

UM760

Industrial-Grade Multi-GNSS
Single-Frequency Positioning
Module



12.2 x 16.0 x 2.4 mm



Features

- » Supports BDS B1I, B1C; GPS L1 C/A; GLONASS G1; Galileo E1B/C; QZSS and SBAS
- » Supports A-GNSS to reduce the TTFF
- » Built-in jamming detection and filtering technology
- » Compatible with UM220-IV series modules
- » Production process conforms to IATF16949

Applications



Industrial
Applications

The UM760 module is an industrial-grade, multi-constellation, single-frequency navigation and positioning module developed by Unicore Communications. Based on the UC7510I, a high-performance GNSS SoC with fully independent intellectual property rights, the module features high integration, low power consumption, and anti-jamming capabilities. It supports simultaneous reception of GPS, BDS, GLONASS, Galileo, QZSS, and SBAS signals in the L1 band. The UM760 is widely used in applications such as vehicle navigation, fleet management, and vehicle monitoring.

13	GND	GND	12
14	LNA_EN	RF_IN	11
15	NC	GND	10
16	NC	VCC_RF	9
17	NC	nRESET	8
UM760			
18	SDA	NC	7
19	SCL	NC	6
20	TXD1	NC	5
21	RXD1	NC	4
22	V_BCKP	TIME PULSE	3
23	VCC	NC	2
24	GND	nRESET	1

Ordering Information

Supply at multiples of 500 pieces

Physical Specifications

Dimensions	12.2 x 16.0 x 2.4 mm
Package	24 pin, LCC
Operating Temperature	-40 °C ~ +85 °C
Storage Temperature	-45 °C ~ +90 °C

Electrical Specifications

Voltage	2.7 V ~ 3.6 V DC
LNA	2.7 V ~ 3.3 V, < 100 mA

Interfaces

- 1 × UART (LVTTTL)
- 1 × I²C*
- 1 × 1PPS (LVTTTL)

Functional Characteristics

Passive Antenna, Active Antenna, AGNSS

Note: * Supported by specific firmware.
1.95% at 30 m/s for dynamic operation, open sky

Performance Specifications

Channel	64 channels, based on UFirebird IV GPS L1C/A BDS B1I, B1C	
Frequency	GLONASS G1 Galileo E1B/C QZSS L1C/A, L1C/B*, L1S SBAS L1C/A	
Modes	Single-system standalone positioning Multi-system joint positioning Cold Start: < 26 s	
Time to First Fix (TTFF)	Hot Start: < 1 s Reacquisition: < 1 s A-GNSS: < 3 s	
Positioning Accuracy(CEP95)	Horizontal: 1.5 m (with SBAS) Horizontal: 2.0 m (without SBAS)	
Data Update Rate	1 Hz / 5 Hz / 10 Hz	
Velocity Accuracy ¹	0.05 m/s (open sky)	
1PPS	20 ns	
Sensitivity	GNSS	
	Tracking	-165 dBm
	Cold Start	-148 dBm
	Hot Start	-156 dBm
	Reacquisition	-160 dBm
Data Format	NMEA 0183, Unicore	