

Trinity Feature: System Clocking

Reference Guide Appendix

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Appendix **System Clocking**

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Overview

This chapter describes system clocking for some Trinity models that operate as a clock slave.

Note The menu, commands, and features for your model may vary slightly from what is shown in this manual. Some models may not include all of the features mentioned. Refer to the model's *User Manual*, available online at www.patton.com/manuals, to see which features are available.

Configuration Overview

The H.110 specification calls for the bus to support two clocks, A and B. These are the clocks used to transmit and receive data on the H.110 bus. It is essential that devices that communicate over the H.110 bus use the same clock source in order to prevent buffer over/underruns resulting in lost data. One device on the bus provides clock A and another provides clock B, while the other devices recover one of the two clocks. The devices that provide clock A and B are called masters, and the devices that recover clock are called slaves.

Some Trinity models operate as an H.110 clock slave. Another device in the chassis needs to act as a clock master. The Trinity model is able to recover either clock A or clock B and supports fallback if there is a clock failure.

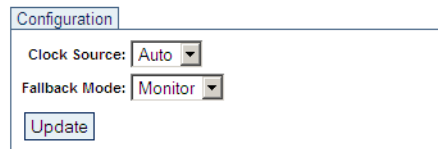
To configure system clocking through the WMI, see the section “[Web Management Interface \(WMI\)](#)” on page 5.

To configure system clocking through the CLI, see the section “[Command Line Interface \(CLI\)](#)” on page 7.

Web Management Interface (WMI)

To access the System Clocking main page, click on **Interface Configuration > System Clocking** from the main menu on the left of the screen.

Configuring System Clocking



The screenshot shows a web interface for configuring system clocking. It features a 'Configuration' section with two dropdown menus. The first dropdown is labeled 'Clock Source' and is currently set to 'Auto'. The second dropdown is labeled 'Fallback Mode' and is currently set to 'Monitor'. Below these dropdowns is an 'Update' button.

Figure 1. Configuring system clocking

To configure system clocking:

1. In the **Configuration** section, select an option (**A**, **B**, or **Auto**) from the **Clock Source** drop-down menu.
 - **A**: Always slave from clock A.
 - **B**: Always slave from clock B.
 - **Auto**: Slave from clock A or B depending on the fallback mode and whether clock A and B are available.
2. If the clock source is set as **Auto**, select an option (**Hold** or **Monitor**) from the **Fallback Mode** drop-down menu.
 - **Hold**: Slave from clock A until it becomes unavailable, then slave from clock B. Once the clock has fallen back to clock B, the fallback must be manually reset.
 - **Monitor**: Slave from clock A if it is available. Otherwise, slave from clock B. The system automatically recovers from clock fallback once clock A becomes available again.
3. Click **Update**.

Managing Status

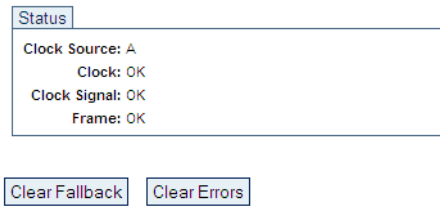


Figure 2. Managing clock status

The **Status** section of the System Clocking page provides details on:

- **Clock Source:** This reports the clock source that is actually being used, A or B. This is useful if the clock source is Auto.
- **Clock:** This reports if there have been any errors since the last time errors were cleared. It does not necessarily mean that the error condition still exists. This error indication must be manually cleared.
- **Clock Signal:** This reports if a clock signal is detected.
- **Frame:** This reports if the H.110 frame is detected.

To clear system clocking errors, click **Clear Errors**.

To clear fallback information, click **Clear Fallback**.

Command Line Interface (CLI)

System Clocking Commands

Table 1. Steps for Configuring System Clocking - CLI Commands

	Command	Explanation
1.	Trinity[config]# h110	Enter the H.110 (system) clocking mode.
2.	Trinity[h110]# clock-source {auto a b}	Select the clock source.
3.	Trinity[h110]# failover {hold monitor}	Select the fallback mode.
4.	Trinity[h110]# show	Enter h110 show mode.
5.	Trinity# show h110	Shows the system clocking configuration and status.

Example output of the `show h110` command:

```
configured clock source: auto
failover mode:          monitor
current clock source:   a
clock status:           ok
clock signal status:    ok
frame signal status:    ok
```