

GV-RU9003 UHF RFID Reader



GV-RU9003 is a high-performance Radio Frequency Identification (RFID) reader supporting the ISO 18000-6C (EPC Gen 2) standard. Optimized for parking lot management, the reader easily scans RFID tags from up to 10 m (33 ft) away under ideal conditions.

Key Features

- Integrated RF module and antenna
- Optimized antenna pattern for highly effective tag identification
- Wiegand 64 interface for seamless compatibility with access controllers
- Up to 10 m (33 ft) read range under optimal conditions
- Energy-saving design to minimize power consumption
- Support for external sensors and controllers
- Compliant with EPC Gen 2 (ISO 18000-6C) RFID tag standards
- Patented technology for superior EMI (electromagnetic interference) reduction
- FCC and CE certified

Models

- **GV-RU9003-EPC:** Wiegand 26-bit UHF RFID code
- **GV-RU9003-TID:** Wiegand 64-bit UHF RFID code

Note: GeoVision's e-tags are required for the GV-RU9003-EPC models.

Specifications

Input voltage	9 ~15 V
Antenna gain	7.71 dBi (circular polarization)
Antenna receiving	50 ohm U.FL.
Wiegand interface	Wiegand 64 bits, distance 100 m (328.1 ft) via GV-AS1620 / 2120 / 4110 / 4111 / 8110 / 8111
Operating frequency	RU9003 TW 922-928 MHz, RU9003 US 902-928 MHz, RU9003 EU 865-868 MHz
Emission power	27.9 dBm
Modulation scheme	PR-ASK, ASK
Current	<1A max.

Protocol	EPC Gen 2 (ISO 18000-6C)
Receiving sensitivity	-85 dBm
Sensing range	10 m (33 ft) max.
Water resistance	IP56
Operating temperature	-20°C ~ 55 °C (-7.6°F ~ 131°F)
Storage temperature	-20°C ~ 85°C (-7.6°F ~ 185°F)
LEDs	Red, Green
Humidity	5-90 %
Dimensions	228 x 228 x 52.3 mm (8.97 x 8.97 x 2.04 in)
Weight	530 g (1.16 lb)
Certification	CE, FCC

Note:

1. Wiegand interface supports GV-AS21xx/ 41xx / 81xx series and GV-AS1620 controllers, as well as third-party controllers (Wiegand 64-bit).
2. Connecting to a third-party controller may limit the maximum Wiegand transmission distance to 30 m (98.4 ft).
3. The maximum 10 m (33 ft) read range is achieved when the GV-RU9003 and the RFID tag are installed at the same height, directly facing each other. Because the read range heavily depends on environmental and situational factors, actual performance may vary based on:
 - **Installation height and angle:** The position of the GV-RU9003 relative to the RFID tag, as well as the position and curvature of the driving lane.
 - **Power stability:** The stability of the GV-RU9003 power supply.
 - **Tag quality:** The overall condition and quality of the RFID tags used.
 - **Physical obstructions:** Obstacles between the reader and the tag, particularly metal or metallic windshield insulation films.
 - **Electromagnetic interference:** Any nearby source of electromagnetic interference.
 - **Co-channel interference:** Interference among multiple RFID readers installed in close proximity
 - ✓ When facing opposite directions, readers must be placed at least 20 cm (7.9 in) apart.
 - ✓ When facing the same direction, readers must be assigned separate frequency bands (available upon request at purchase).
4. Specifications are subject to change without notice.

Options

Optional devices can expand the capabilities and versatilities of your GV-Reader. Consult your sales representative for more information.

GV-UHF Tag	GV-UHF Tag is ideal for parking lot management. 900 MHz UHF Tag is available.
GV-WTR	GV-WTR is a Wiegand and RS-485 converter. It enables 3rd party readers and certain GV readers (e.g. GV-RU9003, GV-QR1352 / DES1352) to connect to RS-485 GV controllers, as well as allowing GV-AI FR (face recognition software) and GV-CR1320 (RS-485 reader) to connect to 3rd-party Wiegand controllers.

Packing List

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|----------------|------------------------|
| 1. GV-RU9003 | 5. Screws x 4 |
| 2. L-Bracket | 6. DC Jack Power Cable |
| 3. Fixed-clamp | 7. Installation Guide |
| 4. U-clip | 8. Warranty Card |