Hanchett Entry Systems 10027 S. 51st Street, Ste 102 Phoenix, AZ 85044 Tel +1 623-582-4626



March 17, 2023 Subject: Antenna Gain of the DR100-V3 FCC ID: VC3-DR100V3 IC ID: 7160A-DR100V3

To Whom It May Concern:

The DR100 RF/RFID module uses two magnetic coil antennas for reading radio frequency identification (RFID) credentials at the 125 kHz and 13.56 MHz frequencies. For these transmitters, only radiated measurements are used to show compliance with FCC limits for fundamental and spurious emissions.

The 125 kHz magnetic coil antenna is wire wound until an impedance of 846uH +/- 2% at 125 KHz in open-air is achieved. The drawing for this antenna is supplied (Drawing 3080008.002, Revision 4).

The 13.56 MHz magnetic coil antenna is an inductive loop magnetic antenna with four turns embedded in a printed circuit board (PCB). The drawing for this antenna is supplied (Drawing 7088043.038, Rev. 3).

The DR100 uses a planar inverted-F (PIFA) antenna for IEEE 802.15.4 2.4 GHz communication. The PIFA antenna has a measured gain of +2.9 dBi. The report for this antenna is supplied.

If you have any questions, please do not hesitate to contact us at +1 623-582-4626.

Sincerely,

Baruch Spence

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