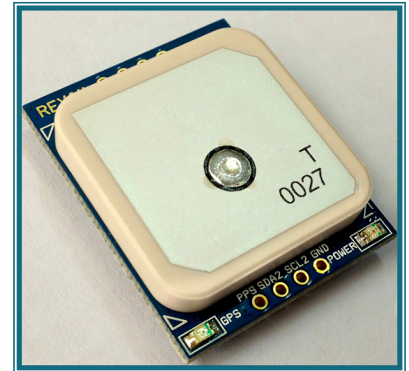


RYN25AI high performance GPS/Glonass antenna module

Product description

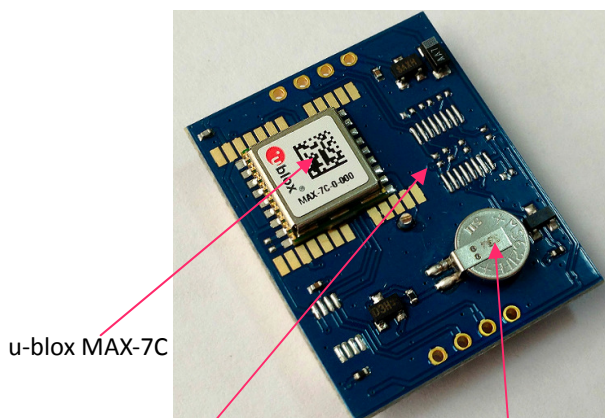
The REYAX RYN25AI GPS/Glonass receiver module with embedded GPS/Glonass antenna enables high performance navigation in the most stringent applications and solid fix even in harsh GPS/Glonass visibility environments.



Features

- u-blox MAX-7C GPS/QZSS, Glonass engine.
- Embedded GPS/Glonass Antenna.
- 7 days battery backup time.
- RYN25AI UART and RYN25DI RS-232 interface option
- 10Hz Navigation update rate.
- GPS&POWER LED Indicator
- Dimension 32mm*26mm*8mm

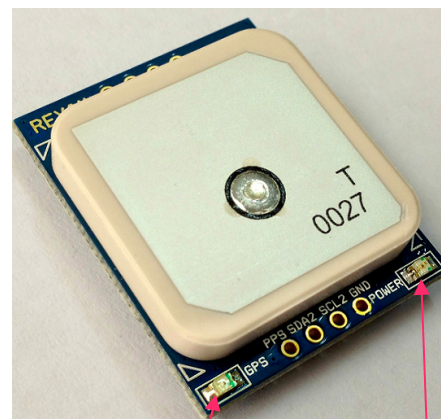
Parts



u-blox MAX-7C

RS-232

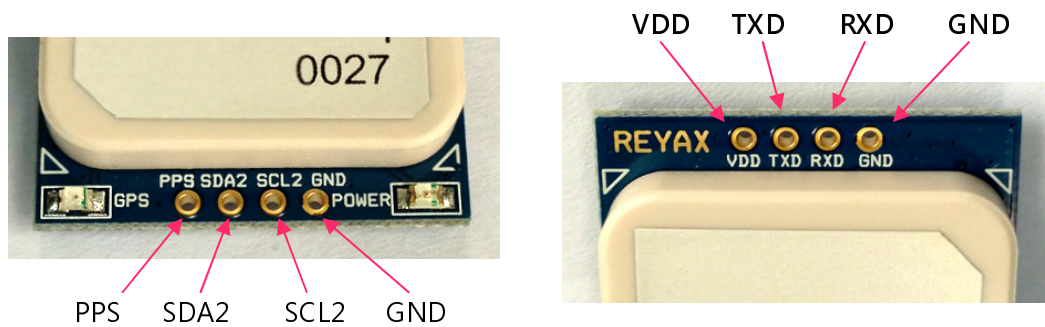
Recharge battery



RED GPS LED

GREEN POWER

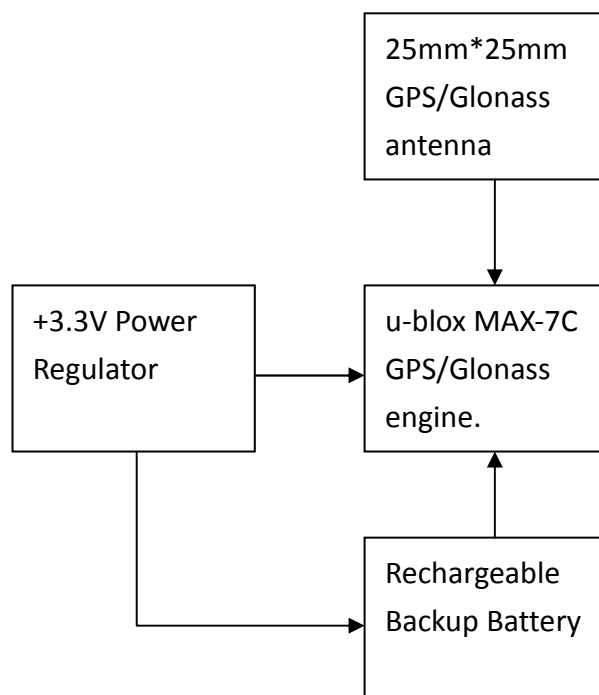
Pin out



Pin Description

Name	I/O	Condition
VDD	I	Supply voltage
TXD	O	Serial Port
RXD	I	Serial Port
GND	-	Ground
PPS	O	Time pulse
SCA2	I/O	DDC Data Please refer to u-blox MAX-7C
SCL2	I/O	DDC Clock Please refer to u-blox MAX-7C

Block Diagram



Specification

Item	Min.	Typical	Max.	Unit	Condition
Operation Voltage	3.5		5.5	V	VDD
Current		30		mA	
Battery backup time		7		Day	
TXD/RXD DIO voltage		3.3		V	RYN25AI UART version
TXD/RXD RS-232 voltage		12		V	RYN25DI RS-232 version
Baud Rate		9600		bps	NMEA, Configurable
Center Frequency		1575.42 1602.5625		MHz	GPS Glonass
Navigation update rate		1	10	Hz	Configurable
Accuracy		2.5		M	CEP
Cold starts		29		Sec.	
Aided starts			5	Sec.	
Hot starts		1		Sec.	
Tracking Sensitivity		-162		dBm	
Cold starts Sensitivity		-148		dBm	
Hot starts Sensitivity		-148		dBm	
Operating Temperature	-40	25	+85	°C	
Antenna					25mm*25mm Embedded

Configuration Hardware tool

Please plug a “USB to TTL UART Adapter Converter” to module.

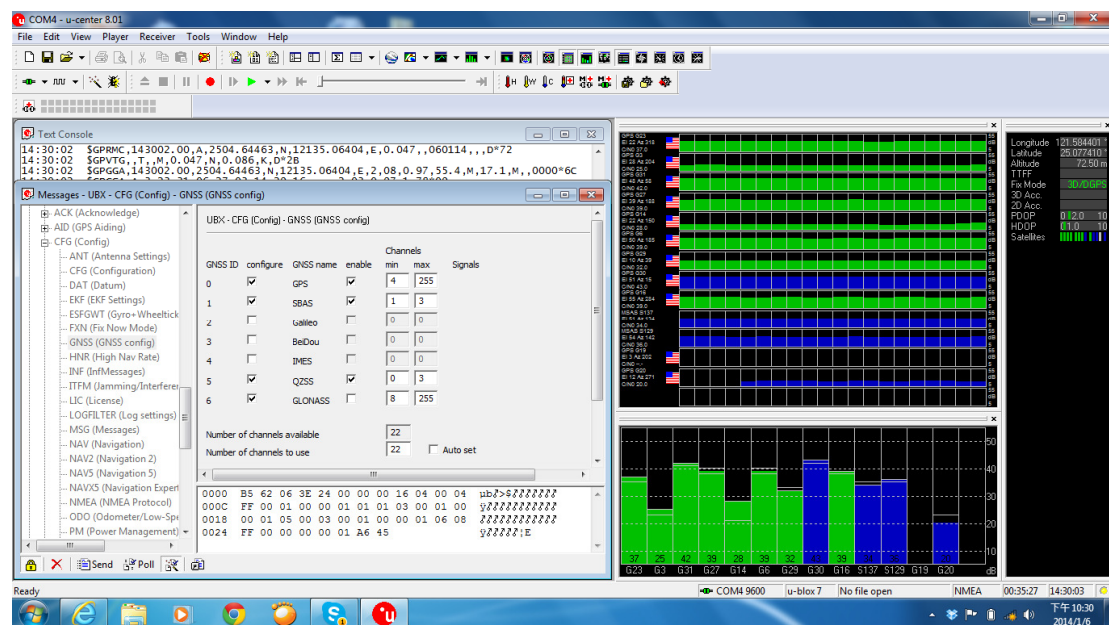


Configuration software tool

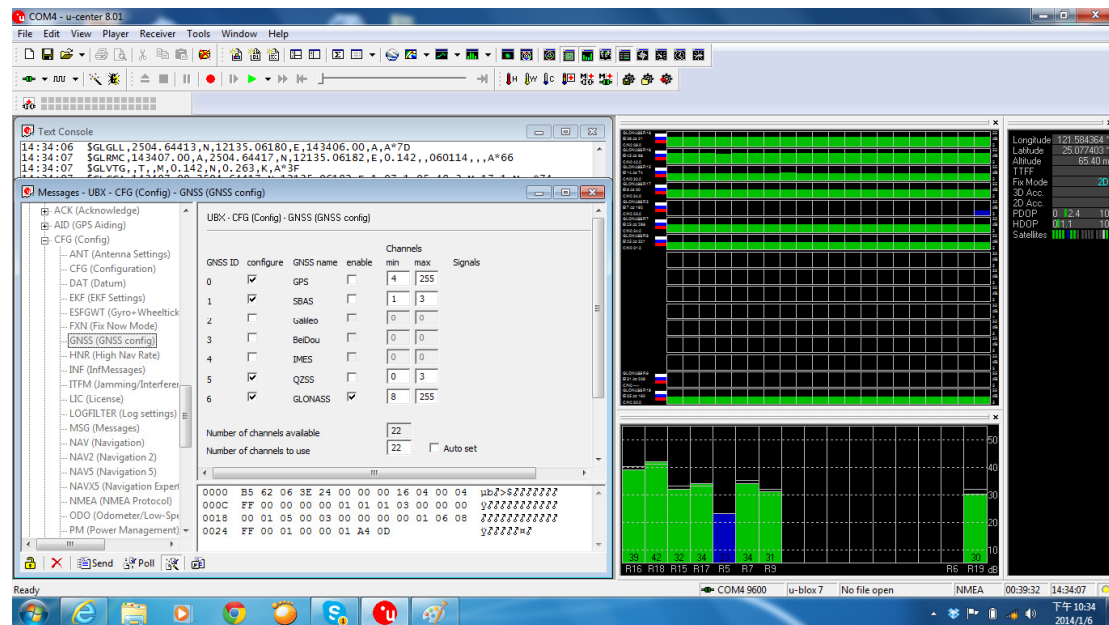
Please download the u-blox u-center <http://www.u-blox.com> and Access Port <http://www.sudt.com/>

Please execute the u-center and run the messages-UBX-CFG.

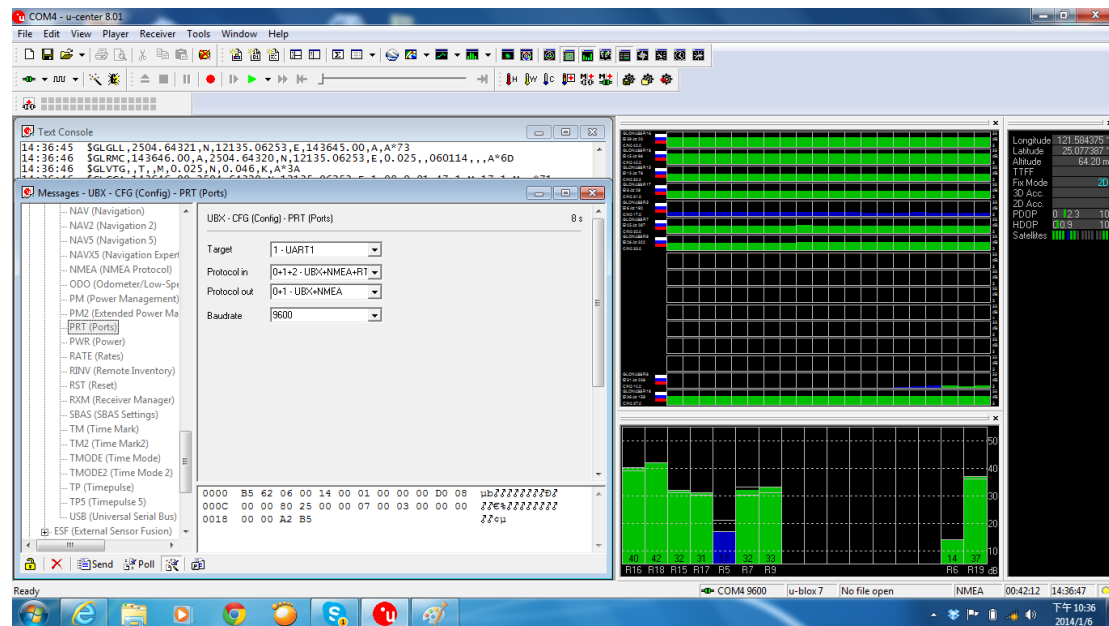
Set to receive GPS (default)



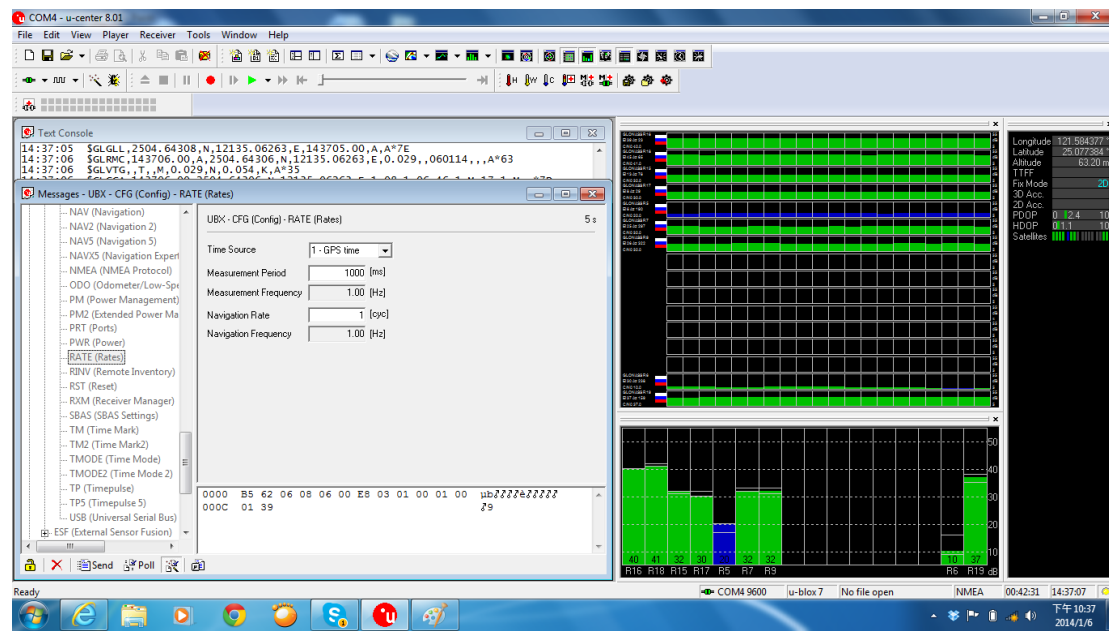
Set to receive Glonass



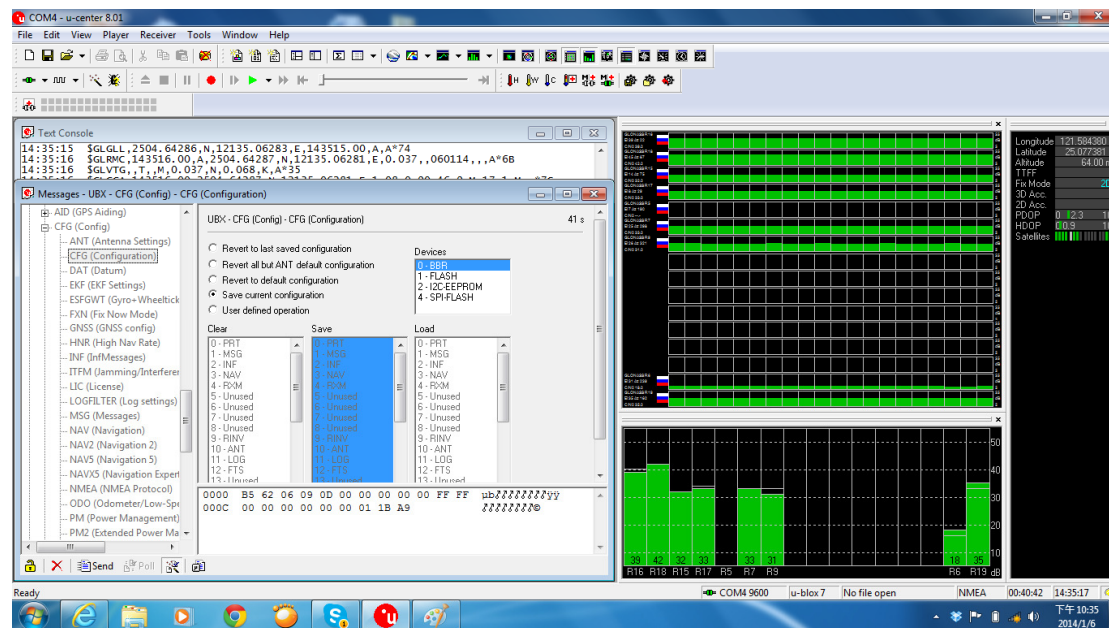
Set Baud rate (9600 default)



Set Navigation update rate (1Hz default)



Store Configuration in BBR (Battery Backed RAM)



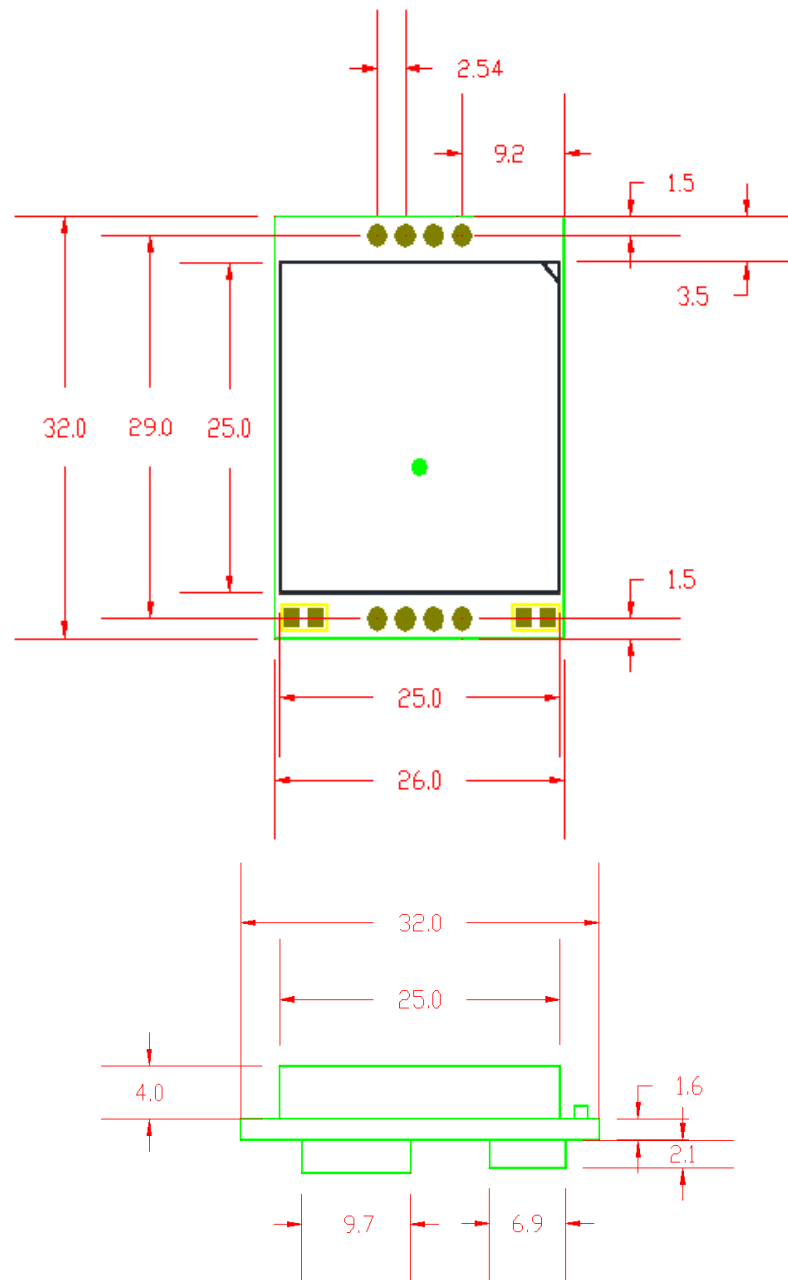
Electrical Programmable Fuse (eFUSE)

u-blox MAX-7C includes an integrated eFUSE memory for permanently saving configuration settings. If no external FLASH memory is available, the eFUSE memory can also be used to store the configuration. The customer can program the eFUSE.

eFUSE is One-Time-Programmable; it cannot be changed if it has been programmed once.

UART Baud Rate 1200	B5 62 06 41 09 00 01 01 30 81 00 00 00 00 FE 01 22
UART Baud Rate 2400	B5 62 06 41 09 00 01 01 30 81 00 00 00 00 FD 00 21
UART Baud Rate 4800	B5 62 06 41 09 00 01 01 30 81 00 00 00 00 FC FF 20
UART Baud Rate 9600	B5 62 06 41 09 00 01 01 30 81 00 00 00 00 FF 02 23
UART Baud Rate 19200	B5 62 06 41 09 00 01 01 30 81 00 00 00 00 FB FE 1F
UART Baud Rate 38400	B5 62 06 41 09 00 01 01 30 81 00 00 00 00 FA FD 1E
UART Baud Rate 57600	B5 62 06 41 09 00 01 01 30 81 00 00 00 00 F9 FC 1D
UART Baud Rate 115200	B5 62 06 41 09 00 01 01 30 81 00 00 00 00 F8 FB 1C

Dimensions



Unit: mm

REYAX TECHNOLOGY CO.,LTD.

Address : 6F.-3, No.6, Aly. 30, Ln. 210, Wende Rd., Neihu Dist., Taipei City, Taiwan

Web : <http://www.reyax.com>

Tel : +886-2-2627-2777

Fax : +886-2-2627-2781

E-mail : sales@reyax.com