TTC System Test Setup
TTCCRx Test Board

Optical Rx  TTCRx ASIC  TTCRx Test PCB

Optical Fiber  Config. PROM
TTC System VME Modules

In-crate CPU
currently MVME-167
Pentium/PC/Linux soon!

TTCvi VME Interface
generates A,B channel
coded TTC signal

LHC Pattern Generator
generates LHC orbit
timing and BC0

TTCvx Transmitter
4 optical outputs

Optical Fiber
to TTCRx

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TTC System Testing Status

• TTC system works
  – De-skew 40.08MHz clock
  – BC reset, EC reset, other commands (start/stop run etc)
  – Random L1A automatically generated (TTCVi)
  – LHC orbit timing / bunch structure (LHC Sim)

• Software is rudimentary for now
  Currently using old MVME-167 w/ VxWorks
  Expecting Pentium VME PC w/ Linux very soon

• Can drive up to 4 TTCRx
  – Enough for Demonstrator system
TTC Clock De-Skew

Points measured on ‘scope
(~0.5ns measurement error)
TTC Clock Deskew

Departure from Expected Delay (ns)

Programmed Delay (ns)

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