Calorimeter Adder Tree Card (CAT2)

12 BIT OPERAND 1 ➔ 12 BIT CLOCKED LATCH ➔ 12 BIT ADDER ➔ 13 BIT ADDER ➔ 14 BIT ADDER ➔ 18 BIT SUBTRACTOR ➔ 17 BIT DIFFERENCE

12 BIT OPERAND 2 ➔ 12 BIT CLOCKED LATCH ➔ 12 BIT ADDER ➔ 13 BIT ADDER ➔ 14 BIT ADDER ➔ 15 BIT PARTIAL SUM

12 BIT OPERAND 3 ➔ 12 BIT CLOCKED LATCH ➔ 12 BIT ADDER ➔ 13 BIT ADDER ➔ 14 BIT ADDER ➔ 18 BIT REGISTER ➔ 15 BIT MAGNITUDE COMPARATOR ➔ SUM ≥ THRESHOLD 1

12 BIT OPERAND 4 ➔ 12 BIT CLOCKED LATCH ➔ 12 BIT ADDER ➔ 13 BIT ADDER ➔ 14 BIT ADDER ➔ 18 BIT REGISTER ➔ 15 BIT MAGNITUDE COMPARATOR ➔ SUM ≥ THRESHOLD 2

12 BIT OPERAND 5 ➔ 12 BIT CLOCKED LATCH ➔ 12 BIT ADDER ➔ 13 BIT ADDER ➔ 14 BIT ADDER ➔ 18 BIT REGISTER ➔ 15 BIT MAGNITUDE COMPARATOR ➔ SUM ≥ THRESHOLD 3

12 BIT OPERAND 6 ➔ 12 BIT CLOCKED LATCH ➔ 12 BIT ADDER ➔ 13 BIT ADDER ➔ 14 BIT ADDER ➔ 18 BIT REGISTER ➔ 15 BIT MAGNITUDE COMPARATOR ➔ SUM ≥ THRESHOLD 4

32 BIT BACKPLANE COMPUTER BUS ➔ CBUS INTERFACE ➔ CLOCK ➔ DATA