



Bill of Materials for the NCP5212AGEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
U1	1	Single Synchronous Step Down Controller	-	-	QFN 16PIN	ON Semi	NCP5212AMNTXG	No	Yes
R1	0	Chip Resistor	Not Populated	-	-	-	-	-	-
R2	1	Chip Resistor	10K	5%	0603	Panasonic	ERJ3GEYJ103V	Yes	Yes
R7	1	Chip Resistor	1K	5%	0603	Panasonic	ERJ3GEYJ102V	Yes	Yes
R21	1	Chip Resistor	20	5%	0603	Panasonic	ERJ3GEYJR200V	Yes	Yes
R22	1	Chip Resistor	0	5%	0603	Panasonic	ERJ3GEYJR00V	Yes	Yes
R23	1	Chip Resistor	5.6	5%	0603	Panasonic	ERJ3GEYJ5R6V	Yes	Yes
R24	1	Chip Resistor	8.2K	1%	0603	Panasonic	ERJ3EKF8201V	Yes	Yes
R25	1	Chip Resistor	4.3K	1%	0603	Panasonic	ERJ3EKF4301V	Yes	Yes
R26	1	Chip Resistor	0	5%	0603	Panasonic	ERJ3GEYJR00V	Yes	Yes
R27	0	Chip Resistor	Not Populated	-	-	-	-	-	-
R28	1	Chip Resistor	0	5%	0603	Panasonic	ERJ3GEYJR00V	Yes	Yes
R29	1	Chip Resistor	0	5%	0603	Panasonic	ERJ3GEYJR00V	Yes	Yes
R210	1	Chip Resistor	1K	1%	0603	Panasonic	ERJ3EKF1001V	Yes	Yes
R211	1	Chip Resistor	5K	1%	0603	Panasonic	ERJ3EKF5001V	Yes	Yes
R212	0	Chip Resistor	DNP	-	0603	Panasonic	ERJ3EKF2403V	Yes	Yes
R213	1	Chip Resistor	100K	1%	0603	Panasonic	ERJ3EKF1003V	Yes	Yes
R214	1	Chip Resistor	1K	1%	0603	Panasonic	ERJ3EKF1001V	Yes	Yes
R215	1	Chip Resistor	10K/13K	1%	0603	Panasonic	10K//13K	Yes	Yes
			10K	1%	0603	Panasonic	ERJ3EKF1002V	Yes	Yes
			13K	1%	0603	Panasonic	ERJ3EKF1302V	Yes	Yes
R216	1	Chip Resistor	10K	5%	0603	Panasonic	ERJ3GEYJ103V	Yes	Yes
R220	1	Chip Resistor	0	5%	0603	Panasonic	ERJ3GEYJR00V	Yes	Yes
R223	1	Chip Resistor	1K	1%	0603	Panasonic	ERJ3EKF1001V	Yes	Yes
R224	1	Chip Resistor	100K	5%	0603	Panasonic	ERJ3GEYJ104V	Yes	Yes
C1	1	SP-Cap/Polymer Aluminum Capacitor, 2V, ESR=12mΩ Reflow: 240°C, UD series	220uF	20%	7343	Panasonic	EEFUD0D221XR	Yes	Yes
C2	1	SP-Cap/Polymer Aluminum Capacitor, 2V, ESR=12mΩ Reflow: 240°C, UD series	220uF	0.2	7343	Panasonic	EEFUD0D221XR	Yes	Yes
C3	0	-	Not Populated	-	-	-	-	-	-
C21	1	MLCC Chip Capacitor Temp Char: X5R, Rate V=25V	1uF	0.2	0805	Panasonic	ECJ2FB1E105M	Yes	Yes
C22	1	MLCC Chip Capacitor Temp Char: X5R, Rate V=25V	1uF	0.2	0805	Panasonic	ECJ2FB1E105M	Yes	Yes
C23	1	MLCC Chip Capacitor Temp Char: X7R, Rate V=50V	15nF	0.1	0603	Panasonic	ECJ1VB1E153K	Yes	Yes
C24	1	MLCC Chip Capacitor Temp Char: X7R, Rate V=50V	100nF	0.1	0603	Panasonic	ECJ1VB1E104K	Yes	Yes
C25	1	MLCC Chip Capacitor Temp Char: X7R, Rate V=50V	100nF	0.1	0603	Panasonic	ECJ1VB1E104K	Yes	Yes
C26	1	MLCC Chip Capacitor Temp Char: X5R, Rate V=25V	10uF	0.2	1206	Panasonic	ECJ3YB1E106M	Yes	Yes

C27	1	MLCC Chip CapacitorTemp Char: X5R, Rate V=25V	10uF	0.2	1206	Panasonic	ECJ3YB1E106M	Yes	Yes
C28	1	MLCC Chip CapacitorTemp Char: X5R, Rate V=25V	10uF	0.2	1206	Panasonic	ECJ3YB1E106M	Yes	Yes
C29	1	MLCC Chip CapacitorTemp Char: X5R, Rate V=25V	1uF	0.2	1206	Panasonic	ECJ3YB1E105M	Yes	Yes
C212	0	-	Not Populated	-	-	-	-	-	-
C213	1	MLCC Chip CapacitorTemp Char: CH, Rate V=50V	9pF	0.1	0603	Panasonic	ECJ1VC1H900K	Yes	Yes
C214	1	MLCC Chip CapacitorTemp Char: CH, Rate V=50V	270pF	0.1	0603	Panasonic	ECJ1VC1H271K	Yes	Yes
C215	1	MLCC Chip CapacitorTemp Char: CH, Rate V=50V	180pF	0.1	0603	Panasonic	ECJ1VC1H181K	Yes	Yes
C216	1	MLCC Chip CapacitorTemp Char: X5R, Rate V=25V	1uF	0.2	0805	Panasonic	ECJ2FB1E105M	Yes	Yes
M1, M2	2	Power MOSFET 30V, 57ASingle N-Ch	-	-	SO-8	ON Semi	NTMFS4841N	Yes	Yes
M3, M4	0	-	Not Populated	-	-	-	-	-	-
M5	1	Power MOSFET 50V, 200mASingle N-Ch	-	-	SOT-23	ON Semi	BSS138L	Yes	Yes
D21	0	-	Not Populated	-	-	-	-	-	-
D22	1	30V Schottky DiodeVf=0.35V @ 10mA	-	-	SOT-23	ON Semi	BAT54LT1	Yes	Yes
D23	0	-	Not Populated	-	-	-	-	-	-
L1	1	Power Choke CoilIDCR=3.3mΩmax, ISAT=18A, IDC=26A	1uH	0.2	10x11.5x4mm	Würth	744315120	Yes	Yes
SYNC, J21	2	SMB SMT Straight Socket	-	-	5.1 x 5.1mm	Tyco Electronics	RS Stock# 420-5401	Yes	Yes
JP2, JP3, J2, EN, FB, COMP, DH, DL, SWN, PGOOD, PGND, PGND	12	Pin Header Single Row	-	-	Pitch=2.54mm	Betamax	2211S-40G-F1	Yes	Yes
LED1	1	Surface Mount LEDColor = Green	-	-	0805	LUMEX	SML-LX0805GC-TR	Yes	Yes
+5V, AGND, GND, VOUT, VIN, PGND	1	Terminal Pin	-	-	f=1.74mm	HARWIN	H2121-01	Yes	Yes