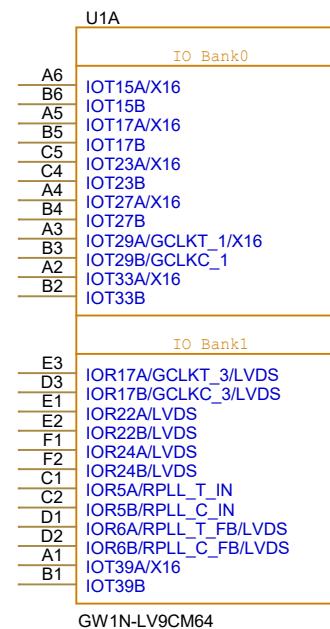
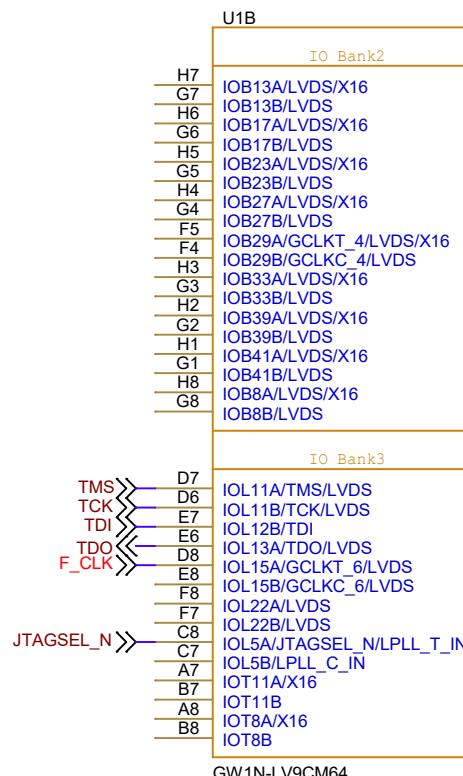
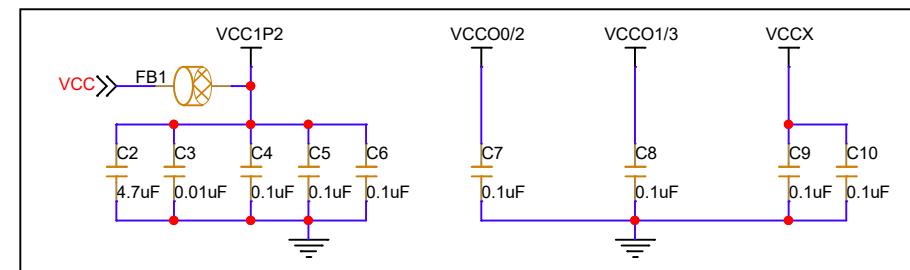
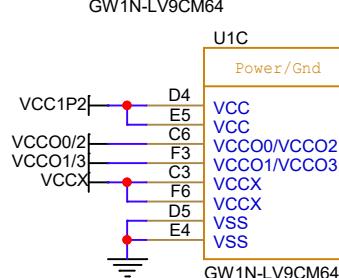
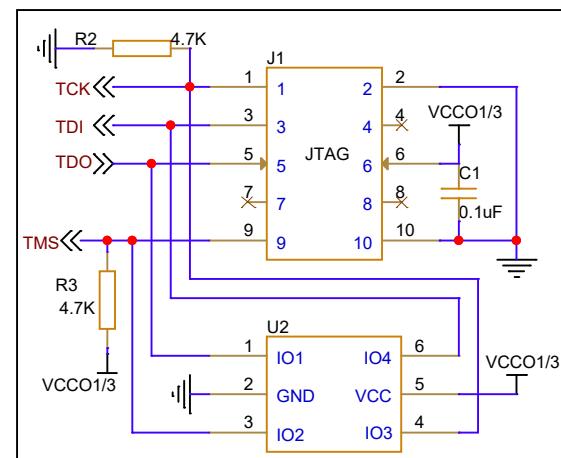


GW1N-LV9CM64



JTAGSEL_N \ll

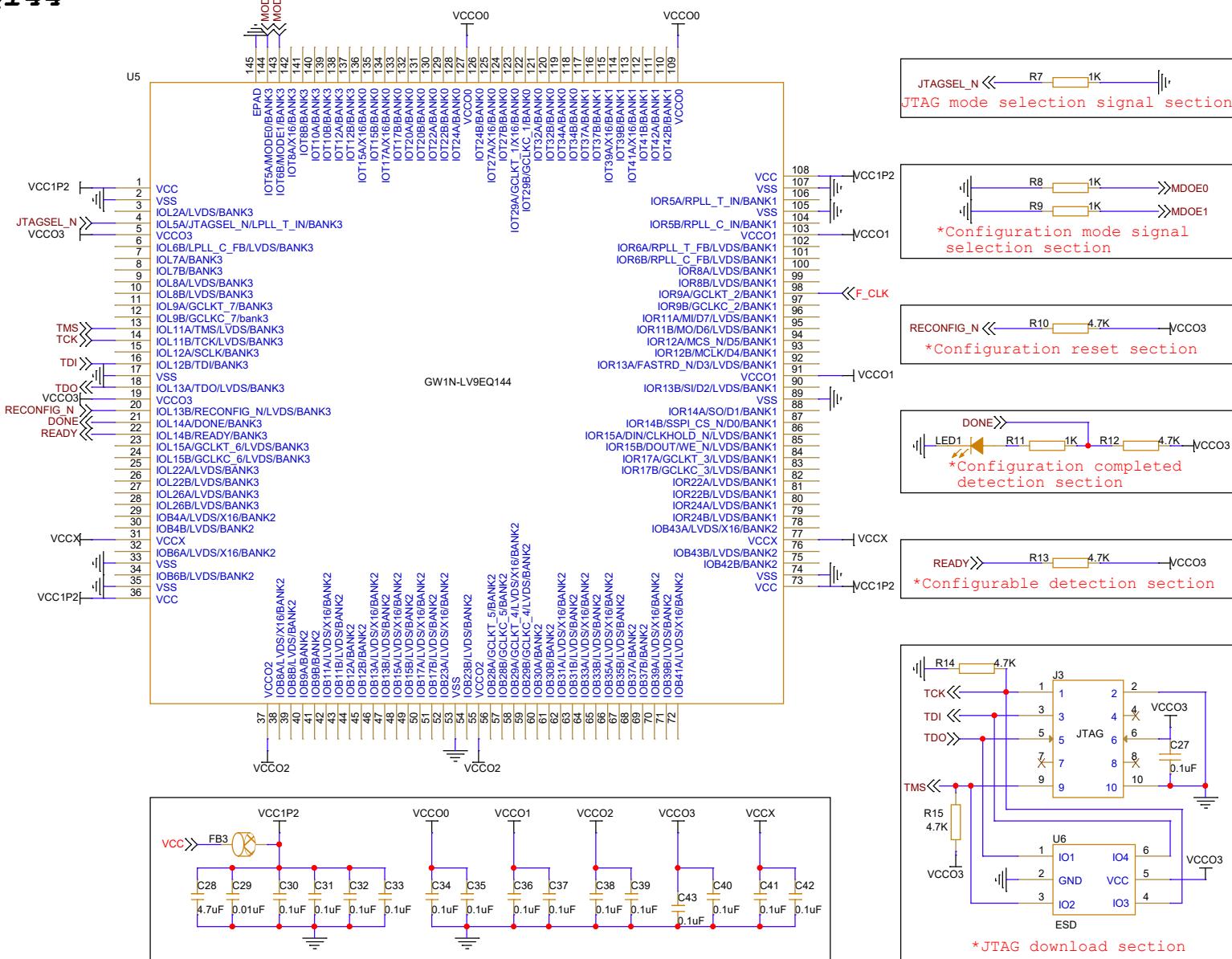
JTAG mode selection signal section



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.

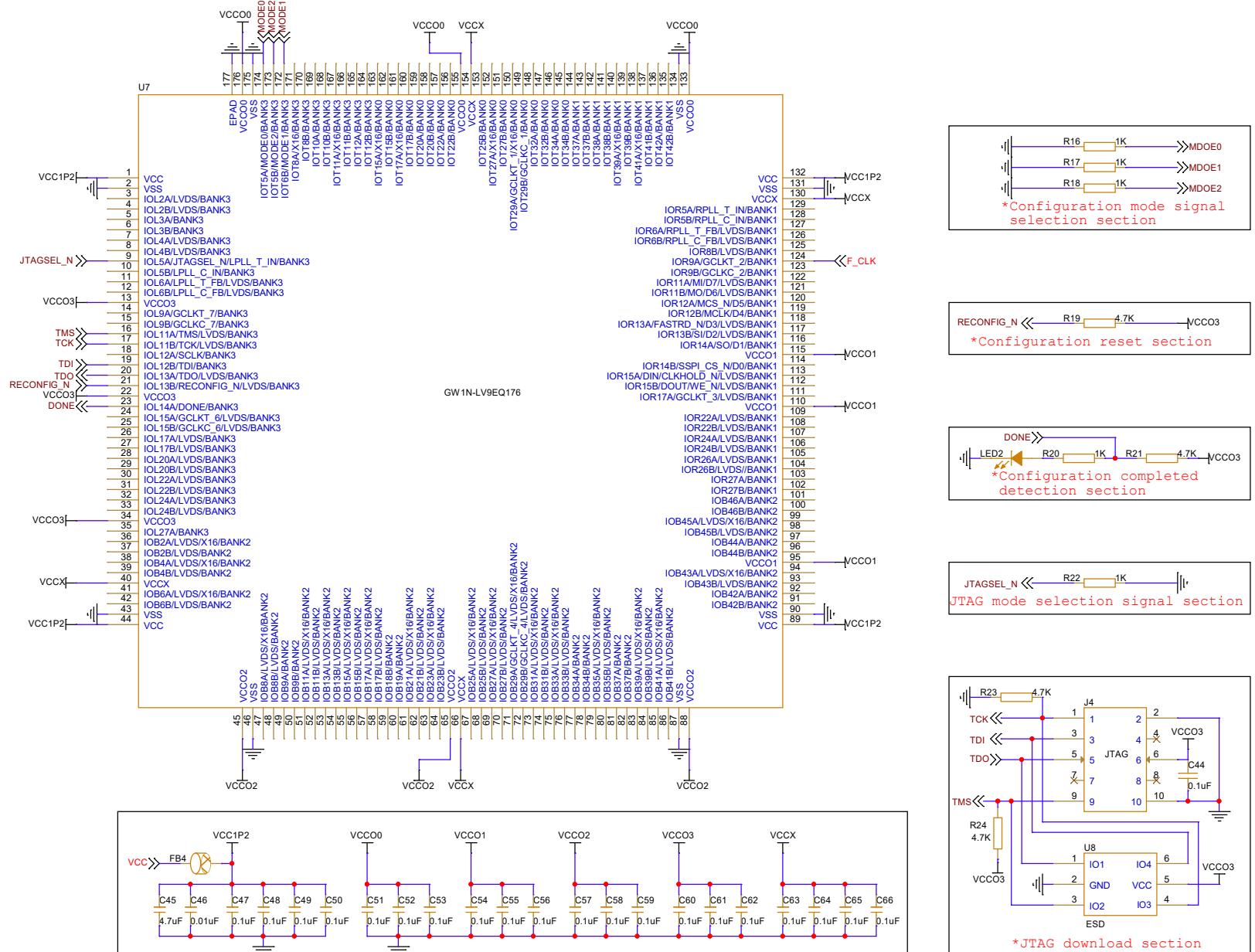
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GOWIN Minimum System Diagram	
Size	Document Number
A4	GW1N-LV9CM64



Title	
GOWIN Minimum System Diagram	
Size	Document Number
B	GW1N-LV9EQ144

Rev 2.3

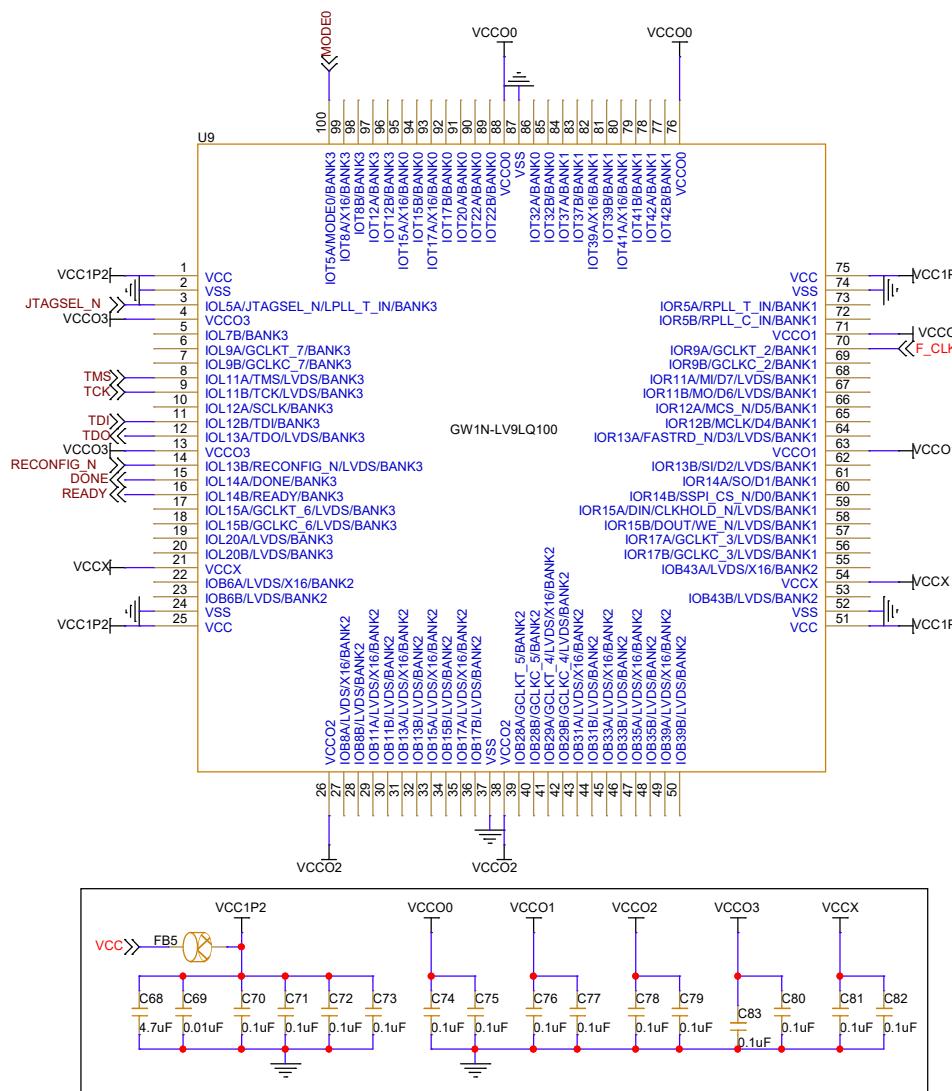
Date: Tuesday, April 22, 2025 Sheet 3 of 32



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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JTAGSEL_N \ll R25 1K \gg
JTAG mode selection signal section

R26 \ll MDOE0 \gg
*Configuration mode signal selection section

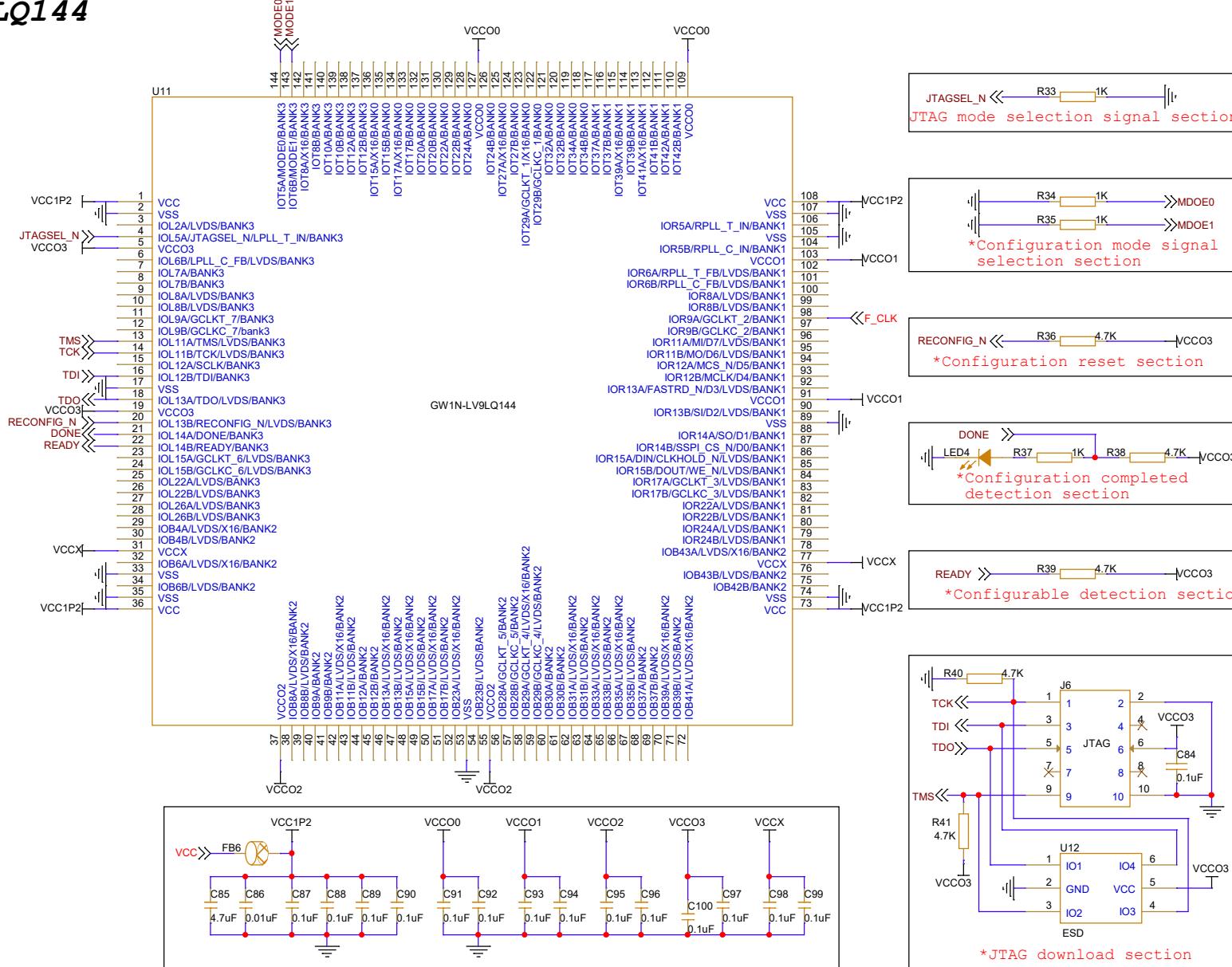
RECONFIG_N \ll R27 4.7K \ll VCCO3 \gg
*Configuration reset section

LED3 \ll R28 1K \ll R29 4.7K \ll VCCO3 \gg
*Configuration completed detection section

READY \gg R30 4.7K \ll VCCO3 \gg
*Configurable detection section

R31 4.7K \ll TCK \ll J5 1 \ll 1 1 \ll 2 2 \ll VCCO3 \gg
R32 4.7K \ll TDI \ll 3 3 \ll 4 4 \ll C67 0.1uF \ll 5 5 \ll 6 6 \ll 7 7 \ll 8 8 \ll 9 9 \ll 10 10 \ll GND \gg
JTAG \gg
ESD U10 IO1 GND VCC IO4 6 5 4 3 2 1 \gg
Title GOWIN Minimum System Diagram
Size B Document Number GW1N-LV9LQ100 Rev 2.3
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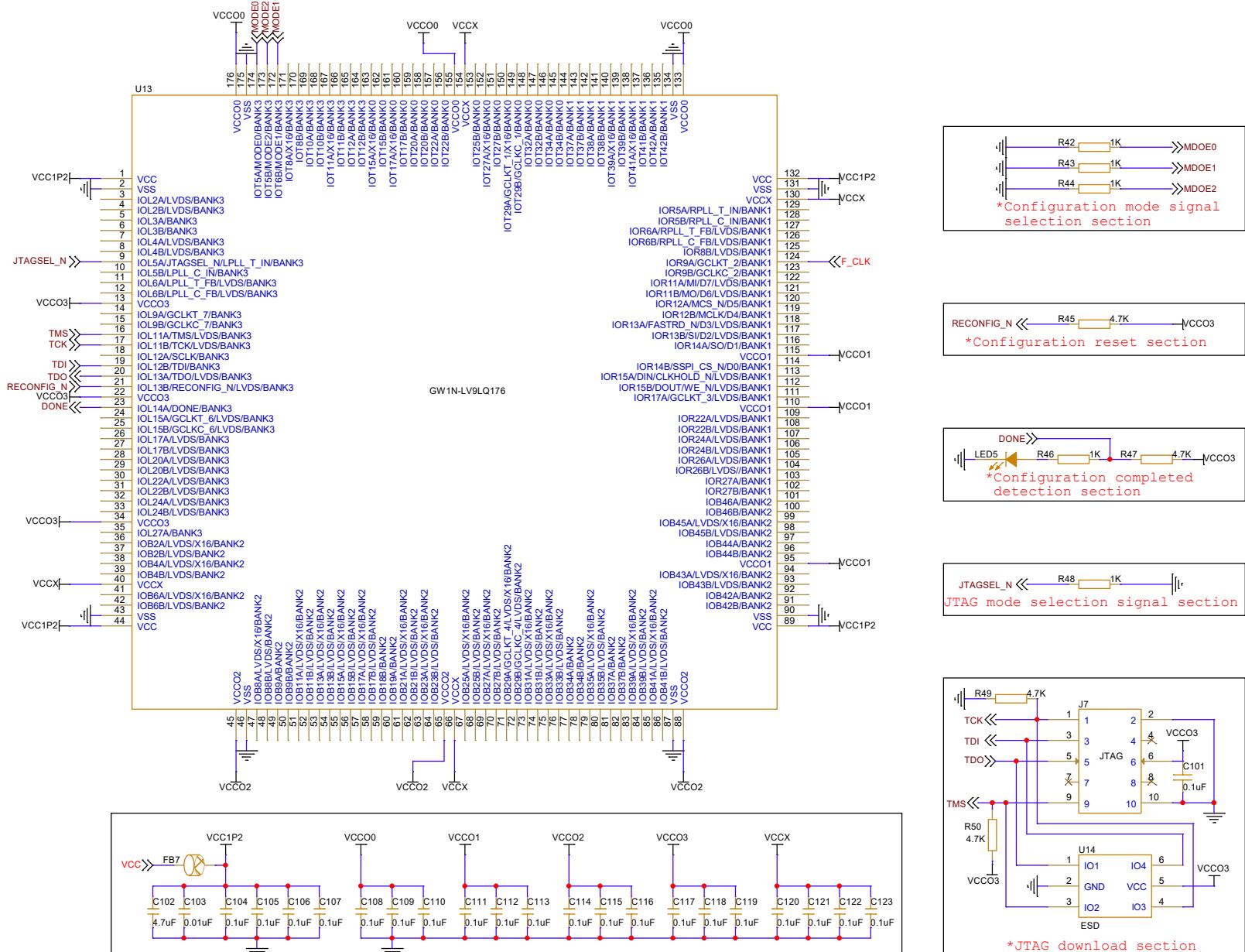
Notes:
1. F_CLK signal is an external input clock signal.
It is recommended that F_CLK signal be provided through an active oscillator crystal.
2. It is recommended that add an ESD protection chip to the JTAG download circuit.



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	GW1N-LV9LQ144
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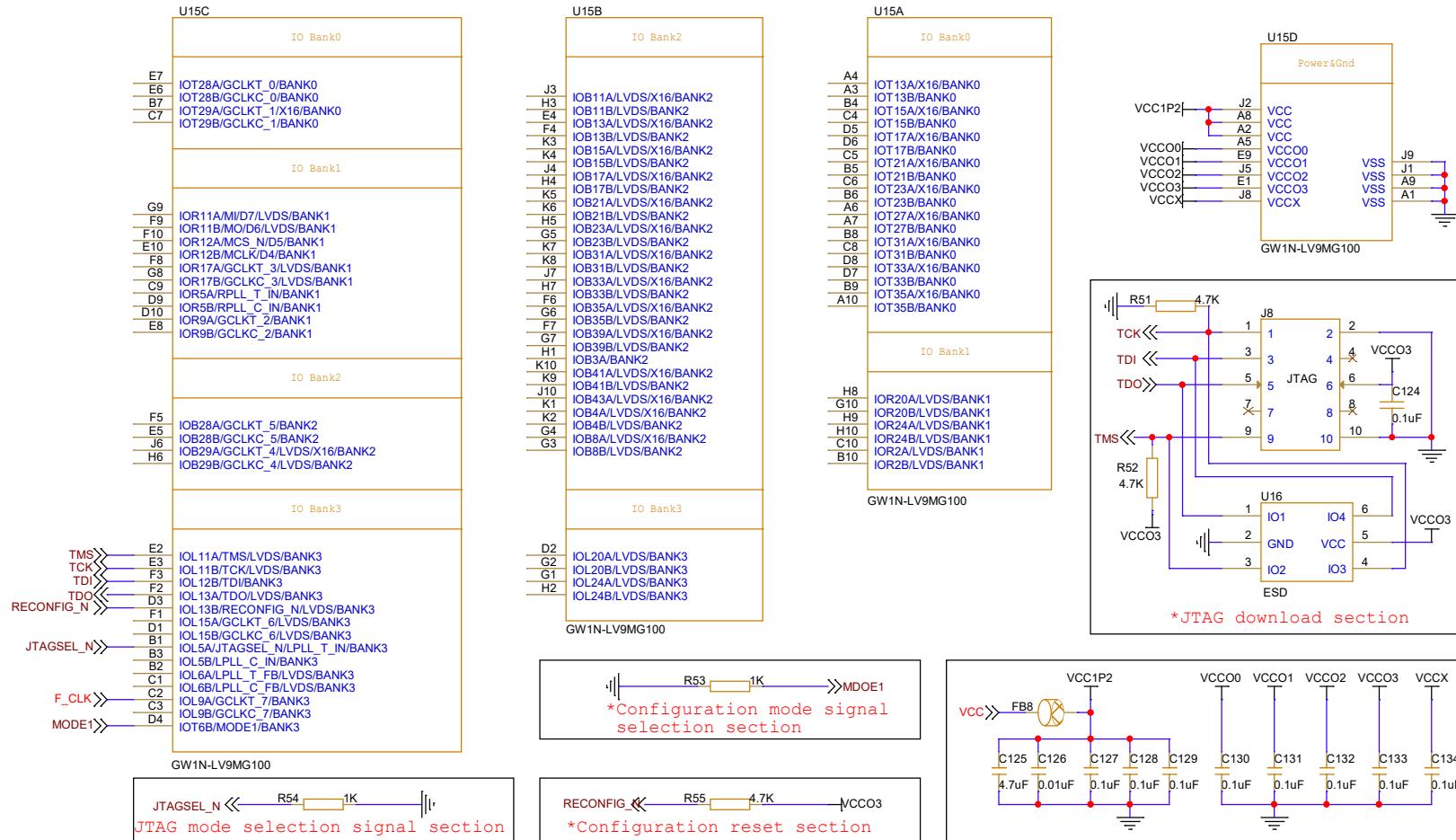


Notes:

- 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.

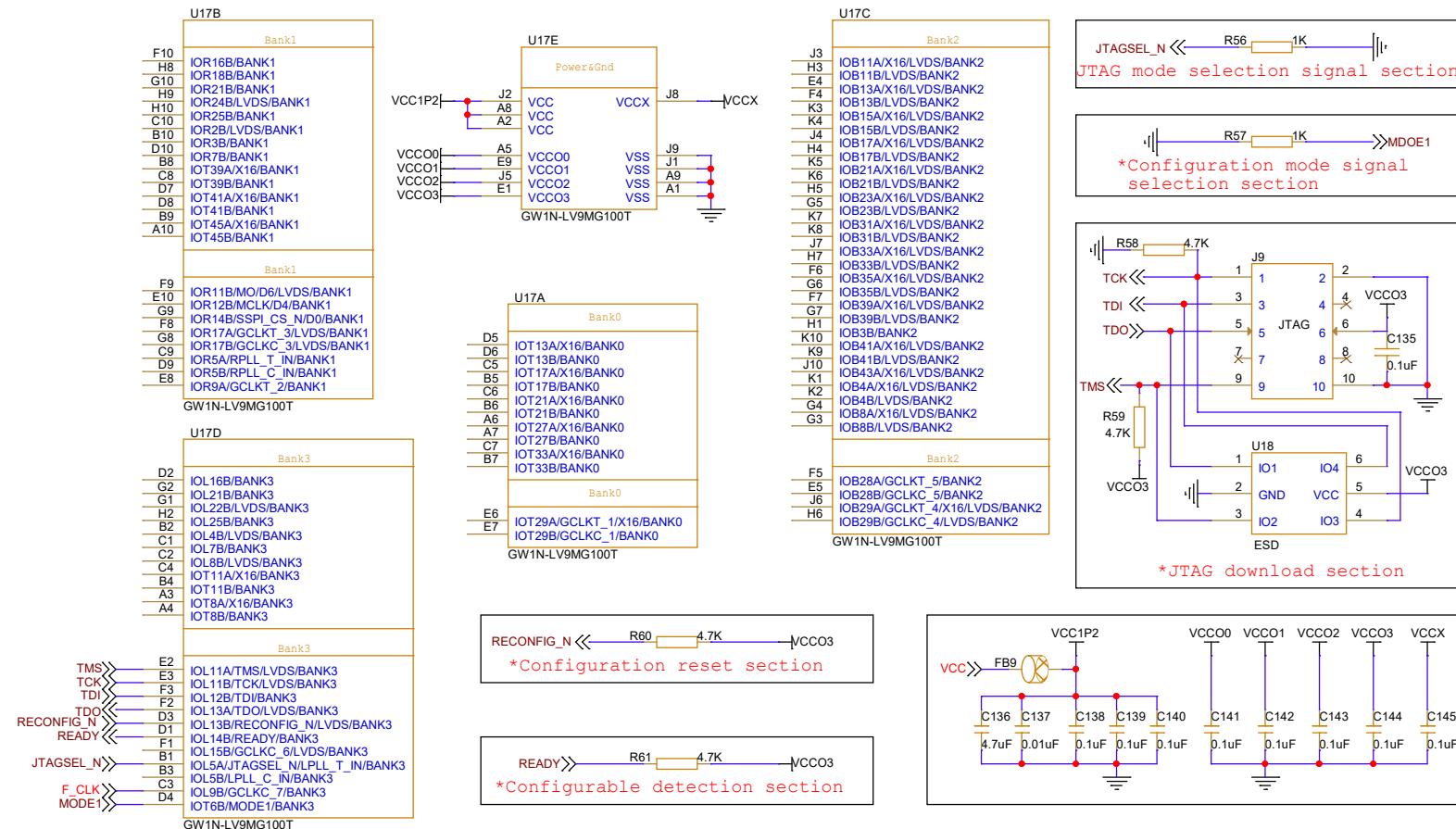
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Size A3	Document Number GW1N-LV9LQ176	Rev 2.3
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**Notes:**

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
B	GW1N-LV9MG100	2.3
Date:	Tuesday, April 22, 2025	Sheet 8 of 32

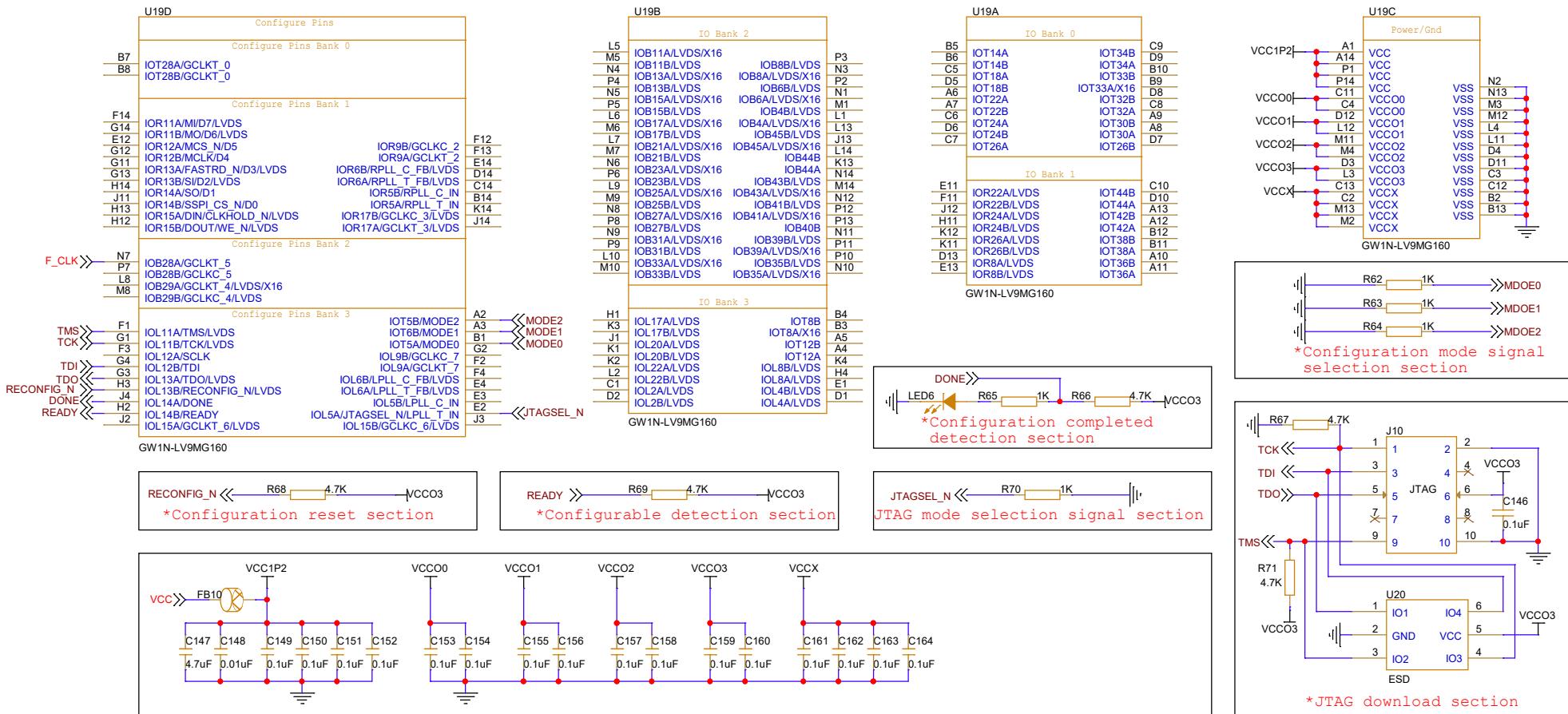
GW1N-LV9MG100T



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-LV9MG100T			Rev 2.3
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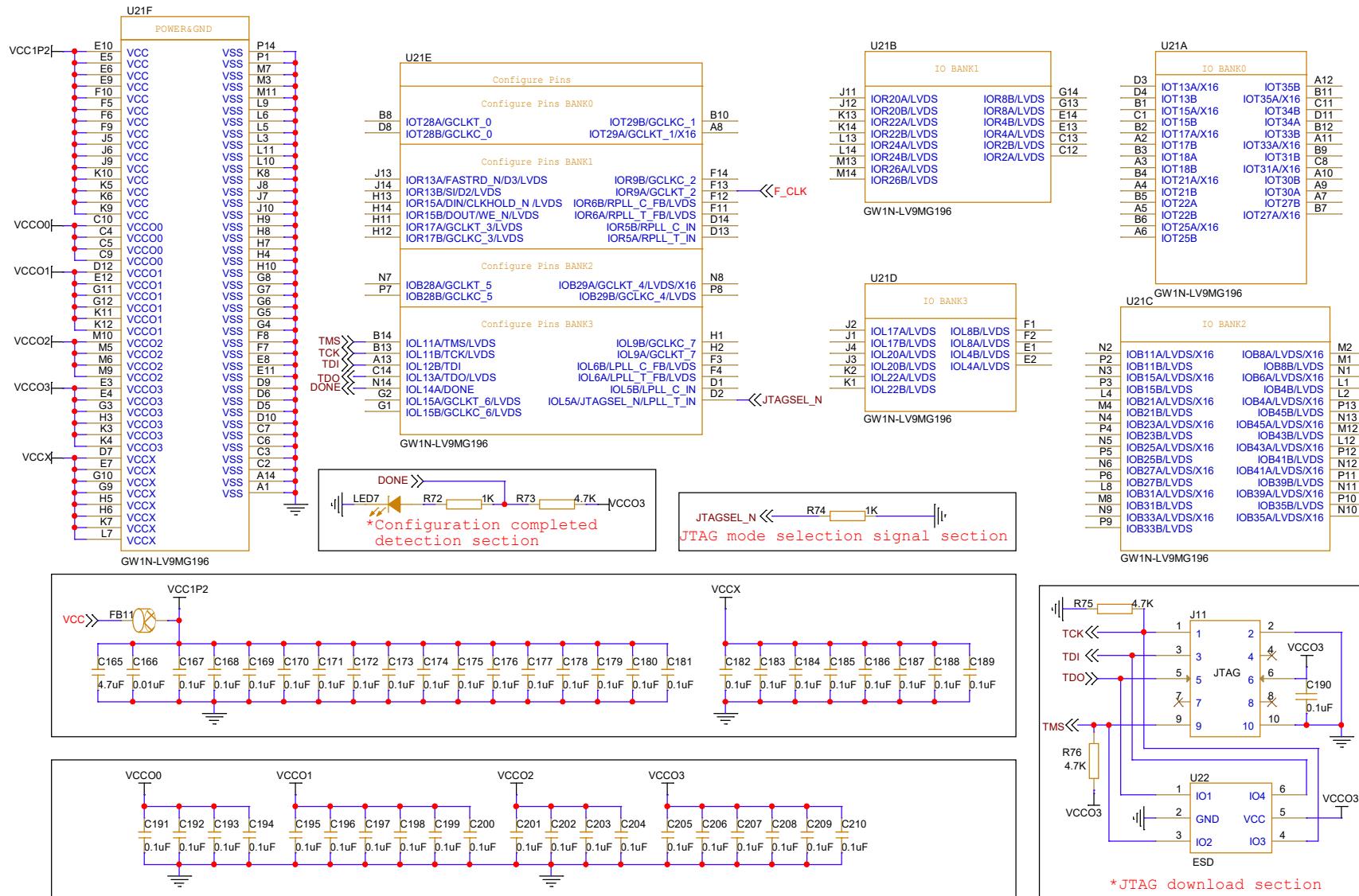
Notes:

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
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GW1N-LV9MG196



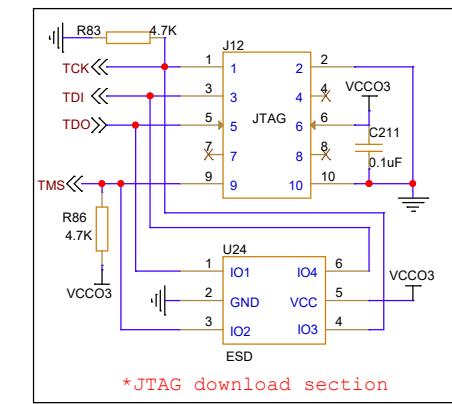
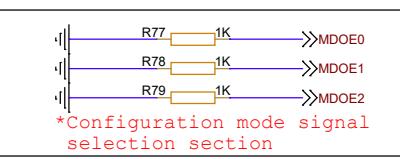
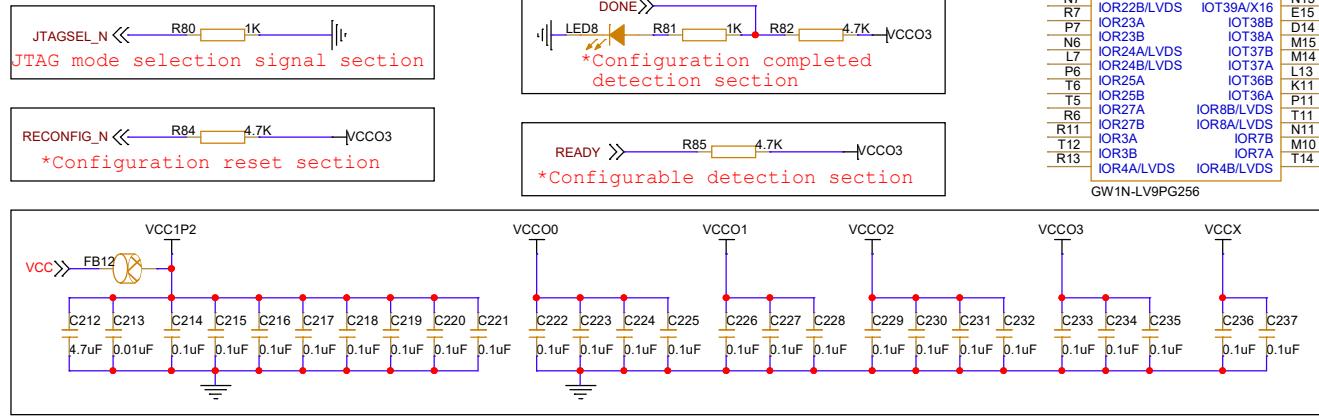
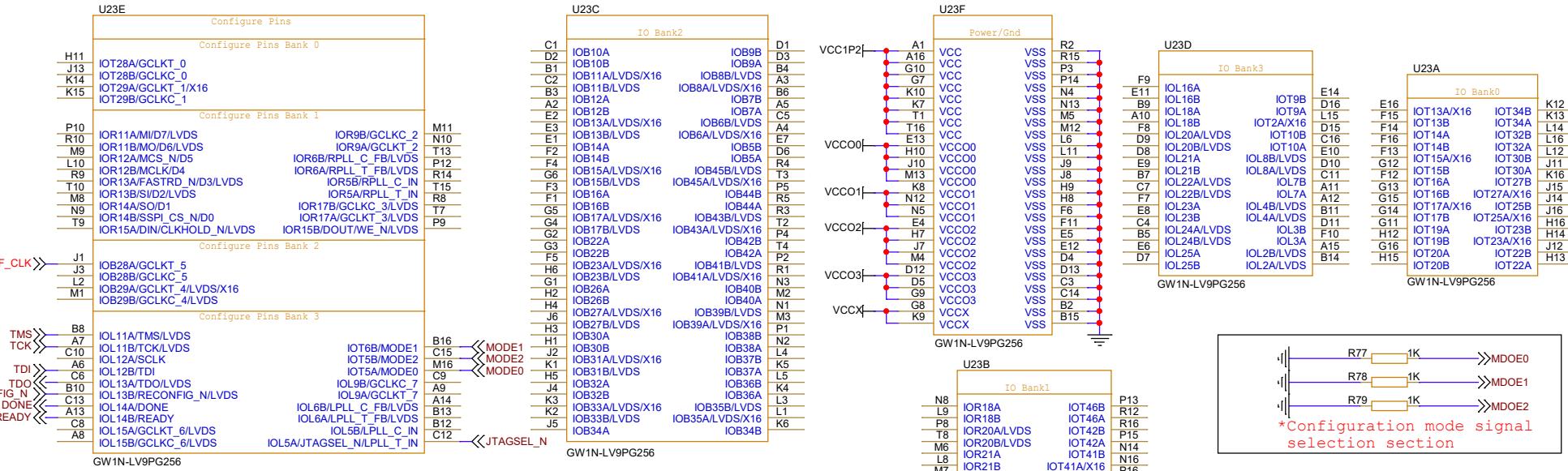
Notes:

- 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.

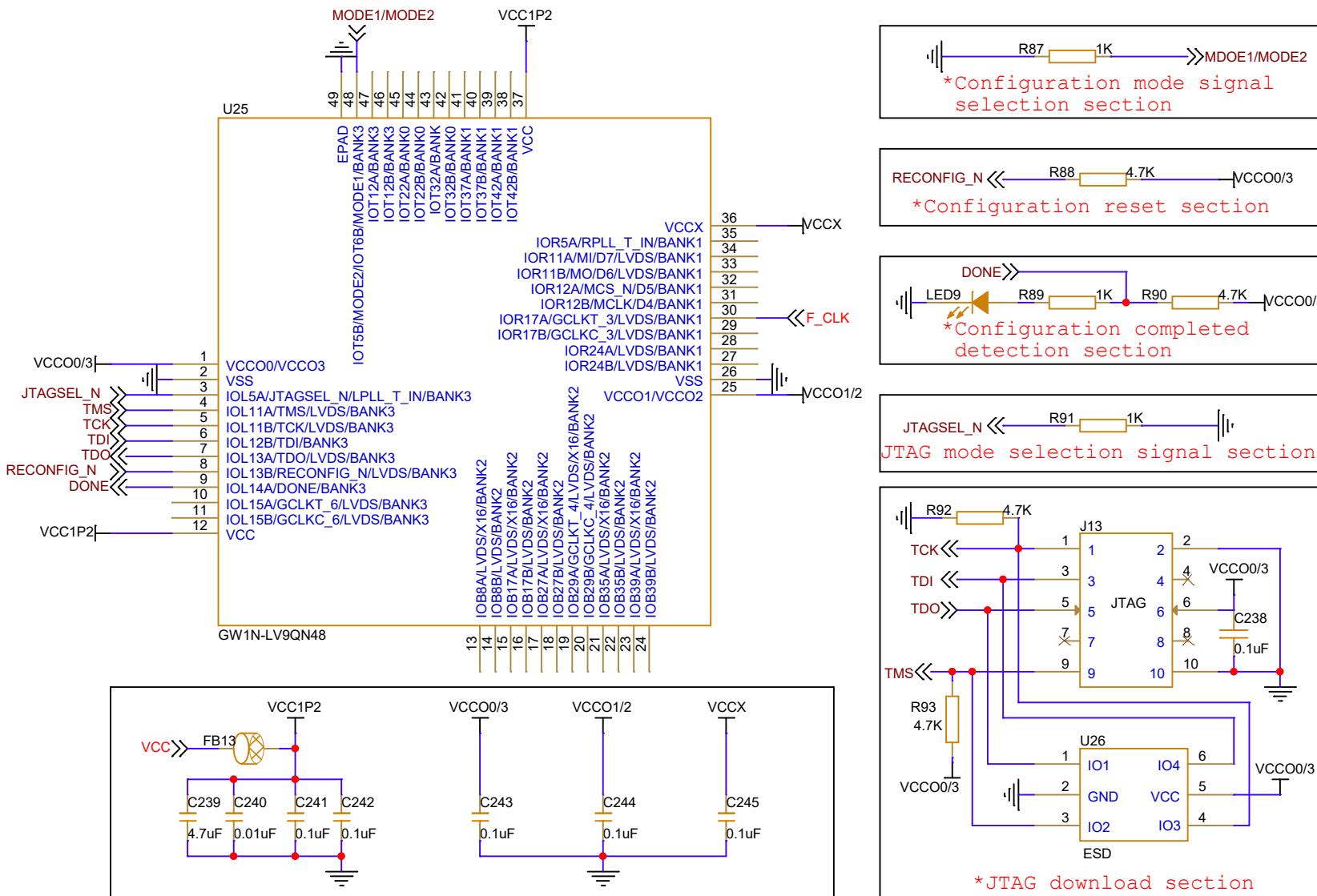
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Size B Document Number GW1N-LV9MG196 Rev 2.3



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Size	Document Number	Rev
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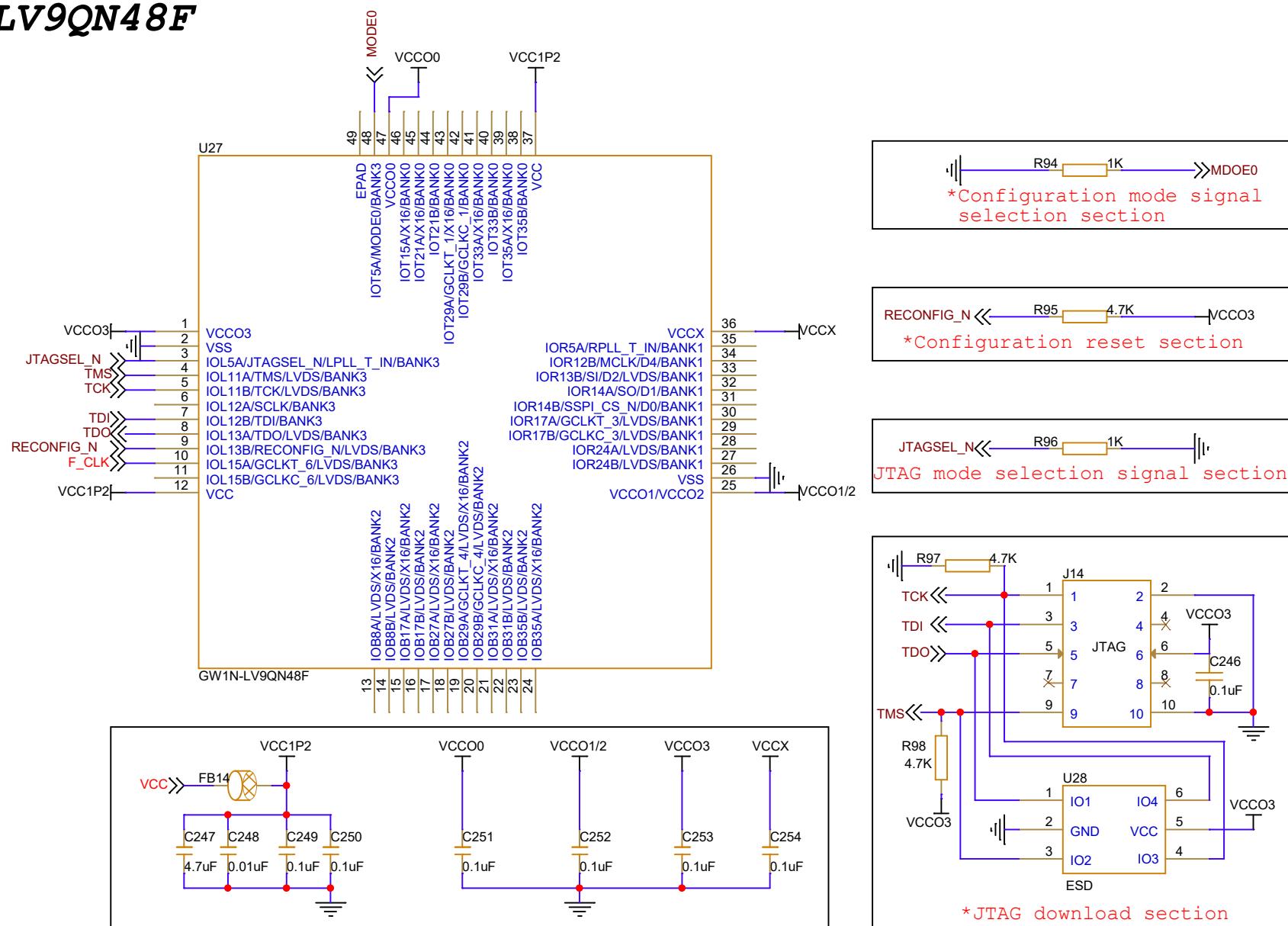
GW1N-LV9QN48



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.

GW1N-LV9QN48F



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.

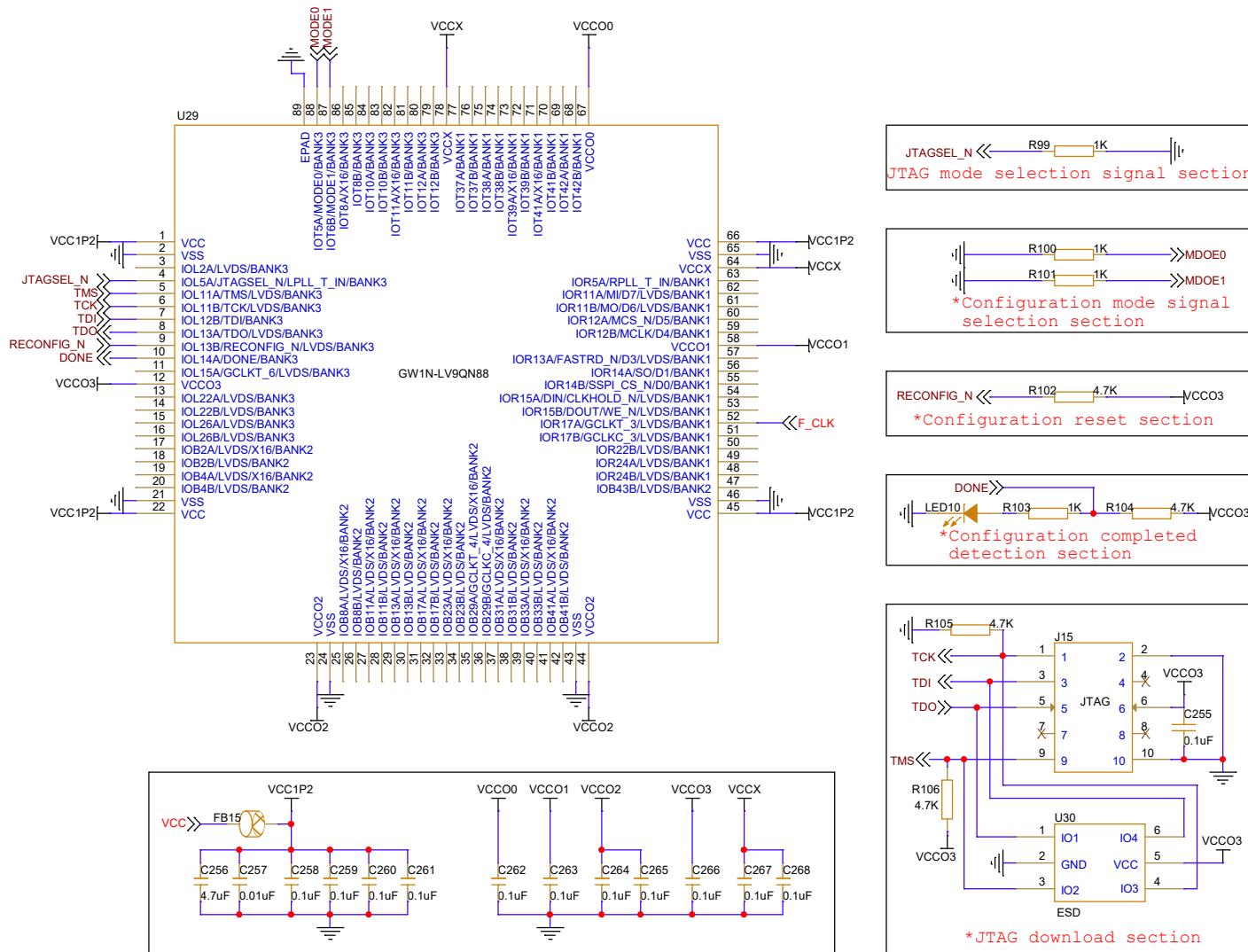
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Size A4 Document Number GW1N-LV9QN48F

Rev 2.3

Date: Tuesday, April 22, 2025

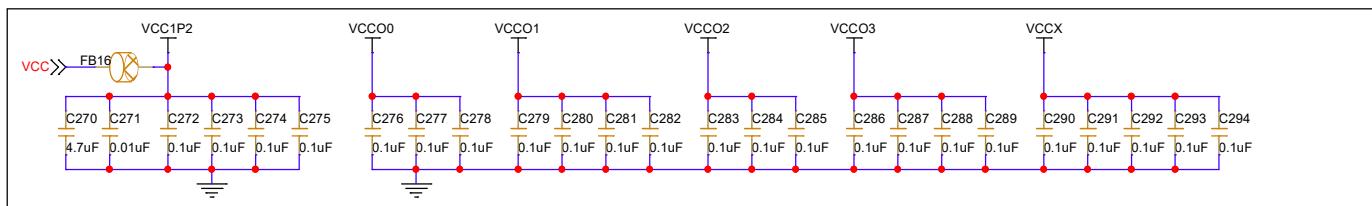
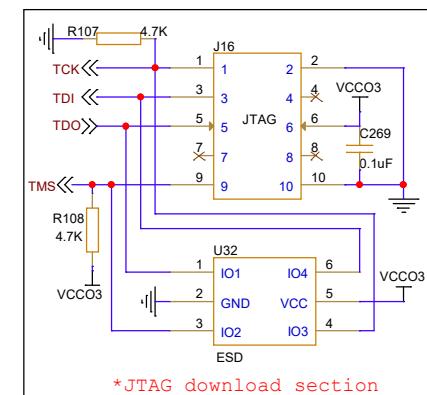
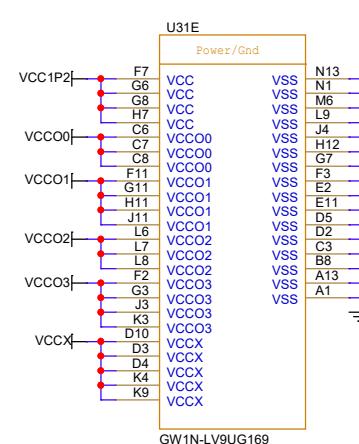
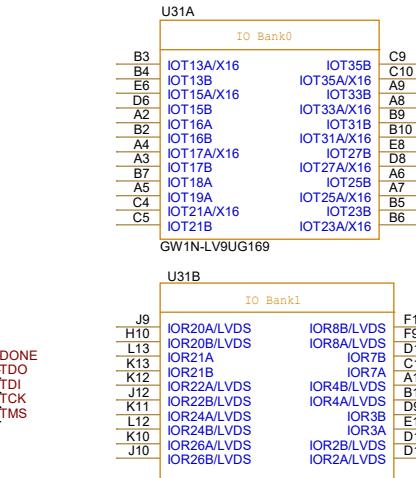
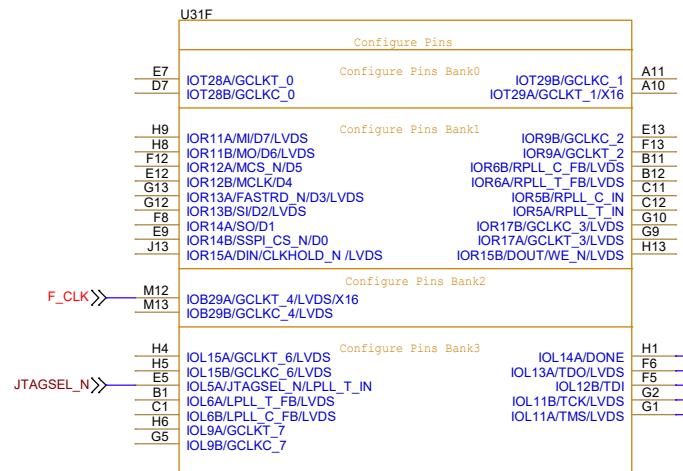
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Notes

- 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		
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**Notes:**

1. F_CLK signal is an external input clock signal.

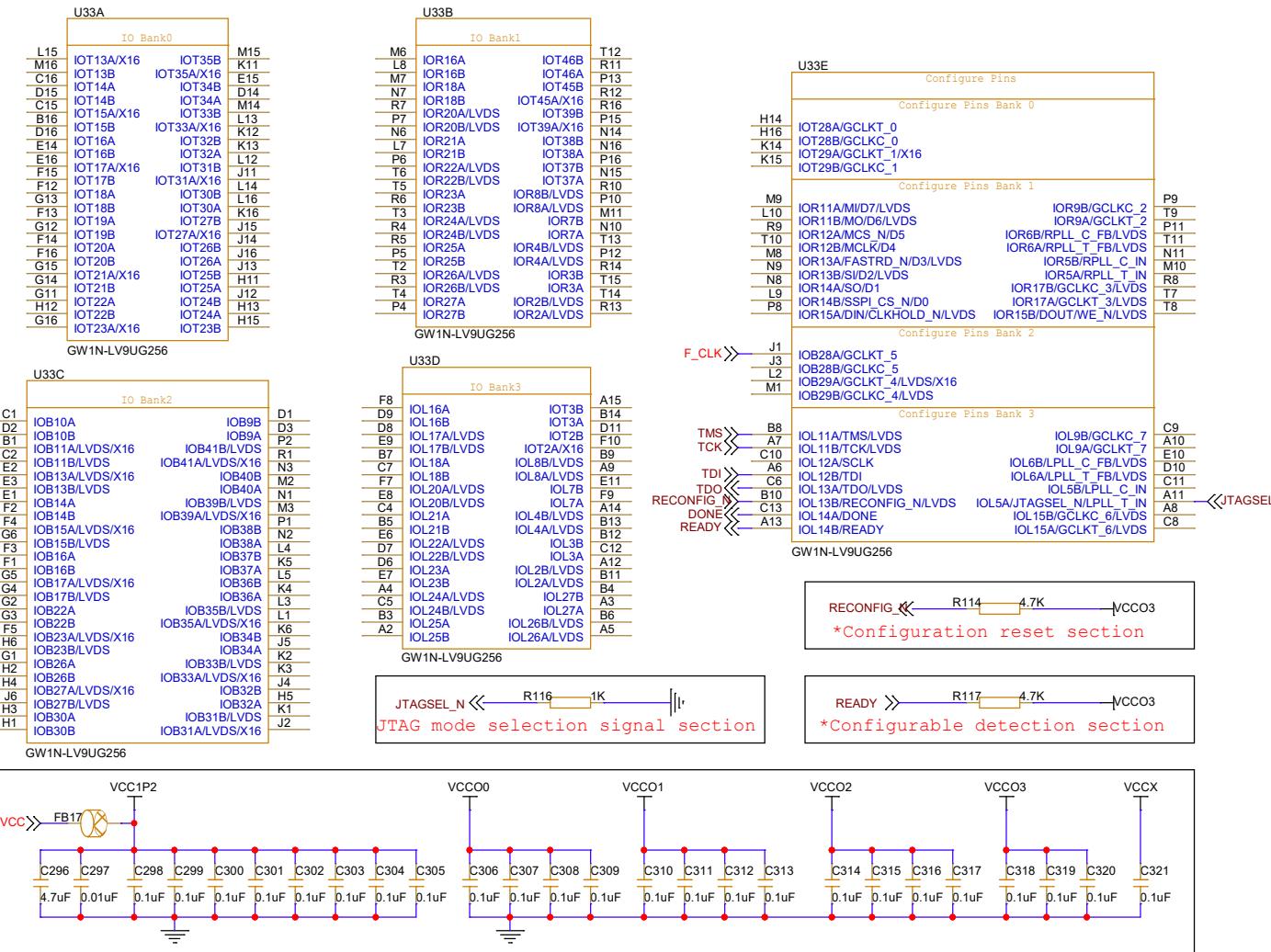
It is recommended that F_CLK signal be provided through an active oscillator crystal.

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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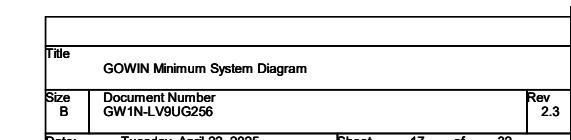
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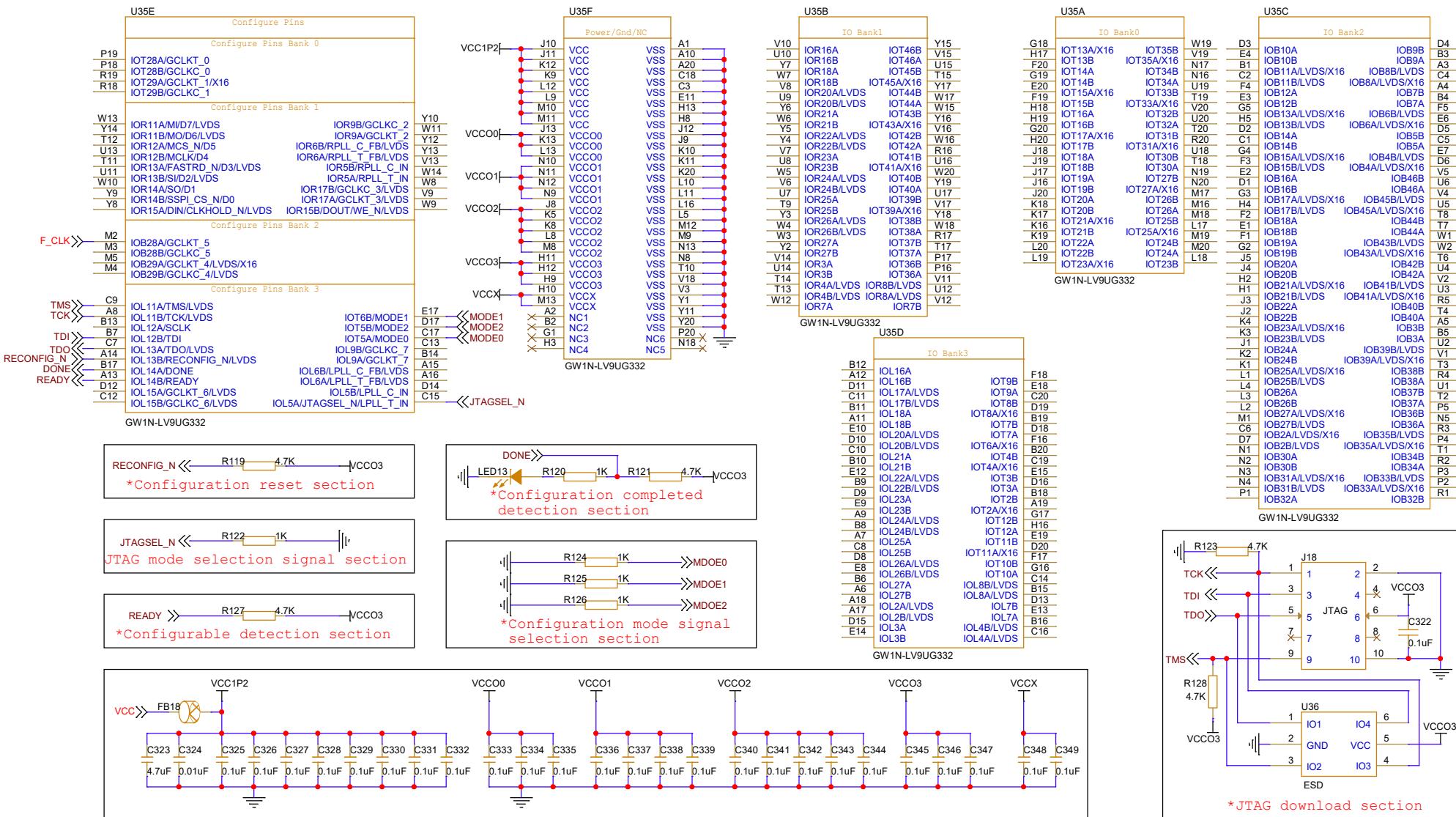
GW1N-LV9UG256



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.



GW1N-LV9UG332**Notes:**

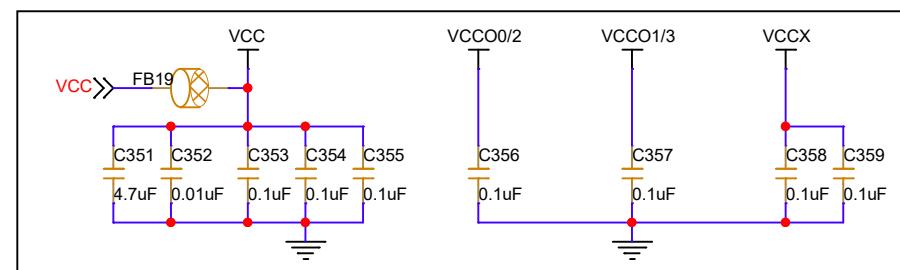
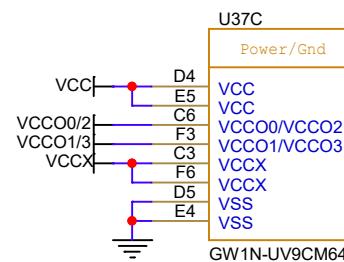
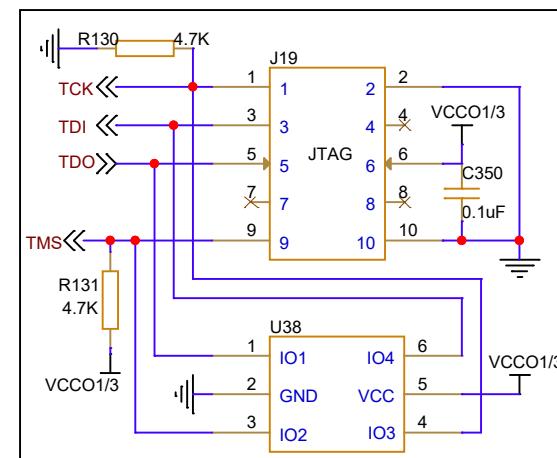
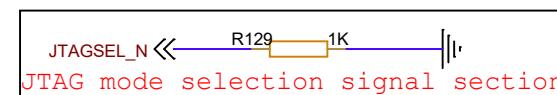
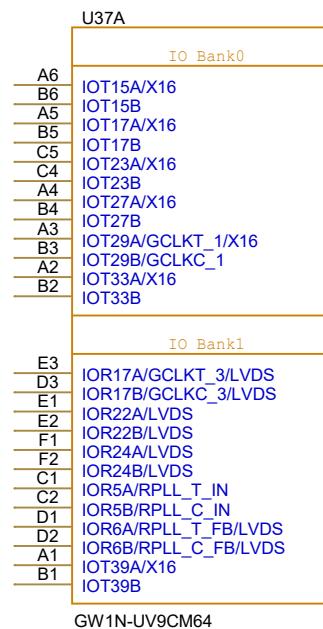
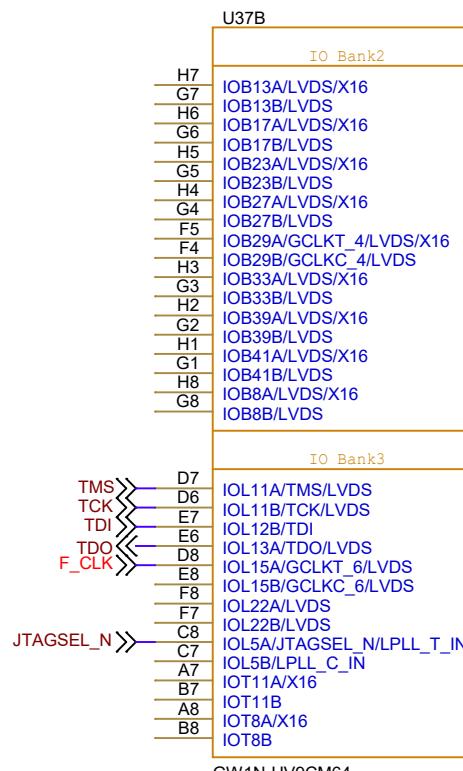
1. F CLK signal is an external input clock signal.

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.

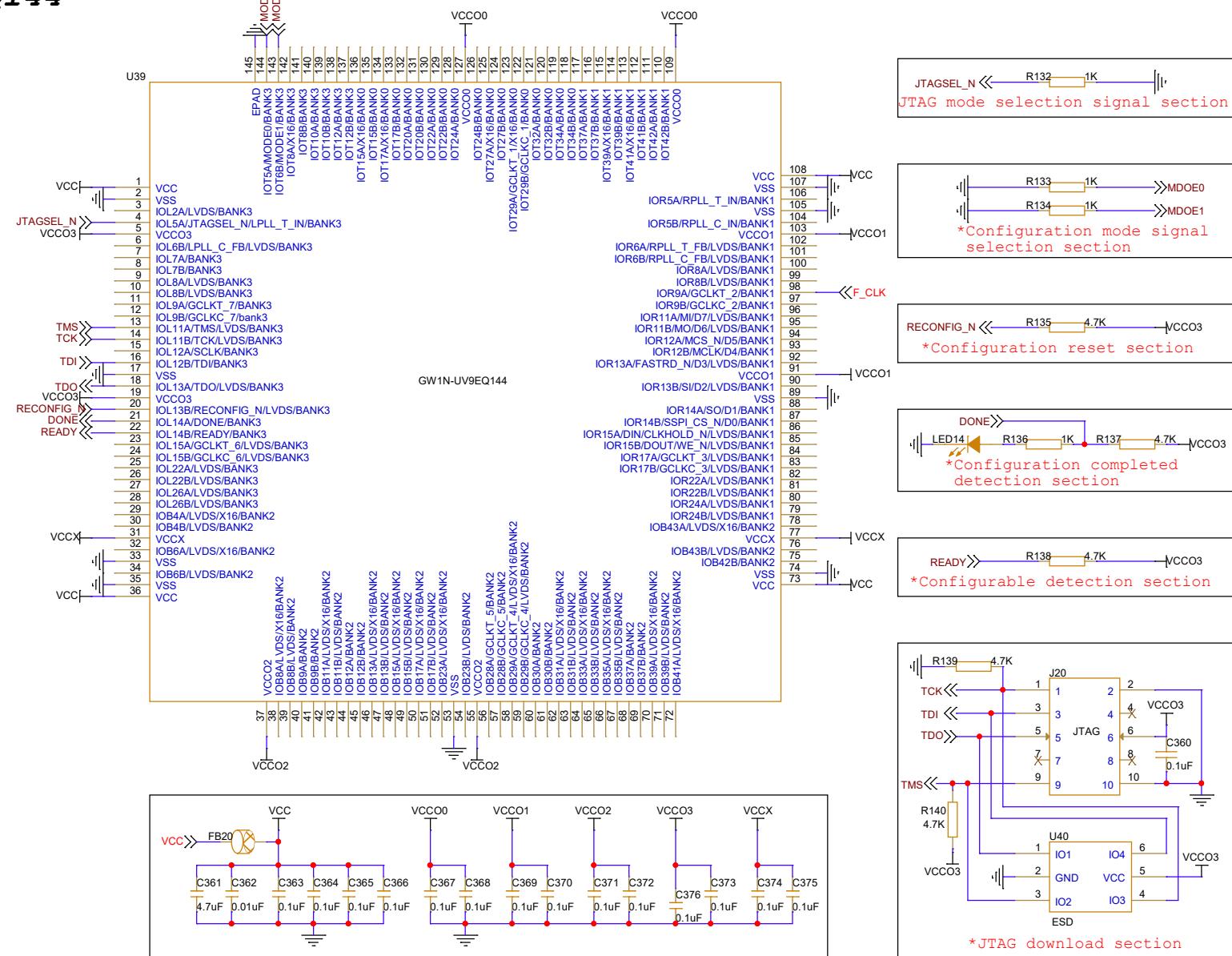
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Size B	Document Number GW1N-LV9UG332
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GW1N-UV9CM64



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.

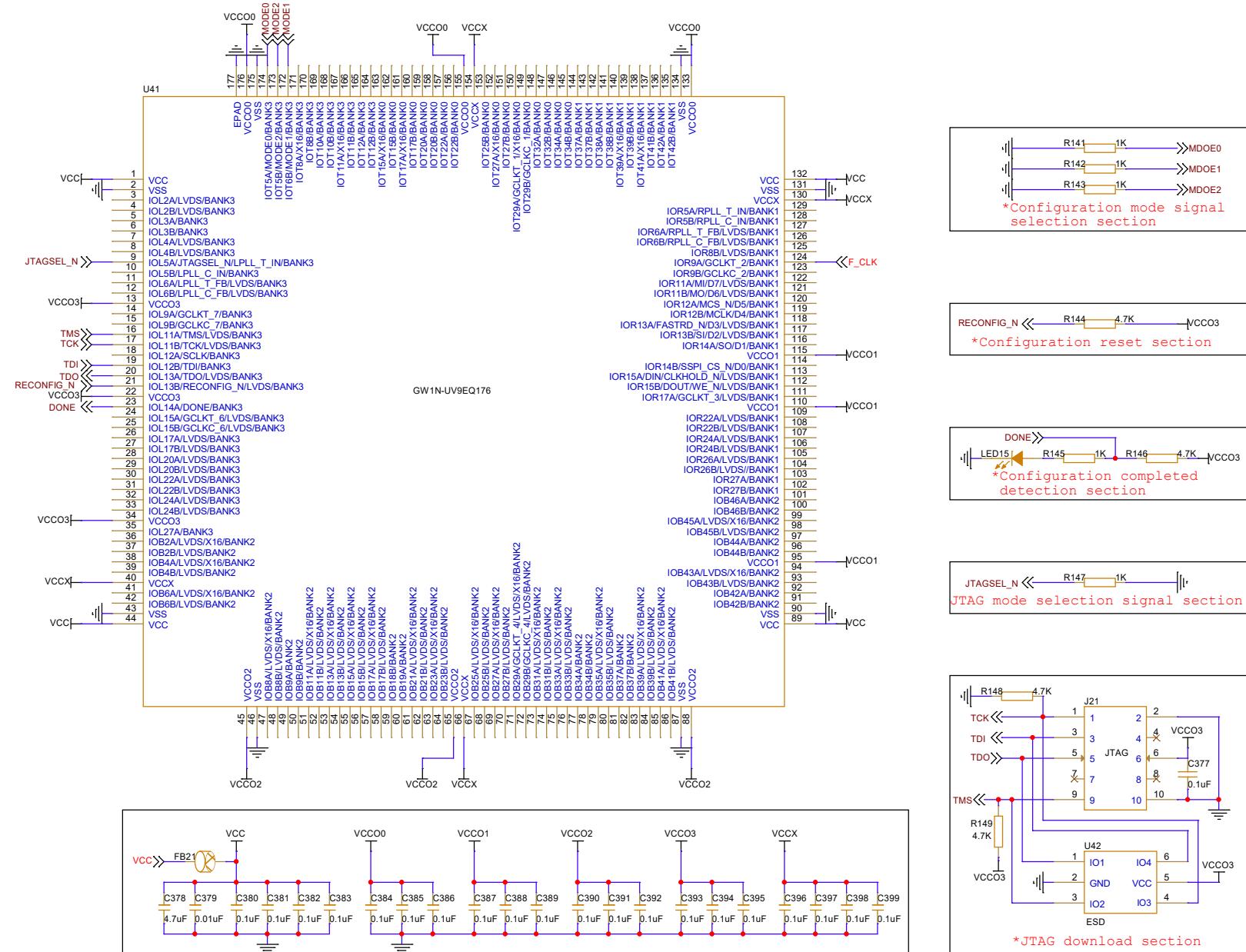
**Notes:**

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-UV9EQ144 Rev 2.3

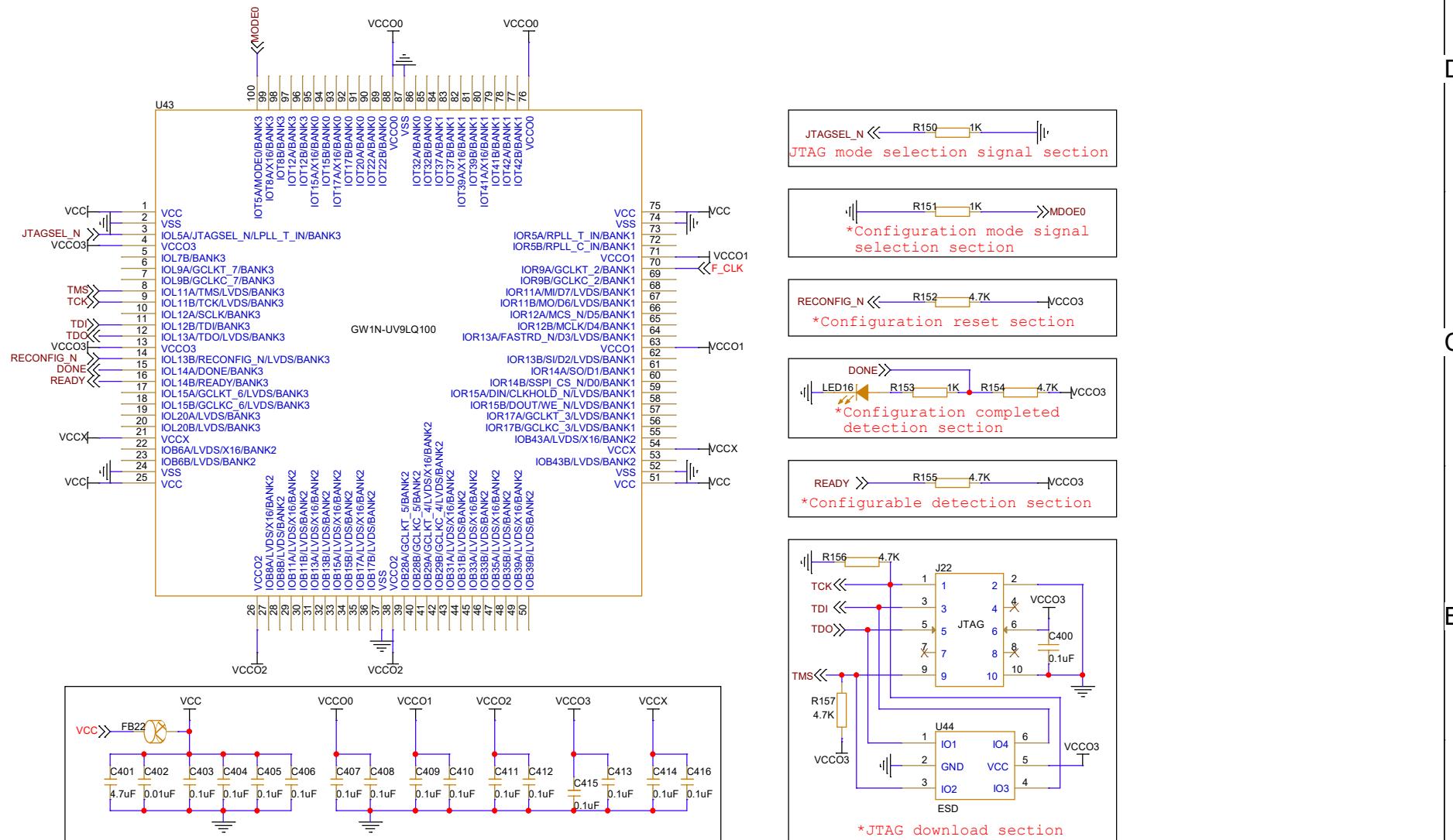
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Notes

- 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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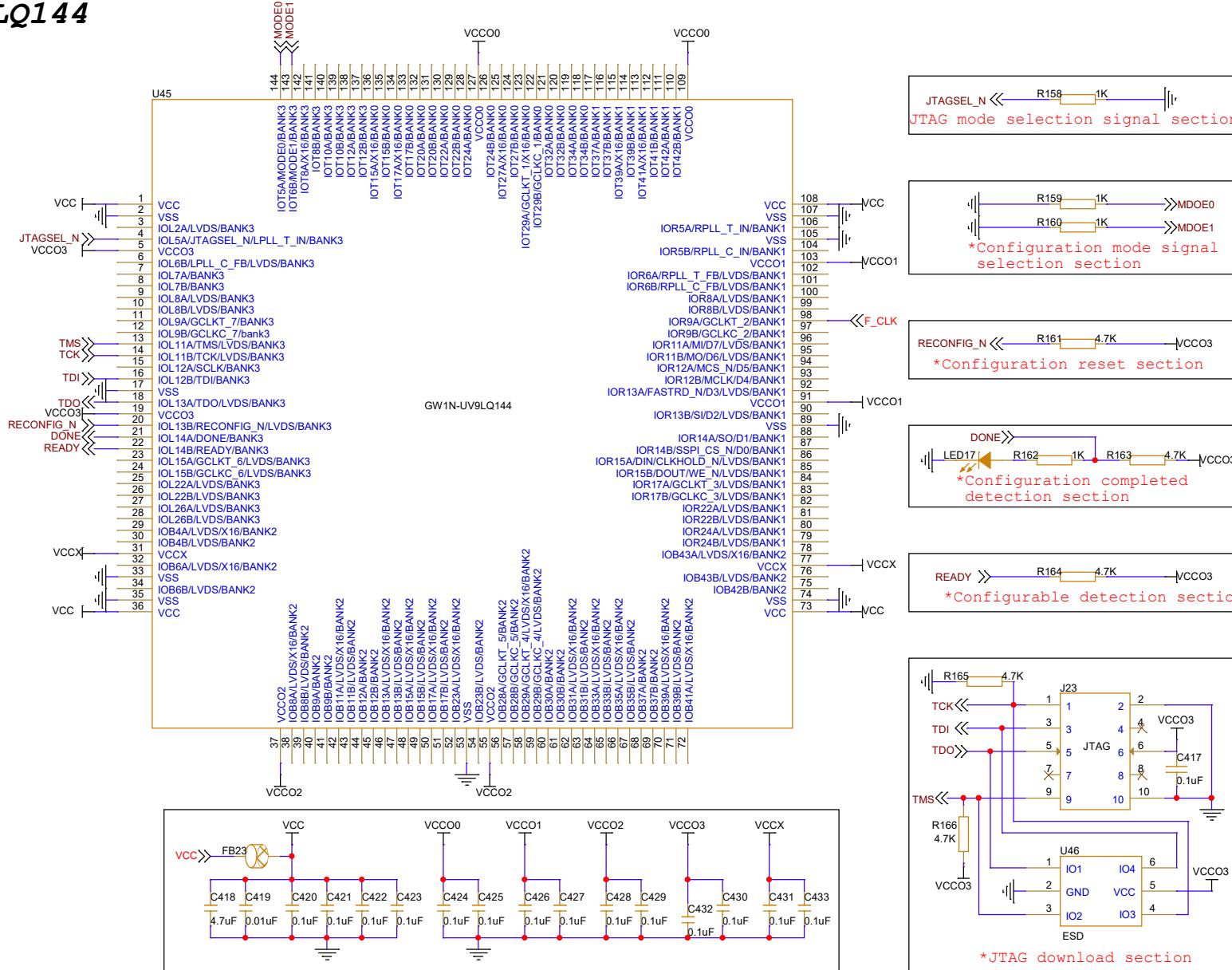


Notes:

- 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.

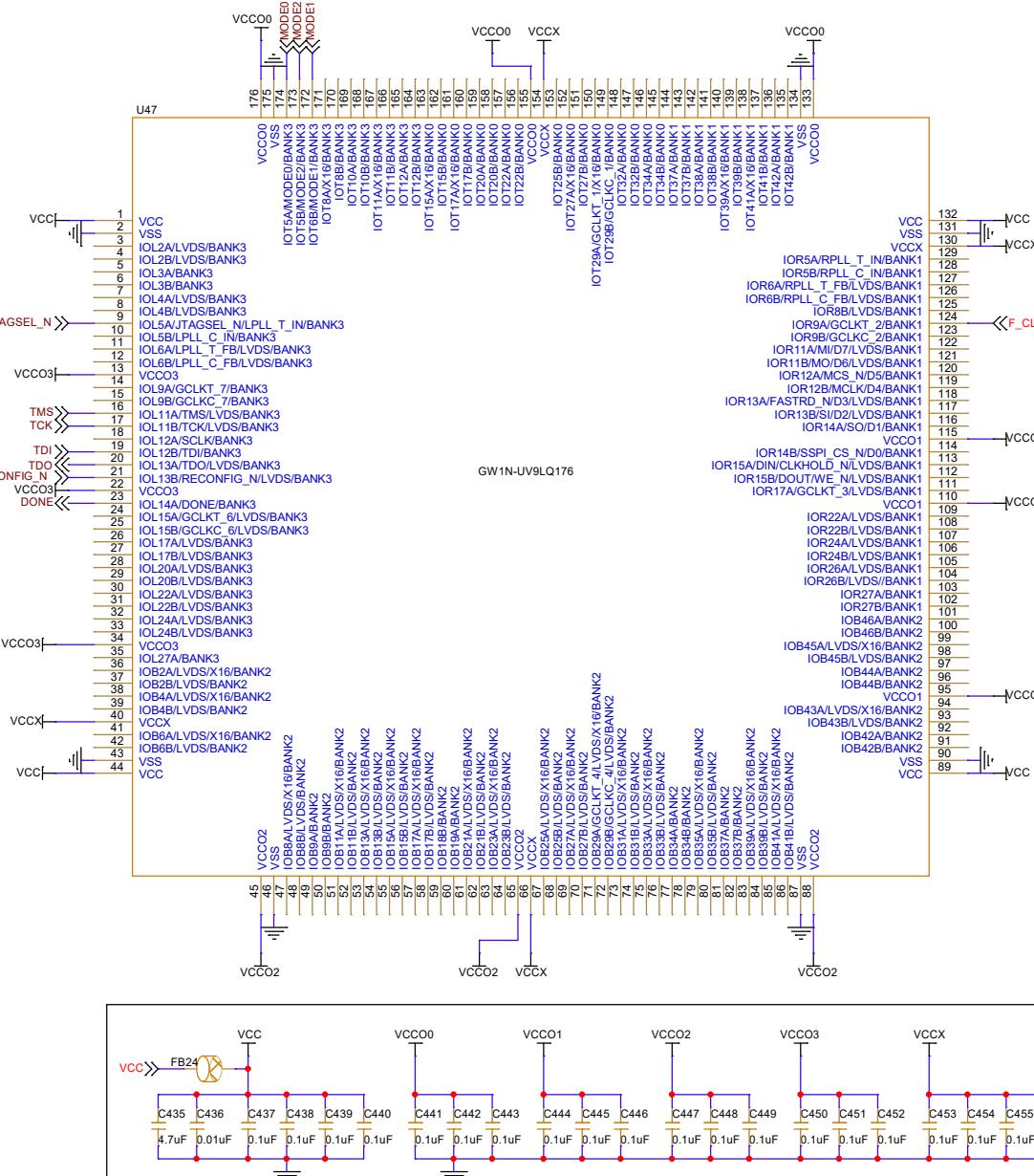
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Size B	Document Number GW1N-UV9LQ100	Rev 2.3
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Notes:

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.

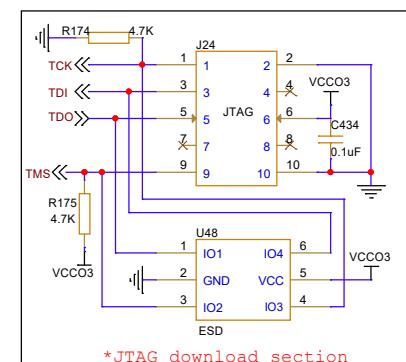
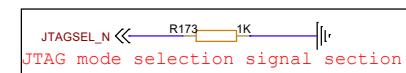
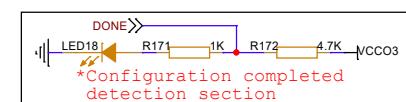
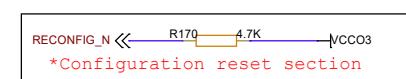
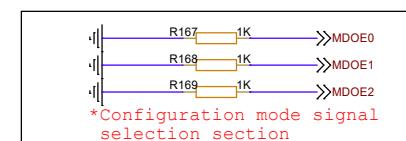
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Size	Document Number	GW1N-UV9LQ144
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**Notes:**

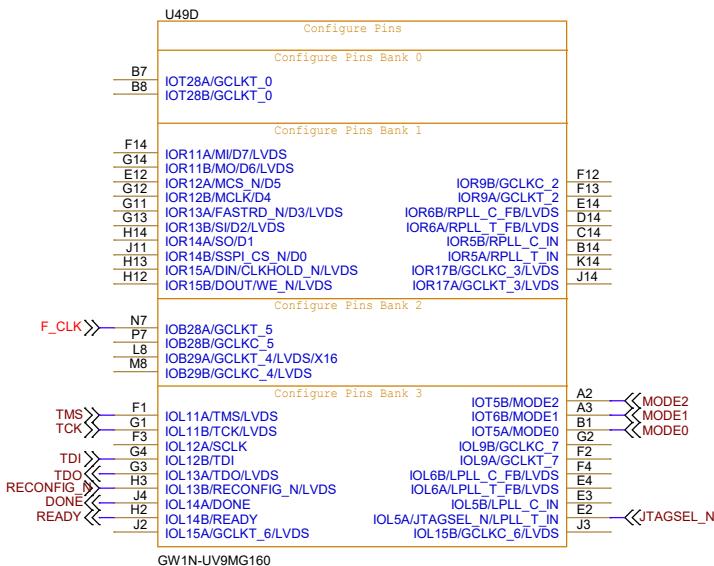
1. F_CLK signal is an external input clock signal.

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

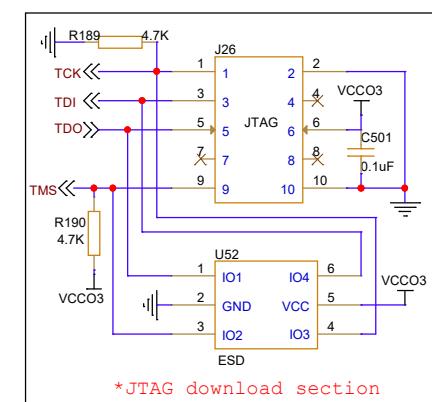
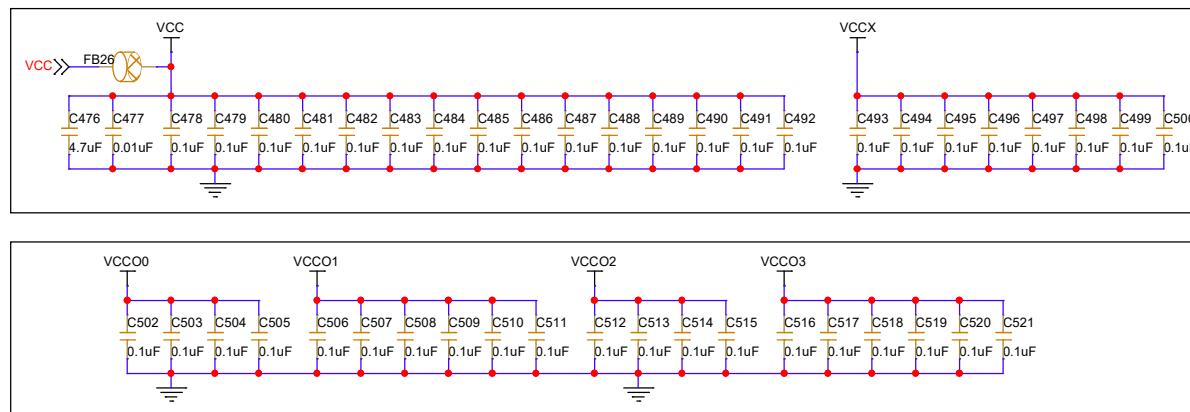
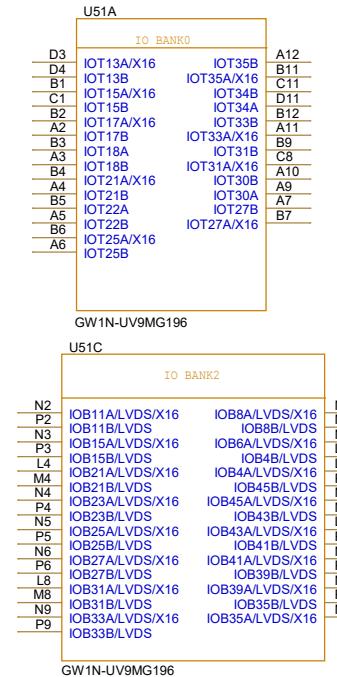
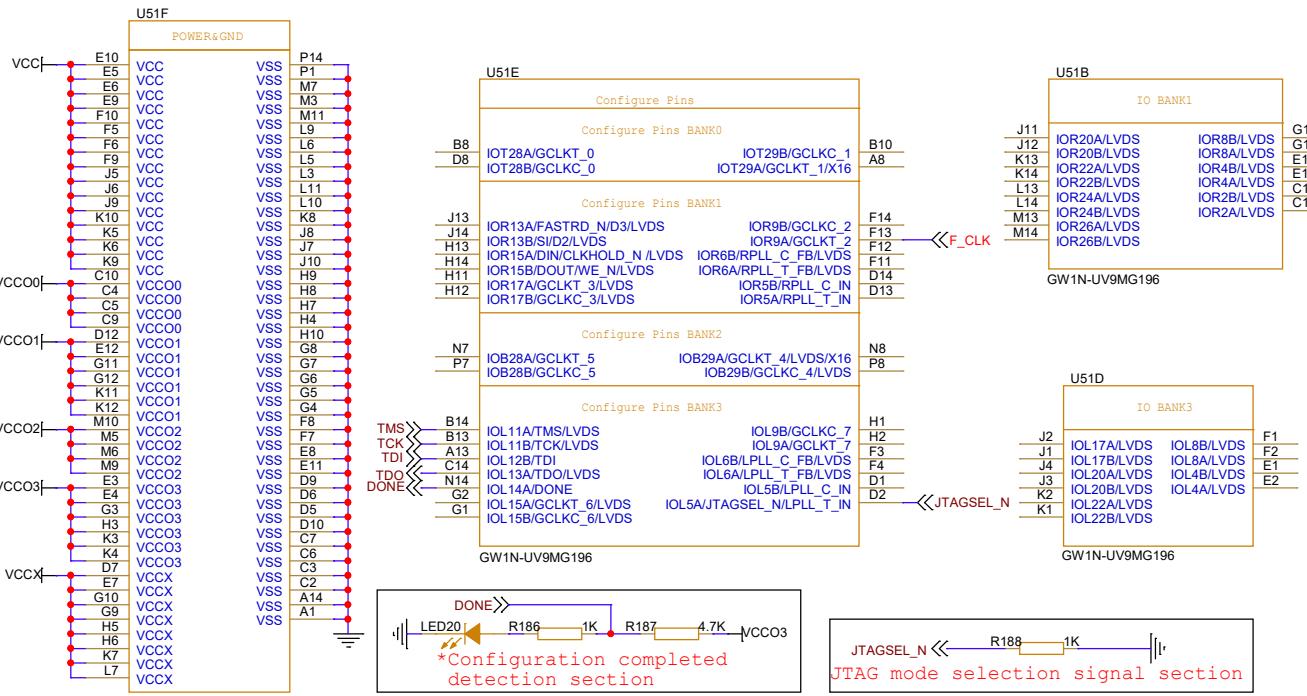
2. It is recommended that add an ESD protection chip to the JTAG download circuit.



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GW1N-UV9MG196

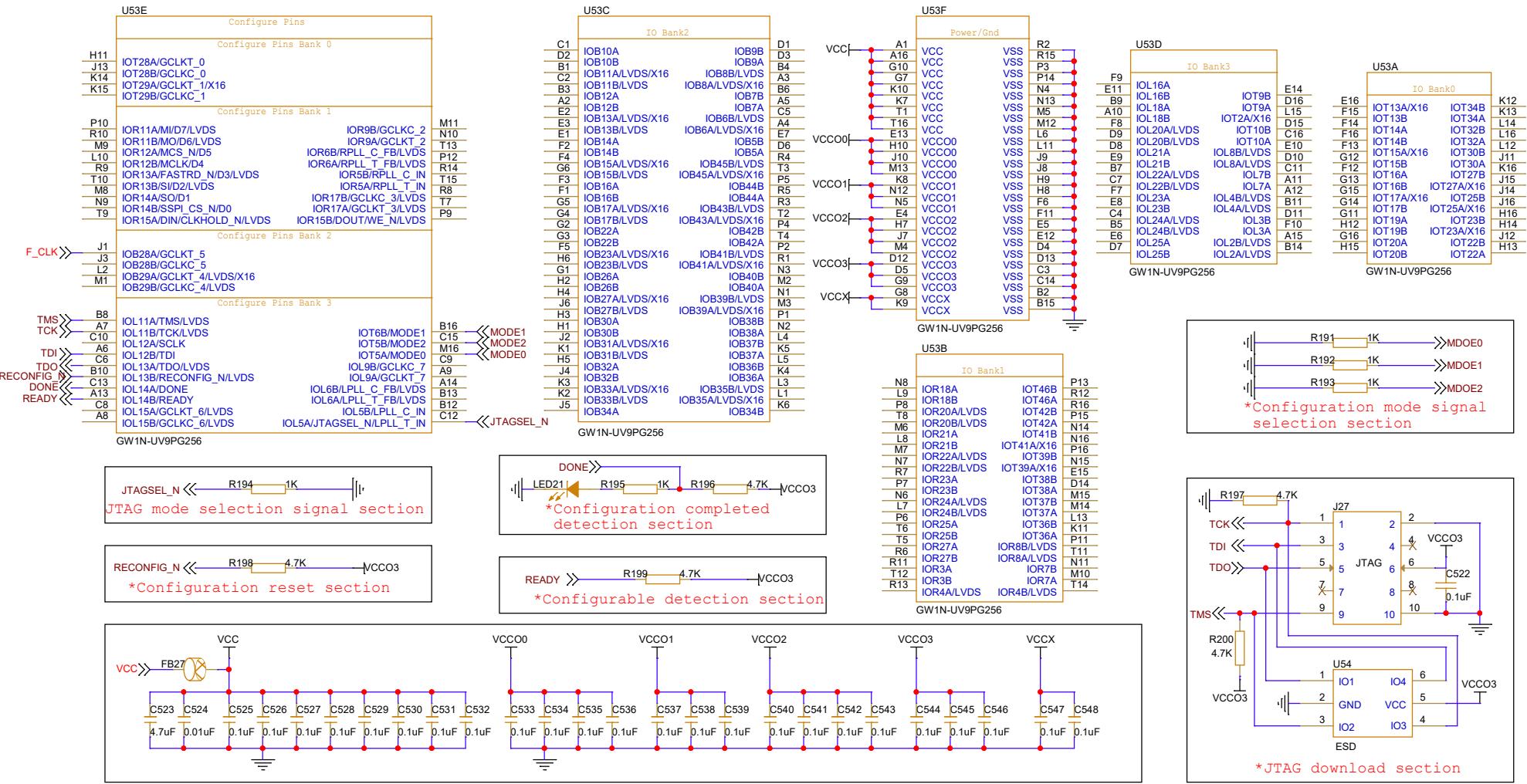


Notes:

- 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-UV9MG196			2.3
1	Page 1 of 10	Printed: 10/22/2025	File: 00	Ver: 00

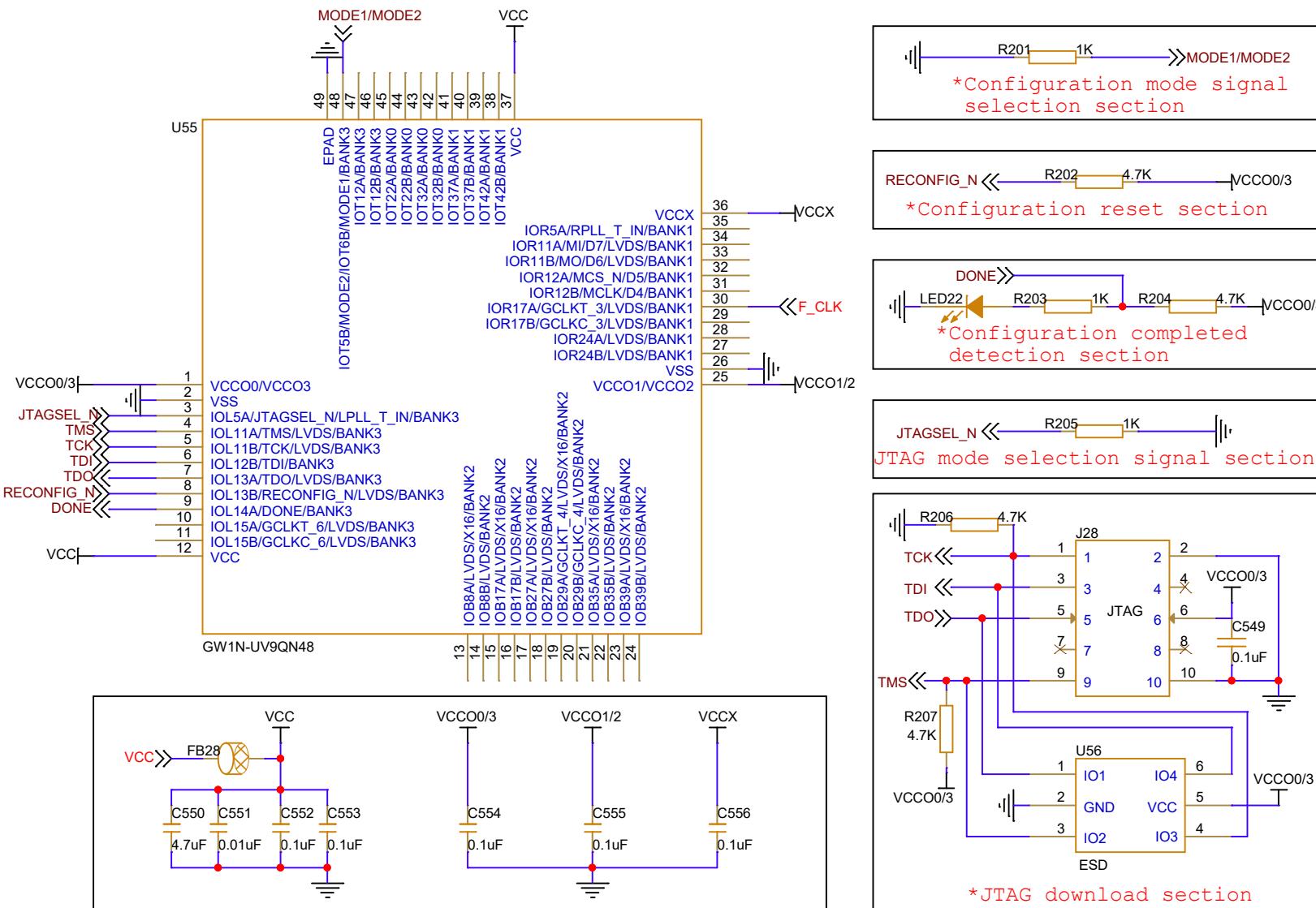


Notes:

- F_CLK signal is an external input clock signal.
It is recommended that F_CLK signal be provided through an active oscillator crystal.
- 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-UV9PG256		2.3

GW1N-UV9QN48



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.

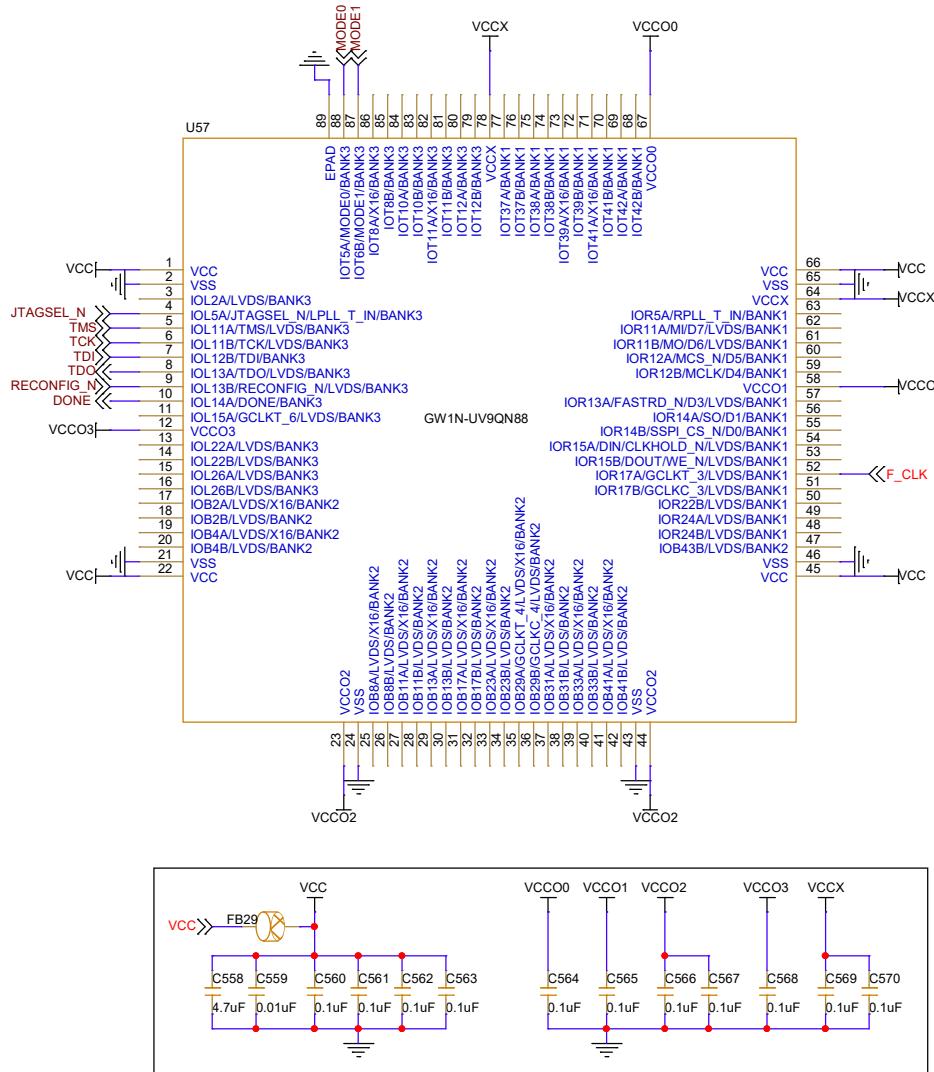
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Size A4 Document Number
GW1N-UV9QN48

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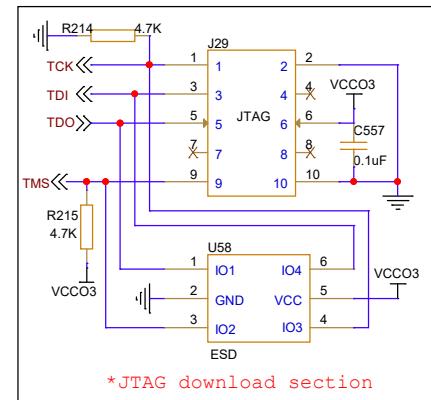
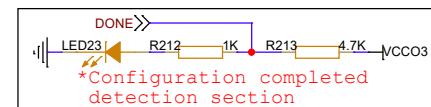
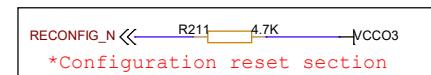
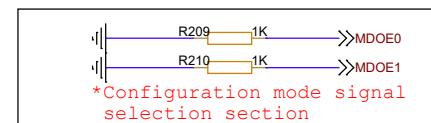
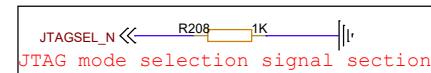


Notes:

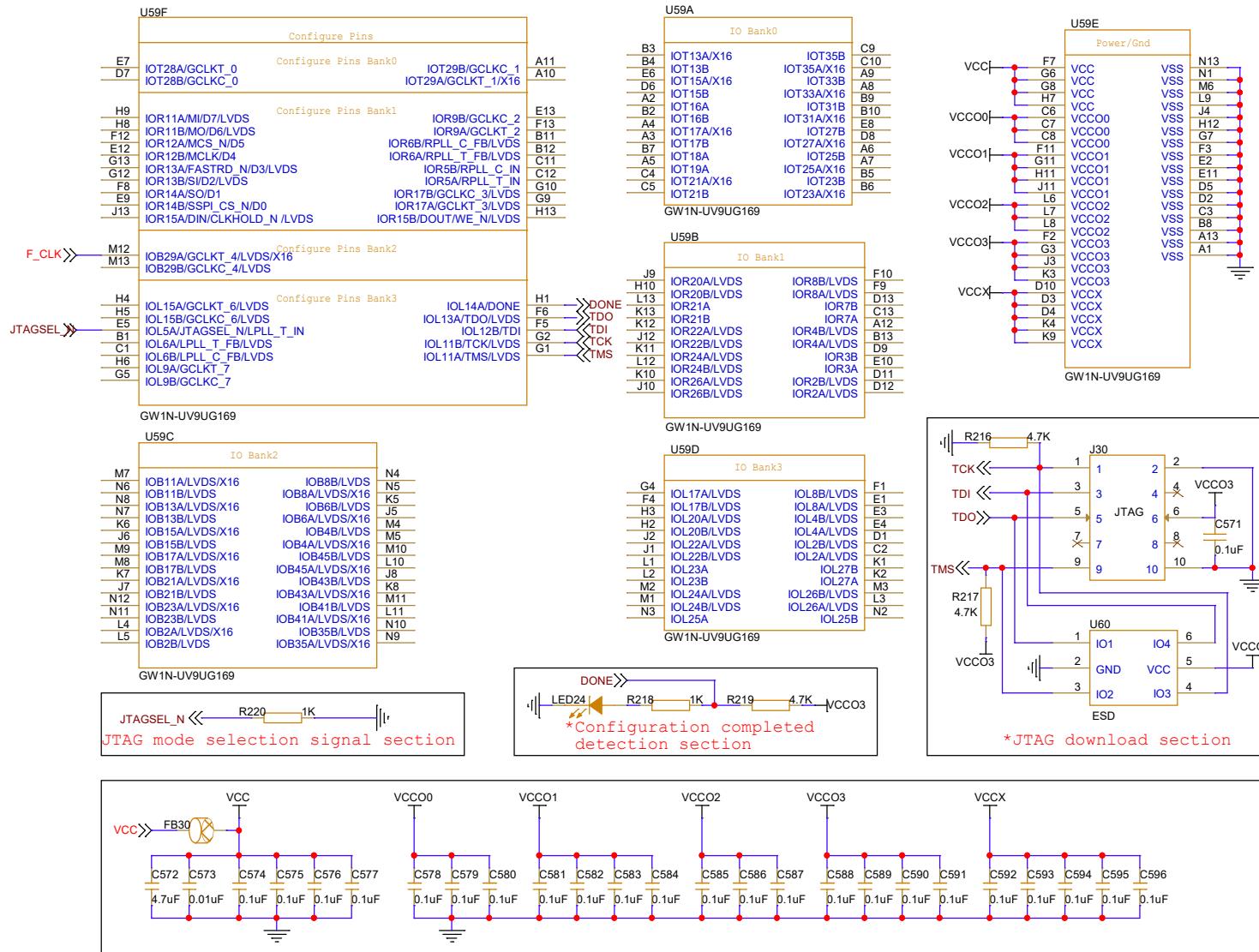
1. F_CLK signal is an external input clock signal.

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.

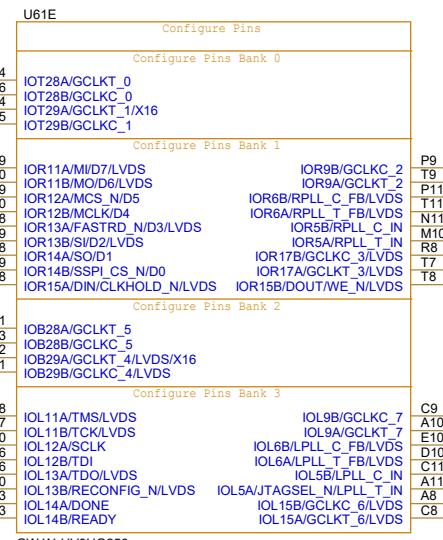
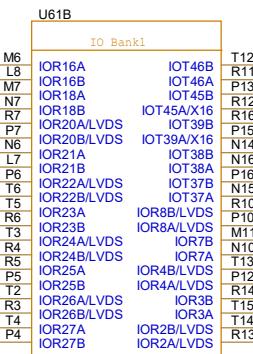
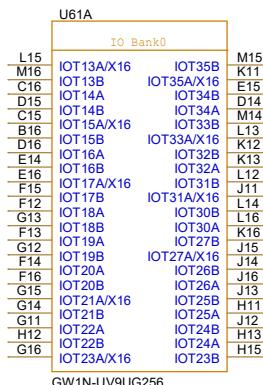


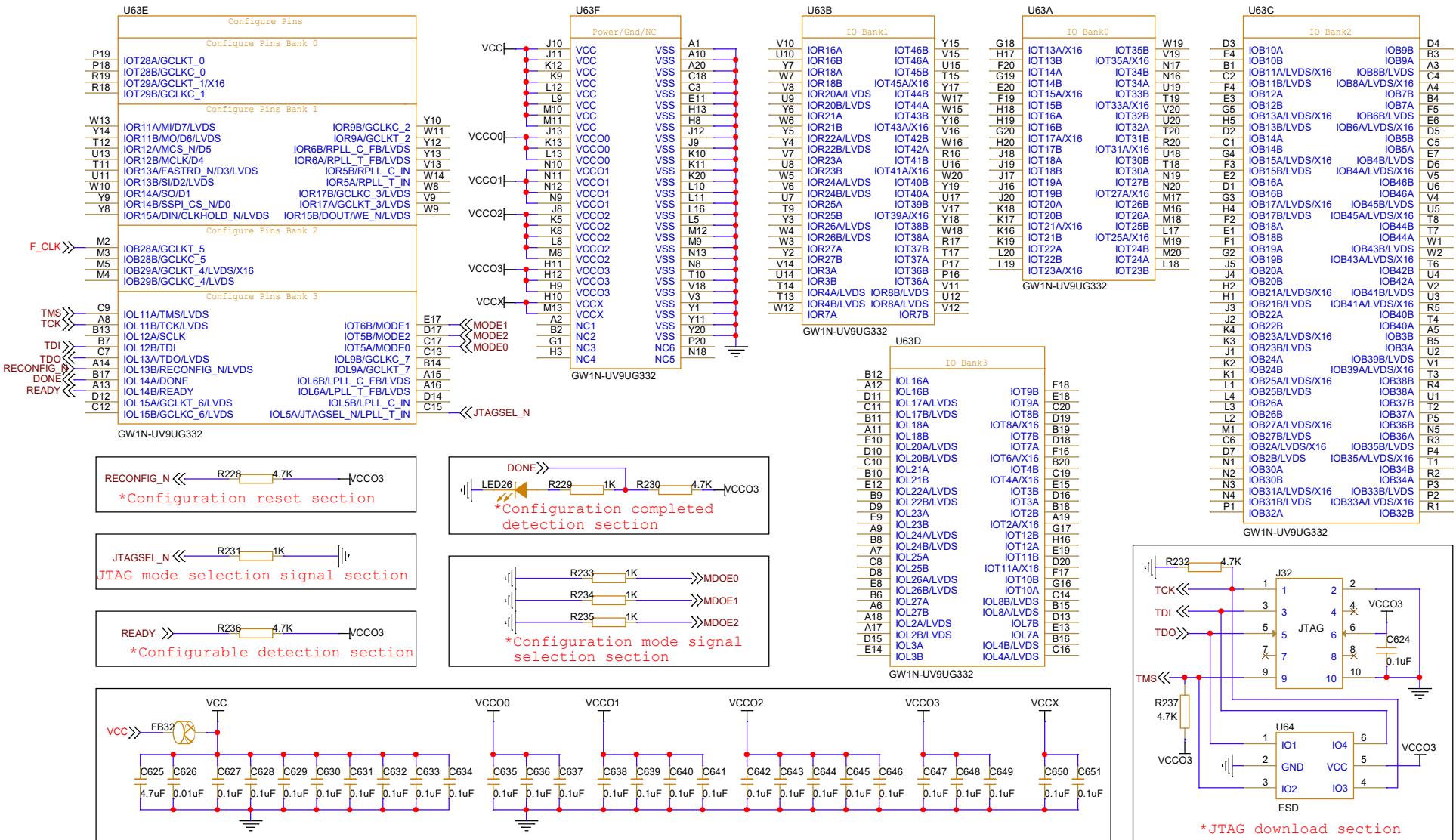
Title		
GOWIN Minimum System Diagram		
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**Notes:**

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-UV9UG169
Date: Tuesday, April 22, 2025	Rev 2.3



**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-UV9UG332

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