



# LR-3000™

## UHF Long-Range Reader

AWID's LR-3000™ Long-Range Reader is an Ultra-High-Frequency (UHF) tag and card reader used in RFID applications like gate access for vehicles and physical access for people. Its electronics and antenna are integrated in a single compact enclosure. The LR-3000 is optimally designed for Automatic Vehicle Identification (AVI) and Access Control applications such as gate control in a parking facility. It also provides identification and access for people at doorways, wheelchairs at elevators, and gurneys in hospital entrances. The LR-3000 Reader assures security by use of AWID's proprietary encryption for communications between the reader and its UHF vehicle tags and hand-held cards. The LR-3000 reader has two LEDs – steady red to indicate DC power, and blinking green when a tag is presented. The LR-3000 reader is suitable for outdoor applications; it may be installed with exposure to the environment.



The LR-3000 offers *price:performance* advantage over conventional long-range proximity card and active-tag RF systems. The LR-3000 can be combined with AWID's uAccess door access readers, allowing the same hand-held card to be used for both vehicle parking access at the gate, and door access for people in the building.

The LR-3000 operates in the license-free 902-928 MHz UHF band. It combines effective UHF technology with economical passive tags and cards, field-programmable read repeat rate and RF field strength, and simultaneous Wiegand and RS-232 data outputs. It can be interfaced with all standard access control and AVI systems. The LR-3000 offers an impressive combination of single-unit construction, small size, and attractive appearance. Tag reading distance is commonly up to 25 feet and sometimes more depending on reader mounting, credential type and environment.

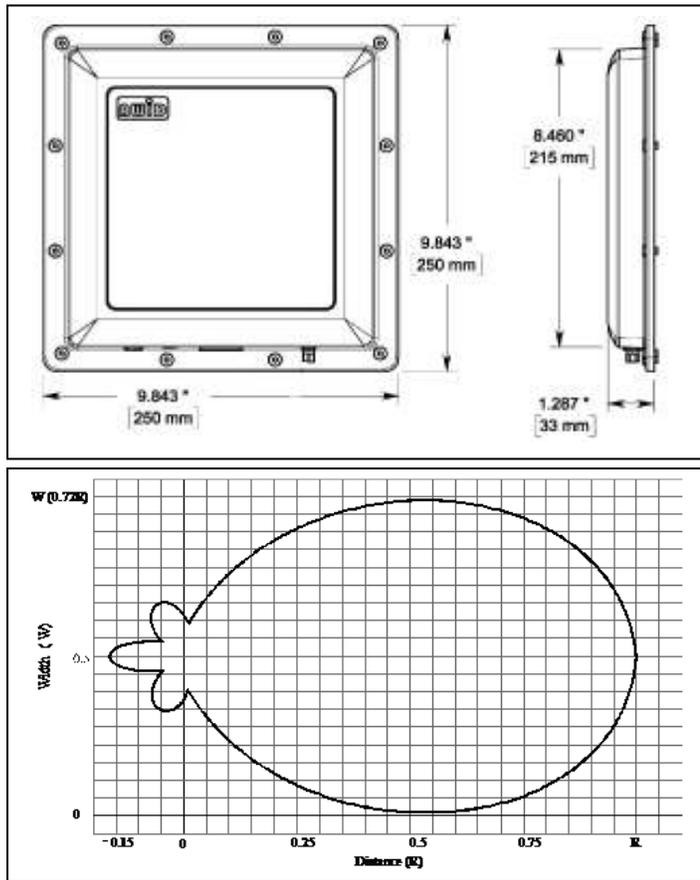


### FEATURES

- **Longer reading distance ...**  
*Up to 25 feet between reader and tag*
- **Small, attractive reader ...**  
*Single unit with antenna, 9.8"x9.8"x1.3"*
- **Easy reader installation ...**  
*No reader programming, simple wiring*
- **Wide selection of credentials ...**  
*Varied vehicle tags and hand-held cards*
- **Unlimited tag or card life ...**  
*Passive, battery-free credentials*
- **Data output to fit the system ...**  
*Selectable read repeat rate*
- **No interference between readers, and no cross-reading between lanes ...**  
*Programmable RF field strength*
- **RF transmission only as needed ...**  
*Optional buried loop arms the RF circuit*
- **LED status indicators ...**  
*Red for power, green for tag reading*
- **LR-3000 mixes with other readers ...**  
*Same code format as proximity readers*
- **Easy interfacing to control systems ...**  
*Both Wiegand and RS-232 data output*
- **Complies with certifications ...**  
*FCC Part 15; IC; RoHS*
- **Ideal upgrade from old systems ...**  
*Hands-free car ID; cards for people ID*
- **Eliminates stop-and-wait entry ...**  
*Cars may continue moving past reader*
- **No need to add protective housing ...**  
*Protection class IP65 for outdoor sites*
- **Easy to buy and own ...**  
*Installer needs no FCC registration*

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### ACCESSORIES AND SUPPLIES

- **LR-reader test/demo kit** -- A **requirement** for all installers. An effective way to demonstrate the LR-3000, to prove its operation, to measure its performance, to locate tags, and to aim the reader. A one-time purchase for installers.
- **Power supply** -- Each LR-3000 requires a separate, independent, dedicated power supply. Ask AWID for specifications. AWID offers PS-123.3A-0-0 plug-in DC module.
- **Cable for power and data** -- Correct cable assures good reader performance. Ask AWID for specifications.
- **Mounting devices** -- Ask your supplier about poles, posts, pedestals, clamps, arms, etc.
- **System components** -- Ask your supplier about the access control package, gates, vehicle sensors, bollards, traffic barriers, and other components.
- **Installation and operation** -- Download additional information from [www.AWID.com](http://www.AWID.com).

### CREDENTIAL OPTIONS

- **Vehicle-mounting tags** -- For permanent or movable applications, inside or outside vehicles. Types are tags for Windshield (**WS-UHF**), Rearview Mirror (**RV**), Sunvisor (**VT**), Sideview Mirror (**SV**) and Metal-Mount (**MT-UHF**); also Portable tag (**PT**), Hangtag (**HT**), and Supertag (**ST**).
- **Hand-held cards** -- For presenting to reader. **Cards:** Clamshell (**CS-UHF**) and Graphics (**GR-UHF**). **Tags:** Keytag (**KT-UHF**) and Hangtag (**HT**). Use these cards and tags with **uAccess** readers.

Ask AWID about tag selection and mounting methods.

### OPERATING CHARACTERISTICS

#### Reading Distance:

Tags and cards, up to 25 feet (7.6 meters)

#### Frequency Band:

902 to 928 MHz; Frequency Hopping technology

#### Antenna Output:

Circular-polarized RF field

#### Indicators:

2 LEDs -- Red for power; Green for tag reading

#### Power Supply: *Separate for each long-range reader*

7 to 15 volts DC, linear rated, regulated output  
At 12 VDC, rated for 2 amperes or more

Separate, independent, dedicated to each reader

#### Communications Protocols:

Wiegand and RS-232, simultaneous outputs

#### Code Formats:

Determined by AWID's tags & cards; 26 to 50 bits

#### Cables: *All cables MUST be overall-shielded*

Power -- 2 conductors, 18 gauge, shielded

Data -- 3 conductors, 22 gauge, shielded

Stranded, color-coded, not twisted pairs

Up to 500 feet for Wiegand; 75 feet for RS-232

#### Field-Programmable Features:

Read repeat rate; RF power level

### PHYSICAL CHARACTERISTICS

#### Dimensions:

9.8 x 9.8 x 1.3 inches (25 x 25 x 3.3 cm)

#### Weight:

38.4 oz (1.09 kg)

#### Material (Color):

ABS enclosure (white); aluminum back-plate

#### Cable (Integrated with Reader):

10 conductors, 32 inches (81 cm) long

Overall shielded, plastic jacket

#### Mounting (Supplied by Installer):

Pan-and-tilt adjustable aiming, min. 6 inches long

### ENVIRONMENT

#### Operating Temperature:

-35°C to +65°C (-31°F to +150°F)

#### Operating Humidity:

0% to 95% non-condensing

#### Protection Class:

IP65 Weatherproof

#### Avoiding Interference:

Optimize reader performance by avoiding sources of RF -- fluorescent and other arc lighting, UHF transmitters, other UHF readers.

### CERTIFICATION

FCC Part 15; IC; RoHS; ETL

DISCLAIMER: Specifications are subject to change without notice. AWID reserves the right to make changes to improve performance without impacting form, fit or function. The LR-3000 model designations are Trademarks of Applied Wireless Identifications Group, Inc. All other trademarks are property of their respective owners.

18300 Sutter Blvd, Morgan Hill, CA 95037

Tel: (408) 825-1100 Fax: (408) 782-7402

<http://www.awid.com>