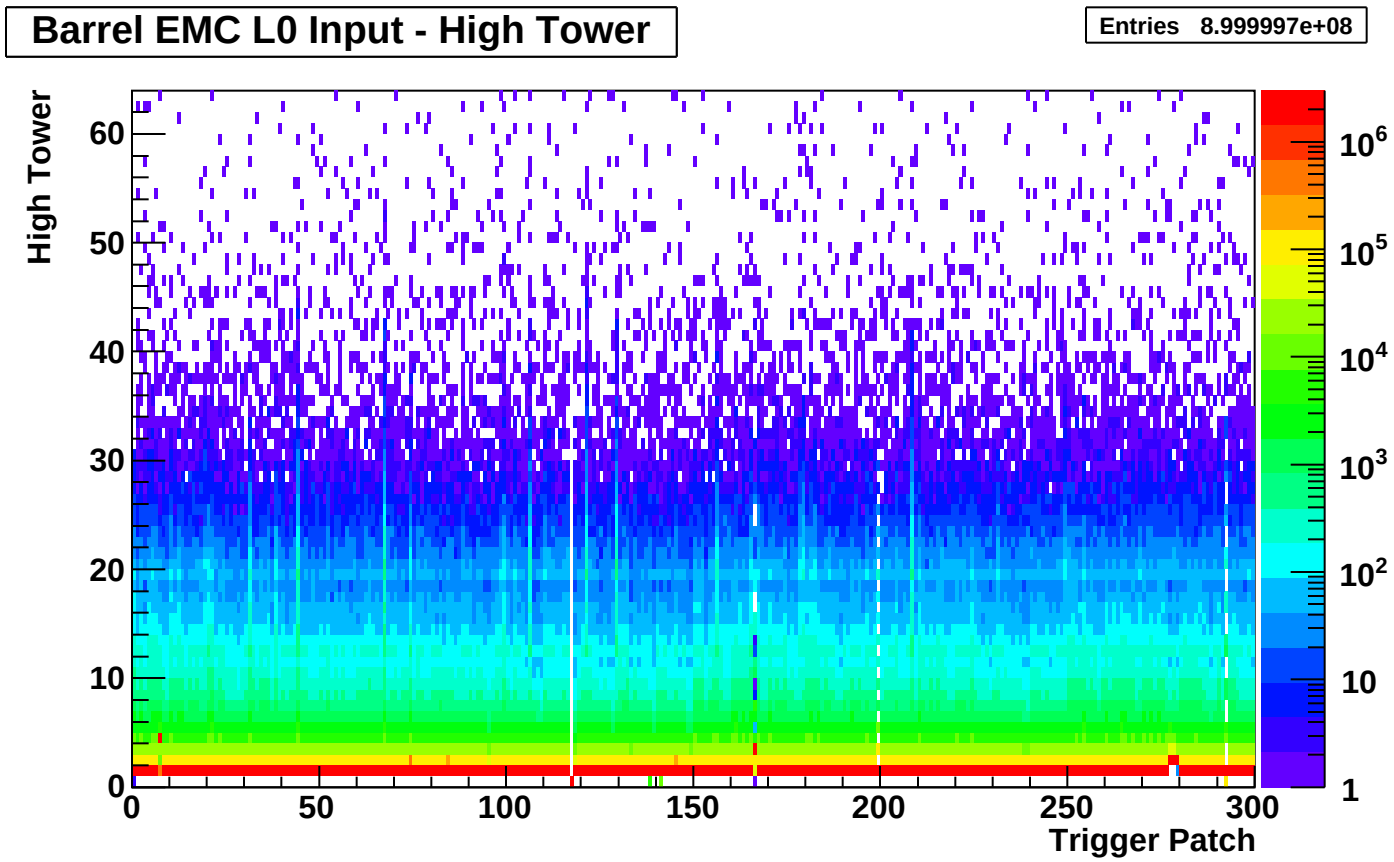
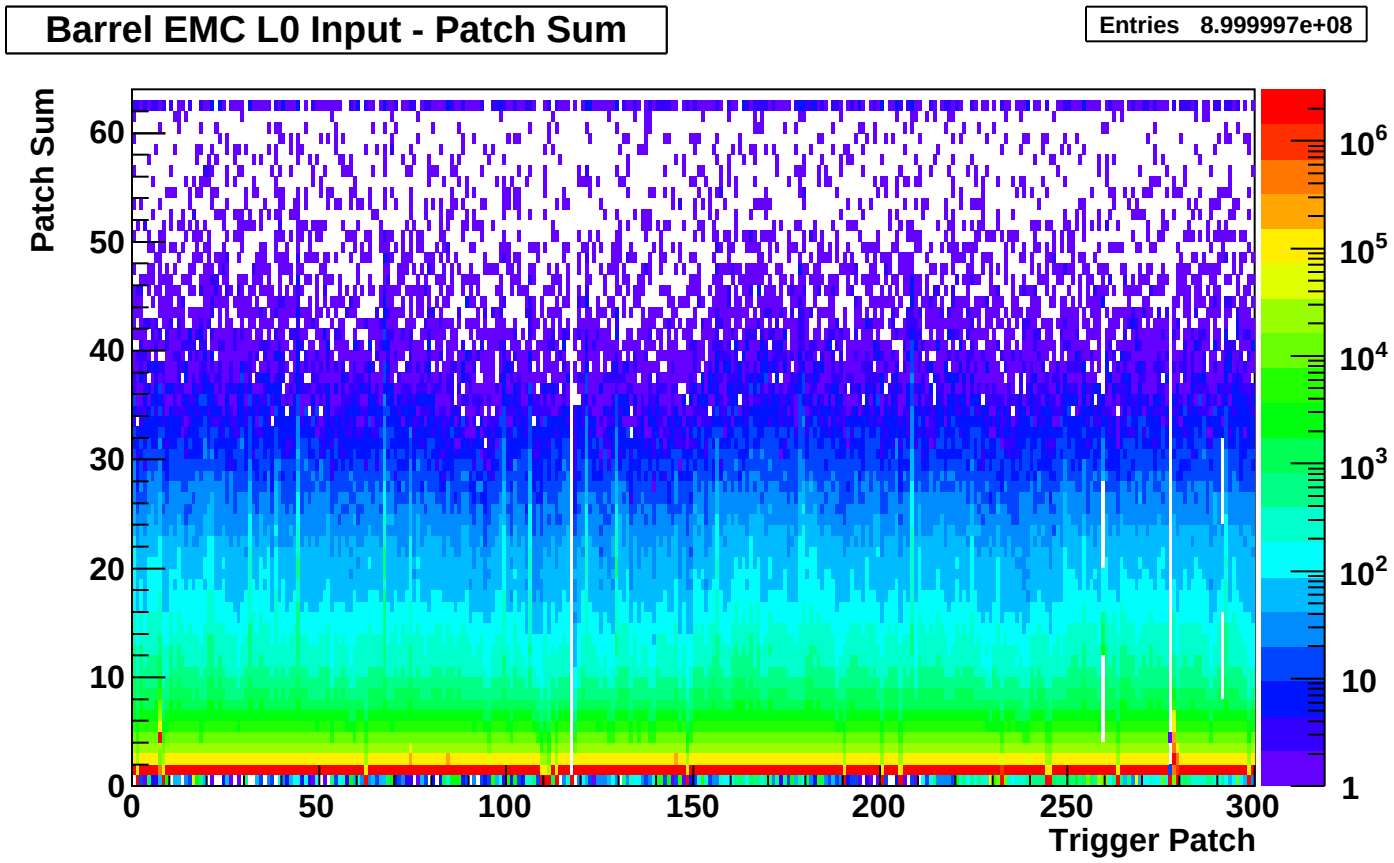
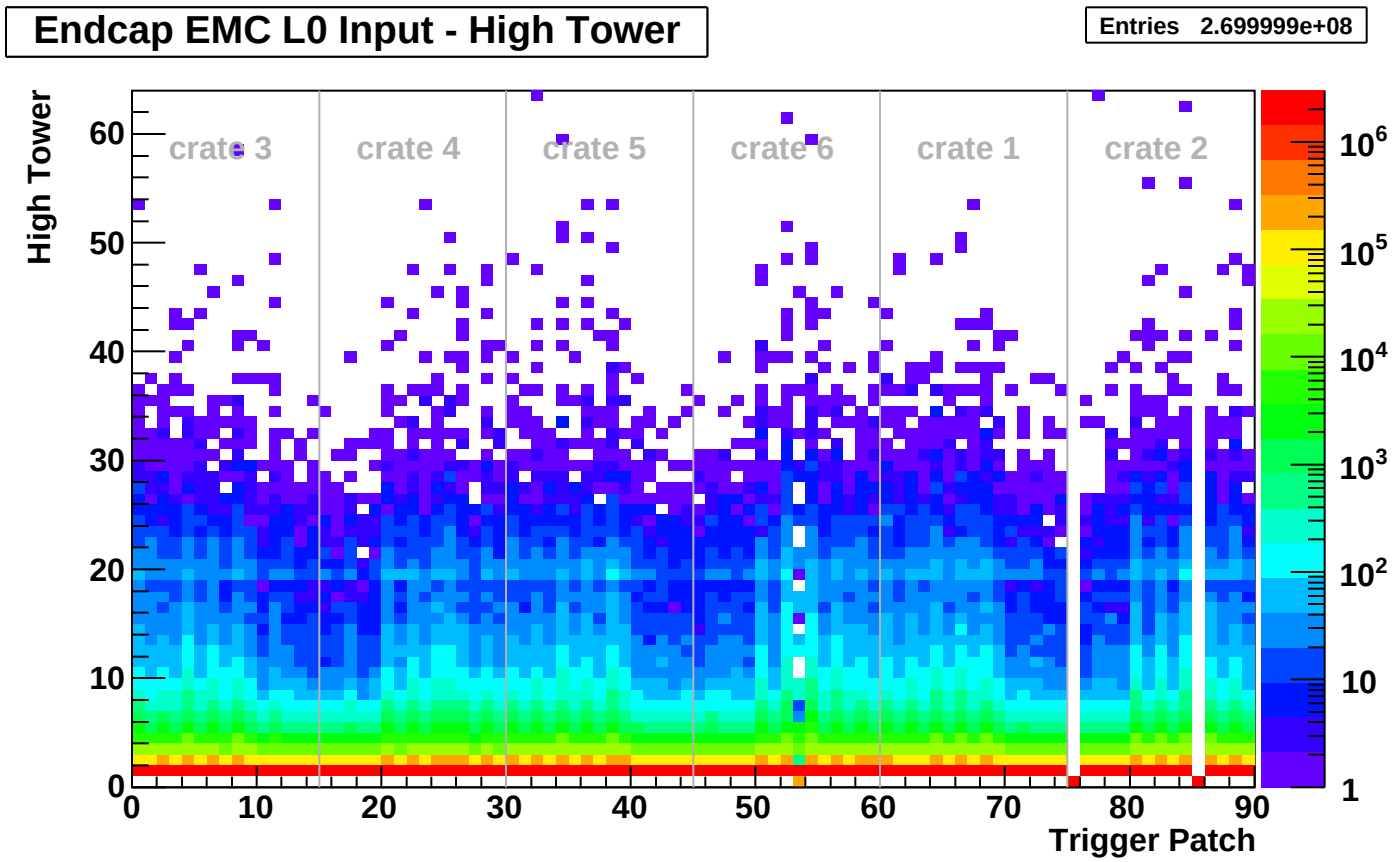
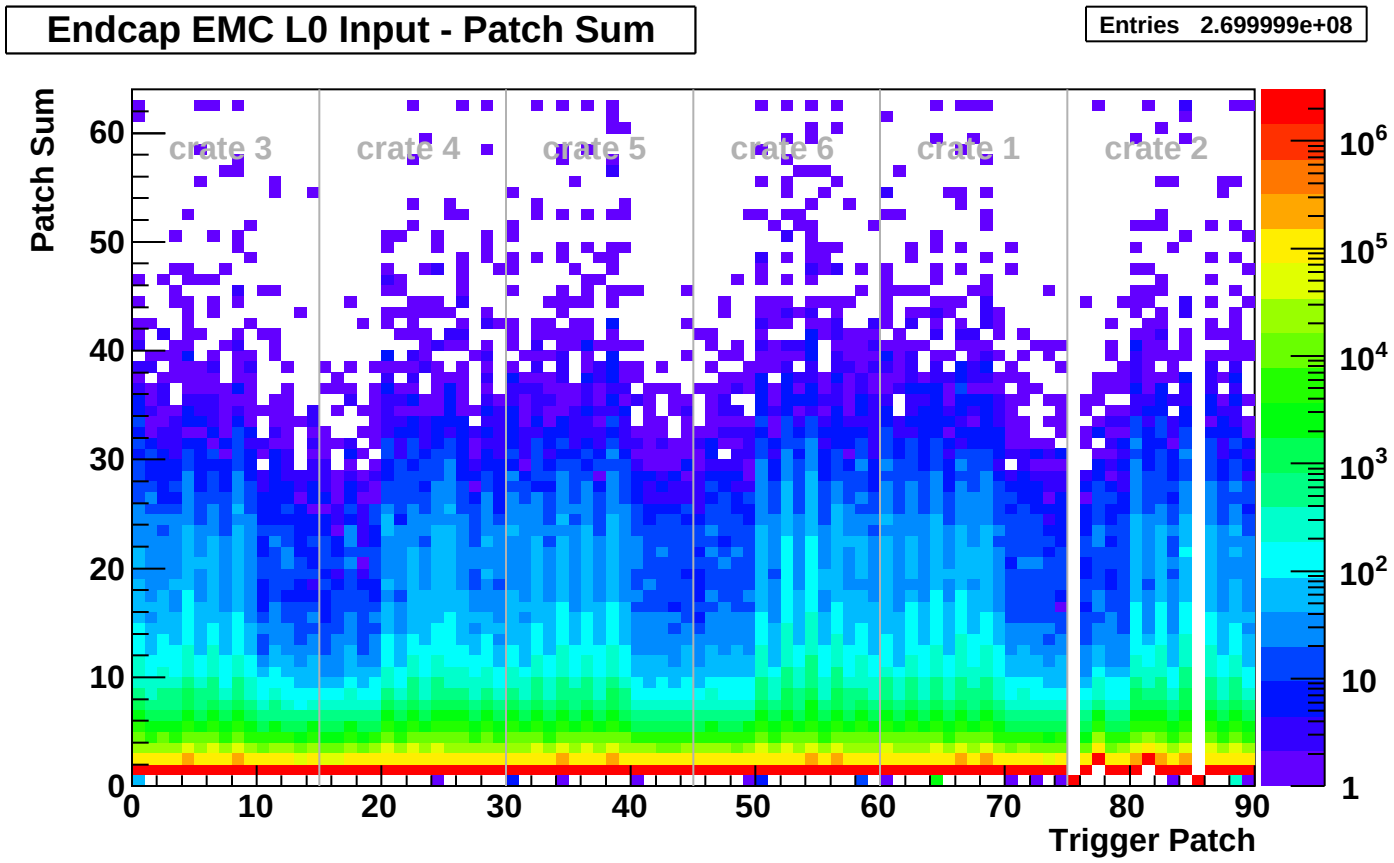
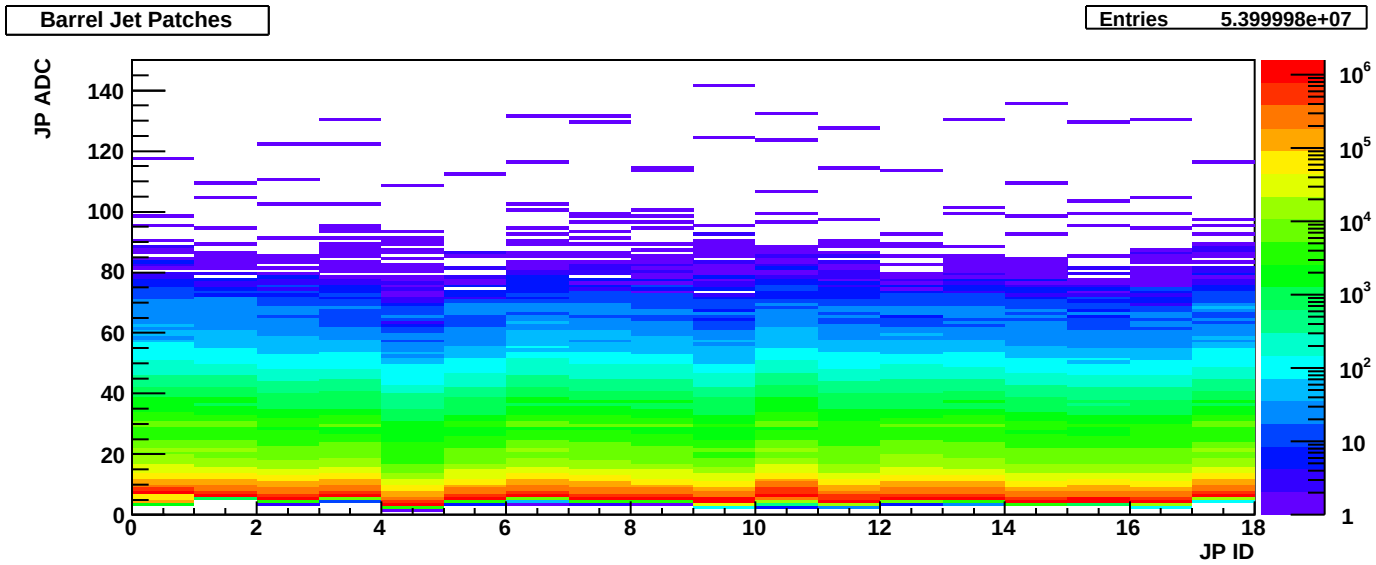
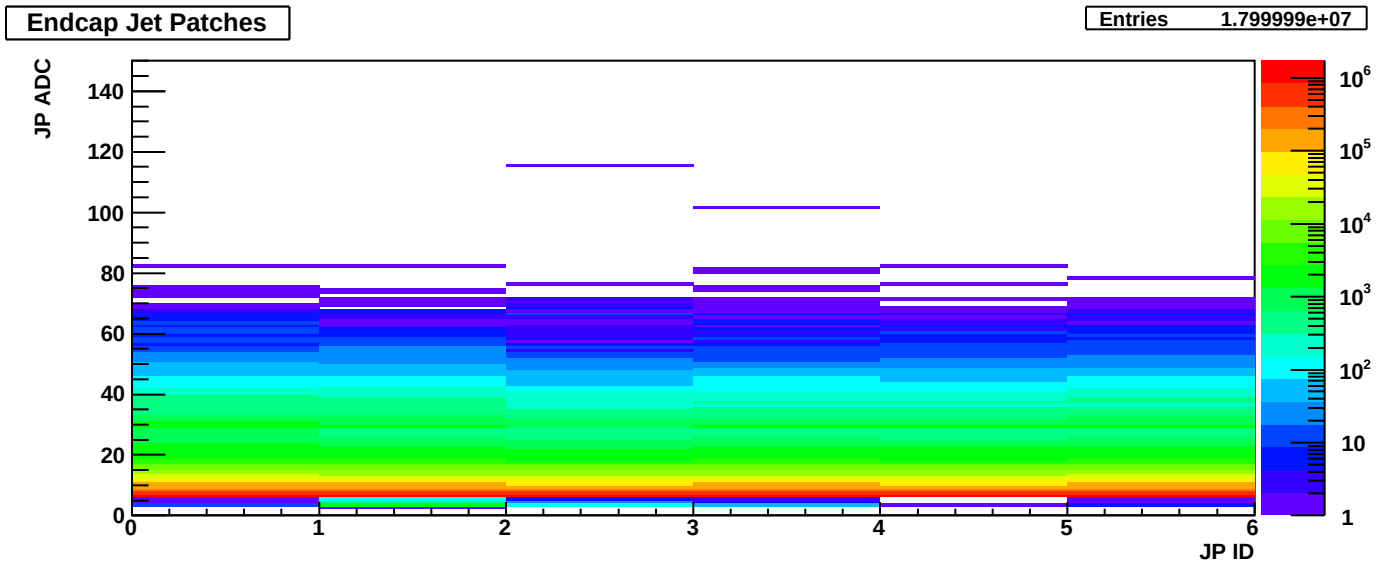

Barrel EMC L0 Input - High Tower
Entries 8.999997e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

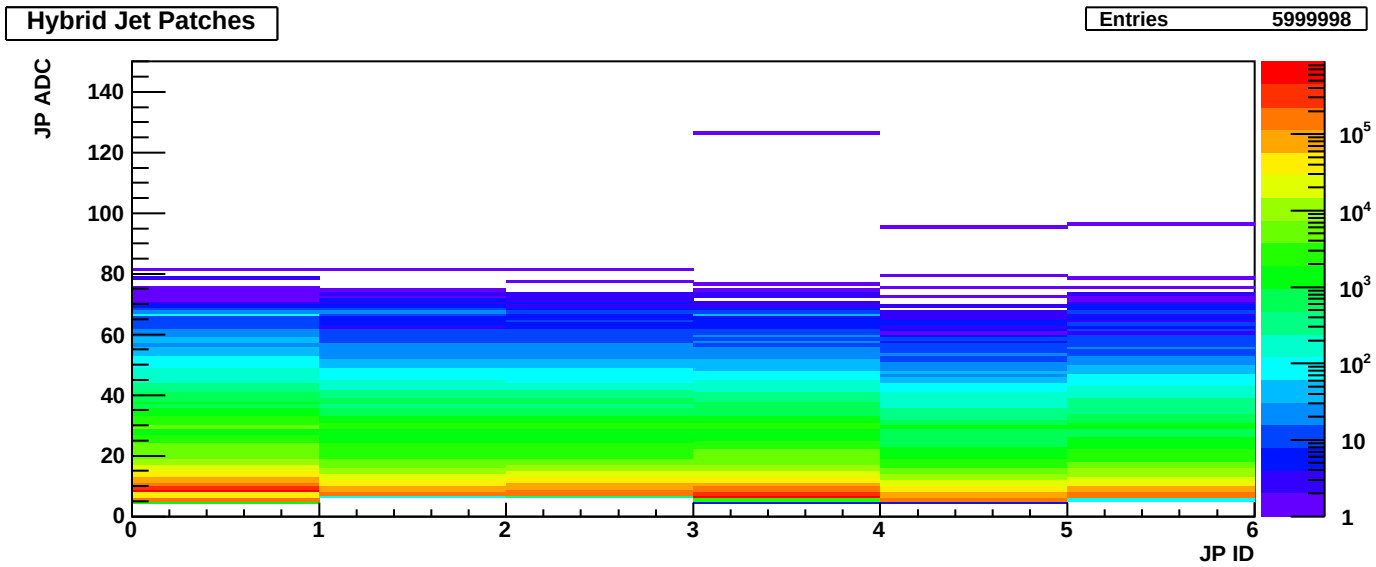

Barrel EMC L0 Input - Patch Sum
Entries 8.999997e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

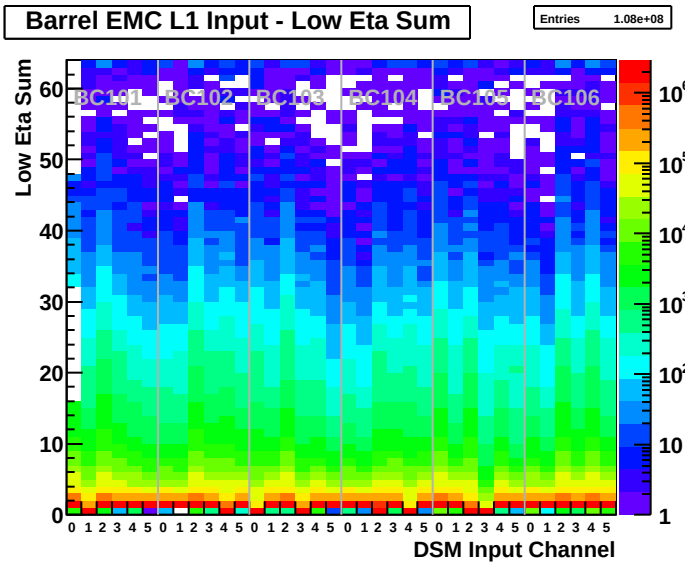

Endcap EMC L0 Input - High Tower
Entries 2.699999e+08
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

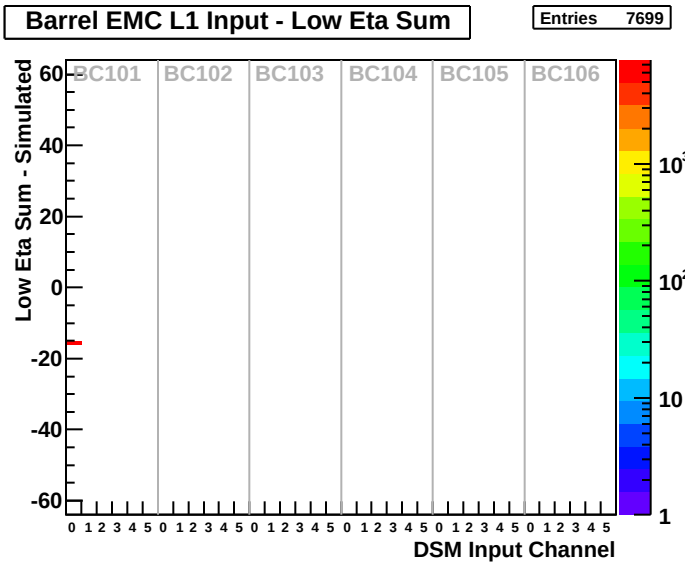

Endcap EMC L0 Input - Patch Sum
Entries 2.699999e+08
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

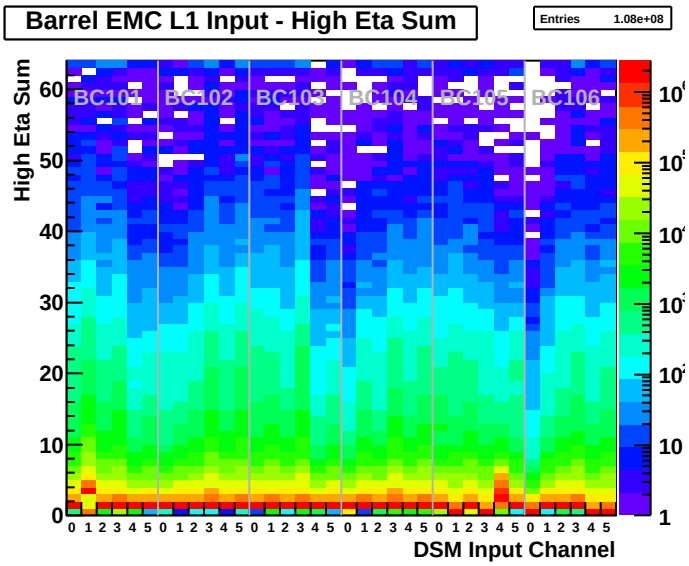

Barrel Jet Patches
Entries 5.399998e+07
JP ADC
JP ID

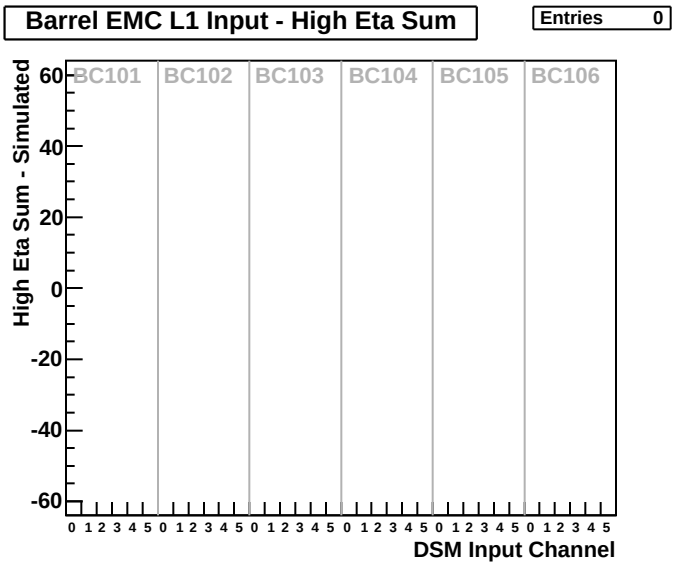

Endcap Jet Patches
Entries 1.799999e+07
JP ADC
JP ID

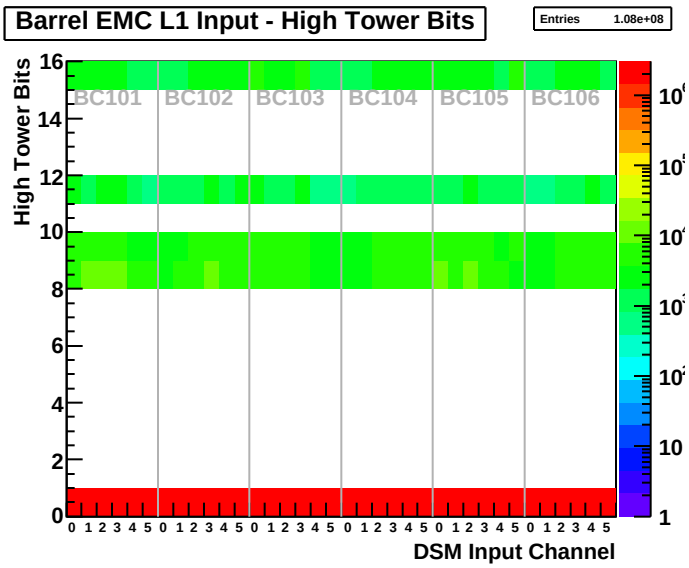

Hybrid Jet Patches
Entries 5999998
JP ADC
JP ID

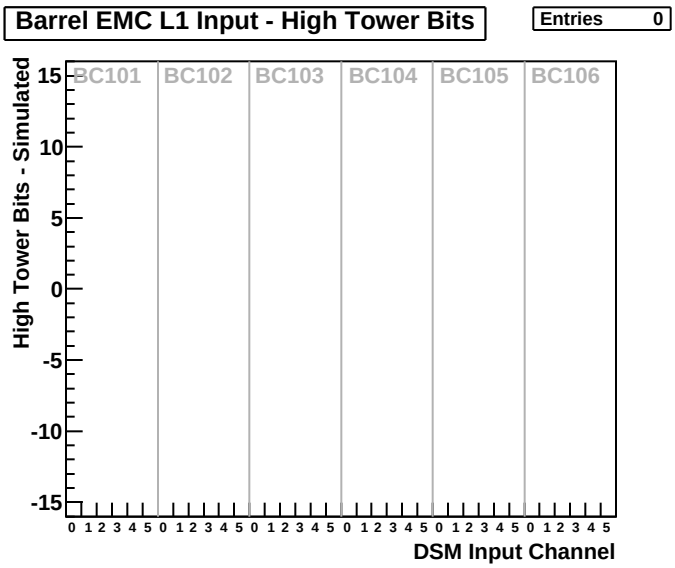

Barrel EMC L1 Input - Low Eta Sum
Entries 1.08e+08
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

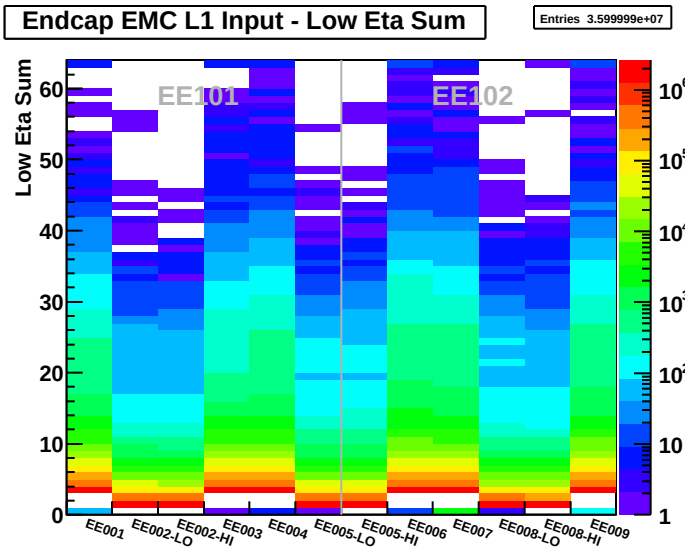

Barrel EMC L1 Input - Low Eta Sum
Entries 7699
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

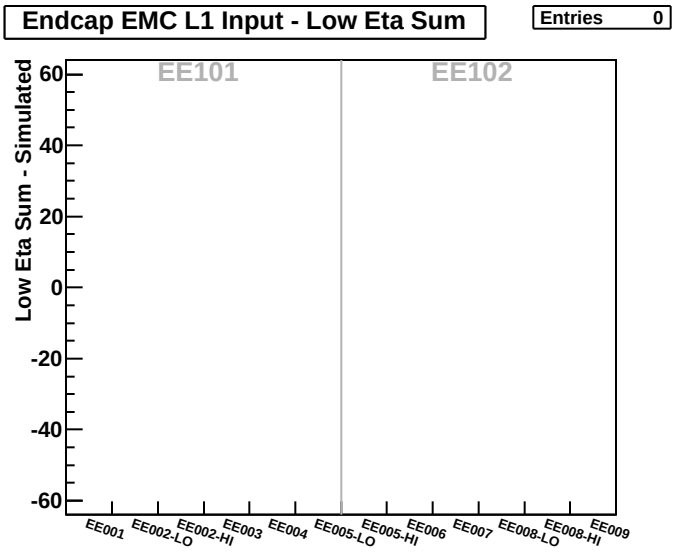

Barrel EMC L1 Input - High Eta Sum
Entries 1.08e+08
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

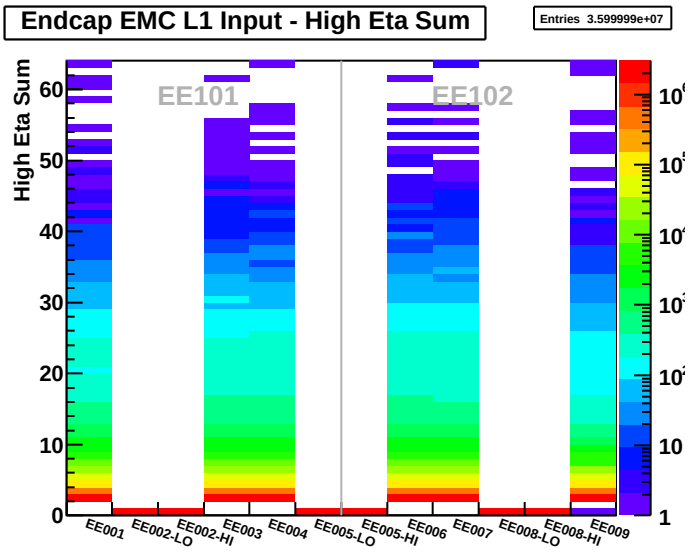

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

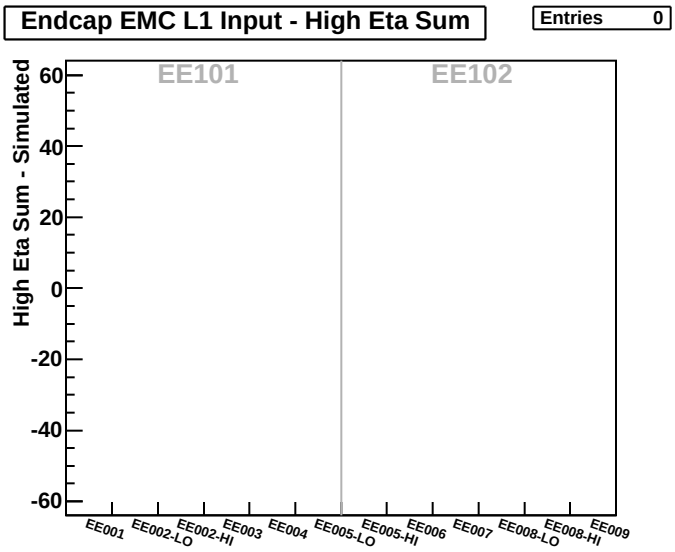

Barrel EMC L1 Input - High Tower Bits
Entries 1.08e+08
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

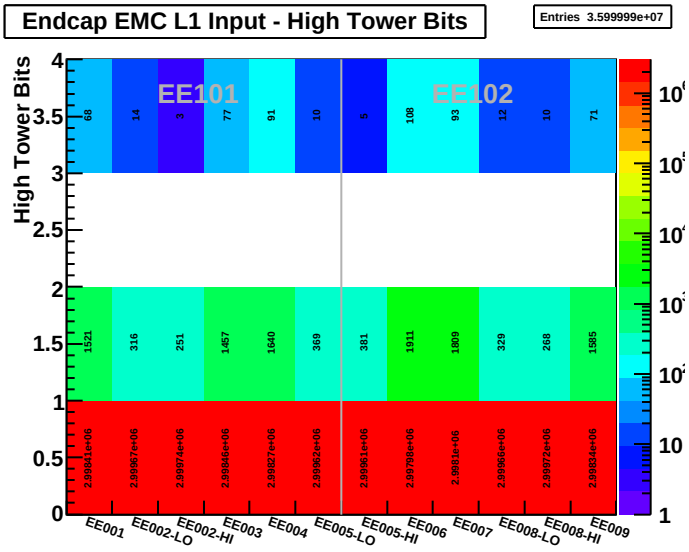

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

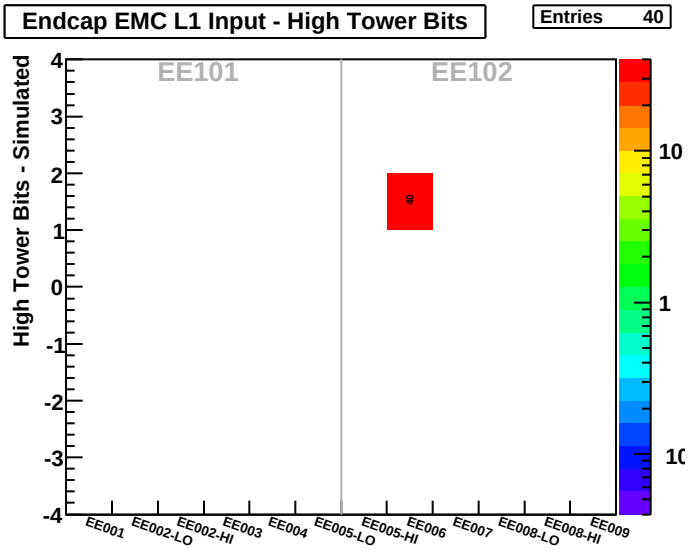

Endcap EMC L1 Input - Low Eta Sum
Entries 3.599999e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

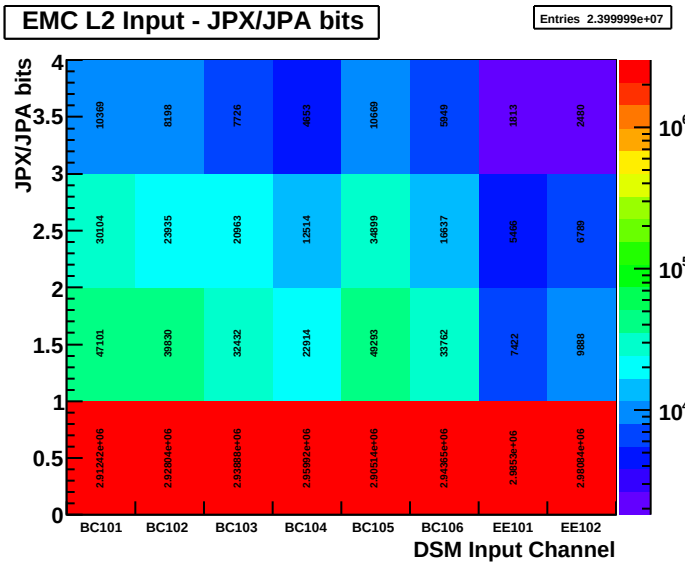

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

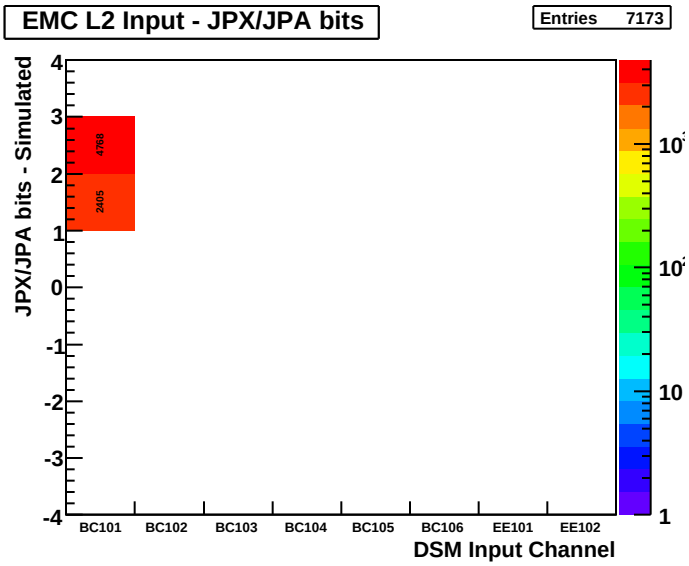

Endcap EMC L1 Input - High Eta Sum
Entries 3.599999e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

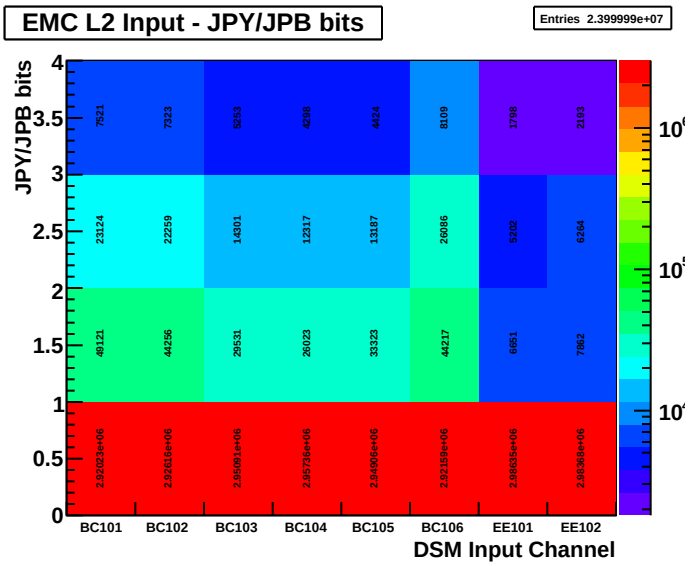

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

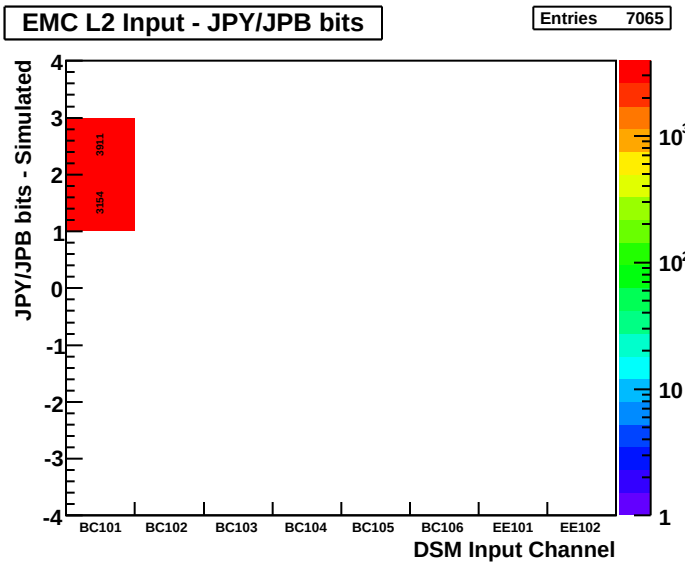

Endcap EMC L1 Input - High Tower Bits
Entries 3.599999e+07
High Tower Bits
EE101
EE102
68 14 3 77 91 10 5 108 93 12 10 71
1521 316 251 1467 1640 369 381 1911 1809 329 268 1585
2.99841e+06 2.99967e+06 2.99974e+06 2.99846e+06 2.99827e+06 2.99962e+06 2.99961e+06 2.99793e+06 2.9981e+06 2.99966e+06 2.99972e+06 2.99834e+06
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

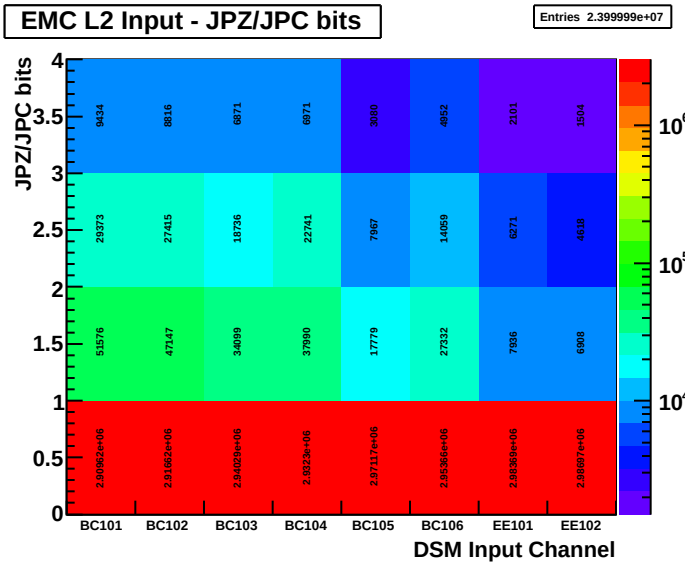

Endcap EMC L1 Input - High Tower Bits
Entries 40
High Tower Bits - Simulated
EE101
EE102
40
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

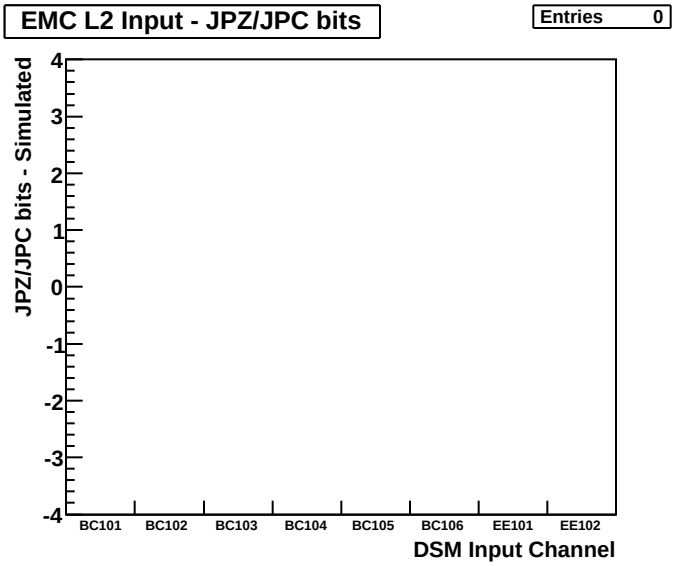

EMC L2 Input - JPX/JPA bits
Entries 2.399999e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
10369 8198 7726 4653 10669 5949 1813 2480
30104 23935 20963 12514 34899 16637 5466 6789
47101 39830 32432 22914 49293 33762 7422 9888
2.91242e+06 2.92804e+06 2.93808e+06 2.95982e+06 2.90514e+06 2.94355e+06 2.8853e+06 2.98084e+06

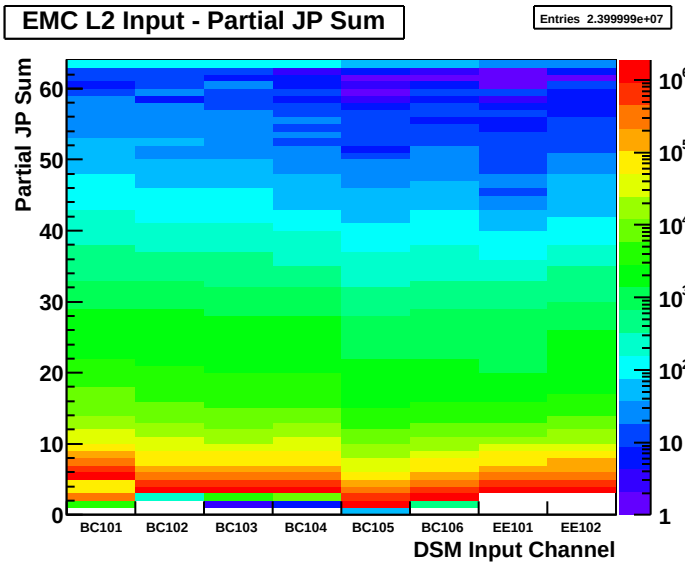

EMC L2 Input - JPX/JPA bits
Entries 7173
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4768
2405

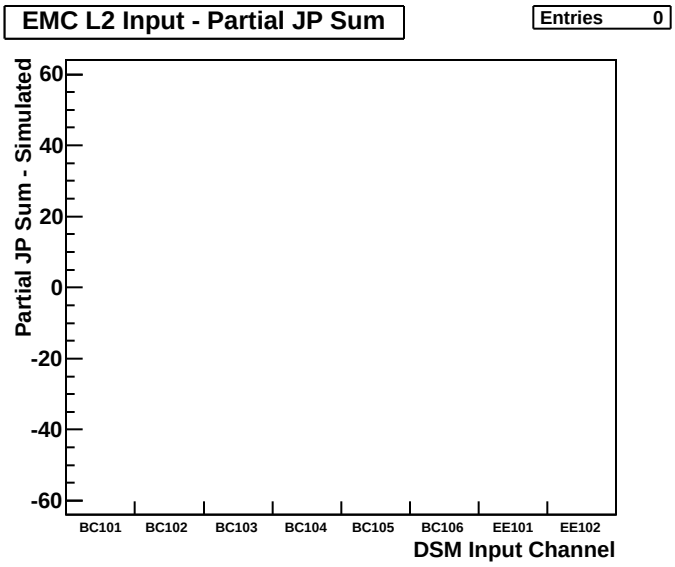

EMC L2 Input - JPY/JPB bits
Entries 2.399999e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
7521 7323 5253 4298 4424 8109 1798 2193
23124 22259 14301 12317 13187 26086 5202 6264
48121 44256 29531 26023 33323 44217 6651 7862
2.92023e+06 2.92616e+06 2.95081e+06 2.95736e+06 2.94906e+06 2.92159e+06 2.98635e+06 2.99368e+06

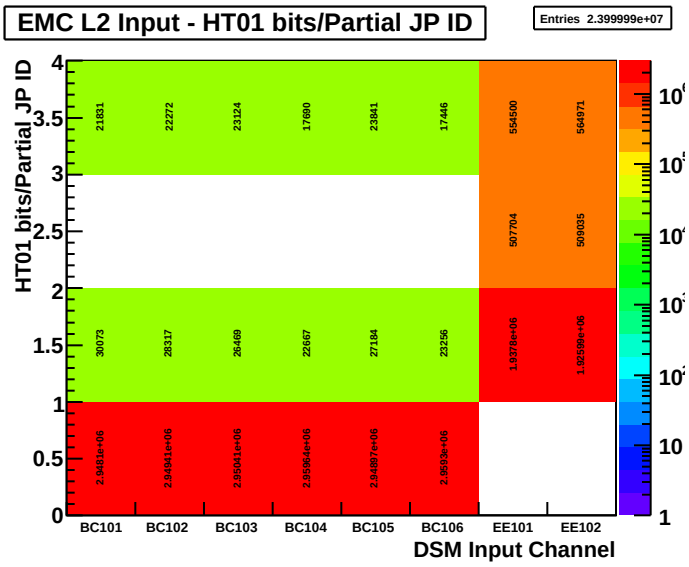

EMC L2 Input - JPY/JPB bits
Entries 7065
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
3911
3154

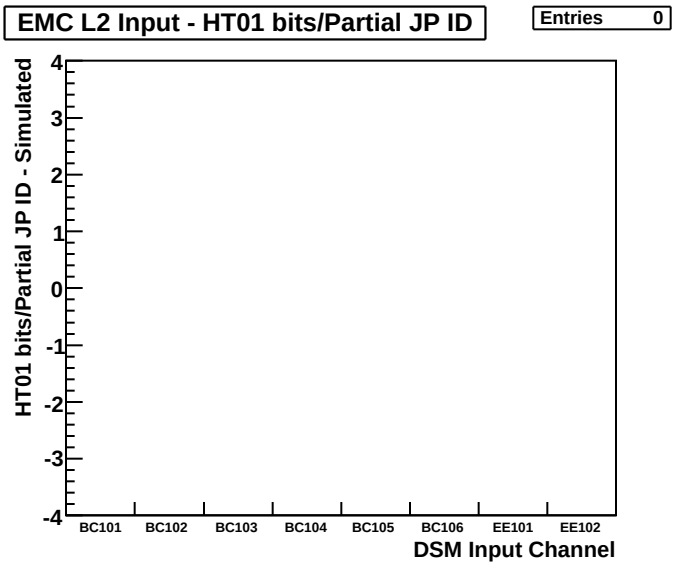

EMC L2 Input - JPZ/JPC bits
Entries 2.399999e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
9434 8816 6871 6971 3080 4952 2101 1504
29373 27415 18736 22741 7967 14059 6271 4618
51576 47147 34099 37990 17779 27332 7936 6908
2.90962e+06 2.91662e+06 2.94029e+06 2.9322e+06 2.97117e+06 2.95366e+06 2.98369e+06 2.98697e+06

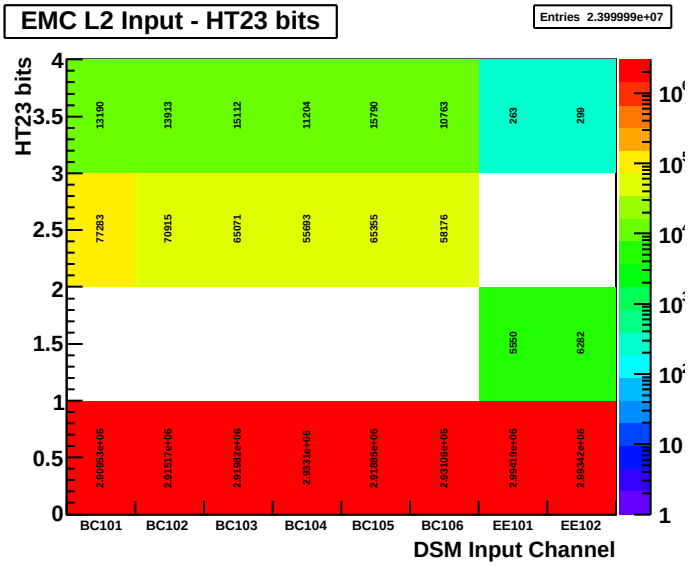

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

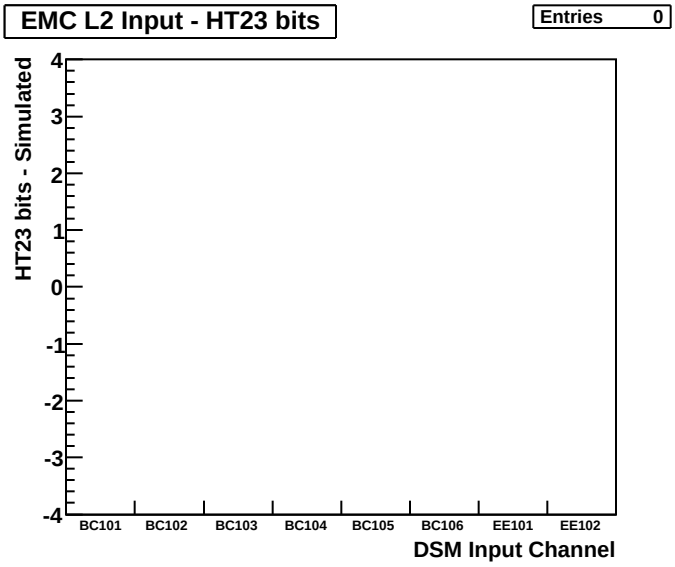

EMC L2 Input - Partial JP Sum
Entries 2.399999e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

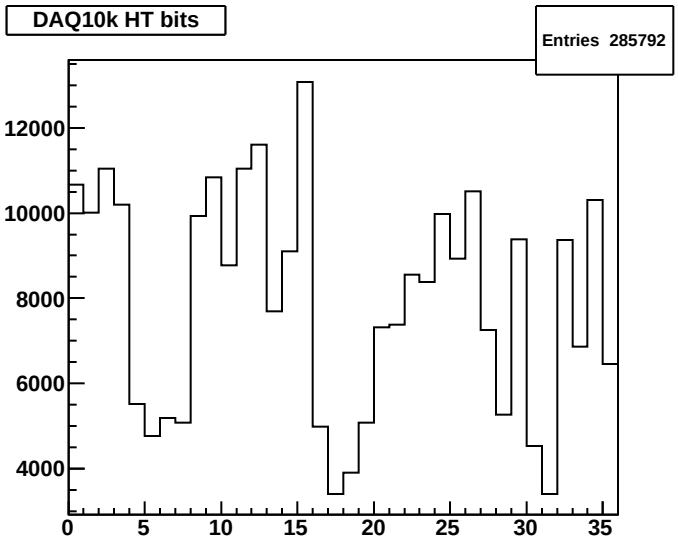

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

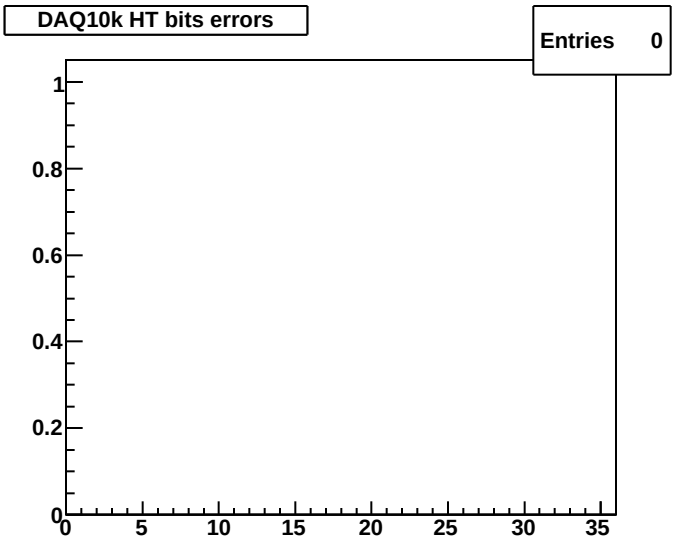

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2.399999e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

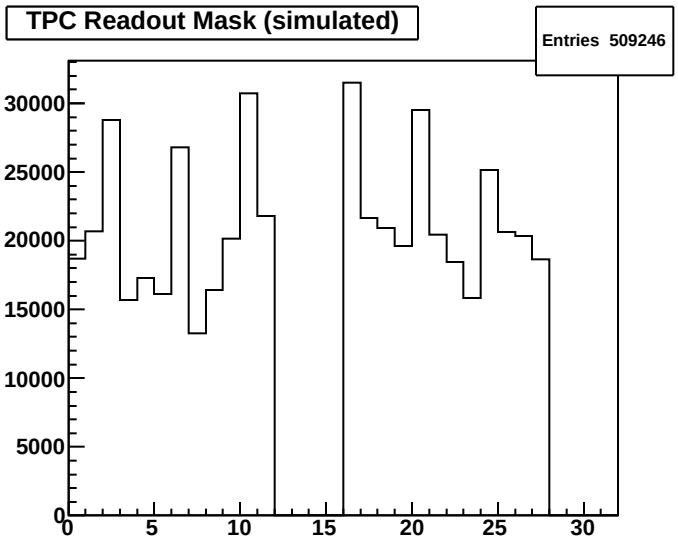

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

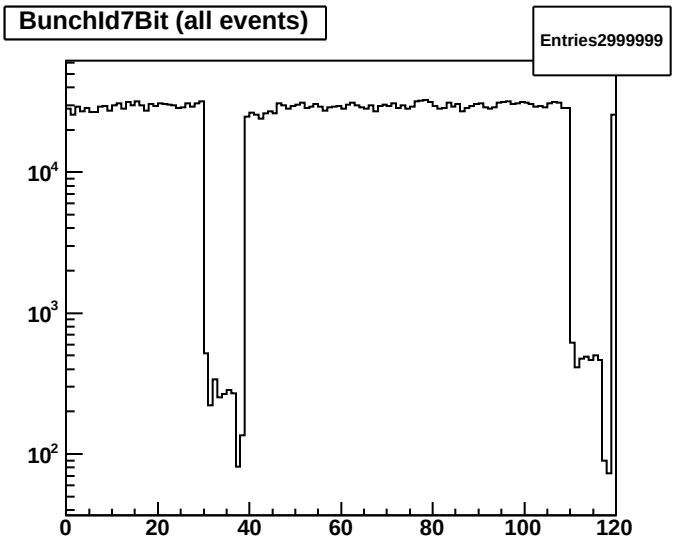

EMC L2 Input - HT23 bits
Entries 2.399999e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

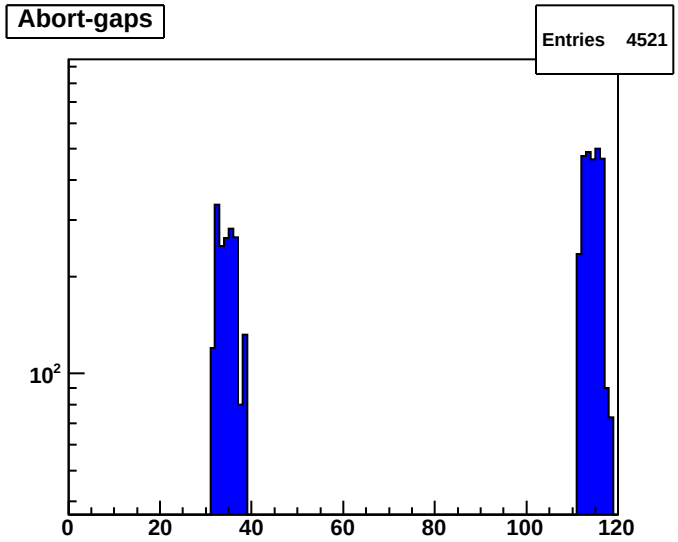

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

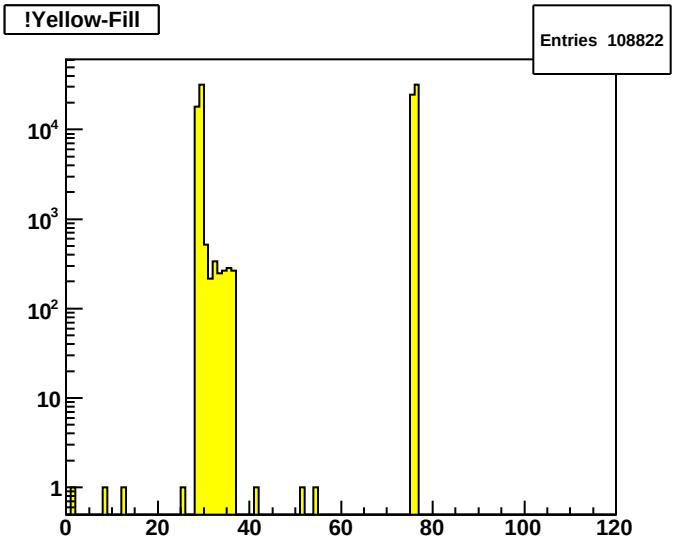

DAQ10k HT bits
Entries 285792
12000
10000
8000
6000
4000
0 5 10 15 20 25 30 35

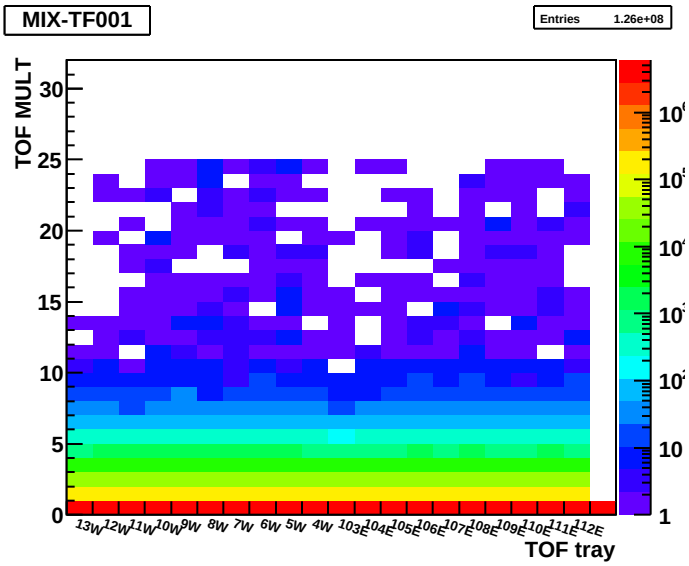

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

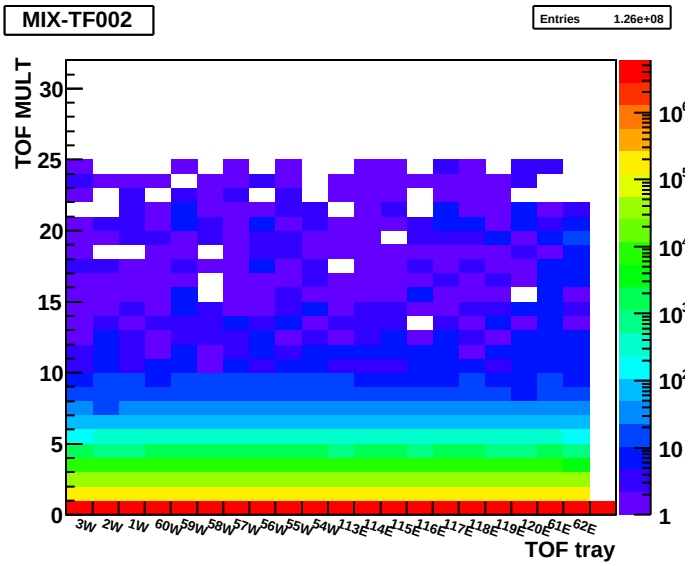

TPC Readout Mask (simulated)
Entries 509246
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

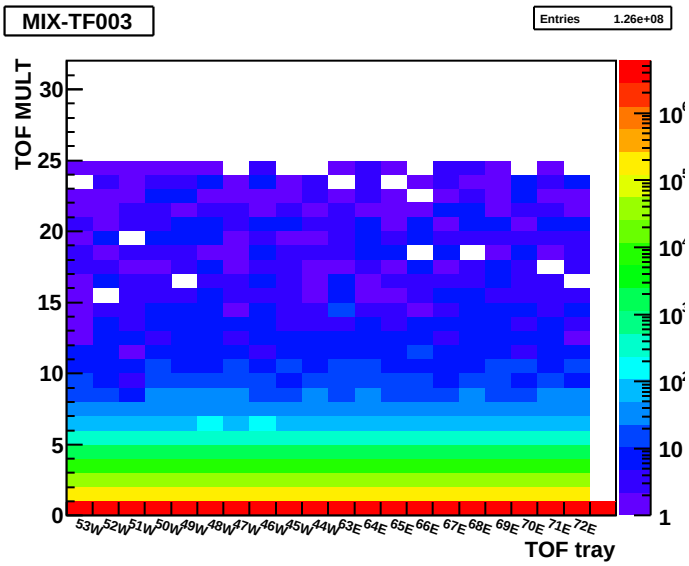

BunchId7Bit (all events)
Entries2999999
10^4
10^3
10^2
0 20 40 60 80 100 120

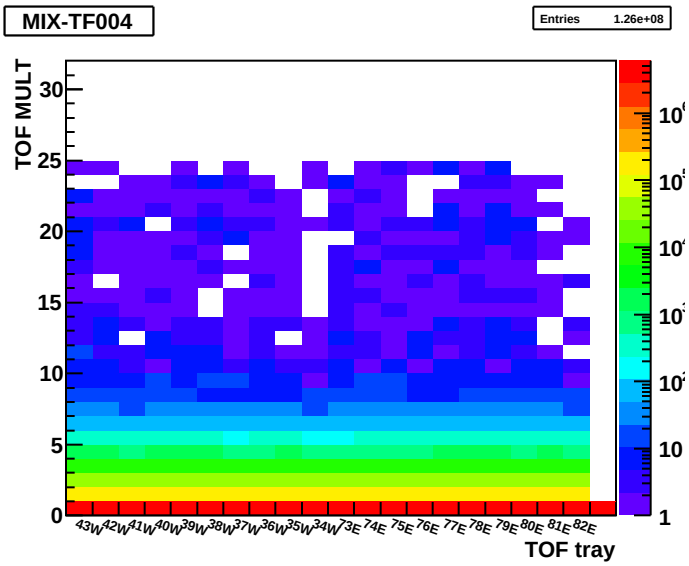

Abort-gaps
Entries 4521
10^2
0 20 40 60 80 100 120

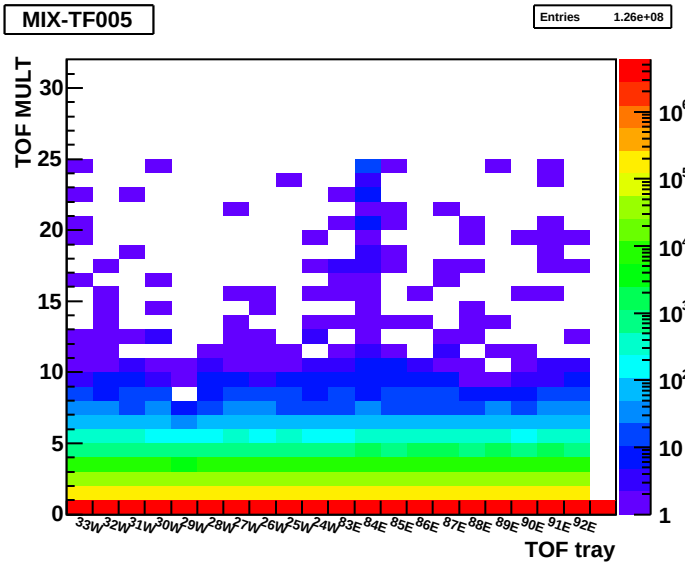

!Yellow-Fill
Entries 108822
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

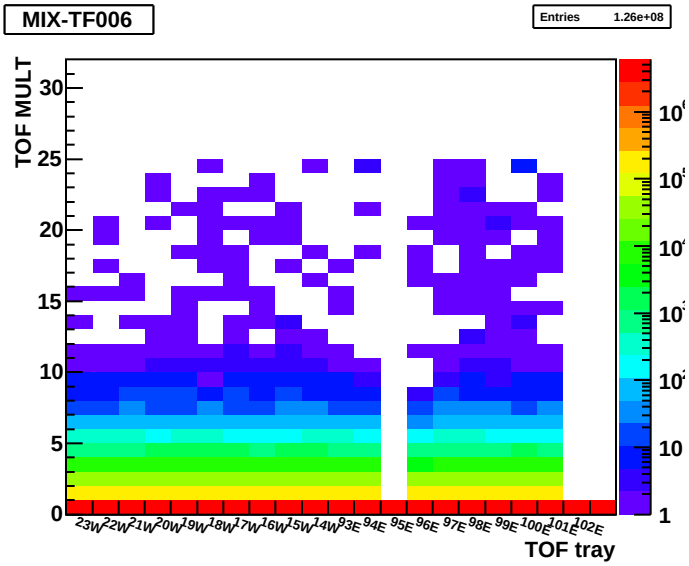

MIX-TF001
Entries 1.26e+08
TOF MULT
TOF tray

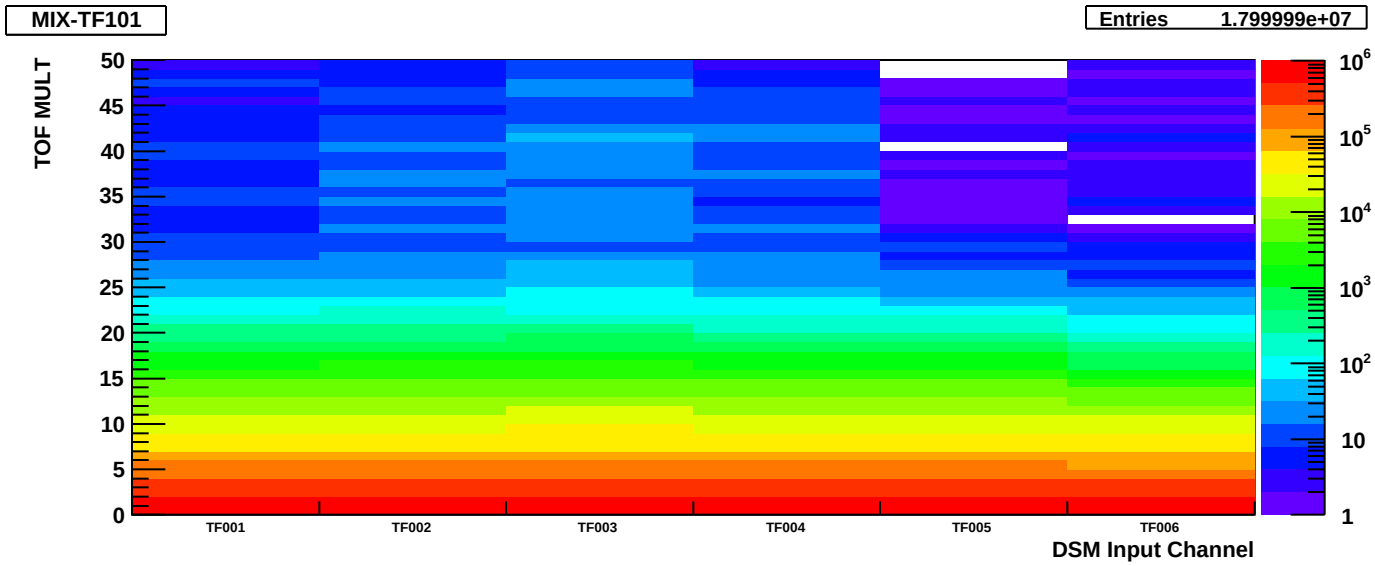

MIX-TF002
Entries 1.26e+08
TOF MULT
TOF tray

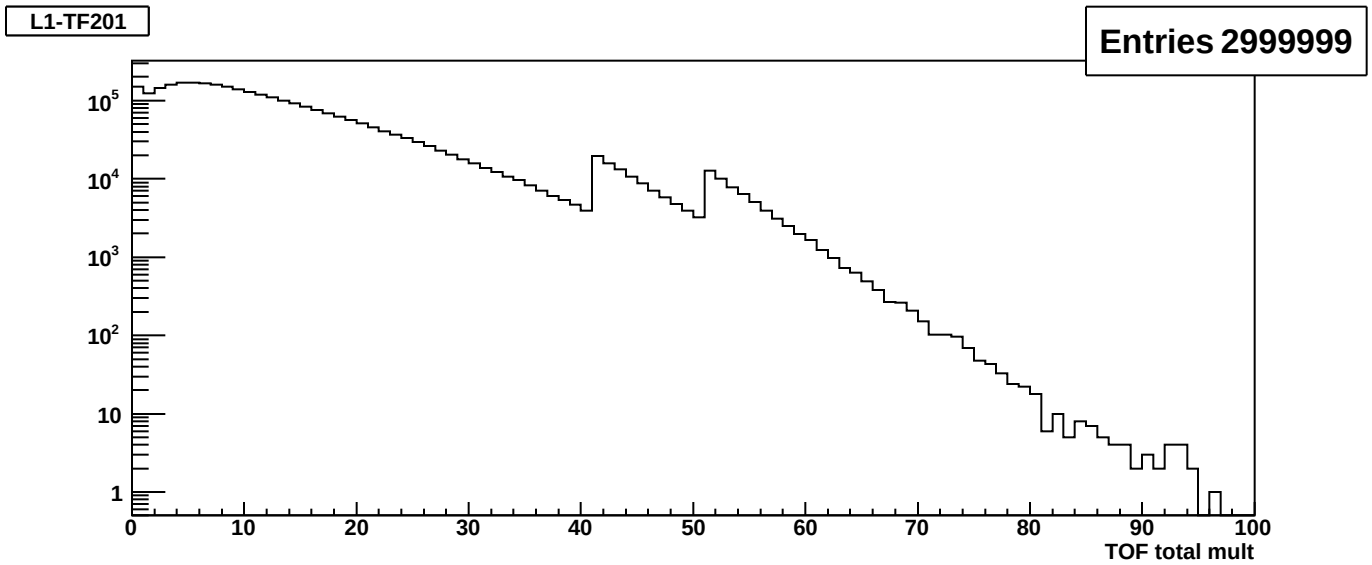

MIX-TF003
Entries 1.26e+08
TOF MULT
TOF tray

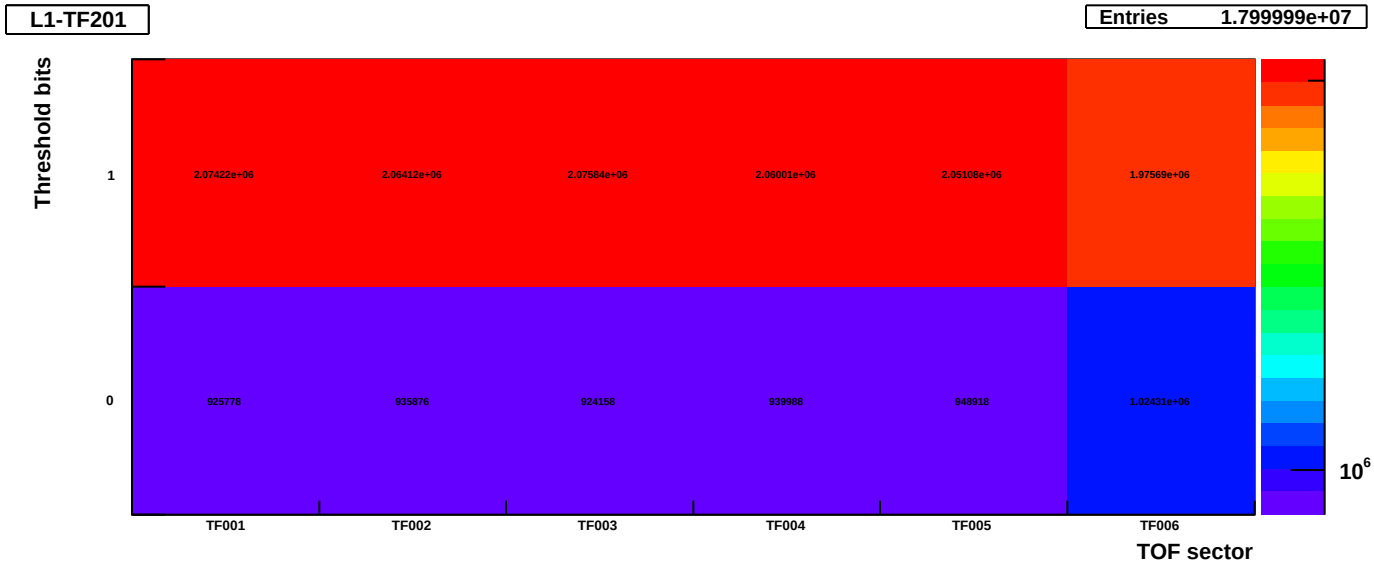

MIX-TF004
Entries 1.26e+08
TOF MULT
TOF tray

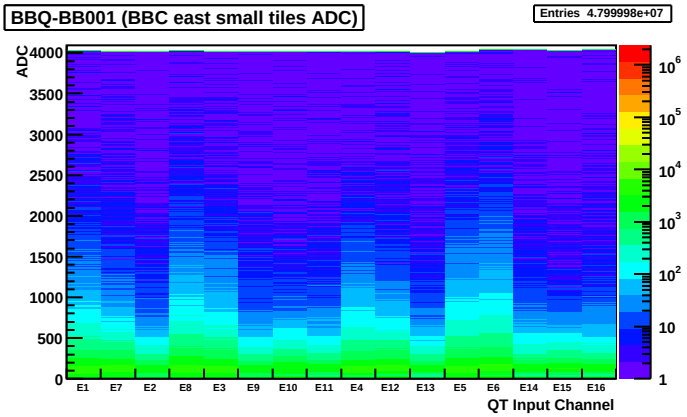

MIX-TF005
Entries 1.26e+08
TOF MULT
TOF tray

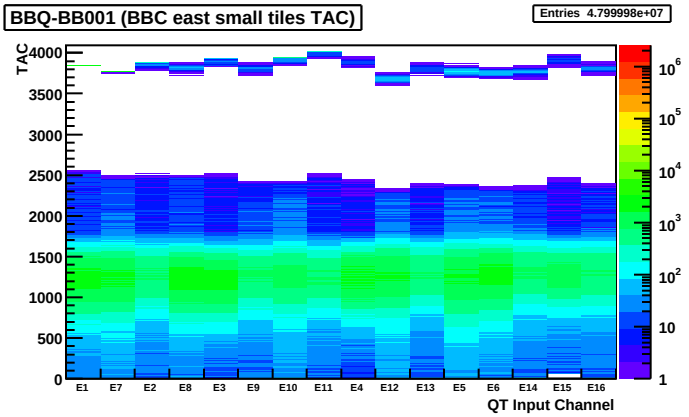

MIX-TF006
Entries 1.26e+08
TOF MULT
TOF tray

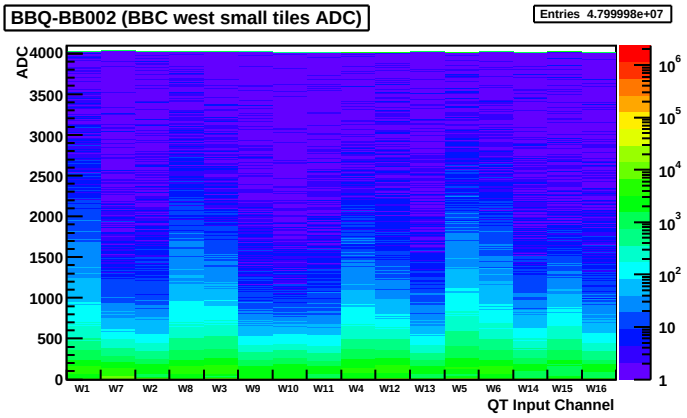

MIX-TF101
Entries 1.799999e+07
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

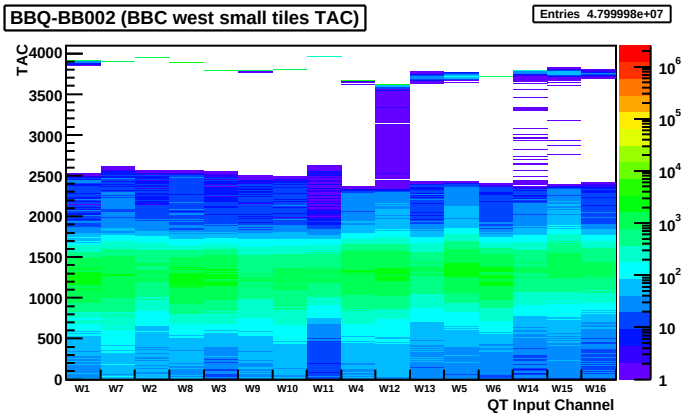

L1-TF201
Entries 2999999
TOF total mult

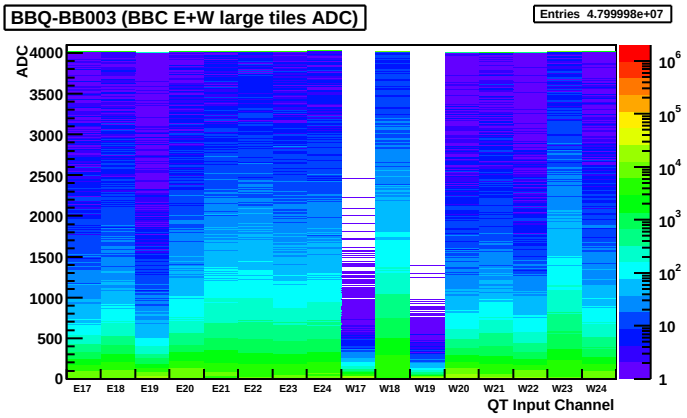

L1-TF201
Entries 1.799999e+07
Threshold bits
2.07422e+06
2.06412e+06
2.07584e+06
2.06001e+06
2.05108e+06
1.97569e+06
925778
935876
924158
939988
948918
1.02431e+06
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

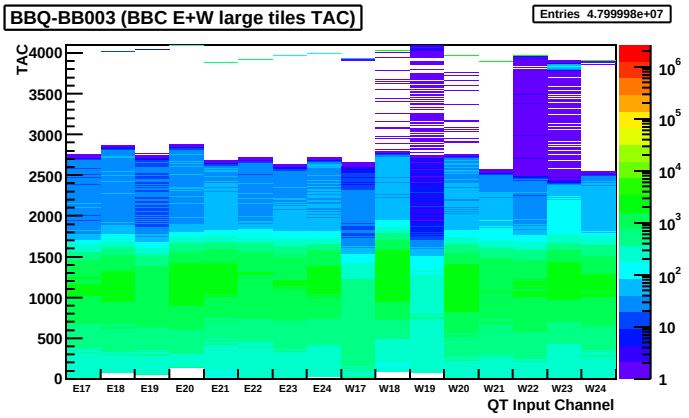

BBQ-BB001 (BBC east small tiles ADC)
Entries 4.799998e+07
ADC
QT Input Channel

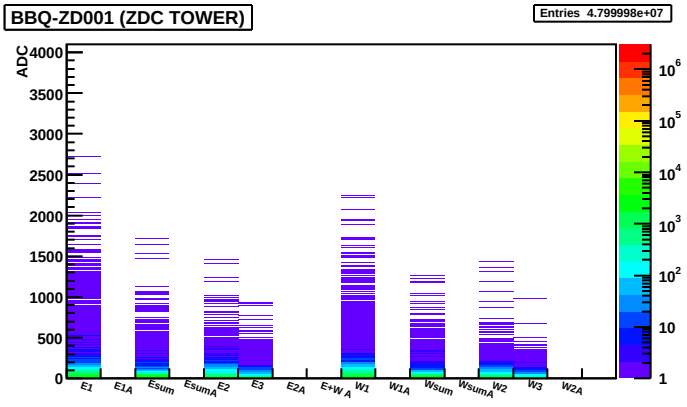

BBQ-BB001 (BBC east small tiles TAC)
Entries 4.799998e+07
TAC
QT Input Channel

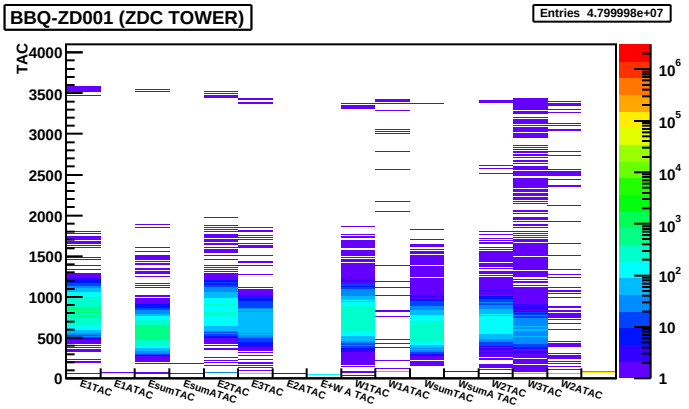

BBQ-BB002 (BBC west small tiles ADC)
Entries 4.799998e+07
ADC
QT Input Channel

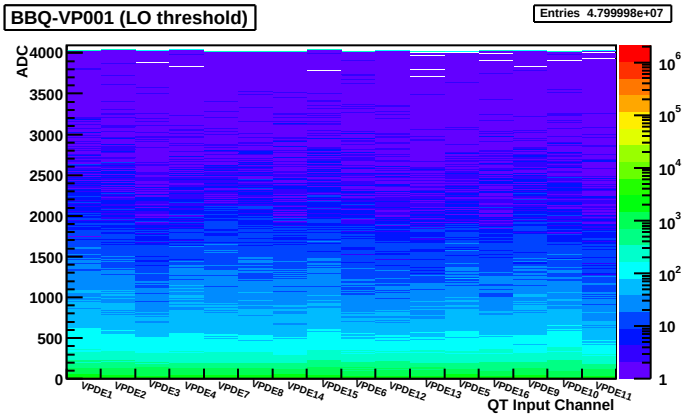

BBQ-BB002 (BBC west small tiles TAC)
Entries 4.799998e+07
TAC
QT Input Channel

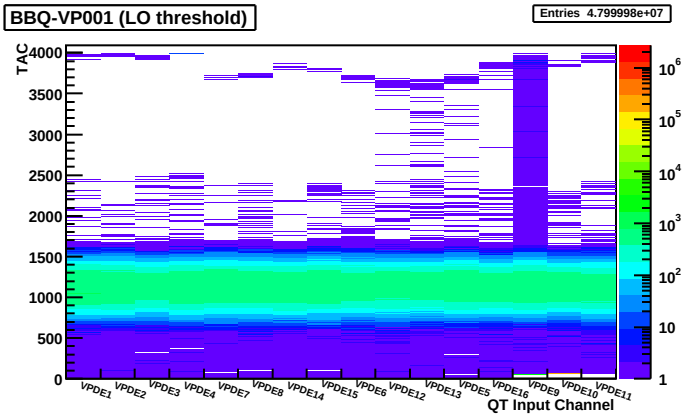

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4.799998e+07
ADC
QT Input Channel

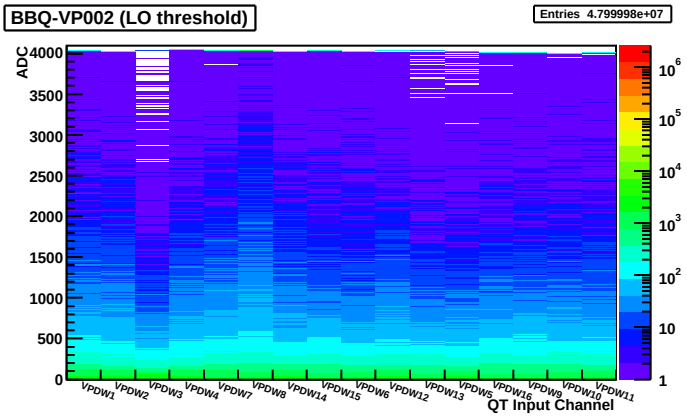

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4.799998e+07
TAC
QT Input Channel

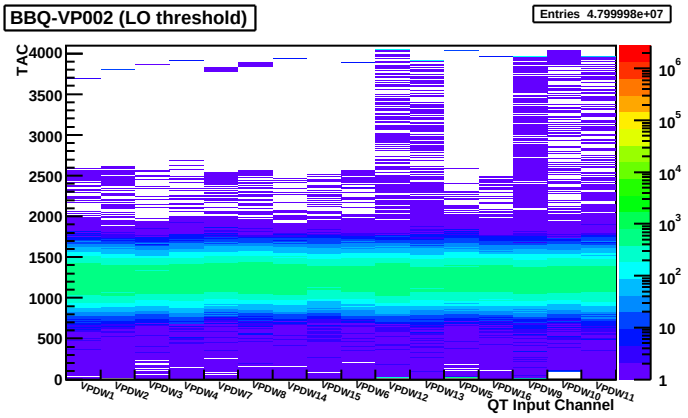

BBQ-ZD001 (ZDC TOWER)
Entries 4.799998e+07
ADC

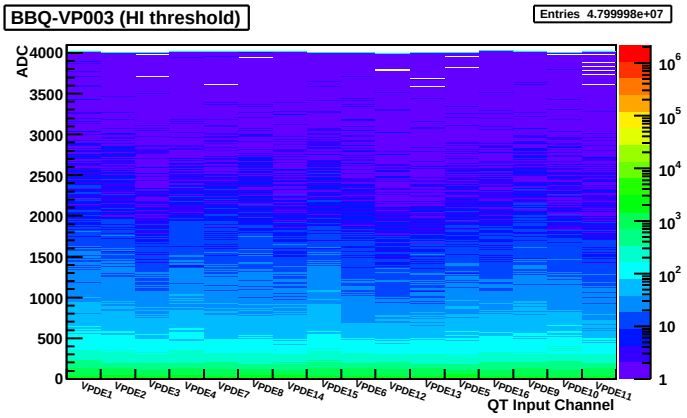

BBQ-ZD001 (ZDC TOWER)
Entries 4.799998e+07
TAC

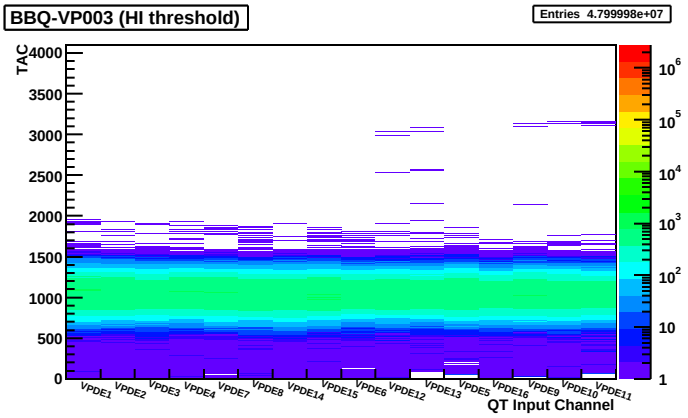

BBQ-VP001 (LO threshold)
Entries 4.799998e+07
ADC
QT Input Channel

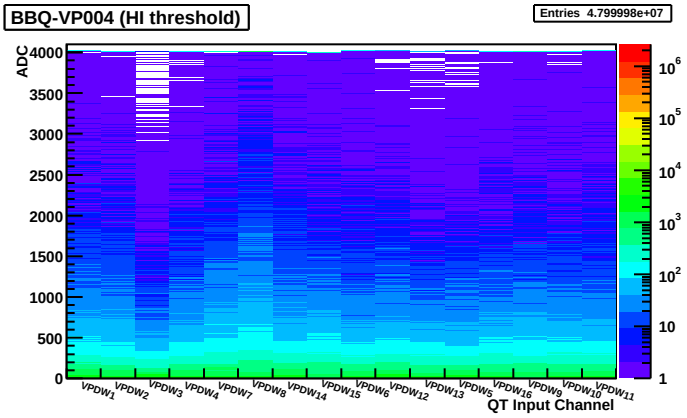

BBQ-VP001 (LO threshold)
Entries 4.799998e+07
TAC
QT Input Channel

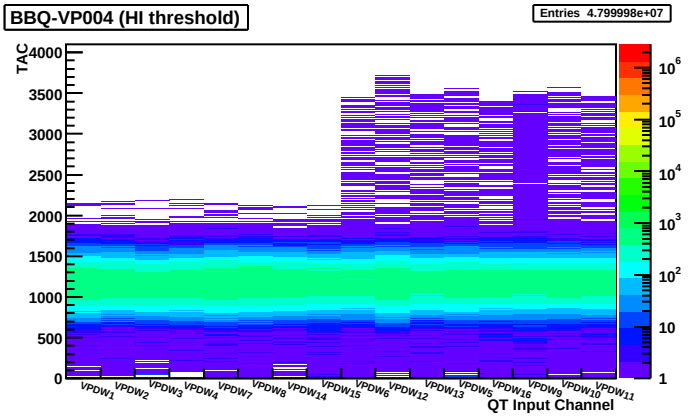

BBQ-VP002 (LO threshold)
Entries 4.799998e+07
ADC
QT Input Channel

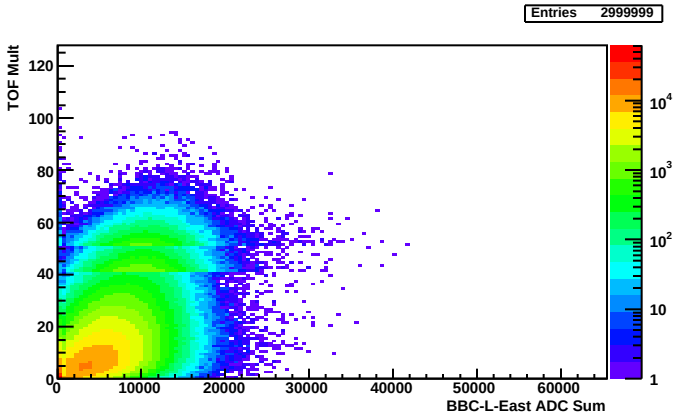

BBQ-VP002 (LO threshold)
Entries 4.799998e+07
TAC
QT Input Channel

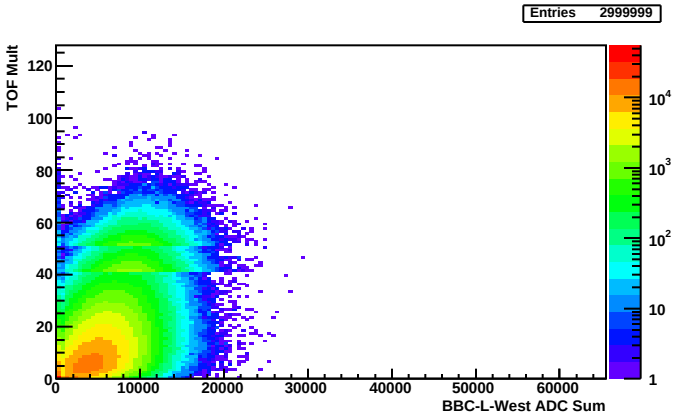

BBQ-VP003 (HI threshold)
Entries 4.799998e+07
ADC
QT Input Channel

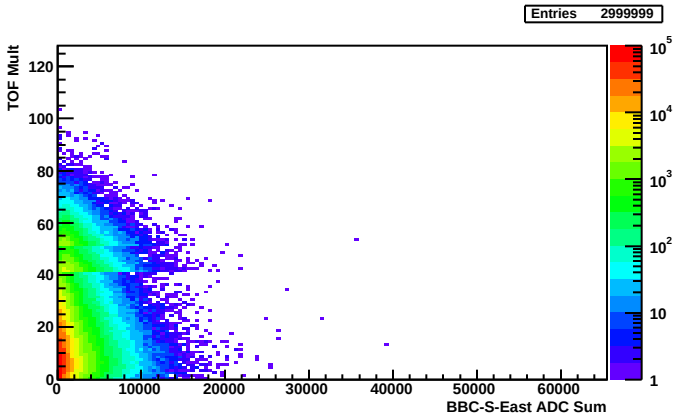

BBQ-VP003 (HI threshold)
Entries 4.799998e+07
TAC
QT Input Channel

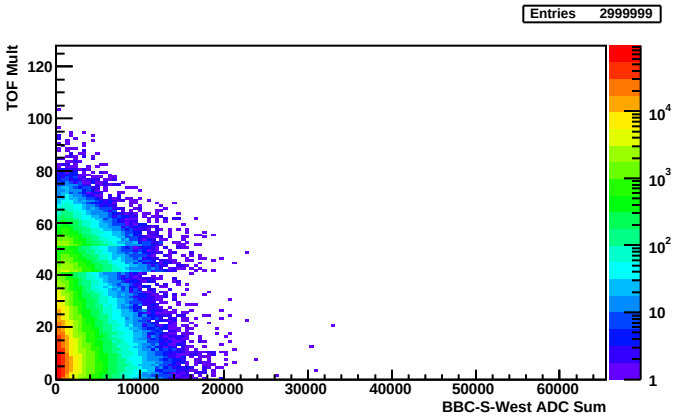

BBQ-VP004 (HI threshold)
Entries 4.799998e+07
ADC
QT Input Channel

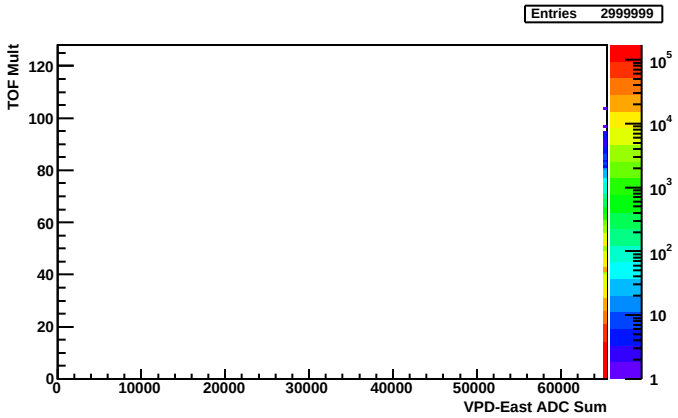

BBQ-VP004 (HI threshold)
Entries 4.799998e+07
TAC
QT Input Channel

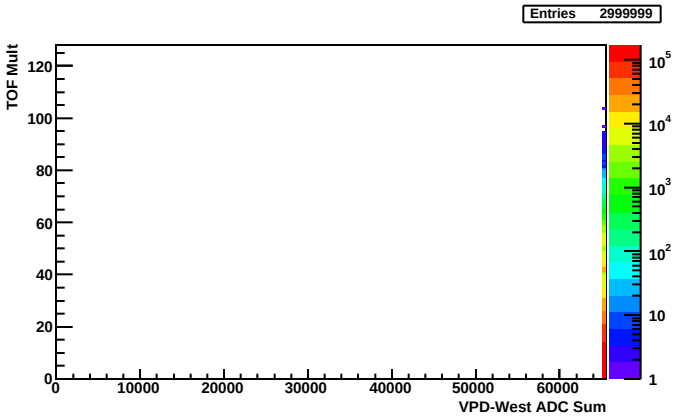

Entries 2999999
TOF Mult
BBC-L-East ADC Sum

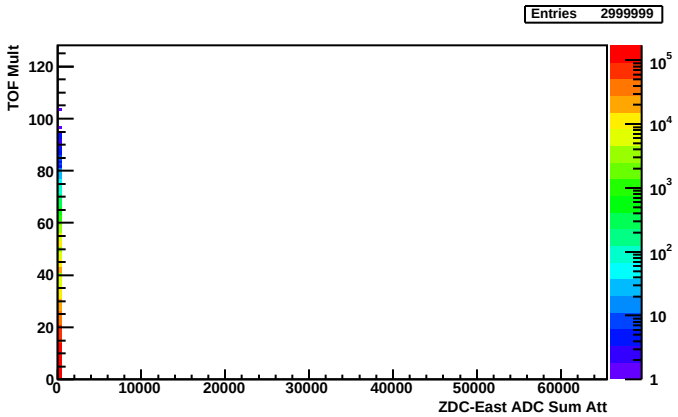

Entries 2999999
TOF Mult
BBC-L-West ADC Sum

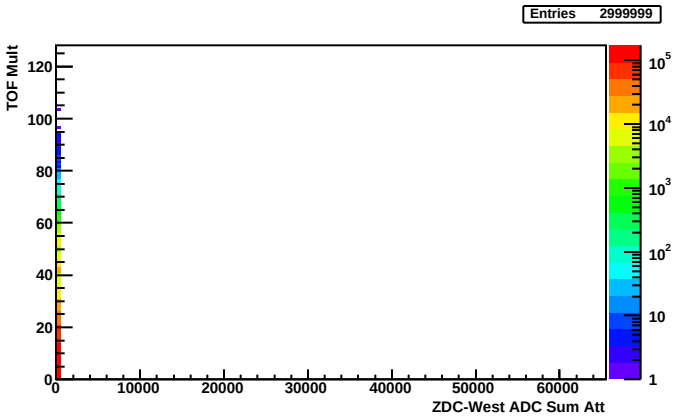

Entries 2999999
TOF Mult
BBC-S-East ADC Sum

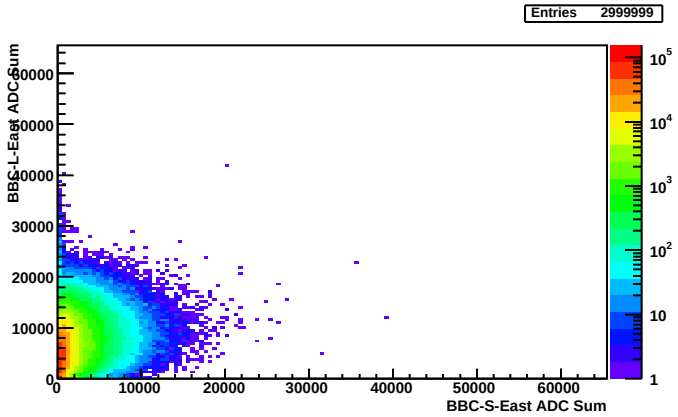

Entries 2999999
TOF Mult
BBC-S-West ADC Sum

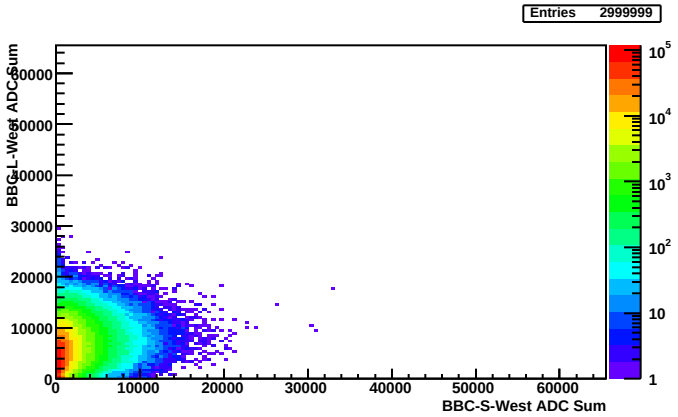

Entries 2999999
TOF Mult
VPD-East ADC Sum

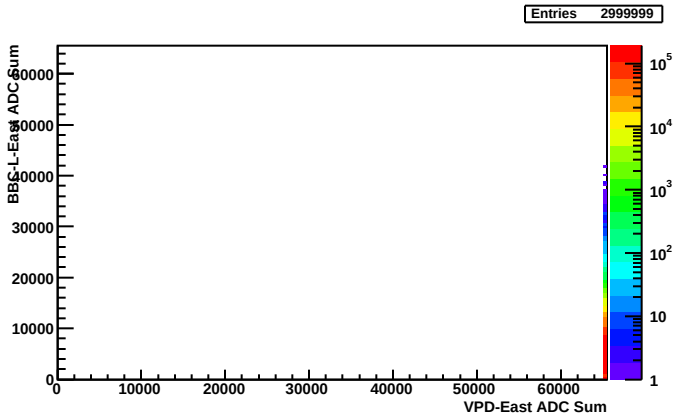

Entries 2999999
TOF Mult
VPD-West ADC Sum

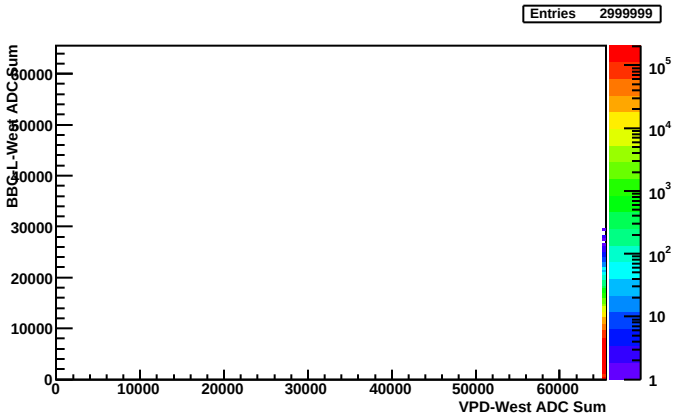

Entries 2999999
TOF Mult
ZDC-East ADC Sum Att

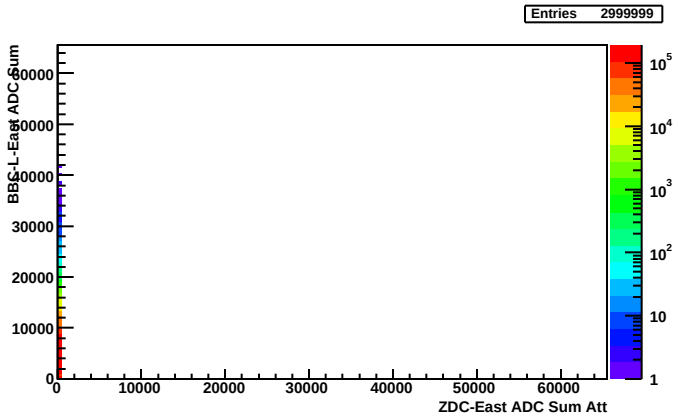

Entries 2999999
TOF Mult
ZDC-West ADC Sum Att

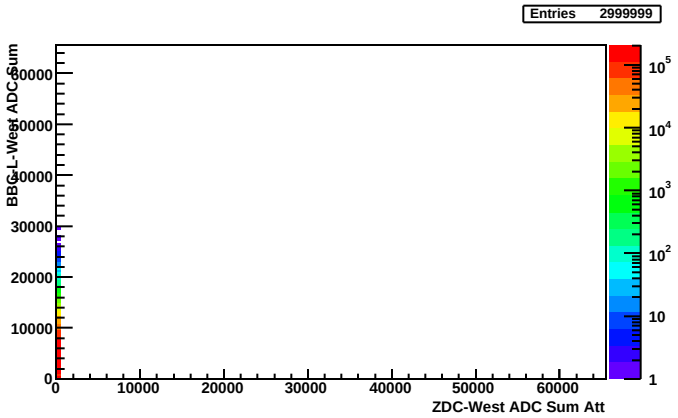

Entries 2999999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

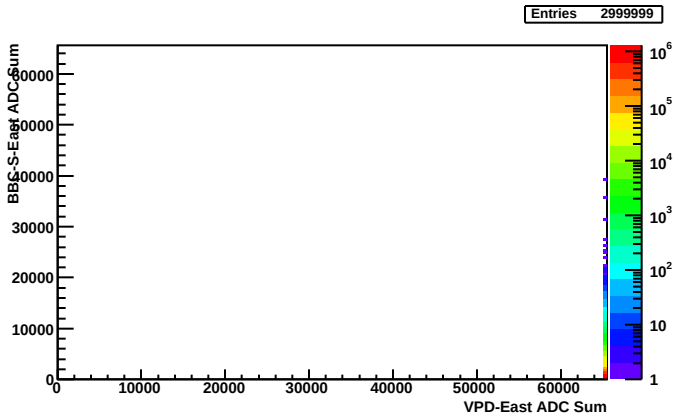

Entries 2999999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

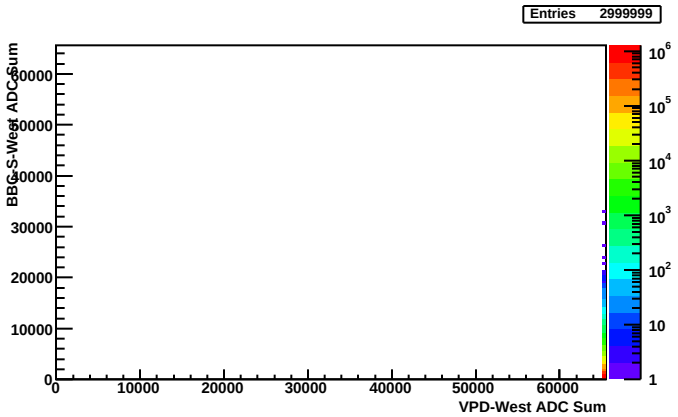

Entries 2999999
BBC-L-East ADC Sum
VPD-East ADC Sum

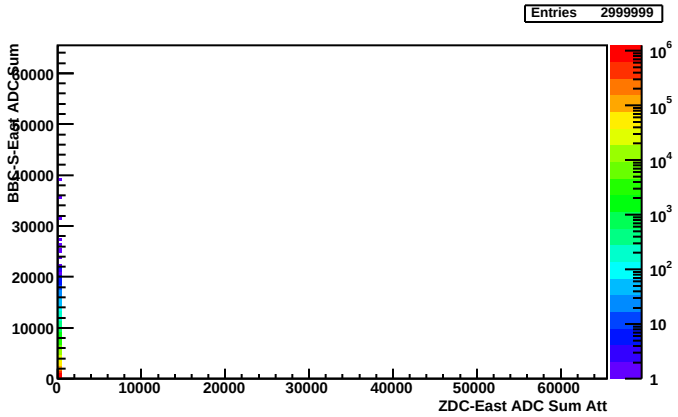

Entries 2999999
BBC-L-West ADC Sum
VPD-West ADC Sum

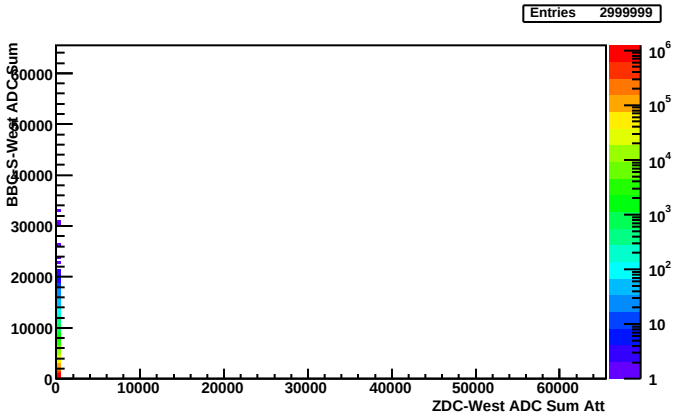

Entries 2999999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

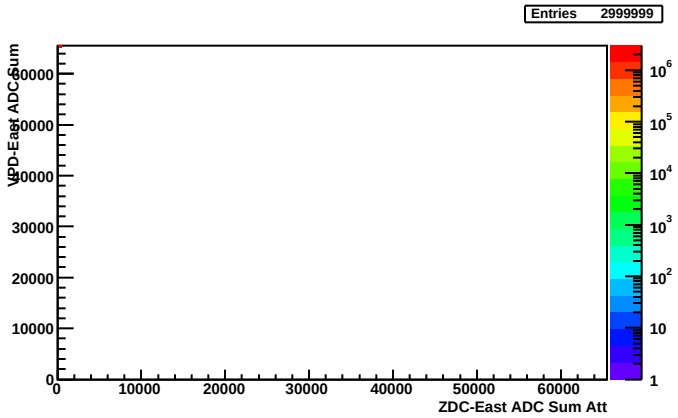

Entries 2999999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

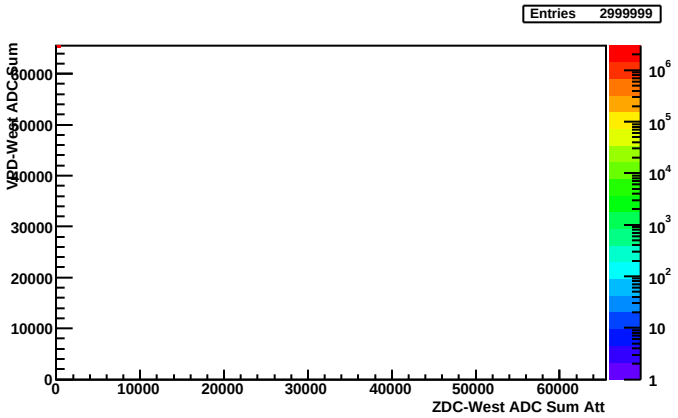

Entries 2999999
BBC-S-East ADC Sum
VPD-East ADC Sum

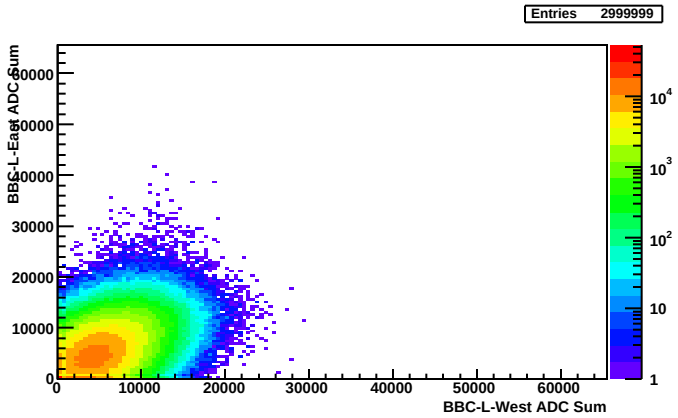

Entries 2999999
BBC-S-West ADC Sum
VPD-West ADC Sum

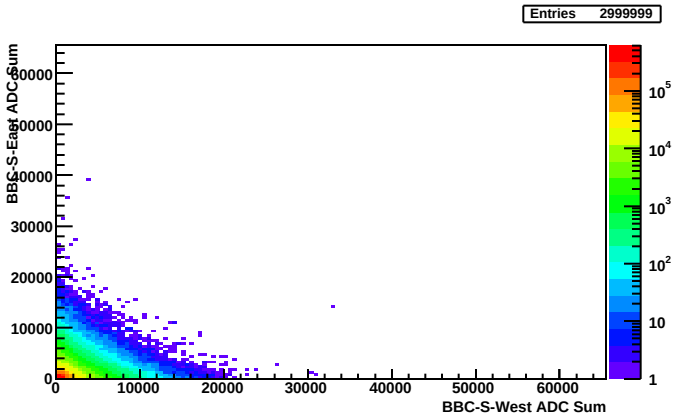

Entries 2999999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

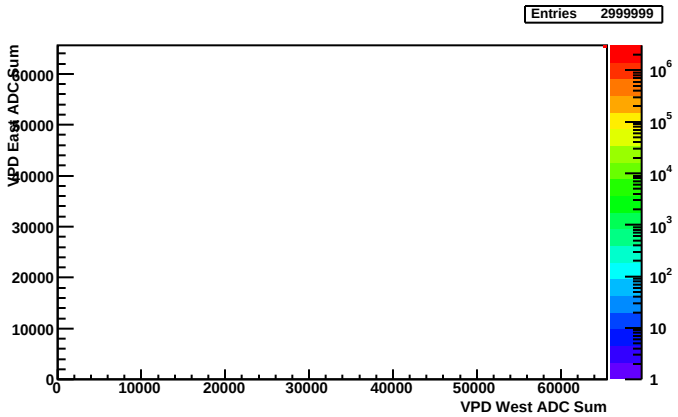

Entries 2999999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

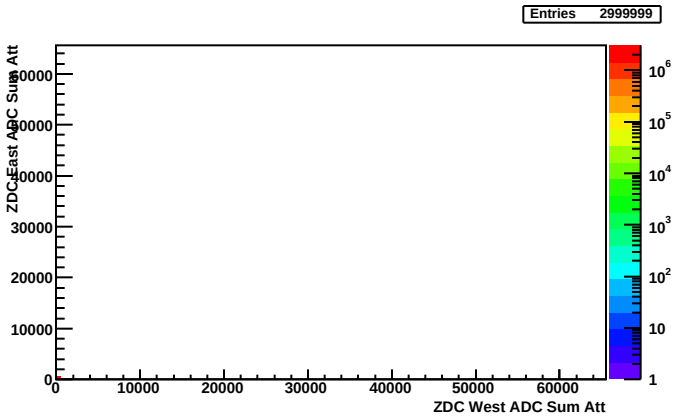

Entries 2999999
VPD-East ADC Sum
ZDC-East ADC Sum Att

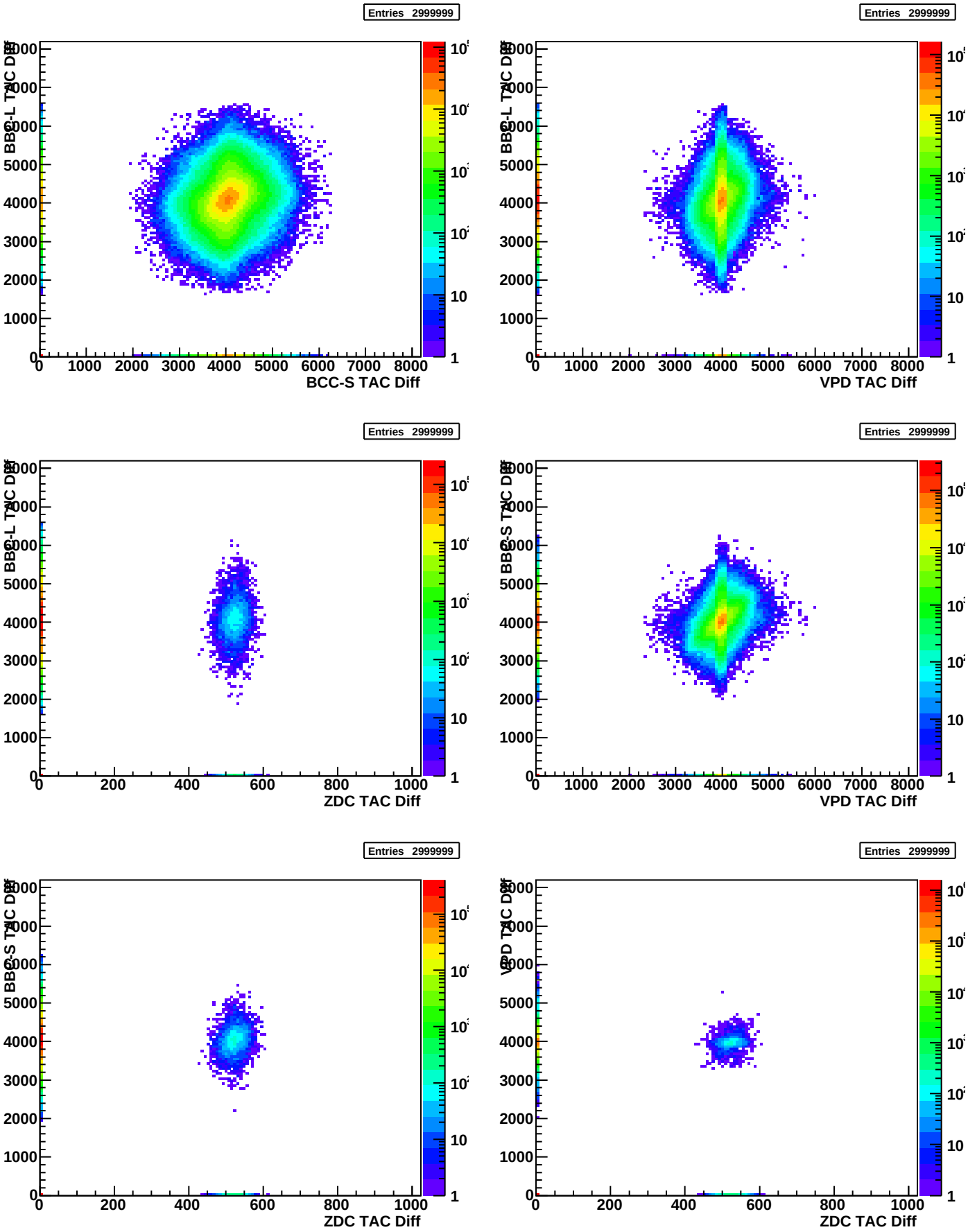

Entries 2999999
VPD-West ADC Sum
ZDC-West ADC Sum Att

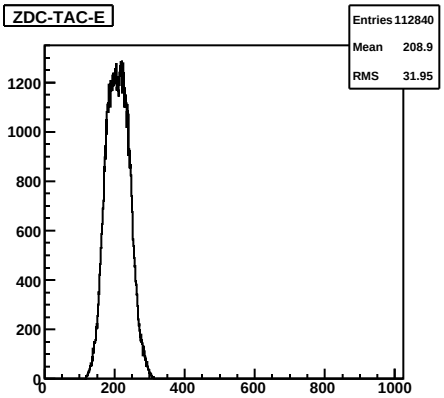

Entries 2999999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

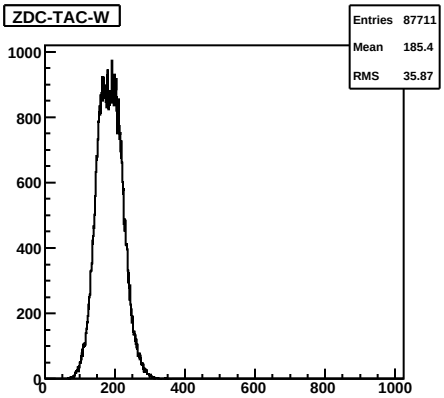

Entries 2999999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

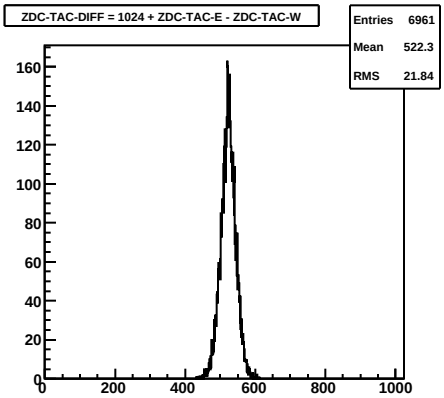

Entries 2999999
VPD East ADC Sum
VPD West ADC Sum

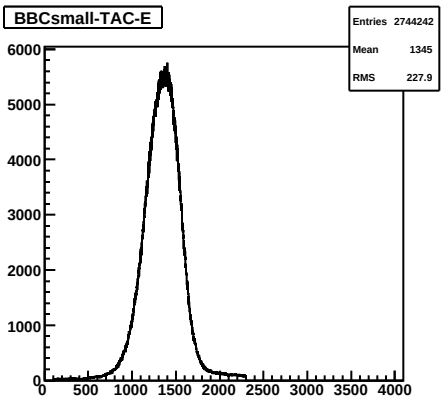

Entries 2999999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

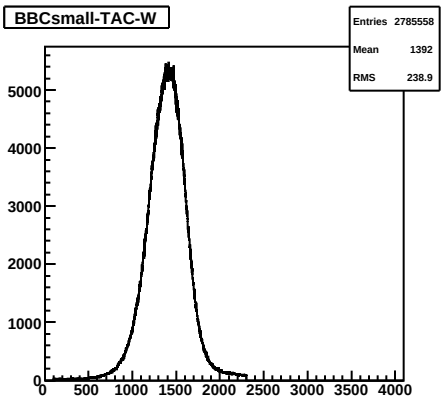

Entries 2999999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 2999999
BBC-L TAC Diff
VPD TAC Diff
Entries 2999999
BBC-L TAC Diff
ZDC TAC Diff
Entries 2999999
BBC-S TAC Diff
VPD TAC Diff
Entries 2999999
BBC-S TAC Diff
ZDC TAC Diff
Entries 2999999
VPD TAC Diff
ZDC TAC Diff

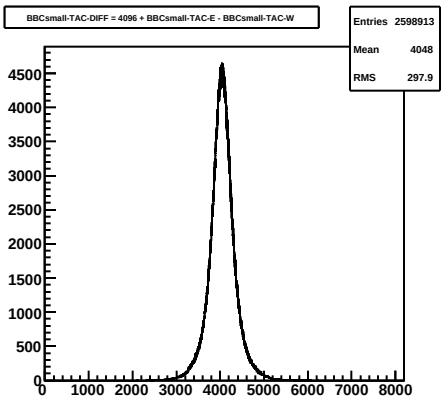

ZDC-TAC-E
Entries 112840
Mean 208.9
RMS 31.95

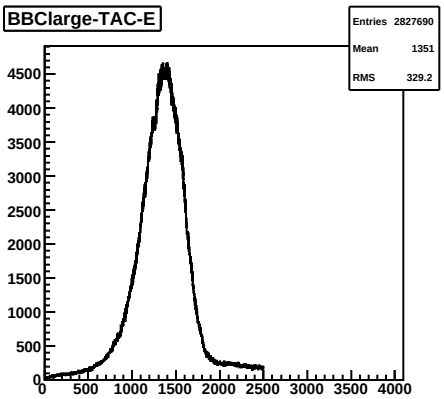

ZDC-TAC-W
Entries 87711
Mean 185.4
RMS 35.87

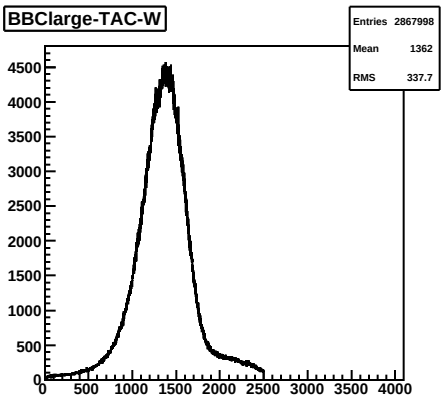

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 6961
Mean 522.3
RMS 21.84

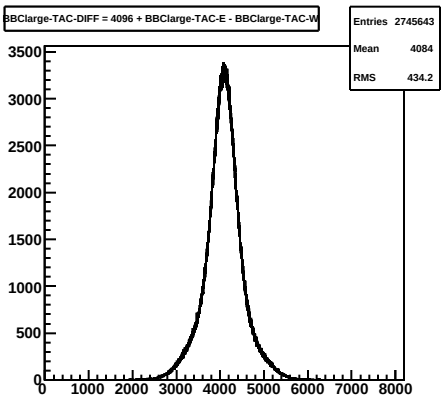

BBCsmall-TAC-E
Entries 2744242
Mean 1345
RMS 227.9

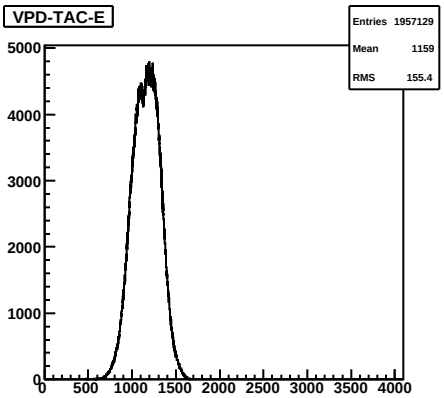

BBCsmall-TAC-W
Entries 2785558
Mean 1392
RMS 238.9

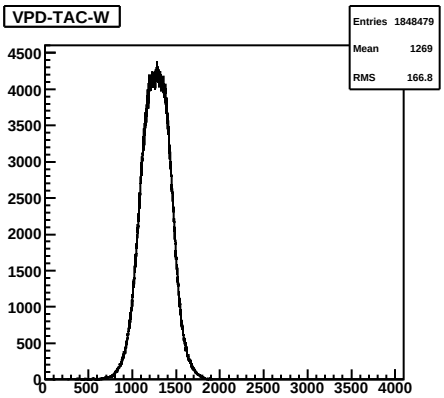

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 2598913
Mean 4048
RMS 297.9

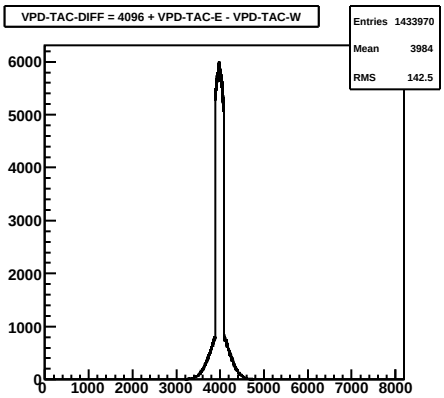

BBClarge-TAC-E
Entries 2827690
Mean 1351
RMS 329.2

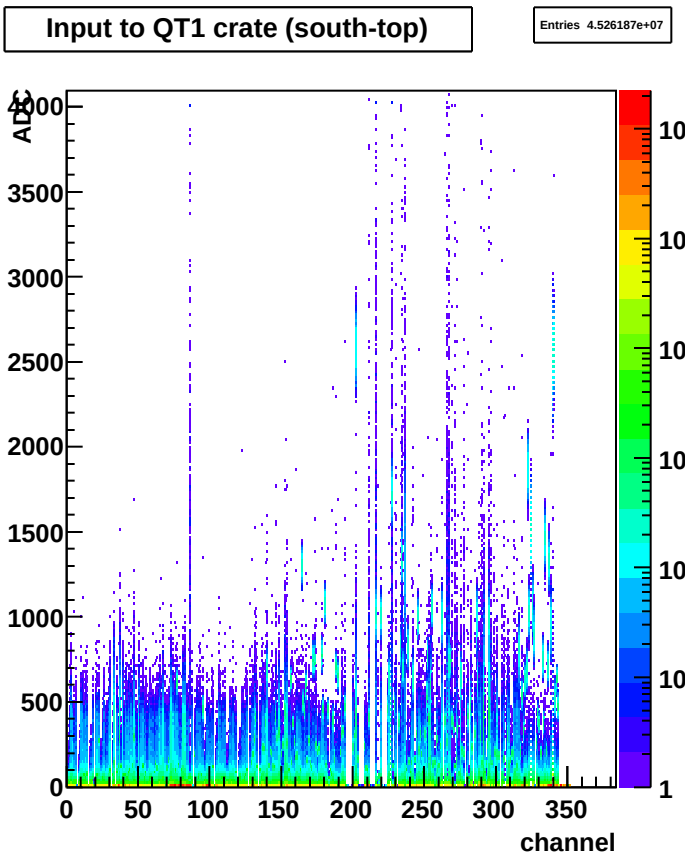

BBClarge-TAC-W
Entries 2867998
Mean 1362
RMS 337.7

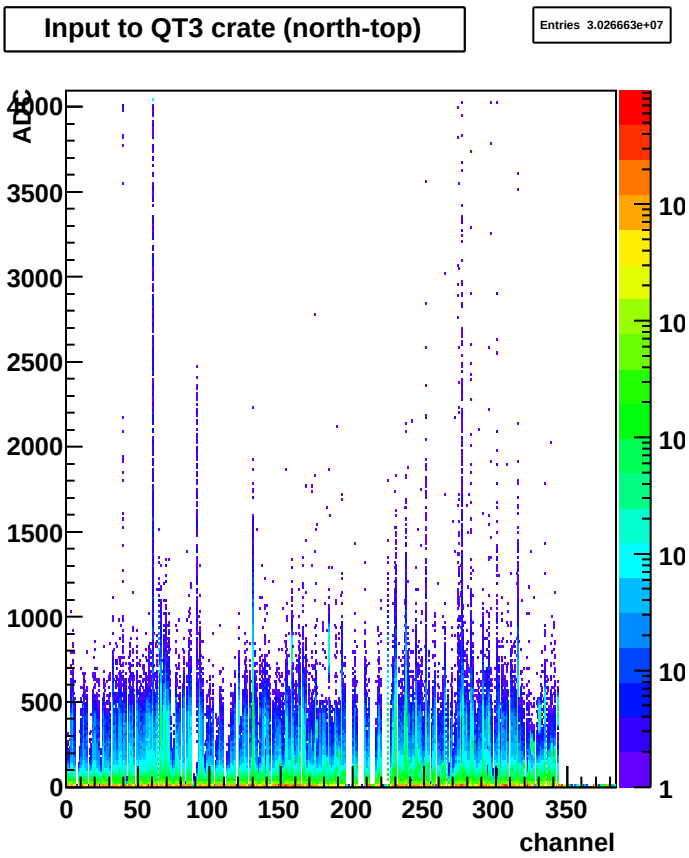

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 2745643
Mean 4084
RMS 434.2

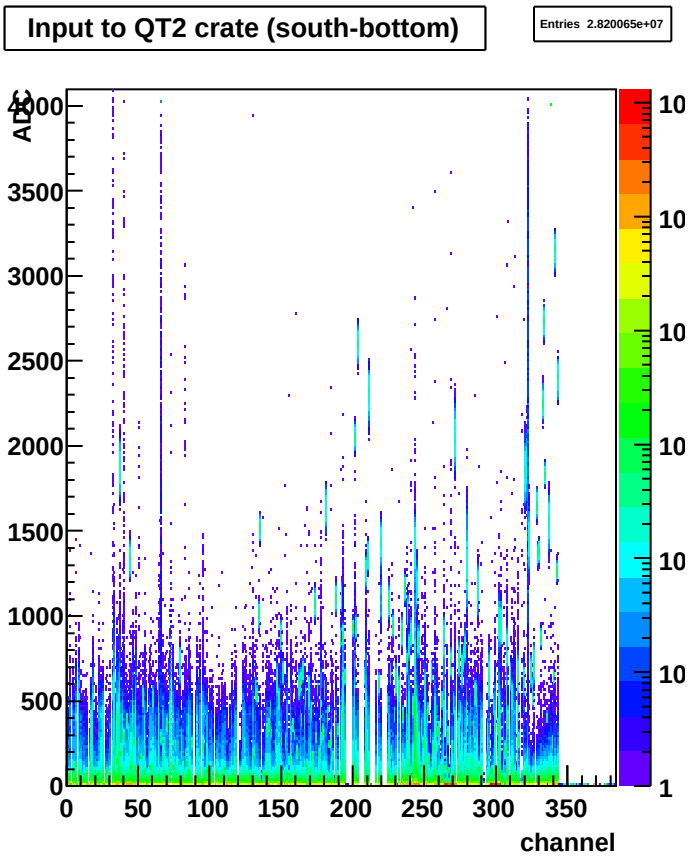

VPD-TAC-E
Entries 1957129
Mean 1159
RMS 155.4

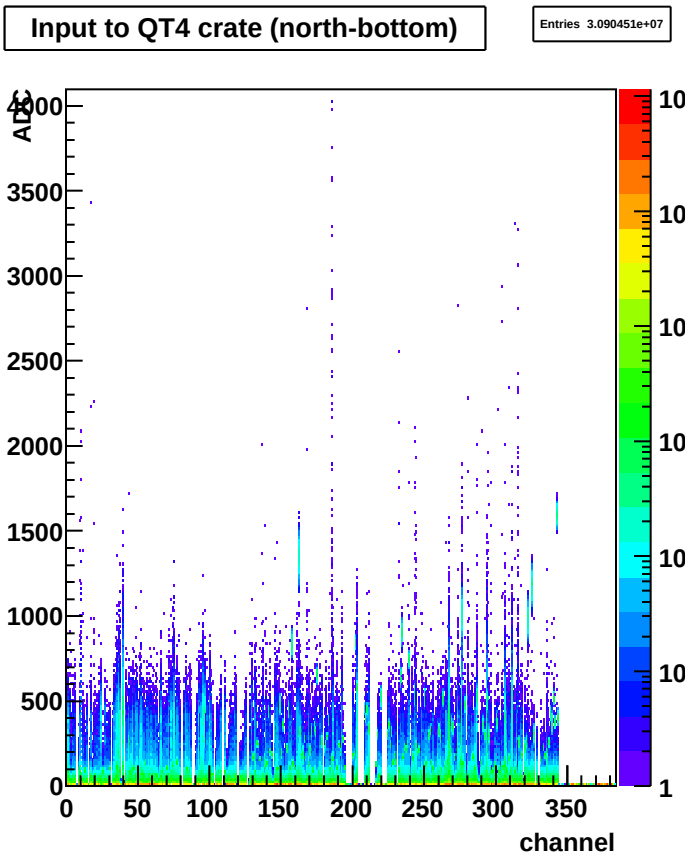

VPD-TAC-W
Entries 1848479
Mean 1269
RMS 166.8

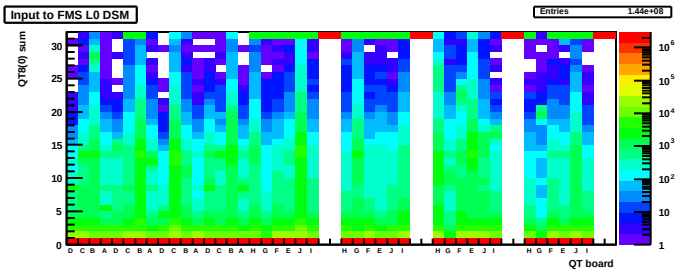

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1433970
Mean 3984
RMS 142.5

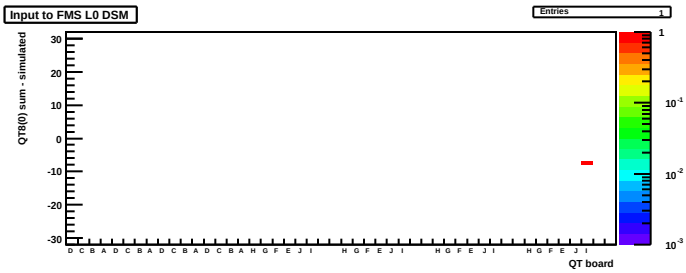

Input to QT1 crate (south-top)
Entries 4.526187e+07
ADC
channel

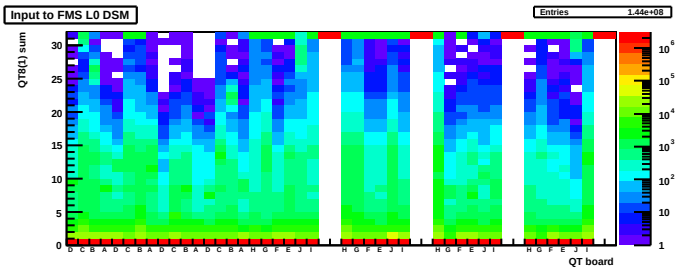

Input to QT3 crate (north-top)
Entries 3.026663e+07
ADC
channel

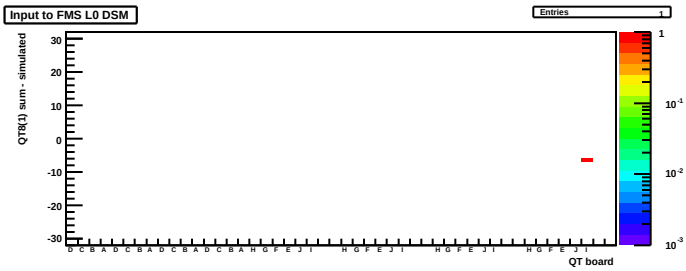

Input to QT2 crate (south-bottom)
Entries 2.820065e+07
ADC
channel

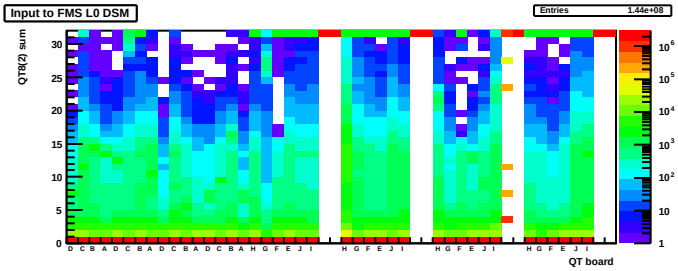

Input to QT4 crate (north-bottom)
Entries 3.090451e+07
ADC
channel

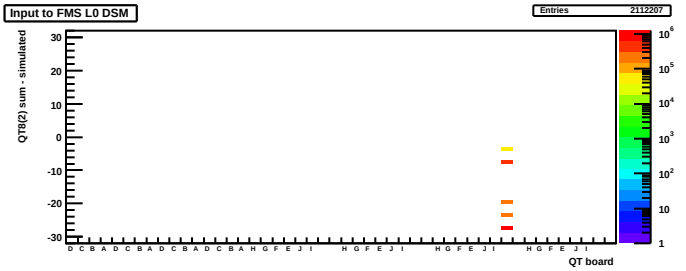

Input to FMS L0 DSM
Entries 1.44e+08
QT8(0) sum
QT board

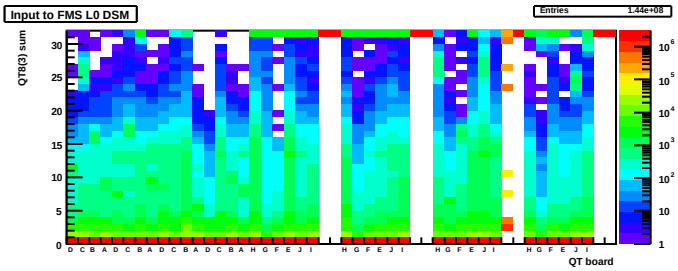

Input to FMS L0 DSM
Entries 1
QT8(0) sum - simulated
QT board

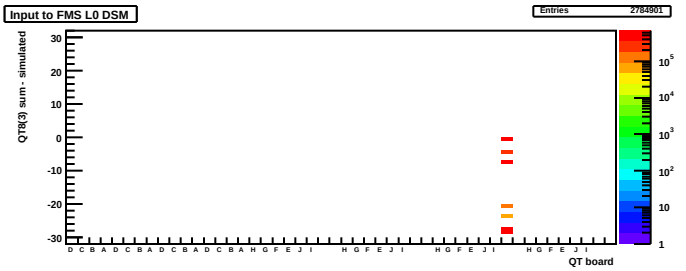

Input to FMS L0 DSM
Entries 1.44e+08
QT8(1) sum
QT board

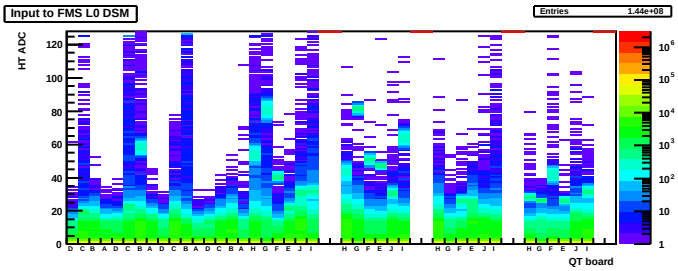

Input to FMS L0 DSM
Entries 1
QT8(1) sum - simulated
QT board

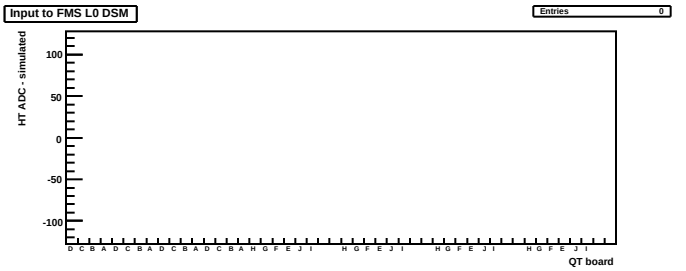

Input to FMS L0 DSM
Entries 1.44e+08
QT8(2) sum
QT board

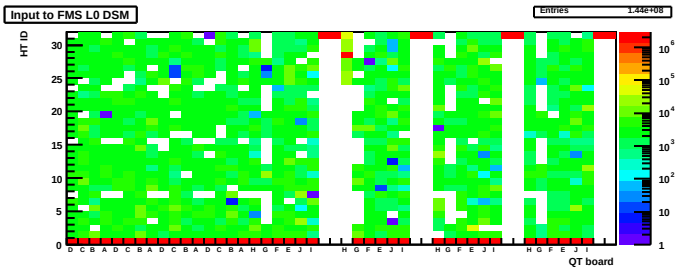

Input to FMS L0 DSM
Entries 2112207
QT8(2) sum - simulated
QT board

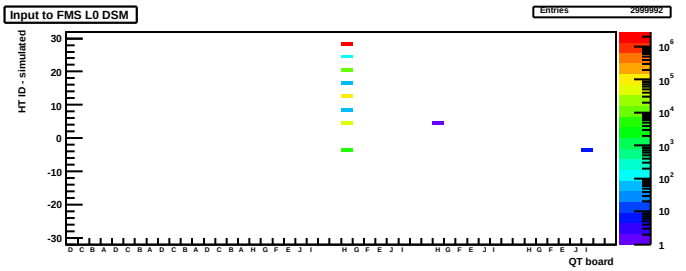

Input to FMS L0 DSM
Entries 1.44e+08
QT8(3) sum
QT board

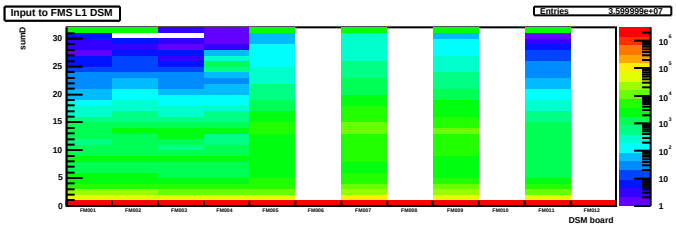

Input to FMS L0 DSM
Entries 2784901
QT8(3) sum - simulated
QT board

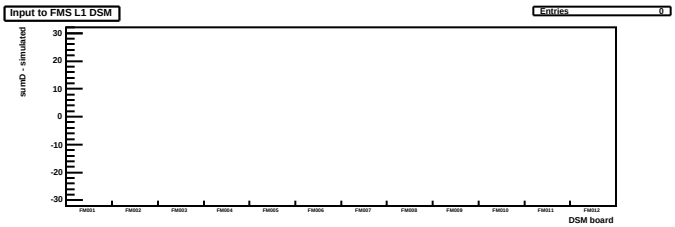

Input to FMS L0 DSM
Entries 1.44e+08
HT ADC
QT board

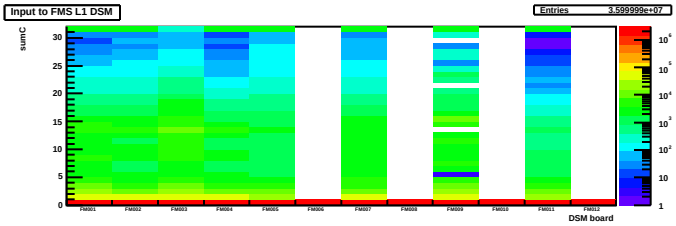

Input to FMS L0 DSM
Entries 0
HT ADC - simulated
QT board

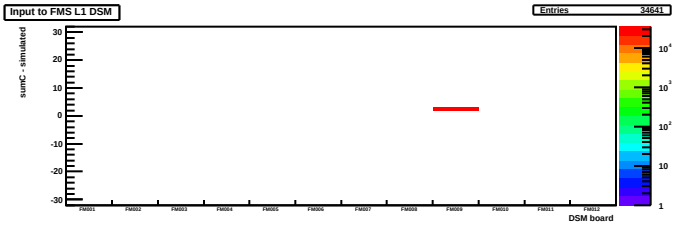

Input to FMS L0 DSM
Entries 1.44e+08
HT ID
QT board

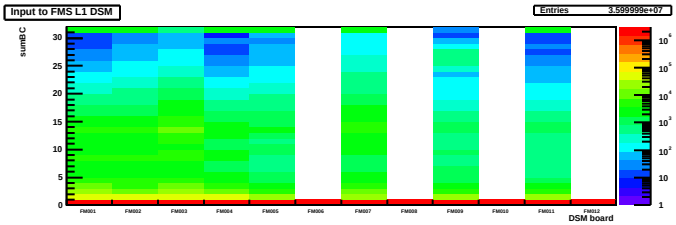

Input to FMS L0 DSM
Entries 2999992
HT ID - simulated
QT board

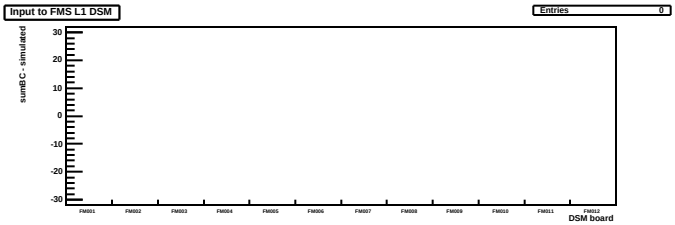

Input to FMS L1 DSM
Entries 3.599999e+07
sumD
DSM board

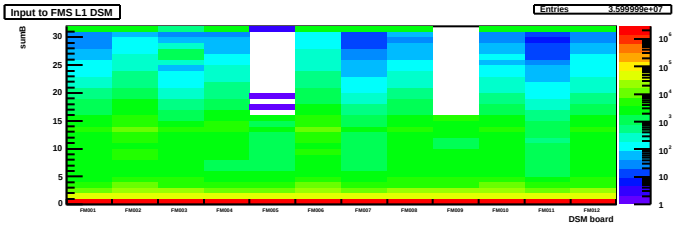

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

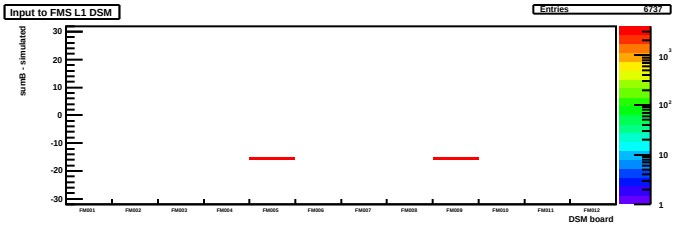

Input to FMS L1 DSM
Entries 3.599999e+07
sumC
DSM board

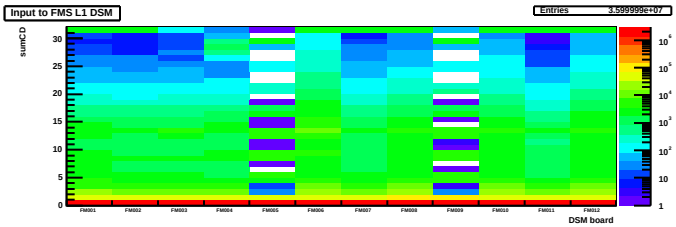

Input to FMS L1 DSM
Entries 34641
sumC - simulated
DSM board

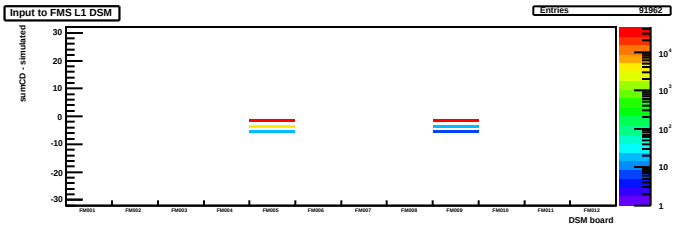

Input to FMS L1 DSM
Entries 3.599999e+07
sumBC
DSM board

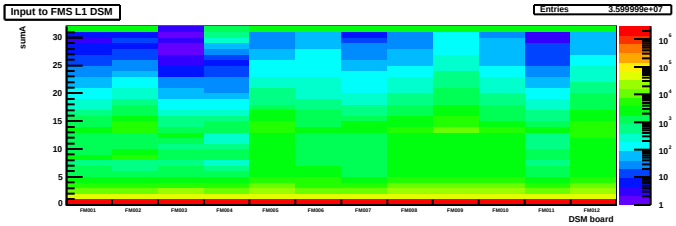

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

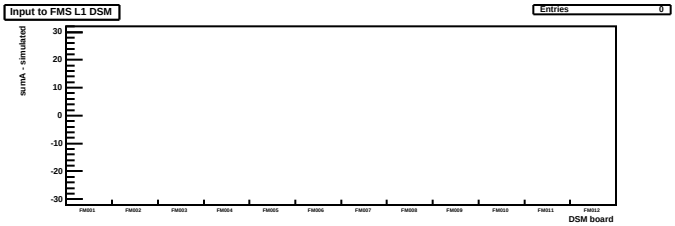

Input to FMS L1 DSM
Entries 3.599999e+07
sumB
DSM board

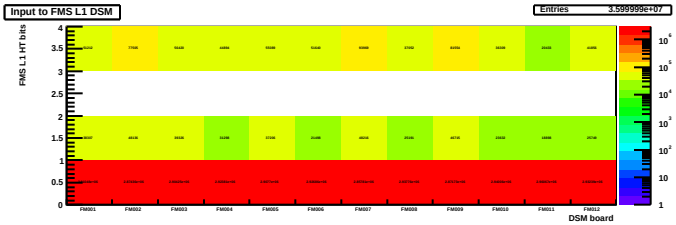

Input to FMS L1 DSM
Entries 6737
sumB - simulated
DSM board

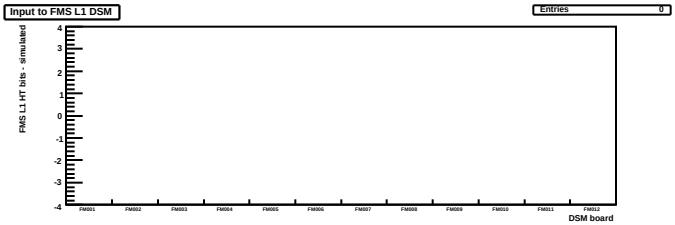

Input to FMS L1 DSM
Entries 3.599999e+07
sumCD
DSM board

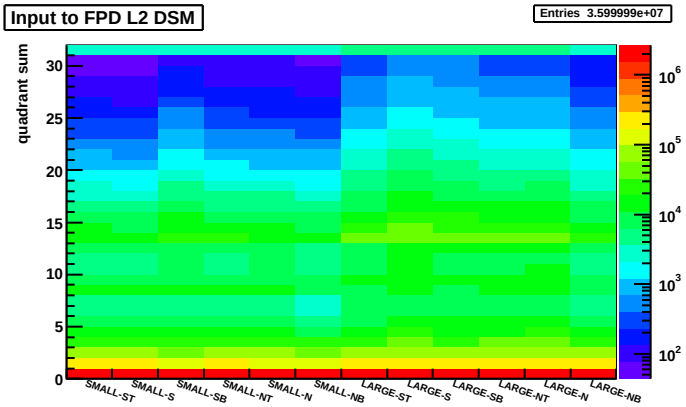

Input to FMS L1 DSM
Entries 91982
sumCD - simulated
DSM board

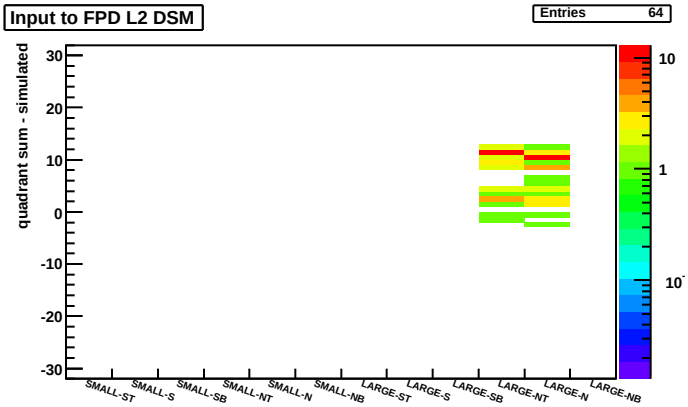

Input to FMS L1 DSM
Entries 3.599999e+07
sumA
DSM board

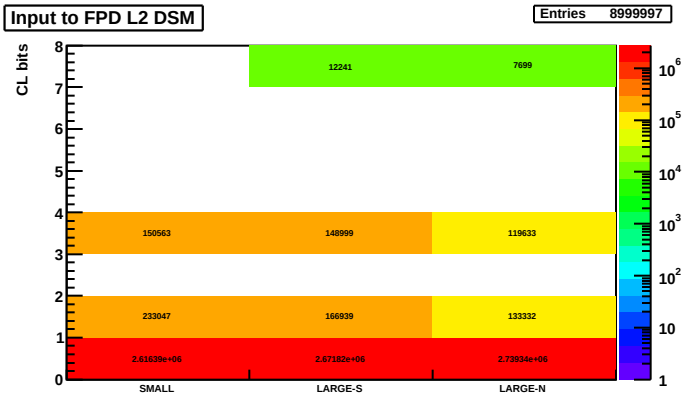

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

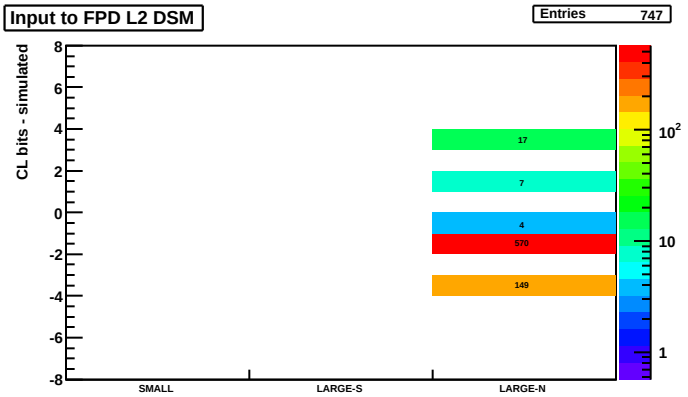

Input to FMS L1 DSM
Entries 3.599999e+07
FMS L1 HT bits
DSM board

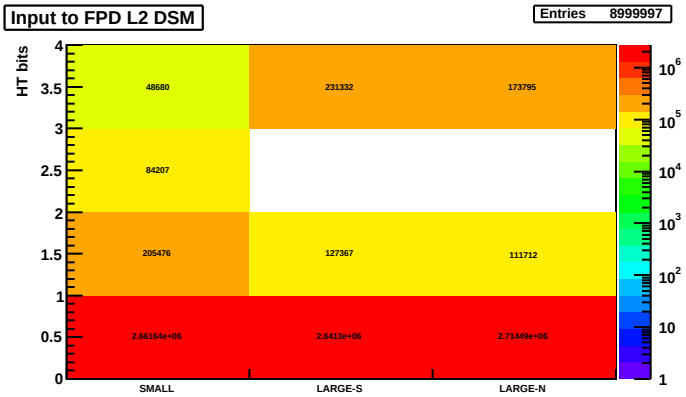

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

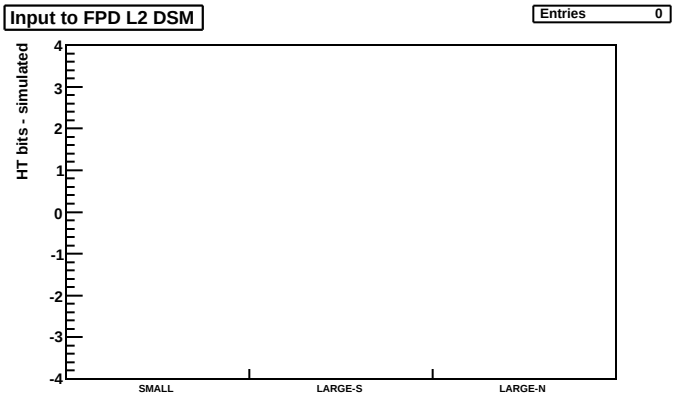

Input to FPD L2 DSM
Entries 3.599999e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

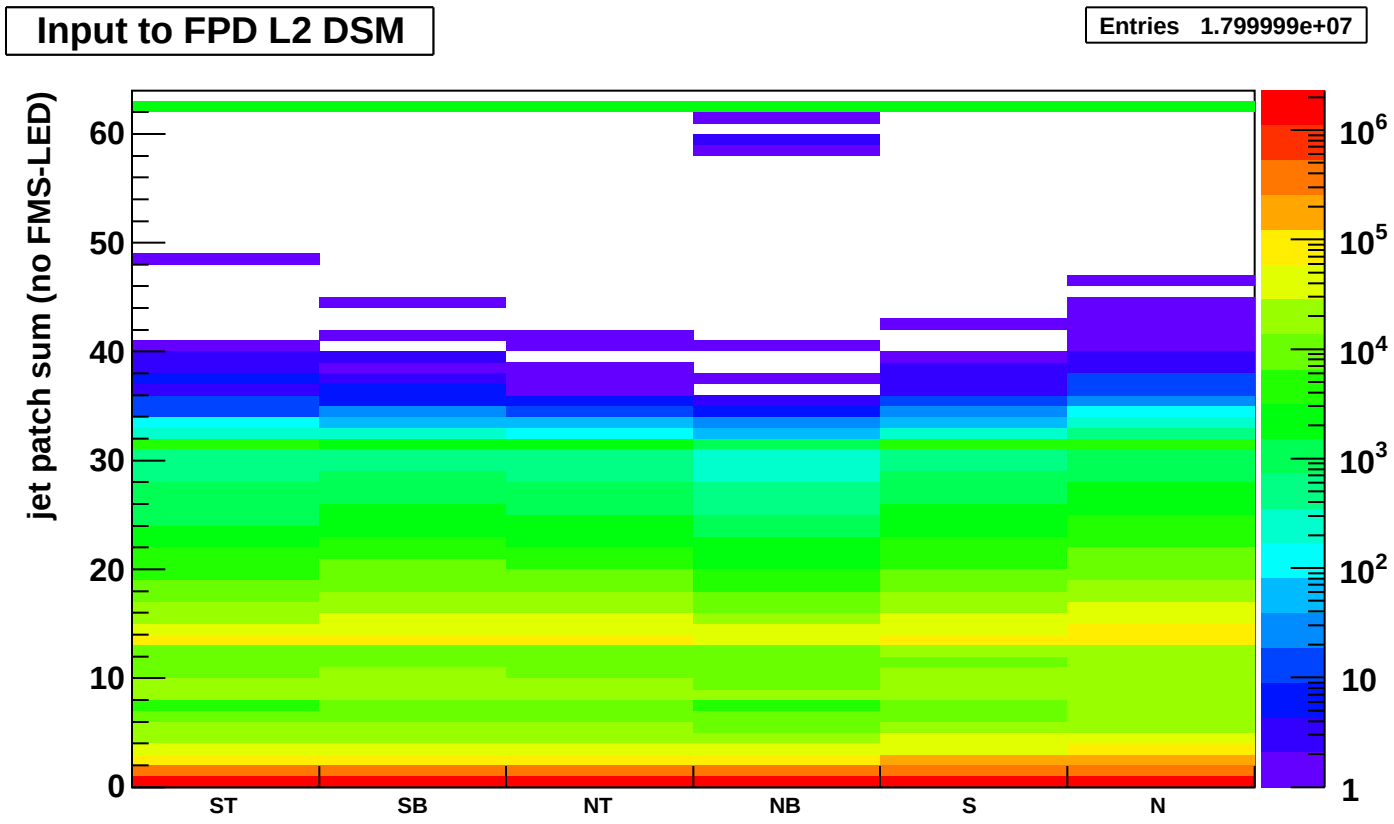

Input to FPD L2 DSM
Entries 64
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

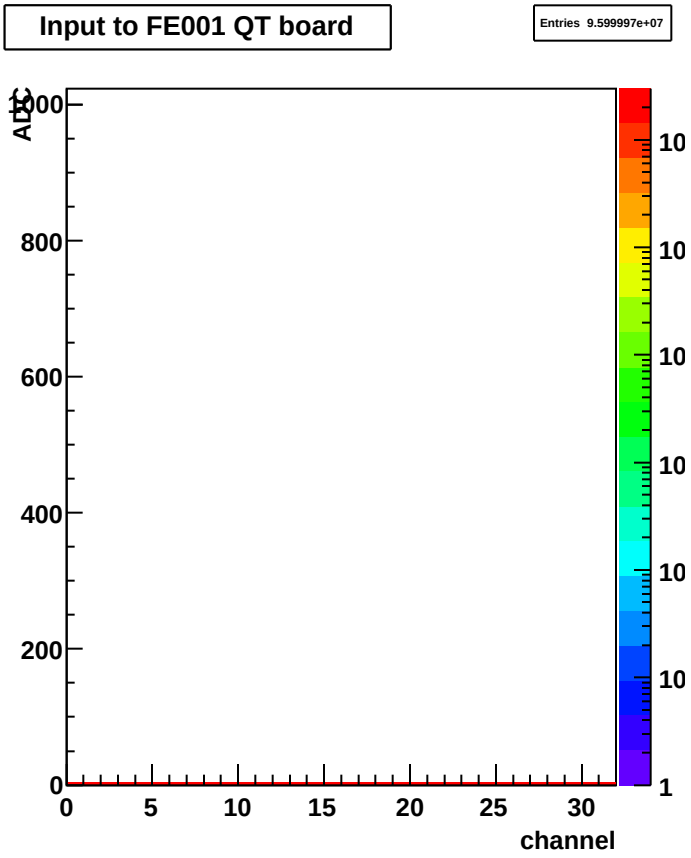

Input to FPD L2 DSM
Entries 8999997
CL bits
12241
7699
150563
148999
119633
233047
166939
133332
2.61639e+06
2.67182e+06
2.73934e+06
SMALL
LARGE-S
LARGE-N

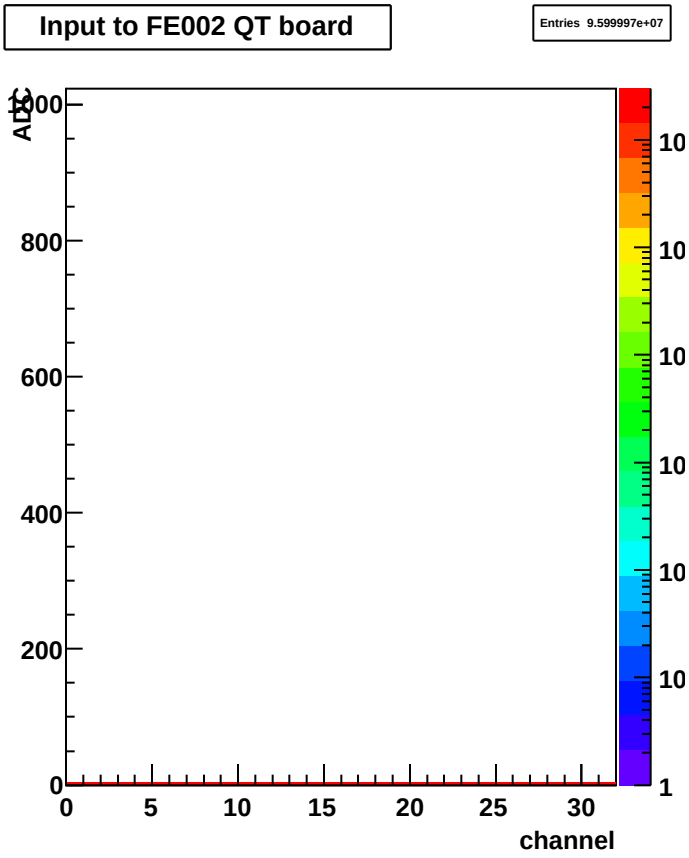

Input to FPD L2 DSM
Entries 747
CL bits - simulated
17
7
4
570
149
SMALL
LARGE-S
LARGE-N

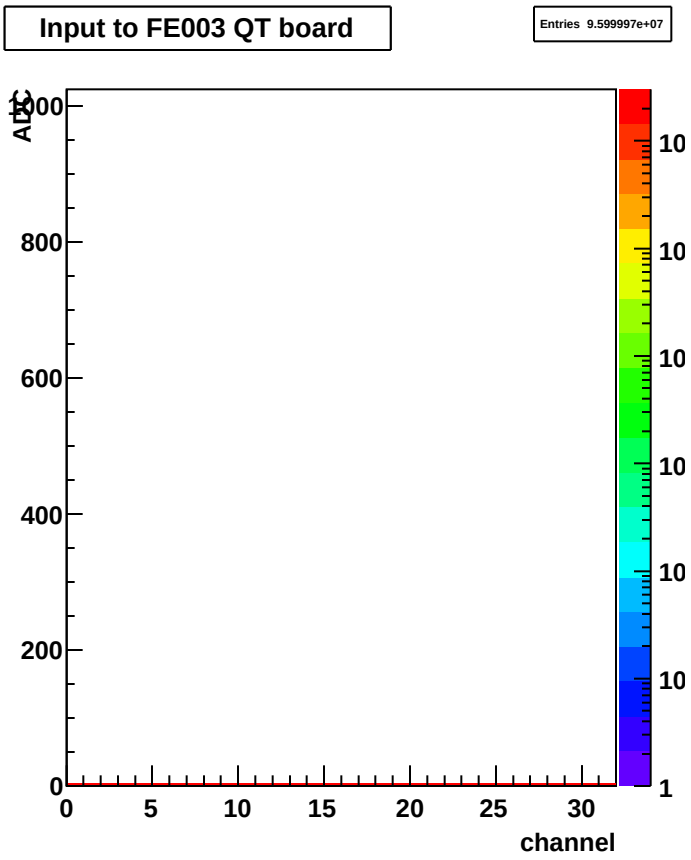

Input to FPD L2 DSM
Entries 8999997
HT bits
48680
231332
173795
84207
205476
127367
111712
2.66164e+06
2.6413e+06
2.71449e+06
SMALL
LARGE-S
LARGE-N

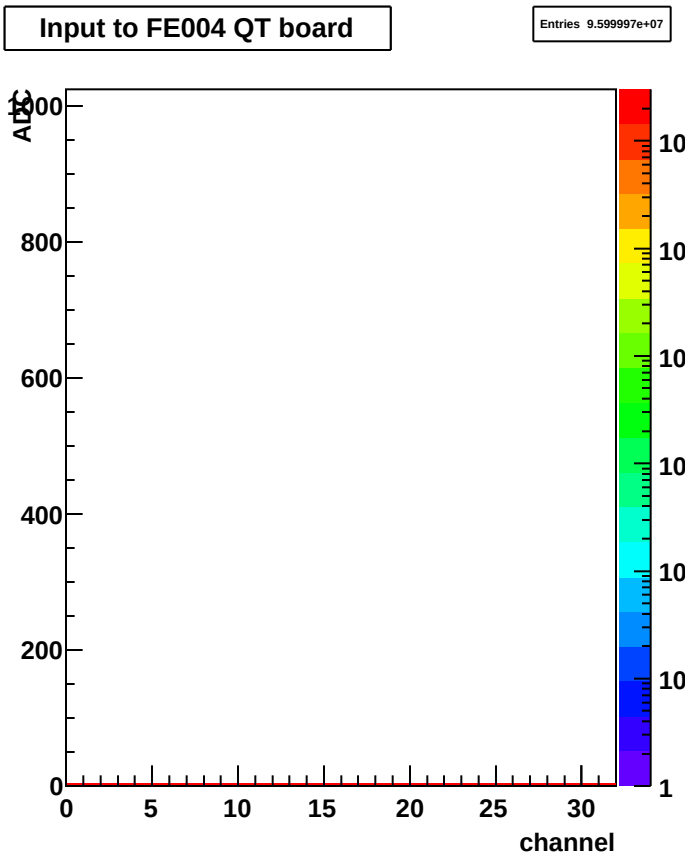

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

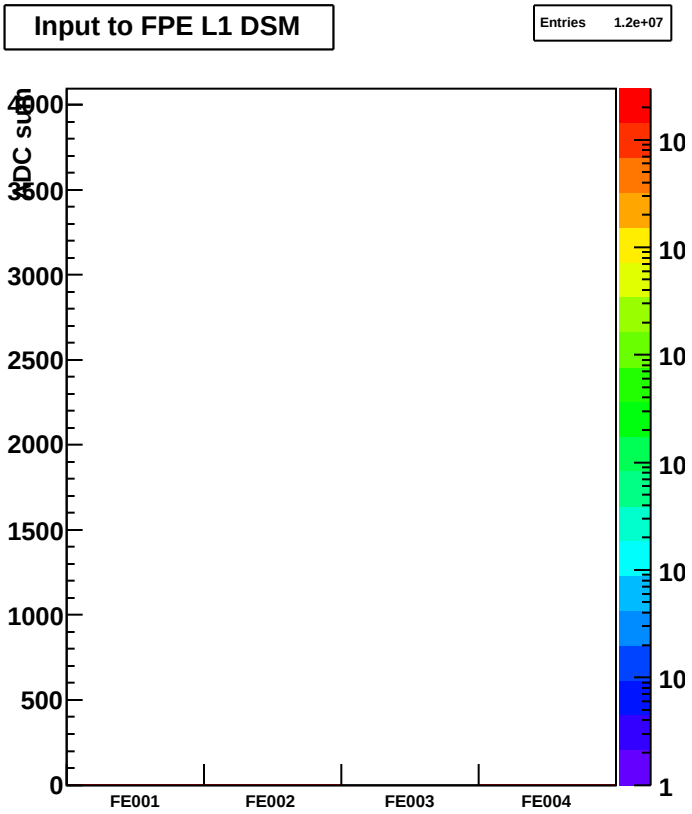

Input to FPD L2 DSM
Entries 1.799999e+07
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6


Input to FE001 QT board
Entries 9.599997e+07
ADC
channel

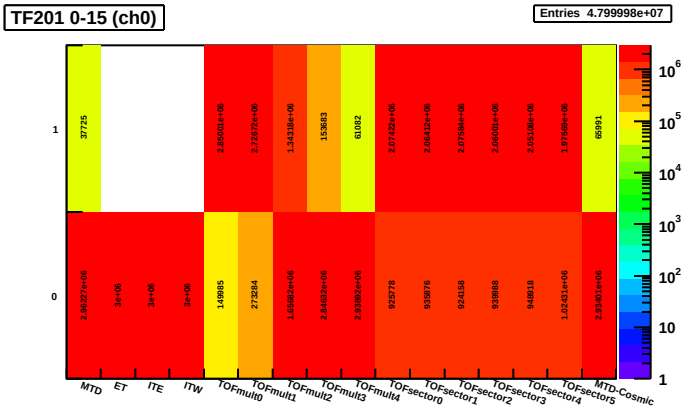

Input to FE002 QT board
Entries 9.599997e+07
ADC
channel


Input to FE003 QT board
Entries 9.599997e+07
ADC
channel

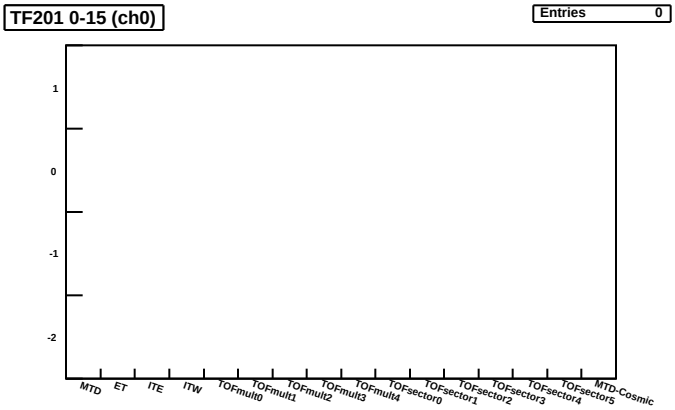

Input to FE004 QT board
Entries 9.599997e+07
ADC
channel


Input to FPE L1 DSM
Entries 1.2e+07
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
10
1

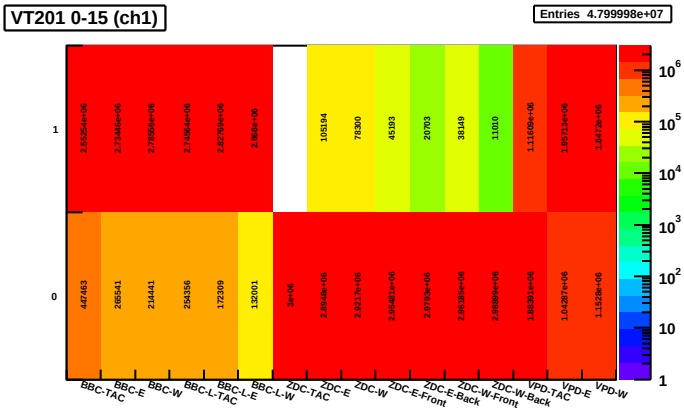
TF201 0-15 (ch0)



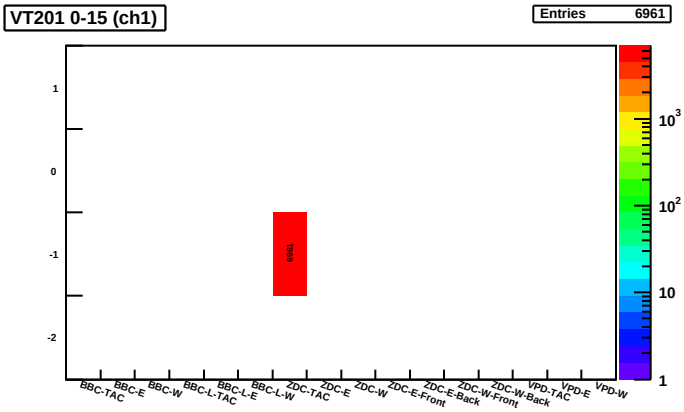
TF201 0-15 (ch0)



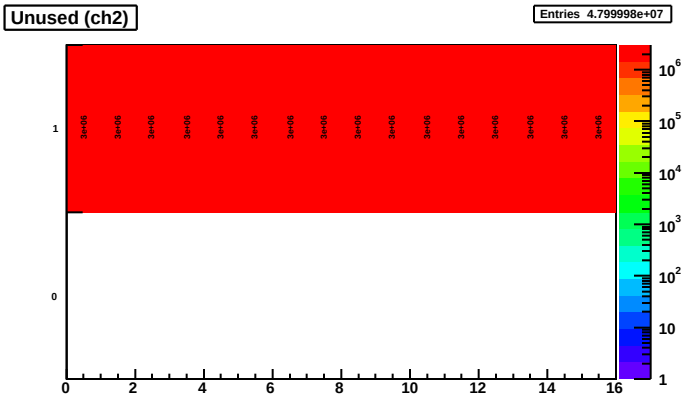
VT201 0-15 (ch1)

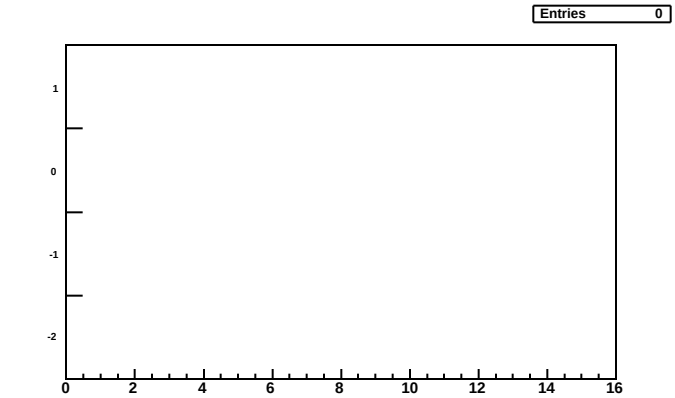


VT201 0-15 (ch1)

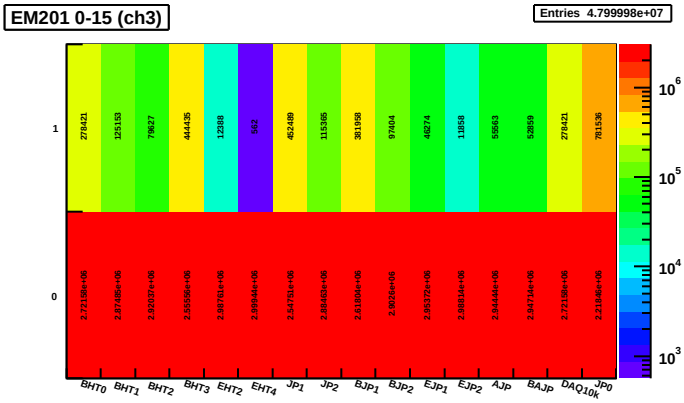


Unused (ch2)

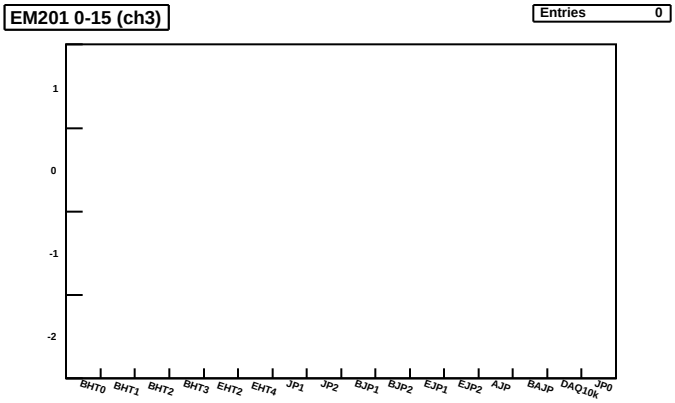




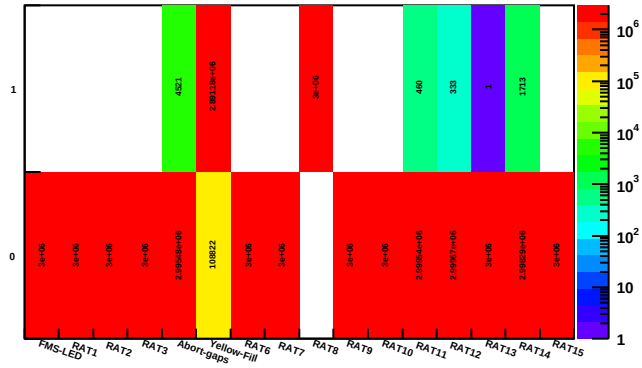
EM201 0-15 (ch3)

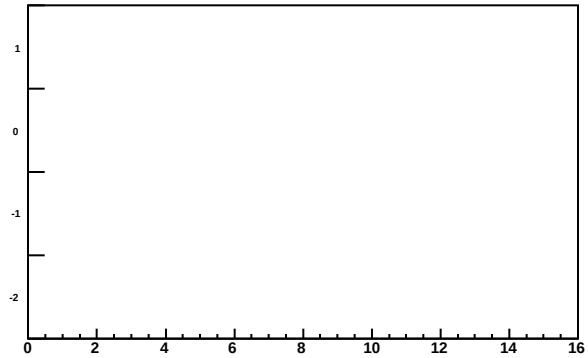


EM201 0-15 (ch3)

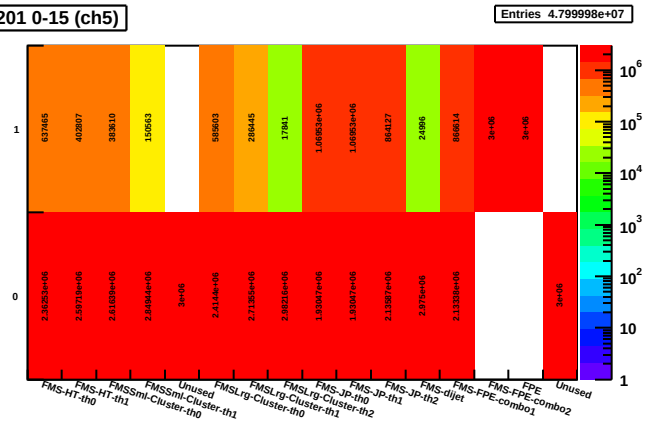


RAT board (ch4)

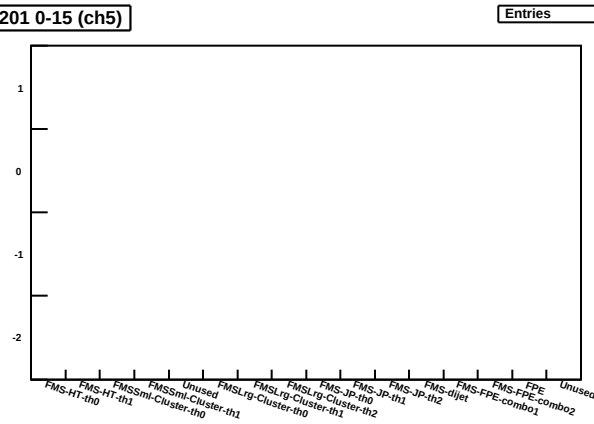




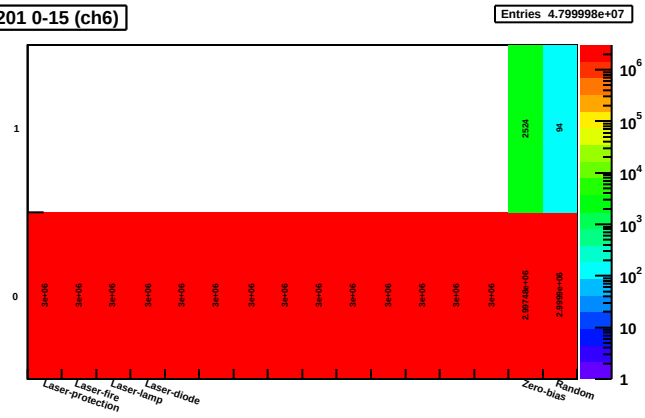
FP201 0-15 (ch5)

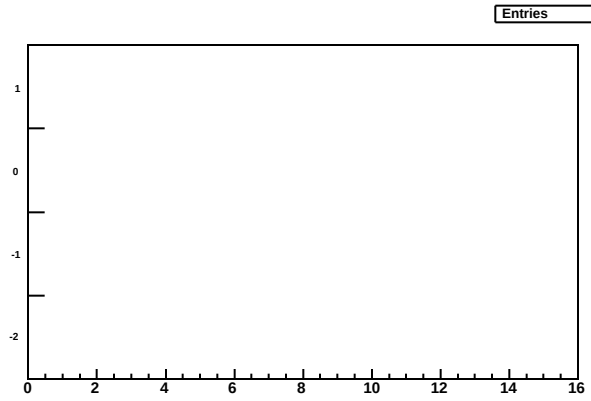
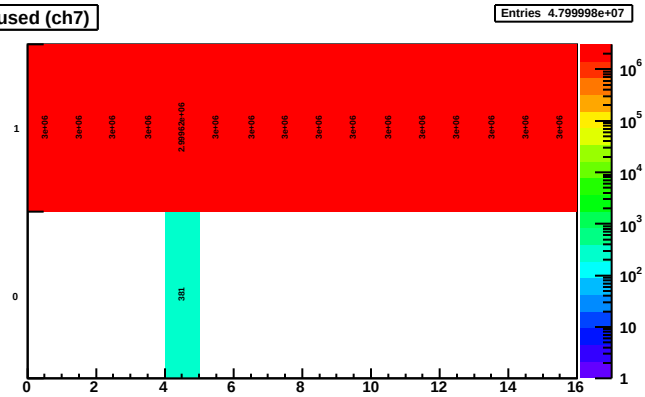
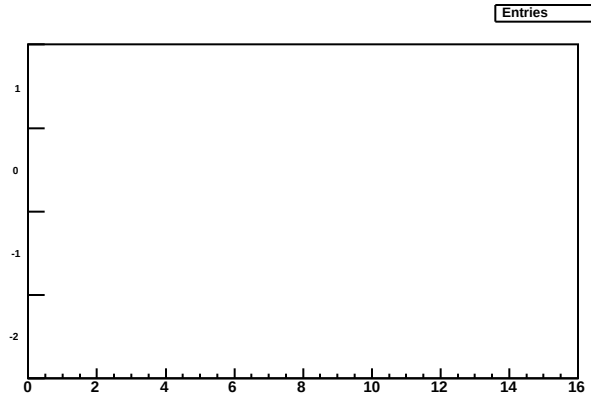


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)