



FEATURES

- Integrated PCB monopole antennas (Gateway & Sensor)
- Frequency range 2405 MHz – 2492 MHz
- Peak Gain (Gateway Antenna 1) = 2.21 dBi
- Peak Gain (Gateway Antenna 2) = 1.80 dBi
- Peak Gain (Sensor) = 3.16 dBi
- No provisions for external antenna, can't be modified by end-user
- Gateway Antenna Dimensions (ANT1/ANT2): Area = 0.155" x 0.580", total length = 1.06", trace width = 20mils
- Wireless Sensor Dimensions: length = 0.685", trace width = 20mils
- See *Report-NGRF0059* for antenna pattern data

GENERAL DESCRIPTION

The EnviroAlert Professional® Gateway & Wireless sensors contain internal PCB trace antennas for the LoRa® 2.4GHz wireless interface. The antennas are fixed, located internal to the product, making them invisible to the end-user.

The antenna structures are simple monopole PCB traces, located near the edges of the PCB. There are no provisions for the antennas to be modified, nor is there any hardware to support adding external antennas.

The wireless sensor PCB design is the same board for all model types (EAPRO-WTS, EAPRO-WHS, EAPRO-WMFT, EAPRO-WMFT-R), which means no change in the antenna design across all models.



Figure 1: Gateway PCB Antenna Locations

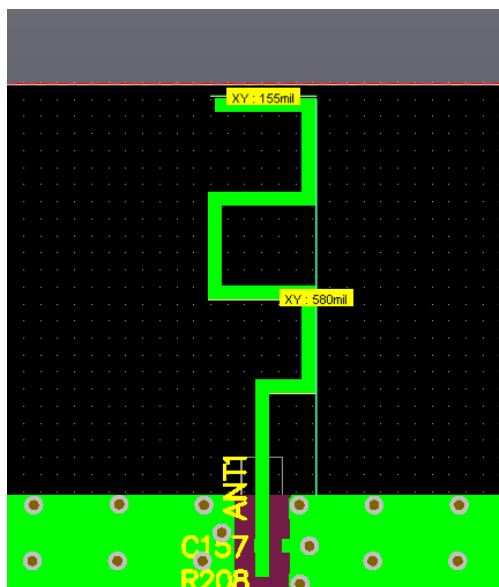


Figure 2: Gateway Antenna Dimensions

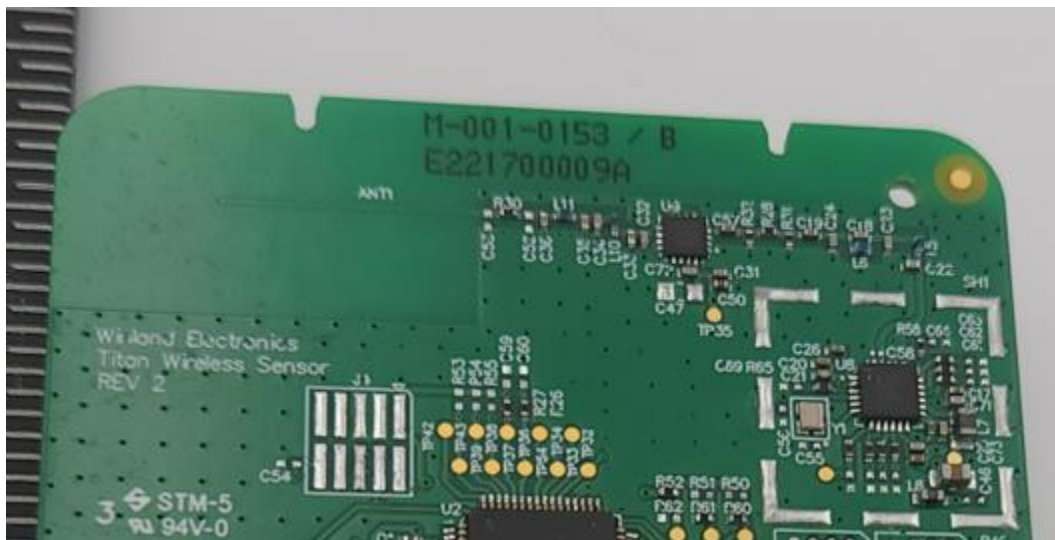


Figure 3: Wireless Sensor PCB Location

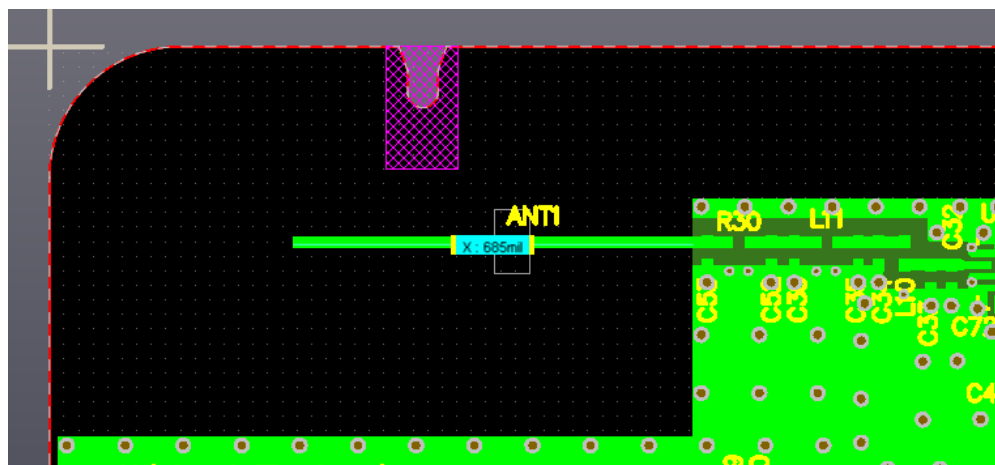


Figure 4: Wireless Sensor Antenna Dimensions