HCAL/HF Readout

TTC System in HCAL

On Detector

TTCRx
2-channel QIE board
2-channel QIE board
2-channel QIE board

Bunch Counter Reset
Encoded in FE Data

QIE Data
BC Reset
QIE Data

Underground Area

DCC
TTCRx
ECR
BCR
L1T
DCC / DDU Logic

HTR
BC
EC

VME Crate

TTC Information broadcast on backplane
(TBUS differential pairs used)

CLOCK (40.08 MHz)
L1 TRIG
BC Reset
EC Reset

BC checked at each reset for correct value
EC may be broadcast once per turn for checking