



**MICROCHIP**

**Microchip Technology Incorporated**  
**2355 W. Chandler Blvd.**  
**Chandler, AZ 85224-6199**

KEY	
CR: Cross	D: Drawing
CS: Consign	B: BOM
PL: Pack List	LBL: Label
	Q: Quality Check

**ASSEMBLY NUMBER: 12-00723**

**REV: 7**

**ASSEMBLY NAME: FINAL ASSY, EXPLORER 16 DEVELOPMENT BOARD**

**Bill of Materials**

Qty	Part Number	Rev	Description	Manufacturer	Vendor / Part No	C C P			Type	
						R	S	L		
1	11-00244	2	ASSY, EXPLORER 16 & 100P PIMS					Y	BQ	
2	DS30030	*	DOC, WARRANTY/REGISTRATION CARD					Y	Y	DOC
3	DS51282	*	PRODUCT CASE, SMALL TOOLS BOX - 8x5.25x1.625	UNISOURCE				Y		PART
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
4	DS30210	*	DOC, "IMPORTANT INFORMATION" MICROCHIP INFORMATION					Y	Y	DOC
5	08-00237	3	LABEL, PRODUCT, FINAL ASSY, SERIAL NO. OPTIONAL							LBL
6	CAB0003		CABLE, RS-232 DATA CABLE, DB9 M/F SHIELDED 6 FT.					Y	Y	PART
			SPC TECHNOLO SPC19944	NEWARK	83K3689					
			GC ELECTRONI 45-308	NEWARK	28M9412	<input checked="" type="checkbox"/> RoHS Compliant	Avail:			
7	DS51588	*	SOFTWARE, EXPLORER 16 DEVELOPMENT KIT					Y	Y	DOC



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**ASSEMBLY NUMBER: 11-00244**

**REV: 2**

**ASSEMBLY NAME: ASSY, EXPLORER 16 & 100P PIMS**

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### Bill of Materials

Qty	Part Number	Rev	Description	Manufacturer	Vendor / Part No	C	C	P	Type
						R	S	L	
1	1	02-01872	5.1 PCB ASSY, EXPLORER 16 DEVELOPMENT BOARD					Y	B
8	1	02-01863-01	2 PCB ASSY, PIC24F 100P TO 100P QFP PLUG IN MODULE @U1A of 02-01872					Y	B
9	1	02-01863-02	3 PCB ASSY, dsPIC33 GP 100P TO 100P QFP PLUG IN MODULE place in antistatic bag					Y	B



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**ASSEMBLY NUMBER: 02-01872**

**REV: 5.1**

**ASSEMBLY NAME: PCB ASSY, EXPLORER 16 DEVELOPMENT BOARD**

### Bill of Materials

Qty	Part Number	Rev	Description	Manufacturer	Vendor / Part No	C	C	P	Type
						R	S	L	
1	02-01872-D	5.1	PCB ASSY DWG, EXPLORER 16 DEVELOPMENT BOARD						D
2	03-01872	5.1	SCHEMATIC, EXPLORER 16 DEVELOPMENT BOARD						D
3	04-01872	5.1	PCB FABRICATION, EXPLORER 16 DEVELOPMENT BOARD						D
4	08-00126	6	LABEL, NEED HELP WITH ASSY/SERIAL place at bottom side of board						LBL
5	MIC0421		IC SMT, PIC18LF4550 44L QFN U2 MICROCHIP PIC18LF4550-I/ML DEBF17TRXALF <input checked="" type="checkbox"/> RoHS Compliant Avail:			Y			PART
6	MIC0249		IC SMT, TC1047AVNBTR, TEMP SENSOR, 3L SOT-23 U4 MICROCHIP TC1047AVNBTR Y4BR2YCQXA00 <input type="checkbox"/> RoHS Compliant Avail: MICROCHIP TC1047AVNBTRG Y4BR2YCVXA00 <input checked="" type="checkbox"/> RoHS Compliant Avail: MICROCHIP TC1047AVNBTR Y4BR2YC6XA00 <input checked="" type="checkbox"/> RoHS Compliant Avail:			Y			PART
7	MIC0401		IC SMT, 25LC256, 128K/256K-BIT SPI SERIAL EEPROM 8L SOIC U5 MICROCHIP 25LC256-I/SN D5AH17C2XA00 <input checked="" type="checkbox"/> RoHS Compliant Avail:			Y			PART
8	CAP0013		CAP SMT, 0.1uF 0805 CER 50V 10% X7R C10, C11, C13, C16, C17, C22, C23, C25, C26, C29, C31, C32, C33, C34, C35, C39, C40, C41, C42, C43, C44, C46, C48, C50, C51, C52, C53 KEMET C0805C104M5RAC <input checked="" type="checkbox"/> RoHS Compliant Avail: KEMET C0805C104M5RAC <input checked="" type="checkbox"/> RoHS Compliant Avail: KEMET C0805C104K5RACTU DIGIKEY 399-1170-1-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: KEMET C0805C104M5RACTU DIGIKEY 399-1169-1-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: NIC COMPONEN NMC0805X7R104K50TRPF <input checked="" type="checkbox"/> RoHS Compliant Avail: PANASONIC ECJ-2YB1H104K DIGIKEY PCC1840TR-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: TAIYO YUDEN UMK212BJ104KG-T DIGIKEY 587-1279-2-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: YAGEO 08052R104K9B20D DIGIKEY 311-1140-2-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: CAL-CHIP GMC21X7R104K50NTLF <input checked="" type="checkbox"/> RoHS Compliant Avail: XICON CC501B104K MOUSER <input type="checkbox"/> RoHS Compliant Avail:						PART



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Table with KEY header and rows for CR: Cross, CS: Consign, PL: Pack List, D: Drawing, B: BOM, LBL: Label, Q: Quality Check.

ASSEMBLY NUMBER: 02-01872

REV: 5.1

ASSEMBLY NAME: PCB ASSY, EXPLORER 16 DEVELOPMENT BOARD

Bill of Materials

Main BOM table with columns: Qty, Part Number, Rev, Description, Manufacturer, Vendor / Part No, C, C, P, R, S, L, Type. Contains rows for capacitors (CAP0280, CAP0075, CAP0167) and LEDs (LED0002).



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**ASSEMBLY NAME: PCB ASSY, EXPLORER 16 DEVELOPMENT BOARD**

**Bill of Materials**

Qty	Part Number	Rev	Description	Manufacturer	Vendor / Part No	C C P			
						R	S	L	Type
14	1	DIODE0005	DIODE, SCHOTTKY 1N5819 40V 1.0A DO-41 D2 (Rev 4 Gerber silkscreen polarity is reversed) ON SEMI 1N5819 DIODES INC 1N5819	<input type="checkbox"/> RoHS Compliant <input checked="" type="checkbox"/> RoHS Compliant	Avail: Avail:				PART
15	1	CON0001	CONN, RECPT, D-SUB, 9P, RT ANGLE W/ JACK SCREWS P1 SPC TECHNOLO SPC15457 NEWARK 79K5032 FUK HING INDU DR-9S CAMTECH TYCO/AMP 5-747844-5 KYCON K22-E9S-NJ KOBICONN 152-3409 1008-9S-R JAMECO 104952 TYCO/AMP 747844-5 DIGIKEY A23304-ND SPC TECHNOLO DE9S-FRS TYCO/AMP 7-747844-0	<input checked="" type="checkbox"/> RoHS Compliant <input type="checkbox"/> RoHS Compliant <input checked="" type="checkbox"/> RoHS Compliant <input checked="" type="checkbox"/> RoHS Compliant <input checked="" type="checkbox"/> RoHS Compliant <input type="checkbox"/> RoHS Compliant <input type="checkbox"/> RoHS Compliant <input checked="" type="checkbox"/> RoHS Compliant	Avail: Avail: Avail: Avail: Avail: Avail: Avail: Avail:				PART
16	1	CON0002	CONN, JACK, 2.5mm DC PC MOUNT J12 FUK HING INDU DC-003-250 CAMTECH KYCON KLDX-0202-BHT MOUSER 806-KLDX-0202-BH SWITCHCRAFT RAPC712X DIGIKEY RAPC712X-ND POWER DYNAMI DC-001-B-CRSN KYCON KLDX-0202-B MOUSER 806-KLDX-0202-B RDI RDJ-005B RAYCON TECH RT-0202-2.5 KYCON KLD-0202-B LZR ELECTRONI DJ005B SWITCHCRAFT RAPC712 DIGIKEY SC1152-ND	<input type="checkbox"/> RoHS Compliant <input checked="" type="checkbox"/> RoHS Compliant <input checked="" type="checkbox"/> RoHS Compliant <input checked="" type="checkbox"/> RoHS Compliant <input type="checkbox"/> RoHS Compliant <input type="checkbox"/> RoHS Compliant <input type="checkbox"/> RoHS Compliant <input type="checkbox"/> RoHS Compliant <input type="checkbox"/> RoHS Compliant	Avail: Avail: Avail: Avail: Avail: Avail: Avail: Avail: Avail:				PART



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						R	S	L	
17	1	CON0052	CONN, MOD JACK 6-6 SIDE ENTRY LOW PROFILE (RJ11) JP1						PART
			TYCO/AMP 5555165-1	DIGIKEY A31422-ND		<input checked="" type="checkbox"/>			Avail:
			TYCO/AMP 5555165-1	NEWARK 42K8762		<input checked="" type="checkbox"/>			Avail:
18	1	CON0042	CONN, HDR, 1x3 BREAKAWAY, 0.100" PITCH, 0.025 SQ POST, GD (0.100"/0.230") J7						PART
			3M 929647-09-36-I (1x36 POS BREAKAWAY)	DIGIKEY 929647-09-36-ND		<input checked="" type="checkbox"/>			Avail:
			SAMTEC TSW-103-07-L-S			<input checked="" type="checkbox"/>			Avail:
			SAMTEC TSW-103-07-G-S			<input checked="" type="checkbox"/>			Avail:
			SAMTEC TSW-103-07-S-S			<input checked="" type="checkbox"/>			Avail:
			MOLEX 90120-0763	DIGIKEY WM8085-ND		<input checked="" type="checkbox"/>			Avail:
			HARWIN M20-9990305	FARNELL 512047		<input type="checkbox"/>			Avail:
			MOLEX 90120-0763	NEWARK 26M7871		<input checked="" type="checkbox"/>			Avail:
19	1	CON0149	CONN, HDR, 1x2 BREAKAWAY, 0.100" PITCH, 0.025 SQ POST (0.100"/0.230") JP2						PART
			SAMTEC TSW-102-07-G-S			<input checked="" type="checkbox"/>			Avail:
			SAMTEC TSW-102-07-S-S			<input checked="" type="checkbox"/>			Avail:
20	4	CON0196	CONN, HDR, 1x25 0.050" (0.230"/0.120") U1A						PART
			SAMTEC TMS-125-01-G-S			<input checked="" type="checkbox"/>			Avail:
21	1	CON0197	CONN, RECPT, 120POS 1MM CARD EDGE J5						PART
			SAMTEC MEC1-160-02-S-D-A			<input checked="" type="checkbox"/>			Avail:
22	1	CON0013	CONN, RECPT, USB TYPE-B R/A J8						PART
			PANASONIC/AR AXJ115301S			<input type="checkbox"/>			Avail:
			KYCON KUSB-BS-1-N-WHT			<input checked="" type="checkbox"/>			Avail:
			MILL-MAX 897-43-004-90-000000	DIGIKEY ED90064-ND		<input checked="" type="checkbox"/>			Avail:
			PANASONIC/AR AXJ115301S-F			<input checked="" type="checkbox"/>			Avail:



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**REV: 5.1**

**ASSEMBLY NAME: PCB ASSY, EXPLORER 16 DEVELOPMENT BOARD**

### Bill of Materials

Qty	Part Number	Rev	Description	Manufacturer	Vendor / Part No	C C P			Type
						R	S	L	
23	1	IC00295	IC SMT, REG, LM1117, 3.3V 800mA LDO SOT-223 Q1 NATIONAL SEMI LM1117IMP-3.3 NOPB DIGIKEY LM1117IMP-3.3CT- <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
24	1	IC00291	IC SMT, REG, LM1117, 5.0V 800mA LDO SOT-223 Q2 NATIONAL SEMI LM1117IMP-5.0 NOPB DIGIKEY LM1117IMP-5.0CT- <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
25	1	IC00292	IC SMT, DRVR/RCVR MULTCH RS232, 16L SSOP U3 TEXAS INSTRU MAX3232CDBR DIGIKEY 296-13093-1-ND <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
26	2	IC00294	IC SMT, 74HCT4053, ANALOG MUX/DEMUX, 8 CHA, 16 TSSOP U6, U7 TEXAS INSTRU CD74HCT4053PWR DIGIKEY 296-9279-2-ND <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
27	3	RSMT0091	RES SMT, 4.7K-OHM 1/8W 5% 0805 R1, R2, R5 SEI (STACKPOL RMCF-1/8-4.7K-5% <input checked="" type="checkbox"/> RoHS Compliant Avail: YAGEO/PHYCO RC0805JR-074K7L DIGIKEY 311-4.7KARTR-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: YAGEO/PHYCO 9C08052A4701JLPFT <input checked="" type="checkbox"/> RoHS Compliant Avail: KOA SPEER RK73B2ATTD472J <input checked="" type="checkbox"/> RoHS Compliant Avail: PANASONIC ERJ-6GEYJ472V DIGIKEY P4.7KACT-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: YAGEO/PHYCO 9C08052A4701JLHFT DIGIKEY 311-4.7KACT-ND <input type="checkbox"/> RoHS Compliant Avail: ROHM MCR10EZHJ472 DIGIKEY RHM4.7KACT-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: PANASONIC ERJ-6GEYJ472V DIGIKEY P4.7KATR-ND <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
28	3	RSMT0103	RES SMT, 47K-OHM 1/8W 5% 0805 R10, R14, R49 YAGEO/PHYCO 9C08052A4702JLHFT DIGIKEY 311-47KACT-ND <input type="checkbox"/> RoHS Compliant Avail: KOA SPEER RK73B2ATTD473J <input checked="" type="checkbox"/> RoHS Compliant Avail: PANASONIC ERJ-3GSYJ473V DIGIKEY P47KGTR-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: PANASONIC ERJ-6GEYJ473V DIGIKEY P47KACT-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: ROHM MCR10EZHJ473 DIGIKEY RHM47KACT-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: SEI (STACKPOL RMCF 1/10 47K 5% R <input checked="" type="checkbox"/> RoHS Compliant Avail: YAGEO/PHYCO 9C08052A4702JLPFT <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART

\* In Rev Field: Part Rev is controlled in the Specification Index



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Qty	Part Number	Rev	Description	Manufacturer	Vendor / Part No	C C P				
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29	15	RSMT0097	RES SMT, 470-OHM 1/8W 5% 0805 R12, R23, R25, R26, R28, R29, R34, R35, R36, R37, R38, R39, R40, R41, R42 KOA SPEER RK73B2ATTD471J YAGEO/PHYCO RC0805JR-07470RL DIGIKEY 311-470ARTR-ND YAGEO/PHYCO 9C08052A4700JLPFT SEI (STACKPOL RMCF-1/8-470-5% PANASONIC ERJ-6GEYJ471V DIGIKEY P470ATR-ND YAGEO/PHYCO 9C08052A4700JLHFT DIGIKEY 311-470ATR-ND PANASONIC ERJ-6GEYJ471V DIGIKEY P470ACT-ND	<input checked="" type="checkbox"/> RoHS Compliant	Avail:					PART
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input type="checkbox"/> RoHS Compliant	Avail:					
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
30	2	RSMT0050	RES SMT, 1.0M-OHM 1/8W 5% 0805 R19, R20 YAGEO/PHYCO 9C08052A1004JLHFT DIGIKEY 311-1.0MATR-ND YAGEO/PHYCO 9C08052A1004JLPFT KOA SPEER RK73B2ATTD105J PANASONIC ERJ-6GEYJ105V DIGIKEY P1.0MACT-ND SEI (STACKPOL RMCF 1/10 1M 5% TR	<input type="checkbox"/> RoHS Compliant	Avail:					PART
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
31	1	RSMT0017	RES SMT, 10-OHM 1/8W 5% 0805 R21 YAGEO/PHYCO 9C08052A10R0JLPFT NIC COMPONENT NRC10J100TRF PANASONIC ERJ-6GEYJ100 DIGIKEY P10ACT-ND SEI (STACKPOL RMCF 1/10 10 5% R YAGEO/PHYCO 9C08052A10R0JLHFT DIGIKEY 311-10ACT-ND	<input checked="" type="checkbox"/> RoHS Compliant	Avail:					PART
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input type="checkbox"/> RoHS Compliant	Avail:					
32	2	RSMT0021	RES SMT, 100-OHM 1/8W 5% 0805 R24, R59 PANASONIC ERJ-6GEYJ101V DIGIKEY P100ATR-ND ROHM MCR10EZHJW100E SEI (STACKPOL RMCF 1/10 100 1% YAGEO/PHYCO 9C08052A1000JLPFT YAGEO/PHYCO 9C08052A1000JLHFT DIGIKEY 311-100ACT-ND	<input checked="" type="checkbox"/> RoHS Compliant	Avail:					PART
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input checked="" type="checkbox"/> RoHS Compliant	Avail:					
				<input type="checkbox"/> RoHS Compliant	Avail:					

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**ASSEMBLY NAME: PCB ASSY, EXPLORER 16 DEVELOPMENT BOARD**

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33	2	RSMT0002	RES SMT, 0-OHM 0805 R11, R16 SEI (STACKPOL RMCF 1/10 0 5% TR YAGEO/PHYCO 9C08052A0R00JLPFT PANASONIC ERJ-6GEY0R00V ROYAL OHM HMWAJ0000T50 YAGEO/PHYCO 9C08052A0R00JLHFT SEI (STACKPOL RMC 1/10 0 5% TR YAGEO/PHYCO RC0805JR-070RL NIC COMPONENT NRC10Z0TRF	NEWMAN DIGIKEY P0.0ATR-ND FARNELL 772239 DIGIKEY 311-0.0ACT-ND NEWMAN DIGIKEY 311-0.0ARTR-ND		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Avail: Avail: Avail: Avail: Avail: Avail: Avail:	PART
34	8	RSMT0027	RES SMT, 10K-OHM 1/8W 5% 0805 R30, R31, R32, R33, R44, R50, R51, R52 ROHM MCR10EZHJW10K YAGEO/PHYCO RC0805JR-0710KL SEI (STACKPOL RMCF 1/10 10k 5% TR PANASONIC ERJ-6GEYJ103V KOA SPEER RK73B2ATTD103J YAGEO/PHYCO 9C08052A1002JLHFT YAGEO/PHYCO 9C08052A1002JLPFT	DIGIKEY 311-10KARTR-ND DIGIKEY P10KACT-ND DIGIKEY 311-10KATR-ND		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Avail: Avail: Avail: Avail: Avail: Avail: Avail:	PART
35	1	RSMT0406	RES SMT, 1.3K-OHM 1/8W 5% 0805 R43 YAGEO/PHYCO 9C08052A1301JLHFT YAGEO/PHYCO 9C08052A1301JLPFT		311-1.3KACT-ND	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Avail: Avail:	PART
36	1	RSMT0407	RES SMT, 100-OHM 1/2W 5% 2010 R7 PANASONIC ERJ-12ZYJ101U	DIGIKEY P100WCT-ND		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Avail:	PART



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37	2	RSMT0008	RES SMT, 1.0K-OHM 1/8W 5% 0805 R8, R27 YAGEO/PHYCO 9C08052A1001JLHFT DIGIKEY 311-1.0KACT-ND <input type="checkbox"/> RoHS Compliant Avail: YAGEO/PHYCO 9C08052A1001JLPFT <input checked="" type="checkbox"/> RoHS Compliant Avail: KOA SPEER RK73B2ATTD102J <input checked="" type="checkbox"/> RoHS Compliant Avail: PANASONIC ERJ-6GEYJ102V DIGIKEY P1.0KATR-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: SEI (STACKPOL RMCF 1/10 1k 5% TR <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
38	1	RPOT0005	RES POT, 10K-OHM 1/2W THUMBWH CERM ST R6 BOURNS 3352T-1-103 DIGIKEY 3352T-103-ND <input type="checkbox"/> RoHS Compliant Avail: BOURNS 3352T-1-103LF DIGIKEY 3352T-103LF-ND <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
39	5	SWITCH0003	SWITCH SMT, PUSH BUTTON SPST MOM 6MM 160GF/230GF S1, S3, S4, S5, S6 E-SWITCH TL3301NF160QG/TR DIGIKEY EG1867CT-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: E-SWITCH TL3301NF260QG DIGIKEY EG1868TR-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: E-SWITCH TL3301NF260QG/TR DIGIKEY EG1868CT-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: OMRON B3S-1002 DIGIKEY SW416-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: OMRON B3S-1000 DIGIKEY SW415-ND <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
40	1	SWITCH0051	SWITCH, SLIDE SPDT PC MNT L=2MM S2 E-SWITCH EG1271 DIGIKEY EG1918-ND <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
41	1	OSC0031	OSC SMT, 20.000MHz CRYSTAL 20pf CSM-7 Y1 ECS INC ECS-200-20-5PDN-TR DIGIKEY XC741TR-ND <input type="checkbox"/> RoHS Compliant Avail: ECS INC ECS-200-20-5PX-TR <input checked="" type="checkbox"/> RoHS Compliant Avail: ECS INC ECS-200-20-5P-TR DIGIKEY XC581TR-ND <input type="checkbox"/> RoHS Compliant Avail: ECS INC ECS-200-20-5PXD-TR DIGIKEY XC1302TR-ND <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART



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PL: Pack List	LBL: Label
	Q: Quality Check

**ASSEMBLY NUMBER: 02-01872**

**REV: 5.1**

**ASSEMBLY NAME: PCB ASSY, EXPLORER 16 DEVELOPMENT BOARD**

**Bill of Materials**

Qty	Part Number	Rev	Description	Manufacturer	Vendor / Part No	C	C	P	Type
						R	S	L	
42	1	OSC0019	OSC, 32.768KHz CRYSTAL 8mm (WATCH TYPE) Y2 ECS INC ECS-3X8 DIGIKEY X801-ND <input type="checkbox"/> RoHS Compliant Avail: CITIZEN CMR200TB32.768KDZFTR DIGIKEY 300-2065-1-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: ECS INC ECS-3X8X DIGIKEY X1123-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: HEC INC/HOORA HE38-32.768K-12.5 CAMTECH <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
43	1	OSC0075	OSC SMT, 8.000MHz CRYSTAL 20pf CSM-7 Y3 ECS INC ECS-80-20-5PX-DN <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
44	2	MISC0021	MISC, TEST POINT, OVAL PROFILE W/COLORED STANDOFF RED (0.063" HOLE) TP1, TP3 COMPONENTS TP-106-01-02 <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
45	1	MISC0020	MISC, TEST POINT, OVAL PROFILE W/COLORED STANDOFF BLACK (0.063" HOLE) TP2 COMPONENTS TP-106-01-00 <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
46	5	MISC0022	MISC, RUBBER FEET, SQ 0.50x0.23 HIGH BLACK place at bottom side of board 3M SJ-5518 DIGIKEY SJ5518-0-ND <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
47	2	CON0084	CONN, SHUNT, 2-PIN SHORTING SHUNT (.100" SPACING) JP2, J7 (rightmost pins) SULLINS SSC02SYAN DIGIKEY S9002-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: TYCO/AMP 382811-6 DIGIKEY A26227-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: HARWIN M7567-05 FARNELL 150410 <input type="checkbox"/> RoHS Compliant Avail: SAMTEC SNT-100-BK-G <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART
48	0	-SPARE-	-SPARE- LOCATION DO NOT INSTALL C1-C9, C12, J1, J2, J6, J9, J14, LCD1, LCD2, LCD3, R3, R4, R9, R13, R15, R17, R18, R22, R45-R48, R53-R58, R60-R67, U1						PART
49	1	CON0199	CONN, HDR, 2x7 BREAKAWAY, 0.025 SQ POST (0.115"/0.230") J13 (clip both ends of pin 12) SAMTEC TSW-107-23-L-D <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART



**MICROCHIP**

**Microchip Technology Incorporated**  
**2355 W. Chandler Blvd.**  
**Chandler, AZ 85224-6199**

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PL: Pack List	LBL: Label
	Q: Quality Check

**ASSEMBLY NUMBER: 02-01872**

**REV: 5.1**

**ASSEMBLY NAME: PCB ASSY, EXPLORER 16 DEVELOPMENT BOARD**

**Bill of Materials**

Qty	Part Number	Rev	Description	Manufacturer	Vendor / Part No	C C P			Type
						R	S	L	
50	1	CON0229	CONN, HDR, 1x6 BREAKAWAY, 0.100" PITCH, 0.025 SQ, GD (0.230/0.100) J14 (PICKIT2) SAMTEC TSW-106-07-G-S SAMTEC TSW-106-07-S-S SAMTEC TSW-106-07-T-S	<input checked="" type="checkbox"/> RoHS Compliant <input checked="" type="checkbox"/> RoHS Compliant <input checked="" type="checkbox"/> RoHS Compliant	Avail: Avail: Avail:				PART
51	0	-COMMENT-	LCD Configurations below:						PART
52	0	-COMMENT-	CONFIG 1: Populate Lines 53-54						PART
53	1	LCD0015	LCD MODULE 16 CHAR x 2 ROW, 3V @LCD4 LUMEX LCM-S01602DTR/M DIGIKEY 67-1781-ND	<input checked="" type="checkbox"/> RoHS Compliant	Avail:				PART
54	1	CON0200	CONN, HDR, 1x16 BREAKAWAY, 0.100" PTCH, 0.025 SQ POST, GD (0.095"/0.105") LCD4 SAMTEC TSW-116-06-G-S	<input checked="" type="checkbox"/> RoHS Compliant	Avail:				PART
55	0	-COMMENT-	CONFIG 2: Populate Line 56						PART
56	1	LCD0016	LCD MODULE 16 CHAR x 2 ROW, 3V LCD1 TIANMA MICROE TM162JCAWG1 FUTURE TRULY TSB1G7000-E	<input checked="" type="checkbox"/> RoHS Compliant <input checked="" type="checkbox"/> RoHS Compliant	Avail: Avail:				PART



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**ASSEMBLY NUMBER: 02-01863-02**

**REV: 3**

**ASSEMBLY NAME: PCB ASSY, dsPIC33 GP 100P TO 100P QFP PLUG IN MODULE**

**Bill of Materials**

Qty	Part Number	Rev	Description	Manufacturer	Vendor / Part No	C	C	P	Type
						R	S	L	
1	02-01863-D	5	PCB ASSY DWG, 100P TO 100P QFP PLUG IN MODULE						D
2	03-01863	5	SCHEMATIC, PIC24 100P TO 100P QFP PLUG IN MODULE						D
3	04-01863	5	PCB FABRICATION, PIC24 100P TO 100P QFP PLUG IN MODULE						D
4	08-00308	1	LABEL, PRODUCT NUMBER, ASSEMBLY NUMBER W/ REVISION (SMALL) place at bottom side of board						LBL
5	MIC0410		IC SMT, dsPIC33FJ256GP710 100P TQFP (14x14) U1 MICROCHIP dsPIC33FJ256GP710-I/PF YGAG17E5XBFF			<input checked="" type="checkbox"/>			PART
6	4	CON0181	CONN, RECPT, 1x25 0.050" (1.27mm) HIGH PROFILE, STRAIGHT, GOLD SAMTEC SMS-125-01-G-S			<input checked="" type="checkbox"/>			PART
7	7	CAP0011	CAP SMT, 0.1uF 0603 CER 16V 10% X7R C1, C2, C3, C4, C5, C7, C8 PANASONIC ECJ-1VB1C104K DIGIKEY PCC1762TR-ND CAL-CHIP GMC10X7R104K16NTLF YAGEO 06032R104K7B20D DIGIKEY 311-1088-1-ND NIC COMPONEN NMC0603X7R104K16TRPF TAIYO YUDEN EMK107B7104KA-T NEWARK 86H5248 TAIYO YUDEN EMK107B7104KA-T DIGIKEY 587-1240-2-ND			<input checked="" type="checkbox"/>			PART
8	1	CAP0171	CAP SMT, 1.0uF 0805 CER 16V 10% X7R C6 KEMET C0805C105K4RACTU DIGIKEY 399-1284-2-ND KEMET C0805C105K4RAC SAMSUNG CL21B105KONE			<input checked="" type="checkbox"/>			PART



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	Q: Quality Check

**ASSEMBLY NUMBER: 02-01863-02**

**REV: 3**

**ASSEMBLY NAME: PCB ASSY, dsPIC33 GP 100P TO 100P QFP PLUG IN MODULE**

**Bill of Materials**

Qty	Part Number	Rev	Description	Manufacturer	Vendor / Part No	C	C	P	Type
						R	S	L	
9	1	RSMT0001	RES SMT, 0-OHM 0603 R1 NIC COMPONENT NRC06Z0TRF						PART
			PANASONIC ERJ-3GSY0R00V	DIGIKEY	P0.0GTR-ND	<input checked="" type="checkbox"/>			Avail:
			PANASONIC ERJ-3GEY0R00V	DIGIKEY	P0.0GTR-ND	<input checked="" type="checkbox"/>			Avail:
			SEI (STACKPOL RMCF 1/16 0 5% R			<input checked="" type="checkbox"/>			Avail:
10	0	-SPARE-	-SPARE- LOCATION DO NOT INSTALL R2, R3						PART



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PL: Pack List	LBL: Label
	Q: Quality Check

**ASSEMBLY NUMBER: 02-01863-01**

**REV: 2**

**ASSEMBLY NAME: PCB ASSY, PIC24F 100P TO 100P QFP PLUG IN MODULE**

### Bill of Materials

Qty	Part Number	Rev	Description	Manufacturer	Vendor / Part No	C C P			Type	
						R	S	L		
1	02-01863-D	5	PCB ASSY DWG, 100P TO 100P QFP PLUG IN MODULE						D	
2	03-01863	5	SCHEMATIC, PIC24 100P TO 100P QFP PLUG IN MODULE						D	
3	04-01863	5	PCB FABRICATION, PIC24 100P TO 100P QFP PLUG IN MODULE						D	
4	08-00308	1	LABEL, PRODUCT NUMBER, ASSEMBLY NUMBER W/ REVISION (SMALL) place on bottom side of board						LBL	
5	MIC0409		IC SMT, PIC24FJ128GA010 100P TQFP (14x14) U1 MICROCHIP PIC24FJ128GA010-I/PF YGAH17E5XAXF <input checked="" type="checkbox"/> RoHS Compliant Avail:					Y	PART	
6	4	CON0181	CONN, RECPT, 1x25 0.050" (1.27mm) HIGH PROFILE, STRAIGHT, GOLD SAMTEC SMS-125-01-G-S <input checked="" type="checkbox"/> RoHS Compliant Avail:						PART	
7	7	CAP0011	CAP SMT, 0.1uF 0603 CER 16V 10% X7R C1, C2, C3, C4, C5, C7, C8 TAIYO YUDEN EMK107B7104KA-T DIGIKEY 587-1240-2-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: TAIYO YUDEN EMK107B7104KA-T NEWARK 86H5248 <input checked="" type="checkbox"/> RoHS Compliant Avail: PANASONIC ECJ-1VB1C104K DIGIKEY PCC1762TR-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: NIC COMPONEN NMC0603X7R104K16TRPF <input checked="" type="checkbox"/> RoHS Compliant Avail: CAL-CHIP GMC10X7R104K16NTLF <input checked="" type="checkbox"/> RoHS Compliant Avail: YAGEO 06032R104K7B20D DIGIKEY 311-1088-1-ND <input checked="" type="checkbox"/> RoHS Compliant Avail:							PART
8	1	CAP0171	CAP SMT, 1.0uF 0805 CER 16V 10% X7R C6 KEMET C0805C105K4RAC <input checked="" type="checkbox"/> RoHS Compliant Avail: KEMET C0805C105K4RACTU DIGIKEY 399-1284-2-ND <input checked="" type="checkbox"/> RoHS Compliant Avail: SAMSUNG CL21B105KONE <input type="checkbox"/> RoHS Compliant Avail:							PART



**MICROCHIP**

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	Q: Quality Check

**ASSEMBLY NUMBER: 02-01863-01**

**REV: 2**

**ASSEMBLY NAME: PCB ASSY, PIC24F 100P TO 100P QFP PLUG IN MODULE**

**Bill of Materials**

Qty	Part Number	Rev	Description	Manufacturer	Vendor / Part No	C	C	P	Type
						R	S	L	
9	1	RSMT0001	RES SMT, 0-OHM 0603 R1 SEI (STACKPOL RMCF 1/16 0 5% R						PART
			PANASONIC ERJ-3GEY0R00V	DIGIKEY	P0.0GTR-ND	<input checked="" type="checkbox"/>			Avail:
			PANASONIC ERJ-3GSY0R00V	DIGIKEY	P0.0GTR-ND	<input checked="" type="checkbox"/>			Avail:
			NIC COMPONENT NRC06Z0TRF			<input checked="" type="checkbox"/>			Avail:
10	0	-SPARE-	-SPARE- LOCATION DO NOT INSTALL R2, R3						PART





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 Chandler, AZ 85224-6199

**MICROCHIP**

ASSEMBLY NUMBER: 14-00723      REV: 7      Product No: DM240001  
 ASSEMBLY NAME:    PRODUCT TREE, EXPLORER 16 DEVELOPMENT BOARD

**Pack List**

11-00244    ASSY, EXPLORER 16 & 100P PIMS

Rev: 2

Qty	Part Number	Description
1	02-01863-02	PCB ASSY, dsPIC33 GP 100P TO 100P QFP PLUG IN MODULE
1	02-01863-01	PCB ASSY, PIC24F 100P TO 100P QFP PLUG IN MODULE
1	02-01872	PCB ASSY, EXPLORER 16 DEVELOPMENT BOARD

12-00723    FINAL ASSY, EXPLORER 16 DEVELOPMENT BOARD

Rev: 7

Qty	Part Number	Description
1	DS51588	SOFTWARE, EXPLORER 16 DEVELOPMENT KIT
1	CAB0003	CABLE, RS-232 DATA CABLE, DB9 M/F SHIELDED 6 FT.
1	DS30210	DOC, "IMPORTANT INFORMATION" MICROCHIP INFORMATION
1	DS30030	DOC, WARRANTY/REGISTRATION CARD
1	11-00244	ASSY, EXPLORER 16 & 100P PIMS

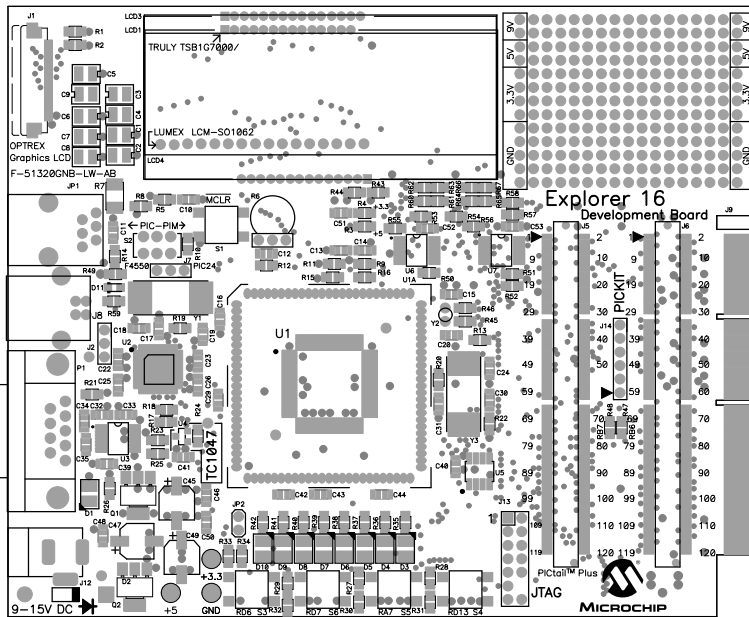
A

B

C


D

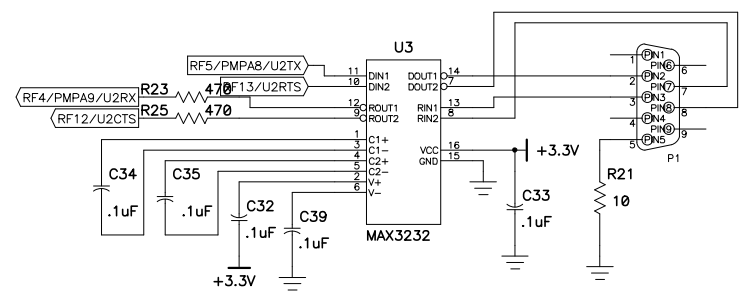
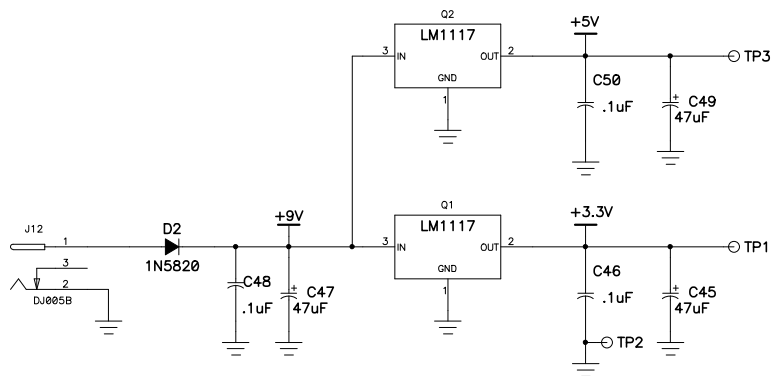
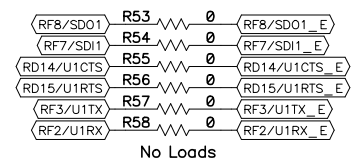
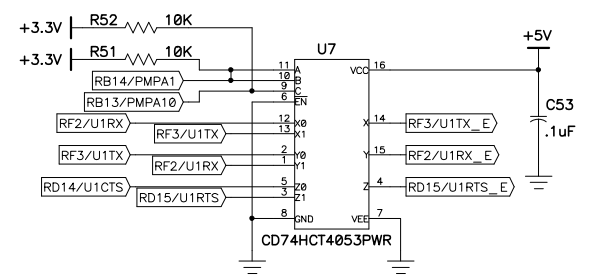
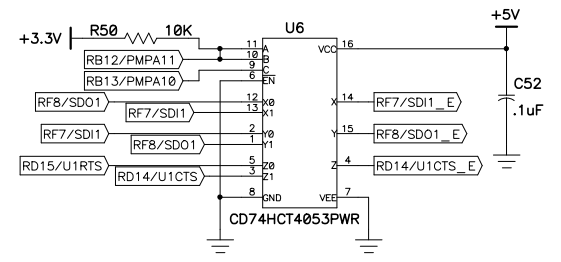
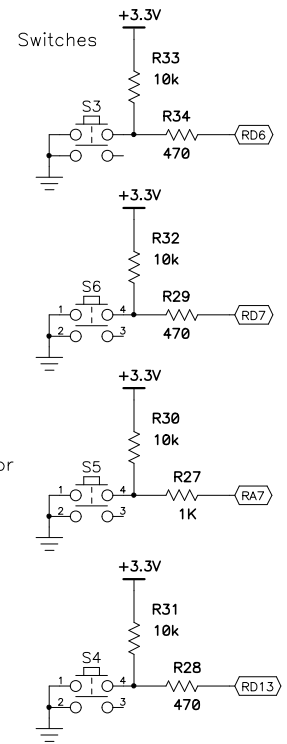
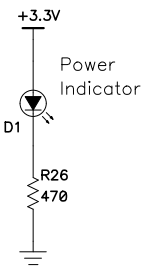
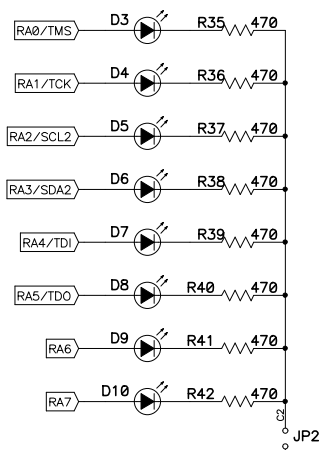
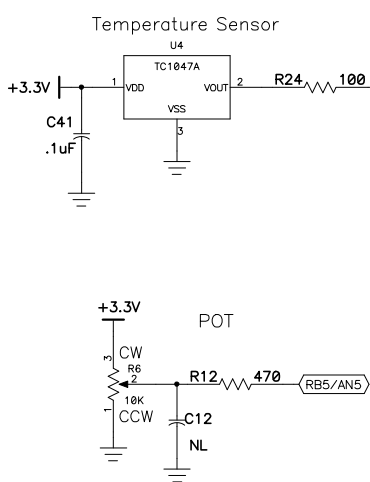
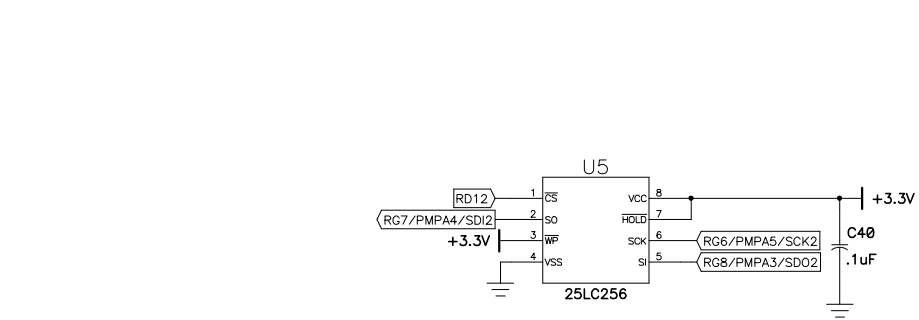
5 rubber feet  
on bottom  
as marked by

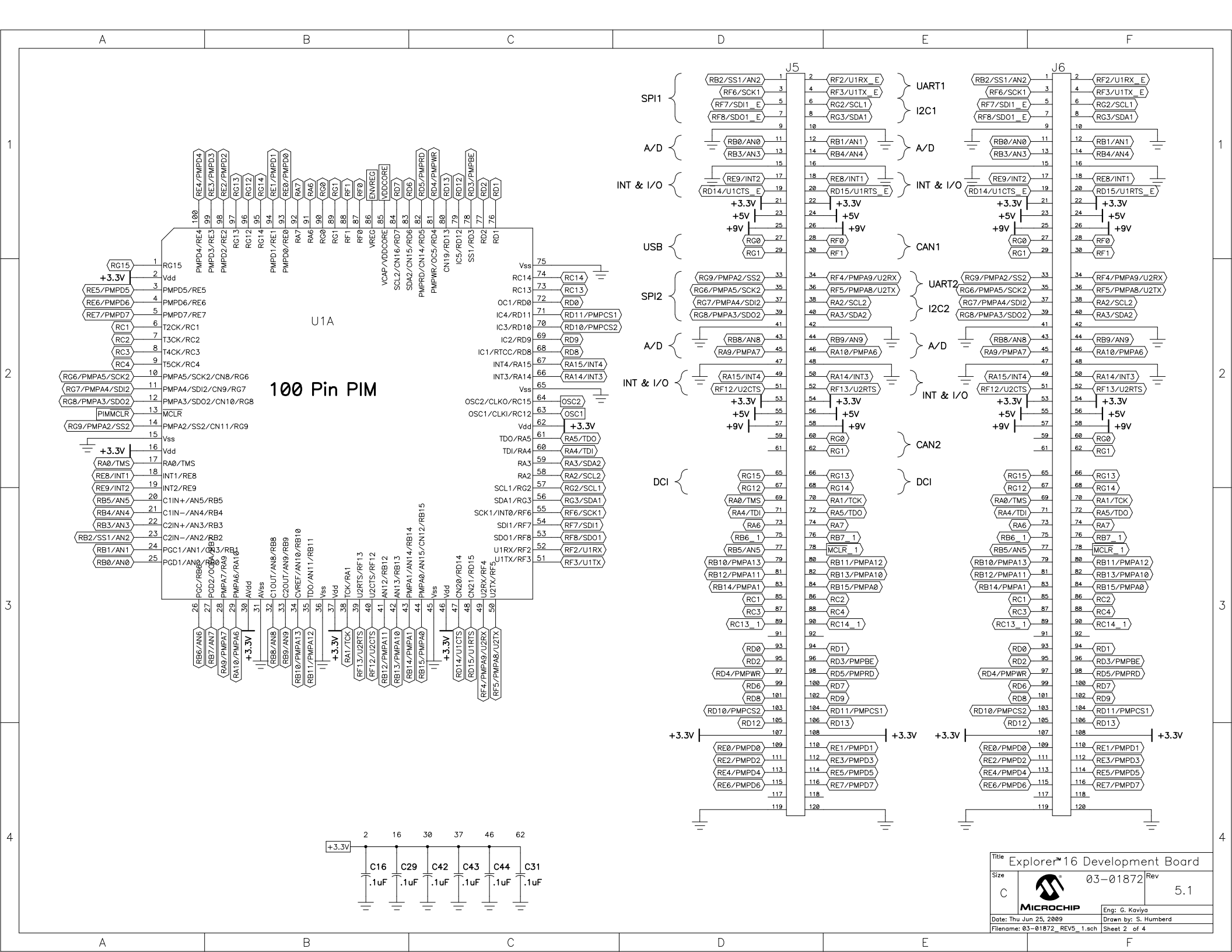


TOP MASK LAYER 02-01872 REV 5.1

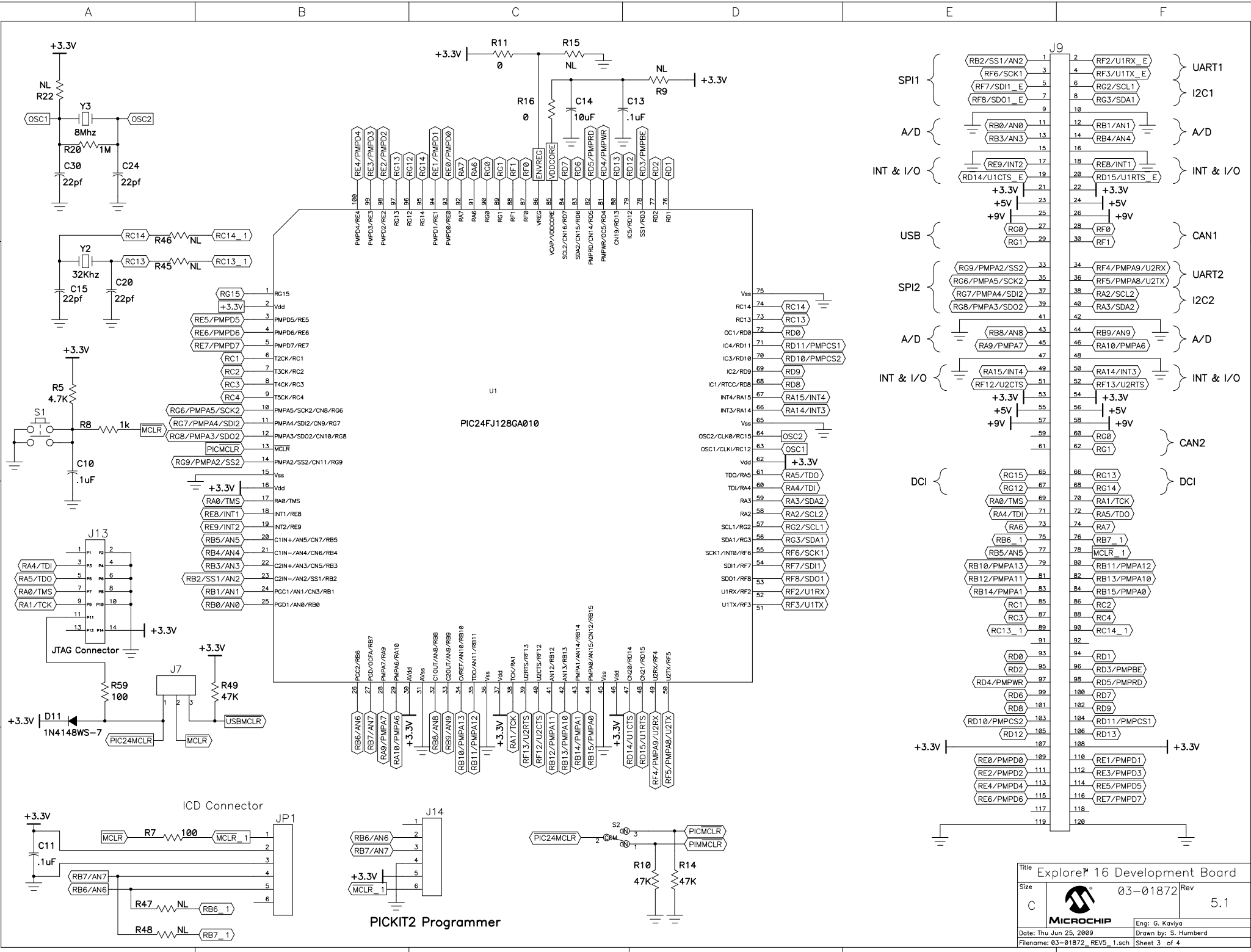
"All unused component holes to be free of solder"

Title Explorer 16 Delevopment Board		
Size	 02-01872-D	Rev 5.1
Engineer: G. Kaviya		
Date: Thu Jun 25, 2009		Drawn by: S. Humberd
Filename: 05-01872_Rev5_1		Sheet 1 of 1

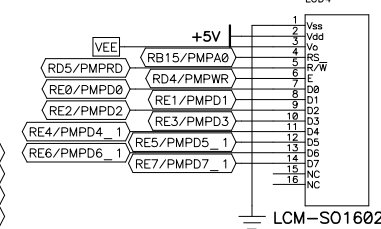
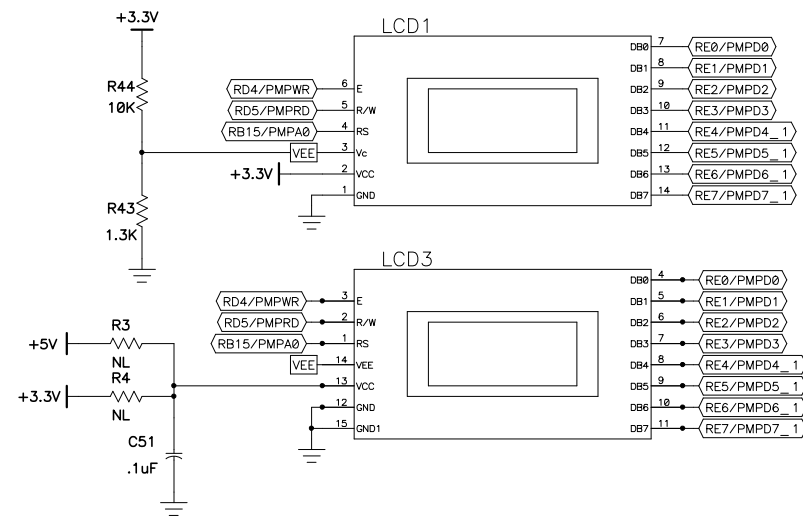
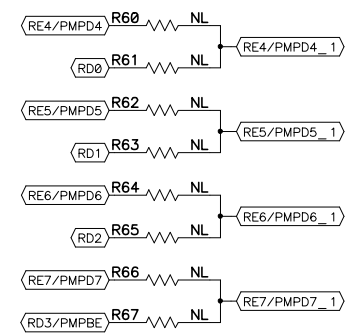
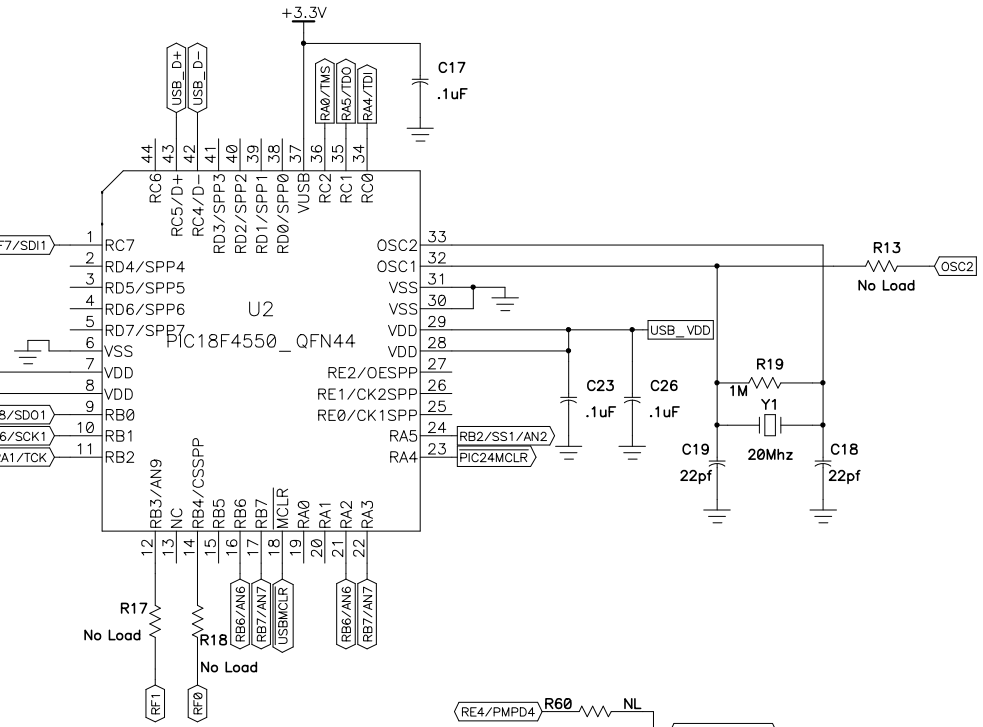
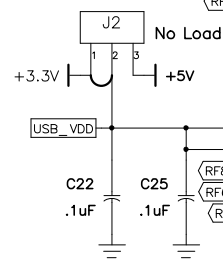
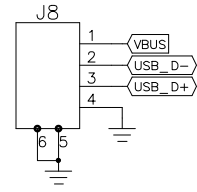
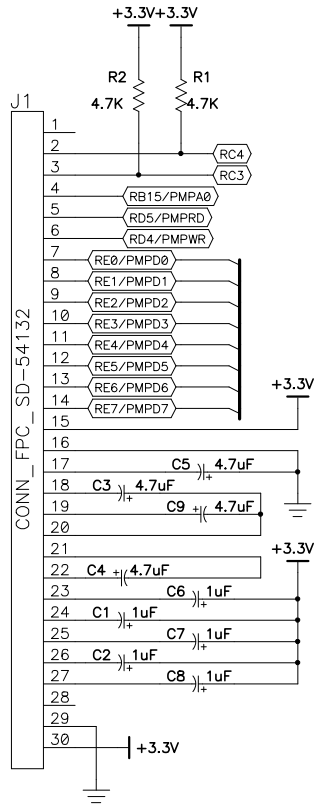


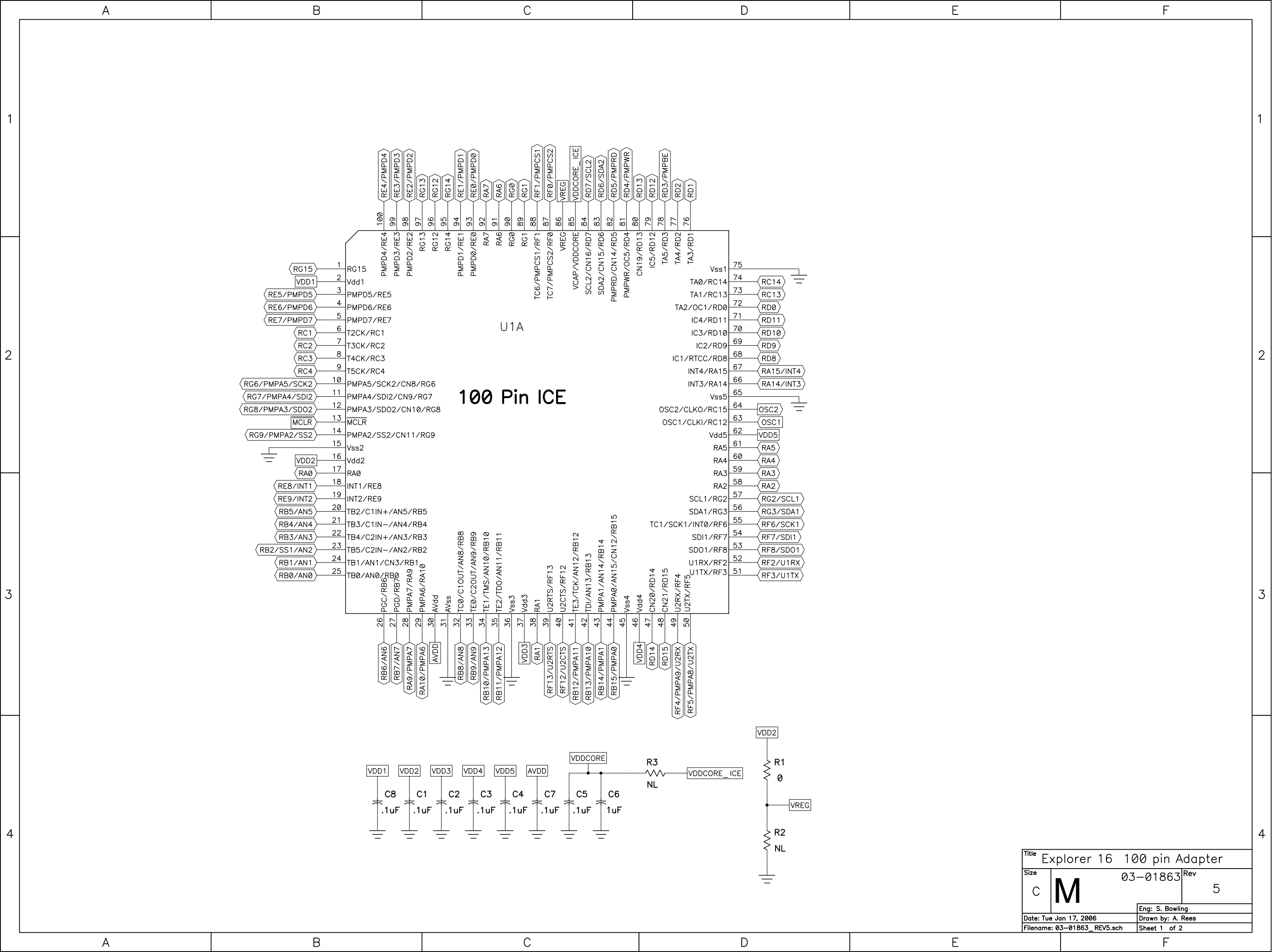


U1A  
100 Pin PIM

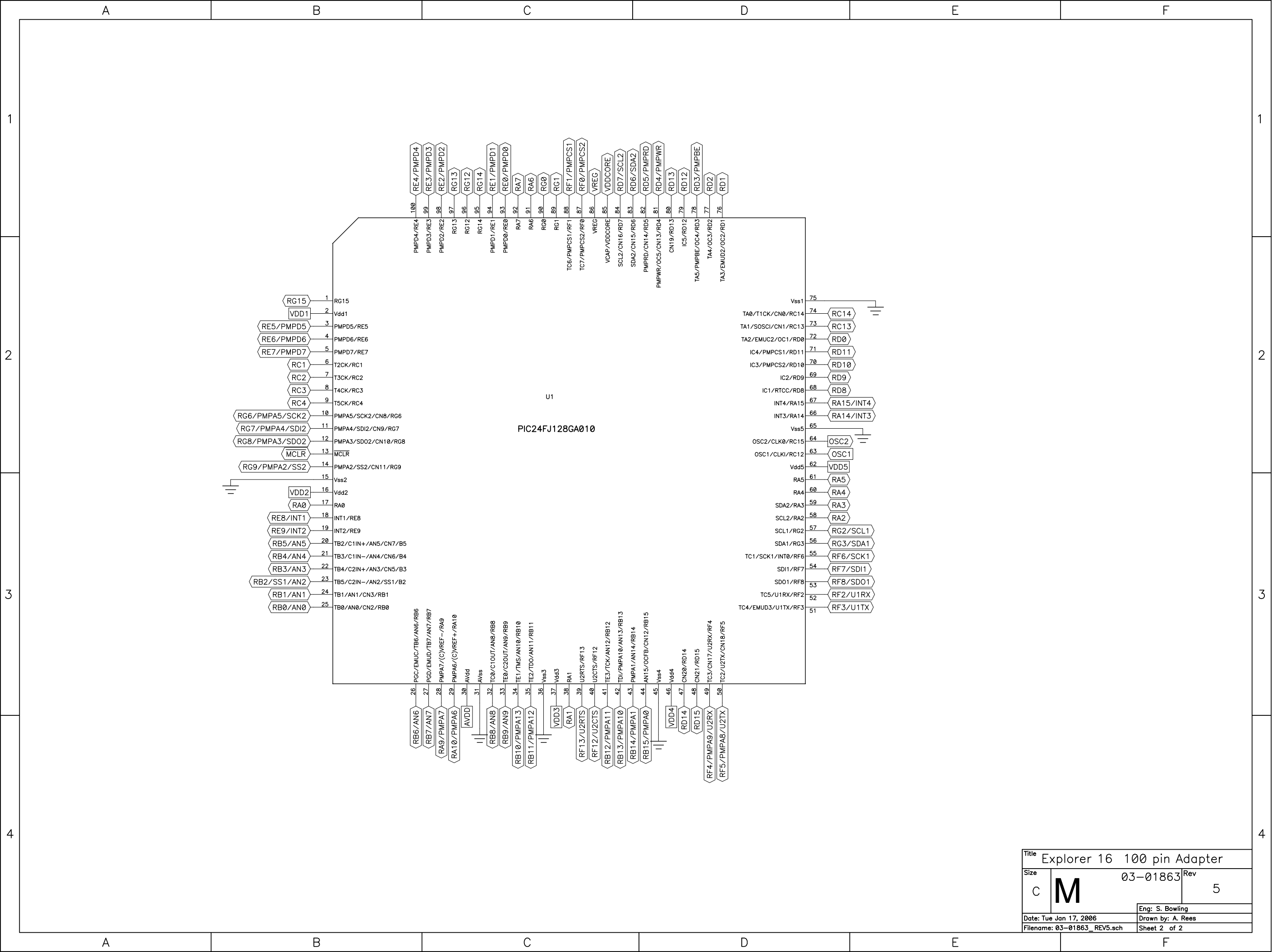


GRAPHICS LCD PORT





Title Explorer 16 100 pin Adapter		
Size	03-01863	Rev 5
C	M	
Date: Tue Jan 17, 2006		Eng: S. Bowling
Filename: 03-01863_REV5.sch		Drawn by: A. Rees
		Sheet 1 of 2



Title Explorer 16 100 pin Adapter		
Size	C	M 03-01863 Rev 5
Date: Tue Jan 17, 2006		Eng: S. Bowling
Filename: 03-01863_REV5.sch		Drawn by: A. Rees
		Sheet 2 of 2