



ON Semiconductor

Bill of Materials for the NCP3020BGEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	FootPrint	Manufacturer	Manufacturer Part Name	Substitution Allowed	Lead Free
C1	1	Ceramic Chip Capacitor	1uF 25V	+/- 10%	1206	TDK	C3216X7R1E105K	Yes	Yes
C2	1	Ceramic Chip Capacitor	33 pF	+/- 5%	0603	TDK	C1608C0G1H330J	Yes	Yes
C3	1	Ceramic Chip Capacitor	8.2nF	+/- 5%	0603	TDK	C1608C0G1E822J	Yes	Yes
C4	1	Ceramic Chip Capacitor	1.8nF	+/- 5%	0603	TDK	C1608C0G1H182J	Yes	Yes
C5	1	Ceramic Chip Capacitor	470pF	+/- 10%	0805	Kemet	C0805C471K5RACTU	Yes	Yes
C6 C11 C12	3	Electrolytic Capacitor	470 uF 35V	+/- 20%	12.5 X 16 mm, radial,	United Chemi-Con	EMVH350ARA471MKG5S	No	Yes
C7	1	Ceramic Chip Capacitor	0.1 uF	+/- 10%	0805	TDK	C2012X7R1H104K	Yes	Yes
C8 C9	2	Ceramic Chip Capacitor	22uF	+/- 10%	1210	TDK	C3225X5R1A226M	Yes	Yes
C10 C14	2	Ceramic Chip Capacitor	22uF 25V	+/- 20%	1812	TDK	C4532X7R1E226M	No	Yes
C13	1	Ceramic Chip Capacitor	DNP	-	0603	-	-	-	-
C15	1	Ceramic Chip Capacitor	1 uF	+/- 10%	0805	TDK	C2012X7R1A105K	Yes	Yes
C16	1	Ceramic Chip Capacitor	0.1uF	+/- 10%	0603	TDK	C1608X7R1E104K	Yes	Yes
U1	1	600 kHz PWM Controller	600 kHz	-	SOIC-8	ON Semiconductor	NCP3020BDR2G	No	Yes
D1	1	Schottky Barrier Diodes	0.35 Vf	-	SOD_123_BAT54T1	ON Semiconductor	BAT54T1G	No	Yes
L1	1	SMT Inductor	3.3 uH	+/- 20%	12X11X9.5 mm	Würth	7443310330	No	Yes
Q1	1	Triple Use Footprint; SO8/SO8FL/DPAK MOSFET	30V, SO8FL	-	DPAK/SO8FL	ON Semiconductor	NTMFS4841T1G	No	Yes
Q2	1	Triple Use Footprint; SO8/SO8FL/DPAK MOSFET	30V, SO8FL	-	DPAK/SO8FL	ON Semiconductor	NTMFS4935NT1G	No	Yes
R1	1	SMT Resistor	4.53k	+/- 1%	0603	Vishay/Dale	CRCW06034K53FKEA	Yes	Yes
R2	1	SMT Resistor	1k	+/- 1%	0603	Vishay/Dale	CRCW06031K00FKEA	Yes	Yes
R3	1	SMT Resistor	4.75k	+/- 1%	0603	Vishay/Dale	CRCW06034K75FKEA	Yes	Yes
R4	1	SMT Resistor	2.49k	+/- 1%	0603	Vishay/Dale	CRCW06032K49FKEA	Yes	Yes
R5	1	SMT Resistor	10k	+/- 5%	0603	Vishay/Dale	CRCW060310K0JNEA	Yes	Yes
R6	1	SMT Resistor	22.1k	+/- 1%	0603	Vishay/Dale	CRCW060322K1FKEA	Yes	Yes
R7 R12 R15	3	SMT Resistor	0R0	Jumper	0603	Vishay/Dale	CRCW06030000Z0EA	Yes	Yes
R8	1	Resistor	8R06	+/- 1%	1206	Vishay/Dale	CRCW12068R06FNEA	Yes	Yes
R9	1	Resistor	0R0	Jumper	1206	Vishay/Dale	CRCW12060000Z0EA	Yes	Yes
R10	1	Resistor	100	+/- 1%	1206	Vishay/Dale	CRCW1206100RFKEA	Yes	Yes
R13	1	SMT Resistor	DNP	-	0603	-	-	-	-
R14	1	SMT Resistor	20R	-	0603	Vishay/Dale	CRCW060320R0FKEA	Yes	Yes
VIN-P VIN-S VOUT-P VOUT-S VSW BST COMP FB FR FT GND- P GND-P1 GND-S GND-S1	14	Printed Circuit Pins	-	-	0.040 DIA	Mill-Max	6821-0-00-15-00-00-08-0	Yes	Yes