



TIM DATALOGGING FIRMWARE UPGRADE

VERSION E

SOFTWARE RELEASE NOTE

GENERAL RELEASE INFORMATION

The Datalogging enabled Firmware is compiled for the TIM GPS receiver family and only runs on this TIM powered receivers. It is backward compatible and replaces earlier releases. This firmware release introduces a configurable data logger as a standard feature.

TIM FW Version E is based on the SiRFstar™ II FW release 2.11 with u-blox extension 1.2

FW ID DESCRIPTION

The FW ID is described by the FW version code followed by a three-digit number which describes the FW variant. E.g. E010 refers to standard variant for TIM modules and E013 refers to variant for TIM Evaluation Kits.

FW VERSION HISTORY

FW version	SiRF® release code	u-blox extension
A	FW 2.0.2	None
B	FW 2.1	None
C	FW 2.1	UBX 1.0 (update support)
D	FW2.11	UBX1.1
E	FW2.11	UBX1.2

NEW FEATURES

The TIM module provides more than 640 KB of spare memory space in the Flash EPROM that is now available for autonomous data logging without need of an external embedded controller system. The high storage capacity, combined with a data compression scheme allows storing up to 100'000 position fixes.

Compatibility:

With factory firmware configuration, the data logger is not enabled and the u-blox GPS receiver operates in the same way as the previous firmware release: Standard GPS functionality with position fixes issued once per second. This allows a direct replacement of previous firmware releases.



Configuring the data logger:

The new release of the Firmware Update Utility / Configuration Manager (Rev 1.1) provides a set of new user parameters to configure and activate the data logger. Features include:

- Setting criteria for capturing data, e.g. combination of minimum speed, travelled distance and time
- Capturing data only when signal levels at general-purpose I/O ports change
- Additional parameters, e.g. log 3D fixes (≥ 4 SV's) only, use speed-over-ground instead of 3D velocity.

Retrieving logged data:

All communication to control the datalogger, making uploads and erasing the Flash EPROM is handled with a new set of u-blox messages coded in SiRF[®] binary message format. These new messages are documented in the *Protocol Specification* (Rev. D), and in the *TIM Data Logger Functionality User's Manual*.

ASSOCIATED TOOLS

Following tools are required to configure and work with the datalogger functionality:

- **Firmware Update Utility, release 1.1:**
This new release supports the configuration parameters for the data logger functionality.
- **u-logger2.exe:**
This utility is available to retrieve logged data from the GPS receiver to the PC, erase the buffer in the Flash EPROM and convert the retrieved data into NMEA data format suitable for u-center or into text data format for use with standard word processing or spreadsheet programs.

These tools are available on the u-blox home page.

AVAILABILITY AND RELATED DOCUMENTS

Please visit the download page on our web page to download the current Firmware. A complete list of changes and improvements for this release can be obtained from local u-blox office.

Firmware	Binary file	http://www.u-blox.com/customersupport/upgrade_g2.html
Related documents	TIM Datasheet	http://www.u-blox.com/customersupport/docs_g2.html
	TIM update Manual	http://www.u-blox.com/customersupport/fwupdate_tools.html
	TIM Datalogger	http://www.u-blox.com/products/tim.html
	TIM Datalogger User's Manual	http://www.u-blox.com/customersupport/docs_g2.html
Update Utility	uDownloader	http://www.u-blox.com/customersupport/fwupdate_tools.html

Your feedback and questions are greatly welcome. Please do not hesitate to contact your local u-blox representative for further information.

Best regards

The u-blox Team

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