

Dalang

DL18U10C





**Dalang Communication
Technology Co., Ltd
Product specification sheet**

Product Name:	GMOUSE
Product model:	DL18U10C
Version number:	V 1.0
Revision Date:	2024.09.20

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Shenzhen Dalang Communication Technology Co., Ltd

1. Product application scenarios

The DL18U10C module adopts U-blox positioning chip and can receive 96 satellite signals; Low power consumption; High sensitivity G-MOUSE can quickly and accurately locate. This module can be widely used in vehicle monitoring, bus stop announcements, vehicle navigation, ship navigation, laptop navigation and other products.



Figure 1 Product Application Scenarios

2 Function

In this chapter, we will delve into and elaborate on the functions and working principles of DL18U10C, and explain in detail how it plays a key role in different applications, as follows:

- **Built in Low Noise Amplifier (LNA) signal amplifier**
- **Industry standard high sensitivity ceramic antenna with dimensions of 15 x 15 x 4 millimeters**
- **Built in temperature compensated crystal oscillator (TCXO) and Farad capacitor for faster preheating**
- **Positioning update rate is 1-10 Hz**
- **Built in high-precision magnetometer QMC5883L**

3 Structural characteristics

In this chapter, we will delve into the design details of the product and present its appearance characteristics and precise interface definitions through detailed structural diagrams. This perspective aims to provide a comprehensive framework to deepen the understanding and cognition of product structure. Refer to Figure 2 and Table 1 for details.

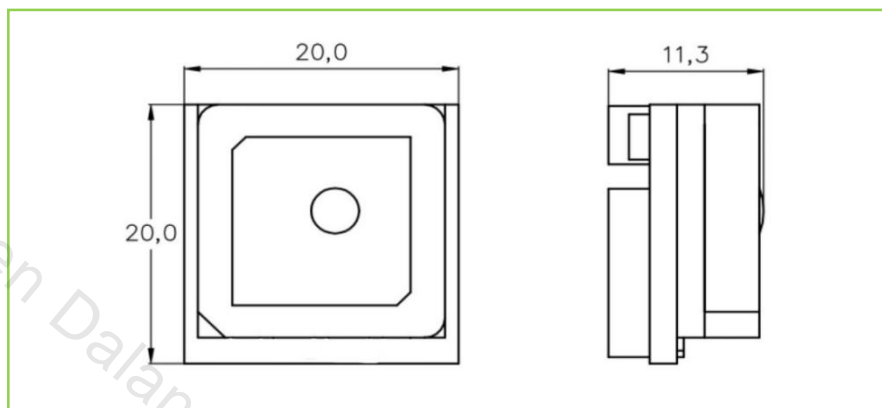


Figure 2 Product Structure Diagram (Unit: mm)

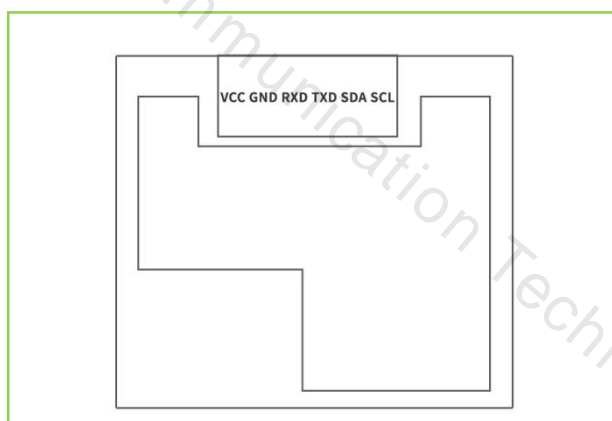


Table 1 Interface Definition

PIN name	Description
VCC	The main power supply of the system has a supply voltage of 3.3V-5V
GND	Grounding
RXD	TTL interface data input
TXD	TTL interface data output
SDA	Serial Data - I2C Master/Slave Data
SCL	Serial clock - I2C master/slave clock

4 Specification parameters

In this chapter, we will provide a detailed list and explanation of the product chip characteristics, sensitivity, accuracy, working principle, and other technical details, as shown in Table 2.

Table 2 Product Specification Parameters

Specification parameters		
Chip characteristics	chip	UBX-M10050-KB
	frequency	GPS L1 C/A, QZSS L1 C/A/S, BDS B1I/B1C, Galileo E1B/C, SBAS L1 C/A: WAAS, EGNOS, MSAS, GAGAN
	Operation mode	GPS+GLONASS+GALILEO+SBAS+QZSS
	track	-166dBm
	Arrest again	-160dBm
	cold boot	-148dBm
	Hot start	-160dBm
	Horizontal accuracy	1.5m CEP 2D RMS SBAS Assistance (Open Sky)
	Speed accuracy	0.05m/s
	cold boot	27s
	Hot start	1s
	Output data	Baud rate
Output level		TTL
Output Protocol		NMEA,UBX
NMEA sentence		RMC,VTG,GGA,GSA,GSV,GLL
update frequency		0.25Hz-10Hz, default 1Hz
Second pulse		The configurable range is 0.25 Hz to 10 MHz, with a default cycle of 1 second and a high level lasting for 100 milliseconds
Work Restrictions	height	80,000m

	speed	<500m/s
	Gravitational acceleration	<4g
Working characteristics	Voltage	DC 3.0V-5.5V, (Typical: 5.0V)
	electric current	Normal 50mA/5.0V
	size	20*20*11.3mm
	weight	7.5g
	Connector	SH1.0mm 6pin
	working temperature	-35°C ~ +75°C
	Storage temperature	-40°C ~ +85°C
Magnetometer	Magnetometer	QMC5883L
LED	LED	PPS LED: Green flashing
		Power indicator light: red

5 Product physical picture

In this chapter, we will present real-life photos of the product, as shown in Figure 3. Through these pictures, you can see our products from different angles and details. We believe that through authentic display, we can better convey the value and philosophy of the product, thereby enhancing your trust and satisfaction with the product.

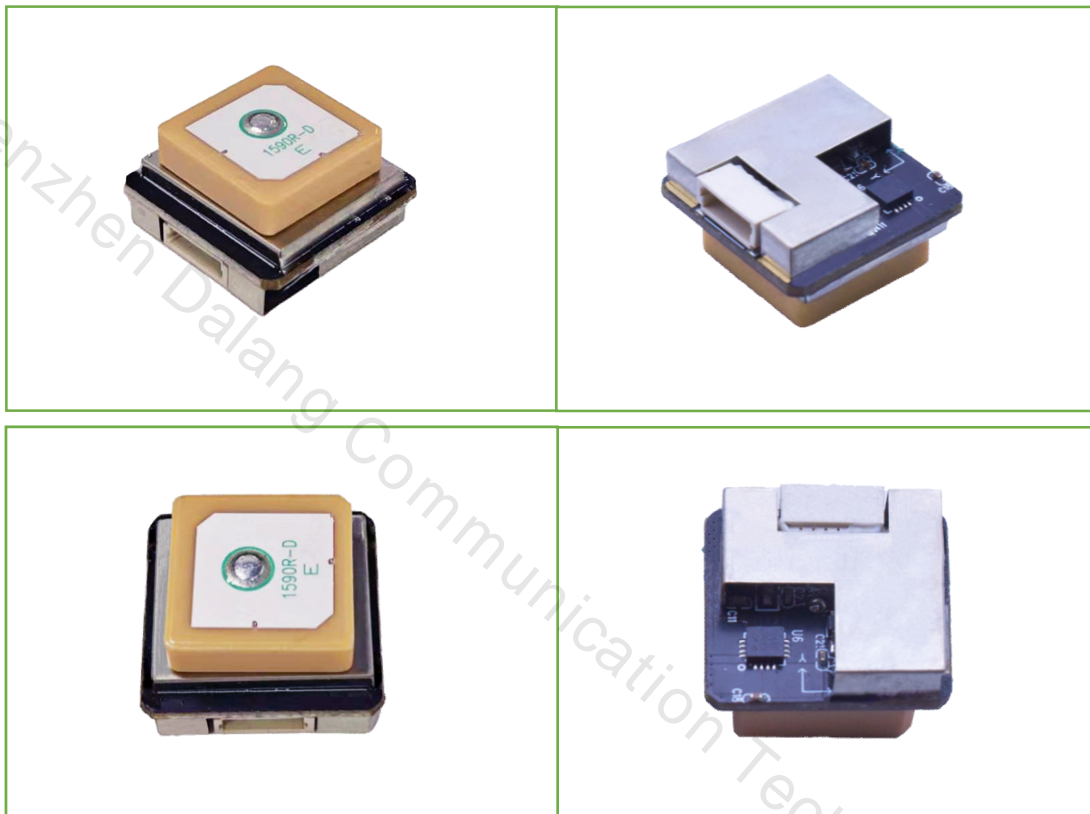


Figure 3 Product Physical Picture