CPS-1848™ Revision B/C Device Differences

Formal Status

May 3, 2012

About this Document

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

Functional Differences

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

Function	Revision B	Revision C
JTAG[a]	• JTAG chaining does not support register access • 55-bit instruction • Three register fields • Event management supported[b]	• JTAG chaining supports register access • 58-bit instruction • Five register fields • Inter-command delay • Event management not supported
Silence detection (False PORT_OK)	• Not reliable; work around required	• Reliable
Pseudo-Random Binary Sequence (PRBS)[c]	• PRBS sequence cannot be checked	• PRBS sequences can be checked and logged
Hot insertion	• Multi-step procedure is required to re-enable packet exchange	• Single port reset is sufficient to re-enable packet exchange

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[a]	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_STATUS	Not supported	Supported
		CC_MONITOR_EN	Not supported	Supported
		CC_MONITOR_THRESH	Not supported	Supported
0xFF8000 + (0x100 * lane_num)	Lane n Control Register	PRBS_MODE	0b0010 = Recirculating seed	0b0010 = Reserved
		PRBS_RX_CHECKER_MODE	Not supported	Supported
0xFFFF00	Broadcast Lane Control Register	PRBS_MODE	0b0010 = Recirculating seed	0b0010 = Reserved
		PRBS_RX_CHECKER_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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