

# UM760A

Automotive-Grade Multi-GNSS  
Single-Frequency Positioning  
Module



12.2 x 16.0 x 2.4 mm

Automotive  
Grade



## Applications



Vehicle  
Navigation



T-BOX



Vehicle  
Monitoring



Streaming  
Rearview Mirror

## Ordering Information

Supply at multiples of 500 pieces

## 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
- » GNSS chip qualified according to AEC-Q100 and production process conforms to IATF16949

The UM760A module is an automotive-grade, multi-constellation, single-frequency navigation and positioning module developed by Unicore Communications. Based on the UC7510A, 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 UM760A 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
UM760A			
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

## 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 (LVTTL)
1 × 1 <sup>2</sup> C*
1 × 1PPS (LVTTL)

## Functional Characteristics

Passive Antenna, Active Antenna, AGNSS

Note: \* Supported by specific firmware.  
195% 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'	0.05 m/s (open sky)
1PPS	20 ns
	GNSS
	Tracking -165 dBm
Sensitivity	Cold Start -148 dBm
	Hot Start -156 dBm
	Reacquisition -160 dBm
Data Format	NMEA 0183, Unicore