Dongguan Nore Testing Center Co., Ltd.

Report No.: NTC1702043FV00

FCC ID: 2AK9DL218



RF EXPOSURE EVALUATION REPORT

Applicant / Manufacturer: Shanghai MobileTek Communication Ltd.

Address Free Trade Zone No. 33, No. 17 building 6H Xiya Road, China (Shanghai)

Factory Shanghai MobileTek Communication Ltd.

Address Free Trade Zone No. 33, No. 17 building 6H Xiya Road, China (Shanghai)

E.U.T. GSM/GPRS+GNSS Module

Brand Name LYNQ

Model No. L218

FCC ID 2AK9DL218

Standard 47 CFR Part 2.1091

Date of Receiver January 10, 2017

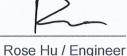
Date of Test January 10, 2017 to February 20, 2017

Date of Report February 20, 2017

This Test Report is Issued Under the Authority of:

Prepared by

Approved & Authorized Signer







Note: This test report is for the customer shown above and their specific product only. It may not be duplicated or used in part without prior written consent from Dongguan Nore Testing Center Co., Ltd. The test results referenced from this report are relevant only to the sample tested.

> TEL: +86-769-22022444 FAX: +86-769-22022799 Web: www.ntc-c.com Address: Building D, Gaosheng Science and Technology Park, Hongtu Road, Nancheng District, Dongguan City, Guangdong, China

Dongguan Nore Testing Center Co., Ltd. Report No.: NTC1702043FV00 FCC ID: 2AK9DL218



Revision History of This Test Report

Report Number	Description	Issued Date
NTC1702043FV00	Initial Issue	2017-02-20

Dongguan Nore Testing Center Co., Ltd.

Report No.: NTC1702043FV00

FCC ID: 2AK9DL218



1. Product Description of Equipment under Test

EUT : GSM/GPRS+GNSS Module

Model name : L218

Hardware Version: V1.0

Software Version : V1.0

Antenna Type : External antenna

Antenna Gain : 3.0dBi for GSM850

3.0dBi for PCS1900

Operating Frequency:

Range

Cellular Band: 824.2-848.8MHz (TX)

869.2-893.8MHz(RX)

PCS Band: 1850.2-1909.8MHz (TX)

1930.2-1989.8MHz(RX)

Exposure Category: Uncontrolled environment/general population

Device Category: Mobile (>20cm separation)

Evaluation applied: MPE Evaluation

Note : N/A

2. Test Facility and Location

Site Description

Lab : L Listed by FCC, July 03, 2014

The Certificate Registration Number is 665078. Listed by Industry Canada, June 18, 2014 The Certificate Registration Number is 9743A.

Name of Firm : Dongguan Nore Testing Center Co., Ltd.

(Dongguan NTC Co., Ltd.)

Site Location : Building D, Gaosheng Science & Technology Park, Zhouxi

Longxi Road, Nancheng District, Dongguan City, Guangdong

Province, China

Report No.: NTC1702043FV00

FCC ID: 2AK9DL218



3. Maximum Permissible RF Exposure

According to FCC §1.1310: The criteria listed in Table 1 shall be used to evaluate the environmental Impact of human exposure to radio-frequency (RF) radiation as specified in §1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of §2.1093 of this chapter.

Table 1 Limits For Maximum Permissible Exposure (MPE)

Frequency	Electric Field	Magnetic Field	Power	Average Time						
Range(MHz)	Strength	Strength Density(mW/cm²)		(minutes)						
	(V/m)	(A/m)								
(A) Limits for Occupational/Control Exposures										
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						
300-1500			f/300	6						
1500-100000			5	6						
(B) Limits for General Population/Uncontrol Exposures										
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						
1500-100000			1.0	30						
f = frequency in MH	Z									
* - Plane wave equi	ivalent nower density									

^{* =} Plane-wave equivalent power density

The MPE was calculated at **20cm** to show compliance with the power density limit. The following formula was used to calculated the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density in mW/cm2

P = Output Power to antenna in mw

G = Gain of antenna in linear scale.

R = Distance to centre of the antenna in cm.

FCC ID: 2AK9DL218



4. Measurement Result

Band	Mode	Tune-up Tolerance Limit (dBm)	Antenna Gain (dBi)	Maximum EIRP (dBm)	Source-based time-Average EIRP (mW)	Power Density at 20cm (mW/cm²)	Limit (mW/cm²)
GSM 850	GMSK	33.5	3	36.5	558.47	0.2217	0.549
GPRS 850	slot 1	33.5	3	36.5	558.47	0.2217	0.549
GPRS 850	slot 2	33.0	3	36.0	995.4	0.3951	0.549
GPRS 850	slot 4	30.5	3	33.5	1119.44	0.4444	0.549
PCS 1900	GMSK	30.5	3	33.5	279.90	0.1111	1.000
GPRS 1900	slot 1	30.0	3	33.0	249.46	0.0990	1.000
GPRS 1900	slot 2	29.5	3	32.5	444.63	0.1765	1.000
GPRS 1900	slot 4	27.0	3	30.0	500.03	0.1985	1.000

Remark 1: Source-based time-Average EIRP = Maximum EIRP + Time Average factor

Time Average factor: - 9.03dB (1 slot) / Time Average factor: - 6.02dB (2 slot)

Time Average factor: - 3.01dB (4 slot)

Remark 2: For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that

band.

Conclusion:

According to the table, the max power density level at 20 cm is 0.4444mW/cm², which is below the uncontrolled exposure limit of 0.549mW/cm², therefore we can conclude it is into compliance.