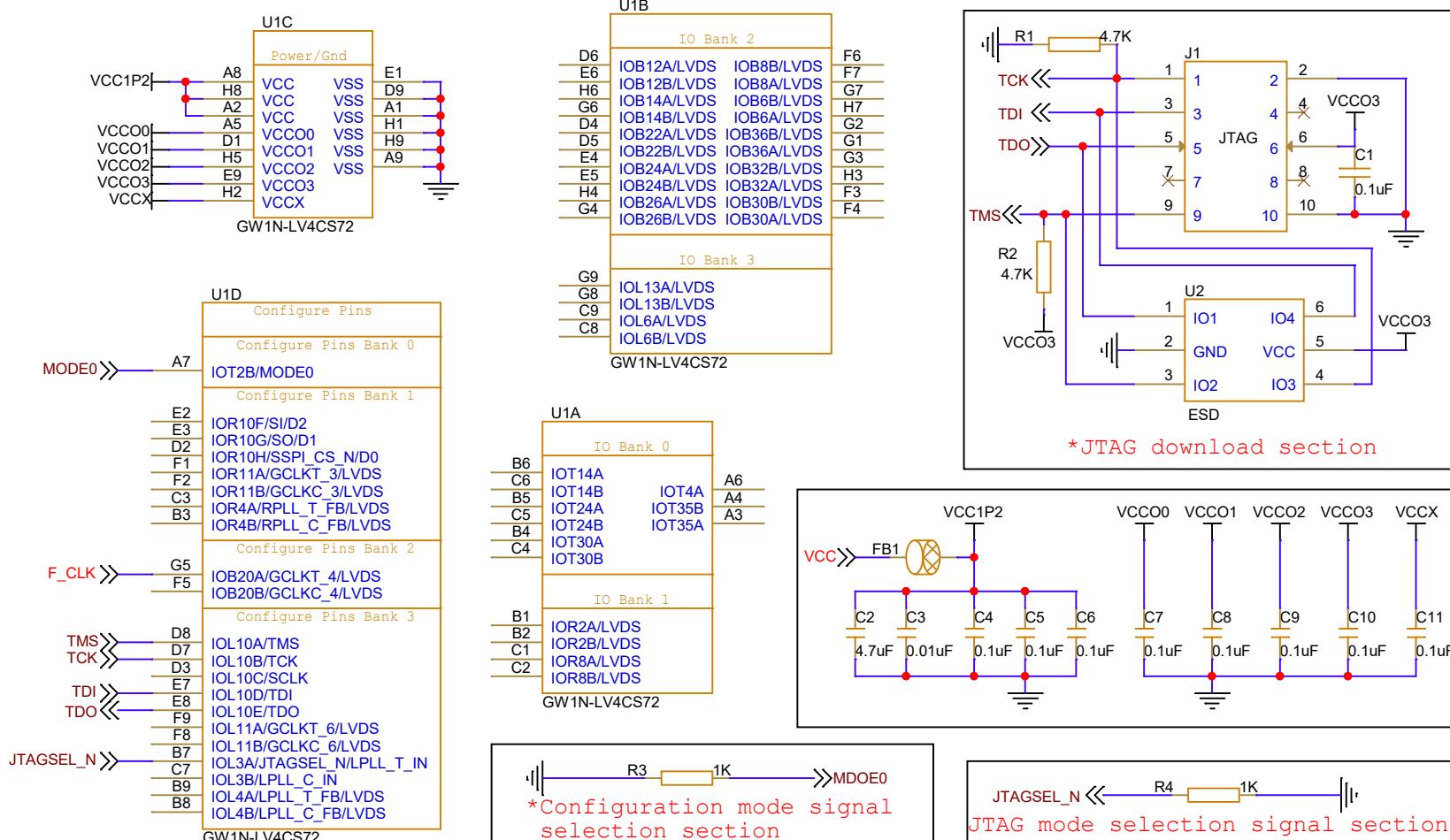
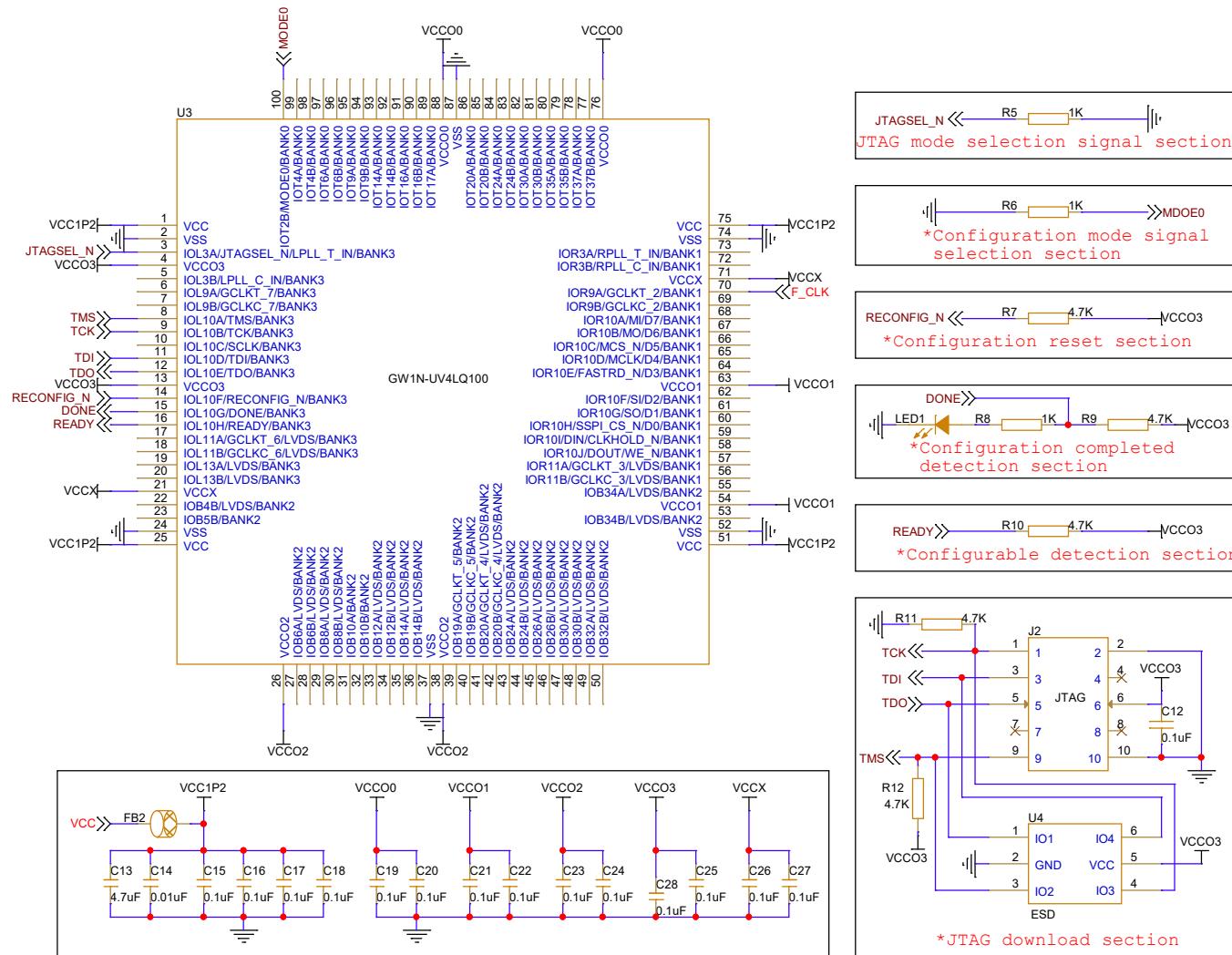


GW1N-LV4CS72



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.



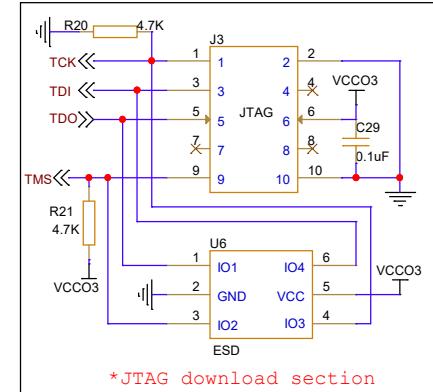
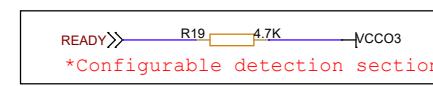
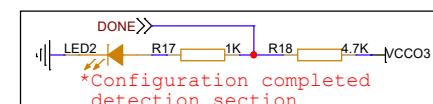
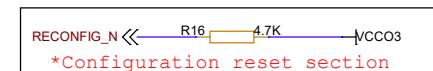
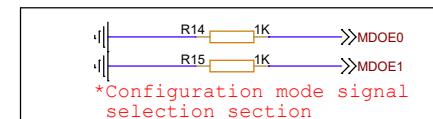
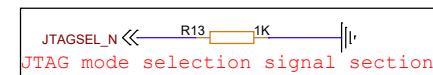
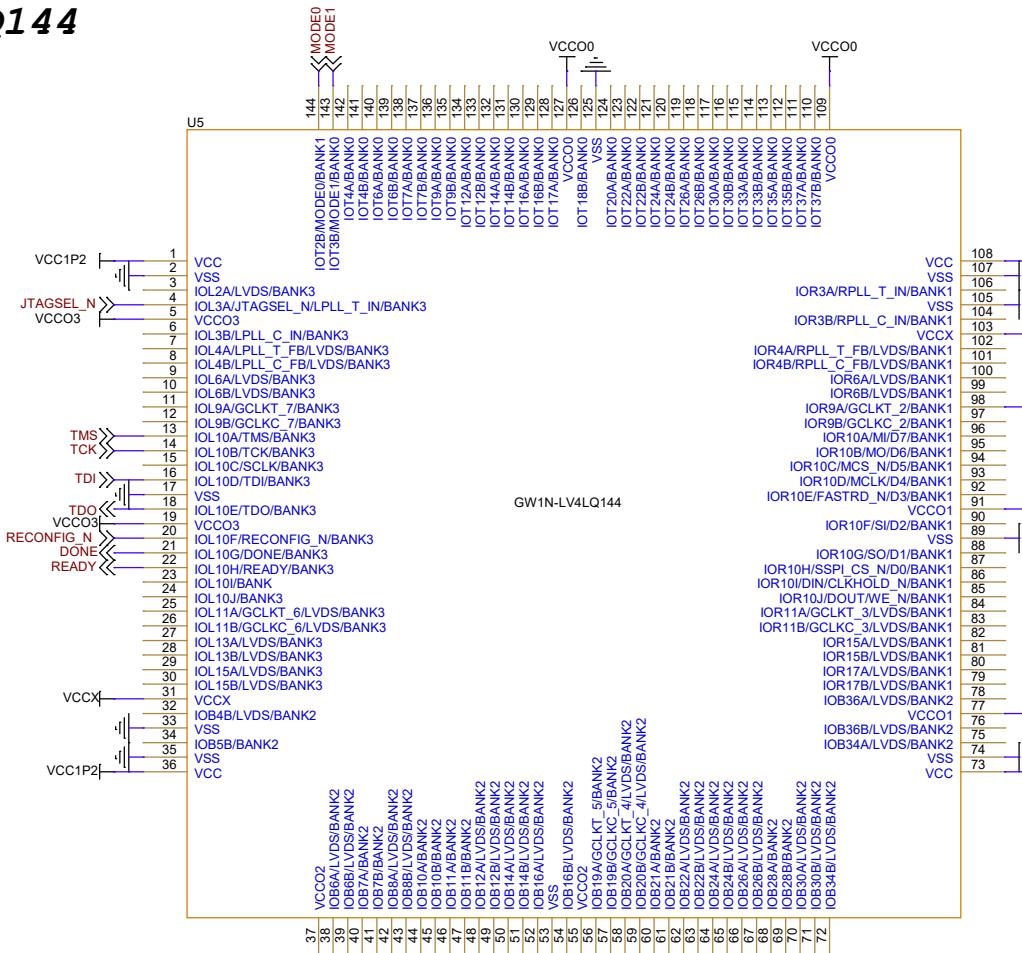
Notes:

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	
Size B	Document Number GW1N-LV4LQ100
Rev 2.1	Date: Tuesday, April 09, 2024



Notes:

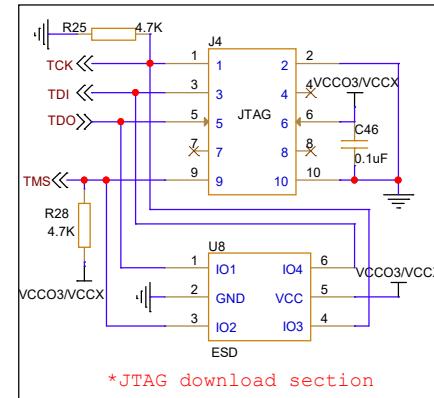
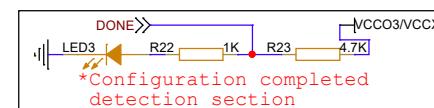
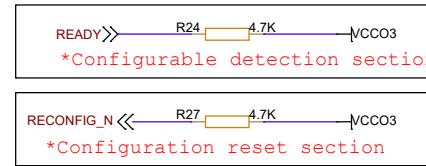
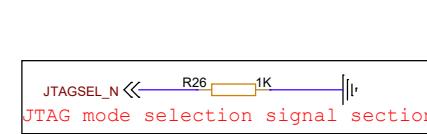
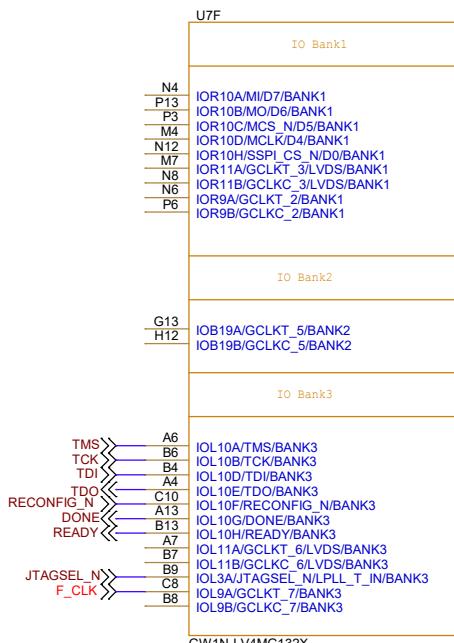
1. F_CLK signal is an external input clock signal.

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

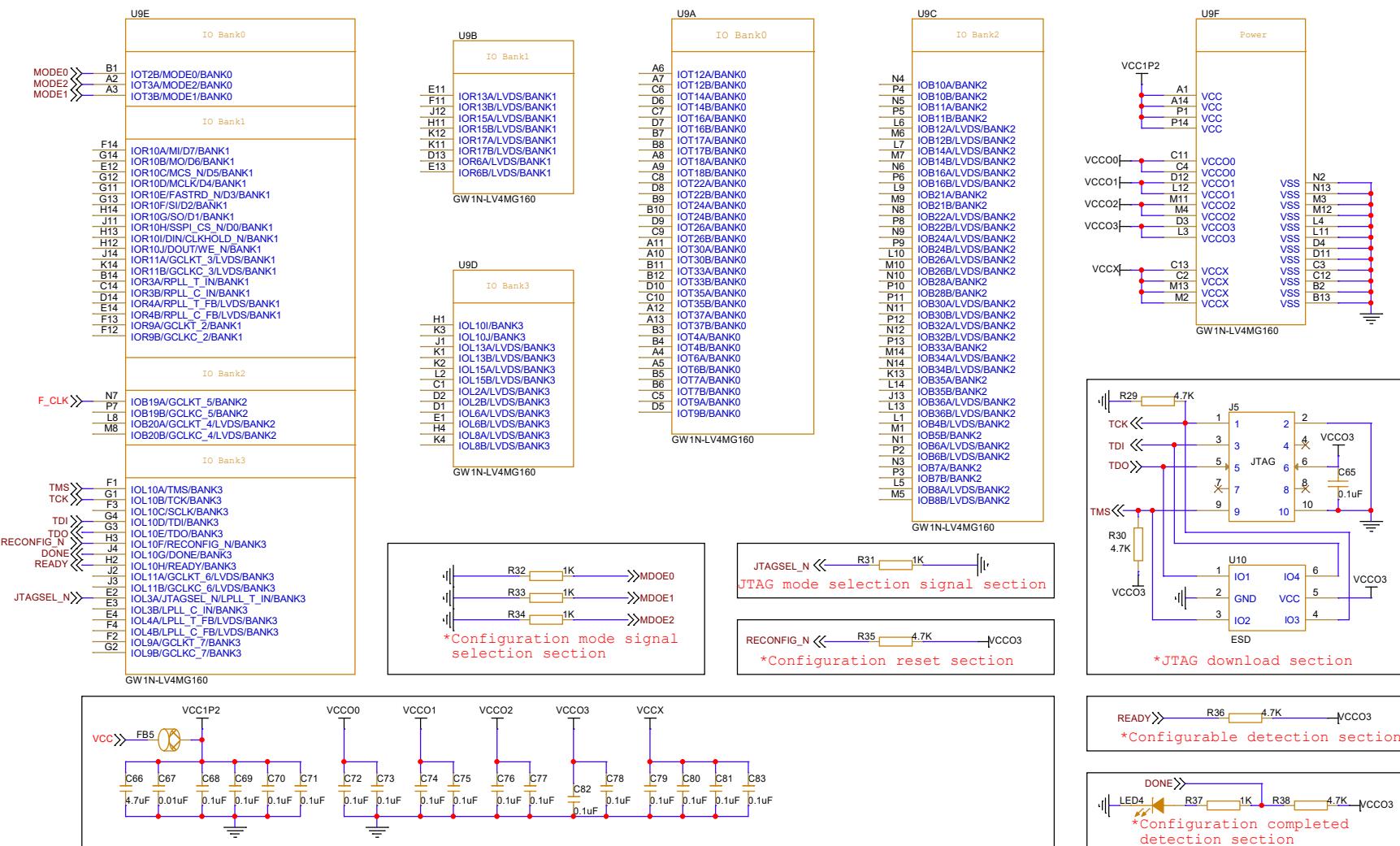
Rev 2.1



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.

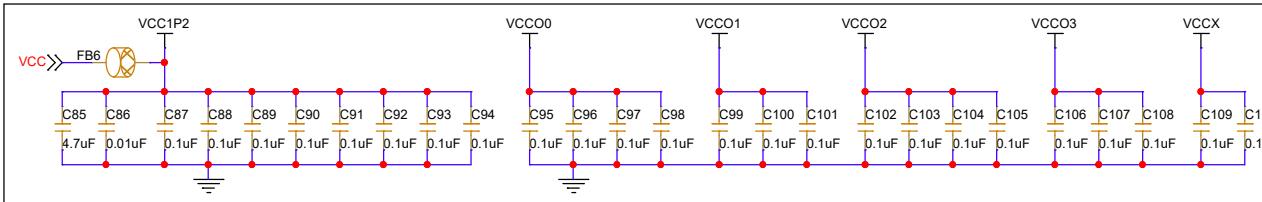
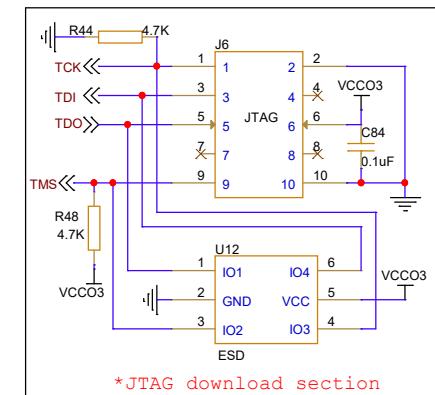
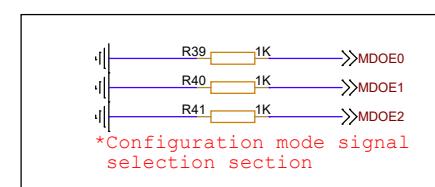
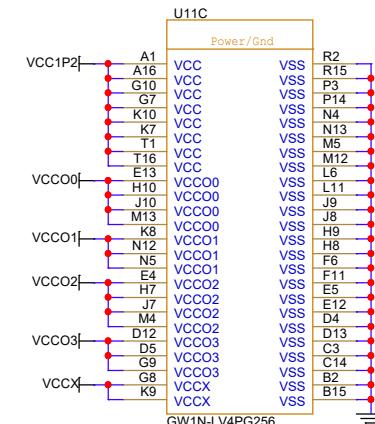
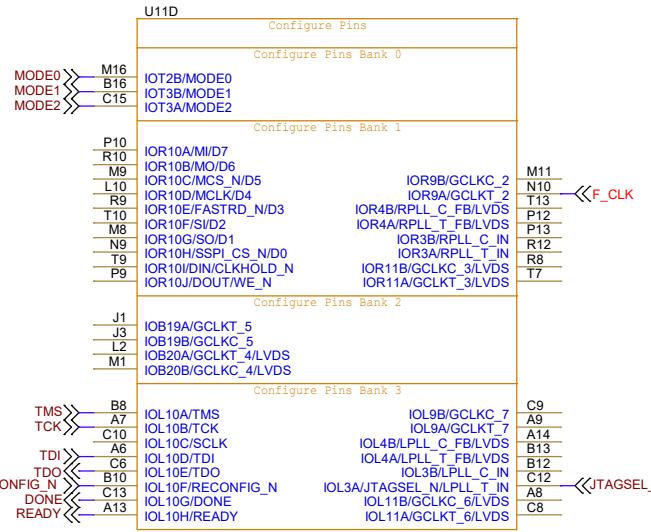
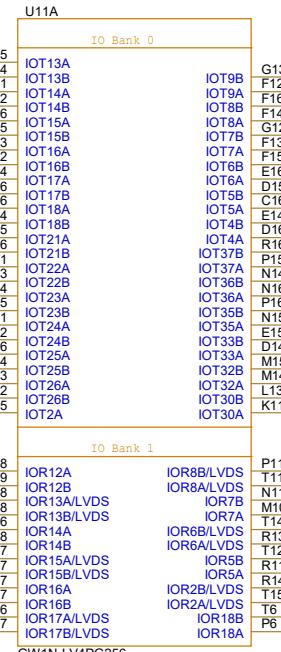
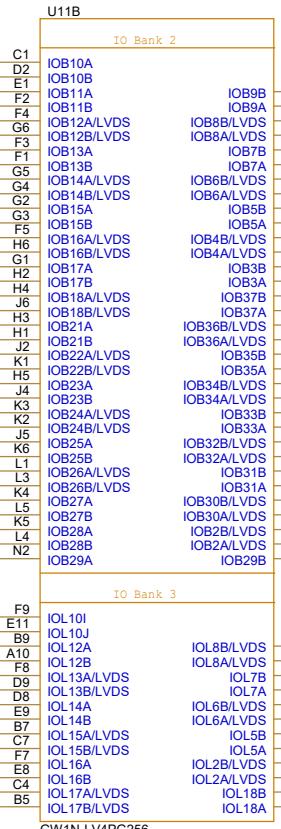
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GOWIN Minimum System Diagram		
Size	Document Number	Rev
B	GW1N-LV4MG132X	2.1
Date:	Tuesday, April 09, 2024	Sheet 4 of 22



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 A3	Document Number GW1-LV4MG160		Rev 2.1	
Date:	Tuesday, April 09, 2024		Sheet 5	of 22

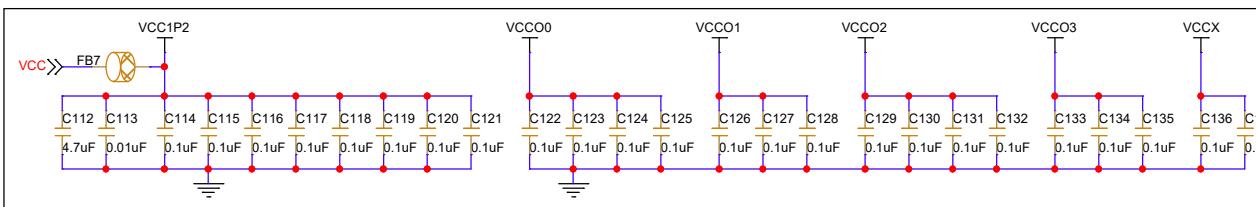
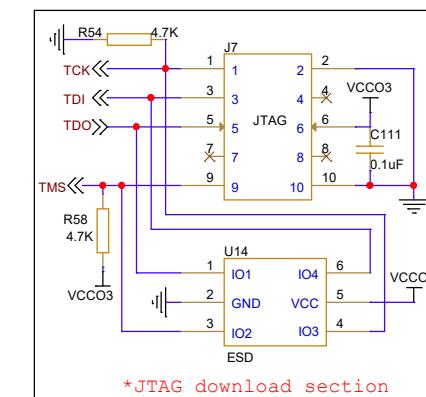
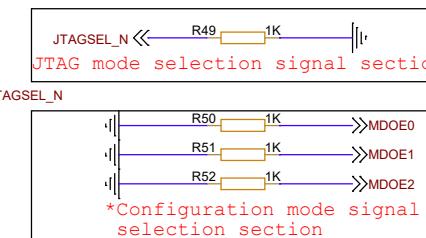
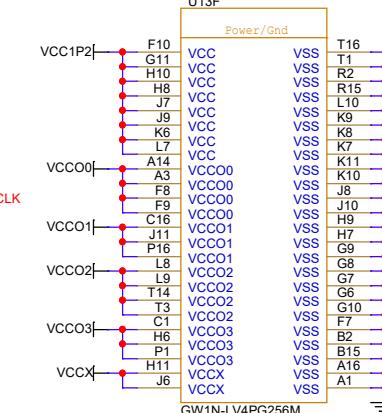
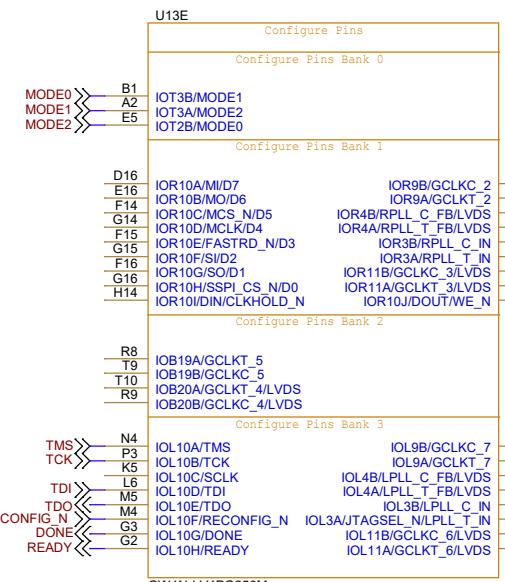
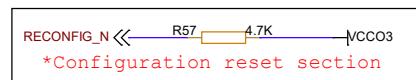
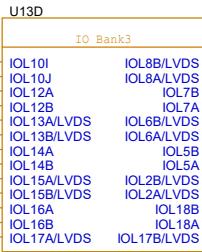
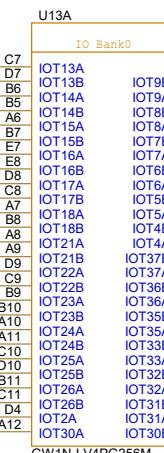
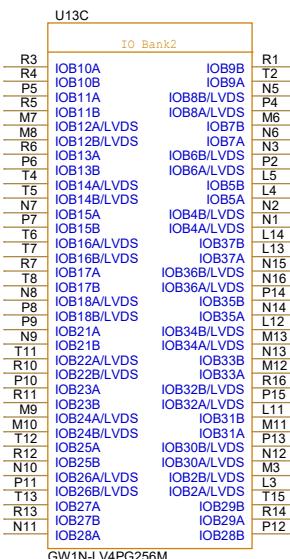


Notes:

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	2.1	
Date:	Tuesday, April 09, 2024	Sheet	6 of 22

GW1N-LV4PG256M



Notes:

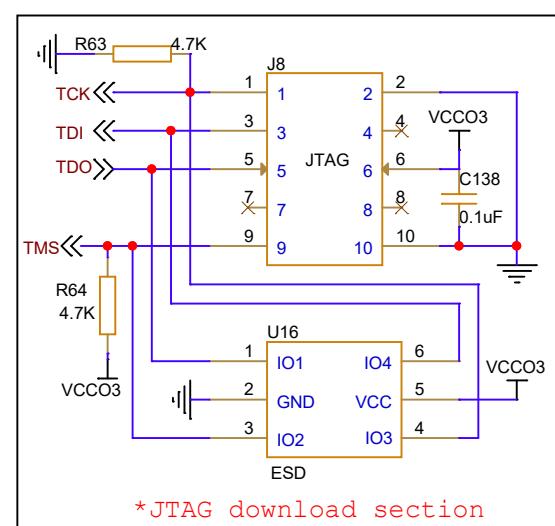
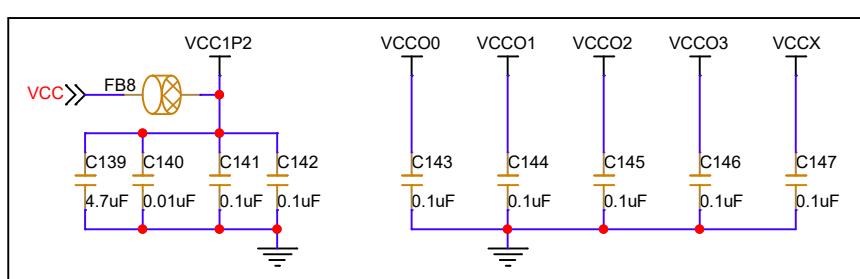
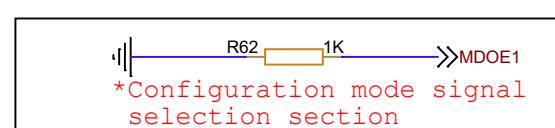
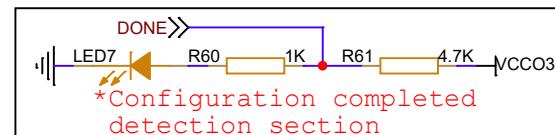
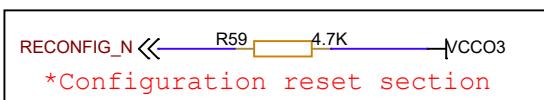
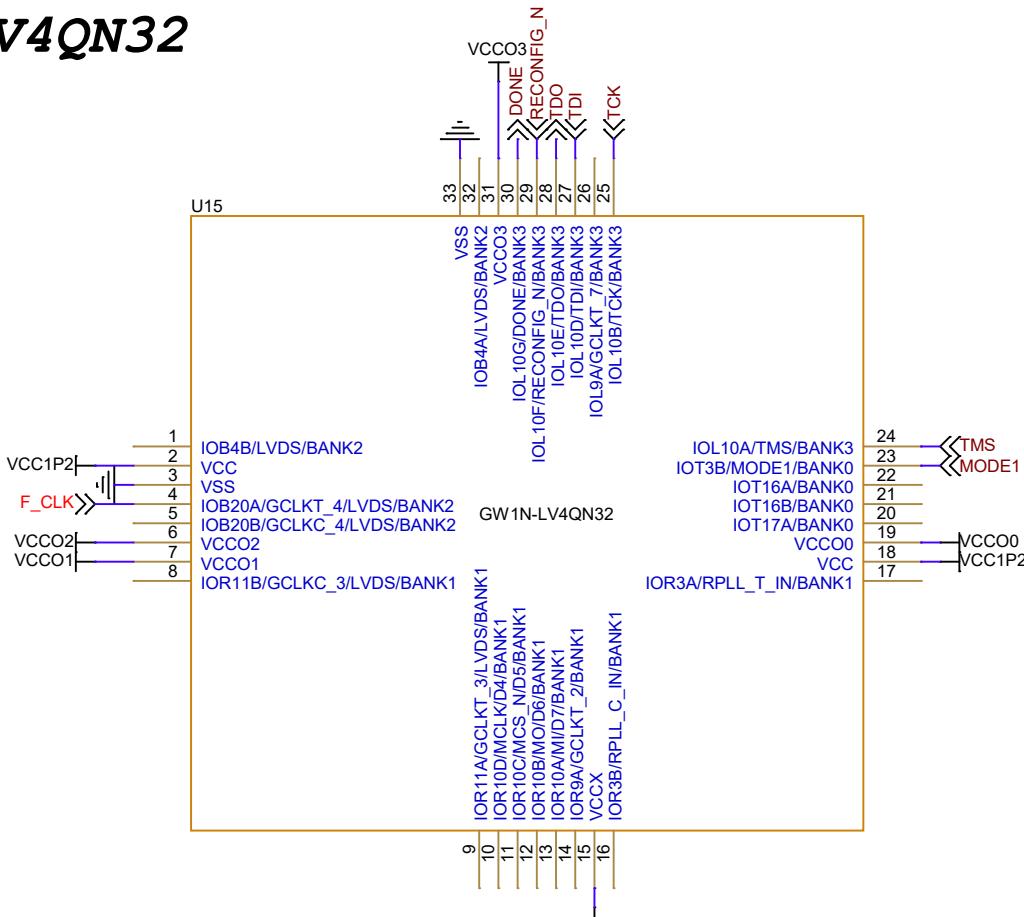
- Notes:

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

Title			GOWIN Minimum System Diagram		
Size B	Document Number GW1N-LV4PG256M				Rev 2.1
Date Tuesday, April 20, 2024	Sheet 7	of 20			

GW1N-LV4QN32

5 4 3 2 1



Notes:

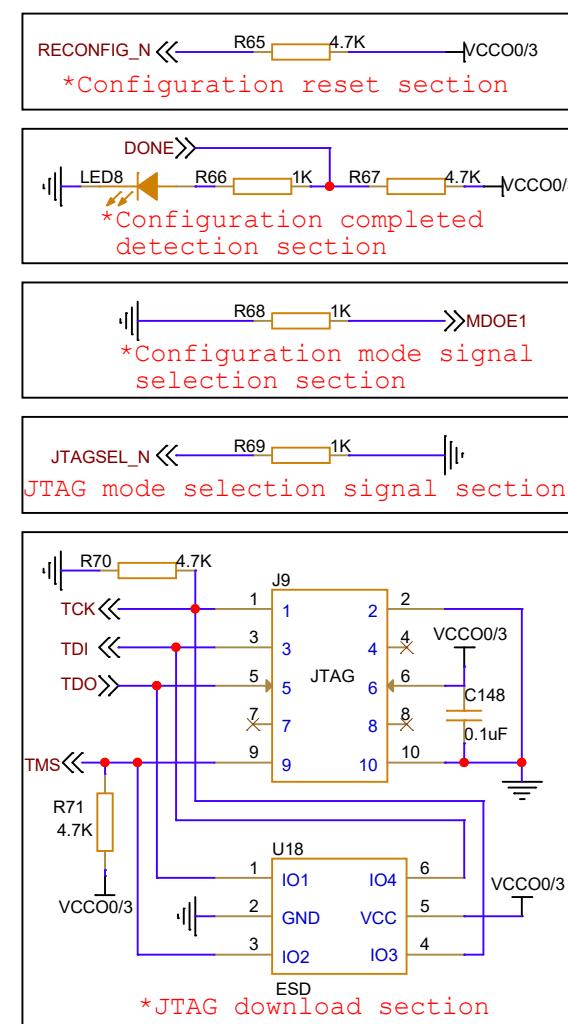
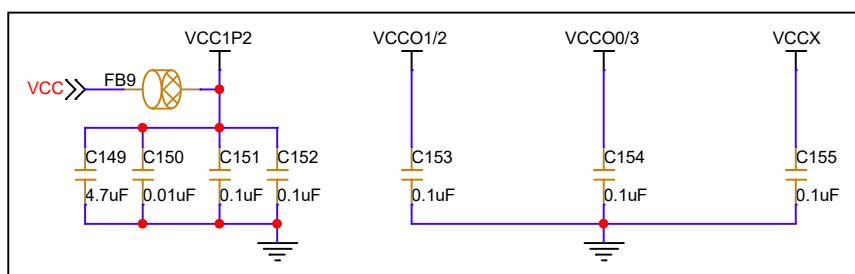
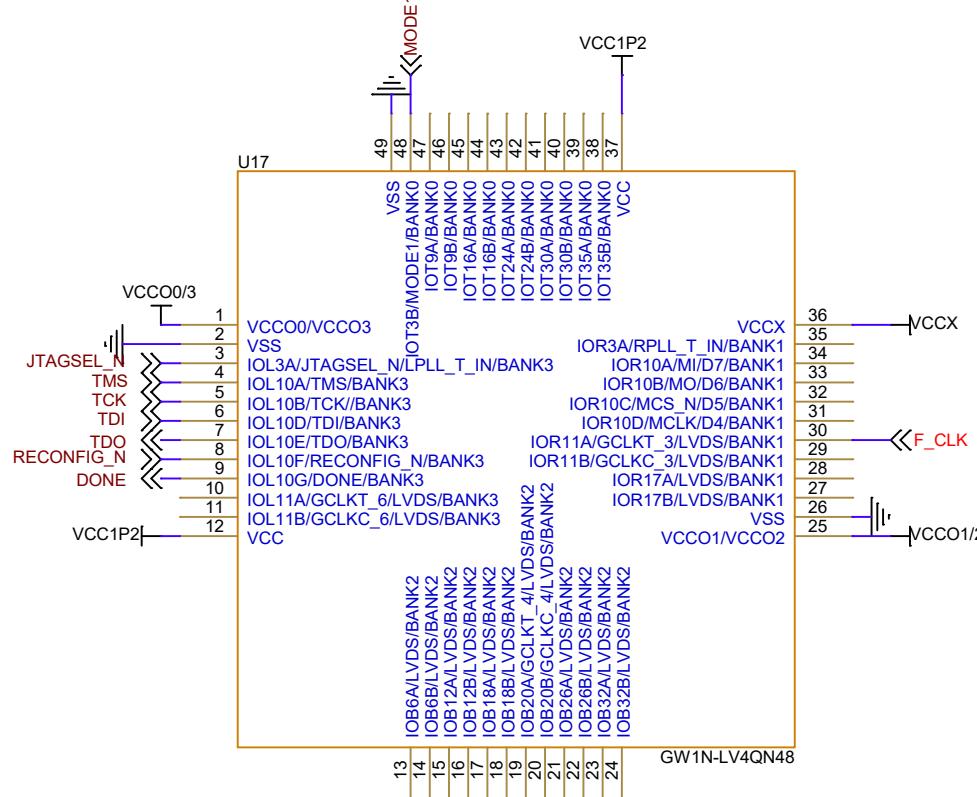
1. $\overline{F_CLK}$ signal is an external input clock signal.

It is recommended that $\overline{F_CLK}$ 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
A4	GW1N-LV4QN32

GW1N-LV4QN48



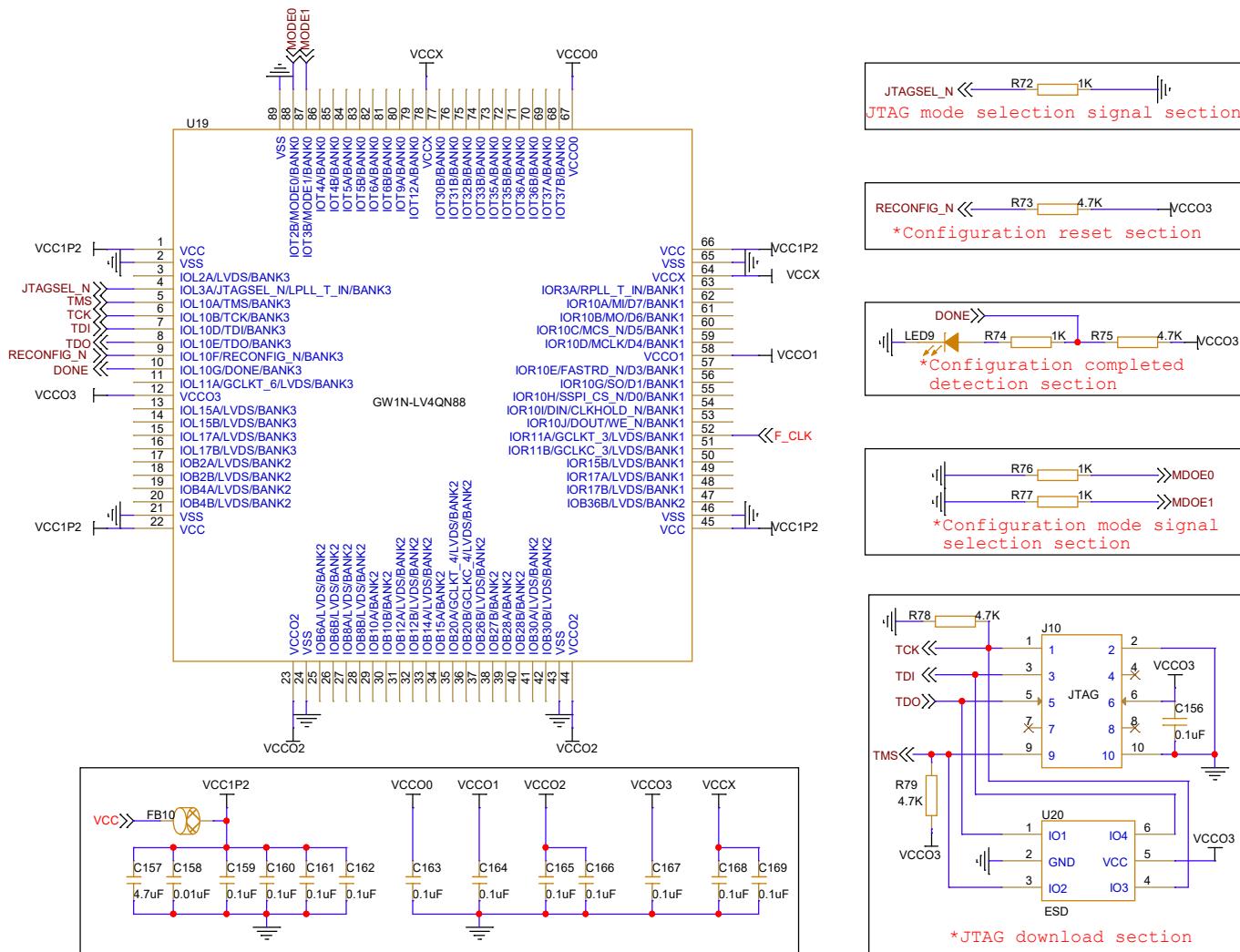
Notes:

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.

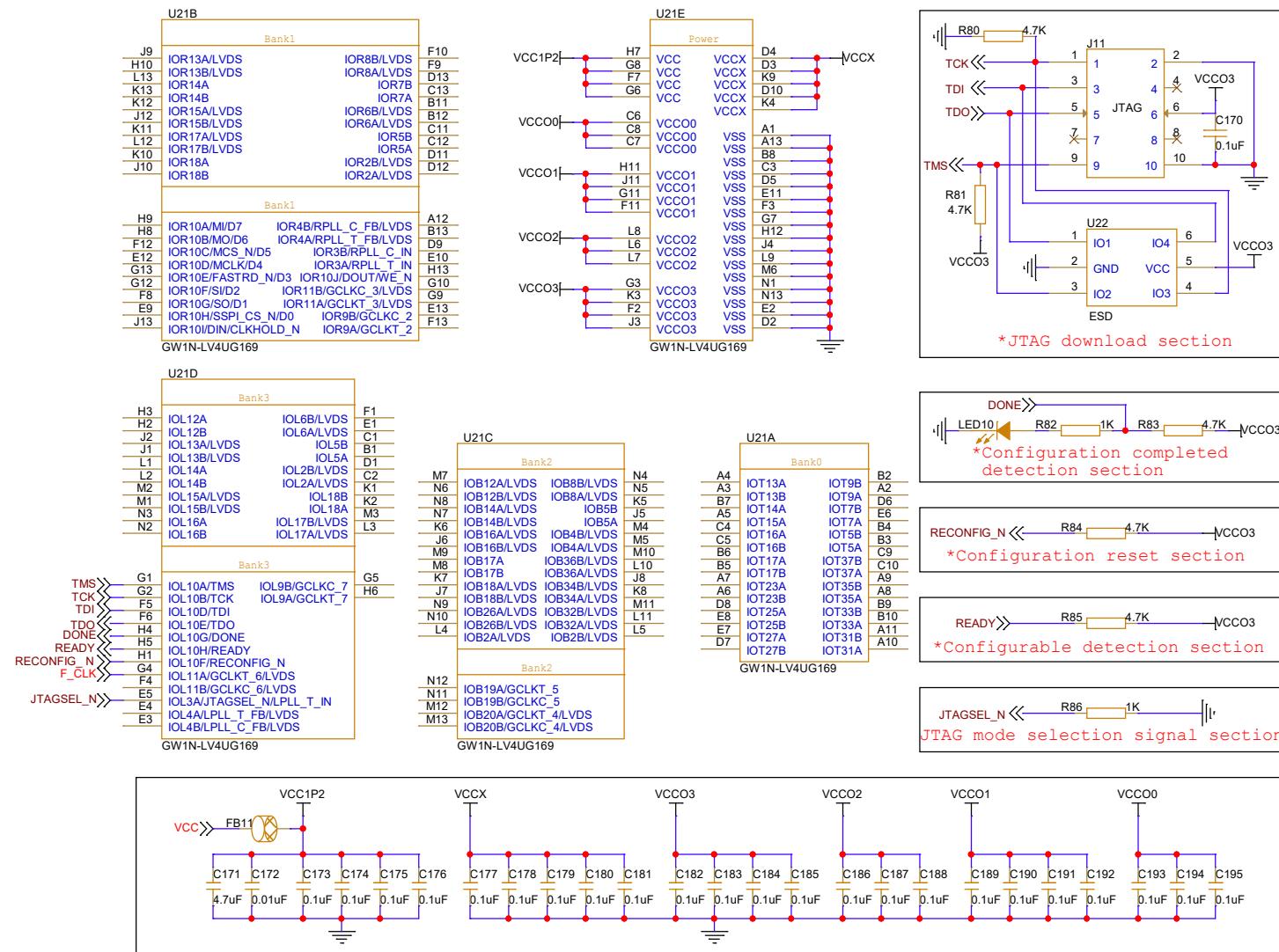
Title	
GOWIN Minimum System Diagram	
Size	Document Number
A4	GW1N-LV4QN48
Rev	2.1
Date:	Tuesday, April 09, 2024
Sheet	9 of 22

**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-LV4QN88
	Rev 2.1

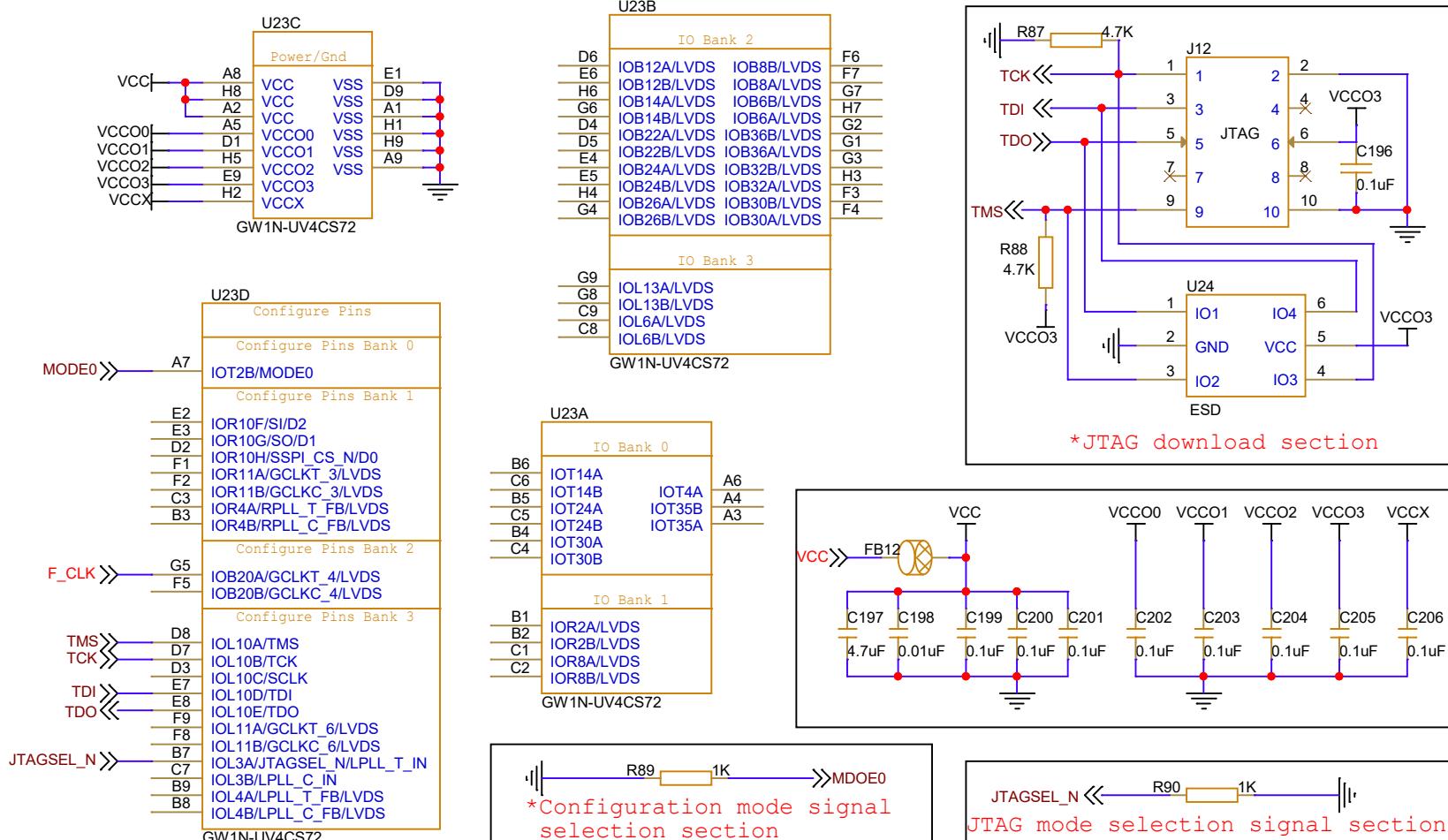
Date: Tuesday, April 09, 2024 Sheet 10 of 22

**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-LV4UG169
Rev 2.1	

GW1N-UV4CS72



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.

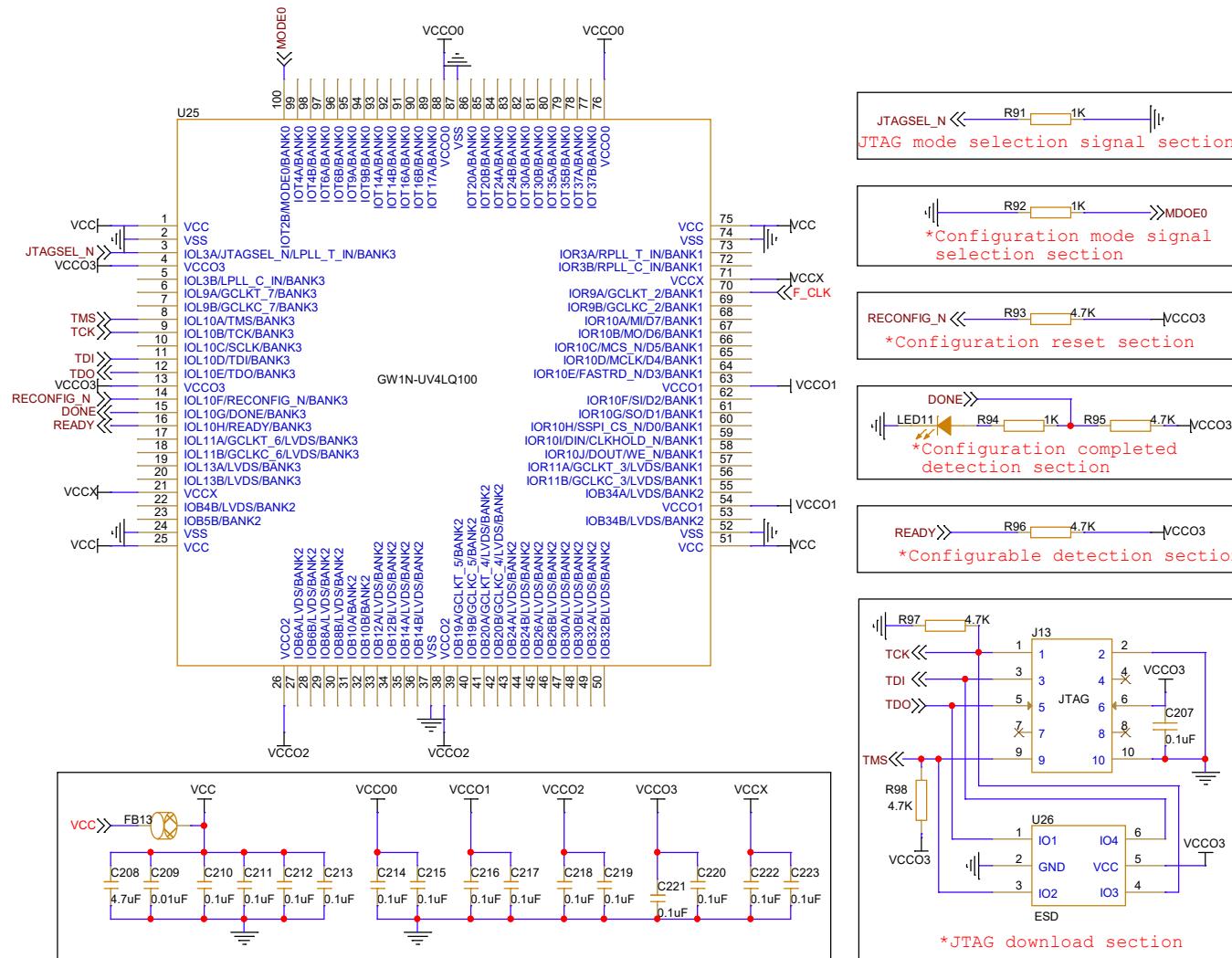
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Size: A4 Document Number: GW1N-UV4CS72

Rev: 2.1

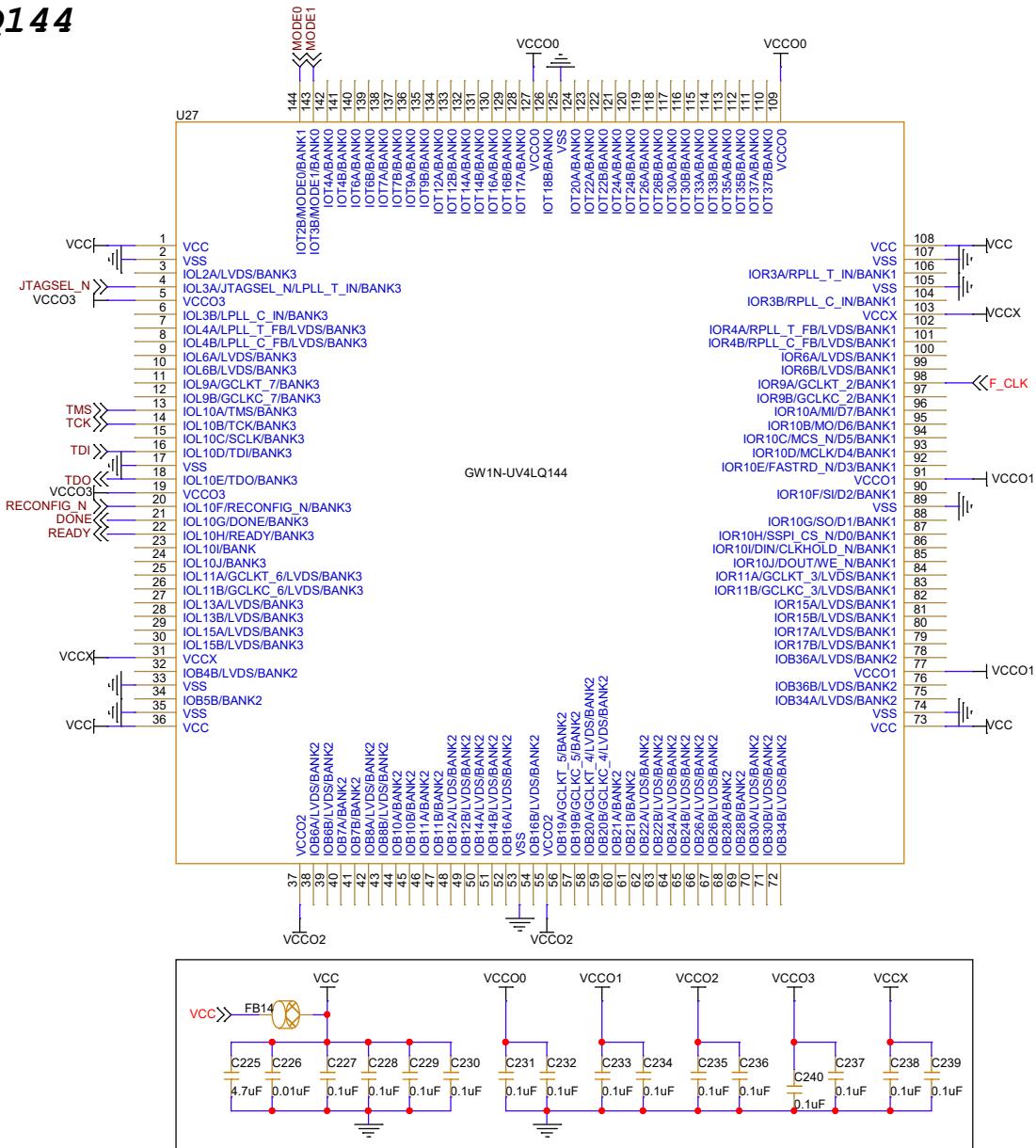
Date: Tuesday, April 09, 2024

Sheet 12 of 22

**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
B	GW1N-UV4LQ100
	Rev 2.1
Date: Tuesday, April 09, 2024	Sheet 13 of 22

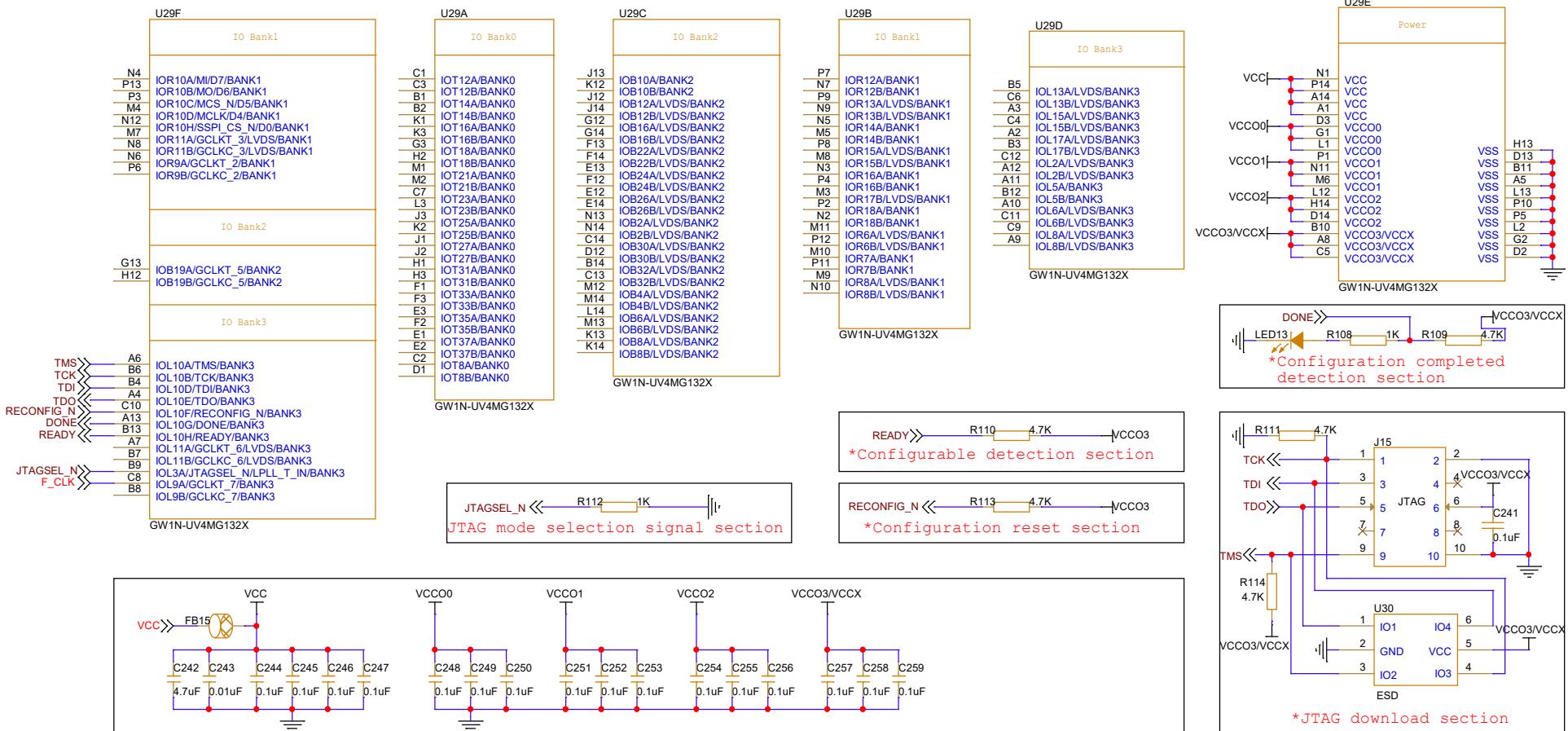
**Notes:**

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

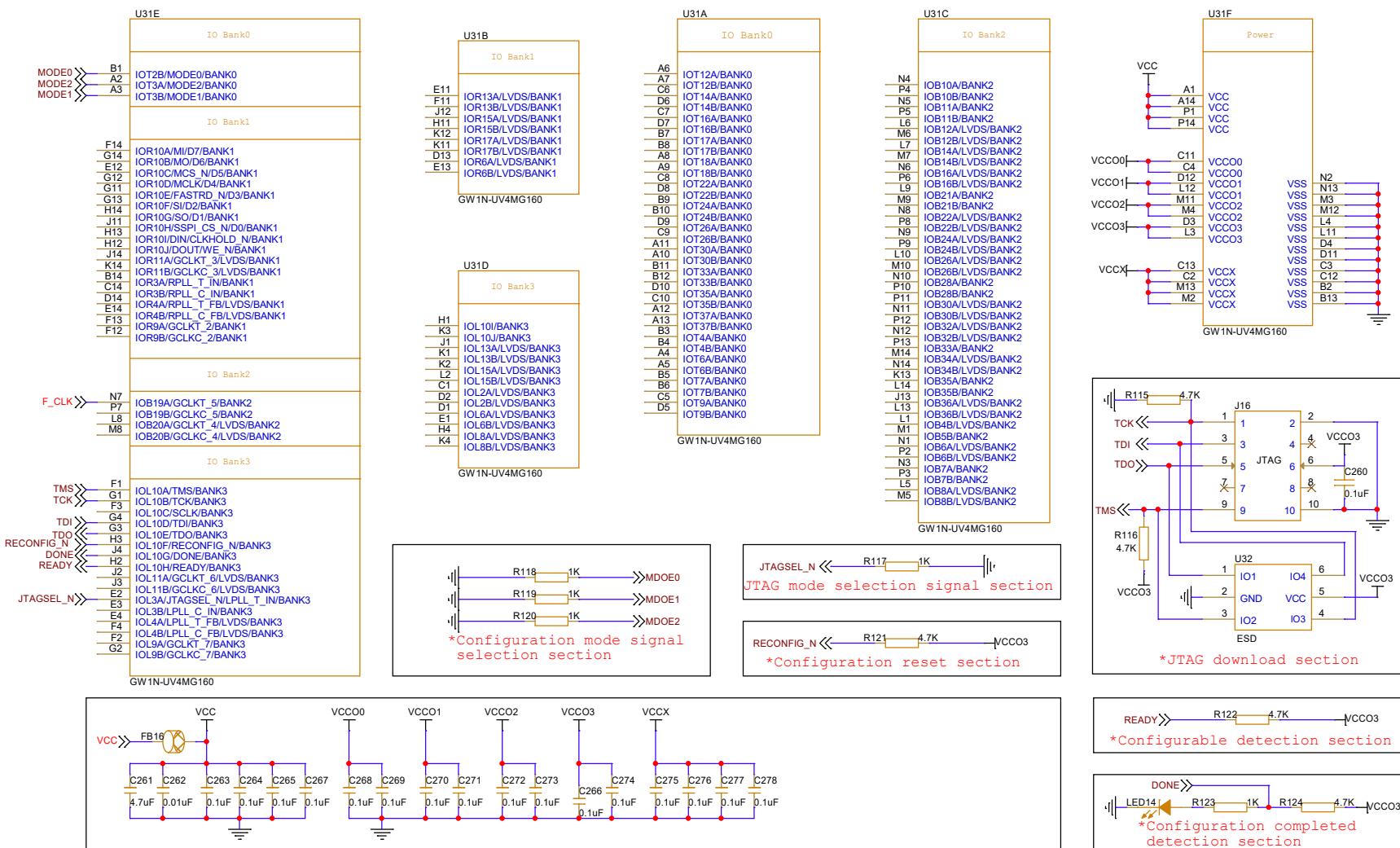
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Rev: 2.1

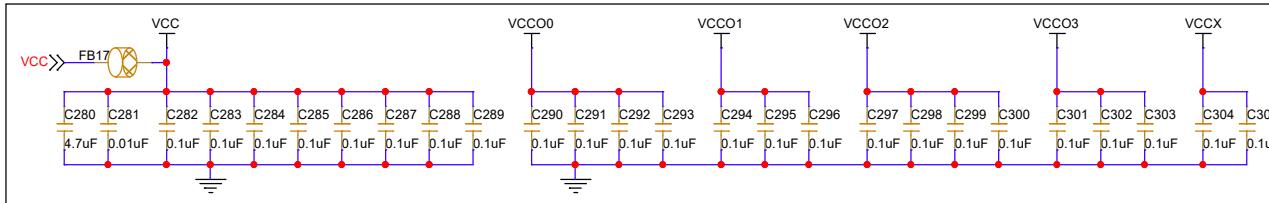
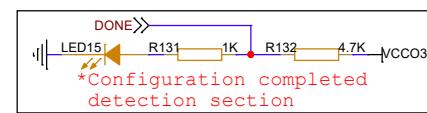
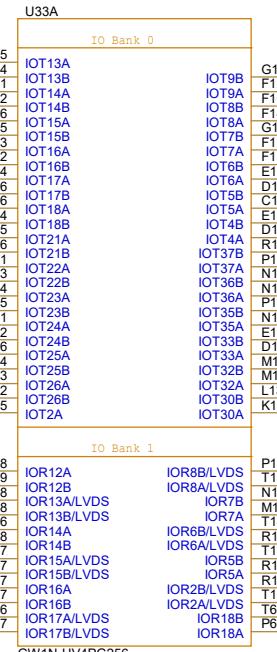
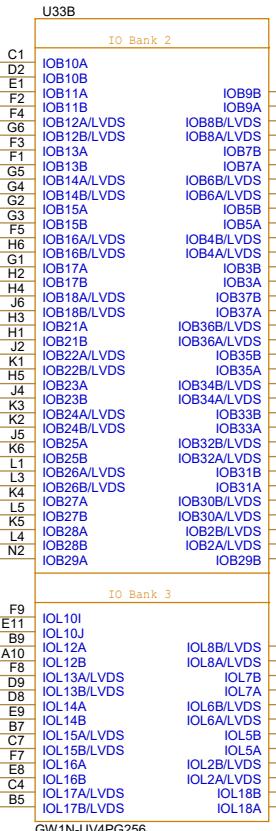
GW1N-UV4MG132X**Notes:**

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	2.1
Date:	Tuesday, April 09, 2024	Sheet 15 of 22

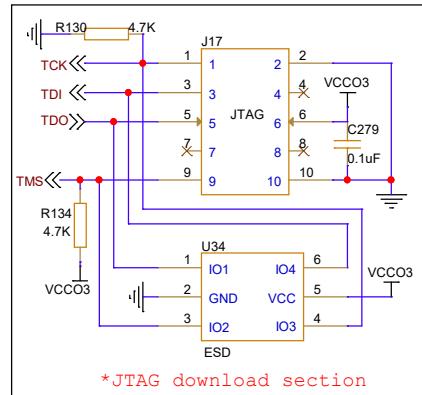
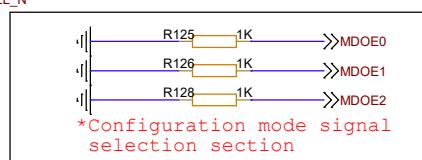
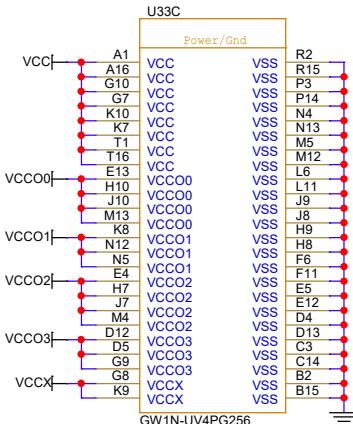
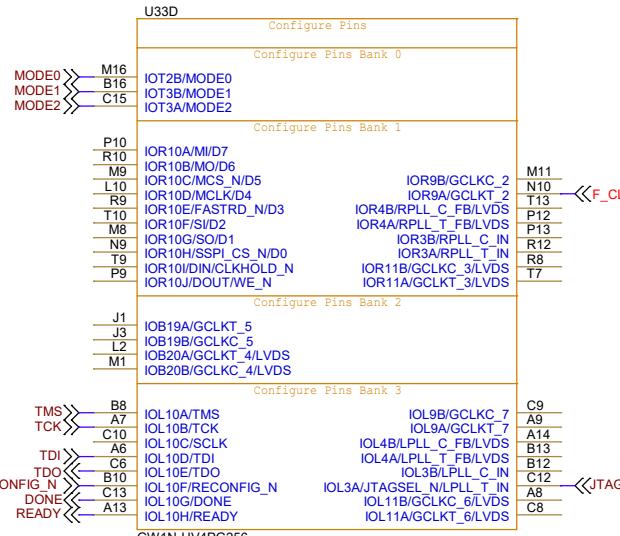
**Notes:**

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.

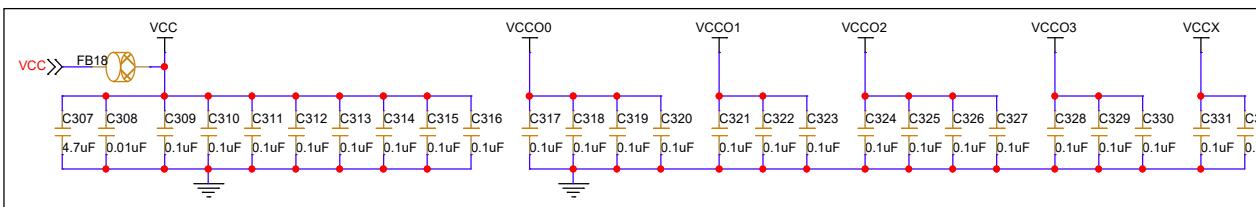
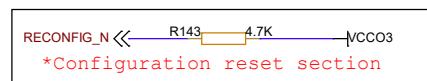
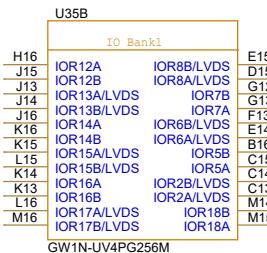
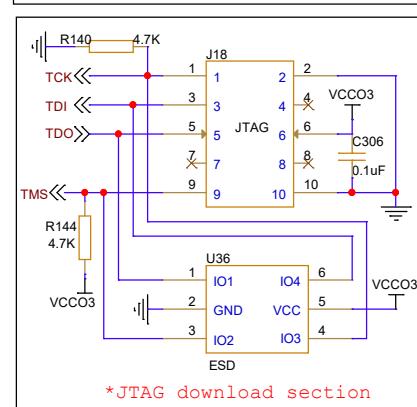
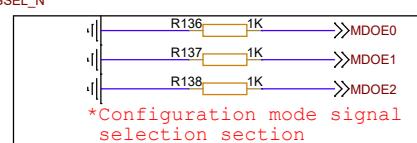
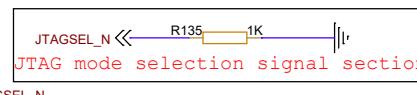
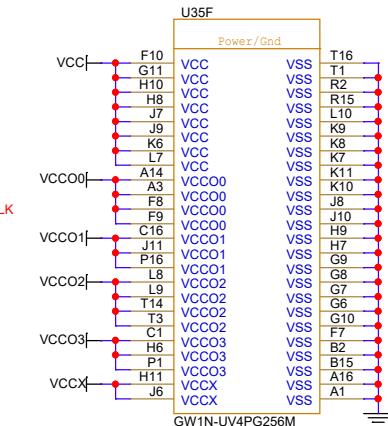
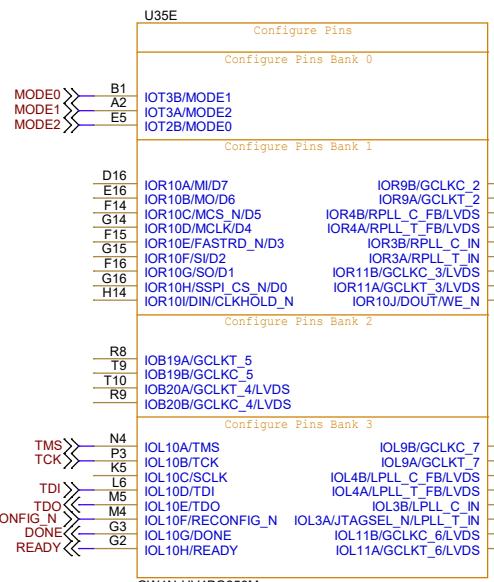
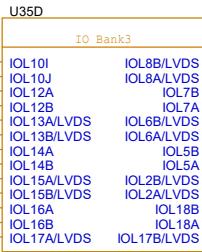
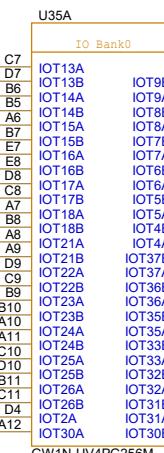
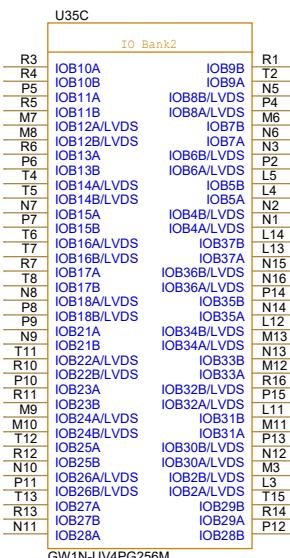


Title: GOWIN Minimum System Diagram

Size: B Document Number: GW1N-UV4PG256 Rev: 2.1

Date: Tuesday, April 09, 2024 Sheet: 17 of 22

GW1N-UV4PG256M

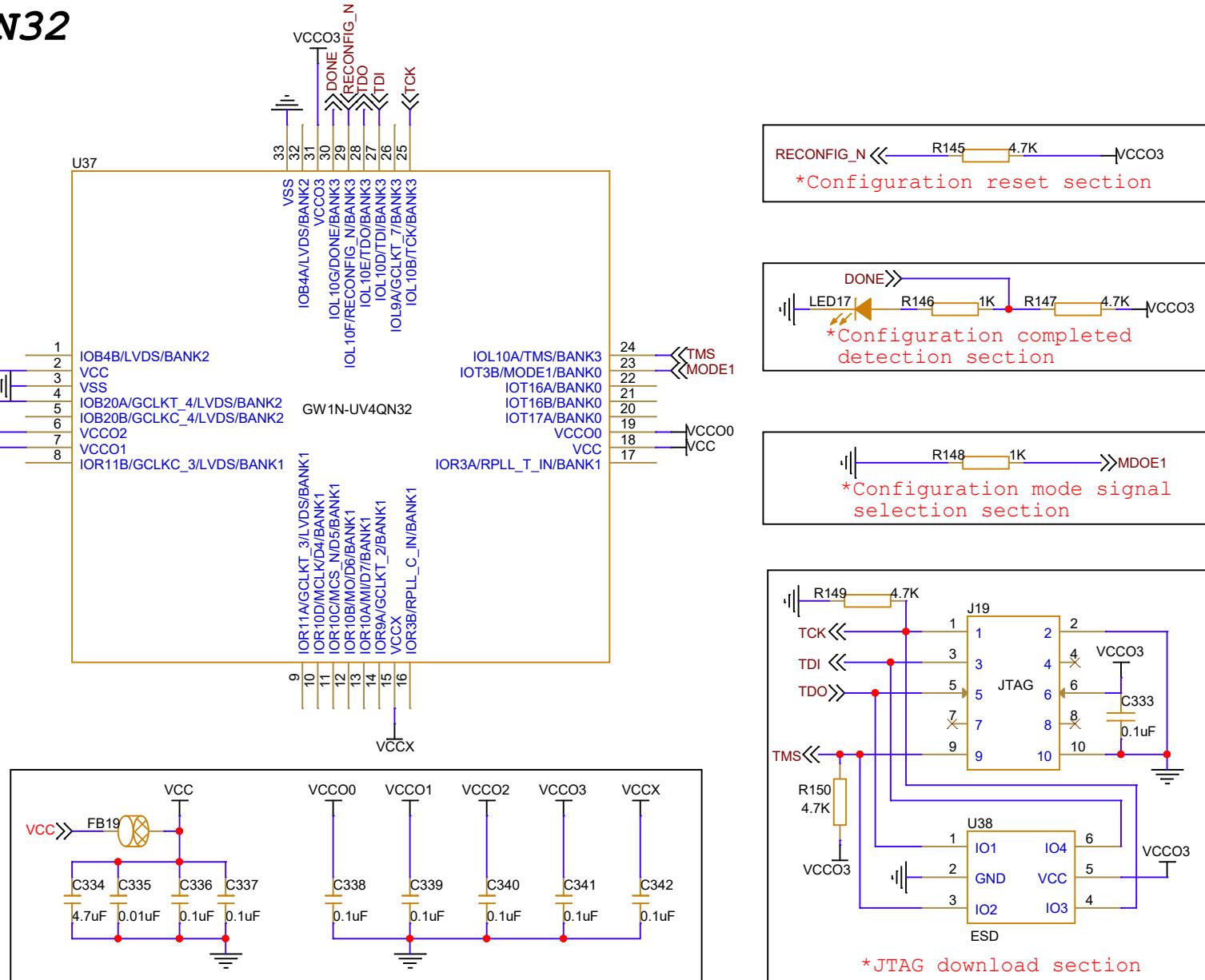


Notes:

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

Title		
GOWIN Minimum System Diagram		
Size B	Document Number GW1N-UV4PG256M	Rev 2.1
Date: Tuesday, April 09, 2024	Sheet 18	of 22

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

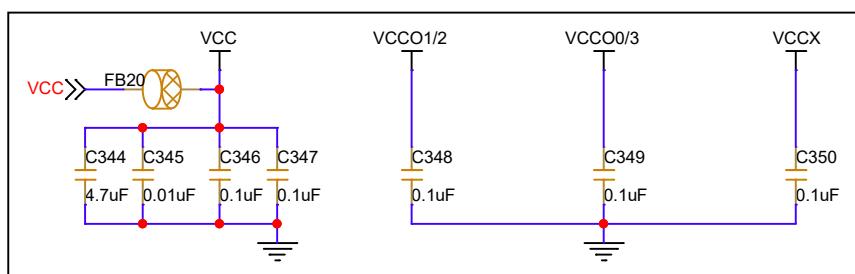
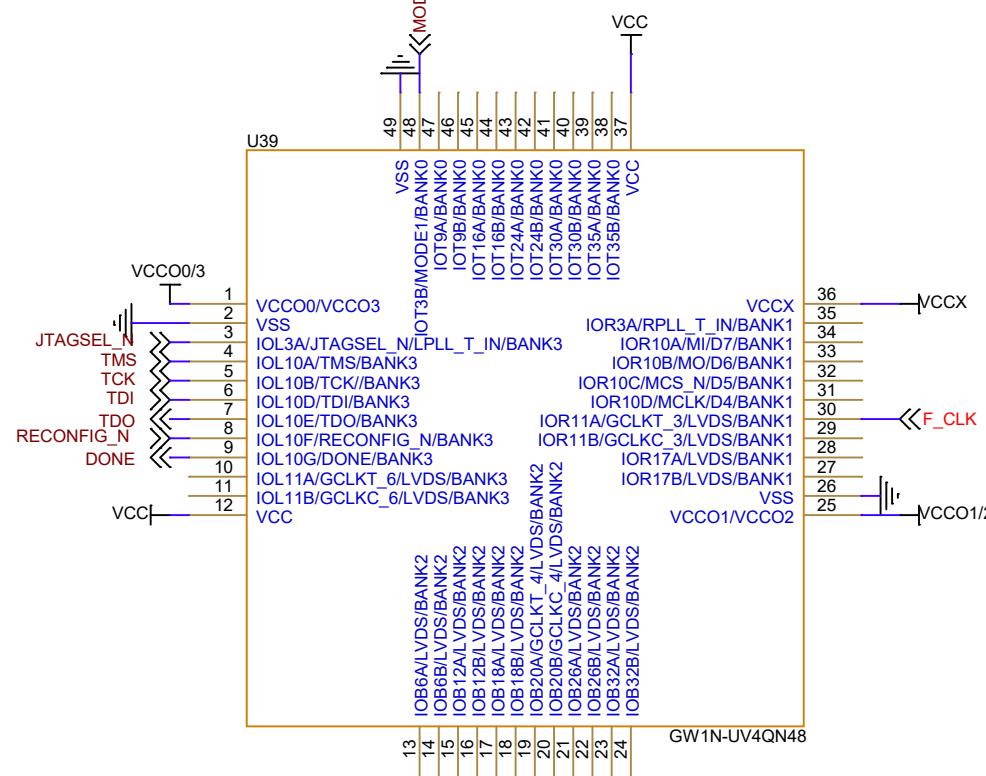
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Rev 2.1

Date: Tuesday, April 09, 2024

Sheet 19 of 22

GW1N-UV4QN48

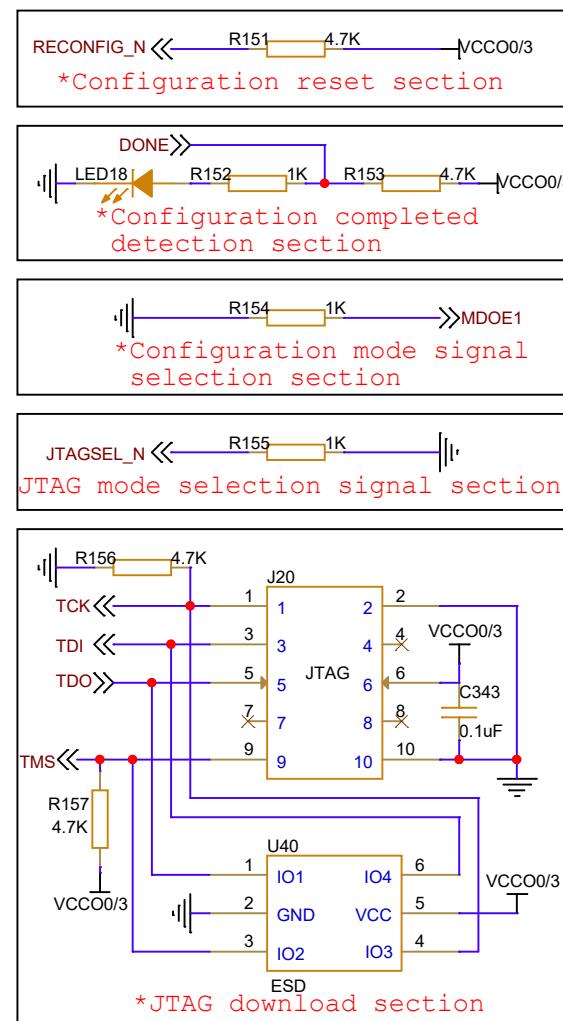


Notes:

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.



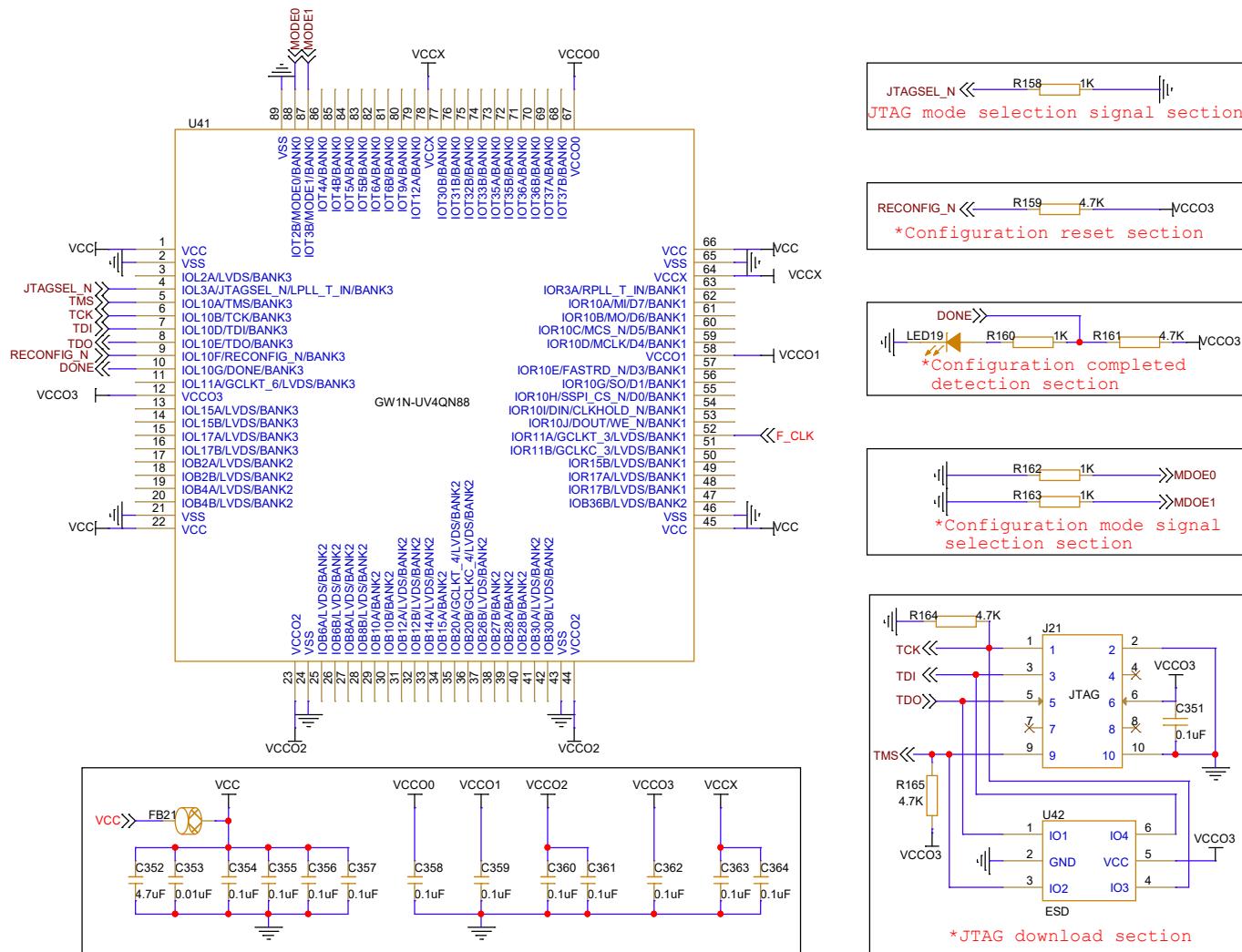
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Size: A4 Document Number: GW1N-UV4QN48

Rev: 2.1

Date: Tuesday, April 09, 2024

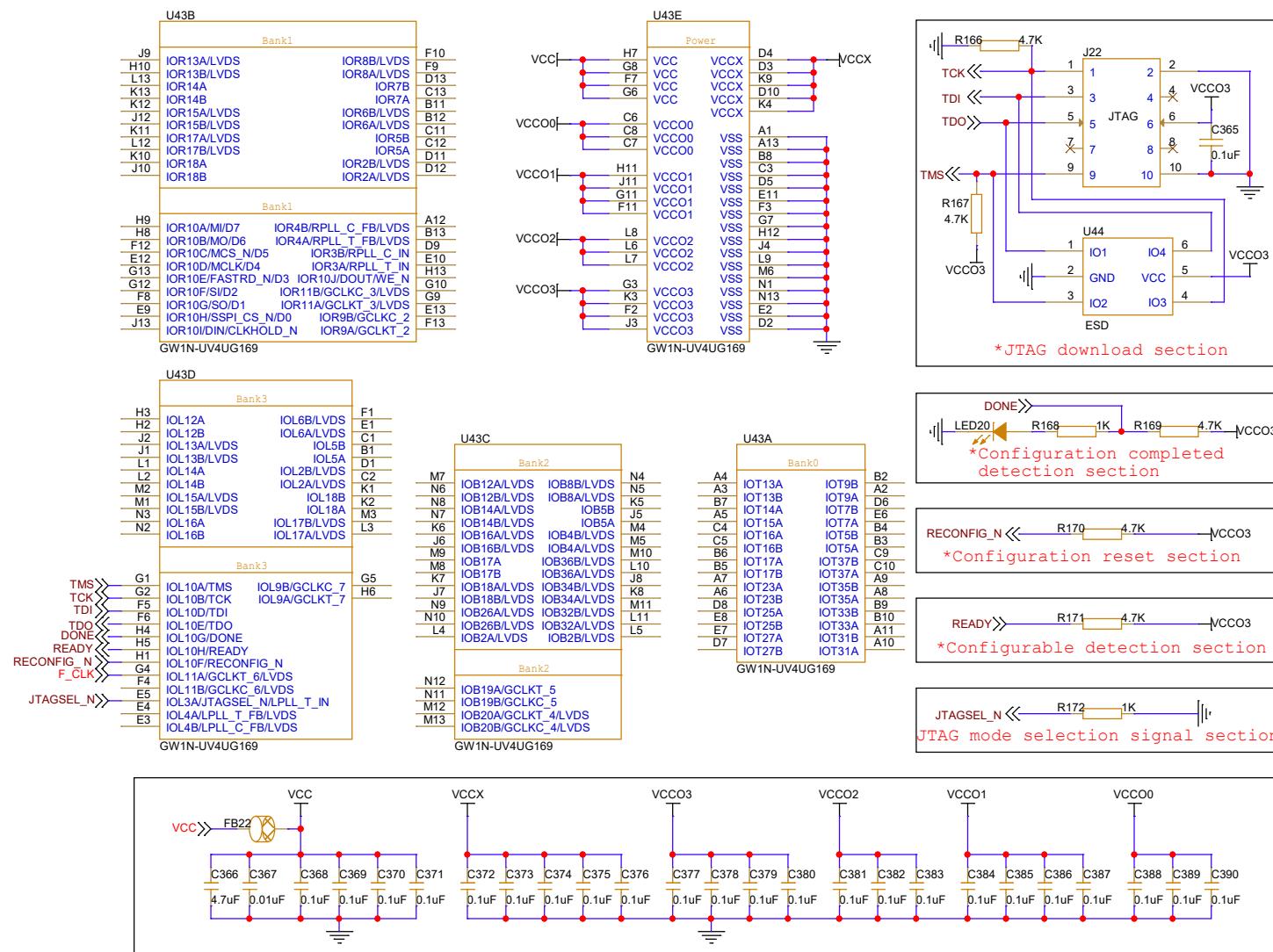
Sheet 20 of 22



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
B	GW1N-UV4QN88
	Rev 2.1
Date: Tuesday, April 09, 2024	Sheet 21 of 22

**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
B	GW1N-UV4UG169
Rev	2.1
Date:	Tuesday, April 09, 2024
Sheet	22 of 22