



Gowin 1G Serial Ethernet IP

Release Note

RN1021-1.0E, 06/30/2023

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Revision History

Date	Version	Description
06/30/2023	1.0E	Initial version published.

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1 About This Release

This release includes Gowin 1G Serial Ethernet IP user guide and reference design.

The reference design can be used for simulation and overall synthesis, placement & routing after the instantiation with user design.

2 Feature and Enhancement Summary

The functions and enhancement items are as follows:

Function	Description
Front-end synthesis tool: GowinSynthesis	
Support 1G Serial Ethernet	● Supports 1000BASE-X and SGMII standards ● Conforms to IEEE 802.3 standard ● 1000BASE-X supports 1.25Gbps ● SGMII supports 10/100/1000M ● Optional Ethernet MAC for users ● Supports full duplex and half duplex, and collision detection in half duplex mode ● Users can select to automatically add and verify CRC or not ● Can add pad automatically ● Supports Ethernet frame classification statistics ● Supports Ethernet frame error statistics ● Supports IFG configurable function ● Supports Jumbo mode ● Supports Flow Control in full duplex mode ● Supports Management interface mdc, mdio
Back-end placement and routing tool: Gowin Software (V1.9.9.Beta-1 and above)	
Enhancements	—

3 Documentation

The released IP manuals are listed in the table below. You can download the PDF manuals at Gowin website or read online.

Documents	Description
IPUG1021, Gowin 1G Serial Ethernet IP User Guide	Online, PDF
RN1021, Gowin 1G Serial Ethernet IP Release Note	Online, PDF

4 IP Support

Since the requirements of user design and the configuration are different, the reference design does not include FPGA specific location (.cst) and timing constraints (.sdc) documents, and you can determine the location and timing constraints on your own.

For the customized IP design and support, please contact Gowin sales and support.

Website: www.gowinsemi.com

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