

# OpenCPI

## HSMC Debug Header Breakout Stratix IV (alst4) Test App Guide

OpenCPI Release: v2.4.6

***Revision History***

| <b>Revision</b> | <b>Description of Change</b>                       | <b>Date</b> |
|-----------------|----------------------------------------------------|-------------|
| v1.4            | Converted to application from unit test structure. | 9/2018      |
| v1.5            | Version bump only.                                 | 4/2019      |

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## 1 Description

Intended to test HSMC slots on the alst4 platform.

## 2 Hardware Setup

x86 machine with the Stratix IV PCIE card with one of the HSMC slots populated with a Debug HSMC Card[1].

## 3 Prerequisites

The empty assembly w/ both of the

- cnt\_hsmc\_alst4\_debug\_header\_breakout\_card\_hsmc\_alst4\_a,
- cnt\_hsmc\_alst4\_debug\_header\_breakout\_card\_hsmc\_alst4\_b

containers must be built for the alst4 platform.

## 4 Execution

### 4.1 OCPI\_LIBRARY\_PATH Requirements/Considerations

The OCPI\_LIBRARY\_PATH environment variable must be set to <assets project directory>/artifacts.

### 4.2 Command(s)

Execution must occur from within the hsmc\_debug\_header\_breakout\_test directory.

If HSMC Port A is populated:

```
./<target-dir>/hsmc_debug_header_breakout_test a  
./<target-dir>/hsmc_debug_header_breakout_test a p # to prompt you before each LED
```

if HSMC Port B is populated:

```
./<target-dir>/hsmc_debug_header_breakout_test b  
./<target-dir>/hsmc_debug_header_breakout_test b p # to prompt you before each LED
```

## 5 Verification

Application exit status indicates *completion* (status of 0 indicates completion, status of 1 indicates no completion), not whether or not the test was *successful*. Test success is determined by visually inspecting LEDs while executing (verifying each LED transitions from OFF, RED, RED+GREEN, GREEN, OFF).

## References

- [1] Terasic - Components - Extras - HSMC Debug & Loopback Connector Package <https://www.terasic.com.tw/cgi-bin/page/archive.pl?Language=English&No=495>