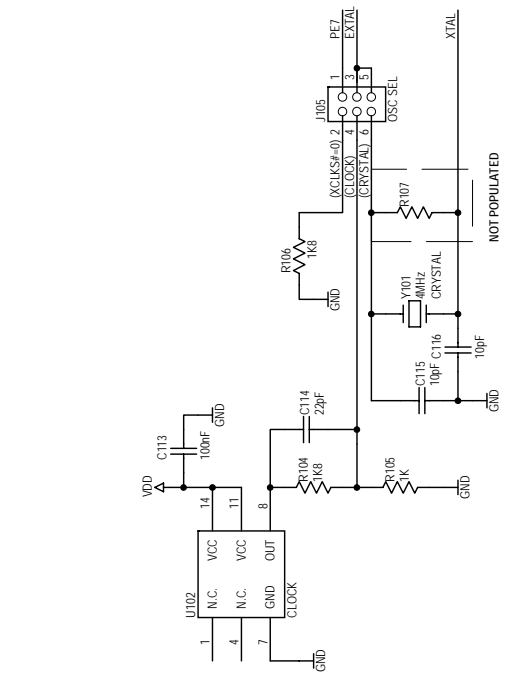
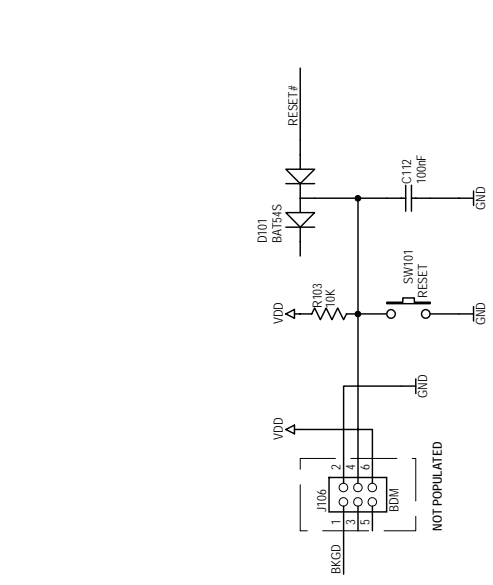
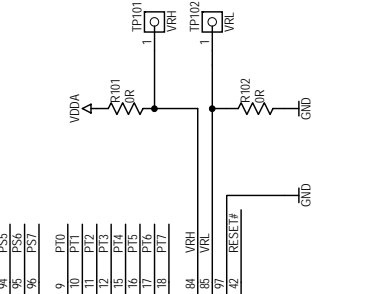
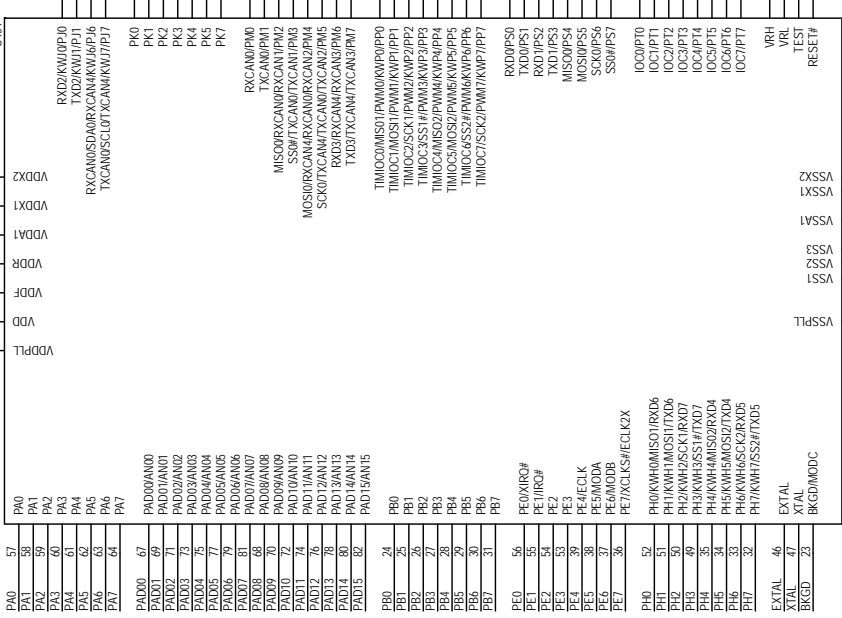
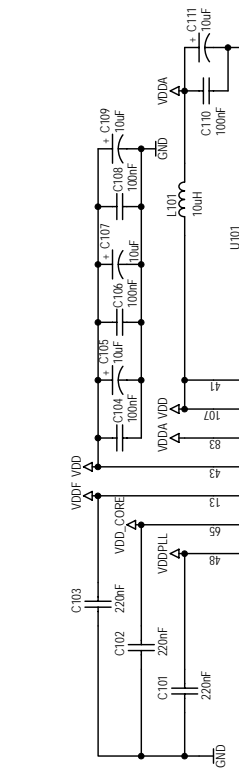
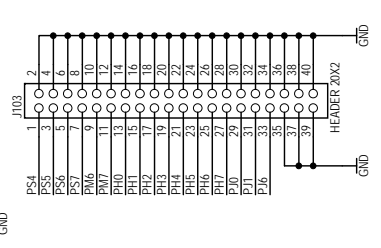
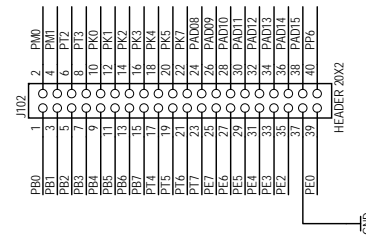
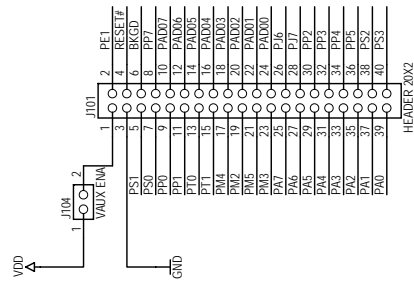
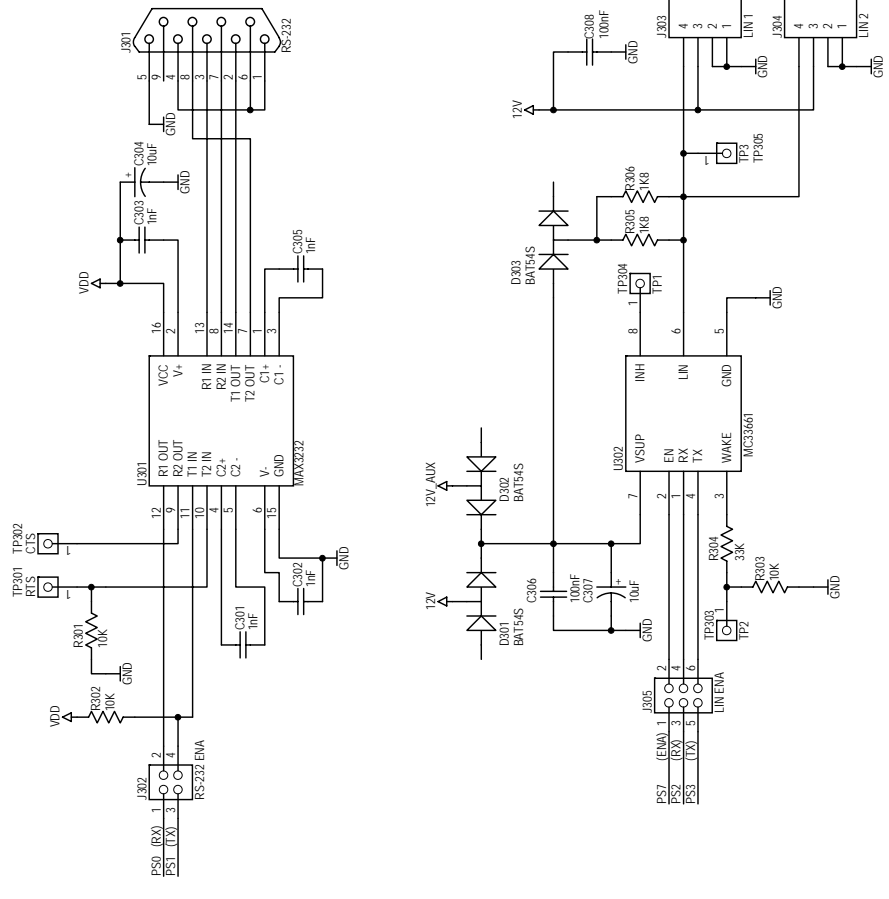


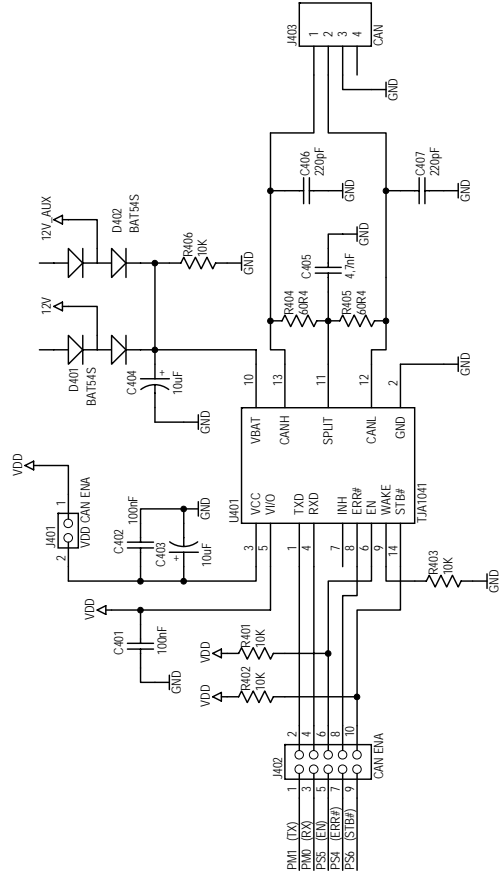
# **DEMO9S12XEP100**

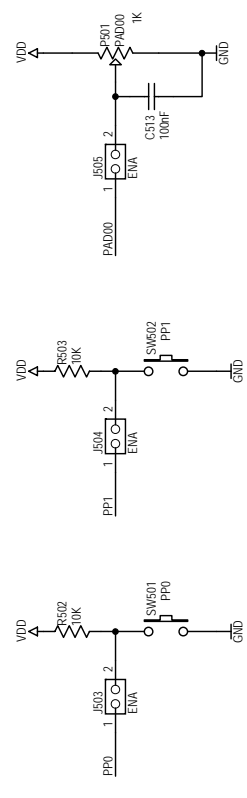
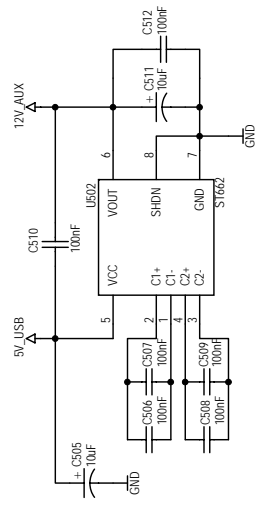
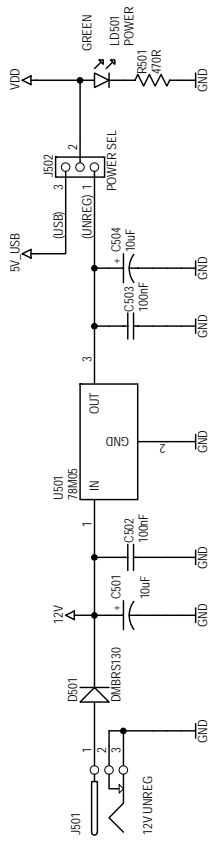
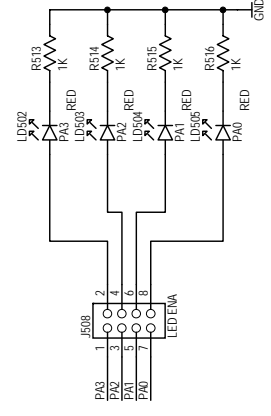
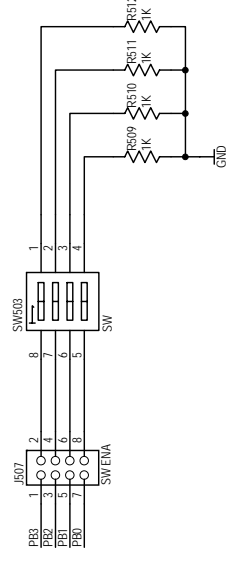
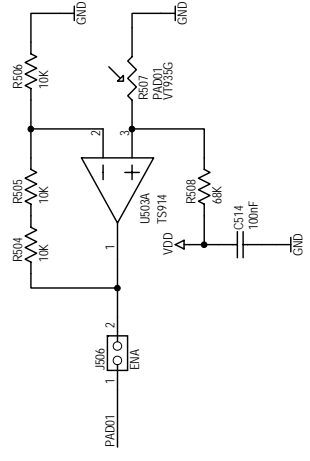
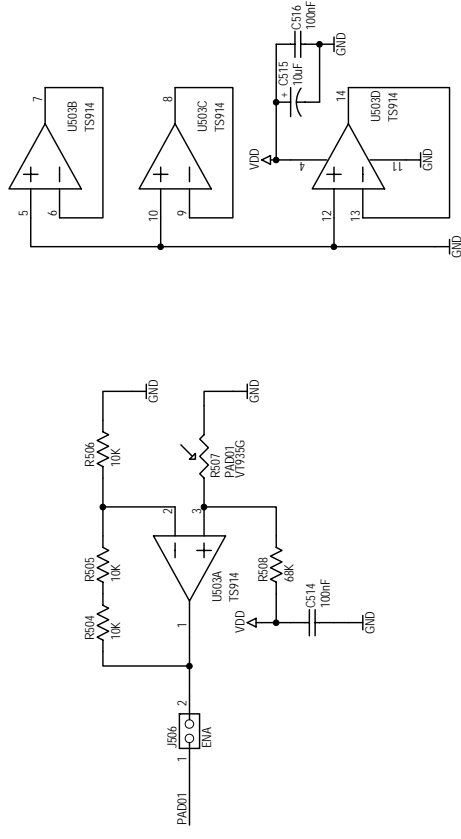
## **Schematic and Bill of Material**











# DEMO9S12XEP100 Bill of Material

Qty	Description	Ref. Designators	Vendor Part#
<b>Capacitors</b>			
27	Ceramic Capacitor 100nF X7R 50V 0805	C104, C106, C108, C110, C112, C113, C201, C202, C204, C206, C208, C211, C306, C308, C401, C402, C502, C503, C506, C507, C508, C509, C510, C512, C513, C514, C516	Walsin, 0805B104K500CT
2	Ceramic Capacitor 10pF X7R 50V 0805	C115, C116	Walsin, 0805N100K500CT
4	Ceramic Capacitor 1uF X7R 25V 0805	C301, C302, C303, C305	Walsin, 0805B105K250CT
5	Ceramic Capacitor 220nF X7R 25V 0805	C101, C102, C103, C406, C407	Walsin, 0805B224K250CT
3	Ceramic Capacitor 22pF NP0 50V 0805	C114, C209, C210	Walsin, 0805N220K500CT
1	Ceramic Capacitor 4,7nF X7R 50V 0805	C405	Walsin, 0805B472K500CT
16	Tantalum Capacitor 10uF 16V size B	C105, C107, C109, C111, C203, C205, C207, C304, C307, C403, C404, C501, C504, C505, C511, C515	NIC Components, NTC-T106M16TRBF
<b>Connectors</b>			
1	DC Power Connector 2.1 mm male 90° PCB mounting	J501	Samar, 22HP037
1	D-Sub Connector female 90° 9-pin	J301	Coxoc, 205A-09FSTUBE3
1	Header Connector 1x1 pin male gold straight 6mm pitch 2,54mm	J401	Coxoc, 307A-040GASAA3
5	Header Connector 2x1 pin male gold straight 6mm pitch 2,54mm	J104, J503, J504, J505, J506	Coxoc, 307A-040GASAA3
2	Header Connector 2x2 pin male gold straight 6mm pitch 2,54mm	J202, J302	Coxoc, 307A-080GBSAA3
1	Header Connector 3x1 pin male gold straight 6mm pitch 2,54mm	J502	Coxoc, 307A-040GASAA3
2	Header Connector 3x2 pin male gold straight 6mm pitch 2,54mm	J105, J305	Coxoc, 307A-080GBSAA3
2	Header Connector 4x2 pin male gold straight 6mm pitch 2,54mm	J507, J508	Coxoc, 307A-080GBSAA3
1	Header Connector 5x2 pin male gold straight 6mm pitch 2,54mm	J402	Coxoc, 307A-080GBSAA3
2	Mini-Fit Connector Molex 5569 series 4 way 90° dual row pitch 4,20mm	J303, J304	Molex, 39-29-5043
1	Mini-Fit Connector Molex 5569 series 4 way 90° single row pitch 4,20mm	J403	Molex, 39-30-3047
29	Shunt jumper 2,54mmmm totally insulated black pitch 2,54mm		Coxoc, 308A02PGBA003
3	Socket Connector 40-pin SMD pitch 2,54mm	J101, J102, J103	Samtec, SSM-120-L-DV-BE-K
1	USB Connector Receptacle Type B 90° 4-pin	J201	Coxoc, 317A-04PSB0003
<b>Crystals</b>			
1	SMD Crystal 12MHz HC-49USMD (11x5x3)	Y201	Megatec, HC49/USM4-012M000000CR
1	SMD Crystal 4MHz HC-49USMD (11x5x3)	Y101	Megatec, HC49/USM4-004M000000CR
<b>Diodes</b>			
7	Schottky Diode BAT54S SOT23	D101, D202, D301, D302, D303, D401, D402	Philips Semiconductors, BAT54S
1	Schottky Diode MBRS130L SMB	D501	On Semiconductor, MBRS130LT3G
1	Zener Diode BZX84 6.8V 1/4W SOT23	D201	Philips Semiconductors, BZX84-A6V8
<b>Inductors</b>			
1	SMD Inductor 10uH 150mA 1210	L101	TDK, NL322522T-100J
<b>Integrated Circuits</b>			
1	IC DC-DC Converter ST662 SOIC8	U502	STMicroelectronics, ST662ACD

Qty	Description	Ref. Designators	Vendor Part#
1	IC Microcontroller MC9S12UF32 QFP100	U201	Freescale, MC9S12UF32PU
1	IC Microcontroller MC9S12XEP100 LQFP112	U101	Freescale, MC9S12XEP100CAG
1	IC OpAmp TS914ID SOIC14	U503	STMicroelectronics, TS914ID
1	IC Transceiver CAN TJA1041 SOIC14	U401	Philips Semiconductors, TJA1041T
1	IC Transceiver LIN MC33661 SOIC8	U302	Freescale, MC33661D/R2
1	IC Transceiver RS-232 MAX3232 SOIC16	U301	STMicroelectronics, ST3232CD
1	IC Voltage Regulator LM78M05 5V TO252 (DPAK)	U501	National Semiconductor, LM78M05CDT
<b>LEDs</b>			
1	SMD LED Green 1206	LD501	Agilent Technologies, HSMG-C150
4	SMD LED Red 1206	LD502, LD503, LD504, LD505	Agilent Technologies, HSMH-C150
<b>Potentiometers</b>			
1	Potentiometer 1K vertical adjust	P501	Phier, PT10MVP102A2020
<b>Resistors</b>			
1	Photoresistor VT935G pitch 2,54mm	R507	PerkinElmer Optoelectronics, VT935G
2	SMD Resistor 0R 5% 1/8W 0805	R101, R102	Kamaya, RMC1/10JPTP
1	SMD Resistor 1,5K 1% 0805	R203	Kamaya, RMC1/10K1501FTP
4	SMD Resistor 1,8K 1% 0805	R104, R106, R305, R306	Kamaya, RMC1/10K1801FTP
1	SMD Resistor 100K 1% 0805	R208	Kamaya, RMC1/10K1003FTP
2	SMD Resistor 100R 1% 0805	R210, R211	Kamaya, RMC1/10K1000FTP
16	SMD Resistor 10K 1% 0805	R103, R206, R207, R209, R301, R302, R303, R401, R402, R403, R406, R502, R503, R504, R505, R506	Kamaya, RMC1/10K1002FTP
9	SMD Resistor 1K 1% 1/8W 0805	R105, R509, R510, R511, R512, R513, R514, R515, R516	Kamaya, RMC1/10K102FTP
1	SMD Resistor 1M 1% 0805	R205	Kamaya, RMC1/10K1004FTP
1	SMD Resistor 33K 1% 0805	R304	Kamaya, RMC1/10K3302FTP
2	SMD Resistor 33R 1% 0805	R201, R202	Kamaya, RMC1/10K33R0FTP
1	SMD Resistor 470R 1% 0805	R501	Kamaya, RMC1/10K4700FTP
1	SMD Resistor 510R 1% 0805	R204	Kamaya, RMC1/10K5100FTP
2	SMD Resistor 60,4R 1% 0805	R404, R405	Kamaya, RMC1/10K60R4FTP
1	SMD Resistor 68K 1% 0805	R508	Kamaya, RMC1/10K6802FTP
<b>Sockets</b>			
1	IC Socket Tulip pitch 2,54mm DIP14	U102	Preci-dip, 110-87-314-41-001101
<b>Switches</b>			
1	DIP Switch PTH low profile 4 positions DIP8	SW503	Tyco, 1-1437586-0
3	Pushbutton Switch SMD	SW101, SW501, SW502	Augat, FSM4JSMA