



# CPS-1848™ Revision B/C Device Differences

Formal Status  
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## About this Document

This document summarizes the differences between Revision B and C of the CPS-1848. Topics discussed include the following:

- [Functional Differences](#)
- [Register Differences](#)
- [Signal/Pinout Differences](#)
- [Errata Differences](#)

## Functional Differences

The following table lists the register differences between Revision B and C.

Function	Revision B	Revision C
JTAG <sup>a</sup>	<ul style="list-style-type: none"><li>• JTAG chaining does not support register access</li><li>• 55-bit instruction</li><li>• Three register fields</li><li>• Event management supported<sup>b</sup></li></ul>	<ul style="list-style-type: none"><li>• JTAG chaining supports register access</li><li>• 58-bit instruction</li><li>• Five register fields</li><li>• Inter-command delay</li><li>• Event management not supported</li></ul>
Silence detection (False PORT_OK)	<ul style="list-style-type: none"><li>• Not reliable; work around required</li></ul>	<ul style="list-style-type: none"><li>• Reliable</li></ul>
Pseudo-Random Binary Sequence (PRBS) <sup>c</sup>	<ul style="list-style-type: none"><li>• PRBS sequence cannot be checked</li></ul>	<ul style="list-style-type: none"><li>• PRBS sequences can be checked and logged</li></ul>
Hot insertion	<ul style="list-style-type: none"><li>• Multi-step procedure is required to re-enable packet exchange</li></ul>	<ul style="list-style-type: none"><li>• Single port reset is sufficient to re-enable packet exchange</li></ul>

- a. For more information, see "JTAG" in the *CPS-1848 User Manual*.
- b. For more information, see "Event Management" in the *CPS-1848 User Manual*.
- c. For more information, see "RapidIO Lanes" in the *CPS-1848 User Manual*.

# Register Differences

The following table lists the register differences between Revision B and C.

Offset	Register <sup>a</sup>	Field Name	Revision B	Revision C
0x000004	Device Information CAR	MINOR_REV	0b00001	0b00010
		JTAG_REV	0b000	0b010
0x000038	Switch Multicast Information CAR	MAX_DESTID	0x100	0x0FF
0x020000	Aux Port Error Capture Enable Register	JTAG_ERR_EN	Supported	Not supported
0x020004	Aux Port Error Detect Register	JTAG_ERR	Supported	Not supported
0xF20018	Aux Port Error Report Enable Register	JTAG_LOG_EN	Supported	Not supported
0xF2005C	JTAG Control Register	All	Supported	Not supported
0x002020 + (0x20 * lane_num)	Lane n Status 4 CSR	CC_MONITOR_S TATUS	Not supported	Supported
		CC_MONITOR_E N	Not supported	Supported
		CC_MONITOR_T HRESH	Not supported	Supported
0xFF8000 + (0x100 * lane_num)	Lane n Control Register	PRBS_MODE	0b0010 = Recirculating seed	0b0010 = Reserved
		PRBS_RX_CHEC KER_MODE	Not supported	Supported
0xFFFF00	Broadcast Lane Control Register	PRBS_MODE	0b0010 = Recirculating seed	0b0010 = Reserved
		PRBS_RX_CHEC KER_MODE	Not supported	Supported
0x00015C + (0x20 * port_num)	Port n Control 1 CSR	OUTPUT_PORT_ EN	0b0	0b1
0xF40060 + (0x100 * port_num)	Port n Lane Synchronization Register	VMIN	0b0	0b1 (Updated definition)
0xF20064	Maintenance Dropped Packet Counter Register • Maintenance packets dropped due to "no route" are counted	COUNT	Supported	Not supported

a. For more information, see "Registers" in the *CPS-1848 User Manual*.

# Signal/Pinout Differences

There are no signal or pinout differences between Revision B and C.

# Errata Differences

For information on the errata differences between Revision B and C, see the *CPS-1848 Device Errata*.



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