## **Nuvectra**

July 31, 2019

#### Dear Sir or Madam:

We, Nuvectra Corporation, located at 10675 Naples Street NE Blaine, MN 55449, are providing the following Antenna Information for the Nuvectra Bridge Communicator, Model 4110-US, Radio Frequency (RF) telemetry communications feature.

The Nuvectra Bridge Communicator includes a Federal Communications Commission (FCC) certified (FCC ID: QOQ11) off the shelf Bluetooth radio module (BGM11S22F256GA-V2R).

The 402-405 MHz Medradio and 2450MHz Wake-up are integrated with the Microsemi ZL70123 module. The Nuvectra Bridge Communicator uses a copper wire loop antenna (magnetic dipole) for the 402-405 MHz Medradio RF link and a copper wire loop antenna for 2450 MHz Wake-up RF link. Both copper wire loop antennas are an integral part of the Printed Circuit Board Assembly (PCBA) and connected directly to the intentional radiators.

The approximate gain of the 402-405 MHz loop antenna and the 2450 MHz loop antenna are – 10 dBi, and -3 dBi, respectively.

Access to the antenna connections of the intentional radiators are prohibited by the enclosure. Section 47 CFR 15.203 of the FCC rules state the use of permanently attached antennas is considered sufficient to comply with the requirements of this section.

Nuvectra Bridge Communicator unit showing rough locations of the Medradio (402-405 MHz) and Wake-up (2450 MHz) Loop Antenna's.

### Back Side:



### Front Side:



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