Gowin Software

Release Note

RN100-1.9.9.02E, 03/29/2024

Contents

1 About This Release

The V1.9.9.02 release includes features and enhancement functions of Gowin Software. GOWINSEMI recommends downloading this version to get the latest software.

Note！

1. When programming GW5AT-LV138FPG676A, GW5AT-LV138PG676A, GW5AT-LV138PG484A sample, and creating a new project, you need to select the corresponding GW5AST-138 Version B PN to generate the bitstream file, and select the GW5AST-138 Version B device in Programmer.
2. If you need Gowin Software V1.9.9.02 (32-bit) in Windows, please contact GOWIN Support.

The following table summarizes the release items:

Feature	Description
Gowin Software: V1.9.9.02	
New Device	- GW5A-25 Version B - GW5AR-25 Version B - GW5AS-25 Version B
PN Supported	- GW5AT-138 Version B - GW5AT-LV138UG324AA0 - GW5AT-60 Version ES - GW5AT-LV60PG484AES - GW5AT-LV60UG225ES - GW5A-25 Version A - GW5A-LV25PG196SC2/I1 - GW5A-LV25PG196SC1/I0 - GW5A-LV25UG324SC1/I0 - GW5A-LV25UG324SC2/I1 - GW5A-LV25PG256SC1/I0 - GW5A-LV25PG256SC2/I1
New Functions	Maker function for measurement added in GAO waveform capture interface

Feature	Description
	• Programmer supports displaying status codes upon the completion of erasure in embedded flash • Programmer supports background programming options for GW1N-9 Version C series of devices • Programmer supports the generation of svf files for background programming • Programmer supports the readback function for user flash
Updated	• IPs updated: DDR3 Memory Interface, EDP RX Desteer, EDP Decoder, EDP Encoder, EDID PROM, BCDR, USB 3.0 PHY, Customized PHY, CPRI, PCI Express Controller, JESD204B, EasyCDR、 1G Serial Ethernet Over LVDS, DC-SCM LTPI, UHS PSRAM Memory Interface V2.0, Advanced FIR Filter, OverSample • Merge DDR2 Memory and DDR2 PHY for 22nm devices • IDE supports switching devices after project configuration, while maintaining synthesis configuration unchanged • The step value of IODELY/DLLDLY for 22nm devices updated to 12.5ps; and the timing data fluctuates by 20% for STA • The startup screen display for software installation updated from Chinese image to English image • VCCX setting values for 22nm devices updated • The input bank VCCIO value of MIPI/MIPI_CPHY for 22nm devices updated to only 1.2
Not Supported	• No longer support SSRAM for GW5A(S)(T)-138 B, GW5AT-75 B, GW5A(S)(R)-25 A devices • No longer support DPB/DPX9B read before write mode for GW5A(R)(S)-25 A devices • No longer support reading initial value from BSRAM for GW1N-4, GW1N-4 B, GW1NR-4, GW1NR-4 B, GW1NRF-4B devices • GW5A(S) (T)-138, GW5A-25 devices do not support GPA, power report, and IBIS file output currently • IP Core does not support SDP36KE initial value configuration for GW5A(S) (T)-138 devices currently

2 Platform Supported

The software is supported on the platforms listed below.

Windows	Windows 7/8/10/11 (64-bit)
	Windows XP (32-bit)
Linux	Centos 6.8/7.0/7.3/7.5/8.2 (64-bit)
	Ubuntu 18.04/20.04/22.04 LTS

3 Memory Requirements

The table below lists the minimum and recommended memory requirements for Gowin Software to support GOWIN devices. It is recommended to use a 64-bit operating system when running Arora V devices on the Windows platform.

Device	Minimum	Recommended
GW5A(S)(T)-138	3GB	5GB
GW5A(T)-60	3GB	5GB
GW5A(S)(R)-25	2GB	4GB
GW2A(N)-55	2GB	2.5GB
GW2A(N)(R)-18	1GB	1.5GB
GW1N(R)-9	512MB	1GB
GW1N(S)(E)(R)(F)-4	256MB	1GB
GW1N(Z)(R)-2	128MB	1GB
GW1N(Z)(R)-1	128MB	1GB

4 Ports

Port No.	Port Type	Port Description
36545	User-defined protocol port	Used for Gowin Analyzer Oscilloscope (GAO) display communicating with JTAG server
36546	User-defined protocol port	Used for Gowin Analyzer Oscilloscope (GAO) display communicating with JTAG server
10559	User-defined protocol port	The license server port for Gowin Software
10558	User-defined protocol port	The license server port for Gowin Software

5 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
SUG1018, Arora V Design Physical Constraints User Guide	PDF
UG300, Arora V BSRAM & SSRAM User Guide.	PDF
UG303, Arora V Configurable Function Unit (CFU) User Guide	PDF
UG304, Arora V Programmable IO (GPIO) User Guide	PDF
UG305, Arora V Digital Signal Processing (DSP) User Guide	PDF
UG306, Arora V Clock User Guide	PDF

6 Known Problems and Solutions

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

1. **GAO Capture Signal Failure**

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

2. **GAO PnR Failure**

   ERROR (PR1011): Failed to capture GAO signal<name>, because there is no wire to route for the signal.

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

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

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

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

4. **In the Windows operating system, panels on the IDE may encounter a locked state**

   Solution: Use the Reset Layout option in Windows tab on the menu bar to unlock.

5. **When simulating vho, the simulator reports an error: Failed to find INSTANCE 'GSR'**

   It is due to the fact that VHD language does not support the duplication of names for primitives and their instantiations.

Solution: Modify the instantiation name of the primitive GSR in both the vho and .sdf files to "GSR_ins".