

NXP Semiconductors

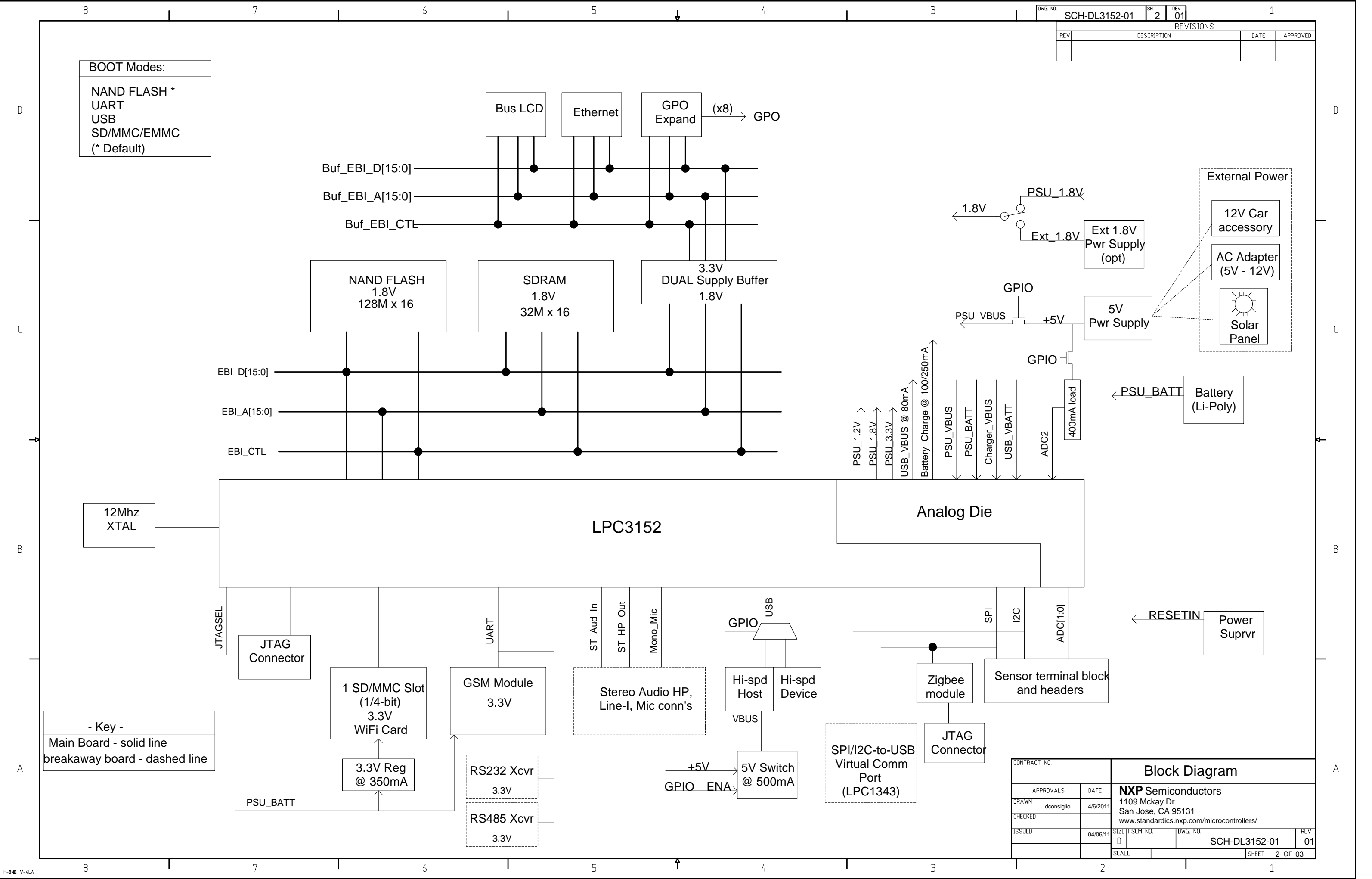
LPC315x Data Logger Board Schematics

Jan 19, 2012

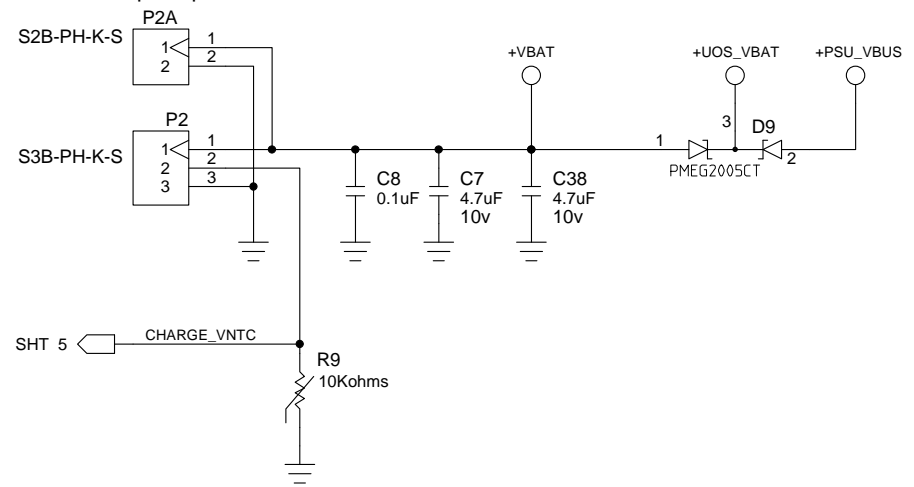
- Page 1 - Sheet Index
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- Page 3 - System Power Block Diagram
- Page 4 - Power Input / Ext Power
- Page 5 - LPC315x Power
- Page 6 - LPC315x Peripherals
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| | | | | | | | |
|-----------|---|---------------|-----|---|------|----------|----------|
| DWG. NO. | | SCH-DL315x-01 | SH. | 1 | REV. | 04 | 1 |
| REVISIONS | | | | | | | |
| REV | DESCRIPTION | | | | | DATE | APPROVED |
| 00 | 2nd Review / Init Layout | | | | | 03/23/11 | |
| 01 | Designators Renamed Initial Board released | | | | | 04/6/11 | |
| 02 | Corrected Debug LPC1343 VCOM note sht 14 | | | | | 05/20/11 | |
| 03 | Add 4.7k (RRW1) to Nand Flash Rdy/Bsy0 sht 7 | | | | | 06/30/11 | |
| 04 | Change R34, R35, R36 to 4.3K ohm, sht 6. | | | | | 01/19/12 | |

| | | | | | | | |
|--------------|------------|-------------|--|----------|---------------|-----|--|
| CONTRACT NO. | | Sheet Index | | | | | |
| APPROVALS | | DATE | NXP Semiconductors 1109 Mckay Dr San Jose, CA 95131 www.standardics.nxp.com/microcontrollers/ | | | | |
| DRAWN | dconsiglio | 1/19/2012 | | | | | |
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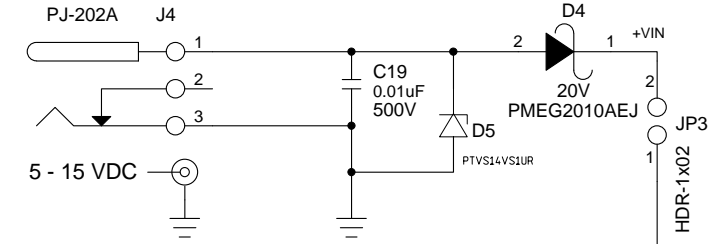
Li-Ion (3.2 - 4.2V)
2-pin for 900mAH battery (Sparkfun \$4.95)
3-pin for firefly battery
overlap footprints



!! CAUTION !!
Set Jumpers for input voltage
before powering board

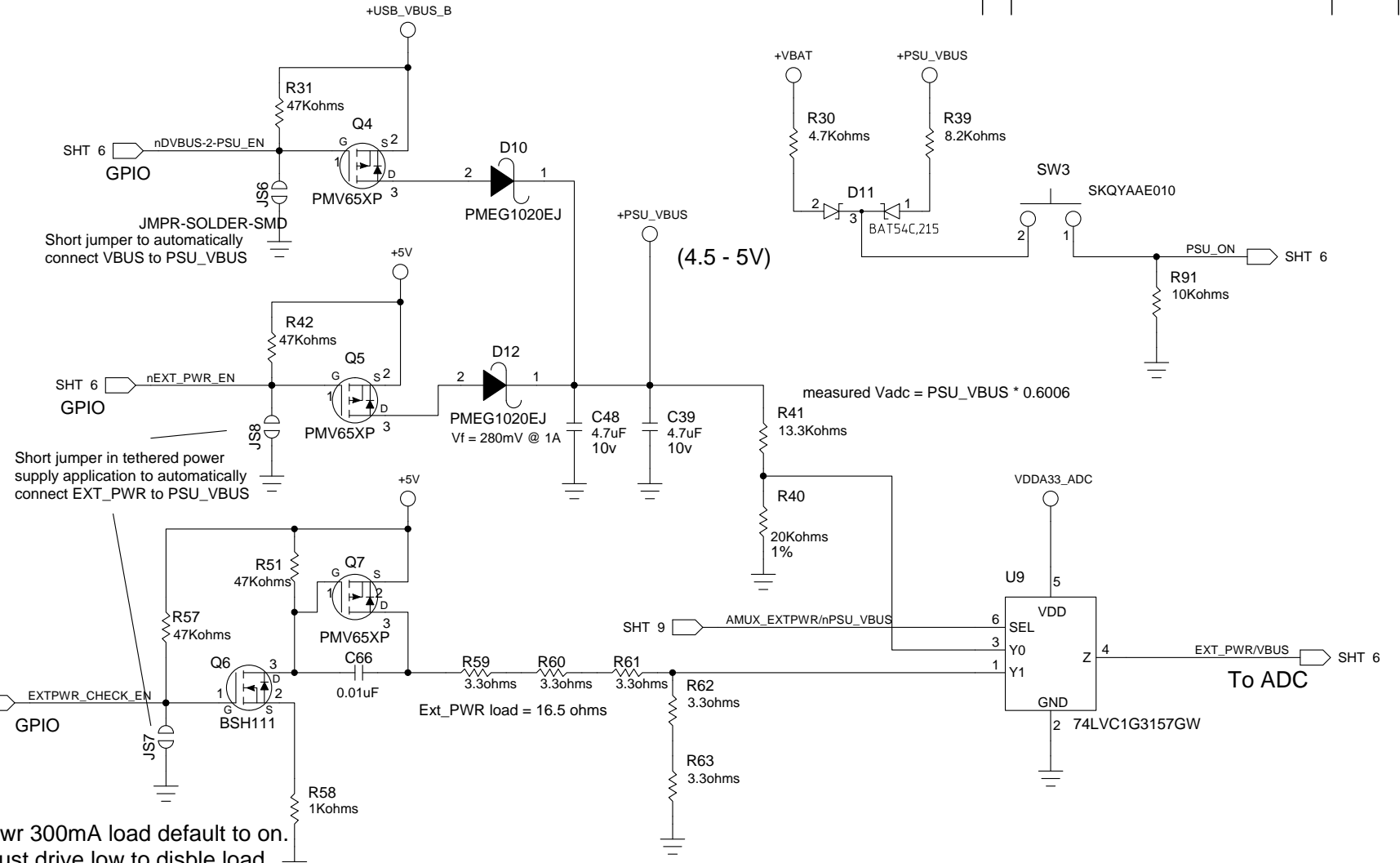
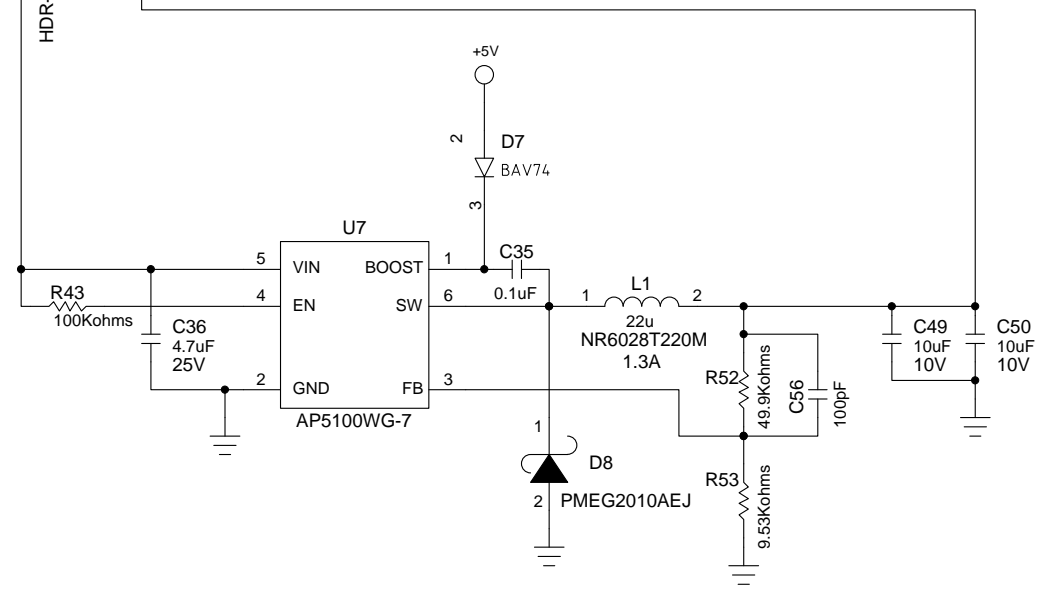
| VIN Jumpers | |
|-------------|------------|
| 5 VDC | 6 - 15 VDC |
| 2 2 | 2 2 |
| 1 1 | 1 1 |

Power Input

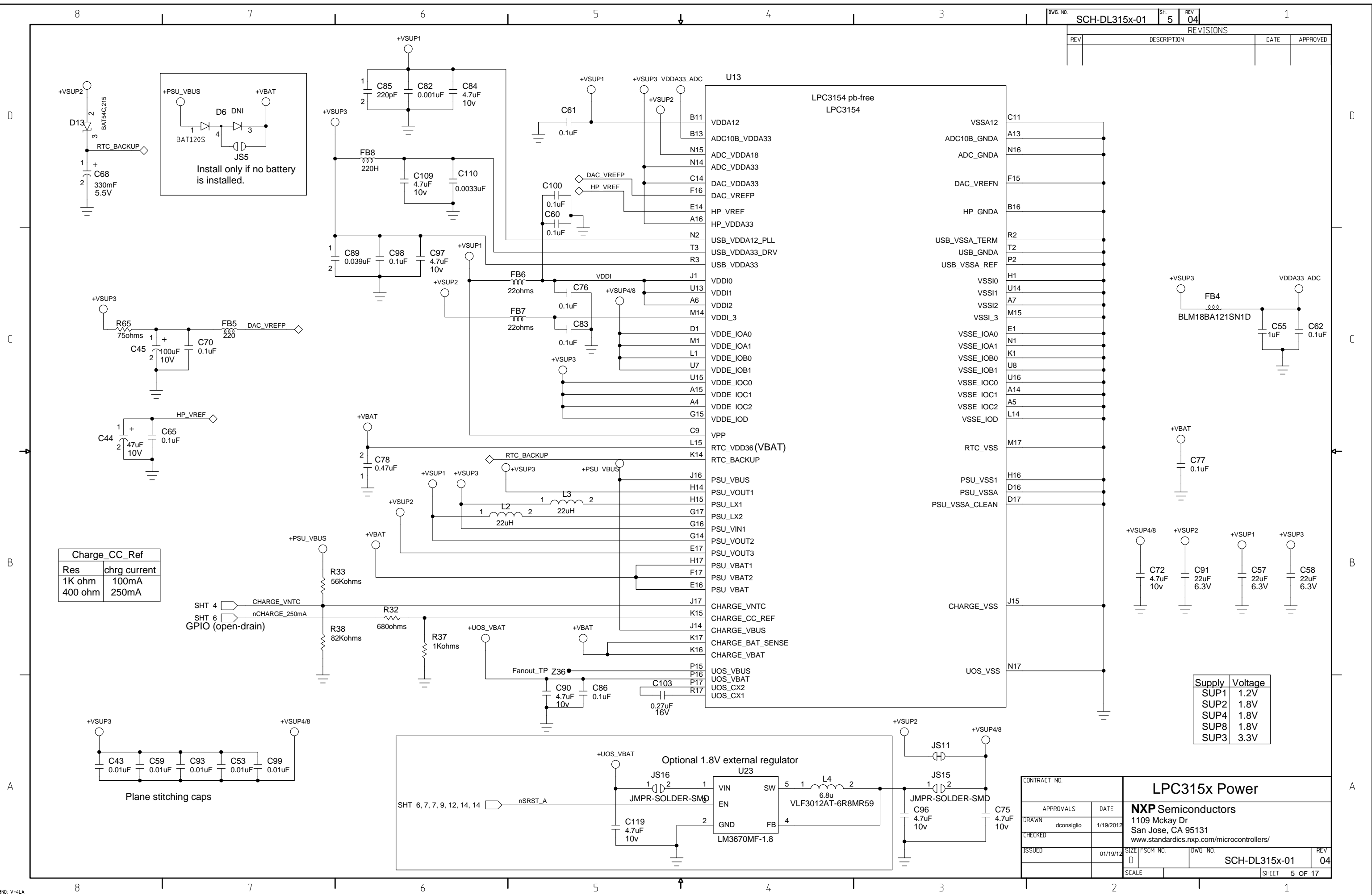


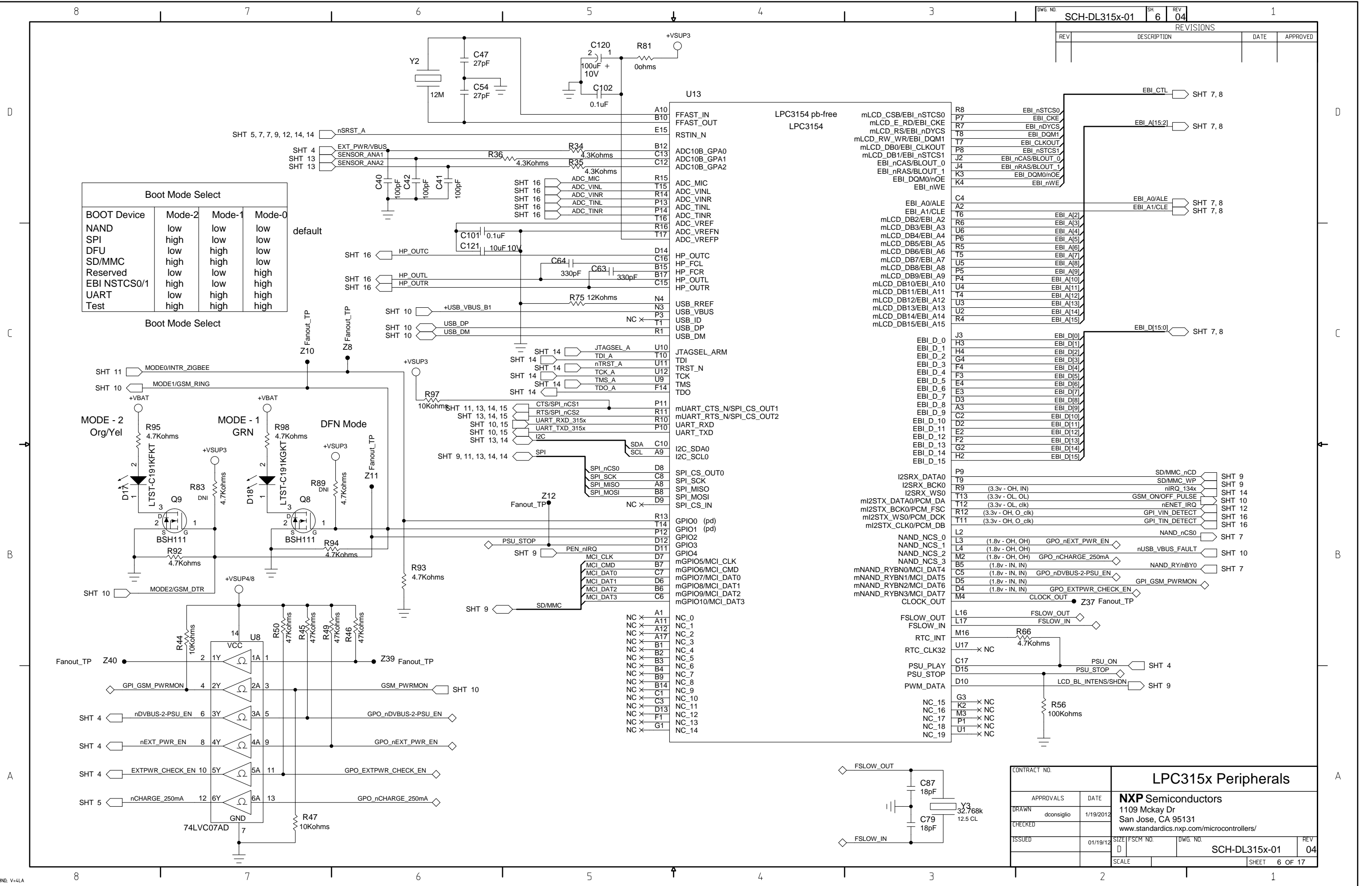
EXT_PWR = 5V
JP4 HDR-1x02

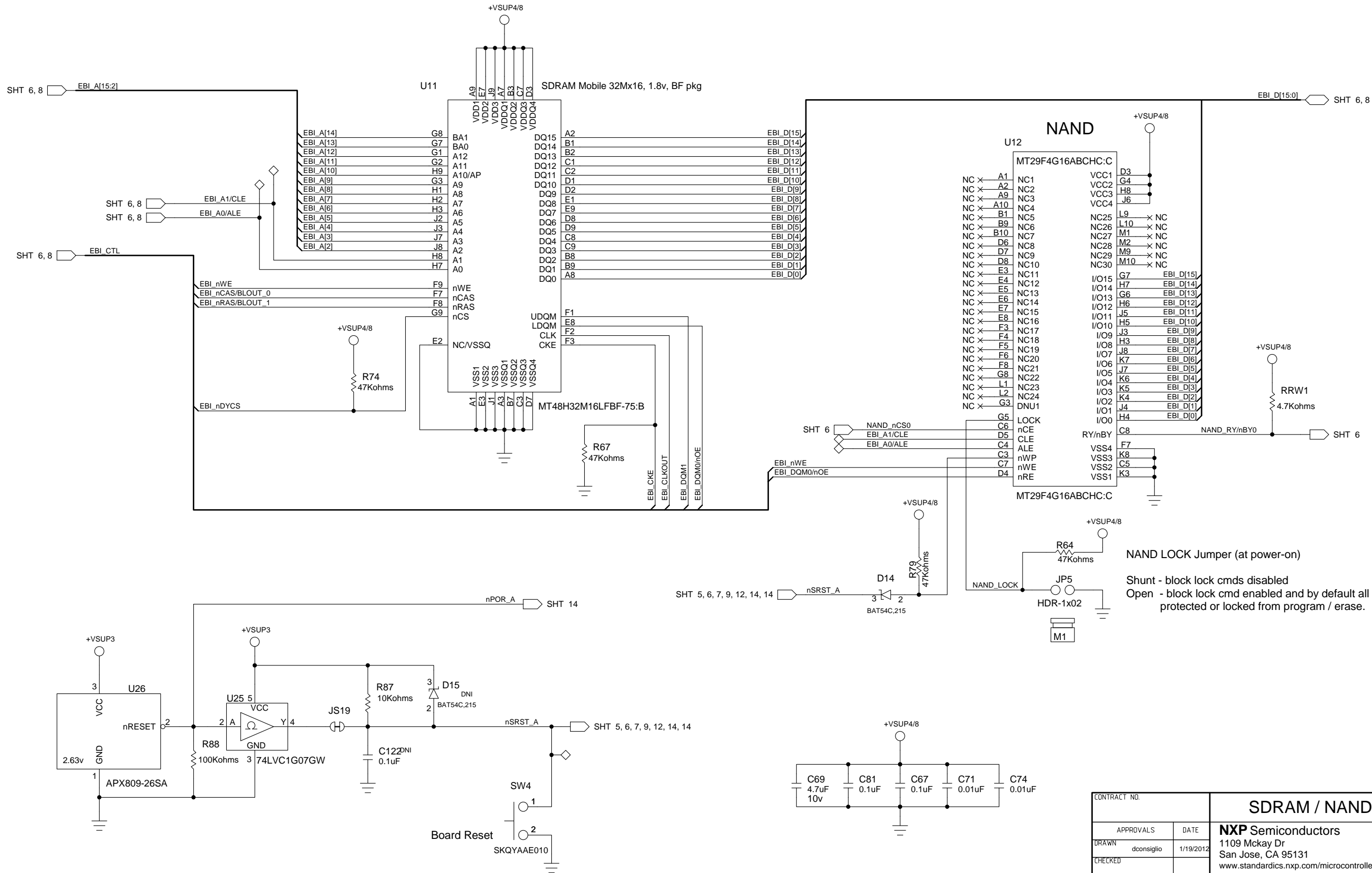
Ext_Pwr 300mA load default to on.
s/w must drive low to disable load.

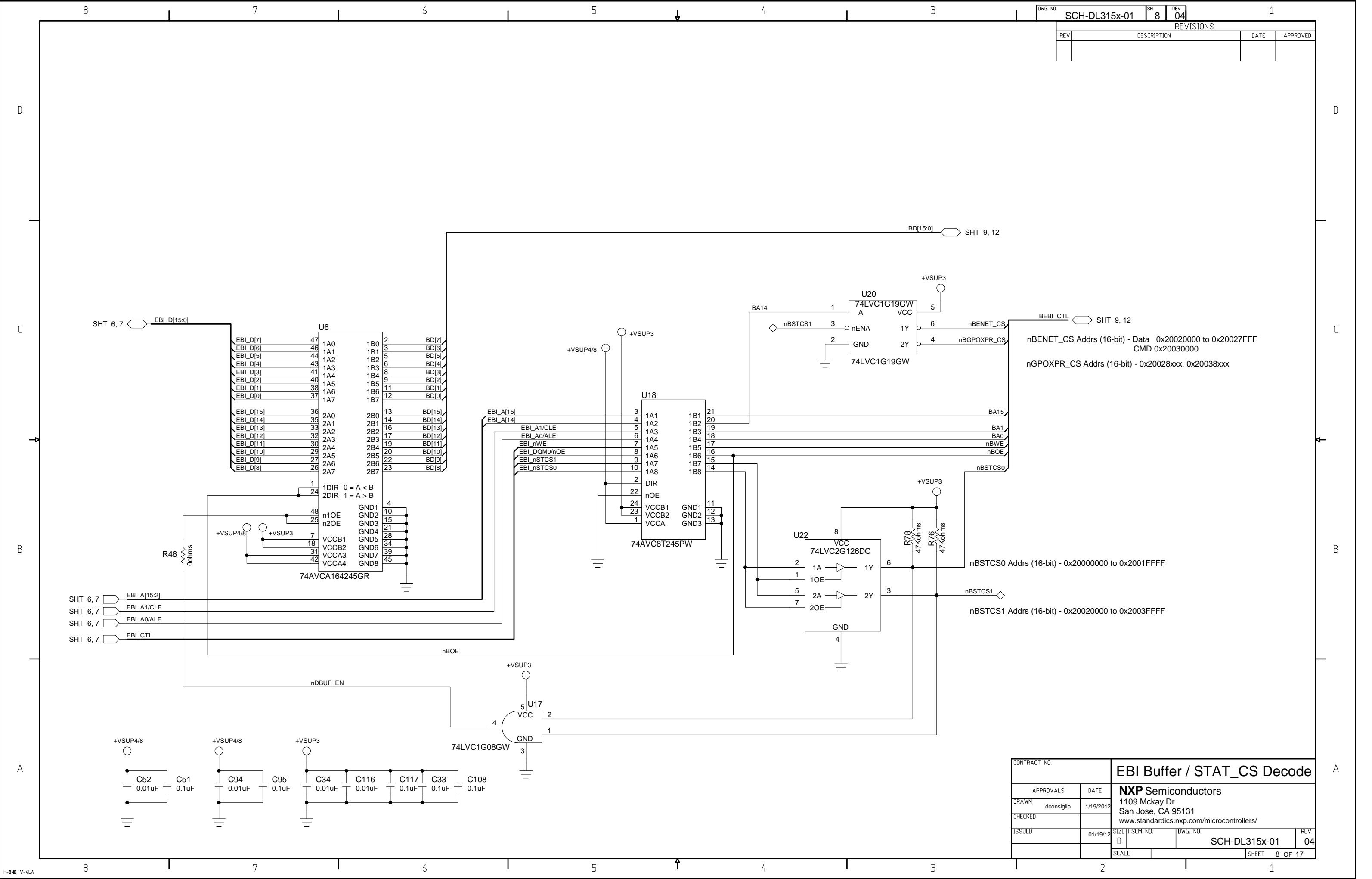


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| DWG. NO. | | SCH-DL315x-01 | SH. | 8 | REV | 04 | 1 |
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| REV | DESCRIPTION | | | | | DATE | APPROVED |
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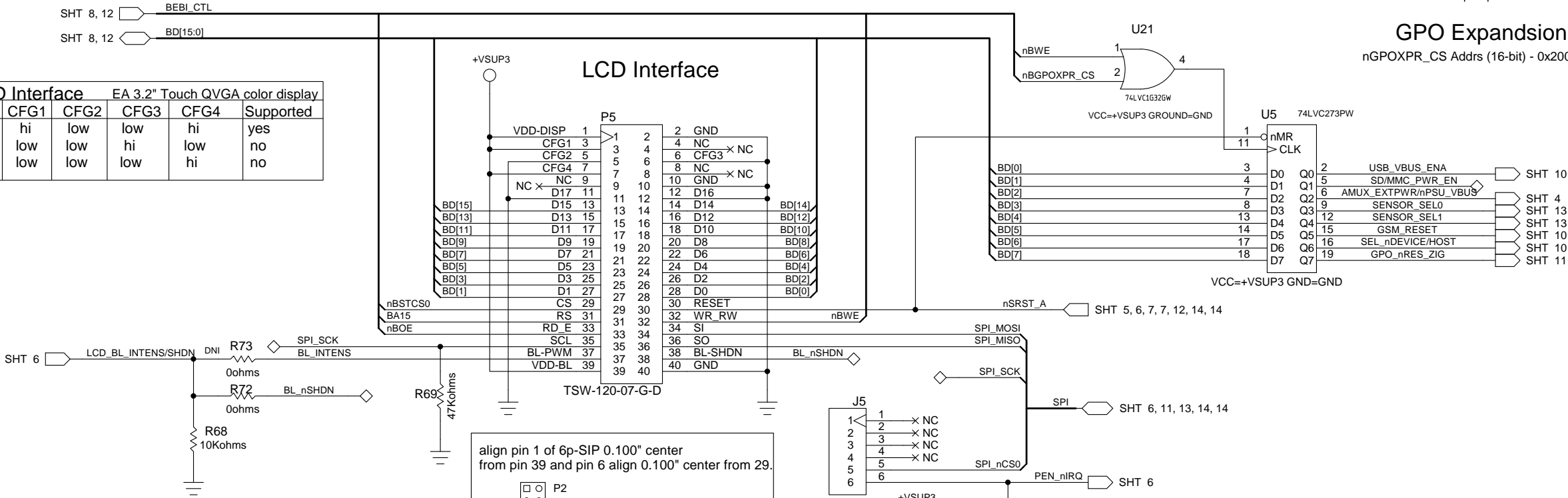
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| CONTRACT NO. | | EBI Buffer / STAT_CS Decode | | | | | |
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| LCD Interface | | | | | |
|----------------------------------|------|------|------|------|-----------|
| EA 3.2" Touch QVGA color display | | | | | |
| Mode | CFG1 | CFG2 | CFG3 | CFG4 | Supported |
| 16-bit | hi | low | low | hi | yes |
| 9-bit | low | low | low | hi | no |
| 8-bit | low | low | low | hi | no |

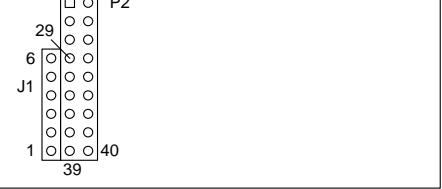
LCD Interface

GPO Expansion

nGPOXP_CS Addr (16-bit) - 0x20028xxx (Write only)



align pin 1 of 6p-SIP 0.100" center from pin 39 and pin 6 align 0.100" center from 29.

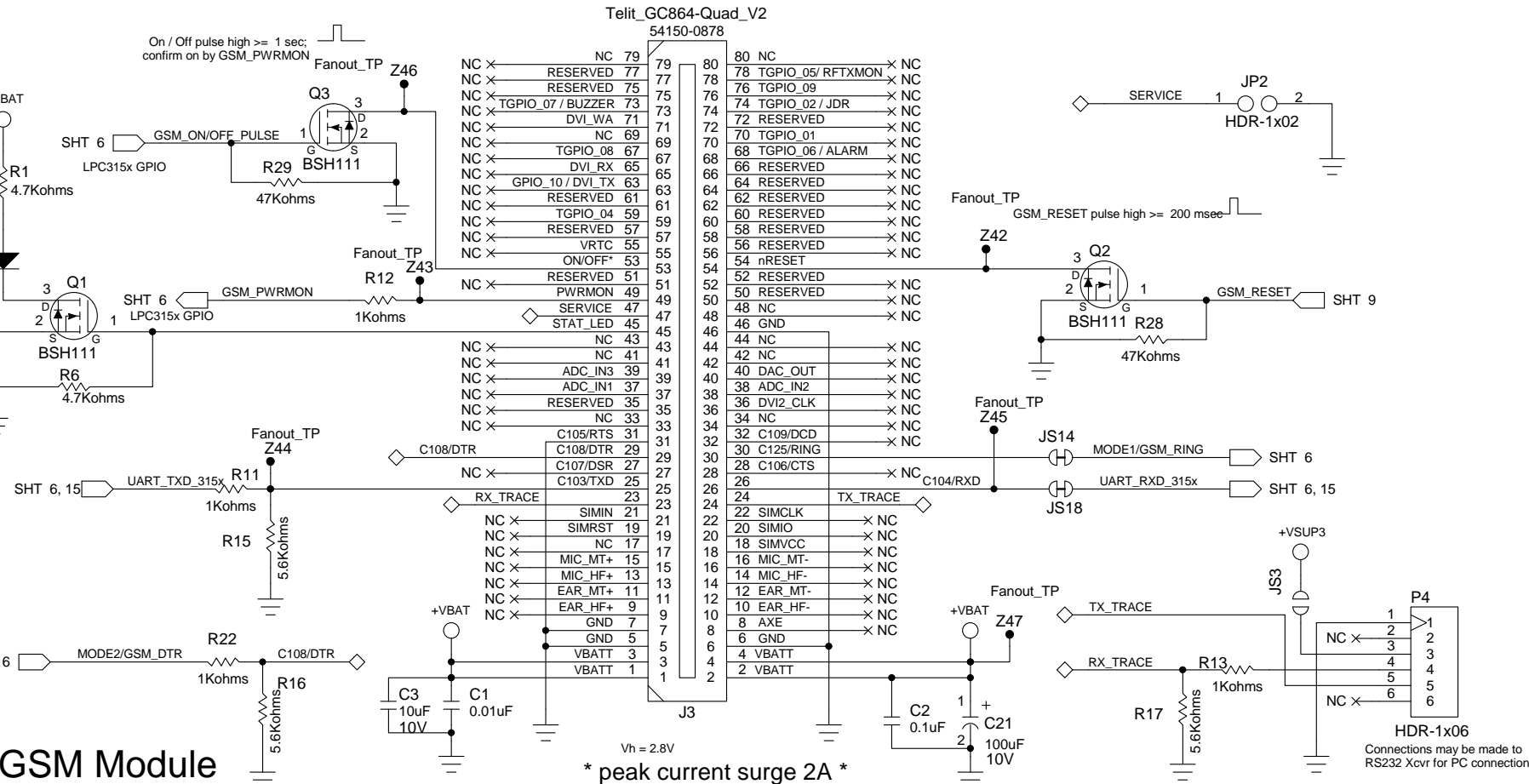
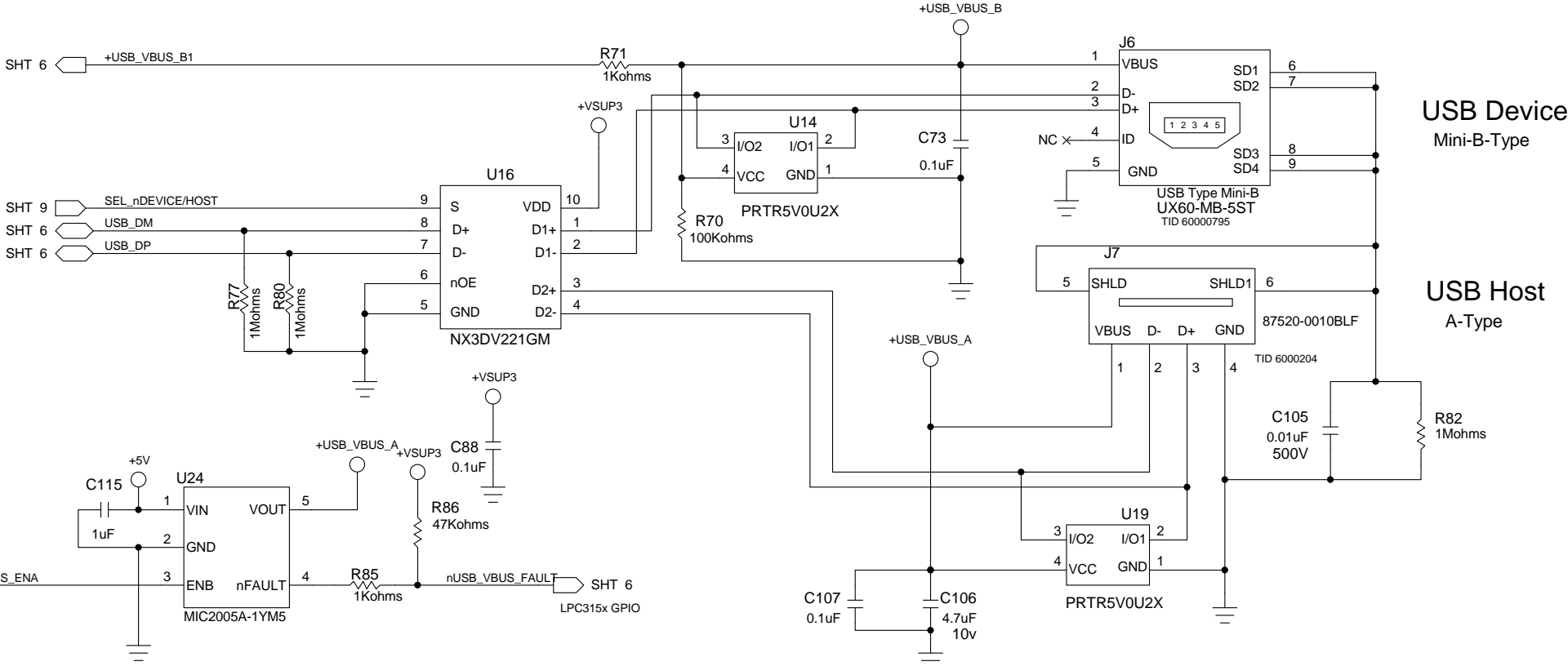


SD/SDIO/MMC SLOT

SX_SDWAG WIFI 350mA max

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USB Device / Host



GSM Module

USB / GSM Module

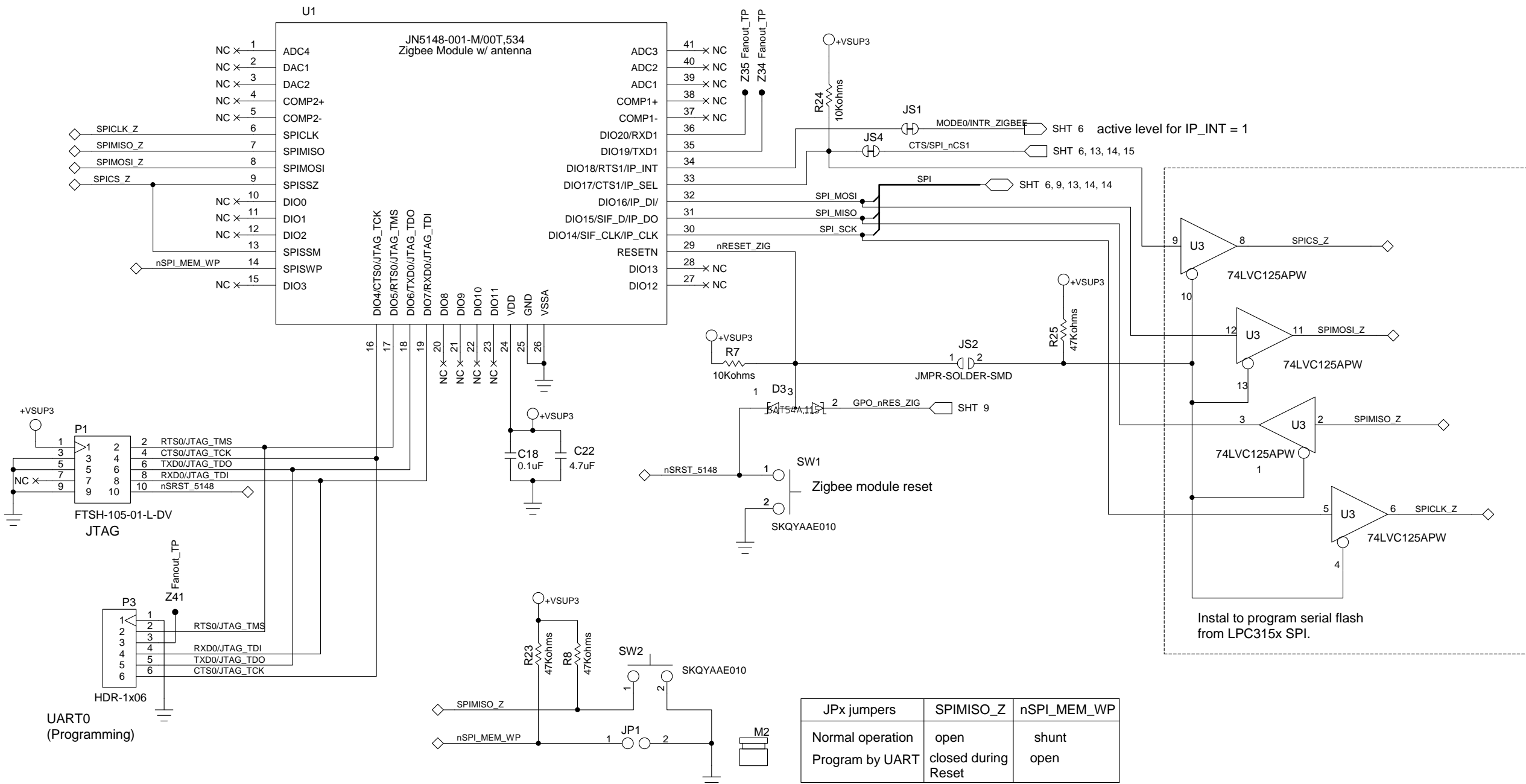
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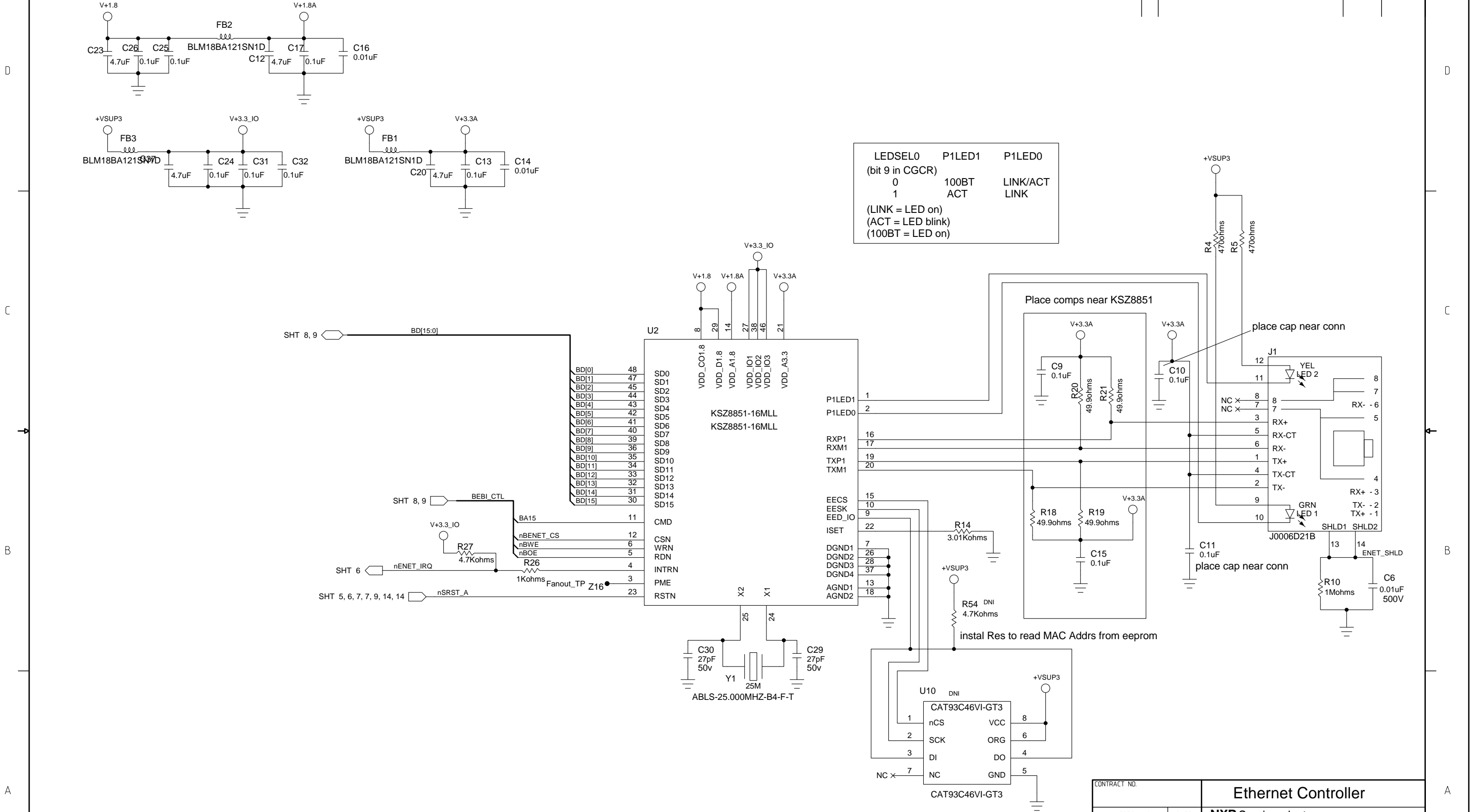
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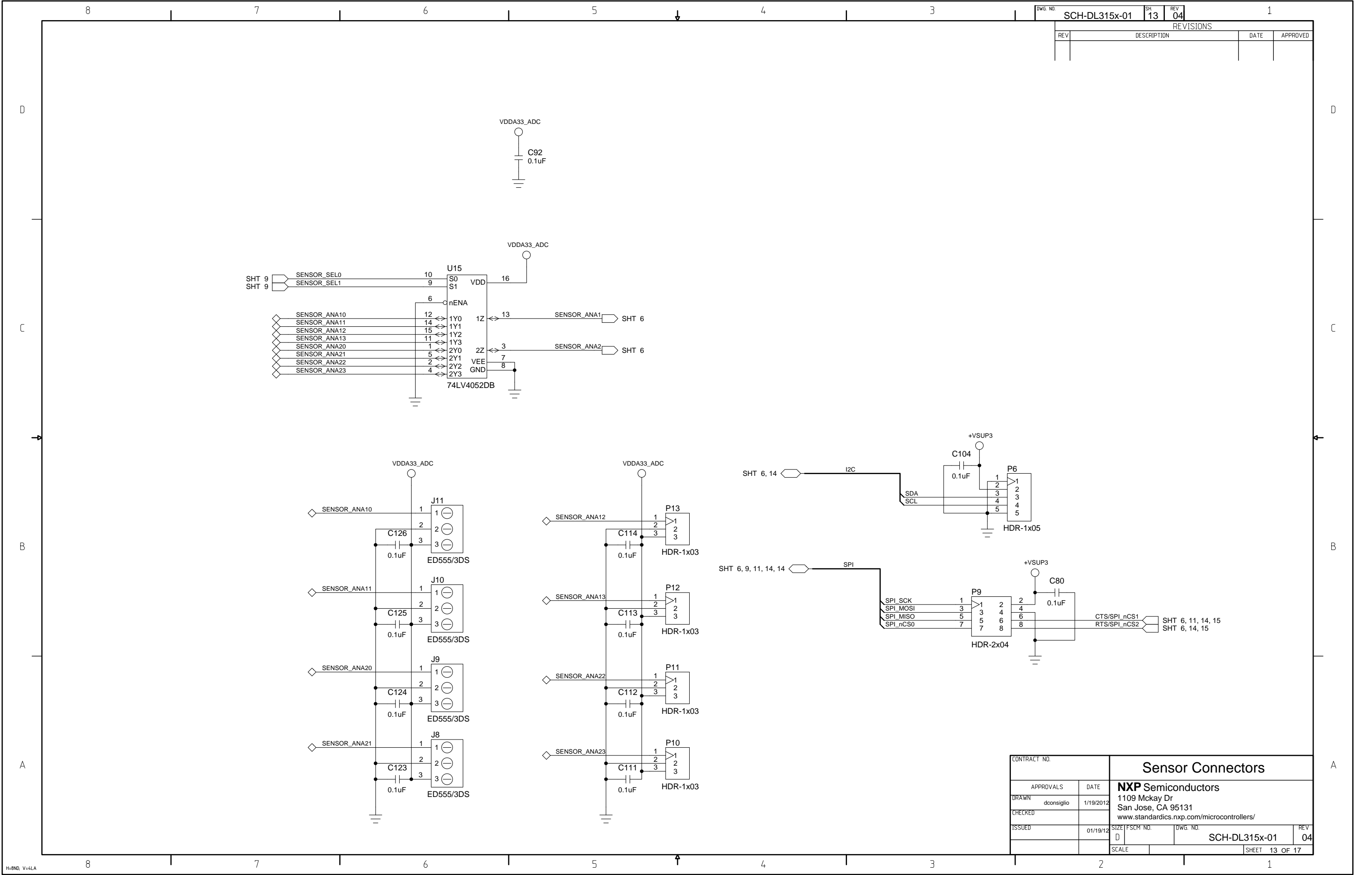
SIZE FSCM NO. DWG. NO. REV

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SCALE SHEET 10 OF 17



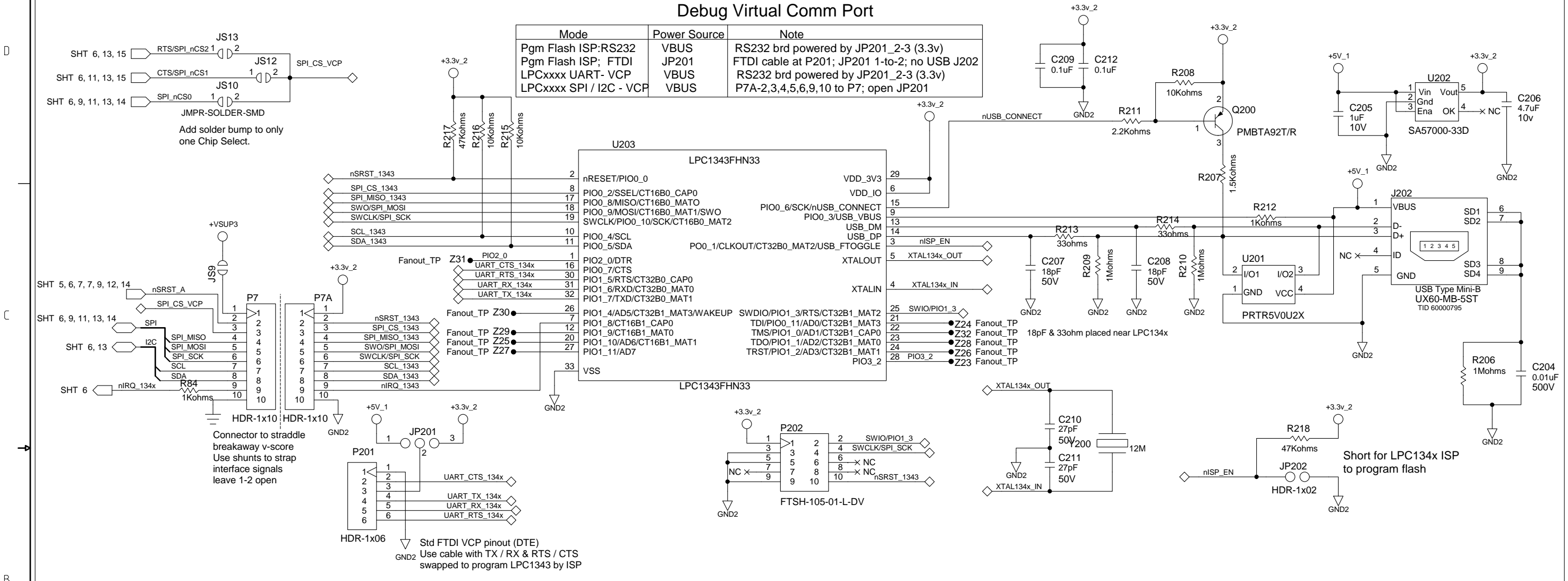




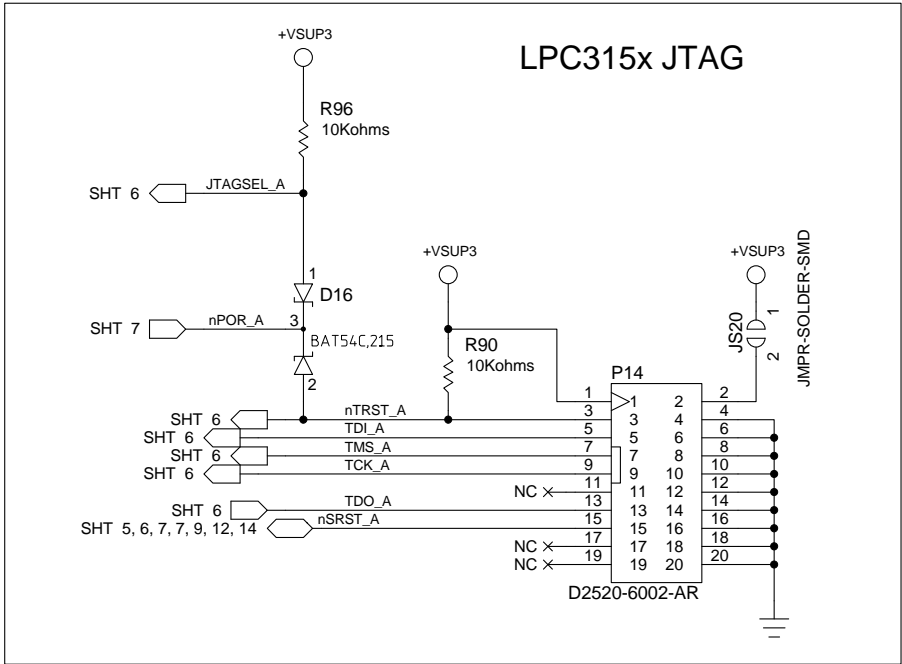
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| DWG. NO. | SCH-DL315x-01 | SH. | 14 | REV. | 04 |
| REVISIONS | | | | | |
| REV. | DESCRIPTION | | | DATE | APPROVED |
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Debug Virtual Comm Port

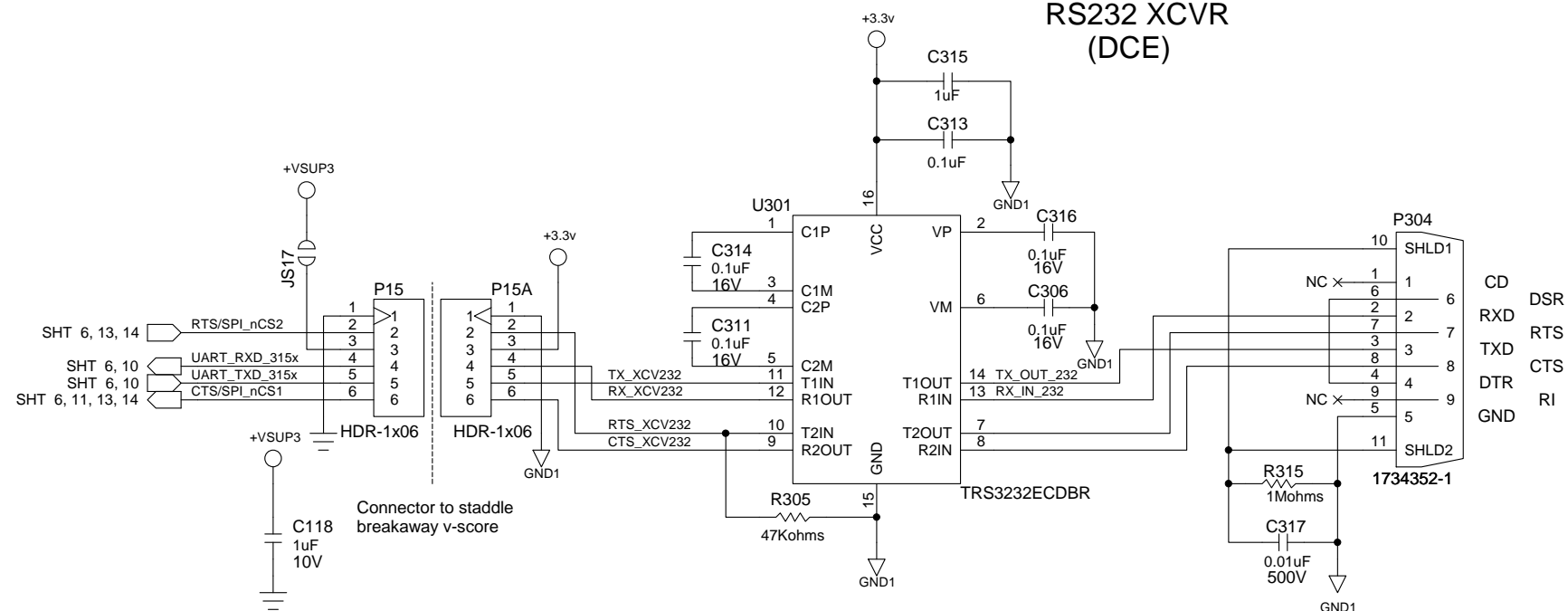
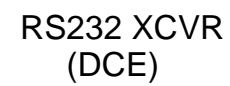
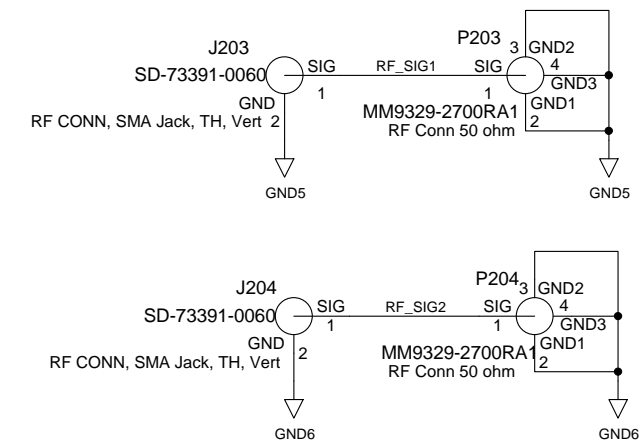
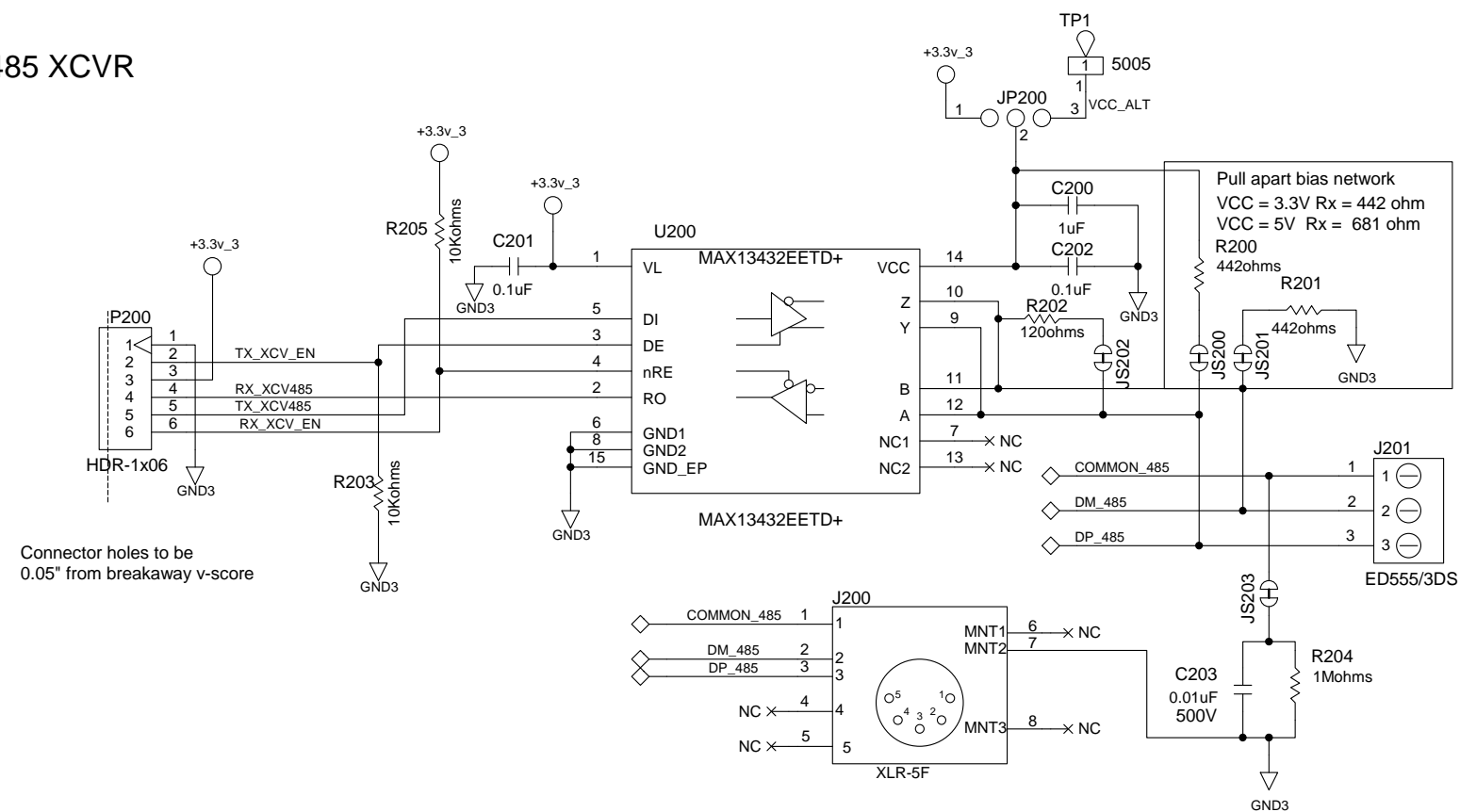
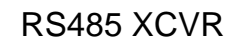
| Mode | Power Source | Note |
|-------------------------|--------------|---|
| Pgm Flash ISP:RS232 | VBUS | RS232 brd powered by JP201_2-3 (3.3v) |
| Pgm Flash ISP; FTDI | JP201 | FTDI cable at P201; JP201 1-to-2; no USB J202 |
| LPCxxxx UART- VCP | VBUS | RS232 brd powered by JP201_2-3 (3.3v) |
| LPCxxxx SPI / I2C - VCP | VBUS | P7A-2,3,4,5,6,9,10 to P7; open JP201 |



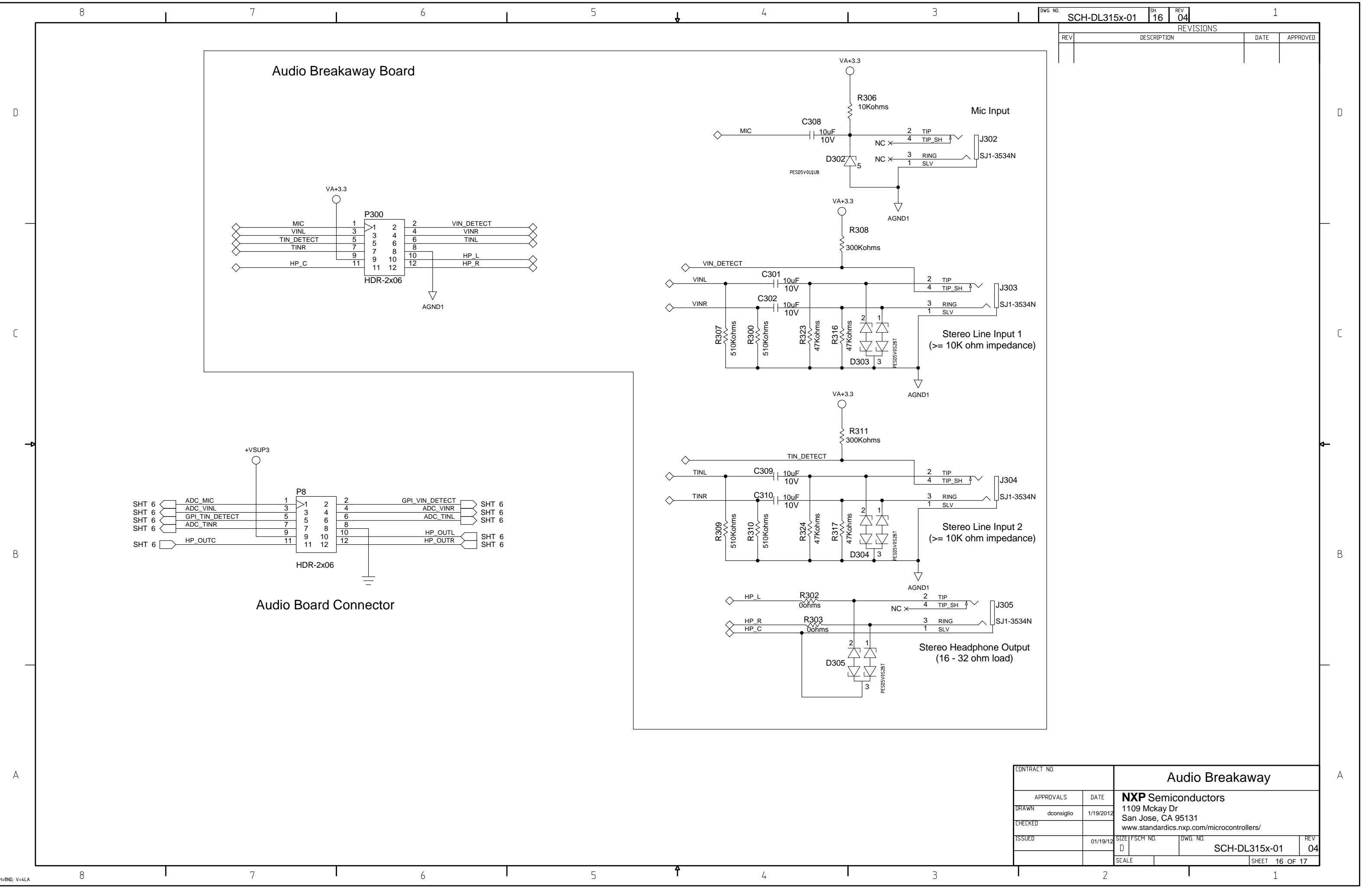
LPC315x JTAG



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| CONTRACT NO. | | VCOM Port / JTAG Conn | | | |
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|--------------|------------|---|----------------|----------|-----|
| CONTRACT NO. | | RS-232 & RS-485 Xcvr breakaway NXP Semiconductors 1109 Mckay Dr San Jose, CA 95131 www.standardics.nxp.com/microcontrollers/ | | | |
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| SCH-DL315x-01 | | SH. 16 | REV 04 | 1 | |
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|--------------|--|-----------------|--------------------|---|----------------|
| CONTRACT NO. | | Audio Breakaway | | | |
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| | | | | SIZE | FSCM NO. |
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| | | | | SCH-DL315x-01 | 04 |
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