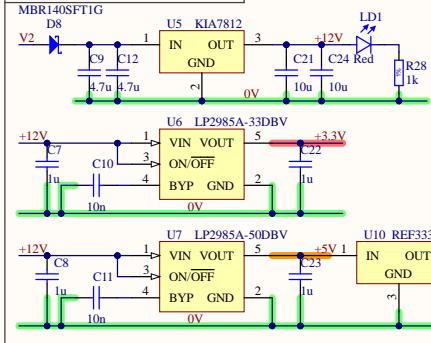
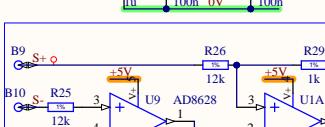
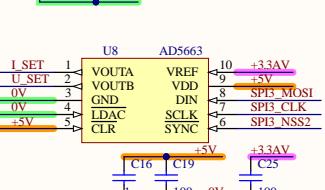
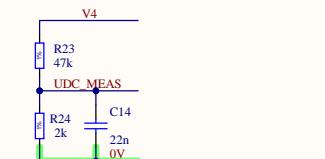
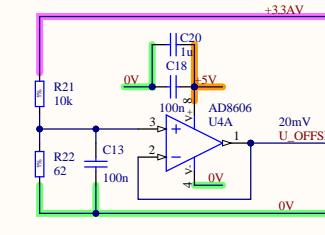
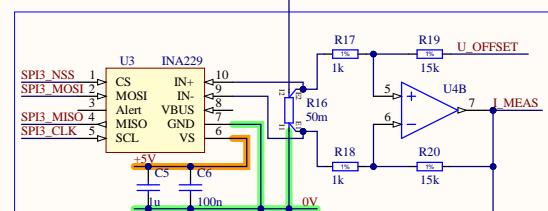
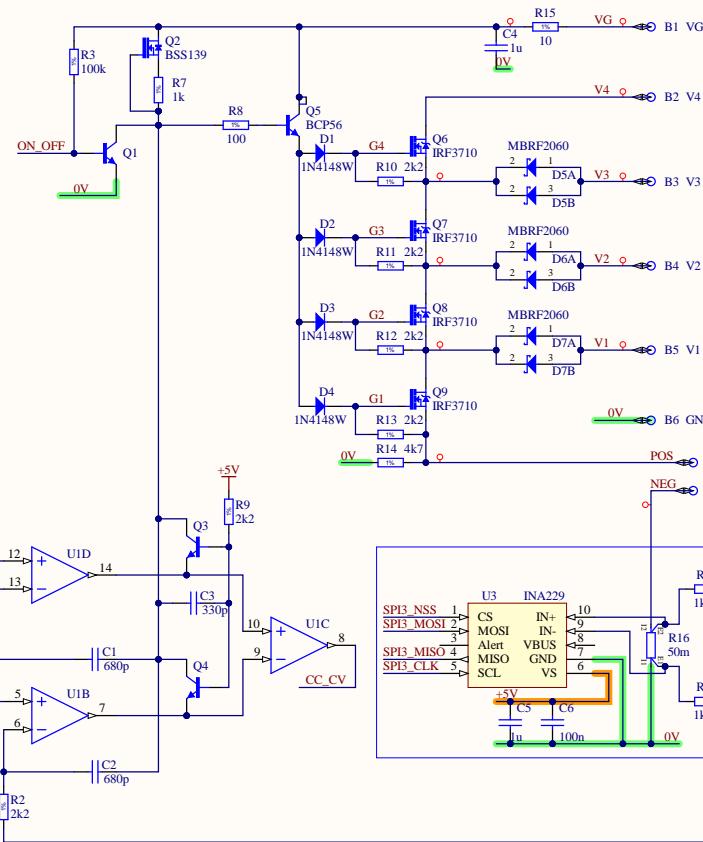


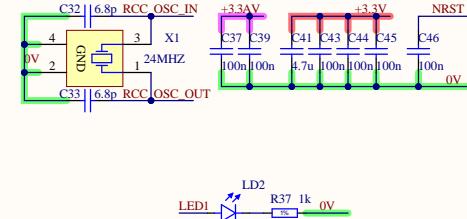
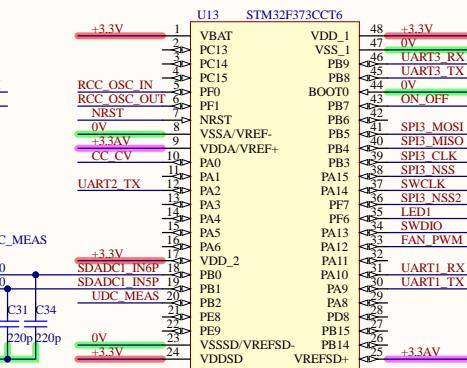
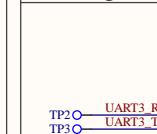
POWER SUPPLY



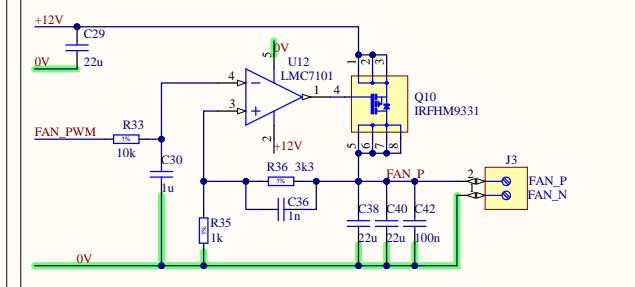
## Linear Regulator 36V 4A



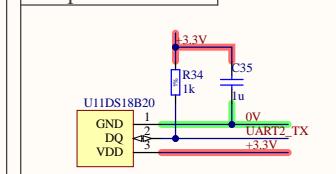
MCU Signal



Cooler Regulator



### Temperature sensor



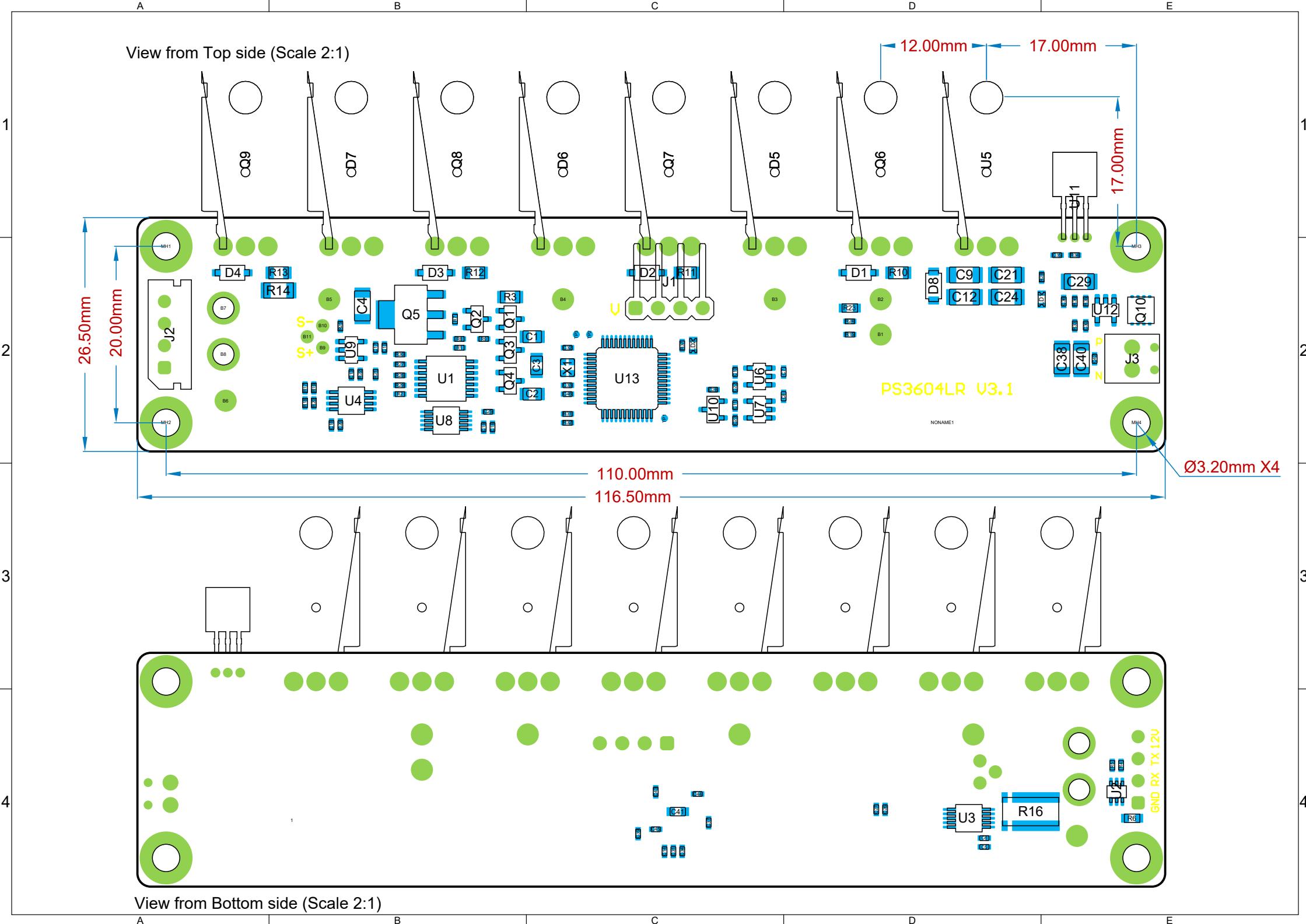
MH1  
MH2  
MH3  
MH4

Title **PS3604LR**

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Size: A3	Revision: 3.1	Ukraine Kharkiv Storozhenko Roman	
Date: 11/21/2024	Time: 23:59:16	Sheet 1 of 1	
File: PS3604LR_SchDopr...			

Designator	Comment	Footprint	Part Number	Part Description	Quantity
B1, B2, B3, B4 GND	VG, V4, V3, V2, V1	250H130	PLATED_HOLE1_3_PAD2.5	Plated Through Hole: Hole Dia > 2mm Pad Dia > 2.5mm	6
B7, B8	POS, NEG	4375R250	PLATED_HOLE2_5_PAD3.75	Plated Through Hole: Hole Dia > 2.5mm Pad Dia > 3.75mm	2
B9, B10, B11	Plated Hole	E150H100	PLATED_HOLE1_0_PAD1.5	Plated Through Hole: Hole Dia < 1mm Pad Dia > 1.5mm	3
C1, C2	68p	CAPC0212X135N	CO0806_68PF_50V_5%_NP0	SMD Multilayer Chip Ceramic Capacitor	2
C3	330p	CAPC0212X135N	CO0806_330PF_50V_5%_NP0	SMD Multilayer Chip Ceramic Capacitor	1
C4	1u	CAPC3216X140N	CC1206_1UF_100V_10%_X7R	SMD Multilayer Chip Ceramic Capacitor	1
C5, C7, C8, C15, C16, C20, C22, C23, C26, C28	1u	CAPC1005X5N	CC0402_1UF_10V_20%_X5R	SMD Multilayer Chip Ceramic Capacitor	12
C6, C13, C17, C18, C19, C25, C27, C37, C39, C42, C43, C44, C45, C46	100n	CAPC1005X5N	CC0402_100NF_50V_10%_X7R	SMD Multilayer Chip Ceramic Capacitor	14
D6, C12	4.7u	CAPC3216X140N	CC1206_4.7UF_50V_10%_X7R	SMD Multilayer Chip Ceramic Capacitor	4
C10, C11	10n	CAPC1005X5N	CC0402_10NF_50V_10%_X7R	SMD Multilayer Chip Ceramic Capacitor	2
C14	22n	CAPC1005X5N	CC0402_22nF_16V_10%_X7R	SMD Multilayer Chip Ceramic Capacitor	1
C21, C24	10u	CAPC3216X140N	CC1206_10UF_16V_10%_X7R	SMD Multilayer Chip Ceramic Capacitor	2
C29, C38, C40	22u	CAPC3216X140N	CC1206_22uF_16V_20%_X5R	SMD Multilayer Chip Ceramic Capacitor	3
C31, C34	220p	CAPC1005X5N	CC0402_220PF_50V_5%_NP0	SMD Multilayer Chip Ceramic Capacitor	2
C32, C33	6.8p	CAPC1005X5N	CC0402_6.8PF_50V_0.5%_NP0	SMD Multilayer Chip Ceramic Capacitor	2
C36	1n	CAPC1005X5N	CC0402_1nF_50V_5%_NP0	SMD Multilayer Chip Ceramic Capacitor	1
C41	4.7u	CAPC1408X8T	CC0603_4.7UF_10V_10%_X5R	SMD Multilayer Chip Ceramic Capacitor	1
D1, D2, D3, D4	I1414BW	S003715A145N	IN1414BW	Small Signal Diode	4
D5, D6, D7	MBR2060	TO-220-H-OUTSIDE	MBR872060CTG_h_outside	Switch-mode Schottky Power Rectifier Common Cathodes	3
D8	MBR1405H11G	SOD-128L	MBR1405H11G	Diode Schottky	1
J1	Header 4	3M_509550-0104-EU	3M_509550-0104-EU	10 Contacts - Horizontal Contacts Straight Strip Header Pitch 2.54	1
J2	SPOX	MOLEX_22-03-5045	MOLEX_22-03-5045	2.50mm Pitch SPOX Wire-to-Board Header, Vertical, Shrouded, 4 Circuits, Two Rows	1
J3		PHOENIX_1725656	PHOENIX_1725656	AA_A3V_Terminal Block, Pitch 2.54mm, 2 Positions, Screw Connection	1
J5	LED	LED160800LN_BED	LED-0.9W1608B	Surface Mount Red LED (0.9W 0.1A)	1
J6	Blue	LED160800LN_BLUE	LED-0.9W1608B	Surface Mount Blue LED (0.9W 0.1A)	1
MH1, MH2, MH3, MH4	Non Plated Hole	M161600H200V#P	NON-PLATED_HOLE2_2, PADA_0.8p	Through Hole: Hole Dia > 3 mm Pad Dia > 0.8mm	1
G1, G3, G4	MMBT5551	SOT1992A0X130-3N	MMBT5551L	160V 60mA NPN General Purpose Transistor	3
G2	SS139	SOT1992A0X110-3N	SS139	250V 1A N-Channel MOSFET Depletion mode	1
G5	BCP56	SOT230P70X0180-4N	BPZ56	80V NPN Medium Power Transistor	1
D6, G7, O8, O9	IRF3710	TO-220-H-OUTSIDE	IRF3710_H_outside	10V 5.5A 0.023 Ohm N-Channel Power MOSFET	4
D10	IRFH99331	2P0150P30X30X100EHS-N	IRFH99331TRPBF	-30V 11A 0.014 Ohm P-Channel MOSFET	1
R1, R2, R9	2k2	RESC1005X40N	RESC1005X40N	General Purpose Thick Film Chip Resistor	3
R3	100k	RESC2012X60N	RESC805_100K_1%_0.125W_100PP	General Purpose Thick Film Chip Resistor	1
R4, R5, R8, R31, R32	100	RESC1005X40N	RESC402_10R_1%_0.0625W_100PP	General Purpose Thick Film Chip Resistor	5
R6	10	RESC1608X5N	RESC603_10R_1%_0.1W_200PPM	General Purpose Thick Film Chip Resistor	1
R7, R17, R18, R26, R27, R29, R34, R35, R37	1k	RESC1005X40N	RESC402_1K_1%_0.0425W_100PP	General Purpose Thick Film Chip Resistor	9
R10, R11, R12	2k2	RESC2012X60N	RESC805_2K2_1%_0.125W_100PP	General Purpose Thick Film Chip Resistor	4
R13	2k2	RESC2012X60N	RESC2012X60N	General Purpose Thick Film Chip Resistor	1
R14	4.7	RESC3216X65N	RESC3216X65N	General Purpose Thick Film Chip Resistor	1
R15	10	RESC1005X40N	RESC402_10R_1%_0.0625W_200PP	General Purpose Thick Film Chip Resistor	1
R16	50m	FC4L64_OHM	FC4L64080F0ER	FC4L Four Terminal Current Sense Resistor	1
R19, R20	15k	RESC1005X40N	RESC402_15K_1%_0.0425W_100PP	General Purpose Thick Film Chip Resistor	2
R21, R23	10k	RESC1005X40N	RESC402_10R_1%_0.0425W_100PP	General Purpose Thick Film Chip Resistor	4
R22	62	RESC1005X40N	RESC402_62R_1%_0.0625W_100PP	General Purpose Thick Film Chip Resistor	1
R23	47k	RESC1608X5N	RESC603_47K_1%_0.1W_100PPM	General Purpose Thick Film Chip Resistor	1
R24	2k	RESC1005X40N	RESC402_2K_1%_0.0625W_100PP	General Purpose Thick Film Chip Resistor	1
R25, K27	12k	RESC1005X40N	RESC402_12K_1%_0.0625W_100PP	General Purpose Thick Film Chip Resistor	1
R36	3k3	RESC1005X40N	RESC402_3K3_1%_0.0625W_100PP	General Purpose Thick Film Chip Resistor	1
TP1, TP2, TP3	Test Point	TP_SMD_800	TP_SMD_0.8MM	0.8mm round SMD Pad	1
U1	A08608	SOP65P640X110-14N	AD8608ARUZ-REEL	Precision, Low Noise, CMOS, Rail-to-Rail, Input/Output Operational Amplifiers	1
U2	NUP4202	SOT1992A0X110-6N	NUP4202WV1	LEDO Transistor Diode, Low Clamping Voltage	1
U3	INA229	SOP502490X110-10N	INA229AIDGS	BS-V, 20-Bit, Ultra-Precise Power/Energy/Charge Monitor With 12-Bit ADC	1
U4	A08606	SOP65P640X110-8BN	AD8606ARM2-REEL	Precision, Low Noise, CMOS, Rail-to-Rail, Input/Output Operational Amplifiers	1
U5	XIA7812	TO-220-H-OUTSIDE	XIA7812APL_h_outside	3-Terminal 12V 1A Positive Voltage Regulator	1
U6	LP2985A-330BV	SOT1992A0X145-5N	LP2985A-330BV	3.3V, 150mA Low Noise Low-Dropout Regulator W/Half Shutdown	1
U7	LP2985A-500BV	SOT1992A0X145-5N	LP2985A-500BV	5V, 150mA Low Noise Low-Dropout Regulator W/Half Shutdown	1
U8	AD5663	SOP509490X110-8BN	AD5663BRMZ	12.5MHz ± 5% 1.8V to 5V to Rail Output, Data Sheet Dual 16-Bit DAC/mADC	1
U9	AD8628	SOT1992A0X145-5N	AD8628ARTZ	Zero-Drift, Single-Supply, Rail-to-Rail Input/Output Operational Amplifier	1
U10	REF3333AIDB2R	SOT1992A0X112-3N	REF3333AIDB2R	3.3V, 30ppm/°C Drift, 3.8uA, Voltage Reference	1
U11	D5188D0	TO-92-H-OUTSIDE	D5188D0_h_outside	Programmatic Resolution 1-Wire Digital Thermometer	1
U12	LMC7101	SOT1992A0X145-5N	LMC7101UMS/NOPB	1.1V, 1.2V, 1.3V, 1.4V, 1.5V, 1.6V, 1.7V, 1.8V, 1.9V, 2.0V, 2.1V, 2.2V, 2.3V, 2.4V, 2.5V, 2.6V, 2.7V, 2.8V, 2.9V, 3.0V, 3.1V, 3.2V, 3.3V, 3.4V, 3.5V, 3.6V, 3.7V, 3.8V, 3.9V, 4.0V, 4.1V, 4.2V, 4.3V, 4.4V, 4.5V, 4.6V, 4.7V, 4.8V, 4.9V, 5.0V, 5.1V, 5.2V, 5.3V, 5.4V, 5.5V, 5.6V, 5.7V, 5.8V, 5.9V, 6.0V, 6.1V, 6.2V, 6.3V, 6.4V, 6.5V, 6.6V, 6.7V, 6.8V, 6.9V, 7.0V, 7.1V, 7.2V, 7.3V, 7.4V, 7.5V, 7.6V, 7.7V, 7.8V, 7.9V, 8.0V, 8.1V, 8.2V, 8.3V, 8.4V, 8.5V, 8.6V, 8.7V, 8.8V, 8.9V, 9.0V, 9.1V, 9.2V, 9.3V, 9.4V, 9.5V, 9.6V, 9.7V, 9.8V, 9.9V, 10.0V, 10.1V, 10.2V, 10.3V, 10.4V, 10.5V, 10.6V, 10.7V, 10.8V, 10.9V, 11.0V, 11.1V, 11.2V, 11.3V, 11.4V, 11.5V, 11.6V, 11.7V, 11.8V, 11.9V, 12.0V, 12.1V, 12.2V, 12.3V, 12.4V, 12.5V, 12.6V, 12.7V, 12.8V, 12.9V, 13.0V, 13.1V, 13.2V, 13.3V, 13.4V, 13.5V, 13.6V, 13.7V, 13.8V, 13.9V, 14.0V, 14.1V, 14.2V, 14.3V, 14.4V, 14.5V, 14.6V, 14.7V, 14.8V, 14.9V, 15.0V, 15.1V, 15.2V, 15.3V, 15.4V, 15.5V, 15.6V, 15.7V, 15.8V, 15.9V, 16.0V, 16.1V, 16.2V, 16.3V, 16.4V, 16.5V, 16.6V, 16.7V, 16.8V, 16.9V, 17.0V, 17.1V, 17.2V, 17.3V, 17.4V, 17.5V, 17.6V, 17.7V, 17.8V, 17.9V, 18.0V, 18.1V, 18.2V, 18.3V, 18.4V, 18.5V, 18.6V, 18.7V, 18.8V, 18.9V, 19.0V, 19.1V, 19.2V, 19.3V, 19.4V, 19.5V, 19.6V, 19.7V, 19.8V, 19.9V, 20.0V, 20.1V, 20.2V, 20.3V, 20.4V, 20.5V, 20.6V, 20.7V, 20.8V, 20.9V, 21.0V, 21.1V, 21.2V, 21.3V, 21.4V, 21.5V, 21.6V, 21.7V, 21.8V, 21.9V, 22.0V, 22.1V, 22.2V, 22.3V, 22.4V, 22.5V, 22.6V, 22.7V, 22.8V, 22.9V, 23.0V, 23.1V, 23.2V, 23.3V, 23.4V, 23.5V, 23.6V, 23.7V, 23.8V, 23.9V, 24.0V, 24.1V, 24.2V, 24.3V, 24.4V, 24.5V, 24.6V, 24.7V, 24.8V, 24.9V, 25.0V, 25.1V, 25.2V, 25.3V, 25.4V, 25.5V, 25.6V, 25.7V, 25.8V, 25.9V, 26.0V, 26.1V, 26.2V, 26.3V, 26.4V, 26.5V, 26.6V, 26.7V, 26.8V, 26.9V, 27.0V, 27.1V, 27.2V, 27.3V, 27.4V, 27.5V, 27.6V, 27.7V, 27.8V, 27.9V, 28.0V, 28.1V, 28.2V, 28.3V, 28.4V, 28.5V, 28.6V, 28.7V, 28.8V, 28.9V, 29.0V, 29.1V, 29.2V, 29.3V, 29.4V, 29.5V, 29.6V, 29.7V, 29.8V, 29.9V, 30.0V, 30.1V, 30.2V, 30.3V, 30.4V, 30.5V, 30.6V, 30.7V, 30.8V, 30.9V, 31.0V, 31.1V, 31.2V, 31.3V, 31.4V, 31.5V, 31.6V, 31.7V, 31.8V, 31.9V, 32.0V, 32.1V, 32.2V, 32.3V, 32.4V, 32.5V, 32.6V, 32.7V, 32.8V, 32.9V, 33.0V, 33.1V, 33.2V, 33.3V, 33.4V, 33.5V, 33.6V, 33.7V, 33.8V, 33.9V, 34.0V, 34.1V, 34.2V, 34.3V, 34.4V, 34.5V, 34.6V, 34.7V, 34.8V, 34.9V, 35.0V, 35.1V, 35.2V, 35.3V, 35.4V, 35.5V, 35.6V, 35.7V, 35.8V, 35.9V, 36.0V, 36.1V, 36.2V, 36.3V, 36.4V, 36.5V, 36.6V, 36.7V, 36.8V, 36.9V, 37.0V, 37.1V, 37.2V, 37.3V, 37.4V, 37.5V, 37.6V, 37.7V, 37.8V, 37.9V, 38.0V, 38.1V, 38.2V, 38.3V, 38.4V, 38.5V, 38.6V, 38.7V, 38.8V, 38.9V, 39.0V, 39.1V, 39.2V, 39.3V, 39.4V, 39.5V, 39.6V, 39.7V, 39.8V, 39.9V, 40.0V, 40.1V, 40.2V, 40.3V, 40.4V, 40.5V, 40.6V, 40.7V, 40.8V, 40.9V, 41.0V, 41.1V, 41.2V, 41.3V, 41.4V, 41.5V, 41.6V, 41.7V, 41.8V, 41.9V, 42.0V, 42.1V, 42.2V, 42.3V, 42.4V, 42.5V, 42.6V, 42.7V, 42.8V, 42.9V, 43.0V, 43.1V, 43.2V, 43.3V, 43.4V, 43.5V, 43.6V, 43.7V, 43.8V, 43.9V, 44.0V, 44.1V, 44.2V, 44.3V, 44.4V, 44.5V, 44.6V, 44.7V, 44.8V, 44.9V, 45.0V, 45.1V, 45.2V, 45.3V, 45.4V, 45.5V, 45.6V, 45.7V, 45.8V, 45.9V, 46.0V, 46.1V, 46.2V, 46.3V, 46.4V, 46.5V, 46.6V, 46.7V, 46.8V, 46.9V, 47.0V, 47.1V, 47.2V, 47.3V, 47.4V, 47.5V, 47.6V, 47.7V, 47.8V, 47.9V, 48.0V, 48.1V, 48.2V, 48.3V, 48.4V, 48.5V, 48.6V, 48.7V, 48.8V, 48.9V, 49.0V, 49.1V, 49.2V, 49.3V, 49.4V, 49.5V, 49.6V, 49.7V, 49.8V, 49.9V, 50.0V, 50.1V, 50.2V, 50.3V, 50.4V, 50.5V, 50.6V, 50.7V, 50.8V, 50.9V, 51.0V, 51.1V, 51.2V, 51.3V, 51.4V, 51.5V, 51.6V, 51.7V, 51.8V, 51.9V, 52.0V, 52.1V, 52.2V, 52.3V, 52.4V, 52.5V, 52.6V, 52.7V, 52.8V, 52.9V, 53.0V, 53.1V, 53.2V, 53.3V, 53.4V, 53.5V, 53.6V, 53.7V, 53.8V, 53.9V, 54.0V, 54.1V, 54.2V, 54.3V, 54.4V, 54.5V, 54.6V, 54.7V, 54.8V, 54.9V, 55.0V, 55.1V, 55.2V, 55.3V, 55.4V, 55.5V, 55.6V, 55.7V, 55.8V, 55.9V, 56.0V, 56.1V, 56.2V, 56.3V, 56.4V, 56.5V, 56.6V, 56.7V, 56.8V, 56.9V, 57.0V, 57.1V, 57.2V, 57.3V, 57.4V, 57.5V, 57.6V, 57.7V, 57.8V, 57.9V, 58.0V, 58.1V, 58.2V, 58.3V, 58.4V, 58.5V, 58.6V, 58.7V, 58.8V, 58.9V, 59.0V, 59.1V, 59.2V, 59.3V, 59.4V, 59.5V, 59.6V, 59.7V, 59.8V, 59.9V, 60.0V, 60.1V, 60.2V, 60.3V, 60.4V, 60.5V, 60.6V, 60.7V, 60.8V, 60.9V, 61.0V, 61.1V, 61.2V, 61.3V, 61.4V, 61.5V, 61.6V, 61.7V, 61.8V, 61.9V, 62.0V, 62.1V, 62.2V, 62.3V, 62.4V, 62.5V, 62.6V, 62.7V, 62.8V, 62.9V, 63.0V, 63.1V, 63.2V, 63.3V, 63.4V, 63.5V, 63.6V, 63.7V, 63.8V, 63.9V, 64.0V, 64.1V, 64.2V, 64.3V, 64.4V, 64.5V, 64.6V, 64.7V, 64.8V, 64.9V, 65.0V, 65.1V, 65.2V, 65.3V, 65.4V, 65.5V, 65.6V, 65.7V, 65.8V, 65.9V, 66.0V, 66.1V, 66.2V, 66.3V, 66.4V, 66.5V, 66.6V, 66.7V, 66.8V, 66.9V, 67.0V, 67.1V, 67.2V, 67.3V, 67.4V, 67.5V, 67.6V, 67.7V, 67.8V, 67.9V, 68.0V, 68.1V, 68.2V, 68.3V, 68.4V, 68.5V, 68.6V, 68.7V, 68.8V, 68.9V, 69.0V, 69.1V, 69.2V, 69.3V, 69.4V, 69.5V, 69.6V, 69.7V, 69.8V, 69.9V, 70.0V, 70.1V, 70.2V, 70.3V, 70.4V, 70.5V, 70.6V, 70.7V, 70.8V, 70.9V, 71.0V, 71.1V, 71.2V, 71.3V, 71.4V, 71.5V, 71.6V, 71.7V, 71.8V, 71.9V, 72.0V, 72.1V, 72.2V, 72.3V, 72.4V, 72.5V, 72.6V, 72.7V, 72.8V, 72.9V, 73.0V, 73.1V, 73.2V, 73.3V, 73.4V, 73.5V, 73.6V, 73.7V, 73.8V, 73.9V, 74.0V, 74.1V, 74.2V, 74.3V, 74.4V, 74.5V, 74.6V, 74.7V, 74.8V, 74.9V, 75.0V, 75.1V, 75.2V, 75.3V, 75.4V, 75.5V, 75.6V, 75.7V, 75.8V, 75.9V, 76.0V, 76.1V, 76.2V, 76.3V, 76.4V, 76.5V, 76.6V, 76.7V, 76.8V, 76.9V, 77.0V, 77.1V, 77.2V, 77.3V, 77.4V, 77.5V, 77.6V, 77.7V, 77.8V, 77.9V, 78.0V, 78.1V, 78.2V, 78.3V, 78.4V, 78.5V, 78.6V, 78.7V, 78.8V, 78.9V, 79.0V, 79.1V, 79.2V, 79.3V, 79.4V, 79.5V, 79.6V, 79.7V, 79.8V, 79.9V, 80.0V, 80.1V, 80.2V, 80.3V, 80.4V, 80.5V, 80.6V, 80.7V, 80.8V, 80.9V, 81.0V, 81.1V, 81.2V, 81.3V, 81.4V, 81.5V, 81.6V, 81.7V, 81.8V, 81.9V, 82.0V, 82.1V, 82.2V, 82.3V, 82.4V, 82.5V, 82.6V, 82.7V, 82.8V, 82.9V, 83.0V, 83.1V, 83.2V, 83.3V, 83.4V, 83.5V, 83.6V, 83.7V, 83.8V, 83.9V, 84.0V, 84.1V, 84.2V, 84.3V, 84.4V, 84.5V, 84.6V, 8	



A

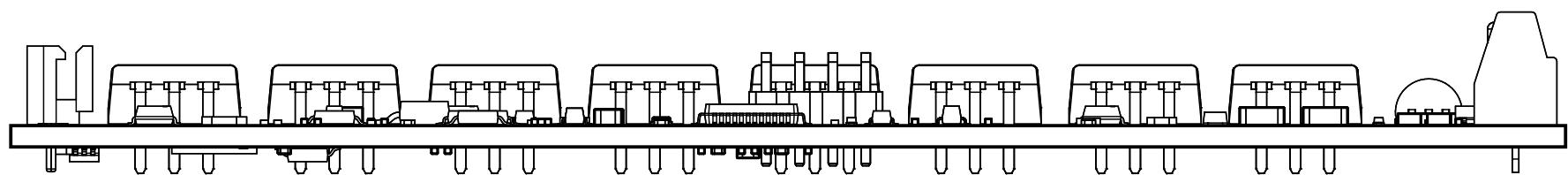
B

C

D

E

View from Front side (Scale 2:1)



A

B

C

D

E

