A2400 MESH/BRIDGE NODES

VERSION 2.0

HARDWARE MANUAL

A2400 Mesh/Bridge Nodes

VERSION 2.0

Sensicast Systems, Inc.
220-3 Reservoir Street
Needham, MA 02494
Phone 781.453.2555
support@sensicast.com

Part # 1600 – Hardware Manual

FCC Statement

The A2400 equipment 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.

FCC Caution: Any changes or modifications not expressly approved by Sensicast could void the user's authority to operate this equipment.

FCC RF Radiation Exposure Statement
This device must operate with a separation distance of at least 20 cm from all persons and must not be co-located or operated in conjunction with any other antenna or transmitter.

FCC Labeling: The device is labeled with its own FCC ID number (RNB-A2400). If this number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label with the following wording: "Contains FCC ID: RNB-A2400"

Safety Information

This chapter provides important safety information for using your A2400 SensiNet system.

Important Safety Information

Use only Sensicast specified battery packs. Inspect battery pack prior to use and do not use if there is any evidence of leakage or deformity.
Do not operate in an explosive environment.
If battery charge is below 2V, remove or replace battery to prevent the possibility of leakage or damage.

A2400 Mesh/Bridge Nodes

This chapter describes the hardware features of Mesh/Bridge nodes.

Sensicast Mesh nodes can function either as network coordinators or as sensing/actuating nodes, depending on configuration. As a coordinator, the Mesh node automatically configures itself into a wireless mesh network with redundant connections to all leaf nodes and routing tables for all mesh nodes within connectivity range. To configure as a sensing/actuating node, the Mesh node must be combined with the appropriate interface card and/or firmware so that it can wirelessly transmit data from third-party sensors and receive control commands for device actuation. The Mesh node supports a completely wireless, self-configuring, self-healing, power managed sensor network. Sensicast Bridge nodes are specialized Mesh nodes that route data between the wireless mesh network and a host computer or LAN via Ethernet or USB connections.

Components and Functions

The primary components of a Mesh/Bridge node include the node itself, the battery pack, the power supply, and the interface connection, each of which is described below.

Node

The node is comprised of the node circuit board inside a two-piece plastic housing.

Battery Pack

The Sensicast-supplied 3V battery pack is used as a backup power for the Mesh/Bridge node in case of an external power disruption. This battery pack should be secured during operation inside the case as supplied.

Power Supply

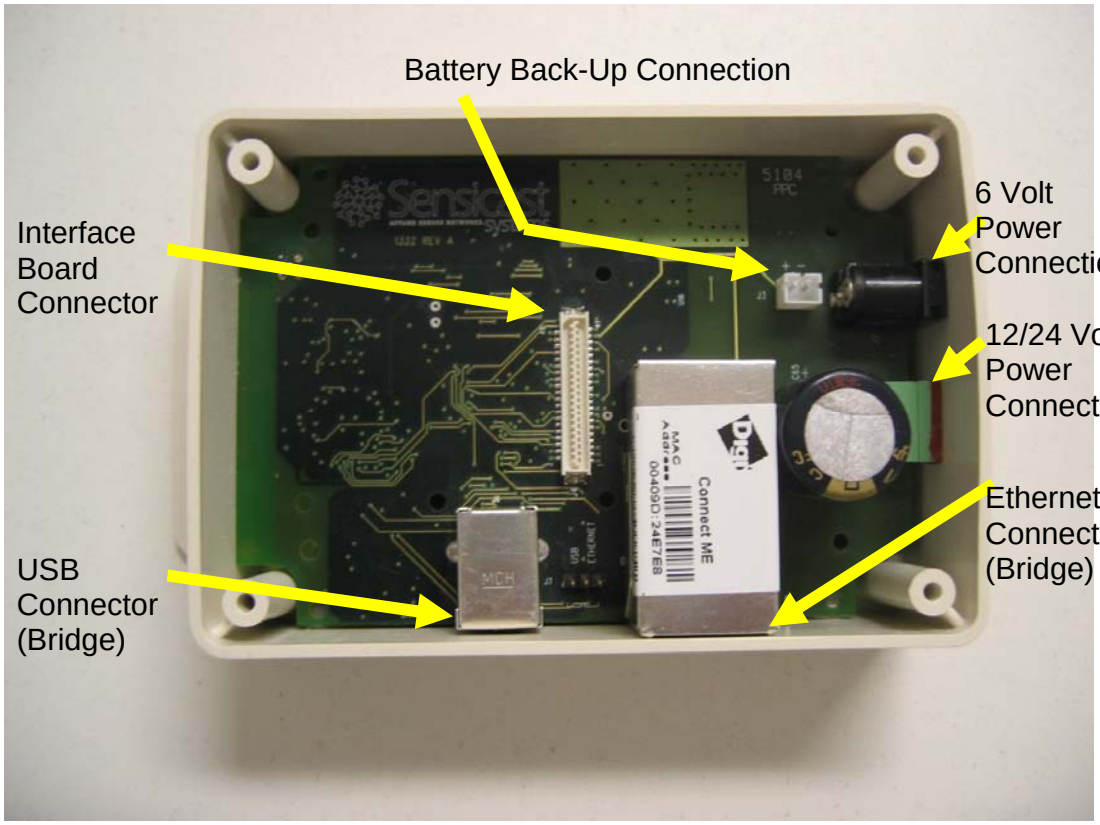
The A2400 Mesh/Bridge node will accept the following voltage inputs:

1. 7.5VDC to 30VDC through a 3 pin terminal block.
2. 12VAC to 24VAC through a 3 pin terminal block.
3. 5VDC-7.5VDC through a barrel connector.
4.

Ethernet / USB Connections

The A2400 Bridge uses a standard RJ-45 jack for Ethernet connection to a network and a Standard USB jack for USB connection to a local PC. Only 1 of these connections can be used at a time.

MESH / Bridge Node



Note: Radio section is loaded on the back-side of the PCB.