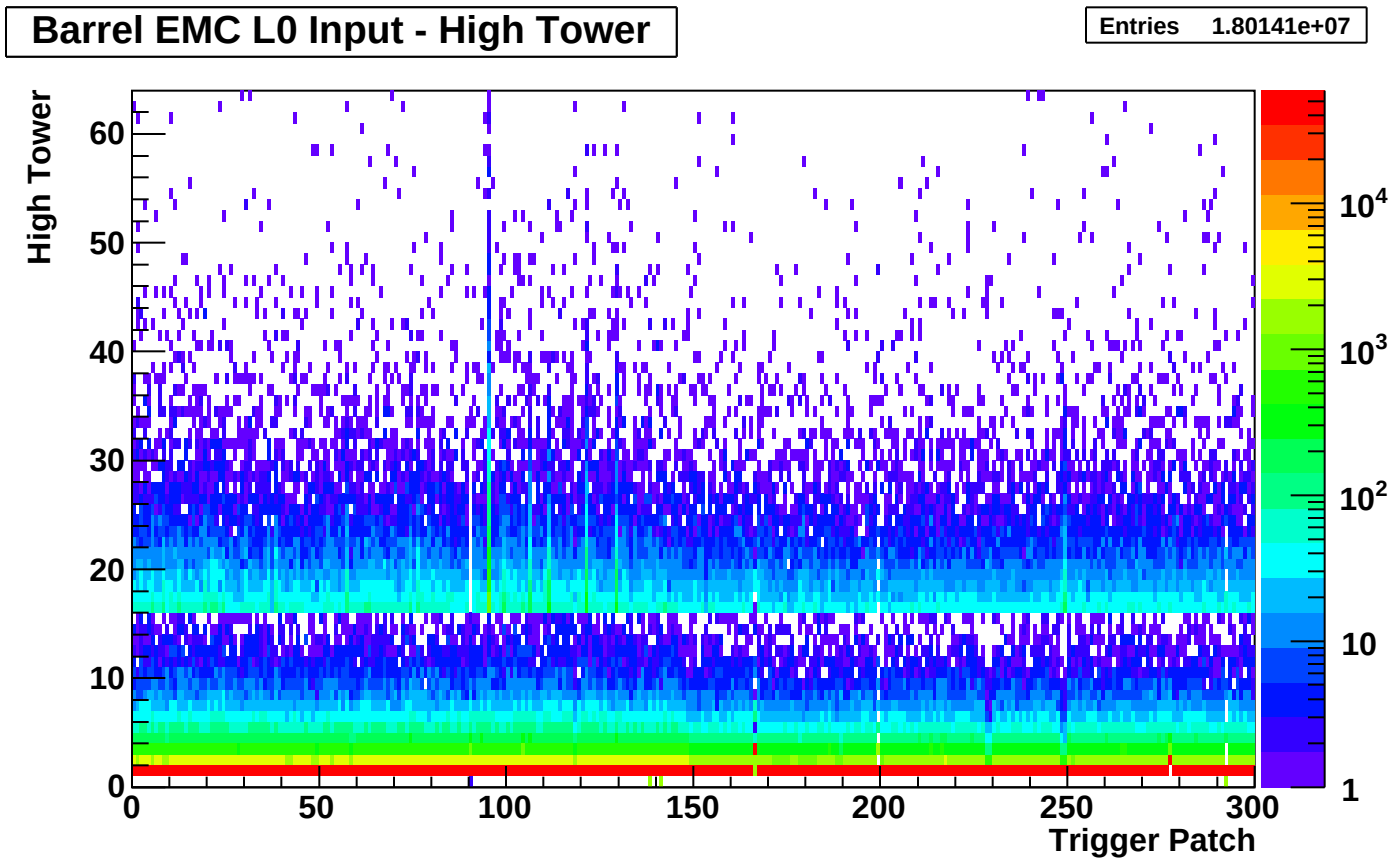
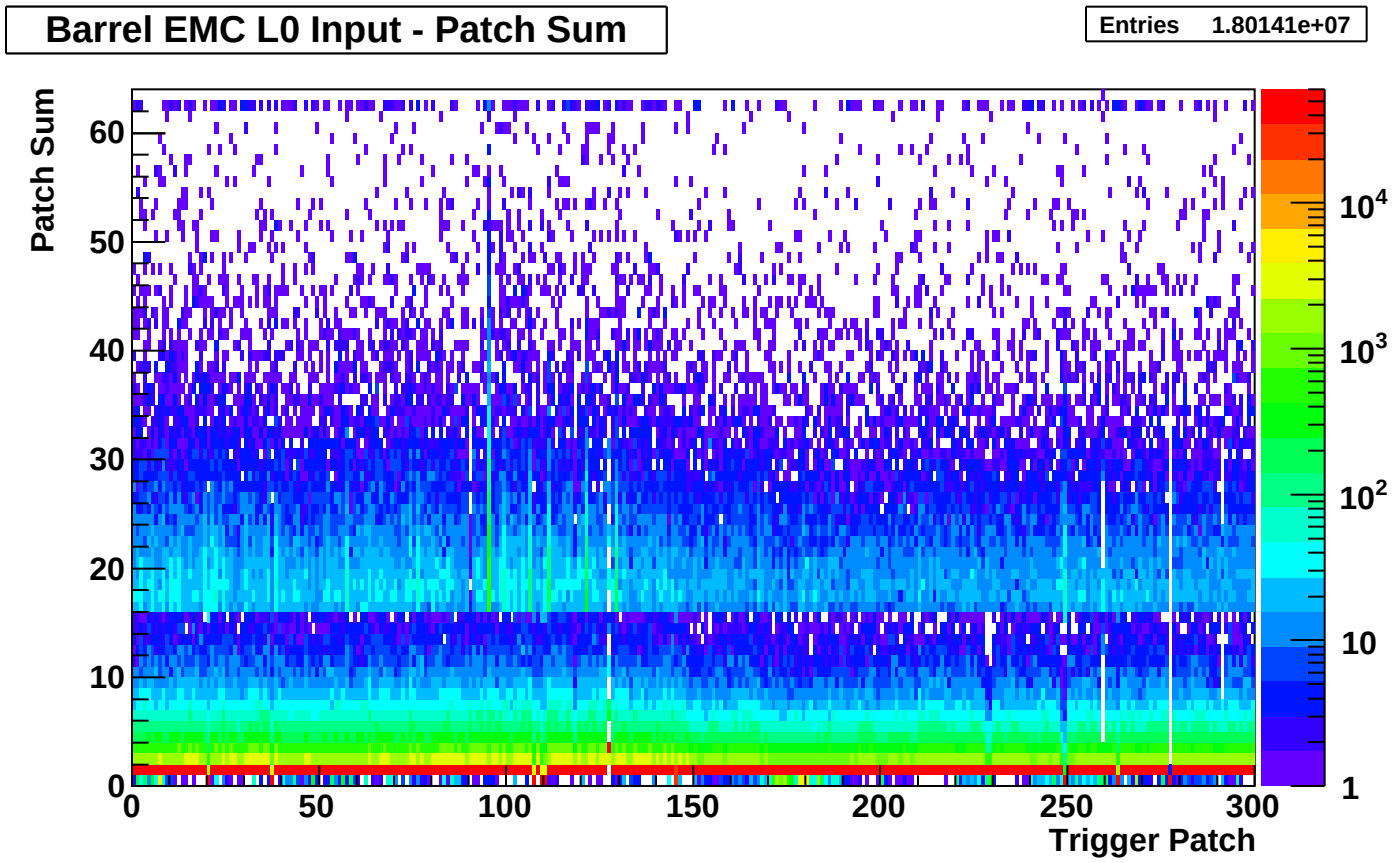
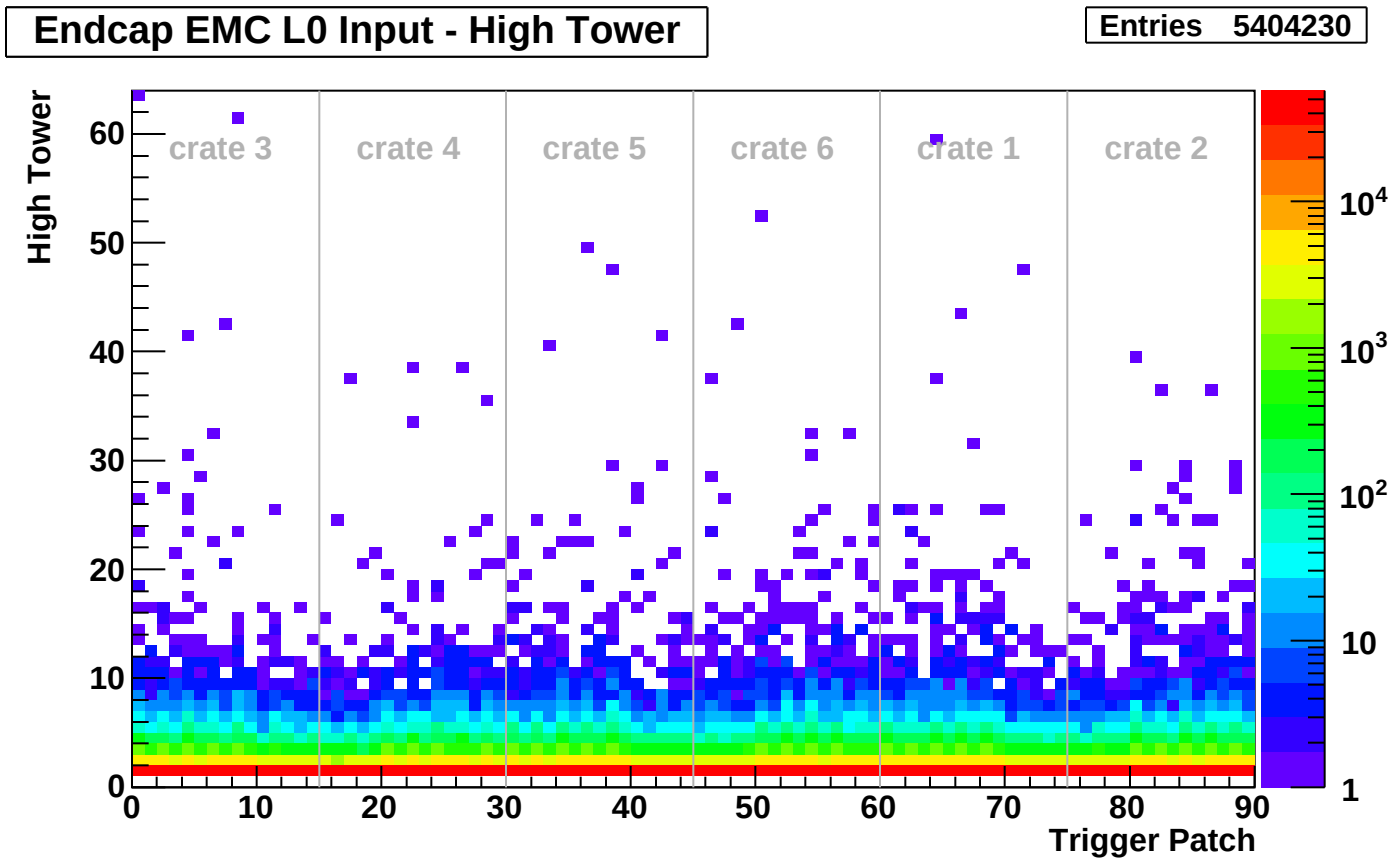
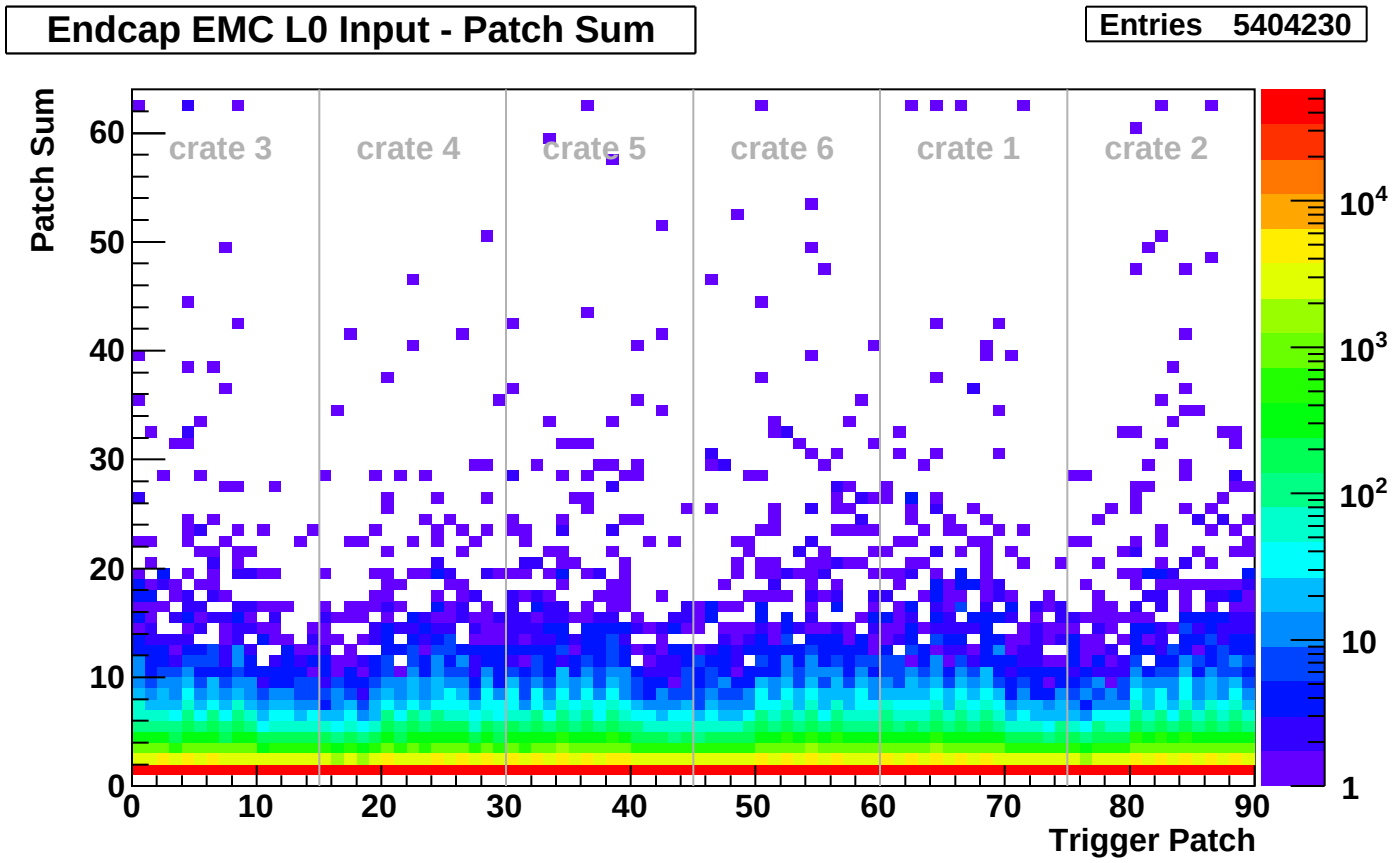
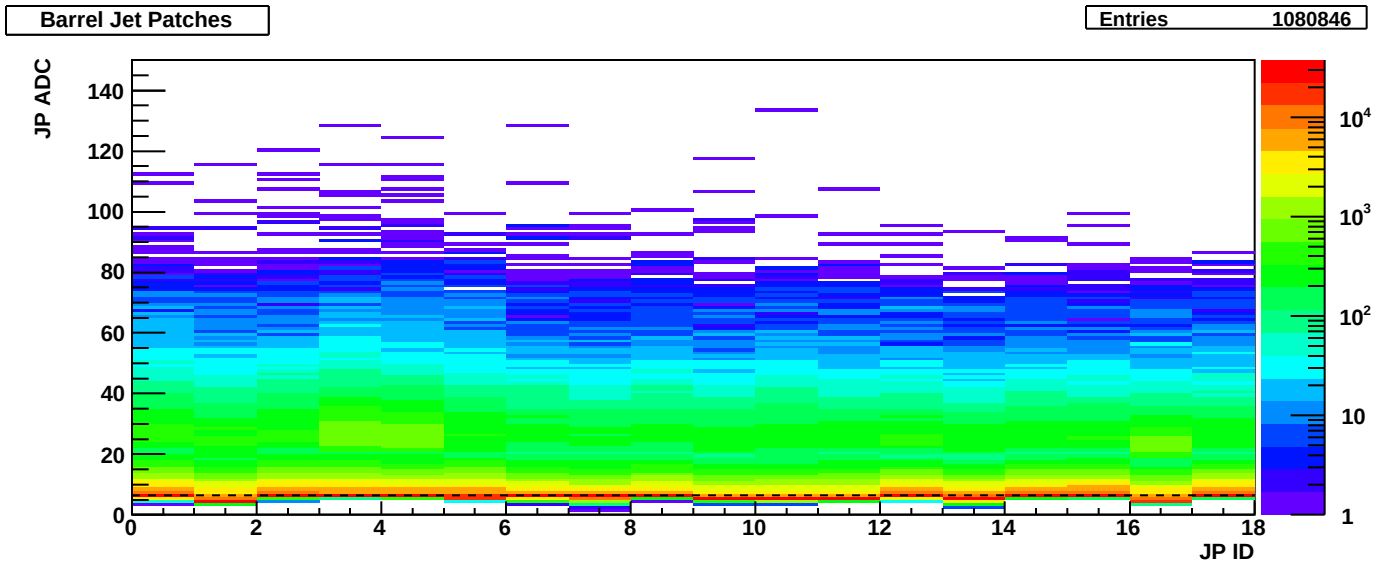
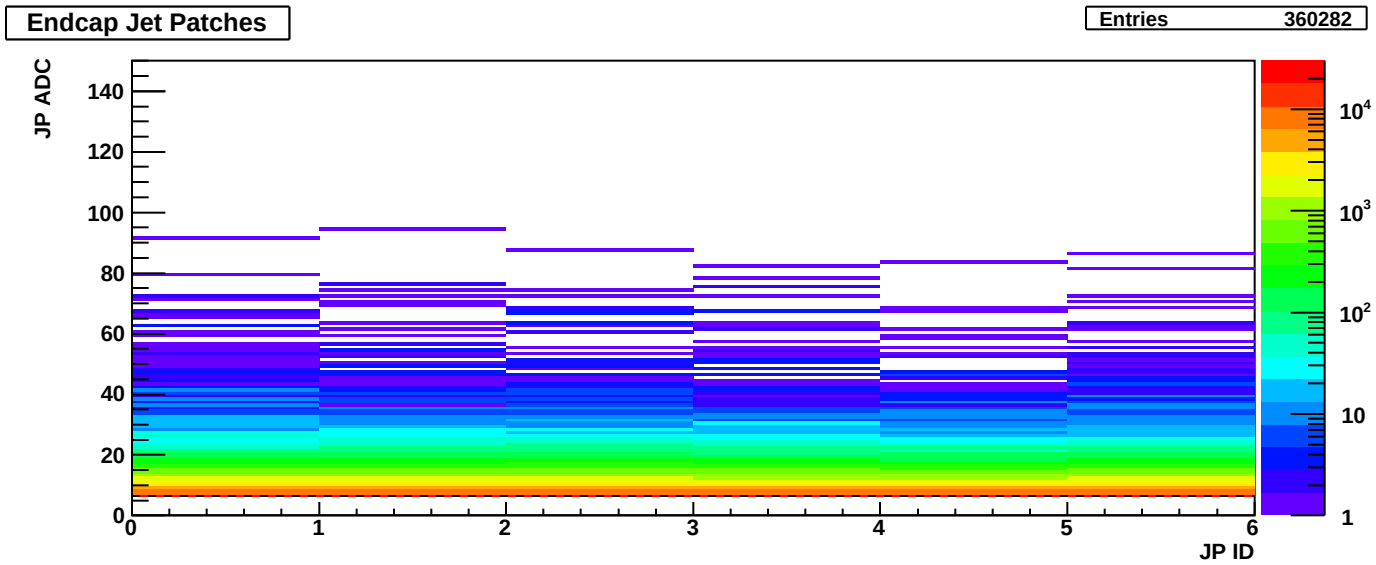

Barrel EMC L0 Input - High Tower
Entries 1.80141e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

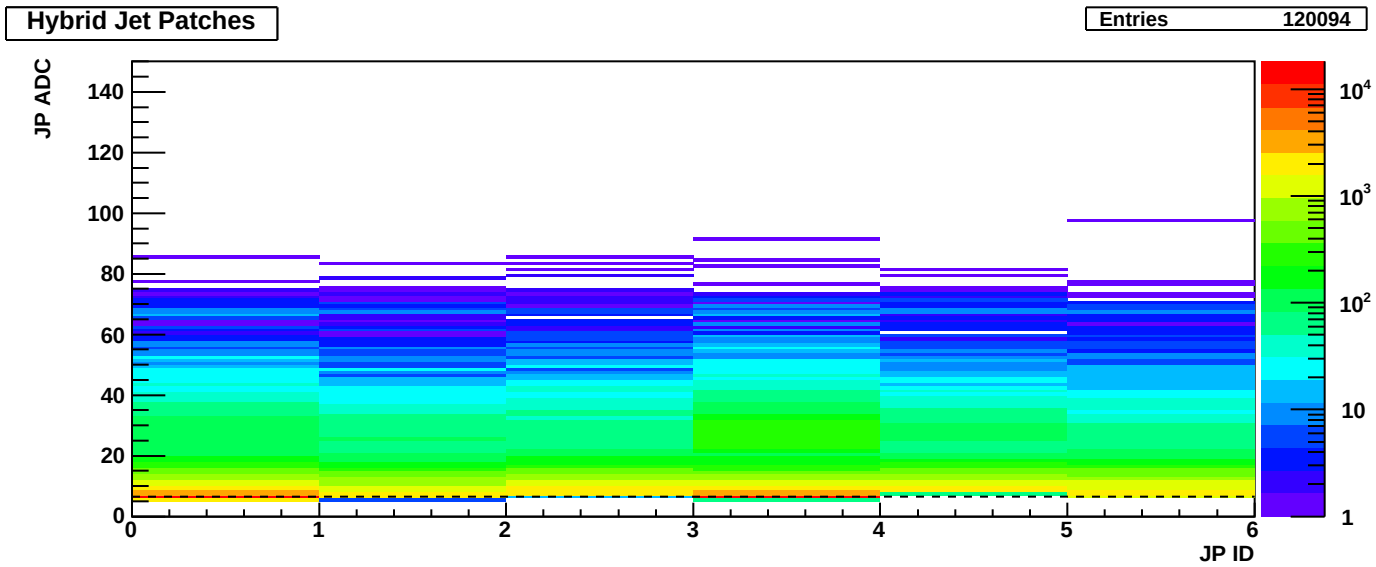

Barrel EMC L0 Input - Patch Sum
Entries 1.80141e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

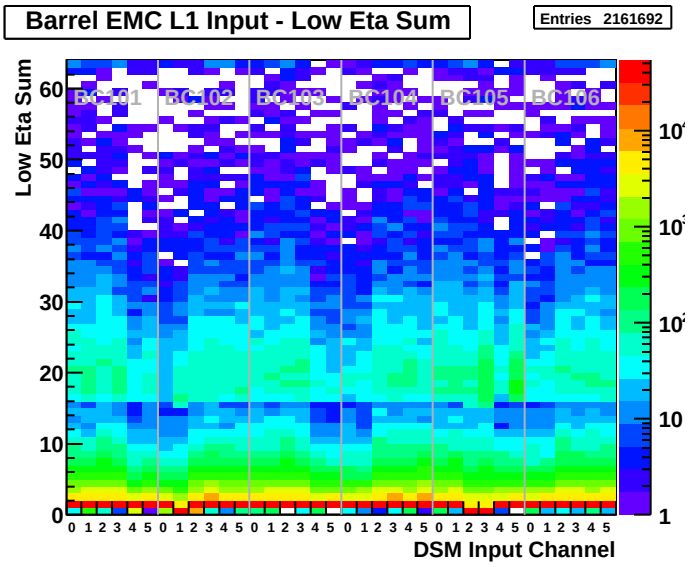

Endcap EMC L0 Input - High Tower
Entries 5404230
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

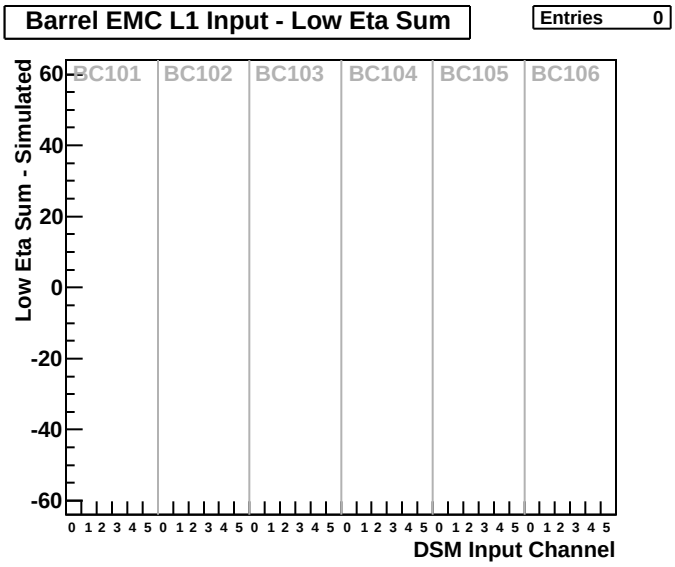

Endcap EMC L0 Input - Patch Sum
Entries 5404230
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

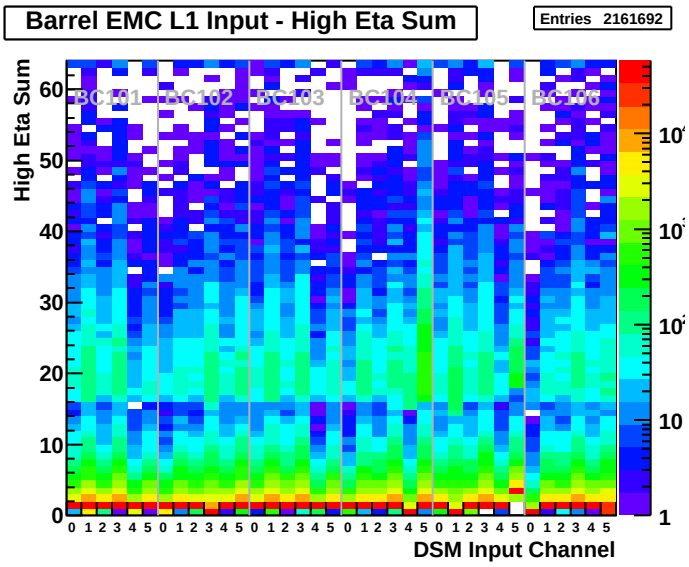

Barrel Jet Patches
Entries 1080846
JP ADC
JP ID

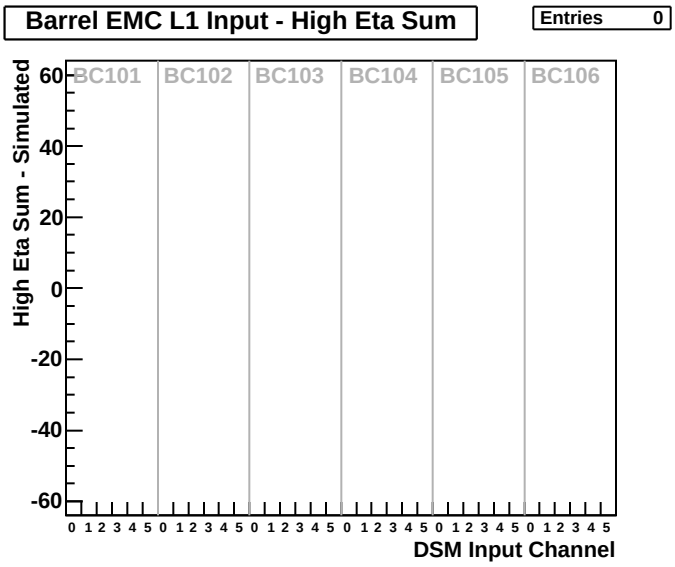

Endcap Jet Patches
Entries 360282
JP ADC
JP ID

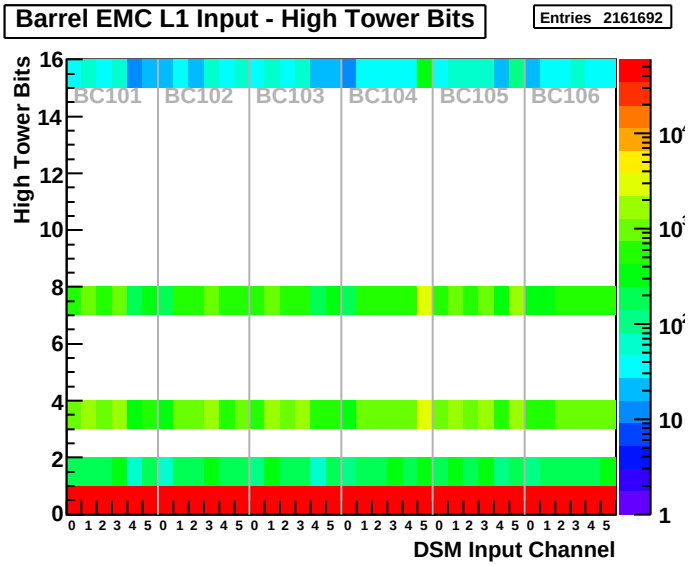

Hybrid Jet Patches
Entries 120094
JP ADC
JP ID

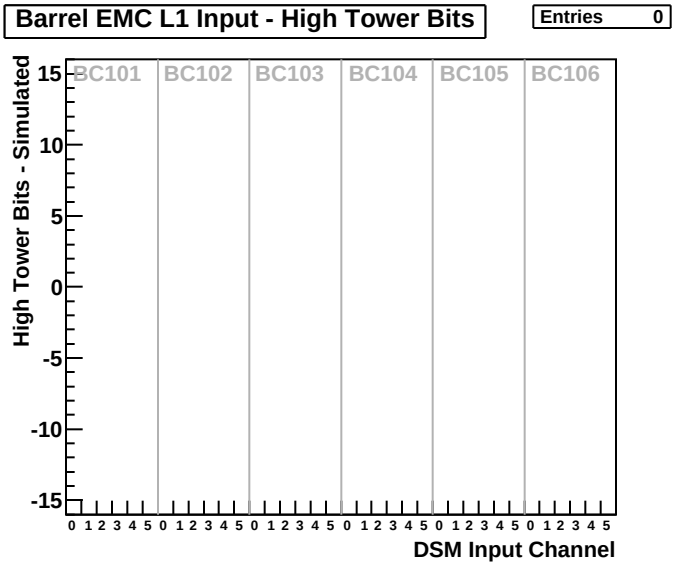

Barrel EMC L1 Input - Low Eta Sum
Entries 2161692
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

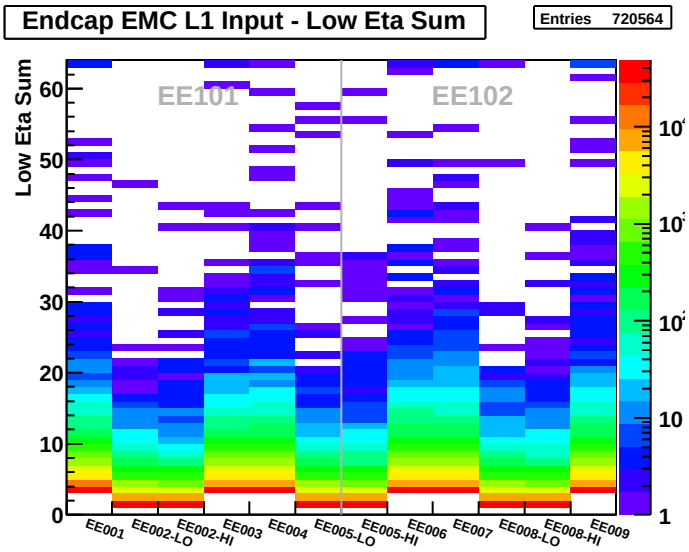

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

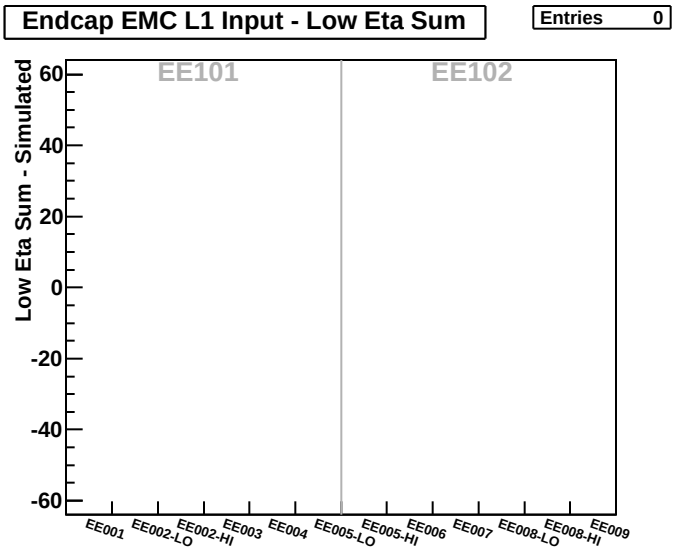

Barrel EMC L1 Input - High Eta Sum
Entries 2161692
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

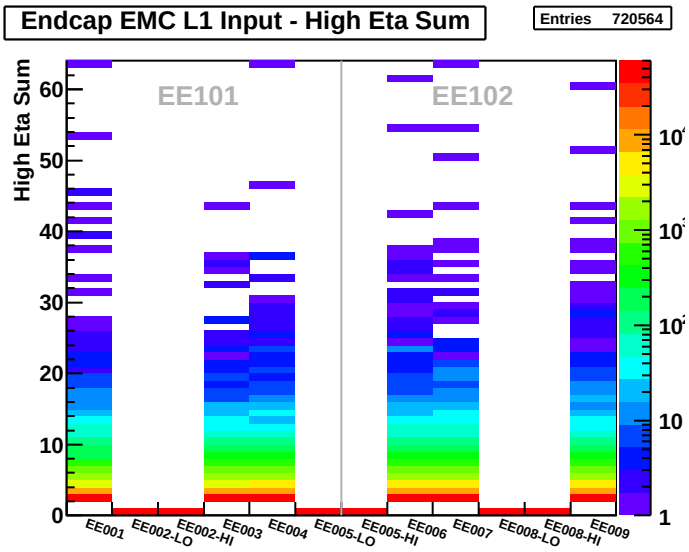

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

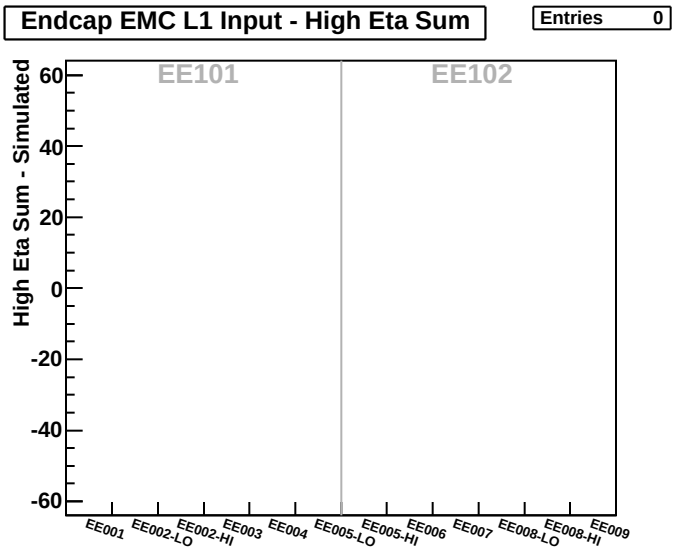

Barrel EMC L1 Input - High Tower Bits
Entries 2161692
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

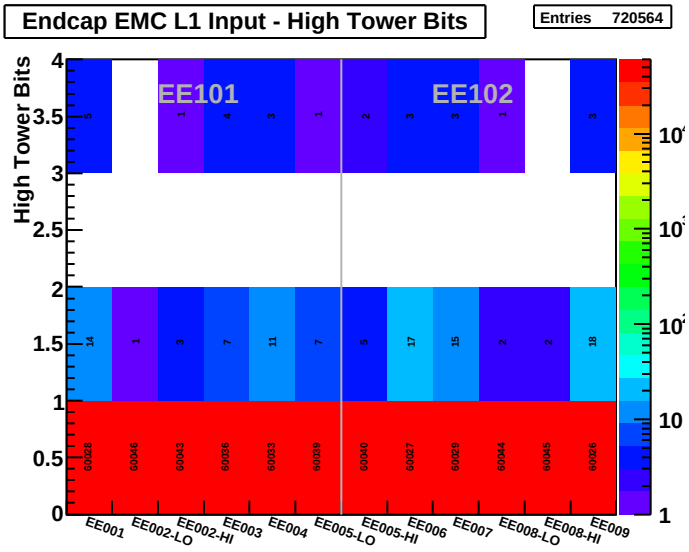

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

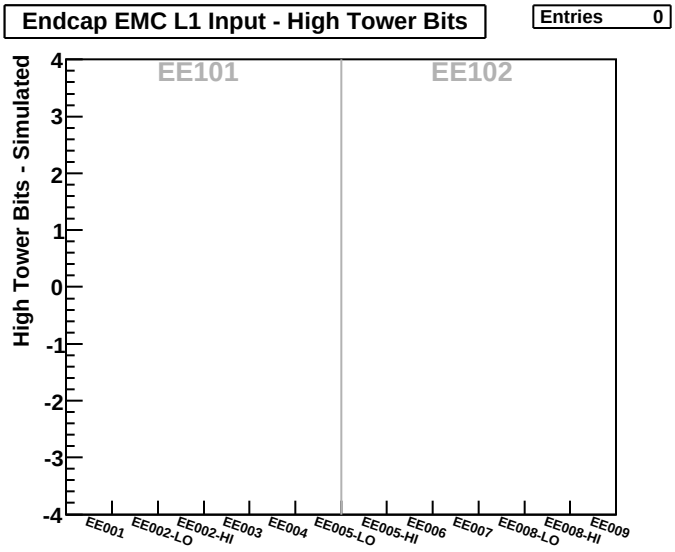

Endcap EMC L1 Input - Low Eta Sum
Entries 720564
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

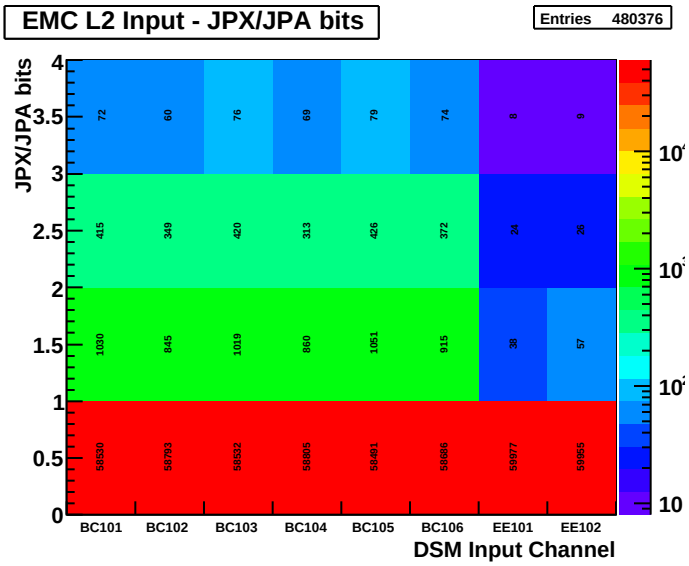

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

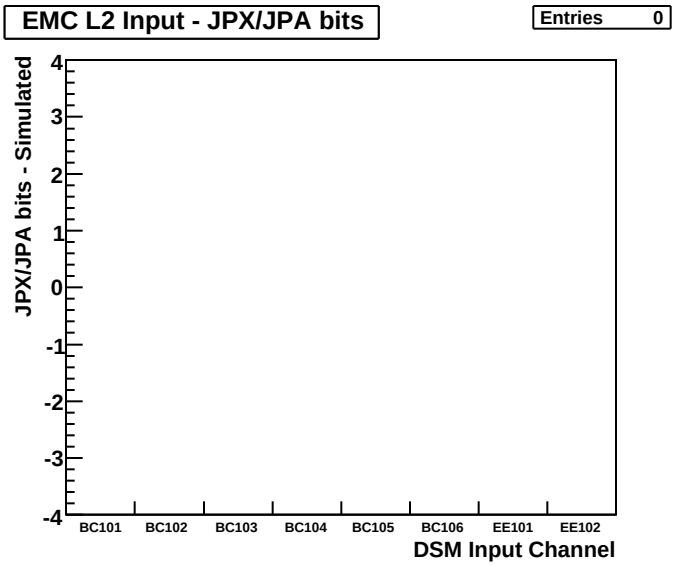

Endcap EMC L1 Input - High Eta Sum
Entries 720564
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

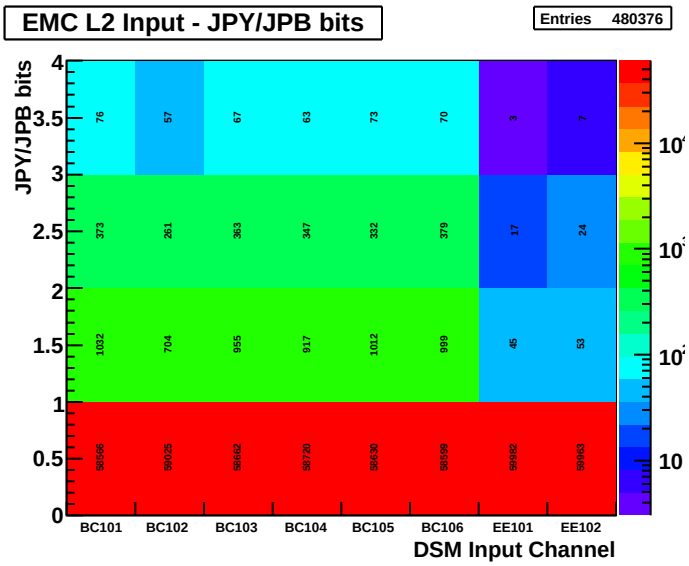

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

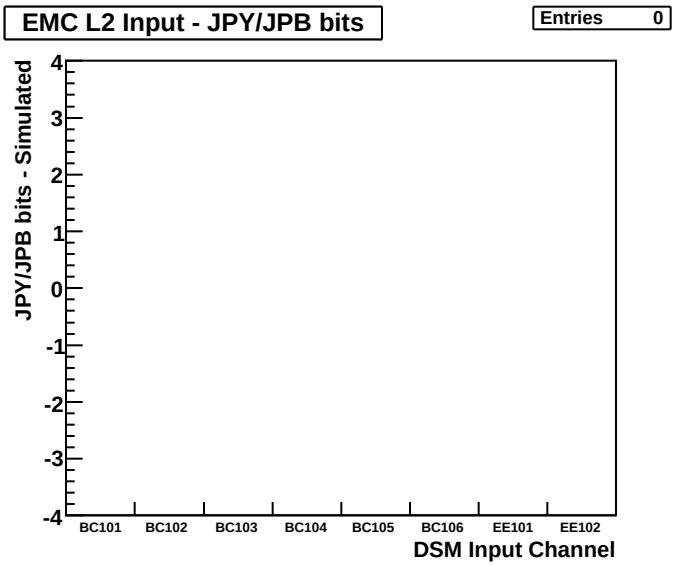

Endcap EMC L1 Input - High Tower Bits
Entries 720564
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

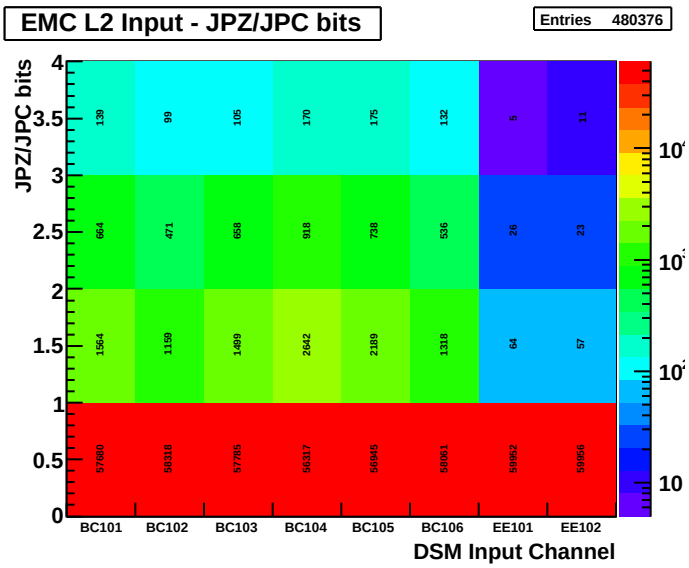

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

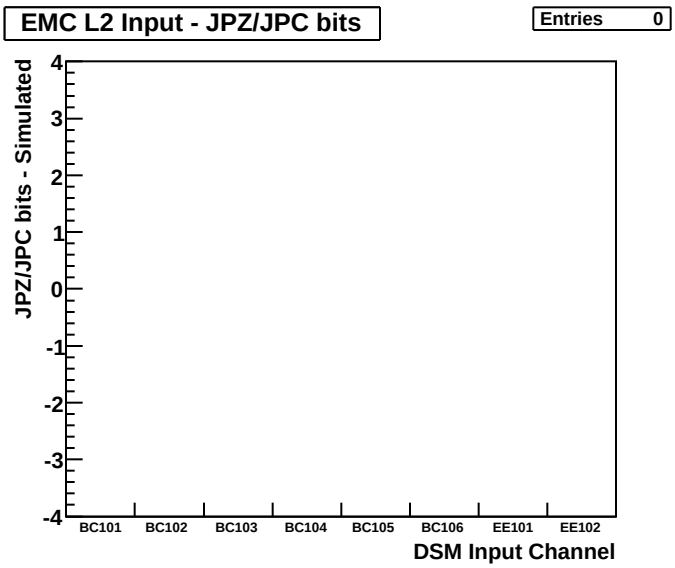

EMC L2 Input - JPX/JPA bits
Entries 480376
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
72 60 76 69 79 74 8 9
415 349 420 313 426 372 24 26
1030 845 1019 860 1051 915 38 57
58530 58793 58632 58805 58491 58686 59977 59955

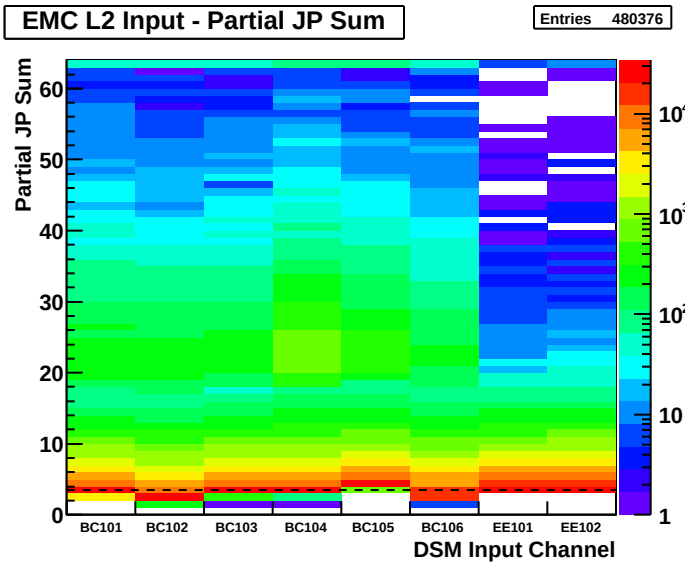

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

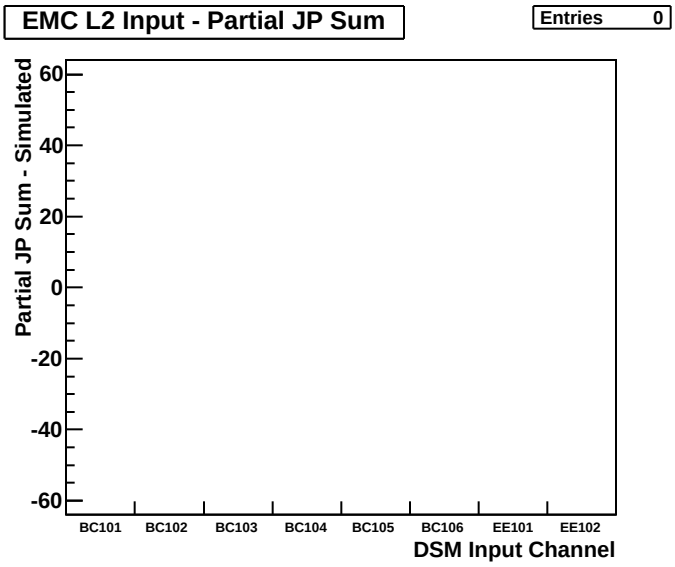

EMC L2 Input - JPY/JPB bits
Entries 480376
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
76 57 67 63 73 70 3 7
373 261 363 347 332 379 17 24
1032 704 955 917 1012 999 45 53
58566 59025 58662 58720 58630 58599 59982 59963

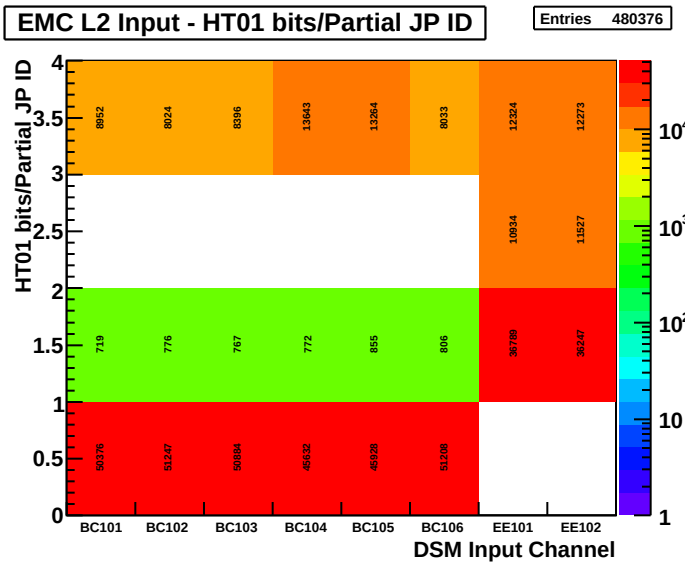

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

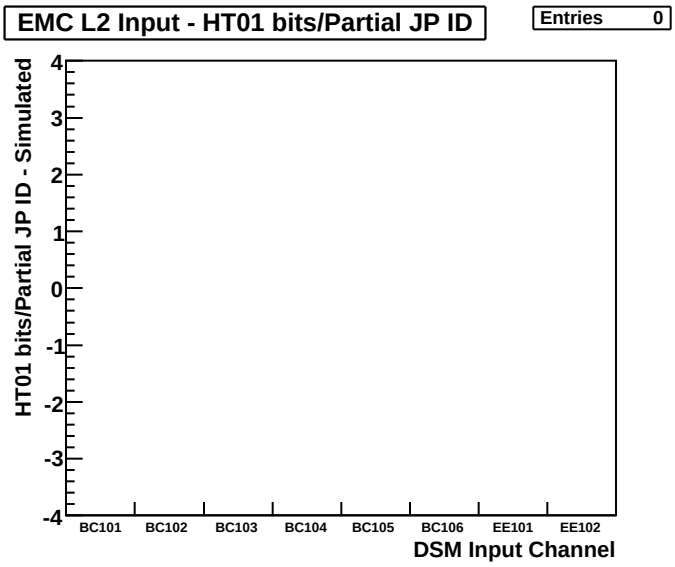

EMC L2 Input - JPZ/JPC bits
Entries 480376
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
139 99 105 170 175 132 5 11
664 471 658 918 738 536 26 23
1564 1159 1499 2642 2189 1318 64 57
57680 58318 57785 56317 56945 58061 59952 59956

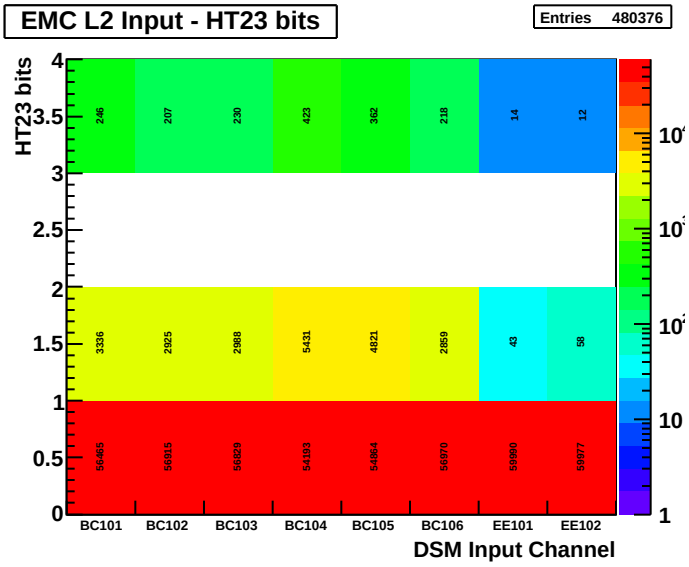

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

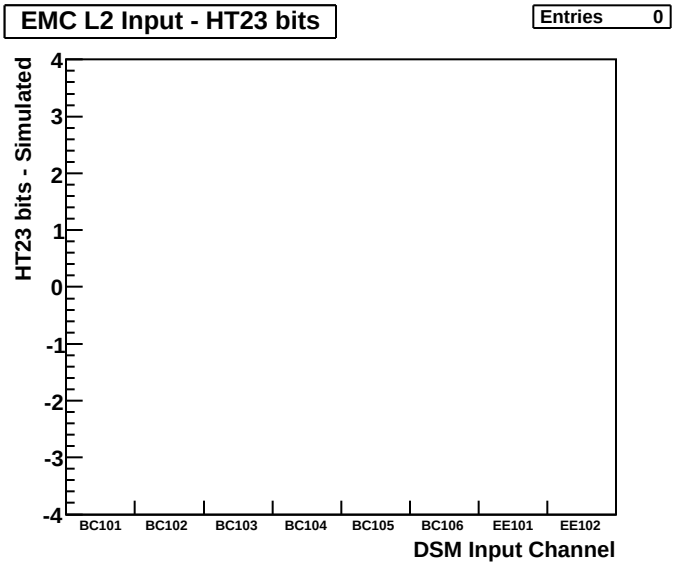

EMC L2 Input - Partial JP Sum
Entries 480376
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

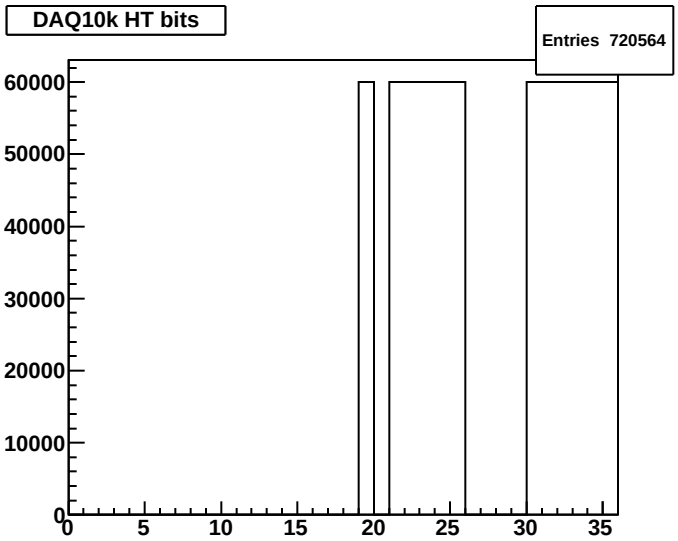

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

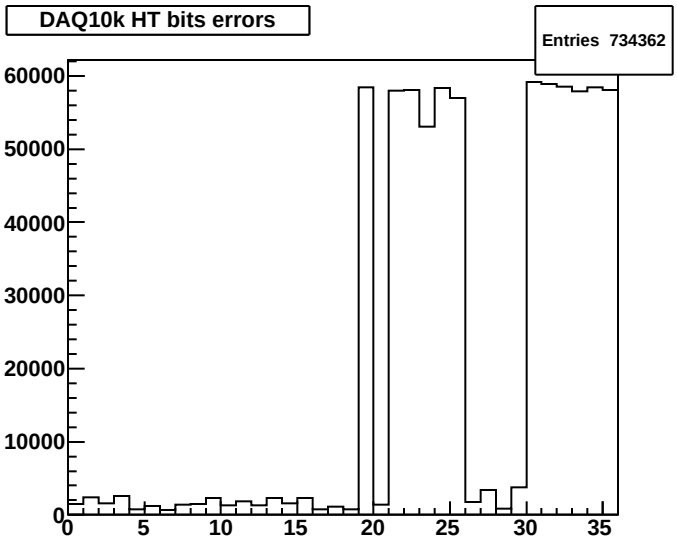

EMC L2 Input - HT01 bits/Partial JP ID
Entries 480376
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

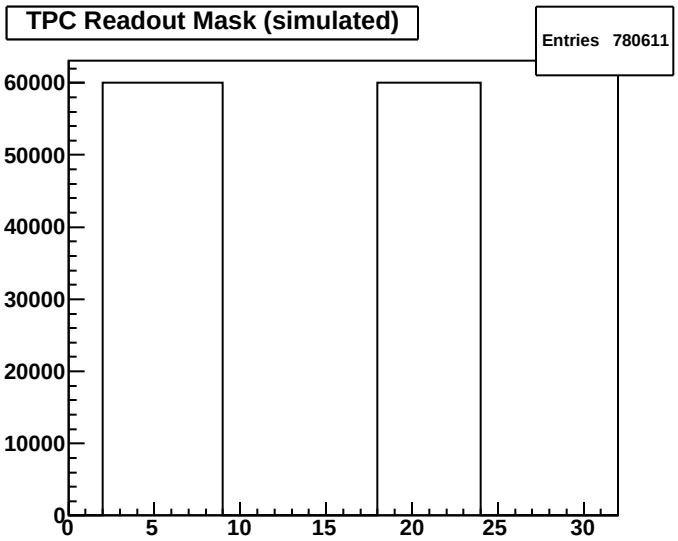

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

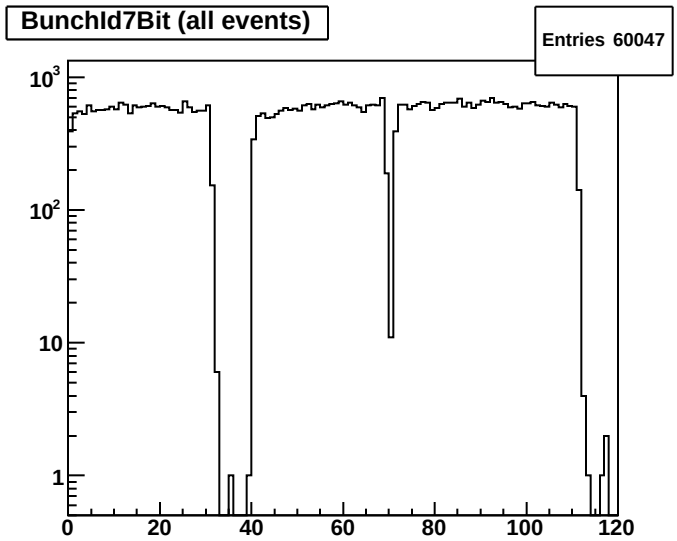

EMC L2 Input - HT23 bits
Entries 480376
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

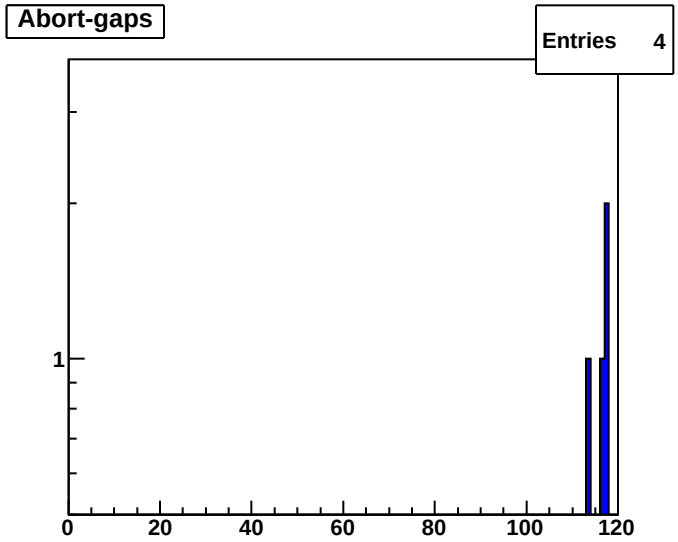

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

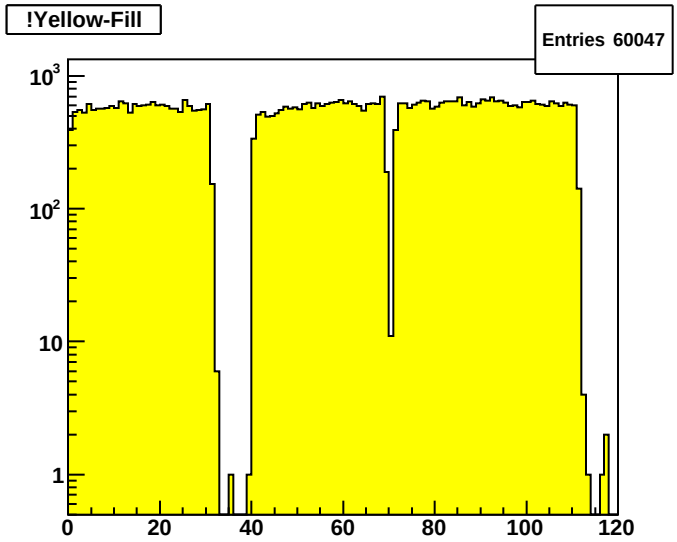

DAQ10k HT bits
Entries 720564
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

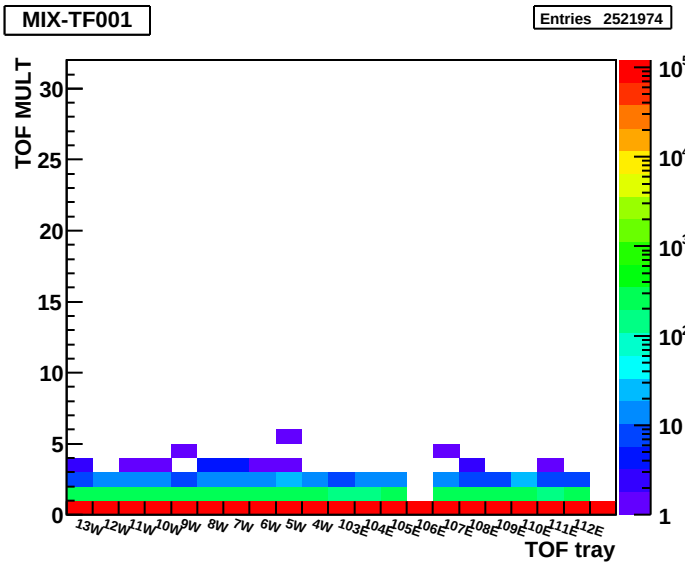

DAQ10k HT bits errors
Entries 734362
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

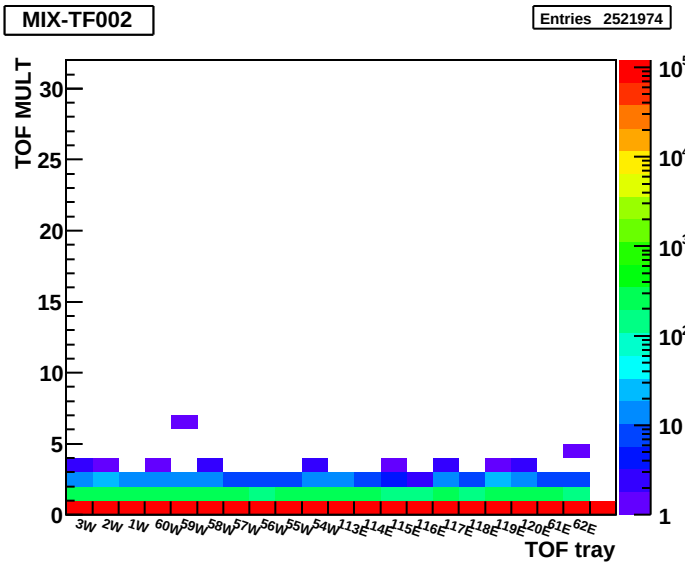

TPC Readout Mask (simulated)
Entries 780611
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

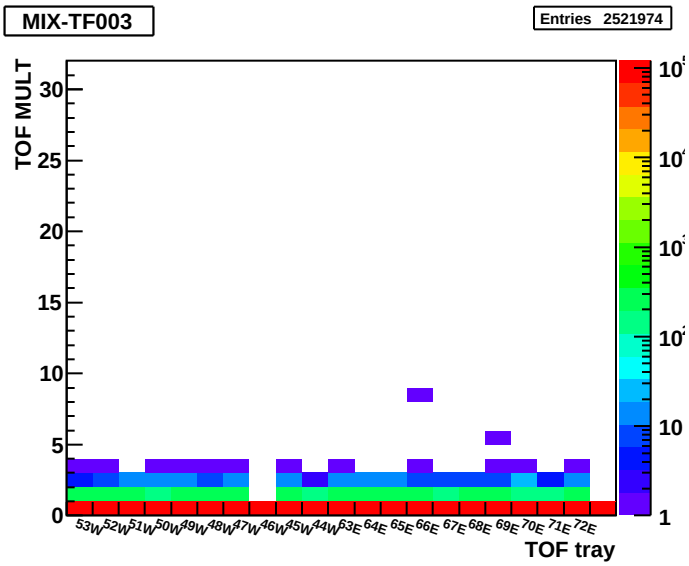

BunchId7Bit (all events)
Entries 60047
10^3
10^2
10
1
0 20 40 60 80 100 120

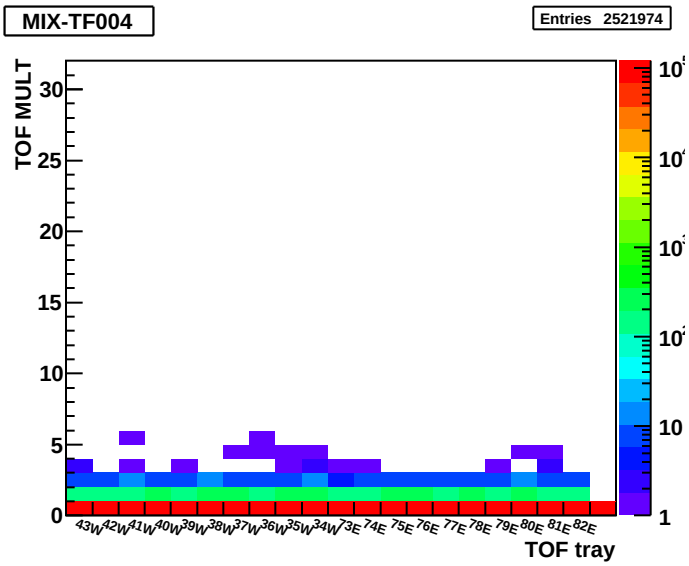

Abort-gaps
Entries 4
1
0 20 40 60 80 100 120

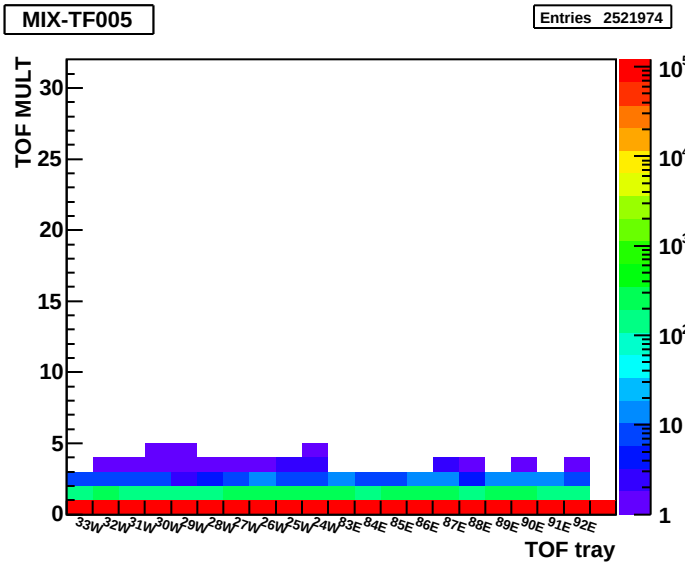

!Yellow-Fill
Entries 60047
10^3
10^2
10
1
0 20 40 60 80 100 120

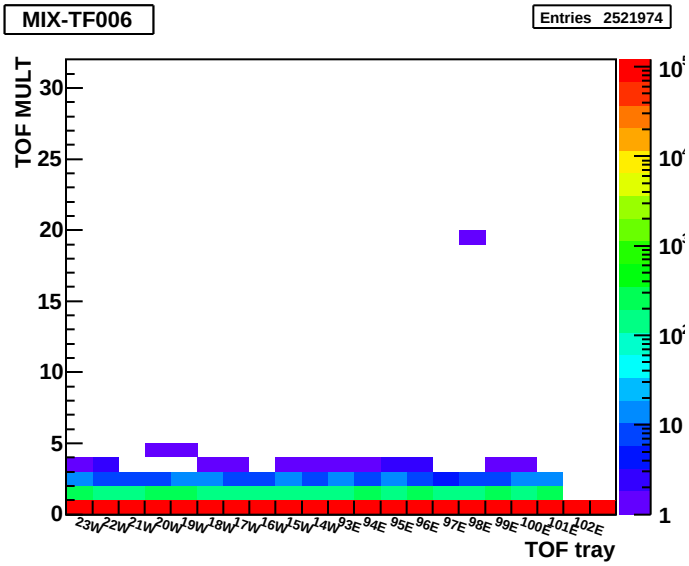

MIX-TF001
Entries 2521974
TOF MULT
TOF tray

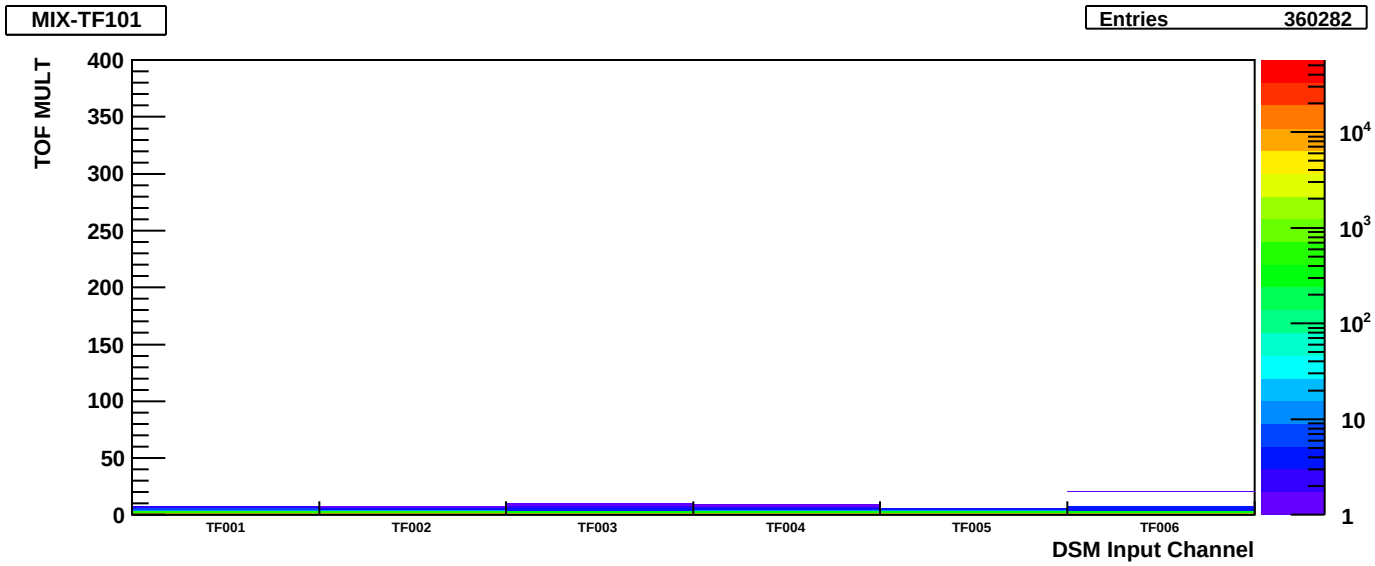

MIX-TF002
Entries 2521974
TOF MULT
TOF tray

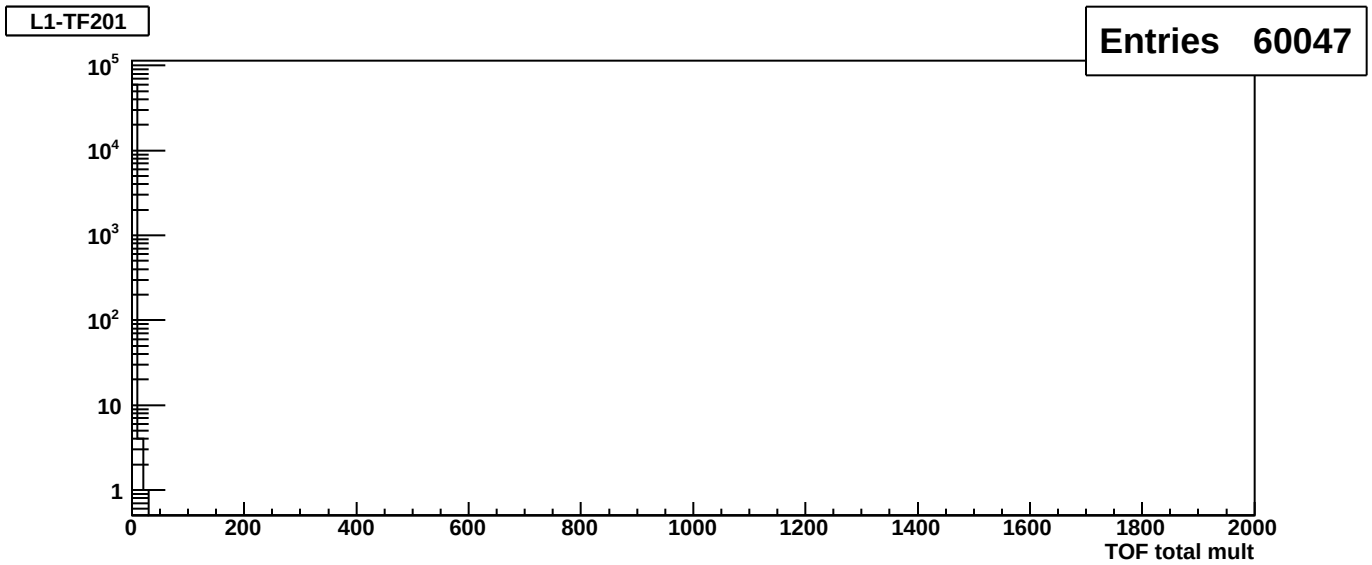

MIX-TF003
Entries 2521974
TOF MULT
TOF tray

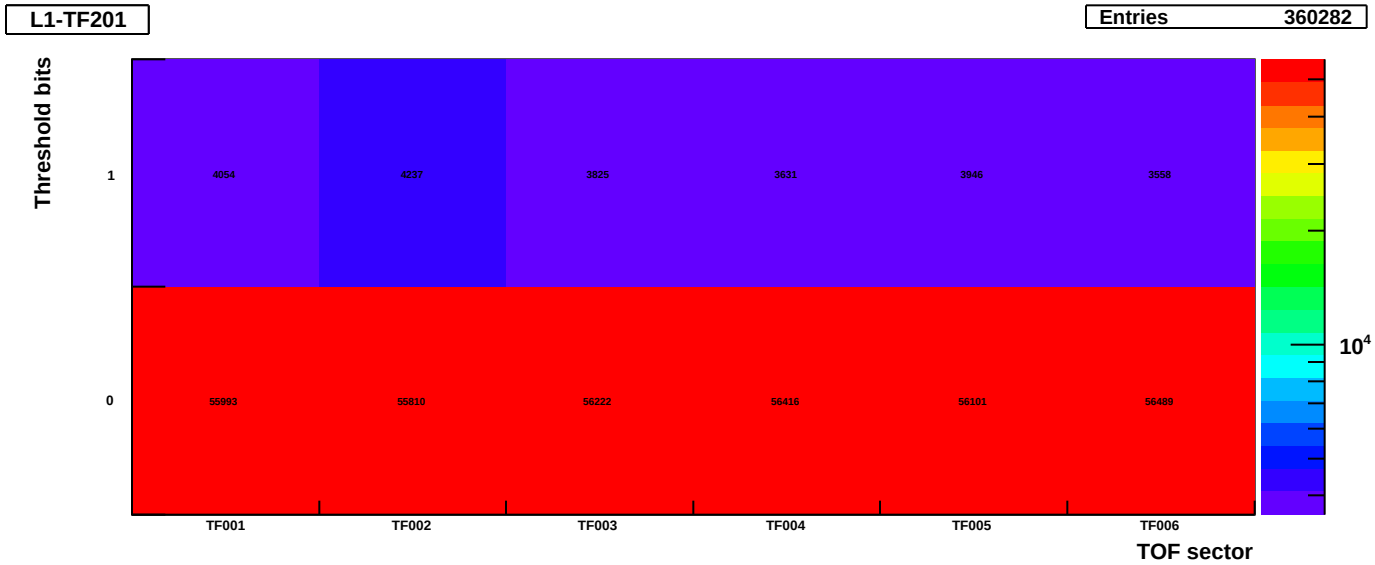

MIX-TF004
Entries 2521974
TOF MULT
TOF tray

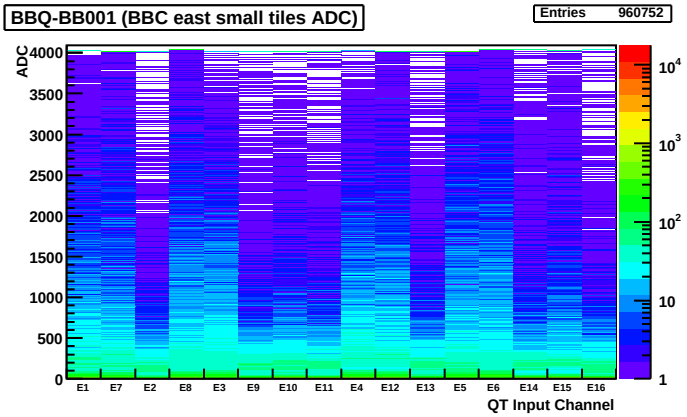

MIX-TF005
Entries 2521974
TOF MULT
TOF tray

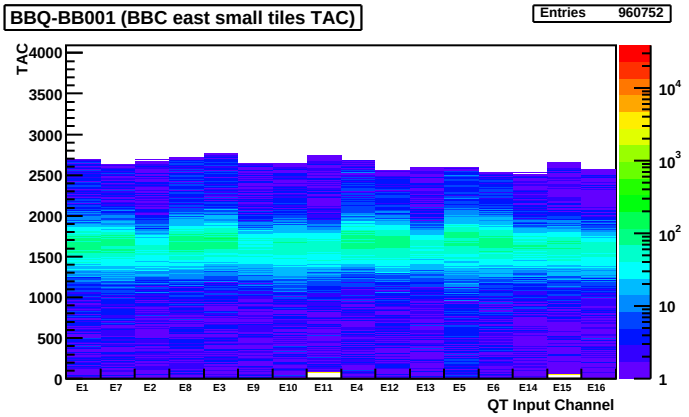

MIX-TF006
Entries 2521974
TOF MULT
TOF tray

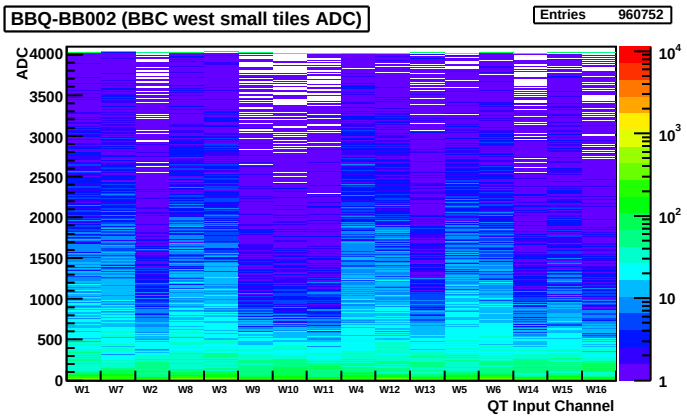

MIX-TF101
Entries 360282
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

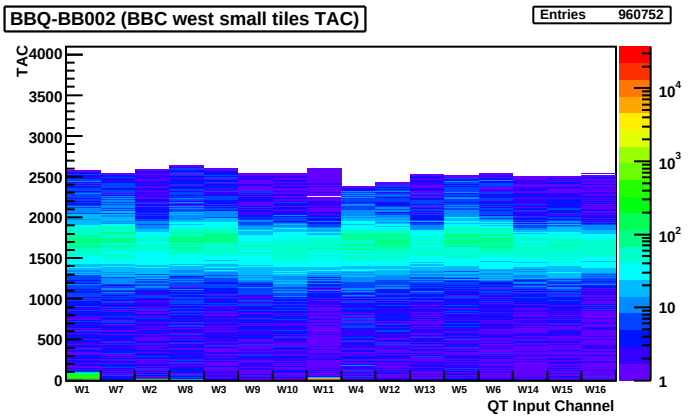

L1-TF201
Entries 60047
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

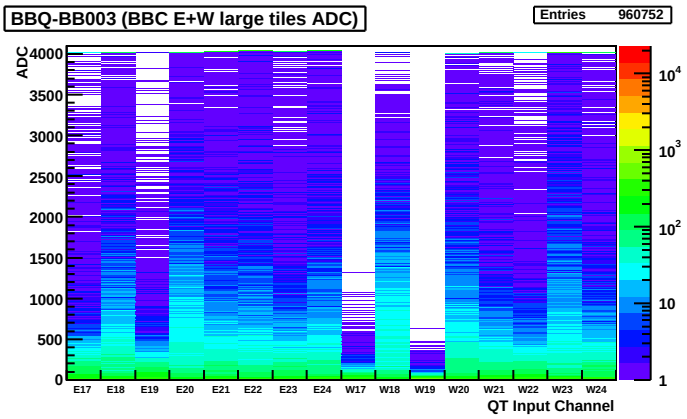

L1-TF201
Entries 360282
Threshold bits
1
0
4054
4237
3825
3631
3946
3558
55993
55810
56222
56416
56101
56489
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

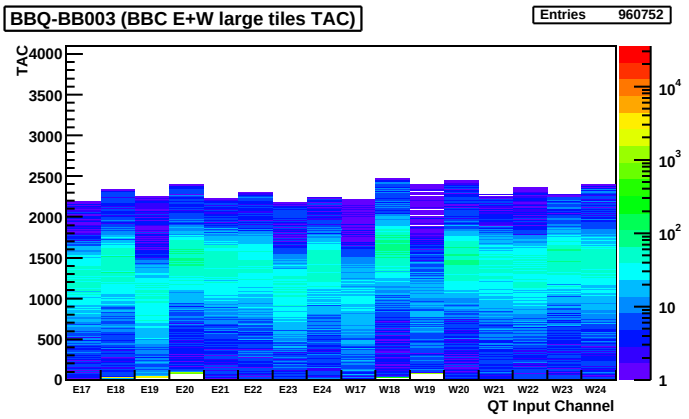

BBQ-BB001 (BBC east small tiles ADC)
Entries 960752
ADC
QT Input Channel

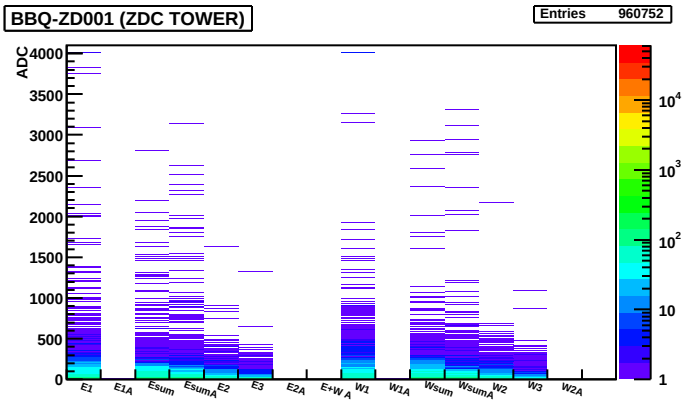

BBQ-BB001 (BBC east small tiles TAC)
Entries 960752
TAC
QT Input Channel

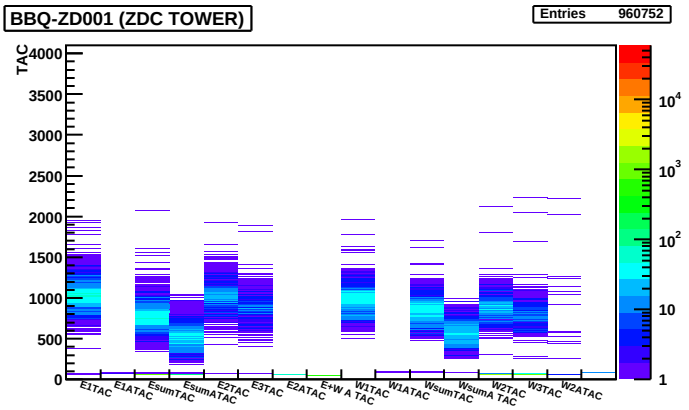

BBQ-BB002 (BBC west small tiles ADC)
Entries 960752
ADC
QT Input Channel

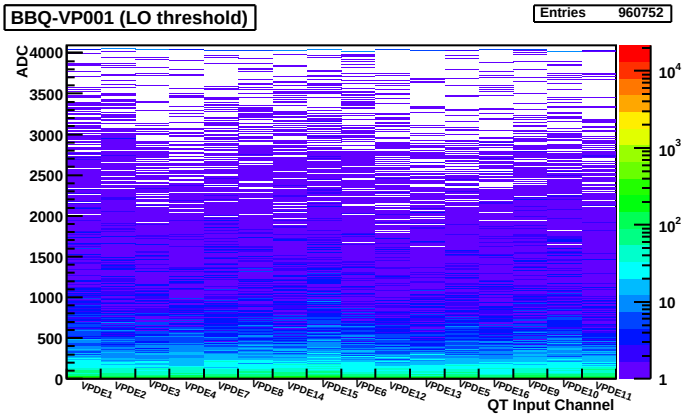

BBQ-BB002 (BBC west small tiles TAC)
Entries 960752
TAC
QT Input Channel

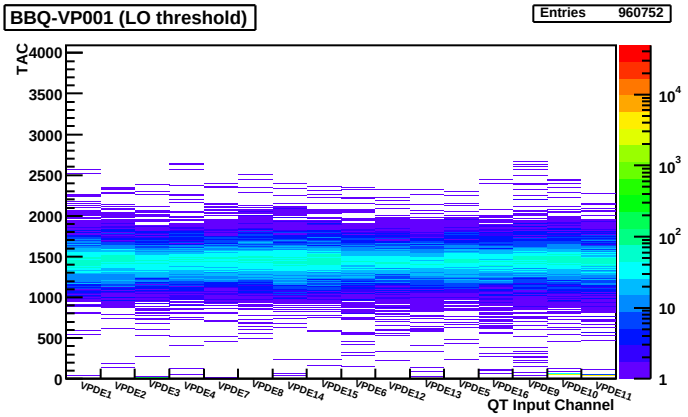

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 960752
ADC
QT Input Channel

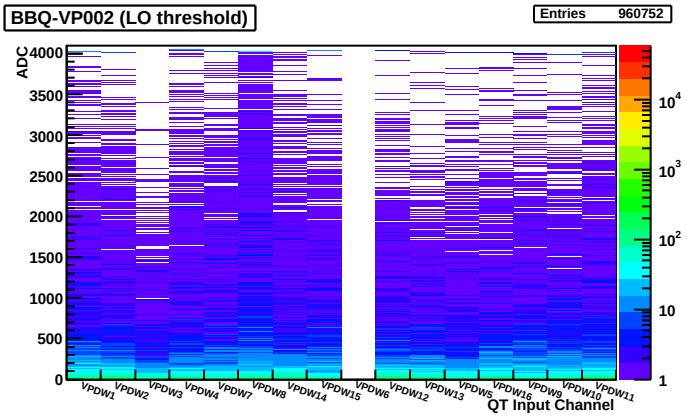

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 960752
TAC
QT Input Channel

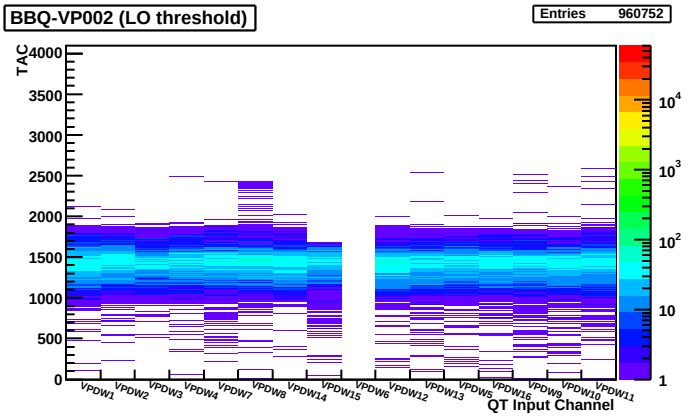

BBQ-ZD001 (ZDC TOWER)
Entries 960752
ADC

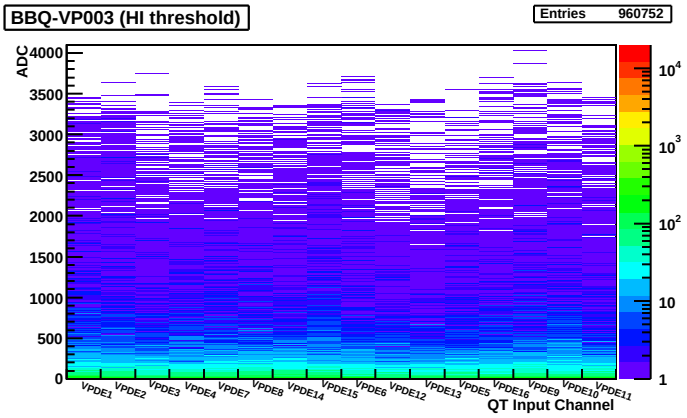

BBQ-ZD001 (ZDC TOWER)
Entries 960752
TAC

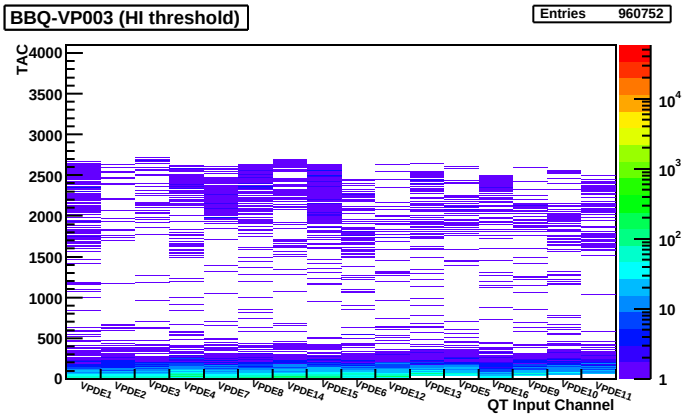

BBQ-VP001 (LO threshold)
Entries 960752
ADC
QT Input Channel

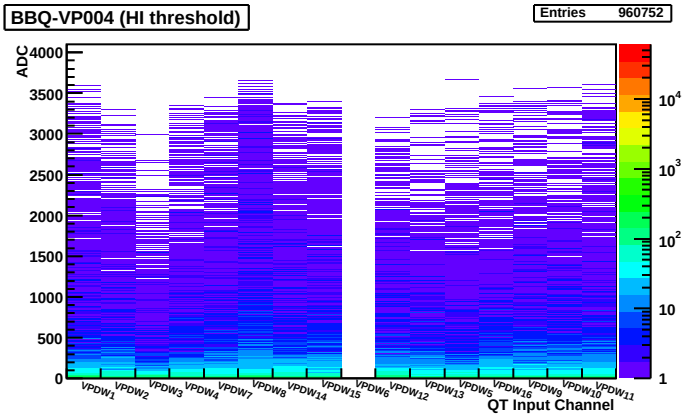

BBQ-VP001 (LO threshold)
Entries 960752
TAC
QT Input Channel

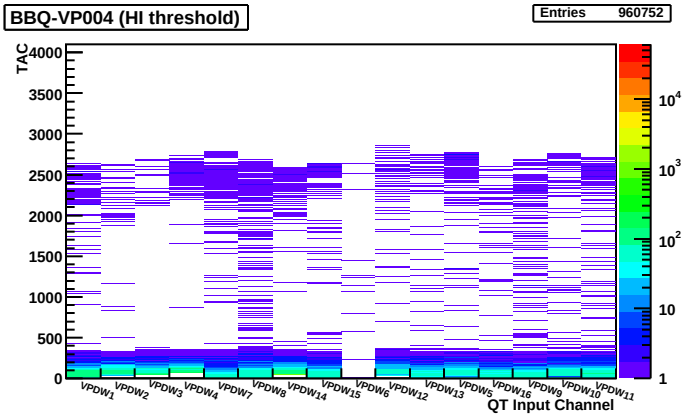

BBQ-VP002 (LO threshold)
Entries 960752
ADC
QT Input Channel

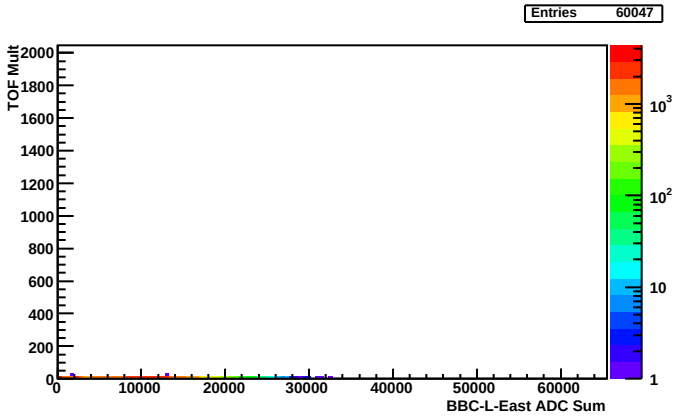

BBQ-VP002 (LO threshold)
Entries 960752
TAC
QT Input Channel

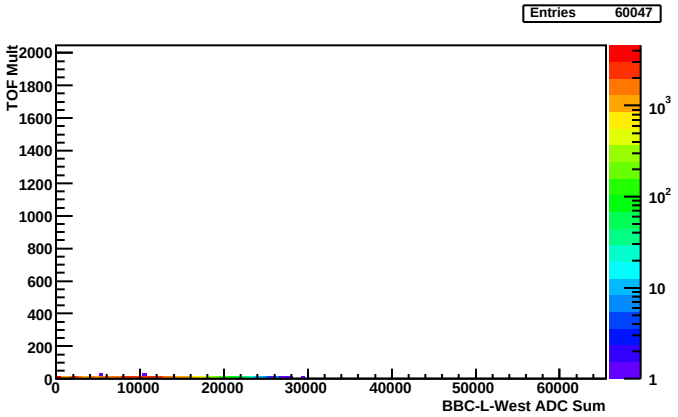

BBQ-VP003 (HI threshold)
Entries 960752
ADC
QT Input Channel

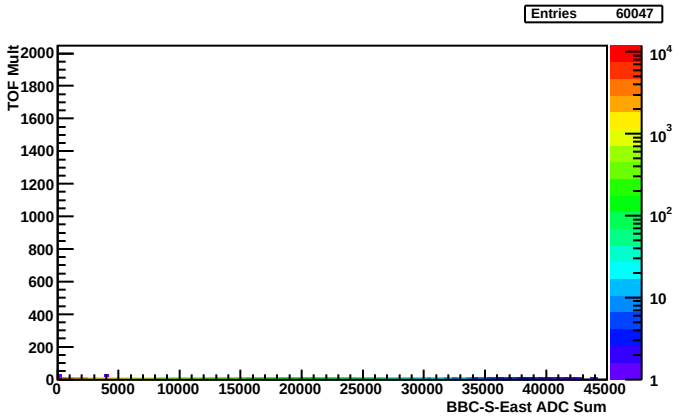

BBQ-VP003 (HI threshold)
Entries 960752
TAC
QT Input Channel

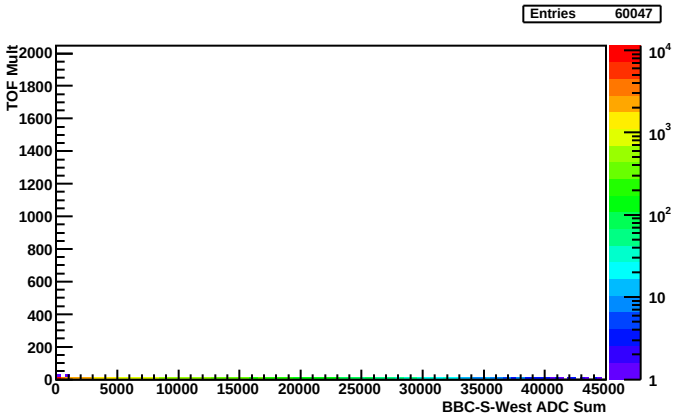

BBQ-VP004 (HI threshold)
Entries 960752
ADC
QT Input Channel

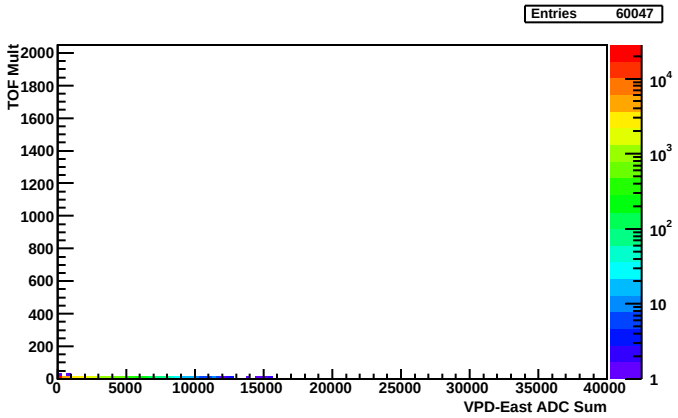

BBQ-VP004 (HI threshold)
Entries 960752
TAC
QT Input Channel

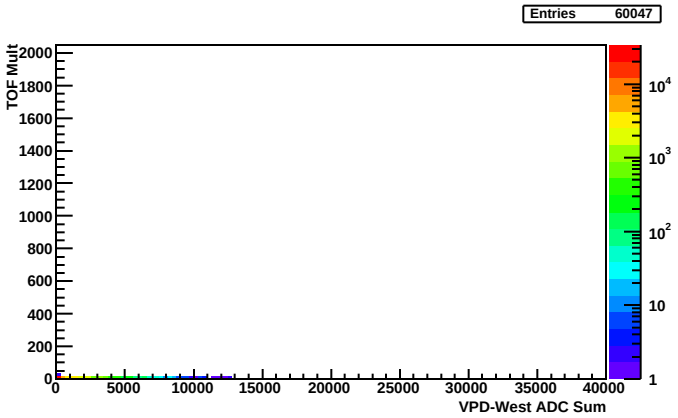

Entries 60047
TOF Mult
BBC-L-East ADC Sum

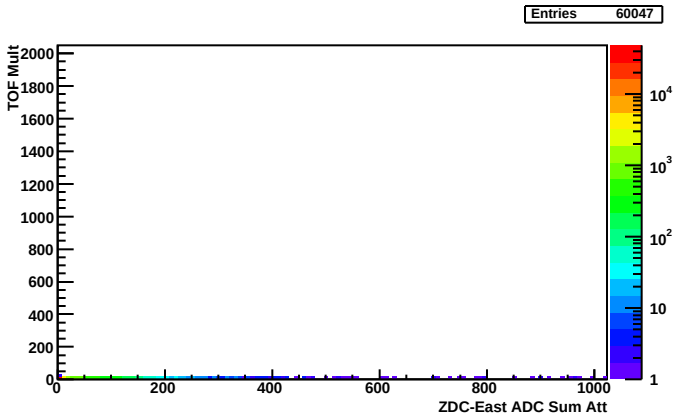

Entries 60047
TOF Mult
BBC-L-West ADC Sum

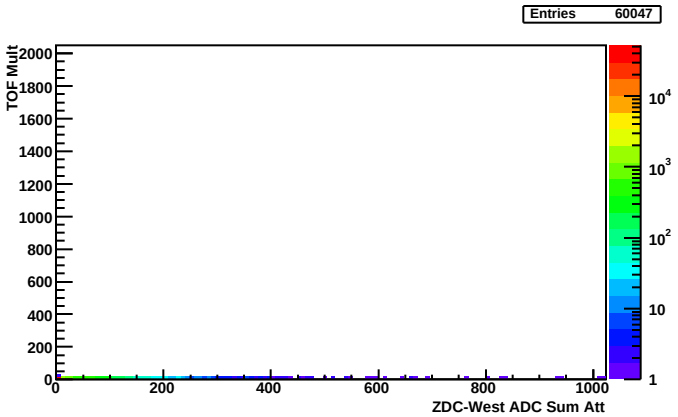

Entries 60047
TOF Mult
BBC-S-East ADC Sum

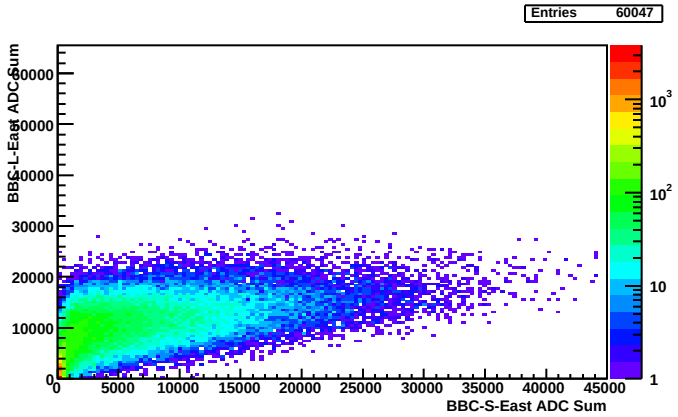

Entries 60047
TOF Mult
BBC-S-West ADC Sum

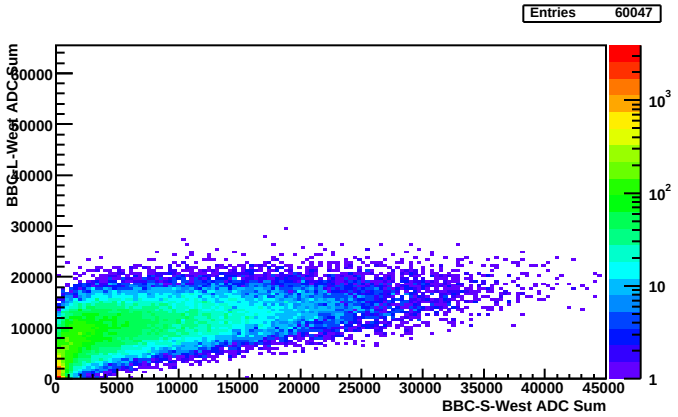

Entries 60047
TOF Mult
VPD-East ADC Sum

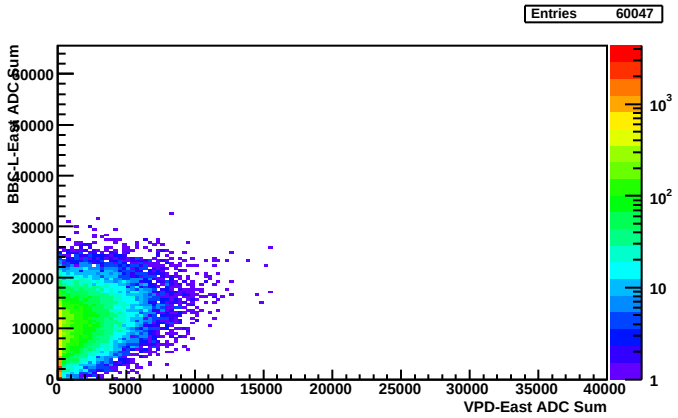

Entries 60047
TOF Mult
VPD-West ADC Sum

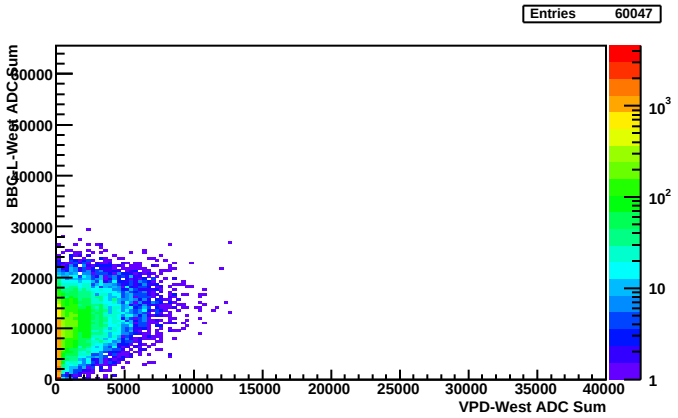

Entries 60047
TOF Mult
ZDC-East ADC Sum Att

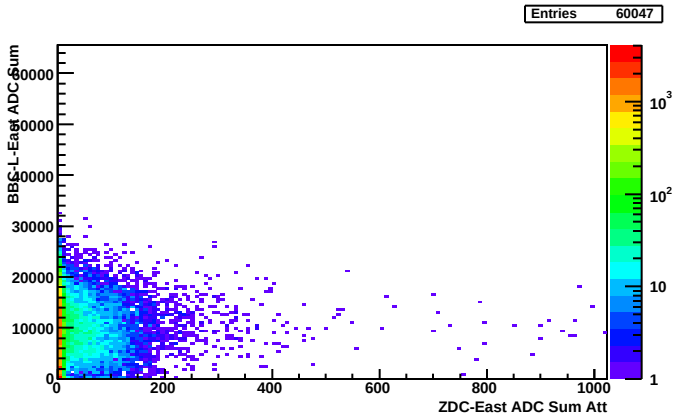

Entries 60047
TOF Mult
ZDC-West ADC Sum Att

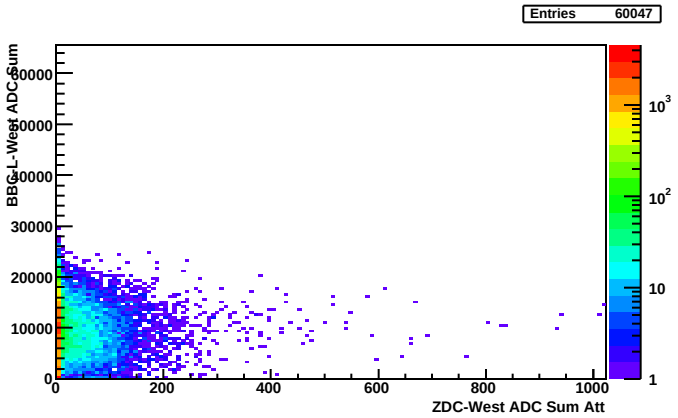

Entries 60047
BBC-L-East ADC Sum
BBC-S-East ADC Sum

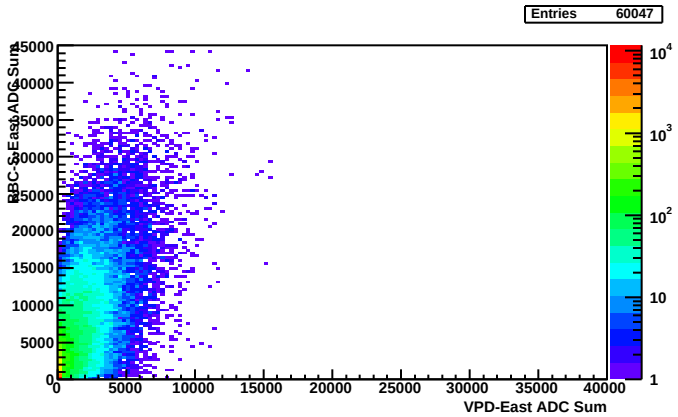

Entries 60047
BBC-L-West ADC Sum
BBC-S-West ADC Sum

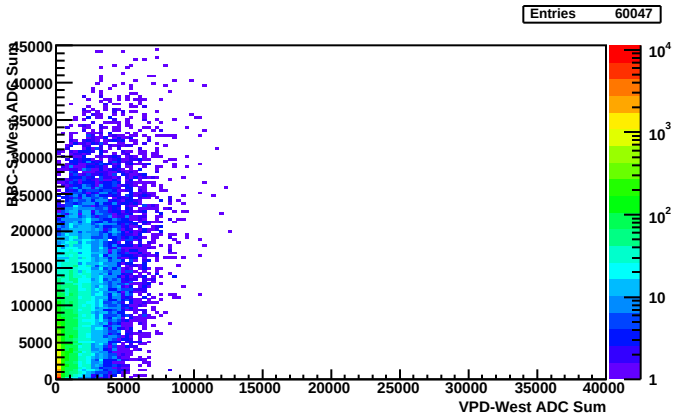

Entries 60047
BBC-L-East ADC Sum
VPD-East ADC Sum

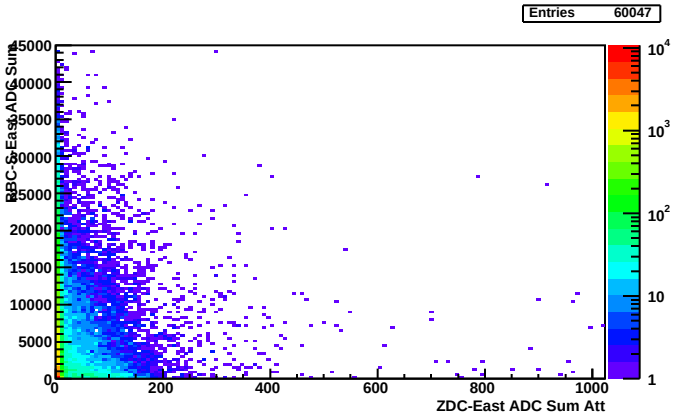

Entries 60047
BBC-L-West ADC Sum
VPD-West ADC Sum

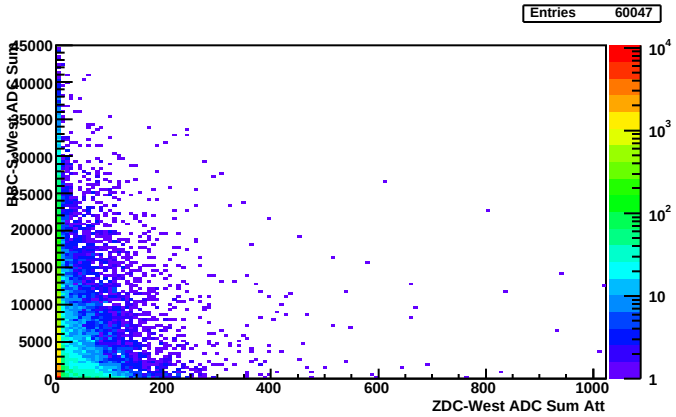

Entries 60047
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

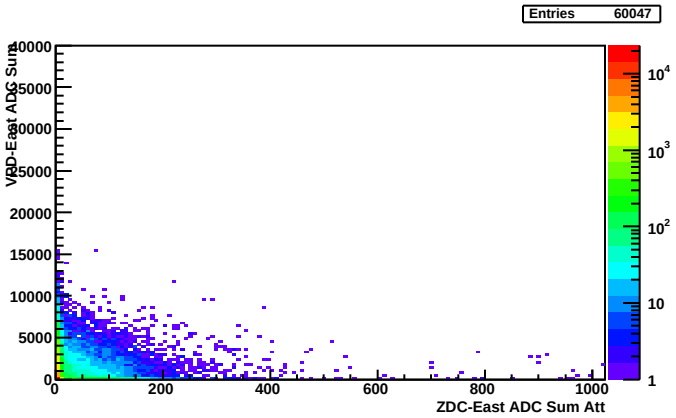

Entries 60047
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

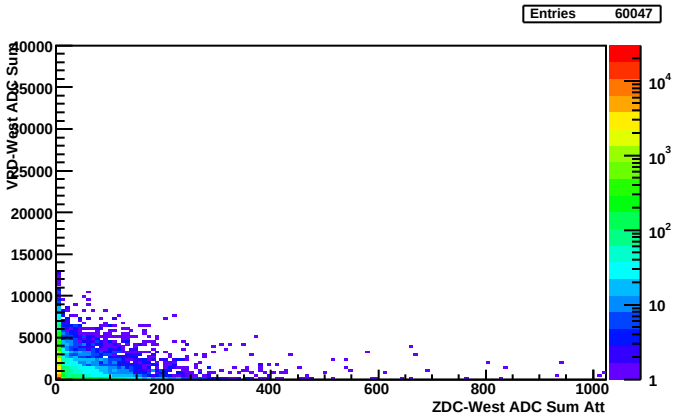

Entries 60047
BBC-S-East ADC Sum
VPD-East ADC Sum

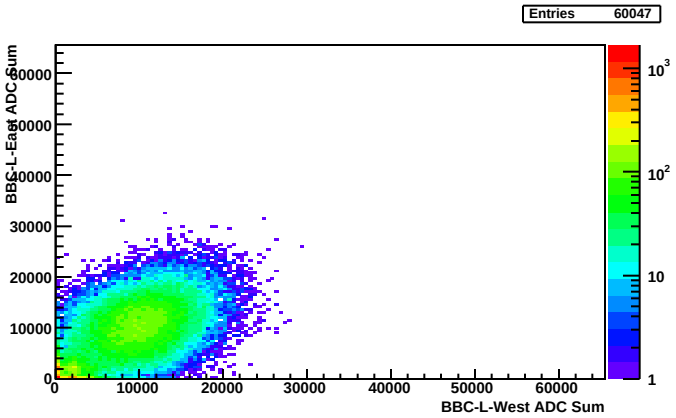

Entries 60047
BBC-S-West ADC Sum
VPD-West ADC Sum

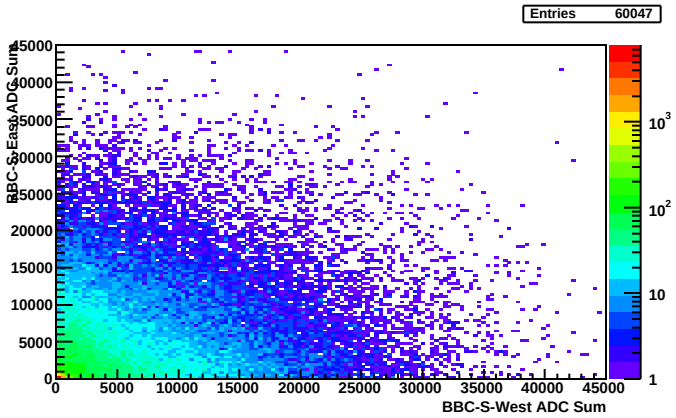

Entries 60047
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

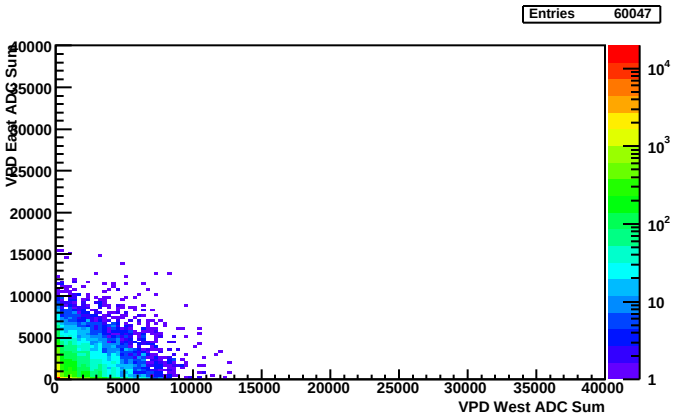

Entries 60047
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

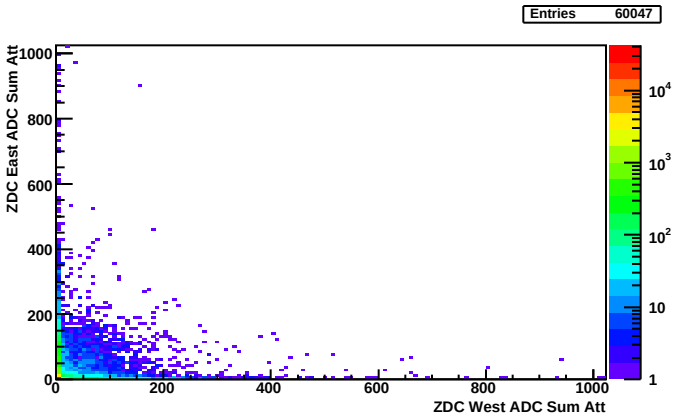

Entries 60047
VPD-East ADC Sum
ZDC-East ADC Sum Att

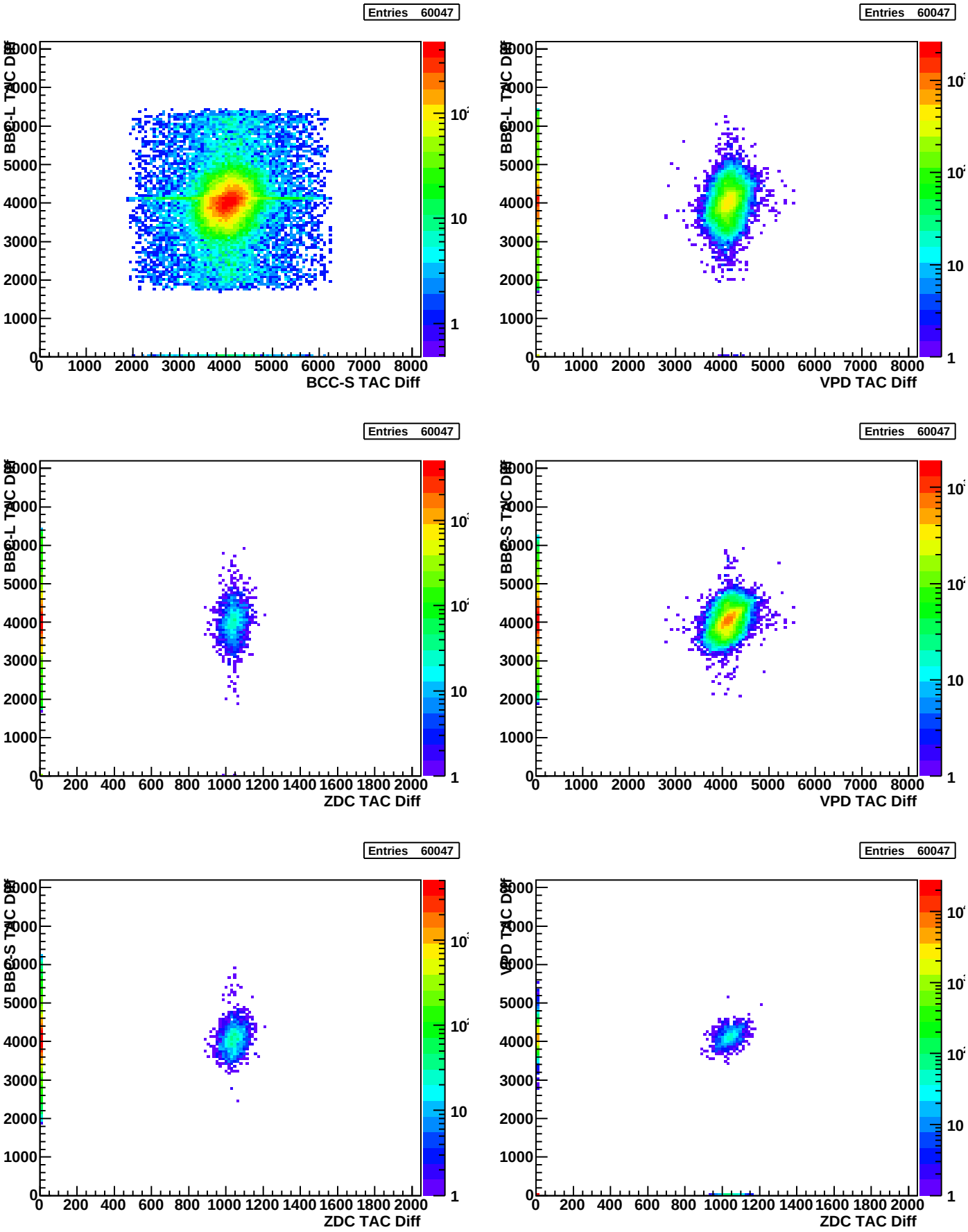

Entries 60047
VPD-West ADC Sum
ZDC-West ADC Sum Att

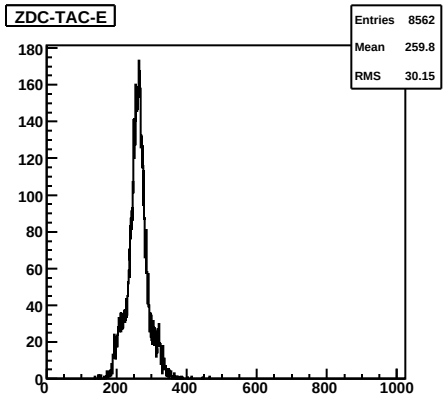

Entries 60047
BBC-L-East ADC Sum
BBC-L-West ADC Sum

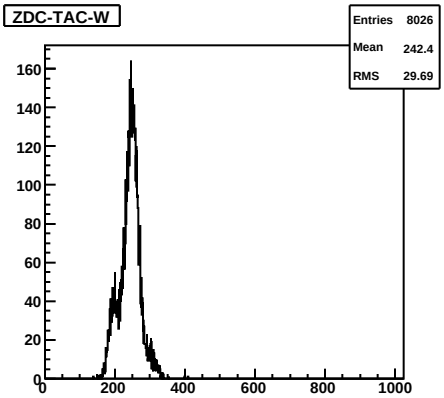

Entries 60047
BBC-S-East ADC Sum
BBC-S-West ADC Sum

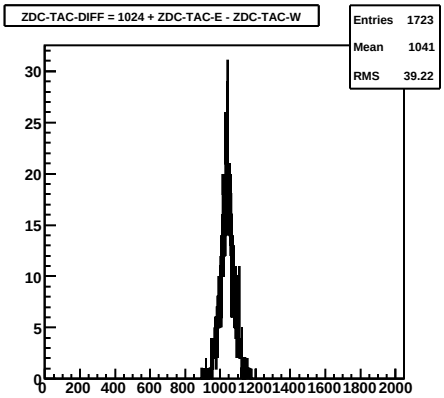

Entries 60047
VPD East ADC Sum
VPD West ADC Sum

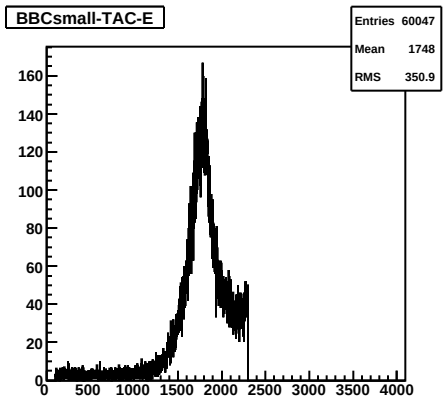

Entries 60047
ZDC East ADC Sum Att
ZDC West ADC Sum Att

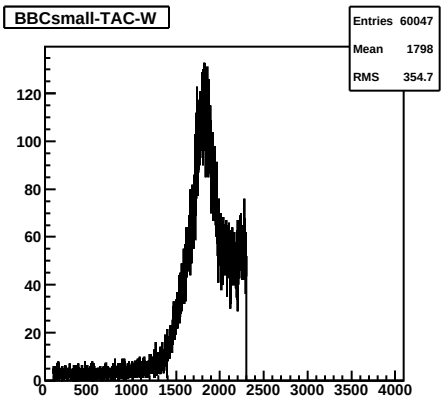

Entries 60047
BBC-L TAC Diff
BCC-S TAC Diff
Entries 60047
BBC-L TAC Diff
VPD TAC Diff
Entries 60047
BBC-L TAC Diff
ZDC TAC Diff
Entries 60047
BBC-S TAC Diff
VPD TAC Diff
Entries 60047
BBC-S TAC Diff
ZDC TAC Diff
Entries 60047
VPD TAC Diff
ZDC TAC Diff

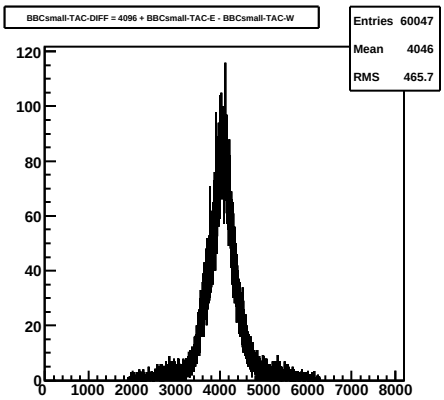

ZDC-TAC-E
Entries 8562
Mean 259.8
RMS 30.15

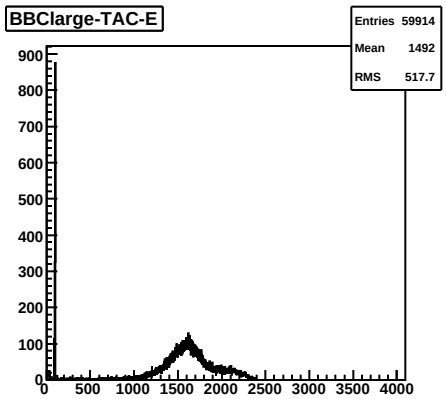

ZDC-TAC-W
Entries 8026
Mean 242.4
RMS 29.69

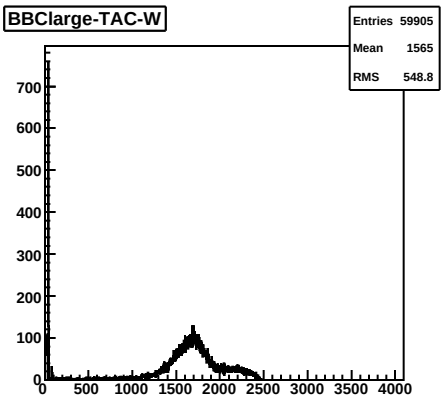

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1723
Mean 1041
RMS 39.22

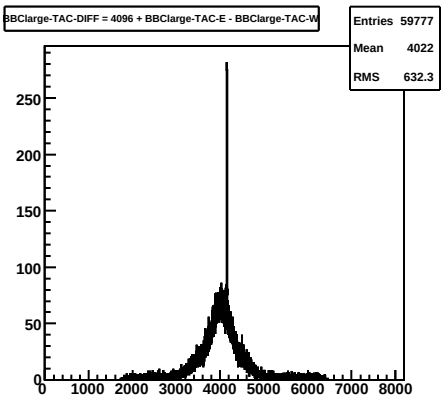

BBCsmall-TAC-E
Entries 60047
Mean 1748
RMS 350.9

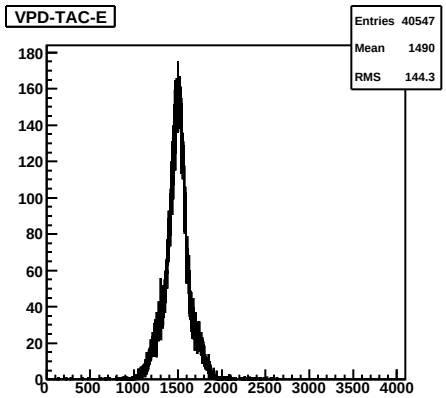

BBCsmall-TAC-W
Entries 60047
Mean 1798
RMS 354.7

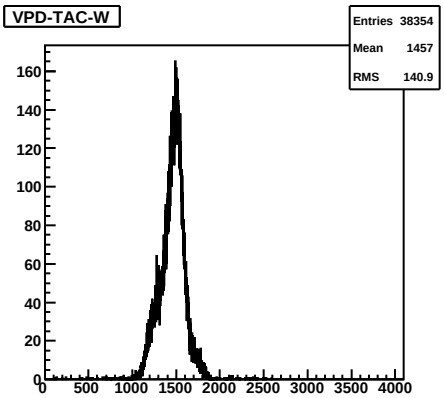

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 60047
Mean 4046
RMS 465.7

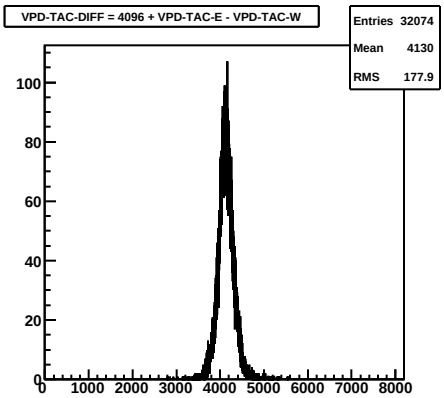

BBClarge-TAC-E
Entries 59914
Mean 1492
RMS 517.7

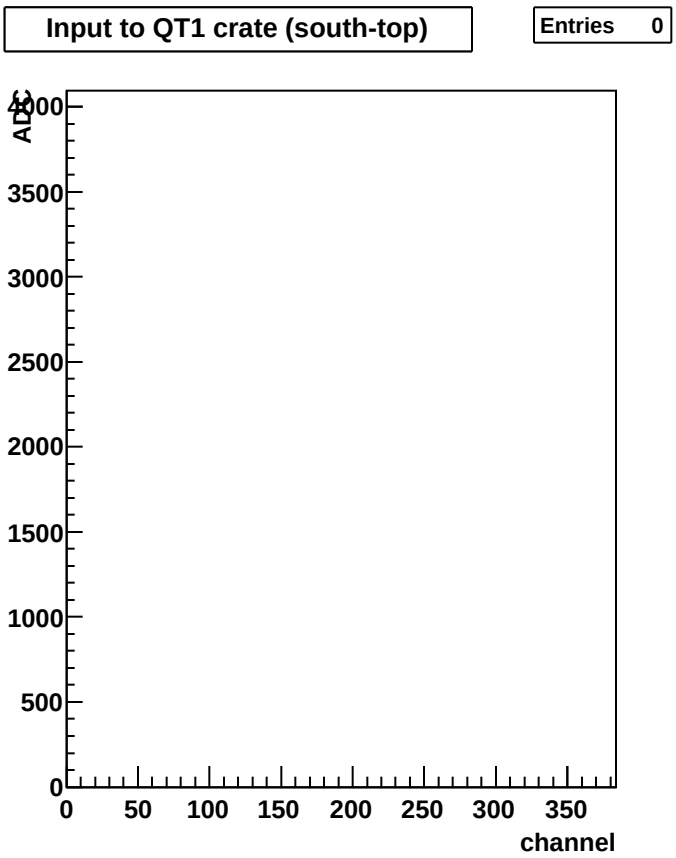

BBClarge-TAC-W
Entries 59905
Mean 1565
RMS 548.8

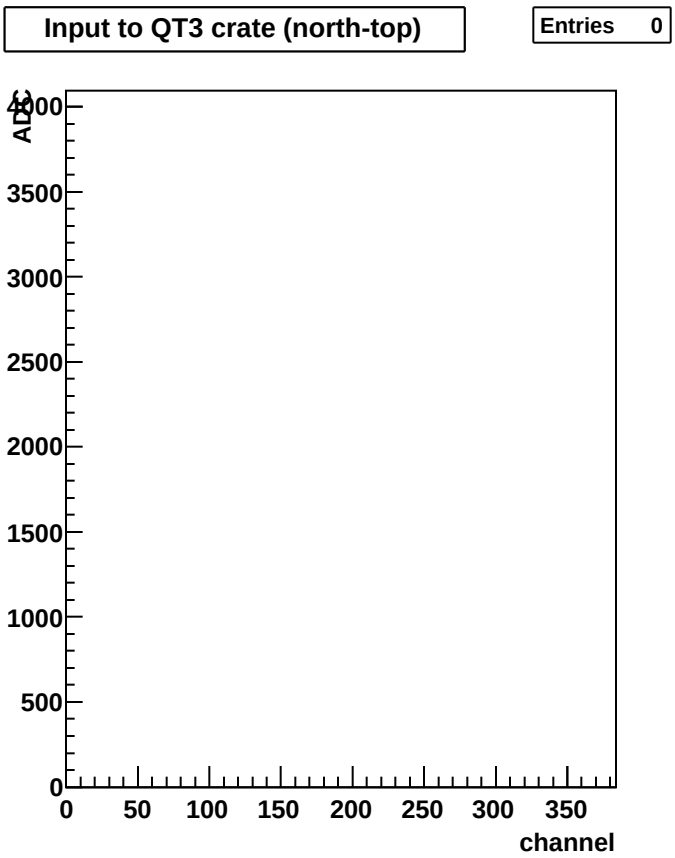

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 59777
Mean 4022
RMS 632.3

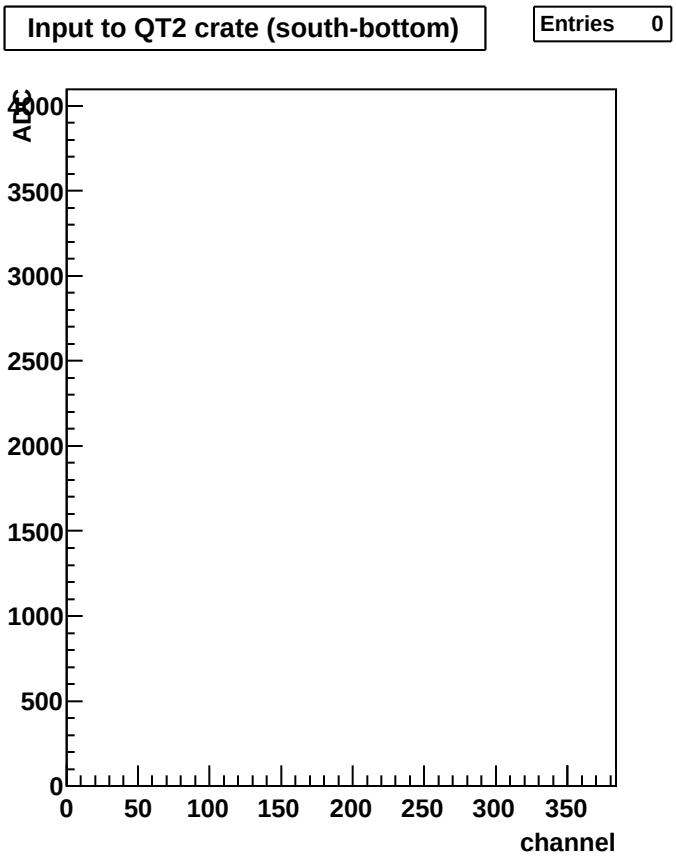

VPD-TAC-E
Entries 40547
Mean 1490
RMS 144.3

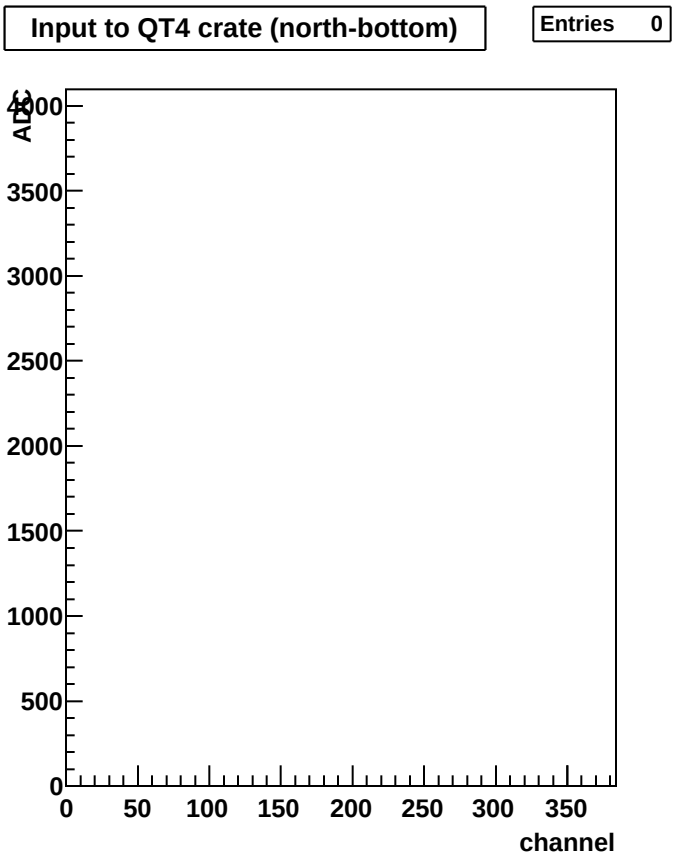

VPD-TAC-W
Entries 38354
Mean 1457
RMS 140.9

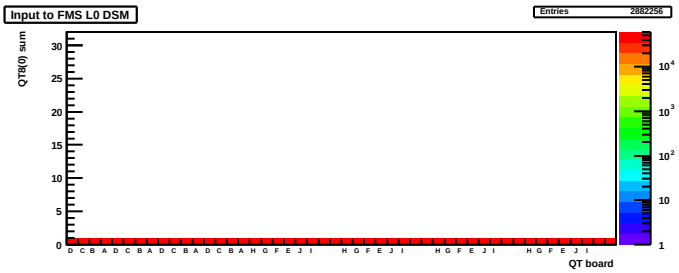

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 32074
Mean 4130
RMS 177.9

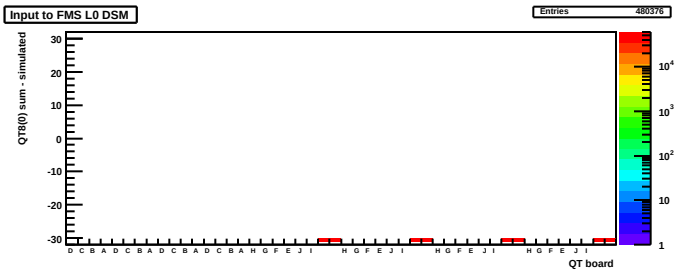

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

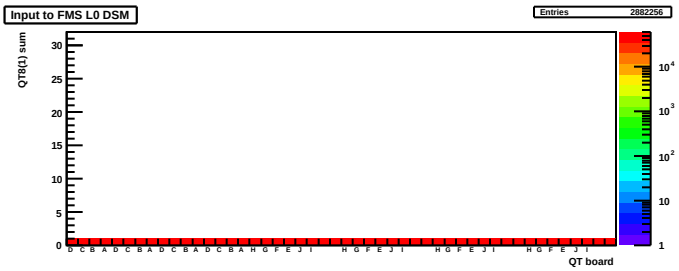

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

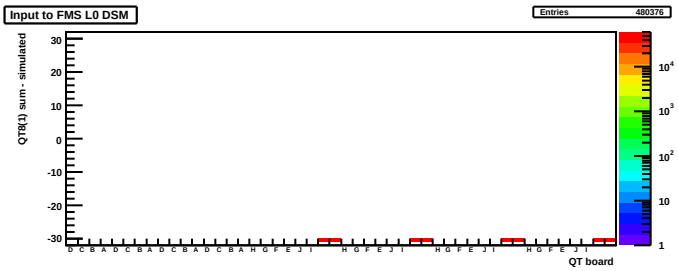

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

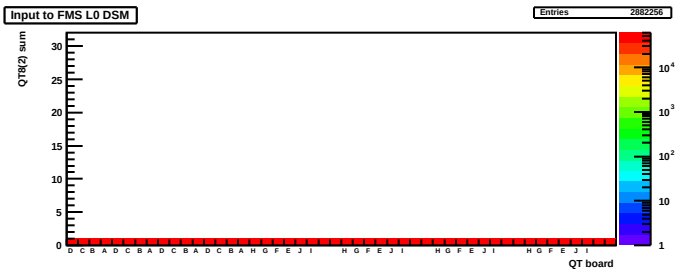

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

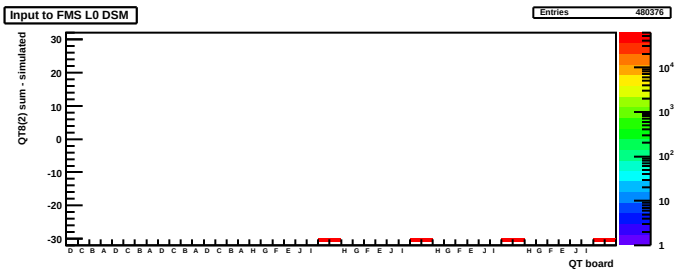

Input to FMS L0 DSM
Entries 2882256
QT8(0) sum
QT board

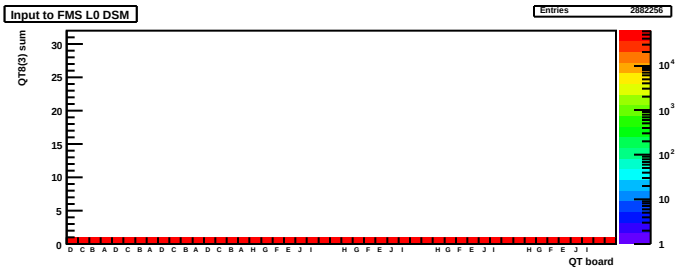

Input to FMS L0 DSM
Entries 480376
QT8(0) sum - simulated
QT board

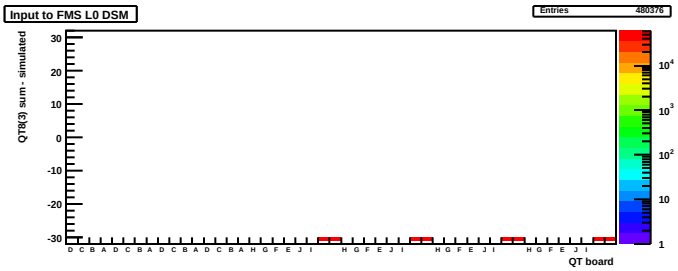

Input to FMS L0 DSM
Entries 2882256
QT8(1) sum
QT board

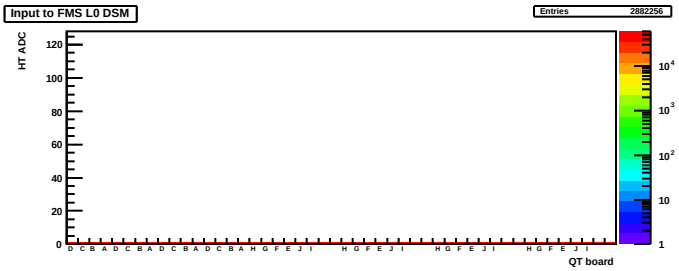

Input to FMS L0 DSM
Entries 480376
QT8(1) sum - simulated
QT board

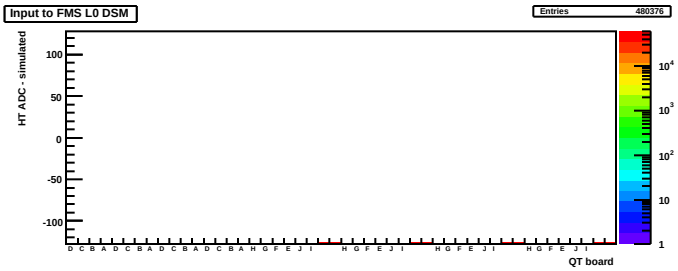

Input to FMS L0 DSM
Entries 2882256
QT8(2) sum
QT board

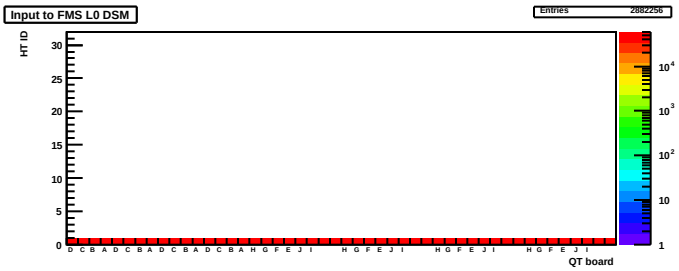

Input to FMS L0 DSM
Entries 480376
QT8(2) sum - simulated
QT board

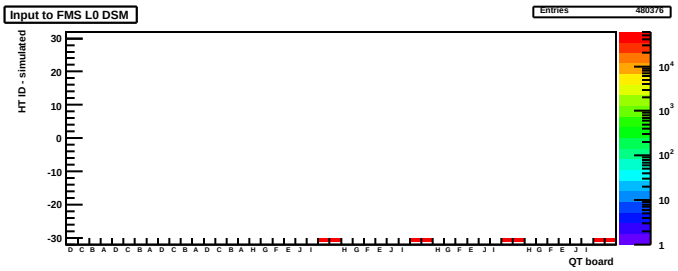

Input to FMS L0 DSM
Entries 2882256
QT8(3) sum
QT board

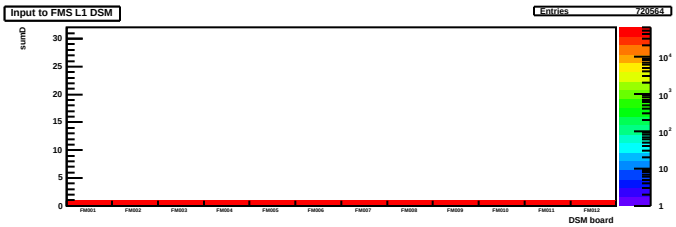

Input to FMS L0 DSM
Entries 480376
QT8(3) sum - simulated
QT board

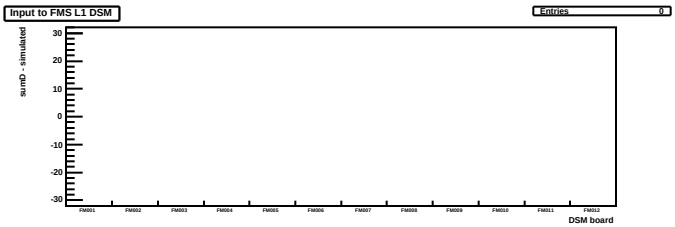

Input to FMS L0 DSM
Entries 2882256
HT ADC
QT board

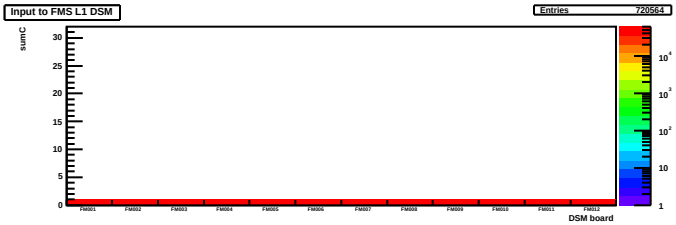

Input to FMS L0 DSM
Entries 480376
HT ADC - simulated
QT board

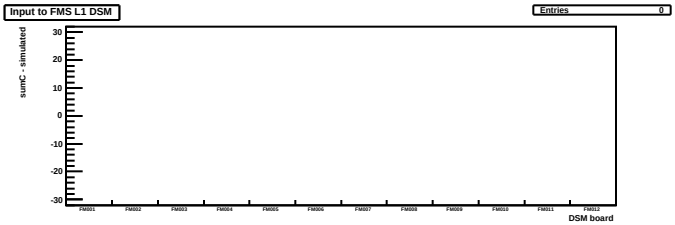

Input to FMS L0 DSM
Entries 2882256
HT ID
QT board

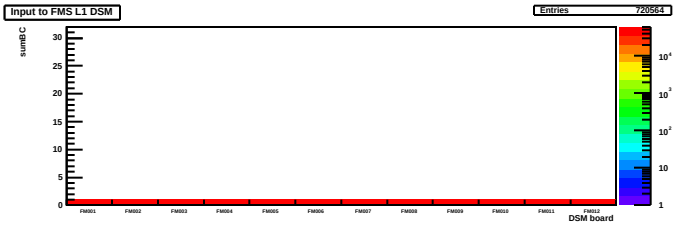

Input to FMS L0 DSM
Entries 480376
HT ID - simulated
QT board

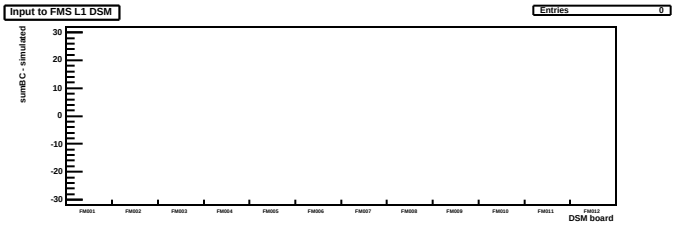

Input to FMS L1 DSM
Entries 720564
sumD
DSM board

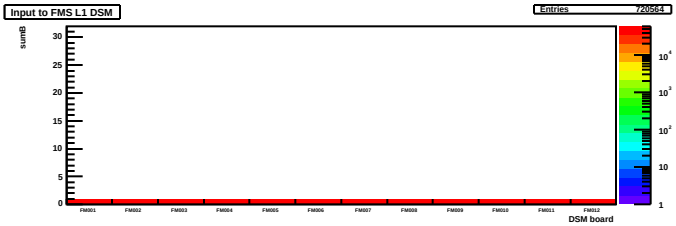

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

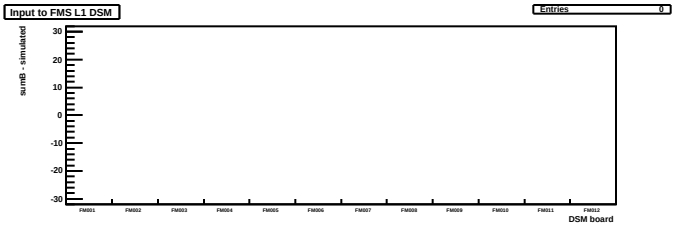

Input to FMS L1 DSM
Entries 720564
sumC
DSM board

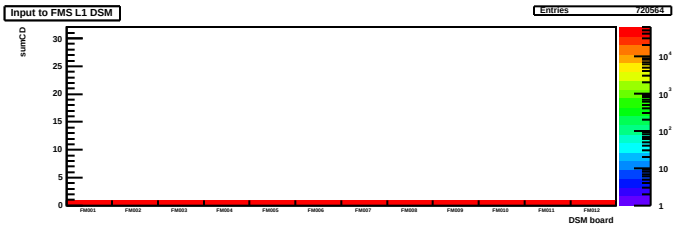

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

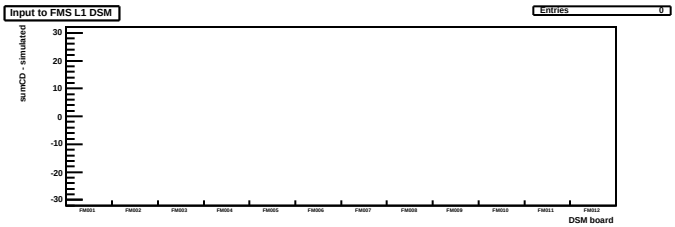

Input to FMS L1 DSM
Entries 720564
sumBC
DSM board

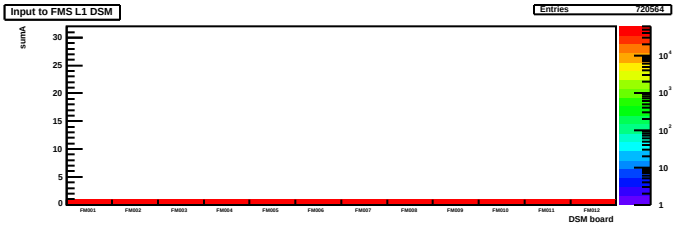

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

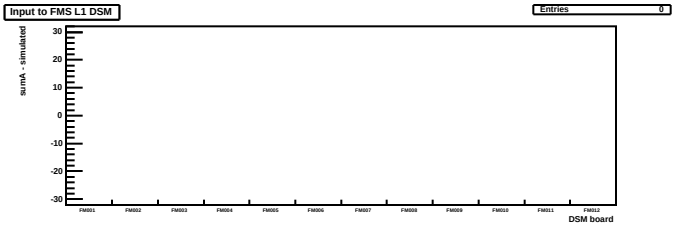

Input to FMS L1 DSM
Entries 720564
sumB
DSM board

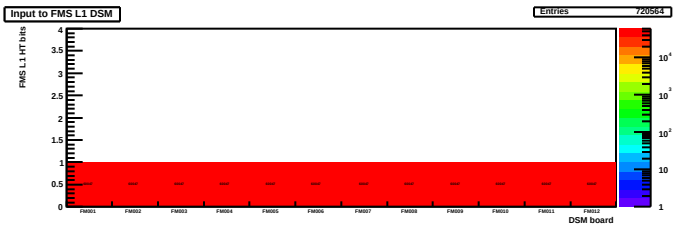

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

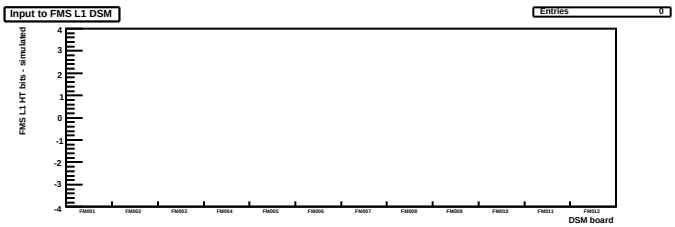

Input to FMS L1 DSM
Entries 720564
sumCD
DSM board

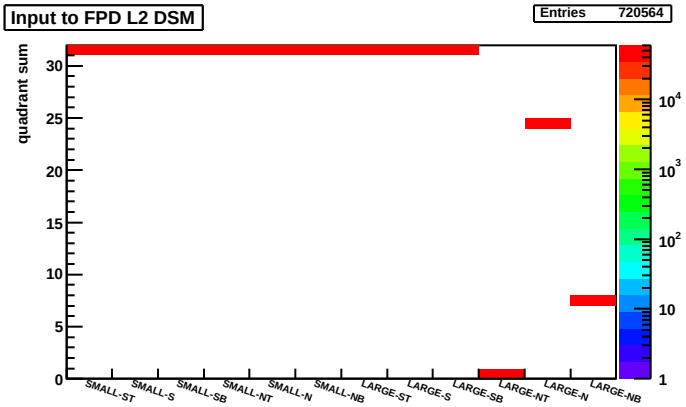

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

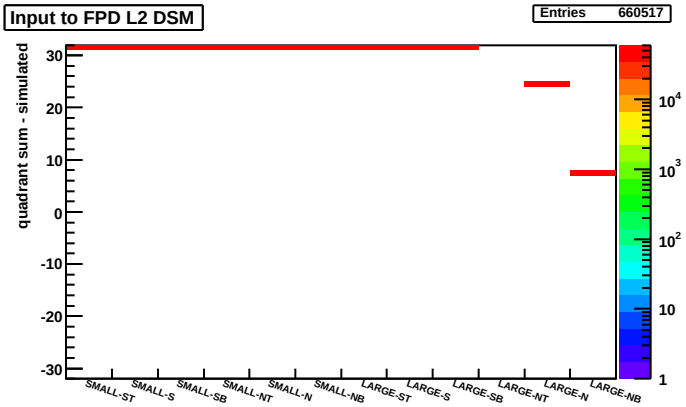

Input to FMS L1 DSM
Entries 720564
sumA
DSM board

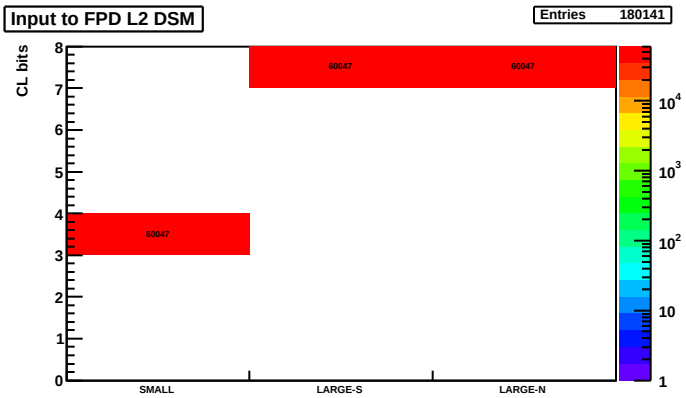

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

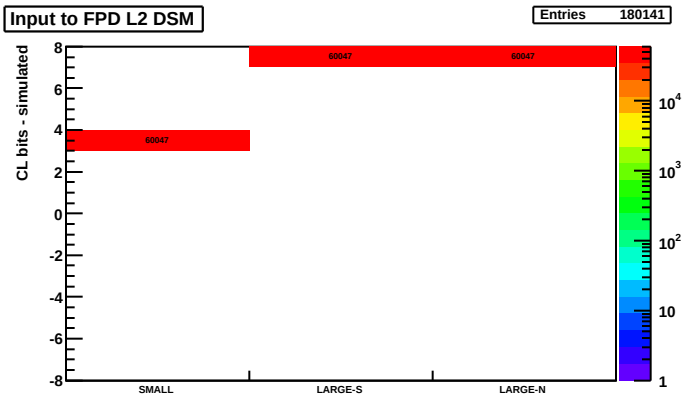

Input to FMS L1 DSM
Entries 720564
FMS L1 HT bits
DSM board

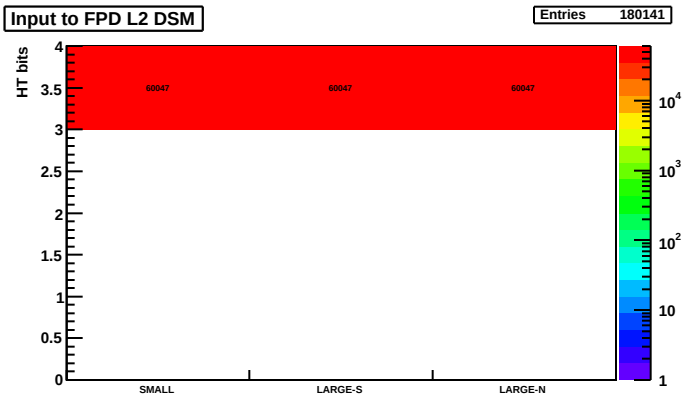

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

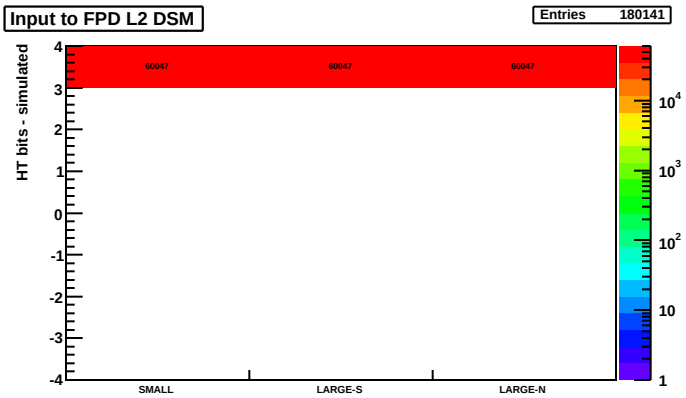

Input to FPD L2 DSM
Entries 720564
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

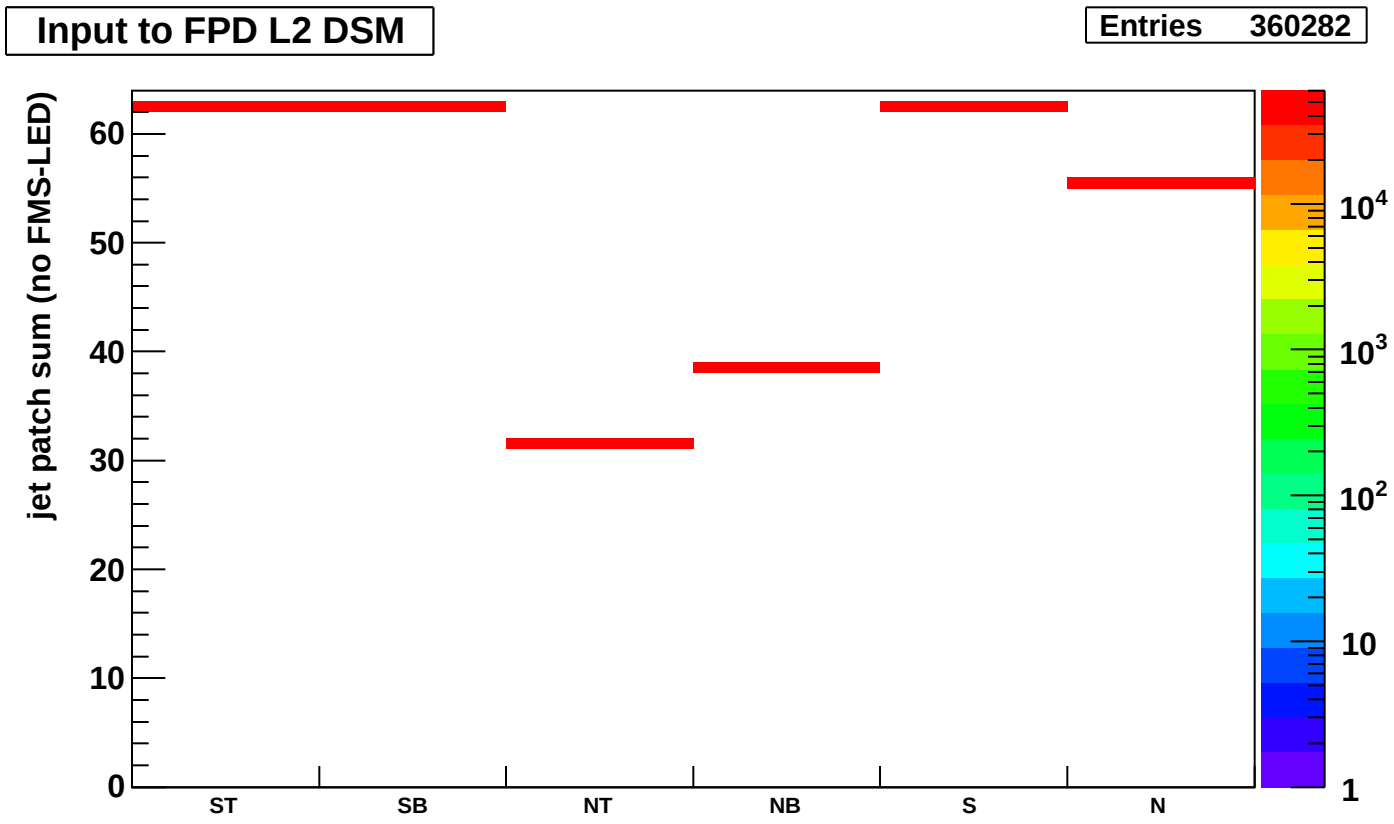

Input to FPD L2 DSM
Entries 660517
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

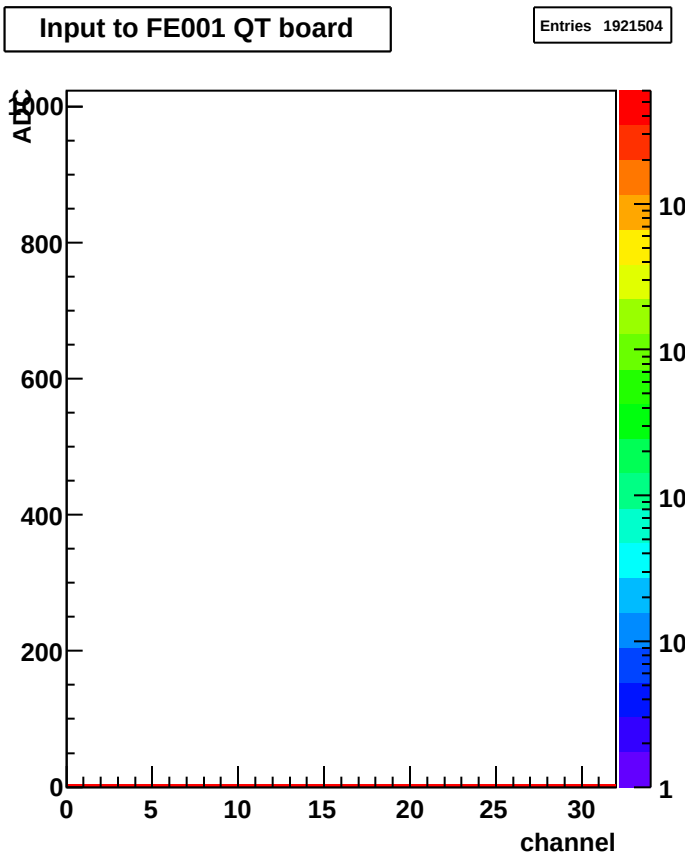

Input to FPD L2 DSM
Entries 180141
CL bits
60047
60047
60047
SMALL
LARGE-S
LARGE-N

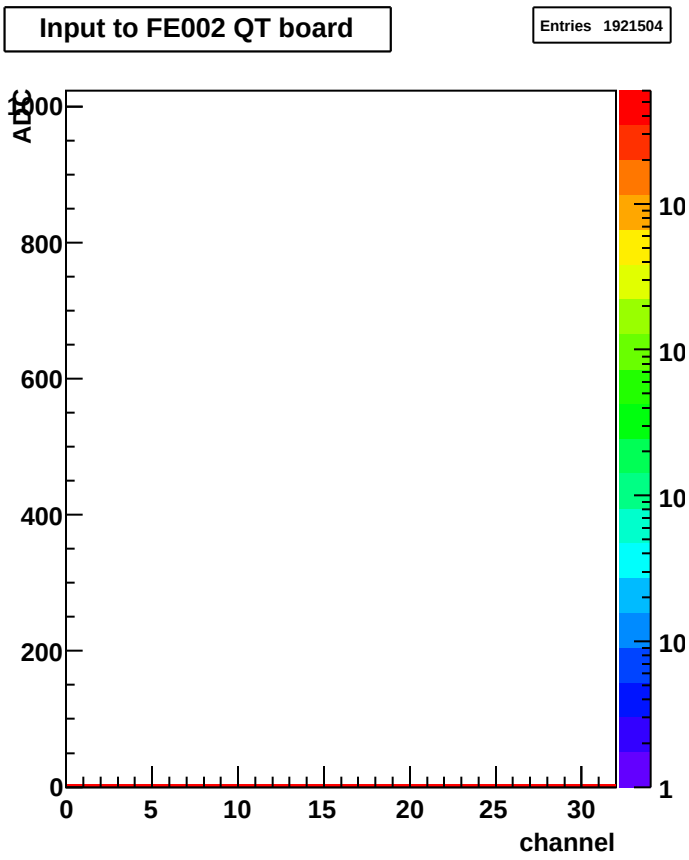

Input to FPD L2 DSM
Entries 180141
CL bits - simulated
60047
60047
60047
SMALL
LARGE-S
LARGE-N

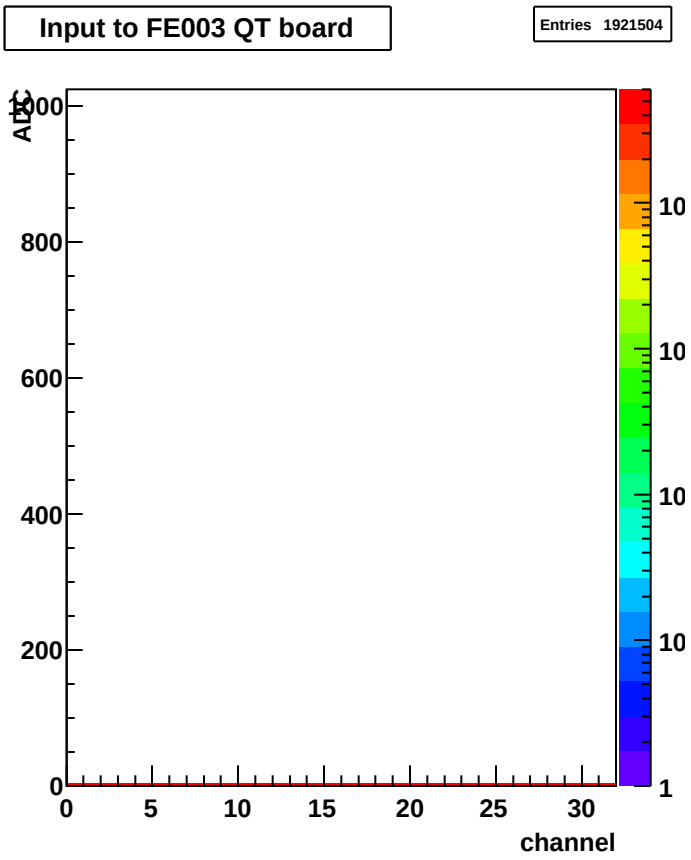

Input to FPD L2 DSM
Entries 180141
HT bits
60047
60047
60047
SMALL
LARGE-S
LARGE-N

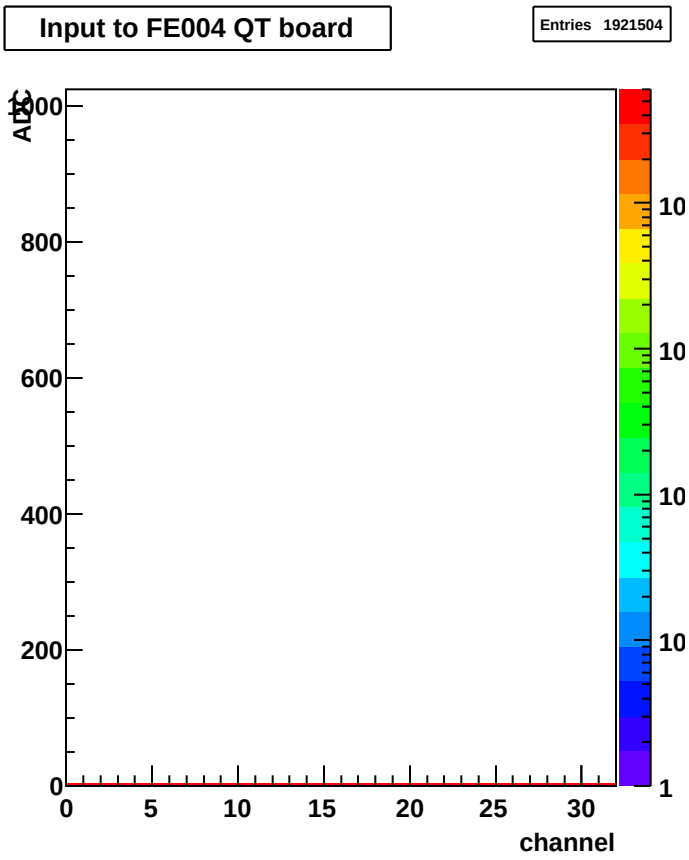

Input to FPD L2 DSM
Entries 180141
HT bits - simulated
60047
60047
60047
SMALL
LARGE-S
LARGE-N

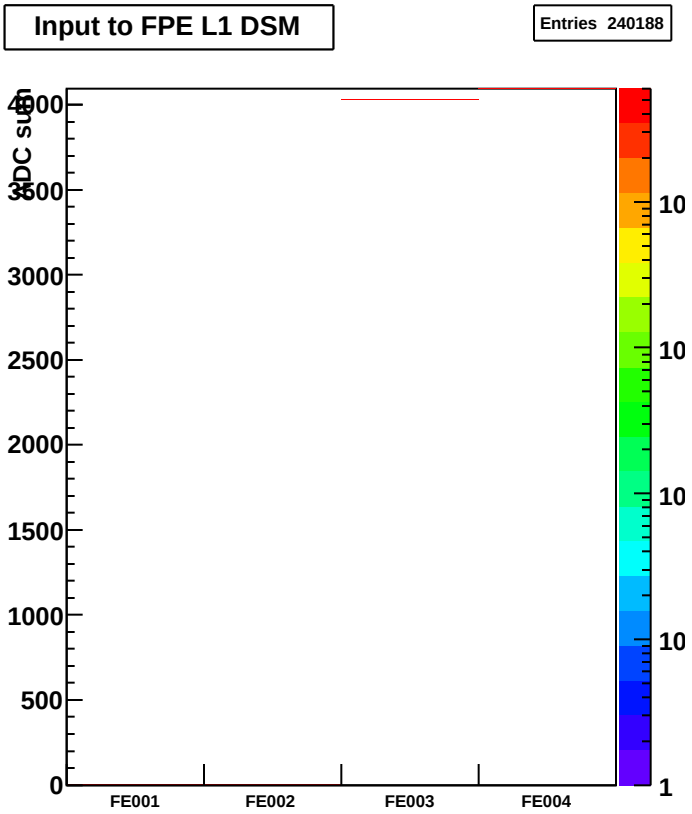

Input to FPD L2 DSM
Entries 360282
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

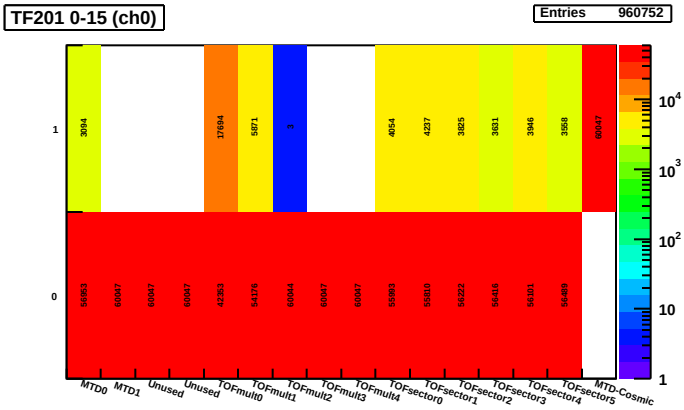

Input to FE001 QT board
Entries 1921504
ADC
channel

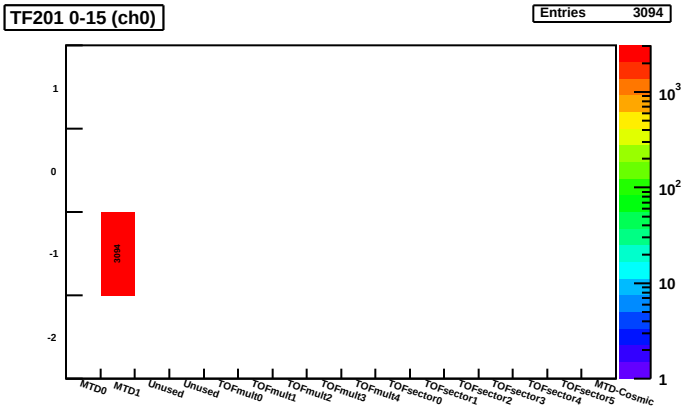

Input to FE002 QT board
Entries 1921504
ADC
channel

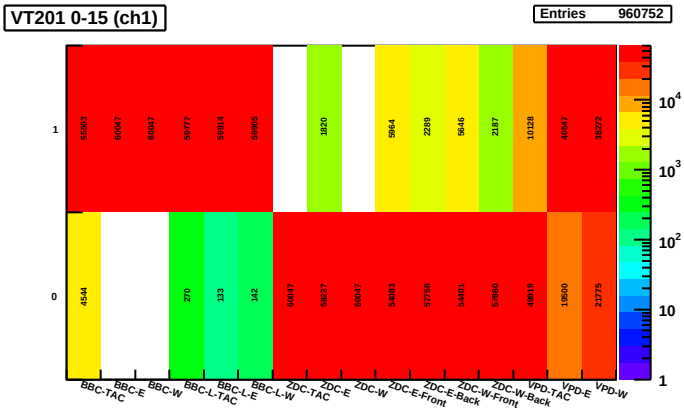

Input to FE003 QT board
Entries 1921504
ADC
channel

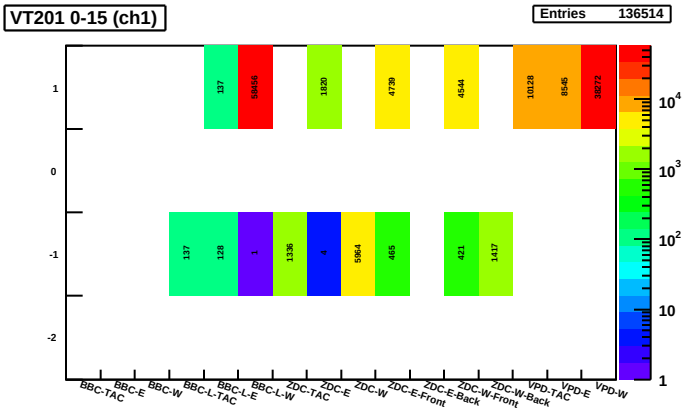

Input to FE004 QT board
Entries 1921504
ADC
channel

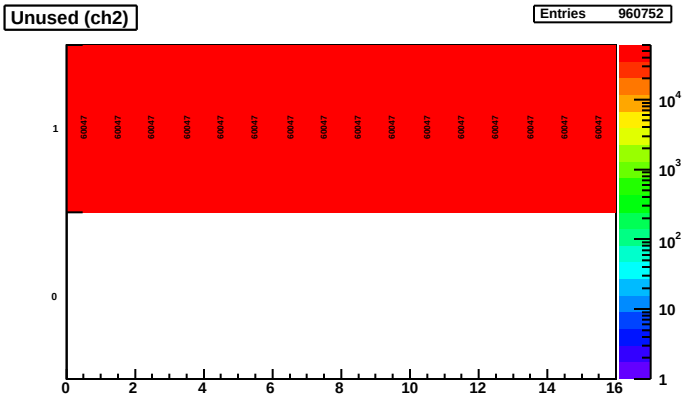

Input to FPE L1 DSM
Entries 240188
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 960752
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 3094
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 960752
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


VT201 0-15 (ch1)
Entries 136514
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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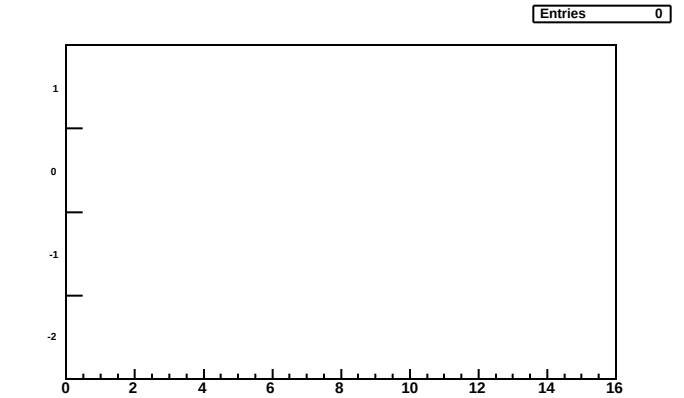
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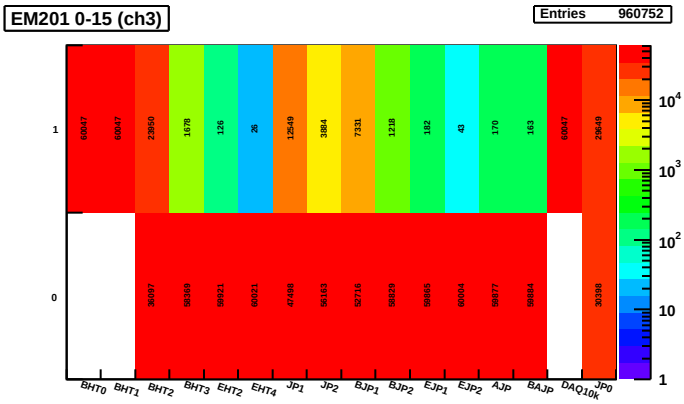
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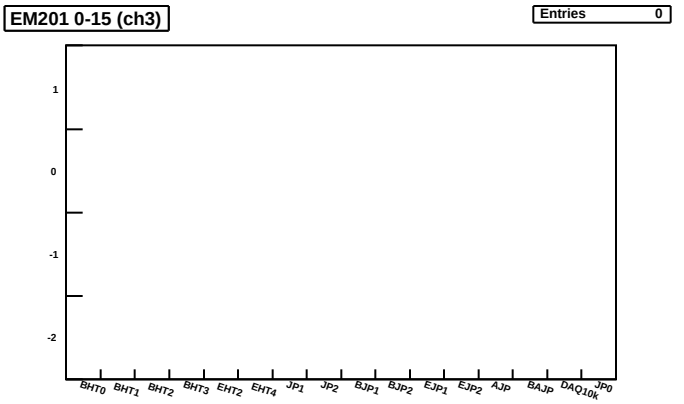
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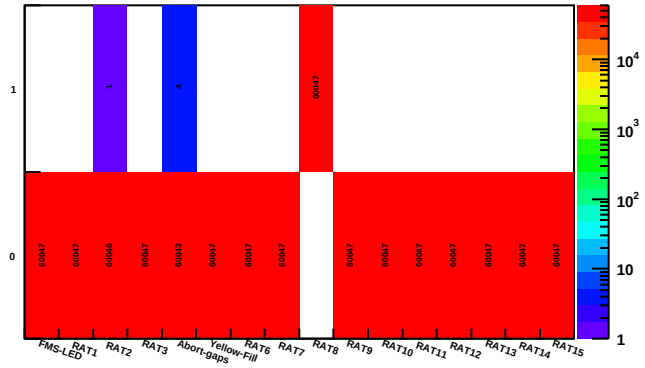
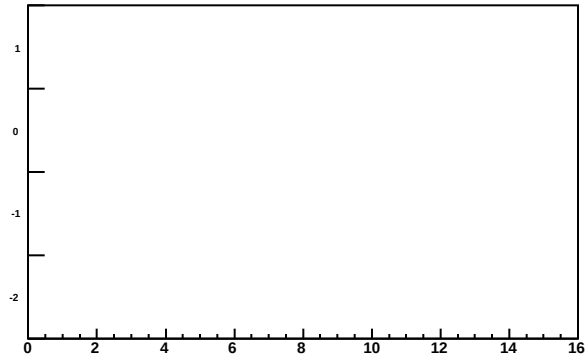
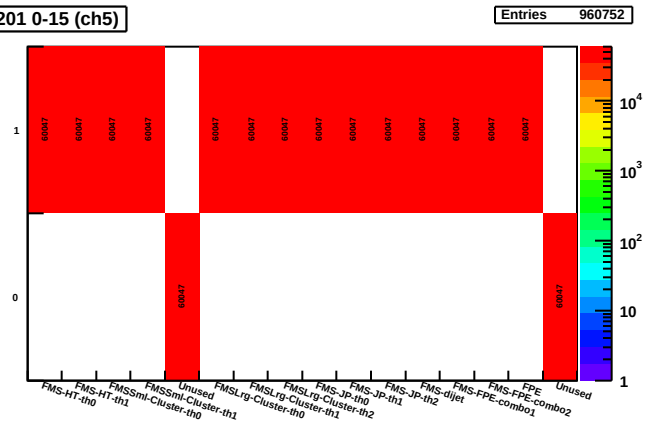
RAT board (ch4)





FP201 0-15 (ch5)



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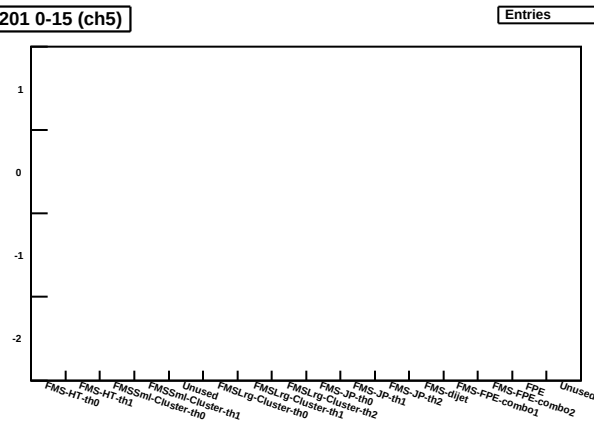
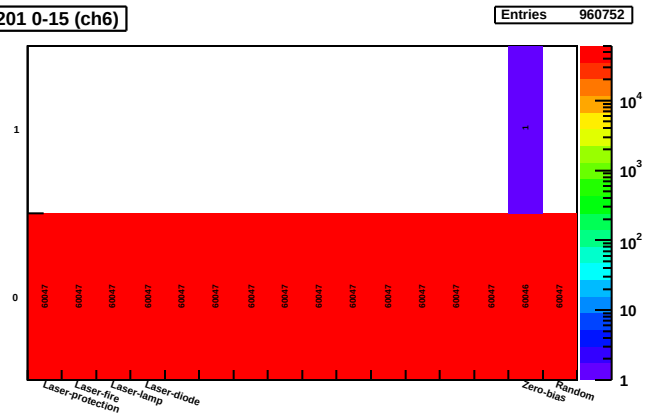
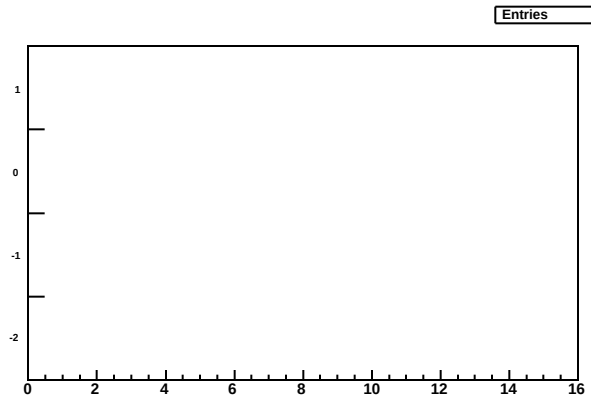
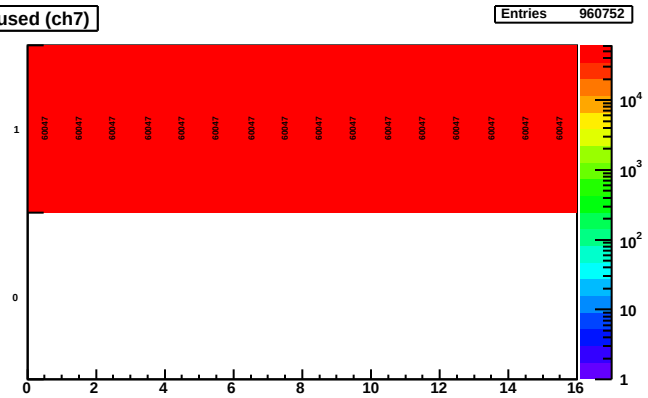
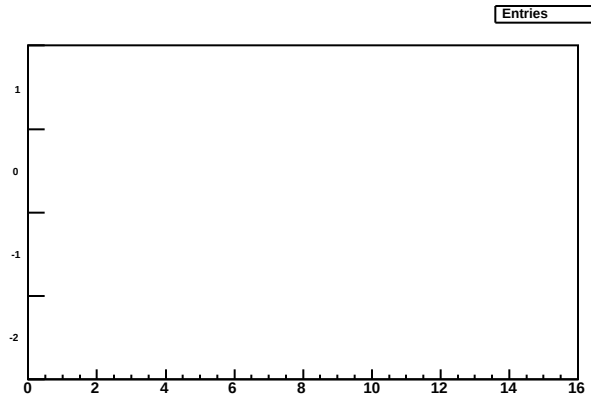


ST201 0-15 (ch6)





Unused (ch7)