



Report No.: PTC24030500102E-FC05

FCC TEST REPORT

FCC ID: 2ACFQ-ORBITA100

Product	:	Wireless Carplay/Android Auto Adapter
Model Name	:	Orbit A100
Serial model	:	Refer to page5
Brand	:	MyGekoGear/gekogear
Report No.	:	PTC24030500102E-FC05
Prepared for		
ADESSO INC.		
20659 Valley BLVD. Walnut, CA 91789, U.S.A.		
Prepared by		
Precise Testing & Certification Co., Ltd.		
Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China.		



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TEST RESULT CERTIFICATION

Applicant's name : ADESSO INC.
Address : 20659 Valley BLVD. Walnut, CA 91789, U.S.A.
Manufacture's name : ADESSO ELECTRONICS INC.
Address : No.5,ChengDa East St., Xiangang Community,Changan,
DongGuan, China
Product name : Wireless Carplay/Android Auto Adapter
Model name : Orbit A100
Serial model : Refer to page5
Test procedure : FCC CFR47 Part 1.1307(b)(1)
Test Date : Apr. 18, 2024 to May. 21, 2024
Date of Issue : Jun. 25, 2024
Test Result : PASS

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:

A handwritten signature in black ink, appearing to read 'Jack Zhou'.

Jack zhou / Engineer

Technical Manager:

A handwritten signature in black ink, appearing to read 'Simon Pu'.

Simon Pu / Manager



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2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	15.247 (i)	PASS
Remark:		
N/A: Not Applicable		



3 General Information

3.1 General Description of E.U.T.

Product Name	:	Wireless Carplay/Android Auto Adapter
Model Name	:	Orbit A100
Additional model	:	Orbit A200, Orbit A300, Orbit A400, Orbit A500, Orbit A600, Orbit A700, Orbit A800, Orbit A900
Specification	:	Bluetooth BDR+EDR Bluetooth BLE 802.11b/g/n HT20/HT40 802.11a/n HT20/HT40/ac20/ac40
Operation Frequency	:	2400-2480MHz for BT 2412-2462MHz for 802.11b/g/ n(HT20) 2422-2452MHz for 802.11 n(HT40) 5G Wifi:5180-5240 MHz 5.8G Wifi:5745MHz~5825MHz
Number of Channel	:	79 channels for BDR+EDR 40 channels For DTS 11 channels for 802.11b/g/ n(HT20) 7 channels for 802.11n(HT40) 4 channels for 802.11a/n20/ac20 5180-5240 MHz 5 channels for 802.11a/n20/ac20 5745MHz~5825MHz 2 channels for 802.11n40/ac40 5180-5240 MHz 2 channels for 802.11n40/ac40 5745MHz~5825MHz
Type of Modulation	:	GFSK, $\pi/4$ -DQPSK, 8DPSK For DSS GFSK, For DTS DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n; DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n/a/ac
Antenna installation	:	PCB antenna
Antenna Gain	:	2.4G:1.39 dBi 5.2G:1.75 dBi 5.8G:1.67 dBi
Power supply	:	DC 5V/100mA
Hardware Version	:	V1.0
Software Version	:	N/A



4 RF Exposure

Test Requirement : FCC Part 1.1307(b)(1)

Evaluation Method : KDB 447498 D01 General RF Exposure Guidance v06

4.1 Requirements

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 levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

4.2 The procedures / limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	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



4.3 MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } P_d \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak 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

$$P_d = \frac{30 \times P \times G}{377 \times d^2} \theta_{\phi}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

4.4 Test Result

Test Frequency(MHz)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Result	Test mode
2480	1.38	9.69	9.69 ± 1	11.721954	0.003212	1	Pass	3DH5
2480	1.38	7.29	7.29 ± 1	6.745280	0.001848	1	Pass	BLE_2M
2412	1.38	21.56	21.56 ± 1	181.551566	0.049743	1	Pass	802.11B
5240	1.50	18.07	18.07 ± 1	80.723503	0.024029	1	Pass	11N20SISO
5825	1.47	15.14	15.14 ± 1	41.114972	0.012015	1	Pass	11AC20SISO



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5 simultaneous MPE Result

BT(3DH5) MPE ratio	2.4GWiFi (802.11B) MPE ratio	5.2GWIFI (11N20SISO) MPE ratio	simultaneous MPE ratio	MPE Limits ratio	Test result
0.003212	0.049743	0.024029	0.076984	1	PASS

*****THE END REPORT*****