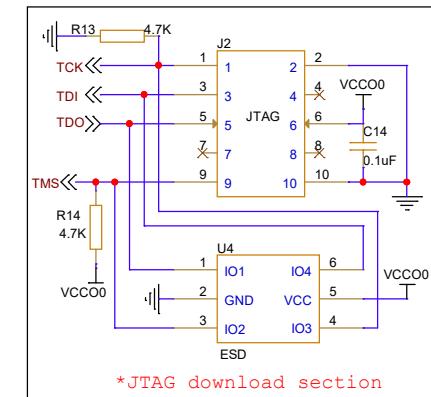
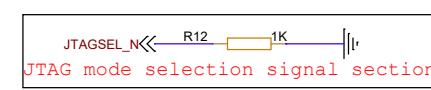
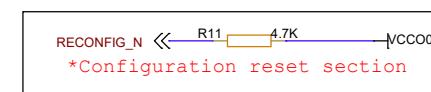
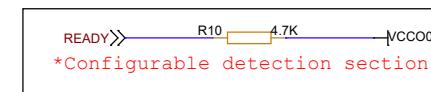
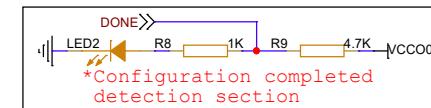
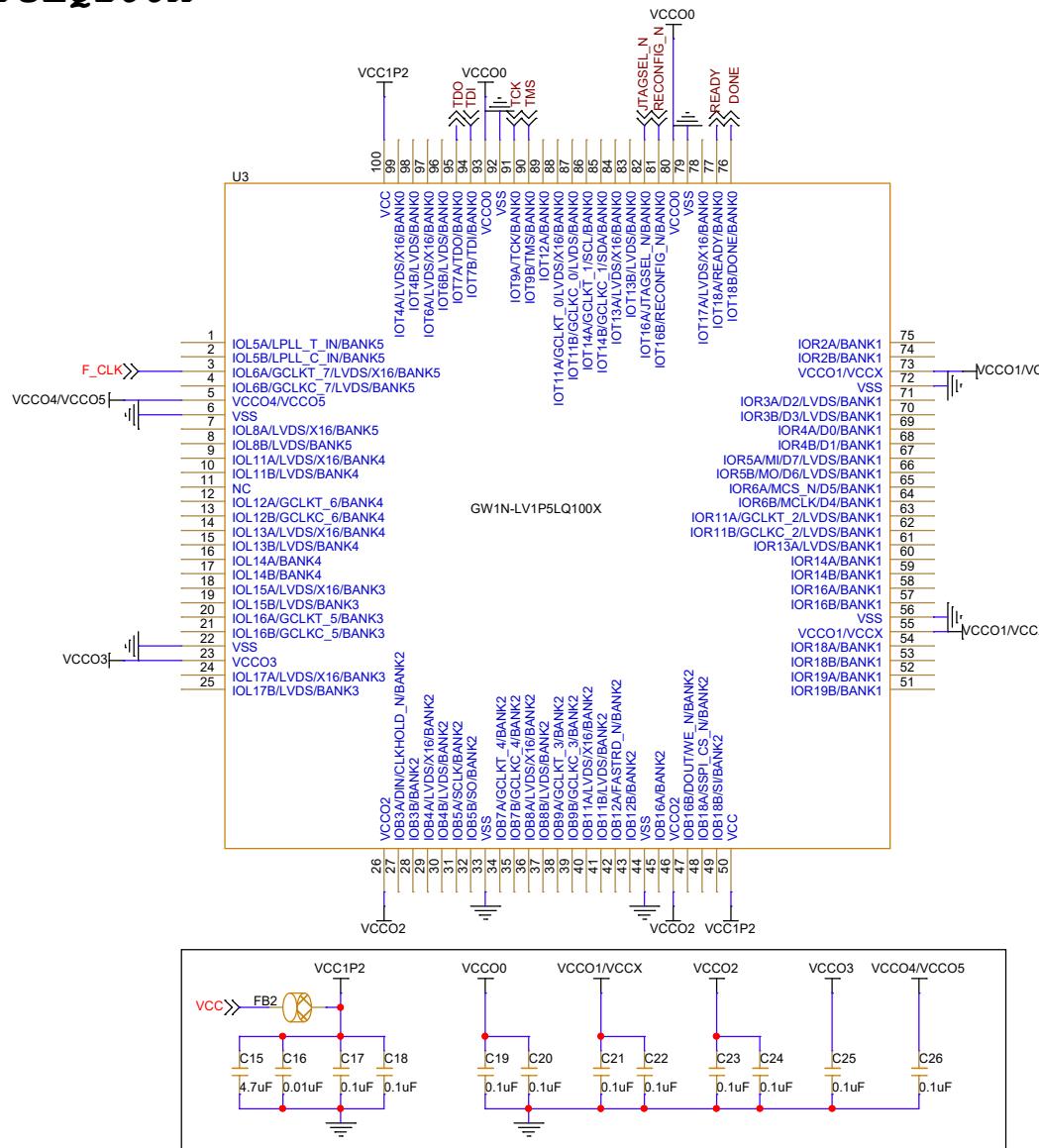
**Notes:**

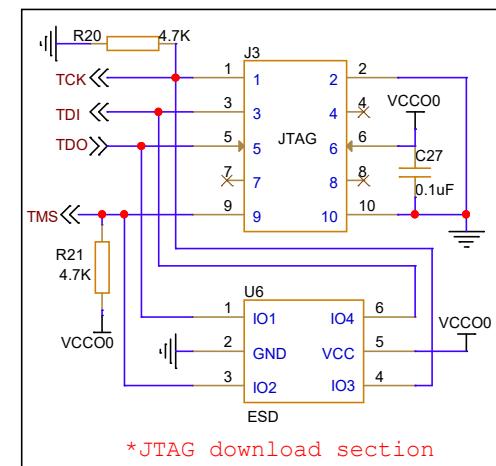
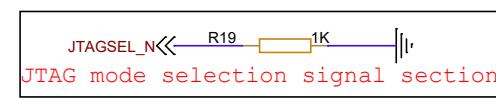
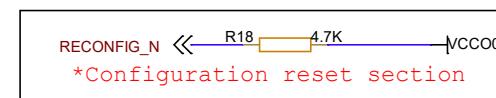
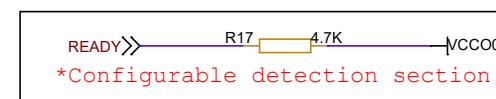
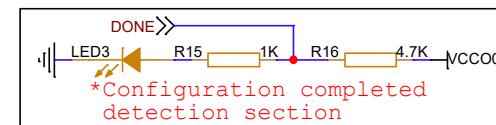
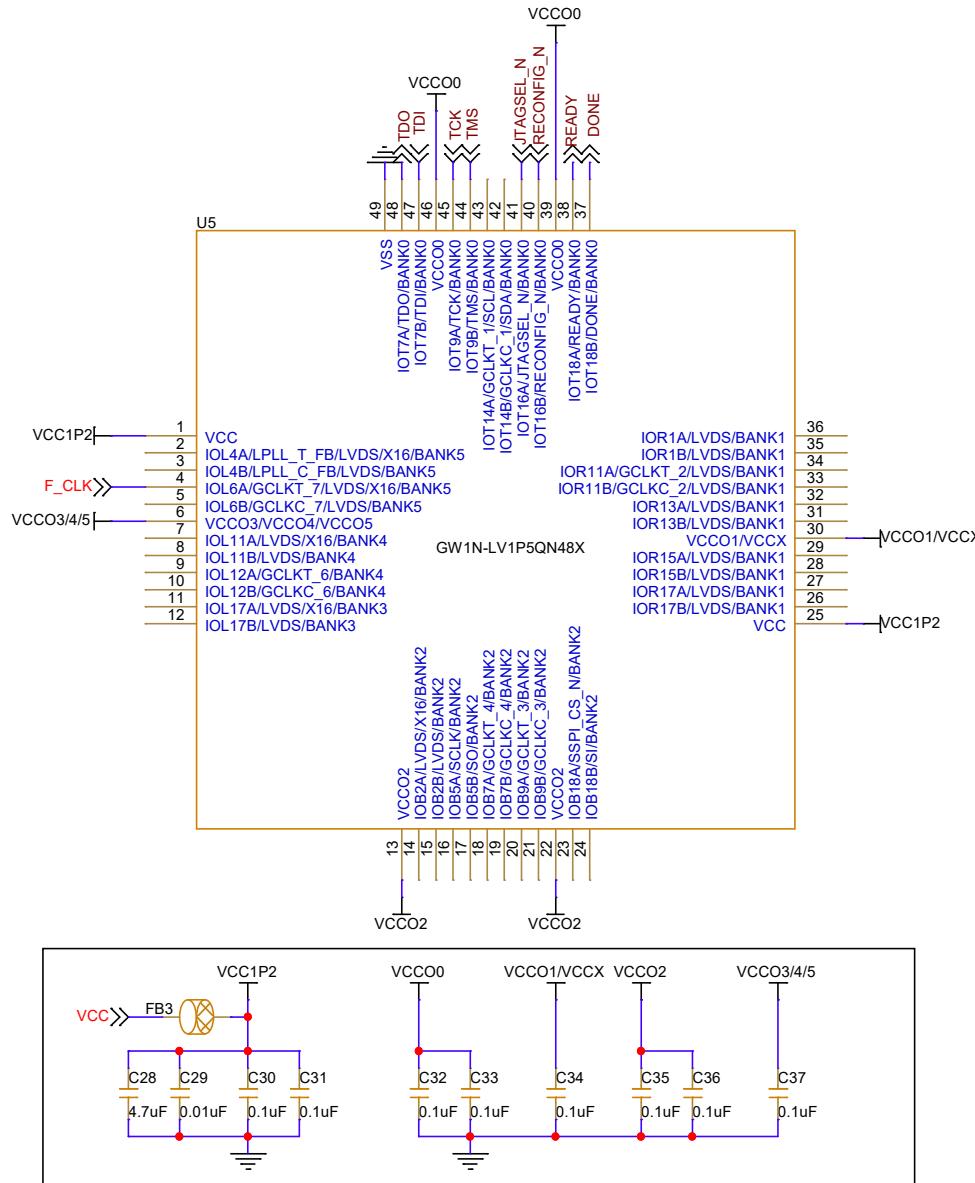
1. F\_CLK signal is an external input clock signal.  
It is recommended that F\_CLK signal be provided through an active oscillator crystal.
2. It is recommended that add an ESD protection chip to the JTAG download circuit.

Title		
GOWIN Minimum System Diagram		
Size	Document Number	Rev
B	GW1N-LV1P5LQ100	2.1
Date:	Monday, April 08, 2024	Sheet 1 of 8

**Notes:**

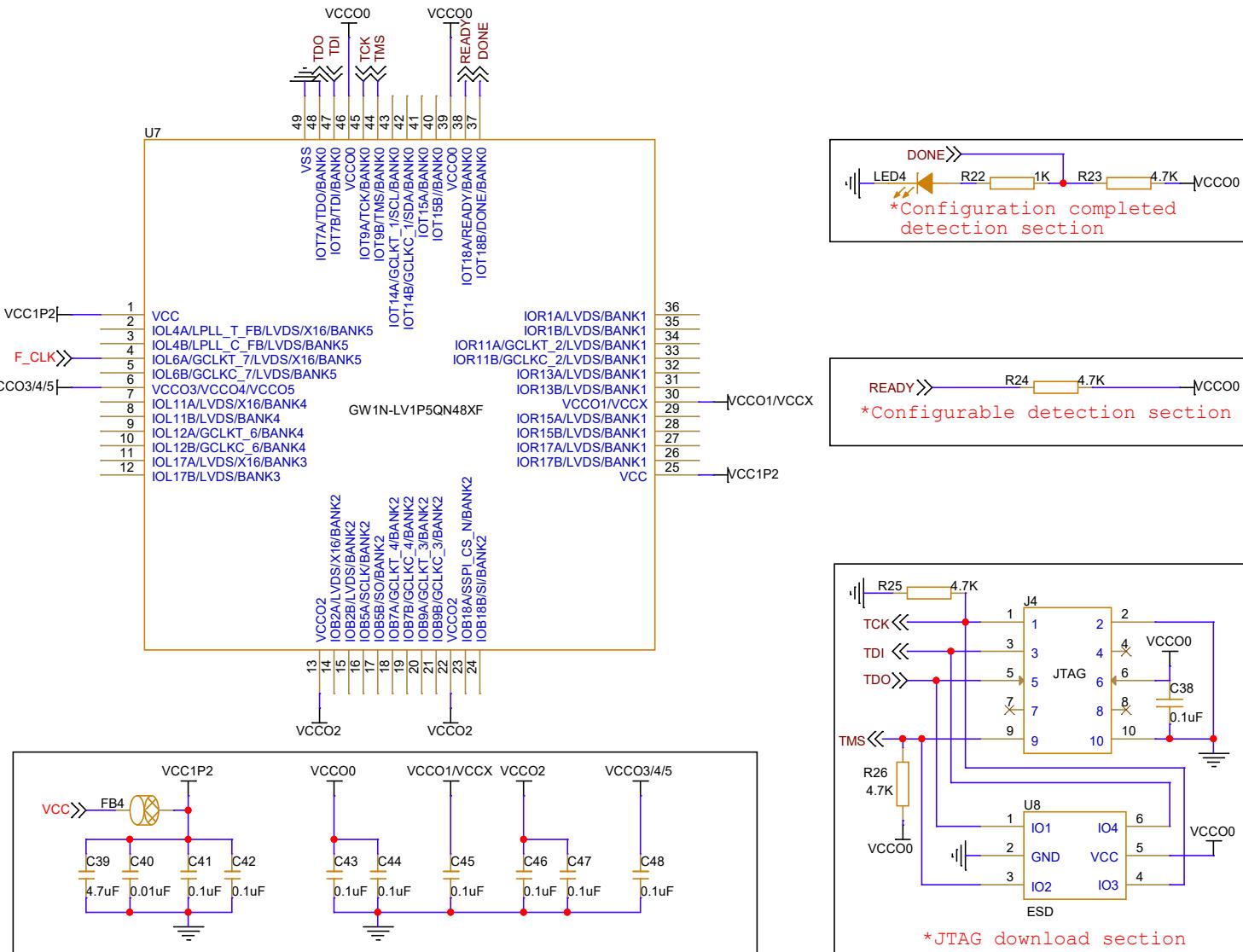
1. **F\_CLK** signal is an external input clock signal.  
It is recommended that **F\_CLK** signal be provided through an active oscillator crystal.
2. It is recommended that add an ESD protection chip to the JTAG download circuit.

Title		
GOWIN Minimum System Diagram		
Size	Document Number	Rev
B	GW1N-LV1P5LQ100X	2.1
Date:	Monday, April 08, 2024	Sheet 2 of 8

**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		
Size	Document Number	Rev
Custom	GW1N-LV1P5QN48X	2.1
Date:	Monday, April 08, 2024	Sheet 3 of 8

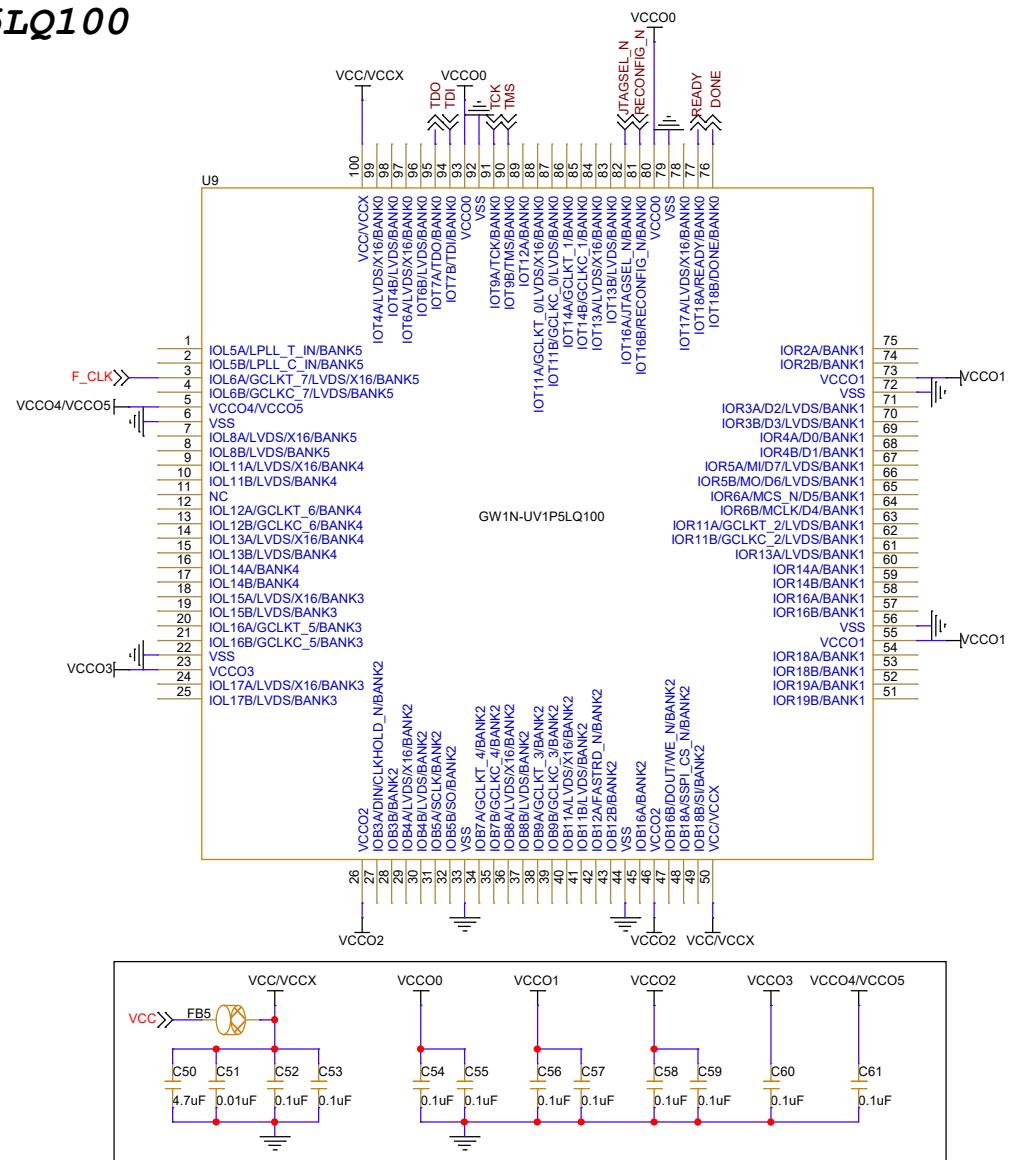


#### Notes:

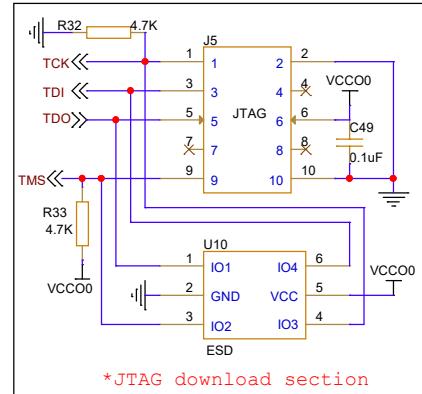
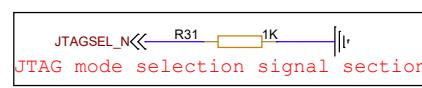
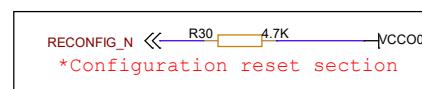
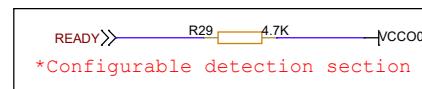
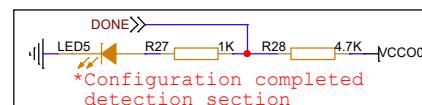
- Notes:

  - 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.

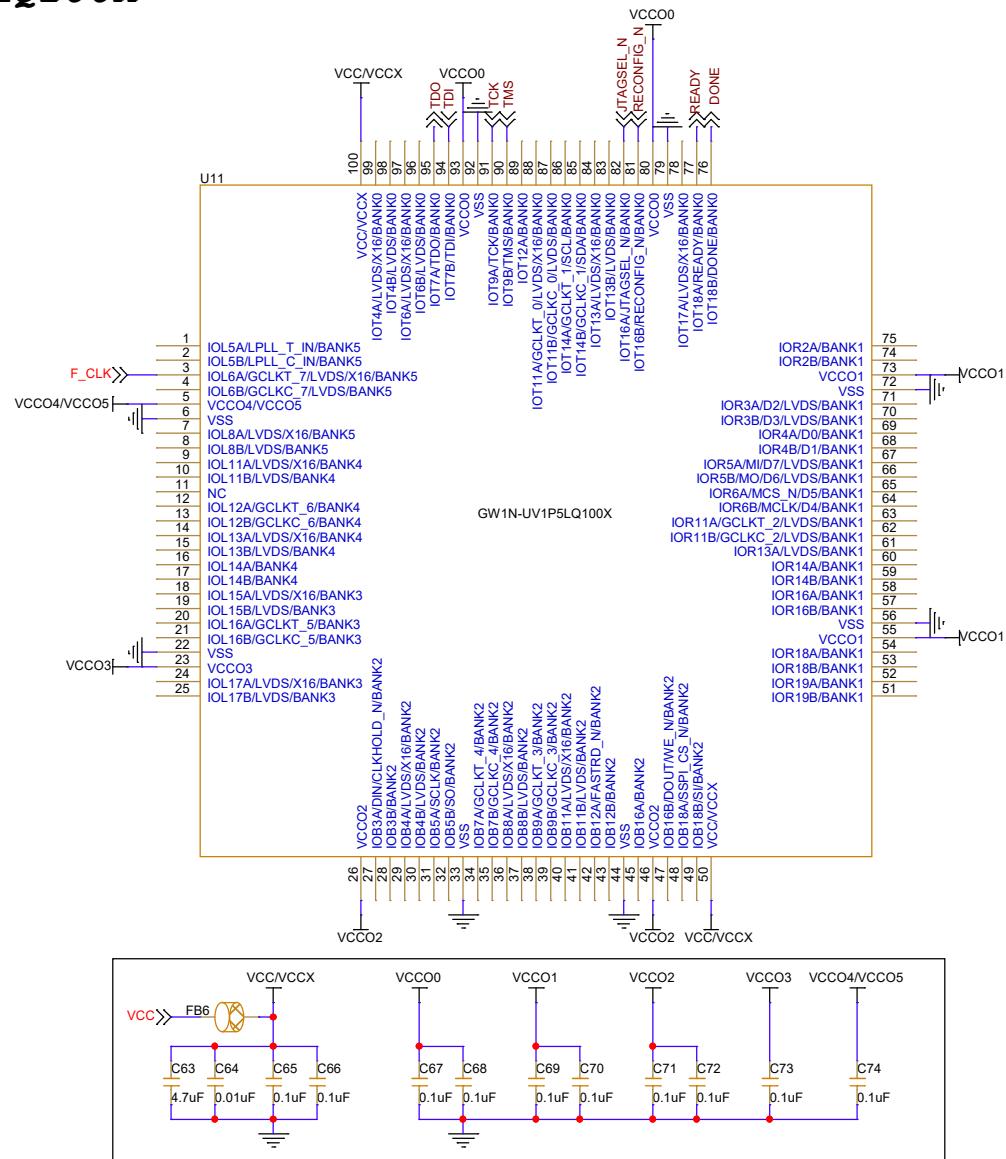
Title	
GOWIN Minimum System Diagram	
Size	Document Number
Custom	GW1N-LV1P5QN48XF
Date:	Monday, April 08, 2024
Sheet	4 of 8

**Notes:**

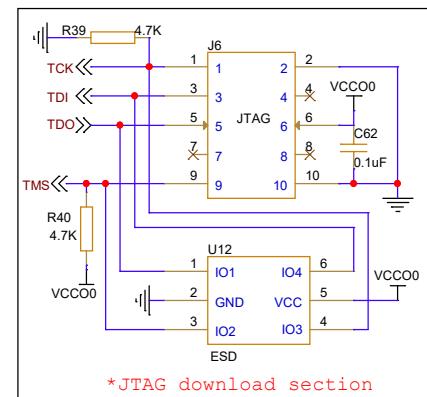
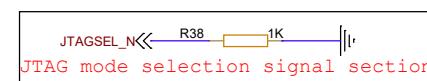
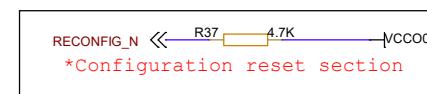
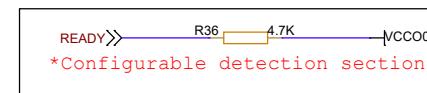
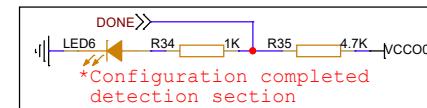
1. **F\_CLK** signal is an external input clock signal.  
It is recommended that **F\_CLK** signal be provided through an active oscillator crystal.
2. It is recommended that add an ESD protection chip to the JTAG download circuit.



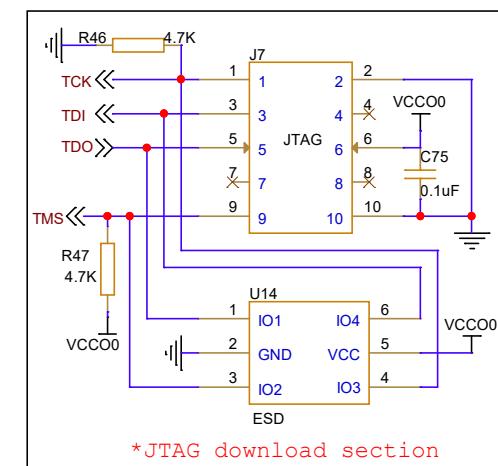
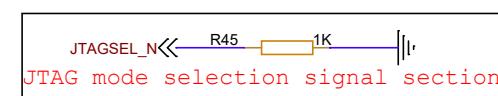
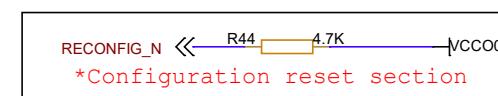
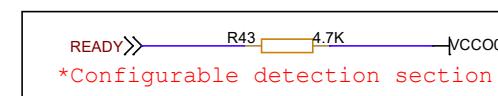
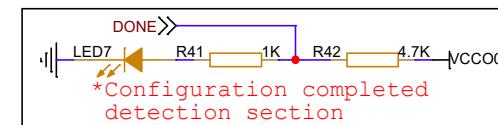
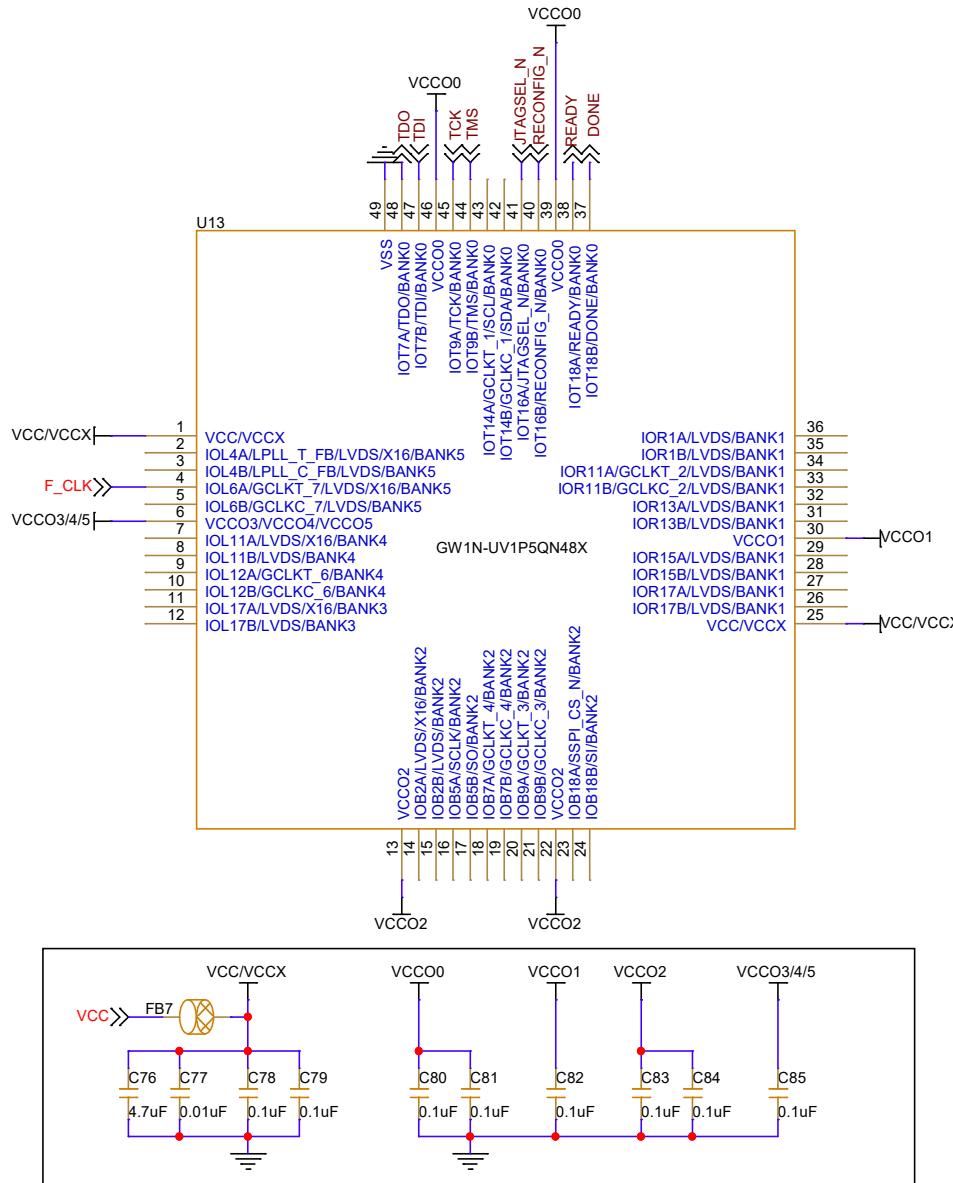
Title		GOWIN Minimum System Diagram	
Size	B	Document Number	GW1N-UV1P5LQ100
Date:	Monday, April 08, 2024	Sheet	5 of 8

**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.



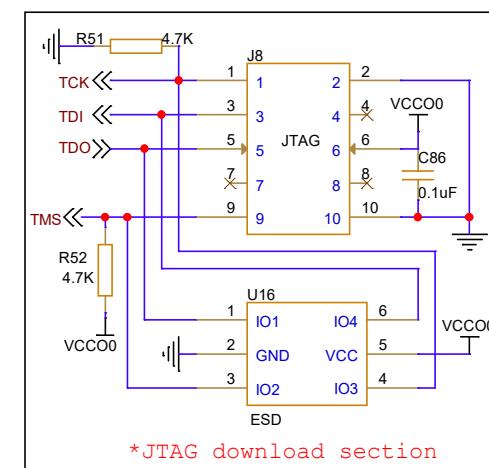
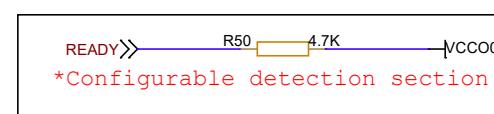
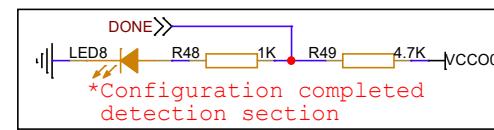
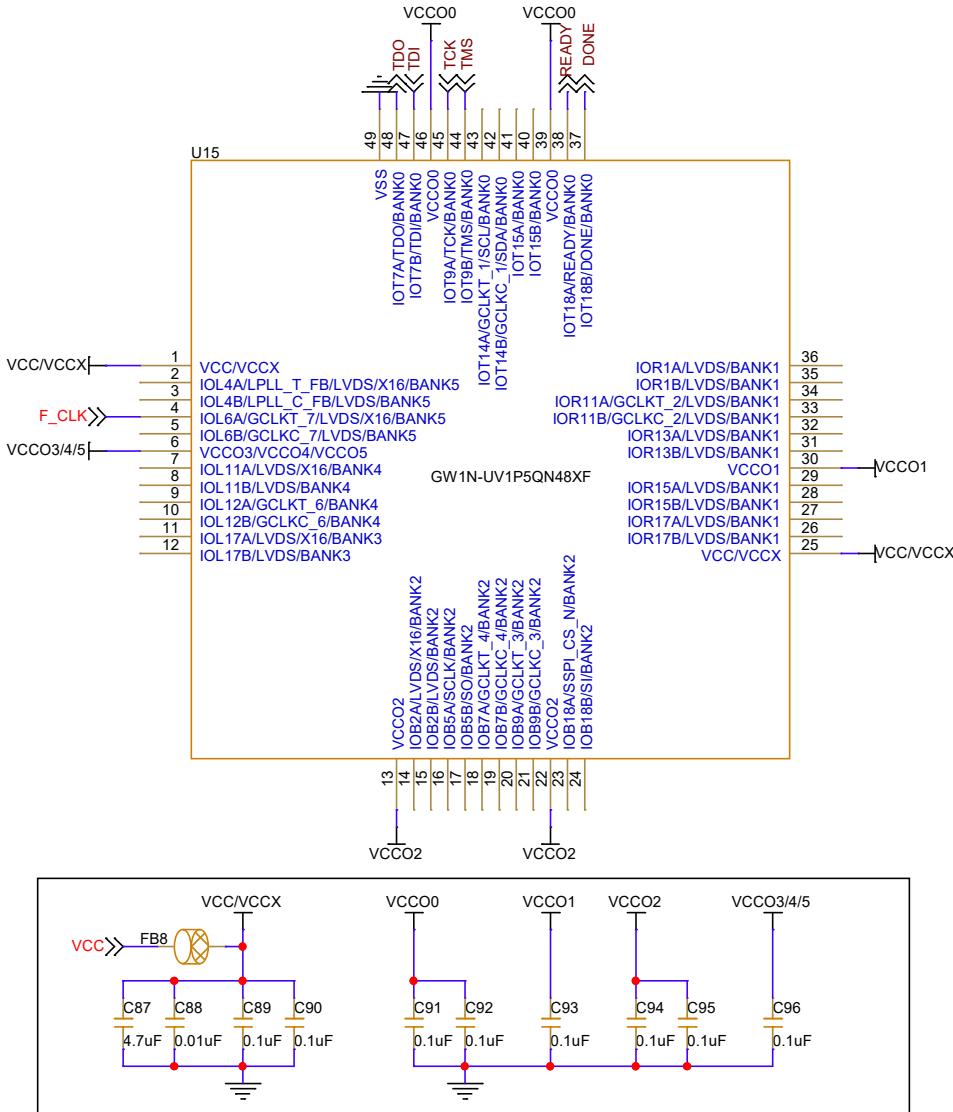
Title		GOWIN Minimum System Diagram
Size	Document Number	GW1N-UV1P5LQ100X
B	Rev	2.1
Date:	Monday, April 08, 2024	Sheet 6 of 8



## 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		
Size	Document Number	Rev
Custom	GW1N-UV1P5QN48X	2.1
Date:	Monday, April 08, 2024	Sheet 7 of 8

**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
Custom	GW1N-UV1P5QN48XF	2.1
Date:	Monday, April 08, 2024	Sheet 8 of 8