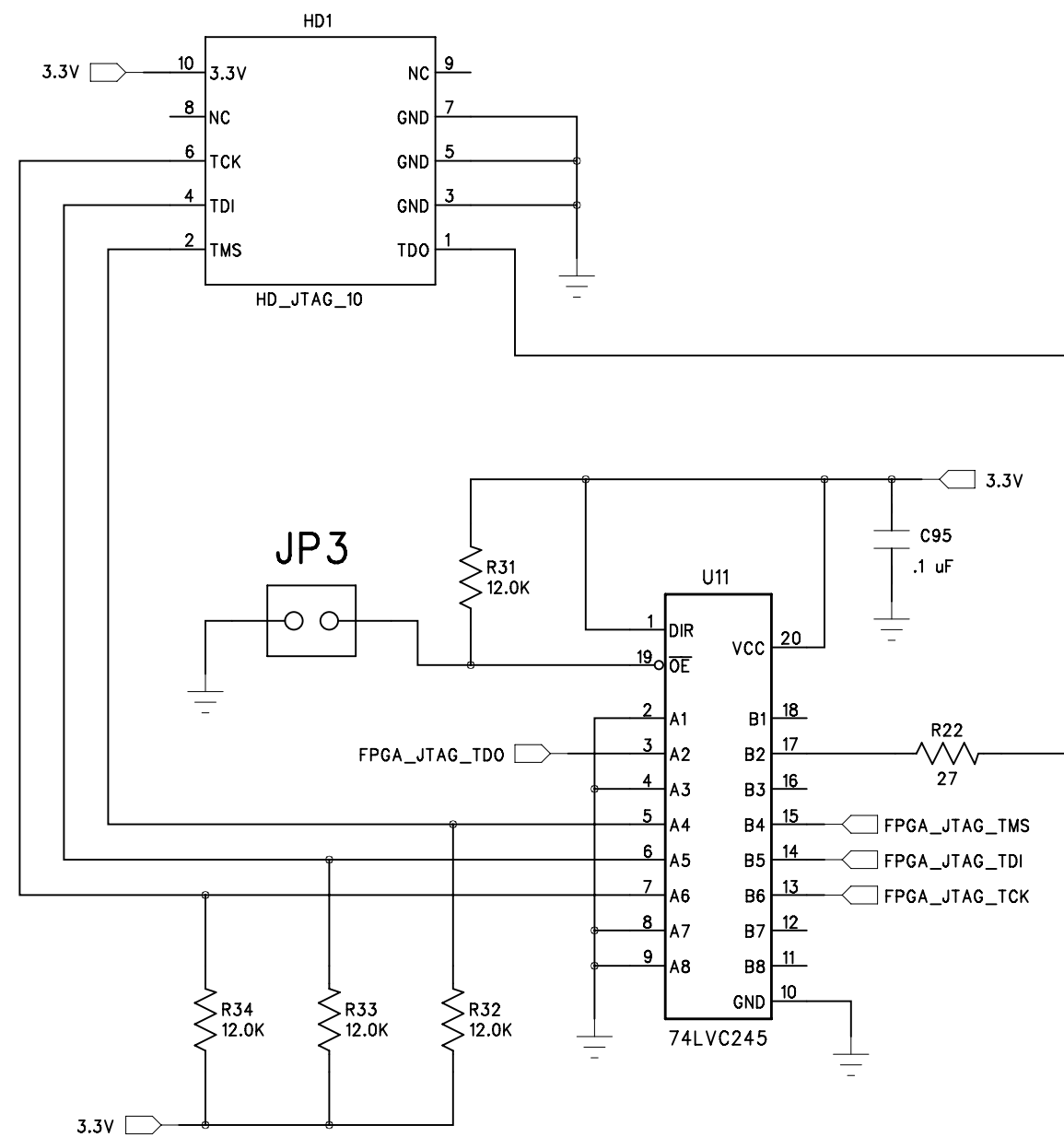
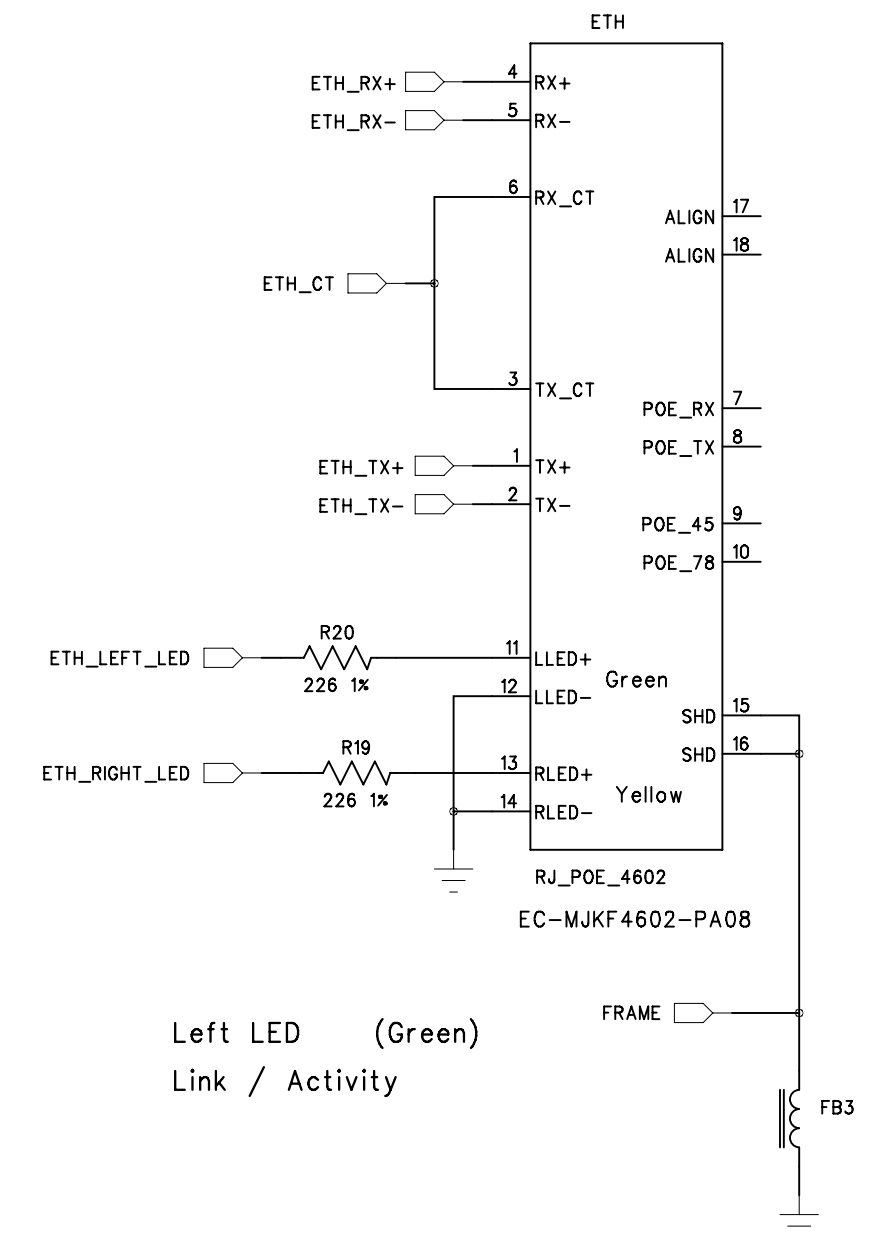


TS-8200

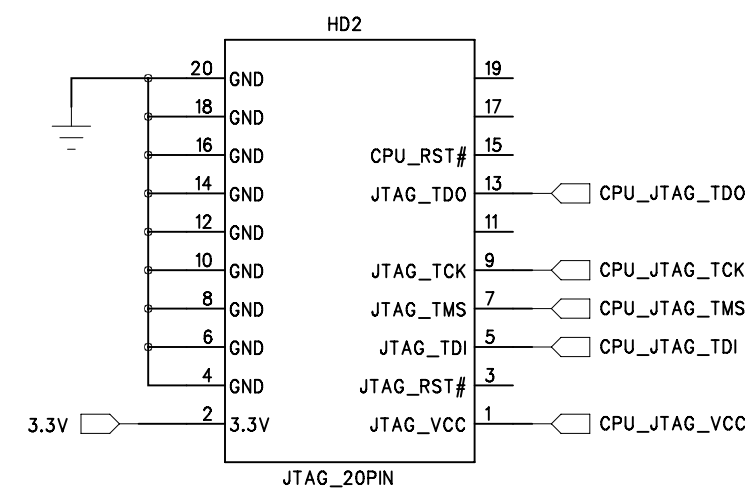
FPGA JTAG Header



10/100 Ethernet

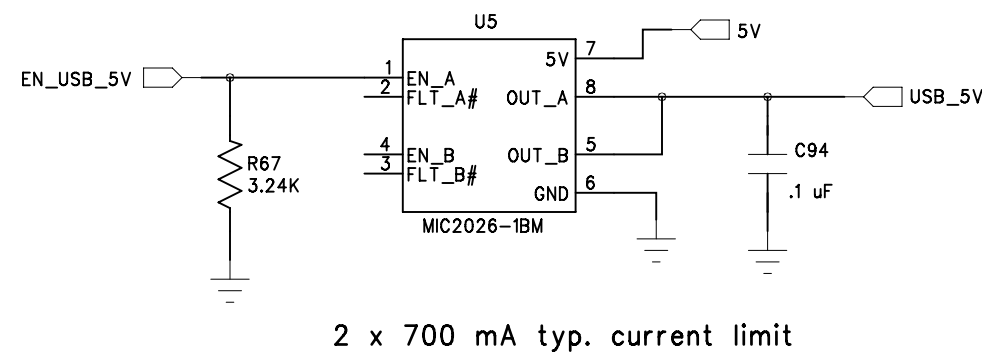


CPU JTAG Header

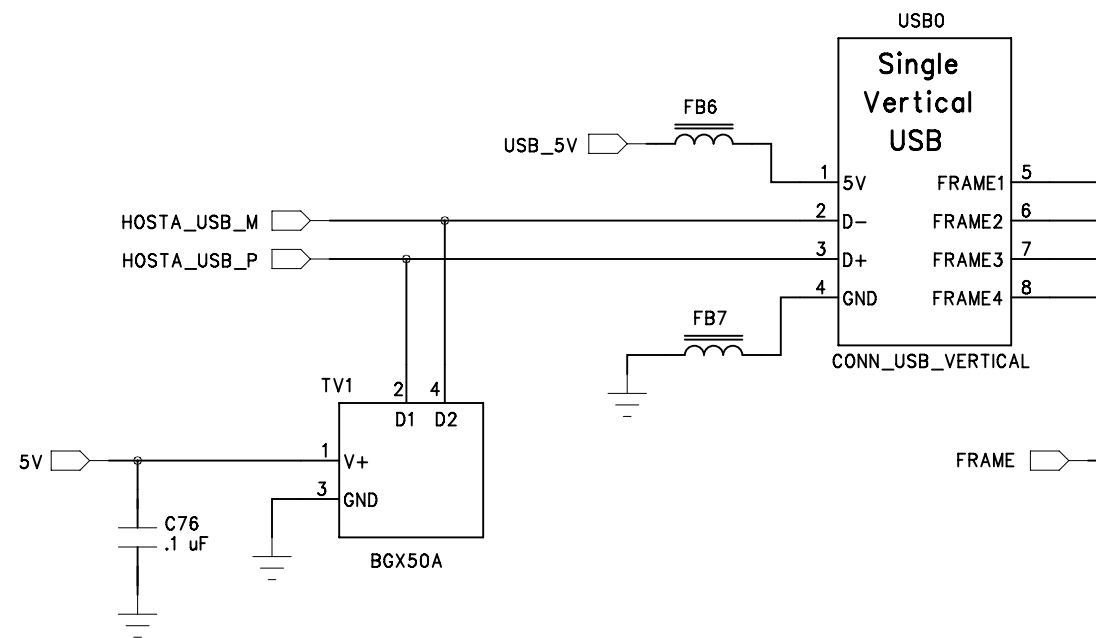


Not Populated

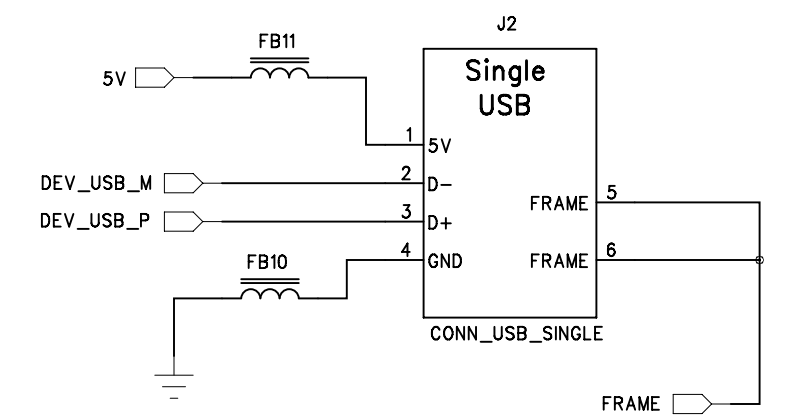
USB Power Switch



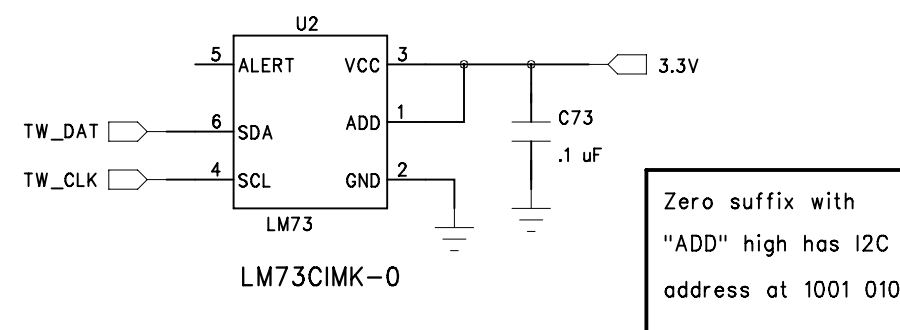
Host USB



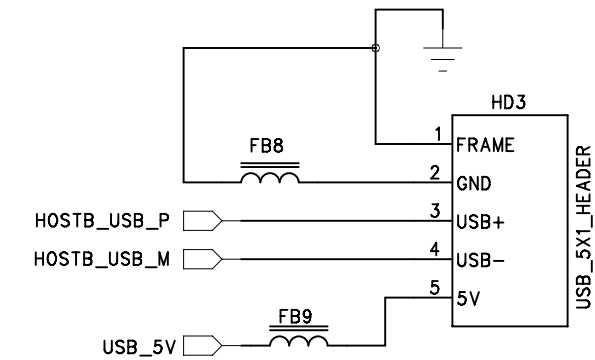
USB Device



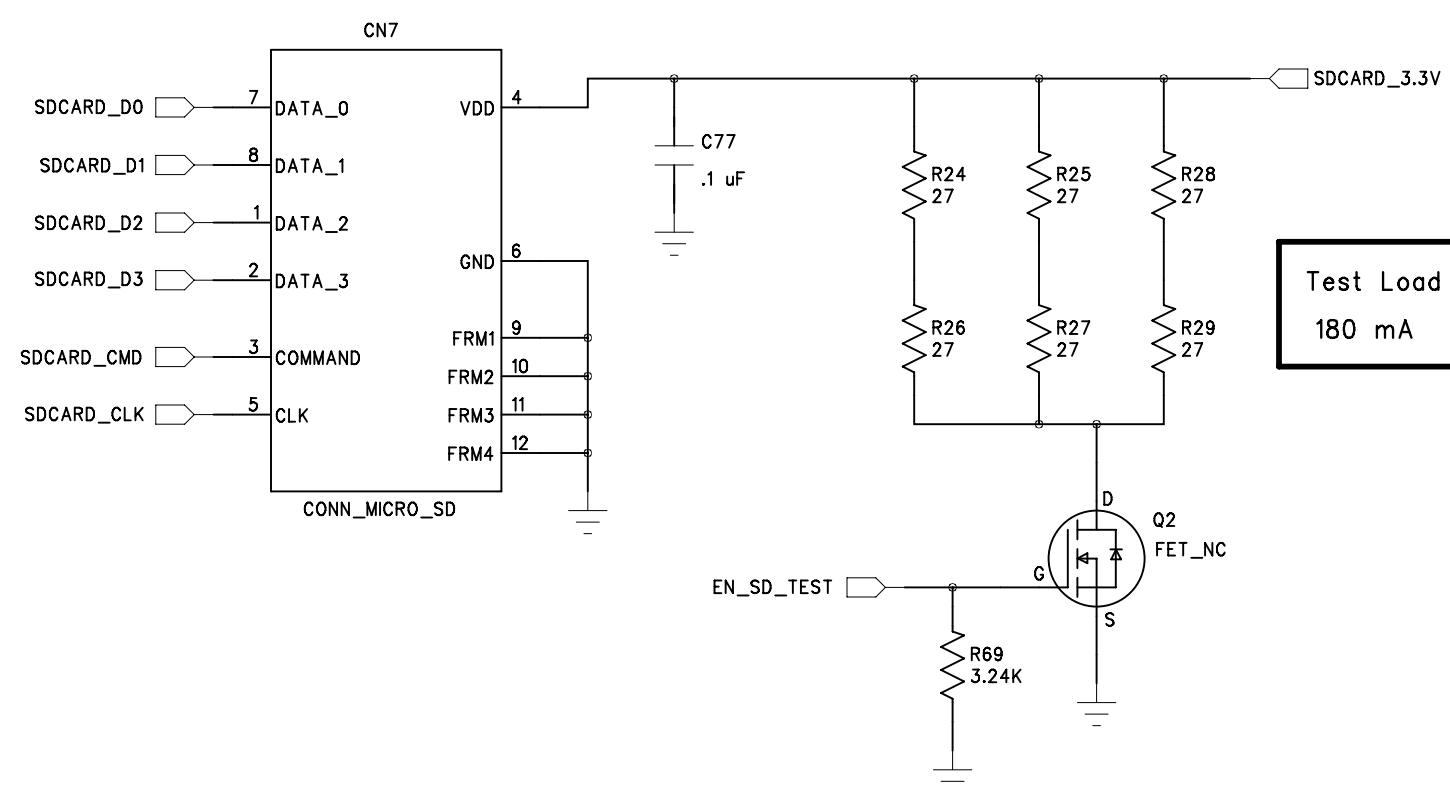
Temp Sensor



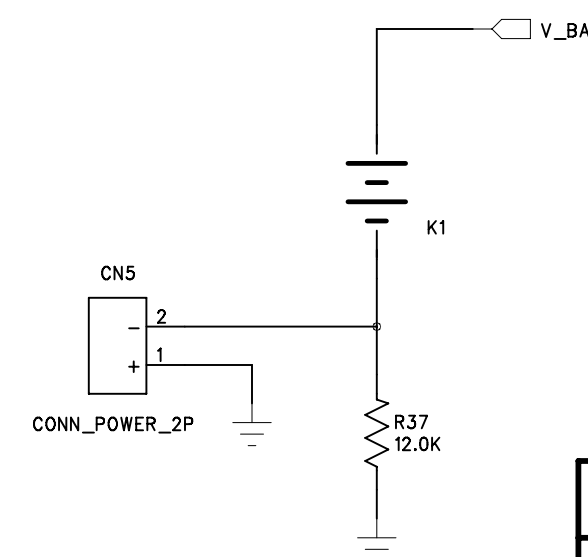
USB_B Header



Micro SD Card Socket



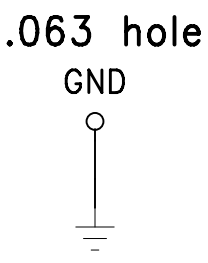
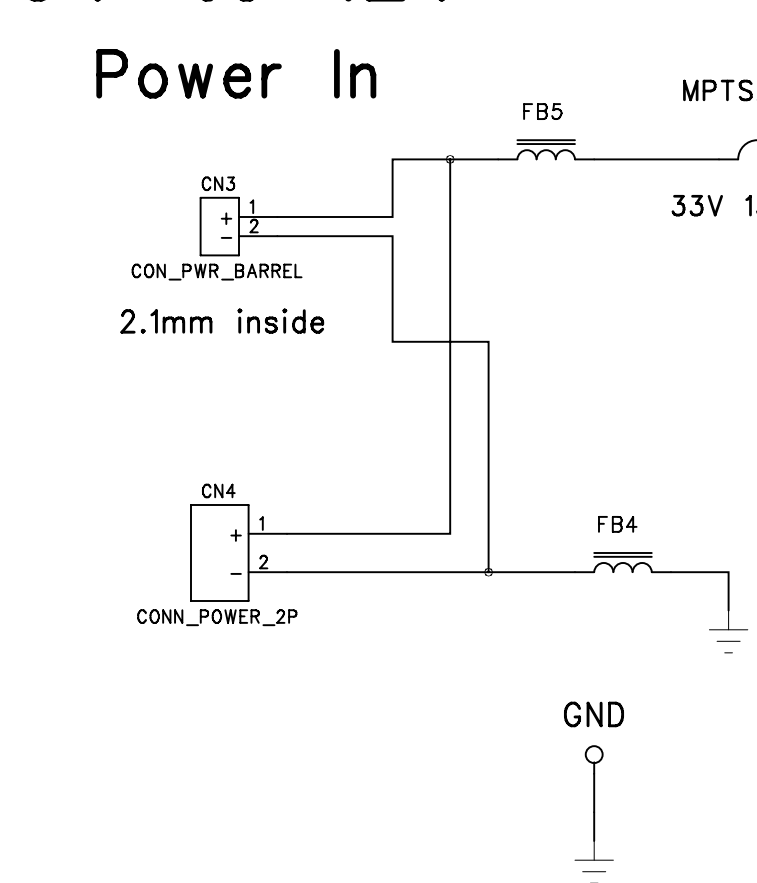
RTC Battery



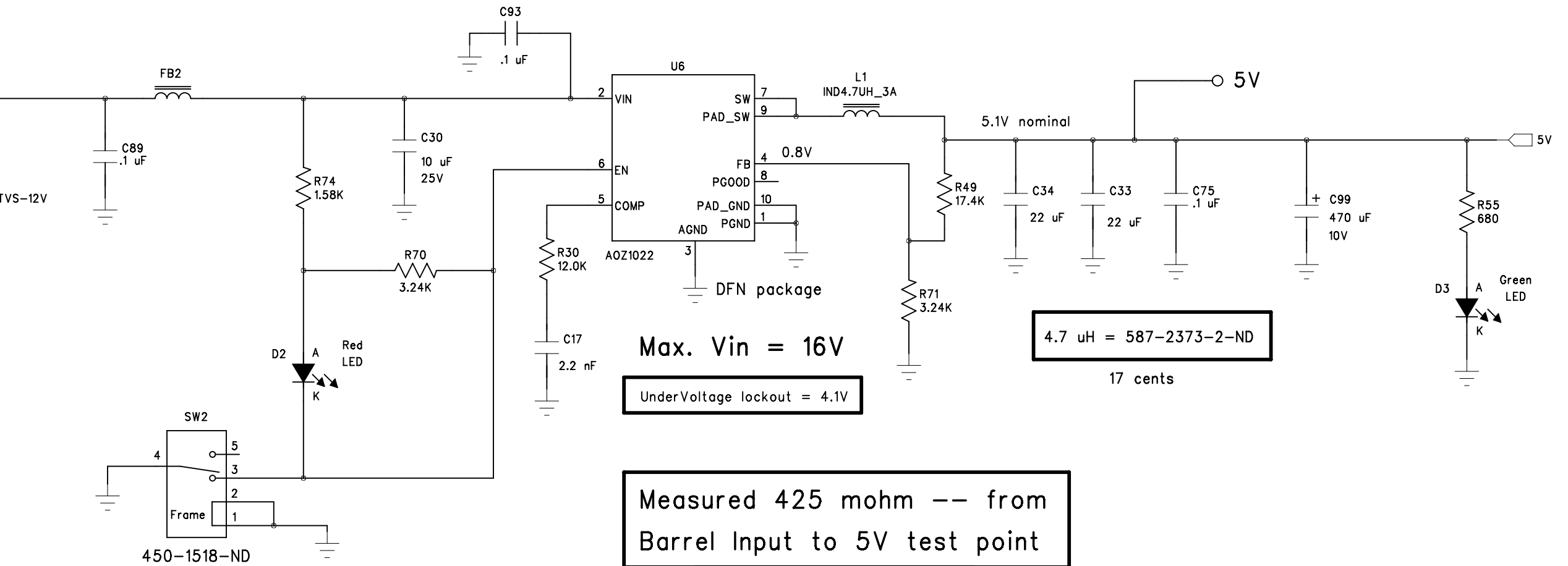
Technologic Systems	Date March 15, 2010
Title: TS-8200 USB, Serial Flash, SD Card	
Rev:	Designer
Sheet 2 of 6	

5V to 12V

Power In



5V Regulator



Power Switch
For Production Test
Fixture only

Max. Vin = 16V
UnderVoltage lockout = 4.1V

Measured 425 mohm -- from
Barrel Input to 5V test point

with 5.0V at Input

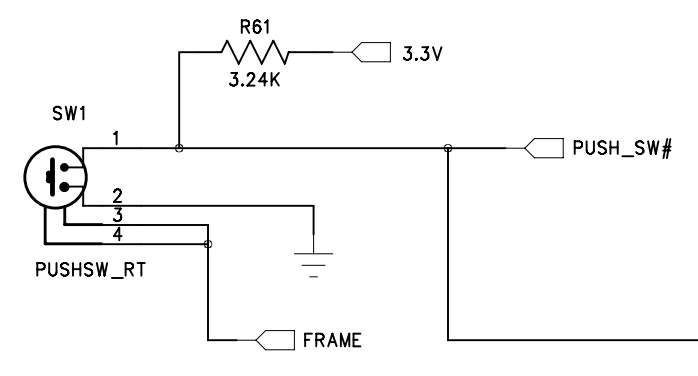
PolyFuse	mohms
1500 mA 33V	122
1100 mA 6V	160
750 mA 13V	212

Ferrite beads = 32 mohm

4.7 uH = 587-2373-2-ND
17 cents

Force Boot
to SD card

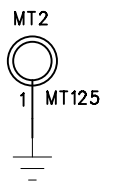
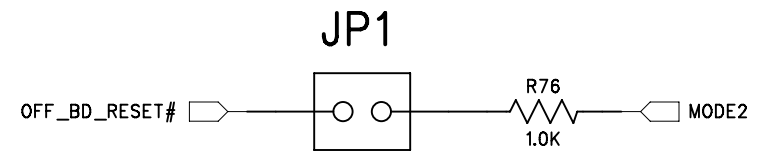
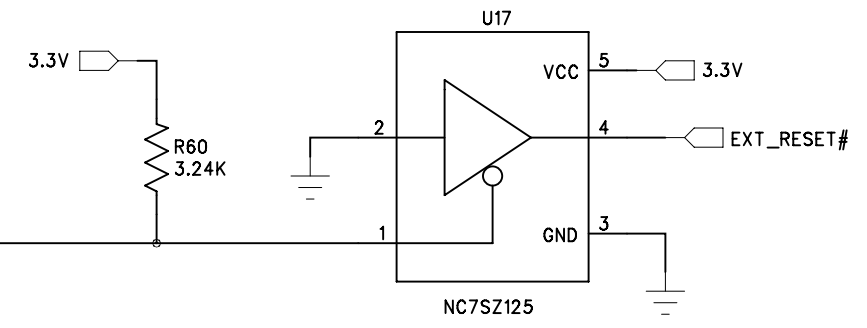
Push Switch



Enable

Reset

Not Populated



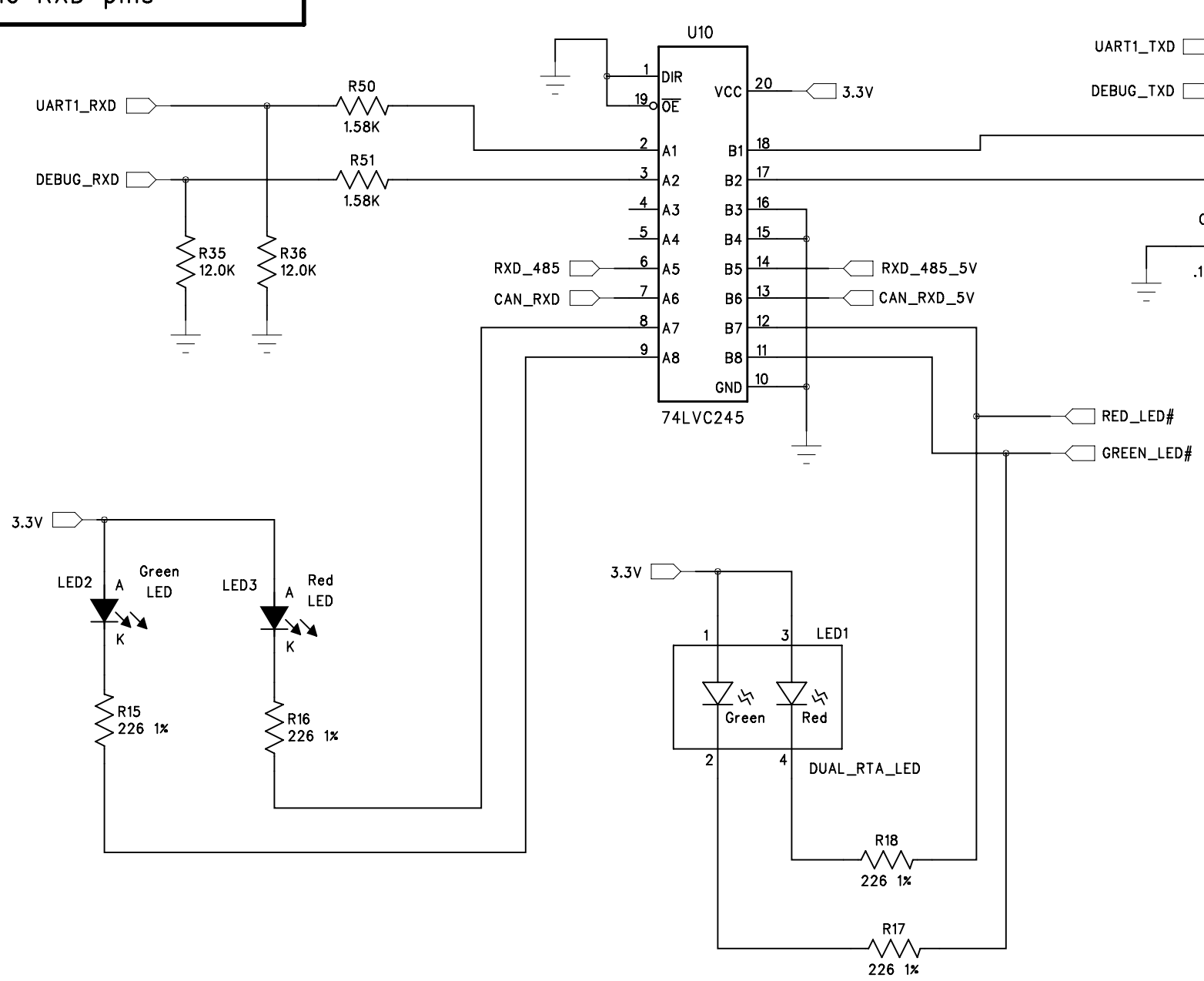
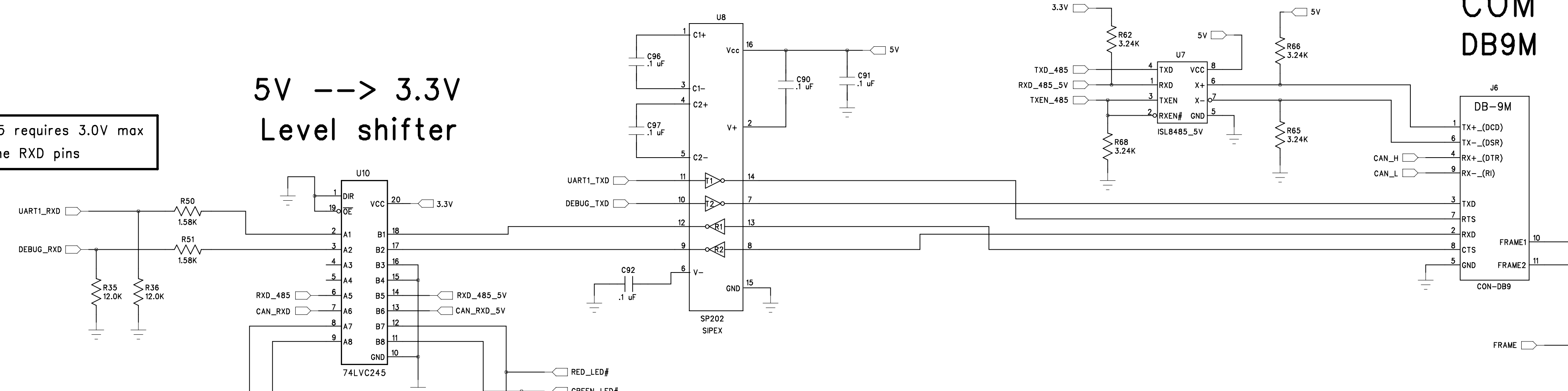
RS-232 Transceiver

RS-485 Driver

COM
DB9M

MX515 requires 3.0V max on the RXD pins

5V --> 3.3V
Level shifter



For Production Test Fixtures only

Write Protect 8200 Flash

WR_PROT_8200#
R63 3.24K 3.3V

64KB Serial Boot Flash

TS-4200 Boot using SPI0 Port

U14 NC7SZ32, U15 NC7SZ32, U16 FLASH_SERIAL
M25P05-AVM = 64Kx8 50 MHz max. Clock

CAN Transceiver

18K ohm = 18V/us
U9 MCP2551, TVS8 24V 30V break, NUP2105L

Low = select 8200 Flash

U13 NC7SZ125, BOOT_OVERRIDE

Two 100-pin Module Connectors

"5V" pins supply all power to the module
Apply 4.5V to 5.5V to these pins

Current drain is < 600 mA
(less than 3 Watts)

EXT_RESET# is an Input to the
SBC used to reboot the CPU

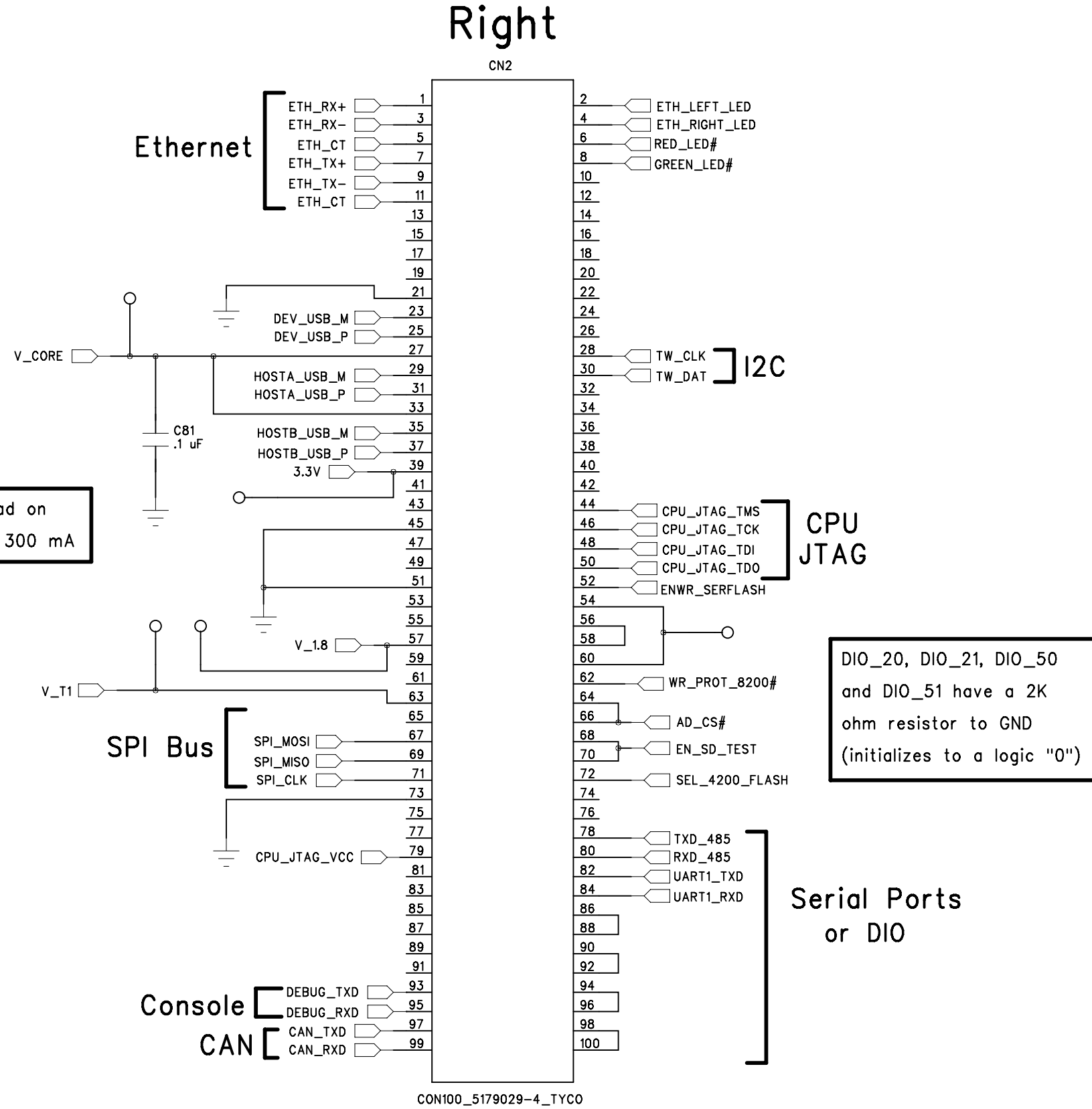
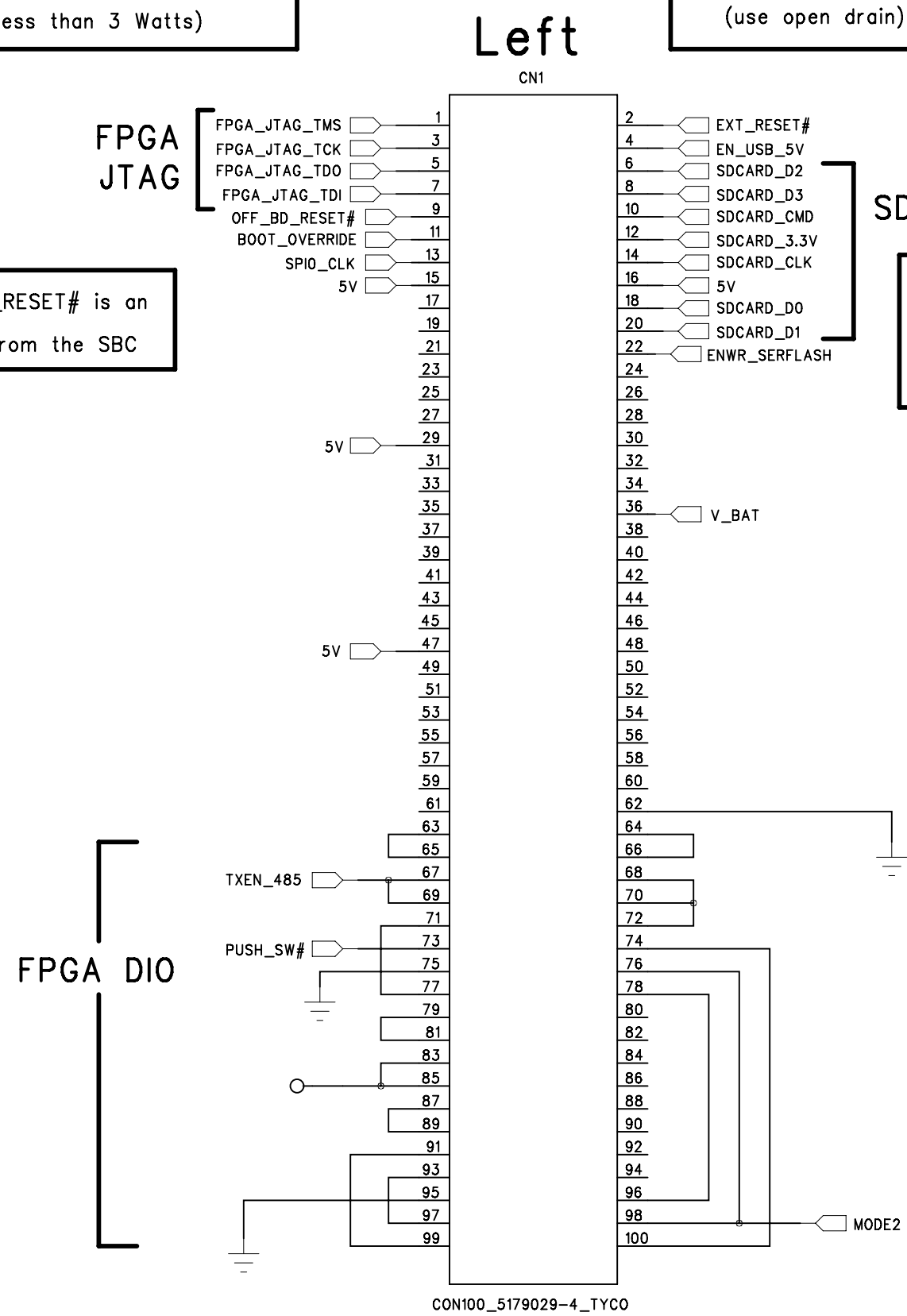
Do not drive active high
(use open drain)

OFF_BD_RESET# is an
output from the SBC

SD card signals on connector
are wired in parallel with
SD card socket. Only one
can be populated with SD card

Maximum load on
3.3V pin is 300 mA

DIO_20, DIO_21, DIO_50
and DIO_51 have a 2K
ohm resistor to GND
(initializes to a logic "0")



Mode 2	Boots from
1	NAND Flash
0	SD Card

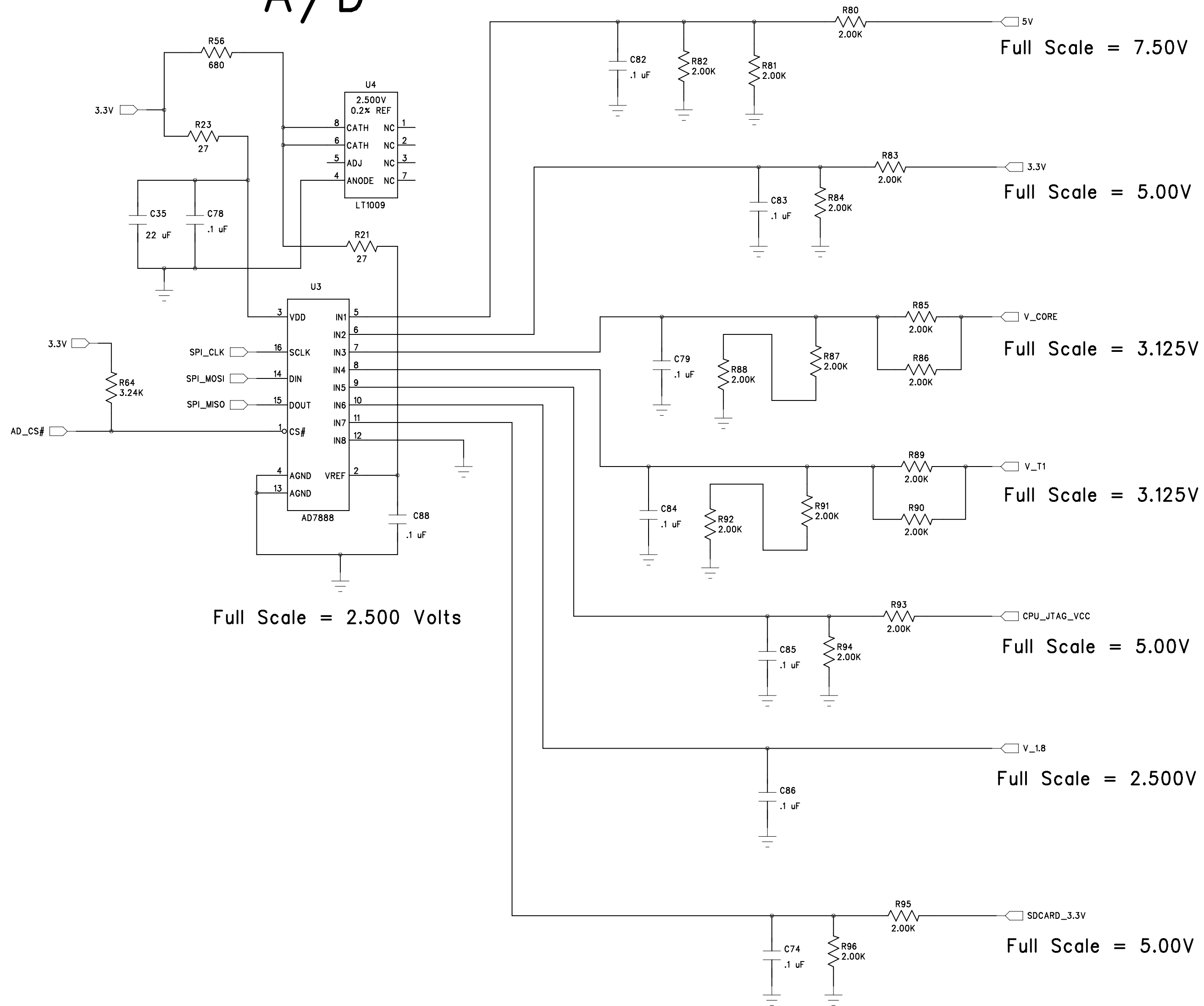
MODE1 and MODE2 states
are latched prior to
OFF_BD_RESET# deasserted

MODE1 and MODE2
have PU resistors
on the SBC module

Use 1.5K ohm resistor
to GND to set low

For Production Test Fixture Only

A/D



R80-R96 0.1% tolerance

P2.0KDBDKR-ND = .1% 0603

5K Reel is .05 each