

# GR-611 Secure Personal Radio

## Full-Duplex, Soldier, Team Radio

### [Key features]

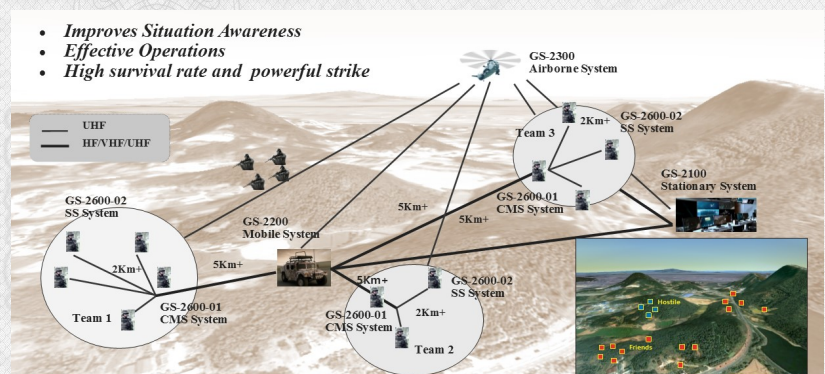
- Frequency range 350~450MHz ■ Completely automatic & hands-free operation (VOX) ■ Full-duplex up to 6 users, unlimited listeners ■ 256 channels - every team gets its own channel ■ Embedded GPS - C4I compatible, search & rescue, navigation
- 256-bits AES digital secure - secure voice & data
- RF Power 2W - short & mid range communication
- USB digital data interface - Android & Window CE terminal compatible ■ Built-in wireless fill-gun (OTAR) - secure key distribution ■ Compact & light weight design



The communication and situation awareness platform for the modernized soldier. The GR-611 SPR is designed specially to meet the unique demands of providing secure

and reliable voice, data and situation awareness communication at soldier level. Optimized for maximum performance across the highly variable environments soldiers operate in, and enabling range extending networks, the GR-611 SPR provides continuous coverage in the 350 to 450MHz frequency range and ensures reliable connectivity between squad members and with command level intelligence. The GR-611 SPR has already been adopted as the standardized personal radio platform for multiple soldier modernization programs in local and some countries. The GR-611 SPR provides secure, digitized voice and data communications to soldiers without distracting

their attention from the task at hand. The radio's small and light weight, and it powered by lithium-ion battery. A unique team-based waveform and digital wireless network allows reliable communications in situation where traditional backbone is not available or is out of range. The radio provides full-duplex, multi-group voice conferencing service, so it allows several simultaneous talkers on the net with an unlimited number of listeners - resulting in a more natural, dynamic operation environment, free from the constraints of traditional radio systems. The radio is data-enabled and incorporates a built-in GPS receiver, allowing easy-to-use situation awareness, position tracking and messaging services. A USB data interface allows connection of Android computing devices for enhanced data applications. All transmissions are secured by built-in 256-bit AES encryption algorithm. The SPR - reliable and secure connectivity for every soldier, assured by Glocom.





## [Applications]

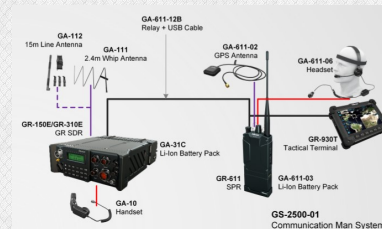
■ Front line soldiers ■ Special forces ■ Warships/Airborne landing control ■ VIP protection ■ Guards ■ Police

## General specifications

Frequency range	350 ~ 450MHz
Band width	25KHz, 800KHz
Preset channels	16 programmable presets with flexible groups
Modulation	FSK, GMSK
Position reporting	Automatic reporting by built-in GPS
Operation mode	Full-duplex up to 6 simultaneous talkers Unlimited listeners Priority break-in Selectable VOX or PTT activation Simultaneous data & voice
Range	Open terrain: 2-3Km (10Km @ LOS) Urban: Up to 1000m Jungle: 800m
Voice encoding	ADPCM 16kbps
Frequency stability	±2ppm
RF Power	2W, adjustable to 0.5W, 2W
Antenna	Whip antenna
RF interface	SMA, 50ohm nominal unbalanced
Encryption	256-bit AES
Data rate	4.8kbps, 9.6kbps, 19.2kbps, 38.4kbps, 57.6kbps, 115.2kbps, 256kbps
Data interface	USB 2.0 multi-function (data, configuration/control)
Programming	Wireless fill-gun (OTAR), USB (Channel frequency and encryption code)
Battery	Rechargeable Li-Ion 3.7VDC
Current	2.5A@Tx, 200mA@Rx
Battery duration	24hours @ Tx(1):Rx(1):Stby(10)
Color	Black/Khaki
Dimension	178mm x 78mm x 27mm with battery
Weight	≤500g
Alerts	Audible status, language programmable
Software (Firmware)	Software-defined, Upgradable via USB port
Shock/Vibration	MIL-STD-810E
Operating temp.	-30°C ~ +60°C
Storage temp.	-45°C ~ +70°C
Humidity	95%
Immersion	30 minutes @ 2m
MTBF	5000 hours



## GS-2500-01 Communication Man Set (CMS)

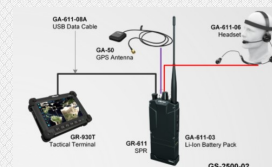


The Glocom GS-2500-01 Communication Man Set will provide dismantled soldiers the tactical information exchange and situation awareness with command & control unit and among each other in real-

time on battlefield. The standard set comprises:-

- Secure personal radio GR-611
- UHF whip antenna GA-611-01
- GPS antenna GA-611-02
- Rechargeable Li-Ion battery GA-611-03A
- 1 bay battery charger GA-611-04A
- Tactical headset with single PTT GA-611-06A
- USB type A data cable GA-611-08A
- Carry pouch GA-611-09
- User manual GA-611-10
- HF/VHF/UHF tactical radio GR-150/250/310

## GS-2500-02 Modern Soldier Set (MSS)



The Glocom GS-2500-02 Modern Soldier Set will provide dismounted soldiers the tactical information exchange and situation awareness with command & control unit and among each other in real-time on battlefield.

The standard set comprises:-

- Secure personal radio GR-611
- UHF whip antenna GA-611-01
- GPS antenna GA-611-02
- Rechargeable Li-Ion battery GA-611-03A
- 1 bay battery charger GA-611-04A
- Single PTT tactical headset GA-611-06A
- USB type A data cable GA-611-08A
- Carry pouch GA-611-09
- User manual GA-611-10

## GS-2500-01/02 Available Option

- 6 x Li-Ion battery charger GA-611-04B
- Light headset with single PTT GA-611-06B
- Speaker microphone with single PTT GA-611-06C
- Tactical headset with dual PTT GA-611-06D
- USB micro-B data cable GA-611-08B
- RS232C data cable GA-611-08C
- Configuration kit GA-611-11
- Relay cable GA-611-12





### GA-611-01 UHF whip antenna

This UHF whip antenna is typically used with the GR-611 SPR. This antenna has wideband frequency range. 350~450MHz, Gain:  $\geq -1\text{dBi}$ , VSWR:  $\leq 1.5:1$  Typical, Impedance:  $50\Omega$ , Female SMA, 3W, Length:  $\leq 21\text{cm}$



### GA-611-02 GPS antenna

A removable passive antenna designed for use with the GR-611. Center Frequency:  $1575.42 \pm 1.023\text{MHz}$ , Bandwidth:  $10\text{MHz}$  min, Gain at Zenith:  $5.0\text{dBic}$  typ, Gain at  $10^\circ$  elevation:  $-1.0\text{dBic}$  min, Polarization: R.H.C.P, Axial Ratio:  $1.0\text{dB}$  typ.



### GA-611-03A Li-Ion battery

This rechargeable, high-capacity Li-Ion battery is typically used with the GR-611 SPR. Voltage:  $3.3\text{V} \sim 4.2\text{V}$  ( $3.7\text{V}$  Nominal), Capacity:  $5000\text{mAh}$ , Max. load current:  $1\text{A}$ , Charging time: Max. 360 minutes, Protection by enclosure Waterproof.



### GA-611-04A 1 bay battery Charger

This single battery charger is compatible with the GA-611-03 Li-Ion battery. Charging time: 6 hours. Input:  $100 \sim 240\text{VAC}/0.45\text{A}$ ,  $50 \sim 60\text{Hz}$ , Socket: USB,  $103 \times 46 \times 39(\text{mm})$



### GA-611-04B 6 bay battery Charger (Opt)

This single battery charger is compatible with the GA-611-03 Li-Ion battery. Charging time: 6 hours. Input:  $100 \sim 240\text{VAC}/0.45\text{A}$ ,  $50 \sim 60\text{Hz}$ , Socket: USB,  $103 \times 46 \times 39(\text{mm})$



### GA-611-06A Tactical headset with single PTT

It is the head-mount, single left earphone, designed for extended wear in active environments. Its ultra lightweight frame offers superior comfort and fit.



### GA-611-06B Light headset with single PTT (Opt)

Light headset with single PTT is the head-mount, single left earphone. Its ultra lightweight frame offers superior comfort and fit.



### GA-611-06C Speaker microphone with Single PTT (Opt)

Speaker:  $8\text{Ohm}/85\text{dB}/\text{mW}@1\text{kHz}$ , Microphone:  $2200\text{Ohm}$ ,  $-45\text{dB}$ ,  $200 \sim 4\text{kHz}$ , Color: Black, Cable length:  $57\text{cm}$ , Built-in Clip



### GA-611-06D Headset with dual PTT (Opt)

GA-611-06 dual PTT headset is the head-mount, single left earphone, designed for extended wear in active environments.



### GA-611-08A USB type A data cable

This cable connects the GR-611 data interface to a standard USB connector. The cable features a USB Type A connector (as found on most PC hosts). The cable supports both configuration of the radio and data operation.



### GA-611-08B USB micro-B data cable (Opt)

This cable connects the GR-611 data interface to a standard USB Micro-B. The cable supports both configuration of the radio and data operation.



### GA-611-08C RS232 data cable (Opt)

This cable connects the GR-611 data interface to a RS-232C Interface. The cable supports both configuration of the radio and data operation. The cable length is  $1\text{m}$ .





### GA-611-09 carry pouch

The lightweight carry pouch is made of durable Cordura fabric and incorporates Molle straps for attachment to a variety of load-bearing vests and other gear. The radio is held securely in the holster to prevent accidental loss.



### GA-611-10 User manual

This is field reference user manual for GR-611 SPR.



### GA-611-11 Configuration kit(Opt)

This kit contains the items necessary to program the GR-611 radio. Included in the kit is the radio programming software and the SPR Utility software for Android. Also included, instruction manual.



### GA-611-12 Relay cable (Opt)

This cable is a relay cable between GR-611 SPR and other Glocom radios like GR-150/250/310. (Opt)



# MEMO





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