



# TinyPOS

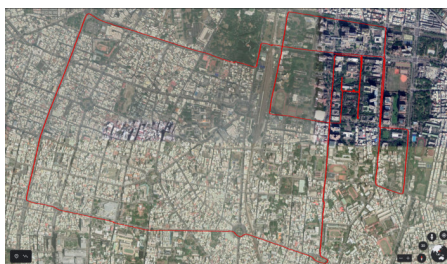
## Positioning and Orientation System

The TinyPOS Positioning and Orientation (POS), Integration GNSS/INS navigator system is a small, lightweight, built-in high-speed storage device that can ensure self-contained operation. All-attitude inertial/GNSS navigator, suitable for precision, even without GNSS signals, position and attitude navigation data can be continuously output.

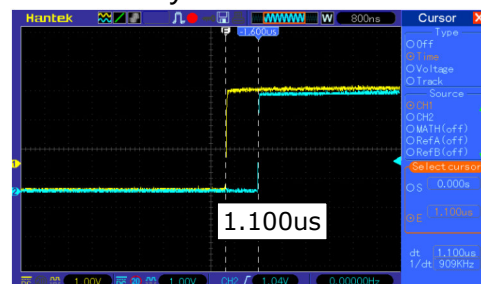
TinyPOS contains leading-edge IMU and built-in dual-antenna 4G LTE function for real-time remote monitor, also provides a powerful multi-frequency, multi-constellation GNSS capability. Integration the IMU and GNSS RTK fusion data to provide accurate, robust navigation services to your product and application with all the functionalities that you need.

TinyPOS output data includes UTC time, GPS time-stamped position, velocity, angular rate, linear acceleration, roll, pitch, barometer and heading information.

INS/GNSS actual road test results:



Accurate synchronization of Trigger:



Built-in NTRIP Client support to connect to e-GNSS:

Table of NTRIP mount points

Name	Source identifier	Formats supported	Formats details	Carrier	Navigation system	Network	Co
DGNSS	DGNSS	RTCM 2.3		2	GPS+GLONASS	NLSC	TW
GNSS_2010	GNSS_2010	RTCM 3.2		2	GPS+GLO+GAL+BDS+QZS	NLSC	TW
GNSS_TWD97	GNSS_TWD97	RTCM 3.2		2	GPS+GLO+GAL+BDS+QZS	NLSC	TW
GNSS_Taiwan	GNSS_Taiwan	RTCM 3.2		2	GPS+GLO+GAL+BDS+QZS	NLSC	TW
KCG	KCG	RTCM 3.1		2	GPS+GLO+GAL+BDS+QZS	NLSC+KCG	TW
KMP_H	KMP_H	RTCM 3.1		2	GPS+GLO		TW
Kinmen_Mazu_Penghu	Kinmen_Mazu_P...	RTCM 2.3	1(1),3(10),18(1),19(1)	2	GPS	NLSC	TW
Kinmen_Penghu	Kinmen_Penghu	RTCM 3.1		2	GPS+GLONASS	NLSC	TW
TTG_2010	TTG_2010	RTCM 3.1		2	GPS+GLONASS	NLSC	TW
TTG_TWD97	TTG_TWD97	RTCM 3.1		2	GPS+GLONASS	NLSC	TW
Taiwan	Taiwan	RTCM 3.1		2	GPS+GLONASS	NLSC	TW
Taiwan_RTCM23	Taiwan_RTCM23	RTCM 2.3		2	GPS+GLO	NLSC	TW
test_2021	test_2021	RTCM 3.2		2	GPS+GLO+GAL+BDS+QZS	NLSC	TW

### KEY ADVANTAGES

- Functional configuration flexibility. Only purchase the features you need.
- Accurate attitude performance that provides better quality navigation trajectories.
- After long-term reliability test conditions.
- Accurate GPS time synchronization.



Address : No. 41, Wenxian 1st Rd., North Dist., Tainan City 704, Taiwan (R.O.C.)  
 TEL : +886-6-3586207  
 Fax : +886-6-3581363  
 Email : ethan@robotlab.com.tw  
 http://www.robotlab.com.tw

## TYPICAL KEY CHARACTERISTICS

<b>Gyroscope In-Run Bias Stability</b>	<b>0.9 °h / 1.0 °h / 2.0 °h (options)</b>
<b>Triple Gyroscopes</b>	<b>±125 °/s / ±300 °/s (options)</b>
<b>Tri-Axis Accelerometer</b>	<b>±6 G</b>
<b>GNSS Capability</b>	<b>GNSS and RTK mode (options) Single or Dual Antenna Capable</b>
<b>GNSS Signals</b>	<b>GPS L1C/A, L2C GLONASS L1OF, L2OF, Galileo E1-B/C, E5b, BeiDou B1I, B2I</b>
<b>Time to First Fix</b>	<b>Cold Start: &lt; 60 Seconds: Hot Start: &lt; 30 Seconds</b>
<b>Supply Voltage / Power Consumption</b>	<b>+9VDC to +16VDC / 2.8Watts</b>
<b>Weight / Volume</b>	<b>288g / (L):77mm x (W):73.93mm (H):47mm</b>
<b>Temperature Operating</b>	<b>-40°C to +85°C</b>
<b>Barometric Range</b>	<b>10-1200 mbar 0.012 mbar High resolution</b>
<b>4G LTE (CAT1/CAT4)</b>	<b>UpLink: 5Mbps/50Mbps DownLink: 10Mbps/150Mbps</b>
<b>Communication Ports</b>	<b>USB-TTL/UART</b>

### For More Information

[www.robotlab.com.tw](http://www.robotlab.com.tw)



Address : No. 41, Wenxian 1st Rd., North Dist., Tainan City 704, Taiwan (R.O.C.)  
 TEL : +886-6-3586207  
 Fax : +886-6-3581363  
 Email : [ethan@robotlab.com.tw](mailto:ethan@robotlab.com.tw)  
<http://www.robotlab.com.tw>