

SCHEMATIC CONTENTS

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28 EXP P1 and EXP P2
29 EXP P3

```

1. Changed SD card slot
2. R291 and R293 value for Gladiator 1.2V core power
3. Route EMIF D[8:15] to exp connector (missed on RevB)

1. Added n\_channel FET and RC to JTAG nTRST (P07)

1. Added n\_channel FET and RC to JTAG nTRST (P07)
2. Replaced 2 color LEDs with 2 white LEDs

|                              |                          |       |          |
|------------------------------|--------------------------|-------|----------|
| <b>Texas Instruments Inc</b> |                          |       |          |
| Title<br>TMS570LC43x HDK     |                          |       |          |
| Size<br>A                    | Document Number<br>TITLE |       | Rev<br>B |
| Date:                        | Tuesdav. May 20. 2014    | Sheet | 1 of 29  |

D

D

C

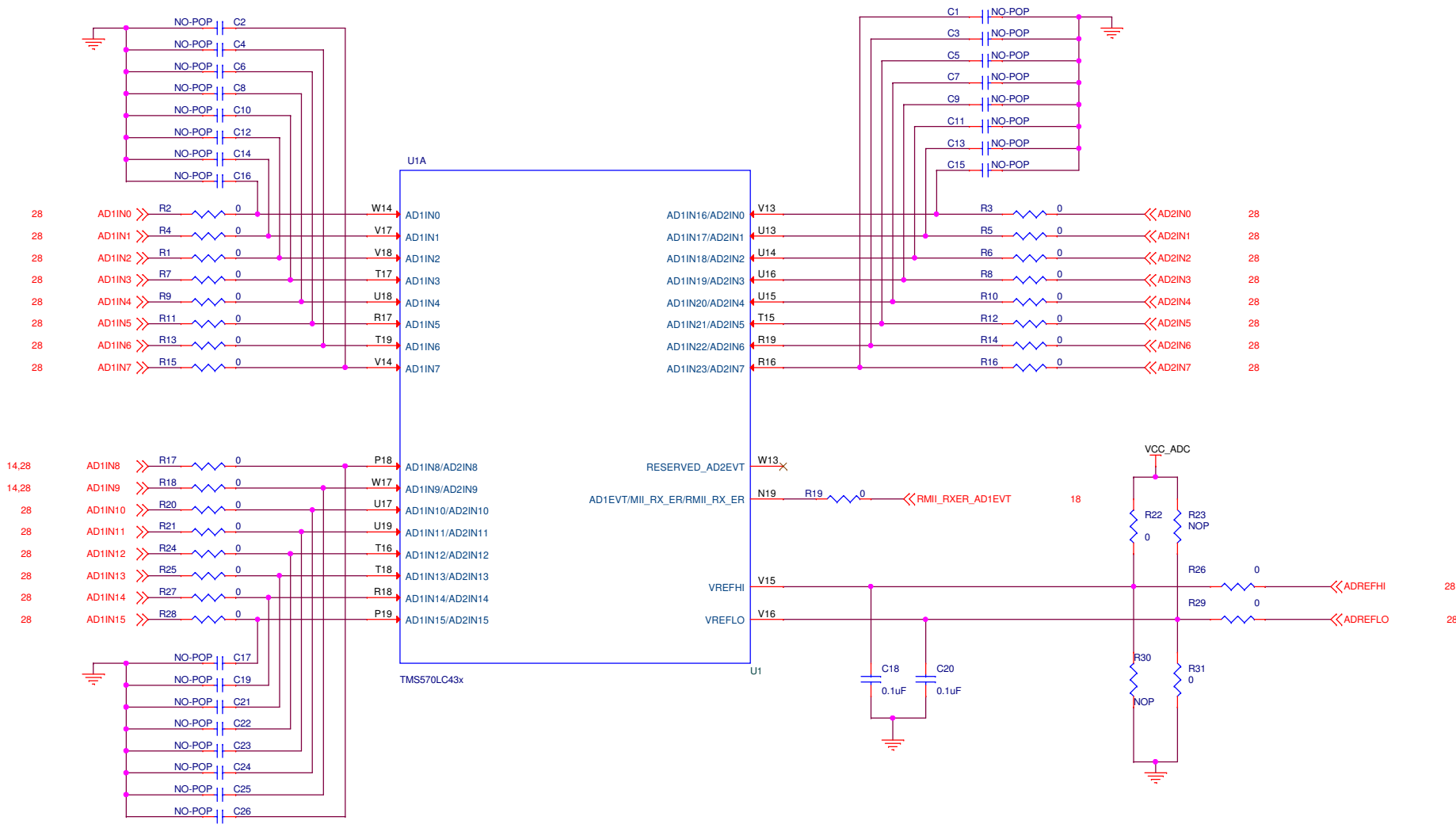
C

B

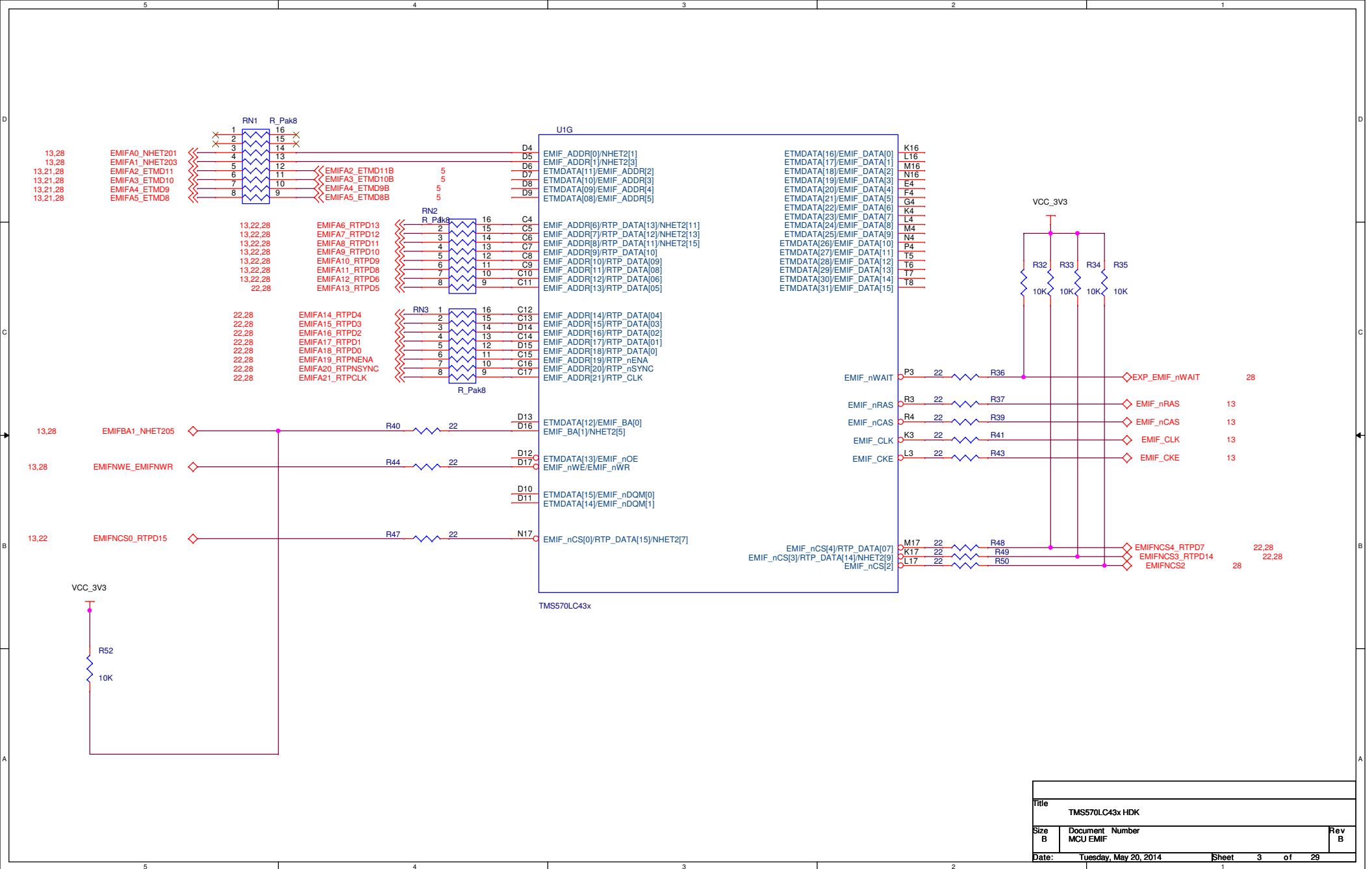
B

A

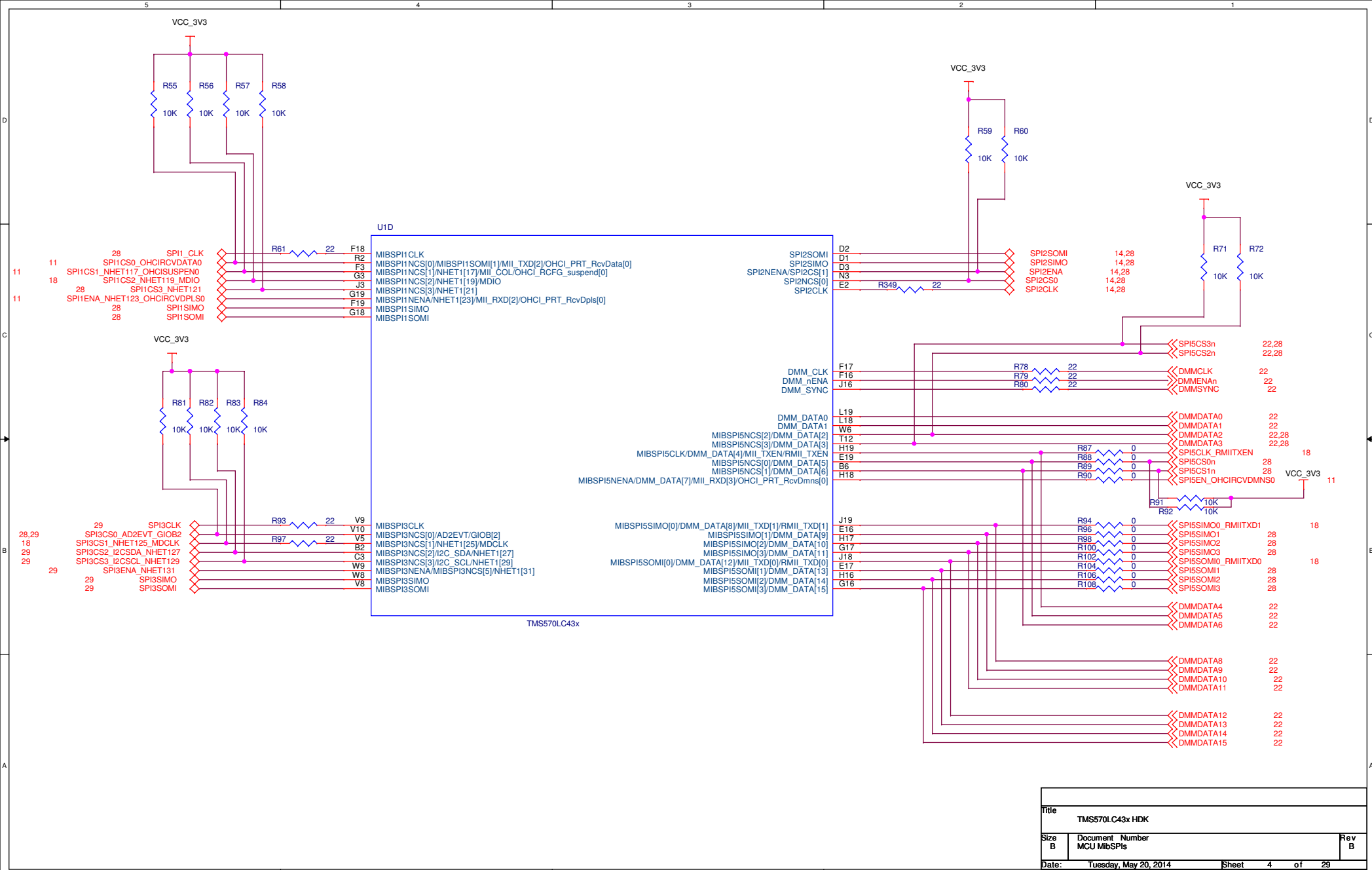
A



|                             |          |        |     |
|-----------------------------|----------|--------|-----|
| Title                       |          |        |     |
| TMS570LC43x HDK             |          |        |     |
| Size                        | Document | Number | Rev |
| B                           | MCU ADC  |        | B   |
| Date: Tuesday, May 20, 2014 |          |        |     |
| Sheet 2 of 29               |          |        |     |

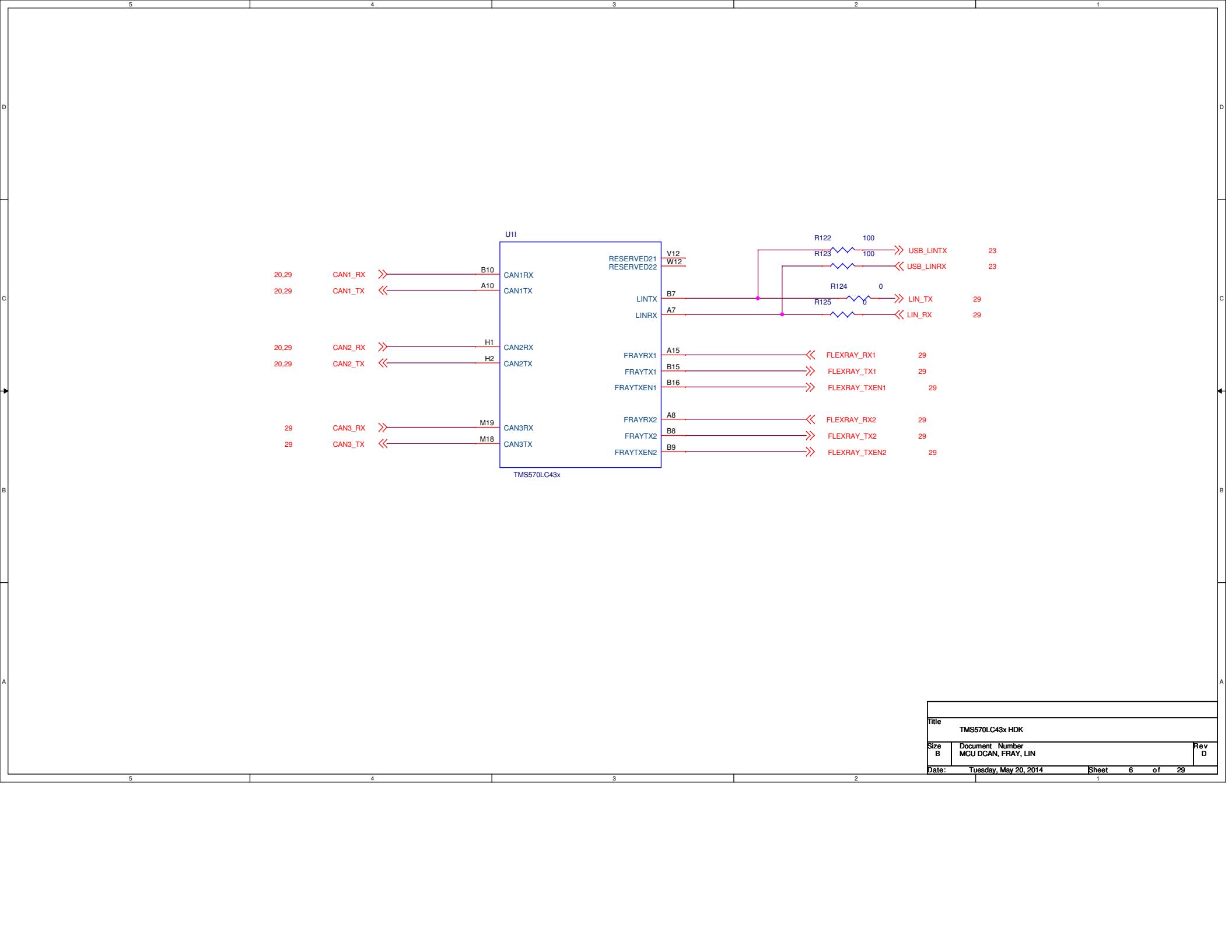


|                 |                       |        |               |
|-----------------|-----------------------|--------|---------------|
| Title           |                       |        |               |
| TMS570LC43x HDK |                       |        |               |
| Size            | Document              | Number | Rev           |
| B               | MCU                   | EMIF   | B             |
| Date:           | Tuesday, May 20, 2014 |        | Sheet 3 of 29 |



|                 |                                |       |         |       |
|-----------------|--------------------------------|-------|---------|-------|
| Title           |                                |       |         |       |
| TMS570LC43x HDK |                                |       |         |       |
| Size B          | Document Number<br>MCU MibSPis |       |         | Rev B |
| Date:           | Tuesday, May 20, 2014          | Sheet | 4 of 29 |       |





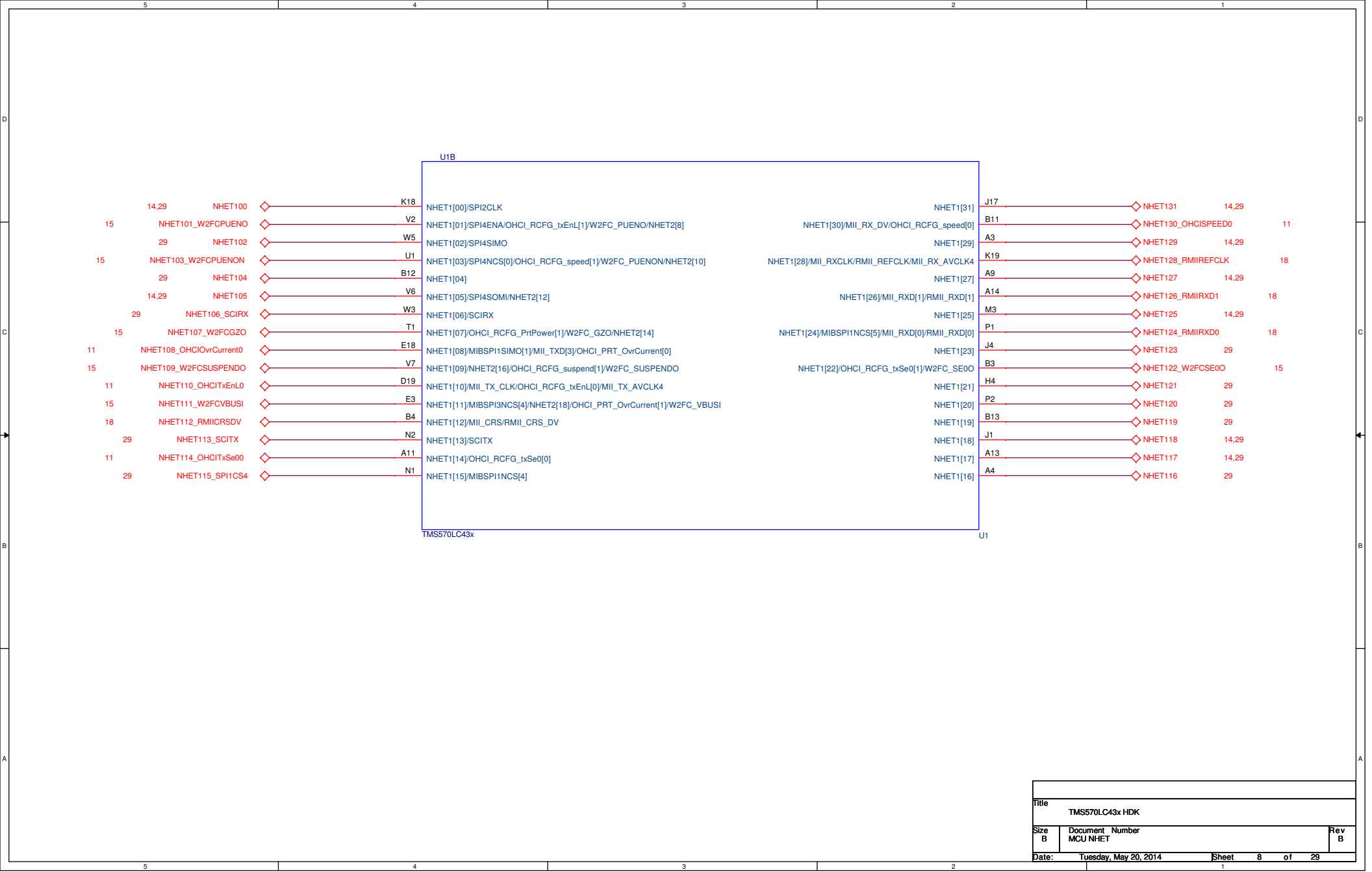
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| Title           |                       |        |         |
| TMS570LC43x HDK |                       |        |         |
| Size            | Document              | Number | Rev     |
| B               | MCU DCAN, FRAY, LIN   |        | D       |
| Date:           | Tuesday, May 20, 2014 | Sheet  | 6 of 29 |

To MCU  
18  
19  
To PHY

When using RMII, the OSC will be 50MHz

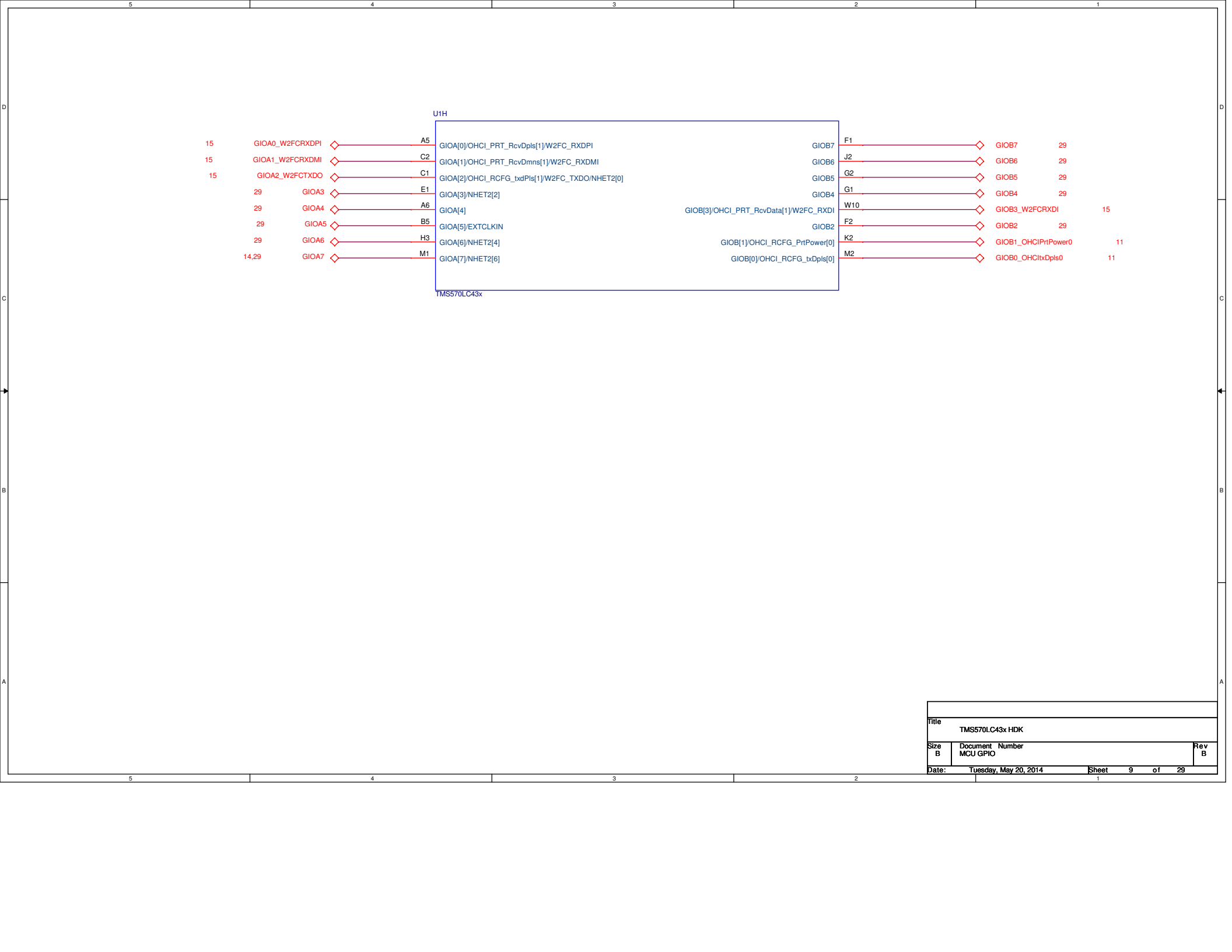
place R225, R226,  
R132, and C29 close to  
U1

|                             |                 |     |
|-----------------------------|-----------------|-----|
| Title                       |                 |     |
| TMS570LC43x HDK             |                 |     |
| Size                        | Document Number | Rev |
| B                           | MCU JTAG & OSC  | D   |
| Date: Tuesday, May 20, 2014 |                 |     |
| Sheet 7 of 29               |                 |     |

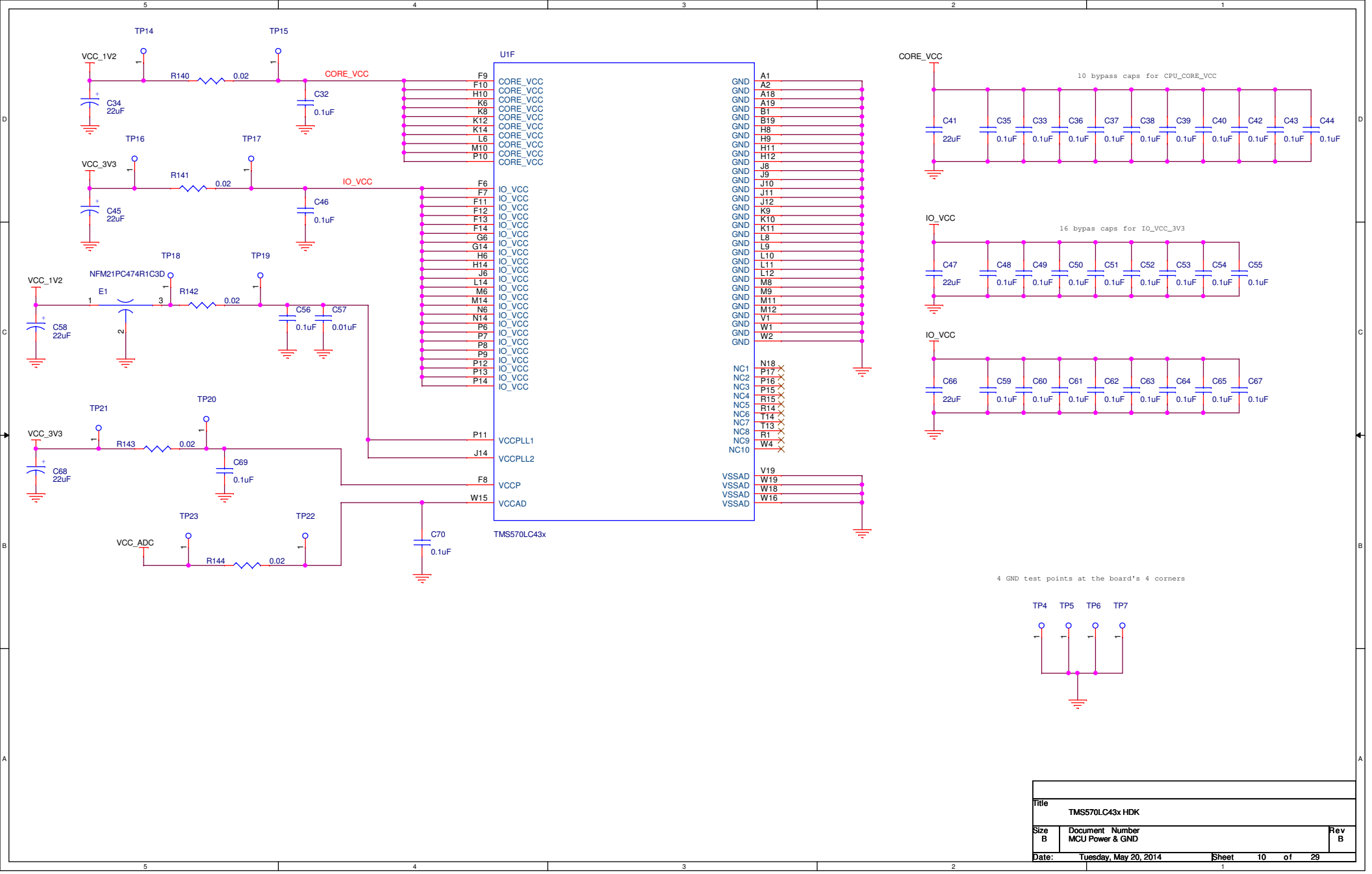


|                 |                       |        |               |
|-----------------|-----------------------|--------|---------------|
| Title           |                       |        |               |
| TMS570LC43x HDK |                       |        |               |
| Size B          | Document              | Number | Rev B         |
| MCU NHET        |                       |        |               |
| Date:           | Tuesday, May 20, 2014 |        | Sheet 8 of 29 |

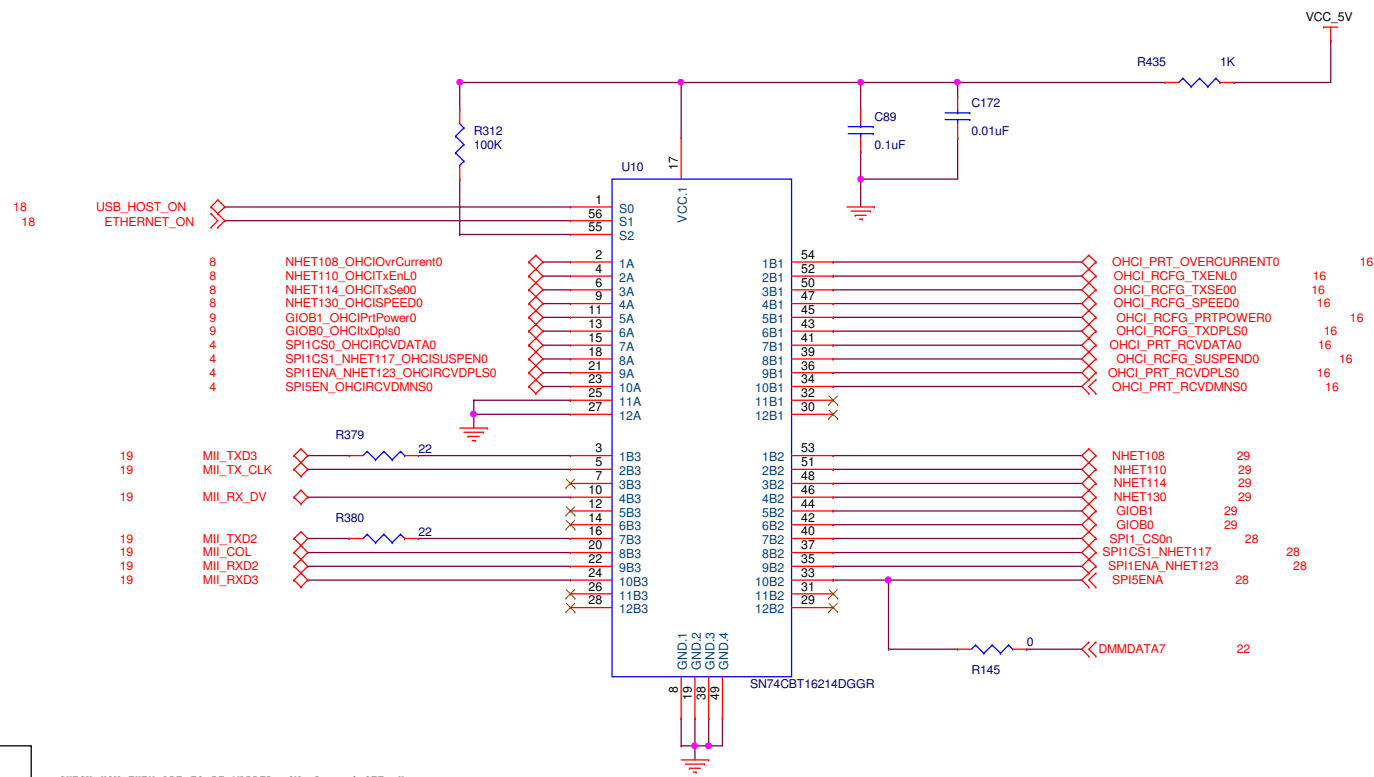




|                 |                       |        |         |
|-----------------|-----------------------|--------|---------|
| Title           |                       |        |         |
| TMS570LC43x HDK |                       |        |         |
| Size B          | Document              | Number | Rev B   |
| MCU GPIO        |                       |        |         |
| Date:           | Tuesday, May 20, 2014 | Sheet  | 9 of 29 |



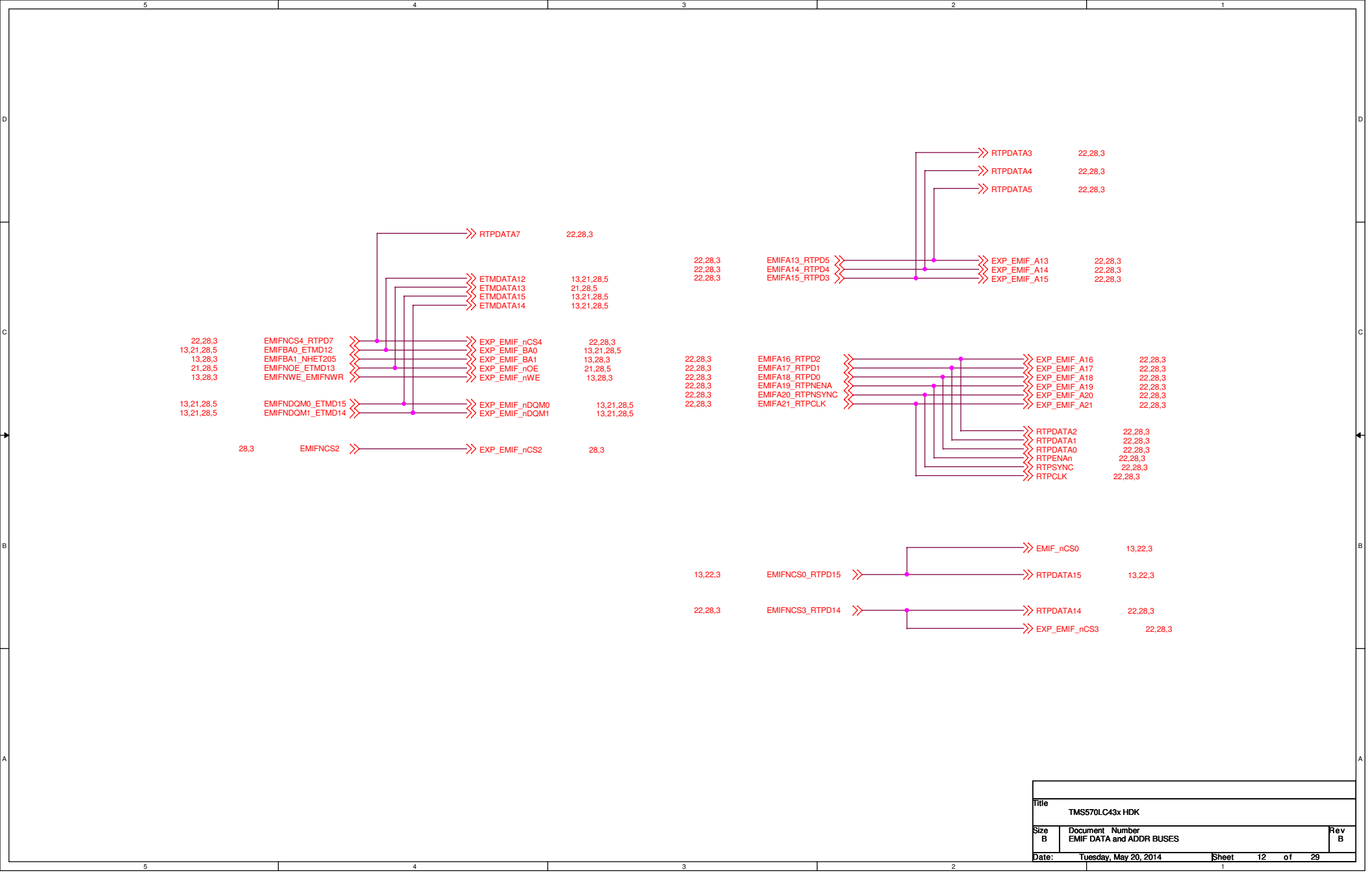
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|-------|-----------------------|--------|-----------------|----|----|
| Title |                       |        | TMS570LC43x HDK |    |    |
| Size  | Document              | Number | Rev             |    |    |
| B     | MCU Power & GND       |        | B               |    |    |
| Date: | Tuesday, May 20, 2014 | Sheet  | 10              | of | 29 |

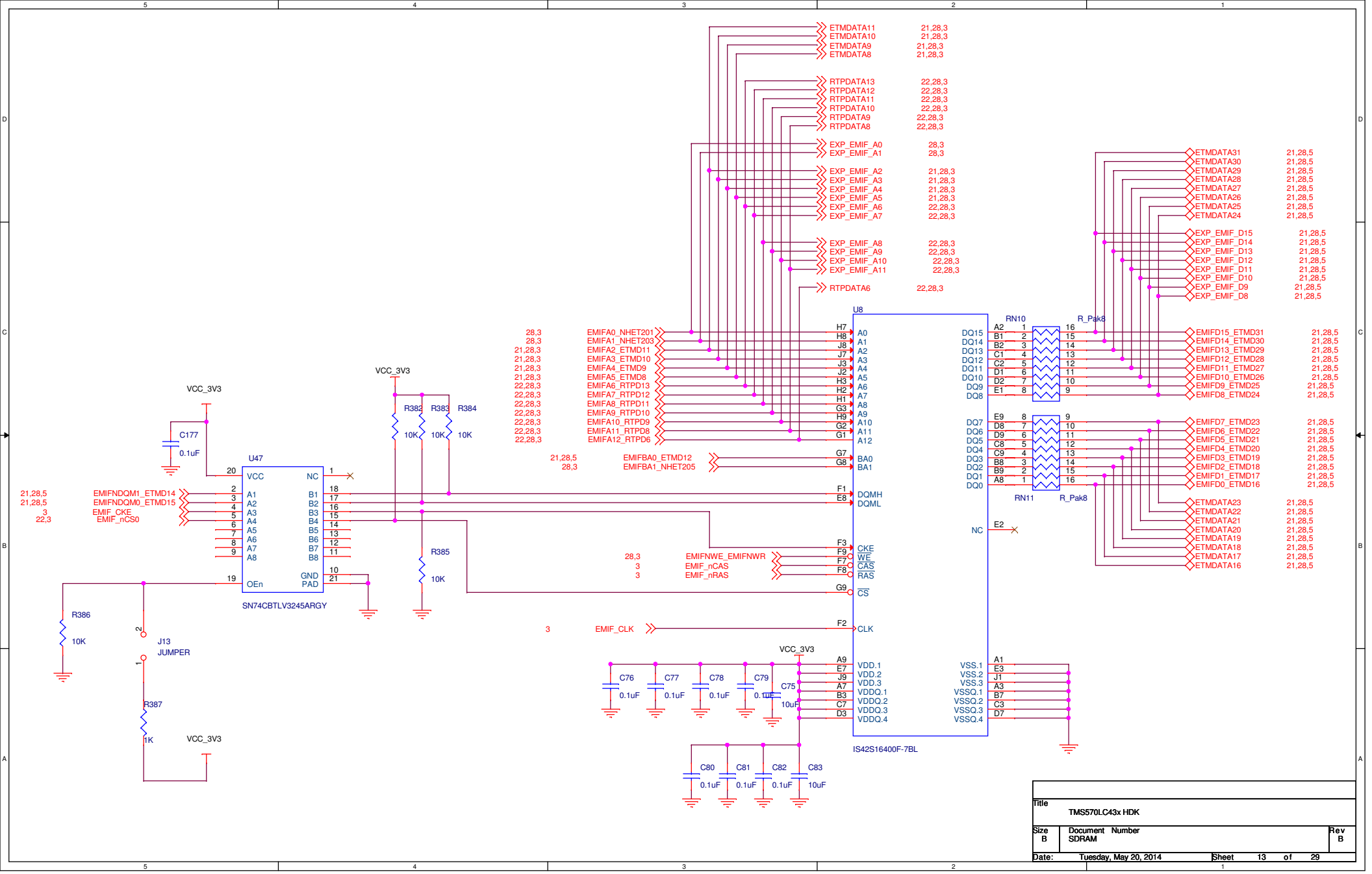


| S2 | S1 | S0 | A     |
|----|----|----|-------|
| 1  | 0  | 0  | Z     |
| 1  | 0  | 1  | B3**  |
| 1  | 1  | 0  | B1 ** |
| 1  | 1  | 1  | B2 ** |

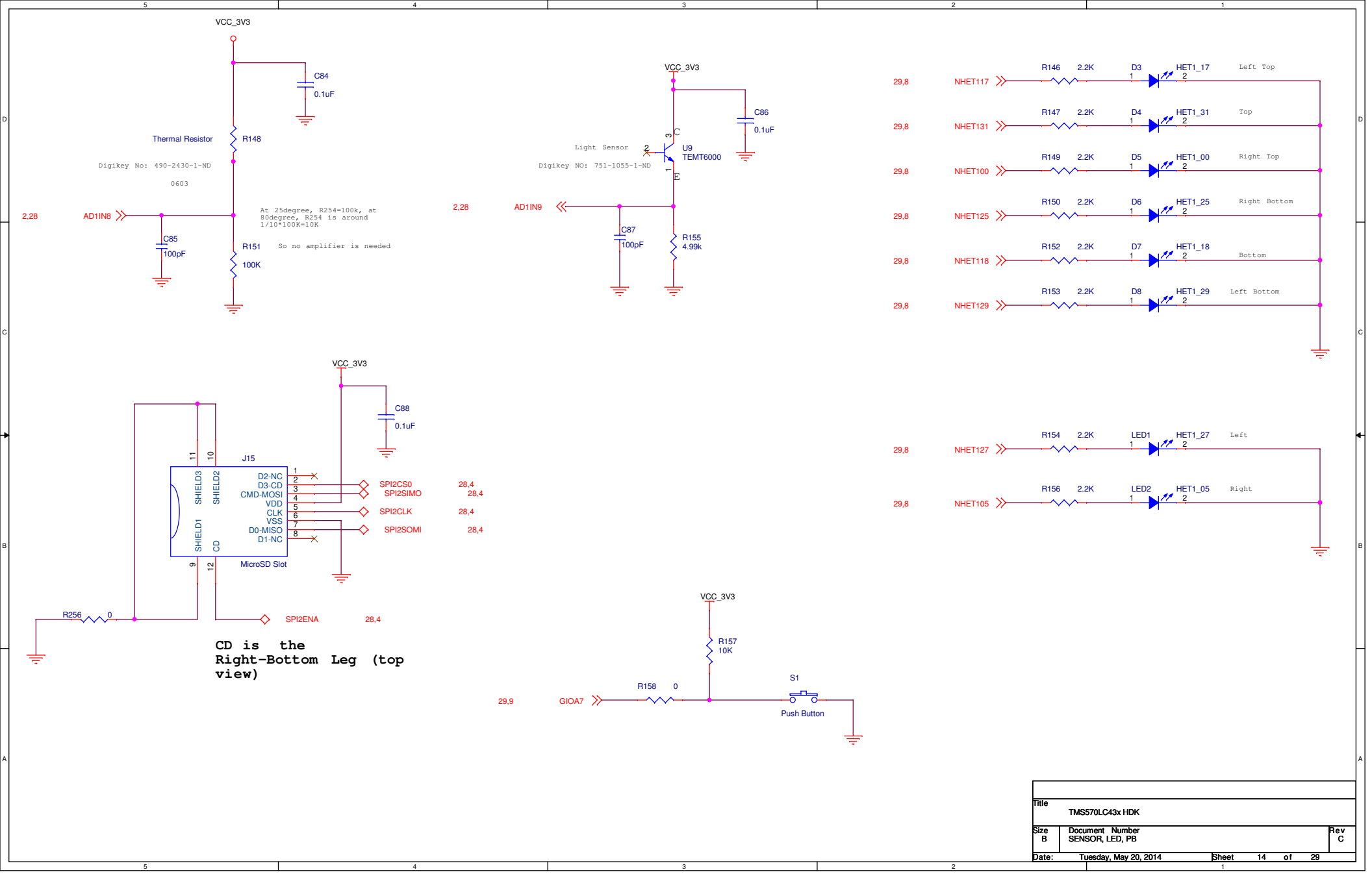
CHECK HOW THEY ARE TO BE MAPPED. ON--L, and OFF--H

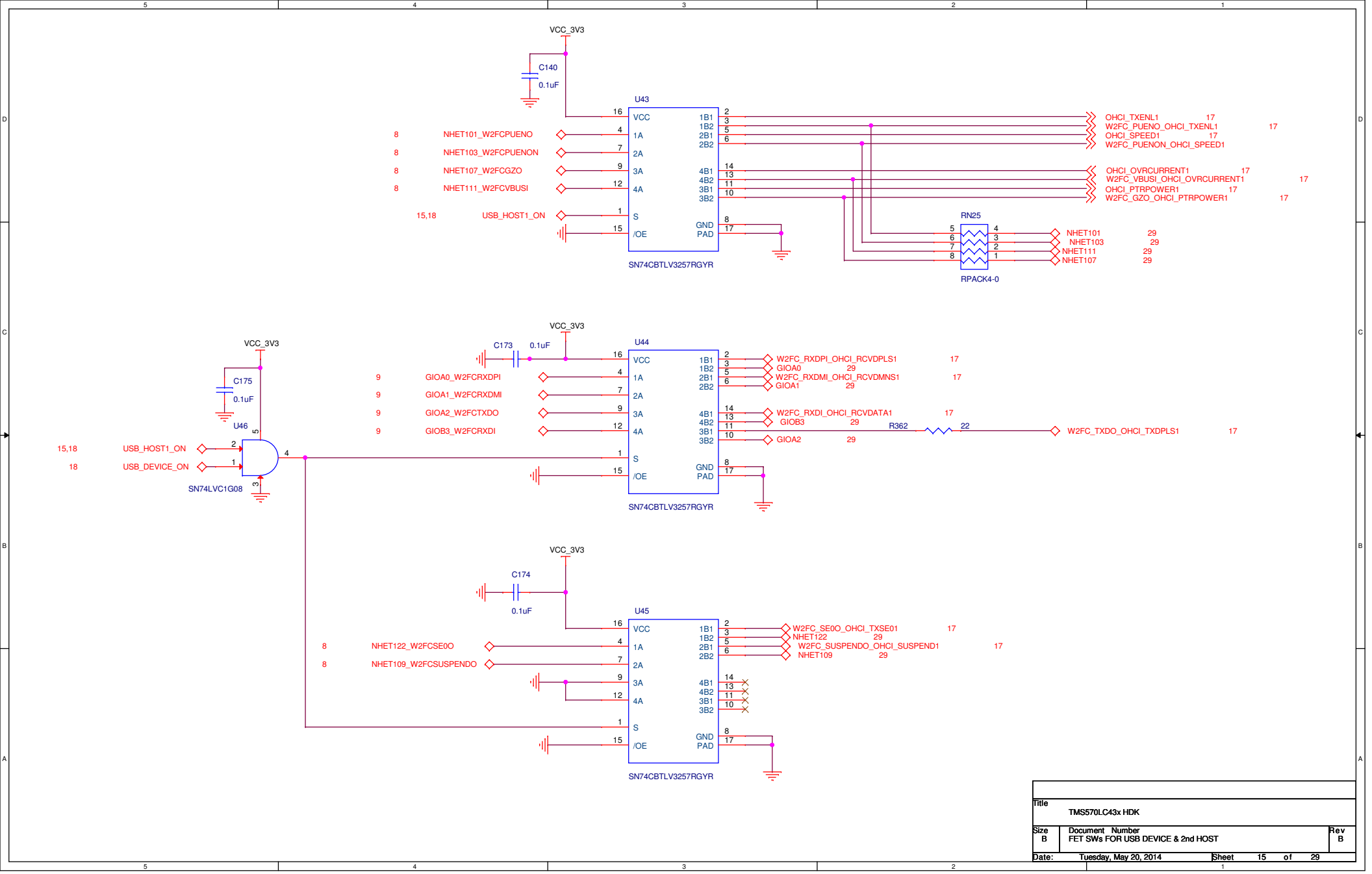
| Title                       |                          |        |     |
|-----------------------------|--------------------------|--------|-----|
| TMS570LC43x HDK             |                          |        |     |
| Size                        | Document                 | Number | Rev |
| B                           | FET SWs FOR 1st USB HOST |        | B   |
| Date: Tuesday, May 20, 2014 |                          |        |     |
| Sheet 11 of 29              |                          |        |     |



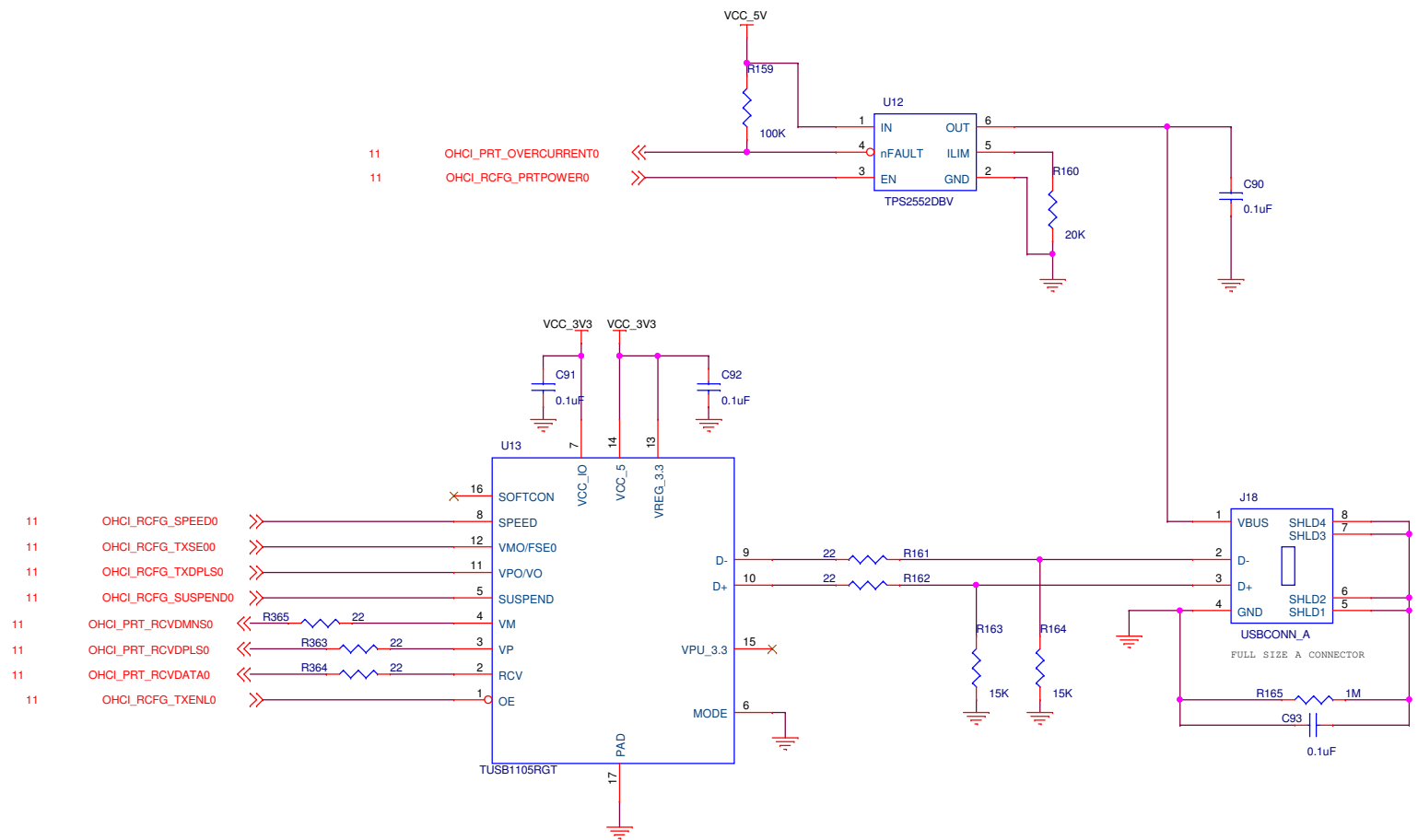


|                             |          |        |     |
|-----------------------------|----------|--------|-----|
| Title                       |          |        |     |
| TMS570LC43x HDK             |          |        |     |
| Size                        | Document | Number | Rev |
| B                           | SDRAM    |        | B   |
| Date: Tuesday, May 20, 2014 |          |        |     |
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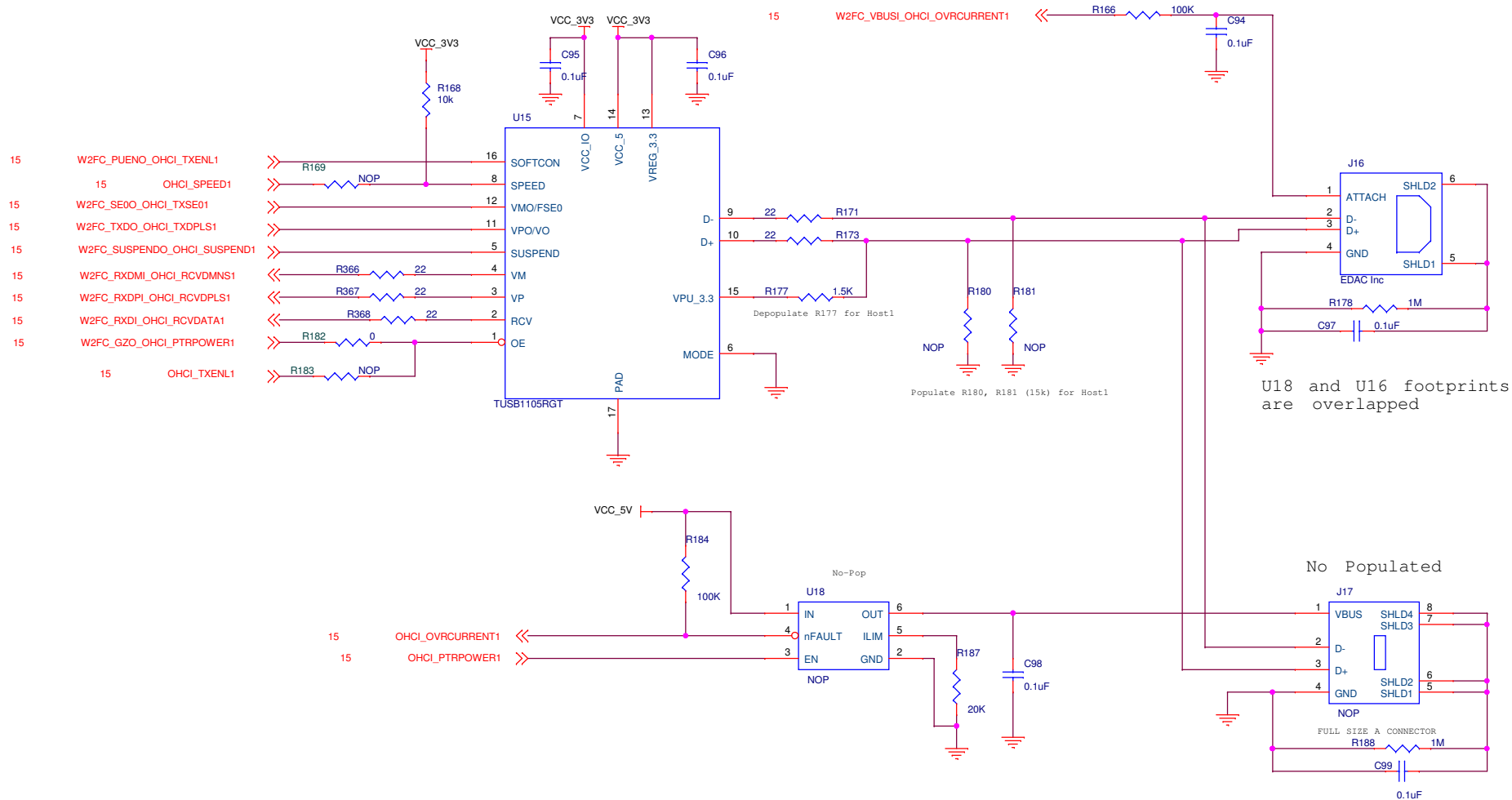


|       |                                   |        |                 |
|-------|-----------------------------------|--------|-----------------|
| Title |                                   |        | TMS570LC43x HDK |
| Size  | Document                          | Number | Rev             |
| B     | FET SWs FOR USB DEVICE & 2nd HOST |        | B               |
| Date: | Tuesday, May 20, 2014             | Sheet  | 15 of 29        |

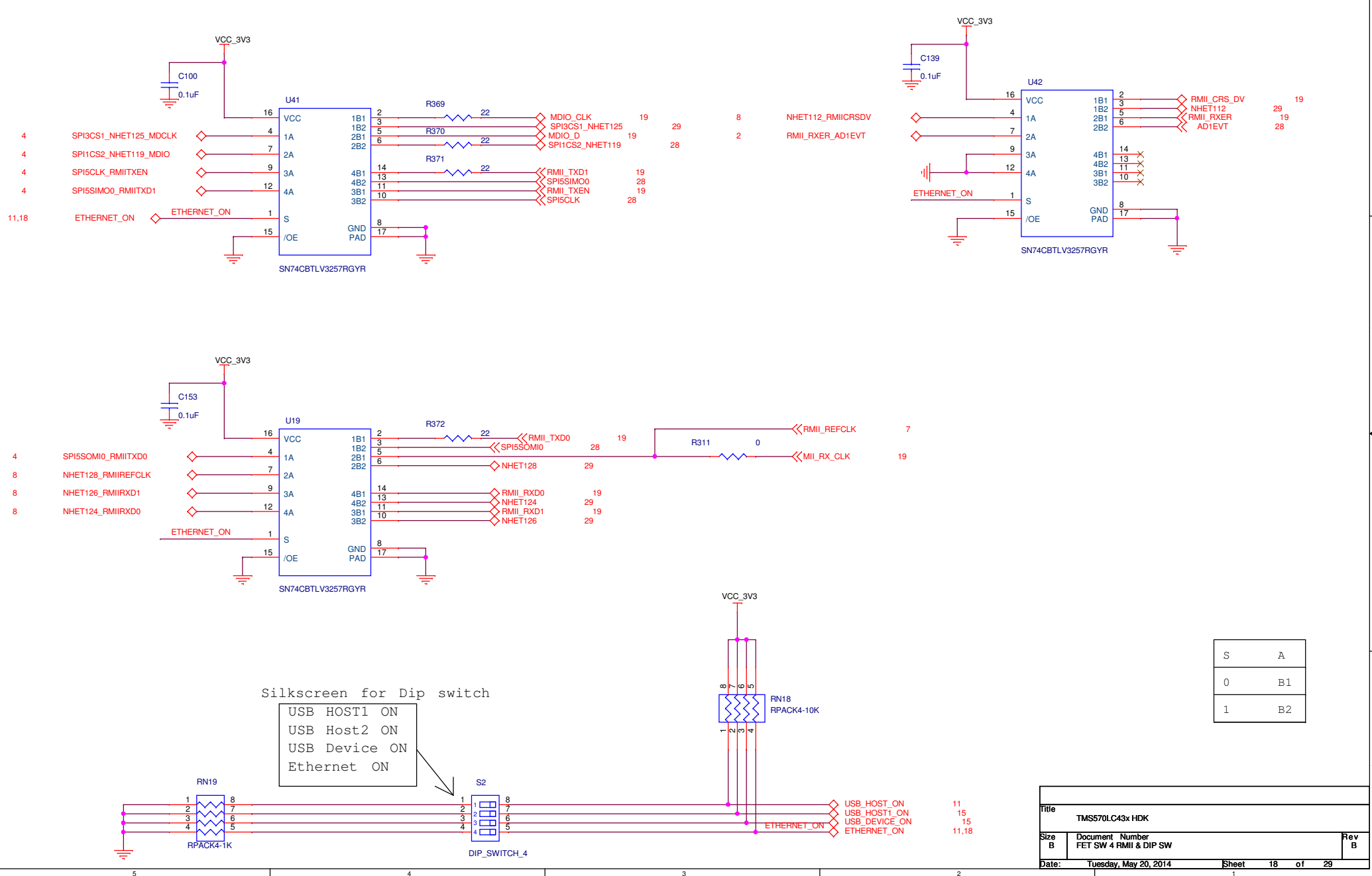


|                   |                       |                |
|-------------------|-----------------------|----------------|
| Title             |                       |                |
| TMS570LC43x HDK   |                       |                |
| Size B            | Document Number       | Rev B          |
| USB 1st OHCI Host |                       |                |
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|                       |                       |                |
|-----------------------|-----------------------|----------------|
| Title                 |                       |                |
| TMS570LC43x HDK       |                       |                |
| Size B                | Document Number       | Rev B          |
| USB Device & 2nd HOST |                       |                |
| Date:                 | Tuesday, May 20, 2014 | Sheet 17 of 29 |



Silkscreen for Dip switch

USB HOST1 ON

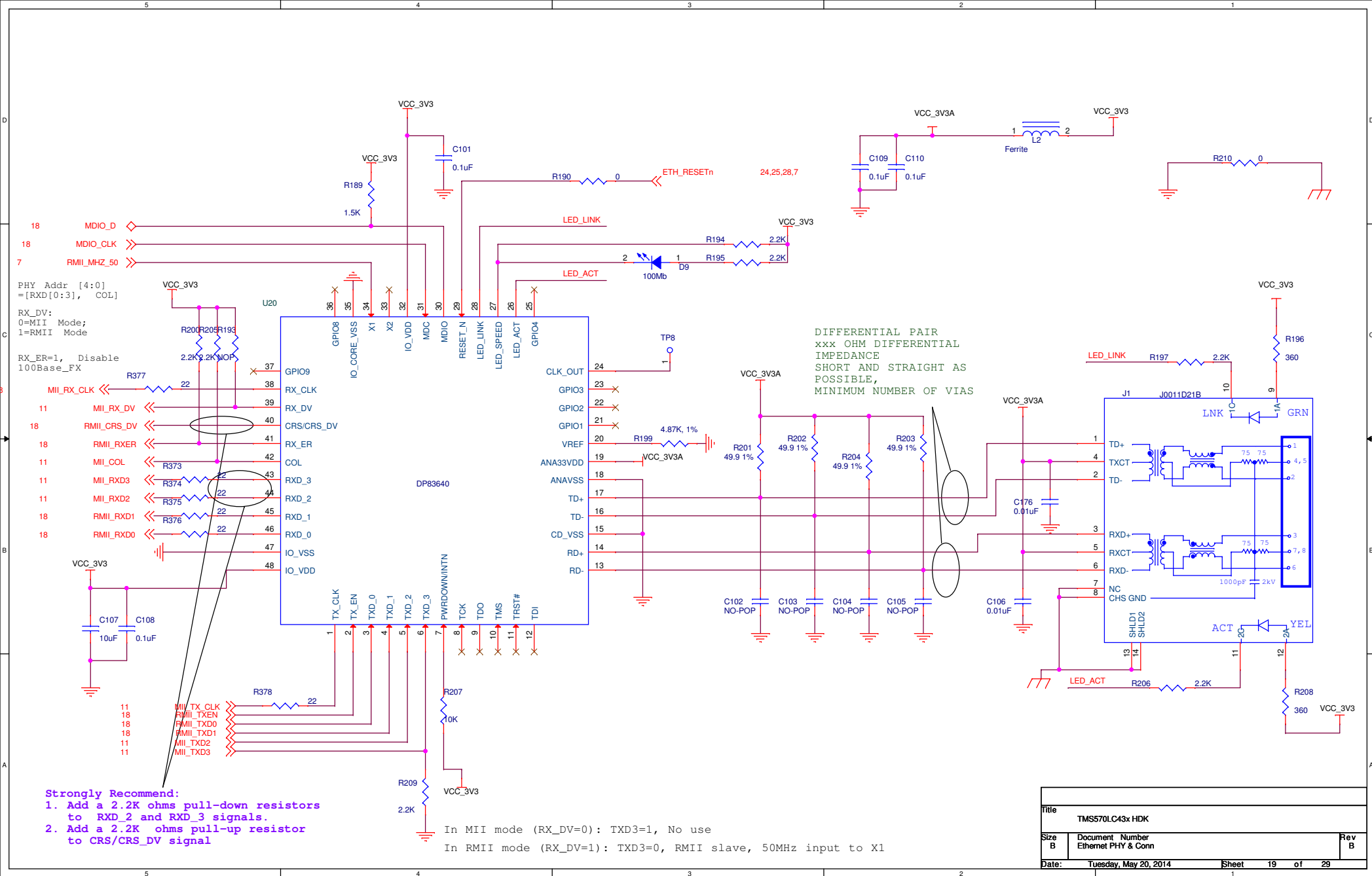
USB Host2 ON

USB Device ON

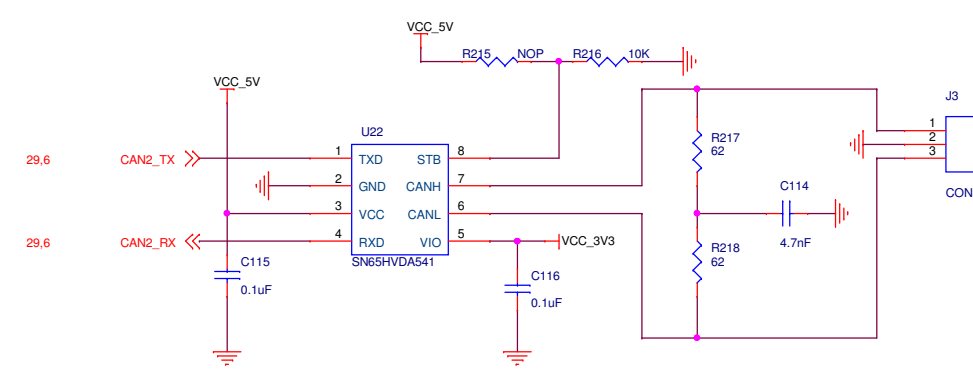
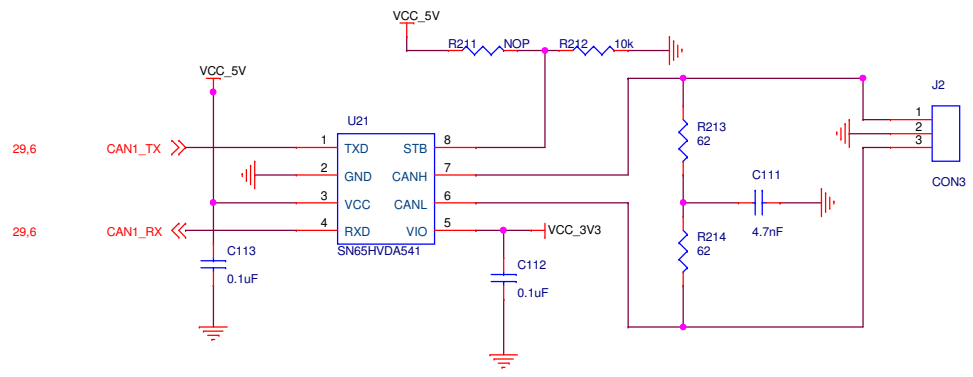
Ethernet ON

|   |    |
|---|----|
| S | A  |
| 0 | B1 |
| 1 | B2 |

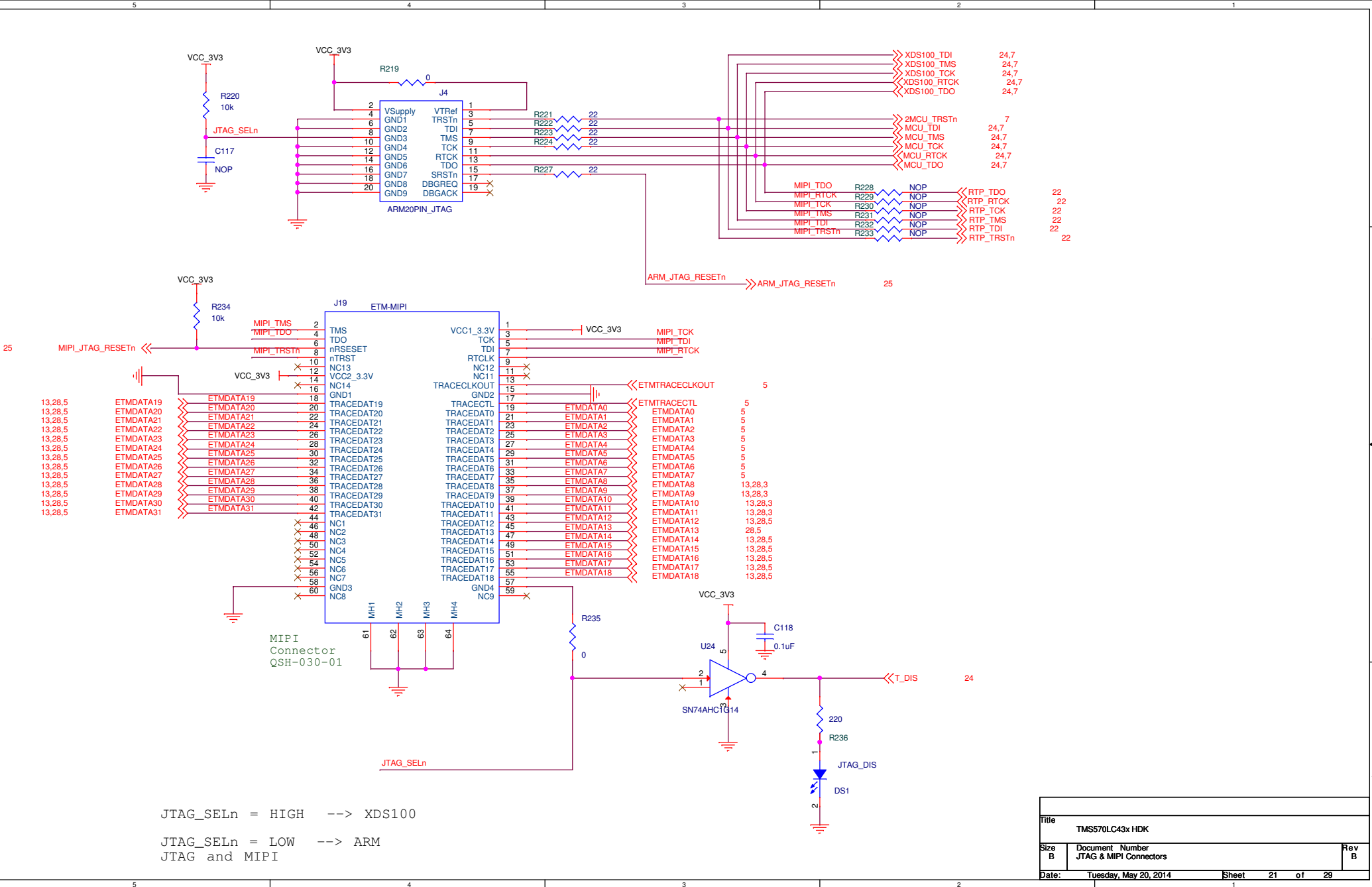
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| Title           |                                           |                |
| TMS570LC43x HDK |                                           |                |
| Size B          | Document Number<br>FET SW 4 RMII & DIP SW | Rev B          |
| Date:           | Tuesday, May 20, 2014                     | Sheet 18 of 29 |



|                 |                                        |       |          |
|-----------------|----------------------------------------|-------|----------|
| Title           |                                        |       |          |
| TMS570LC43x HDK |                                        |       |          |
| Size B          | Document Number<br>Ethernet PHY & Conn |       | Rev B    |
| Date:           | Tuesday, May 20, 2014                  | Sheet | 19 of 29 |



|                   |                       |                |
|-------------------|-----------------------|----------------|
| Title             |                       |                |
| TMS570LC43x HDK   |                       |                |
| Size B            | Document Number       | Rev B          |
| DCAN Transceivers |                       |                |
| Date:             | Tuesday, May 20, 2014 | Sheet 20 of 29 |

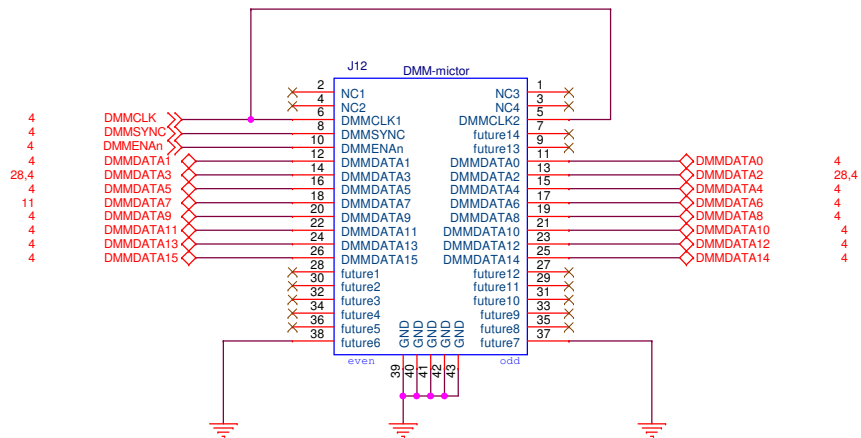


JTAG\_SELn = HIGH --> XDS100

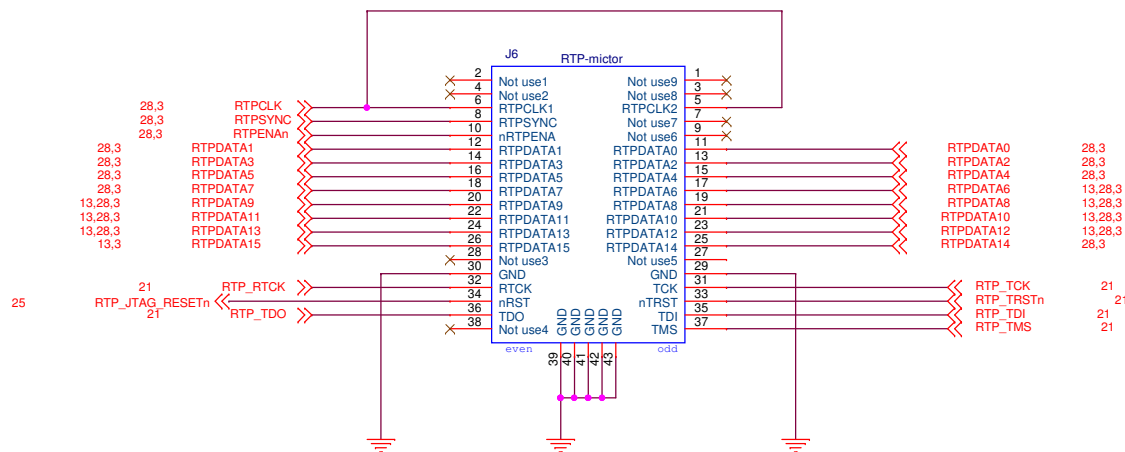
JTAG\_SELn = LOW --> ARM

JTAG and MIPI

|        |                       |        |                        |          |
|--------|-----------------------|--------|------------------------|----------|
| Title  |                       |        | TMS570LC43x HDK        |          |
| Size B | Document              | Number | JTAG & MIPI Connectors |          |
| Date:  | Tuesday, May 20, 2014 |        | Sheet                  | 21 of 29 |

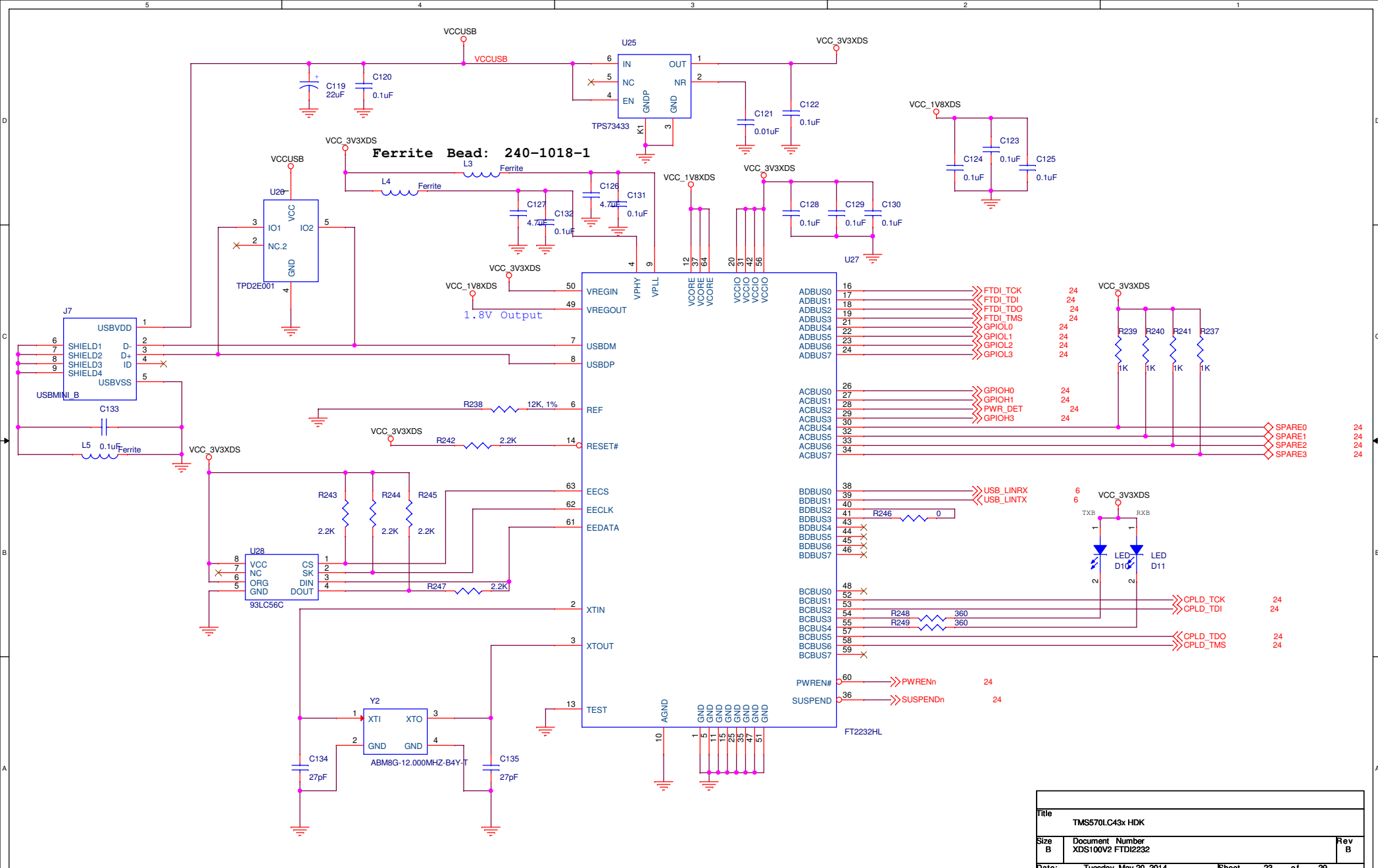


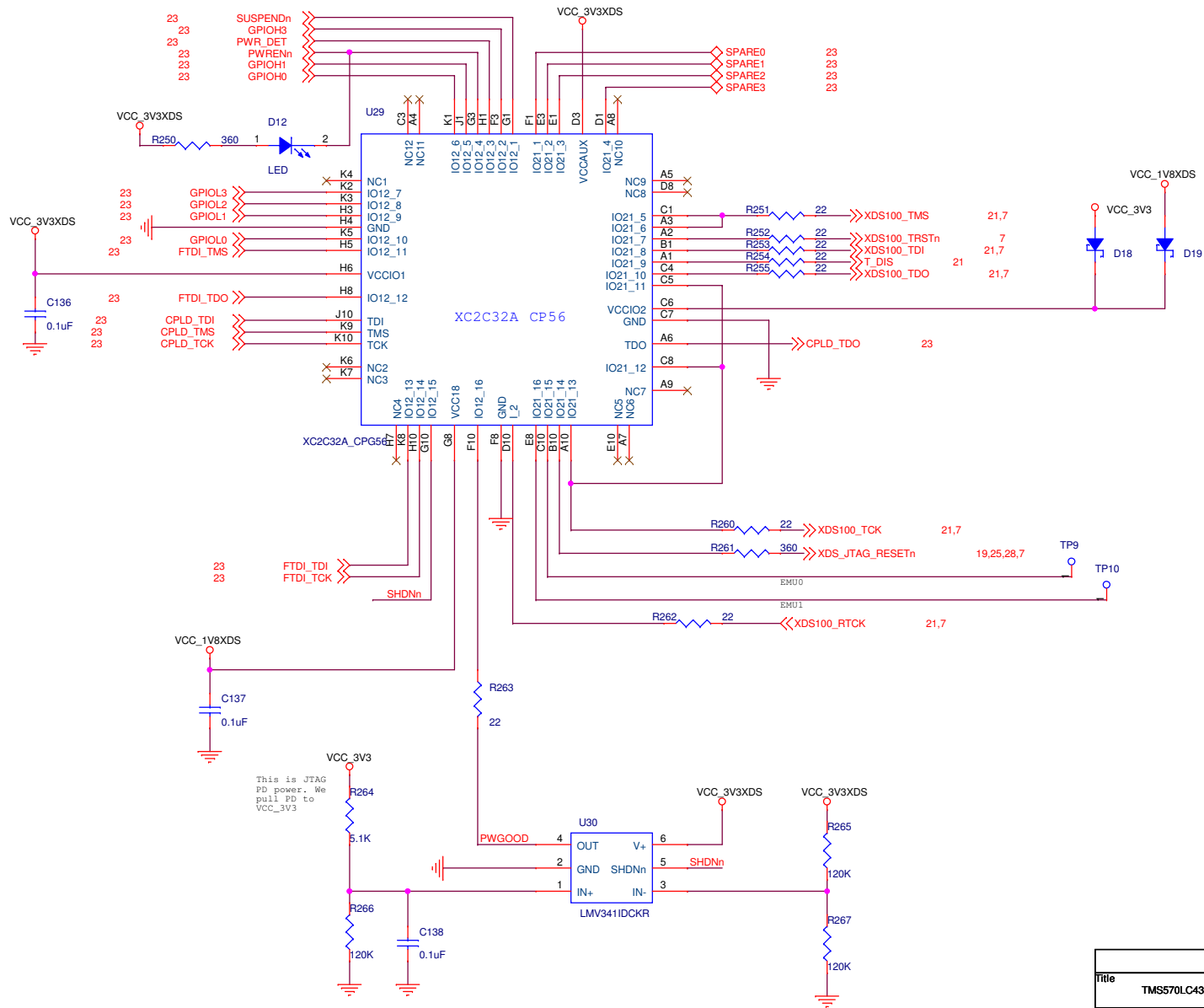
Foot Print Only  
Pin39/40/41/42/43 are the central GND



AMP 2-5767004-2  
Receptacle, Center Strip Contacts  
Foot Print Only

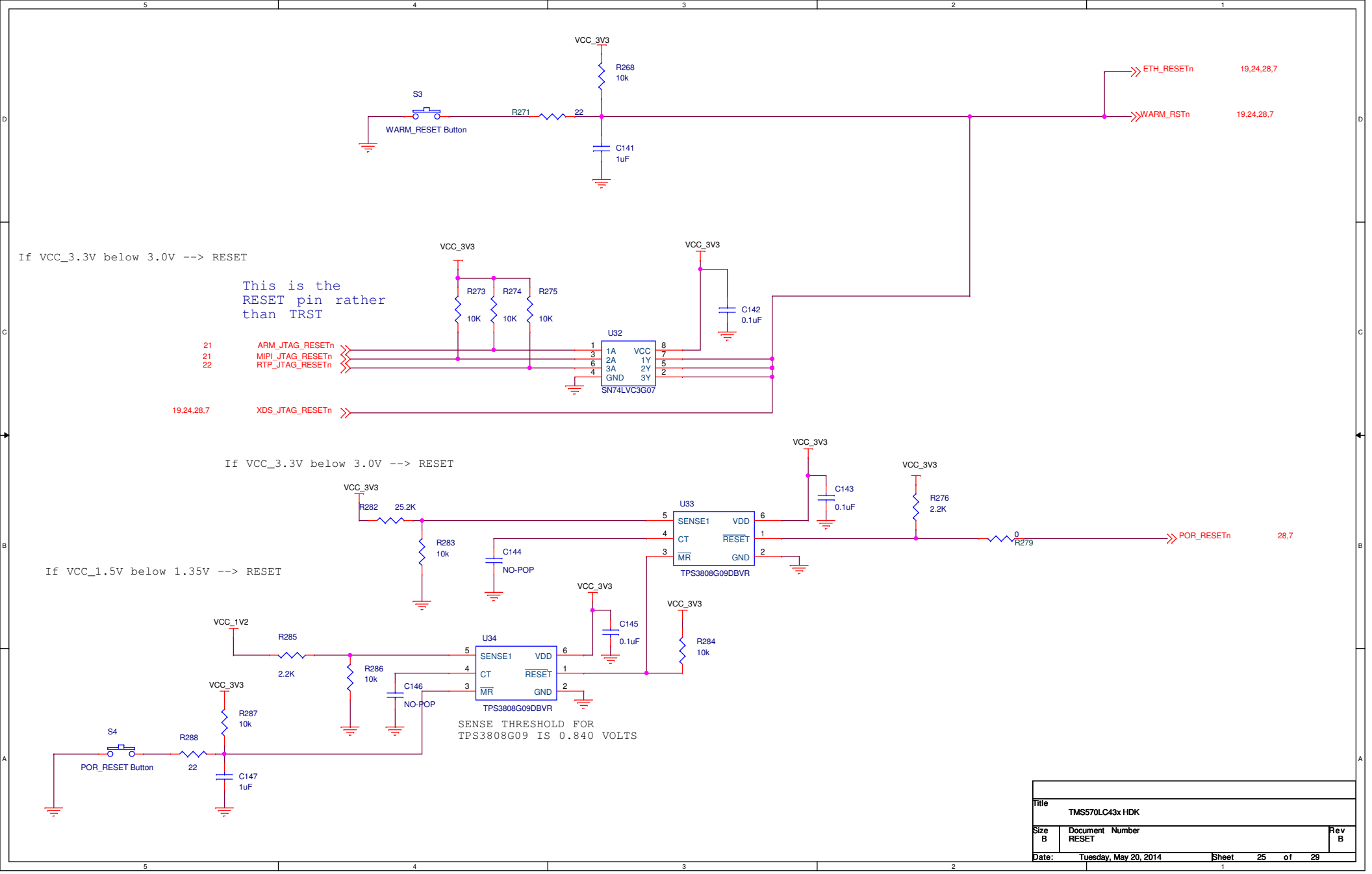
|                          |                       |                |
|--------------------------|-----------------------|----------------|
| Title                    |                       |                |
| TMS570LS3x/RM5x CPU CARD |                       |                |
| Size B                   | Document Number       | Rev B          |
| DMM and RTP Connectors   |                       |                |
| Date:                    | Tuesday, May 20, 2014 | Sheet 22 of 29 |



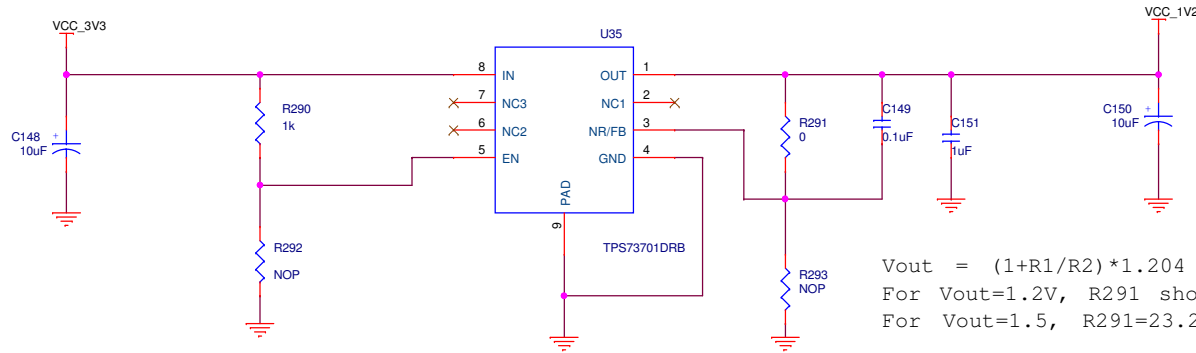


|                       |          |        |
|-----------------------|----------|--------|
| Title                 |          |        |
| TMS570LC43x HDK       |          |        |
| Size                  | Document | Number |
| B                     | XDS100V2 | CPLD   |
| Date:                 |          | Rev    |
| Tuesday, May 20, 2014 |          | B      |
| Sheet                 |          | of     |
| 24                    |          | 29     |

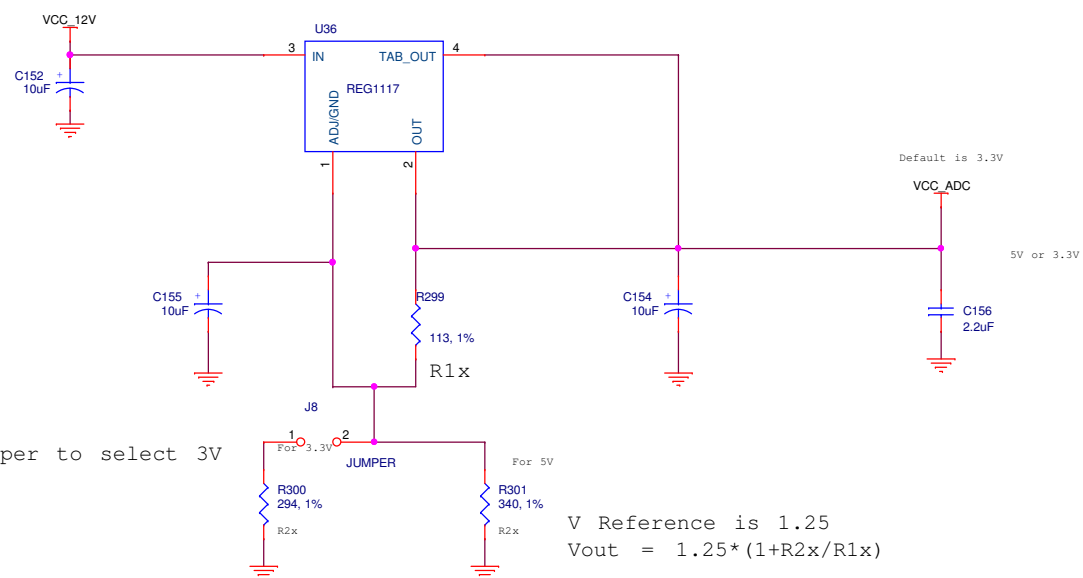
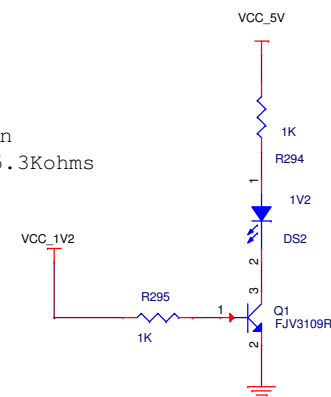




|                 |                       |                |
|-----------------|-----------------------|----------------|
| Title           |                       |                |
| TMS570LC43x HDK |                       |                |
| Size B          | Document Number       | Rev B          |
| RESET           |                       |                |
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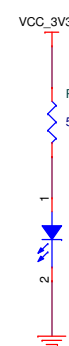


$V_{out} = (1 + R1/R2) * 1.204$   
 For  $V_{out}=1.2V$ , R291 shorted, and R293 Open  
 For  $V_{out}=1.5$ , R291=23.2Kohms, and R293=95.3Kohms  
 R281: ERJ-2RK2322X

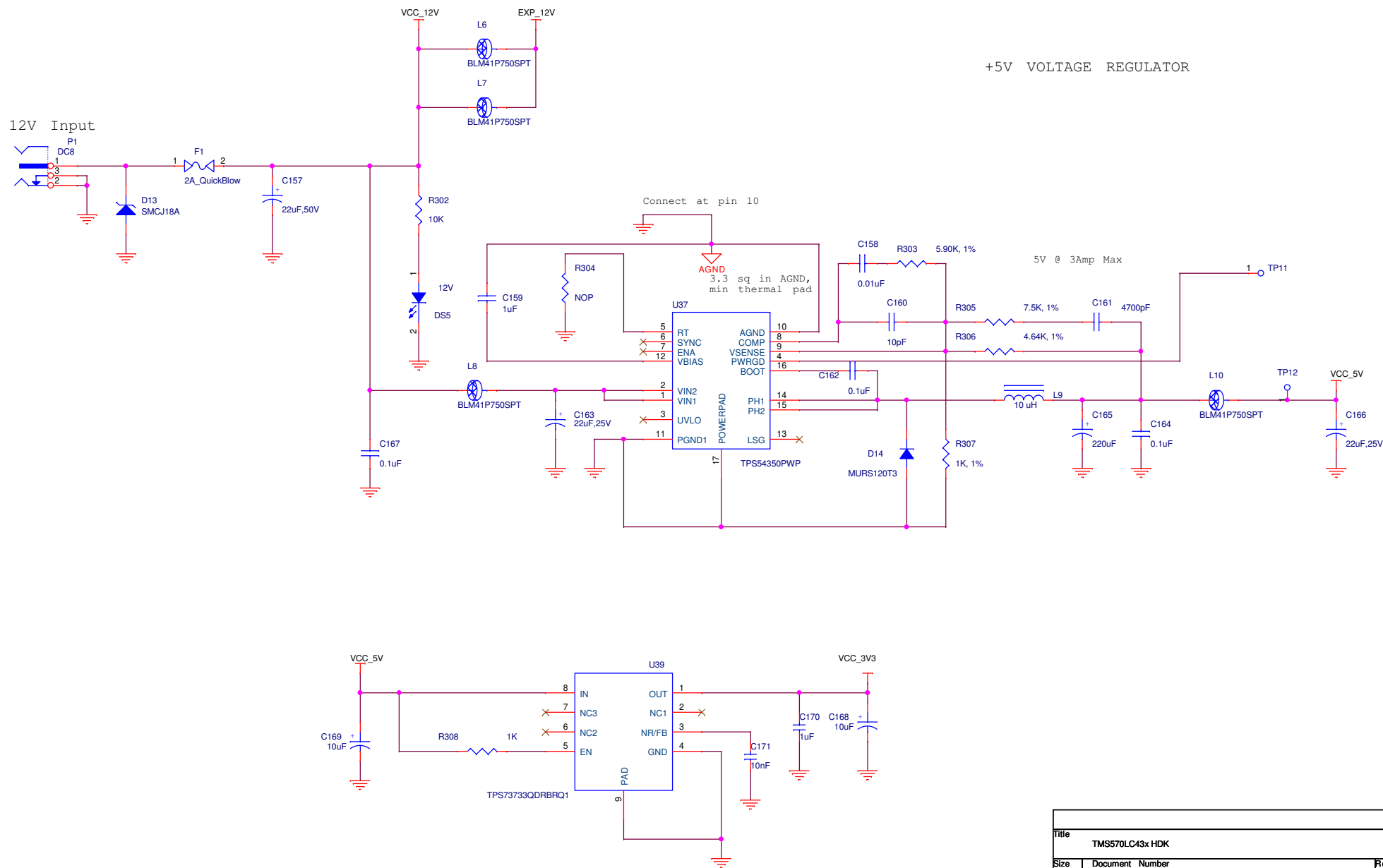


use jumper to select 3V

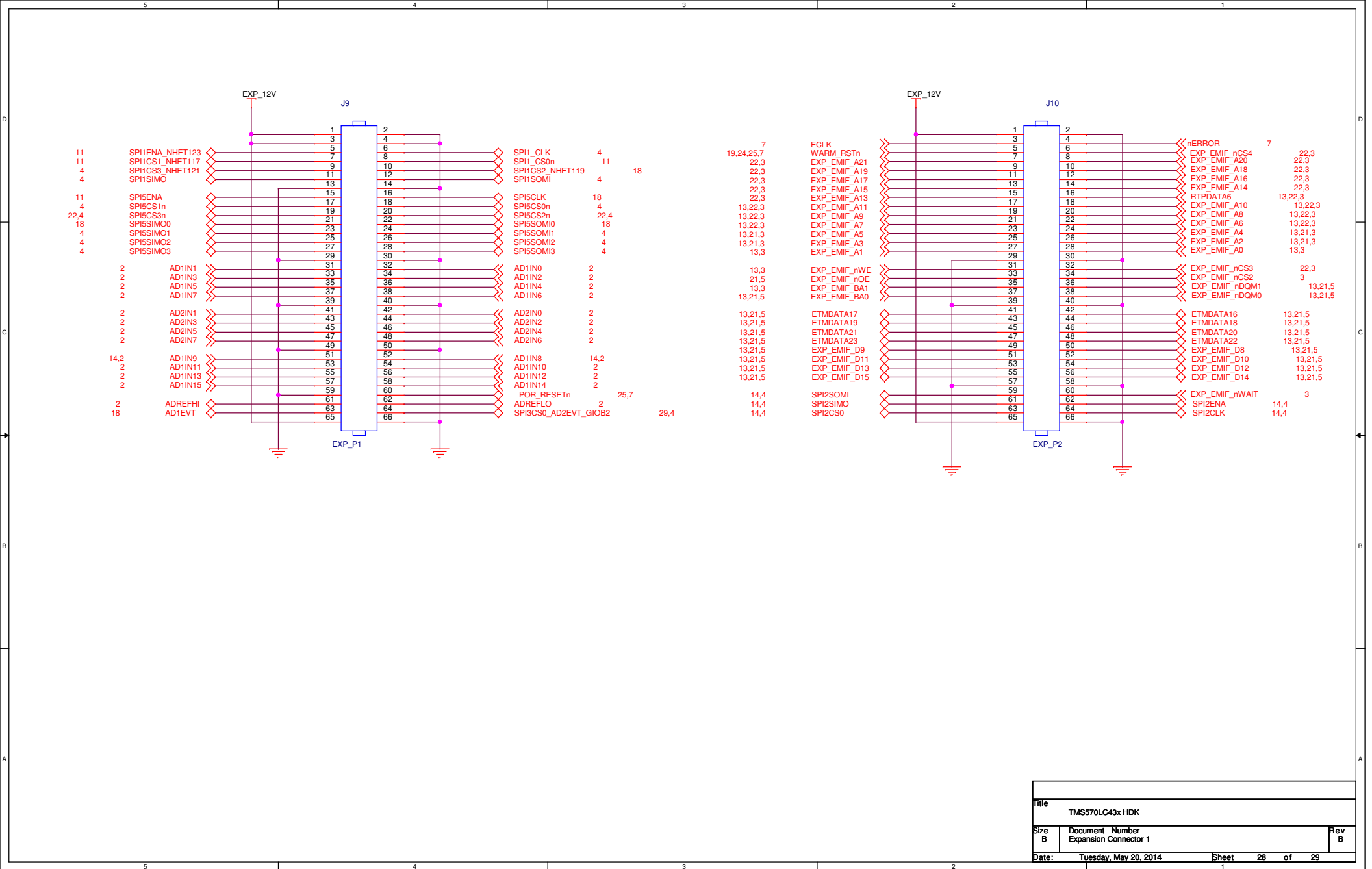
V Reference is 1.25  
 $V_{out} = 1.25 * (1 + R2x/R1x)$

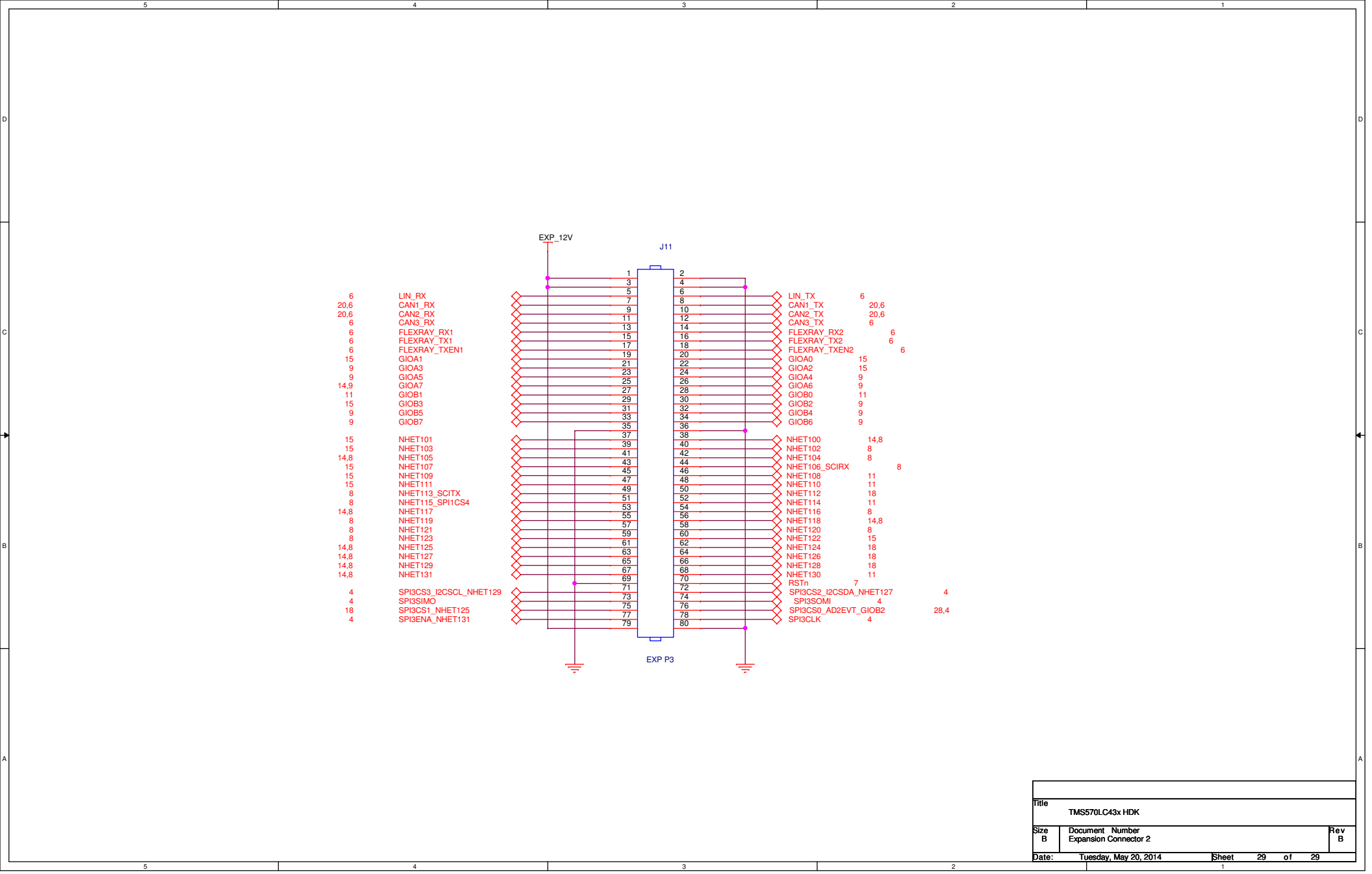


|                 |                       |                |
|-----------------|-----------------------|----------------|
| Title           |                       |                |
| TMS570LC43x HDK |                       |                |
| Size            | Document              | Rev            |
| B               | Power Supply          | C              |
| Date:           | Tuesday, May 20, 2014 | Sheet 26 of 29 |



|                             |                 |     |
|-----------------------------|-----------------|-----|
| Title                       |                 |     |
| TMS570LC43x HDK             |                 |     |
| Size                        | Document Number | Rev |
| B                           | Power Input     | B   |
| Date: Tuesday, May 20, 2014 |                 |     |
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|                 |                       |             |          |
|-----------------|-----------------------|-------------|----------|
| Title           |                       |             |          |
| TMS570LC43x HDK |                       |             |          |
| Size            | Document              | Number      | Rev      |
| B               | Expansion             | Connector 2 | B        |
| Date:           | Tuesday, May 20, 2014 | Sheet       | 29 of 29 |