

DHI-YT109E

Integrated Antenna Reader



Series Overview

The RFID Reader Series reliably reads, filters, and uploads data from electronic tags, such as the digital license plates of mopeds, making it ideal for traffic control, vehicle access management, and improving the convenience of public travel.

Scene

Suitable for locations such as the entrances and exits of parking lots and warehouses.

Technical Specification

Radio Frequency

Air Interface Protocol	ISO18000-6C
Operating Frequency	865 MHz–868 MHz (configurable)
Antenna Gain	9 dBi
Antenna Interface	Expandable to support 1 N-Type 50 Ω antenna interface
VSWR	≤1.5
Transmit Power (Integrated Internal Antenna)	22 dBm–36 dBm (ERP)
Transmit Power (External N-Type Antenna Port)	15 dBm –30 dBm
Beamwidth	60°/55°
Front-to-Back Ratio	17 dB

- Air Interface Protocol: Complies with the ISO18000-6C standard
- Antenna Gain: 9 dBi
- VSWR: ≤1.5
- Read Performance: Static read range (typical): 12 m
- Power Transmission: 30 dBm (Max)
- Operating Voltage: 12 VDC
- Rated Power: ≤20 W
- Operating Temperature: –30 °C to +75 °C
- Protection: IP65 rated
- Product Dimensions: 270 mm × 270 mm × 82 mm (10.63" × 10.63" × 3.23") (L × W × H)
- Net Weight: 2.6 kg (5.73 lb)

Read Performance	Static Read Range Maximum Read Range: 25 m (82.02 ft); Typical Read Range: 12 m (39.37 ft). Note: The reading distance might vary depending on the tag type, mounting angle, and environmental conditions.
Antenna Polarization	Circular polarization

Power

Operating Voltage	12 VDC
Rated Power	≤20 W

Software

Local Maintenance	Supports being managed locally through the webpage. It features operation status monitoring, parameter configuration, and firmware update.
Remote Maintenance	Supports being managed remotely through the webpage. It features operation status monitoring, parameter configuration, and firmware update.
Offline Cache	≥1 million records
Resume from Breakpoint	Yes
Data Filtering	Sends read data based on predefined filtering conditions.
Log Record	Automatically logs information on device startup, faults, recovery, shutdown, and other events. It also offers log retention for up to 6 months.
Clock Accuracy	The deviation is ±10 seconds every 10 days.
Management Function	Supports the management of versions, the blocklist, and alarms. It also features diagnostic testing, clock synchronization, automatic fault recovery, IP search, and more.

Reliability

Operating Temperature	–30 °C to +75 °C (–22 °F to +167 °F)
Storage Temperature	–30 °C to +80 °C (–22 °F to +176 °F)

Operating Humidity	5%–95% (RH), non-condensing
Atmospheric Pressure	Operates normally in areas where the ground-level atmospheric pressure is 53.5 ± 2 kPa
Protection	IP65
MTBF	≥15,000 hours

Others

Communication Port	1 × EIA RS-485 1 × RS-232 1 × 10/100 Base-T Ethernet communication 2 × optically isolated input (5 V) 2 × relay output
Power Consumption	10 W
Material	Die cast aluminum + ABS
Blocklist, Allowlist & Quantity	Allowlist: 20,000; Blocklist: 20,000
Management Software	Smart Parking
Certification	CE-EMC; CE-LVD; CE-RED
Product Dimensions	270 mm × 270 mm × 82 mm (10.63" × 10.63" × 3.23") (L × W × H)
Net Weight	2.6 kg (5.73 lb)
Gross Weight	3.8 kg (8.38 lb)

Ordering Information

Type	Model	Description
Integrated Antenna Reader	DHI-YT109E	Integrated Antenna Reader

Dimensions (mm[inch])

