

The Device is a **mobile** Sensor for IoT applications. SRS is suitable for commercial application.

SRS evaluated for RF radiation exposure according to the provisions of FCC §2.1091, MPE guidelines identified in FCC §1.1310 and FCC KDB 447498:2015.

**Limits for General Population/Uncontrolled Exposure: 47 CFR 1.1310 Table 1 (B)**

**LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)**

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f <sup>2</sup>	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

Where *f* is in MHz

The worst-case scenario is provided at 902.3 MHz.

The maximum power density exposure is f/1500:

**S = 0.60133 mW/cm<sup>2</sup>**, for uncontrolled exposure

LoRa and BLE RF conducted power measurement and antenna gain as per ETC test reports t29e21a238-DTS\_FCC and t29e21a238-DSS\_FCC section 2.3.5 are reported below. The maximum duty cycle of the radio is stated in the Operation Description exhibit to be 33%. The worst-case value is in bold below

TX	Frequency (MHz)	Conducted RF Output 100% Duty Cycle (dBm)	Max. antenna gain (dBi)	Conducted EIRP 100% duty Cycle(dBm)	EIRP 100% Duty Cycle (mW)	EIRP 33% Duty Cycle (mW)
LoRa 500 KHz	903	13.94	2.1	16.04	40.18	13.26
	907.8	14.03	2.1	16.13	41.02	13.54
	914.2	14.11	2.1	16.21	41.78	13.79
LoRa 125 KHz	902.3	13.75	2.1	15.85	38.46	12.69
	908.7	14.01	2.1	16.11	40.83	13.47
	<b>914.9</b>	<b>14.62</b>	<b>2.1</b>	<b>16.72</b>	<b>46.99</b>	<b>15.51</b>
BLE	2402	-0.11	1.1	0.99	1.26	0.416
	2440	-0.29	1.1	0.81	1.205	0.398
	2480	-0.24	1.1	0.86	1.22	0.403
<b>Worse Case</b>		<b>15</b>	<b>2.1</b>	<b>17.1</b>	<b>51.29</b>	<b>16.93</b>
<b>As per tuning procedure document +15 dBm is the absolute maximum power that LoRa chip is capable to handle.</b>						

