

NOTES:

1. PLACE NET NAMES ON ALL JUMPERS AND HEADERS.
2. PLACE ALL PARTS OTHER THAN SMP CONNECTORS ON A 0 OR 90 DEGREE ORIENTATION.
3. SERIAL DATA SHOULD BE ROUTED AS SINGLE-ENDED 50 OHM TRANSMISSION LINES ON OUTSIDE LAYERS. ROUTING DISTANCE SHOULD BE 3 INCHES OR LESS.
4. USE ROGERS MATERIAL FOR OUTSIDE LAYERS AND FR4-370 MATERIAL FOR INSIDE LAYERS.
5. SERIAL AND REFCLK NETS MUST MATCH WITHIN +/- 0.5 MILS
6. MATCH DIFFERENTIAL TRACE WIDTHS OF SERIAL AND REFCLK LINES WITH SMP/SMA PADS.

REVISIONS

ECR	ECR NUMBER	DATE
	-----	xx/xx/xx

SCHEMATIC SHEET INDEX:

- SHEET 01: TLK10232 REFERENCE DESIGN COVER SHEET AND NOTES
SHEET 02: 1P0V REGULATORS
SHEET 03: 1P5V, 1P8V, 2P5V, 3P3V REGULATORS
SHEET 04: POWER DISTRIBUTION
SHEET 05: VOLTAGE MONITORING
SHEET 06: DEVICE POWER AND GROUND
SHEET 07: GLOBAL SIGNALS
SHEET 08: MDIO,JTAG, AND I2C INTERFACE
SHEET 09: CLOCKS
SHEET 10: CLOCK CONTROL
SHEET 11: CRYSTAL OSCILLATORS
SHEET 12: LOW SPEED DATA SIGNALS
SHEET 13: HIGH SPEED DATA SIGNALS
SHEET 14: DATA BOARD TO BOARD CONNECTOR
SHEET 15: CLOCK BOARD TO BOARD CONNECTOR

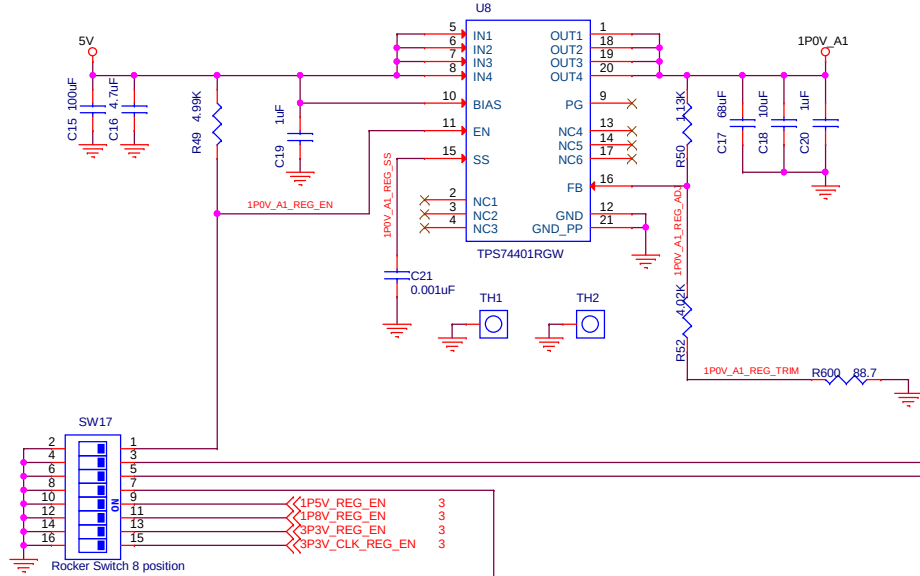


TEXAS INSTRUMENTS

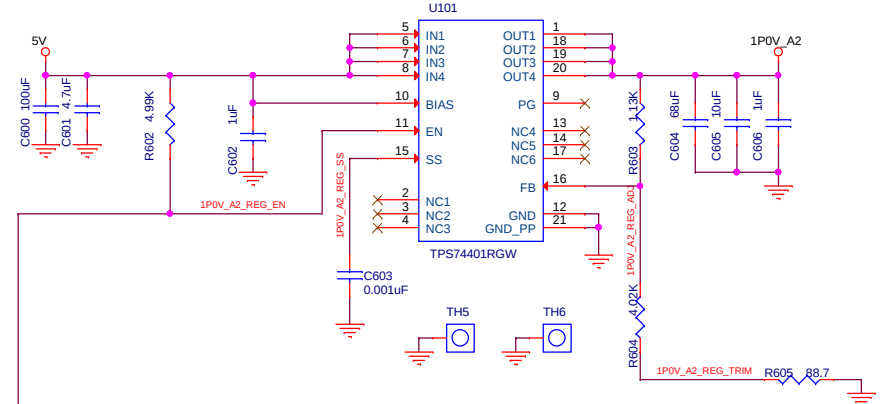
SCHEMATIC TITLE			
TLK10232 EVM MOTHER BOARD			
PAGE TITLE			
COVER PAGE AND NOTES			
SIZE	DOCUMENT NUMBER	REV	SHEET
B	6566789	B	1 of 15

ENGINEER	DATE
J. NERGER	05/23/13
LAYOUT	DATE
DFW TEST	05/23/13
RELEASED	DATE
J. NERGER	05/23/13

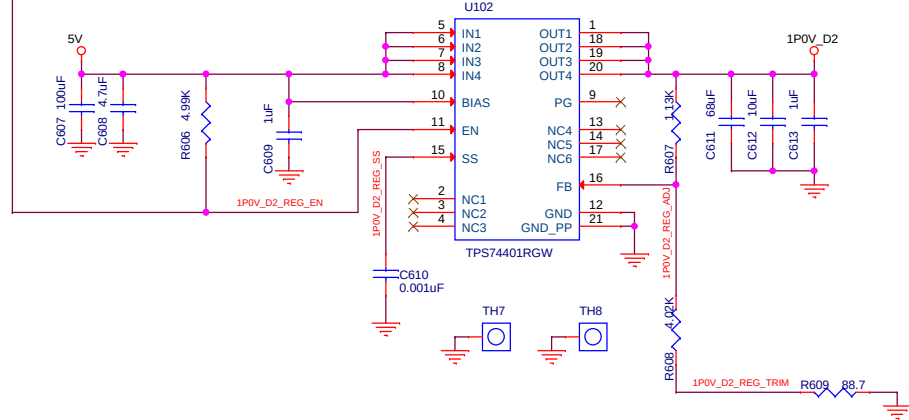
1.0V ANALOG REGULATOR 1



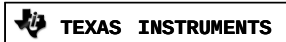
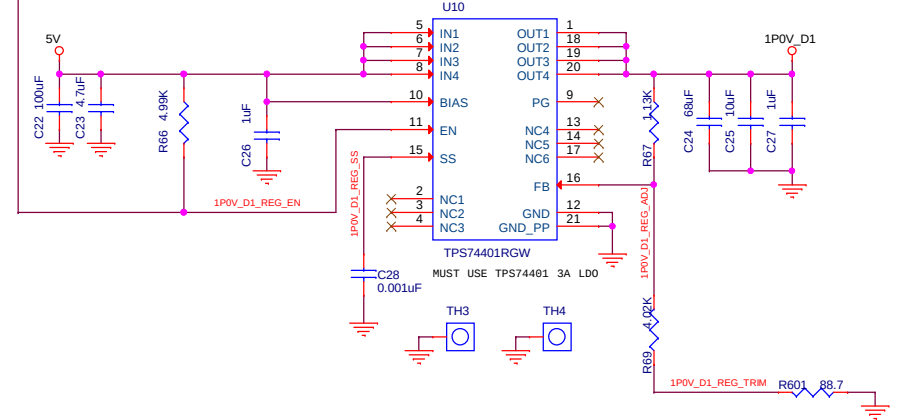
1.0V ANALOG REGULATOR 2



1.0V DIGITAL REGULATOR 2

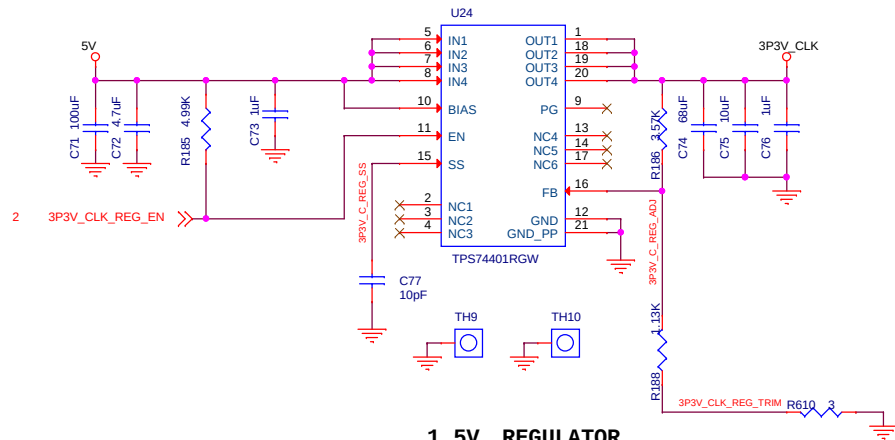


1.0V DIGITAL REGULATOR 1

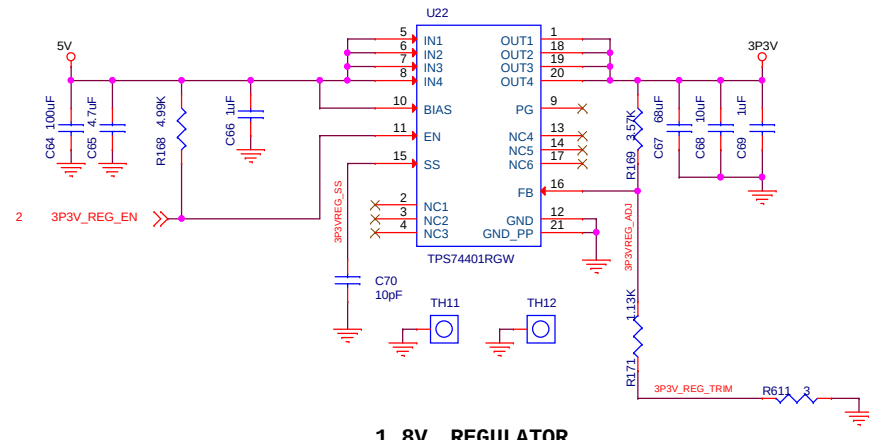


PAGE TITLE			
1P0V REGULATORS			
SIZE	DOCUMENT NUMBER	REV	PAGE
B	6566789	B	2 of 15

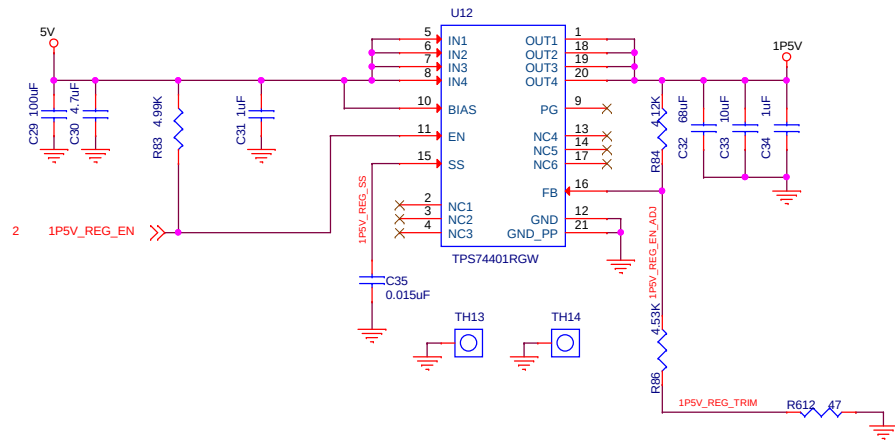
3.3V CLK REGULATOR



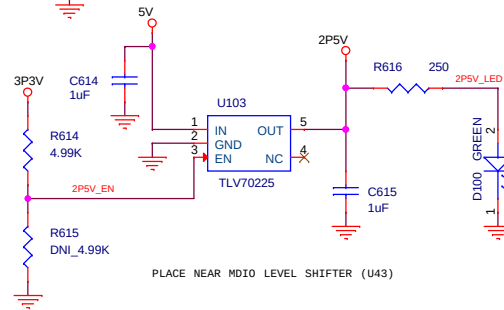
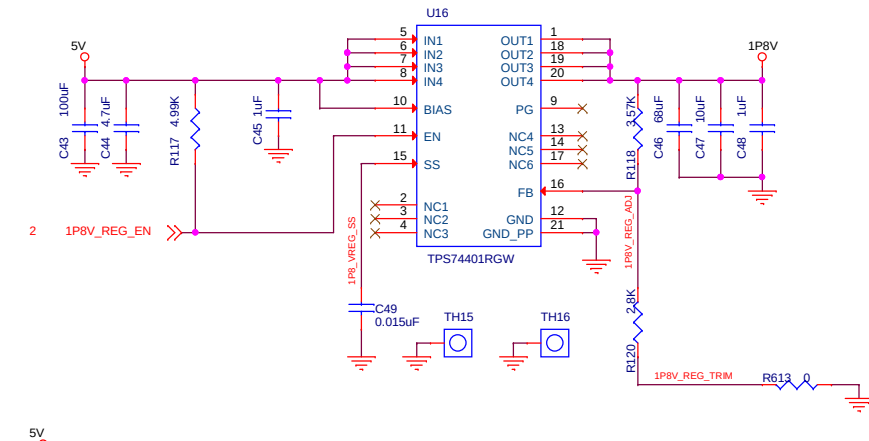
3.3V REGULATOR



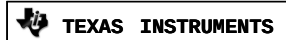
1.5V REGULATOR



1.8V REGULATOR

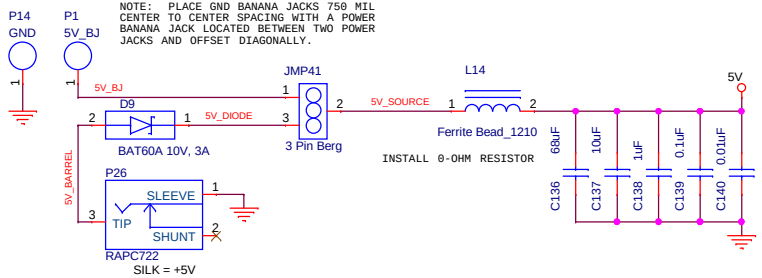
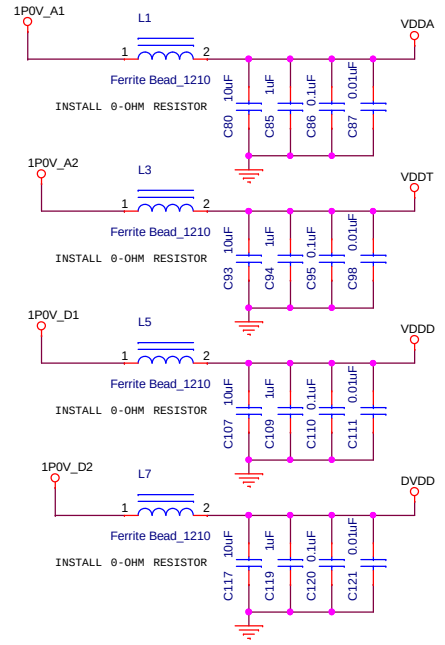
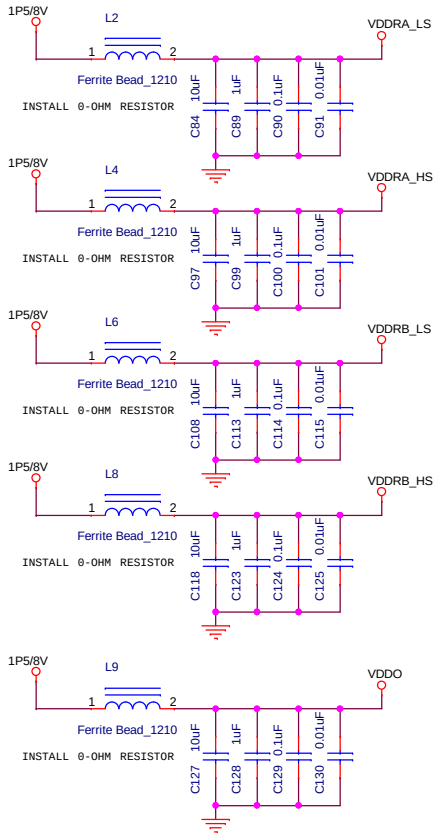
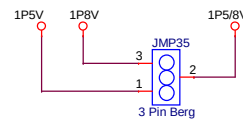
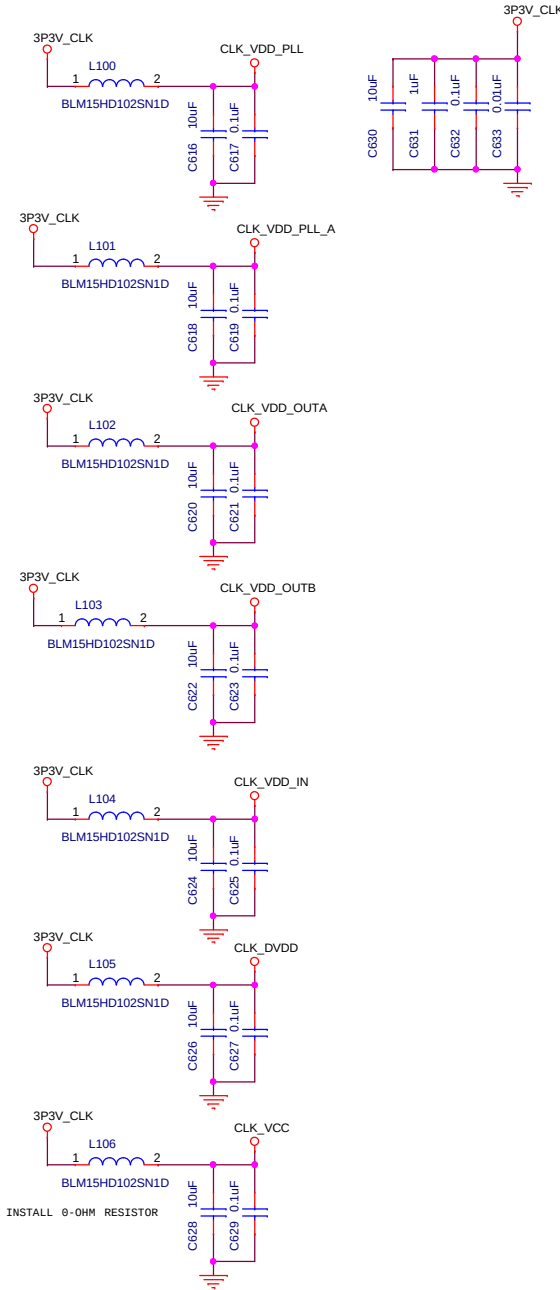


PLACE NEAR MDIO LEVEL SHIFTER (U43)

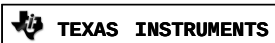


PAGE TITLE			
1P5V, 1P8V, 2P5V, 3P3V REGULATORS			
SIZE	DOCUMENT NUMBER	REV	PAGE
B	6566789	B	3 of 15

PLANE FILTERING / BULK DECOUPLING

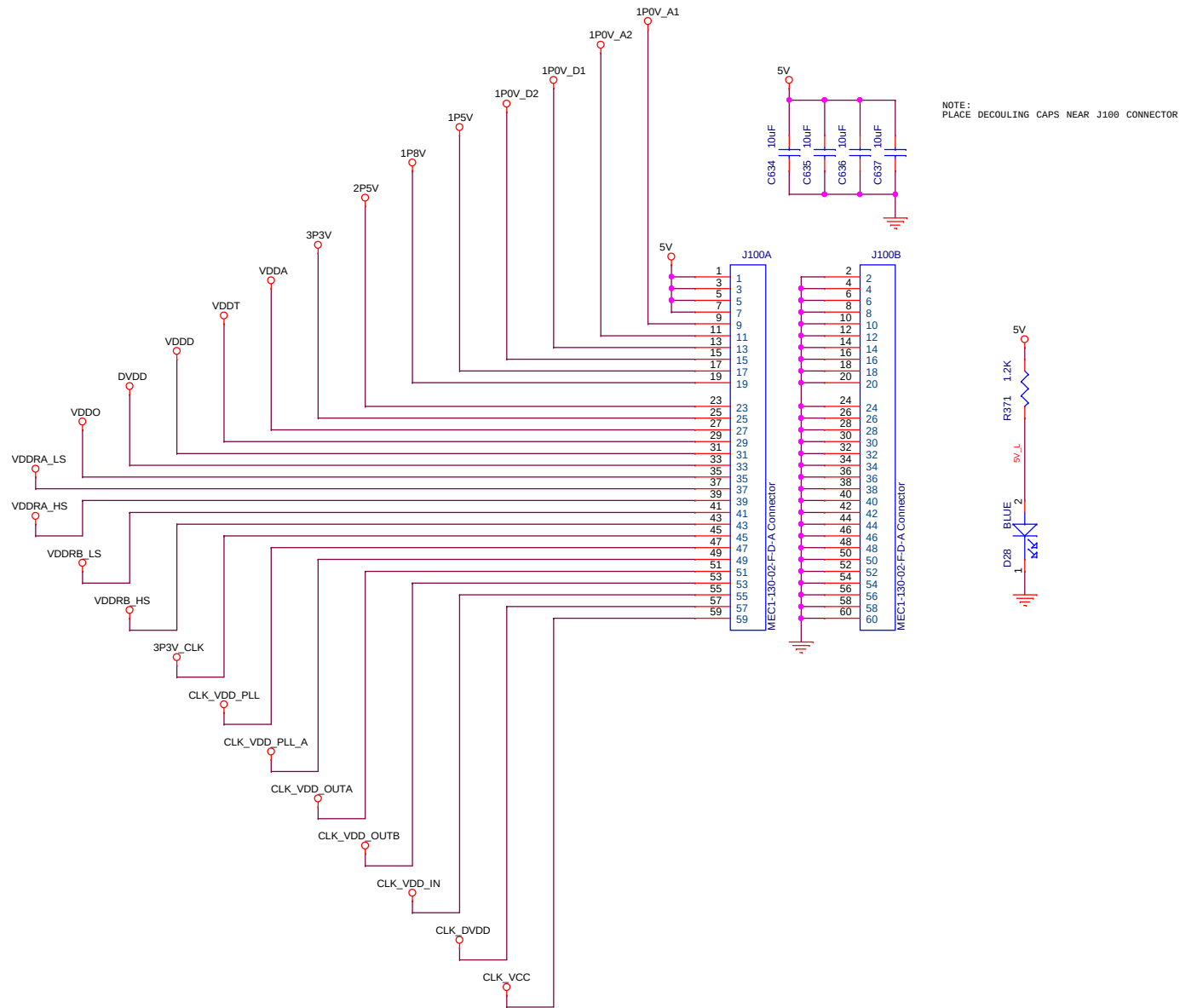


NOTE: PLACE GND BANANA JACKS 750 MIL CENTER TO CENTER SPACING WITH A POWER BANANA JACK LOCATED BETWEEN TWO POWER JACKS AND OFFSET DIAGONALLY.



PAGE TITLE			
POWER DISTRIBUTION			
SIZE	DOCUMENT NUMBER	REV	PAGE
B	6566789	B	4 of 15

NOTE:

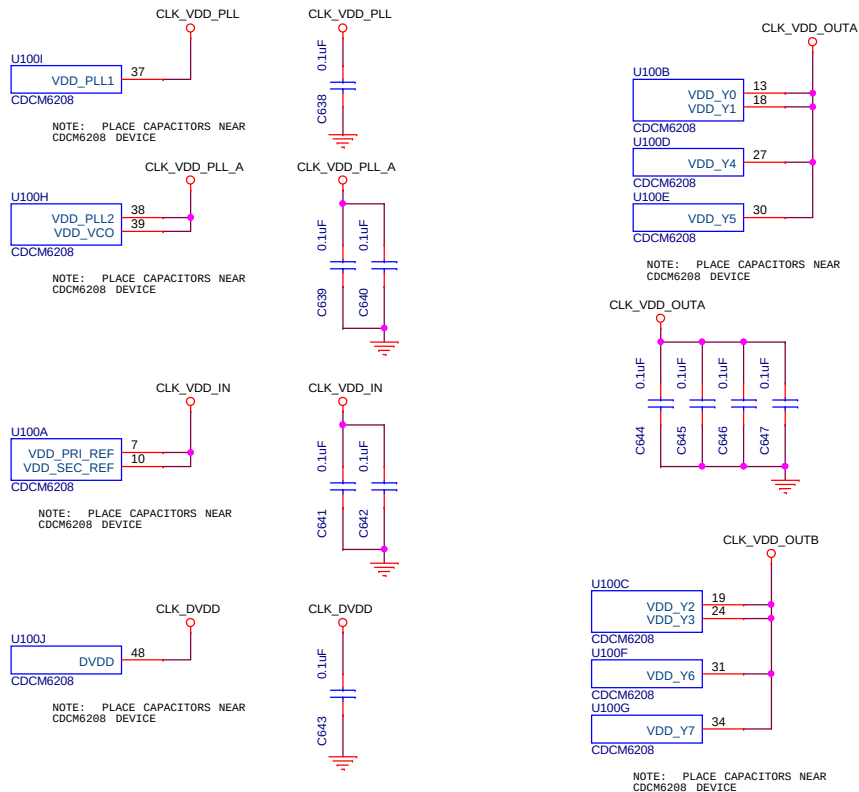


NOTES:

DECOUPLING GENERAL GUIDELINES:

1. PLACE CAPACITORS SUCH THAT SMALLER VALUE CAPACITORS ARE NEARER THE DUT AND THEN SUCCESSIVELY PLACE LARGER VALUE CAPACITORS AS YOU MOVE AWAY FROM THE DUT.
2. PLACE CAPACITORS NEAR VIAS AND CONNECTORS. THESE CAPACITORS SHOULD DECOUPLE THE DRIVER SUPPLY TO THE GROUND PLANE. IF A SIGNAL IS REFERENCED TO A POWER PLANE AND THIS POWER PLANE IS NOT ASSOCIATED WITH THE DRIVER SUPPLY, THEN THIS PLANE SHOULD ALSO BE DECOUPLED TO GROUND NEAR ALL ASSOCIATED VIAS AND CONNECTORS.

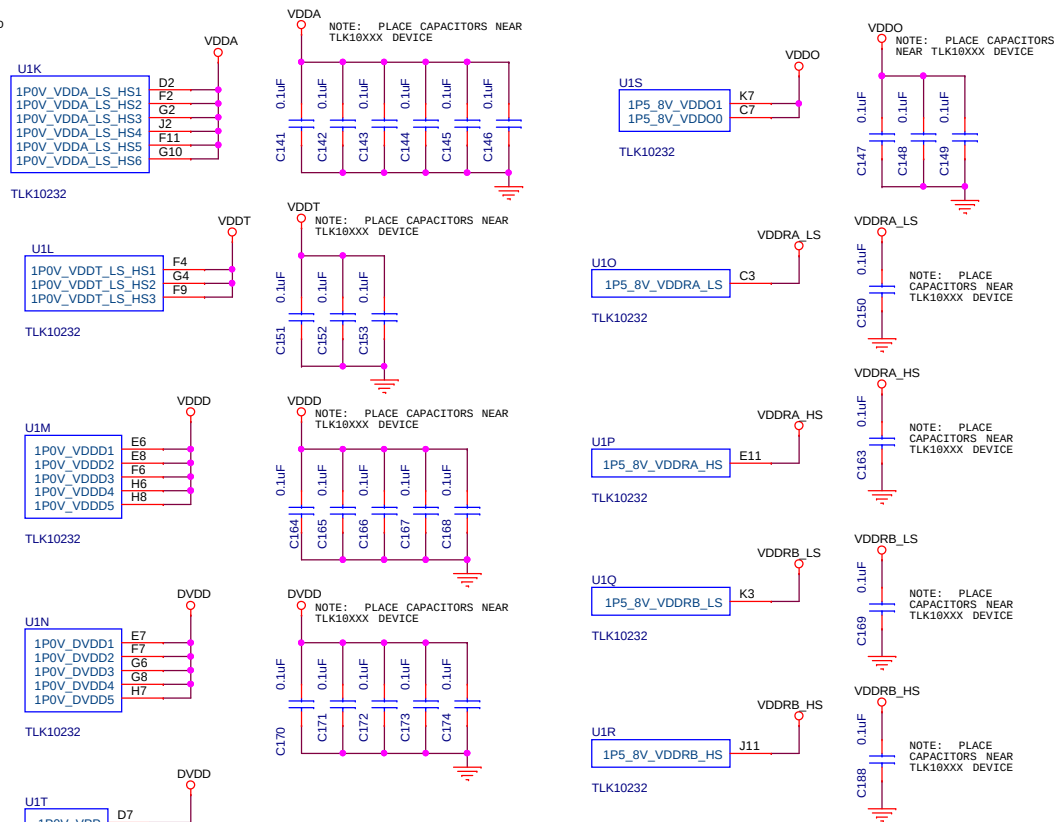
CDCM6208 DEVICE POWER / LOCAL DECOUPLING



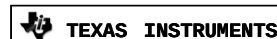
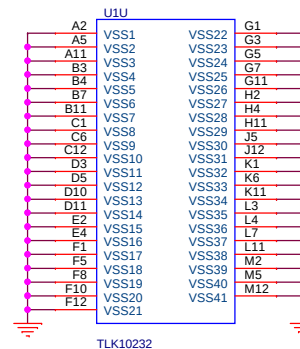
CDCM6208 DEVICE GROUND



TLK10XXX DEVICE POWER / LOCAL DECOUPLING

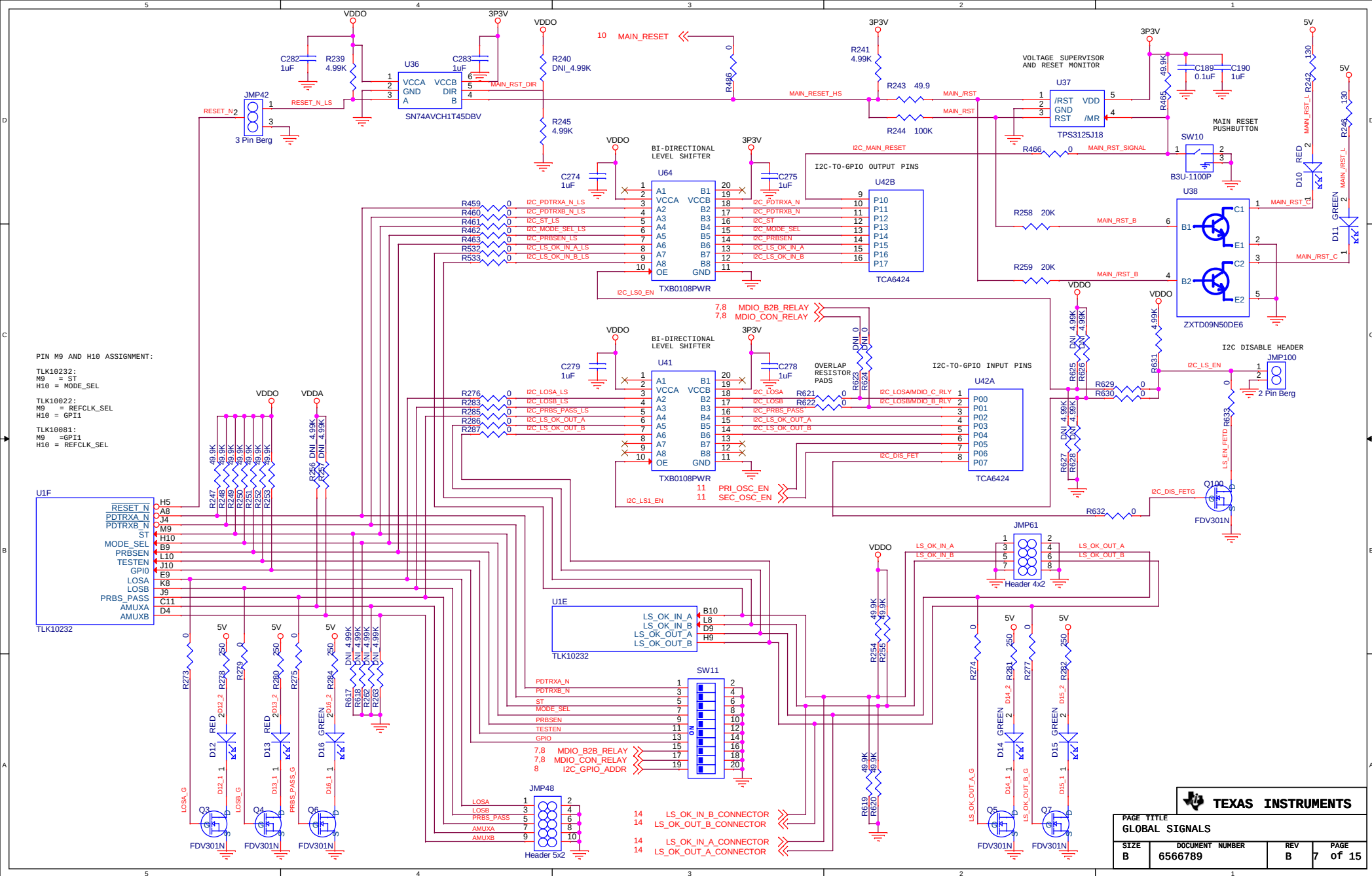


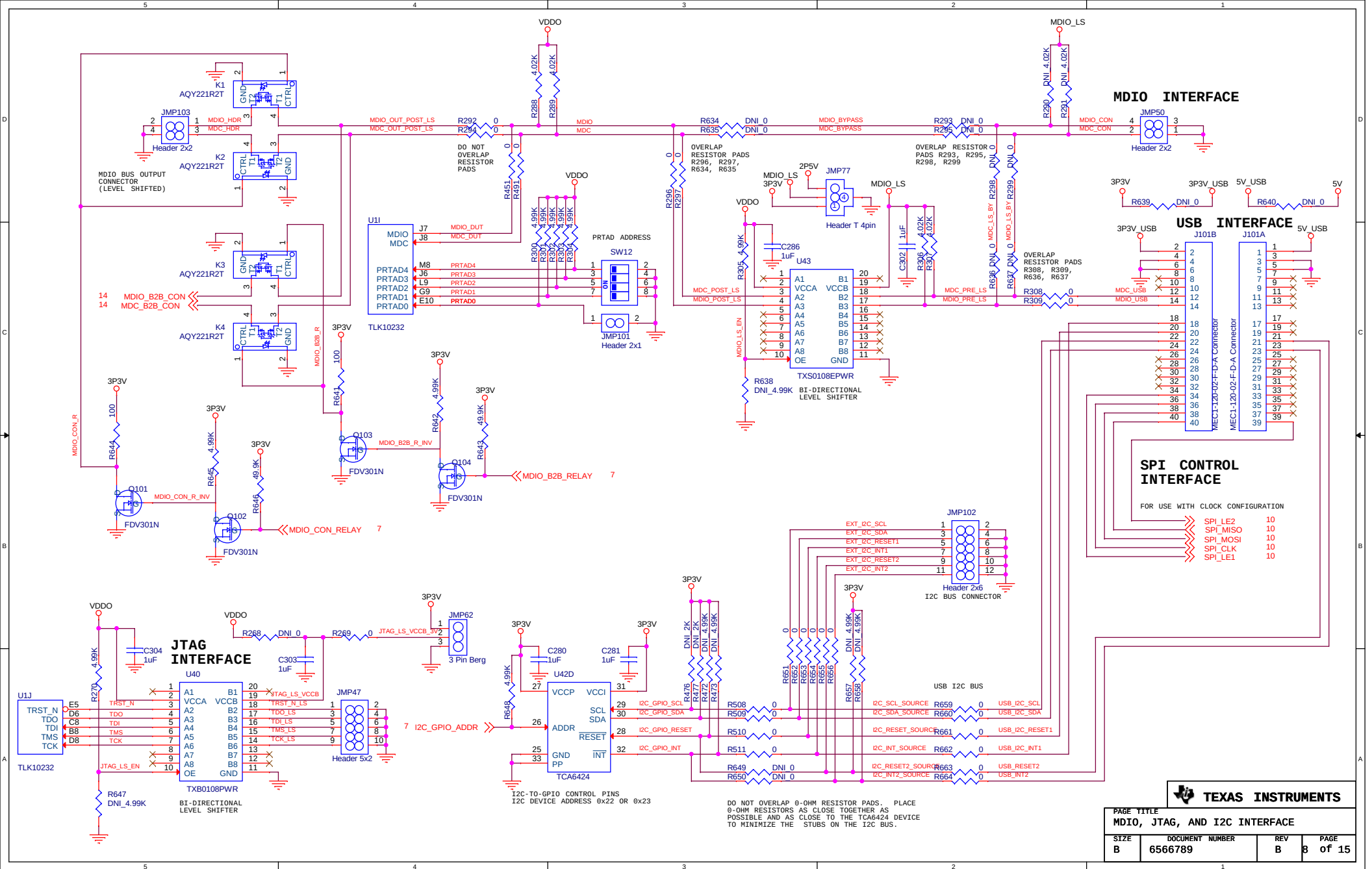
TLK10XXX DEVICE GROUND



PAGE TITLE
DEVICE POWER, GROUND, LOCAL DECOUPLING

SIZE	DOCUMENT NUMBER	REV	PAGE
B	6566789	B	6 of 15





MDIO INTERFACE

USB INTERFACE

SPI CONTROL INTERFACE

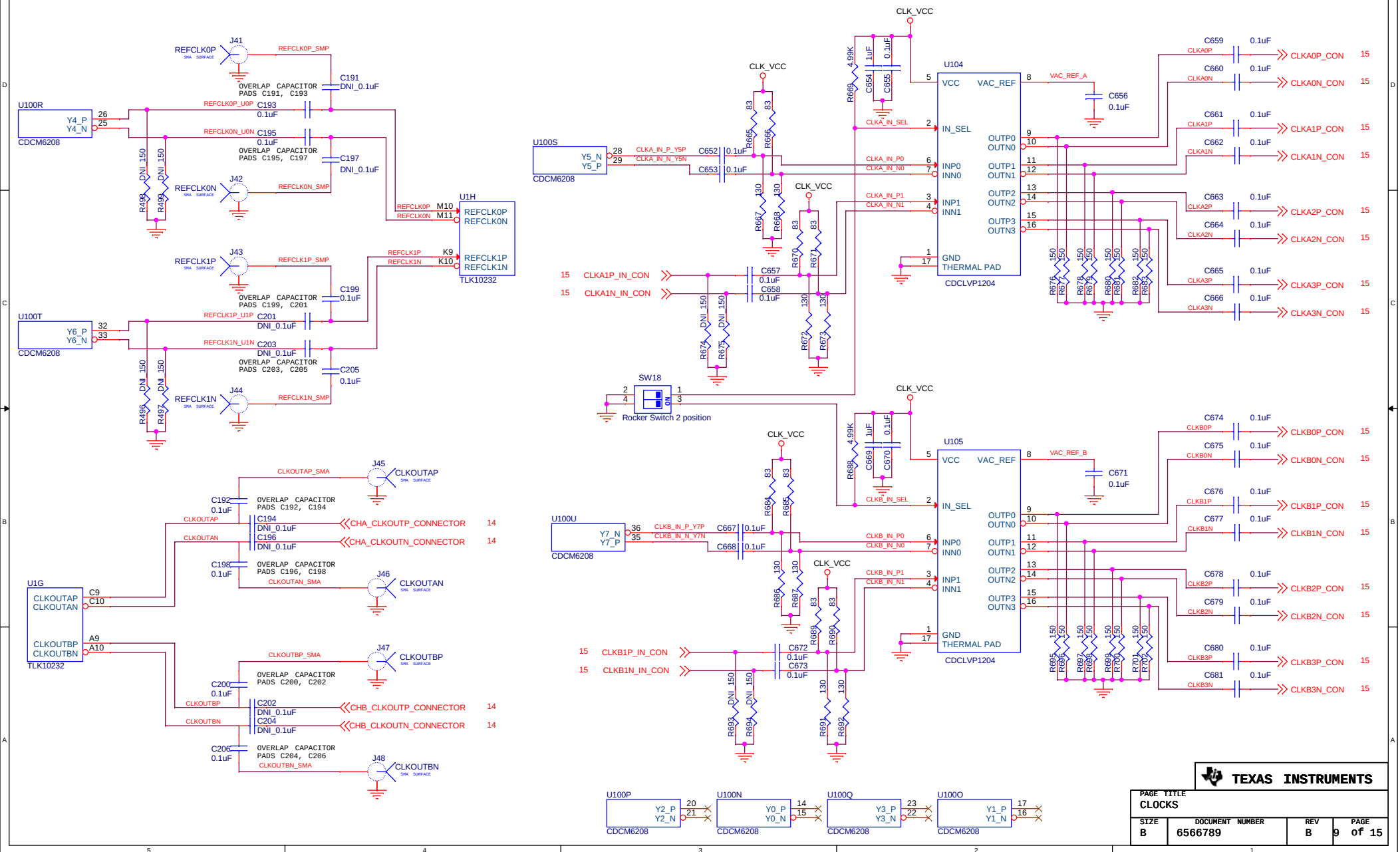
FOR USE WITH CLOCK CONFIGURATION

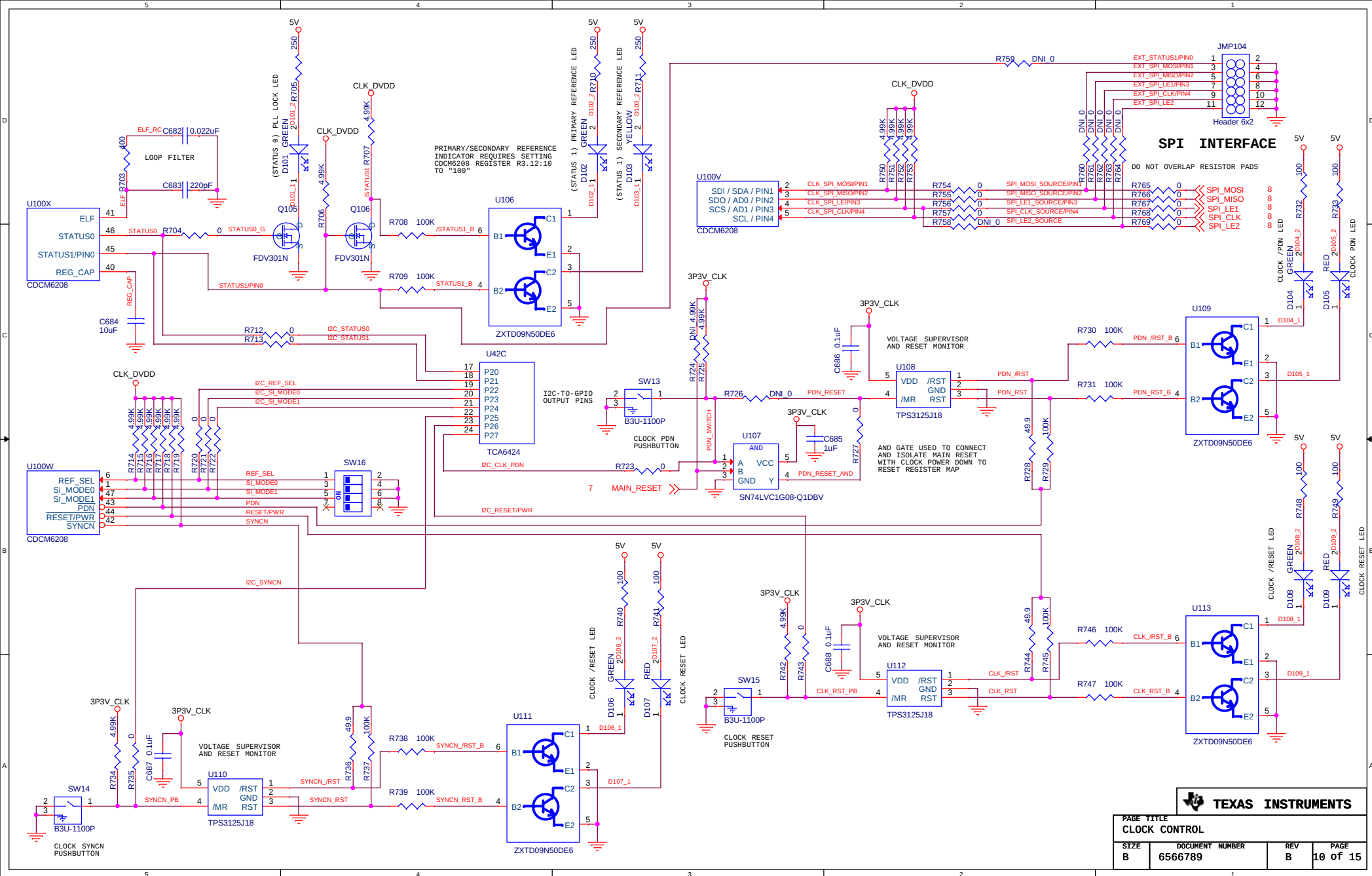
Signal	Pin
SPI_LE2	10
SPI_MISO	10
SPI_MOSI	10
SPI_CLK	10
SPI_LE1	10

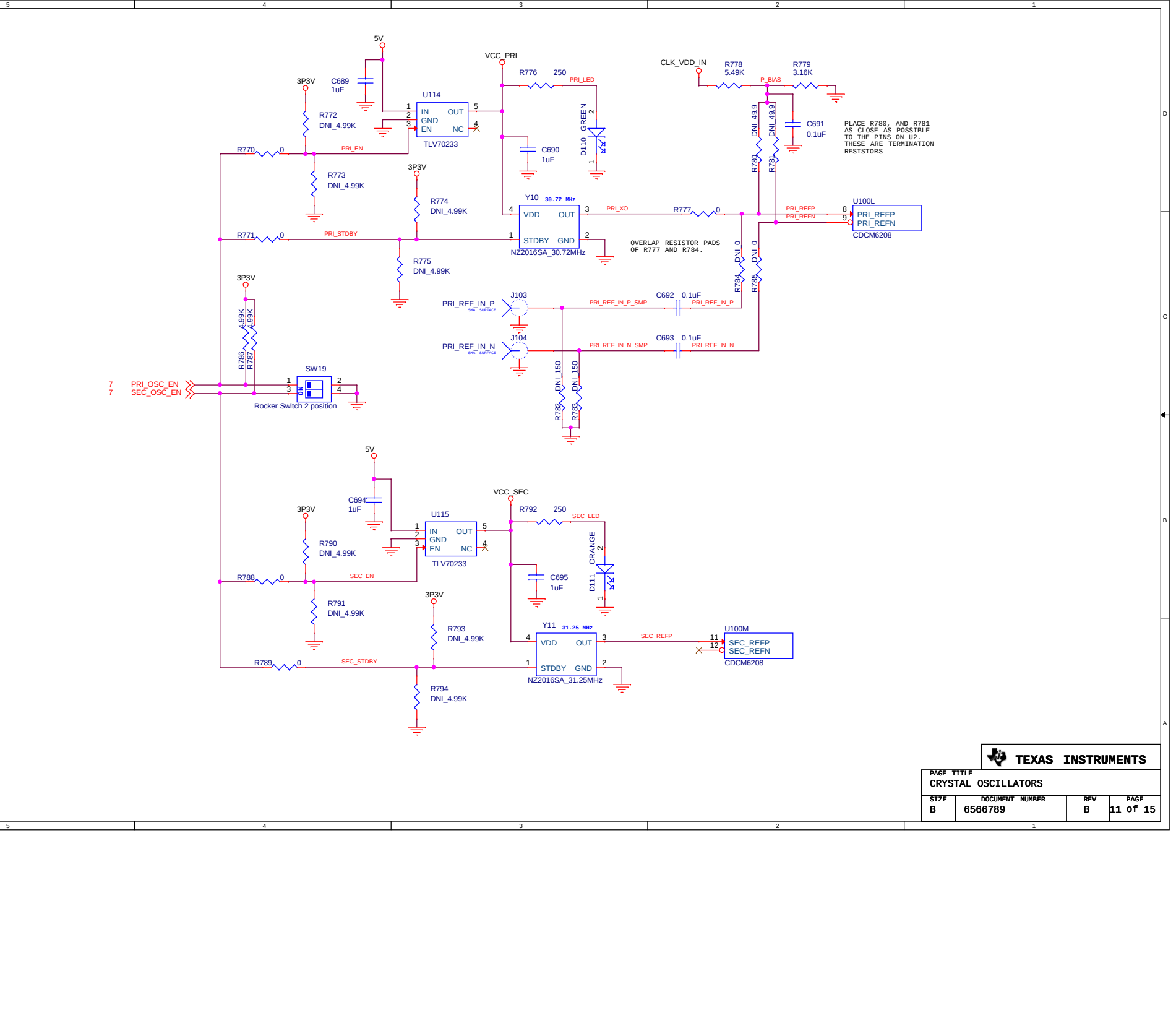


PAGE TITLE			
MDIO, JTAG, AND I2C INTERFACE			
SIZE	DOCUMENT NUMBER	REV	PAGE
B	6566789	B	8 of 15

NOTE:
1. MATCH REFCLK0/1_P/N AND CLKOUT0/1_P/N TRACE LENGTHS TO EACHOTHER





[illegible]

7 PRI_OSC_EN
7 SEC_OSC_EN

7 7

3P3V

C689 1uF

R772 DNI_4.99K

R773 DNI_4.99K

R770 0

PRI_EN

3P3V

R774 DNI_4.99K

R775 DNI_4.99K

PRI_STDBY

U114 TLV70233

VCC_PRI

R776 250

PRI_LED

C690 1uF

D110 GREEN

CLK_VDD_IN

R778 5.49K

P_BIAS

R779 3.16K

C691 0.1uF

PLACE R780, AND R781 AS CLOSE AS POSSIBLE TO THE PINS ON U2. THESE ARE TERMINATION RESISTORS

R780 DNI_49.9

R781 DNI_49.9

U100L CDCM6208

PRI_REFP

PRI_REFN

OVERLAP RESISTOR PADS OF R777 AND R784.

R777 0

PRI_XO

R784 DNI_0

R785 DNI_0

PRI_REF_IN_P_SMP

C692 0.1uF

PRI_REF_IN_P

PRI_REF_IN_N_SMP

C693 0.1uF

PRI_REF_IN_N

J103

PRI_REF_IN_P

J104

PRI_REF_IN_N

R782 DNI_150

R783 DNI_150

SW19

Rocker Switch 2 position

3P3V

R786 4.99K

R787 4.99K

3P3V

R790 DNI_4.99K

R791 DNI_4.99K

R788 0

SEC_EN

3P3V

R793 DNI_4.99K

R794 DNI_4.99K

SEC_STDBY

U115 TLV70233

VCC_SEC

R792 250

SEC_LED

C695 1uF

D111 ORANGE

Y11 31.25 MHz

VDD

OUT

3

SEC_REFP

U100M CDCM6208

SEC_REFN

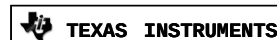
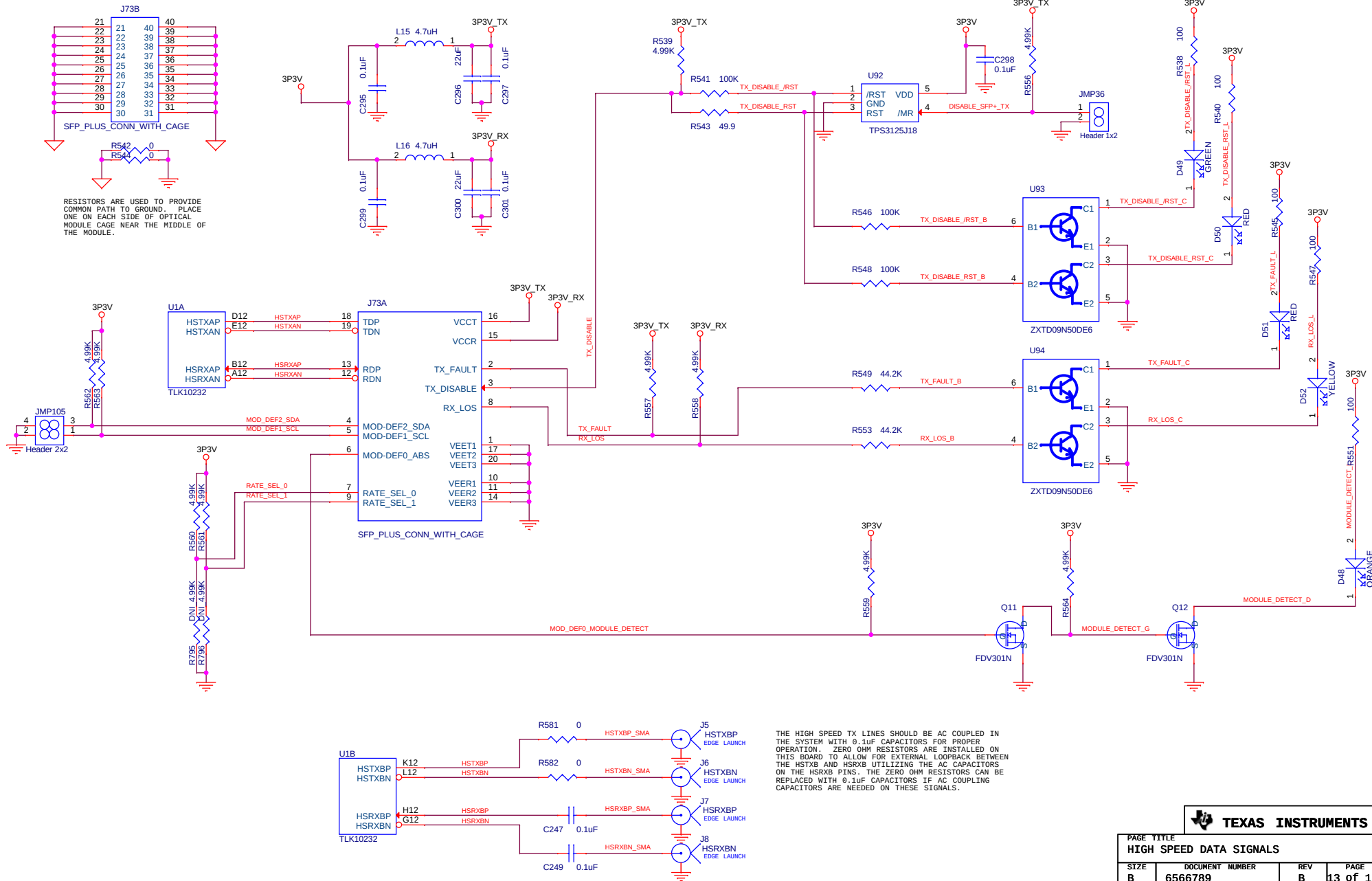
SEC_REFN

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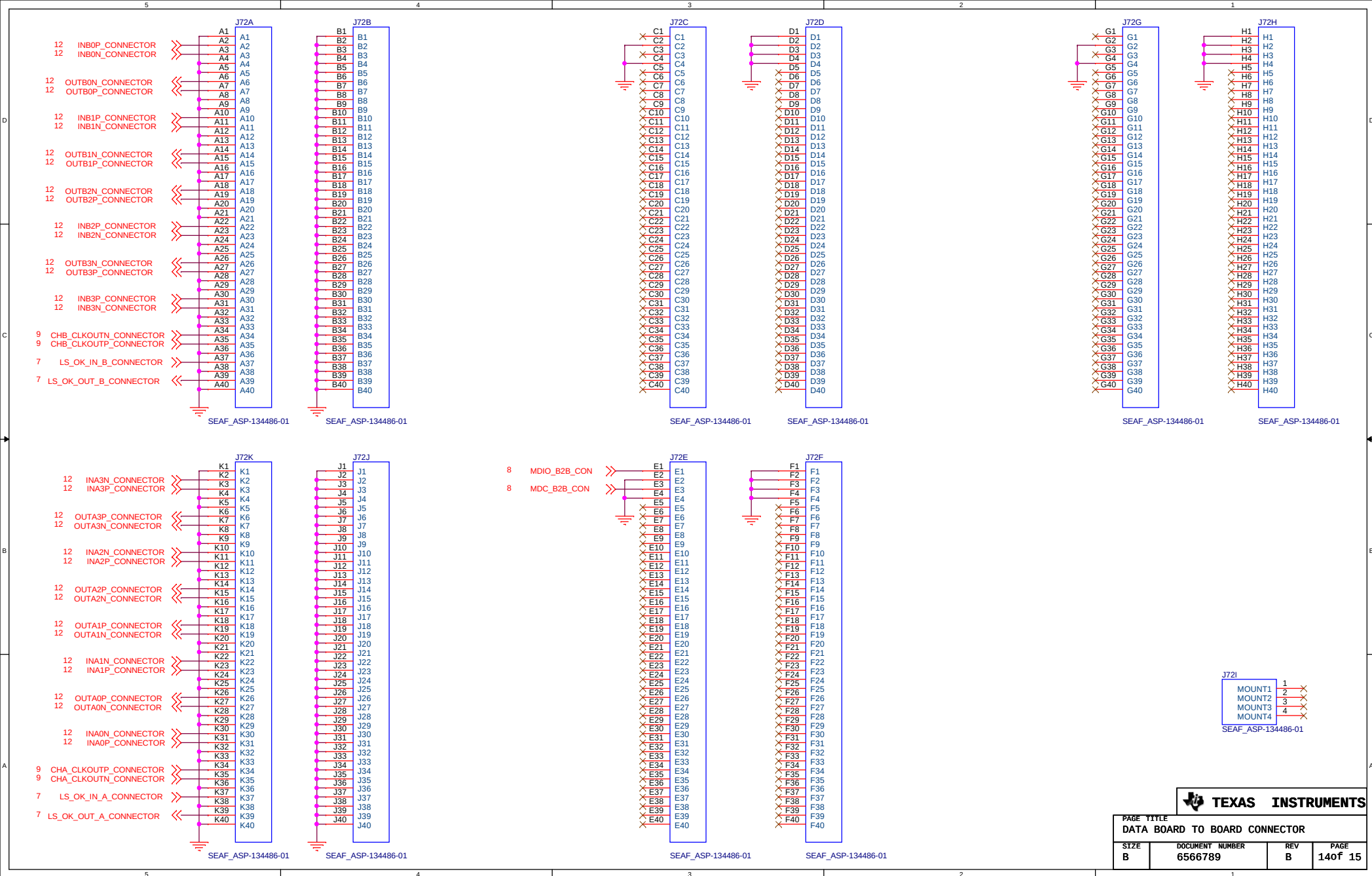
NOTE:
1. MATCH LOW SPEED INPUT AND OUTPUT TRACE LENGTHS TO EACHOTHER
2. MATCH HIGH SPEED TRANSMIT AND RECEIVE TRACE LENGTHS TO EACHOTHER

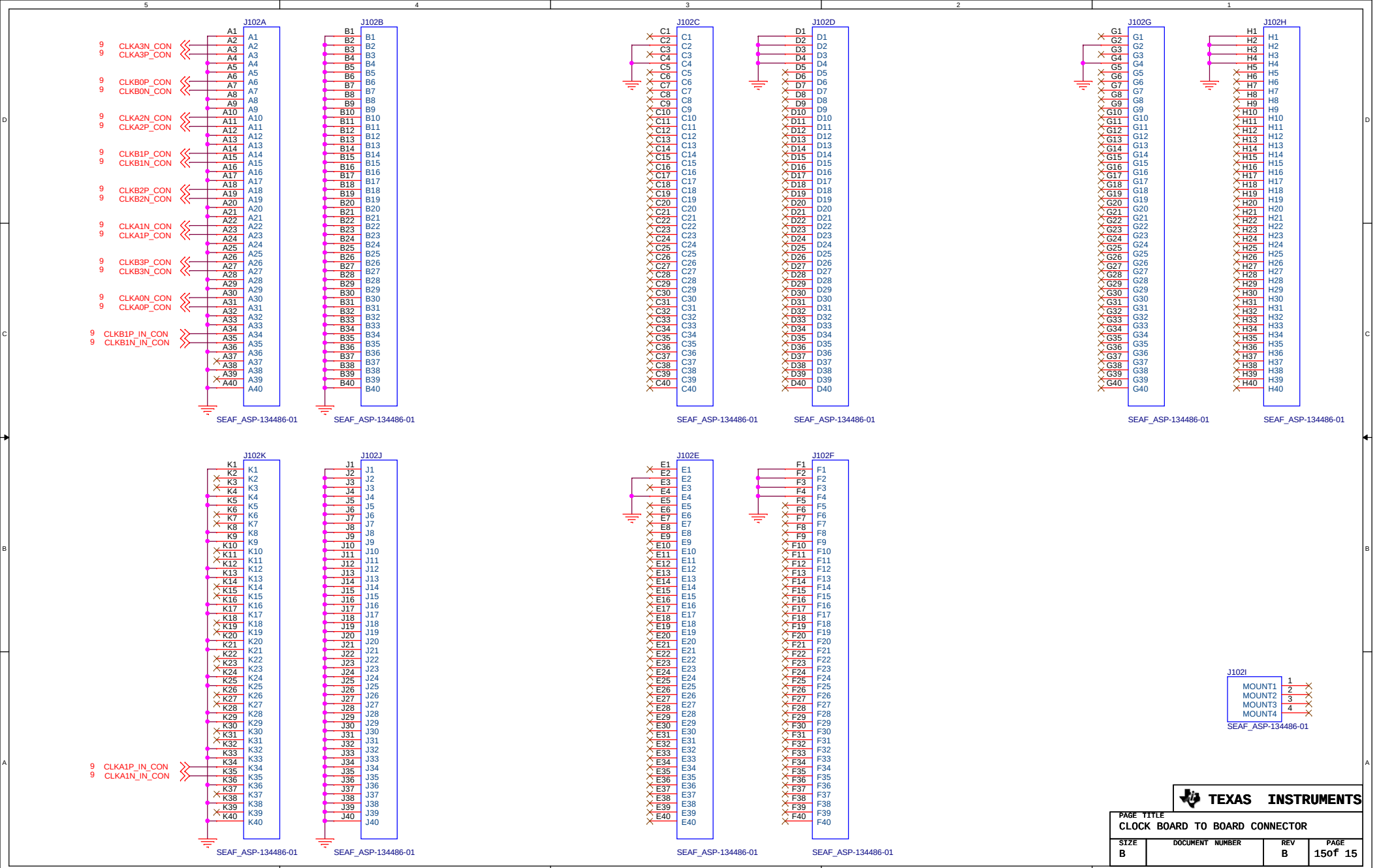


PAGE TITLE			
LOW SPEED DATA SIGNALS			
SIZE	DOCUMENT NUMBER	REV	PAGE
B	6566789	B	12 of 15



PAGE TITLE			
HIGH SPEED DATA SIGNALS			
SIZE	DOCUMENT NUMBER	REV	PAGE
B	6566789	B	13 of 15





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