UM220-IV NL

Industrial Grade Anti-jamming GNSS Module

Industrial Grade

16.0 x 12.2 x 2.4mm

Product Characteristics

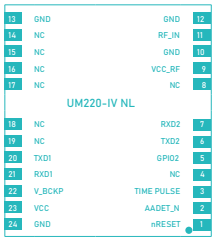
- Excellent navigation and positioning performance, supporting single-system standalone positioning and multi-system joint positioning
- Anti-interference design, which enables the module to work stably under complex electromagnetic environments
- Low power consumption design
- Firmware compatible with previous generation products and mainstream GPS modules, easy to be substituted
- Support NMEA V4.1 protocol
- Surface Mount Technology which facilitates users to produce

Applications

- Bike Sharing/ Scooters
- Intelligent Agriculture
- Vehicle Navigation

Brief Introduction

UM220-IV NL is a multi-system GNSS module based on Unicore's proprietary low power consumption high performance SoC - UFirebird. It supports GPS L1+BDS B1I+GAL E1 multi-system or single system raw observation data output and supports AGNSS function, which improves the positioning speed with the help of assisted data transmitted through network. Integrating RTK algorithm and data service provided by TruePoint, the module can output high precision positioning solution off chip or on the customer's hardware platform.UM220-IV NL is of compact size and adopts SMT pad, supporting standard pick-and-place and fully automated integration of reflow soldering, particularly suitable for low cost and low power consumption applications.



Ordering Information

Supply at multiples of 500 pieces

Functional Ports

2 x UART	1 x 1PPS
Data Ports: NMEA 0183(Compatible with BDS);	

Physical Specifications

Dimensions	16.0 x 12.2 x 2.4mm
Package	24 pin SMD
Weight	0.8g
Temperature	Operating -40°C~+85°C
	Storage -45°C~+90°C

Electrical Specifications

Voltage	3.0V ~ 3.6V DC
LNA	2.7V ~ 3.3V, <100mA
Power Consumption4	90mW

Functional Characteristics

DGNSS *, AGNSS *,
single-frequency RTK positioning

NOTE: 1 Simultaneously running three systems at most.
2 Open sky, using TruePoint RTK algorithm
3 Open sky, continuous tracking

Performance Specifications

Channel	Based on 64-Channel SoC - UFirebird
Frequency1	BDS B1
	GPS L1
	GAL E1
Modes	Single-system or multi-system raw data output
	Off-chip high-precision positioning using TruePoint RTK algorithm
Time to First Fix (TTFF)2	Cold Start : <29s
	Hot Start : <1s
	Re-acquisition : <1s
	AGNSS 5s
Update Rate	1Hz
1PPS	Support
Sensitivity	GN
Tracking	-159dBm
Acquisition	-146dBm
Hot Start	-150dBm
Reacquisition	-157dBm