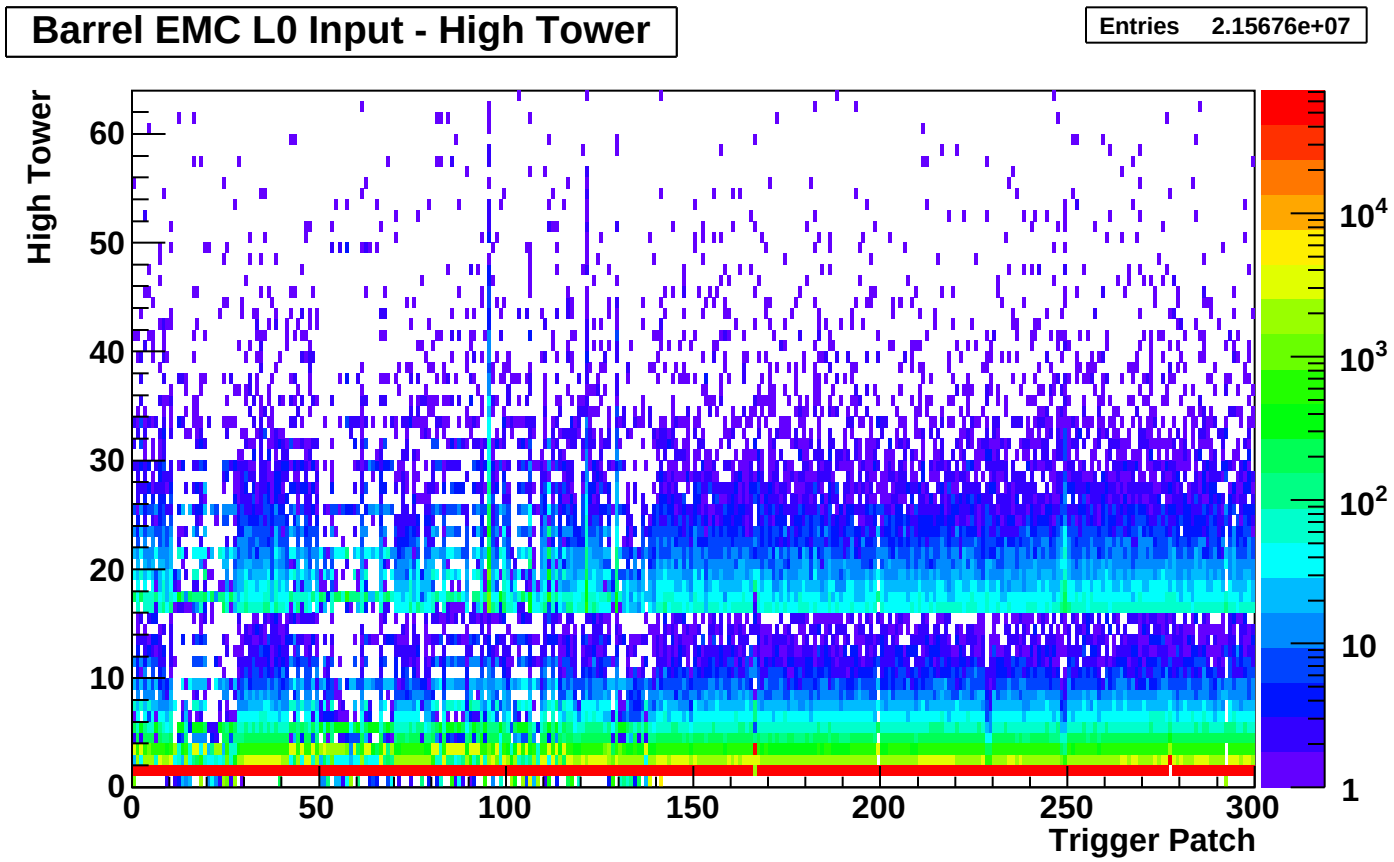
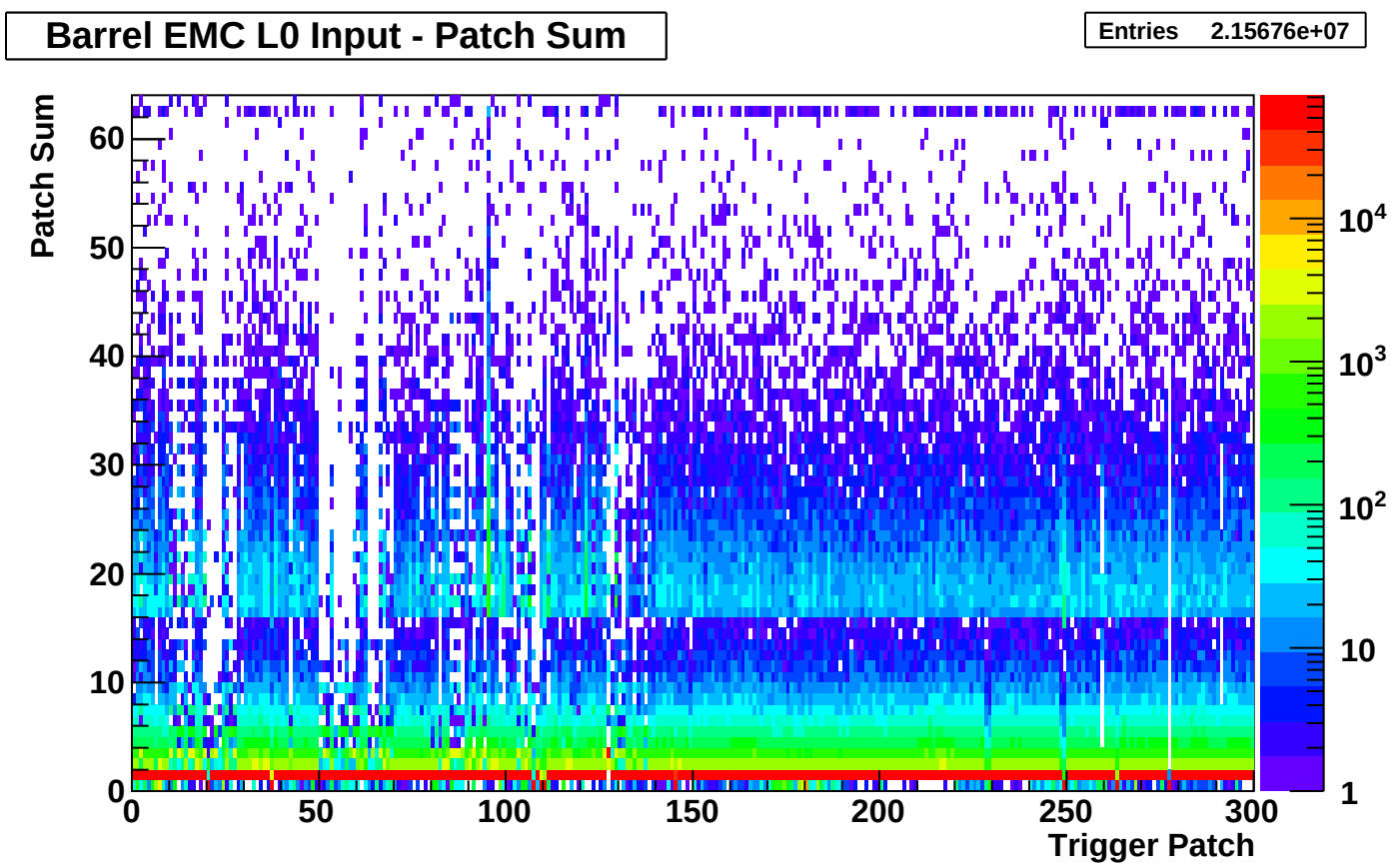
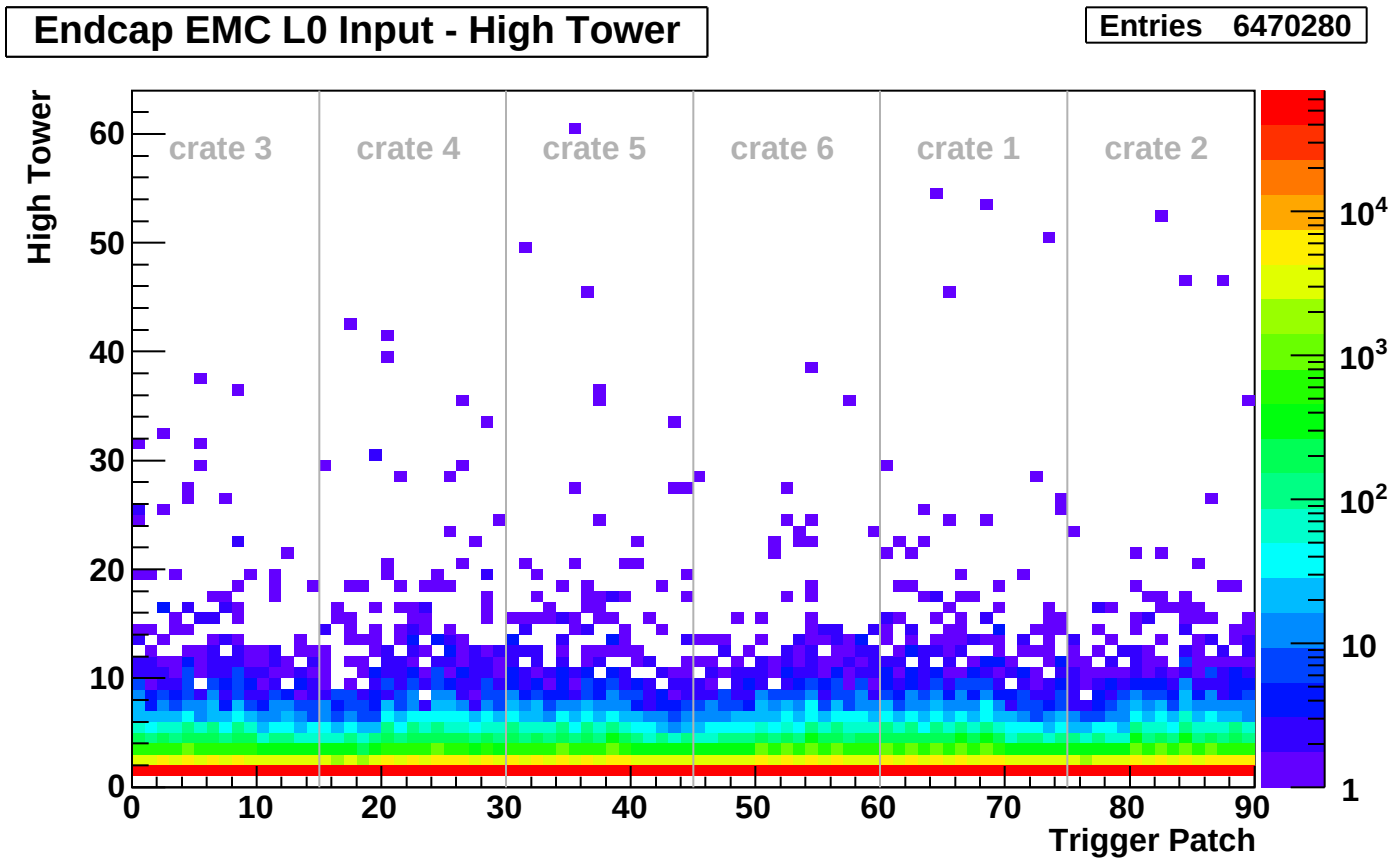
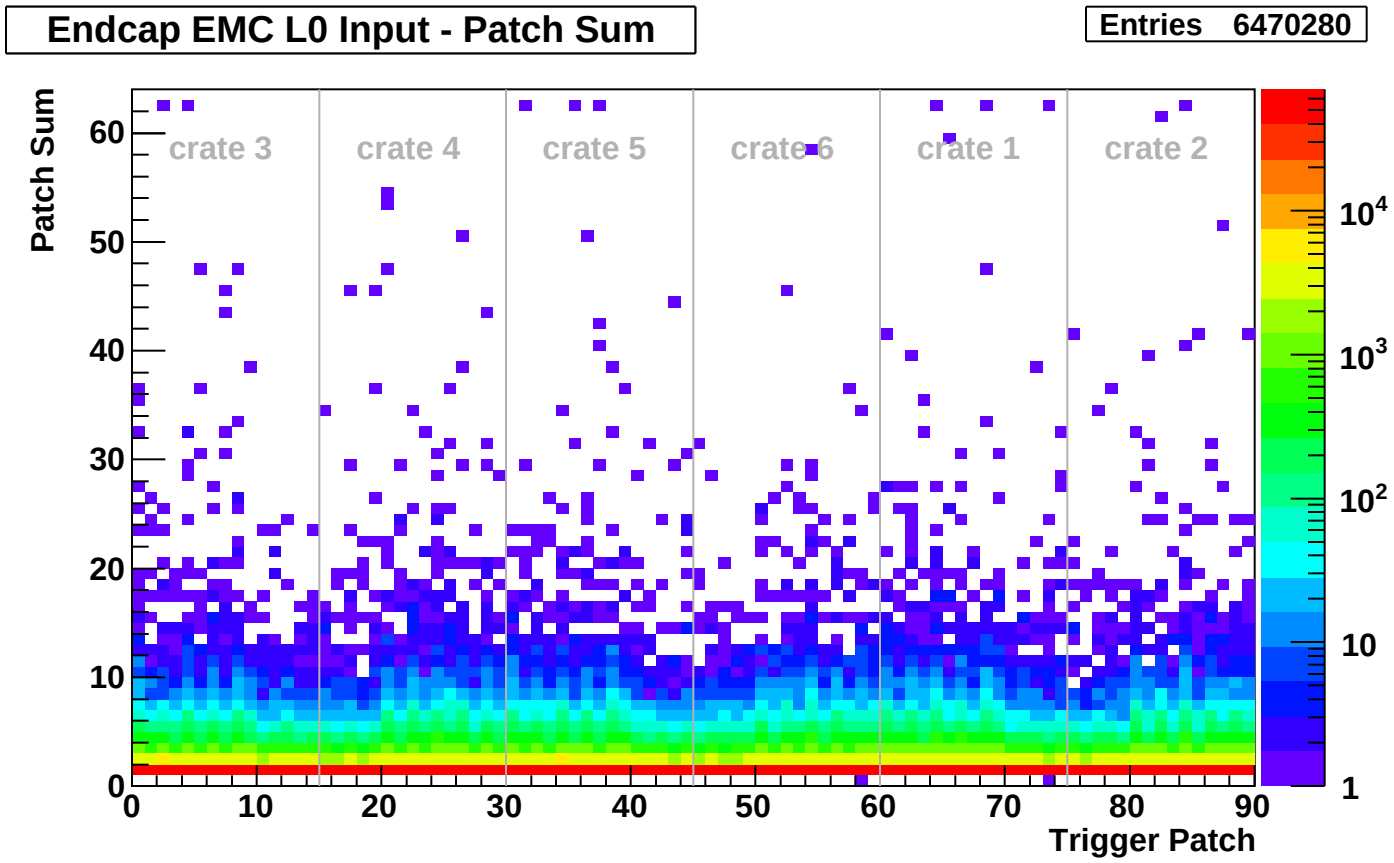
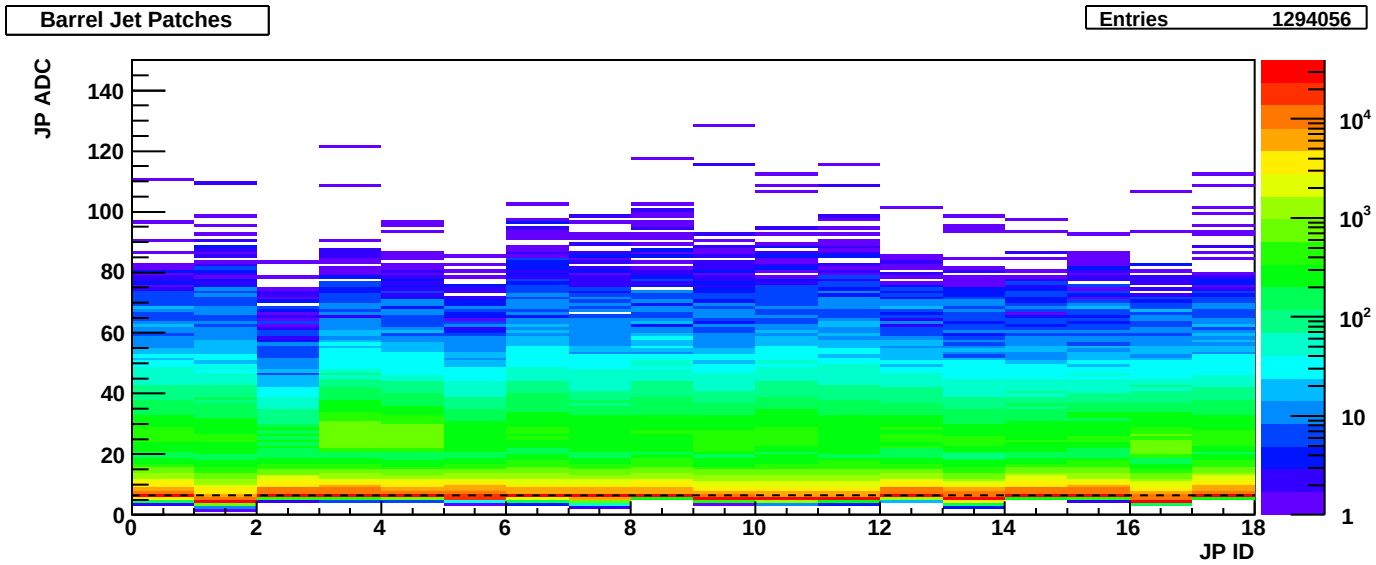
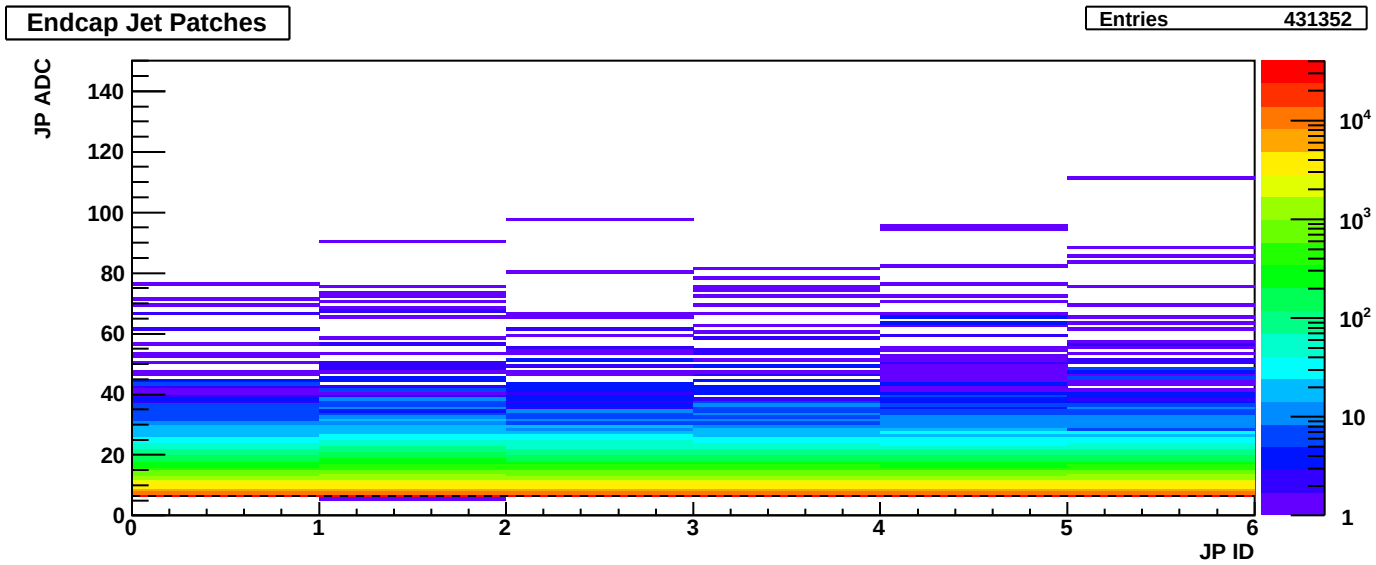

Barrel EMC L0 Input - High Tower
Entries 2.15676e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

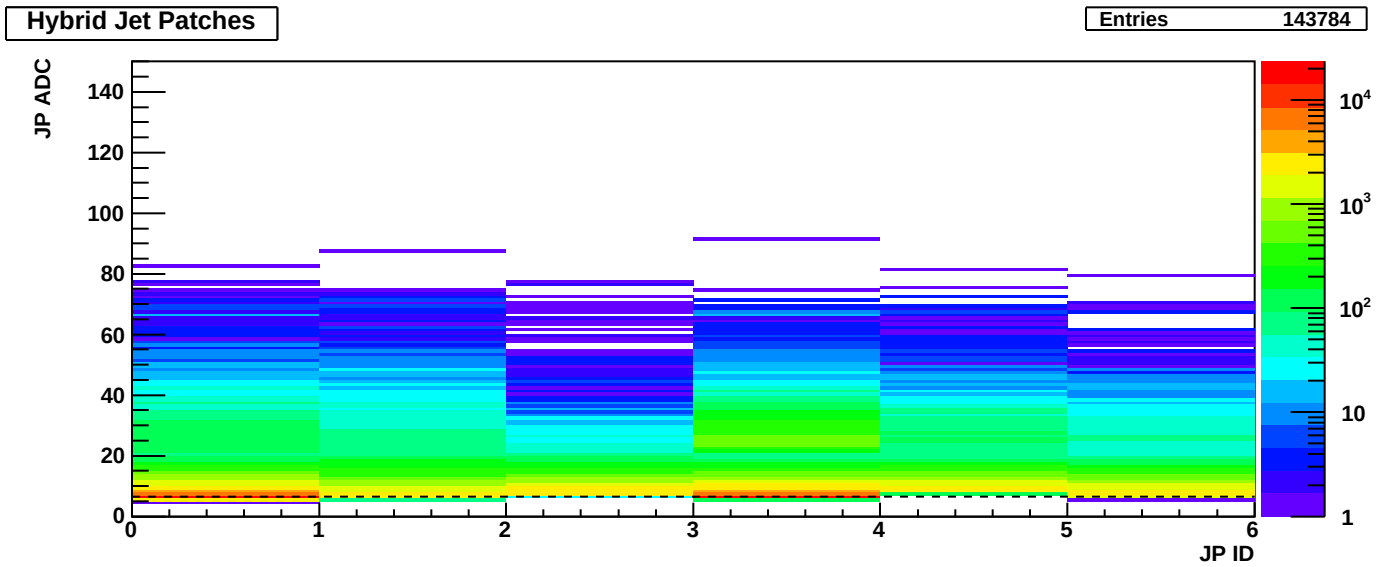

Barrel EMC L0 Input - Patch Sum
Entries 2.15676e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

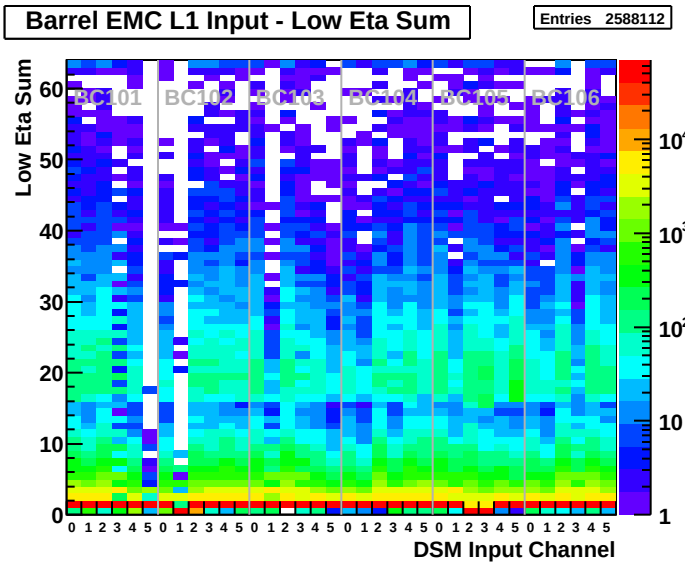

Endcap EMC L0 Input - High Tower
Entries 6470280
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

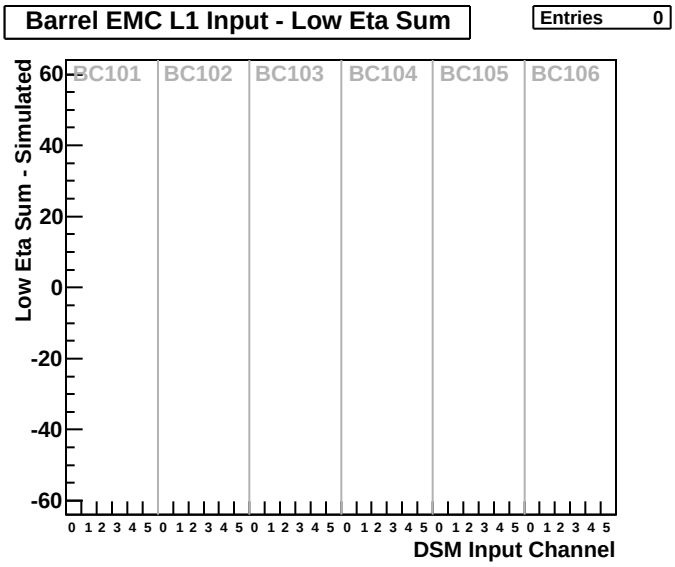

Endcap EMC L0 Input - Patch Sum
Entries 6470280
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

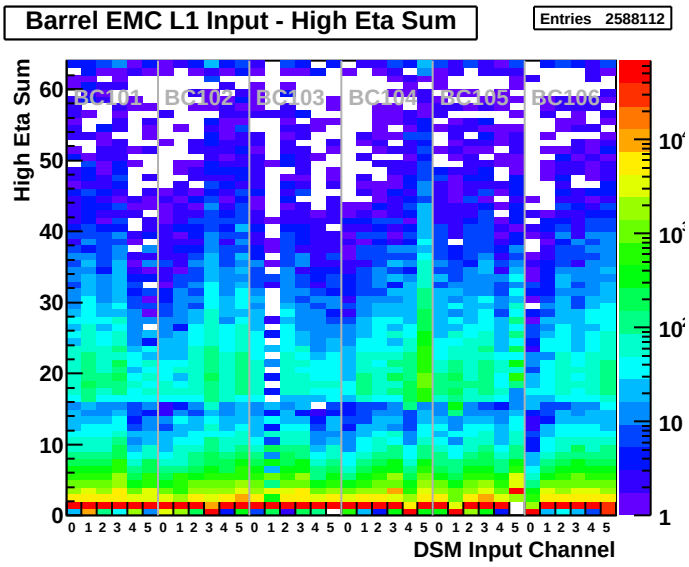

Barrel Jet Patches
Entries 1294056
JP ADC
JP ID

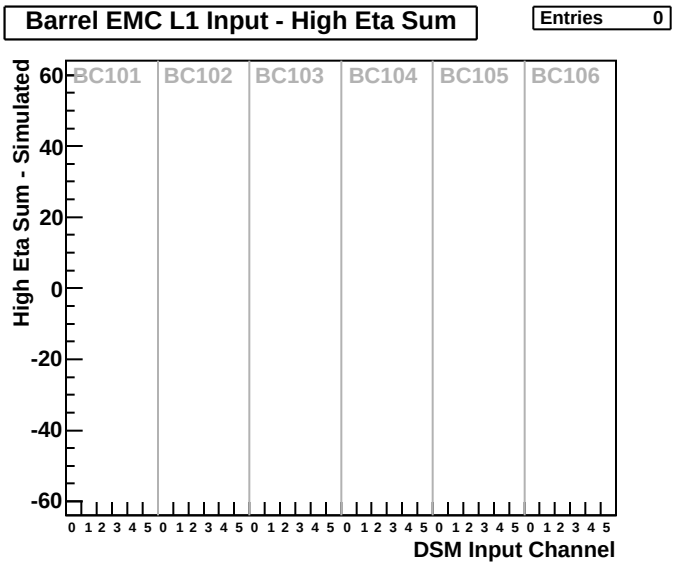

Endcap Jet Patches
Entries 431352
JP ADC
JP ID

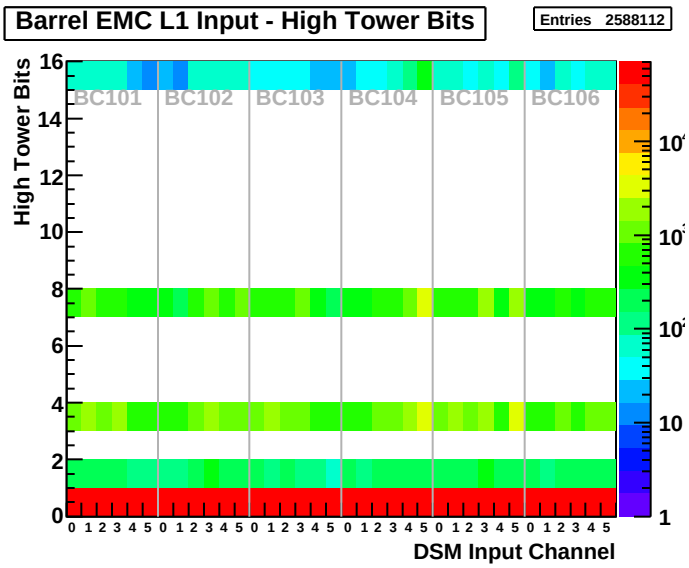

Hybrid Jet Patches
Entries 143784
JP ADC
JP ID

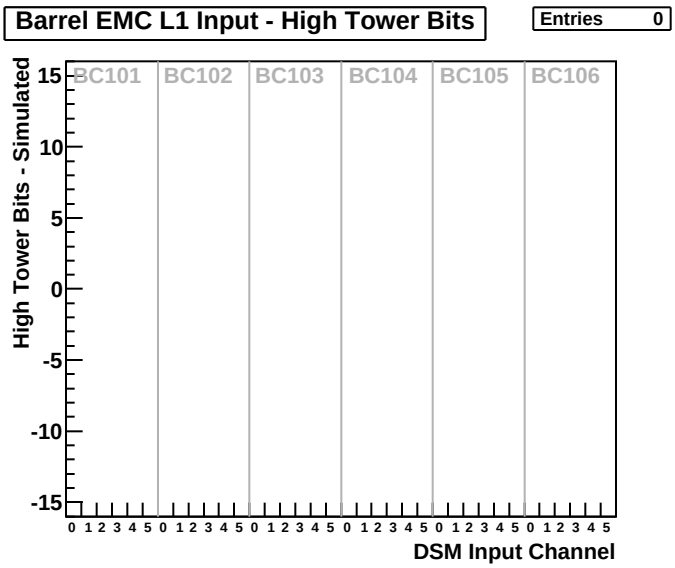

Barrel EMC L1 Input - Low Eta Sum
Entries 2588112
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

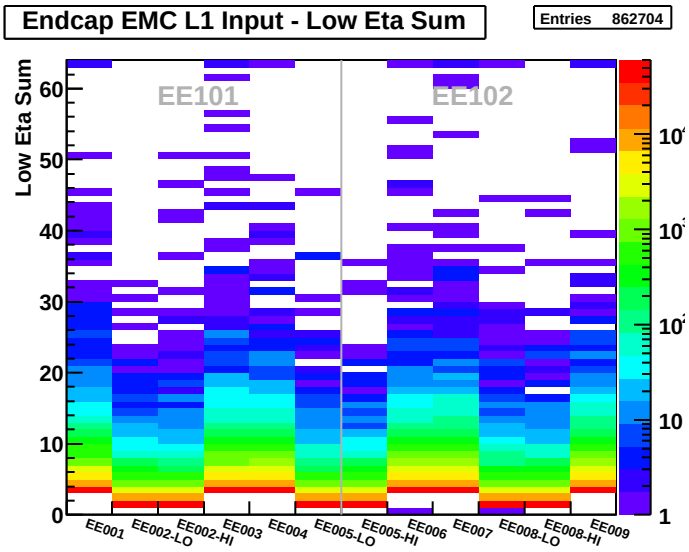

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

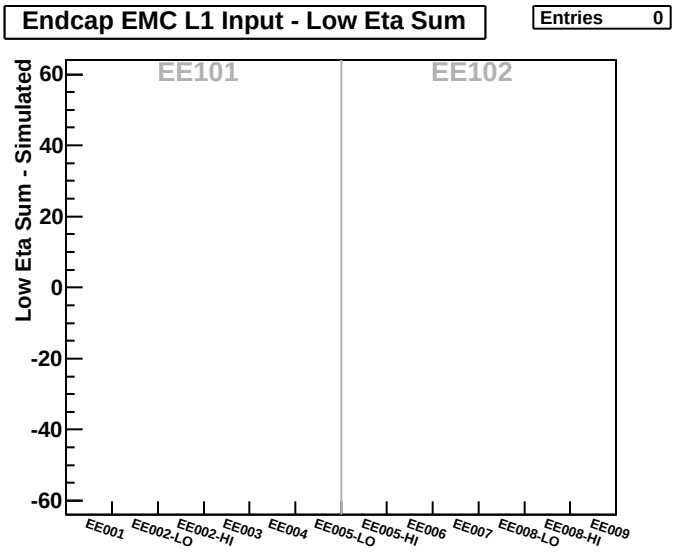

Barrel EMC L1 Input - High Eta Sum
Entries 2588112
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

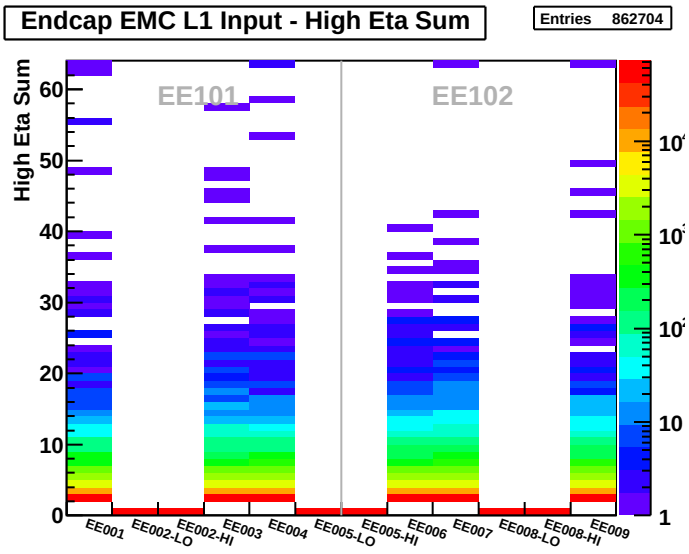

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

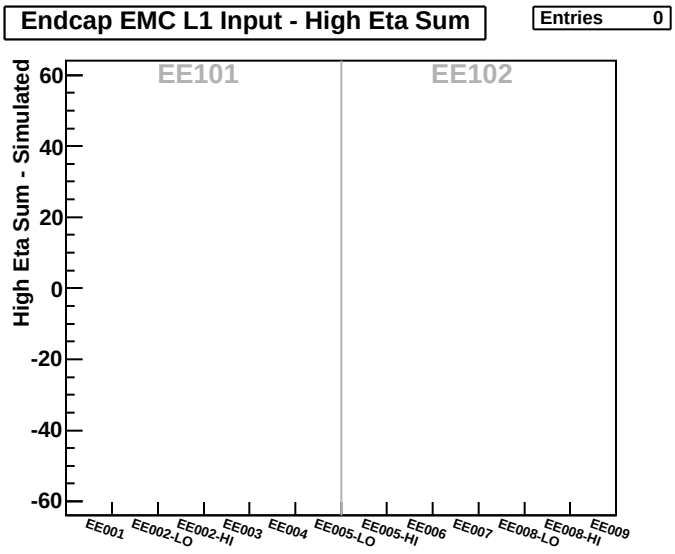

Barrel EMC L1 Input - High Tower Bits
Entries 2588112
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

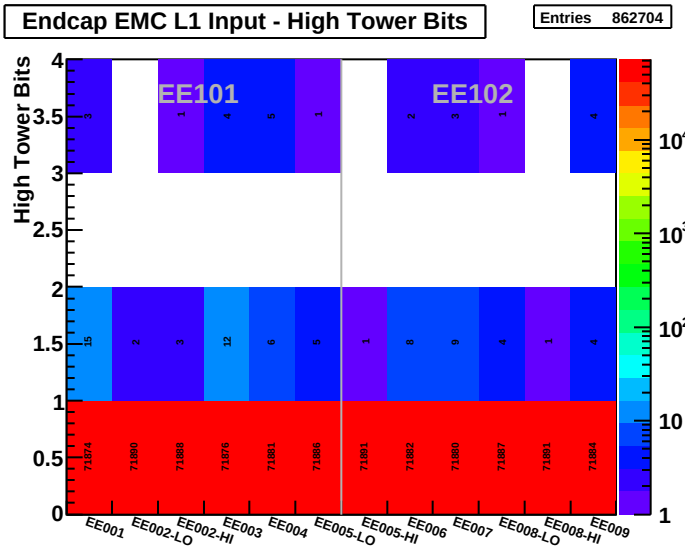

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

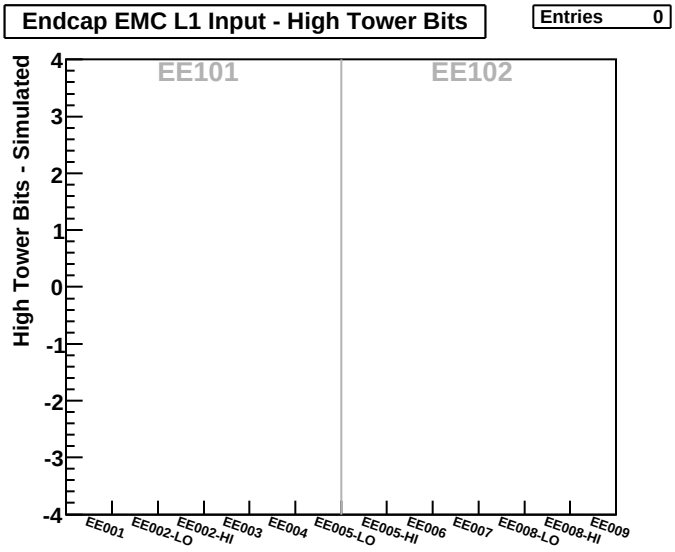

Endcap EMC L1 Input - Low Eta Sum
Entries 862704
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

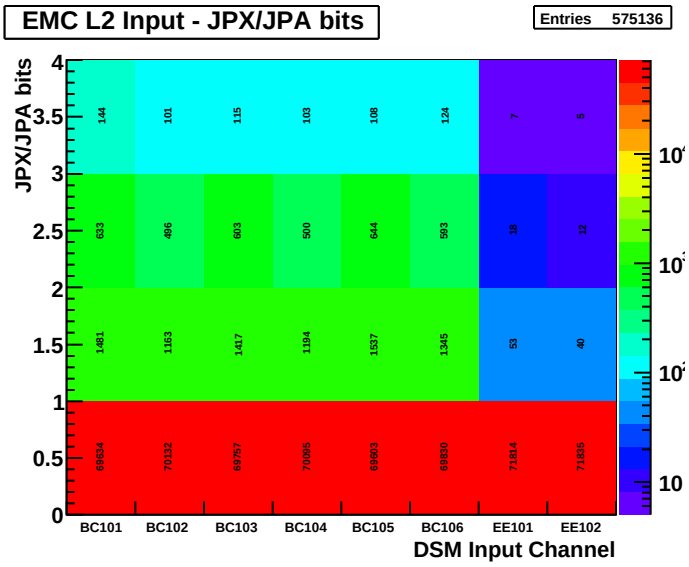

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

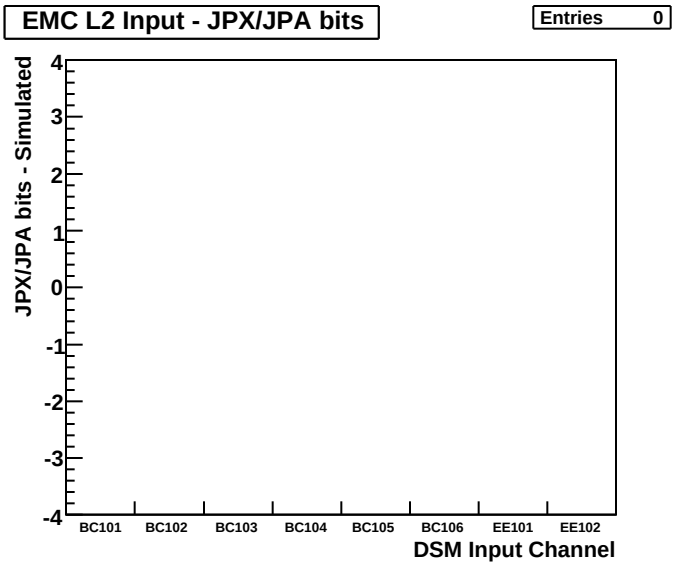

Endcap EMC L1 Input - High Eta Sum
Entries 862704
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

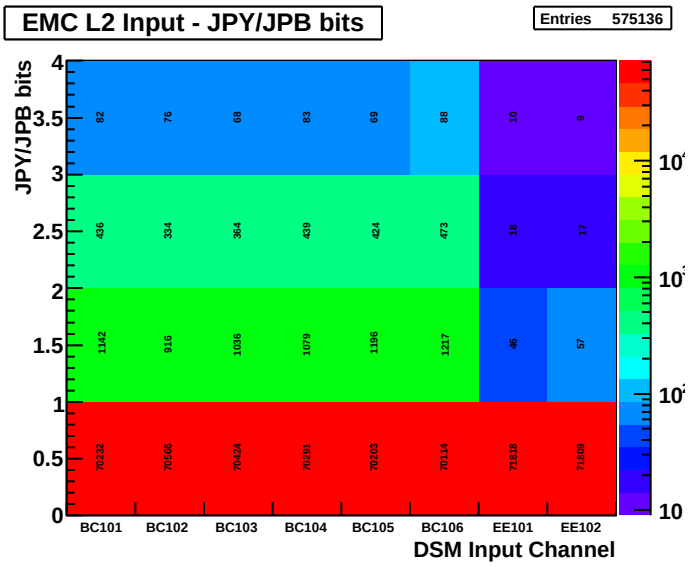

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

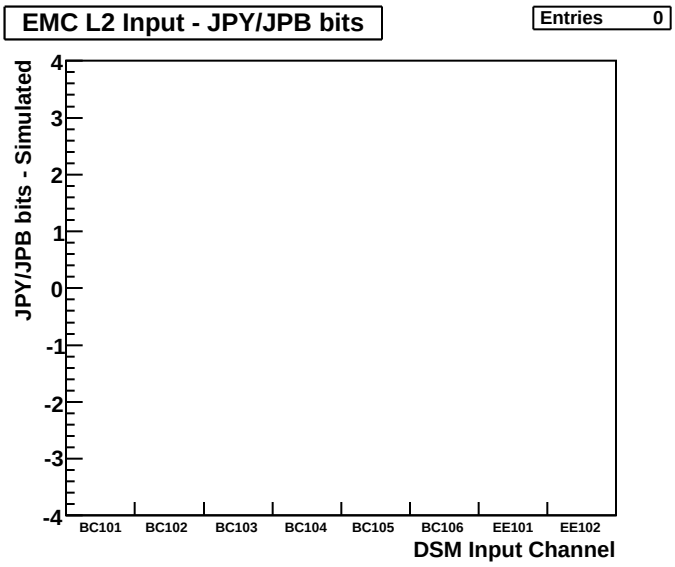

Endcap EMC L1 Input - High Tower Bits
Entries 862704
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

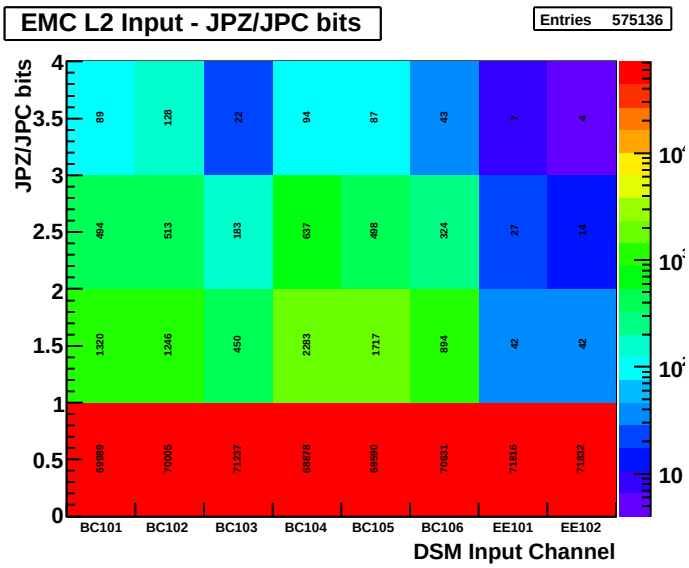

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

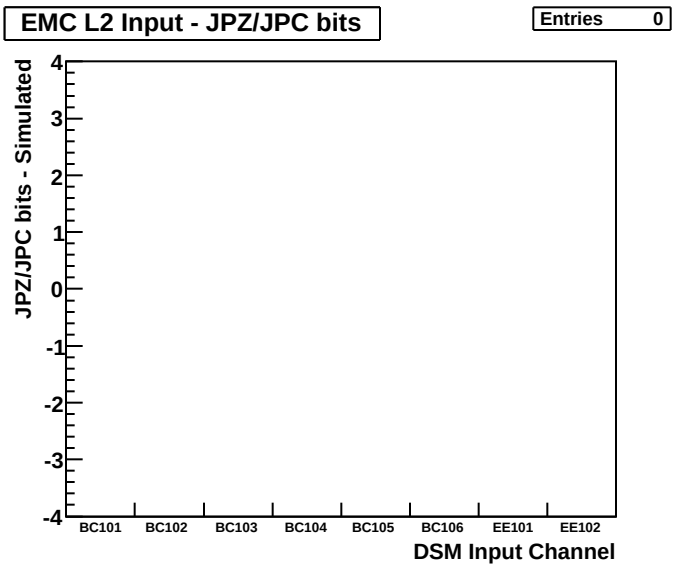

EMC L2 Input - JPX/JPA bits
Entries 575136
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
144 101 115 103 108 124 7 5
633 406 603 500 644 593 18 12
1481 1163 1417 1194 1537 1345 53 40
69634 70132 69757 70095 69903 69830 71814 71835

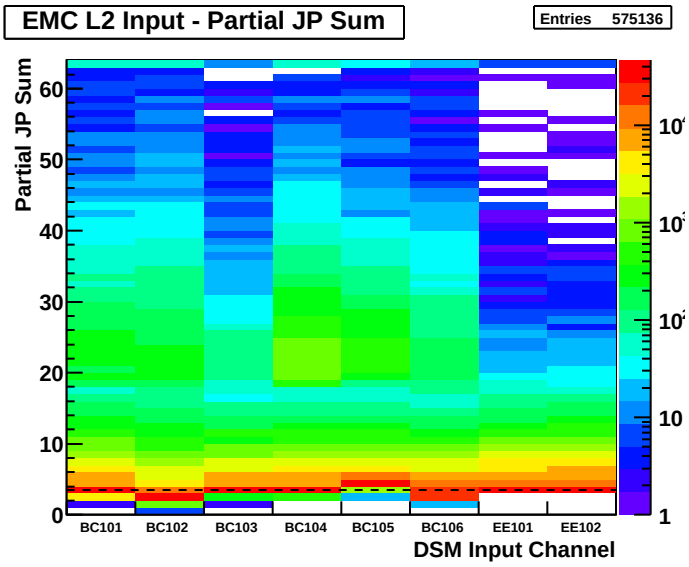

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

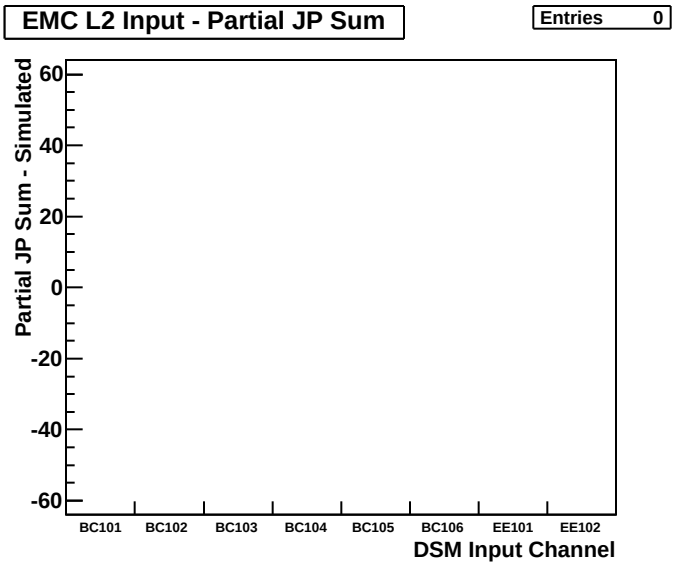

EMC L2 Input - JPY/JPB bits
Entries 575136
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
82 76 68 83 69 88 10 9
436 334 364 439 424 473 18 17
1142 916 1036 1079 1196 1217 46 57
70232 70566 70424 70291 70203 70114 71818 71809

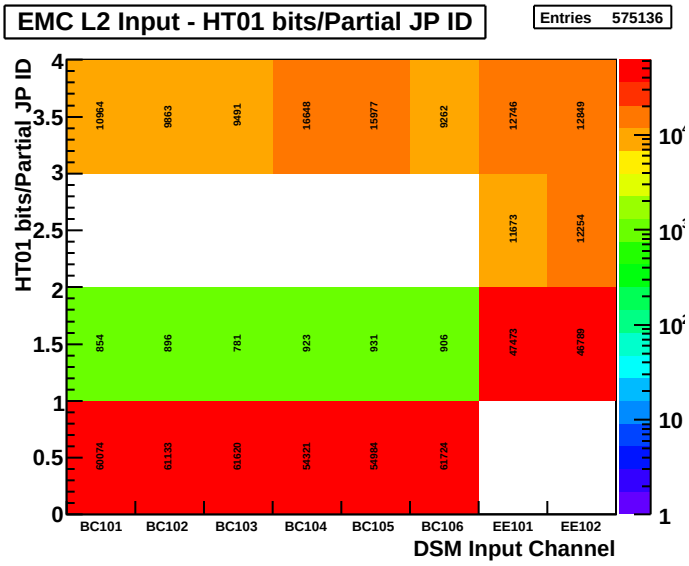

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

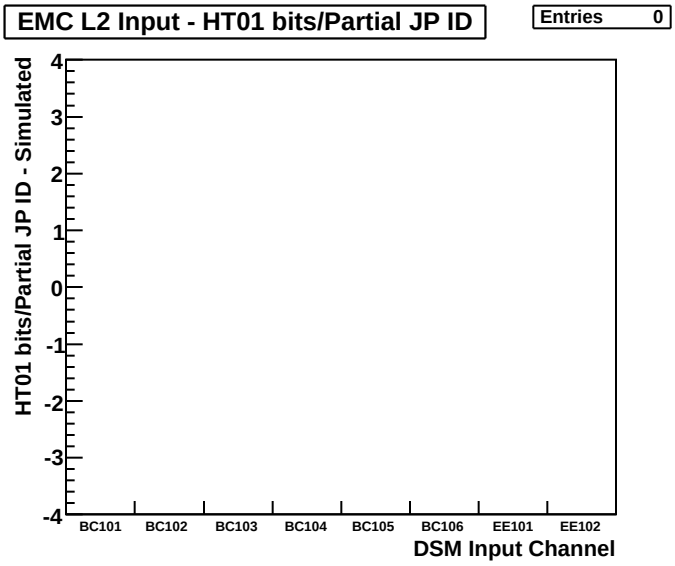

EMC L2 Input - JPZ/JPC bits
Entries 575136
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
89 128 22 94 87 43 7 4
484 513 183 637 498 324 27 14
1320 1246 450 2283 1717 894 42 42
69989 70005 71237 68878 69590 70631 71816 71832

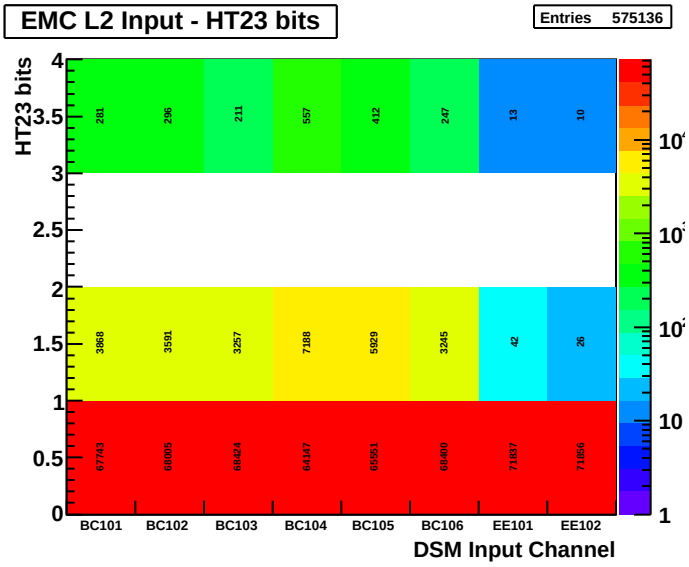

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

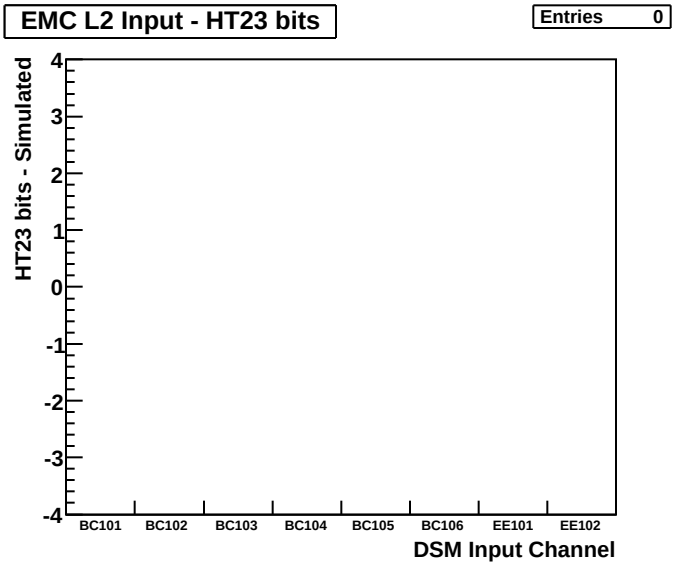

EMC L2 Input - Partial JP Sum
Entries 575136
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

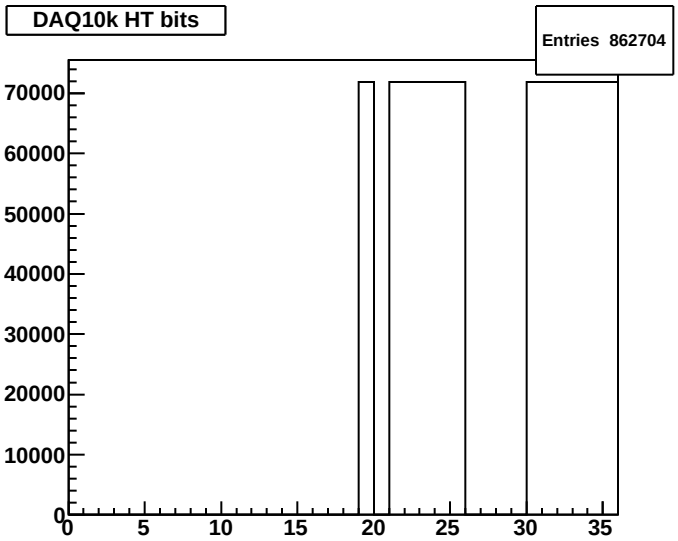

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

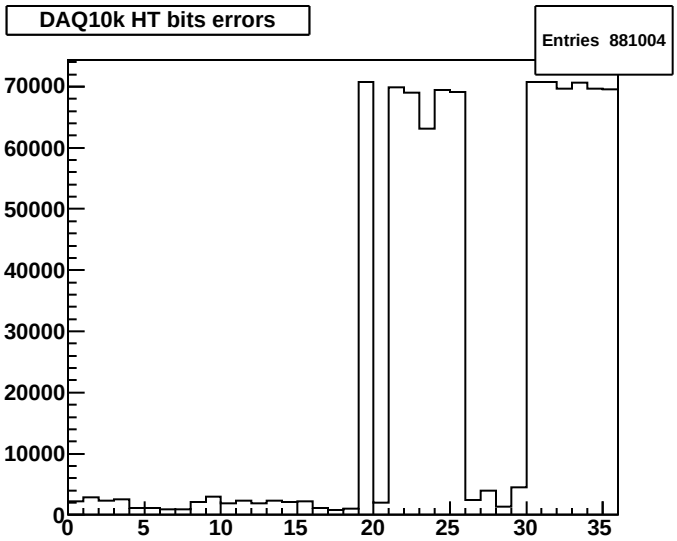

EMC L2 Input - HT01 bits/Partial JP ID
Entries 575136
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

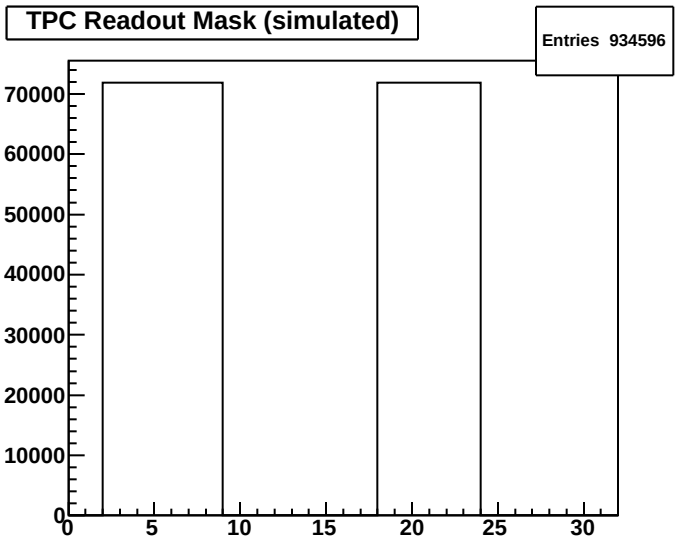

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

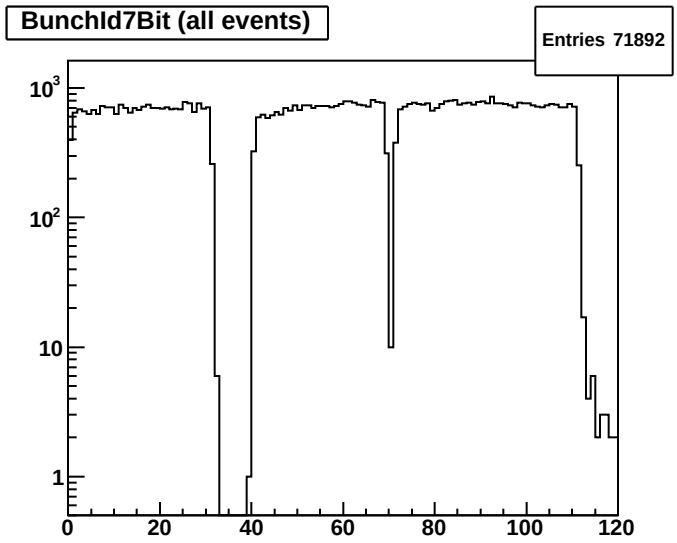

EMC L2 Input - HT23 bits
Entries 575136
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

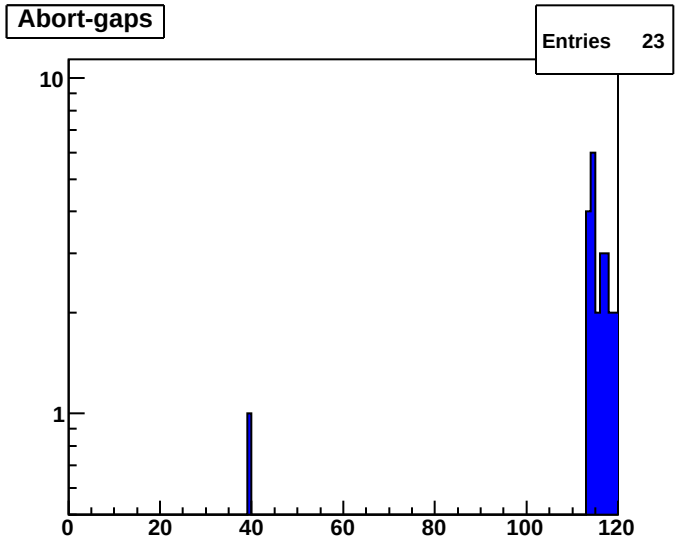

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

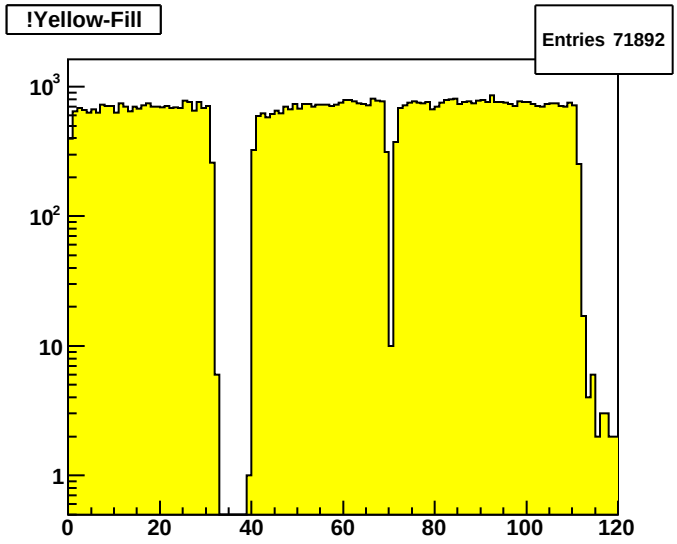

DAQ10k HT bits
Entries 862704

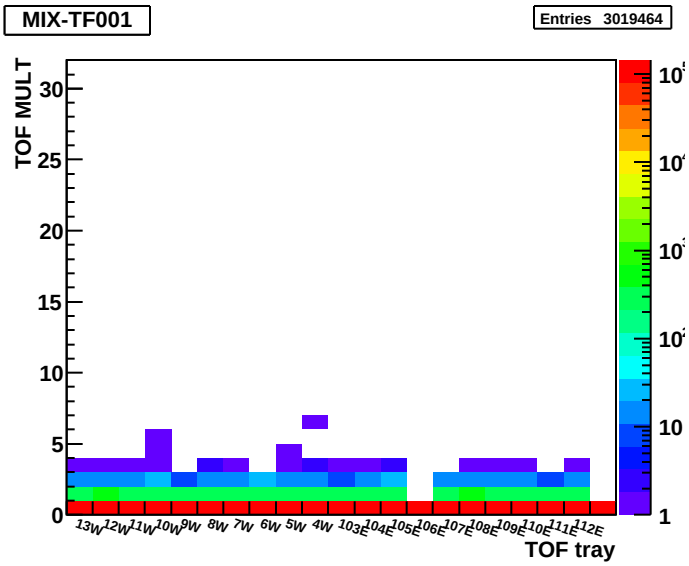

DAQ10k HT bits errors
Entries 881004

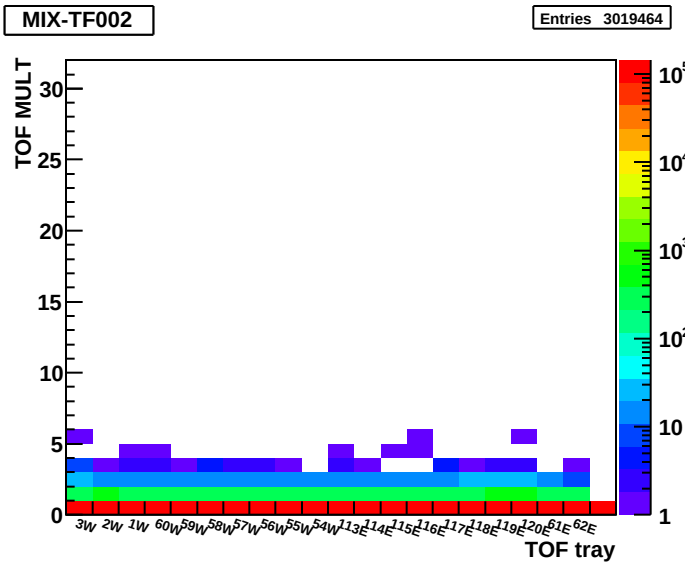

TPC Readout Mask (simulated)
Entries 934596

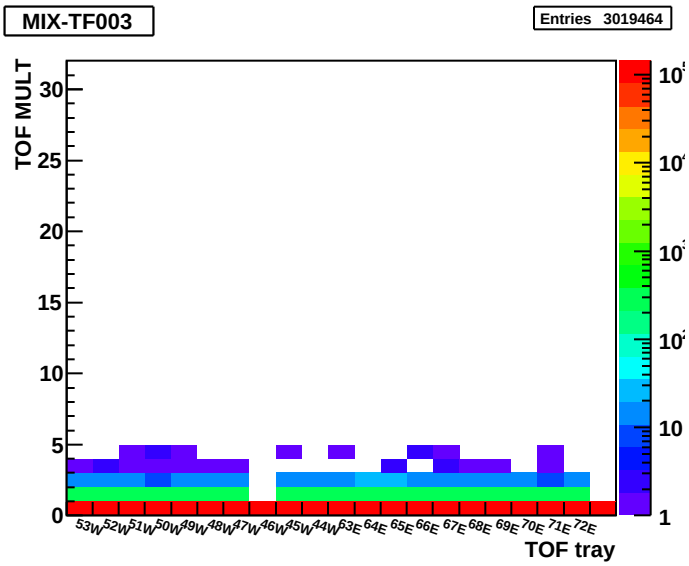

BunchId7Bit (all events)
Entries 71892

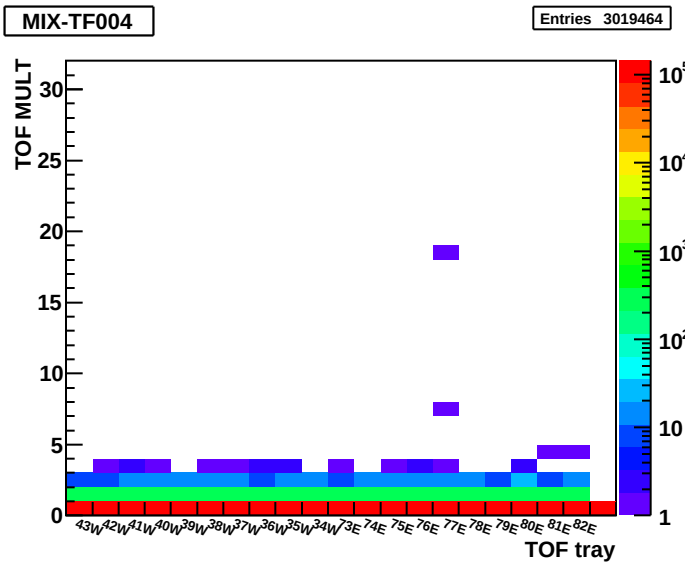

Abort-gaps
Entries 23

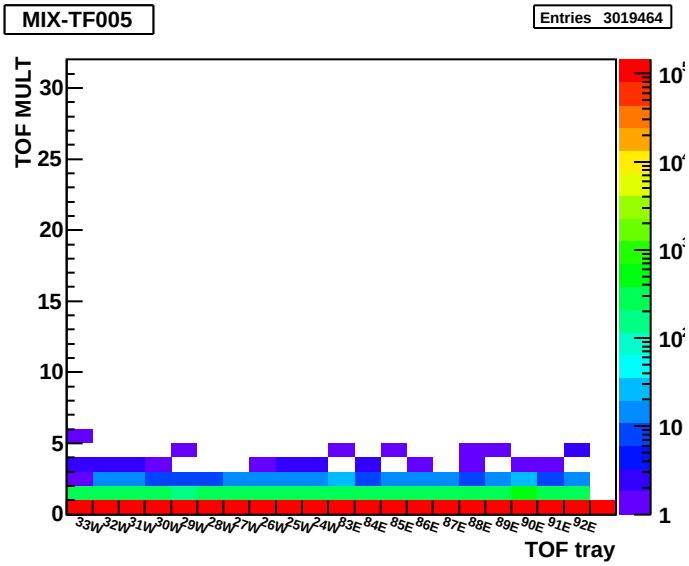

!Yellow-Fill
Entries 71892

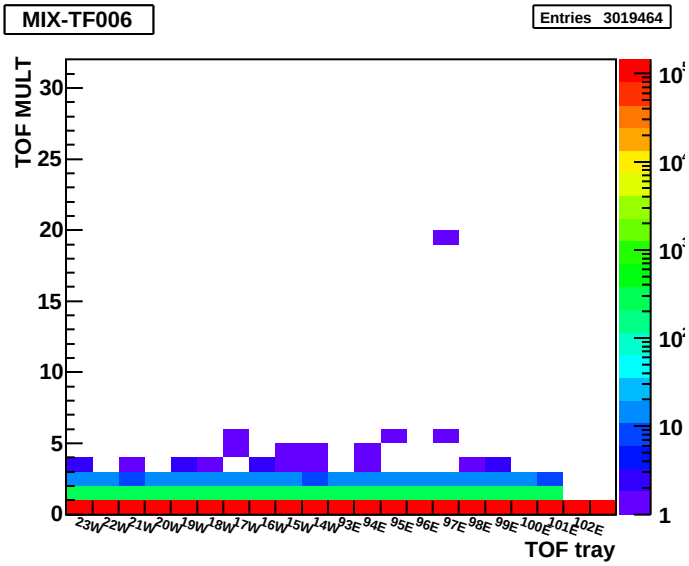

MIX-TF001
Entries 3019464
TOF MULT
TOF tray

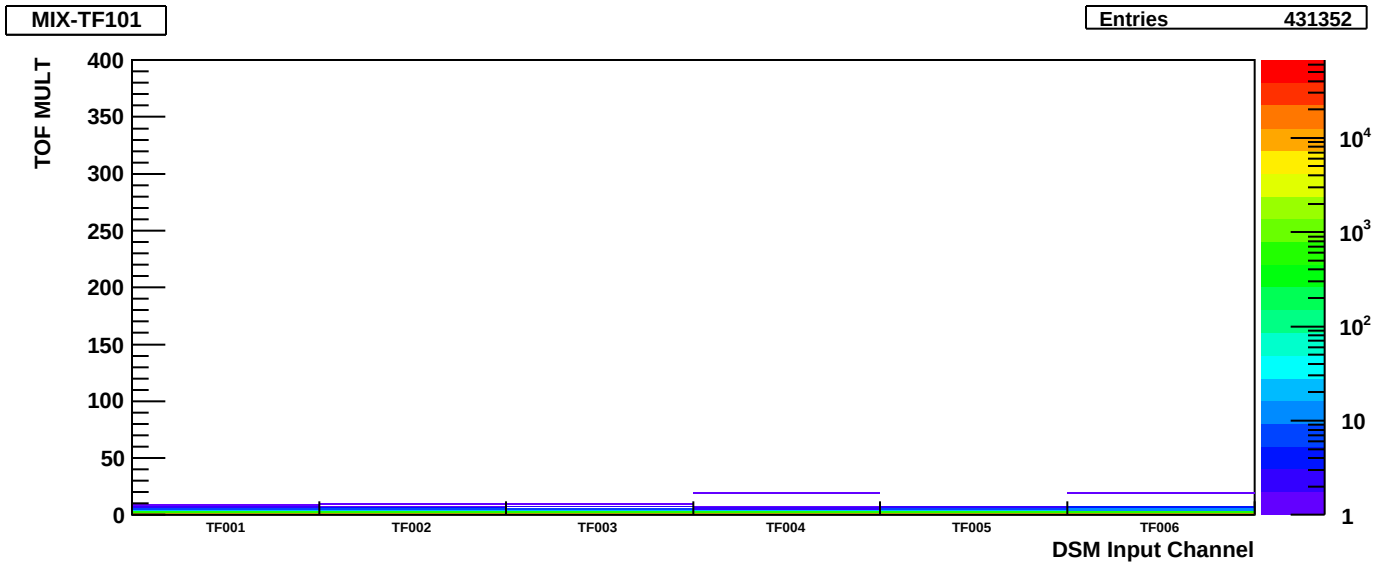

MIX-TF002
Entries 3019464
TOF MULT
TOF tray

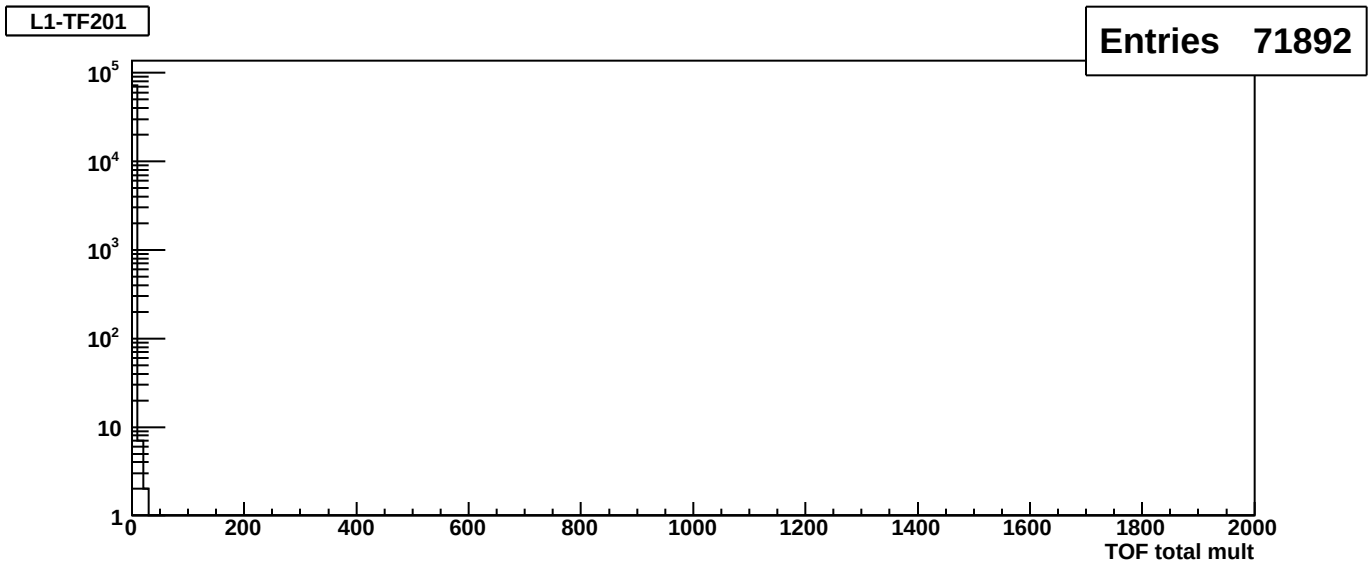

MIX-TF003
Entries 3019464
TOF MULT
TOF tray

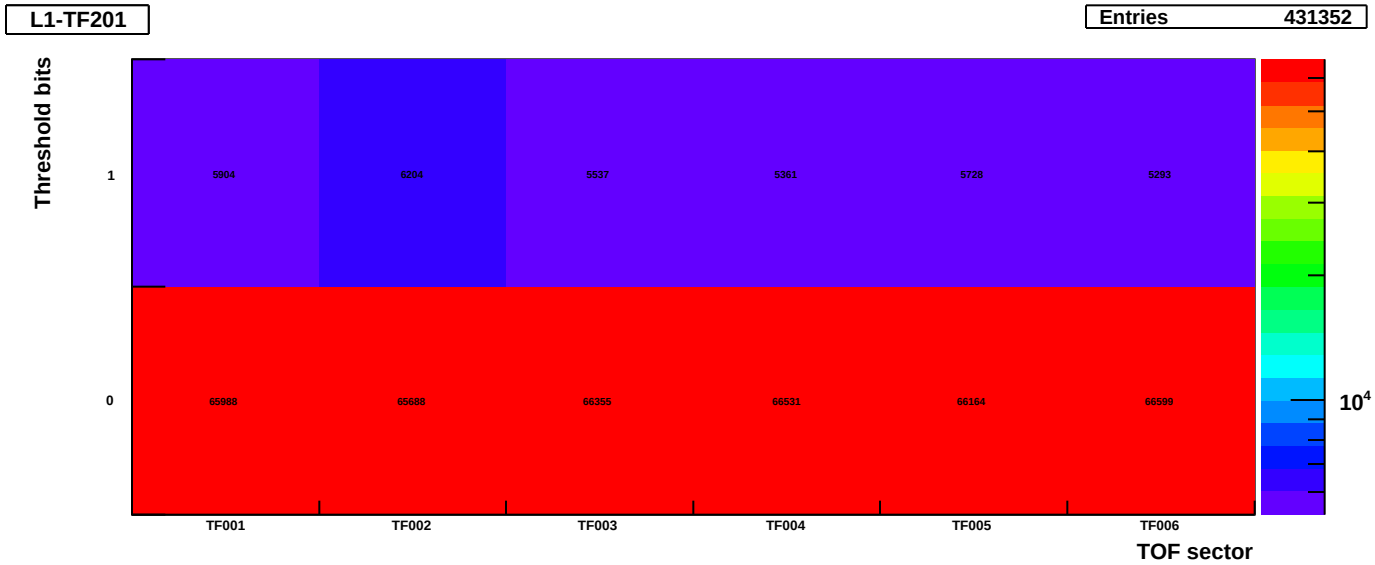

MIX-TF004
Entries 3019464
TOF MULT
TOF tray

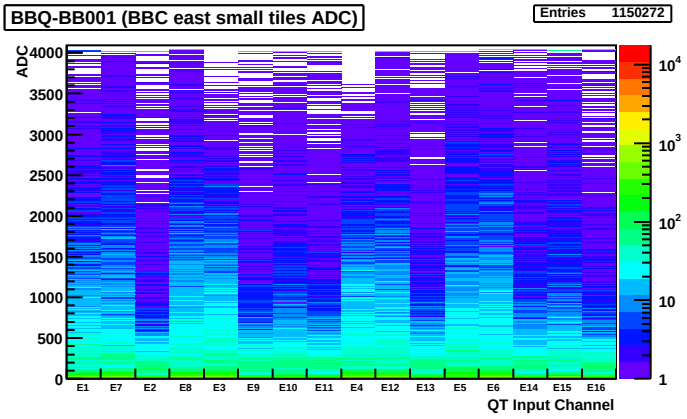

MIX-TF005
Entries 3019464
TOF MULT
TOF tray

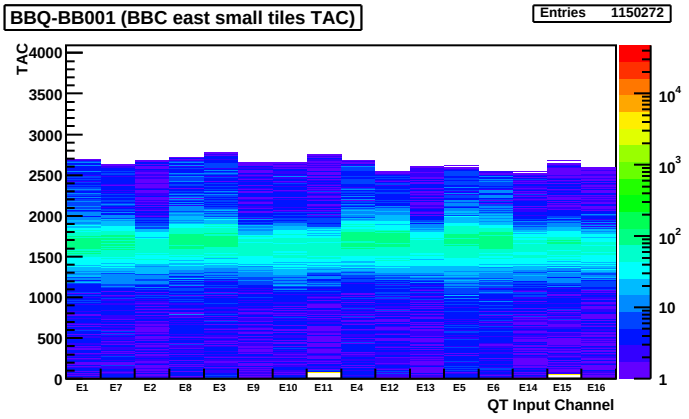

MIX-TF006
Entries 3019464
TOF MULT
TOF tray

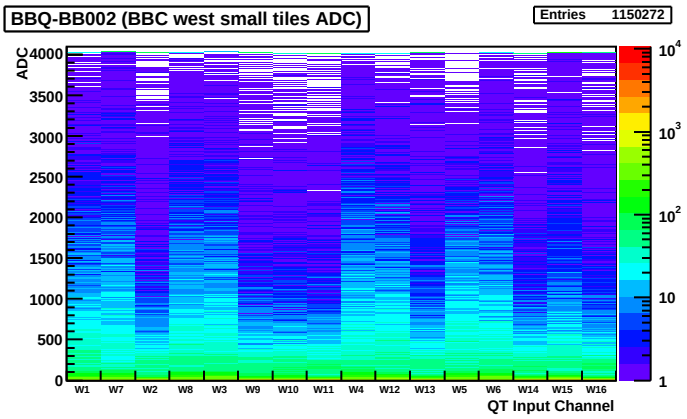

MIX-TF101
Entries 431352
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

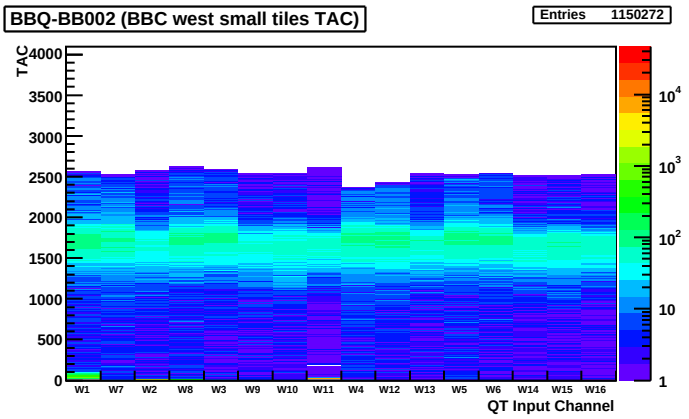

L1-TF201
Entries 71892
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

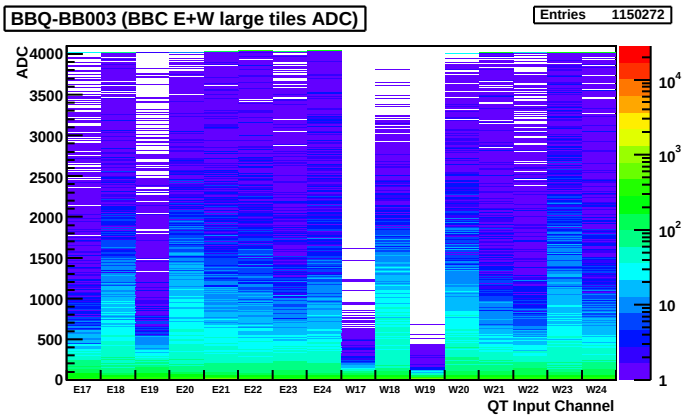

L1-TF201
Entries 431352
Threshold bits
1
0
5904
6204
5537
5361
5728
5293
65988
65688
66355
66531
66164
66599
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

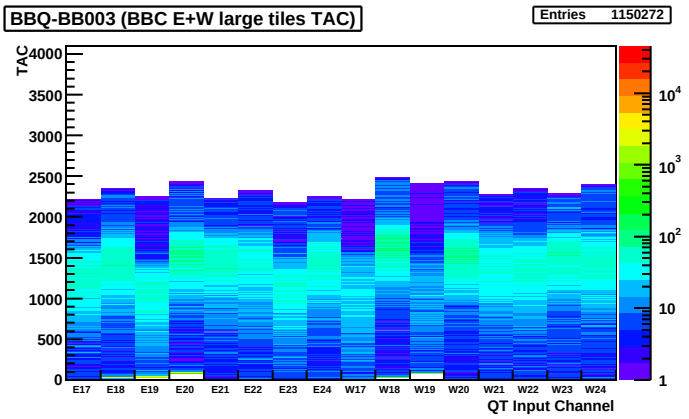

BBQ-BB001 (BBC east small tiles ADC)
Entries 1150272
ADC
QT Input Channel

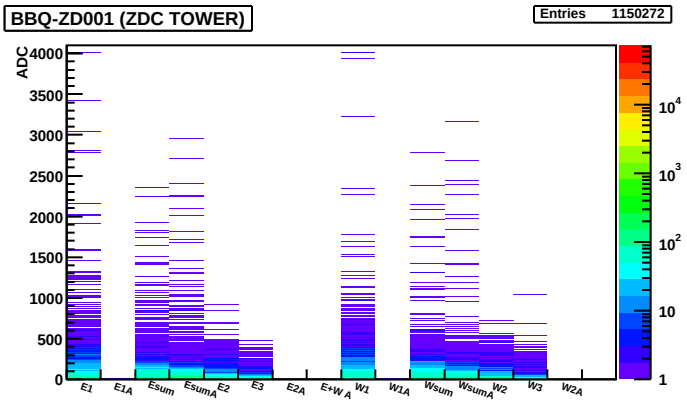

BBQ-BB001 (BBC east small tiles TAC)
Entries 1150272
TAC
QT Input Channel

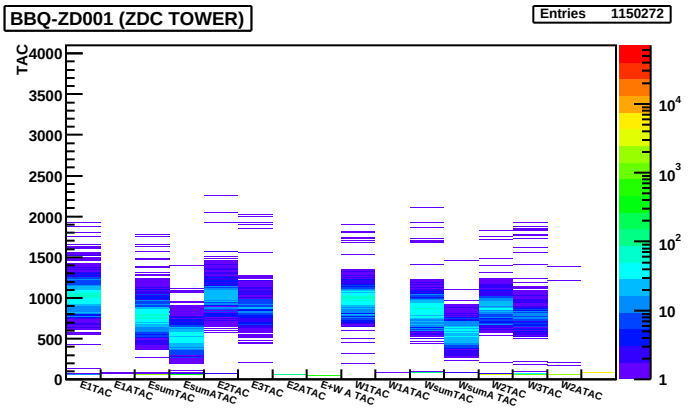

BBQ-BB002 (BBC west small tiles ADC)
Entries 1150272
ADC
QT Input Channel

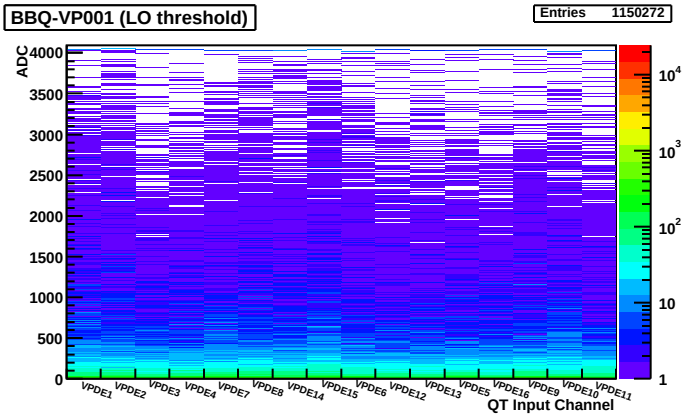

BBQ-BB002 (BBC west small tiles TAC)
Entries 1150272
TAC
QT Input Channel

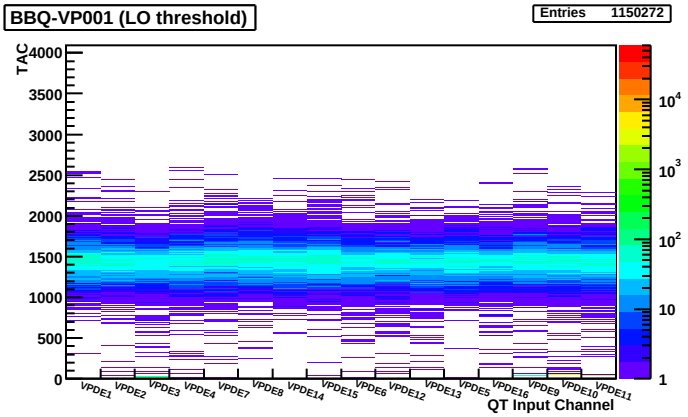

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1150272
ADC
QT Input Channel

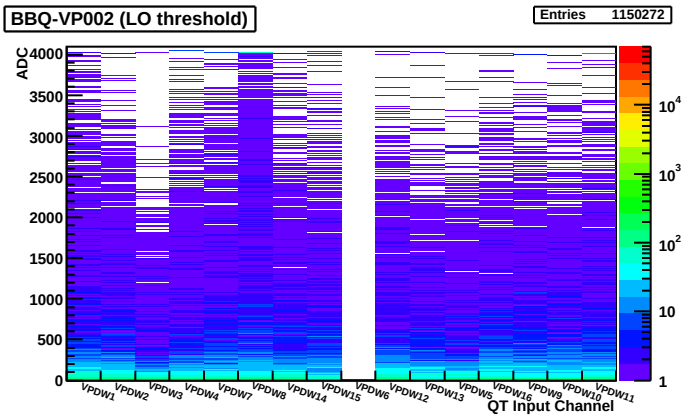

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1150272
TAC
QT Input Channel

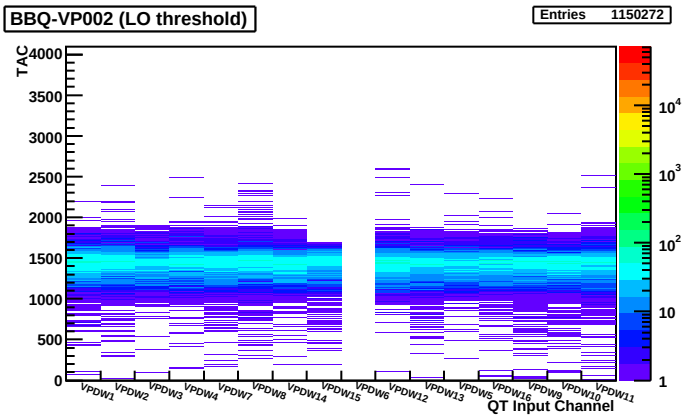

BBQ-ZD001 (ZDC TOWER)
Entries 1150272
ADC

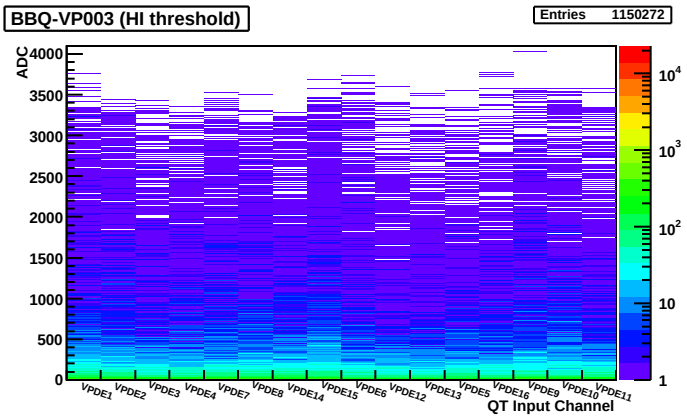

BBQ-ZD001 (ZDC TOWER)
Entries 1150272
TAC

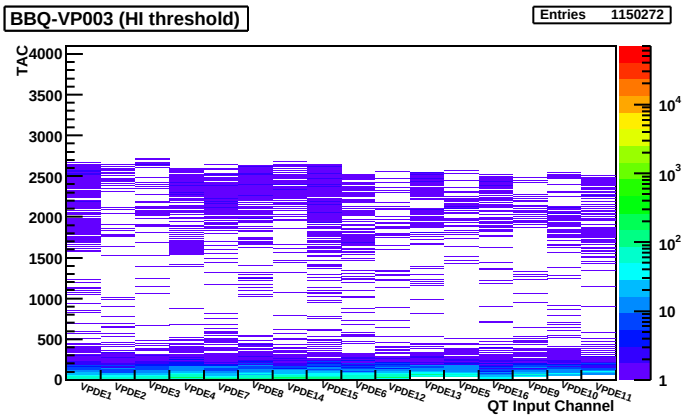

BBQ-VP001 (LO threshold)
Entries 1150272
ADC
QT Input Channel

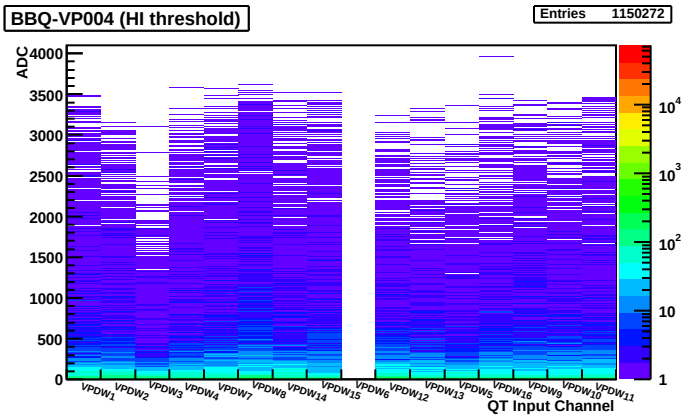

BBQ-VP001 (LO threshold)
Entries 1150272
TAC
QT Input Channel

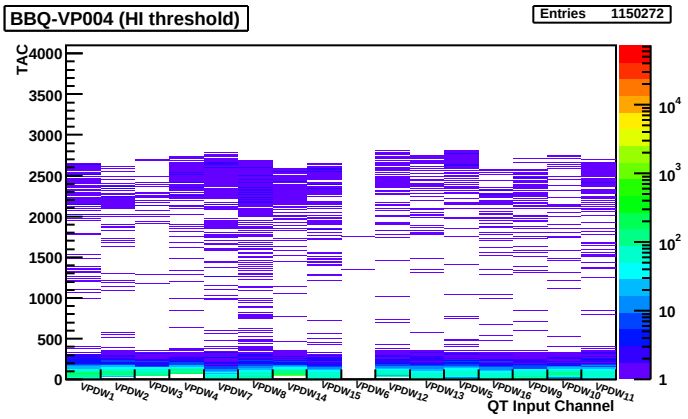

BBQ-VP002 (LO threshold)
Entries 1150272
ADC
QT Input Channel

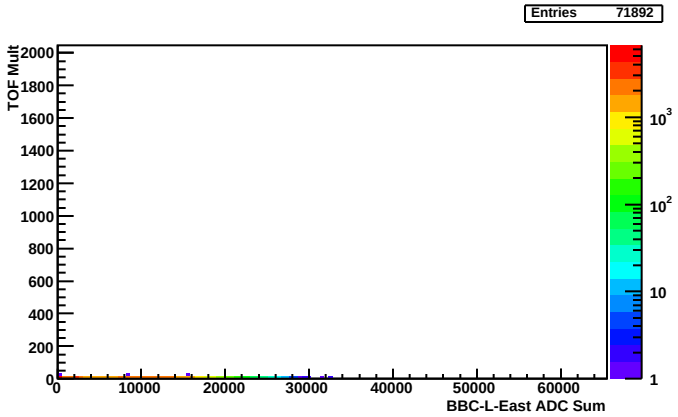

BBQ-VP002 (LO threshold)
Entries 1150272
TAC
QT Input Channel

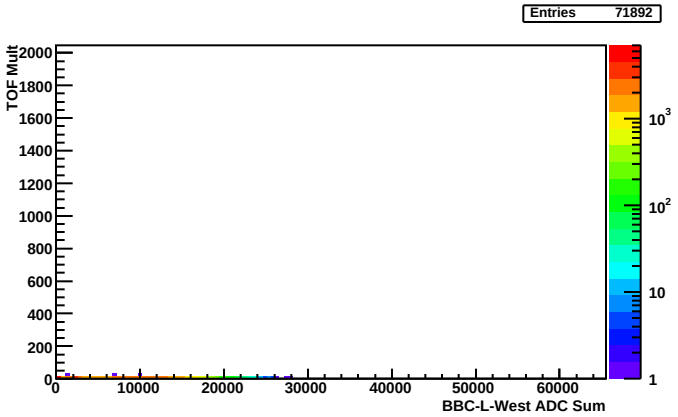

BBQ-VP003 (HI threshold)
Entries 1150272
ADC
QT Input Channel

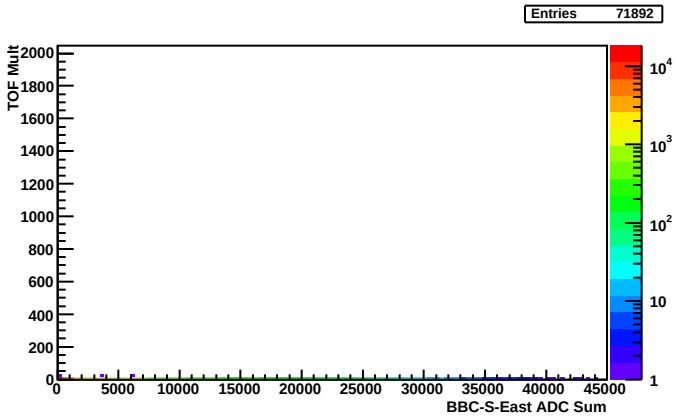

BBQ-VP003 (HI threshold)
Entries 1150272
TAC
QT Input Channel

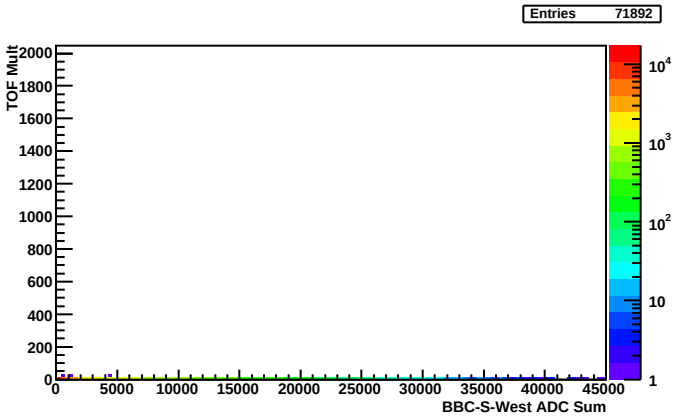

BBQ-VP004 (HI threshold)
Entries 1150272
ADC
QT Input Channel

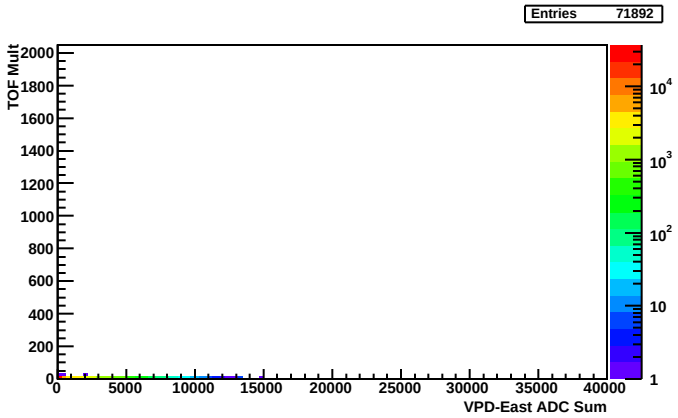

BBQ-VP004 (HI threshold)
Entries 1150272
TAC
QT Input Channel

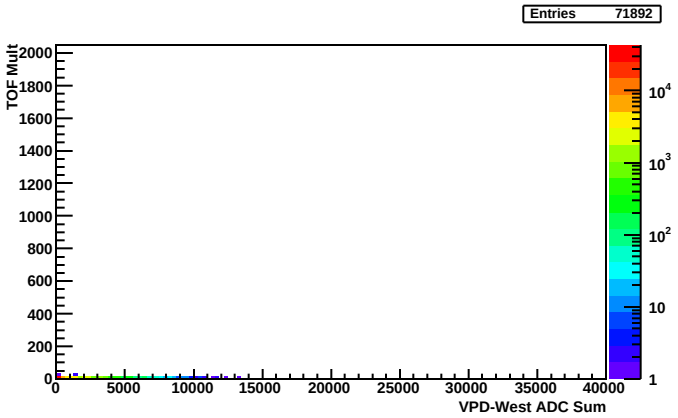

Entries 71892
TOF Mult
BBC-L-East ADC Sum

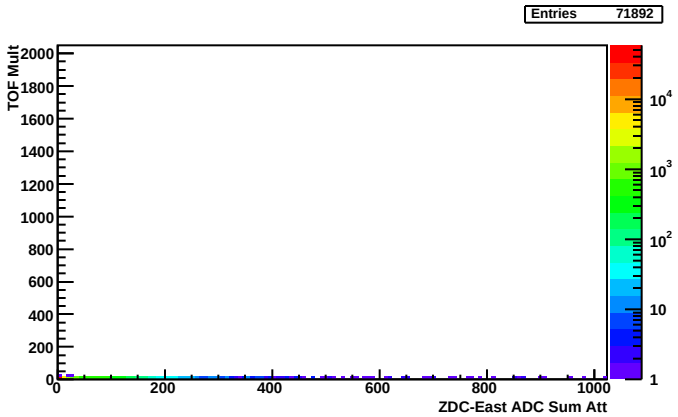

Entries 71892
TOF Mult
BBC-L-West ADC Sum

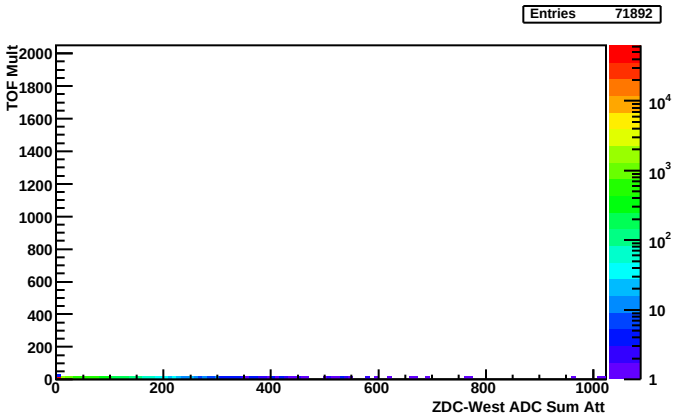

Entries 71892
TOF Mult
BBC-S-East ADC Sum

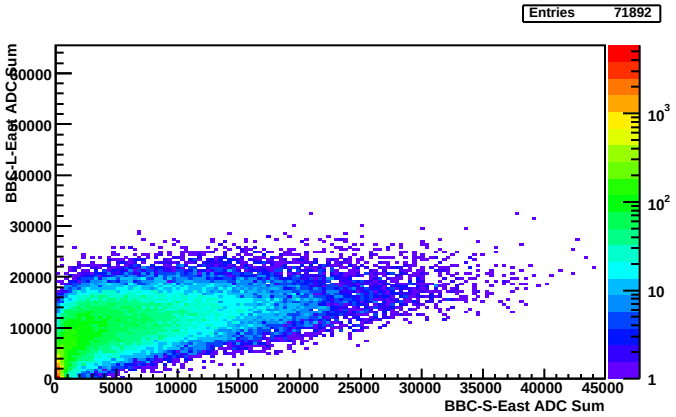

Entries 71892
TOF Mult
BBC-S-West ADC Sum

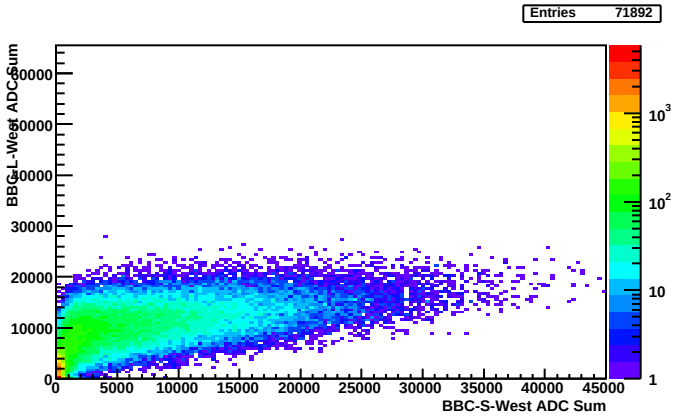

Entries 71892
TOF Mult
VPD-East ADC Sum

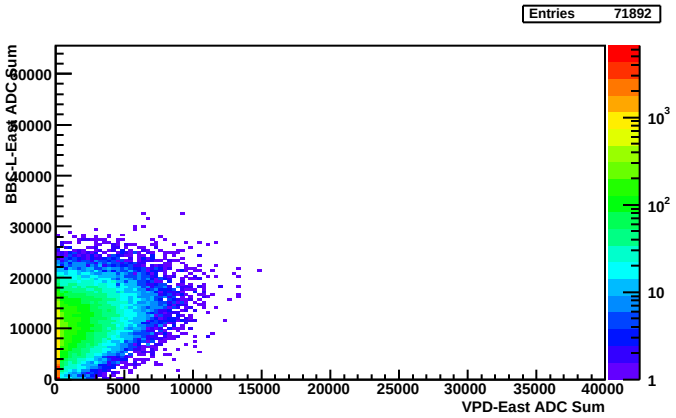

Entries 71892
TOF Mult
VPD-West ADC Sum

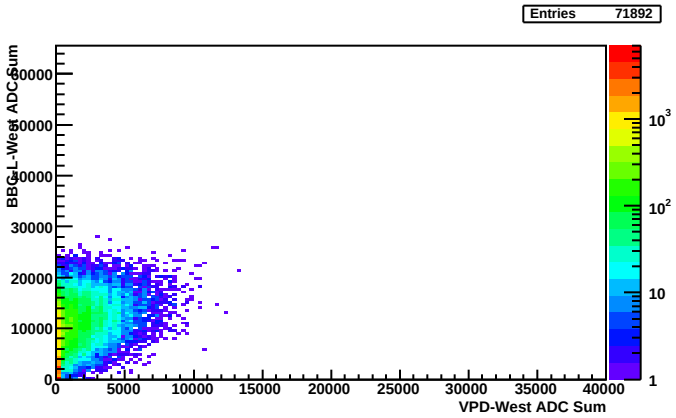

Entries 71892
TOF Mult
ZDC-East ADC Sum Att

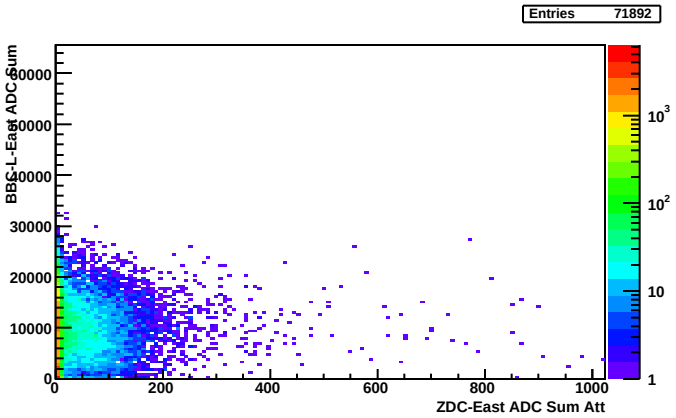

Entries 71892
TOF Mult
ZDC-West ADC Sum Att

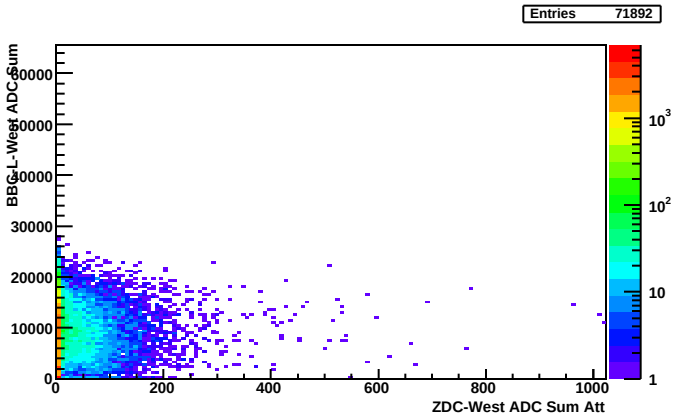

Entries 71892
BBC-L-East ADC Sum
BBC-S-East ADC Sum

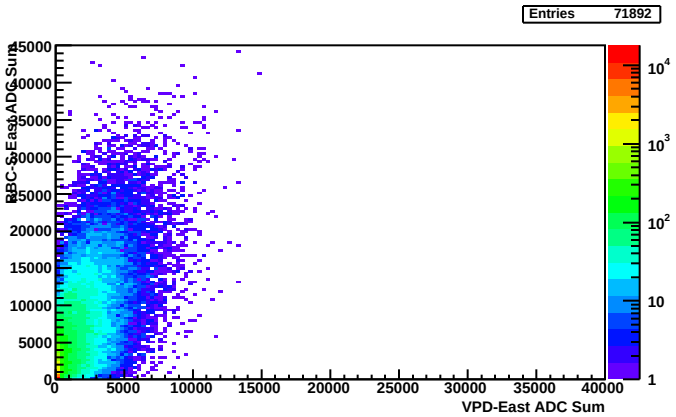

Entries 71892
BBC-L-West ADC Sum
BBC-S-West ADC Sum

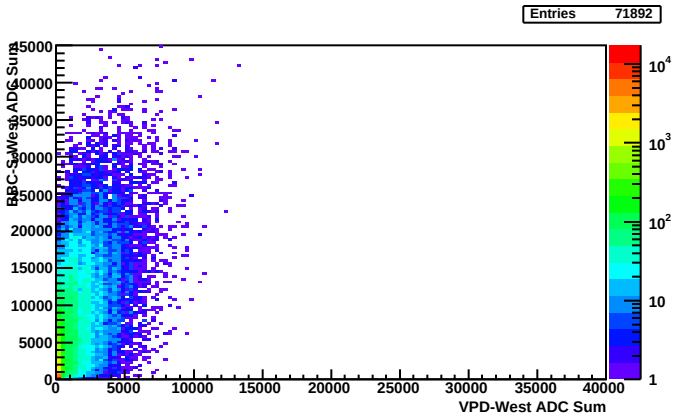

Entries 71892
BBC-L-East ADC Sum
VPD-East ADC Sum

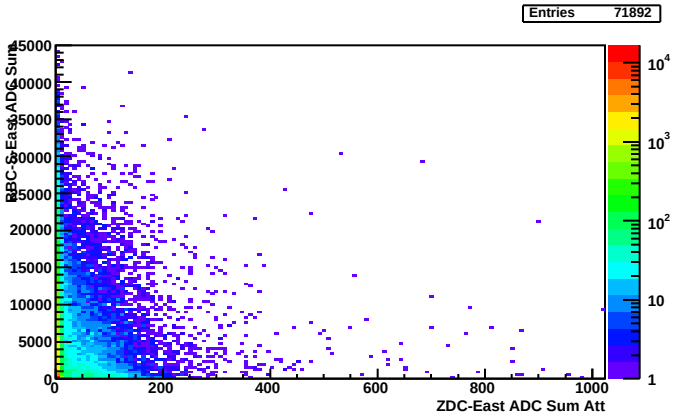

Entries 71892
BBC-L-West ADC Sum
VPD-West ADC Sum

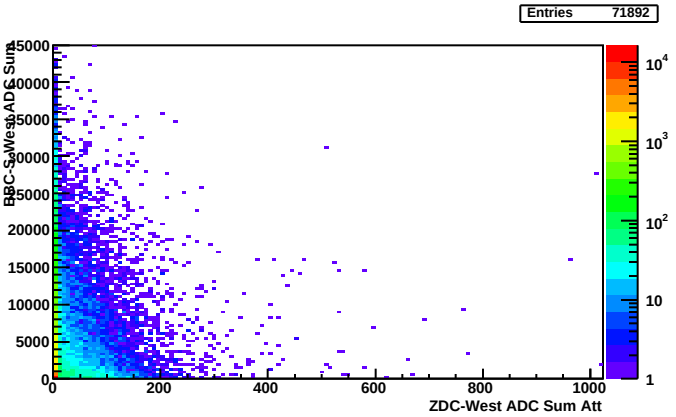

Entries 71892
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

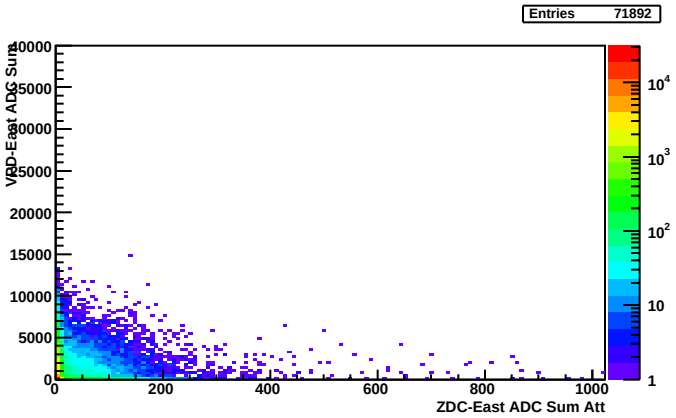

Entries 71892
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

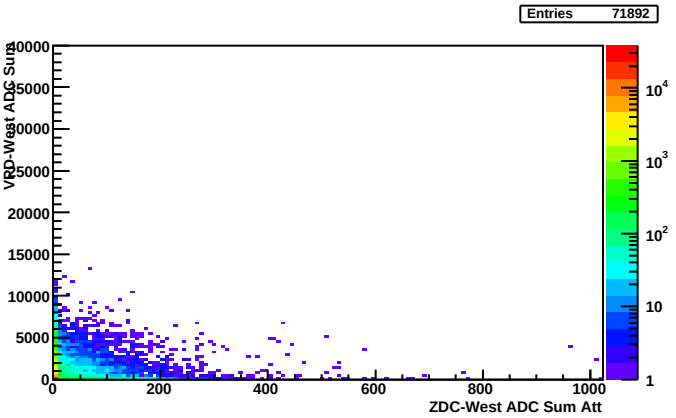

Entries 71892
BBC-S-East ADC Sum
VPD-East ADC Sum

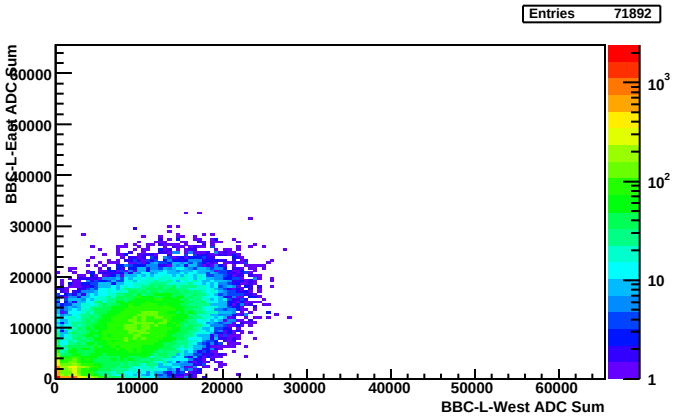

Entries 71892
BBC-S-West ADC Sum
VPD-West ADC Sum

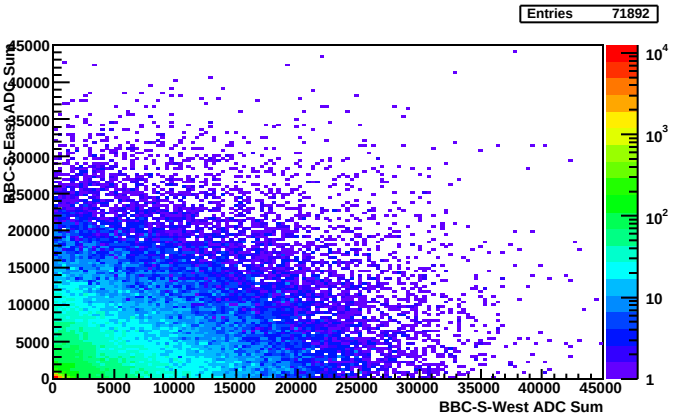

Entries 71892
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

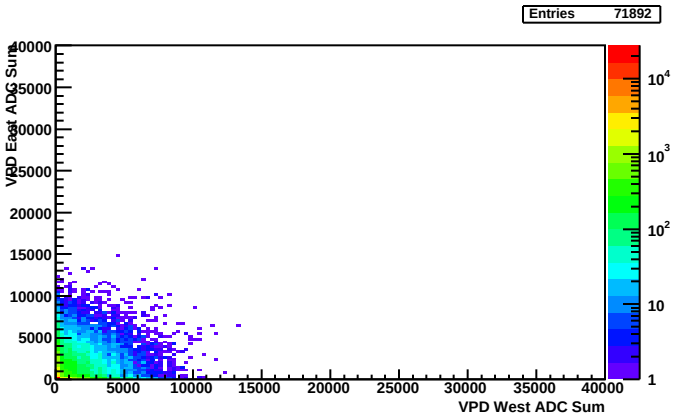

Entries 71892
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

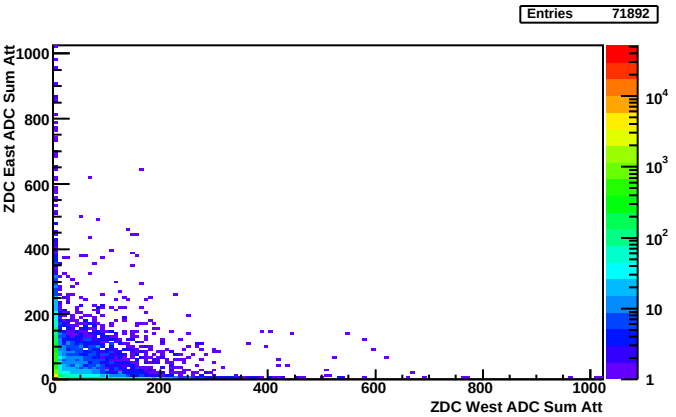

Entries 71892
VPD-East ADC Sum
ZDC-East ADC Sum Att

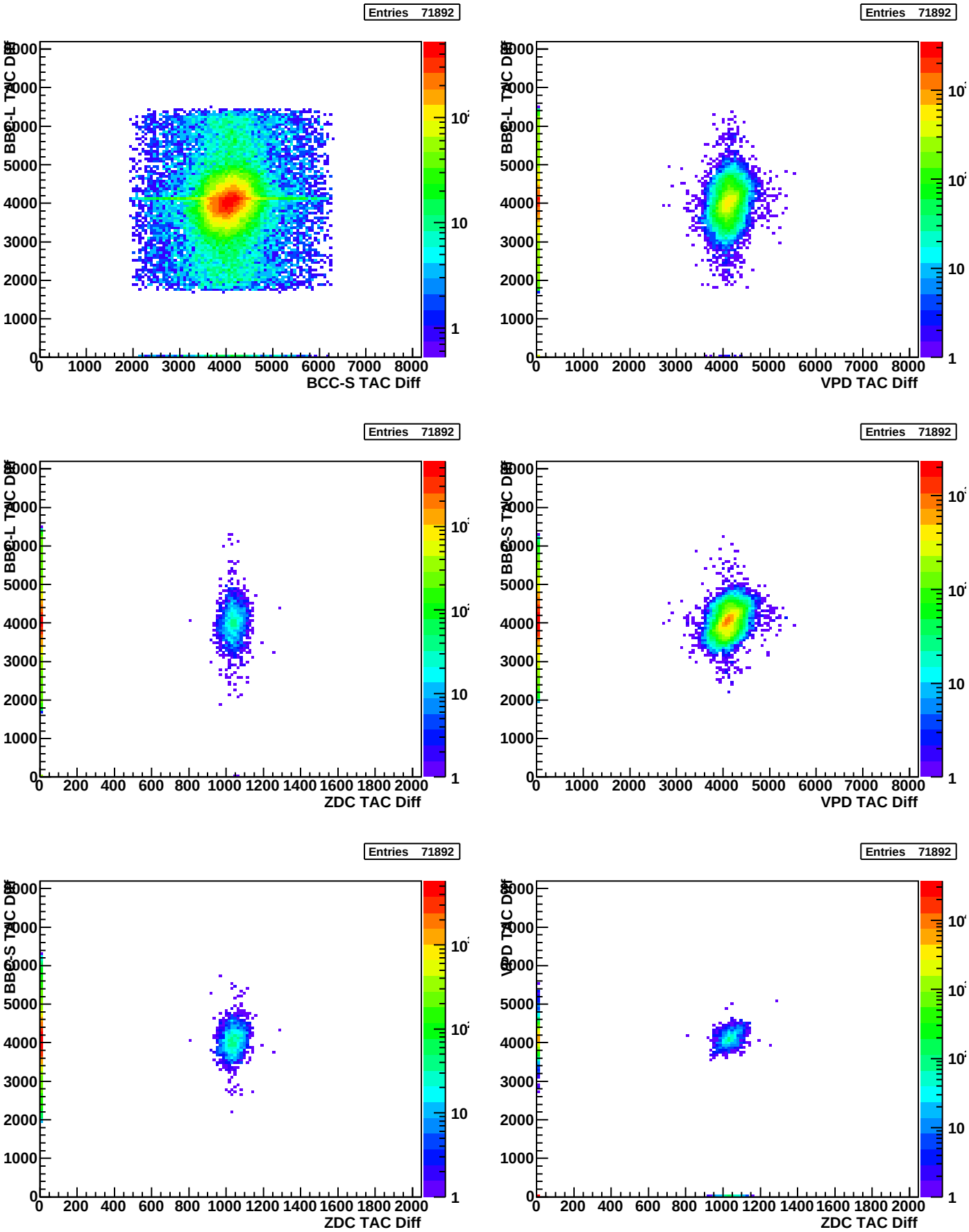

Entries 71892
VPD-West ADC Sum
ZDC-West ADC Sum Att

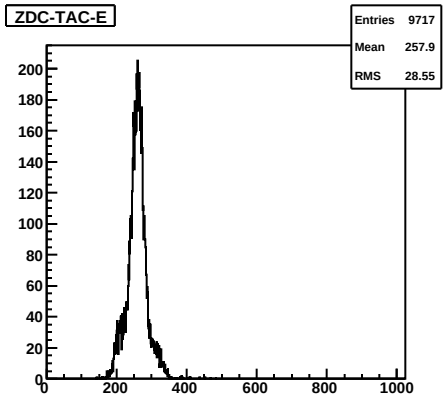

Entries 71892
BBC-L-East ADC Sum
BBC-L-West ADC Sum

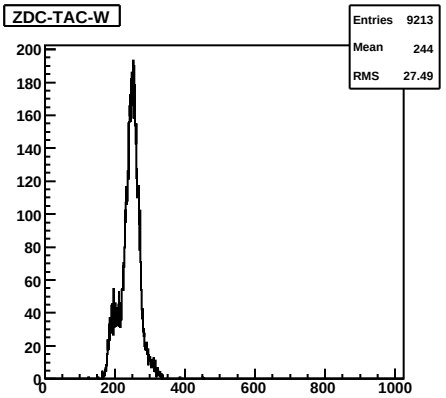

Entries 71892
BBC-S-East ADC Sum
BBC-S-West ADC Sum

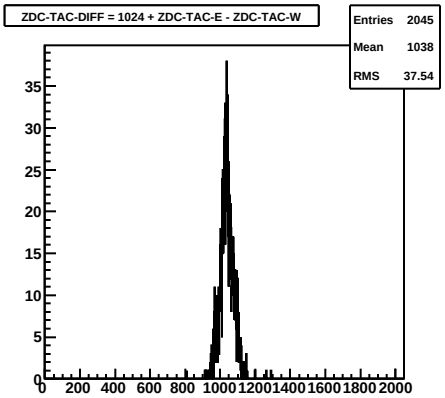

Entries 71892
VPD East ADC Sum
VPD West ADC Sum

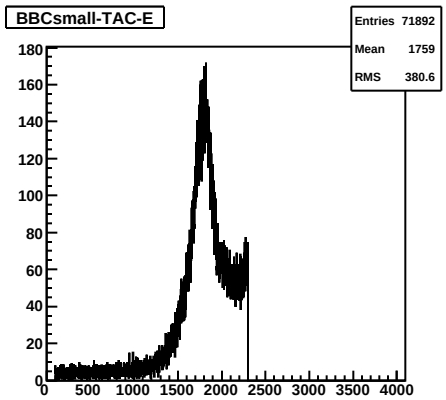

Entries 71892
ZDC East ADC Sum Att
ZDC West ADC Sum Att

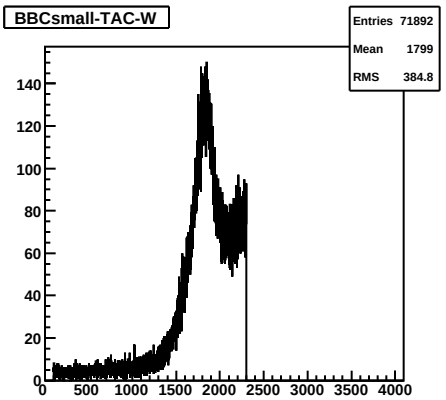

Entries 71892
BBC-L TAC Diff
BCC-S TAC Diff
Entries 71892
BBC-L TAC Diff
VPD TAC Diff
Entries 71892
BBC-L TAC Diff
ZDC TAC Diff
Entries 71892
BBC-S TAC Diff
VPD TAC Diff
Entries 71892
BBC-S TAC Diff
ZDC TAC Diff
Entries 71892
VPD TAC Diff
ZDC TAC Diff

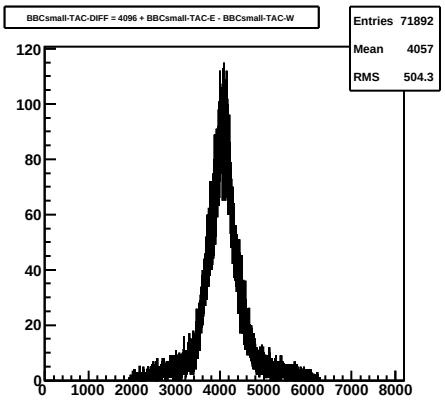

ZDC-TAC-E
Entries 9717
Mean 257.9
RMS 28.55

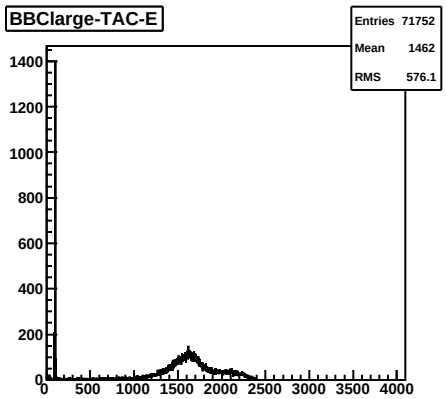

ZDC-TAC-W
Entries 9213
Mean 244
RMS 27.49

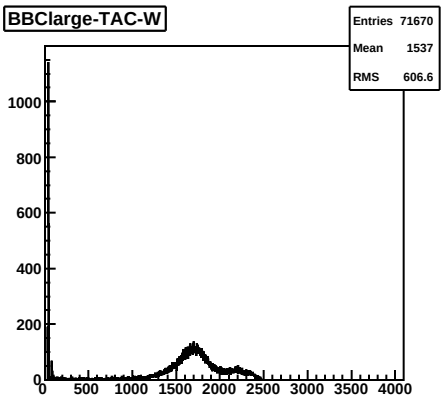

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 2045
Mean 1038
RMS 37.54

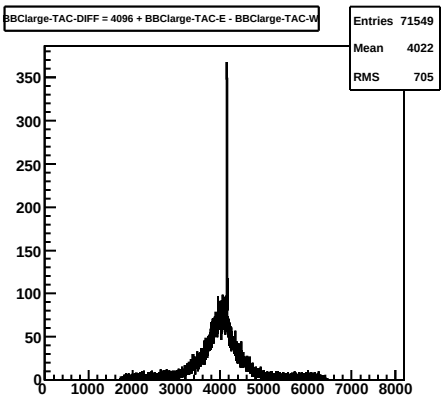

BBCsmall-TAC-E
Entries 71892
Mean 1759
RMS 380.6

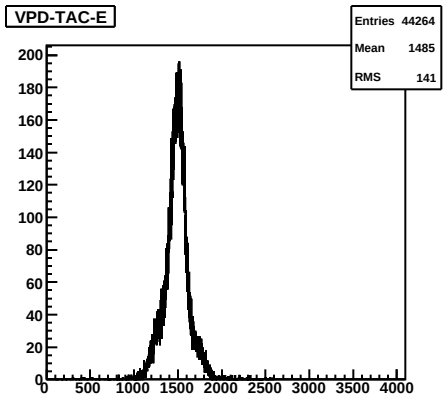

BBCsmall-TAC-W
Entries 71892
Mean 1799
RMS 384.8

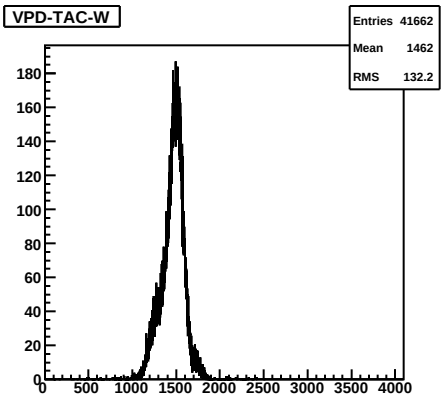

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 71892
Mean 4057
RMS 504.3

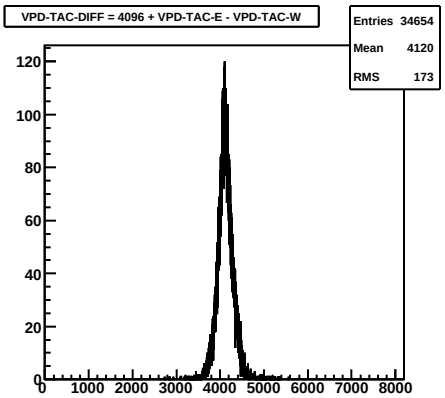

BBClarge-TAC-E
Entries 71752
Mean 1462
RMS 576.1

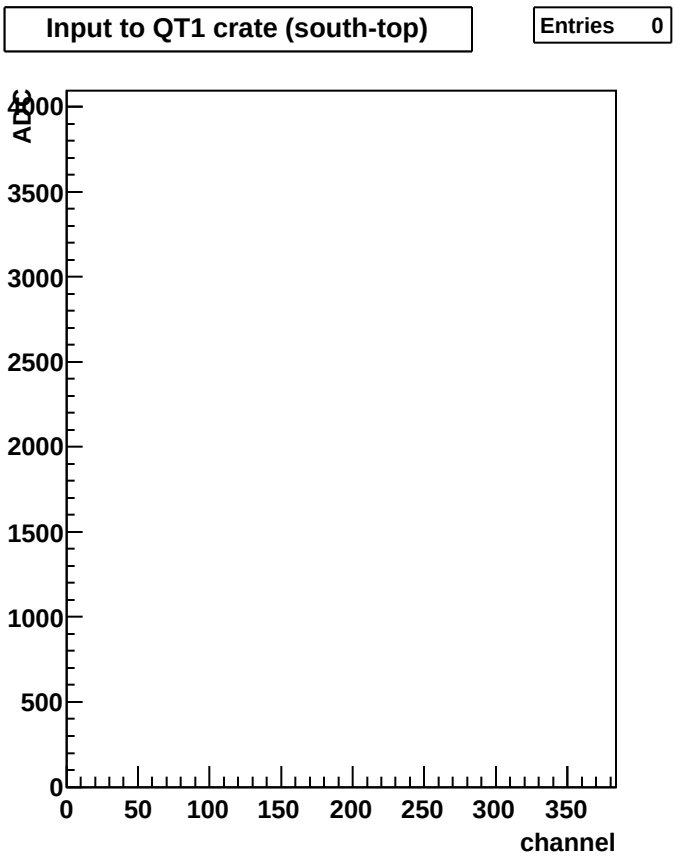

BBClarge-TAC-W
Entries 71670
Mean 1537
RMS 606.6

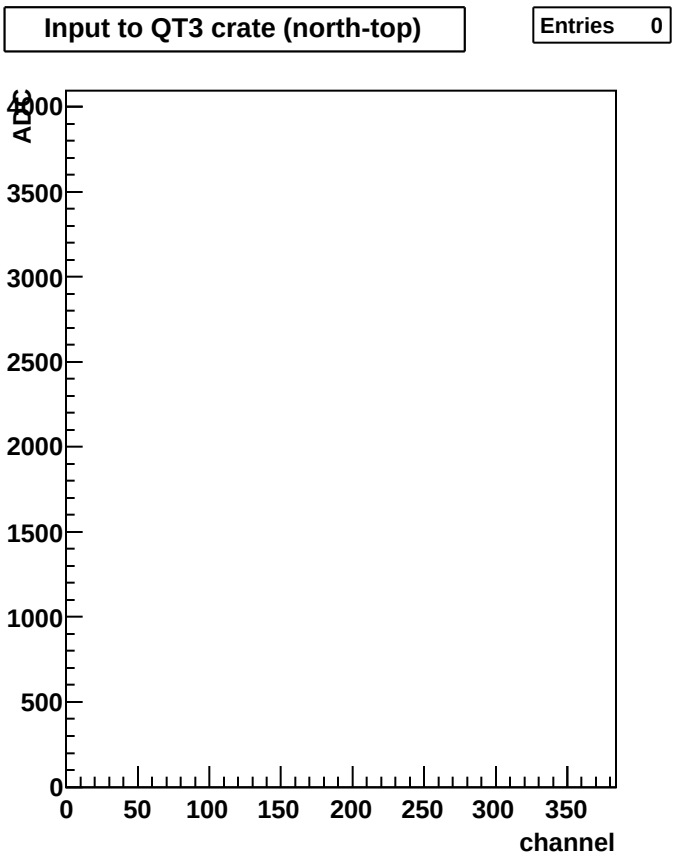

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 71549
Mean 4022
RMS 705

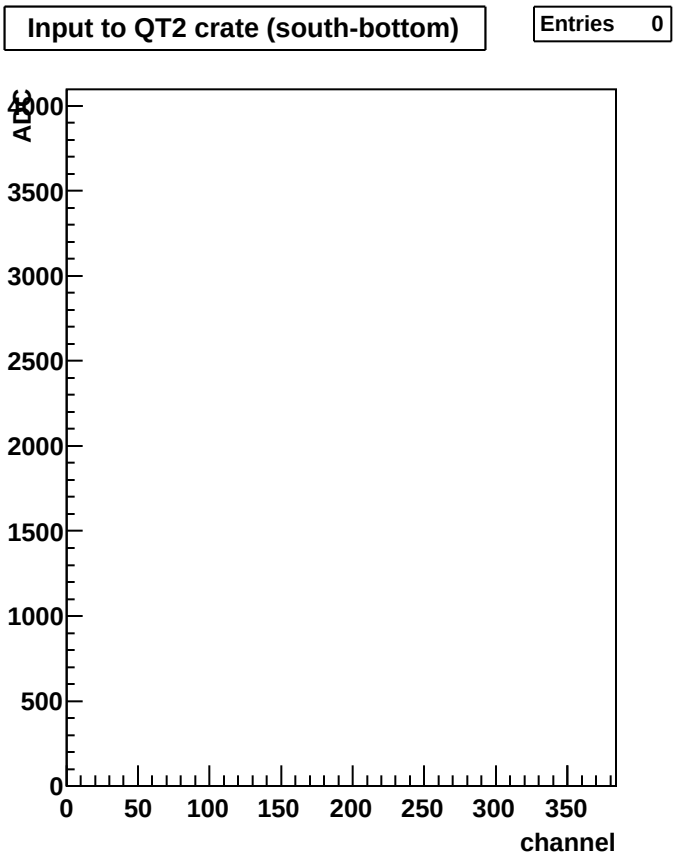

VPD-TAC-E
Entries 44264
Mean 1485
RMS 141

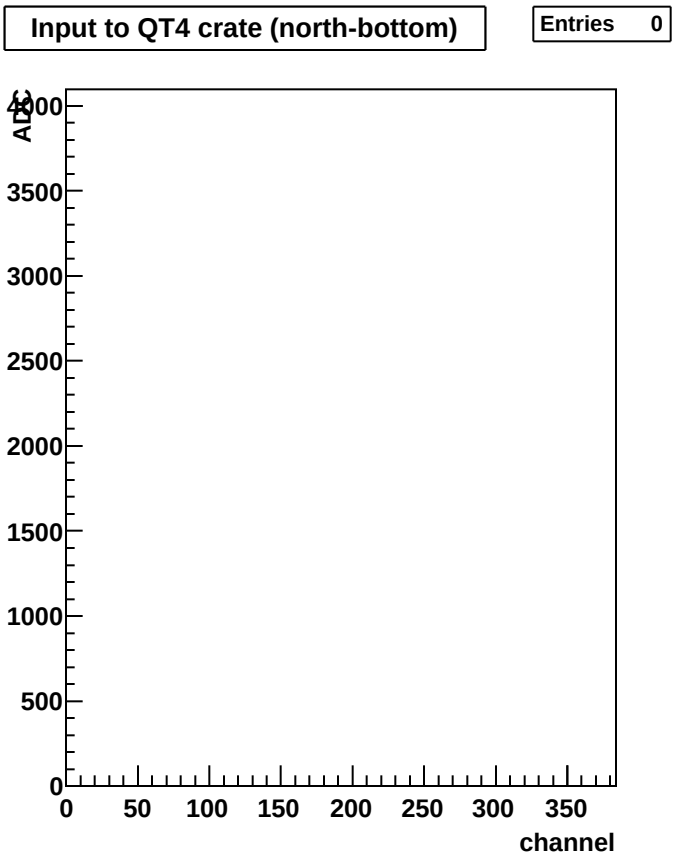

VPD-TAC-W
Entries 41662
Mean 1462
RMS 132.2

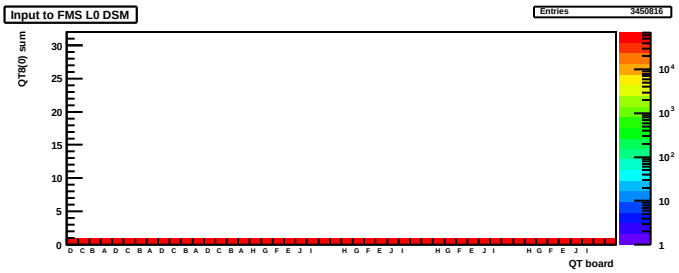

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 34654
Mean 4120
RMS 173

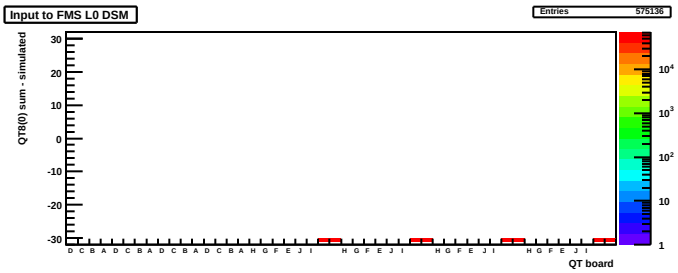

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

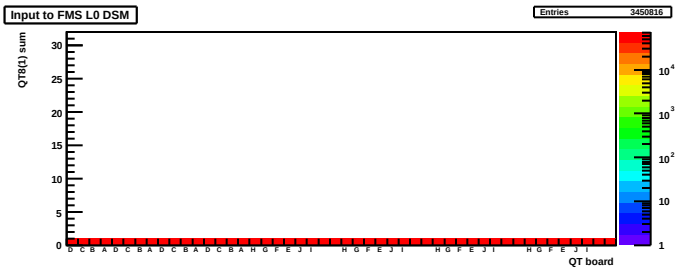

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

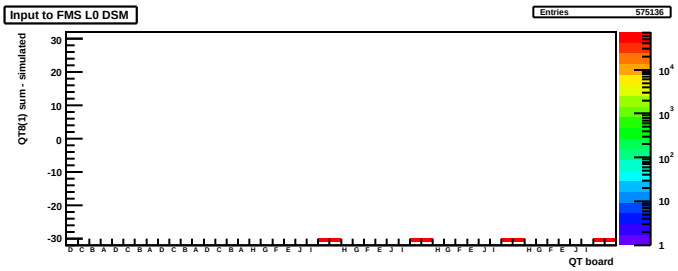

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

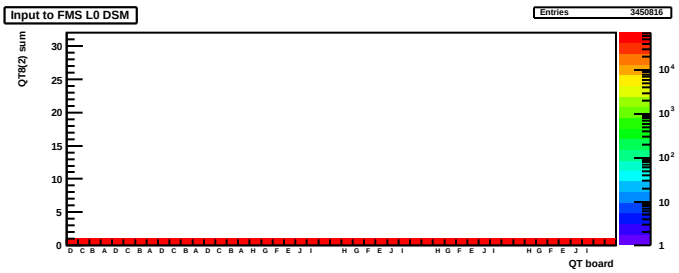

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

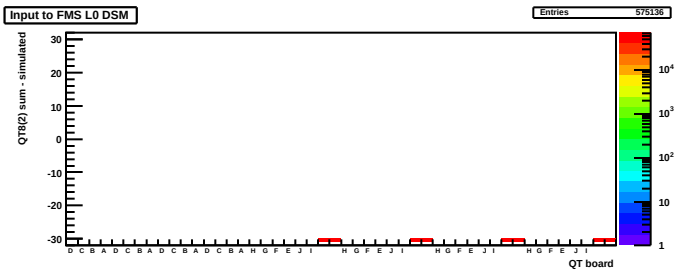

Input to FMS L0 DSM
Entries 3450816
QT8(0) sum
QT board

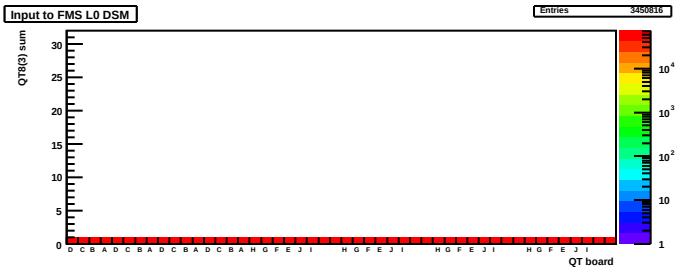

Input to FMS L0 DSM
Entries 575136
QT8(0) sum - simulated
QT board

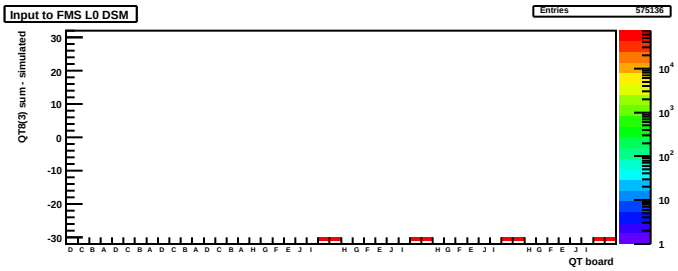

Input to FMS L0 DSM
Entries 3450816
QT8(1) sum
QT board

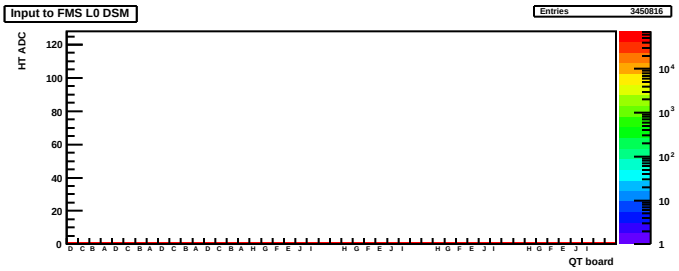

Input to FMS L0 DSM
Entries 575136
QT8(1) sum - simulated
QT board

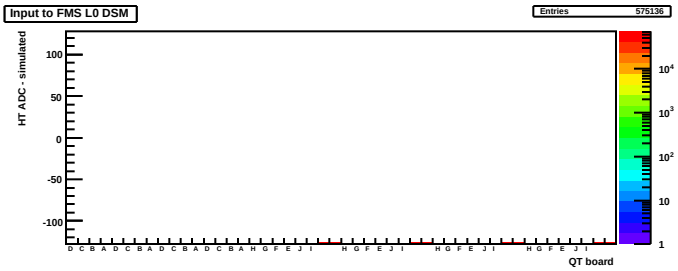

Input to FMS L0 DSM
Entries 3450816
QT8(2) sum
QT board

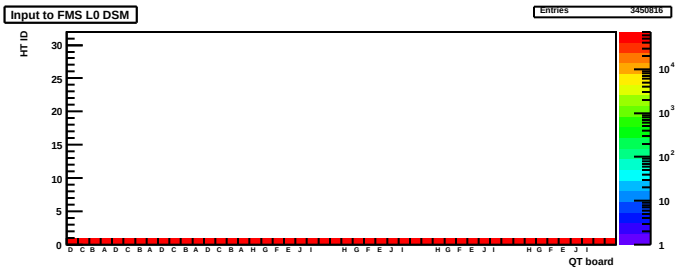

Input to FMS L0 DSM
Entries 575136
QT8(2) sum - simulated
QT board

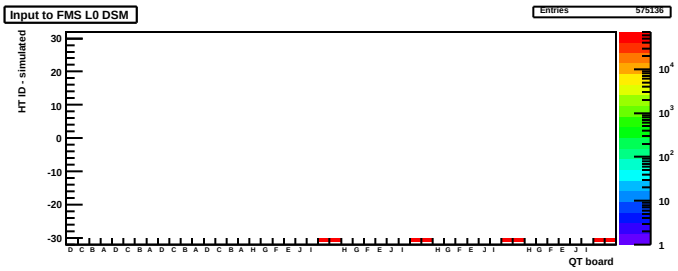

Input to FMS L0 DSM
Entries 3450816
QT8(3) sum
QT board

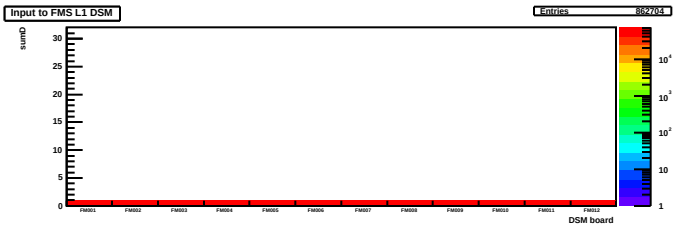

Input to FMS L0 DSM
Entries 575136
QT8(3) sum - simulated
QT board

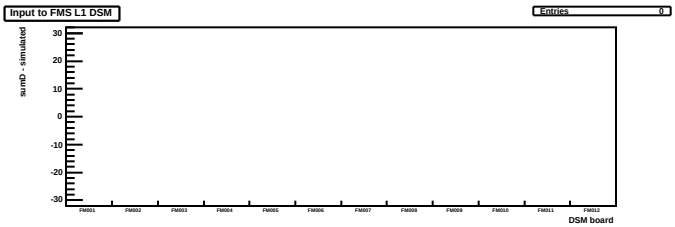

Input to FMS L0 DSM
Entries 3450816
HT ADC
QT board

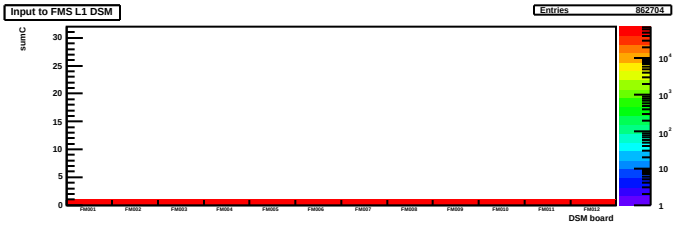

Input to FMS L0 DSM
Entries 575136
HT ADC - simulated
QT board

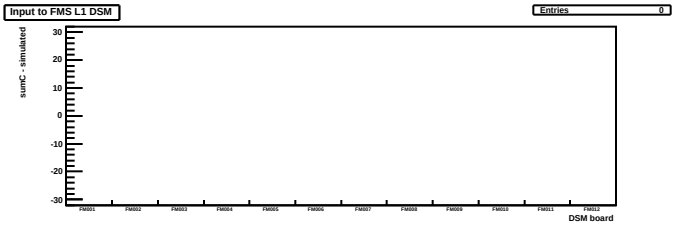

Input to FMS L0 DSM
Entries 3450816
HT ID
QT board

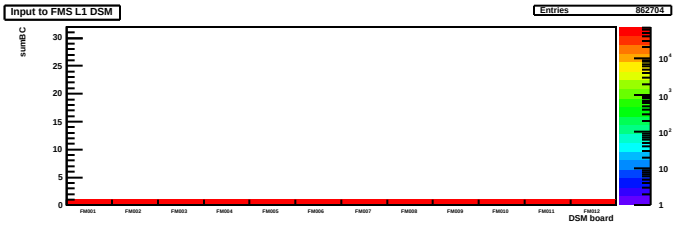

Input to FMS L0 DSM
Entries 575136
HT ID - simulated
QT board

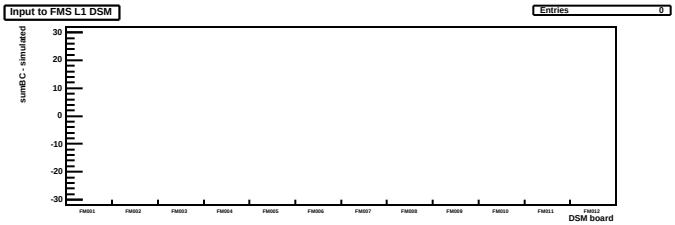

Input to FMS L1 DSM
Entries 862704
sumD
DSM board

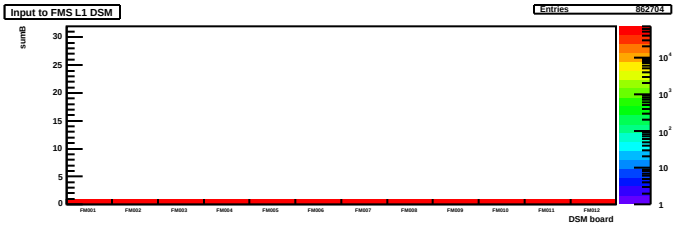

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

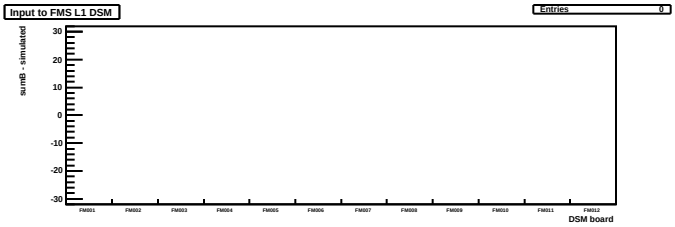

Input to FMS L1 DSM
Entries 862704
sumC
DSM board

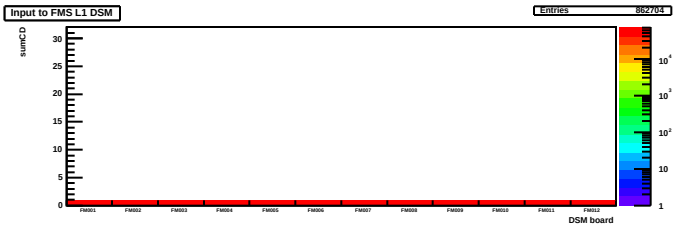

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

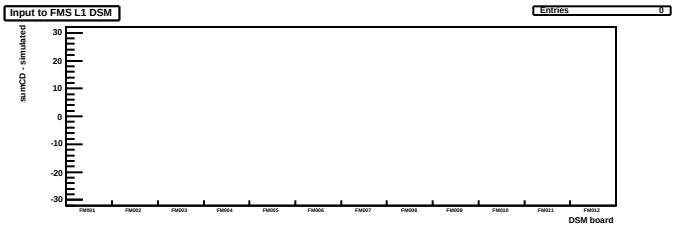

Input to FMS L1 DSM
Entries 862704
sumBC
DSM board

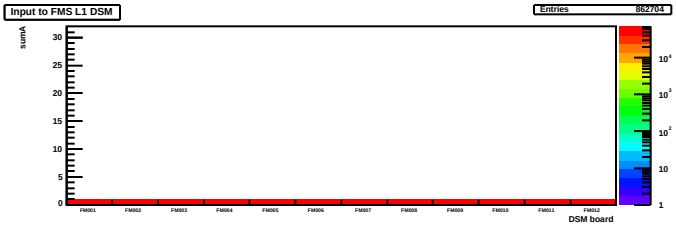

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

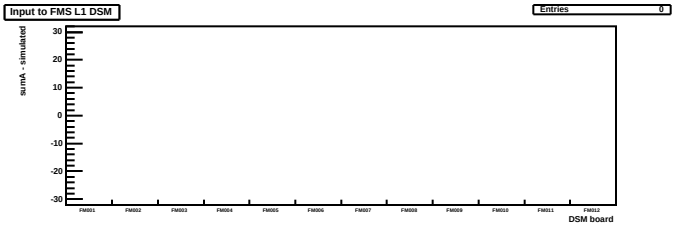

Input to FMS L1 DSM
Entries 862704
sumB
DSM board

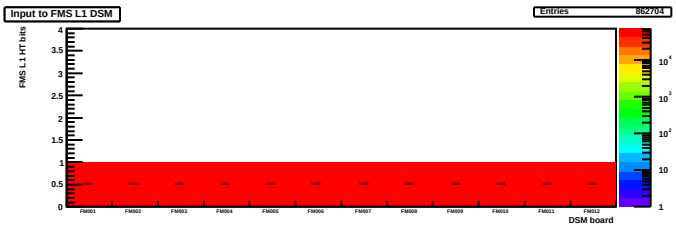

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

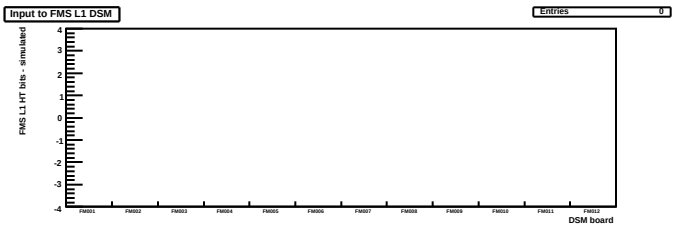

Input to FMS L1 DSM
Entries 862704
sumCD
DSM board

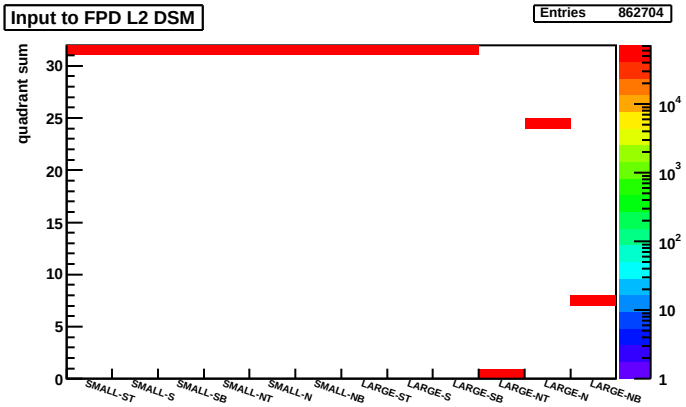

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

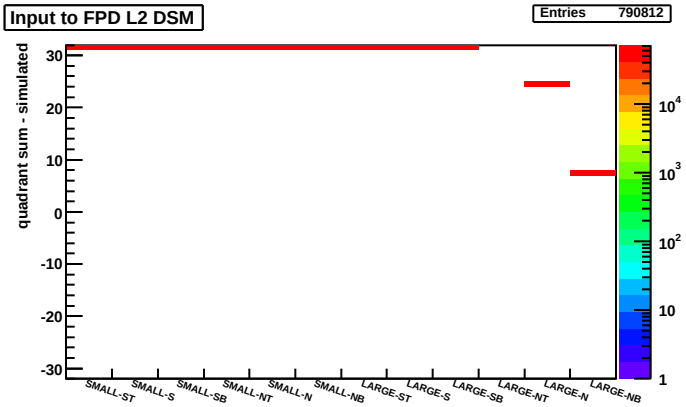

Input to FMS L1 DSM
Entries 862704
sumA
DSM board

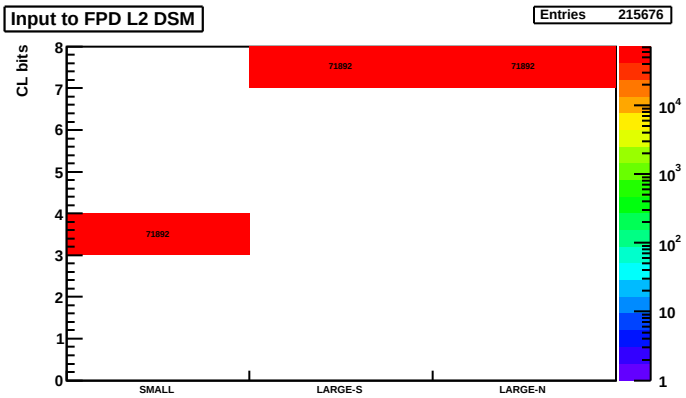

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

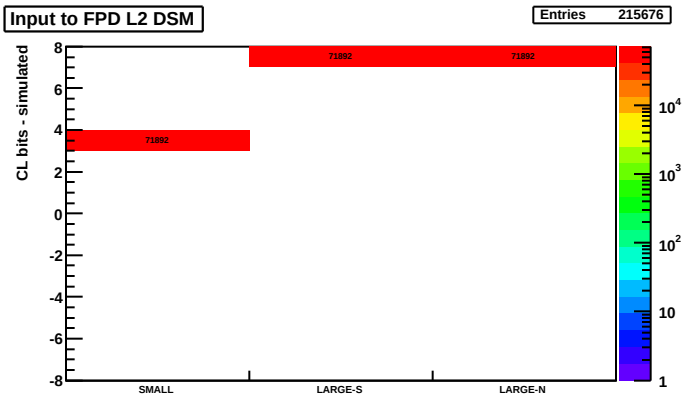

Input to FMS L1 DSM
Entries 862704
FMS L1 HT bits
DSM board

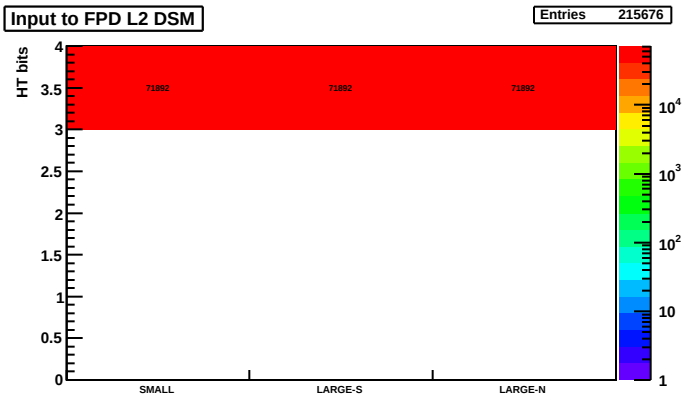

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

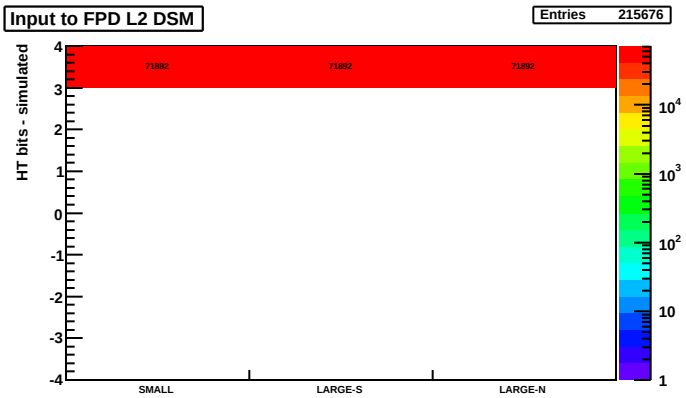

Input to FPD L2 DSM
Entries 862704
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

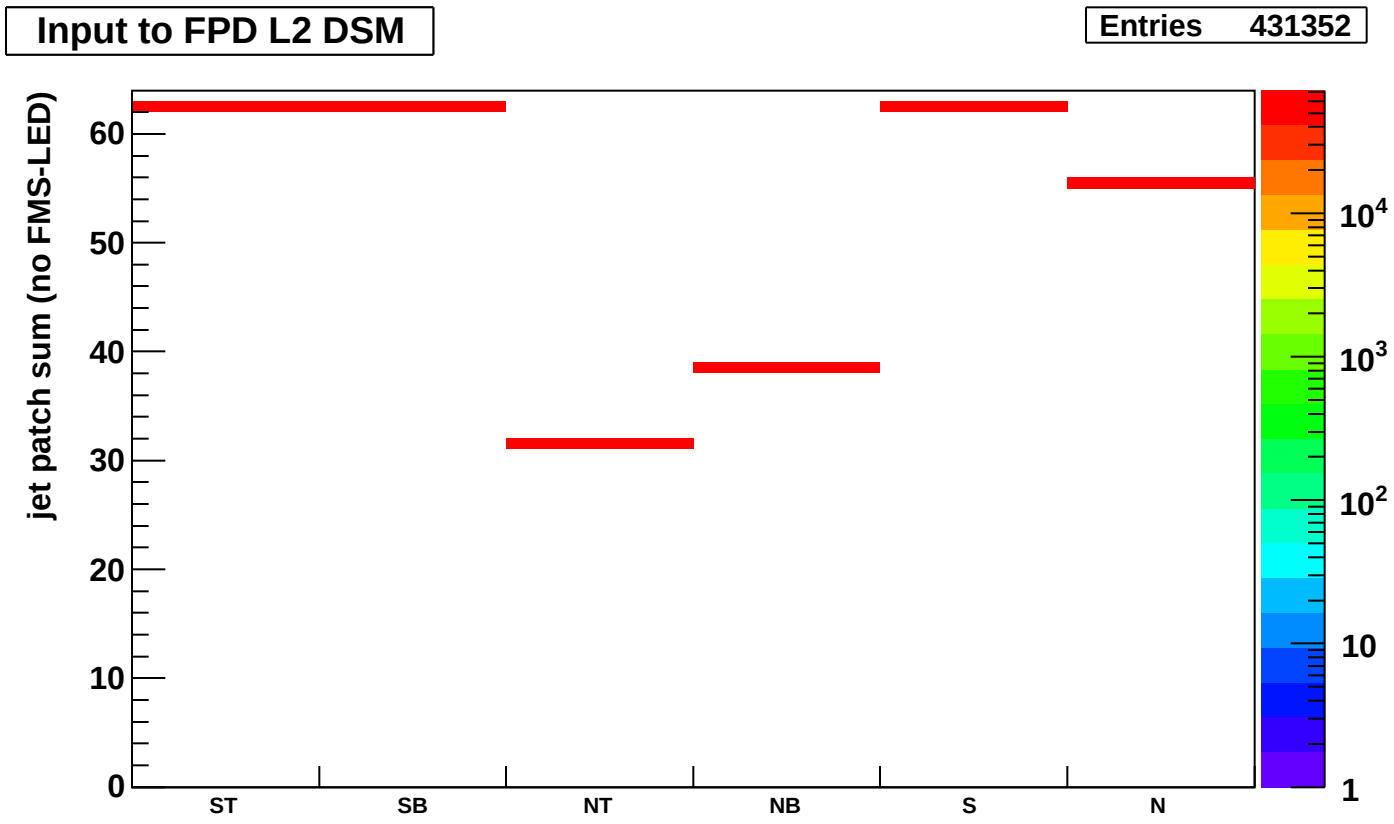

Input to FPD L2 DSM
Entries 790812
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

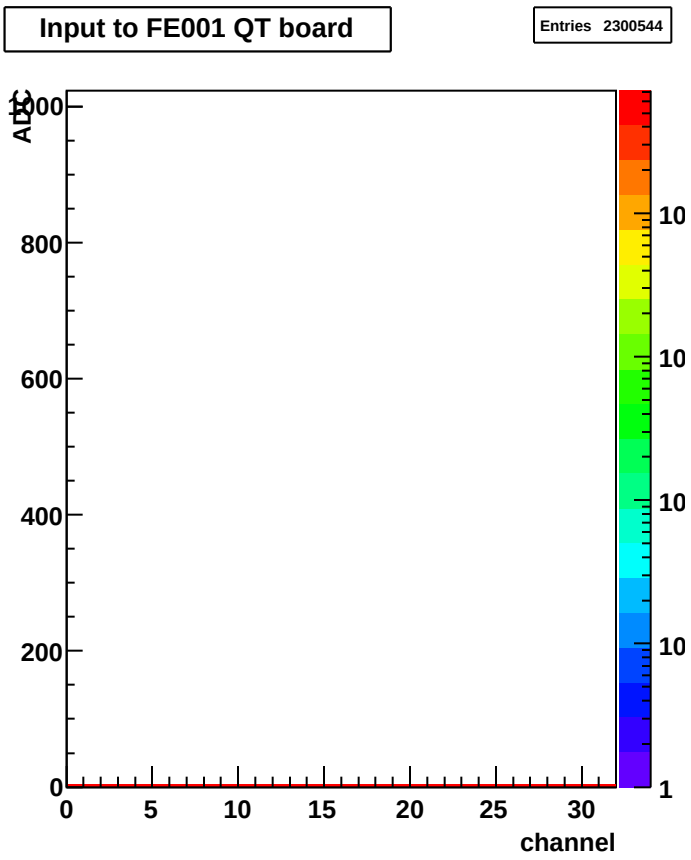

Input to FPD L2 DSM
Entries 215676
CL bits
71892
71892
71892
SMALL
LARGE-S
LARGE-N

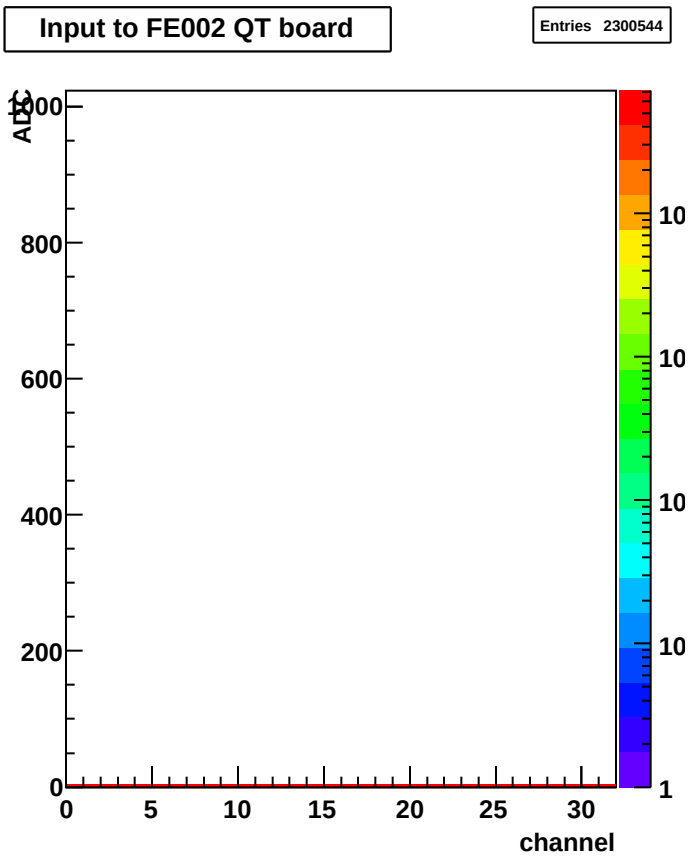

Input to FPD L2 DSM
Entries 215676
CL bits - simulated
71892
71892
71892
SMALL
LARGE-S
LARGE-N

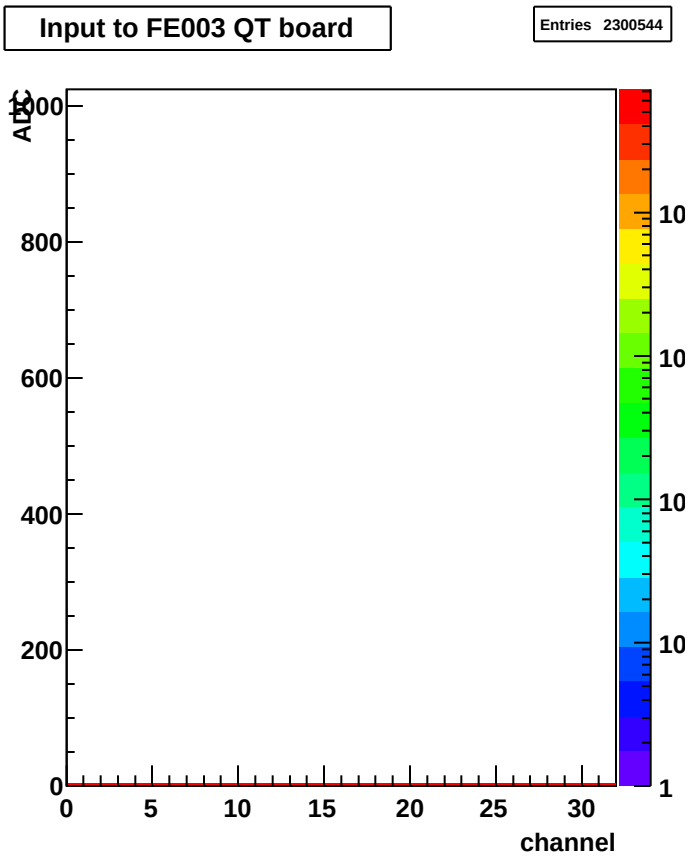

Input to FPD L2 DSM
Entries 215676
HT bits
71892
71892
71892
SMALL
LARGE-S
LARGE-N

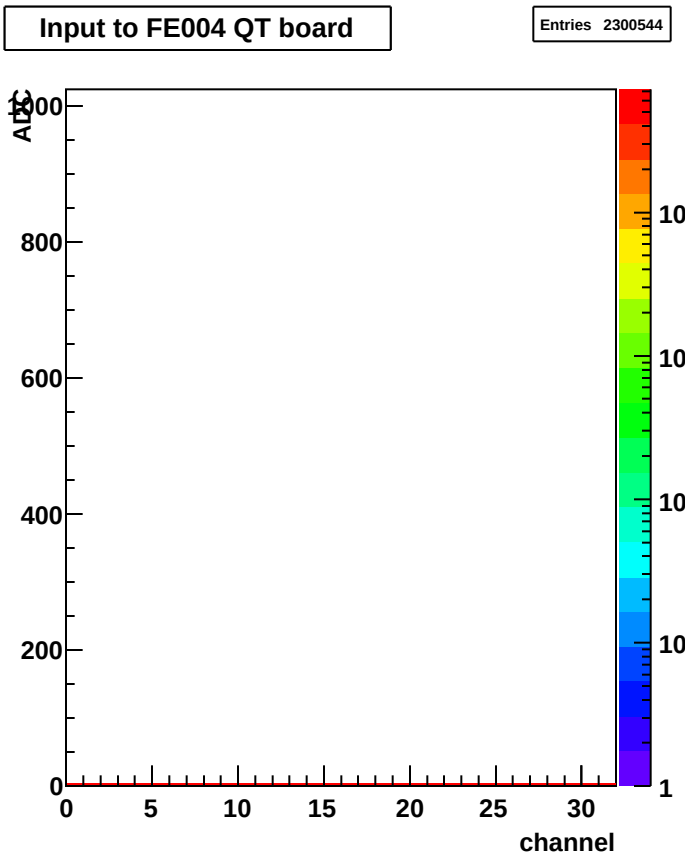

Input to FPD L2 DSM
Entries 215676
HT bits - simulated
71892
71892
71892
SMALL
LARGE-S
LARGE-N

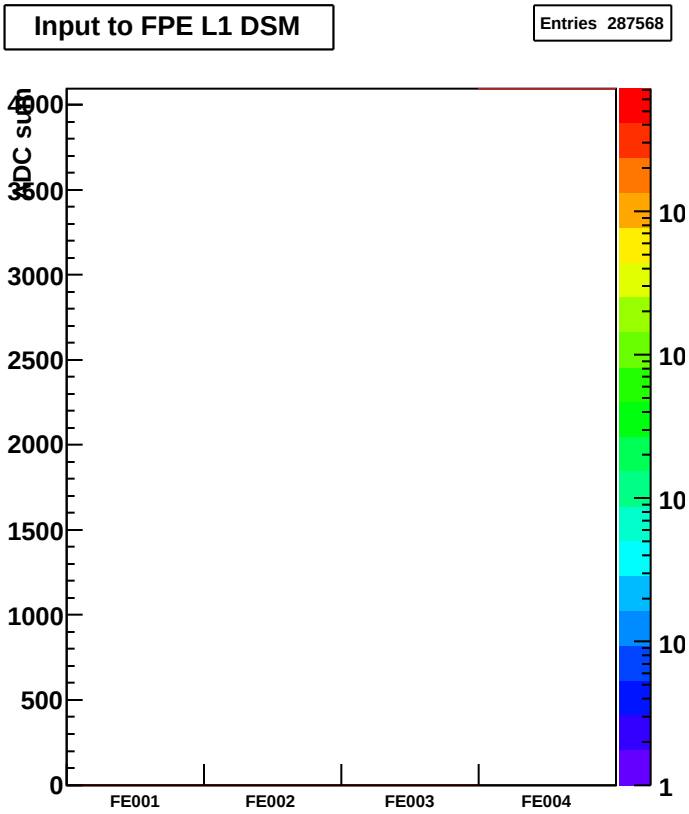

Input to FPD L2 DSM
Entries 431352
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

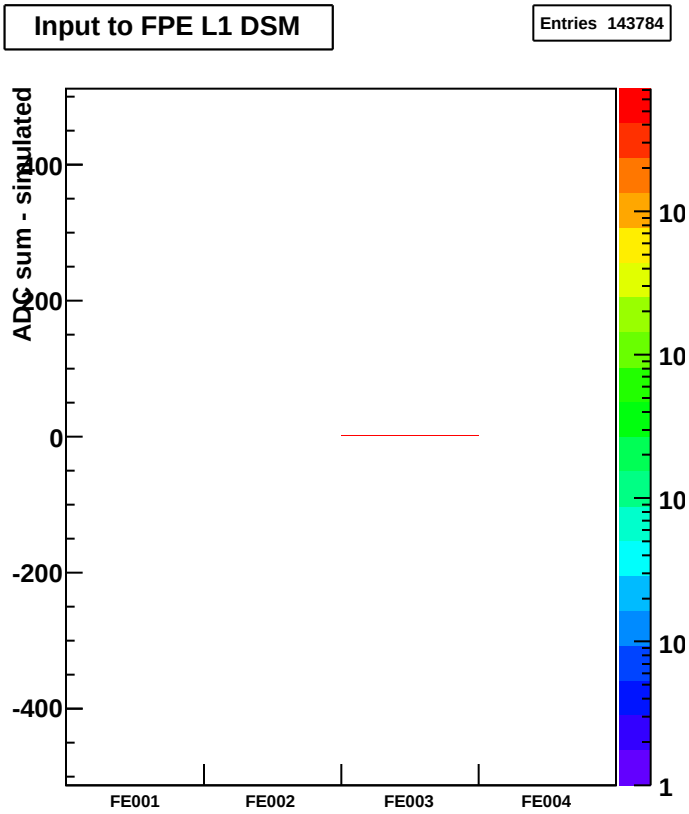

Input to FE001 QT board
Entries 2300544
ADC
channel

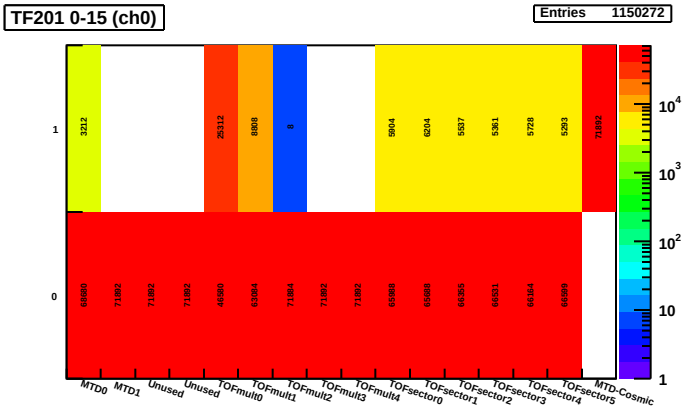

Input to FE002 QT board
Entries 2300544
ADC
channel

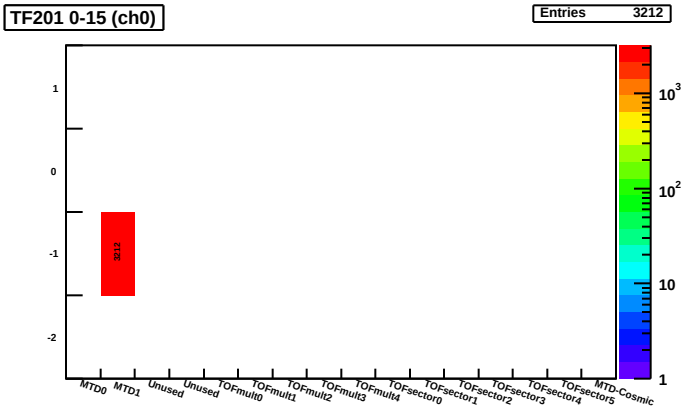

Input to FE003 QT board
Entries 2300544
ADC
channel

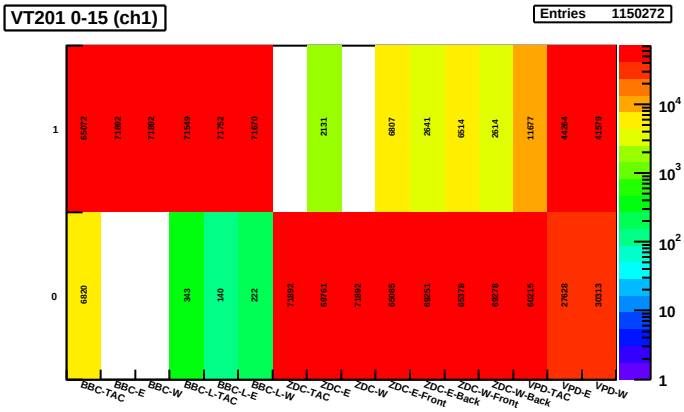

Input to FE004 QT board
Entries 2300544
ADC
channel

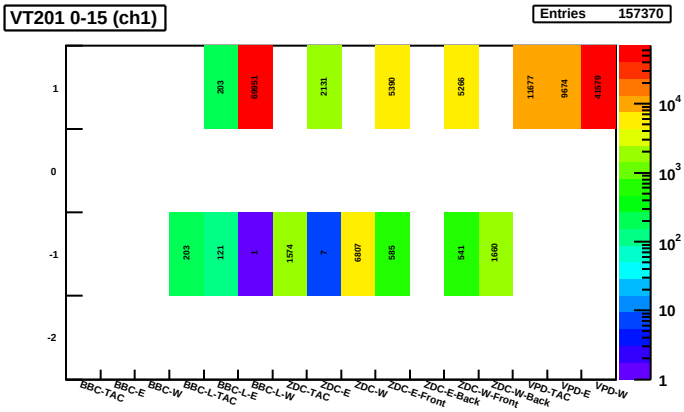

Input to FPE L1 DSM
Entries 287568
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 143784
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 1150272
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 3212
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 1150272
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W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Entries 157370
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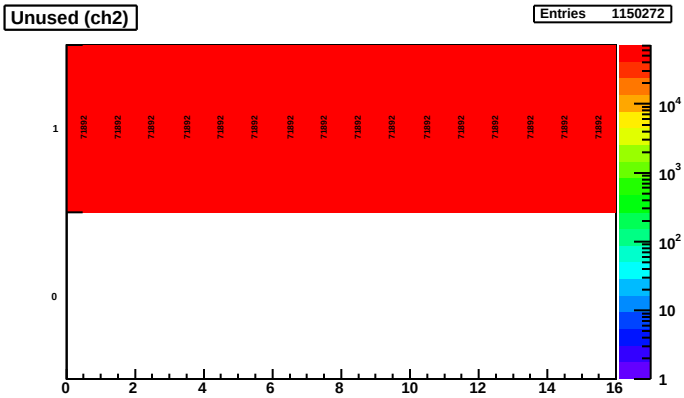
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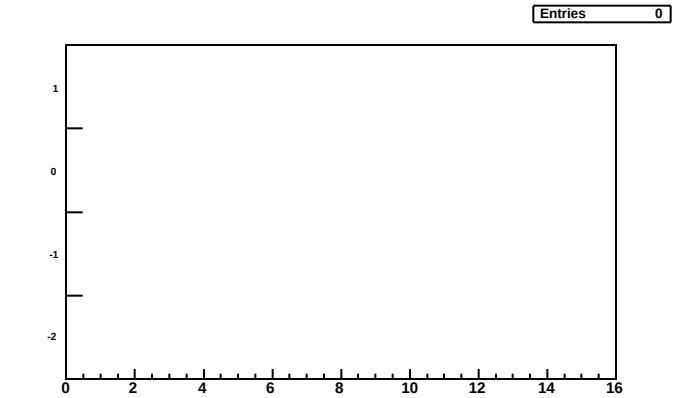
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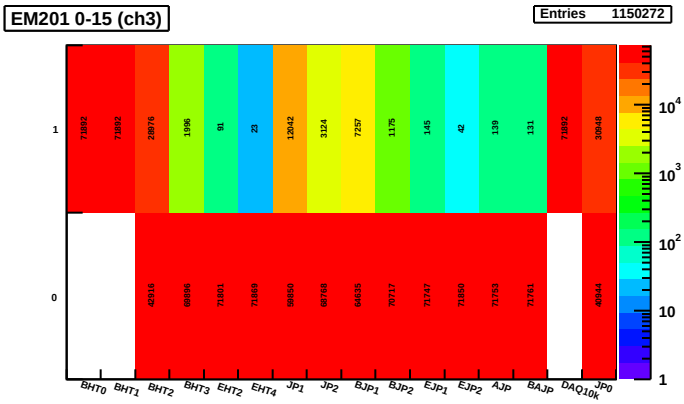
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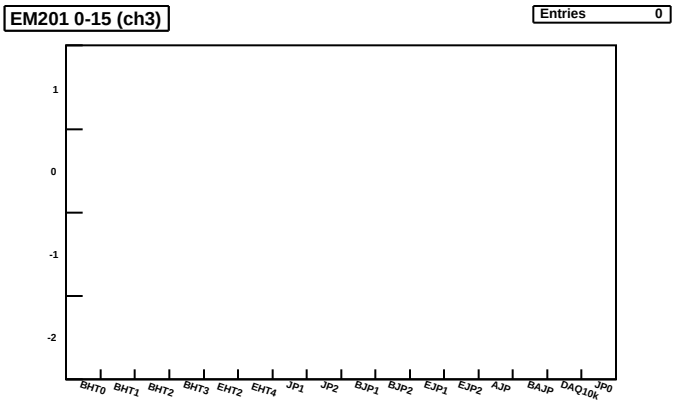
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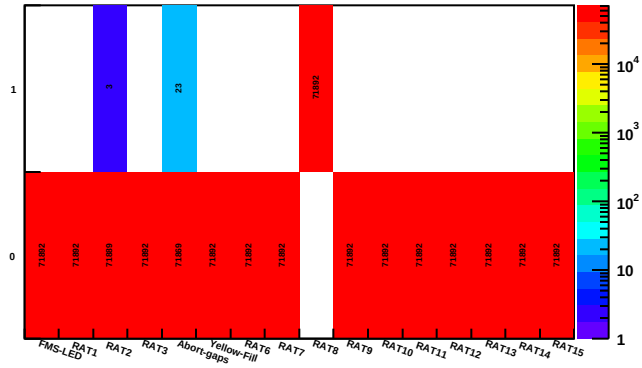
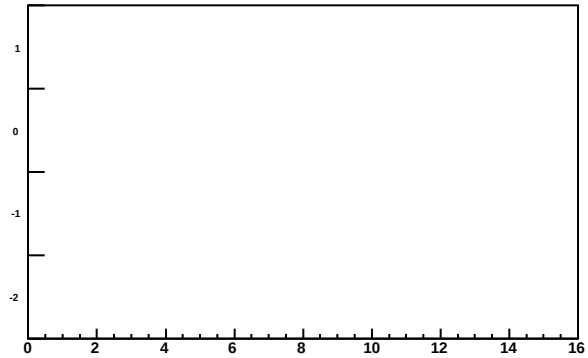
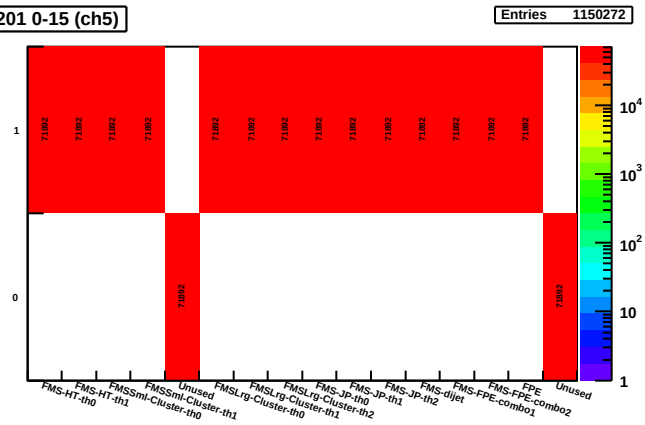
RAT board (ch4)

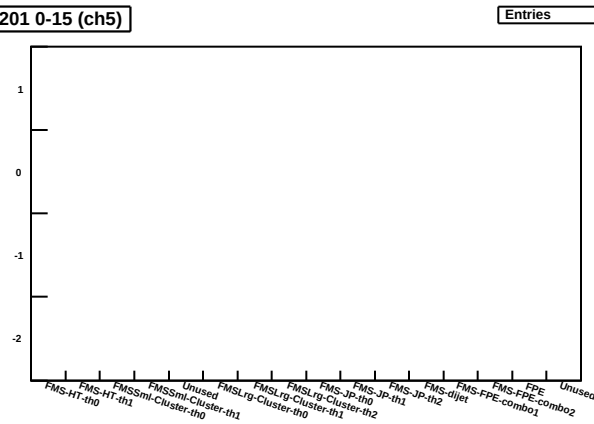




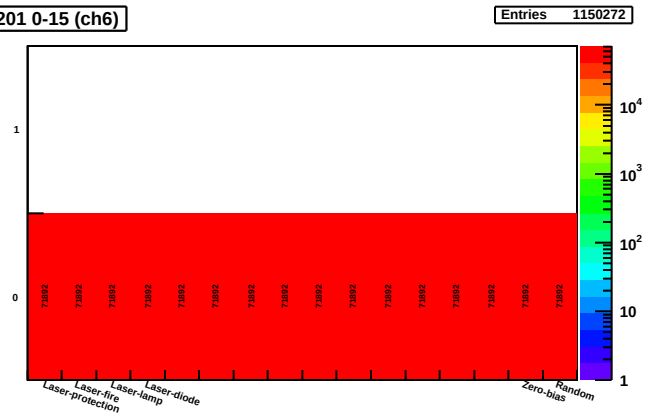
FP201 0-15 (ch5)

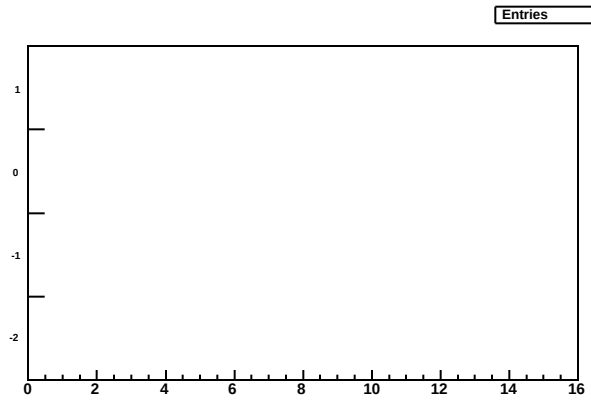
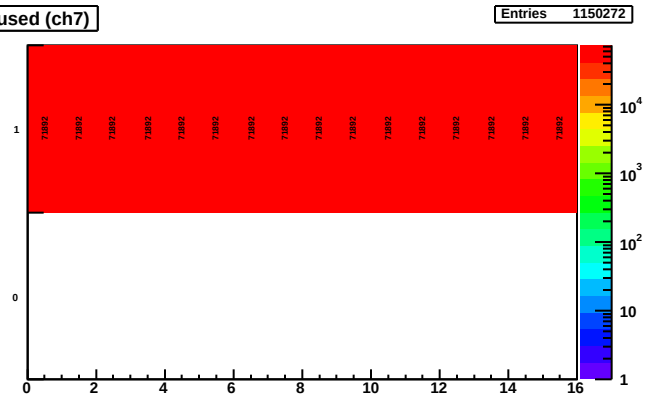
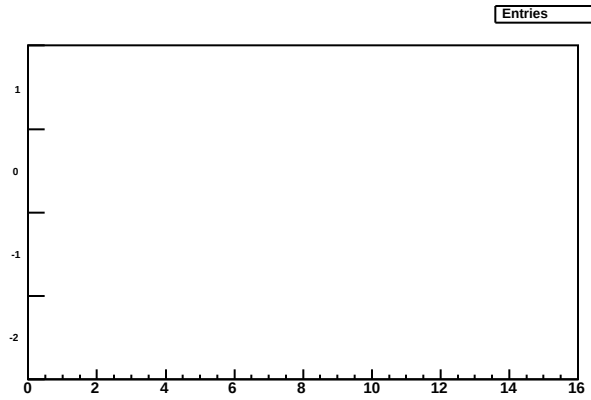


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)