

Sentry79 TOA Sensor Antenna Description

The Sentry79 TOA sensor has two transmit and four receive antennas. The designations for the antennas are Tx1, Tx23, Rx1, Rx2, Rx3, and Rx4. Only one transmit antenna is used at a time. All four receive antennas are used all the time. Each antenna is a PCB trace microstrip series-fed patch array style antenna, with a center frequency of 79 GHz and an operable bandwidth of several GHz. The radiation pattern of each antenna resembles a fan beam, which is wide in azimuth and narrow in elevation.

The peak gain of the Tx1, Rx1, Rx2, Rx3, and Rx4 antennas is 9.5 dBi. The gain of the Tx23 antenna is 12.5 dBi.

NOTE: All radio report measurements are performed radiated and therefore additional antenna gain documentation is not required.