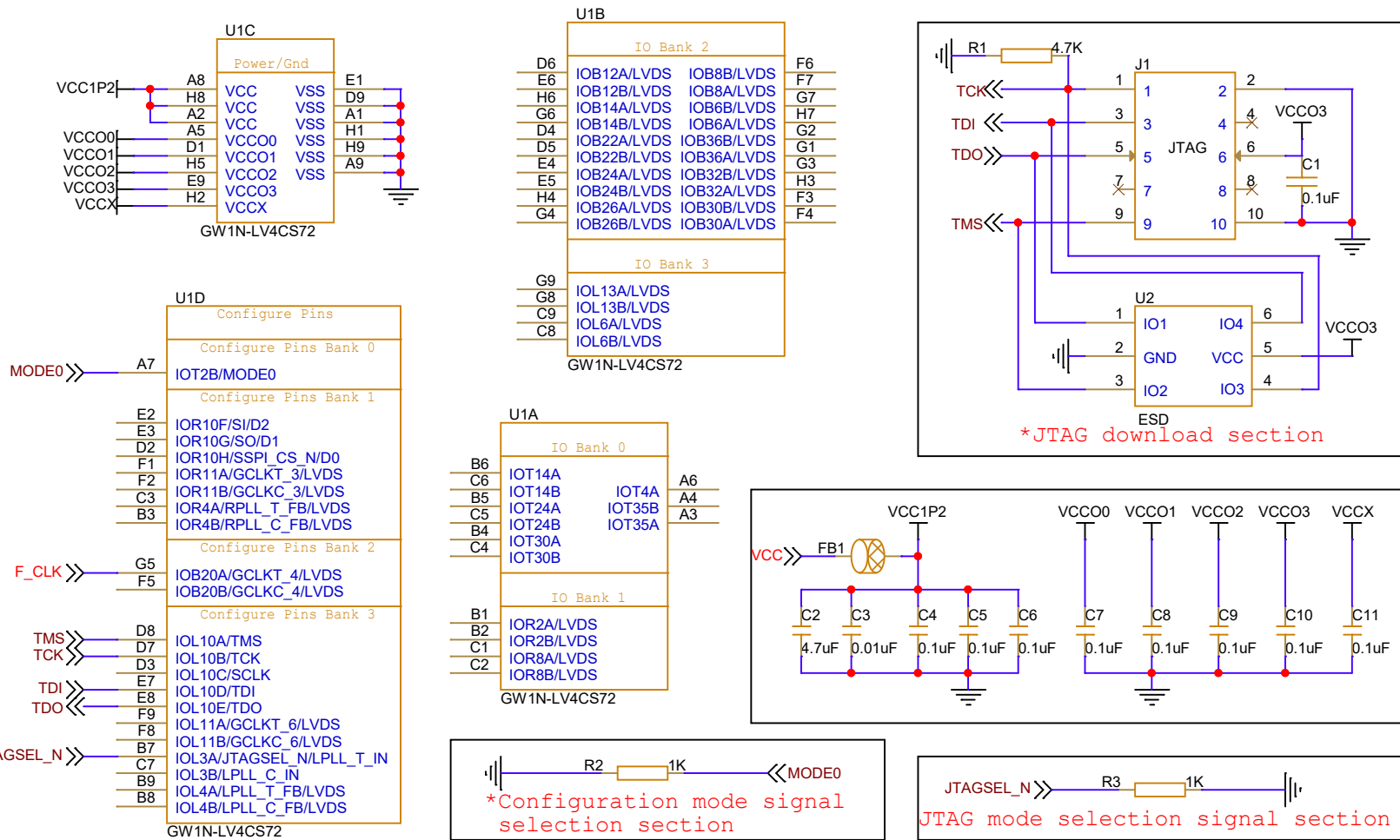


GW1N-LV4CS72

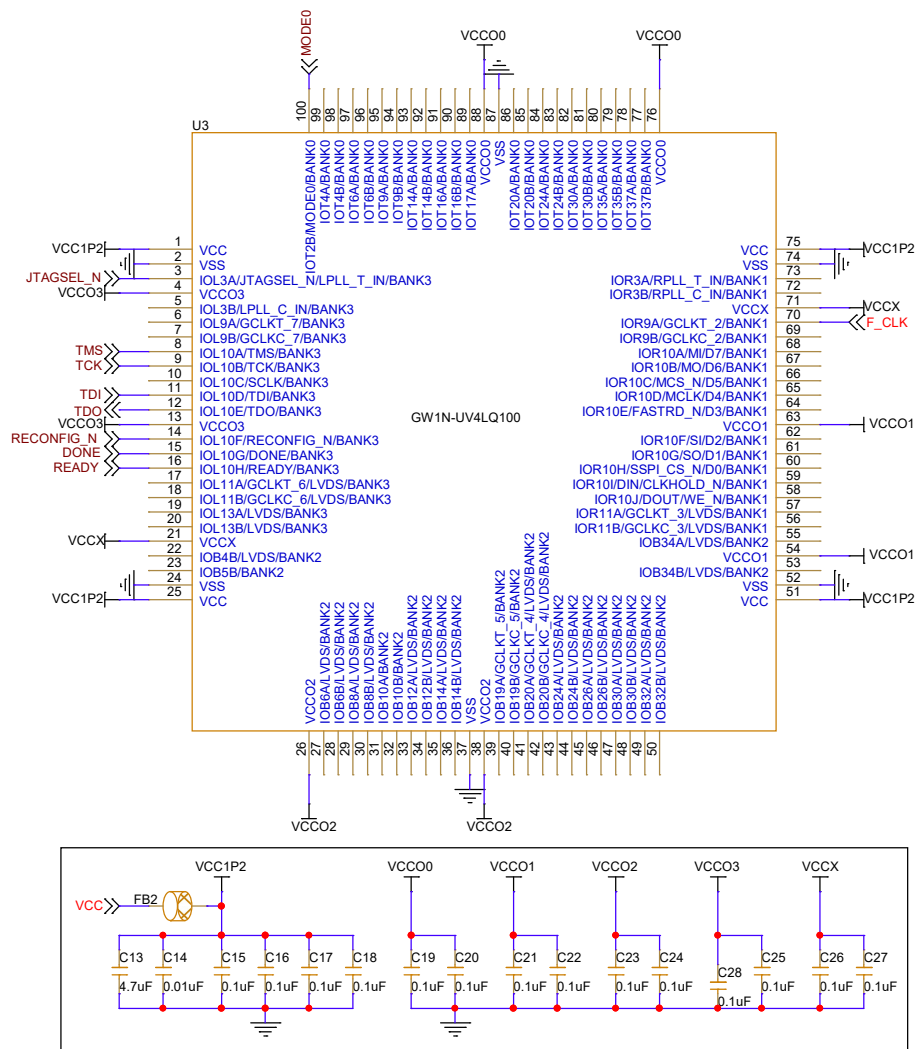


Notes:

1.F_CLK signal is an external input clock signal.

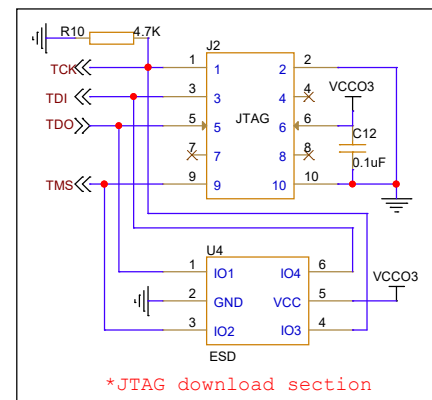
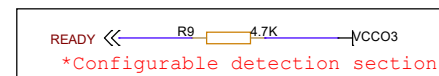
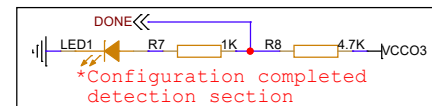
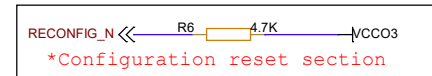
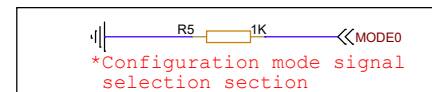
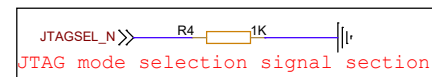
It is recommended that F_CLK signal be provided through an active oscillator crystal.

2.It is recommended that add an ESD protection chip to the JTAG download circuit.

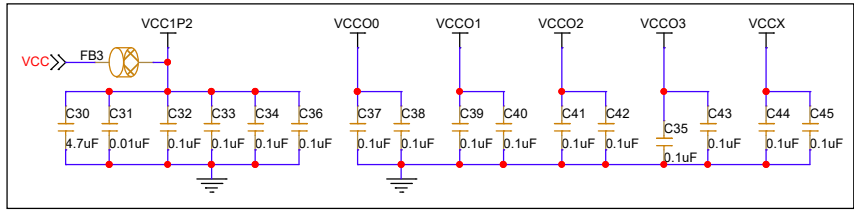
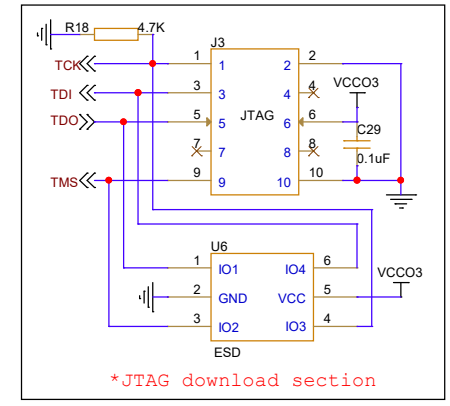
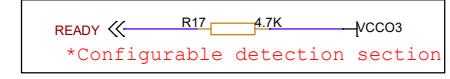
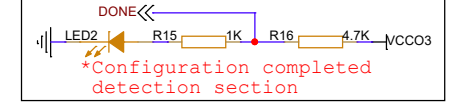
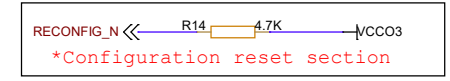
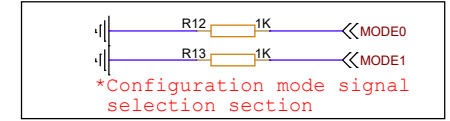
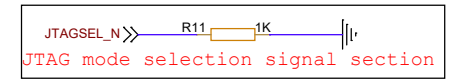
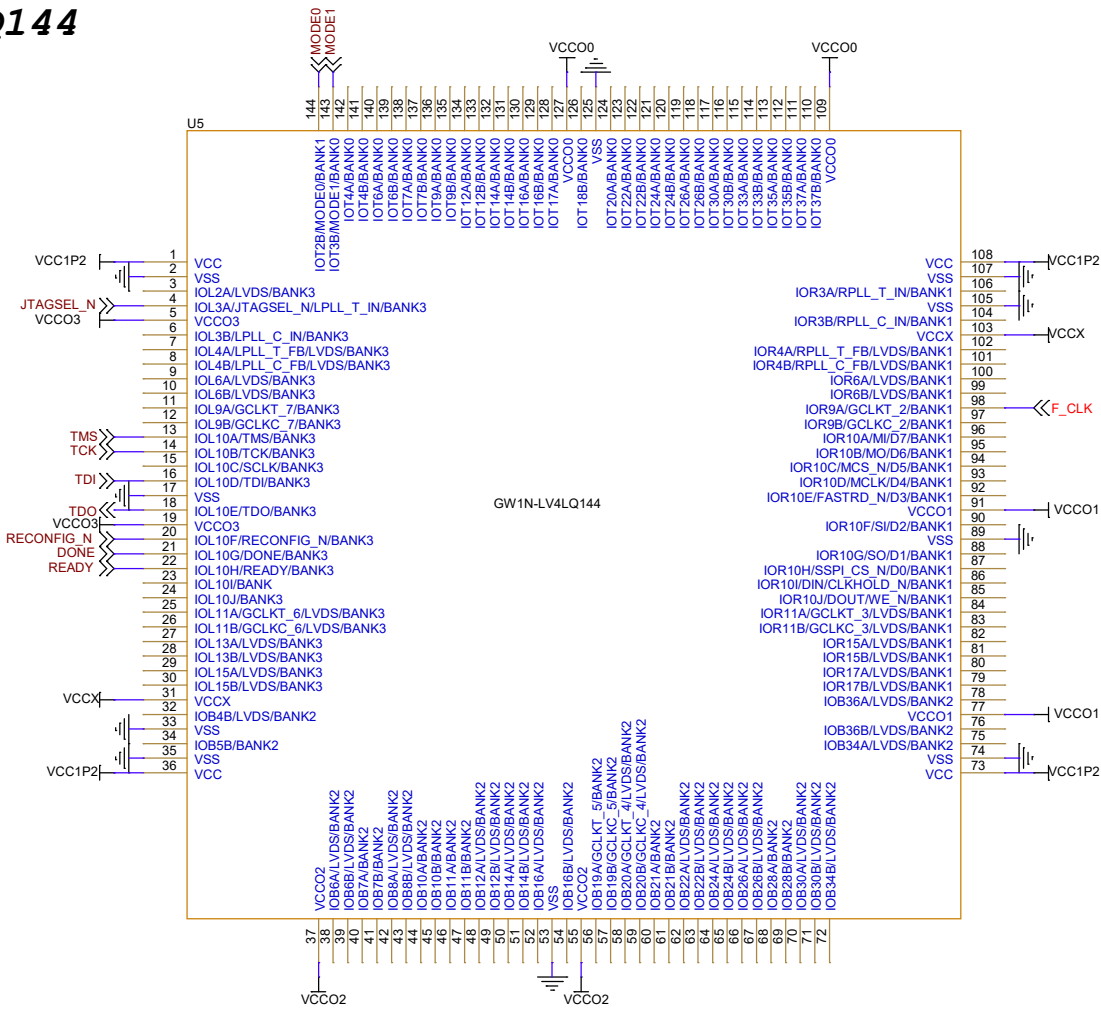


Notes:

- 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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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.

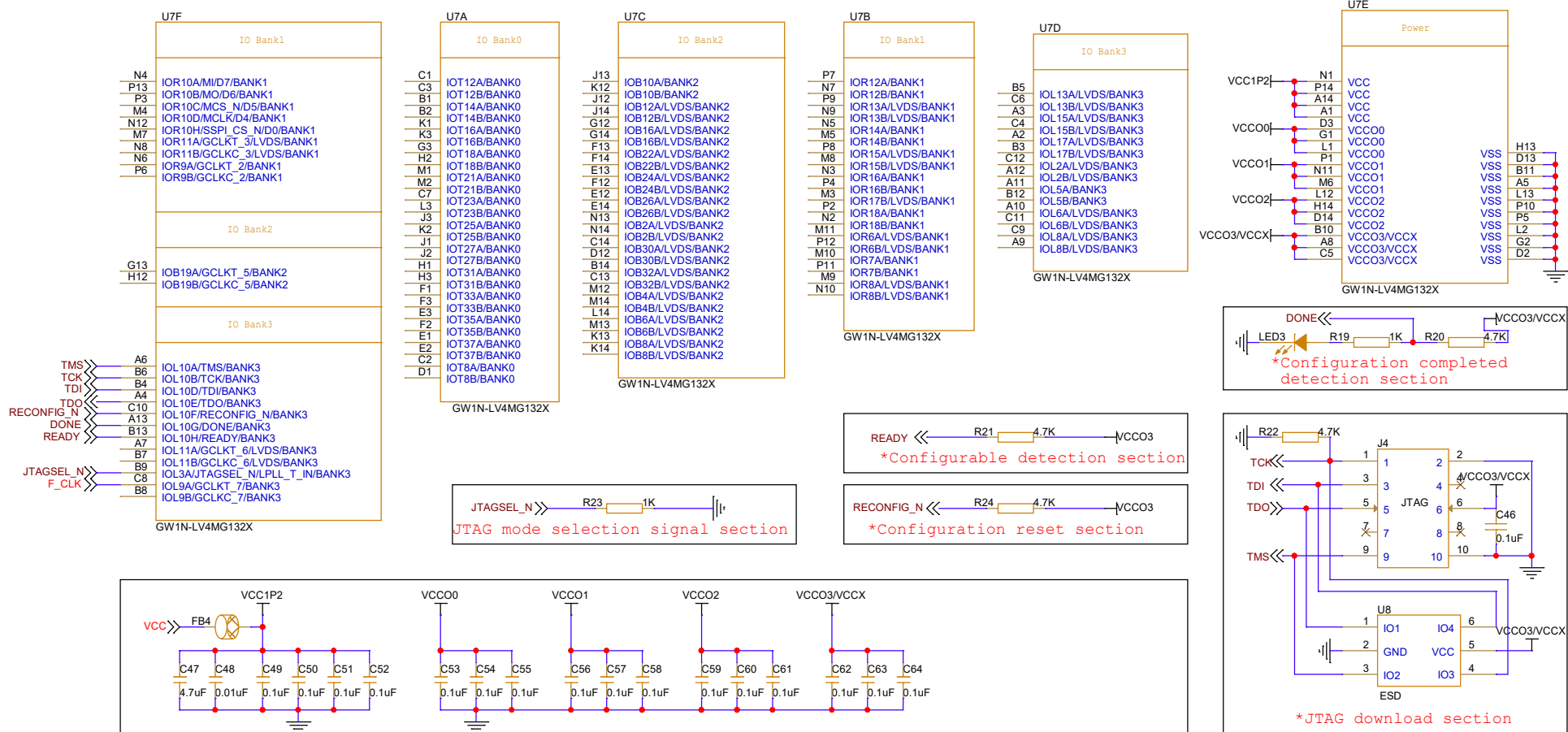
Title		
GOWIN Minimum System Diagram		
Size B	Document Number GW1N-LV4LQ144	Rev 2.0
Date:	Thursday, April 20, 2023	Sheet 3 of 22

D

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C

C

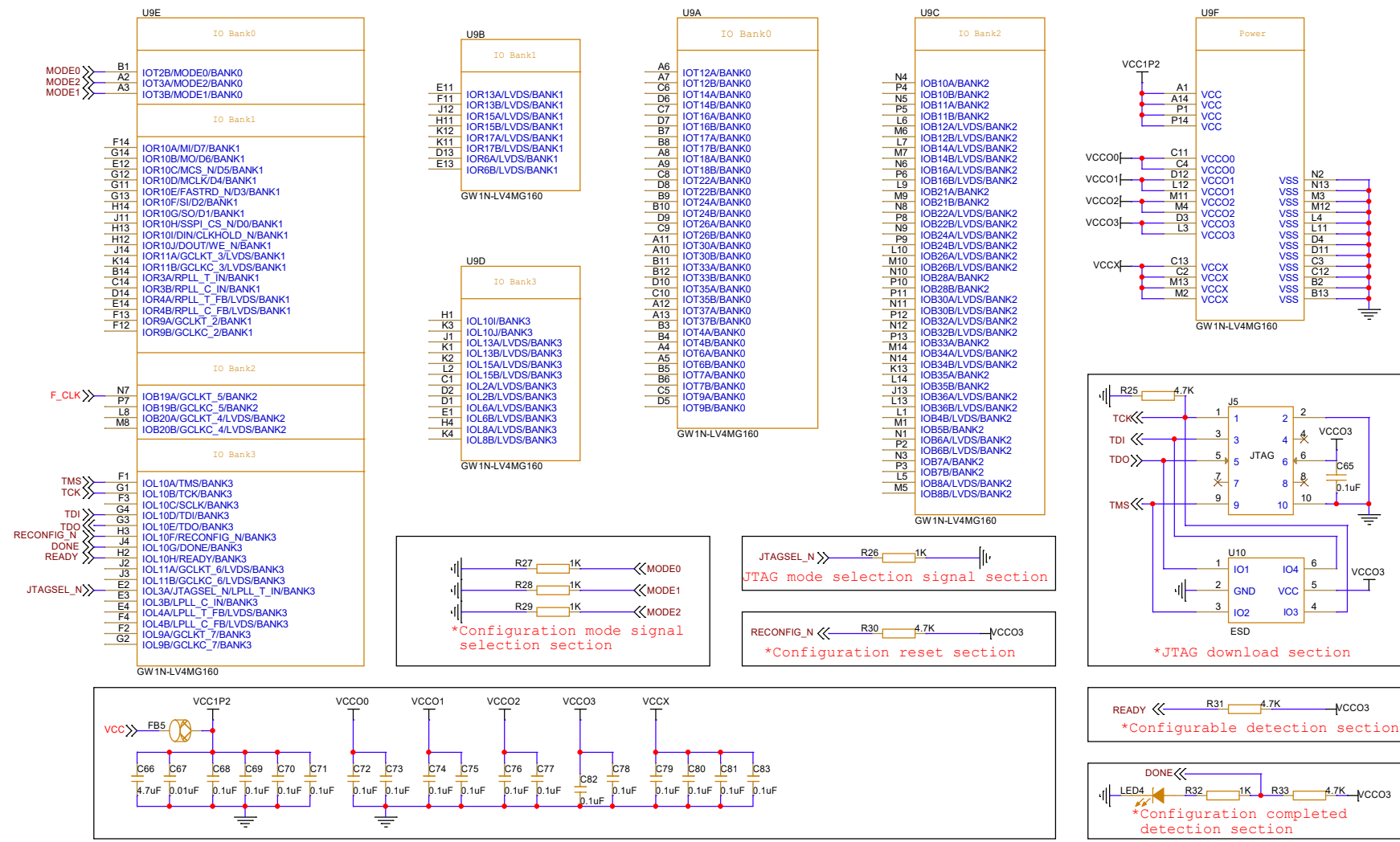


Notes:

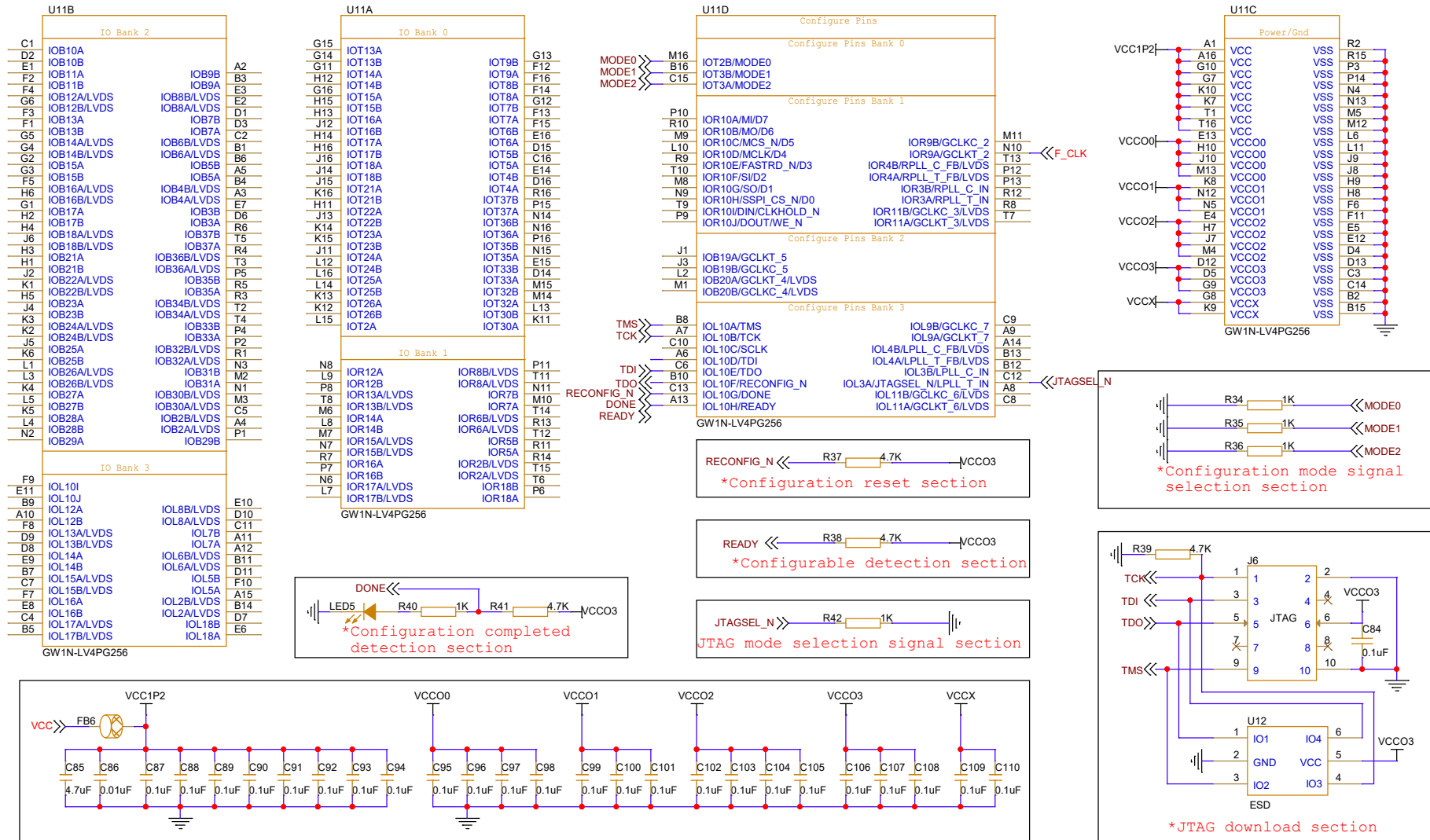
- 1.F CLK signal is an external input clock signal.
It is recommended that F CLK signal be provided through an active oscillator crystal.
- 2.It is recommended that add an ESD protection chip to the JTAG download circuit.

Title		
GOWIN Minimum System Diagram		
Size	Document Number	Rev
B	GW1N-LV4MG132X	2.0
Date:	Thursday, April 20, 2023	Sheet 4 of 22

A



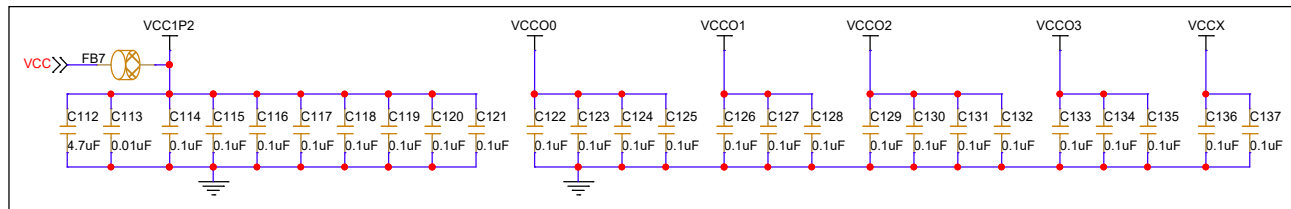
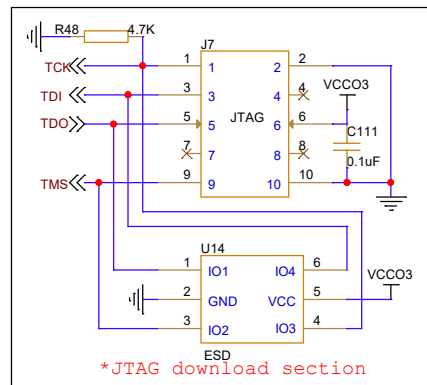
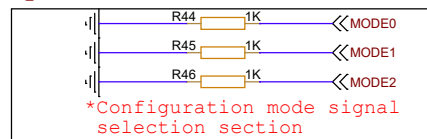
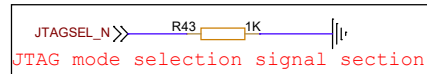
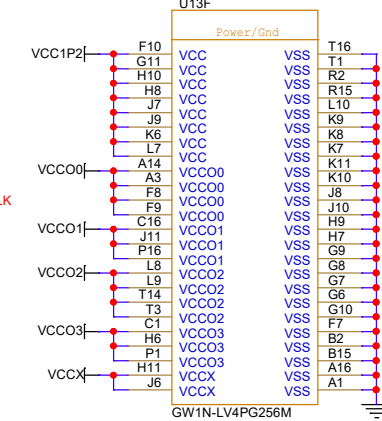
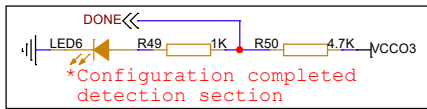
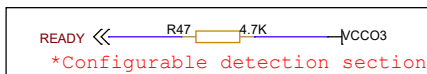
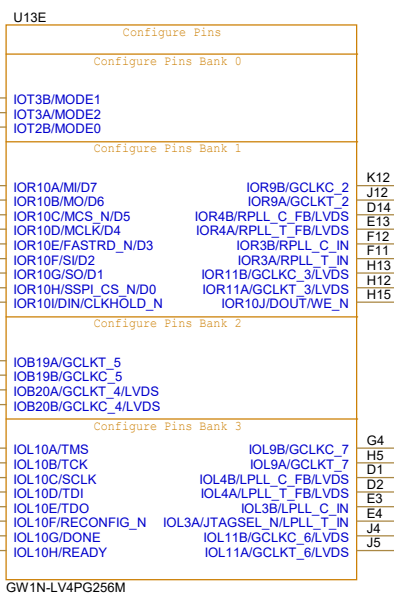
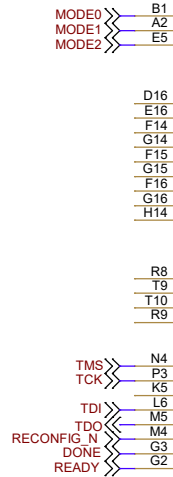
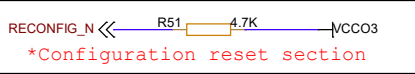
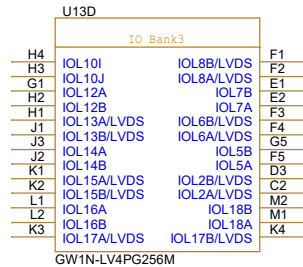
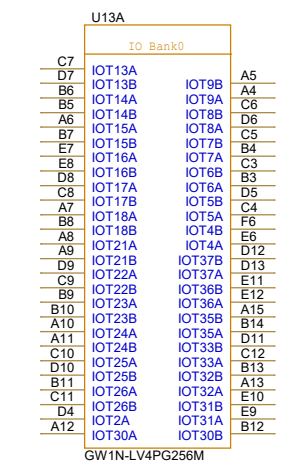
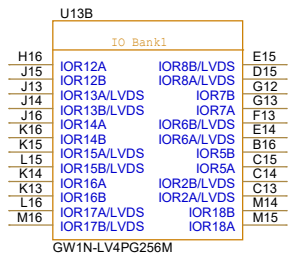
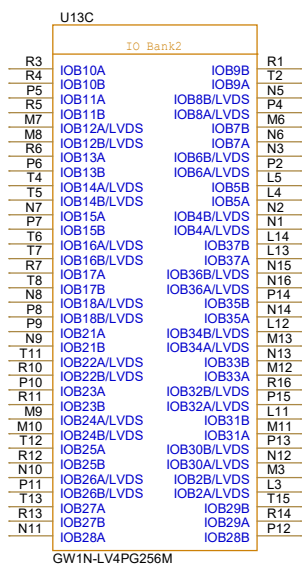
Notes:
1.F CLK signal is an external input clock signal.
It is recommended that F CLK signal be provided through an active oscillator crystal.
2.It is recommended that add an ESD protection chip to the JTAG download circuit.



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		
Size	Document Number	Rev
B	GW1N-LV4PG256	2.0
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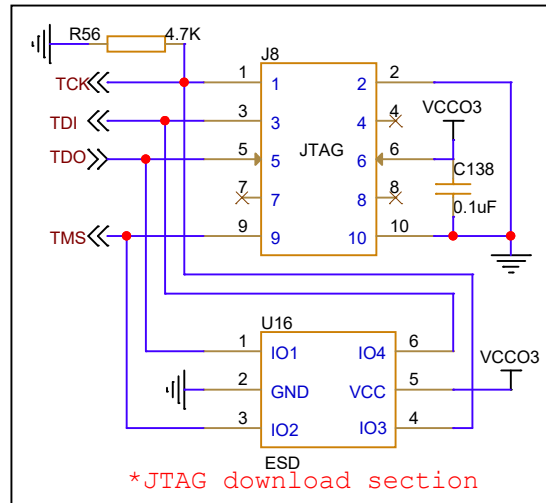
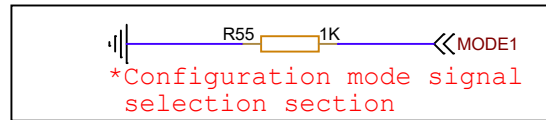
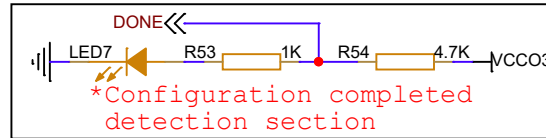
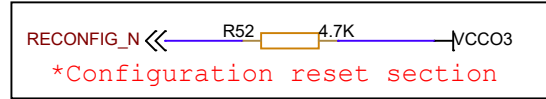
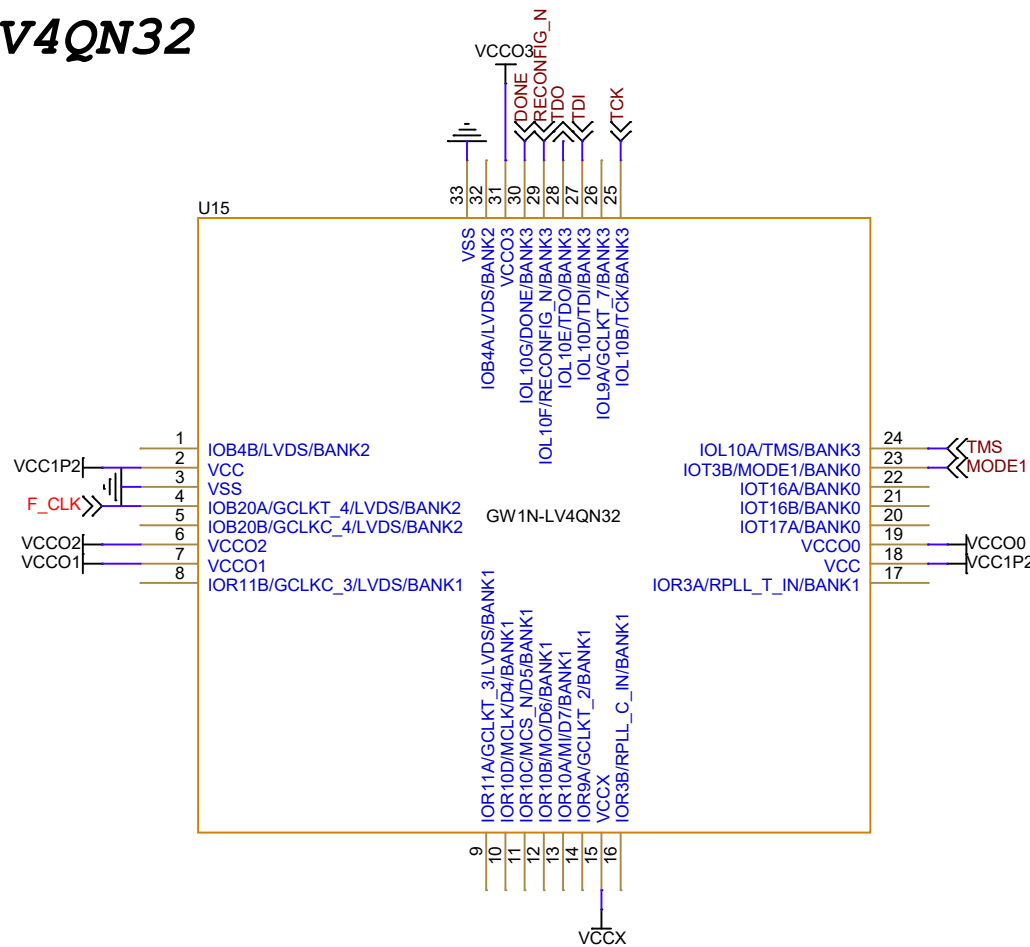


Notes:

- 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.It is recommended that add an ESD protection chip to the JTAG download circuit.

Title		
GOWIN Minimum System Diagram		
Size	Document Number	Rev
B	GW1N-LV4PG256M	2.0
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GW1N-LV4QN32



Notes:

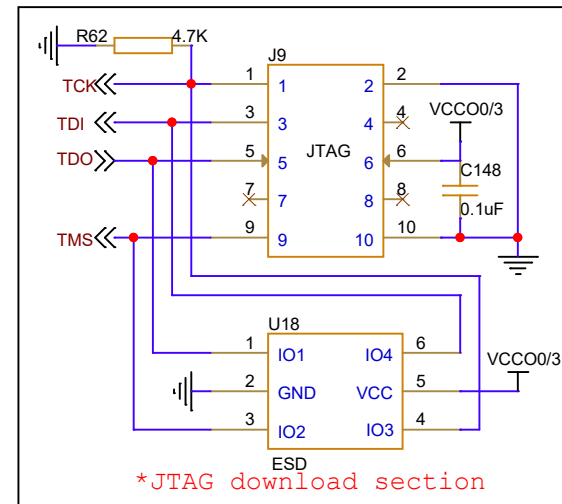
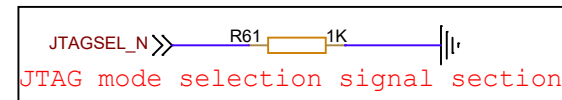
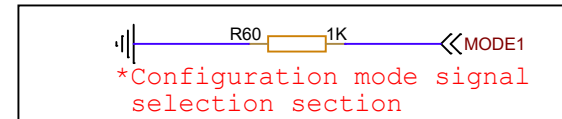
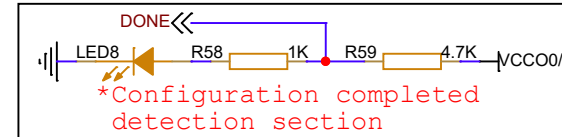
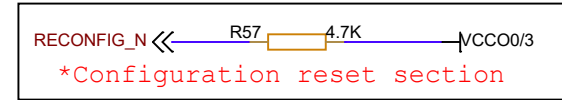
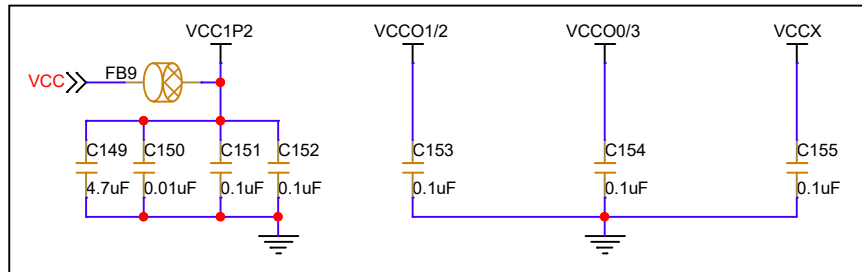
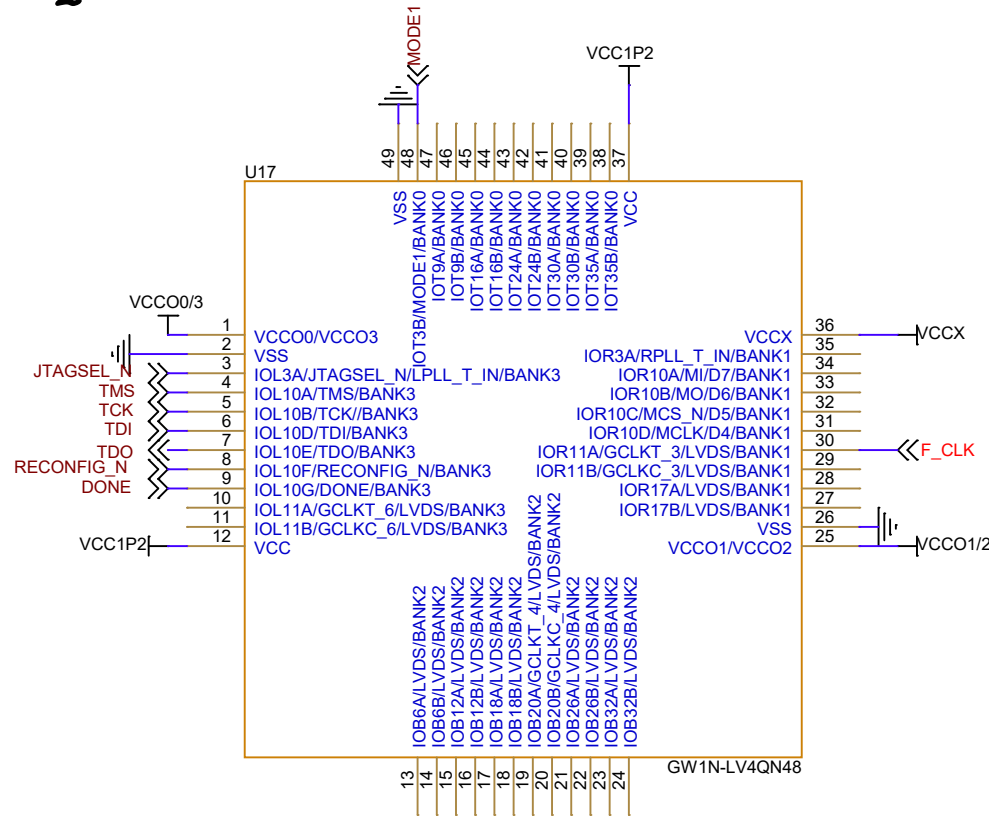
1.F CLK signal is an external input clock signal.

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		
Size	Document Number	Rev
A4	GW1N-LV4QN32	2.0
Date:	Thursday, April 20, 2023	Sheet 8 of 22

GW1N-LV4QN48



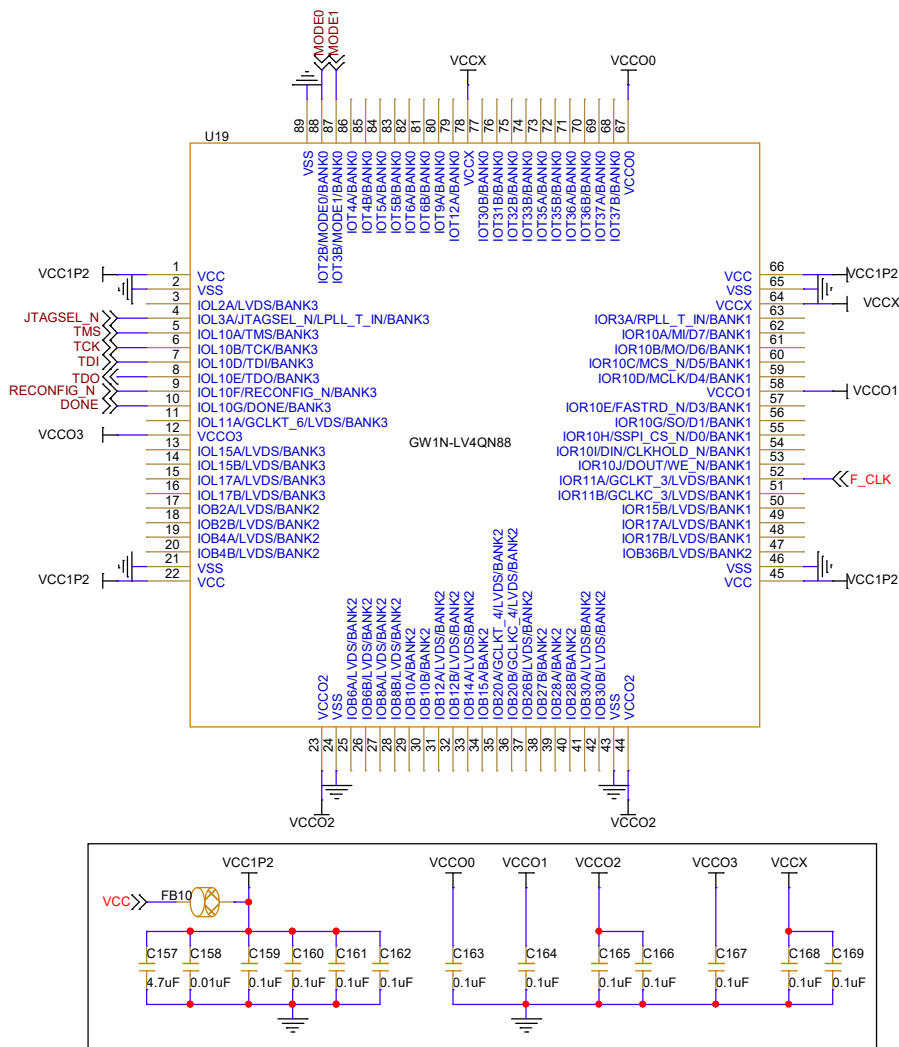
Notes:

1.F_CLK signal is an external input clock signal.

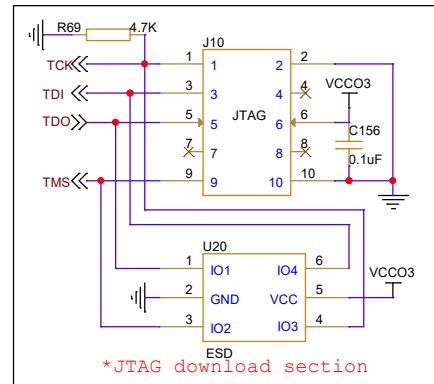
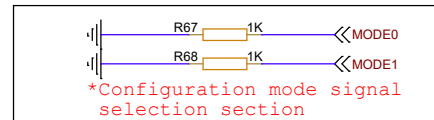
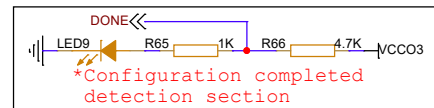
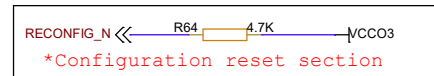
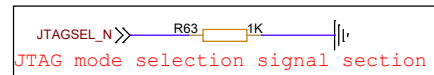
It is recommended that F_CLK signal be provided through an active oscillator crystal.

2.It is recommended that add an ESD protection chip to the JTAG download circuit.

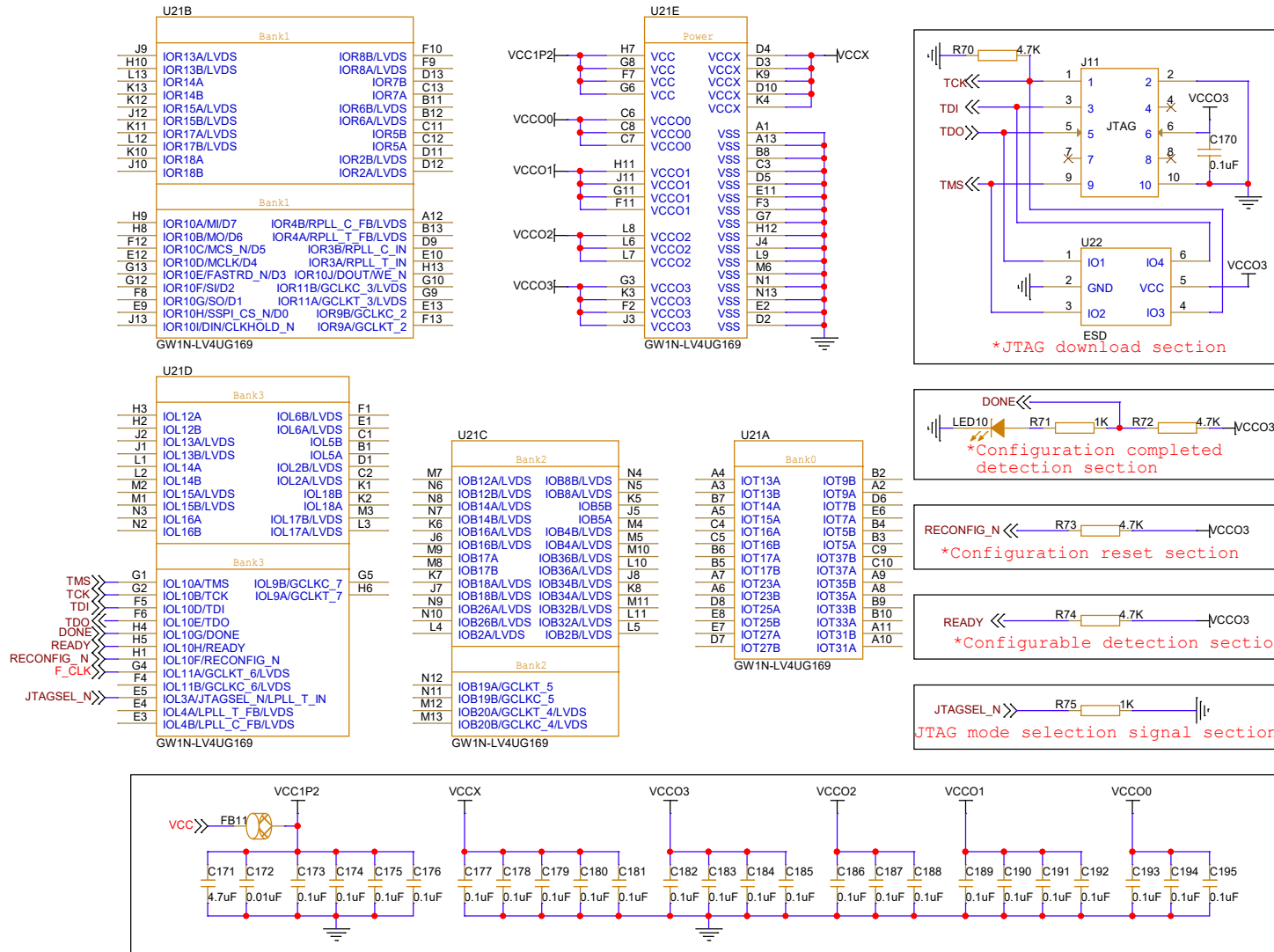
Title		
GOWIN Minimum System Diagram		
Size	Document Number	Rev
A4	GW1N-LV4QN48	2.0
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- Notes:
- 1.F CLK signal is an external input clock signal.
It is recommended that F_CLK signal be provided through an active oscillator crystal.
 - 2.It is recommended that add an ESD protection chip to the JTAG download circuit.



Title		
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Size	Document Number	Rev
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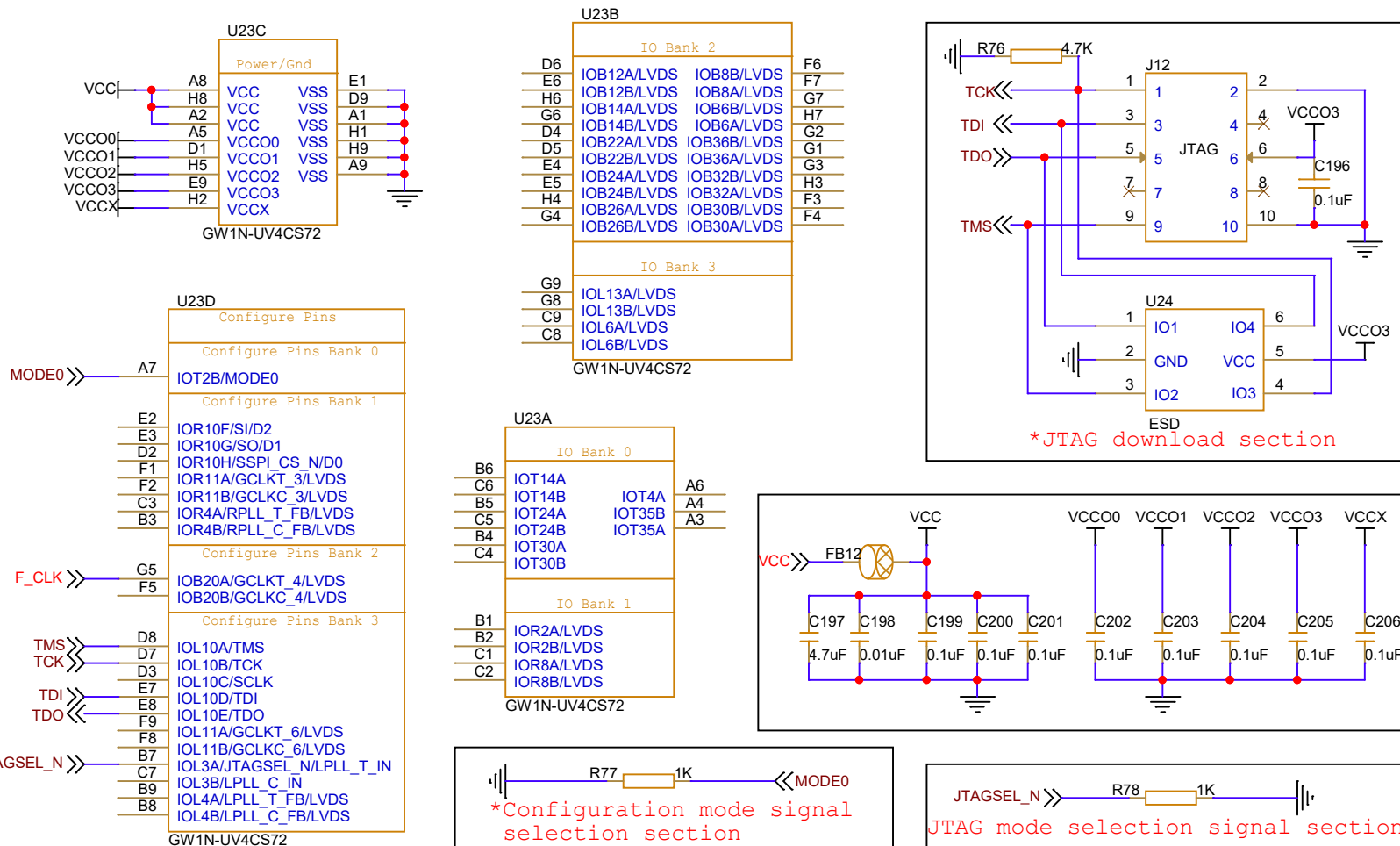


Notes:

- 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.It is recommended that add an ESD protection chip to the JTAG download circuit.

Title		
GOWIN Minimum System Diagram		
Size	Document Number	Rev
B	GW1N-LV4UG169	2.0
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GW1N-UV4CS72

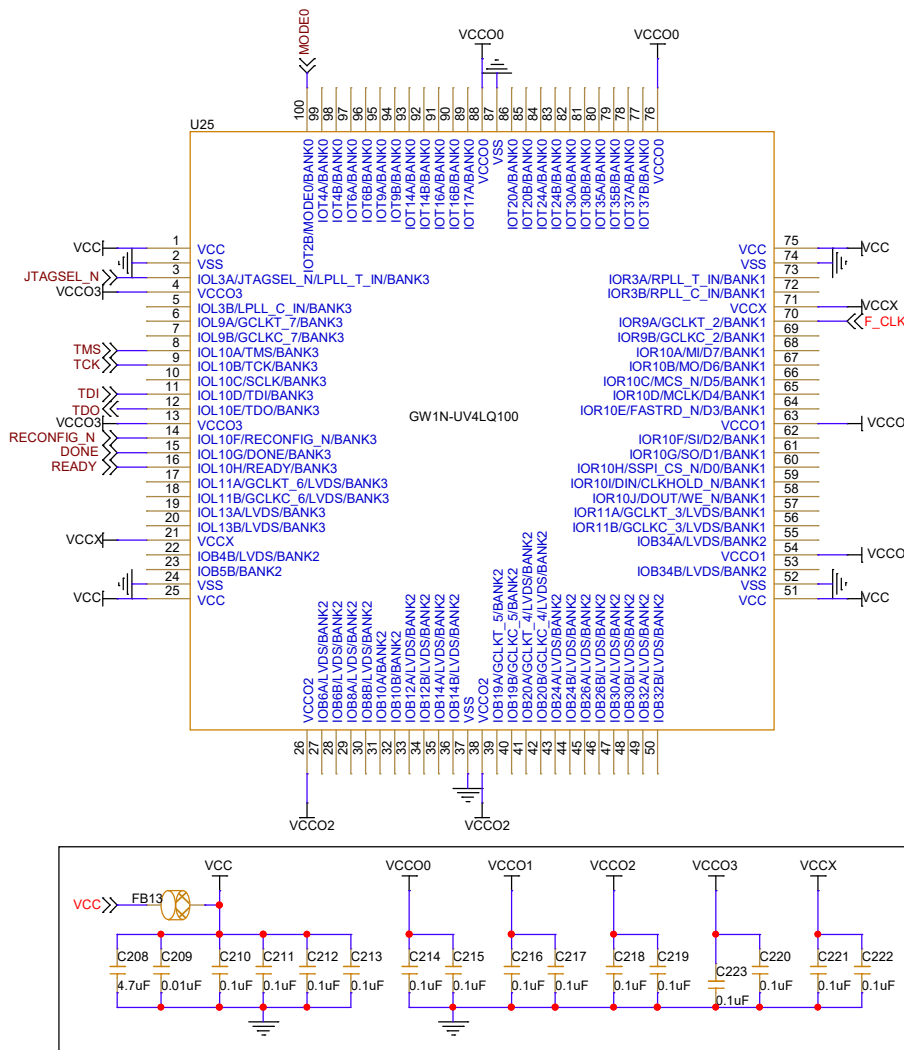


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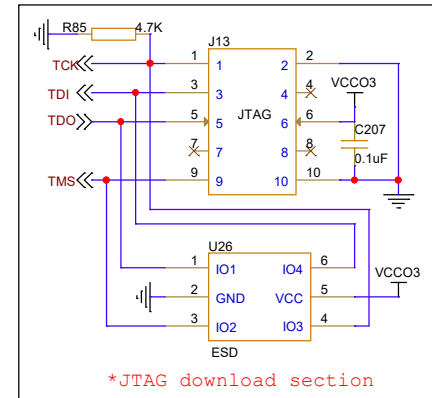
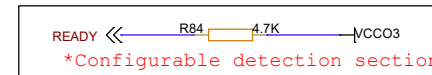
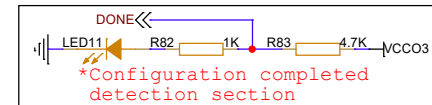
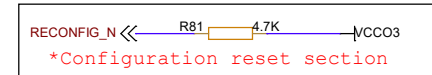
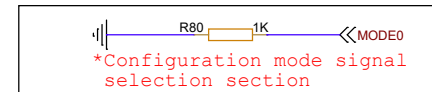
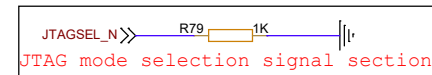
1.F_CLK signal is an external input clock signal.

It is recommended that F_CLK signal be provided through an active oscillator crystal.

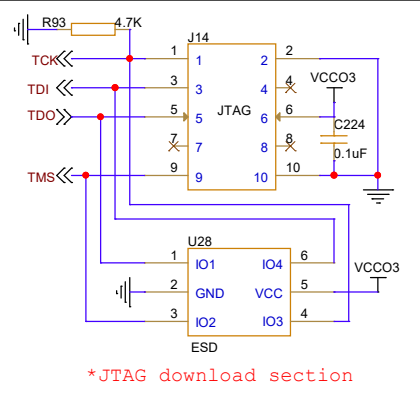
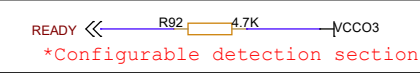
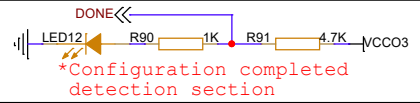
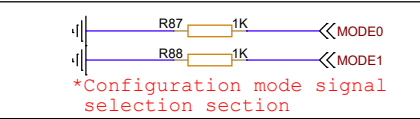
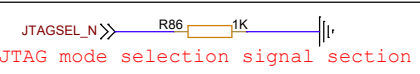
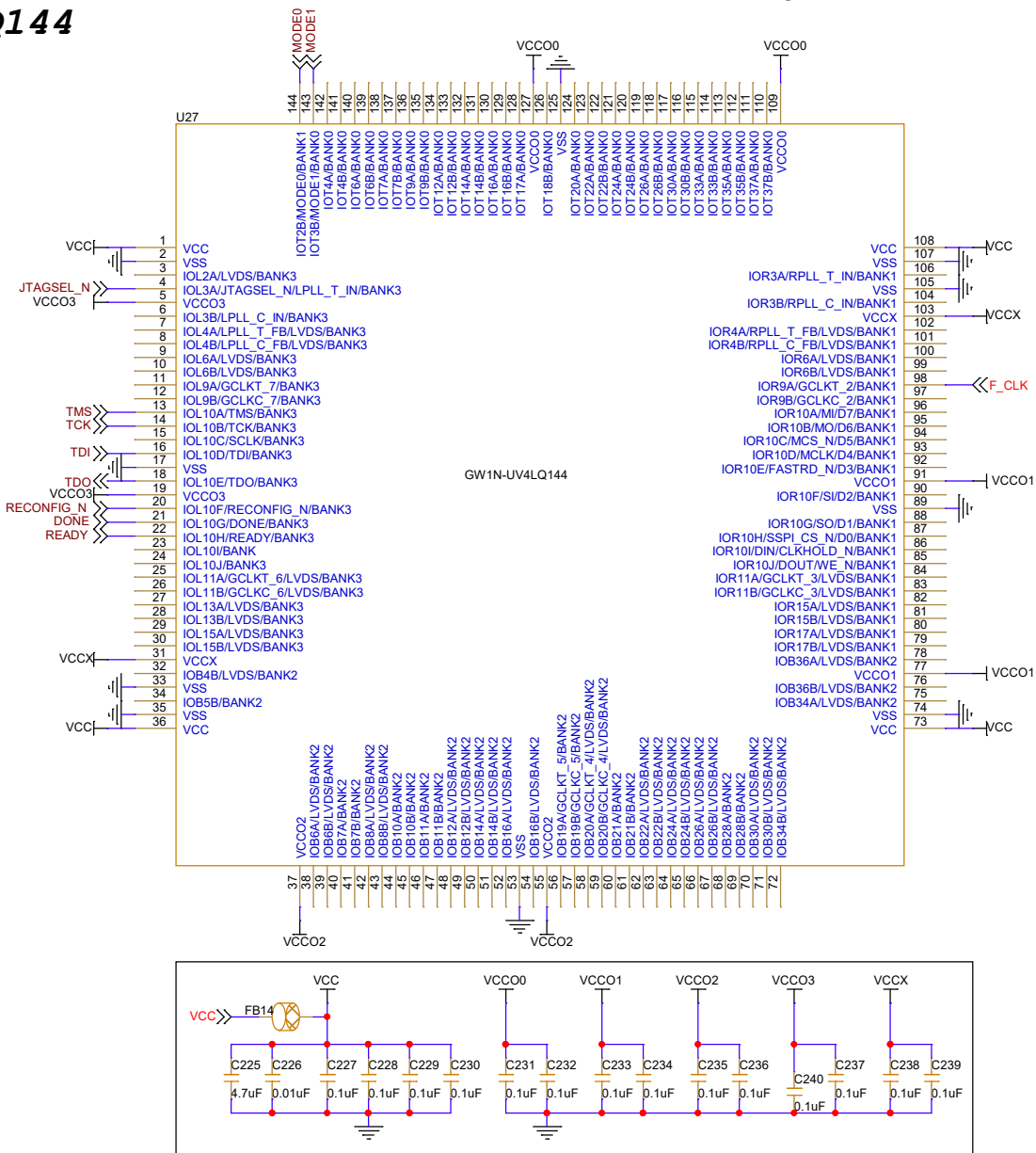
2.It is recommended that add an ESD protection chip to the JTAG download circuit.



- 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.

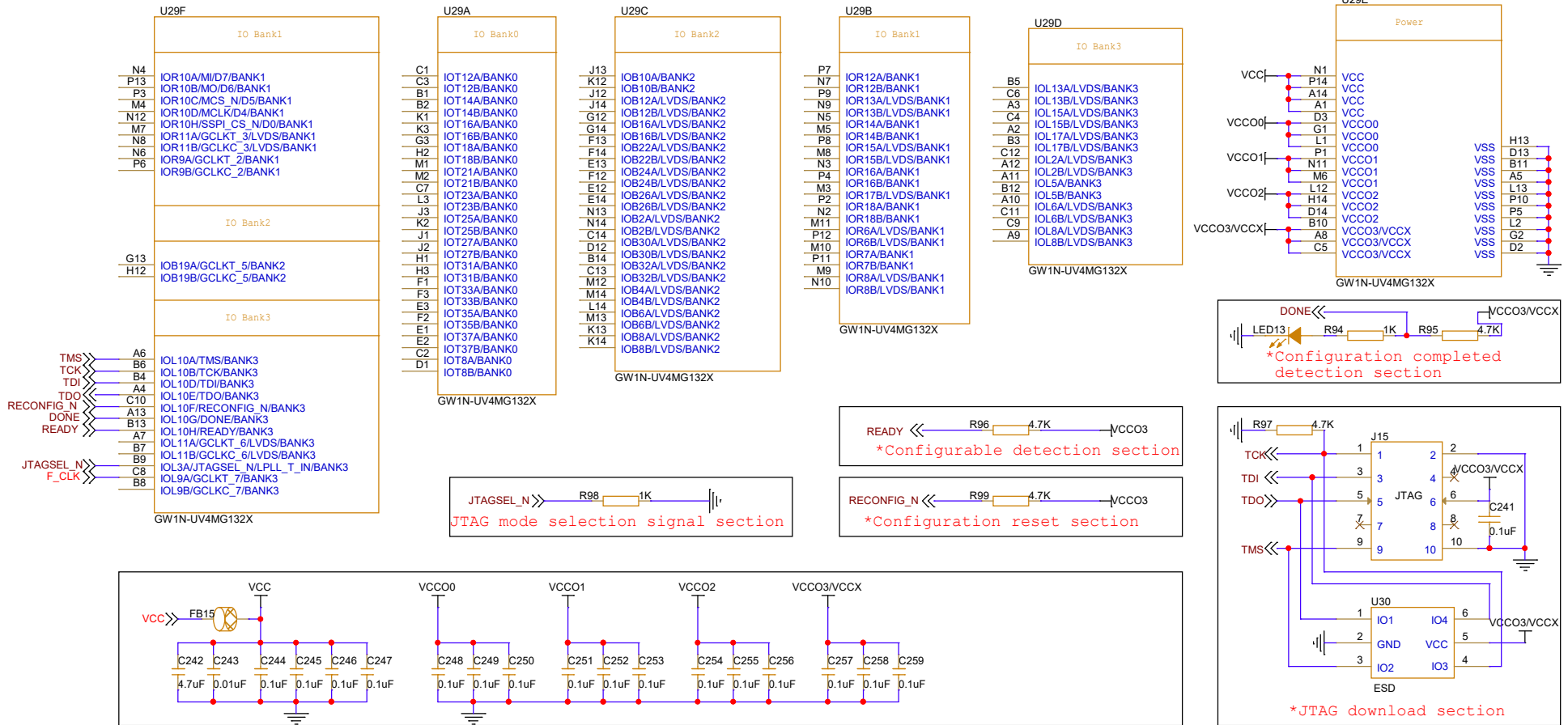


Title		
GOWIN Minimum System Diagram		
Size	Document Number	Rev
B	GW1N-UV4LQ100	2.0
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Notes:
1.F CLK signal is an external input clock signal.
It is recommended that F CLK signal be provided through an active oscillator crystal.
2.It is recommended that add an ESD protection chip to the JTAG download circuit.

Title		
GOWIN Minimum System Diagram		
Size B	Document Number GW1N-UV4LQ144	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.It is recommended that add an ESD protection chip to the JTAG download circuit.

Title			
GOWIN Minimum System Diagram			
Size	Document Number	Rev	
B	GW1N-UV4MG132X	2.0	
Date:	Thursday, April 20, 2023	Sheet	15 of 22

D

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B

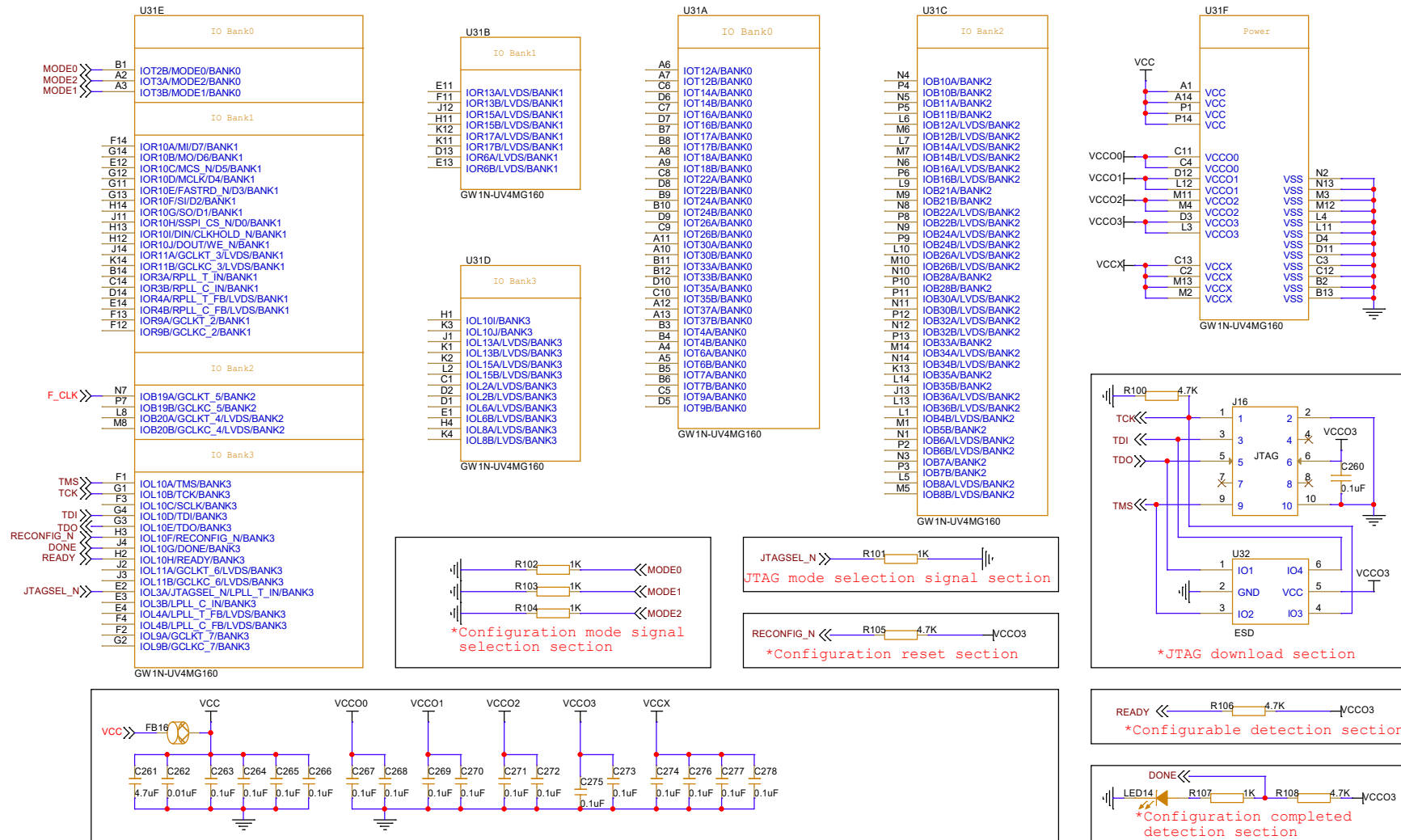
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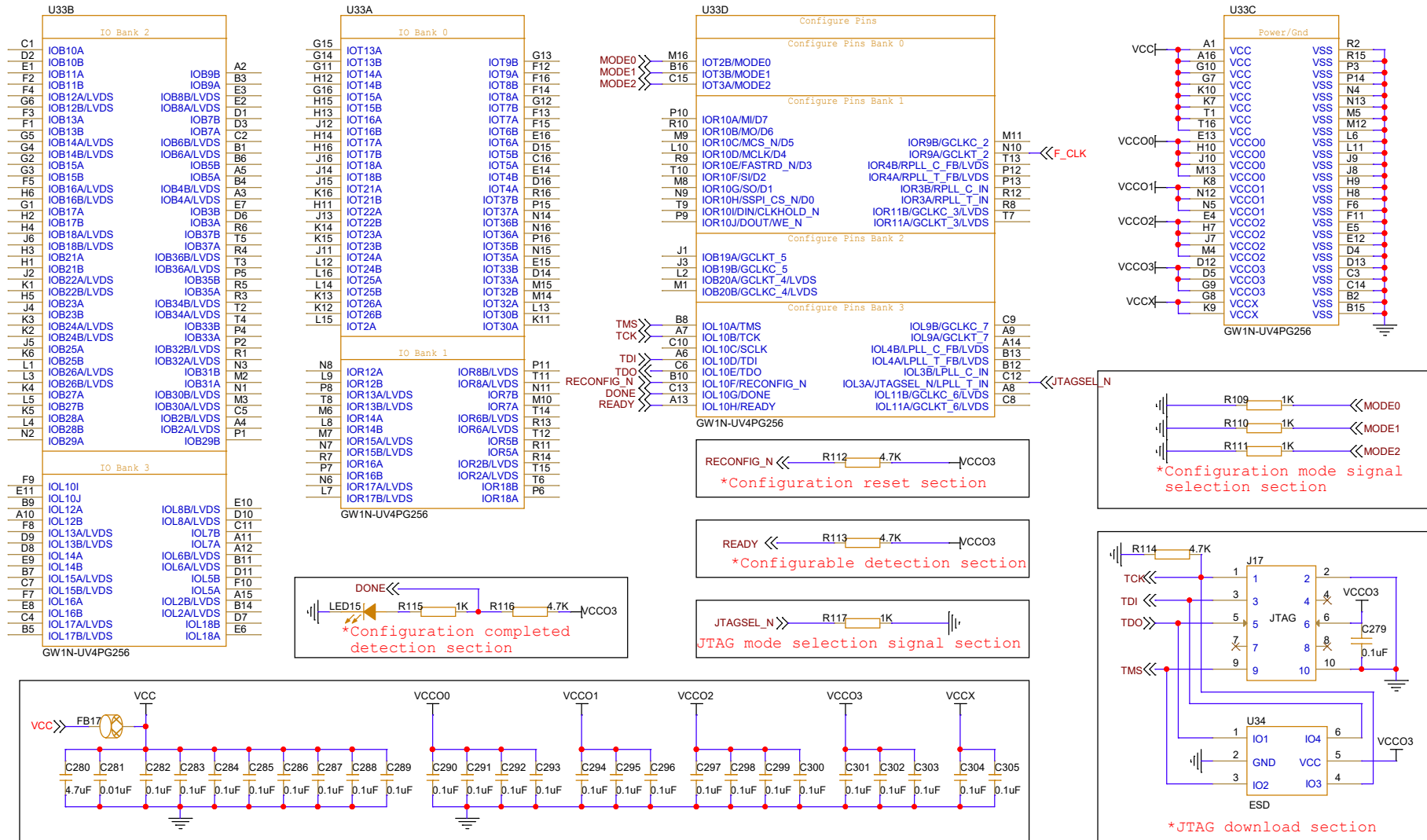
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A



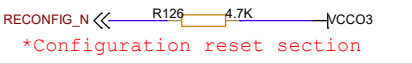
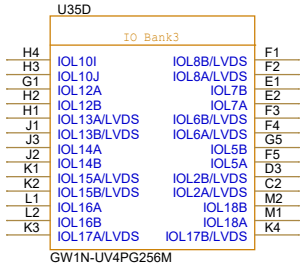
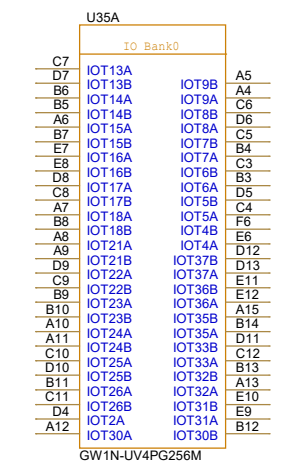
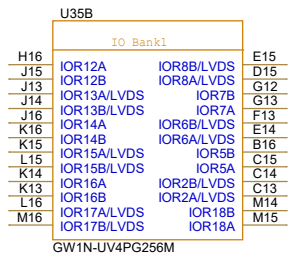
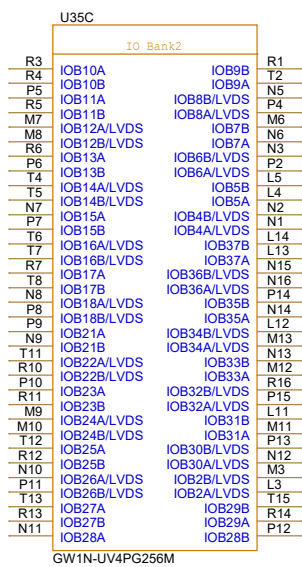
Notes:
1.F CLK signal is an external input clock signal.
It is recommended that F CLK signal be provided through an active oscillator crystal.
2.It is recommended that add an ESD protection chip to the JTAG download circuit.



Notes:

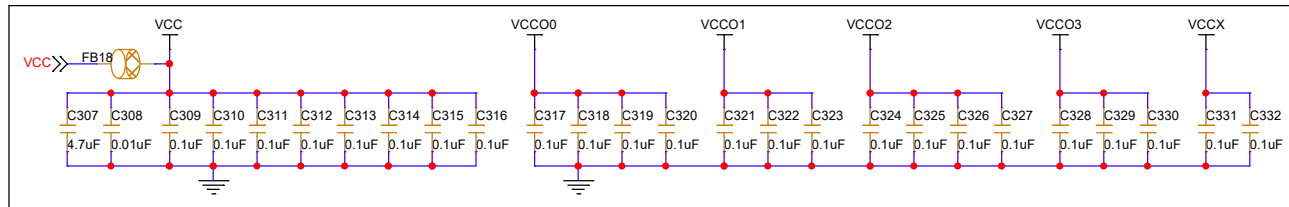
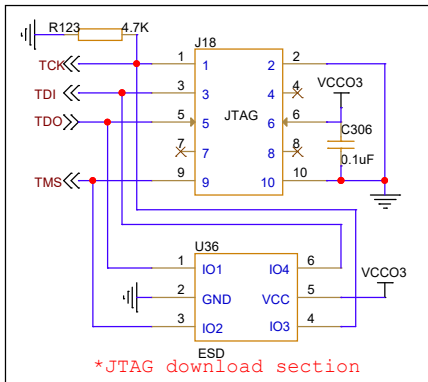
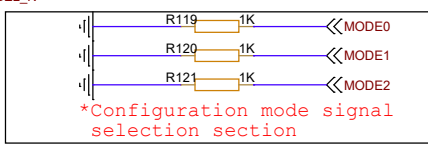
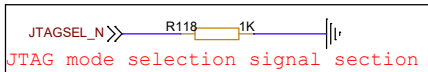
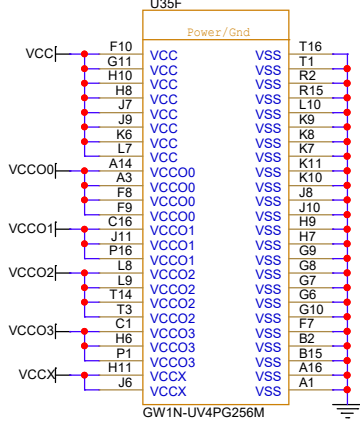
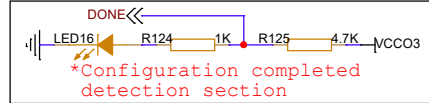
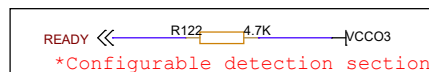
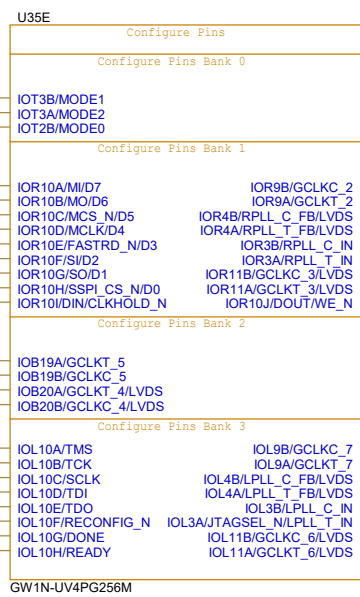
- 1.F CLK signal is an external input clock signal.
It is recommended that F_CLK signal be provided through an active oscillator crystal.
- 2.It is recommended that add an ESD protection chip to the JTAG download circuit.

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MODE0
MODE1
MODE2

TMS
TCK
TDI
TDO
DONE
READY

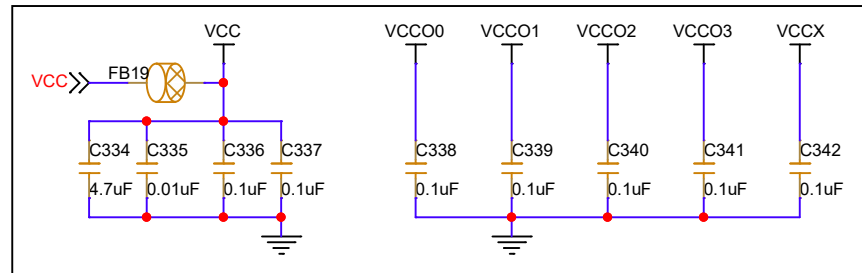
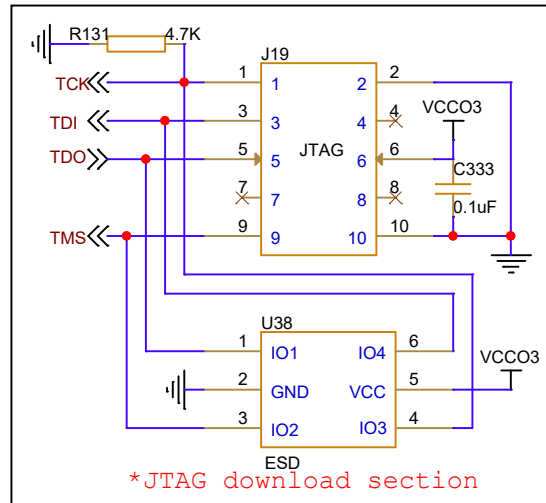
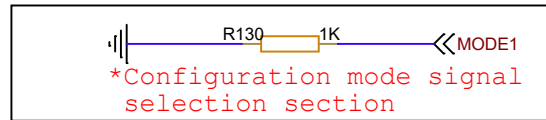
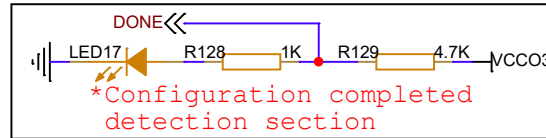
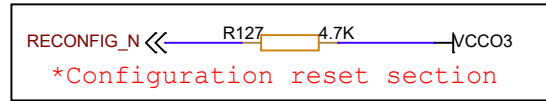
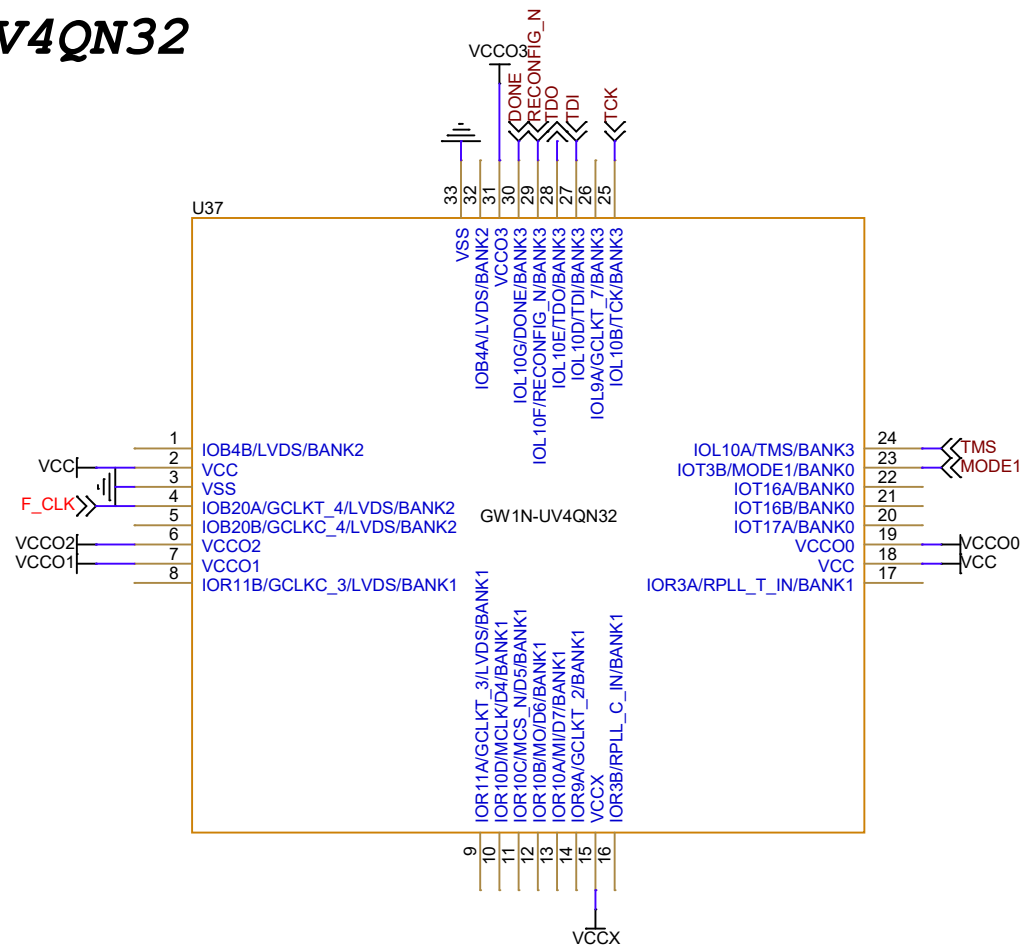


Notes:

- 1.F CLK signal is an external input clock signal.
If 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.

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GW1N-UV4QN32



Notes:

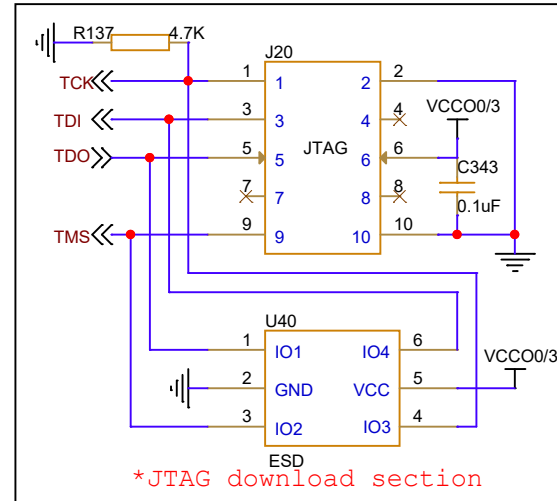
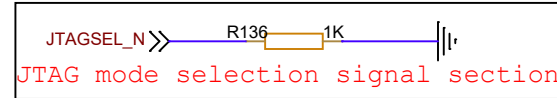
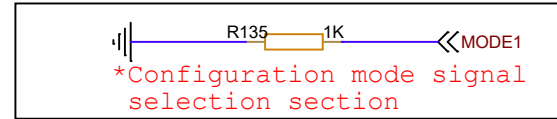
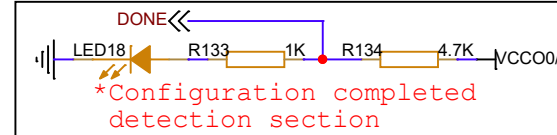
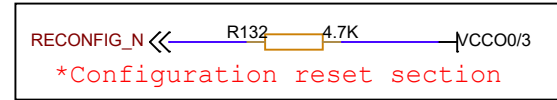
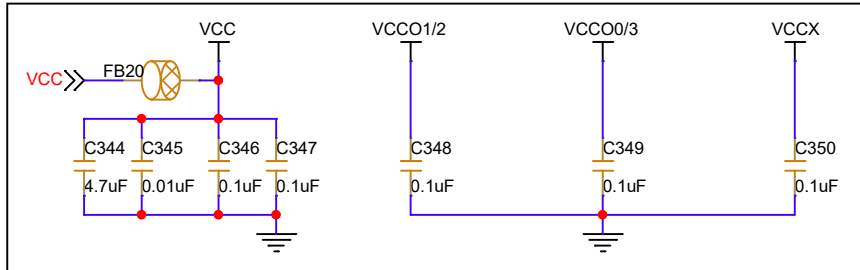
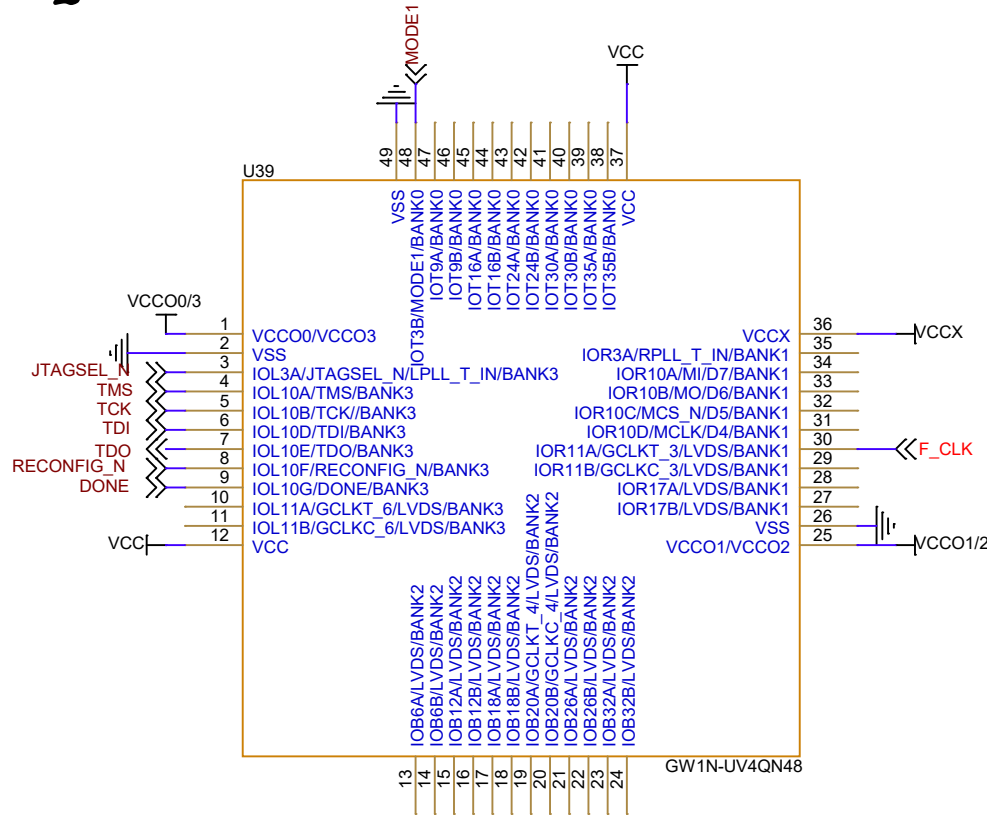
1.F_CLK signal is an external input clock signal.

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-UV4QN48



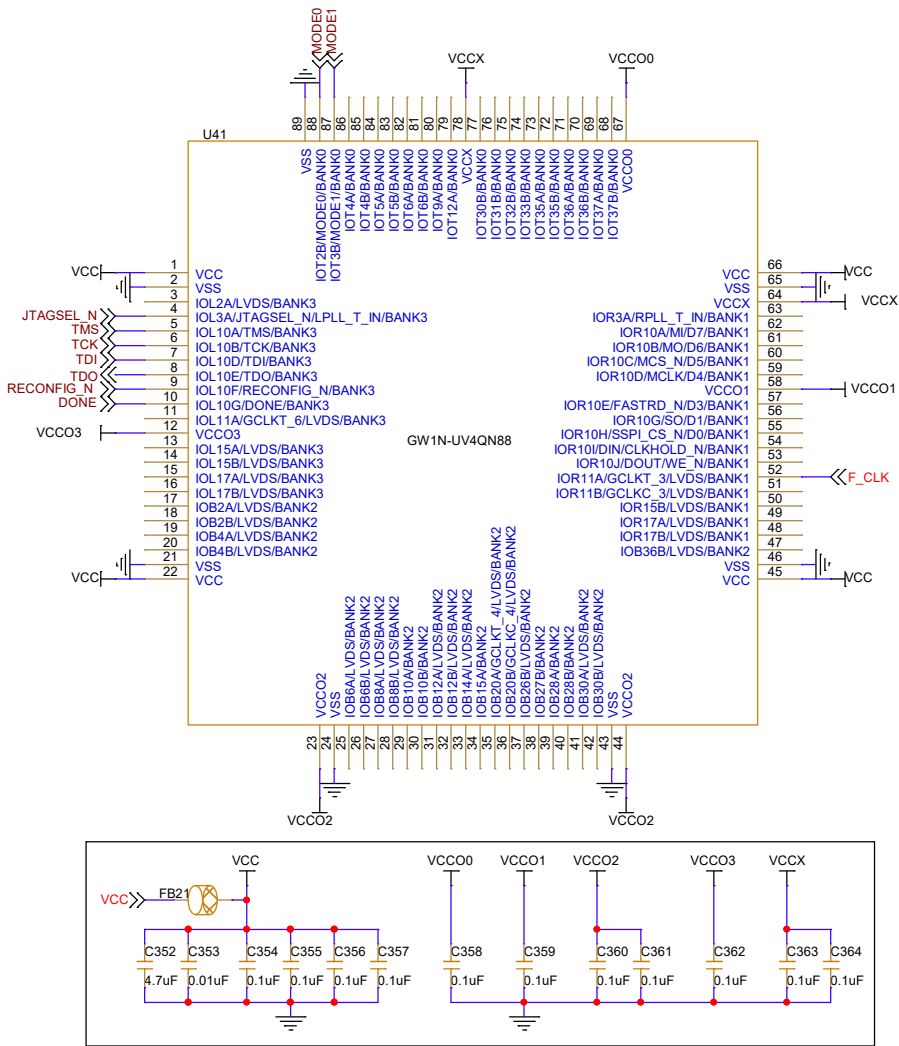
Notes:

1.F_CLK signal is an external input clock signal.

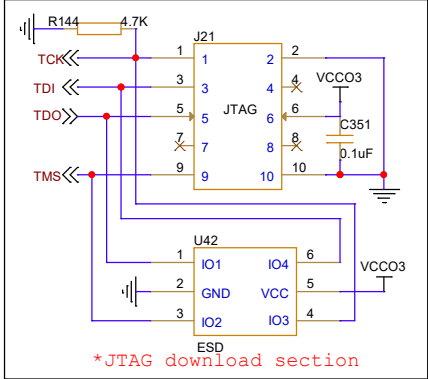
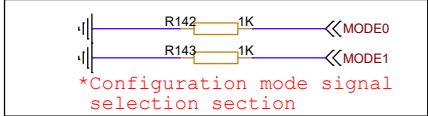
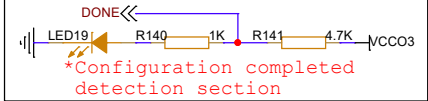
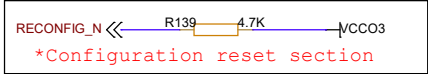
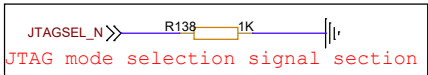
It is recommended that F_CLK signal be provided through an active oscillator crystal.

2.It is recommended that add an ESD protection chip to the JTAG download circuit.

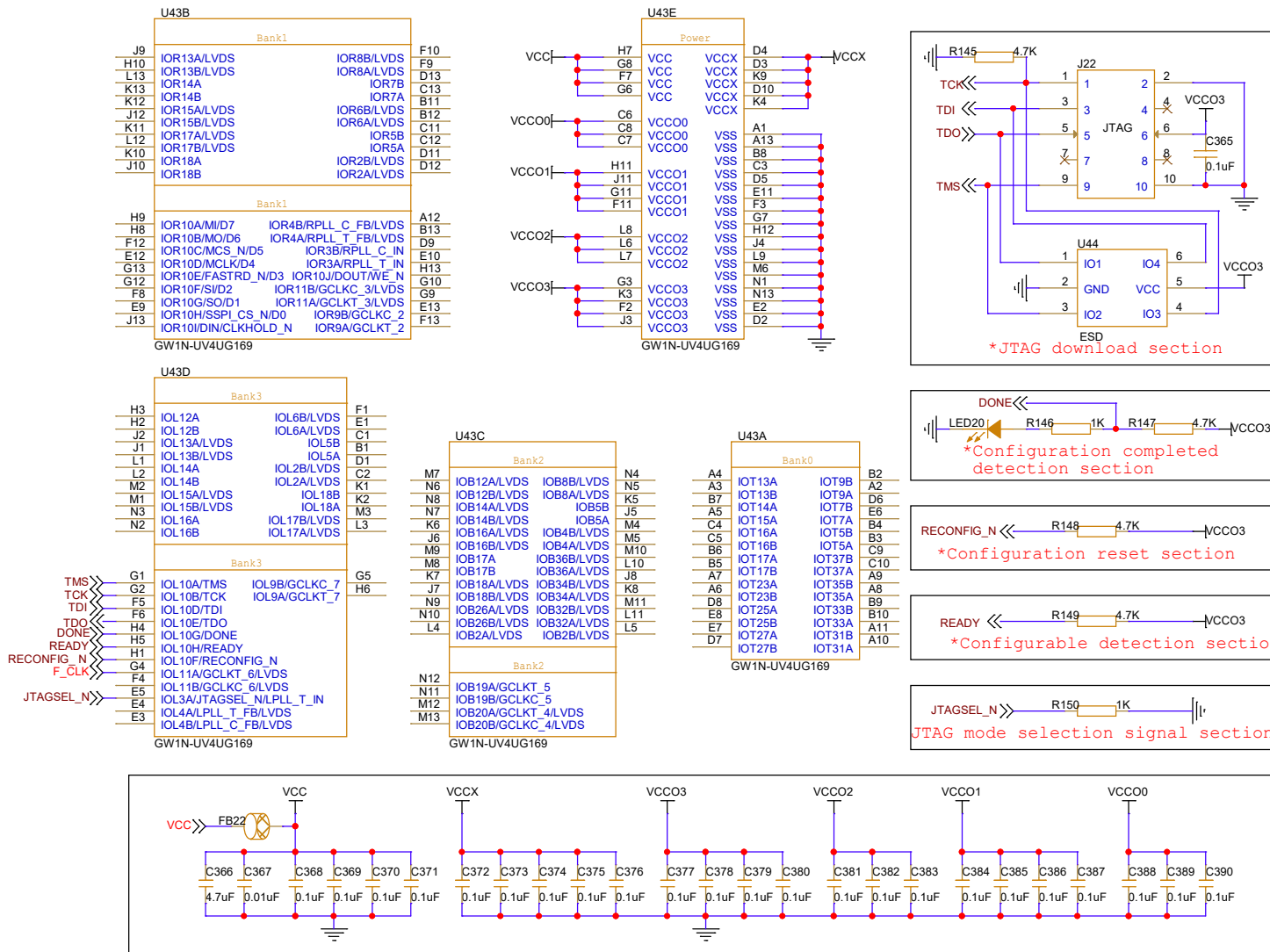
Title		
GOWIN Minimum System Diagram		
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Notes:
1.F CLK signal is an external input clock signal.
It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.It is recommended that add an ESD protection chip to the JTAG download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



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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.It is recommended that add an ESD protection chip to the JTAG download circuit.

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GOWIN Minimum System Diagram		
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