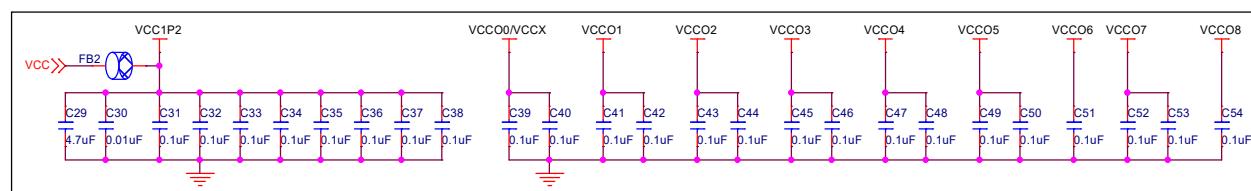
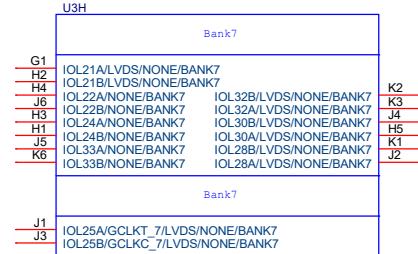
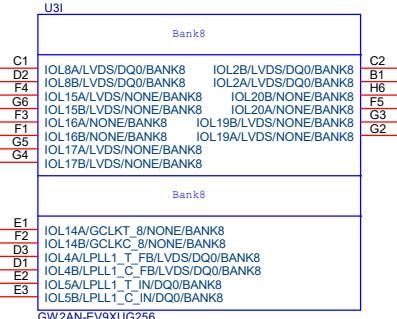
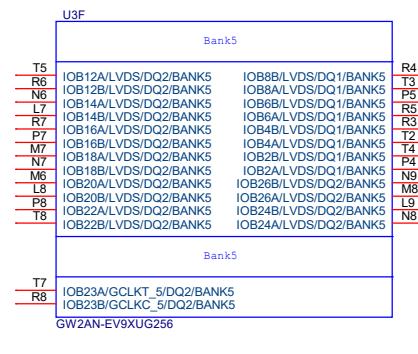
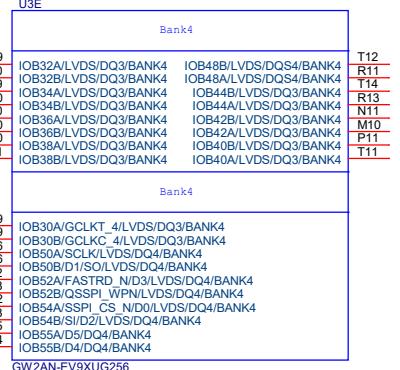
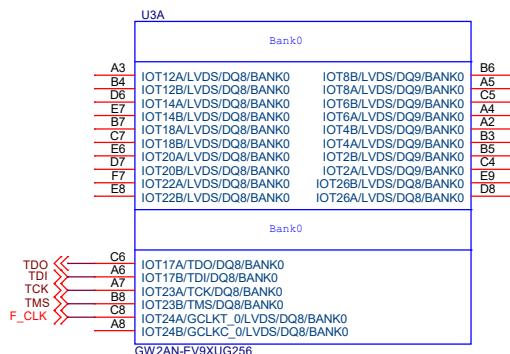
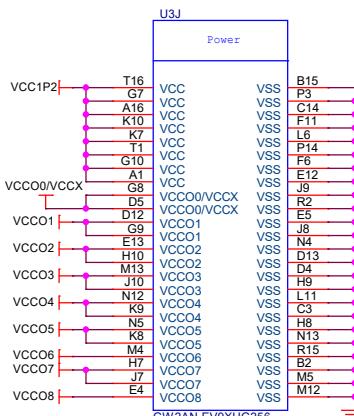
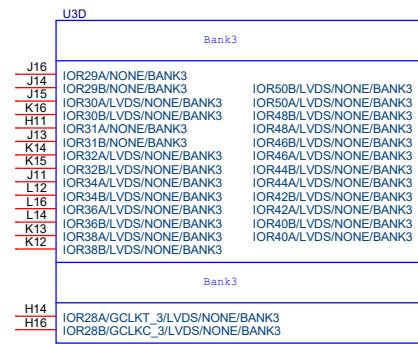
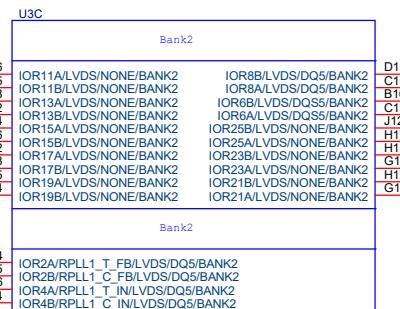
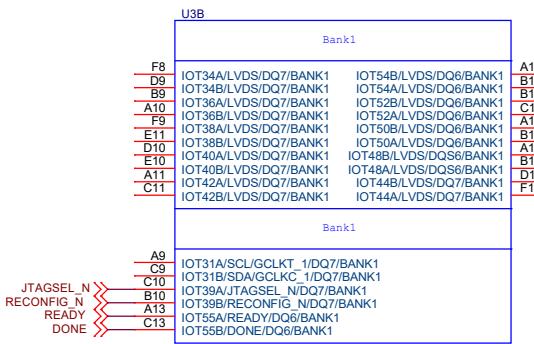
**Notes:**

- F CLK signal is an external input clock signal.  
It is recommended that F CLK signal be provided through an active oscillator crystal.
- External Flash memory is used to store downloaded programs.  
For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
- It is recommended that add an ESD protection chip to the JTAG download circuit.

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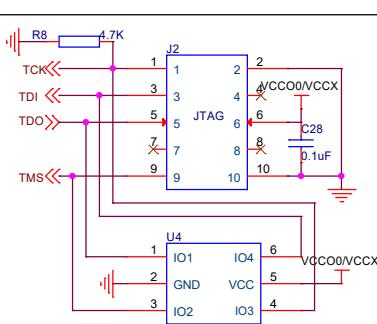


**Notes:**

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. External Flash memory is used to store downloaded programs.  
For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
3. It is recommended that add an ESD protection chip to the JTAG download circuit.

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GOWIN Minimum System Diagram	
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**JTAG mode selection signal section**



**\*Configuration completed detection section**

**READY**

**R11**

**4.7K**

**VCCO1**

**\*Configurable detection section**

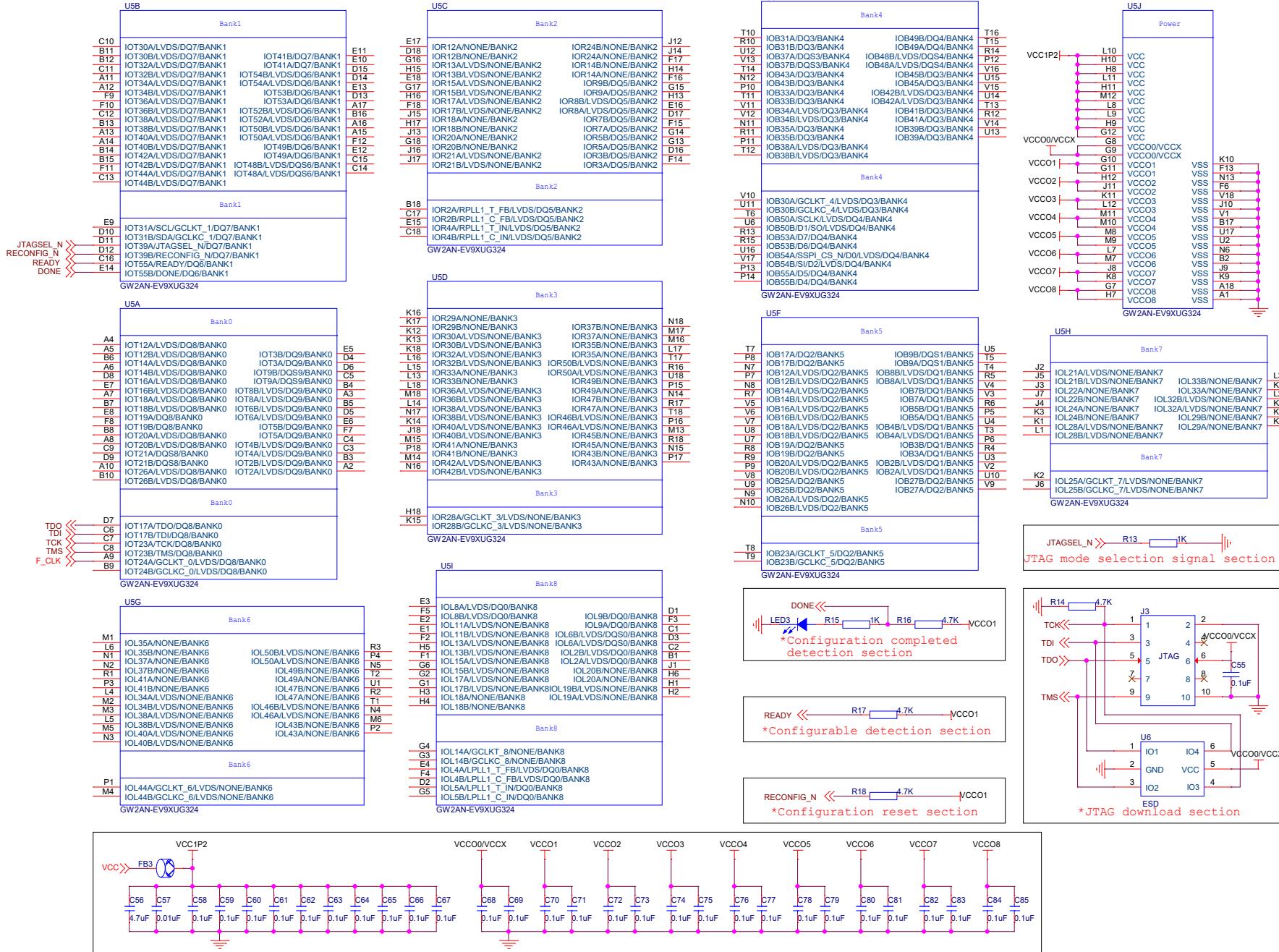
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**R12**

**4.7K**

**VCCO1**

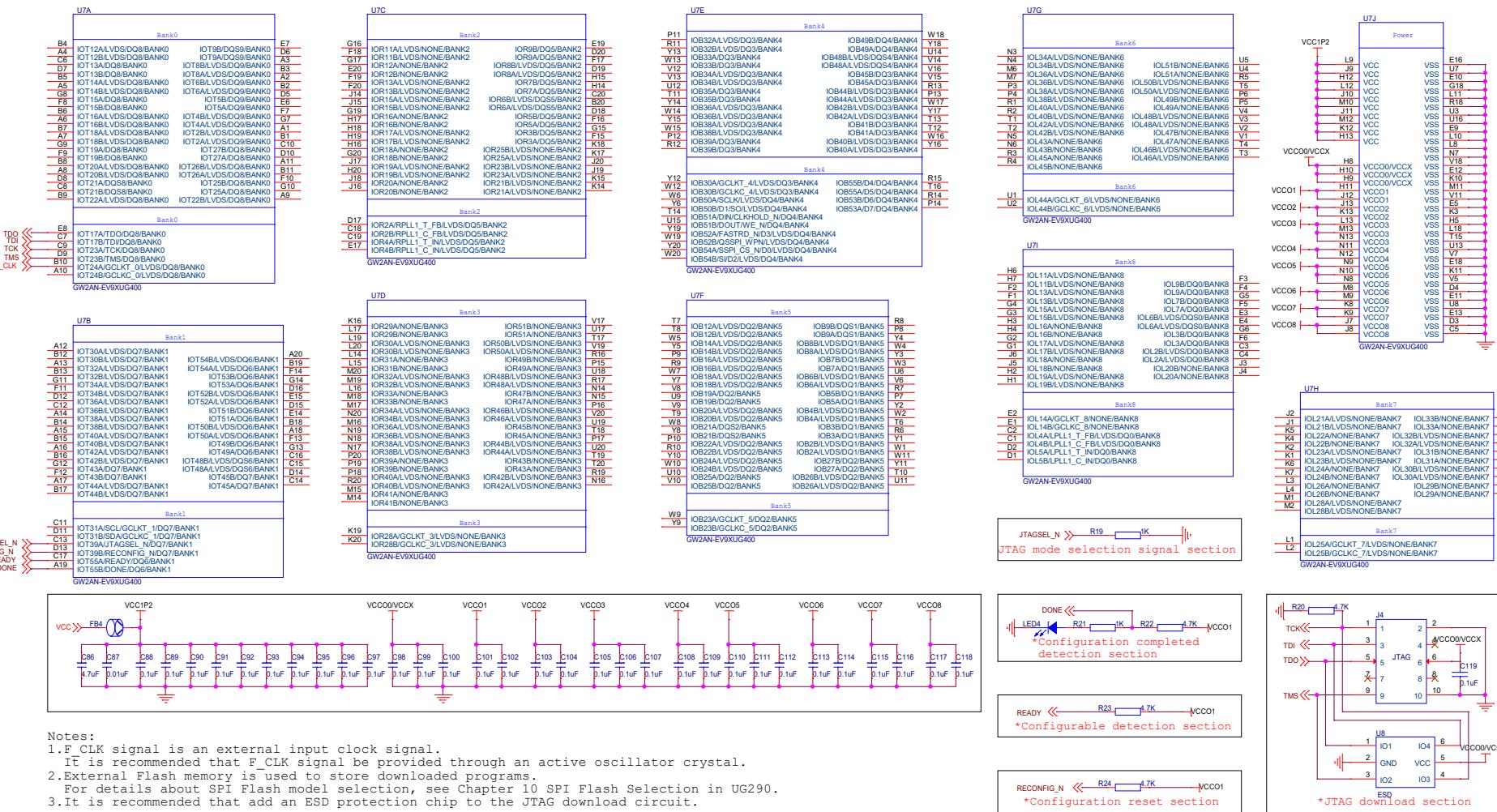
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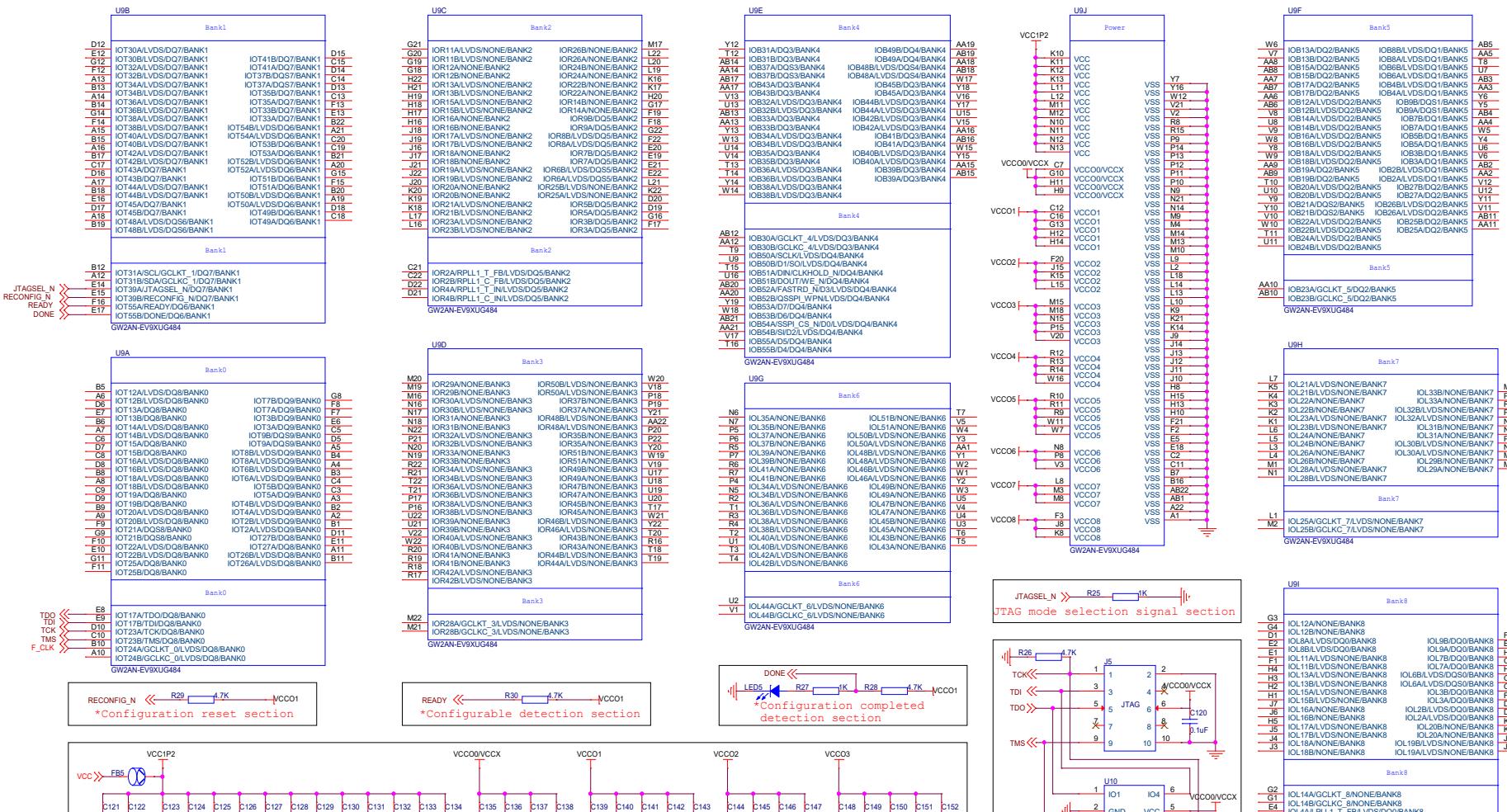


#### Notes:

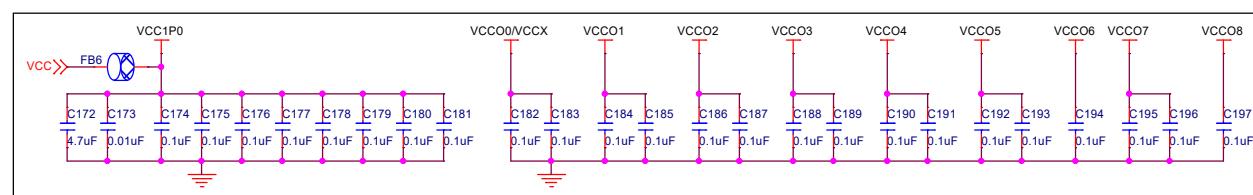
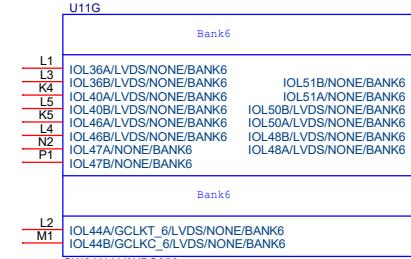
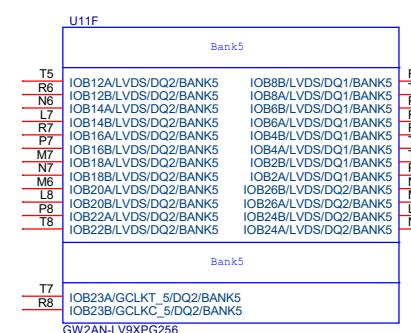
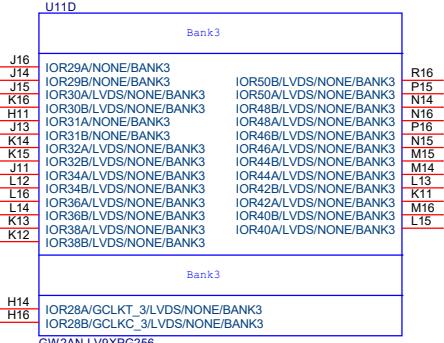
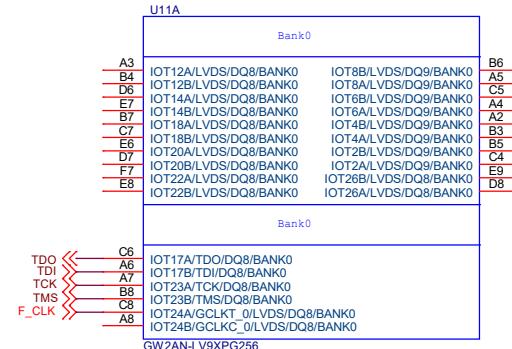
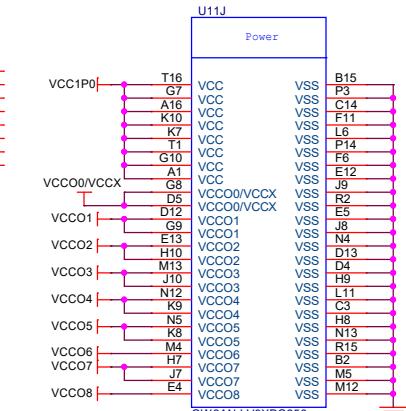
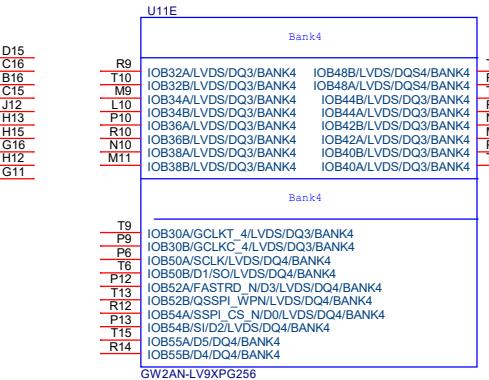
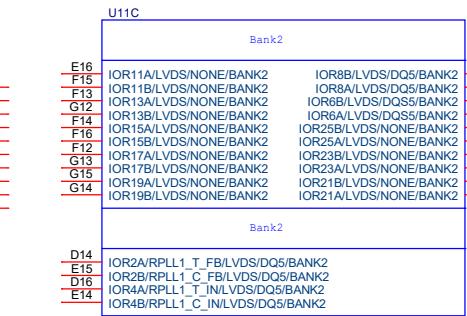
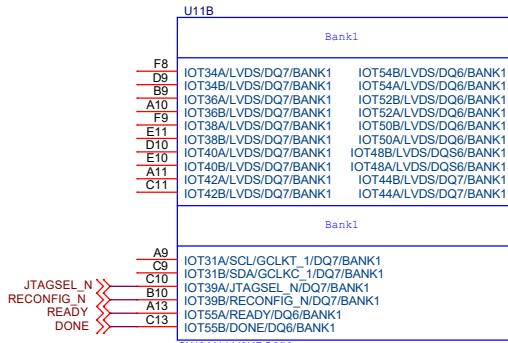
- Notes:

  - 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.External Flash memory is used to store downloaded programs.  
For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290
  - 3.It is recommended that add an ESD protection chip to the JTAG download circuit.

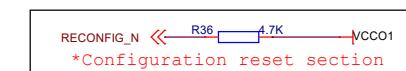
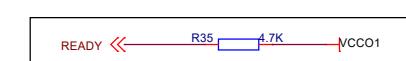
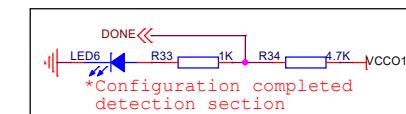
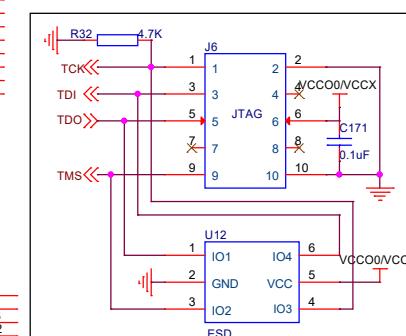
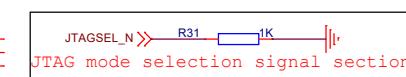


**Notes:**

- F CLK signal is an external input clock signal.  
It is recommended that F CLK signal be provided through an active oscillator crystal.
- External Flash memory is used to store downloaded programs.  
For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
- It is recommended that add an ESD protection chip to the JTAG download circuit.

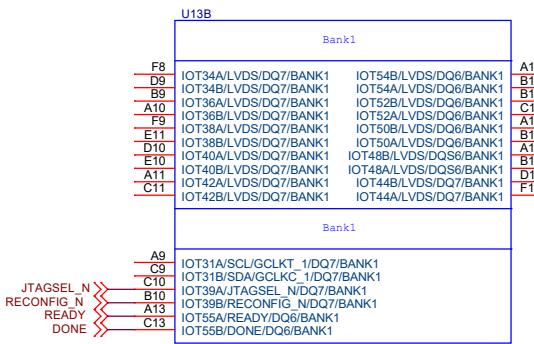
**Notes:**

- F CLK signal is an external input clock signal.  
It is recommended that F CLK signal be provided through an active oscillator crystal.
- External Flash memory is used to store downloaded programs.  
For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
- It is recommended that add an ESD protection chip to the JTAG download circuit.

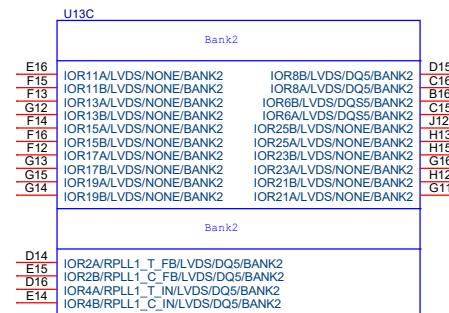


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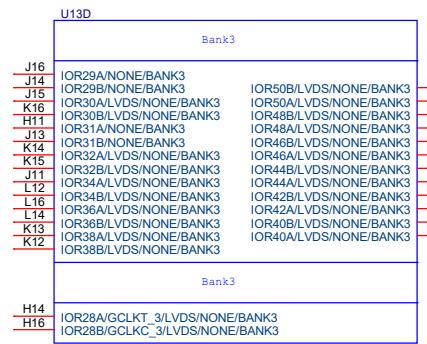
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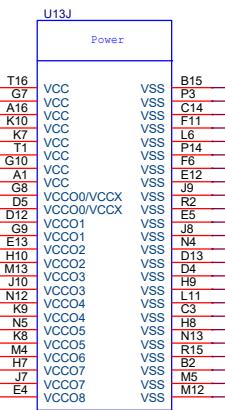
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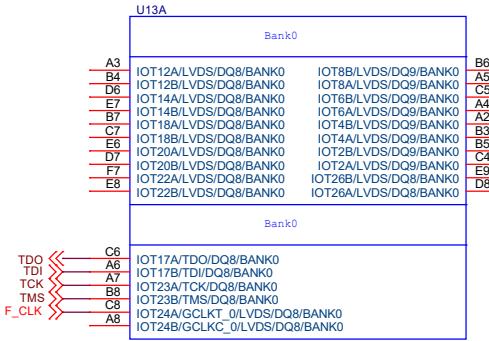
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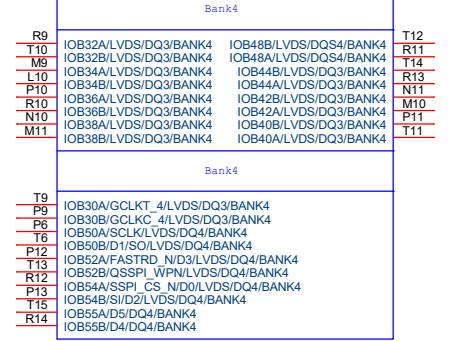
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IOR28B/GCLK



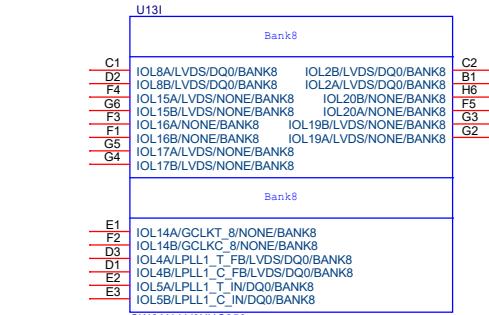
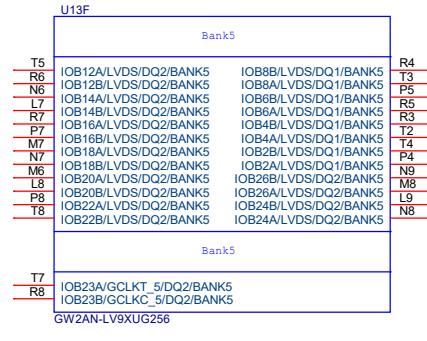
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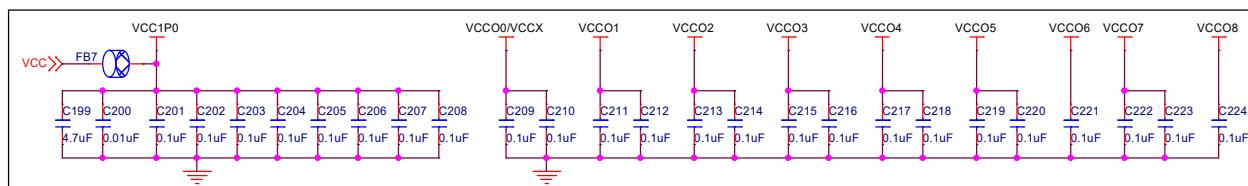
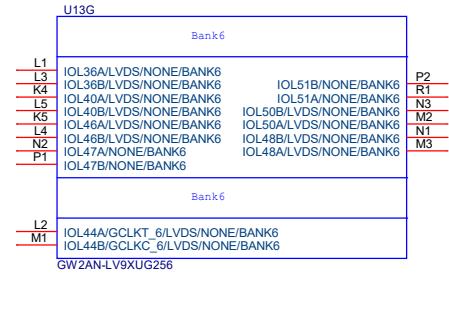
GW2AN-I V9XUG256



GW2AN-I V9XUIG256



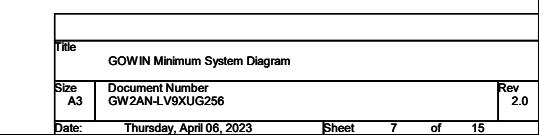
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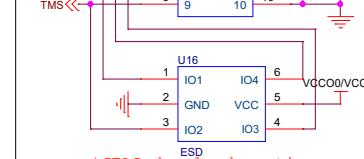
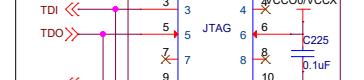
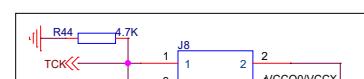
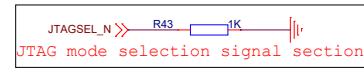
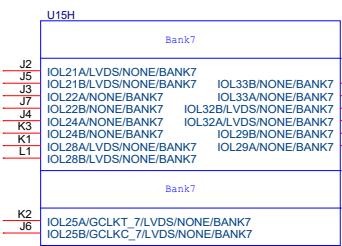
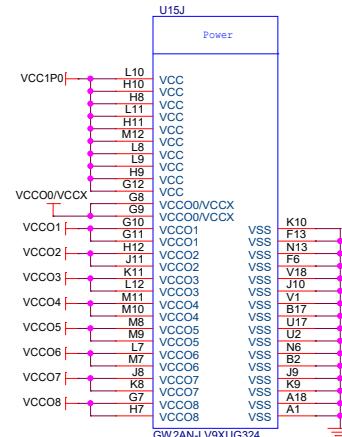
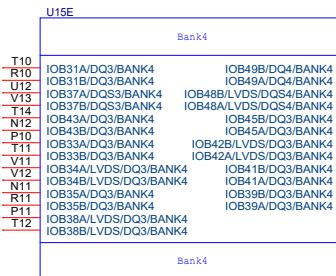
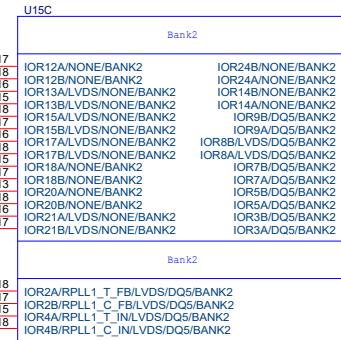
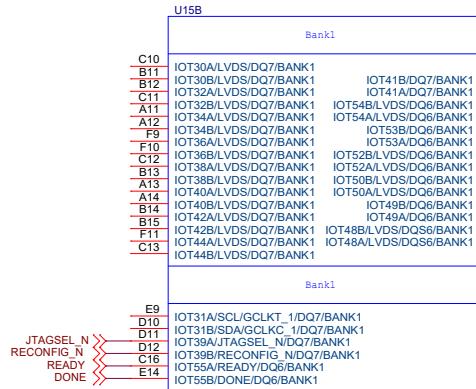


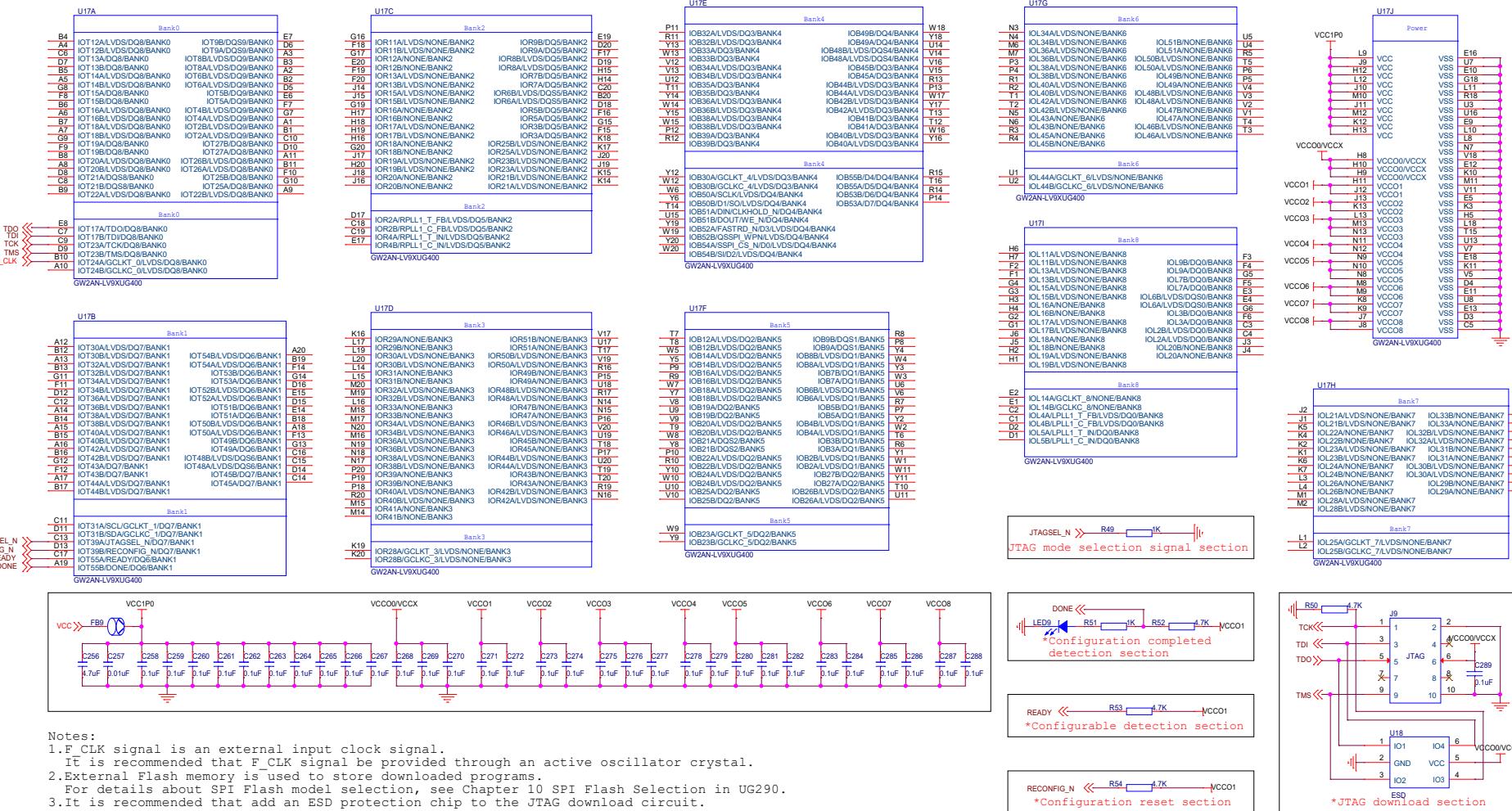
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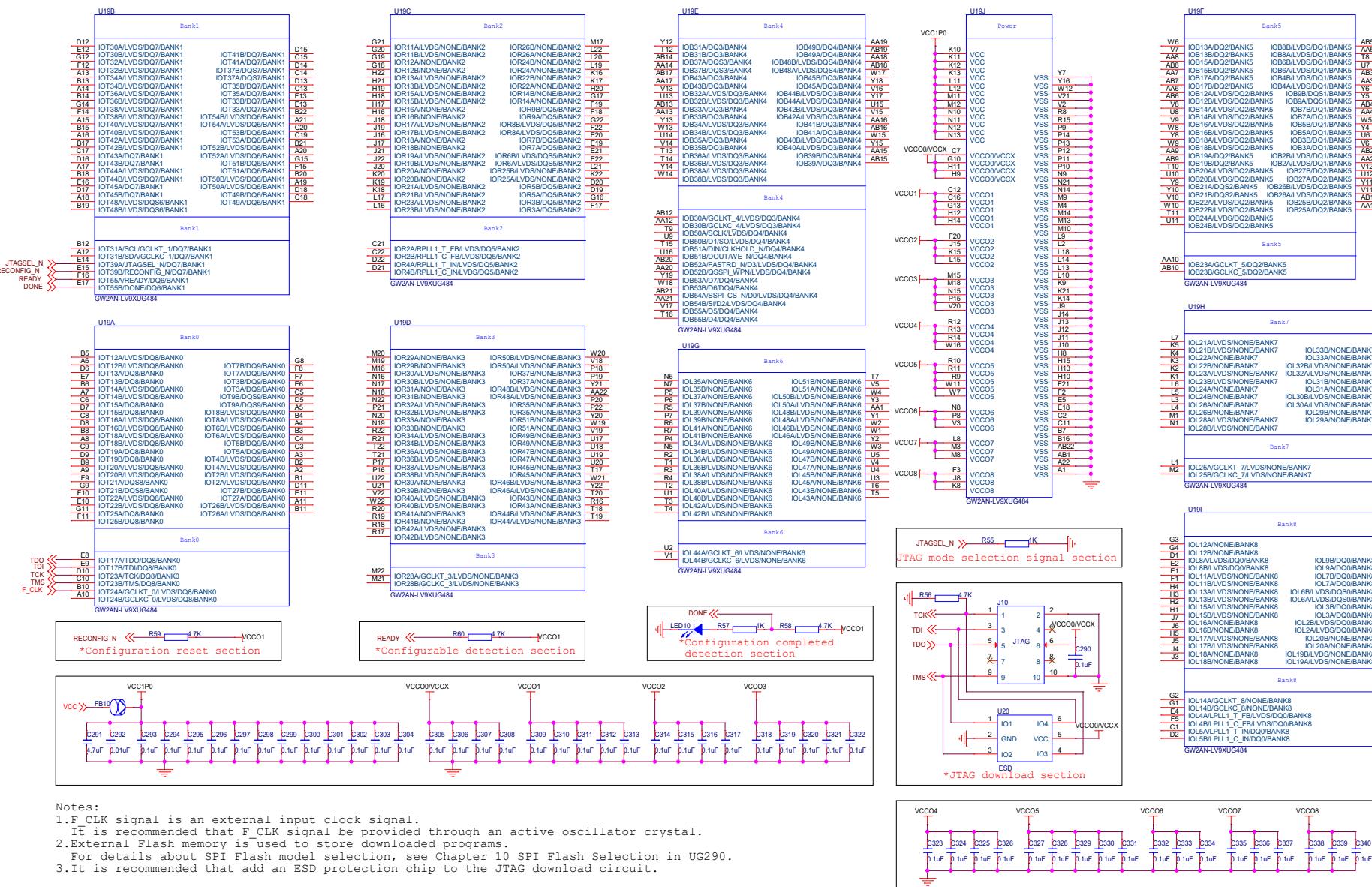
- Notes:**

  - 1.F<sub>-</sub>CLK signal is an external input clock signal.  
It is recommended that F<sub>-</sub>CLK signal be provided through an active oscillator crystal.
  - 2.External Flash memory is used to store downloaded programs.  
For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
  - 3.It is recommended that add an ESD protection chip to the JTAG download circuit.



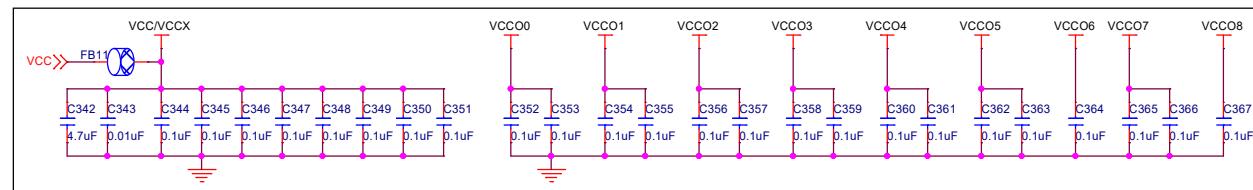
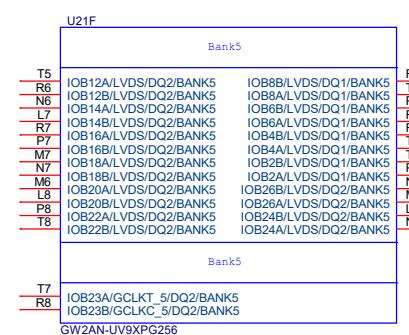
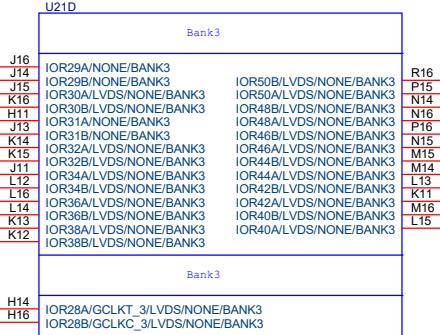
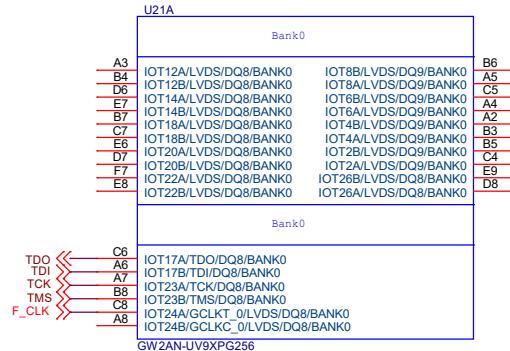
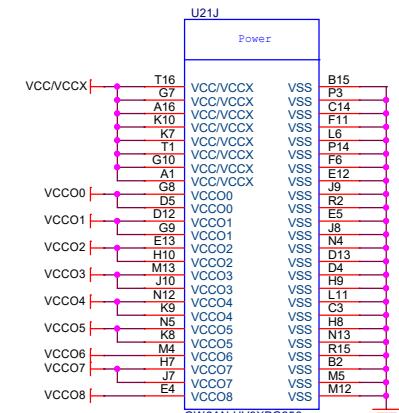
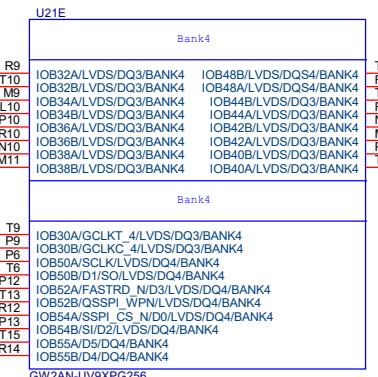
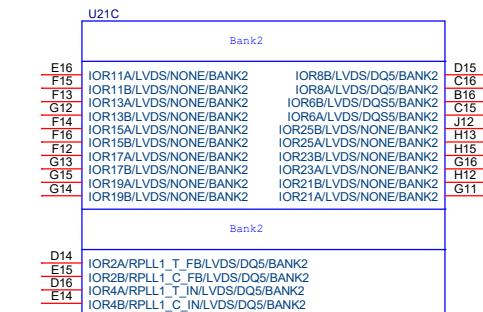
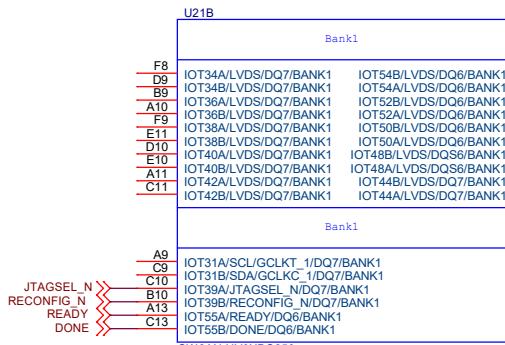






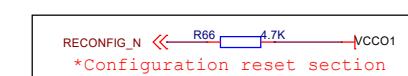
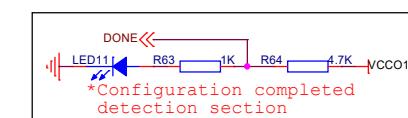
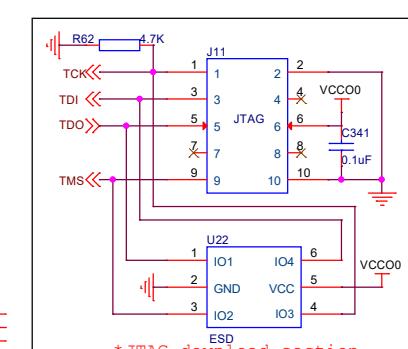
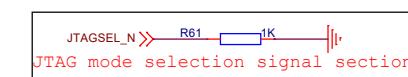
### Notes:

- 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.External Flash memory is used to store downloaded programs.  
For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
  - 3.It is recommended that add an ESD protection chip to the JTAG download circuit.



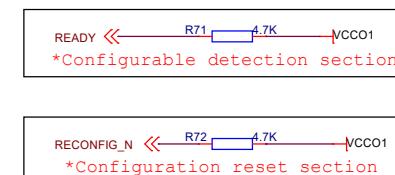
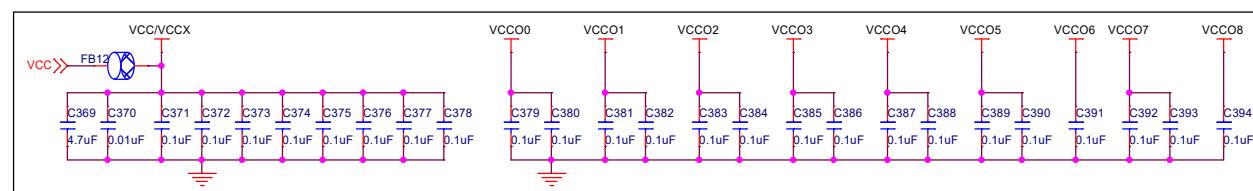
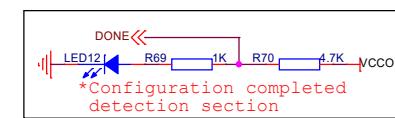
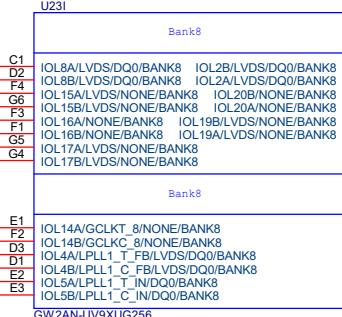
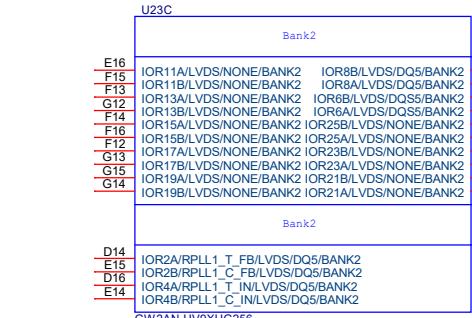
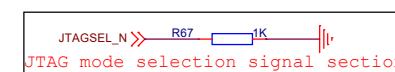
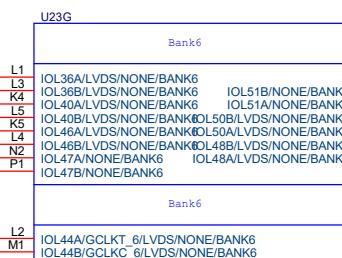
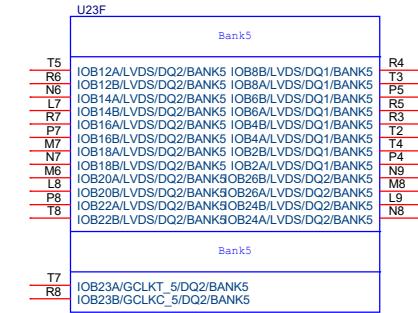
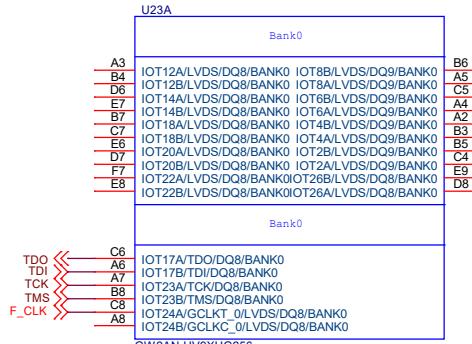
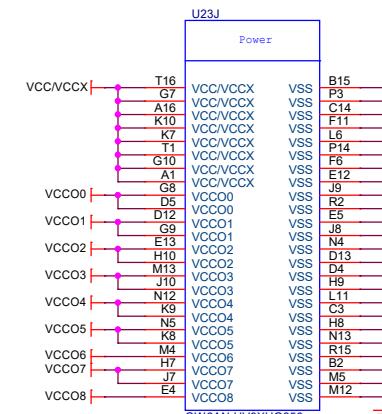
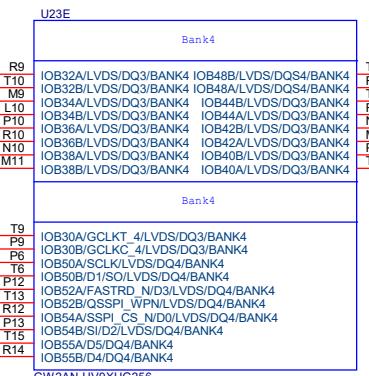
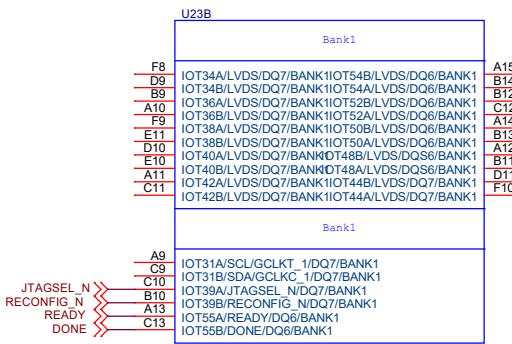
## Notes:

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. External Flash memory is used to store downloaded programs.  
For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
3. It is recommended that add an ESD protection chip to the JTAG download circuit.



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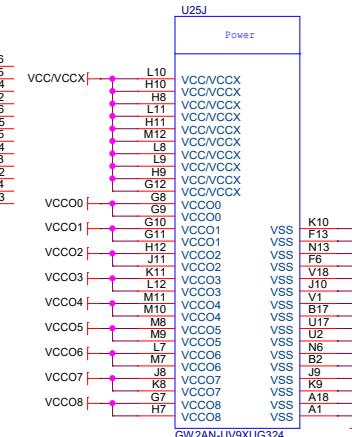
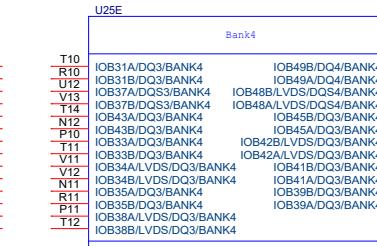
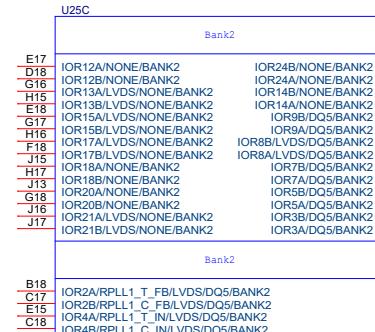
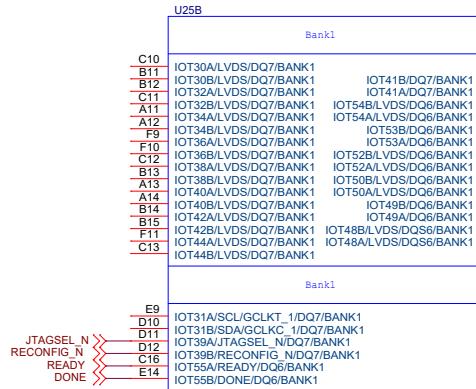
*GW2AN-UV9XUG256*

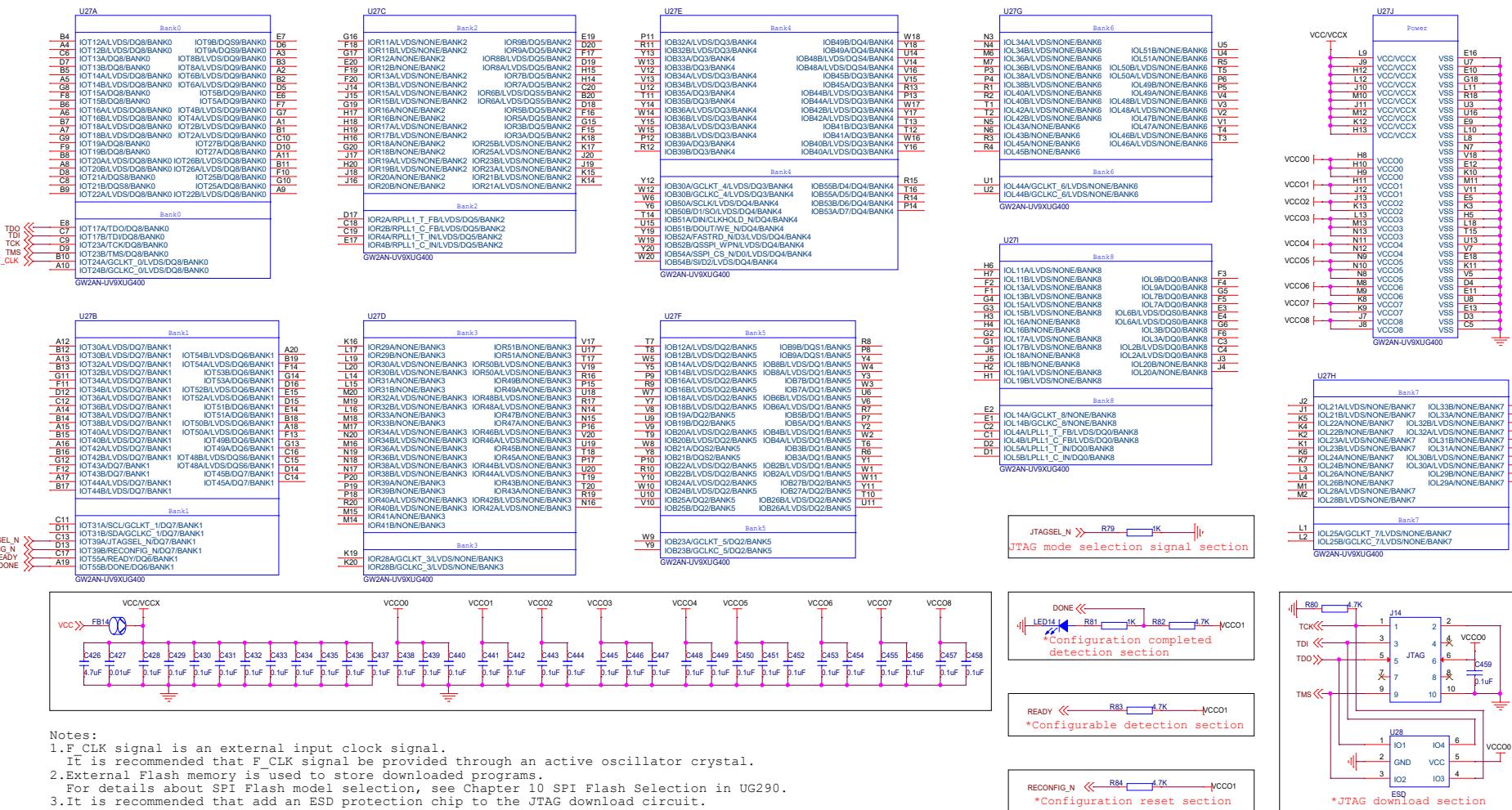


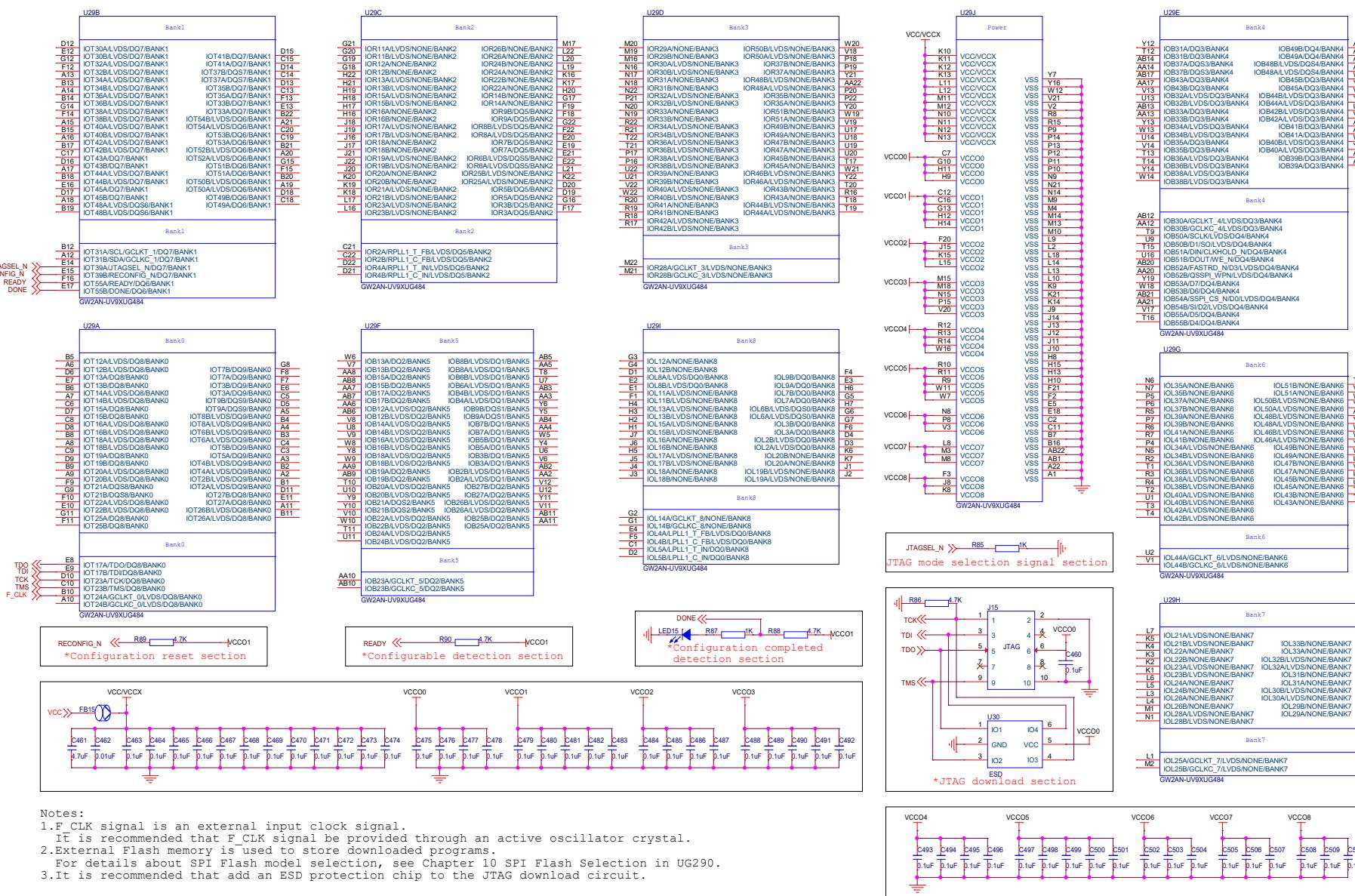
#### Notes:

- 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.External Flash memory is used to store downloaded programs.  
For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290  
3.It is recommended that add an ESD protection chip to the JTAG download circuit







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