



## **STAR-Ultra PCIe**

### **Hardware update release notes**

Date: October 2020

Author: Chris McClements

## **STAR-Dundee Ltd**

STAR House,

166 Nethergate,

Dundee

DD1 4EE

Scotland, UK

[www.star-dundee.com](http://www.star-dundee.com)

## 1 Release notes

The document describes the STAR-Ultra PCIe hardware releases.

The hardware version of this release reported by the STAR-Ultra PCIe Controller application is “**v1.01(11) – 08-10-20 12:00**”.

The Device Information tab is shown below.

### Device Information

Device Type : STAR-Ultra PCIe  
Device Version : 1.01(11)  
Build Date : 08-10-20 12:00

## 2 Hardware updates

Hardware updates are released to add new features and fix known issues.

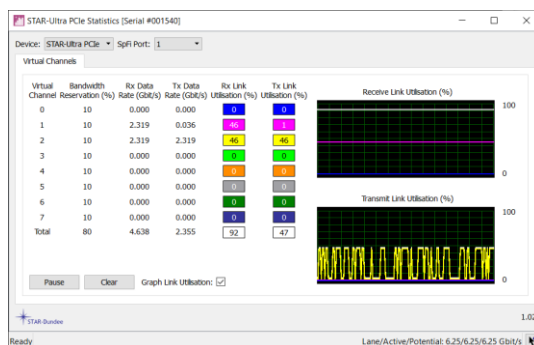
A hardware update is comprised of an update data file with “.dat” extension which is used with the STAR-System Device Update software to update a STAR-Ultra PCIe card to new version.

## 3 Hardware Change log

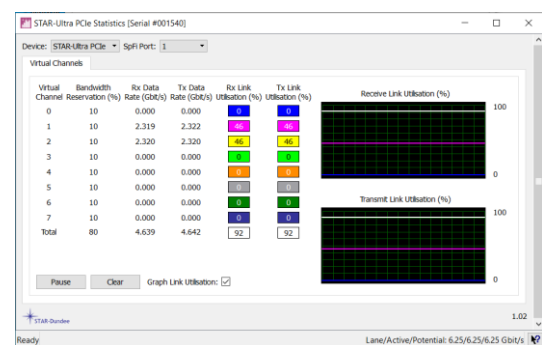
An overview of hardware changes is listed below.

### Version 1.01(11):

1. Fix a bug introduced in v1.01(10) hardware update which affects the virtual channel utilisation statistics displayed in the STAR-Ultra PCIe Statistics application. The statistics may not be captured correctly in as shown in the comparison table below (constant data rate transfer on VC 1 & 2 with equal utilisation).



v1.01(10)

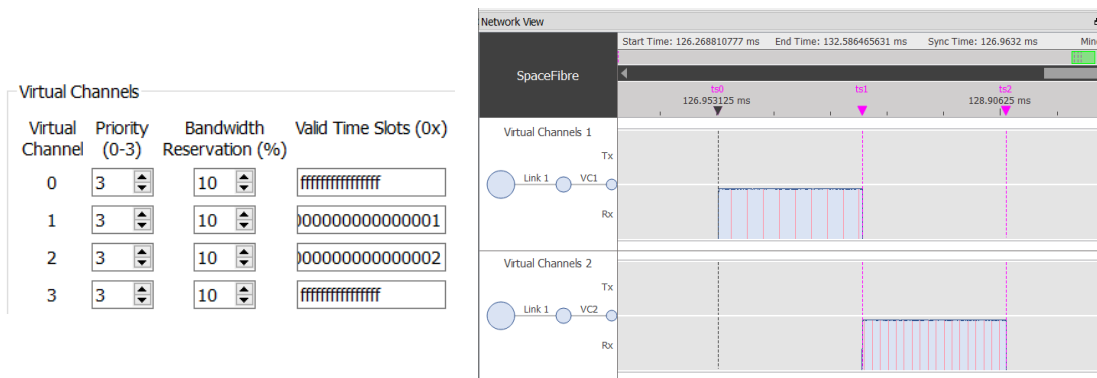


v1.01(11)

### Version 1.01(10):

- Support for scheduled Quality of Service support with configurable timeslot period. The timeslot period can be configured in increments of  $2^{-16}$  seconds, or about 2.259 microseconds. The increment is approximated to 15.26 microseconds and the default increment after power on or reset is approximately 1 millisecond ( $65 * 15.26$  microseconds). Optional synchronisation with broadcast message will be supported in a future hardware update.

The valid sending time slots of each virtual channel is configurable in the STAR-Ultra PCIe Controller software under “VC Summary” tab. An example Controller setting for virtual channel 1 and 2 sending in timeslots 0 and 1 respectively is shown below with the accompanying Analyser view.



*Virtual channel 1 & 2 valid time slot configuration and associated Analyser view*

### Version 1.01(9):

- Initial release version