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03/20/2014

Implementation of QT Algorithm for STAR HCAL : Run 2014

QT Code Version: 0x64
MCS File: qt32b_l0_v6_4.mcs

Description:
This algorithm computes the sum of all input channels and determines whether or not at least one channel is greater than some threshold (High-Tower). One set of masks is used to mask channels from both the Sum and High-Tower Threshold portions of the algorithm. There is a separate threshold for each channel for the High-Tower portion of the algorithm. This algorithm was originally written for the AnDY HCAL.

Inputs:
  QT8A : HCAL Inputs
  QT8B : HCAL Inputs
  QT8C : HCAL Inputs
  QT8D : HCAL Inputs

Registers (1 Set Per Daughter Card)**:**
  1 : Channel 1 HT Threshold
  2 : Channel 2 HT Threshold
  3 : Channel 3 HT Threshold
  4 : Channel 4 HT Threshold
  5 : Channel 5 HT Threshold
  6 : Channel 6 HT Threshold
  7 : Channel 7 HT Threshold
  8 : Channel 8 HT Threshold

LUT:
  Pedestal subtraction for each channel

Algorithm Latch: 1

L0 Output to DSM:
  (0-16) : QT32 Sum
  (17)   : At least one channel is greater than its corresponding threshold