



Bill of Materials for the NCP13994MM360GEVB Evaluation Board

Designator (Main Board)	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
B101	1	Bridge Rectifier	DFB2560	-	SIP-4	N/A	N/A	Allowed	Yes
C1, C115, C218, C219, C221, C222	6	CAPACITOR	10nF/50V	-	C0805	Wurth	8.85012E+11	Allowed	Yes
C101	1	MPP CAPACITOR	820nF/275V~	-	C102-064X133	Wurth	890324025047CS	Allowed	Yes
C102	1	MPP CAPACITOR	1uF/275V~	-	C150-072X183	Wurth	890324026027CS	Allowed	Yes
C103, C104	2	MPP CAPACITOR	1uF/450Vdc	-	C150-072X183	Panasonic	ECW-FE2W105J	Allowed	Yes
C105	1	CAPACITOR	2.2nF/250V	-	C0805	Wurth	8.85342E+11	Allowed	Yes
C106	1	CAPACITOR	22nF/200V	-	C0805	Wurth	8.85342E+11	Allowed	Yes
C107, C201, C202	3	ELECTROLYTIC CAPACITOR	100u/450V	-	EC_18X31_R	United Chemi-Con	EKXL451ELL101MM30S	Allowed	Yes
C108	1	CAPACITOR	220pF/50V	-	C0805	Wurth	8.85012E+11	Allowed	Yes
C109, C220	2	CAPACITOR	470pF/50V	-	C0805	Wurth	8.85012E+11	Allowed	Yes
C110	1	CAPACITOR	3.3nF/50V	-	C0805	Wurth	8.85012E+11	Allowed	Yes
C111, C224	2	CAPACITOR	1uF/25V	-	C0805	Wurth	8.85012E+11	Allowed	Yes
C112	1	CAPACITOR	12nF/50V	-	C0805	Kemet	C0805C123K5RACTU	Allowed	Yes
C113, C225	2	ELECTROLYTIC CAPACITOR	220uF/25V	-	E3,5-8	Wurth	8.6004E+11	Allowed	Yes
C114	1	CAPACITOR	15pF/50V	-	C0805	Wurth	8.85012E+11	Allowed	Yes
C116, C230, C232, C234	4	CAPACITOR	Not Used	-	C0805	N/A	N/A	Not Allowed	Yes
C2, C211	2	CAPACITOR	560p/25V	-	C0603	Kemet	C0603C561J5RACAUTO	Allowed	Yes
C203, C204, C217, C223, C235, C236	6	CAPACITOR	100nF/50V	-	C0805	Wurth	8.85012E+11	Allowed	Yes
C205, C206	2	MKP CAPACITOR	22nF/1300V	-	C150-084X183	EPCOS	B3672L1223J189	Allowed	Yes
C207	1	ELECTROLYTIC CAPACITOR	220uF/35V	-	E3,5-8	Wurth	8.60011E+11	Allowed	Yes
C208, C209	2	CAPACITOR	1nF/50V	-	C0805	Wurth	8.85012E+11	Allowed	Yes
C210	1	CAPACITOR	2.2uF/25V	-	C0603	Wurth	8.85012E+11	Allowed	Yes
C212, C213, C214, C215, C216	5	POLYMER CAPACITOR	1.2mF/16V	-	E3,5-8	United Chemi-Con	APSG160ELL122MH20S	Allowed	Yes
C226	1	CAPACITOR	2.7nF/50V/NPO	-	C0805	Kemet	C0805C272J5GACTU	Allowed	Yes
C227, C228	2	CAPACITOR	220pF/1kV NP0	-	C1206	Kemet	C1206C221JBGACAUTO	Allowed	Yes
C229	1	CAPACITOR	15nF/50V/NP0	-	C0805	TDK	C2012C0G1H153J085AA	Allowed	Yes
C231	1	CAPACITOR	22nF/50V	-	C0805	Wurth	8.85012E+11	Allowed	Yes
C233	1	CAPACITOR	1.5nF/50V	-	C0805	Wurth	8.85012E+11	Allowed	Yes
CY101, CY102, CY201	3	Y CAPACITOR	2.2nF/Y1	-	YC10B5	Murata	DE1E3KX222MN4AP01F	Allowed	Yes
D101, D104, D105, D107	4	DIODE	BAS16HT1G	-	SOD323	onsemi	BAS16HT1G	Not Allowed	Yes
D102	1	DIODE	S3M	-	SMC	onsemi	S3M	Not Allowed	Yes
D103	1	DIODE	FFSPF0865A	-	TO-220-2 FullPak	onsemi	FFSPF0865A	Not Allowed	Yes
D106, D110, D207	3	DIODE	MMSD4148T1G	-	SOD123	onsemi	MMSD4148T1G	Not Allowed	Yes
D108, D109	2	DIODE	S1JFL	-	SOD123	onsemi	S1JFL	Not Allowed	Yes
D111, D112	2	DIODE	Not Used	-	SOD323	N/A	N/A	Not Allowed	Yes
D201, D203, D204, D210	4	DIODE	MBR0540	-	SOD123	onsemi	MBR0540	Not Allowed	Yes
D202	1	DIODE	MM3Z15VT1G	-	SOD323	onsemi	MM3Z15VT1G	Not Allowed	Yes
D205, D206	2	DIODE	MBR2H100SFT3G	-	SOD123	onsemi	MBR2H100SFT3G	Not Allowed	Yes
D208	1	DIODE	MM3Z4V7T1G	-	SOD323	onsemi	MM3Z4V7T1G	Not Allowed	Yes

D209	1	DIODE	ES1JFL	-	SOD123	onsemi	ES1JFL	Not Allowed	Yes
D211	1	DIODE	MM3Z12VT1G	-	SOD323	onsemi	MM3Z12VT1G	Not Allowed	Yes
F101	1	FUSE	T-6.3A	-	0697H	Bel Fuse	0697H5000-01	Allowed	Yes
IC101	1	PFC CONTROLLER	NCP1618	-	SO10	onsemi	NCP1618	Not Allowed	Yes
IC203	1	LLC CONTROLLER	NCP13994	-	SO16	onsemi	NCP13994AA	Not Allowed	Yes
IC204	1	SHUNT REGULATOR	NCP431	-	SOT23	onsemi	NCP431BISNT1G	Not Allowed	Yes
IC205	1	SR DRIVER	NCP4318	-	SO08	onsemi	NCP4318ALCDR2G	Not Allowed	Yes
L101	1	COMMON MODE INDUCTOR	2 x 4.8 mH	-	LF-280XX	ICE COMPONENTS	LF-28024-0048-H	Allowed	Yes
L102, L103	2	DIF. MODE INDUCTOR	90 uH	-	LITEON_1251_MC1	Würth	7447013	Allowed	Yes
L104	1	PFC INDUCTOR	260 uH	-	PQ32/25	Sumida	T92063	Allowed	Yes
L202	1	FERRITE BEAD	-	-	09X05	Würth	74270033	Allowed	Yes
NTC201	1	NTC	330k	-	THT	Vishay	NTCLE100E3334JB0	Allowed	Yes
OK201, OK202	2	OPTOCOUPLER	TCLT1008	-	SOP-4	Vishay	TCLT1008	Not Allowed	Yes
Q101	1	POWER MOSFET	NTPF165N65S3H	-	TO-220-2 FullPak	onsemi	NTPF165N65S3L1	Not Allowed	Yes
Q102	1	PNP TRANSISTOR	NSS20200L	-	SOT23	onsemi	NSS20200LT1G	Not Allowed	Yes
Q201	1	MOSFET	BSS138LT1G	-	SOT23	onsemi	BSS138LT1G	Not Allowed	Yes
Q202, Q203	2	POWER MOSFET	FCPF22N60NT	-	TO-220-2 FullPak	onsemi	FCPF22N60NT	Not Allowed	Yes
Q204, Q205, Q206, Q207	4	POWER MOSFET	NTMFS5C442	-	SO8 FL	onsemi	NTMFS5C442NLT1G	Not Allowed	Yes
R101	1	VARISTOR	275 VAC	-	LITTELFUSE	Littelfuse	VARV430CH8S	Allowed	Yes
R102	1	THERMISTOR	STRAP	-	N/A	N/A	N/A	Allowed	Yes
R104, R205, R222, R229, R235, R236, R238, R247, R251	9	RESISTOR	0R	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R105, R119, R250	3	RESISTOR	820R	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R106, R107	2	RESISTOR	0.062R / 2W	-	R6332W	TE Connectivity / Holsworthy	RLP73N3AR062JTE	Allowed	Yes
R108, R203, R204, R206	4	RESISTOR	22k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R109	1	RESISTOR	300R	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R110	1	RESISTOR	39R	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R111	1	RESISTOR	2.2R	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R112	1	RESISTOR	160k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R113, R114, R115, R116	4	RESISTOR	2.7M/ 1%	-	R0805	ROHM Smiconductor	KTR18EZPF2704	Allowed	Yes
R117, R227	2	RESISTOR	Not Used	-	R1206	N/A	N/A	N/A	Yes
R118, R121, R218, R220	4	RESISTOR	1k	-	R1206	VARIOUS	VARIOUS	Allowed	Yes
R120, R226	2	RESISTOR	100k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R122	1	RESISTOR	2k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R123, R241	2	RESISTOR	11k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R124	1	RESISTOR	10k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R125, R127, R128, R232, R234, R242, R246, R249	8	RESISTOR	Not Used	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R126	1	RESISTOR	240k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R201, R202	2	RESISTOR	33R	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R207, R208	2	RESISTOR	5.1R	-	R1206	VARIOUS	VARIOUS	Allowed	Yes
R209, R210	2	RESISTOR	27R	-	R1206	VARIOUS	VARIOUS	Allowed	Yes
R211	1	RESISTOR	5.1R	-	R0603	VARIOUS	VARIOUS	Allowed	Yes
R212, R214	2	RESISTOR	0R	-	R0603	VARIOUS	VARIOUS	Allowed	Yes
R213, R216	2	RESISTOR	15R	-	R0603	VARIOUS	VARIOUS	Allowed	Yes
R217	1	RESISTOR	62k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R219, R245	2	RESISTOR	1k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R221	1	RESISTOR	24k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R223	1	RESISTOR	15k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R224	1	RESISTOR	100R	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R225, R237	1	RESISTOR	68k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R228	1	RESISTOR	1.5k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes

R230	1	RESISTOR	0R	-	R1206	VARIOUS	VARIOUS	Allowed	Yes
R231	1	RESISTOR	5.1k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R233	1	RESISTOR	5.1R	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R239	1	RESISTOR	39k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R240	1	RESISTOR	27k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R243	1	RESISTOR	150k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R244	1	RESISTOR	Not Used	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
R248	1	RESISTOR	33k	-	R0805	VARIOUS	VARIOUS	Allowed	Yes
TR1	1	LLC TRANSFORMER	800 uH/ n=17	-	PQ3220	Sumida	T92060	Allowed	Yes
X101, X201	2	SCREW TERMINAL	Pitch 5.08 mm	-	WR-TBL Series 2365	Würth	691236510002	Allowed	Yes

Accessories:

Screw		M3 Round Pan Phillips Truss Head Carbon Steel Machine Screws 5 mm long	M3, 5 mm	-	5 mm	-	-	Yes	Yes
Screw		M3 Round Pan Phillips Truss Head Carbon Steel Machine Screws 3 mm long	M3, 3 mm	-	3 mm	-	-	Yes	Yes
HEATSINK		62 x 42 x 25 mm	Custom made heatsink	-	-	-	-	Yes	Yes
WIRE		Bare copper WIRE AWG16	AWG 16	-	12mm	-	-	Yes	Yes
WIRE		PTFE Insulated copper WIRE AWG20 – RED	AWG 120	-	-	-	-	Yes	Yes
WIRE		Insulated copper WIRE AWG12 - RED or WHITE	AWG 12	-	2.54mm	-	-	Yes	Yes

