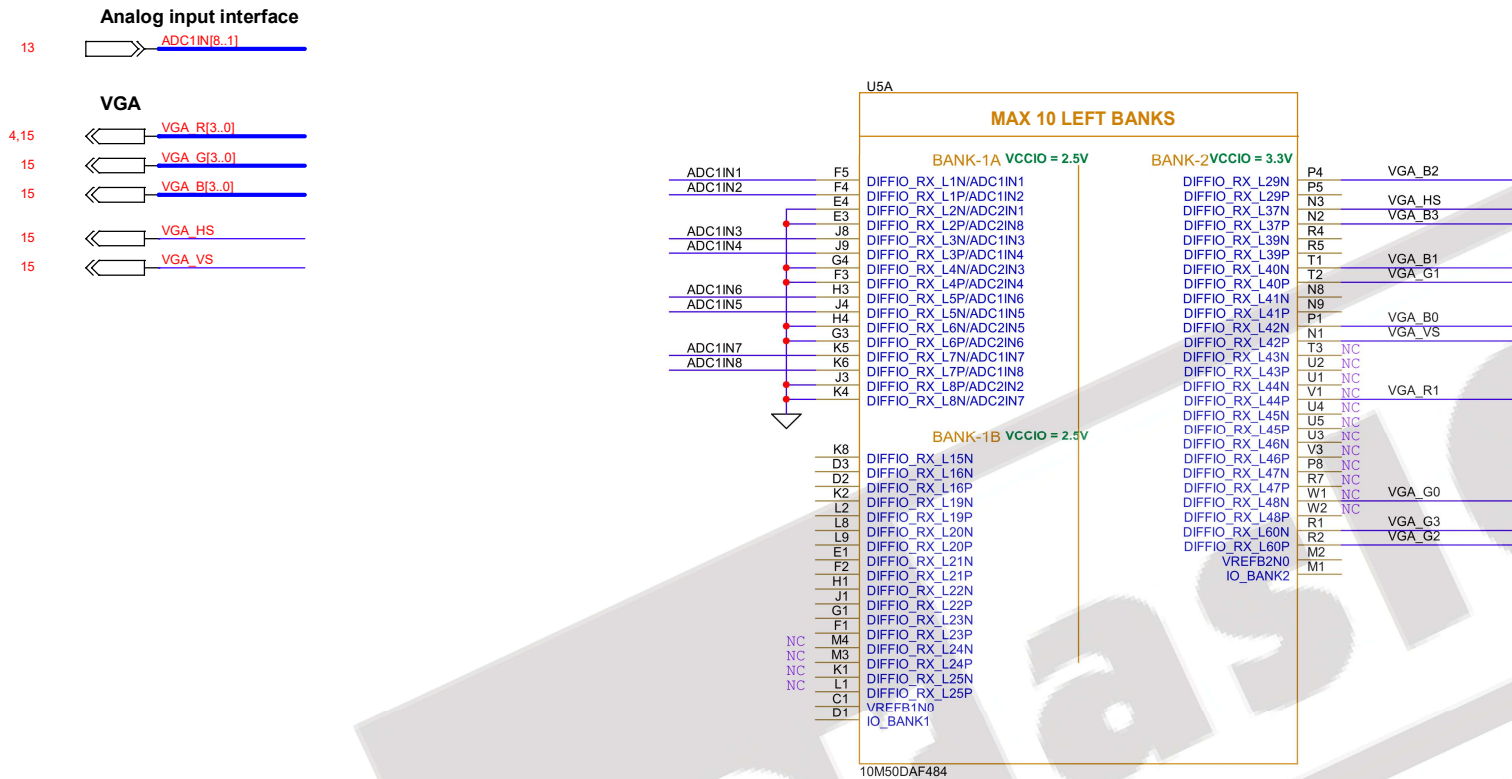


## MAX10 Bank 1 & 2



## MAX10 Bank 3 & 4

## GPIO 0

7,13  GPIO [35..0]

## Arduino Digital Interface

13  Arduino IO[15..0]

## Digital Accelerometer

15  GSENSOR\_SDI

15 GSENSOR\_SCLK

15 GSENSOR\_INT1

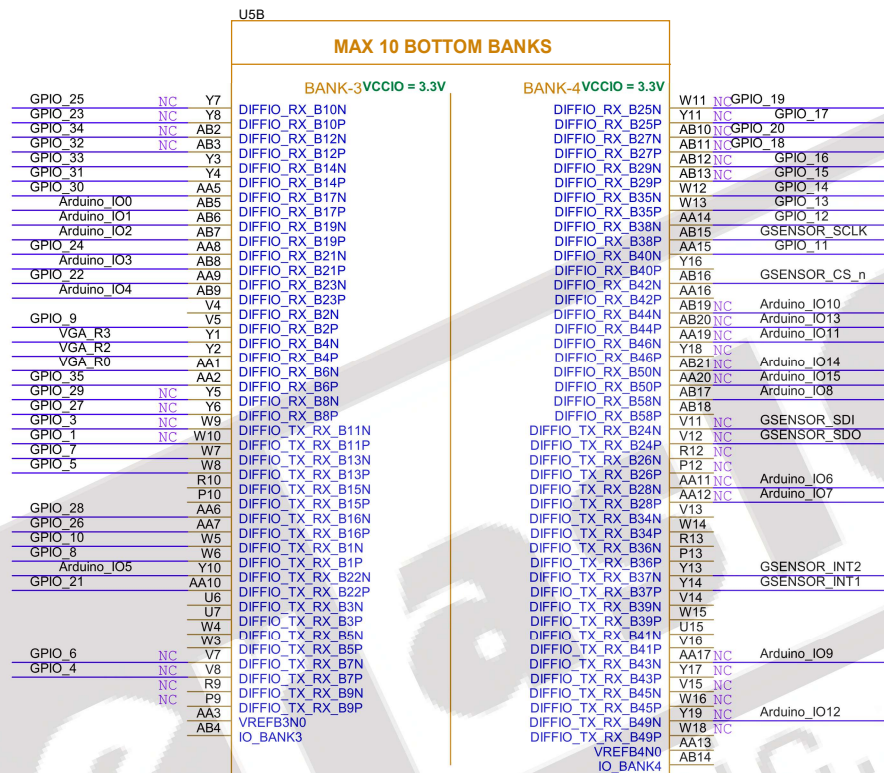
15  GSENSOR\_INT2

15  GSENSOR\_CS\_n

15  GSENSOR\_SDO

## VGA

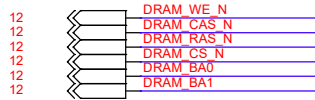
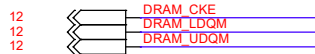
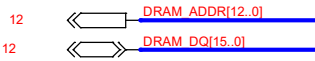
15 VGA R[3..0]



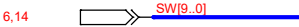
10M50DAF484

# MAX10 Bank 5 & 6

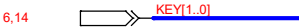
## SDRAM



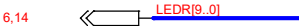
## SWITCH



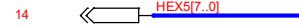
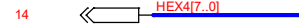
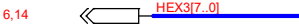
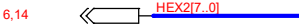
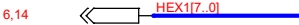
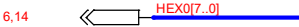
## KEY



## LED



## 7-segment Display



U5C

## MAX 10 RIGHT BANKS

BANK-5 VCCIO = 3.3V

BANK-6 VCCIO = 3.3V

DRAM\_ADDR4 NC U19  
DRAM\_ADDR2 NC V18  
DRAM\_ADDR3 NC U18  
DRAM\_ADDR0 U17  
DRAM\_DQ5 NC W22  
DRAM\_DQ4 NC Y22  
DRAM\_DQ6 NC W20  
DRAM\_ADDR1 NC W19  
DRAM\_DQ0 NC Y21  
DRAM\_DQ1 NC Y20  
DRAM\_CS\_N NC U20  
DRAM\_WE\_N NC V20  
DRAM\_LDQM NC V22  
DRAM\_DQ7 NC V21  
R14  
R15  
DRAM\_BA1 T22  
DRAM\_BA0 T21  
DRAM\_ADDR5 T18  
DRAM\_ADDR6 T19  
DRAM\_ADDR12 R20  
DRAM\_ADDR10 T20  
DRAM\_RAS\_N U22  
DRAM\_CAS\_N U21  
DRAM\_DQ2 AA22  
DRAM\_DQ3 AA21  
P14  
P15  
DRAM\_CKE N22  
DRAM\_DQ8 P21  
DRAM\_ADDR8 P18  
DRAM\_ADDR7 R18  
DRAM\_ADDR11 P20  
DRAM\_ADDR9 P19  
L22  
M21  
M22  
N21  
P22  
VREFB5N0  
IO\_BANK5

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DIFFIO\_RX\_R19N  
DIFFIO\_RX\_R19P  
DIFFIO\_RX\_R1P/RUP  
DIFFIO\_RX\_R1N/RDN  
DIFFIO\_RX\_R20N  
DIFFIO\_RX\_R20P  
DIFFIO\_RX\_R21N  
DIFFIO\_RX\_R21P  
DIFFIO\_RX\_R22N  
DIFFIO\_RX\_R22P  
DIFFIO\_RX\_R23N  
DIFFIO\_RX\_R23P  
DIFFIO\_RX\_R24N  
DIFFIO\_RX\_R24P  
DIFFIO\_RX\_R25N/DQ1R  
DIFFIO\_RX\_R25P/DQ1R  
DIFFIO\_RX\_R26N  
DIFFIO\_RX\_R26P  
DIFFIO\_RX\_R27N/DM1R  
DIFFIO\_RX\_R27P/DQ1R  
DIFFIO\_RX\_R28N/DQ1R  
DIFFIO\_RX\_R28P/DQ1R  
DIFFIO\_RX\_R29N  
DIFFIO\_RX\_R29P  
DIFFIO\_RX\_R2N  
DIFFIO\_RX\_R2P  
DIFFIO\_RX\_R30N/DQ1R  
DIFFIO\_RX\_R30P/DQ1R  
DIFFIO\_RX\_R31N  
DIFFIO\_RX\_R31P  
DIFFIO\_RX\_R32N/DQS1R  
DIFFIO\_RX\_R32P/DQS1R  
DIFFIO\_RX\_R33N/DQ1R  
DIFFIO\_RX\_R33P/DQ1R  
DIFFIO\_RX\_R34N  
DIFFIO\_RX\_R34P  
DIFFIO\_RX\_R35N  
DIFFIO\_RX\_R35P  
VREFB6N0  
IO\_BANK6

DIFFIO\_RX\_R39N  
DIFFIO\_RX\_R39P  
DIFFIO\_RX\_R41N  
DIFFIO\_RX\_R41P  
DIFFIO\_RX\_R42N  
DIFFIO\_RX\_R42P  
DIFFIO\_RX\_R43N  
DIFFIO\_RX\_R43P  
DIFFIO\_RX\_R44N/DQ2R  
DIFFIO\_RX\_R44P/DQ2R  
DIFFIO\_RX\_R45N  
DIFFIO\_RX\_R45P  
DIFFIO\_RX\_R46N/DM2R  
DIFFIO\_RX\_R46P/DQ2R  
DIFFIO\_RX\_R47P/DQ2R  
DIFFIO\_RX\_R47N/DQ2R  
DIFFIO\_RX\_R48N  
DIFFIO\_RX\_R48P  
DIFFIO\_RX\_R49N  
DIFFIO\_RX\_R49P  
DIFFIO\_RX\_R51N/DQ2R  
DIFFIO\_RX\_R51P/DQ2R  
DIFFIO\_RX\_R52N/DQ2R  
DIFFIO\_RX\_R52P/DQ2R  
DIFFIO\_RX\_R53N  
DIFFIO\_RX\_R53P  
DIFFIO\_RX\_R54N  
DIFFIO\_RX\_R54P  
DIFFIO\_RX\_R55N/DQS3R  
DIFFIO\_RX\_R55P/DQS3R  
DIFFIO\_RX\_R56N  
DIFFIO\_RX\_R56P  
DIFFIO\_RX\_R57N/DQ3R  
DIFFIO\_RX\_R57P/DQ3R  
DIFFIO\_RX\_R58N/DQ3R  
DIFFIO\_RX\_R58P/DQ3R  
DIFFIO\_RX\_R59N  
DIFFIO\_RX\_R59P  
DIFFIO\_RX\_R60N  
DIFFIO\_RX\_R60P  
DIFFIO\_RX\_R61N/DM3R  
DIFFIO\_RX\_R61P/DQ3R  
DIFFIO\_RX\_R62N  
DIFFIO\_RX\_R62P  
DIFFIO\_RX\_R63N/DQ3R  
DIFFIO\_RX\_R63P/DQ3R  
DIFFIO\_RX\_R64N/DQ3R  
DIFFIO\_RX\_R64P/DQ3R  
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DIFFIO\_RX\_R70P/CK\_6  
VREFB6N0  
IO\_BANK6

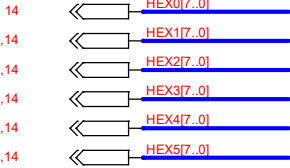
H21 DRAM\_DQ10  
H22 DRAM\_DQ11  
J21 DRAM\_UDQM  
J22 DRAM\_DQ9  
G19 DRAM\_DQ14  
G20 DRAM\_DQ13  
F22 DRAM\_DQ15  
G22 DRAM\_DQ12  
M14  
M15  
E21 HEX32  
E22 HEX31  
N19 HEX55  
N18 HEX53  
M20 HEX54  
N20 HEX56  
F20 HEX46  
F21 HEX30  
C22 HEX25  
D22 HEX37  
L18 HEX52  
M18  
L20  
L19 HEX57  
F18 HEX40  
E19 HEX42  
E20 HEX41  
F19 NC HEX45  
K15  
K14  
D19 HEX35  
C20 HEX34  
J18 NC HEX43  
K18 NC  
K20 NC HEX51  
K19 NC  
E17 NC HEX36  
F17 NC HEX47  
B21 NC HEX24  
B22 NC HEX26  
J15 NC  
J14 NC  
A21 NC HEX23  
B20 NC HEX20  
H18 NC  
H19 NC HEX44  
H20 NC  
J20 NC HEX50  
E18 HEX12  
D18 HEX11  
D21  
C21

terasic		Copyright (c) 2017 by Terasic Inc. Taiwan. All rights reserved. No part of this schematic design may be reproduced, duplicated, or used without the prior written permission of Terasic.	
Title		DE10-Lite	
Size	Document Number	Rev	
B	MAX 10 Bank 5 & 6	F0	
Date:	Thursday, June 06, 2024	Sheet	5 of 18

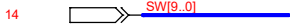


MAX10 Bank 7 & 8

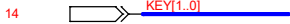
7-segment Display



SWITCH



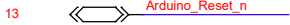
KEY



LED



Arduino Digital Interface



U5D

MAX 10 TOP BANKS

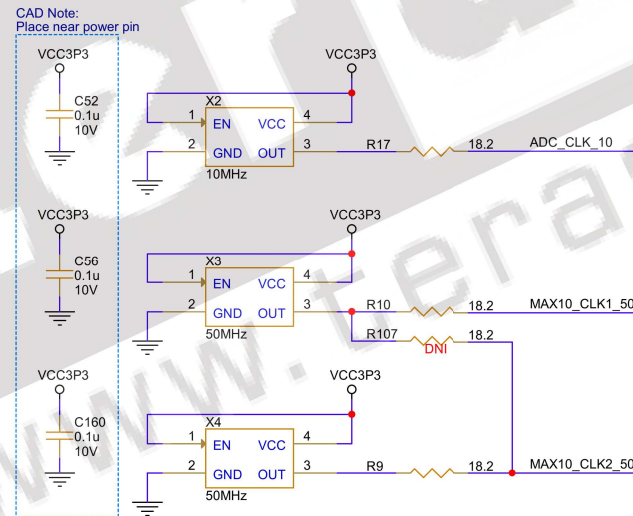
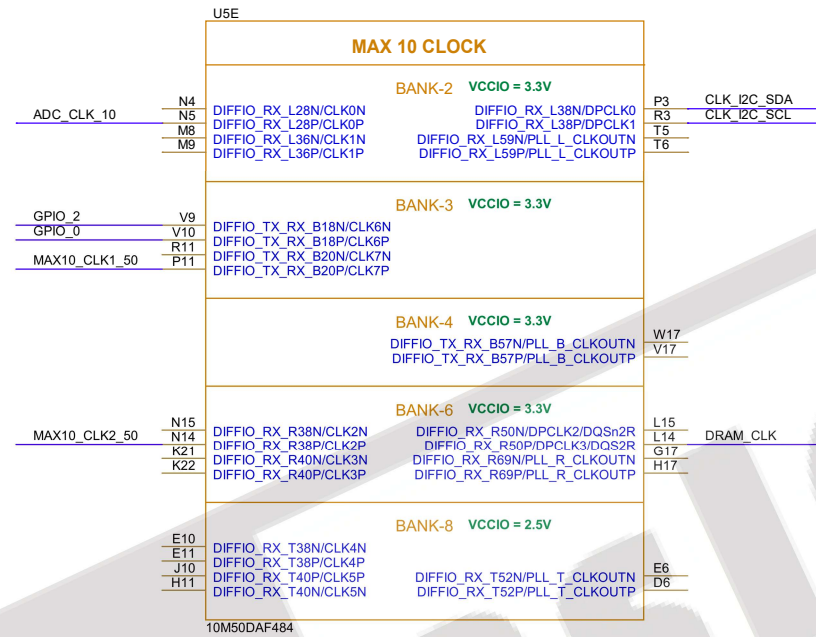
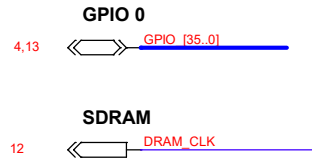
BANK-7 VCCIO = 3.3V

BANK-8 VCCIO = 2.5V

HEX14	NC	A17	DIFFIO_RX_T10N	C7
HEX15	NC	A18	DIFFIO_RX_T10P	C8
HEX02	NC	C15	DIFFIO_RX_T39P	A6
HEX03	NC	C16	DIFFIO_RX_T41N	B7
HEX17	NC	A16	DIFFIO_RX_T41P	D8
HEX13	NC	B16	DIFFIO_RX_T42P	A4
		J13	DIFFIO_RX_T43N	A5
		H14	DIFFIO_RX_T43P	E9
LEDR5		C13	DIFFIO_RX_T44N	A2
HEX00		C14	DIFFIO_RX_T45P	A3
SW8		B14	DIFFIO_RX_T45N	B3
SW7		A14	DIFFIO_RX_T46P	B4
HEX01		E15	DIFFIO_RX_T46N	B5
HEX04		E16	DIFFIO_RX_T47P	C4
		E13	DIFFIO_RX_T47N	E8
LEDR7		D14	DIFFIO_RX_T48P	D5
		E12	DIFFIO_RX_T49N	C5
LEDR4		D13	DIFFIO_RX_T49P	B1
	NC	J12	DIFFIO_RX_T51N	B2
	NC	H13	DIFFIO_RX_T51P	C2
SW4	NC	A12	DIFFIO_RX_T53N	C3
SW6	NC	A13	DIFFIO_RX_T53P	D7
SW2	NC	D12	VREFB8N0	C6
SW3	NC	C12	IO_BANK8	
LEDR2	NC	A10		
LEDR8	NC	A11		
SW0	NC	C10		
SW1	NC	C11		
LEDR9	NC	B11		
SW5	NC	B12		
		J11		
		H12		
KEY0		B8		
LEDR1		A9		
HEX06		C17		
HEX05		D17		
		C9		
LEDR3		B10		
KEY1		A7		
LEDR0		A8		
SW9	NC	F15		
Arduino_Reset_n	NC	F16		
HEX22	NC	B19		
HEX33	NC	C19		
HEX16	NC	B17		
HEX10	NC	C18		
HEX27	NC	A19		
HEX21	NC	A20		
LEDR6	NC	E14		
HEX07	NC	D15		
		B15		
		A15		

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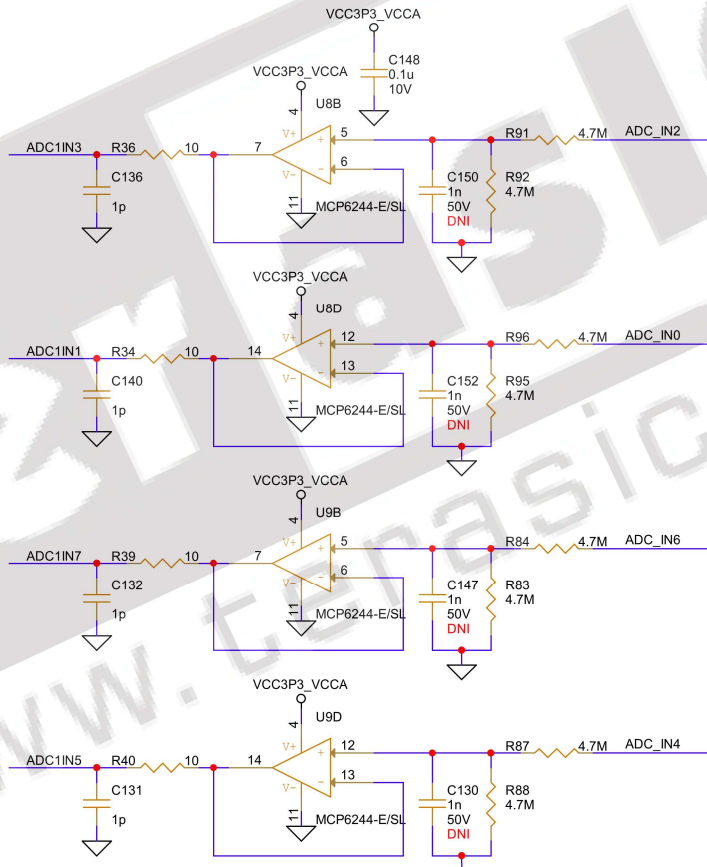
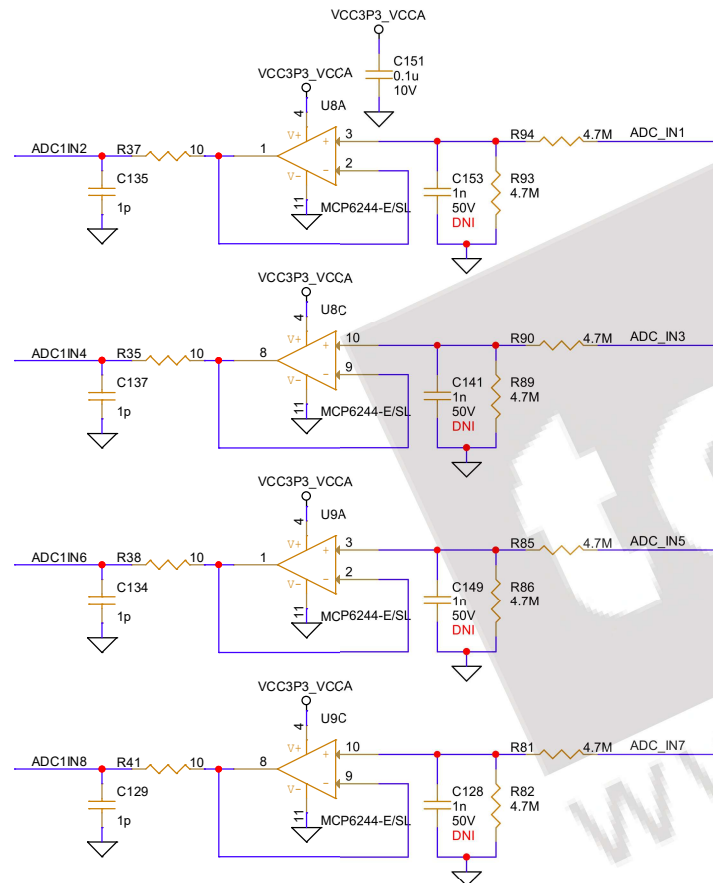
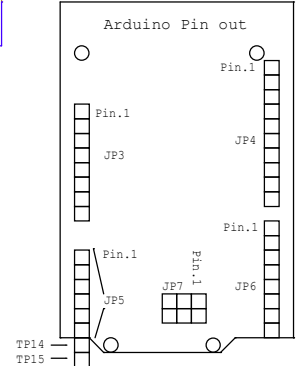
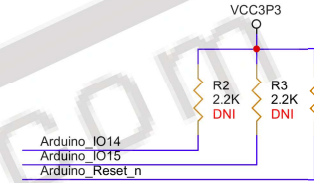
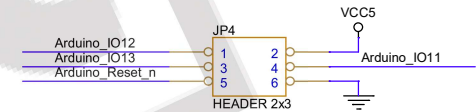
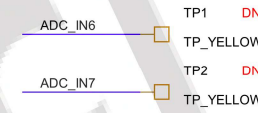
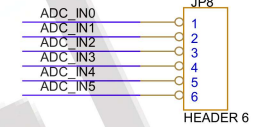
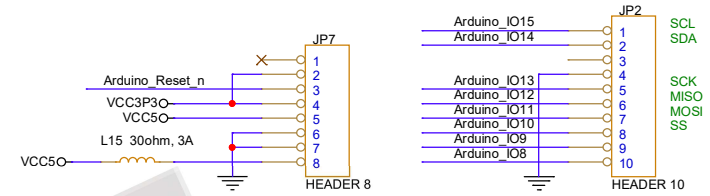
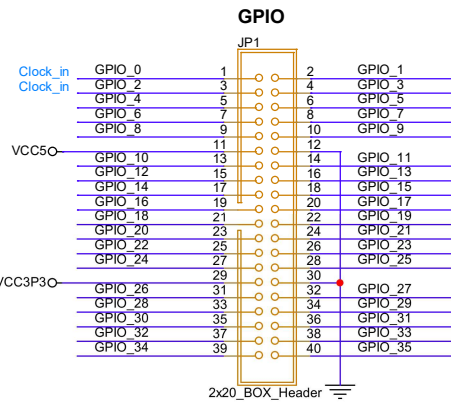
## MAX10 Clock



GPIO  
4,7 <<> GPIO [35..0]

Arduino Digital Interface  
4 <<> Arduino\_IO[15..0]  
6 <<> Arduino\_Reset\_n

Analog input interface  
3 <<> ADC1IN[8..1]



## User IO, 7-Seg, LED

SWITCH



## KEY



**LED**



## 7-segment Display

