

Release Notes

September 2026

COMNAV GNSS FIRMWARE, V630AM

This firmware supports receivers based on the K8 GNSS board platform.

RTK Engine Upgrade

Multi-Engine Positioning for More Reliable Ambiguity Fixing

The new RTK engine uses multiple positioning engines, each with different processing strategies.

Rather than relying on a single solution strategy, the engines work together across different stages of RTK processing, including:

- Ambiguity fixing
- Ambiguity search
- Fixed-solution validation
- Fixed-solution maintenance

This multi-engine approach improves the efficiency of ambiguity fixing while strengthening the ability to maintain a fixed solution when satellite observations change.

It also provides stronger error detection and correction, helping reduce the risk of unreliable fixed solutions in challenging environments.

Enhanced Multi-Frequency Processing

Modern GNSS receivers can provide observations across multiple frequencies. The latest RTK engine makes better use of this information throughout the ambiguity-fixing process.

Multi-frequency observations are now more deeply integrated into fixed-solution verification, providing additional information to evaluate whether a solution is reliable.

At the same time, the system takes advantage of the redundant information available across multiple frequencies to improve fixed-solution continuity.

The result is a more reliable and stable RTK solution, particularly when signal conditions change rapidly.

Comprehensive Fixed-Solution Validation

A reliable Fixed solution is not simply about achieving a fix—it is also about knowing that the fix can be trusted.

The new RTK engine introduces a more comprehensive validation strategy that evaluates the fixed solution from multiple dimensions.

It makes full use of:

- Pseudorange observations
- Carrier-phase observations
- Multi-frequency combinations
- Prior position information
- Atmospheric information

The validation process covers the entire RTK workflow—from initial ambiguity fixing to fixed-solution maintenance.

By progressively checking the solution from coarse to fine levels, the system can identify and correct potential errors earlier, significantly improving the reliability of the final fixed solution.

Supported ComNav GNSS receiver models

The following table lists the GNSS receivers supported by this firmware upgrade.

Receiver	Firmware version
T300	V630AM
T300plus	
T20	
T30	
N2	
N3	
N5	
Venus	
Mars	
Mars pro	
Jupiter	

This firmware release is applicable to GNSS receivers with the following serial number prefixes: T31UXXXXX, T31LXXXXX, T310XXXXX, N21LXXXXX, N31LXXXXX, V110XXXXX, M11LXXXXX, M11HXXXXX, J11LXXXXX