



COMMON INDUSTRIAL USER INTERFACE

Change Log:

- REV B
- Page 2
 - Move C200 to page 3 to become C368
 - Pin 6 of J3 is now HR_METER_OUT instead of NC
 - Add R203, R204, C208
 - C201 moved to page 14 to become C1403
 - Add page 14 and 15 sheet symbols
 - Add J18, J19, J20
 - Page 3
 - Change D301 to be bidirectional TVS diode
 - Change R310 and R313 100k and 52.3k, respectively values
 - Page 4
 - Added 70mA current mirror
 - Page 7
 - Added additional signals related to new inputs and outputs. No existing pins were changed
 - Added UART 5 to pins D16 and A15
 - Changed U703 to FSUSB30MUX
 - Page 8
 - Delete R802 and R803
 - GPIO_SPARE_1 moved to pin B7 to accommodate PWM signal on pin E10
 - Delete R808 and reduce HWD REV bits to 3 total instead of 4.
 - Added additional input signals Digin 4 through Digin 10
 - Add new Ain pins to AA16 and AB15
 - Page 11
 - Move Digin 3 circuit to page 14
 - Added U1105, C1108, C1109, C1110, C1111, C1112
 - Page 12
 - Add R1226 through R1257
 - Add Page 14
 - 7 new digins and 2 new Ains
 -
 - Add Page 15
 - 8 new 0.5A LSDs
 - 4 new 2A LSDs
 - 1 new 5V HSD for HR meters

7-bit I2C addresses (12C0)				
SA0 for IMU/Accel	0	1	0	1
SA1 for IMU/Accel	0	0	1	1
BMI270	0x68	0x69		
LSM6DSMTR	0x6A	0x6B		
ISM330DLC	0x6A	0x6B		
ISM330DHC	0x6A	0x6B		
ISM330DHCX	0x6A	0x6B		
BNO055	0x29	0x28		
Accel - FXLS8471QR1	0x1E	0x1D	0x1C	0x1F
LED Driver 0 - TLC59116FIRHBR	0x61			
LED Driver 1 - TLC59116FIRHBR	0x62			
EEPOT - ISL90728WIE627Z	0x3E			
PMIC - TPS65218D0	0x24			
7-bit I2C addresses (I2C1)				
Video Decoder - TW9990	0x45			

BOM ITEMS:

PCB

BOM

Q25098-002
PCB, Industrial UI

FW1


DNI

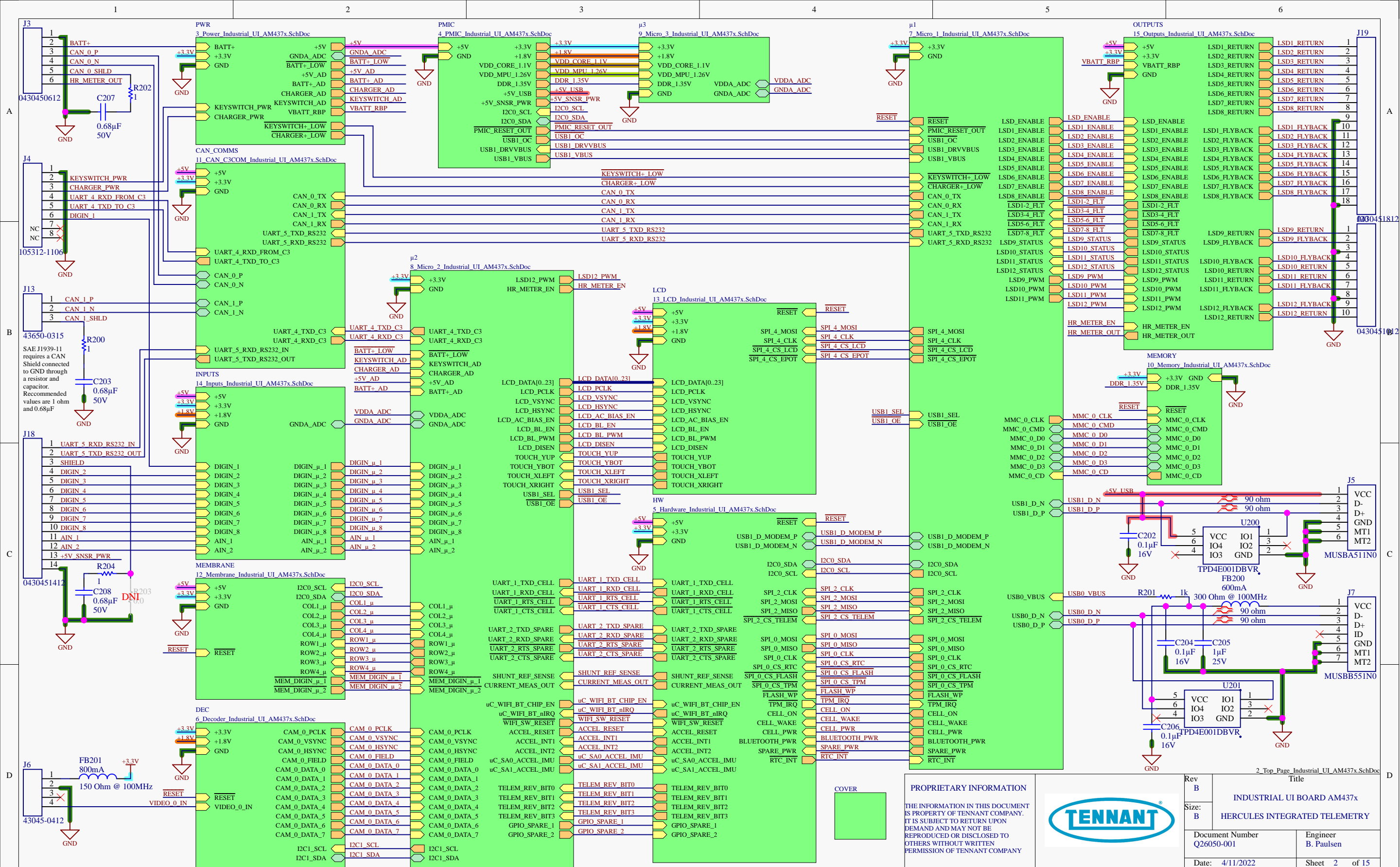
Q30124-001
Firmware-Application, U1001

FW2

DNI

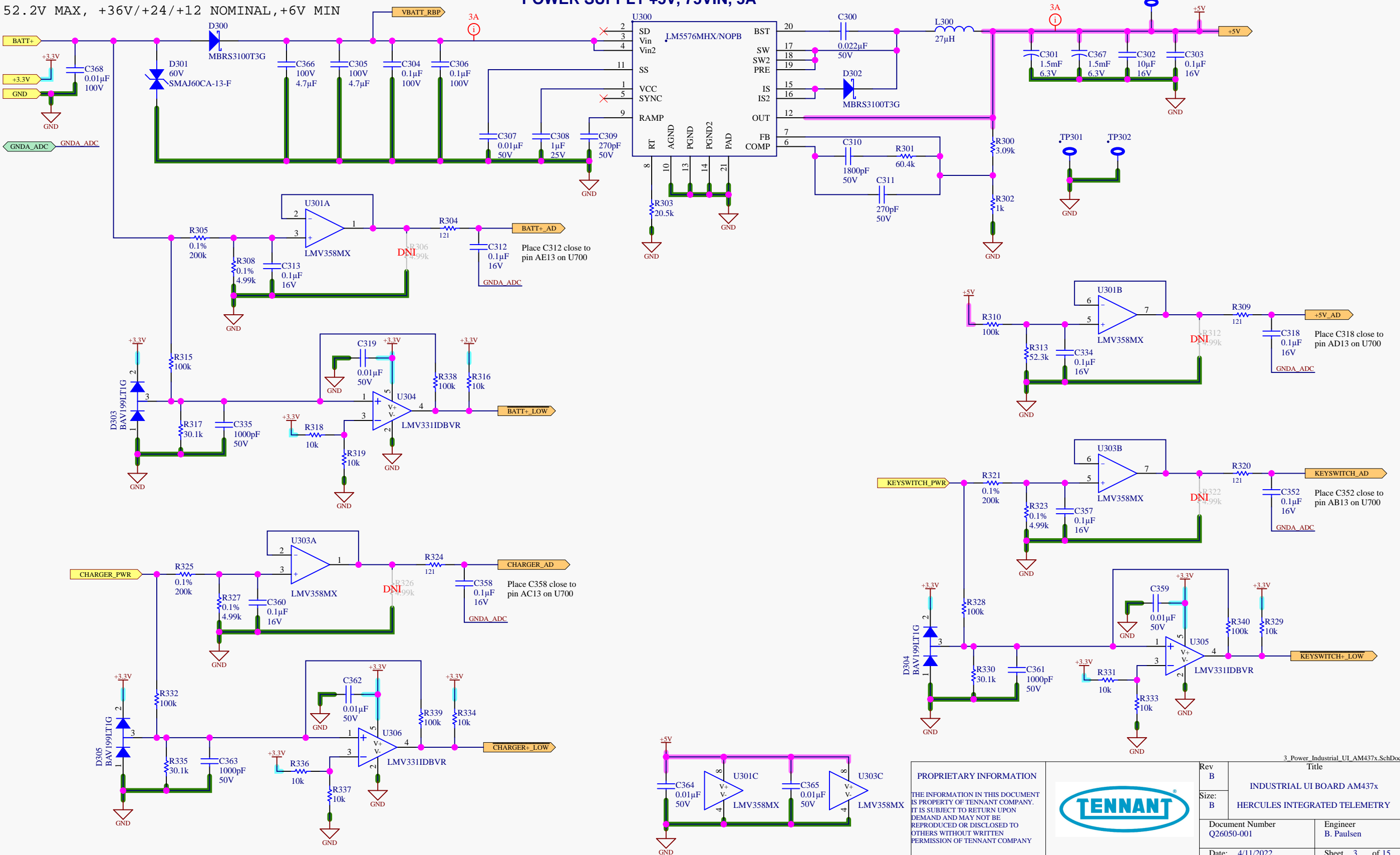
Q30125-001
Firmware-Bootloader, U500

<div>PROPRIETARY INFORMATION</div> <div>THE INFORMATION IN THIS DOCUMENT IS PROPERTY OF TENNANT COMPANY. IT IS SUBJECT TO RETURN UPON DEMAND AND MAY NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT WRITTEN PERMISSION OF TENNANT COMPANY</div>		Rev	Title		
		B	INDUSTRIAL UI BOARD AM437x		
		Size:	HERCULES INTEGRATED TELEMETRY		
		B			
		Document Number Q26050-001			Engineer B. Paulsen
		Date: 4/11/2022	Sheet 1 of 15		



POWER INPUT
52.2V MAX, +36V/+24/+12 NOMINAL, +6V MIN

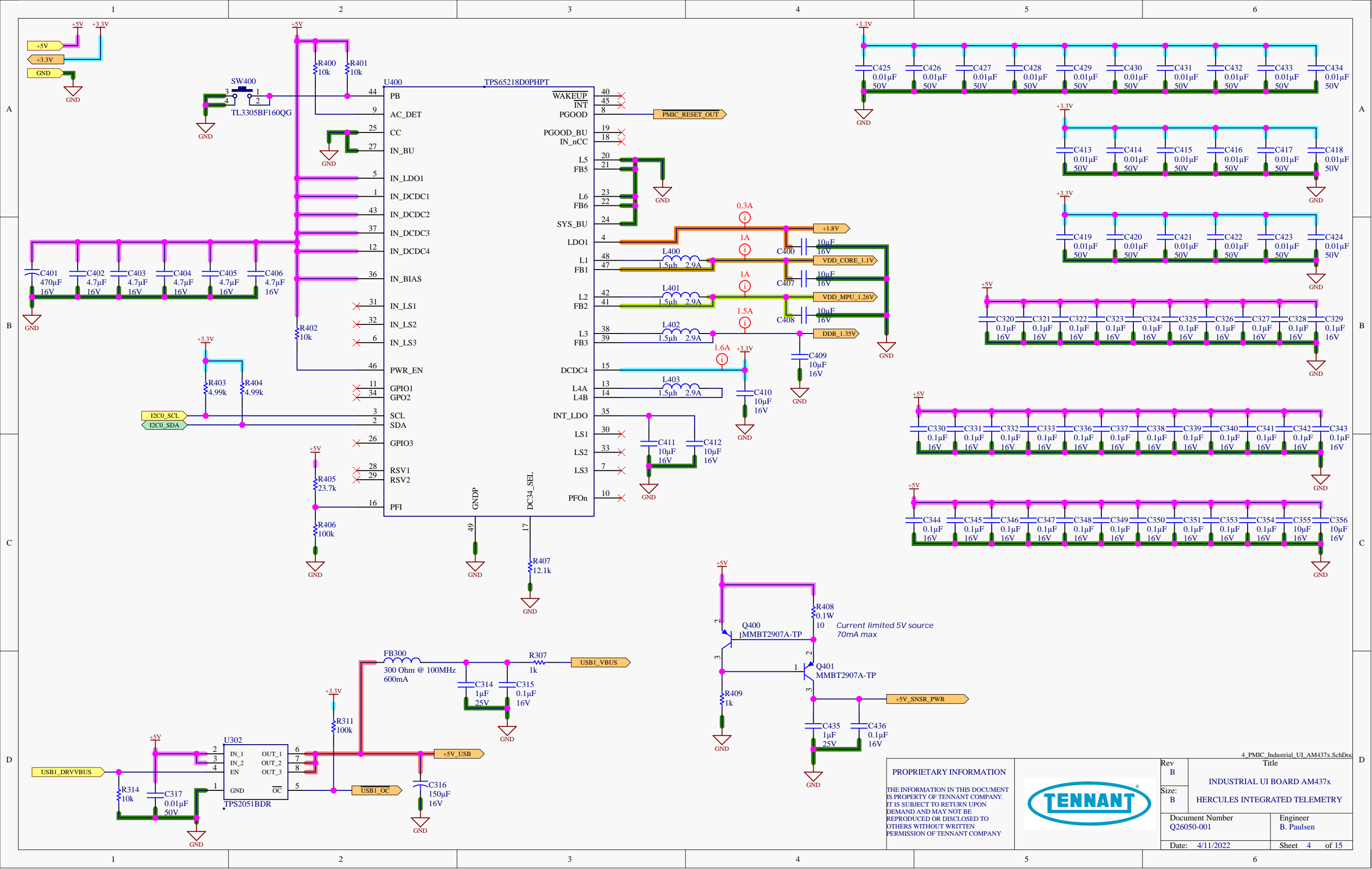
POWER SUPPLY +5V, 75VIN, 3A

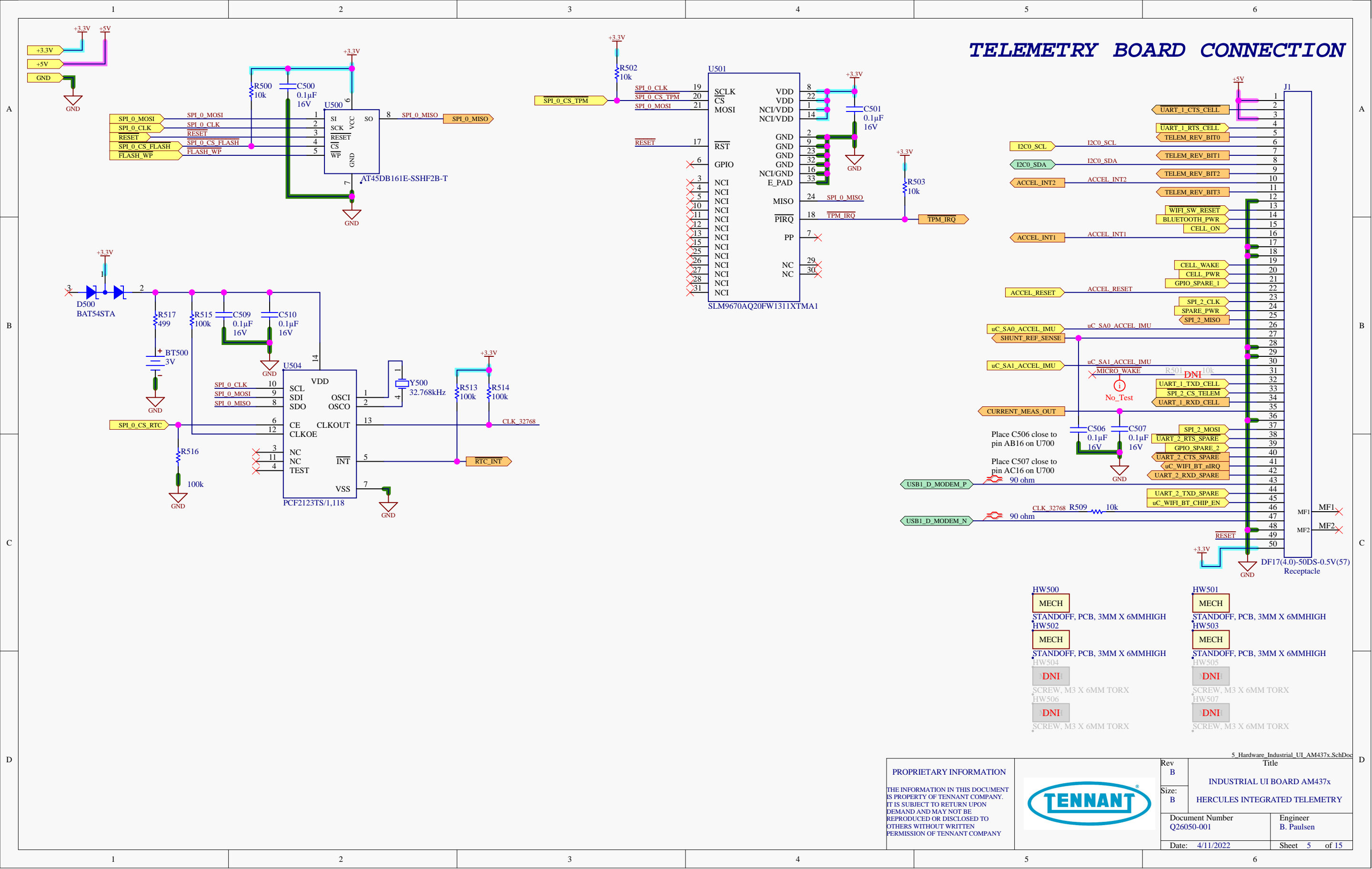


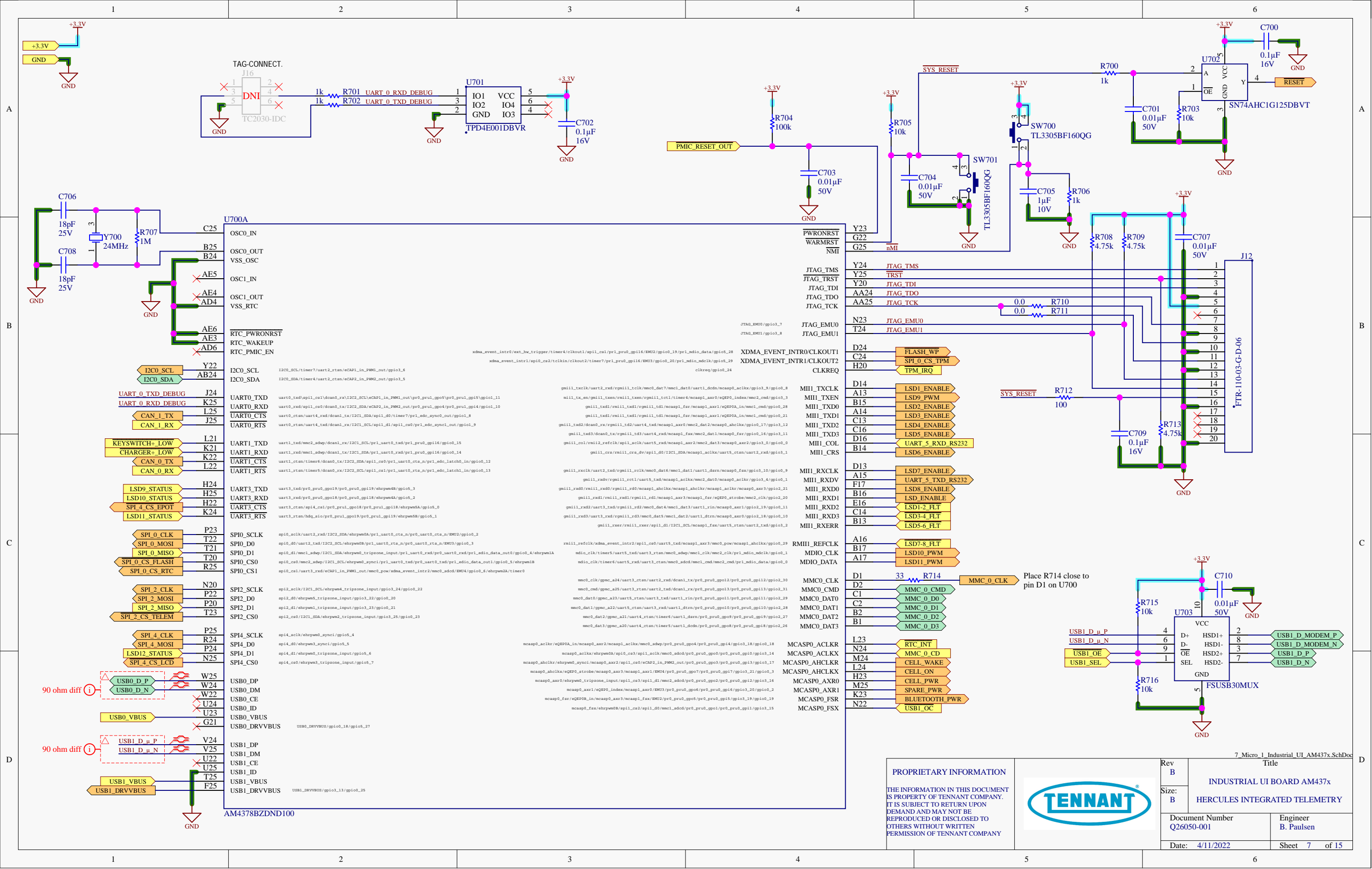
PROPRIETARY INFORMATION
THE INFORMATION IN THIS DOCUMENT IS PROPERTY OF TENNANT COMPANY. IT IS SUBJECT TO RETURN UPON DEMAND AND MAY NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT WRITTEN PERMISSION OF TENNANT COMPANY

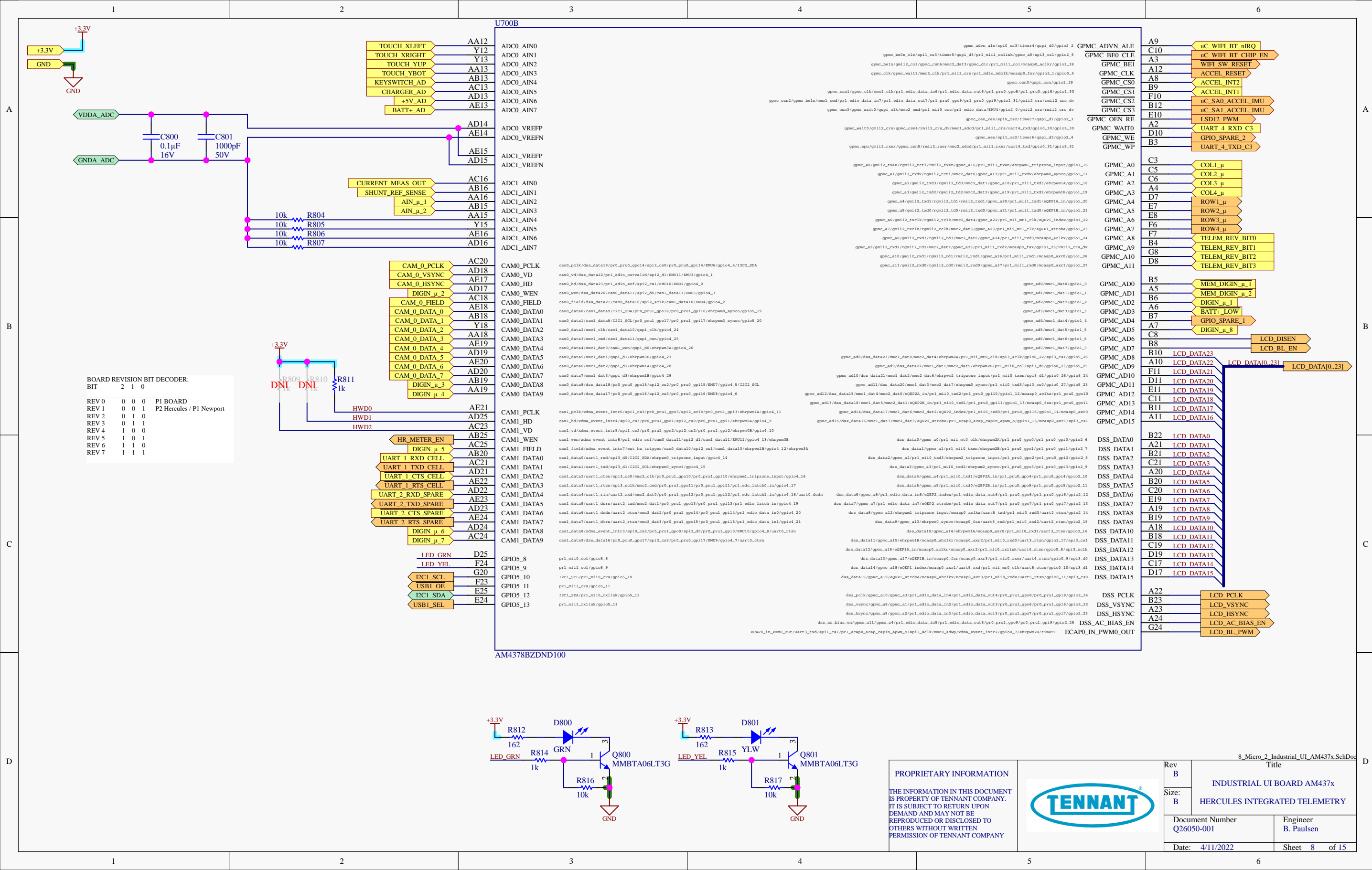


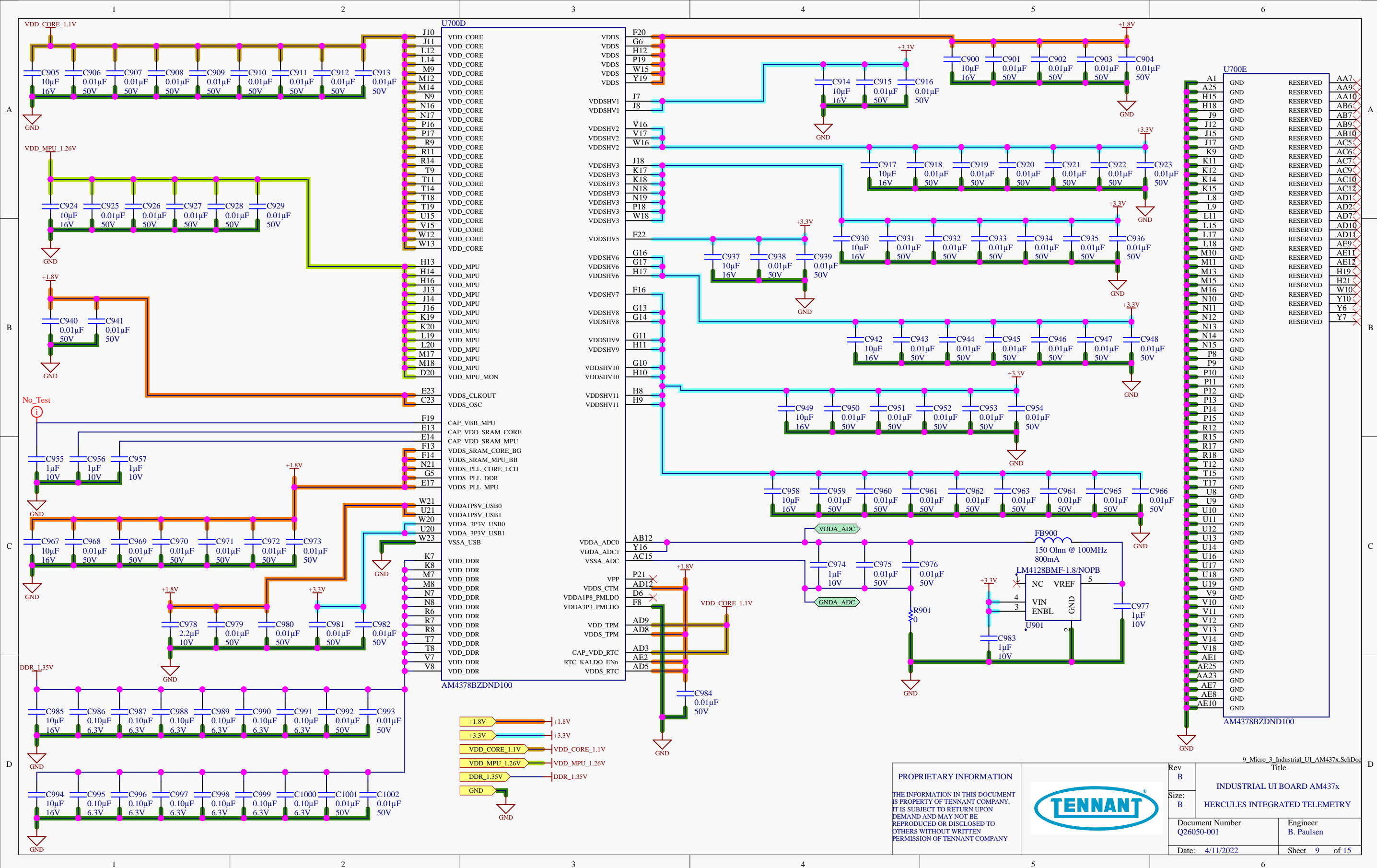
Rev B		Title	
Size: B		INDUSTRIAL UI BOARD AM437x	
Document Number Q26050-001		Engineer B. Paulsen	
Date: 4/11/2022		Sheet 3 of 15	

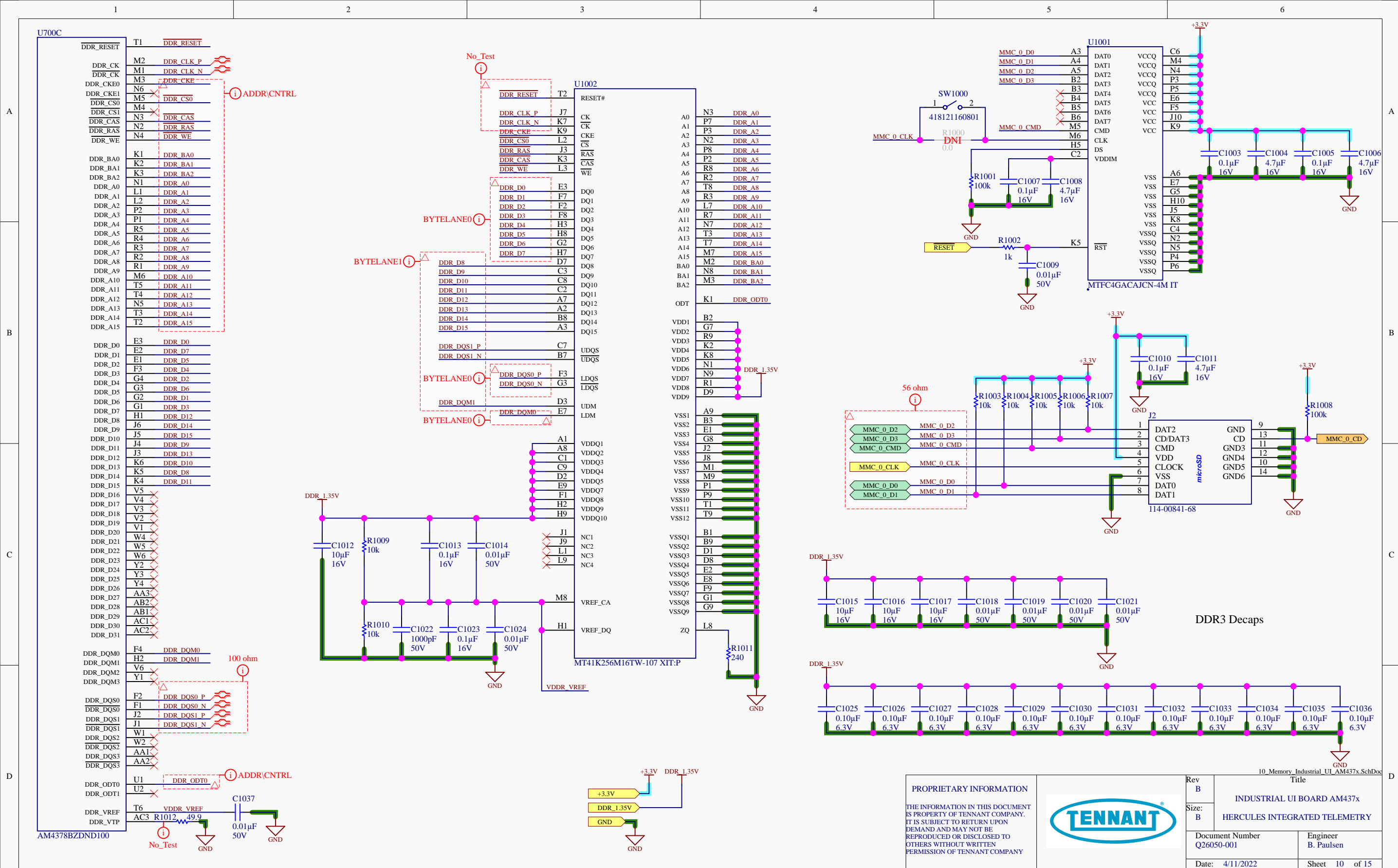


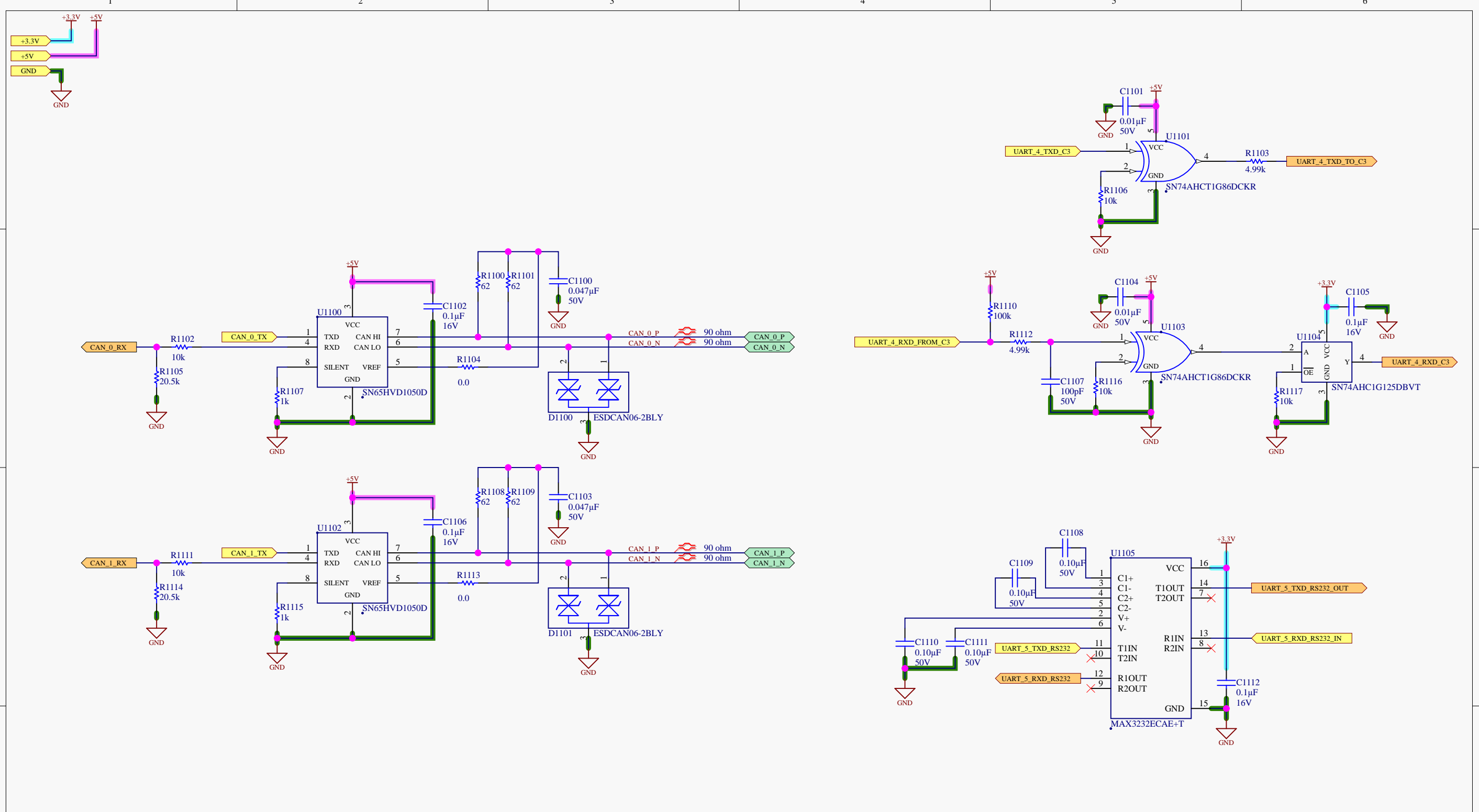


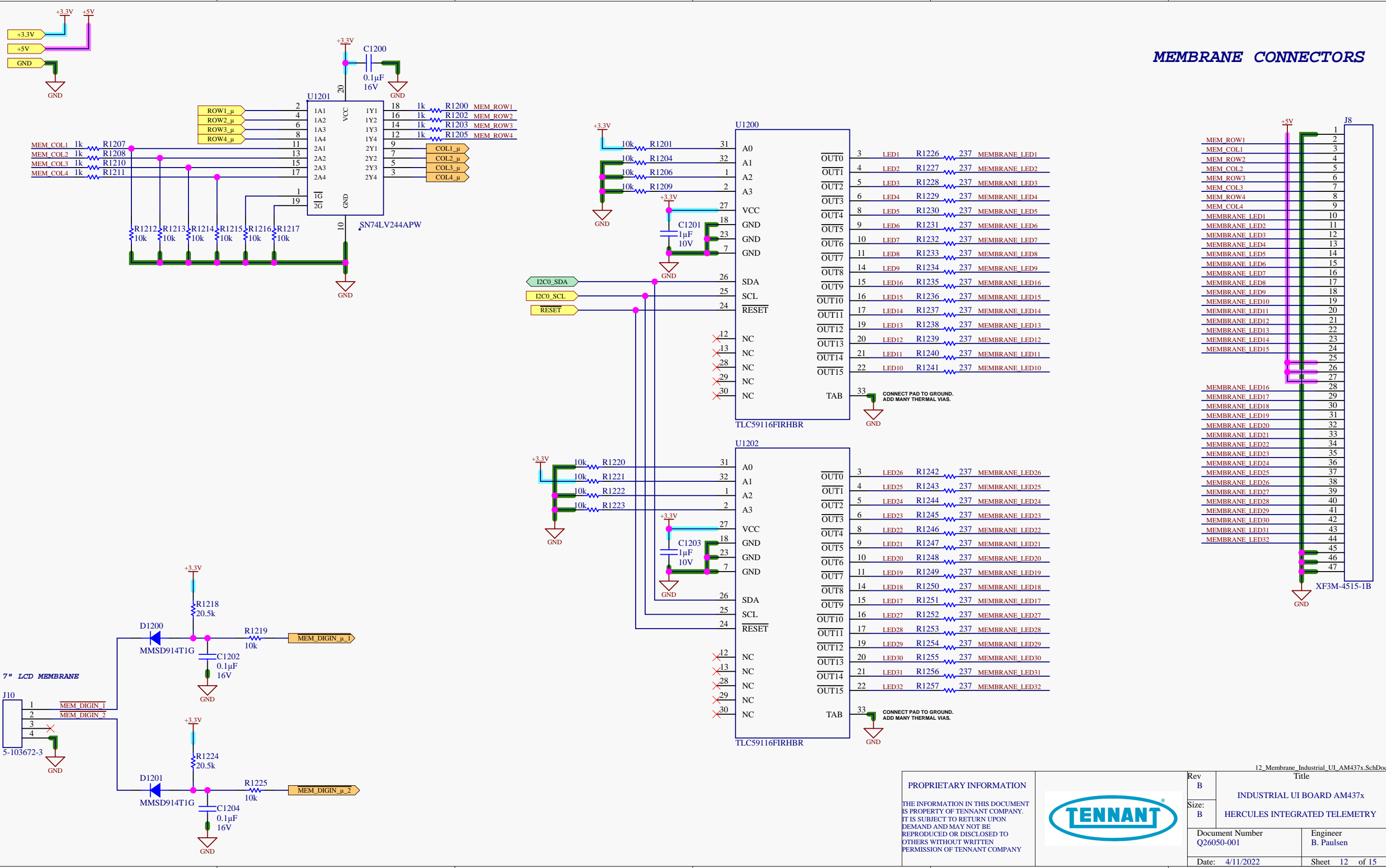












MEMBRANE CONNECTORS

