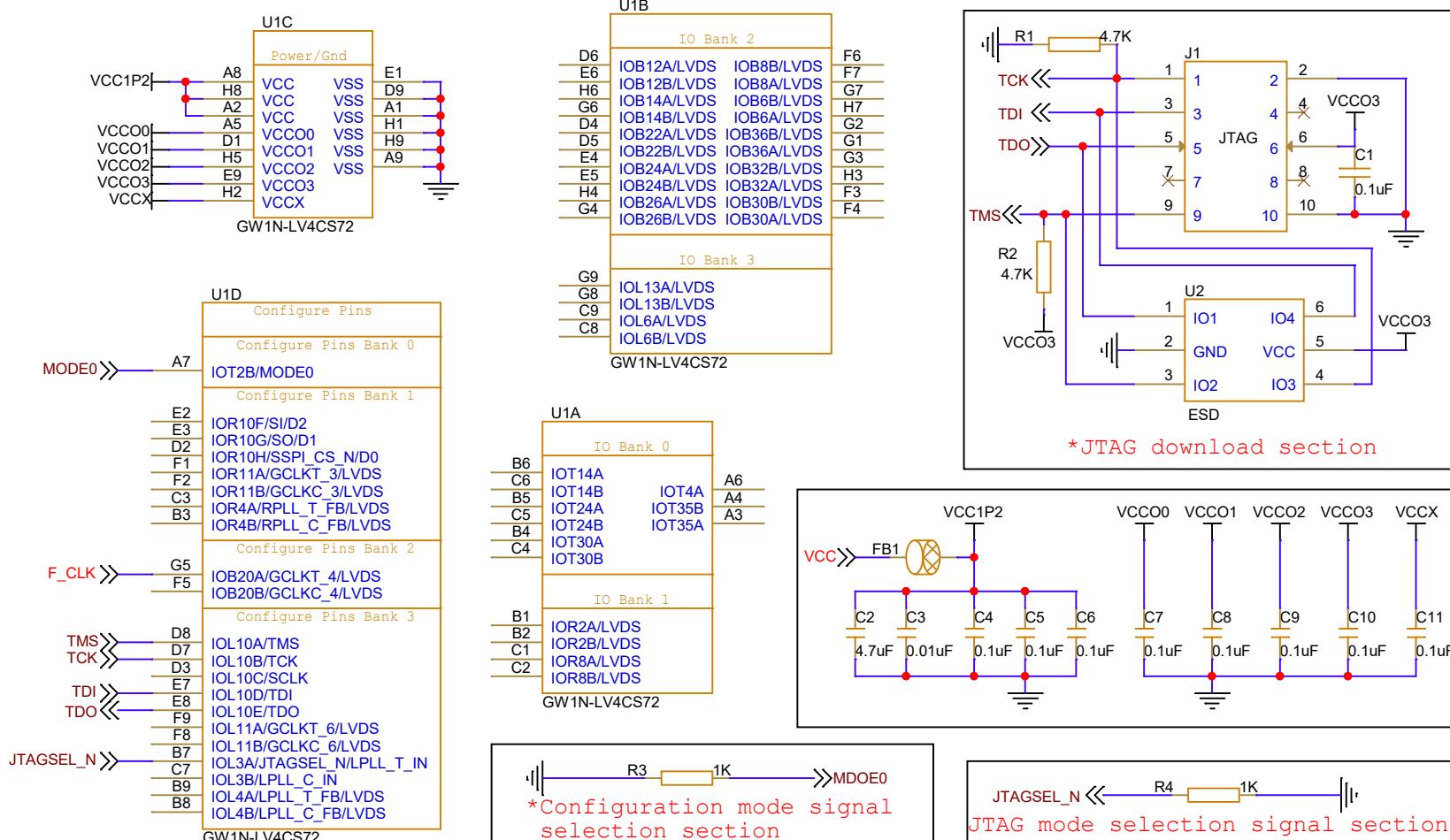


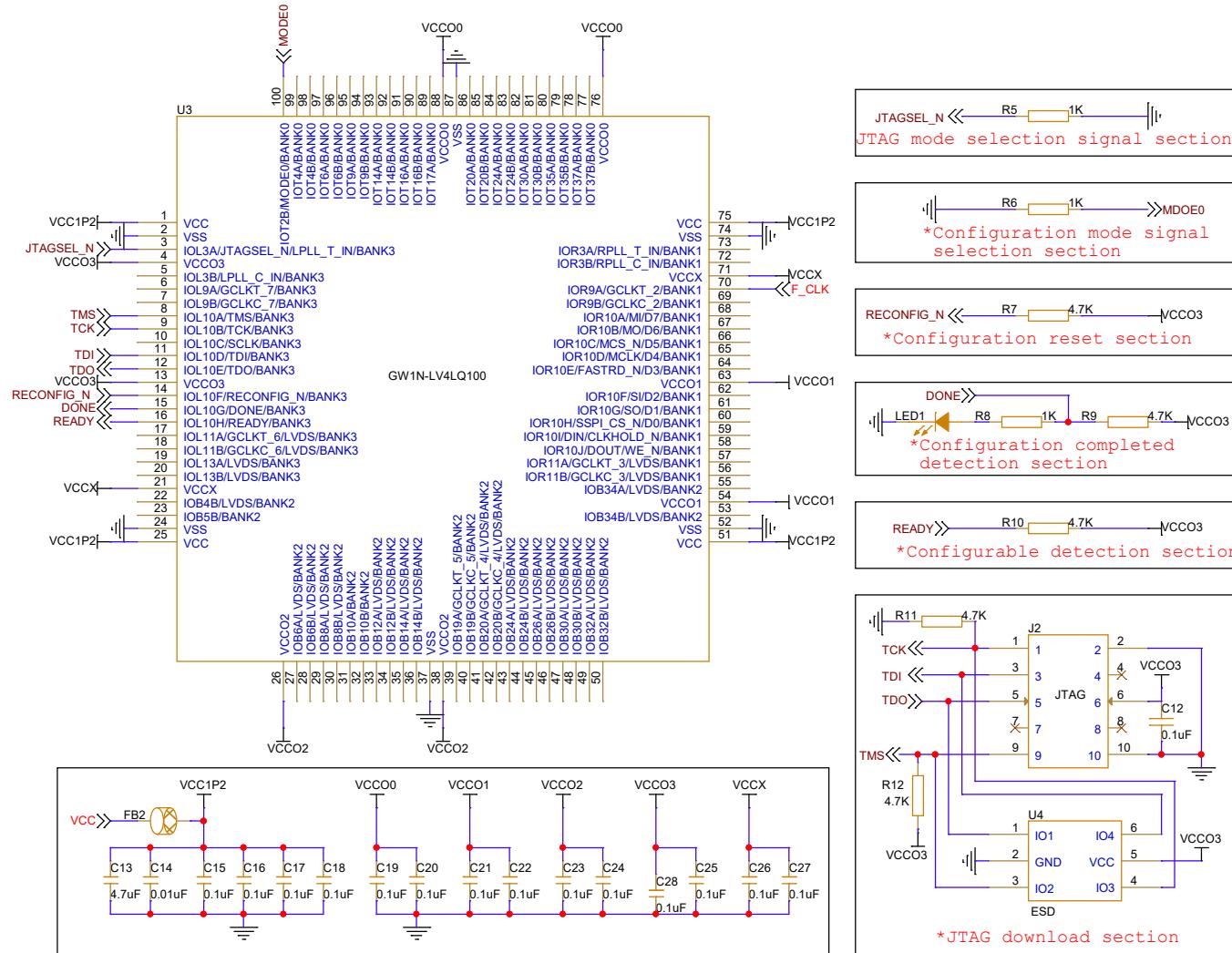
GW1N-LV4CS72



Notes:

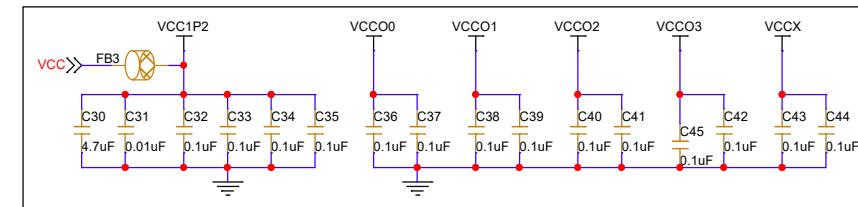
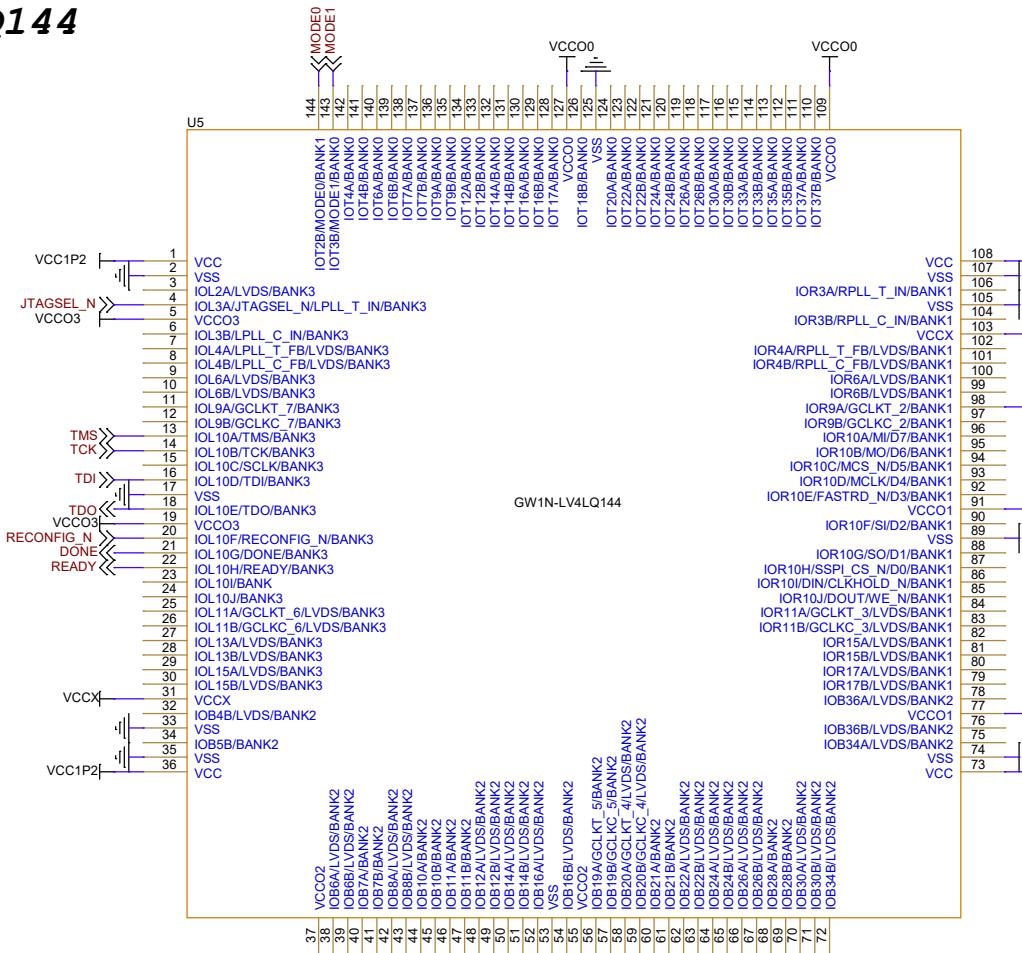
1. F_CLK signal is an external input clock signal.
It is recommended that F CLK signal be provided through an active oscillator crystal.
2. It is recommended that add an ESD protection chip to the JTAG download circuit.

Title	
GOWIN Minimum System Diagram	
Size A4	Document Number GW1N-LV4CS72
Rev 2.1.1	

**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.

Title		
GOWIN Minimum System Diagram		
Size	Document Number	Rev
B	GW1N-LV4LQ100	2.1.1
Date:	Wednesday, September 11, 2024	Sheet 2 of 22

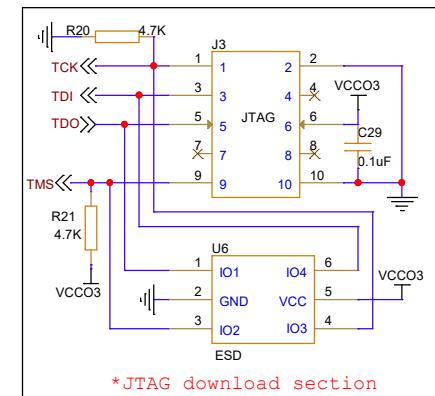
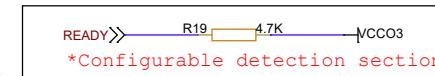
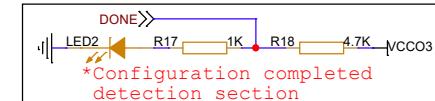
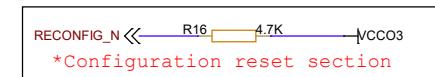
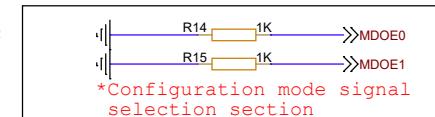
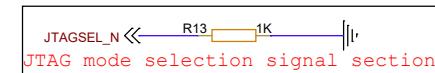


Notes:

1. F_CLK signal is an external input clock signal.

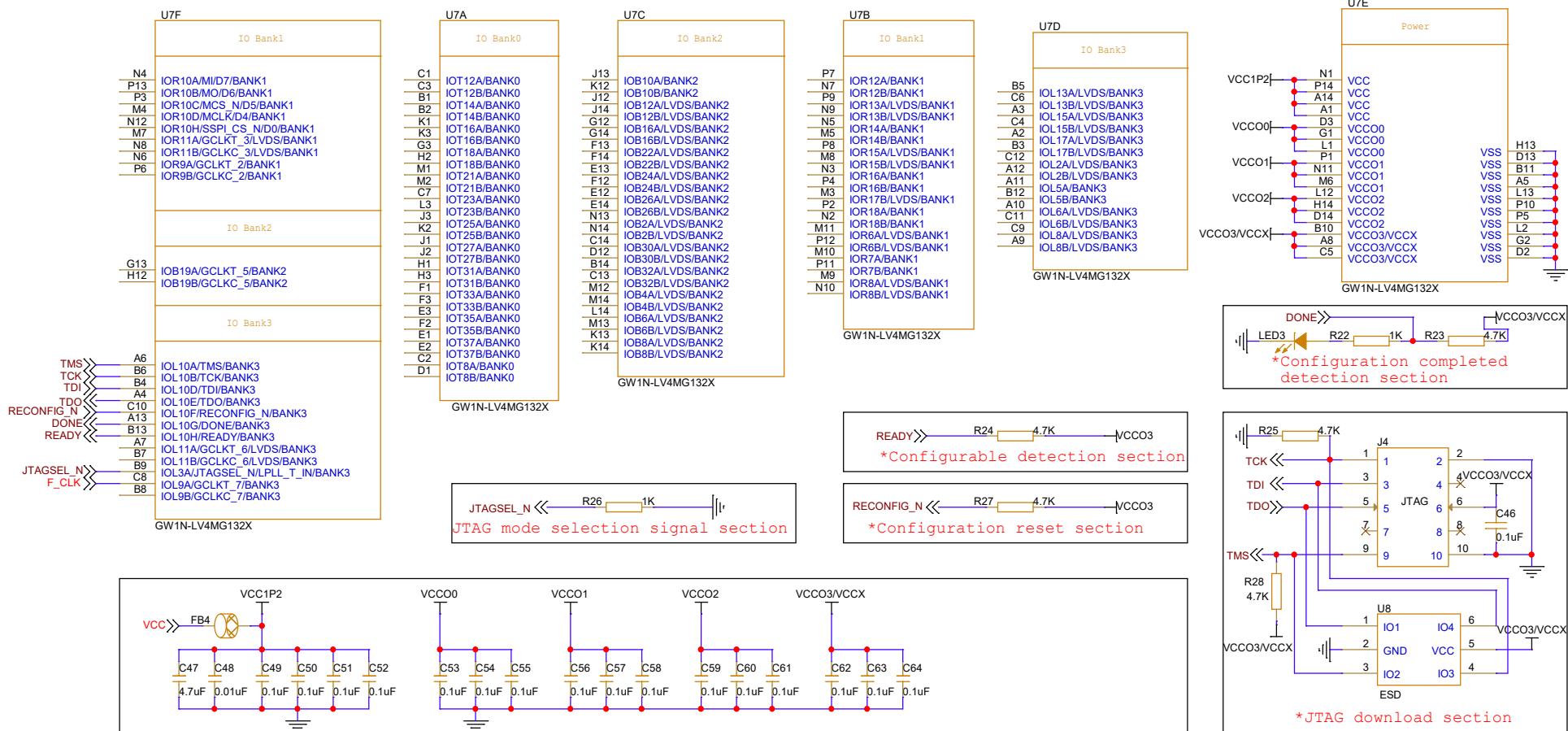
It is recommended that F_CLK signal be provided through an active oscillator crystal.

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



Title		GOWIN Minimum System Diagram
Size	Document Number	GW1N-LV4LQ144
Date: Wednesday, September 11, 2024 Sheet 3 of 22		Rev 2.1.1

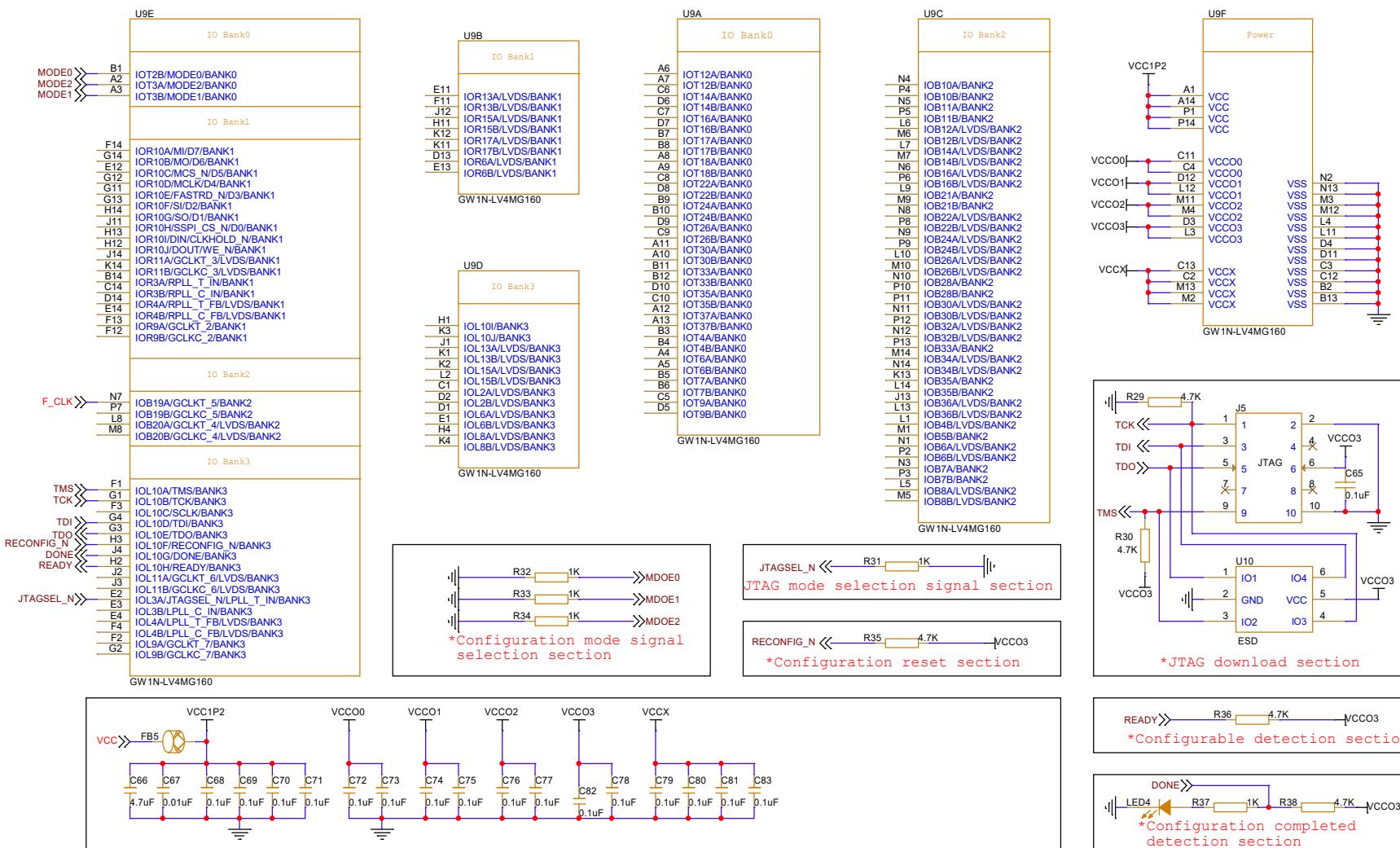
GW1N-LV4MG132X



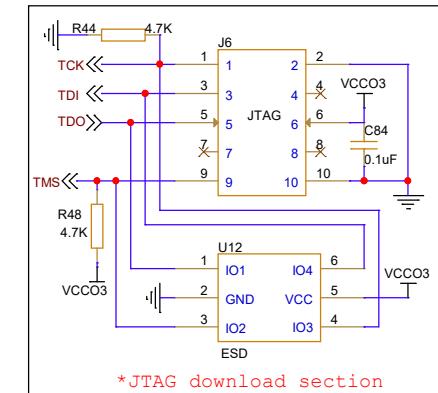
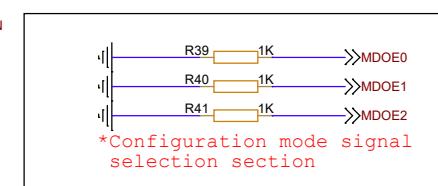
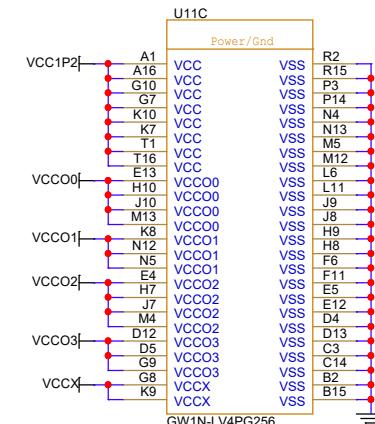
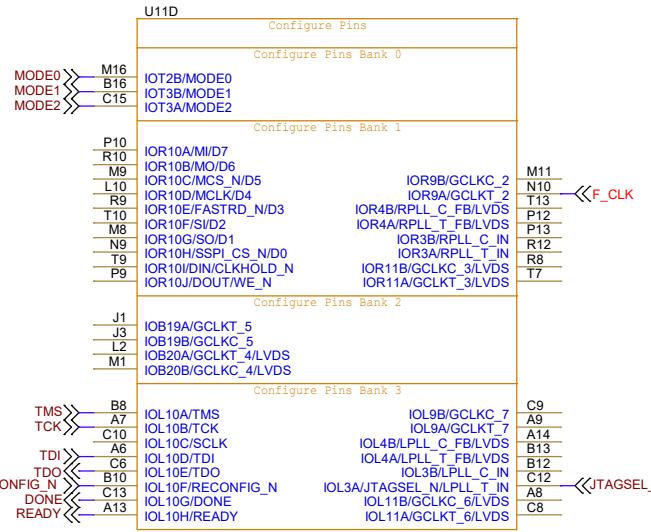
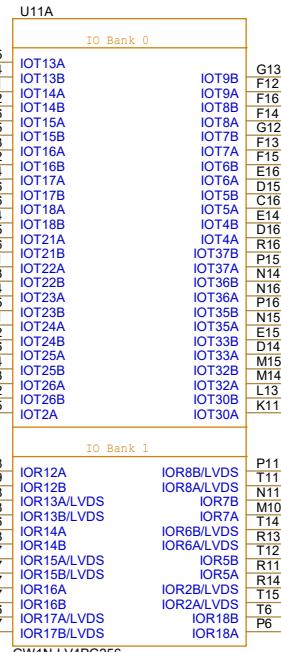
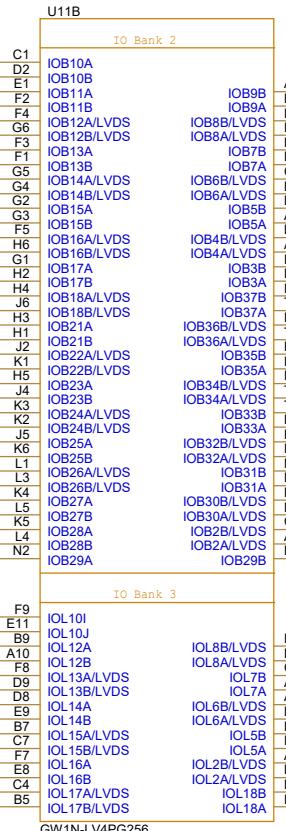
Notes:

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-LV4MG132X	Rev 2.1
Date:	Wednesday, September 11, 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.

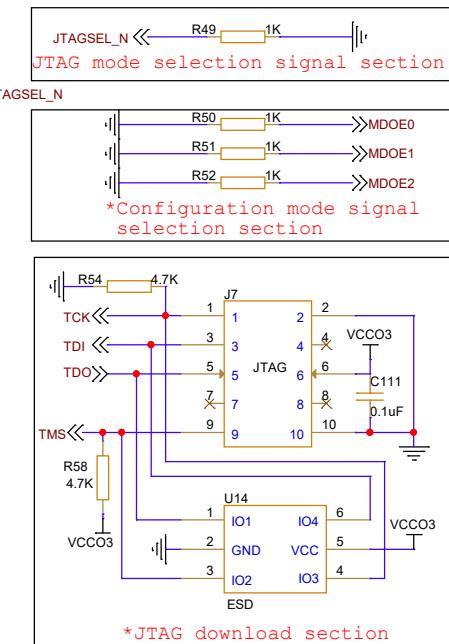
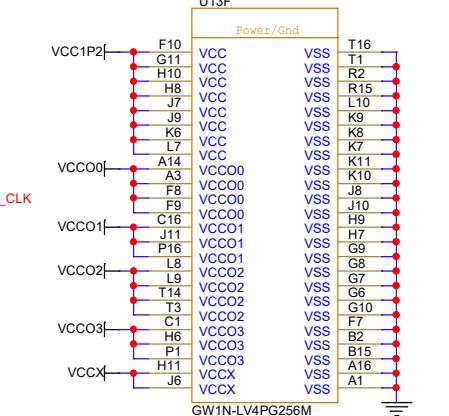
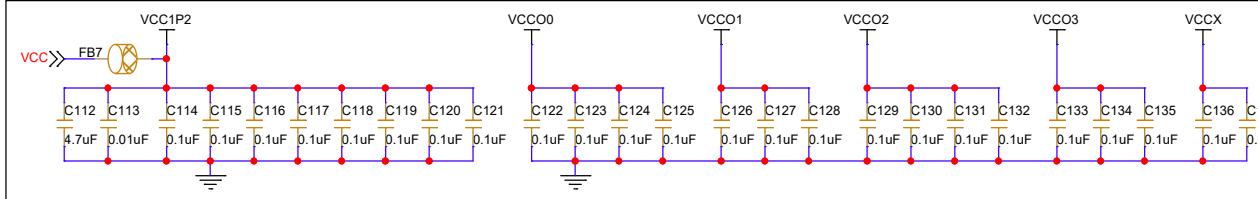
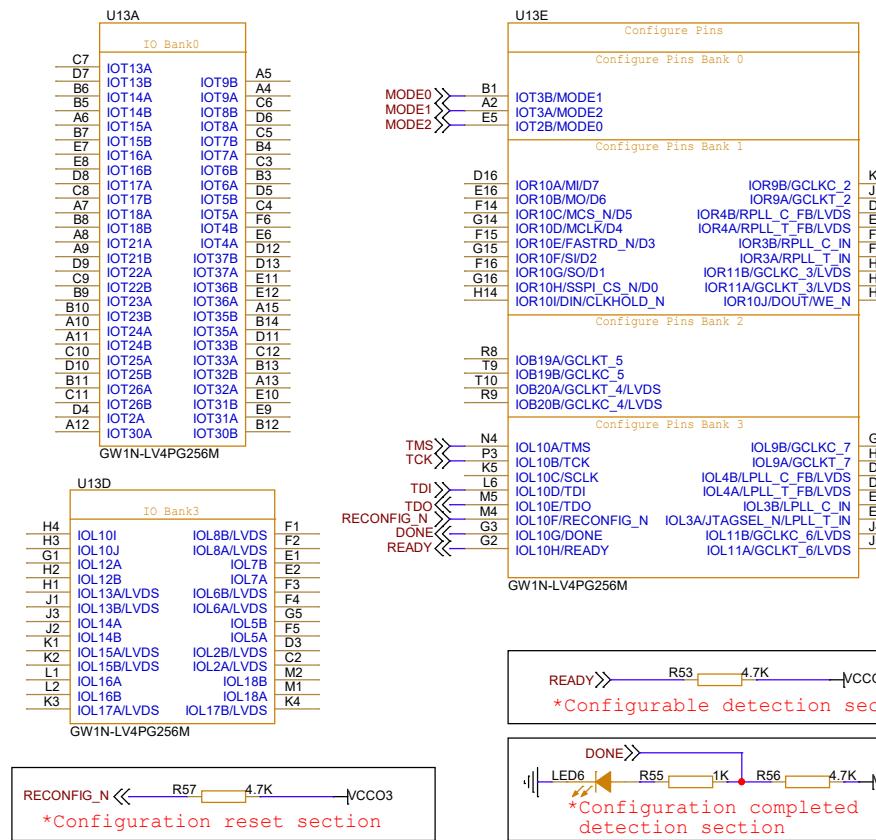
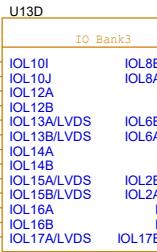
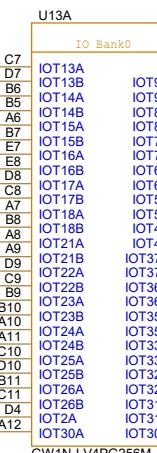
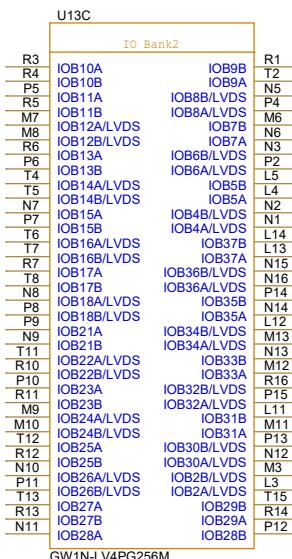


Notes:

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	
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Date:	Wednesday, September 11, 2024	Sheet	6 of 22

GW1N-LV4PG256M



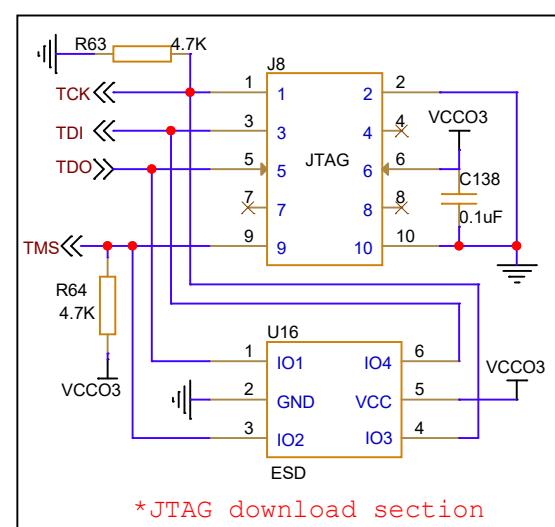
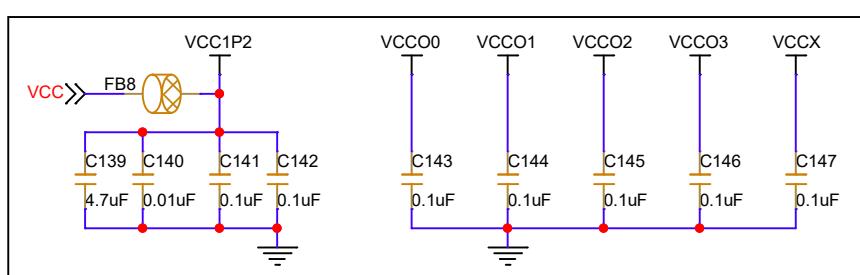
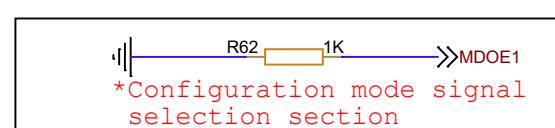
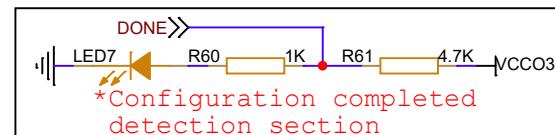
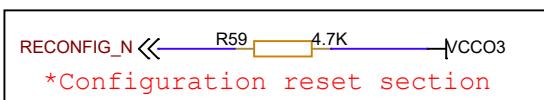
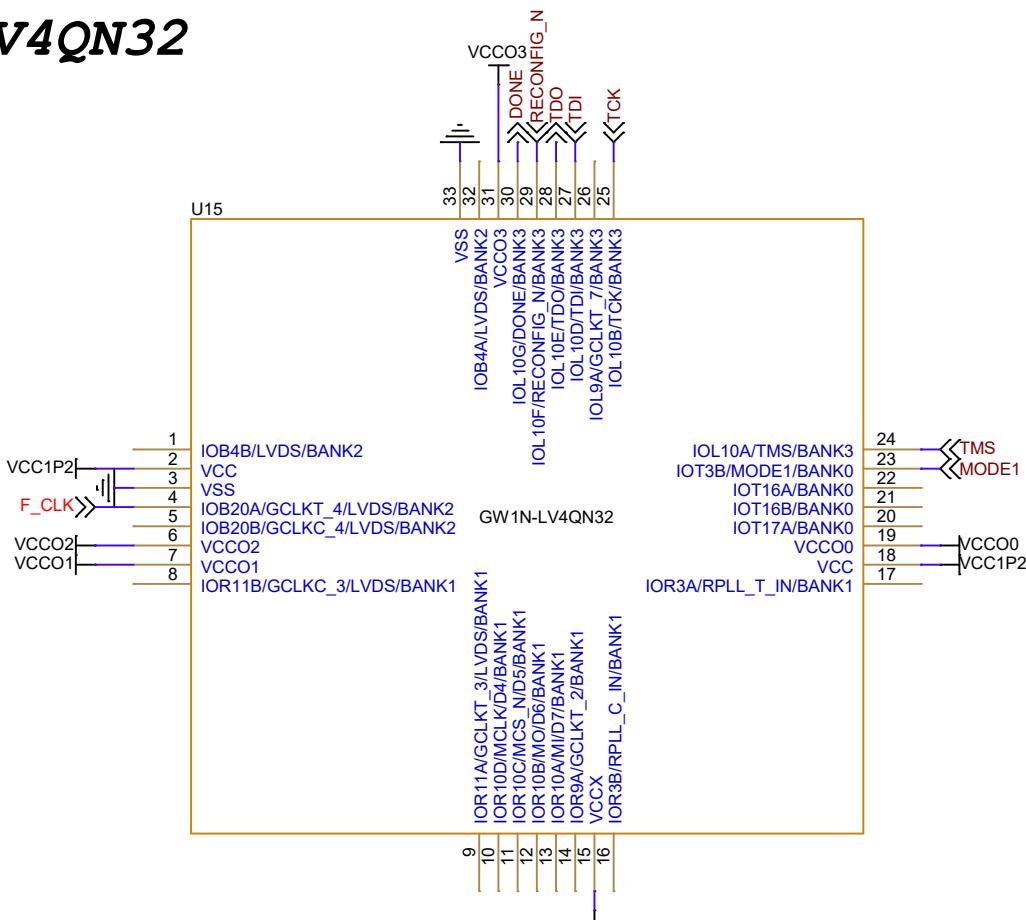
Notes:

- 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	Document Number	Rev
B	GW1N-LV4PG256M	2.1.1
Date:	Wednesday, September 11, 2024	Sheet 7 of 22

GW1N-LV4QN32

5 4 3 2 1



Notes:

1. F_{CLK} signal is an external input clock signal.

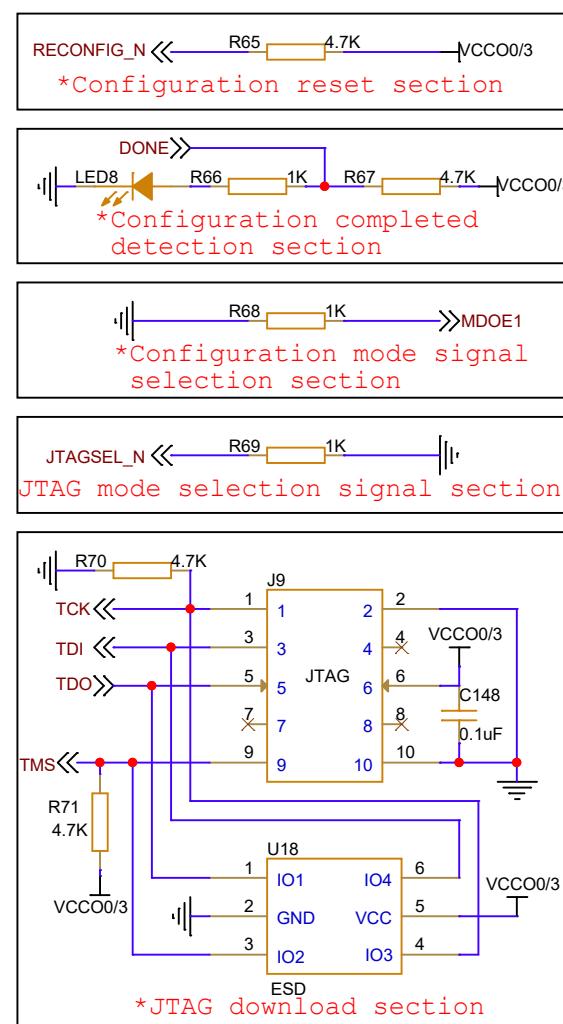
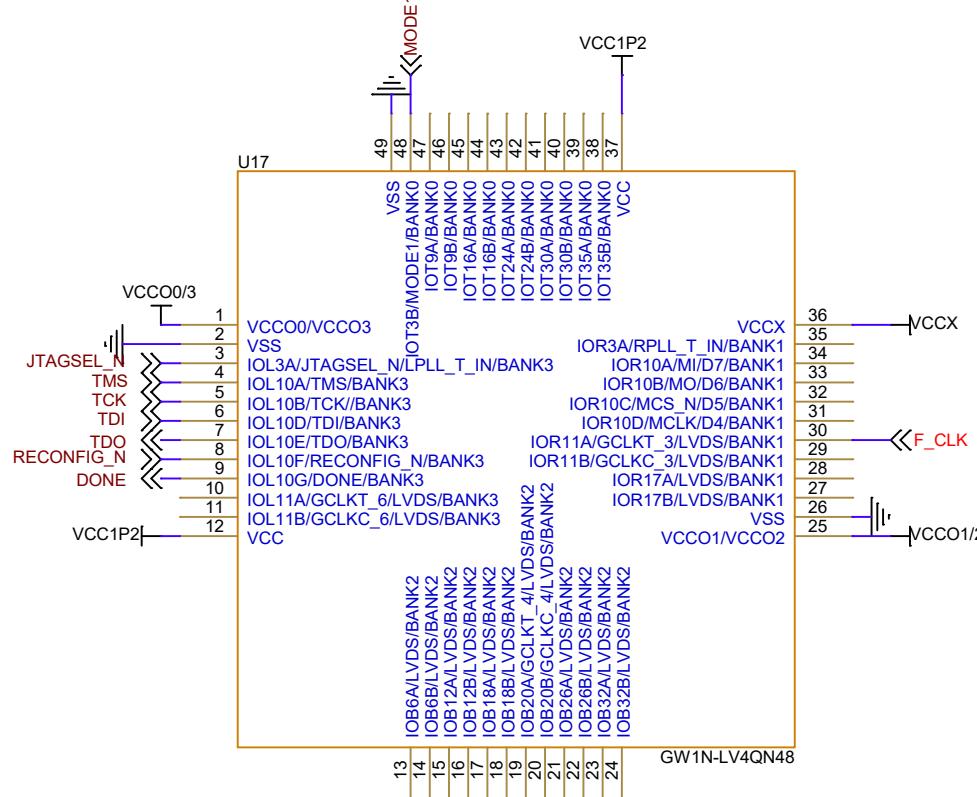
It is recommended that F_{CLK} signal be provided through an active oscillator crystal.

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

Title	
GOWIN Minimum System Diagram	
Size A4	Document Number GW1N-LV4QN32

Rev 2.1.1
Date: Wednesday, September 11, 2024 Sheet 8 of 22

GW1N-LV4QN48



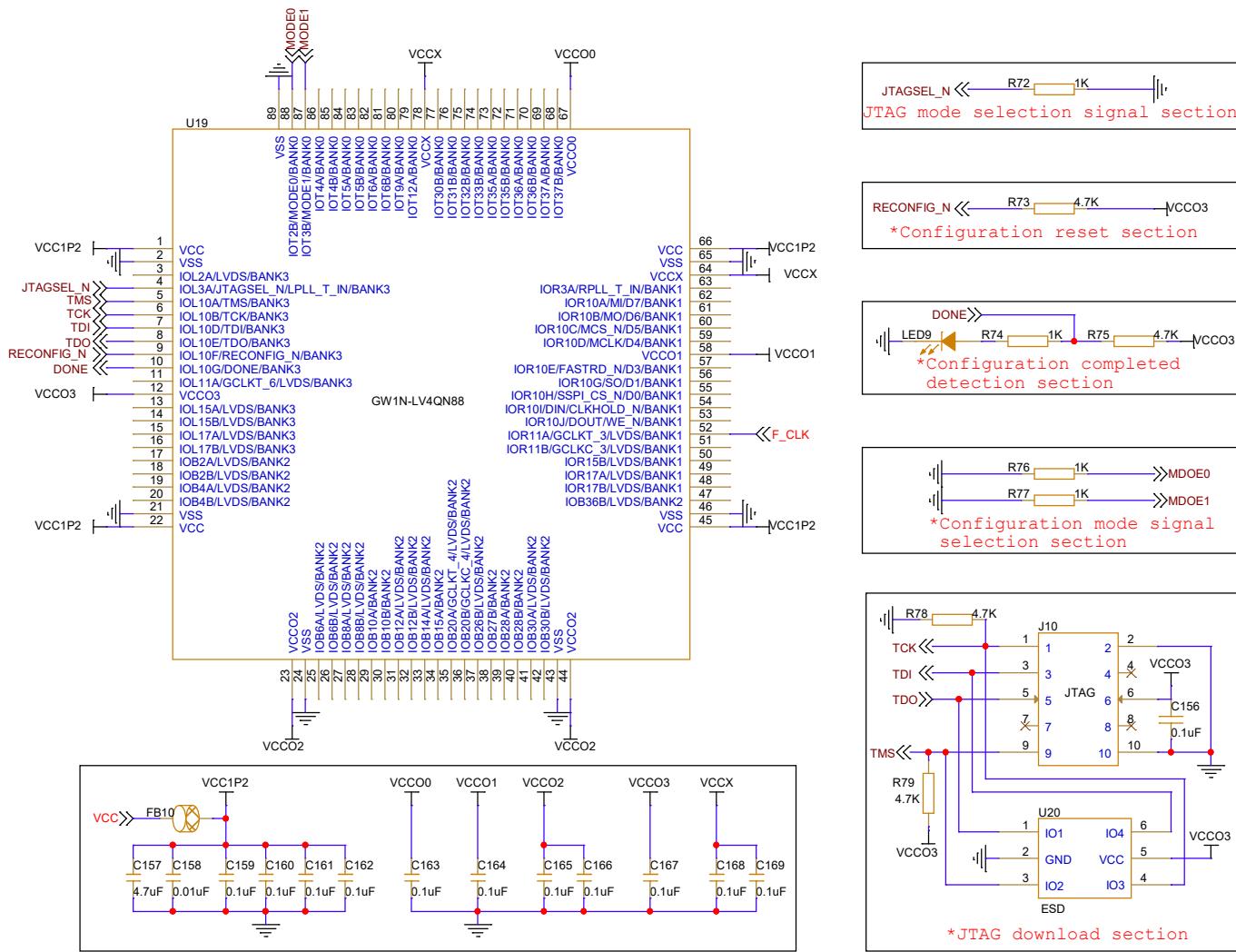
Notes:

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 A4 Document Number
GW1N-LV4QN48

Rev 2.1.1

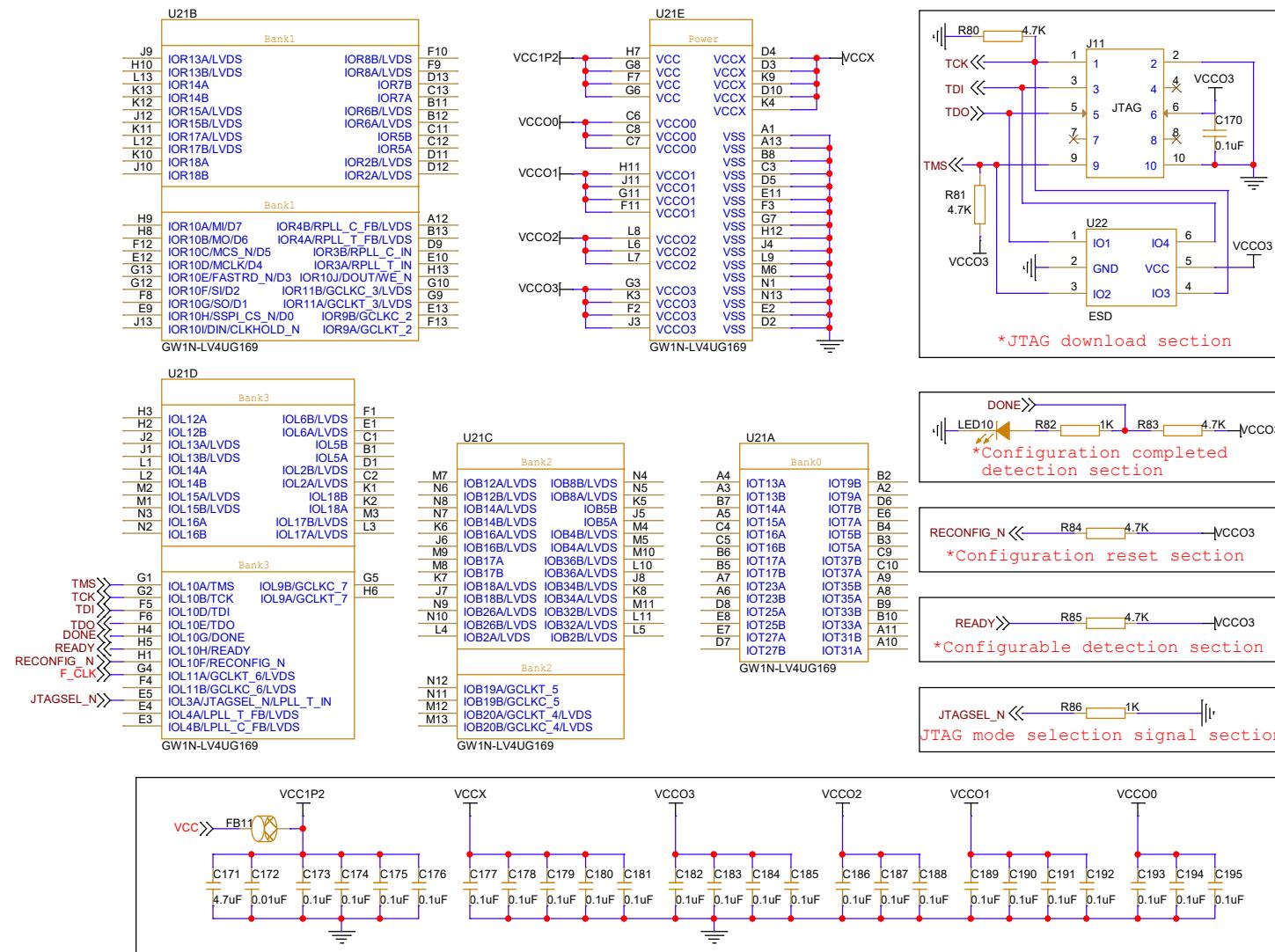
**Notes:**

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.

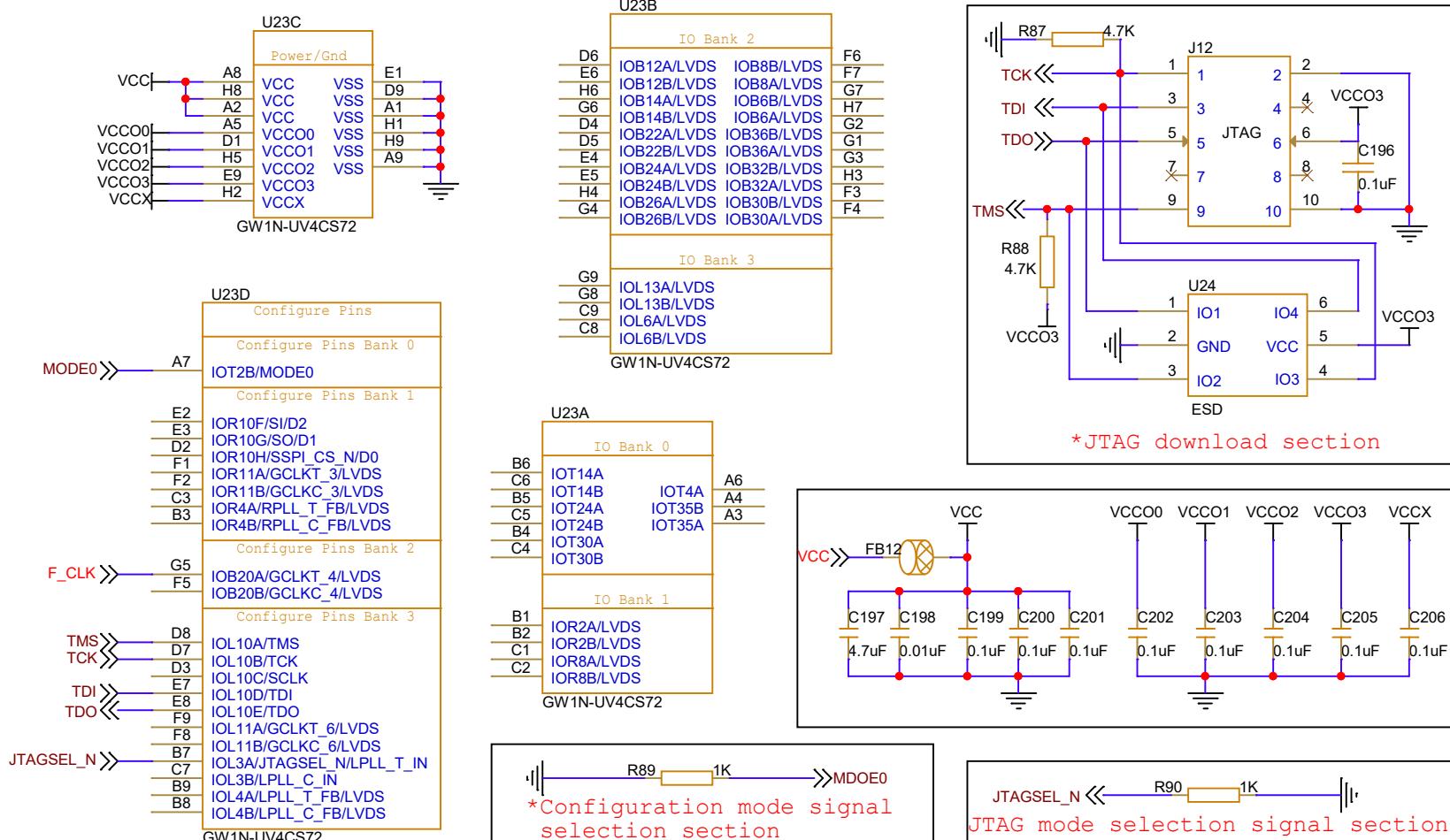
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GOWIN Minimum System Diagram		
Size B	Document Number GW1N-LV4QN88	Rev 2.1.1
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**Notes:**

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-LV4UG169
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GW1N-UV4CS72



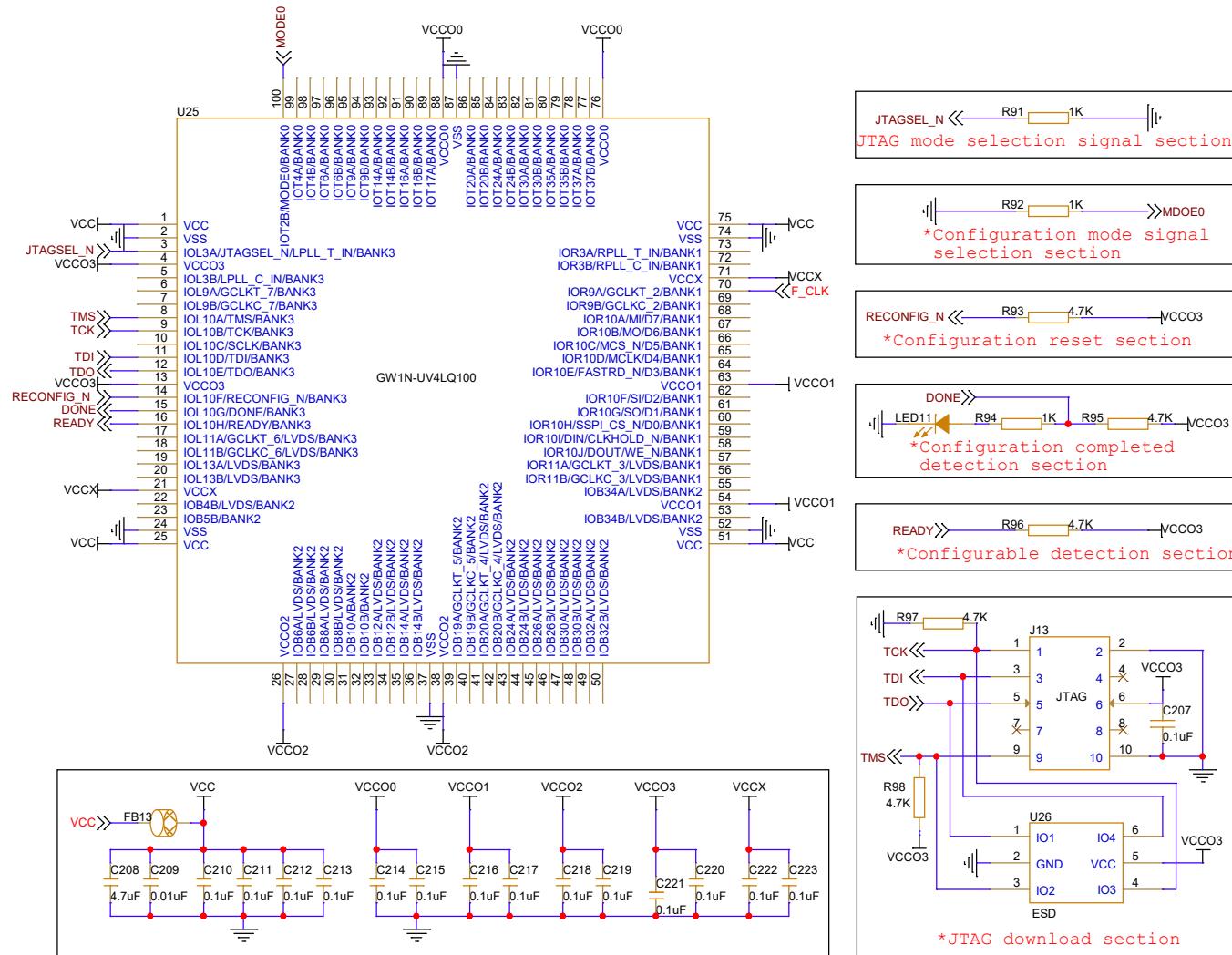
Notes:

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.

Title
GOWIN Minimum System Diagram

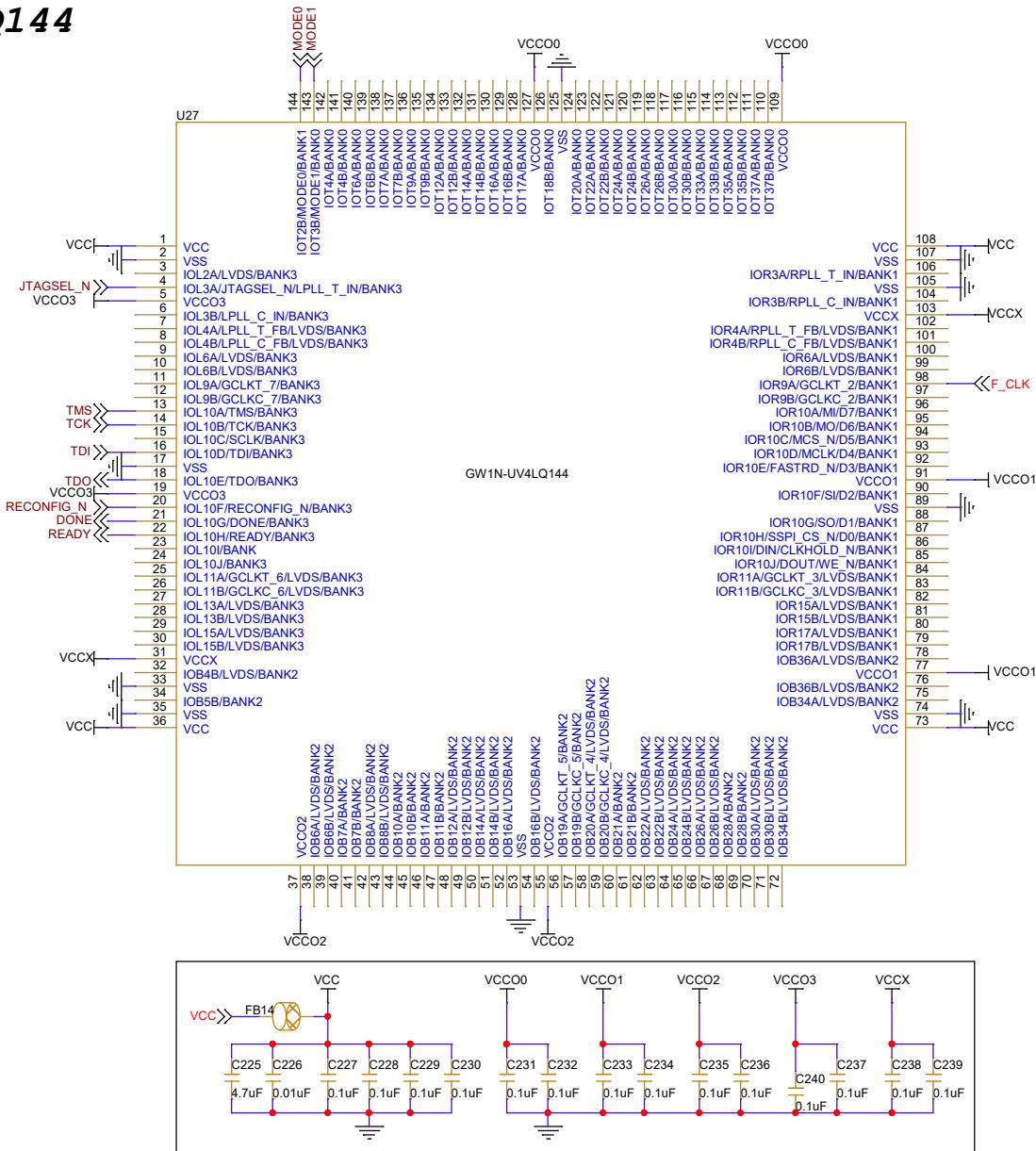
Size A4 Document Number
GW1N-UV4CS72

Rev 2.1.1

**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.

Title		
GOWIN Minimum System Diagram		
Size	Document Number	Rev
B	GW1N-UV4LQ100	2.1.1
	Date: Wednesday, September 11, 2024	Sheet 13 of 22

**Notes:**

1. F_CLK signal is an external input clock signal.

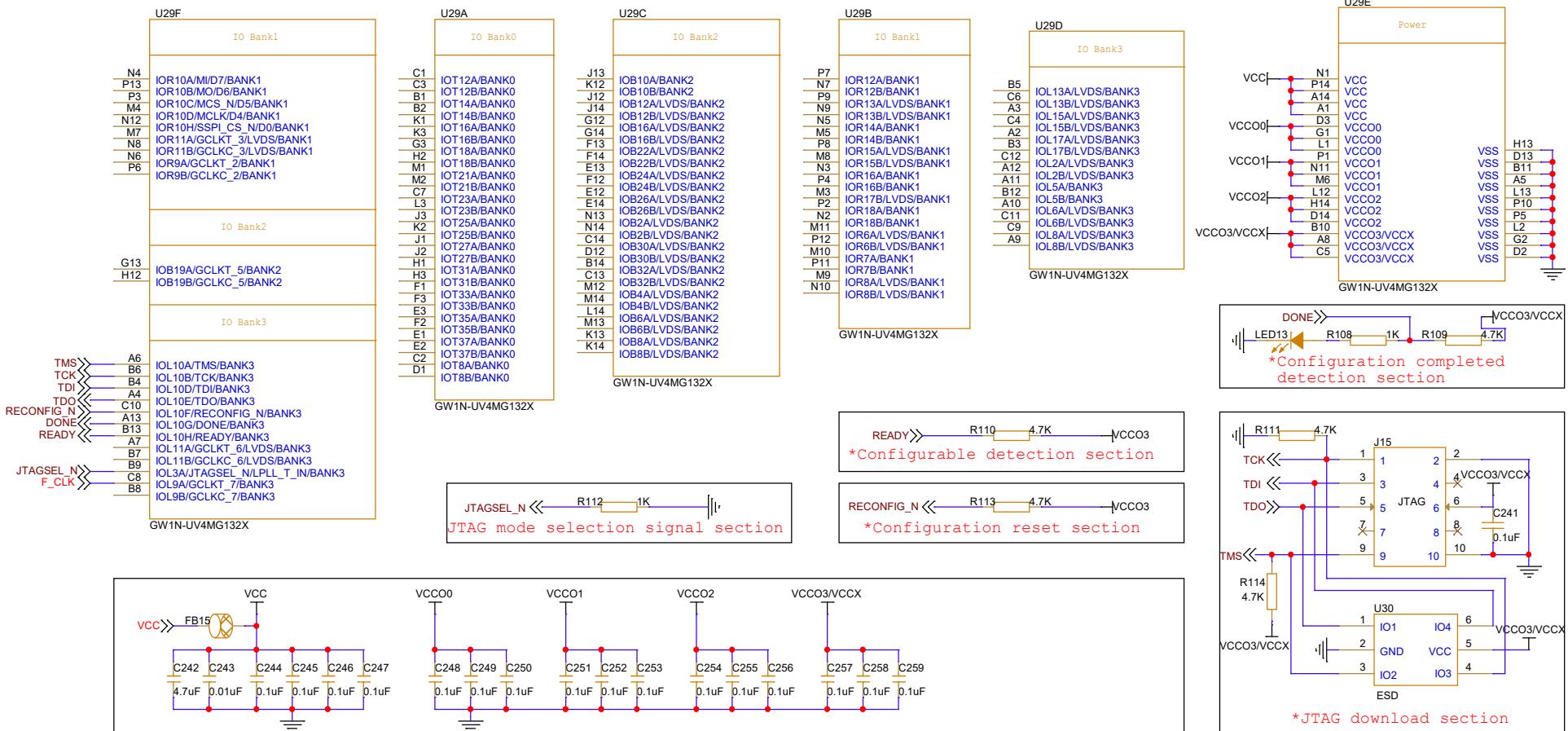
It is recommended that F_CLK signal be provided through an active oscillator crystal.

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

Title: GOWIN Minimum System Diagram

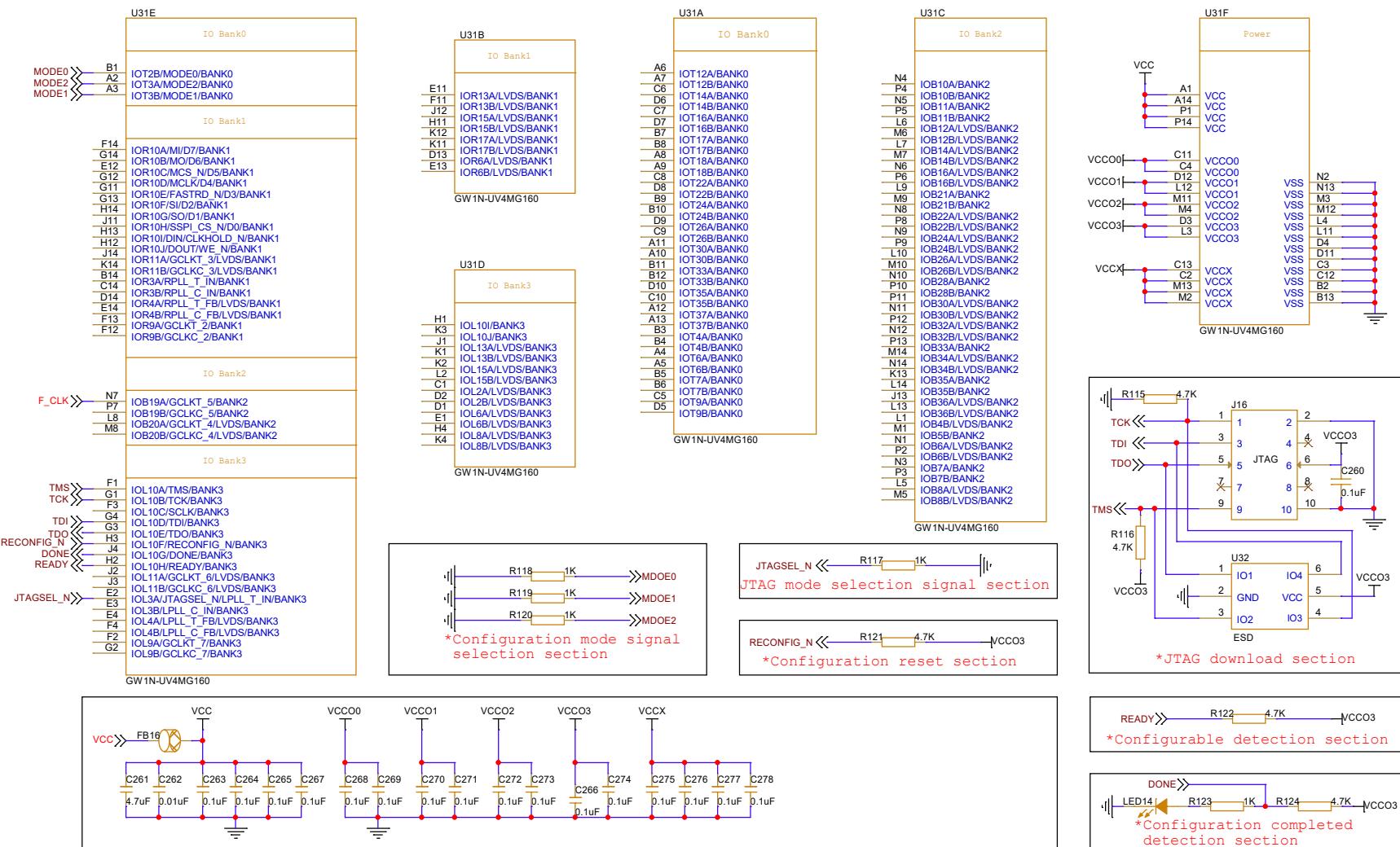
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GW1N-UV4MG132X

Title		
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Size	Document Number	Rev
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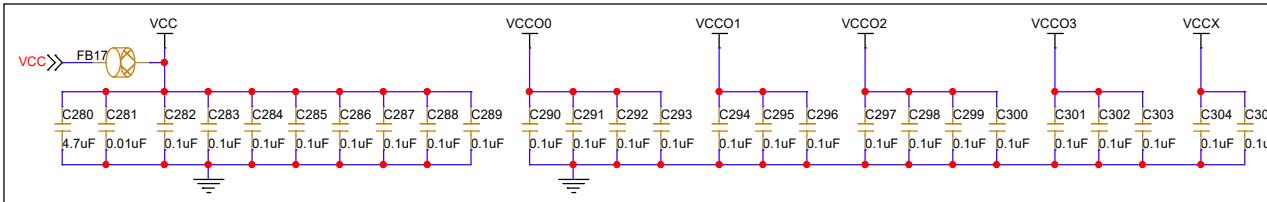
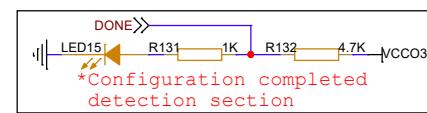
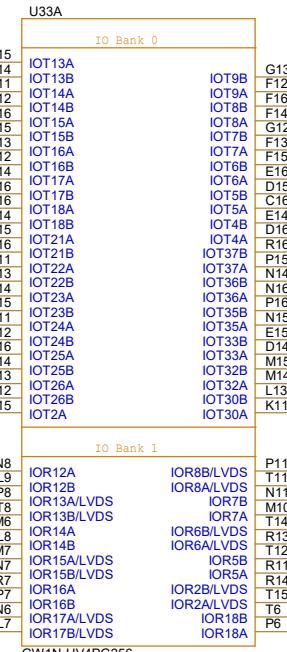
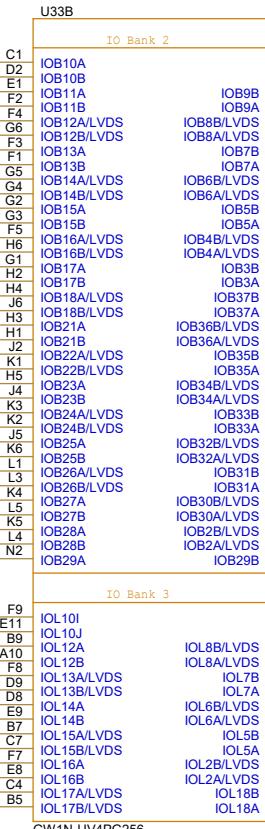
GW1N-UV4MG160



Notes:

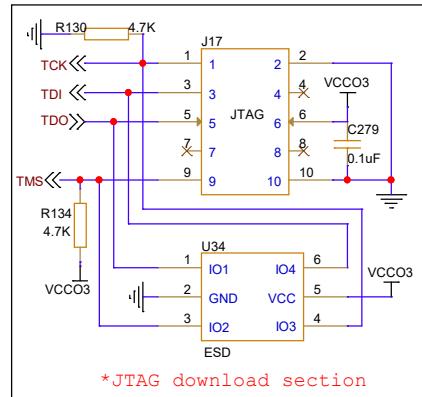
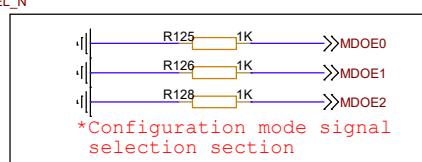
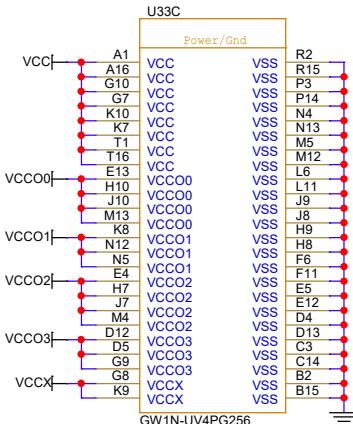
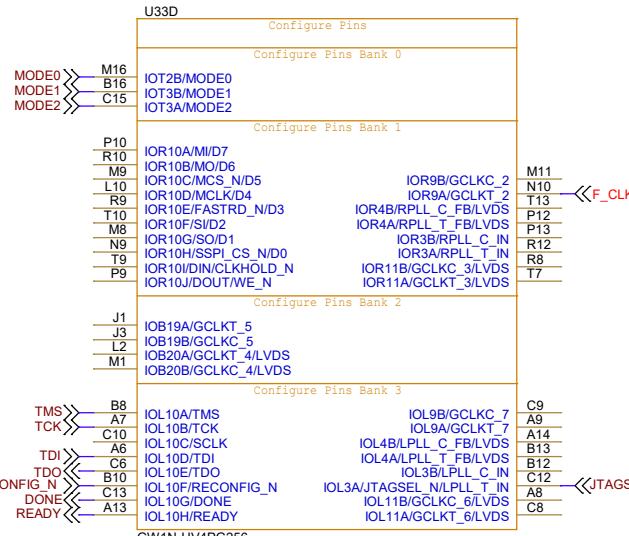
- Notes:
1.F_CLK signal is an external input clock signal.
It is recommended that F_CLK signal be provided through an active oscillator crystal
2.It is recommended that add an ESD protection chip to the JTAG download circuit.

Title		GOWIN Minimum System Diagram		
Size A3	Document Number GW1-UV4MG160			Rev 2.1
Date:	Wednesday, September 11, 2024		Sheet	16 of 22



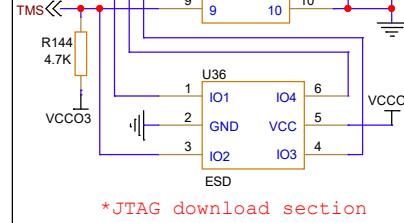
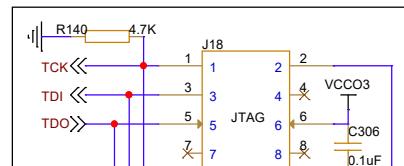
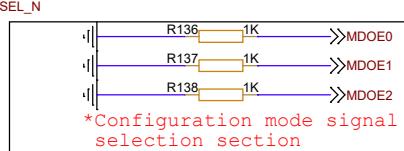
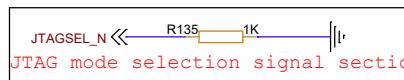
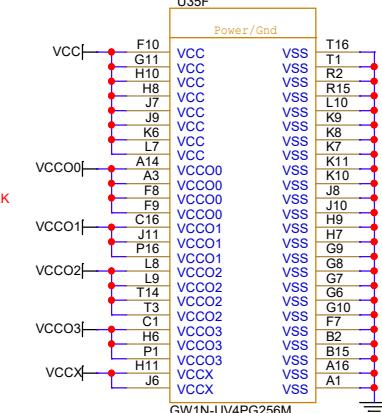
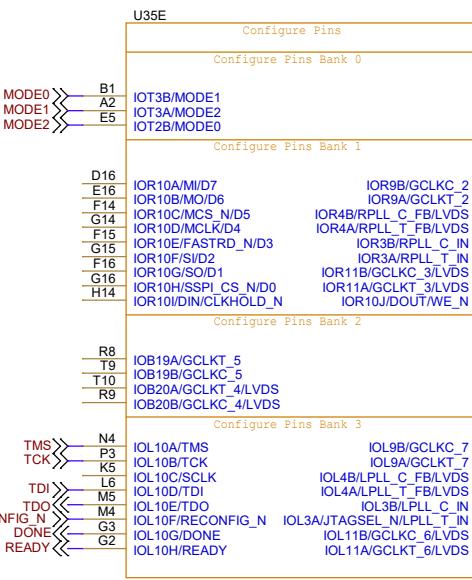
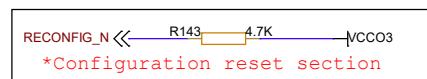
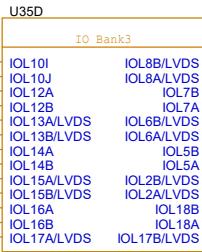
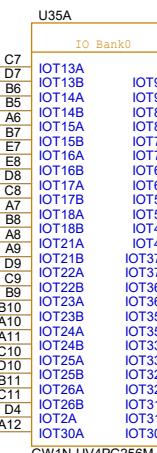
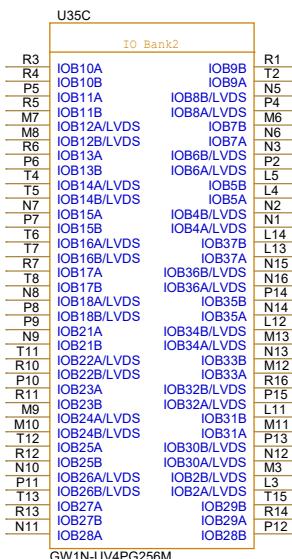
Notes:

- 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.



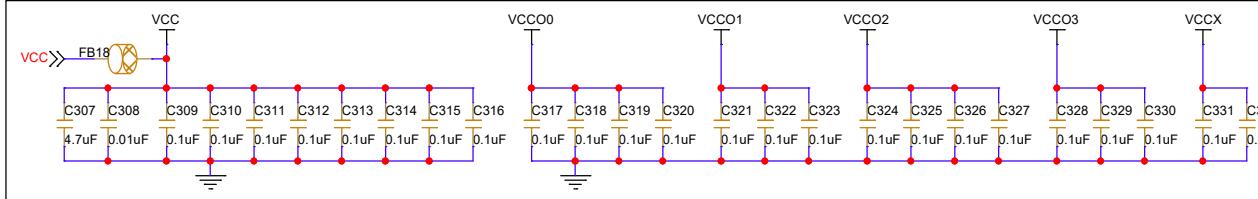
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Size	Document Number
B	GW1N-UV4PG256
	Rev 2.1.1
Date:	Wednesday, September 11, 2024
Sheet	17 of 22

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-UV4FG256M	Rev 2.1.1

GW1N-UV4QN32

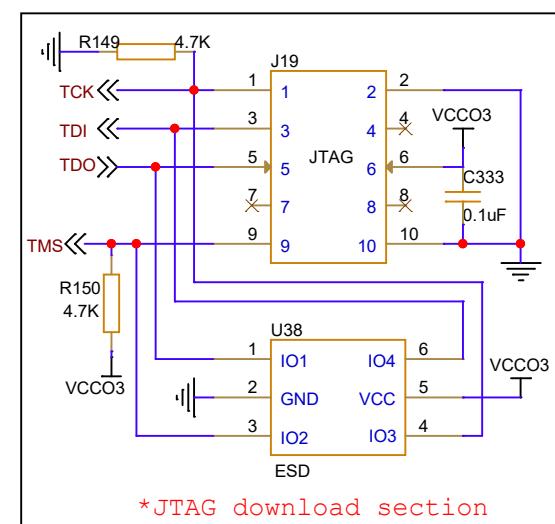
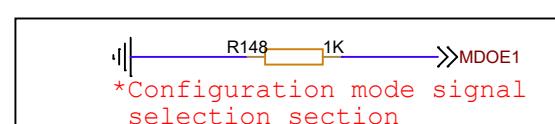
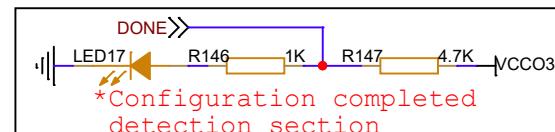
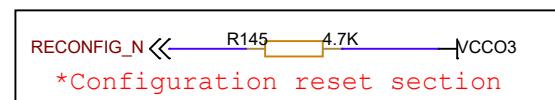
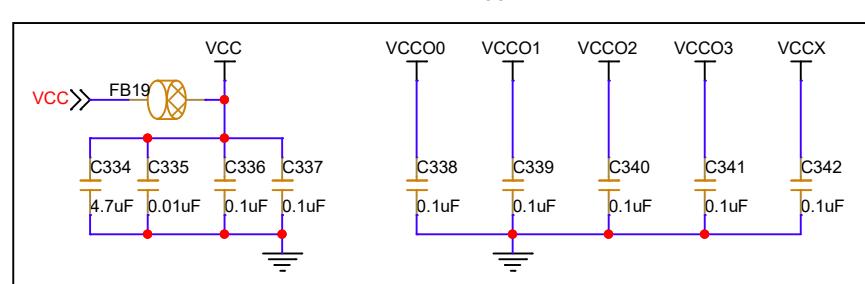
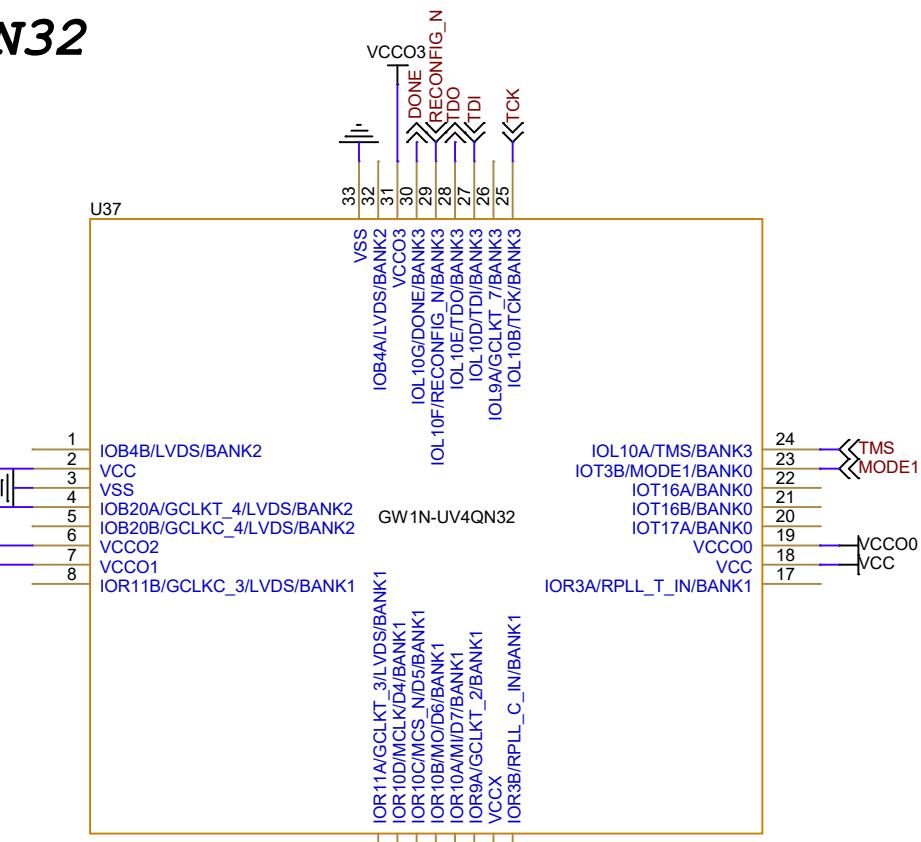
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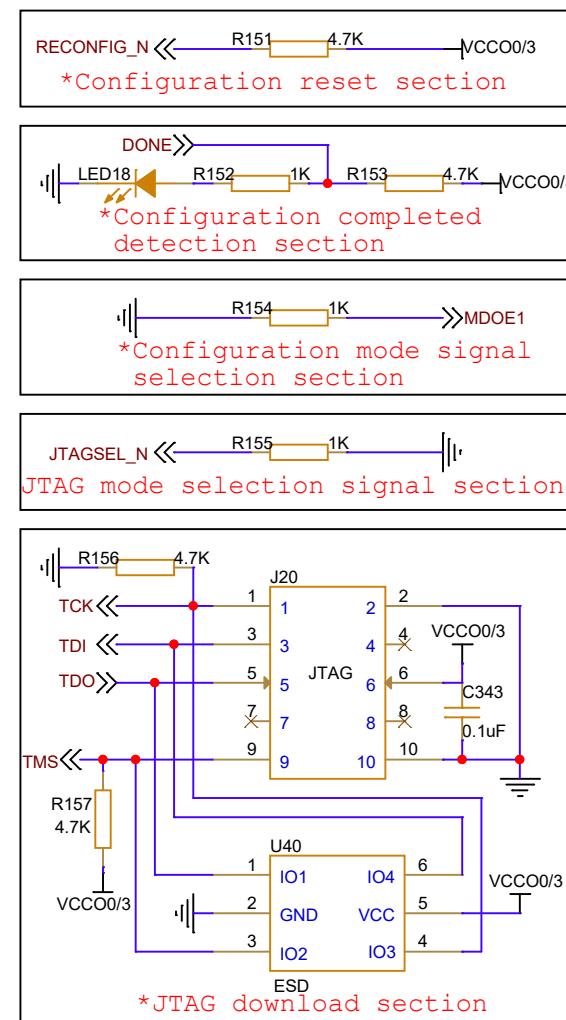
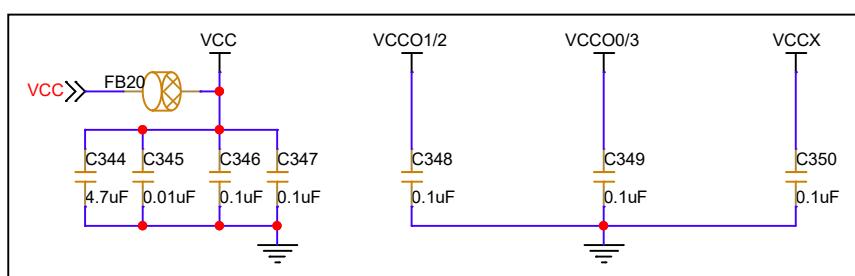
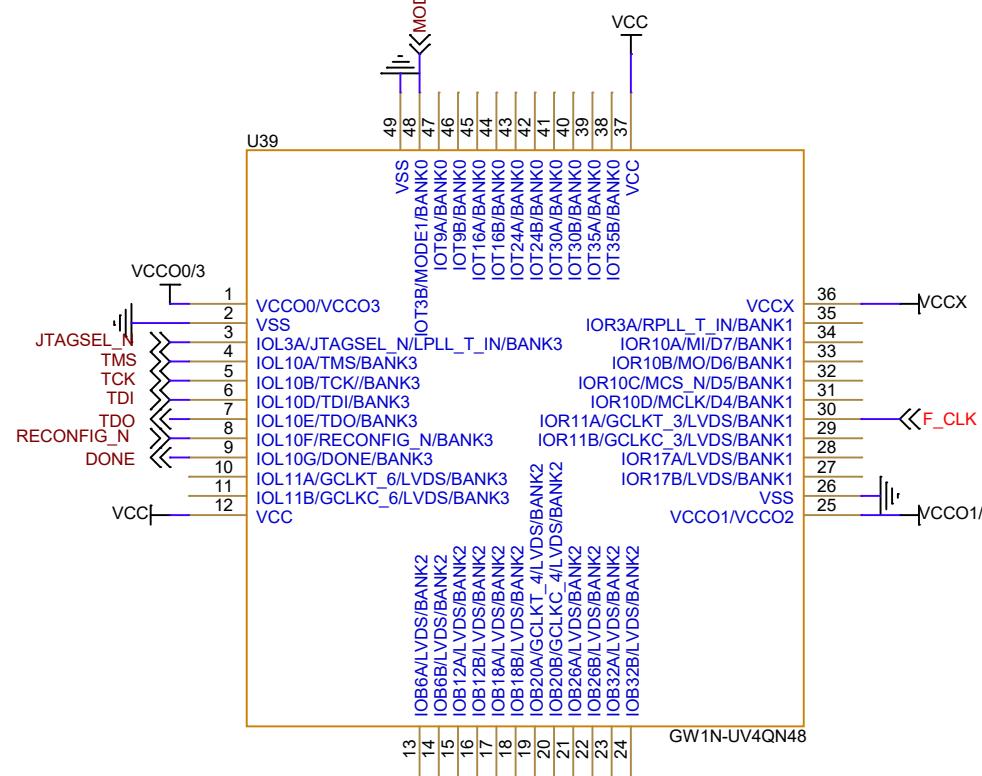
1. F_{CLK} signal is an external input clock signal.

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.

Title	
Size A4 Document Number GW1N-UV4QN32	
Date: Wednesday, September 11, 2024	Rev 2.1.1

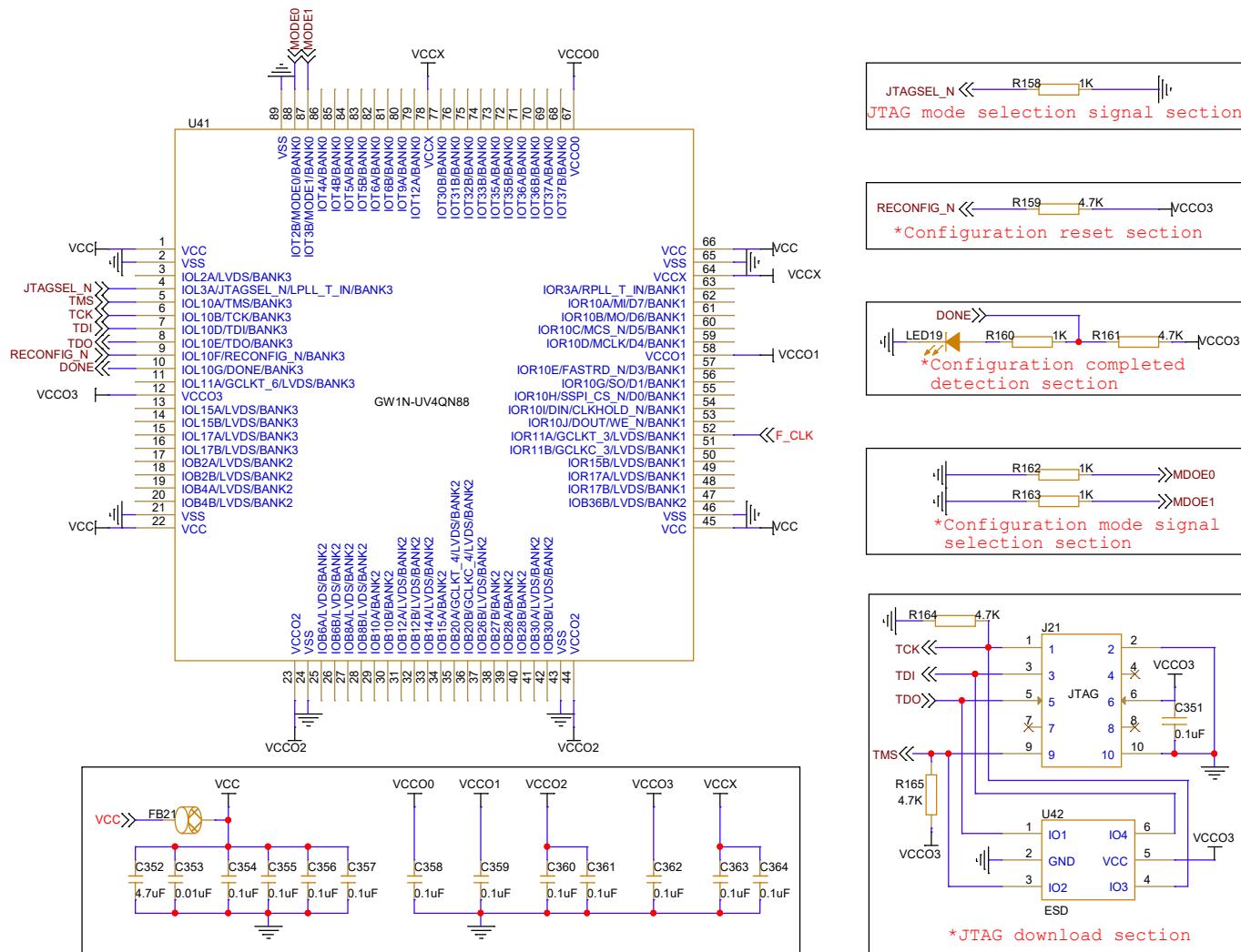
GW1N-UV4QN48



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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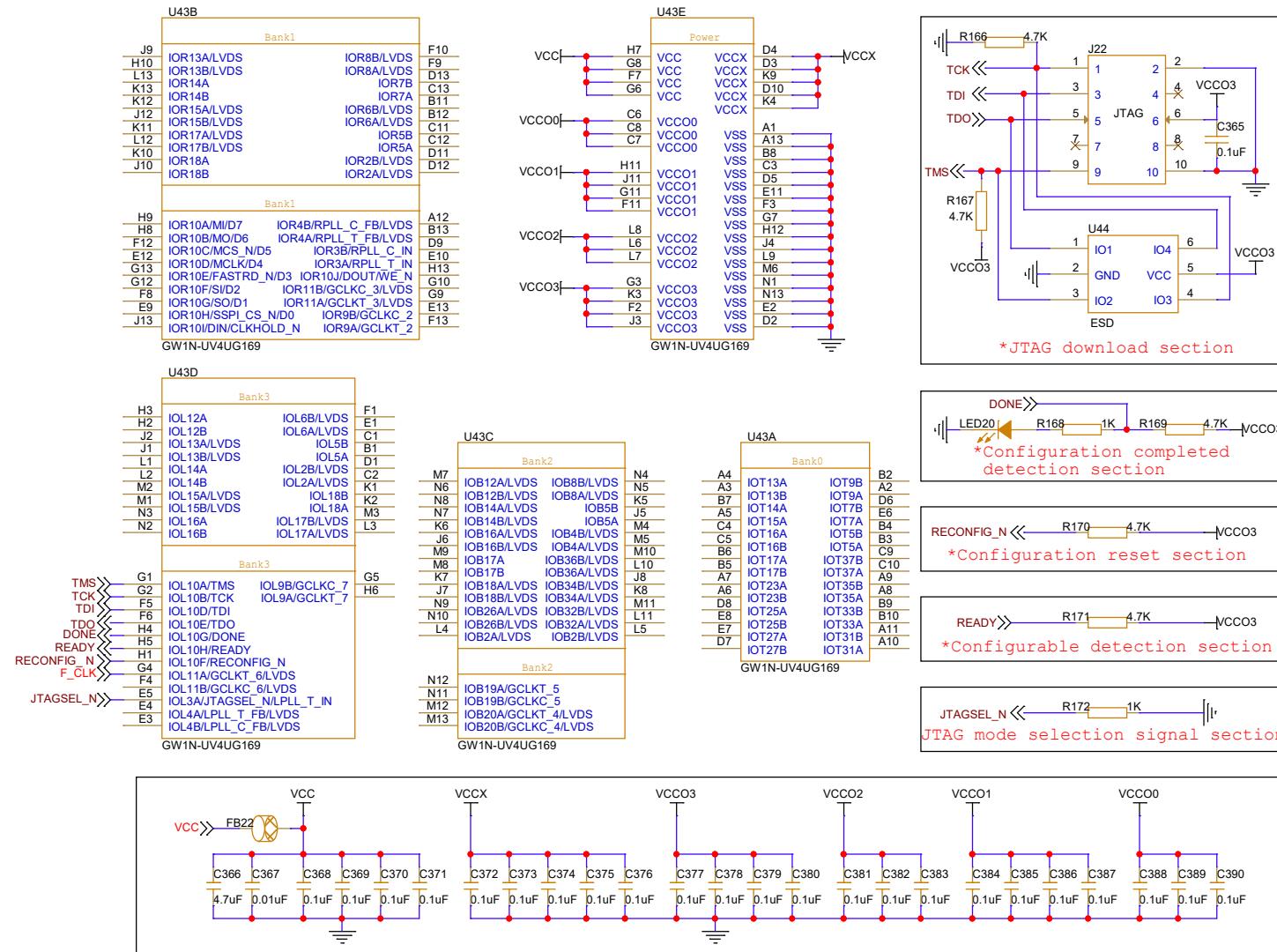
Notes:

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.

Title		
GOWIN Minimum System Diagram		
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B	GW1N-UV4QN88	2.1.1
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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	
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