



MIPI D-PHY Module

IP Version: v1.9.0

Release Notes

FPGA-RN-02105-1.0

December 2025

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1. Introduction

This document contains the Release Notes for the MIPI D-PHY Module. For specific details about the IP and driver, refer to the following:

- [MIPI D-PHY Module User Guide \(FPGA-IPUG-02061\)](#)

MIPI D-PHY Module v1.9.0

Software	Software Version	Summary of Changes
Lattice Radiant	2025.2	<ul style="list-style-type: none"> • Updated maximum data rate of Soft MIPI D-PHY for LFMX05-35, LFMX05-35T, LFMX05-65, LFMX05-65T, LFD2NX-35, and LFD2NX-65 devices. • Improved internal ECLK and SCLK synchronization in Nexus devices for enhanced robustness. • Fixed issues with testbench. • Enhanced constraint generation and implementation using the new IP constraint propagation method by the software. • Other minor IP enhancements and general bug fixes.

MIPI D-PHY Module Earlier Versions

IP Version	Summary of Changes
1.8.0	Updated PLL Module.
1.7.0	Updated internal reset connection of RX Soft MIPI D-PHY.
1.6.0	<ul style="list-style-type: none"> • Updated internal PLL parameter optimization algorithm. • Added txclk_hsgate_i port. • Updated maximum data rate of Soft MIPI D-PHY for LIFCL-17 and LIFCL-40 devices.
1.5.0	<ul style="list-style-type: none"> • Added support for UT24C and UT24CP devices. • Updated analog parameter calculation script of Soft MIPI D-PHY internal PLL.
1.4.0	<ul style="list-style-type: none"> • Added support for LFMX05 devices. • Updated testbench for RX Hard MIPI D-PHY CIL Bypassed mode timing parameters. • Updated calculation script of Soft MIPI D-PHY internal PLL. • Updated constraint file.
1.3.0	<ul style="list-style-type: none"> • Updated metadata and plugin to support new IP Engine. • Updated PLL rtl. • Removed <i>lsc_dphy_rx_model.v</i> file on testbench folder. • Updated <i>tb_top.v</i> interface clock period. • Updated initial value of Hard D-PHY test pattern attribute. • Added hs_rx_clk_en_i and hs_rx_data_en_i as separate termination enable ports for clock and data. • Added data deserializer port, hs_data_des_en_i.
1.2.0	<ul style="list-style-type: none"> • Updated PLL. Added parameter setting for DIV_DEL. • Updated Soft MIPI D-PHY internal PLL analog parameter calculation.
1.1.1	Added support for LFCPNX devices.
1.1.0	Updated PLL instance.
1.0.2	Added support for LFD2NX devices.
1.0.1	Updated for SP1.
1.0.0	Initial release.

References

- [MIPI D-PHY Module User Guide \(FPGA-IPUG-02061\)](#)
- [CrossLink-NX](#) web page
- [Certus-NX](#) web page
- [CertusPro-NX](#) web page
- [MachXO5-NX](#) web page
- [Lattice Radiant Software](#) web page
- [Lattice Propel Design Environment](#) web page
- [Lattice Insights](#) for Lattice Semiconductor training courses and learning plans

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For frequently asked questions, refer to the Lattice Answer Database at www.latticesemi.com/Support/AnswerDatabase.



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