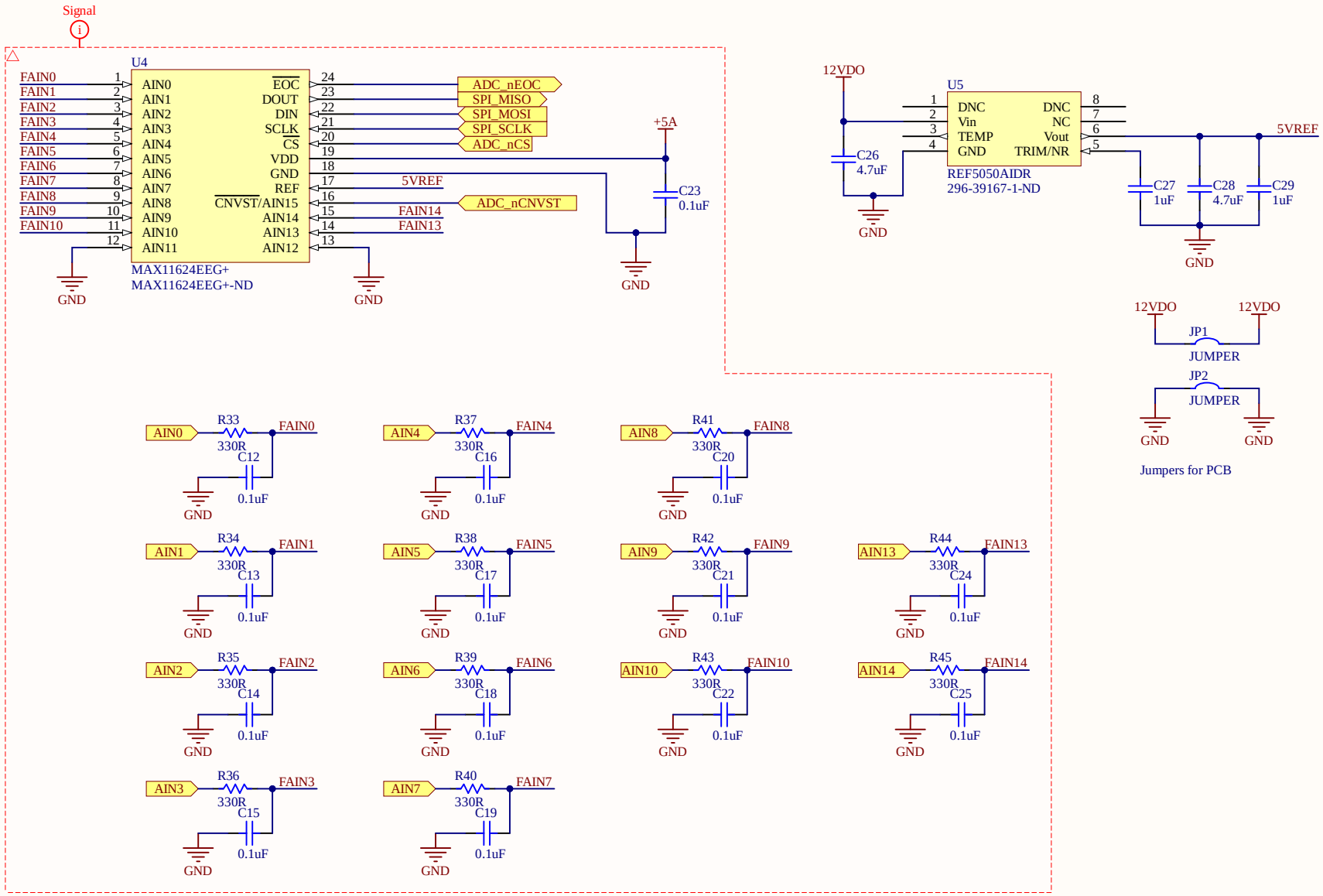
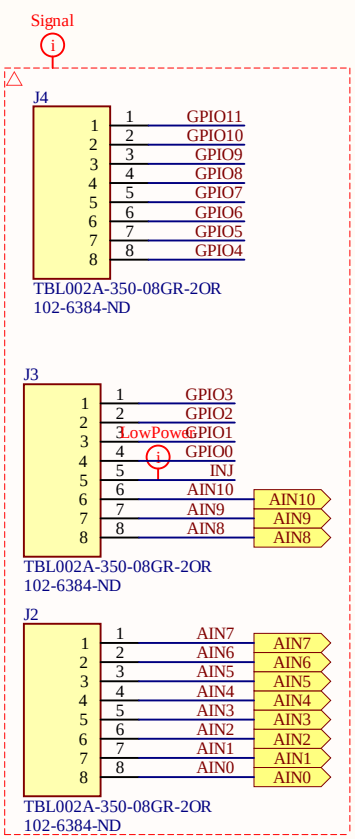
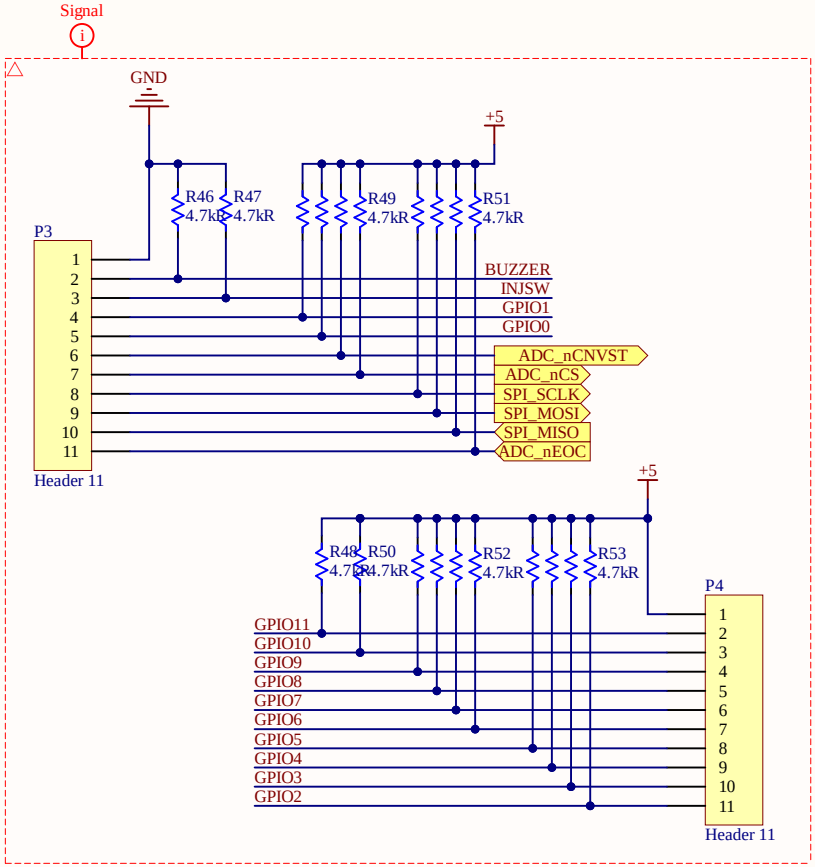
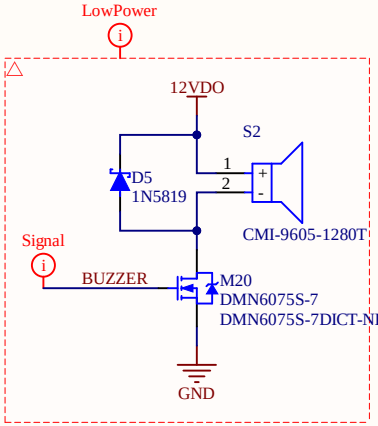
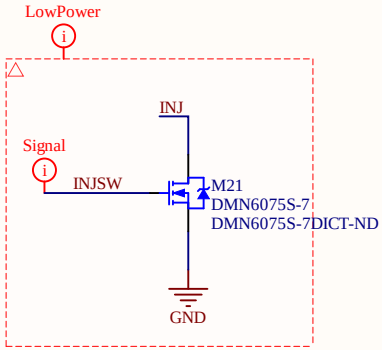
Line #	Name	Description	Designator	Quantity	Manufacturer 1	Manufacturer Part Number 1	Manufacturer Lifecycle 1	Supplier 1	Supplier Part Number 1	Supplier Unit Price 1	Supplier Subtotal 1
	4.7uF	SAMSUNG ELECTRO-MECHANICS - CL21A475KAQNNNE - SMD Multilayer Ceramic Capacitor, 4.7 µF, 25 V, 0805 [2012 Metric], ± 10%, X5R, CL Series	C1, C2, C3, C7, C8, C26, C28	7	Samsung	CL21A475KAQNNNE	Volume Production	Digi-Key	1276-1244-1-ND	0.11	0.77
	22000uF	Cap Aluminum 22000uF 16V 20% (25 X 40mm) Radial 12.5mm 4000mA 2000 hr 85°C Bulk	C4	1	Nichicon	UVR1C223MRD6	Volume Production	Digi-Key	493-1054-ND	4.11	4.11
	1uF	Cap Ceramic 1uF 16V Y5V -20% to 80% Pad SMD 0805 85C T/R	C5, C6, C27, C29	4	KEMET	C0805C105Z4VACTU	Volume Production	Digi-Key	399-8011-1-ND	0.11	0.44
	390pF	Cap Ceramic 390pF 50V C0G 5% SMD 0805 125C Paper T/R	C9	1	Samsung	CL21C391JBANNNC	Volume Production	Digi-Key	1276-1303-1-ND	0.11	0.11
	470uF	NICHICON UUD1C471MNL1GS CAP, ALU ELEC, 470UF, 16V, SMD	C10	1	Nichicon	UUD1C471MNL1GS	Volume Production	Digi-Key	493-2266-1-ND	0.82	0.82
	0.1uF	CAP CER 0.1UF 25V X7R 0805	C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25	14	KEMET	C0805C104M3RACTU	Volume Production	Digi-Key	399-8000-1-ND	0.062	0.868
	1N5819	DIODES INC. - 1N5819HW-7-F - DIODE, SCKY RECTI, 1A, 40V, SOD123	D1, D3, D5	3	Diodes	1N5819HW-7-F	Volume Production	Digi-Key	1N5819HW-FDICT-ND	0.43	1.29
	RED	WURTH ELEKTRONIK 150080SS75000 LED, 0805, SUP RED, 60MCD, 630NM	D2	1	Wurth Electronics	150080SS75000	Volume Production	Digi-Key	732-4985-1-ND	0.18	0.18
	CONN HEADER R/A 2POS	CONN HEADER R/A 2POS	J1, J5, J6	3	Molex	1724480002	Not Recommended for New Design	Digi-Key	WM16206-ND	0.55	1.65
	TBL002A-350-08GR-2OR	1~24 Poles, Screwless, 45Â°, 3.50 Pitch, 24~20 (AWG), Terminal Block Connector	J2, J3, J4	3	CUI Devices	TBL002A-350-08GR-2OR	Unknown	Digi-Key	102-6384-ND	1.28	3.84
	JUMPER		JP1, JP2	2							
	220µH	BOURNS SRR1260-221K INDUCTOR, SHIELDED, 220UH, 1.3A, SMD	L1	1	Bourns	SRR1260-221K	Volume Production	Digi-Key	SRR1260-221KCT-ND	1.19	1.19
	DMN6075S-7	MOSFET 60V N-Ch Enh FET 20Vgss 0.8W 600pF	M1, M20, M21	3	Diodes	DMN6075S-7	Volume Production	Digi-Key	DMN6075S-7DICT-ND	0.35	1.05
	Header 11	Header, 11-Pin	P3, P4	2							
	1MR	Res Thick Film 0805 1M Ohm 1% 1/8W ±100ppm/°C Molded SMD Punched Carrier T/R	R1	1	Panasonic	ERJ-6ENF1004V	Volume Production	Digi-Key	P1.00MCCT-ND	0.1	0.1
	160kR	Res Thick Film 0805 160K Ohm 1% 1/8W ±100ppm/°C Molded SMD Punched Carrier T/R	R2	1	Panasonic	ERJ-6ENF1603V	Volume Production	Digi-Key	P160KCCT-ND	0.1	0.1
	330R	Res Thin Film 0805 330 Ohm 0.5% 0.125W(1/8W) ±25ppm/C Molded SMD Automotive Punched T/R	R3, R4, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45	15	Panasonic	ERA-6AED331V	Volume Production	Digi-Key	P123837CT-ND	0.094	1.41
	4.7kR	Res Thin Film 0805 4.7K Ohm 0.5% 0.125W(1/8W) ±25ppm/C Molded SMD Automotive Punched T/R	R5, R7, R46, R47, R48, R50	6	Panasonic	ERA-6AED472V	Volume Production	Digi-Key	P123914CT-ND	0.1	0.6
	1.24kR	RES SMD 1.24K OHM 0.5% 1/4W 0805	R6, R8, R10, R11	4	Panasonic	ERJ-PB6D1241V	New Product	Digi-Key	P21029CT-ND	0.23	0.92
	250mR	Res Thick Film 1206 250m Ohm 1% 1/2W 100ppm/C Molded SMD Paper T/R	R9	1	Stackpole Electronics	CSR1206FKR250	Volume Production	Digi-Key	CSR1206FKR250CT-ND	0.4	0.4
	4.7kR	RES ARRAY 4 RES 4.7K OHM 1206	R49, R51, R52, R53	4	Bourns	CAY16-472J4LF	Volume Production	Digi-Key	CAY16-472J4LFCT-ND	0.1	0.4
	CMI-9605-1280T	Buzzers Indicator, Internally Driven Magnetic 12V 30mA 2.7kHz 80dB @ 12V, 10cm Through Hole PC Pins	S2	1	CUI	CMI-9605-1280T	Unknown	Digi-Key	102-CMI-9605-1280T-ND	1.22	1.22
	SPDT	Switch Toggle ON None ON SPDT Round Lever PC Pins 5A 250VAC 28VDC PC Mount with Bracket	SW1	1	E-Switch	100SP1T2B4M6QE	Volume Production	Digi-Key	EG2362-ND	2.67	2.67
	LDL1117S50R	LDL1117 Series 1.2 A 5 V High PSRR LDO Linear Voltage Regulator - SOT-223	U1, U2	2	STMicroelectronics	LDL1117S50R	Unknown	Digi-Key	497-17240-1-ND	0.57	1.14
	MC33063ADR	1.5-A peak boost/buck/inverting switching regulator 8-SOIC -40 to 85	U3	1	Texas Instruments	MC33063ADR	Volume Production	Digi-Key	296-17763-1-ND	0.46	0.46
	MAX11624EEG+	GLOVE, POLYAMIDE, L/FREE, PU, SIZE 6 - More Details	U4	1	Maxim	MAX11624EEG+	Volume Production	Digi-Key	MAX11624EEG+-ND	5.57	5.57
	REF5050AIDR	TEXAS INSTRUMENTS - REF5050AIDR - VOLTAGE REF, SERIES, 5V, SOIC-8	U5	1	Texas Instruments	REF5050AIDR	Volume Production	Digi-Key	296-39167-1-ND	3.09	3.09

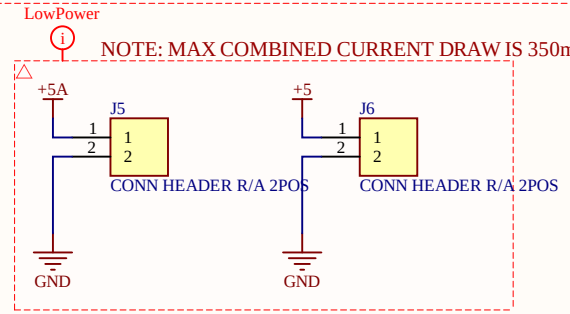

Signal
U4
FAIN0
FAIN1
FAIN2
FAIN3
FAIN4
FAIN5
FAIN6
FAIN7
FAIN8
FAIN9
FAIN10
AIN0
AIN1
AIN2
AIN3
AIN4
AIN5
AIN6
AIN7
AIN8
AIN9
AIN10
AIN11
EOC
DOUT
DIN
SCLK
CS
VDD
GND
REF
CNVST/AIN15
AIN14
AIN13
AIN12
ADC_nEOC
SPI_MISO
SPI_MOSI
SPI_SCLK
ADC_nCS
5VREF
ADC_nCNVST
FAIN14
FAIN13
MAX11624EEG+
MAX11624EEG+-ND
GND
+5A
C23
0.1uF
12VDO
U5
DNC
Vin
TEMP
GND
DNC
NC
Vout
TRIM/NR
REF5050AIDR
296-39167-1-ND
C26
4.7uF
C27
1uF
C28
4.7uF
C29
1uF
5VREF
JP1
JUMPER
JP2
JUMPER
Jumpers for PCB
R33
R34
R35
R36
R37
R38
R39
R40
R41
R42
R43
R44
R45
330R
C12
C13
C14
C15
C16
C17
C18
C19
C20
C21
C22
C24
C25
0.1uF
lol this is kinda messy
Title
ADC
Size
A
Number
Revision
Date:
2/04/2021
Sheet of
File:
C:\Users\..\conn_board_adc.SchDoc
Drawn By:



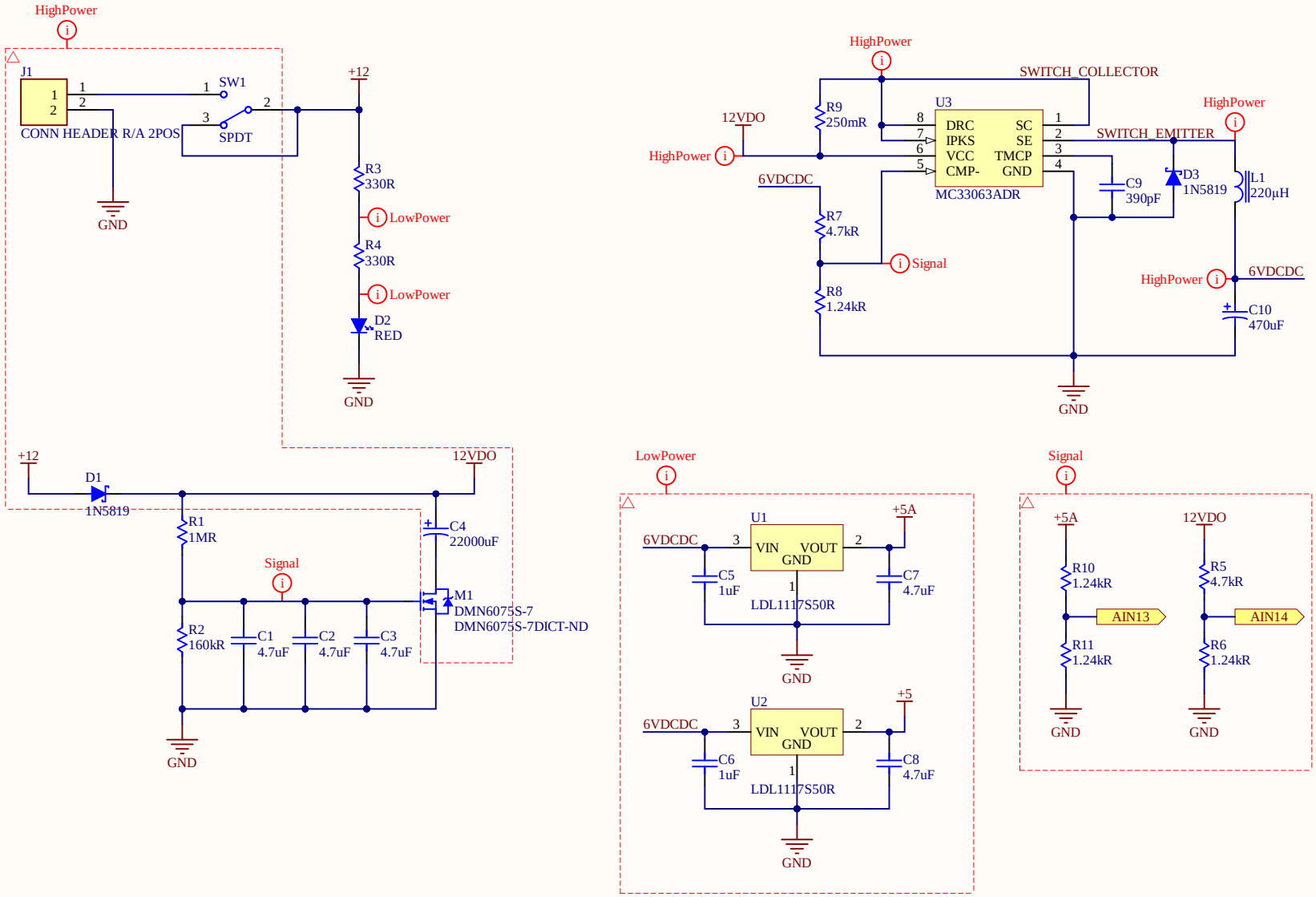








Title: **Interfaces**		
Size: A	Number:	Revision:
Date: 2/04/2021		Sheet of
File: C:\Users\..\conn_board_interfaces.SchDoc		Drawn By:



Title	Power	
Size: A	Number:	Revision:
Date: 2/04/2021		Sheet of
File: C:\Users\..\conn_board_power.SchDoc		Drawn By:

+12 IN

+12 GND

In: 600mA (Max Cont)
Out: 350mA (+5A, +5 Comb)

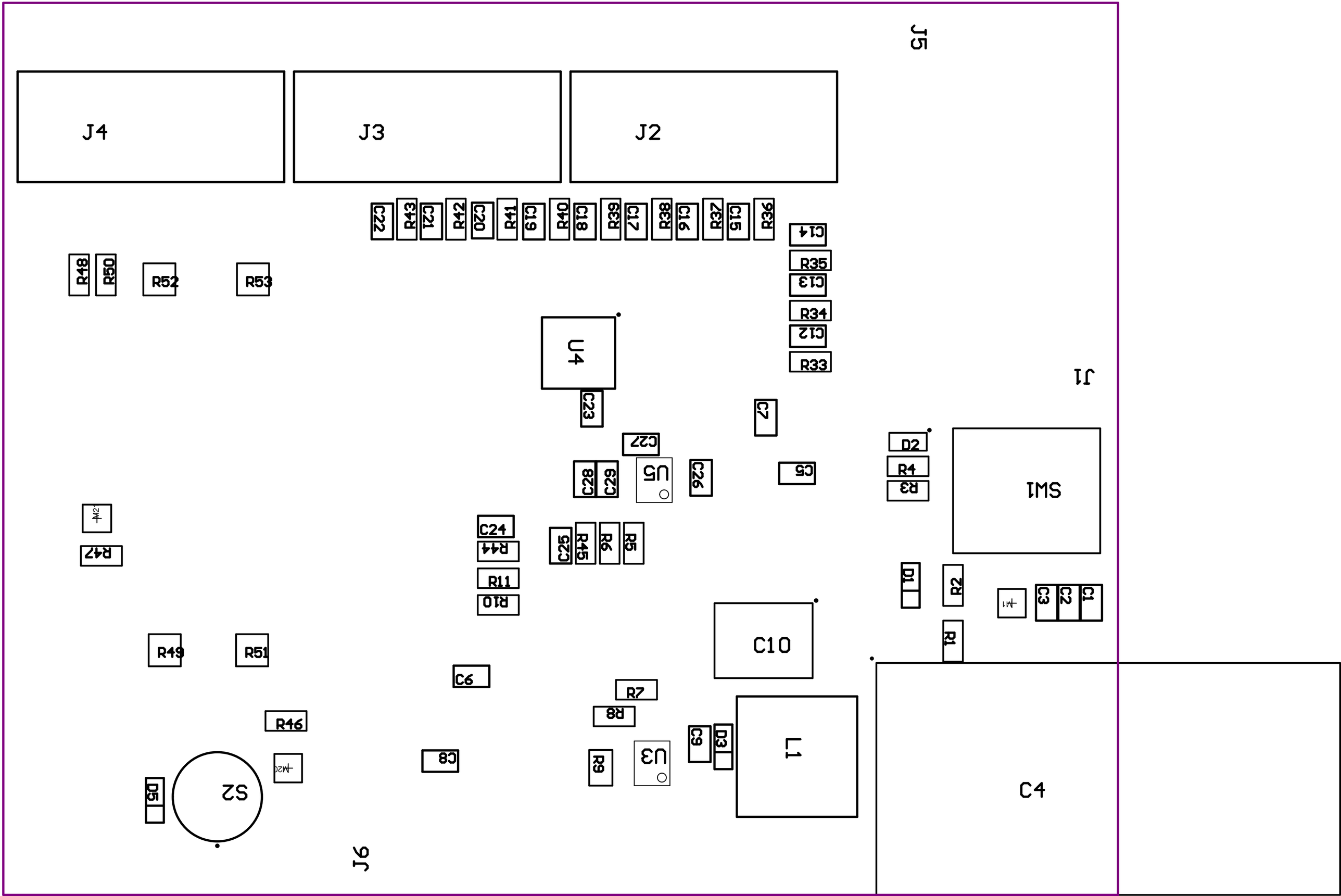
+5A OUT

+5 OUT

J2
AIN0 AIN1 AIN2 AIN3 AIN4 AIN5 AIN6 AIN7

J3
AIN8 AIN9 AIN10 INJ GPIO0 GPIO1 GPIO2 GPIO3

J4
GPIO4 GPIO5 GPIO6 GPIO7 GPIO8 GPIO9 GPIO10 GPIO11


J5
J4
J3
J2
C22
R43
C21
R42
C20
R41
C19
R40
C18
R39
C17
R38
C16
R37
C15
R36
C14
R35
C13
R34
C12
R33
R48
R50
R52
R53
U4
C23
C7
C27
C28
C29
U5
C26
C5
D2
R4
R3
SW1
J1
C24
R44
C25
R45
R6
R5
R11
R10
D1
R2
C3
C2
C1
R1
C10
R49
R51
C6
R7
R8
R46
C9
D3
L1
C8
R9
U3
S2
D5
C4
J6

Design Rules Verification Report

Filename : C:\Users\Public\Documents\Altium\Projects\EFIPCB_2020\conn_board\conn_board

Warnings 0
Rule Violations 5

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=0.254mm) (All),(All)	0
Clearance Constraint (Gap=0.254mm) (All),(All)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint ((All))	0
Modified Polygon (Allow modified: No), (Allow shelved: No)	0
Width Constraint (Min=0.254mm) (Max=2mm) (Preferred=1.5mm) (InNetClass('LowPower'))	0
Width Constraint (Min=0.127mm) (Max=1mm) (Preferred=0.254mm) (InNetClass('Signal'))	0
Width Constraint (Min=0.127mm) (Max=1mm) (Preferred=0.254mm) (All)	0
Width Constraint (Min=1mm) (Max=5.5mm) (Preferred=3.3mm) (InNetClass('HighPower'))	0
Width Constraint (Min=0.127mm) (Max=5.5mm) (Preferred=0.254mm) (InNet('GND'))	0
Width Constraint (Min=0.254mm) (Max=0.254mm) (Preferred=0.254mm) (All)	0
Power Plane Connect Rule(Relief Connect)(Expansion=0.508mm) (Conductor Width=0.254mm) (Air Gap=0.254mm)	0
Minimum Annular Ring (Minimum=0.15mm) (All)	0
Minimum Annular Ring (Minimum=0.23mm) (IsVia)	0
Hole Size Constraint (Min=0.25mm) (Max=6.3mm) (All)	0
Hole Size Constraint (Min=0.3mm) (Max=6.3mm) (IsVia)	0
Hole Size Constraint (Min=0.025mm) (Max=2.54mm) (All)	0
Hole Size Constraint (Min=0.7mm) (Max=6.35mm) (IsPad)	0
Hole To Hole Clearance (Gap=0.254mm) (All),(All)	0
Hole To Hole Clearance (Gap=0.5mm) (All),(All)	5
Silk To Solder Mask (Clearance=0.15mm) (IsPad),(All)	0
Silk to Silk (Clearance=0.254mm) (All),(All)	0
Net Antennae (Tolerance=0mm) (All)	0
Board Clearance Constraint (Gap=0mm) (All)	0
Height Constraint (Min=0mm) (Max=25.4mm) (Prefered=12.7mm) (All)	0
Total	5

Hole To Hole Clearance (Gap=0.5mm) (All),(All)
Hole To Hole Clearance Constraint: (Collision < 0.5mm) Between Pad SW1-1(16.5mm,50mm) on Multi-Layer And Pad SW1-1(16.5mm,50mm) on
Hole To Hole Clearance Constraint: (Collision < 0.5mm) Between Pad SW1-2(16.5mm,54.7mm) on Multi-Layer And Pad SW1-2(16.5mm,54.7mm) on
Hole To Hole Clearance Constraint: (Collision < 0.5mm) Between Pad SW1-3(16.5mm,59.4mm) on Multi-Layer And Pad SW1-3(16.5mm,59.4mm) on
Hole To Hole Clearance Constraint: (Collision < 0.5mm) Between Pad SW1-4(3.8mm,52.16mm) on Multi-Layer And Pad SW1-4(3.8mm,52.16mm) on
Hole To Hole Clearance Constraint: (Collision < 0.5mm) Between Pad SW1-4(3.8mm,57.24mm) on Multi-Layer And Pad SW1-4(3.8mm,57.24mm) on