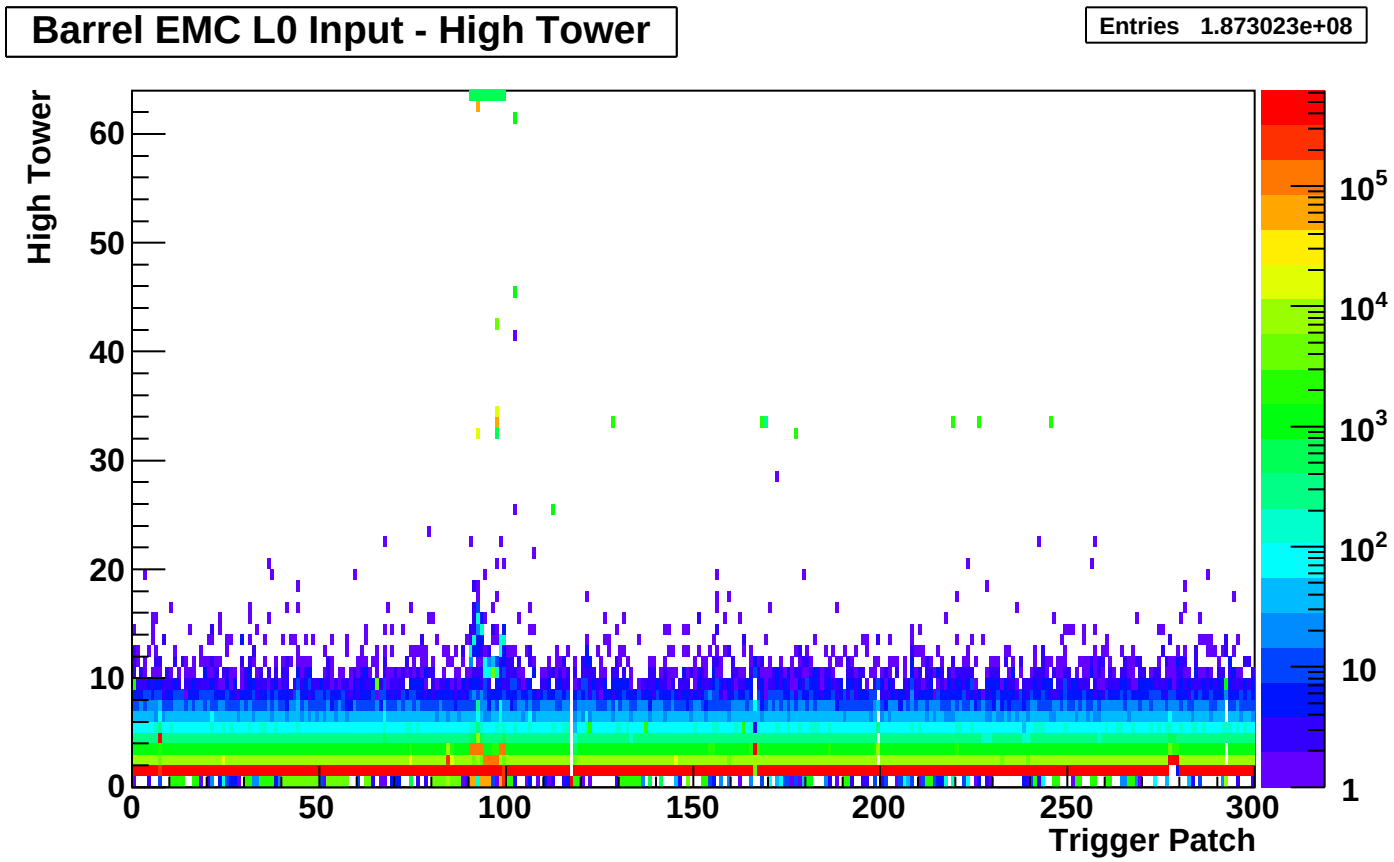
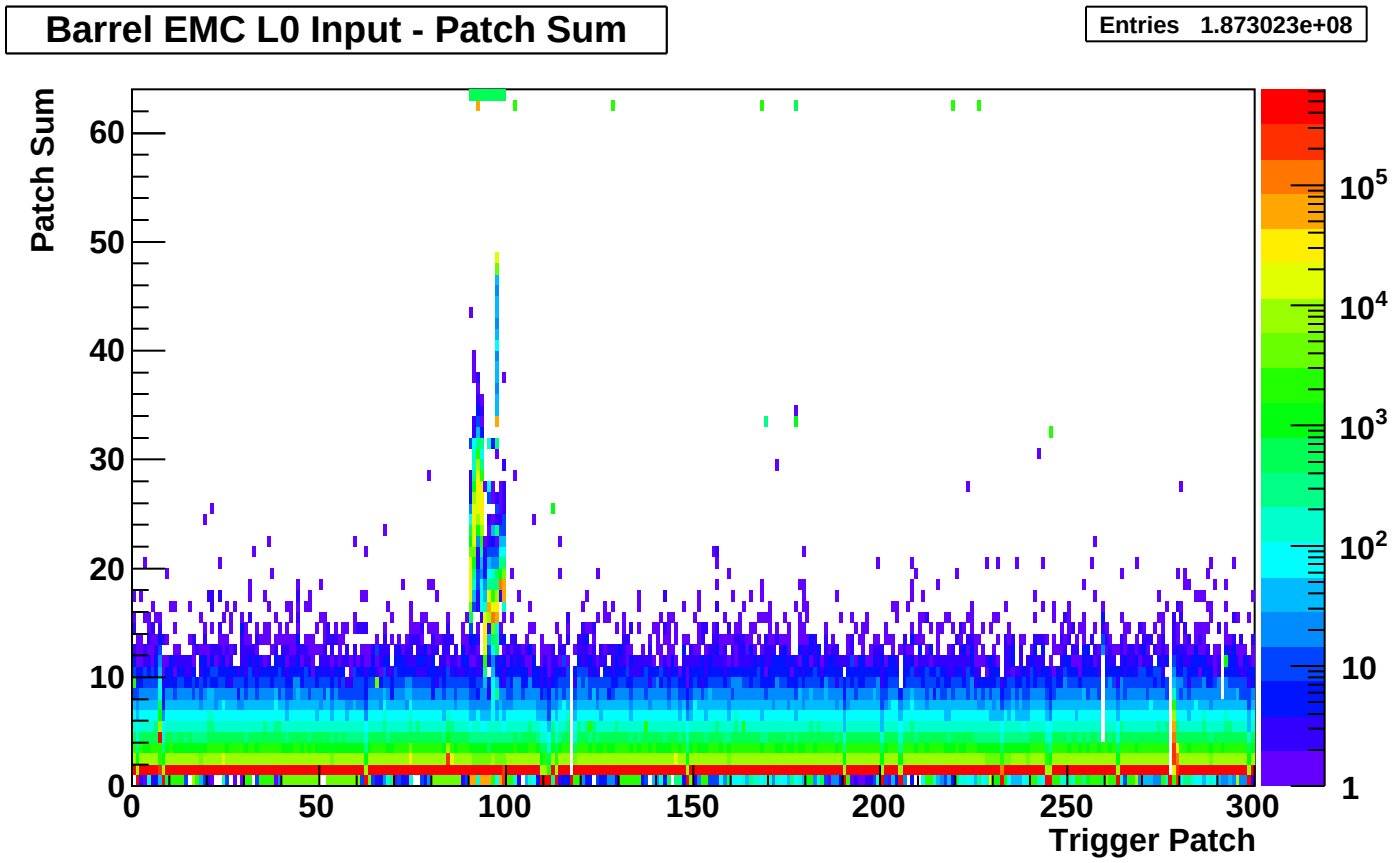
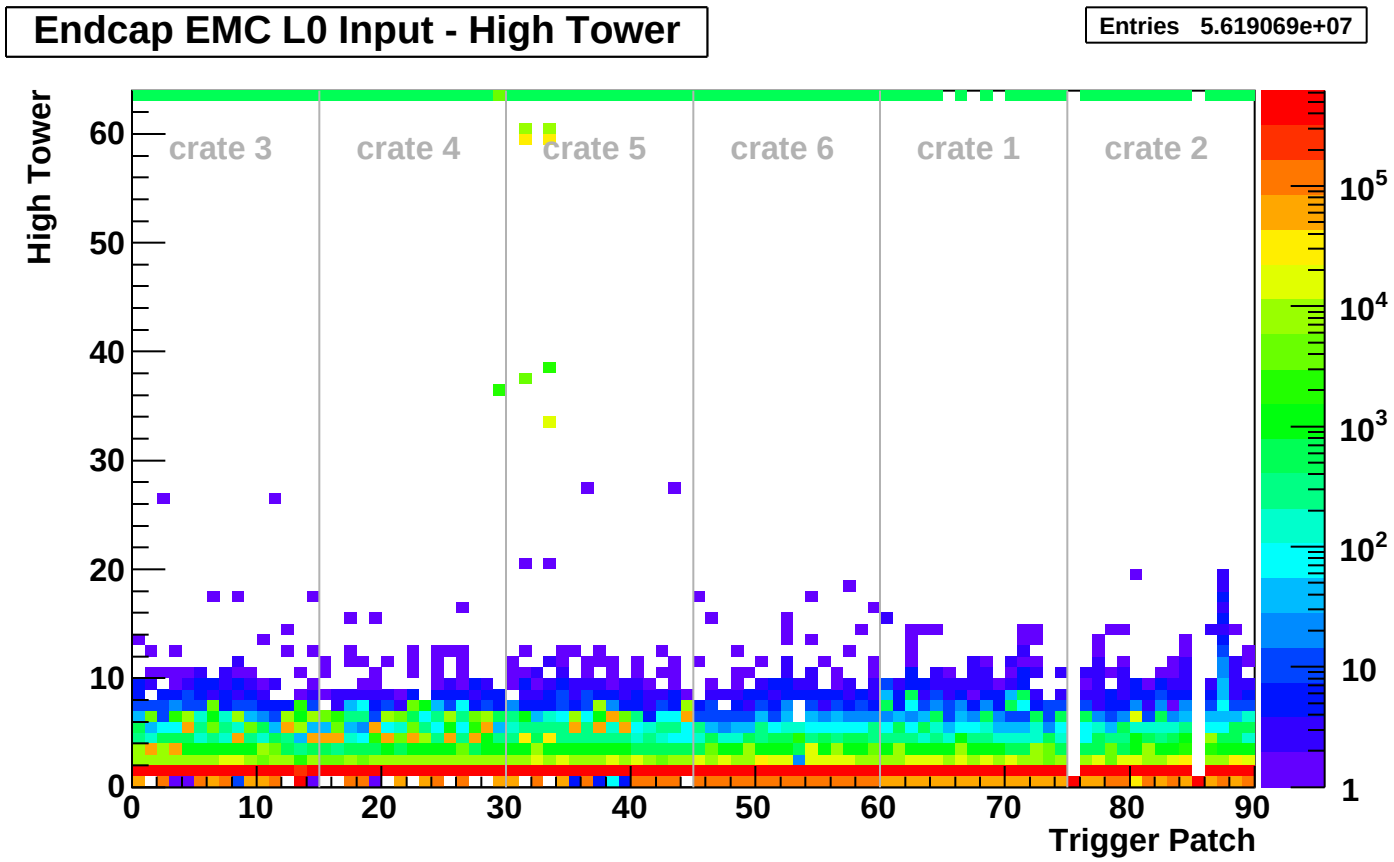
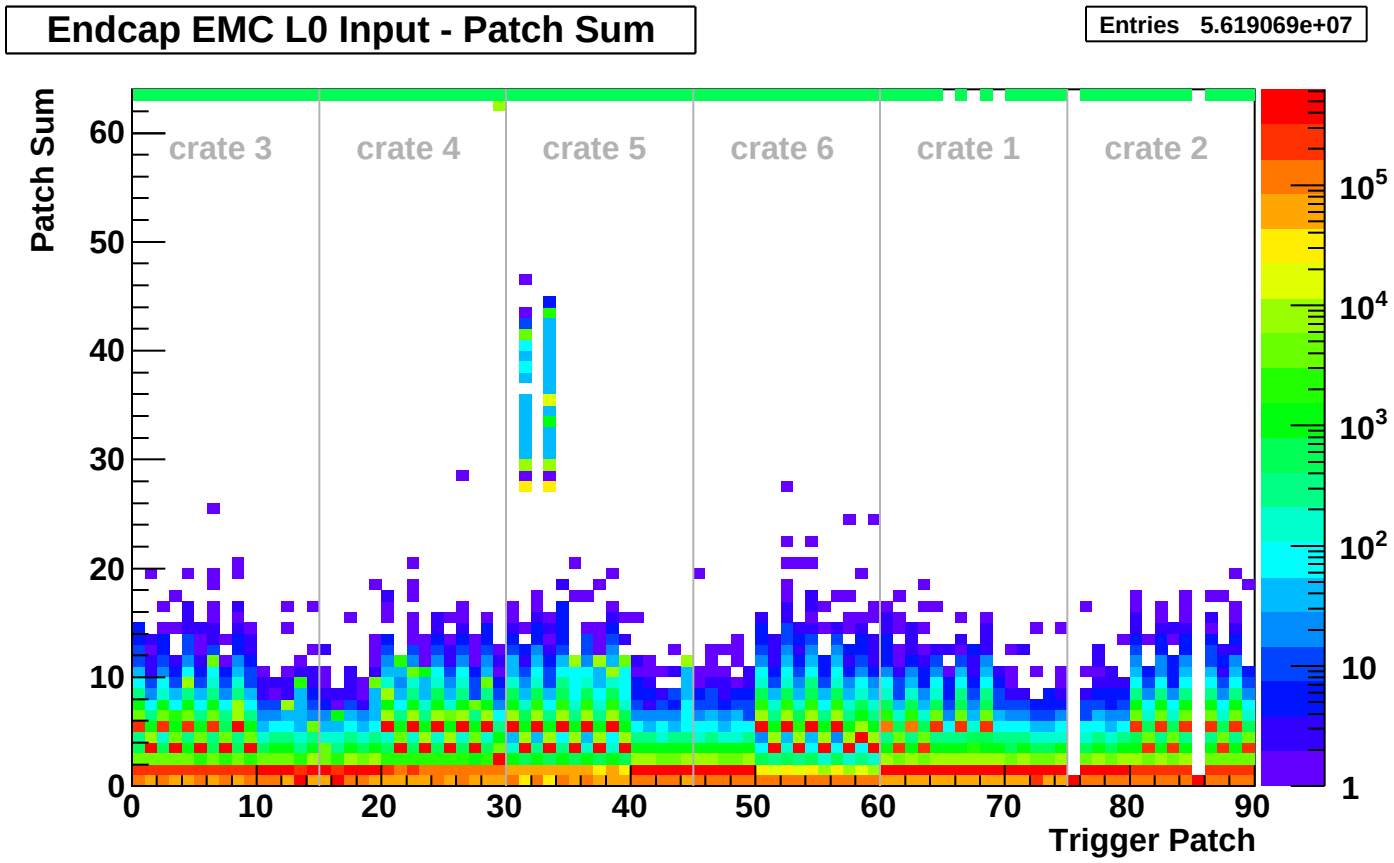
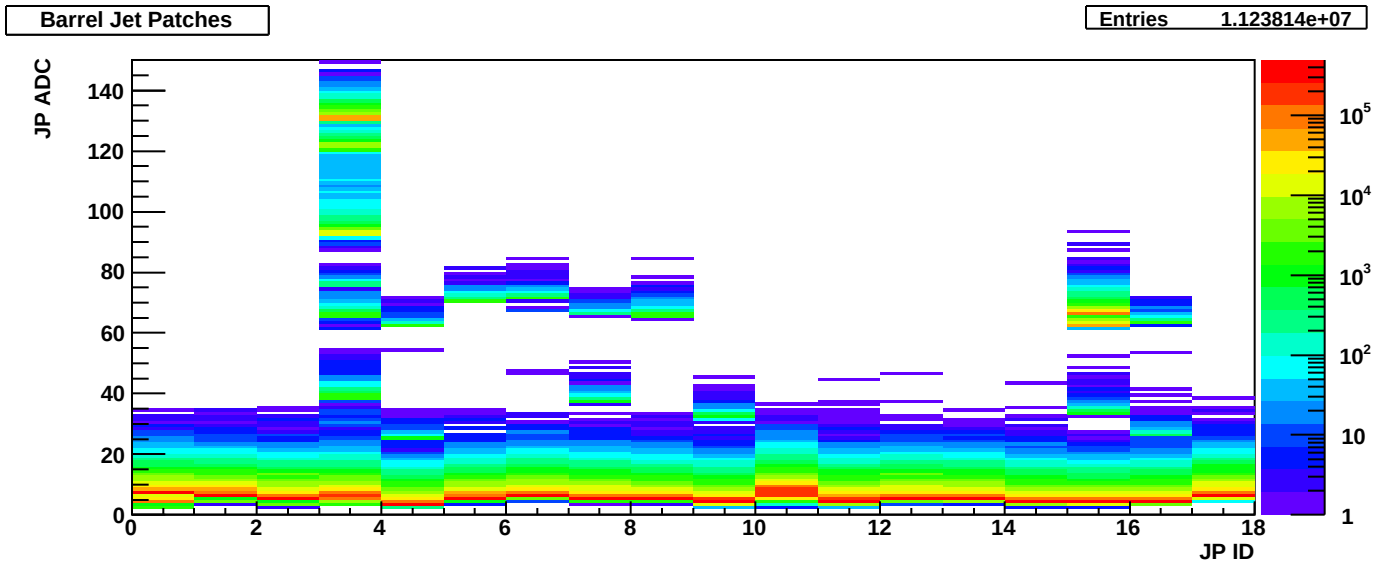
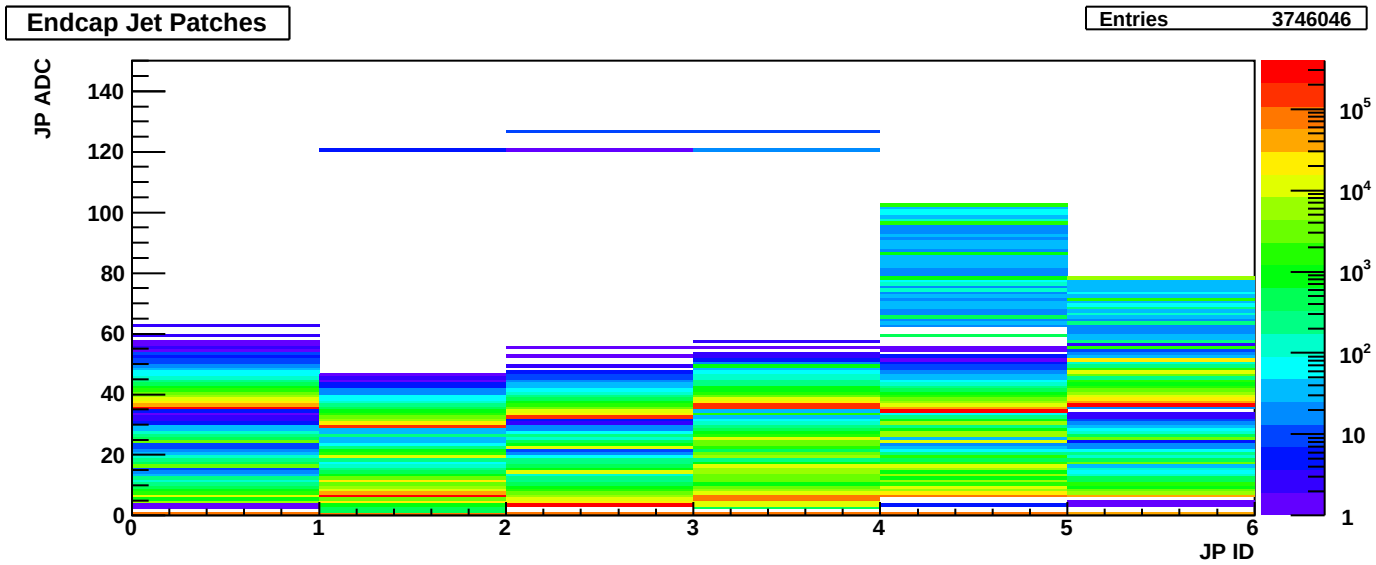

Barrel EMC L0 Input - High Tower
Entries 1.873023e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

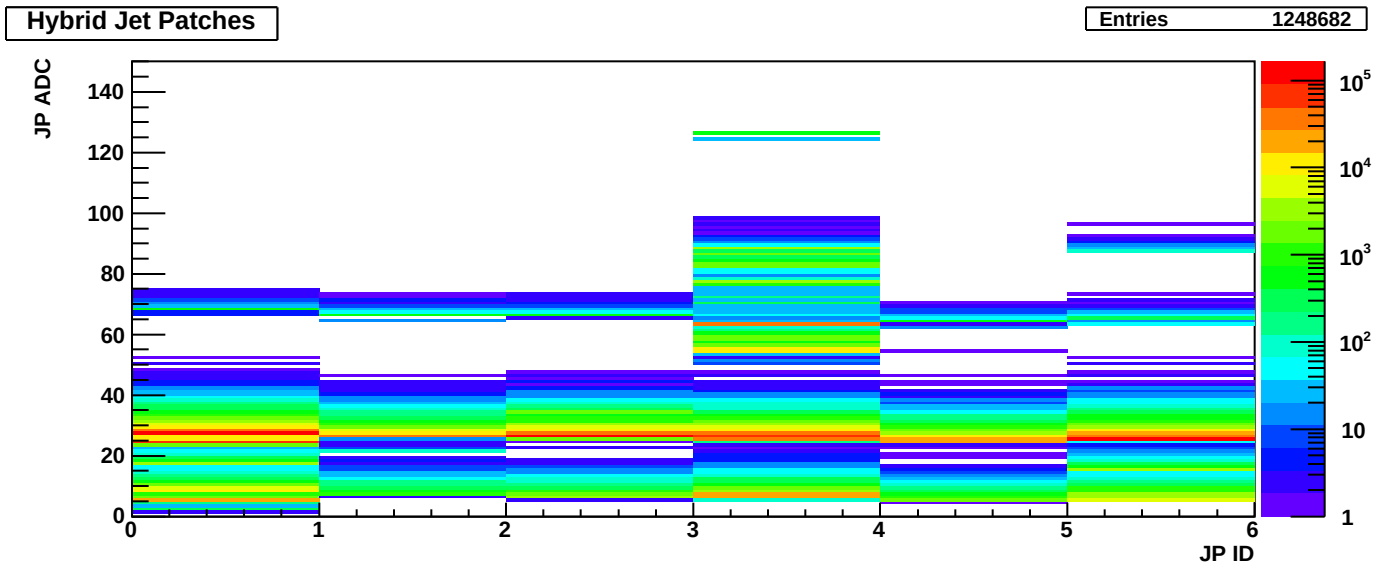

Barrel EMC L0 Input - Patch Sum
Entries 1.873023e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

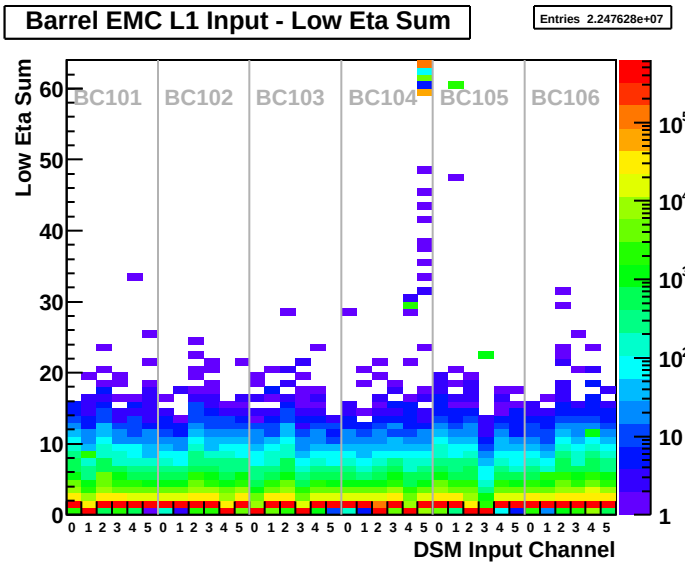

Endcap EMC L0 Input - High Tower
Entries 5.619069e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

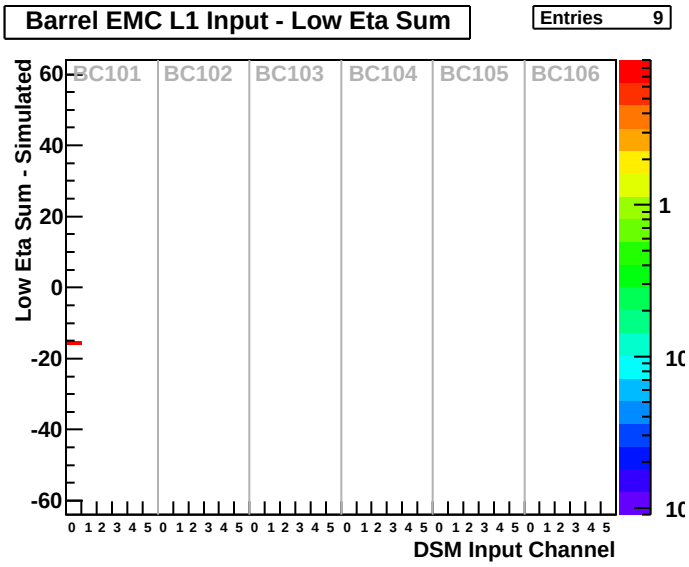

Endcap EMC L0 Input - Patch Sum
Entries 5.619069e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

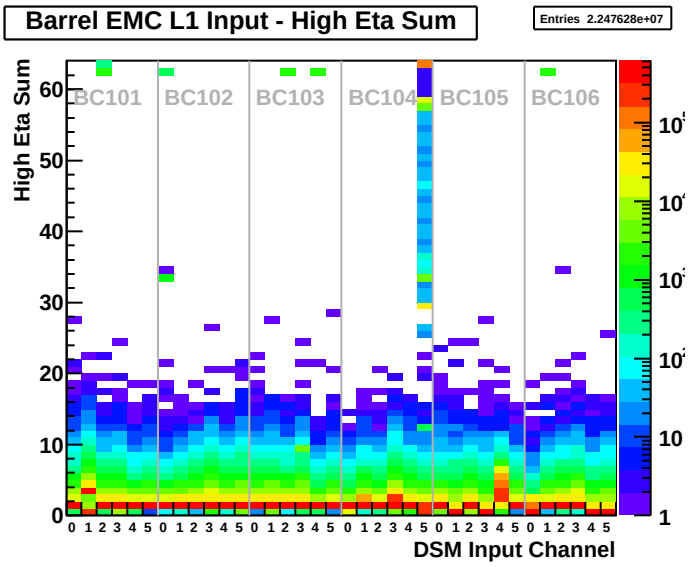

Barrel Jet Patches
Entries 1.123814e+07
JP ADC
JP ID

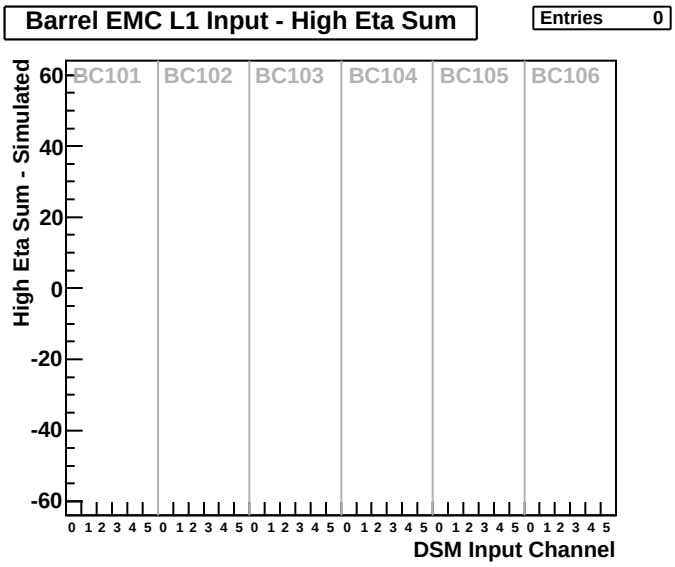

Endcap Jet Patches
Entries 3746046
JP ADC
JP ID

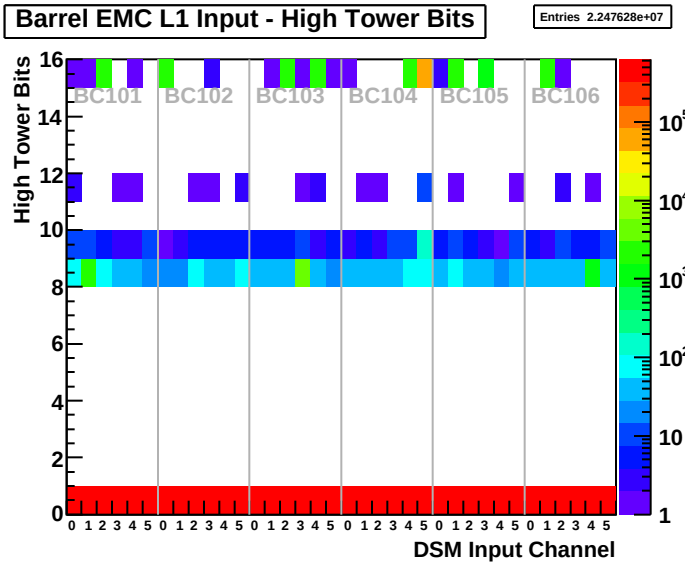

Hybrid Jet Patches
Entries 1248682
JP ADC
JP ID

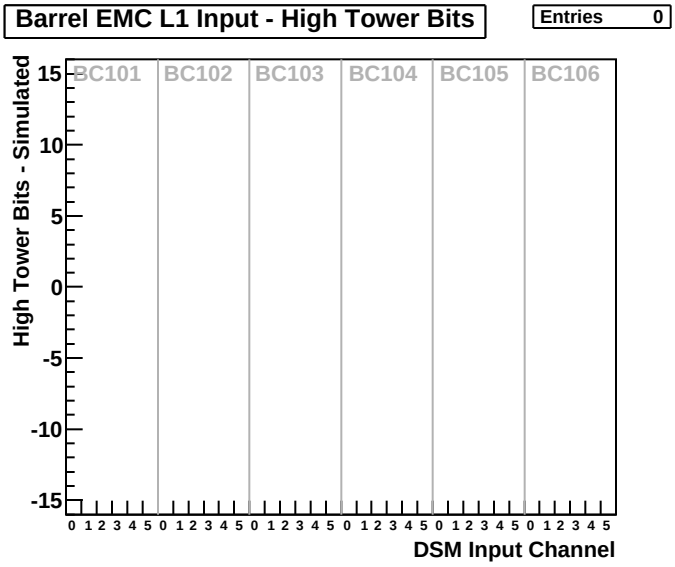

Barrel EMC L1 Input - Low Eta Sum
Entries 2.247628e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

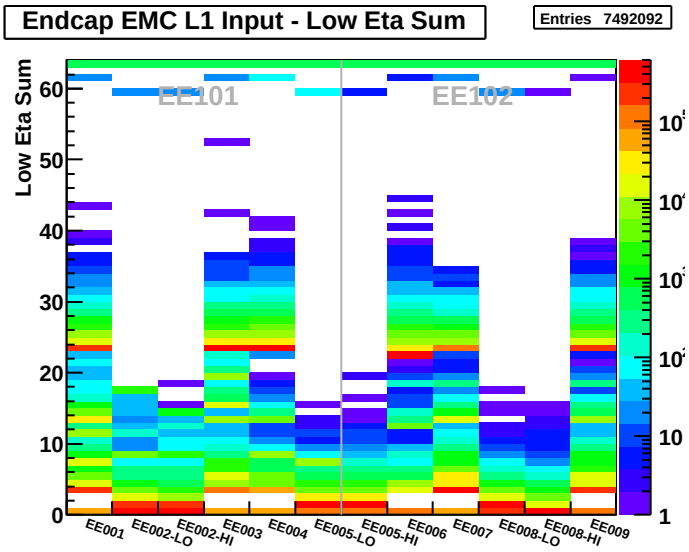

Barrel EMC L1 Input - Low Eta Sum
Entries 9
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

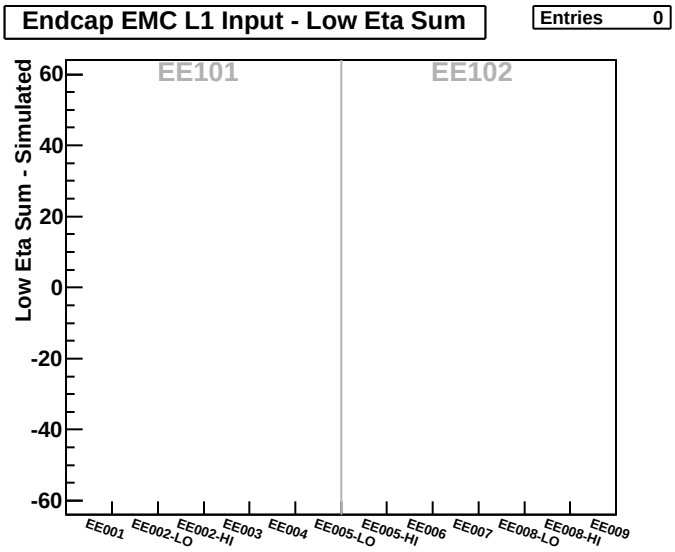

Barrel EMC L1 Input - High Eta Sum
Entries 2.247628e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

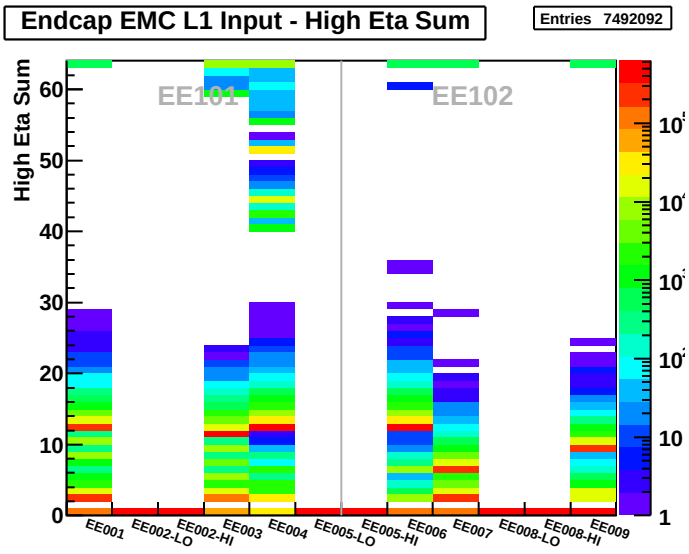

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

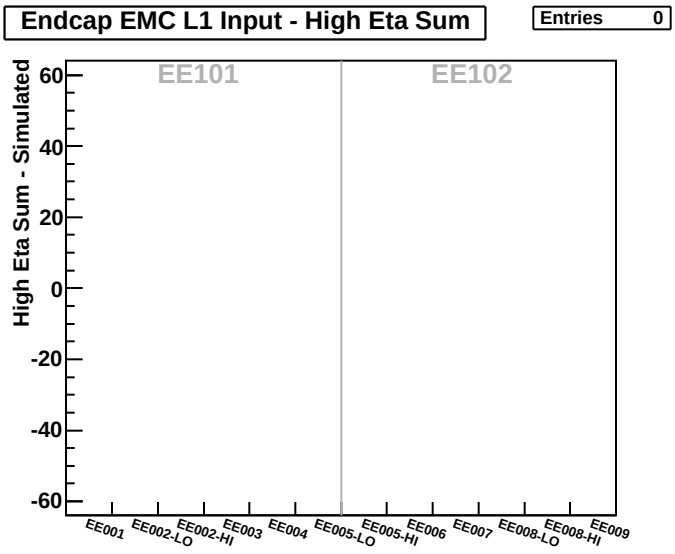

Barrel EMC L1 Input - High Tower Bits
Entries 2.247628e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

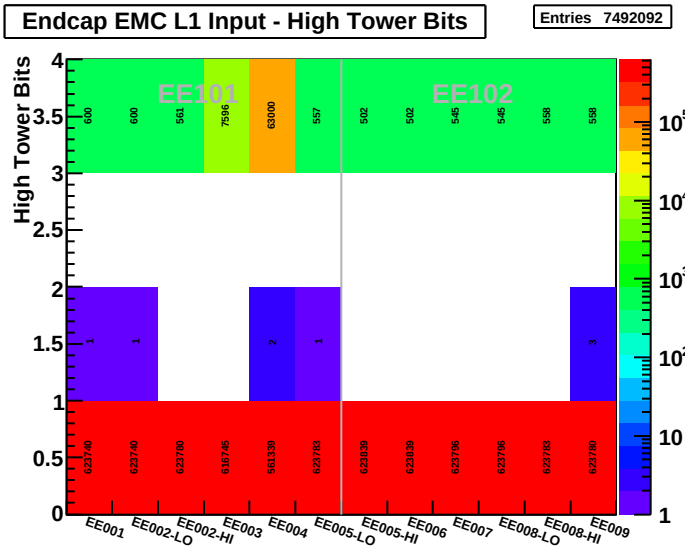

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

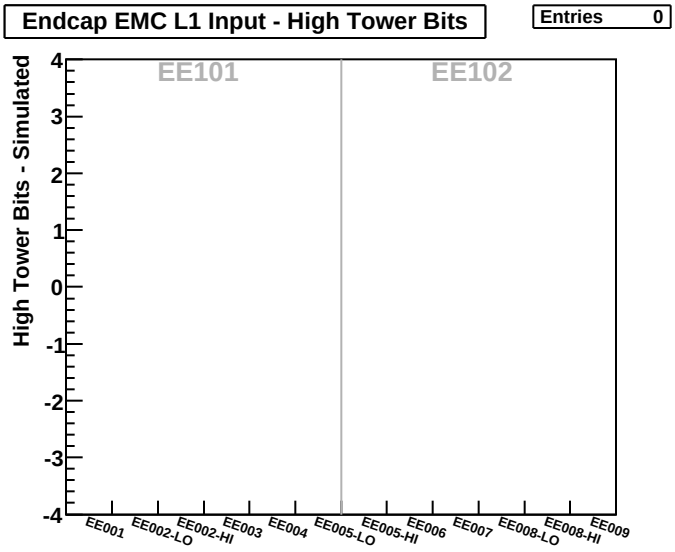

Endcap EMC L1 Input - Low Eta Sum
Entries 7492092
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

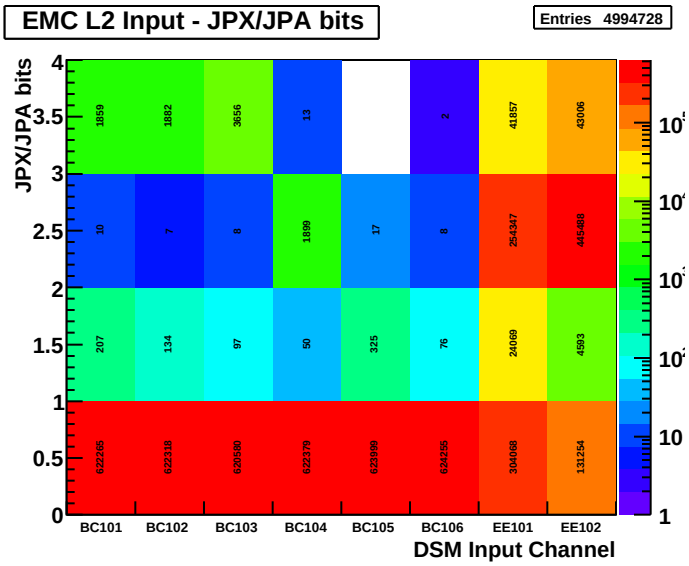

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

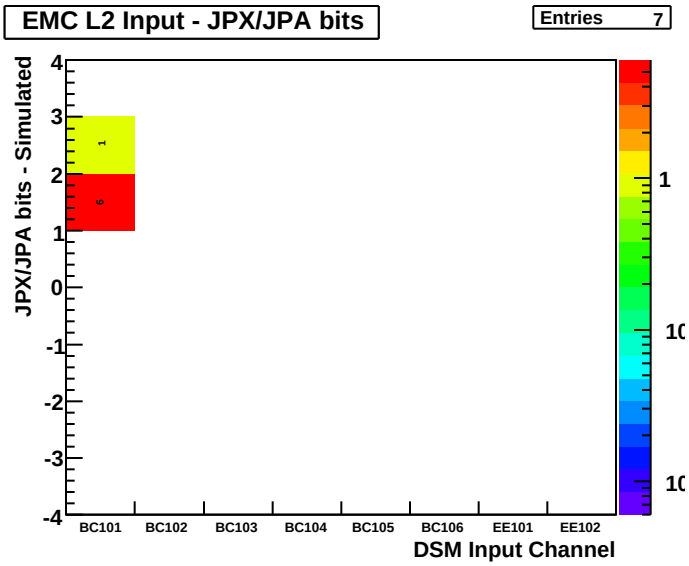

Endcap EMC L1 Input - High Eta Sum
Entries 7492092
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

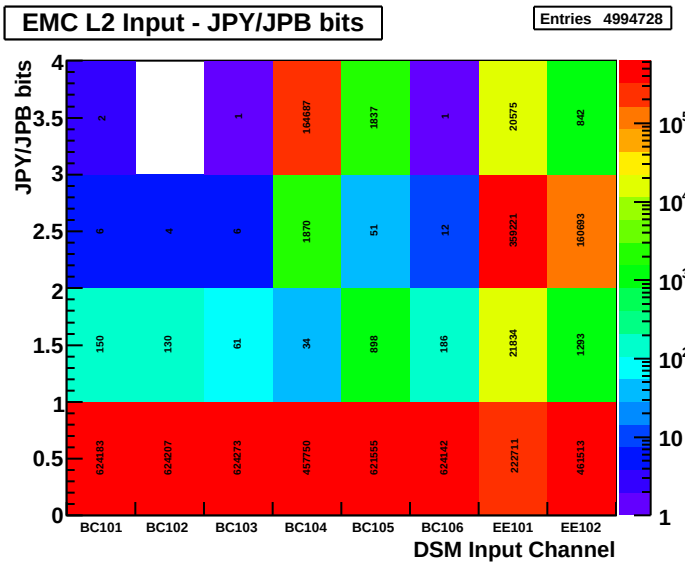

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

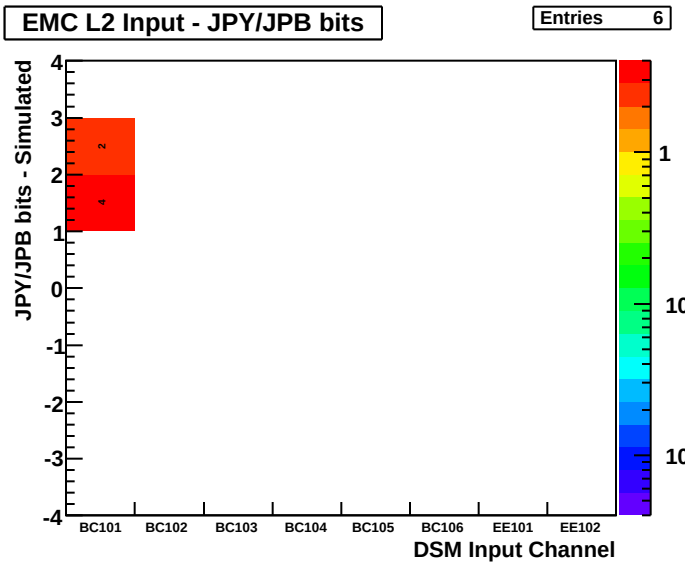

Endcap EMC L1 Input - High Tower Bits
Entries 7492092
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

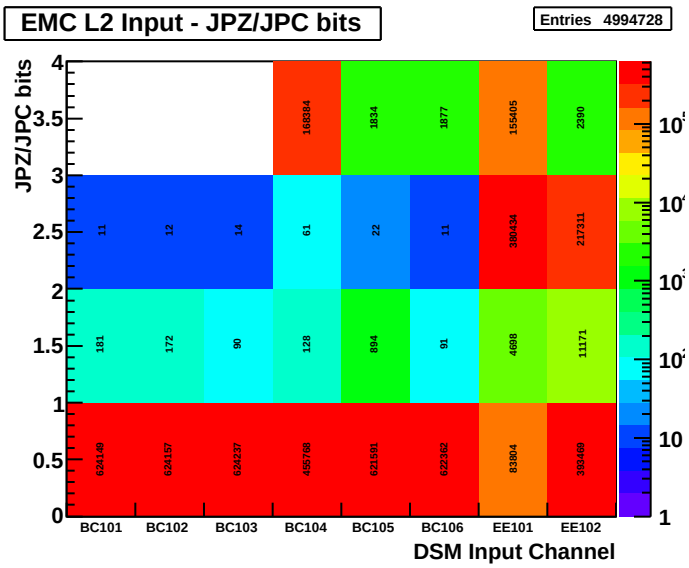

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

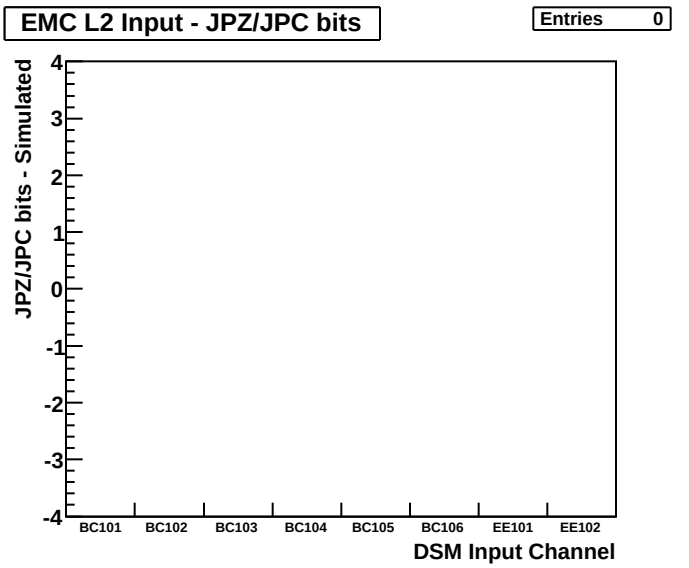

EMC L2 Input - JPX/JPA bits
Entries 4994728
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1859 1862 3656 13 2 41857 43006
10 7 8 1899 17 8 254347 445488
207 134 97 50 325 76 24069 4593
622265 622318 620580 622379 623999 624255 304068 131254

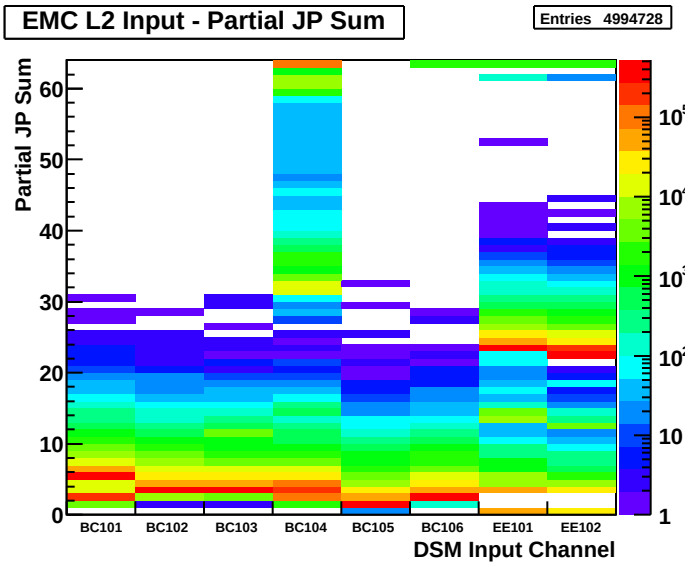

EMC L2 Input - JPX/JPA bits
Entries 7
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1
6

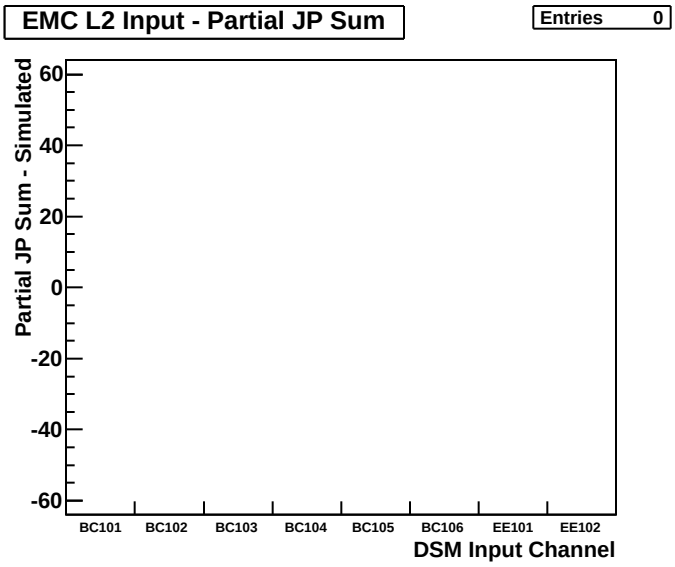

EMC L2 Input - JPY/JPB bits
Entries 4994728
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2 1 164687 1837 1 20575 842
6 4 6 1870 51 12 35221 160693
150 130 61 34 898 186 21834 1293
624183 624207 624273 457750 621555 624142 222711 461513

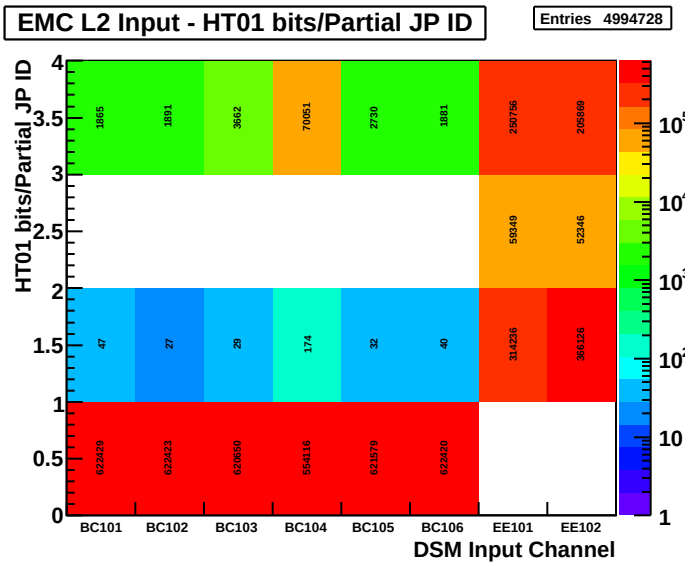

EMC L2 Input - JPY/JPB bits
Entries 6
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2
4

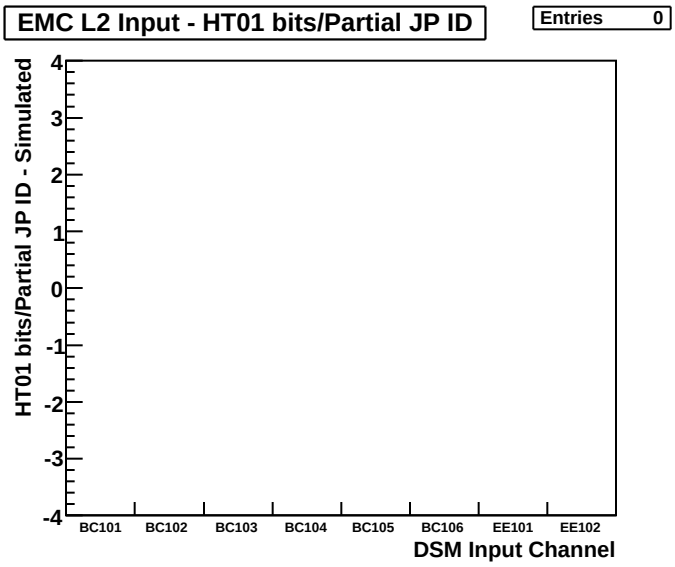

EMC L2 Input - JPZ/JPC bits
Entries 4994728
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
168384 1834 1877 155405 2390
11 12 14 61 22 11 380434 217311
181 172 90 128 894 91 4698 11171
624149 624157 624237 455768 621591 622362 83804 393469

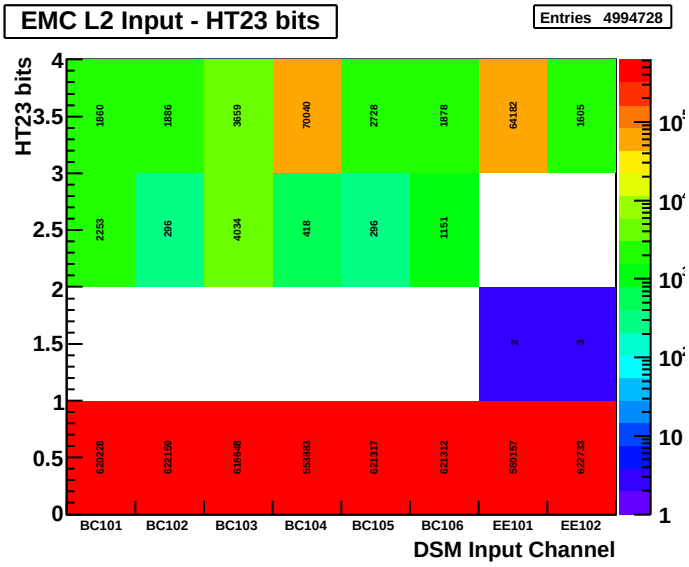

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

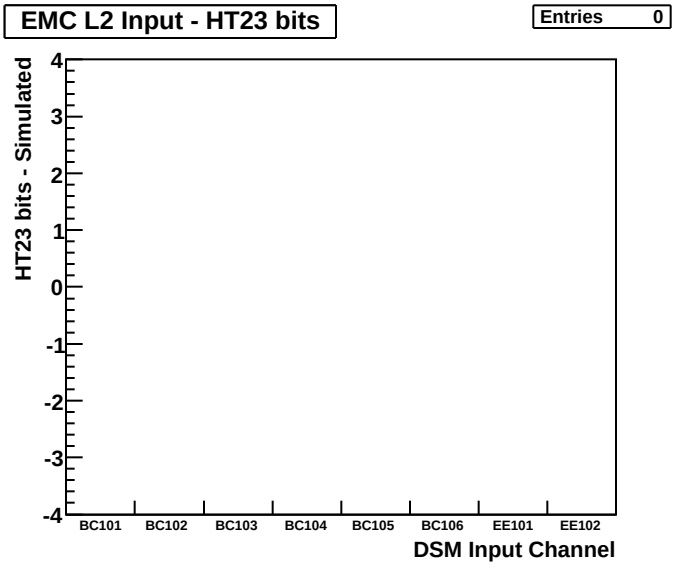

EMC L2 Input - Partial JP Sum
Entries 4994728
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

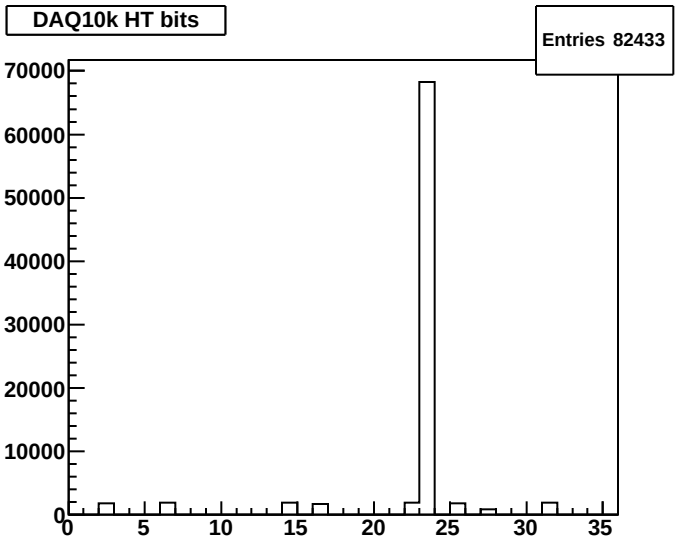

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

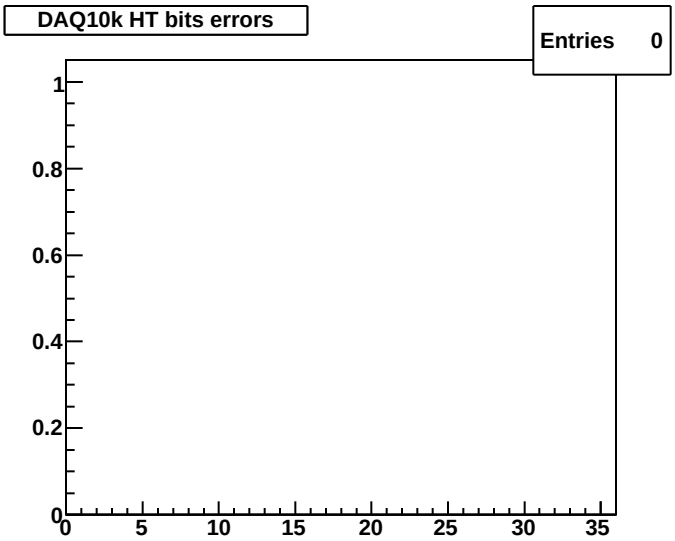

EMC L2 Input - HT01 bits/Partial JP ID
Entries 4994728
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

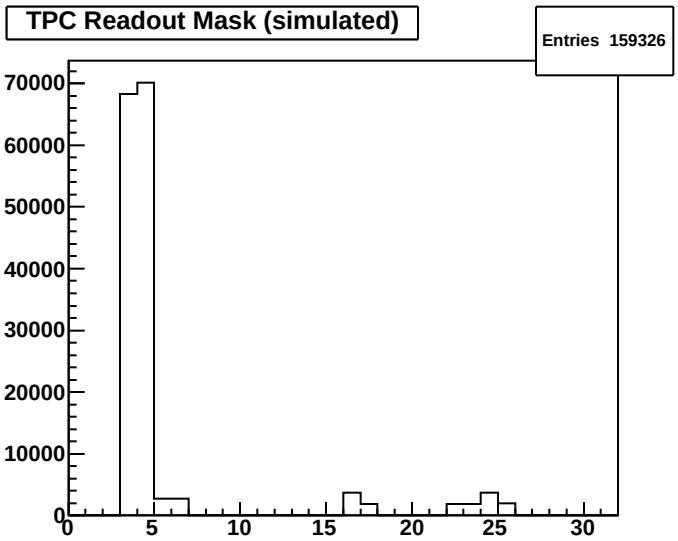

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

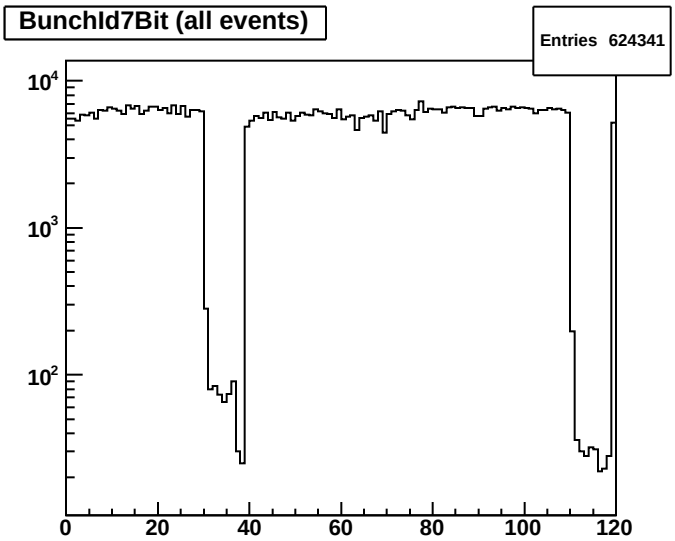

EMC L2 Input - HT23 bits
Entries 4994728
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

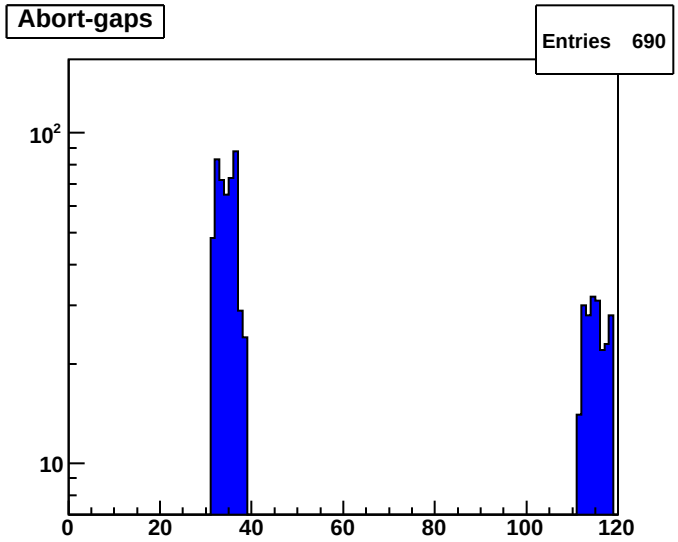

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

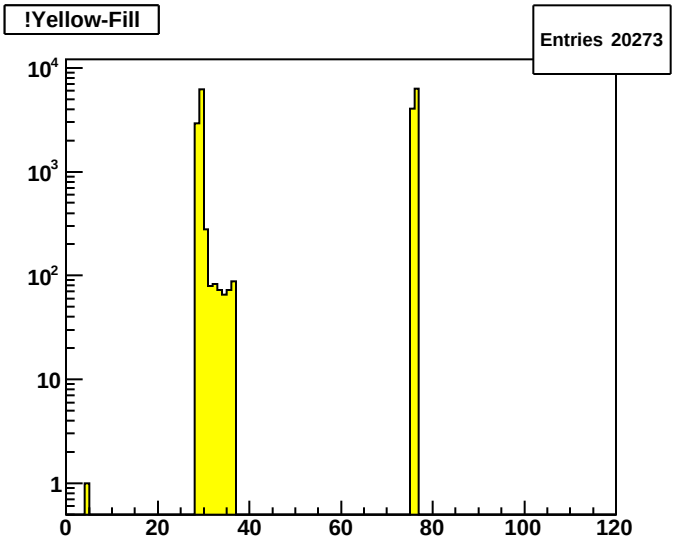

DAQ10k HT bits
Entries 82433
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

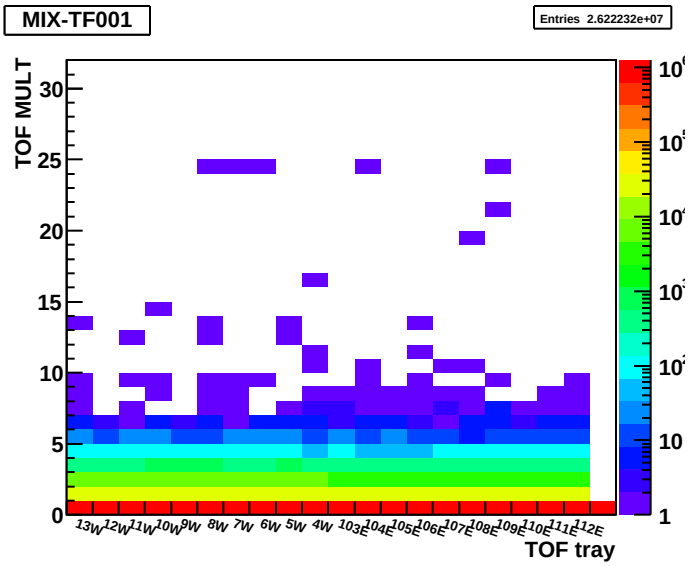

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

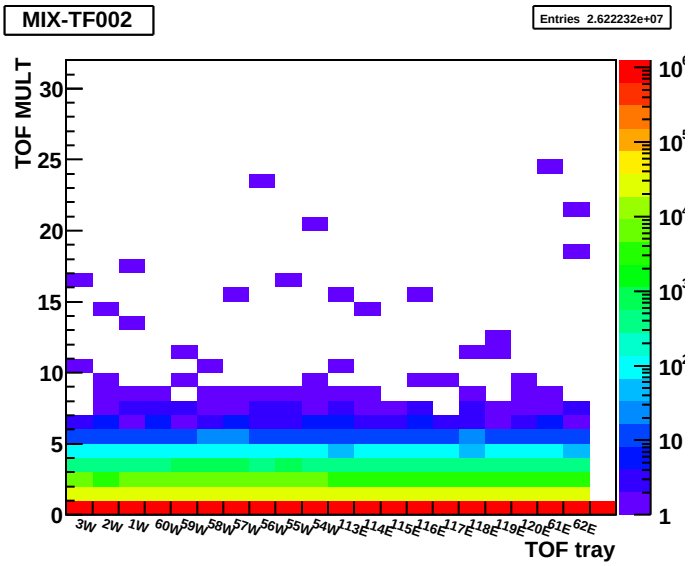

TPC Readout Mask (simulated)
Entries 159326
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

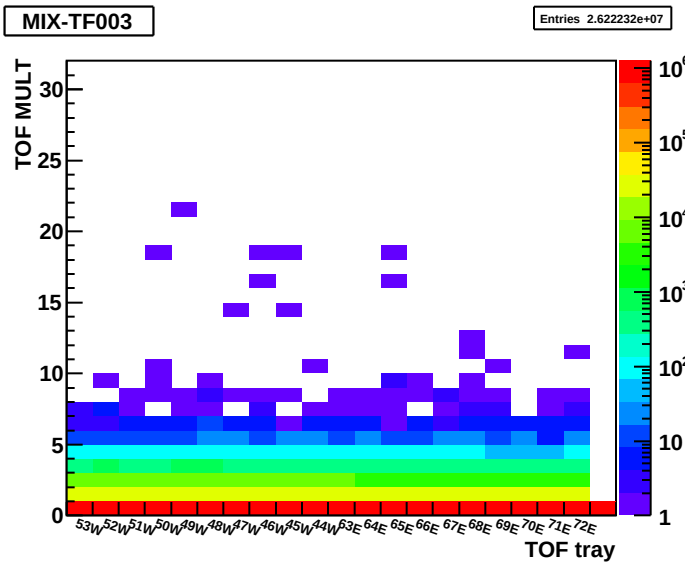

BunchId7Bit (all events)
Entries 624341
10^4
10^3
10^2
0 20 40 60 80 100 120

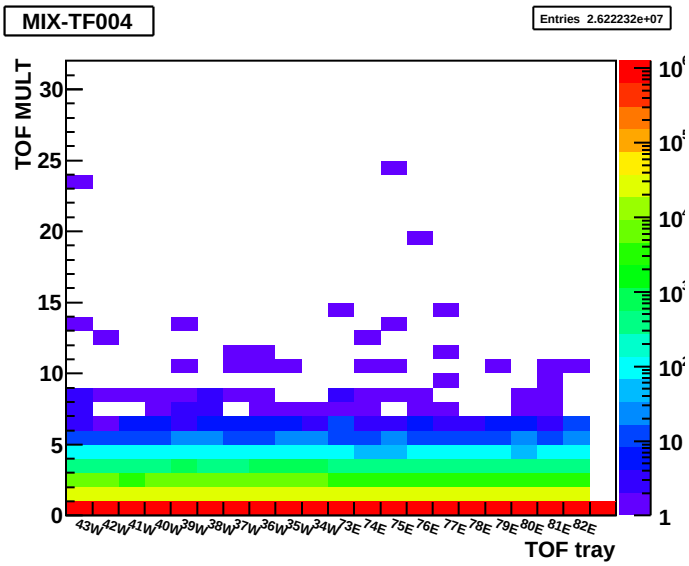

Abort-gaps
Entries 690
10^2
10
0 20 40 60 80 100 120

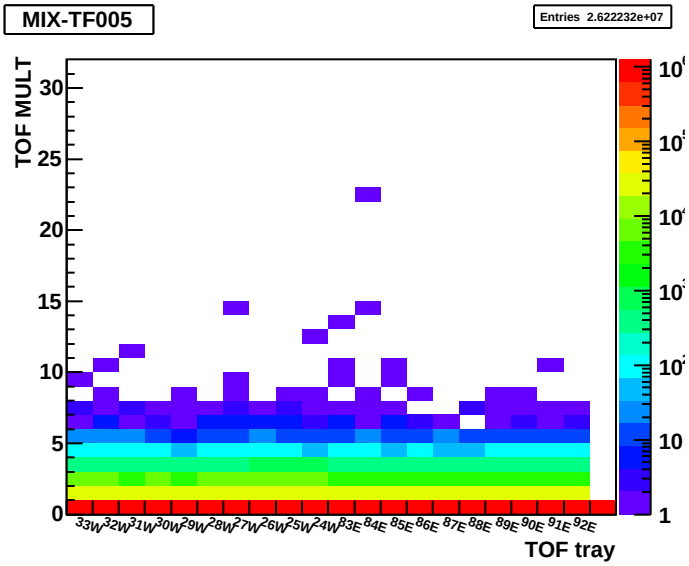

!Yellow-Fill
Entries 20273
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

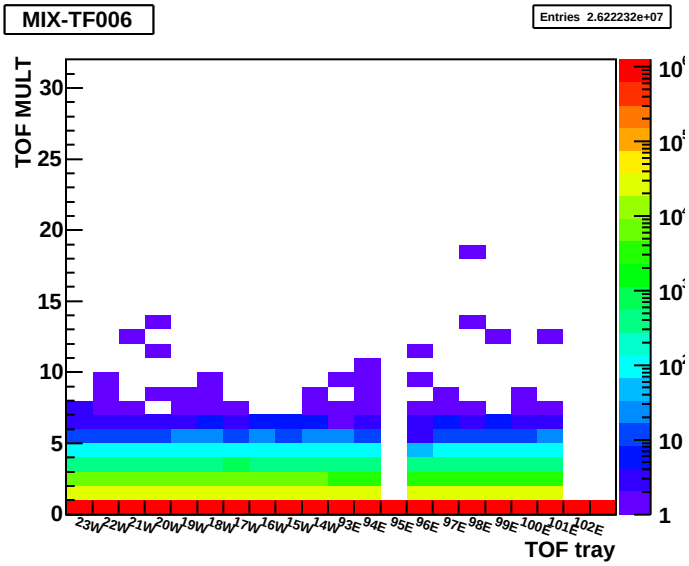

MIX-TF001
Entries 2.622232e+07
TOF MULT
TOF tray

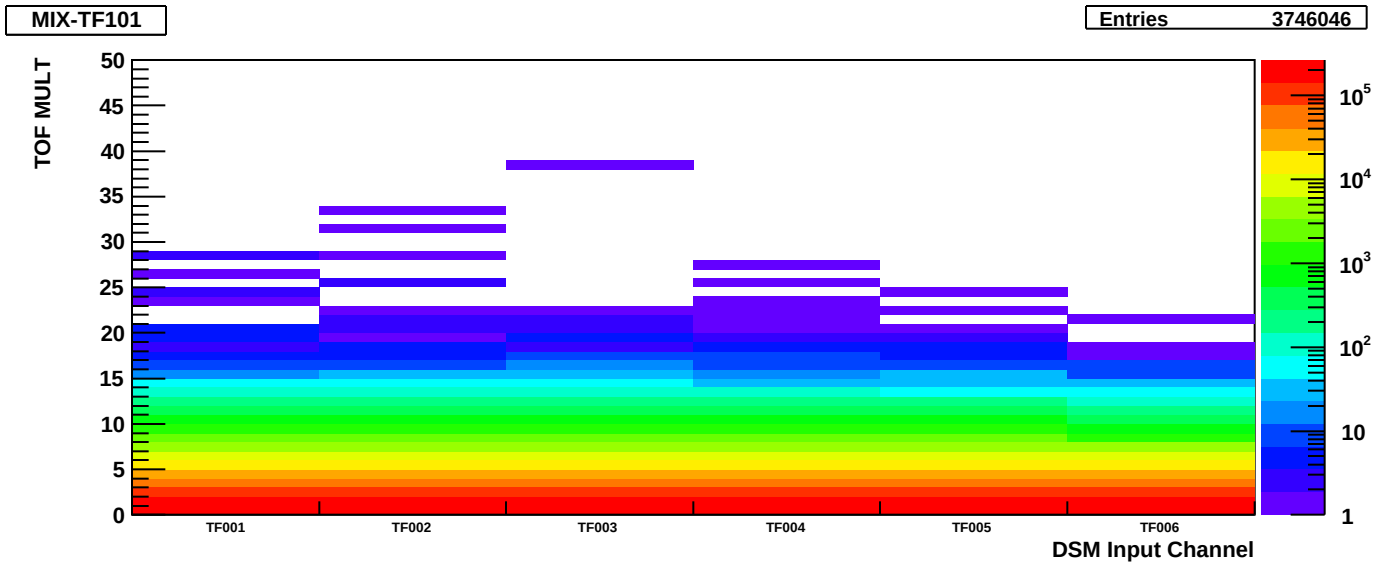

MIX-TF002
Entries 2.622232e+07
TOF MULT
TOF tray

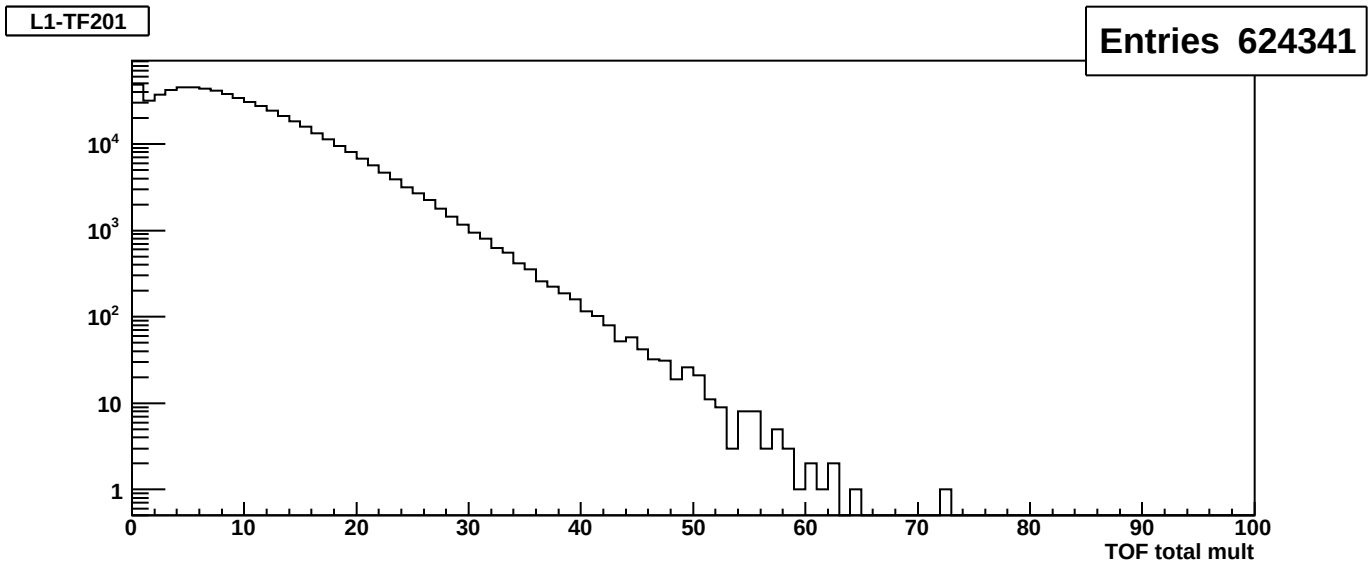

MIX-TF003
Entries 2.622232e+07
TOF MULT
TOF tray

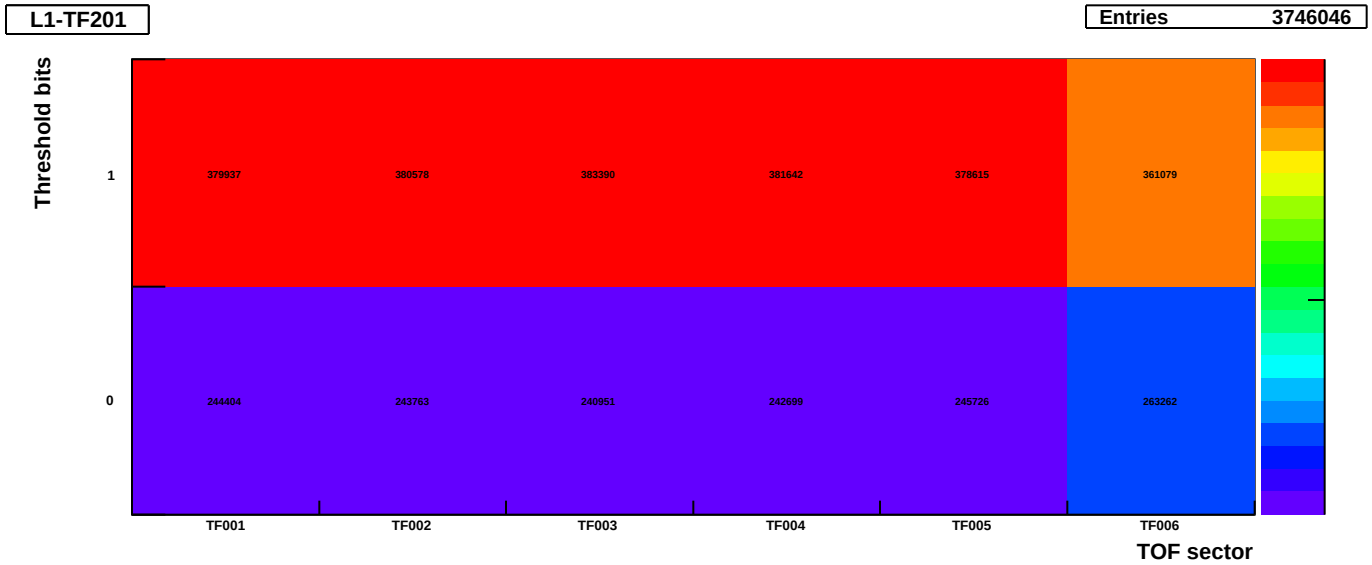

MIX-TF004
Entries 2.622232e+07
TOF MULT
TOF tray

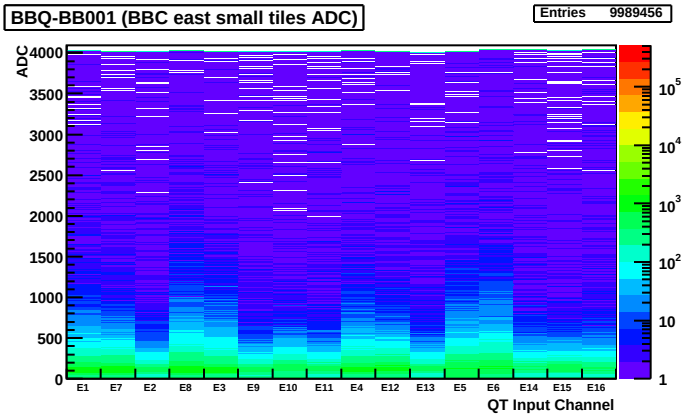

MIX-TF005
Entries 2.622232e+07
TOF MULT
TOF tray

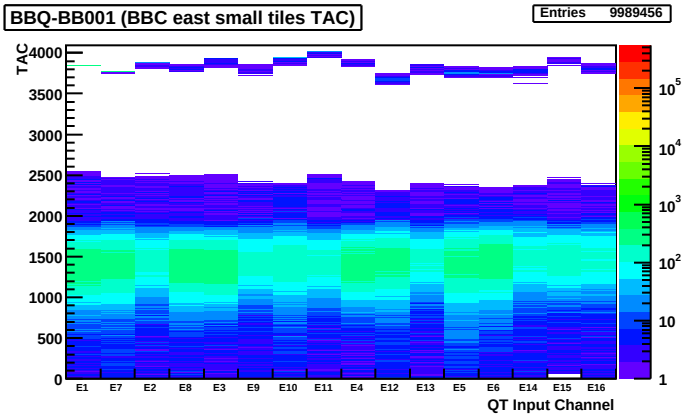

MIX-TF006
Entries 2.622232e+07
TOF MULT
TOF tray

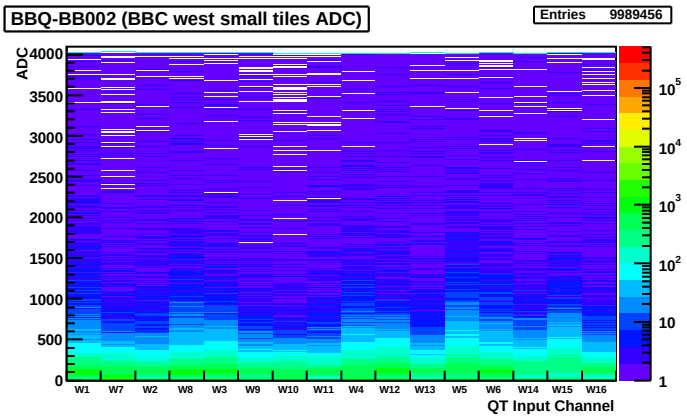

MIX-TF101
Entries 3746046
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

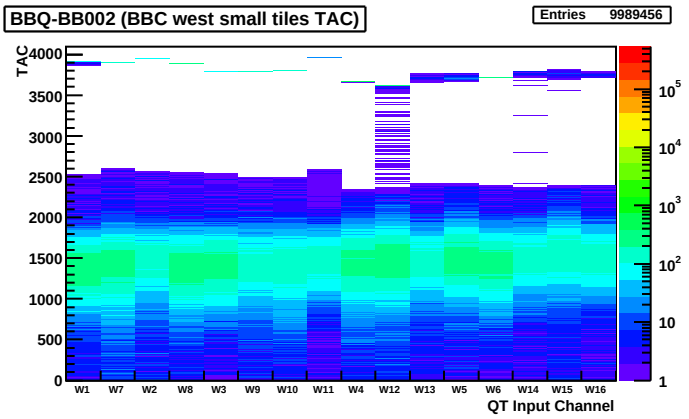

L1-TF201
Entries 624341
TOF total mult

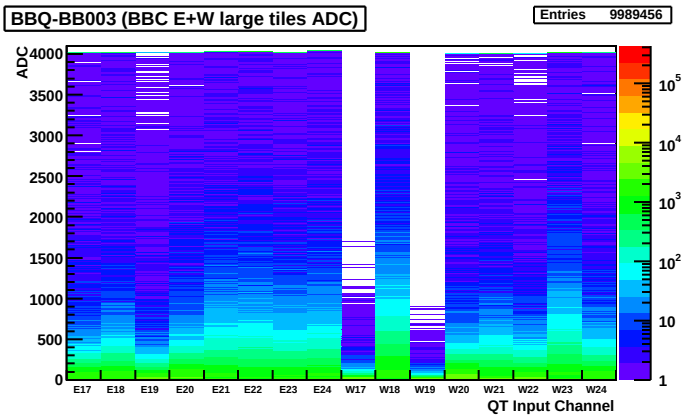

L1-TF201
Entries 3746046
Threshold bits
379937
380578
383390
381642
378615
361079
244404
243763
240951
242699
245726
263262
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

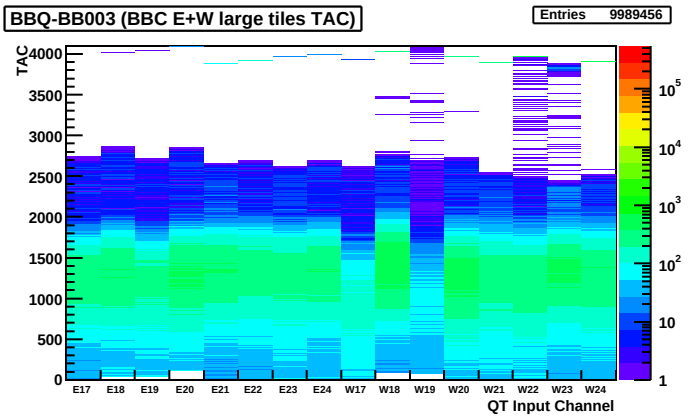

BBQ-BB001 (BBC east small tiles ADC)
Entries 9989456
ADC
QT Input Channel

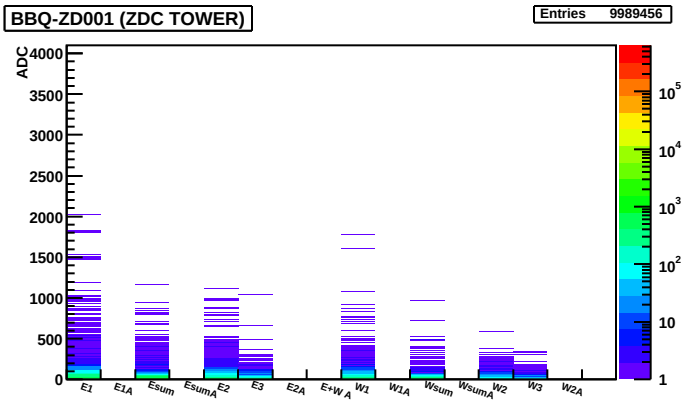

BBQ-BB001 (BBC east small tiles TAC)
Entries 9989456
TAC
QT Input Channel

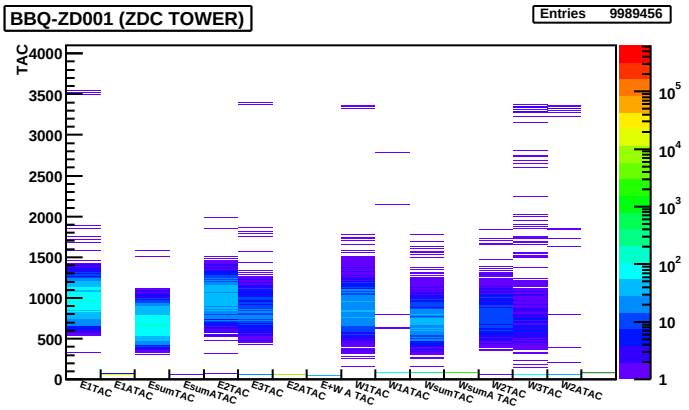

BBQ-BB002 (BBC west small tiles ADC)
Entries 9989456
ADC
QT Input Channel

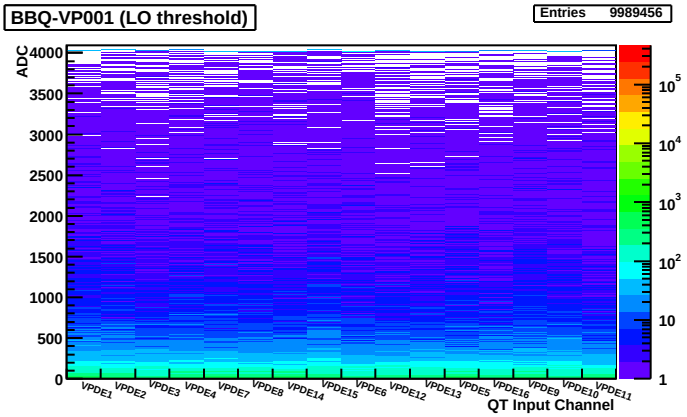

BBQ-BB002 (BBC west small tiles TAC)
Entries 9989456
TAC
QT Input Channel

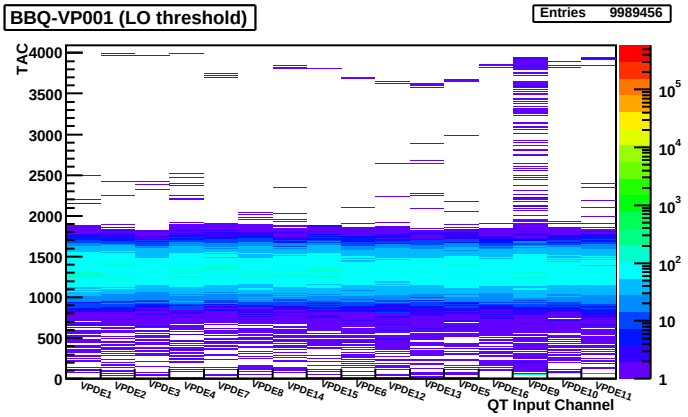

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 9989456
ADC
QT Input Channel

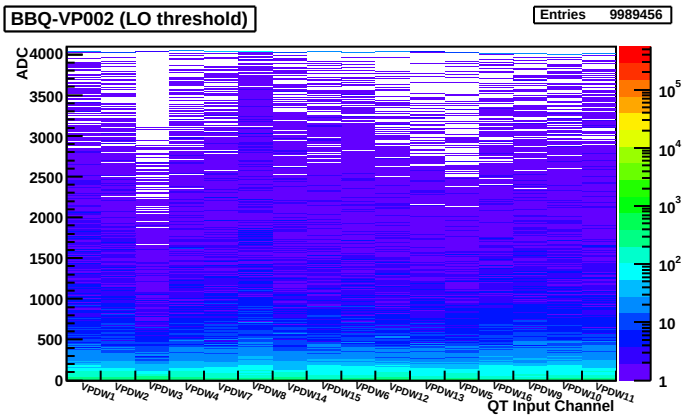

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 9989456
TAC
QT Input Channel

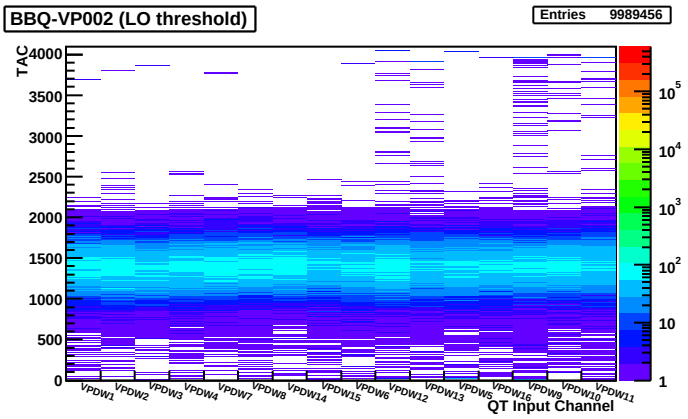

BBQ-ZD001 (ZDC TOWER)
Entries 9989456
ADC

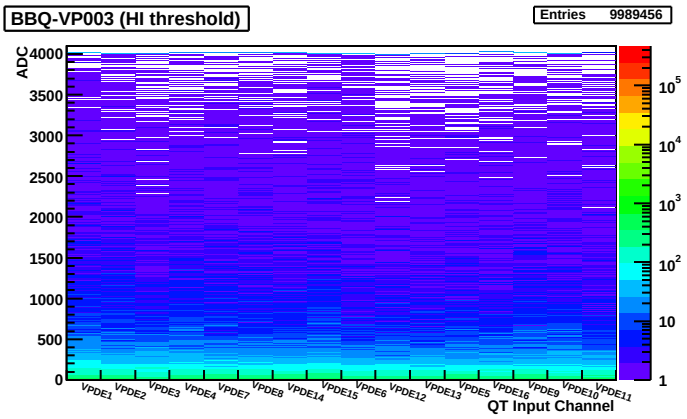

BBQ-ZD001 (ZDC TOWER)
Entries 9989456
TAC

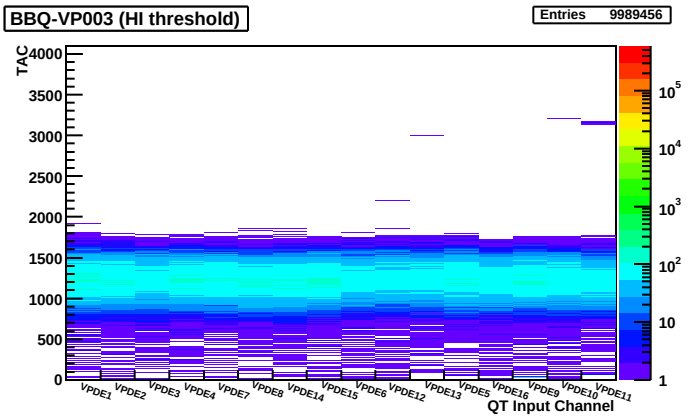

BBQ-VP001 (LO threshold)
Entries 9989456
ADC
QT Input Channel

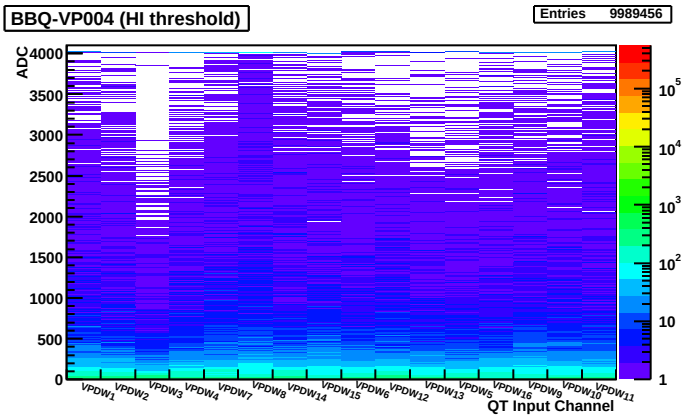

BBQ-VP001 (LO threshold)
Entries 9989456
TAC
QT Input Channel

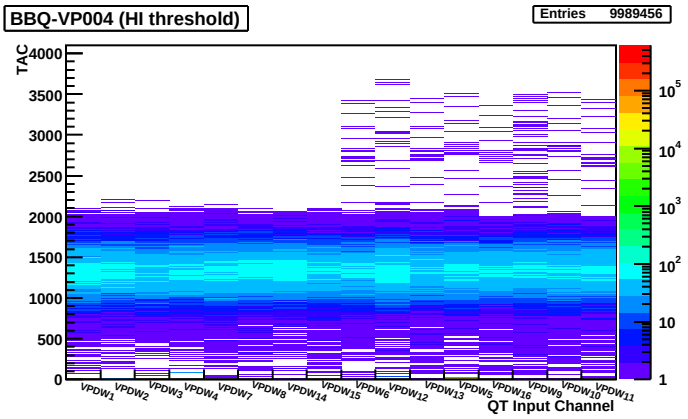

BBQ-VP002 (LO threshold)
Entries 9989456
ADC
QT Input Channel

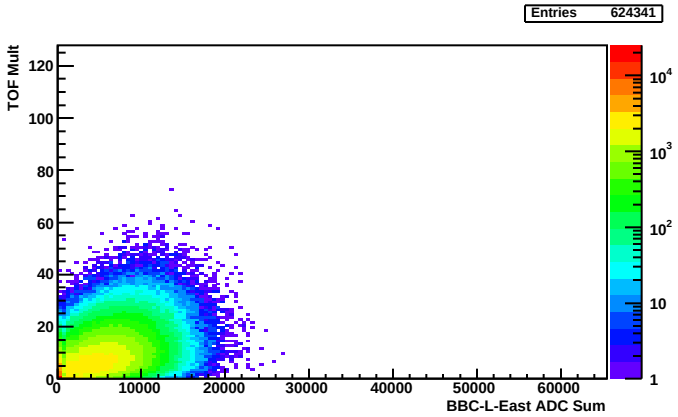

BBQ-VP002 (LO threshold)
Entries 9989456
TAC
QT Input Channel

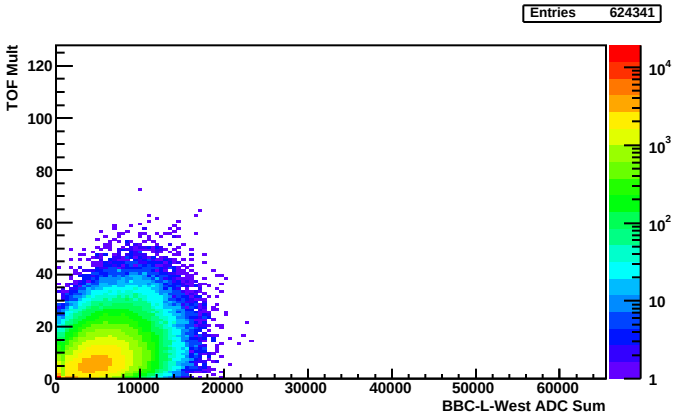

BBQ-VP003 (HI threshold)
Entries 9989456
ADC
QT Input Channel

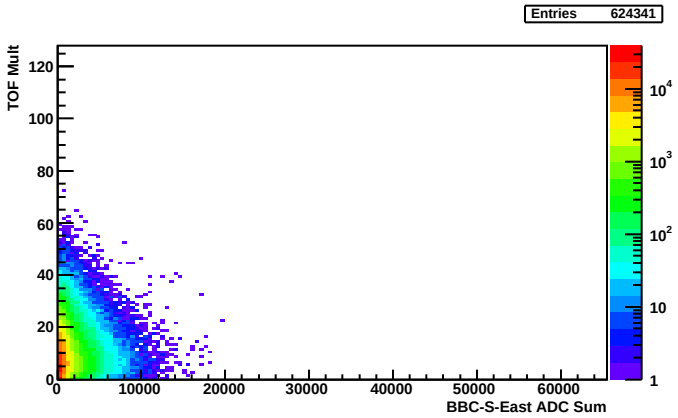

BBQ-VP003 (HI threshold)
Entries 9989456
TAC
QT Input Channel

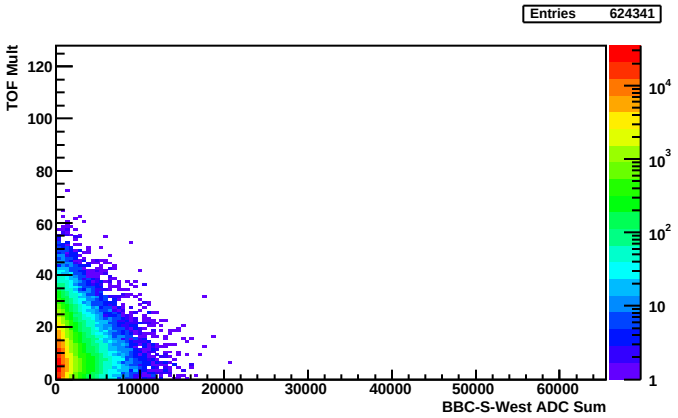

BBQ-VP004 (HI threshold)
Entries 9989456
ADC
QT Input Channel

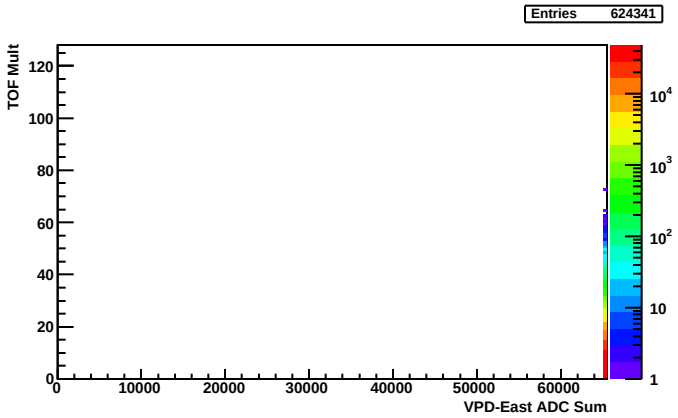

BBQ-VP004 (HI threshold)
Entries 9989456
TAC
QT Input Channel

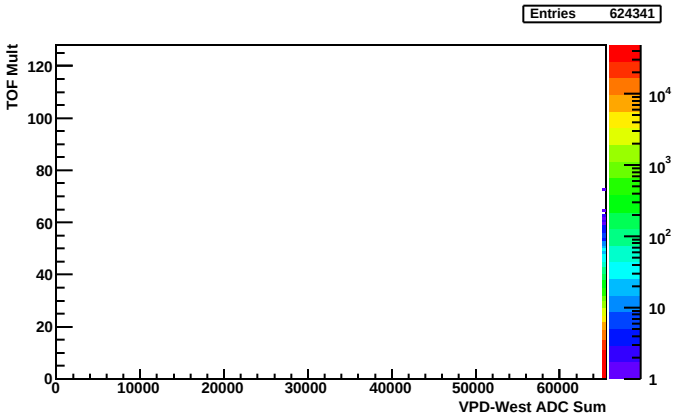

Entries 624341
TOF Mult
BBC-L-East ADC Sum

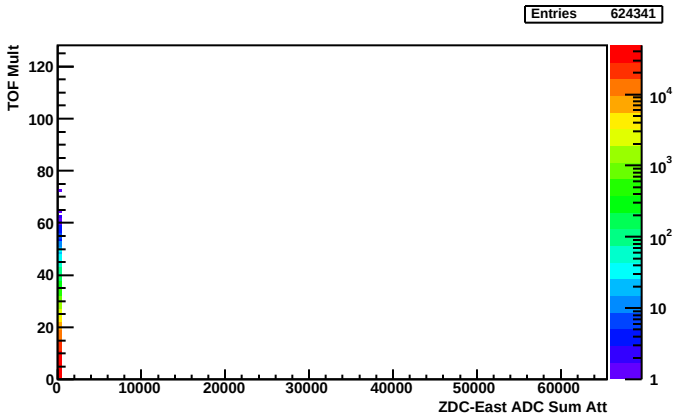

Entries 624341
TOF Mult
BBC-L-West ADC Sum

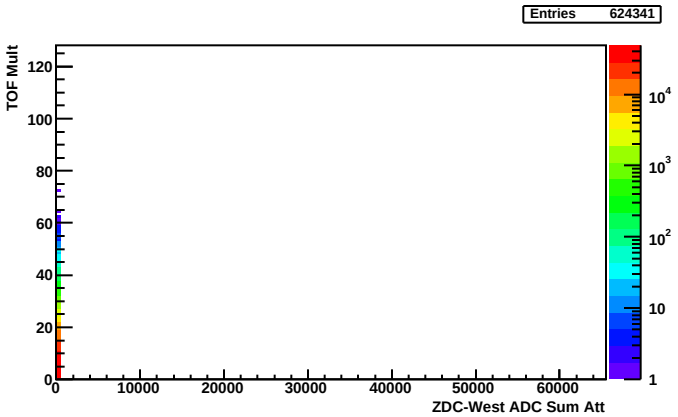

Entries 624341
TOF Mult
BBC-S-East ADC Sum

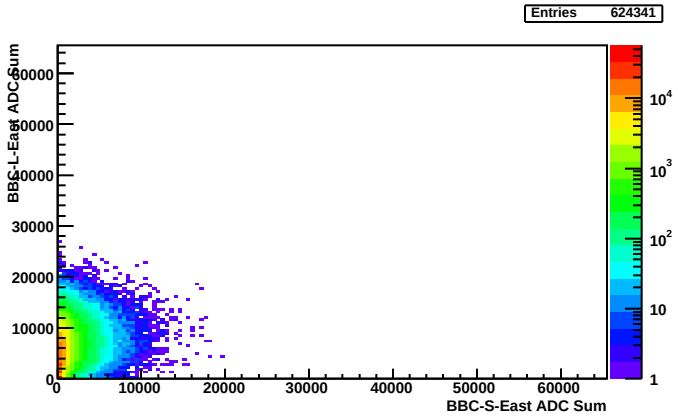

Entries 624341
TOF Mult
BBC-S-West ADC Sum

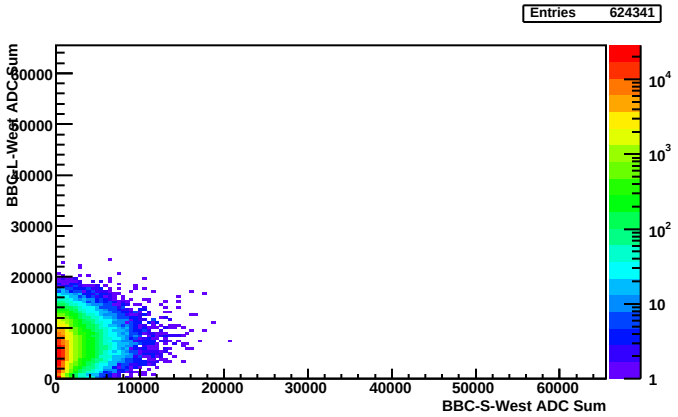

Entries 624341
TOF Mult
VPD-East ADC Sum

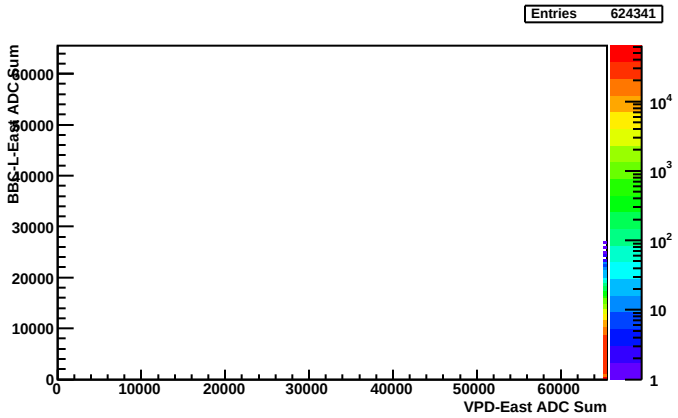

Entries 624341
TOF Mult
VPD-West ADC Sum

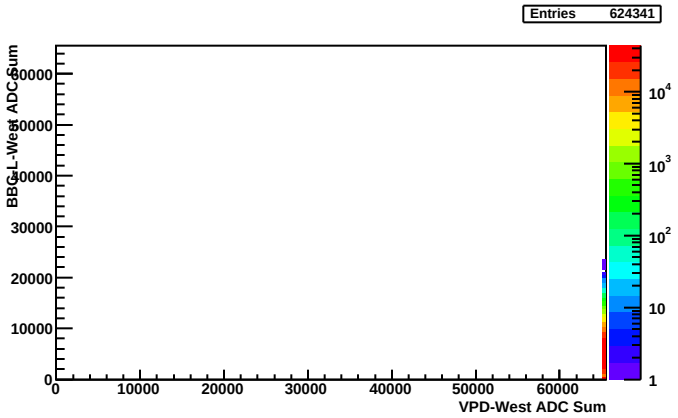

Entries 624341
TOF Mult
ZDC-East ADC Sum Att

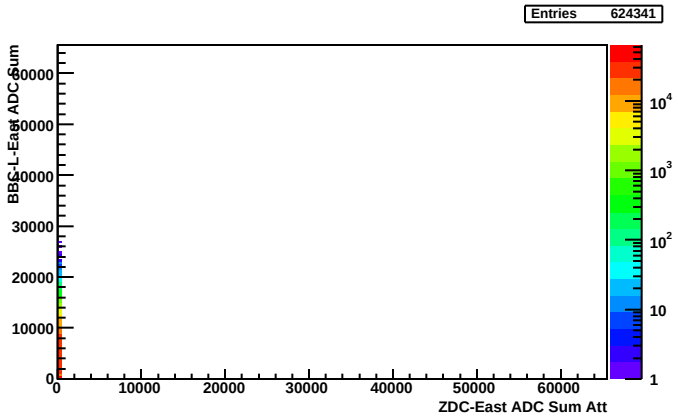

Entries 624341
TOF Mult
ZDC-West ADC Sum Att

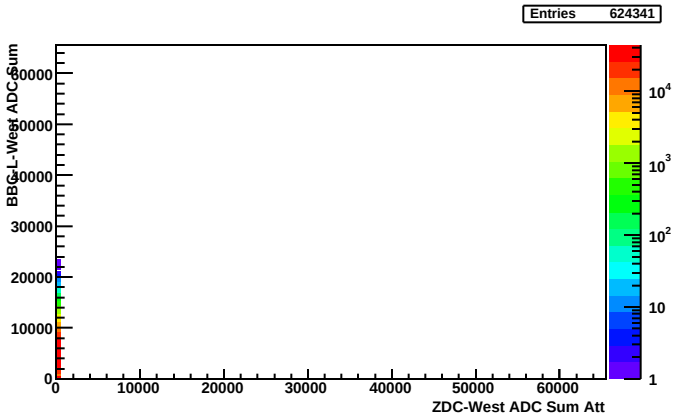

Entries 624341
BBC-L-East ADC Sum
BBC-S-East ADC Sum

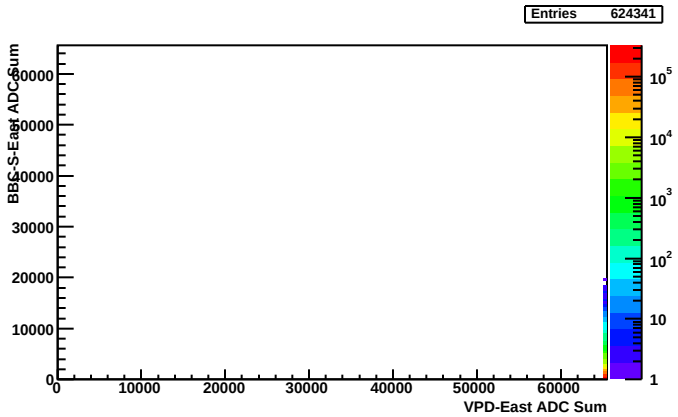

Entries 624341
BBC-L-West ADC Sum
BBC-S-West ADC Sum

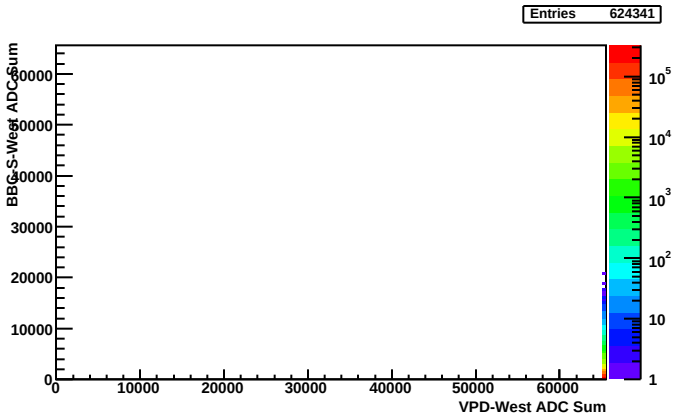

Entries 624341
BBC-L-East ADC Sum
VPD-East ADC Sum

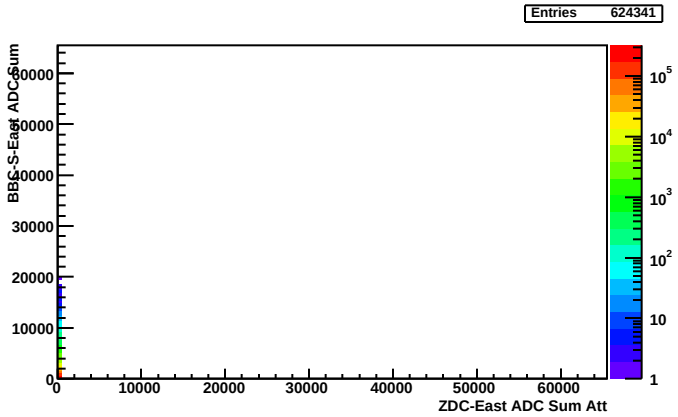

Entries 624341
BBC-L-West ADC Sum
VPD-West ADC Sum

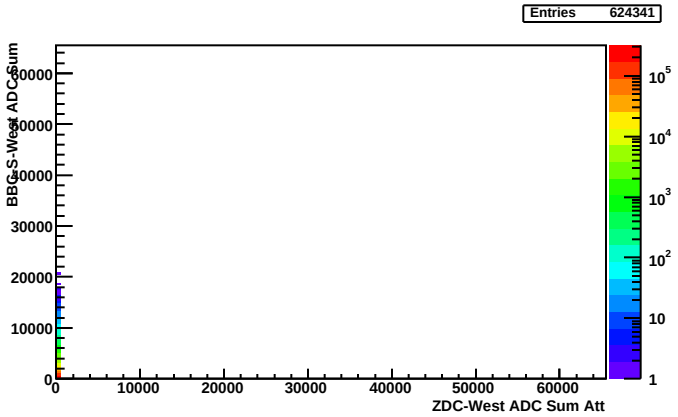

Entries 624341
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

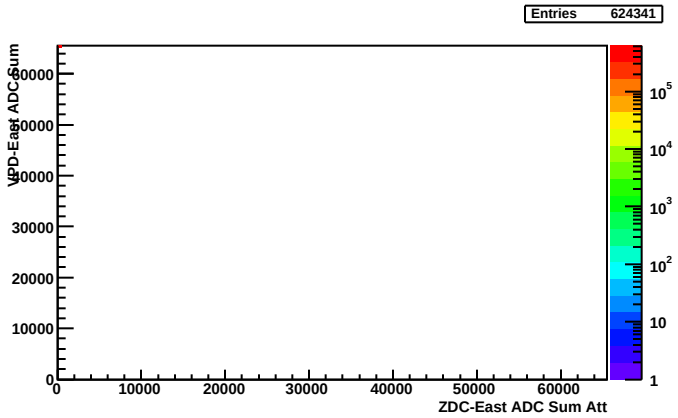

Entries 624341
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

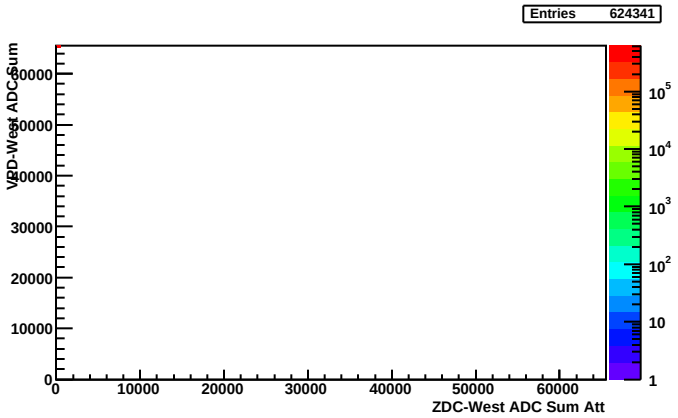

Entries 624341
BBC-S-East ADC Sum
VPD-East ADC Sum

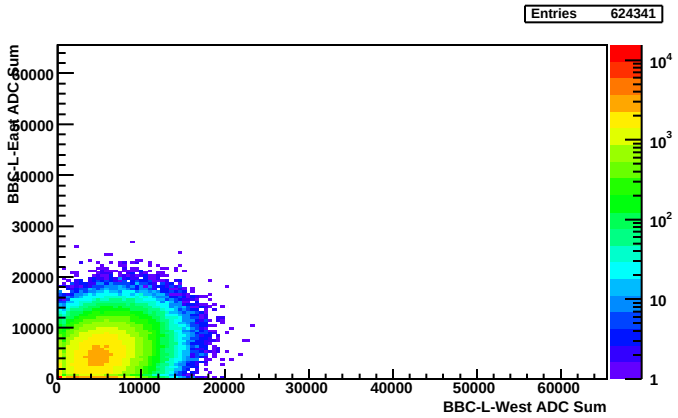

Entries 624341
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 624341
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 624341
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 624341
VPD-East ADC Sum
ZDC-East ADC Sum Att


Entries 624341
VPD-West ADC Sum
ZDC-West ADC Sum Att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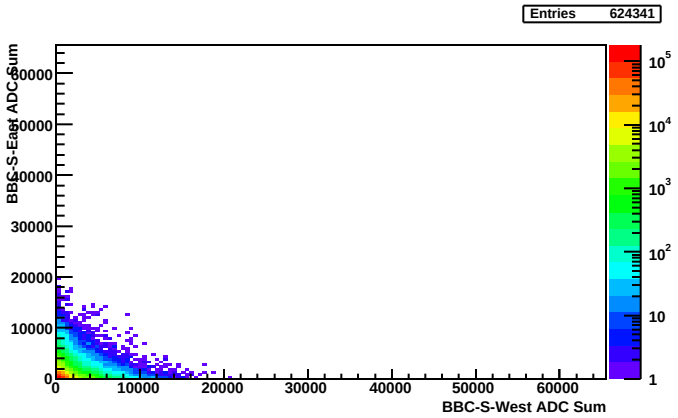
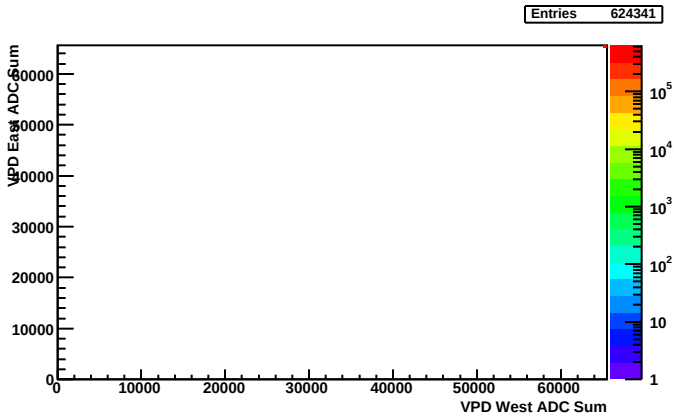
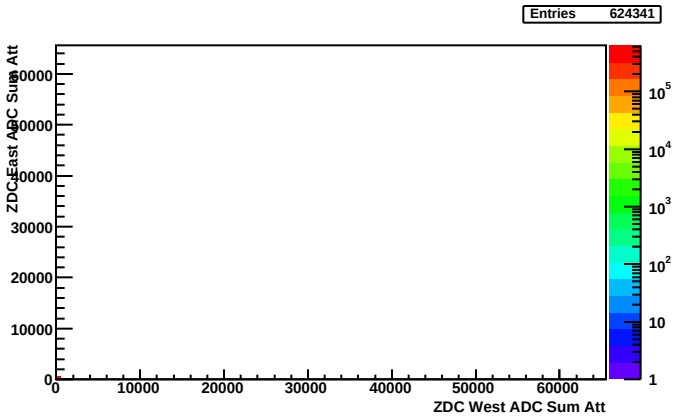
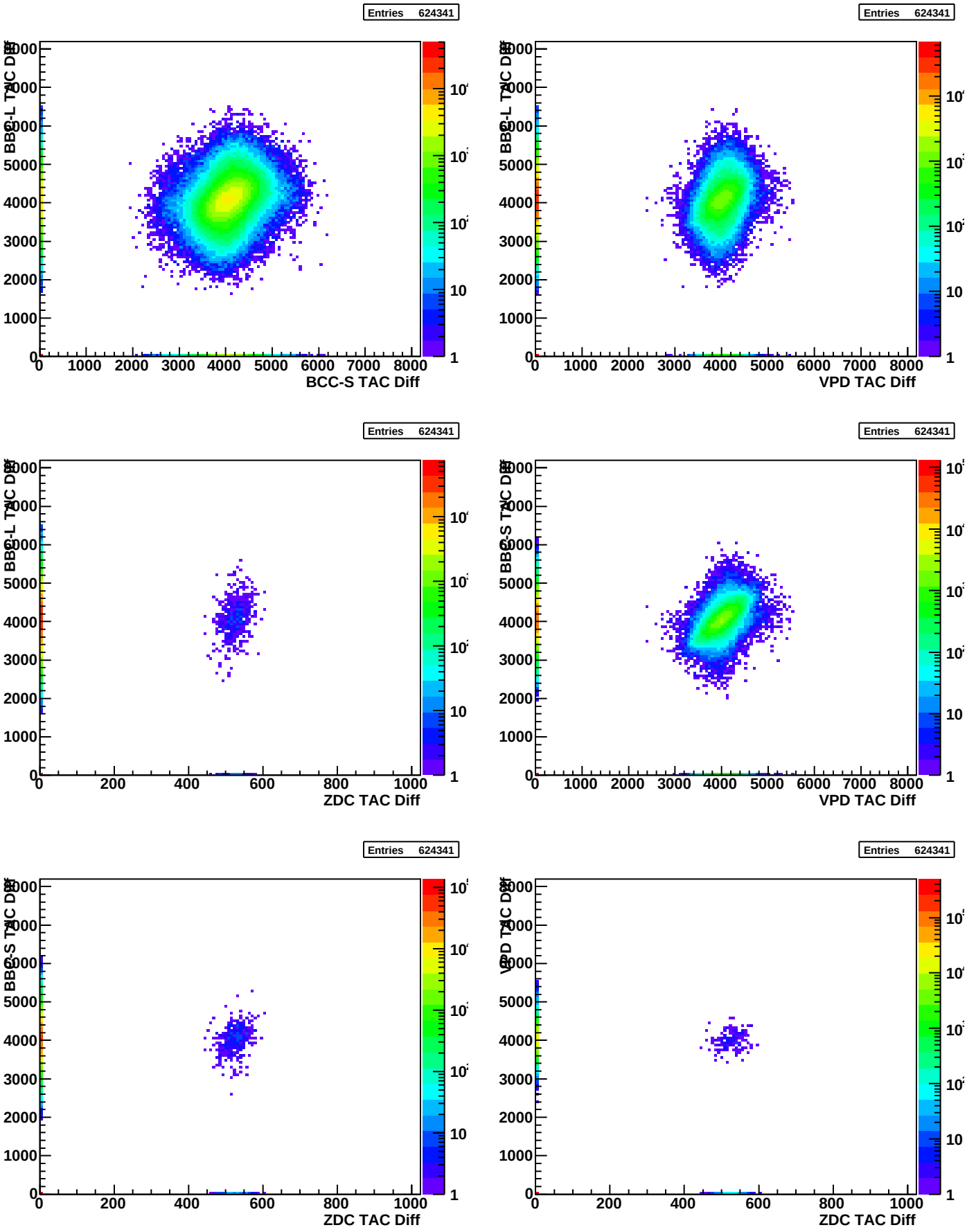
BBC-L-East ADC Sum
BBC-L-West ADC Sum


Entries 624341
BBC-S-East ADC Sum
BBC-S-West ADC Sum


Entries 624341
VPD East ADC Sum
VPD West ADC Sum


Entries 624341
ZDC East ADC Sum Att
ZDC West ADC Sum Att


Entries 624341
BBC-L TAC Diff
BCC-S TAC Diff
Entries 624341
BBC-L TAC Diff
VPD TAC Diff
Entries 624341
BBC-L TAC Diff
ZDC TAC Diff
Entries 624341
BBC-S TAC Diff
VPD TAC Diff
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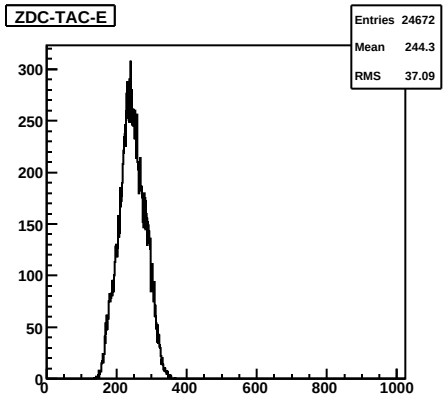
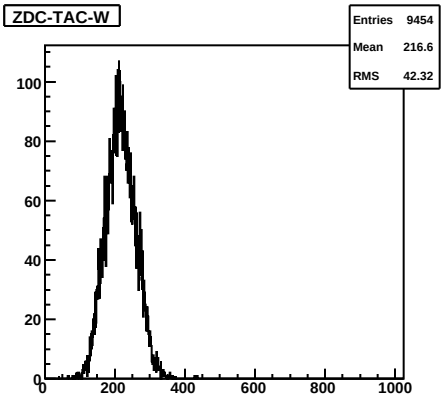
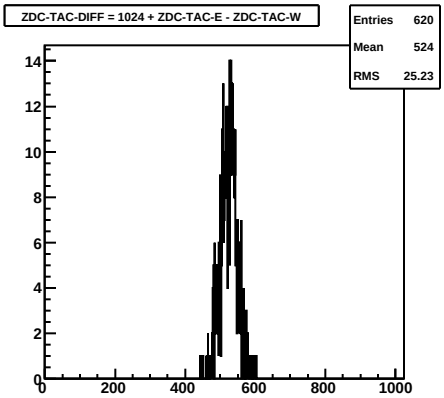
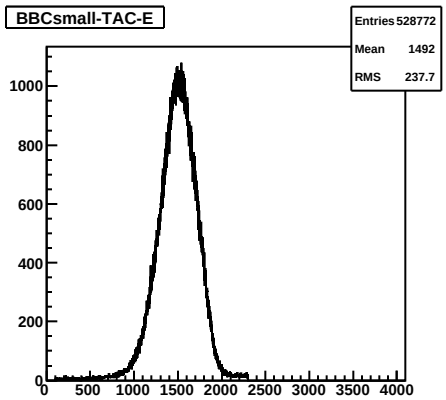
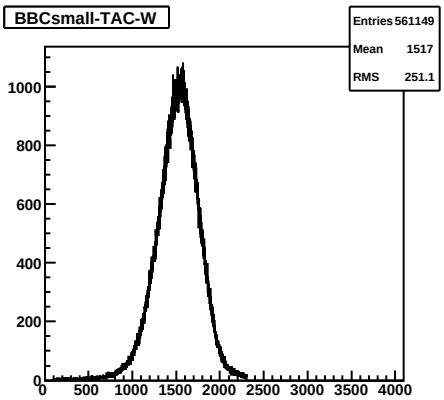
BBC-S TAC Diff
ZDC TAC Diff
Entries 624341
VPD TAC Diff
ZDC TAC Diff

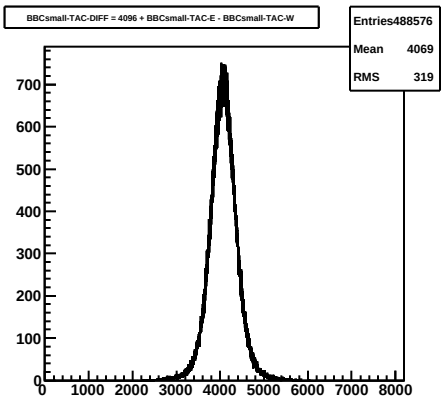

ZDC-TAC-E
Entries 24672
Mean 244.3
RMS 37.09

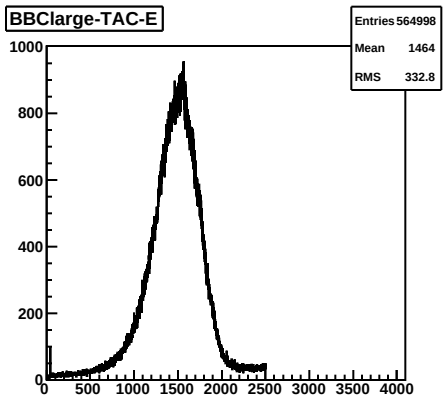

ZDC-TAC-W
Entries 9454
Mean 216.6
RMS 42.32

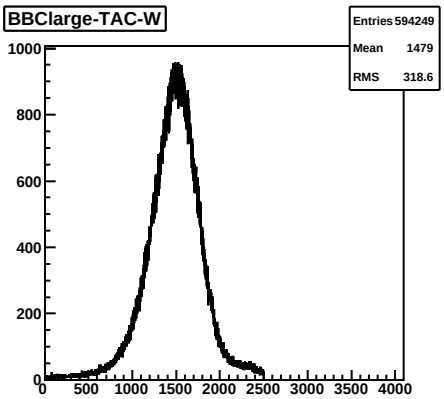

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 620
Mean 524
RMS 25.23

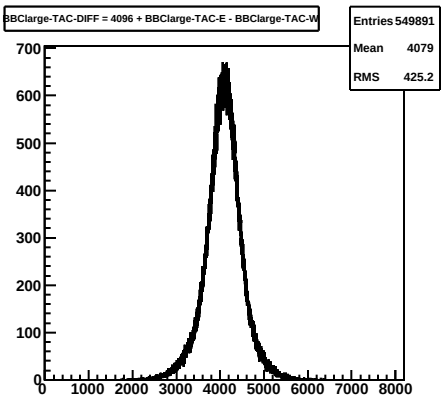

BBCsmall-TAC-E
Entries 528772
Mean 1492
RMS 237.7

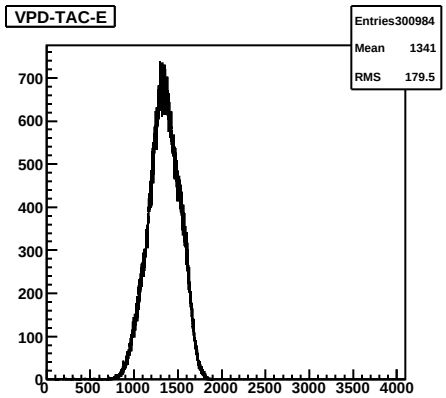

BBCsmall-TAC-W
Entries 561149
Mean 1517
RMS 251.1

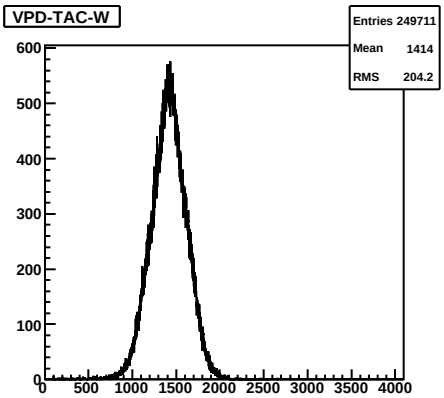

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries488576
Mean 4069
RMS 319

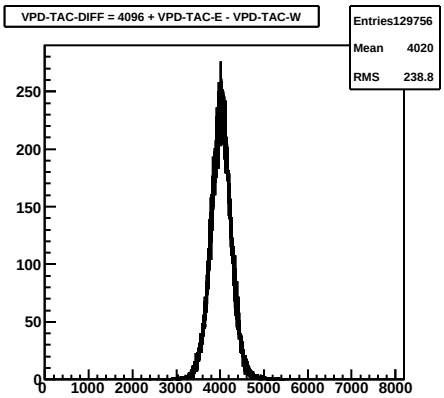

BBClarge-TAC-E
Entries 564998
Mean 1464
RMS 332.8

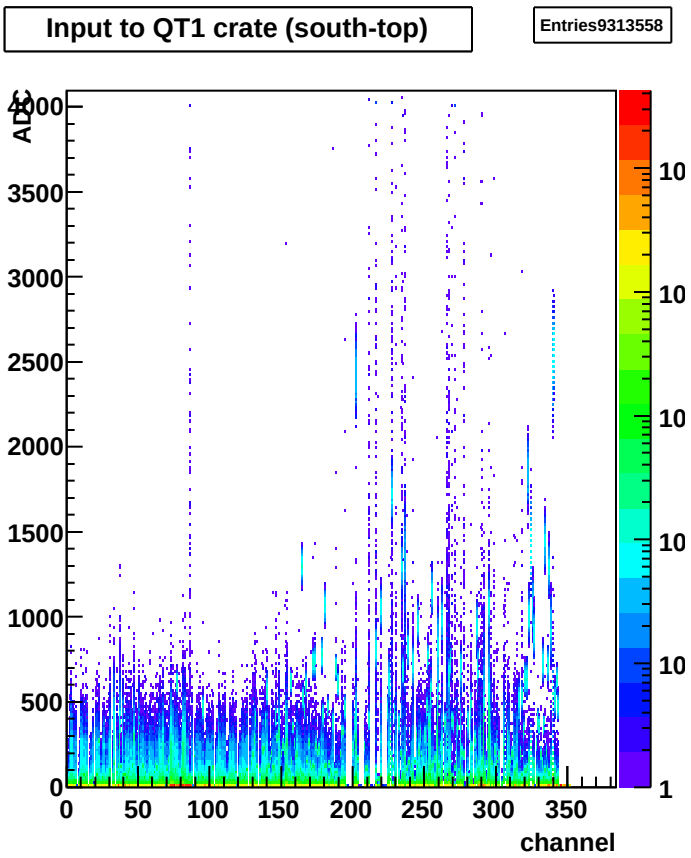

BBClarge-TAC-W
Entries 594249
Mean 1479
RMS 318.6

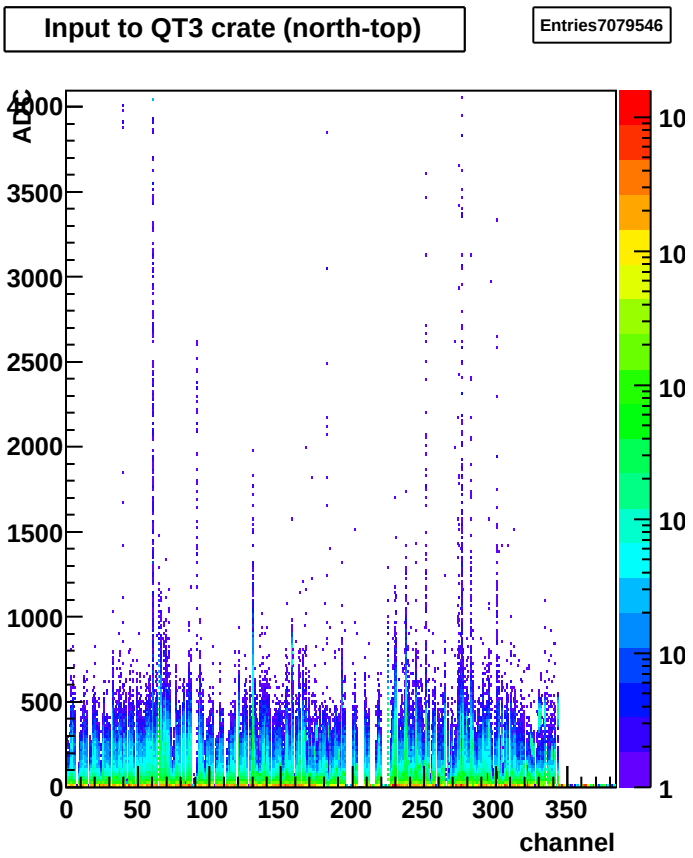

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 549891
Mean 4079
RMS 425.2

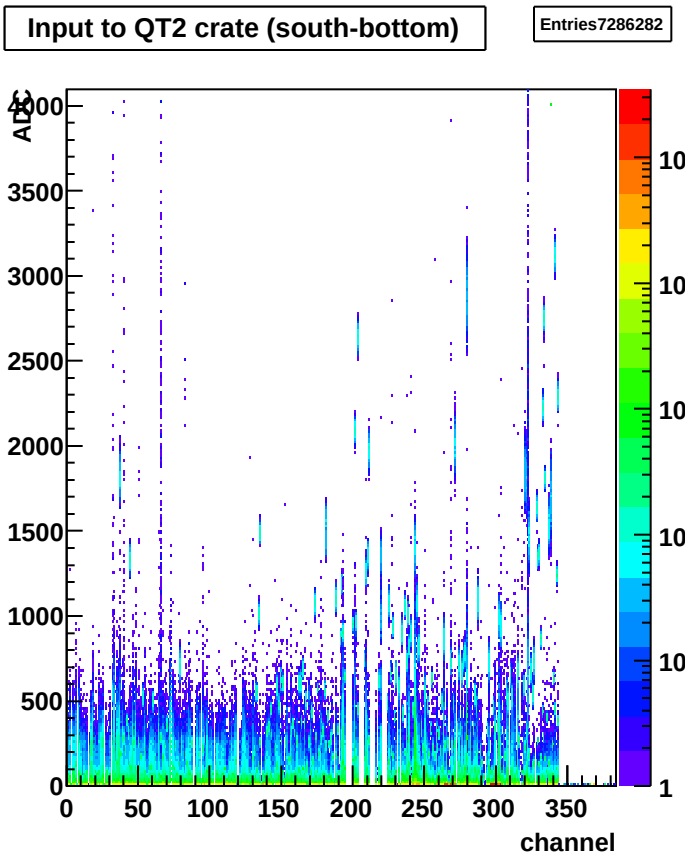

VPD-TAC-E
Entries300984
Mean 1341
RMS 179.5

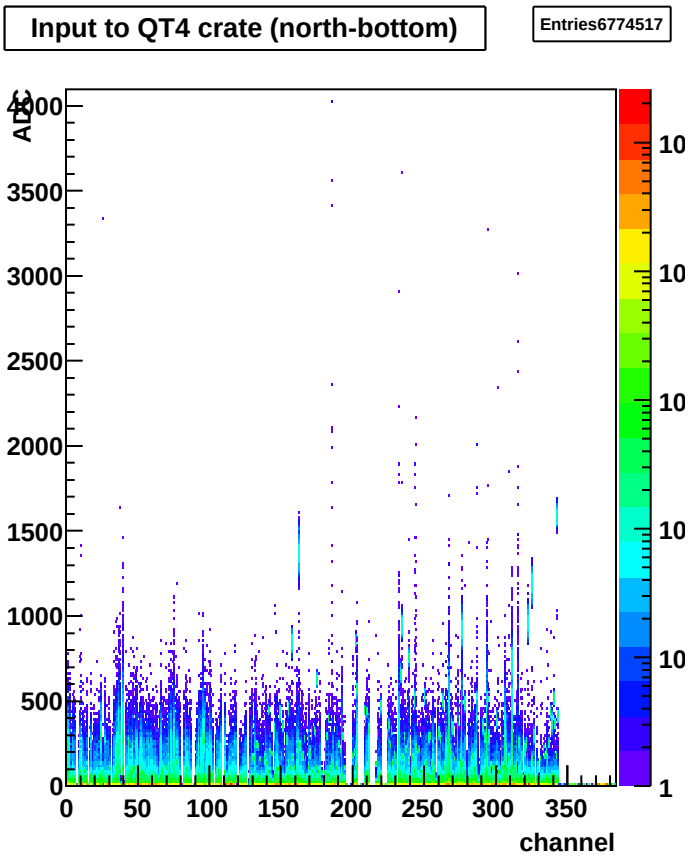

VPD-TAC-W
Entries 249711
Mean 1414
RMS 204.2

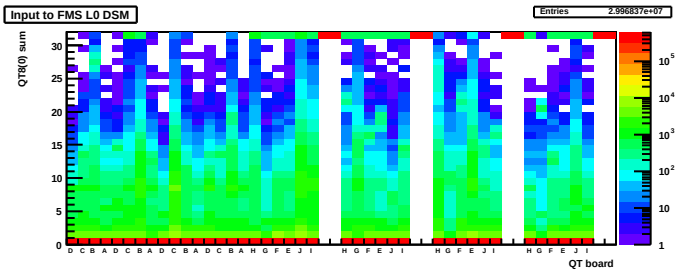

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries129756
Mean 4020
RMS 238.8

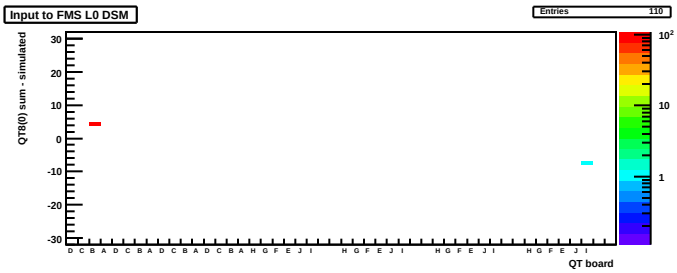

Input to QT1 crate (south-top)
Entries9313558
ADC
channel

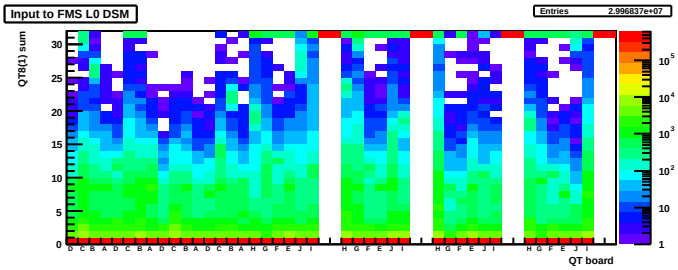

Input to QT3 crate (north-top)
Entries7079546
ADC
channel

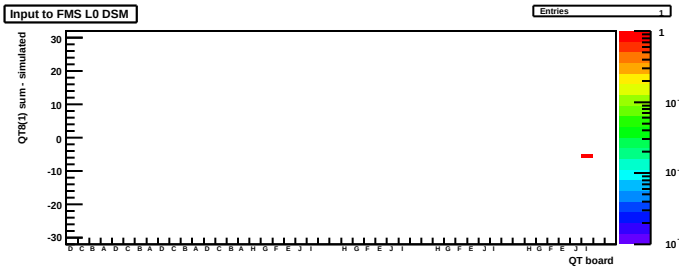

Input to QT2 crate (south-bottom)
Entries7286282
ADC
channel

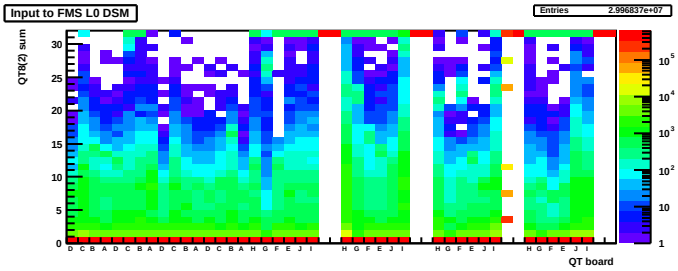

Input to QT4 crate (north-bottom)
Entries6774517
ADC
channel

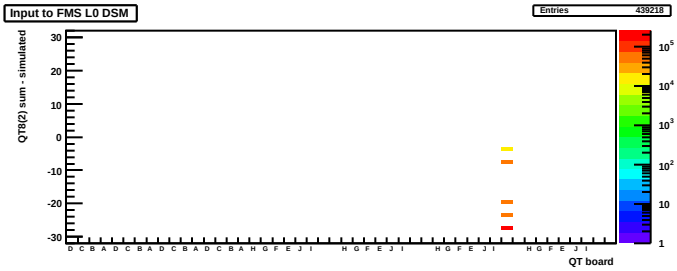

Input to FMS L0 DSM
Entries 2.996837e+07
QT8(0) sum
QT board

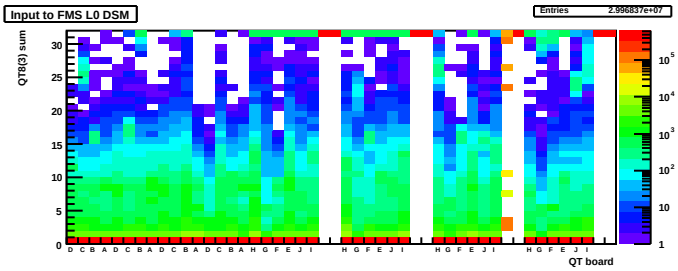

Input to FMS L0 DSM
Entries 110
QT8(0) sum - simulated
QT board

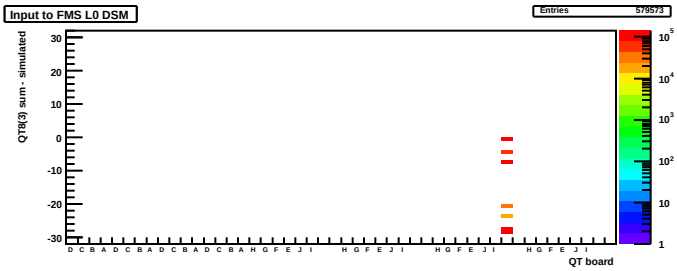

Input to FMS L0 DSM
Entries 2.996837e+07
QT8(1) sum
QT board

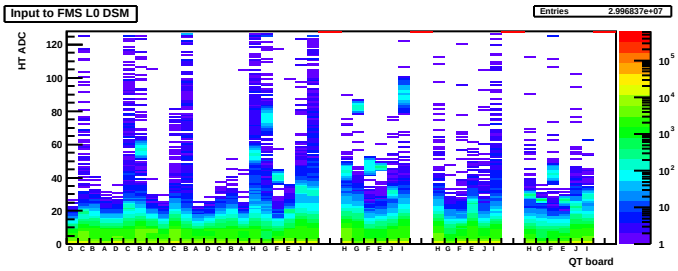

Input to FMS L0 DSM
Entries 1
QT8(1) sum - simulated
QT board

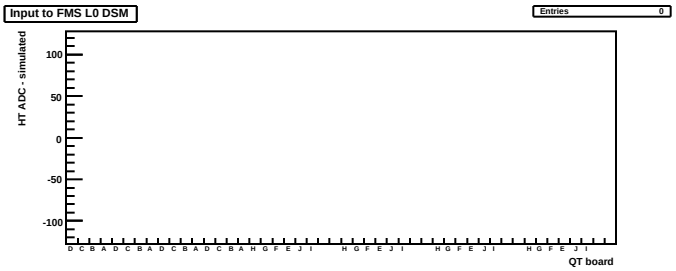

Input to FMS L0 DSM
Entries 2.996837e+07
QT8(2) sum
QT board

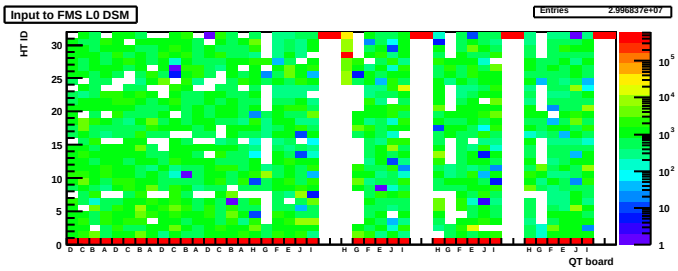

Input to FMS L0 DSM
Entries 439218
QT8(2) sum - simulated
QT board

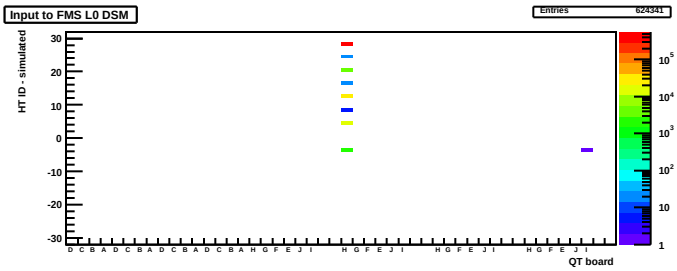

Input to FMS L0 DSM
Entries 2.996837e+07
QT8(3) sum
QT board

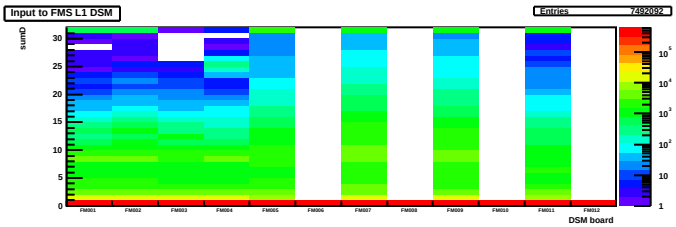

Input to FMS L0 DSM
Entries 579573
QT8(3) sum - simulated
QT board

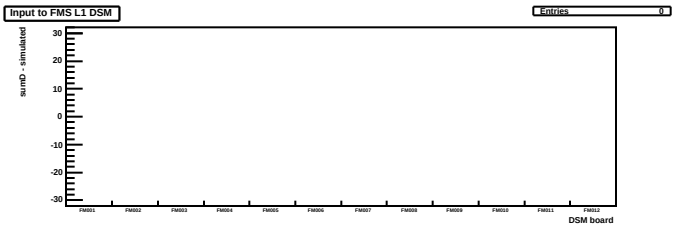

Input to FMS L0 DSM
Entries 2.996837e+07
HT ADC
QT board

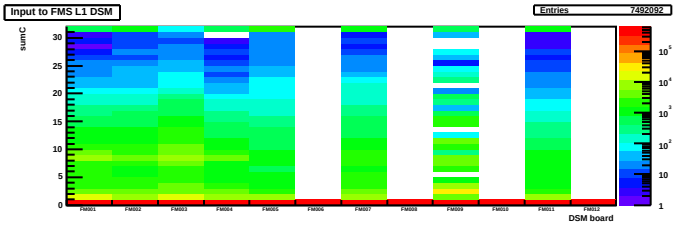

Input to FMS L0 DSM
Entries 0
HT ADC - simulated
QT board

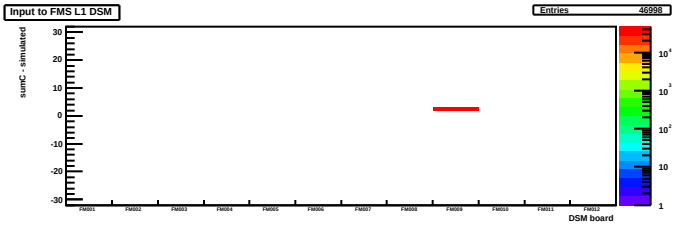

Input to FMS L0 DSM
Entries 2.996837e+07
HT ID
QT board

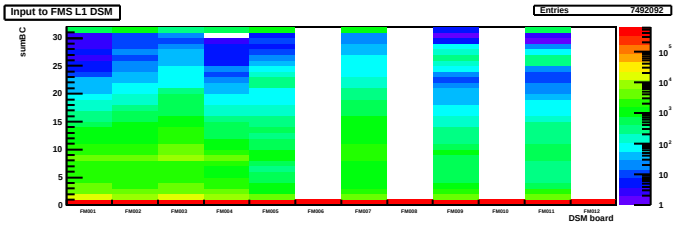

Input to FMS L0 DSM
Entries 624341
HT ID - simulated
QT board

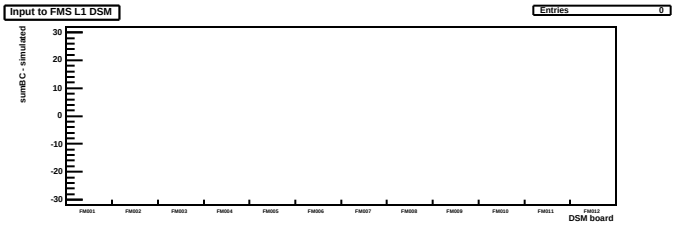

Input to FMS L1 DSM
Entries 7492092
sumD
DSM board

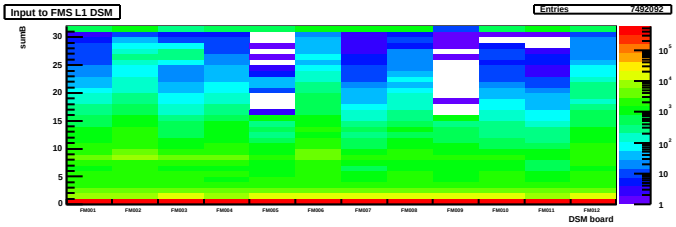

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

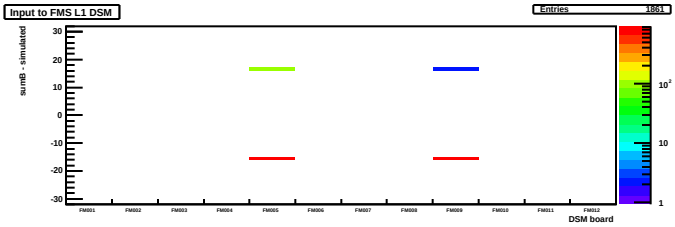

Input to FMS L1 DSM
Entries 7492092
sumC
DSM board

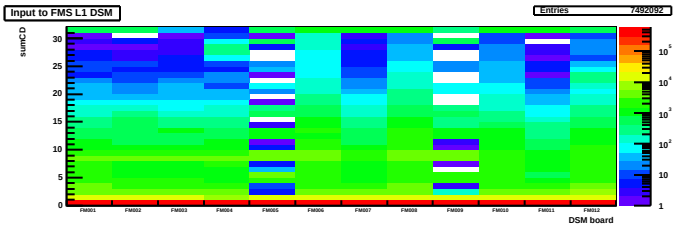

Input to FMS L1 DSM
Entries 46998
sumC - simulated
DSM board

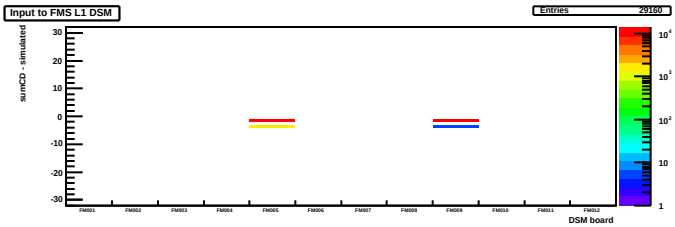

Input to FMS L1 DSM
Entries 7492092
sumBC
DSM board

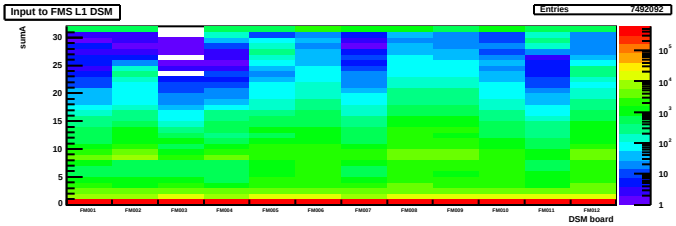

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

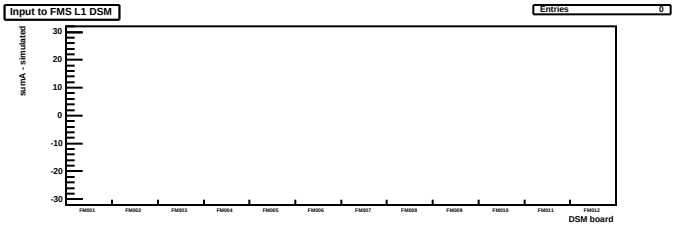

Input to FMS L1 DSM
Entries 7492092
sumB
DSM board

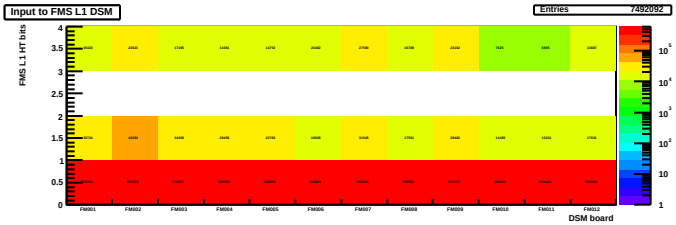

Input to FMS L1 DSM
Entries 1861
sumB - simulated
DSM board

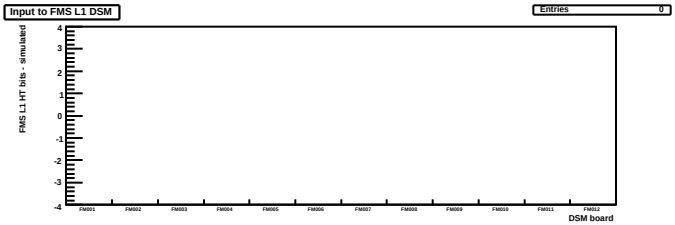

Input to FMS L1 DSM
Entries 7492092
sumCD
DSM board

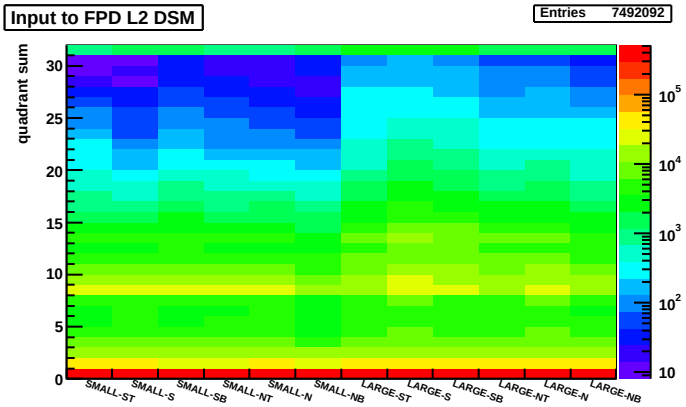

Input to FMS L1 DSM
Entries 29160
sumCD - simulated
DSM board

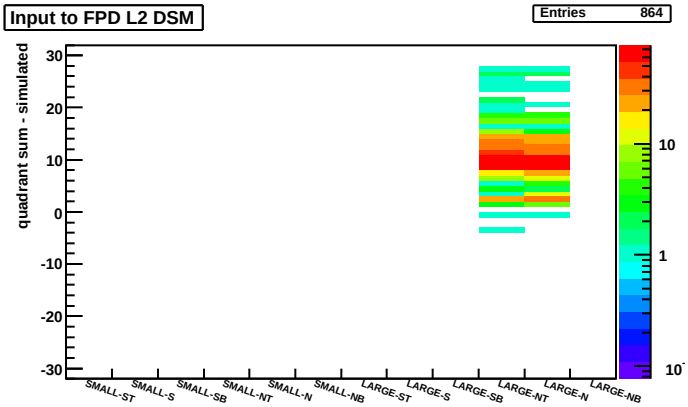

Input to FMS L1 DSM
Entries 7492092
sumA
DSM board

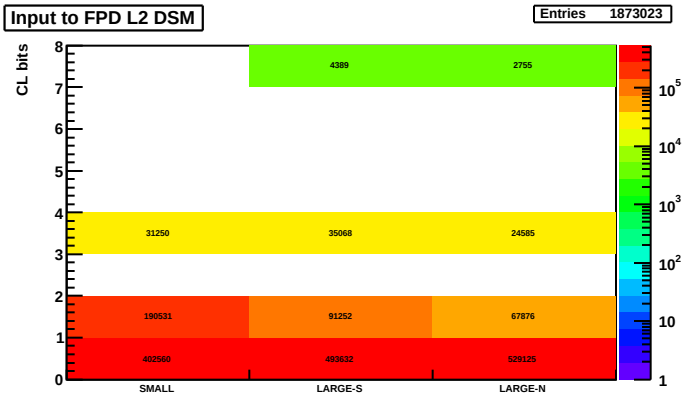

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

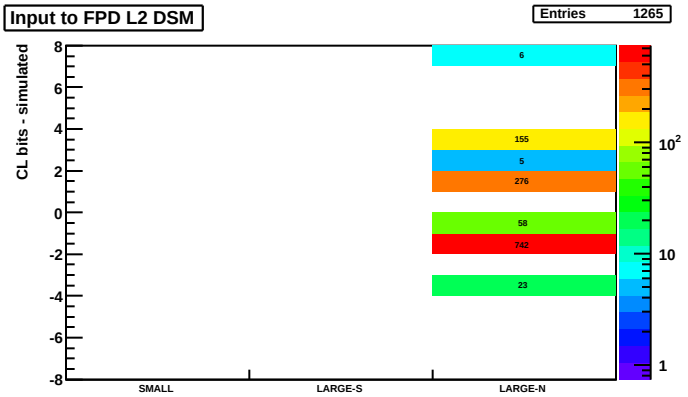

Input to FMS L1 DSM
Entries 7492092
FMS L1 HT bits
DSM board

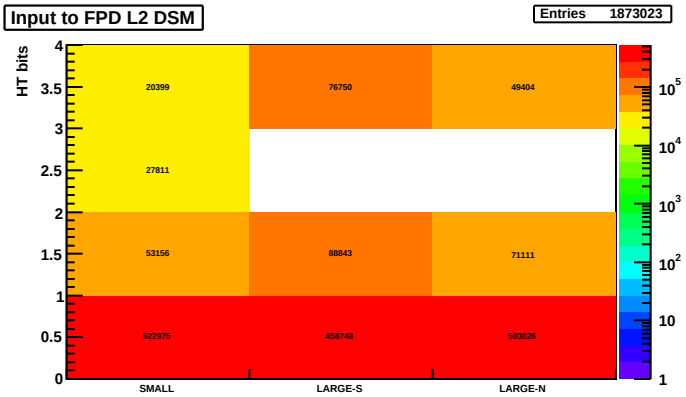

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

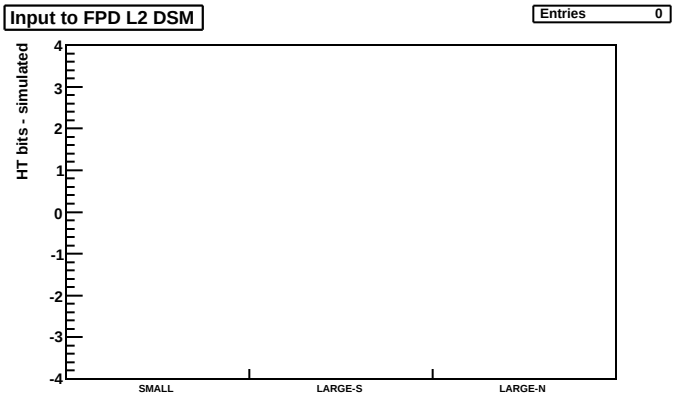

Input to FPD L2 DSM
Entries 7492092
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

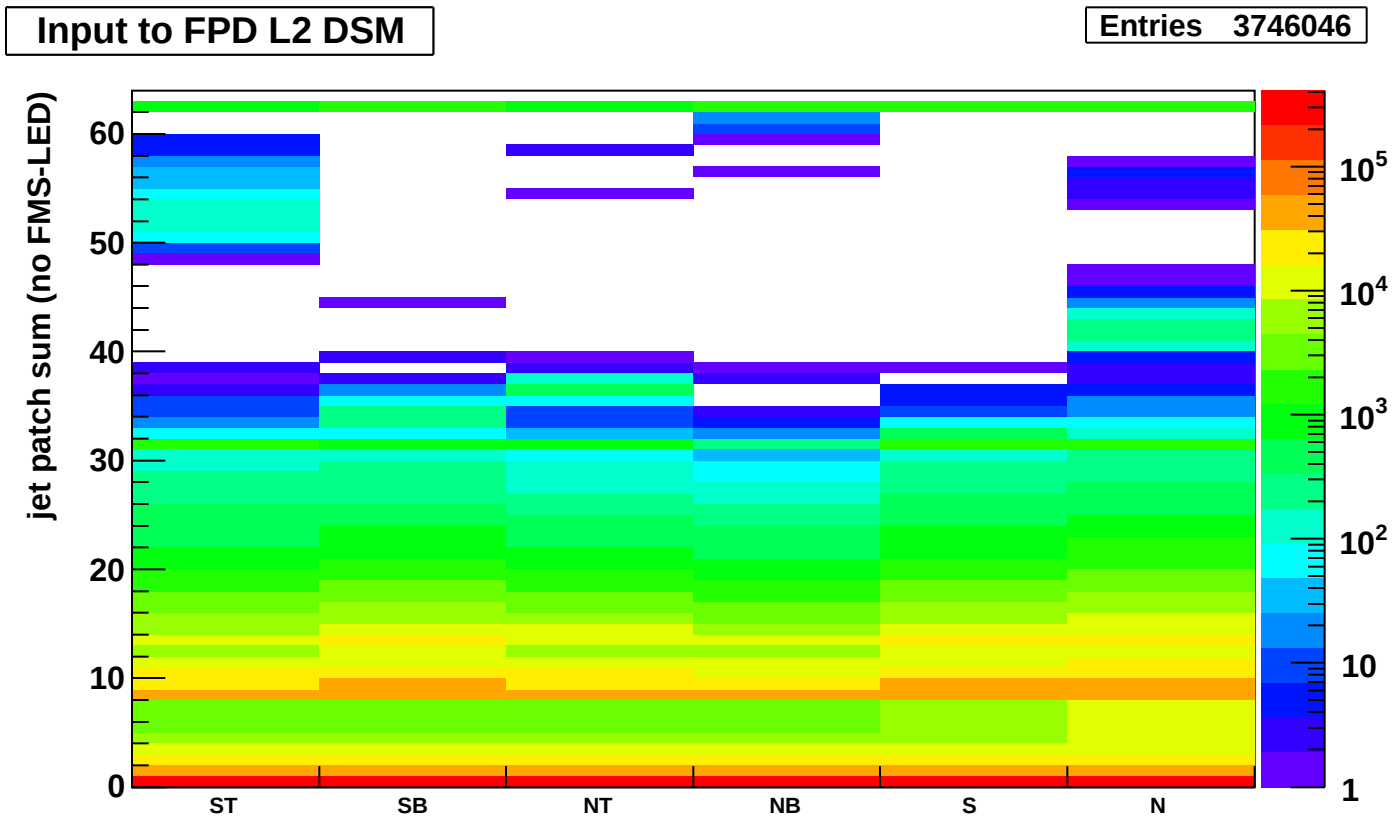

Input to FPD L2 DSM
Entries 864
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

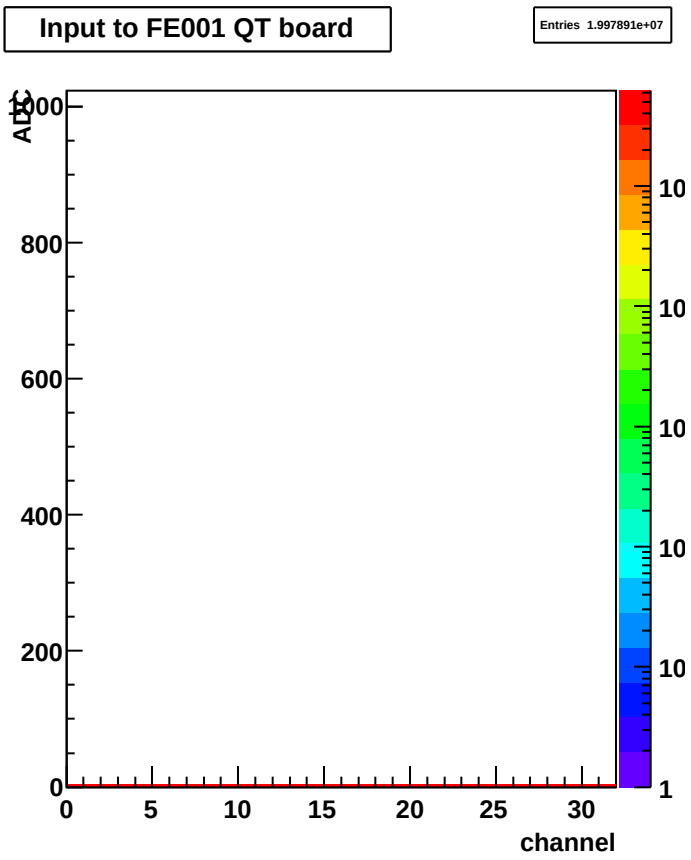

Input to FPD L2 DSM
Entries 1873023
CL bits
4389
2755
31250
35068
24585
190531
91252
67876
402560
493632
529125
SMALL
LARGE-S
LARGE-N

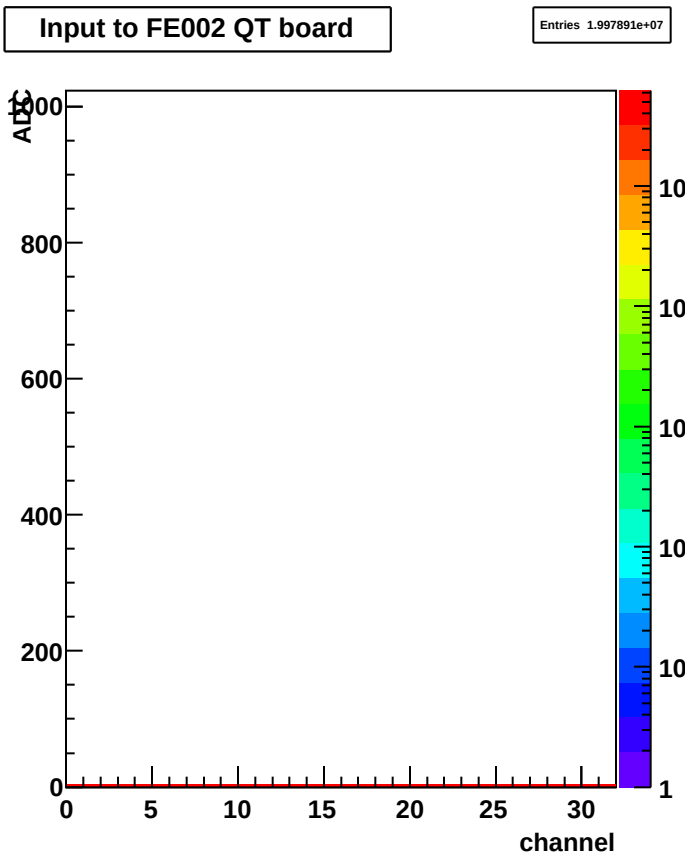

Input to FPD L2 DSM
Entries 1265
CL bits - simulated
6
155
5
276
58
742
23
SMALL
LARGE-S
LARGE-N

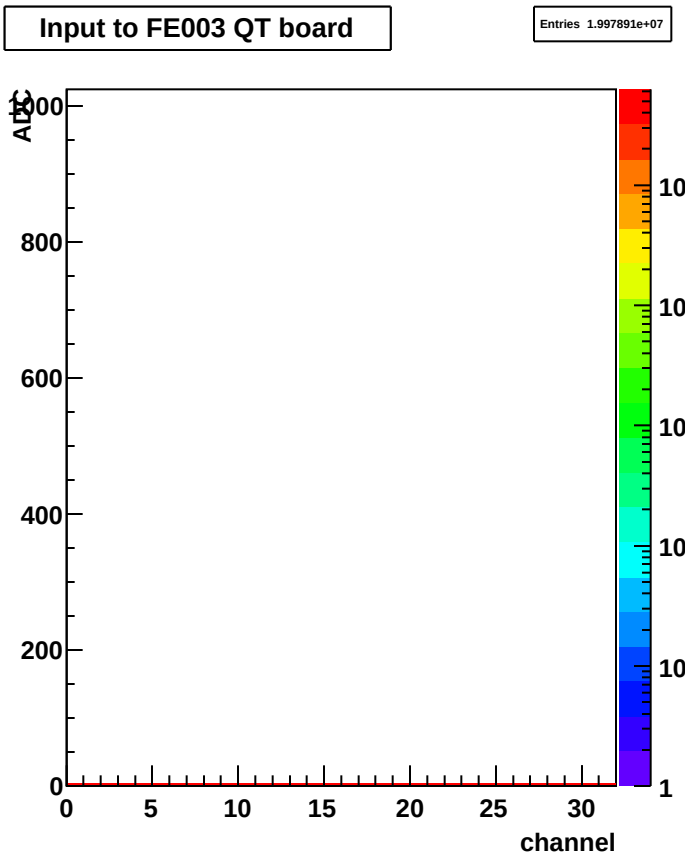

Input to FPD L2 DSM
Entries 1873023
HT bits
20399
76750
49404
27811
53156
88843
71111
522975
458748
503826
SMALL
LARGE-S
LARGE-N

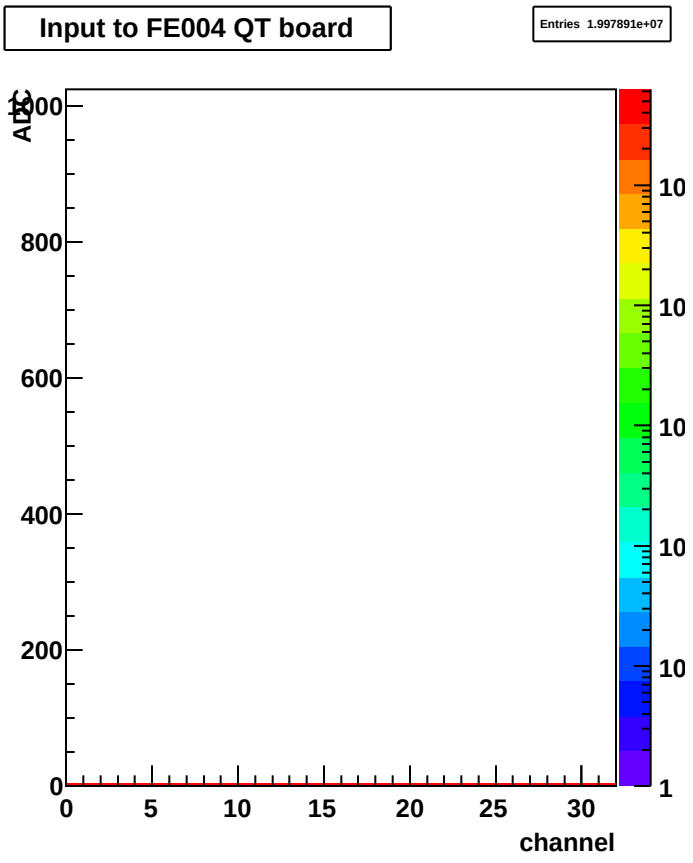

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

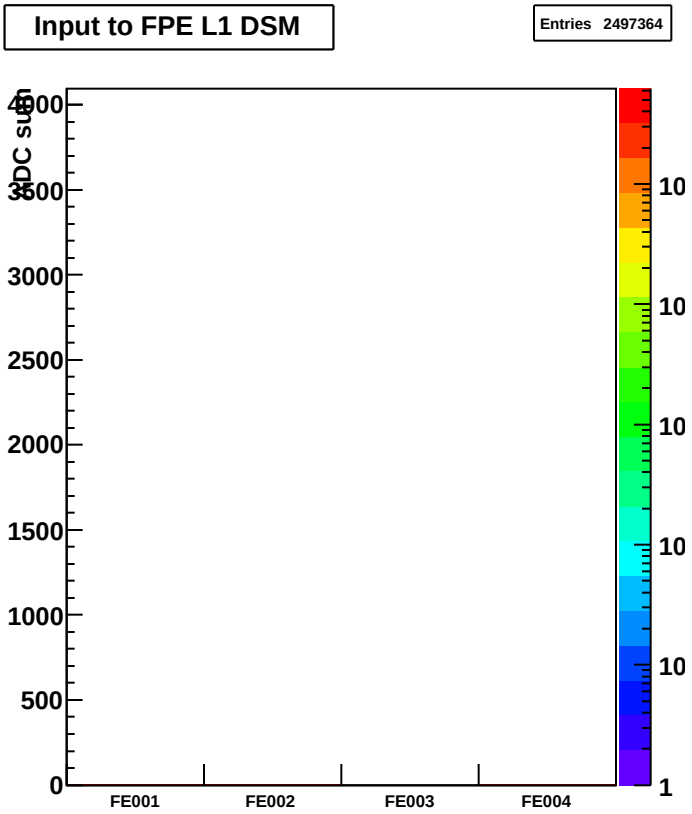

Input to FPD L2 DSM
Entries 3746046
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

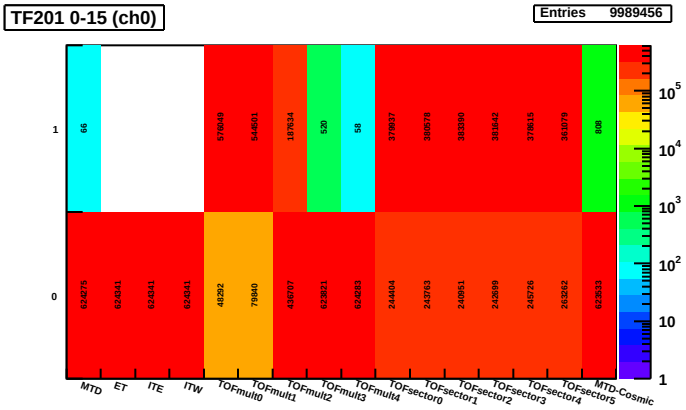

Input to FE001 QT board
Entries 1.997891e+07
ADC
channel

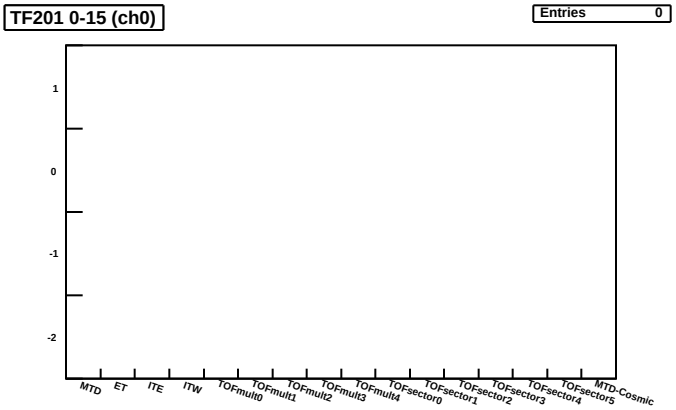

Input to FE002 QT board
Entries 1.997891e+07
ADC
channel

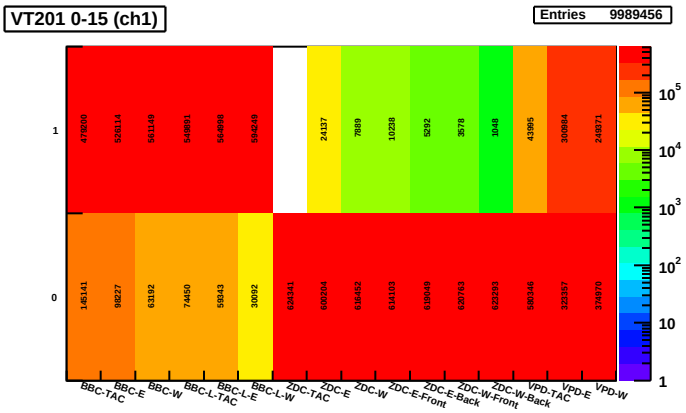

Input to FE003 QT board
Entries 1.997891e+07
ADC
channel

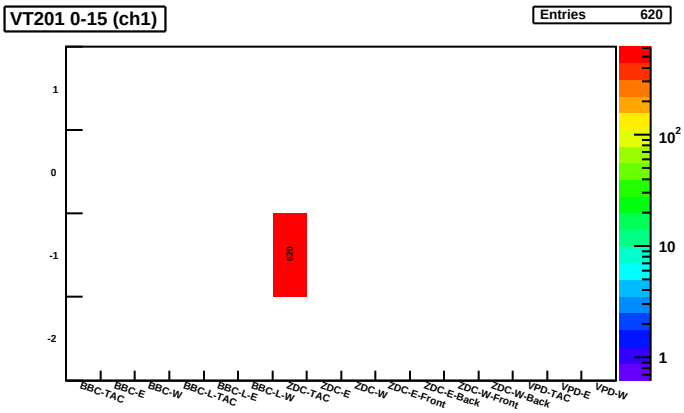

Input to FE004 QT board
Entries 1.997891e+07
ADC
channel


Input to FPE L1 DSM
Entries 2497364
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


TF201 0-15 (ch0)
Entries 9989456
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 0
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 9989456
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)
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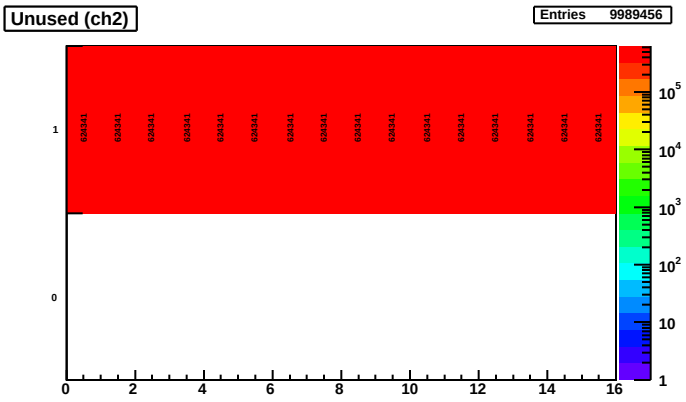
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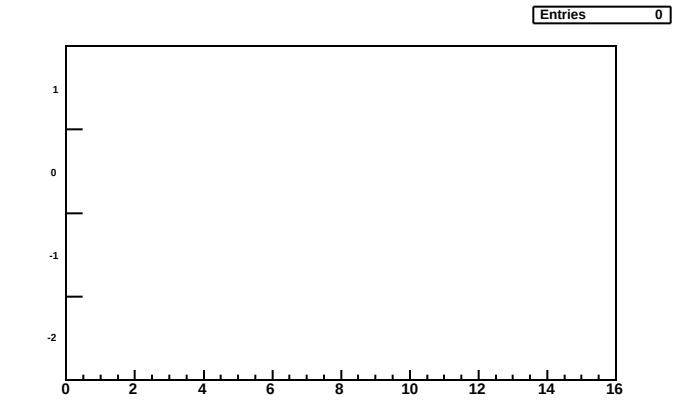
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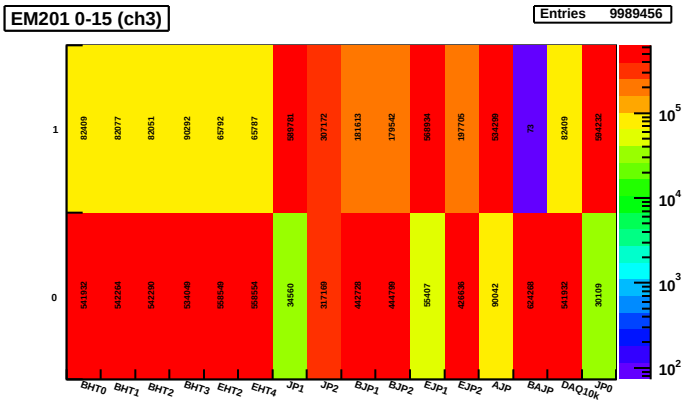
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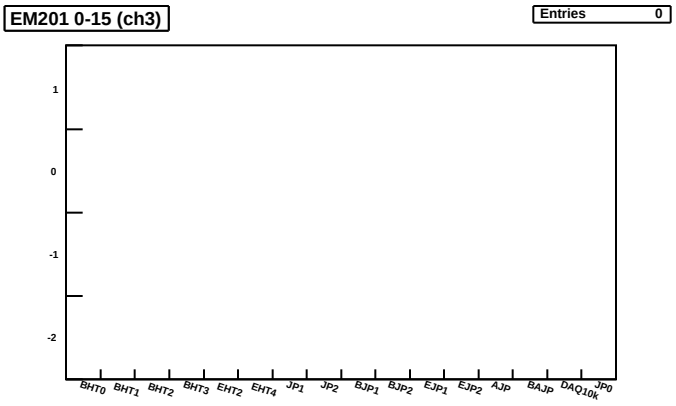
EM201 0-15 (ch3)
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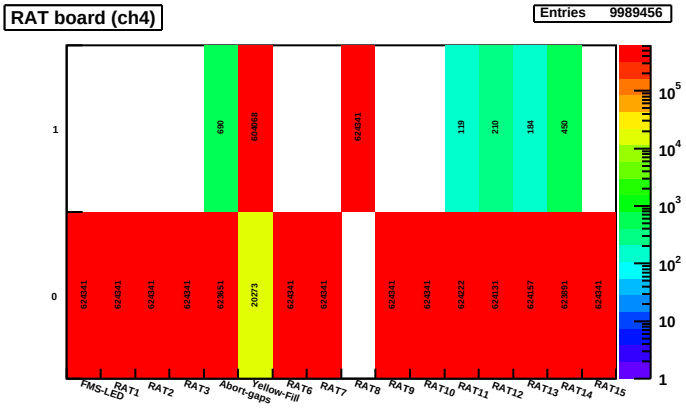
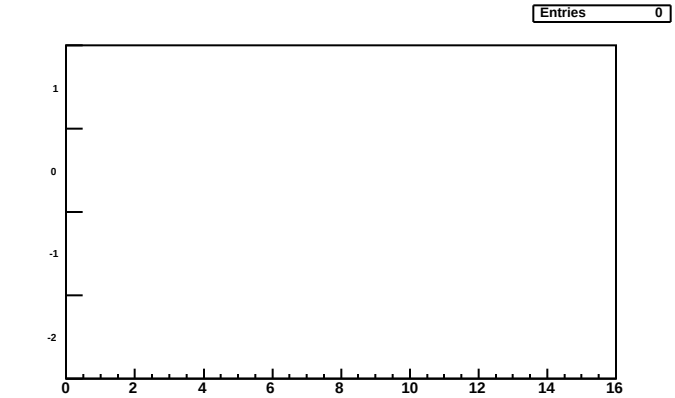
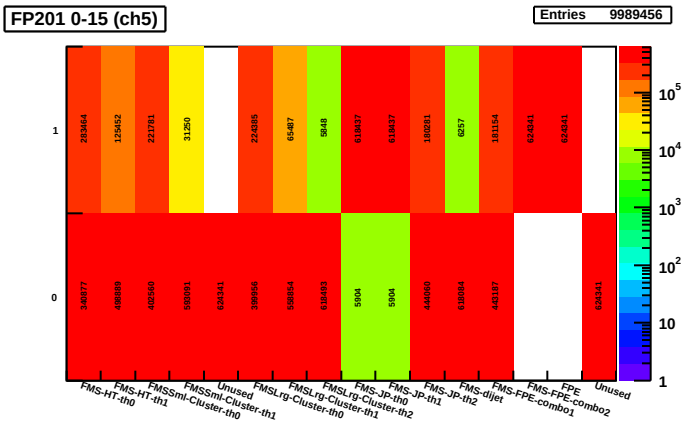
RAT board (ch4)

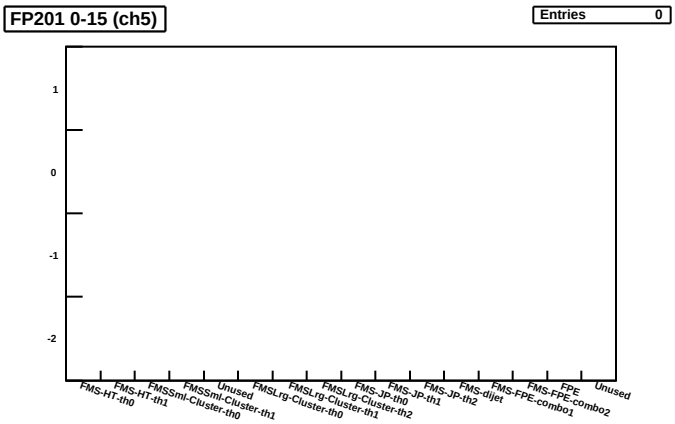




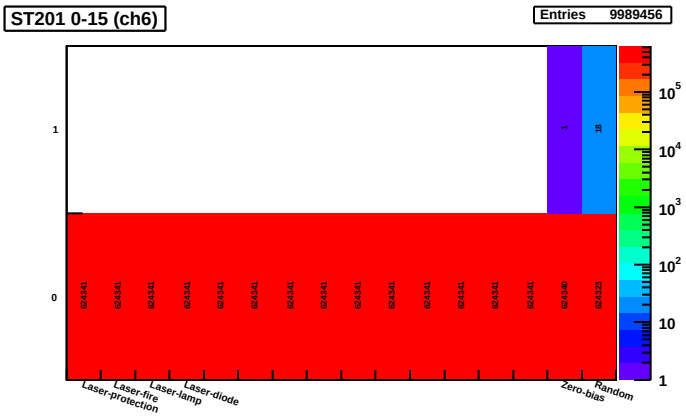
FP201 0-15 (ch5)

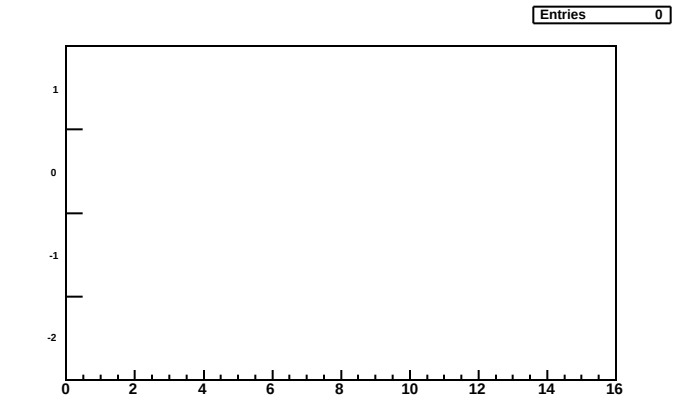
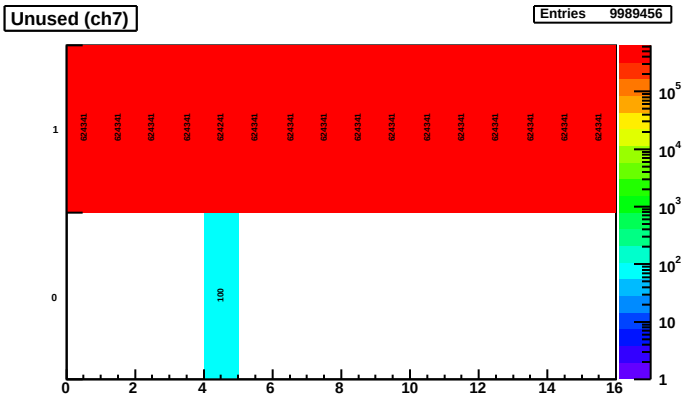
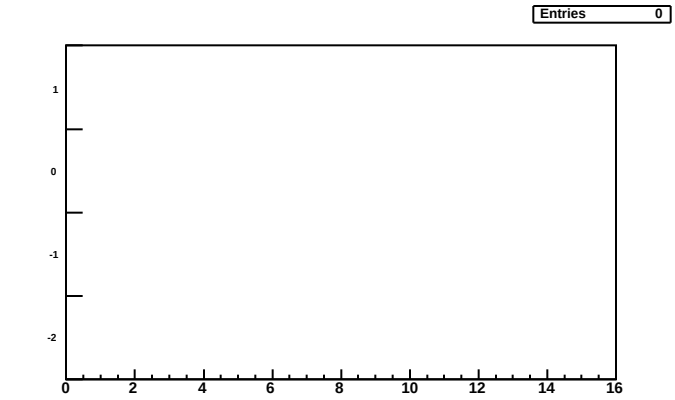


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)