

F-Tile PMA-FEC Direct PHY Multirate Intel FPGA IP User Guide

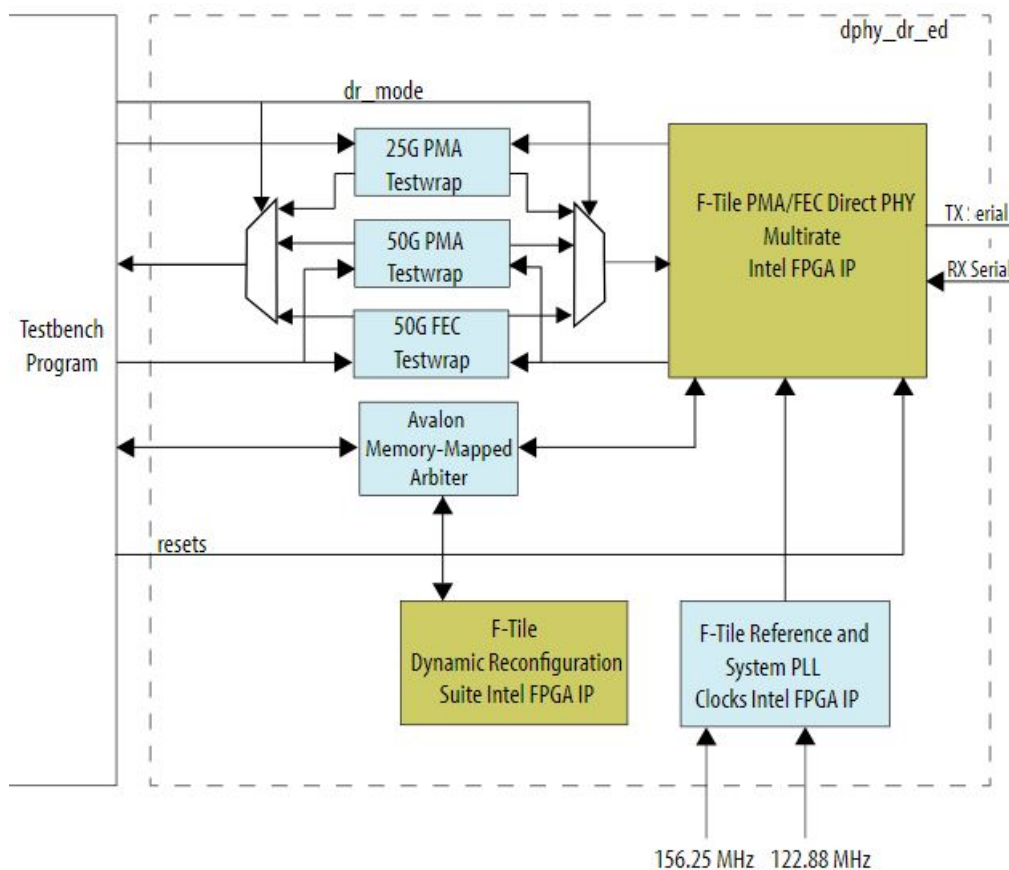
[Home](#) » [Intel](#) » F-Tile PMA-FEC Direct PHY Multirate Intel FPGA IP User Guide 

Contents

- [1 F-Tile PMA-FEC Direct PHY Multirate Intel FPGA IP](#)
- [2 Product Information](#)
- [3 Product Usage Instructions](#)
- [4 F-Tile PMA/FEC Direct PHY Multirate Intel® FPGA IP Release Notes](#)
- [5 Documents / Resources](#)
 - [5.1 References](#)



F-Tile PMA-FEC Direct PHY Multirate Intel FPGA IP



Product Information

The F-Tile PMA/FEC Direct PHY Multirate Intel FPGA IP is a versatile IP (Intellectual Property) designed for Intel FPGA (Field-Programmable Gate Array) devices. It provides advanced features for physical layer communication and error correction. The IP is compatible with the Intel Quartus Prime Pro Edition software.

The IP is available in different versions, each offering specific enhancements and bug fixes:

- **v2.0.1 (2022.09.26)**: This version includes IP enhancements and bug fixes. It is recommended to regenerate your IP to incorporate these changes.
- **v2.0.0 (2022.06.21)**: This version adds support for Reconfiguration groups with a total bandwidth greater than 100G. It also includes IP enhancements and bug fixes. Note that auto upgrade does not work in this release, so you must manually upgrade the IP after regeneration.
- **v1.0.0 (2022.03.28)**: This is the initial release of the IP.

For access to previous versions of the user guide, please refer to the F-Tile PMA and FEC Direct PHY Multirate Intel FPGA IP User Guide.

Product Usage Instructions

To use the F-Tile PMA/FEC Direct PHY Multirate Intel FPGA IP, follow these steps:

1. Ensure you have the Intel Quartus Prime Pro Edition software installed.
2. If you are using version v2.0.1 or v2.0.0 of the IP, regenerate your IP to include the latest enhancements and bug fixes.

3. If you are using version v2.0.0 of the IP, and you require support for Reconfiguration groups with a total bandwidth >100G, manually upgrade the IP after regeneration. Note that auto upgrade does not work in this release.
4. Refer to the F-Tile PMA and FEC Direct PHY Multirate Intel FPGA IP User Guide for detailed instructions on configuring and utilizing the IP for your specific application.

For any further assistance or feedback regarding the F-Tile PMA/FEC Direct PHY Multirate Intel FPGA IP, please refer to the provided contact information in the user manual.

F-Tile PMA/FEC Direct PHY Multirate Intel® FPGA IP Release Notes

The Intel® FPGA IP version (X.Y.Z) number can change with each Intel Quartus® Prime software version. A change in:

- X indicates a major revision of the IP. If you update the Intel Quartus Prime software, you must regenerate the IP.
- Y indicates the IP includes new features. Regenerate your IP to include these new features.
- Z indicates the IP includes minor changes. Regenerate your IP to include these changes.

Related Information

- Introduction to Intel FPGA IP Cores
- F-Tile PMA and FEC Direct PHY Multirate Intel FPGA IP User Guide
- F-Tile Architecture and PMA and FEC Direct PHY IP User Guide

F-Tile PMA/FEC Direct PHY Multirate Intel FPGA IP v2.0.1

Table 1. v2.0.1 2022.09.26

| Intel Quartus Prime Pro Edition Version | Description | Impact |
|---|---|--|
| 22.3 | <p>IP enhancements and bug fixes:</p> <ul style="list-style-type: none"> • Improved System Messages for the number of profiles. • Improved Reconfiguration clock source parameter selection. • Corrected Number of secondary profiles parameter numbering to start from 1. • Added the QSF settings required for the IP. | Regenerate your IP to include these changes. |

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*Other names and brands may be claimed as the property of others.

F-Tile PMA/FEC Direct PHY Multirate Intel FPGA IP v2.0.0

Table 2. v2.0.0 2022.06.21

| Intel Quartus Prime Pro Edition Version | Description | Impact |
|---|--|--|
| 22.2 | Added support for Reconfiguration group with total bandwidth >100G. | Added support for 400G-8, 300G-12, 150G-6, 200G-8 and 200G-4 Reconfigurable groups. |
| | IP enhancements and bug fixes. | You must regenerate the IP. <i>Note:</i> Auto upgrade does not work in this release and you must manually upgrade the IP. |

F-Tile PMA/FEC Direct PHY Multirate Intel FPGA IP v1.0.0

Table 3. v1.0.0 2022.03.28


| Intel Quartus Prime Pro Edition Version | Description | Impact |
|---|------------------|--------|
| 22.1 | Initial release. | — |

F-Tile PMA and FEC Direct PHY Multirate Intel FPGA IP User Guide Archives

For the latest and previous versions of this user guide, refer to the F-Tile PMA and FEC Direct PHY Multirate Intel FPGA IP User Guide. If an IP or software version is not listed, the user guide for the previous IP or software version applies.

F-Tile PMA/FEC Direct PHY Multirate Intel FPGA IP Release Notes

Documents / Resources

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|  <small>F-Tile PMA/FEC Direct PHY Multirate Intel FPGA IP Release Notes</small> | intel F-Tile PMA-FEC Direct PHY Multirate Intel FPGA IP [pdf] User Guide F-Tile PMA-FEC Direct PHY Multirate Intel FPGA IP, Direct PHY Multirate Intel FPGA IP, PHY Multirate Intel FPGA IP, Multirate Intel FPGA IP, Intel FPGA IP, FPGA IP, IP |
|---|---|

References

- [intel 1. Introduction to Intel® FPGA IP Cores](#)
- [intel 1. F-tile Overview](#)
- [intel 1. Introduction](#)
- [intel 1. F-Tile PMA/FEC Direct PHY Multirate Intel® FPGA IP Release Notes](#)
- [intel Intel ISO 9001:2015 Registrations](#)

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