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.

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

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 uAxcess 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.
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

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.

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 uAxcess readers.

Ask AWID about tag selection and mounting methods.