Gowin Software Education Version

Release Note

RN100-1.9.9Beta-4 EducationE, 09/22/2023

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Contents

Contents i

1 About This Release 1

2 Platform Supported 4

3 Ports 5

4 Documents 6

5 Known Problems 7

1 About This Release

Gowin Software V1.9.9Beta-4 Education release includes improvements and enhancements, but you do not need to apply for a license, and this version can only be used for education, research and other non-commercial purposes. GOWINSEMI recommends downloading this version to get the latest software.

Function Summary

- PN supported

PN	Device	Device Version
GW1N-LV9QN48C6/I5	GW1N-9	C
GW1N-UV9QN48C6/I5	GW1N-9	C
GW1NR-LV9QN88PC6/I5	GW1NR-9	C
GW1NSR-LV4CQN48PC6/I5	GW1NSR-4C	-
GW2A-LV18PG256C8/I7	GW2A-18	C
GW2AR-LV18QN88PC8/I7	GW2AR-18	C
GW1NZ-LV1QN48C6/I5	GW1NZ-1	-
GW2AR-LV18QN88C8/I7	GW2AR-18	C
GW5A-LV25MG121NC1/I0	GW5A-25	A

For other functions, see *RN100-1.9.9Beta-4_Gowin Software Release Note*.

- Hard Module supported

Function	Name
CLOCK	• CLKDIV • CLKDIV2 • DCS • DHCEN • DLLDLY • DQCE

Function	Name
	● OSC ● PLLVR ● rPLL ● DDRDLL ● DHCE ● PLL_ADV
DSP	● ALU54 ● MULT ● MULTADDALU ● MULTALU ● PADD
IO	DDR
Memory	● DPB ● SDPB ● SP ● pROM ● RAM16S ● RAM16SDP ● ROM16 ● USERFLASH

- Soft IP supported

Function	Name
DSP and Mathematics	● CORDIC ● Complex Multiplier ● FFT ● Integer Division ● Integer Multiply Divider
Interface and Interconnect	● I2C Master ● I2C_UART ● SPI MASTER ● SPI to I2C ● SPI_UART ● UART MASTER
Memory Control	● FIFO HS ● FIFO SC HS ● HyperRAM Memory Interface embedded ● PSRAM_Memory_Interface_HS ● PSRAM_Memory_Interface_HS_2CH ● SDRAM_Controller_HS ● SDRAM_Controller(with external SDRAM) ● Gowin_Flash_Controller ● RAM_Based_Shift_Register ● DDR3 Memory Interface ● DDR3 PHY Interface

Function	Name
Microprocessor System	● Gowin_EMPU(GW1NS-4C) ● Gowin_PicoRV32 ● WishBone_Async_Bridge
Multimedia	● DVI RX ● DVI TX ● EDIO PROM ● SPDIF RX ● SPDIF TX ● Scaler Lite Down ● Scaler Lite Up ● Video Frame Buffer
AI	NPU

2 Platform Supported

The software is supported on the platforms listed below:

Windows	Windows 7/8/10/11 (64 bits) Windows XP (32 bits)
Linux	Centos 6.8/7.0/7.5 (64 bits) Ubuntu 18.04/20.04 LTS

3 Ports

Port No.	Port Type	Port Description
36545	User-defined protocol port	Used for GAO (Gowin Analyzer Oscilloscope) display communicating with Jtag server.
36546	User-defined protocol port	Used for GAO (Gowin Analyzer Oscilloscope) display communicating with Jtag server.

4 Documents

The released documents are listed in the table below and the PDF versions are packaged in the installation directory.

Documents	Description
SUG501, Gowin Software Quick Installation User Guide	PDF
SUG918, Gowin Software Quick Start Guide	PDF
SUG100, Gowin Software User Guide	PDF
SUG940, Gowin Design Timing Constraints User Guide	PDF
SUG114, Gowin Analyzer Oscilloscope User Guide	PDF
SUG282, Gowin Power Analyzer User Guide	PDF
SUG283, Gowin Primitive User Guide	PDF
SUG550, GowinSynthesis User Guide	PDF
SUG935, Gowin Design Physical Constraints User Guide	PDF
SUG502, Gowin Programmer User Guide	PDF
SUG937, Gowin Software User Messages Reference	Online help, PDF
SUG755, Gowin HDL Schematic Viewer User Guide	PDF
SUG949, Gowin HDL Coding User Guide	PDF
UG287, Gowin DSP User Guide	PDF
UG285, Gowin BSRAM & SSRAM User Guide	PDF
UG286, Gowin Clock User Guide	PDF
UG288, Gowin Configurable Function Unit (CFU) User Guide	PDF
UG289, Gowin Programmable IO (GPIO) User Guide	PDF
UG295, Gowin User Flash User Guide	PDF

5 Known Problems

The following problems apply to the supported functions in Gowin Software.

GAO Capture Signal Failure

Solution: Try to reduce the number of capture signals and capture depth. If the problem still exists, please contact GOWINSEMI technical support.

GAO PnR Failure

ERROR (PR1011): Failed to capture GAO signal<name>, because th ere's no wire to route for the signal.

Solution: Check whether the signal is hard-wired, such as the output of IOLOGIC.

The information output pane displays messy code in Ubuntu 18.04 LTS system

The information output pane displays messy code in Linux; but when the content is copied and pasted to the code editing pane, the display is normal.

Solution: Delete ide/lib/libfreetype.so.6, so that the software uses the library that comes with the user's computer system.

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