



# Radio Frequency Exposure Evaluation Report

**FOR:**  
Soberlink Healthcare

**Brand:**  
Connect ST

**Marketing Name**  
Connect

**Model Name**  
Connect ST

**Product Description**  
Breathalyzer

**FCC ID:** 2A8ZY-3900

**Applied Rules and Standards:**  
CFR 47 Part 2.1093  
FCC KDB 447498 D01 General RF Exposure Guidance v06

**Test Report #:** SAR\_EX\_SOBER\_012\_22001\_FCC\_Rev2

**DATE:** 12/6/2022



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## **CETECOM Inc.**

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## 1 Assessment

The following device meets the limits of general population uncontrolled exposure specified in CFR 47 Part 2.1093 according to SAR evaluation exclusion requirements specified in FCC regulation as listed in KDB 447498, as it has been evaluated against the standards mentioned above under this section.

### Responsible for Testing Laboratory:

12/6/2022	Compliance	Stoecker, Arndt (Director of Regulatory Services)	
Date	Section	Name	Signature

### Responsible for the Report:

12/6/2022	Compliance	Ghanma, Issa (EMC Engineer)	
Date	Section	Name	Signature

The test results of this test report relate exclusively to the test item specified in Section 3.

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## 2 Administrative Data

### 2.1 Identification of the Testing Laboratory Issuing the Test Report

<b>Company Name:</b>	CETECOM Inc.
<b>Department:</b>	Compliance
<b>Street Address:</b>	411 Dixon Landing Road
<b>City/Zip Code</b>	Milpitas, CA 95035
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<b>Director of Regulatory Services:</b>	Stoecker, Arndt
<b>Responsible Project Manager:</b>	Sivaraman, Sangeetha

### 2.2 Identification of the Client

<b>Applicant's Name:</b>	Soberlink Healthcare
<b>Street Address:</b>	7711 Center Ave, Ste 400
<b>City/Zip Code</b>	Huntington Beach, CA 92647
<b>Country</b>	USA

### 2.3 Identification of the Manufacturer

<b>Applicant's Name:</b>	---Same as Client -----
<b>Street Address:</b>	---Same as Client -----
<b>City/Zip Code</b>	---Same as Client -----
<b>Country</b>	---Same as Client -----

### 3 Equipment under Assessment

<b>Brand:</b>	Connect ST
<b>Model No:</b>	Connect ST
<b>Marketing name:</b>	Connect
<b>FCC ID:</b>	2A8ZY-3900
<b>Hardware Version:</b>	0001
<b>Software Version:</b>	18.14
<b>Minimum distance of antenna or radiating parts to user</b>	5mm
<b>Radios included in the device:</b>	<p>❖ Bluetooth Low Energy 4.2: Nordic</p> <ul style="list-style-type: none"> <li>• Chipset name/number: nRF52832</li> <li>• Modulation: GFSK</li> </ul>
<b>Antenna Information as declared:</b>	PCB trace; Gain: 3.63 dBi
<b>Co-located Transmitters/ Antennas:</b>	<input type="checkbox"/> Yes _____ <input checked="" type="checkbox"/> No _____
<b>Exposure Category:</b>	<input type="checkbox"/> Occupational/ Controlled <input checked="" type="checkbox"/> General Population/ Uncontrolled
<b>Device Category:</b>	<input type="checkbox"/> Fixed Installation <input type="checkbox"/> Mobile <input checked="" type="checkbox"/> Portable <input type="checkbox"/> Mixed Mobile and Portable
<b>Power Supply/ Rated Operating Voltage Range:</b>	Fixed battery: Low 4.5 V DC, Nominal 5 V DC, High 5.5 V DC
<b>Operating Temperature Range:</b>	Low 0° C, Nominal 23° C, High +50° C
<b>Sample Revision:</b>	<input type="checkbox"/> Prototype Unit; <input type="checkbox"/> Production Unit; <input checked="" type="checkbox"/> Pre-Production Unit;
<b>EUT Dimensions [mm]:</b>	103 x 70 x 156
<b>EUT Diameter:</b>	<input checked="" type="checkbox"/> < 60 cm <input type="checkbox"/> Other _____
Note: The information of the EUT specifications in the table above are provided by the client.	

## 4 FCC Exemption Limits for Routine Evaluation

### 4.1 FCC SAR test exclusions are set by KDB 447498 D01 General RF Exposure Guidance v06

#### KDB 447498 Section: 4.3.1. Standalone SAR test exclusion considerations

- a) For 100 MHz to 6 GHz and test separation distances  $\leq$  50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR, and  $\leq 7.5$  for 10-g extremity SAR, where

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as *numeric thresholds* in step b) below

The test exclusions are applicable only when the minimum *test separation distance* is  $\leq$  50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is  $<$  5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

## 5 SAR Exclusion Evaluation

### 5.1 Standalone

FCC Standalone Transmission SAR Exclusion Calculations $\leq 10$ mm					
Radio	Frequency [GHz]	Maximum output power <sup>*1</sup> [mW]	Minimum separation distance [mm]	Threshold	1-g SAR Limit
BT LE	2.402–2.48	5.27	5	1.06	$\leq 3.0$

\*1: Measured

\*2: Formula used for threshold calculation described in [section 4.1 a\)](#) of this document for the BT LE radio.

## 6 Revision History

Date	Report Name	Changes to report	Report prepared by
10/26/2022	SAR_EX_SOBER_012_22001_FCC	Initial Version	Ghanma, Issa
11/4/2022	SAR_EX_SOBER_012_22001_FCC_Rev1	Correction to FCC ID Correction to Product Description	Ghanma, Issa
12/6/2022	SAR_EX_SOBER_012_22001_FCC_Rev2	Calculation correction section 5.1	Ghanma, Issa

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