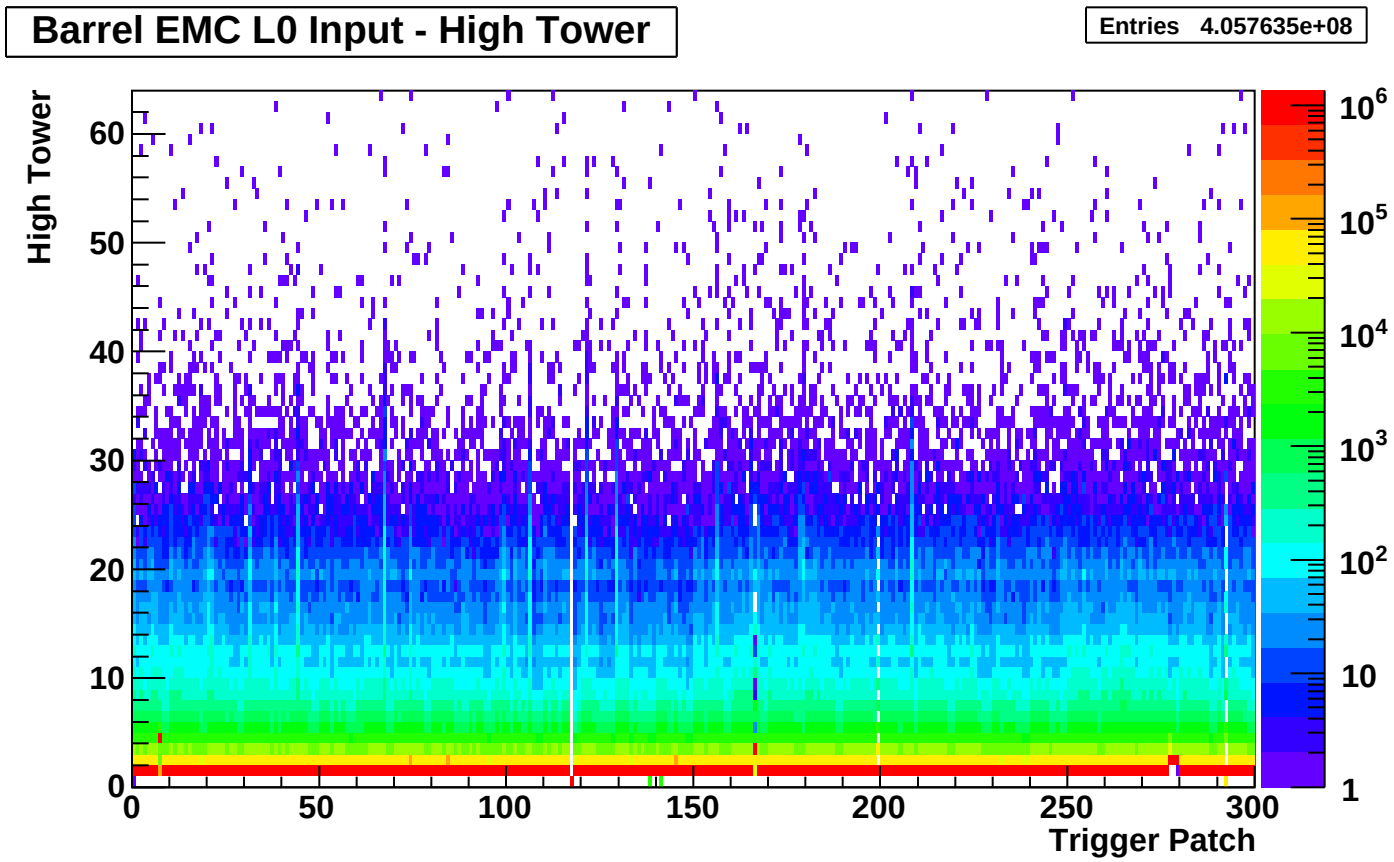
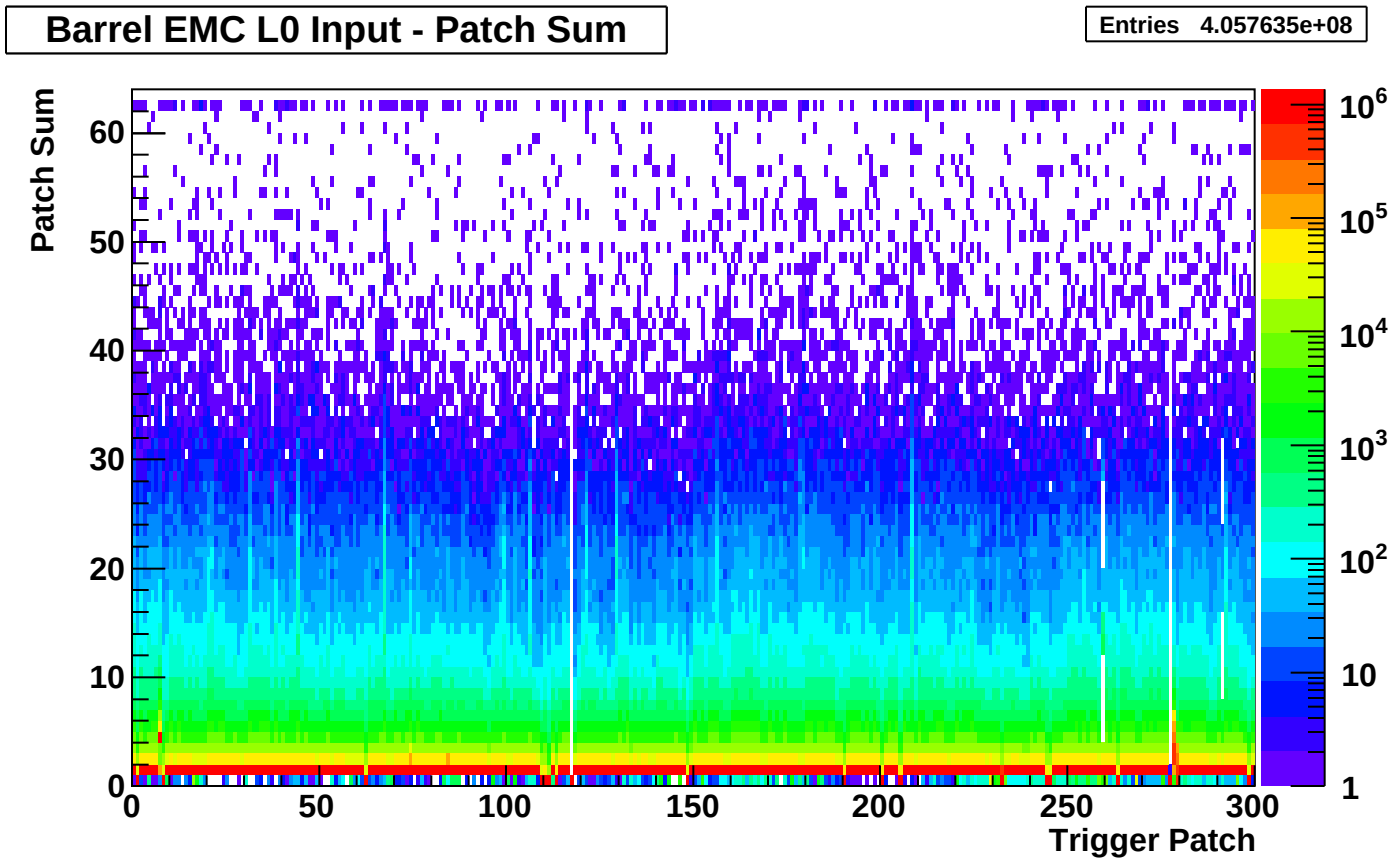
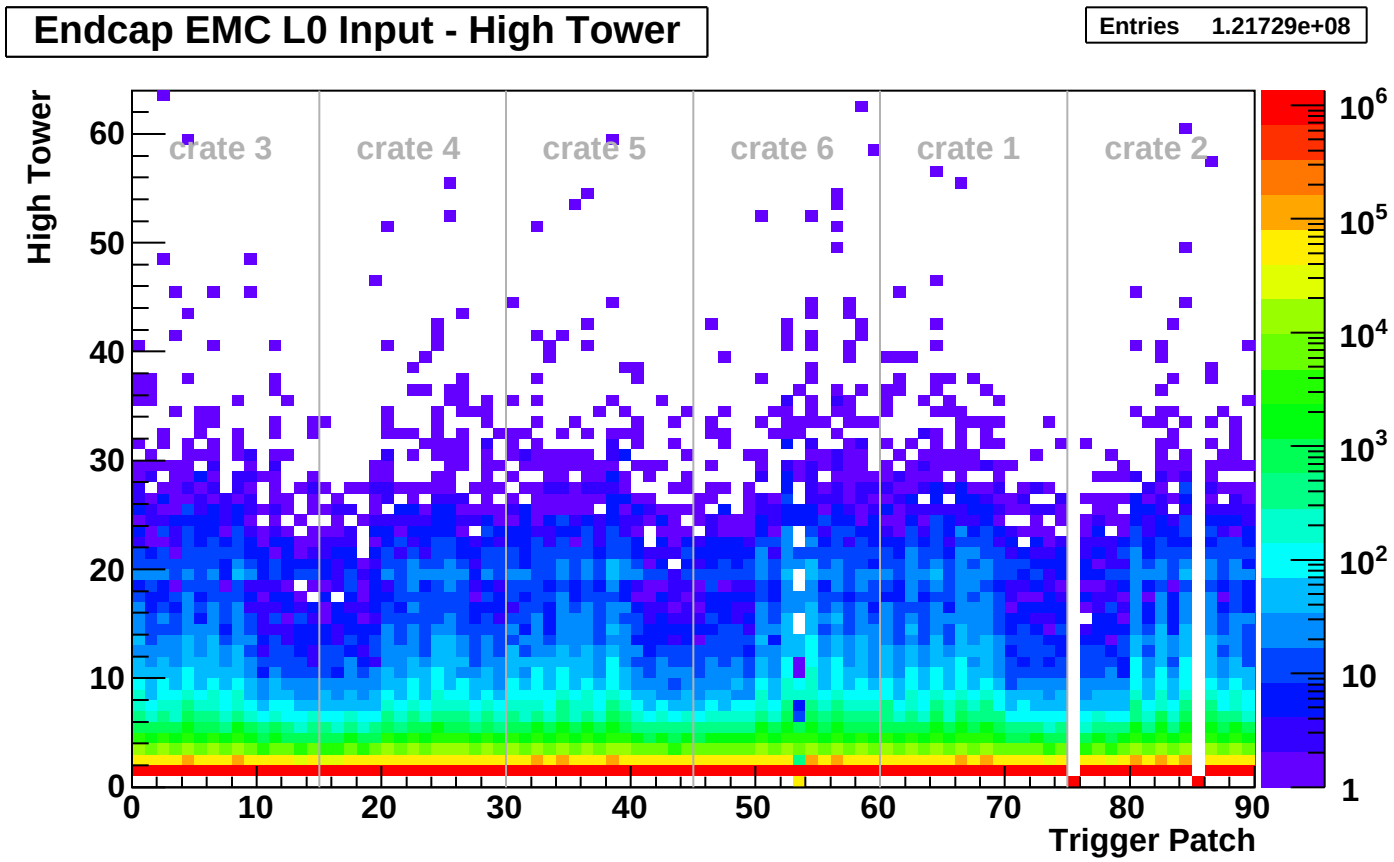
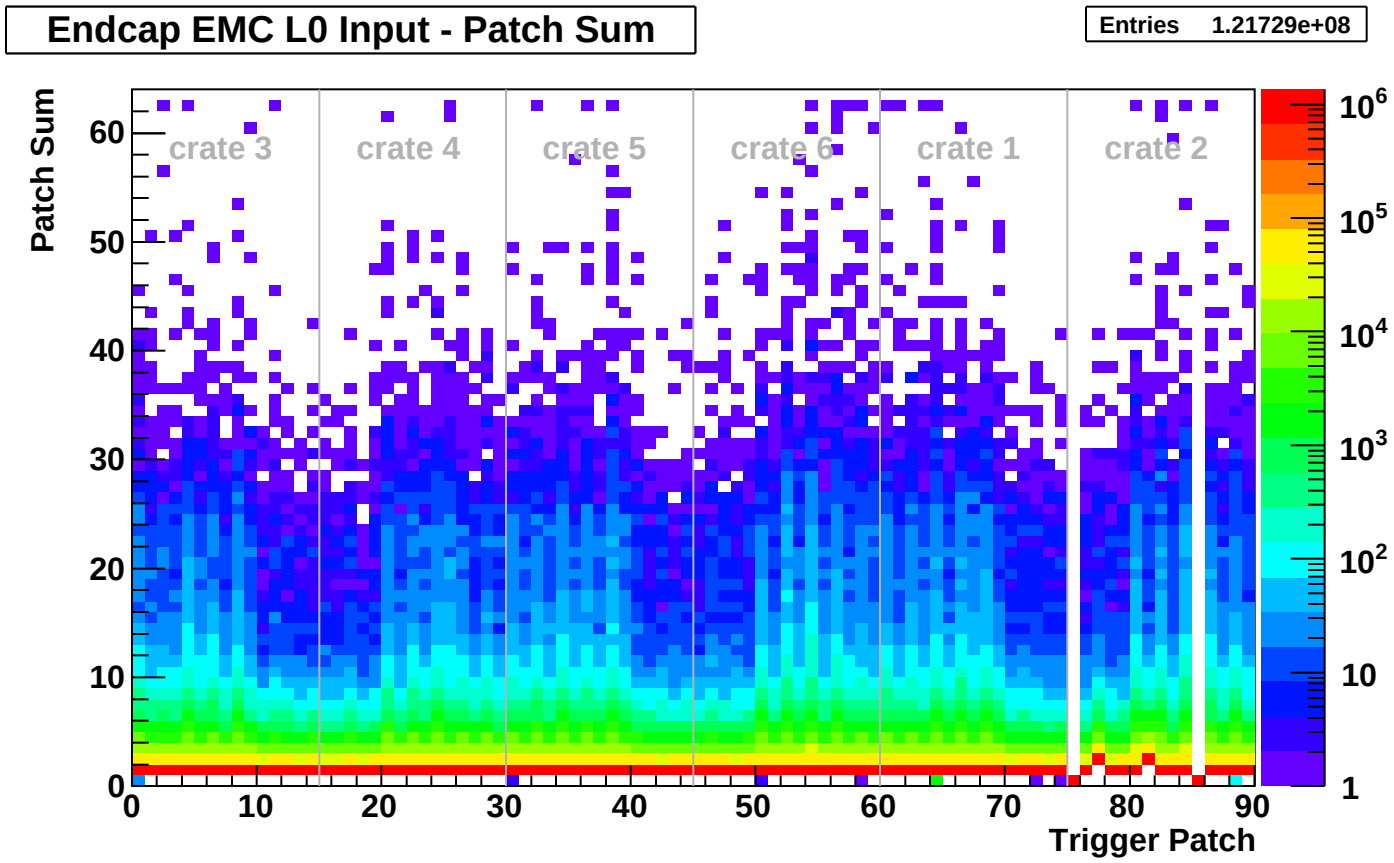
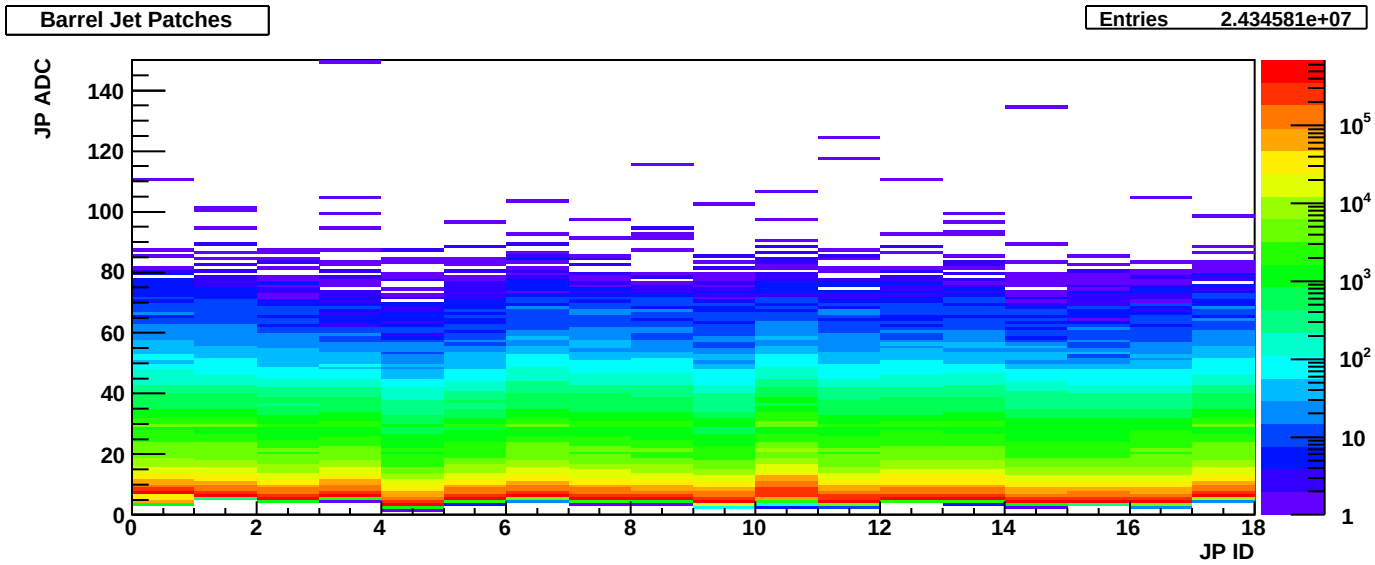
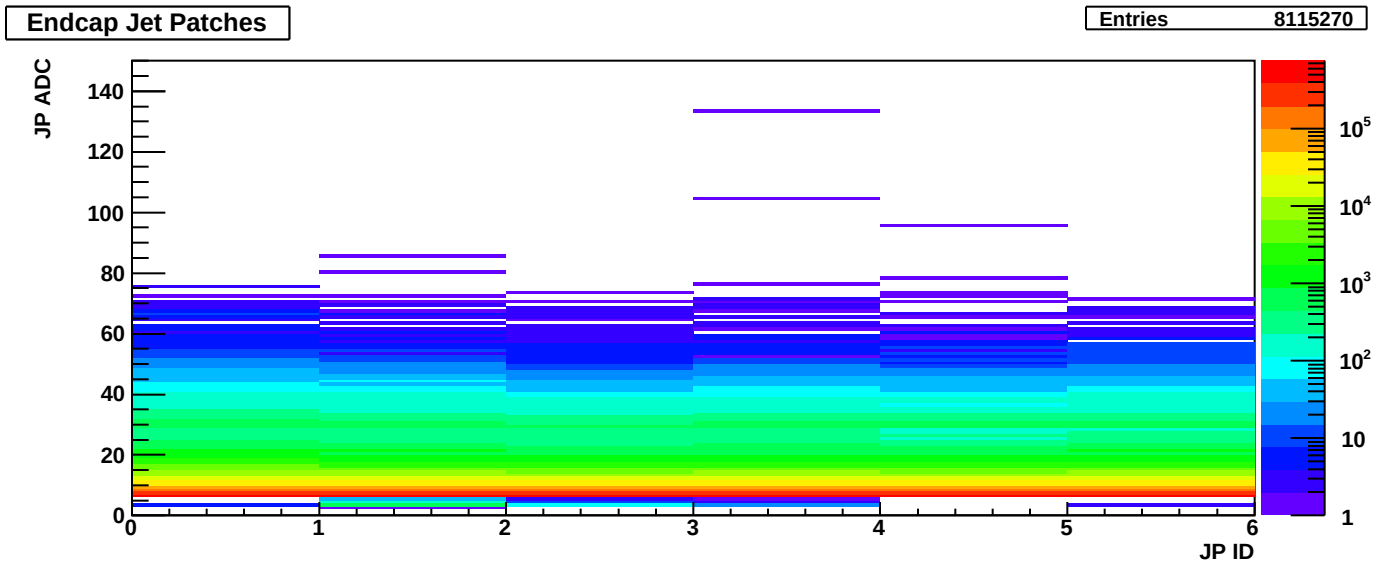

Barrel EMC L0 Input - High Tower
Entries 4.057635e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

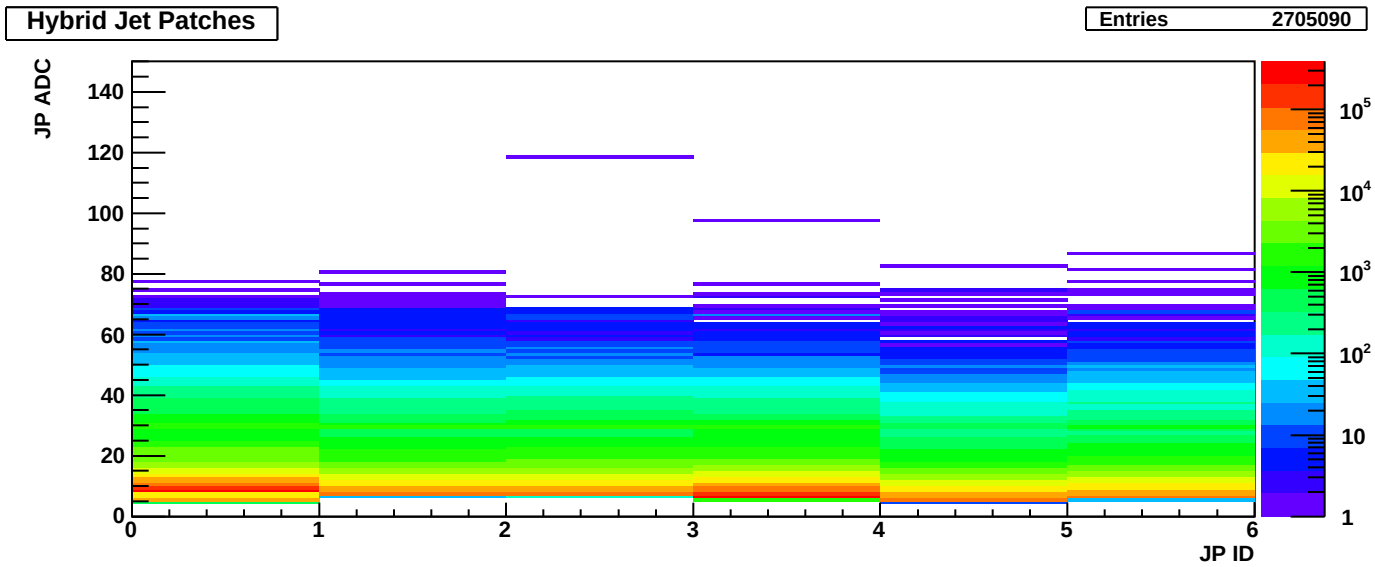

Barrel EMC L0 Input - Patch Sum
Entries 4.057635e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

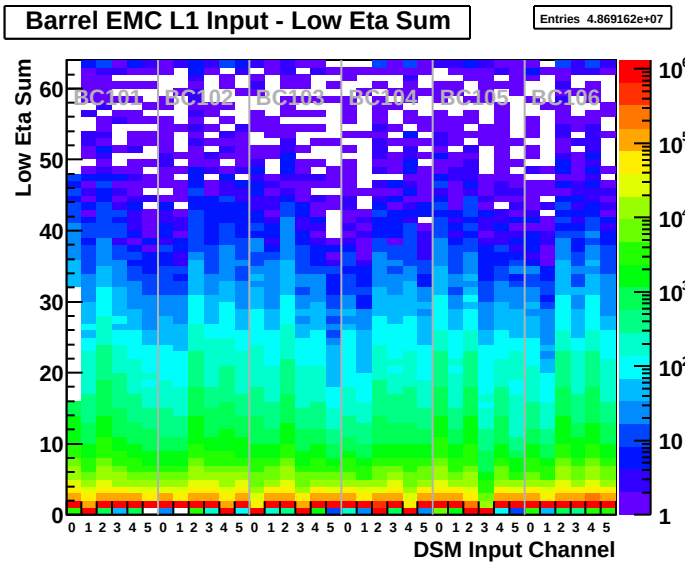

Endcap EMC L0 Input - High Tower
Entries 1.21729e+08
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

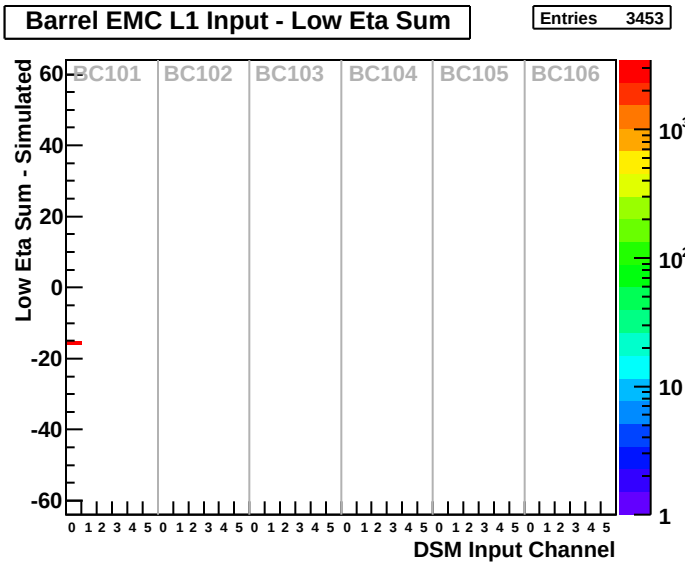

Endcap EMC L0 Input - Patch Sum
Entries 1.21729e+08
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

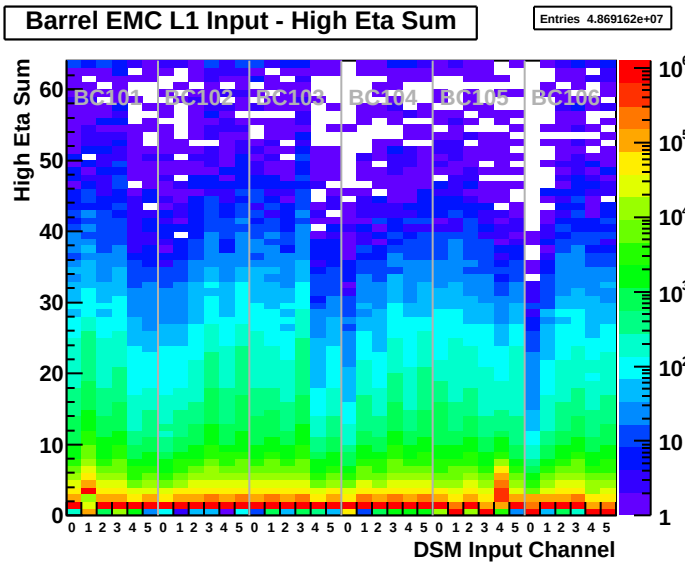

Barrel Jet Patches
Entries 2.434581e+07
JP ADC
JP ID

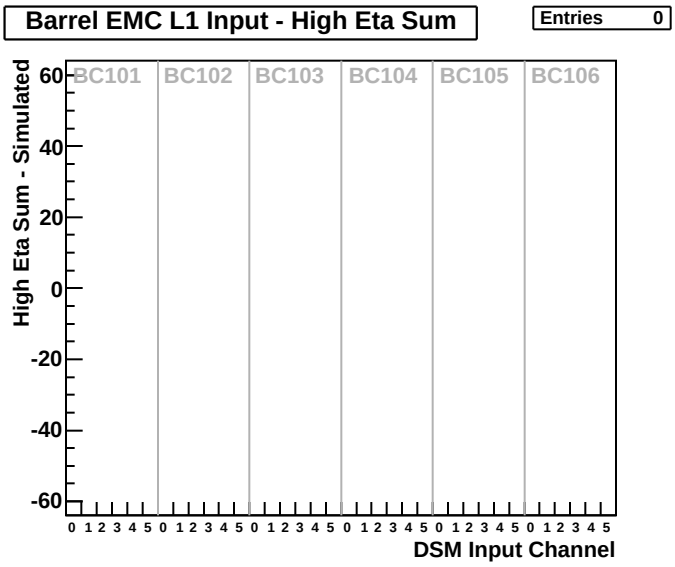

Endcap Jet Patches
Entries 8115270
JP ADC
JP ID

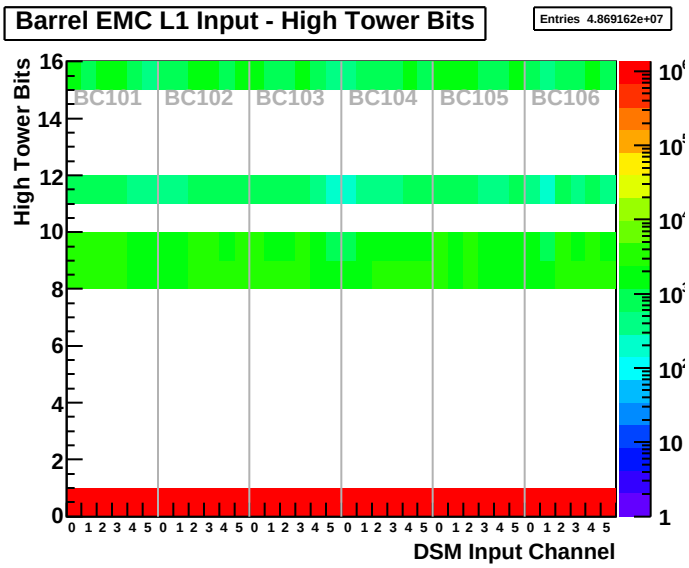

Hybrid Jet Patches
Entries 2705090
JP ADC
JP ID

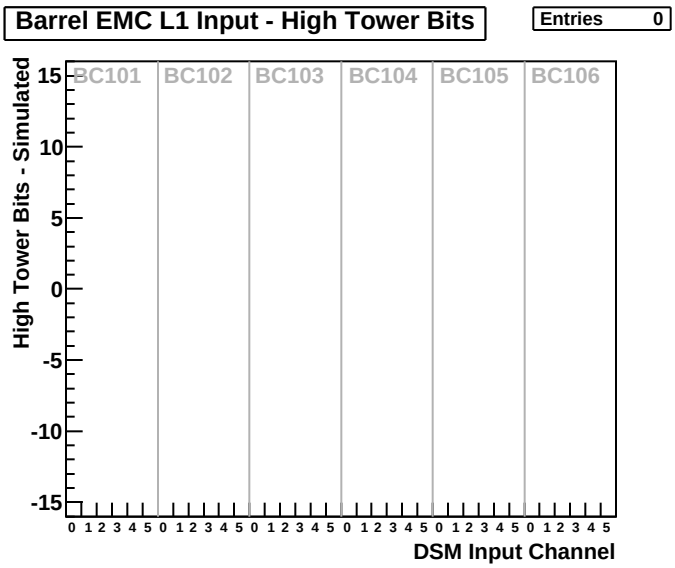

Barrel EMC L1 Input - Low Eta Sum
Entries 4.869162e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

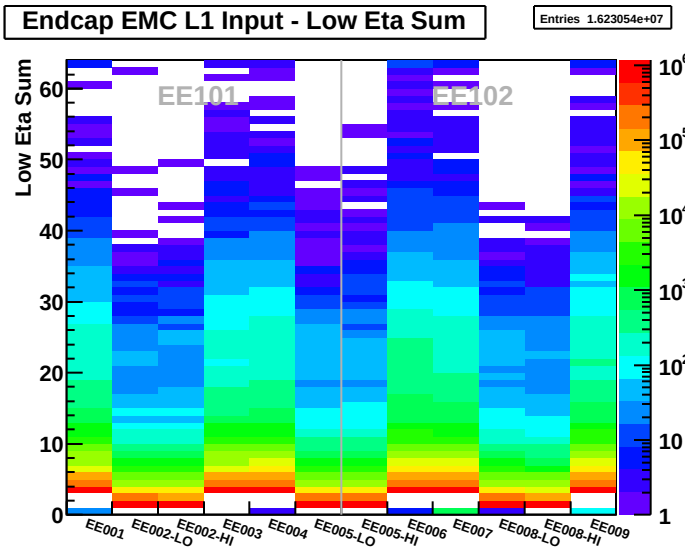

Barrel EMC L1 Input - Low Eta Sum
Entries 3453
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

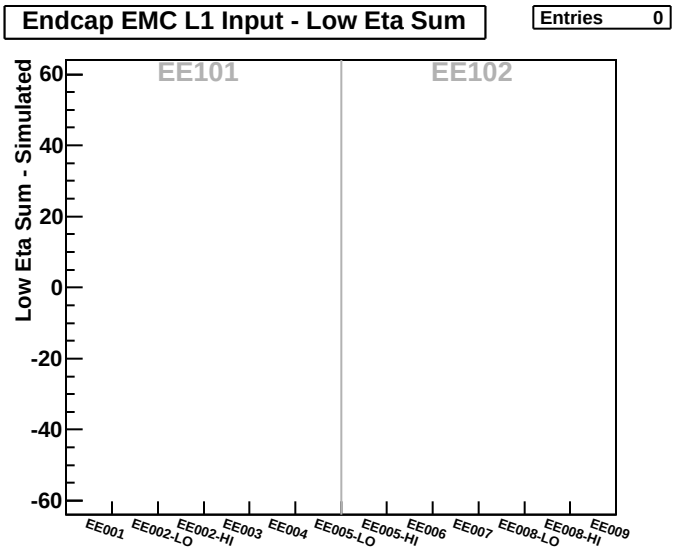

Barrel EMC L1 Input - High Eta Sum
Entries 4.869162e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

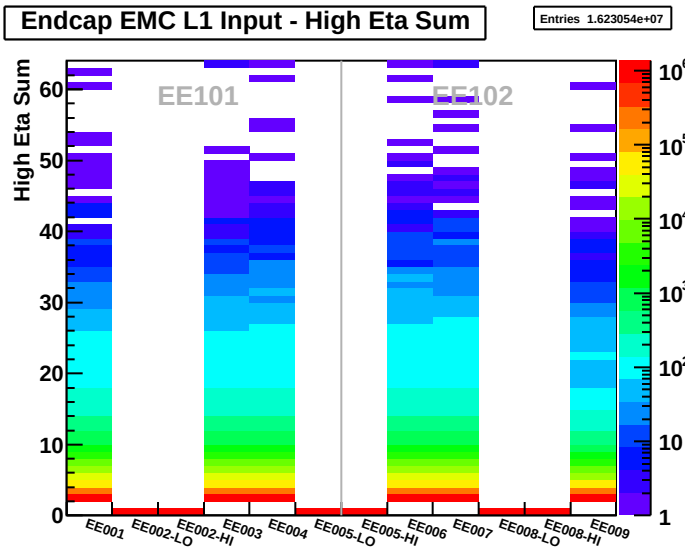

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

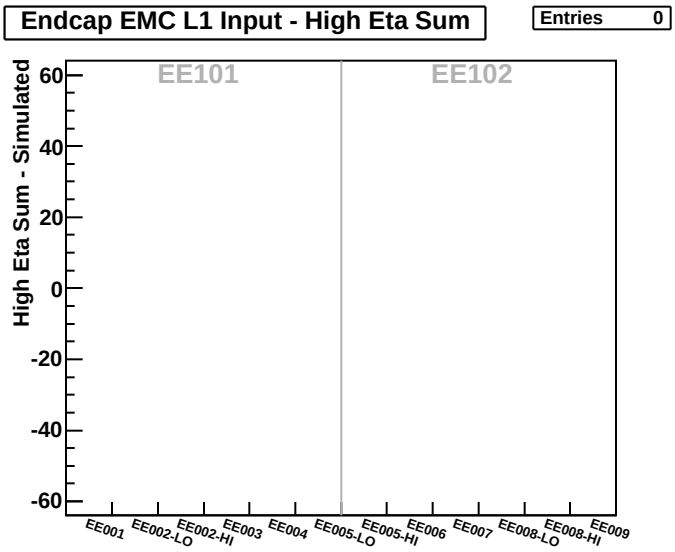

Barrel EMC L1 Input - High Tower Bits
Entries 4.869162e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

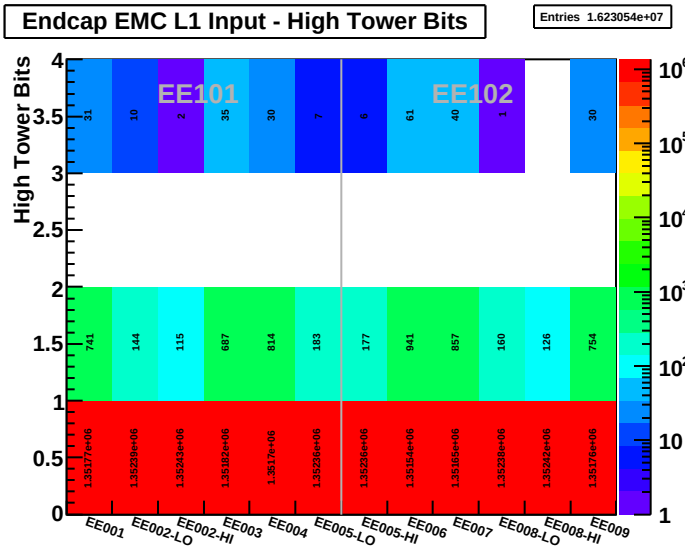

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

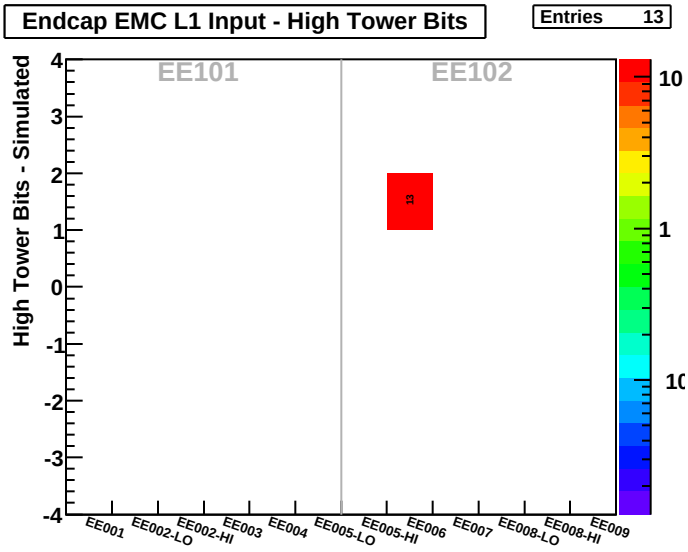

Endcap EMC L1 Input - Low Eta Sum
Entries 1.623054e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

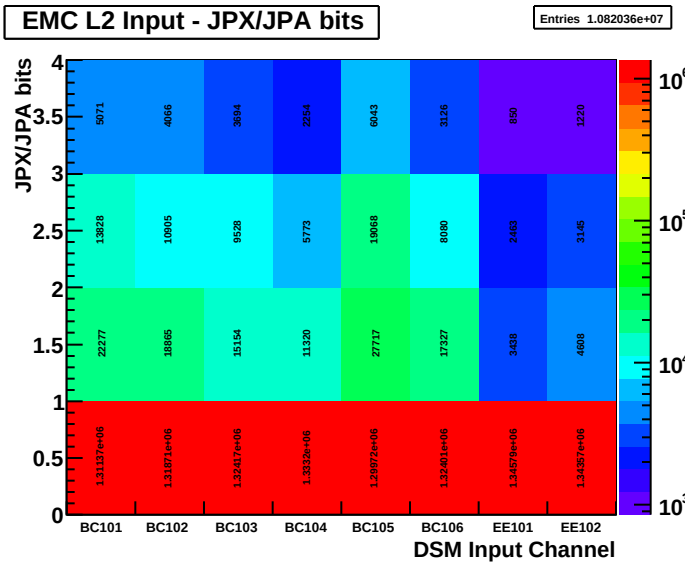

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

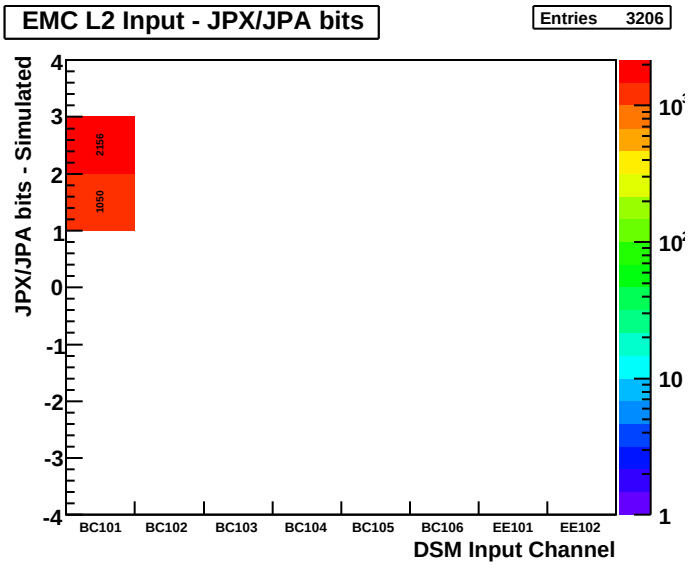

Endcap EMC L1 Input - High Eta Sum
Entries 1.623054e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

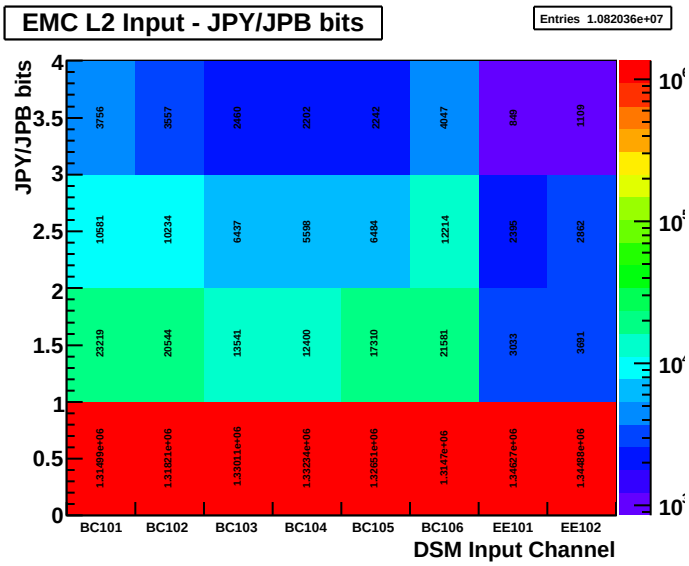

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

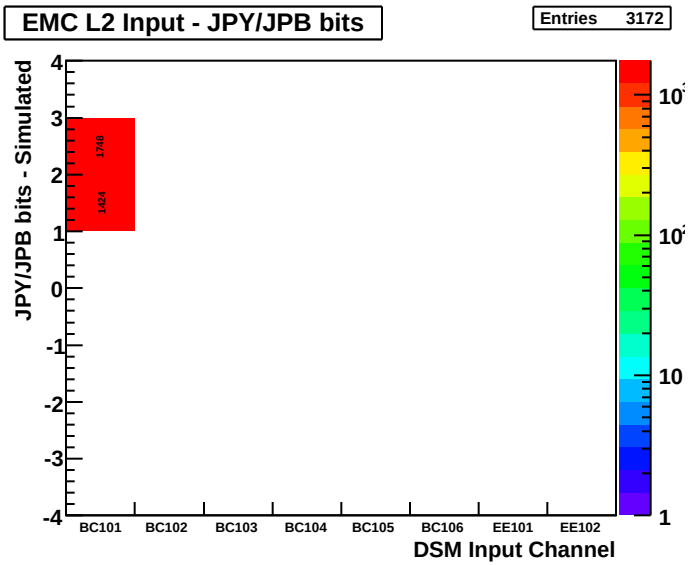

Endcap EMC L1 Input - High Tower Bits
Entries 1.623054e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

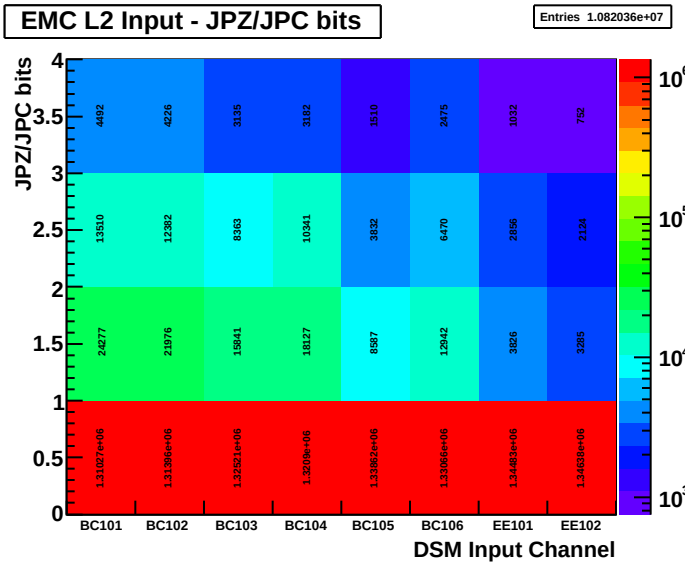

Endcap EMC L1 Input - High Tower Bits
Entries 13
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

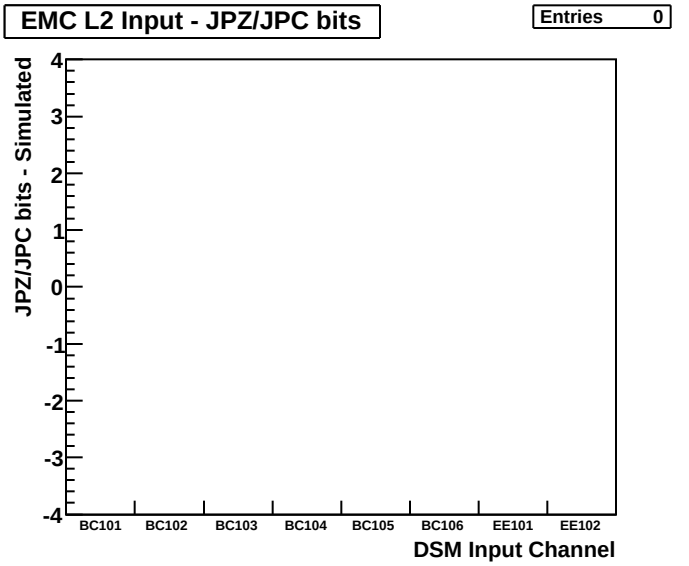

EMC L2 Input - JPX/JPA bits
Entries 1.082036e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
5071 4066 3694 2254 6043 3126 850 1220
13828 10905 9528 5773 19068 8080 2463 3145
22277 18865 15154 11320 27717 17327 3438 4608
1.31137e+06 1.31871e+06 1.32417e+06 1.3332e+06 1.29972e+06 1.32401e+06 1.34579e+06 1.34357e+06

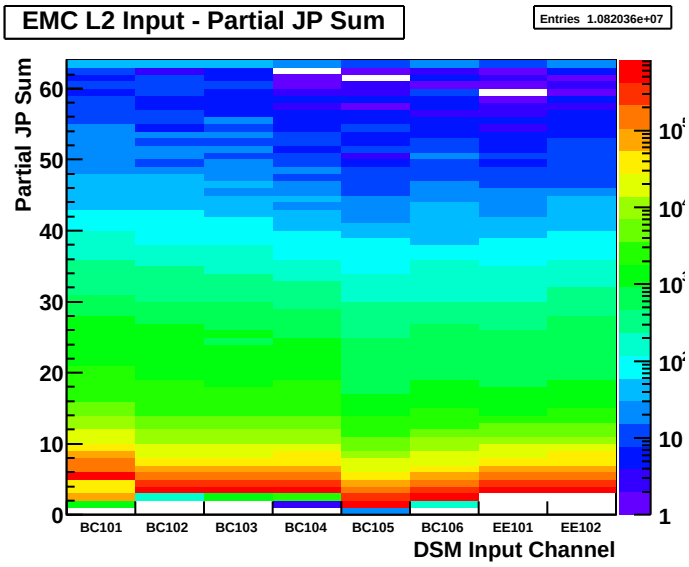

EMC L2 Input - JPX/JPA bits
Entries 3206
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2156
1050

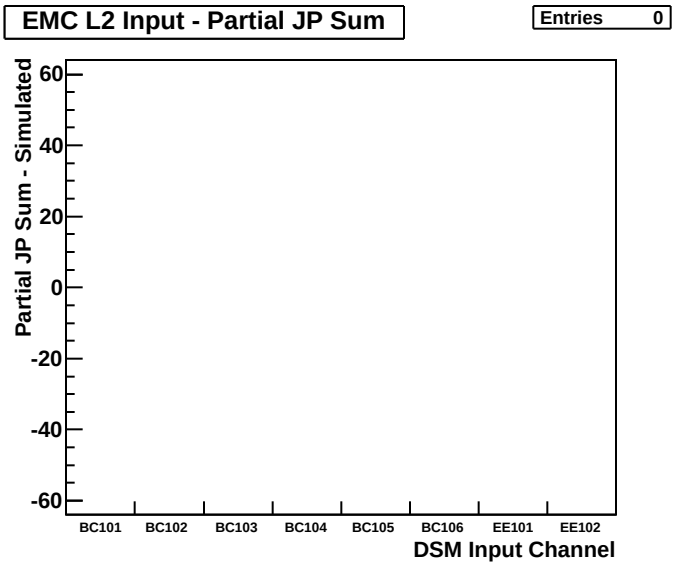

EMC L2 Input - JPY/JPB bits
Entries 1.082036e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
3756 3557 2460 2202 2242 4047 849 1109
10581 10234 6437 5598 6494 12214 2395 2862
23219 20544 13541 12400 17310 21581 3033 3691
1.31499e+06 1.31821e+06 1.33011e+06 1.33224e+06 1.32651e+06 1.3147e+06 1.34627e+06 1.34488e+06

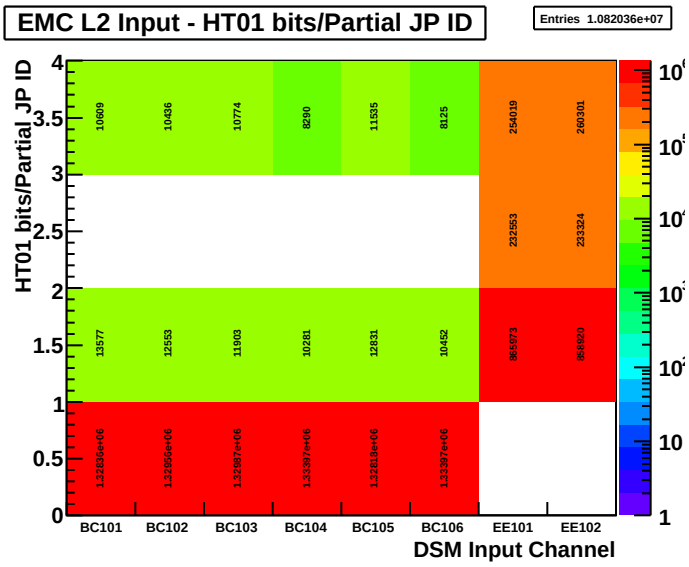

EMC L2 Input - JPY/JPB bits
Entries 3172
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1748
1424

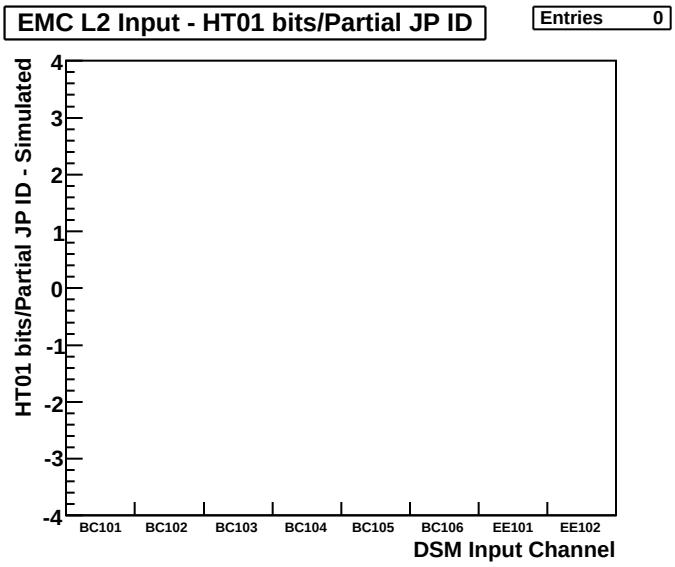

EMC L2 Input - JPZ/JPC bits
Entries 1.082036e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4492 4226 3135 3182 1510 2475 1032 752
13510 12382 8363 10341 3832 6470 2856 2124
24277 21976 15841 18127 8587 12942 3826 3285
1.31027e+06 1.31396e+06 1.32521e+06 1.3209e+06 1.33862e+06 1.33066e+06 1.34483e+06 1.34638e+06

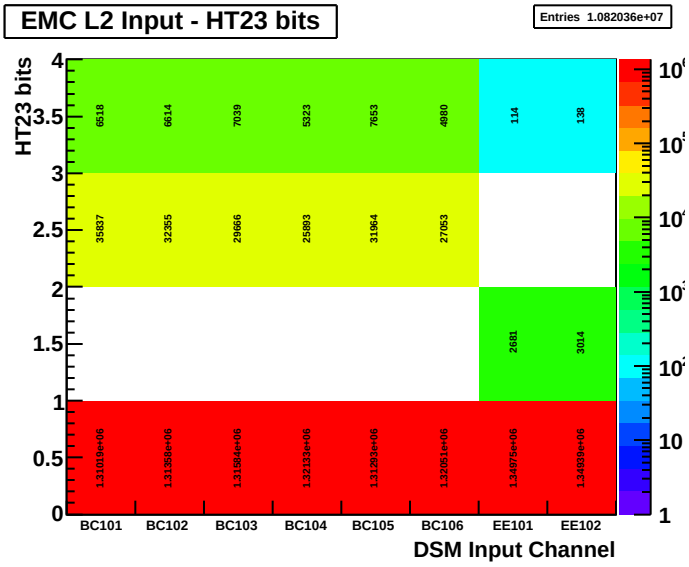

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

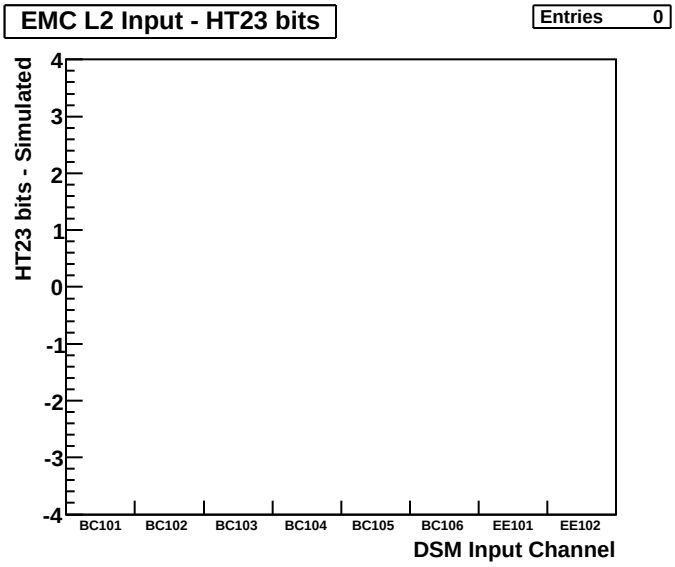

EMC L2 Input - Partial JP Sum
Entries 1.082036e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

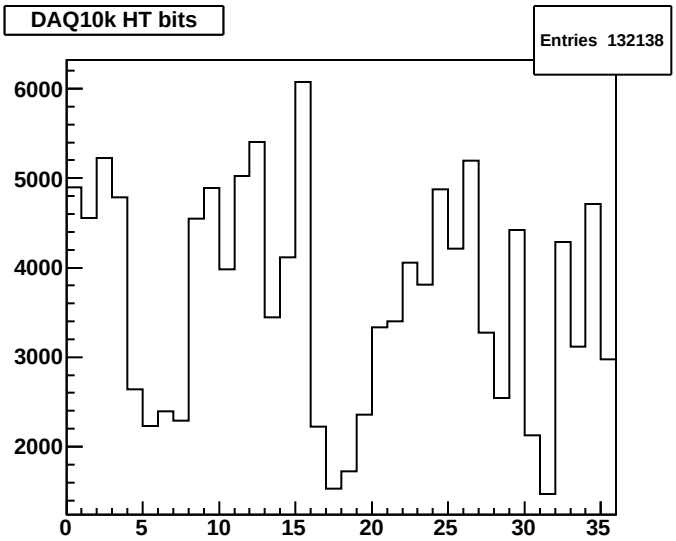

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

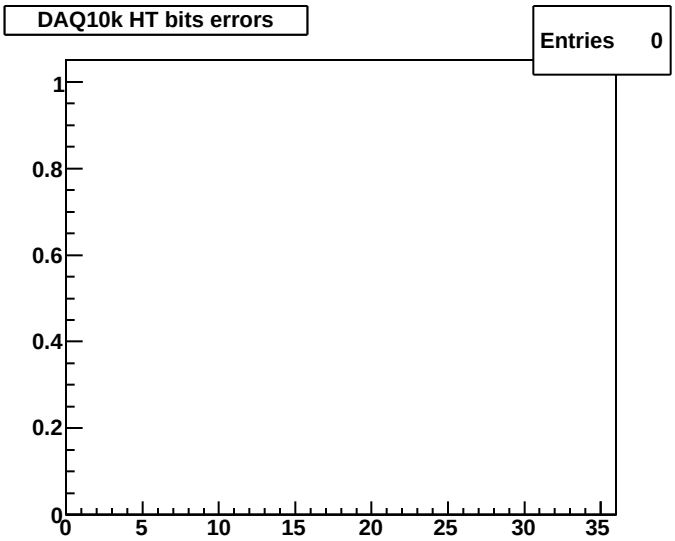

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1.082036e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

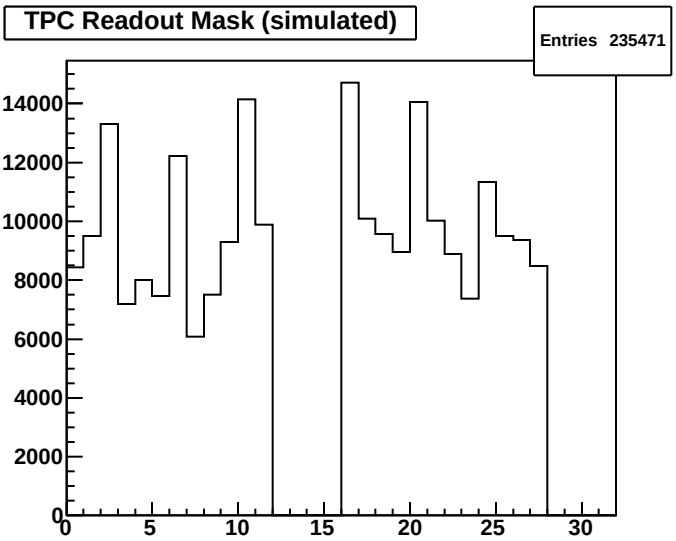

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

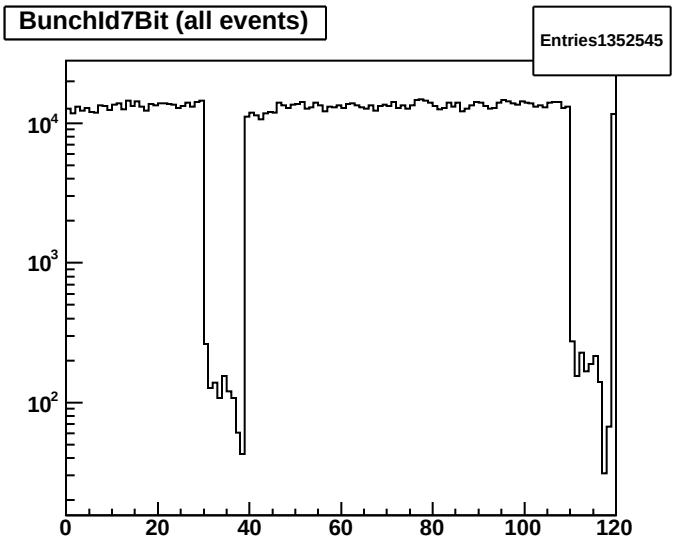

EMC L2 Input - HT23 bits
Entries 1.082036e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

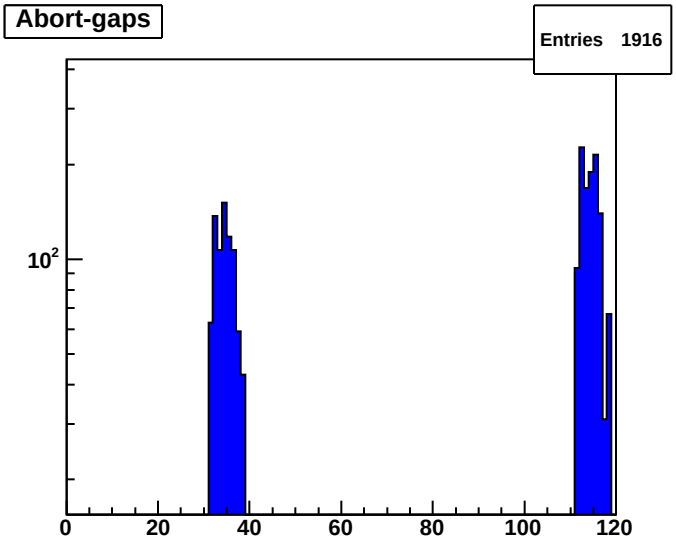

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

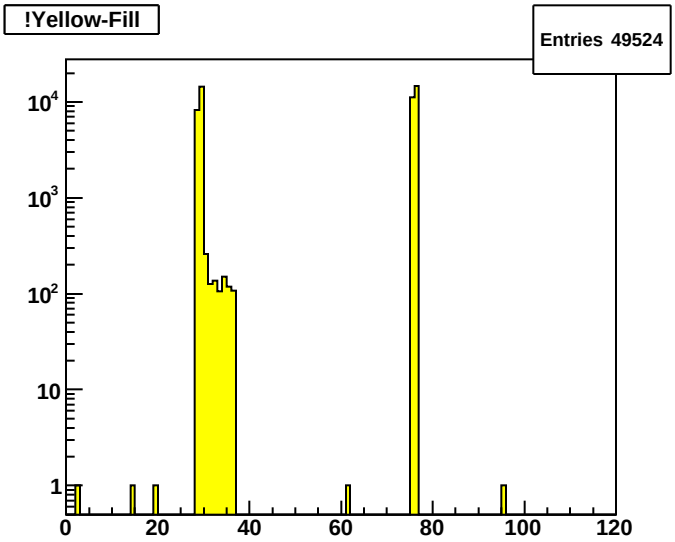

DAQ10k HT bits
Entries 132138
6000
5000
4000
3000
2000
0 5 10 15 20 25 30 35

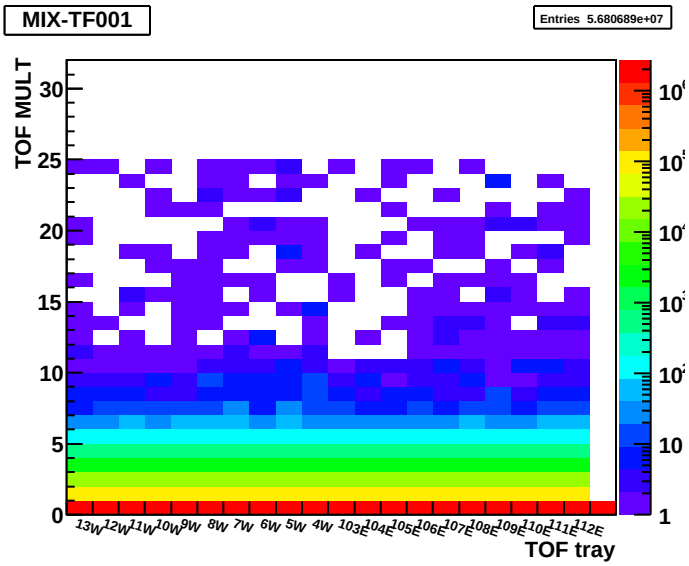

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

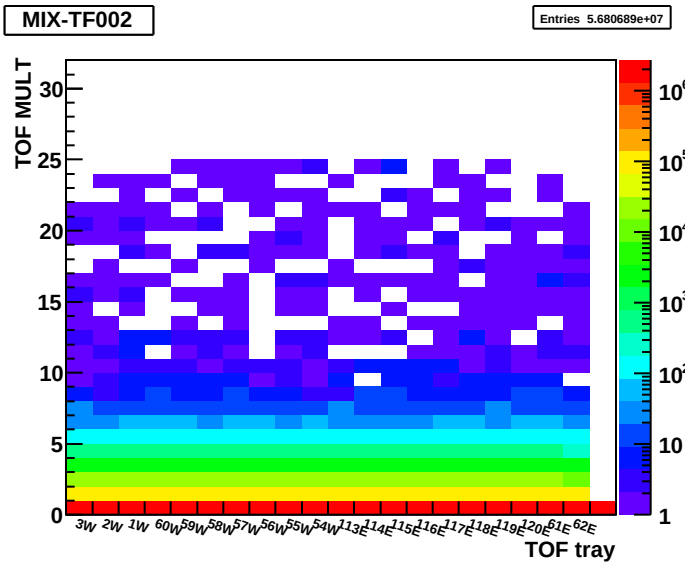

TPC Readout Mask (simulated)
Entries 235471
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30

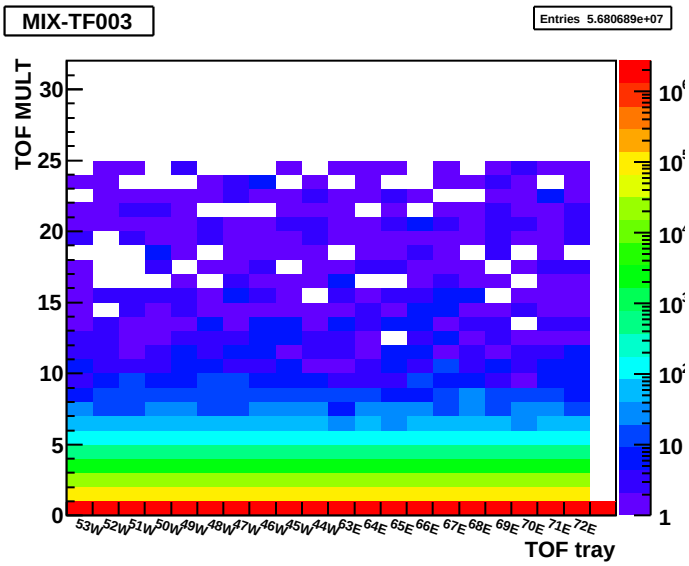

BunchId7Bit (all events)
Entries1352545
10^4
10^3
10^2
0 20 40 60 80 100 120

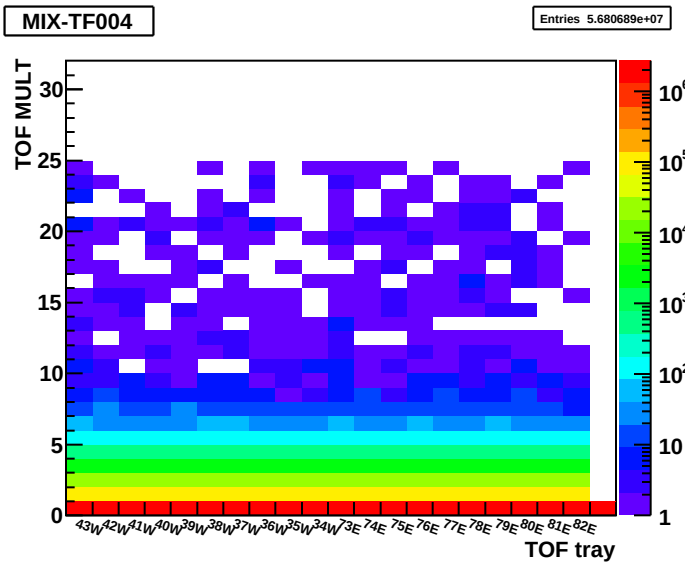

Abort-gaps
Entries 1916
10^2
0 20 40 60 80 100 120

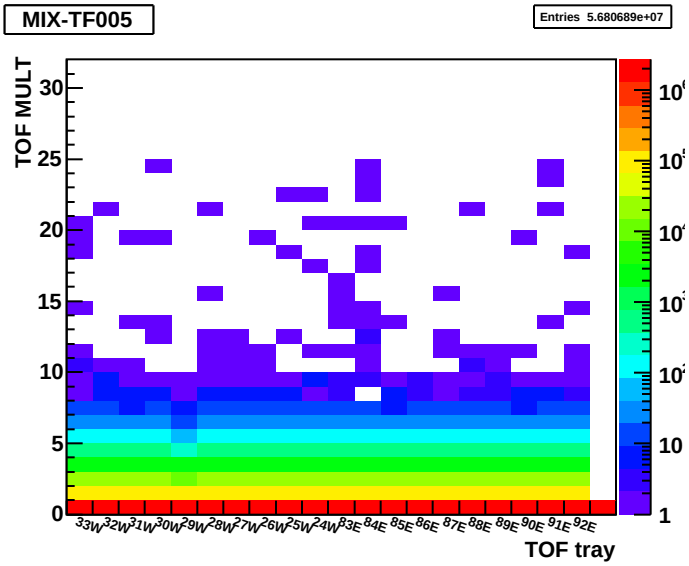

!Yellow-Fill
Entries 49524
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

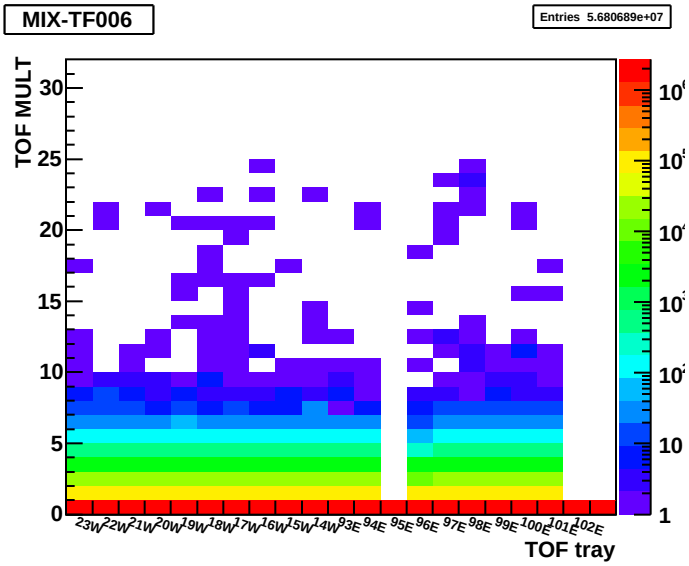

MIX-TF001
Entries 5.680689e+07
TOF MULT
TOF tray

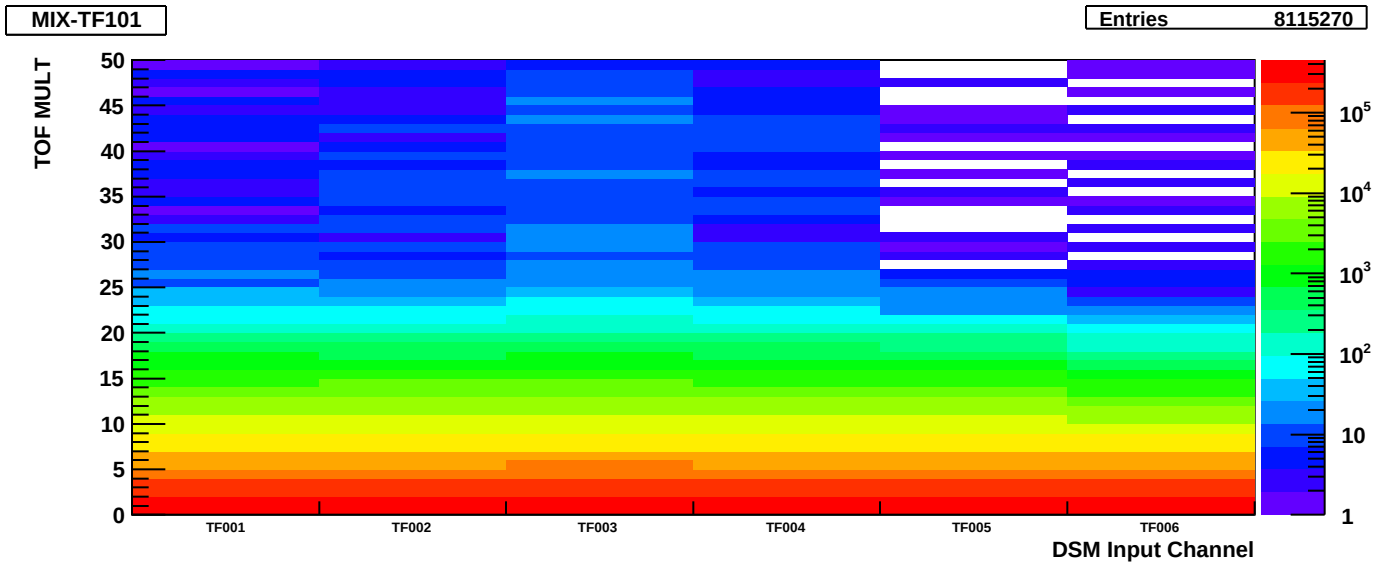

MIX-TF002
Entries 5.680689e+07
TOF MULT
TOF tray

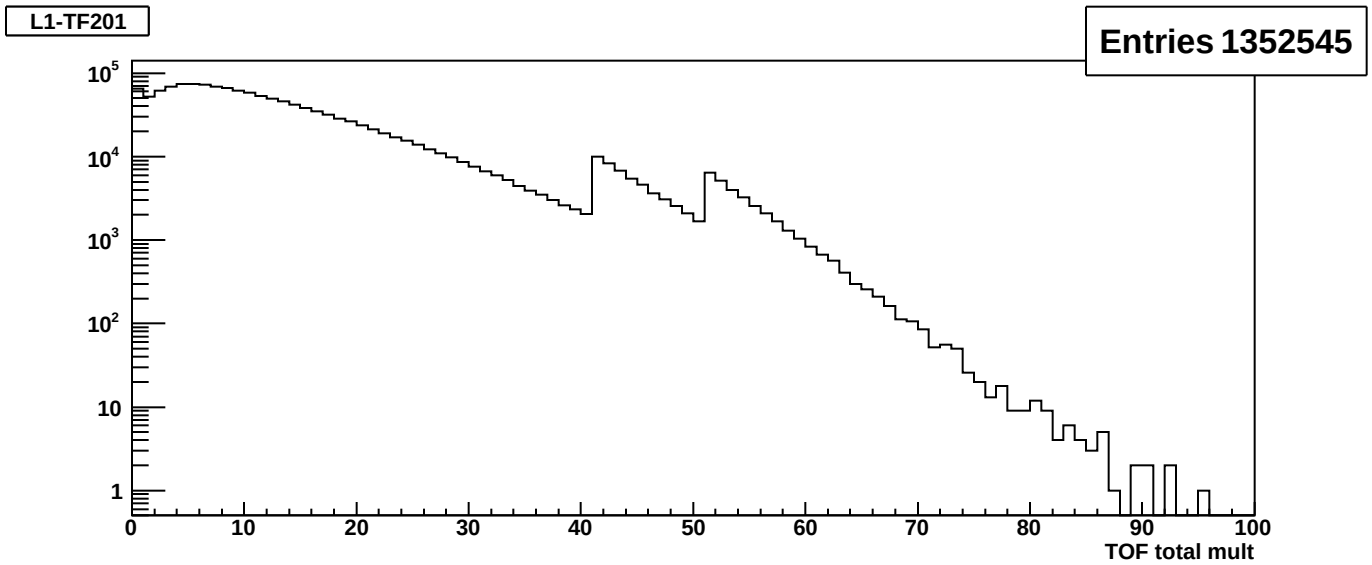

MIX-TF003
Entries 5.680689e+07
TOF MULT
TOF tray

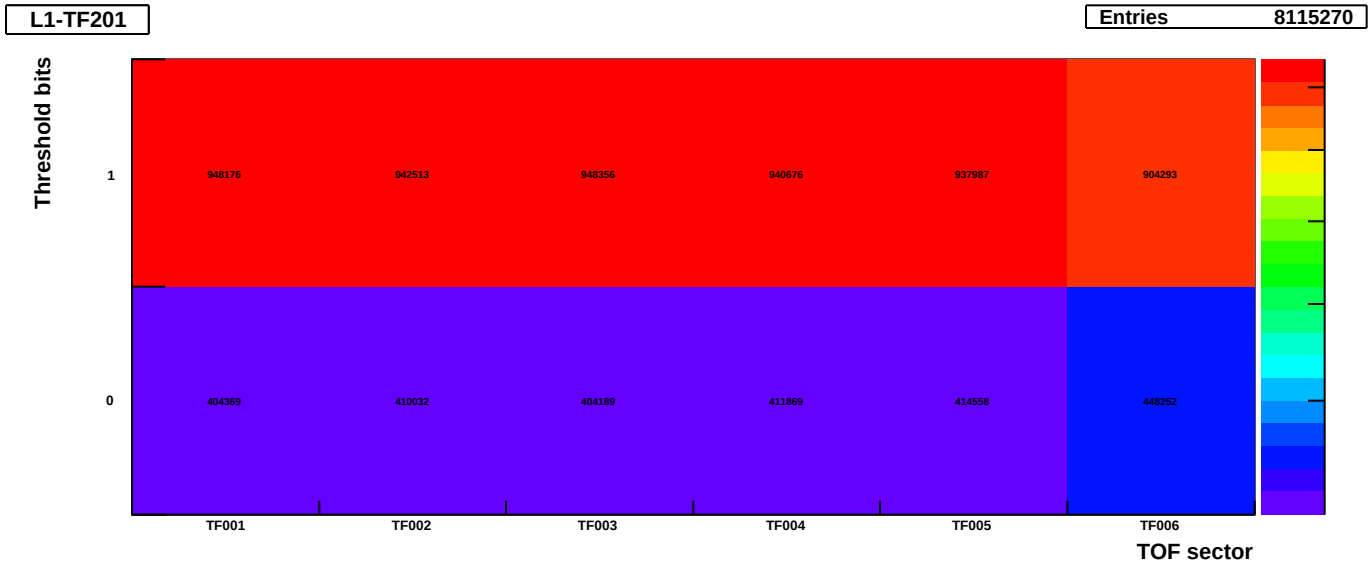

MIX-TF004
Entries 5.680689e+07
TOF MULT
TOF tray

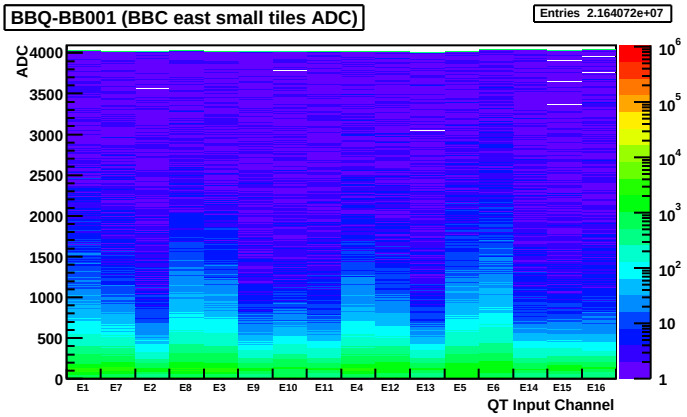

MIX-TF005
Entries 5.680689e+07
TOF MULT
TOF tray

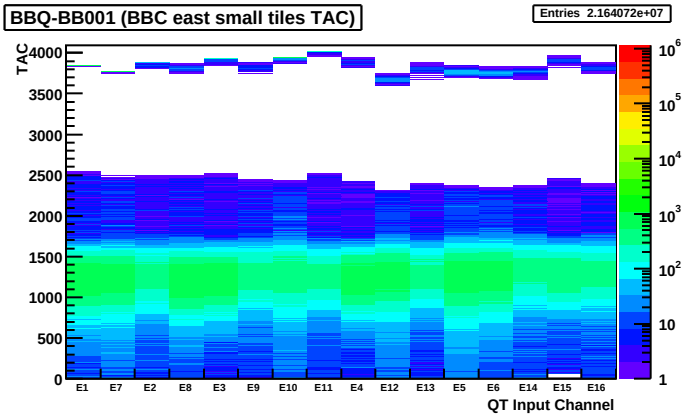

MIX-TF006
Entries 5.680689e+07
TOF MULT
TOF tray

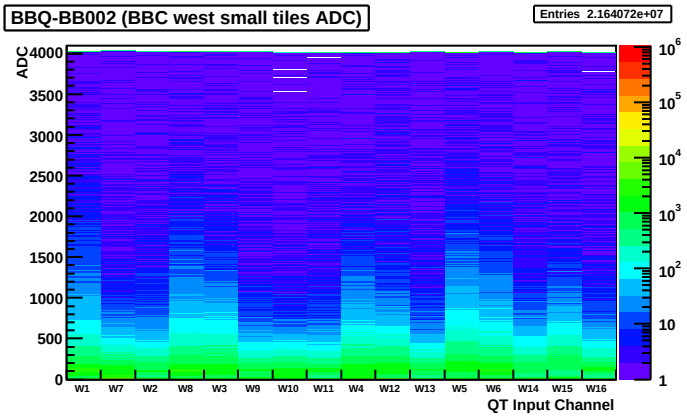

MIX-TF101
Entries 8115270
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

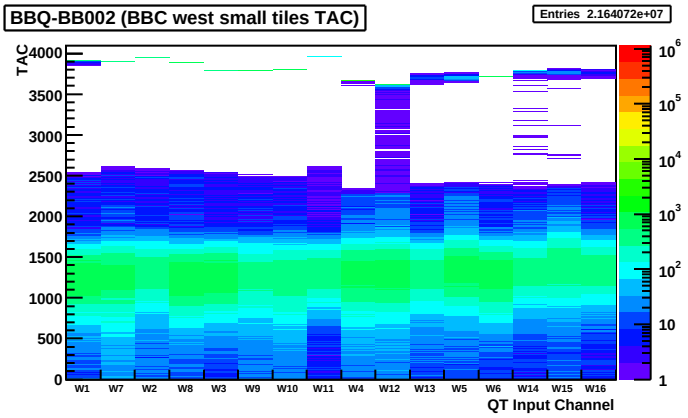

L1-TF201
Entries 1352545
10^5
10^4
10^3
10^2
10
1
0
10
20
30
40
50
60
70
80
90
100
TOF total mult

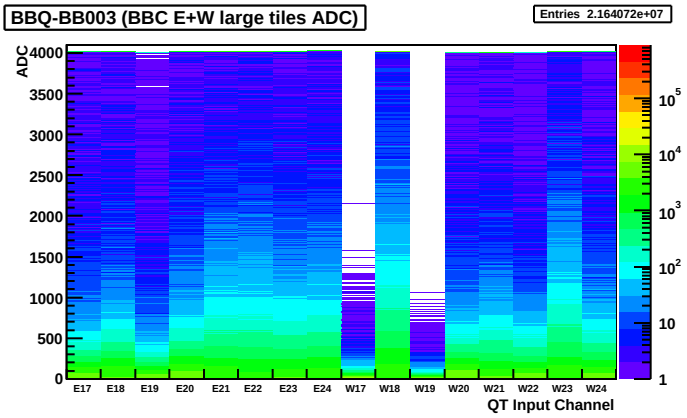

L1-TF201
Entries 8115270
Threshold bits
1
0
948176
942513
948356
940676
937987
904293
404369
410032
404189
411869
414558
448252
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

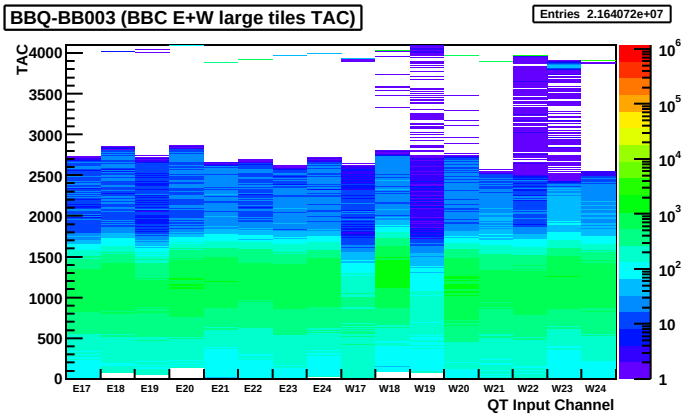

BBQ-BB001 (BBC east small tiles ADC)
Entries 2.164072e+07
ADC
QT Input Channel

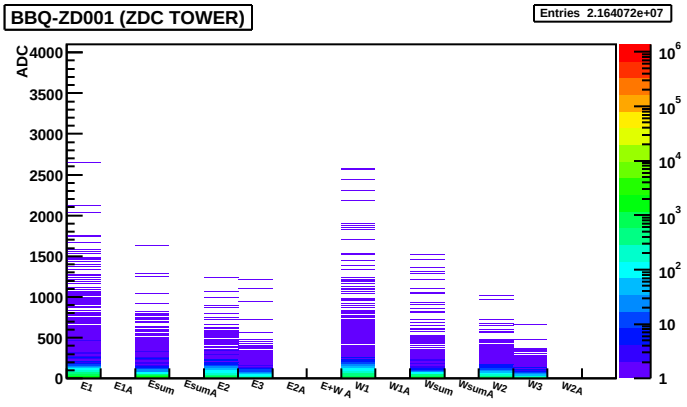

BBQ-BB001 (BBC east small tiles TAC)
Entries 2.164072e+07
TAC
QT Input Channel

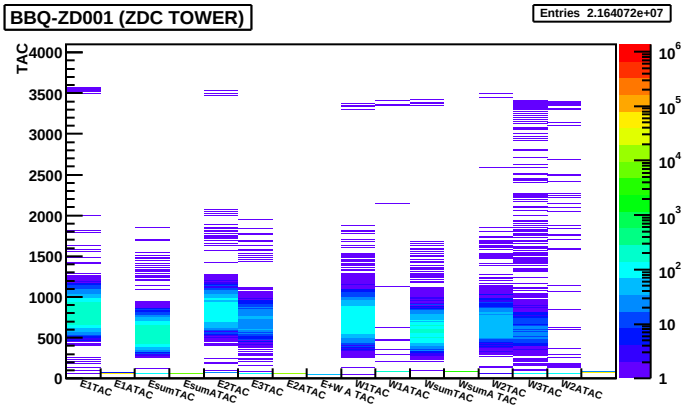

BBQ-BB002 (BBC west small tiles ADC)
Entries 2.164072e+07
ADC
QT Input Channel

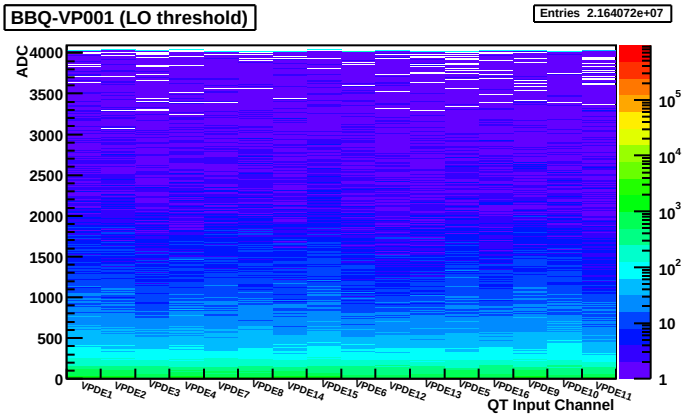

BBQ-BB002 (BBC west small tiles TAC)
Entries 2.164072e+07
TAC
QT Input Channel

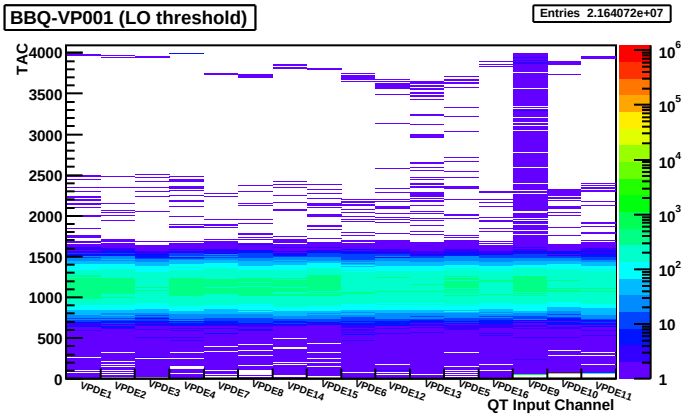

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2.164072e+07
ADC
QT Input Channel

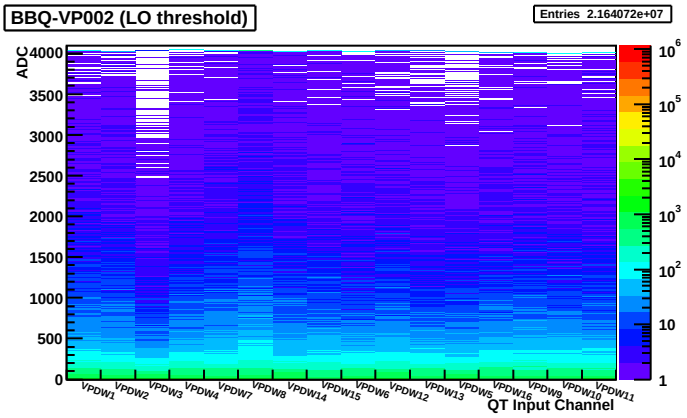

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2.164072e+07
TAC
QT Input Channel

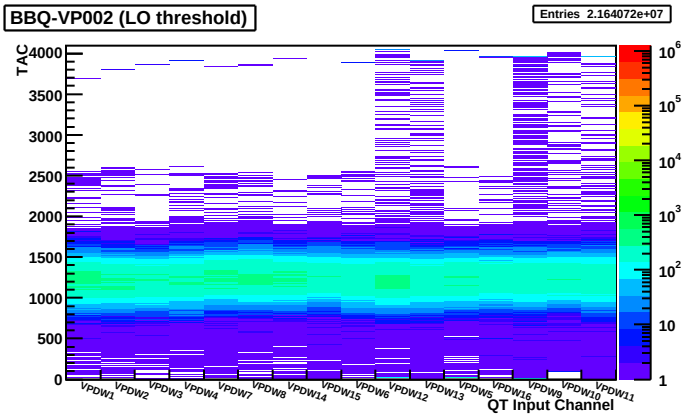

BBQ-ZD001 (ZDC TOWER)
Entries 2.164072e+07
ADC

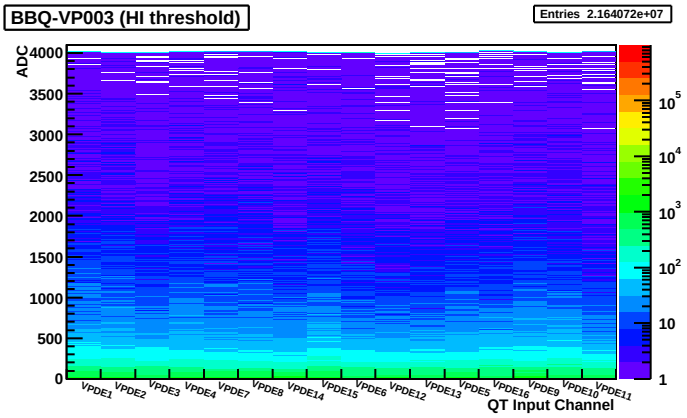

BBQ-ZD001 (ZDC TOWER)
Entries 2.164072e+07
TAC

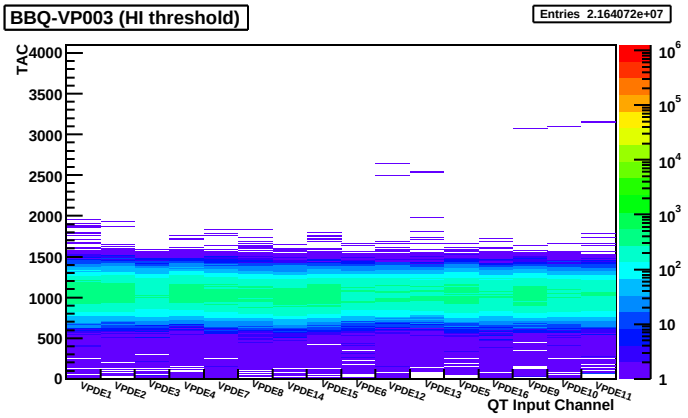

BBQ-VP001 (LO threshold)
Entries 2.164072e+07
ADC
QT Input Channel

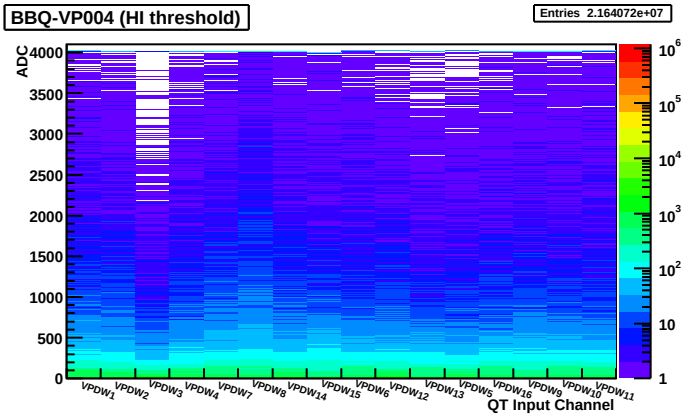

BBQ-VP001 (LO threshold)
Entries 2.164072e+07
TAC
QT Input Channel

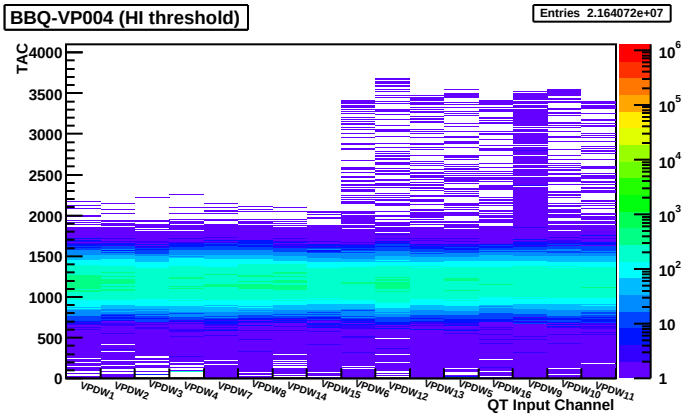

BBQ-VP002 (LO threshold)
Entries 2.164072e+07
ADC
QT Input Channel

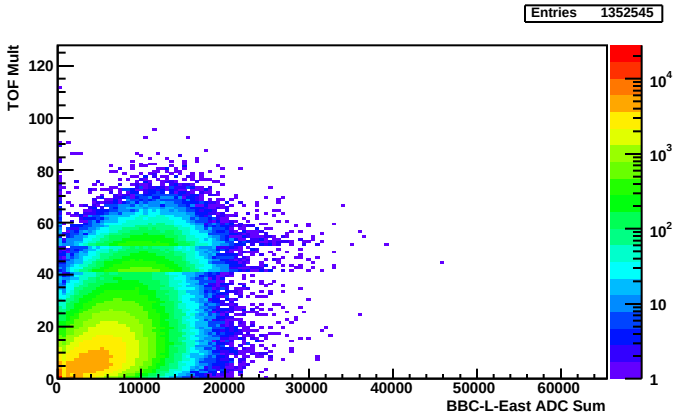

BBQ-VP002 (LO threshold)
Entries 2.164072e+07
TAC
QT Input Channel

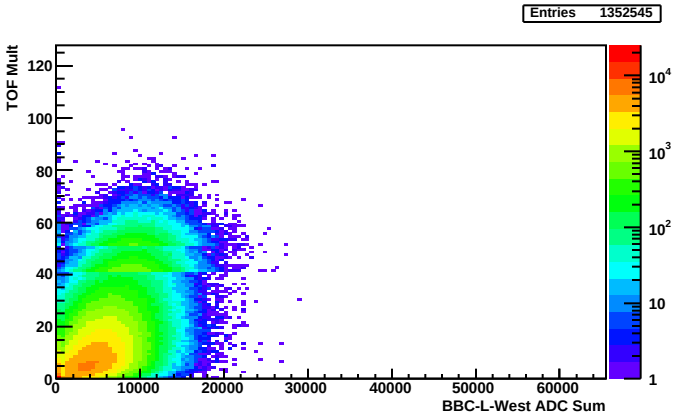

BBQ-VP003 (HI threshold)
Entries 2.164072e+07
ADC
QT Input Channel

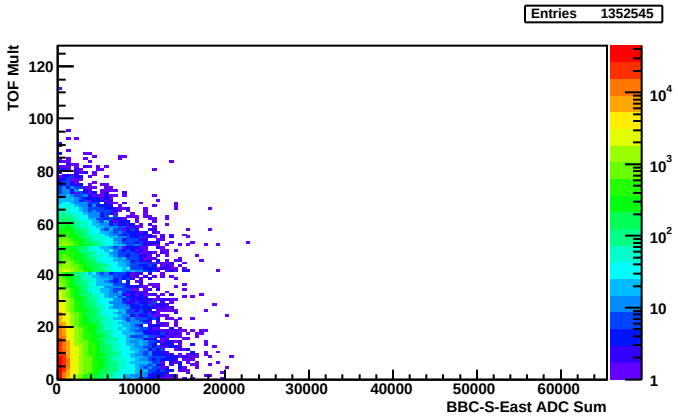

BBQ-VP003 (HI threshold)
Entries 2.164072e+07
TAC
QT Input Channel

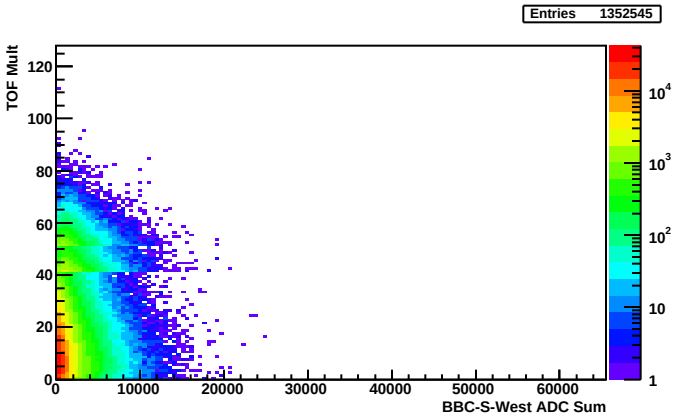

BBQ-VP004 (HI threshold)
Entries 2.164072e+07
ADC
QT Input Channel

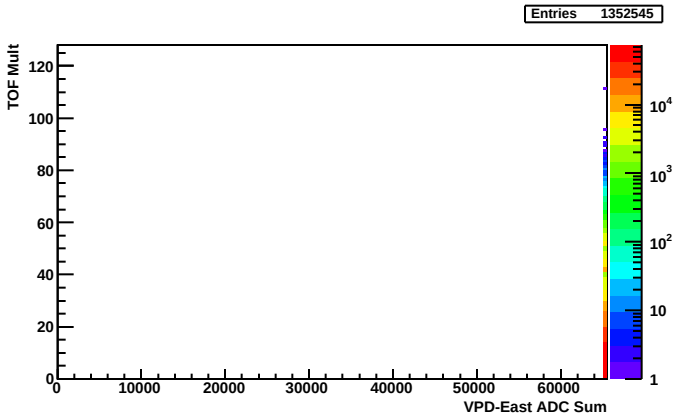

BBQ-VP004 (HI threshold)
Entries 2.164072e+07
TAC
QT Input Channel

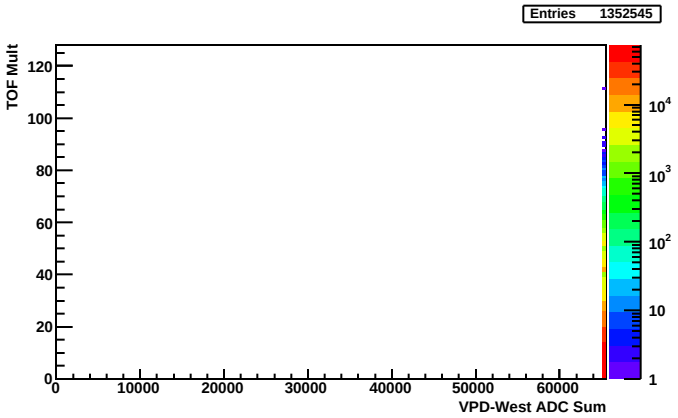

Entries 1352545
TOF Mult
BBC-L-East ADC Sum

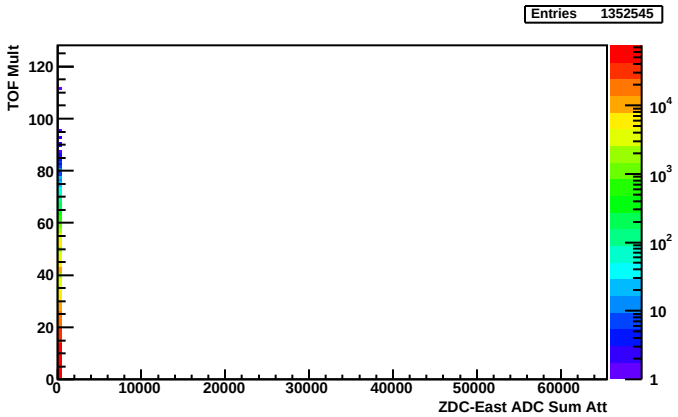

Entries 1352545
TOF Mult
BBC-L-West ADC Sum

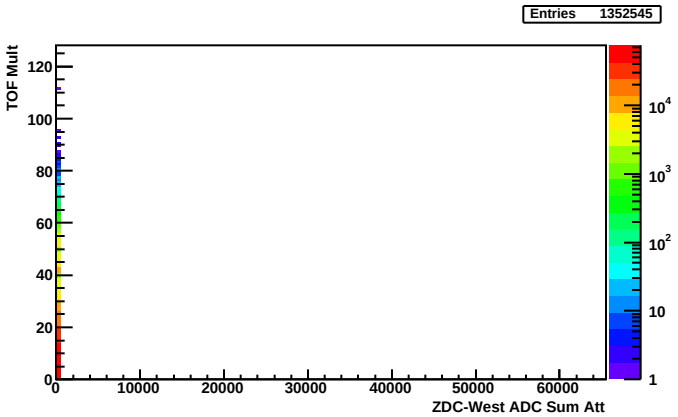

Entries 1352545
TOF Mult
BBC-S-East ADC Sum

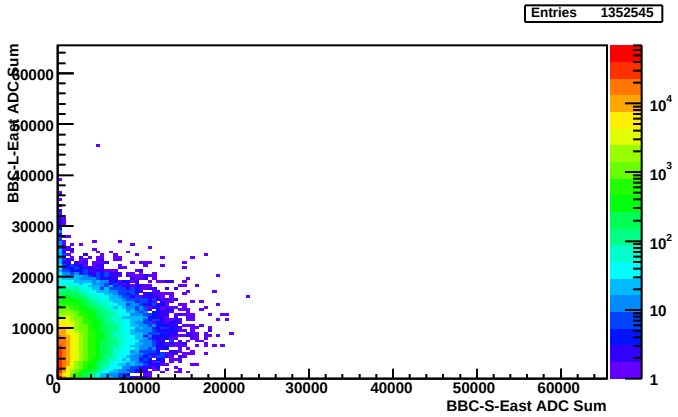

Entries 1352545
TOF Mult
BBC-S-West ADC Sum

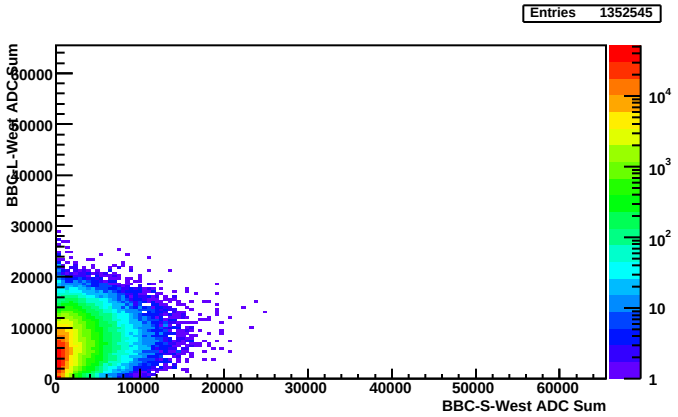

Entries 1352545
TOF Mult
VPD-East ADC Sum

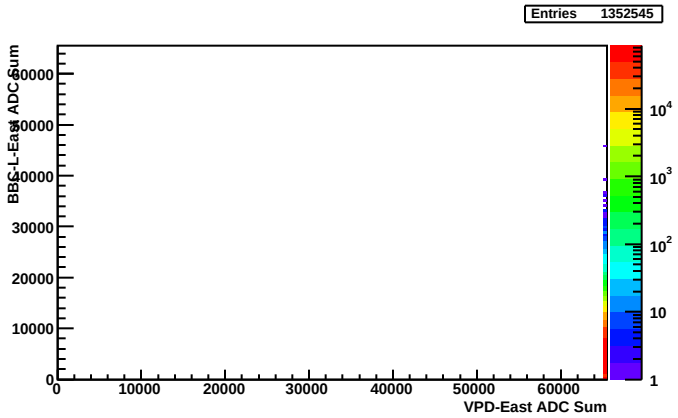

Entries 1352545
TOF Mult
VPD-West ADC Sum

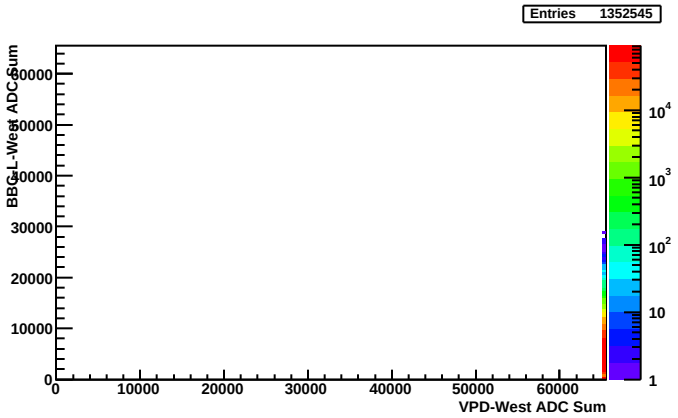

Entries 1352545
TOF Mult
ZDC-East ADC Sum Att

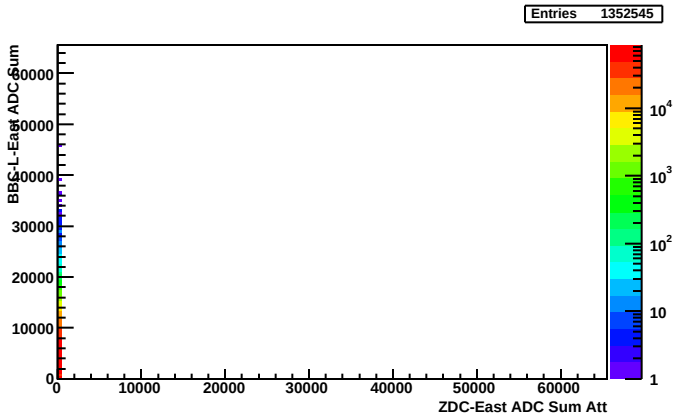

Entries 1352545
TOF Mult
ZDC-West ADC Sum Att

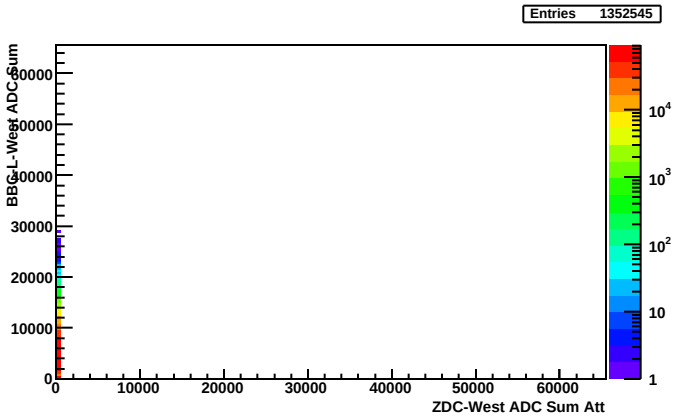

Entries 1352545
BBC-L-East ADC Sum
BBC-S-East ADC Sum

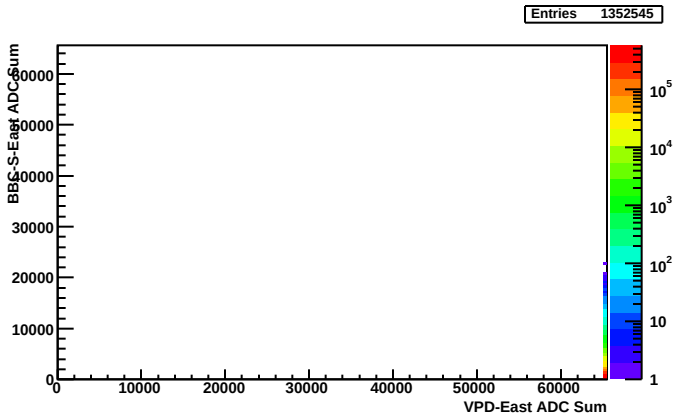

Entries 1352545
BBC-L-West ADC Sum
BBC-S-West ADC Sum

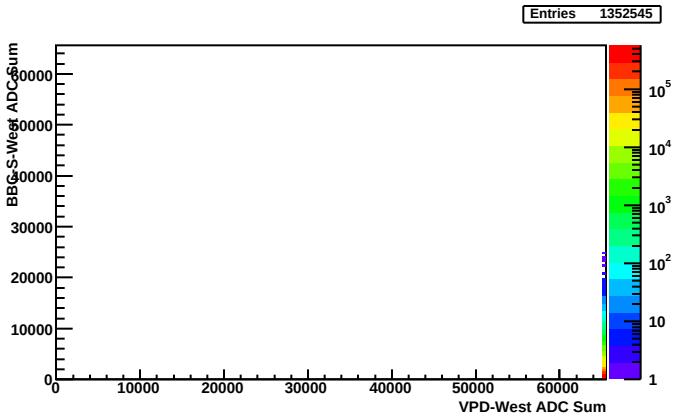

Entries 1352545
BBC-L-East ADC Sum
VPD-East ADC Sum

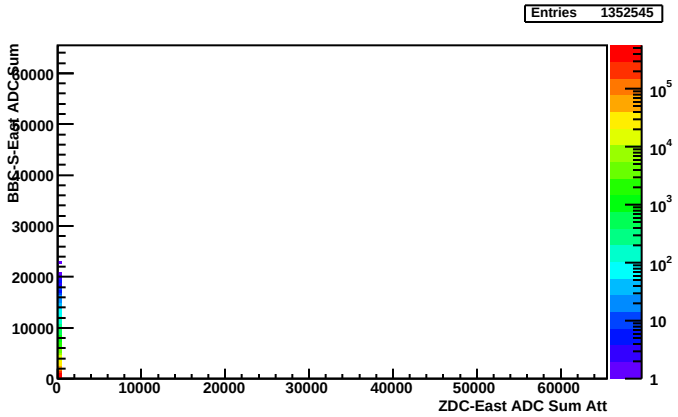

Entries 1352545
BBC-L-West ADC Sum
VPD-West ADC Sum

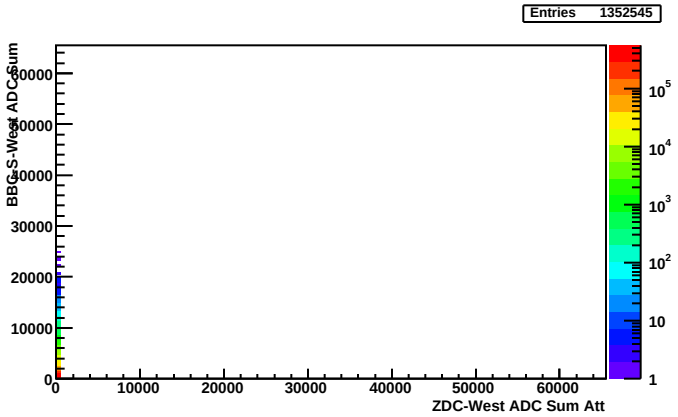

Entries 1352545
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

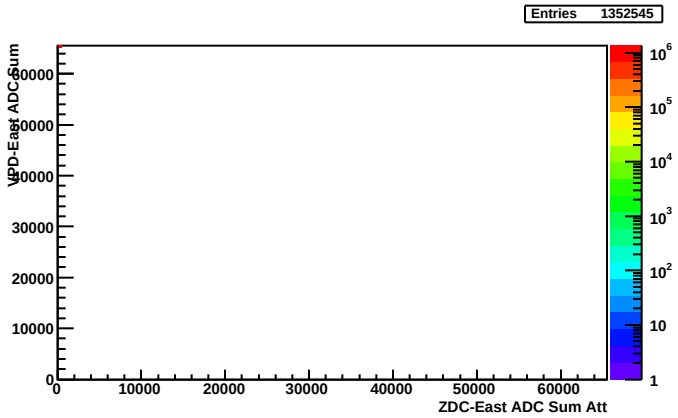

Entries 1352545
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

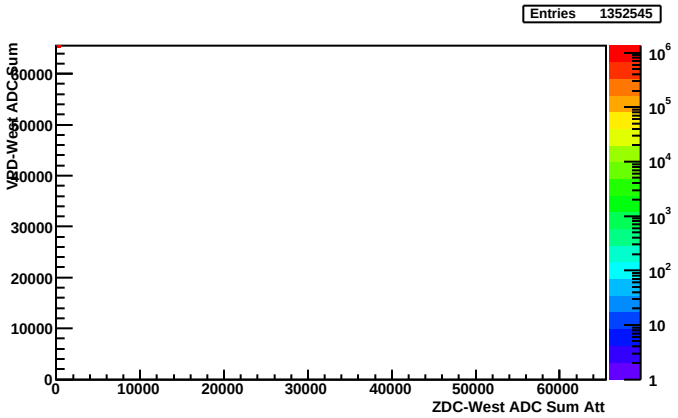

Entries 1352545
BBC-S-East ADC Sum
VPD-East ADC Sum

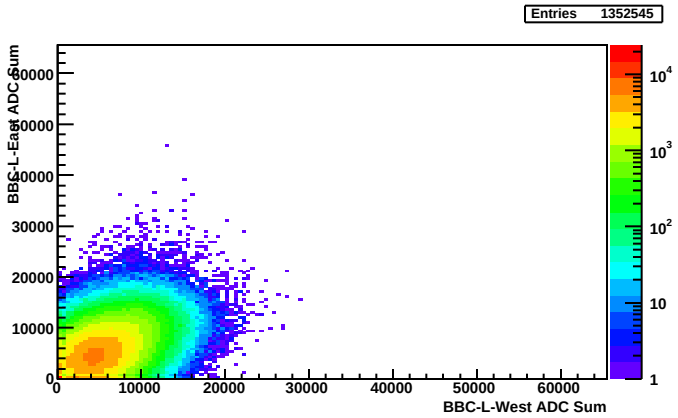

Entries 1352545
BBC-S-West ADC Sum
VPD-West ADC Sum

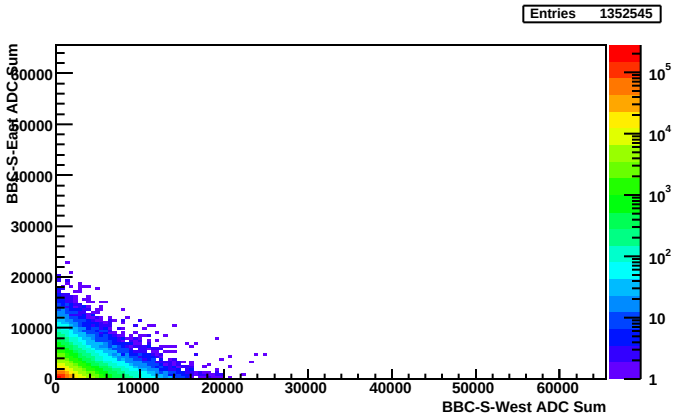

Entries 1352545
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

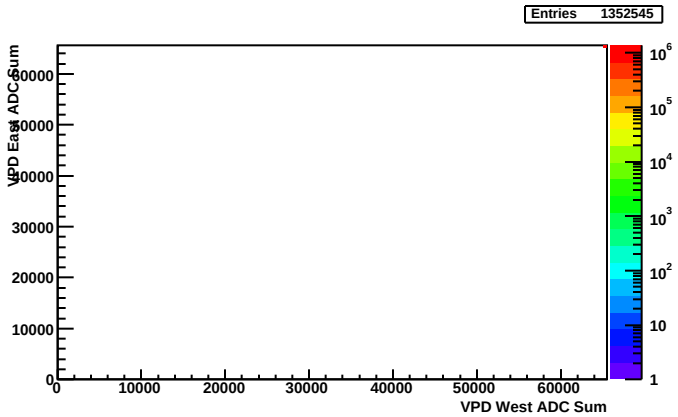

Entries 1352545
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

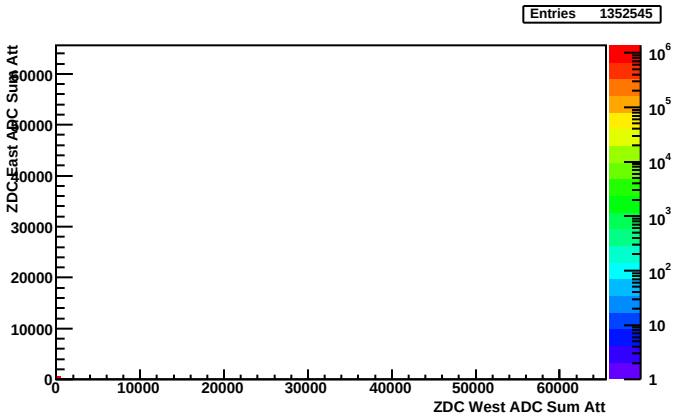

Entries 1352545
VPD-East ADC Sum
ZDC-East ADC Sum Att

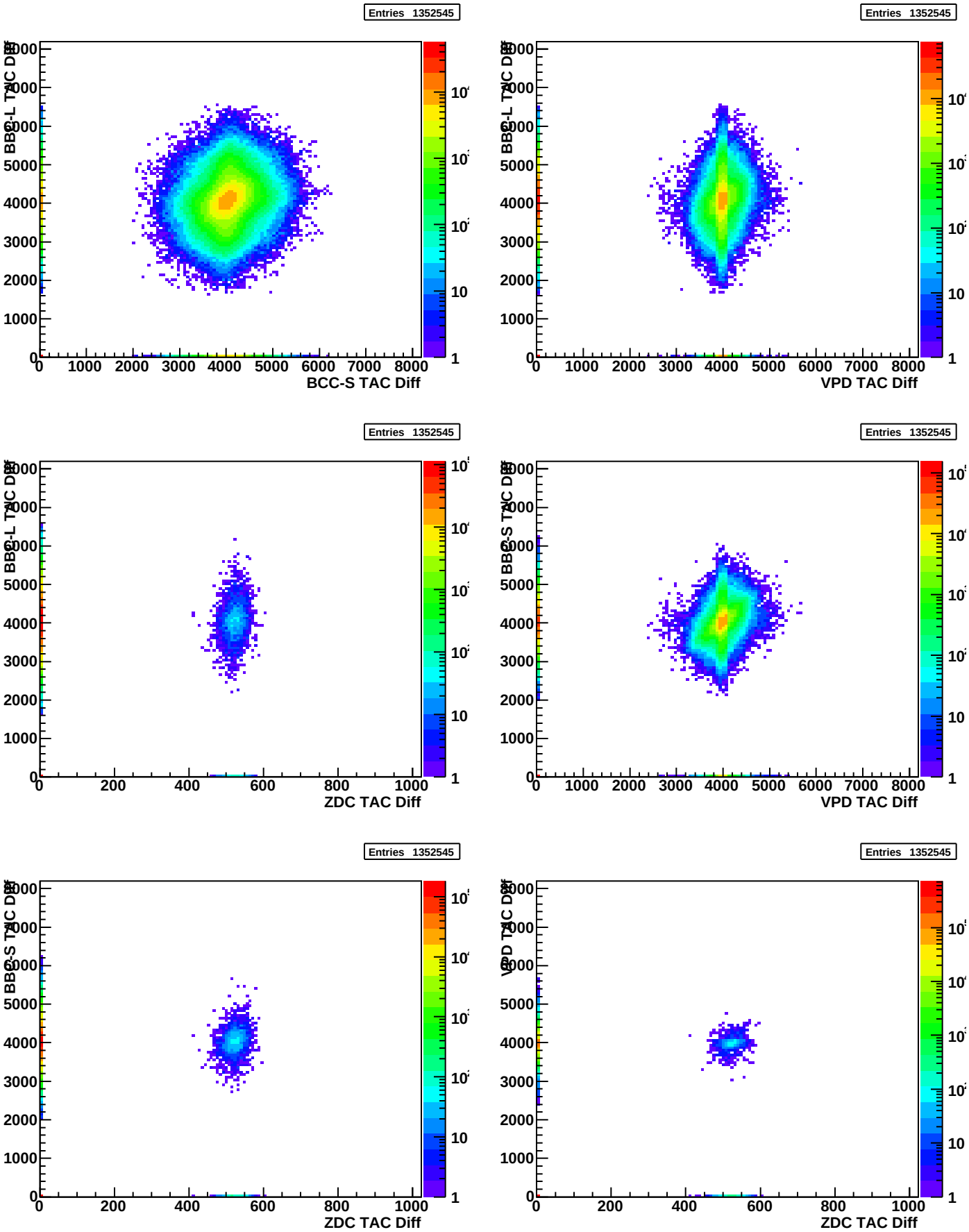

Entries 1352545
VPD-West ADC Sum
ZDC-West ADC Sum Att

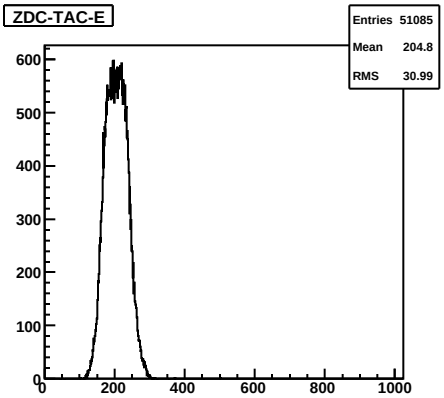

Entries 1352545
BBC-L-East ADC Sum
BBC-L-West ADC Sum

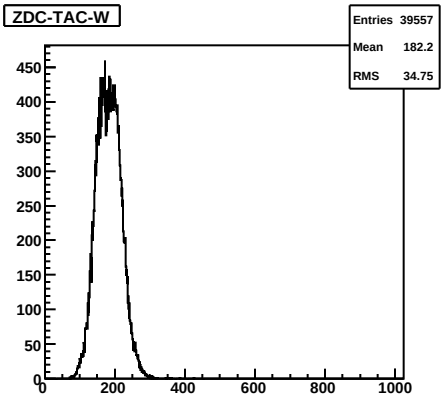

Entries 1352545
BBC-S-East ADC Sum
BBC-S-West ADC Sum

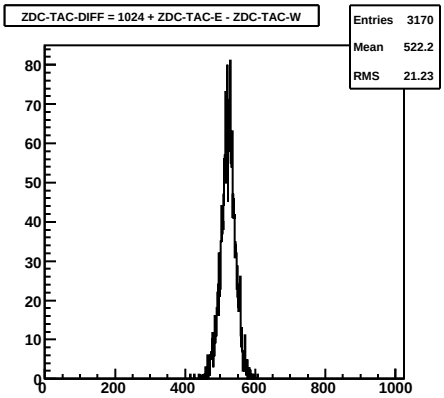

Entries 1352545
VPD East ADC Sum
VPD West ADC Sum

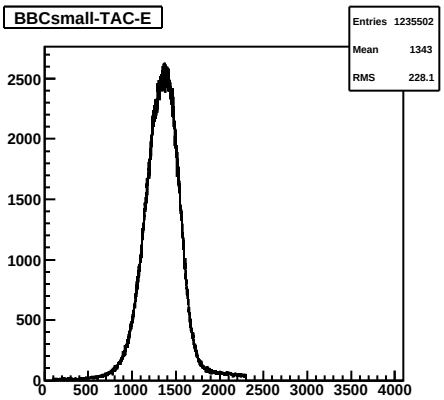

Entries 1352545
ZDC East ADC Sum Att
ZDC West ADC Sum Att

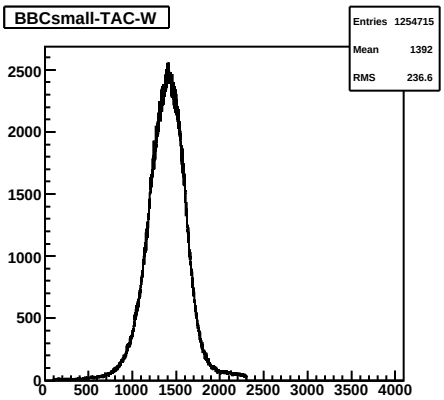

Entries 1352545
BBC-L TAC Diff
BCC-S TAC Diff
Entries 1352545
BBC-L TAC Diff
VPD TAC Diff
Entries 1352545
BBC-L TAC Diff
ZDC TAC Diff
Entries 1352545
BBC-S TAC Diff
VPD TAC Diff
Entries 1352545
BBC-S TAC Diff
ZDC TAC Diff
Entries 1352545
VPD TAC Diff
ZDC TAC Diff

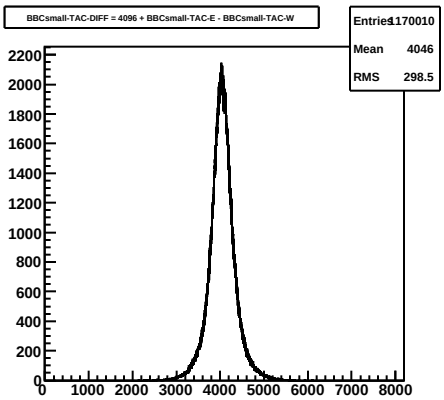

ZDC-TAC-E
Entries 51085
Mean 204.8
RMS 30.99

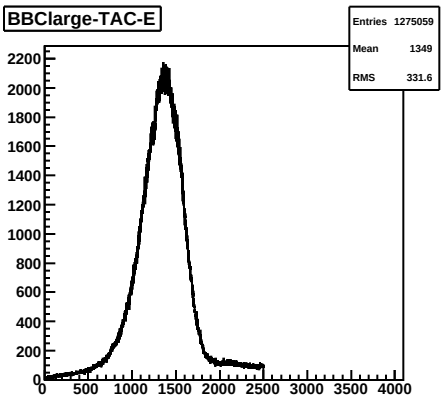

ZDC-TAC-W
Entries 39557
Mean 182.2
RMS 34.75

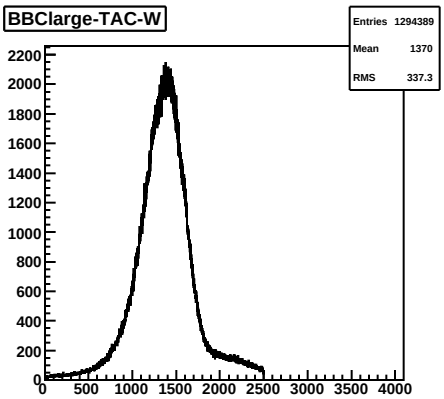

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 3170
Mean 522.2
RMS 21.23

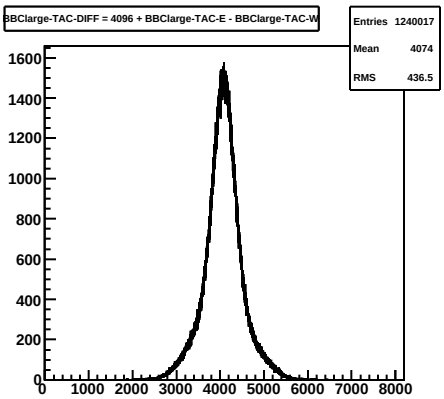

BBCsmall-TAC-E
Entries 1235502
Mean 1343
RMS 228.1

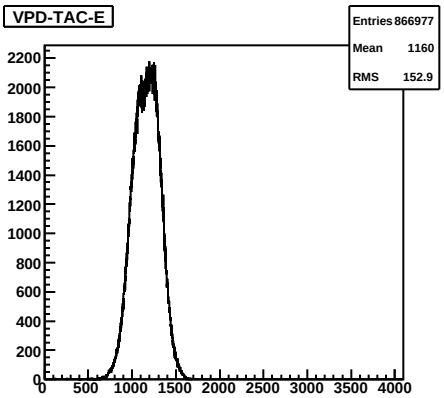

BBCsmall-TAC-W
Entries 1254715
Mean 1392
RMS 236.6

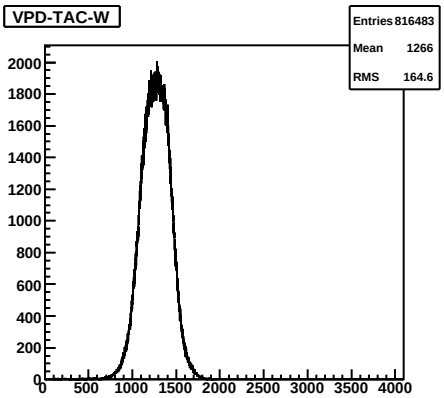

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 1170010
Mean 4046
RMS 298.5

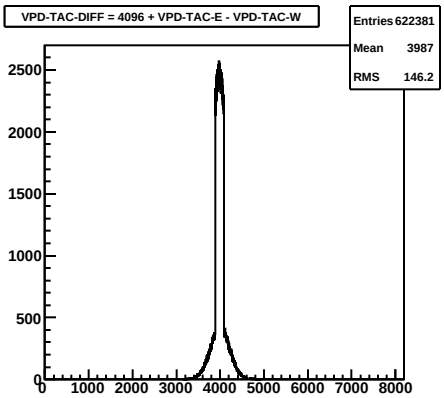

BBClarge-TAC-E
Entries 1275059
Mean 1349
RMS 331.6

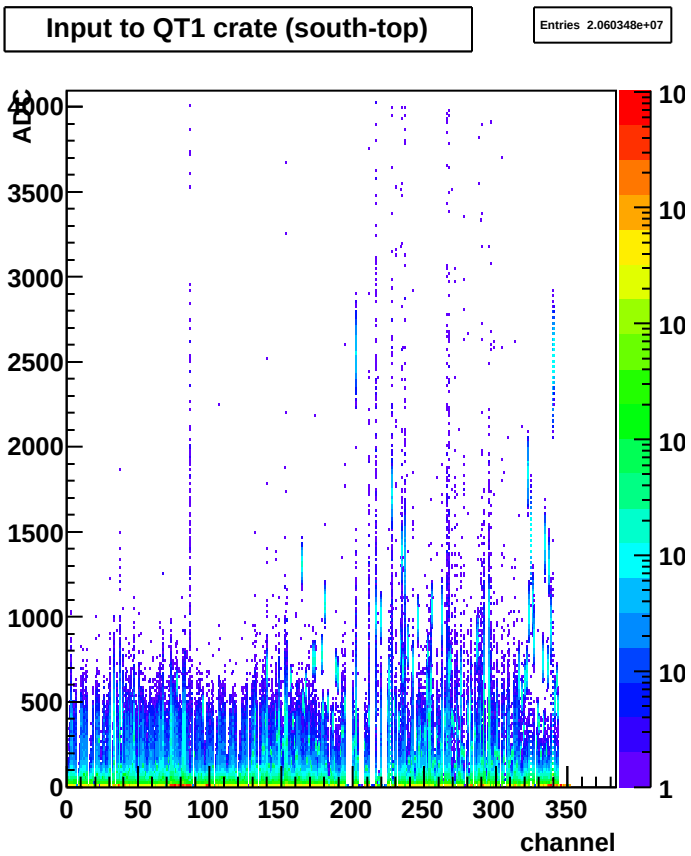

BBClarge-TAC-W
Entries 1294389
Mean 1370
RMS 337.3

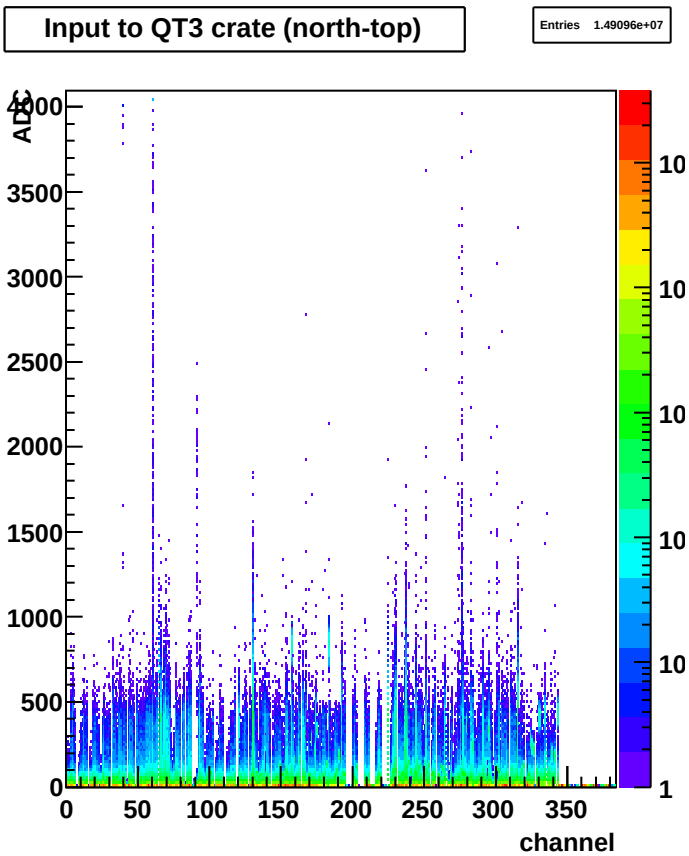

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 1240017
Mean 4074
RMS 436.5

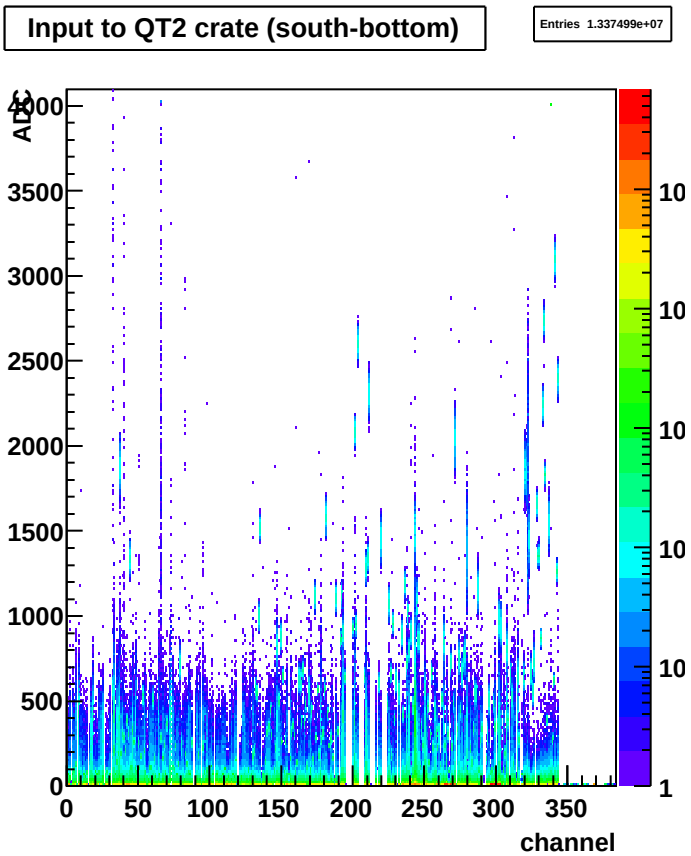

VPD-TAC-E
Entries 866977
Mean 1160
RMS 152.9

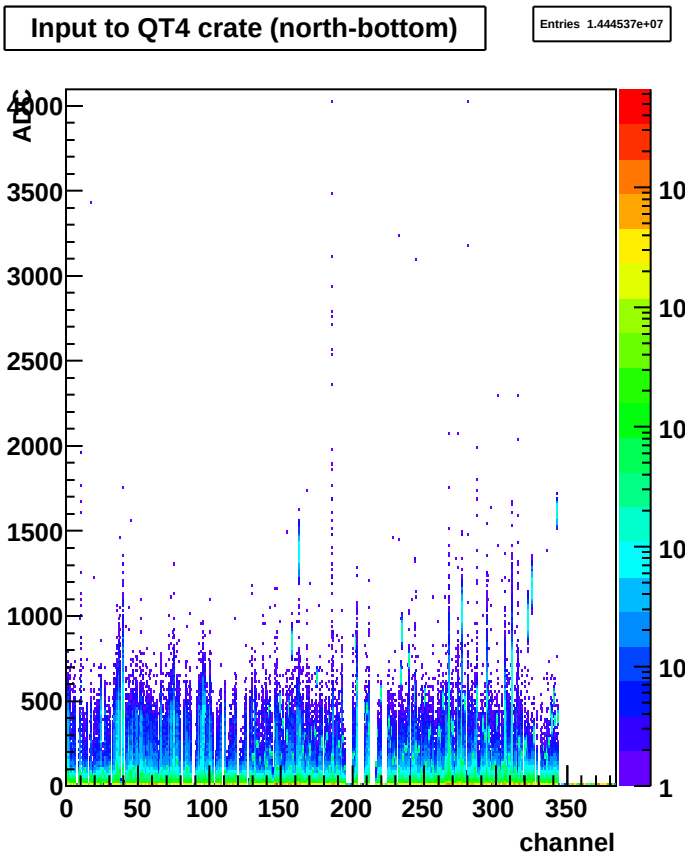

VPD-TAC-W
Entries 816483
Mean 1266
RMS 164.6

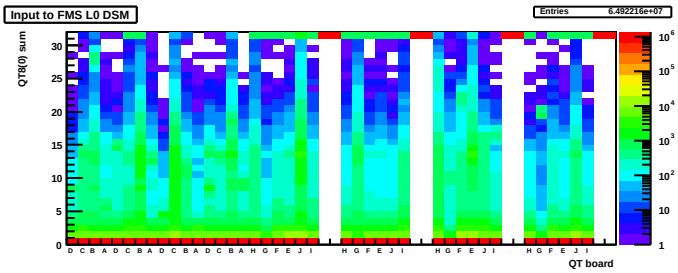

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 622381
Mean 3987
RMS 146.2

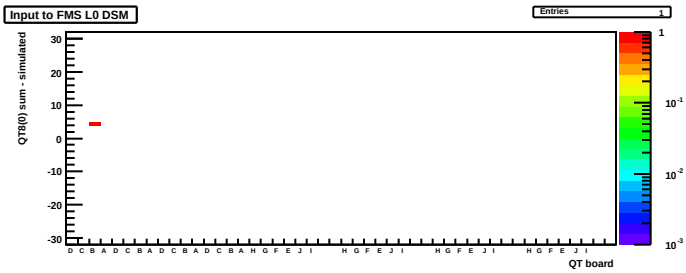

Input to QT1 crate (south-top)
Entries 2.060348e+07
ADC
channel

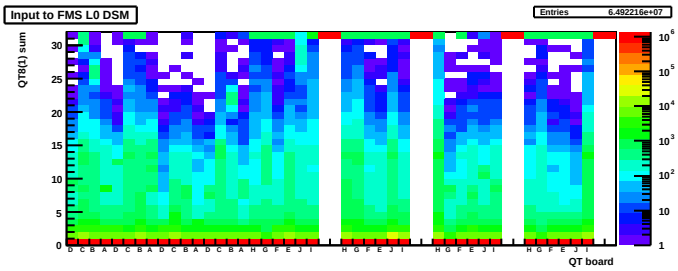

Input to QT3 crate (north-top)
Entries 1.49096e+07
ADC
channel

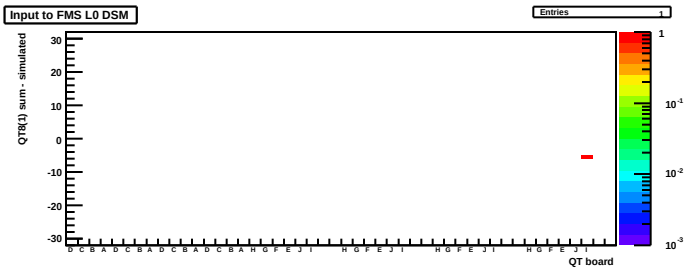

Input to QT2 crate (south-bottom)
Entries 1.337499e+07
ADC
channel

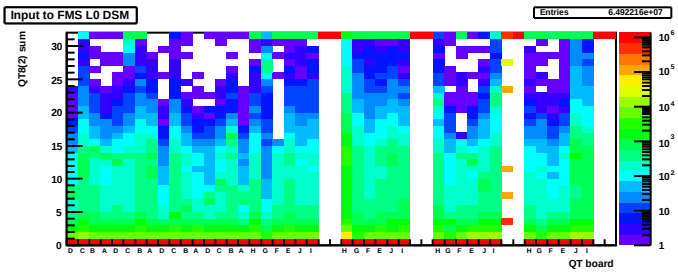

Input to QT4 crate (north-bottom)
Entries 1.444537e+07
ADC
channel

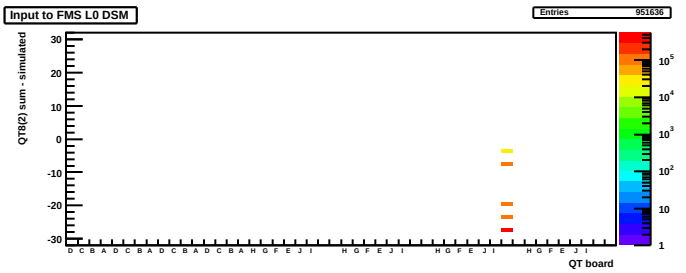

Input to FMS L0 DSM
Entries 6.492216e+07
QT8(0) sum
QT board

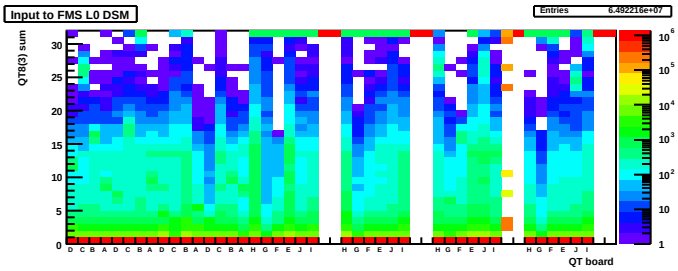

Input to FMS L0 DSM
Entries 1
QT8(0) sum - simulated
QT board

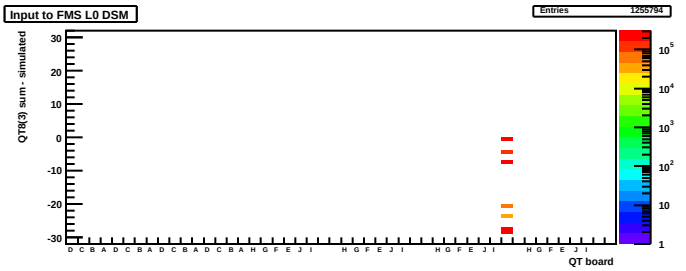

Input to FMS L0 DSM
Entries 6.492216e+07
QT8(1) sum
QT board

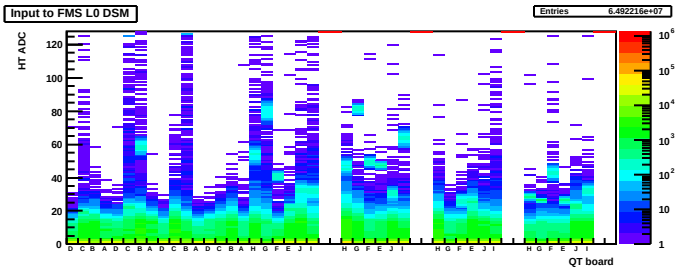

Input to FMS L0 DSM
Entries 1
QT8(1) sum - simulated
QT board

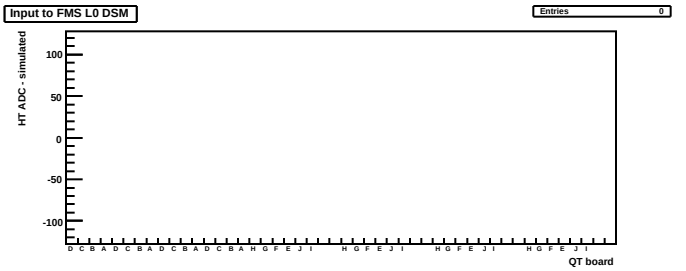

Input to FMS L0 DSM
Entries 6.492216e+07
QT8(2) sum
QT board

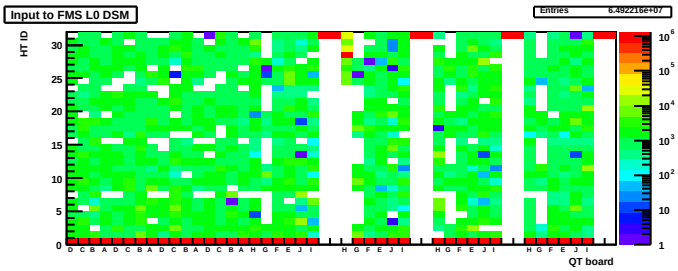

Input to FMS L0 DSM
Entries 951636
QT8(2) sum - simulated
QT board

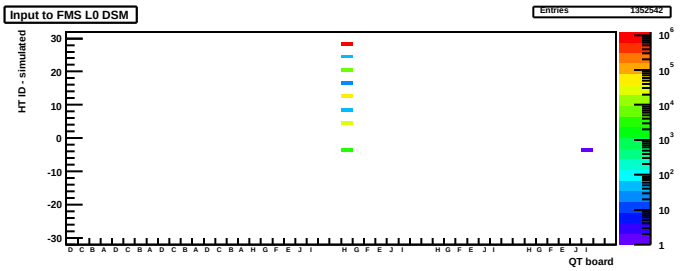

Input to FMS L0 DSM
Entries 6.492216e+07
QT8(3) sum
QT board

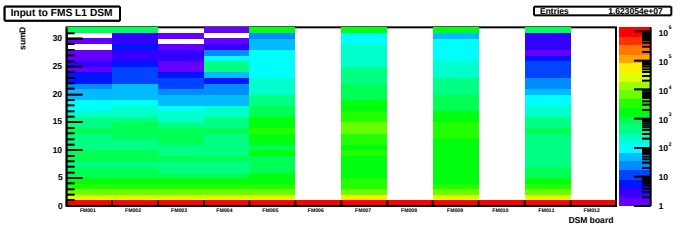

Input to FMS L0 DSM
Entries 1255794
QT8(3) sum - simulated
QT board

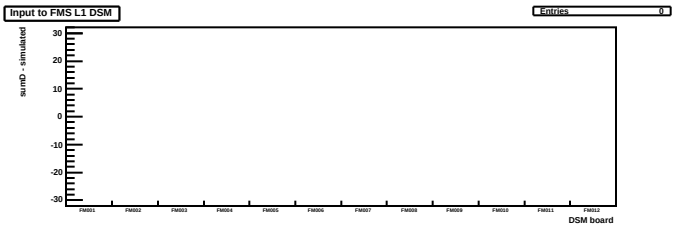

Input to FMS L0 DSM
Entries 6.492216e+07
HT ADC
QT board

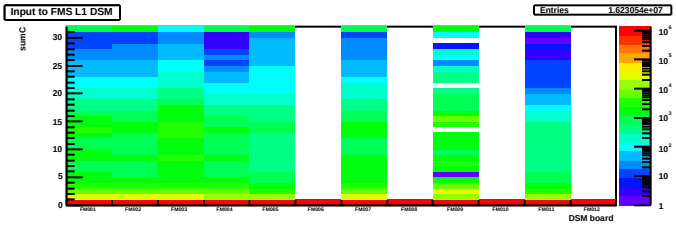

Input to FMS L0 DSM
Entries 0
HT ADC - simulated
QT board

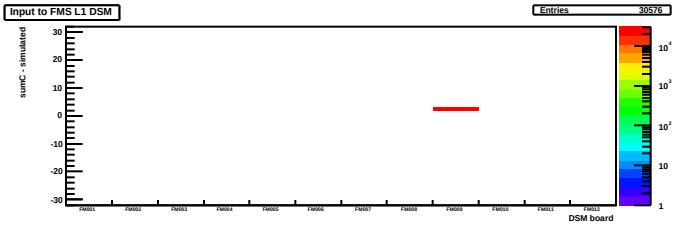

Input to FMS L0 DSM
Entries 6.492216e+07
HT ID
QT board

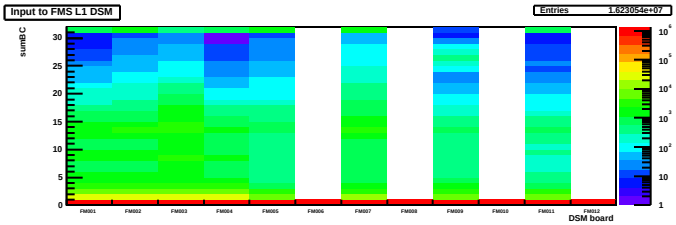

Input to FMS L0 DSM
Entries 1352542
HT ID - simulated
QT board

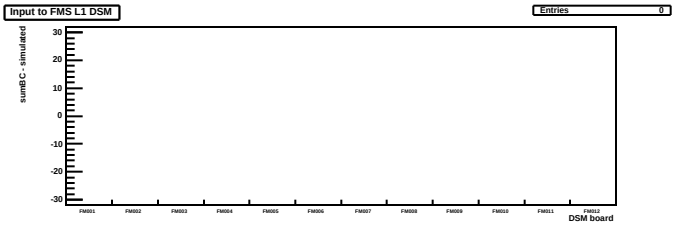

Input to FMS L1 DSM
Entries 1.623054e+07
sumD
DSM board

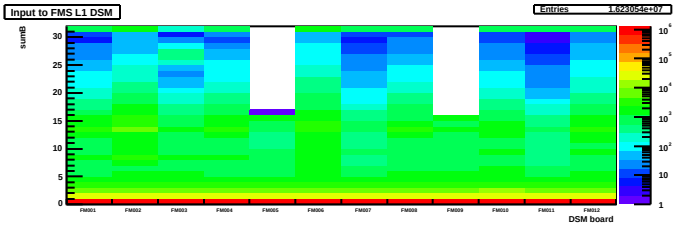

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

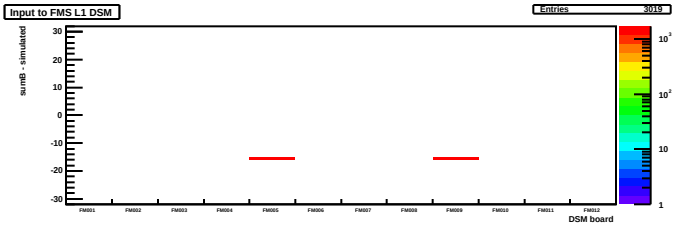

Input to FMS L1 DSM
Entries 1.623054e+07
sumC
DSM board

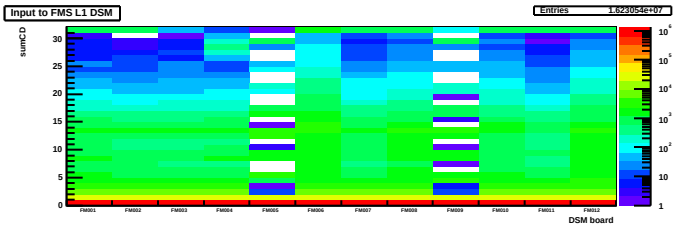

Input to FMS L1 DSM
Entries 30576
sumC - simulated
DSM board

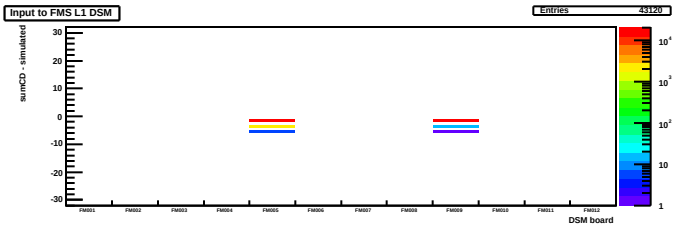

Input to FMS L1 DSM
Entries 1.623054e+07
sumBC
DSM board

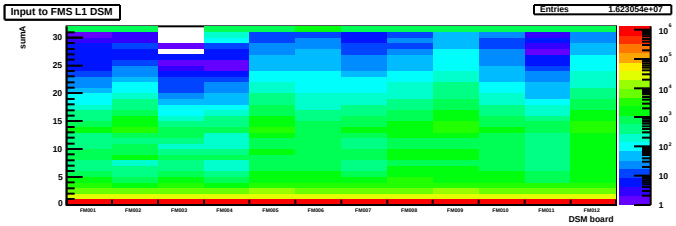

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

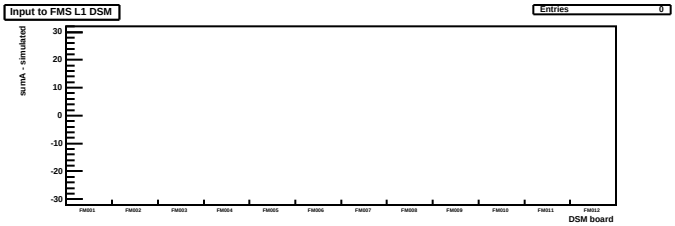

Input to FMS L1 DSM
Entries 1.623054e+07
sumB
DSM board

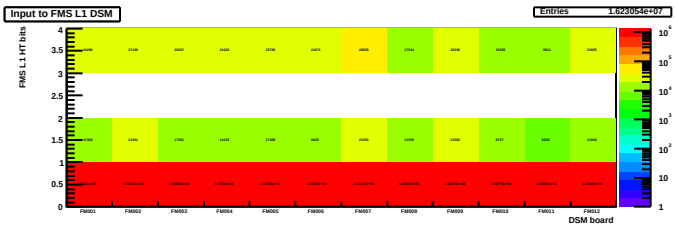

Input to FMS L1 DSM
Entries 3019
sumB - simulated
DSM board

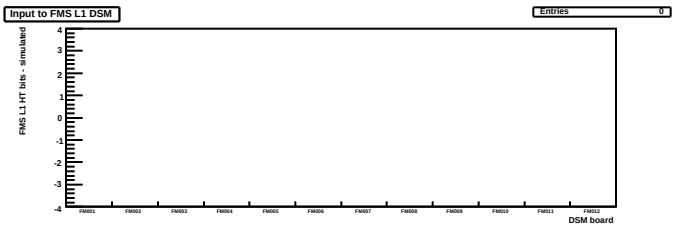

Input to FMS L1 DSM
Entries 1.623054e+07
sumCD
DSM board

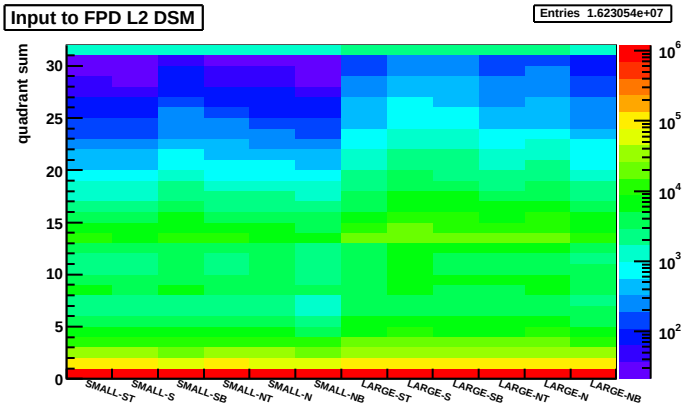

Input to FMS L1 DSM
Entries 43120
sumCD - simulated
DSM board

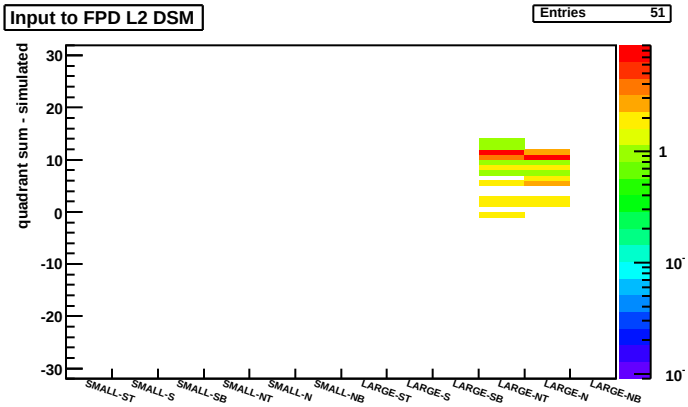

Input to FMS L1 DSM
Entries 1.623054e+07
sumA
DSM board

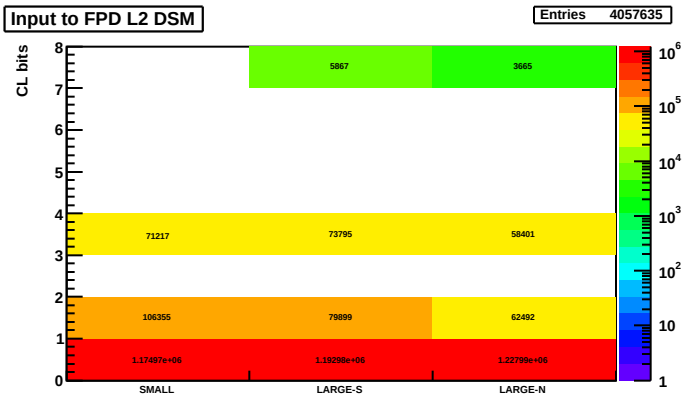

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

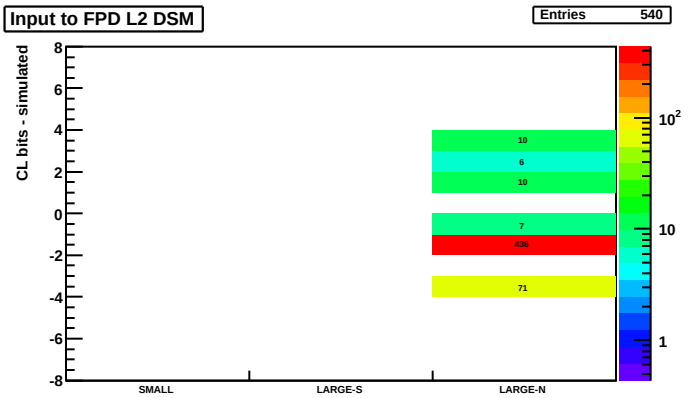

Input to FMS L1 DSM
Entries 1.623054e+07
FMS L1 HT bits
DSM board

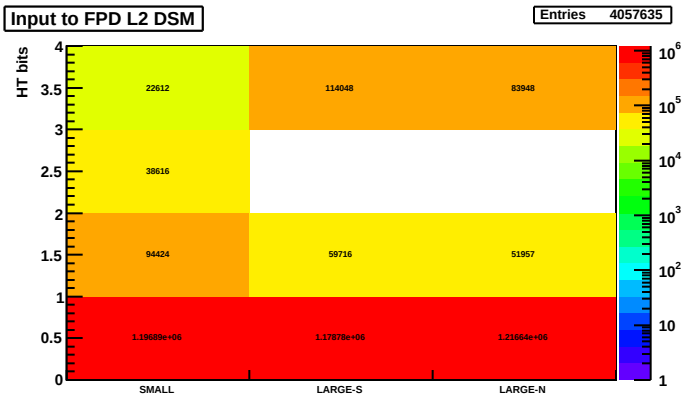

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

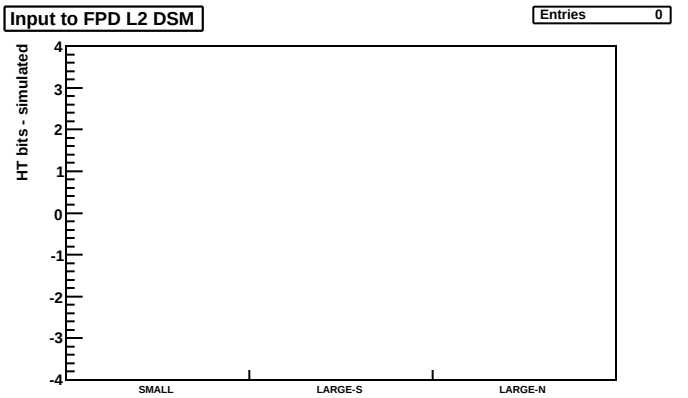

Input to FPD L2 DSM
Entries 1.623054e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

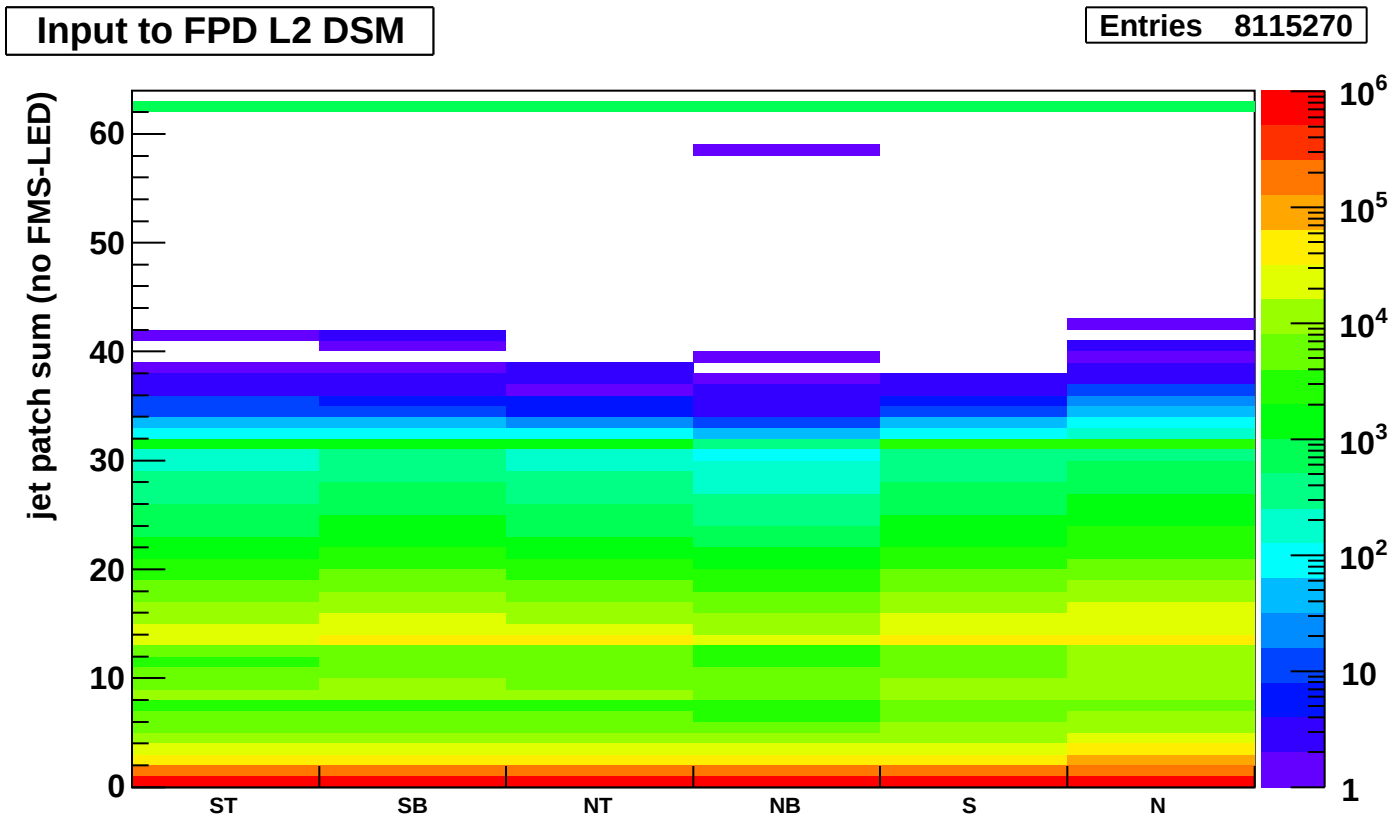

Input to FPD L2 DSM
Entries 51
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

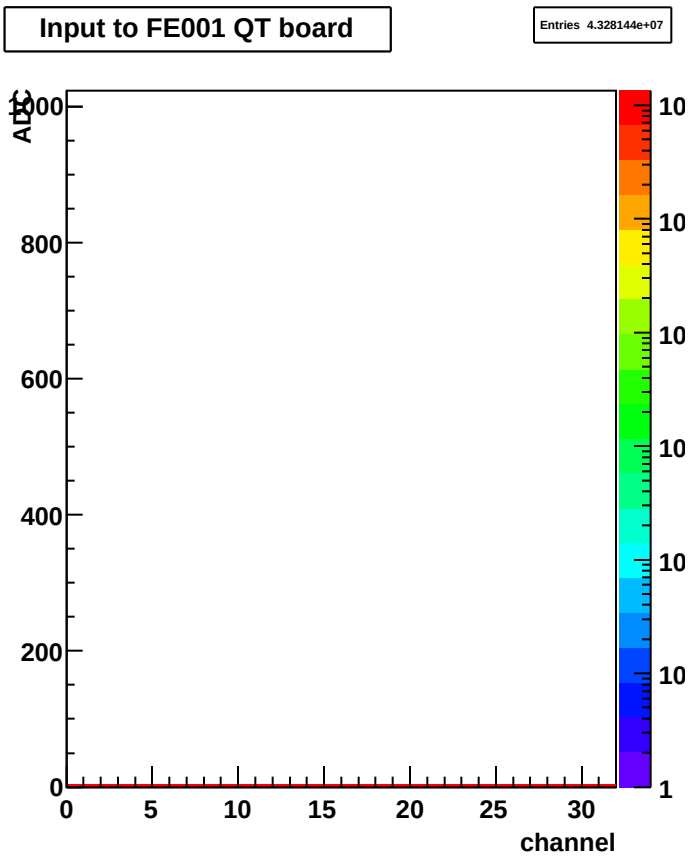

Input to FPD L2 DSM
Entries 4057635
CL bits
5867
3665
71217
73795
58401
106355
79899
62492
1.17497e+06
1.19298e+06
1.22799e+06
SMALL
LARGE-S
LARGE-N

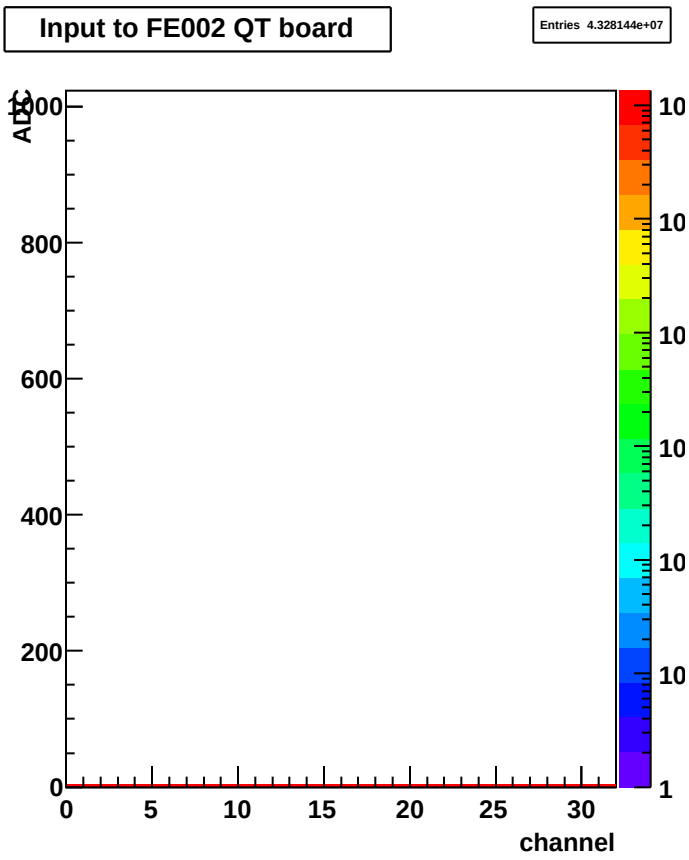

Input to FPD L2 DSM
Entries 540
CL bits - simulated
10
6
10
7
436
71
SMALL
LARGE-S
LARGE-N

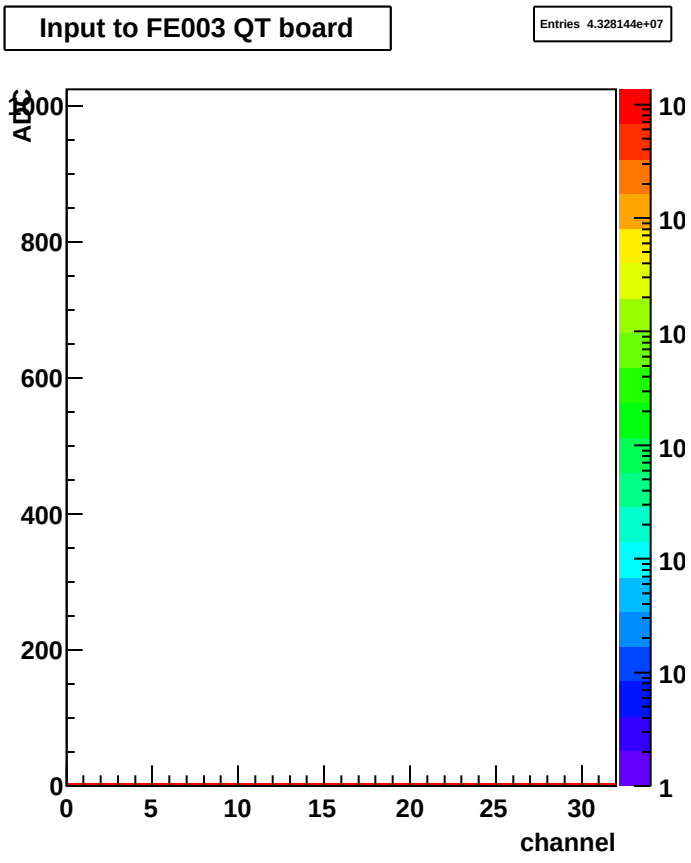

Input to FPD L2 DSM
Entries 4057635
HT bits
22612
114048
83948
38616
94424
59716
51957
1.19689e+06
1.17878e+06
1.21664e+06
SMALL
LARGE-S
LARGE-N

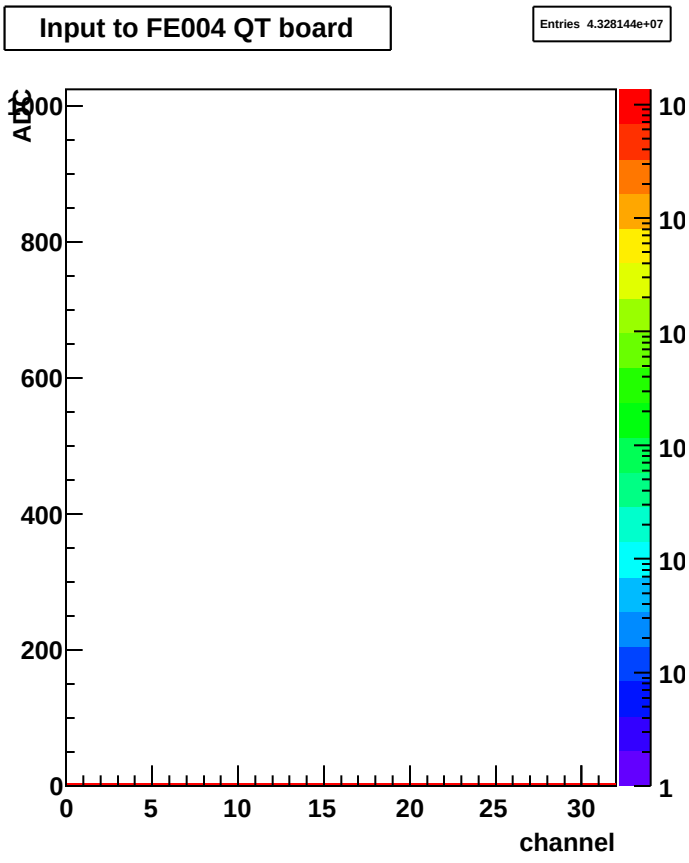

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

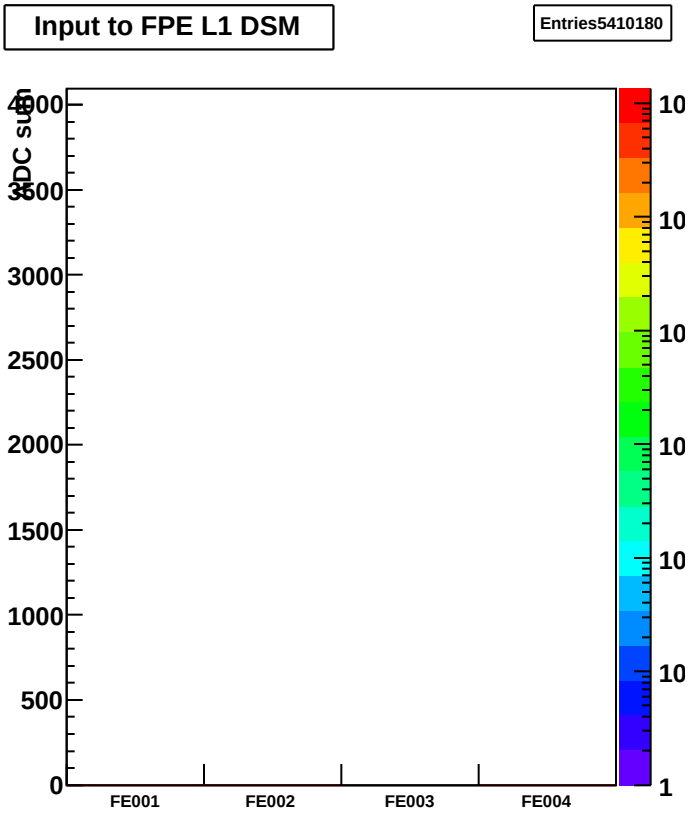

Input to FPD L2 DSM
Entries 8115270
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6


Input to FE001 QT board
Entries 4.328144e+07
ADC
channel

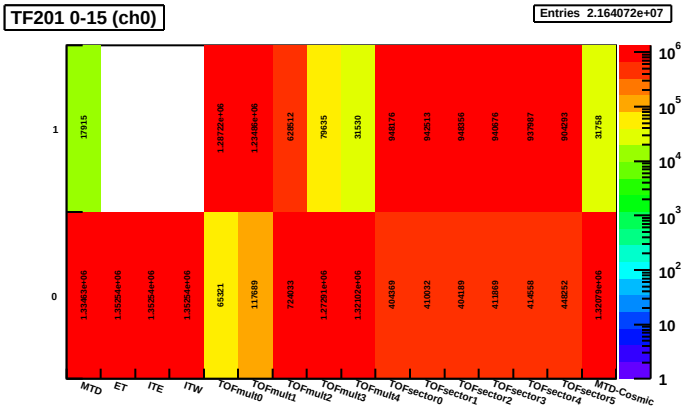

Input to FE002 QT board
Entries 4.328144e+07
ADC
channel


Input to FE003 QT board
Entries 4.328144e+07
ADC
channel

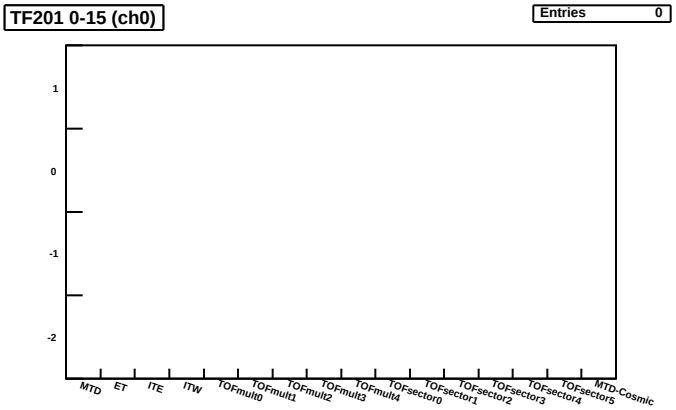

Input to FE004 QT board
Entries 4.328144e+07
ADC
channel


Input to FPE L1 DSM
Entries5410180
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
10
1

TF201 0-15 (ch0)



TF201 0-15 (ch0)



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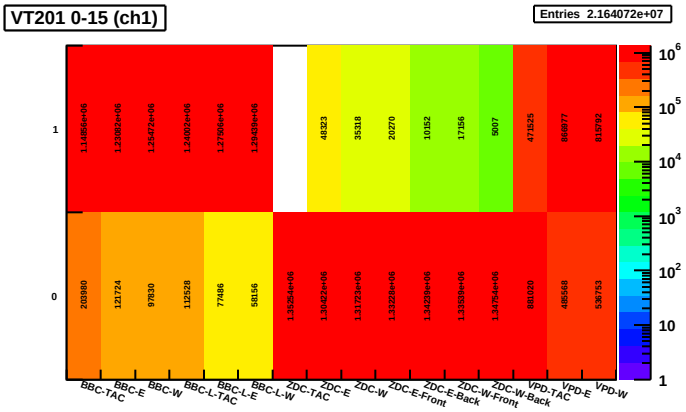

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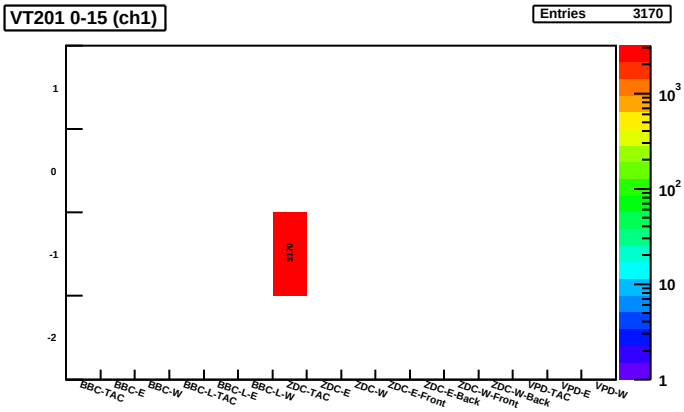

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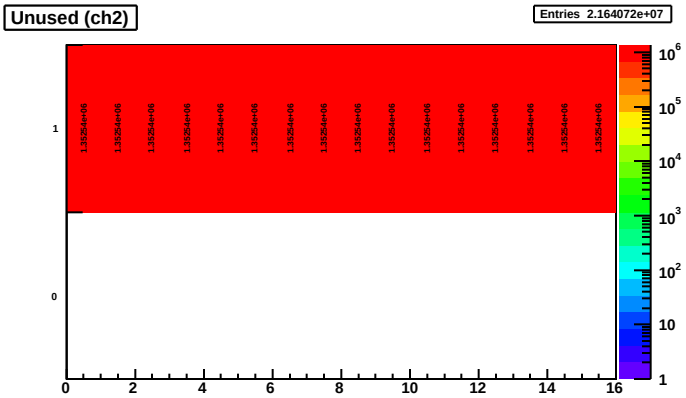
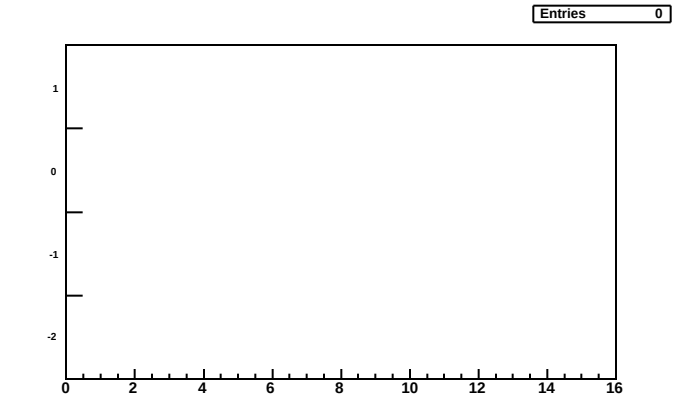
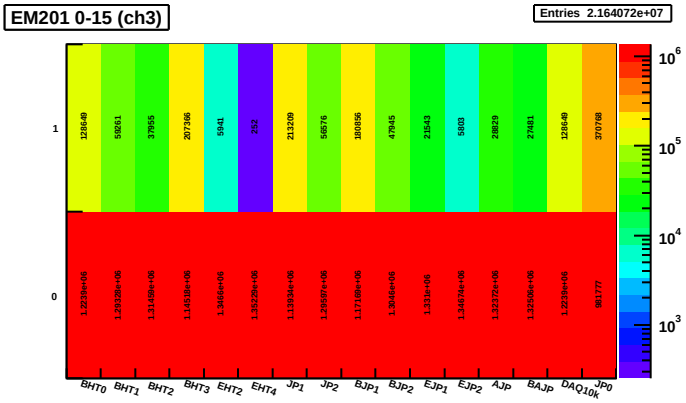
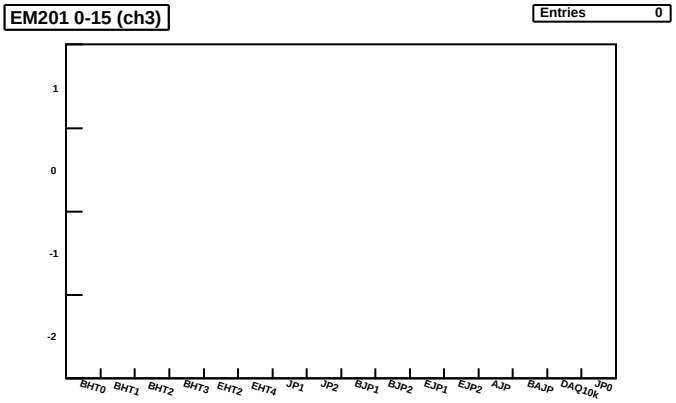




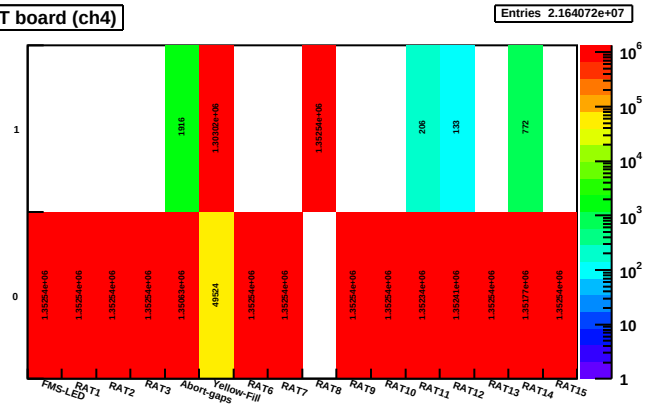
EM201 0-15 (ch3)

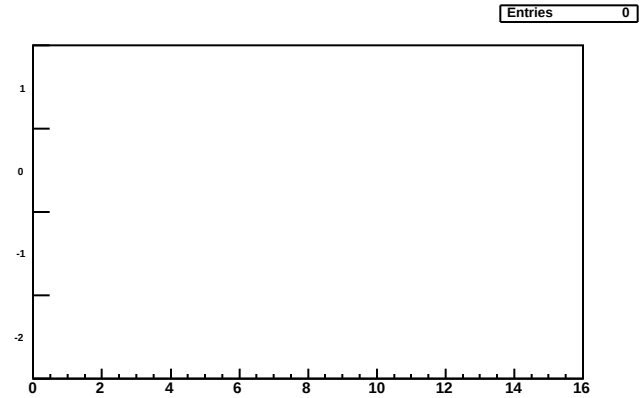


EM201 0-15 (ch3)

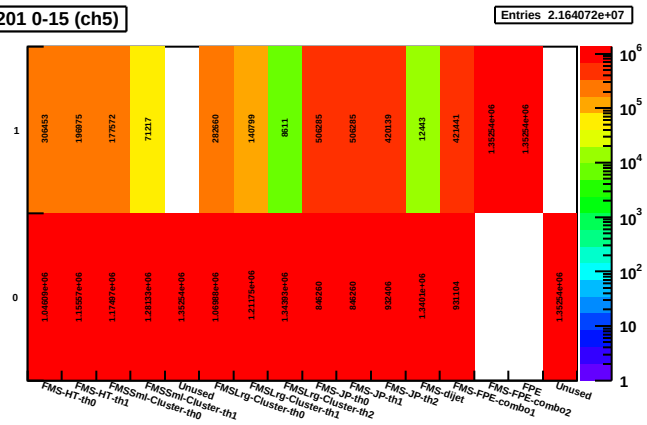


RAT board (ch4)

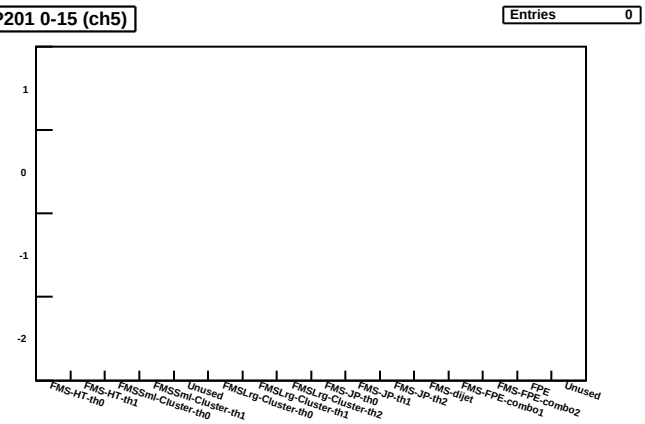




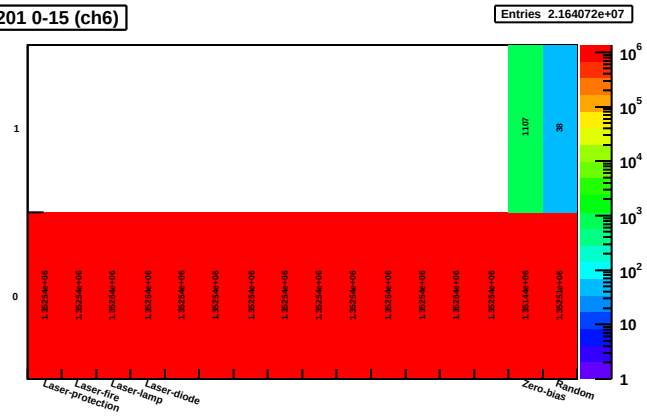
FP201 0-15 (ch5)

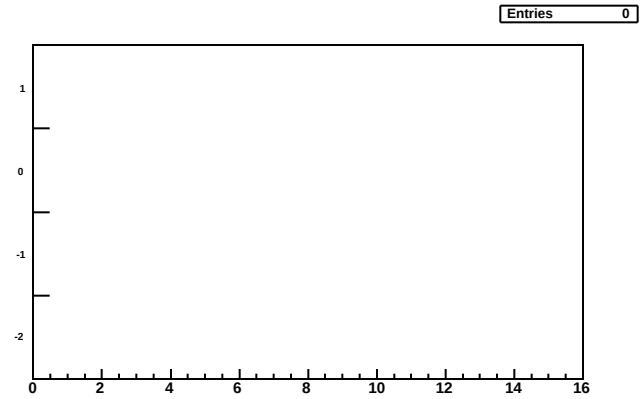
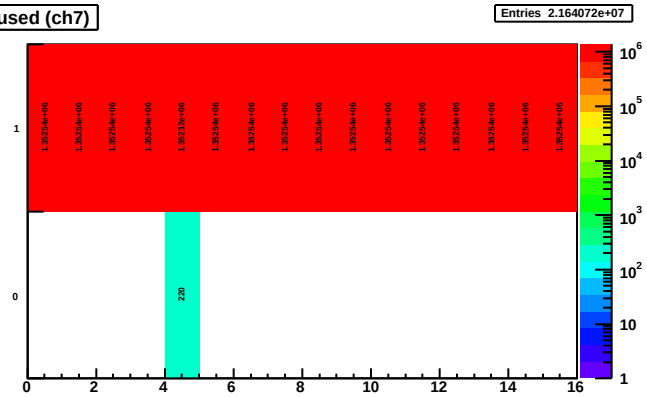
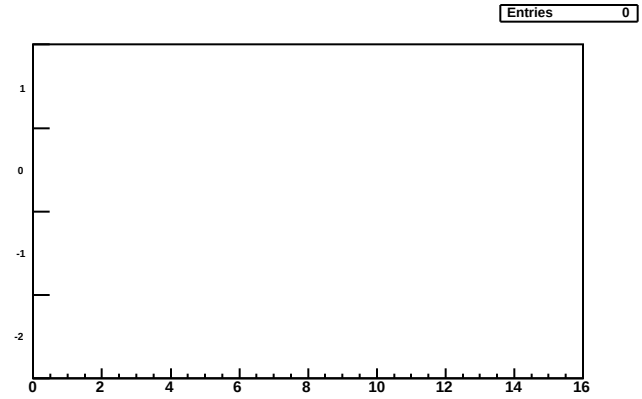


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)