

RF EXPOSURE REPORT

Product: OVIS

Model Name: OVIS-01

FCC ID: 2AR7B-OVIS-01

Applicant: LINGDONG TECHNOLOGY (BEIJING) CO. LTD

Address: 1601-29, Floor 16, Linghang Building, No.68 Zhichun Road,
Haidian District, Beijing

Manufacturer: LINGDONG TECHNOLOGY (BEIJING) CO. LTD

Address: 1601-29, Floor 16, Linghang Building, No.68 Zhichun Road,
Haidian District, Beijing

Prepared by: BV 7Layers Communications Technology (Shenzhen) Co. Ltd

Lab Location: No.B102, Dazhu Chuangxin Mansion, North of Beihuan Avenue,
North Area, Hi-Tech Industrial Park, Nanshan District,
Shenzhen, Guangdong, China

TEL: +86 755 8869 6566

FAX: +86 755 8869 6577

E-MAIL: customerservice.dg@cn.bureauveritas.com

Report No.: SA190228W007-1

Received Date: Feb. 28, 2019

Test Date: Feb. 29, 2019 ~ Jun. 22, 2019

Issued Date: Jul. 24, 2019

This report should not be used by the client to claim product certification, approval, or endorsement by A2LA or any government agencies.

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 findings solely with respect to the 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 your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

TABLE OF CONTENTS

RF EXPOSURE REPORT	1
RELEASE CONTROL RECORD	3
1 CERTIFICATION	4
2 GENERAL INFORMATION	5
2.1 GENERAL DESCRIPTION OF EUT	5
3 RF EXPOSURE	6
3.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)	6
3.2 MPE CALCULATION FORMULA	6
3.3 CLASSIFICATION	6
3.4 CONDUCTED POWER	7
CALCULATION RESULT OF MAXIMUM CONDUCTED POWER	7



Test Report No.: SA190228W007-1

RELEASE CONTROL RECORD


ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA190228W007-1	Original release	Jul. 24, 2019

1 CERTIFICATION

PRODUCT: OVIS
BRAND NAME: FORWARDX
MODEL NAME: OVIS-01
APPLICANT: LINGDONG TECHNOLOGY (BEIJING) CO. LTD
TESTED: Feb. 29, 2019 ~ Jun. 22, 2019
TEST SAMPLE: Production Unit
STANDARDS: FCC Part 2 (Section 2.1091)
FCC OET Bulletin 65, Supplement C (01-01)
KDB 447498 D01 General RF Exposure Guidance v06
IEEE C95.1

The above equipment has been tested by **BV 7Layers Communications Technology (Shenzhen) Co. Ltd** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.


PREPARED BY : _____, **DATE:** Jul. 24, 2019
(Alex Chen / Engineer)


APPROVED BY : _____, **DATE:** Jul. 24, 2019
(Luke Lu / Manager)



2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	OVIS	
MODEL NAME	OVIS-01	
NOMINAL VOLTAGE	21Vdc (adapter) 18Vdc (Li-ion, battery)	
OPERATING TEMPERATURE RANGE	0 ~ 40°C	
MODULATION TYPE	WLAN	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
	Bluetooth	GFSK, $\pi/4$ -DQPSK, 8DPSK, LE
	UWB	BPM/BPSK
OPERATING FREQUENCY	WLAN	2412-2462MHz for 11b/g/n(HT20)
	Bluetooth	2402MHz ~ 2480MHz
	UWB	6240MHz ~ 6739.2MHz
ANTENNA GAIN	PIFA Antenna with 1.08dBi gain for WLAN & Bluetooth; PCB Antenna with 3.85dBi gain for UWB;	
HW VERSION	1.0	
SW VERSION	L130_v00	
I/O PORTS	Refer to user's manual	

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. The EUT was powered by the following adapter:

ADAPTER	
BRAND:	XINSPower
MODEL:	A481
INPUT:	AC 100-240V, 1500mA
OUTPUT:	DC 21V, 2000mA

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

3 RF EXPOSURE

3.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm ²)	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	F/1500	30
1500-100,000	1.0	30

F = Frequency in MHz

3.2 MPE CALCULATION FORMULA

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

3.3 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.



3.4 CONDUCTED POWER

TUNE-UP POWER TABLE

Band	Frequency (MHz)	Tune-Up Power And Tolerance (dBm)
BT	2402-2480	8.0
BLE	2402-2480	2.0
WIFI 2.4G	2412-2462	23.0
UWB	6240- 6739.2	-41.3

CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

Band	Frequency (MHz)	Antenna Gain (dBi)	Tune-up Power (dBm)	E.I.R.P Power (mW)	Power Density (mW/cm ²)	limit (mW/cm ²)	PASS / FAIL
BT	2402	1.08	8.0	8.091	0.002	1.00	PASS
BLE	2402	1.08	2.0	2.032	0.001	1.00	PASS
WIFI 2.4G	2412	1.08	23.0	255.86	0.051	1.00	PASS
UWB	6240	3.85	-41.3	0.00	0.00	1.00	PASS

--END--