AT-312-AE

125 KHz Reader with RS-485 Interface Low Frequency RFID

- Support EM-marine Tag (125 KHz)

- Fast data transfer contactless communication.

- Secure-Encrypted Manchester Decoding

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

- Support standard baud rate - 2400,4800,9600,19200,38400,115200

- Support MODBUS ASCII/RTU communication protocol

Introduction

The AT-312-AE is a highly integrated reader with 125 KHz in built antenna. The AT-312-AE reader supports EM marine Tag (125 KHz). The AT-312-AE internal transmitter part is able to drive a reader antenna designed to communicate with EM-marine (125 KHz) cards and transponders without additional active circuitry. RFID Reader features an outstanding modulation and demodulation algorithm to serve effortless RF communication.

Specifications

General

Operating Frequency	125 KHz
Reading Distance	Up to 30mm
Read/Write Support	Read only
Indication	LED, Buzzer
Baud Rate Supported	9600
Tag Supported	EM-4100 Tags, Passive Tags
Tag Detection	Based on Commands
Communication Interface/Protocol	RS-485
Output Format	HEX
Antenna	Built-in

Power Parameters

Operating Current-	40mA @12V – 24V
Operating Voltage-	9 to 36V

Physical Characteristics

PCB Dimensions (L x W x H)	47 x 20 x 101 mm

Environmental Limits

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

Standards and Certifications

Certificate	RoHS

Order Information

Part No.	Description
AT-312-AE	125 KHz Reader with RS-485 Interface Low Frequency RFID
AT-312-DE	125 KHz Reader with USB Interface Low Frequency RFID
AT-312	125 KHz Reader with TTL Interface Low Frequency RFID

MADE IN BHARAT

Rev.0, D-3-003 -Aug 2025

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LAKSHA – RFID Module