



Full chain tests

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- Full chain & SVX4
- 1% & 10% stands



Full chain and SVX4

- So far worked with
Hybrid - Jumper Cable - Purple Card - SASEQ
- Above does not fully test SVX4 in D0 configuration, issues:
 - ◆ Signal propagation through twisted pair cable + jumper cable
 - ▲ Impedance matching, see studies (without SVX4) by Evgeny, Noel & Mike
 - ▲ Single ended controls (PRIIN, MOD0, MOD1, CHMOD) are possible source of problems : 60 Ohm (jumper cable) vs. 120 Ohm (twisted pair cable)
 - ▲ Solutions :
 - Resistive matching at junction card
 - Resistive matching at source/destination
 - Double twisted pair matching
 - ◆ Signal levels to/from SVX4 adequate?
 - ◆ Crosstalk
- Need to address this as soon as possible (before next submission of SVX4) - this is part of the SVX4 tests



Full chain and SVX4

- Minimal configuration :
 - ◆ Hybrid - 1 m Jumper Cable - Junction Card - Twisted Pair Cable - Adapter Card - Interface Board - SASEQ
- Status
 - ◆ All parts in hand since August - were busy with other things
 - ◆ One setup in DAB (Mike & Andrei), ready this week?
 - ◆ One setup in KSU (Eckhard & Ron)
 - ▲ Ready in November ?
 - ▲ Need it anyway to test ACs and validate IB mods



Full chain stands with SASEQ

Address also :

- Adapter Card issues
 - ◆ Tests of concept
 - ◆ Clocks (regenerate or not at AC)
 - ◆ Power
 - ▲ same AVDD and DVDD?
 - ▲ If yes, same voltage regulator or same power supply + two voltage regulators ?
 - ▲ cooling
 - ◆ Signal levels from/to IB
- Interface Board issues
 - ◆ Terminations
 - ◆ Signal levels
 - ◆ Power distribution
 - ◆ Backplane issues
 - ◆ Mapping issues



1% and 10% stands

- Located at Sidet
 - ▲ 1% stand in ABridge room (with burn-in stands)
 - ▲ 10% stand in Lab C
- Goal : Full system integration tests
 - ◆ 1% : proof of principle/debugging/software development
 - ◆ 10% : tests of production pieces, tests of LV/HV power supplies and distribution, data integrity tests
- Configuration :
 - ◆ Hybrid(s) - ... - SEQ (SEQC) - VRB (VRBC) - SBC - DAQ
 - ◆ Issues:
 - ▲ No Trigger Framework at Sidet
 - ▲ Daniel Mendoza will explain how to handle it at one of next meetings
 - ▲ Do we want to be part of D0 L3 and/or DAQ? How?
 - ▲ Eventually we should have a full chain stand at DAB as well to test interference with TFW and possibly even take data in collision hall



1% and 10% stands

- 1% stand status
 - ◆ All hardware in hand ! - see Lyn's talk tomorrow
 - ◆ SEQ and SEQC reworked for SVX4
 - ◆ Hybrid - Purple Card - SEQ configuration can be used now (schedule Jan 2003)
- 10% stand status
 - ◆ Power supplies and some other parts ordered
 - ◆ How many channels - under discussion
 - ◆ According to the schedule tests start August 2003