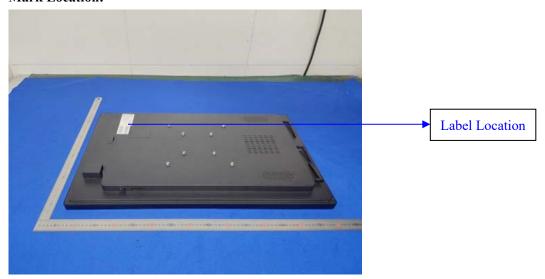
14.0 FCC ID Label

FCC ID: 2AACS-TAD321-A

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Mark Location:



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15.0 **Photo of testing**

Conducted Emission Test Setup:



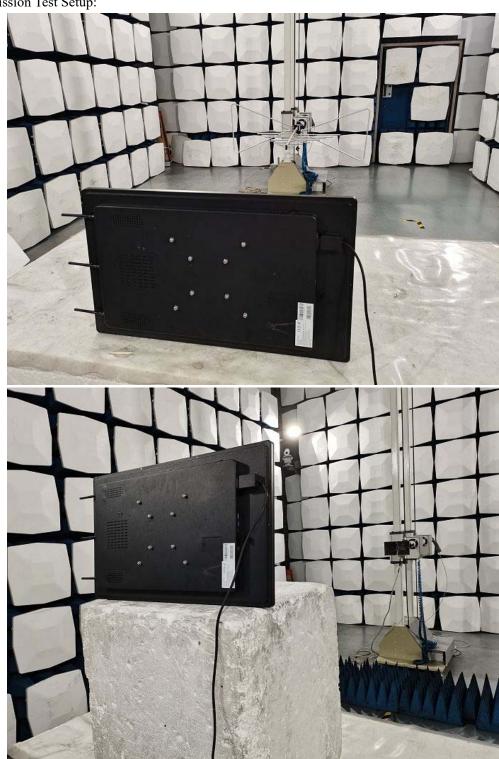
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Radiated Emission Test Setup:



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Outside View



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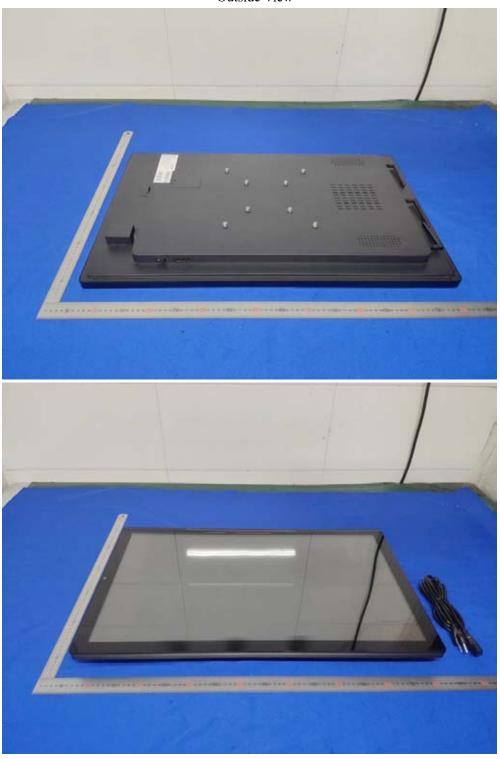
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Outside View



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Outside View



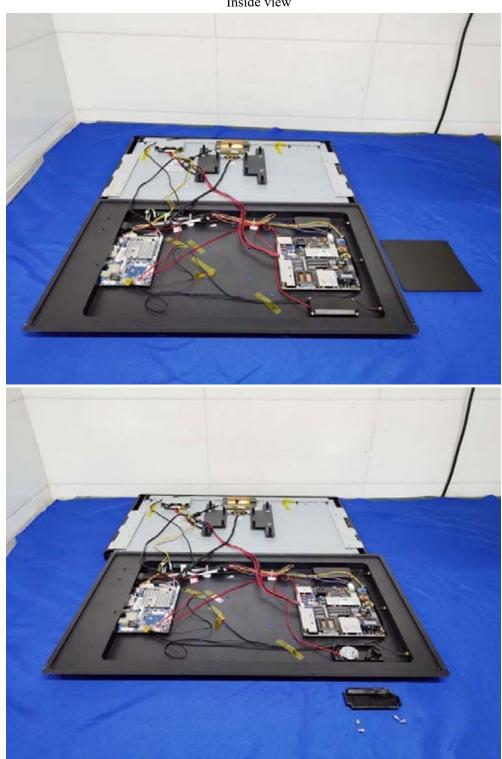
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Inside view



The report refers only to the sample tested and does not apply to the bulk.

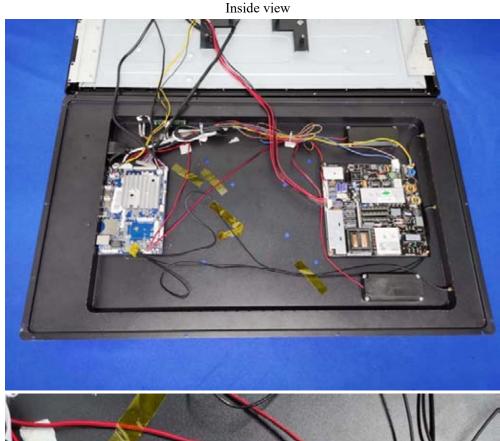
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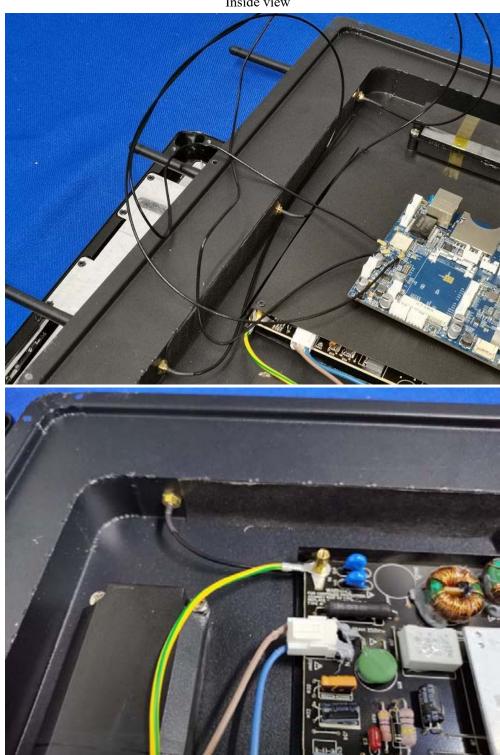
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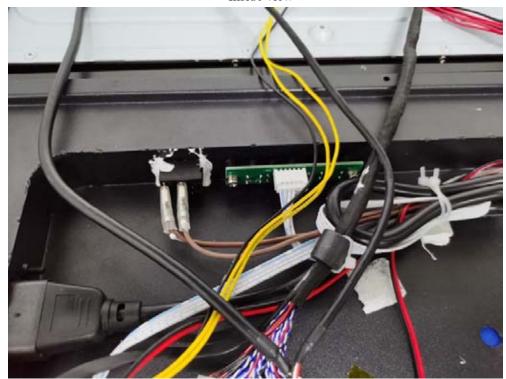
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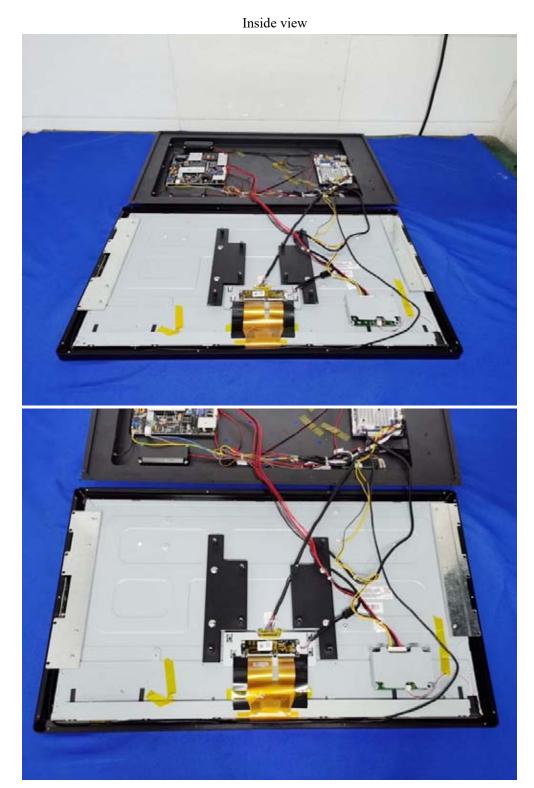


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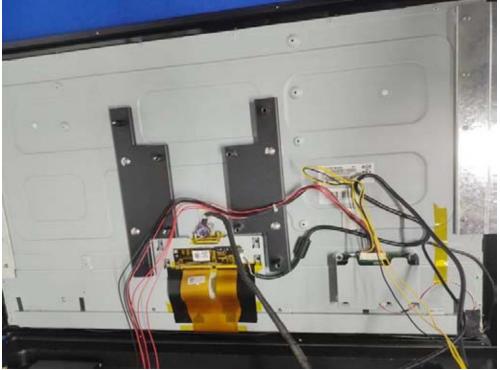
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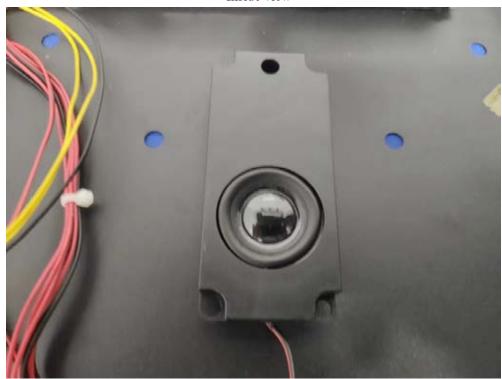
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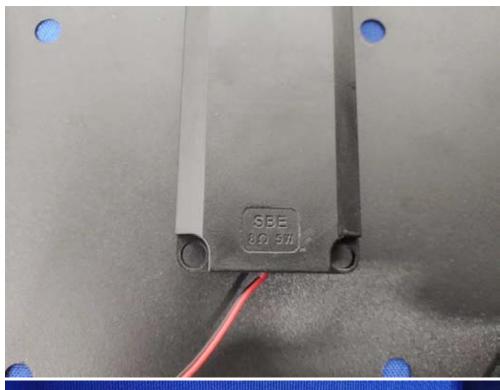


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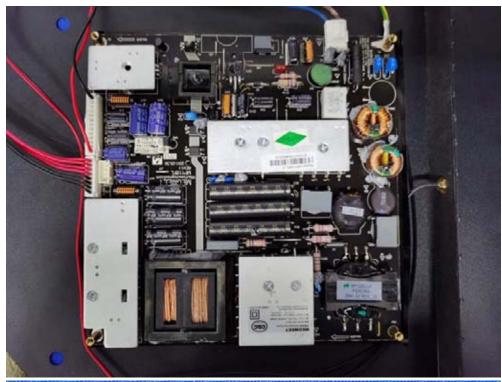
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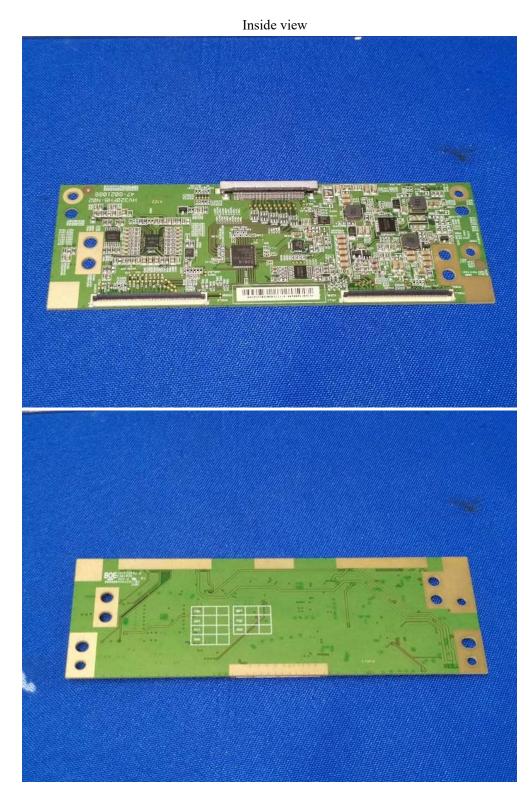
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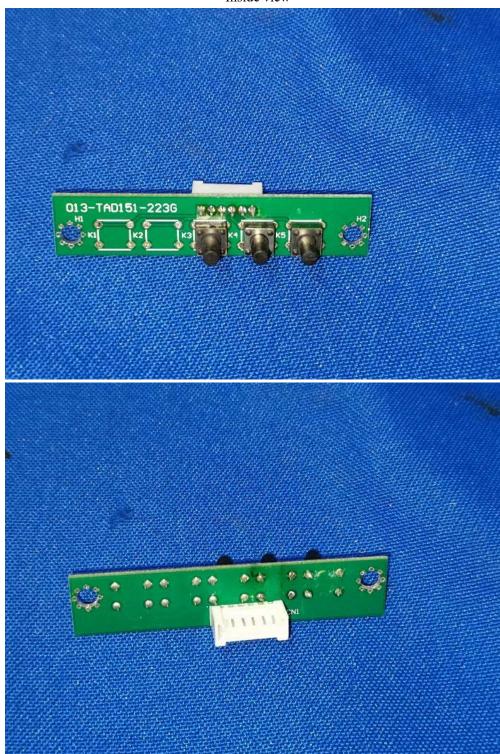
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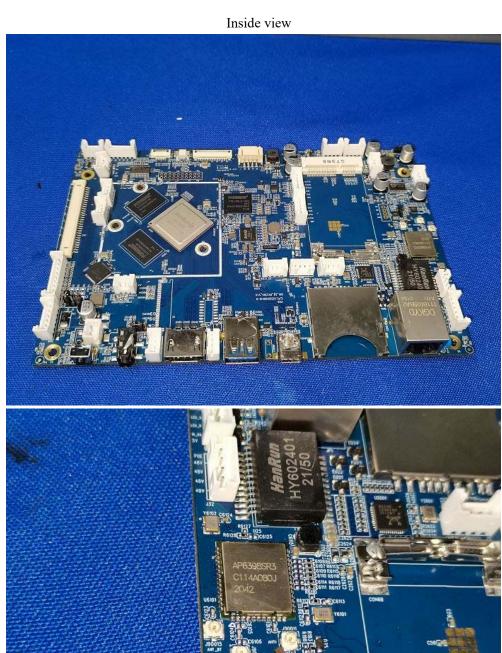
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