

RF EXPOSURE REPORT



Applicant:	Shenzhen Neoway Technology Co.,Ltd.
Address:	4F-2#,Lianjian Science&Industry Park, Huarong Road, Dalang,Longhua District, Shenzhen City, Guangdong Province, P.R.China

Manufacturer or Supplier:	Shenzhen Neoway Technology Co.,Ltd.
Address:	4F-2#,Lianjian Science&Industry Park, Huarong Road, Dalang,Longhua District, Shenzhen City, Guangdong Province, P.R.China
Product:	Cat.M1 Module
Brand Name:	neoway
Model Name:	N27-W3
FCC ID:	PJ7-N27-W3
Date of tests:	Nov. 23, 2019 ~ Jan. 09, 2020

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

- ☒ IEEE C95.1
- ☒ FCC Part 2.1091
- ☒ KDB 447498 D01 General RF Exposure Guidance v06

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

Prepared by Alex Chen Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
	
Date: Jan. 13, 2020	Date: Jan. 13, 2020

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 GENERAL INFORMATION	4
1.1 GENERAL DESCRIPTION OF EUT	4
2 RF EXPOSURE	6
2.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)	6
2.2 MPE CALCULATION FORMULA	6
2.3 CLASSIFICATION	7
2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER.....	8
2.5 CONCLUSION OF SIMULTANEOUS TRANSMITTER.....	Error! Bookmark not defined.



Test Report No.: SA191122W002

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA191122W002	Original release	Jan. 13, 2020

1 GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Cat.M1 Module	
MODEL NAME	neoway	
NOMINAL VOLTAGE	N27-W3	
OPERATING TEMPERATURE RANGE	Vmin=3.1Vdc, Vnor=3.6Vdc, Vmax=4.3Vdc	
MODULATION TYPE	GPS/ GLONASS / BDS/ GALILEO	BPSK
	GSM/GPRS/EDGE	GMSK, 8PSK
	LTE CAT-M1	QPSK/16QAM
OPERATING FREQUENCY	GPS/ GLONASS/ BDS/ GALILEO	1559MHz ~ 1610MHz
	GSM	824.2MHz ~ 848.8MHz (FOR GSM 850) 1850.2MHz ~ 1909.8MHz (FOR GSM 1900)
	LTE CAT-M1	1850.7MHz ~ 1909.3MHz (FOR LTE Band2) 1710.7MHz ~ 1754.3MHz (FOR LTE Band4) 824.7MHz ~ 848.3MHz (FOR LTE Band5) 699.7MHz ~ 715.3MHz (FOR LTE Band12) 779.5MHz ~ 784.5MHz (FOR LTE Band13) 790.5MHz ~ 795.5MHz (FOR LTE Band14) 1850.7MHz ~ 1914.3MHz (FOR LTE Band25) 814.7MHz ~ 848.3MHz (FOR LTE Band26) 1710.7MHz ~ 1779.3MHz (FOR LTE Band66) 700.5MHz -713.5MHz (FOR LTE Band85)
ANTENNA GAIN	GSM 850	Monopole antenna with 1dBi gain
	GSM 1900	Monopole antenna with 2dBi gain
	LTE Band 2	Monopole antenna with 2dBi gain
	LTE Band 4	Monopole Antenna with 2dBi gain
	LTE Band 5	Monopole antenna with 1dBi gain
	LTE Band 12	Monopole Antenna with 1dBi gain
	LTE Band 13	Monopole Antenna with 1dBi gain
	LTE Band 14	Monopole Antenna with 1dBi gain



	LTE Band 25	Monopole antenna with 2dBi gain
	LTE Band 26	Monopole antenna with 1dBi gain
	LTE Band 66	Monopole Antenna with 2dBi gain
	LTE Band 85	Monopole Antenna with 1dBi gain
HW VERSION	V1.1	
SW VERSION	N27-Q01-STDBZ-01B	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	Refer to note as below	

NOTE:

1. 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.

2 RF EXPOSURE

2.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) 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
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = Frequency in MHz

2.2 MPE CALCULATION FORMULA

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

where

Pd = 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



Test Report No.: SA191122W002

2.3 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**.

**2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER****GSM**

Mode	Frequency (MHz)	Operating Mode	Antenna Gain (dBi)	Tune-up Power (dBm)	Tune-up Power (mW)	Power Density (mW/cm ²)	limit (mW/cm ²)	PASS / FAIL
GSM 850	824.2	GMSK	1	32.5	222.29	0.0557	0.55	PASS
GSM 1900	1850.2	GMSK	2	29.5	111.41	0.0351	1.00	PASS

LTE

Mode	Frequency (MHz)	Operating Mode	Antenna Gain (dBi)	Tune-up Power (dBm)	Tune-up Power (mW)	Power Density (mW/cm ²)	limit (mW/cm ²)	PASS / FAIL
Band2	1850.7	QPSK	2	24.0	251.19	0.0792	1.00	PASS
Band4	1710.7	QPSK	2	23.5	223.87	0.0706	1.00	PASS
Band5	824.7	QPSK	1	23.0	199.53	0.05	0.55	PASS
Band12	699.7	QPSK	1	23.0	199.53	0.05	0.47	PASS
Band13	779.5	QPSK	1	23.0	199.53	0.05	0.52	PASS
Band14	790.5	QPSK	1	22.5	177.83	0.0445	0.53	PASS
Band25	1850.7	QPSK	2	23.0	199.53	0.0629	1.00	PASS
Band26	814.7	QPSK	1	23.0	199.53	0.05	0.54	PASS
Band66	1710.7	QPSK	2	23.5	223.87	0.0706	1.00	PASS
Band85	700.5	QPSK	1	22.5	177.83	0.0445	0.47	PASS

--END--