

RF EXPOSURE REPORT

OF

Applicant: Qbic technology Co., Ltd
26F.-12, No.99, Sec. 1, Xintai 5th Rd., Xizhi Dist., New Taipei City 22175, Taiwan (R.O.C.)

Product Name: BOX PC

Brand Name: Qbic

Model No.: BXP-321, BXP-320

Model Difference: Different Component (W / WO HDMI IN)

Report Number: E2/2019/50073

FCC ID: 2AF82-BXP320

FCC Rule Part Part 2.1091

Issue Date: Jun. 10, 2019

Date of Test: Mar. 25, 2019 ~ May 15, 2019

Date of EUT Received: Mar. 25, 2019

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. The test data, data evaluation in this report is in compliance with FCC Rules Part 2.

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

Tested By:

Henry Chiang
Henry Chiang / Engineer

Approved By:

John Yeh
John Yeh / Asst. Manager



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
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Revision History

Report Number	Revision	Description	Effected Page	Issue Date	Revised By
E2/2019/50073	Rev.00	Initial creation of document	All	May 21, 2019	Violetta Tang
E2/2019/50073	Rev.01	Update general information for the channel numbers	4	Jun. 10, 2019	Violetta Tang

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1 DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

General:

Product Name:	BOX PC	
Brand Name:	Qbic	
Model No.:	BXP-321, BXP-320	
Model Difference:	Different Component (W / WO HDMI IN)	
Hardware Version:	N/A	
Software Version:	N/A	
Power Supply:	12V from AC/DC Adapter	
	Adapter:	1. Model No.: ADS-40RJ-12 12036E, Supplier: SHENZHEN HONOR ELECTRONIC CO., LTD. 2. Model No.: ADP-40BW A LPS, Supplier: DELTA ELECTRONICS, INC.

Radio Technology:	Bluetooth LE single mode
Frequency Range:	2402 – 2480MHz
Channel number:	40 channels
Modulation type:	GFSK
Transmit Power:	6.03dBm (Avg.)
Antenna Designation:	Dipole Antenna, Gain: 1.79dBi

WLAN 802.11	Frequency Range	Channels	Rated Power (Avg.) (dBm)	Modulation Technology
b	2412-2462	11	13.85	DSSS,
g			13.89	OFDM
n_HT20			13.46	
Modulation type:		CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM		
Antenna Designation:		Dipole Antenna, Gain: 1.79dBi		
Transition Rate:		802.11 b: 1/2/5.5/11 Mbps 802.11 g: 6/9/12/18/24/36/48/54 Mbps 802.11 n_20MHz: 6.5 – 72.2Mbps		

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WLAN 802.11	Frequency Range	Channels	Rated Power (Avg.) (dBm)	Modulation Technology
a	5150~5250	4	9.79	OFDM
	5725~5850	5	11.47	
n_HT ac_VHT 20M	5150~5250	4	HT: 8.25 (Worst case)	OFDM
	5725~5850	5	HT: 10.80 (Worst case)	
n_HT ac_VHT 40M	5150~5250	2	HT: 8.88 (Worst case)	OFDM
	5725~5850	2	HT: 10.19 (Worst case)	
ac_VHT 80M	5150~5250	1	8.49	OFDM
	5725~5850	1	10.24	
Modulation type		64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 802.11ac only		
Antenna Designation:		Dipole Antenna, Gain: 4.44dBi (5150~5250) / 4.90dBi (5725~5850)		
Transition Rate:		802.11 a: 6/9/12/18/24/36/48/54 Mbps 802.11 n_20MHz: 6.5 – 72.2Mbps 802.11 n_40MHz: 13.5 – 150.0Mbps 802.11 ac_20MHz: 6.5 – 86.Mbps 802.11 ac_40MHz: 13.5 – 200.0Mbps 802.11 ac_80MHz: 29.3 – 433.3Mbps		

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2 FCC MAXIMUM PERMISSIBLE EXPOSURE (MPE)

2.1 FCC 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

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2.2 Power Density Calculation (Worst Case)

Operation Mode	Evaluation Frequency (MHz)	Operation Distance (cm)	Max. output Power (dBm)	Antenna Gain (dBi)	Max. output Power EIRP (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Pass / Fail
BT	2480.00	20	6.03	1.79	6.05	0.001	1.000	Pass
WLAN 2.4G	2412.00	20	13.89	1.79	36.98	0.007	1.000	Pass
WLAN 5G	5745.00	20	11.47	4.90	43.35	0.009	1.000	Pass

~ End of Report ~

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