RC2014

RC2014 Pro Jumper Settings

The RC2014 Pro is very configurable. Most of the configurations are set by jumpers. However, as the old saying goes, with great configurations comes great confusion.

This document gives an overview of what the jumpers do, and all the positions for the most common usage. For a deeper dive, please see the individual module pages on www.rc2014.co.uk

RAM Module
The top 3 jumpers set the start address of the lower 32k of RAM, and the bottom of the 4 jumpers set if the lower 32k is enabled or controlled by the ROM Module.
There is also a link at the bottom of the module which is only used in 32k or 56k mode on the RC2014 Classic or RC2014 Plus and should not be used here

ROM Module
The left side jumpers set what page size is used (ie what size chunks the 64k ROM is split up in to). You would normally just need 8k or 16k
The right side jumpers set which of page of the ROM is active. For an 8k page you only need jumpers on A13, A14 and A15. For a 16k page, jumpers are only required on A14 and A15

The ROM which ships with the RC2014 Pro is labelled 24886009, which referrs to the following images on the ROM;

    2 - Microsoft BASIC, for 32k RAM, SIO/2, with origin 0x0000

    4 - Microsoft BASIC, for 56k RAM, SIO/2, with origin 0x0000

    6 - CP/M Monitor, for pageable ROM, 64k RAM, SIO/2, CF Module at 0x10, with origin at 0x0000

    88 - Small Computer Monitor for pageable ROM, 64k RAM, SIO/2 or 68B50 ACIA, with Microsoft BASIC and CP/M boot options [Note that this is a 16k image, so Page Size needs to be set to 16k and only A14 and A15 jumpers to select]

    9 - Small Computer Monitor for any ROM, any RAM, any UART

Clock Module
Clock 1 drives the CPU and Port A. You normally want this set to 7.3278MHz
Clock 2 drives Serial Port B. This should probably be set to 7.3278MHz too unless you are driving something slower connected to Port B

Dual Serial SIO/2 Module
If you are powering your RC2014 from a FTDI cable, connect the 5v power on the appropriate port. Leave the Port B Clock unjumpered
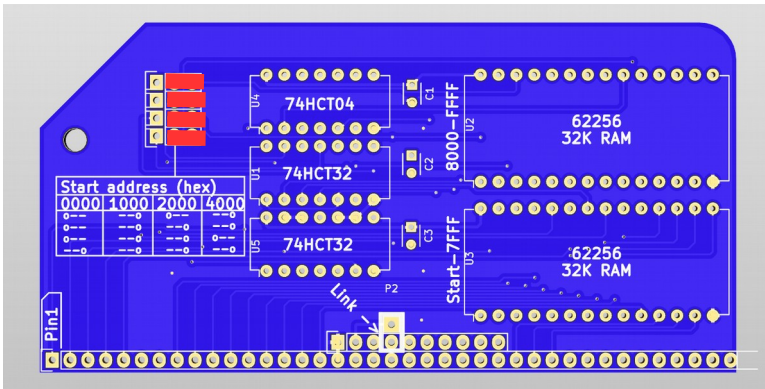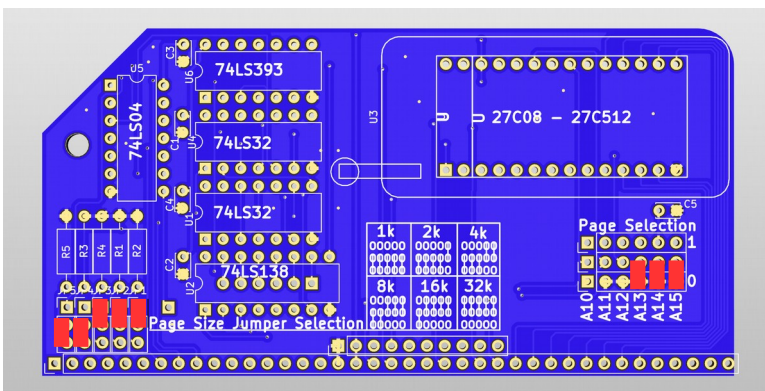
64k RAM Module
Use double header pins on this module
All four jumers to right hand setting. Top 3 jumpers set start address to 0x0000. However, because bottom jumper sets lower 32k to be paged in or out from Pageable ROM board, lower 32k will not be enabled under BASIC

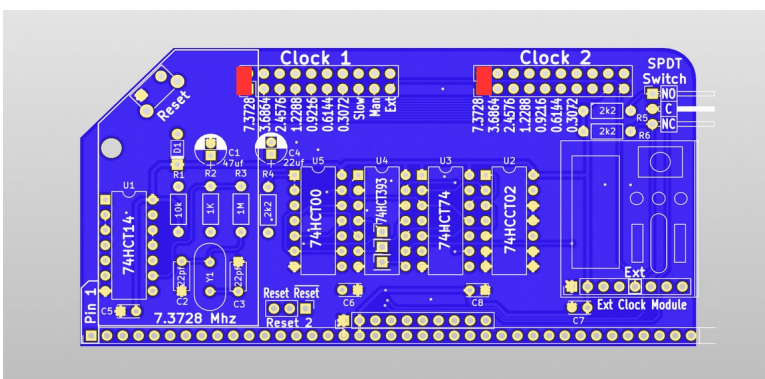Do not solder a link where it says Link-->

Pageable ROM Module
Use double header pins on this module
Page Size (Lower, Lower, High, High, High) sets page size to 8k

Page Selection (None, None, None, Lower, Lower, Lower) sets the 8k page to start at 0x0000 on the 64k ROM
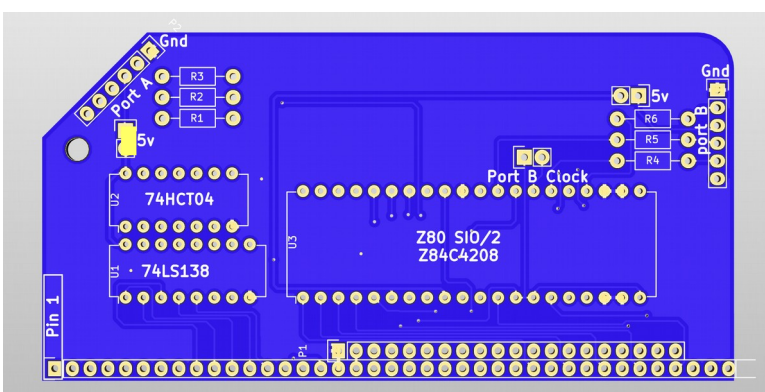

Dual Clock Module
Use double header pins on this module
Clock 1 - 7.3278 Mhz. This sets the CPU frequency to 7.3278Mhz and Serial Port A to 115,200bps

Clock 2 - 7.3278 Mhz. This sets Serial Port B to 115,200bps. Use other positions for different baud rates
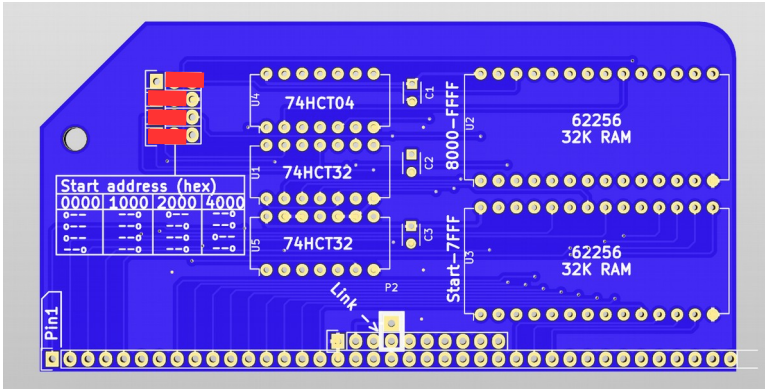

Dual Serial SIO/2 Module
Use double header pins on this module
5v jumper(s) optional if using FTDI cable to power RC2014. If RC2014 is powered from backplane, do not connect jumper.

Do not connect Port B Clock jumper as this is driven from Dual Clock Module.

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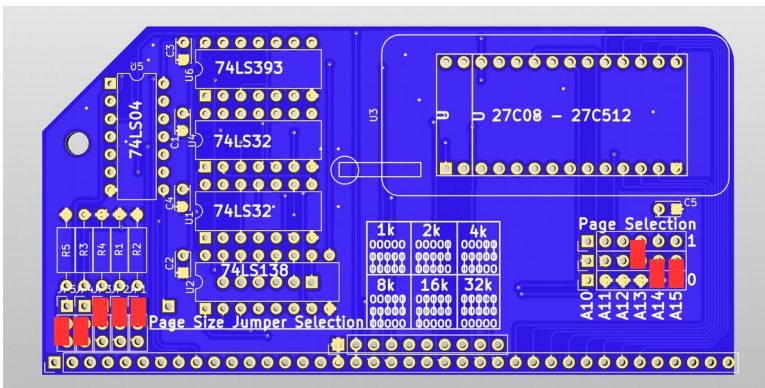## RC2014 Pro Jumper Settings – 56k BASIC - "4"

64k RAM Module

Use double header pins on this module

Top 3 jumpers set start address to 0x2000. Bottom jumper sets lower 32k (Actually lower 24k from 0x2000 to 0x7FFF) to be enabled

Do not solder a link where it says Link-->

Pageable ROM Module

Use double header pins on this module

Page Size (Lower, Lower, High, High, High) sets page size to 8k

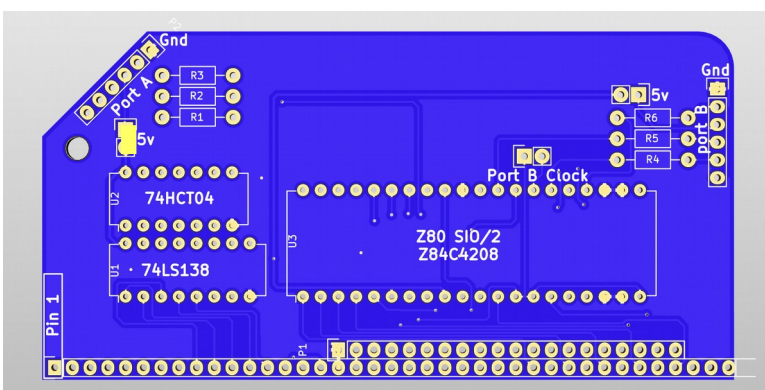Page Selection (None, None, None, High, Lower, Lower) sets the 8k page to start at 0x2000 on the 64k ROM
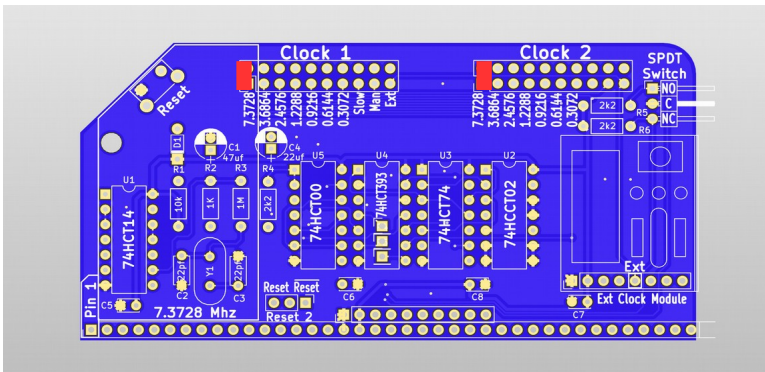
Dual Clock Module

Use double header pins on this module

Clock 1 – 7.3278 Mhz. This sets the CPU frequency to 7.3278Mhz and Serial Port A to 115,200bps

Clock 2 – 7.3278 Mhz. This sets Serial Port B to 115,200bps. Use other positions for different baud rates

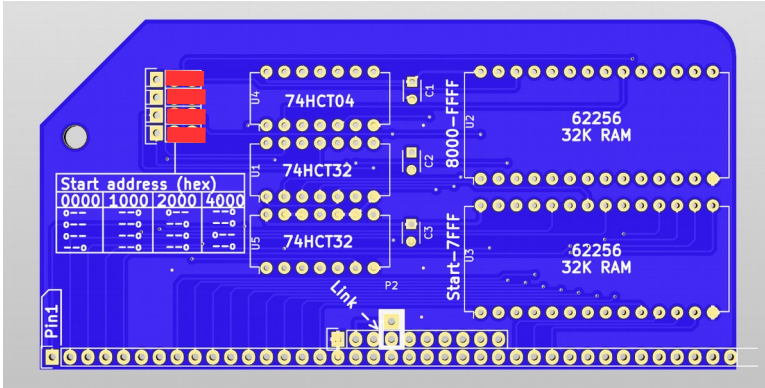### Dual Serial SIO/2 Module

Use double header pins on this module

5v jumper(s) optional if using FTDI cable to power RC2014. If RC2014 is powered from backplane, do not connect jumper.

Do not connect Port B Clock jumper as this is driven from Dual Clock Module.
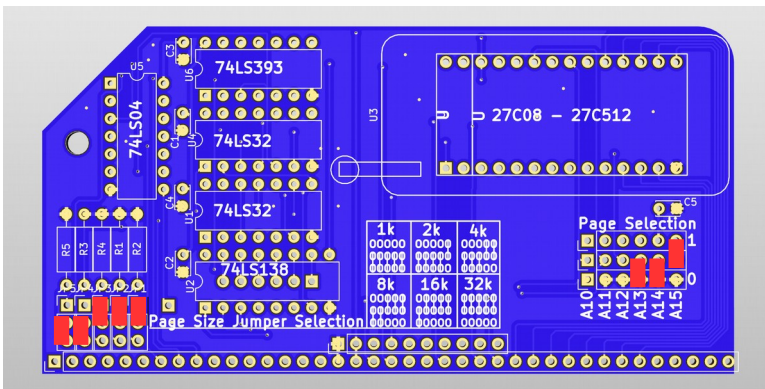
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RC2014 Pro Jumper Settings – CP/M - "6"

64k RAM Module
Use double header pins on this module
All four jumers to right hand setting. Top 3 jumpers set start address to 0x0000. Bottom jumper sets lower 32k to be paged in or out from Pageable ROM board.

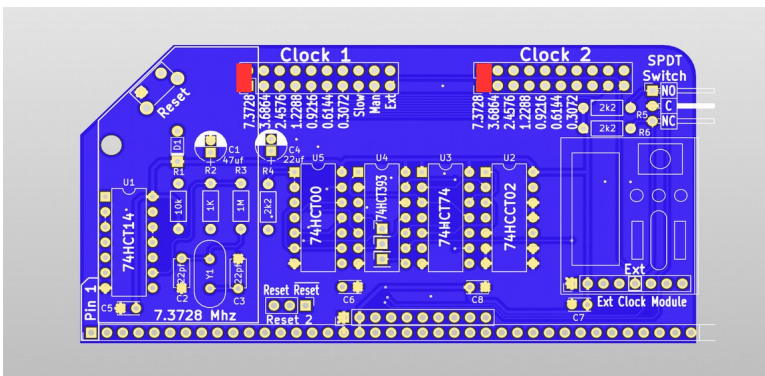Do not solder a link where it says Link-->

Pageable ROM Module
Use double header pins on this module
Page Size (Lower, Lower, High, High, High) sets page size to 8k

Page Selection (None, None, None, Lower, Lower, High) sets the 8k page to start at 0x8000 on the 64k ROM
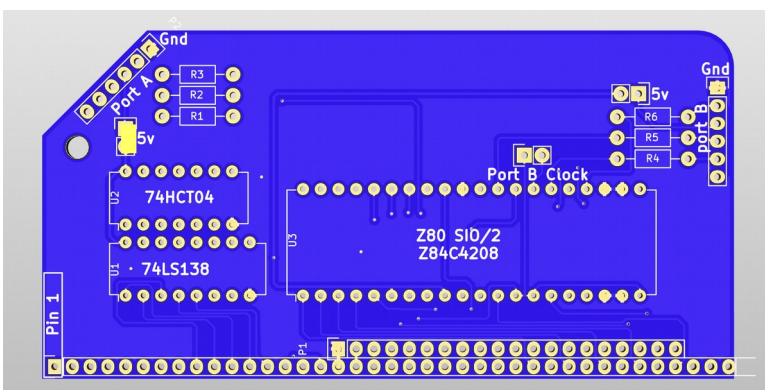

Dual Clock Module
Use double header pins on this module
Clock 1 – 7.3278 Mhz. This sets the CPU frequency to 7.3278Mhz and Serial Port A to 115,200bps

Clock 2 – 7.3278 Mhz. This sets Serial Port B to 115,200bps. Use other positions for different baud rates
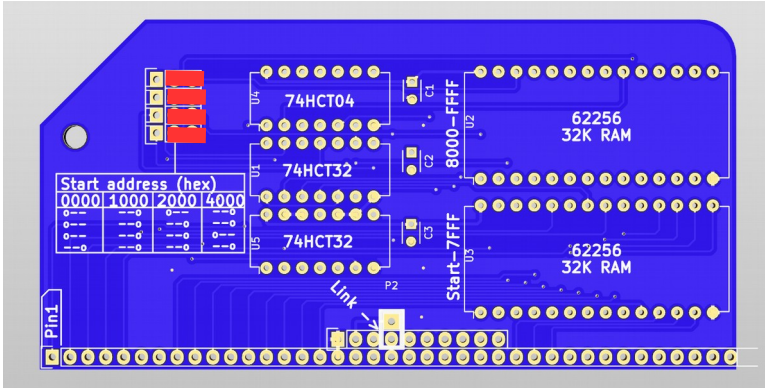

Dual Serial SIO/2 Module
Use double header pins on this module
5v jumper(s) optional if using FTDI cable to power RC2014. If RC2014 is powered from backplane, do not connect jumper.

Do not connect Port B Clock jumper as this is driven from Dual Clock Module.

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RC2014 Pro Jumper Settings – SCM - "9"

64k RAM Module
Use double header pins on this module
All four jumers to right hand setting. Top 3 jumpers set start address to 0x0000. However, because bottom jumper sets lower 32k to be paged in or out from Pageable ROM board, lower 32k will not be enabled under SCM
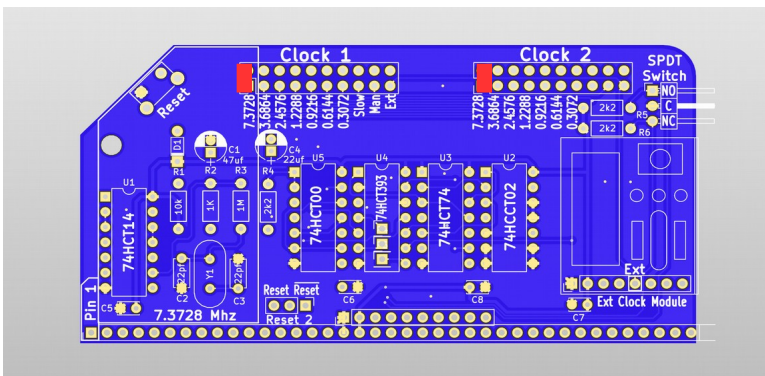
Do not solder a link where it says Link-->
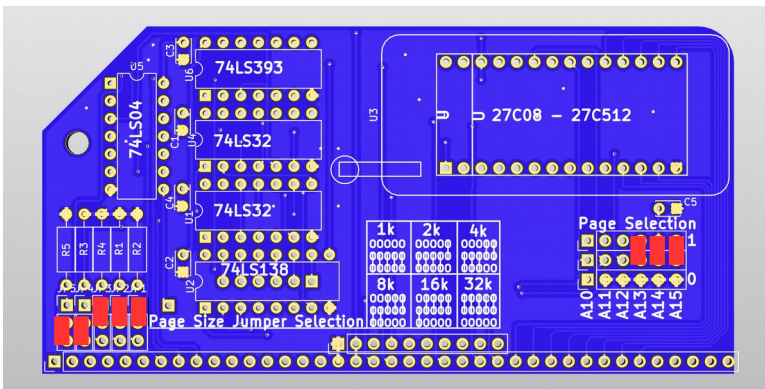
Pageable ROM Module
Use double header pins on this module
Page Size (Lower, Lower, High, High, High) sets page size to 8k

Page Selection (None, None, None, Higher, Higher, Higher) sets the 8k page to start at 0xE000 on the 64k ROM
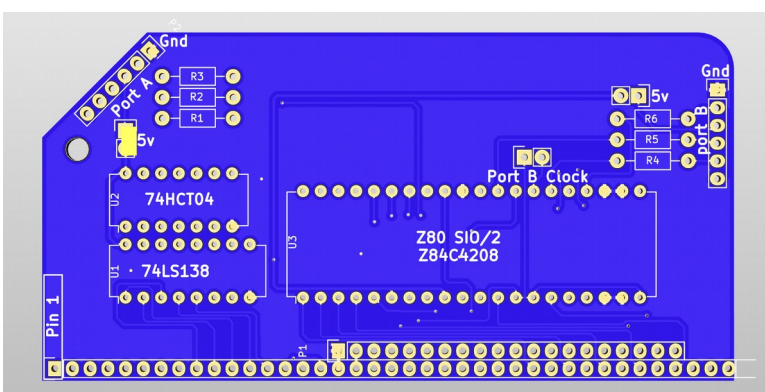

Dual Clock Module
Use double header pins on this module
Clock 1 – 7.3278 Mhz. This sets the CPU frequency to 7.3278Mhz and Serial Port A to 115,200bps

Clock 2 – 7.3278 Mhz. This sets Serial Port B to 115,200bps. Use other positions for different baud rates
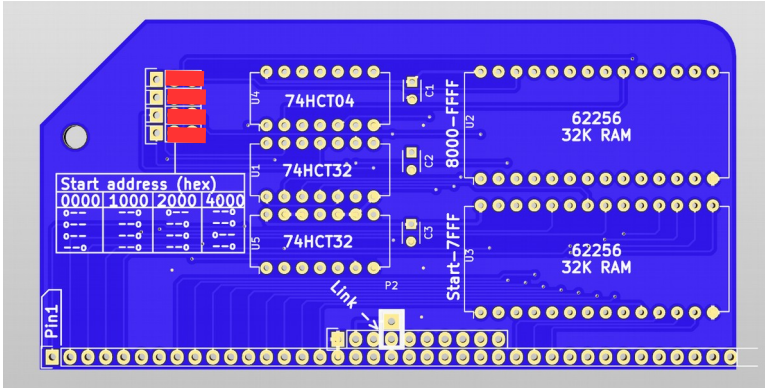

Dual Serial SIO/2 Module
Use double header pins on this module
5v jumper(s) optional if using FTDI cable to power RC2014. If RC2014 is powered from backplane, do not connect jumper.

Do not connect Port B Clock jumper as this is driven from Dual Clock Module.
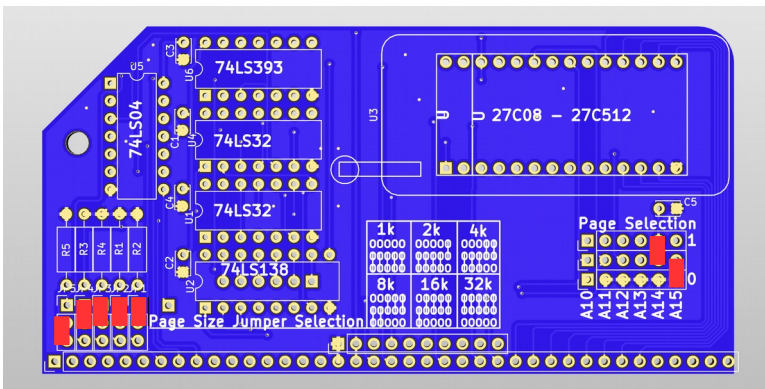
RC2014 Pro Jumper Settings – SCM - "88"

64k RAM Module
Use double header pins on this module
All four jumers to right hand setting. Top 3 jumpers set start address to 0x0000. However, because bottom jumper sets lower 32k to be paged in or out from Pageable ROM board, lower 32k will not be enabled under SCM

Do not solder a link where it says Link-->
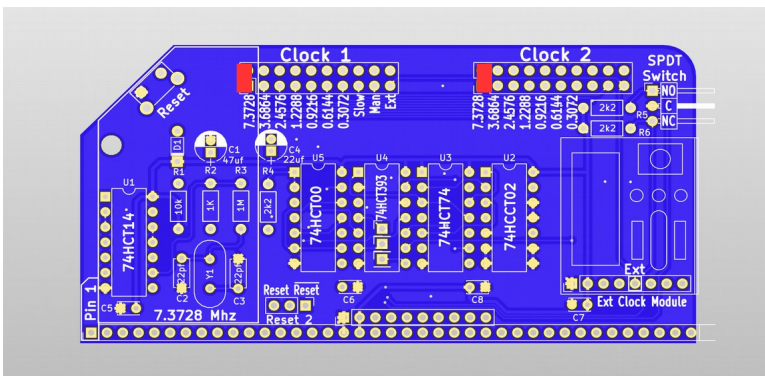

Pageable ROM Module
Use double header pins on this module
Page Size (Lower, High, High, High, High) sets page size to 16k

Page Selection (None, None, None, None, Higher, Lower) sets the 8k page to start at 0x4000 on the 64k ROM
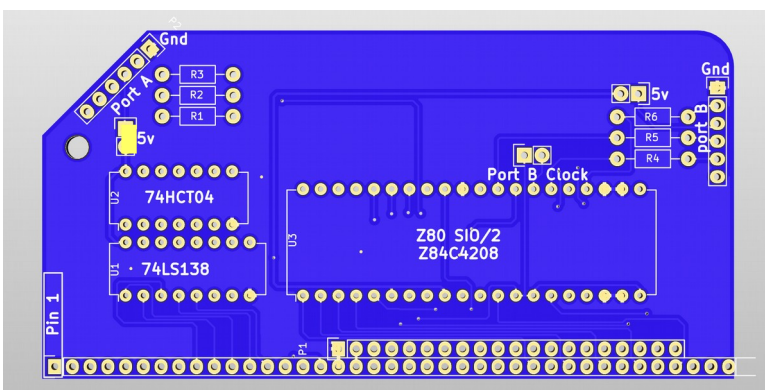

Dual Clock Module
Use double header pins on this module
Clock 1 – 7.3278 Mhz. This sets the CPU frequency to 7.3278Mhz and Serial Port A to 115,200bps

Clock 2 – 7.3278 Mhz. This sets Serial Port B to 115,200bps. Use other positions for different baud rates

Dual Serial SIO/2 Module
Use double header pins on this module
5v jumper(s) optional if using FTDI cable to power RC2014. If RC2014 is powered from backplane, do not connect jumper.

Do not connect Port B Clock jumper as this is driven from Dual Clock Module.