

FEATURES



Advanced QUANTUM III Technology

Self-developed 40nm process high accuracy QUANTUMIII SoC chip and AGC RF chip.



High-accuracy

Support fast and reliable RTK in complex environment with advanced QUANTUM RTK algorithm; Support long baseline (VIBI) RTK.



High Update Rate

Support maximum 50Hz data updating with low latency to meet the demands of high dynamic scenes.



Anti-interference

Advanced adaptive anti-interference technology, SINR is up to 50dB.



Full Constellations

Support BDS-3, BDS-2, GPS, GLONASS, GALILEO, QZSS, NavIC, L-band, SBAS.



IMU GNSS+INSS

Support continuous positioning, gesture, heading data outputting in contemporary lock losing with in-built IMU and high accuracy integrated navigation algorithm.



Multiple Size

The smallest size is 22*17mm with LGA packaging; Easy integration with card version.



Low Power Consumption

Ultra-low power consumption, 50% decreasing than K7 series modules, ensures longer working time.

SinoGNSS[®]
By ComNav Technology Ltd.

Fast
Accurate
Reliable



K8 SERIES

HIGH ACCURACY GNSS MODULES

ComNav Technology Ltd. introduced new series of K8 high accuracy GNSS modules based on self-developed QUANTUM III SoC and RF chip. With in-built IMU and high accuracy integrated navigation algorithm, K8 series modules outperform in terms of accuracy, reliability and positioning continuity.

K8 modules can be widely used in the fields of high-precision positioning, gesture measurement, such as surveying and mapping, ground enhancement, UAV, intelligent driving, precision agriculture, mechanical control, robots, marine vehicle management, and aerospace.

SinoGNSS[®]
By ComNav Technology Ltd.



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K8 SERIES

GNSS MODULES



K801 **K803 Lite(L1)** **K803 Lite** **K803S** **K803** **K823** **K827**

	Size	12x16x2.4 mm	30x30x3.2 mm	30x30x3.2 mm	30x30x3.2 mm	30x30x3.2 mm	30x40x3.2 mm	46x71x10mm	
	Frequency	Dual-frequency	Single-frequency	Dual-frequency	Multi-frequency	Multi-frequency	Dual-frequency	Multi-frequency	
Signal	BDS	B1I, B2a	B1I	B1I, B2I/B3I	B1I, B2I, B3I, B1C, B2a, B2b	B1I, B2I, B3I, B1C, B2a, B2b	B1I, B3I, B1C*	B1I, B2I, B3I, B1C, B2a, B2b	
	GPS	L1 C/A, L5	L1C/A	L1C/A, L2P,L2C	L1C/A, L2P,L2C, L5	L1C/A, L2P,L2C, L5, L1C	L1, L2	L1C/A, L1C, L2P, L2C, L5	
	GLONASS	G1	L1	L1, L2	L1, L2	L1, L2, L3*	L1, L2	G1, G2, G3	
	GAL	E1, E5a	E1	E1, E5b	E1, E5b, E5a	E1, E5b, E5a, E6, E5 AltBoc	E1, E5b	E1, E5b, E5a, E5 AltBoC*, E6c	
	QZSS	L1 C/A, L5	L1C*	L1C*	L1C, L2, L5	L1C, L2, L5, L1C/A	L1, L2*	L1C/A, L2C, L5, L1C*	
	SBAS	L1	L1	L1	L1, L5	L1, L5	L1	L1C/A	
	IRNSS	-	-	-	L5*	L5	-	L5	
	L-Band*	-	-	-	+	+	+	+	
Positioning Accuracy	SPP	H:≤1.5m V:≤3.0m	H:≤1.5m V:≤3.0m	H:≤1.5m V:≤3.0m	H:≤1.5m V:≤3.0m	H:≤1.5m V:≤3.0m	H:≤1.5m V:≤3.0m	H:≤1.5m V:≤3.0m	
	DGPS	H:≤0.3m V:≤0.5m	H:≤0.3m V:≤0.5m	H:≤0.3m V:≤0.5m	H:≤0.3m V:≤0.5m	H:≤0.3m V:≤0.5m	H:≤0.3m V:≤0.5m	H:≤0.3m V:≤0.5m	
	RTK	H:≤8mm+1ppm V:≤15mm+1ppm	H:≤8mm+1ppm V:≤15mm+1ppm	H:≤8mm+1ppm V:≤15mm+1ppm	H:≤8mm+1ppm V:≤15mm+1ppm	H:≤8mm+1ppm V:≤15mm+1ppm	H:≤8mm+1ppm V:≤15mm+1ppm	H:≤8mm+1ppm V:≤15mm+1ppm	
Velocity Accuracy	≤0.02m/s								
Heading Accuracy	Azimuth							0.2°/R	0.15°/R
	Roll or Pitch							0.3°/R	0.25R
Update Rate	Raw Data	5Hz	10Hz	10Hz	20Hz	20Hz	20Hz	50Hz*	
	RTK*	5Hz	10Hz	10Hz	20Hz	20Hz	20Hz	50Hz*	
Function	IMU	upgradable	-	-	-	support	support	support	
I/O	Serial Port	2xLVCMOS	4xLVCMOS	4xLVCMOS	4xLVCMOS	4xLVCMOS	3xLVCMOS	3xLVCMOS	
	PPS	1	1	1	1	1	1	1	
	EVENT	1	2	2	2	2	2	2	
	SPI	1	1	1	1	1	1	2	
Physical& Electrical Specifications	IO	LGA24Pin, 1.05mm	LGA 82Pin, 1.27mm	LGA 82Pin, 1.27mm	LGA 82Pin, 1.27mm	LGA 82Pin, 1.27mm	LGA 60Pin, 1.27mm	2x14pin, 2mm	
	Weight(g)	1.6	8	8	8	8	10	15.0	
	Input Voltage	+3.3V DC	+3.3V DC	+3.3V DC	+3.3V DC	+3.3V DC	+3.3V DC	+ 3.3V ~5.0V± 5 % DC	
	Power Consumption(w) ¹	0.15	0.65	0.85	1	1	1.6	1.8	

Note: "-"do not support "+"conditional support "*"upgradable

1. The true value will be affected by voltage and working temperature.

2. R: The length of heading baseline in meter.



K803_EK0405



K803_EK0407



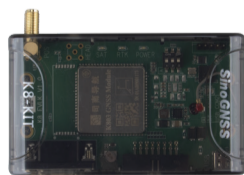
K803_EK0610



K823_EK0407

BOARDS

	Size	40x50 mm	46x71 mm	60x100 mm	46x71 mm
I/O	Serial Port	4xLVCMOS	3xLVCMOS	3xLVCMOS, 1xRS232	3xLVCMOS
	PPS	1	1	1	1
	EVENT	2	2	2	2
	VARF	1	1	1	-
	ATOM	1	1	1	-
	SPI ^①	1	1	1	1
Physical& Electrical Specifications	IO	2x22, 1.27mm	2x12, 2mm	2x22, 2mm	2x12, 2mm
	Weight(g)	15	20	34	24
	Input Voltage	+3.3-5.5V DC	+3.3-5.5V DC	+3.3-5.5V DC	+3.3-5.5V DC
	Power Consumption(w) ^②	1.2	1.2	1.2	1.8



EVK-K803



EVK-K823

Evaluation Kit

	Size	73.5x100x22mm	73.5x100x22mm
I/O	Serial Port	1xRS232, 3xLVCMOS	1xRS232, 3xLVCMOS
	PPS	1	1
	EVENT	2	2
	BT ^③	1	1
	GPIO	2	2
Physical& Electrical Specifications	IO	16PIN,2.5mm	16PIN,2.5mm
	Weight(g)	300	300
	Input Voltage	+5-12V DC	+5-12V DC
	Power Consumption(w) ^②	1.5	2

① Optional

② The true value will be affected by voltage and working temperature.

③ Support Survey Master APP