

FCCID 2BE69-MBRC01, Model 300-006211

INSTALLATION AND USER GUIDE

FCCID 2BE69-MBRC01, Model 300-006211

Revision History

Rev	Date	Author	Description
01	02/09/2024	John Glauber	Initial release
02	03/14/2024	John Glauber	Updated FCC ID
03	04/05/2024	Allan Engelhardt	Updated Regulatory Compliance Information Changed Confidential and Proprietary language Modified Module TX power
04	04/10/2024	Allan Engelhardt	Modified minimum operational distance to human body

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1. Introduction

Model 300-006211 FCCID 2BE69-MBRC01 is a router communications device that will receive RS-485 data communications and transmit the data via private LTE (PLTE) to a server. It consists of a top and bottom housing, two LTE antennas, and a PCBA with PLTE module.

The essential character and function of model 300-006211 is to serve as a transmission apparatus between the occupant of a stadium seat and the stadium. A larger scale data processing system will receive data at each seat location in the stadium and will call on each row controller to collect this data from the seats.



Figure 1 – Model 300-006211

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1.1 Purpose

This document provides basic installation and user instructions for model 300-006211.

1.2 Definitions

Term	Definition
PLTE	Private Long-Term Evolution network.
RS-485	A standard that defines the electrical characteristics of drivers and receivers for use in serial communications systems.
CBRS	Citizens Broadband Radio Service which covers the 3.5 GHz band (3550-3700 MHz)

2. Safety Warnings

2.1 Trained Installation and Service Personnel Warning

Warning! Only those individuals that are trained and authorized by Murphy's Bowl LLC are permitted to install this equipment.

Continuing compliance with FCC requirements requires the installation instructions to be followed. No unauthorized modifications can be made to the equipment. Only the antennas provided with this equipment may be used.

Read and follow all warning notices and instructions marked on the product or included in the documentation. Before installing the product, read the rest of this document and follow specific product instructions.

When installing, the placement of the device must also satisfy the following installation requirements:

- Placement must allow for easily disconnecting the power cord/adaptor of the device from the AC wall-outlet.
- Keep the device away from excessive heat and humidity and keep the device free from vibration and dust.
- Installation must at all times conform to local regulations.

2.2 Important Safety Instructions

When using this device, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons.

Do not use this product near water. For example, do not use:

- near a bathtub
- near a wash bowl
- near a kitchen sink or laundry tub
- in a wet basement

2.3 Explosive Safety Warning

Warning! Do not operate this device near explosive devices, unshielded blasting caps or in an otherwise explosive environment unless the device has been approved for such use by qualified personnel.

Warning! Do not disconnect the power or any other cabling in an explosive environment until such qualified personnel, trained specifically in explosive environment handling, have determined it is safe to do so.

3. Regulatory Compliance

3.1 Federal Communications Commission (United States)

Regulatory Compliance Information

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 6.15cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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Caution

Changes or modifications not expressly approved by Murphy's Bowl, LLC could void the user's authority to operate the equipment.

3.2 UL Listing

All power path accessories included with model 300-006211 are UL listed.

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4. Specifications

Model 300-006211 has the following specifications:

Item	Specification
<i>Dimensions</i>	
Width	2.6"
Length	7.4"
Height	1.5"
Weight	1 lbs
<i>Environmental</i>	
Operating Temperature	-20 °F to 122 °F
Storage Temperature	-20 °F to 149 °F
Relative Humidity	0 - 100% RH
Water Resistance	None
<i>Power Requirements</i>	
Input Voltage	5V
Input Current	1A (2A max)
<i>PLTE Module</i>	
Model	CB410L
Frequency Band	CBRS band 48
Tx Power (dBm)	< 23
Rx Sensitivity (dBm)	< -101

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5. Installation

1. To install model 300-006211, plug the barrel connector of the 5V wall-wart power supply into the receptacle on 300-006211.
2. Ensure PLTE network compatible SIM card is installed (should be pre-installed in device at time of manufacture).
3. Device will boot automatically and attempt a connection to an available PLTE network matching the installed SIM card.
4. Verify successful connection to PLTE network.