General RF Exposure Test Report

Report No.: AGC01906140601FH02

FCC ID	:	A379502P
PRODUCT DESIGNATION	:	UHF Reader
BRAND NAME	:	HQS
TEST MODEL	:	9502,9502E,9511,9511E,9512,9512E,9514,9514E,9518, 9518E,8201,8201E,8203,8203E,8502,8502E,8503,8503E
CLIENT	:	Shenzhen HQS Intel. &Tech CO., LTD.
DATE OF ISSUE	:	Jun.27, 2014
STANDARD(S)	:	KDB447498 D01

Attestation of ***G***lobal ***C***ompliance (Shenzhen) Co., Ltd

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REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Jun.27, 2014	Valid	Original Report

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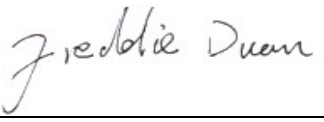
1. TEST RESULT CERTIFICATION

Applicant Name:	Shenzhen HQS Intel. &Tech CO., LTD.
Address:	4th floor, C building, Sanjing industrial park, Hangkong road, Baoan avenue, Baoan District, Shenzhen, Guangdong, China
Manufacturer Name:	Shenzhen HQS Intel. &Tech CO., LTD.
Address:	4th floor, C building, Sanjing industrial park, Hangkong road, Baoan avenue, Baoan District, Shenzhen, Guangdong, China
Product Designation	UHF Reader
Brand Name:	HQS
Test Model	9502
Series Name	9502E,9511,9511E,9512,9512E,9514,9514E,9518, 9518E,8201,8201E,8203,8203E,8502,8502E,8503,8503E
Difference description:	All the same except for the model name.
Test Standard	KDB447498 D01 General RF Exposure Guidanc v05r02
Date of Test:	Jun.25,2014 to Jun.27,2014

We (AGC), Attestation of Global Compliance Co., Ltd. for compliance with the requirements set forth in the KDB447498 D01 General RF Exposure Guidanc v05r02 The results of testing in this report apply to the product/system which was tested only. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Prepared By 

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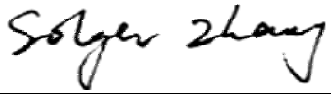
Authorized By 

Solger Zhang Jun.27, 2014

2. TECHNICAL INFORMATION

Note: the following data is based on the information by the applicant.

2.1 EUT DESCRIPTION

Operation Frequency	902.5 MHz ~ 927 MHz
Modulation	AFSK
Number of channels	50
Antenna Designation	Detachable Antenna
Antenna Gain	7dBi
antenna connector	SMA
Hardware Version	N/A
Software Version	N/A
Power Supply	DC9V by adapter

Note:

1. For more details, please refer to the User's manual of the EUT.

3. RF EXPOSURE MEASUREMENT

3.1 INTRODUCTION

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 2.5 cm or more from persons.

The 1992 ANSI/IEEE standard (See Listed limit table) specifies a minimum separation distance of 1cm for performing reliable field measurements to determine adherence to MPE limits.

If the minimum separation distance between a transmitter and nearby persons is more than 2.5 cm under normal operating conditions, compliance with MPE limits may be determined at such distance from the transmitter. When applicable, operation instructions and prominent warning labels may be used to alert the exposed persons to maintain a specified distance from the transmitter or to limit their exposure durations and usage conditions to ensure compliance.

3.2 FCC LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE(MPE)

LIMITS FOR GENERAL POPULATION / CONTROLLED EXPOSURE

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (Minutes)
0.3 -- 1.34	614	1.63	(100)*	6
1.34 -- 30	824/f	4.89/f	$(900/f^2)$*	6
30 -- 300	61.4	0.163	1.0	6
300 -- 1500	--	--	f/300	6
1500 -- 100,000	--	--	5	6

*Note:

1. f=Frequency in MHz * Plane-wave Equivalent Power Density.

4. CLASSIFICATION OF THE ASSESSMENT METHODS

According to user manual,The antenna of the product, under normal use condition is at least 0.3m away from the body of the user. Warning statement to the user for keeping at least 30cm separation distance and the prohibition of operating to a person has been printed on the user'smanual. So, this product under normal use is located on electromagnetic far field betweenthe human body.

$S=PG/4\pi R^2$

Where:
S=power density
P=power input to antenna
G=power gain of the antenna in the direction of interest relative to an isotropic radiator R=distance to the center of radiation of the antenna

5. EUT OPERATION CONDITION

Make the EUT to transmit at lowest, middle and highest channel individually.

6. TEST RESULTS

Antenna Gain=7dBi(Numeric 5.0), π =3.1416

Channel	Frequency	Output Power (peak)	Output Power (peak)	Power Density	Power Density Limit	Result
	MHz	dBm	mW	mW/cm2	mW/cm2	Pass/Fail
CH 1	902.5	27.91	618.02	0.273	3.008	Pass
CH 25	914.5	27.84	608.14	0.269	3.048	Pass
CH 50	927.0	27.83	606.74	0.268	3.092	Pass

Note: The distance between users and EUT is 0.3m.