



Bill of Materials for the ONS321B12VGEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C1	1	CAP, SMT, 0603, 1500pF, 50V, 10%, X7R	1500pF	10%	SMC0603	KEMET	C0603C152K5RACTU	No	Yes
C2	1	CAP, SMT, 0603, 680pF, 50V, 5%, X7R	680pF	5%	SMC0603	KEMET	C0603C681J5RAC	No	Yes
C3	1	CAP, SMT, 0603, 100pF, 50V, 5%	100pF	5%	SMC0603	PANASONIC	ECJ1VC1H101J	Yes	Yes
C4	DNP	CAP, SMT, 0603, DO NOT PLACE	DNP	-	SMC0603	-	-	Yes	Yes
C5,C8	2	CAP, SMT, 0805, 1uF, 50V, 10%	1uF	10%	SMC0805	TDK	C2012X7R1H105K	No	Yes
C6	1	CAP, SMT, 0805, 1200pF, 50V, 10%	1200pF	10%	SMC0805	TDK	C1608C0G1H122J	No	Yes
C7,C9	2	CAP, SMT, 0805, 0.1uF, 25V, 10%	0.1uF	10%	SMC0805	MURATA	GRM40X7R104K025AD	No	Yes
C10	DNP	CAP, SMT, 0805, DO NOT PLACE	DNP	-	SMC0805	-	-	Yes	Yes
C11,C12,C13,C14,C15,C16,C18,C26	8	CAP, SMT, 1210, 22uF, 16V	22uF	20%	CSMI 1210	TDK	C3225X5R1C226M	No	Yes
C17,C25	2	CAP, SMT, 7343X, 47uF, 25V, 20%, TANT	47uF	20%	CSMM 7343	KEMET	T495D476M025ATE120	No	Yes
C19,C20,C21,C22,C23,C24	6	CAP, SMT, 1210, 100uF, 6.3V, 20%	100uF	20%	CSMI 1210	TDK	C3225X5R0J107M	No	Yes
C27,C28,C29,C30	4	CAP, SMT, 7343X, 470uF, 25V, 20%, TANT	470uF	20%	C7343	KEMET	T495D477M025ATE120	No	Yes
CR17	1	DIODE, SMT, POWERMITE, MBRM130LT3, SHTKY	MBRM130LT3	-	CRSMM_POWERMITE2	ON SEMICONDUCTOR	MBRM130LT3G	Yes	Yes
CR18,CR19,CR20	3	DIODE, SMT, SMB, MBRM130LT3, SHTKY, 2A, 30V	MBRM130LT3	-	CRSMM_SMB403A	ON SEMICONDUCTOR	MBRM130LT3G	No	Yes
CSS	1	CAP, SMT, 0603, 0.1uF, 50V, 10%	0.01uF	10%	SMC0603	TDK	C1608X7R1H103K	No	Yes
D22	1	LED, SMT, 1206, GRN	GRN	-	SMLED1206	DIALIGHT	597-3311-407F	Yes	Yes
J1,J5,J6	3	CON, TH, 2PIN, TERMINAL BLOCK	2PIN/TERM BLK	-	TERM_BL	PHOENIX CONTACT	1729128	No	Yes
J9,J10,J11,J12	4	TESTPOINT, 100R63, 5007, COMPACT	TP	-	TPTHI_100R63	KEYSTONE	5007	No	Yes
J13,J14	2	CON, TH, 6PIN, PWR, SCREW TERMINAL, 30 AMP	6PIN	-	JTHI_TERM2R6PS	KEYSTONE ELECTRONICS	8196	No	Yes
JS6,JS8,JS10,JS11	4	CON, TH, SMB, 5PIN, VRT, PROBE, TP ADAPTER	SMB	-	JTHI_SMB5SS TEST PROBE	TEKTRONIX	131-5031-00	Yes	Yes
L1	1	IND, SMT, 1.0uH, CHOKO, POWER	1.0uH	-	SMIHLP5050PCCD126H	PANASONIC	ETQ-PIH1R0BFA	No	Yes
Q2	1	XSTR, SMT, SO8FL, NTMFS4926NT1, MOSFET, N	NTMFS4926N	-	SO8_PTDSO8N_SO8FL_COMBO_8MIL	ON SEMICONDUCTOR	NTMFS4926NT1G	No	Yes
Q3	1	XSTR, SMT, SO8FL, NTMFS4935N, MOSFET, N	NTMFS4935N	-	SO8NB_S2	ON SEMICONDUCTOR	NTMFS4935NT1G	No	Yes
Q41	1	XSTR, SMT, SOT23, 2N7002, NCH TMOS	2N7002	-	QSMI_SOT23	ON SEMICONDUCTOR	2N7002L1G	Yes	Yes
R1,R2,R3,R4,R5,R8,R11	7	RES, SMT, 0603, 86.6K, 1/10W, 1%	86.6K	1%	SMR0603	DALE	CRCW060386K6FRT1E3	Yes	Yes
R6,R7,R12	3	RES, SMT, 0603, 0, 1/16W, 5%	0.0	5%	SMR0603	DALE	CRCW060300ZTE3	Yes	Yes
R9	1	RES, SMT, 0603, 301, 1/10W, 1%	301	1%	SMR0603	DALE	CRCW0603301RFRT1E3	Yes	Yes
R13	1	RES, SMT, 0603, 16.9K, 1/10W, 1%	16.9K	1%	SMR0603	DALE	CRCW060316K9FRT1E3	Yes	Yes
R14	1	RES, SMT, 0603, 13.7K, 1/10W, 1%	13.7K	1%	SMR0603	DALE	CRCW060313K7FRT1E3	Yes	Yes
R39	1	RES, SMT, 0603, 2.21K, 1/10W, 1%	2.21K	1%	SMR0603	DALE	CRCW06032K21FRT1E3	Yes	Yes
R15,R17,R19,R58	4	RES, SMT, 0603, 1.00K, 1/10W, 1%	1.0K	1%	SMR0603	DALE	CRCW06031K0KFRT1E3	Yes	Yes
R18	1	RES, SMT, 0603, 100, 1/10W, 1%	100	1%	SMR0603	DALE	CRCW0603100RFRT1E3	Yes	Yes
R20	1	RES, SMT, 0603, 10.0, 1/10W, 1%	10.0	1%	SMR0603	DALE	CRCW060310R0FRT1E3	Yes	Yes
R21,R22,R23	DNP	RES, SMT, 0603, DO NOT PLACE	DNP	-	SMR0603	-	-	Yes	Yes
R24,R33	2	RES, SMT, 1210, 2.21, 1/3W, 1%	2.21	1%	RSMI 1210	DALE	CRCW12102R21FRT1E3	Yes	Yes
R26,R30	2	RES, SMT, 0603, 0, 1/16W, 5%	0	5%	SMR0603	PANASONIC	ERJ3GJEYR00V	No	Yes
R27	1	RES, SMT, 0603, 15.0K, 1/10W, 1%	15.0K	1%	SMR0603	DALE	CRCW060315K0FRT1E3	Yes	Yes
R28	1	RES, SMT, 0805, 100K, 1/8W, 1%	100K	1%	SMR0805	DALE	CRCW0805100KFRT1E3	Yes	Yes
R29	1	RES, SMT, 0805, 11.5K, 1/8W, 1%	11.5K	1%	SMR0805	DALE	CRCW080511K5FRT1E3	Yes	Yes
R31	1	RES, SMT, 1210, 0.00, 1/3W, 1%	0	1%	RSMI 1210	DALE	CRCW12100000FRT1E3	Yes	Yes
R32,R52	2	RES, SMT, 1210, 4.75, 1/3W, 1%	4.75	1%	RSMI 1210	DALE	CRCW12104R75FRT1E3	Yes	Yes
R34,R35	2	RES, SMT, 0805, 10.0K, 1/8W, 1%	10.0K	1%	SMR0805	DALE	CRCW080510K0FRT1E3	Yes	Yes
R36,R37	2	RES, SMT, 0805, 0, 1/8W	0	1%	RSMI 1210	DALE	CRCW12100000FRT1	Yes	Yes
R38	1	RES, SMT, 1206, 1.21, 1/4W, 1%	1.21	1%	RSMI 1206	DALE	CRCW12061R21FRT1E3	Yes	Yes
R40,R41,R42,R43,R44,R48,R51	7	RES, SMT, 0603, 49.9K, 1/10W, 1%	49.9K	1%	SMR0603	DALE	CRCW060349K9FRT1E3	Yes	Yes
R49,R50	2	RES, SMT, 0603, 10.0K, 1/10W, 1%	10.0K	1%	SMR0603	DALE	CRCW060310K0FRT1E3	Yes	Yes
R53,R54,R55,R56	4	RES, SMT, 0805, 0, 1/8W	0	1%	SMR0805	DALE	CRCW08050000ZRT1E3	Yes	Yes
R57	DNP	RES, SMT, 0603, DO NOT PLACE	DNP	-	SMR0603	-	-	Yes	Yes
RT1	1	RES, SMT, 0603, 68K, THERMISTOR, 5%	68K	5%	SMR0603	PANASONIC	ERTJ1VR683J	No	Yes
RT2	1	RES, SMT, 0603, 10K, NTC, THERMISTOR, 1%	10K	1%	SMR0603	MURATA	NCP18XH103F03RB	No	Yes
SW2	1	SWITCH, TH, DIP, VRT, 8POS	SW DIP-8	-	STHI_DIP08	GRAYHILL	76PSB08ST	Yes	Yes
U1	1	IC, SMT, NCP5386B, 32-PIN QFN, 5X5, 0.50	NCP5386B	-	USMM_QFN32R5X5	ON SEMICONDUCTOR	NCP5386BMNR2G	No	Yes
U2	1	IC, SMT, DFN-08, NCP5901	NCP5901B	-	USMM_DFN08_0P2X0P2X0P5P_QFN_RWK	ON SEMICONDUCTOR	NCP5901BMNBTBG	No	Yes

Optional MOSFETs (Do Not Place)

Q1	1	XSTR, SMT, SO8FL, NTMFS4921NT1, MOSFET, N	NTMFS4921N	-	-	ON SEMICONDUCTOR	NTMFS4921NT1G	No	Yes
Q4	1	XSTR, SMT, SO8FL, NTMFS4935N, MOSFET, N	NTMFS4935N	-	-	ON SEMICONDUCTOR	NTMFS4935NT1G	No	Yes
Q5,Q6	2	XSTR, SMT, DPAK, NTD4810NH, MOSFET, N	NTD4810NH	-	-	ON SEMICONDUCTOR	NTD4810NH4G	No	Yes
Q7,Q8	2	XSTR, SMT, DPAK, NTD4806NT, MOSFET, N	NTD4806NT	-	-	ON SEMICONDUCTOR	NTD4806NT4G	No	Yes
Q9,Q10	2	XSTR, SMT, u8FL, NTTF54930NTAG, MOSFET, N	NTTF54930NTAG	-	-	ON SEMICONDUCTOR	NTTF54930NTAG	No	Yes