

EVALUATION KITS, ACCESSORIES, AND SERVICES

HPL EVK 5.0 Kit



UC6226NIS EVK suite



UM982 EB



UM960 EB



Recommended Antennas

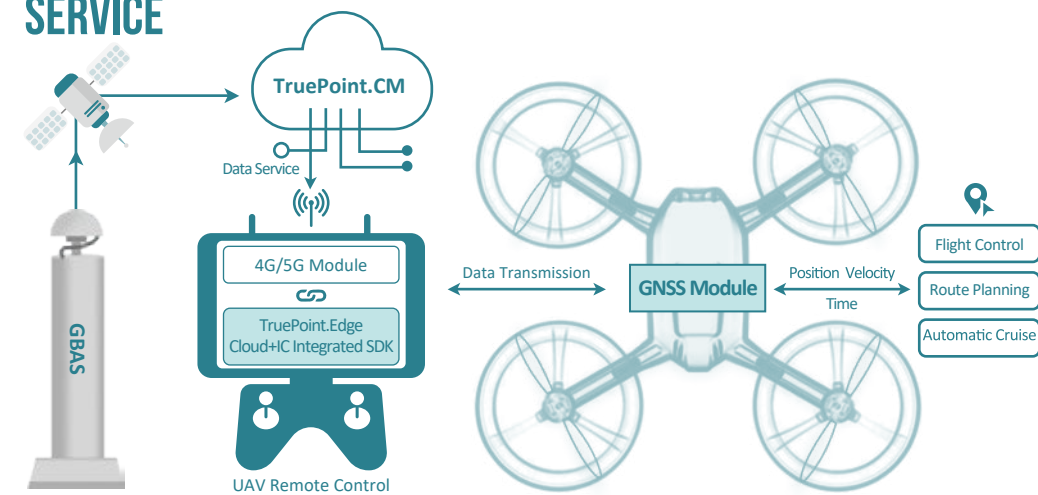
HX-CH7609A



HX-CUX012A



BUILT-IN HIGH-PRECISION GNSS CORRECTION SERVICE



Smart Positioning For Aerial Excellence



Unmanned Aerial Vehicle

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ABOUT US

Unicore Communications, Inc. is a high-tech company dedicated to high performance satellite navigation and positioning, multi-sensor fusion algorithm development, and highly integrated GNSS IC design.

The accuracy of Unicore GNSS receivers ranges all the way from meter level, to sub-meter level and centimeter level, down to the millimeter level.

Using in-house designed proprietary technology, Unicore has successfully developed a series of multi-constellation, multi-frequency, high-performance GNSS receivers for applications ranging from industrial market, automotive market to consumer and IoT market.

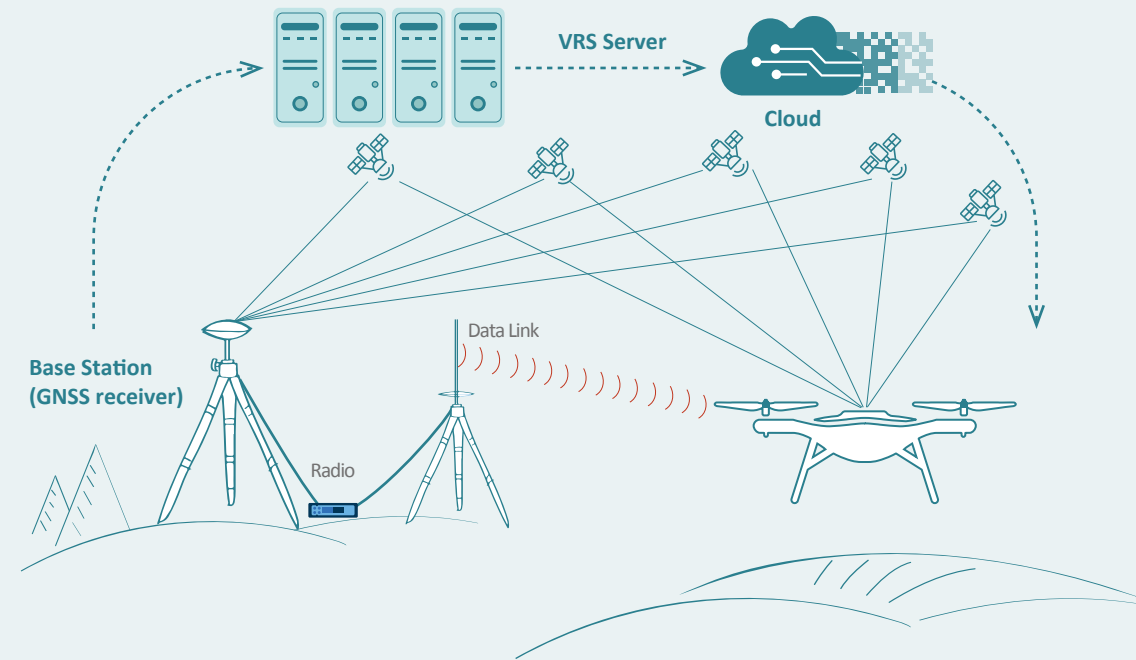
UAV

UAV have been widely used in aerial photography, electrical, agricultural mapping/inspection, aerial surveillance as well as for film and home entertainment purposes. GNSS is an integral sensor on the UAV flight control system, providing accurate position and orientation.

Unicore Communications provide a range of compact, cost-efficient products which provides high precision positioning or positioning combined with heading solutions on a single chip or module and are well suited for integration into UAV flight control systems and drone controllers.

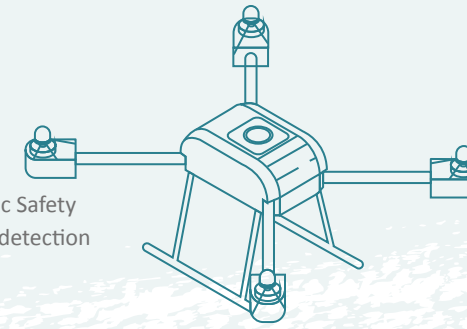
RTK Solution

Radio or network transmission



INDUSTRIAL DRONES-UM982

- Dual-Antenna Heading
- Widely applied in Agriculture, Electricity, Land Surveying and Public Safety
- 60dB narrowband anti-jamming technology, support interference detection
- Supports E6 HAS and B2b-PPP services



Single point positioning (RMS)	Horizontal: 1.5 m Vertical: 2.5 m
DGPS (RMS)	Horizontal: 0.4 m Vertical: 0.8 m
RTK (RMS)	Horizontal: 0.8 cm + 1 ppm Vertical: 1.5 cm + 1 ppm
PPP (RMS)	Horizontal: 5 cm Vertical: 10 cm
Cold start	<30 s
RTK initialization time	<5 s (Typical)

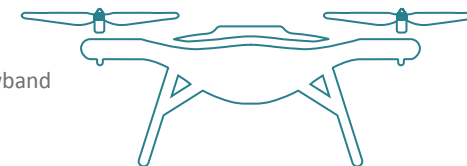
Initialization reliability	>99.9%
Interface	3×UART (LVTTTL) 1×I2C*
PPS accuracy	20ns
Velocity accuracy	0.03 m/s
Data update rate	20 Hz (RTK+Heading)
Operating temp.	-40°C~+85°C
Storage temp.	-55°C~+95°C

Product model	Dimension(mm)	Heading	Power Consumption	Frequency
UM982	16.0x21.0x2.6	0.1°/1m baseline (dual antenna)	600 mW	GPS L1C/A/L2C/L2P(Y)/L5 BDS B1I/B2I/B3I/B1C*/B2b* Galileo E1/E5a/E5b/E6* GLONASS G1/G2 QZSS L1C/A/L2C/L5 SBAS L1C/A
UM960	16.0x12.2x2.6	—	450 mW	GPS L1C/A/L2C/L2P(Y)/L5 BDS B1I/B2I/B3I/B1C/B2a GLONASS G1/G2 Galileo E1/E5a/E5b QZSS L1C/A/L2C/L5 SBAS L1C/A

* supported by specific firmware

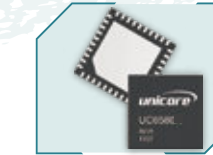
DRONE LIGHT SHOW-UM960

- Compact size low power design
- Independent tracking of different frequencies, and 60 dB narrowband anti-jamming, support interference detection

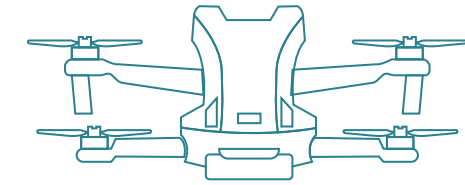


CONSUMER DRONES-UC6580

- 96 channels
- Concurrent operation of quad-constellation
- Supports L1+L2/L1+L5 dual frequencies, with excellent multi-path mitigation algorithm



Dimension	5.0x 5.0 x0.85mm	
Constellations	Mode1	Mode2
GPS	L1+L5	L1+L2
BDS	B1I/B1C*+B2a	B1I/B1C*+B2I
Galileo	E1+E5a	E1+E5b
GLONASS	G1	G1+G2
QZSS	L1+L5	L1+L2
SBAS	L1	L1
Single Point positioning (RMS)	Horizontal: 1.5 m Vertical: 2.5 m	



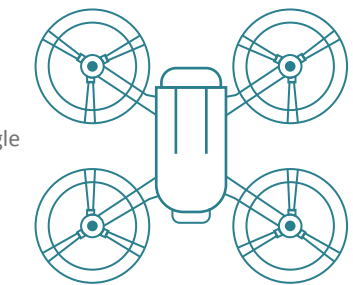
TTFF	Cold Start< 26s Hot Start<1s
Sensitivity	Tracking: -162dBm Acquisition: -148dBm
Velocity accuracy	0.1m/s
Data update rate	GNSS 1Hz/5Hz/10Hz
Interface	2×UART (LVTTTL) 1×I2C 1×SPI(RFU)
Power Supply	1.7~3.6V
Operating temp.	-40°C~+85°C
Data Format	NMEA-0183, Unicore, RTCM 3.x

TOY DRONES-UC6226

- 64 channels
- Supports GPS, BDS, GLONASS, Galileo, QZSS and SBAS; supports single constellation or multi-constellations joint positioning



Dimension	5.0x 5.0 x0.75mm	
Constellations	Signal	
GPS	L1	
BDS	B1I	
Galileo	E1	
GLONASS	G1	
QZSS	L1	
SBAS	L1	
Single Point positioning (RMS)	Horizontal: 2 m Vertical: 3 m	



TTFF	Cold Start< 26s Hot Start<1s
Sensitivity	Tracking: -160dBm Acquisition: -148dBm
Velocity accuracy	0.1m/s
Data update rate	GNSS 1Hz/5Hz/10Hz
Interface	2×UART (LVTTTL)
Power Supply	3.3V
Operating temp.	-40°C~+85°C
Data Format	NMEA-0183, Unicore, RTCM 3.x