

# UNIVERSE Series of GNSS Receiver

**SinoGNSS**<sup>®</sup>  
By ComNav Technology Ltd.

Presented at the FIG Regional Conference 2024,  
14-16 November 2024 in Kathmandu, Nepal



Presenter: Prudence Xu

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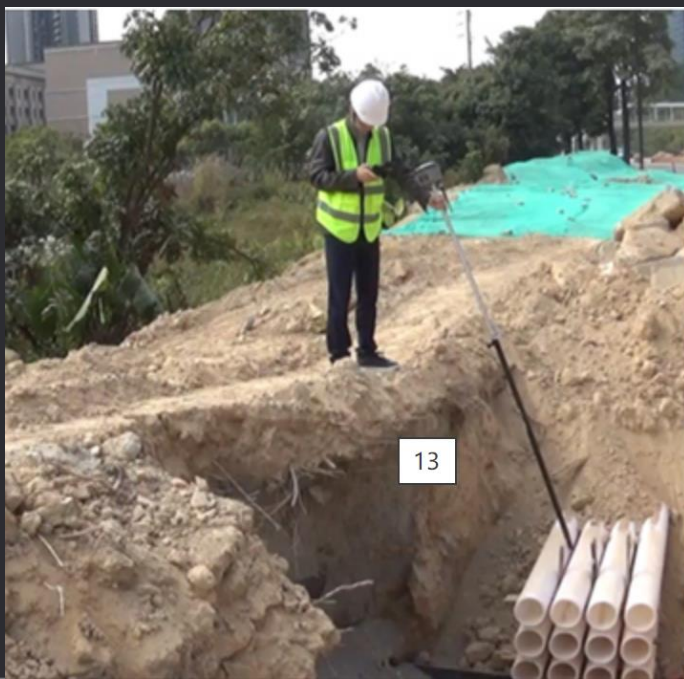
**PART**

**01** Innovation on Laser RTK

**Tired to use range pole for RTK receiver in some situations?**

**Annoyed when you cannot get fixed under trees?**

**Impossible to pick up points using RTK receiver indoors?**



***Then it is Show Time of laser GNSS receiver !***



# Poleless: GNSS+ Laser Survey

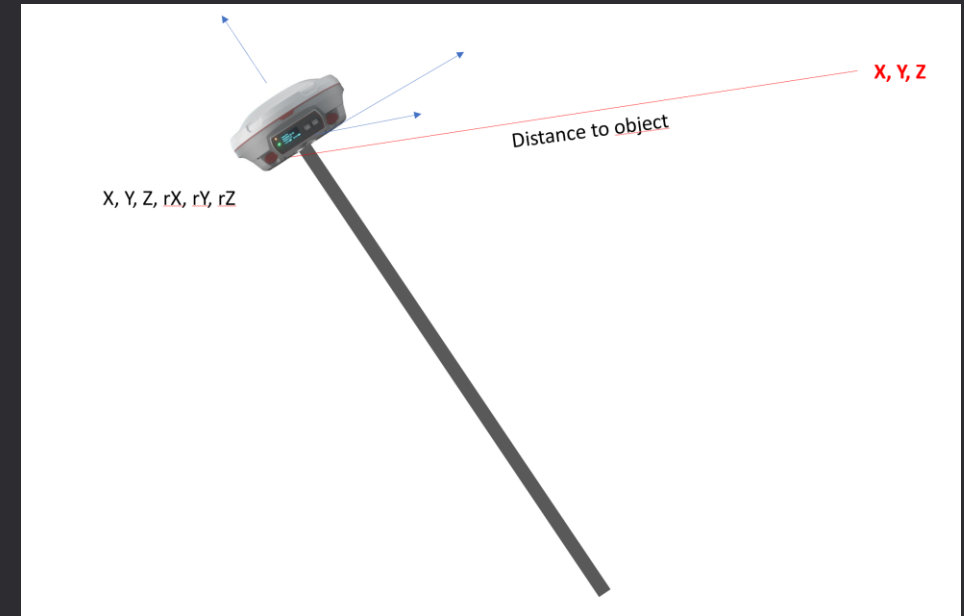
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**Innovation Makes A Difference**

## What is the function of laser?

- ✓ You can get distance from the laser point to the receiver to replace the function of the pole!
- ✓ You can pick up the laser points coordinates in real time directly, no need to post process like visual RTK receiver with camera!
- ✓ Your second “Total Station”!



# SinoGNSS RTK Receiver portfolio

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We insist on innovation!



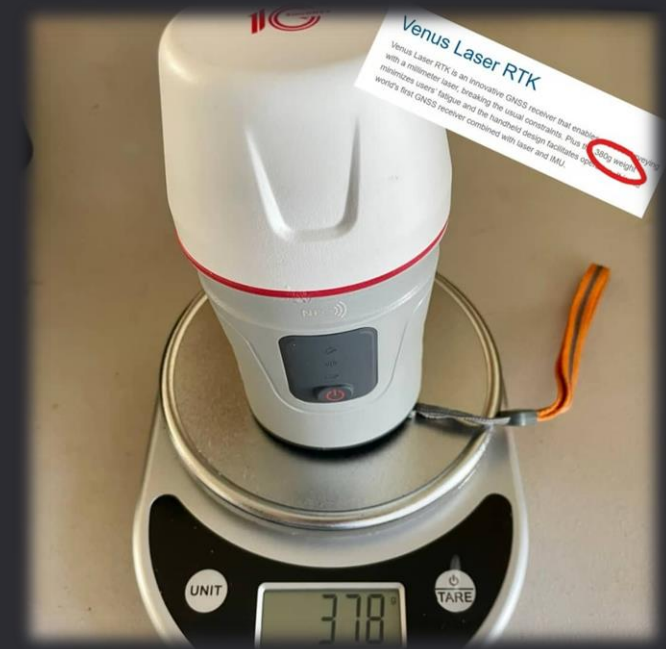
# Venus

**SinoGNSS**<sup>®</sup>  
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**380g Weight**

**Portable and handheld**

**Bottom Green Laser**



# Mars

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**4 LED Lights**

**Side Green Laser**

**Two hotswap batteries**

**15km unique internal radio**





# Mars Pro

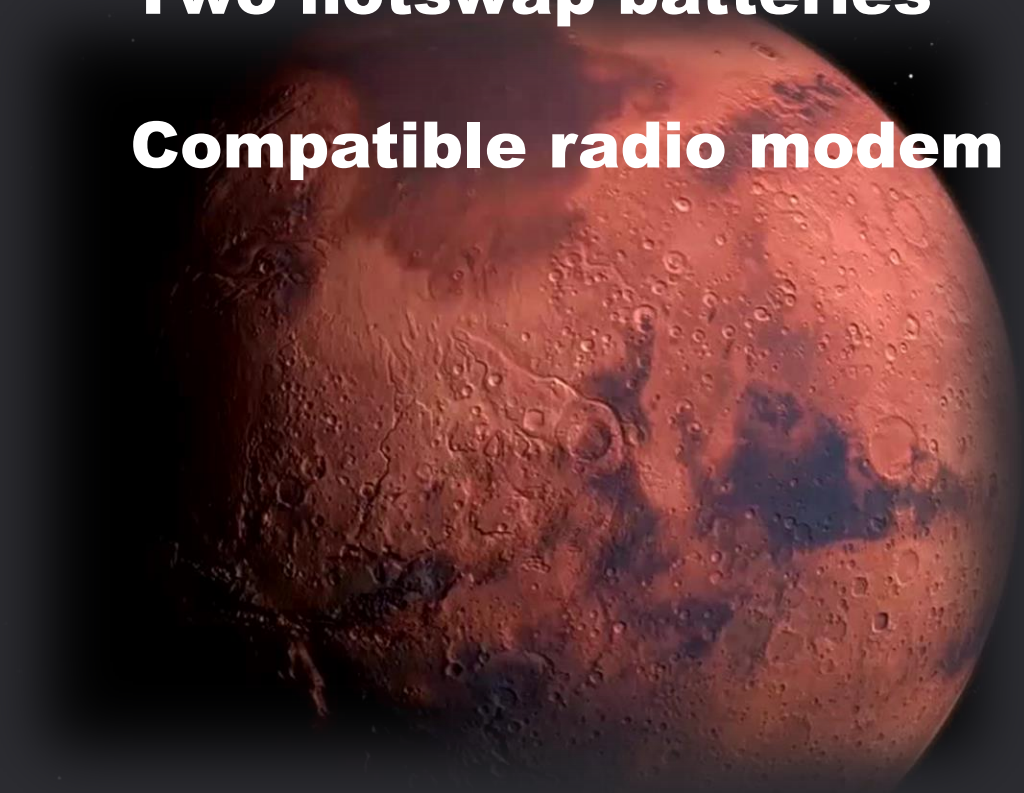
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**Colorful OLED display**

**Side Green Laser**

**Two hotswap batteries**

**Compatible radio modem**



**PART**

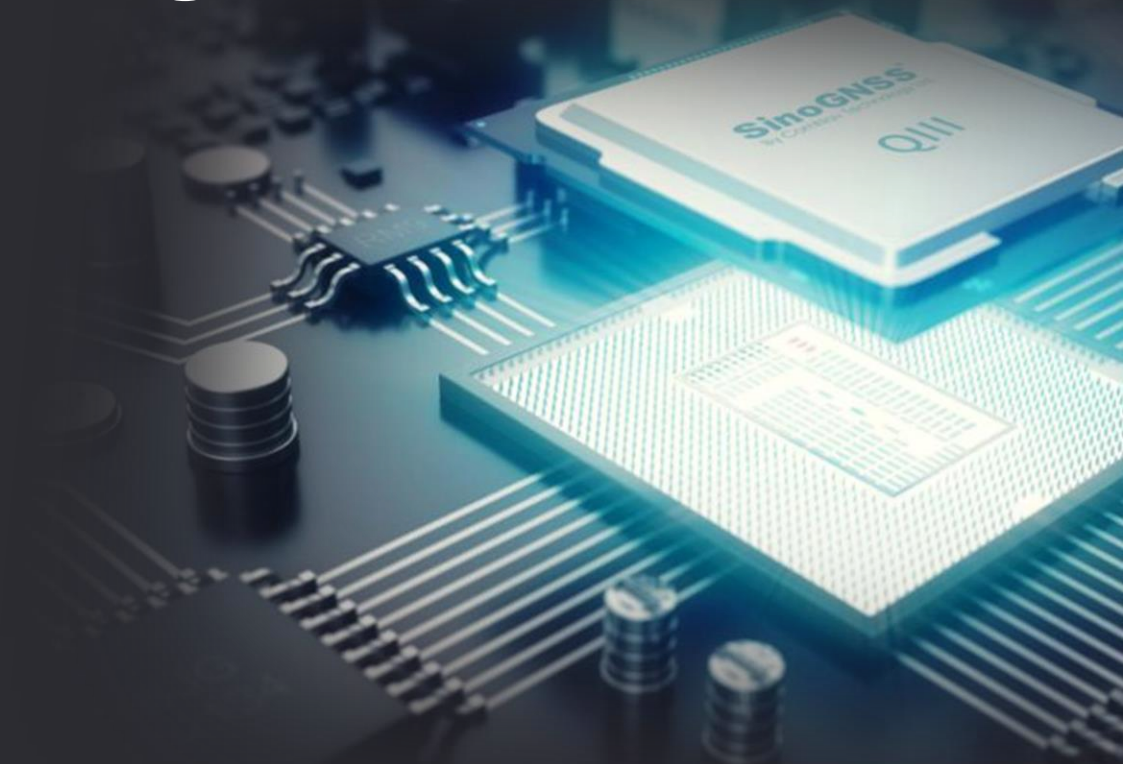
# **02** Main Features

# SinoGNSS Mars Laser Receiver Video

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# From Quantum I to Quantum III Chipset Powerful Self-developed K8 GNSS Engine





## 1590 channels; Full constellations; 60+ satellites tracking

**GPS**

**GLONASS**

**BDS-2**

**BDS-3**

**Galileo**

**QZSS**

**Navic**



# Once charged, All day work!

**1.7w power consumption for Mars/Mars Pro;  
1.45w power consumption for Venus**

**20h working time!**



# Improved IMU&Laser

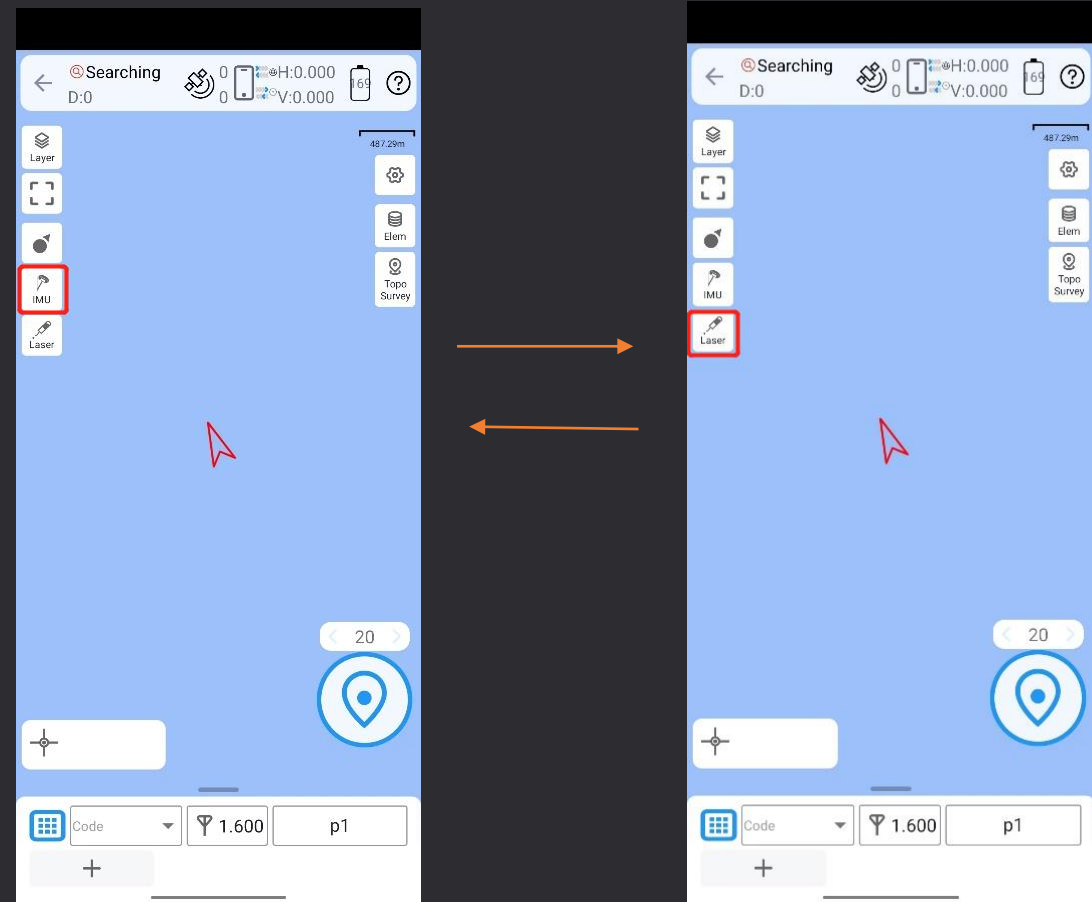
2cm accuracy in tilt surveying within 60°

5cm accuracy in laser surveying within 60° (Laser distance within 10m)

2cm accuracy within 2 m laser distance

IMU initialization time less than 10s

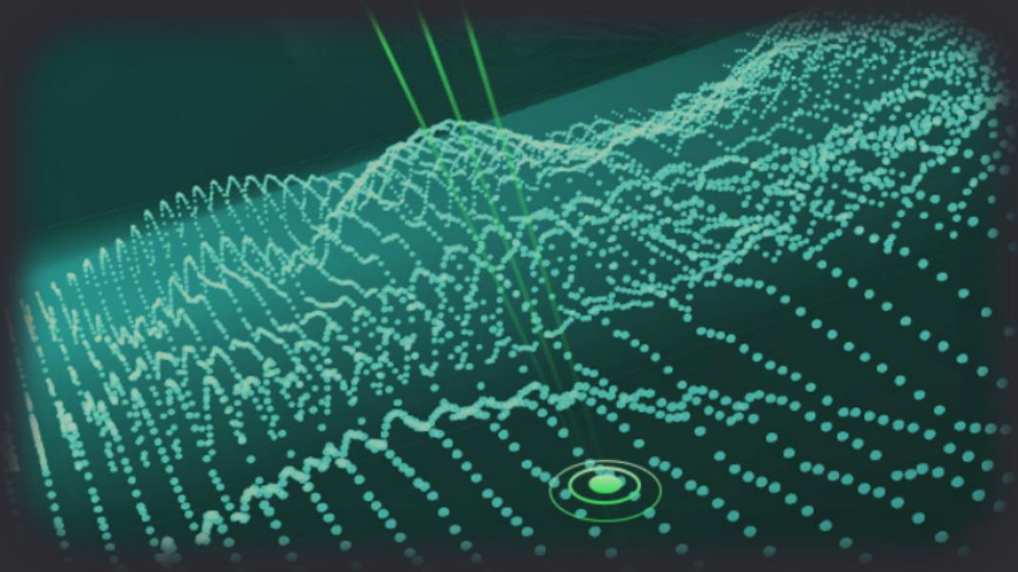
Switch between IMU and laser easily.



Switch surveying mode by clicking the button.

# Unique laser survey

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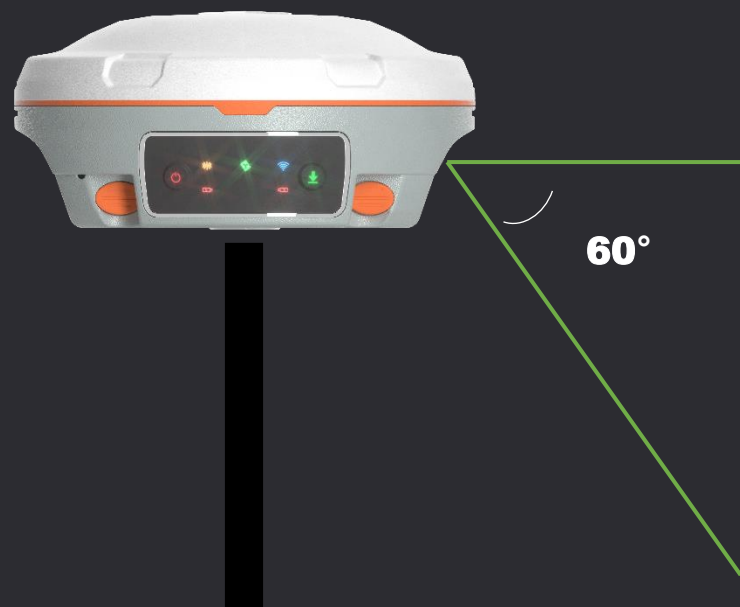


- ✓ **Innovation laser technology-the first company which integrates Laser with RTK.**
- ✓ **Sunlight visible green laser.**
- ✓ **Focus ability, no divergence within 10M.**
- ✓ **Survey the points that pole can not reach.**



**Handheld laser**

**The laser is irradiated vertically**



**Pole laser**

**The laser is irradiated horizontally**

**PART**

**03 Applications**



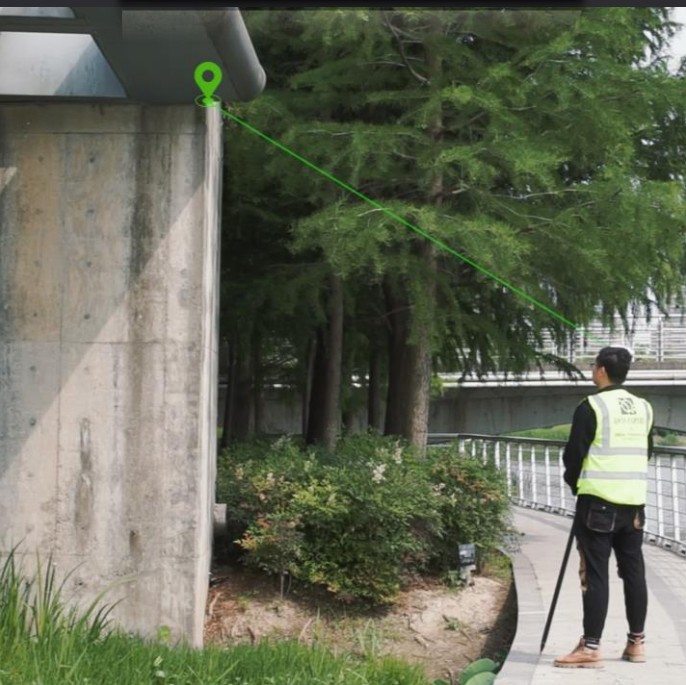






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# Applications



# THANKS FOR LISTENING!

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