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BEDSIDE WIRELESS TRANSMITTER

Operator's Manual

Life Sensing Instruments, Inc.

December 17, 2025

BMT Overview

The Bedside Wireless Transmitter (BMT) is a component of a medical patient monitoring system designed to transmit physiological data from a third-party bedside monitor to a central monitoring station via a telemetry receiver. The BMT communicates with the telemetry receiver via the supplied external whip antenna.

The BMT connects directly to a bedside monitor via an RS-232 interface cable. This connection serves two functions:

- **Power Supply** – The bedside monitor provides 5 V DC power to the BMT over the RS-232 connection.
- **Data Interface** – Patient physiological data is sent from the bedside monitor to the BMT through the same RS-232 link.

The BMT transmits the data acquired from the bedside monitor to the telemetry receiver using the Wireless Medical Telemetry Service (WMTS) bands of 608–614 MHz, 1395–1400 MHz, and 1427–1432 MHz. The telemetry receiver then forwards the data to the central monitoring station for real-time display, trending, and analysis by healthcare professionals. In addition to transmitting patient data, the BMT can receive commands and configuration updates from the telemetry receiver over the ISM band (910–920 MHz).

The following data can be transmitted from the bedside monitor using the BMT:

- ECG Lead II waveform and Heart Rate data
- SpO2 Pleth waveform, SpO2 level and Pulse Rate data
- Respiration
- NIBP
- Temperature

Instructions for Use

Connect the DB-9 serial cable on the BMT to the designated/labeled port on the rear of the supplied bedside monitor. The bedside monitor will provide power and data to the BMT. There is no additional user interaction required. The BMT has no user-serviceable parts and no user controls. All configuration is performed through the telemetry receiver.

Antenna Information

The BMT is designed for operation only with the antenna supplied or expressly approved by Life Sensing Instruments, Inc. Substitution of other antennas is not permitted without the express written approval of Life Sensing Instruments, Inc. Use of unauthorized antennas may void the equipment authorization and the user's authority to operate the device.

Authorized Antenna:

<i>Manufacturer</i>	<i>Antenna</i>	<i>Description</i>	<i>Type</i>	<i>Peak Gain</i>	<i>Ω</i>	<i>Connector Type</i>
TE Connectivity	IN7-3RD	Whip Antenna	Monopole	3 dBi	50	SMA

Support Services

The authorized support provider for the BMT is Life Systems International (LSI), located in Charlotte, NC. Support services include hardware support available through the Repair Depot. To learn more about the support services offered by LSI, call 800-846-1279 x1.

Repair Depot

For repair services of the BMT, contact the authorized support provider:

LSI
Attn: Repair Depot
2102 Cambridge Beltway Dr., Ste. A
Charlotte, NC 28273
800-846-1279 x1
support@lsi-medical.com

BMT SPECIFICATIONS

MECHANICAL

PHYSICAL DIMENSIONS (WxHxD)	2" W x 3.2" H x .5" D
WEIGHT	3.2 oz

ANTENNA CONNECTOR
CONNECTOR

SMA FEMALE

DATA

PROTOCOL	INFINIUM 2.0
TRANSMISSION RATE	BAUD RATE: 57600
CONNECTOR	DB-9

ELECTRICAL

INPUT VOLTAGE	5VDC, SUPPLIED BY BEDSIDE MONITOR
CONNECTOR	DB-9

WIRELESS

MODULATION	4GFSK (WMTS), FSK 150 KHz (ISM)
FREQUENCY BAND (TRANSMIT)	608.00-614.00, 1395.00-1400.00, 1427.00-1432.00 MHz
FREQUENCY BAND (RECEIVING)	910.00 – 920.00 MHz

ANTENNA SPECIFICATION

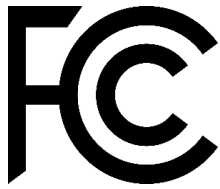
MECHANICAL

DIMENSIONS H X W	6.2 H x 0.6 W
CONNECTOR	SMA MALE

ELECTRICAL

GAIN (AVG)	3 dBi
VSWR (MAX)	< 1.5:1
POLARIZATION	ANTENNA ORIENTATION DEPENDENT (VERTICAL/HORIZONTAL)
IMPEDANCE	50 OHM
TYPE	MONOPOLE
INDOOR/OUTDOOR	INDOOR USE ONLY





Tested to Comply with FCC Standards
Product Name: Bedside Monitor Transmitter
Model Number: BMT
FCC ID: OF8-BMT1

Responsible Party:

Life Sensing Instruments, Inc.
2102-A1 Cambridge Beltway Dr.
Charlotte, NC 28273
800-624-2732

Life Sensing Instruments, Inc. declares that the above device complies with the requirements of the Federal Communications Commission.

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.

Changes or modifications not expressly approved by Life Sensing Instruments, Inc. could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This equipment complies with FCC Part 95 Subpart H for Wireless Medical Telemetry Service (WMTS). Operation is subject to the condition that this device does not cause harmful interference. Use of this equipment is restricted to healthcare facilities by authorized health care providers or their designated agents. Manufacturers, installers, and users of WMTS equipment are cautioned that the operation of this equipment could result in harmful interference to other nearby medical devices, in accordance with FCC 95.2395. In accordance with FCC 95.2309(h), this WMTS transmitter must be registered with an FCC-designated frequency coordinator prior to use.

Use of the equipment requires prior coordination with the ASHE frequency coordination designator. For further guidance, visit the ASHE website at: www.wmtssearch.com. Operation in the 608 – 614 MHz band must be coordinated with an FCC-designated WMTS frequency coordinator. Operation in the 1395 – 1400 MHz and 1427 – 1432 MHz bands may also require frequency coordination to avoid interference with coexisting systems.