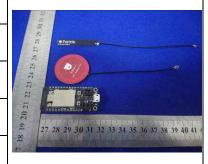




TEST REPORT

Applicant	Particle Industries,Inc
Address	126 Post St, 4th floor, San Francisco, CA 94108 USA

Manufacturer or Supplier	Particle Industries,Inc	
Address	126 Post St, 4th floor, San Francisco, CA 94108 USA	
Product	Argon	
Brand Name	Particle Industries,Inc	
Model	ARGN	
Additional Model & Model Difference	N/A	
Date of tests	Aug. 17, 2018 ~ Oct. 25, 2018	
<u> </u>	· · · · · · · · · · · · · · · · · · ·	



The submitted sample of the above equipment has been tested according to the requirements of the following standard:

◯ EN 62311:2008

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Breeze Jiang Project Engineer / EMC Department	Approved by Glyn He Supervisor / EMC Department
Breere	J. J
	Date: Nov. 30, 2018

This report is governed by, and incorporates by reference, CPS Conditions of Service as posted at the date of issuance of this report at http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our characteristics of the lot from which a test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute you unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



TABLE OF CONTENTS

TEST REPORT	1
RELEASE CONTROL RECORD	3
1. GENERAL INFORMATION	4
1.1 GENERAL DESCRIPTION OF EUT	4
2. RF EXPOSURE MEASUREMENT	4
2.1 INTRODUCTION	5
2.2 LIMIT	5
2.3 CLASSIFICATION OF THE ASSESSMENT METHODS	5
2.4 TEST RESULTS	6



RELEASE CONTROL RECORD

ISSUE NO.	. REASON FOR CHANGE	
SE180817N043-1	Original release	Nov. 30, 2018



1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Argon	
MODEL NO.	ARGN	
ADDITIONAL MODEL	N/A	
NOMINAL VOLTAGE	Li+ PIN /Battery connector: DC 3.7V from Li-ion Battery or VUSB PIN /USB connector :DC 5V from USB Host Unit	
OPERATING TEMPERATURE RANGE	-20 ~ +80℃	
MODULATION TECHNOLOGY	DSSS, OFDM, OQPSK	
MODULATION TYPE	CCK, DQPSK, DBPSK, OQPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM	
OPERATING FREQUENCY	2412-2472MHz for 11b/g/n(HT20), 2422-2462MHz for 11n(HT40) for WIFI 2405-2480MHz for 2.4G Wireless(IEEE 802.15.4)	
EIRP POWER(MAX.)	18.05dBm for WIFI	
ANTENNA TYPE	FPCB Antenna, 2dBi Gain for WIFI, PCB Antenna, 0dBi Gain for 2.4G Wireless(IEEE 802.15.4)	

NOTE:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- 2. For the test results, the EUT had been tested with all conditions, but only the worst case was shown in test report.
- 3. Please refer to the EUT photo document (Reference No.: 180817N043) for detailed product photo.
- 4. The EUT is wireless module, it no any accessories.
- 5. The EUT have MIMO function, provides 1 completed transmitters and 1 receivers.

MODULATION MODE	TX FUNCTION
802.11b	1TX/1RX
802.11g	1TX/1RX
802.11n (HT20)	1TX/1RX
802.11n (HT40)	1TX/1RX

MODULATION MODE	TX FUNCTION	
802.15.4	1TX/1RX	



2. RF EXPOSURE MEASUREMENT

2.1 INTRODUCTION

This International Standard applies to electronic and electrical equipment for which no dedicated productor product family standard regarding human exposure to electromagnetic fields applies.

The frequency range covered is 0 Hz to 300 GHz.

The object of this generic standard is to provide assessment methods and criteria to evaluate such equipment against basic restrictions or reference levels on exposure of the general public related to electric, magnetic and electromagnetic fields and induced and contact current.

2.2 LIMIT

According to EN 62311: 2008, the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified 1999/519/EC.

FREQUENCY RANGE (GHz)	E-FIELD STRENGTH (V/m)	
2 ~ 300	61	

2.3 CLASSIFICATION OF THE ASSESSMENT METHODS

The antenna of the product, under normal use condition is at least 20 cm away from the body of the user. Warning statement to the user for keeping at least 20cm separation distance and the prohibition of operating to a person has been printed on the WLAN easy install sheet. So, this product under normal use is located on electromagnetic far field between the human body.

Far Field Calculation Formula

$$E = \eta_0 H = \frac{\sqrt{30PG(\theta, \phi)}}{r}$$

G = antenna gain relative to an isotropic antenna θ, ϕ = elevation and azimuth angles to point of investigation r = distance from observation point to the antenna η_0 = Characteristic impedance of free space



2.4 TEST RESULTS

CALCULATION FOR MAXIMUM E.I.R.P.

Output Power E.I.R.P. (dBm)	Output Power E.I.R.P. (mW)	E-Field Strength (V/m)	E-Field Strength Limit (V/m)	PASS / FAIL
18.05	63.826	6.919	61.00	PASS