

Alameda (MAXREFDES24#) BOM RevB

Designation	Qty	Description
C1, C2, C5, C9, C10, C13, C17, C18, C21, C25, C26, C29, C35, C37-C44, C57	22	0.1uF 10%, 16V, X7R ceramic capacitors (0402) Murata GRM155R71C104K
C3, C4, C6, C7, C11, C12, C14, C15, C19, C20, C22, C23, C27, C28, C30, C31, C50, C54	18	0.1uF 10%, 50V, X7R ceramic capacitors (0603) Murata GRM188R71H104K
C33, C45, C46, C51-C53, C59	7	10uF 10%, 50V, X7R ceramic capacitors (1210) Murata GRM32ER71H106K
C34, C47, C55	3	1uF 10%, 25V, X7R ceramic capacitors (0603) Murata GRM188R71E105K
C36, C58	2	4.7uF 10%, 16V, X7R ceramic capacitors (0805) Murata GRM21BR71C475K
C48	1	22pF 5%, 50V, C0G ceramic capacitor (0603) Murata GRM1885C1H220J
C49	1	1000pF 5%, 25V, C0G ceramic capacitor (0603) Murata GRM1885C1E102J
C56	1	0.01uF 10%, 25V, X7R ceramic capacitors (0603) Murata GRM188R71E103K
C60-C62	3	220pF 5%, 50V, C0G ceramic capacitors (0805) Murata GRM2165C1H221J
C63	1	1000pF 10%, 2000V, X7R ceramic capacitor (1808) TDK C4520X7R3D102K130KA
D1	1	Red LED (0603) OSRAM LS L29K-G1J2-1-Z
D2-D5, D7-D10	8	3.12V 500mW zener diodes (SOD-323F) Diodes Inc. DDZ3V0BSF-7
D6, D11	2	40V 350mA schottky diodes (SOD-123) Diodes Inc. SD103AW-13-F
D12	1	30V 500mW zener diode (SOD-123) Diodes Inc. BZT52C30-7-F
D13-D16	4	100V 1A schottky diodes (SOD-123) Micro commercial SMD110PL-TP
D17	1	20V 0.5A schottky diode (SOD-123) Fairchild MBR0520L
D18	1	1.24-18V shunt voltage reference (SOT-23-3) Diodes Inc. TLV431BFTA
FB1, FB2	2	600 ohm@100MHz ferrite beads (0603) TDK MMZ1608B601C
J1, J4	2	2 x 6 right angle male header PMOD compatible Samtec TSW-106-08-S-D-RA
JU1-JU8	8	3-pin headers (strip, cut to fit) MOLEX 22-28-4363
Q1	1	Optocoupler transistor (SOIC 4) Avago ACPL-217-56AE
R1	1	1.5k ohm 5% resistor (0402)

R8, R9	2	1k ohm 5% resistors (0402)
R10	1	68k ohm 1% resistor (0603)
R11, R18	2	22k ohm 1% resistors (0603)
R12	1	32.4k ohm 1% resistor (0603)
R13	1	249k ohm 1% resistor (0603)
R14	1	6.8k ohm 1% resistor (0603)
R15, R20	2	10k ohm 1% resistors (0603)
R16	1	470 ohm 1% resistor (0603)
R17	1	5.6k ohm 1% resistor (0603)
R19	1	1.2k ohm 1% resistor (0603)
R22	1	0 ohm 5% resistor (0402)
R23-R25	3	100 ohm 5% resistors (1206)
RS1, RS3, RS5, RS7	4	42.2 ohm 0.1% sense resistor IRC RC55LF-D-42R2-B-B
RS2, RS4, RS6, RS8	4	48.7 ohm 0.1% sense resistor IRC RC55LF-D-48R7-B-B
T1	1	19:26:26:9 transformer (10 pin) Coilcraft PA6651-AL or Pulse Electronics PA4013NL
OUT1, OUT2, OUT3, OUT4, +24V	5	Red multipurpose test points Keystone 5010
AGND1, AGND2, AGND3, AGND4, PGND	5	Black multipurpose test points Keystone 5011
U1-U4	4	Industrial Analog Current/Voltage-Output Conditioner (32 TQFN-EP) Maxim MAX15500GTJ+
U5	1	16-Bit Quad Voltage Output DAC (16 TSSOP) Maxim MAX5134AGUE+
U6	1	Ultra-High-Precision, Ultra-Low-Noise, Voltage Reference (8 SO) Maxim MAX6126AASA41+
U7	1	Six-Channel Digital Isolator (16 SO) Maxim MAX14850ASE+
U8	1	DC-DC Peak Current-Mode Converter (16 TQFN-EP) Maxim MAX17498BATE+
U9	1	350mA, 16.5V Input, Low-Dropout Linear Regulator (8 SO) Maxim MAX1659ESA+
---	8	Shunts
CC1-CC4	0	Not installed, ceramic capacitor (0603)
C8, C16, C24, C32	0	Not installed, ceramic capacitor (0805)
EXT_8V, EXT_AVDD, EXT_AVSS, EXT_GND	0	Not installed, test point (Keystone 5010)
R2-R5	0	Not installed, resistor (0603)
R6, R7, R21	0	Not installed, resistor (0402)
MON1-MON4	0	Not installed, test point (Keystone 5010)
---	1	PC board: Alameda (MAXREFDES24#) 4-Channel High Accuracy Analog Current/Voltage Output