

## GV-RU9003 UHF RFID Reader



GV-RU9003 is a Radio Frequency Identification (RFID) reader of ISO 18000-6C (EPC GEN2) standard. Designed for parking lot management, the reader can read RFID tags up to 10 m (33 ft) under optimal conditions.

### KEY FEATURES

- Built-in antenna and RF module
- Effective identification with specially designed antenna pattern
- Compatible with access controller using Wiegand 64 interface
- Effective range of up to 10 m (33 ft) under optimal conditions
- Special energy-saving design reducing power consumption
- Support for external sensors and controllers
- Electronic tag compliant with EPC Gen II (ISO 18000-6C) standard
- R&D patent for EMI reduction
- FCC/CE certification

### 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 Gen2 (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	FCC, CE

**Note:**

1. GV-ASManager V4.4.2 is required.
2. Wiegand interface supports GV-AS2xxx/4xxx/8xxx, GV-AS1620 controllers and 3rd party controllers (Wiegand 64 bits).
3. Connecting the reader to a third-party controller could limit the maximum Wiegand connection distance to 30 m (98.43 ft).
4. The reading range of 10 m (33 ft) is achieved when GV-RU9003 and the RFID tag are installed at the same height, facing each other. The reading range is heavily dependent on the readability of the RFID tags being recognized. Therefore, the reading range may very well be affected by a variety of environmental and situation factors, which are exemplified by but not limited to the following:
  - The view angle and height of the GV-RU9003 installed, relative to:
    - ✓ The position of the RFID tag being recognized
    - ✓ The position and curve of angle, if any, of the driving lane
  - The stability of the power supply of GV-RU9003
  - The quality and conditions of the RFID tag being recognized
  - Whether there is any obstruction, especially metal or other materials such as an insulation film on the windshield, between GV-RU9003 and the RFID tag
  - Whether there is any electromagnetic interference near the installation site of GV-RU9003
  - Whether there is any channel-interference among multiple RFID Readers installed close to each other.
  - When facing opposite directions, RFID Readers must be placed 20 cm (7.9 in) apart or more.
  - When facing the same direction, RFID Readers must be assigned separate bands (available upon request when purchasing).
5. 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

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