



Top Silkscreen
ChargePoint, Inc (c) 2021
SEVB CHAdemo

Bottom Copper
PCB FAB 27-010264-03


Assembly Drawing
ASY-010264-03

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Legend: Symbols & Notes:

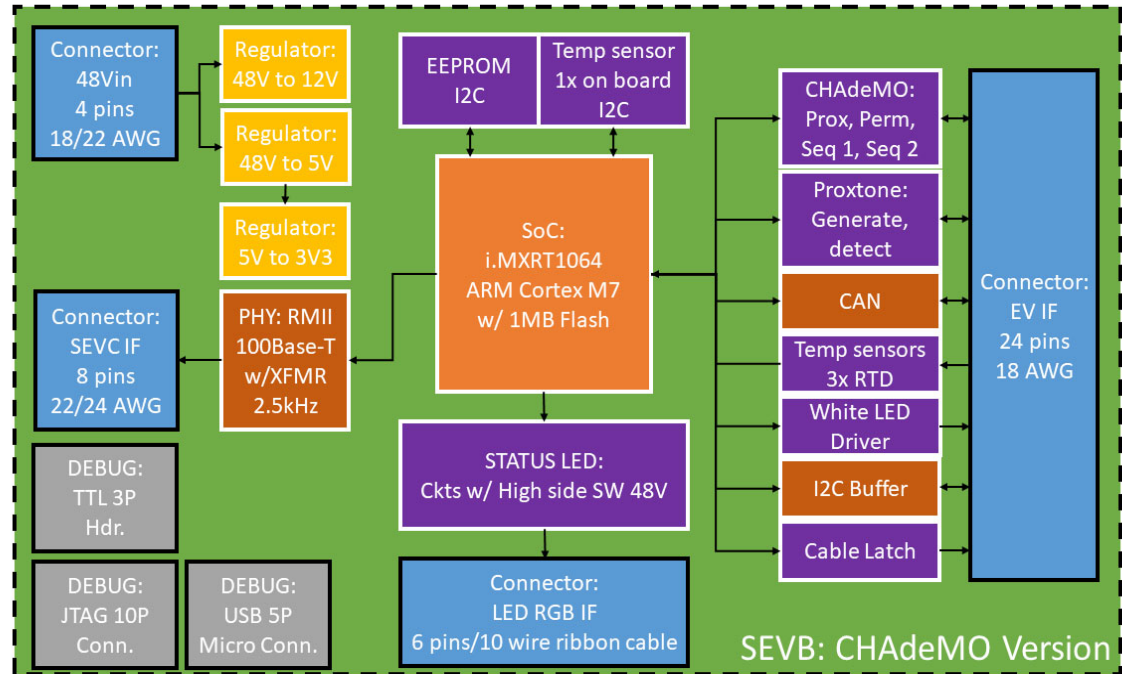
- 1. Unless Otherwise shown, Resistors are SMD 0402 with 1% tolerance
- 2. Unless Otherwise shown, Capacitors are SMD 0402 with minimum 50VWdc
- 3. Test Points PADS/PTH minimum: 30mil dia., 8mil drill, on a 50mil pitch, when required


Page Title		 254 East Hacienda Avenue Campbell, CA 95008 USA Tel: 1-866-480-2936	
Cover Sheet			
Variant Name		Document Description	
28.010264.03		SEVB-CH	
Responsible Engineer		Size	
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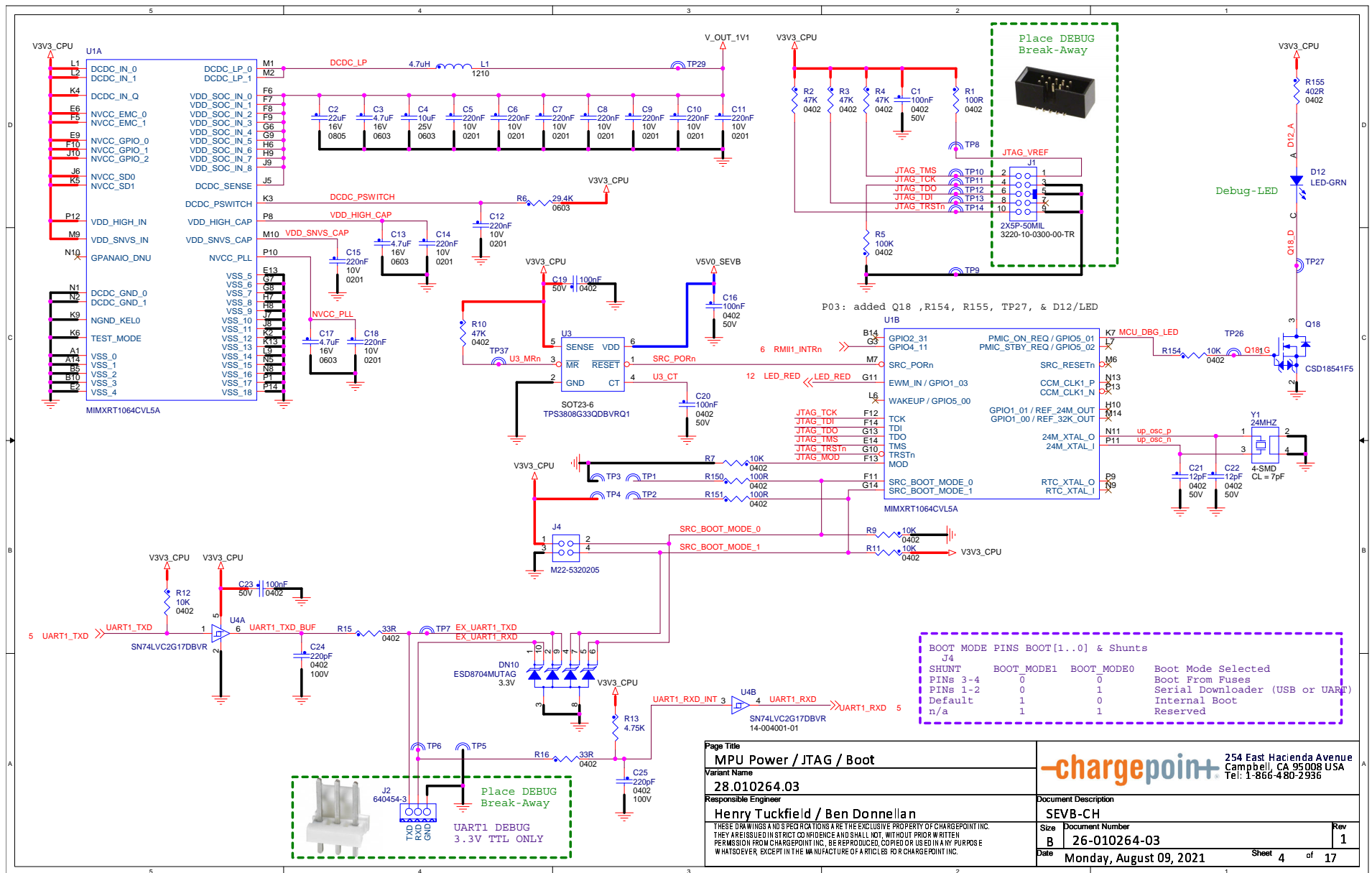
Version (Revision)	Eng	Jira	Date / Revision / Change Description
26-010264-01 (1) ECO-006418	BD/HT	HRD-2696	14/JUL/2020 - Schematic created from 26-010232-04 - Aligned with 232-04 as of January 2021 - CHAdEMO circuits from DCC - Additional PROXTONE circuit new addition - BOM Variant 'BuildVariant' created for DNS parts Schematic reviewed 11/JAN/2021 by Robert Khamashta, Henry Tuckfield, Ben Donnellan, Mike Fairman
26-010264-02 (1) ECO-00xxxx	HT/BD	HRD-5280	19/APR/2021 - Schematic created from 26-010264-01 - 12V latch enable power added - Proxtone updated. See HRD-4934 - 12V Regulator updated - 12V ground plane split to prevent ground lift - 48V regulator input changed to match 232-04 Schematic reviewed 29/APR/2021 by Robert Khamashta, Henry Tuckfield, Iliya Ilba, Ben Donnellan
26-010264-03 (1) ECO-00xxxx	HT/BD	HRD-6062	14/JUL/2021 - Schematic created from 26-010264-02 - New NTC circuits added, also adds switch to PT100s - RTD circuit updated to align with 26-010232 06/Aug/2021 -Added decoupling cap C682

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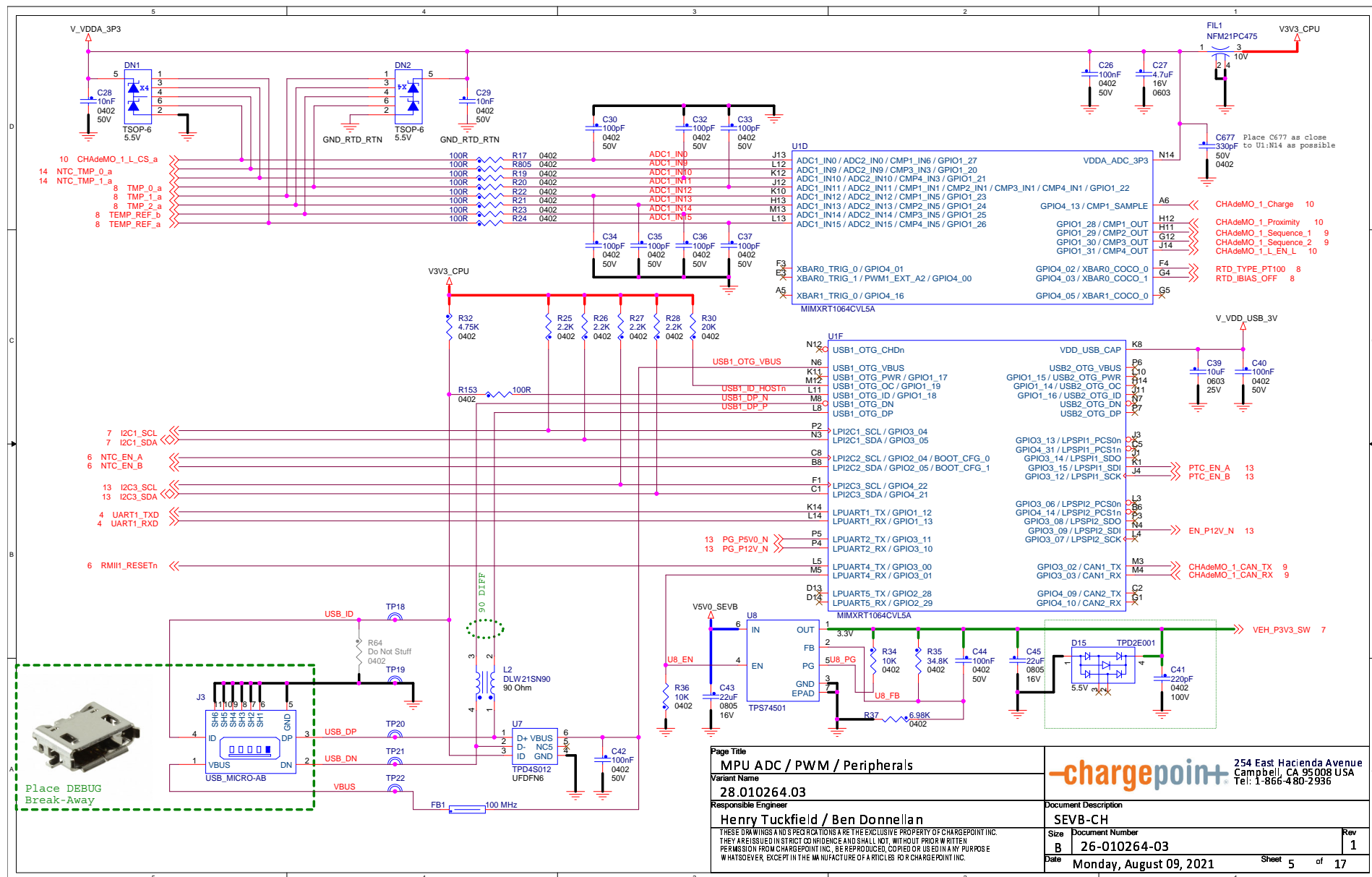
Conn. Ref Des	Number	Net Name	Wire AWG (max/min)	Type
J5	1	VEH_LED_WHITE_RTN	18/22	EV Harness
J5	2	VEH_CH_PERM	18/22	EV Harness
J5	3	VEH_TMP_0	18/22	EV Harness
J5	4	VEH_TMP_RTN_0	18/22	EV Harness
J5	5	VEH_TMP_RTN_1	18/22	EV Harness
J5	6	VEH_P3V3_SW	18/22	EV Harness
J5	7	VEH_PWRCABLE_DET	18/22	EV Harness
J5	8	SEVC_SHIELD	18/22	EV Harness
J5	9	VEH_EV_GND_FLOAT	18/22	EV Harness
J5	10	VEH_CH_Seq_2	18/22	EV Harness
J5	11	VEH_CH_Seq_1	18/22	EV Harness
J5	12	VEH_CH_L_ON_p	18/22	EV Harness
J5	13	VEH_LED_WHITE	18/22	EV Harness
J5	14	VEH_CH_PROX	18/22	EV Harness
J5	15	VEH_TMP_RTN_2	18/22	EV Harness
J5	16	VEH_TMP_2	18/22	EV Harness
J5	17	VEH_TMP_1	18/22	EV Harness
J5	18	VEH_I2C1_SDA	18/22	EV Harness
J5	19	VEH_I2C1_SCL	18/22	EV Harness
J5	20	V5PO_EV_SW	18/22	EV Harness
J5	21	VEH_CH_CAN_LO	18/22	EV Harness
J5	22	VEH_CH_CAN_HI	18/22	EV Harness
J5	23	VEH_CH_L_ON_n	18/22	EV Harness
J5	24	VEH_EV_GND_FLOAT	18/22	EV Harness
J6	1	SEVC_SHIELD	18/22	PWR Harness
J6	2	**no connection**	18/22	PWR Harness
J6	3	V48V0_SEVB	18/22	PWR Harness
J6	4	GND	18/22	PWR Harness
J7	1	V48_LEDS	n/a	Ribbon Cable
J7	2	V48_LEDS	n/a	Ribbon Cable
J7	3	V48_LEDS	n/a	Ribbon Cable
J7	4	SEVC_SHIELD	n/a	Ribbon Cable
J7	5	STATUS_LED_RED	n/a	Ribbon Cable
J7	6	STATUS_LED_GND	n/a	Ribbon Cable
J7	7	STATUS_LED_GREEN	n/a	Ribbon Cable
J7	8	STATUS_LED_GND	n/a	Ribbon Cable
J7	9	STATUS_LED_BLUE	n/a	Ribbon Cable
J7	10	STATUS_LED_GND	n/a	Ribbon Cable
J8	1	SEVC_ETH1_TX_P	24/26	LAN/CAT5e
J8	2	SEVC_ETH1_TX_N	24/26	LAN/CAT5e
J8	3	SEVC_ETH1_RX_P	24/26	LAN/CAT5e
J8	4	SEVC_ETH1_RX_N	24/26	LAN/CAT5e
J8	5	SEVC_SHIELD	24/26	LAN/CAT5e

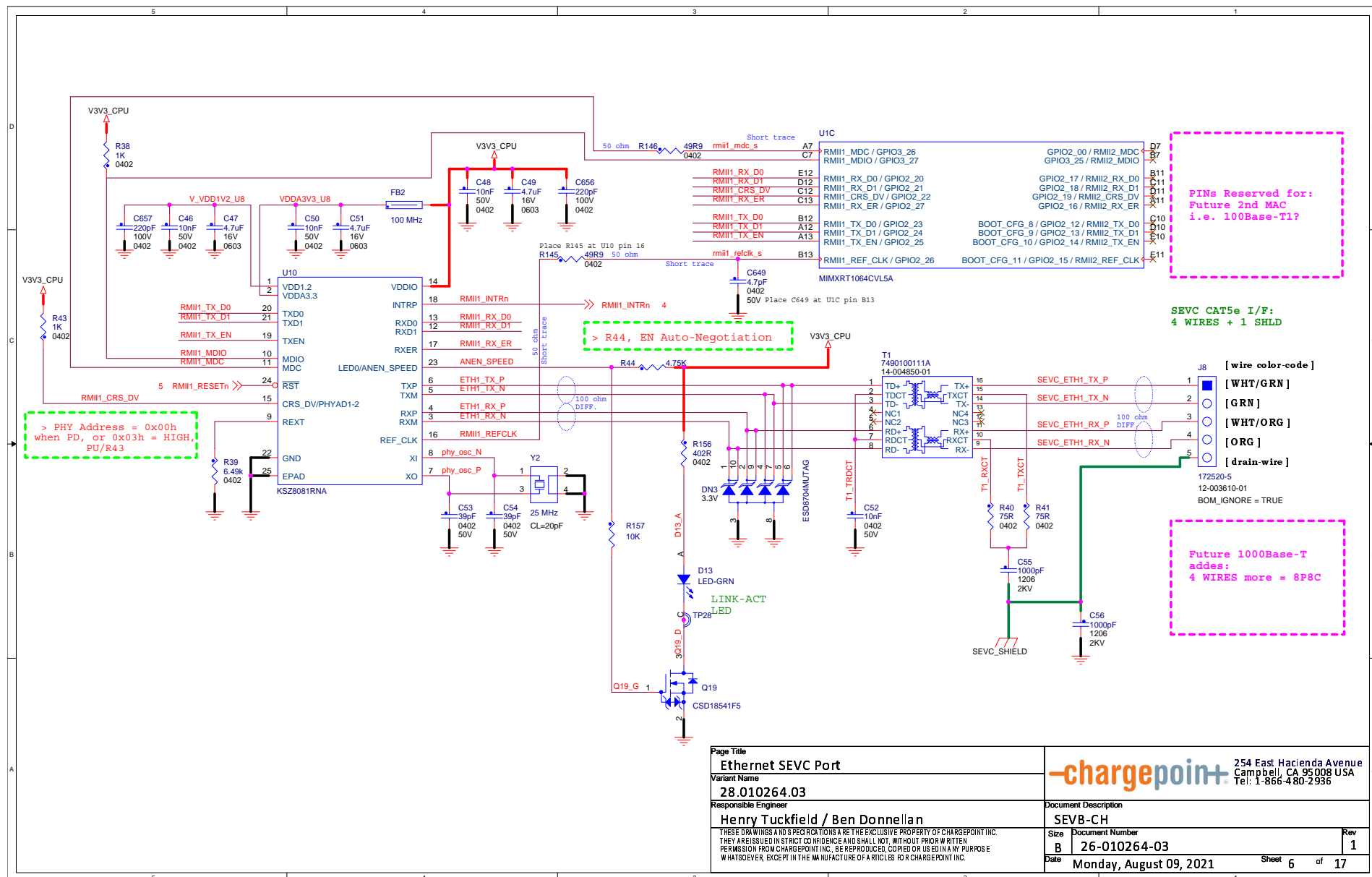


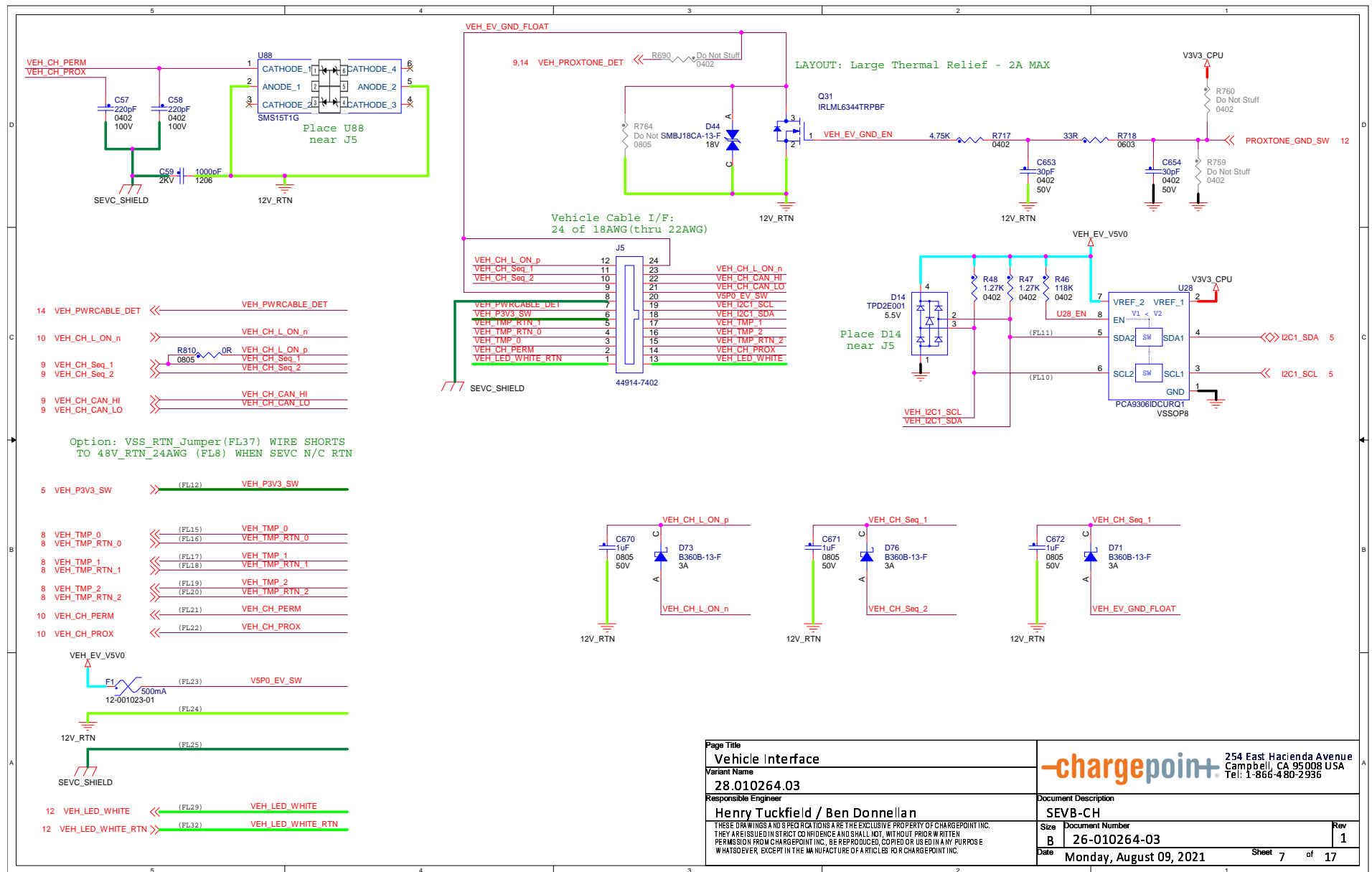
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Page Title MPU Power / JTAG / Boot		chargepoint+ 254 East Hacienda Avenue Campbell, CA 95008 USA Tel: 1-866-480-2936	
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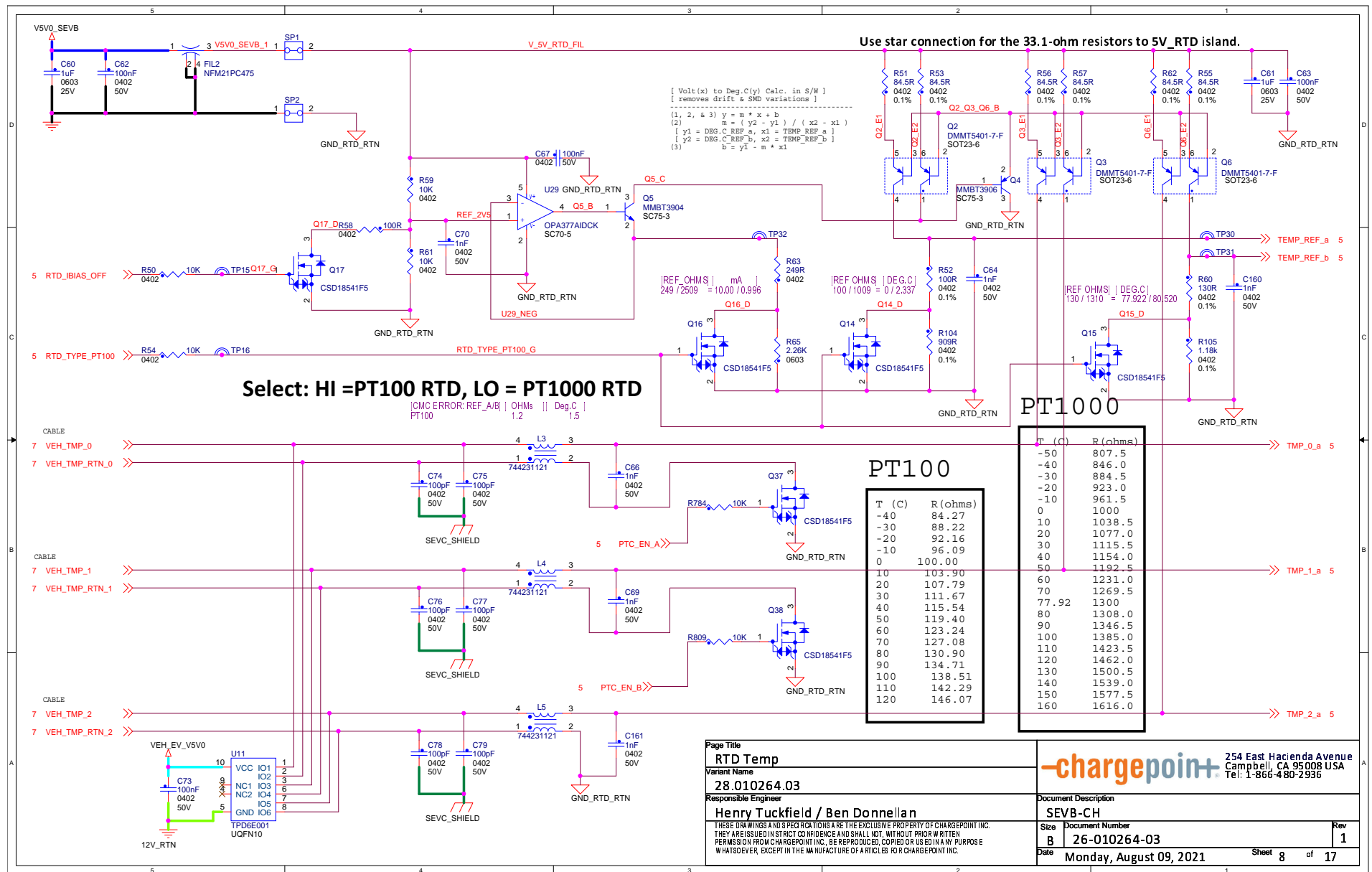


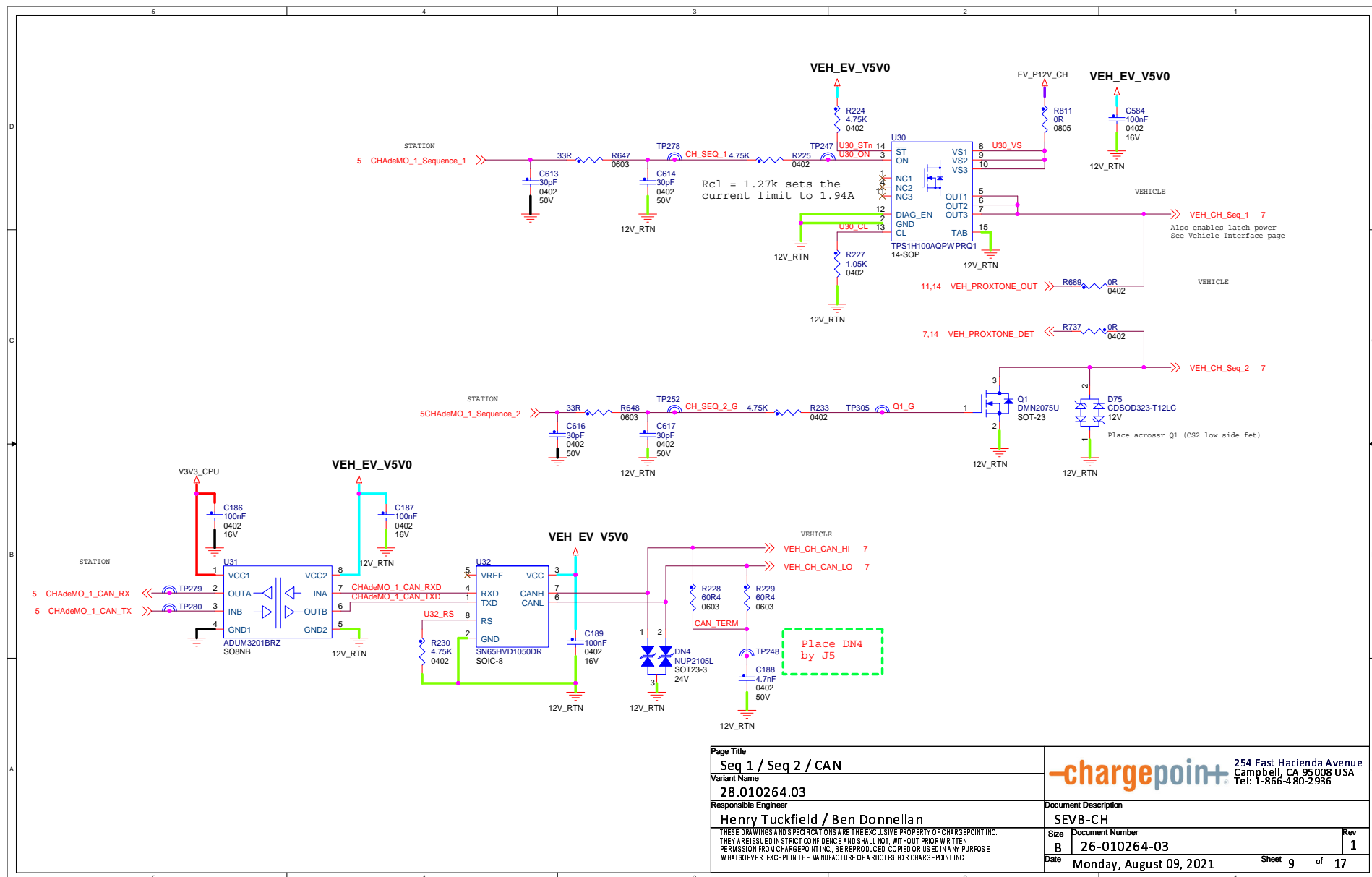


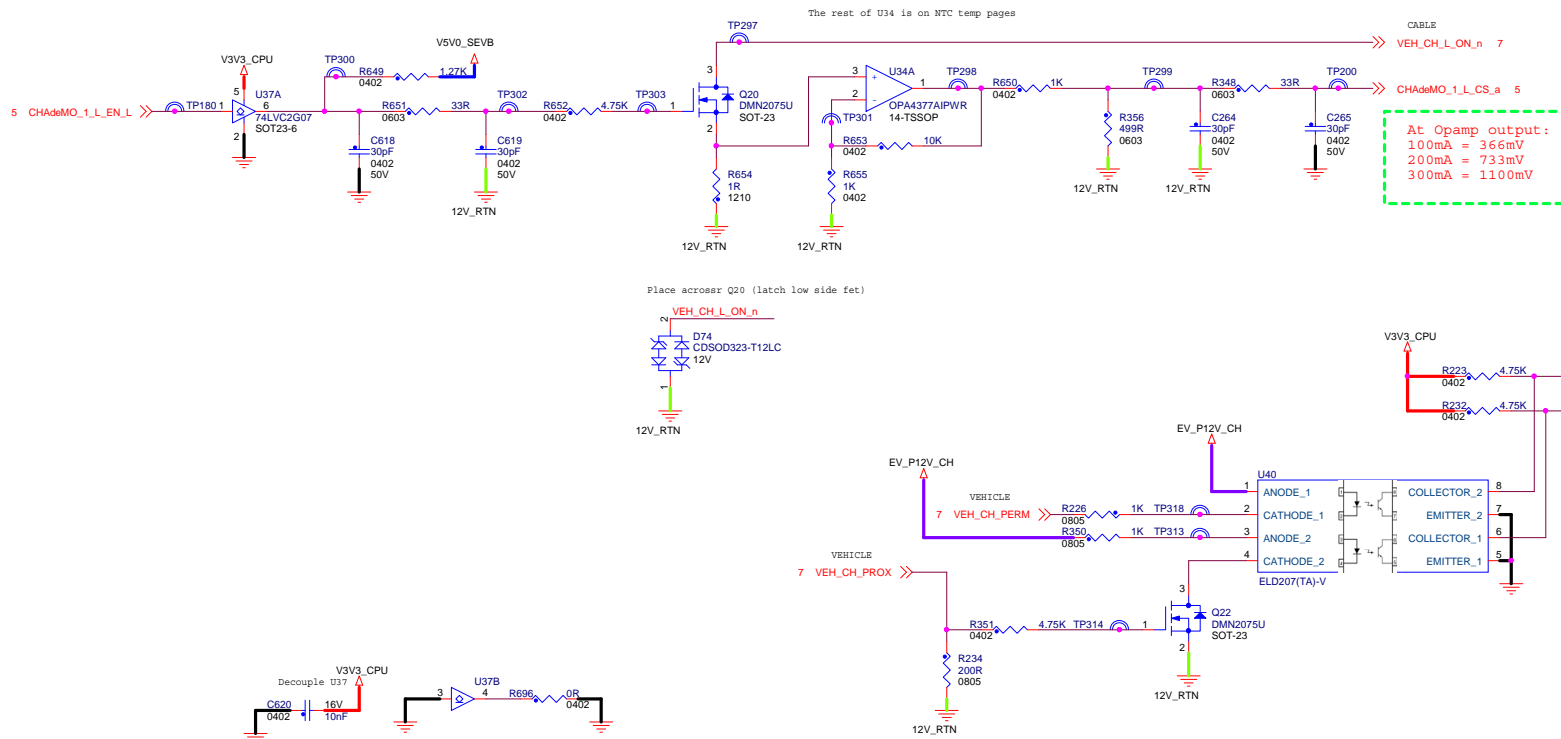


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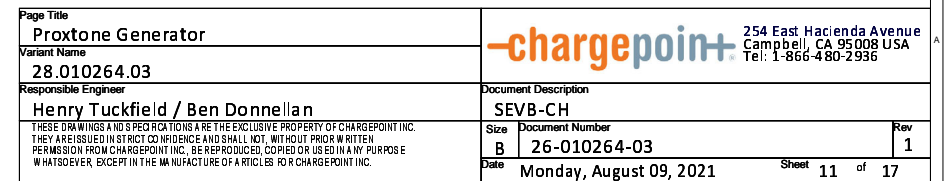
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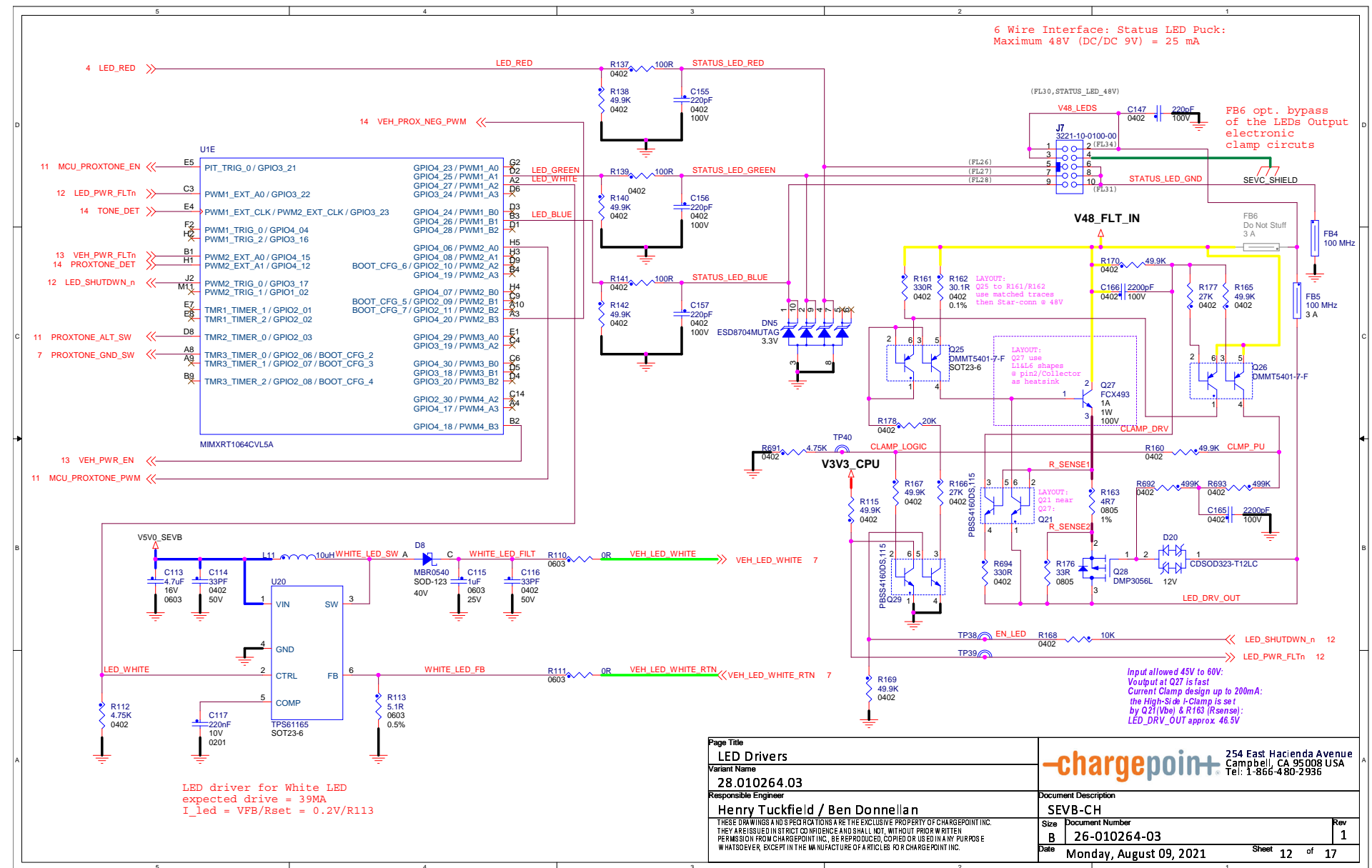




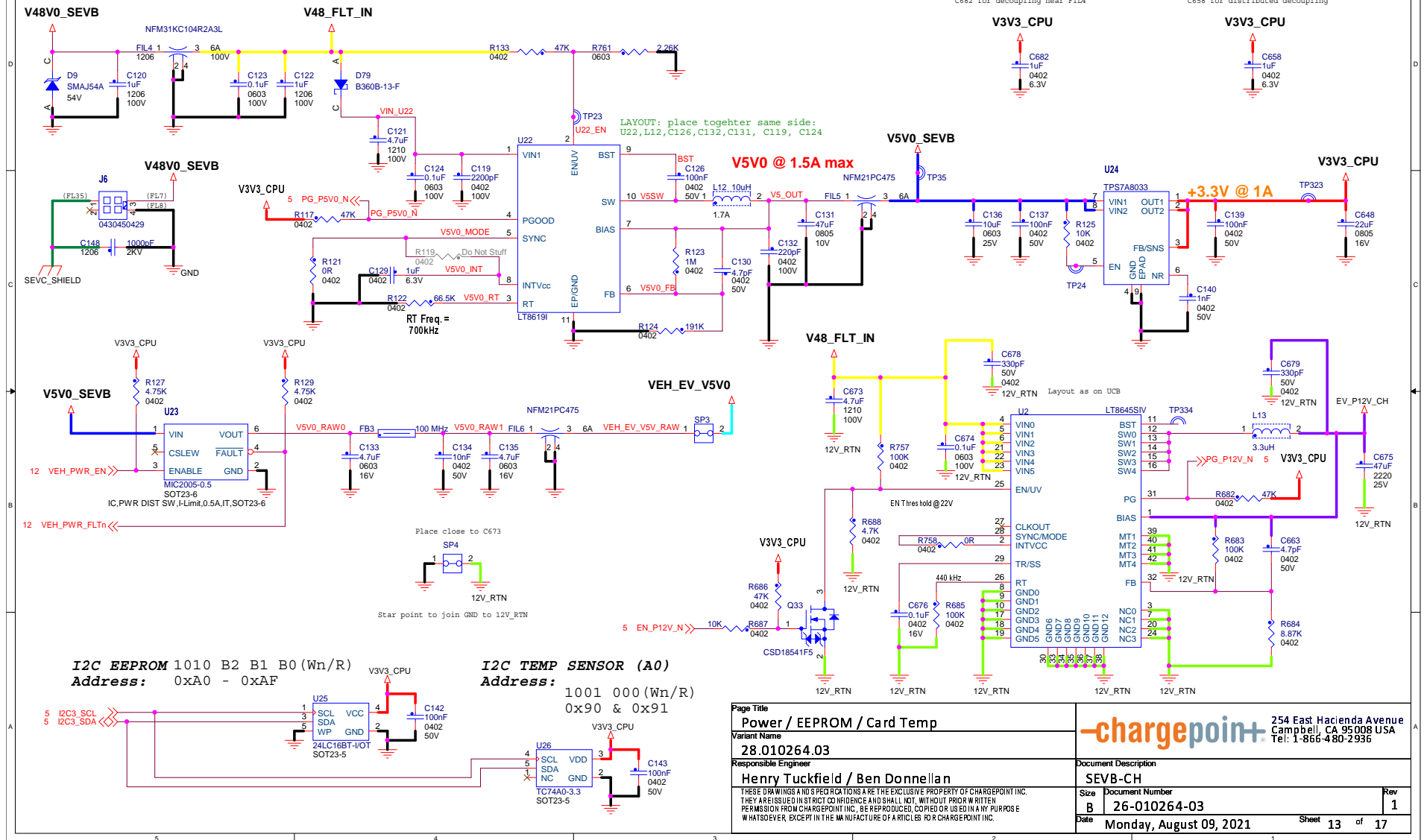



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Perm / Prox / Latch	254 East Hacienda Avenue		
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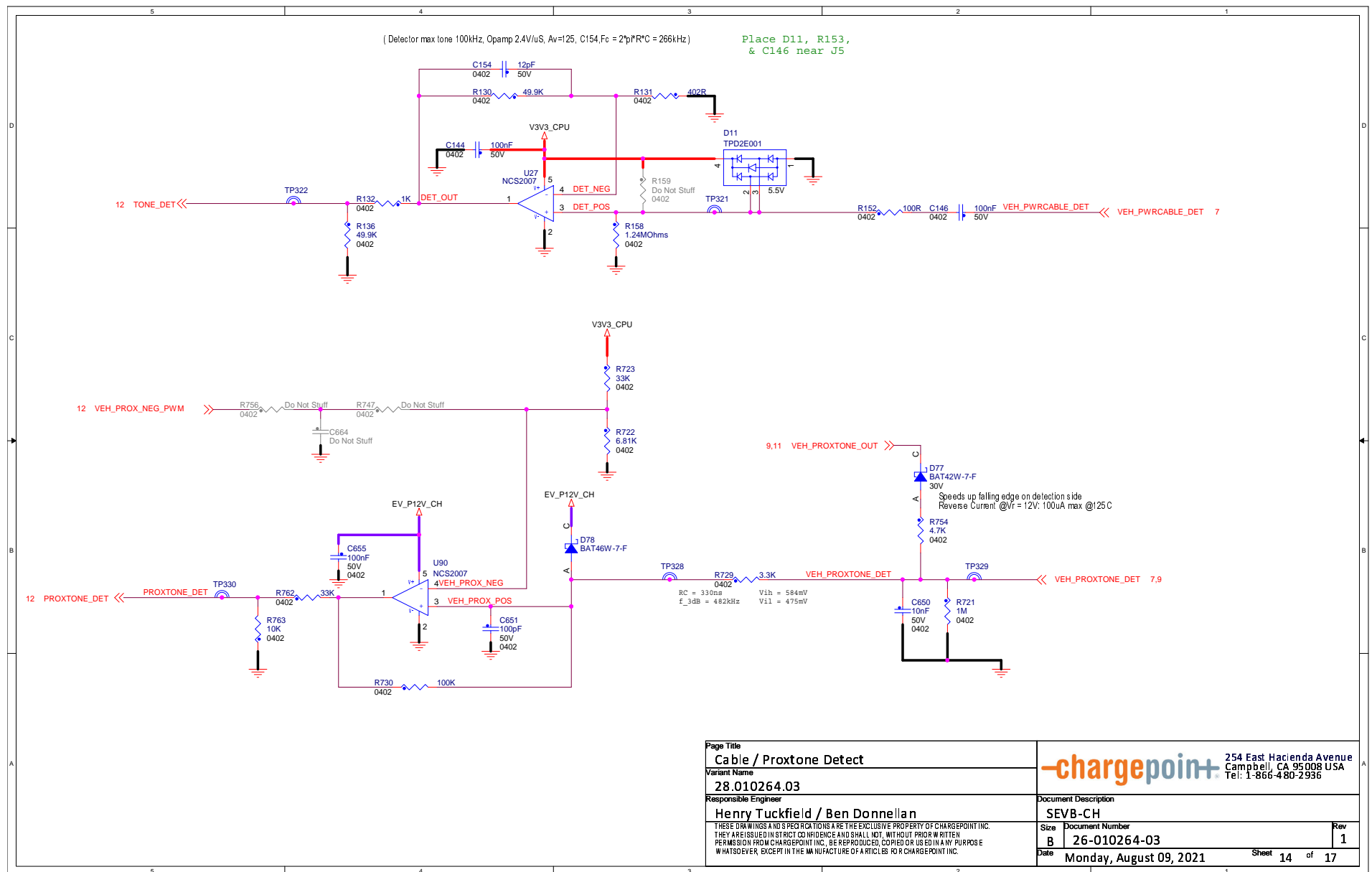


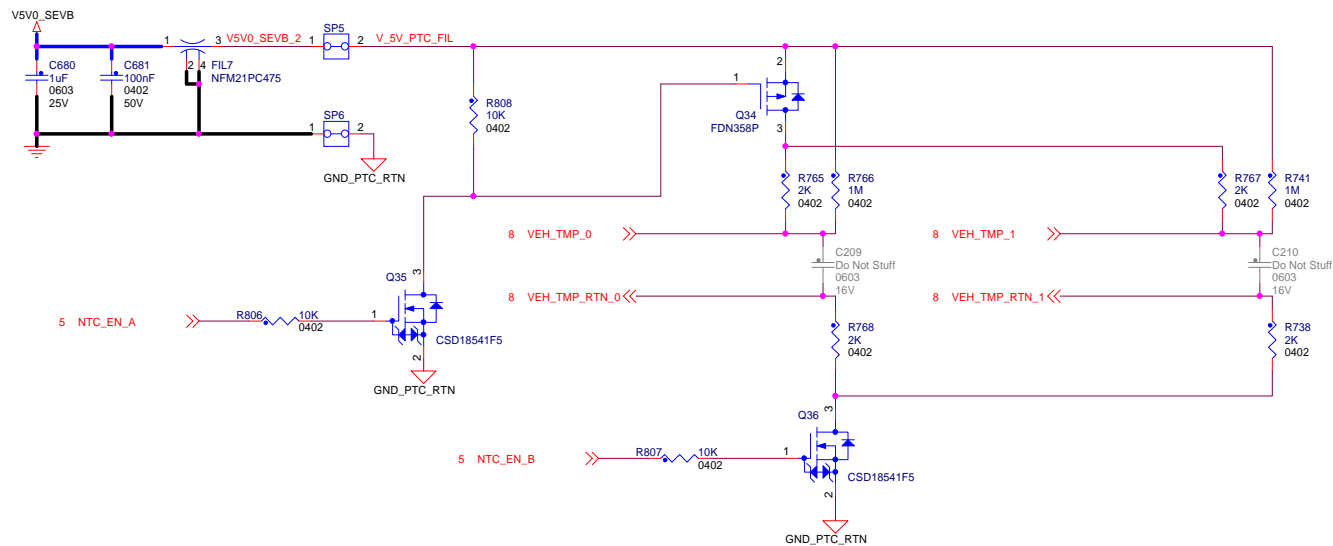



Typical $I_{48V} = XXmA = X.XW$

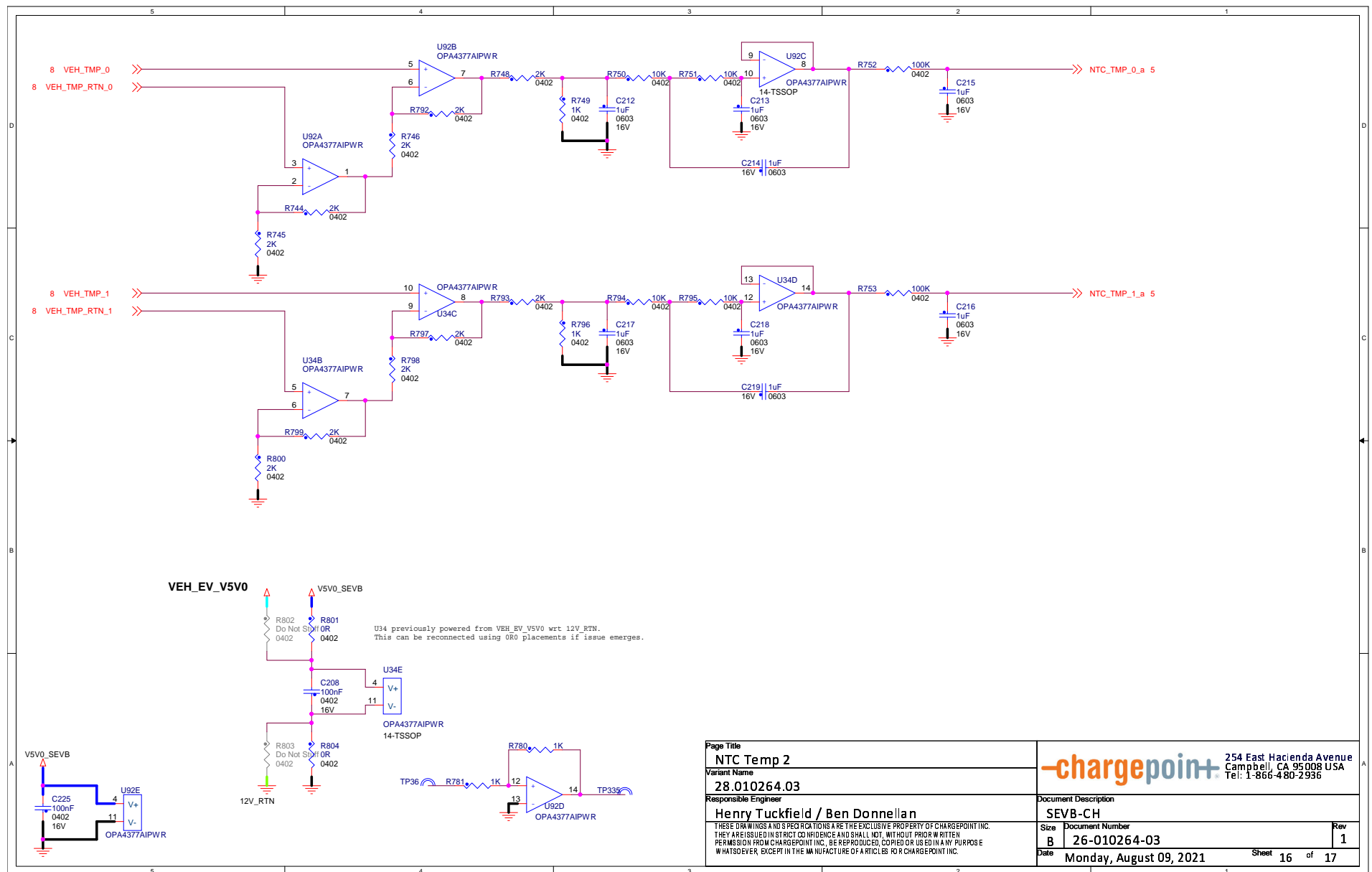


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Power / EEPROM / Card Temp					
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NTC Temp 1			
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5			4			3			2			1											
BOOT MODE PINS BOOT[1..0]						OTHER PIN ASSIGNMENTS																	
BOOT_MODE1			BOOT_MODE0			Boot Mode Selected			PIN			RESOURCE			FEATURE			LOCATION			NOTES		
0			0			Boot From Fuses			H12			CHAdEMO_1_Proximity			GPIO1_28			U40 Pin 6					
0			1			Serial Downloader (USB or UART)			A6			CHAdEMO_1_Charge			GPIO4_13			U40 Pin 8					
1			0			Internal Boot			H11			CHAdEMO_1_Sequence_1			GPIO1_29			R647 Pin 1					
1			1			Reserved			G12			CHAdEMO_1_Sequence_2			GPIO1_30			R648 Pin 1					
I2C BUS DEVICES																							
PORT			BASE ADDR			(Wn/R)			RESOURCE			DEVICE			NOTES								
I2C1			PENDING			(0x??-0x??)			Veh. Cable			Pending			Future digital temp sensors								
I2C3			0x50-0x57 0x48			(0xA0/0xAF) (0x90/0x91)			I2C EEPROM Temp Sensor			24LC16B TC74A0-3.3VCT			May be removed May be removed								
SPI PORT DEVICES																							
PORT			CSn			DEVICE			NOTES														
SPI1			CS0n CS1n			I2PLCAMC-ISE-002 N/A			Configured for PLC Module Not used														
SPI2			CS0n CS1n			N/A N/A			Reserved for ADS124S08 Not used														
DEBUG CONNECTOR (JTAG, UART, USB)																							
PIN			JTAG, UART, USB			LOCATION			NOTES														
K14			UART1_TXD			J1 Pin 4			Boot/Debug/Serial Downloader														
L14			UART1_RXD			J1 Pin 6																	
L11			USB1_ID_HOSTn			J1 Pin 8																	
N6			USB1_OTG_VBUS			J1 Pin 10																	
M8			DP_USB1_CONN_N			J1 Pin 12																	
L8			DP_USB1_CONN_P			J1 Pin 14																	
E14			JTAG_TMS			J1 Pin 1																	
F14			JTAG_TDI			J1 Pin 3																	
			JTAG_VREF			J1 Pin 5																	
G13			JTAG_TDO			J1 Pin 7																	
G10			JTAG_TRSTn			J1 Pin 9																	
F12			JTAG_TCK			J1 Pin 11																	
Do Not Stuff (BOM Variant = 28.010264.03)																							
C209																							
C210																							
C664																							
FB6																							
R64																							
R119																							
R159																							
R174																							
R690																							
R747																							
R756																							
R759																							
R760																							
R764																							
R802																							
R803																							
TOP-SIDE FIDUCIALS						BOTTOM-SIDE FIDUCIALS																	
FID1			FID2			FID3			FID4			FID5			FID6								
FIDUCIAL			FIDUCIAL			FIDUCIAL			FIDUCIAL			FIDUCIAL			FIDUCIAL								
FL36 = 3mm Mount hole																							
Case EV Shield																							
MH1						MH2																	
1						1																	
3.7MM_PTH						3.7MM_PTH																	
C647						C646																	
1000pF						1000pF																	
1206						1206																	
2KV						2KV																	
SEVC_SHIELD						SEVC_SHIELD																	

