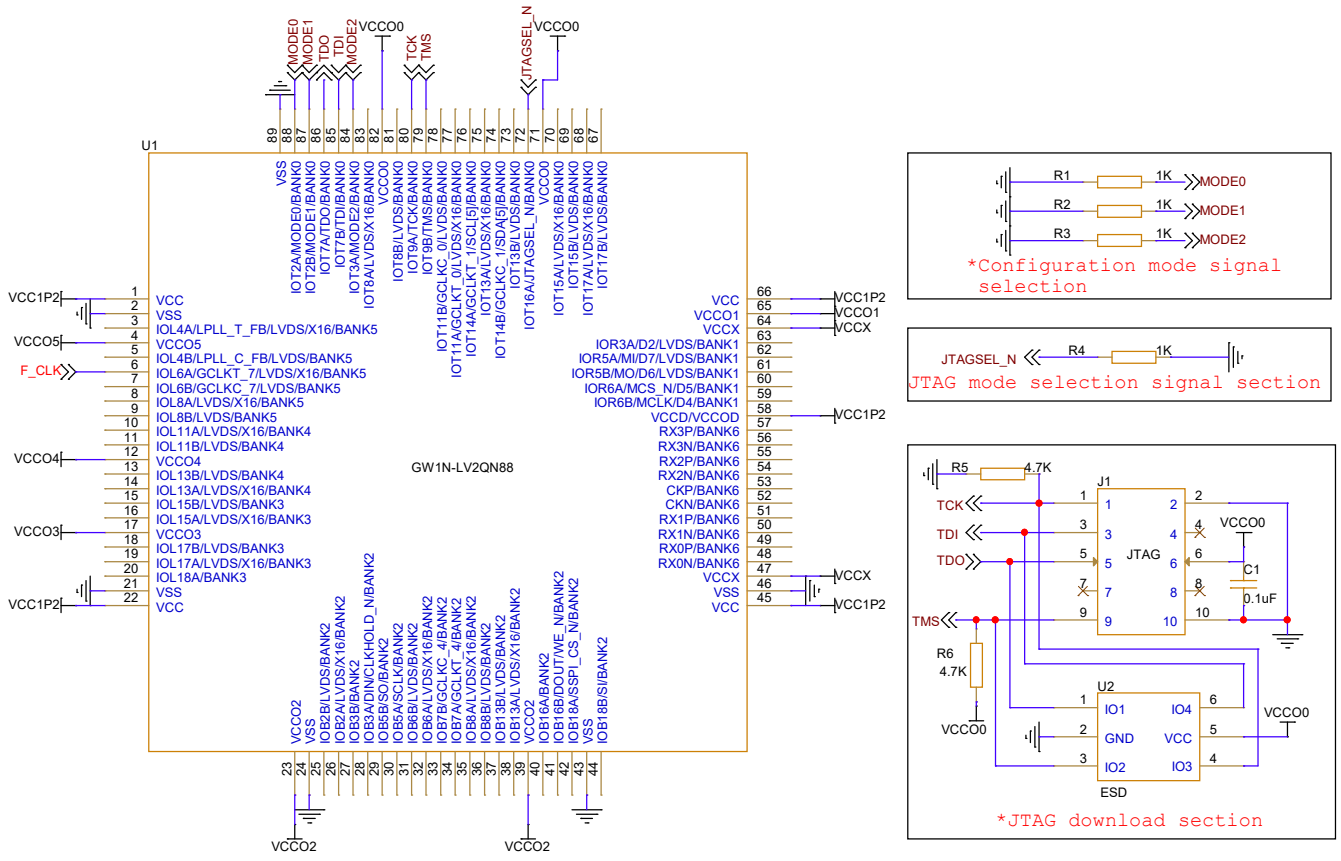
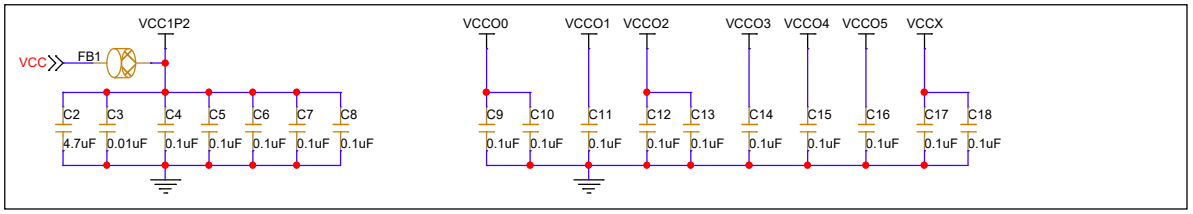
GW1N-LV2QN88





Notes:
1.F_CLK signal is an external input clock signal.
  It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.It is recommended that add an ESD protection chip to the JTAG download circuit.

Title: GOWIN Minimum System Diagram		
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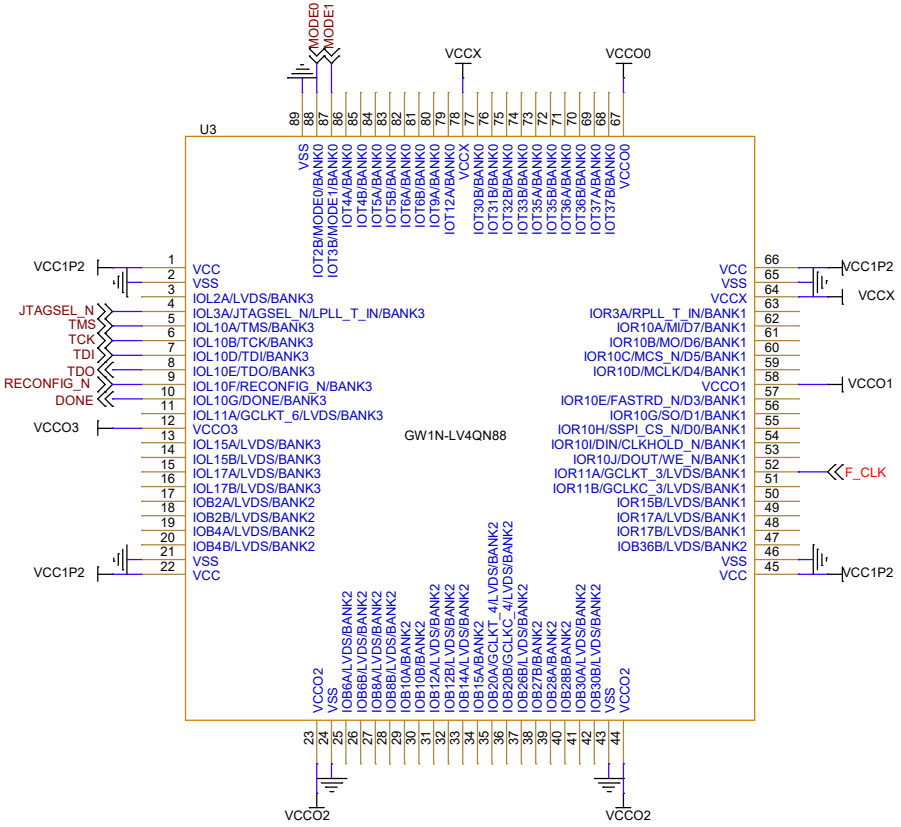
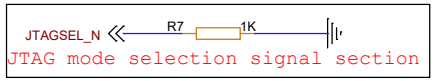
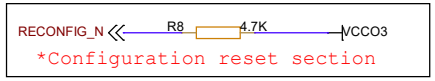
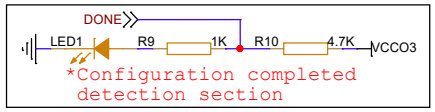
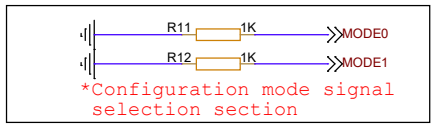
GW1N-LV4QN88

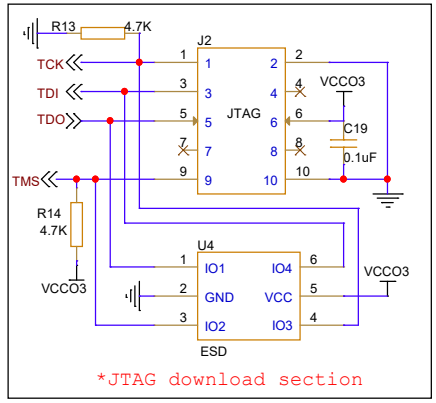


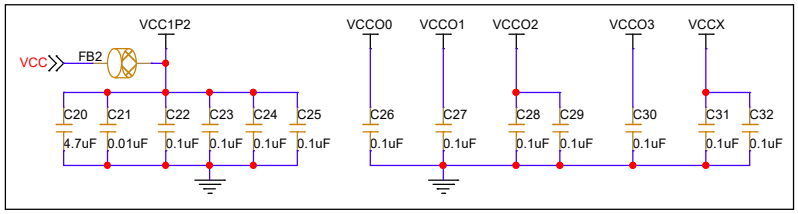












Notes:
1.F_CLK signal is an external input clock signal.
  It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.It is recommended that add an ESD protection chip to the JTAG download circuit.

Title	Gowin FPGA-AOTOMOTIVE Minimum System Diagram	
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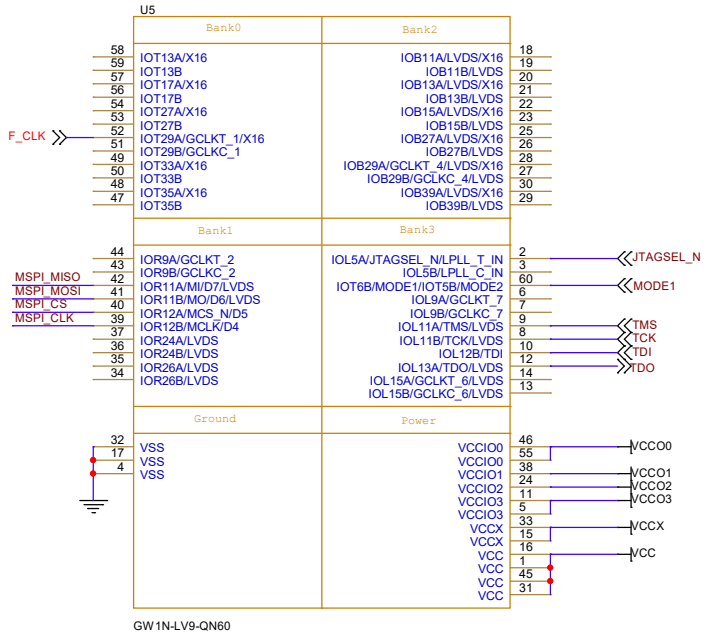
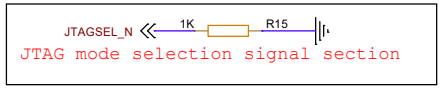
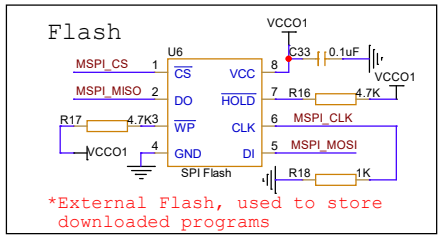
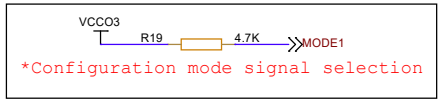
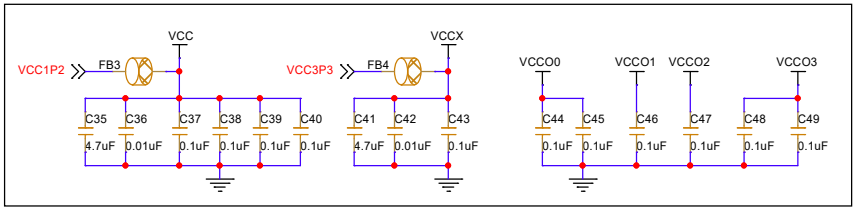
GW1N-LV9QN60

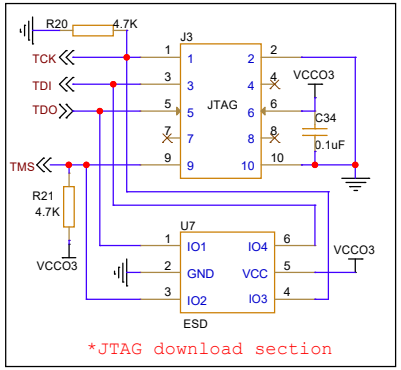












Notes:
1.F_CLK signal is an external input clock signal.
  It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.External Flash memory is used to store downloaded programs.
  For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
3.It is recommended that add an ESD protection chip to the JTAG download circuit.

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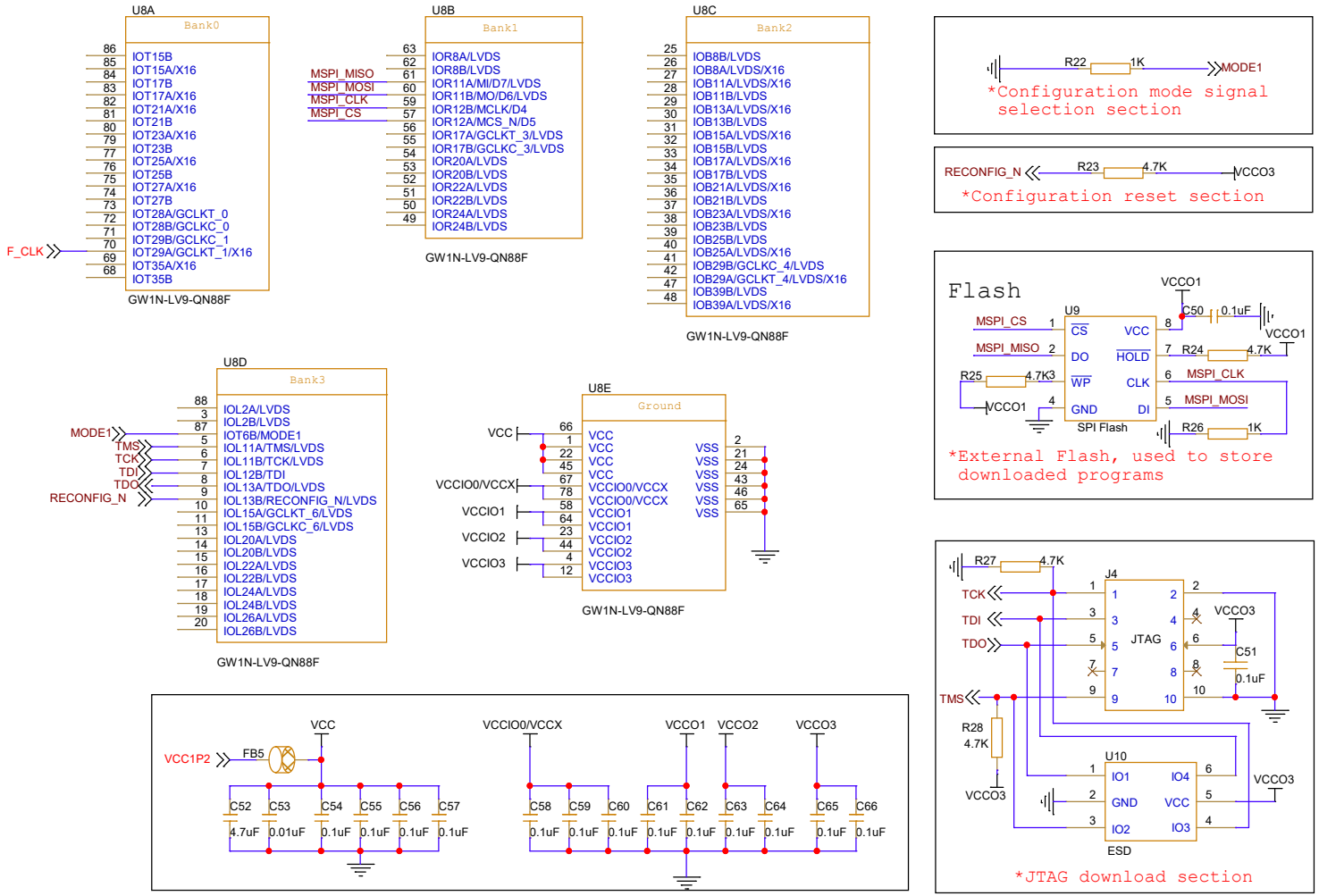
GW1N-LV9QN88F



Notes:
1.F_CLK signal is an external input clock signal.
  It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.It is recommended that add an ESD protection chip to the JTAG download circuit.

Title	GOWIN Minimum System Diagram	
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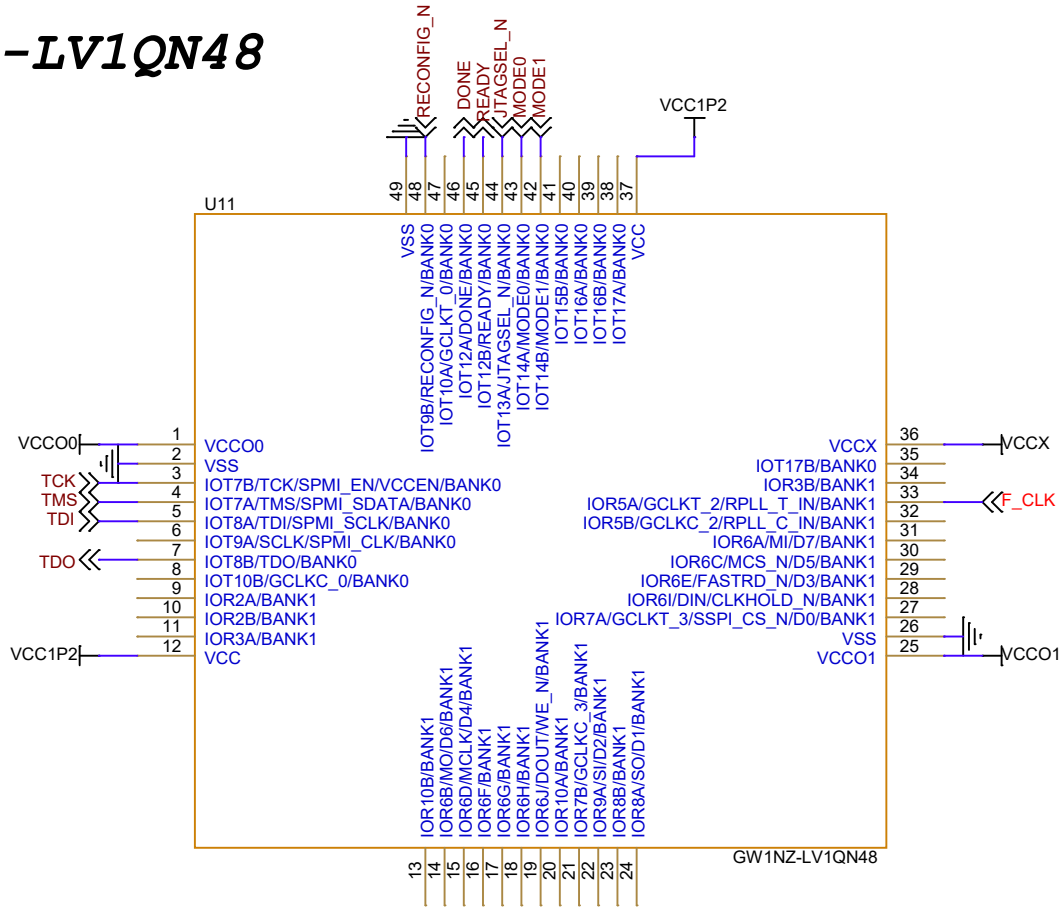
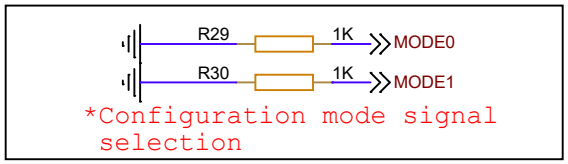
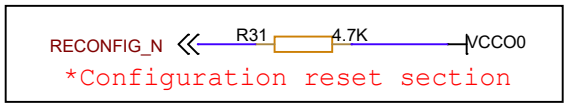
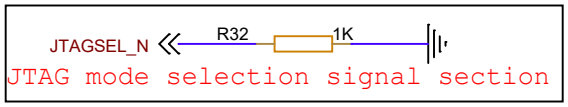
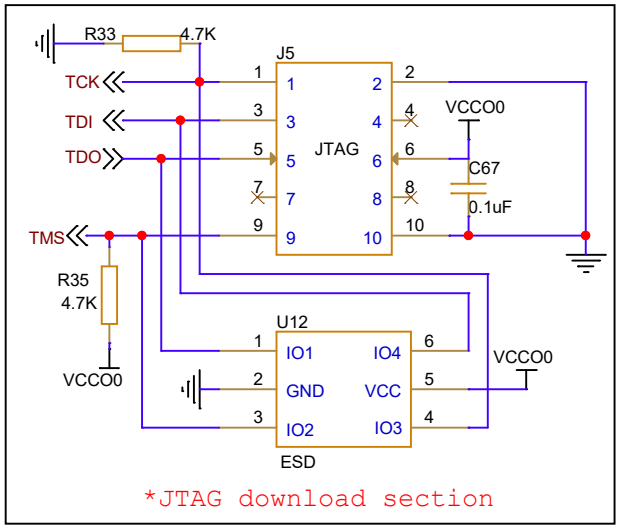
GW1NZ-LV1QN48

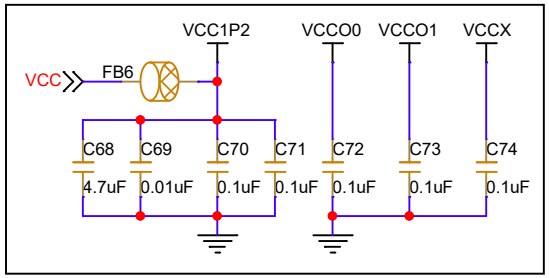


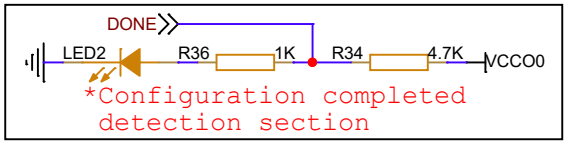


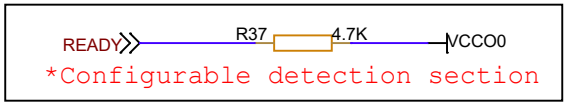












Notes:
1.F_CLK signal is an external input clock signal.
  It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.It is recommended that add an ESD protection chip to the JTAG download circuit.

Title	Gowin FPGA-AOTOMOTIVE Minimum System Diagram	
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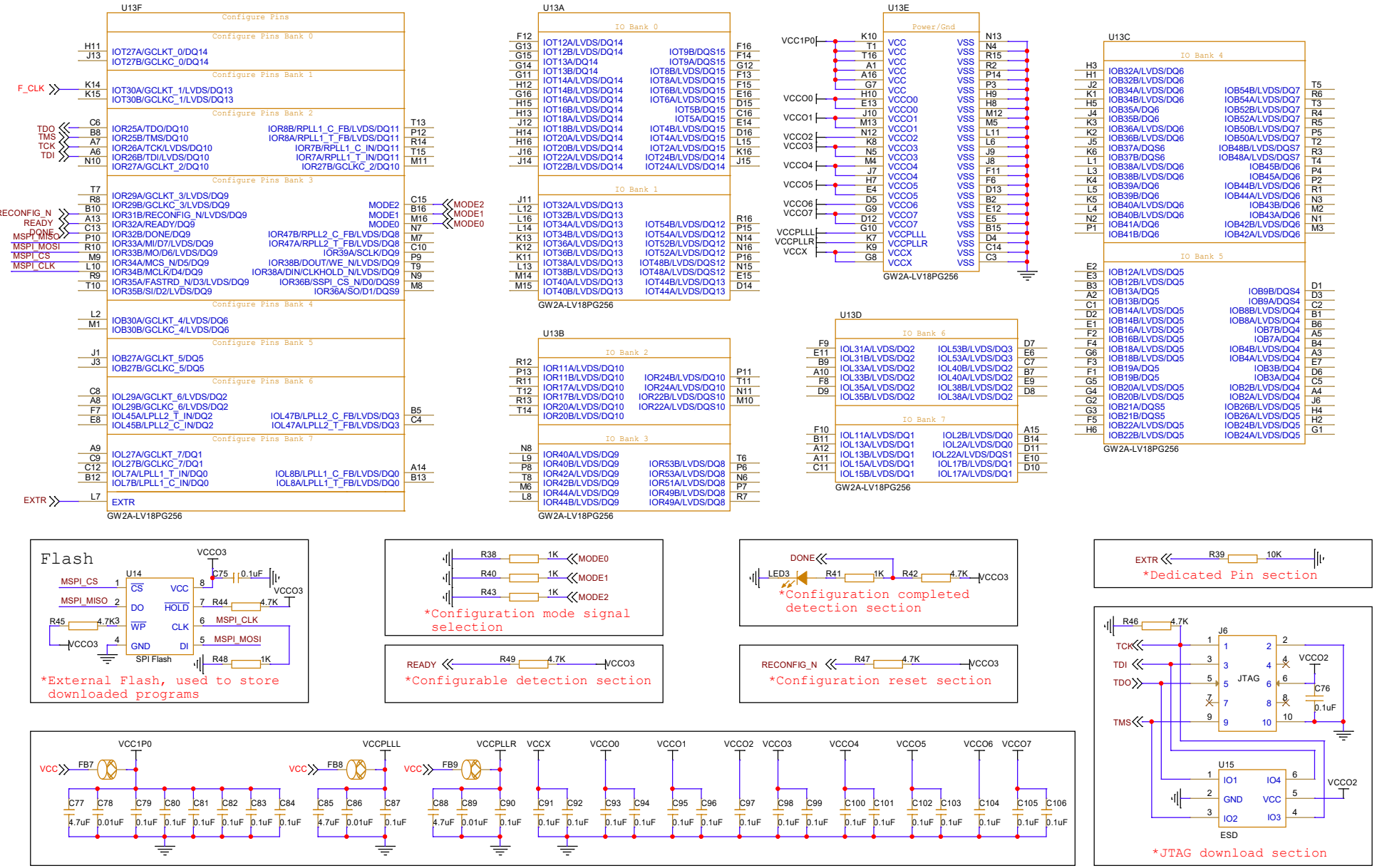
GW2A-LV18PG256



Notes:
1.F_CLK signal is an external input clock signal.
  It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.External Flash memory is used to store downloaded programs.
  For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
3.It is recommended that add an ESD protection chip to the JTAG download circuit.

Title: Gowin FPGA-AOTOMOTIVE Minimum System Diagram		
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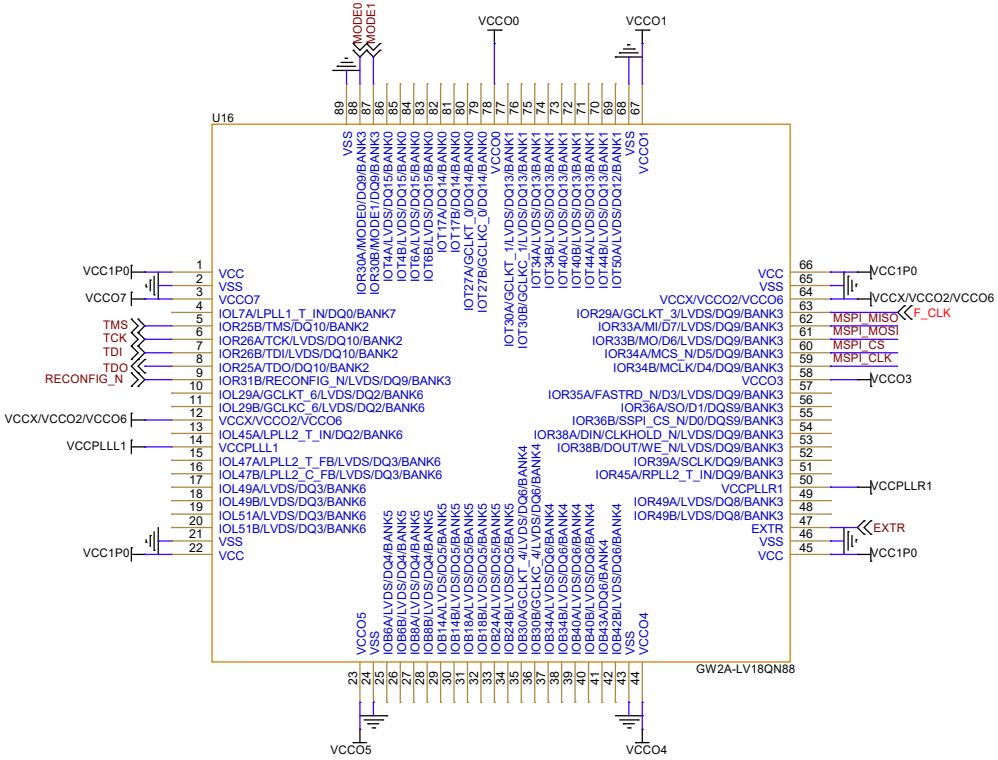
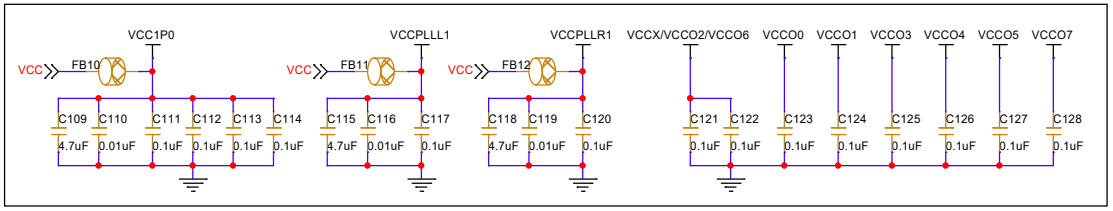
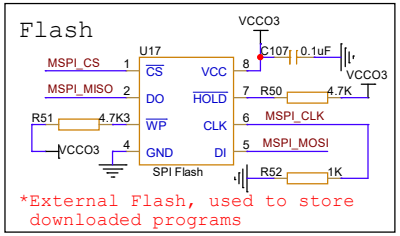
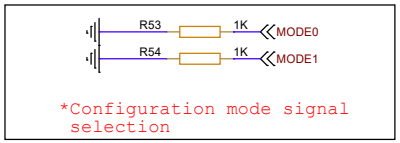
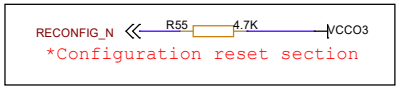
GW2A-LV18QN88

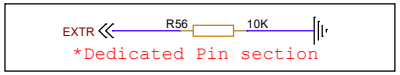


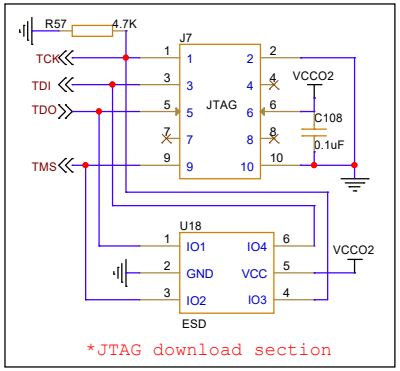












Notes:
1.F_CLK signal is an external input clock signal.
  It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.External Flash memory is used to store downloaded programs.
  For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
3.It is recommended that add an ESD protection chip to the JTAG download circuit.

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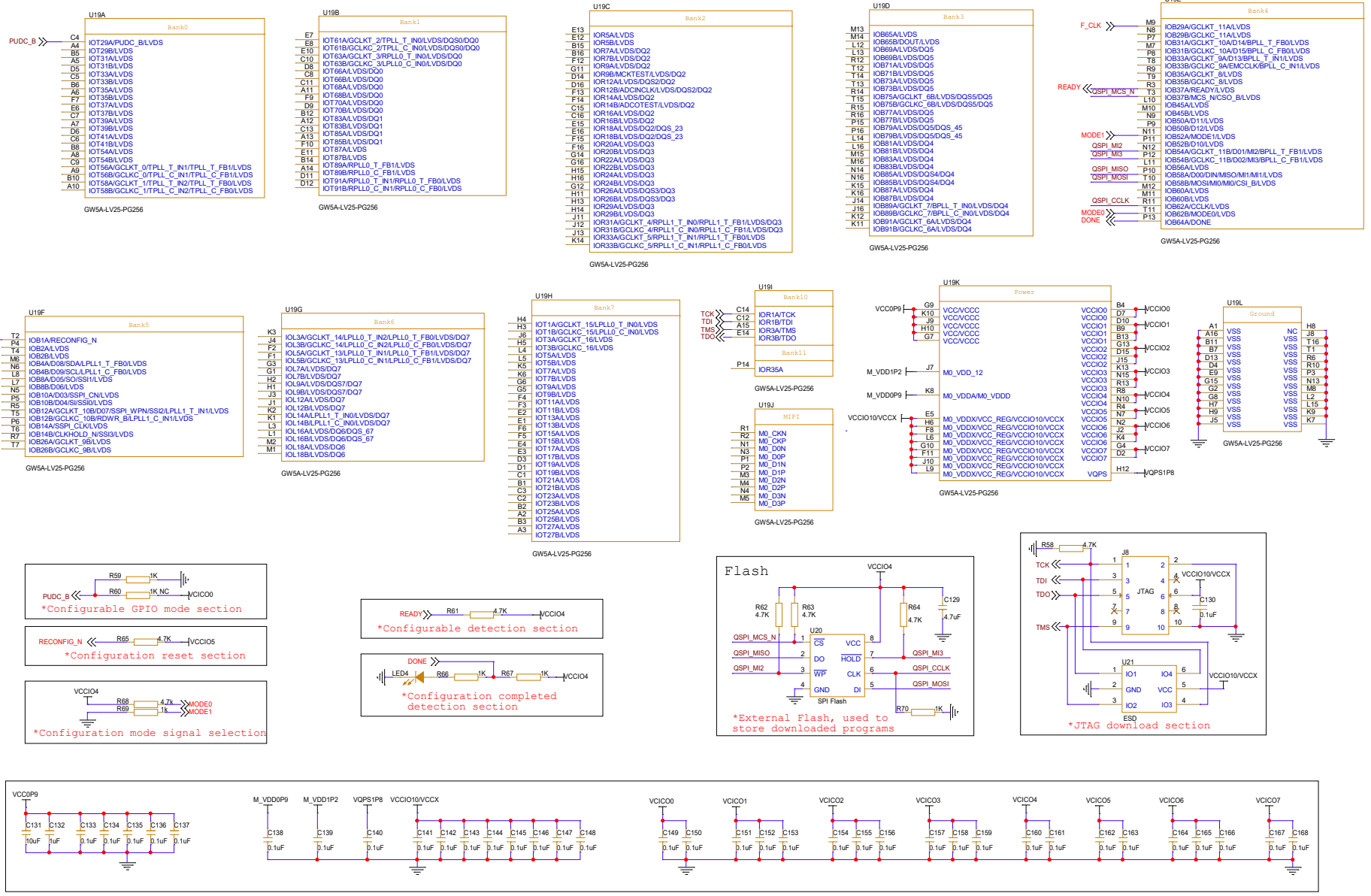
GW5A-LV25PG256



Notes:
1.F_CLK signal is an external input clock signal.
It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.External Flash memory is used to store downloaded programs.
For details about SPI Flash model selection, see "Chapter 4.5 SPI Flash Selection" in UG714, Arora V 25K FPGA Products Programming and Configuration Guide .
3.It is recommended that add an ESD protection chip to the JTAG download circuit.
4.VCC core voltage requires a large current, so it is recommended to supply power separately.
5.The MODE pin is the GowinCONFIG configuration mode selection signal.
For details about how to select the Mode signal, see "Chapter 3.1 Configuration Modes" in UG714, Arora V 25K FPGA Products Programming and Configuration Guide.

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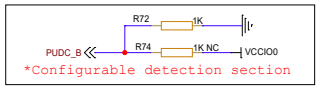
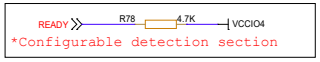
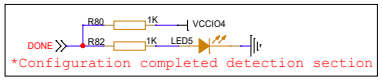
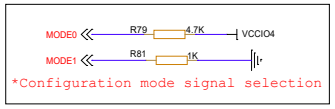
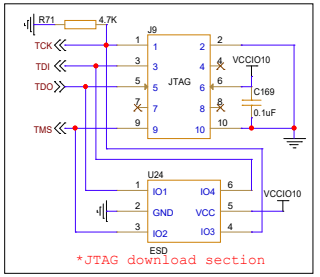
GW5A-LV25UG324F

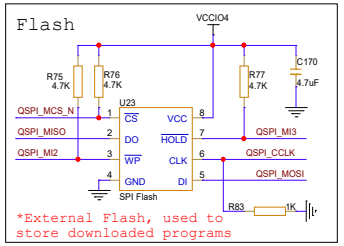


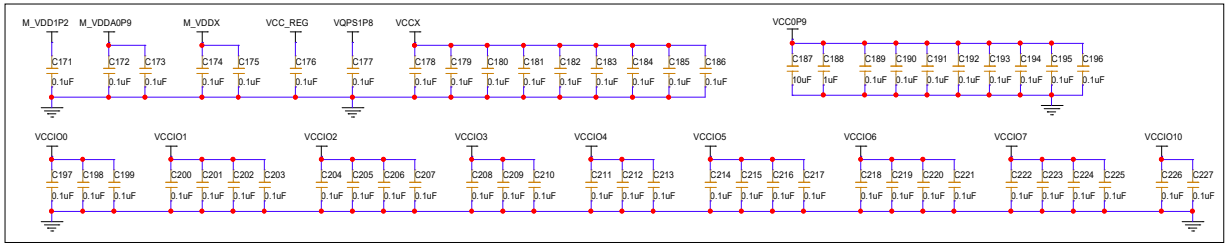












Notes:
1.F_CLK signal is an external input clock signal.
It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.External Flash memory is used to store downloaded programs.
For details about SPI Flash model selection, see "Chapter 4.5 SPI Flash Selection" in UG714, Arora V 25K FPGA Products Programming and Configuration Guide .
3.It is recommended that add an ESD protection chip to the JTAG download circuit.
4.VCC core voltage requires a large current, so it is recommended to supply power separately.
5.The MODE pin is the GowinCONFIG configuration mode selection signal.
For details about how to select the Mode signal, see "Chapter 3.1 Configuration Modes" in UG714, Arora V 25K FPGA Products Programming and Configuration Guide.

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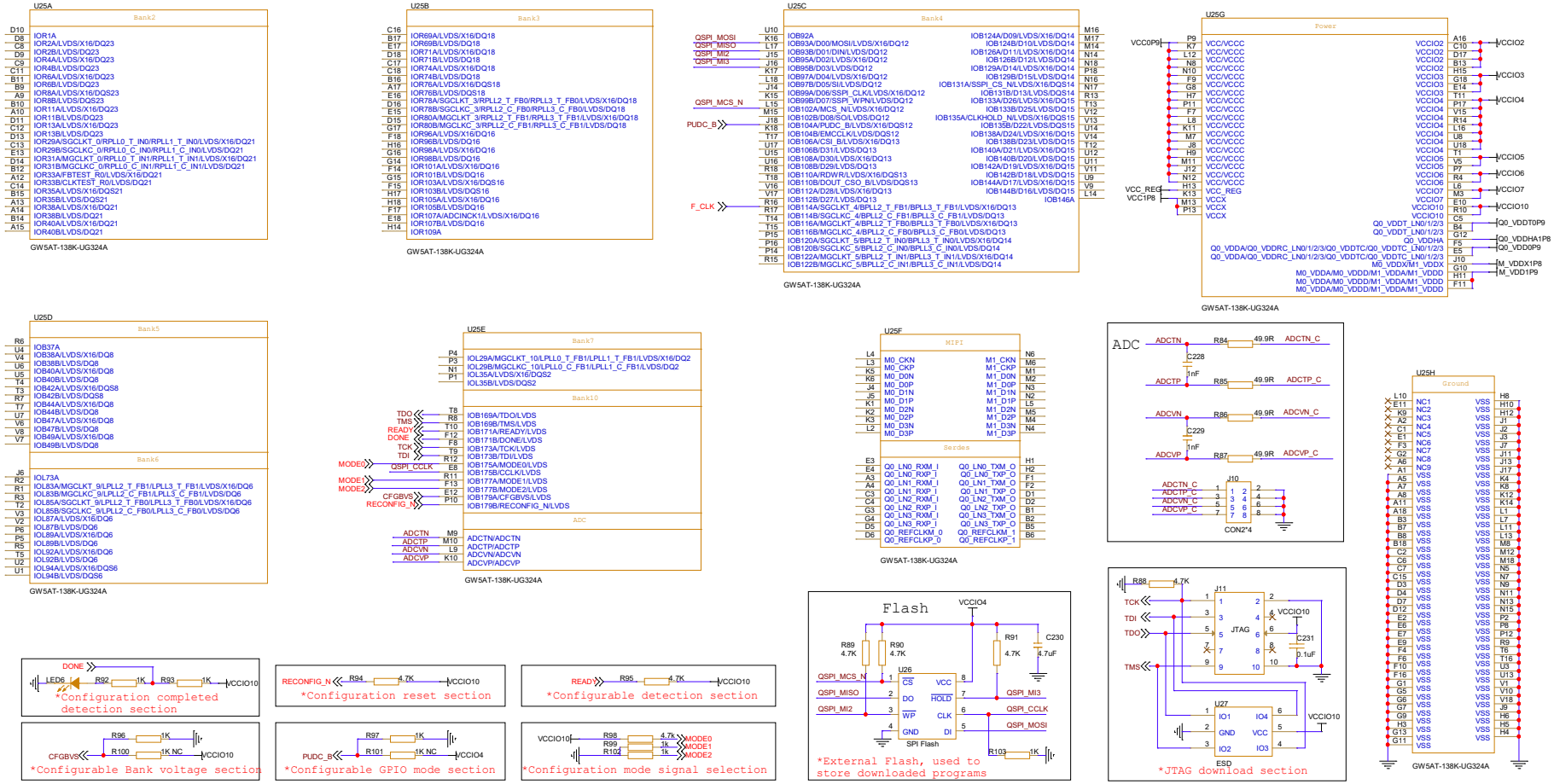
GW5AT-LV138UG324A



Notes:
1.F_CLK signal is an external input clock signal.
  It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.External Flash memory is used to store downloaded programs.
  For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
3.It is recommended that add an ESD protection chip to the JTAG download circuit.
4.VCC core voltage requires a large current, so it is recommended to supply power separately.

Title	GOWIN Minimum System Diagram		
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