

EDGE-35R

EDGE-35R integrated reader for multiple vehicle identification solutions



The HID Acura EDGE-35R UHF reader is a versatile and high-performance RFID solution, designed to meet a variety of needs, including vehicle identification applications. With two modes of operation, it offers flexibility for different scenarios.

An important feature is its adaptability to various uses, with the option of two operating modes. The Inventory Mode allows automatic readings and functions as a Plug & Play device, requiring no integration with additional APIs or SDKs, ensuring quick and practical implementation. The Transparent Mode enables the development of customized solutions, offering full control over the reader and its functionalities, thus providing greater adaptability.

Compact and efficient, the EDGE-35R combines antenna and reader into a single device, simplifying installation and eliminating the need for extra components. Its intuitive design eliminates the need for shielded and coaxial rf cables, making the setup even faster.

With an IP65 rating, it is resistant to dust and water, making it suitable for both indoor and outdoor use. The reader also supports the IEEE 802.3af Power over Ethernet (PoE) standard, integrating power and data into a single cable, providing more convenience. There is also the option to use a compatible PoE injector, offering flexibility in configuration and allowing the use of an electrical outlet for power supply.

In summary, the EDGE-35R is a reliable, user-friendly RFID solution with exceptional performance, especially for vehicle identification applications.



KEY BENEFITS:

- All-in-one design includes an integrated antenna and reader
- Plug-&-Play reader offers automatic reading to ensure effortless integration
- Different reader modes: Inventory mode for automatic reading and Transparent Mode for software development and programming
- Flexibility for custom development and integration by using STORM RFID protocol
- Compact and robust with an IP65 rating, designed for indoor and outdoor use installation
- WiFi 802.11 a/b/g/n (optional)
- Easy installation without the need for coaxial RF cables

KEY TECHNOLOGY HIGHLIGHTS:

- RAIN® RFID (UHF)
- Ideal for Automatic Vehicle Identification (AVI) solutions
- Integrated antenna and reader simplifying installation and reducing the need for additional components
- High performance RFID reading for a wide range of applications
- Anatel, FCC and CE Upper Band certified

TYPICAL APPLICATION AREAS:

- Vehicle identification
- Gas station payment
- Truck fleet management
- Train wagon control
- Drive-thru payment
- Fuel pump control

EDGE-35R UHF Reader	
Base Model Numbers	Please consult us.
ELECTRONIC	
Regulation	(BR) - 902-907 MHz & 915-928 MHz (ANATEL) (US) - 902-928 MHz (FCC) (EU) - 916.3 MHz, 917.5 MHz, 918.7 MHz (CE / RED)
Mode	Frequency Hopping
Modulation / RF Coding	PR-ASK, DSB-ASK / M4, M8, M1, M4
RF Output power	From 5 to 30 dBm with 0.5 dBm increment
Backscatter Link Frequency	160KHz, 250KHz, 320KHz, 640KHz
Reading distance 1	Up to 26 ft (8 m)
Physical Interface	<p>PoE (RJ45 Waterproof Connector): Ethernet 10/100 Mbps (1.5 kV RMS insulation) PoE (IEEE 802.3af standard) PoE modes supported: • Mode A (mixed DC & data) • Mode B (DC on spares)</p> <p>SIG (RJ45 Waterproof Connector): 1x Optically isolated Digital Input: • 1KV RMS insulation • Supports Dry Contact, NPN (Sinking), and PNP circuit (Sourcing). Minimum pulse width: 100ms • High Level (3.0 to 24.0 VDC), Low Level (0 to 2.0 VDC) 1x optically isolated Digital Output: • 1KV RMS insulation • Controlled by tag reading or/and ASCII commands • High Level (5.0 VDC), Low Level (0 VDC)</p>
Communication protocols	Ethernet: Data rate: 10/100 Mbps (1.5 kV RMS insulation) WiFi 802.11 a/b/g/n (optional)
Programming	Inventory mode: does not require API/SDK, with a simple socket connection (Wired or WiFi), the tag reading results can be processed by receiving the Data string. Transparent mode: the STORM RFID protocol is used (a sophisticated, parameterized set of commands that carry out multiple actions locally within the RFID reader).
POWER	
Power	IEEE 802.3af Powered Device (PD) Operating PoE Voltage: 37 VDC to 57 VDC PD Power Class: Class 3, 12.95 W
Consumption	Max. 15 W. With max. power and high duty cycle
AC power cord (PoE Injector)	USA: Type B
PHYSICAL	
Dimensions	8.66 x 8.66 x 5.03 inches (220 x 220 x 128 mm) with cable plug jacket
Mounting Method	With mounting support on the back side for poles (Ø 1" to 1.75" and 1.75" to 3") or flat surfaces (wall)
Integrated antenna	Patch circular polarized antenna with 7.5 dBic of gain (RHCP)
Color	Dark Grey
Weight	1.4 Kg (3.08 lb)
CHEMICAL AND MECHANICAL	
Water	IP65 (with RJ45 ingress protection cover or cable plug jacket well plugged)
Humidity	95%
THERMAL	
Storage	+14° to 158° F (-10° to 70° C)
Operating	+14° to 149° F (-10° to 65° C)
INTEGRATED ANTENNA SPECIFICATION	
Frequency range	902 - 928 MHz
Gain	7.0 dBic (min), 7.5 dBic (max.)
VSWR	1.3:1 (max.)
3dB Beamwidth (Elevation)	71° ±1°
3dB Beamwidth (Azimuth)	70° ±3°
Polarization	Circular (RHCP)
Sidelobes levels @90°	-19 dB (max.)
Front/Back ratio	-19 db
Axial ratio @ Boresight	1 db (typ.), 1.3 db (max.)
Axial ratio @ 20°	2 db (typ.), 3.5 db (max.)
Lightning protection	DC Ground
OTHER	
Standards	ISO 18000-6C (EPC Gen2)
Options	Accessories: Interface board
Warranty	1 Year

1 The reading distance can vary depending on the tag model, usage mode, and environment.



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Countries	Part Number	Description
United States of America (USA)	100.788	UHF READER EDGE-35R TCP/IP POE [FCC]
	100.789 UHF	READER EDGE-35R TCP/IP WIFI POE [FCC]