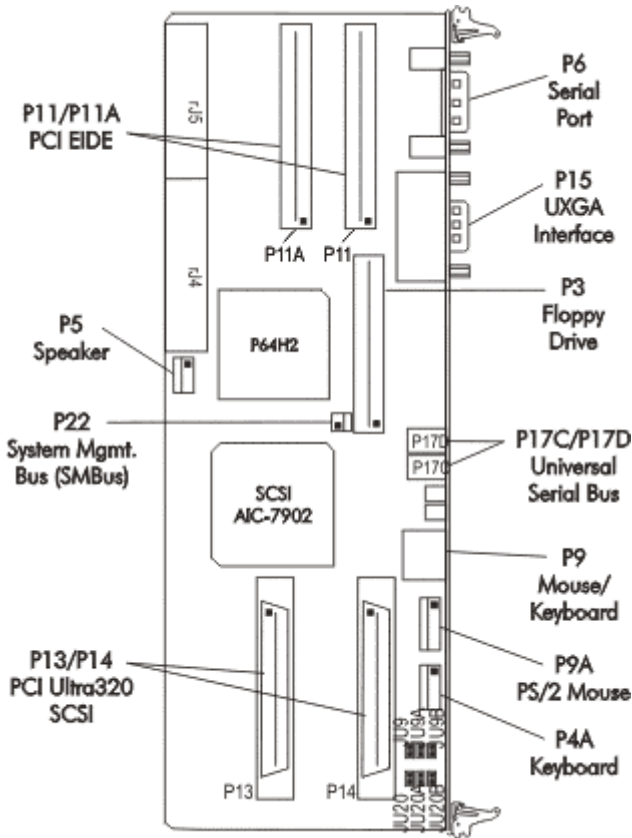




Technical Information – Jumpers, Connectors and Memory RTM25 (6142-xxx) Rear Transition Module

Layout Diagram



Jumpers

The setup of the configuration jumpers on the SHB is described below. An asterisk (*) indicates the default value of each jumper.

NOTE: The RTM25 is available in a variety of configurations. Some configurations do not support all of the jumpers and connectors listed. Click on the RTM25 product detail page, or contact Trenton, for further information.

JU9/9A/9B SCSI TERMINATION - CHANNEL 0

These three jumpers may be used to enable or disable on-board active termination for the Ultra320 SCSI interface - Channel 0.

| | <u>JU9</u> | <u>JU9A</u> | <u>JU9B</u> |
|-------------------------------|------------|-------------|-------------|
| Enable active termination | Install * | Install * | Remove * |
| Disable active termination | Remove | Remove | Remove |
| Enable upper byte only | Remove | Install | Remove |
| Control via SCSI BIOS Utility | Remove | Remove | Install |

JU20/20A/20B SCSI TERMINATION - CHANNEL 1

These three jumpers may be used to enable or disable on-board active termination for the Ultra320 SCSI interface - Channel 1.



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| | <u>JU20</u> | <u>JU20A</u> | <u>JU20B</u> |
|-------------------------------|-------------|--------------|--------------|
| Enable active termination | Install * | Install * | Remove * |
| Disable active termination | Remove | Remove | Remove |
| Enable upper byte only | Remove | Install | Remove |
| Control via SCSI BIOS Utility | Remove | Remove | Install |



Connectors

NOTE:

Pin 1 on the connectors is indicated by the square pad on the PCB.

P3 - FLOPPY DRIVE CONNECTOR

34 pin dual row header, AMP #103308-7

| PIN | SIGNAL | PIN | SIGNAL |
|-----|--------|-----|-----------------|
| 1 | Gnd | 2 | N-RPM |
| 3 | Gnd | 4 | NC |
| 5 | Gnd | 6 | D-Rate0 |
| 7 | Gnd | 8 | P-Index |
| 9 | Gnd | 10 | N-Motoron 1 |
| 11 | Gnd | 12 | N-Drive Sel2 |
| 13 | Gnd | 14 | N-Drive Sel1 |
| 15 | Gnd | 16 | N-Motoron 2 |
| 17 | Gnd | 18 | N-Dir |
| 19 | Gnd | 20 | N-Stop Step |
| 21 | Gnd | 22 | N-Write Data |
| 23 | Gnd | 24 | N-Write Gate |
| 25 | Gnd | 26 | P-Track 0 |
| 27 | Gnd | 28 | P-Write Protect |
| 29 | Gnd | 30 | N-Read Data |
| 31 | Gnd | 32 | N-Side Select |
| 33 | Gnd | 34 | Disk Chng |

P13 - ULTRA320 SCSI CONNECTOR - CHANNEL 0

68 pin high density connector, Amp #749069-7

| PIN | SIGNAL | PIN | SIGNAL |
|-----|----------|-----|---------|
| 1 | SCD12 | 35 | SCD#12 |
| 2 | SCD13 | 36 | SCD#13 |
| 3 | SCD14 | 37 | SCD#14 |
| 4 | SCD15 | 38 | SCD#15 |
| 5 | SCDPH | 39 | SCDPH# |
| 6 | SCD0 | 40 | SCD#0 |
| 7 | SCD1 | 41 | SCD#1 |
| 8 | SCD2 | 42 | SCD#2 |
| 9 | SCD3 | 43 | SCD#3 |
| 10 | SCD4 | 44 | SCD#4 |
| 11 | SCD5 | 45 | SCD#5 |
| 12 | SCD6 | 46 | SCD#6 |
| 13 | SCD7 | 47 | SCD#7 |
| 14 | SCDPL | 48 | SCDPL# |
| 15 | Gnd | 49 | Gnd |
| 16 | DIFSENSE | 50 | Gnd |
| 17 | TERMPWR | 51 | TERMPWR |
| 18 | TERMPWR | 52 | TERMPWR |
| 19 | NC | 53 | NC |
| 20 | Gnd | 54 | Gnd |
| 21 | SCATN | 55 | SCATN# |
| 22 | Gnd | 56 | Gnd |
| 23 | SCBSY | 57 | SCBSY# |
| 24 | SCACK | 58 | SCACK# |
| 25 | SCRST | 59 | SCRST# |
| 26 | SCMSG | 60 | SCMSG# |
| 27 | SCSEL | 61 | SCSEL# |
| 28 | SCCD | 62 | SCCD# |
| 29 | SCREQ | 63 | SCREQ# |
| 30 | SCIO | 64 | SCIO# |
| 31 | SCD8 | 65 | SCD#8 |

Connectors (Continued)

P4A - KEYBOARD HEADER

5 pin single row header, Amp #640456-5

| PIN | SIGNAL |
|-----|--|
| 1 | Kbd Clock |
| 2 | Kbd Data |
| 3 | Key |
| 4 | Kbd Gnd |
| 5 | Kbd Power (+5V fused) with self-resetting fuse |



Connectors (Continued)

P5 - SPEAKER PORT CONNECTOR

4 pin single row header, Amp #640456-4

PIN SIGNAL

- 1 Speaker Data
- 2 Key
- 3 Gnd
- 4 +5V

P7 - SERIAL PORT CONNECTOR

9 position "D" right angle, Spectrum #56-402-001

PIN SIGNAL

- 1 Carrier Detect
- 2 Receive Data-I
- 3 Transmit Data-0
- 4 Data Terminal Ready-0
- 5 Signal Gnd

PIN SIGNAL

- 6 Data Set Ready-I
- 7 Request to Send-O
- 8 Clear to Send-I
- 9 Ring Indicator-I

P9 - PS/2 MOUSE AND KEYBOARD CONNECTOR

6 pin mini DIN, Kycon #KMDG-6S-B4T

PIN SIGNAL

- 1 Ms Data
- 2 Kbd Data
- 3 Gnd
- 4 Power (+5V fused) with self-resetting fuse
- 5 Ms Clock
- 6 Kbd Clock

P9A - PS/2 MOUSE HEADER

6 pin single row header, Amp #640456-6

PIN SIGNAL

- 1 Ms Data
- 2 Reserved
- 3 Gnd
- 4 Power (+5V fused) with self-resetting fuse
- 5 Ms Clock
- 6 Reserved

- 32 SCD9
- 33 SCD10
- 34 SCD11
- 66 SCD#9
- 67 SCD#10
- 68 SCD#11

P14 - ULTRA320 SCSI CONNECTOR - CHANNEL 1

68 pin high density connector, Amp #749069-7

PIN SIGNAL

- 1 SCD12
- 2 SCD13
- 3 SCD14
- 4 SCD15
- 5 SCDPH
- 6 SCD0
- 7 SCD1
- 8 SCD2
- 9 SCD3
- 10 SCD4
- 11 SCD5
- 12 SCD6
- 13 SCD7
- 14 SCDPL
- 15 Gnd
- 16 DIFSENSE
- 17 TERMPWR
- 18 TERMPWR
- 19 NC
- 20 Gnd
- 21 SCATN
- 22 Gnd
- 23 SCBSY
- 24 SACK
- 25 SCRST
- 26 SCMSG
- 27 SCSEL
- 28 SCCD

PIN SIGNAL

- 35 SCD#12
- 36 SCD#13
- 37 SCD#14
- 38 SCD#15
- 39 SCDPH#
- 40 SCD#0
- 41 SCD#1
- 42 SCD#2
- 43 SCD#3
- 44 SCD#4
- 45 SCD#5
- 46 SCD#6
- 47 SCD#7
- 48 SCDPL#
- 49 Gnd
- 50 Gnd
- 51 TERMPWR
- 52 TERMPWR
- 53 NC
- 54 Gnd
- 55 SCATN#
- 56 Gnd
- 57 SCBSY#
- 58 SACK#
- 59 SCRST#
- 60 SCMSG#
- 61 SCSEL#
- 62 SCCD#



Connectors (Continued)

P11 - PRIMARY IDE HARD DRIVE CONNECTOR

40 pin dual row header, 3M #30340-6002HB

| PIN | SIGNAL | PIN | SIGNAL |
|-----|---------|-----|------------|
| 1 | Reset | 2 | Gnd |
| 3 | Data 7 | 4 | Data 8 |
| 5 | Data 6 | 6 | Data 9 |
| 7 | Data 5 | 8 | Data 10 |
| 9 | Data 4 | 10 | Data 11 |
| 11 | Data 3 | 12 | Data 12 |
| 13 | Data 2 | 14 | Data 13 |
| 15 | Data 1 | 16 | Data 14 |
| 17 | Data 0 | 18 | Data 15 |
| 19 | Gnd | 20 | NC |
| 21 | DRQ 0 | 22 | Gnd |
| 23 | IOW | 24 | Gnd |
| 25 | IOR | 26 | Gnd |
| 27 | IORDY | 28 | SELDPD |
| 29 | DACK 0 | 30 | Gnd |
| 31 | IRQ 14 | 32 | NC |
| 33 | Add 1 | 34 | PCBL DET * |
| 35 | Add 0 | 36 | Add 2 |
| 37 | CS 1P | 38 | CS 3P |
| 39 | IDEACTP | 40 | Gnd |

P11A - SECONDARY IDE HARD DRIVE CONNECTOR

40 pin dual row header, 3M #30340-6002HB

| PIN | SIGNAL | PIN | SIGNAL |
|-----|--------|-----|---------|
| 1 | Reset | 2 | Gnd |
| 3 | Data 7 | 4 | Data 8 |
| 5 | Data 6 | 6 | Data 9 |
| 7 | Data 5 | 8 | Data 10 |
| 9 | Data 4 | 10 | Data 11 |
| 11 | Data 3 | 12 | Data 12 |
| 13 | Data 2 | 14 | Data 13 |

| | | | |
|----|-------|----|--------|
| 29 | SCREQ | 63 | SCREQ# |
| 30 | SCIO | 64 | SCIO# |
| 31 | SCD8 | 65 | SCD#8 |
| 32 | SCD9 | 66 | SCD#9 |
| 33 | SCD10 | 67 | SCD#10 |
| 34 | SCD11 | 68 | SCD#11 |

P15 - VIDEO INTERFACE CONNECTOR

15 pin HD15 connector, Amp #1-1470250-3

| PIN | SIGNAL | PIN | SIGNAL | PIN | SIGNAL |
|-----|--------|-----|--------|-----|--------|
| 1 | Red | 6 | Gnd | 11 | NC |
| 2 | Green | 7 | Gnd | 12 | EEDI |
| 3 | Blue | 8 | Gnd | 13 | HSYNC |
| 4 | NC | 9 | +5V | 14 | VSYNC |
| 5 | Gnd | 10 | Gnd | 15 | EECS |

P17C - UNIVERSAL SERIAL BUS (USB 1.1) CONNECTOR

USB vertical connector, Molex #67-329-0000
 (+5V fused with self-resetting fuses)

| PIN | SIGNAL |
|-----|------------|
| 1 | +5V - USB2 |
| 2 | USB2- |
| 3 | USB2+ |
| 4 | Gnd - USB2 |

P17D - UNIVERSAL SERIAL BUS (USB 1.1) CONNECTOR

USB vertical connector, Molex #67-329-0000
 (+5V fused with self-resetting fuses)

| PIN | SIGNAL |
|-----|------------|
| 1 | +5V - USB3 |
| 2 | USB3- |
| 3 | USB3+ |
| 4 | Gnd - USB3 |



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| | | | |
|----|---------|----|------------|
| 15 | Data 1 | 16 | Data 14 |
| 17 | Data 0 | 18 | Data 15 |
| 19 | Gnd | 20 | NC |
| 21 | DRQ 1 | 22 | Gnd |
| 23 | IOW | 24 | Gnd |
| 25 | IOR | 26 | Gnd |
| 27 | IORDY | 28 | SELPDS |
| 29 | DACK 1 | 30 | Gnd |
| 31 | IRQ15 | 32 | NC |
| 33 | Add 1 | 34 | SCBL DET * |
| 35 | Add 0 | 36 | Add 2 |
| 37 | CS 1S | 38 | CS 3S |
| 39 | IDEACTS | 40 | Gnd |

P22 - SYSTEM MANAGEMENT BUS CONNECTOR

2 pin single row header, Amp #640456-2

| PIN | SIGNAL |
|------------|---------------|
| 1 | SMB Clock |
| 2 | SMB Data |

* For ATA/66 and ATA/100 drives, which should be set for Cable Select for proper speed operation. If other Drives are detected, pin definition is Gnd.