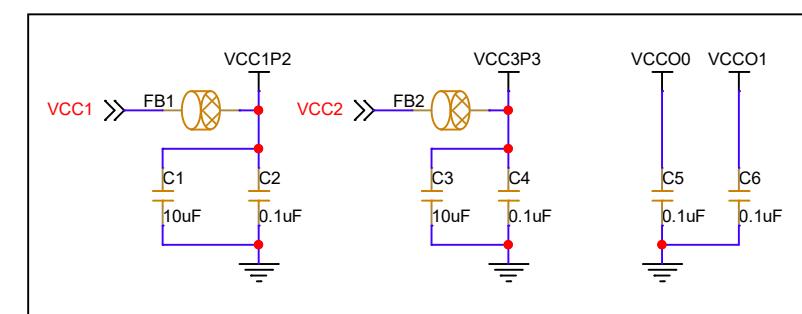
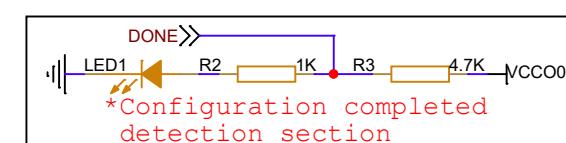
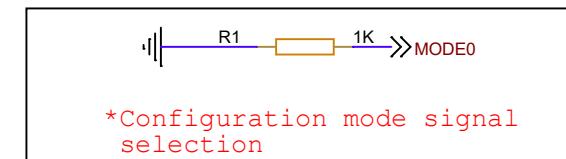
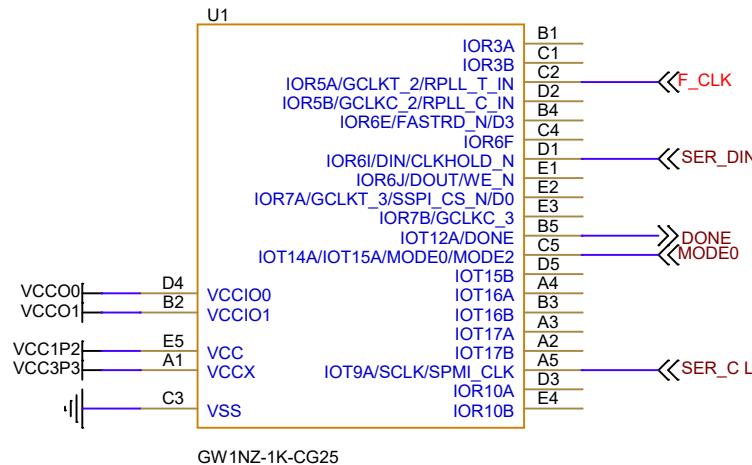


GW1NZ-1K-CG25



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.

Title
GOWIN Minimum System Diagram

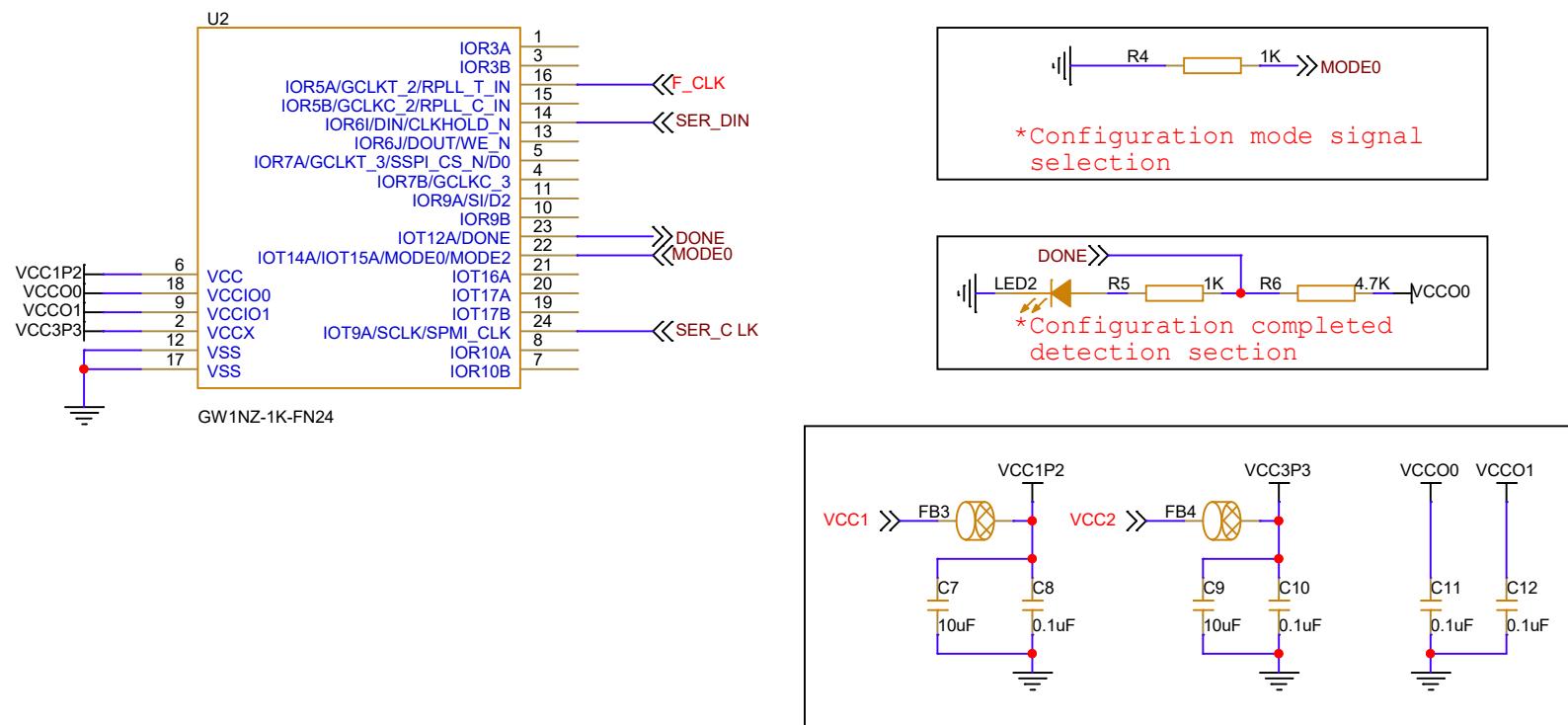
Size A4 Document Number
GW1NZ-1K-CG25

Rev 2.2

Date: Wednesday, April 10, 2024

Sheet 1 of 10

GW1NZ-1K-FN24



Notes:

1. F_CLK signal is an external input clock signal.

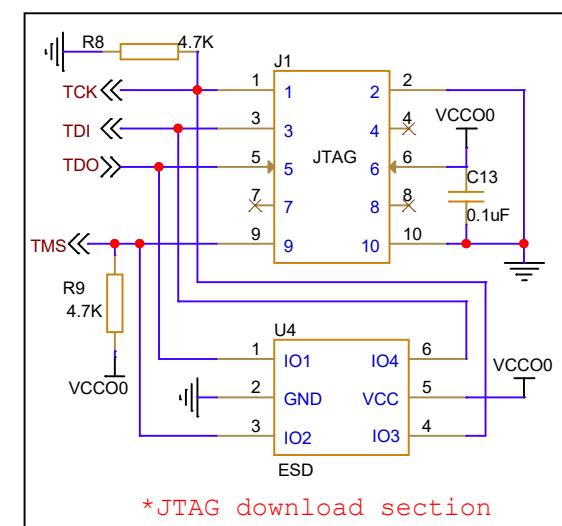
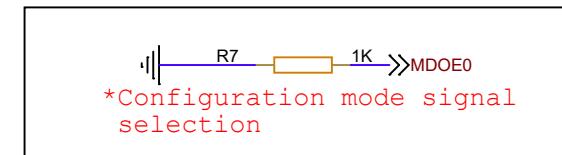
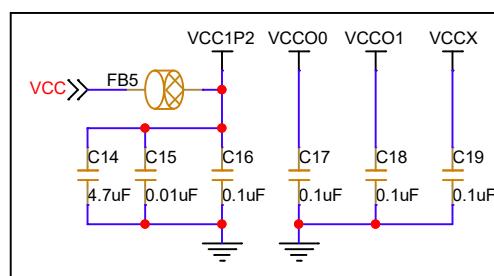
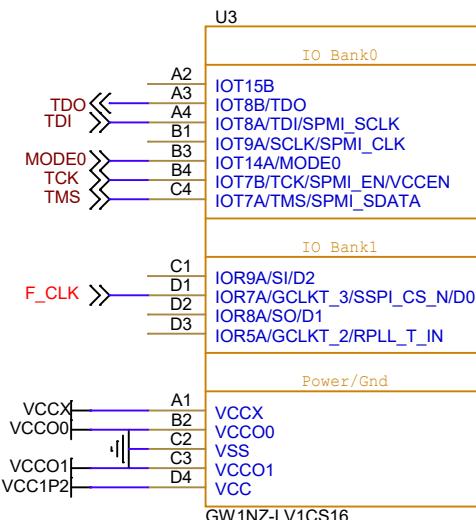
It is recommended that F_CLK signal be provided through an active oscillator crystal.

Title	
GOWIN Minimum System Diagram	

Size	Document Number
A4	GW1NZ-1K-FN24

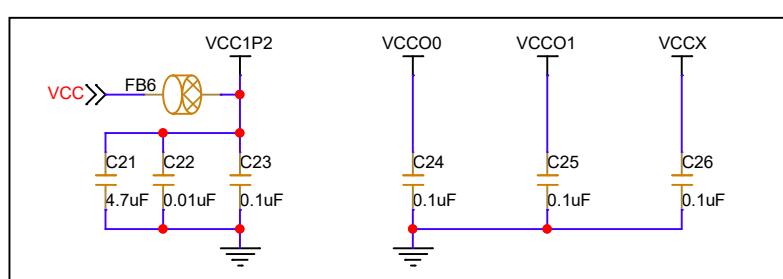
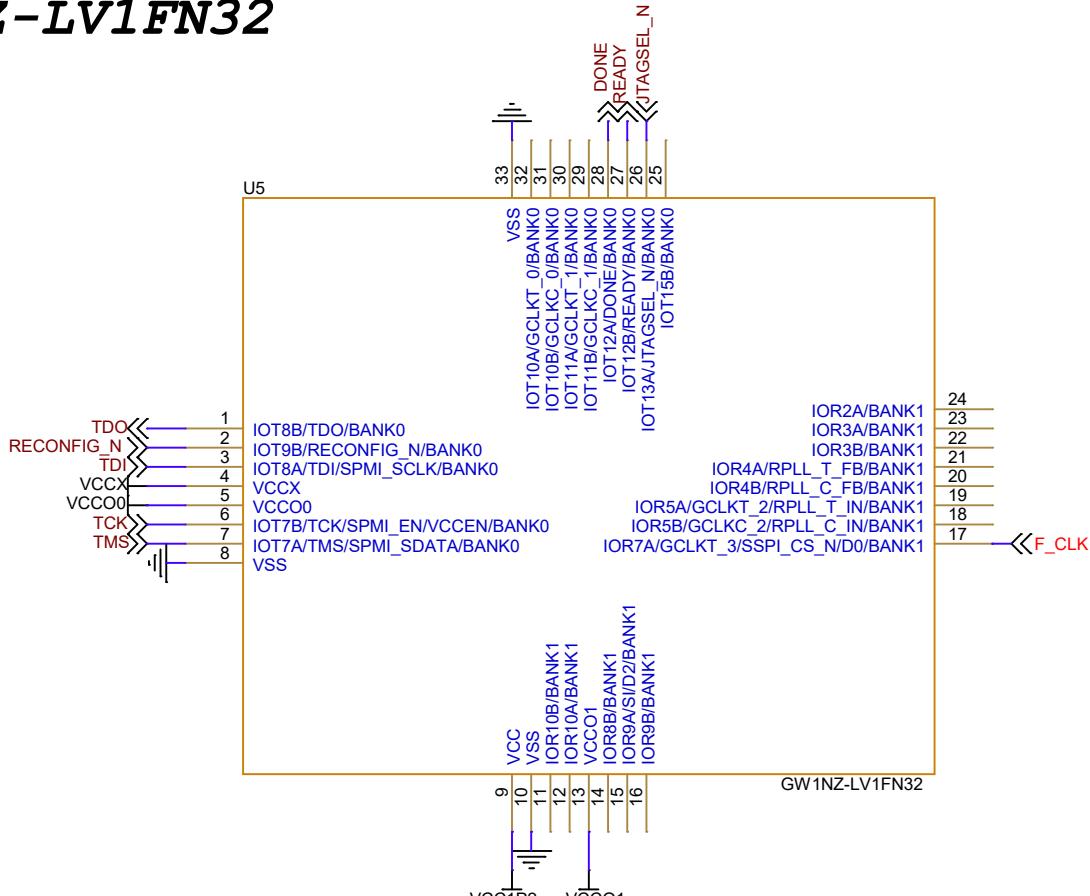
Rev
2.2

GW1NZ-LV1CS16



Notes:

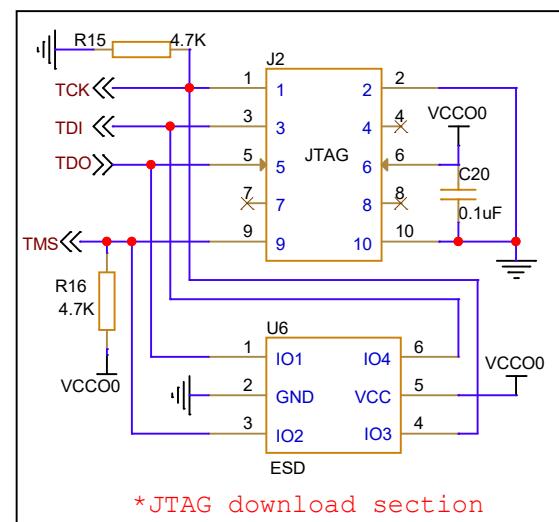
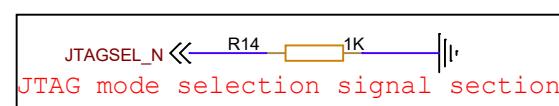
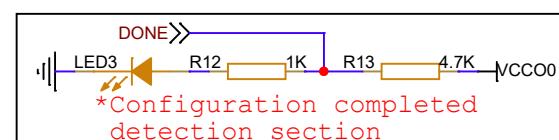
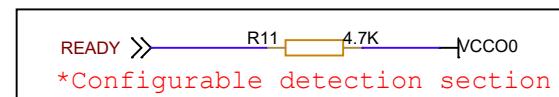
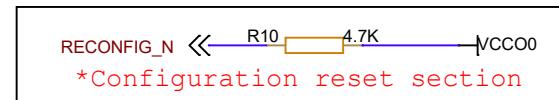
1. F_CLK signal is an external input clock signal.
It is recommended that F_CLK signal be provided through an active oscillator crystal.
2. It is recommended that add an ESD protection chip to the JTAG download circuit.

**Notes:**

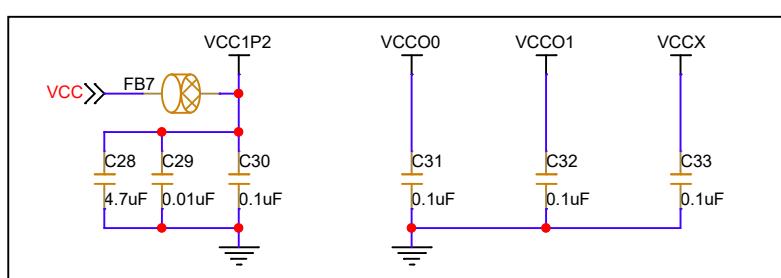
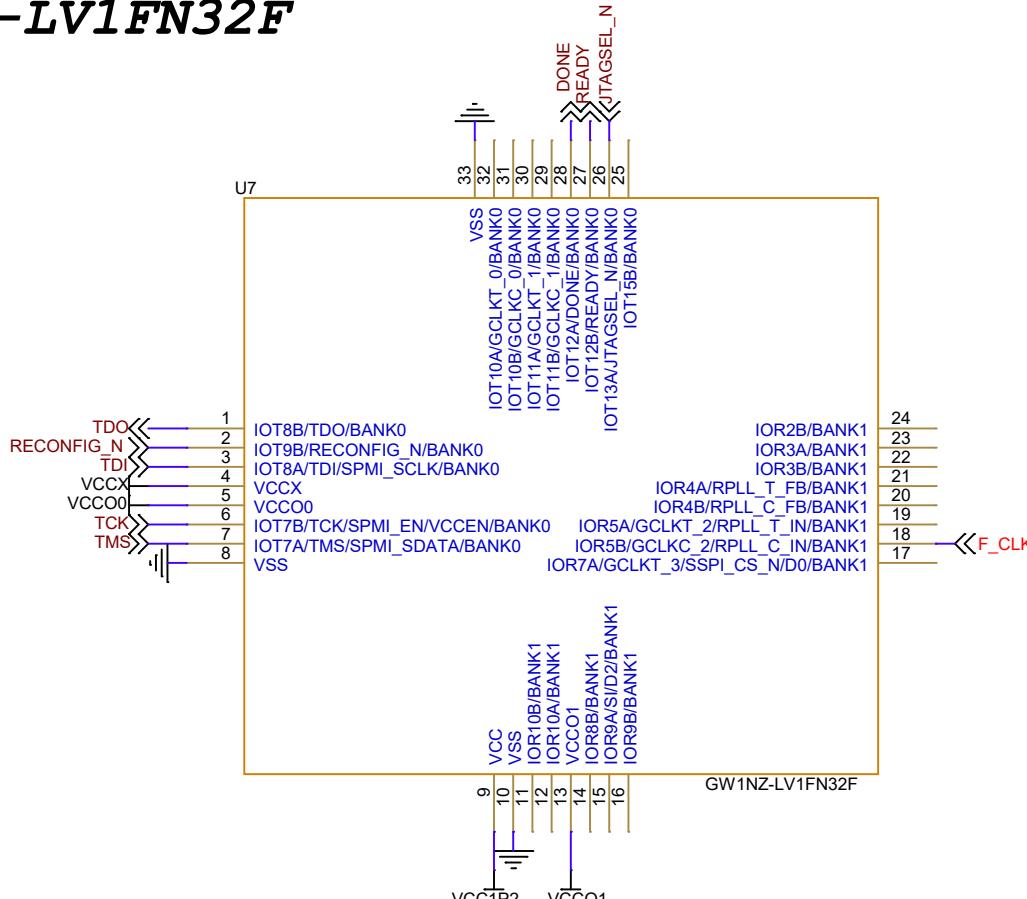
1. F_CLK signal is an external input clock signal.

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.

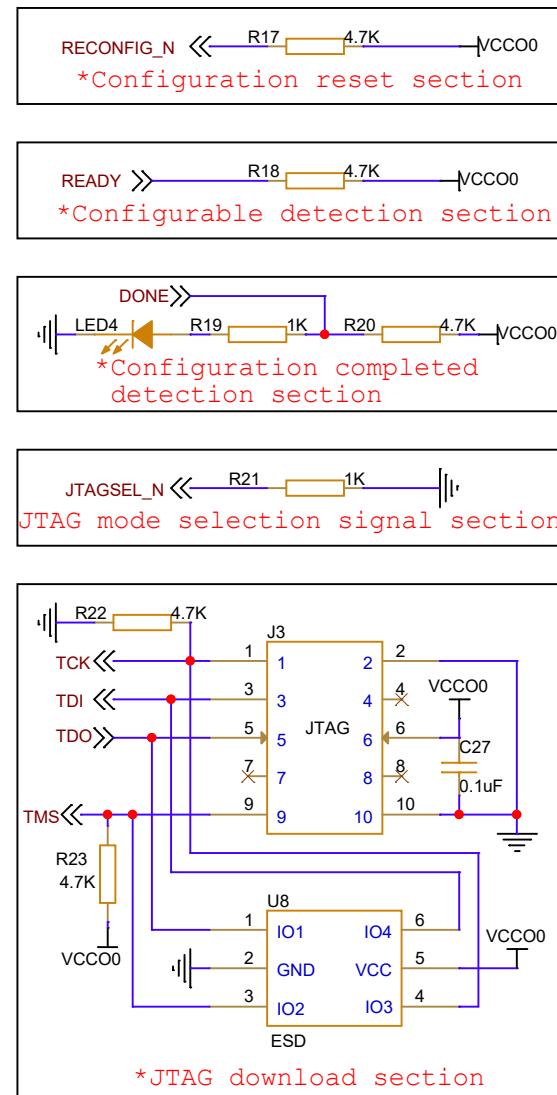


GW1NZ-LV1FN32F



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

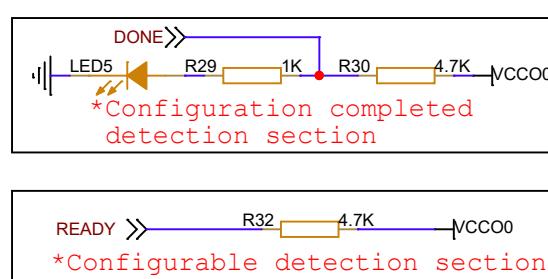
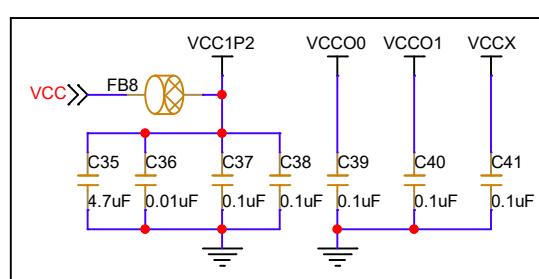
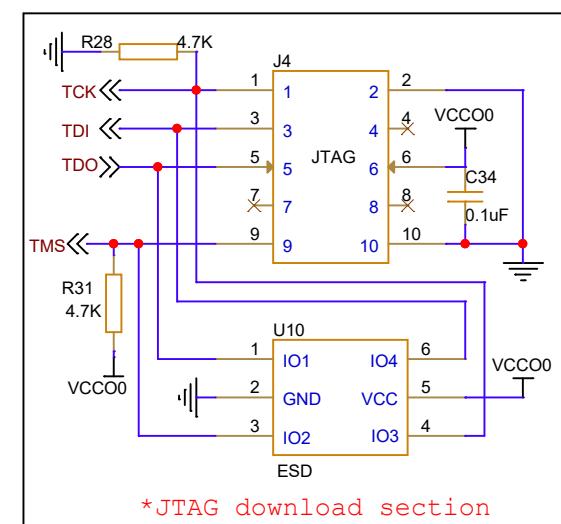
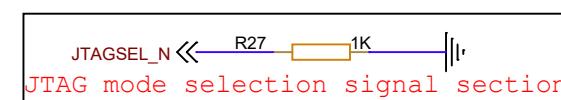
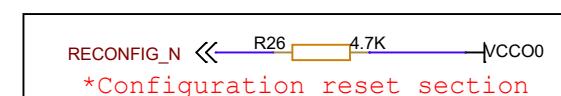
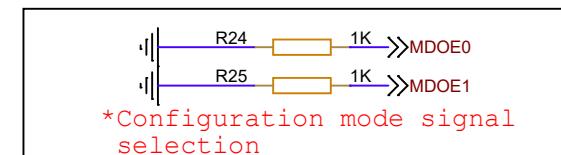
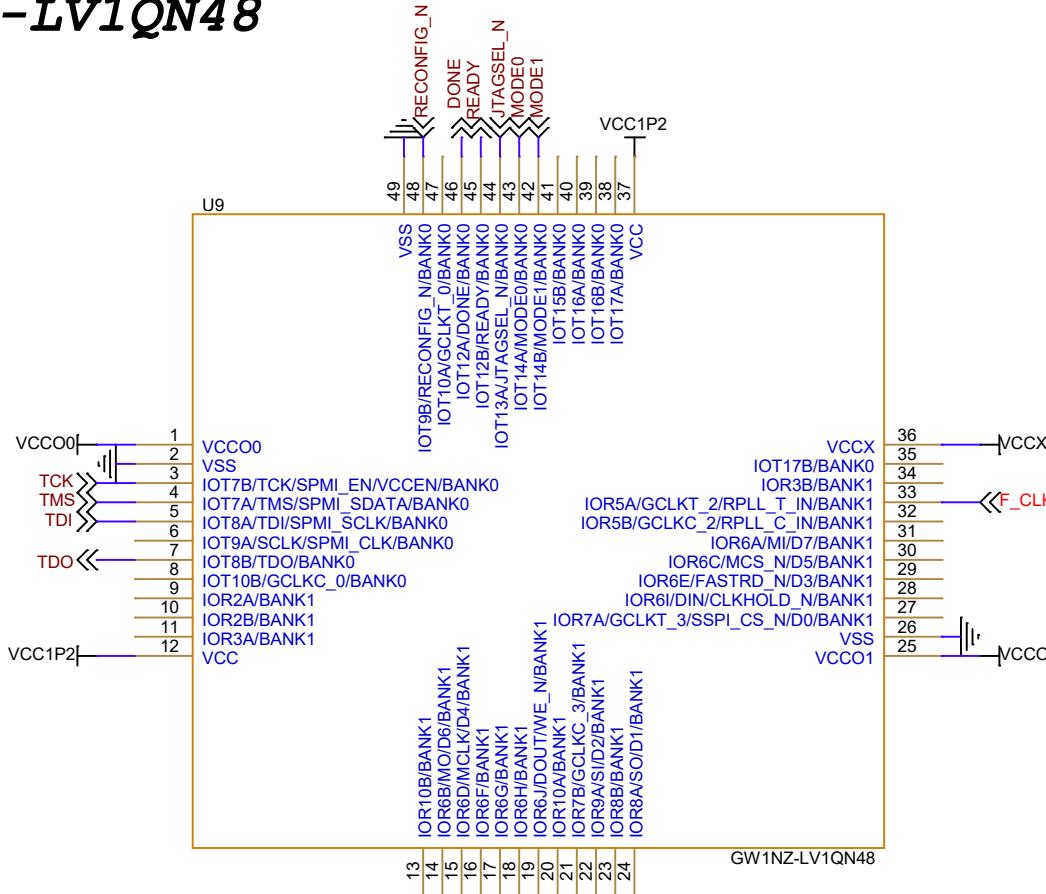
Size A4 Document Number GW1NZ-LV1FN32F

Rev 2.2

Date: Wednesday, April 10, 2024

Sheet 5 of 10

GW1NZ-LV1QN48



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

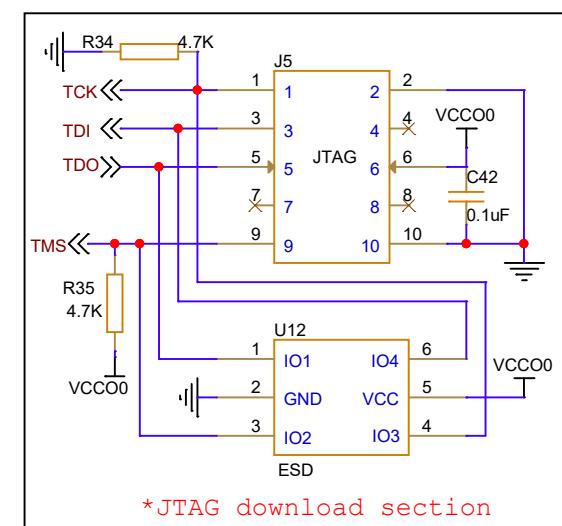
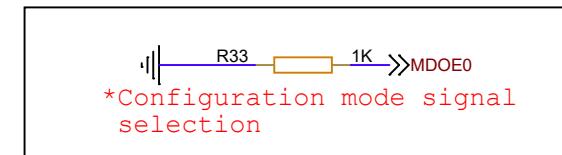
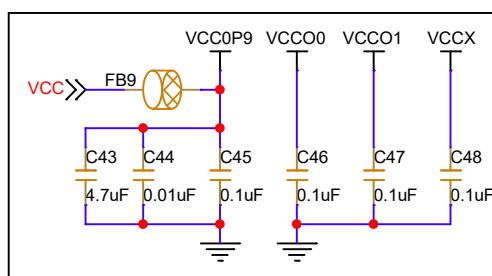
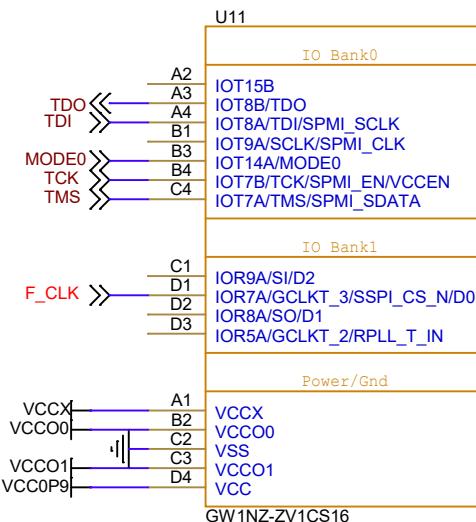
Size A4 Document Number
GW1NZ-LV1QN48

Rev 2.2

Date: Wednesday, April 10, 2024

Sheet 6 of 10

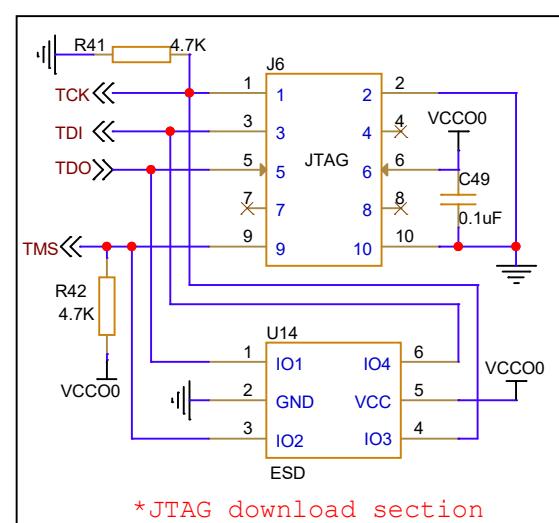
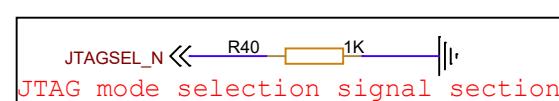
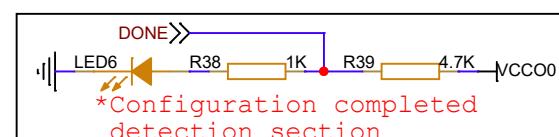
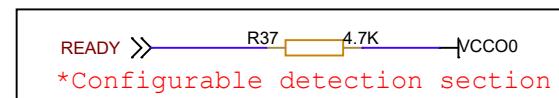
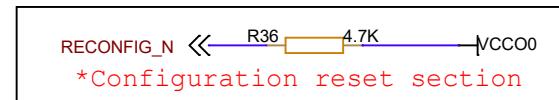
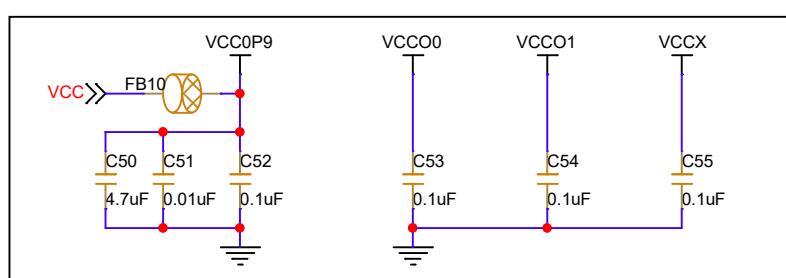
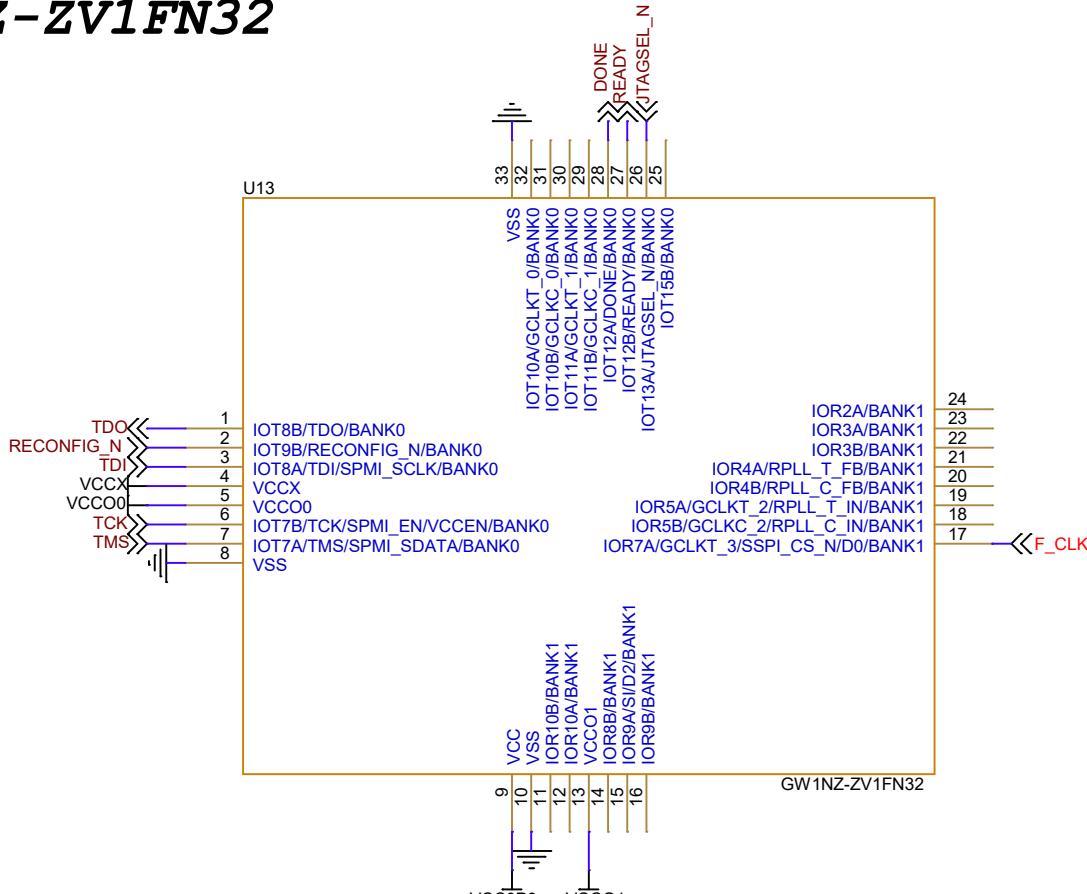
GW1NZ-ZV1CS16



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.

GW1NZ-ZV1FN32

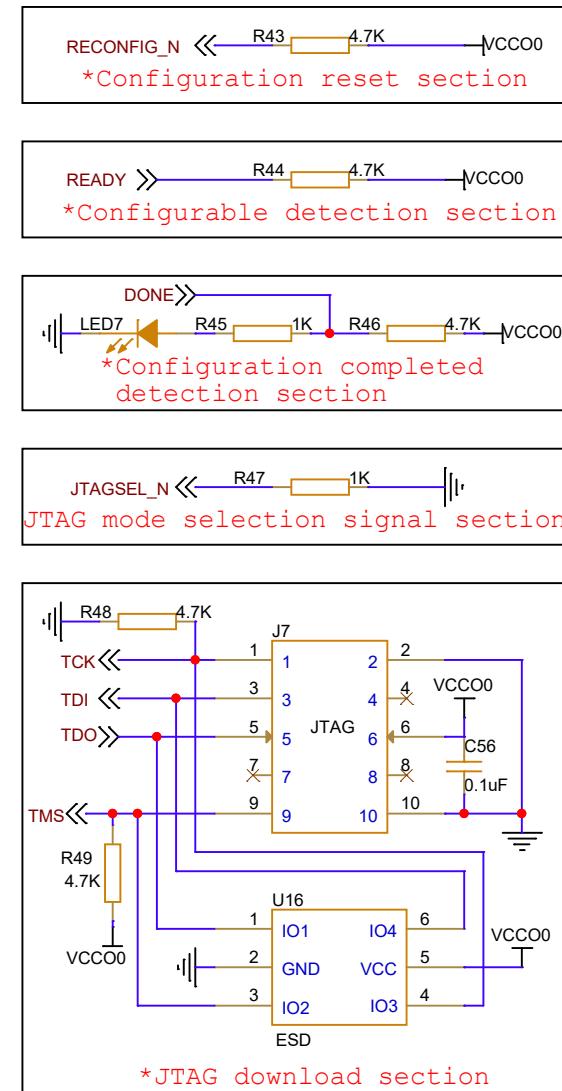
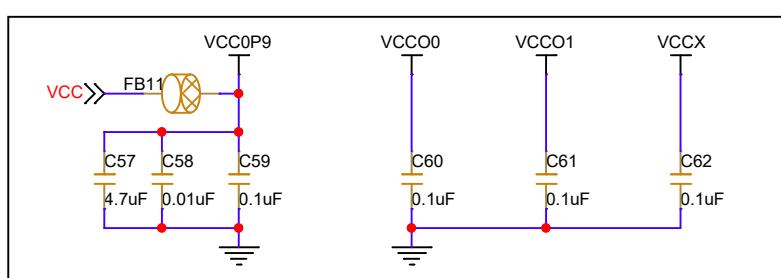
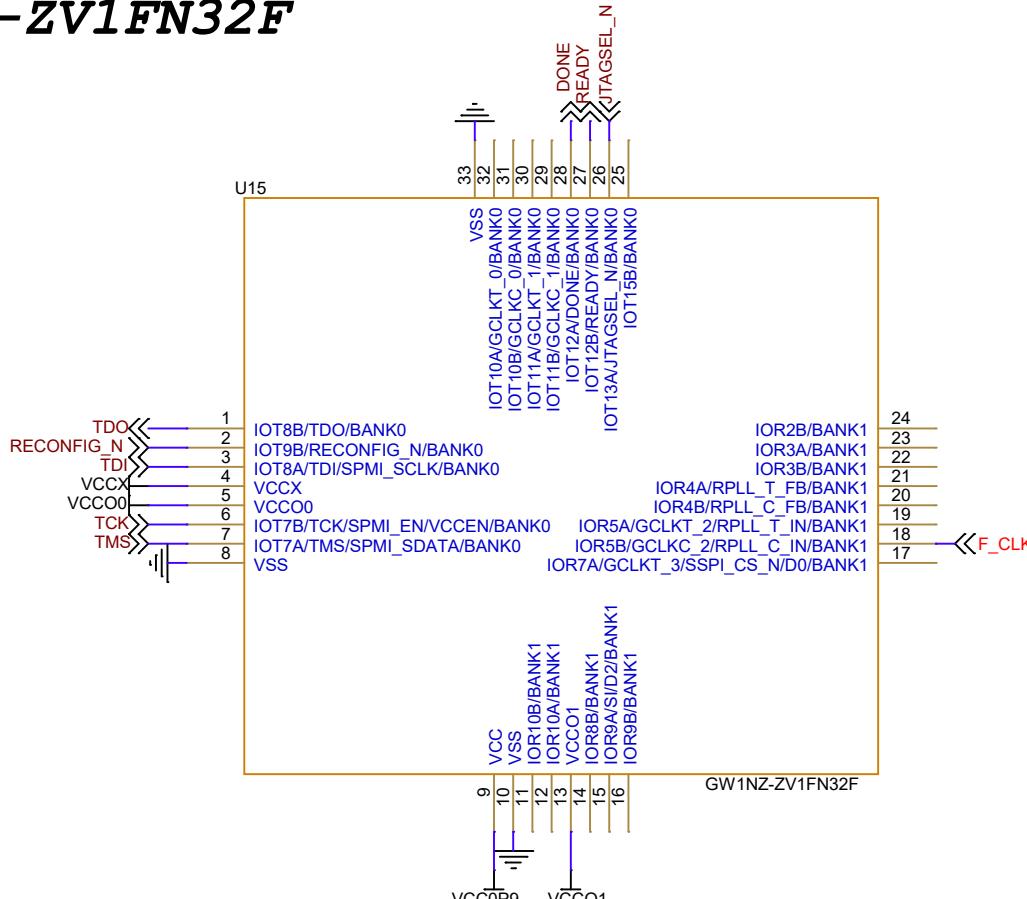


Notes:

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	Rev
A4	2.2
Date: Wednesday, April 10, 2024	
Sheet 8	of 10

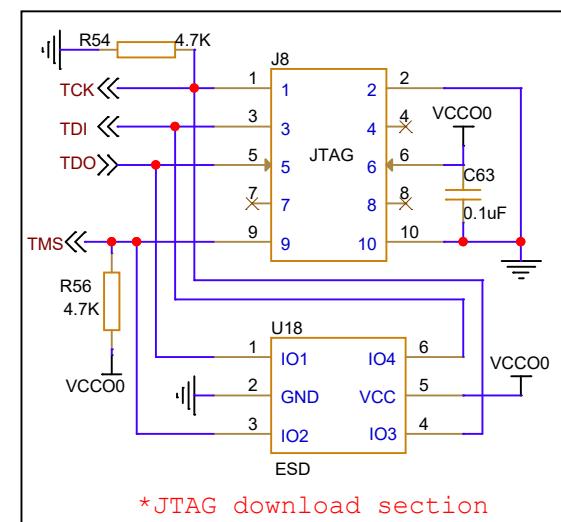
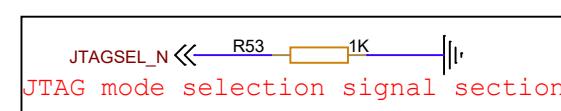
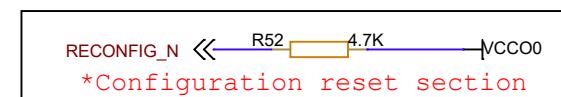
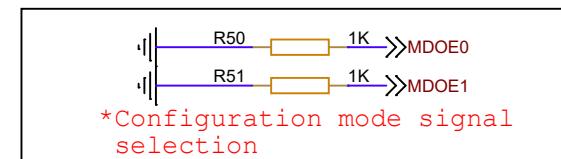
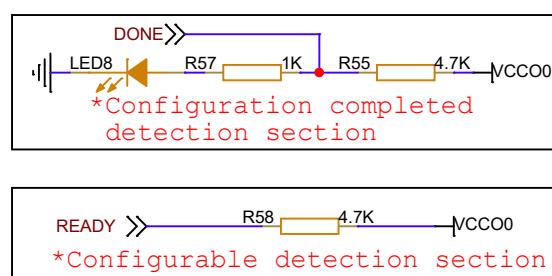
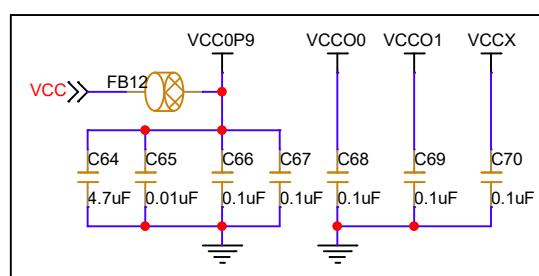
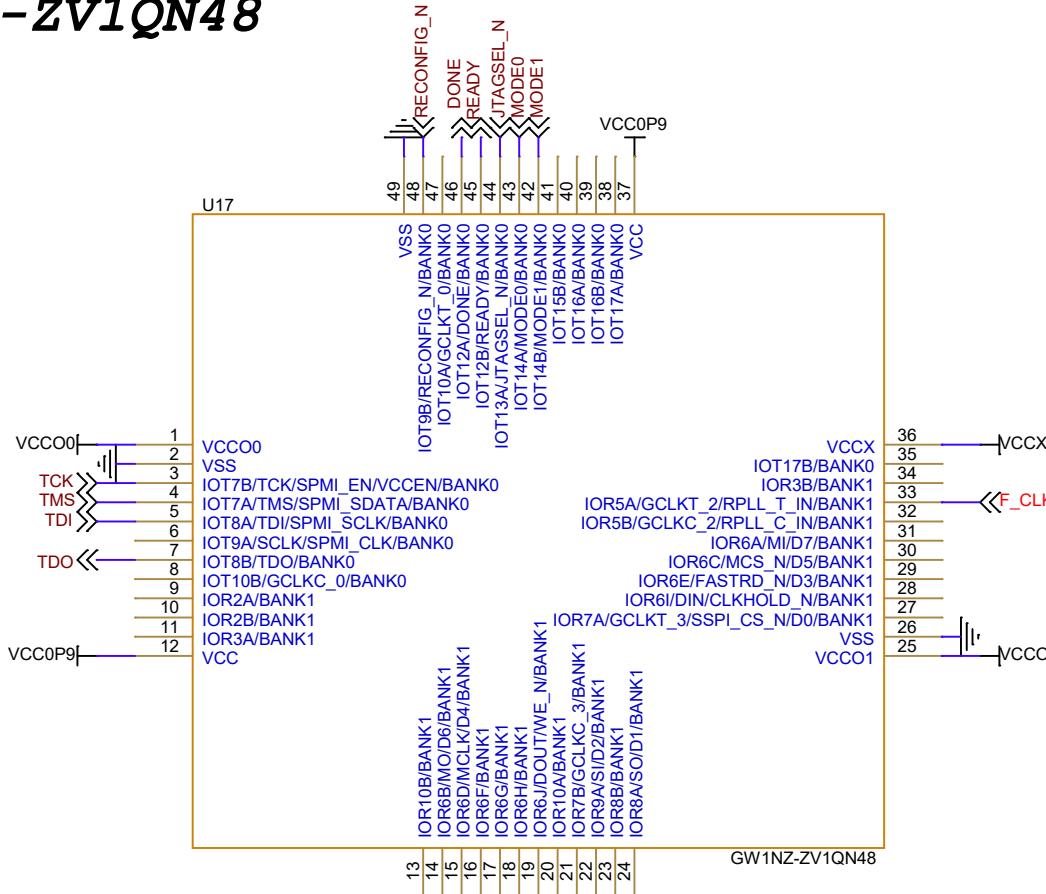
GW1NZ-ZV1FN32F



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.

GW1NZ-ZV1QN48



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	GW1NZ-ZV1QN48