

[SCZ4006KTAC23-EVK-A13] BOM



[Power Board]

Sl.No	Designator	Value	Description	Package	Quantity	Manufacturer	Part Number
1	C1, C2, C3, C4, C5, C8	1μF	SMD,630V,10%, X7R	2220	6	TDK	CAA572X7T2J105M640LH
2	C6	1μF	SMD,35V,10%, X7R	0603	1	TDK	CGA3E1X7R1V105K080AC
3	C7	10μF	SMD,25V,10%,0805, X7S	0805	1	TDK	C2012X7S1E106K125AE
4	C9	0.1μF	SMD, 50V,10%,0402, X7R	0402	1	TDK	CGA2B3X7R1H104K050BB
5	C10	1μF	SMD,16V,10%,0805, X7R	0805	1	KEMET	C0805C105K4RACAUTO
6	C11	10nF	SMD,16V,5%,0805, U2J	0805	1	KEMET	C0805C103J4JACTU
7	C12, C13, C14, C15, C16, C17	DNP	-	-	6	-	DNP
8	D1, D2, D3, D4, D5, D6	40V,1A	40V 1A 2-Pin, SMD, Schottky	SOD-123F	6	ROHM	RB160MM-40TR
9	F1	Fuse Holder	63A, TH, Fuse Holder	-	1	Littelfuse	01240040H
10	HS1	LAM 5 170 24V ME	24V, ME,170mm x 50mm x 50mm,	-	1	Fischer Elektronik	LAM 5 170 24V ME
11	J1, J5, J10, J17, J24	74650074R	50A, Screw Terminal, TH	M4	5	Würth Elektronik	74650074R
12	J2, J3, J8, J9, J13, J14, J19, J20	73415-2061	RF Connector,170V	-	8	MOLEX	0734152061
13	J4, J6, J7, J11, J15, J16, J18, J21, J22, J25, J26, J29	79107-7005	TH Connector,12 position's,1A,125V	-	12	MOLEX	79107-7005
14	J12	79107-7068	Connector, TH,38 positions	-	1	MOLEX	79107-7068
15	J23	67997-438HLF	Connector, TH,38 positions,5A	-	1	MOLEX	67997-438HLF

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Sl.No	Designator	Value	Description	Package	Quantity	Manufacturer	Part Number
16	J27, J28	DIP 5.08x2N	Connector, TH,2 positions,3A,250V	-	2	MOLEX	22-03-5025
17	LD1	Diode_LED	GREEN LED	0603	1	ROHM	SML-D12P8WT86
18	Q1, Q2, Q3	SCZ4006KTAC23	DOT247-7L, -55°C ~ 150°C,1200V,130A	DOT247-7L	3	ROHM	SCZ4006KTAC23
19	R1, R2, R3	1mOhm	Shunt Resistor, SMD, 1% ,8W	2512	3	ROHM	PSR100KTQFH1L00
20	R4, R5, R6, R7, R8, R17, R19, R20, R21, R22, R24, R26, R27, R28, R29	300K	SMD,1% ,400mW	0805	15	ROHM	ESR10EZPJ304
21	R9	470R	SMD ,0.5%,500mW	0805	1	ROHM	ESR10EZPD4700
22	R10, R23, R30	360R	SMD, 5%,500mW	0805	3	ROHM	ESR10EZPJ361
23	R11, R12, R13, R14, R15, R25	12K	SMD,0.5%,250mW	0603	6	ROHM	ESR03EZPD1202
24	R16	10K	SMD,0.5%,150V,400mW	0805	1	ROHM	ESR10EZPD1002
25	R18	56R	SMD, 0.5%,150V,500mW	0805	1	ROHM	ESR10EZPD56R0
26	U1	NME1205SC	Isolated DC/DC Converters - 1W, 12-5V,200mA	(SIP-4)	1	Murata	NME1205SC
27	U2	SN74HCS240QPWRQ1	buffers and line drivers with 3-state outputs -40 to 125C,	TSSOP -20	1	Texas Instruments	SN74HCS240QPWRQ1
28	F	Cooling Fan	24VDC	50X20mm	1	Wakefield-Vette	DC0502024M2B-2T0
29	Clip	Spring Clip	Retaining Spring for MOSFETs	-	6	Fischer Elektronik	THFM 1

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[Gate driver Board]

SI.No	Designator	Value	Description	Package	Quantity	Manufacturer	Part Number
1	C1, C2, C4	10μF	35V,20%, X7R, AEC-Q200, SMD	1206	18	TDK	CGA5L1X7R1V106M160AC
2	C3, C9, C13	0.1μF	50V,10%, X7R, AEC-Q200, SMD	0402	18	TDK	CGA2B3X7R1H104K050BB
3	C6, C10, C11	1μF	35V,10%,X7R, AEC-Q200, SMD	0603	18	TDK	CGA3E1X7R1V105K080AC
4	C5	DNP	-	-	6	-	-
5	C7, C8	1000pF	50V,10%,X7R, AEC-Q200, SMD,	0603	12	Murata	GCM188R71H102KA37J
6	C12	10μF	SMD, 25V,10%, X7S	0805	6	KEMET	C2012X7S1E106K125AE
7	D1, D3	60V,1A	SMD, Schottky,60V,1A	SOD-323HE-2	12	ROHM	RB160VAM-60TR
8	D2	40V,1A	Diode, SMD, Schottky,40V,1A	SOD-123FL	6	ROHM	RB160MM-40TR
9	J1	1511193112	Connector, TH,12 positions,2A		6	MOLEX	1511193112
10	L1	200 Ohms Impedance	Common Mode Choke 500mA		6	Murata	DLW21PH201XQ2L
11	LD1	LED	SMD Green 2.5-16 mcd	0603	6	ROHM	SML_D12P8WT86
12	R1, R3	10R	SMD,1%,1206,200V,750 mW	1206	12	ROHM	ESR18EZPF10R0
13	R2, R4, R8	100R	SMD, 1%,150V,500mW	0805	18	ROHM	ESR10EZPF1000
14	R5	4.7k	SMD, 0.5%,150V,400mW	0805	6	ROHM	ESR10EZPD4701
15	R6	0R	SMD,0R,5%,1W	1206	6	ROHM	PMR18EZPJ000
16	R7	470R	SMD,0.5%,150V,500 mW	0805	6	ROHM	ESR10EZPD4700
17	U1	DC/DC TH 12-18/2.5V	Isolated DC/DC Converters - Through TH 12-18/2.5V 5.2KVSM	7-SIP Module, 5 Leads	6	Murata	MGJ2D121802SC
18	U2	1ch isolated Gate Driver	Gate Drivers Isolation Voltage 3750Vrms providing Galvanic Isolation	SSOP-B10W	6	ROHM	BM61S41RFV-CE2
19	U3	200mA ,5.0V	LDO Voltage Regulators 200mA, 5.0V out	SOT223-4	6	ROHM	BD450M2WEFJ-CE2

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[Sensing Board]

SI no	Designator	Value	Description	Package	Quantity	Manufacturer	Manufacturer Part Number
1	C1, C2, C12, C16, C17	1 μ F	SMD,16V, \pm 5%, X7R	0805	30	KEMET	C0805C105J4RAC7210
2	C3, C4, C5, C6	0.1 μ F	SMD,16V,5%, U2J	0805	24	KEMET	C0805C104J4JACAUTO
3	C7, C9	820pF	SMD, 50V,5%,C0G	0805	12	KEMET	C0805C821J5GACAUTO
4	C8	10pF	SMD, 16V,10%,X8R	0805	6	KEMET	C0805C100K4HACAUTO
5	C10, C14, C15	100nF	SMD,16V, \pm 5%, X7R	0805	18	KEMET	C0805C104J4RACTU
6	C11	10nF	SMD,16V,2%, X8R	0805	6	KEMET	C0805C103G4HACAUTO
7	C13	10 μ F	SMD,16V, 10%, X5R	0805	6	Murata	GRT21BR61C106KE01L
8	J1	1511193112	Connector, TH,12 positions,2A	-	6	Molex	1511193112
9	R1, R2, R13	0R	SMD,0R,100mW,50V	0603	18	ROHM	SFR03EZPJ000
10	R3, R6	39K	SMD, \pm 5%,0.4W	0805	12	ROHM	ESR10EZPJ393
11	R4, R5	18K	SMD, 5%,0.4W,150V	0805	12	ROHM	ESR10EZPJ183
12	R7, R9	8.2K	SMD, \pm 1%,0.4W,150V	0805	12	ROHM	ESR10EZPF8201
13	R8	1K	SMD, \pm 1%,0.4W,150V	0805	6	ROHM	ESR10EZPF1001
14	R10	1.6K	SMD, \pm 5%,0.4W,150V	0805	6	ROHM	ESR10EZPJ162
15	R11	3.3K	SMD, \pm 1%,0.4W,150V	0805	6	ROHM	ESR10EZPF3301
16	R12	10K	SMD, \pm 5%,0.4W	0805	6	ROHM	ESR10EZPF1002
17	U1	Amplifiers	Optically Isolated Amplifiers	SOIC-8	6	Toshiba	TLP7820
18	U2	Operational Amplifiers	Op Amps 5uV Offset Voltage	SSOP5	6	ROHM	LMR1802G-LBTR
19	U3	SHUNT REGULATOR	TLV431BQDBZRQ1, \pm 0.5%,SOT-23-3,15 mA-40 $^{\circ}$ C ~ 125 $^{\circ}$ C (TA)	SOT-23-3	6	Texas Instruments	TLV431BQDBZRQ1
20	U4	DC/DC	Isolated DC/DC Converters, SM 1W 12V-5V Single 4.2kV	(SOP-8)	6	Murata	NXJ1S1205MC-R13

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