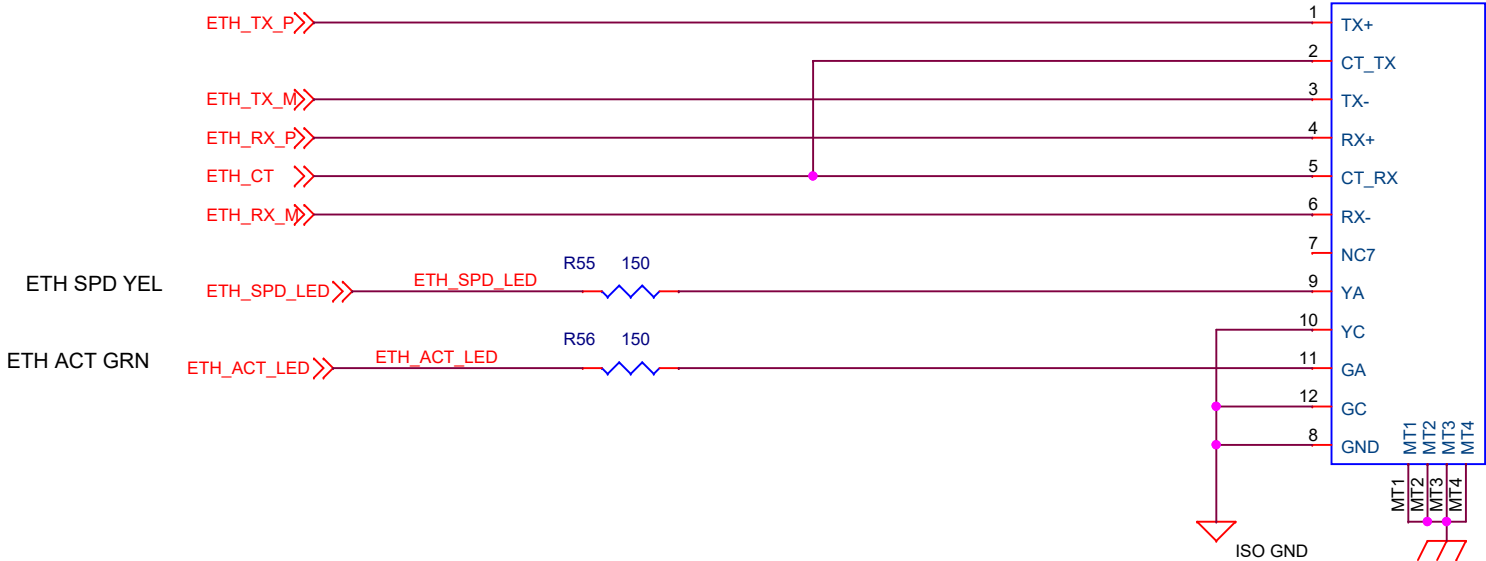
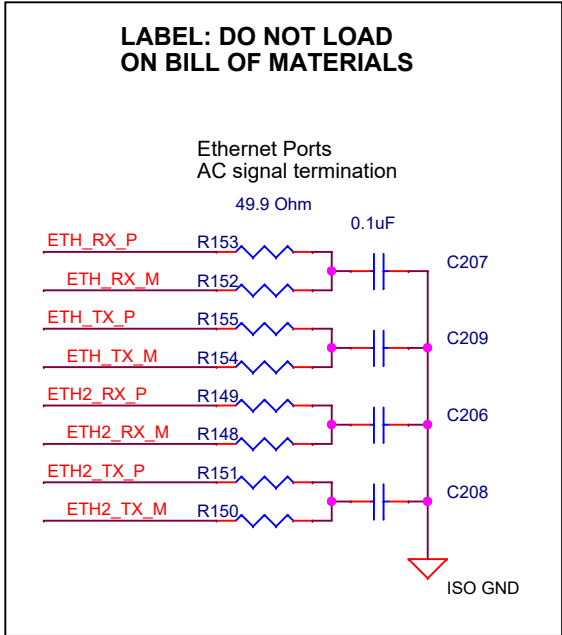
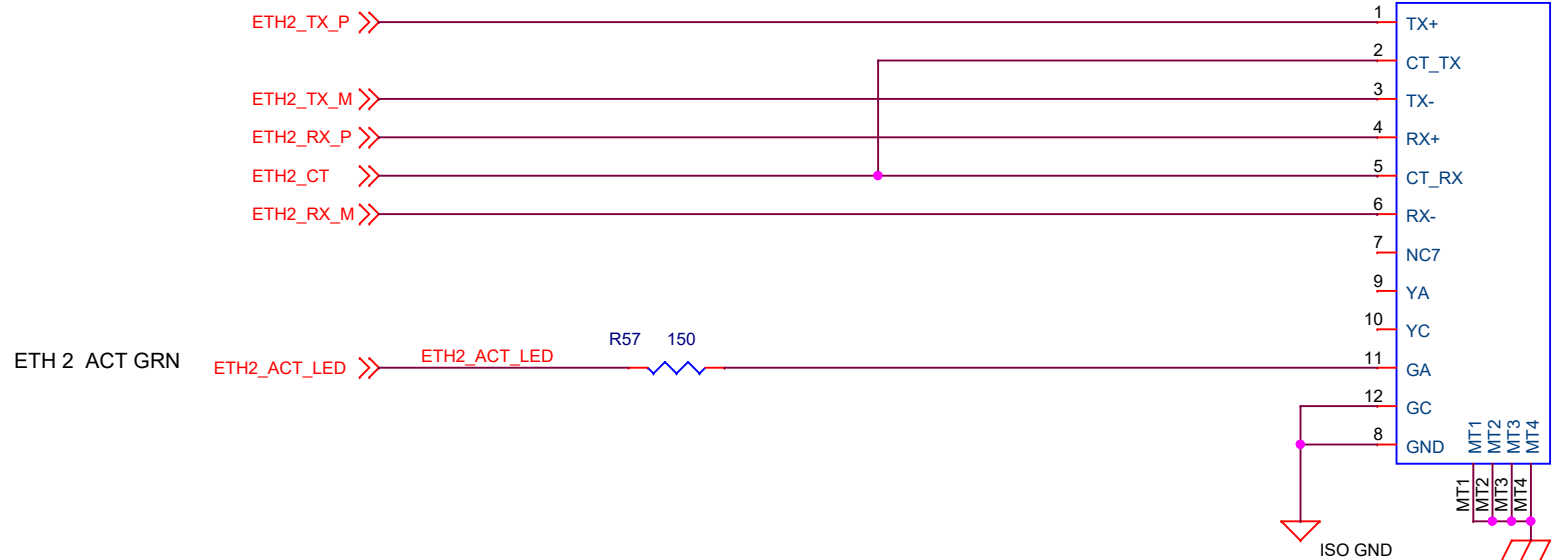


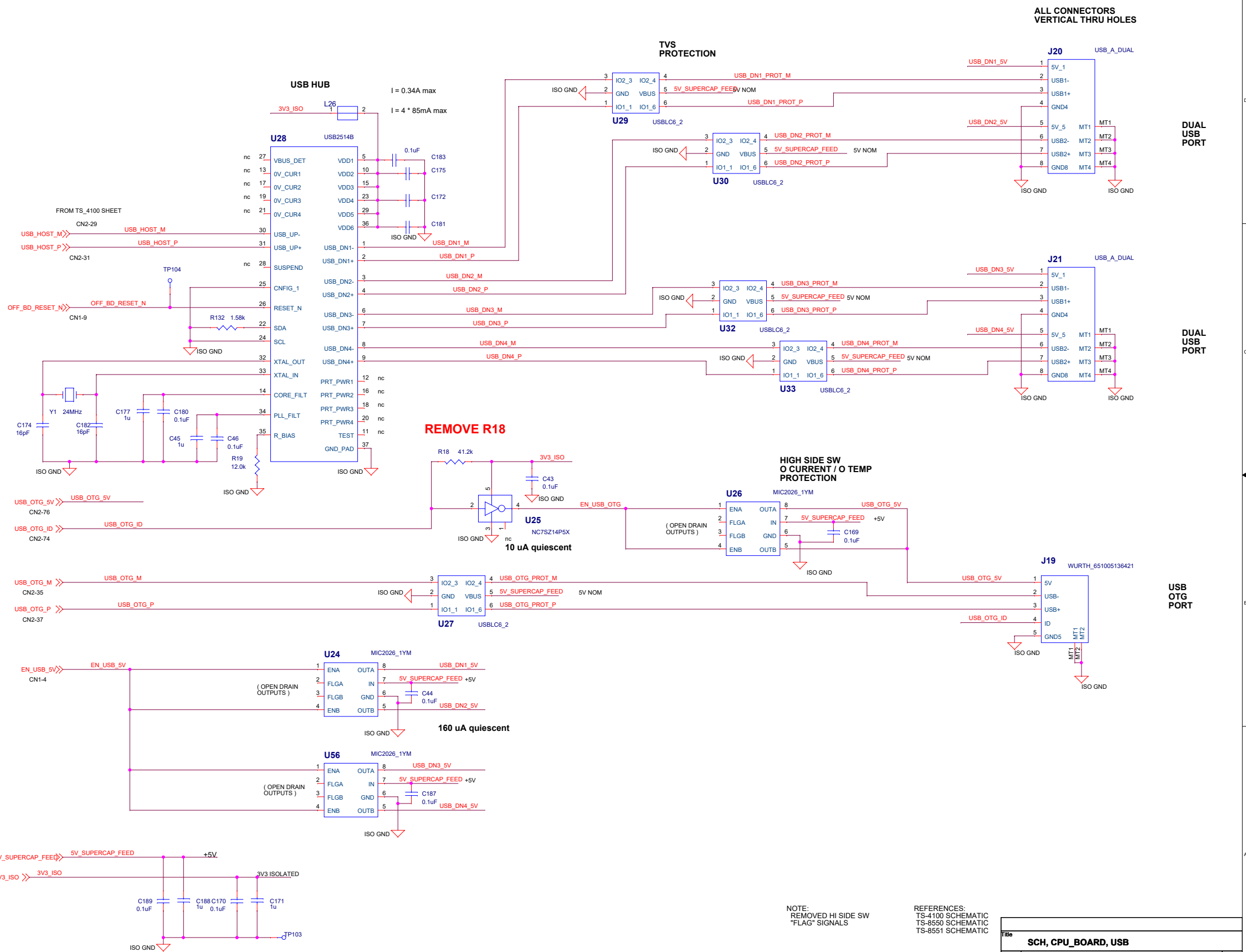
TO TS4100 CN2 ODD



TO TS4100 CN2 EVEN



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SCH,CPU_BOARD, ETHERNET			
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TS4100

3V3_4100

3V3_4100

C65

0.1uF

ISO GND

U39

ISL4221E

C69

0.1uF

C70

0.1uF

C67

0.1uF

C68

0.1uF

ISO GND

UART0_TX

CN2-93

UART0_RX

CN2-95

CONSOLE_RS232_TXD0

CONSOLE_RS232_RXD0

1 mA

J25

HARWIN_M80_5110442

MT2

MT1

3V3_4100

CONSOLE_COMMS_RTN

ISO GND

U39 IC is the wrong size

Add blue wire U39 9 to 11

Add blue wire U39 7 to 6

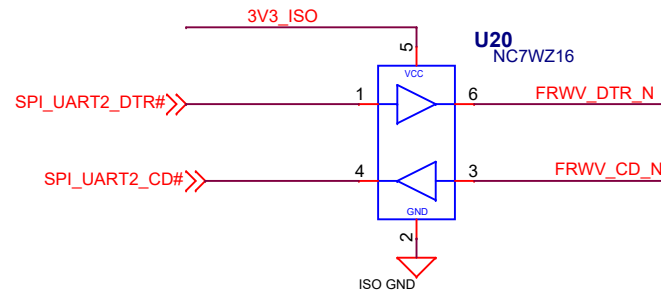
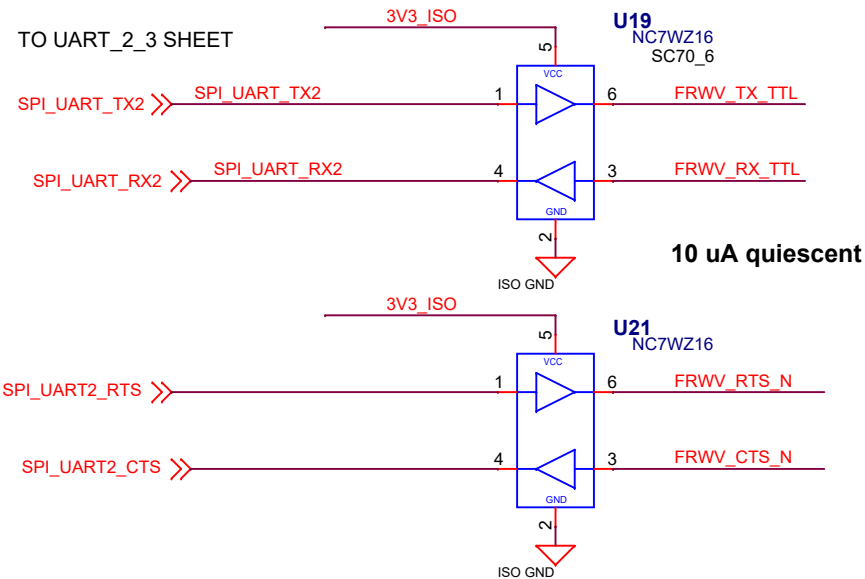
Make up a TTL-USB cable with mating J25 Harwin connector

(M80-4600442 ... Dgk 952-2625-ND)

NOTE:

Chip automatically powers down
when RS-232 cable is removed.
Powers up when valid RS-232
signal applied to RCVR In.

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SCH, CPU_BOARD, CONSOLE RS232			
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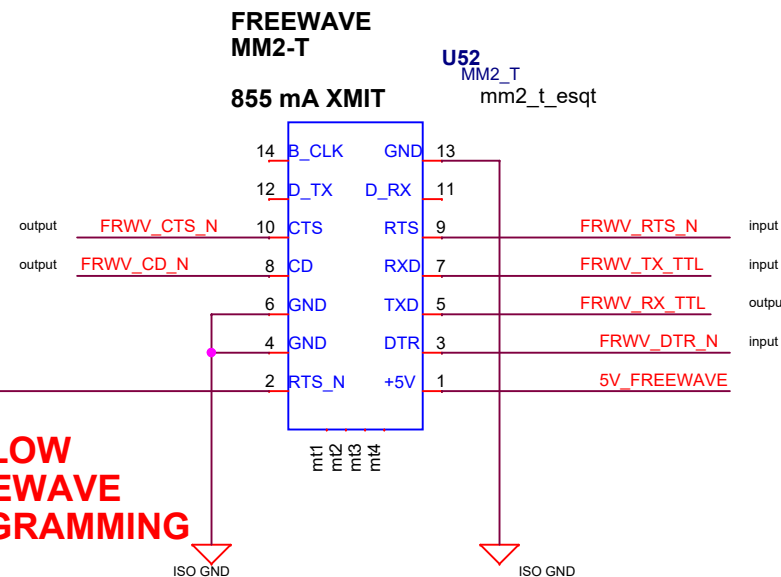
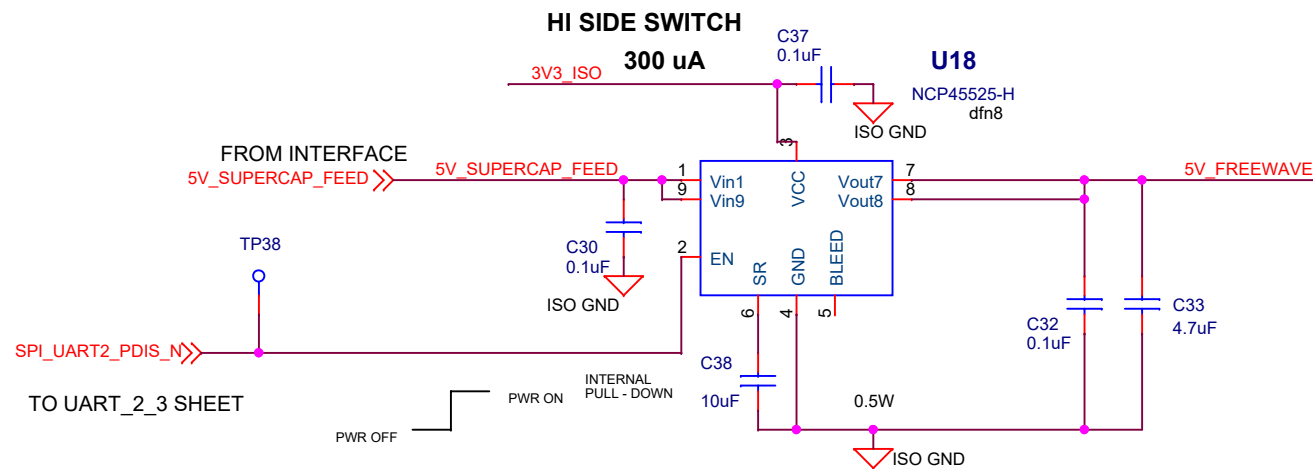


SPACER McMaster #2 1/4" LONG 3/6" OD
94639A705

CONNECTOR SAMTEC CLT-107-02-G-D-A
SMT LOW PROFILE DUAL WIPE SOCKET
DGK: SAM11021-ND

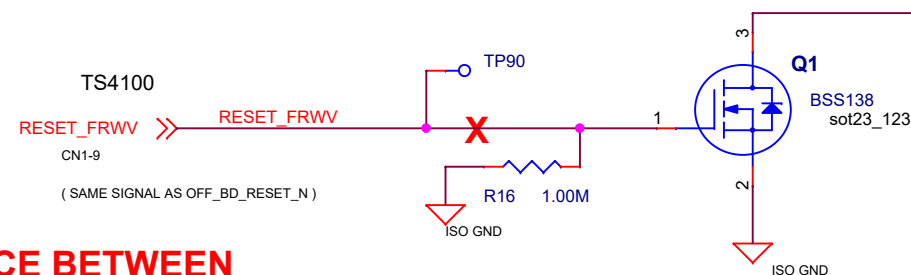
USING A TALLER SPACER WITH
A SAMTEC ESQ SERIES WOULD ALLOW
MOUNTING COMPONENTS BENEATH
THE MM2-T MODULE

TWO OPTIONS ARE ON ORDER
FROM SAMTEC



Input/Output:
See page 51 of
MM2 Spread Spectrum
Wireless Data Transceiver
User Manual

Locate matching TEST POINT close to
TS4100 CN1_13



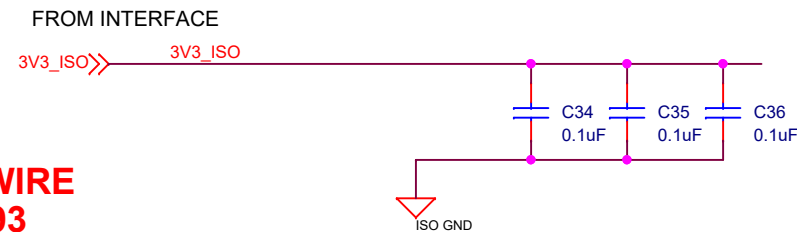
U52 PIN 2 LOW
PUTS FREEWAVE
INTO PROGRAMMING
MODE

ADD 10K RESISTOR BETWEEN
U51 (FREEWAVE CONNECTOR)
PIN 1 AND 2

CUT TRACE BETWEEN
TP90 AND R16

ADD BLUE WIRE
Q1 GATE TO CPU GPIO
CONNECTOR
J12 PIN 13
(CN1-21)

ADD BLUE WIRE
TP90 TO TP93

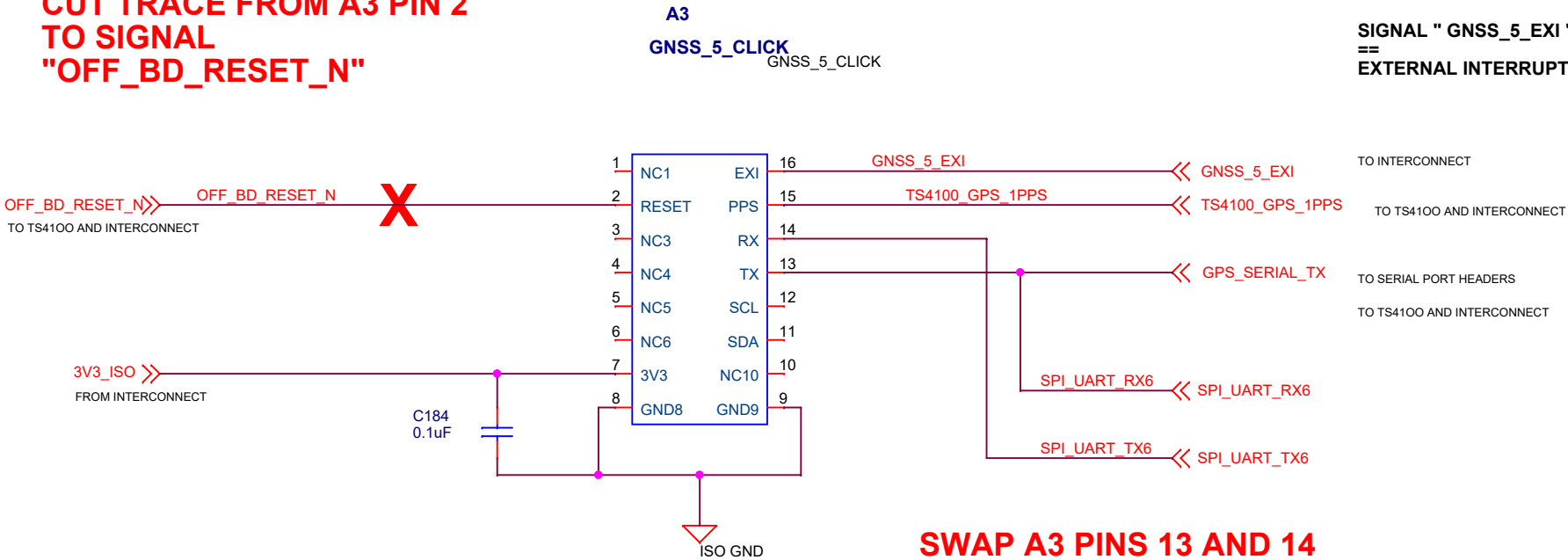


Title		
SCH, CPU_BOARD, COMMS_FRWV_MM2		
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ON THE BOARD
GNSS_5_CLICK:

CUT PIN 2 OFF FLUSH W HEADER
REMOVE J1 (A ZERO OHM RESISTOR
LABELED USB POWER ON SILKSCREEN)

CUT TRACE FROM A3 PIN 2
TO SIGNAL
"OFF_BD_RESET_N"

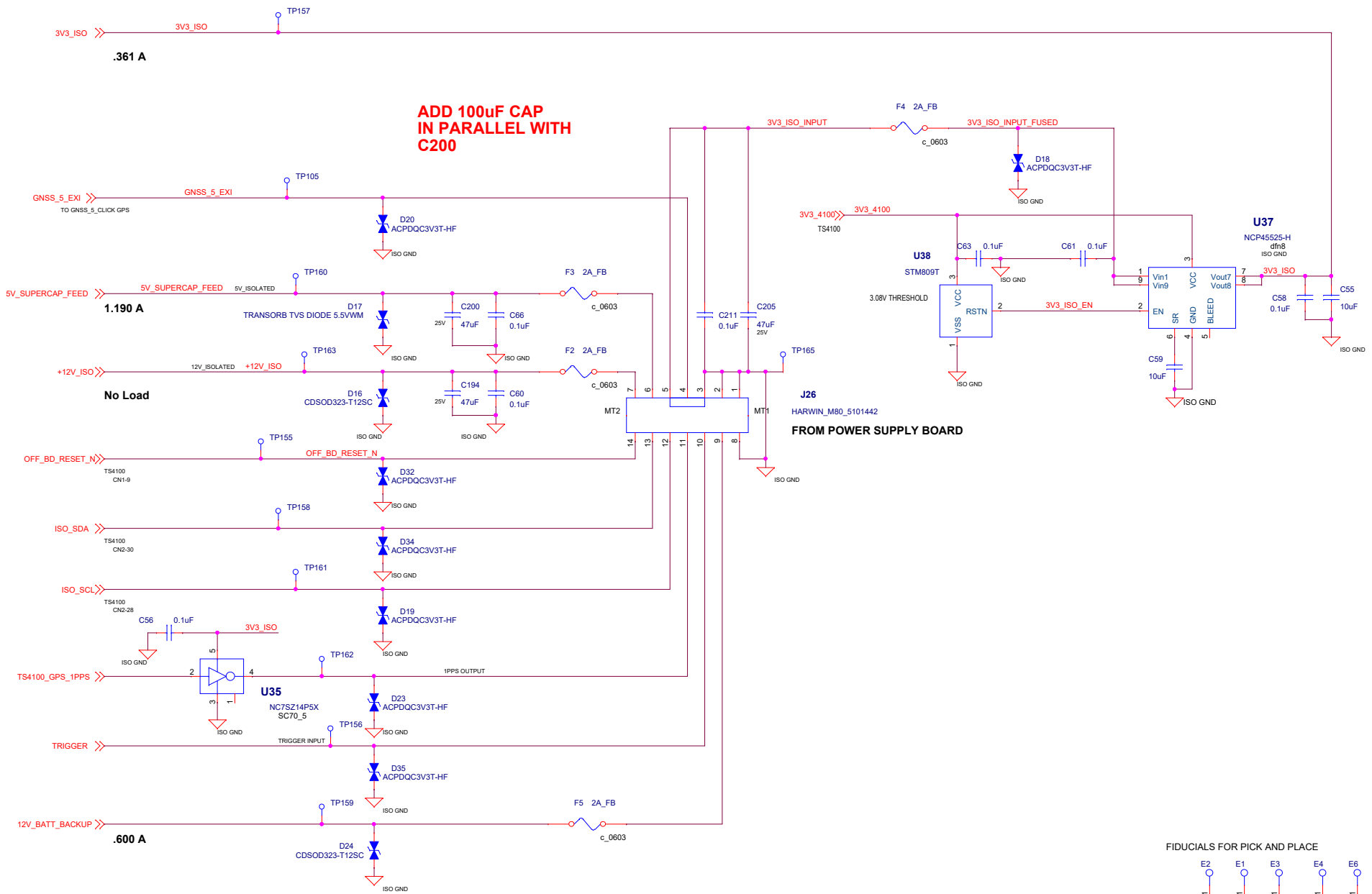


SWAP A3 PINS 13 AND 14
(RX AND TX LINES INTO GNSS_5_CLICK)

CURRENT DRAW ?

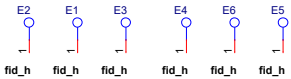
CAN THIS BE POWERED BY 3V3_ISO ?

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SCH,CPU_BOARD, GPS_RECEIVER		
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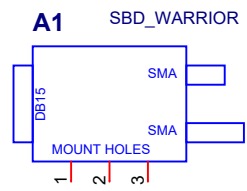


ADD 100uF CAP
IN PARALLEL WITH
C200

FIDUCIALS FOR PICK AND PLACE



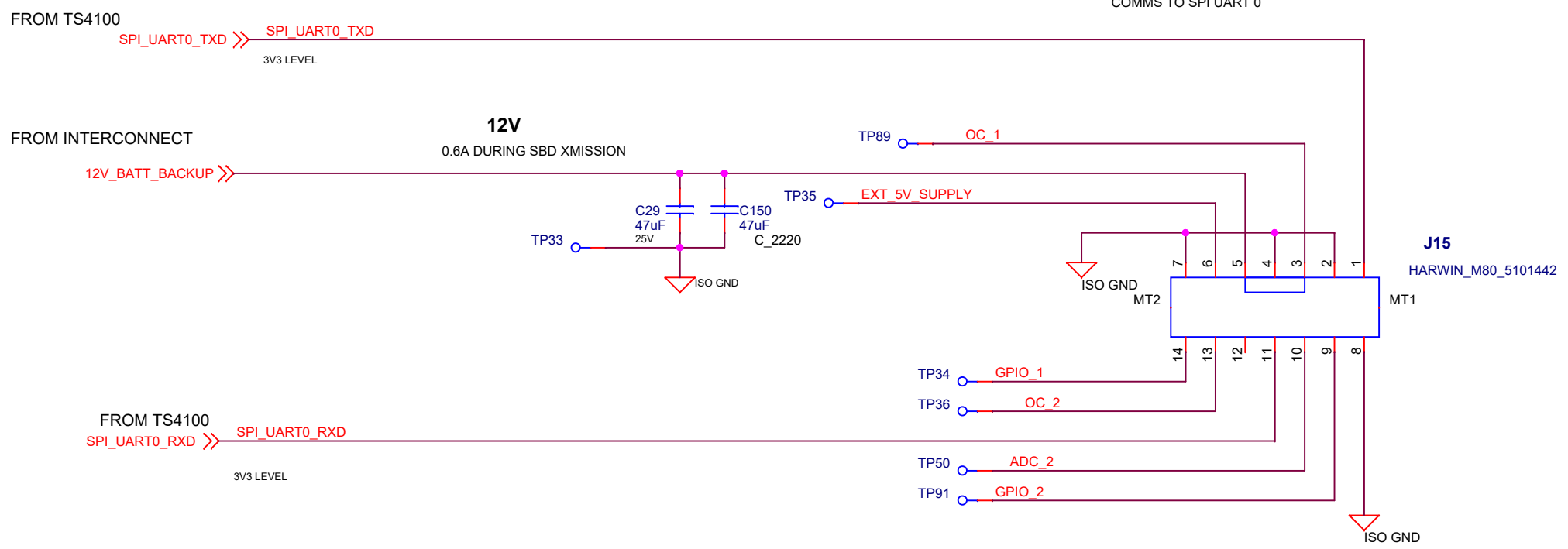
Title			
SCH, CPU_BOARD, INTERCONNECT TO POWER_BOARD			
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MODIFIY
MOUNT HOLES
FOR 2-56 SCREWS

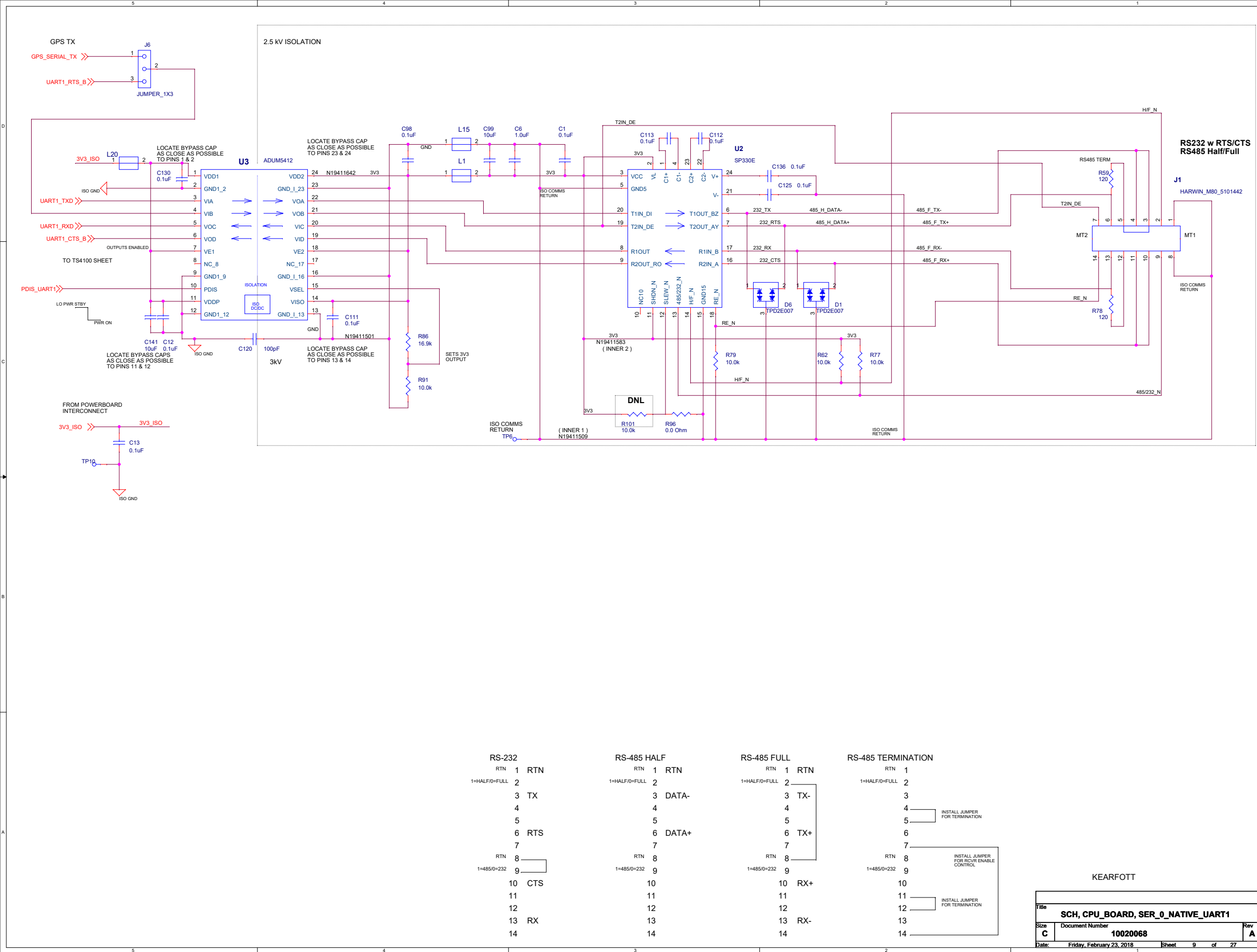
(ONE OF THEM IS
POSSIBLY 4-40)

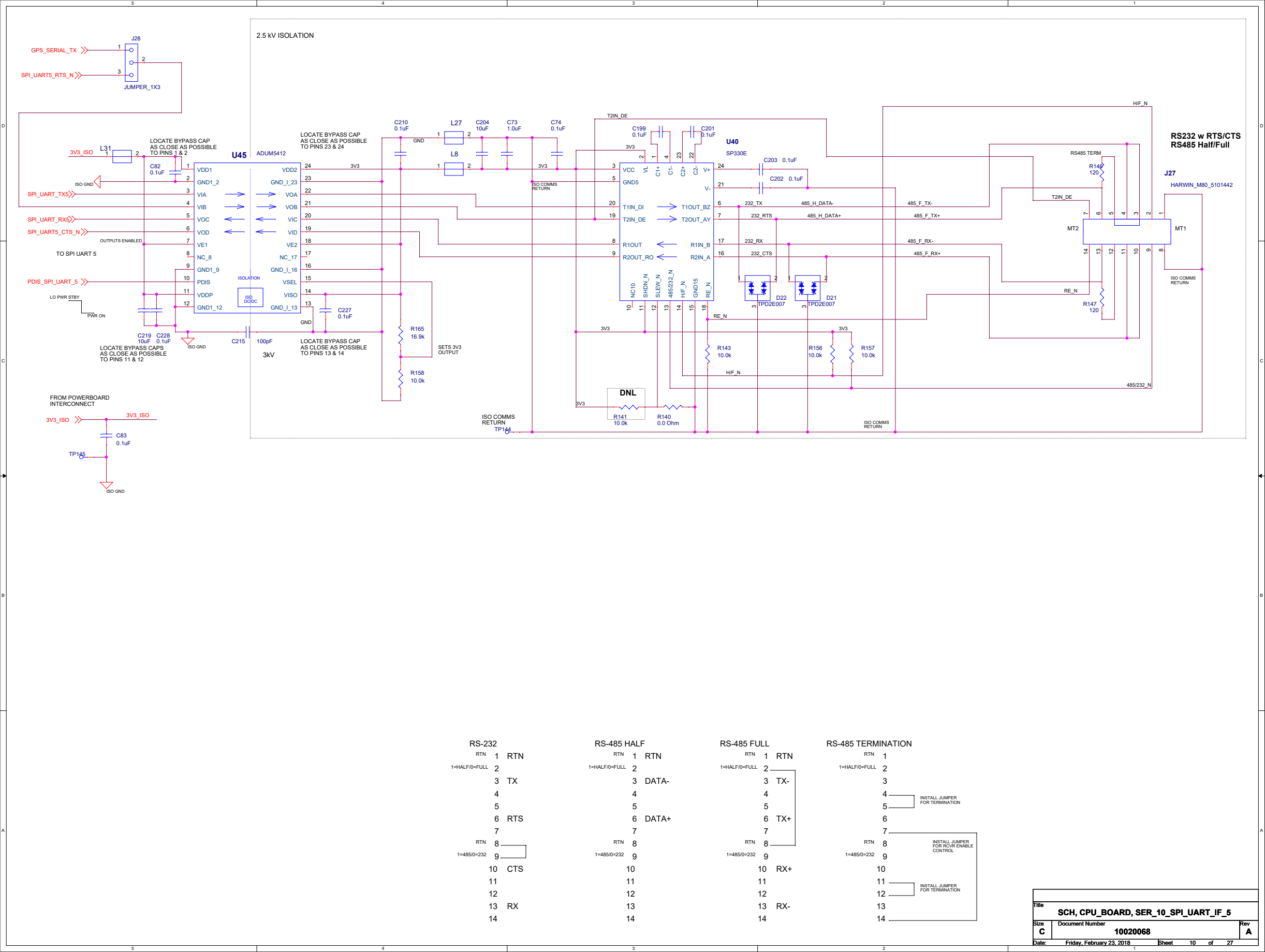
SBD WARRIOR
COMMS TO SPI UART 0

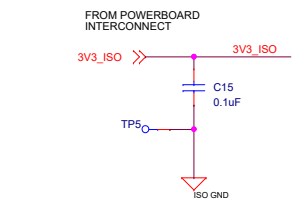
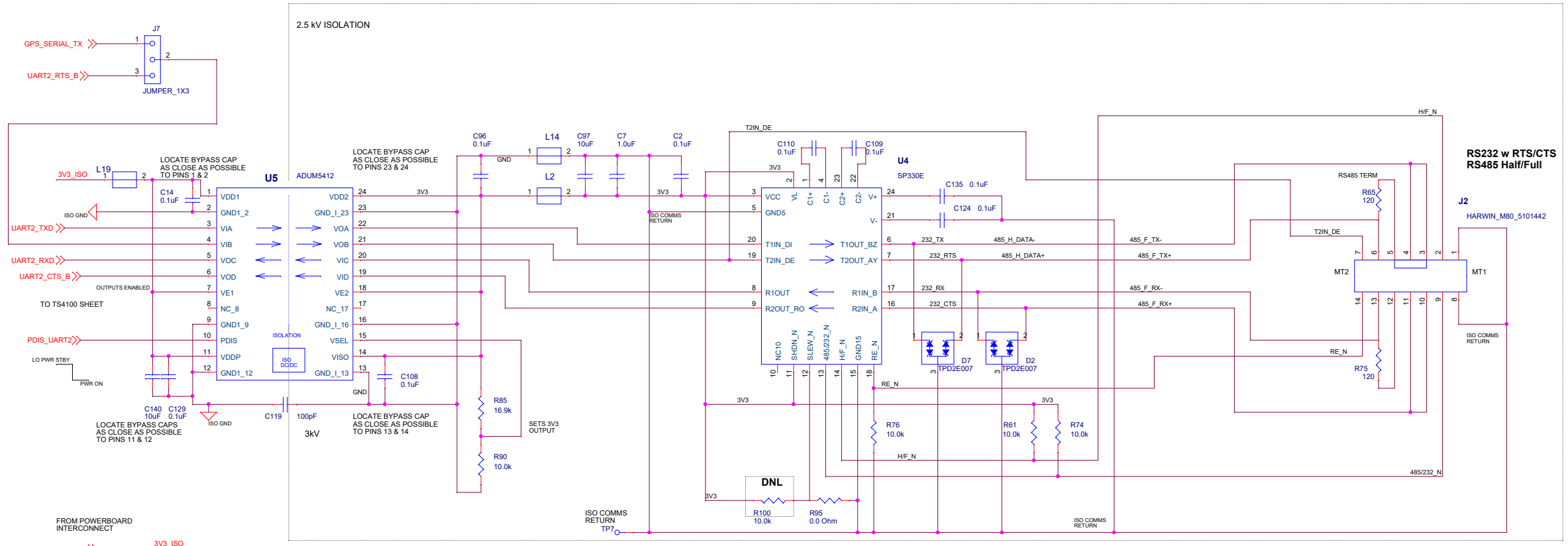


NO HANDSHAKE IMPLEMENTED
ON THE SBD WARRIOR COMPONENT

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SCH, CPU_BOARD, SBD_WARRIOR			
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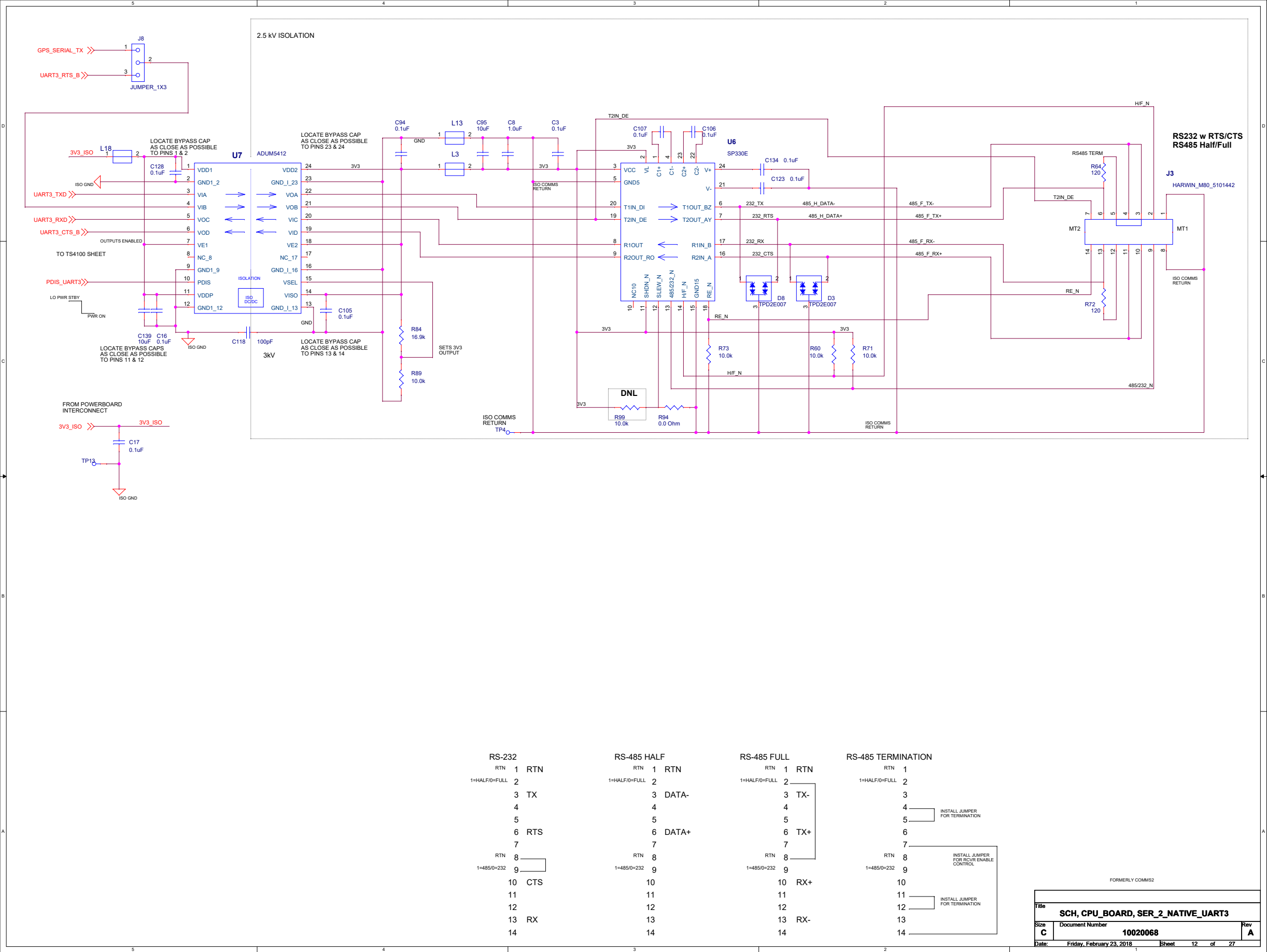


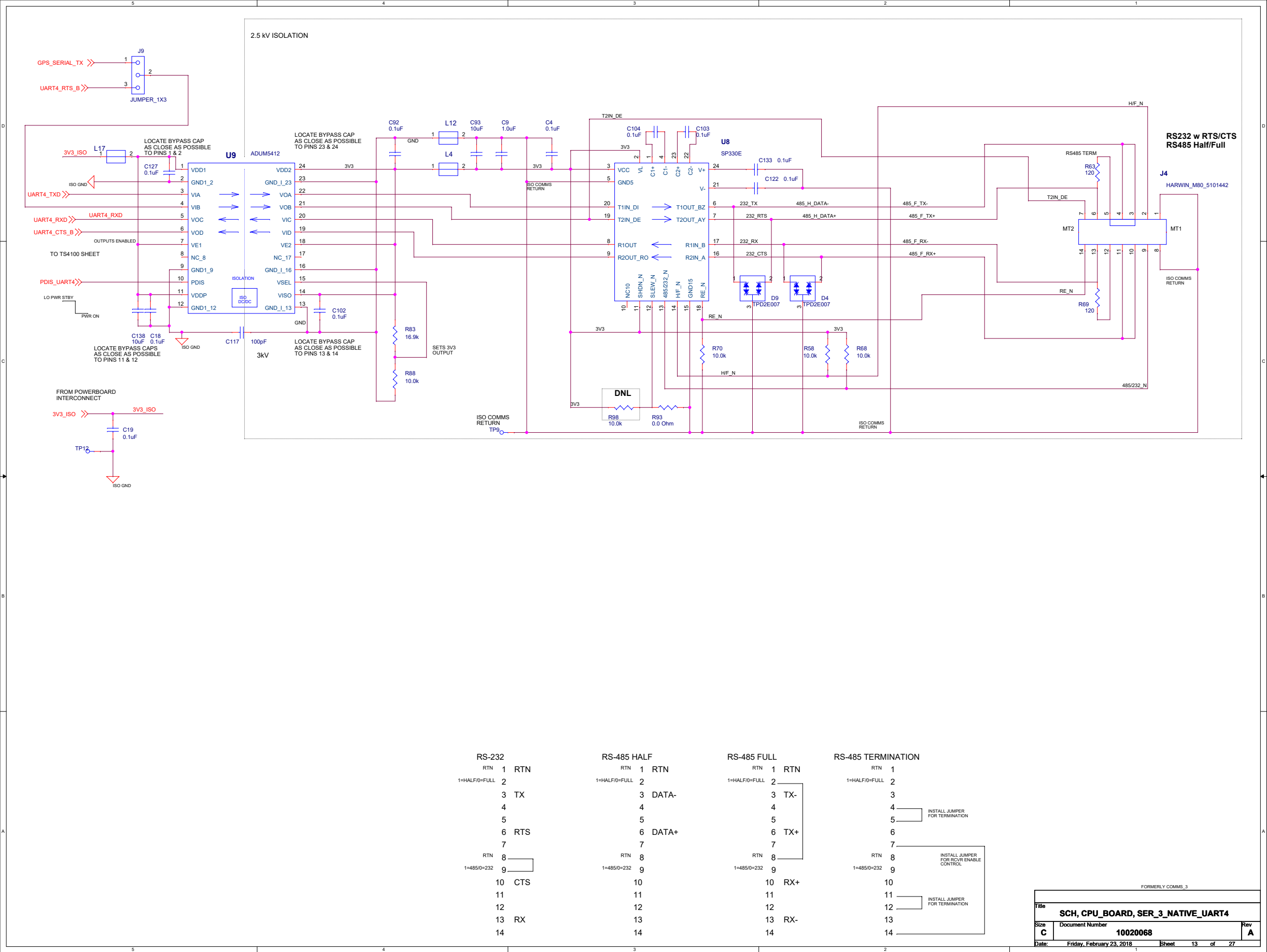
RS-232		
RTN	1	RTN
1=HALF/0=FULL	2	
	3	TX
	4	
	5	
	6	RTS
	7	
RTN	8	
1=485/0=232	9	
	10	CTS
	11	
	12	RX
	13	
	14	

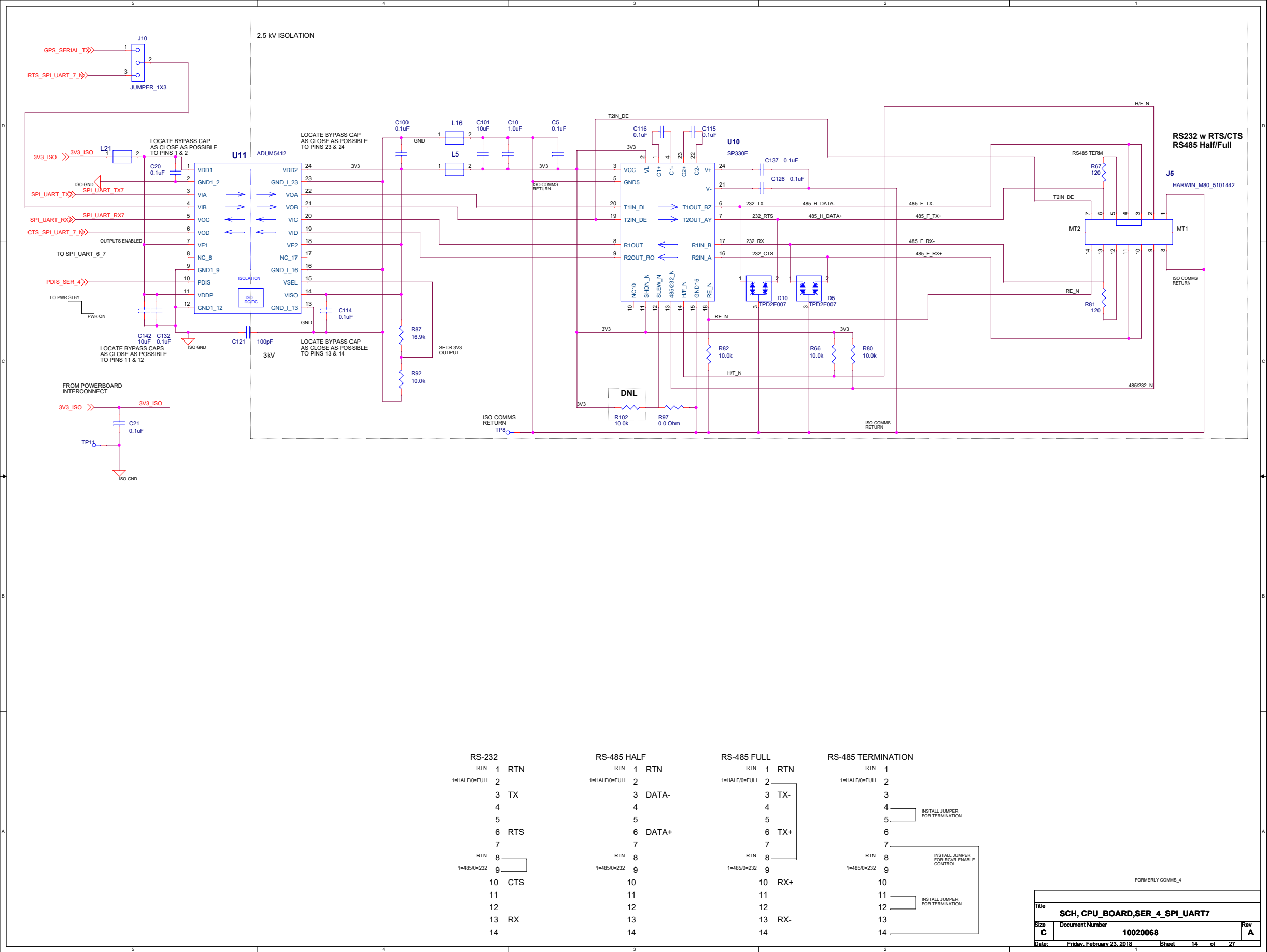
RS-485 HALF		
RTN	1	RTN
1=HALF/0=FULL	2	
	3	DATA-
	4	
	5	
	6	DATA+
	7	
RTN	8	
1=485/0=232	9	
	10	
	11	
	12	
	13	
	14	

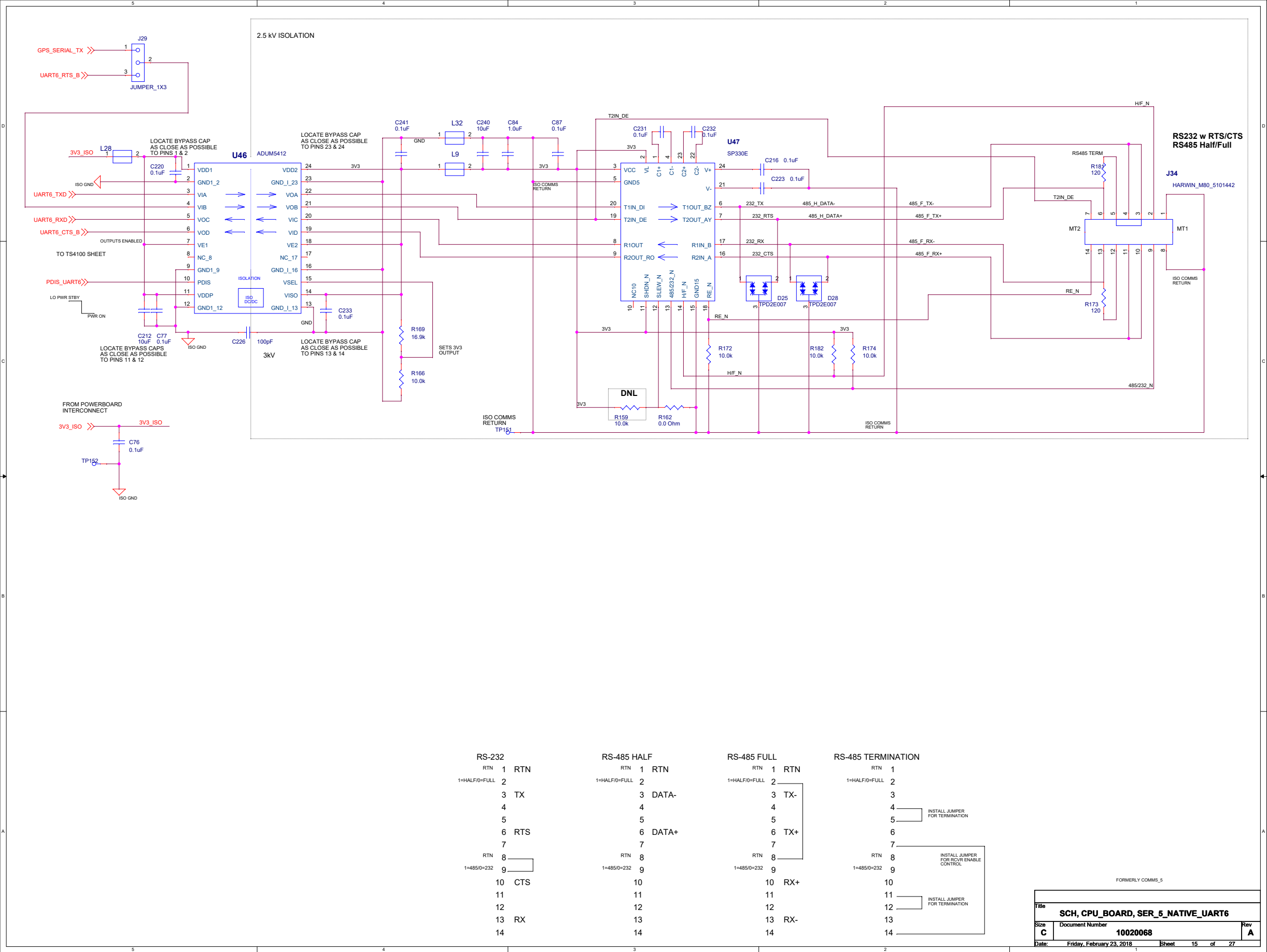
RS-485 FULL		
RTN	1	RTN
1=HALF/0=FULL	2	
	3	TX-
	4	
	5	
	6	TX+
	7	
RTN	8	
1=485/0=232	9	
	10	RX+
	11	
	12	
	13	RX-
	14	

RS-485 TERMINATION		
RTN	1	
1=HALF/0=FULL	2	
	3	
	4	INSTALL JUMPER FOR TERMINATION
	5	
	6	
	7	
RTN	8	
1=485/0=232	9	INSTALL JUMPER FOR RX/RX ENABLE CONTROL
	10	
	11	INSTALL JUMPER FOR TERMINATION
	12	
	13	
	14	









RS-232		
RTN	1	RTN
1=HALF/0=FULL	2	
	3	TX
	4	
	5	
	6	RTS
	7	
RTN	8	
1=485/0=232	9	
	10	CTS
	11	
	12	
	13	RX
	14	

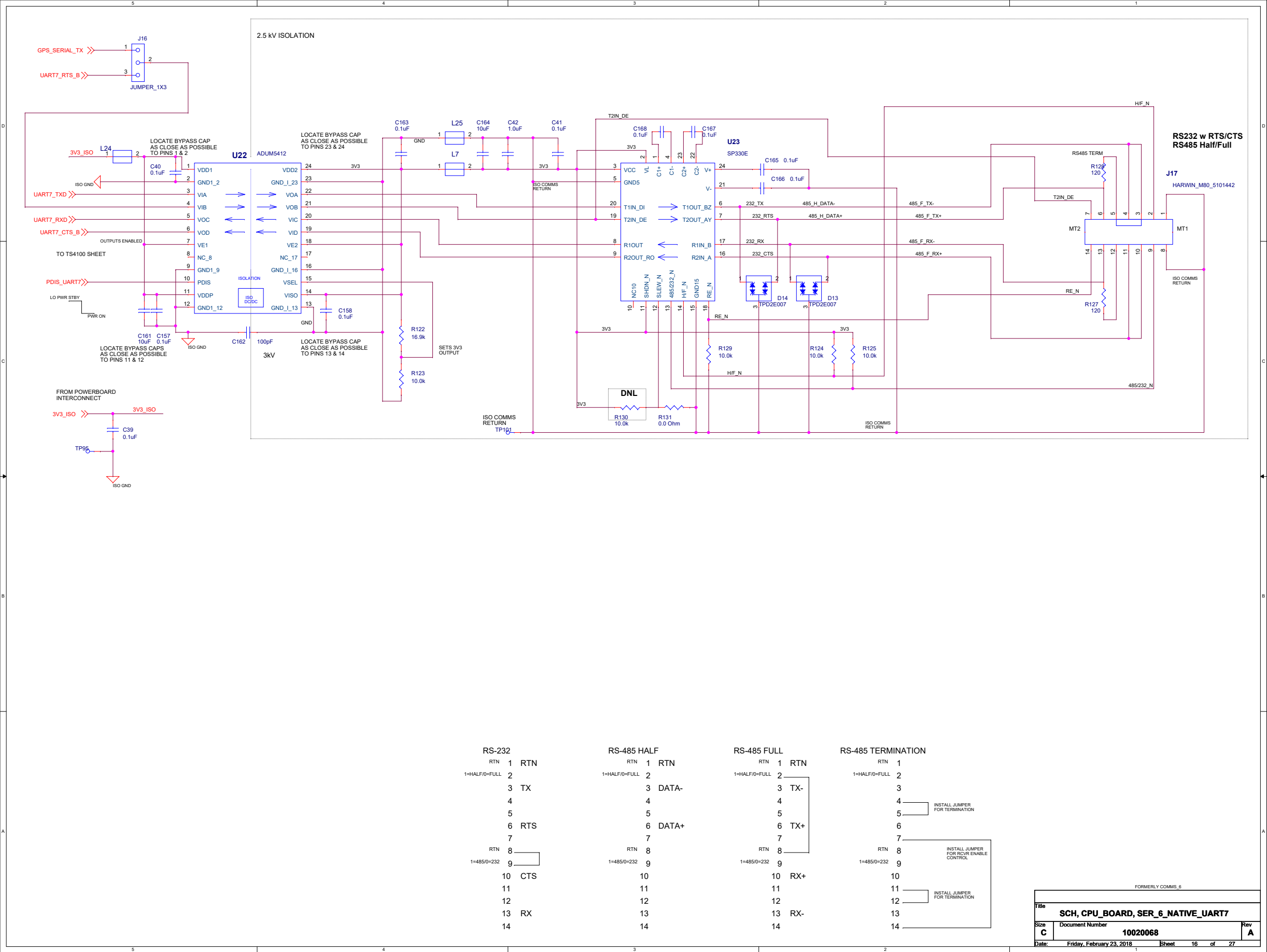
RS-485 HALF		
RTN	1	RTN
1=HALF/0=FULL	2	
	3	DATA-
	4	
	5	
	6	DATA+
	7	
RTN	8	
1=485/0=232	9	
	10	
	11	
	12	
	13	
	14	

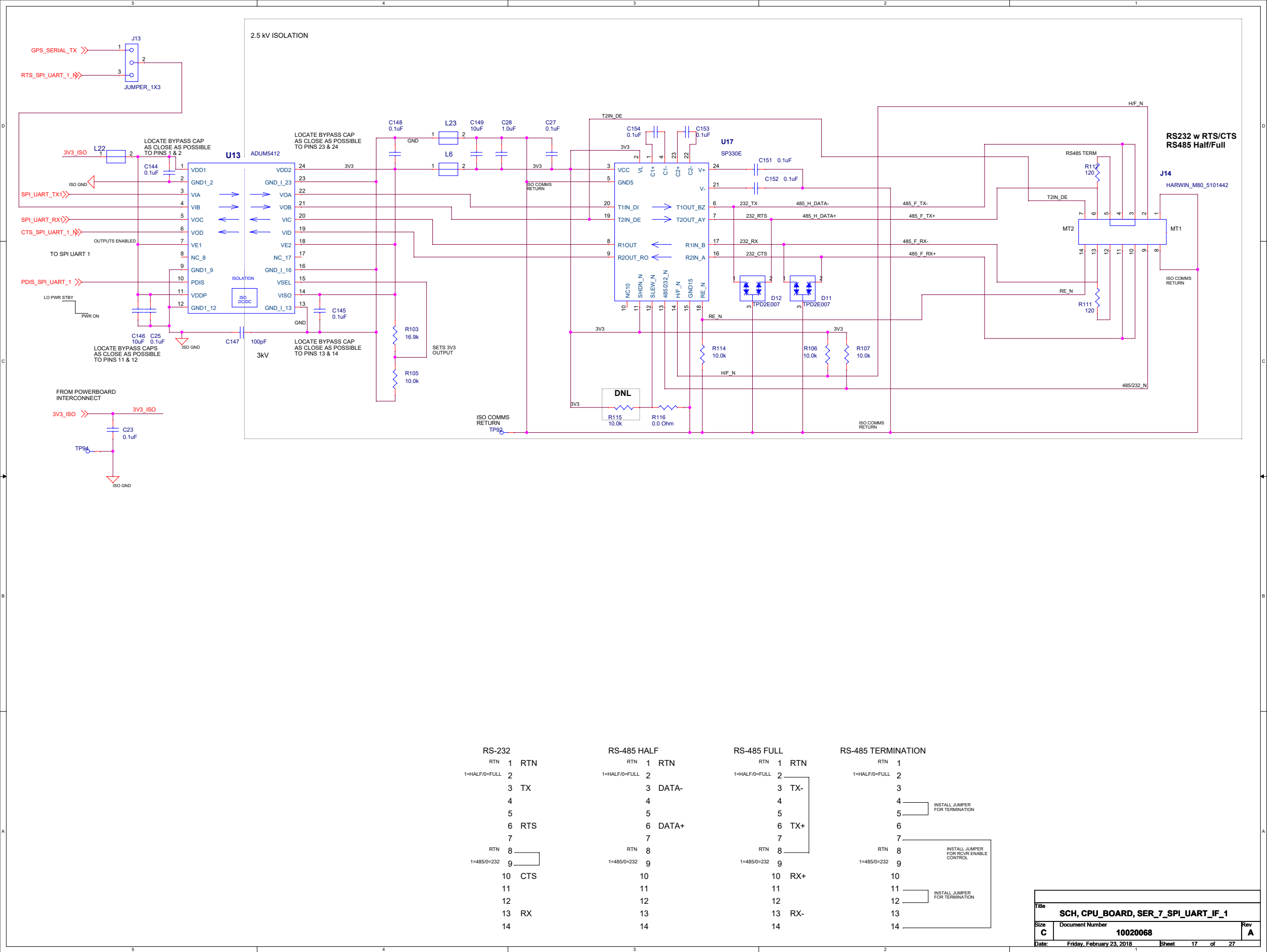
RS-485 FULL		
RTN	1	RTN
1=HALF/0=FULL	2	
	3	TX-
	4	
	5	
	6	TX+
	7	
RTN	8	
1=485/0=232	9	
	10	RX+
	11	
	12	
	13	RX-
	14	

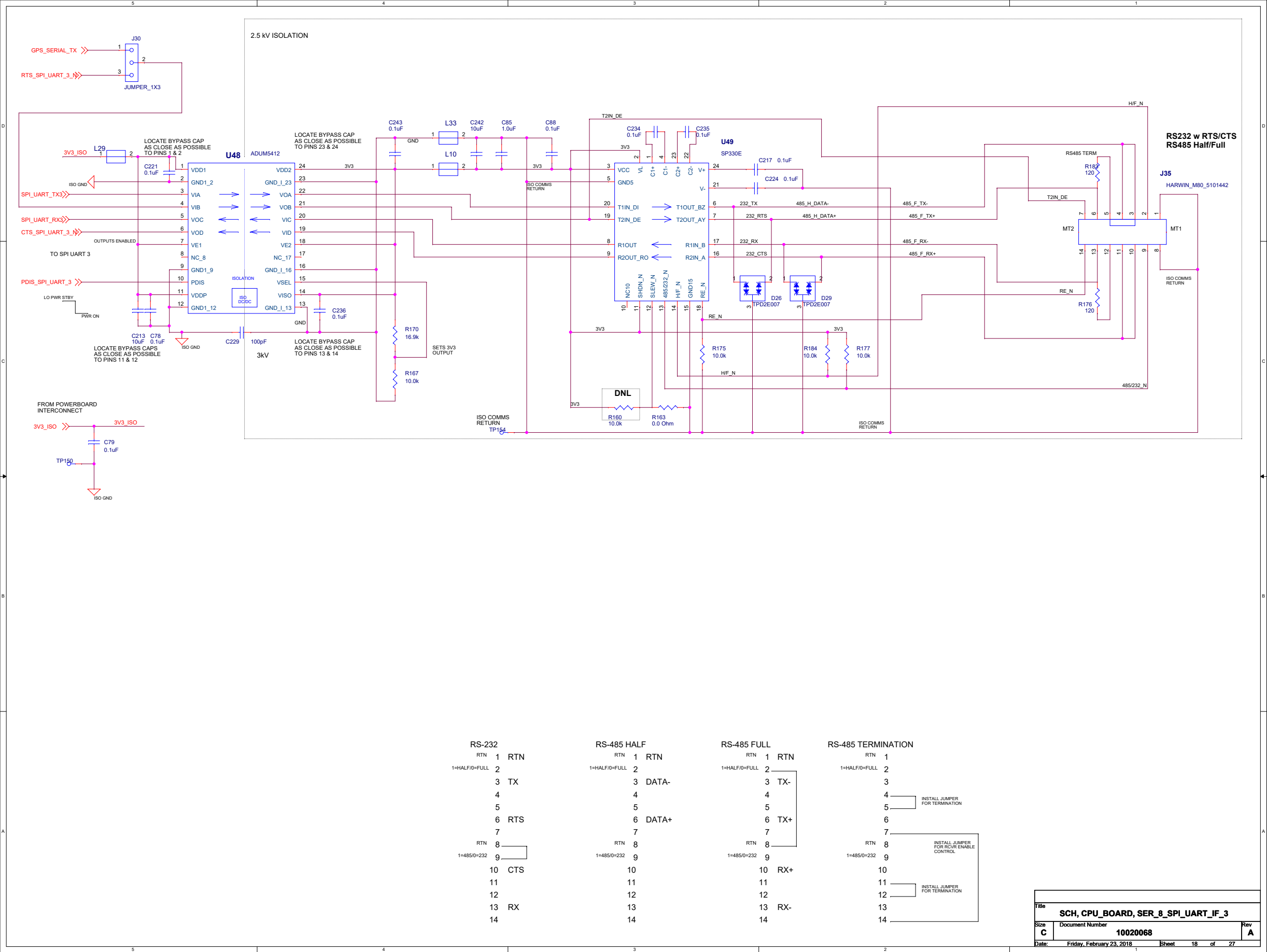
RS-485 TERMINATION		
RTN	1	
1=HALF/0=FULL	2	
	3	
	4	INSTALL JUMPER FOR TERMINATION
	5	
	6	
	7	
RTN	8	INSTALL JUMPER FOR RX/RX ENABLE CONTROL
1=485/0=232	9	
	10	
	11	INSTALL JUMPER FOR TERMINATION
	12	
	13	
	14	

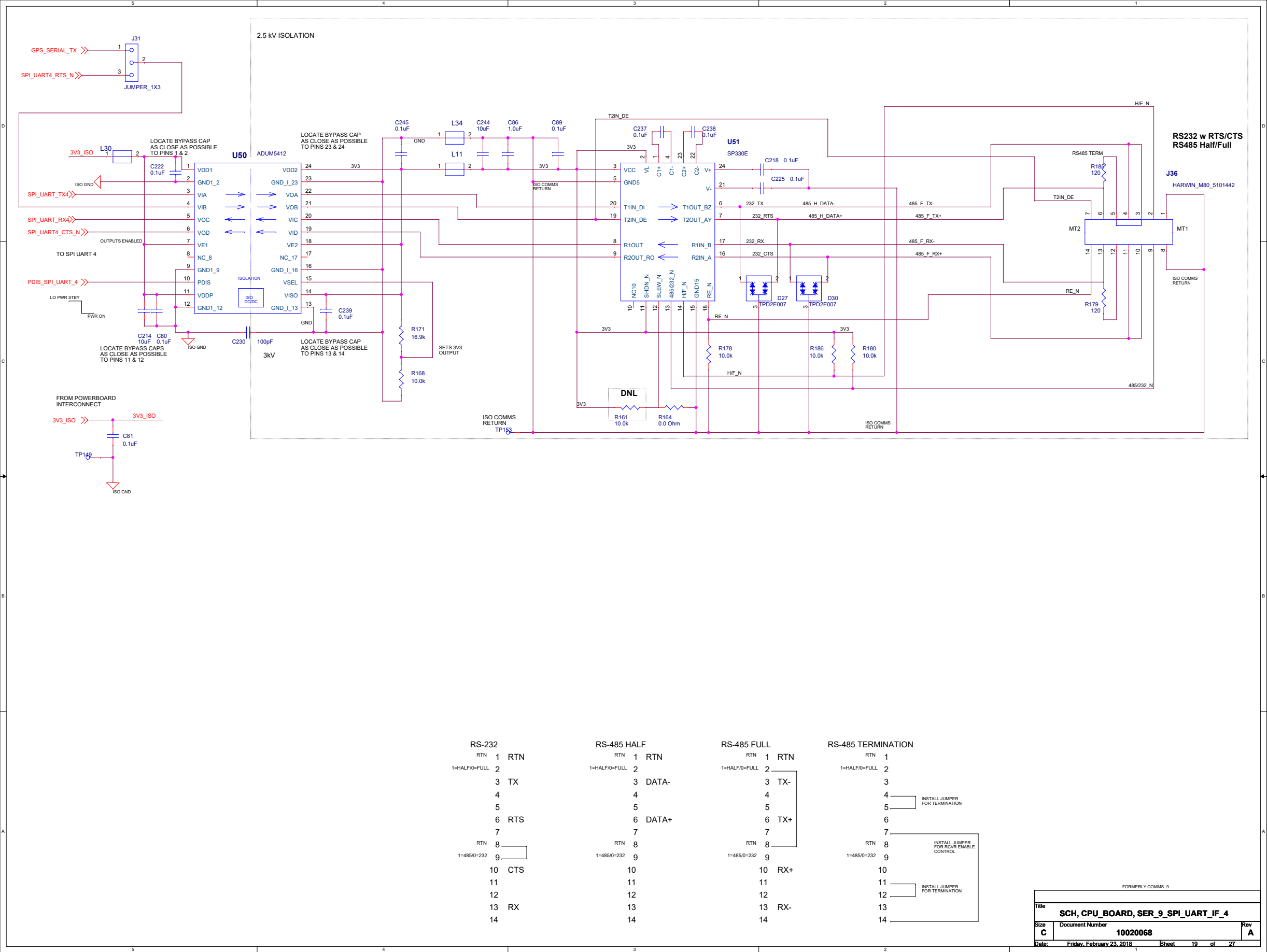
FORMERLY COMMS_5

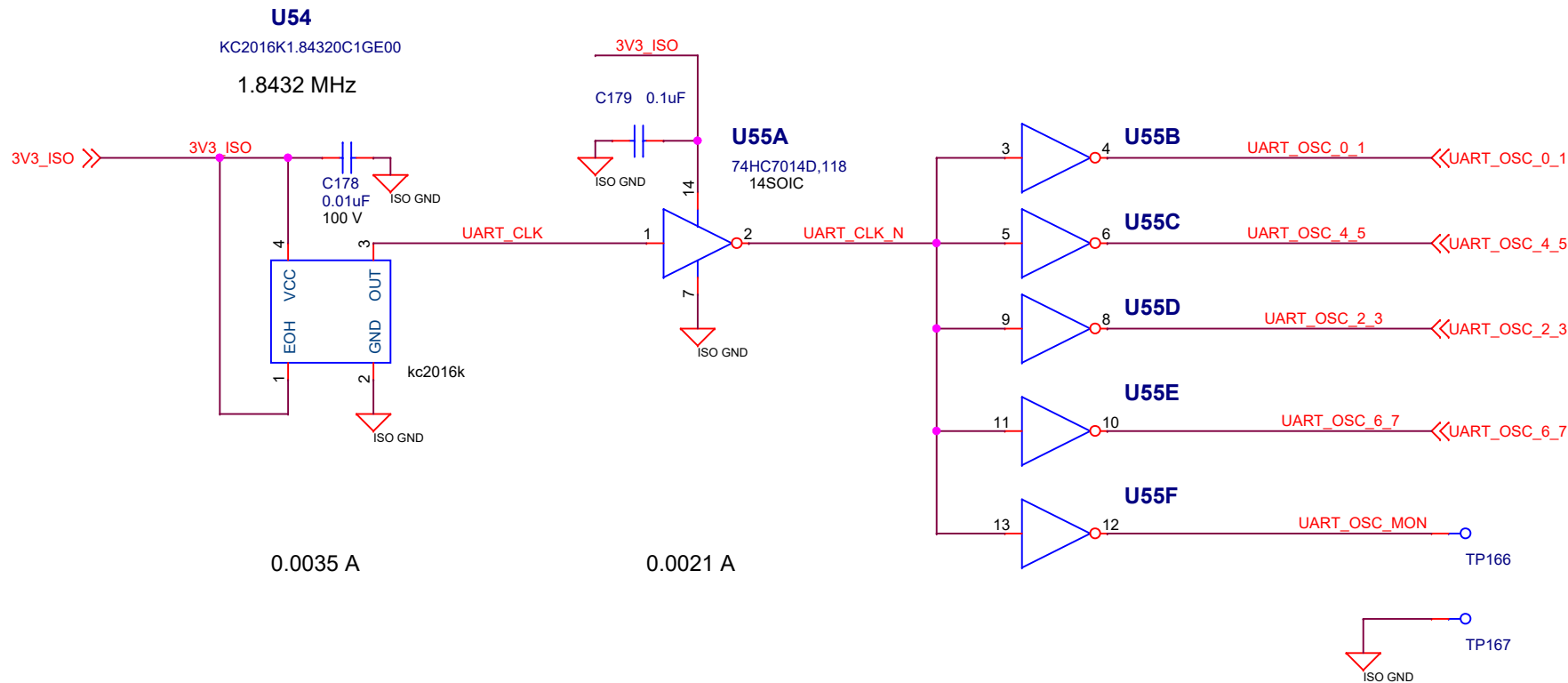
Title		
SCH, CPU_BOARD, SER_5_NATIVE_UART6		
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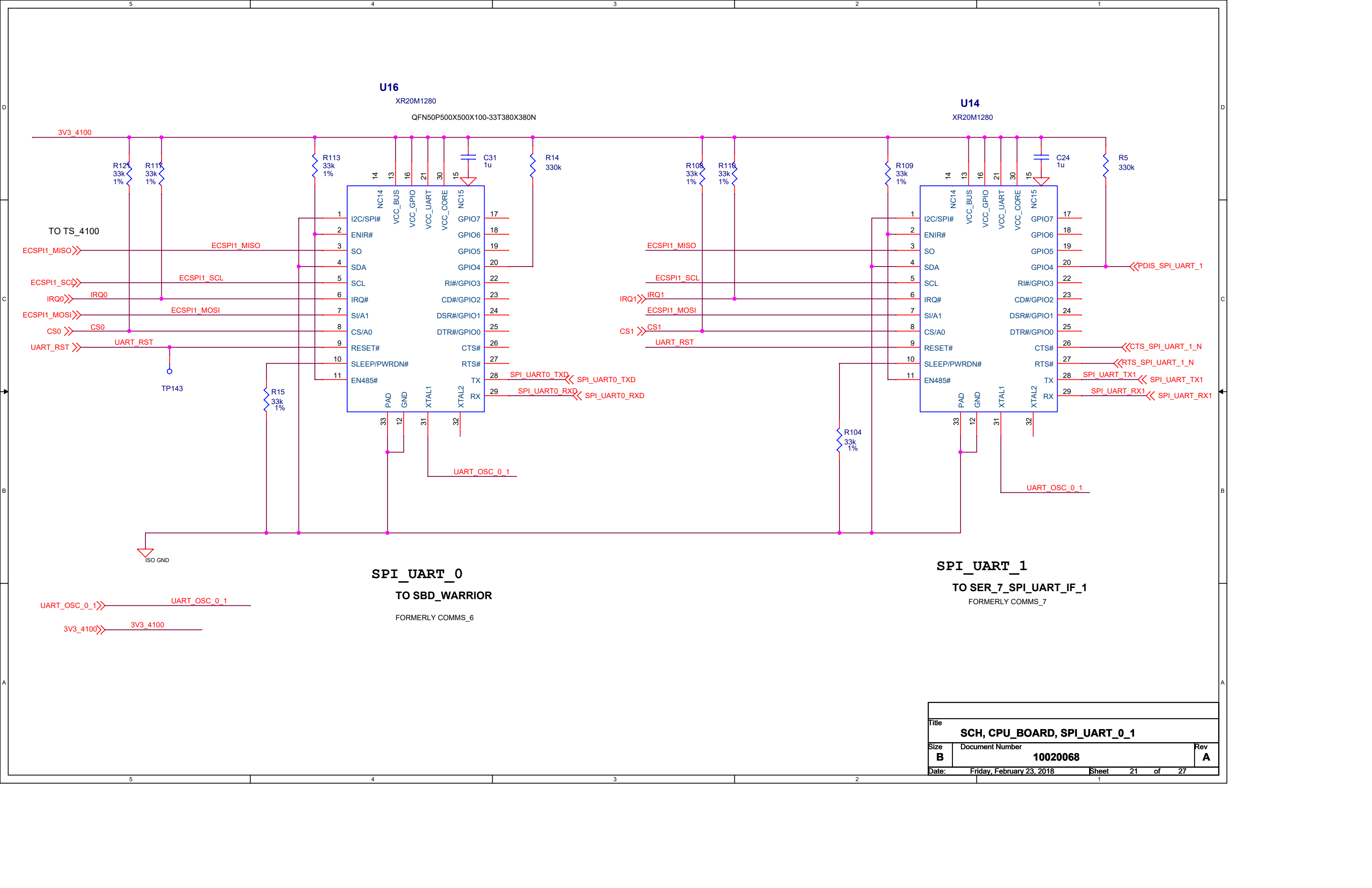




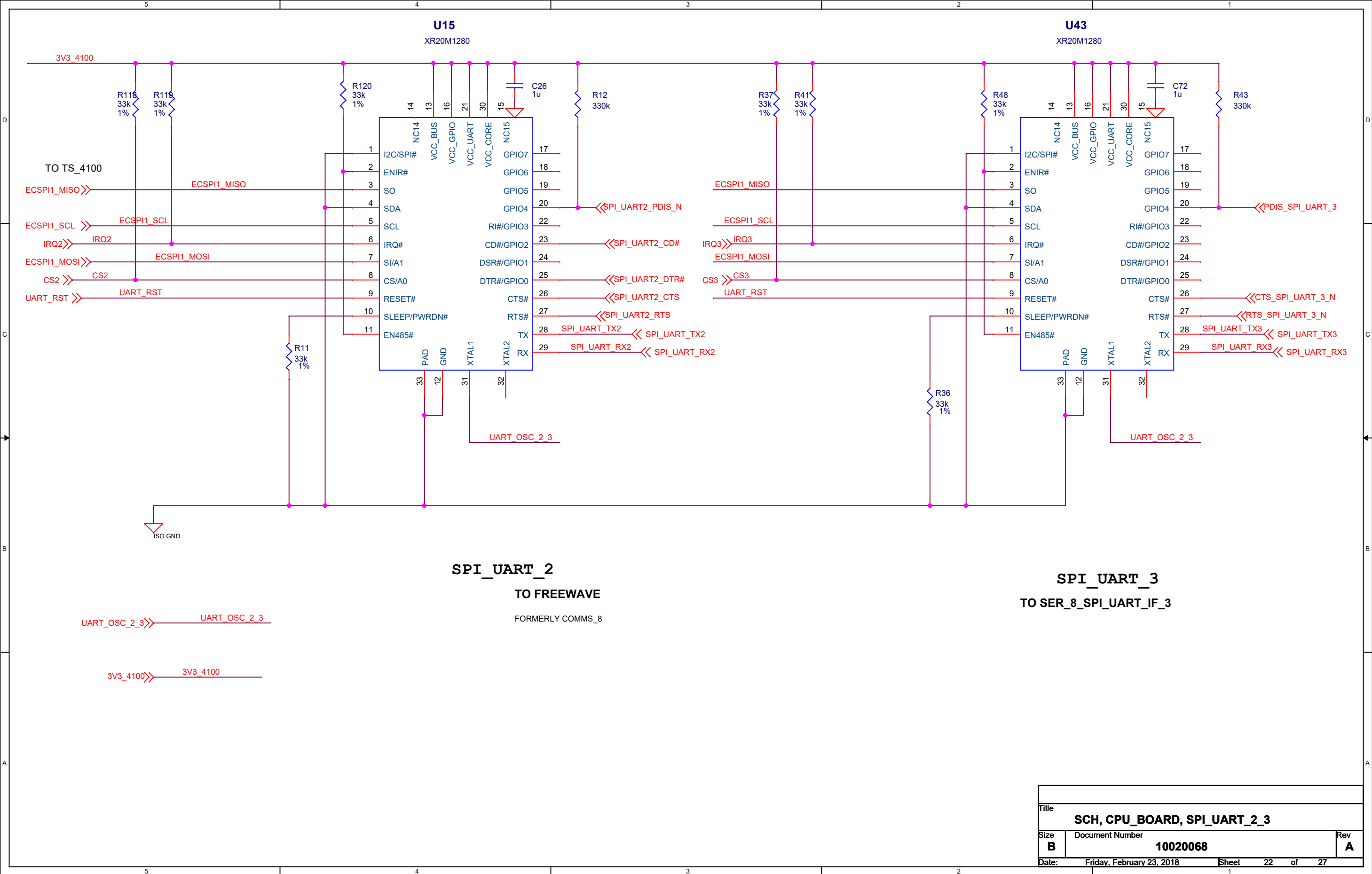


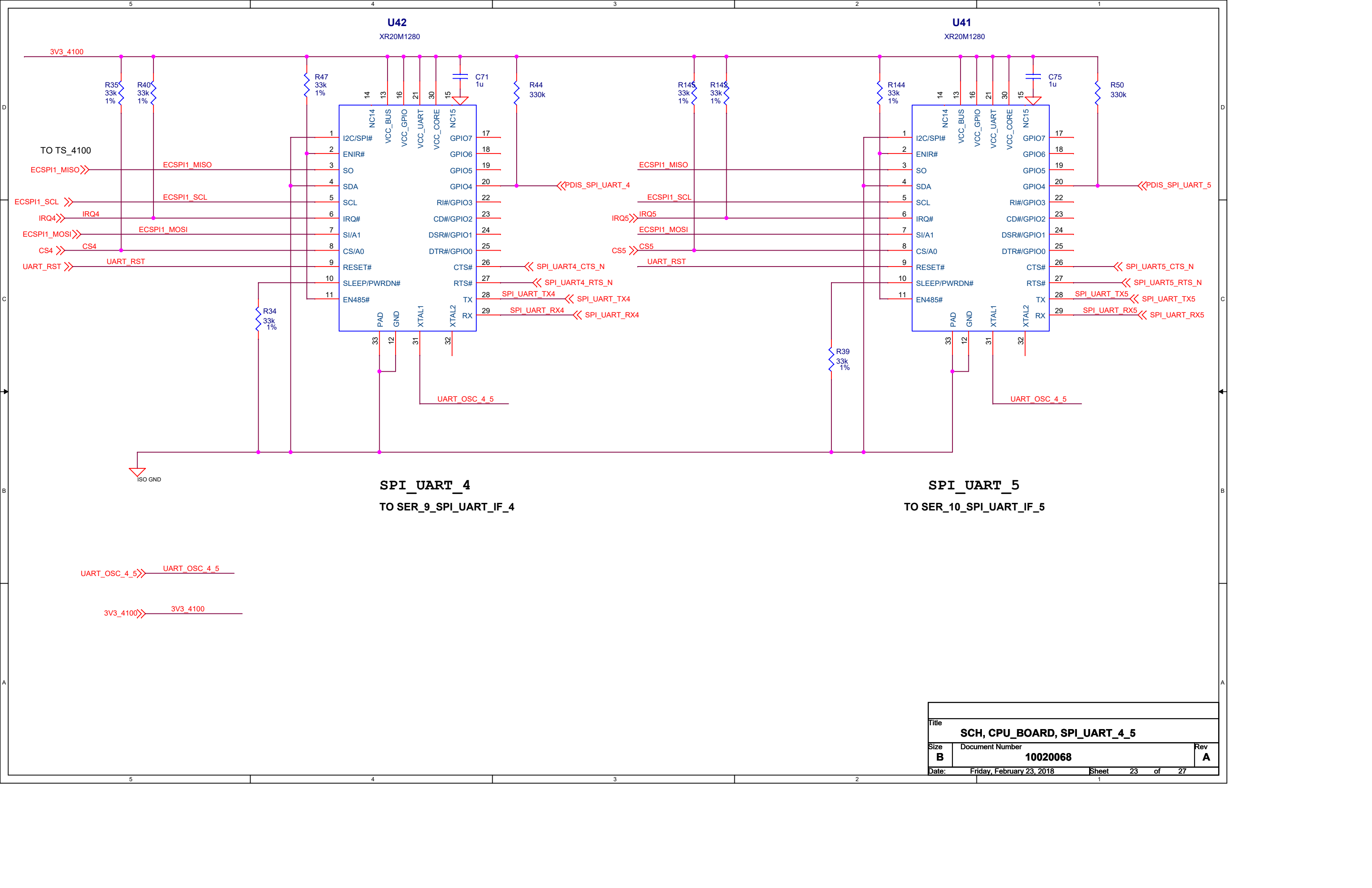


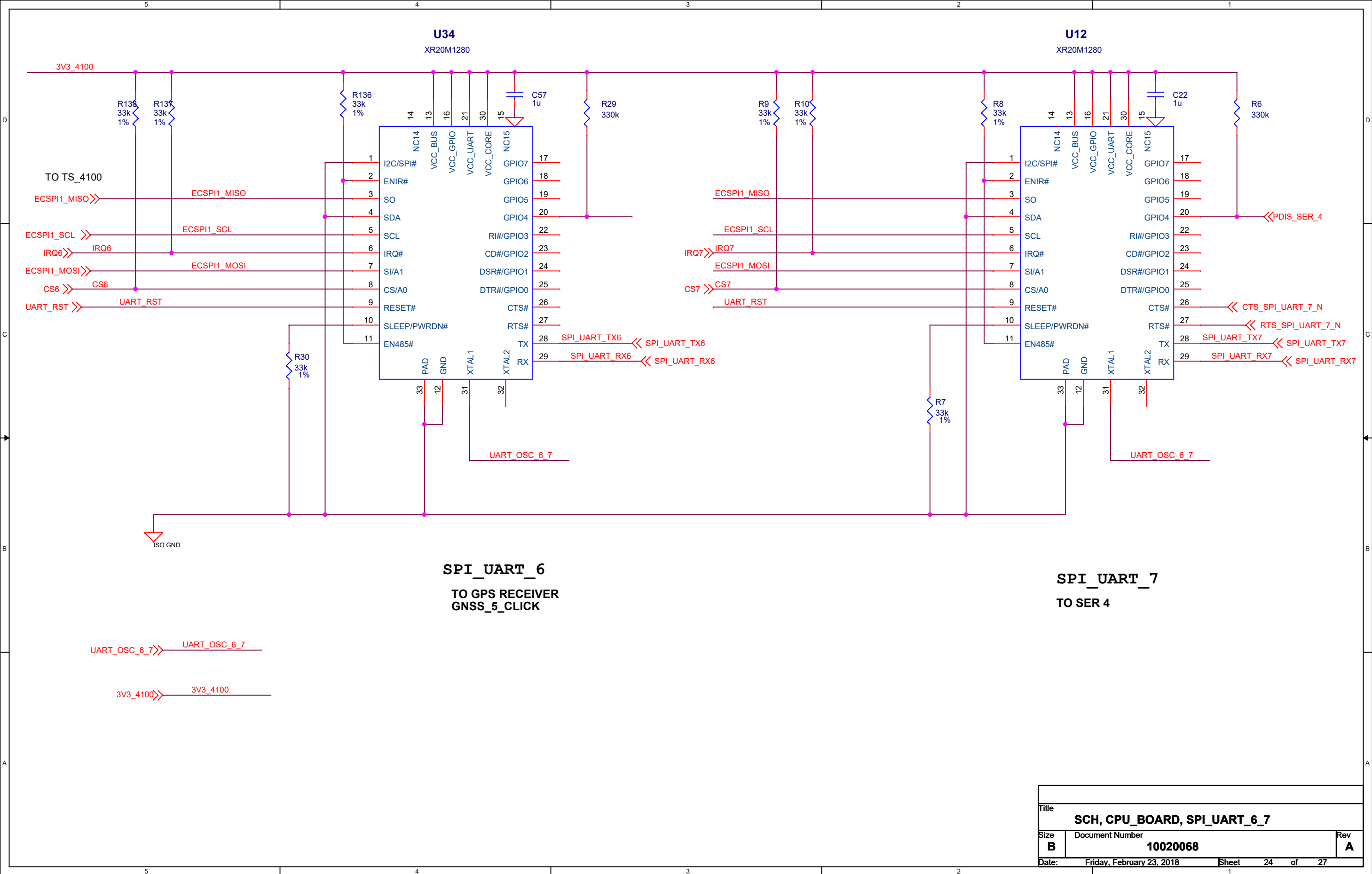
Title			
SCH, CPU_BOARD, XTAL OSC FOR UARTS			
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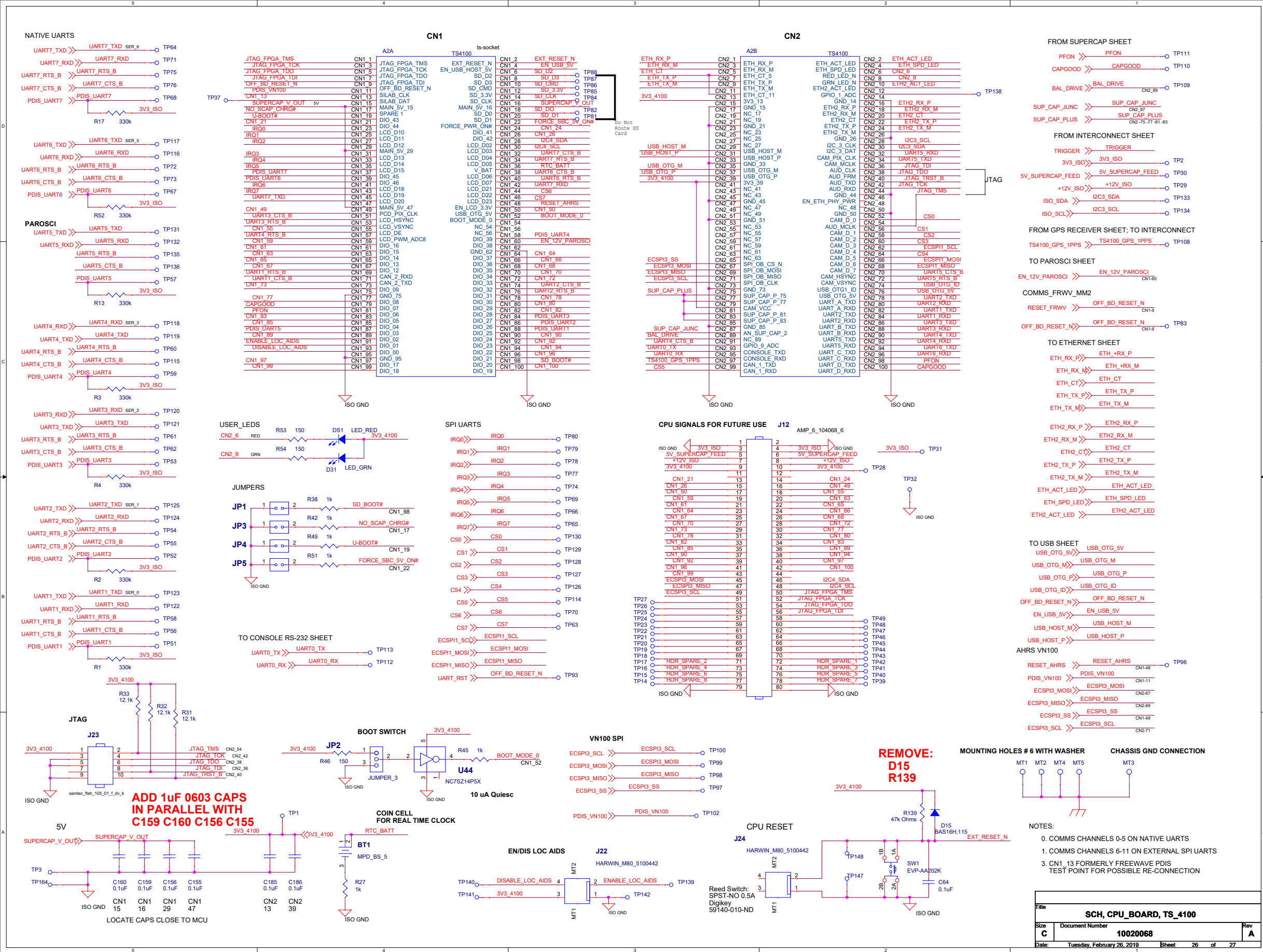


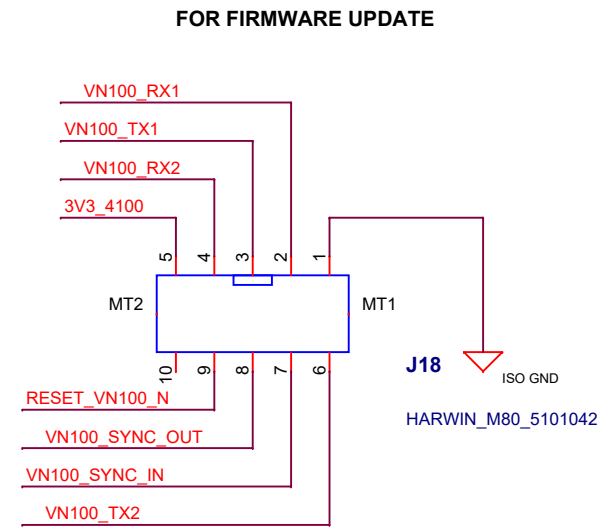
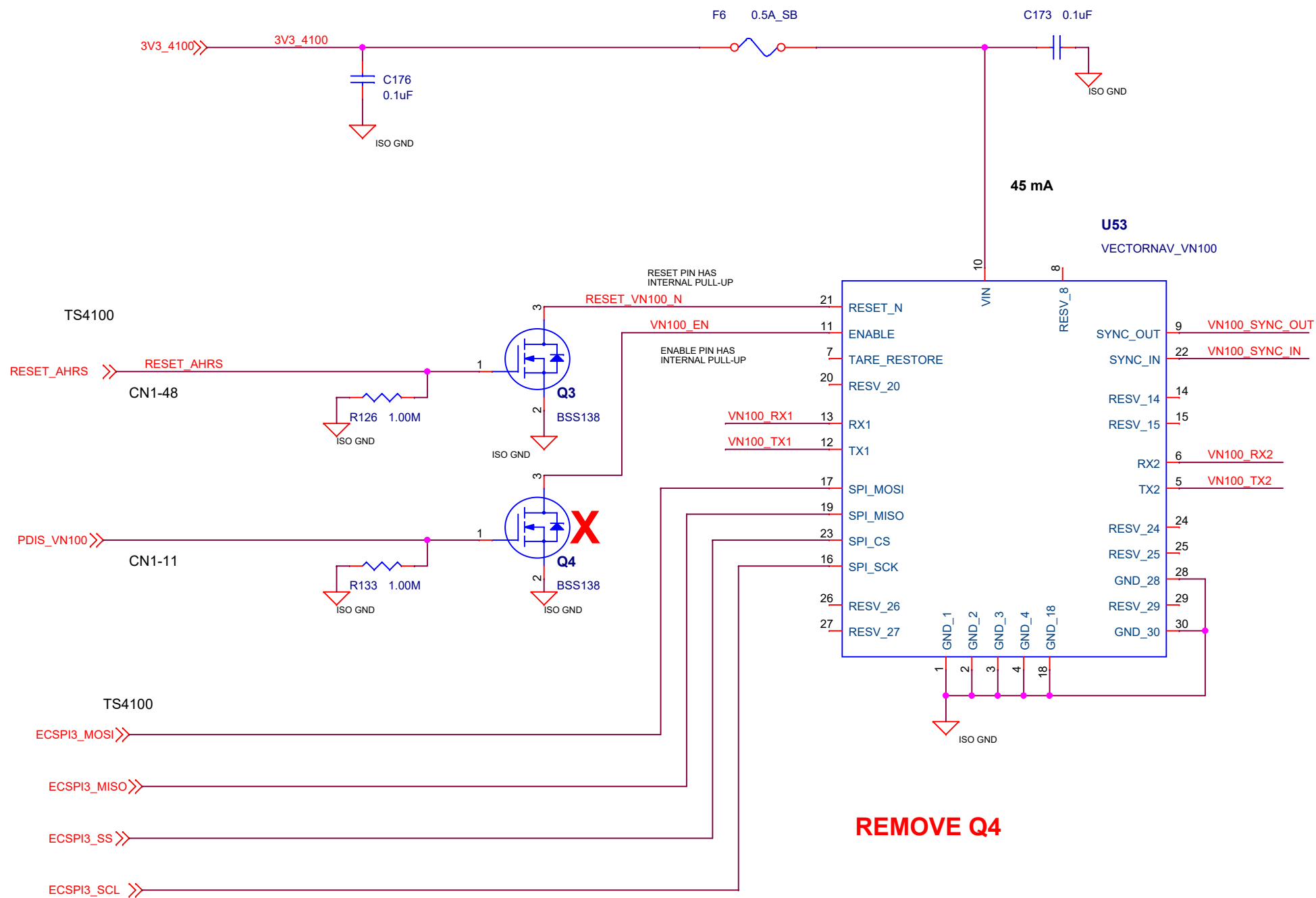
Title		
SCH, CPU_BOARD, SPI_UART_0_1		
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