

TEST REPORT

Product Name: ROCK Pi S

Trademark:



Model Number:

ROCK PI S D4WPN8

ROCK PI S D4, ROCK PI S D4W, ROCK PI S D4P, ROCK PI S D4WP, ROCK PI S D4N8, ROCK PI S D4WN8, ROCK PI S D4PN8, ROCK PI S D2, ROCK PI S D2W, ROCK PI S D2P, ROCK PI S D2WP, ROCK PI S D2N8, ROCK PI S D2WN8, ROCK PI S D2PN8, ROCK PI S D2WPN8, ROCK PI S D2N4, ROCK PI S D2WN4, ROCK PI S D2PN4, ROCK PI S D2WPN4, ROCK PI S D4N4, ROCK PI S D4WN4, ROCK PI S D4PN4, ROCK PI S D4WPN4

Prepared For:

ROCKPI TRANDING LIMITED

Address:

Room 11, 27 / f, Ga Wah International Centre, 191 Java Road, North Point, Hong Kong

Manufacturer:

ROCKPI TRANDING LIMITED

Address:

Room 11, 27 / f, Ga Wah International Centre, 191 Java Road, North Point, Hong Kong

Prepared By:

Shenzhen BCTC Testing Co., Ltd.

Address:

BCTC Building & 1-2F, East of B Building, Pengzhou Industrial, Fuyuan 1st Road, Qiaotou Community, Fuyong Street, Bao'an District, Shenzhen, China

Sample Received Date:

Feb. 09, 2020

Sample tested Date:

Feb. 09, 2020 to Apr. 16, 2020

Issue Date:

Apr. 16, 2020

Report No.:

BCTC1912000784-1E

Test Standards

EN 62311:2008

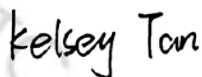
Test Results

PASS

Remark:

This is RED Health test report.

Compiled by:



Kelsey Tan

Reviewed by:



Eric Yang

Approved by:



Zerd Zhou/Manager

The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen BCTC Testing Co., Ltd, this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client.



TABLE OF CONTENT

Test Report Declaration	Page
1. VERSION.....	3
2. PRODUCT INFORMATION AND TEST SETUP	4
2.1 Product Information	4
3. HEALTH REQUIREMENTS	5
3.1 Limits.....	5
3.2 Exposure Evaluation.....	6
4. EUT PHOTOGRAPHS	7

(Note: N/A means not applicable)

1. VERSION

Report No.	Issue Date	Description	Approved
BCTC1912000784-1E	Apr. 16, 2020	Original	Valid

2. PRODUCT INFORMATION AND TEST SETUP

2.1 Product Information

Model(s):	ROCK PI S D4WPN8 ROCK PI S D4, ROCK PI S D4W, ROCK PI S D4P, ROCK Pi S D4WP, ROCK Pi S D4N8, ROCK Pi S D4WN8, ROCK Pi S D4PN8, ROCK PI S D2, ROCK PI S D2W, ROCK PI S D2P, ROCK Pi S D2WP, ROCK Pi S D2N8, ROCK Pi S D2WN8, ROCK Pi S D2PN8, ROCK Pi S D2WPN8, ROCK Pi S D2N4, ROCK Pi S D2WN4, ROCK Pi S D2PN4, ROCK Pi S D2WPN4, ROCK Pi S D4N4, ROCK Pi S D4WN4, ROCK Pi S D4PN4, ROCK Pi S D4WPN4
Model Description:	All the model are the same circuit and RF module, except model names.
Wi-Fi Specification:	IEEE 802.11b/g/n
Hardware Version:	N/A
Software Version:	N/A
Operation Frequency:	WiFi: IEEE 802.11b/g/n HT20: 2412-2472MHz HT40:2422-2462MHz
Max. RF output power:	WiFi (2.4G) :13.67dBm
Type of Modulation:	WiFi: DSSS, OFDM
Antenna installation:	WiFi: Internal antenna
Antenna Gain:	WiFi (2.4G) : 1dBi
Ratings:	DC 5V

3. HEALTH REQUIREMENTS

3.1 Limits

According to Council Recommendation: the criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation.

Reference levels for electric, magnetic and electromagnetic fields (0Hz to 300GHz, unperturbed RMS values)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μT)	Equivalent plane wave power density Seq (W/m ²)
0-1 Hz	-	3.2×10^4	4×10^4	-
1-8 Hz	10000	$3.2 \times 10^4 / f^2$	$4 \times 10^4 / f^2$	-
8-25 Hz	10000	$4000 / f$	$5000 / f$	-
0.025-0.8 kHz	$250 / f$	$4 / f$	$5 / f$	-
0.8-3 kHz	$250 / f$	5	6.25	-
3-150 kHz	87	5	6.25	-
0.15-1 MHz	87	$0.73 / f$	$0.92 / f$	-
1-10 MHz	$87 / f^{1/2}$	$0.73 / f$	$0.92 / f$	-
10-400 MHz	28	0.073	0.095	2
400-2000 MHz	$1.375 f^{1/2}$	$0.0037 f^{1/2}$	$0.0046 f^{1/2}$	$f / 200$
2-300 GHz	61	0.16	0.2	10

Note:

- f as indicated in the frequency range column.
- For frequencies between 100 kHz and 10 GHz, Seq, E^2 , H^2 and B^2 are to be averaged over any six-minute period.
- For frequencies exceeding 10 GHz, Seq, E^2 , H^2 and B^2 are to be averaged over any $68 / f^{1.05}$ minute period (f in GHz).

3.2 Exposure Evaluation

From Council Recommendation 1999/519/EC table 2, the maximum power density is 10 W/m².

Power density (S) is calculated by the following formula:

$$S = PG * \text{Duty factor} / 4\pi R^2$$

P = Peak Power Input to antenna (Watts)

G =Antenna Gain (numeric)

R = distance to the center of radiation of antenna (in meter) = 0.20 m

Note:

1) $P \text{ (Watts)} = (10^{(\text{dBm} / 10)}) / 1000$

2) $G \text{ (Antenna gain in numeric)} = 10^{(\text{Antenna gain in dBi} / 10)}$

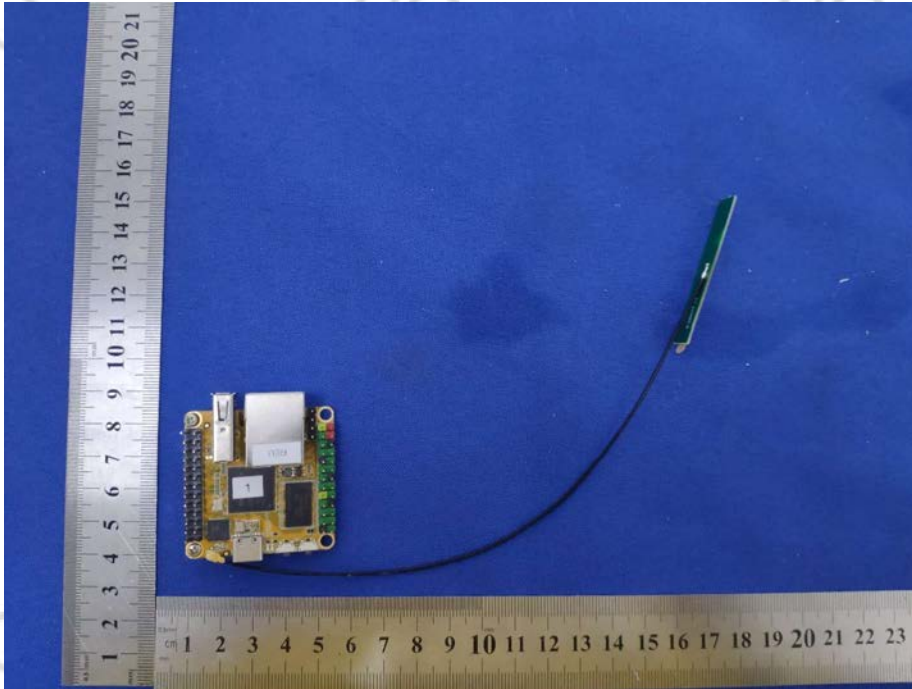
3) Duty factor=1.0

4) $\pi = 3.142$

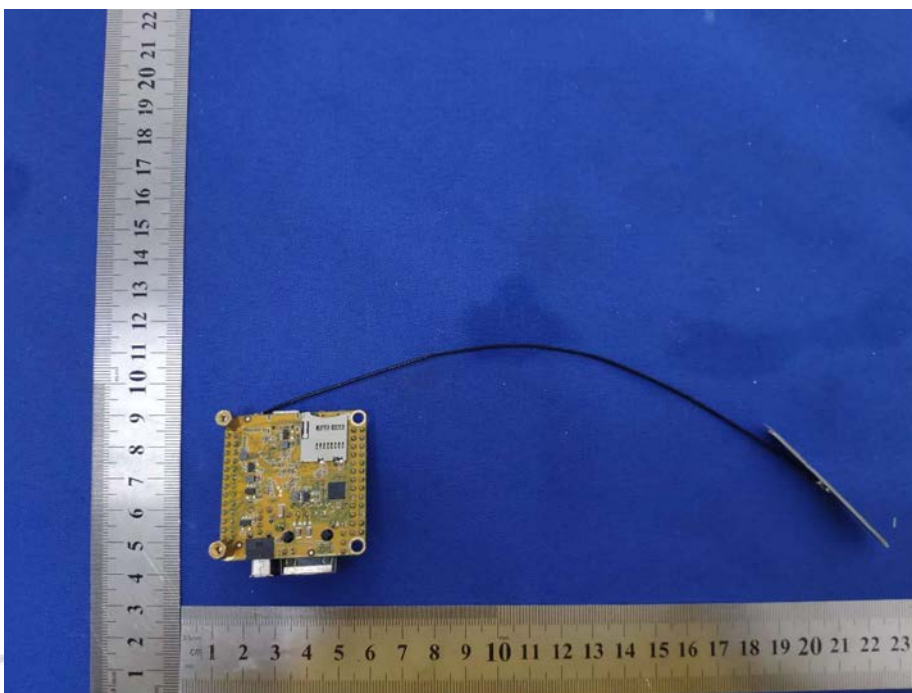
Mode	Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (W)	Duty factor	Calculate d RF Exposure (W/m ²)	Limit (W/m ²)
802.11b	1	1.259	13.67	0.023	1.00	0.0583	10

4. EUT PHOTOGRAPHS

EUT Photo 1



EUT Photo 2



***** END OF REPORT *****