5V to 12V

Power In

5V Regulator

5V to 12V

5V Power In

Push Switch

Reset Switch

Force Boot to SD card

Max. Vin = 16V

Barrel Input to 5V test point

with 5.0V at Input

PolyFuse mohms

1500 mA 5V 122

Ferrite beads = 32 mohm

Measured 425 mohm -- from Barrel Input to 5V test point

with 5.0V at Input

PolyFuse mohms

1500 mA 5V 122

Ferrite beads = 32 mohm
Title: RS-485 Drive
Title: CAN Transceiver

**RS-485 Drive**
- 24V
- 18K ohm = 18V/us
- 30V break
- COM
- DB9M

**RS-232 Transceiver**
- Level shifter
- 2.9V <-- 5V
- RXD, TXD
- RTS
- CTS
- TX+ (DCD)
- RX- (RI)
- Vcc
- GND

**CAN Transceiver**
- Board ID = 4
- Red and Green LEDs
- COM DB9M
- TXD
- RXD
- RTS
- CTS
- Vcc
- GND

**Notes:**
- MAX515 requires 3.0V max on the RXD pins
- 74AC151, 74AC251, 74HC151 are 2nd sources in SOIC
- 2.9V <-- 5V
- RED_LED#, GREEN_LED#
**TS-8210**

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**Mini PCIe Socket**

- **Enable PCIe Clock Power**
- **Jumper ON = Tri-state PCIe clock**
- **Temp Sensor**

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**SATA Port**

- **Pins 1, 2, 3, 6, 8 have internal pull resistors**
- **Jumper ON = Tri-state PCIe clock**

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**Texas Instruments LM 73**

- **ADD** high has I2C address at 1001 010
- **Tri-state PCI clock**
High-speed differential pairs are not routed to these headers
USB, SATA, Ethernet, SD card, PCIe and Ethernet pairs are not connected because this would mismatch the transmission lines.
Apply 4.5V to 5.5V to the pins

"5V" pins supply all power to the module

Current drain is < 400 mA

(less than 3 Watts)

EXT_RESET# is an input to the SBC used to reset the CPU

Do not drive active high (see open drain)

OFF_BD_RESET# is an output from the SBC

Current drain is < 600 mA

FPGA

FPGA_JTAG

FPGA_JTAG_TDI

FPGA_JTAG_TDO

FPGA_JTAG_TM S

Mode 2

Boots from

1

NAND Flash

0

SD Card

SD Card signals on connector are wired in parallel with SD card socket. Only one can be populated with SD card.

Maximum load on 3.3V pin is 500 mA

Mode 2 has a 12K pullup on the SBC module

Use 10K pull resistor to DIO is not low

Two 100-pin Module Connectors

Technologic Systems

Date: Aug. 5, 2010

Title: TS-8500 Dual 100-pin Module Connectors

Rev: Designer RLM Sheet 6 of 7