# AT-313

- Support ISO14443A MIFARE Classic 1k, MIFARE Ultralight MIFARE1 S50, MIFARE Pro, MIFARE DESFire.

- Fast data transfer contactless communication.

- Secure Secure-Encrypted contactless communication up to 106 KHz.

- Typical operating distance in reader/writer up to 35mm depending on the antenna size and tuning.

- In built 13.56MHz Antenna.

## Introduction

The High-Frequency RFID 13.56 MHz Reader-Writer is an India-made, contactless RFID module supporting MIFARE 1K/4K, Ultralight, Pro, and DESFire tags. It offers reliable read/write performance up to 35 mm distance with multiple baud rates and interfaces (UART, RS232, RS485), making it ideal for secure identification and automation applications.

## Specifications

### General

| | |
|---|---|
| Operating Frequency | 13.56 MHz |
| Reading Distance | Up to 35mm |
| Read/Write Support | Yes |
| Indication | LED |
| Baud Rate Supported | 9600, 19200, 38400, 56700, 115200 Default 9600 |
| Tag Supported | MIFARE 1K/4K, MIFARE Ultralight, MIFARE Pro, MIFARE DESFire |
| Tag Detection | Based on Commands |
| Communication Interface/Protocol | TTL |
| Output Format | HEX |
| Antenna | Built-in |

### Physical Characteristics

| | |
|---|---|
| PCB Dimensions (L x W) | 68.50 x 46 mm |

### Environmental Limits

| | |
|---|---|
| Operating Temperature | 0°C to 60°C |
| Relative Humidity | 5% - 95% (non-condensing) |

### Standards and Certifications

| | |
|---|---|
| Certificate | RoHS |

### Power Parameters

| | |
|---|---|
| Operating Current- | 13-26mA @5V |
| Operating Voltage- | DC 5V |
| Idle Current- | 10-13 mA @5V |
| Sleep Current- | <80uA |
| Peak Current- | <30m |

## Order Information

| Part No. | Description |
|---|---|
| AT-313 | 13.56 RFID based Reader-Writer Module with UART Interface |
| AT-313-AE | 13.56 RFID based Reader-Writer Module with RS485 Interface |
| AT-313-BE | 13.56 RFID based Reader-Writer Module with RS232 Interface |

MADE IN BHARAT

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LAKSHA – RFID Module