

Designator	Part Number	Manufacturer	Quantity	Comment	Description	Footprint
C1C1, C1C2, C1C3, C1C4	C0805C1022GCAU10	KEMET	4	1 nF	MLCC Ceramic 1 nF 200 V 5% Capacitor	CAP 0805_2012
C2C1, C2C2, C2C3, C2C4	C0805C10K5GEC7210	KEMET	4	10 nF	MLCC Ceramic 10 nF 50 V 10% Capacitor	CAP 0805_2012
C3C1, C3C2, C3C3, C3C4, C18, C24, C26	0805C10K4Z2A, 0805YC10K4AT4A	AVX	7	100 nF	MLCC Ceramic 100 nF 50 V 10% Capacitor, MLCC Ceramic 100 nF 16 V 10% Capacitor	CAP 0805_2012
C4, C11, C13, C15, C16, C17, C28, C29, C31, C34, C36	0603YC10K4AT2A, 0603SC10K4Z2A	AVX	11	100 nF	MLCC Ceramic 100 nF 16 V 10% Capacitor, MLCC Ceramic 100 nF 50 V 10% Capacitor	CAP 0603_1608
C5, C6, C7, C8	0603A102AT4A	AVX	4	1 nF	MLCC Ceramic 1 nF 10 V 5% Capacitor	CAP 0603_1608
C9, C10	0603SA68RCAT4A	AVX	2	6.8 pF	MLCC Ceramic 6.8pF 50V 0.25 pF Capacitor	CAP 0603_1608
C12, C33	0603YC10K4AT2A, 0603C10K4AT4A	AVX	2	1 uF	MLCC Ceramic 1 uF 16 V 10% Capacitor, MLCC Ceramic 1 uF 25 V 10% Capacitor	CAP 0603_1608
C14	GRM18B71A475ME1SD	Murata	1	4.7 uF	MLCC Ceramic 4.7 uF 10 V 20% Capacitor	CAP 0603_1608
C19	H80A630ARA220MF80G	United Chemi-Con	1	22 uF	Aluminum Electrolytic 22 uF 63 V 20% Capacitor	CAP AL3MD 6.3MM H7_7MM
C20	1206SC25K4T2A	AVX	1	2.2 uF	MLCC Ceramic 2.2 uF 50 V 10% Capacitor	CAP 1206_3216-1.8MM
C21, C22	1206YC10K4T2A	AVX	2	10 uF	MLCC Ceramic 10 uF 16 V 10% Capacitor	CAP 1206_3216-1.8MM
C23, C25, C27, C35	0805YC10M4AT2A	AVX	4	10 uF	MLCC Ceramic 10 uF 25 V 20% Capacitor	CAP 0805_2012
C30, C32	0805YC10K4AT4A	AVX	2	1 uF	MLCC Ceramic 1 uF 16 V 10% Capacitor	CAP 0805_2012
C37, C39	06031A68RF AT2A	AVX	2	68 pF	MLCC Ceramic 68 pF 100 V 1% Capacitor	CAP 0603_1608
C38	06031U47RF AT2A	AVX	1	47 pF	MLCC Ceramic 47 pF 100 V 1% Capacitor	CAP 0603_1608
C40	C0603C1034GACTU	KEMET	1	10 nF	MLCC Ceramic 10 nF 16 V 5% Capacitor	CAP 0603_1608
D1C1, D1C2, D1C3, D1C4, D5C1, D5C2, D5C3, D5C4	BAT46FILM	STMicroelectronics	8	BAT46FILM	Schottky Diode	SOD323
D2C1, D2C2, D2C3, D2C4, D4C1, D4C2, D4C3, D4C4	CDSU101A-HF	Comchip Technology	8	CDSU101A-HF	General Purpose Diode	SOD523F
D3C1, D3C2, D3C3, D3C4	SM6139CAY	STMicroelectronics	4	SM6139CAY	TVS Diode	DO214AA 5MB
D6C1, D6C2, D6C3, D6C4	82X38AC3V3-E3-08	Vishay	4	82X38AC3V3-E3-08	Zener Diode 3.3 V 200 mW	SOD323
D7	1MBK75240B5-7-F	Diodes Incorporated	1	1MBK75240B5-7-F	Zener 20 mW 10V	SOD-123
D8	1MBR140	ON Semiconductor	1	1MBR140	Schottky Rectifier Diode	DO214AC 5MA
D9, D10	1MBR0520L	ON Semiconductor	2	1MBR0520L	Schottky Rectifier Diode	SOD-123
D11	CD50T23-SM712	Bourns	1	CD50T23-SM712	CAN bus TVS diode	BOURNS SOT-23-3
F1	NANOASMD012F-2	Littelfuse	1	NANOASMD012F-2	PP-TC, 1DA 48V Nano SMD AEC-Q200	PPTC_1206_1MM
FB1C1, FB1C2, FB1C3, FB1C4, FB2C1, FB2C2, FB2C3, FB2C4, FB3	BLM21SP601SH1D	Murata Electronics	9	600 Ohms	Ferrite bead	FER 0805_2012
IC1	ZXMP10A18GTA	Diodes Incorporated	1	ZXMP10A18GTA	MOSFET 100V P-Channel UMOS	DIODES SOT-223
IC1, IC2, IC3, IC4, J3	1757475	Phoenix Contact	5	1757475	Pluggable Terminal Blocks 2 Pos 5mm pitch Through Hole Header	MTSBA2
J2	SHF-105-01-L-D-TH	Samtec	1	SHF-105-01-L-D-TH	Shrouded Terminal Strip, 0.050 pitch	SHF-105-01-X-D-TH
J4	DSUB1537613	Harting	1	DSUB1537613	DSUB 5V FE 50DP ANG-US ORP A13	DSUB9
JP1, JP2	61300211121	Würth Elektronik	2	61300211121	Connector Header Through Hole 2 position 0.100 (2.54mm)	JUMPER-100
L1	SRR1210-680M	Bourns	1	68 uH	Shielded SMD Power Inductor 68 uH 3 A	SRR1210
L2	ACT45B-510-2P-TL003	TDK	1	51 uH	CAN Bus Common Choke	TDK_ACT45B
LED1, LED2	APT01608JGCK	Kingbright	2	APT01608JGCK	SMD Low Current Green LED	LED 0603_1608 GREEN
LED3, LED4	APT01608JSECK	Kingbright	2	APT01608JSECK	SMD Low Current Red LED	LED 0603_1608 RED
OTC1, OTC2, OTC3, OTC4	MMBT3906-215	Nexperia	4	MMBT3906-215	PNP BJT Switching Transistor	NEXPERIA SOT-23-3
RTC1, RTC2, RTC3, RTC4	PA70B05E25R0BS11	Vishay	4	25 Ohms	Thin Film Resistor 25 Ohms 0.1%	RES 0805_2012
R2C1, R2C2, R2C3, R2C4, R3C1, R3C2, R2C3, R3C4	CRCW080510K0FKKEAC	Vishay / Dale	8	10 kOhms	Thin Film Resistor 10 kOhms 1%	RES 0805_2012
R4C1, R4C2, R4C3, R4C4	CRCW0805100R0FKKEAC	Vishay / Dale	4	100 Ohms	Thin Film Resistor 100 Ohms 1%	RES 0805_2012
R5, R7, R9, R11	CRCW0603620K0FKKEAC	Vishay / Dale	4	62 kOhms	Thin Film Resistor 62 kOhms 1%	RES 0603_1608
R6, R8, R10, R12	3224W-1-103G	Bourns	4	10 kOhms	Inline Multiturn 10 kOhms 10% potentiometer	POT BOURNS TRIMPOT 3224W
R13, R14, R16, R24, R25, R26	CRCW060310K0FKKEAC	Vishay / Dale	6	10 kOhms	Thin Film Resistor 10 kOhms 1%	RES 0603_1608
R15	CRCW0805110K0FKKEAC	Vishay / Dale	1	110 kOhms	Thin Film Resistor 110 kOhms 1%	RES 0805_2012
R16	CRCW080528K0FKKEAC	Vishay / Dale	1	28 kOhms	Thin Film Resistor 28 kOhms 1%	RES 0805_2012
R17	CRCW080520K0FKKEAC	Vishay / Dale	1	20 kOhms	Thin Film Resistor 20 kOhms 1%	RES 0805_2012
R19, R20	CRCW1206590R0FKKEA	Vishay / Dale	2	59 Ohms	Thin Film Resistor 59 Ohms 1%	RES 1206_3216
R21, R22, R23	CRCW0603431K0FKKEAC	Vishay / Dale	3	4.3 kOhms	Thin Film Resistor 4.3 kOhms 1%	RES 0603_1608
T1	760390014	Würth Elektronik	1	760390014	MLD-PP11 Push-Pull Transformer for TI SN650X	WE7603900XX
UTC1, UTC2, UTC3, UTC4	HCNR200-550E	Broadcom / Avago	4	HCNR200-550E	HCNR200 High-Linearity Analog Optocoupler	HCNR200
U2C1, U2C2, U2C3, U2C4	OPA388DBVR	Texas Instruments	4	OPA388DBVR	OPA388 Zero-Drift, Zero-Crossover, Low Offset, Precision Rail-to-Rail I/O Opamp	TI SOT-23-5 DBV
U3	OPA4388PWR	Texas Instruments	1	OPA4388PWR	OPA4388 Zero-Drift, Zero-Crossover, Low Offset, Precision Rail-to-Rail I/O Opamp	TI TSSOP-14 PW
U4	STM32G431K8T6	STMicroelectronics	1	STM32G431K8T6	STM32G431 ARM Cortex-M4 170MHz MCU	LQFP32ST
U5	LMR1401QA	Texas Instruments	1	LMR1401QA	4-V to 40-V, 1-A Step-Down Converter With High Efficiency Eco-mode	TI SOT-23-6 DDC
U6	SN6505B	Texas Instruments	1	SN6505B	Low-Noise 1-A Transformer Drivers for Isolated Power Supplies	TI SOT-23-6 DBV
U7	TPS7A350DBVR	Texas Instruments	1	TPS7A350DBVR	Low-Power, 150-mA, Low-Dropout Linear Regulator	TI SOT-23-5 DBV
U8, U9	TLV70233DBVR	Texas Instruments	2	TLV70233DBVR	TLV702 300-mA, Low- I_{Q} , Low-Dropout Regulator	TI SOT-23-5 DBV
U10	ISO1042DWR	Texas Instruments	1	ISO1042DWR	Isolated CAN I/O Transceiver	TI DM76_N
U11	TMP107SDGR	Texas Instruments	1	TMP107SDGR	TMP1075 Temperature Sensor With I2C and SMBus Interface	TI VSSOP-8 DCK
Y1	ABM8W-24.000MHZ-8-B1U-13	ABRACON	1	24 MHz	24MHz 8pF -20C +70C 20ppm Crystal Oscillator	ABM8G