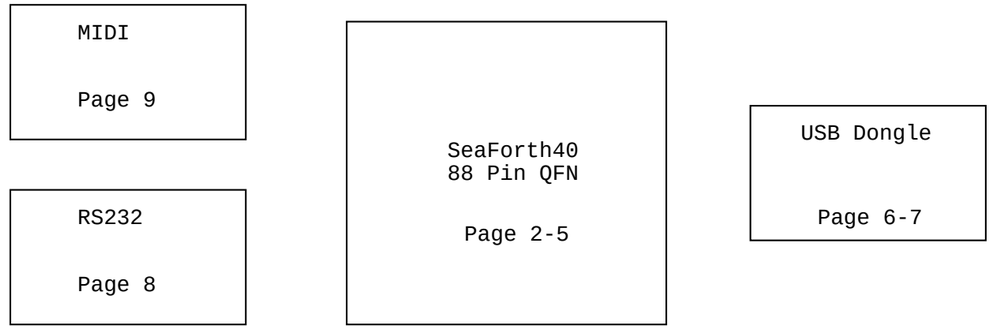
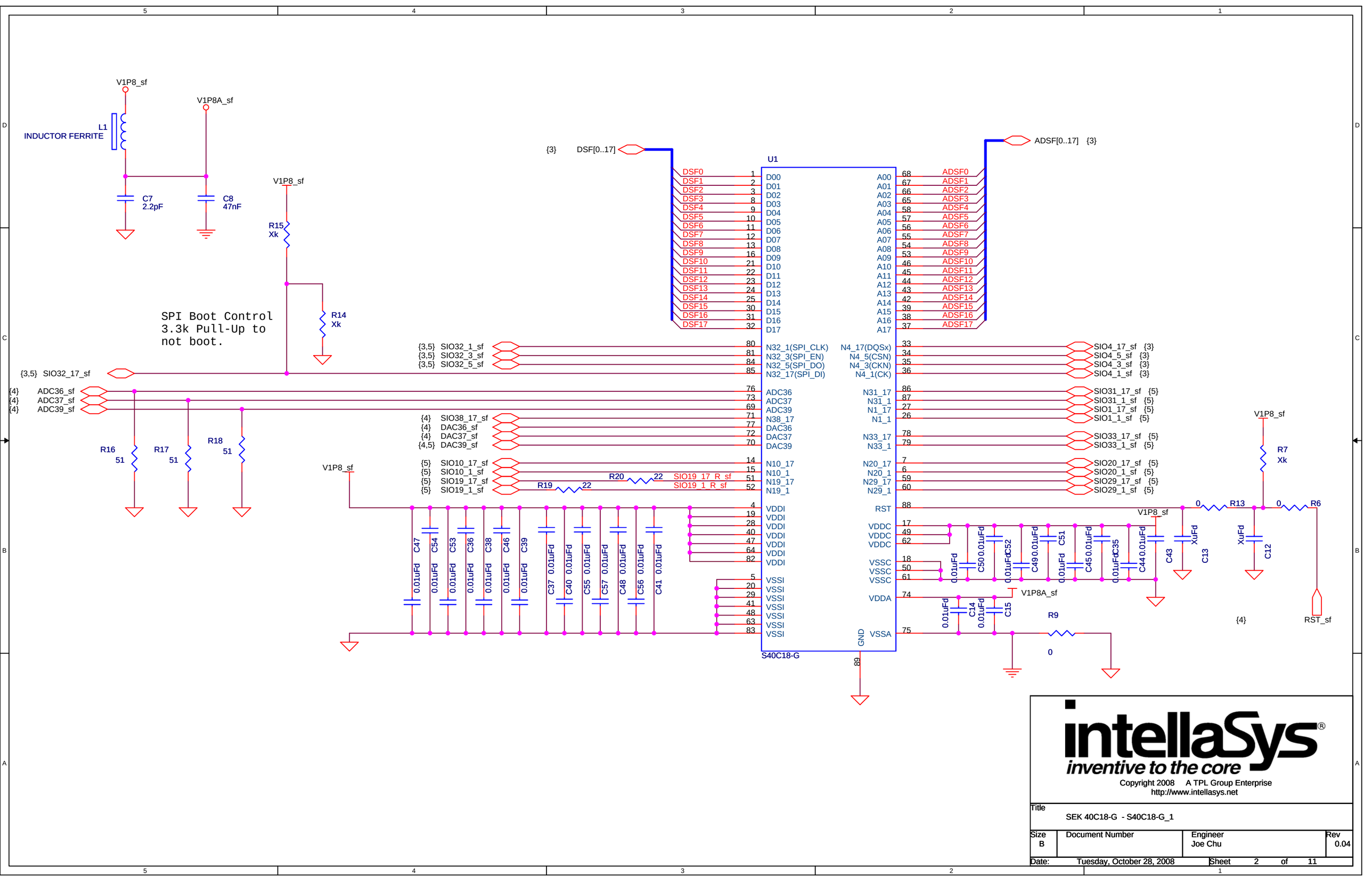
SEAforth 40C18 Evaluation Kit



Title: SEK 40C18-G - Block Diagram			
Size: B	Document Number:	Engineer: Joe Chu	Rev: 0.04
Date: Tuesday, October 28, 2008	Sheet 1 of 11		



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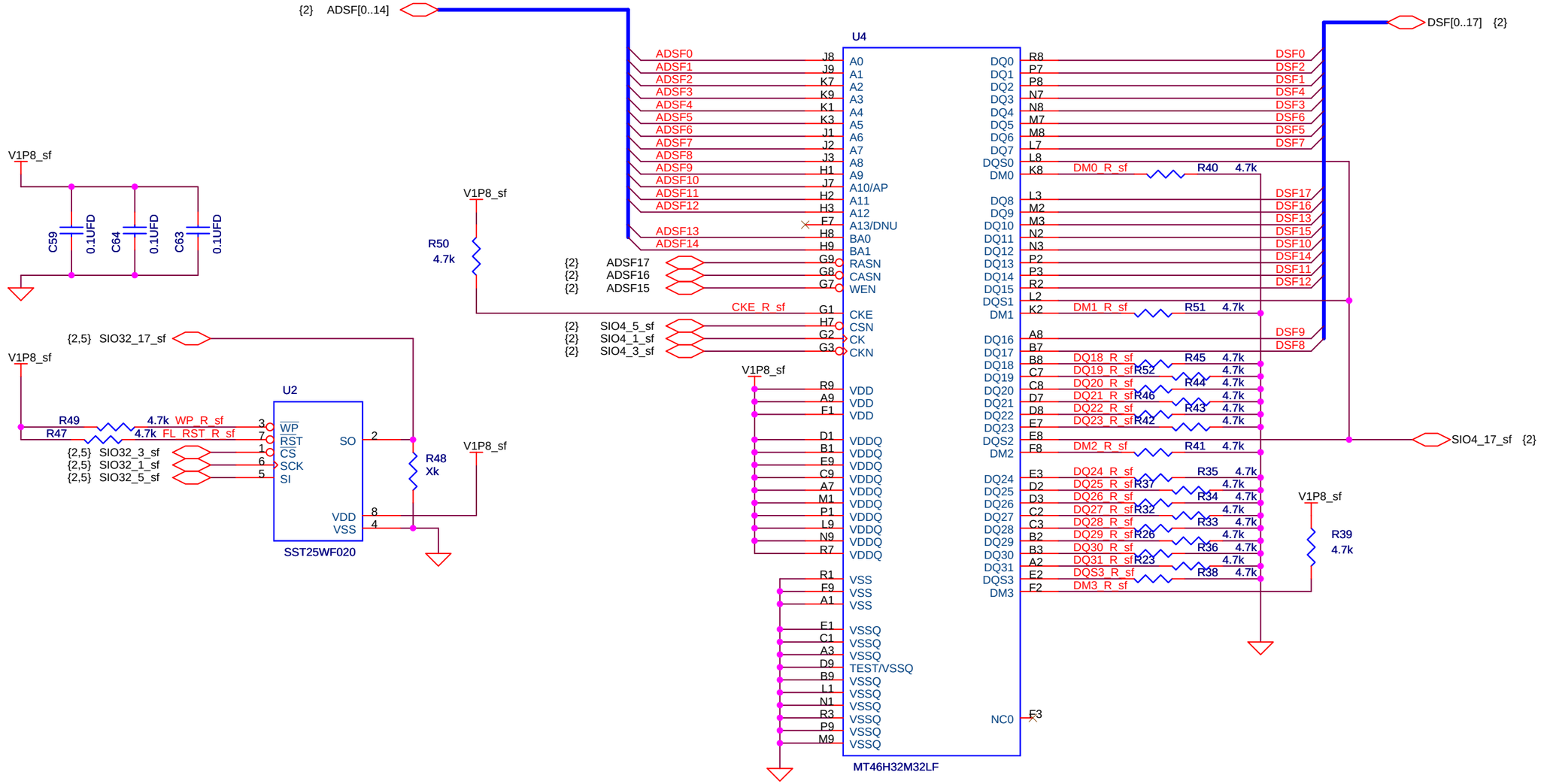
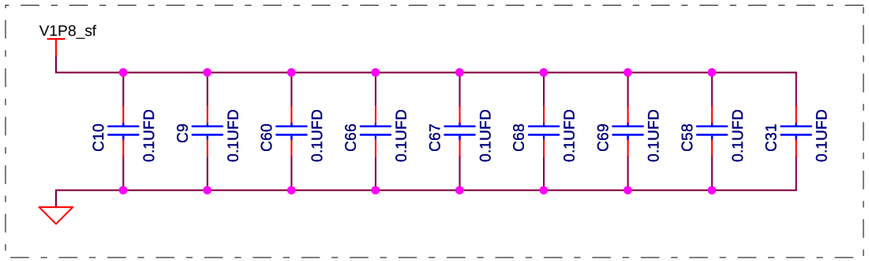
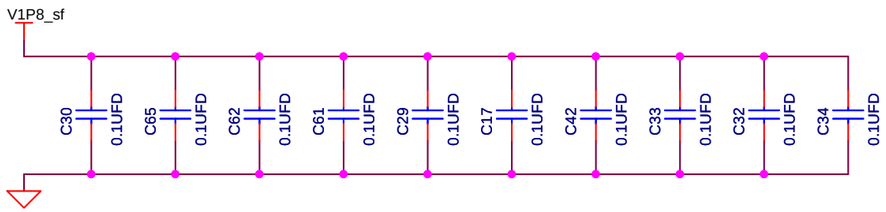
Title: SEK 40C18-G - S40C18-G_1			
Size: B	Document Number:	Engineer: Joe Chu	Rev: 0.04
Date: Tuesday, October 28, 2008	Sheet 2 of 11		

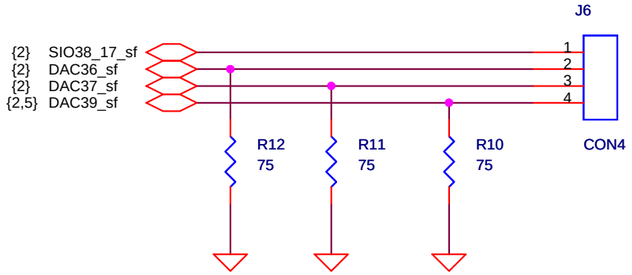


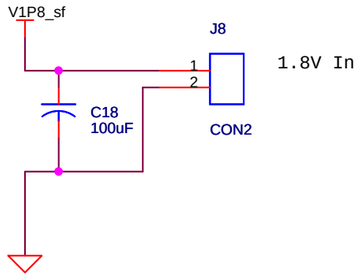
Title: SEK 40C18-G - S40C18-G_2			
Size: B	Document Number:	Engineer: Joe Chu	Rev: 0.04
Date: Tuesday, October 28, 2008	Sheet 3 of 11		

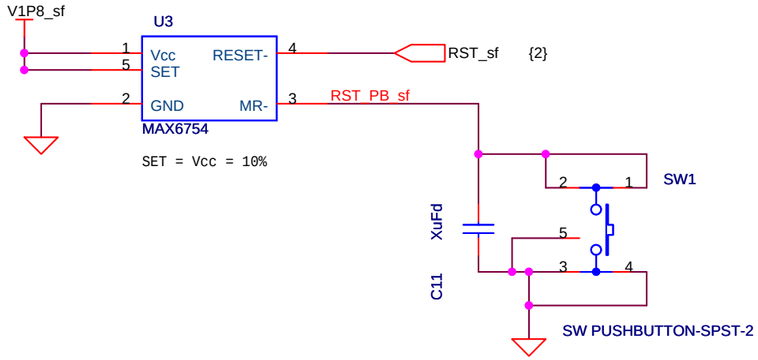


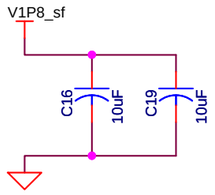


Place one cap per I/O pin. (next page)









Place caps near SEAforth Chip.

CAD NOTES:
1. All Connectors on the page are 0.100" pitch 35 mil diameter holes to fit standard headers.
2. Please label on silkscreen signal name and group name.
header.

Title			
SEK 40C18-G - S40C18-G_3			
Size: B	Document Number:	Engineer: Joe Chu	Rev: 0.04
Date: Tuesday, October 28, 2008	Sheet 4 of 11		

Changes 090508

Place Large 'M'
on silkscreen

J3
CON5
V1P8_sf
SIO33_17_sf {2}
SIO33_1_sf {2}
R1 Xk
R8 Xk
C5 XuFd
C6 XuFd

J4
CON5
V1P8_sf
{2} SIO29_17_sf
{2,4} DAC39_sf
R21 Xk
C20 XuFd

J1
CON4
V1P8_sf

J2
CON4
SIO32_1_sf {2,3}
SIO32_3_sf {2,3}
SIO32_5_sf {2,3}
SIO32_17_sf {2,3}
R2 Xk
R3 Xk
R4 Xk
R5 Xk
C1 XuFd
C2 XuFd
C3 XuFd
C4 XuFd

D1
LED_Orange_2mA
V1P8_sf
{2} SIO29_1_sf

Changes 090508

Place Large 'S'
on silkscreen

J7
CON5
V1P8_sf
SIO10_17_sf {2}
SIO10_1_sf {2}
R22 Xk
R29 Xk
C22 XuFd
C23 XuFd

Changes 090508

J10
CON5
V1P8_sf
SIO20_17_sf {2}
SIO20_1_sf {2}
R24 Xk
R25 Xk
C21 XuFd
C24 XuFd

Changes 090508

J12
CON5
V1P8_sf
{2} SIO19_17_sf
{2} SIO19_1_sf

Place Large 'U'
on silkscreen

J14
CON6
V1P8_sf

J13
CON6

SIO31_17_sf {2}
SIO31_1_sf {2}
SIO1_17_sf {2}
SIO1_1_sf {2}
R31 Xk
R30 Xk
R28 Xk
R27 Xk
C28 XuFd
C27 XuFd
C26 XuFd
C25 XuFd

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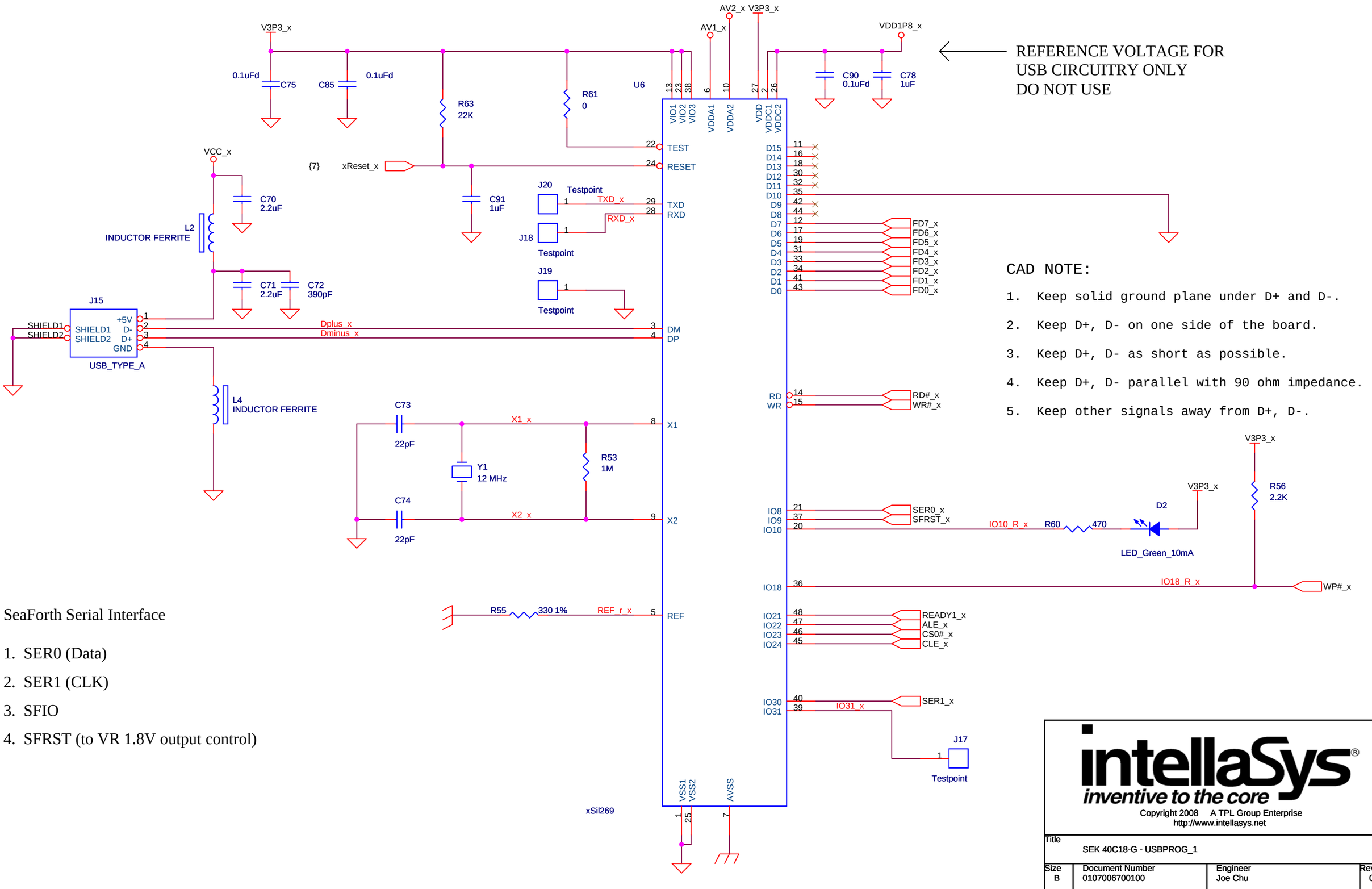
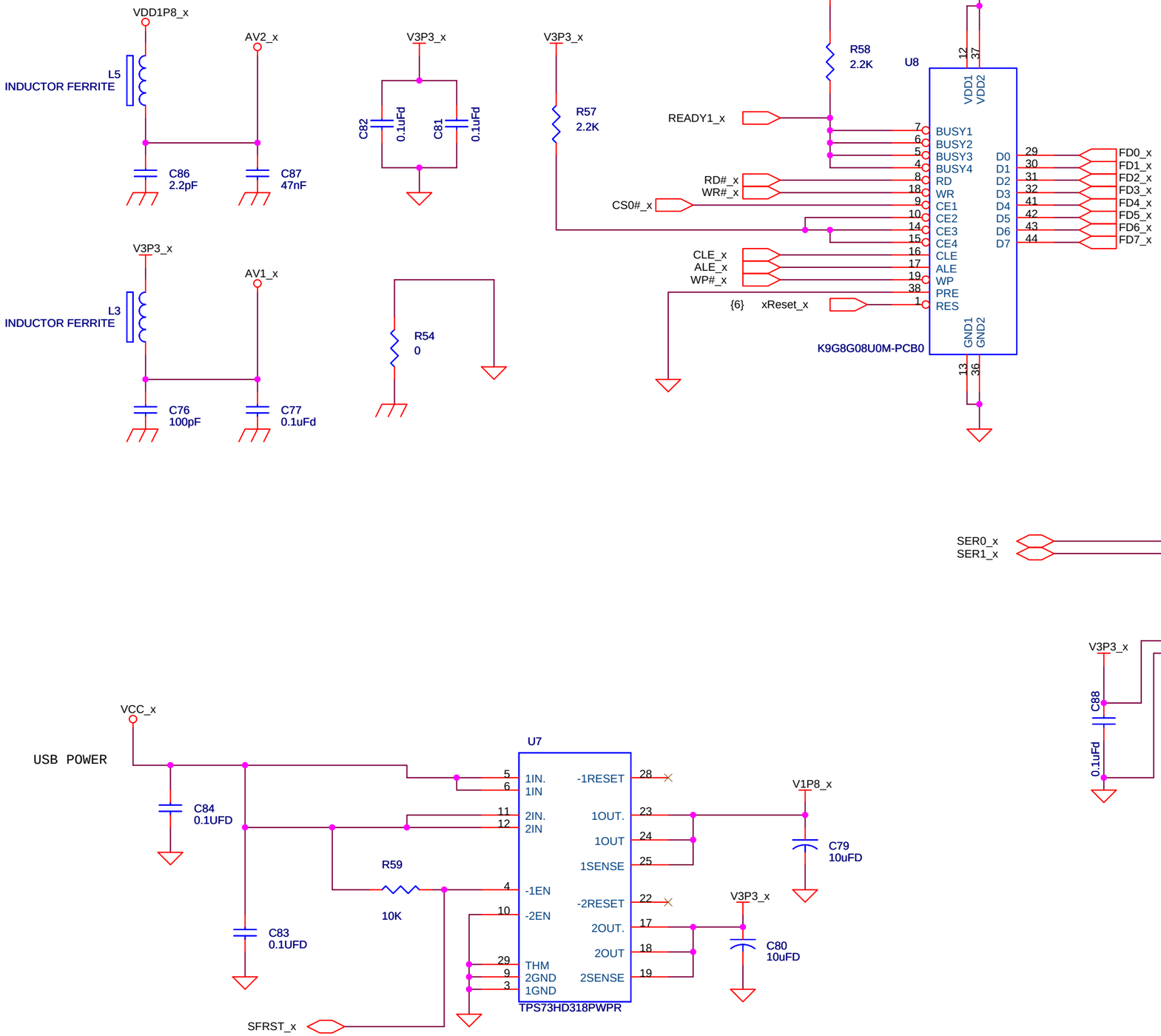
Title: SEK 40C18-G - S40C18-G_4			
Size: B	Document Number:	Engineer: Joe Chu	Rev: 0.04
Date: Tuesday, October 28, 2008	Sheet 5 of 11		



SeaForth Serial Interface

1. SER0 (Data)
2. SER1 (CLK)
3. SFIO
4. SFRST (to VR 1.8V output control)

Title: SEK 40C18-G - USBPROG_1			
Size: B	Document Number: 0107006700100	Engineer: Joe Chu	Rev: 0.04
Date: Tuesday, October 28, 2008	Sheet 6 of 11		



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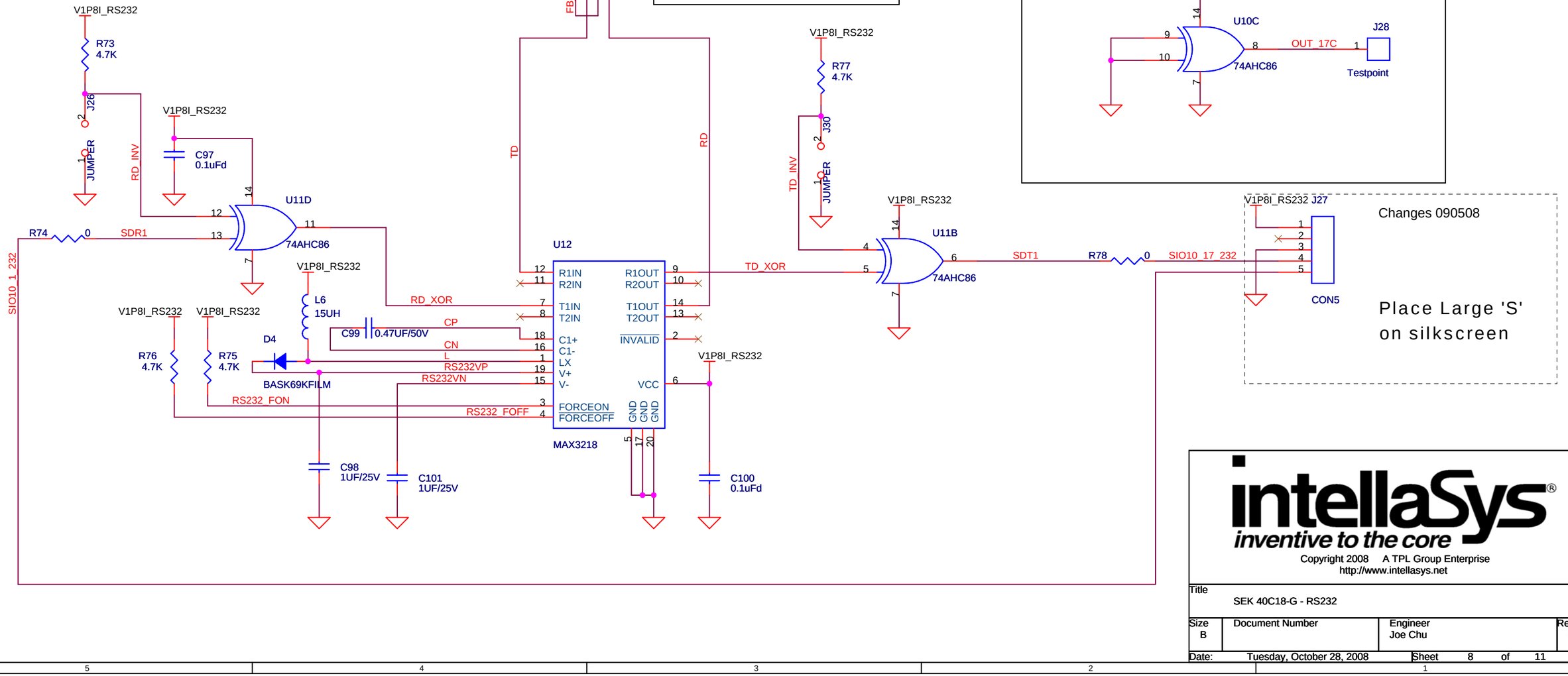
Title: SEK 40C18-G - USBPROG_2			
Size: B	Document Number: 0107006700100	Engineer: Joe Chu	Rev: 0.04
Date: Tuesday, October 28, 2008	Sheet 7 of 11		

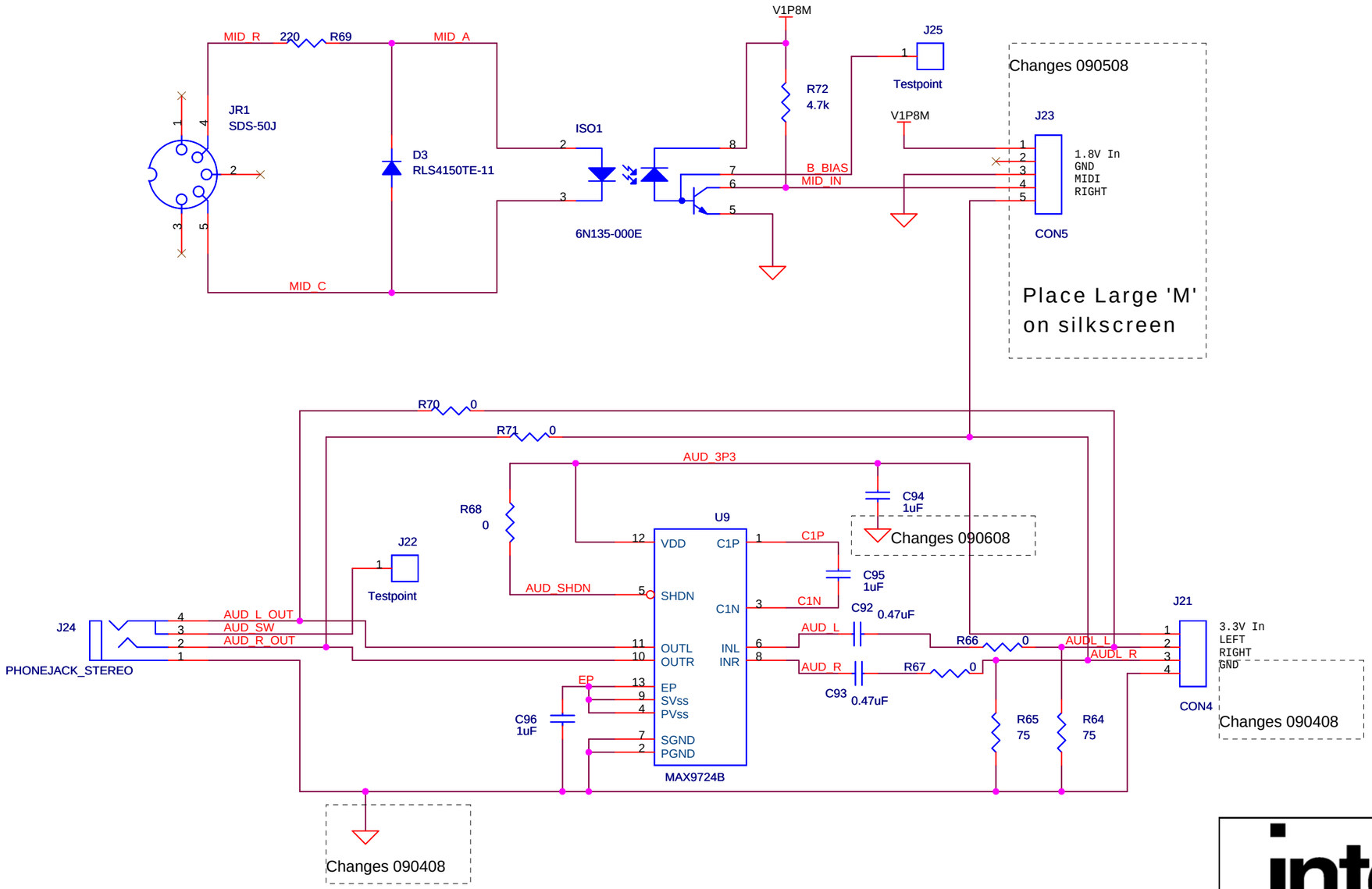
CAD NOTES:
1. Please use dual input via structure on inputs of unused gates. Via closest to pin (unmasked) goes from top signal layer to bottom signal layer. The adjacent via ties signals to GND. Ample room to cut the trace should be left in between the two sets of vias.

9-PIN SERIAL (from PC perspective)
1. CD in
2. RD in
3. TD out
4. DTR out
5. GND
6. DSR in
7. RTS out
8. CTS in
9. RI in

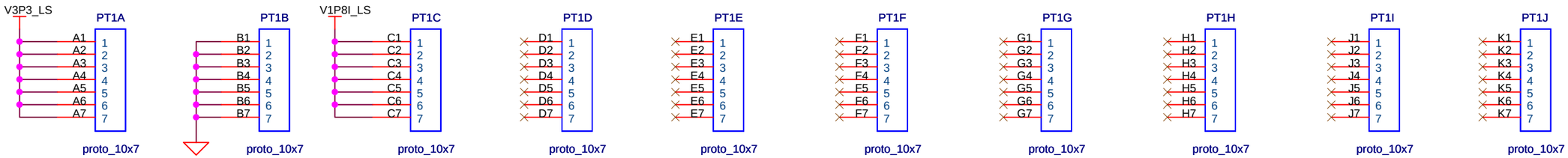
UNUSED GATES

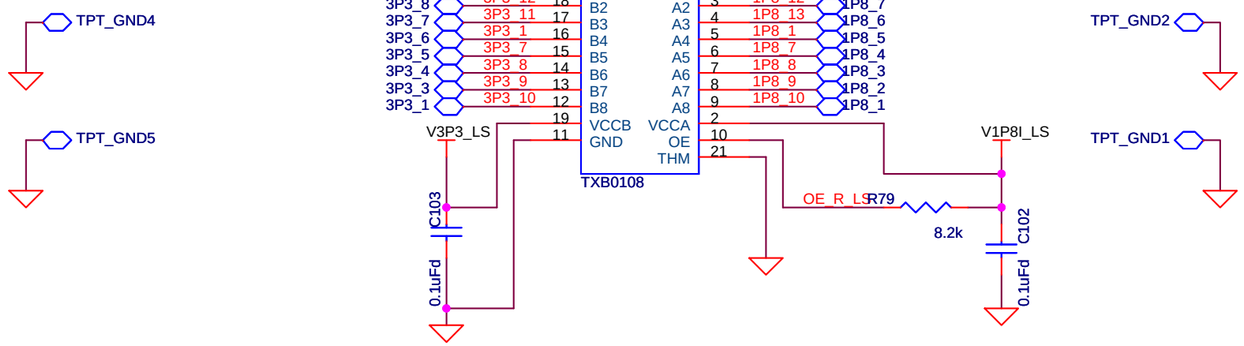


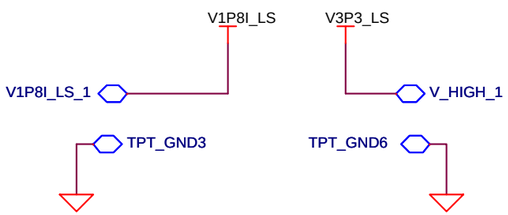
Title: SEK 40C18-G - RS232			
Size: B	Document Number	Engineer: Joe Chu	Rev: 0.04
Date: Tuesday, October 28, 2008		Sheet 8 of 11	



Title: SEK 40C18-G - MIDI MODULE			
Size: B	Document Number:	Engineer: Joe Chu	Rev: 0.04
Date: Tuesday, October 28, 2008	Sheet 9 of 11		







CAD NOTE: Please label all test points with net names of U28.

Title: SEK 40C18-G - Level Shift Module			
Size: B	Document Number:	Engineer: Joe Chu	Rev: 0.04
Date: Tuesday, October 28, 2008	Sheet 10 of 11		

C1 XUFD 5	C41 0.01UFD 2	C81 0.1UFD 7	J14 CON6 5	R17 51 2	R57 2.2K 7	3P3_1 TEST_1 10	
C2 XUFD 5	C42 0.1UFD 4	C82 0.1UFD 7	J15 USB_TYPE 6	R18 51 2	R58 2.2K 7	3P3_2 TEST_1 10	
C3 XUFD 5	C43 0.01UFD 2	C83 0.1UFD 7	J16 CON5 7	R19 22 2	R59 10K 7	3P3_3 TEST_1 10	
C4 XUFD 5	C44 0.01UFD 2	C84 0.1UFD 7	J17 TESTPOIN 6	R20 22 2	R60 470 6	3P3_4 TEST_1 10	
C5 XUFD 5	C45 0.01UFD 2	C85 0.1UFD 6	J18 TESTPOIN 6	R21 XK 5	R61 0 6	3P3_5 TEST_1 10	
C6 XUFD 5	C46 0.01UFD 2	C86 2.2PF 7	J19 TESTPOIN 6	R22 XK 5	R62 8.2K 7	3P3_6 TEST_1 10	
C7 2.2PF 2	C47 0.01UFD 2	C87 47NF 7	J20 TESTPOIN 6	R23 4.7K 3	R63 22K 6	3P3_7 TEST_1 10	
C8 47NF 2	C48 0.01UFD 2	C88 0.1UFD 7	J21 CON4 9	R24 XK 5	R64 75 9	3P3_8 TEST_1 10	
C9 0.1UFD 4	C49 0.01UFD 2	C89 0.1UFD 7	J22 TESTPOIN 9	R25 XK 5	R65 75 9		
C10 0.1UFD 4	C50 0.01UFD 2	C90 0.1UFD 6	J23 CON5 9	R26 4.7K 3	R66 0 9		
C11 XUFD 4	C51 0.01UFD 2	C91 1uF 6	J24 PHONEJAC 9	R27 XK 5	R67 0 9		
C12 XUFD 2	C52 0.01UFD 2	C92 0.47UF 9	J25 TESTPOIN 9	R28 XK 5	R68 0 9		
C13 XUFD 2	C53 0.01UFD 2	C93 0.47UF 9	J26 JUMPER 8	R29 XK 5	R69 220 9		
C14 0.01UFD 2	C54 0.01UFD 2	C94 1UF 9	J27 CON5 8	R30 XK 5	R70 0 9		
C15 0.01UFD 2	C55 0.01UFD 2	C95 1UF 9	J28 TESTPOIN 8	R31 XK 5	R71 0 9		
C16 10UF 4	C56 0.01UFD 2	C96 1UF 9	J29 TESTPOIN 8	R32 4.7K 3	R72 4.7K 9		
C17 0.1UFD 4	C57 0.01UFD 2	C97 0.1UFD 8	J30 JUMPER 8	R33 4.7K 3	R73 4.7K 8		
C18 100uF 4	C58 0.1UFD 4	C98 1UF/25V 8	L1 INDUCTOR 2	R34 4.7K 3	R74 0 8		
C19 10UF 4	C59 0.1UFD 3	C99 0.47UF/5 8	L2 INDUCTOR 6	R35 4.7K 3	R75 4.7K 8		
C20 XUFD 5	C60 0.1UFD 4	C100 0.1UFD 8	L3 INDUCTOR 7	R36 4.7K 3	R76 4.7K 8		
C21 XUFD 5	C61 0.1UFD 4	C101 1UF/25V 8	L4 INDUCTOR 6	R37 4.7K 3	R77 4.7K 8		
C22 XUFD 5	C62 0.1UFD 4	C102 0.1UFD 10	L5 INDUCTOR 7	R38 4.7K 3	R78 0 8		
C23 XUFD 5	C63 0.1UFD 3	C103 0.1UFD 10	L6 15UH 8	R39 4.7K 3	R79 8.2K 10		
C24 XUFD 5	C64 0.1UFD 3	D1 LED_Oran 5	P1 CONNECTO 8	R40 4.7K 3	SW1 SW PUSHB 4		
C25 XUFD 5	C65 0.1UFD 4	D2 LED_Gree 6	R1 XK 5	R41 4.7K 3	U1 SEAforth 2		
C26 XUFD 5	C66 0.1UFD 4	D3 RLS4150T 9	R2 XK 5	R42 4.7K 3	U2 SST25WF0 3		
C27 XUFD 5	C67 0.1UFD 4	D4 BASK69KF 8	R3 XK 5	R43 4.7K 3	U3 MAX6754 4		
C28 XUFD 5	C68 0.1UFD 4	ISO1 6N135-00 9	R4 XK 5	R44 4.7K 3	U4 MT46H32M 3		
C29 0.1UFD 4	C69 0.1UFD 4	JR1 SDS-50J 9	R5 XK 5	R45 4.7K 3	U5 TXB0108 7		
C30 0.1UFD 4	C70 2.2UF 6	J1 CON4 5	R6 0 2	R46 4.7K 3	U6 xSil269 6		
C31 0.1UFD 4	C71 2.2UF 6	J2 CON4 5	R7 XK 2	R47 4.7K 3	U7 TPS73HD3 7		
C32 0.1UFD 4	C72 390PF 6	J3 CON5 5	R8 XK 5	R48 Xk 3	U8 K9G8G08U 7		
C33 0.1UFD 4	C73 22PF 6	J4 CON5 5	R9 0 2	R49 4.7K 3	U9 MAX9724B 9		
C34 0.1UFD 4	C74 22PF 6	J5 CON3 4	R10 75 4	R50 4.7K 3	U10A 74AHC86 8		
C35 0.01UFD 2	C75 0.1UFD 6	J6 CON4 4	R11 75 4	R51 4.7K 3	U10C 74AHC86 8		
C36 0.01UFD 2	C76 100pF 7	J7 CON5 5	R12 75 4	R52 4.7K 3	U11B 74AHC86 8		
C37 0.01UFD 2	C77 0.1UFD 7	J8 CON2 4	R13 0 2	R53 1M 6	U11D 74AHC86 8		
C38 0.01UFD 2	C78 1UF 6	J10 CON5 5	R14 XK 2	R54 0 7	U12 MAX3218 8		
C39 0.01UFD 2	C79 10UFD 7	J12 CON5 5	R15 XK 2	R55 330 1% 6	U13 TXB0108 10		
C40 0.01UFD 2	C80 10UFD 7	J13 CON6 5	R16 51 2	R56 2.2K 6	Y1 12 MHz 6		

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Title: SEK 40C18-G - Component Cross Reference

Size	Document Number	Engineer	Rev
B		Joe Chu	0.04

Date: Tuesday, October 28, 2008 Sheet 11 of 11