DTMROC Inputs:

Starting from Pin # 1, clockwise:

**TR14 – 15 P,N:** threshold scan
**tp_bias** think it’s fine
**tp_even, TP_odd** test pulse scans
**th_TR0, th_TR1** high threshold scan…have verified for a few chips
**th_D0, th_D1** threshold scans
**Config_select** goes to PADJ1, PADJ2 – Mitch checked
**Shaper_select** goes to Xel – Mitch checked
**ASDBLRpwrsense** tested
**ASDBLRpwrjmp** tested
**SpareInpsense** tested
**spareInpjmp** tested

**enable_decoup2** Mitch is not sure of the status; not important
**cmd_in_neg, cmd_in_pos** threshold scan
**bc_neg, bc_pos** threshold scan
**hard_reset_B_neg,…,pos** have checked on scope, polarity has to be correct to work
**cmd_out_pos, com_out_neg** register readout
**data_out_net, data_out_pos** threshold scan
**enable_decoup1** Mitch is not sure of the status; not important

**TRST,TCK,TDI,TMS,TD0** NC (JTAG) (needs reviewing for Bjorn’s boards)
**Address 0-5** Known to work on AR1F & AR1B – connected & way we want them.

**TR00 – 01 P,N** threshold scan
**TR02 – 13 P,N** threshold scan

NAIS Connector to Paddle Card

Do above tests test all signals?

**ASDBLR**

**Power:** VCP,VCS,VES,VCD, VED,VEDR checked by basic operation

**Ternary Inputs:** ohm-meter test or noise tests on the module
**Ternary Outputs:** threshold scan
**PVCDS** stuffed for what current?
**PTH_D** threshold scan
**PTH_TR** test-pulse scan at high threshold
**XEL, PADJS1, PADJS2** Mitch looked at
**BLBIAS** NC
**TST_O** test pulse
**TST_E** test pulse
**PEN_SH, PEN_BL** Mitch
**MON_A1, MON_B1**
MON_A8, MON_B8    OK – not normally used

Board Level:

Noise Tests: performed for four AR1BS & AR1BL boards, and several AR1FL and AR1FS boards on the module. Verified that which Vdd caps should be removed on AR1FL boards and that copper tape (or equivalent) should be added on AR1FS. Whether or not to remove caps on AR1B boards remains to be checked…Do we wait for this for AR1B assembly?

Is the termination correct: have looked at the receiving termination, about 100 ohms. We’ve never investigated the back termination resistors. Currently it is 120 ohms. Probably OK. But Rick raises issue of size of signal at the PP. Mitch says we see 100+ mV but Rick raises the question of what length of cable. Mitch – we should test “as stuffed”. Rick would like to review..what is the longest cable we have ever used.

Value of resistors between analog and digital ground isn’t critical. Ben verified that the resistors are all 10 ohms.

Test Pulse – Mitch is happy with the filter components on barrel boards, but would really like to see the response when we try to try high threshold test.

Report from Ben: only two problems on all 8 ARB boards. One shorted input, couldn’t locate exactly where it was; one channel which gets much noisier during test pulse.

Would see a 300kHz threshold of 250 or so where most all channels are around 180 (this for an injected charge of 10 DAQ cnts). NOTE: they looked at three other boards and didn’t see anything.

So 2 channels out of 1300.

Found a few more channels with large offsets for Gabe to check against his measurements.

Questions:

Ben: do we have a final plan for labeling these boards?

Cooling Plate Mounting – DONE in terms of mates OK and noise measurements. Temperature measurements haven’t yet been repeated.