

Date: December the 15th, 2014
Product: GNSS Firmware Platform (I27)

Introduction

This document is the GNSS FW platform (I27) release notes.

Firmware list and versions

General FW version number:

- **KI27** for MB800
- **HI27** for MB100

PC based software which could be used with this version:

- AshCom.exe Version: 3.0.62
- GNSS FW Loader Version: 2.06

New features or improvements

Summary of main evolutions:

1. Altitude and Speed limit option implemented.
2. Now receiver acknowledges \$PASHS,SBA,MAN command with only first parameter like "\$PASHS,SBA,MAN,33", assigns its to first SBA channel and keeps second channel free.
3. The following commands/messages implemented:
 - o \$PASHS,NME,PAT command and \$GPPAT message
 - o \$PASHS,NME,AT2 command and \$PASHR,AT2 message
 - o \$PASHS,NME,VEL command and \$PASHR,VEL message
 - o \$PASHS,NME,ROT command and \$PASHR,ROT
4. New antennae list added.
5. Better Heading/Attitude behavior in high dynamic.

Known issues

The commands \$PASHS,ABX,... for ADU800 are not anymore supported.

Recommendations

1. Different products are based on GNSS FW platform I27. Some of these products have limitation of operation due to hardware specific. Some operating modes are not supported or other modes should be used with some precautions. Please refer to each reference manual for additional information.

2. The receiver can generate the so-called “trouble ticket” in the form of ATL messages (ATL for All To Log). When experiencing problems with their receivers, users may run the ATL command in order to be able to provide the problem data files to the Ashtech Technical Support. ATL messages are generated using a proprietary format. To enable the generation of ATL messages on a port (e.g. port A), run the following command:

```
$PASHS,ATL,A
```

To disable ATL messages, use this command:

```
$PASHS,ATL,OFF
```

Please refer to your reference manual for additional information.

3. MB100 & MB800 targets:
 - a. Whenever you run a \$PASHS command (set command), you must be aware that the resulting change is not saved to backup memory instantly, but only after a certain delay, which is estimated to be not greater than 120 seconds. There is a requirement behind this operating mode, which is to extend the chip’s life cycle as much as possible by reducing the number of write operations in the memory chip.
 - b. Because the \$PASHS commands causing the receiver to restart (i.e. INI, RST, CFG, POP, PWR, etc.) are also part of the “delayed” commands (seen from the backup memory), it is therefore recommended that you run \$PASHS,PWR,OFF about 2 to 3 seconds before you initiate a power cycle or reset through one of these commands.
 - c. \$PASHS,PWR,OFF: this command is used to prepare the board before it is turned off. Using this command allows all the settings and parameters to be saved in the non-volatile memory. This command DOES NOT switch off the on-board power supply