

SKU194872



Feature:

Industry-standard 25 \* 25 \* 4MM high sensitivity GPS antenna  
UART / TTL, 232, USB2.0 optional interface  
KDS 0.5PPM using high-precision TCXO  
Built-in RTC crystal and picofarads capacitance faster hot start  
Built-in EEPROM, freedom rich configuration parameters  
1-5Hz position update rate  
Support AssistNow Online and AssistNow Offline A-GPS services, etc.  
GPS, GALILEO, SBAS (WAAS, EGNOS, MSAS, GAGAN) Hybrid Engine

## 1.Product Description

C/A code,1.0 2 3 MHz  
Receive Channel:50 CH

Stream Receive band:L1[1575.42MHz]

Station-keeping

<2.5 m[Autonomous][5 0%]

<2 m[SBAS]

Rate: <0.1 m/s

Direction: <0.5 Degrees

Timing Accuracy: 30 ns

Reference coordinate system: WGS-84

The maximum altitude height: 50000 m

The maximum speed: 500 m/s

Acceleration: <4g

### **Electrical properties:**

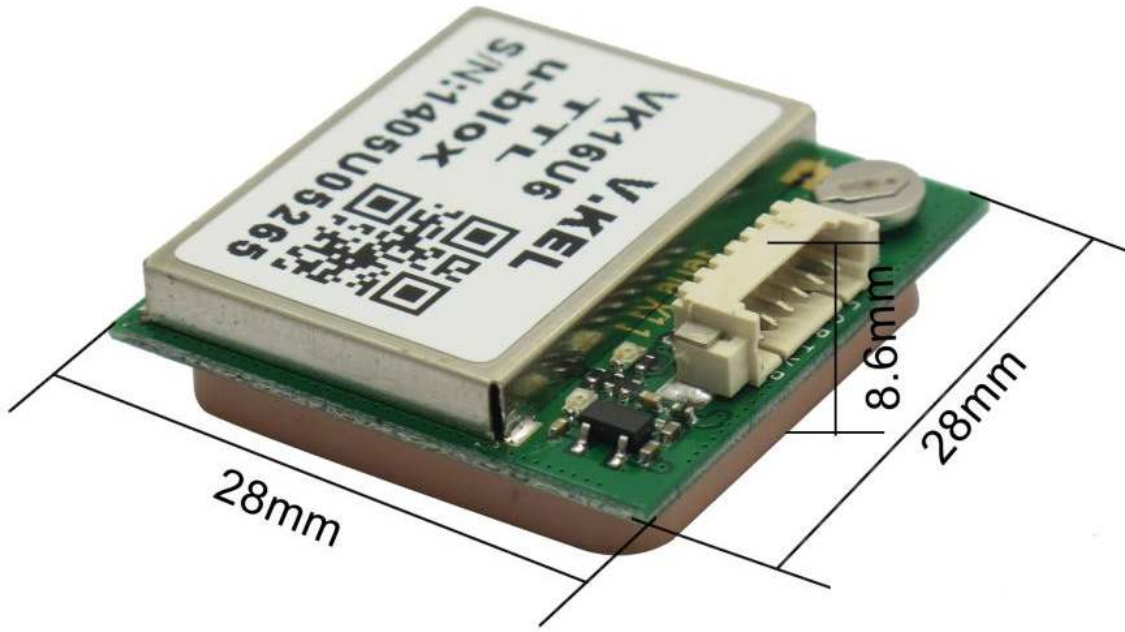
Tracking sensitivity: - 162 DBM  
Capture sensitivity: - 146 DBM  
Cold start time: 32 s (AVG)  
Warm start time: 32 s (AVG)  
Warm start time: 1 s (AVG)  
To capture time: 0.1 s (AVG)  
Operating temperature: - 30 to + 80

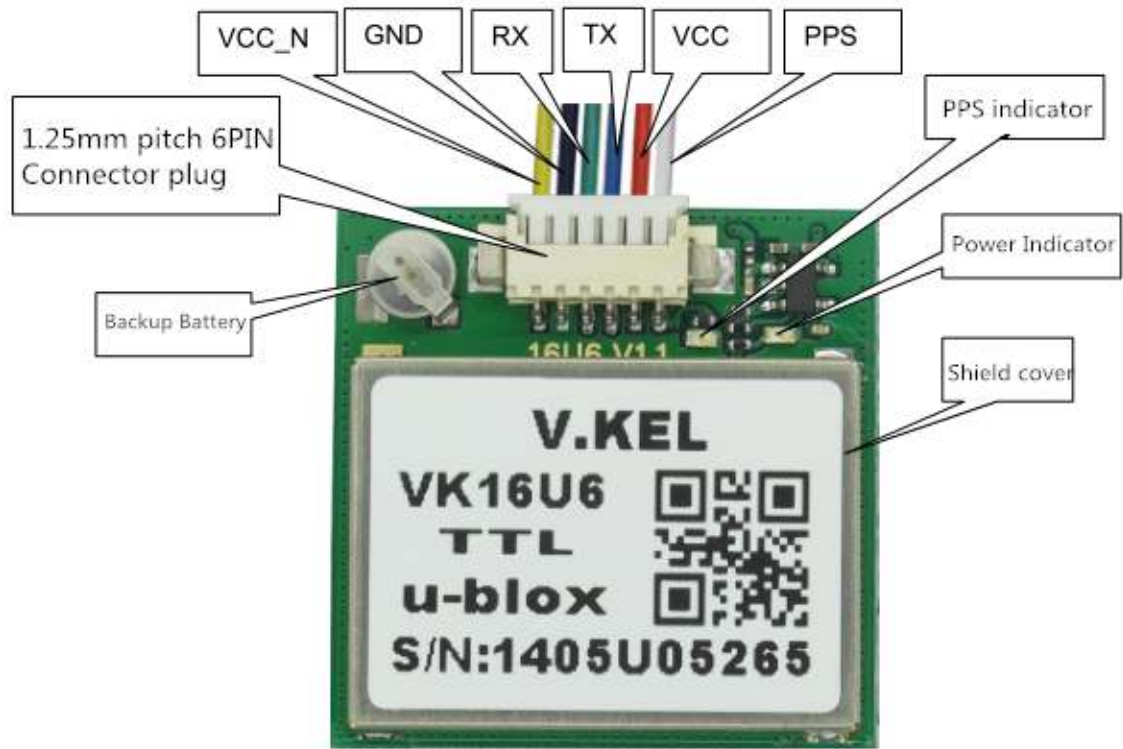
### **Other Parameters:**

Standard clock pulse: 0.25 Hz ~ 1 KHz  
Position update rate: 1 H z ~ 5 H z (default 1Hz)  
UART / TTL interface port [default]  
USB port interface [optional]  
RS232 port interface [optional]  
AGPS [Network assisted inferior ephemeris data]: 3 s

1. Data rate: 9600 BPS (default) [optional: 1200240 0480 0192 00384 00576 00115 200230 400460 800921 00115]
2. The output statements: NMEA 0183 V3.0 (GGA, GSA, GSV, RMC, vacations, GLL) protocol data, can be arbitrary set match
3. The data refresh rate: 1 hz - 5 hz refresh rate
4. PPS indicator light: before positioning normally on or off; After positioning flashing
5. AGPS: support independent auxiliary positioning system
6. Can make control: supports external IO switch state trigger control module
7. The satellite quality control: rich set of satellite quality control and prevent the elegant software Settings
8. Application scenarios: from walking - car - static mode - portable mode - airborne model and 2 d & 3 d positioning user can be set free

**Electrical properties of the interface: Wide voltage range: the main power supply is + 3.3 V ~ + 5V**





PIN foot function

PPS----Time standard pulse output

VCC-----System main power supply voltage is + 3.3V ~ + 5V, current consumption of about 55mA at work

TX-----UART interface, optional USB\_DM and RS232\_TXD

RX-----UART interface, optional USB\_DP and RS232\_RXD

GND---all you know this :)

VCC\_N----Power Enable, high / floating modules work, low module close

**Normal operating conditions**

Parameter	Min	Max	Unit	Standard
supply voltage	3.3	5	5	V
Working temperature	-40	/	+80	
Working current		40	60	mA

**Extreme operating conditions**

Parameter	Min	Max	Unit	Standard
supply voltage	-0.3	/	5	V
output voltage	-0.3	/	3.6	V
Working temperature	-40	/	85	
Storage temperature	-55	/	100	

### RTC Power qualified [RTC power supply module self, life time of about 2.5Hour]

Parameter	Min	Max	Unit	Standard
RTC supply voltage	1.8	2.8	6	V
Current consumption (operating)	/	150	/	uA
Current consumption (sleep)	/	30	/	uA

### Digital interface level condition

Parameter	Min	Max	Unit	Standard
Input High	2.0	2.8	3	V
Input Low	/	/	0.8	V
Output High	2.4	2.8	3	V
Output Low	/	/	0.4	V

### 3.NMEA0183 agreement

NMEA 0183 output

GGA: time, location, location type

GLL: latitude, longitude, UTC time

GSA: GPS receiver operating mode, the use of satellite positioning, DOP values

GSV: visible GPS satellite information, elevation, azimuth, signal to noise ratio (SNR)

RMC: time, date, location, velocity

VTG: ground speed information

MSS: signal strength, etc.

Note: The output of information related to the frequency and setup

#### Sample data:

\$GPGGA,061831.000,2236.9152,N,11403.2422,E,2,07,1.1,144.0,M,-2.2,M,4.8,0000\*60

\$GPGSA,A,3,18,22,25,12,14,21,24,15,,,,,1.93,1.04,1.63\*01

\$GPGSV,3,1,11,12,40,089,45,14,37,314,46,15,10,078,44,18,77,096,43\*72

\$GPGSV,3,2,11,21,27,192,31,22,60,330,43,24,24,037,45,25,42,142,41\*71

\$GPGSV,3,3,11,31,21,230,27,42,51,128,37,50,46,122,39\*4D

\$GPRMC,061831.000,A,2236.9152,N,11403.2422,E,0.00,,130214,,,D\*76

\$GPVTG,309.62,T, ,M,0.13,N,0.2,K\*6E

Make by vaa