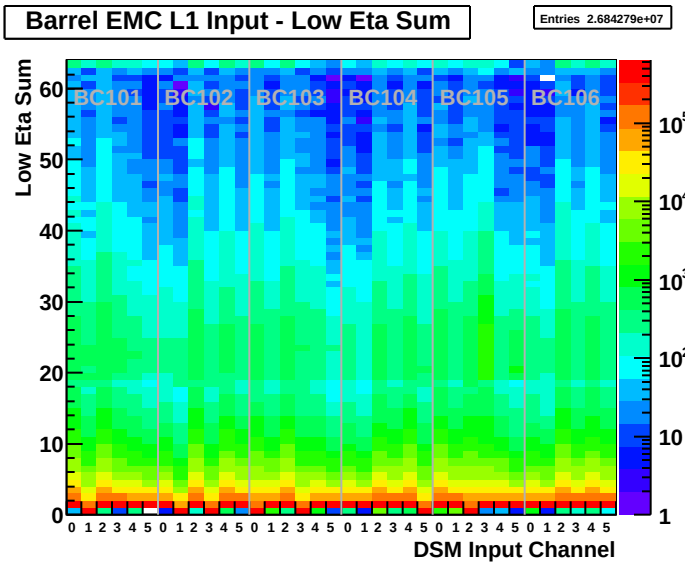
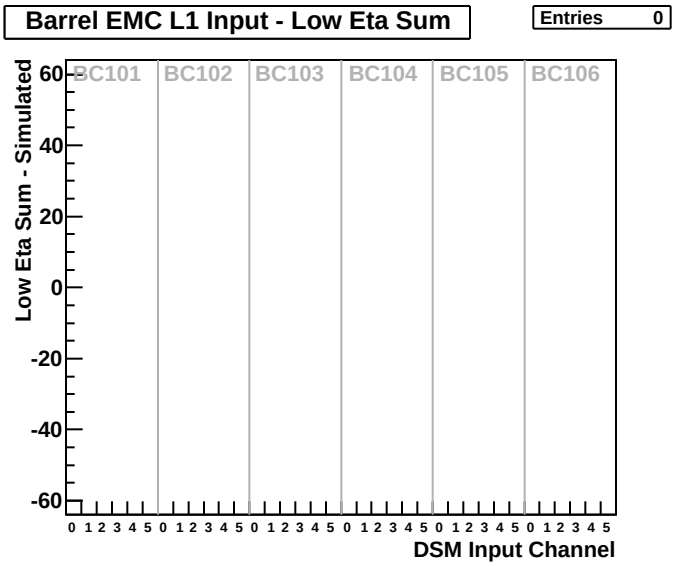
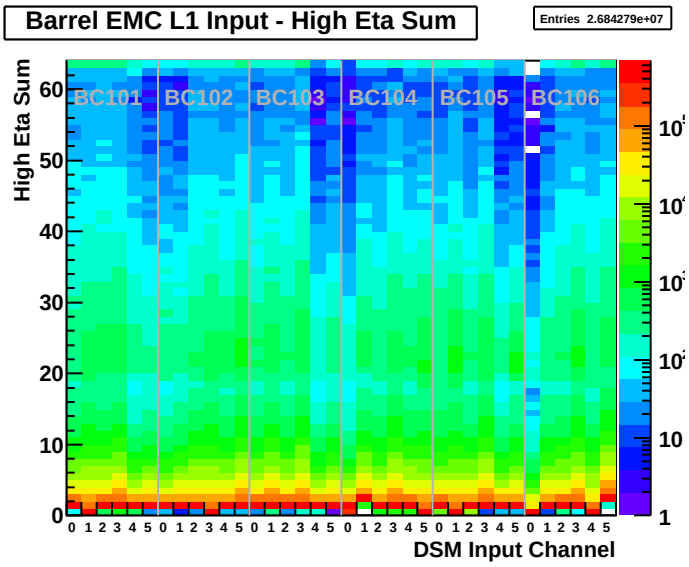
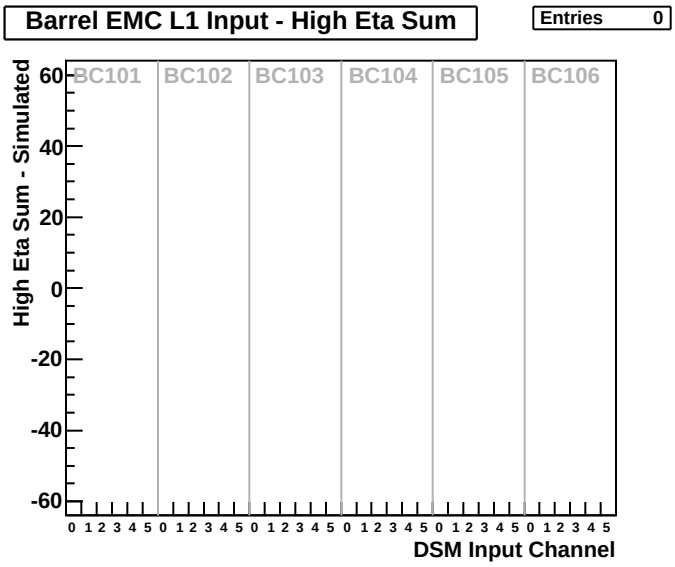
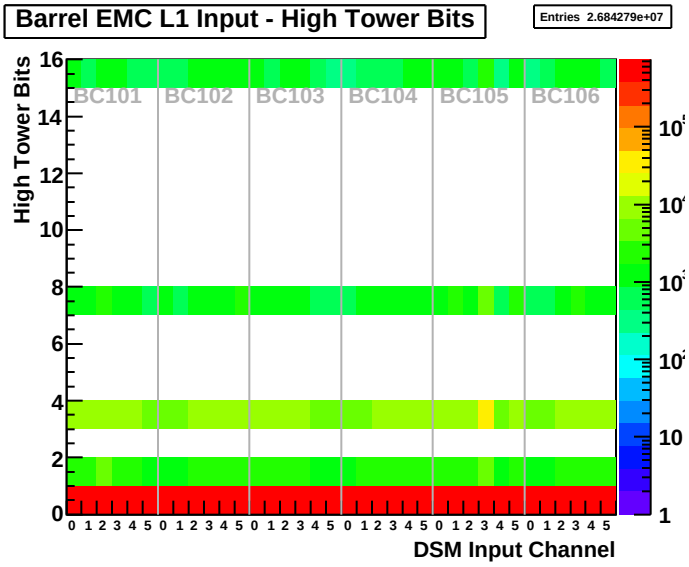
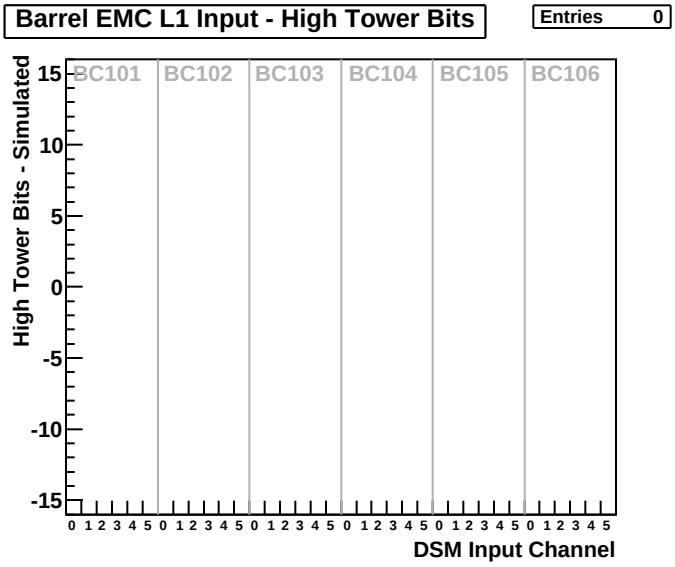

Barrel EMC L1 Input - Low Eta Sum
Entries 2.684279e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

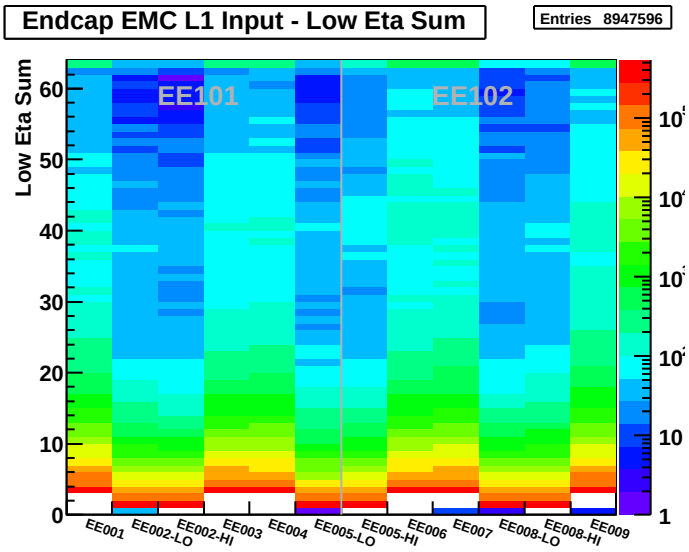

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

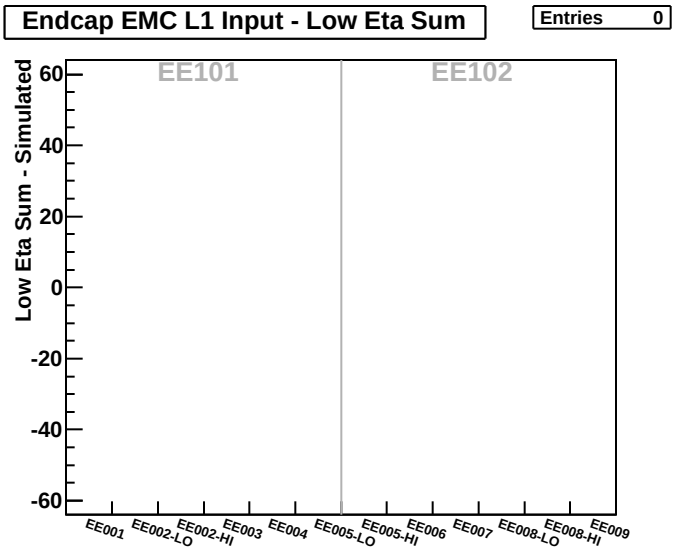

Barrel EMC L1 Input - High Eta Sum
Entries 2.684279e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

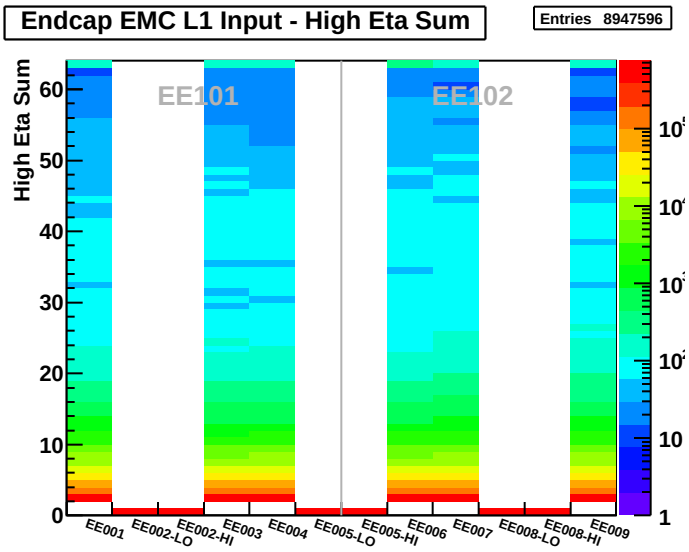

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

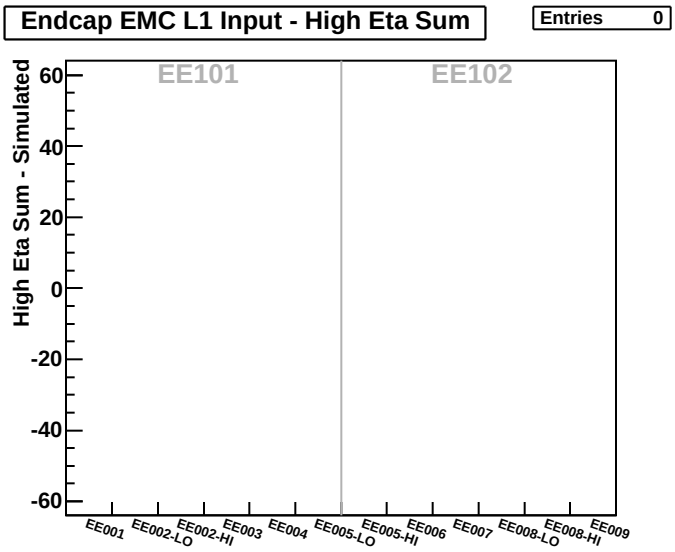

Barrel EMC L1 Input - High Tower Bits
Entries 2.684279e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

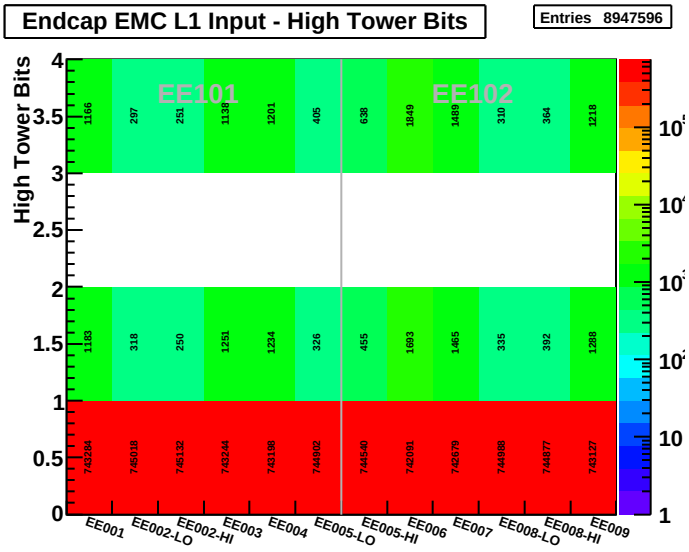

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

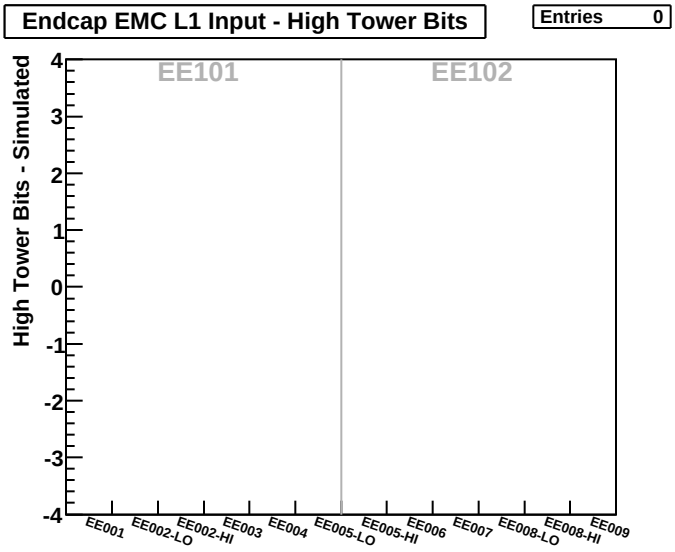

Endcap EMC L1 Input - Low Eta Sum
Entries 8947596
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

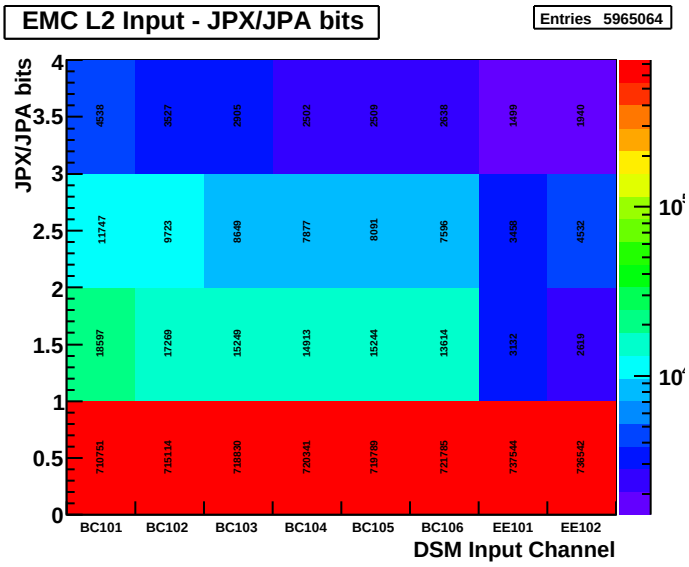

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

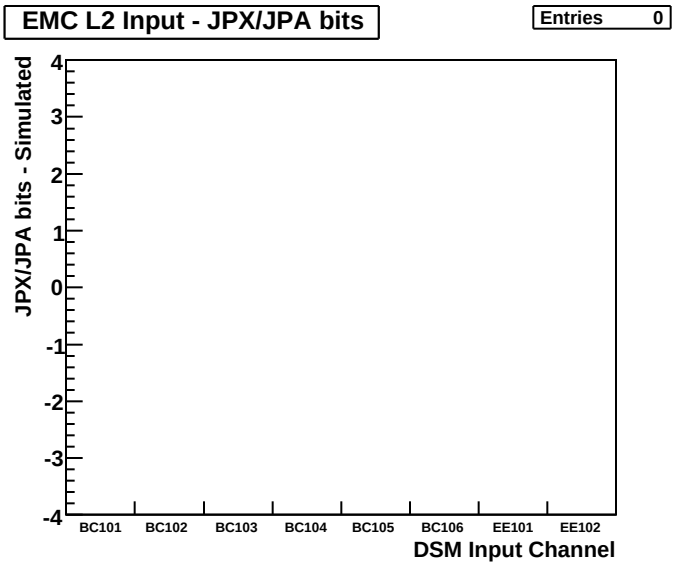

Endcap EMC L1 Input - High Eta Sum
Entries 8947596
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

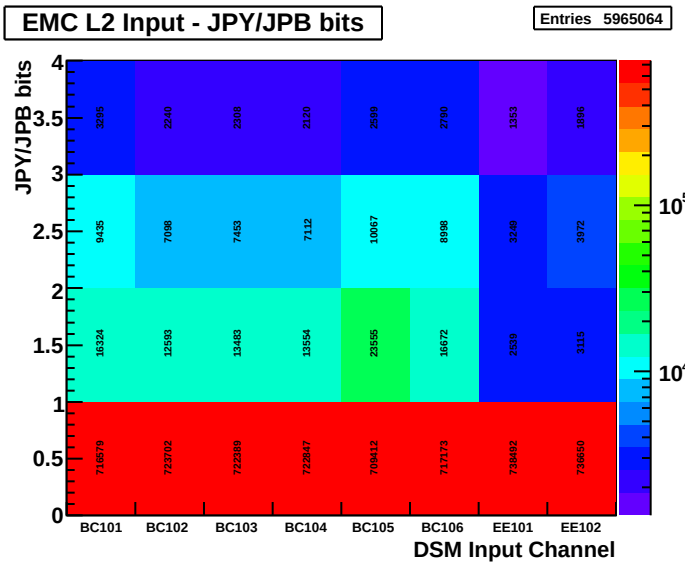

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

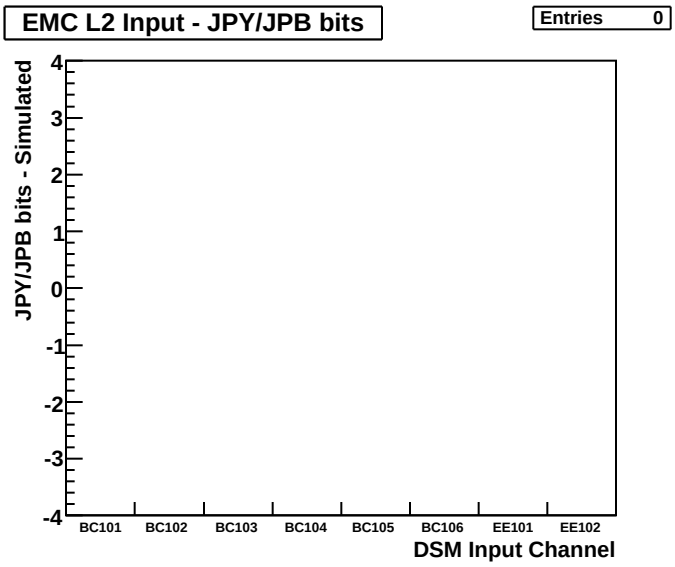

Endcap EMC L1 Input - High Tower Bits
Entries 8947596
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

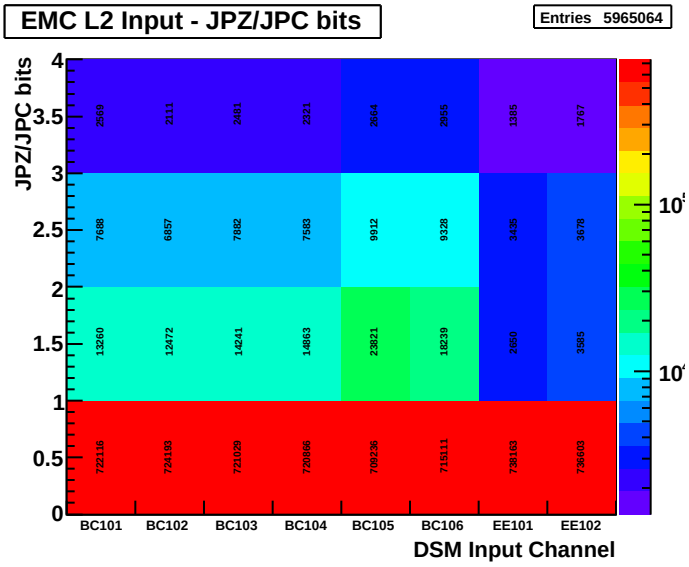

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

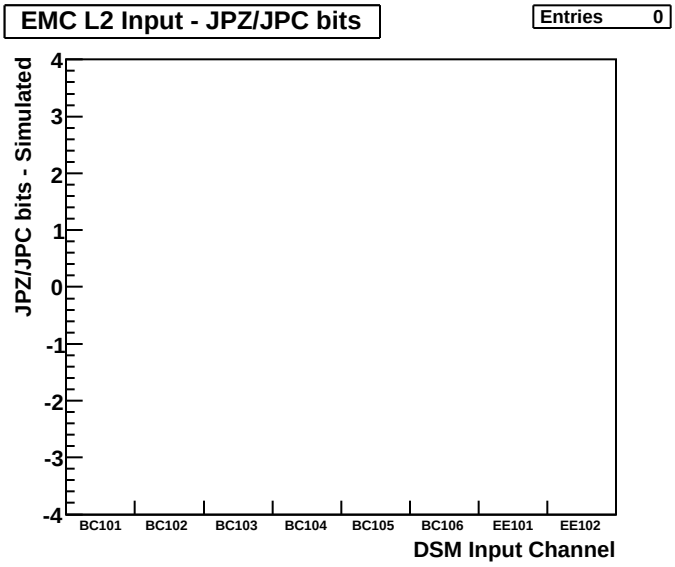

EMC L2 Input - JPX/JPA bits
Entries 5965064
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4528 3527 2905 2502 2509 2638 1499 1940
11747 9723 8649 7877 8091 7596 3458 4532
18597 17269 15249 14913 15244 13614 3122 2619
710751 715114 718830 720341 719789 721785 737544 736542

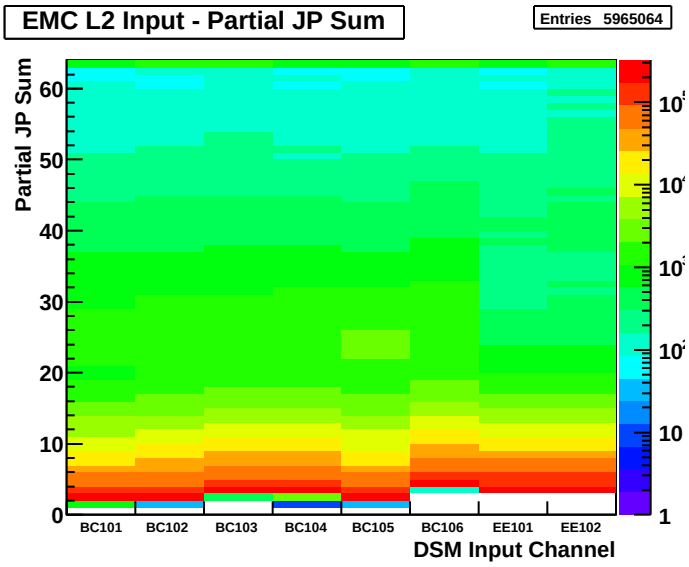

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

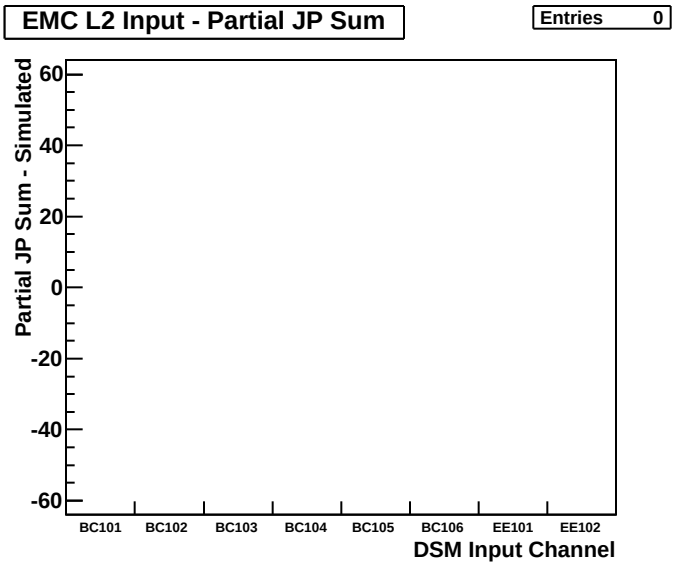

EMC L2 Input - JPY/JPB bits
Entries 5965064
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
3295 2240 2208 2120 2599 2790 1353 1896
9435 7098 7453 7112 10067 8998 3249 3972
16324 12593 13483 13554 23555 16672 2538 3115
716579 722702 722389 722847 709412 717173 738492 736650

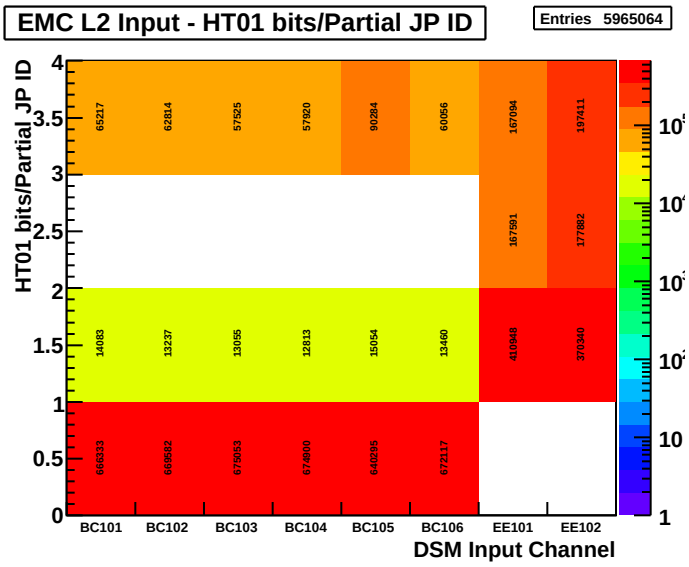

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

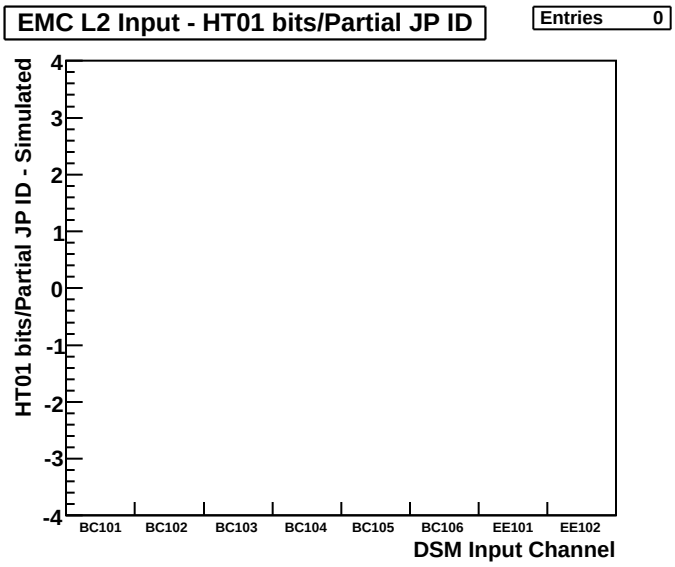

EMC L2 Input - JPZ/JPC bits
Entries 5965064
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2569 2111 2481 2321 2664 2955 1385 1767
7688 6857 7682 7583 9912 9328 3435 3678
13260 12472 14241 14863 23821 18239 2660 3585
722116 724193 721029 720866 709236 715111 738163 736603

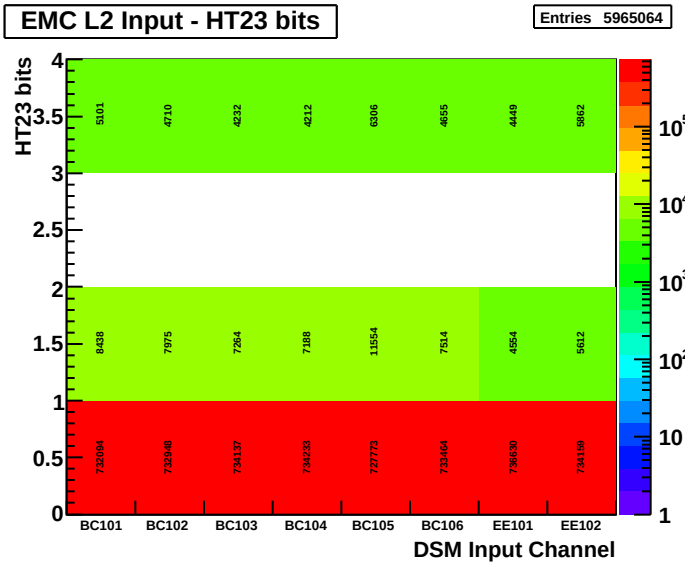

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

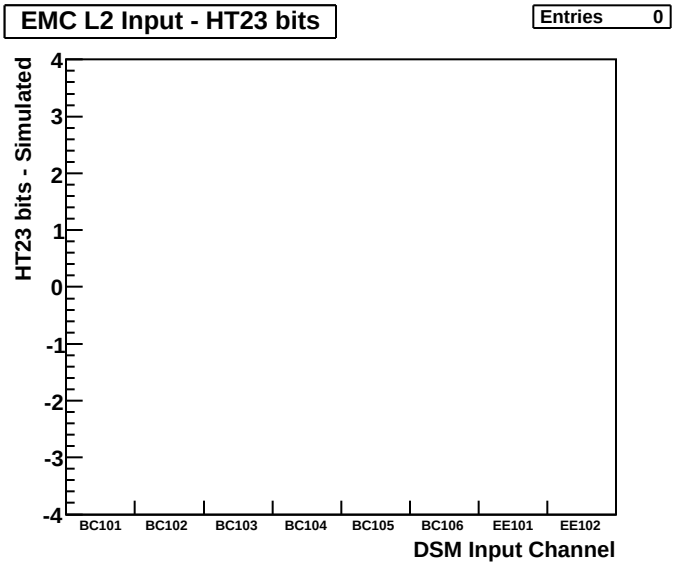

EMC L2 Input - Partial JP Sum
Entries 5965064
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

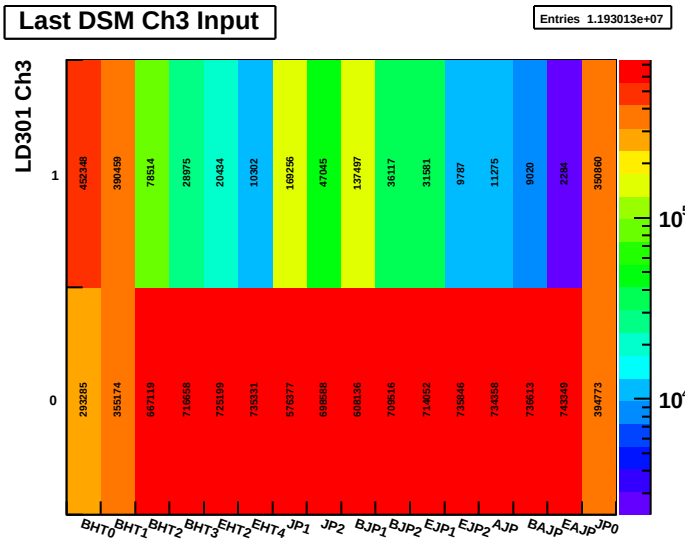

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

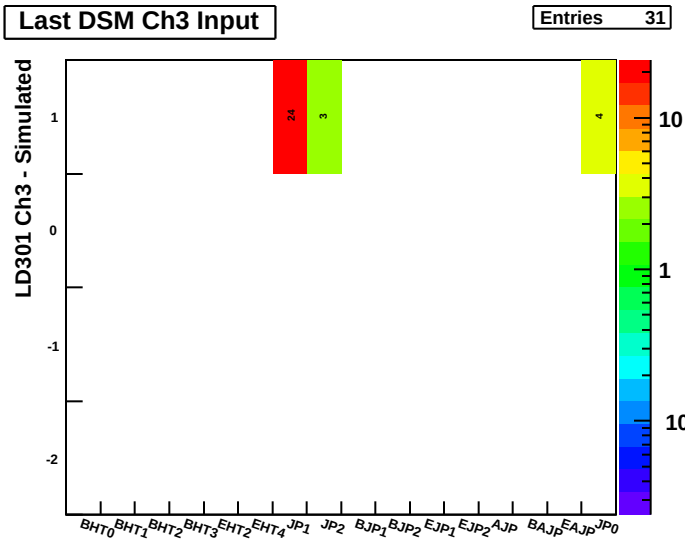

EMC L2 Input - HT01 bits/Partial JP ID
Entries 5965064
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

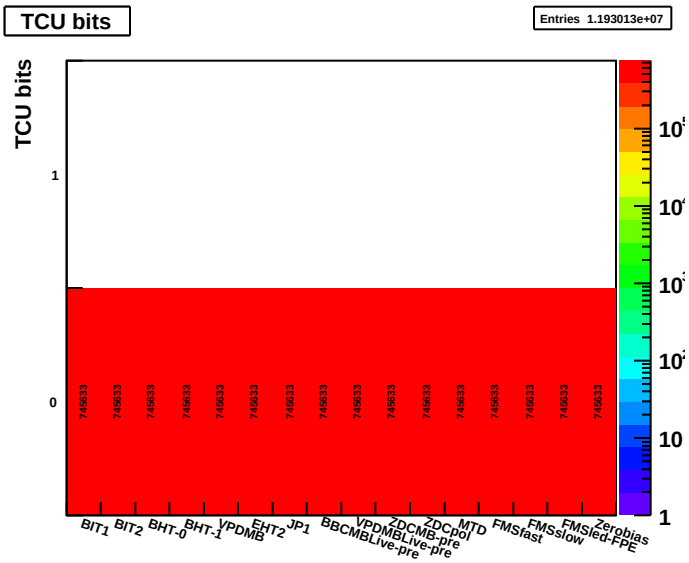

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

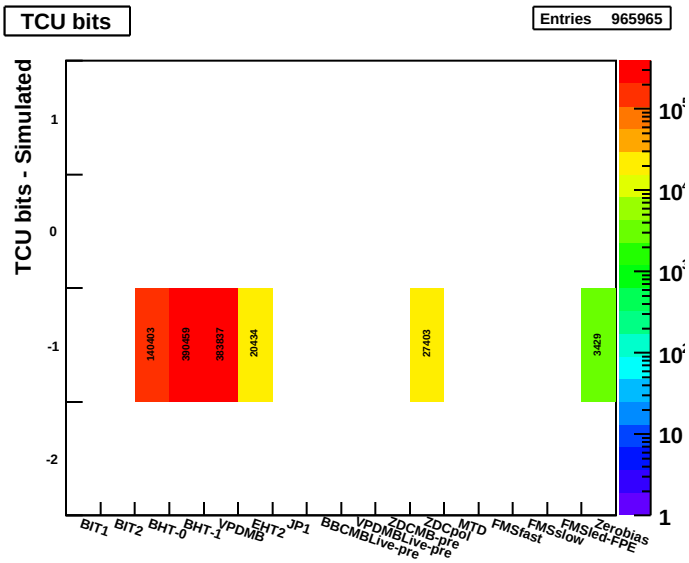

EMC L2 Input - HT23 bits
Entries 5965064
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

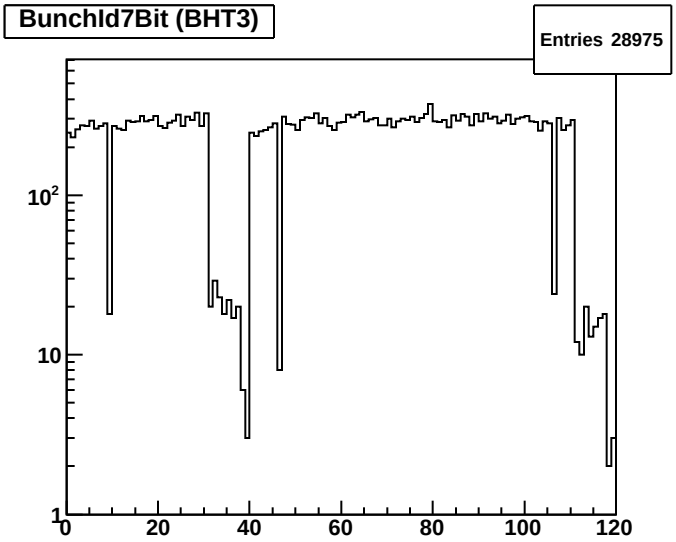

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

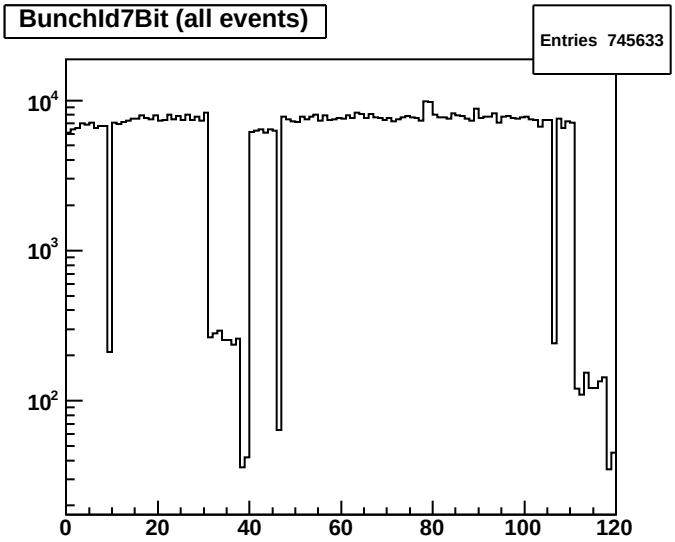

Last DSM Ch3 Input
Entries 1.193013e+07
LD301 Ch3
1
0
452348 390459 78514 28975 20434 10302 169256 47045 137497 36117 31581 9787 11275 9020 2284 350860
293285 355174 667119 716658 725199 735331 576377 698588 608136 709516 714052 735846 734358 736613 743349 394773
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

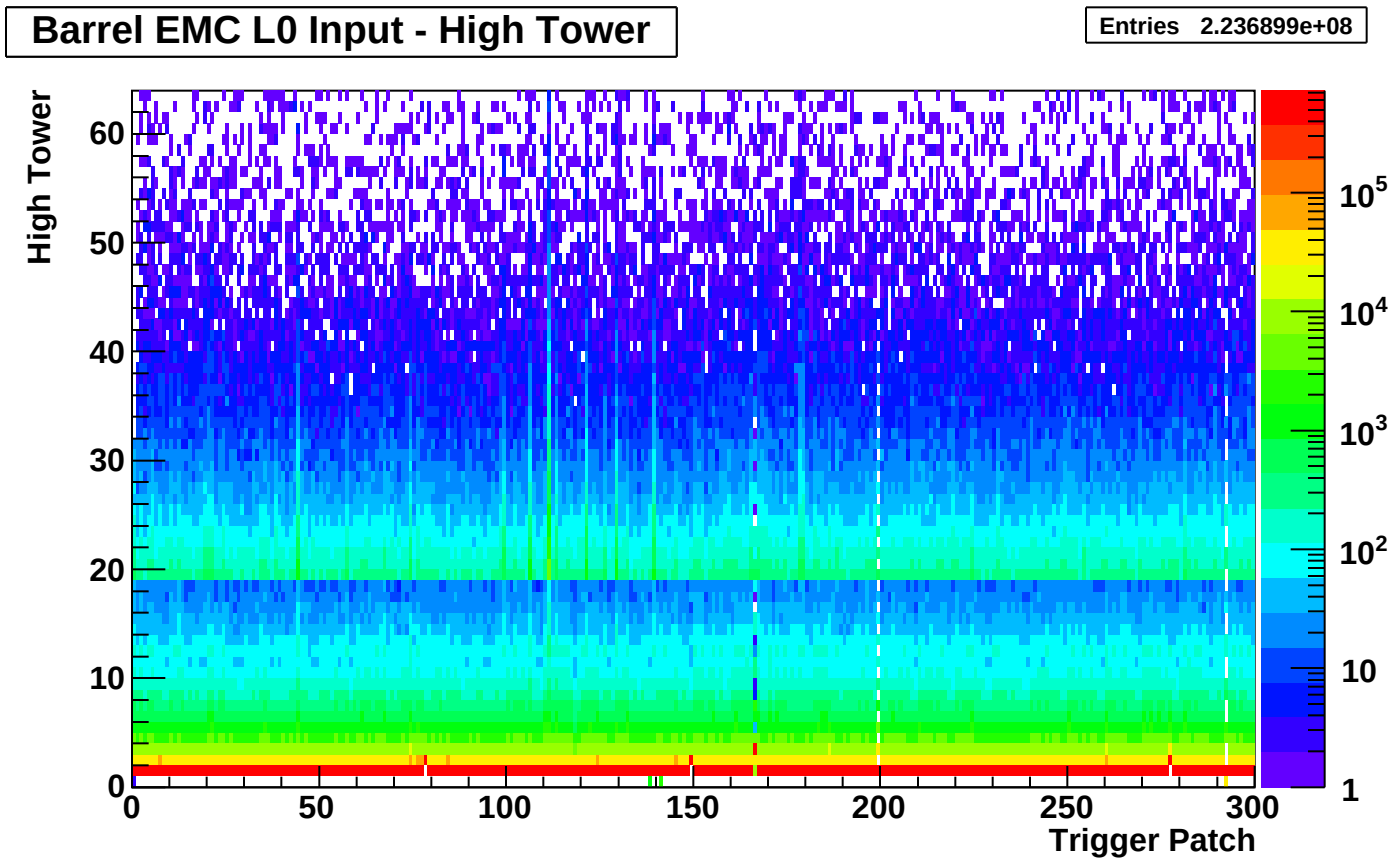

Last DSM Ch3 Input
Entries 31
LD301 Ch3 - Simulated
1
0
-1
-2
24 3 4
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

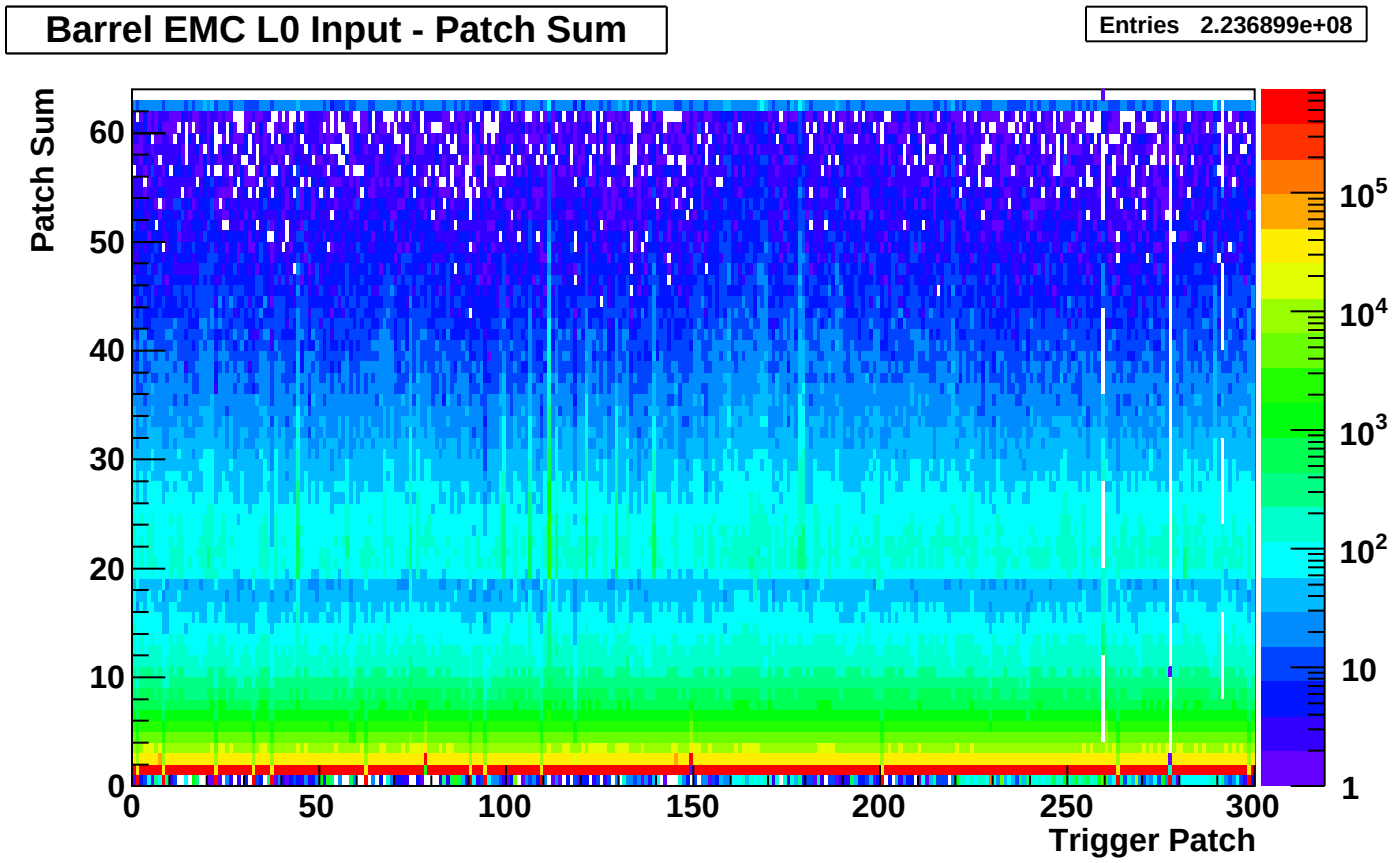

TCU bits
Entries 1.193013e+07
TCU bits
1
0
745633
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

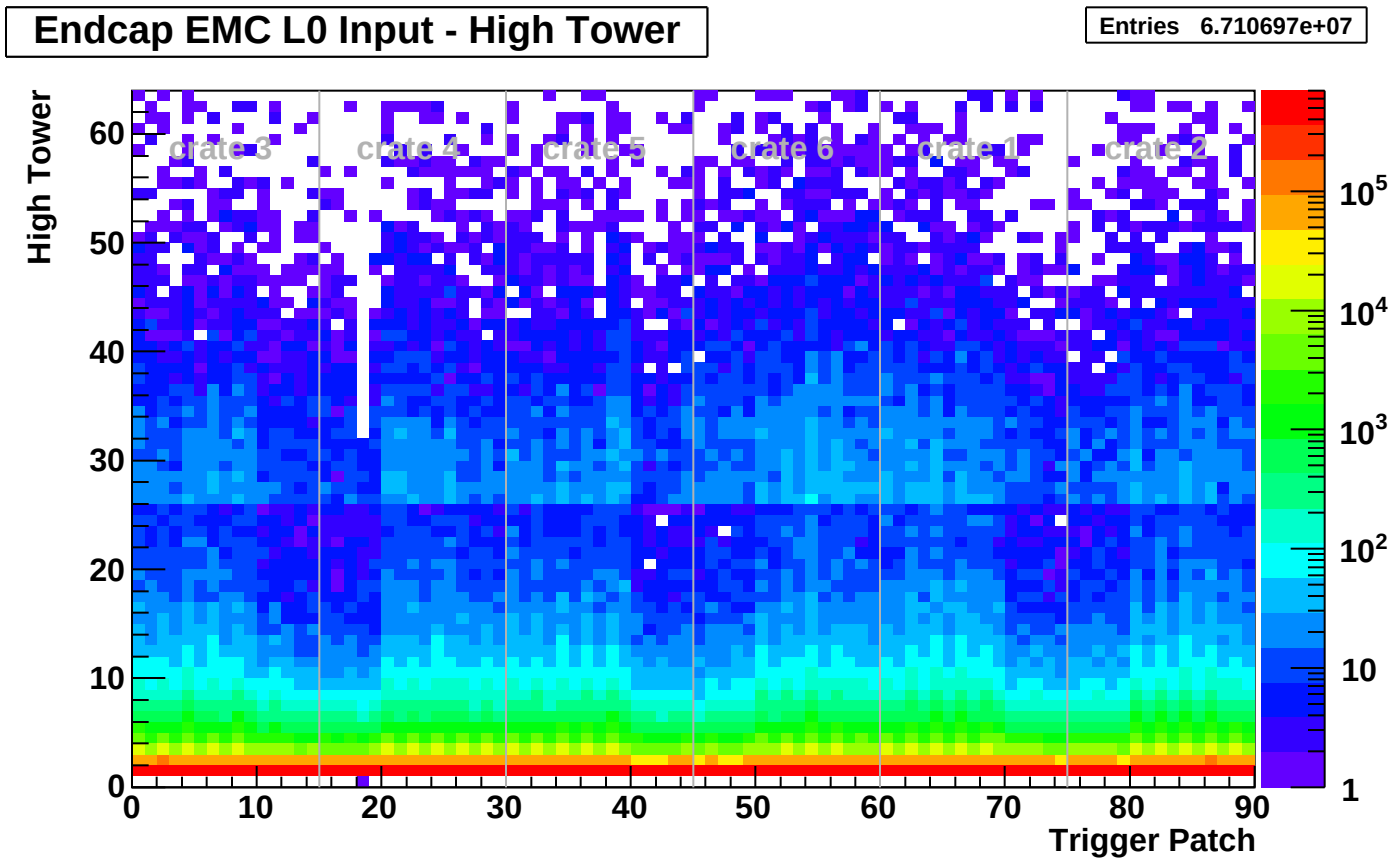

TCU bits
Entries 965965
TCU bits - Simulated
1
0
-1
-2
140403 390459 383837 20434 27403 3429
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

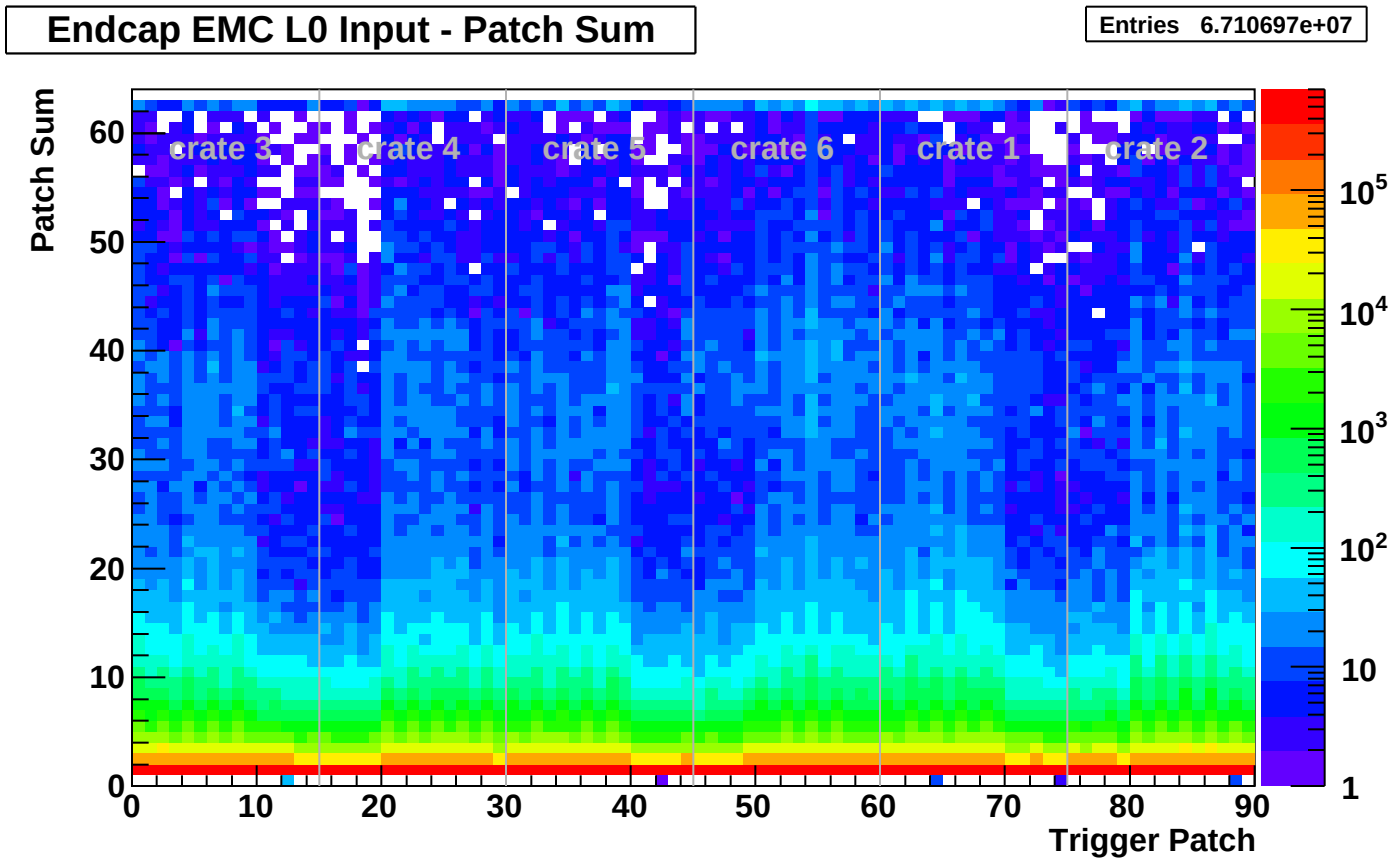

BunchId7Bit (BHT3)
Entries 28975
10^2
10
1
0 20 40 60 80 100 120

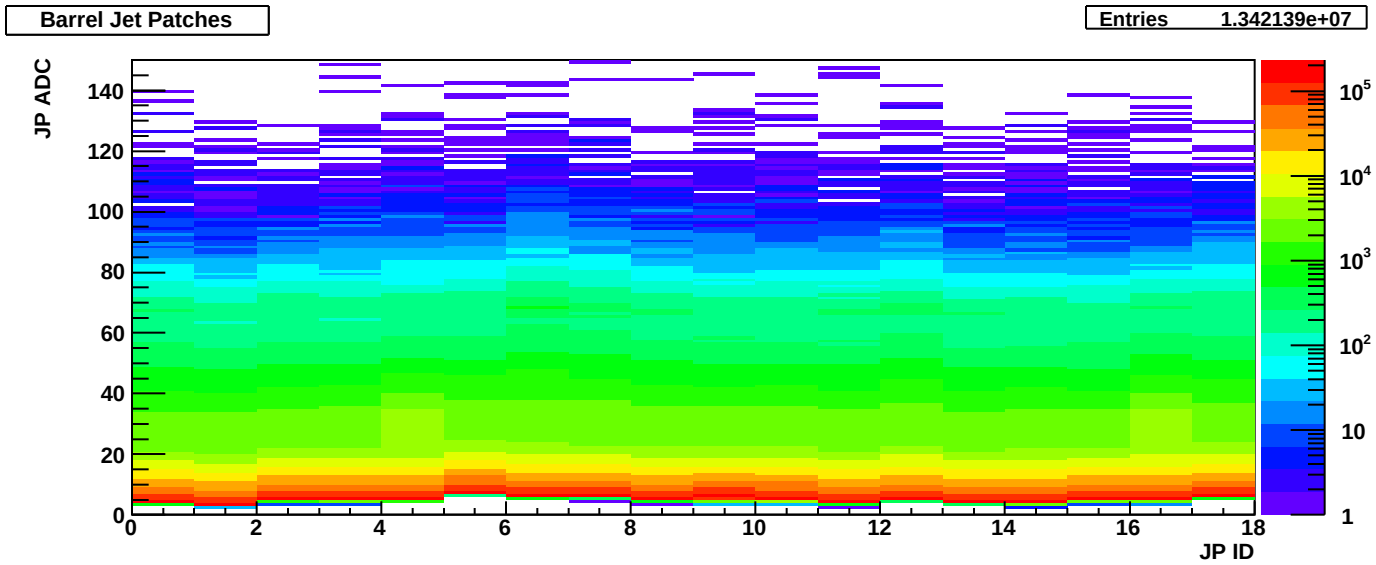

BunchId7Bit (all events)
Entries 745633
10^4
10^3
10^2
0 20 40 60 80 100 120

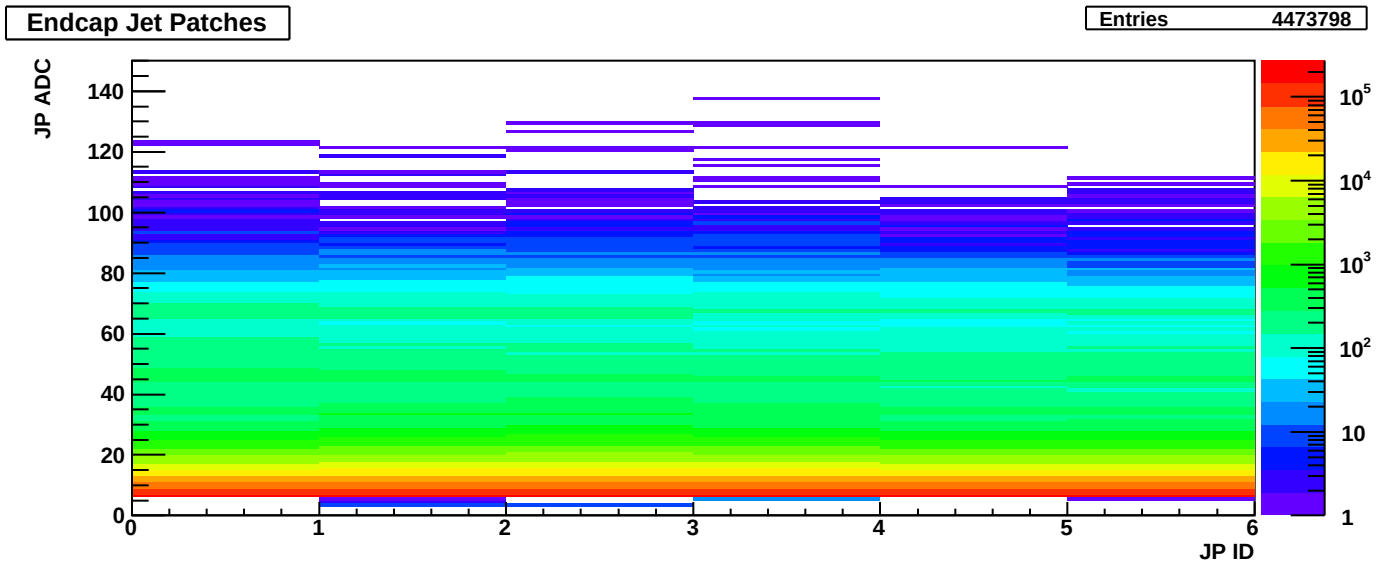

Barrel EMC L0 Input - High Tower
Entries 2.236899e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

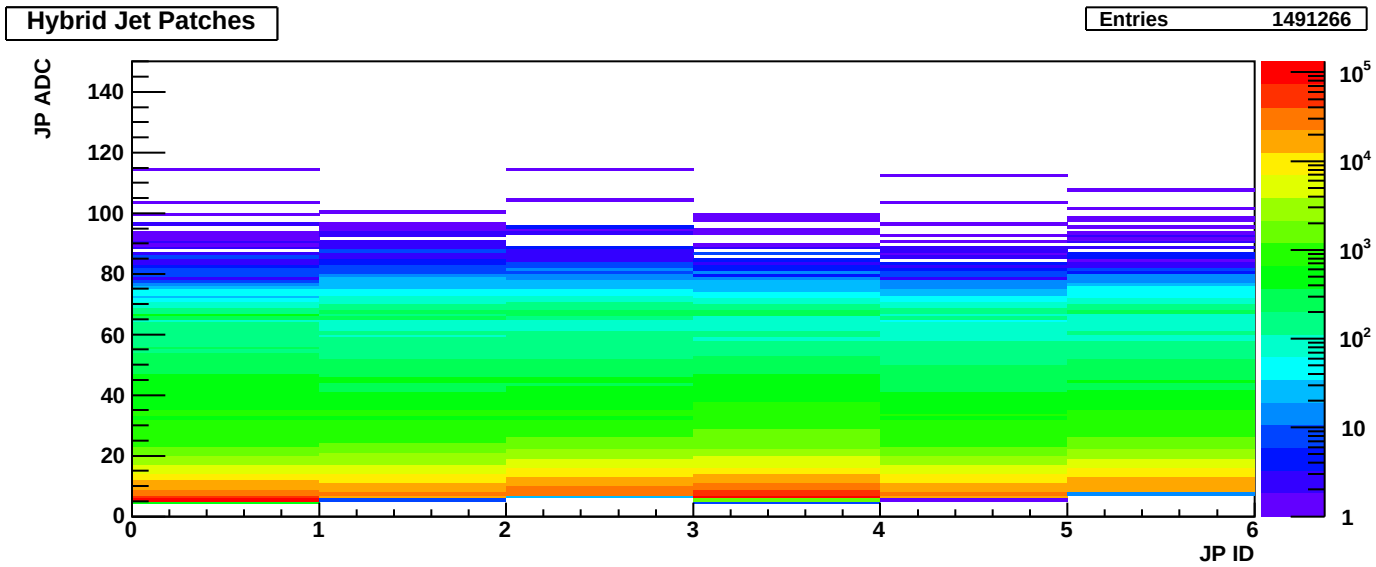

Barrel EMC L0 Input - Patch Sum
Entries 2.236899e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5


Endcap EMC L0 Input - High Tower
Entries 6.710697e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2


Endcap EMC L0 Input - Patch Sum
Entries 6.710697e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

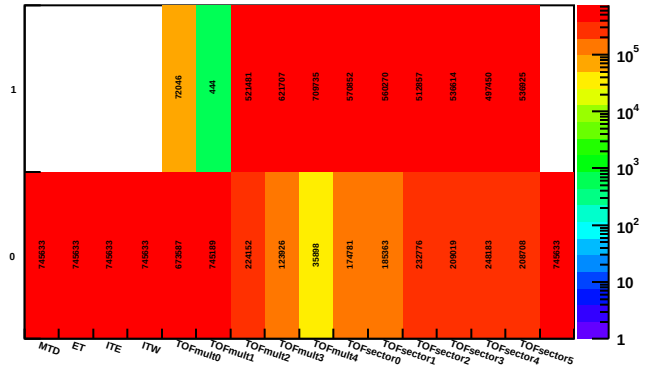

Barrel Jet Patches
Entries 1.342139e+07
JP ADC
JP ID


Endcap Jet Patches
Entries 4473798
JP ADC
JP ID


Hybrid Jet Patches
Entries 1491266
JP ADC
JP ID

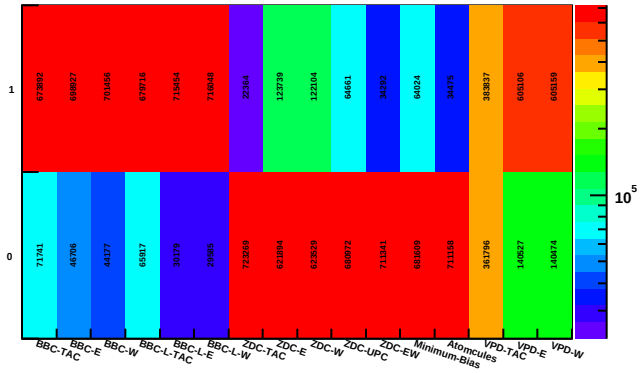
TF201 0-15 (ch0)

Entries 1.193013e+07



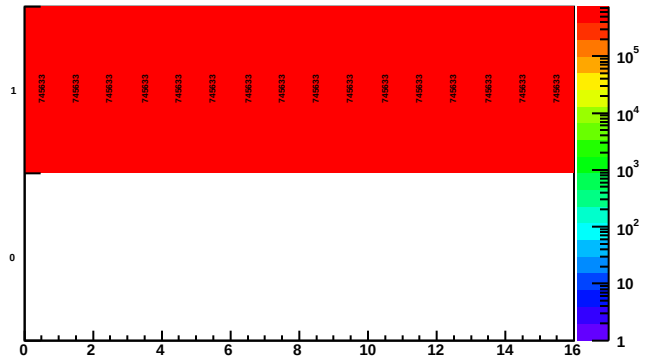
VT201 0-15 (ch1)

Entries 1.193013e+07



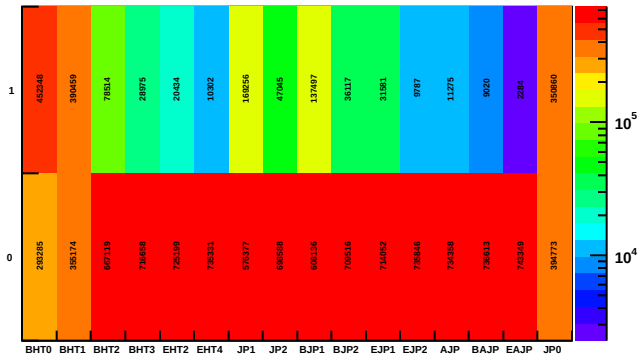
Unused (ch2)

Entries 1.193013e+07



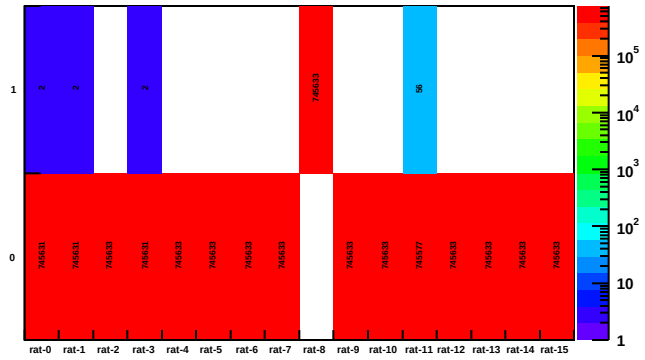
EM201 0-15 (ch3)

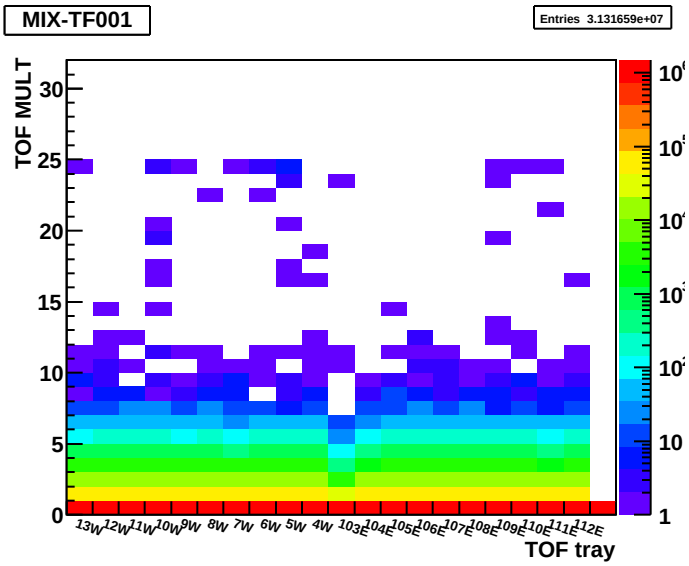
Entries 1.193013e+07

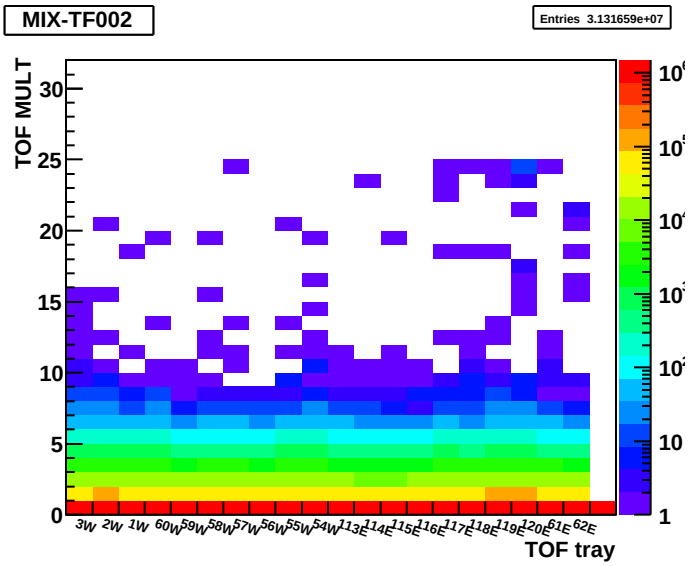


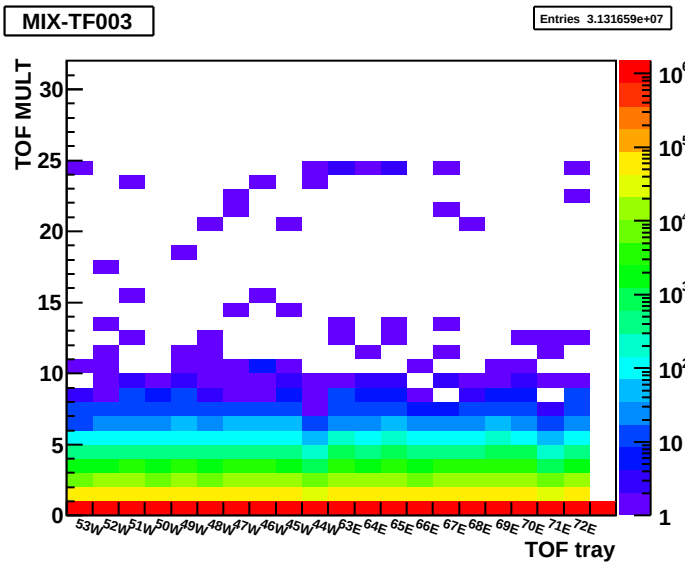
RAT board (ch4)

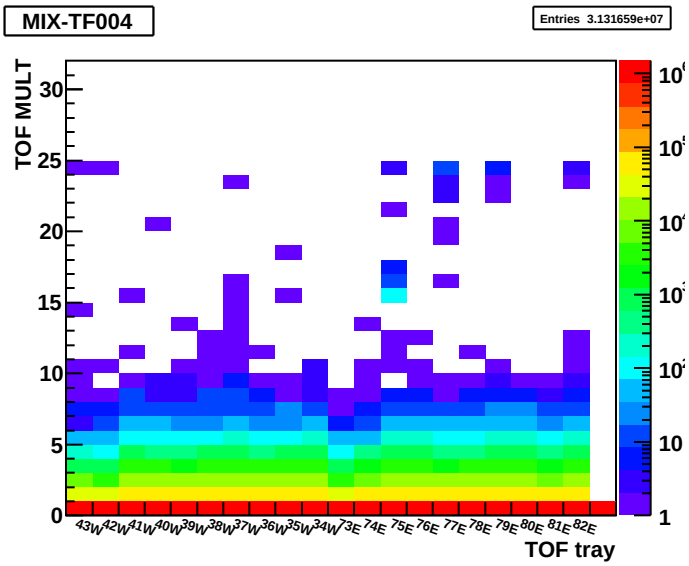
Entries 1.193013e+07

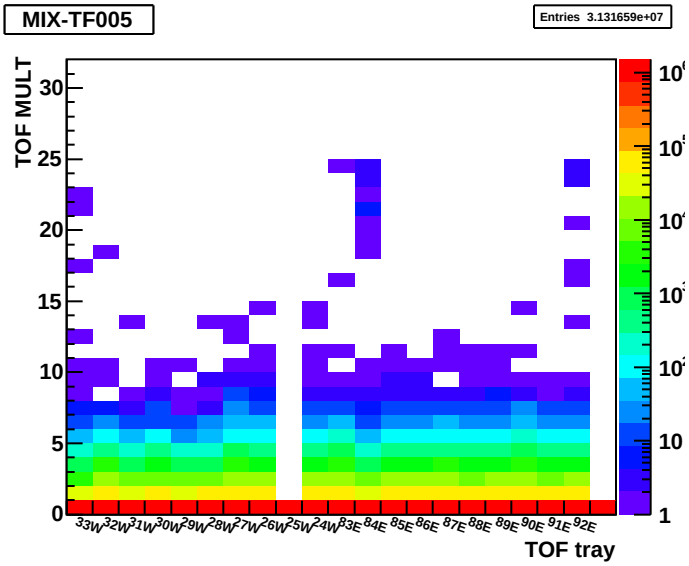

1
0
2
2
2
745633
56
745631
745631
745633
745631
745633
745633
745633

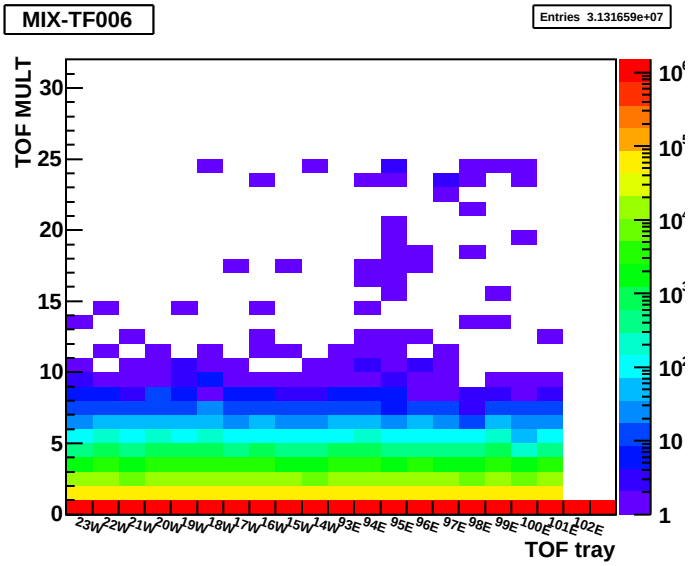

MIX-TF001
Entries 3.131659e+07
TOF MULT
TOF tray

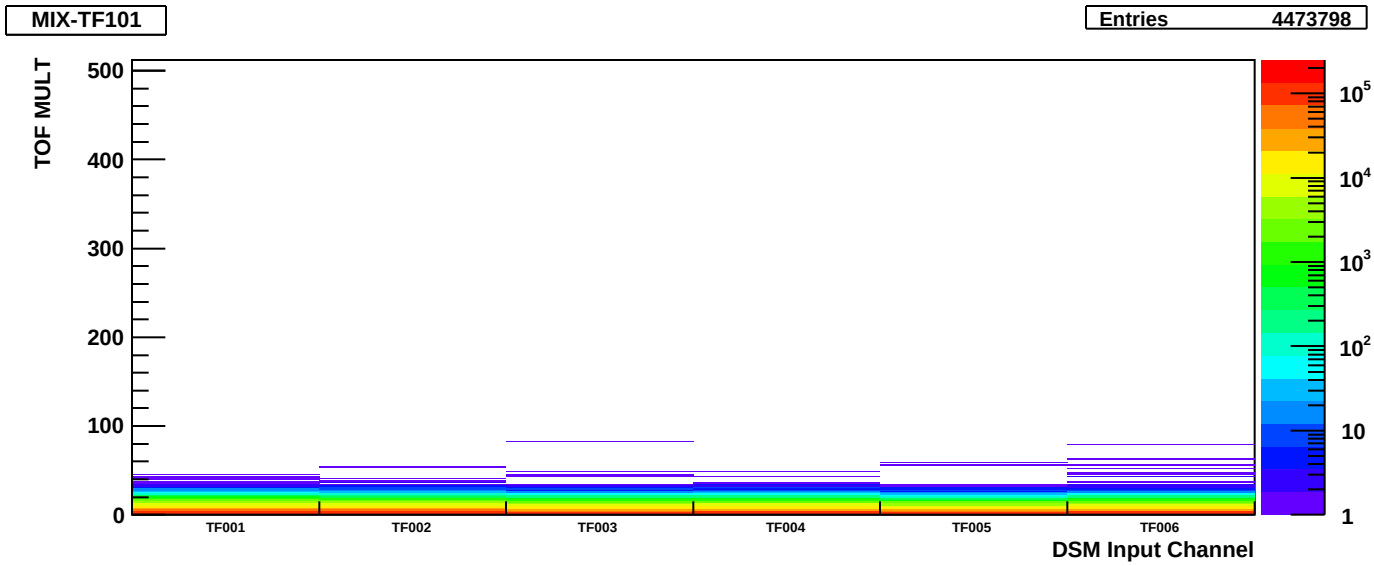

MIX-TF002
Entries 3.131659e+07
TOF MULT
TOF tray

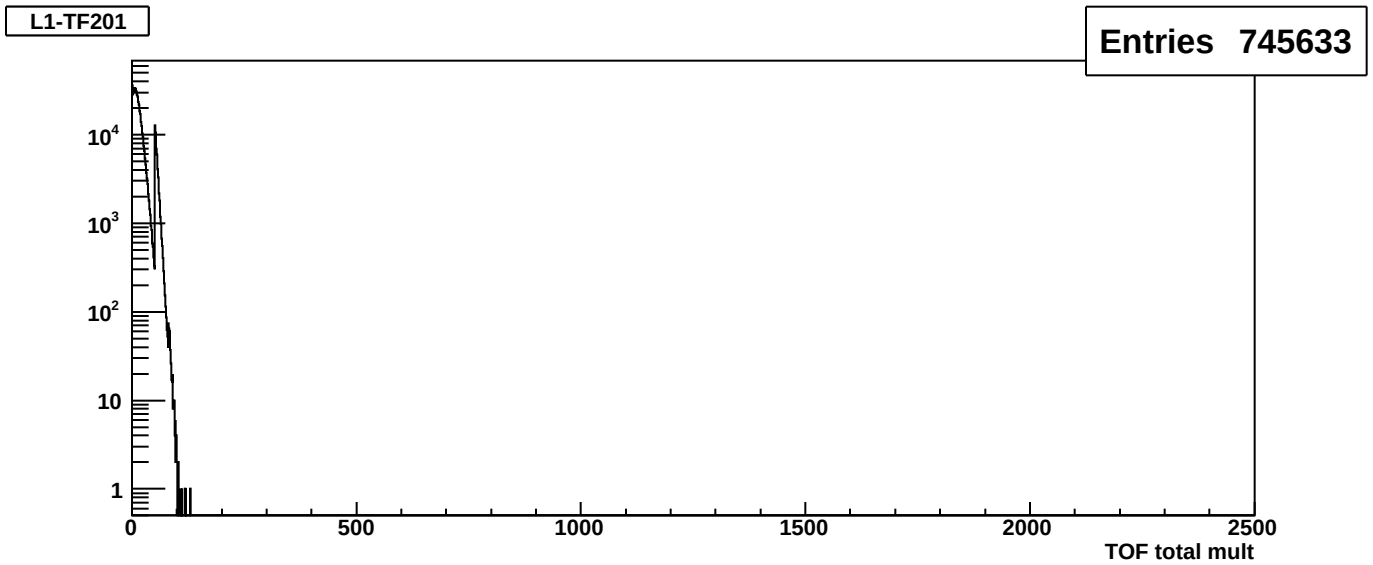

MIX-TF003
Entries 3.131659e+07
TOF MULT
TOF tray

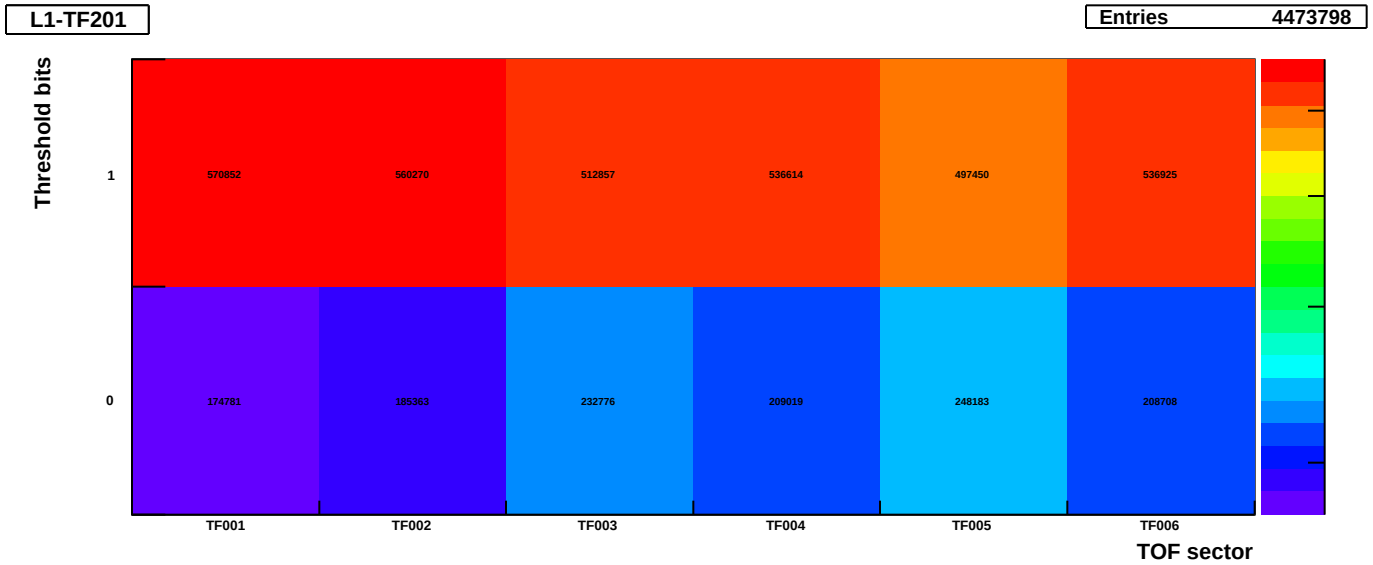

MIX-TF004
Entries 3.131659e+07
TOF MULT
TOF tray

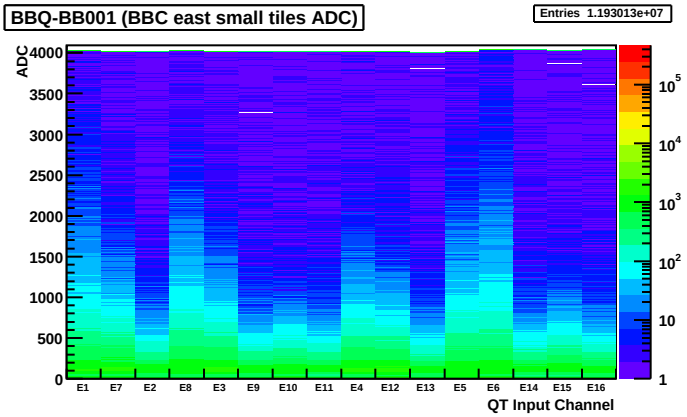

MIX-TF005
Entries 3.131659e+07
TOF MULT
TOF tray

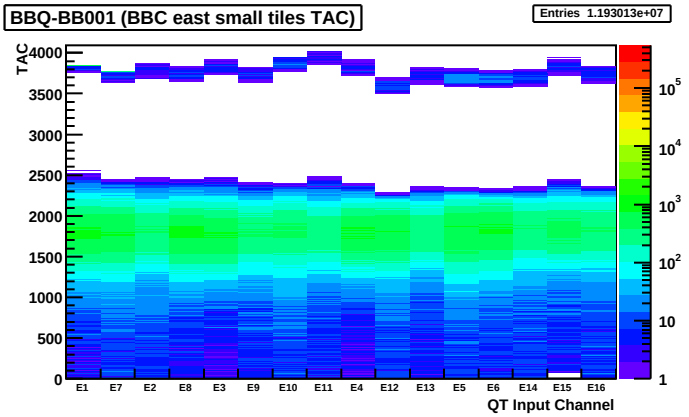

MIX-TF006
Entries 3.131659e+07
TOF MULT
TOF tray

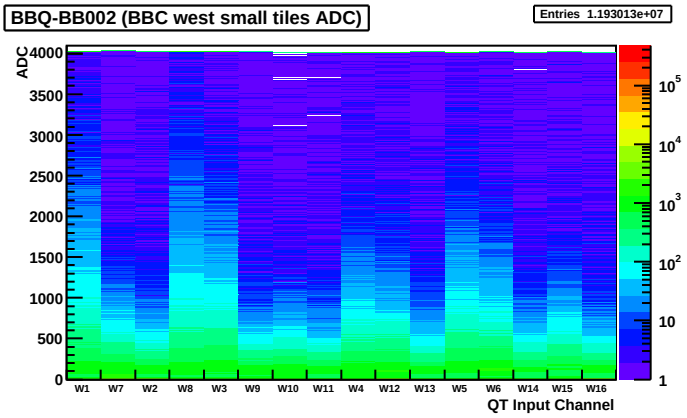

MIX-TF101
Entries 4473798
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

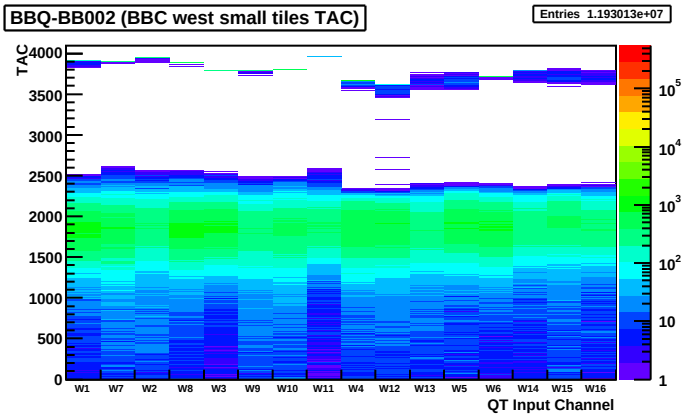

L1-TF201
Entries 745633
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

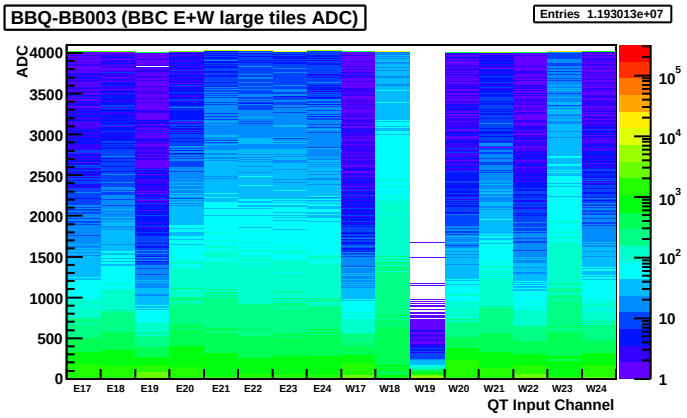

L1-TF201
Entries 4473798
Threshold bits
1
0
570852
560270
512857
536614
497450
536925
174781
185363
232776
209019
248183
208708
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

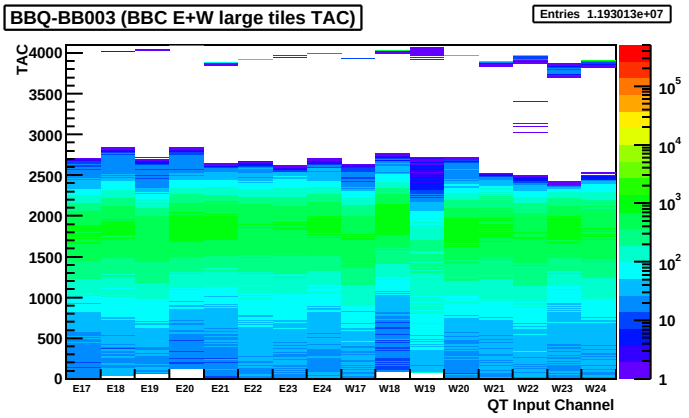

BBQ-BB001 (BBC east small tiles ADC)
Entries 1.193013e+07
ADC
QT Input Channel

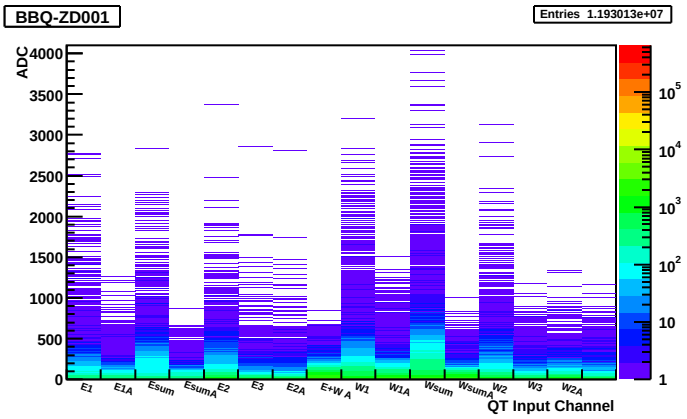

BBQ-BB001 (BBC east small tiles TAC)
Entries 1.193013e+07
TAC
QT Input Channel

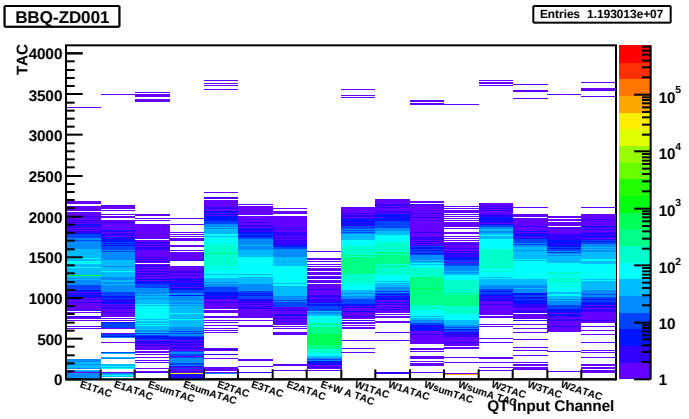

BBQ-BB002 (BBC west small tiles ADC)
Entries 1.193013e+07
ADC
QT Input Channel

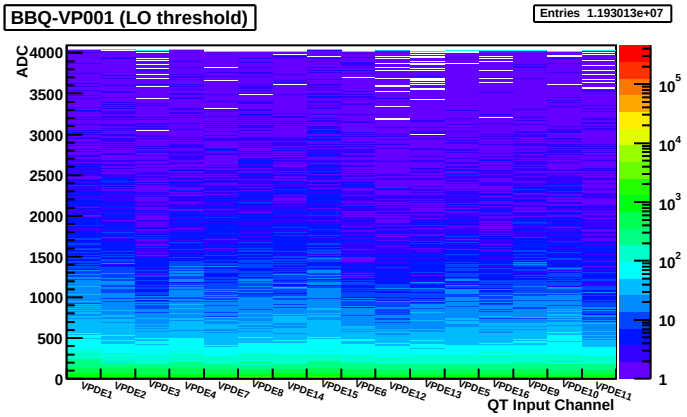

BBQ-BB002 (BBC west small tiles TAC)
Entries 1.193013e+07
TAC
QT Input Channel

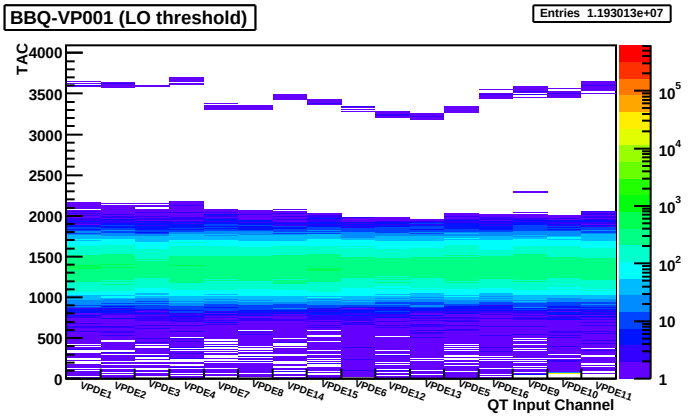

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1.193013e+07
ADC
QT Input Channel

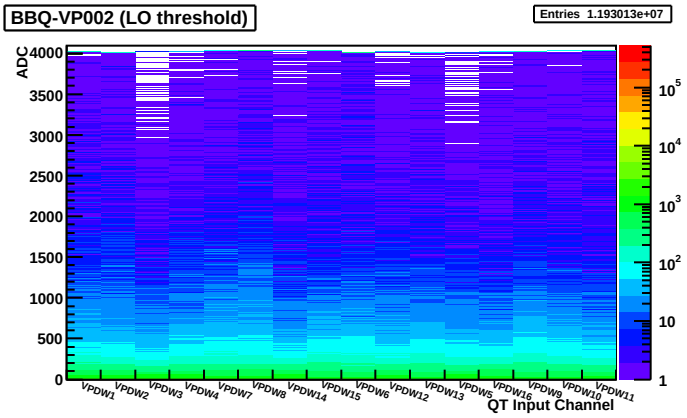

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1.193013e+07
TAC
QT Input Channel

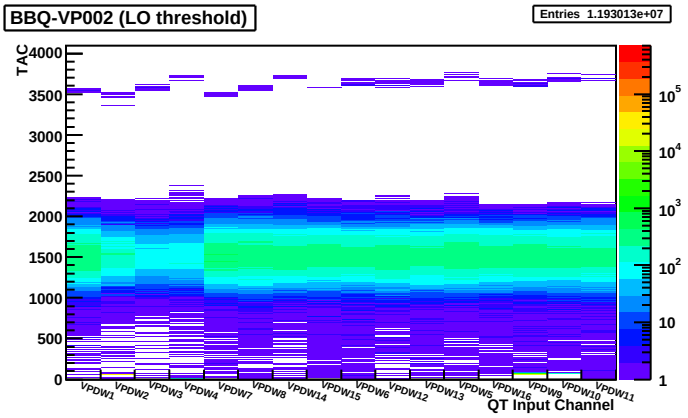

BBQ-ZD001
Entries 1.193013e+07
ADC
QT Input Channel

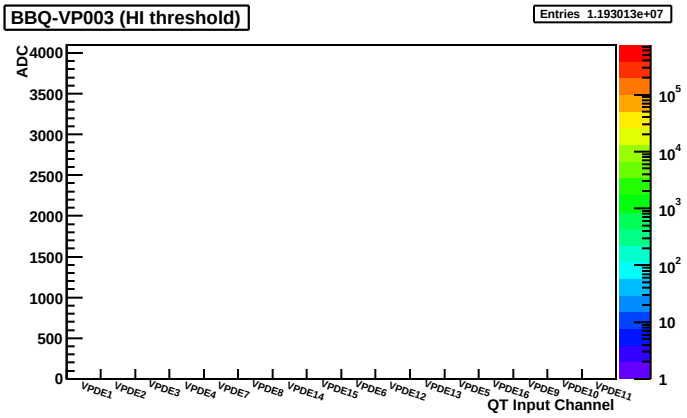

BBQ-ZD001
Entries 1.193013e+07
TAC
QT Input Channel

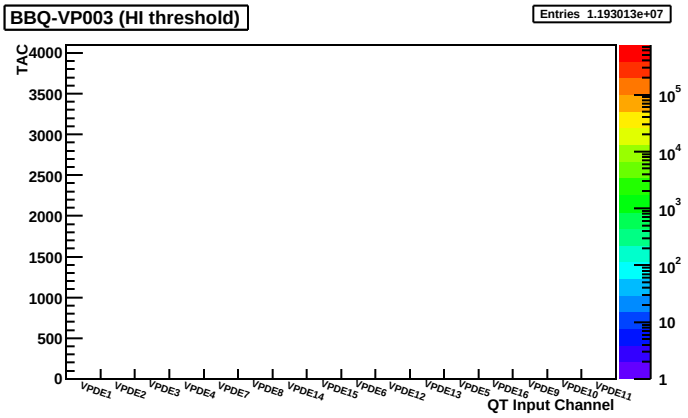

BBQ-VP001 (LO threshold)
Entries 1.193013e+07
ADC
QT Input Channel

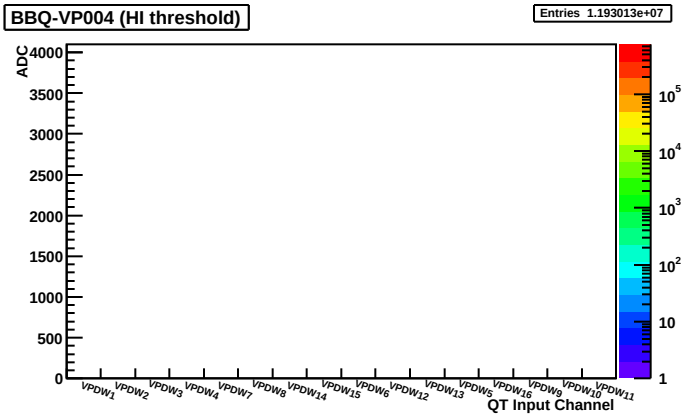

BBQ-VP001 (LO threshold)
Entries 1.193013e+07
TAC
QT Input Channel

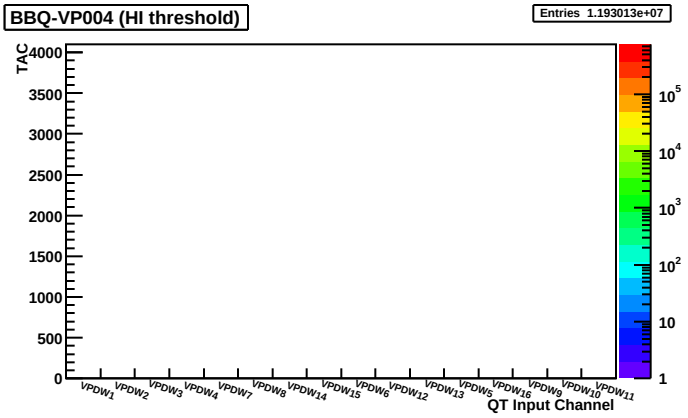

BBQ-VP002 (LO threshold)
Entries 1.193013e+07
ADC
QT Input Channel

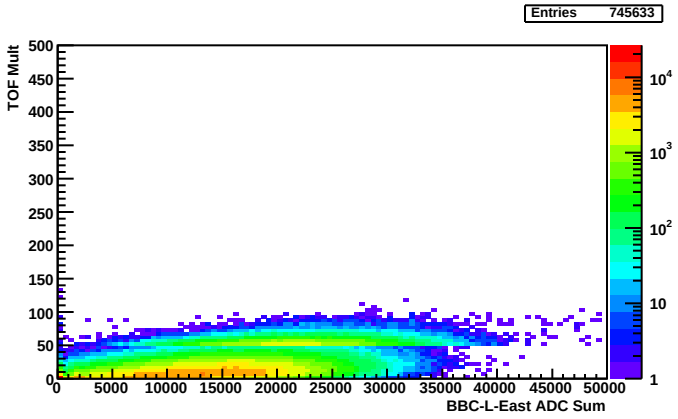

BBQ-VP002 (LO threshold)
Entries 1.193013e+07
TAC
QT Input Channel

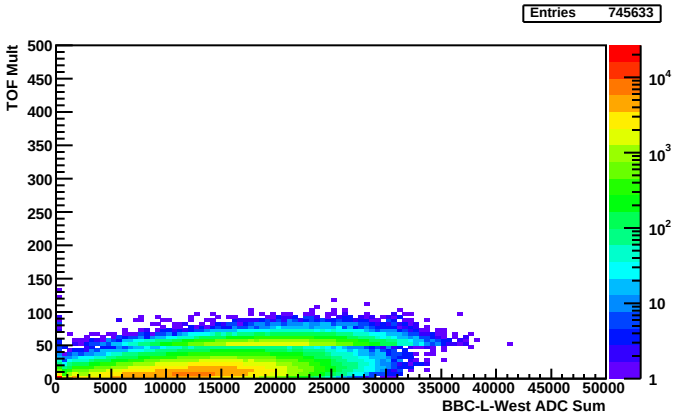

BBQ-VP003 (HI threshold)
Entries 1.193013e+07
ADC
QT Input Channel

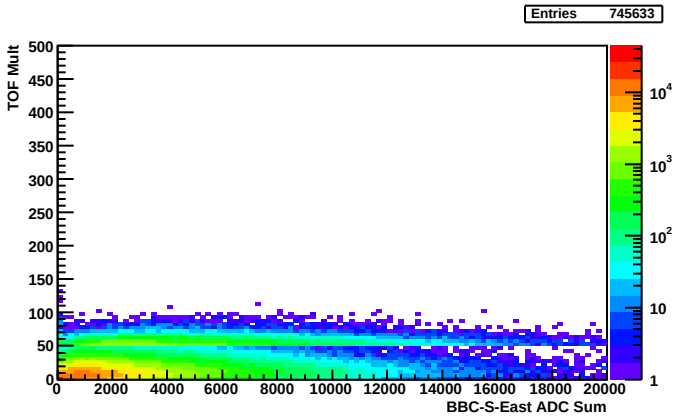

BBQ-VP003 (HI threshold)
Entries 1.193013e+07
TAC
QT Input Channel

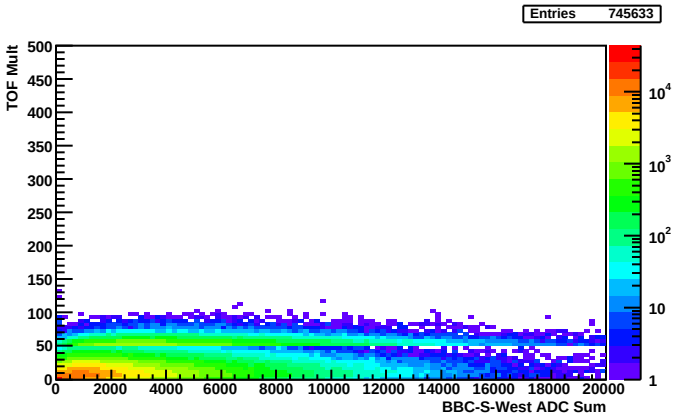

BBQ-VP004 (HI threshold)
Entries 1.193013e+07
ADC
QT Input Channel

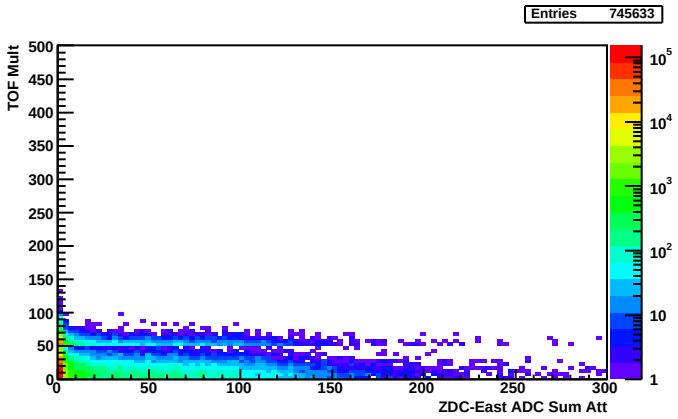

BBQ-VP004 (HI threshold)
Entries 1.193013e+07
TAC
QT Input Channel

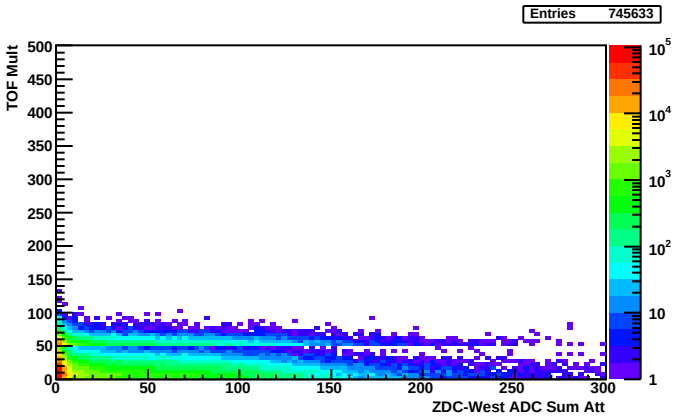

Entries 745633
TOF Mult
BBC-L-East ADC Sum

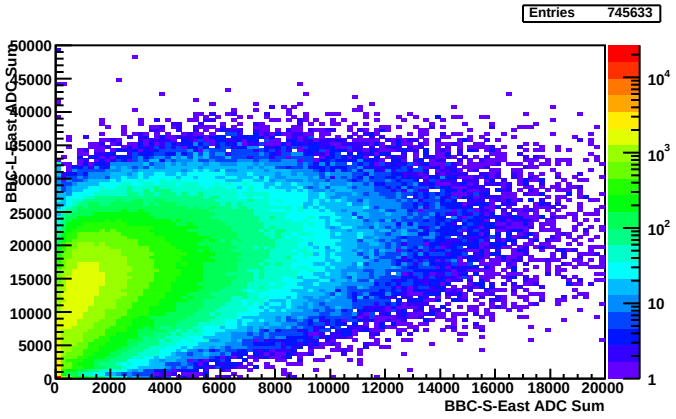

Entries 745633
TOF Mult
BBC-L-West ADC Sum

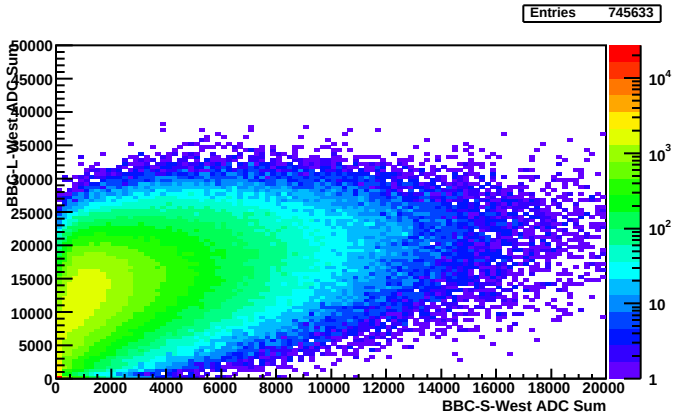

Entries 745633
TOF Mult
BBC-S-East ADC Sum

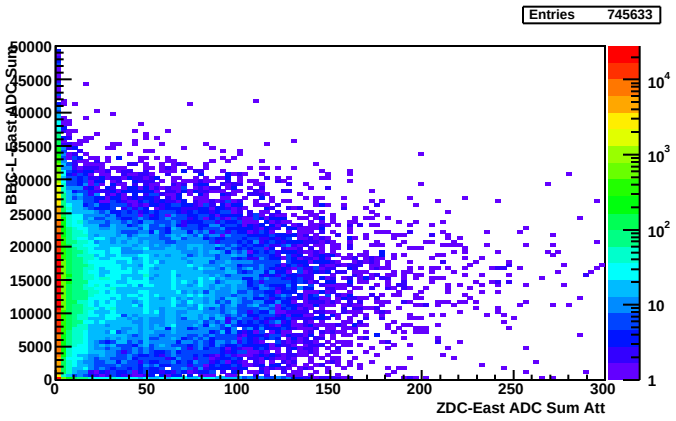

Entries 745633
TOF Mult
BBC-S-West ADC Sum

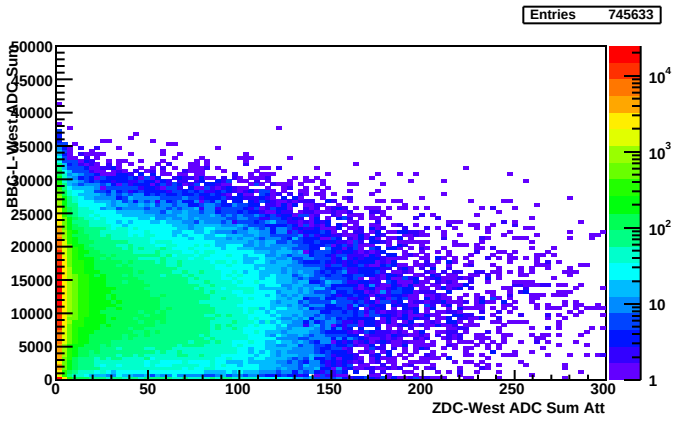

Entries 745633
TOF Mult
ZDC-East ADC Sum Att

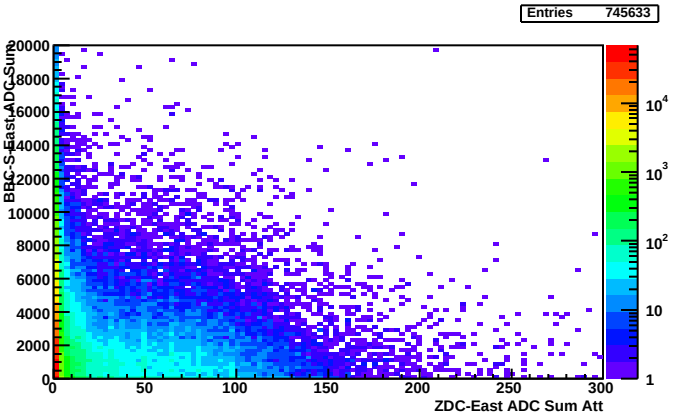

Entries 745633
TOF Mult
ZDC-West ADC Sum Att

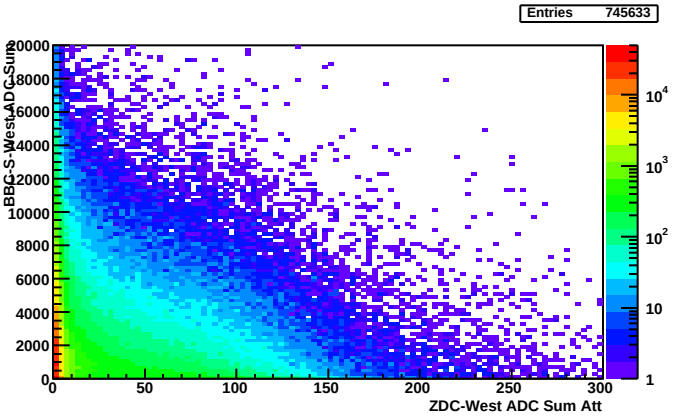

Entries 745633
BBC-L-East ADC Sum
BBC-S-East ADC Sum

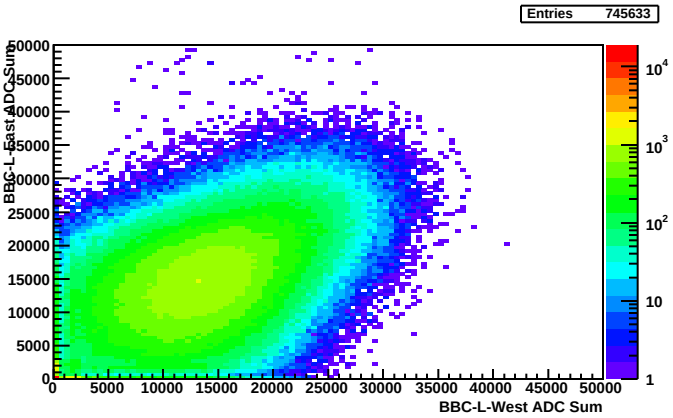

Entries 745633
BBC-L-West ADC Sum
BBC-S-West ADC Sum

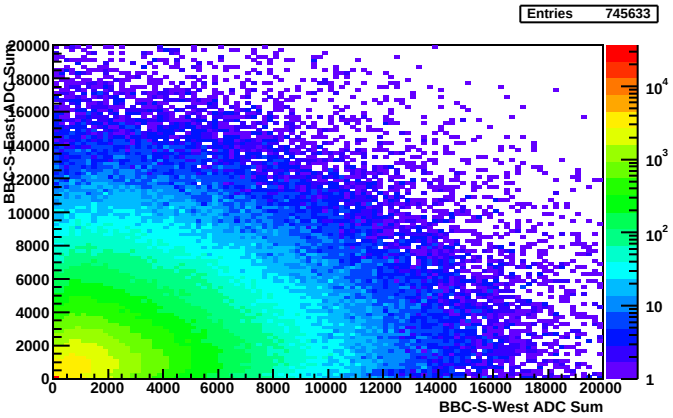

Entries 745633
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

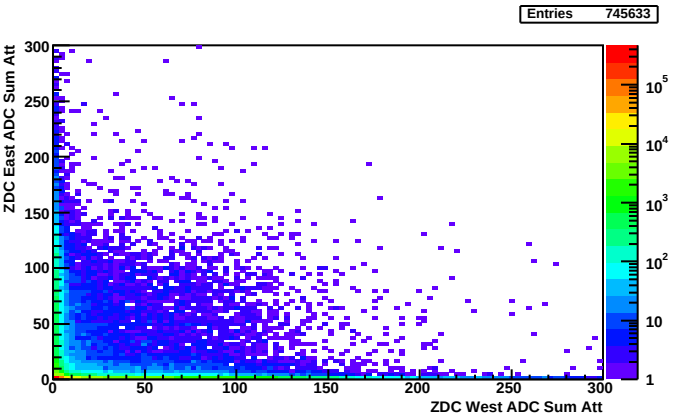

Entries 745633
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

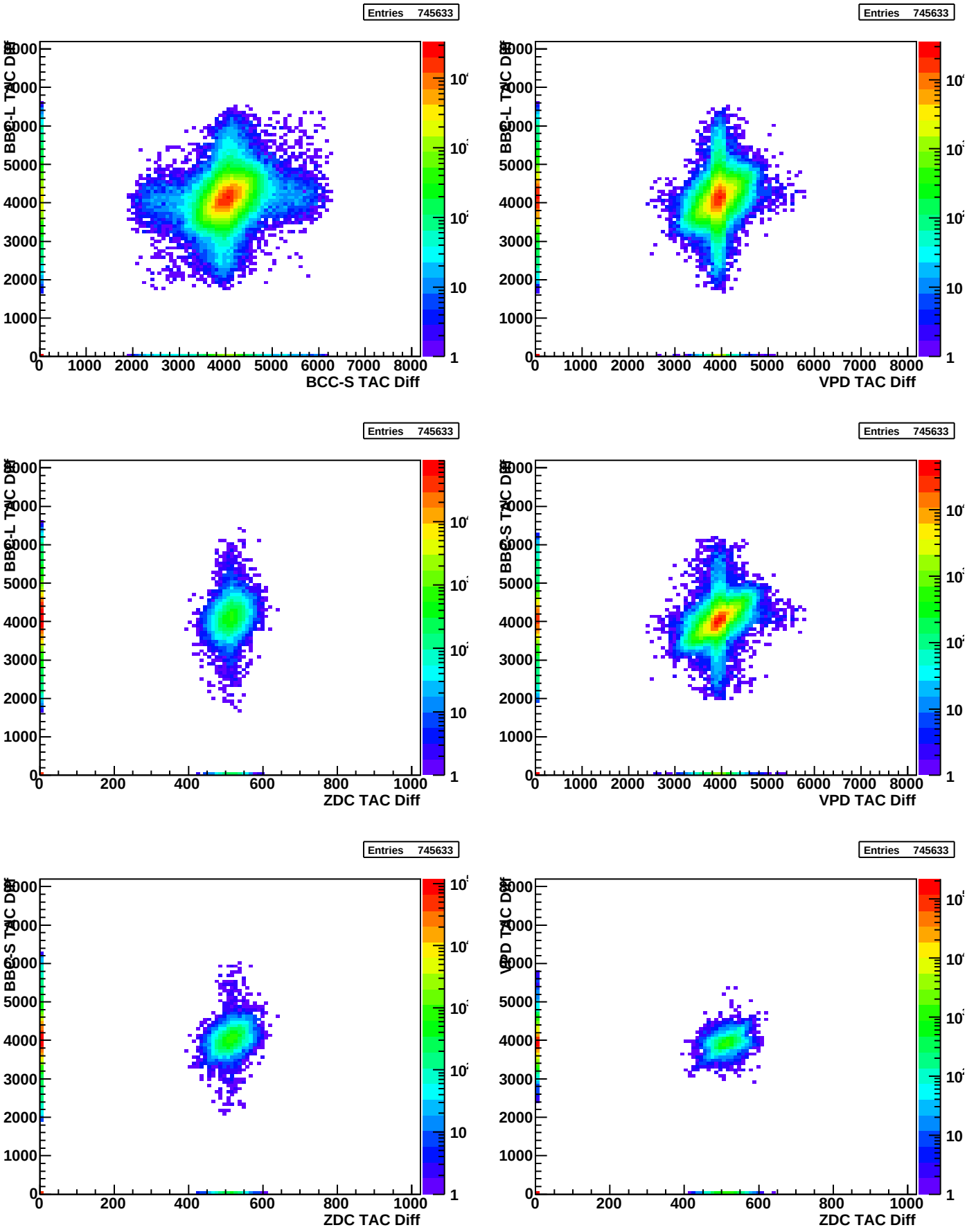

Entries 745633
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

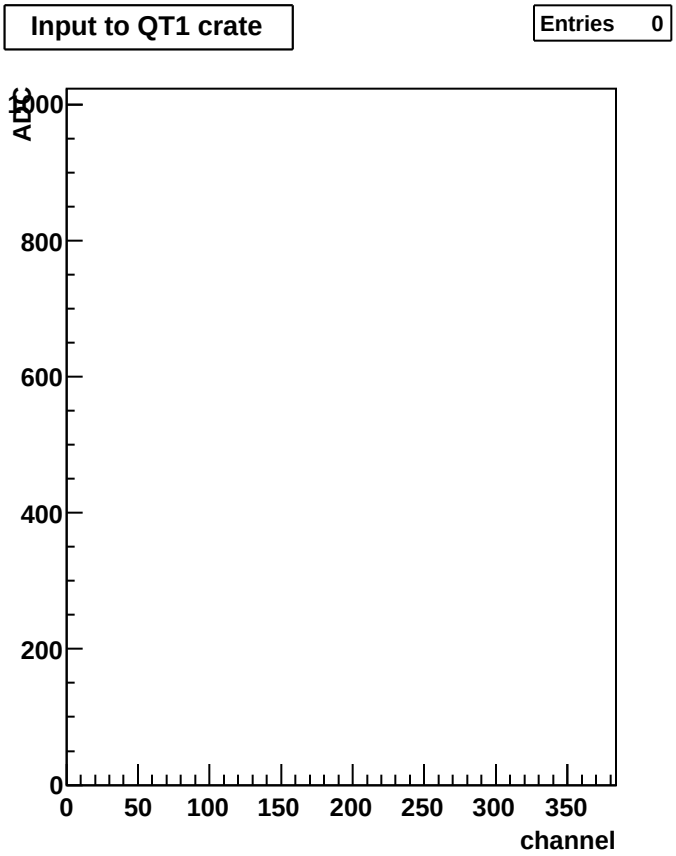

Entries 745633
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

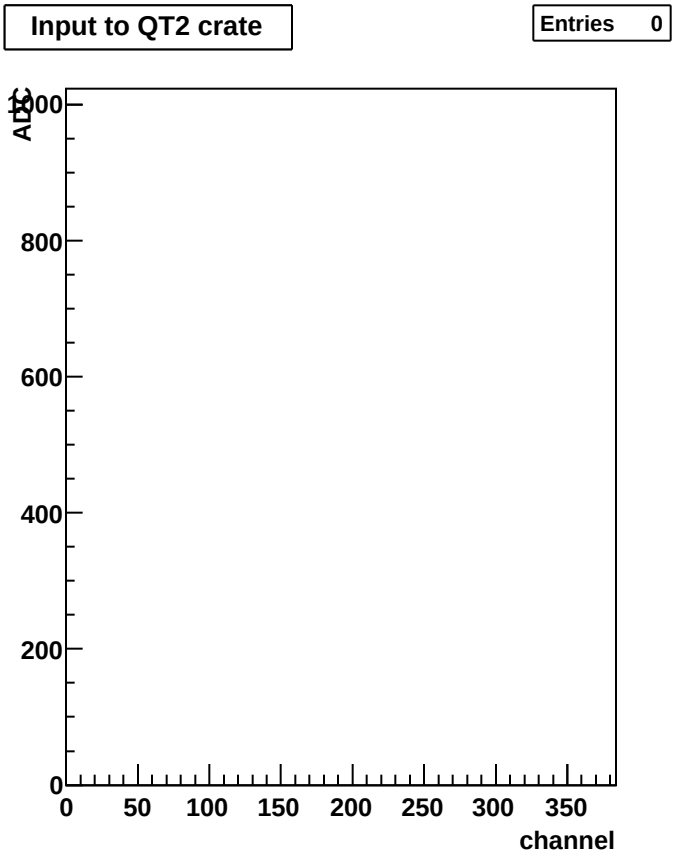

Entries 745633
BBC-L-East ADC Sum
BBC-L-West ADC Sum

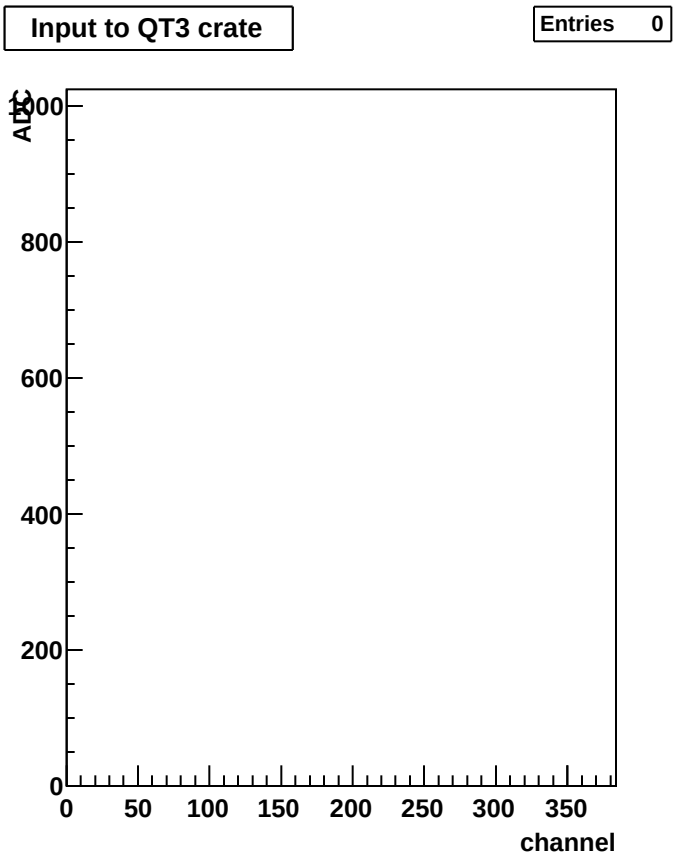

Entries 745633
BBC-S-East ADC Sum
BBC-S-West ADC Sum

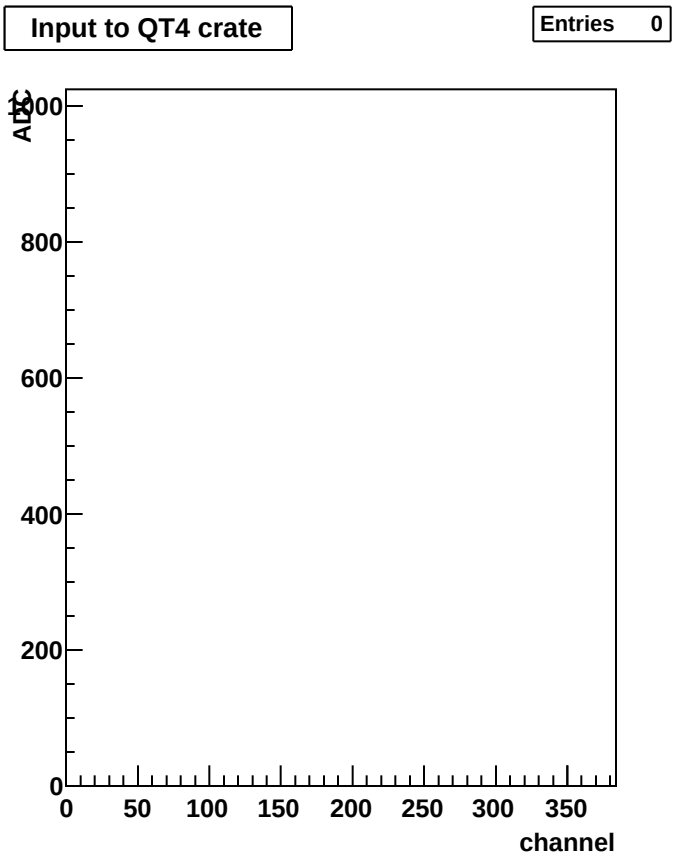

Entries 745633
ZDC East ADC Sum Att
ZDC West ADC Sum Att

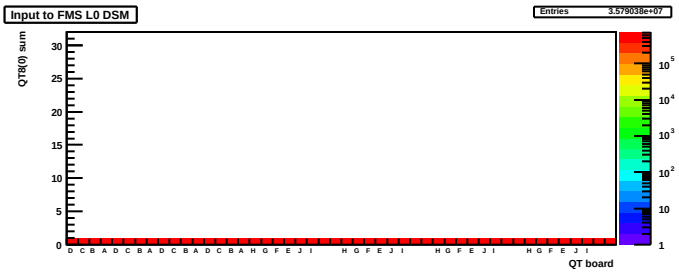

Entries 745633
BBC-L TAC Diff
BCC-S TAC Diff
Entries 745633
BBC-L TAC Diff
VPD TAC Diff
Entries 745633
BBC-L TAC Diff
ZDC TAC Diff
Entries 745633
BBC-S TAC Diff
VPD TAC Diff
Entries 745633
BBC-S TAC Diff
ZDC TAC Diff
Entries 745633
VPD TAC Diff
ZDC TAC Diff

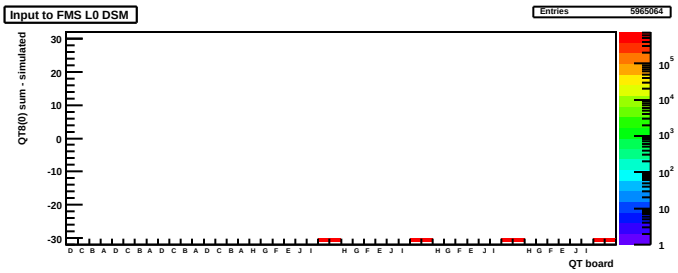

Input to QT1 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

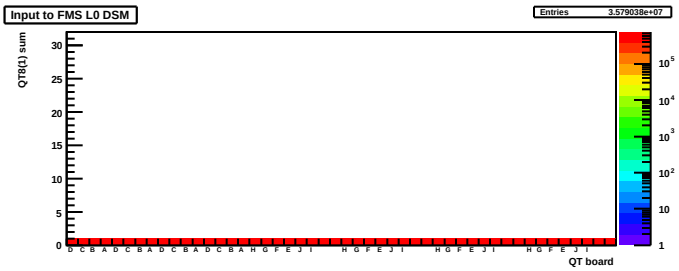

Input to QT2 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

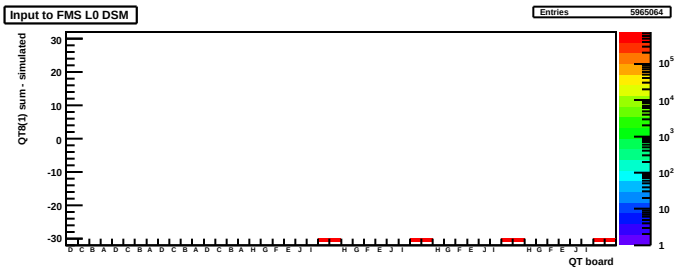

Input to QT3 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

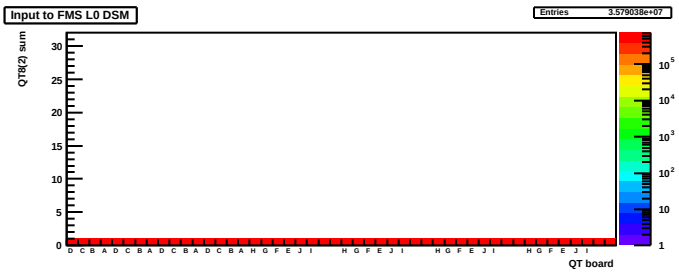

Input to QT4 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

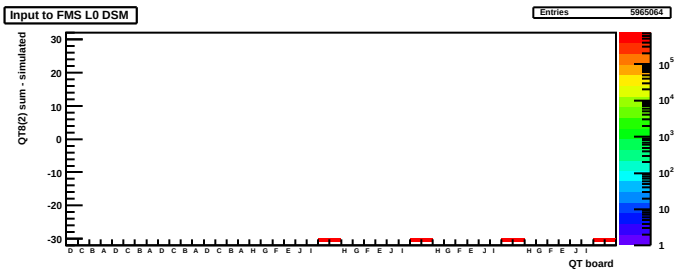

Input to FMS L0 DSM
Entries 3.579038e+07
QT8(0) sum
QT board

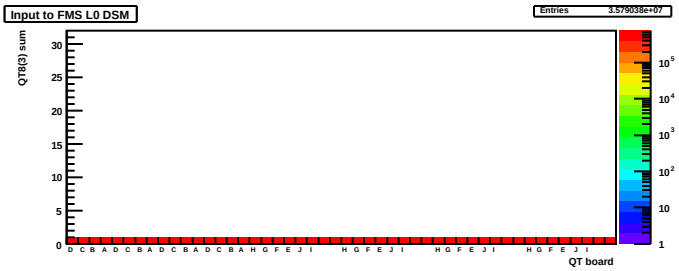

Input to FMS L0 DSM
Entries 5965064
QT8(0) sum - simulated
QT board

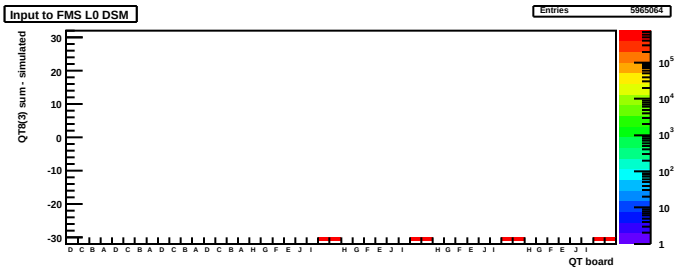

Input to FMS L0 DSM
Entries 3.579038e+07
QT8(1) sum
QT board

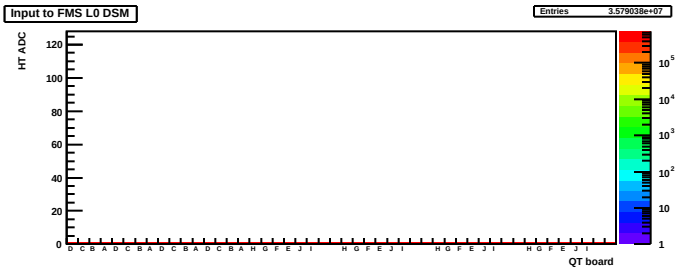

Input to FMS L0 DSM
Entries 5965064
QT8(1) sum - simulated
QT board

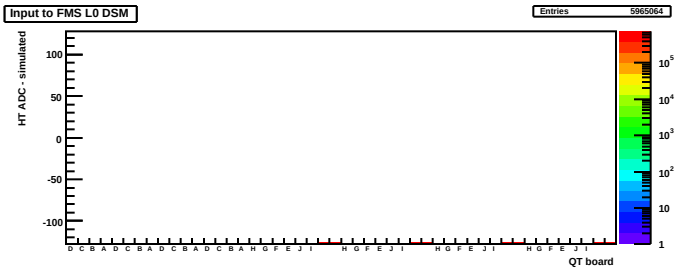

Input to FMS L0 DSM
Entries 3.579038e+07
QT8(2) sum
QT board

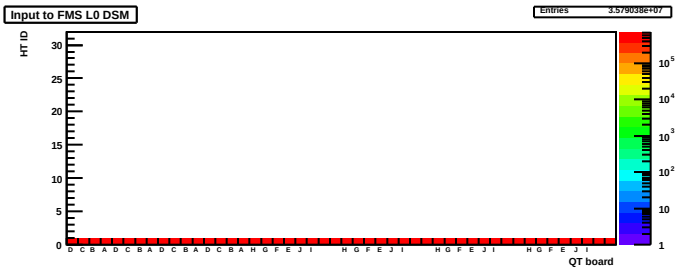

Input to FMS L0 DSM
Entries 5965064
QT8(2) sum - simulated
QT board

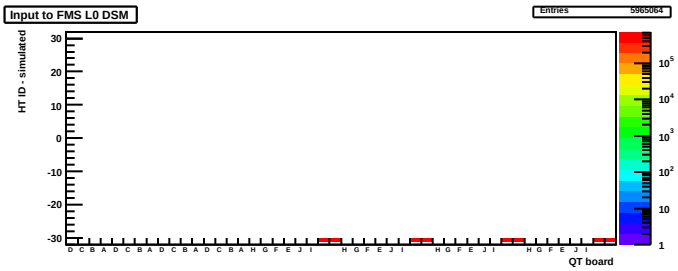

Input to FMS L0 DSM
Entries 3.579038e+07
QT8(3) sum
QT board

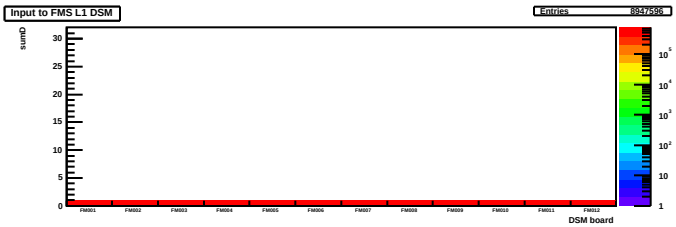

Input to FMS L0 DSM
Entries 5965064
QT8(3) sum - simulated
QT board

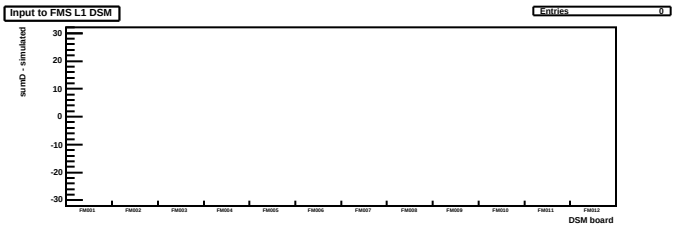

Input to FMS L0 DSM
Entries 3.579038e+07
HT ADC
QT board

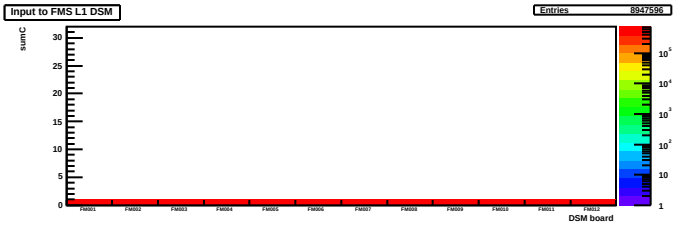

Input to FMS L0 DSM
Entries 5965064
HT ADC - simulated
QT board

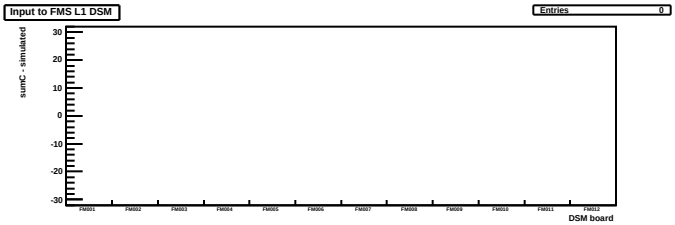

Input to FMS L0 DSM
Entries 3.579038e+07
HT ID
QT board

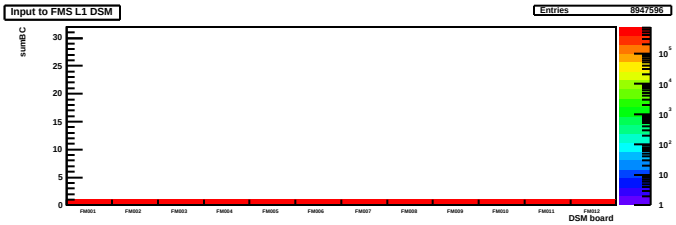

Input to FMS L0 DSM
Entries 5965064
HT ID - simulated
QT board

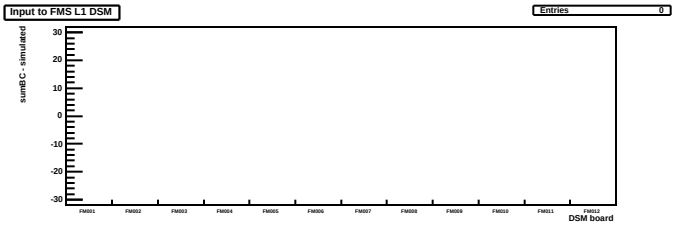

Input to FMS L1 DSM
Entries 8947596
sumD
DSM board

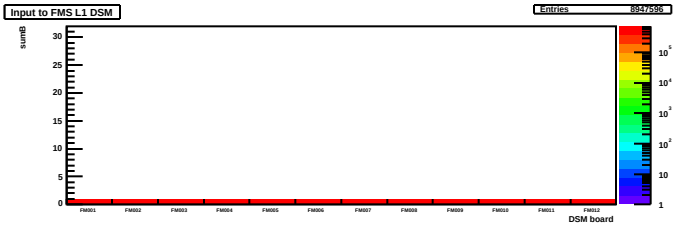

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

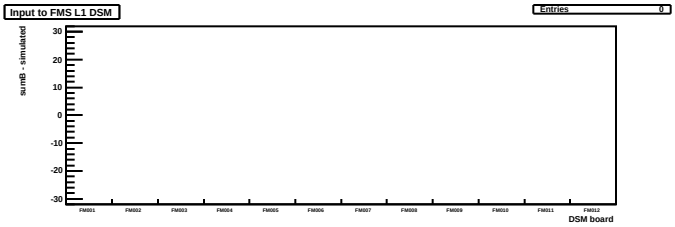

Input to FMS L1 DSM
Entries 8947596
sumC
DSM board

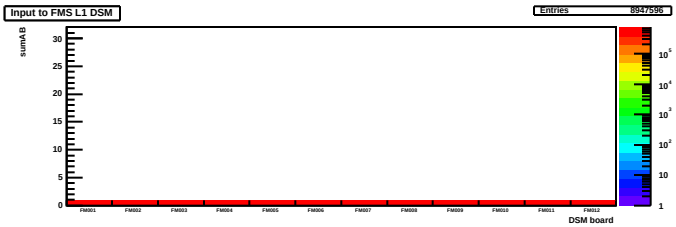

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

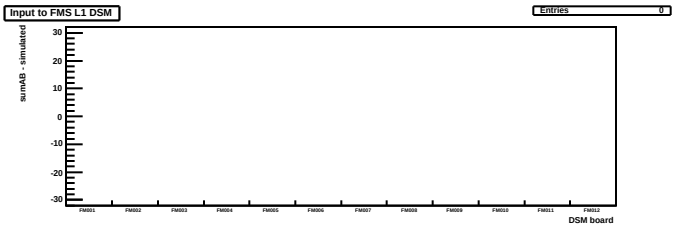

Input to FMS L1 DSM
Entries 8947596
sumBC
DSM board

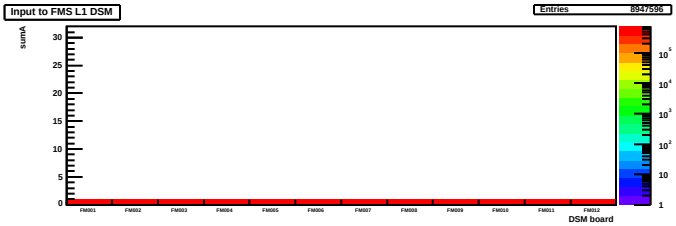

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

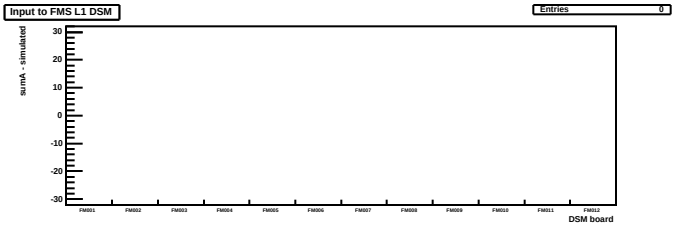

Input to FMS L1 DSM
Entries 8947596
sumB
DSM board

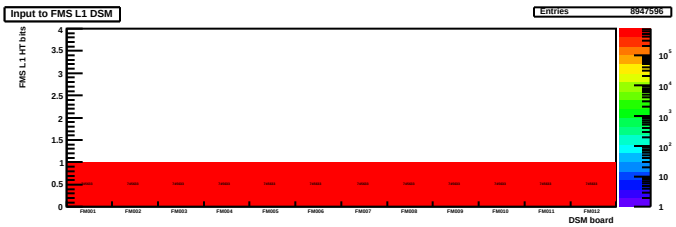

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

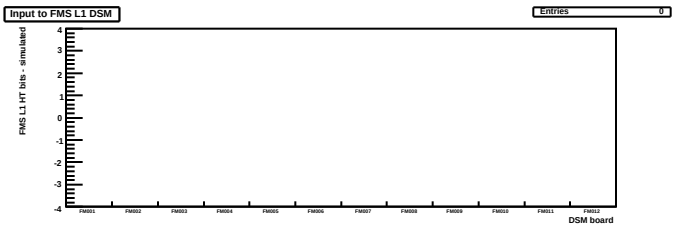

Input to FMS L1 DSM
Entries 8947596
sumAB
DSM board

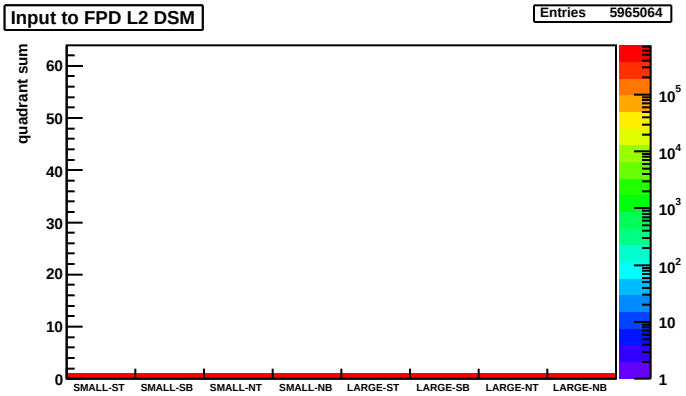

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

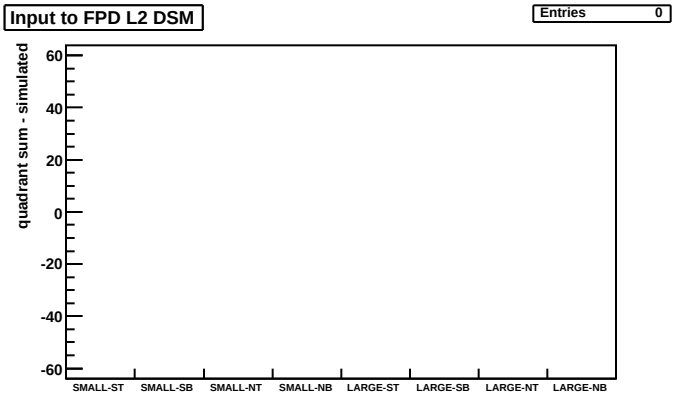

Input to FMS L1 DSM
Entries 8947596
sumA
DSM board

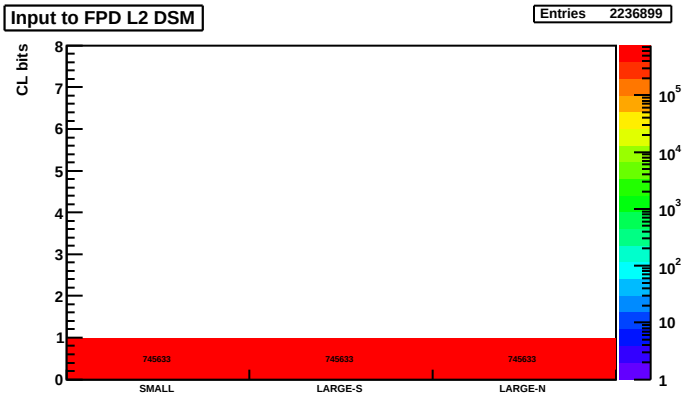

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

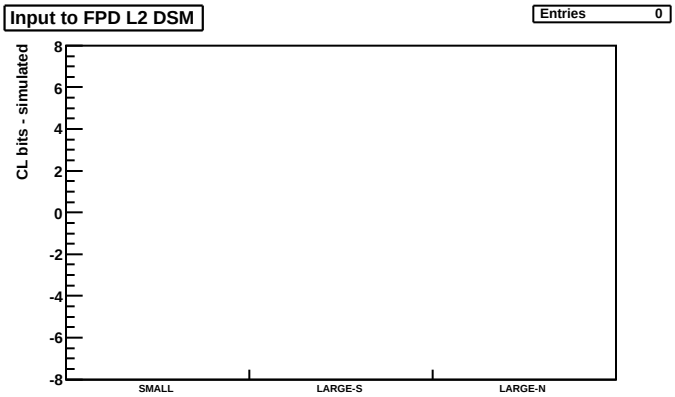

Input to FMS L1 DSM
Entries 8947596
FMS L1 HT bits
DSM board

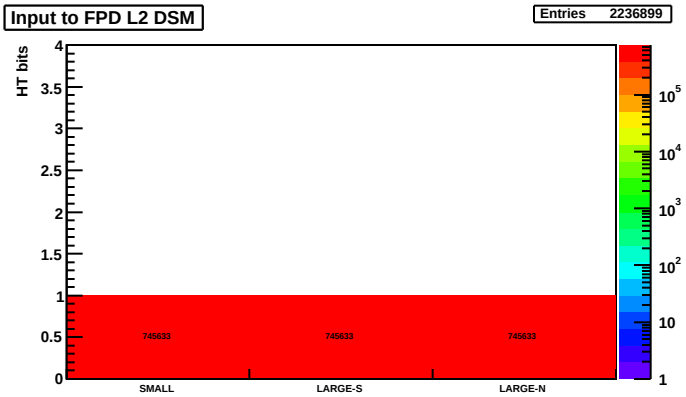

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

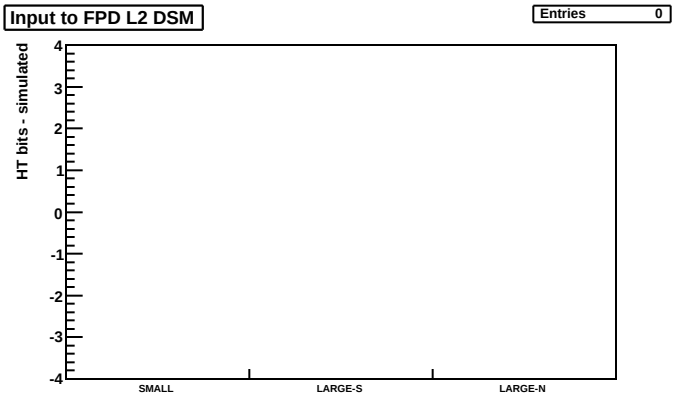

Input to FPD L2 DSM
Entries 5965064
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

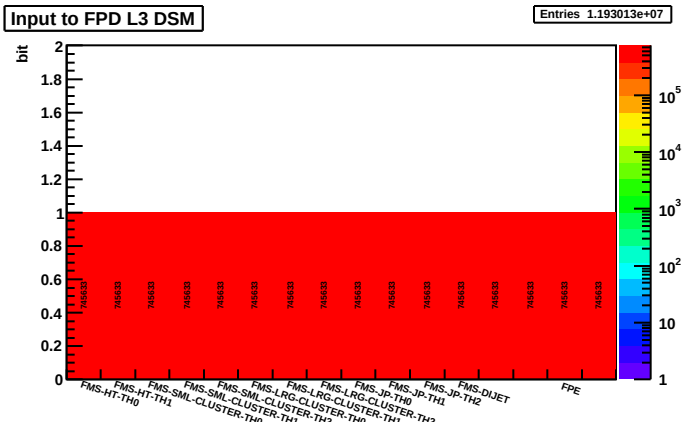

Input to FPD L2 DSM
Entries 0
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

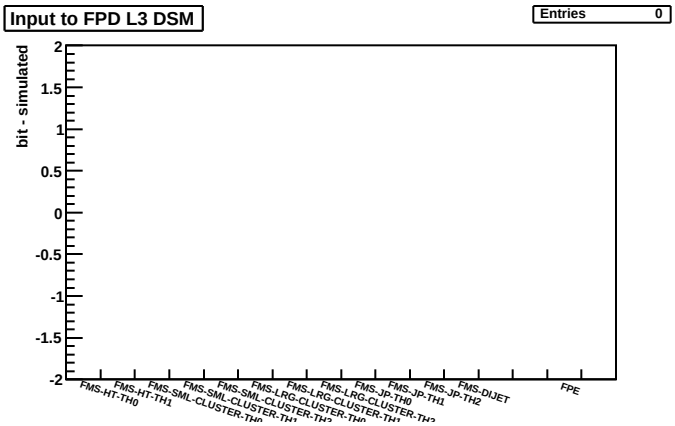

Input to FPD L2 DSM
Entries 2236899
CL bits
745633
745633
745633
SMALL
LARGE-S
LARGE-N

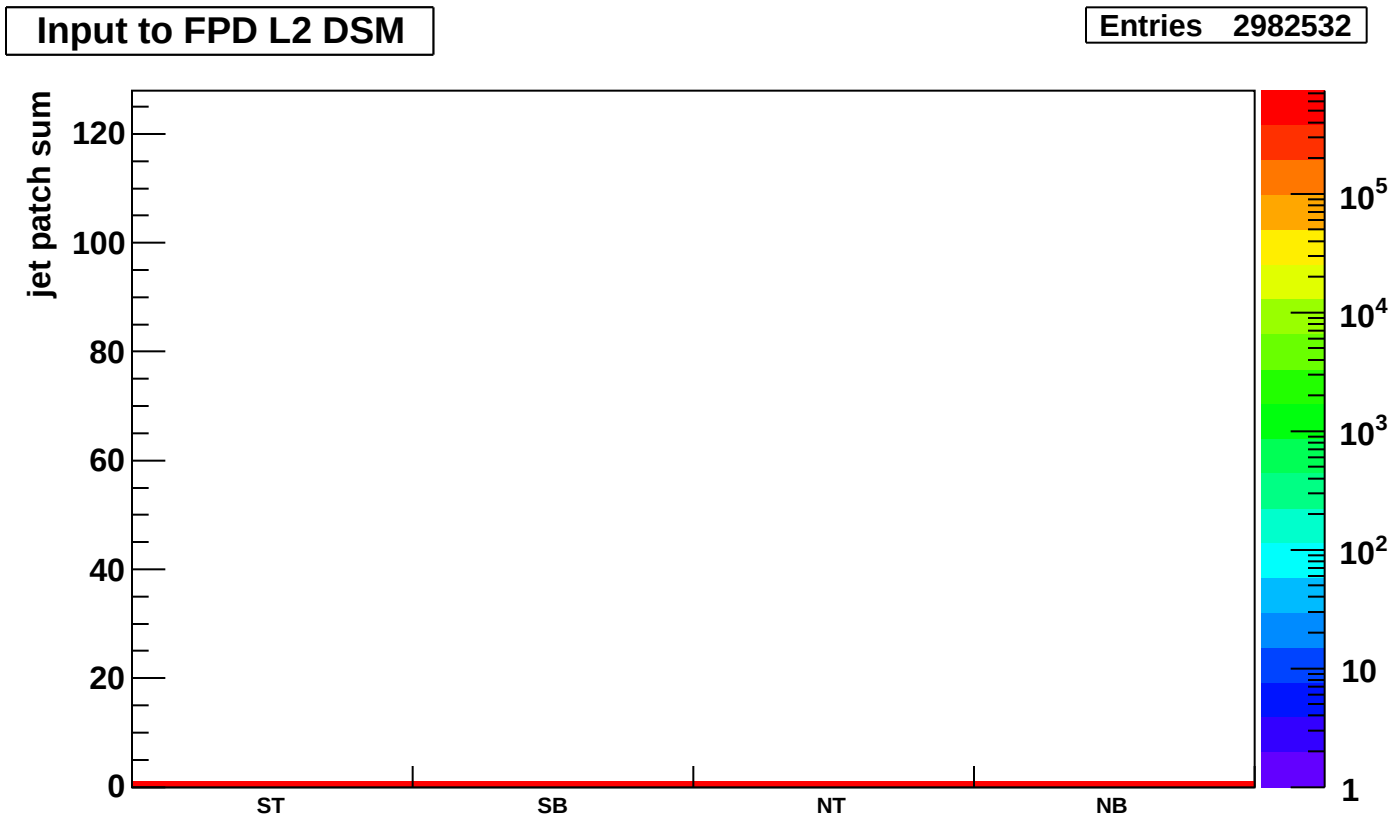

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

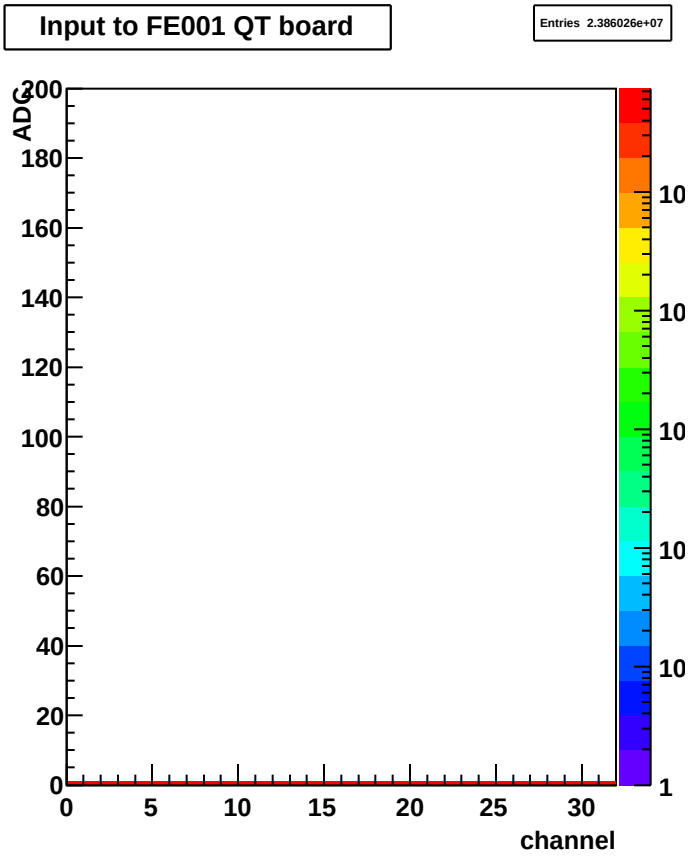

Input to FPD L2 DSM
Entries 2236899
HT bits
745633
745633
745633
SMALL
LARGE-S
LARGE-N

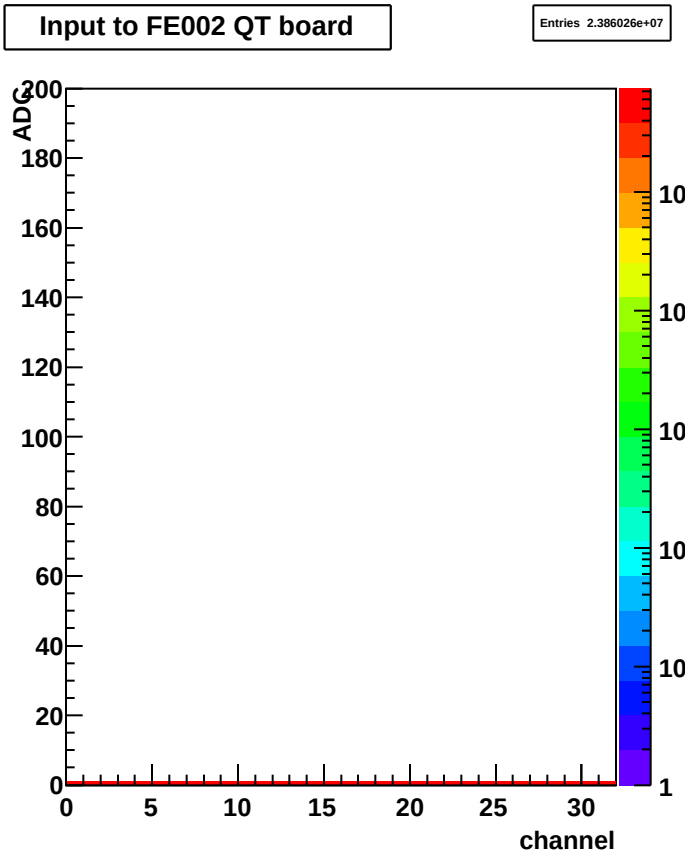

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

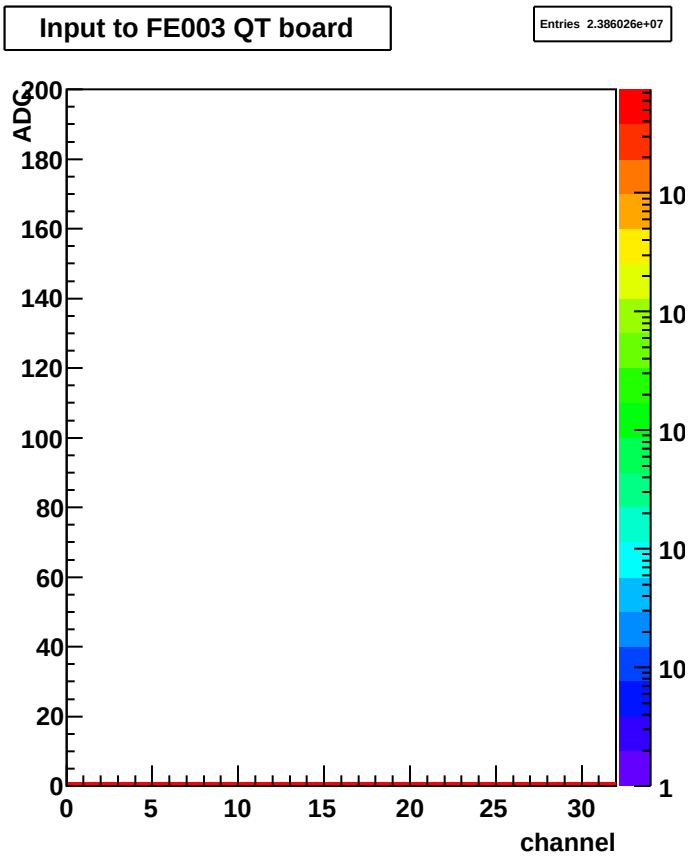

Input to FPD L3 DSM
Entries 1.193013e+07
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

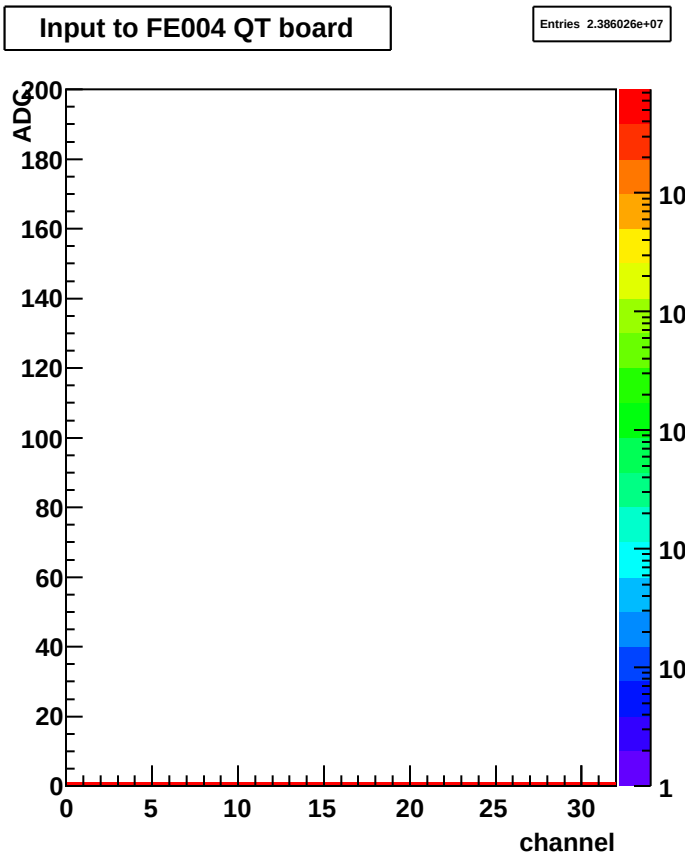

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

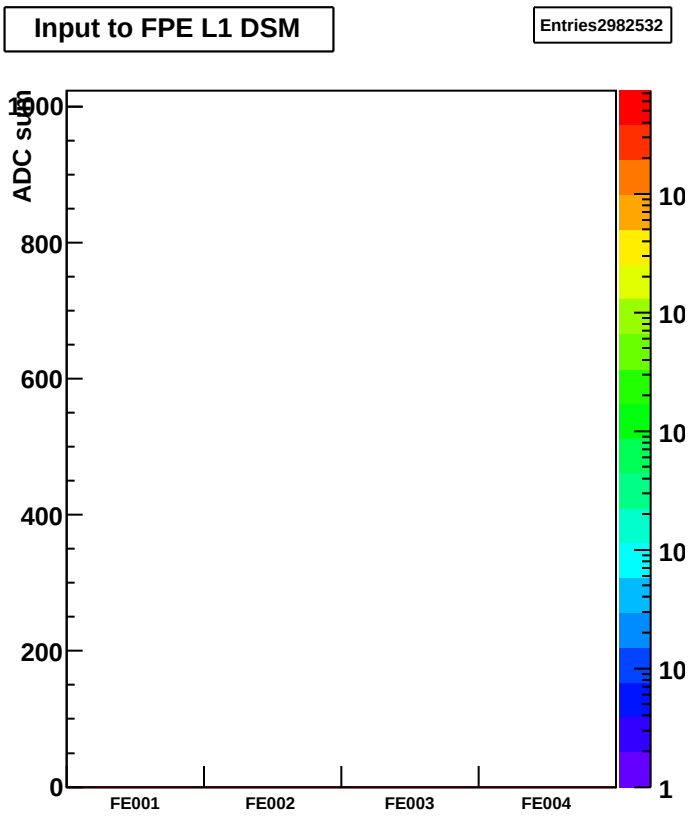

Input to FPD L2 DSM
Entries 2982532
jet patch sum
120
100
80
60
40
20
0
ST
SB
NT
NB
10^5
10^4
10^3
10^2
10
1

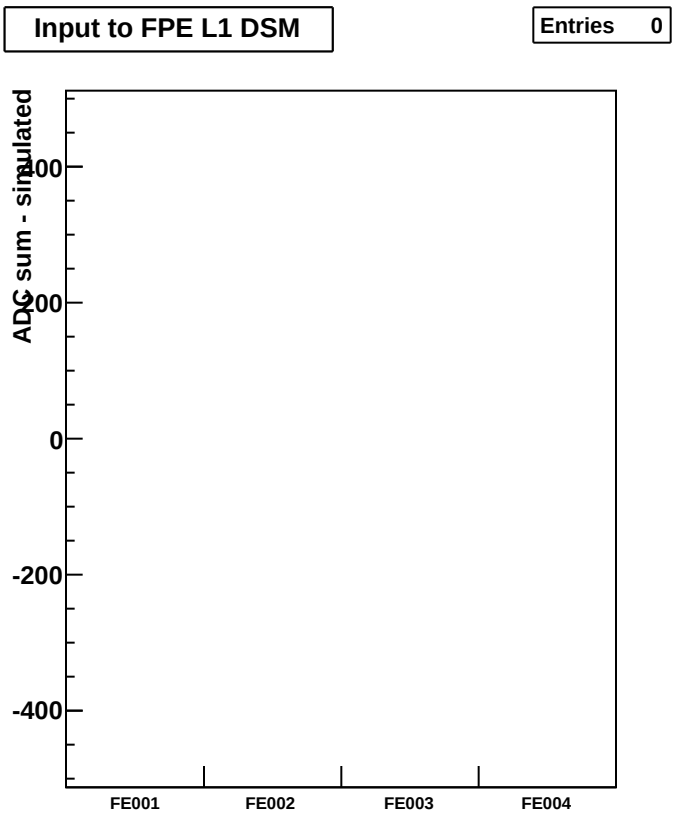

Input to FE001 QT board
Entries 2.386026e+07
ADC
channel

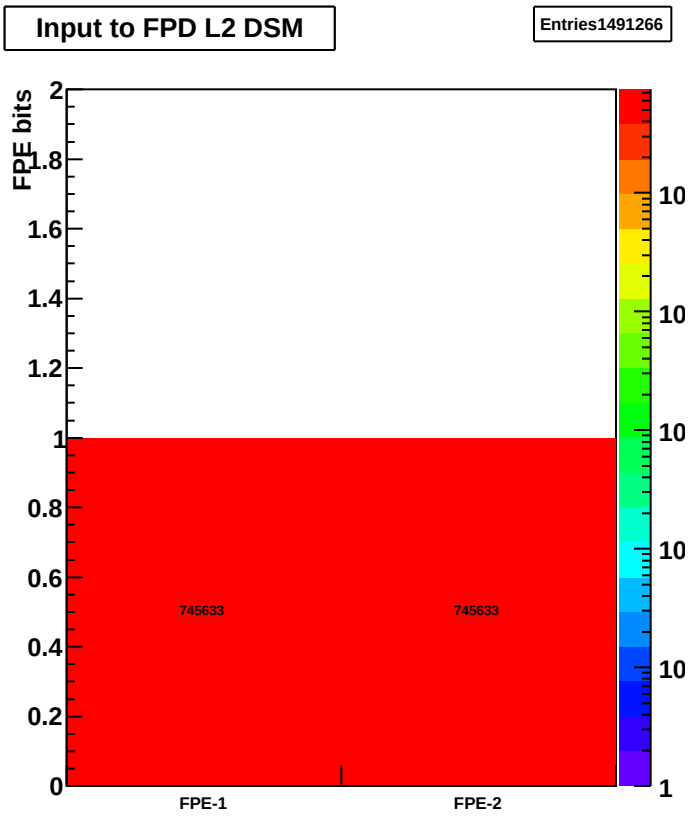

Input to FE002 QT board
Entries 2.386026e+07
ADC
channel

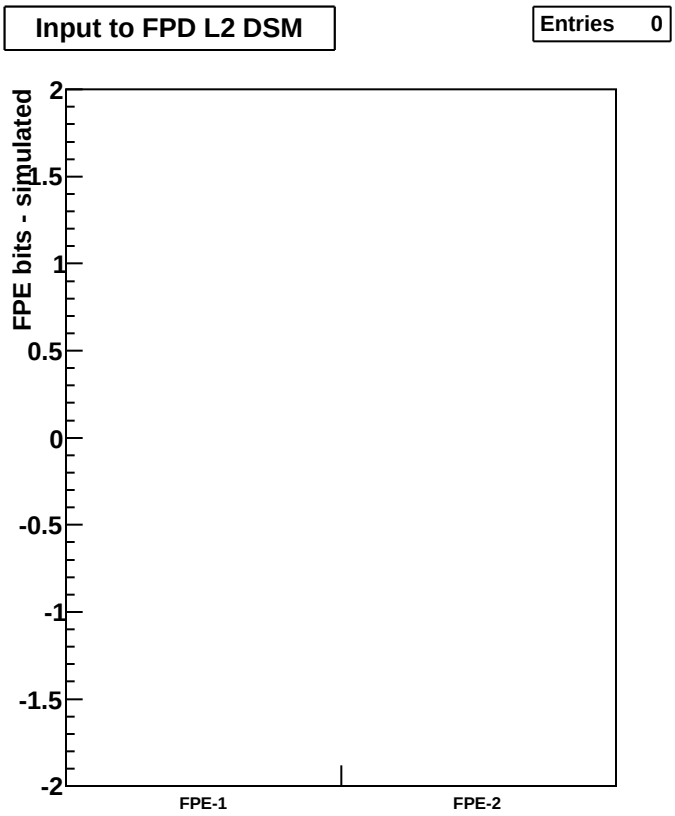

Input to FE003 QT board
Entries 2.386026e+07
ADC
channel


Input to FE004 QT board
Entries 2.386026e+07
ADC
channel


Input to FPE L1 DSM
Entries2982532
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 0
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004


Input to FPD L2 DSM
Entries1491266
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
745633
745633
FPE-1
FPE-2
10
10
10
10
10
1


Input to FPD L2 DSM
Entries 0
FPE bits - simulated
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
FPE-1
FPE-2