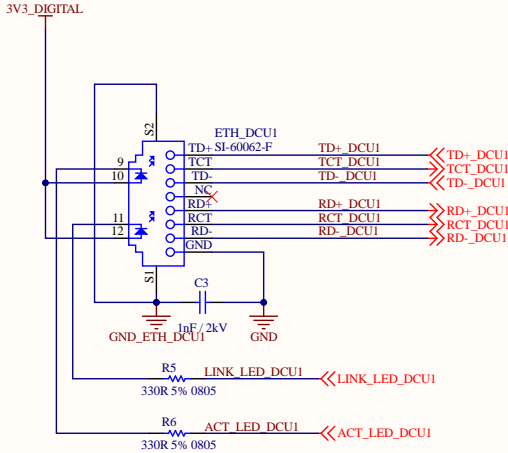
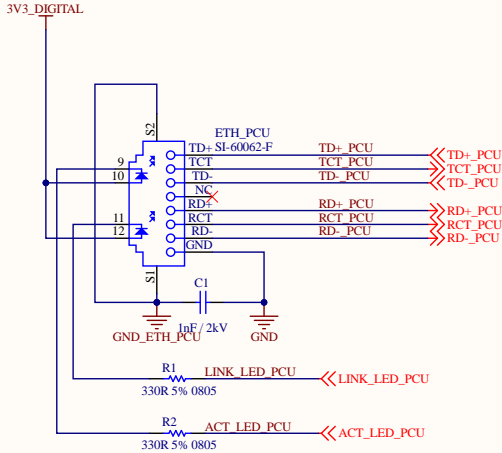
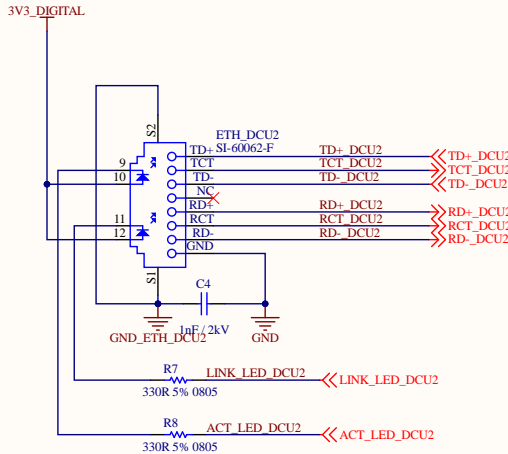
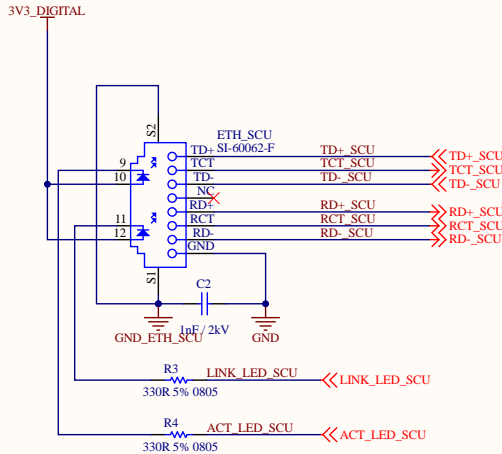


MOTHERBOARD ETHERNET | 6 RJ45 - 1 PER MODULE

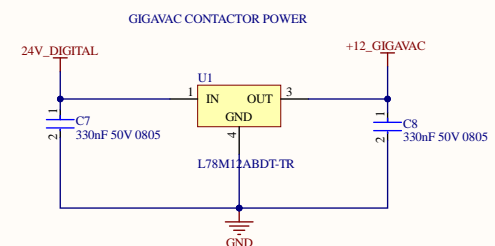
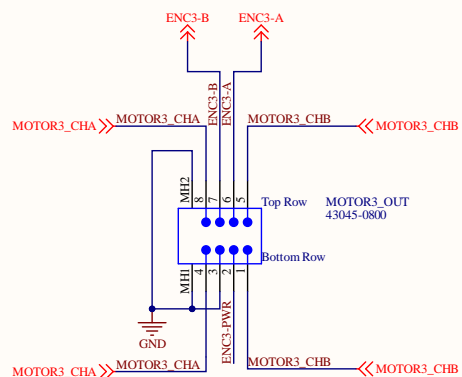
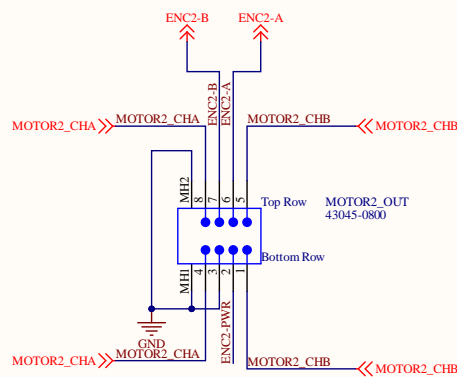
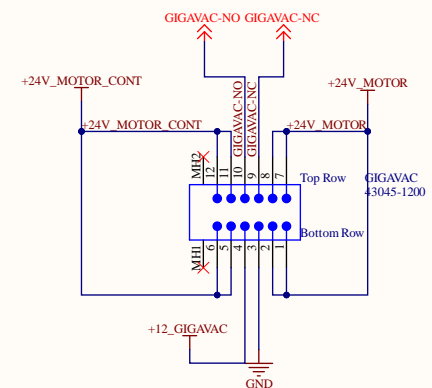
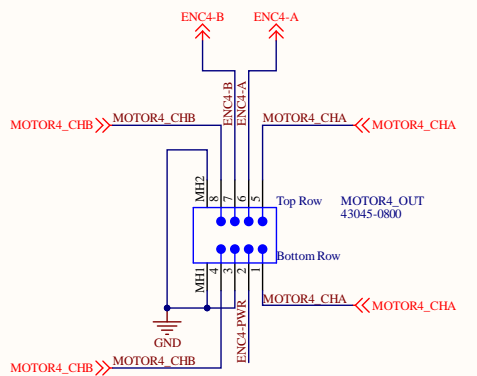
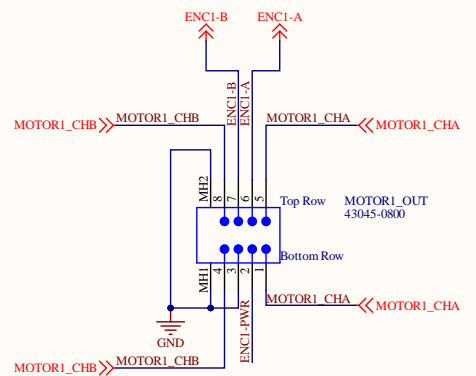


DCU3 AND DCU 4 ARE EXCLUDED FROM THE REVISION B1 -> CORRESPONDING RESISTORS AND CAPACITORS ARE RESERVED



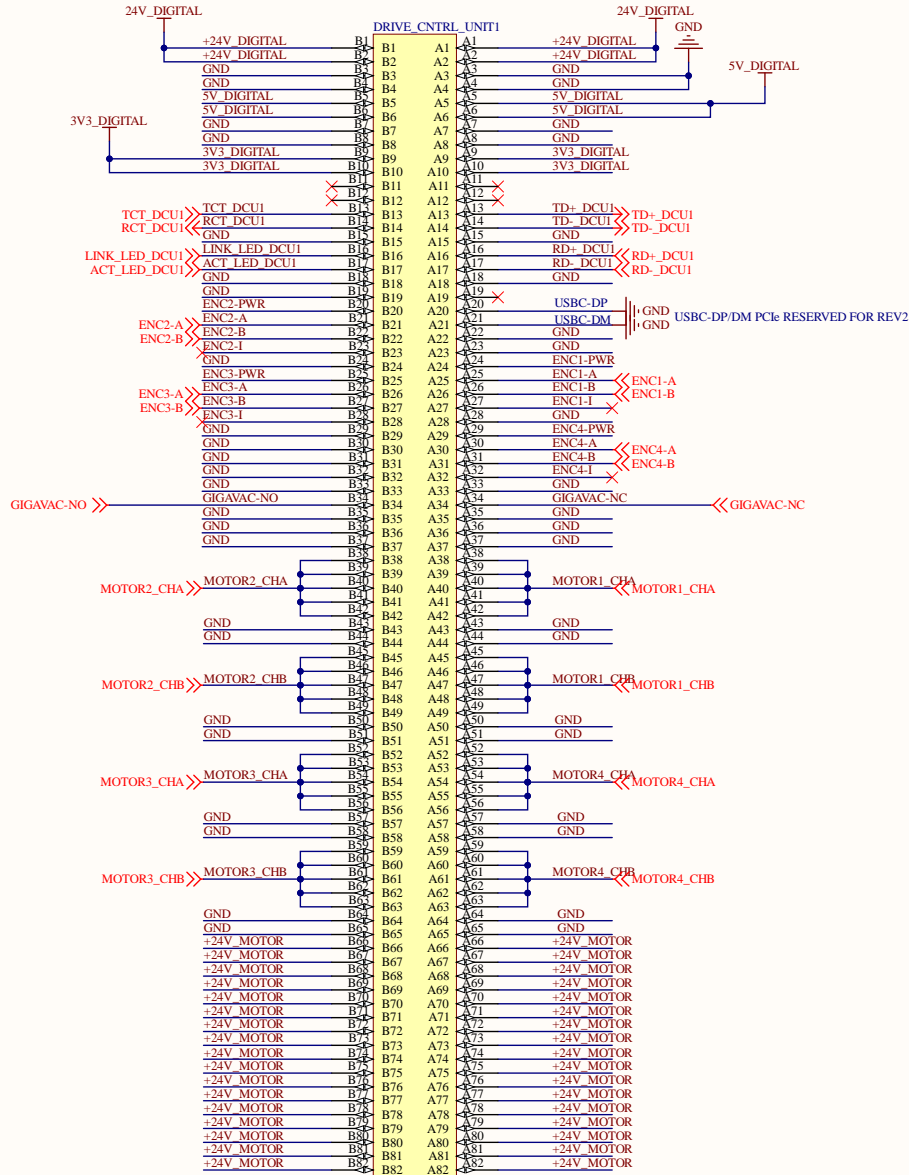
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ESP32-DCU-Rev1 ETHERNET			
Size	Number	Revision	
B	PAGE 1 / 1	Rev 1.0	
Date:	7-13-2021	Sheet 7 of 7	
File:	C:\Users\...\Ethernet_SchDoc	Drawn By:	D. Gusev

MOTOR 1...4 EXTERNAL CONNECTIONS | POWER & ENCODERS



Title			
ANTS MOTHERBOARD MOTOR CONN			
Size	Number	Revision	
B	PAGE 1 / 1	Rev 1.0	
Date:	7-13-2021	Sheet 7 of 7	
File:	C:\Users\...\Motor External Connectors	Drawn By:	D. Gusev

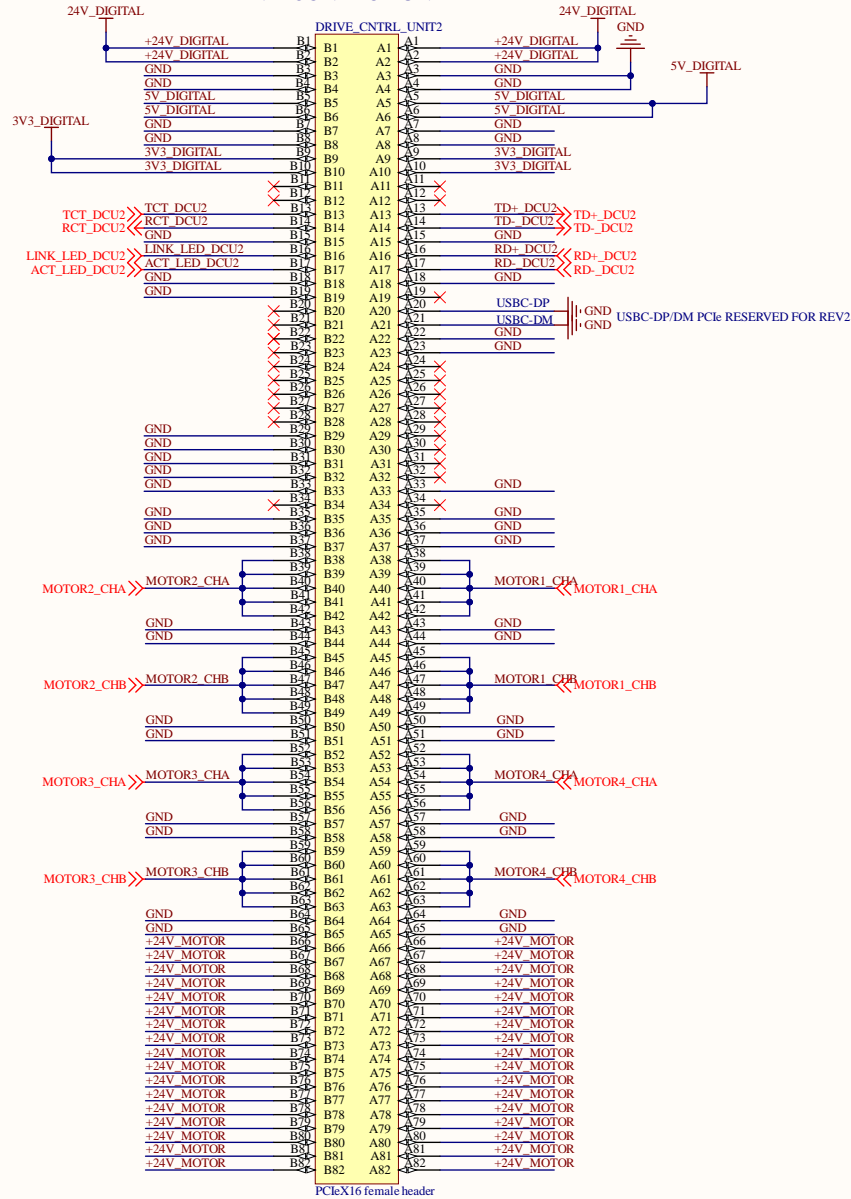
DRIVE CONTROL UNIT #1 (MAIN)



PCleX16 female header

Title			
ESP32 Development Board CONN			
Size	Number	Revision	
B	PAGE 1 / 1	Rev 1.0	
Date:	7-13-2021	Sheet7 of 7	
File:	C:\Users\Motor1\PCle.SchDoc	Drawn By:	D. Gusev

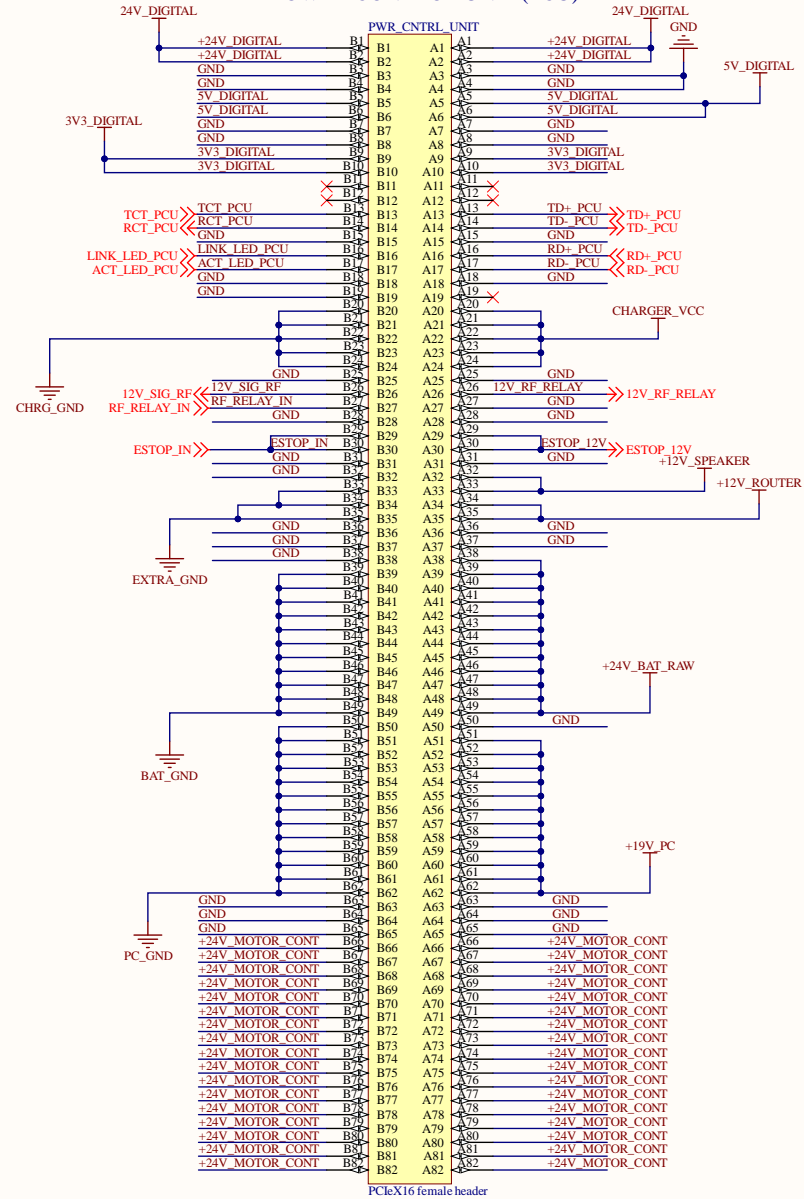
DRIVE CONTROL UNIT #2



PCleX16 female header

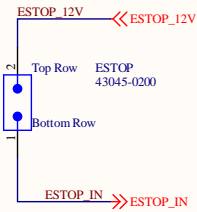
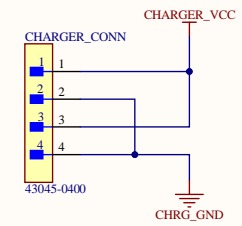
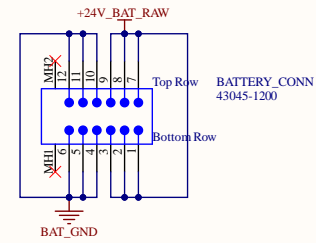
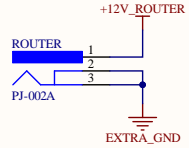
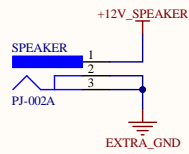
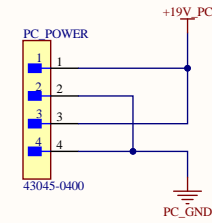
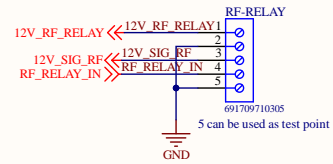
Title			
ESP32 Development Board CONN			
Size	Number	Revision	
B	PAGE 1 / 1	Rev 1.0	
Date:	7-13-2021	Sheet 7 of 7	
File:	C:\Users\...\Motor2_PCLE_SchDoc	Drawn By:	D. Gusev

POWER CONTROL UNIT (PCU)



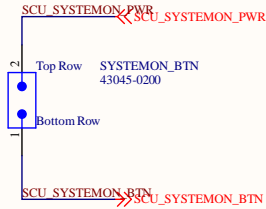
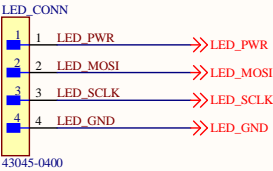
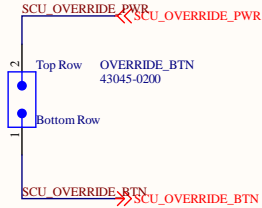
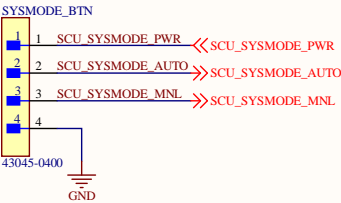
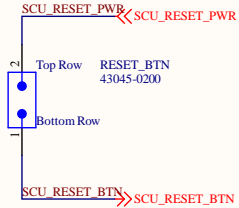
Title			
ESP32 Development Board CONN			
Size	Number	Revision	
B	PAGE 1 / 1	Rev 1.0	
Date:	7-13-2021	Sheet 7 of 7	
File:	C:\Users\...PCU_PCLE.SchDoc	Drawn By:	D. Gusev

POWER CONTROL UNIT EXTERNAL CONNECTIONS | RF RELAY, ESTOP, PC POWER, 12V ROUTER, 12V SPEAKER, CHARGER, BATTERY

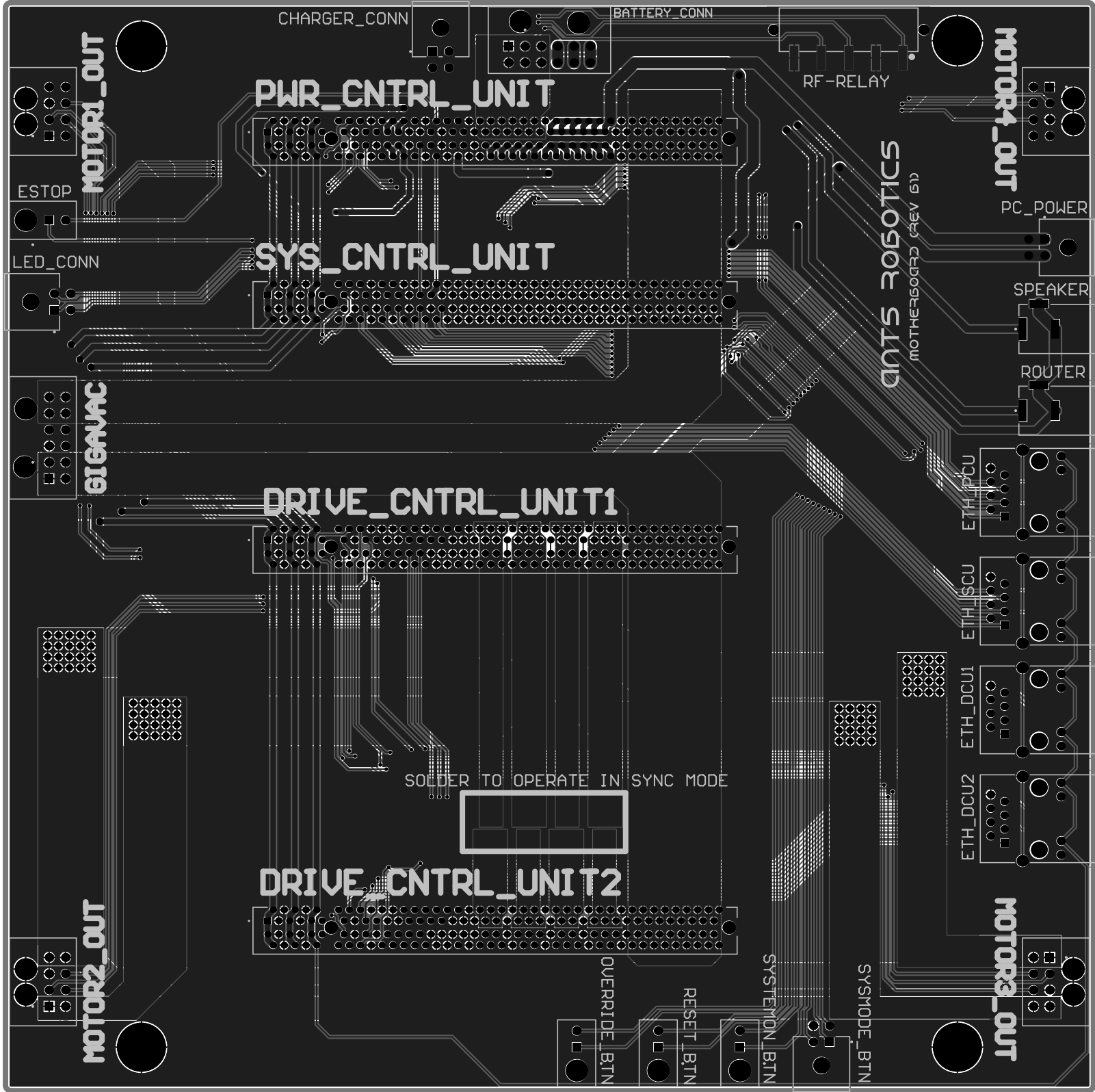


Title			
ESP32 Development Board CONN			
Size	Number	Revision	
B	PAGE 1 / 1	Rev 1.0	
Date:	7-13-2021	Sheet	7 of 7
File:	C:\Users\Power External Connectors	Drawn By:	D. Gusev

SYSTEM CONTROL UNIT EXTERNAL CONNECTIONS | RESET BTN, OVERRIDE BTN, AUTO/MANUAL, ON/OFF, ADDRESSABLE LED



Title			ESP32 Development Board CONN
Size	Number	Revision	
B	PAGE 1 / 1	Rev 1.0	
Date:	7-13-2021	Sheet 7 of 7	
File:	C:\Users\... \SCU_External_Connectors	Drawn By:	D. Gusev



Comment	Description	Designator	Footprint	LibRef	Quantity
43045-1200	3 mm Pitch Micro-Fit 3.0 Connector, 17.27 mm Mated Height, Vertical, Through Hole, 12 Circuits, -40 to 105 degC, RoHS, Tray	BATTERY_CONN, GIGAVAC	MOLX-43045-1200	Molex 0430451-200	2
1nF / 2kV	Chip Capacitor, 1000 pF, +/- 10%, 2000 V, -55 to 125 degC, 1812 (4532 Metric), RoHS, Tape and Reel	C1, C2, C3, C4	CAPC4532X155X60LL3 0T35	CMP-2000-06032-1	4
330nF 50V 0805	CAP CER 0.33UF 50V X7R 0805	C7, C8	FP-C0805C-DN-MFG	CMP-1036-04607-3	2
43045-0400	CONN HEADER R/A 4POS 3MM	CHARGER_CONN, LED_CONN, PC_POWER, SYSMODE_BTN	FP-43045-0400-MFG	CMP-04776-000002-1	4
PCIeX16 female header	164-position SAMTEC female header	DRIVE_CNTRL_UNIT1, DRIVE_CNTRL_UNIT2, PWR_CNTRL_UNIT, SYS_CNTRL_UNIT	SAMTEC_PCIE-164-02-X-D-TH	PCIeX16 female header	4
43045-0200	3 mm Pitch Micro-Fit 3.0 Connector, 17.27 mm Mated Height, Vertical, Through Hole, 2 Circuits, -40 to 105 degC, RoHS, Tray	ESTOP, OVERRIDE_BTN, RESET_BTN, SYSTEMON_BTN	MOLX-43045-0200	Molex 0430450-200	4
SI-60062-F	1 Port RJ45 Magjack Connector with Yellow and Green LED, 10/100 Base-T, 12-Pin THD, RoHS, Tray	ETH_DCU1, ETH_DCU2, ETH_PCU, ETH_SCU	BELF-SI-60062-F_V	CMP-2000-07059-1	4
43045-0800	3 mm Pitch Micro-Fit 3.0 Connector, 17.27 mm Mated Height, Vertical, Through Hole, 8 Circuits, -40 to 105 degC, RoHS, Tray	MOTOR1_OUT, MOTOR2_OUT, MOTOR3_OUT, MOTOR4_OUT	MOLX-43045-0800	Molex 0430450-800	4
330R 5% 0805	Chip Resistor, 330 Ohm, +/- 1%, 125 mW, -55 to 155 degC, 0805 (2012 Metric), RoHS, Tape and Reel	R1, R2, R3, R4, R5, R6, R7, R8	RESC2013X60X35LL10 T20	CMP-2000-06960-1	8
691709710305	Serie 7097 - 5.00 mm Horizontal Entry SMT with Pressure Clamp WR-TBL, 5 pin	RF-RELAY	691709710305	CMP-1502-03338-1	1
PJ-002A	Through Hole Right Angle DC Power Jack, 2.5 A, 2 mm Center Pin, 3 Position, -25 to 85 degC, RoHS, Bulk	ROUTER, SPEAKER	CUI-PJ-002A_V	CMP-2000-06895-1	2
L78M12ABDT-TR	Precision 500mA Regulator, 12V, 3-Pin DPAK, Tape and Reel	U1	TO-252_M	CMP-0244-00186-1	1