RF Exposure Evaluation Declaration

Product Name : HELP PERS (915)

Model No. : HELP PERS (915)

FCC ID: **2ABZ7-915**

Applicant : Life Alert Emergency Response,inc.
Address : 16027 Ventura Blvd., Suite 400.

Report Type	:	Original test report
Report Number	:	UL15820150518FCC042-2
Report Version	:	V1.0
Date of Report	:	24-05-2015
Date of Test	:	18-05-2015~24-05-2015

RF Exposure Evaluation Declaration

Issued Date : 24-05-2015
Report No. : UL15820150518FCC042-2

Product Name :	HELP PERS (915)
Model No. :	HELP PERS (915)
Applicant :	Life Alert Emergency Response,inc.
Address :	16027 Ventura Blvd., Suite 400.
Manufacturer :	Life Alert Emergency Response,inc.
Address :	16027 Ventura Blvd., Suite 400.
EUT Voltage	Extreme Low:3.6V, Nominal:3.8V, Extreme High:4.2V
Brand Name :	Life Alert HELP PERS
FCC ID :	**2ABZ7-915**
Applicable Standard :	FCC's Rules (47 C.F.R. § 1.1310 and 2.1091)
Test Result :	Complied
Performed Location :	Unilab (Shanghai) Co.,Ltd. FCC 2.948 register number is 714465 IC register number is 11025A-1 No.1350, Lianxi Road, Pudong New District, Shangha, China TEL:+86-21-50275125/FAX:+86-21-50277862

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1. EUT Description

Product Name:	HELP PERS (915)
Model Name:	HELP PERS (915)
Hardware Version:	V. 915
Software Version:	V1.00
RF Exposure Environment:	Uncontrolled
WCDMA	
Support Band:	WCDMA Band Ⅱ
Tx Frequency Range:	WCDMA Band Ⅱ: 1850MHz ~1910MHz
Rx Frequency Range:	WCDMA Band Ⅱ: 1930MHz ~1990MHz
Type of modulation:	WCDMA(UMTS): QPSK
Antenna Type:	PIFA Antenna
Antenna Peak Gain:	WCDMA Band Ⅱ:1.07dBi
Support Band:	WCDMA Band V
Tx Frequency Range:	WCDMA Band V: 824MHz ~849MHz
Rx Frequency Range:	WCDMA Band V: 869MHz ~894MHz
Type of modulation:	WCDMA(UMTS): QPSK
Antenna Type:	PIFA Antenna
Antenna Peak Gain:	WCDMA Band V: 0.9dBi
Note:The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.	

2. RF Exposure Evaluation

2.1 Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range(MHz)	Electric Filed Strength (V/m)	Magnetic Filed Strength (A/m)	Power Density (mW/cm2)	Average Time (Minutes)
(A)Limits for Occupation/Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B)Limits for General Occupation/UnControlled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula: Pd = (Pout*G)/(4*Pi*R2)

Where

Pd = power density in mW/cm2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

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

Pd id the limit of MPE, 1 mW/cm2 . If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.2.Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 21℃and 52％ RH.

2.3.Test Result of RF Exposure Evaluation

This device is evaluated by mobile device with general population/uncontrolled exposure condition

For this device, the calculation is using the most conservative values, and the results are as follows:

Test Mode	Antenna Gain (dBi)	Maximum Output Power (dBm)	Maximum Output Power (mW)	Calculated RF Exposure at d = 20cm (mW/cm2)	MPE Limit (mW/cm2)
WCDMA 850	0.9	25	518.8	0.10	0.55
WCDMA 1900	1.07	25	518.8	0.10	1.00
Duty cycle =100%					

Test Mode	ERP (dBm)	EIRP (dBm)	Peak EIRP (mW)	Calculated RF Exposure at d = 20cm (mW/cm2)	MPE Limit (mW/cm2)
WCDMA 850	25.33	27.48	559.8	0.11	0.55
WCDMA 1900	----------	24.57	286.4	0.06	1.00
Duty cycle =100%					

This device can pass RF exposure limit.