Pulsar2B testing
visual test
resister/capacitor
resister/capacitor
Polarized Capacitors
330μF(c84-c87) and 680μF(c51-c56), yellow big ones
Polarized Capacitors

around PIM C135 (100uF), C136, C137 (330uF)

They have to have bar on downside as shown below
Clock: SW1, SW2

clock1: used for FMC and Fabric GTH;
clock2: used for RTM GTH.
Clock: SW1, SW2
200MHz as default

200 MHz
\{0, 0, 0, 1, 0, "X"\}

156.25 MHz
\{1, 0, 1, 1, 0, "X"\}

150 MHz
\{0, 0, 1, 1, 0, "X"\}

125 MHz
\{1, 1, 1, 1, 0, "X"\}
4 FMC Jumper

• 1
• 2 BYPASS
• 3

• 1
• 2 Normal
• 3
12V enable Jumper
RTM Jumper
Chip Orientation with Tiny dot silkscreened on board (examples)
LAN Transformer (X3)
System Clock 200MHz (X5)
Turn on the main voltages
Probe for GND
+3.3V is the IPMI Management power supply. It is generated by the PIM module as soon as the board is inserted into the shelf. It provides power to the microcontroller, Ethernet interface, RTM microcontroller, flash memory, etc.
VCC12 @ U17 & U18 & U21
VCC3V3 @ U16
VCC3V3@U22, U29

Used for DDR3 and FPGA VCCO

C134 22uf

C133 22uf
VCC1V0 @U17
VCC1V0 @U21
1.0V @FPGA
MGTA VCC (1.0V) @U21
1.8V @U18
1.8V @FPGA
1.5V @FPGA
1.5V@U22
1.8V @U29

In God we trust.
Everything else we test.

Fermilab
MGTAVTT(1.2V)@FPGA C208
VCC1V8 @FPGA C80, C83
VCC1V0 @FPGA C58
RESET_N line negated
System Clock 200MHz (X5)
crystal oscillator 25MHz X1&X2
RTM power supply Test
RTM Power: 12V@D10

RTM MP(3.3V)
@connector
A1: 3.3V;
A2: GND;
A3: 12V;
A4: GND;
B2: PSn (3.3V when RTM is disconnected)
B3: 12V;
B4: GND;

Only touch the orange pins, not the black pins.
FPGA program
GTH clock input