

Bill of material

<i>Des.</i>	<i>Part Type/ Part Value</i>	<i>Description</i>	<i>Supplier</i>	<i>Case Style /Package</i>
C1	2n2F	Y1 SAFETY CAP. DE1E3KX222M	MURATA	DWG
C2	1uF	X2 FILM CAP - B32923C3105K	EPCOS	11x26.5mm P. 22.5mm
C3	1uF	X2 FILM CAP - B32923C3105K	EPCOS	11x26.5mm P. 22.5mm
C4	470nF	630V FILM CAP - B32613A6474K	EPCOS	11x26.5mm P. 22.5mm
C5	470nF	630V FILM CAP - B32613A6474K	EPCOS	11x26.5mm P. 22.5mm
C6	100uF	450V - ALUMINIUM ELCAP - PZ SERIES - 105°C	NICHICON	18x35mm P. 10mm
C7	100uF	450V - ALUMINIUM ELCAP - PZ SERIES - 105°C	NICHICON	18x35mm P. 10mm
C8	2.2nF	Y1 - SAFETY CAP. DE1E3KX222M	MURATA	DWG
C9	2.2nF	Y1 - SAFETY CAP. DE1E3KX222M	MURATA	DWG
C12	100nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	1206
C13	47nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C14	1000uF	35V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	12x25mm P. 5mm
C16	100uF	50V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	8x11mm P. 3.5mm
C17	100nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C18	470nF	50V CERCAP - GENERAL PURPOSE - Y5V - 20%	KEMET	1206
C19	100nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C20	470nF	16V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C21	4.7uF	6.3V CERCAP - GENERAL PURPOSE - X5R - 15%	KEMET	0805
C23	4n7F	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C24	330pF	50V CERCAP - GENERAL PURPOSE - C0G - 5%	KEMET	0805
C25	2n2F	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C26	1000uF	25V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	12.5x20mm P. 5mm
C27	100uF	50V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	8x11mm P. 3.5mm
C28	100nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C30	470nF	50V CERCAP - GENERAL PURPOSE - Y5V - 20%	KEMET	1206
C31	2n2F	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C32	1uF	16V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	1206
C33	10uF	50V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	6.3x11mm P. 2.5mm
C34	220pF	50V CERCAP - GENERAL PURPOSE - COG - 5%	KEMET	0805
C35	4n7F	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	1206
C36	220pF	500V CERCAP - 12067A221JAT2A - C0G - 5%	AVX	1206
C37	100nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C38	220nF	16V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C39	15nF	1KV - MKP FILM CAPACITOR B32652A0153J	EPCOS	5x18mm P. 15mm
C40	47uF	50V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	6.3x11mm P. 2.5mm
C42	10nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C44	47uF	50V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	6.3x11mm P. 2.5mm
C45	47nF	25V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C46	2n2F	Y1 SAFETY CAP. DE1E3KX222M	MURATA	DWG
C47	10uF	450V ALUMINIUM ELCAP - VY SERIES - 105°C	NICHICON	10x20mm P. 5mm
C49	1000uF	10V ALUMINIUM ELCAP - ZLH SERIES - 105°C	RUBYCON	8X16mm P. 3.5mm
C50	1000uF	10V ALUMINIUM ELCAP - ZLH SERIES - 105°C	RUBYCON	8X16mm P. 3.5mm
C51	220uF	16V ALUMINIUM ELCAP - ZLH SERIES - 105°C	RUBYCON	6.3X11mm P. 2.5mm
C52	100nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C53	22uF	50V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	5x11mm P. 2mm

C54	100nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C55	2.2nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C56	100nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C59	10nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C60	100nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C61	10nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C62	10uF	50V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	6.3x11mm P. 2.5mm
C63	10nF	50V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	0805
C64	1nF	100V CERCAP - GENERAL PURPOSE - X7R - 10%	KEMET	1206
C65	220pF	50V CERCAP - GENERAL PURPOSE - COG - 5%	KEMET	0805
C66	47uF	200V ALUMINIUM ELCAP - ED SERIES - 105°C	PANASONIC	12.5x20mm p. 5mm
C67	4.7uF	200V ALUMINIUM ELCAP - KMG SERIES - 85°C	UNITED CHEMI-CON	8x11mm p. 3.5mm
C68	100nF	200V CERCAP - GENERAL PURPOSE - X7R - 20%	KEMET	1206
C69	1000uF	25V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	12.5x20mm p. 5mm
D1	1N5406	RECTIFIER - GENERAL PURPOSE	VISHAY	DO-201
D2	STTH5L06	ULTRAFAST HIGH VOLTAGE RECTIFIER	STMICROELECTRONICS	DO-201
D3	D10XB60H	SINGLE PHASE BRIDGE RECTIFIER	SHINDENGEN	DWG
D4	STPS20H100CFP	HV POWER SCHOTTKY RECTIFIER	STMICROELECTRONICS	TO-220FP
D5	LL4148WS	HIGH SPEED SIGNAL DIODE	VISHAY	SOD323
D6	LL4148WS	HIGH SPEED SIGNAL DIODE	VISHAY	SOD323
D7	LL4148WS	HIGH SPEED SIGNAL DIODE	VISHAY	SOD323
D8	LL4148WS	HIGH SPEED SIGNAL DIODE	VISHAY	SOD323
D9	STPS20L45CFP	POWER SCHOTTKY RECTIFIER	STMICROELECTRONICS	TO-220FP
D10	LL4148WS	HIGH SPEED SIGNAL DIODE	VISHAY	SOD323
D12	LL4148WS	HIGH SPEED SIGNAL DIODE	VISHAY	SOD323
D13	MMSZ4709-V	24V ZENER DIODE	VISHAY	SOD323
D14	LL4148WS	HIGH SPEED SIGNAL DIODE	VISHAY	SOD323
D15	BZV55-C15	ZENER DIODE	VISHAY	MINIMELF
D16	MMSZ4711-V	27V ZENER DIODE	VISHAY	SOD323
D17	MMSZ4700-V	13V ZENER DIODE	VISHAY	SOD123
D18	STPS20L45CFP	POWER SCHOTTKY RECTIFIER	STMICROELECTRONICS	TO-220FP
D19	P6KE250A	TRANSIL	STMICROELECTRONICS	DO-15
D20	STTH108A	HV ULTRAFAST RECTIFIER	STMICROELECTRONICS	SMA
D21	BAV103	HIGH SPEED SIGNAL DIODE	VISHAY	MINIMELF
D22	STTH102A	HIGH EFFICIENCY ULTRAFAST DIODE	STMICROELECTRONICS	SMA
D24	STTH3R02	ULTRAFAST DIODE	STMICROELECTRONICS	DO-201
D25	STTH3R02	ULTRAFAST DIODE	STMICROELECTRONICS	DO-201
D26	STTH3R02	ULTRAFAST DIODE	STMICROELECTRONICS	DO-201
D27	STTH3R02	ULTRAFAST DIODE	STMICROELECTRONICS	DO-201
D28	LL4148WS	HIGH SPEED SIGNAL DIODE	VISHAY	SOD323
D29	BZV55-C75	75V ZENER DIODE	VISHAY	MINIMELF
D30	BZV55-C75	75V ZENER DIODE	VISHAY	MINIMELF
F1	FUSE T4A	FUSE 4A - TIME LAG - 3691400	LITTELFUSE	8.5x4mm p.5.08mm
HS1	HEAT-SINK	HEAT SINK FOR D3 & Q5		DWG
HS2	HEAT-SINK	HEAT SINK FOR Q3 & Q6		DWG
HS3	HEAT-SINK	HEAT SINK FOR D4 & D9		DWG
HS4	HEAT-SINK	HEAT SINK FOR D18		DWG
J1	CONNECTOR	3 PINS (central removed) - 09-65-2038	MOLEX	DWG
J2	CONNECTOR	P. 2.54mm - 8 x 2 ROWS - 280385-2	AMP	DWG
J3	CONNECTOR	P. 2.54mm - 4 x 2 ROWS - 280384-2	AMP	DWG

J4	CONNECTOR	P. 2.54mm - 3 x 2 ROWS - 5-102618-1	AMP	DWG
L1	240uH	2086.0001 - PFC INDUCTOR	MAGNETICA	DWG
L2	3mH	1606.0007 - EMI FILTER	MAGNETICA	DWG
L3	70uH	1119.0013 - DM INDUCTOR	MAGNETICA	26x13mm
L4	1uH	10710083 - 5A INDUCTOR	MAGNETICA	9x12mm P. 5mm
L5	1uH	10710083 - 5A INDUCTOR	MAGNETICA	9x12mm P. 5mm
L6	1uH	10710083 - 5A INDUCTOR	MAGNETICA	9x12mm P. 5mm
L7	1uH	10710083 - 5A INDUCTOR	MAGNETICA	9x12mm P. 5mm
Q3	STF12NM50N	N-CHANNEL POWER MOSFET	STMICROELECTRONICS	TO-220FP
Q5	STF14NM50N	N-CHANNEL POWER MOSFET	STMICROELECTRONICS	TO-220FP
Q6	STF12NM50N	N-CHANNEL POWER MOSFET	STMICROELECTRONICS	TO-220FP
Q7	BC847C	NPN SMALL SIGNAL BJT	VISHAY	SOT-23
Q8	BC847C	NPN SMALL SIGNAL BJT	VISHAY	SOT-23
Q9	BC857C	PNP SMALL SIGNAL BJT	VISHAY	SOT-23
Q10	BC847C	NPN SMALL SIGNAL BJT	VISHAY	SOT-23
Q11	BC847C	NPN SMALL SIGNAL BJT	VISHAY	SOT-23
R1	NTC 2R5	NTC RESISTOR - B57237S0259M000	EPCOS	DWG
R2	2M2	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R3	27K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R4	2M2	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R5	2M2	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R6	4M7	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R7	2M2	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R8	2M2	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R9	220K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R10	51K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R11	3M9	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R13	130K	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R15	2M2	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R16	3M9	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R17	200K	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R18	56R	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R20	100K	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R21	10R	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R22	3K9	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	1206
R23	4M7	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R24	4K7	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	1206
R25	10R	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R27	2R2	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R29	4K7	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	1206
R31	100K	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R32	22R	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R33	200K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R34	10R	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R36	12K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R37	3K9	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	1206
R38	0R0	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R40	1K0	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R41	56R	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R43	1M0	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805

R44	100K	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R45	10K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R46	220R	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	1206
R47	0R0	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R49	33K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R50	180K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R51	0R47	RSMF1TB - METAL FILM RES - 1W - 2% - 250ppm/°C	AKANEOHM	PTH
R52	0R47	RSMF1TB - METAL FILM RES - 1W - 2% - 250ppm/°C	AKANEOHM	PTH
R53	100R	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R54	470K	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R55	68R	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R56	5K6	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R57	51R	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R59	1K0	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R60	47K	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R61	680K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R62	43K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R64	1K0	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R65	180K	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R66	22K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R67	15K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R68	1K	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R69	4K7	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R70	10K	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R71	4K7	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R72	1K0	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R73	1K0	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R74	2K7	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R75	1R0	NFR25H - AXIAL FUSIBLE RES - 1/2W - 5% - 200ppm/°C	VISHAY	PTH
R76	150K	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R78	3R9	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	1206
R79	390K	AXIAL STANDARD FILM RES - 1/8W - 5% - 100ppm/°C	VISHAY	AXIAL 1.6x3.6mm
R80	82K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R81	27K	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R82	1K0	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R83	27K	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R84	12K	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R86	120K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R87	270K	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R88	39K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R89	47K	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R90	10R	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	1206
R91	220K	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	1206
R92	2K7	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R93	2R2	AXIAL STANDARD FILM RES - 1/8W - 5% - 100ppm/°C	VISHAY	AXIAL 1.6x3.6mm
R94	22K	AXIAL STANDARD FILM RES - 1/8W - 5% - 100ppm/°C	VISHAY	AXIAL 1.6x3.6mm
R95	1K0	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805
R96	0R47	RSMF1TB - METAL FILM RES - 1W - 2% - 250ppm/°C	AKANEOHM	PTH
R97	4M7	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	0805
R98	1K0	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	0805

R99	150K	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
R100	150K	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	1206
RV1	300Vac	300V METAL OXIDE VARISTOR - B72214S0301K101	EPCOS	15x5mm P. 7.5mm
RX2	0R0	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	1206
T1	1860.0052	RESONANT TRANSFORMER	MAGNETICA	DWG
T2	1715.0059	ST-BY FLYBACK TRAFO	MAGNETICA	DWG
U1	L6564D	10-pin TRANSITION-MODE PFC CONTROLLER	STMICROELECTRONICS	SSOP10
U2	L6599A	IMPROVED HV RESONANT CONTROLLER	STMICROELECTRONICS	SO-16
U3	SFH610A-2	OPTOCOUPLER	INFINEON	DIP-4 - 10.16mm
U4	TL431ACZ	PROGRAMMABLE SHUNT VOLTAGE REFERENCE	STMICROELECTRONICS	TO-92
U5	SFH610A-2	OPTOCOUPLER	INFINEON	DIP-4 - 10.16mm
U6	VIPER27LN	OFF-LINE HV CONVERTER	STMICROELECTRONICS	DIP8
U7	SFH610A-2	OPTOCOUPLER	INFINEON	DIP-4 - 10.16mm
U8	TS431AZ	PROGRAMMABLE SHUNT VOLTAGE REFERENCE	STMICROELECTRONICS	TO-92