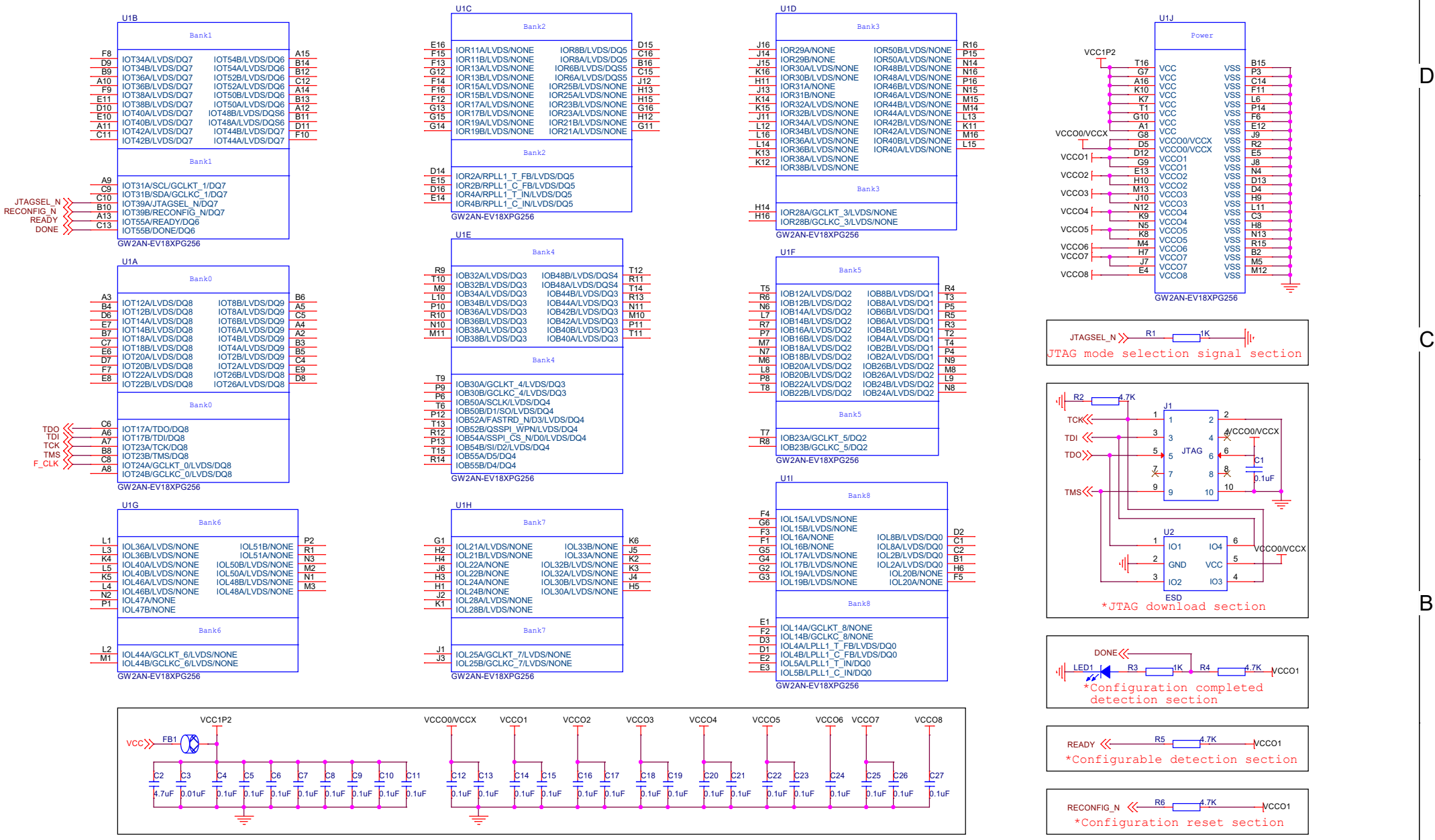
GW2AN-EV18XPG256



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.

Title: GOWIN Minimum System Diagram		
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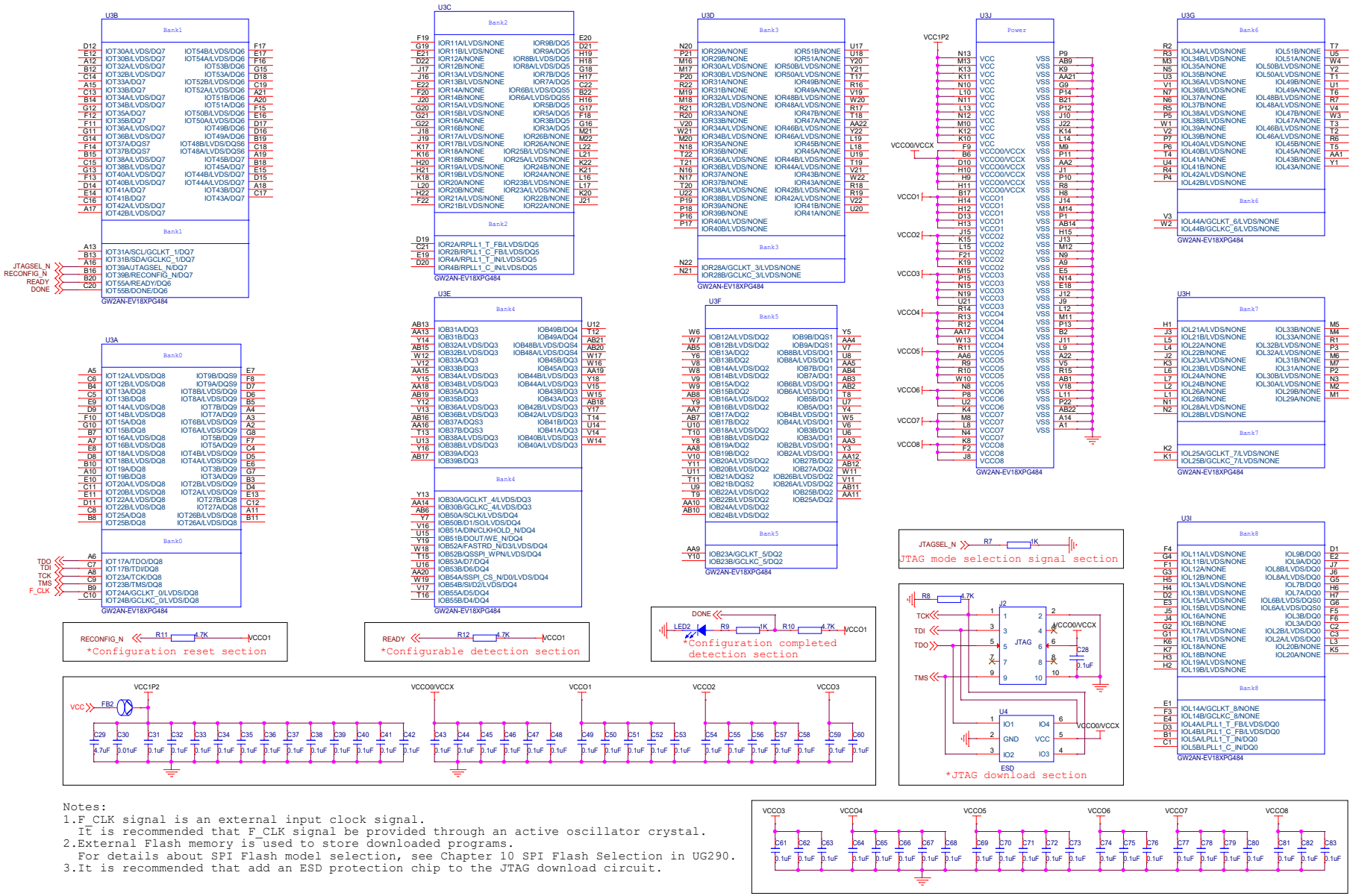
Date: Friday, April 07, 2023	Sheet 1 of 21	



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.

Title	GOWIN Minimum System Diagram	
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Date: Friday, April 07, 2023	Sheet 2 of 21	

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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.

Title: GOWIN Minimum System Diagram		
Size: A3	Document Number: GW2AN-EV18XUG256	Rev: 2.0
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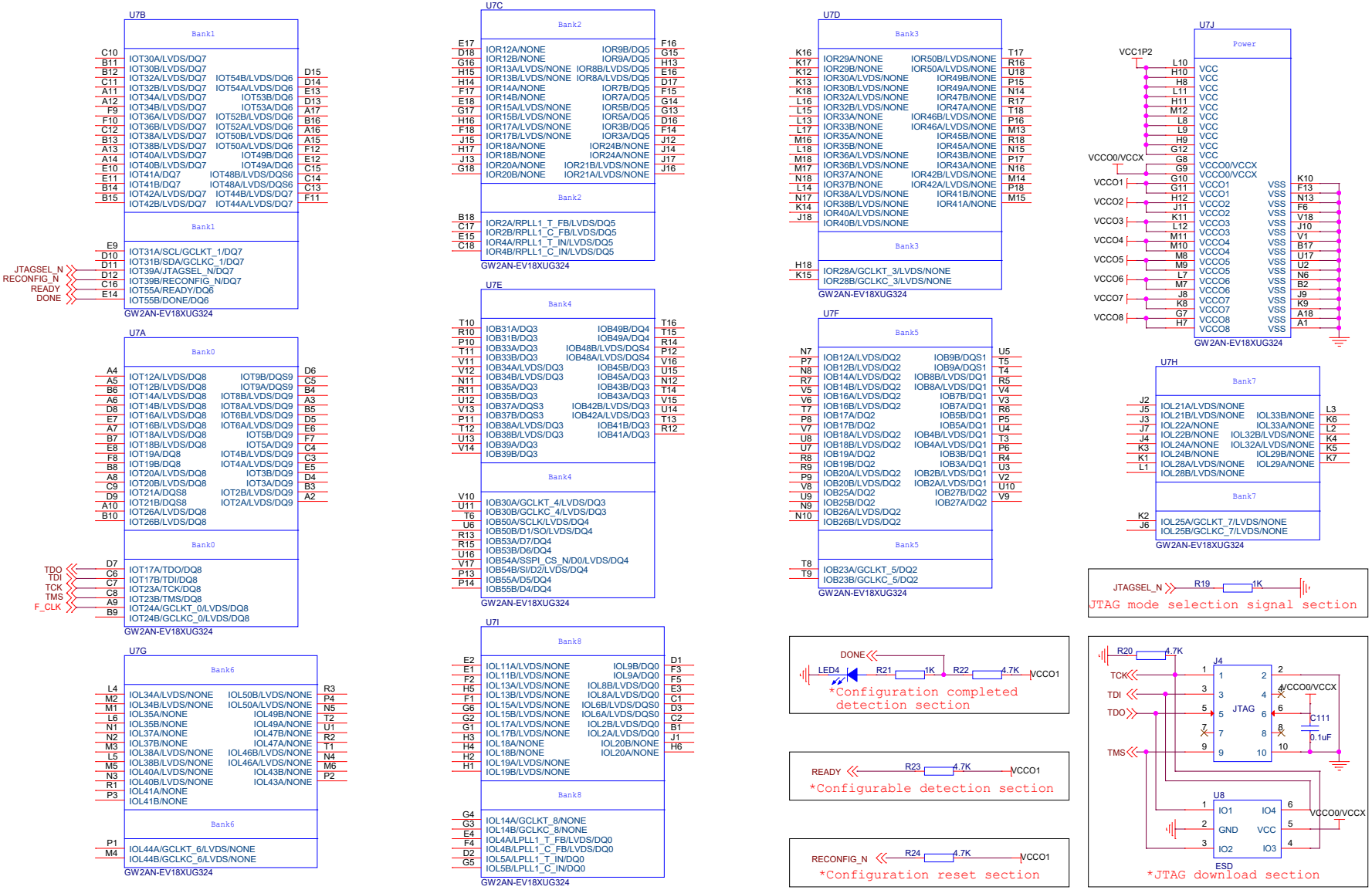
GW2AN-EV18XUG324



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.

Title	GOWIN Minimum System Diagram		
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Custom			
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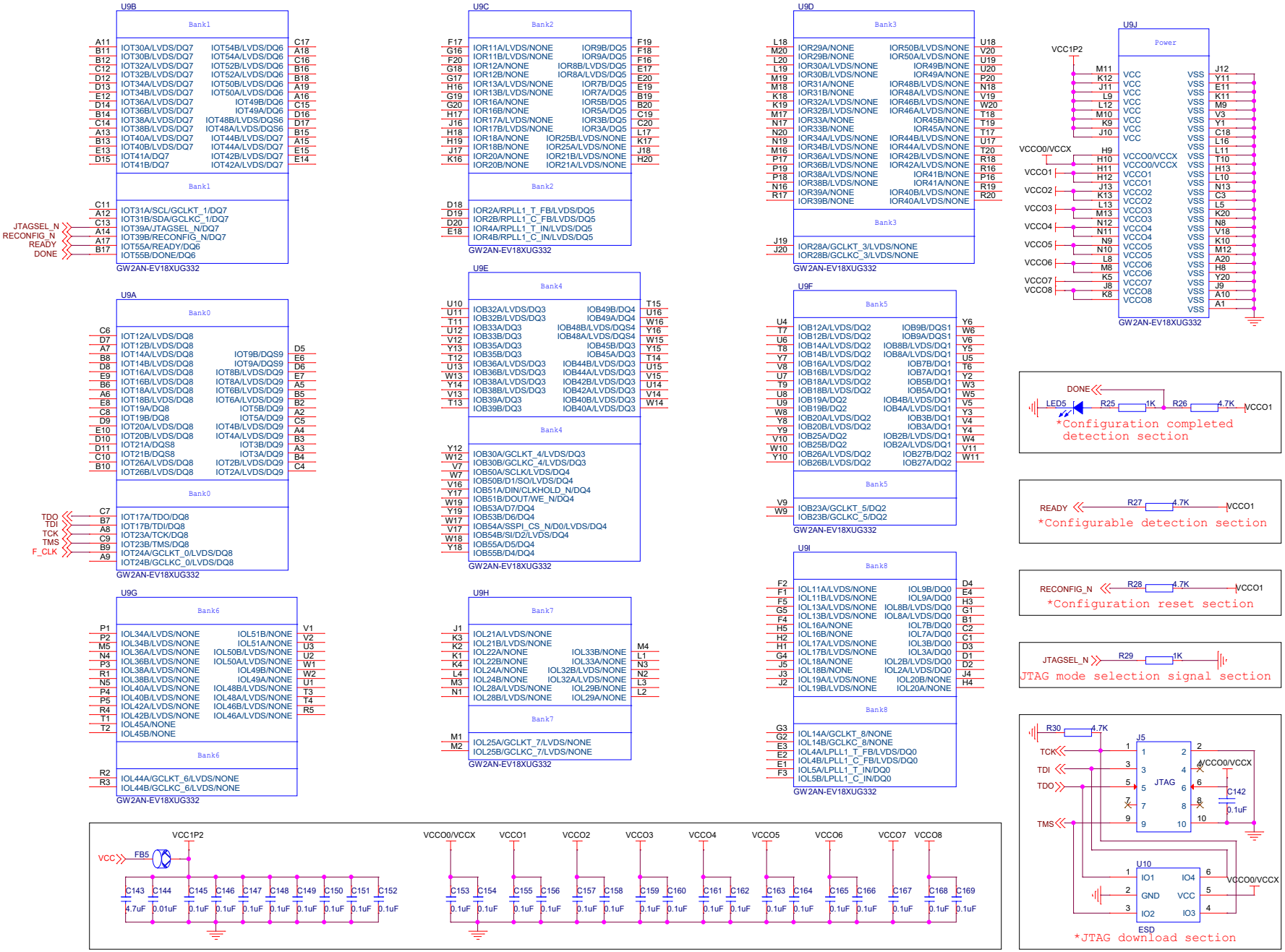
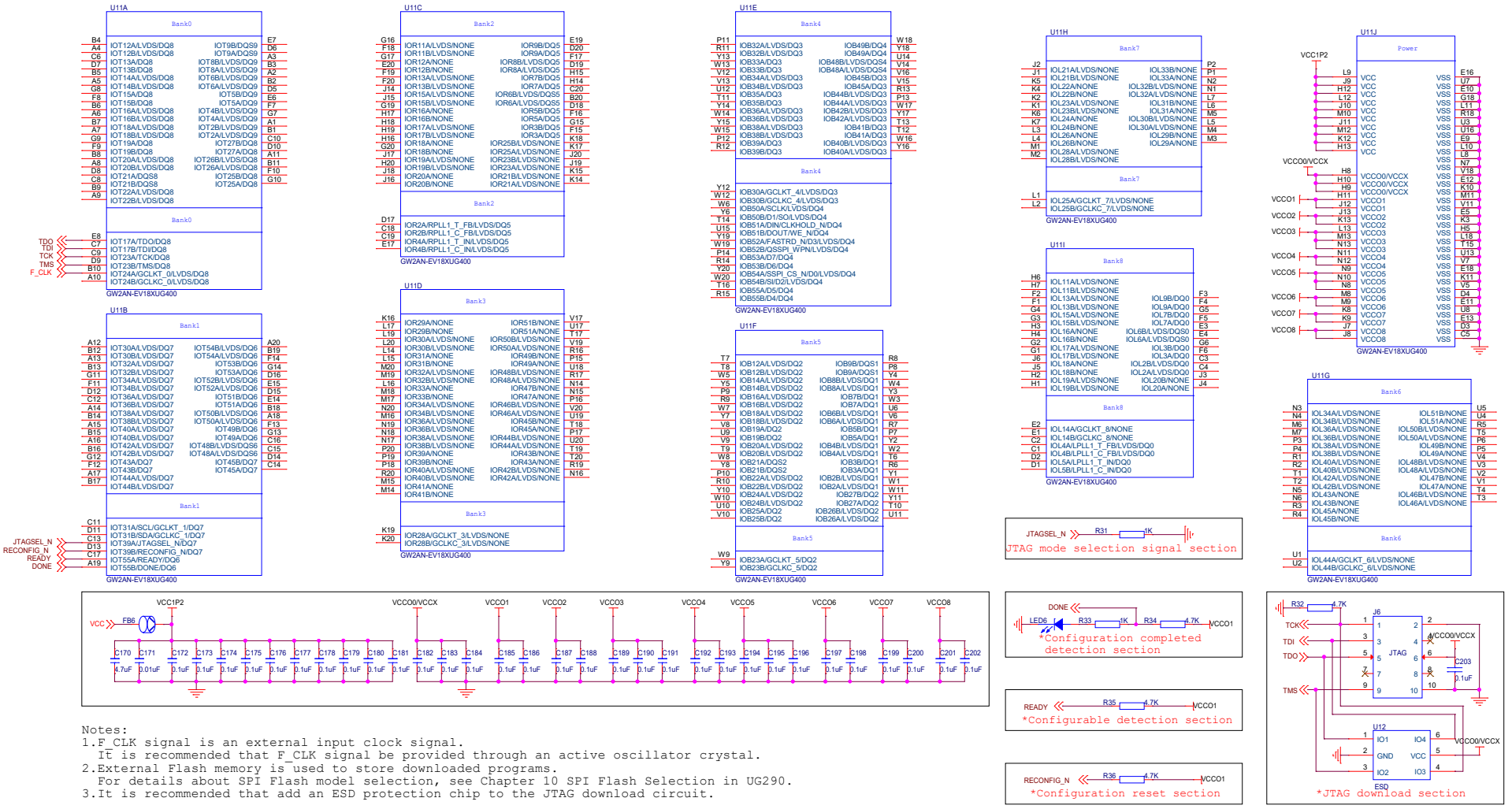
GW2AN-EV18XUG332



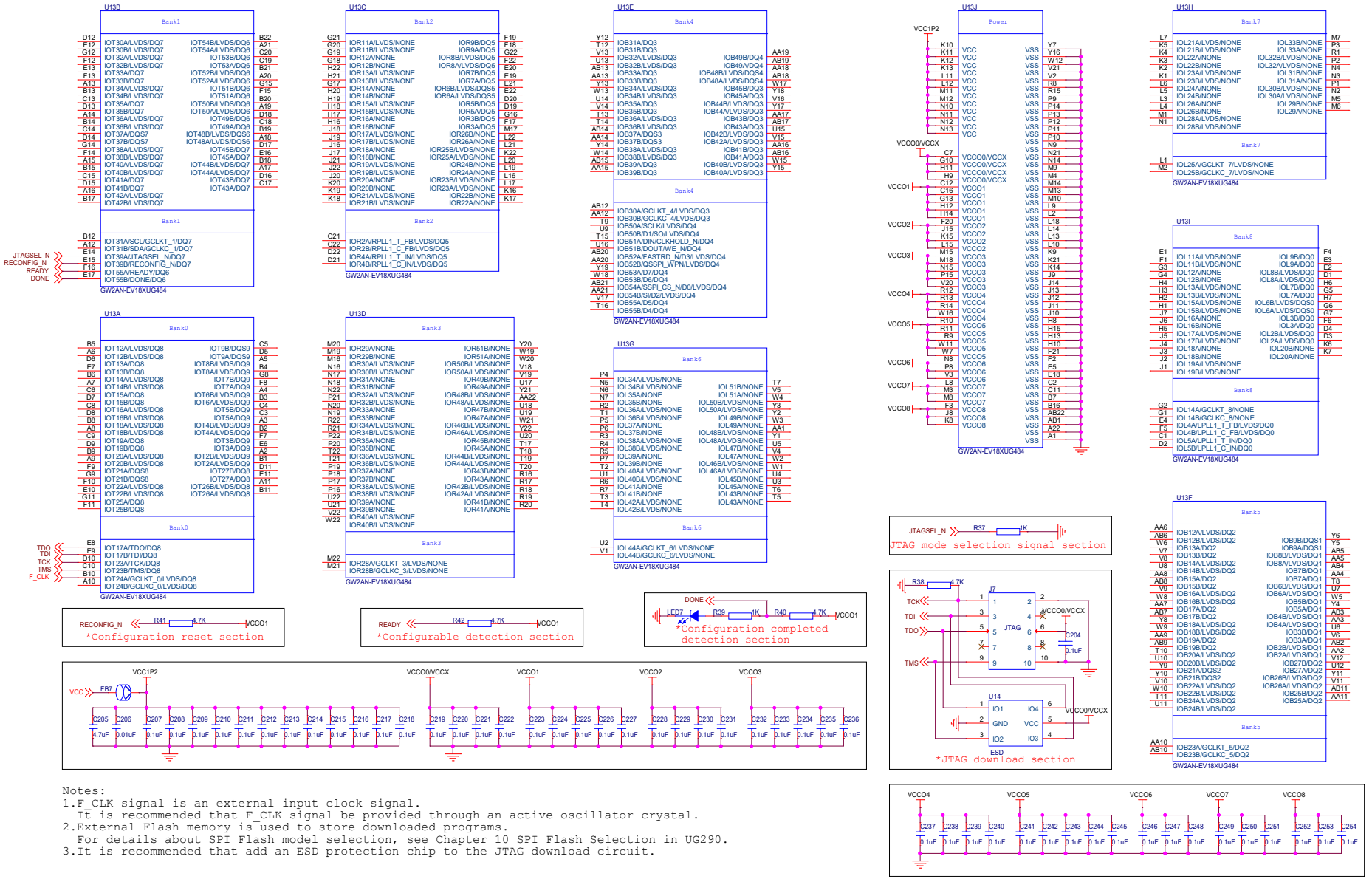
Notes:
1.F_CLK signal is an external input clock signal.
  It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.External Flash memory is used to store downloaded programs.
  For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
3.It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

Title	GOWIN Minimum System Diagram	
Size: Custom	Document Number: GW2AN-EV18XUG332	Rev: 2.0
Date: Friday, April 07, 2023	Sheet 5 of 21	



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.

Title	GOWIN Minimum System Diagram		
Size C	Document Number GW2AN-EV18XUG400		Rev 2.0
Date: Friday, April 07, 2023	Sheet 6 of 21		



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.

Title	GOWIN Minimum System Diagram	
Size C	Document Number GW2AN-EV18XUG484	Rev 2.0
Date: Friday, April 07, 2023	Sheet 7 of 21	

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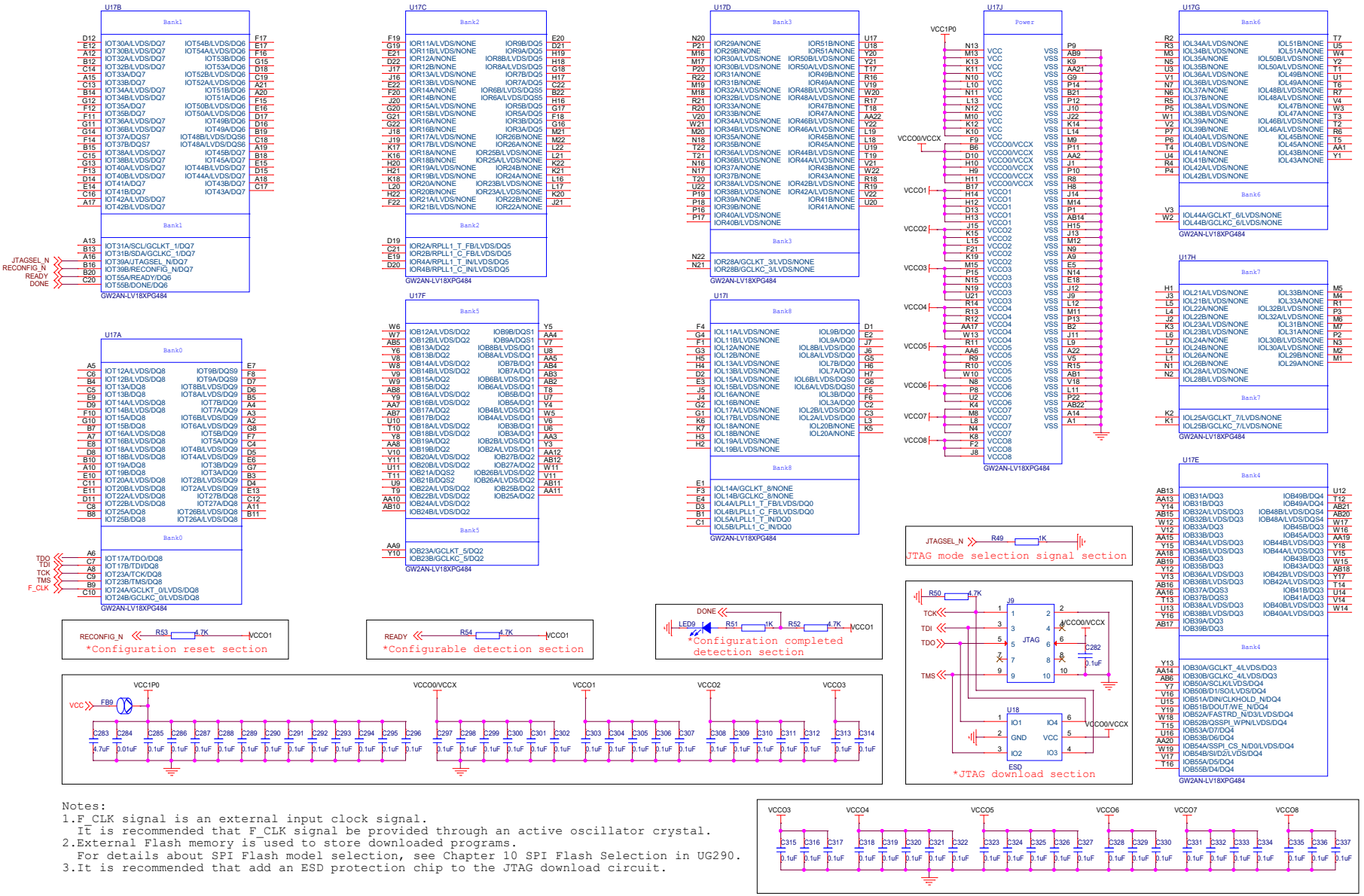
Notes:

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.

Title: GOWIN Minimum System Diagram		
Size: A3	Document Number: GW2AN-LV18XPG256	Rev: 2.0
Date: Friday, April 07, 2023	Sheet 8 of 21	



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.

Title	GOWIN Minimum System Diagram	
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GW2AN-LV18XUG256

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.

Title: GOWIN Minimum System Diagram		
Size: A3	Document Number: GW2AN-LV18XUG256	Rev: 2.0
Date: Friday, April 07, 2023	Sheet 10 of 21	

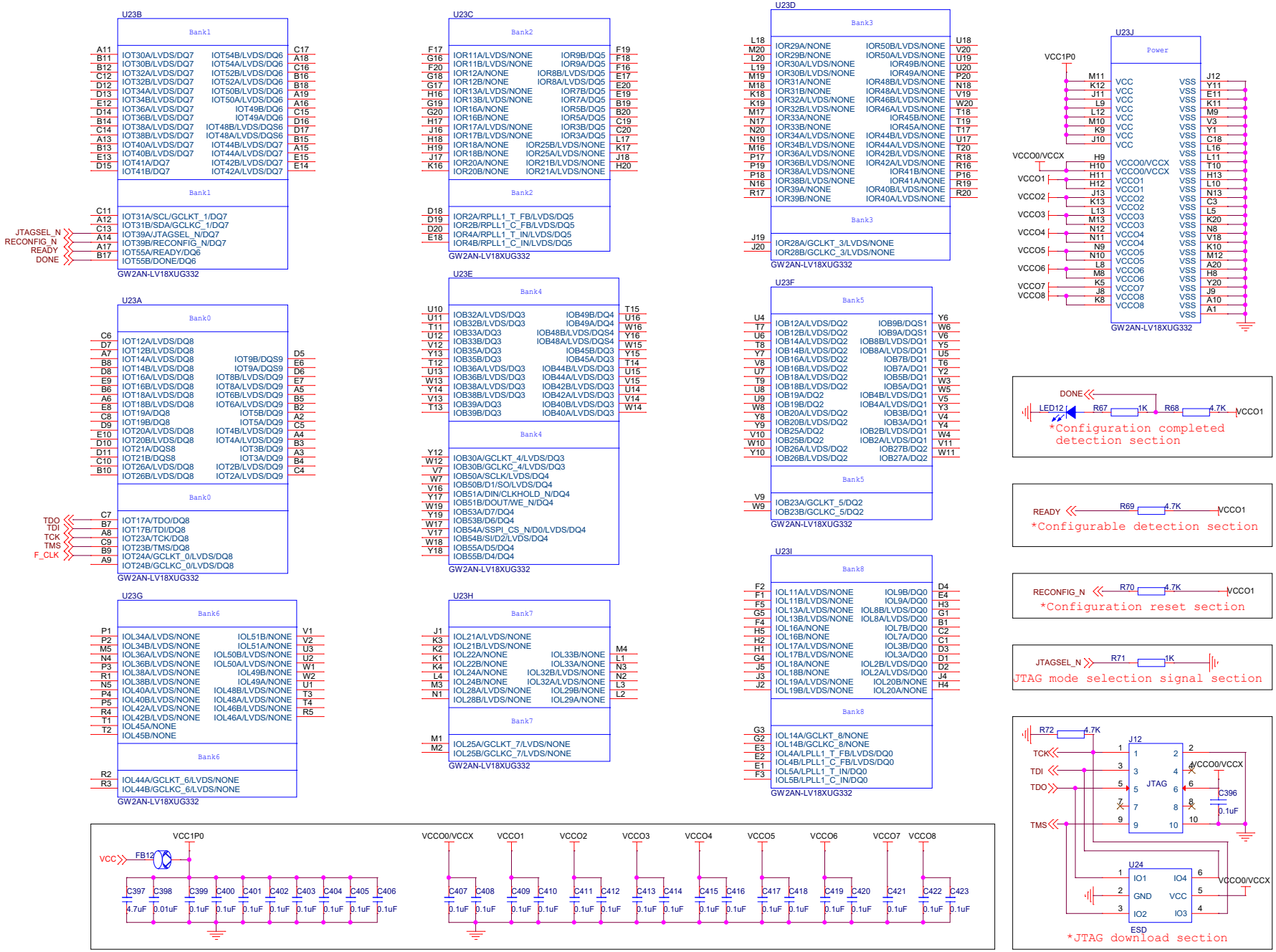
GW2AN-LV18XUG324

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.

Title	GOWIN Minimum System Diagram	
Size: Custom	Document Number: GW2AN-LV18XUG324	Rev: 2.0
Date: Friday, April 07, 2023	Sheet 11 of 21	

GW2AN-LV18XUG332



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.

Title	GOWIN Minimum System Diagram		
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Custom			
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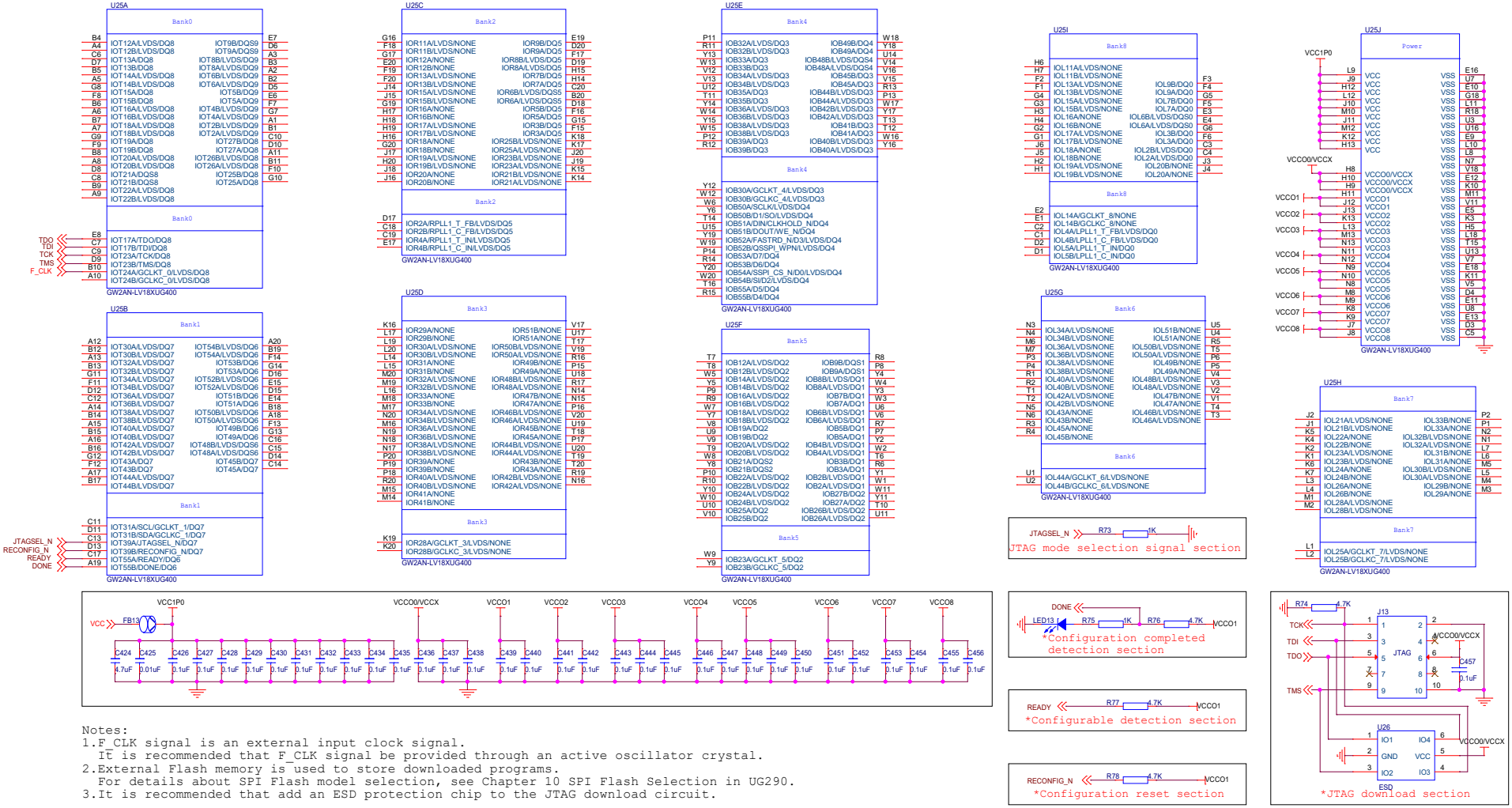
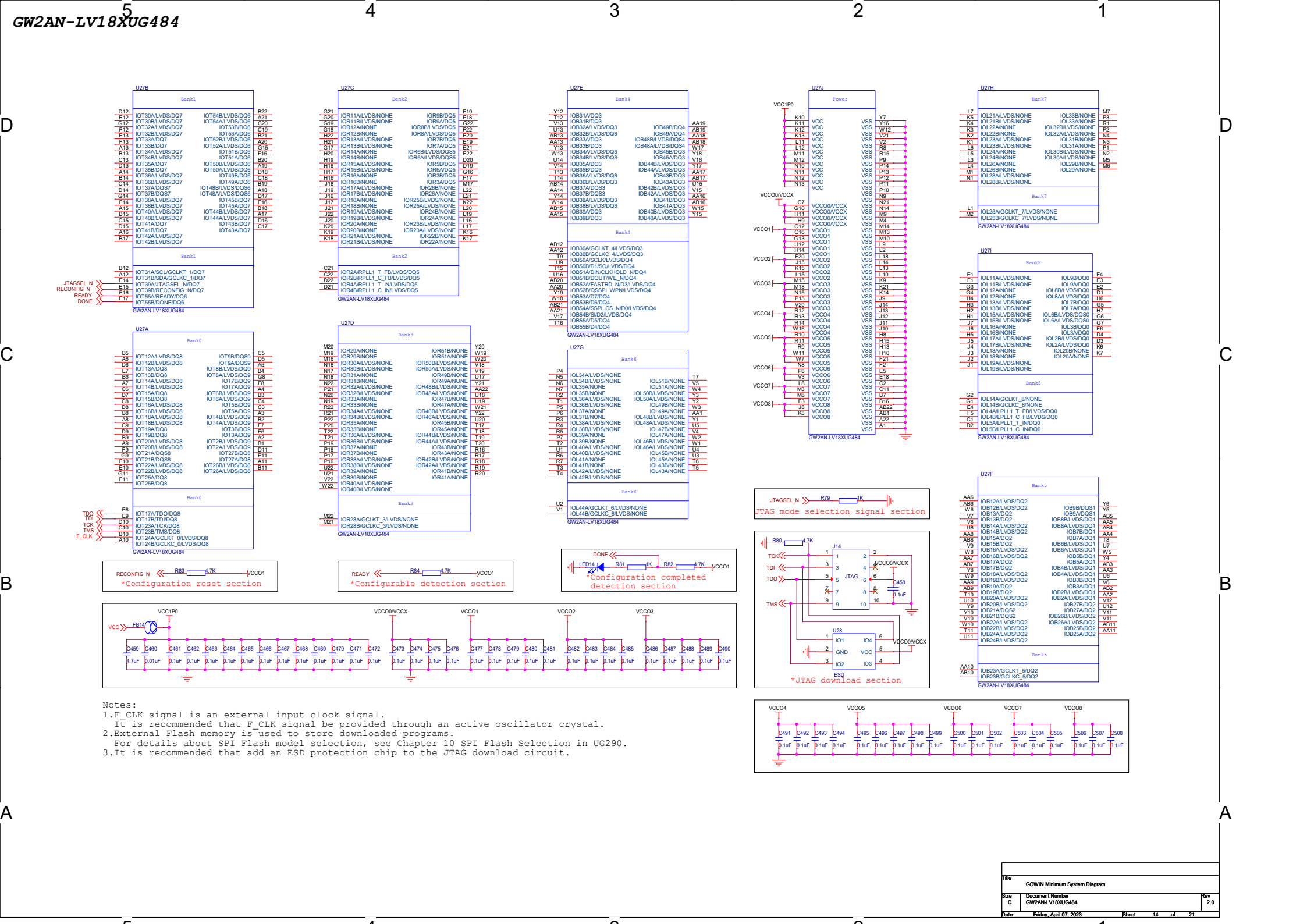


Notes:
1.F_CLK signal is an external input clock signal.
  It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.External Flash memory is used to store downloaded programs.
  For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
3.It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

Title	GOWIN Minimum System Diagram	
Size C	Document Number GW2AN-LV18XUG400	Rev 2.0
Date: Friday, April 07, 2023	Sheet 13 of 21	



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.

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. 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.

Title: GOWIN Minimum System Diagram		
Size: A3	Document Number: GW2AN-UV18XPG256	Rev: 2.0
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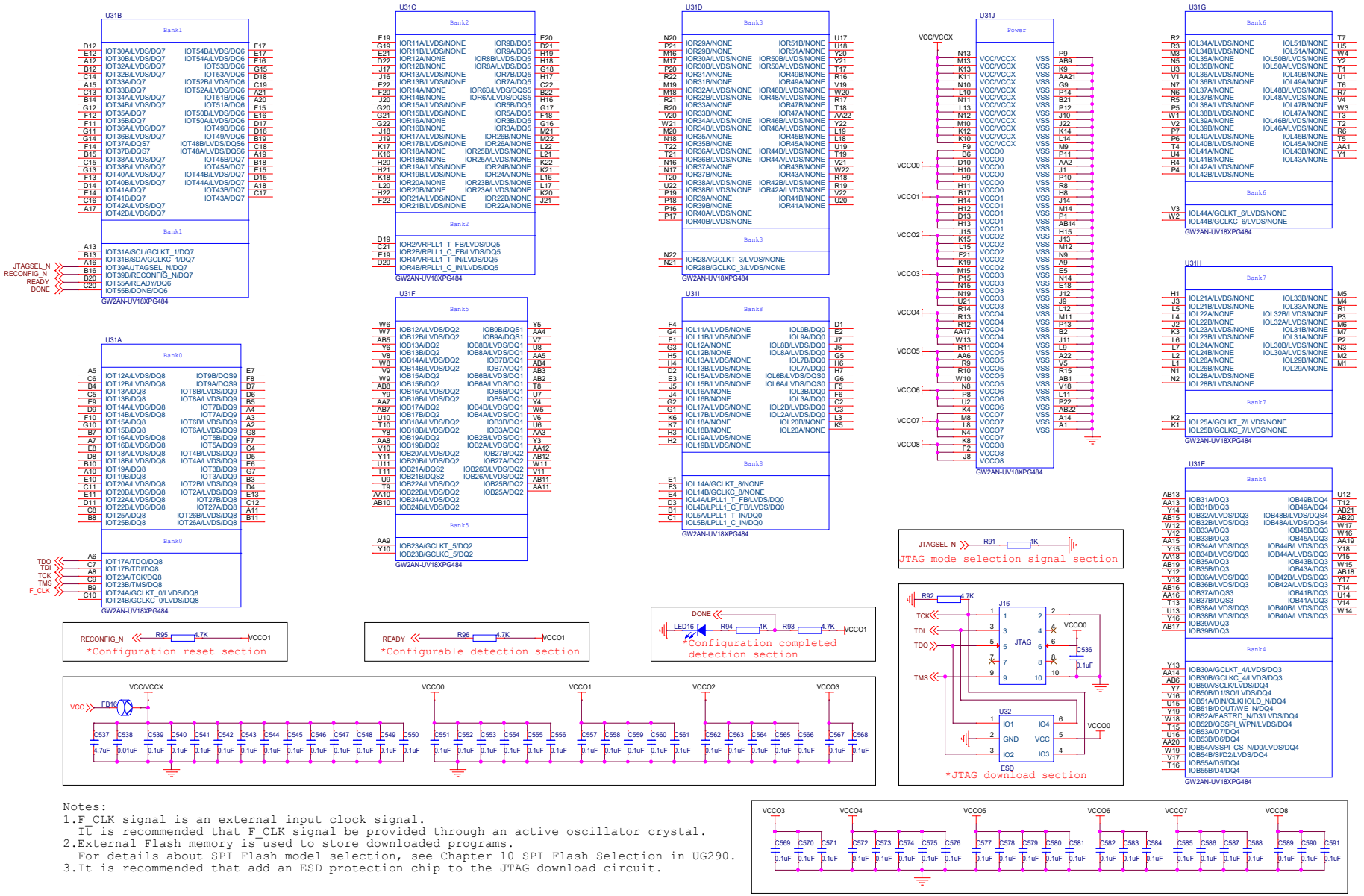
U31B
U31C
U31D
U31J
U31G
U31A
U31F
U31I
U31H
U31E
JTAGSEL_N
RECONFIG_N
READY
DONE
TDO
TDI
TCK
TMS
F_CLK
*Configuration reset section
*Configurable detection section
*configuration completed detection section
JTAG mode selection signal section
*JTAG download section
Notes:
1.F_CLK signal is an external input clock signal.
It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.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.
GOWIN Minimum System Diagram
GW2AN-UV18XPG484
Friday, April 07, 2023

GW2AN-UV18XUG256

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.

Title: GOWIN Minimum System Diagram		
Size: A3	Document Number: GW2AN-UV18XUG256	Rev: 2.0
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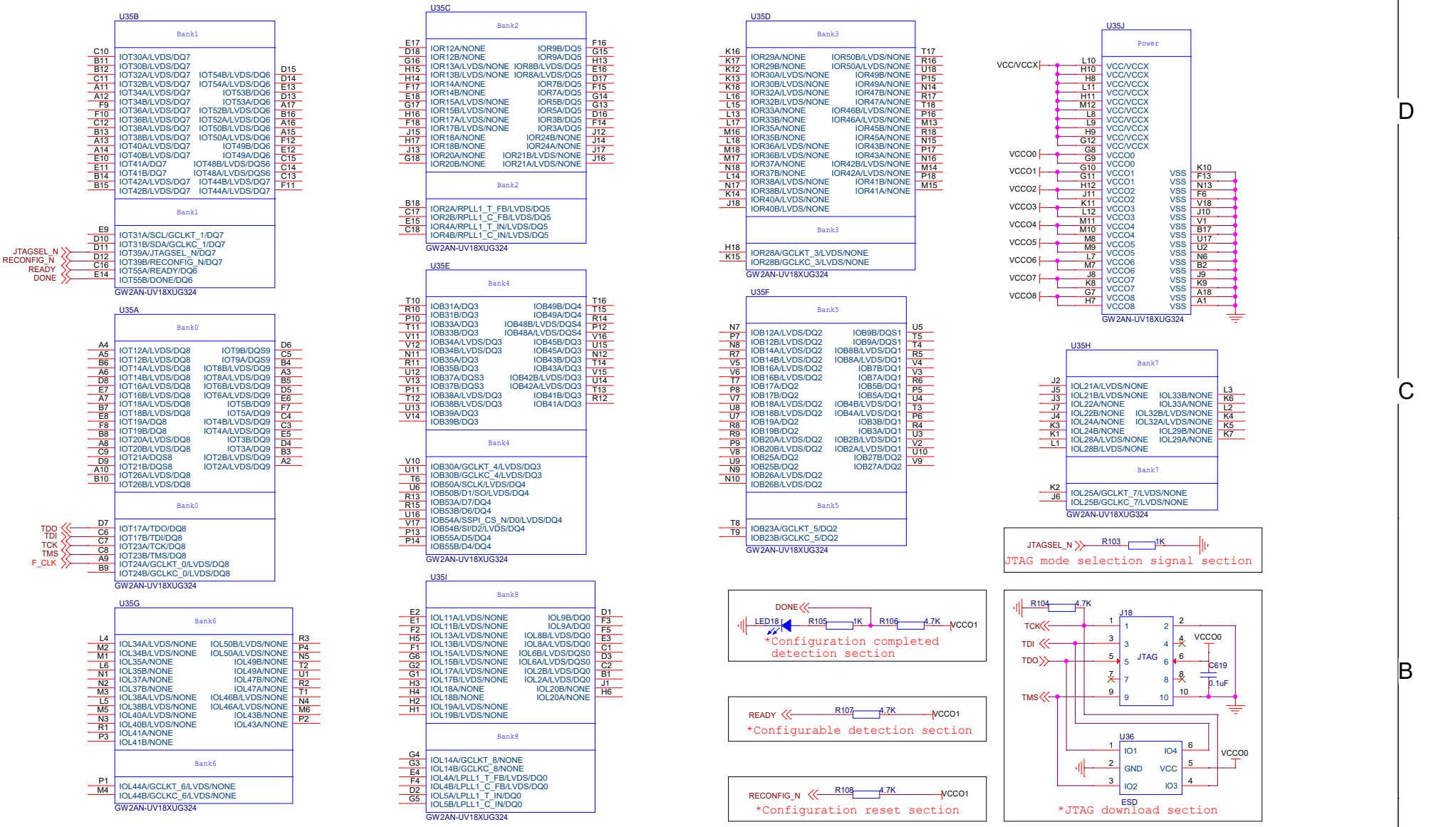
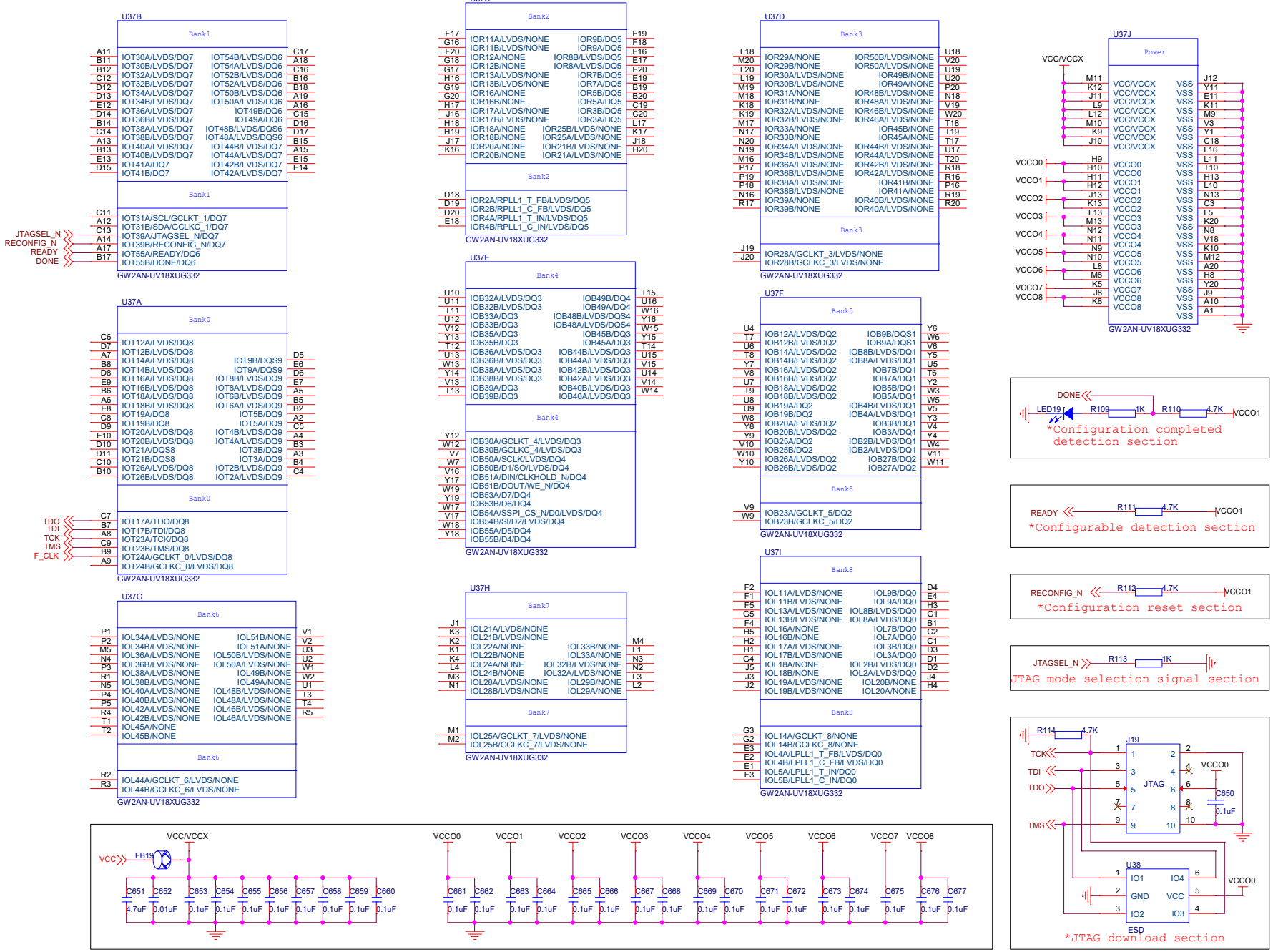
GW2AN-UV18XUG324



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.

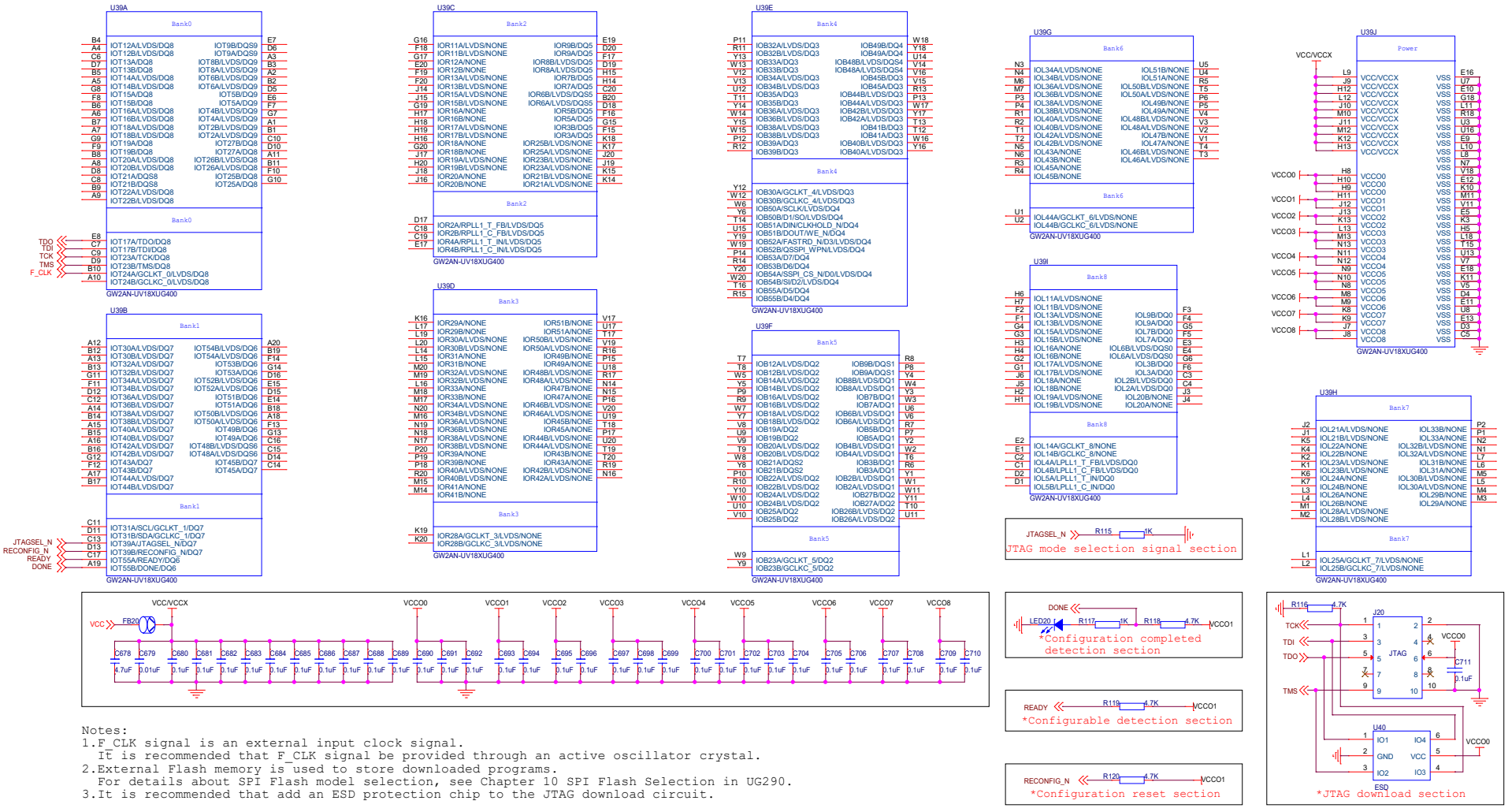
Title	GOWIN Minimum System Diagram	
Size: Custom	Document Number: GW2AN-UV18XUG324	Rev: 2.0
Date: Friday, April 07, 2023	Sheet 18 of 21	

GW2AN-UV18XUG332



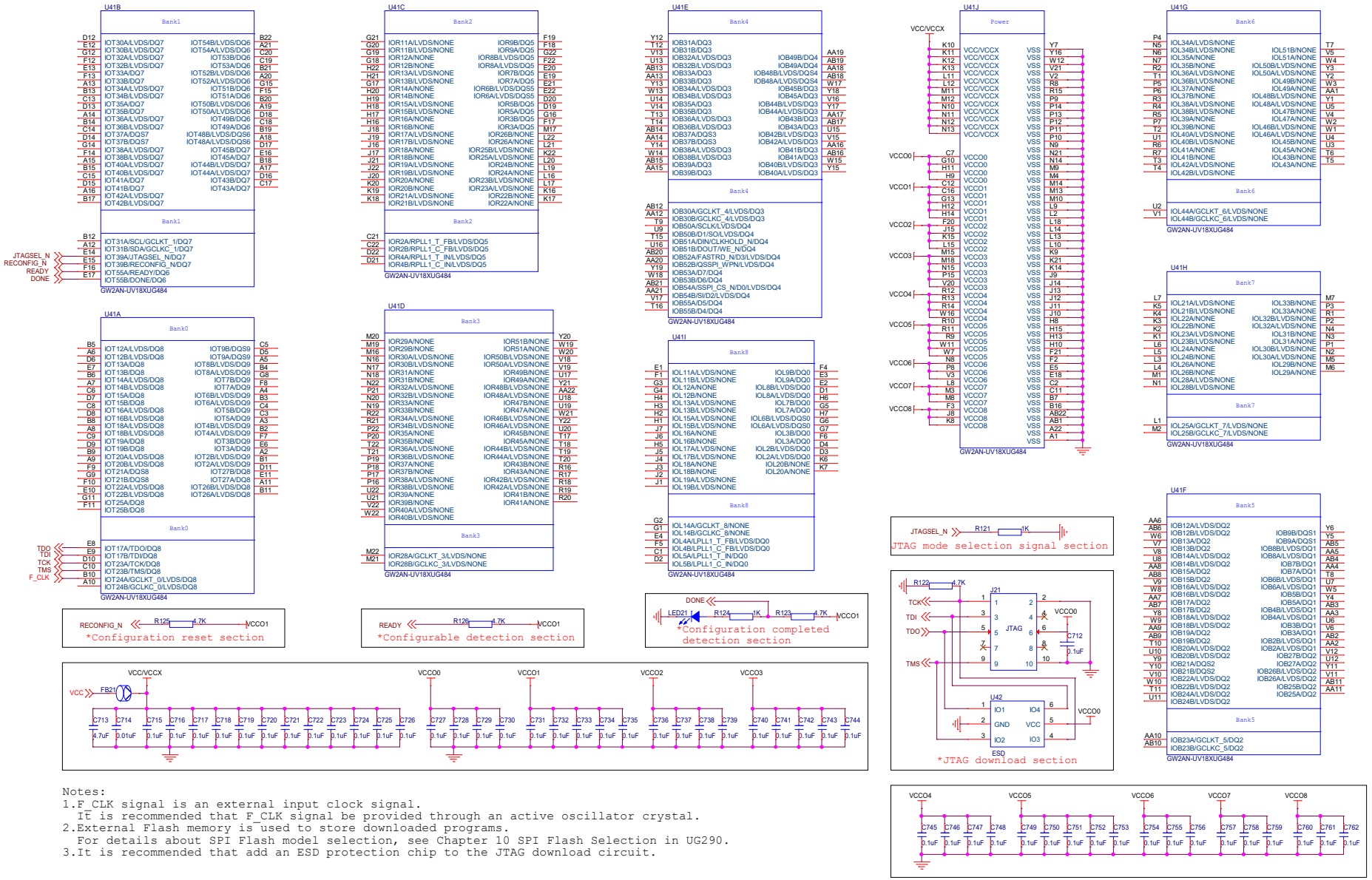
Notes:
1.F_CLK signal is an external input clock signal.
  It is recommended that F_CLK signal be provided through an active oscillator crystal.
2.External Flash memory is used to store downloaded programs.
  For details about SPI Flash model selection, see Chapter 10 SPI Flash Selection in UG290.
3.It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

Title	GOWIN Minimum System Diagram	
Size: Custom	Document Number: GW2AN-UV18XUG332	Rev: 2.0
Date: Friday, April 07, 2023	Sheet 19 of 21	



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.

Title	GOWIN Minimum System Diagram	
Size C	Document Number GW2AN-UV18XUG400	Rev 2.0
Date: Friday, April 07, 2023	Sheet 20 of 21	



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.

Title	GOWIN Minimum System Diagram	
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