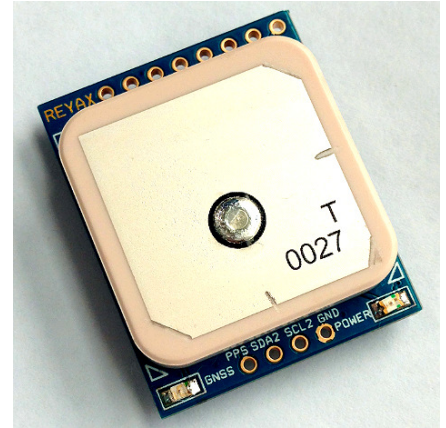


RY825AI high performance GPS&Glonass/GPS&BeiDou

Parallel mode antenna module

Product description

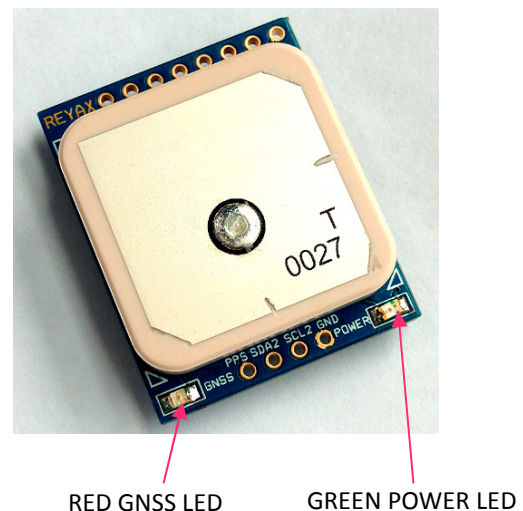
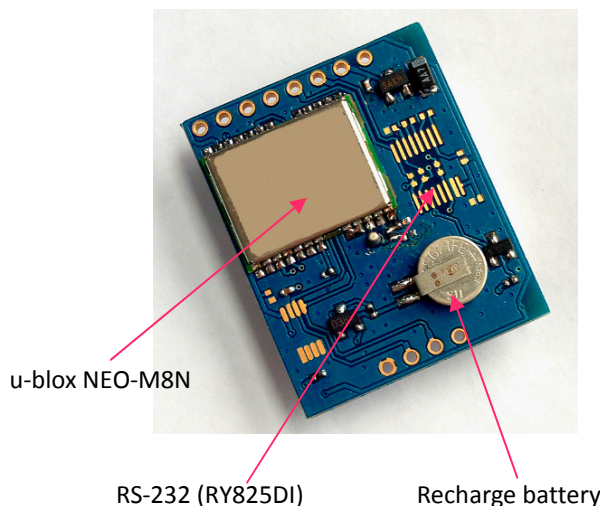
The REYAX RY825AI GNSS receiver module with embedded GPS/Glonass/BeiDou antenna enables high performance navigation in the most stringent applications and solid fix even in harsh GPS/Glonass/BeiDou visibility environments.



Features

- u-blox NEO-M8N GNSS(GPS, GLONASS, Galileo, BeiDou, QZSS and SBAS) engine.
- Embedded GPS/Glonass/BeiDou Antenna.
- 7 days battery backup time.
- RY825AI UART and RY825DI RS-232 interface option
- USB 2.0 interface
- 18Hz Navigation update rate
- Position accuracy 2.0 m CEP
- GNSS & POWER LED Indicator
- Dimension 32mm*26mm*8mm

Part



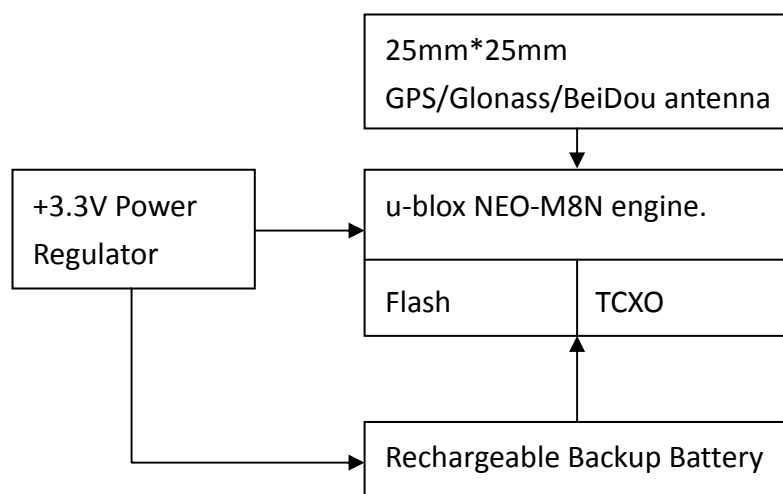
Pin out



Pin Description

Name	I/O	Condition
INT0	I	External Interrupt Pin Leave open if not used.
VDD	I	Supply voltage
TXD	O	Serial Port
RXD	I	Serial Port
GND	-	Ground
USB_DP	I/O	USB Data
USB_DM	I/O	USB Data
VDDUSB	I	USB Supply
PPS	O	Time pulse
SCA2	I/O	DDC Data please refer to u-blox NEO-M8N
SCL2	I/O	DDC Clock please refer to u-blox NEO-M8N

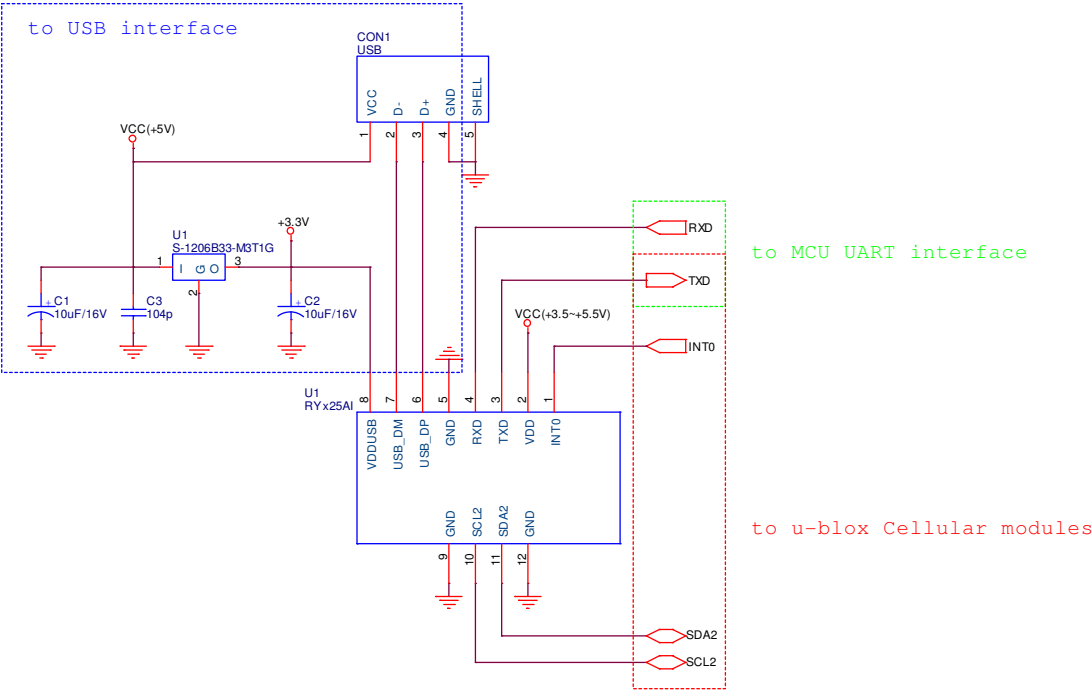
Block Diagram



Specification

Item	Min.	Typical	Max.	Unit	Condition
Operation Voltage	3.5		5.5	V	VDD
Current		34		mA	
Battery backup time		7		Day	
TXD/RXD DIO voltage		3.3		V	RY825AI UART version
TXD/RXD RS-232 voltage		12		V	RY825DI RS-232 version
Baud Rate		9600		bps	NMEA, Configurable
USB Interface					V2.0
VDDUSB	3	3.3	3.6	V	
Center Frequency		1561.098 1575.42 1602.5625		MHz	BeiDou GPS Glonass
Navigation update rate		1	18	Hz	Configurable
Accuracy		2		M	CEP
Cold starts		26		Sec.	
Aided starts		2		Sec.	
Hot starts		1.5		Sec.	
Tracking Sensitivity		-167		dBm	
Cold starts Sensitivity		-148		dBm	
Hot starts Sensitivity		-156		dBm	
Operating Temperature	-40	25	+85	°C	
Antenna					25mm*25mm Embedded

Application Schematic



Configuration Hardware tool

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

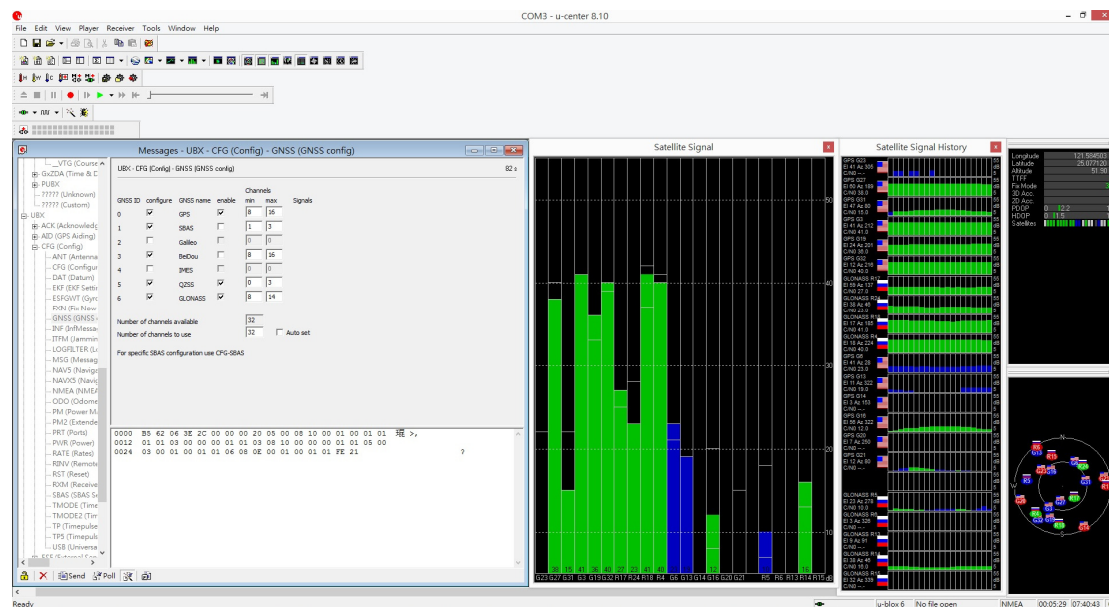


Configuration software tool

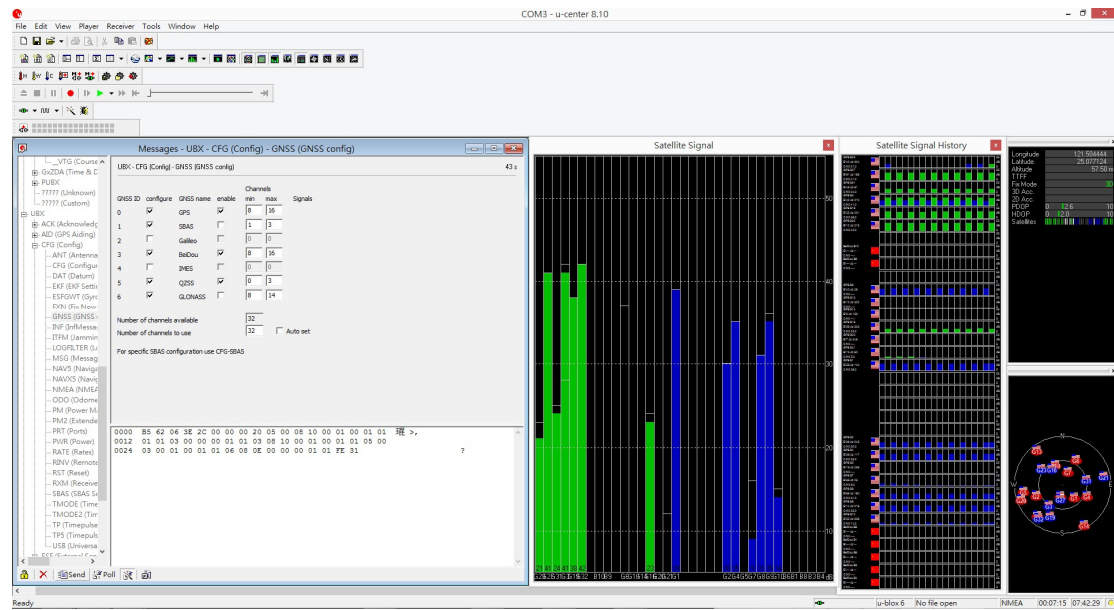
Please download the u-blox u-center <http://www.u-blox.com> and Access Port <http://www.sudt.com/>

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

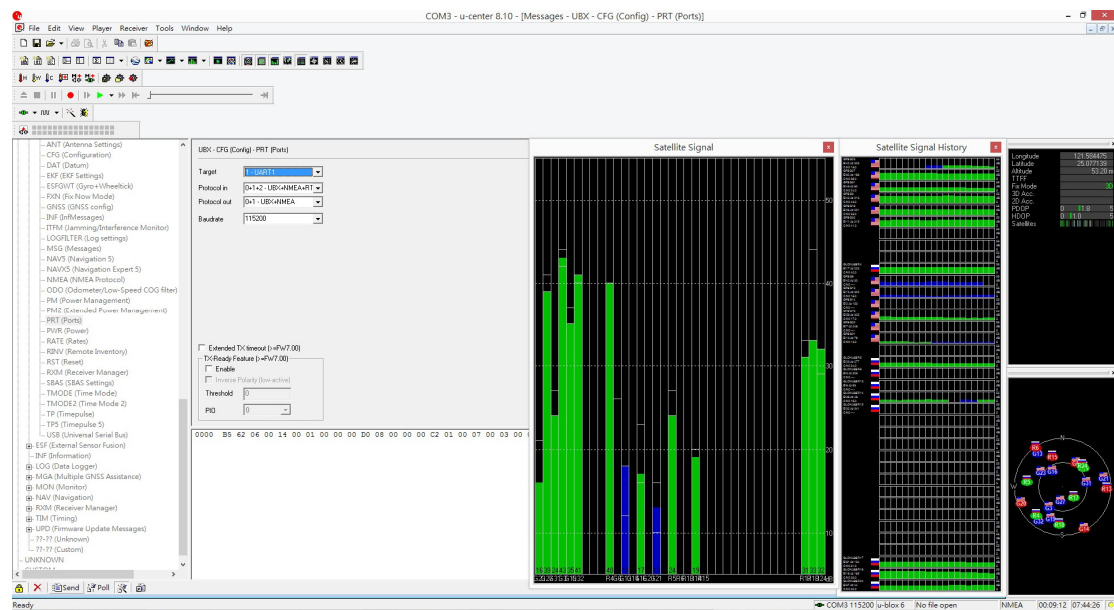
Set to receive GPS&Glonass (default)



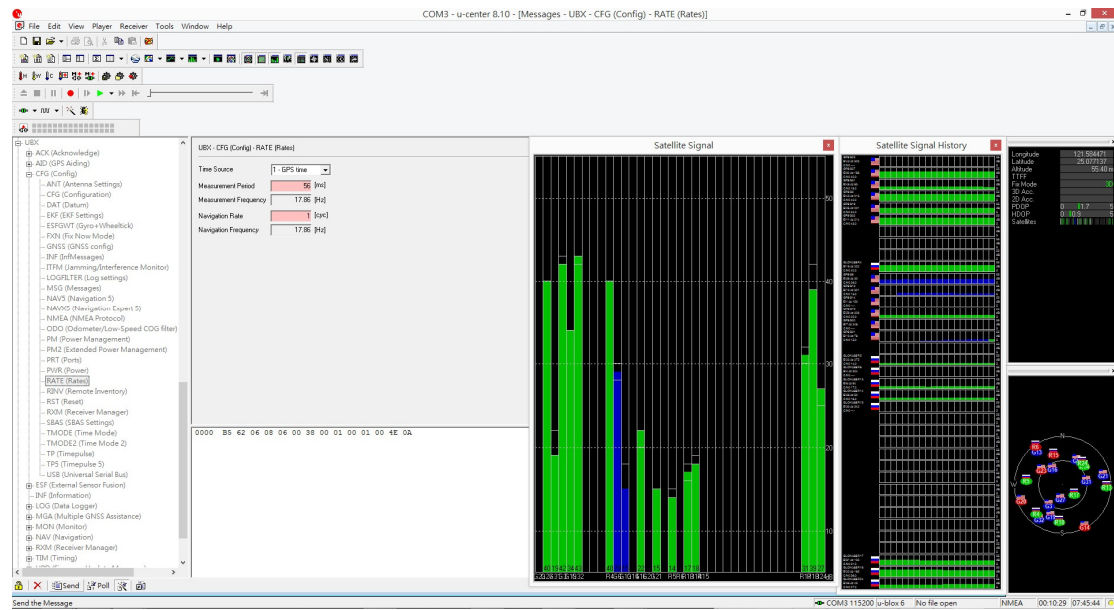
Set to receive GPS&BeiDou



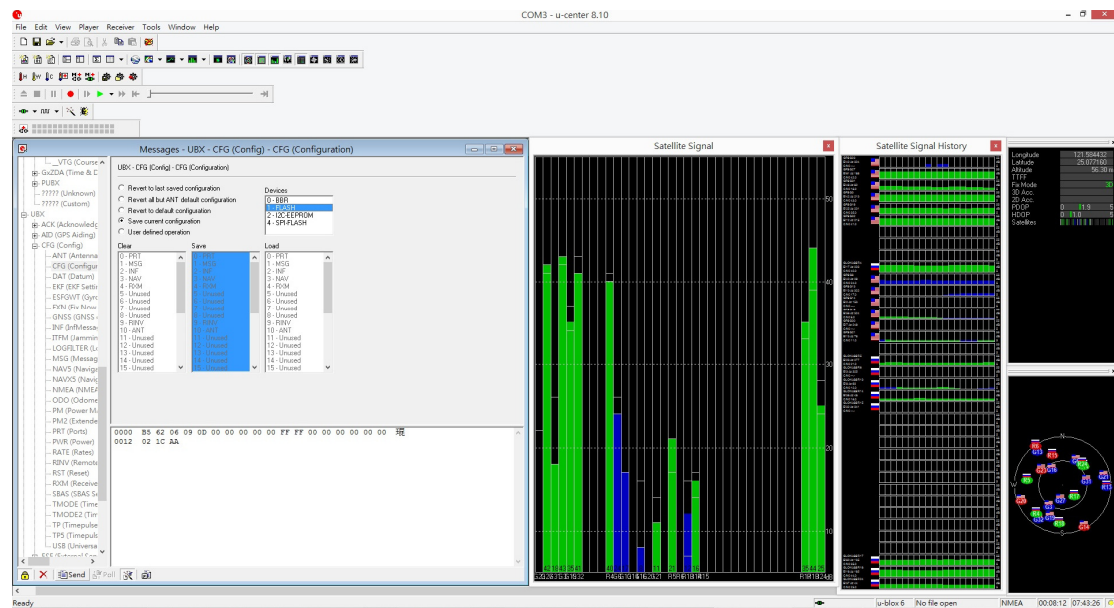
Set Baud rate (9600 default)



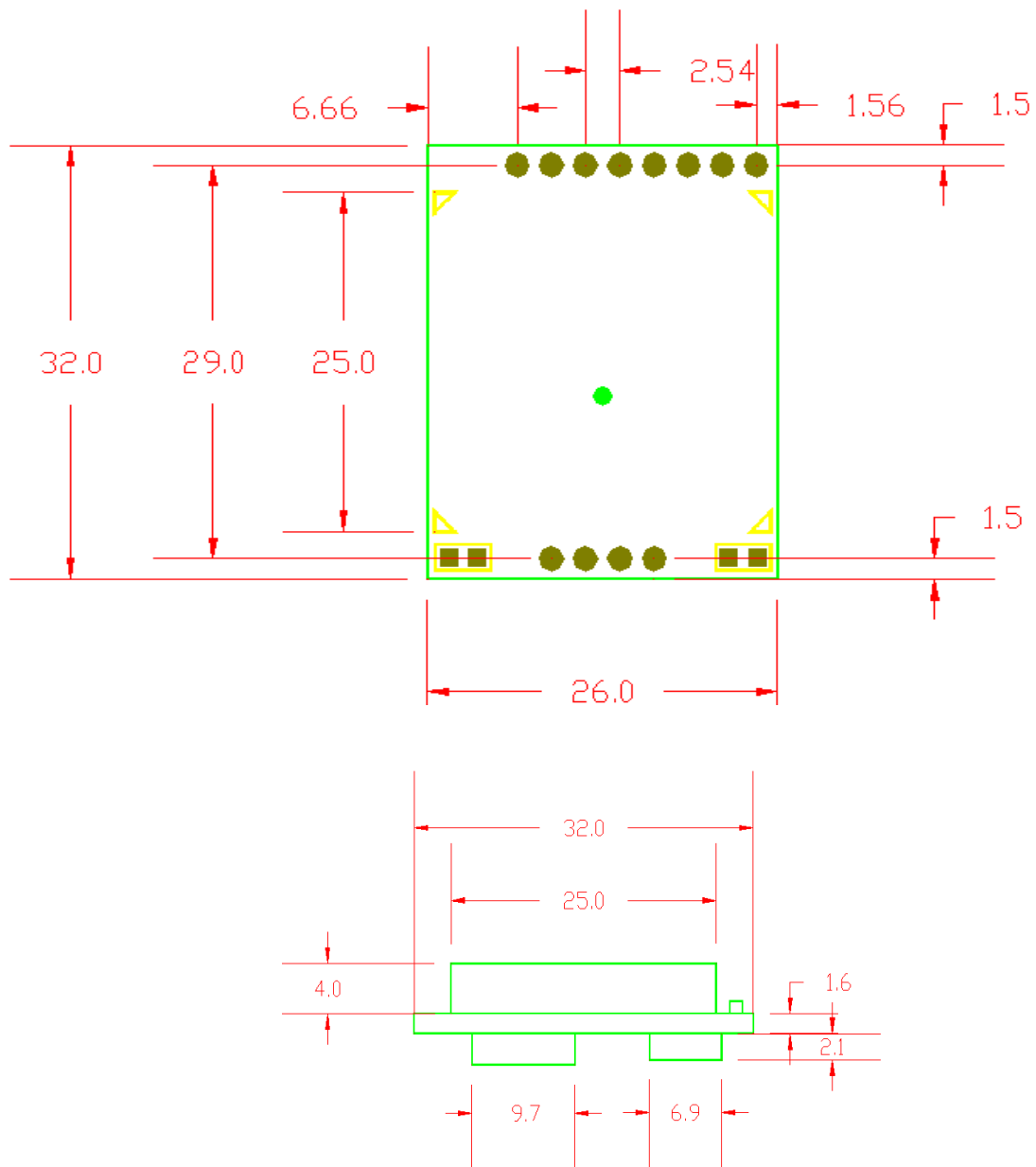
Set Navigation update rate (1Hz default)



Save Configuration in flash



Dimensions



unit: mm

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