



## BX50 Firmware Version 2192 Release Note

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June 12, 2025

### Overview

The BX50 is a multi-frequency GNSS OEM board independently developed by Tersus GNSS. It tracks all current GNSS constellations, including GPS, GLONASS, Galileo, BeiDou, QZSS, SBAS, and IRNSS, to ensure maximum flexibility. It supports TAP satellite-based precise point positioning service. With TAP, the BX50 doesn't need to work with the local RTK base station or CORS but directly receives corrections from satellites. The firmware version updated this time is 2192, and the firmware can be used for all BX50 series GNSS OEM boards (BX50L-TAP and BX50M-TAP).

Please upgrade the firmware according to the user manual.

### Features

- Supports multiple constellations & frequencies:
  - GPS L1 C/A, L1C, L2C, L2P, L5C
  - GLONAS L1OF, L2OF, L3OC
  - Beidou B1I, B2I, B3I, B1C, B2a, B2b
  - Galileo E1, E5a, E5b, E5AltBOC, E6
  - QZSS L1 C/A, L1C, L2C, L5C
  - SBAS L1 C/A, L5
  - IRNSS L5
  - L-Band
- Supports 1792 channels
- Supports satellite-based PPP service-TAP
- Supports Tersus ExtremeRTK™ GNSS technology
- Supports real-time interference visualization and mitigation.

## Change from Previous Versions

Issue	Type	Version
Formal release		2192
Increase the positioning accuracy and ambiguity resolution success rate of PPP in environments with minor signal blockage	Bug fix	
Optimize the "SHOWCONFIG" command, add status queries for the baud rate and INTERFACEMODE status of COM3	Bug fix	
Optimize the adaptive recognition of different types of correction data	Bug fix	
Adjust the default RTK timeout setting to 120 seconds and the Pseudorange timeout setting to 300 seconds	Bug fix	
Add "ppppos" message output, including the PPP positioning status	New function	
Optimize the RTK positioning performance when receiving CMR correction data from a single GPS constellation	Bug fix	
Fix the issue that might cause the board to restart when running for a long time at 20Hz	Bug fix	
Add "satinfo" message output, including all the satellite's information tracked	New function	
Optimize the logic for the function that automatically switching to PPP when RTK correction data is interrupted	Bug fix	
Some other improvements in functionality and stability	Bug fix	
Update Baseband Library	Bug fix	2051
Fix the issue that might occur on serial ports when outputting a large amount of data	Bug fix	
Optimize RTK performance in long baselines	Bug fix	
Update BSP(Board Support Package)	Bug fix	
Some other improvements in functionality and stability	Bug fix	
Initial firmware version		1945