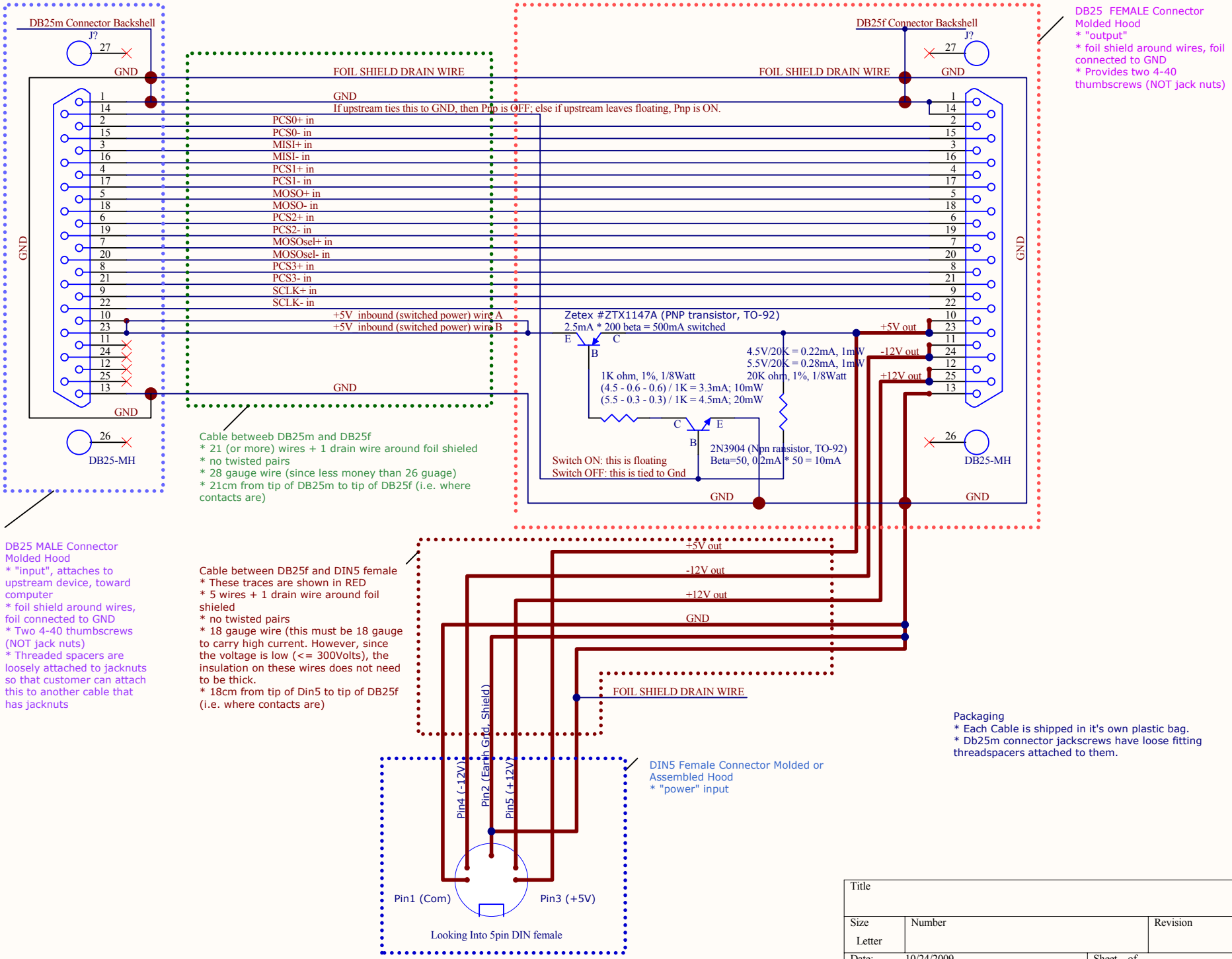
DB25m Connector Backshell
J?
27
GND
FOIL SHIELD DRAIN WIRE
GND
If upstream ties this to GND, then Pnp is OFF; else if upstream leaves floating, Pnp is ON.
PCS0+ in
PCS0- in
MISI+ in
MISI- in
PCS1+ in
PCS1- in
MOSO+ in
MOSO- in
PCS2+ in
PCS2- in
MOSOsel+ in
MOSOsel- in
PCS3+ in
PCS3- in
SCLK+ in
SCLK- in
+5V inbound (switched power) wire A
+5V inbound (switched power) wire B
GND
26
DB25-MH
DB25f Connector Backshell
Zetex #ZTX1147A (PNP transistor, TO-92)
2.5mA * 200 beta = 500mA switched
4.5V/20K = 0.22mA, 1mW
5.5V/20K = 0.28mA, 1mW
20K ohm, 1%, 1/8Watt
1K ohm, 1%, 1/8Watt
(4.5 - 0.6 - 0.6) / 1K = 3.3mA; 10mW
(5.5 - 0.3 - 0.3) / 1K = 4.5mA; 20mW
2N3904 (Npn transistor, TO-92)
Beta=50, 0.2mA * 50 = 10mA
Switch ON: this is floating
Switch OFF: this is tied to Gnd
+5V out
-12V out
+12V out
DB25 FEMALE Connector
Molded Hood
* "output"
* foil shield around wires, foil connected to GND
* Provides two 4-40 thumbscrews (NOT jack nuts)
Cable betweeb DB25m and DB25f
* 21 (or more) wires + 1 drain wire around foil shieled
* no twisted pairs
* 28 gauge wire (since less money than 26 guage)
* 21cm from tip of DB25m to tip of DB25f (i.e. where contacts are)
DB25 MALE Connector
Molded Hood
* "input", attaches to upstream device, toward computer
* foil shield around wires, foil connected to GND
* Two 4-40 thumbscrews (NOT jack nuts)
* Threaded spacers are loosely attached to jacknuts so that customer can attach this to another cable that has jacknuts
Cable between DB25f and DIN5 female
* These traces are shown in RED
* 5 wires + 1 drain wire around foil shieled
* no twisted pairs
* 18 gauge wire (this must be 18 gauge to carry high current. However, since the voltage is low (<= 300Volts), the insulation on these wires does not need to be thick.
* 18cm from tip of Din5 to tip of DB25f (i.e. where contacts are)
Pin4 (-12V)
Pin2 (Earth Gnd, Shield)
Pin5 (+12V)
Pin1 (Com)
Pin3 (+5V)
Looking Into 5pin DIN female
DIN5 Female Connector Molded or Assembled Hood
* "power" input
Packaging
* Each Cable is shipped in it's own plastic bag.
* Db25m connector jackscrews have loose fitting threadspacers attached to them.
Title
Size
Letter
Number
Revision
Date: 10/24/2009
Sheet of
File: C:\Documents and Settings\..\I300_v4_page.SchDoc
Drawn By: