

What's New in OEM7 FW 7.10.00

This is a general release available on these OEM7 platforms (and associated variants): OEM719, OEM729, OEM7700, OEM7600, OEM7720, OEM7500, PwrPak7, PwrPak7D, CPT7, CPT7700 and GT7800.

New Features

- High Availability tracking to improve the acquisition, reacquisition, and tracking of GPS, Galileo, BeiDou and GLONASS signals in challenging conditions
- Decoding Galileo HAS corrections from the navigation data

Additional Firmware Updates

- Improved SPAN performance in challenging environments
- Change default correlator spacing
- Automatic recovery of receiver once velocity returns below the velocity limit.
- Increase max number of commands allowed in Profile command
- New RANGECMP5 log, preferred over existing RANGECMPx logs
 - Legacy compressed range logs are still available, but may not provide enough accuracy in some fields when tracking lower C/No signals
- Added a stop option to the LUA command
- Added new LCOM ports for LUA
- Updates to default Wi-Fi and administrator passwords (minimum 12 characters)
- DGNSS is no longer available while PDP is active
- Improvements to idle time

Changes to Commands/Logs

Commands

New commands:

- NMEANUMERICSTATIONID

Updated commands:

- INSSEED
- ASSIGNALL_1 and UNASSIGNALL_1 – for use on secondary antenna

Logs

New logs:

- BDSBCNAV3RAWMESSAGE2
- GALHASRAWMT – Raw Galileo HAS corrections log
- PROFILERESPONSE
- RANGECMP5

Updated logs:

- INSATTX – some Extended Solution Status bits are now reserved

What's New in OEM7 FW 7.09.02R2

This is a general maintenance release available on these OEM7 platforms (and associated variants): OEM719, OEM729, OEM7700, OEM7600, OEM7720, OEM7500, PwrPak7, PwrPak7D, CPT7 and CPT7700.

Additional Firmware Updates

- Fix issue with unexpected resets

What's New in OEM7 FW 7.09.02R1

This is a general maintenance release available on these OEM7 platforms (and associated variants): PwrPak7, PwrPak7D, CPT7 and CPT7700.

Additional Firmware Updates

- Updates to comply with Radio Equipment Directive cybersecurity requirements in EN 18031
- Updates to default Wi-Fi and administrator passwords (minimum 12 characters)

Logs

New logs:

- CYBERSECEVENTS – record of cybersecurity events

What's New in OEM7 FW 7.09.02

This is a general release available on these OEM7 platforms (and associated variants): OEM719, OEM729, OEM7700, OEM7600, OEM7720, OEM7500, PwrPak7, PwrPak7D, CPT7, CPT7700 and GT7800.

Additional Firmware Updates

- INS azimuth standard deviation reporting adjustments for non-Agriculture profiles

Notes:

This firmware otherwise has the same features and functionality as 7.09.01 but is released for all other markets and with support for additional platforms.

What's New in OEM7 FW 7.09.01

This is an Agriculture market-specific release available on these OEM7 platforms (and associated variants): OEM719, OEM729, OEM7700, OEM7600, OEM7720, OEM7500, PwrPak7, PwrPak7D, SMART2, and SMART7. This release also includes [changes first introduced in 7.09.00](#).

New Features

- PPP positioning improvements in environments affected by ionospheric scintillation to improve availability and accuracy of positioning:
 - Improved ionospheric modeling
 - Improved integrity algorithms

Additional Firmware Updates

- PPP seeding improvements

Changes to Commands/Logs

Logs

New logs:

- PGN127250 Vessel Heading – support for ALIGN Heading solution
- SYNCRELINSPVACMP

Updated logs:

- PGN129029 GNSS Position - height reference updated to ellipsoidal
- LOG – ONALL trigger added

What's New in OEM7 FW 7.09.00

This is a general release available on these OEM7 platforms (and associated variants): OEM719, OEM729, OEM7700, OEM7600, OEM7720, OEM7500, CPT7, CPT7700, PwrPak7, PwrPak7D, GT7800.

New Features

- Precision Time Protocol (PTP)

Additional Firmware Updates

- Improved time to first fix
- Improved PPP under scintillation conditions
- Improvements to SPAN initialization and performance
- Secondary SPAN solution for improved reliability in challenging conditions
- Support for the μ IMU-IC with UART interface
- Export velocity limit increased to 600m/s
- Use of BeiDou B2b in RTK positioning
- New and improved Doppler Velocity filter
- Maximum number of logs increased to 128
- Updates to the INS position and velocity standard deviation reporting when a USER offset is applied

Changes to Commands/Logs

Commands

New commands:

- SETTIMESOURCE
- SET4BITSBASPREAMBLE
- USERCANCLOSE, USERCANOPEN, USERCANWRITE
- PTPMODE, PTPPROFILE, PTPTIMESCALE

Logs

New logs:

- RXCONFIGUSER
- PTPDELTATIME
- USERCANDATA, USERCANSTATUS

What's New in OEM7 FW 7.08.14

This is a general release based off of 7.08.10, available on these OEM7 platforms (and associated variants): OEM719, OEM729, OEM7700, OEM7600, OEM7720, OEM7500, CPT7, CPT7700, PwrPak7, PwrPak7D, GT7800.

New Features

- TerraStar C-PRO enhancements with global RTK From the Sky™ technology: improved performance and convergence using triple frequency in PPP (for OEM7600, OEM7500 and OEM7720)
- Oceanix with global RTK From the Sky™ technology for all platforms
- Store and update week number in NVM to automatically maintain GPS week era

Additional Firmware Updates

- Store Spoofing calibration
- Fix issue with SBAS12 log
- VARF re-activated for OEM719 HW Revision 1.05
- Fix issue with BDSBCNAV1RAWMESSAGE

What's New in OEM7 FW 7.08.13

This is an internal release.

What's New in OEM7 FW 7.08.12

This is an Agriculture market-specific release for these platforms, based on the 7.08.10 release: SMART7, SMART7-W, and SMART7-I variants (including support for RELAY7), and OEM719. Note: Includes all features from 7.06.03, 7.08.01, and 7.08.01R1 releases.

New Features

- TerraStar C-PRO enhancements with improved performance and convergence using quad frequency in PPP
 - Includes BeiDou B1C, B2a, B2b, B3
 - Includes Galileo E6B
- Improved implementation of Subscription Managed Channel Configuration with TerraStar-C PRO, TerraStar-X, RTK ASSIST PRO subscriptions: Automatic activation of the advanced channel configuration when a valid subscription is activated, for the duration of the subscription period
- Improved multipath mitigation using a new correlator type

Additional Firmware Updates

- Updates for improved tracking of the BeiDou system:
 - Use the almanac to determine the satellites in view

- Prioritize MEO satellites for tracking
- Defaults to tracking Galileo E6B signal (previously defaulted to E6C)
- Increased idle time available
- Fix identification of QZSS and NavIC in NMEA logs
- Improved reliability when establishing a connection to the Wi-Fi access point
- Terrain Compensation log/command documentation updated to remove SMART7 base variant from the list of supported platforms

Changes to Commands/Logs

Commands

Updated commands:

PPPSOURCE – TERRASTAR_L and TERRASTAR_C source options removed

What's New in OEM7 FW 7.08.11

This is an internal release.

What's New in OEM7 FW 7.08.10 (revised Nov 1, 2022)

This is a general release available on these OEM7 platforms (and associated variants): OEM719, OEM729, OEM7700, CPT7700, PwrPak7 (not including PwrPak7D), GT7800.

New Features

- TerraStar C-PRO enhancements with global RTK From the Sky™ technology: improved performance and convergence using quad frequency in PPP
 - Includes BeiDou B1C, B2a, B2b, B3
 - Includes Galileo E6B
- Subscription Managed Channel Configuration with TerraStar-C PRO, TerraStar-X, RTK ASSIST PRO subscriptions: Automatic activation of the advanced channel configuration when a valid subscription is activated, for the duration of the subscription period.
- Improved multipath mitigation using a new correlator type
- Support OEM719 HW Revision 1.05
- Support OEM729 HW Revision 2.10

Additional Firmware Updates

- For the BeiDou system:
 - Use the almanac to determine the satellites in view

- Prioritize MEO satellites for tracking
- Defaults to tracking Galileo E6B signal (previously defaulted to E6C)
- The COM2 TX pin (TXD2) can no longer be configured to output a periodic pulse and instead will be solely dedicated to the primary COM2 transmit data function on the OEM719
- Connect to newly inserted USB stick while operating
- Fix identification of QZSS and NavIC in NMEA logs
- Increased idle time available
- Update WIFI package to v1.7.12

Changes to Commands/Logs

Commands

New commands:

- LOCKOUTSATELLITE, UNLOCKOUTSATELLITE

Updated commands:

- COMCONTROL

Logs

New logs:

- BDSBCNAV1EPHEMERIS, BDSBCNAV2EPHEMERIS, BDSBCNAV3EPHEMERIS, BDSBCNAV1RAWMESSAGE, BDSBCNAV2RAWMESSAGE

What's New in OEM7 FW 7.08.09R1

This is a general release available on these OEM7 platforms (and associated variants): PwrPak7D.

Additional Firmware Updates

- Update WIFI package to v1.7.12
- Fix issue with INSCOMMAND and CONNECTIMU commands

What's New in OEM7 FW 7.08.09

This is a general release available on these OEM7 platforms (and associated variants): OEM719, OEM729.

New Features

- Support OEM719 HW Revision 1.05
- Support OEM729 HW Revision 2.10

Additional Firmware Updates

- The COM2 TX pin (TXD2) can no longer be configured to output a periodic pulse and instead will be solely dedicated to the primary COM2 transmit data function on the OEM719

Changes to Commands/Logs

Commands

Updated commands:

- COMCONTROL

What's New in OEM7 FW 7.08.08

This is an internal release.

What's New in OEM7 FW 7.08.07

This is an internal release.

What's New in OEM7 FW 7.08.06

This is an internal release.

What's New in OEM7 FW 7.08.05

This is an internal release.

What's New in OEM7 FW 7.08.04

This is an internal release.

What's New in OEM7 FW 7.08.03

This is an internal release.

What's New in OEM7 FW 7.08.02 (updated June 2021)

This is a general release based on 7.08.00 for these OEM7 platforms: CPT7 (all versions), CPT7700

New Features

- Support for new CPT7 hardware and the CPT7700, with the following functionality:
 - Internal data logging

- Wheel sensor support (DMI)
- New enclosure LEDs
- Added Event 3 In/Out support
- Support for the HG4930_AN04 IMU

Additional Firmware Updates

- Improvements to SPAN azimuth performance

What's New in OEM7 FW 7.08.01

This is an Agriculture market-specific release for these platforms, based on the 7.08.00 release: SMART2, SMART7 (all variants, including support for RELAY7), OEM719, OEM729, OEM7700 and OEM7500. Note: Includes all features included in the 7.06.03 (SMART7) and 7.06.02 (SMART2) releases.

New Features

- TerraStar-C PRO now supported on SMART2
- Use of BeiDou Phase III B1C and B2a in GLIDE
- Two-stage zeroing calibration for Terrain Compensation
- PPPSEED MANUAL command for manual PPP seeding in restricted movement conditions

Additional Firmware Updates

- Major improvements on PPP seeding robustness and reliability
- PPP quality indicator / standard deviation improvements
- PPP robustness improvements and fast recovery from erroneous seeding
- Support for Datum and plate tectonics correction for SPAN and ALIGN
- In RTK or PSRDIFF modes, correctly ignore datum transformation as the source datum is not known to the rover receiver
- Prevention of incorrect INS seeding for SPAN capable enclosures when inverted using SETALIGNMENTORIENTATION
- General robustness improvements for SPAN Agriculture profile
- Improved false alarm rate on automatic interference detection

Changes to Commands/Logs

Commands

Updated commands:

- PPPSEED
- TILTZERO

Logs

New logs:

- TILTDATA

What's New in OEM7 FW 7.08.00 (revised Nov 1, 2022)

This is a general release available on these OEM7 platforms: OEM719, OEM729, OEM7700, OEM7720, OEM7500, OEM7600, PP7, PP7D, CPT7.

New Features

- Track BeiDou B2b signal
- Support PwrPak7Q-E2 and PwrPak7DQ-E2, with no Wi-Fi
- Spoofing detection on GPS L1 C/A signals

Additional Firmware Updates

- Change in all channel configurations for models that support BeiDou
 - Increase number of BeiDou satellites tracked
 - Dual frequency models now track BeiDou B2b instead of B2a
 - All full frequency models now include BeiDou B2b
- Provide navigation data from BeiDou B1C and B2a signals
- Use of BeiDou B1C and B2a in RTK positioning
- Datum Handling (released)– Ability to transform between different datums to allow interoperability between different position engines
- Enhanced generic IMU support
- Load new firmware stored from internal memory
- Ability to establish multiple ethernet connections to a receiver
- Fixed issue with ITSPECTRALANALYSIS command
- Improved SPAN performance
- Use of OUTPUTDATUM command applies to all position types

Changes to Commands/Logs

Commands

New commands:

- SETALIGNMENTORIENTATION

Updated commands:

- SOFTLOADFILE

- SETINSROTATION
- EXTERNALPVAS

Removed commands:

- DIFFCODEBIASCONTROL – This command will no longer be supported

Logs

New logs:

- BDSBCNAV1EPHEMERIS, BDSBCNAV2EPHEMERIS
- PDPDATUMINFO, PSRDATUMINFO, RTKDATUMINFO, INSDATUMINFO
- INSVELUSER

Updated logs:

- GPGRS, GPGSV