



611 Center Ridge Drive  
Austin, Texas 78753 USA

**FREE** +1 800 237 7769  
**MAIN** +1 512 776 9000  
**FAX** +1 512 776 9630

**TECHNICAL REPORT**  
**HID GLOBAL CORPORATION**  
**OK5122 Reader Board**

**March 24, 2020**

This report concerns the Intentional Radiator and Antenna portions of the OK5122 Reader Board.

Equipment Type: Module

Equipment Authorization: Part 15, Subpart C

Frequency of Operation for OK5122 READER BOARD: 13.56 MHz

Equipment Market: Industrial

Technical Report prepared by:

Richard Georgerian  
HID Global Corporation  
6533 Flying Cloud Drive  
Eden Prairie, Minnesota 55344  
United States  
[richard.georgerian@hidglobal.com](mailto:richard.georgerian@hidglobal.com)

Measurement Report prepared by:

Eurofins MET Laboratories, Inc.  
13501 McCallen Pass  
Austin, Texas 78753  
United States





611 Center Ridge Drive  
Austin, Texas 78753 USA

**FREE** +1 800 237 7769  
**MAIN** +1 512 776 9000  
**FAX** +1 512 776 9630

RF transmit frequencies 13.56 MHz

### Antenna

The antenna is split up into two turns in one layer with an approximately dimension of 54.3 x 62.0 mm. The estimated inductance is 2.45uH with a 3.7 +j241 impedance. Antenna gain is 1 dBi.

### Ground System

For the OK5122 READER BOARD, the transmitter driver circuitry, analog circuitry and digital circuitry all share a common ground plane. The DC grounding is achieved through the high-density connector which attaches to the host.

### Antenna: 13.56 MHz

#### Reader Type – Smart Card Reader

External PCB Antenna to main board – PCB: 55.88 mm x 66.00 mm.

Antenna: approximately 54.3 mm x 62.0 mm.

Gain: 1 dBi

### Field Strength: 53.5 dBuV/m @ 3 meter spacing

### Transmitting Frequency: 13.56 MHz

#### Reader Type – Smart Card Reader Board.

Model	Transmitter power at antenna port
5122	67.1 nW
	EIRP

