

This document provides a brief introduction and overview of the CrossLink: LIF-MD6000 Master Link Board, Rev C.

## 1

### Check Kit Contents

The CrossLink: LIF-MD6000 Master Link Board includes the following items:

- LIF-MD6000 Master Link Board
- SMA I/O Link Board
- Breakout I/O Link Board
- USB cable for programming
- 12 V AC adapter power supply
- Quick Start Guide

The CrossLink: LIF-MD6000 Master Link Board is an evaluation and development platform for the CrossLink (LIF-MD6000) device. The board also features a MachXO3LF-1300E FPGA.



In addition to general-purpose resources, the board includes two Tx and two Rx connectors on the edges of the board for building CrossLink video bridging solutions. For more information on these and all board features, see the Lattice website at [www.latticesemi.com/masterlink](http://www.latticesemi.com/masterlink).

To develop your own designs, you can use the Lattice Diamond software, available at [www.latticesemi.com/diamond](http://www.latticesemi.com/diamond).

To re-program the board, you will need Diamond Programmer version 3.7 or later. Diamond programmer can be downloaded from the Lattice web site at [www.latticesemi.com/programmer](http://www.latticesemi.com/programmer).

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### Check Jumper Settings

JUMPER	DESCRIPTION	DEFAULT SETTINGS	JUMPER	DESCRIPTION	DEFAULT SETTINGS
J7	SW2 selector	SHORT 1-2	J27	Internal/External reference clock and I <sup>2</sup> C SCL Mux	OPEN
J16	SPI/I <sup>2</sup> C programming selector for LIF-MD6000	SHORT 1-2 (SPI)	J29	Reset signal voltage selector	OPEN
J19	SPI Flash chip select	SHORT 1-2	J35	SPI/I <sup>2</sup> C programming selector for LIF-MD6000	SHORT 1-2 (SPI)
J24	VCCIO1 Bank voltage selector	SHORT 2-3 (3.3 V)	J36	SPI/I <sup>2</sup> C programming selector for MachXO3LF-1300E	SHORT 1-2 (SPI)
J25	VCCIO2 Bank voltage selector	SHORT 2-3 (3.3 V)	J37	FT2232H reset	OPEN
J26	Internal/External clock and I <sup>2</sup> C SDA Mux	OPEN			

Note: SW1 is the master power switch. Switch is ON when moved toward the edge of the board.

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## Power-up Board and Observe Results

The board is pre-programmed with a basic demonstration, which verifies the board is in working order.

- Connect 12 V adapter to J3 or connect the included USB mini cable from a powered source to connector J2
- Set SW1 to ON (down) position
- Observe the following LEDs

LED	COLOR	MEANING	LED	COLOR	MEANING
D3	Green	5 V Power OK	D26	Green	12 V Power OK (only lit if 12 V adapter is used)
D25	Green	3.3 V Power OK	D6, D7, D8, D9	Blue	CrossLink General Purpose IO CrossLink is programmed
D29	Green	2.5 V Power OK	D10	Green	CrossLink CDONE – indicates CrossLink is programmed
D27	Green	1.2 V Power OK	LED1, 2, 3, 4	Blue	MachXO3 General purpose IO Default is a sequential pattern
D28	Green	1.8 V Power OK	D23	Red	MachXO3 DONE – indicates MachXO3 is programmed

For more information about the CrossLink: LIF-MD6000 Master Link Board, including the Evaluation Board User's Guide, Demonstrations and more, see the Lattice web site at [www.latticesemi.com/masterlink](http://www.latticesemi.com/masterlink).

### Additional Terms and Conditions Applicable to Lattice Programming and Development Hardware

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### Technical Support

[www.latticesemi.com/support](http://www.latticesemi.com/support)

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