Title: TS-7390 SDRAM, Flash, RTC, POR

Date: April 6, 2009

Rev:  

Technologic Systems

SDRAM

SD Card Socket

Temp Sensor

Battery-Backed

Real Time Clock

Power On Reset

SDRAM 16

U5 = STM1001S
10 uA max supply current
220 ms typ reset pulse
144 ms min. 200 ms max.
2.85 to 3.00 trip range
Over full temp range
Guaranteed output low down to 1V Vcc.
But can only sink 1.2 mA

SDRAM

SD Card Socket

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Real Time Clock

Power On Reset

SDRAM 16
RS-232 Transceiver

COM1 Header

24-pin Header
24 + 16 = 40-pin Header

4 ADC
ADC lines in parallel with IN_09, IN_10, IN_11, DIO_15
2 I2C
1 GND
6 Latched Outputs (OUT0-OUT5)
7 Buffered Inputs (IN0-IN6)
3 DIO_12, DIO_13, DIO_14
1 SPI_FRAME

RS-485 Drivers

COM2 Header

JTAG Header
Hysteretic Switching Power Supply

5V @ (2.5 Amps)

Zener knee at 28-32V
for 1 mA of current
14 Amps @ 42V

Vout = 1.24V * \left( \frac{20K}{R_{bot}} + 1 \right)

7 µA shutdown
300 µA quiescent
35V max operating
Floating "Enable" = ON

8x11.5 mm
50-100V-SMD

Technologic Systems
Title: TS-7390 5V Power Supply
Date: April 6, 2009
Rev: Designer
Sheet 7 of 8
Diodes are BAV199 (silicon)

SPKR DAC

Zener
Protects against
Open circuit load

To LED Back Light

780 mA Isat (20% drop)

L6 = GolfClub MSSV131-153

115 ohm

10V-11Vtyp

450 mA typ.

LED 3.3V

Can deliver 250 mW with 3.3V supply

BackLight Power

744 mV is high setting (158 mA)
333 mV is low setting (88 mA)

780 mA is maximum continuous
that LED BackLight is rated at.

57% typ. ext at 200 mA load
(12V out) per data sheet

Diodes are BAV199 (silicon)

4OT-0.6 can dissipate 440 mW at 80 degrees C. with no heat sink