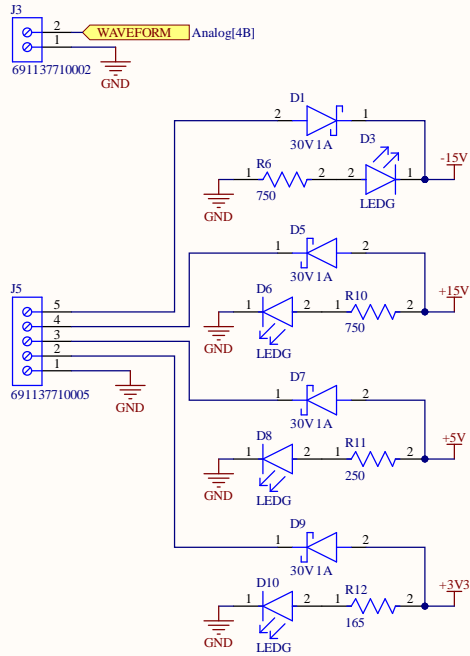
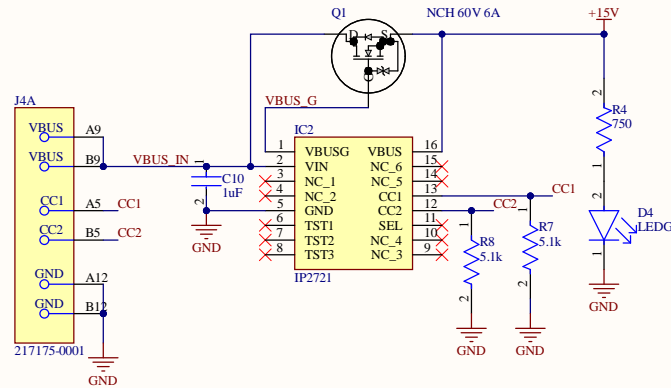


Title		
Size	Number	Revision
B		
Date:	11/08/2025	Sheet of
File:	C:\Users\...\Digital.SchDoc	Drawn By:

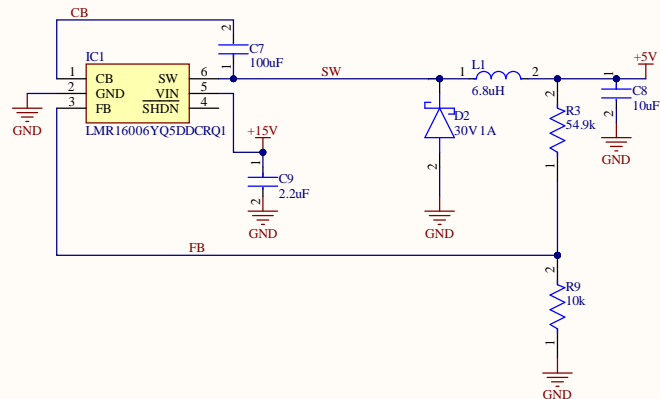
## Output Terminals



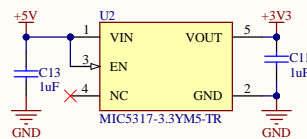
## USBC PD



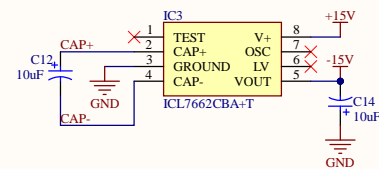
## Buck Converter 15V to 5V



## LDO 5V to 3V3

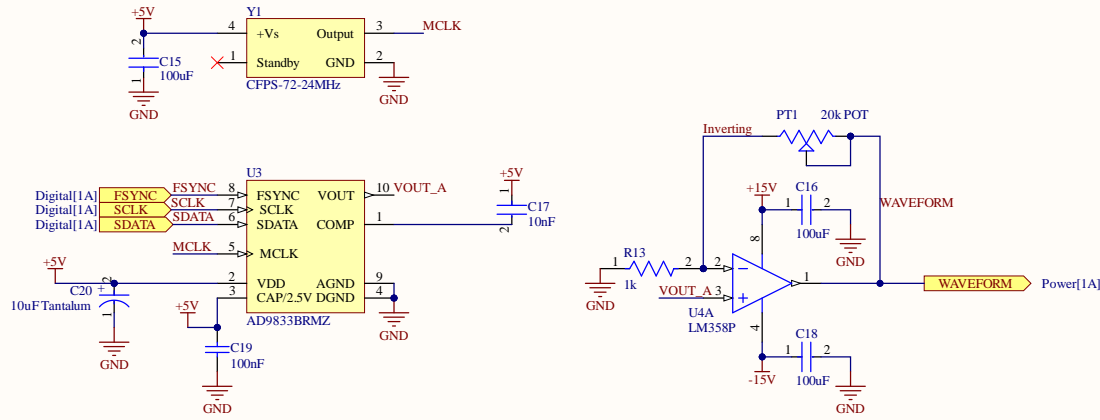


## Charge Pump 15V to -15V



Title		
Size B	Number	Revision
Date:	11/08/2025	Sheet of
File:	C:\Users\...\POWER.SchDoc	Drawn By:

## Waveform Generator



Title		
Size B	Number	Revision
Date:	11/08/2025	Sheet of
File:	C:\Users\...\Analog.SchDoc	Drawn By:

Digital

-15V  
+15V  
+5V  
+3V3  
GND

Analog

WAVE  
GND

STLINK

+3V3  
SWCLOCK  
SWDIO  
NRST  
GND

+3V3 CS1B RES A0 SCL SI GND NC

SINE

TRIANGLE

SQUARE

SAWTOOTH

FREQUENCY | PHASE

VOLTAGE

ENC1

PT1

J3

J5

J2

U4

U3

U1

C18

Y1

U2

IC2

IC3

R9

C9

D2

L1

C13

C10

Q1

R7

R4

R8

D1

D5

D7

D9

D3

D6

D8

D10

R6

R10

R11

R12

C16

R2

C6

C5

C1

R1

C4

C2

C13

C18

C19

C15

C20

C17

R13

SW5

NRST

SW1

SW3

SW2

SW4

Line#	Name	Description	Designator	Revision ID	Revision State	Revision Status	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	Chip Multilayer Ceramic Capacitors for General Purpose 0805, 4.7uF, X5R 15%, 25V	C1			Unknown server	1	Murata	GRM219R61E475MA7J	Volume Production	Mouser	81-GRM219R61E475MA7J	0.17	0.17
	100nF	Ceramic 100nF X7R 16V 5%	C2, C3, C4, C6, C9			Unknown server	5	HEMET	C0603X104JURACTU	Volume Production	Arrow Electronics	C0603X104JURACTU	0.0029	0.0145
	10nF	CAP 10nF 10V ±5% 1206 (3216 Metric) Thickness 1.45mm SMD	C5			Unknown server	1	Vishay	VJ1206Y103JQC0WBC	Volume Production	Mouser	77-VJ1206Y103JQC0BC	0.36	0.36
	100uF	C1206 0.10 uF C0G 10.00% 25 V X7R	C7, C15, C16, C18			Unknown server	4	HEMET	C1206C104K5GACTU	Volume Production	DigKey	389-C1206C104K5GACTUCF-ND	1.59	6.36
	10uF	CL21 Series 0805 10uF 25V ±10% Tolerance X5R Multilayer Ceramic Chip Capacitor	C8			Unknown server	1	Samsung Electro-Mechanics	CL21A106KXNNE	Volume Production	Annet	82AC0387	0.059	0.059
	2.2uF	C0402 2.200 uF C0G 0.02 25 V	C9			Unknown server	1	HEMET	C0402C222G3GACTU	Volume Production	Mouser	80-C0402C222G3GACTU	0.98	0.98
	1uF	Cap Ceramic 1uF 25V X7R 25% Rad SMD 1206 -40°C Automotive T/R	C10			Unknown server	1	TDK	CGA5L2X7R1E105M60AD	Volume Production	Mouser	810-CGA5L2X7R1E105MD	0.38	0.38
	1uF	CAP 1uF 10V ±5% 1206 (3216 Metric) Thickness 1.3mm SMD	C11, C13			Unknown server	2	Vishay	VJ1206Y105JQC1WBC	Volume Production	Mouser	77-VJ1206Y105JQC1BC	0.47	0.94
	10uF	Tantalum Capacitor, 10uF, +/- 10%, 50 V, 45 to 125 degC, 2-Pin SMD (7343-43), Reqs: Tape and Reel	C12, C14			Unknown server	2	Vishay	293D100X80502TE3	Volume Production	Future Electronics	5103603	1.12	2.24
	10nF	C0201 10.000 uF X5R 30ppm/C 10.00% 10 V	C17			Unknown server	1	HEMET	C0201C103R6PACTU	Volume Production	Mouser	80-C0201C103R6P	0.17	0.17
	10uF Tantalum	CAP TANT 10uF 10% 20V 1411	C20			Unknown server	1	Vishay	293D100X80502TE3	Volume Production	Mouser	74-293D100X80502TE3	0.65	0.65
	30V 1A	Schottky Diode	D1, D2, D5, D7, D8			Not managed	5	Iskra	CL80S050-10FBS	Volume Production				
	LED3	LED GREEN CLEAR SMD	D3, D4, D6, D8, D10			Unknown server	5	Lite-On	LTSF-C1703KT	Volume Production	DigKey	180-1179-1-ND	0.1	0.5
	PEC12R-4225F-S0024	ROTARY ENCODER MECHANICAL 24PPR	ENC1			Unknown server	1	Bourns	PEC12R-4225F-S0024	Volume Production	Mouser	652-PEC12R-4225F-S24	1.48	1.48
	LMR16006VCGDC0RQ2	Integrated Circuit	IC1			Not managed	1	Texas Instruments	LMR16006VCGDC0RQ2	Volume Production	DigKey	296-42515-1-ND	3.49	3.49
	IP2271	Integrated Circuit	IC2			Not managed	1							
	ICL7662CBA-T	Integrated Circuit	IC3			Not managed	1	Analog Devices	ICL7662CBA-T	Volume Production	Newark	73Y1763	4.84	4.84
	61300511821		J1			Unknown server	1	Wurth Elektronik	61300511821		DigKey	732-61300511821-ND	0.32	0.32
	61300811821		J2			Unknown server	1	Wurth Elektronik	61300811821		DigKey	732-61300811821-ND	0.38	0.38
	691137710002		J3			Unknown server	1	Wurth Elektronik	691137710002		DigKey	732-10955-ND	0.36	0.36
	217175-0001	CONN RCP USB2.0 C6+18P SMD RA	J4			Unknown server	1	Molex	217175-0001	Volume Production	Annet	35AJ989	0.452	0.452
	691137710005		J5			Unknown server	1	Wurth Elektronik	691137710005		DigKey	732-10958-ND	1.02	1.02
	6.8uH	Wire Wound Ferrite Inductor for Power Lines For Automotive 6.8uH ±20% 0.168Q 1450mA 1212	L1			Unknown server	1	Murata	LDH3NH68RMEL	New Product	DigKey	490-LDH3NH68RMELCT-ND	0.37	0.37
	PR01-D130Q2-B203		PT1			Unknown server	1	Sarnes Sky	PR01-D130Q2-B203	Volume Production	Mouser	179-PT01-D130Q2-B203	0.78	0.78
	NCH60V6A	N-ch MOSFET, 60 V, 6.0 A, 0.036 Isd@10V, 50T, 323F (UFM)	Q1			Not managed	1	Toshiba	SSMB04A1TULFJB					
	10k	RES Thin Film, 10kQ, 0.1%, 0.063W, 50ppm/C, 0402	R1, R2			Unknown server	2	Venkel	TFOR0402-16W-C-1002BT	Volume Production				
	54.9k	RES Thin Film, 54.9kQ, 0.25%, 0.11W, 50ppm/C, 0603	R3			Unknown server	1	Venkel	TFOR0603-16W-C-5492CT-1K	Volume Production				
	750, 10k	Thin Film Chip Resistors Automotive Grade 10kQ 0.1% 50ppm/C, 0805	R4, R9			Unknown server	2	Yageo Group	AT0805BRE0710KL	Volume Production	Newark	484K4092	0.224	2.24
	750, 250	6.9kQ ±5% 0.125W 0805 Thick Film Chip Resistor AEC-Q200 compliant, 0805 250 Ohms 0.25W	R6, R10, R11			Unknown server	3	Stackpole Electronics	RMCF0805JB90	Volume Production	Mouser	708-RMCF0805JB90	0.013	0.13
	5.1k	RES Thin Film, 5.1kQ, 0.25%, 0.11W, 25ppm/C, 0603	R7, R8			Unknown server	2	Venkel	TFOR0603-10WE-5101CT-1K	Volume Production				
	165	RES Thin Film, 620Q, 0.25%, 0.11W, 25ppm/C, 0603	R12			Unknown server	1	Venkel	TFOR0603-10WE-6200CT	Volume Production				
	1k	RES 1.0K OHM 0.5% 1/5W 0805	R13			Unknown server	1	Vishay	MCL0805SP1001SP00	Volume Production				
	PTS6479C6SM1RL2FS	FACT 4.5 X 4.5, 3.8 MHz, 2.2kV	SW1, SW2, SW3, SW4, SW5			Unknown server	5	C&K Components	PTS6479C6SM1RL2FS	Volume Production	DigKey	PT56479C6SM1RL2FSCT-ND	0.26	1.3
	STM32F303C8T6	ARM Cortex-M0 32-bit MCU, 64 KB Flash, 4 KB Internal RAM, 39 I/Os, 48-Pin LQFP, -40 to 85 degC, Tape and Reel	U1			Unknown server	1	STMicroelectronics	STM32F303C8T6TR	Volume Production	Annet	75X0273	2.36	2.36
	MC0317-3.3VMS-TR	IC REG LINEAR 3.3V 150mA SCOT23 S	U2			Unknown server	1	Microchip	MC0317-3.3VMS-TR	Volume Production	Mouser	998-MC0317-3.3VMS-TR	0.22	0.22
	AD9833BRMZ	Low Power, 12.65 mW, 2.3 V to 5.5 V, Programmable VCO, 10-Bit Serial, RM-10, 50 Tube, Pb-Free	U3			Unknown server	1	Analog Devices	AD9833BRMZ	Volume Production	DigKey	505-AD9833BRMZ-ND	14.97	14.97
	LM058P	Dual Operational Amplifier, 3 to 32 V, 0 to 70 degC, 8-Pin PDIP (P), RoHS, Tape and Reel	U4			Unknown server	1	Texas Instruments	LM058P	Volume Production	DigKey	296-1395-5-ND	0.27	0.27
	QPS72-24MHz	83101002 VME SMD Crystal Oscillator	Y1			Unknown server	1	Wurth Elektronik	83101002		Farnell	4228795	1.45	1.45