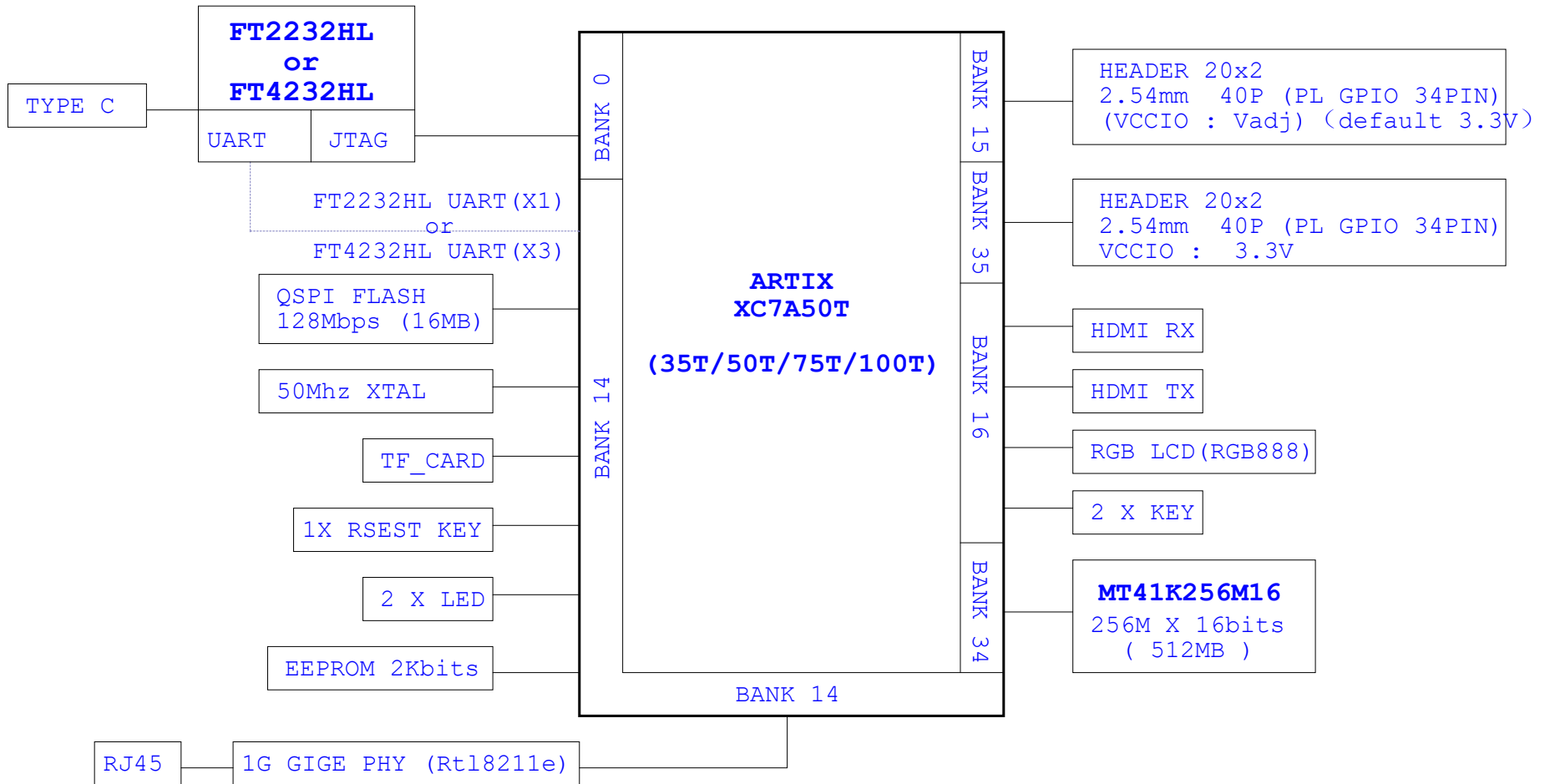
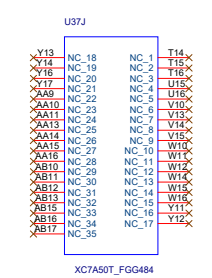
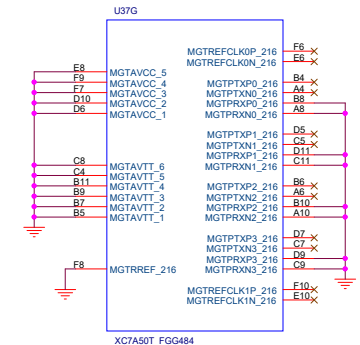
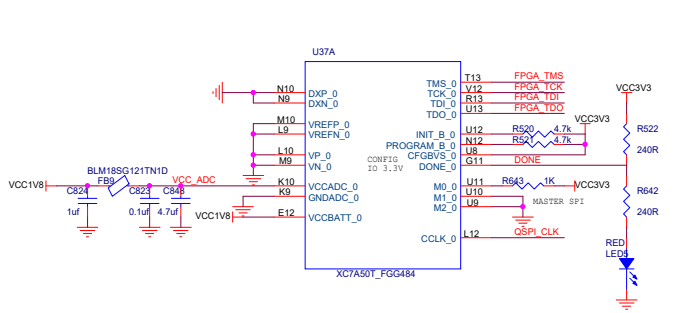


# Smart Artix Block Diagram VER : 1.3

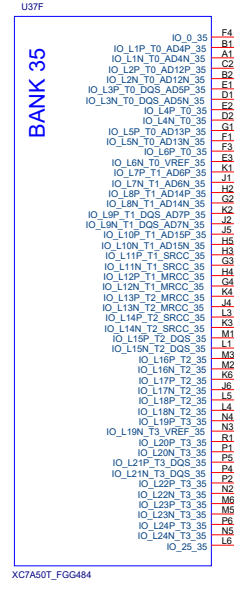
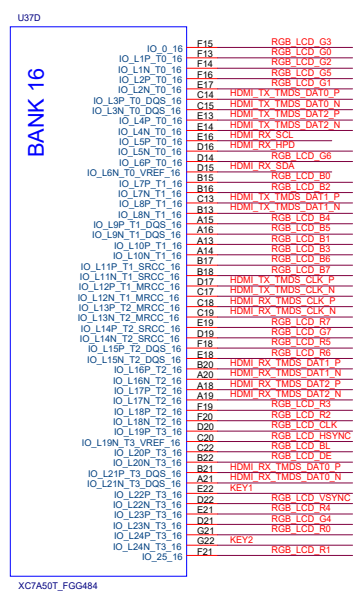
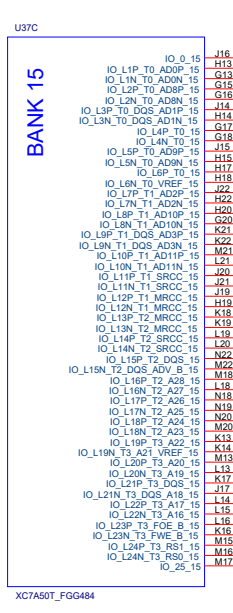
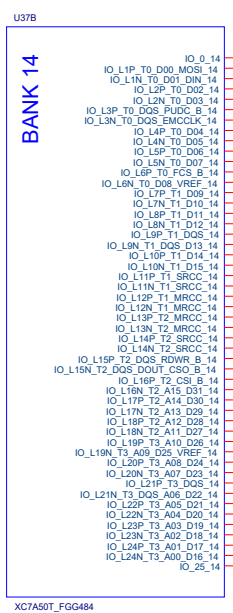


**VCCIO : BANK 15 Vadj (default 3.3V)  
BANK 35 3.3V**

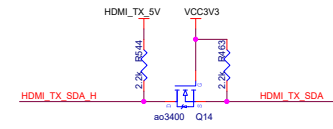
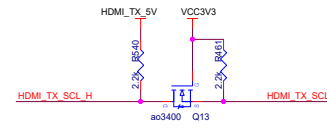
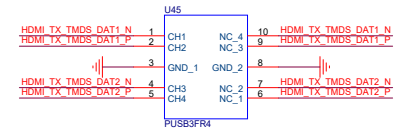
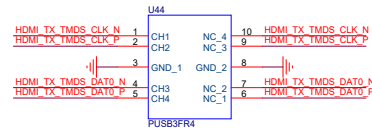
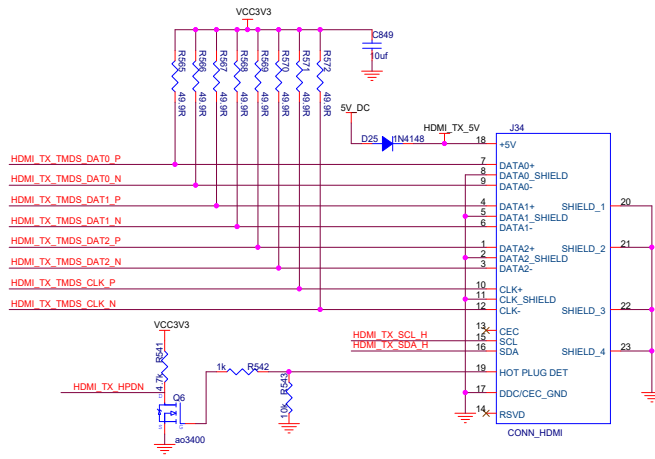
**HELLOFPGA.COM**



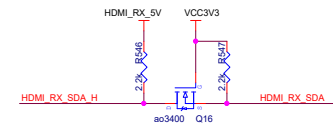
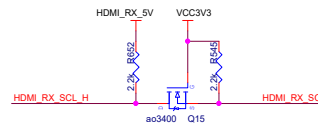
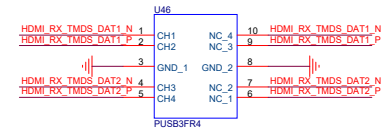
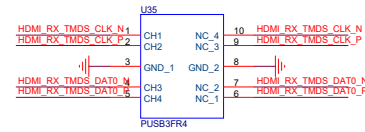
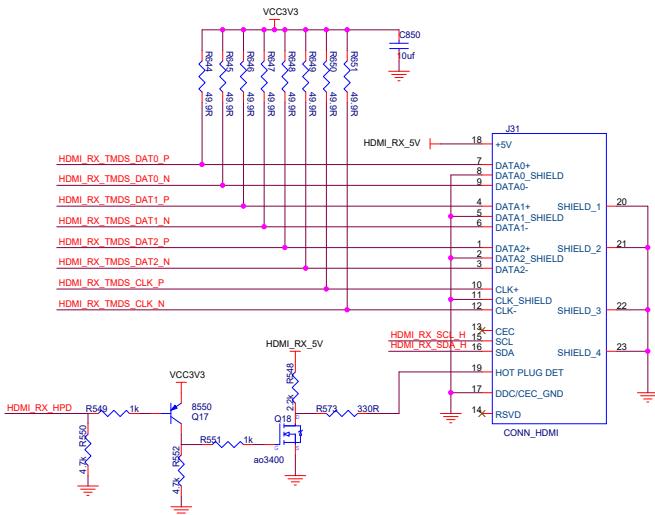
# HELLOFGA.COM





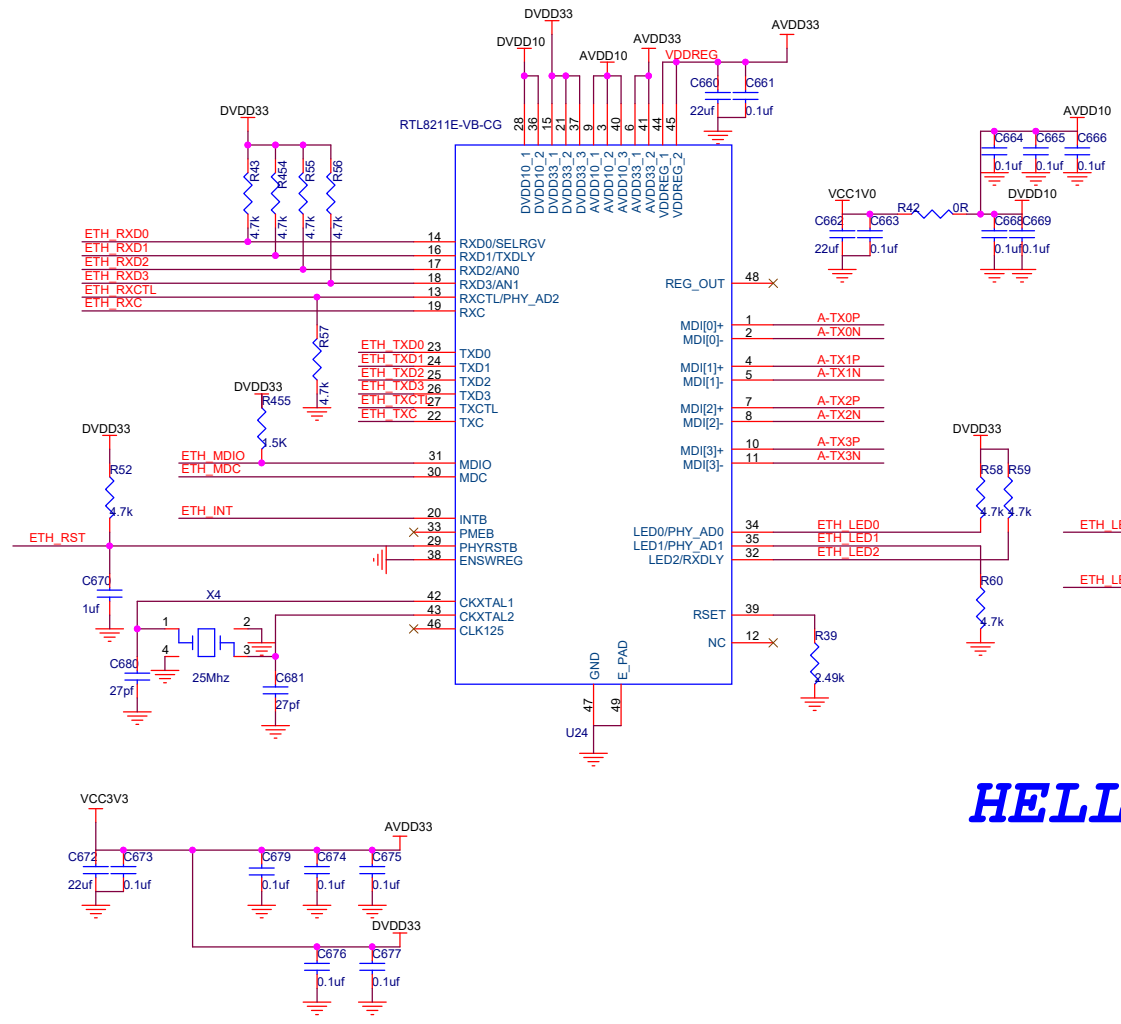


## HDMI\_TX

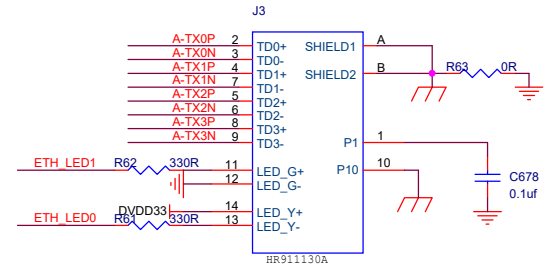


## HDMI\_RX

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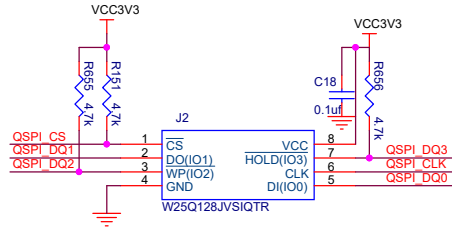
# NET PART



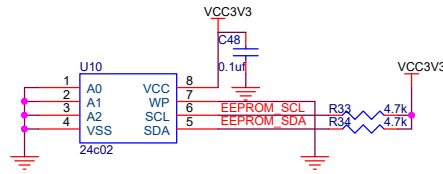
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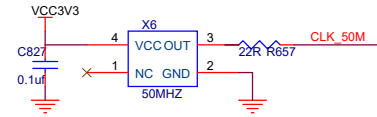
# QSPI FLASH



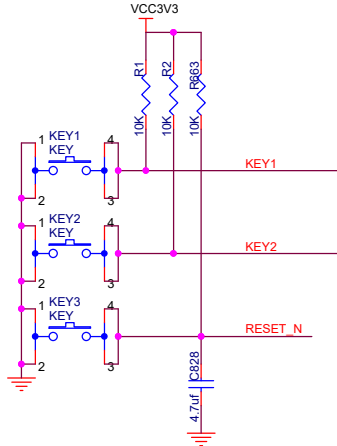
# EEPROM



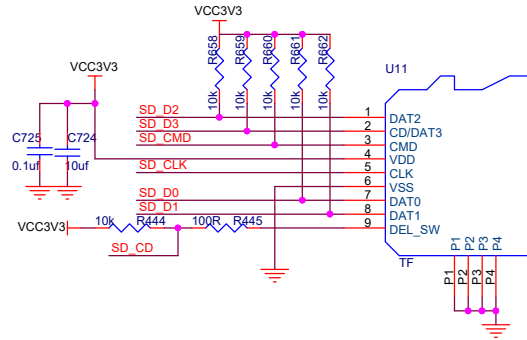
# FPGA CLK



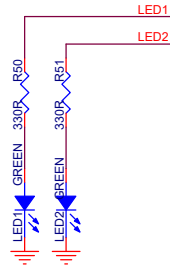
# KEY



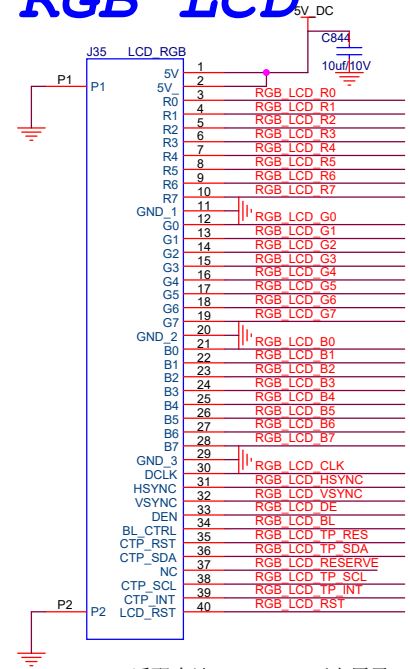
# TF CARD



# LED



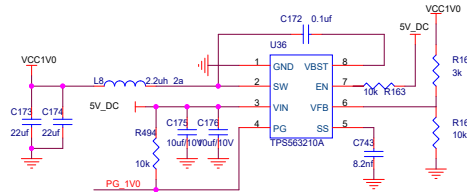
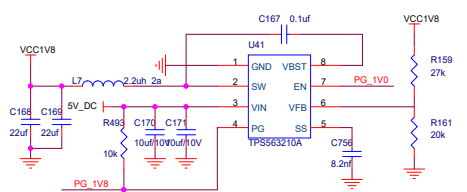
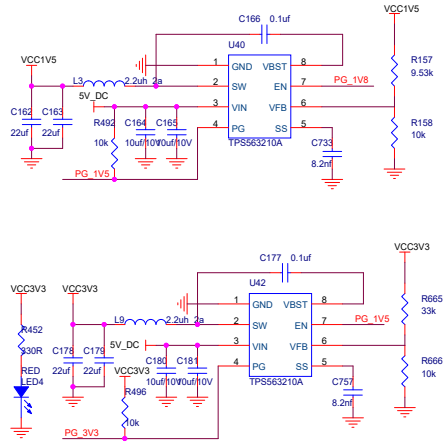
# RGB LCD



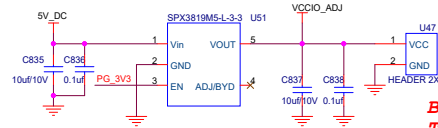
FPC 适配本站RGB LCD & 正点原子40P LCD  
RGB LCD Interface  
RGB888

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通过更换LDO芯片 (SPX3819M5),  
可以实现对BANK15电压的调节  
By replacing the LDO chip (SPX3819M5),  
the voltage of BANK15 can be adjusted.



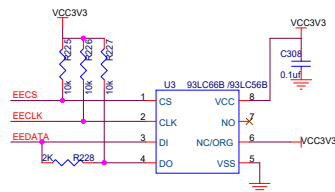
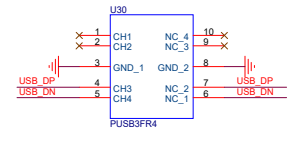
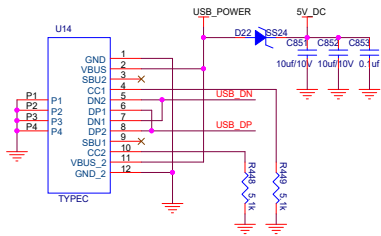
- SPX3819M5-L-3-3 : 3.3V
- SPX3819M5-L-2-5 : 2.5V
- SPX3819M5-L-1-8 : 1.8V
- SPX3819M5-L-1-2 : 1.2V

**BANK 电压不要超过3.3V**  
**The BANK voltage should not exceed 3.3V.**

Default Vadj = 3.3V

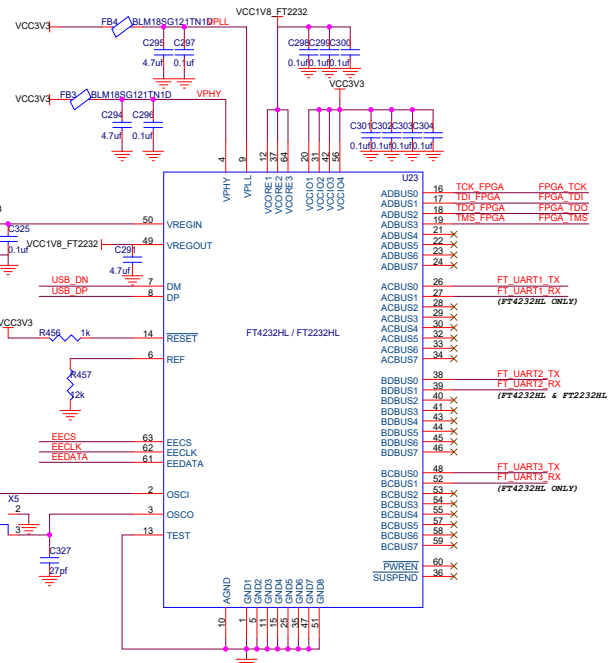


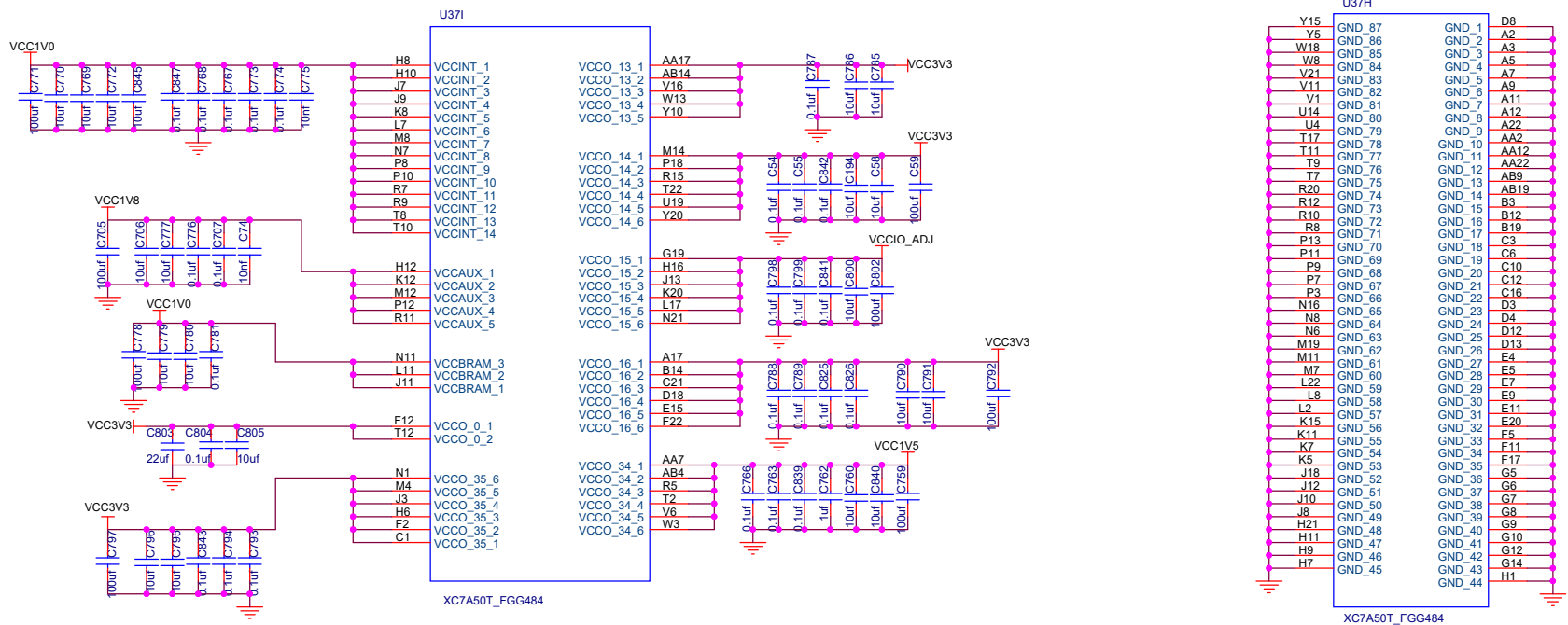
## POWER



## JTAG & UART

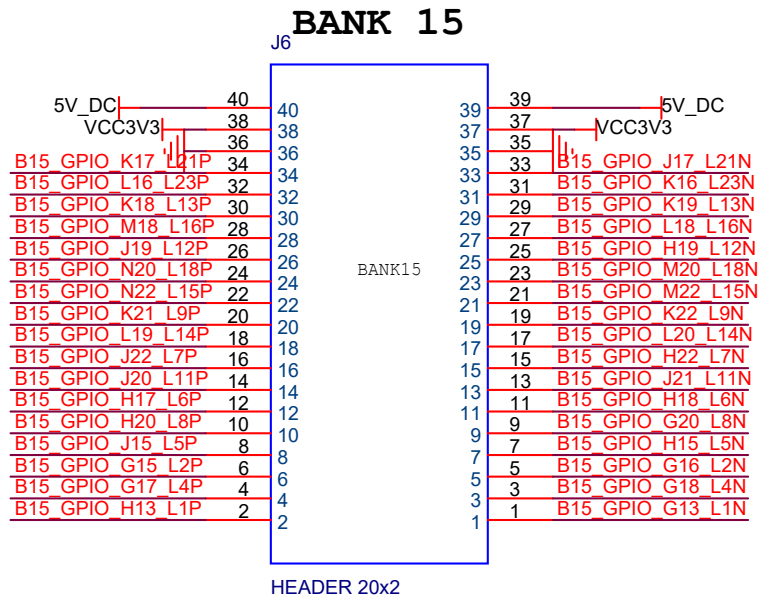
FT4232HL 3X UART  
FT2232HL 1X UART



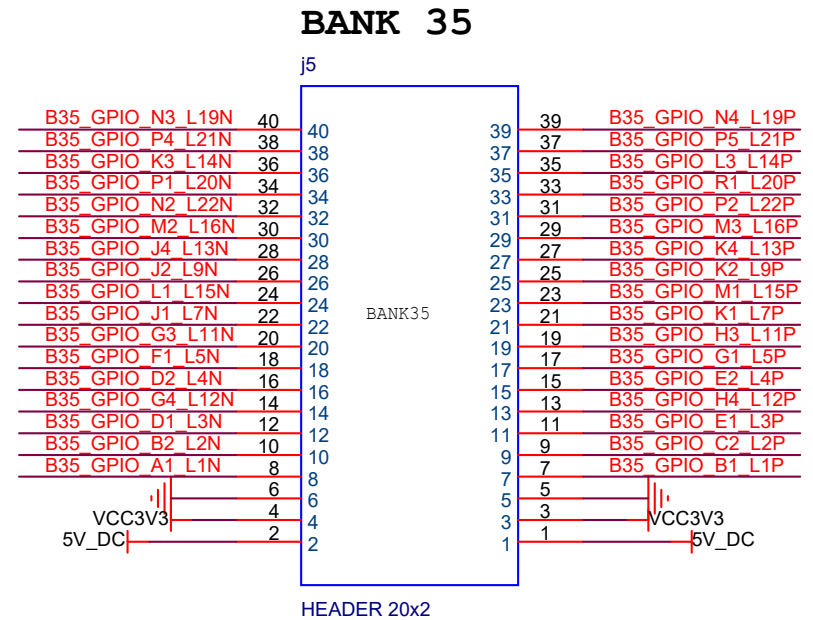


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**VCCIO :VADJ**  
**Default Vadj = 3.3V**



**VCCIO :3.3V**

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### KEY & LED

KEY1	E22
KEY2	G22
LED1	R17
LED2	P16

### RESET (KEY)

RESET_n	T20
(KEY3)	

### 50M CLOCK

CLK	Y18
-----	-----

### HDMI

	RX	TX
CLK	C18	D17
D0	B21	C14
D1	B20	C13
D2	A18	E13
SDA	D15	N14
SCL	E16	N13
HPD	D16	N15

### UART

TX2	P15
-----	-----

RX2	R16
-----	-----

TX1	R14
-----	-----

RX1	P14
-----	-----

TX3	U21
-----	-----

RX3	T21
-----	-----

(FT4232HL ONLY)

### EEPROM

SCL	U18
-----	-----

SDA	T18
-----	-----

### TF CARD

SD_D0	U20
-------	-----

SD_D1	V18
-------	-----

SD_D2	V22
-------	-----

SD_D3	Y21
-------	-----

SD_CMD	Y22
--------	-----

SD_CLK	V20
--------	-----

SD_CD	U17
-------	-----

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### GigE phy

ETH TD0	AB20
---------	------

ETH TD1	AA19
---------	------

ETH TD2	Y19
---------	-----

ETH TD3	AB18
---------	------

ETH TX_CTL	AA18
------------	------

ETH TXC	AB21
---------	------

ETH RD0	AA20
---------	------

ETH RD1	W22
---------	-----

ETH RD2	W21
---------	-----

ETH RD3	W20
---------	-----

ETH RX_CTL	AA21
------------	------

ETH RXC	W19
---------	-----

ETH MDIO	V17
----------	-----

ETH MDC	W17
---------	-----

ETH INT	AB22
---------	------

ETH RST	V19
---------	-----

### RGB\_LCD

R7	E19
----	-----

R6	E18
----	-----

R5	F18
----	-----

R4	E21
----	-----

R3	F19
----	-----

R2	F20
----	-----

R1	F21
----	-----

R0	G21
----	-----

G7	D19
----	-----

G6	D14
----	-----

G5	F16
----	-----

G4	D21
----	-----

G3	F15
----	-----

G2	F14
----	-----

G1	E17
----	-----

G0	F13
----	-----

B7	B18
----	-----

B6	B17
----	-----

B5	A16
----	-----

B4	A15
----	-----

B3	A14
----	-----

B2	B16
----	-----

B1	A13
----	-----

B0	B15
----	-----

HSYNC	C20
-------	-----

VSYNC	D22
-------	-----

CLK	D20
-----	-----

DE	B22
----	-----

BL	C22
----	-----

RST (RESERVE)	R19
---------------	-----

TP_RES	N17
--------	-----

TP_INT	P20
--------	-----

TP_SCL	R18
--------	-----

TP_SDA	P17
--------	-----

### TOUCH

(RESERVE)	P19
-----------	-----

### DDR

D0	AA1
----	-----

D1	AB3
----	-----

D2	AB1
----	-----

D3	V4
----	----

D4	Y4
----	----

D5	AA5
----	-----

D6	AA4
----	-----

D7	AB5
----	-----

D8	U1
----	----

D9	W1
----	----

D10	U2
-----	----

D11	Y1
-----	----

D12	T1
-----	----

D13	V2
-----	----

D14	Y2
-----	----

D15	W2
-----	----

AD0	W6
-----	----

AD1	V5
-----	----

AD2	AA8
-----	-----

AD3	AA6
-----	-----

AD4	R6
-----	----

AD5	W7
-----	----

AD6	V7
-----	----

AD7	Y9
-----	----

AD8	T6
-----	----

AD9	Y8
-----	----

AD10	T4
------	----

AD11	U6
------	----

AD12	T5
------	----

AD13	W9
------	----

AD14	U7
------	----

DQS0_P	Y3
--------	----

DQS0_N	AA3
--------	-----

DQS1_P	R3
--------	----

DQS1_N	R2
--------	----

MEM_DM0	AB2
---------	-----

MEM_DM1	U3
---------	----

MA0_CKE0	R4
----------	----