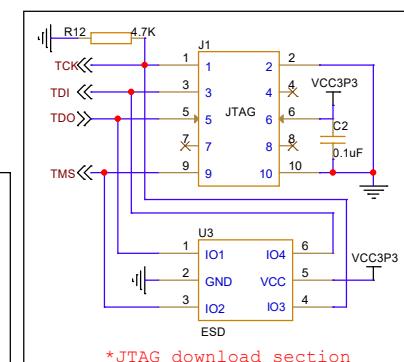
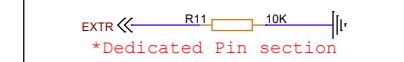
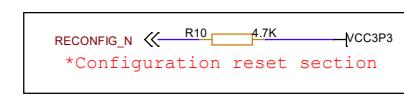
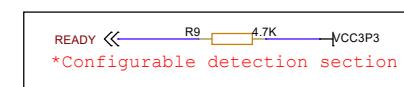
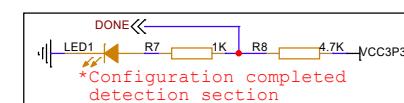
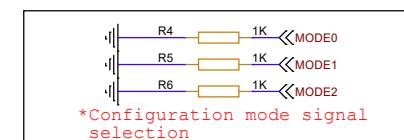
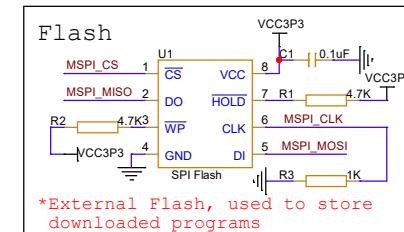
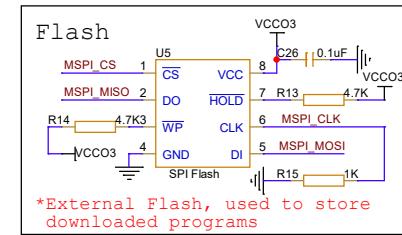
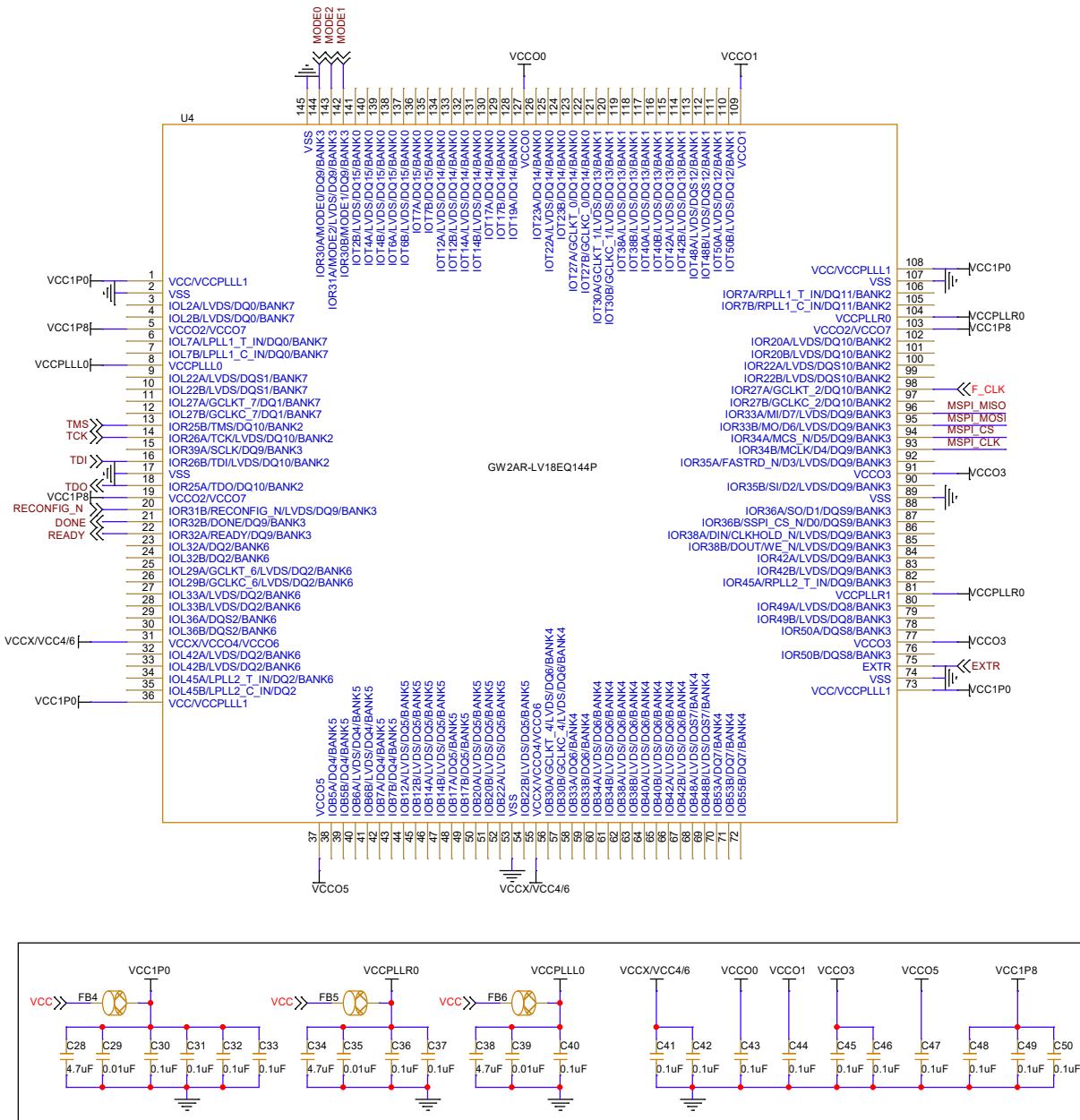
**Notes:**

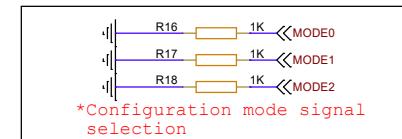
1. F_CLK signal is an external input clock signal.
It is recommended that F_CLK signal be provided through an active oscillator crystal.
2. External Flash memory is used to store downloaded programs.
For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
3. It is recommended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



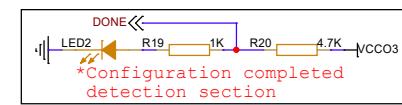
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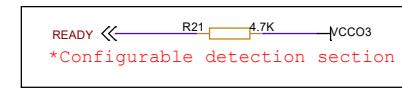
*External Flash, used to store downloaded programs



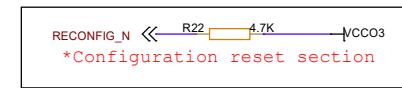
*Configuration mode signal selection



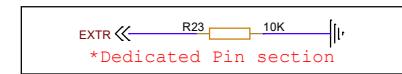
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on



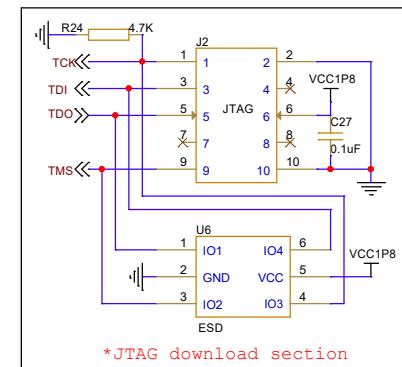
*Configurable detection section



*Configuration reset section



EXTR << R23 >> TUR ||r



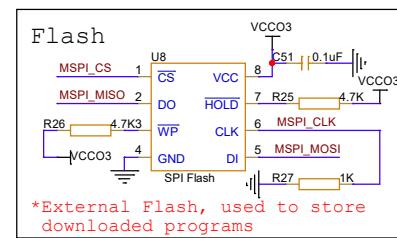
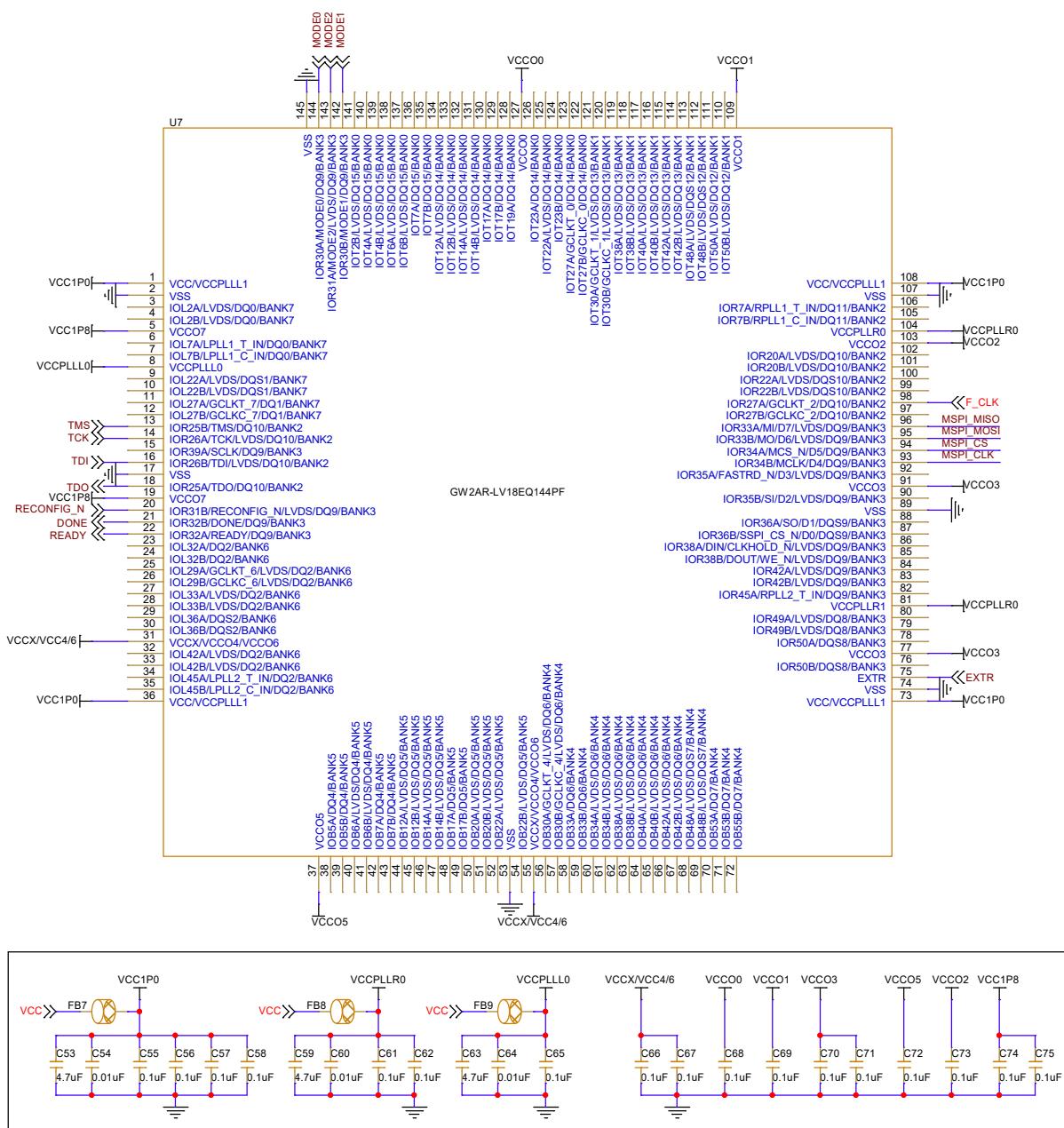
*JTAG download section

Notes:

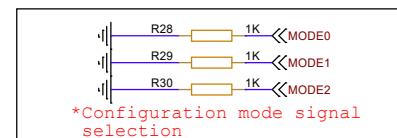
- Notes:

 - 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.

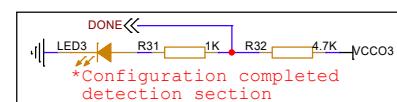
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GOWIN Minimum System Diagram		
Size A3	Document Number GW2AR-LV18EQ144P	Rev 2.0
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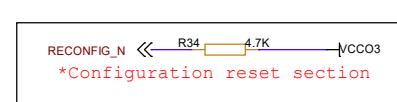
*External Flash, used to store downloaded programs



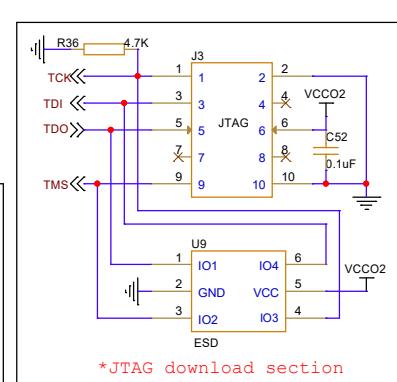
*Configuration mode signal selection



READY << R33 4.7K VCCO3
*Configurable detection section



EXTR << R35 10K ||
*Dedicated Pin section



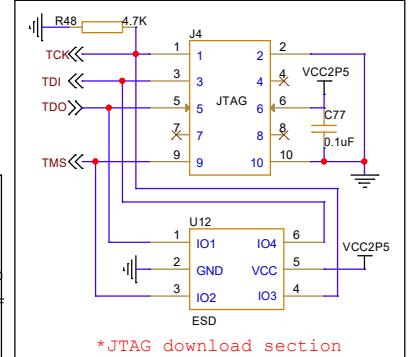
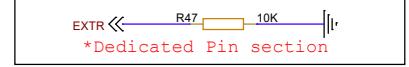
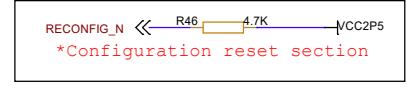
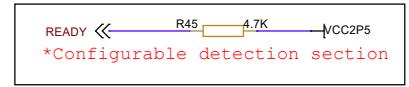
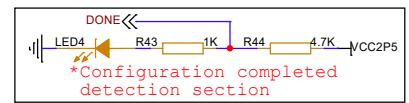
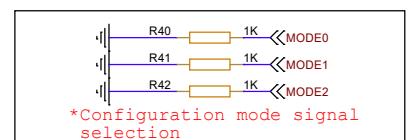
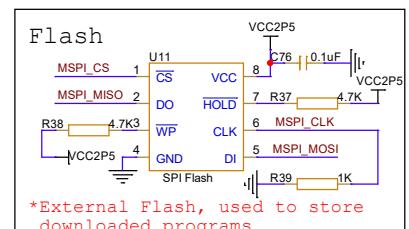
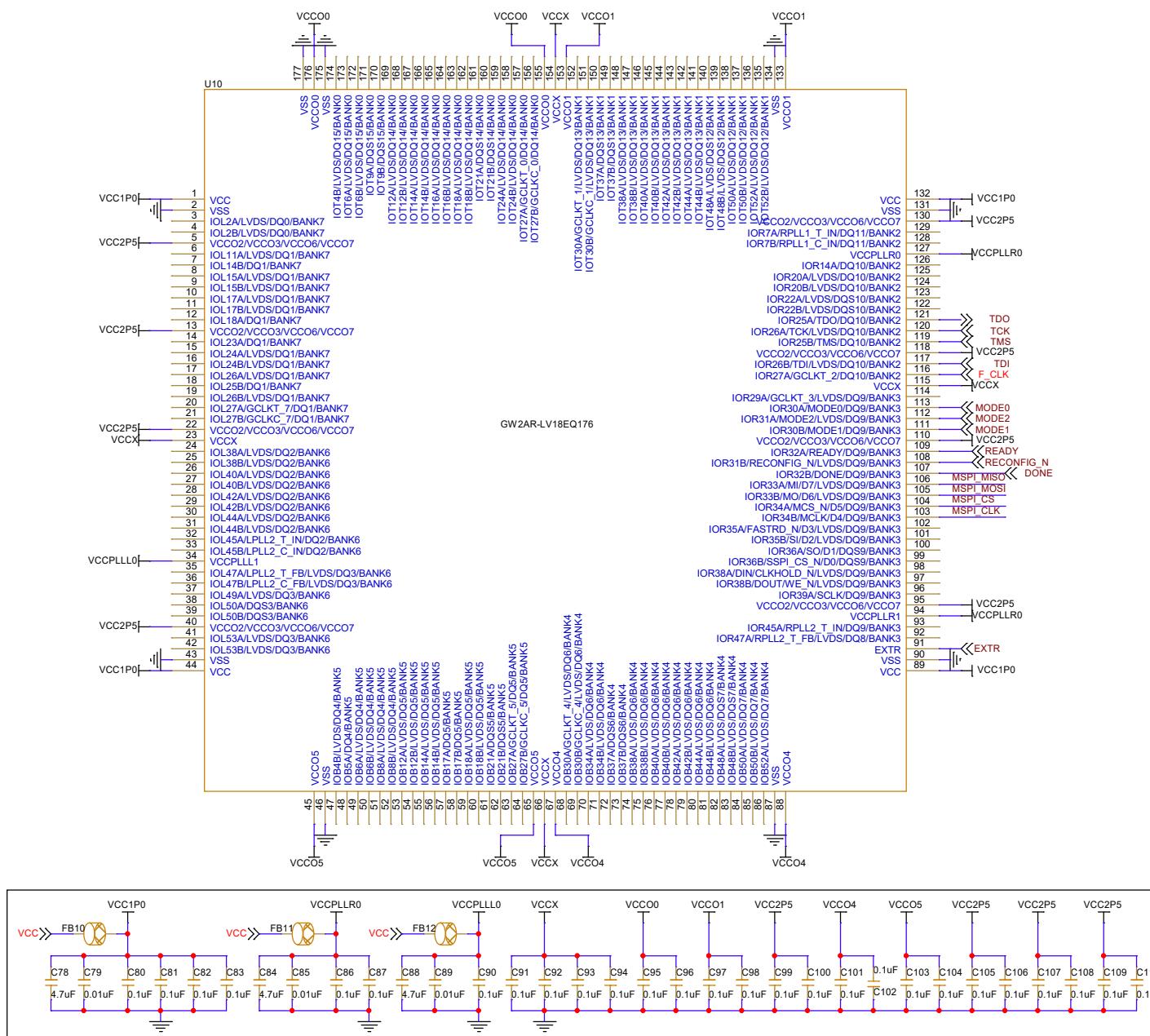
*JTAG download section

Notes:

- 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 Minimum System Diagram		
Size A3	Document Number GW2AR-LV18EQ144PF	Rev 2.0
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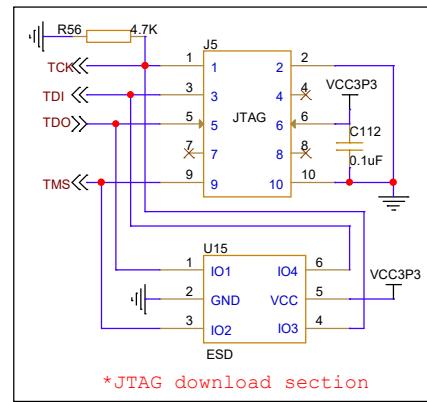
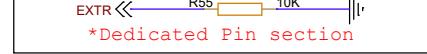
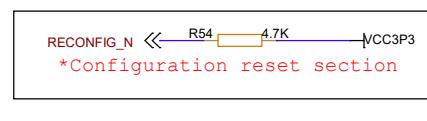
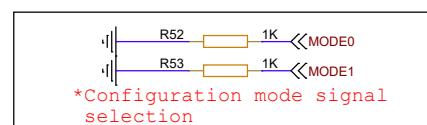
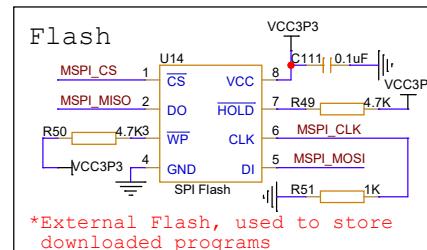
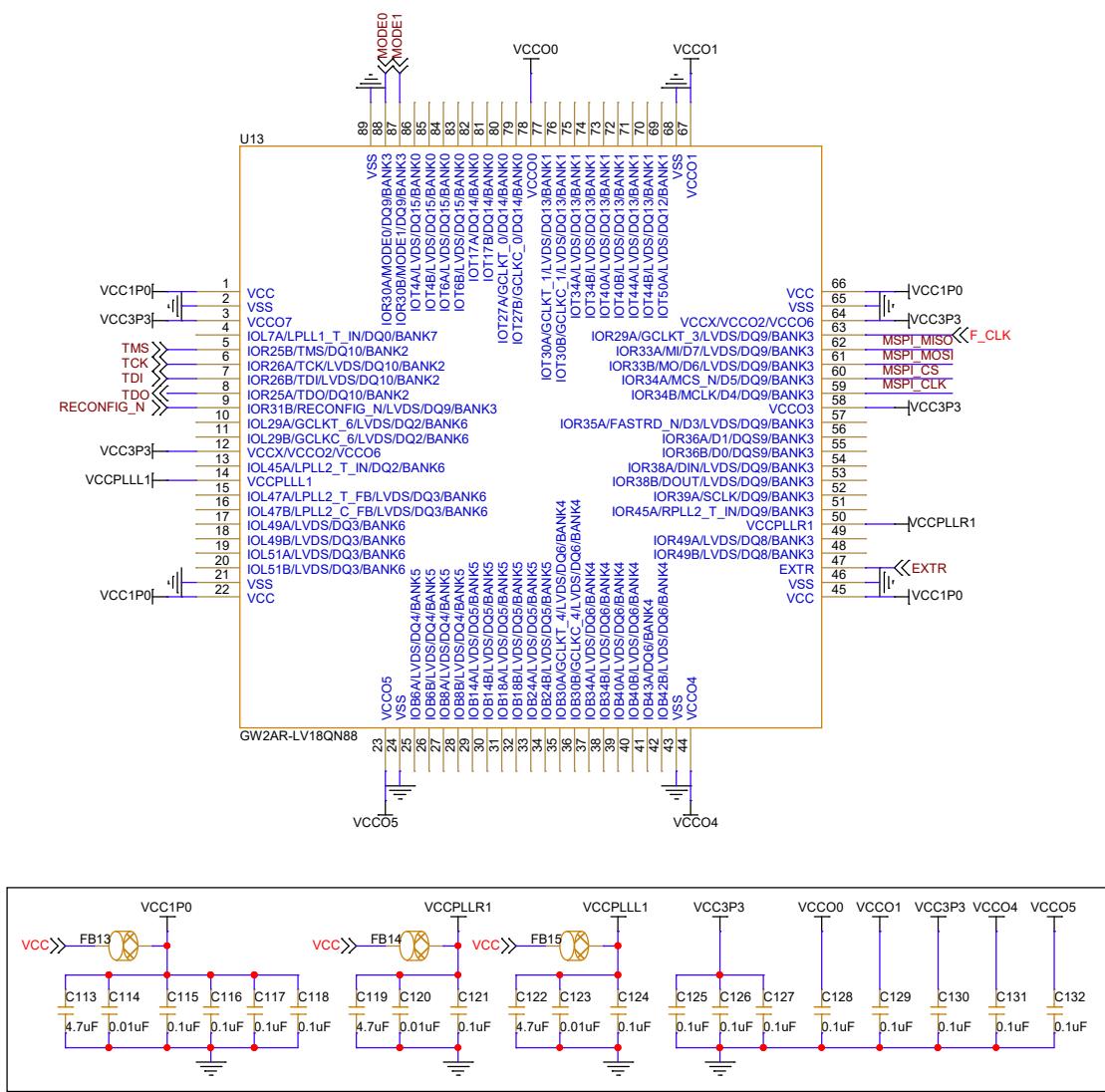


Notes:

- 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.

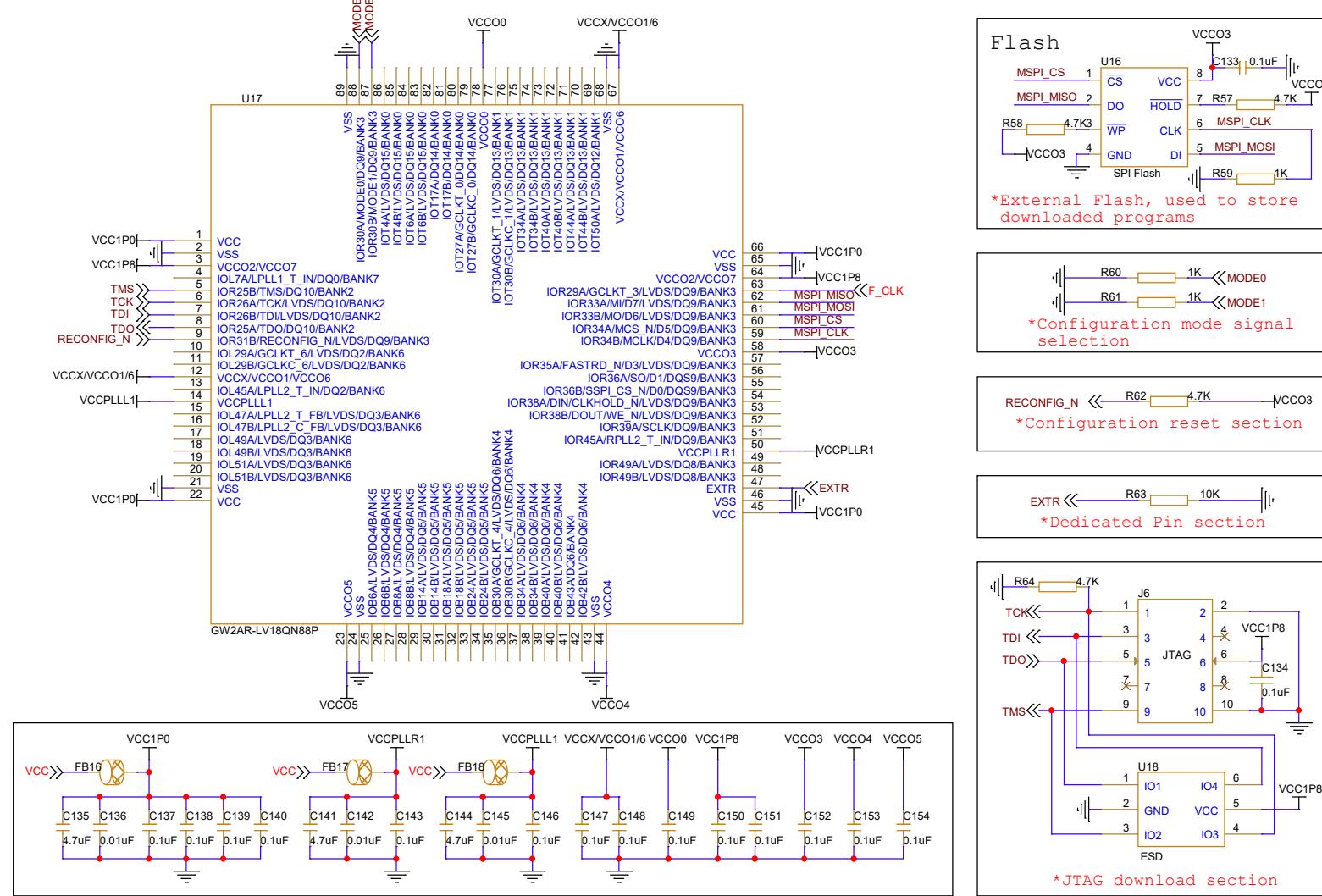
Title		GOWIN Minimum System Diagram		
Size A3	Document Number GW2AR-LV18EQ176		Rev 2.0	
Date:	Tuesday, April 04, 2023		Sheet 4	of 7



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.

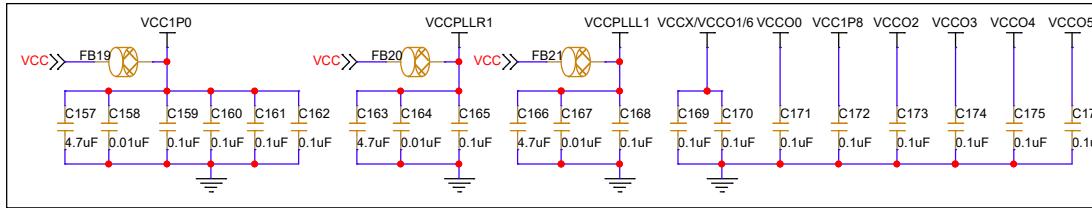
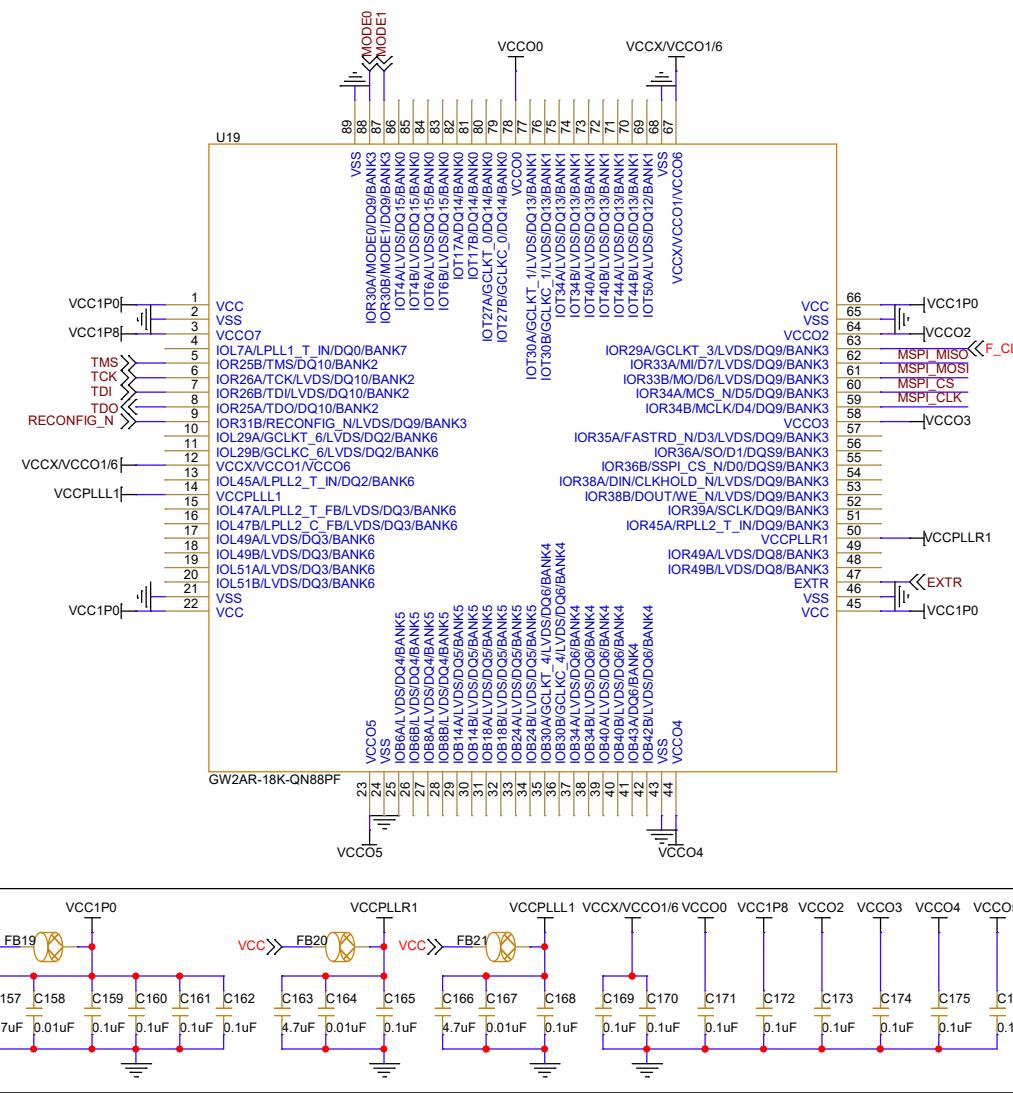
Title		
GOWIN Minimum System Diagram		
Size B	Document Number GW2AR-LV18QN88	Rev 2.0
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**Notes:**

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.

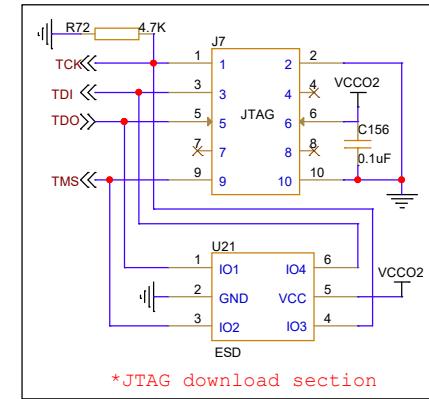
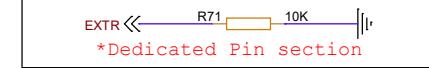
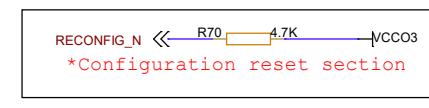
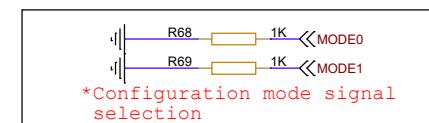
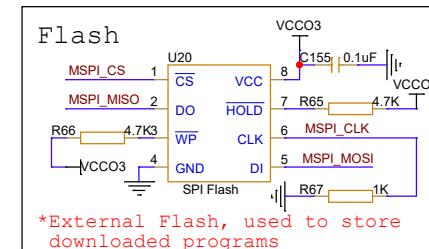
Title	
GOWIN Minimum System Diagram	
Size	Document Number GW2AR-LV18QN88P
B	Rev 2.0

Date: Tuesday, April 04, 2023



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 Minimum System Diagram		
Size	Document Number	Rev
B	GW2AR-LV18QN88PF	2.0
Date:	Tuesday, April 04, 2023	Sheet 7 of 7