COM Connectors and Headers

COM1

COM2

DB9M

Header

Beware Non-standard pin-out
Ethernet Ports

Port # 1
Gig MagJack

Port # 2
10/100 MagJack

Note: Pin 15 not connected
for this TS-8150 layout only
because both MagJacks share a hole

These caps tie ETH1_CT plane to GND plane
DIO and LCD

Warning:
LCD_D0 thru LCD_D7 are 5V tolerant
LCD_WR#, LCD_RS, and LCD_EN are not!

Warning:
DIO are not 5V tolerant!
Only SPI_MISO is 5V tolerant

4.3V Supply

All LCD pins are bi-directional DIO
5V Power Supply (2.0 Amps)

Input Power
5.0V to 30V
Board ID = 9

Technologic Systems

Title: TS-8150 Battery, Board ID, LEDs

Rev: B  Designer RLM  Sheet 7 of 9

Board ID = 9

RTC Battery

Force Boot to SD card

LEDS

Push Switch

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Title: TS-8150 Battery, Board ID, LEDs

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Inputs on Left

PLD

Outputs on Right

ISA Address
(Outputs)

ISA Address and Data Bus

MAX240

DIO Outputs

- DIO_A1 thru DIO_A21 and LCD_EN should default to logic zero
- DIO_B11 and DIO_B12 should default to logic '1'

Warning:

- Make sure PLD pins 39 and 88 are Inputs

DIO Inputs

- LCD_WR#, LCD_RS and LCD_D0 thru LCD_D7 should default as Inputs
- DIO Pin 5 and Pin 88 should default as Inputs

64-pin Connector

PC/104

6-bit and 16-bit I/O

Read and Writes supported over address range 000-3FF

Address range 100-3FF drives PC/104 bus

Address range 000-0FF in internal PLD registers

Provides 5V tolerance

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April 8, 2014

Title: TS-8150 PLD, PC/104 bus

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Two 100-pin Module Connectors

OFF_BD_RESET# is an output from the SBC used to reset all peripherals.

Boot Strap

<table>
<thead>
<tr>
<th>BUS_DIR</th>
<th>SBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NAND Flash</td>
</tr>
<tr>
<td>0</td>
<td>SD Card</td>
</tr>
</tbody>
</table>

The OFF_BD_RESET# state is saved prior to the SBC_RESET# as a 2K pull up resistor on the SBC module.

Use a 2K ohm resistor to OFF_BD_RESET# to set logic low.

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AD_02
AD_03
AD_06
AD_07
AD_11
AD_12

CPU_3.3V I2C_CLK

USB_OTG_M
SPI_M ISO

SPI_CLK
DEBUG_RXD
DEBUG_TXD

MD10_M
MDI1_M
MDI2_M
MDI3_P

Module Connectors

C138

Title: TS-8150 TS-Socket Connectors
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