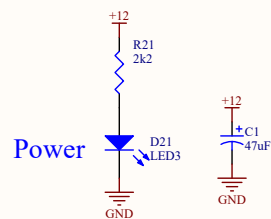
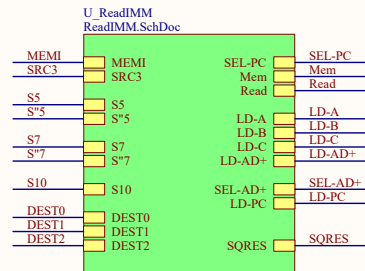
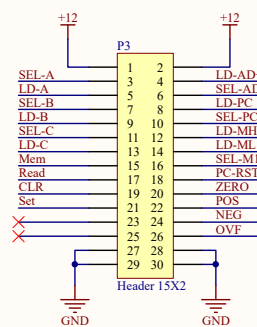
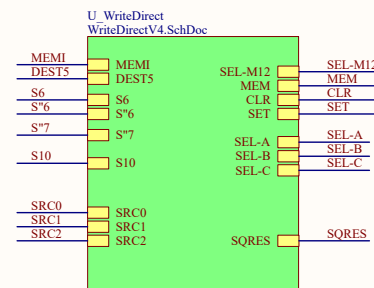
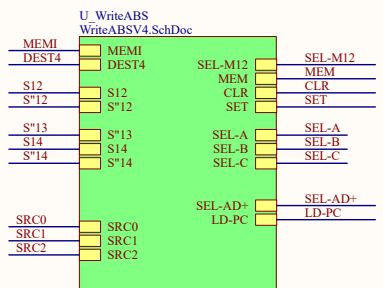
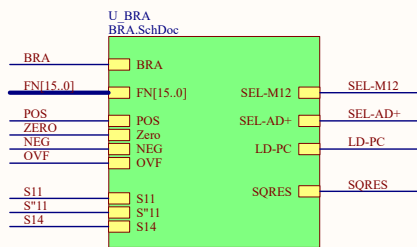
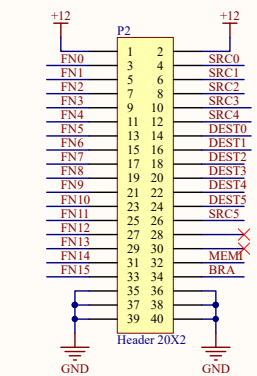
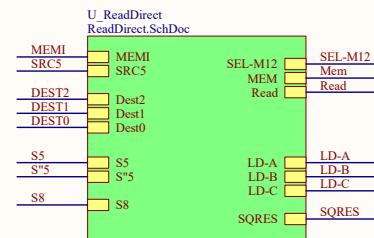
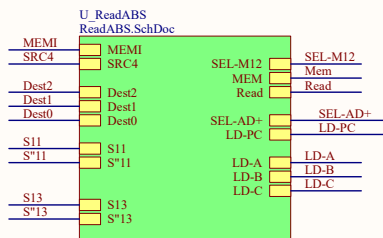
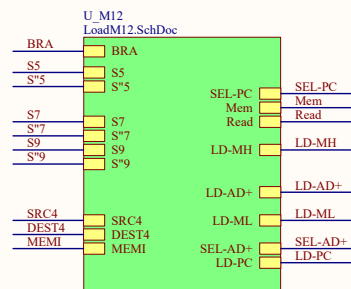
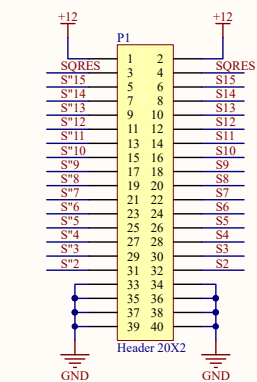


CPU-B4

CPU-B4

Updated V1.0 3/11/20

DIRect mode added 2/3/21

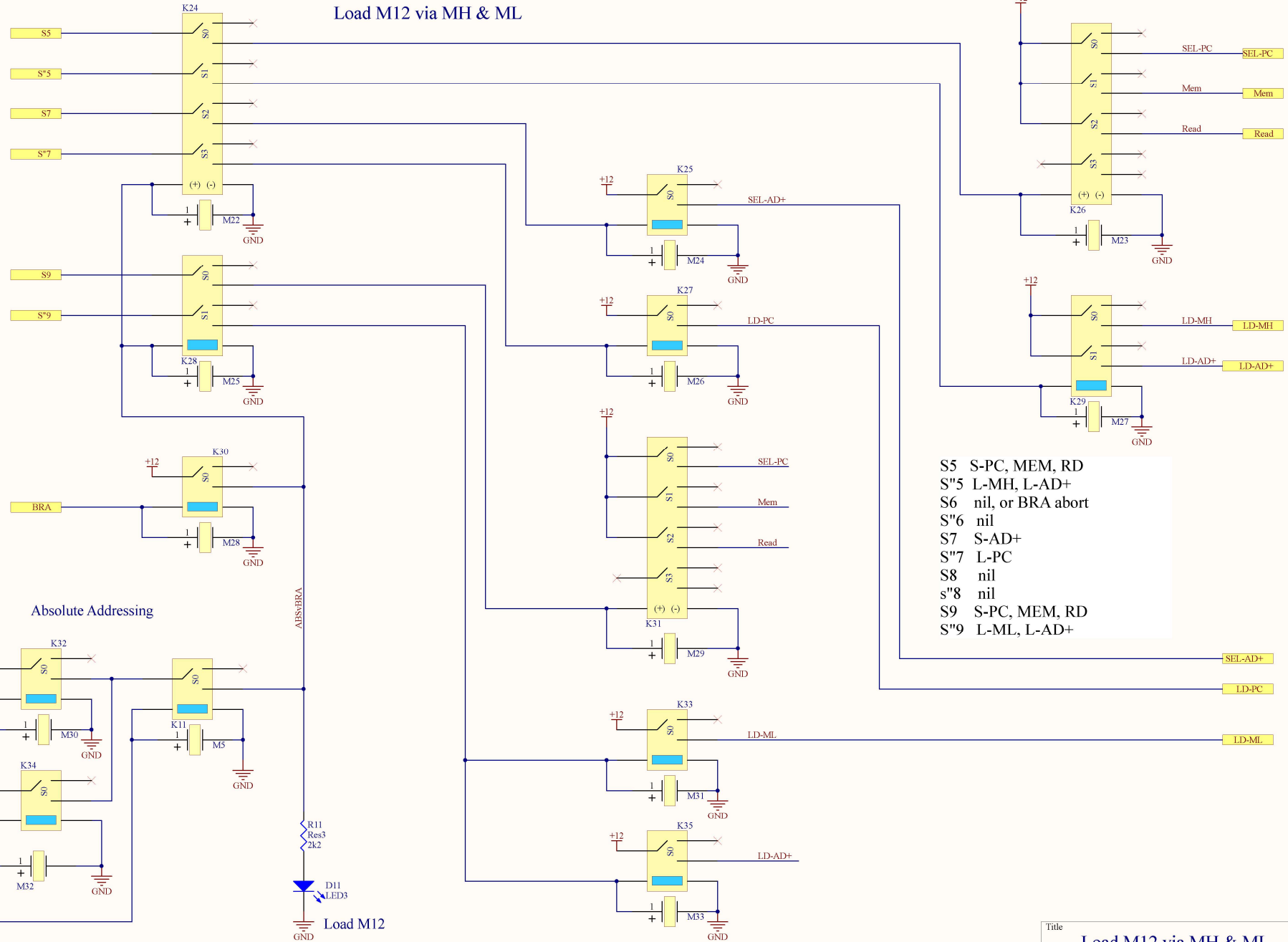


Title			CPU-B4		
Size	Number	Revision			
A3					
Date:	10/02/2024	Sheet of			
File:	C:\Users\...CPU-BV4.SchDoc	Drawn By:			

LOAD M12

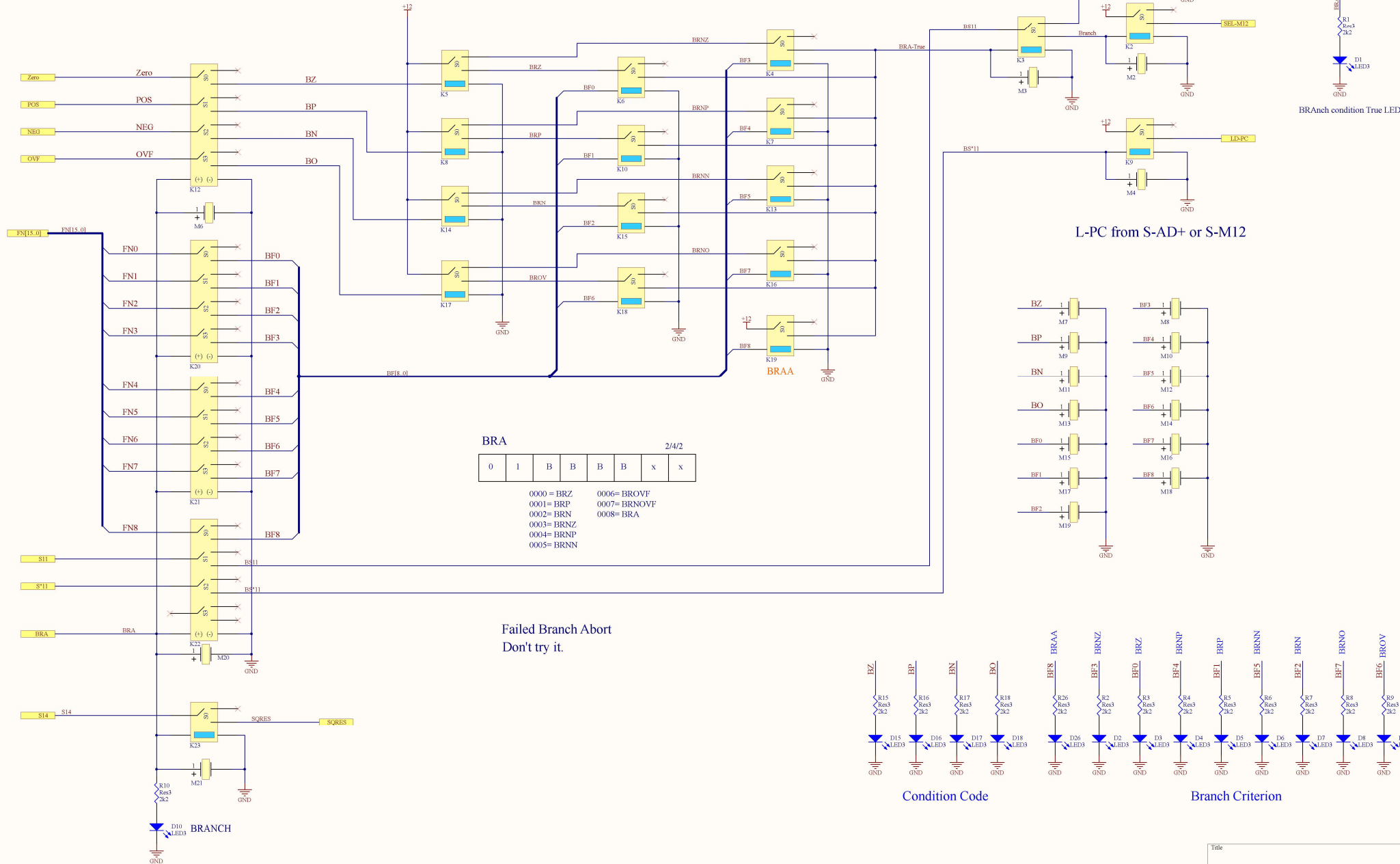
Identical for BRA and LDA & STA

Load M12 via MH & ML



- S5 S-PC, MEM, RD
- S'5 L-MH, L-AD+
- S6 nil, or BRA abort
- S''6 nil
- S7 S-AD+
- S''7 L-PC
- S8 nil
- S''8 nil
- S9 S-PC, MEM, RD
- S''9 L-ML, L-AD+

Title		
Load M12 via MH & ML		
Size	Number	Revision
A3		
Date:	10/02/2024	Sheet of
File:	C:\Users\... \LoadM12.SehDoc	Drawn By:

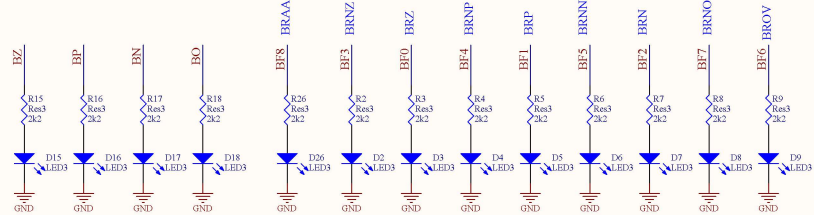


BRA 2/4/2

0	1	B	B	B	B	x	x
---	---	---	---	---	---	---	---

0000 = BRZ 0006 = BROVF
 0001 = BRP 0007 = BRNOVF
 0002 = BRN 0008 = BRA
 0003 = BRNZ
 0004 = BRNP
 0005 = BRNN

Failed Branch Abort
Don't try it.



Condition Code

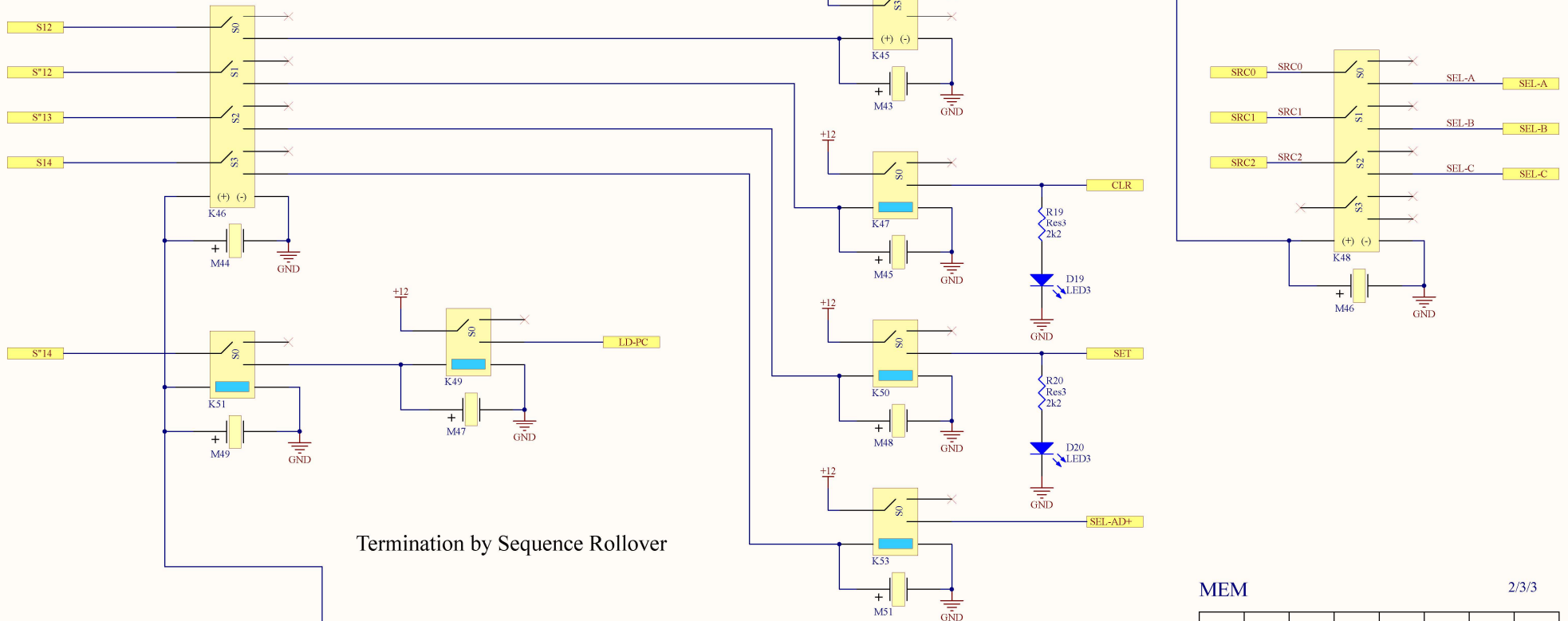
Branch Criterion

Title		
Size	Number	Revision
A2		
Date	10/02/2024	Sheet of
File	C:\Users\... \BRA SsdDoc	Drawn By:

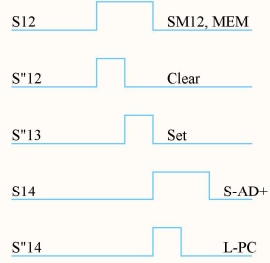
STA<REG>

WRITE-ABS

STA<REG>



Termination by Sequence Rollover



- S12 S-M12, MEM, <SRC-REG>
- S*12 CLR
- S13 nil
- S*13 SET
- S14 S-AD+
- S*14 L-PC
- S15 nil
- S*15 nil

Sequence rollover.

MEM

2/3/3

1	0	S	S	S	D	D	D
---	---	---	---	---	---	---	---

SRC	DEST
000 = A	000 = A
001 = B	001 = B
010 = C	010 = C
011 = MEM-IMM	011 = nul
100 = MEM-ABS	100 = MEM-ABS
101 = nul	

LDA<REG>

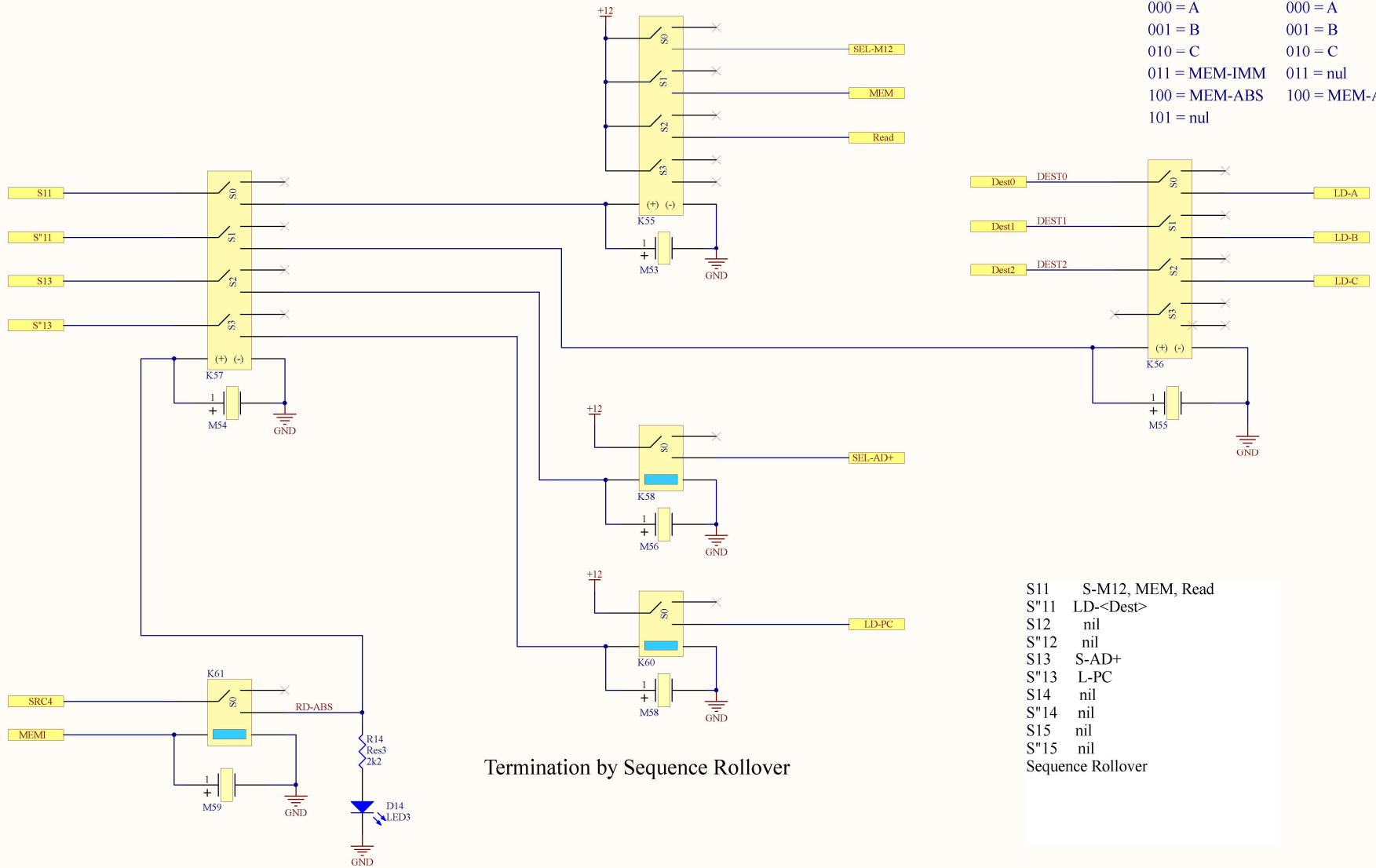
LDA<REG>

MEM

2/3/3

1	0	S	S	S	D	D	D
---	---	---	---	---	---	---	---

SR	CD
000 = A	000 = A
001 = B	001 = B
010 = C	010 = C
011 = MEM-IMM	011 = nul
100 = MEM-ABS	100 = MEM-ABS
101 = nul	

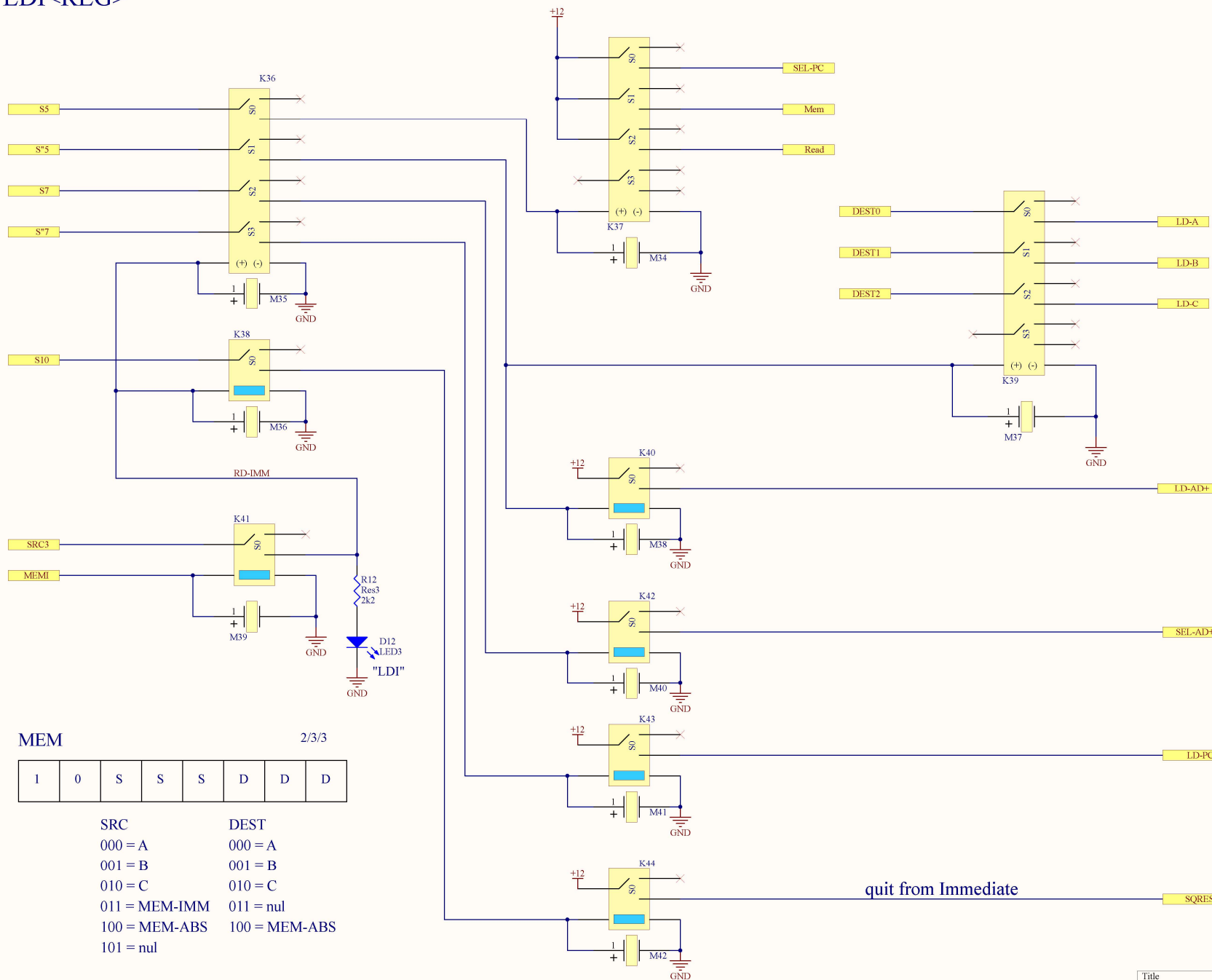


S11 S-M12, MEM, Read
 S"11 LD-<Dest>
 S12 nil
 S"12 nil
 S13 S-AD+
 S"13 L-PC
 S14 nil
 S"14 nil
 S15 nil
 S"15 nil
 Sequence Rollover

Title		
Size	Number	Revision
A3		
Date:	10/02/2024	Sheet of
File:	C:\Users\A\ReadABS.SchDoc	Drawn By:

LDI<REG>

LDI<REG>



IFF is MEMI & SRC3

S5 S-PC, MEM, Read
 S'5 LD<REG>,
 LD-AD+
 S7 S-AD+
 S'7 LD-PC
 S10 SQRES

MEM

2/3/3

I	0	S	S	S	D	D	D
---	---	---	---	---	---	---	---

SRC	DEST
000 = A	000 = A
001 = B	001 = B
010 = C	010 = C
011 = MEM-IMM	011 = nul
100 = MEM-ABS	100 = MEM-ABS
101 = nul	

quit from Immediate

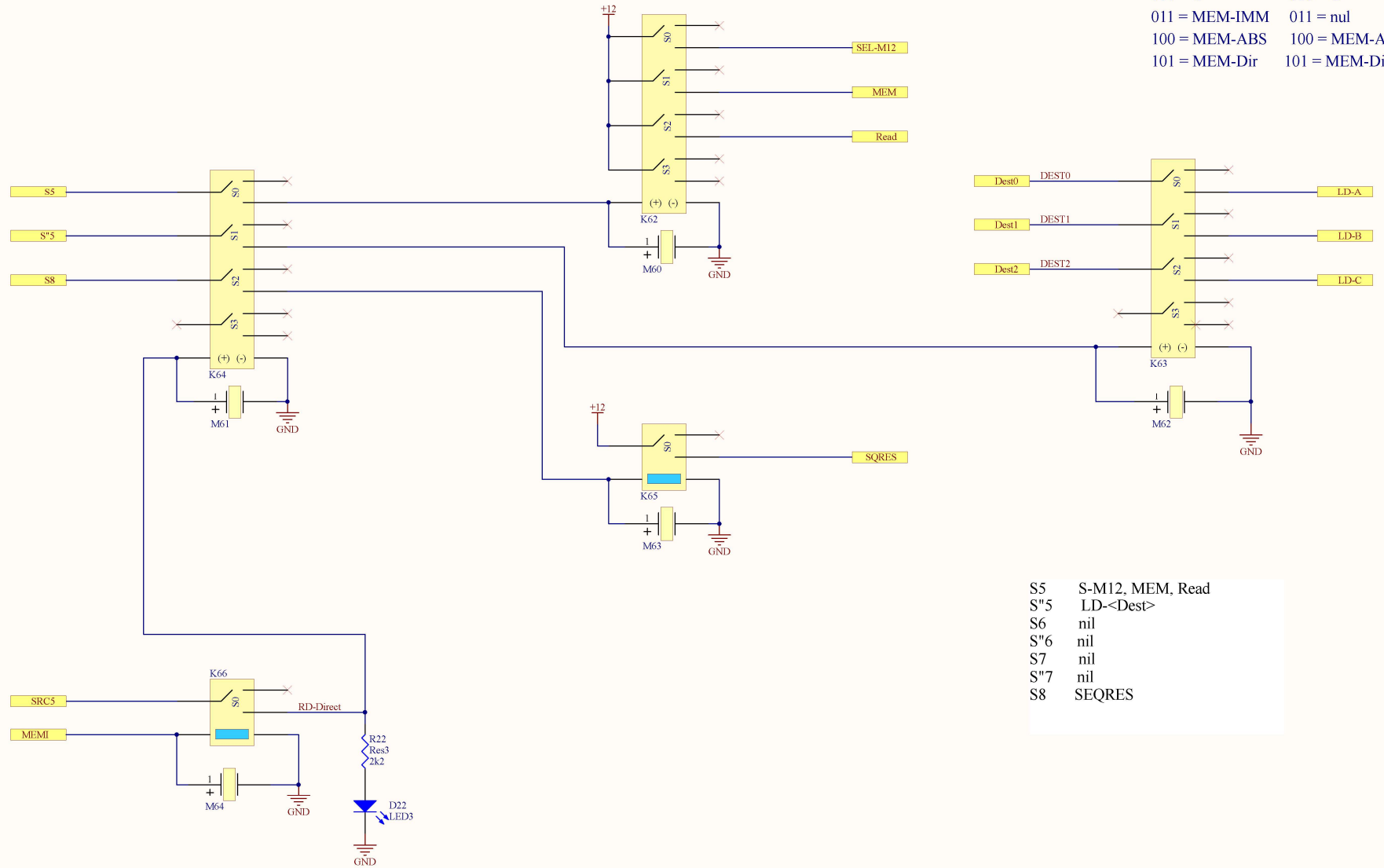
Title		
Size	Number	Revision
A3		
Date:	10/02/2024	Sheet of
File:	C:\Users\A\ReadIMM.SchDoc	Drawn By:

LDD<reg>

READ DIRECT (Read from Mem via MR12)

LDD<reg>

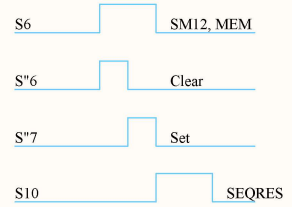
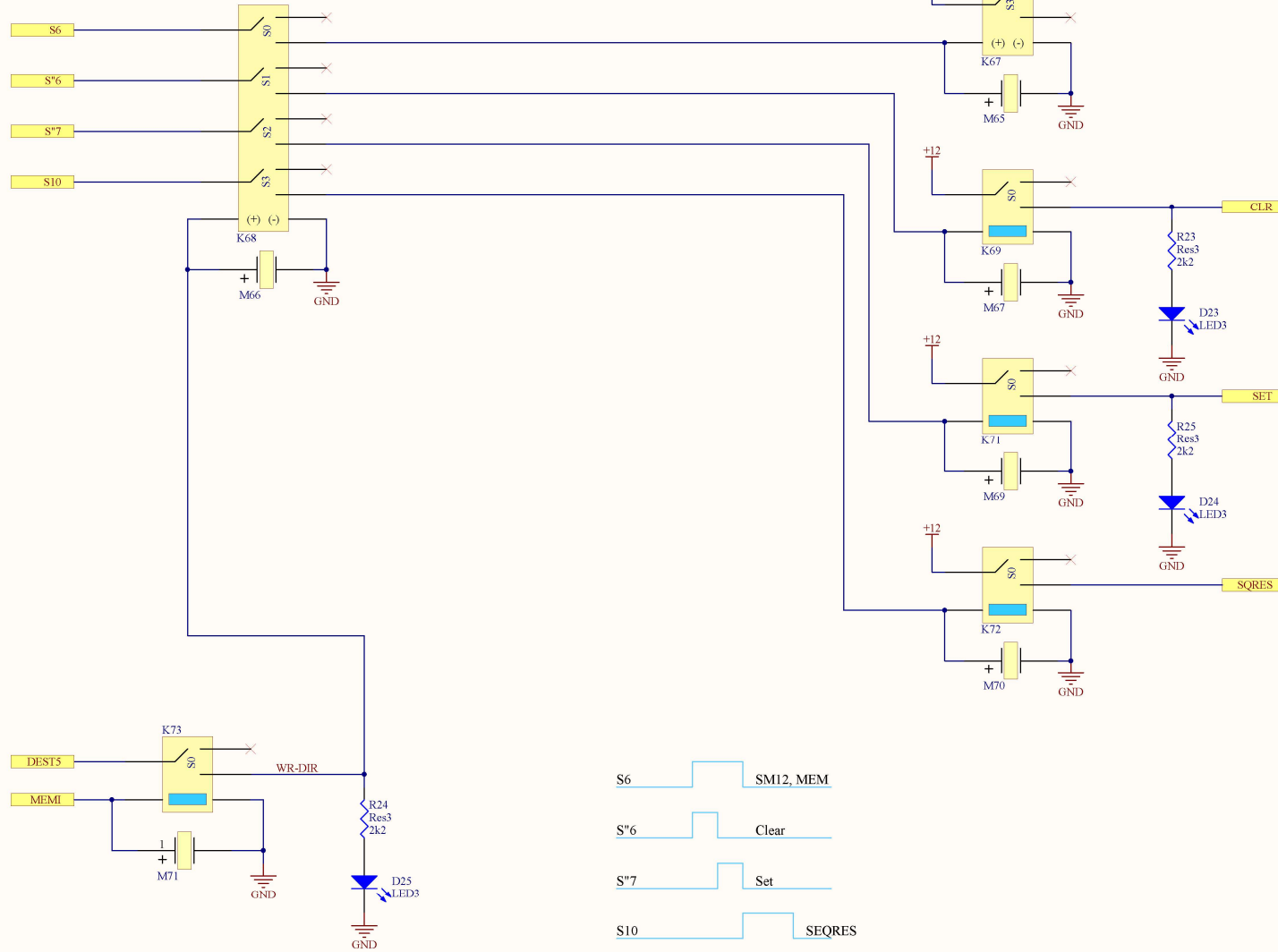
SRC	DEST
000 = A	000 = A
001 = B	001 = B
010 = C	010 = C
011 = MEM-IMM	011 = nul
100 = MEM-ABS	100 = MEM-ABS
101 = MEM-Dir	101 = MEM-Dir



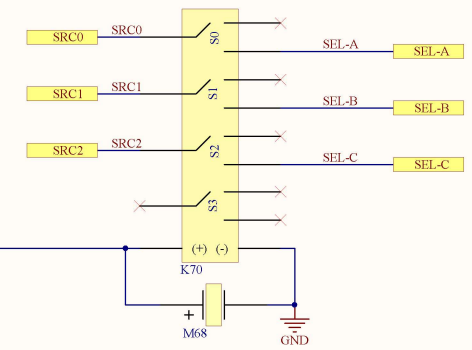
Title		
Size	Number	Revision
A3		
Date:	10/02/2024	Sheet of
File:	C:\Users\A\ReadDirect_Sch.Doc	Drawn By:

STD<REG>

WRITE-Direct with addr in M12



STD<REG>



MEM 2/3/3

1	0	S	S	S	D	D	D
---	---	---	---	---	---	---	---

SRC	DEST
000 = A	000 = A
001 = B	001 = B
010 = C	010 = C
011 = MEM-IMM	011 = nul
100 = MEM-ABS	100 = MEM-ABS
101 = MEM-DIR	101 = MEM-DIR
110 = nul	110 = nul
111 = nul	111 = nul