



Bill of Materials for the STR-NCD98010-GEVK Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C1 C2 C6 C11 C12 C19	6	Generic 0402 SMD Capacitor	4.7uF		0402	Murata	GRM155R60J475ME47	Yes	Yes
C3 C13 C18 C21	4	CAP CER 1UF 16V X5R 0402	1uF		0402	Murata	GRM155R61C105KA12	Yes	Yes
C4 C41	2	CAP CER 0.1UF 50V X7R 0402	0.1uF		0402	Murata	GCM155R71H104ME02	Yes	Yes
C5 C56 C67	3	CAP CER 10UF 25V X5R 0603	10uF		0603	Murata	GRM188R61E106MA73	Yes	Yes
C7 C20	2	CAP CER 510pF 35V CPG 0603	470pF		0603	Kemet	06035A471FAT2A	Yes	Yes
C8 C43 C45 C51 C64 C72 C73 C74	1	DNP	DNP		0603	DNP	DNP	Yes	Yes
C9 C10 C27 C29 C30 C38 C42 C47 C48 C49 C50 C52 C53 C54 C59 C63 C70	17	CAP CER 10UF 25V X7R 0603	10nF		0603	Kemet	C0603C103K3RACTU	Yes	Yes
C14 C17	2	CAP CER 7.5PF 50V C0G/NP0 0402	7.5pF		0402	Murata	GJM1555C1H7R5CB01D	Yes	Yes
C15 C16	2	Generic 0402 SMD Capacitor	12.5pF		0402	Murata	GRM1555C1E120JA01	Yes	Yes
C22 C23 C25 C26 C28 C31 C32 C33 C34 C35 C39 C40 C44 C46 C61 C62 C66 C69	18	CAP CER 1UF 16V X8L 0603	1uF		0603	TDK	C1608X8H1C105K080AC	Yes	Yes
C24 C36 C37 C58 C68	5	CAP CER 100nF 25V X7R 0603	100nF		0603	Samsung	CL10B104KA8NNNC	Yes	Yes
D1	1	Yellow LED	150060YS75000		0603	Würth Elektronik	150060YS75000	Yes	Yes
D2	1	Blue LED	150060BS75000		0603	Würth Elektronik	150060BS75000	Yes	Yes
D3	1	Green LED	150060GS75000		0603	Würth Elektronik	150060GS75000	Yes	Yes
D4	1	Red LED	150060RS75000		0603	Würth Elektronik	150060RS75000	Yes	Yes
D5	1	Auto ESD Protection Diodes	SESD7L		SOT-723	ON Semiconductor	SESD7L5.0	No	Yes
D6 D7	2	Schottky Barrier Diode, 2.0 A, 20 V	NSR20F20NX		DSN2 0603	ON Semiconductor	NSR20F20NX	No	Yes
FB1	1	Ferrite bead/Impedance type filter	220@100M		0805	Murata	BLM21AG221SN1	Yes	Yes
J1 J2 J8 J9	4	PLASTIC HEXAGON NUT M3	709940300		M3 Nut	Würth	709940300	Yes	Yes
J3	1	Standard Arm Cortex Debug Connector	FTSH-105-01-F-DV-K		2x5pin 50mil Cortex Debug	Samtec	FTSH-105-01-F-DV-K	Yes	Yes
J4 J6	2	SMA Connector Jack, Female Socket 50 Ohm	5-1814832-1		Female SMA	TE Connectivity	5-1814832-1	Yes	Yes
J5	1	Mini USB1/2 Type-B Connector	65100516121		Mini USB1/2 B	Würth Elektronik	65100516121	Yes	Yes
J7 JP1	1	DNP	DNP		Female SMA	DNP	DNP	Yes	Yes
J10 J11 J13 J14	4	PLASTIC SPACER STUD METRIC THREAD M3 10MM	971100365		M3 10MM	Würth	971100365	Yes	Yes
J12	1	Standard 1x6pin 100mil Pitch Header	613 006 111 21		1x6pin 100mil	Würth Elektronik	613 006 111 21	Yes	Yes
Q1 Q2 Q3	3	Small Signal MOSFET 60V 340mA 2.5 Ohm Single N-Channel SOT-323	2N7002W		SOT-323	ON Semiconductor	2N7002W	No	Yes
R1	1	RES SMD 100 OHM 1% 1/10W 0603	100		0603	Vishay	CRCW0603100RFB	Yes	Yes
R2	1	RES SMD 665 OHM 1% 1/16W 0402	665		0402	Vishay	CRCW0402665RFB	Yes	Yes
R3 R18	2	RES SMD 10K OHM 1% 1/16W 0402	10K		0402	Vishay	CRCW040210K0FB	Yes	Yes
R4	1	RES SMD 9.76K OHM 1% 1/16W 0402	9.76K		0402	Vishay	CRCW04029K76FB	Yes	Yes
R5	1	RES SMD 8.87K OHM 1% 1/16W 0402	8.87K		0402	Vishay	CRCW04028K87FB	Yes	Yes
R6 R9	2	RES SMD 100 OHM 1% 1/16W 0402	100		0402	Vishay	CRCW0402100RFB	Yes	Yes

R7	1	RES SMD 5.11K OHM 1% 1/16W 0402	5.11K		0402	Vishay	CRCW04025K11FK	Yes	Yes
R8	1	RES SMD 2.32K OHM 1% 1/16W 0402	2.32K		0402	Vishay	CRCW04022K32FK	Yes	Yes
R10 R13 R14 R16	4	RES SMD 1K OHM 1% 1/16W 0402	0		0402	Vishay Dale	CRCW0402000Z0EDHP	Yes	Yes
R11 R17	2	RES SMD 68 OHM 0.1% 1/16W 0402	68		0402	PEC	ERA-2AEB680X	Yes	Yes
R12 R15	2	RES SMD 49.9 OHM 1% 1/16W 0402	49.9		0402	PEC	ERA-2AEB49R9X	Yes	Yes
R19	1	RES SMD 20 OHM 0.1% 1W 1206	20		1206	YAGEO	RT1206BRD0720RL	Yes	Yes
R20	1	RES SMD 49.9 OHM 1% 1/4W 1206	100		1206	Vishay	CRCW120649R9FK	Yes	Yes
R21 R23 R29 R30	4	RES SMD 1K OHM 0.1% 1/16W 0402	47k		0402	PEC	ERA-2AEB473X	Yes	Yes
R22 R26 R35 R31	3	RES SMD 1K OHM 1% 1/16W 0402	DNP		0603	Vishay	CRCW04021K00FK	Yes	Yes
R24 R25 R27 R28	4	RES SMD 4.75 OHM 1% 1/10W 0402	4.75		0402	KOA Speer	RK73H1ETTP4R75F	Yes	Yes
R32 R33 R36	3	RES SMD 1K OHM 1% 1/16W 0402	1K		0402	Vishay	CRCW04021K00FK	Yes	Yes
R38	1	RES SMD 100K OHM 1% 1/16W 0402	100k		0402	PEC	ERA-2AED104X	Yes	Yes
SW1	1	SWITCH TACTILE SPST-NO 0.05A 12V	434153017835		MOM1 SMD	Würth Elektronik	434153017835	Yes	Yes
TP1 TP6 TP8 TP9 TP10 TP2 TP3 TP4 TP5 TP7	5	DNP	DNP		DNP	DNP	DNP	Yes	Yes
U1	1	EFM32 Giant Gecko 32-bit Microcontroller	EFM32GG380F1024		QFP100 14x14	Silicon Labs	EFM32GG380F1024-QFP100	Yes	Yes
U2	1	USB to BASIC UART IC	FT230X		QFN16 4x4	FTDI	FT230XQ-R	Yes	Yes
U4	1	12-Bit Low Power SAR ADC	NCD9801		X2QFN8	ON Semiconductor	NCD9801XMXTWG	No	Yes
U5	1	3.3V Voltage Regulator, LDO, Ultra Low Noise, Ultra Low Iq, 500 mA	NCP705		WDFN6	ON Semiconductor	NCP705MT33TCG	No	Yes
U6 U12	2	250 mA, Ultra-Low Noise and High PSRR LDO Regulator for RF and Analog Circuits	NCP160		XDFN4	ON Semiconductor	NCP160BMX330TBG	No	Yes
U7 U8 U11	3	250 mA, Ultra-Low Noise and High PSRR LDO Regulator for RF and Analog Circuits	NCP160		XDFN4	ON Semiconductor	NCP160AMX180TBG	No	Yes
U9 U10	2	Current-Shunt Monitor, Voltage Output, Bi-Directional Zero-Drift, Gain = 200V/V	NCS210R		SC-70-6	ON Semiconductor	NCS210RSQT2G	No	Yes
U13	1	IC CPLD 64MC 6.7NS 48QFN	XC2C64A		QFG48	Xilinx Inc.	XC2C64A-7QFG48C	Yes	Yes
U14	1	Operational Amplifier, 50 uV Offset, 0.25 uV/C, Zero-Drift Precision, Low Power	DNP		SOT23-5	ON Semiconductor	NCS325SN2T1G	No	Yes
U15	1	IC SYNC FIFO MEM 65536X18 80LQFP	SN74V293		PQFP80	Texas Instruments	SN74V293-6PZA	Yes	Yes
U16	1	250 mA, Ultra-Low Noise and High PSRR LDO Regulator for RF and Analog Circuits	NCP160		WLCSP4	ON Semiconductor	NCP160AFCT450T2G	No	Yes
U17	1	IC REG LIN NEG ADJ 200MA SOT23-5	TPS72301		SOT23-5	Texas Instruments	TPS72301DBVR	Yes	Yes
U18	1	Switched Capacitor Voltage Inverter	NCP1729		TSOP-6	ON Semiconductor	NCP1729	No	Yes
U19	1	OSC MEMS 64.000MHZ CMOS SMD	64MHz		4pin 2.5x2mm	Microchip Technology	DSC1001D12-064.0000	Yes	Yes
U3	1	Operational Amplifier, High Slew Rate, Rail to Rail, Dual	DNP		Micro8	ON Semiconductor	NCS20032DMR2G	No	Yes
Y1	1	Crystals 32.768 kHz 12.5 pF +/-20 PPM -40/+85C	32.768 kHz		2 pin w/ shell	Micro Crystal	MS3V-T1R-32.768kHz-12.5pF-20PPM-TA-QC-Au	Yes	Yes
Y2	1	CRYSTAL 48.0000MHZ 8PF SMD	48MHz		5x3.2mm	NDK	NX5032GA-48.000000MHZ-LN-CD-1	Yes	Yes