

Bill of Materials

Item Qty		Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
	!PCB		Printed Circuit Board		Printed Circuit Board			
	C4	470nF	CAP, CERM, 470nF	Taiyo Yuden	EMK107F474ZA-T		0603	Digikey Product Page
	R18	2.2k	RES, 2.2kohm, x%, xW, [PackageReference],	Panasonic Electronic Components	ERJ-3GEYJ222V		0603	Digikey Product Page
	R19	Open	RES, open ohm, x%, xW, [PackageReference],				0603	OPEN
5 1	R20	1k	RES, 1k ohm, x%, xW, [PackageReference]	Panasonic Electronic Components	ERJ-3GEYJ102V		0603	Digikey Product Page
6 1	R21	2.2k	RES, 2.2k ohm, x%, xW, [PackageReference]	Panasonic Electronic Components	ERJ-3GEYJ222V		0603	Digikey Product Page
7 1	R22	68	RES, 68 ohm, x%, xW, [PackageReference]	Panasonic Electronic Components	ERJ-3GEYJ680V		0603	Digikey Product Page
8 1	R23	1k	RES, 1k ohm, x%, xW, [PackageReference]	Panasonic Electronic Components	ERJ-3GEYJ102V		0603	Digikey Product Page
9 1	R24	10k	RES, 10k ohm, x%, xW, [PackageReference]	Panasonic Electronic Components	ERJ-3GEYJ103V		0603	Digikey Product Page
	R25	1.5k	RES, 1.5k ohm, x%, xW, [PackageReference]	Panasonic Electronic Components	ERJ-3GEYJ152V		0603	Digikey Product Page
	R26	220	RES, 220 ohm, x%, xW, [PackageReference]	Panasonic Electronic Components	ERJ-3GEYJ221V		0603	Digikey Product Page
	C8, C9, C12, C13	47pF	CAP, CERM, 47pF, 50V, +/-5%, COG/NPO, 0402	Murata Electronics North America	GRM1555C1H470JZ01		0402	Digikey Product Page
	C10, C14	0.015uF	CAP, CERM, 0.015uF, 50V, +/-10%, X7R, 0402	Murata Electronics North America				
					GRM155R71H153KA12D		0402	Digikey Product Page
	C11, C20	0.1uF	CAP, CERM, 0.1uF, 10V, +/-10%, X5R, 0402	TDK Corporation	C1005X5R1A104K		0402	Digikey Product Page
	C19	10uF	CAP, TANT, 10uF, 10V, +/-20%, 2.5 ohm, 3528-21 SMD	Vishay Sprague	293D106X0010B2TE3	ļ	3528-21	Digikey Product Page
	C21	2.2n	CAP, CERM, 2.2nF, 25V, +/-10%, X7R, 0805	AVX Corporation	0805ZC222JAT2A		0805	Digikey Product Page
	C24, C25	0.1uF	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	TDK Corporation	C1608X7R1H104K		0603	Digikey Product Page
18 2	C26, C27	10uF	CAP, TANT, 10uF, 50V, +/-10%, 0.8 ohm, 7343-43 SMD	AVX Corporation	F931D106KAA		7343-43	Digikey Product Page
19 1	. C28	220uF	CAP, TANT, 220uF, 6.3V, +/-10%, 0.6 ohm, 7343-31 SMD	AVX Corporation	TCJB227M006R0200		7343-31	Digikey Product Page
20 2	D1, D8			<u>Littelfuse Inc</u>	SMAJ5.0CA		DSO-C2/X1.8	Digikey Product Page
21 4	D2, D3, D4, D5			Vishay Semiconductor Diodes Division	LL103A		SOD-80	Digikey Product Page
	. D6			Littelfuse Inc	V320SM7		V320SM7	Digikey Product Page
	. D7	7V	Diode, TVS, Uni, 7V, 600W, SMB	Diodes Incorporated	SMBJ7.0A-13-F		SMB	Digikey Product Page
	FR		Fuse, 1A,125V, SMD	Cooper Bussmann	6125FA1A		6125FA	Digikey Product Page
	H1, H2, H3, H4		Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead		NY PMS 440 0025 PH		NY PMS 440 0025 PH	Not populated
	H5, H6, H7, H8		Standoff, Hex, 0.5"L #4-40 Nylon		1902C		Keystone_1902C	Not populated
	J1				LIVE_IN		Hole for Banana Socket	N/A (3.5mm diameter through hole only, no component populated)
	J2							
					LIVE_OUT		Hole for Banana Socket	N/A (3.5mm diameter through hole only, no component populated)
	J3				NEUTRAL_IN		Hole for Banana Socket	N/A (3.5mm diameter through hole only, no component populated)
30 1	J3 J4		Tu 400-il 2-2 Gild-leted 220-il show include	TT Our and the	NEUTRAL_IN NEUTRAL_OUT		Hole for Banana Socket Hole for Banana Socket	N/A (3.5mm diameter through hole only, no component populated) N/A (3.5mm diameter through hole only, no component populated)
30 1	J3		Header, TH, 100mil, 2x2, Gold plated, 230 mil above insulator	TE Connectivity	NEUTRAL_IN		Hole for Banana Socket	N/A (3.5mm diameter through hole only, no component populated)
30 1 31 1	J3 J4 J5		Header, TH, 100mil, 2x2, Gold plated, 230 mil above insulator	TE Connectivity Sullins Connector Solutions	NEUTRAL_IN NEUTRAL_OUT TSW-102-07-G-D		Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D	N/A (3.5mm diameter through hole only, no component populated) N/A (3.5mm diameter through hole only, no component populated) Digitkey Product Page
30 1 31 1 32 1	J3 J4			Sullins Connector Solutions	NEUTRAL_IN NEUTRAL_OUT TSW-102-07-G-D 1.27mm pitch socket		Hole for Banana Socket Hole for Banana Socket	N/A (3.5mm diameter through hole only, no component populated) N/A (3.5mm diameter through hole only, no component populated)
30 1 31 1 32 1 33 1	J3 J4 J5 J6		Receptacle Assembly, 9 Position, Right Angle		NEUTRAL_IN NEUTRAL_OUT TSW-102-07-G-D 1.27mm pitch socket D Connector 9		Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9	NA (3.5mm diameter through hole only, no component populated) NA (3.5mm diameter through hole only, no component populated) Digitkey Product Page Digitkey Product Page Digitkey Product Page
30 1 31 1 32 1 33 1 34 1	13 14 15 16 17	1x3	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions	NEUTRAL_IN NEUTRAL_OUT TSW-102-07-G-D 1.27mm pitch socket D Connector 9 PBC03SAAN		Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN	NuA (3.5mm diameter through hole only, no component populated) NvA (3.5mm diameter through hole only, no component populated) Digitkey Product Page Digitkey Product Page Digitkey Product Page Digitkey Product Page
30 1 31 1 32 1 33 1 34 1 35 1	J3 J4 J5 J6 J7	1x3	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pitch socket D Connector 9 PBC03SAAN Header 4		Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1 27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND	IVA (3 5mm diameter through hole only, no component populated) IVA (3.5mm diameter through ho
30 1 31 1 32 1 33 1 34 1 35 1 36 2	J3 J4 J5 J6 J7 J8 J9 L1, L2	1x3	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType]	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions	NEUTRAL, IN NEUTRAL, OUT TSW-102-07-G-D 12/mm pitch socket D Connector 9 PBC03SAAN Header 4 BLM218D121SN1D		Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805	NA (3.5mm diameter through hole only, no component populated) NA (3.5mm diameter through hole only, no component populated) Digitkey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1	J3 J4 J5 J6 J7 J8 J9 L1, L2 LBL1	1x3	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650° W x 0.200° H - 10,000 per roll	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pilch socket D Connector 9 PBC03SAAN Header 4 BLM21B0121SN1D Size-0.657 × 2.20*		Hole for Banana Socket Hole for Banana Socket TSW-102-07-0D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0808 Label_650x200	NuA (3.5mm diameter through hole only, no component populated) NvA (3.5mm diameter through hole only, no component populated) Digitkey Product Page Not populated
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2	J3 J4 J5 J6 J7 J8 J9 L1, L2 LBL1 LED1, LED5	1x3	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pitch socket D Connector 9 PBC03SAAN Header 4 BLM218D121SN1D Size: 0.65° x 0.20° LTST-C170KRKT		Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D G-pin header (1 27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label_650x200 0805-LED	NA (3.5mm diameter through hole only, no component populated) NA (3.5mm diameter through hole only, no component populated) NA (3.5mm diameter through hole only, no component populated) Digilkey Product Page Not populated Digilkey Product Page Not populated Digilkey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 39 2	J3 J4 J5 J6 J7 J8 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6	1x3	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc Lite-On Inc	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pitch socket D Connector 9 PBC03SAAN Header 4 BLM218D12ISN1D Size. 0.65° x 0.20° LTST-C7TOKRKT LTST-SZOKKKT		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 650x200 0805-LED 0805-ED	NA 3.5 mm diameter through hole only, no component populated) NA 3.5 mm diameter through hole only, no component populated) Digikey Product Page Not populated Not populated Digikey Product Page Not populated Digikey Product Page Digikey Product Page Not populated Digikey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 40 2	J3 J4 J5 J6 J7 J8 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7	1x3	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green Blue	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc Lite-On Inc Lite-On Inc	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pikh socket D Connector 9 PBC03SAAN Header 4 BLM218D121SN1D Size 0.657 × 0.20* LTST-C170KRKT LTST-S220KGKT LTST-C170TRKT		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-O-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 650x200 0805-LED 0805-LED 0805-LED	IWA (3 5mm diameter through hole only, no component populated) NA (3.5mm diameter through hole only, no component populated) NA (3.5mm diameter through hole only, no component populated) Digikey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 39 2 40 2 41 1	J3 J4 J5 J6 J7 J8 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7 LED4	1x3	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green Blue White	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc Lite-On Inc	NEUTRAL_IN NEUTRAL_OUT TSW-102-07-G-D 1.27mm pitch socket D Connector 9 PBC03SAAN Header 4 BLM218D121SN10 Size 0.65° x 0.20° LTST-C170KRRT LTST-S220KGKT LTST-C170TBKT LTW-170TK		Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAN A31114-ND 0805 Label 650x200 0805-LED 0805-LED 0805-LED 0805-LED	NA (3.5mm diameter through hole only, no component populated) NA (3.5mm diameter through hole only, no component populated) Digilkey Product Page Not populated Digilkey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 39 2 40 2 41 1 42 1	J3 J4 J5 J6 J7 J8 J9 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7 LED4 P1		Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green Blue White Header, 7-Pin, Dual row	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pilch socket D Connector 9 PBC03SAAN Header 4 BLM21BD121SN1D Size: 0.65" × 0.20" LTST-C170KRKT LTST-S20KGKT LTST-C170TKKT LTW-170TK A104860-ND		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 650x200 0805-LED 0805-LED 0805-LED 0805-LED 0805-LED	IWA (3.5 mm diameter through hole only, no component populated) NA (3.5 mm diameter through hole only, no component populated) Digilkey Product Page Not populated Digilkey Product Page Not populated Digilkey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 40 2 41 1 42 1 43 2	J3 J4 J5 J6 J7 J8 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7 LED4	1x3	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green Blue White	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc Mero Commercial Co	NEUTRAL_IN NEUTRAL_OUT TSW-102-07-G-D 1.27mm pitch socket D Connector 9 PBC03SAAN Header 4 BLM218D121SN10 Size 0.65° x 0.20° LTST-C170KRRT LTST-S220KGKT LTST-C170TBKT LTW-170TK		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 550x200 0805-LED 0805-LED 0805-LED 0805-LED 0805-LED 0805-LED	NA (3.5mm diameter through hole only, no component populated) NA (3.5mm diameter through hole only, no component populated) Digilkey Product Page Not populated Digilkey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 39 2 40 2 41 1 42 1 43 2 44 3	J3 J4 J5 J6 J7 J8 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7 LED4 P1 O1, O2	0.075V	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650° W x 0.200° H - 10,000 per roll Red Green Blue White Header, 7-Pin, Dual row Transistor, PNP, 45V, 0.1A, SOT-23 RES, 330kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pitch socket D Connector 9 PBC03SAAN Header 4 BLM21BD121SN1D Size .0557 x 0.20* LTST-C170KRKT LTST-S220KGKT LTST-C170TK A104860-ND BC6878		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 650x200 0805-LED 0805-LED 0805-LED 0805-LED 0805-LED	NA (3.5 mm diameter through hole only, no component populated) NA (3.5 mm diameter through hole only, no component populated) Digilkey Product Page Not populated Digilkey Product Page Not populated Digilkey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 39 2 40 2 41 1 42 1 42 1 43 2 44 3 45 1	J3 J4 J5 J6 J7 J8 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7 LEO4 P1 Q1, Q2 R1, R13, R14 R15	0.075V 330k	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green Blue White White Header, 7-Pin, Dual row Transistor, PNP, 45V, 0.1A, SOT-23 TRES, 330kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.5kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc Parassonic Electronic Components Rohm Semiconductor	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-0 1.27mm pitch socket D Connector 9 PBC03SAAN Header 4 BLM218D12ISN1D Size. 0.65° x 0.20° LTST-C7T0KRKT LTST-200KGKT LTST-C710TBKT LTW-170TK A104860-ND B-08578 B-08578 B-085780503		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 650x200 0805-LED 0805-LED 0805-LED 0805-LED 0805-LED 0805-LED 2X7BOXHEADER SOT-23 2210M	IWA (3.5 mm diameter through hole only, no component populated) NA (3.5 mm diameter through hole only, no component populated) NA (3.5 mm diameter through hole only, no component populated) Digikkey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 39 2 40 2 41 1 42 1 43 2 44 3 45 1 46 7	3	0.075V 330k 1.5k 390	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650° W x 0.200° H - 10,000 per roll Red Green Blue White Header, 7-Pin, Dual row Transistor, PNP, 45V, 0.1A, SOT-23 RES, 330kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc Lite-	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pilch socket D Connector 9 PBC03SAAN Header 4 BLM21BD121SN1D Size .055° x 20° LTST-0717KKRT LTST-220KGKT LTST-520KGKT LTST-5717KKRT LTST-520KGKT LTST-520KGKT LTST-5717KKRT LTST-57		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label_650x200 0805-LED 0805-LED 0805-LED 0805-LED 0805-LED 0805-LED 2X7BDXHEADER SOT-23 2010M	NA (3.5 mm diameter through hole only, no component populated) NA (3.5 mm diameter through hole only, no component populated) Digilkey Product Page Not populated Digilkey Product Page Not populated Digilkey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 39 2 40 2 41 1 42 1 42 1 43 2 44 4 43 4 45 1 46 7 47 1	J3 J4 J5 J6 J7 J8 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7 LED4 P1 O1, 02 R1, R13, R14 R15 R2, R3, R4, R5, R7, R12, R17	0.075V 330k 1.5k 390	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green Blue White Header, 7-Pin, Dual row Transistor, PNP, 45V, 0.1A, SOT-23 RES, 330kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.5kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 390 ohm, 5%, 0.125W, 0805	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc Reconnectivity Micro Commercial Co Panasonic Electronic Components Rohm Semiconductor Panasonic Electronic Components	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pitch socket D Connector 9 PBC03SAAN Header 4 BLM21BD121SN1D Size-0.657 × 0.20* LTST-C170KRKT LTST-C220KGKT LTST-C170TBKT LTW-170TK A104860-ND BC657B ER-JSTDF3303U ER-JSCGEV3391V		Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 550x200 0805-LED 0805-LED 0805-LED 0805-LED 0805-LED 0207-0805-LED 0207-0805-LED 0207-0805-	IVA (3 5mm diameter through hole only, no component populated) IVA (3 5mm diameter through hole only, no component populated) IVA (3 5mm diameter through hole only, no component populated) IVA (3 5mm diameter through hole only, no component populated) IVA (3 5mm diameter through the populated) IVA (4 5mm diameter) IVA (4 5mm diameter) IVA (4 5mm diameter) IVA (4 5mm diameter) IVA (5 5
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 39 2 40 2 41 1 42 1 42 1 44 3 45 1 46 7 47 1 48 3 49 1	J3 J4 J5 J6 J7 J8 J9 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7 LED4 LED4 LED4 R1 Q1, Q2 R1, R13, R14 R15 R2, R3, R4, R5, R7, R12, R17 R6 R8, R9, R11 R10	0.075V 330k 1.5k 390 500u-ohm 1.00k	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green Blue White Header, 7-Pin, Dual row Transistor, PNP, 45V, 0.1A, SOT-23 RES, 330kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 13.5kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 390 ohm, 1%, 1W, 2010, RES, 30kohm, 5%, 1W, 2010 RES, 10.0k ohm, 5%, 0.125W, 0805 Shunt Resistor RES, 10.0k ohm, 1%, 0.063W, 0402 RES, 100 ohm, 1%, 0.063W, 0402 RES, 100 ohm, 1%, 0.063W, 0402	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc Lite-On Inc Lite-On Inc Lite-On Inc Lite-On Inc Lite-On Inc Panasonic Electronic Components Rohm Semiconductor Panasonic Electronic Components INTERNATIONAL RESISTIVE	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pilch socket D Connector 9 PBC03SAAN Header 4 BLM21BD121SN1D Size: 0.65° x 0.20° LTST-C170TRKT LTST-S220KGKT LTST-C2170TRKT LTW-170TK A104860-ND BC8578 ER-ISTOR STREET ER-ISTO		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 650x200 0805-LED 0805-LED 0805-LED 0805-LED 0805-LED 2277BCXHEADER SOT-23 2210IM 2010M 0805	IWA (3.5 mm diameter through hole only, no component populated) NA (3.5 mm diameter through hole only, no component populated) Digilkey Product Page Not populated Digilkey Product Page Not populated Digilkey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 39 2 40 2 41 1 42 1 42 1 44 3 45 1 46 7 47 1 48 3 49 1	J3 J4 J5 J6 J7 J8 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7 LEO4 P1 Q1, Q2 R1, R13, R14 R15 R2, R3, R4, R5, R7, R12, R17 R6 R8, R9, R11	0.075V 330k 1.5k 390 500u-ohn 1.00k	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green Blue White Header, 7-Pin, Dual row Transistor, PNP, 45V, 0.1A, 50T-23 RES, 330kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.5kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 390 ohm, 5%, 0.125W, 0805 Shunt Resistor	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc TE Connectivity Micro Commercial Co Panasonic Electronic Components Rohm Semiconductor Panasonic Electronic Components INTERNATIONAL RESISTIVE Vishay Dale	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pilch socket D Connector 9 PBC03SAAN Header 4 BILM21BD121SN1D Size 0.657 × 0.20* LTST-C170KRKT LTST-5220KGKT LTST-C170KRKT LTST-170TK A104860-AUD BC857B ERJ-\$10F3303U MCR580Z		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 650x200 0805-LED 0805-LED 0805-LED 0805-LED 0805-LED 2X7BOXHEADER SOT-23 2010M 0805 Current Sensing Pad 0402	IWA (3 5mm diameter through hole only, no component populated) NA (3.5mm diameter through hole only, no component populated) NA (3.5mm diameter through hole only, no component populated) Digikkey Product Page International Resistive Product Page Digikkey Product Page
30 1 31 1 32 1 33 1 33 1 34 1 36 2 37 1 36 2 39 2 41 1 42 1 44 3 45 1 46 7 47 1 48 3 49 1 50 1	J3 J4 J5 J6 J7 J8 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7 LED4 P1 Q1, Q2 R1, R13, R14 R15 R2, R3, R4, R5, R7, R12, R17 R6 R8, R9, R11 R10 R16 R27, R28, R29, R30, R31, R36, RA3	0.075V 330k 1.5k 390 500u-ohm 1.00k	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green Blue White Header, 7-Pin, Dual row Transistor, PNP, 45V, 0.1A, SOT-23 RES, 330kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.5kohm, 1½, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 390 ohm, 5%, 0.125W, 0805 Shunt Resistor RES, 100 ohm, 1%, 0.063W, 0402 RES, 100 ohm, 1%, 0.063W, 0402 RES, 47k ohm, 5%, 0.063W, 0402 RES, 47k ohm, 5%, 0.063W, 0402 RES, 9, open ohm, x%,	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc Lite-	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pitch socket D Connector 9 PBC03SAAN Header 4 BLM218D121SN1D Size. 0.65° x 0.20° LTST-C170KRKT LTST-C170KRKT LTST-5220KKT LTST-C170TKKT LTW-170TK A104880-VID BC857B ER-JST0F2303U MCR50J2F1501 ULRB 12512P0005FLESLT CRCW0402100FKED		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 650x200 0805-LED	NA (3.5 mm diameter through hole only, no component populated) NA (3.5 mm diameter through hole only, no component populated) Digilkey Product Page Not populated Digilkey Product Page Not populated Digilkey Product Page International Resistive Product Page Digilkey Product Page International Resistive Product Page Digilkey Product Page Digilkey Product Page Digilkey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 39 2 40 2 41 1 42 1 43 2 44 3 45 1 46 7 47 1 48 3 49 1 50 1 51 1 50 1 51 1 50 1	J3 J4 J5 J6 J7 J8 J9 J9 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7 LED4 P1 O1, O2 R1, R13, R14 R15 R2, R3, R4, R5, R7, R12, R17 R6 R8, R9, R11 R10 R16 R27, R28, R29, R30, R31, R36, RA3 R32	0.075V 330k 1.5k 390 500u-ohr 1.00k 100 47k Open 1.5k	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green Blue White White Header, 7-Pin, Dual row Transistor, PNP, 45V, 0.1A, SOT-23 RES, 330kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.5kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.5kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.5kohm, 1%, 0.063W, 0402 RES, 100 kohm, 1%, 0.063W, 0402 RES, 100 kohm, 1%, 0.063W, 0402 RES, 47k ohm, 5%, 0.063W, 0402 RES, 47k ohm, 5%, 0.063W, 0402 RES, 47k ohm, 5%, 0.063W, 0402 RES, 1.5kohm, 1%, 0.67k, 0.063W, 0402 RES, 1.5kohm, 1%, 0.67k, 0.063W, 0402 RES, 1.5kohm, 1%, 0.67k, 0.063W, 0402 RES, 1.5kohm, 1%, 0.063W, 0402	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc Lite-	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-0 1.27mm pilch socket D Connector 9 PBC03SAAN Header 4 BLM21BD121SN1D Size-0.65' x 0.20' LTST-0170KRKT LTST-920KGKT LTST-920KGKT LTST-920KGKT LTST-93030U MCR50,224F1501 ER-46CV,391V LRRB1251SR005FLFSLT CRCW04021K00FKED CRCW04021K00FKED CRCW04021K00FKED CRCW04021K00FKED CRCW04021K00FKED CRCW04021K00FKED CRCW04021K00FKED CRCW04021K00FKED		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 650x200 0805-LED 0805-	IWA (3.5 mm diameter through hole only, no component populated) NA (3.5 mm diameter through hole only, no component populated) Digilkey Product Page Not populated Digilkey Product Page Not populated Digilkey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 40 2 41 1 42 1 44 3 45 1 46 7 47 1 48 3 49 1 50 1 51 7 52 1 53 1	J3 J4 J5 J6 J7 J8 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7 LED4 P1 Q1, Q2 R1, R13, R14 R15 R2, R3, R4, R5, R7, R12, R17 R6 R8, R9, R11 R10 R16 R27, R28, R29, R30, R31, R36, RA3 R32 R33	0.075V 330k 1.5k 390 500u-ohn 100 47k Open 1.5k 1.5k	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green Blue White White Header, 7-Pin, Dual row Transistor, PNP, 45V, 0.1A, SOT-23 RES, 330kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.5kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.5kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.00 ohm, 1%, 0.063W, 0402 RES, 100 ohm, 1%, 0.063W, 0402 RES, 47k ohm, 5%, 0.063W, 0402 RES, 47k ohm, 5%, 0.063W, 0402 RES, open ohm, x%, RES, 1.5k ohm, x%,	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc Lite-On Inc Lite-On Inc Lite-On Inc TE Connectivity Micro Commercial Co Panasonic Electronic Components Rohm Semiconductor Panasonic Electronic Components INTERNATIONAL RESISTIVE Vishay Dale Vishay Dale Vishay Dale Vishay Dale Panasonic Electronic Components Panasonic Electronic Components Lite-On Inc Lite-O	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pitch socket D.Connector 9 PBC03SAAN Header 4 BLM21BD121SN1D Size .055' x 0.20" LTST-C170KRKT LTST-S220KGKT LTST-S220KGKT LTST-C170TKRT LTW-170TK A104860-ND BC857B ER-J-S10F3303U MCR50,224F1501 ER-J-6CEV1391V CRCW04021K00FKED CRCW0		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 650x200 0805-LED 0805-LED 0805-LED 0805-LED 2X7BCXHEADER SOT-23 2010M 0805 Current Sensing Pad 0402 0402 0402 0402 0805	IWA (3.5 mm diameter through hole only, no component populated) NA (3.5 mm diameter through hole only, no component populated) NA (3.5 mm diameter through hole only, no component populated) Digitkey Product Page
30 1 31 1 32 1 33 1 33 1 36 2 37 1 36 2 39 2 40 2 44 3 45 1 44 3 45 1 46 7 47 1 48 3 49 1 50 1 51 5 51 7 52 1 53 1 54 1	J3 J4 J5 J6 J7 J8 J9 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7 LED4 LED4 P1 Q1, Q2 R1, R13, R14 R15 R2, R3, R4, R5, R7, R12, R17 R6 R8, R9, R11 R10 R16 R16 R27, R28, R29, R30, R31, R36, RA3 R32 R33 R33	0.075V 330k 1.5k 390 1.00k 1.00k 0 Open 1.5k 0 Open 1.5k 0 OR	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green Blue White Header, 7-Pin, Dual row Transistor, PNP, 45V, 0.1A, SOT-23 RES, 330kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.5kohm, 1%, 1V, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.10kohm, 1%, 0.063W, 0805 Shunt Resistor RES, 1.00 ohm, 1%, 0.063W, 0402 RES, 100 ohm, 1%, 0.063W, 0402 RES, 100 ohm, 5%, 0.063W, 0402 RES, 100 ohm, 5%, 0.063W, 0402 RES, 0ep onh, 5%, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8,	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc Lite-	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-0 1.27mm pitch socket D Connector 9 PBC03SAAN Header 4 BLM218D121SN1D Size. 0.65° x 0.20° LTST-C7TOKRKT LTST-520KGKT LTST-5		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 650x200 0805-LED 0805-	INA (3.5 mm diameter through hole only, no component populated) NA (3.5 mm diameter through hole only, no component populated) Digilikey Product Page Not populated Digilikey Product Page Not populated Digilikey Product Page
30 1 31 1 32 1 33 1 34 1 35 1 36 2 37 1 38 2 40 2 41 1 43 2 44 3 49 1 50 1 51 7 52 1 53 1 54 1	J3 J4 J5 J6 J7 J8 J9 L1, L2 LBL1 LED1, LED5 LED2, LED6 LED3, LED7 LED4 P1 Q1, Q2 R1, R13, R14 R15 R2, R3, R4, R5, R7, R12, R17 R6 R8, R9, R11 R10 R16 R27, R28, R29, R30, R31, R36, RA3 R32 R33	0.075V 330k 1.5k 390 500u-ohn 100 47k Open 1.5k 1.5k	Receptacle Assembly, 9 Position, Right Angle Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator Header, 4-Pin 100mil 1x4 Inductor, [Technology], [Material], xxuH, xxA, x.xx ohm, [MountType] Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll Red Green Blue White White Header, 7-Pin, Dual row Transistor, PNP, 45V, 0.1A, SOT-23 RES, 330kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.5kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.5kohm, 1%, 1W, 2010, RES, 330kohm, 5%, 1W, 2010 RES, 1.00 ohm, 1%, 0.063W, 0402 RES, 100 ohm, 1%, 0.063W, 0402 RES, 47k ohm, 5%, 0.063W, 0402 RES, 47k ohm, 5%, 0.063W, 0402 RES, open ohm, x%, RES, 1.5k ohm, x%,	Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Sullins Connector Solutions TE Connectivity Murata Electronics North America Lite-On Inc Lite-On Inc Lite-On Inc Lite-On Inc TE Connectivity Micro Commercial Co Panasonic Electronic Components Rohm Semiconductor Panasonic Electronic Components INTERNATIONAL RESISTIVE Vishay Dale Vishay Dale Vishay Dale Vishay Dale Panasonic Electronic Components Panasonic Electronic Components Lite-On Inc Lite-O	NEUTRAL IN NEUTRAL OUT TSW-102-07-G-D 1.27mm pitch socket D.Connector 9 PBC03SAAN Header 4 BLM21BD121SN1D Size .055' x 0.20" LTST-C170KRKT LTST-S220KGKT LTST-S220KGKT LTST-C170TKRT LTW-170TK A104860-ND BC857B ER-J-S10F3303U MCR50,224F1501 ER-J-6CEV1391V CRCW04021K00FKED CRCW0		Hole for Banana Socket Hole for Banana Socket Hole for Banana Socket TSW-102-07-G-D 6-pin header (1.27mm) DSUB1.385-2H9 PBC03SAAN A31114-ND 0805 Label 650x200 0805-LED 0805-LED 0805-LED 0805-LED 2X7BCXHEADER SOT-23 2010M 0805 Current Sensing Pad 0402 0402 0402 0402 0805	INA (3.5 mm diameter through hole only, no component populated) NA (3.5 mm diameter through hole only, no component populated) NA (3.5 mm diameter through hole only, no component populated) Digitkey Product Page

Ite	n Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
57	2	U2, U3		PS8802-1	<u>CEL</u>	PS8802-1		SO-8	Digikey Product Page
58	1	U4		On board block power suppply	CUI Inc	VSK-S1-3R3U		VSK-S1	Digikey Product Page

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TI has specifically designated certain components as meeting ISO/TS16949 requirements, mainly for automotive use. In any case of use of non-designated products, TI will not be responsible for any failure to meet ISO/TS16949.