10G PON Chipset

10G PON Development Kit
EASY PRX126 REF BOARD

PRX126 SFP+ Reference Board

V2.2.3 HW6.1.03

Release Notes

MaxLinear Confidential

Revision 1.0, 2022-09-08
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Revision History

Current:	**Revision 1.0, 2022-09-08**
Previous:	**None**
Page	**Initial release**

Preface

These are the Release Notes for the 10G PON Development Kit EASY PRX126 REF BOARD V2.2.3 HW6.1.03.

This document uses these synonyms to simplify matters:

EASY PRX126 REF BOARD

Synonym used for the 10G PON Development Kit EASY PRX126 REF BOARD V2.2.3

PRX126

Synonym used for the 10G PON Chipset PRX126

1 Release Overview

The 10G PON Chipset PRX126 is a highly integrated, cost optimized, and low power consumption optical network unit (ONU) device which supports GPON/XGS-PON/NG-PON2 for Small Form-factor Pluggable (SFP+) solutions. Refer to **[1]** for more details of PRX126.

The 10G PON Development Kit EASY PRX126 REF BOARD is an SFP+ module which incorporates the PRX126 device. The EASY PRX126 REF BOARD includes an onboard SFP+ interface, LPDDR3 memory, a QSPI flash device, and an optical high speed interface. The optical interface used is a Bidirectional Optical Sub Assembly (BOSA) with a physical medium dependent (PMD) device.

1.1 Hardware Development Process

Table 1 describes the hardware development milestones.

Table 1 HW Milestones

Milestone	Maturity and Content
HW4	Preliminary Schematics • First Schematics
HW5	Preliminary Design • Schematics • Layout • LOM
HW6	Platform Revision Production-Ready Design • Schematics • Layout • LOM • Production Files
HW6.1	Platform is functional • Partially Functional (Registered) • Updated Design (If Necessary Including ECOs) • Not Specification Compliant
HW7	Engineering Release • Major Features and Interfaces Validated
HW8	Productive Release • Fully Functional • Fully Validated (Including Regulatory)

HW releases are numbered starting from 00 and incremented by 01 for each release. The HDK HW process allows for multiple releases for the same milestone.

For example:

- HW4.00
- HW5.01
- HW5.02

Chapter 1.2 shows the current project HW milestone status.

1.2 EASY PRX126 REF BOARD HW Milestone Status

Figure 1 shows the current EASY PRX126 REF BOARD HW status and the release history.

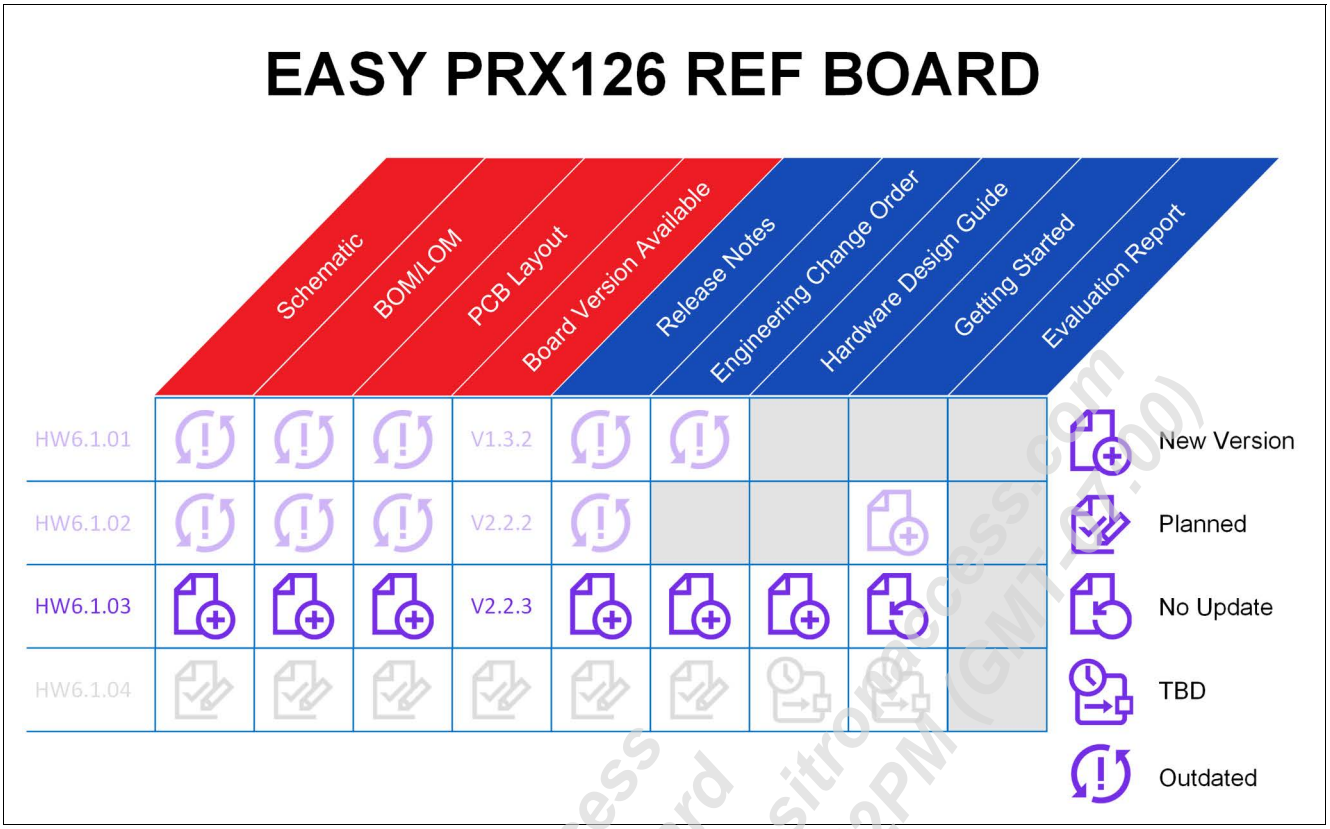

Figure 1 Hardware Release Matrix

1.3 Board Version Available Key

Boards are assigned versions according to the X.Y.Z format where:

X = Main version. This changes when the concept changes.

Y = Layout version. This changes when the layout changes.

Z = Schematic version. This changes when the schematic and LOM change.

Fox example:

1.1.1 = Initial schematic, initial layout, and initial LOM

1.1.2 = Initial schematic, initial layout, and updated LOM

2 Release Maturity

The release provides the complete schematics, BOM, layout, and documentation for the design.

3 V2.2.2 to V2.2.3 Changes

V2.2.3 includes these changes:

- The schematic and BOM/LOM files were updated to V2.2.3 according to the Engineering Change Order created for HW6.1.03 [2].
- Updated documentation is available.

4 V2.2.3 HW6.1.03 Content

The V2.2.3 HW6.1.03 contains the design files listed in Table 2 and the PDF documentation file listed in Table 3.

The design files are in the **620782_EASYPRX126_REF_BOARD_V2.2.3_HW6.1.03.zip** file.

Table 2 V2.2.3 HW6.1.03 Design Files

Item	File Name
Reference Schematics	EASYPRX126_REF_BOARD_V2.2.3_HW6.1.03_SCH.pdf
Cadence* Schematic Archive	EASYPRX126_REF_BOARD_V2.2.3_HW6.1.03_SCHARH.zip
List of Material (LOM)	EASYPRX126_REF_BOARD_V2.2.3_HW6.1.03_LOM.xlsx
PCB layout file (Cadence* Allegro*)	EASYPRX126_REF_BOARD_V2.2.3_HW6.1.03_PCB.brd
Legal Notice	Legal_Notice.txt

Table 3 V2.2.3 HW6.1.03 Documentation Files

Item	File Name
Hardware Design Guide	620771_EASYPRX126_REF_BOARD_V2.2.3_HW6.1.03_HDG_Rev1.0.pdf
Engineering Change Order	620772_EASYPRX126_REF_BOARD_V2.2.3_HW6.1.03_ECO_Rev1.0.pdf
Release Notes (this document)	620769_EASYPRX126_REF_BOARD_V2.2.3_HW6.1.03_RN_Rev1.0.pdf

The ZIP and PDF documentation files are available at **maxlinear.com/mymxl**.

References

[1] 10G PON Chipset PRX126 (PRX126B0BI/PRX126B1BI/PRX126B2BI) Data Sheet Rev. 3.4

[2] 10G PON Development Kit EASY PRX126 REF BOARD V2.2.3 (SFP+) HW6.1.03 Engineering Change Order Rev. 1.0

[3] 10G PON Development Kit EASY PRX126 REF BOARD V2.2.3 (SFP+) HW6.1.03 Hardware Design Guide Rev. 1.0