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# Release Notes – Motion by Xplore Rugged Tablets with Sierra Wireless EM73xx Mobile Broadband Module – GPS Rollover Fix

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## Introduction

This Package includes support for GPS week number roll over.

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## Description

- The Global Positioning System (GPS) contains a week number field which is a 10-bit binary number. This limits the range of the week number to 0 – 102, or 1024 total weeks.
- GPS week zero started Jan 6, 1980. The first 1024 weeks counter ran out and rolled over on August 21, 1999. **The GPS week counter will reset again in November 2019.**
- **Once the GPS week counter resets, the ability to get GPS position fix is unaffected.**
- The only impact is the time reported in some NMEA sentences (i.e. GPRMC). **If customer applications make use of these parameters, there may be some impact.**

## Package Details

- GPS week number roll over Patch for Sierra Wireless EM73xx

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## Device Compatibility

This patch is intended for the Motion by Xplore Rugged Tablets with Sierra Wireless EM73xx Mobile Broadband Module only.

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## Installation Instructions

1. Download and unzip patch file EM73xx\_GPS\_Rollover\_2019\_EXE.ZIP
2. On system to be patched, execute EM73xx\_GPS\_Rollover\_2019\_EXE.EXE
3. Wait for successful response (example below)

```
FDT version: 1.0.1806.0
Awaiting suitable port or adapter ...
Switching to boot & hold mode ...
Disabling selective suspend ...
Awaiting download port ...
Switching to streaming mode ...
Downloading images ...
Writing image /
Flashing image -
Awaiting adapter ...
Checking update status ...
Enabling selective suspend ...
Firmware image download succeeded.
Final Firmware update succeeded.
```

Preexisting images information:

Current:

Firmware:

Imageld: 005.025\_002

BuildId: 05.05.58.00\_GENNA-UMTS

Configuration:

Imageld: 005.025\_002

BuildId: 05.05.58.00\_GENNA-UMTS

Final images information:

Current:

Firmware:

Imageld: 005.025\_002

BuildId: 05.05.58.00\_GENNA-UMTS

Configuration:

Imageld: 005.025\_002

BuildId: 05.05.58.00\_GENNA-UMTS

OEM PRI: 9902196 01.08

IMEI: 356196050620026

Total time elapsed: 67938 ms.

Time to switch to boot mode: 16813 ms.

Images downloaded:

Image ID: 001.099\_000

*Build ID: 00.00.00.00\_GPS2019  
write time: 46 ms  
additional flash time: 32 ms*

*Time to reset to application mode: 49844 ms.*

*Press Enter to continue ...*

Note: Firmware Download Tool may terminate unexpectedly multiple times during successful patch

Configuring mobile broadband device

Firmware Download Tool terminated unexpectedly

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## Release Date

Nov 2019