



## Bill of Materials for the NCP4354AADAPGEVB Evaluation Board

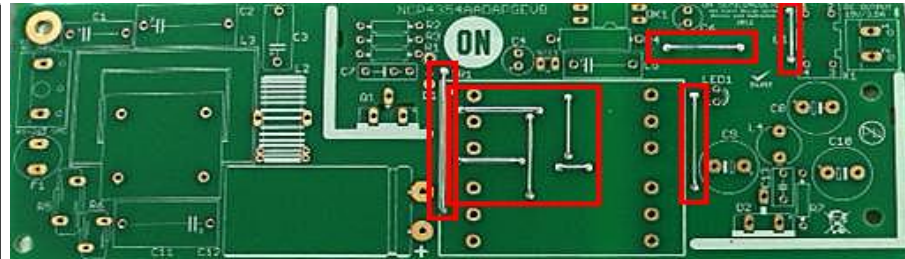
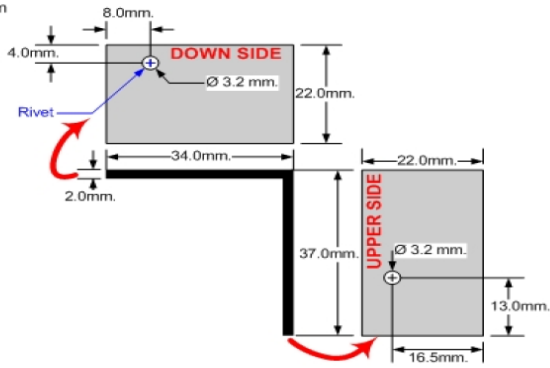
Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C100	1	Ceramic Capacitor	68 pF / 1000 V	5%	1206	Multicomp	MCCA000722	Yes	Yes
C101, C104	2	Ceramic Capacitor	100 nF	10%	805	Kemet	C0805C104K5RAC	Yes	Yes
C102	1	Ceramic Capacitor	1.0 nF	10%	805	Kemet	C0805C102K5RAC	Yes	Yes
C103, C107,	DNP	Ceramic Capacitor	DNP	-	805	-	-	Yes	Yes
C105	1	Ceramic Capacitor	33 nF	10%	805	Kemet	C0805C333K5RAC	Yes	Yes
C106	1	Ceramic Capacitor	180 nF	10%	805	Kemet	C0805C184K5RAC	Yes	Yes
C108	1	Ceramic Capacitor	3.3 nF	10%	805	Kemet	C0805C332K5RAC	Yes	Yes
C109	1	Ceramic Capacitor	1.0 μF	-	805	Kemet	C0805C105K5RAC	Yes	Yes
C111	1	Ceramic Capacitor	1.2 nF	10%	805	Kemet	C0805C122K5RAC	Yes	Yes
C12	1	Bulk Capacitor	100 μF / 400 V	20%	Through Hole	United Chemi-Con	EKXG401ELL101MMN3S	Yes	Yes
C13	1	Ceramic Capacitor	1.2 nF / 630 V	5%	Disc - Radial	TDK Corporation	FK26C0G2J122J	Yes	Yes
C2, C11	2	Suppression Film Capacitors	100 nF	10%	Through Hole	Epcos	B32922C3104K	Yes	Yes
C4	1	Electrolytic Capacitor	47 μF / 50 V	20%	Radial	Koshin	KLH-050V470ME110	Yes	Yes
C1, C3, C5	1	Ceramic Capacitor	2.2 nF / X1 / Y1	20%	Disc - Radial	Murata	DE1E3KX222MA5B	Yes	Yes
C6	DNP	Electrolytic Capacitor	DNP	20%	Radial	Koshin	KLH-050V470ME110	Yes	Yes
C7	1	Ceramic Capacitor	5.6 nF / 630 V	5%	Radial	TDK Corporation	FK20C0G2J562J	Yes	Yes
C8, C9, C10	3	Electrolytic Capacitor	470 μF / 25 V	20%	Radial	Panasonic - ECG	ECA-1EHG471	Yes	Yes
D1	1	Standard Recovery Rectifier	1N4007	-	DO41-10B	ON Semiconductor	1N4007G	No	Yes
D100, D110	2	Diode	MMSD4148	-	SOD123	ON Semiconductor	MMSD4148T3G	No	Yes
D101, D102, D103, D104, D106, D107, D108, D111	8	Standard Recovery Rectifier	MRA4007	-	SMA	ON Semiconductor	MRA4007T3G	No	Yes
D105	1	Standard Recovery Rectifier	1N4148	-	SMA	ON Semiconductor	1N4148	No	Yes
D109	1	Zener diode	MMSZ15	5%	SOD123	ON Semiconductor	MMSZ15T3G	No	Yes
D112	DNP	Diode	DNP	-	SOD123	ON Semiconductor	MMSD4148T3G	No	Yes
D2	1	Diode Schottky 100 V, 30 A	NTST30100SG	-	TO220	ON Semiconductor	NTST30100SG	No	Yes
F1	1	Fuse (MST ser.)	1.6 A	-	Through Hole	Schurter Inc	34.6617	Yes	Yes
IC100	1	Fixed Frequency Current Mode Controller for Flyback Converters	NCP1246B65	-	SOIC-08	ON Semiconductor	NCP1246BD065R2G	No	Yes
IC101	1	Secondary Side Off-Mode Controller	NCP4354A	-	SOIC-08	ON Semiconductor	NCP4354ADR2G	No	Yes
L1	1	WE-CMB Common Mode Choke	14 μH	-	744 841 414	Würth Elektronik	744 841 414	No	Yes
L2	1	WE-FI Leaded Toroidal Line Choke	150 μH	20%	744 701 8	Würth Elektronik	744 701 8	No	Yes
L3	1	Power Line Choke	2 x 20 mH	-	B82734W	Epcos	B82734W2202B030	Yes	Yes
L4	1	WE-TI Radial Leaded Wire Wound Inductor	1.0 μH	20%	Radial	Würth Elektronik	744 772 010	No	Yes
LED1	1	LED 3 mm Green	LED-3MM-GREEN	-	Through Hole	Vishay	TLHG4400	Yes	Yes
NTC1	1	Sensing NTC Thermistor	330 kΩ	5%	Disc - Radial	Vishay	NTCLE100E3334JB0	Yes	Yes
OK1	1	Optocoupler	PC817	-	4-DIP	Sharp	PC817X2J000F	Yes	Yes
Q1	1	N MOSFET Transistor	SPP11N60C3	-	TO220	Infineon	SPP11N60C3	Yes	Yes
Q100	DNP	Transistor PNP	DNP	-	SOT23	ON Semiconductor	BC807-40LT1G	No	Yes
R1	1	Resistor	2.2 Ω	1%	207	Vishay	MBB02070C2208FRP00	Yes	Yes
R100, R108	2	Resistor SMD	2.2 Ω	1%	805	Rohm	MCR10EZHF2R20	Yes	Yes
R101, R102	2	Resistor SMD	2.7 kΩ	-	806	Rohm	MCR10EZPF2701	Yes	Yes
R103	1	Resistor SMD	680 Ω	1%	805	Rohm	MCR10EZPF6800	Yes	Yes
R104, R105, R106, R107	4	Resistor SMD	1.0 Ω	1%	1206	Rohm	MCR18EZHF1R00	Yes	Yes
R109	1	Resistor SMD	22 Ω	1%	805	Rohm	MCR10EZPF22R0	Yes	Yes

R110	1	Resistor SMD	10 kΩ	1%	805	Rohm	MCR10EZPF1002	Yes	Yes
R111	1	Resistor SMD	16 mΩ	1%	1206	Panasonic	ERJ-8BWFR016V	Yes	Yes
R112	1	Resistor SMD	18 kΩ		805	Rohm	MCR10EZPF1802	Yes	Yes
R113, R119, R121	3	Resistor SMD	1.0 kΩ	1%	805	Rohm	MCR10EZPF1001	Yes	Yes
R114	1	Resistor SMD	270 Ω	1%	805	Rohm	MCR10EZHF2700	Yes	Yes
R115	1	Resistor SMD	300 kΩ		805	Rohm	MCR10EZPF3003	Yes	Yes
R116	1	Resistor SMD	56 kΩ		805	Rohm	MCR10EZPF5602	Yes	Yes
R117	1	Resistor SMD	180 kΩ		805	Rohm	MCR10EZPF1803	Yes	Yes
R118, R127	2	Resistor SMD	15 kΩ		805	Rohm	MCR10EZPF1502	Yes	Yes
R120	1	Resistor SMD	5.6 kΩ		805	Rohm	MCR10EZPF5601	Yes	Yes
R122	1	Resistor SMD	3.9 kΩ		805	Rohm	MCR10EZPF3901	Yes	Yes
R123	1	Resistor SMD	220 Ω		805	Rohm	MCR10EZPF2200	Yes	Yes
R124	DNP	Resistor SMD	DNP		805	Rohm	MCR10EZPF2203	Yes	Yes
R125	DNP	Resistor SMD	DNP		805	Rohm	MCR10EZPF1003	Yes	Yes
R126	1	Resistor SMD	33 kΩ		805	Rohm	MCR10EZPF3302	Yes	Yes
R128	1	Resistor SMD	82 kΩ		805	Rohm	MCR10EZPF8202	Yes	Yes
R2, R3	2	Resistor	330 kΩ	1%	207	Vishay	HVR2500003303FR500	Yes	Yes
R4	1	Resistor Through Hole, High Voltage	4.7 MΩ	5%	Axial Lead	Welwyn	VRW37-4M7J1	Yes	Yes
R5	1	NTC Thermistor	Wire Strap	-	Disc - Radial	-	-	Yes	Yes
R6	1	Surge protecting varistor	B72210P2301K101	20%	Disc - Radial	Epcos	B72210P2301K101	Yes	Yes
R7	1	Resistor	15 Ω	1%	207	Vishay	MRS25000C1509FRP00	Yes	Yes
TR1	1	Transformer	KA5038-BL	-	KA5038-BL	CoilCraft	KA5037-BL	No	Yes
X1	1	Terminal Block, 2 Way	CTB5000/2	-	W237-102	Cadem El.	CTB5000/2	Yes	Yes
X2	1	Terminal Block, 3 Way	CTB5000/3	-	W237-113	Cadem El.	CTB5000/3	Yes	Yes
Q1, D1	2	EMI Suppression Ferrite Bead	742 700 73	-	742 700 73	Würth Elektronik	742 700 73	No	Yes
D2	1	Heat Sink Type 1	-	-	-	-	-	Yes	Yes
Q2	1	Heat Sink Type 2	-	-	-	-	-	Yes	Yes
Q1, D2	2	TO220 Transistor Insul Pad 1.13 x 0.63" & Bushings & Screw	-	-	-	-	TO-220-68	Yes	Yes
Jumper Wires	9	Jumper wires are to be placed on the top-side of the board as shown in the picture below. Note that some of these need to be palced before TR1 gets populated.	-	-	-	Various	Various	Yes	Yes

Notes:

### Heat Sink - Type 1

Material: Al 2.0 mm  
Surfacing: BLACK



### Heat Sink - Type 2

Material: Al 2.0 mm  
Surfacing: BLACK

