

ONCORE TECHNICAL APPLICATION NOTE

GT Plus 3.0 Production Firmware Notes

The GT Plus Oncore 3.0 firmware has been released. This note documents the differences between the 2.2 production release and the 3.0 production release.

1. Inverse Differential Output Message - A new message (@@Er) has been implemented to allow for correcting the GPS position at a central monitor. This message reports the pseudo-range and pseudo-range rate corrections. Refer to the Inverse Differential GPS Applications Note for more information.
2. Satellite Ignore List – The @@Am command was added to create a satellite ignore list.
3. Position Locking function – This allows the user to specify speed and distance thresholds. The position will lock only if the current speed is less than the speed threshold and the distance from the reference position is less than the distance threshold. The two commands added for this capability are @@AM (Position Lock Parameters) and @@AS (Position Lock Select).
4. Leap Second Pending Status - Output has been changed to report true only if the leap second application is within the month.
5. NMEA ZDA - Prior to UT 3.2 firmware, the ZDA message reported negative minutes in the local zone minutes field. NMEA requirements specify that the field should range from 00 to +59.
6. NMEA ZDA – The GMT offset that was set in the receiver is now retained when the receiver is switched to NMEA mode.
7. NMEA ZDA - This message was changed to report the time according to user-selected UTC.
8. NMEA GSV - Satellite IDs reported as being used in the NMEA GSA message were not consistent with the satellite IDs reported in the NMEA GSV message. The GSV message has been changed include all visible satellite IDs.
9. Base Year calculation corrected.
10. Fix – The Satellite clock offset is included in the doppler residual computation to eliminate the small errors in differential performance.

