RF Exposure Report

Project Number:	**4494805**	**Quotation Number:**	**02212019TH-1.3**
Report Number:	**4494805EMC05**	**Revision Level:**	**0**

Client: **Lifeline Systems Inc**

Equipment Under Test: **Medical Alert System**
Model Name: **Wireless Communicator**
Model Number: **7200C**

FCC ID: **BDZ7200C**

Applicable Standards: **47 C.F.R. §§ 2.1091 and 2.1093; FCC KDB 447498**
FCC KDB 447498 D01 General RF Exposure Guidance v06

Report issued on: **12 September 2019**
Test Result: **Compliant**

Remarks: This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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1 General Information

1.1 *Client Information*

Name:	Lifeline Systems Inc
Address:	111 Lawrence Street
City, State, Zip, Country:	Framingham, MA 01702 USA

1.1 *Test Laboratory*

Name:	SGS North America, Inc.
Address:	620 Old Peachtree Road NW, Suite 100
City, State, Zip, Country:	Suwanee, GA 30024, USA
Accrediting Body:	A2LA
Type of lab:	Testing Laboratory
Certificate Number:	3212.01

1.2 *General Information of EUT*

Equipment Under Test:	Medical Alert System
Model Name:	Wireless Communicator
Model Number:	7200C
Serial Number:	9040234871 9040234870
FCC ID:	BDZ7200C
Tx Frequency Ranges:	1850 – 1910 MHz (LTE Band 2) 1710 – 1755 MHz (LTE Band 4) 699 – 716 MHz (LTE Band 12) 917 – 921 MHz (ISM Band)
Antenna Type:	Internal PCB Antennas: 2 (selectable) for ISM, 2 (diversity) for LTE
Antenna Gains: (all maximum peak gains)	ISM Antenna 1: 2.1 dBi ISM Antenna 2: 3.0 dBi LTE Main Antenna: 3.1 dBi (Bands 2&4), 1.6 dBi (Band 12) LTE Diversity Antenna: 3.1 dBi (Bands 2&4), -0.2 dBi (Band 12)
Sample Received Date:	08 July 2019
Dates of testing:	10 July 2019 (900MHz ISM Band)

1.3 *Operating Modes and Conditions*

The EUT had an internal battery pack installed and was connected to the AC Mains using the supplied AC/DC wall adapter. The EUT was running test mode software which allowed it to be commanded to turn on a continuous transmit signal at maximum power at different channels in the 900 MHz ISM Band. The EUT only used channels with center frequencies ranging from 917 to 921 MHz in the ISM Band.

Note: Certified radio module grant data (FCC ID: XPY1DIQN3NN) was used for the LTE Bands.

2 RF Exposure

2.1 *Test Result*

Test Description	Product Specific Standard	Test Result
RF Exposure	FCC Part 1.1310	Compliant

2.2 *Test Method*

Using the maximum measured conducted power with tune-up tolerance, the power density was calculated. Maximum peak antenna gains were assumed for this exercise.

2.3 *Single transmission RF Exposure Levels (mW/cm^2)*

Band of Operation		Conducted Power w/tolerance	Antenna Gain	Cable Loss	Average EIRP		Distance (R)	Power Density $EIRP_{Avg}/(4\pi R^2)$	FCC	% of Limit	Verdict
Type	MHz	dBm			dBm	mW	cm	mW/cm^2	mW/cm^2		
LTE Band 2	1850-1910	25.0	3.1	0.0	28.1	646	20	0.128	1.00	13%	Pass
LTE Band 4	1710-1755	25.0	3.1	0.0	28.1	646	20	0.128	1.00	13%	Pass
LTE Band 12	699-716	25.0	1.6	0.0	26.6	452	20	0.090	0.47	19%	Pass
900 MHz ISM Band	917-921	-4.2	3.0	0.0	-1.2	1	20	0.000	0.61	0%	Pass

2.4 *Simultaneous transmissions*

	LTE Band 2	LTE Band 4	LTE Band 12	900 MHz ISM Band
LTE Band 2				13%
LTE Band 4				13%
LTE Band 12				19%
900 MHz ISM Band	13%	13%	19%	

3 Revision History

Revision Level	Description of changes	Revision Date
DRAFT	--	19 August 2019
0	Initial release	12 September 2019