

GR-8810Ku

Ku-Band SATCOM Terminal



Glocom's advanced technology provides security and mobility to satellite communications

Key Features

- Use of military and civilian satellite capabilities
- 0.75m equivalent segmented carbon fiber flyaway antenna
- Manual satellite acquisition supported by spectrum analyzer function embedded in the L-band Transceiver
- FDMA satellite access
- Secure voice, data communications
- Total weight of terminal: < 20kg
- Rapid deployment (less than 5 minutes) and 100% Tool Free assembly
- Compliant with military requirements

Part of the Glocom radio family, the GR-8810Ku SATCOM terminal provides satellite secure communication (SATCOM) using Ku-band GEO satellites.

GR-8810Ku is a lightweight Satellite terminal, specifically designed for the need of a dismounted soldier or troops. The compact structure and sophisticated design facilitate operation in the tactical environment. The radio's LPI/LPD – Low Probability of Interception / Low Probability of Detection is achieved by using Direct Sequence Spread Spectrum modulation, making this terminal both secure and immune. The terminal facilitates seamless communication across any geographic location, and in any terrain type, while supporting various military scenarios.

The lightweight four-segment carbon fiber man-portable antenna and easily configurable RF section make this terminal for worldwide operations with military and commercial satellites.

General Specifications

Frequency Band	Tx: 14~14.5 GHz (Standard Ku-band), 13.75~14.5 GHz (Universal Ku-band, optional)
	Rx: 12.25~12.75 GHz, 10.95~11.7 GHz or 11.7~12.25 GHz (optional)
Available Channels	1000 or more
Tx Power	8W
Communication Mode	Full-Duplex
ECCM	FHSS (4000hps), DSSS
Encryption	AES256

Antenna

Reflector Diameter	0.75m equivalent (Physical length: 0.9m Max)
Travel Range	Elevation Travel: 0~90°, Azimuth Travel: ±60°, Polarization Travel: ±90°
Weight	9kg

Transceiver

Dimension	220 (W) x395 (L) x90 (H) mm (with battery)
Weight	4.9kg (with battery)
Power Supply	19~33VDC
Protection	Polarity, Over-voltage
Data Interfaces	RS-232C, RS-422, Ethernet, Telephone

Environment

Test method	MIL-STD-810G
Vibration	Ground tactical
Immersion	1m
Temperature	-30°C~60°C

GR-8810Ku Ku-band SATCOM Terminal Set

The standard set includes:

• 8W BUC	GA-8810BUC
• LNB	GA-8810LNB
• L-band Transceiver	GA-8810LT
• 0.75m Flyaway Antenna	A8810-FA075
• Officer Handset	A8100-OH10
• GPS Manpack Antenna	GA-50A
• Battery Box w/o Battery	A8100-BB31
• Battery Pack ⁽¹⁾	BB-2590/U
• 1 Bay Battery Charger	A8100-BC1B
• BUC Power & Control Cable	A8810-BPC01
• BUC Coaxial Cable	A8810-BCC01
• LNB Coaxial Cable	A8810-LCC01
• Field Reference Guide	A8810-UM01

Options for GR-8810Ku

• Asynchronous Data Cable (RS-232C)	A8810-DC232
• Asynchronous Data Cable (RS-422)	A8810-DC422
• Ethernet Cable	A8810-EC20
• Telephone Cable	A8810-TC01
• 2 Bay Battery Charger	A8100-BC2B
• Setup/Control Application (Windows)	GC-8810Ku
• Tactical Chat Application	GS-910
• Rucksack	A8810-RS01
• Telephone ⁽²⁾	Brand
• Rugged PC ⁽³⁾	Windows 7/8/10

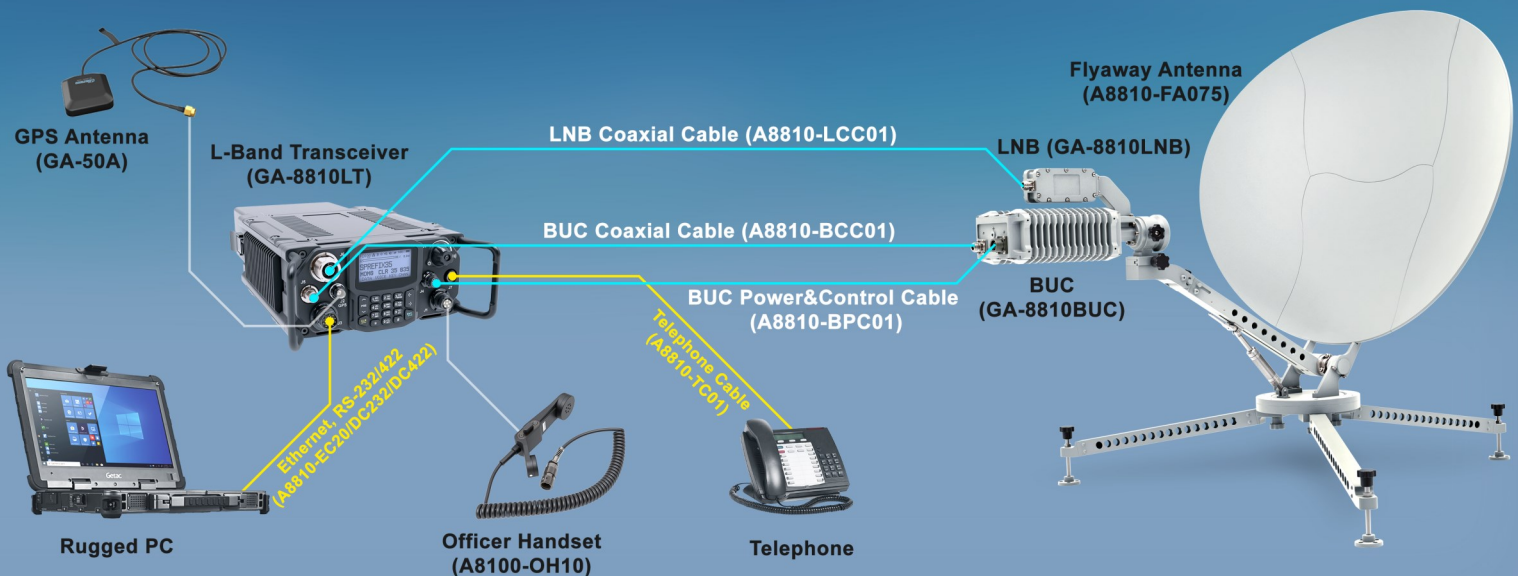
(1) - The batteries are for sale in market worldwide.

(2) - The telephones are for sale in market worldwide.

(3) - The Rugged PCs are for sale in market worldwide.

Configuration of GR-8810Ku Ku-band SATCOM Terminal Set

GR-8810Ku Ku-Band SATCOM Terminal





L-band transceiver (GA-8810LT)

L-band transceiver modulates and transmits user's voice and data, demodulates the received signal and output with voice and data format.



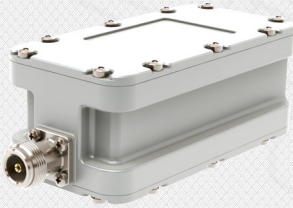
0.75m Flyaway Antenna (A8810-FA075)

0.75m flyaway antenna is specially designed for highly portable antenna by adopting carbon fiber material with light weight and can be assembled in less than 5 minutes by one person.



8W BUC (GA-8810BUC)

8W BUC upconverts the signal from L-band transceiver to the Ku-band and amplifies to 8W power level.



LNB (GA-8810LNB)

LNB amplifies the Ku-band signal received from the satellite and downconverts to L-band.



Battery Box w/o Battery (A8100-BB31)

Battery box for BB-2590/U series batteries. Water-proof and moisture-proof. This battery box is fully compatible with BB-2590/U size battery system.



Battery Pack (BB-2590/U)

The Li-Ion battery is a very high-capacity, rechargeable, Li Ion battery. Use with Glocom A8100-BC2B/4B/6B battery charger system.



A8100-OH10 Military Official Handset

The officer handset is a high-grade, light-weight MIL handset for use with the Glocom tactical radio systems. One handset is supplied with each radio.



GPS Manpack Antenna (GA-50A)

This is high gain, low loss, active, extra low current consumption, small size GPS antenna. It supports SMA plug and magnetic mounting or screw mounting. It's useful for mobile application with GR series radios.



1 Bay Battery Charger (A8100-BC1B)

This is one bay battery charger for BB-2590/U.



BUC Power & Control Cable (A8810-BPC01)

This cable is used to connect BUC with L-band transceiver via RS-232C interface and used to supply power to BUC



BUC Coaxial Cable (A8810-BCC01)

This cable is used to supply 10MHz ref signal and modulated signal to BUC.



LNB Coaxial Cable (A8810-LCC01)

This cable is used to supply 12V power and 10MHz ref signal to LNB. Also it is used to transfer the received signal from LNB to L-band transceiver.



Field Reference Guide(A8810-UM01)

This is a field reference user manual for GR-8150HV radio system.



Asynchronous Data Cable(A8810-DC232)

This is RS-232C data communication cable for GR 8810Ku. It is used for data communication, terminal programming and terminal control by computer etc.



Asynchronous Data Cable(A8810-DC422).

This is RS-422 data communication cable for GR 8810Ku. It is used for data communication, terminal programming and terminal control by computer etc.



Ethernet cable(RJ-45)(A8810-EC20)

This cable is the Ethernet cable to connect terminal and Ethernet port of computer or network hub.



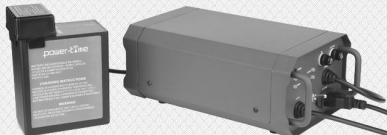
Telephone

It is used to phone the others by using wired phone service of L-band transceiver like official telephone.



Telephone cable

This cable is used to connect telephone to L-band transceiver. Users can ring a person up on the phone by using SATCOM terminal.



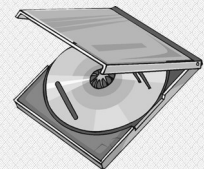
Battery Charger(A8100-BC1B)

This is 2 bay battery charger for BB-2590/U. Up to 2 batteries may be connected for simultaneous processing, and disconnected from any channel during processing.



Rugged PC

The commercial rugged PC will be used for setup, control and communication.



Setup/Control Application (GC-8810Ku)

Windows-based setup software for GR-8810Ku.

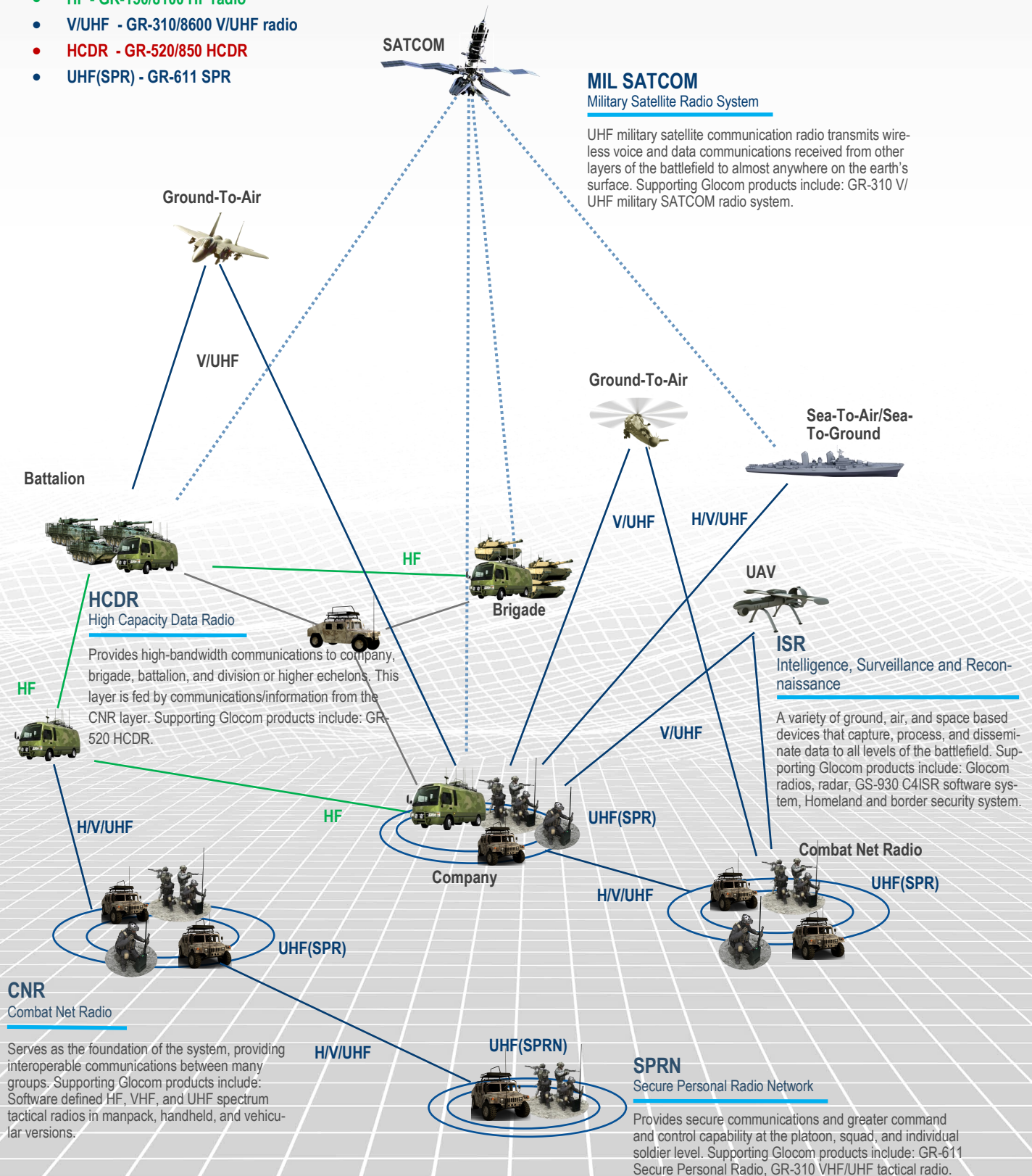


Rucksack(A8810-RS01)

This is a rucksack for the terminal. It is very convenience for soldier to carry the terminal with all accessories.

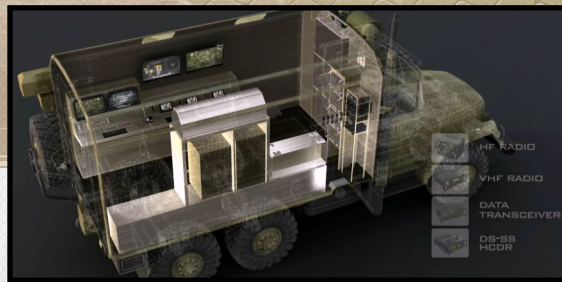
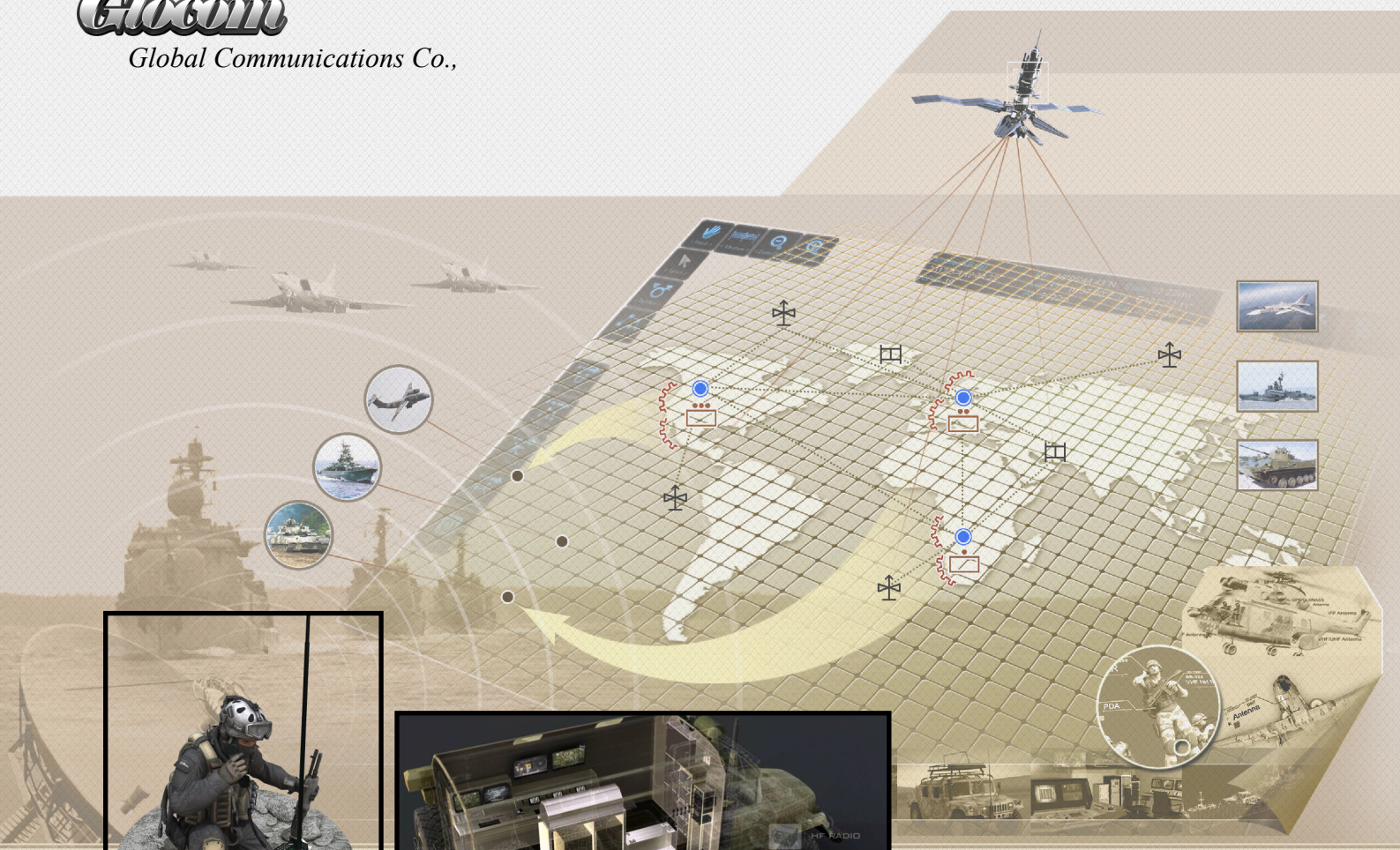
Glocom Battlefield Communications Architecture

- **HF** - GR-150/8100 HF radio
- **V/UHF** - GR-310/8600 V/UHF radio
- **HCDR** - GR-520/850 HCDR
- **UHF(SPR)** - GR-611 SPR





Global Communications Co.,



- Manpack Radio Systems
- Handheld Radio Systems
- Stationary Systems
- Mobile Systems
- Airborne Systems
- Shipborne Systems
- Soldier Systems
- BMS Applications

Communications solutions for anywhere, anytime in battlefield

Global Communications is a leading supplier of secure voice and data communications products, systems and networks to military, government and commercial organizations worldwide.

Glocom is an international communications and information technology company serving government and commercial markets in more than 50 countries. The company has annual revenue of over \$15 million and 200 employees—including nearly 100 engineers and scientists. Glocom is dedicated to developing best-in-class communications products, systems and services. Additional information about Global Communications is available at Glocom website www.glocom-corp.com.