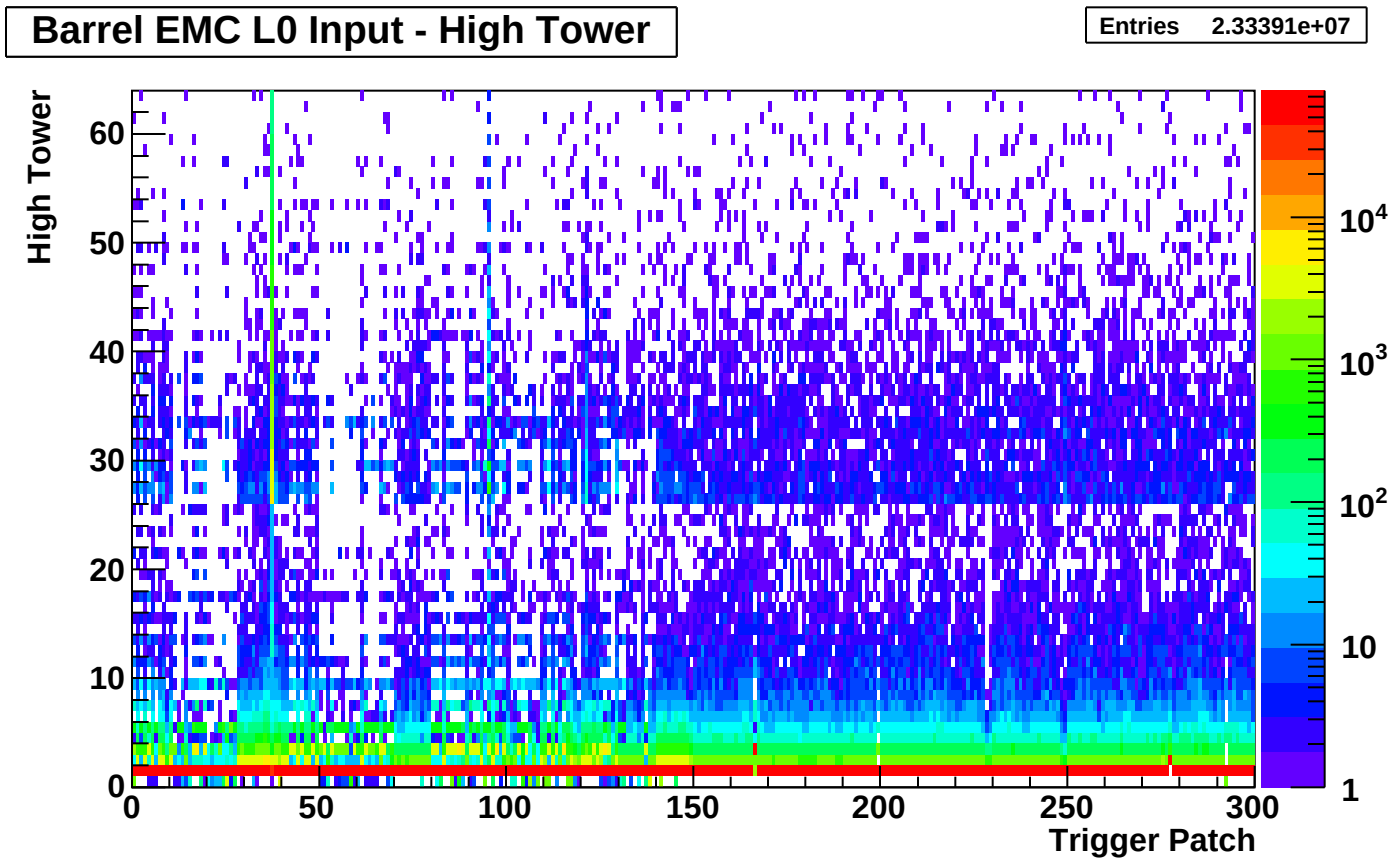
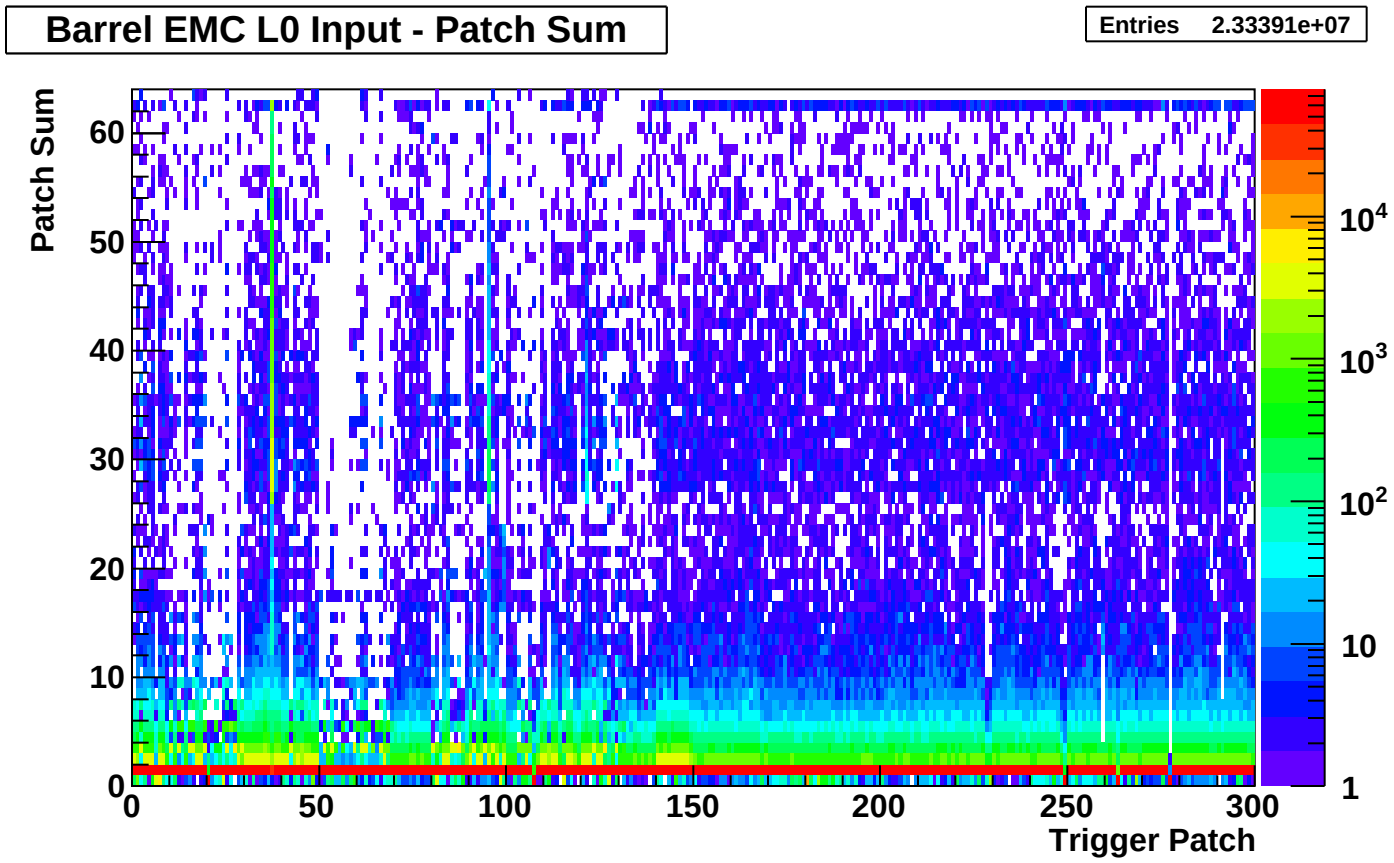
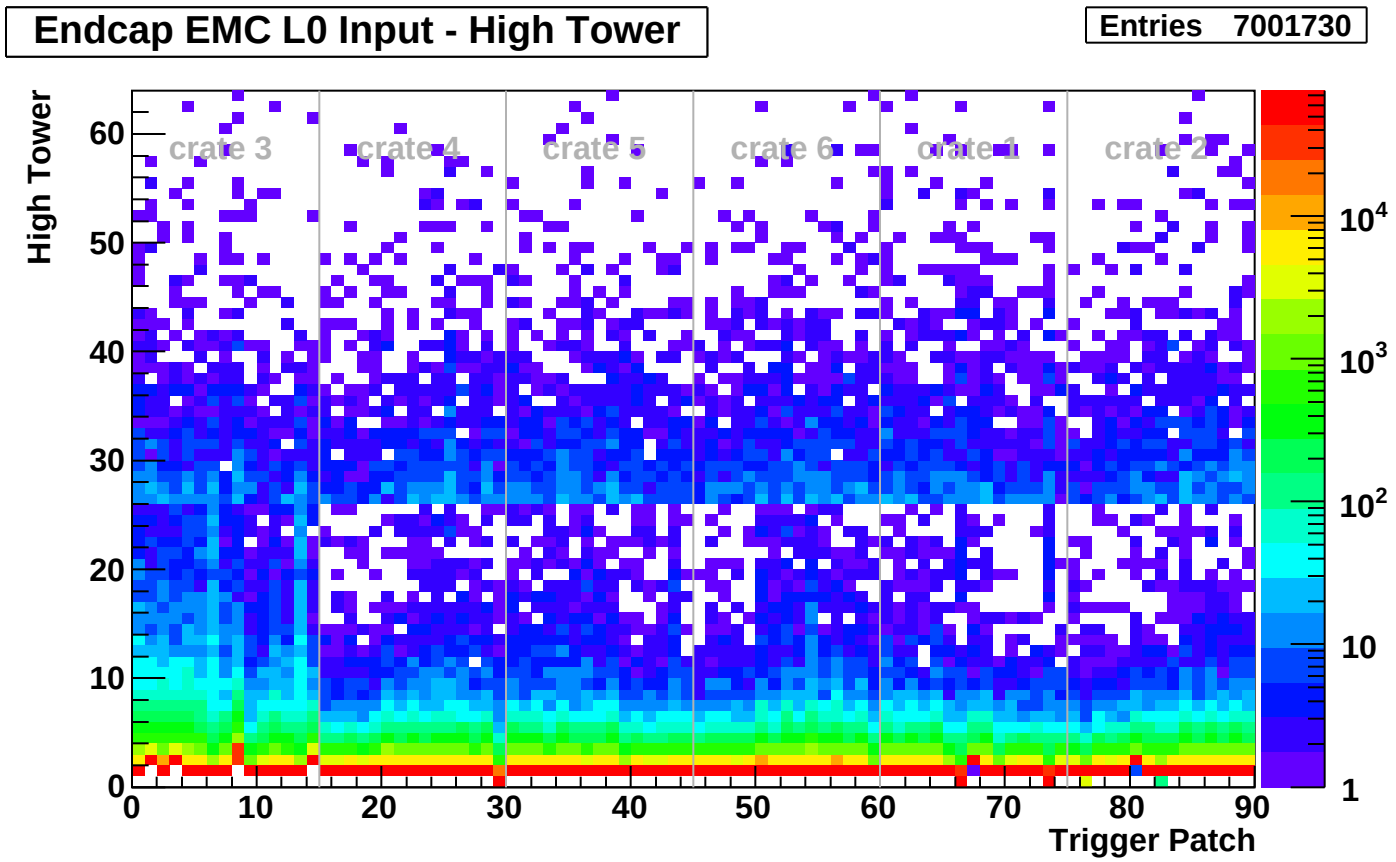
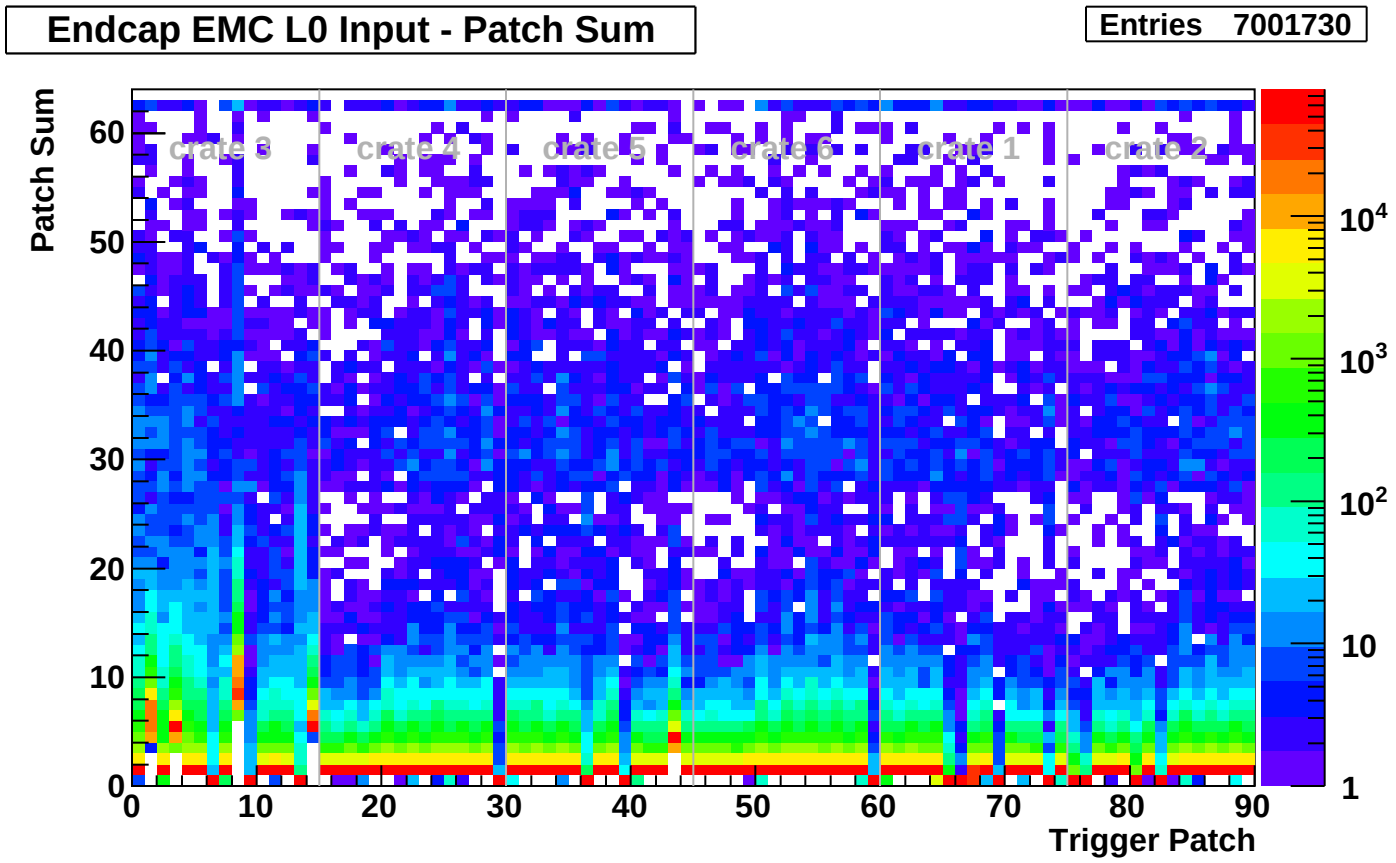
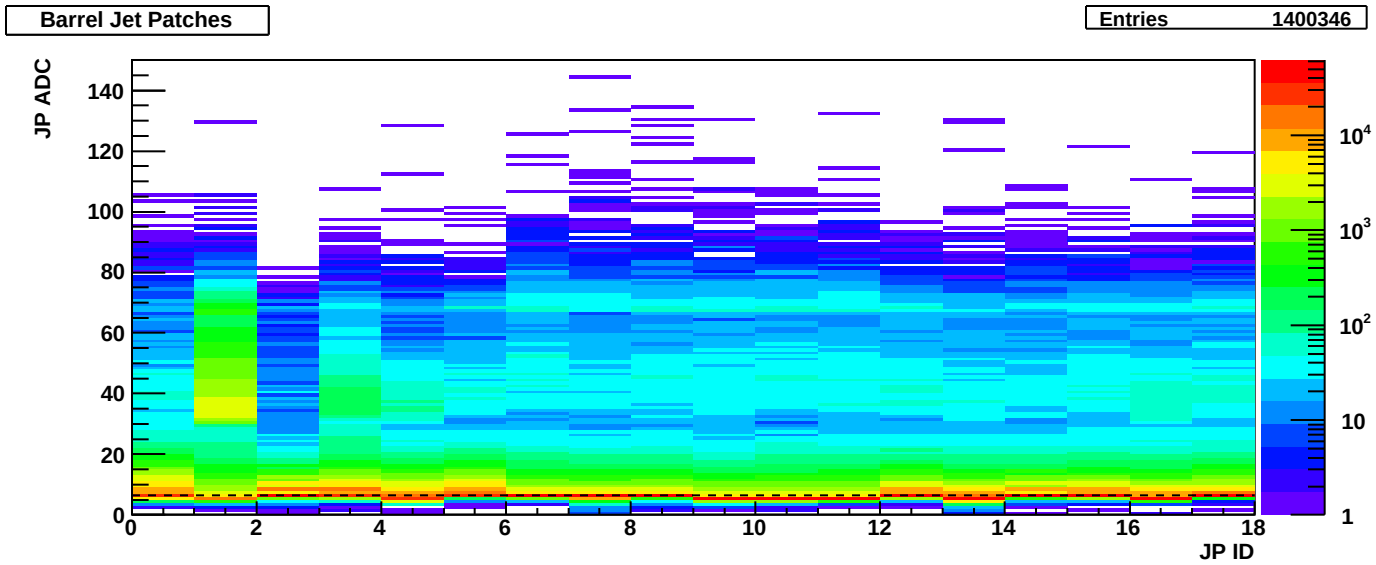
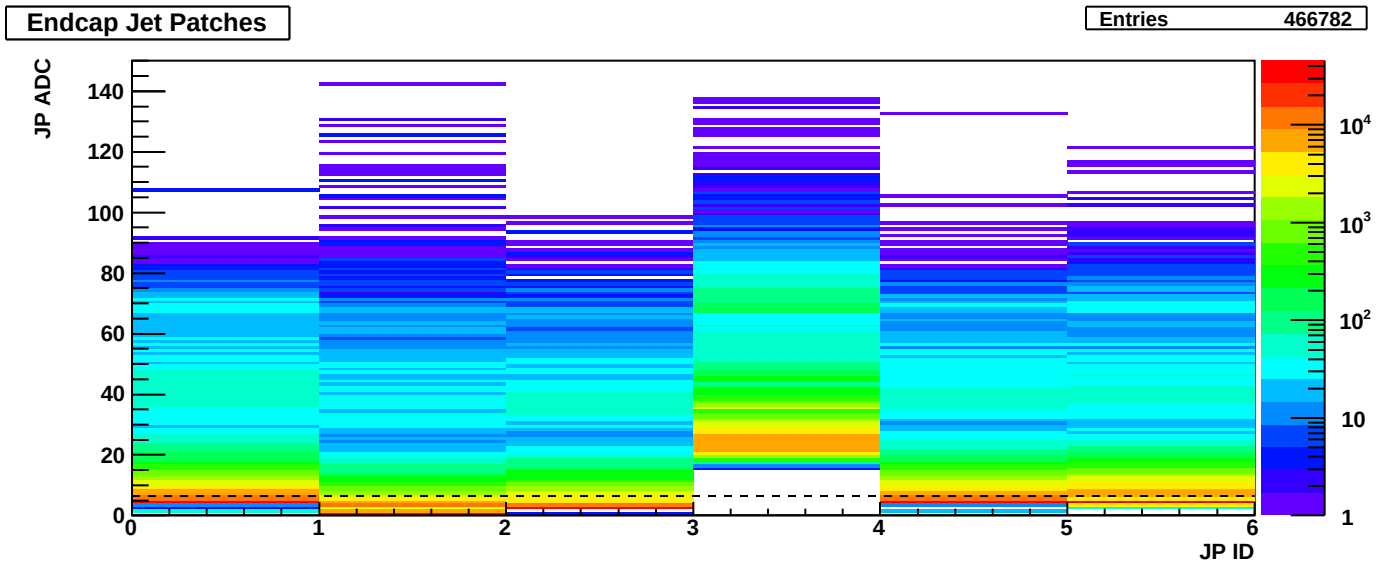

Barrel EMC L0 Input - High Tower
Entries 2.33391e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

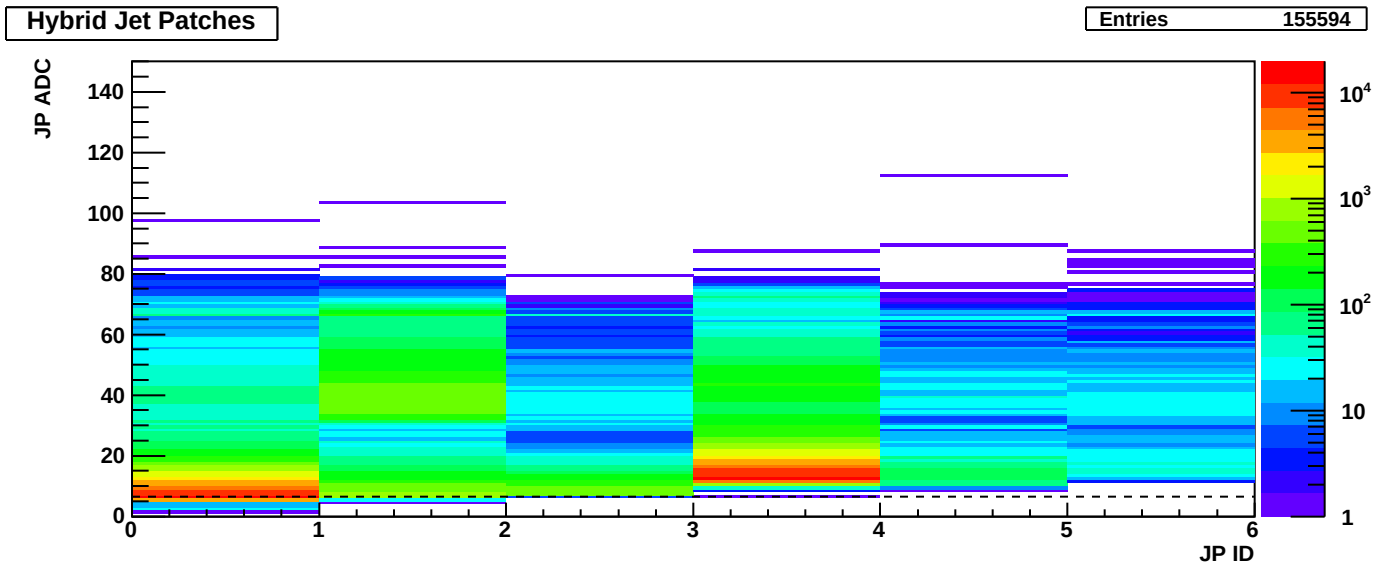

Barrel EMC L0 Input - Patch Sum
Entries 2.33391e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

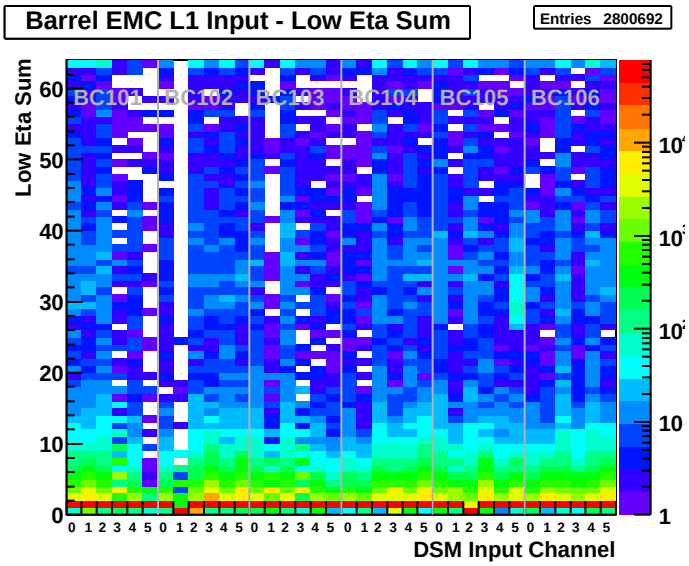

Endcap EMC L0 Input - High Tower
Entries 7001730
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

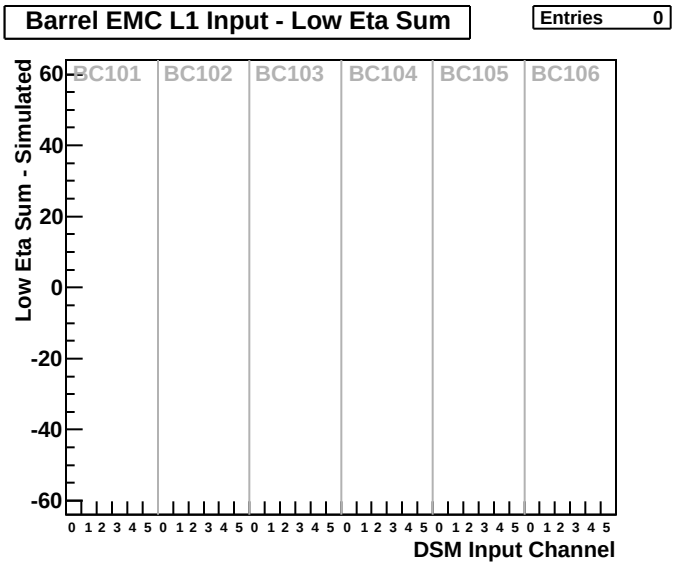

Endcap EMC L0 Input - Patch Sum
Entries 7001730
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

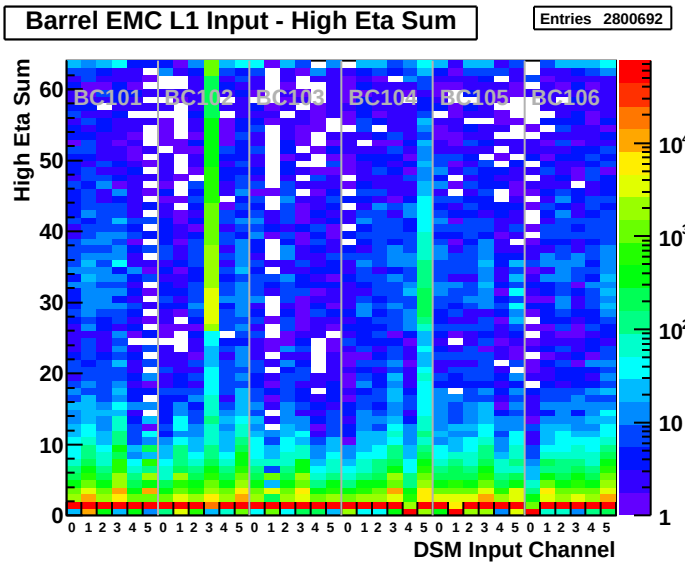

Barrel Jet Patches
Entries 1400346
JP ADC
JP ID

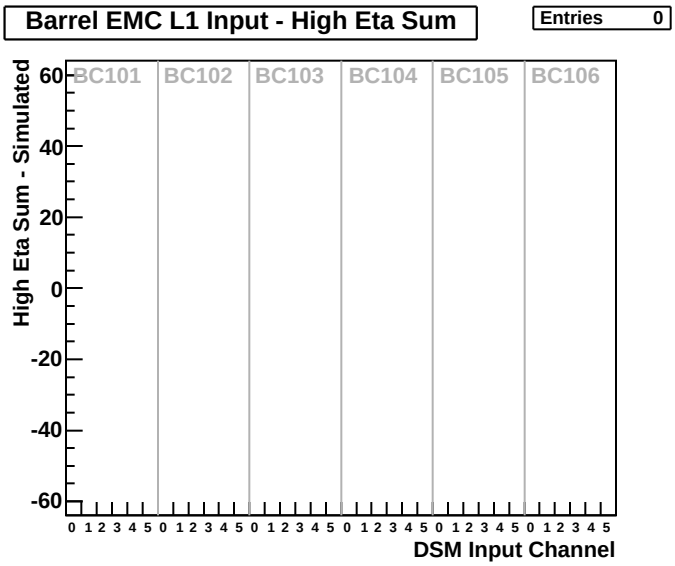

Endcap Jet Patches
Entries 466782
JP ADC
JP ID

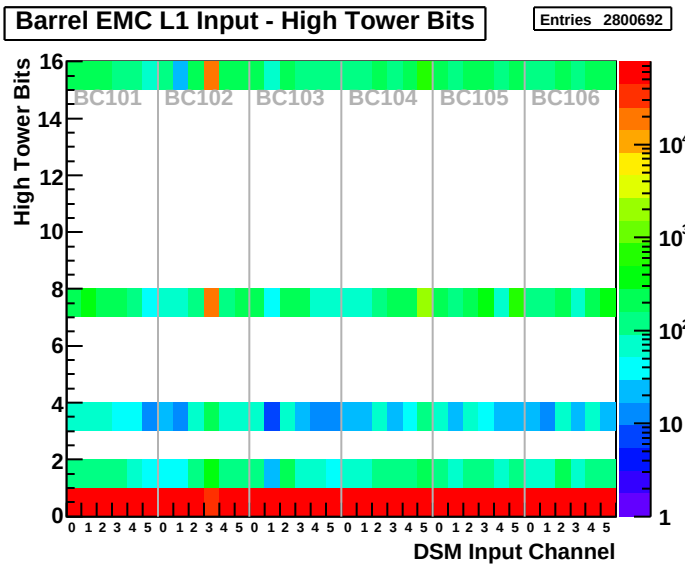

Hybrid Jet Patches
Entries 155594
JP ADC
JP ID

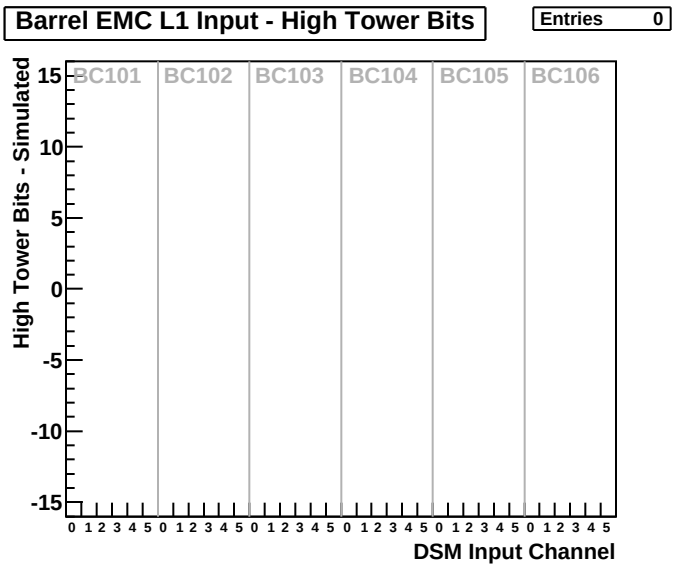

Barrel EMC L1 Input - Low Eta Sum
Entries 2800692
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

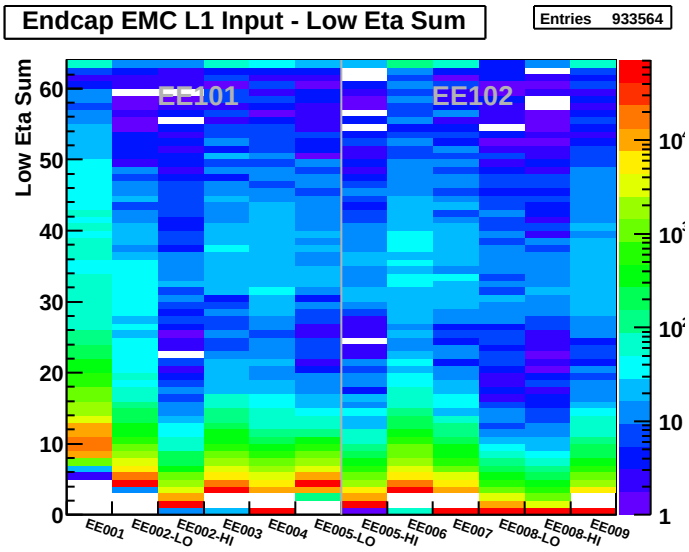

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

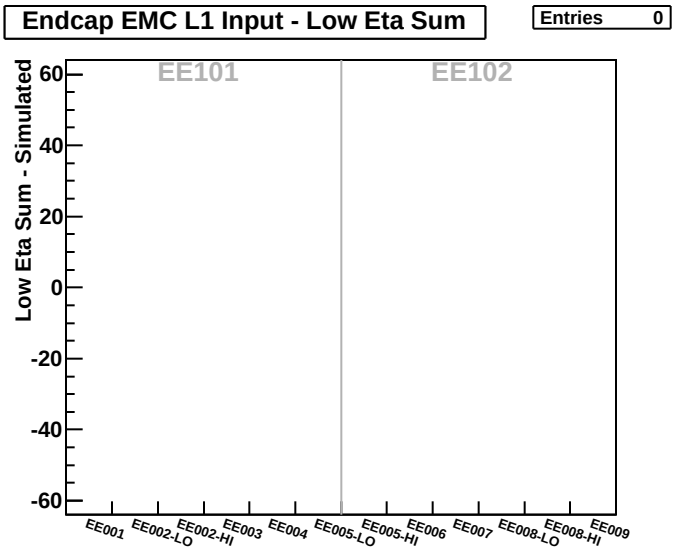

Barrel EMC L1 Input - High Eta Sum
Entries 2800692
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

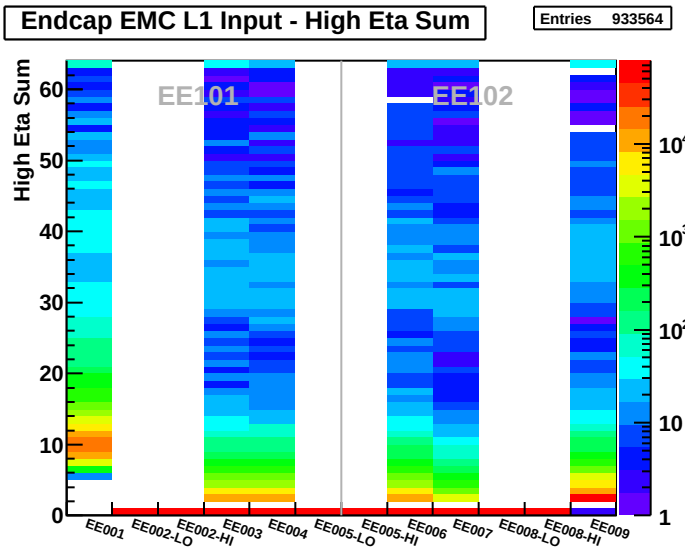

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

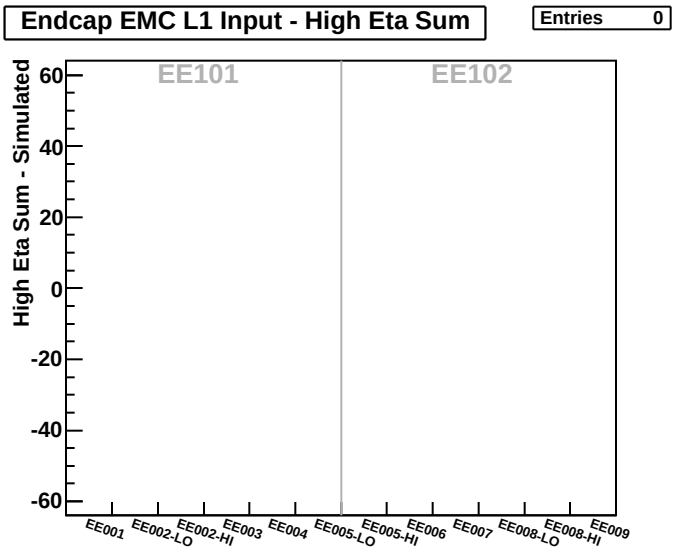

Barrel EMC L1 Input - High Tower Bits
Entries 2800692
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

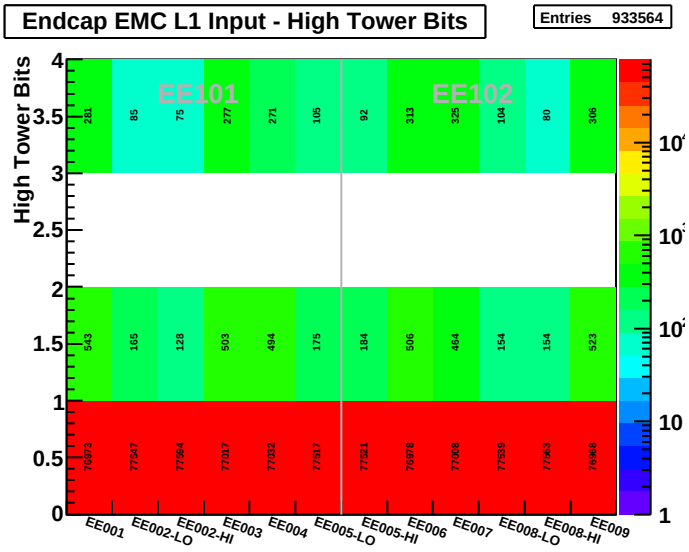

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

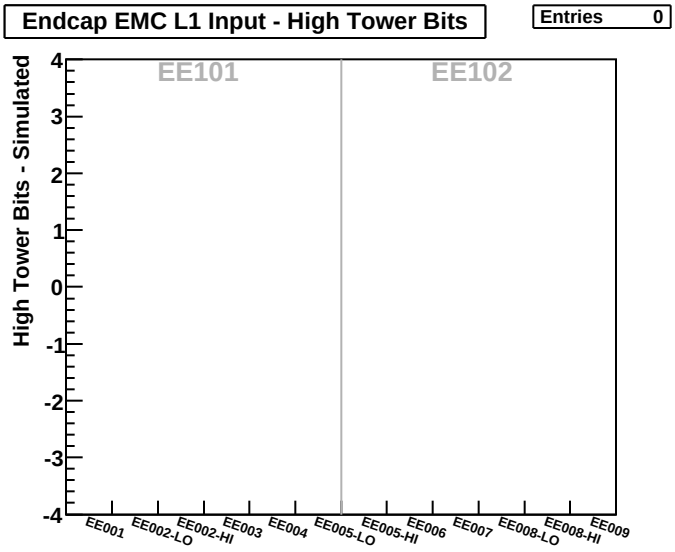

Endcap EMC L1 Input - Low Eta Sum
Entries 933564
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

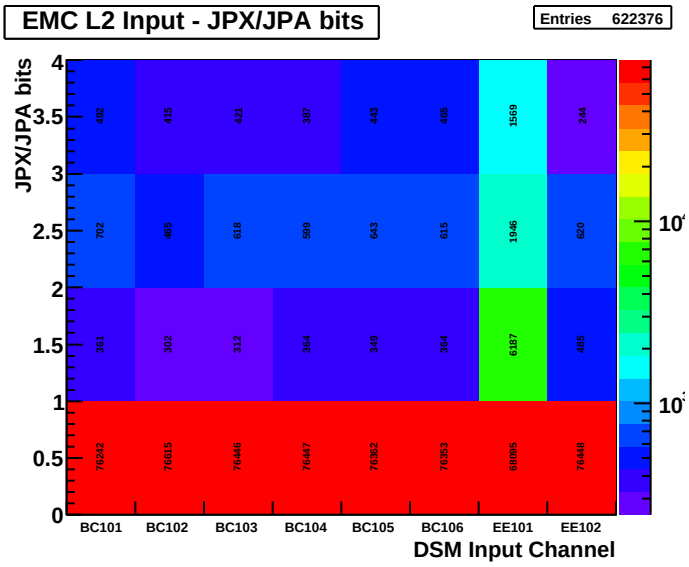

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

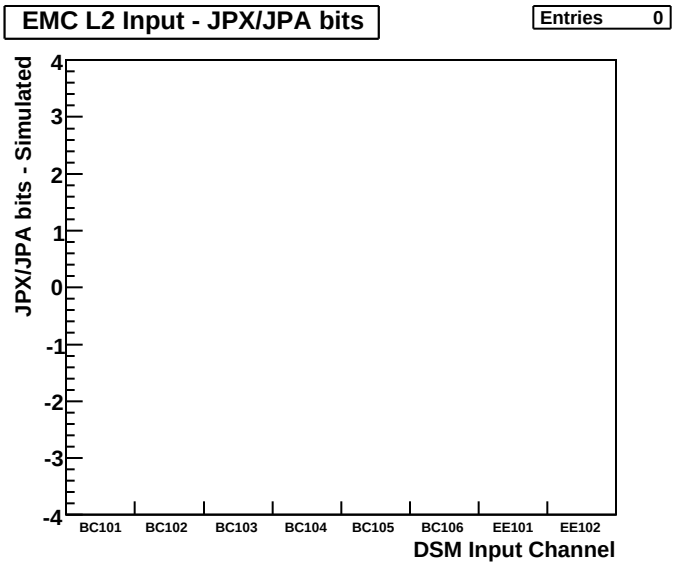

Endcap EMC L1 Input - High Eta Sum
Entries 933564
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

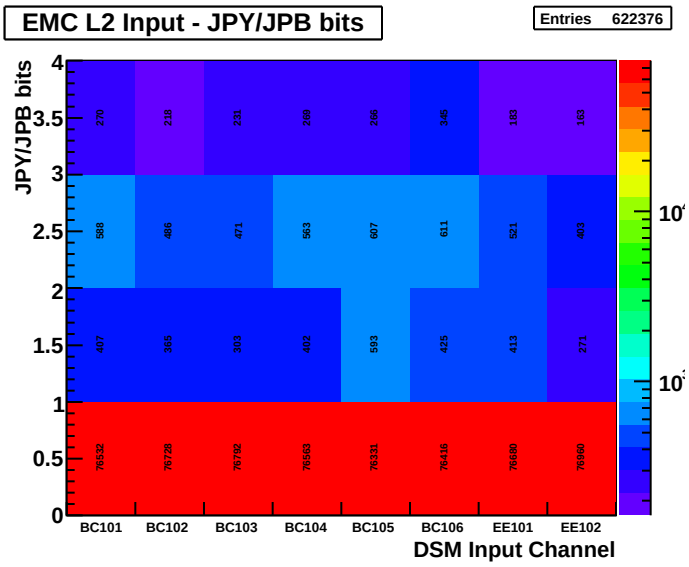

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

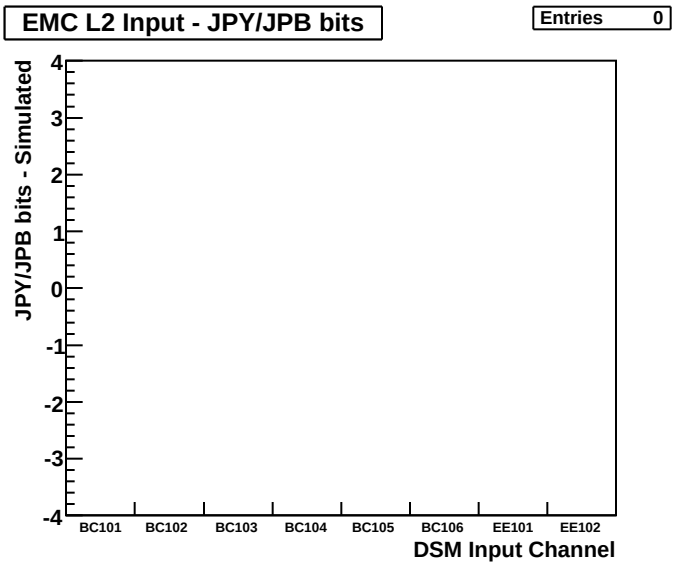

Endcap EMC L1 Input - High Tower Bits
Entries 933564
High Tower Bits
EE101
EE102
281 85 75 277 271 105 92 313 325 104 80 306
543 165 128 503 494 175 184 506 464 154 154 523
76973 77547 77594 77017 77032 77517 77521 76978 77008 77539 77563 76968
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

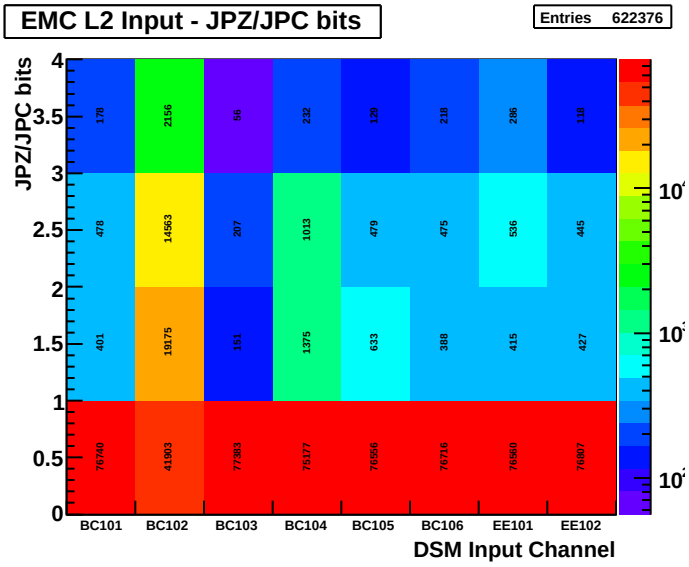

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

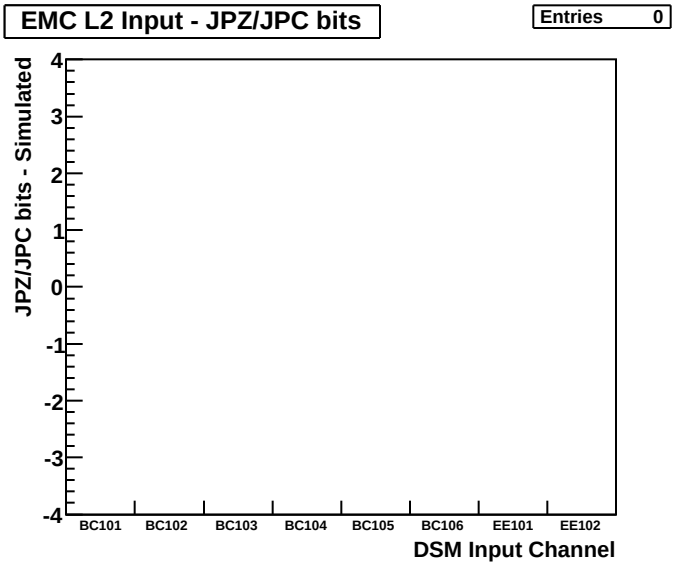

EMC L2 Input - JPX/JPA bits
Entries 622376
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
492 415 421 387 443 465 1569 244
702 465 618 599 643 615 1946 620
361 302 312 364 349 364 6187 435
76242 76615 76446 76447 76362 76353 68095 76448

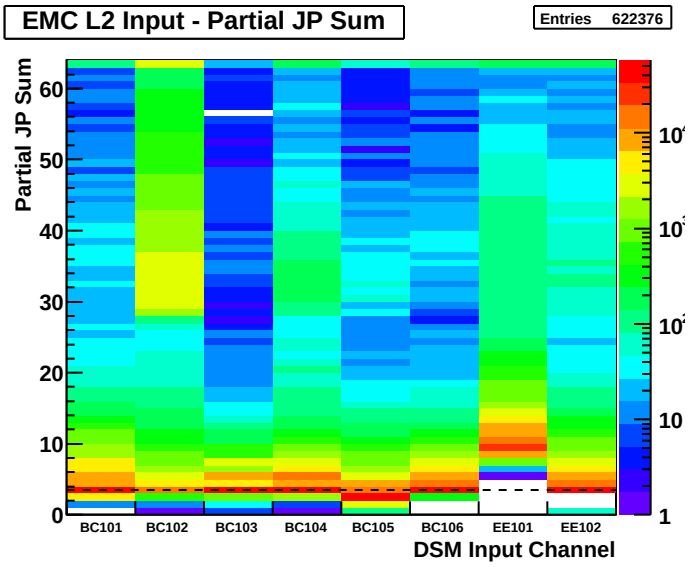

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

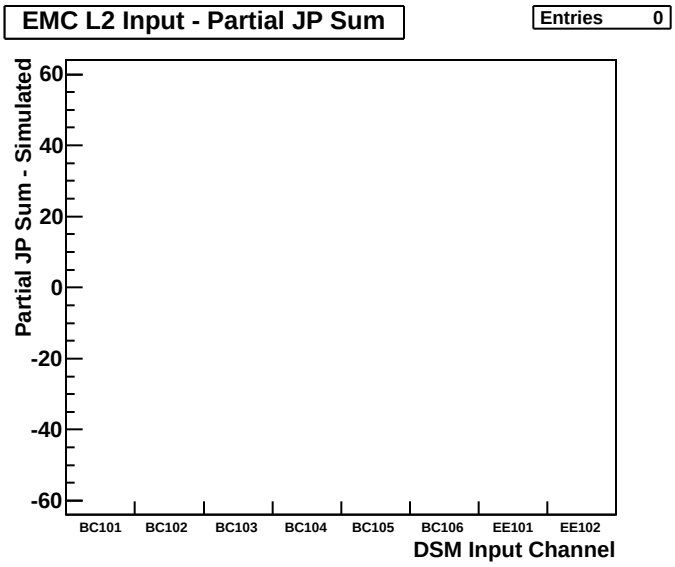

EMC L2 Input - JPY/JPB bits
Entries 622376
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
270 218 221 269 266 345 183 163
588 486 471 563 607 611 521 403
407 365 303 402 593 425 413 271
76532 76728 76792 76563 76331 76416 76680 76960

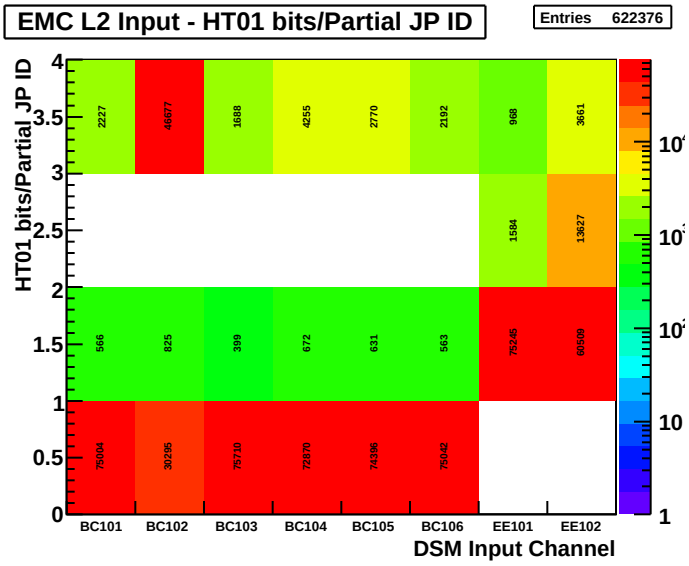

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

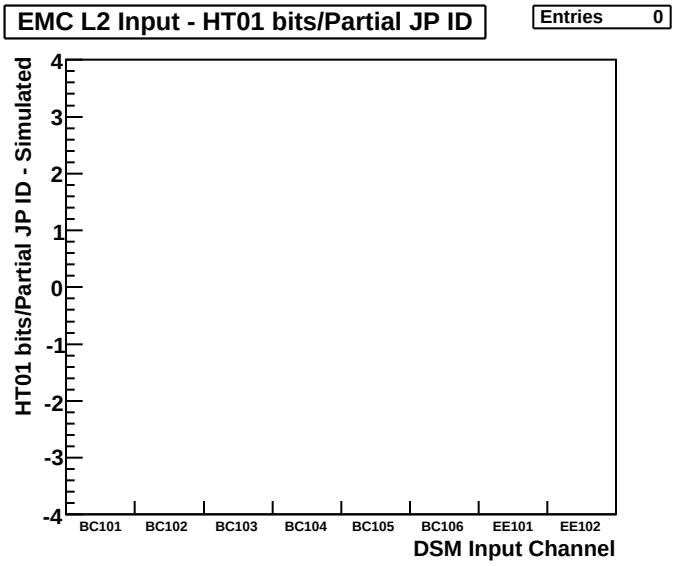

EMC L2 Input - JPZ/JPC bits
Entries 622376
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
178 2156 56 232 129 218 286 118
478 14563 207 1013 479 475 536 445
401 19175 151 1375 633 388 415 427
76740 41903 77383 75177 76556 76716 76560 76807

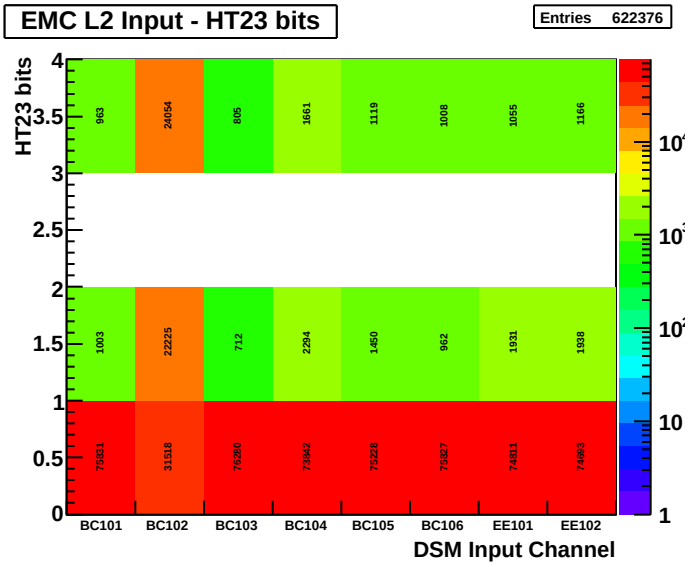

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

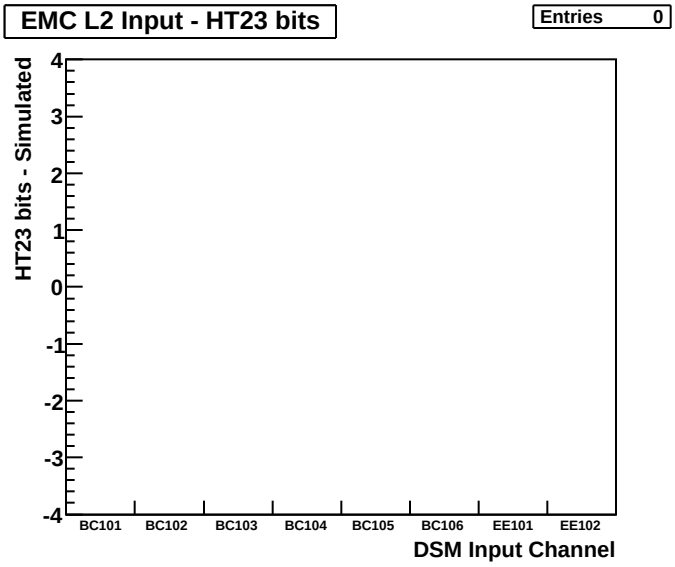

EMC L2 Input - Partial JP Sum
Entries 622376
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

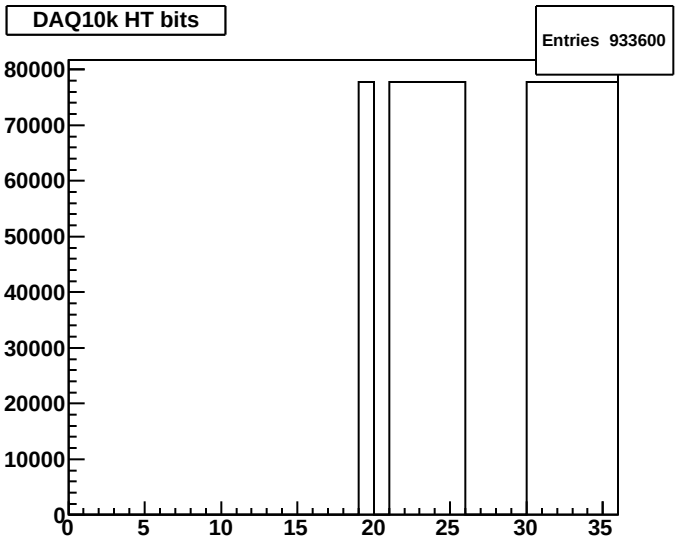

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

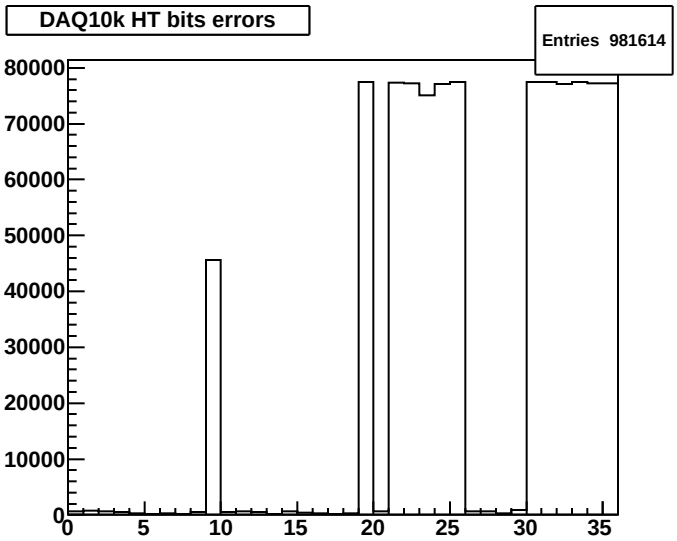

EMC L2 Input - HT01 bits/Partial JP ID
Entries 622376
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

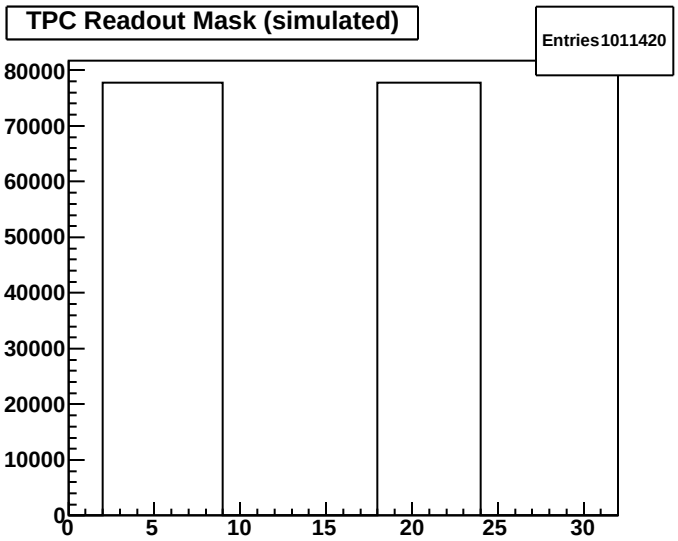

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

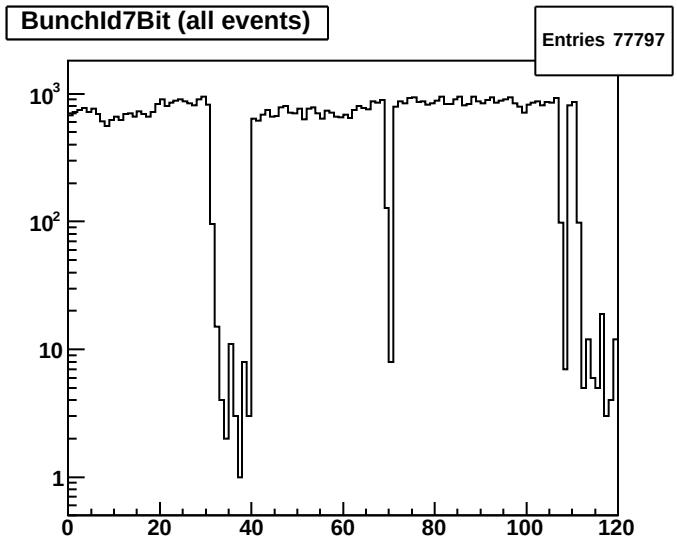

EMC L2 Input - HT23 bits
Entries 622376
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

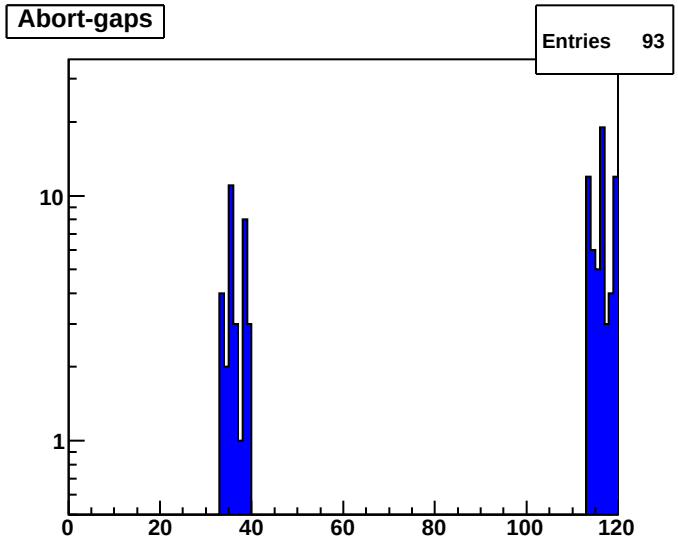

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

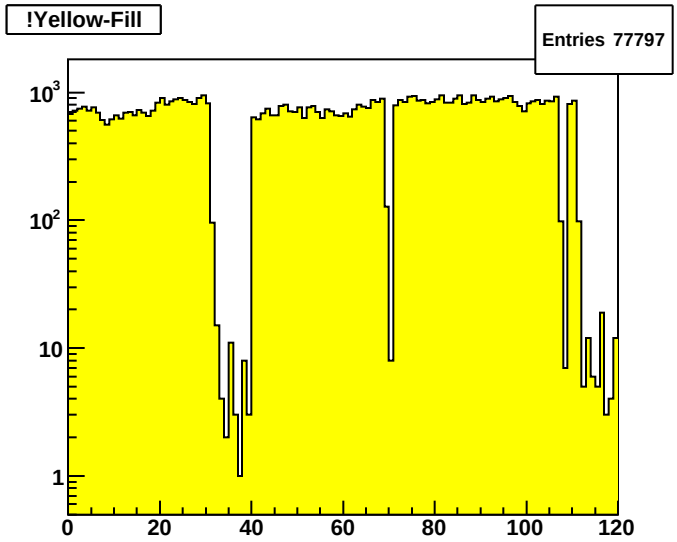

DAQ10k HT bits
Entries 933600
80000
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

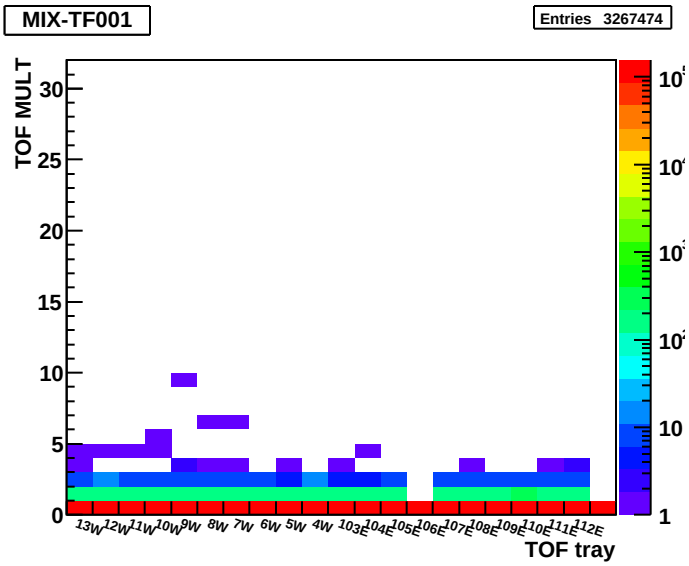

DAQ10k HT bits errors
Entries 981614
80000
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

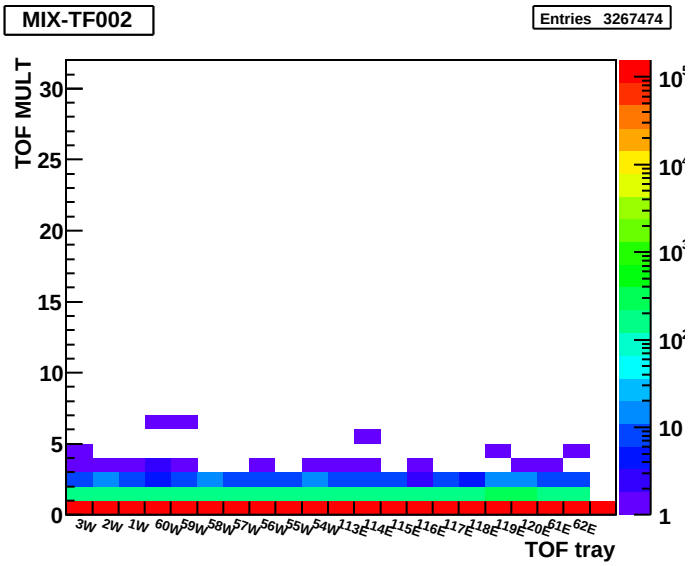

TPC Readout Mask (simulated)
Entries 1011420
80000
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

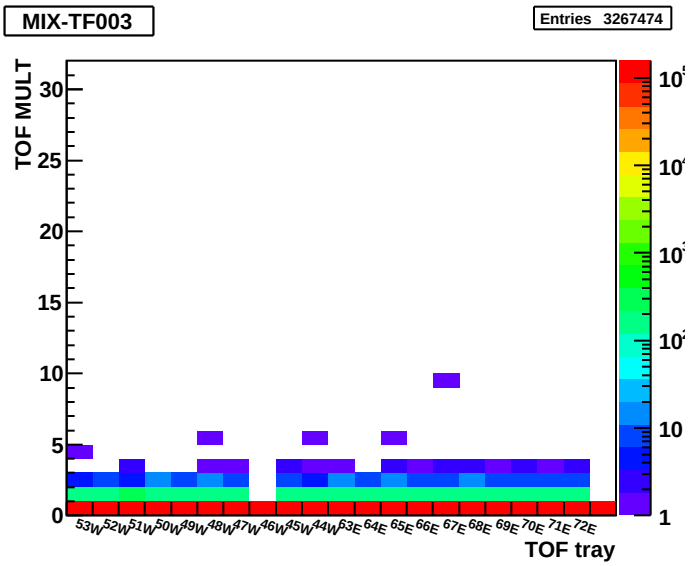

BunchId7Bit (all events)
Entries 77797
10^3
10^2
10
1
0 20 40 60 80 100 120

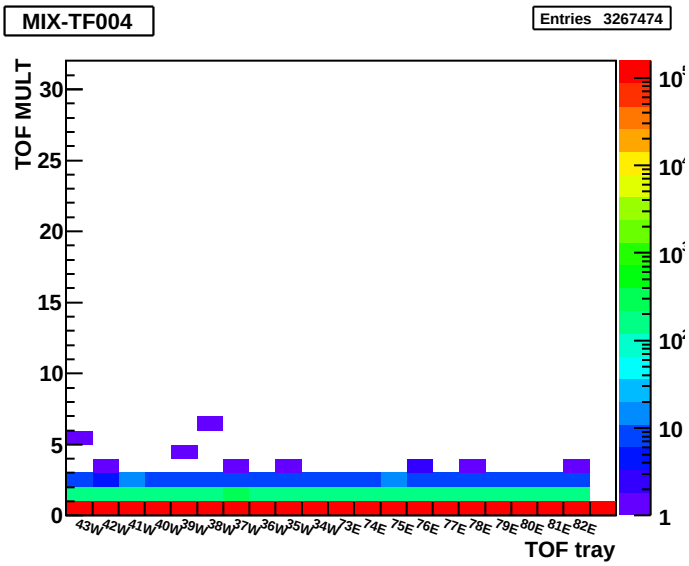

Abort-gaps
Entries 93
10
1
0 20 40 60 80 100 120

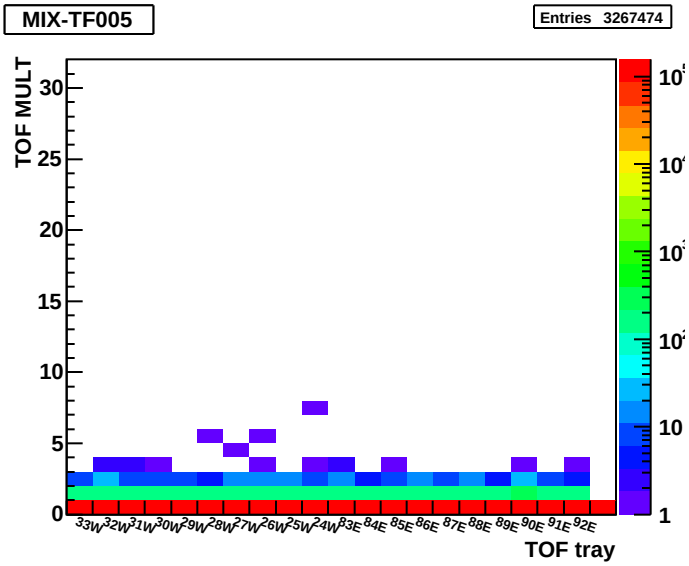

!Yellow-Fill
Entries 77797
10^3
10^2
10
1
0 20 40 60 80 100 120

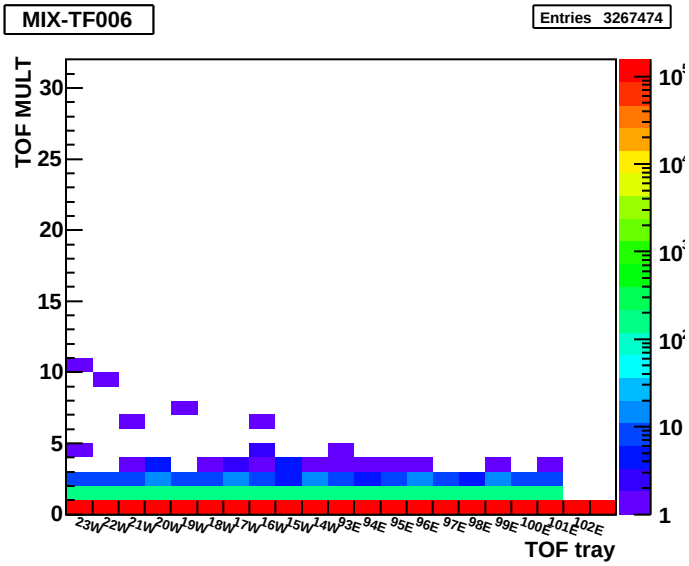

MIX-TF001
Entries 3267474
TOF MULT
TOF tray

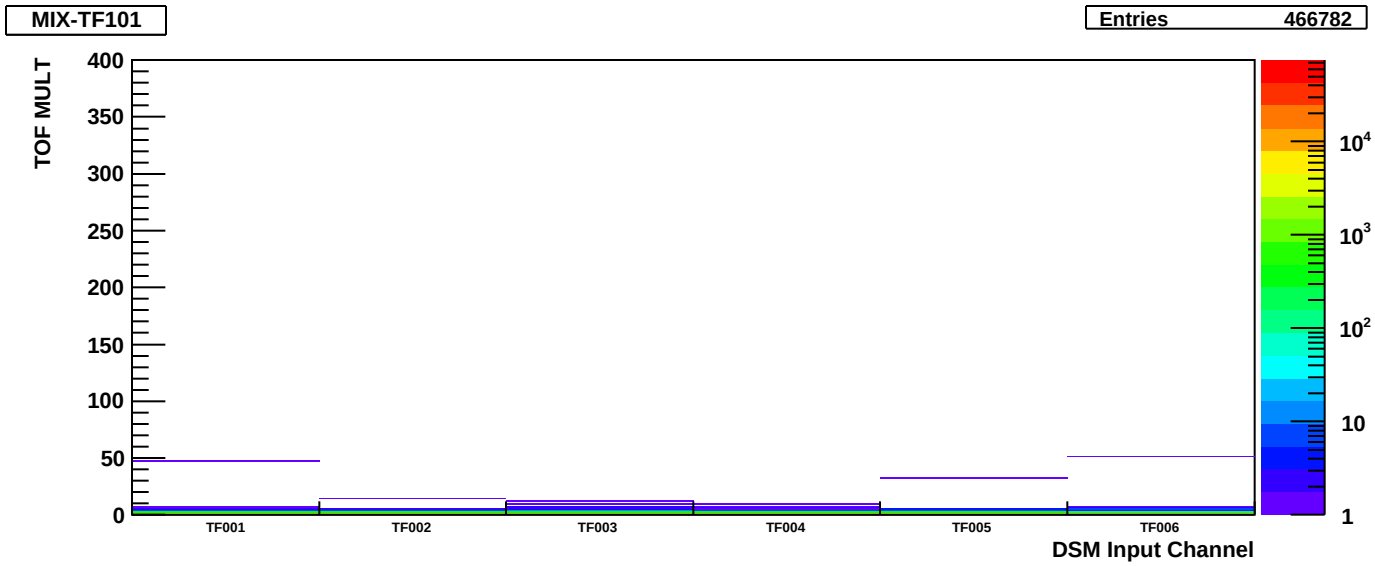

MIX-TF002
Entries 3267474
TOF MULT
TOF tray

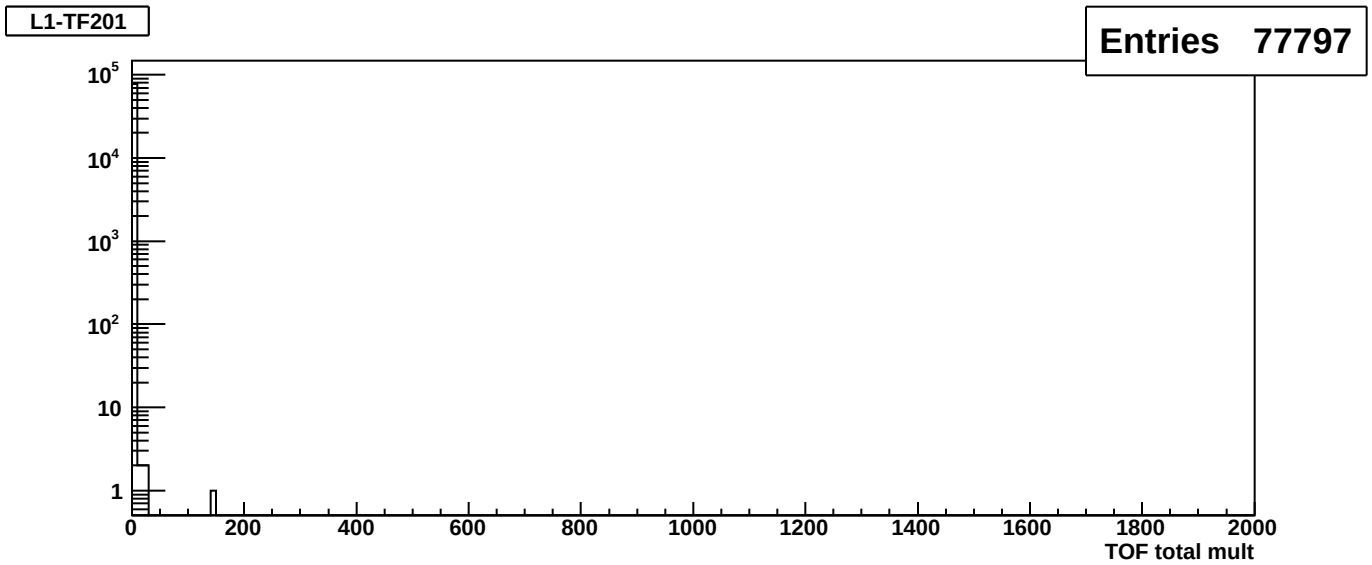

MIX-TF003
Entries 3267474
TOF MULT
TOF tray

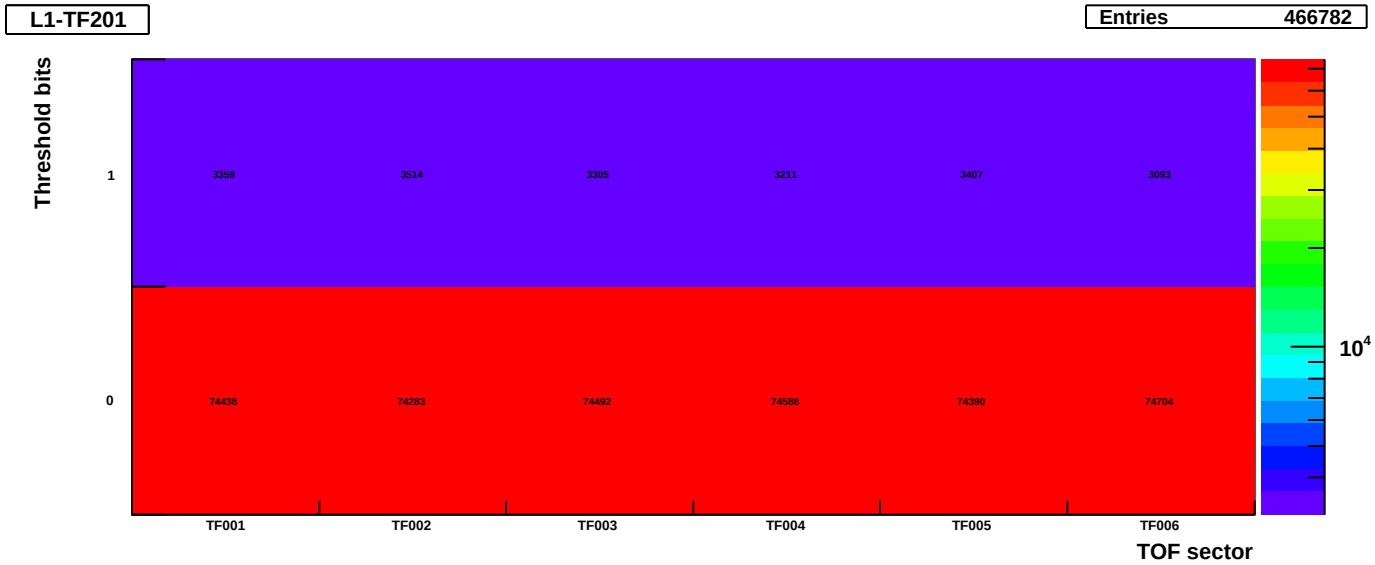

MIX-TF004
Entries 3267474
TOF MULT
TOF tray

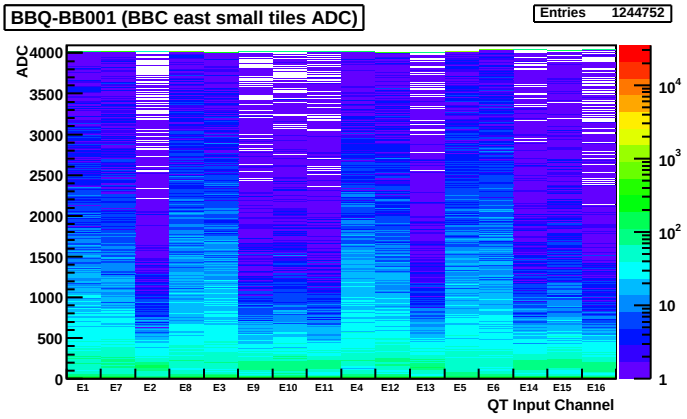

MIX-TF005
Entries 3267474
TOF MULT
TOF tray

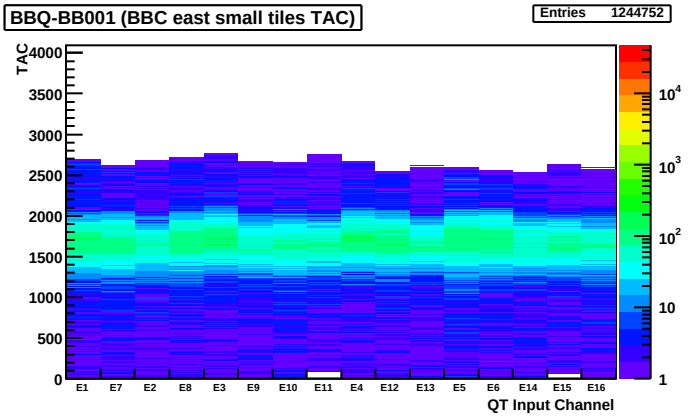

MIX-TF006
Entries 3267474
TOF MULT
TOF tray

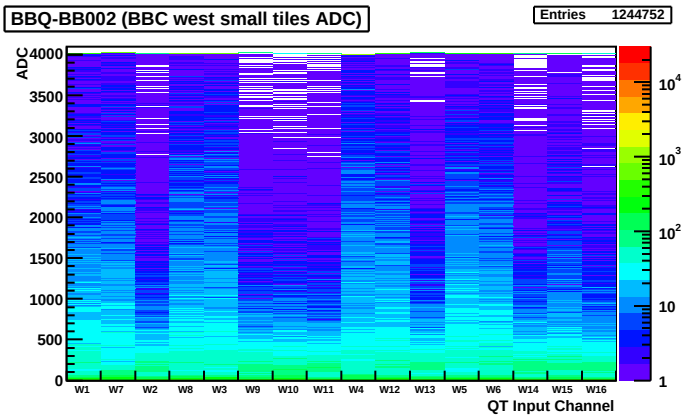

MIX-TF101
Entries 466782
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

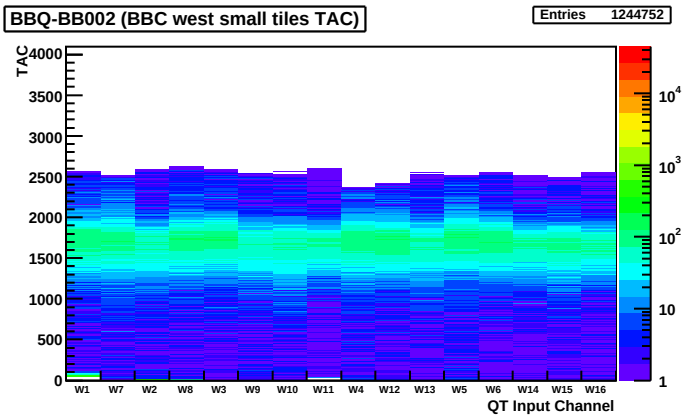

L1-TF201
Entries 77797
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

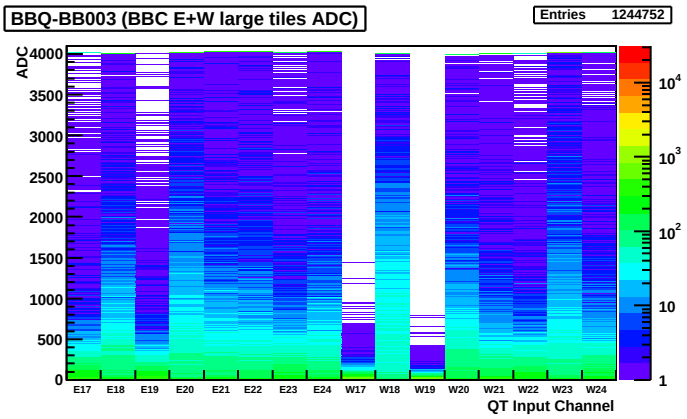

L1-TF201
Entries 466782
Threshold bits
1
0
3359
3514
3305
3211
3407
3093
74438
74283
74492
74586
74390
74704
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

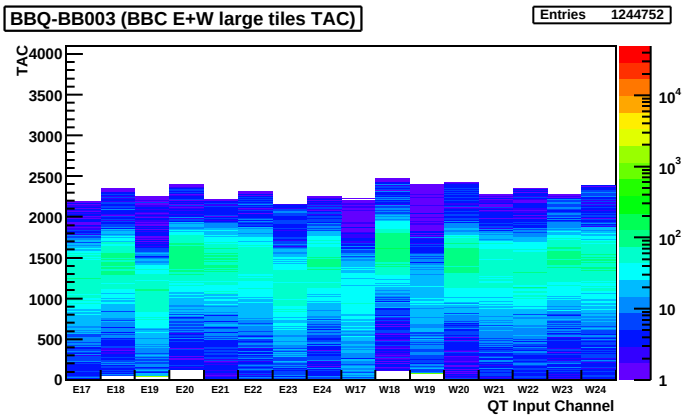

BBQ-BB001 (BBC east small tiles ADC)
Entries 1244752
ADC
QT Input Channel

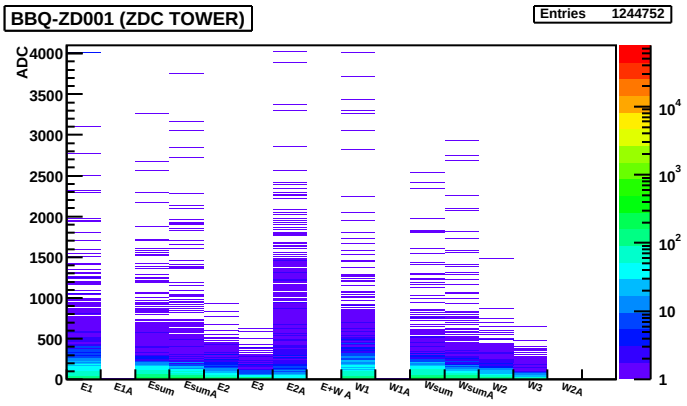

BBQ-BB001 (BBC east small tiles TAC)
Entries 1244752
TAC
QT Input Channel

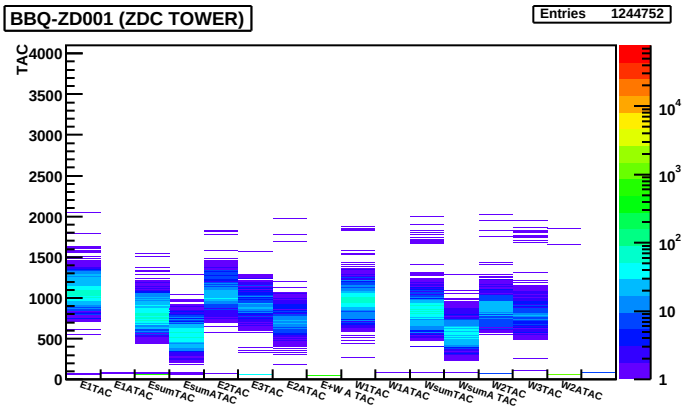

BBQ-BB002 (BBC west small tiles ADC)
Entries 1244752
ADC
QT Input Channel

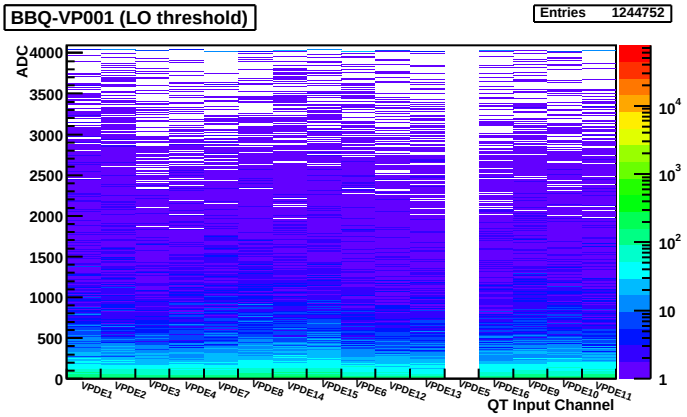

BBQ-BB002 (BBC west small tiles TAC)
Entries 1244752
TAC
QT Input Channel

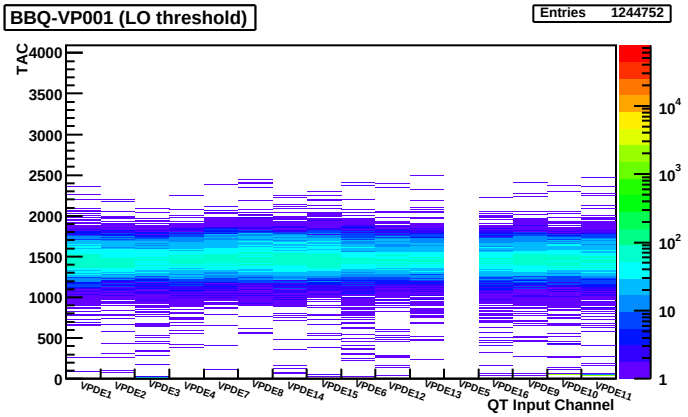

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1244752
ADC
QT Input Channel

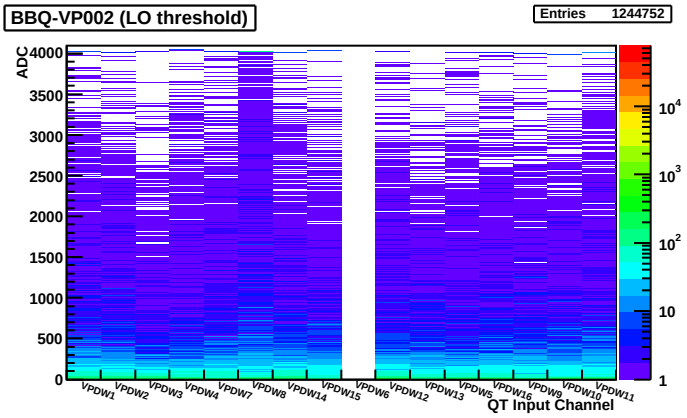

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1244752
TAC
QT Input Channel

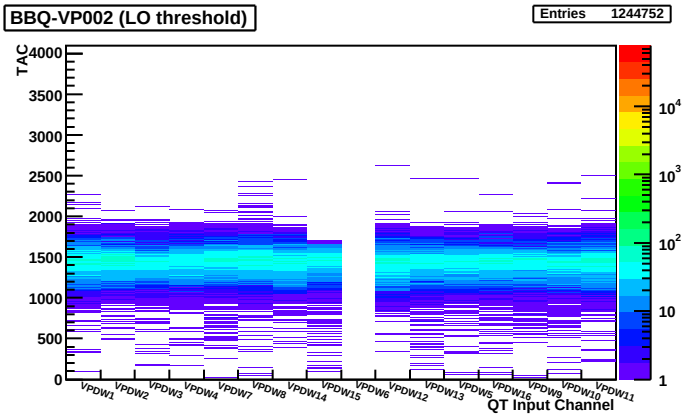

BBQ-ZD001 (ZDC TOWER)
Entries 1244752
ADC

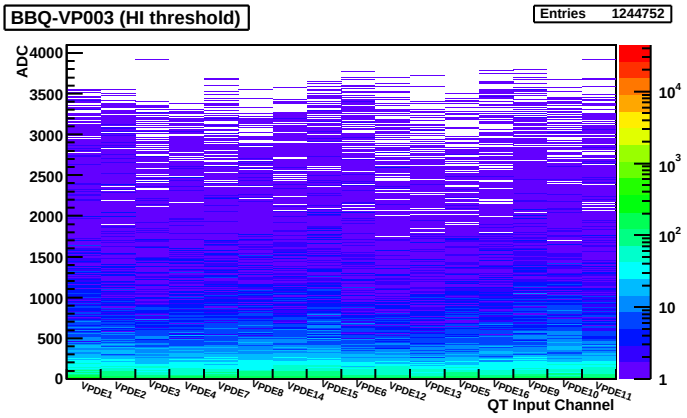

BBQ-ZD001 (ZDC TOWER)
Entries 1244752
TAC

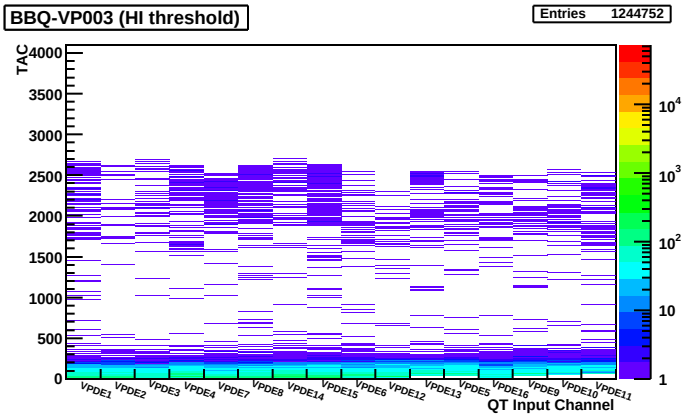

BBQ-VP001 (LO threshold)
Entries 1244752
ADC
QT Input Channel

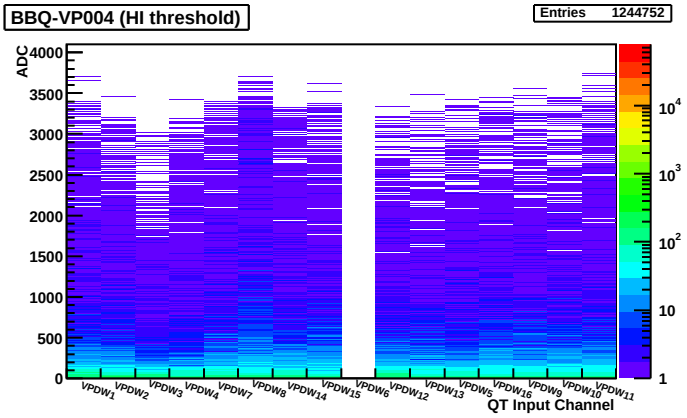

BBQ-VP001 (LO threshold)
Entries 1244752
TAC
QT Input Channel

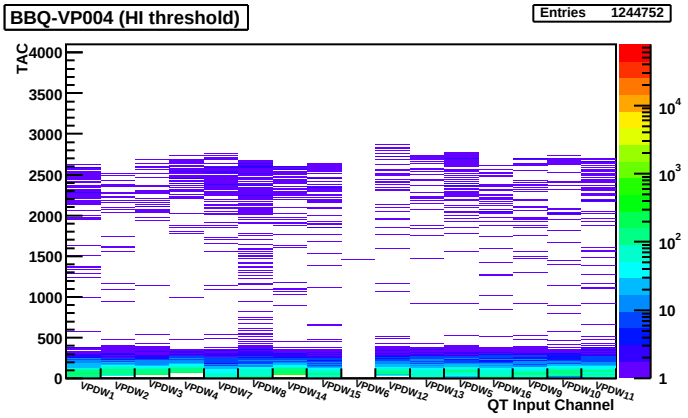

BBQ-VP002 (LO threshold)
Entries 1244752
ADC
QT Input Channel

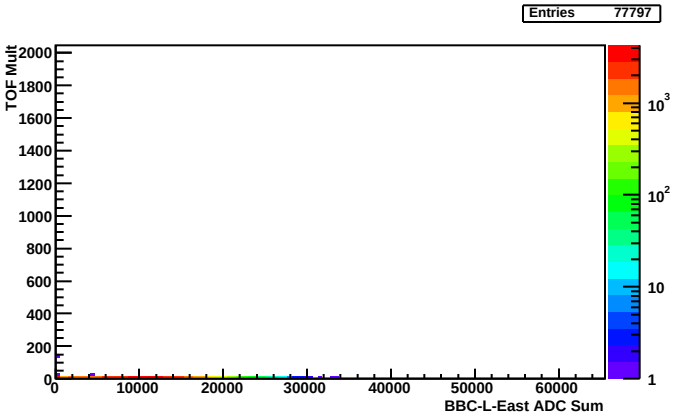

BBQ-VP002 (LO threshold)
Entries 1244752
TAC
QT Input Channel

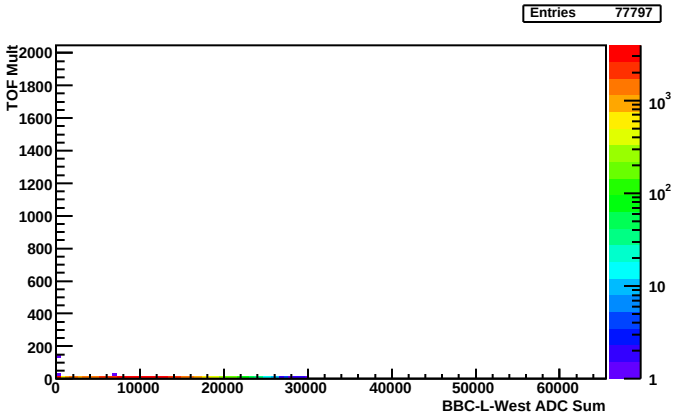

BBQ-VP003 (HI threshold)
Entries 1244752
ADC
QT Input Channel

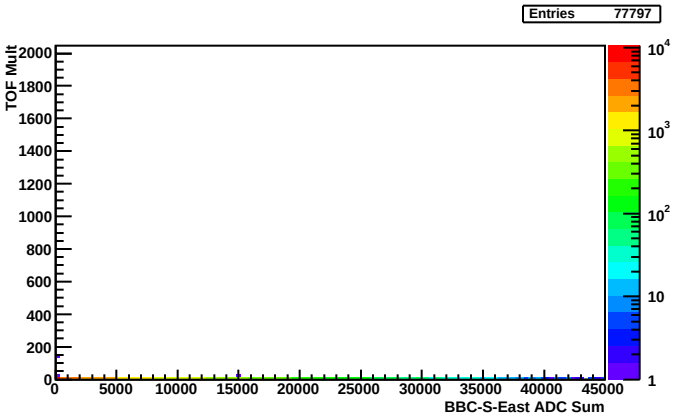

BBQ-VP003 (HI threshold)
Entries 1244752
TAC
QT Input Channel

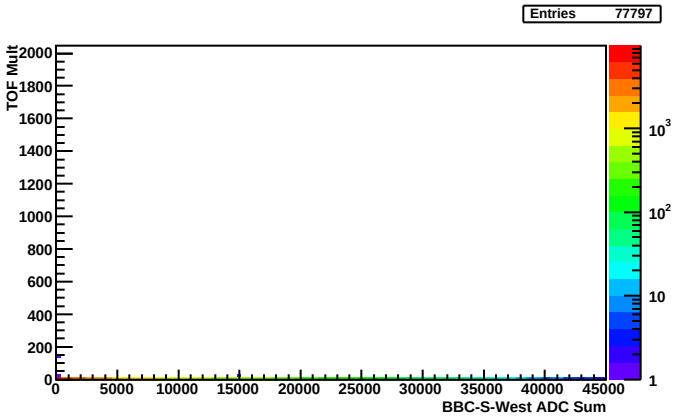

BBQ-VP004 (HI threshold)
Entries 1244752
ADC
QT Input Channel

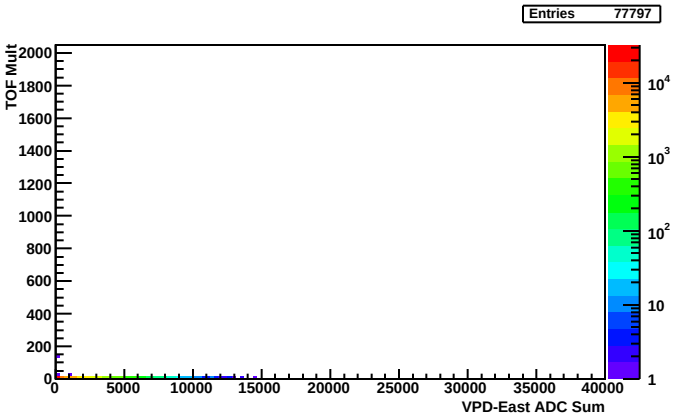

BBQ-VP004 (HI threshold)
Entries 1244752
TAC
QT Input Channel

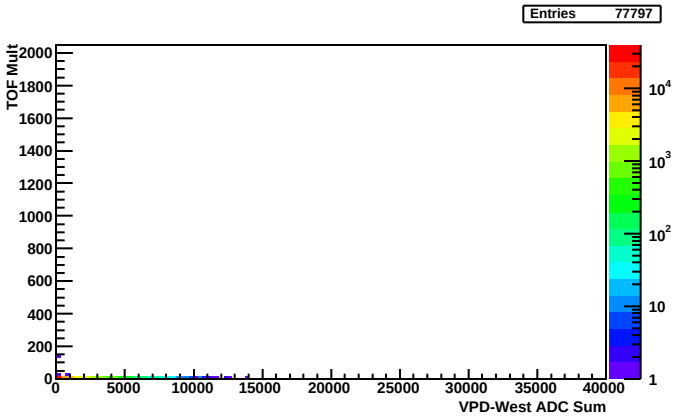

Entries 77797
TOF Mult
BBC-L-East ADC Sum

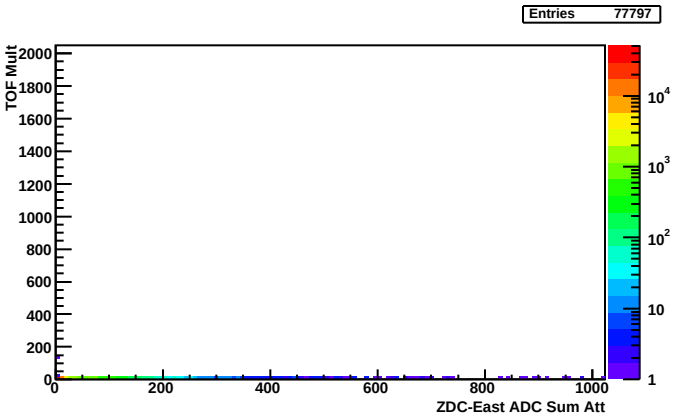

Entries 77797
TOF Mult
BBC-L-West ADC Sum

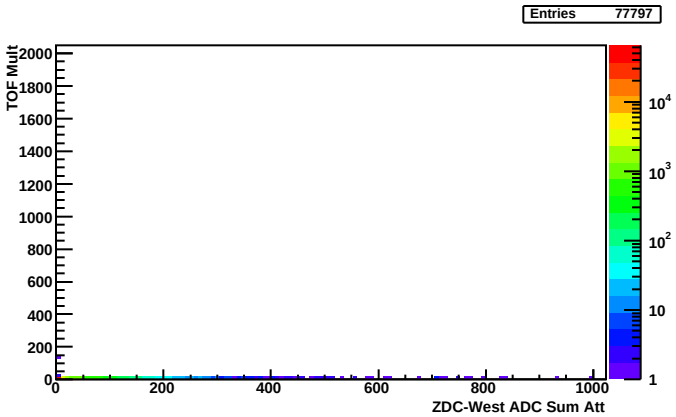

Entries 77797
TOF Mult
BBC-S-East ADC Sum

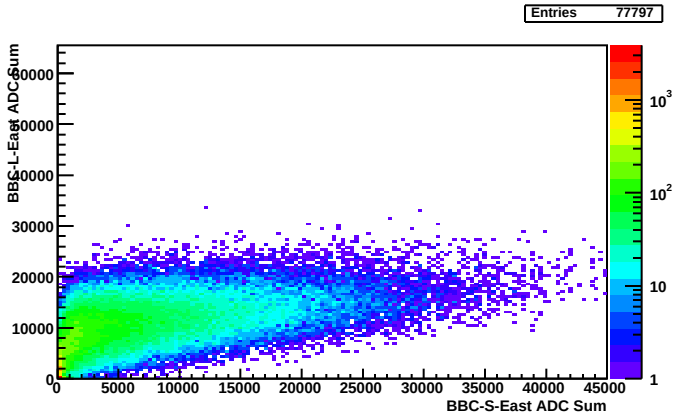

Entries 77797
TOF Mult
BBC-S-West ADC Sum

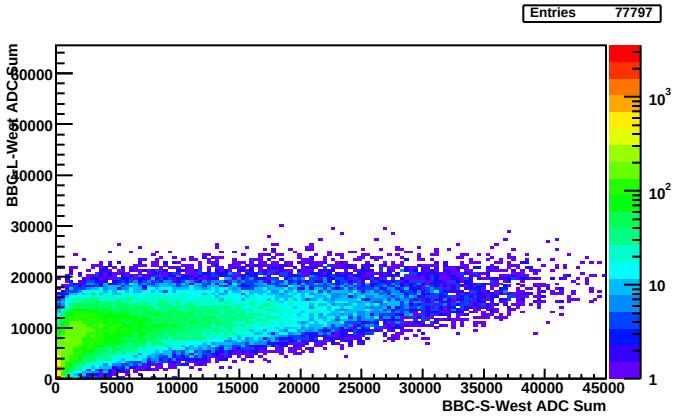

Entries 77797
TOF Mult
VPD-East ADC Sum

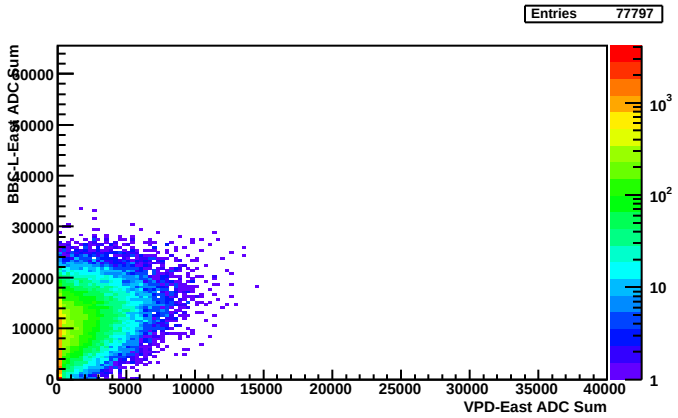

Entries 77797
TOF Mult
VPD-West ADC Sum

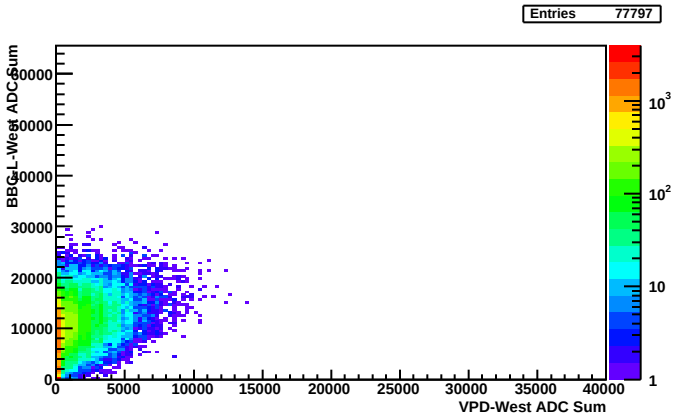

Entries 77797
TOF Mult
ZDC-East ADC Sum Att

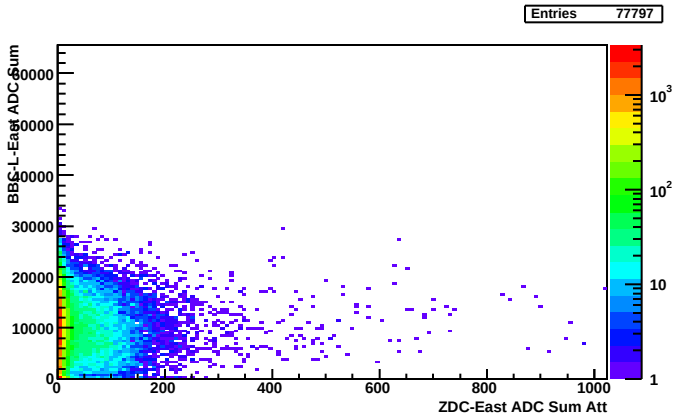

Entries 77797
TOF Mult
ZDC-West ADC Sum Att

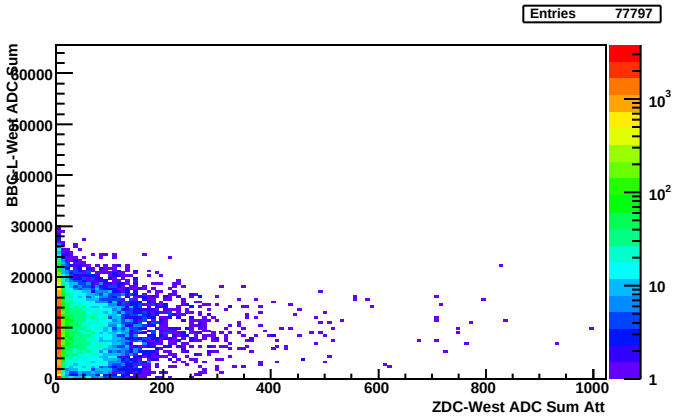

Entries 77797
BBC-L-East ADC Sum
BBC-S-East ADC Sum

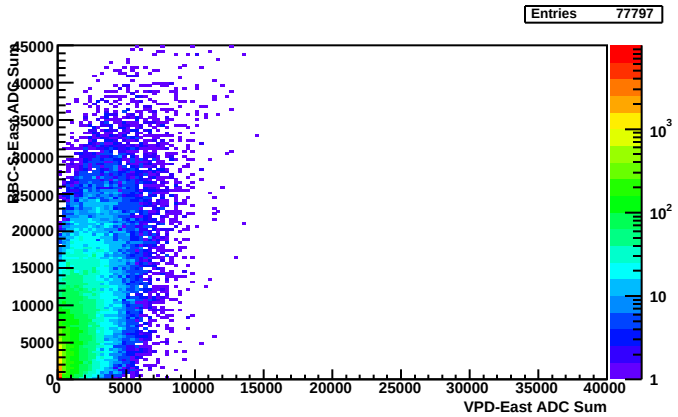

Entries 77797
BBC-L-West ADC Sum
BBC-S-West ADC Sum

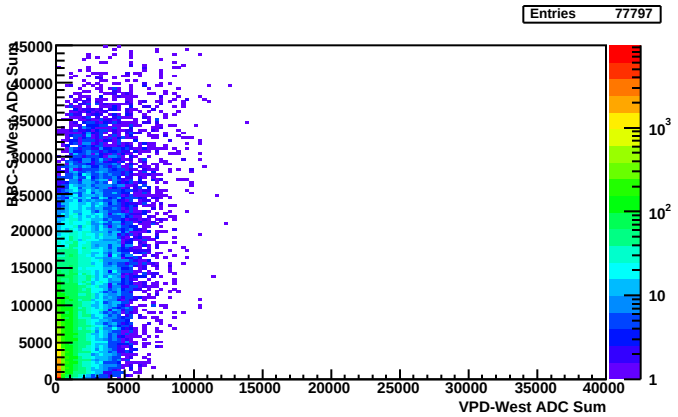

Entries 77797
BBC-L-East ADC Sum
VPD-East ADC Sum

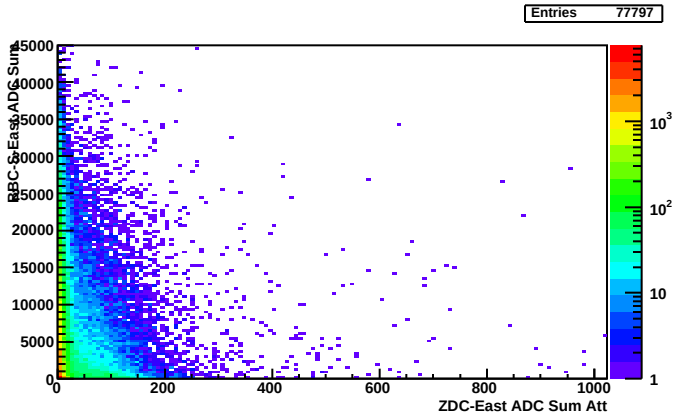

Entries 77797
BBC-L-West ADC Sum
VPD-West ADC Sum

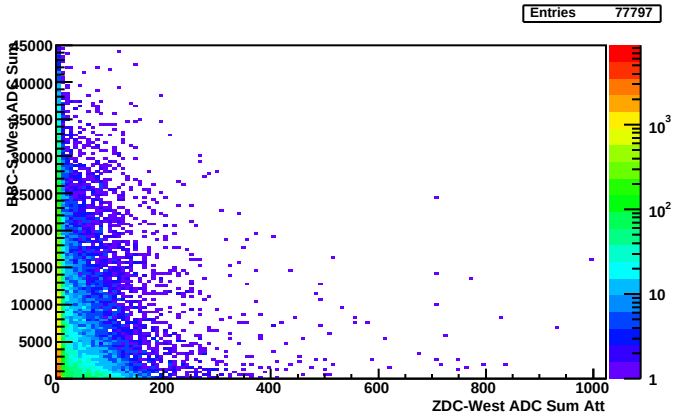

Entries 77797
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

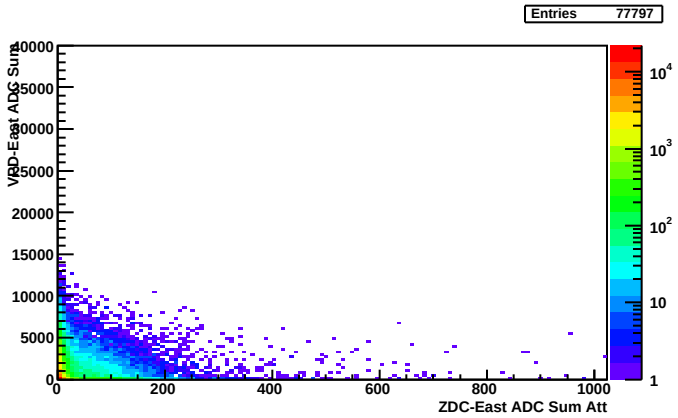

Entries 77797
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

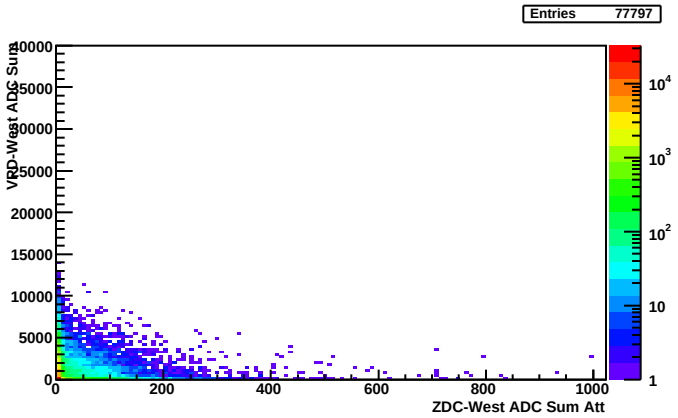

Entries 77797
BBC-S-East ADC Sum
VPD-East ADC Sum

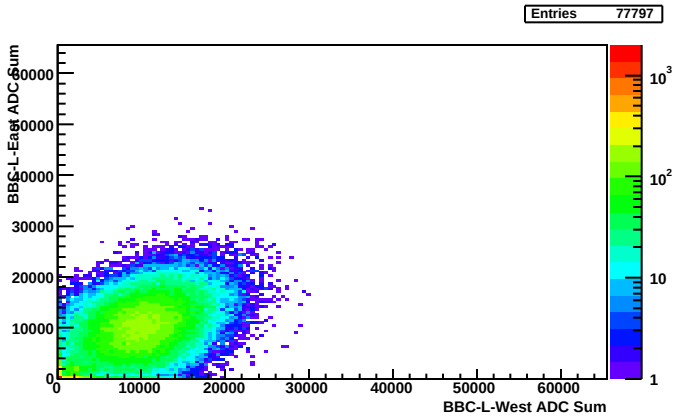

Entries 77797
BBC-S-West ADC Sum
VPD-West ADC Sum

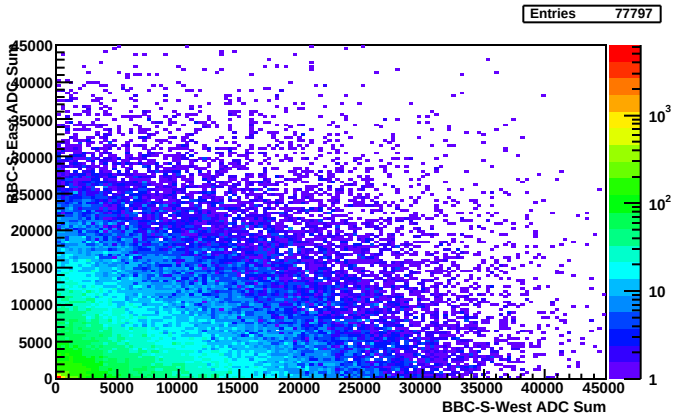

Entries 77797
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

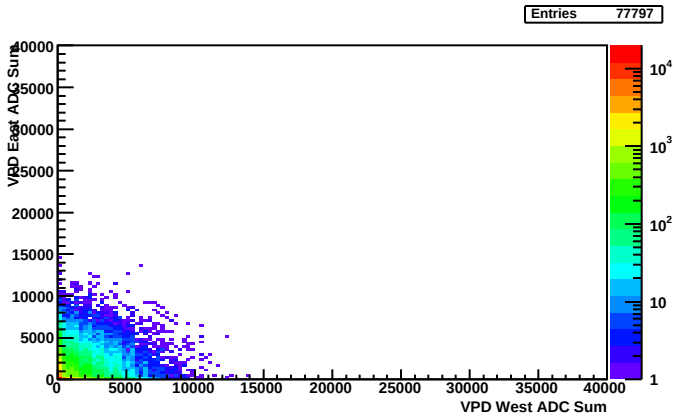

Entries 77797
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

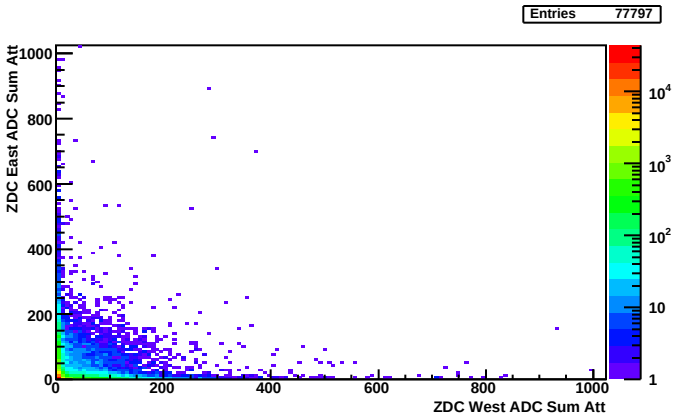

Entries 77797
VPD-East ADC Sum
ZDC-East ADC Sum Att

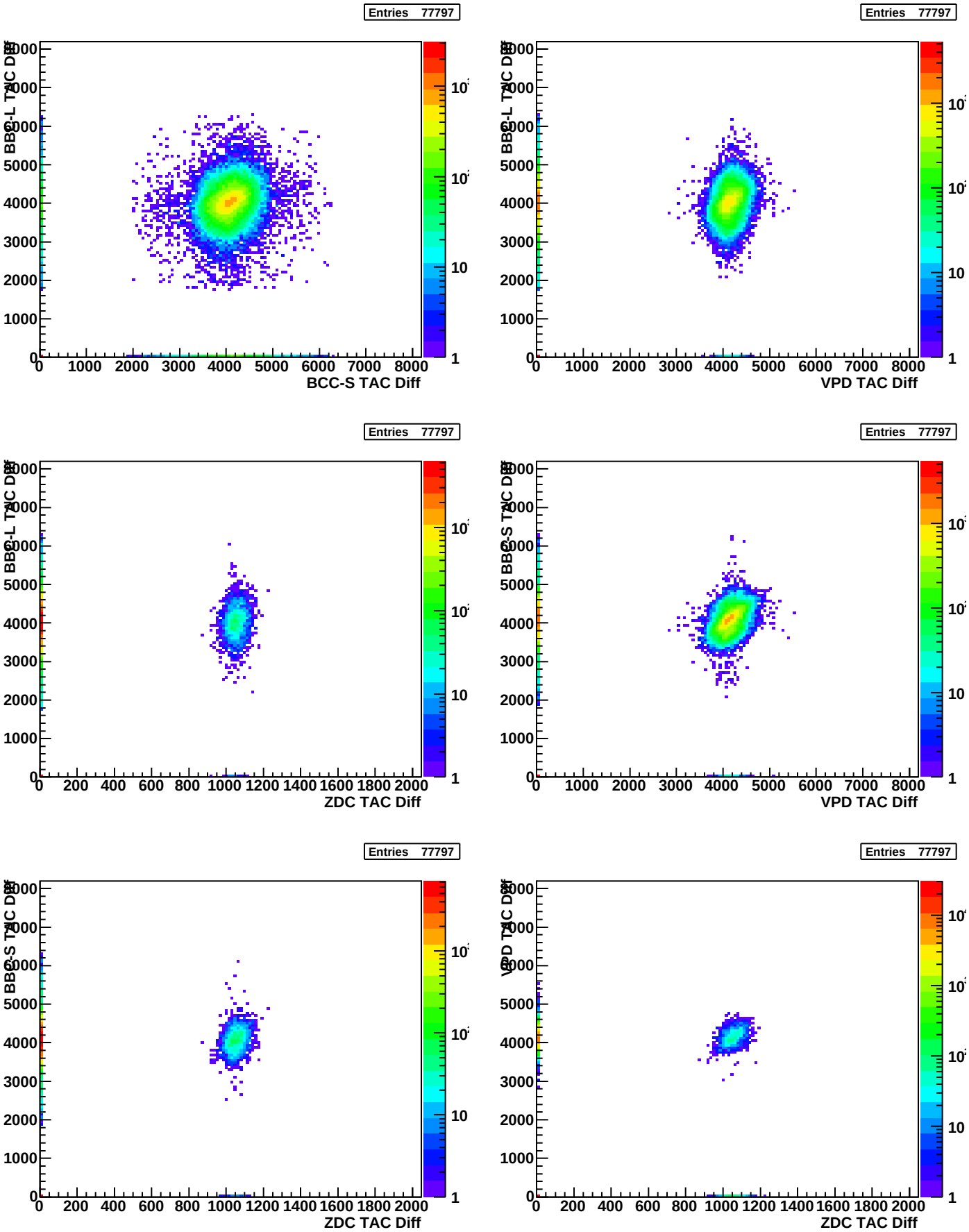

Entries 77797
VPD-West ADC Sum
ZDC-West ADC Sum Att

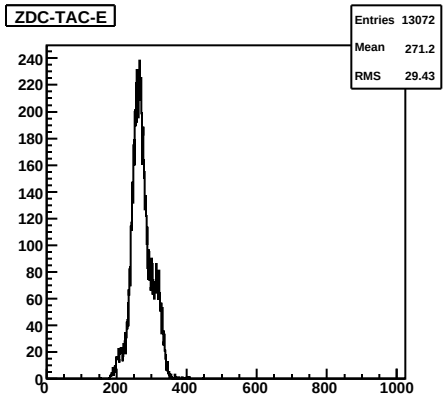

Entries 77797
BBC-L-East ADC Sum
BBC-L-West ADC Sum

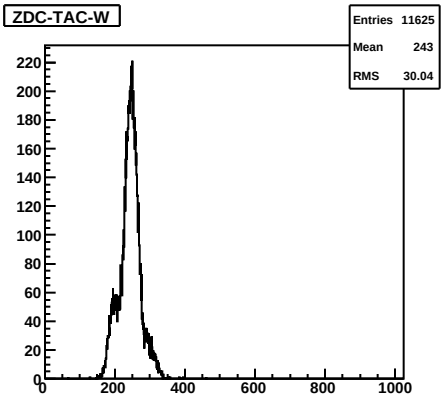

Entries 77797
BBC-S-East ADC Sum
BBC-S-West ADC Sum

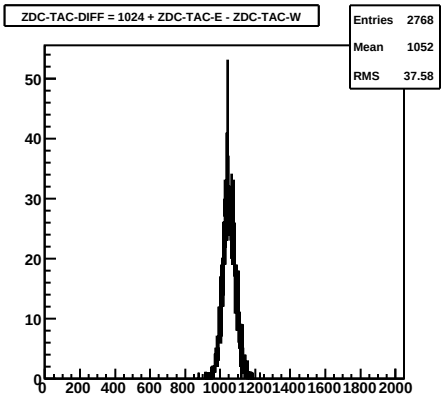

Entries 77797
VPD East ADC Sum
VPD West ADC Sum

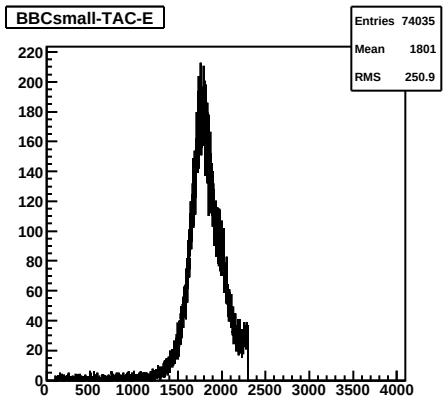

Entries 77797
ZDC East ADC Sum Att
ZDC West ADC Sum Att

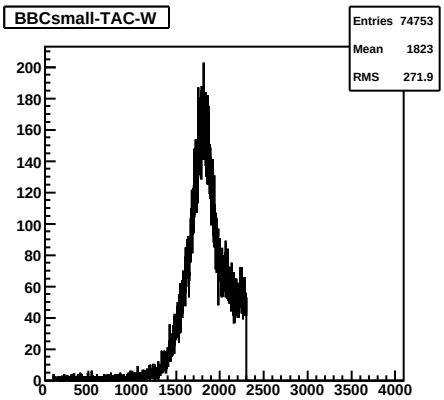

Entries 77797
BBC-L TAC Diff
BCC-S TAC Diff
Entries 77797
BBC-L TAC Diff
VPD TAC Diff
Entries 77797
BBC-L TAC Diff
ZDC TAC Diff
Entries 77797
BBC-S TAC Diff
VPD TAC Diff
Entries 77797
BBC-S TAC Diff
ZDC TAC Diff
Entries 77797
VPD TAC Diff
ZDC TAC Diff

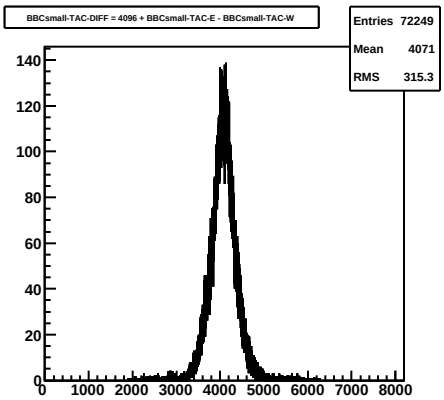

ZDC-TAC-E
Entries 13072
Mean 271.2
RMS 29.43

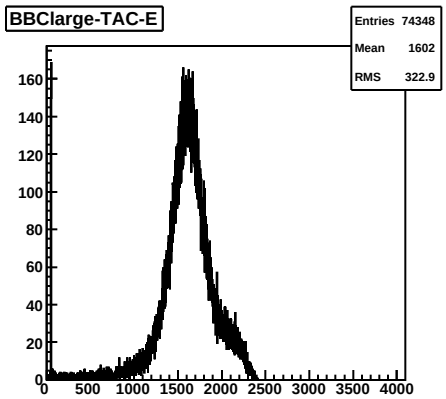

ZDC-TAC-W
Entries 11625
Mean 243
RMS 30.04

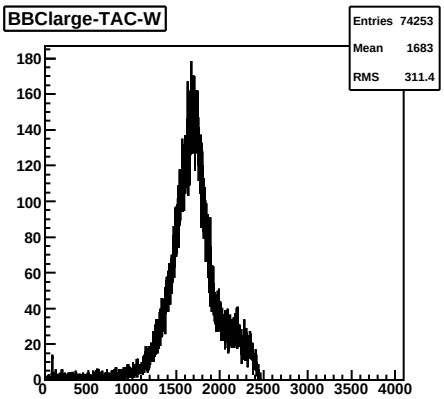

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 2768
Mean 1052
RMS 37.58

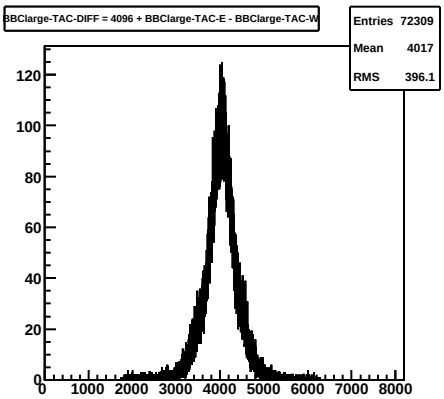

BBCsmall-TAC-E
Entries 74035
Mean 1801
RMS 250.9

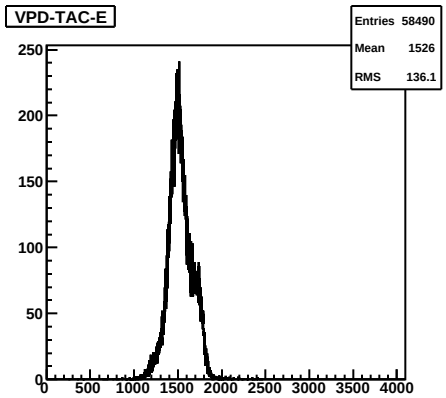

BBCsmall-TAC-W
Entries 74753
Mean 1823
RMS 271.9

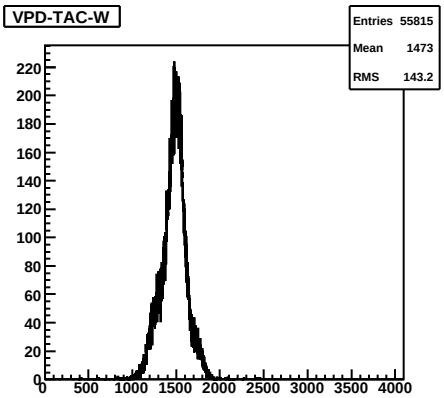

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 72249
Mean 4071
RMS 315.3

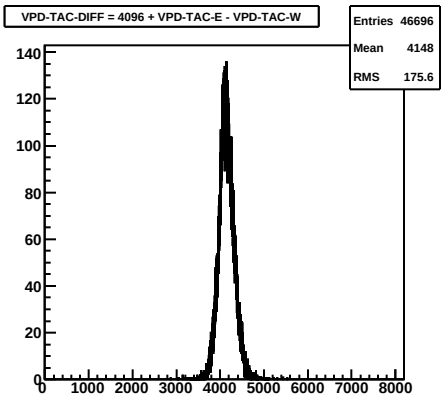

BBClarge-TAC-E
Entries 74348
Mean 1602
RMS 322.9

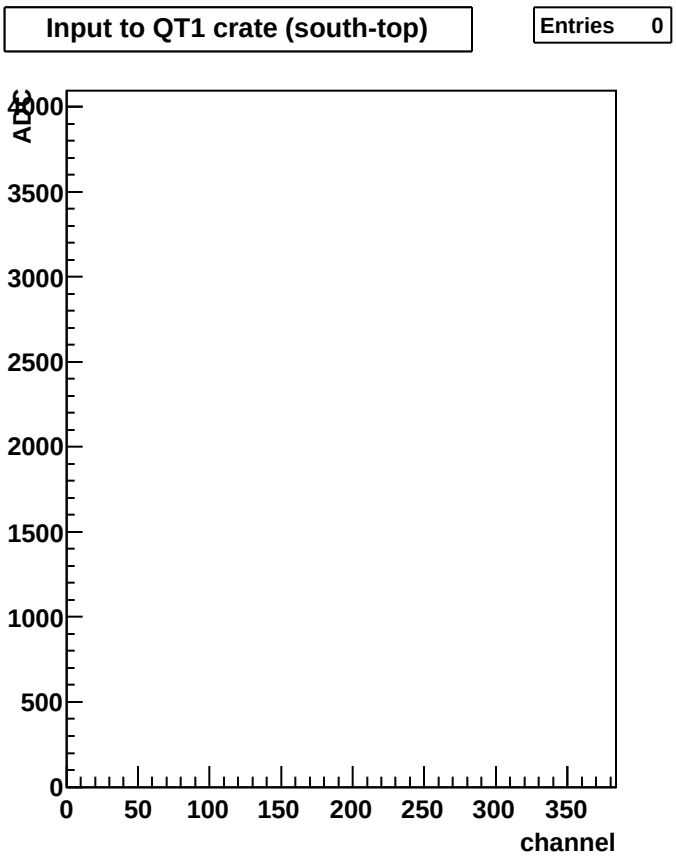

BBClarge-TAC-W
Entries 74253
Mean 1683
RMS 311.4

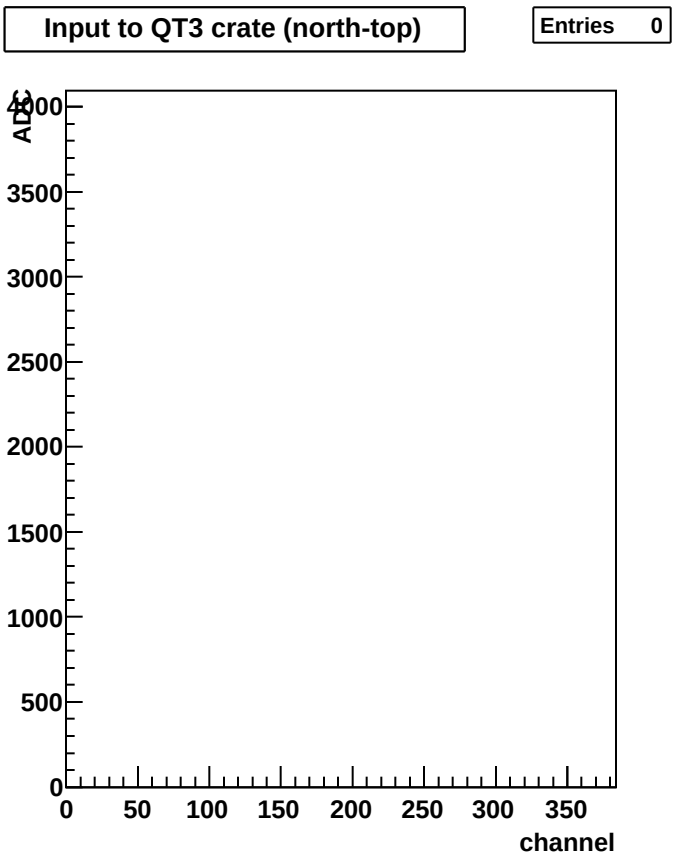

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 72309
Mean 4017
RMS 396.1

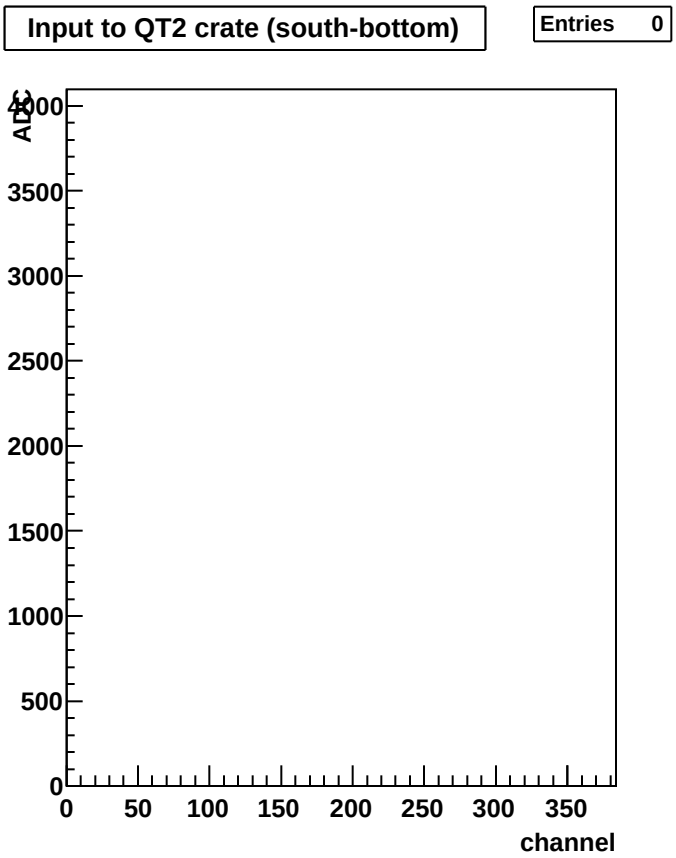

VPD-TAC-E
Entries 58490
Mean 1526
RMS 136.1

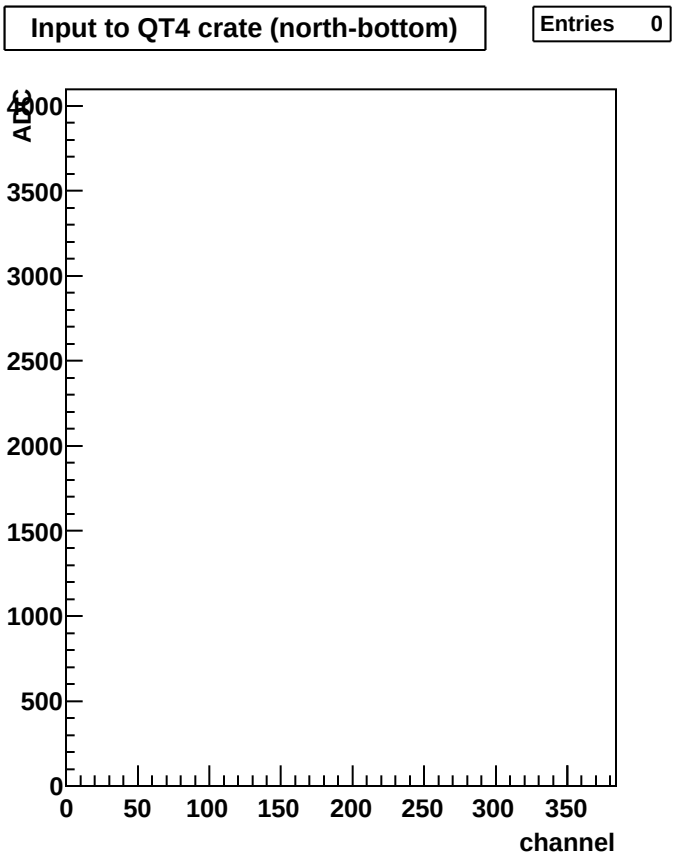

VPD-TAC-W
Entries 55815
Mean 1473
RMS 143.2

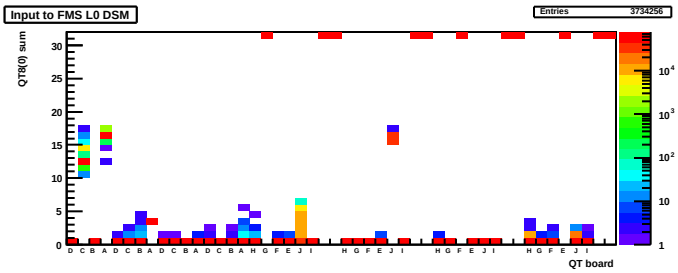

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 46696
Mean 4148
RMS 175.6

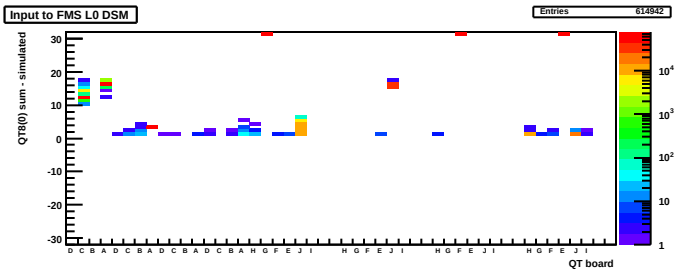

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

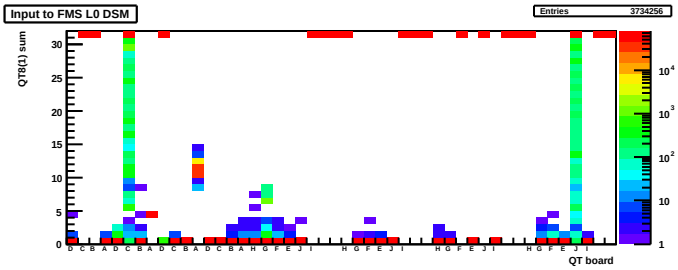

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

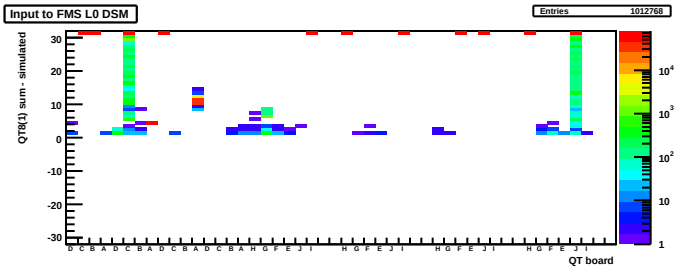

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

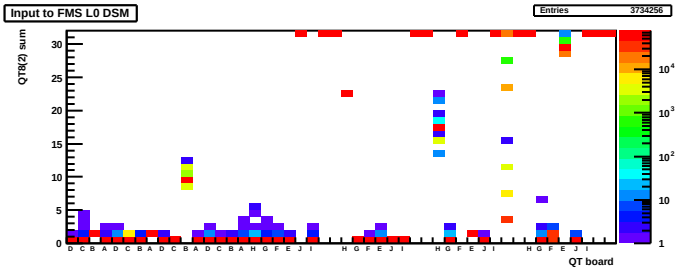

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

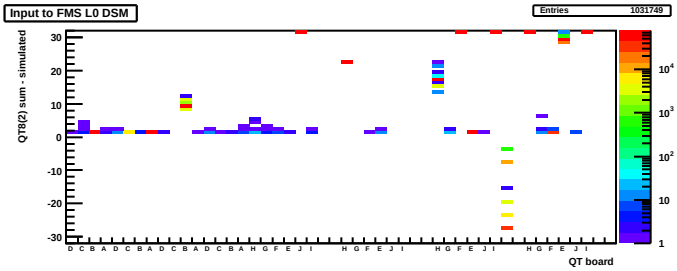

Input to FMS L0 DSM
Entries 3734256
QT8(0) sum
QT board

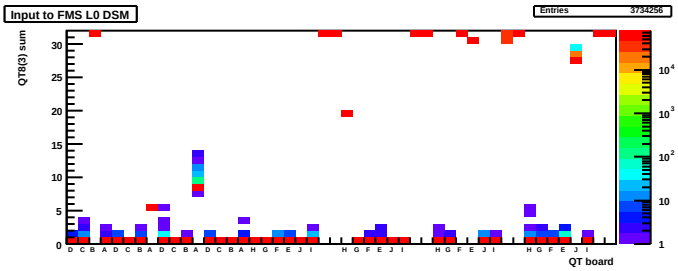

Input to FMS L0 DSM
Entries 614842
QT8(0) sum - simulated
QT board

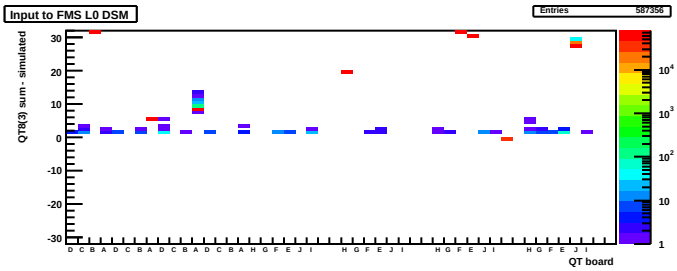

Input to FMS L0 DSM
Entries 3734256
QT8(1) sum
QT board

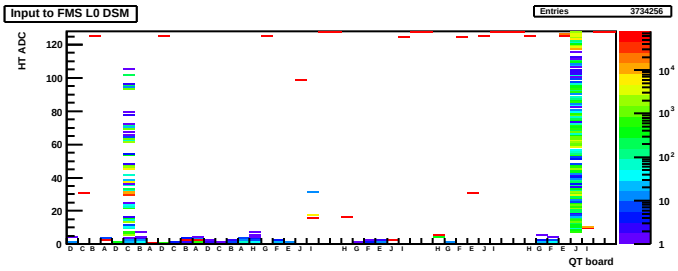

Input to FMS L0 DSM
Entries 1012768
QT8(1) sum - simulated
QT board

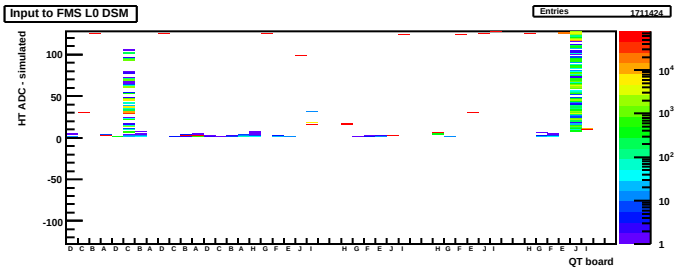

Input to FMS L0 DSM
Entries 3734256
QT8(2) sum
QT board

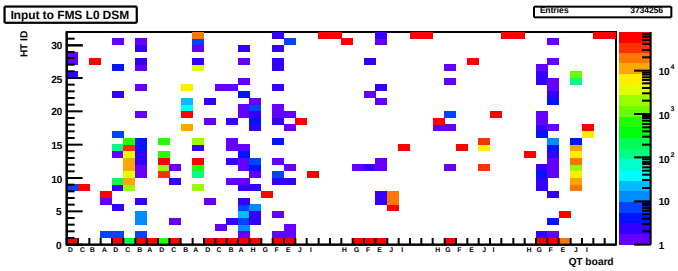

Input to FMS L0 DSM
Entries 1031749
QT8(2) sum - simulated
QT board

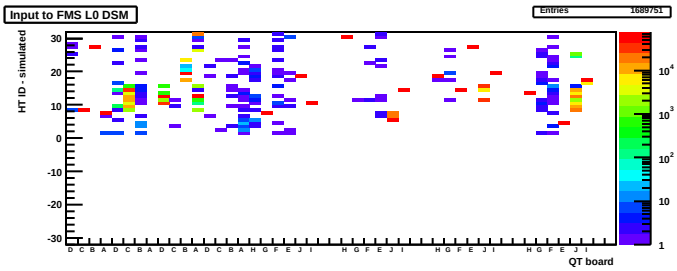

Input to FMS L0 DSM
Entries 3734256
QT8(3) sum
QT board

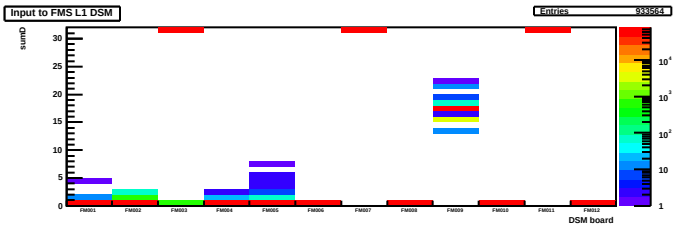

Input to FMS L0 DSM
Entries 587356
QT8(3) sum - simulated
QT board

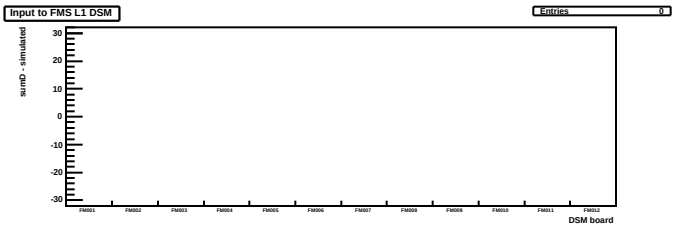

Input to FMS L0 DSM
Entries 3734256
HT ADC
QT board

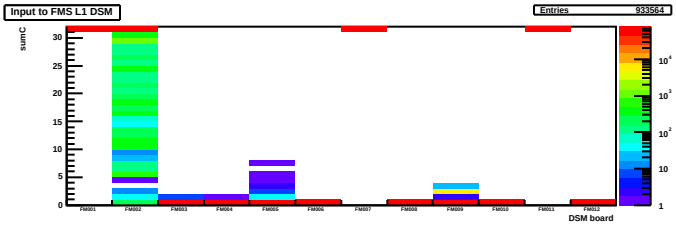

Input to FMS L0 DSM
Entries 1711424
HT ADC - simulated
QT board

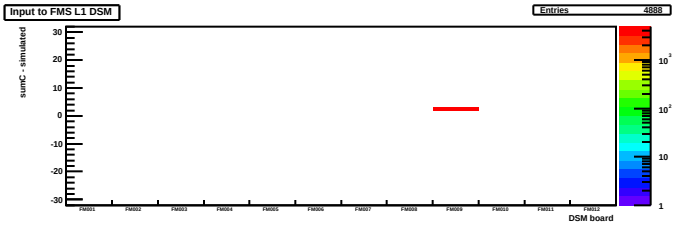

Input to FMS L0 DSM
Entries 3734256
HT ID
QT board

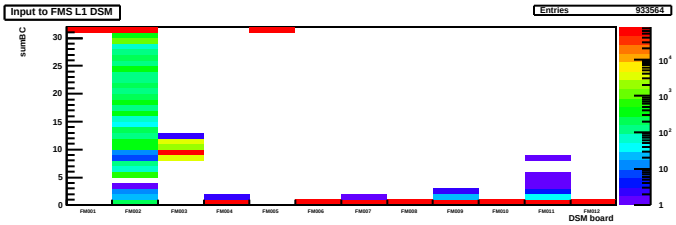

Input to FMS L0 DSM
Entries 1689751
HT ID - simulated
QT board

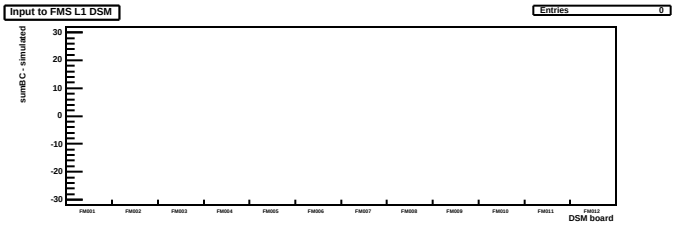

Input to FMS L1 DSM
Entries 933564
sumD
DSM board

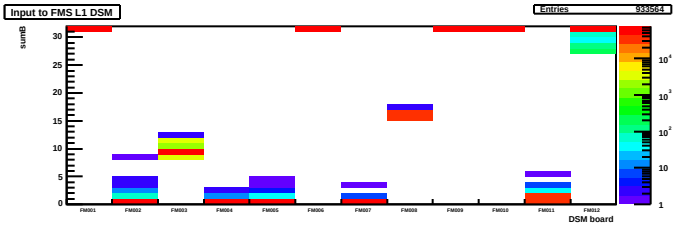

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

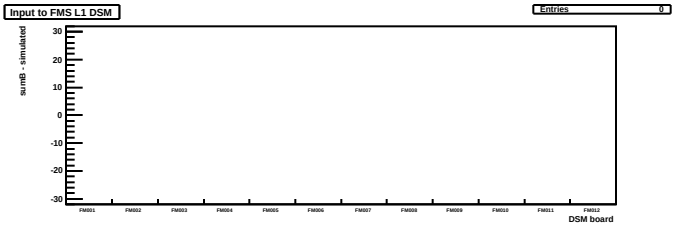

Input to FMS L1 DSM
Entries 933564
sumC
DSM board

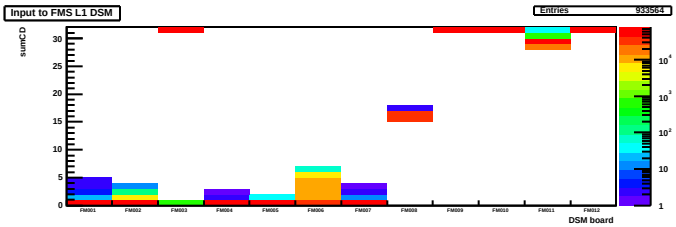

Input to FMS L1 DSM
Entries 4888
sumC - simulated
DSM board

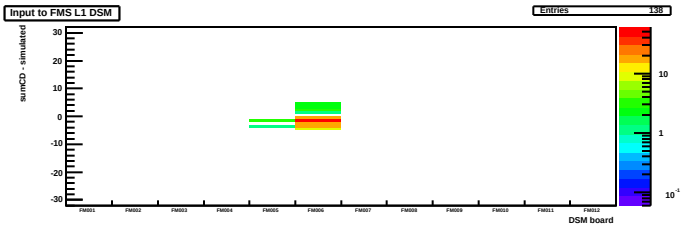

Input to FMS L1 DSM
Entries 933564
sumBC
DSM board

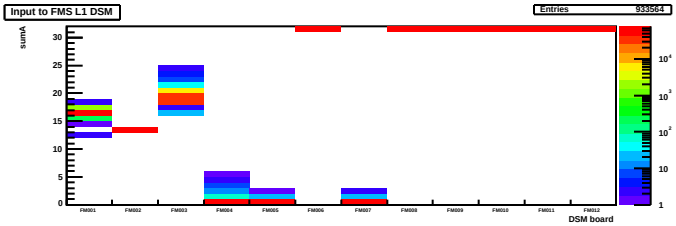

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

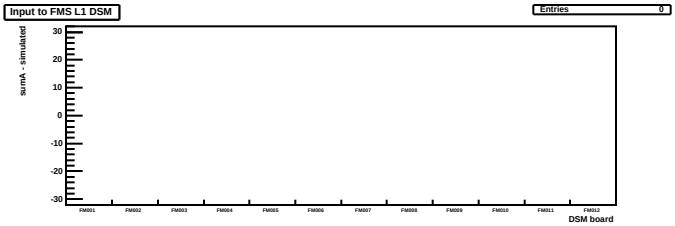

Input to FMS L1 DSM
Entries 933564
sumB
DSM board

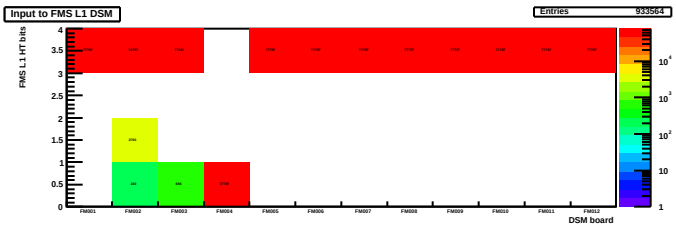

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

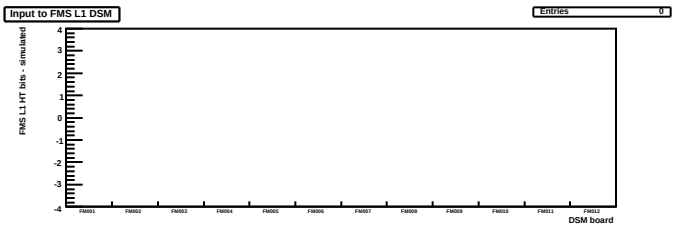

Input to FMS L1 DSM
Entries 933564
sumCD
DSM board

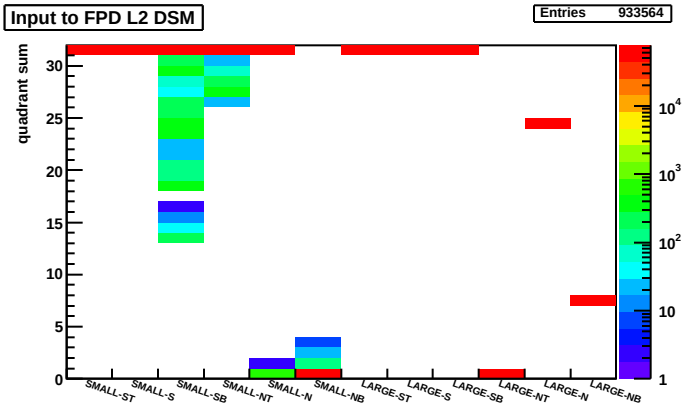

Input to FMS L1 DSM
Entries 138
sumCD - simulated
DSM board

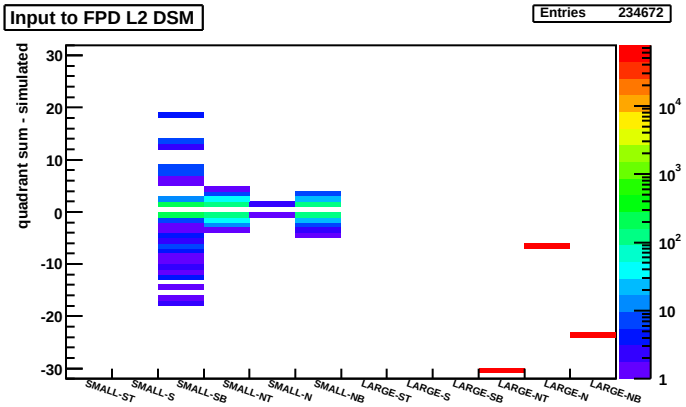

Input to FMS L1 DSM
Entries 933564
sumA
DSM board

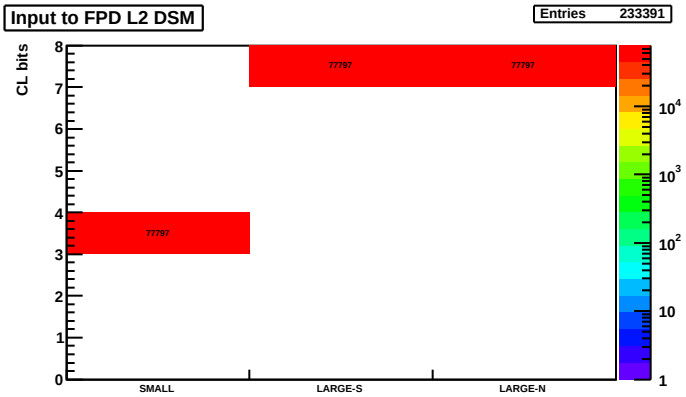

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

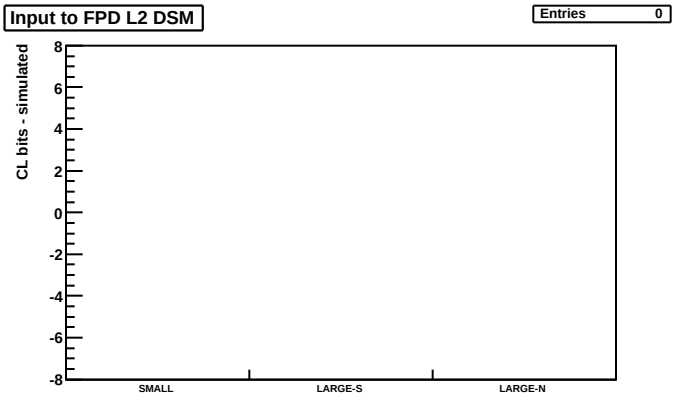

Input to FMS L1 DSM
Entries 933564
FMS L1 HT bits
DSM board

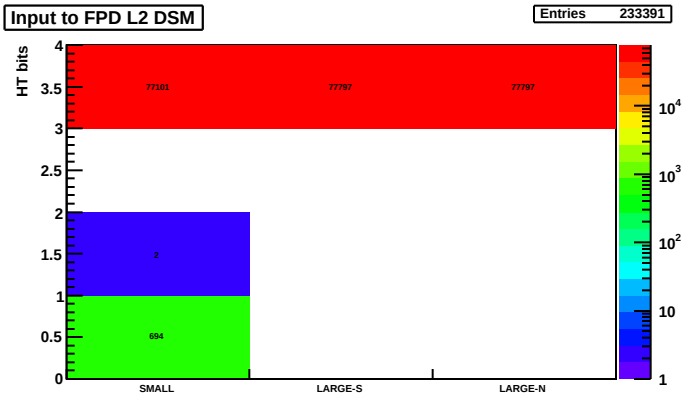

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

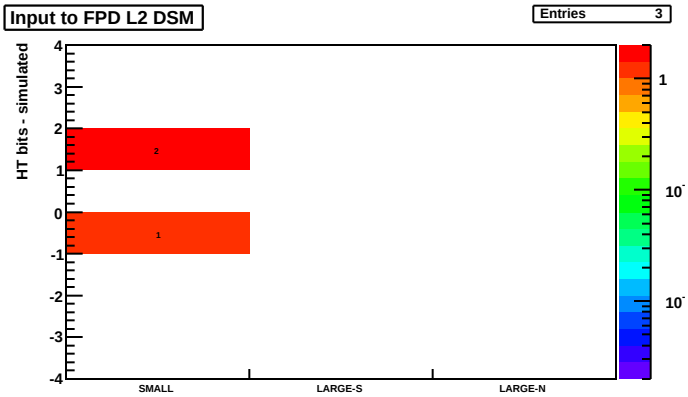

Input to FPD L2 DSM
Entries 933564
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

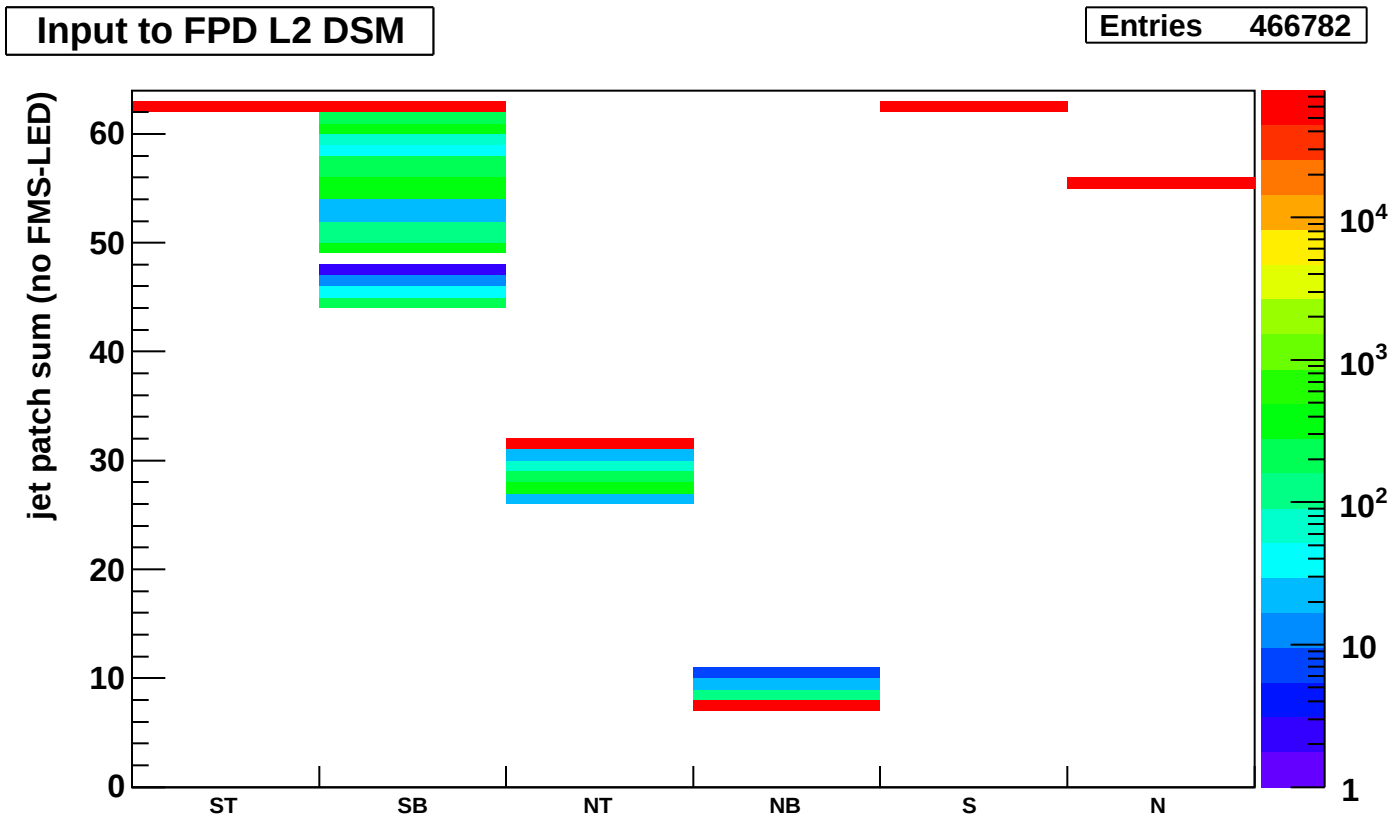

Input to FPD L2 DSM
Entries 234672
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

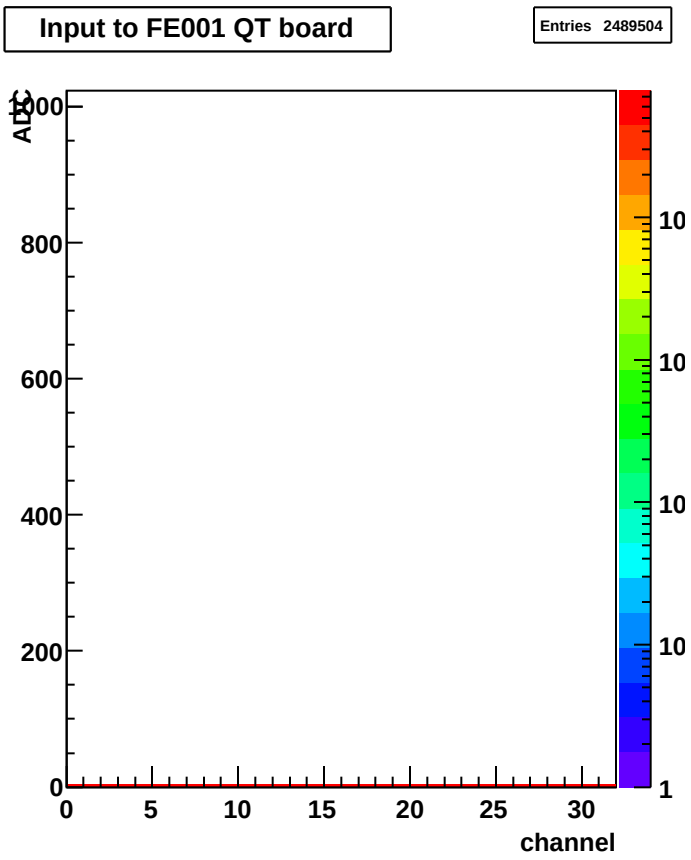

Input to FPD L2 DSM
Entries 233391
CL bits
77797
77797
77797
SMALL
LARGE-S
LARGE-N

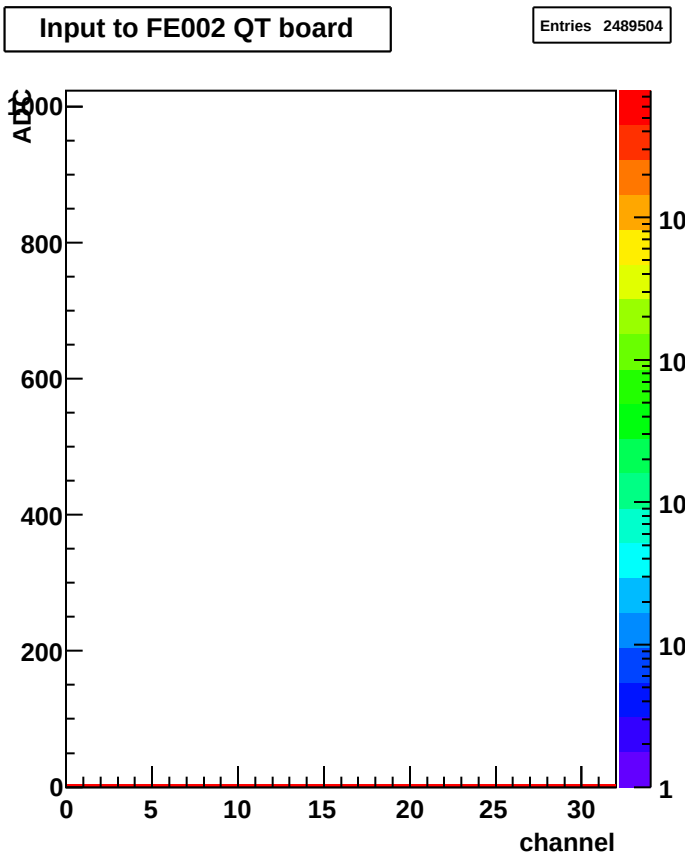

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

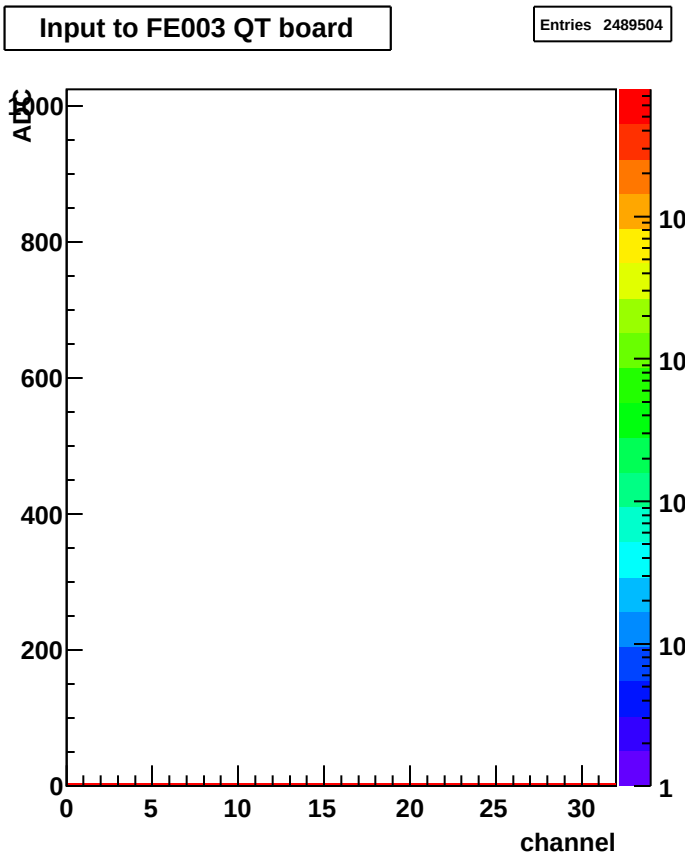

Input to FPD L2 DSM
Entries 233391
HT bits
77101
77797
77797
2
694
SMALL
LARGE-S
LARGE-N

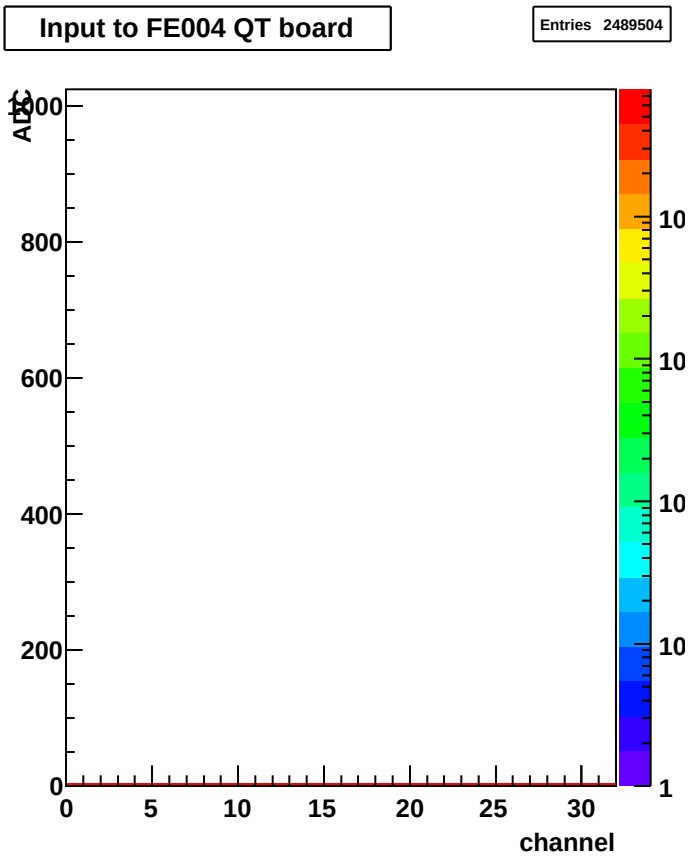

Input to FPD L2 DSM
Entries 3
HT bits - simulated
2
1
SMALL
LARGE-S
LARGE-N


Input to FPD L2 DSM
Entries 466782
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

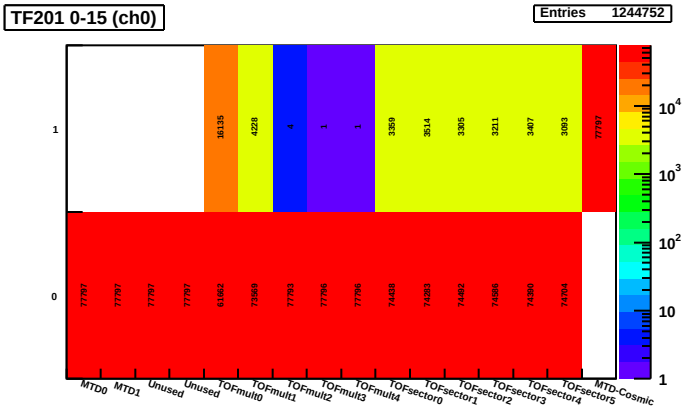

Input to FE001 QT board
Entries 2489504
ADC
channel


Input to FE002 QT board
Entries 2489504
ADC
channel

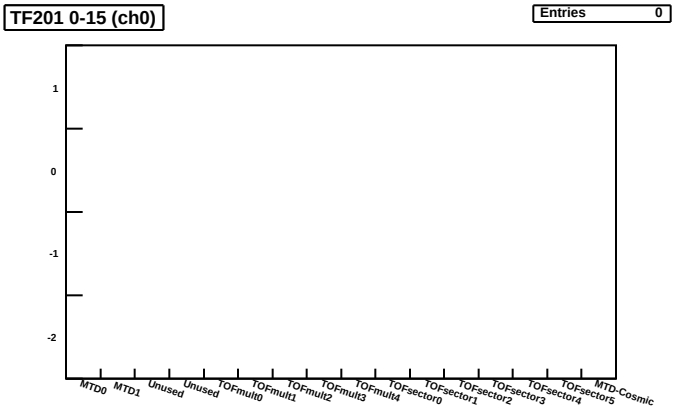

Input to FE003 QT board
Entries 2489504
ADC
channel


Input to FE004 QT board
Entries 2489504
ADC
channel

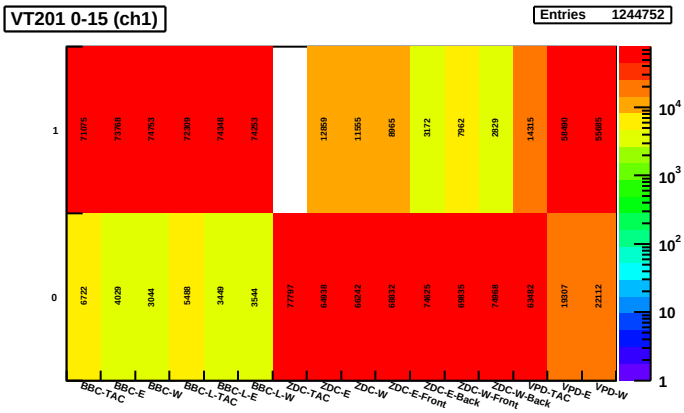
TF201 0-15 (ch0)



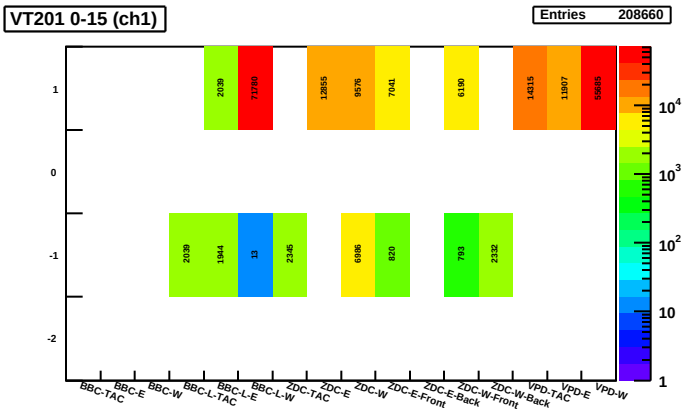
TF201 0-15 (ch0)



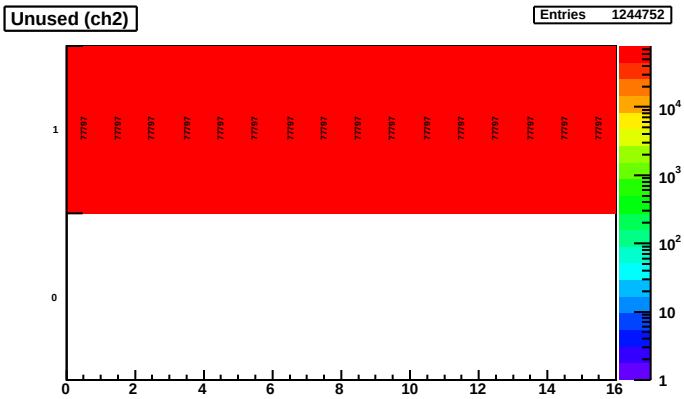
VT201 0-15 (ch1)

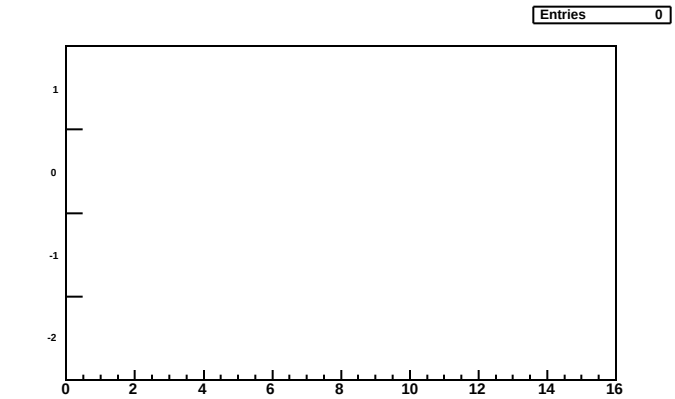


VT201 0-15 (ch1)

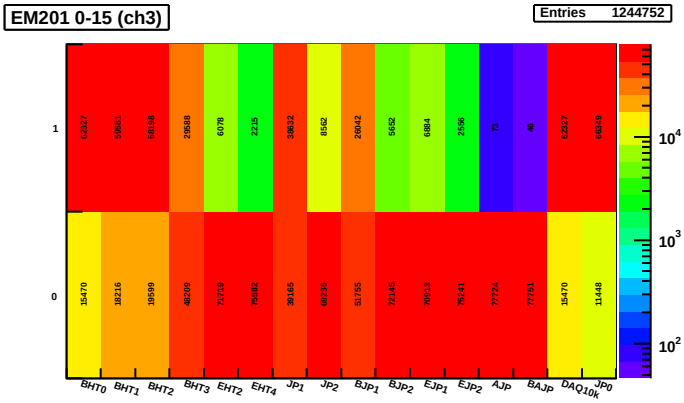


Unused (ch2)





EM201 0-15 (ch3)



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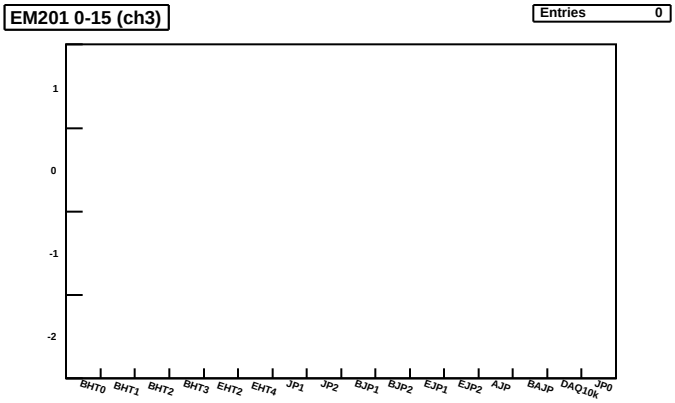
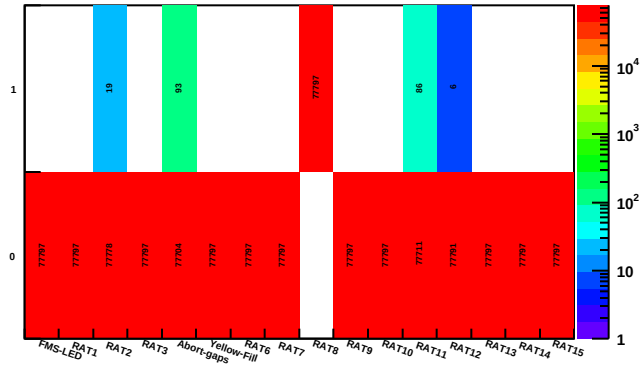
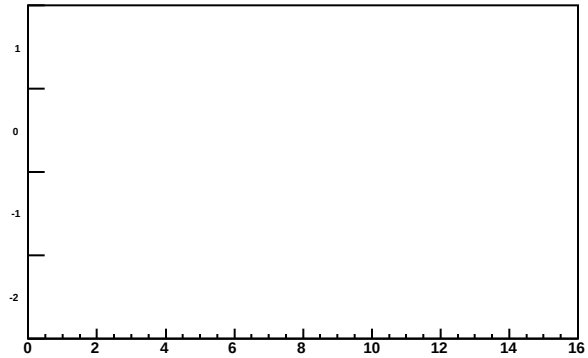
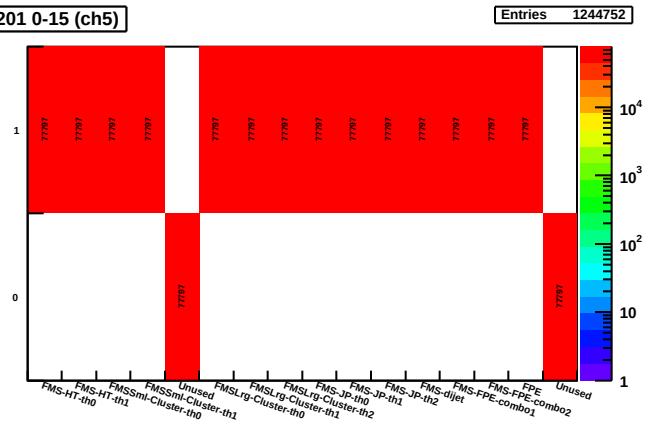


RAT board (ch4)





FP201 0-15 (ch5)



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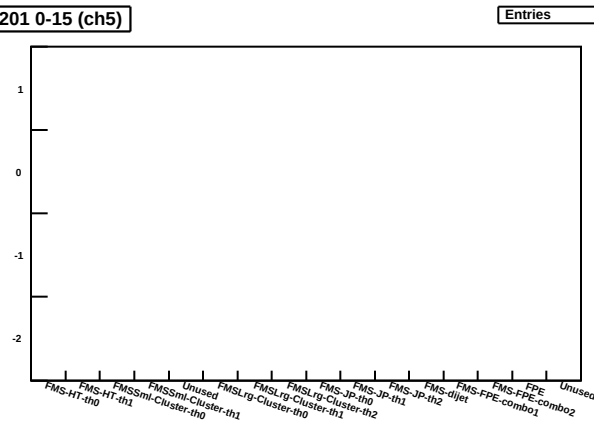

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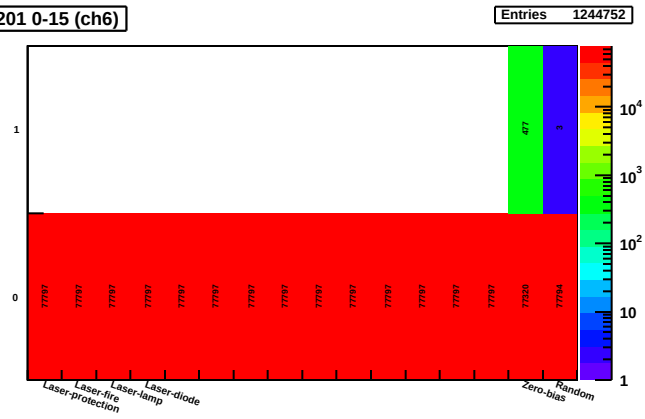

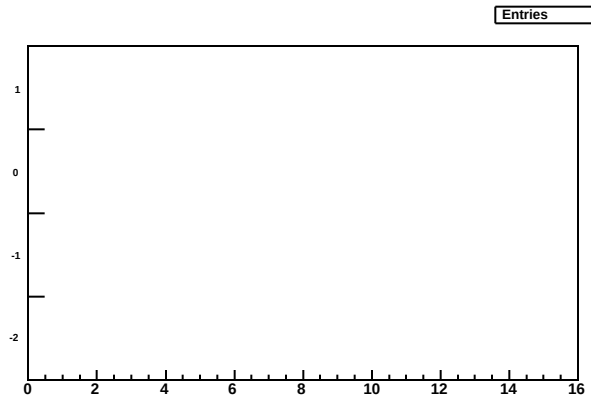
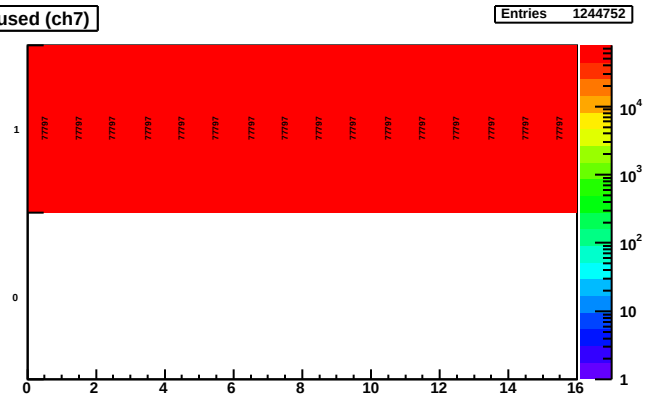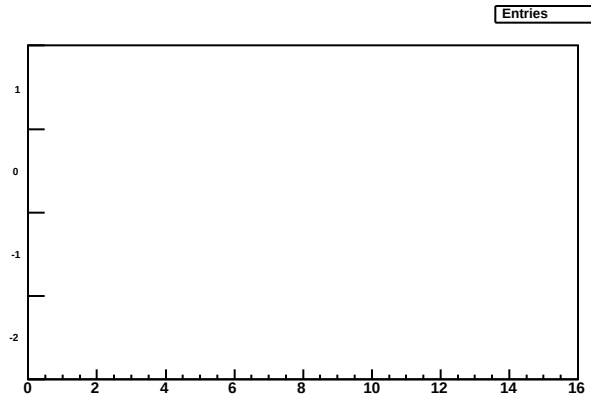
Unused (ch7)