

Optional Extended Address Decoder:  
Used when system can drive extended address bus. Jumpers set board address from 0x to Fx. Set RAM option switch #5 ON (M24 high) when this is installed.

Install 10K if Extended Address Decoder option is not installed

RAM Address Decode and Extended Address Logic

Optional Wait State Generator  
All jumpers open =  
No wait states  
Jumper 1 closed =  
1 wait state  
Jumpers 1 & 2 closed =  
2 wait states  
And so on...

Install 10K if Wait-state generator option not installed

RAM Switch Options:  
1,2 - Chip Size:  
CC=RAM Disabled  
00=32K  
CO=128K  
0C=512K  
3 - CPU Ext. Addr  
0 = On, C = Off  
4 - ROM Option

BS/MMU Switch Options:  
5,6 - Common Size:  
CC=8K, OC=16K,  
CO=24K, OO=32K;  
7 - Bank Select Mode:  
0=Normal, C=Encoded  
8 - Unused

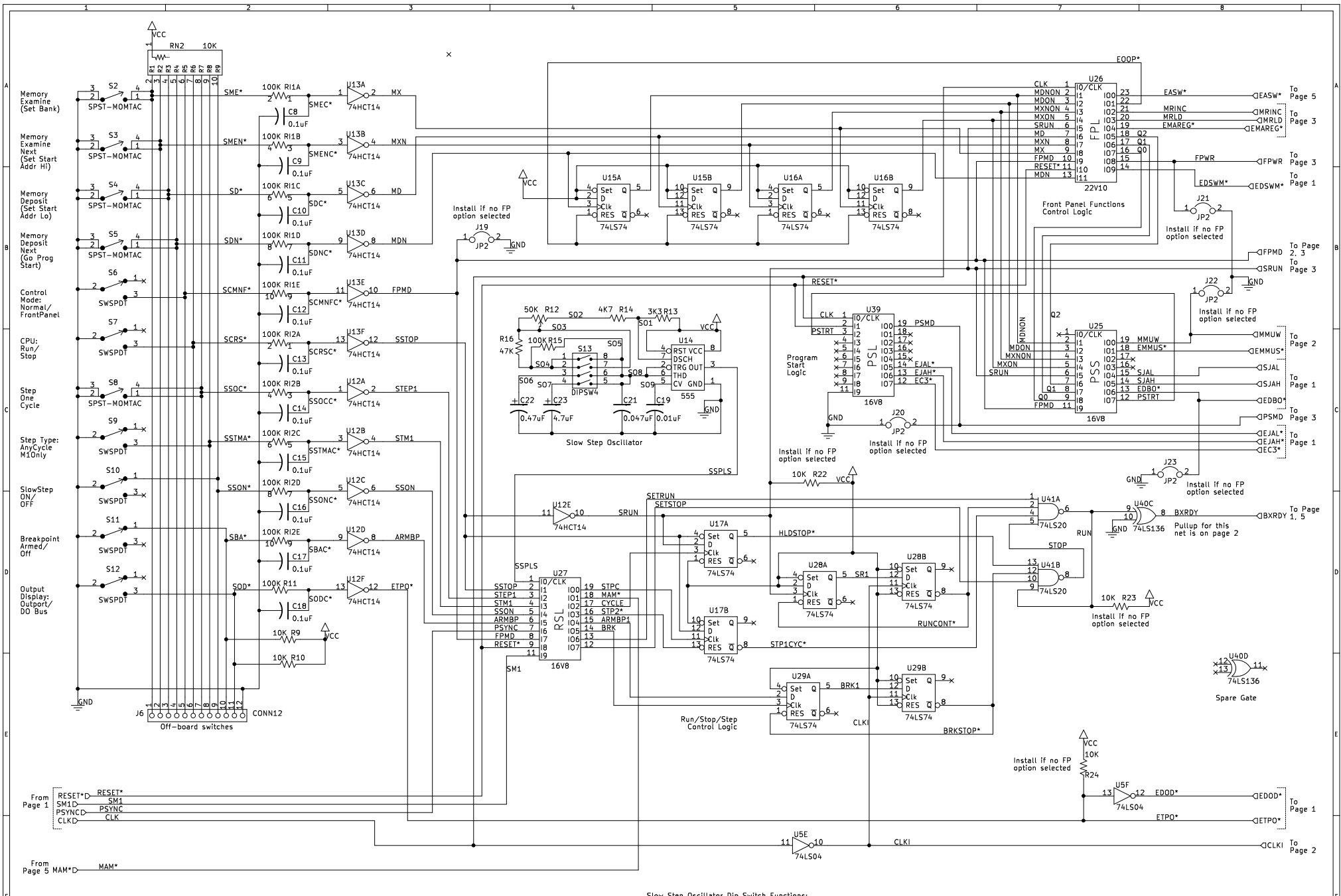
I/O Port & Wait-State Logic

Install 10K if MMU 10K option not installed

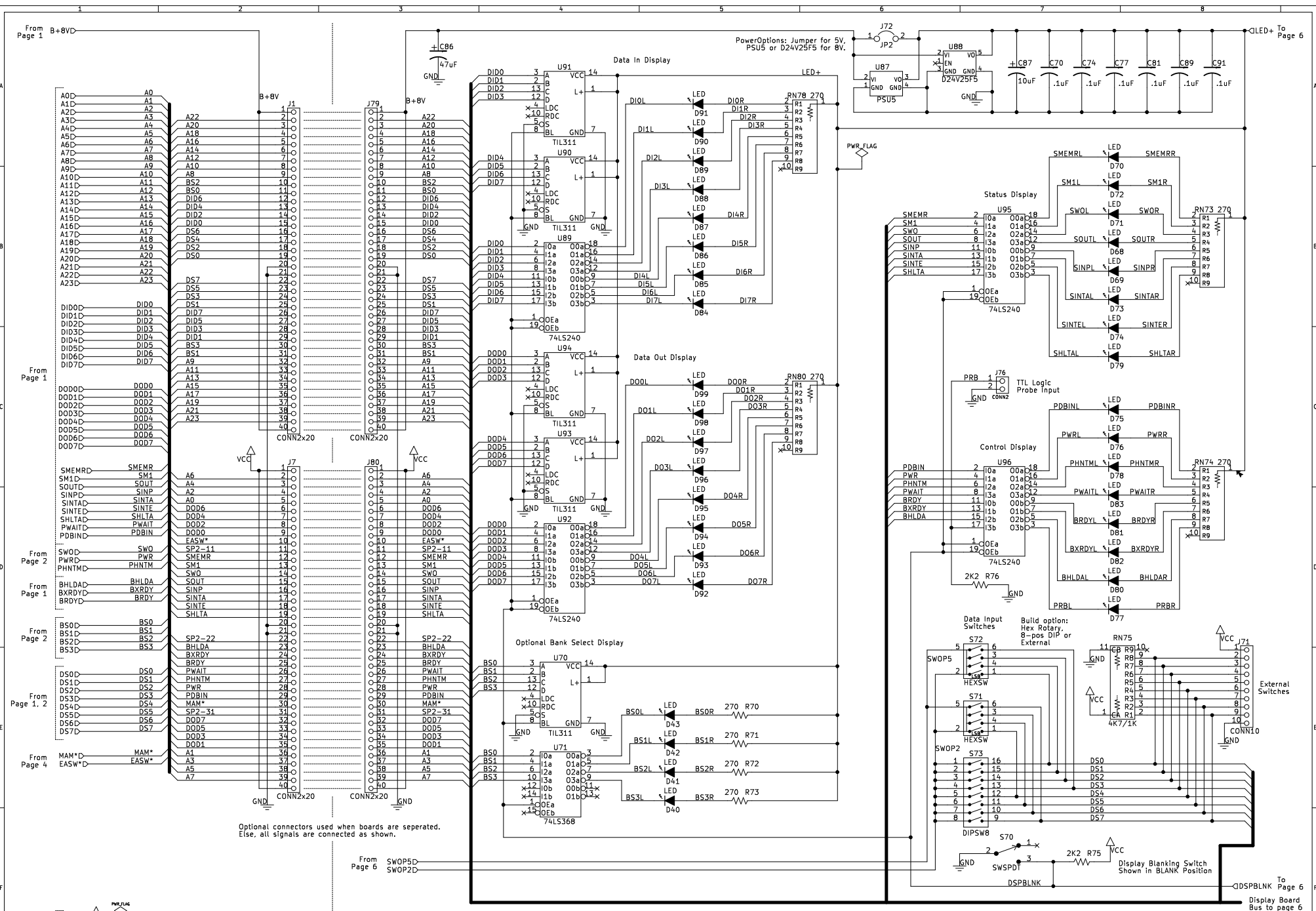
Install jumpers if MMU option not installed

RSTA 0-2 sets ROM start address:  
8000 to F000 (See GAL docs)  
RSZ 0-1 sets ROM size:  
00 = 2K, 01 = 4K, 10 = 8K, 11 = 16K

Optional MMU / Bank Select Logic



Slow Step Oscillator Dip Switch Functions:  
 1 & 2: 4 ranges of R  
 4.7K to 54.7K  
 51.7K to 101.7K  
 104.7K to 154.7K  
 151.7K to 201.7K  
 3 & 4: 4 values of C  
 0.54uF  
 4.75uF  
 5.22uF



From Page 1

To Page 6

From Page 1

From Page 2

From Page 1

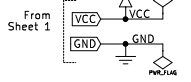
From Page 2

From Page 1, 2

From Page 4

Optional connectors used when boards are separated. Else, all signals are connected as shown.

From Page 6 SWOP5D SWOP2D

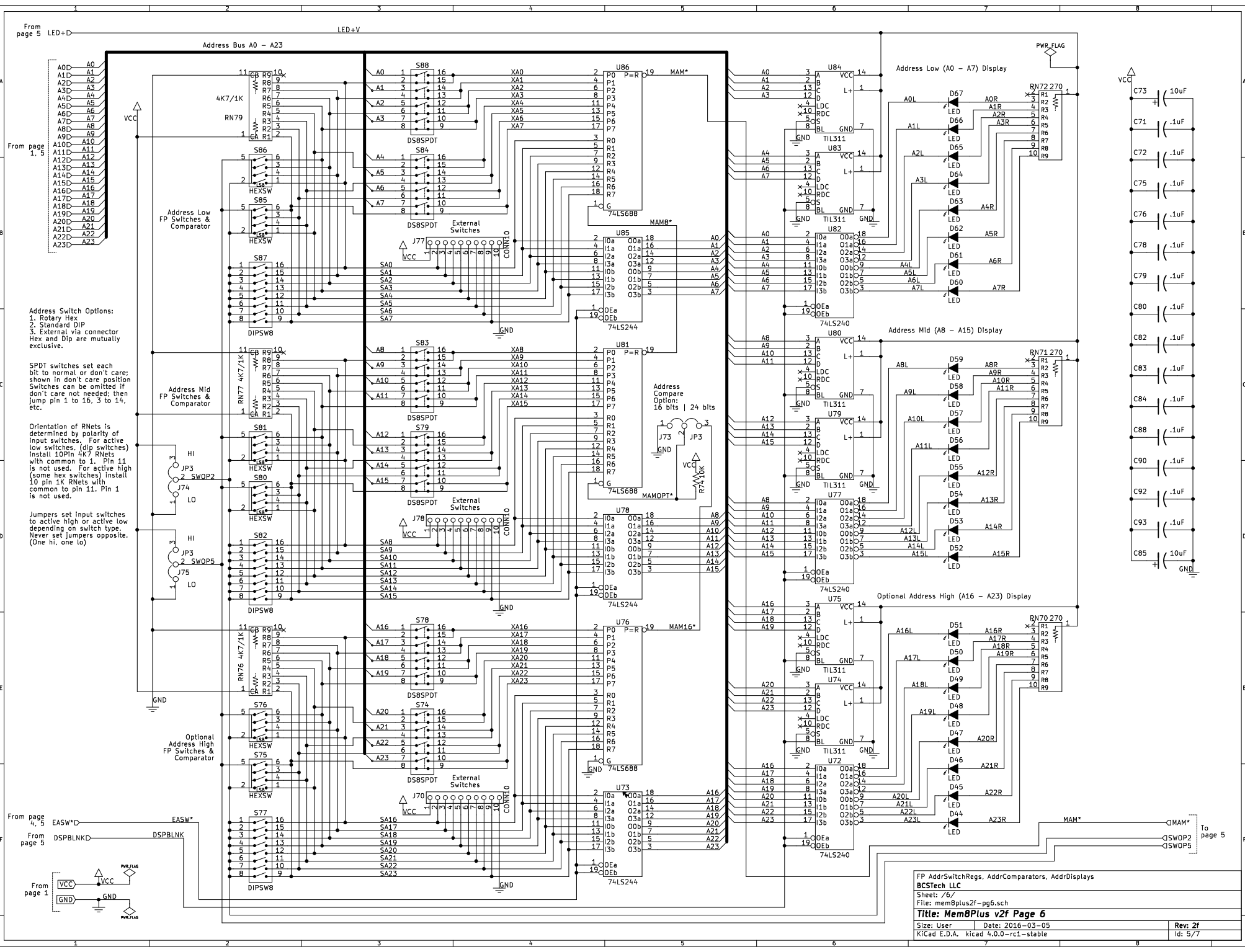


This is the main board

This is the first page of the Display Board

All hex displays and LED displays are mutually exclusive.

Display Bd Conn, Displays: Data In & Out, Status & Control, Bank Sel; Data In Switches  
 BCSTech LLC  
 Sheet: /5/  
 File: mem8plus2f-pg5.sch  
**Title: Mem8Plus v2f Page 5**  
 Size: User | Date: 2016-03-05 | Rev: 2f  
 KiCad E.D.A. kicad 4.0.0-rc1-stable | Id: 4/7



From page 5 LED+V

From page 1, 5

Address Switch Options:  
 1. Rotary Hex  
 2. Standard DIP  
 3. External via connector  
 Hex and Dip are mutually exclusive.

SPDT switches set each bit to normal or don't care; shown in don't care position. Switches can be omitted if don't care not needed; then jump pin 1 to 16, 3 to 14, etc.

Orientation of Rnets is determined by polarity of input switches. For active low switches, (dip switches) install 10Pin 4K7 Rnets with common to 1. Pin 11 is not used. For active high (some hex switches) install 10 pin 4K Rnets with common to pin 11. Pin 1 is not used.

Jumpers set input switches to active high or active low depending on switch type. Never set jumpers opposite. (One hi, one lo)

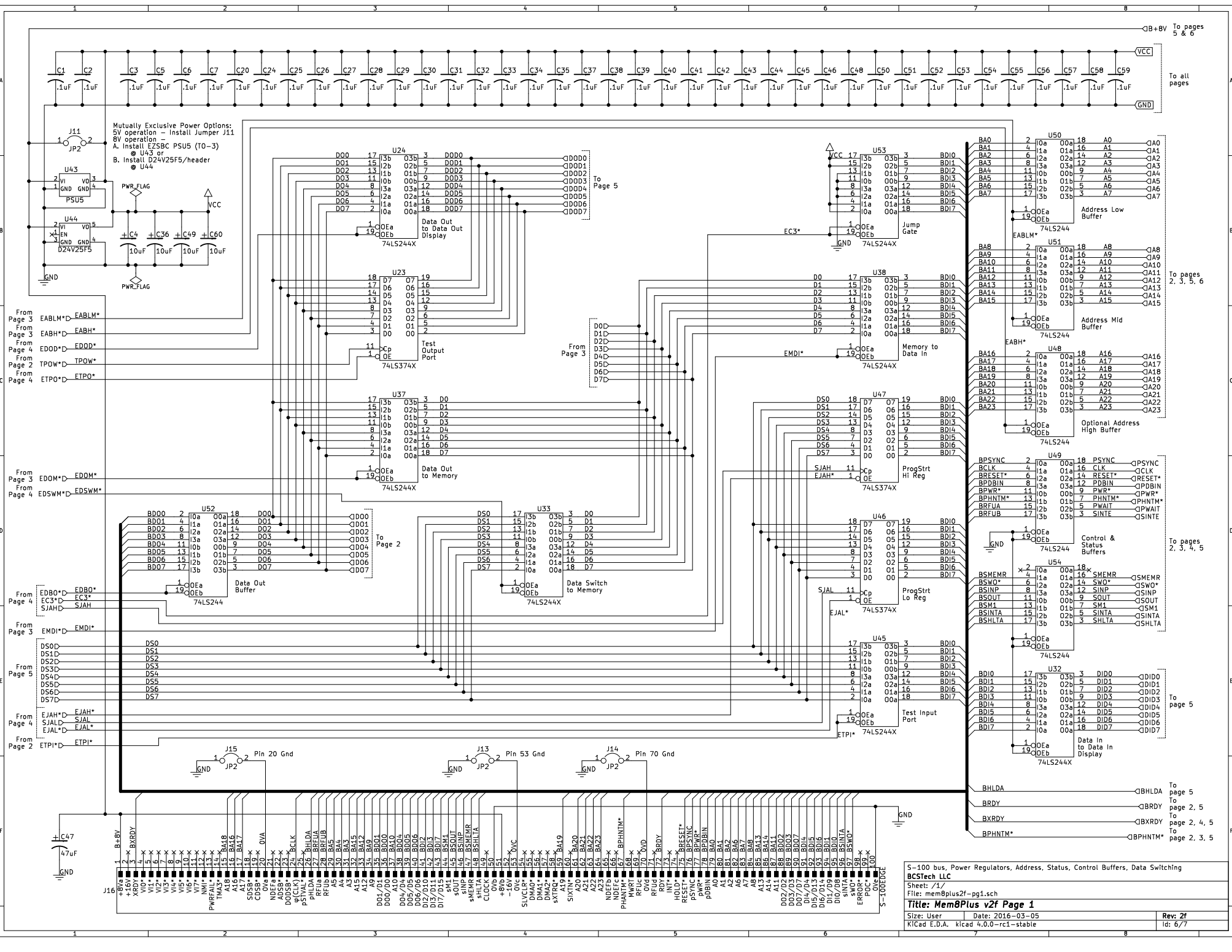
From page 4, 5 EASW\*

From page 5 DSPBLNK

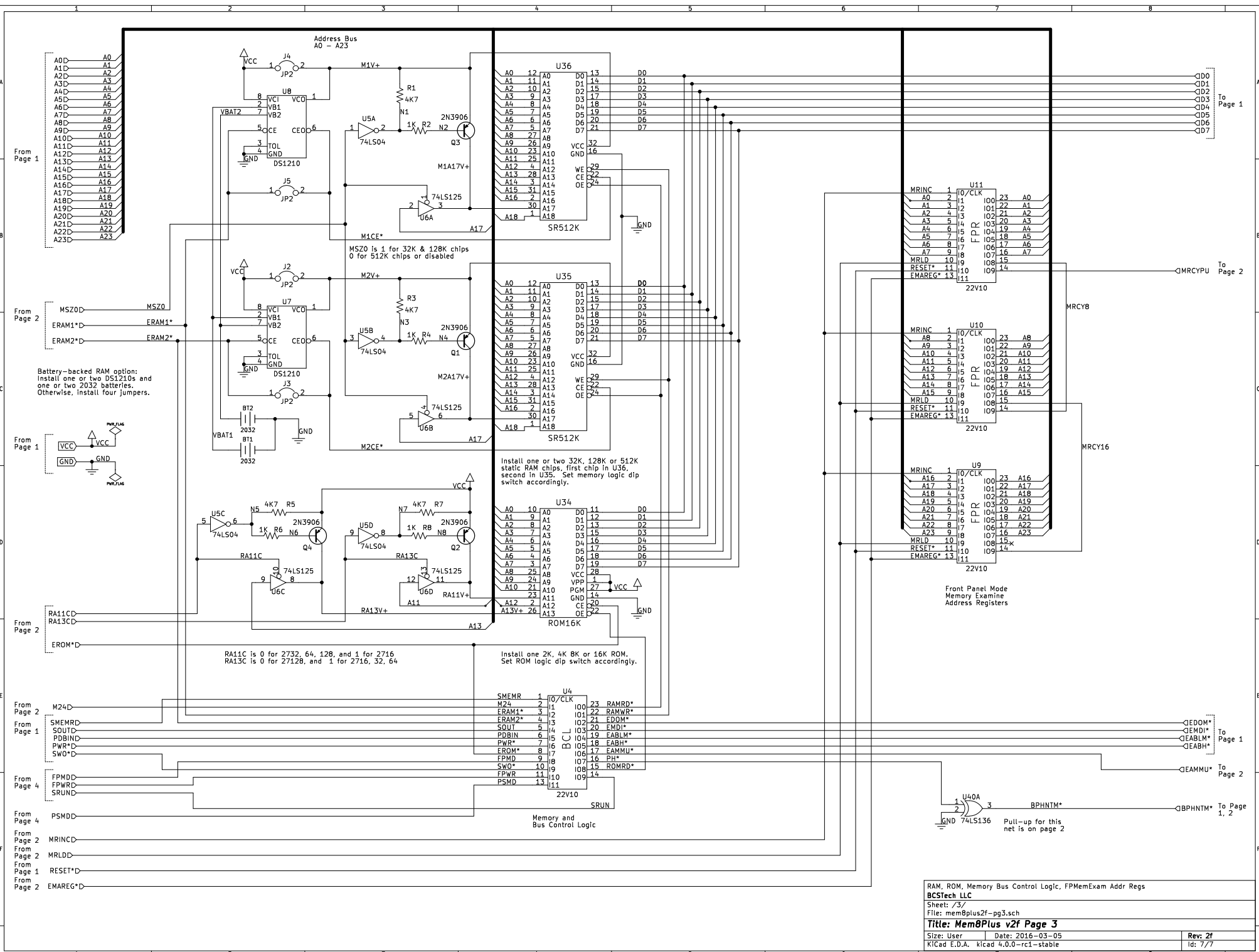
From page 1

To page 5

FP AddrSwitchRegs, AddrComparators, AddrDisplays  
 BCSTech LLC  
 Sheet: /6/  
 File: mem8plus2f-pg6.sch  
**Title: Mem8Plus v2f Page 6**  
 Size: User Date: 2016-03-05 Rev: 2f  
 KiCad E.D.A. kicad 4.0.0-rc1-stable Id: 5/7

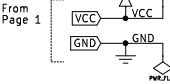


S-100 bus, Power Regulators, Address, Status, Control Buffers, Data Switching  
 BCSTech LLC  
 Sheet: /1/  
 File: mem8plus2f-pg1.sch  
**Title: Mem8Plus v2f Page 1**  
 Size: User Date: 2016-03-05 Rev: 2f  
 KiCad E.D.A. kicad 4.0.0-rc1-stable Id: 6/7



- A0D A0
- A1D A1
- A1D A2
- A2D A3
- A3D A4
- A4D A5
- A5D A6
- A6D A7
- A7D A8
- A8D A9
- A9D A10
- A10D A11
- A11D A12
- A12D A13
- A13D A14
- A14D A15
- A15D A16
- A16D A17
- A17D A18
- A18D A19
- A19D A20
- A20D A21
- A21D A22
- A22D A23

- MSZO
- ERAM1\*
- ERAM2\*



- RA11C
- RA13C
- EROM\*

- M24
- SMEMR
- SQUIT
- PDBIN
- PWR\*
- SWO\*

- FPMD
- FPWR
- SRUND

- PSMD
- MRINC
- MRLDD
- RESET\*
- EMAREG\*