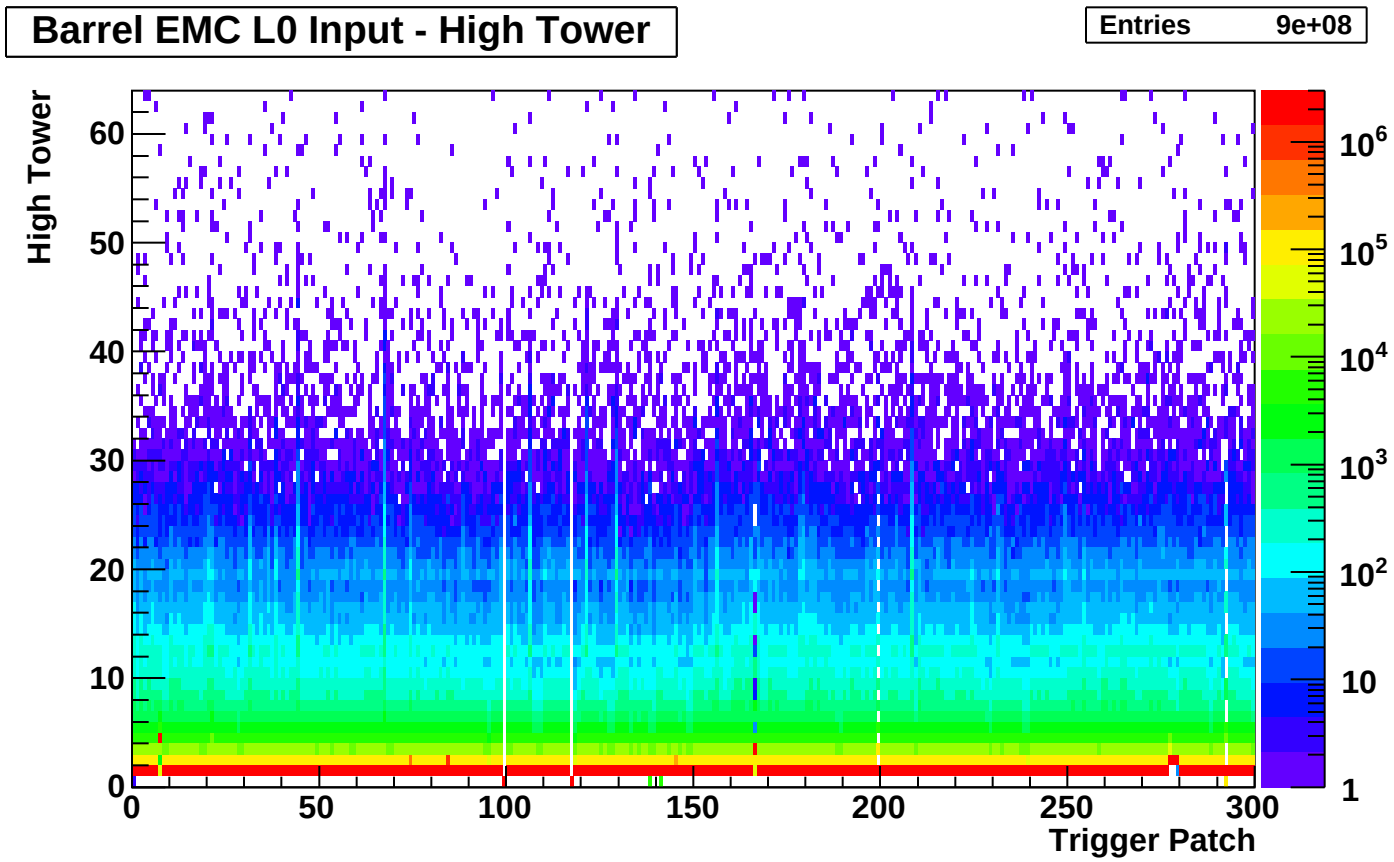
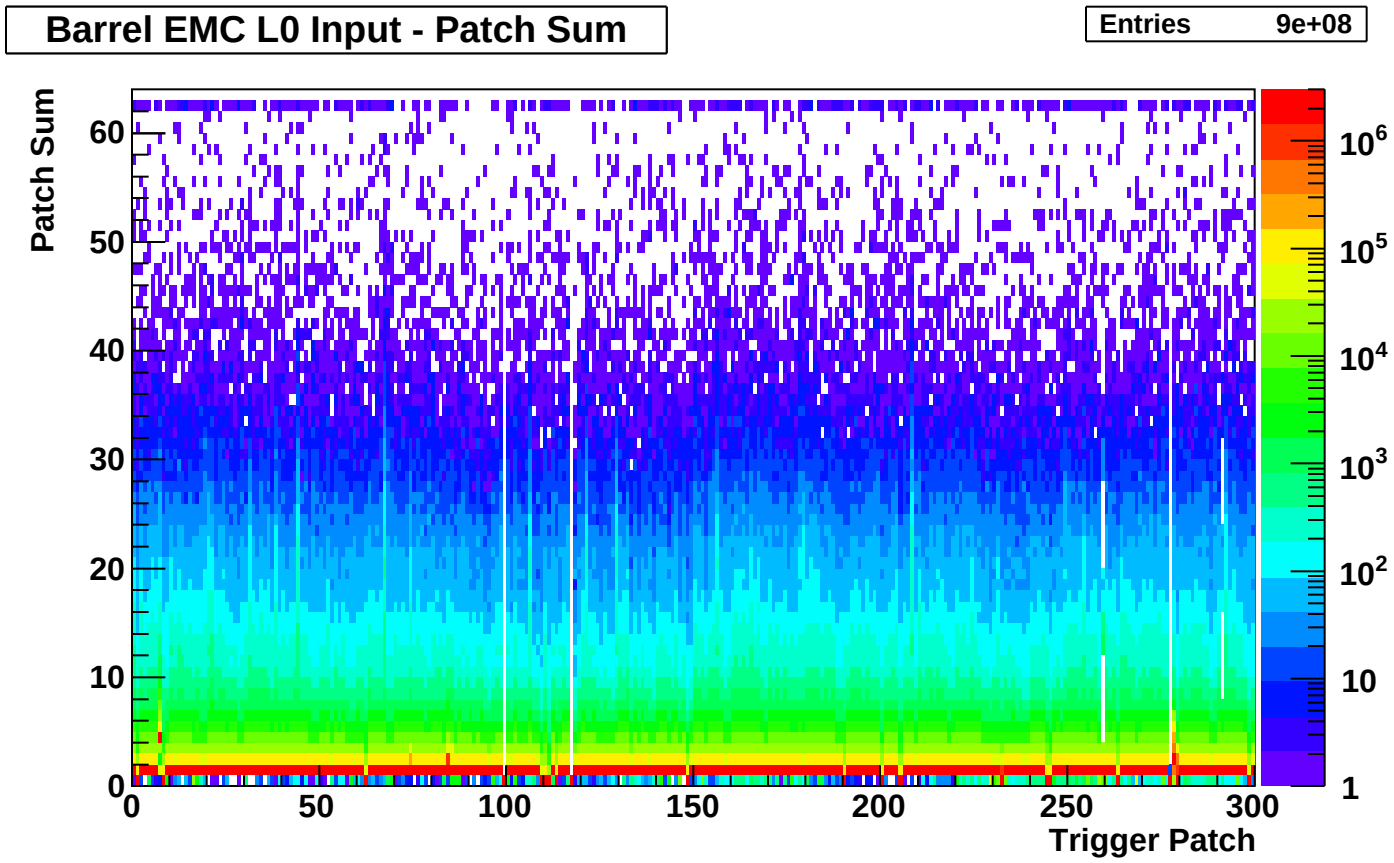
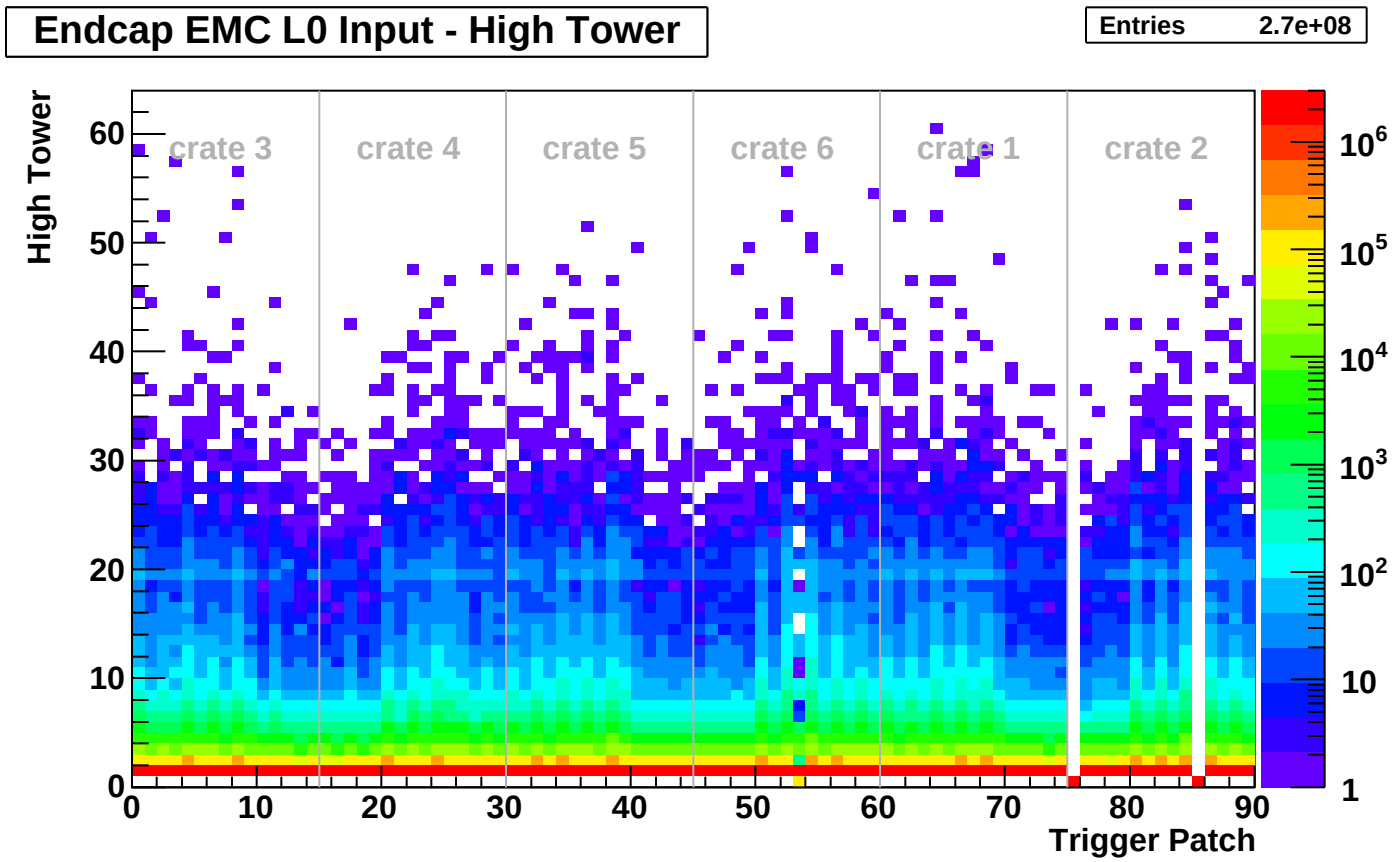
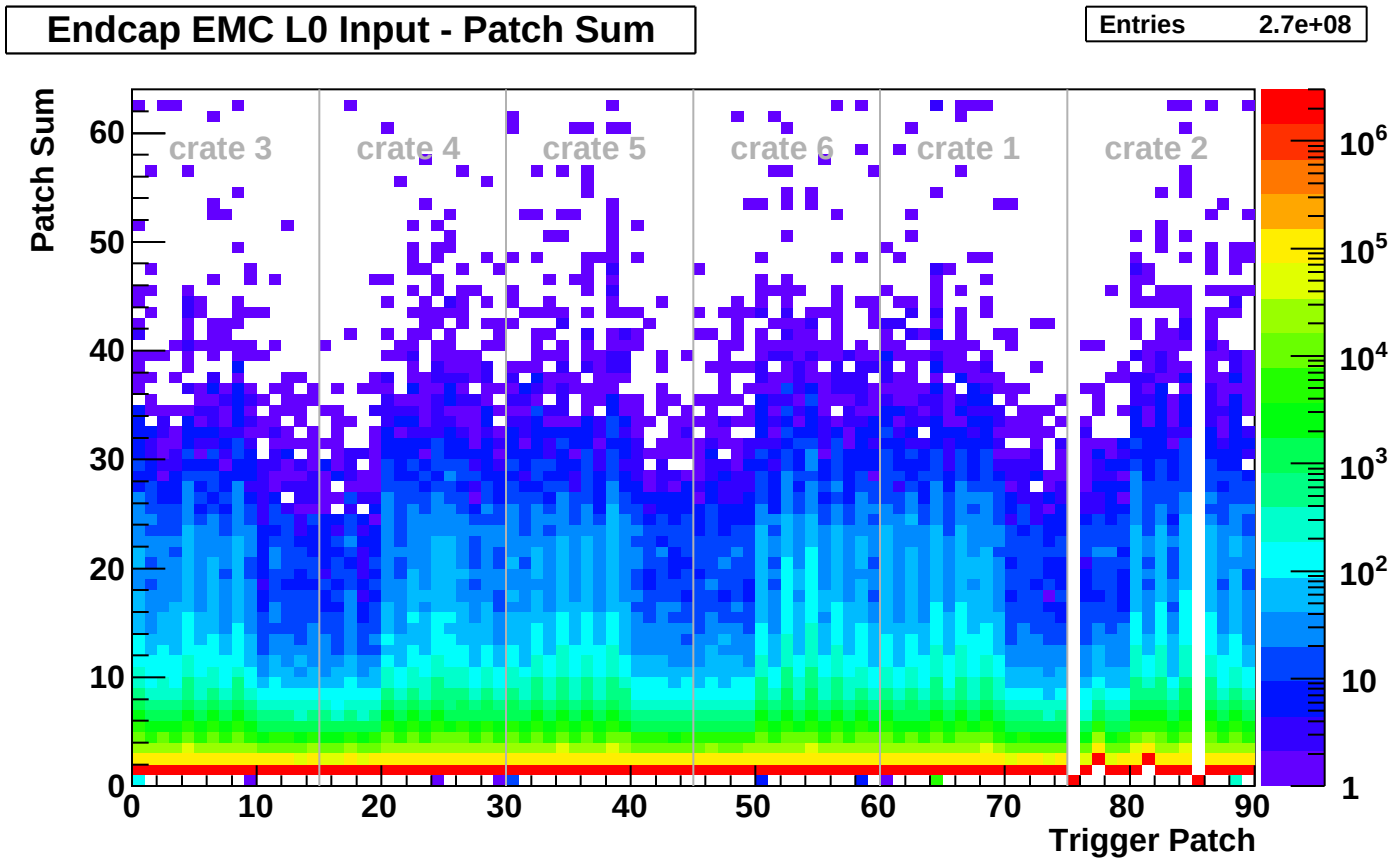
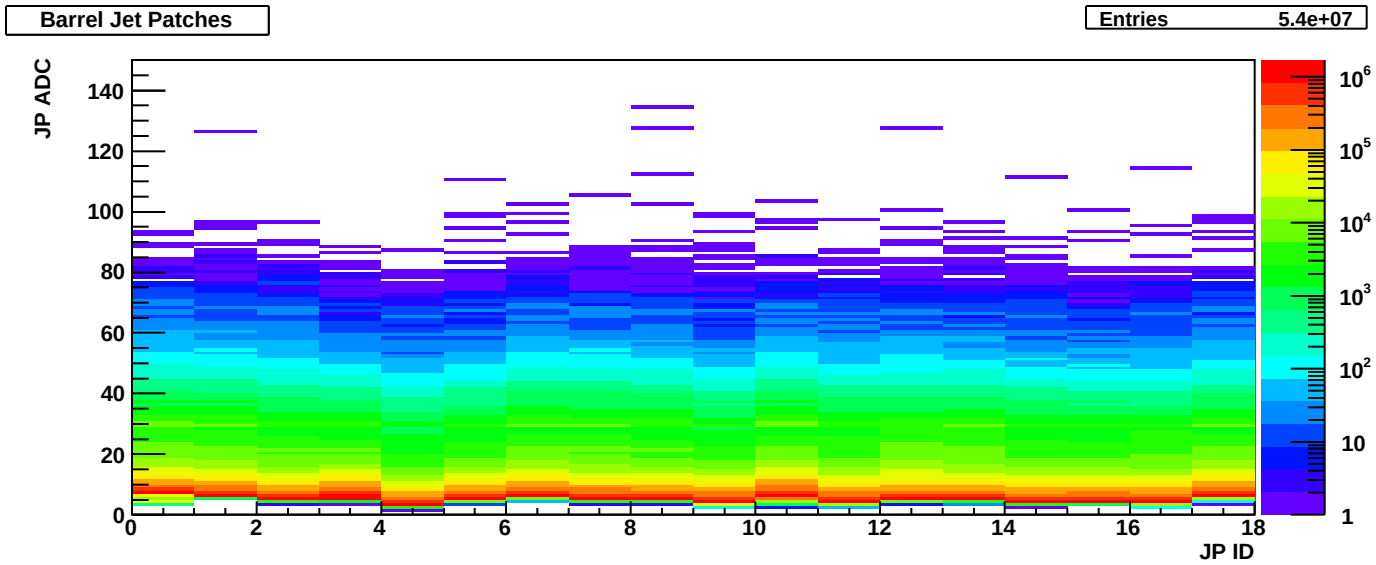
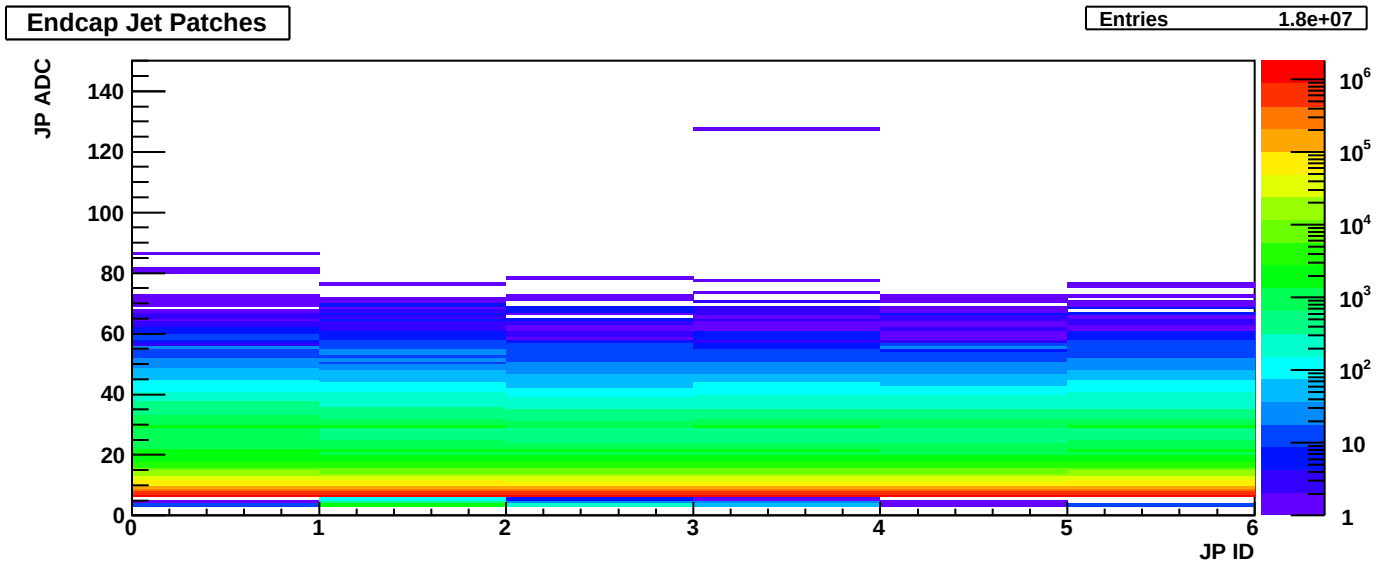

Barrel EMC L0 Input - High Tower
Entries 9e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

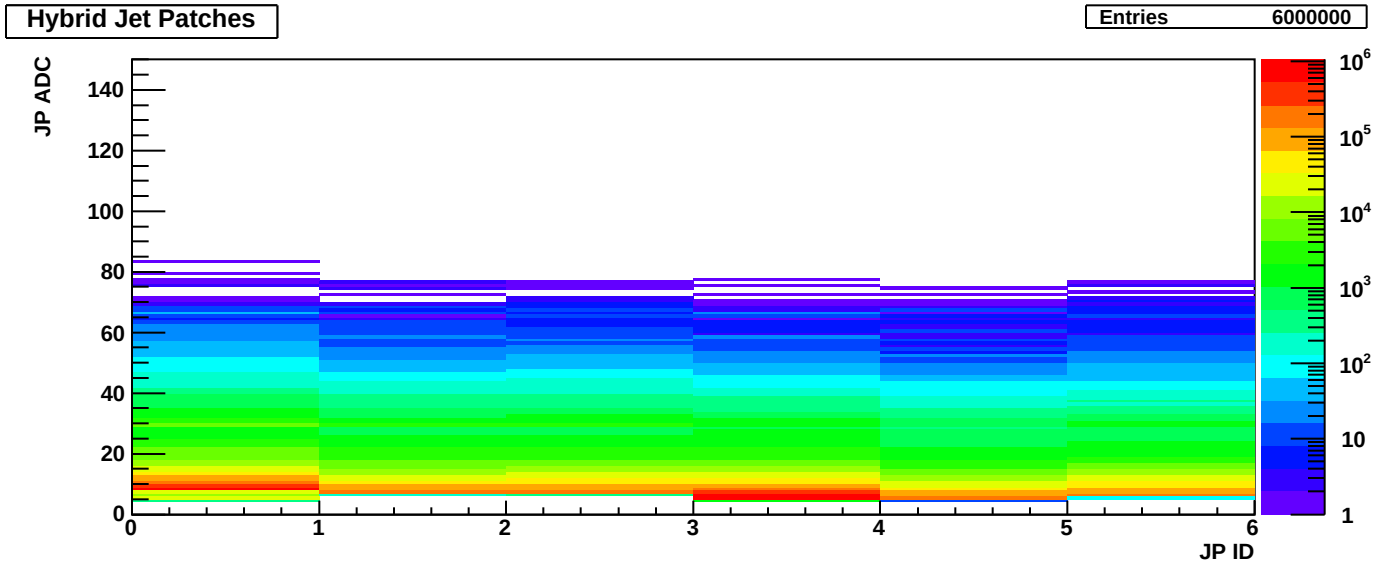

Barrel EMC L0 Input - Patch Sum
Entries 9e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

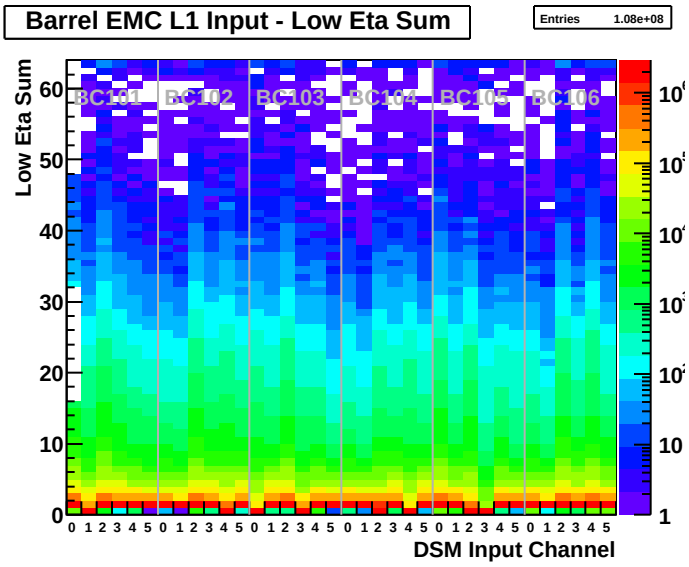

Endcap EMC L0 Input - High Tower
Entries 2.7e+08
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

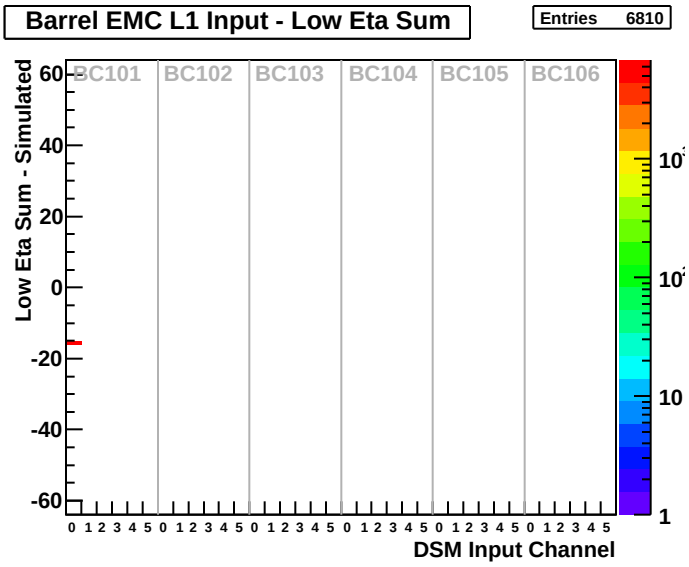

Endcap EMC L0 Input - Patch Sum
Entries 2.7e+08
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

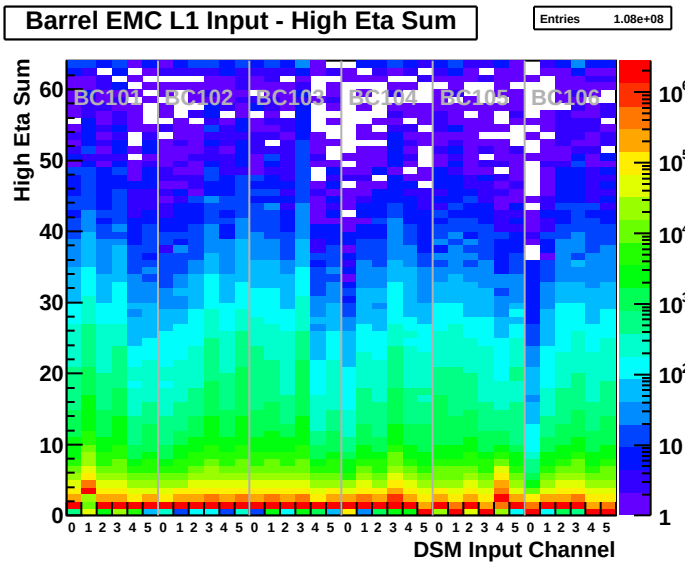

Barrel Jet Patches
Entries 5.4e+07
JP ADC
JP ID

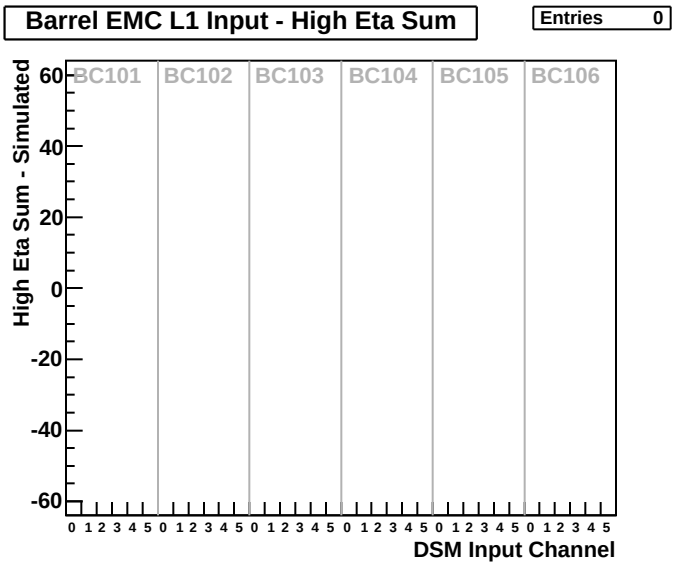

Endcap Jet Patches
Entries 1.8e+07
JP ADC
JP ID

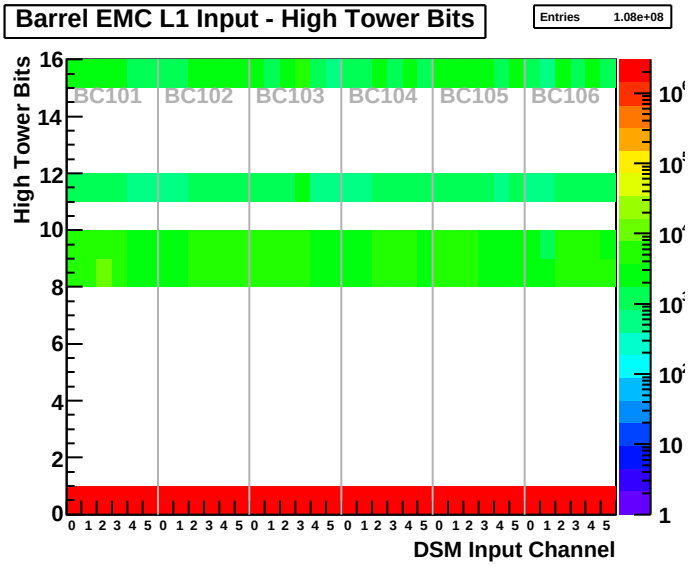

Hybrid Jet Patches
Entries 6000000
JP ADC
JP ID

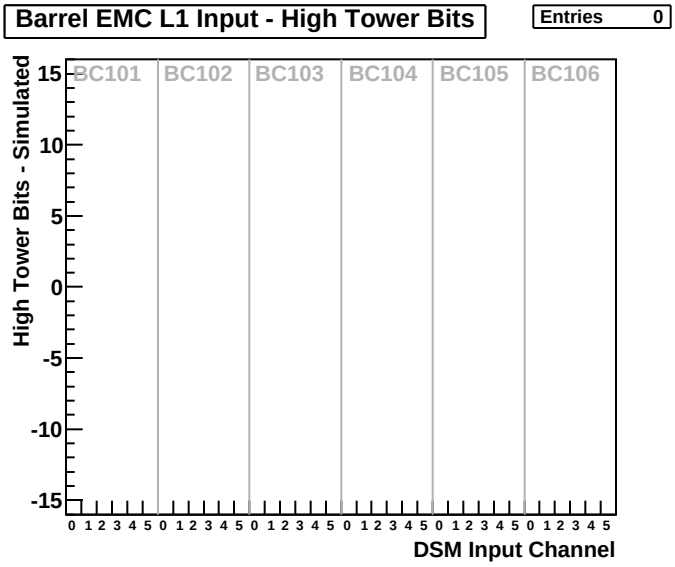

Barrel EMC L1 Input - Low Eta Sum
Entries 1.08e+08
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

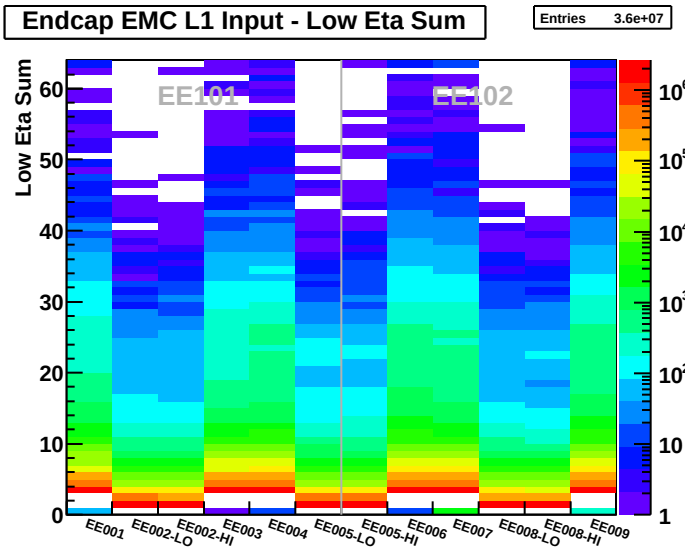

Barrel EMC L1 Input - Low Eta Sum
Entries 6810
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

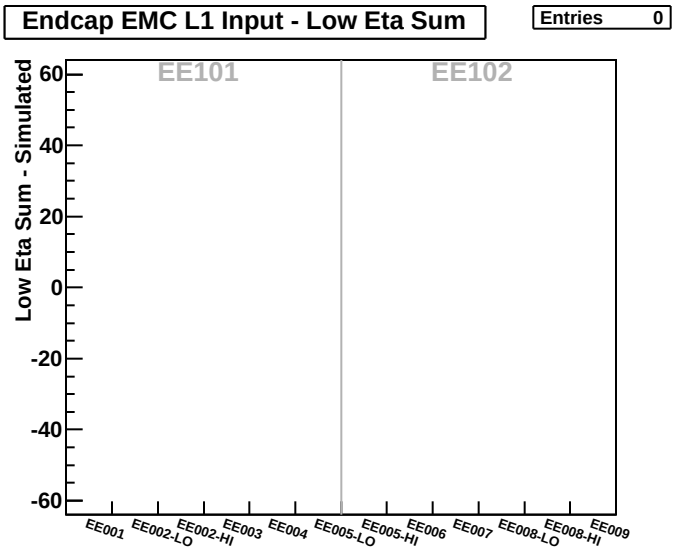

Barrel EMC L1 Input - High Eta Sum
Entries 1.08e+08
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

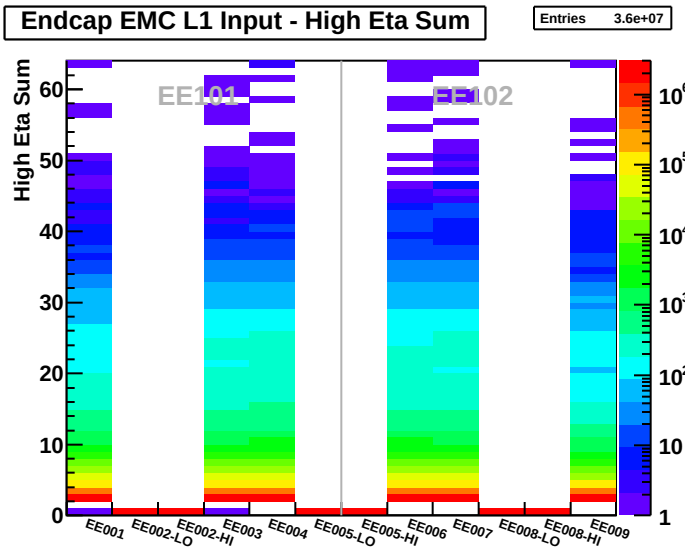

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

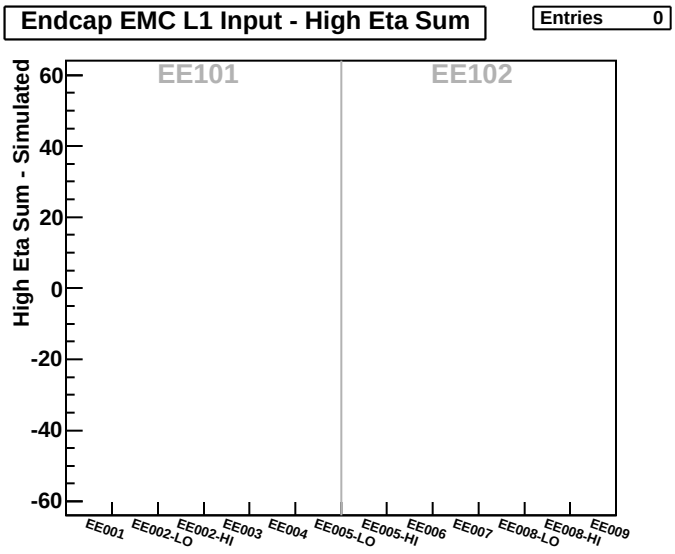

Barrel EMC L1 Input - High Tower Bits
Entries 1.08e+08
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

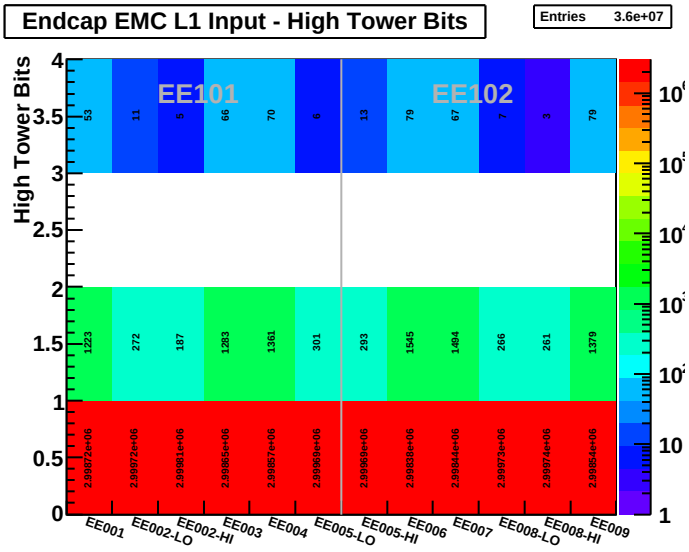

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

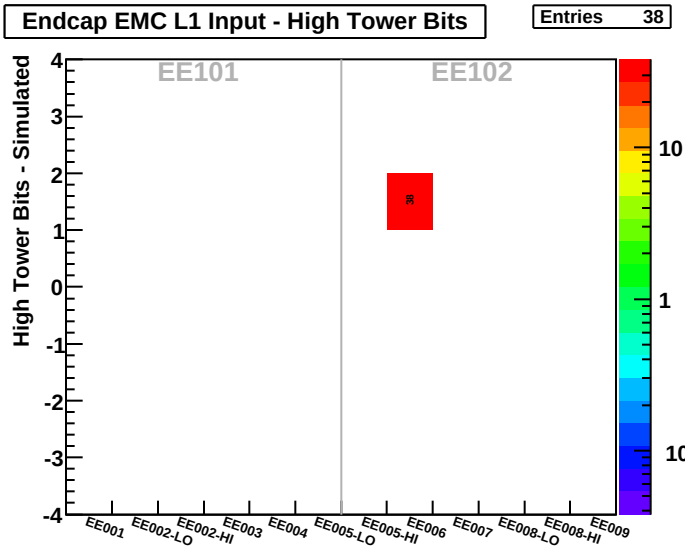

Endcap EMC L1 Input - Low Eta Sum
Entries 3.6e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

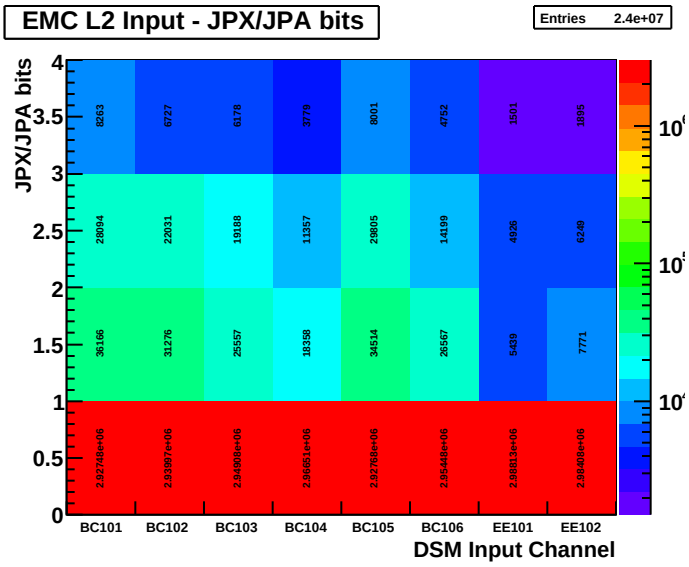

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

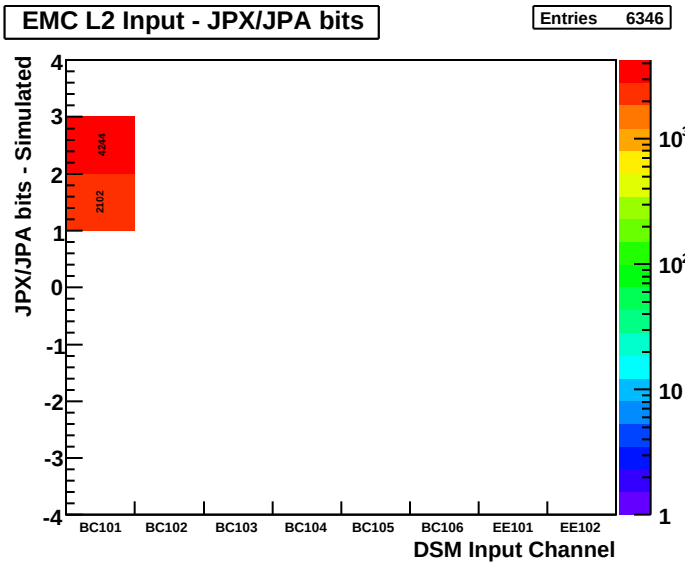

Endcap EMC L1 Input - High Eta Sum
Entries 3.6e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

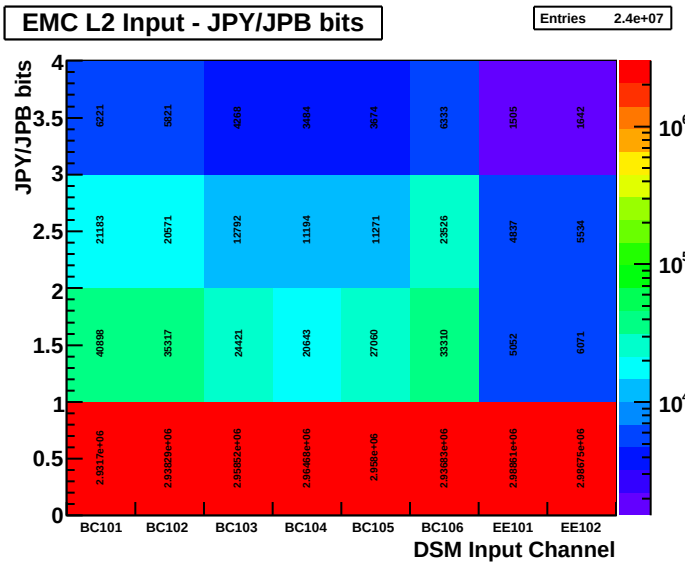

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

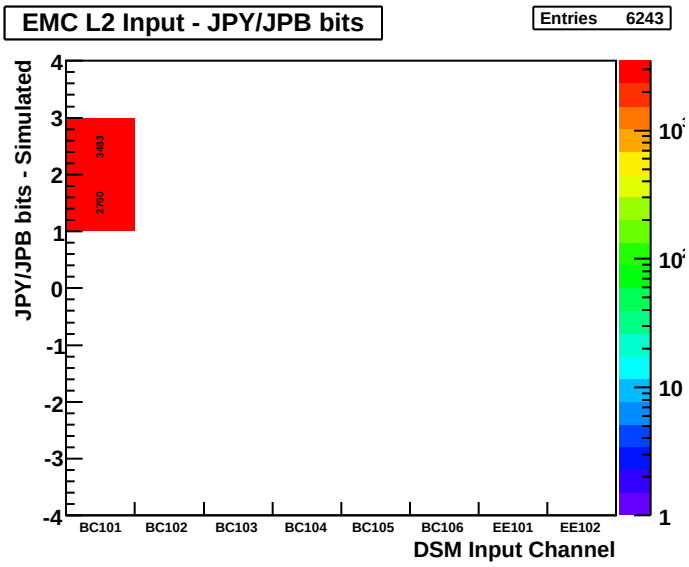

Endcap EMC L1 Input - High Tower Bits
Entries 3.6e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

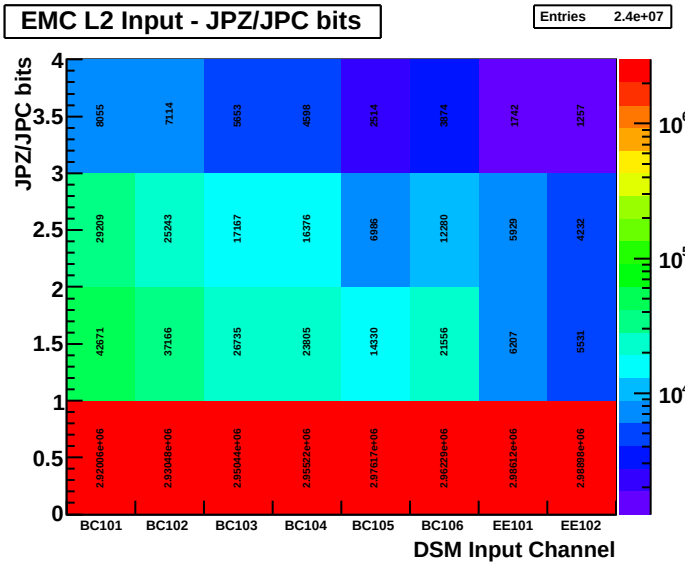

Endcap EMC L1 Input - High Tower Bits
Entries 38
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

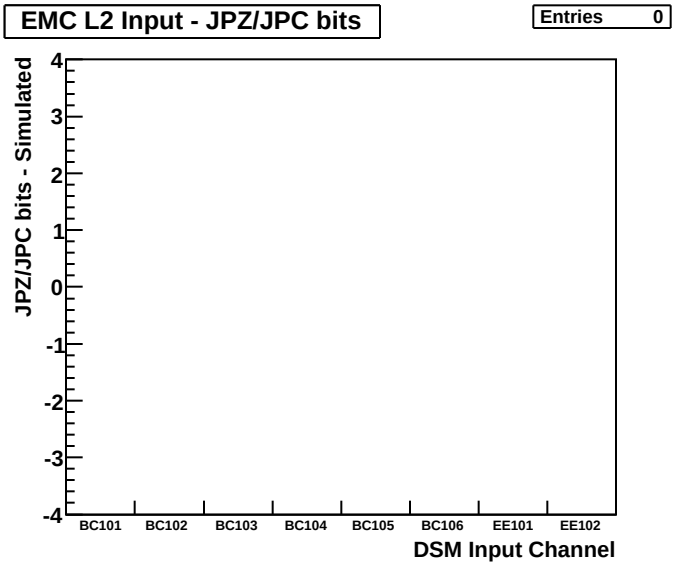

EMC L2 Input - JPX/JPA bits
Entries 2.4e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
8263 6727 6178 3779 8001 4752 1501 1895
28094 22031 19188 11357 29805 14199 4926 6249
36166 31276 25557 18358 34514 26567 5439 7771
2.92748e+06 2.93997e+06 2.94908e+06 2.96651e+06 2.92768e+06 2.95449e+06 2.98813e+06 2.98408e+06

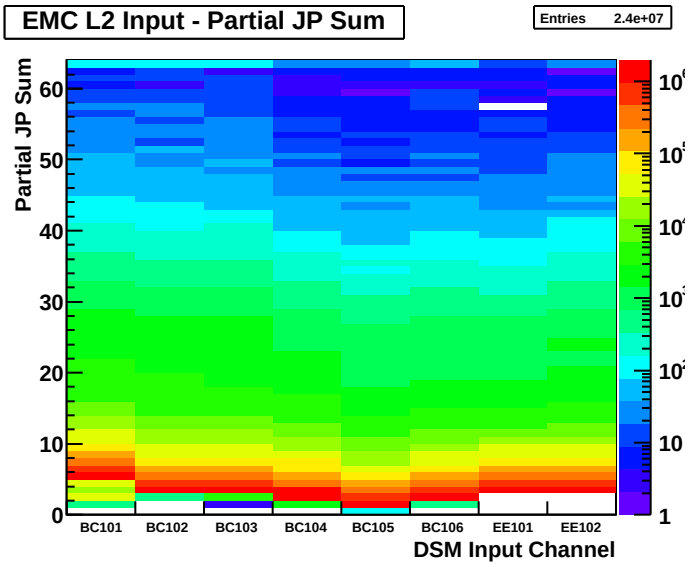

EMC L2 Input - JPX/JPA bits
Entries 6346
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4244
2102

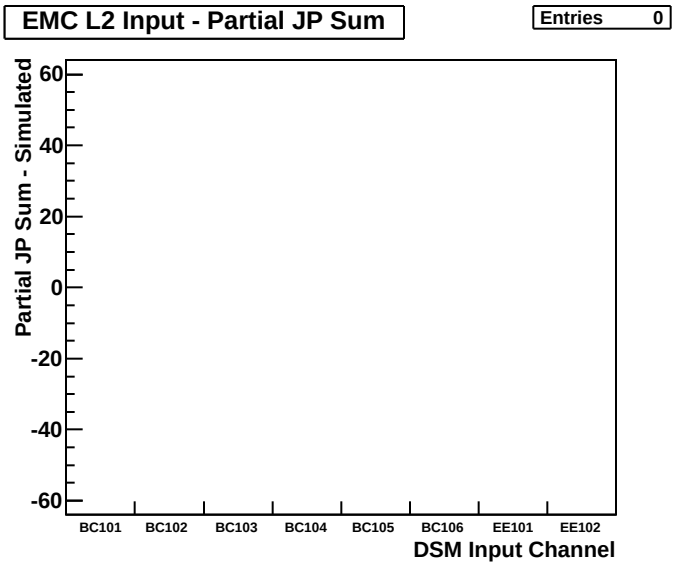

EMC L2 Input - JPY/JPB bits
Entries 2.4e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
6221 5821 4268 3484 3674 6333 1505 1642
21183 20571 12792 11194 11271 23526 4837 5534
40898 35317 24421 20643 27060 33310 5052 6071
2.9317e+06 2.93829e+06 2.95852e+06 2.96468e+06 2.958e+06 2.93683e+06 2.98881e+06 2.98675e+06

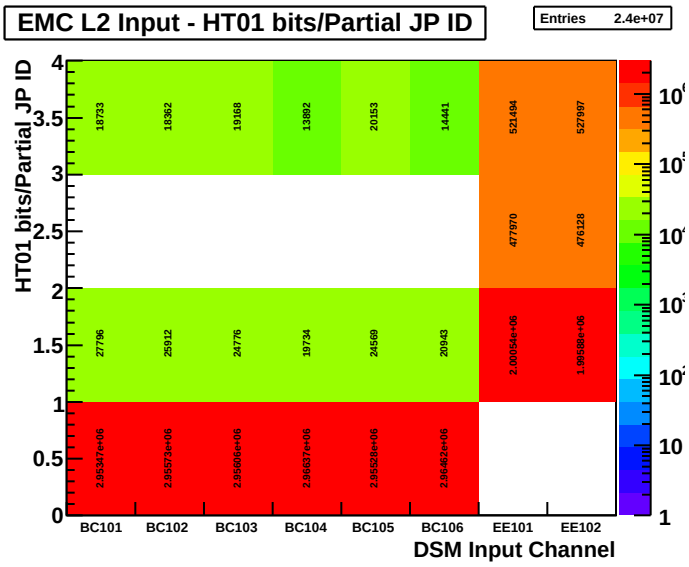

EMC L2 Input - JPY/JPB bits
Entries 6243
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
3483
2760

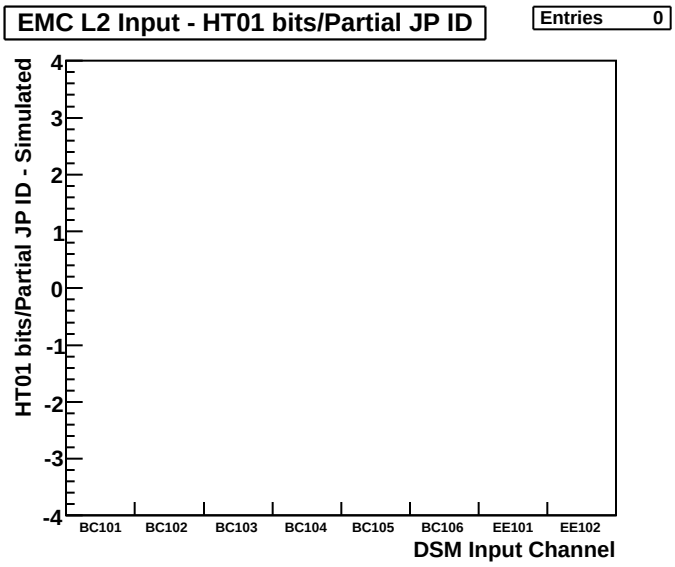

EMC L2 Input - JPZ/JPC bits
Entries 2.4e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
8055 7114 5653 4598 2514 3674 1742 1257
29209 25243 17167 16376 6986 12280 5929 4232
42671 37166 26735 23805 14330 21556 6207 5531
2.92006e+06 2.93048e+06 2.95044e+06 2.95522e+06 2.97617e+06 2.96229e+06 2.98612e+06 2.98898e+06

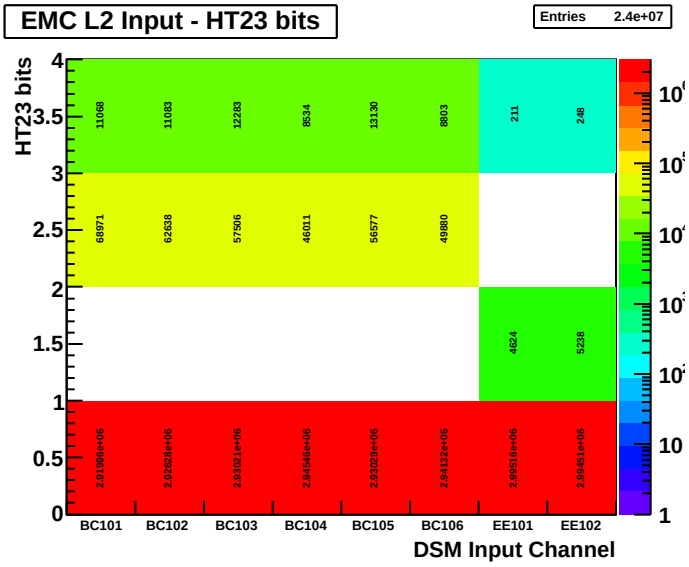

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

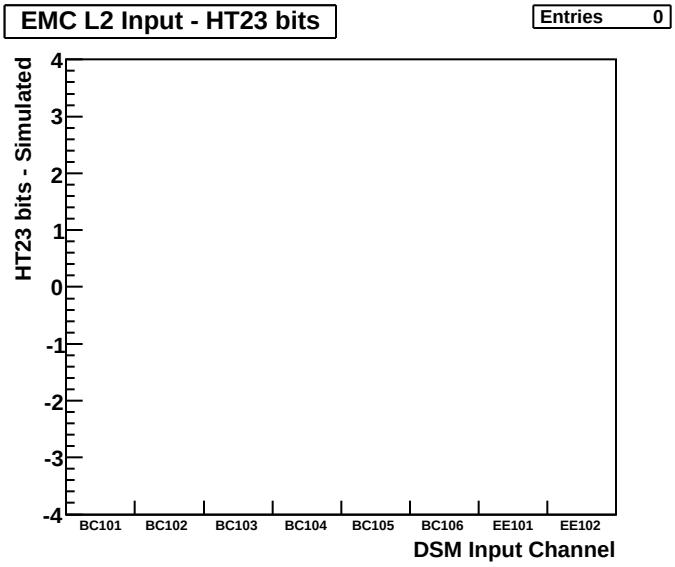

EMC L2 Input - Partial JP Sum
Entries 2.4e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

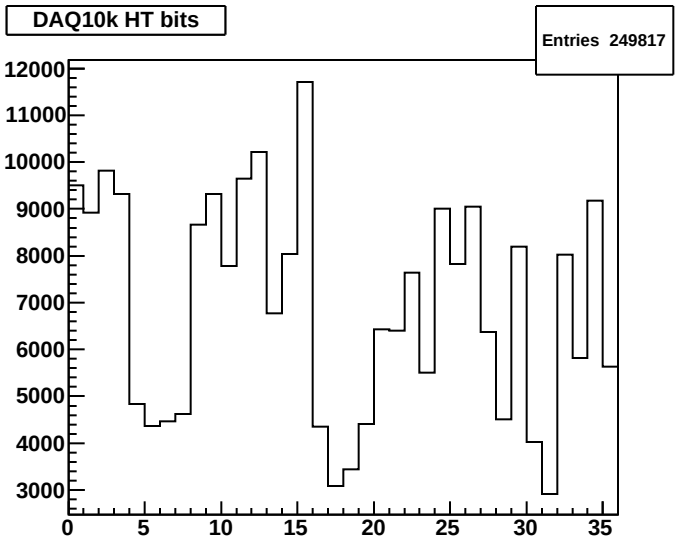

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

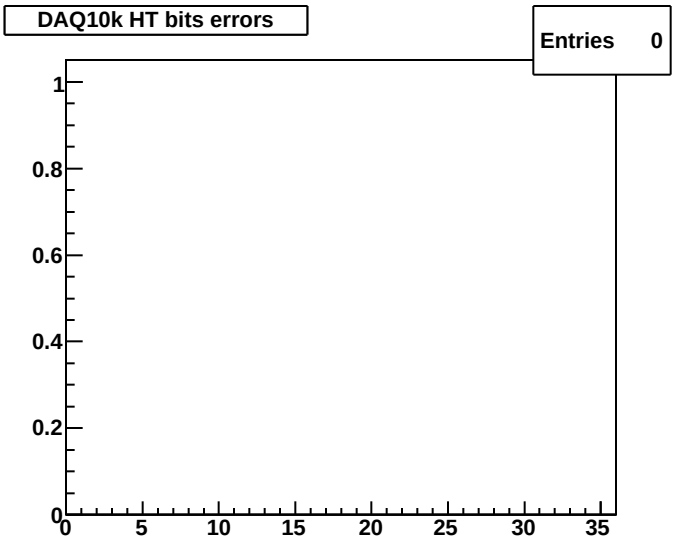

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2.4e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

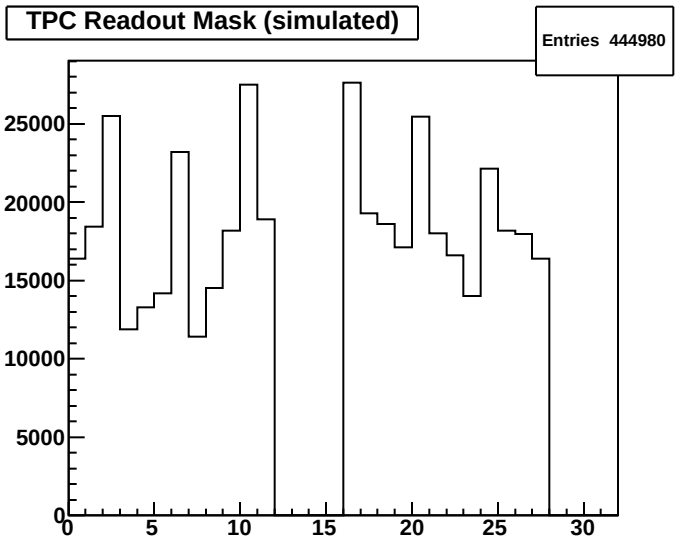

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

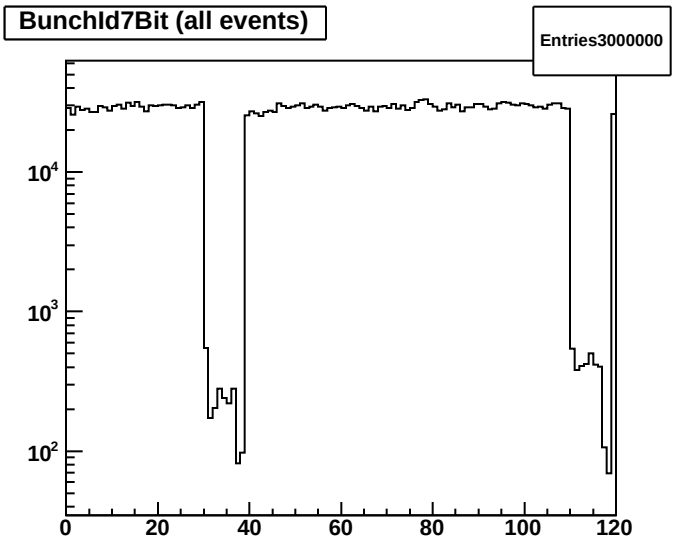

EMC L2 Input - HT23 bits
Entries 2.4e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

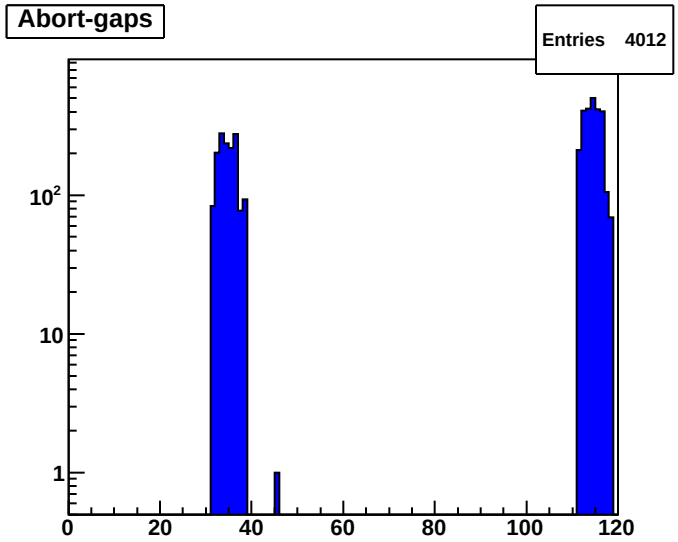

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

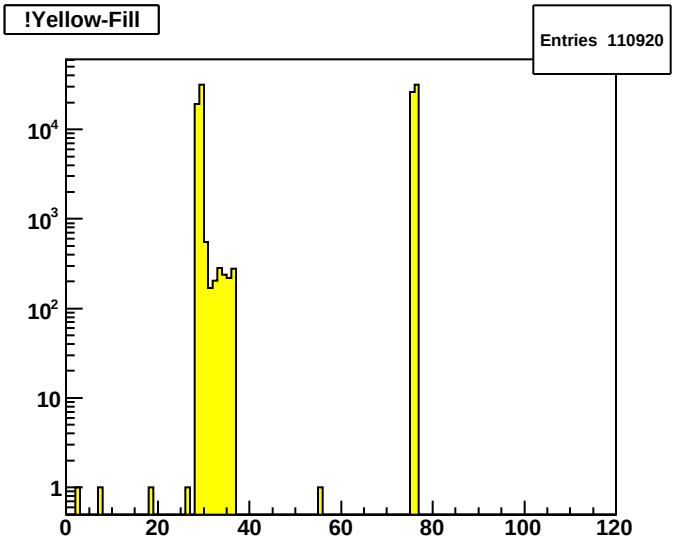

DAQ10k HT bits
Entries 249817

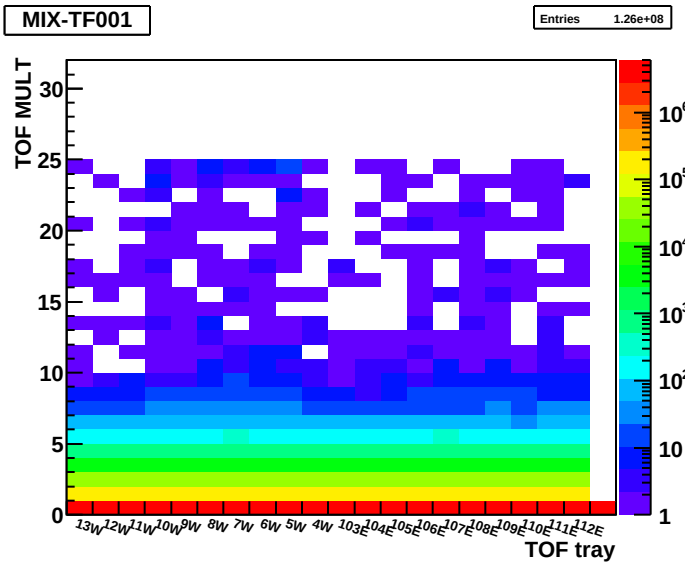

DAQ10k HT bits errors
Entries 0

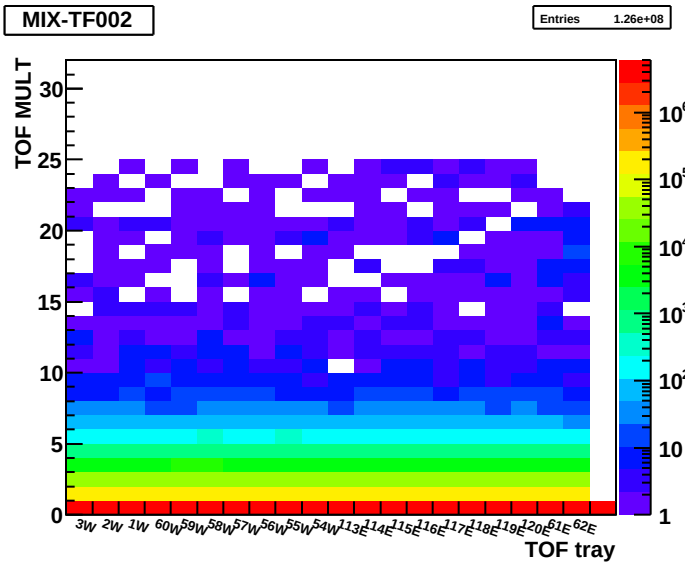

TPC Readout Mask (simulated)
Entries 444980

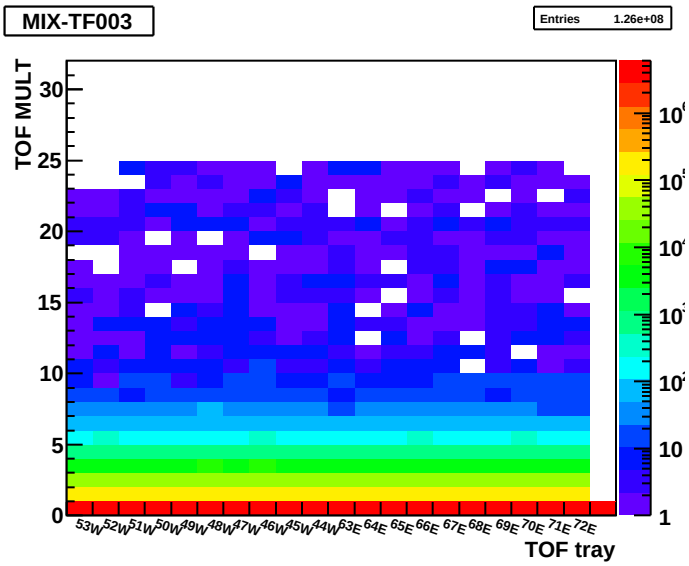

BunchId7Bit (all events)
Entries3000000

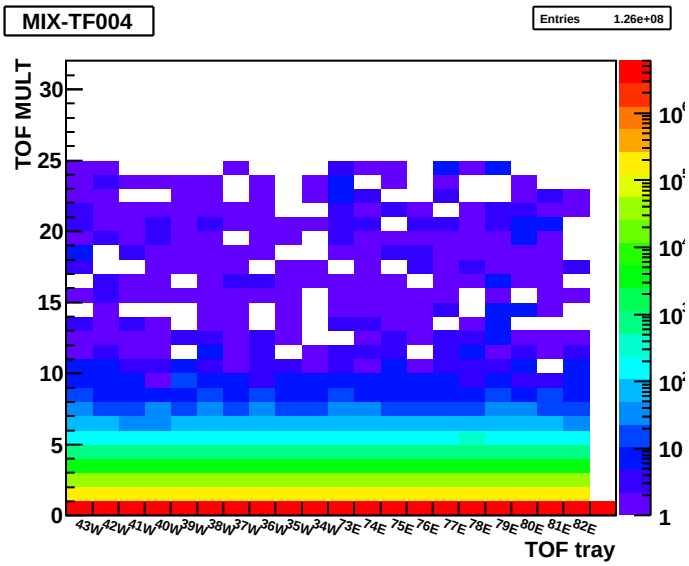

Abort-gaps
Entries 4012

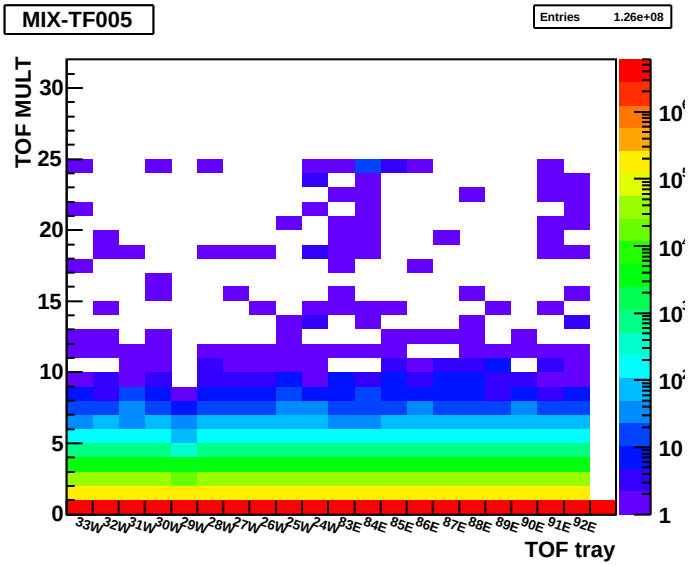

!Yellow-Fill
Entries 110920

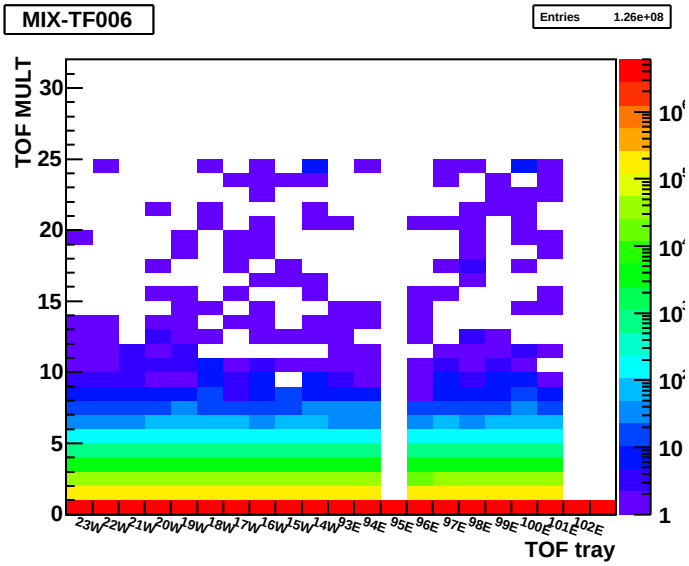

MIX-TF001
Entries 1.26e+08
TOF MULT
TOF tray

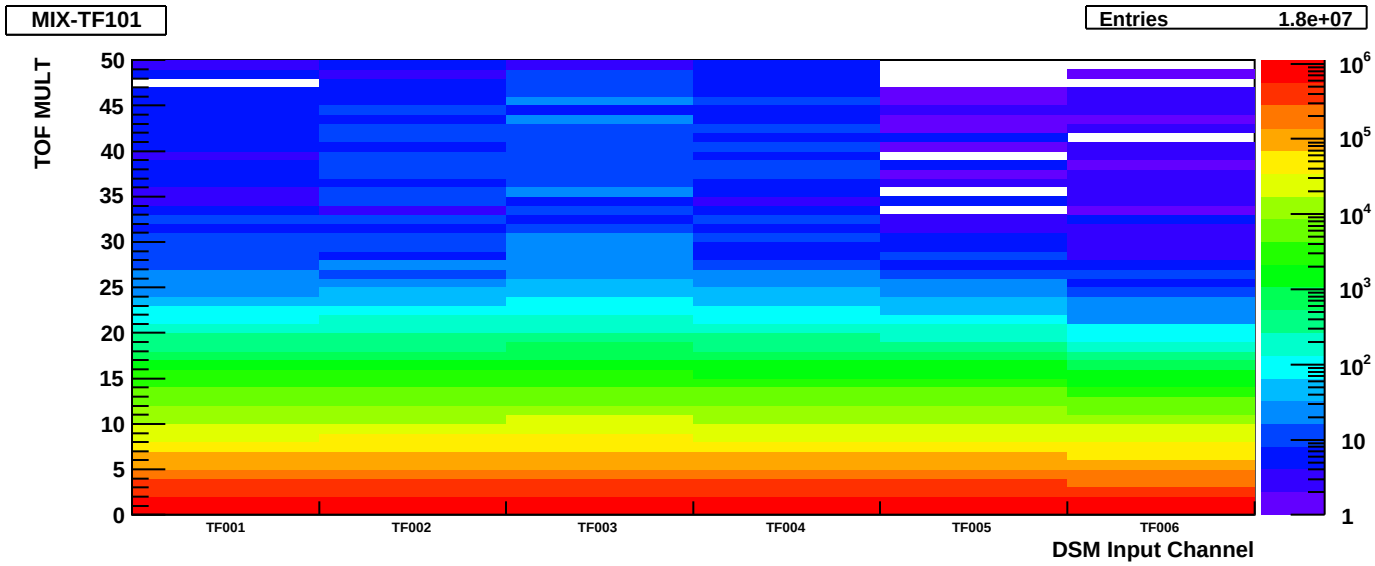

MIX-TF002
Entries 1.26e+08
TOF MULT
TOF tray

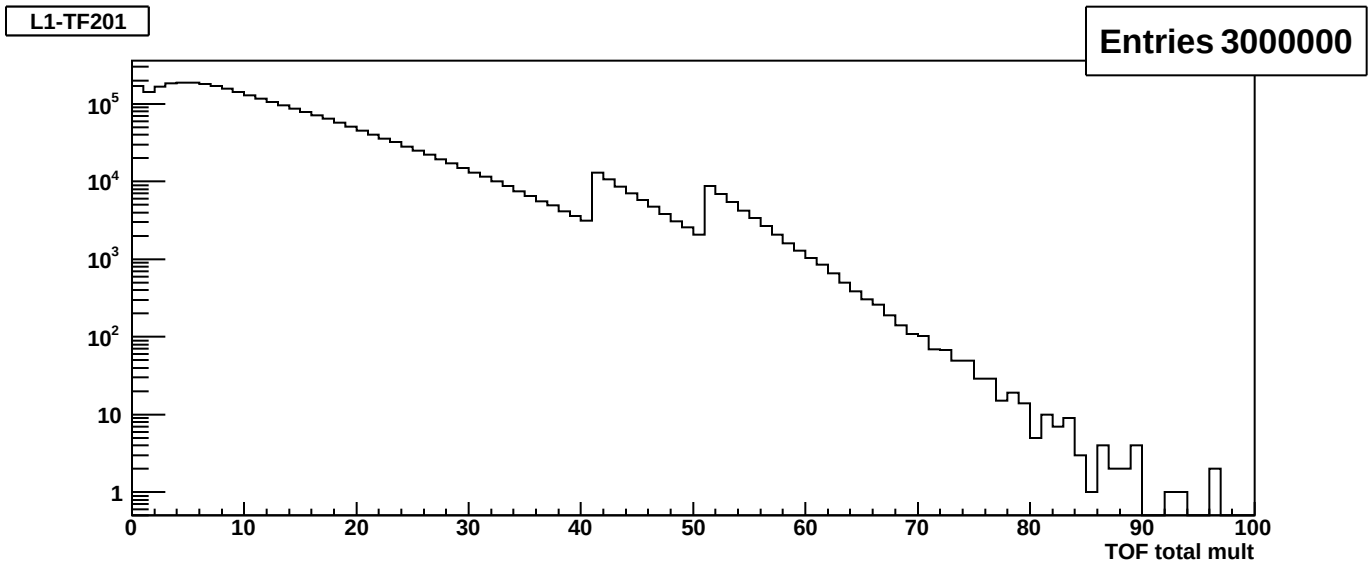

MIX-TF003
Entries 1.26e+08
TOF MULT
TOF tray

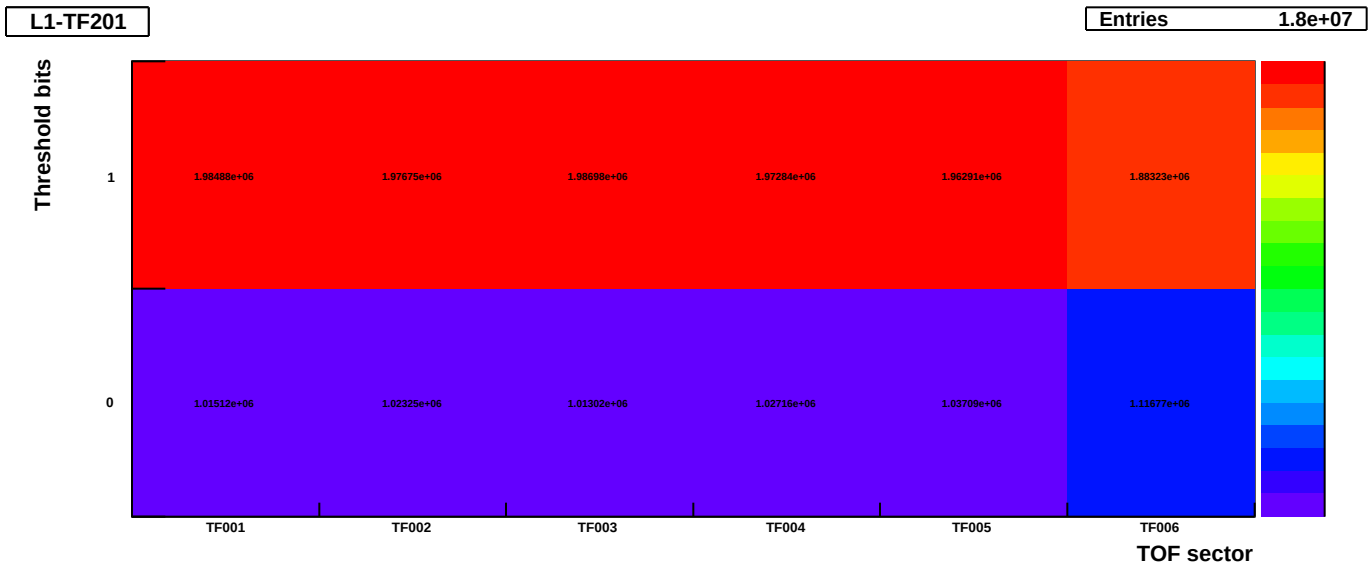

MIX-TF004
Entries 1.26e+08
TOF MULT
TOF tray

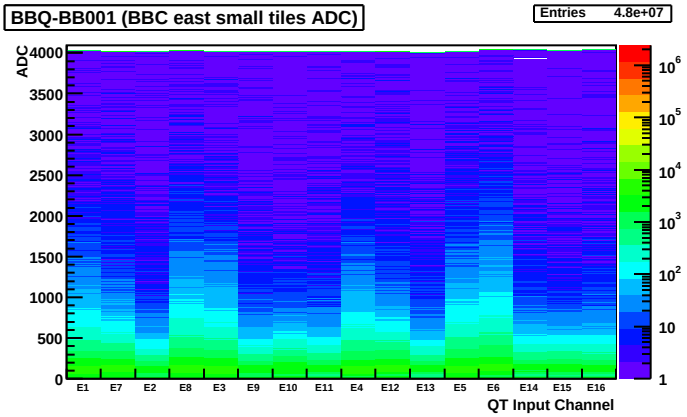

MIX-TF005
Entries 1.26e+08
TOF MULT
TOF tray

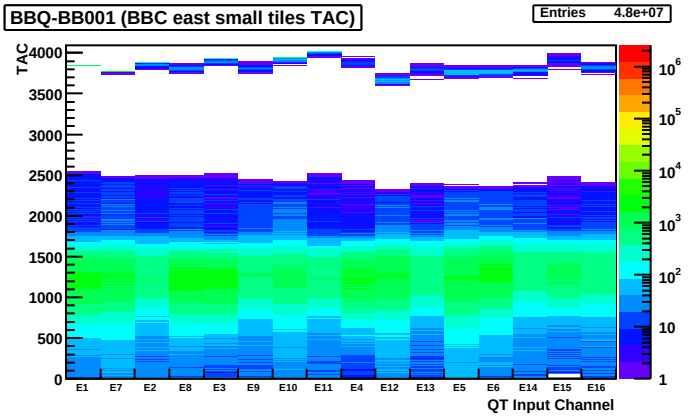

MIX-TF006
Entries 1.26e+08
TOF MULT
TOF tray

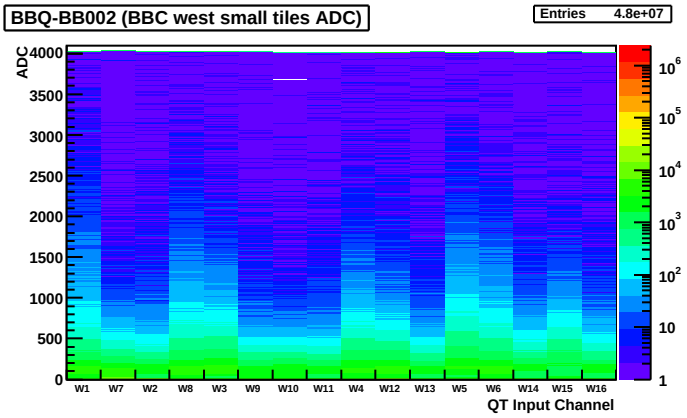

MIX-TF101
Entries 1.8e+07
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^6
10^5
10^4
10^3
10^2
10
1

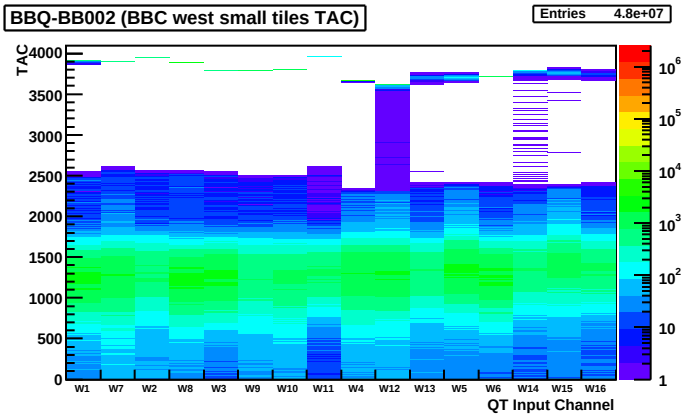

L1-TF201
Entries 3000000
10^5
10^4
10^3
10^2
10
1
0
10
20
30
40
50
60
70
80
90
100
TOF total mult

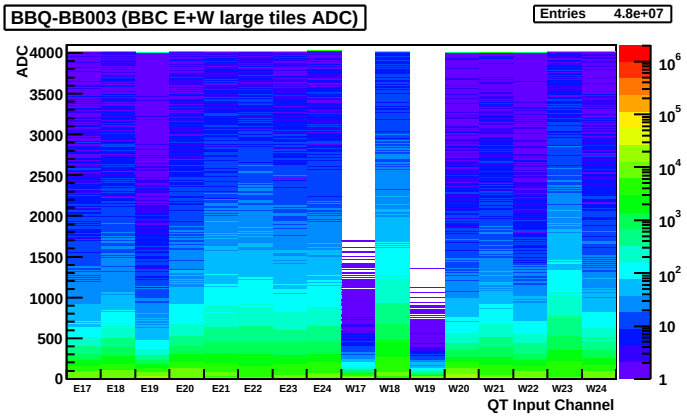

L1-TF201
Entries 1.8e+07
Threshold bits
1
0
1.98488e+06
1.97675e+06
1.98698e+06
1.97284e+06
1.96291e+06
1.88323e+06
1.01512e+06
1.02325e+06
1.01302e+06
1.02716e+06
1.03709e+06
1.11677e+06
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

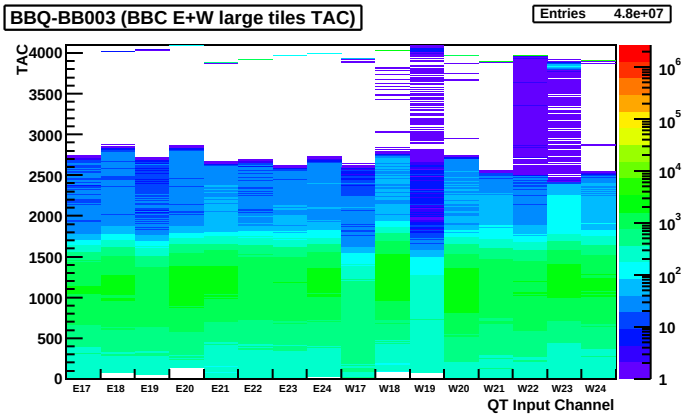

BBQ-BB001 (BBC east small tiles ADC)
Entries 4.8e+07
ADC
QT Input Channel

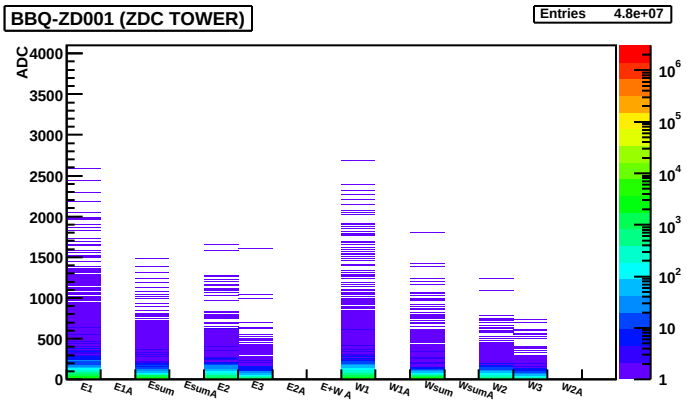

BBQ-BB001 (BBC east small tiles TAC)
Entries 4.8e+07
TAC
QT Input Channel

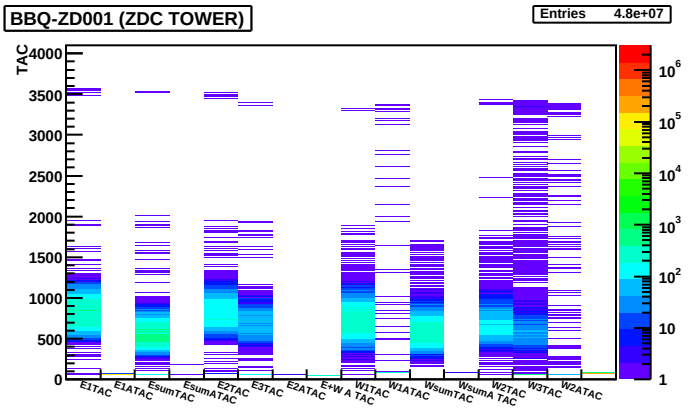

BBQ-BB002 (BBC west small tiles ADC)
Entries 4.8e+07
ADC
QT Input Channel

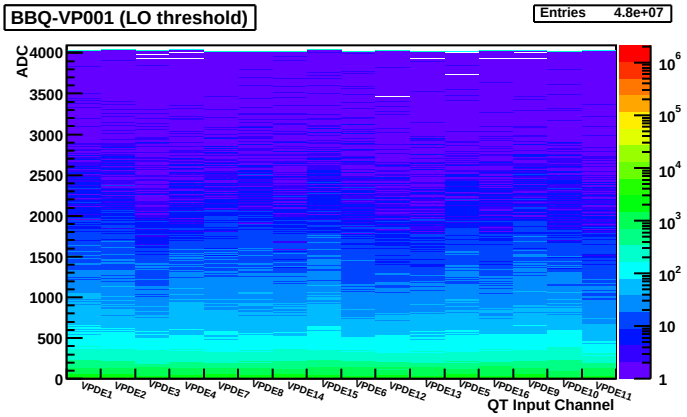

BBQ-BB002 (BBC west small tiles TAC)
Entries 4.8e+07
TAC
QT Input Channel

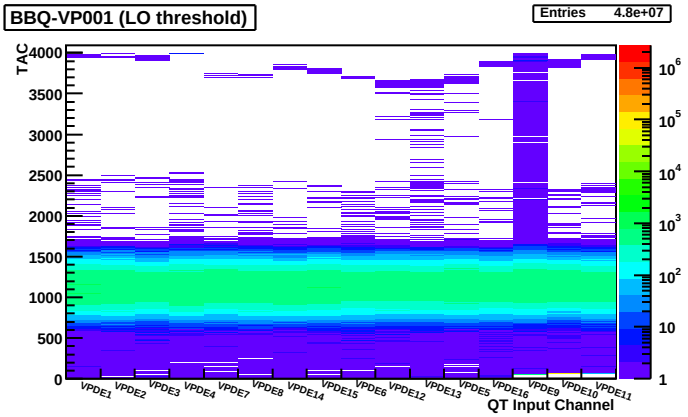

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4.8e+07
ADC
QT Input Channel

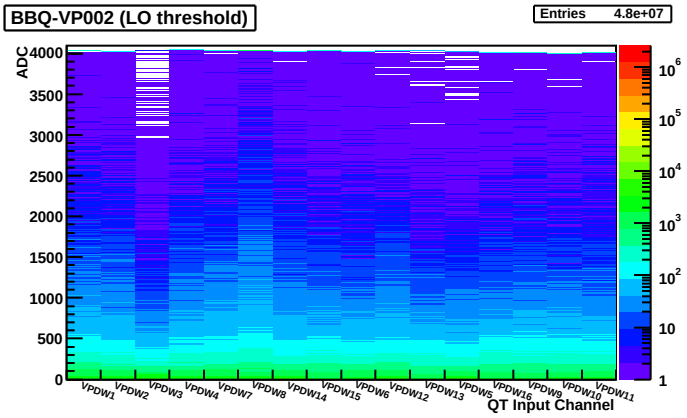

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4.8e+07
TAC
QT Input Channel

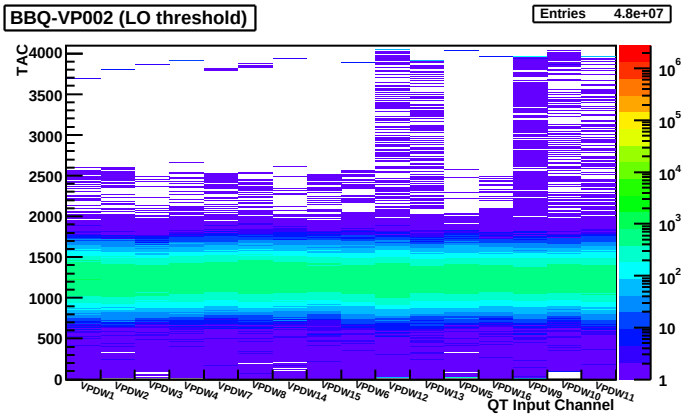

BBQ-ZD001 (ZDC TOWER)
Entries 4.8e+07
ADC

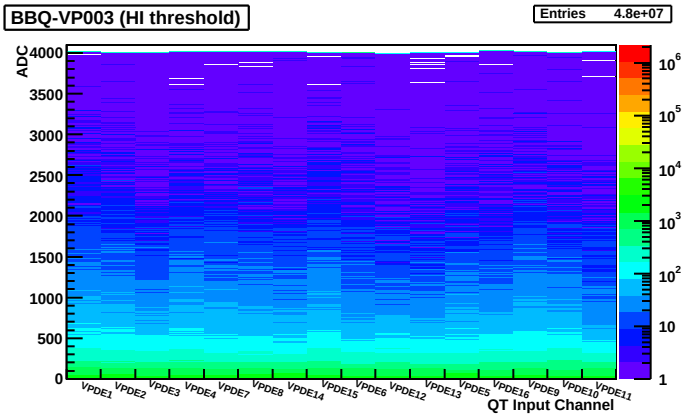

BBQ-ZD001 (ZDC TOWER)
Entries 4.8e+07
TAC

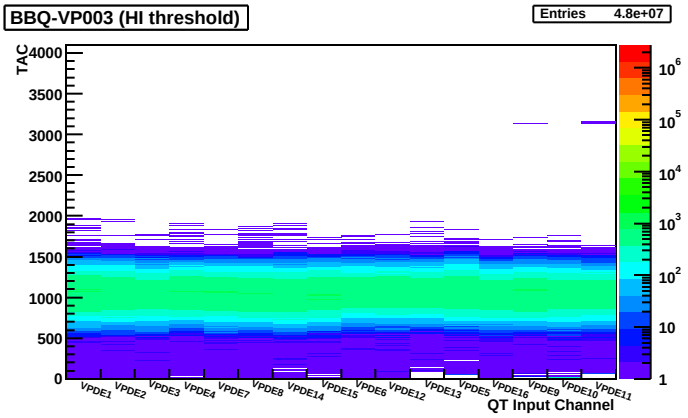

BBQ-VP001 (LO threshold)
Entries 4.8e+07
ADC
QT Input Channel

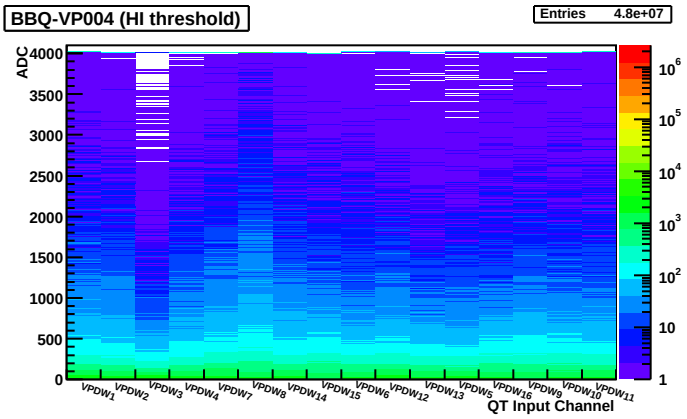

BBQ-VP001 (LO threshold)
Entries 4.8e+07
TAC
QT Input Channel

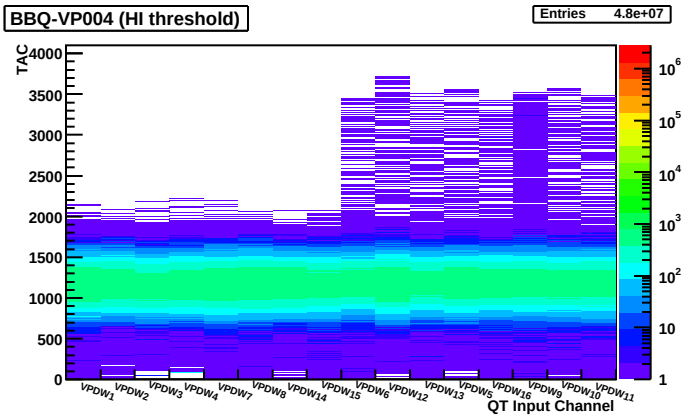

BBQ-VP002 (LO threshold)
Entries 4.8e+07
ADC
QT Input Channel

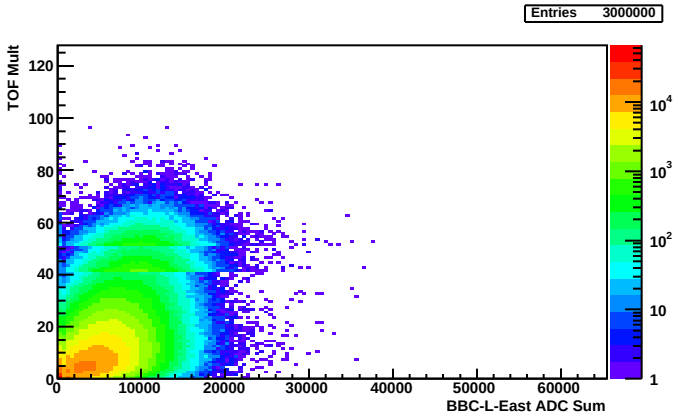

BBQ-VP002 (LO threshold)
Entries 4.8e+07
TAC
QT Input Channel

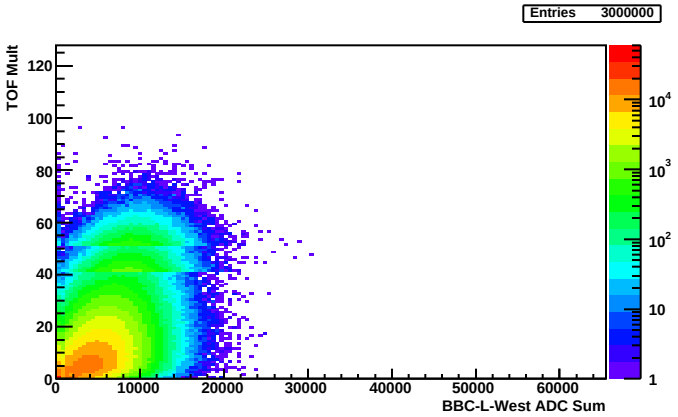

BBQ-VP003 (HI threshold)
Entries 4.8e+07
ADC
QT Input Channel

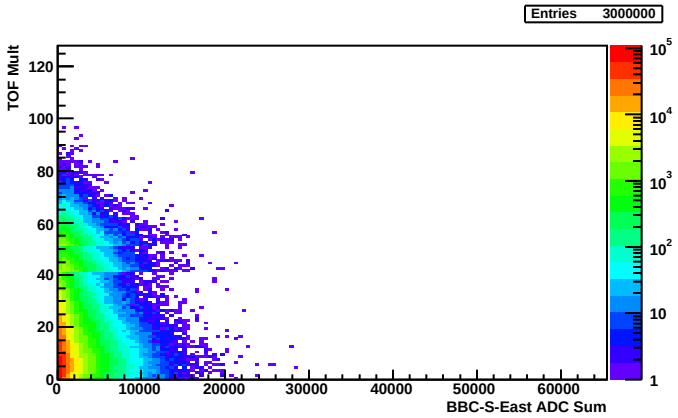

BBQ-VP003 (HI threshold)
Entries 4.8e+07
TAC
QT Input Channel

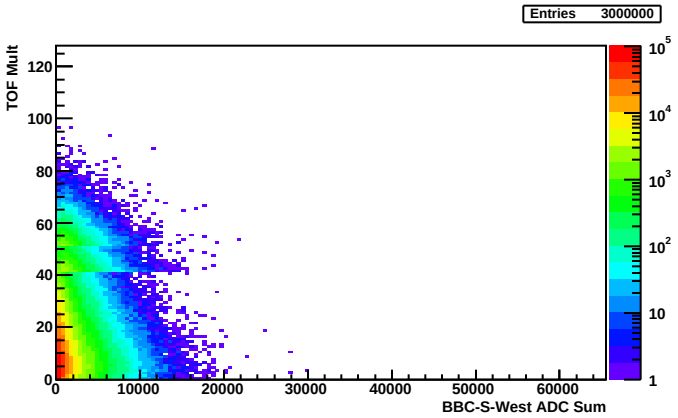

BBQ-VP004 (HI threshold)
Entries 4.8e+07
ADC
QT Input Channel

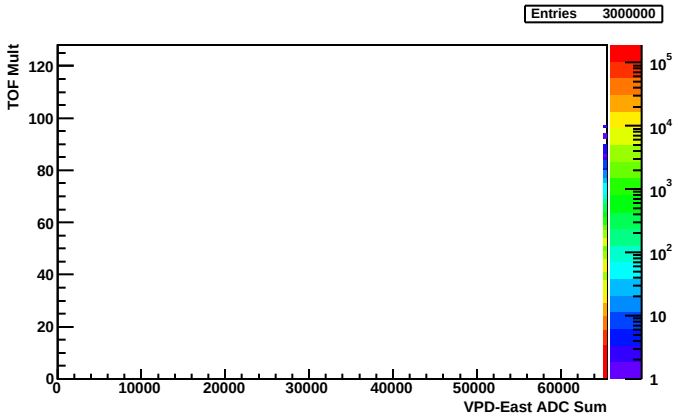

BBQ-VP004 (HI threshold)
Entries 4.8e+07
TAC
QT Input Channel

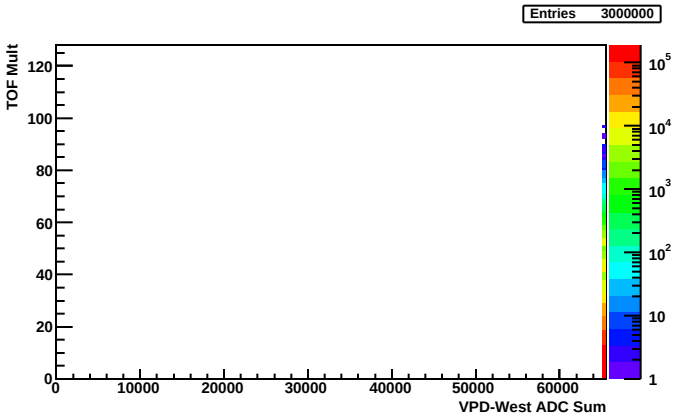

Entries 3000000
TOF Mult
BBC-L-East ADC Sum

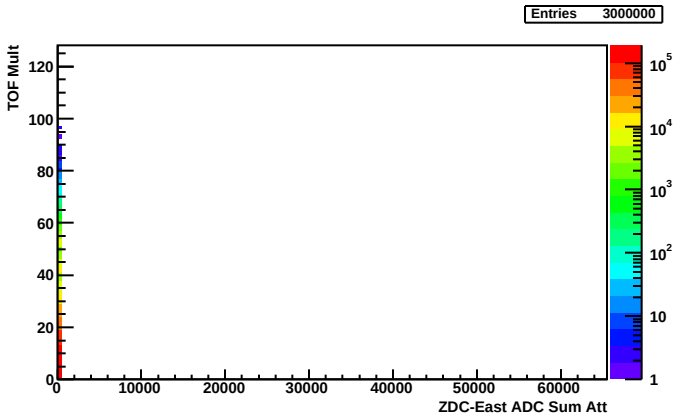

Entries 3000000
TOF Mult
BBC-L-West ADC Sum

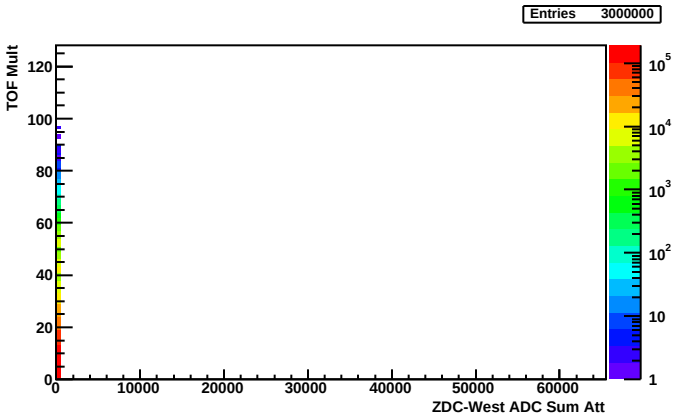

Entries 3000000
TOF Mult
BBC-S-East ADC Sum

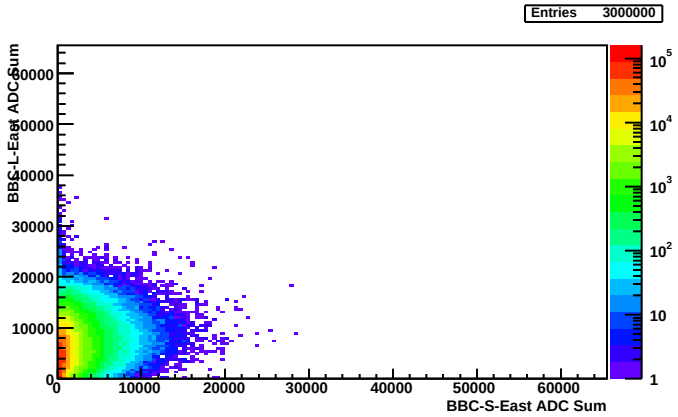

Entries 3000000
TOF Mult
BBC-S-West ADC Sum

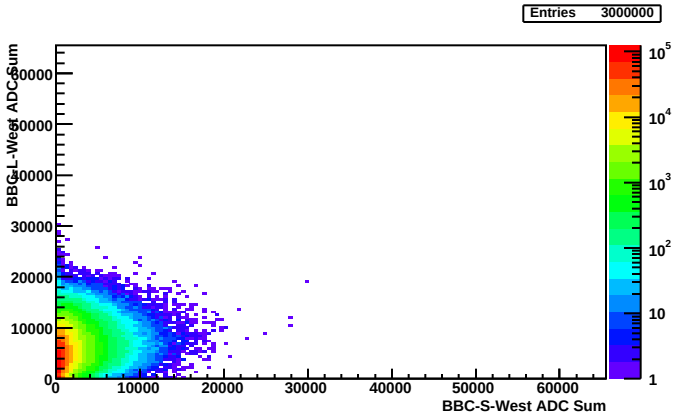

Entries 3000000
TOF Mult
VPD-East ADC Sum

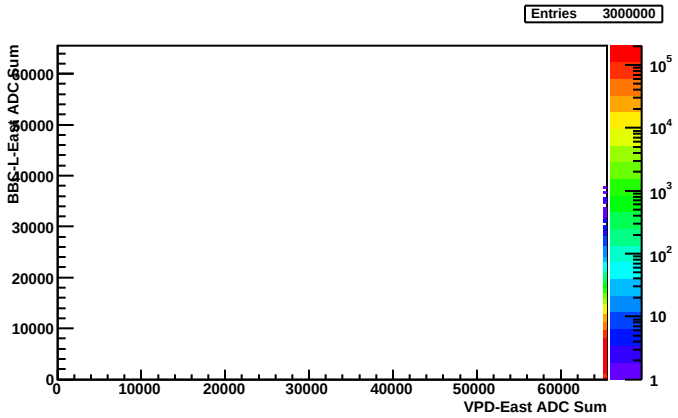

Entries 3000000
TOF Mult
VPD-West ADC Sum

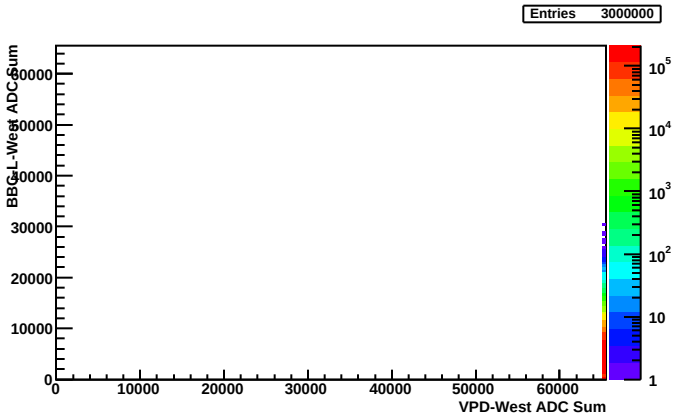

Entries 3000000
TOF Mult
ZDC-East ADC Sum Att

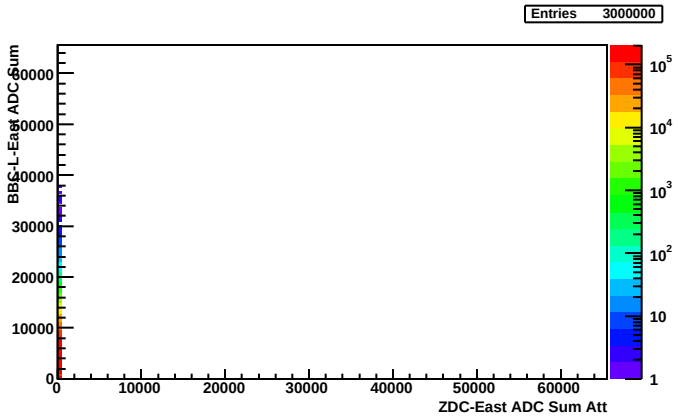

Entries 3000000
TOF Mult
ZDC-West ADC Sum Att

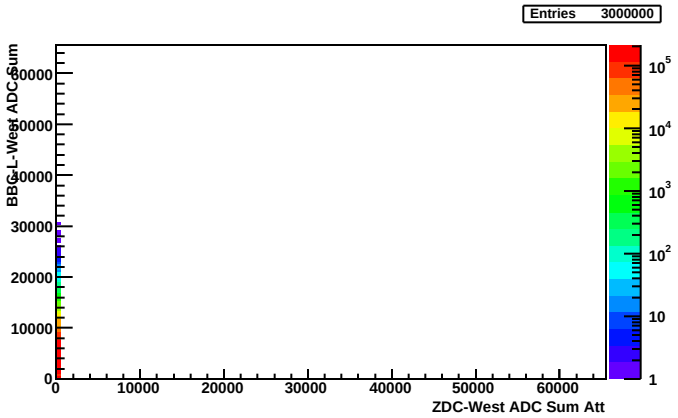

Entries 3000000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

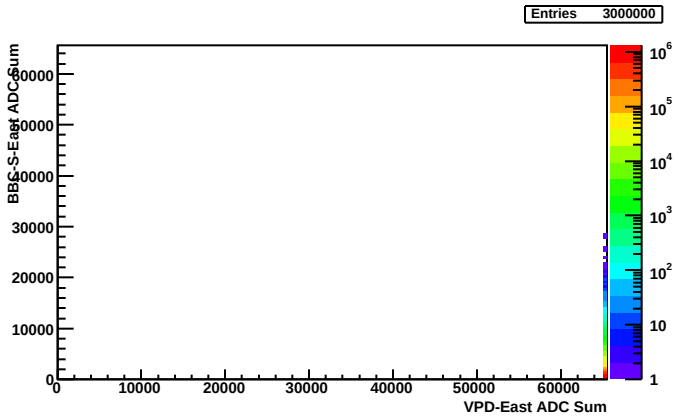

Entries 3000000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

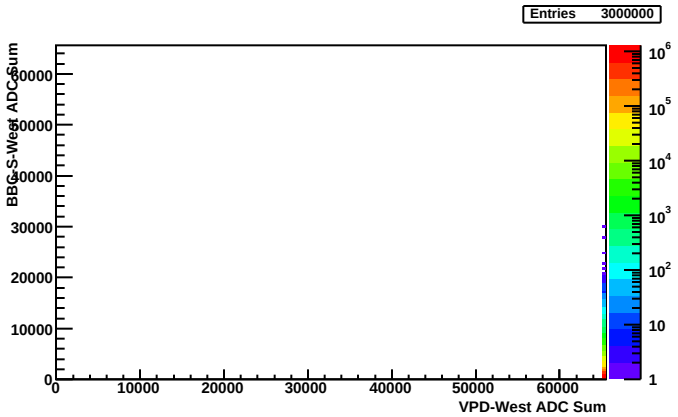

Entries 3000000
BBC-L-East ADC Sum
VPD-East ADC Sum

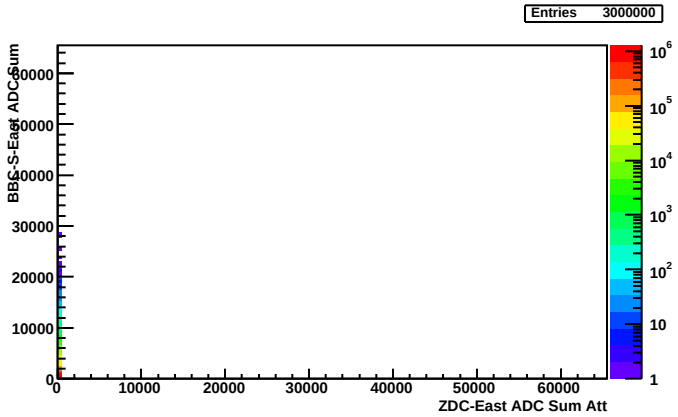

Entries 3000000
BBC-L-West ADC Sum
VPD-West ADC Sum

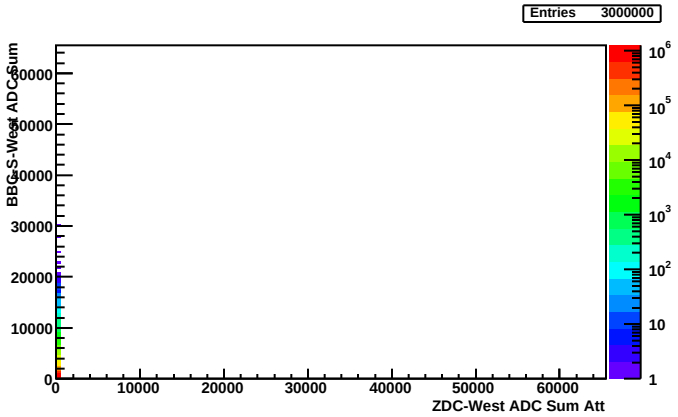

Entries 3000000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

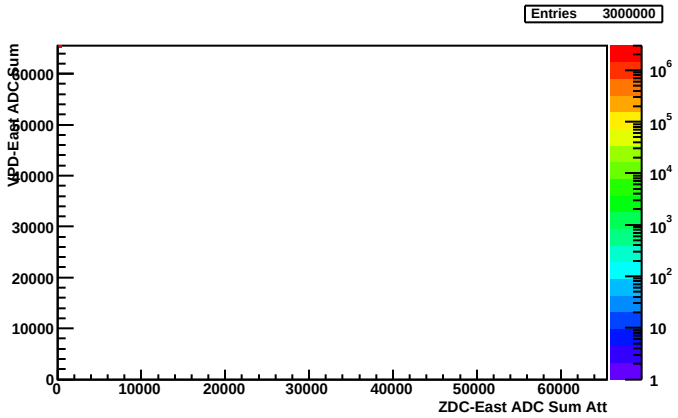

Entries 3000000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

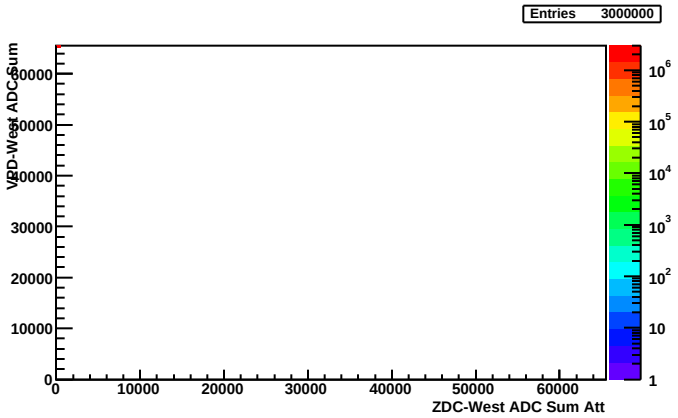

Entries 3000000
BBC-S-East ADC Sum
VPD-East ADC Sum

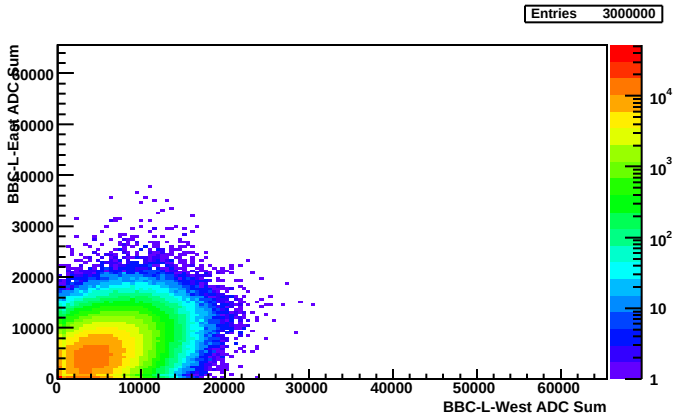

Entries 3000000
BBC-S-West ADC Sum
VPD-West ADC Sum

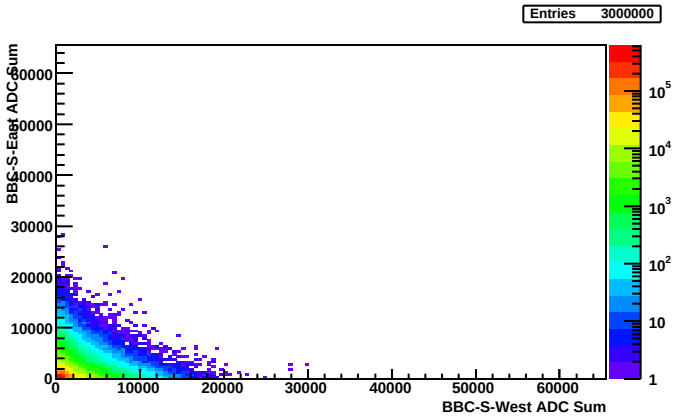

Entries 3000000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

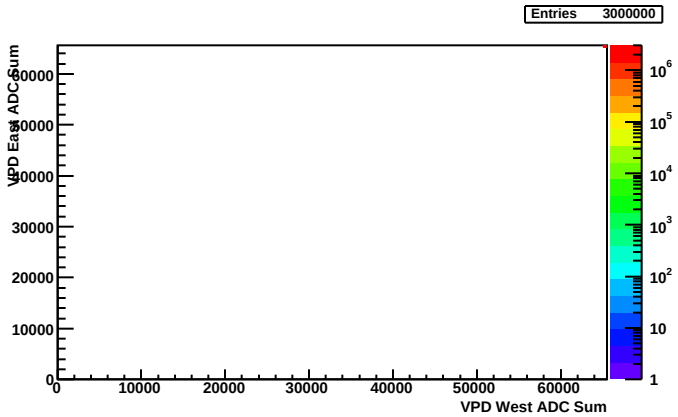

Entries 3000000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

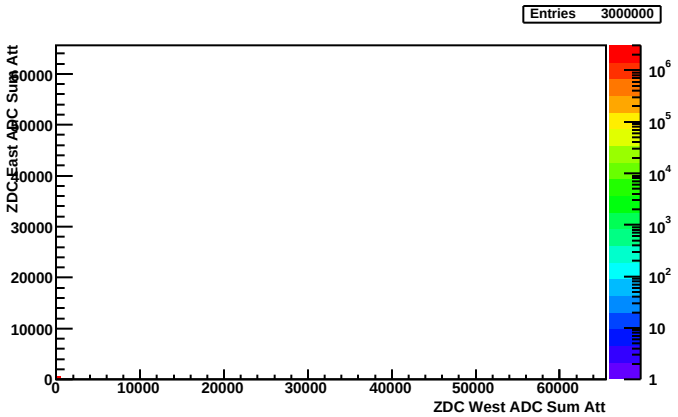

Entries 3000000
VPD-East ADC Sum
ZDC-East ADC Sum Att

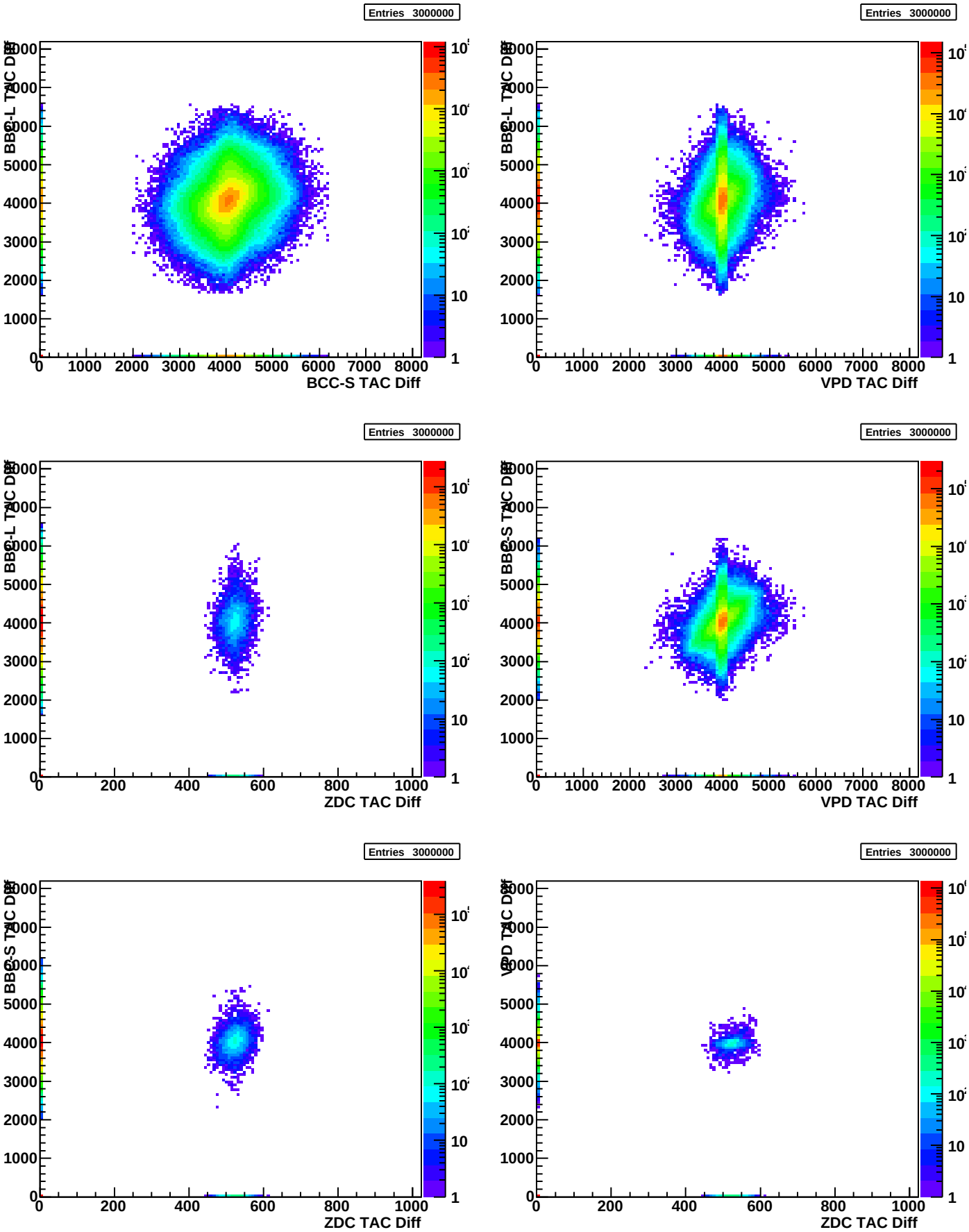

Entries 3000000
VPD-West ADC Sum
ZDC-West ADC Sum Att

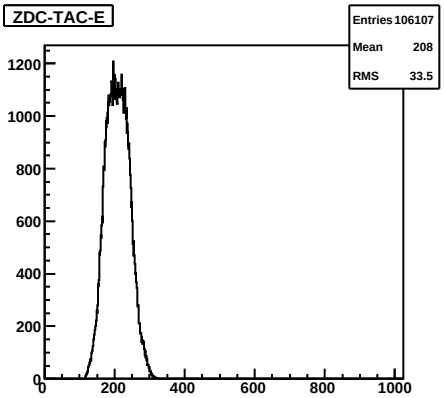

Entries 3000000
BBC-L-East ADC Sum
BBC-L-West ADC Sum

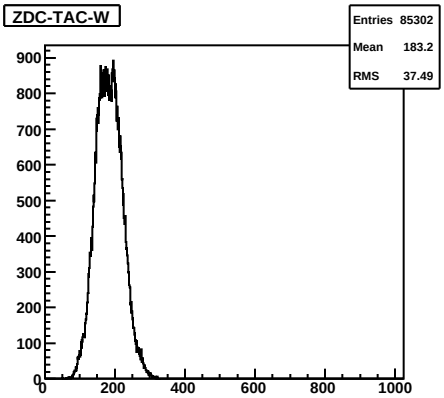

Entries 3000000
BBC-S-East ADC Sum
BBC-S-West ADC Sum

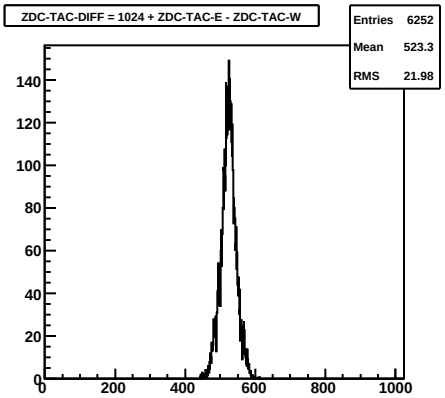

Entries 3000000
VPD East ADC Sum
VPD West ADC Sum

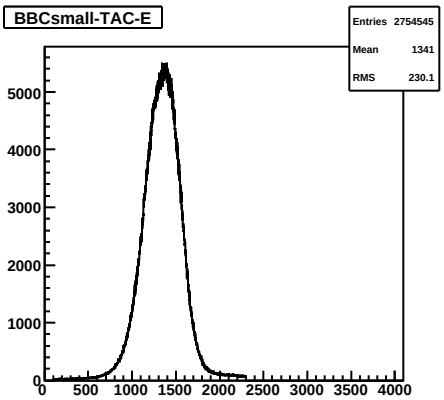

Entries 3000000
ZDC East ADC Sum Att
ZDC West ADC Sum Att

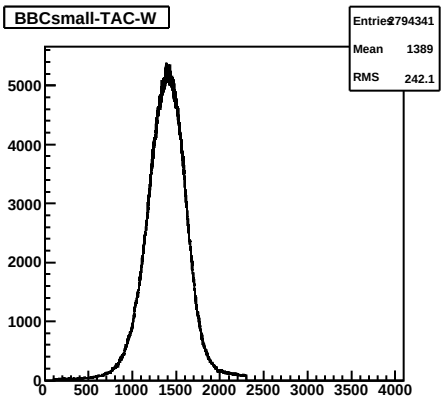

Entries 3000000
BBC-L TAC Diff
BCC-S TAC Diff
Entries 3000000
BBC-L TAC Diff
VPD TAC Diff
Entries 3000000
BBC-L TAC Diff
ZDC TAC Diff
Entries 3000000
BBC-S TAC Diff
VPD TAC Diff
Entries 3000000
BBC-S TAC Diff
ZDC TAC Diff
Entries 3000000
VPD TAC Diff
ZDC TAC Diff

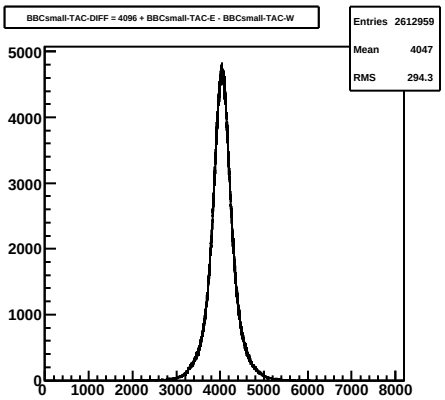

ZDC-TAC-E
Entries 106107
Mean 208
RMS 33.5

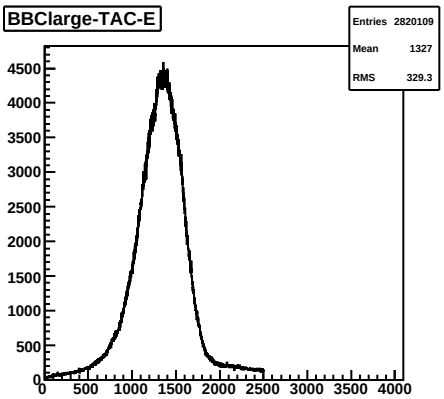

ZDC-TAC-W
Entries 85302
Mean 183.2
RMS 37.49

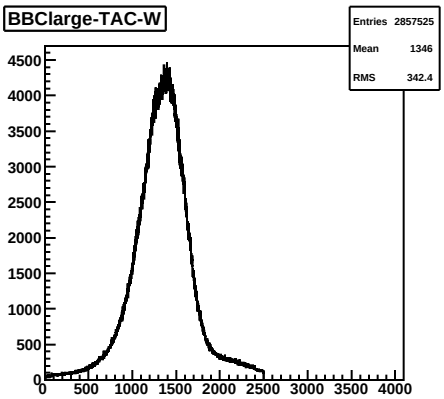

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 6252
Mean 523.3
RMS 21.98

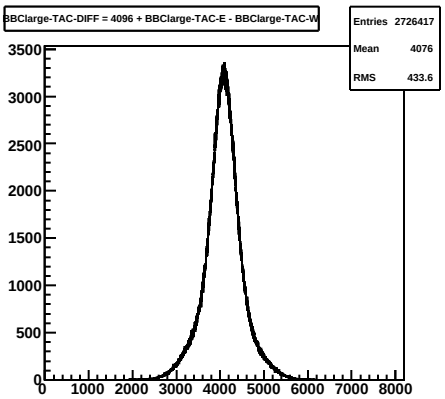

BBCsmall-TAC-E
Entries 2754545
Mean 1341
RMS 230.1

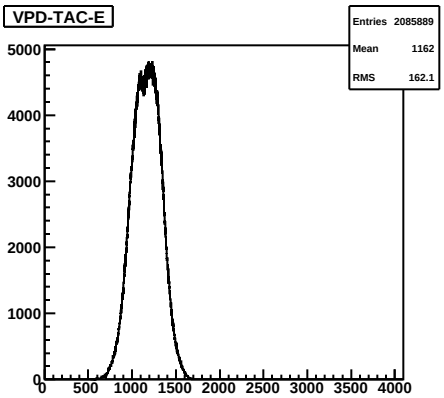

BBCsmall-TAC-W
Entries 2794341
Mean 1389
RMS 242.1

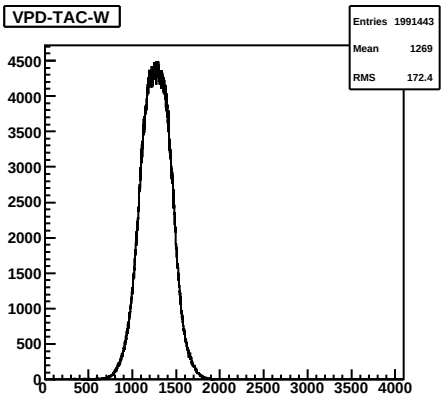

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 2612959
Mean 4047
RMS 294.3

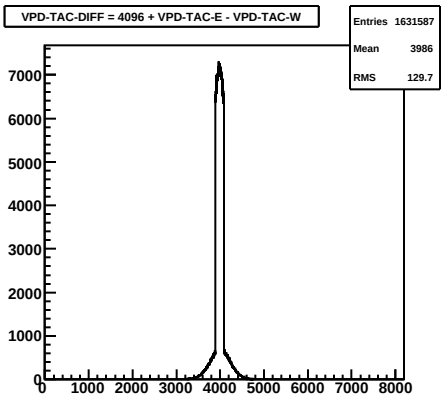

BBClarge-TAC-E
Entries 2820109
Mean 1327
RMS 329.3

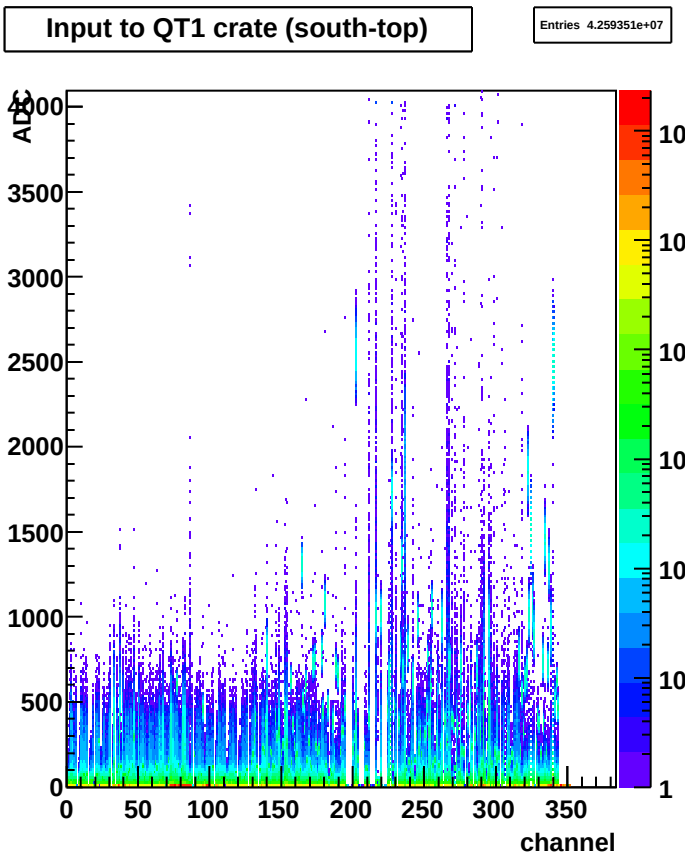

BBClarge-TAC-W
Entries 2857525
Mean 1346
RMS 342.4

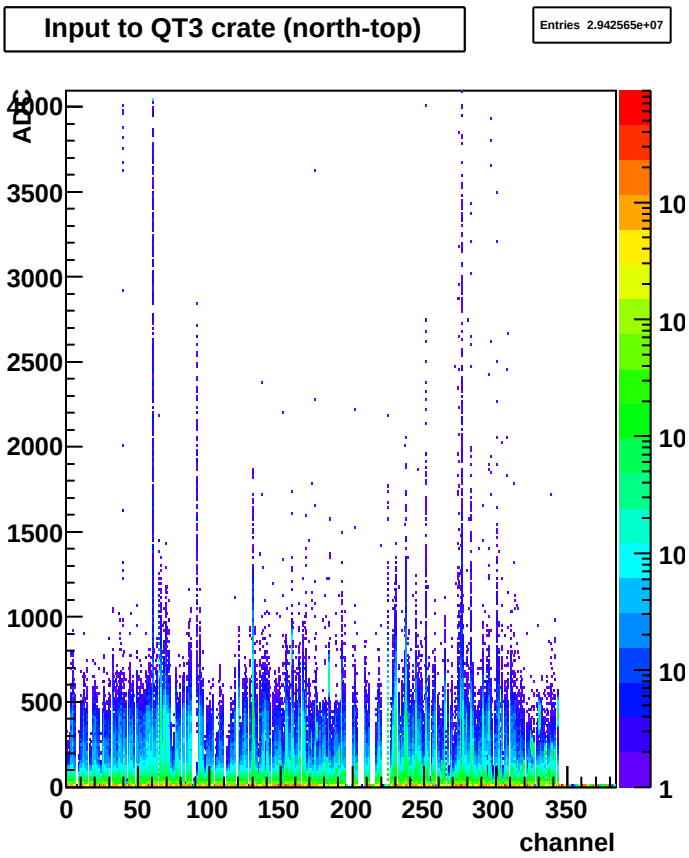

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 2726417
Mean 4076
RMS 433.6

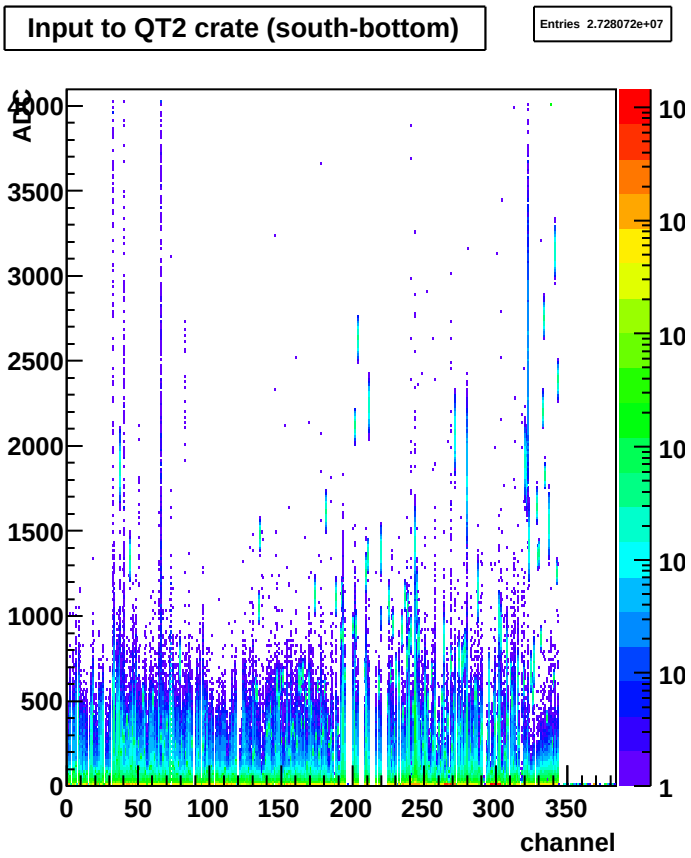

VPD-TAC-E
Entries 2085889
Mean 1162
RMS 162.1

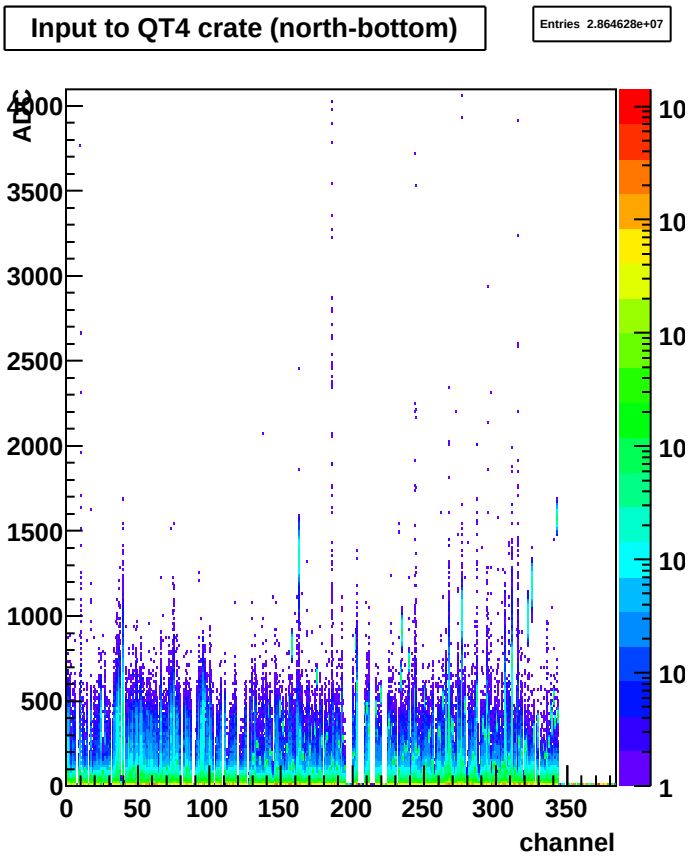

VPD-TAC-W
Entries 1991443
Mean 1269
RMS 172.4

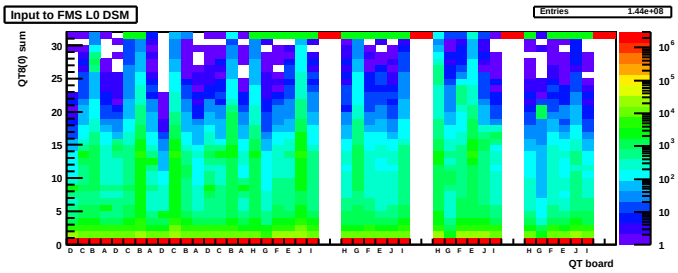

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1631587
Mean 3986
RMS 129.7

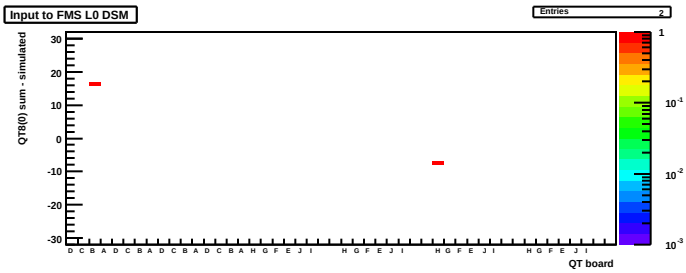

Input to QT1 crate (south-top)
Entries 4.259351e+07
ADC
channel

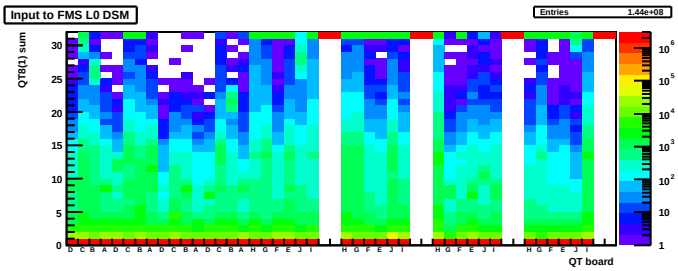

Input to QT3 crate (north-top)
Entries 2.942565e+07
ADC
channel

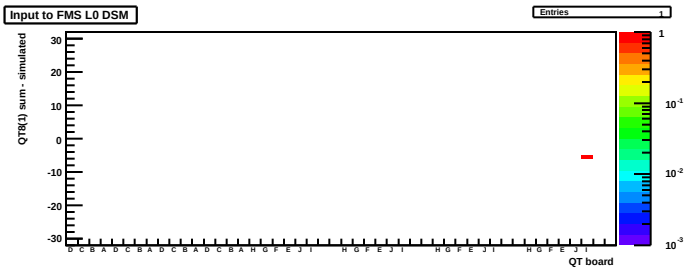

Input to QT2 crate (south-bottom)
Entries 2.728072e+07
ADC
channel

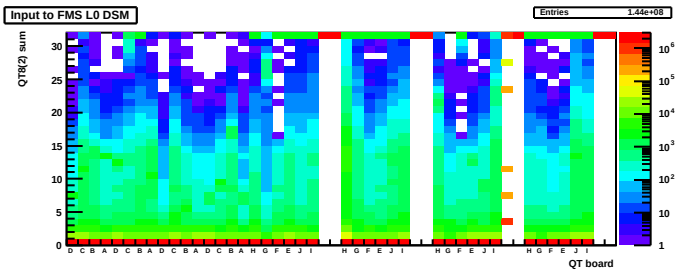

Input to QT4 crate (north-bottom)
Entries 2.864628e+07
ADC
channel

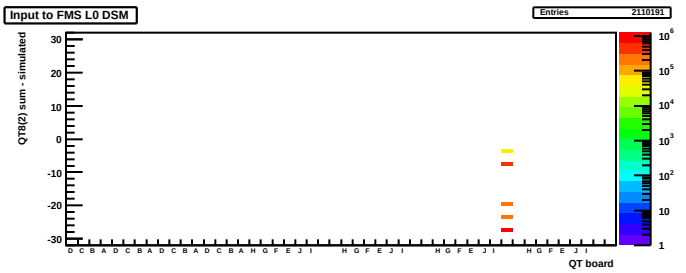

Input to FMS L0 DSM
Entries 1.44e+08
QT8(0) sum
QT board

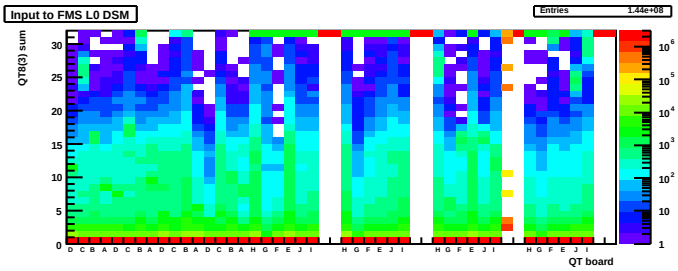

Input to FMS L0 DSM
Entries 2
QT8(0) sum - simulated
QT board

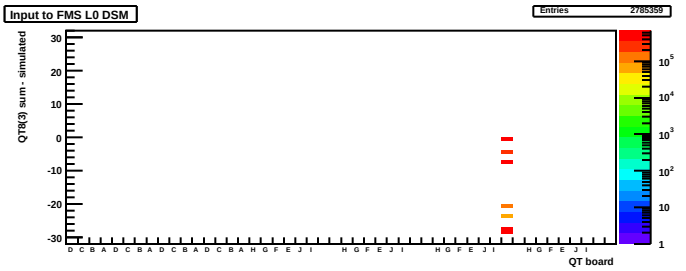

Input to FMS L0 DSM
Entries 1.44e+08
QT8(1) sum
QT board

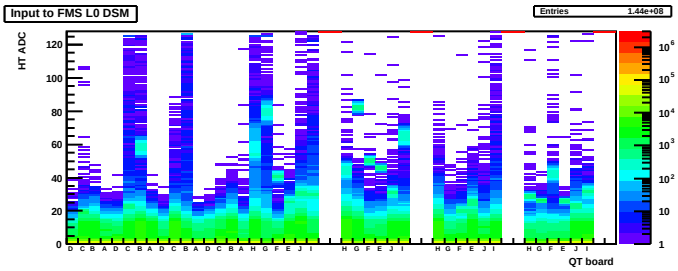

Input to FMS L0 DSM
Entries 1
QT8(1) sum - simulated
QT board

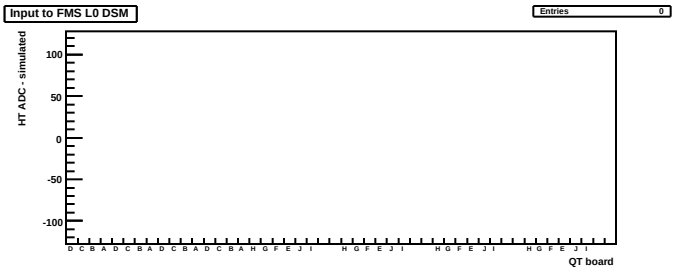

Input to FMS L0 DSM
Entries 1.44e+08
QT8(2) sum
QT board

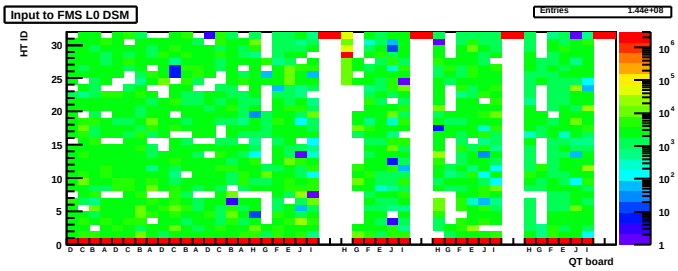

Input to FMS L0 DSM
Entries 2110191
QT8(2) sum - simulated
QT board

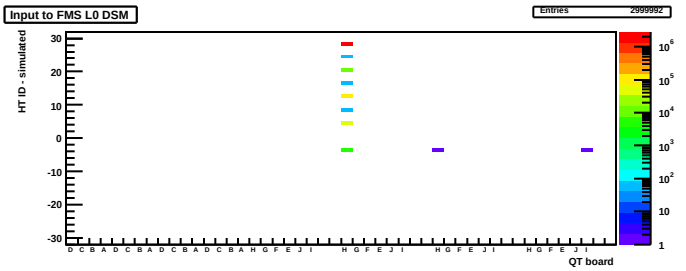

Input to FMS L0 DSM
Entries 1.44e+08
QT8(3) sum
QT board

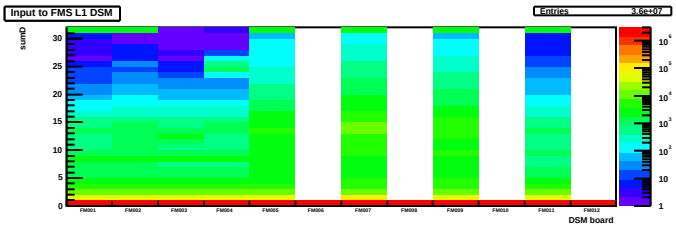

Input to FMS L0 DSM
Entries 2785359
QT8(3) sum - simulated
QT board

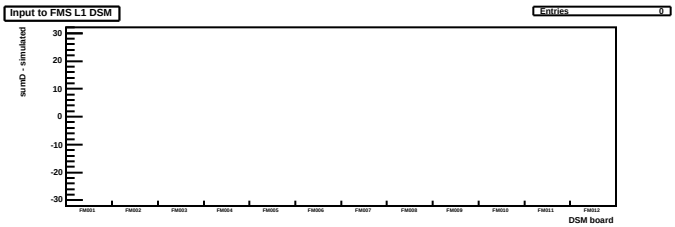

Input to FMS L0 DSM
Entries 1.44e+08
HT ADC
QT board

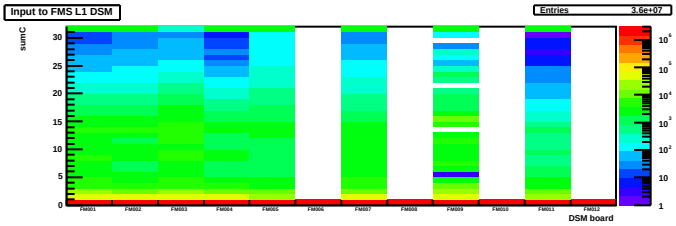

Input to FMS L0 DSM
Entries 0
HT ADC - simulated
QT board

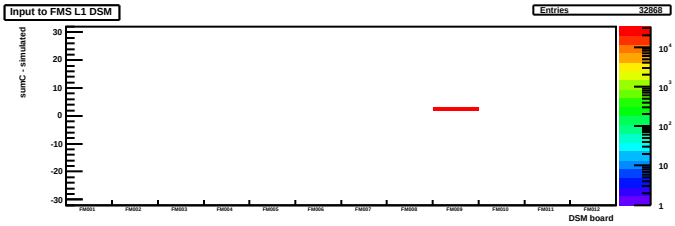

Input to FMS L0 DSM
Entries 1.44e+08
HT ID
QT board

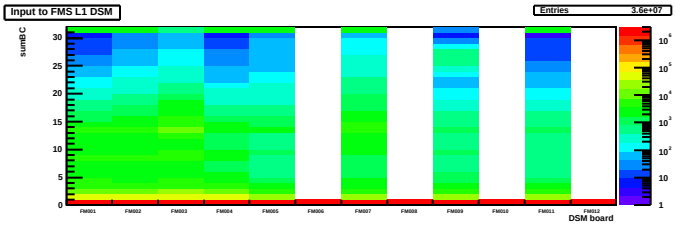

Input to FMS L0 DSM
Entries 2999992
HT ID - simulated
QT board

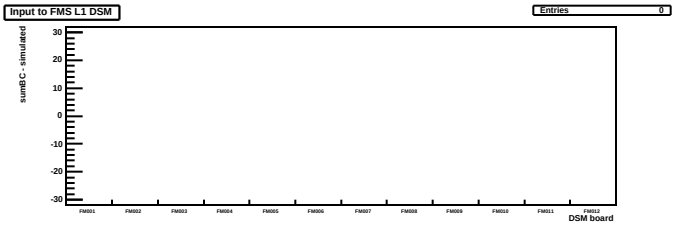

Input to FMS L1 DSM
Entries 3.6e+07
sumD
DSM board

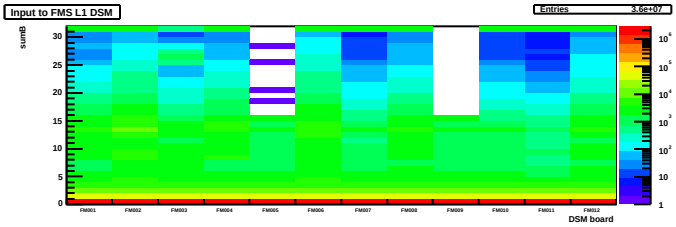

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

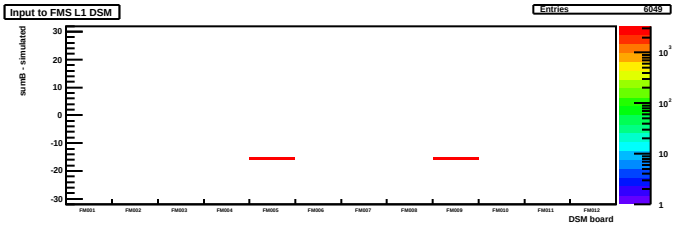

Input to FMS L1 DSM
Entries 3.6e+07
sumC
DSM board

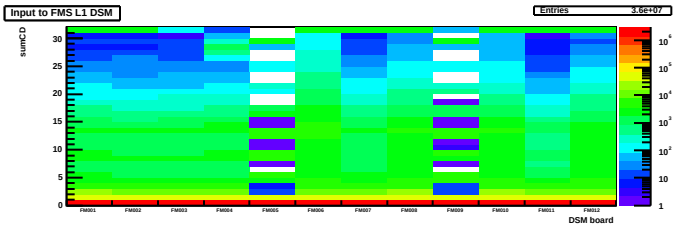

Input to FMS L1 DSM
Entries 32868
sumC - simulated
DSM board

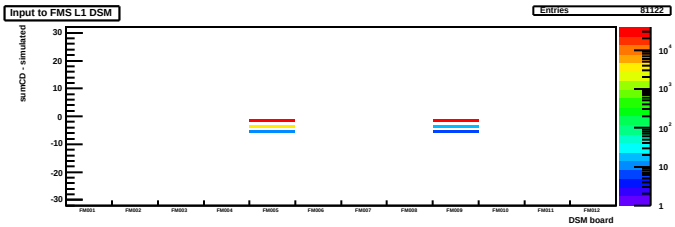

Input to FMS L1 DSM
Entries 3.6e+07
sumBC
DSM board

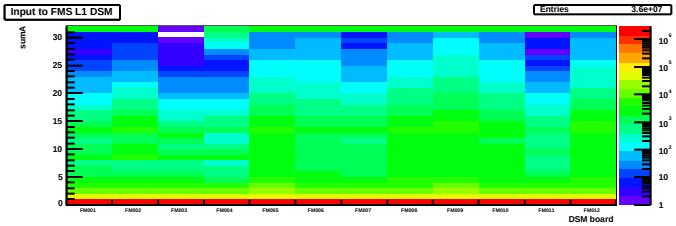

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

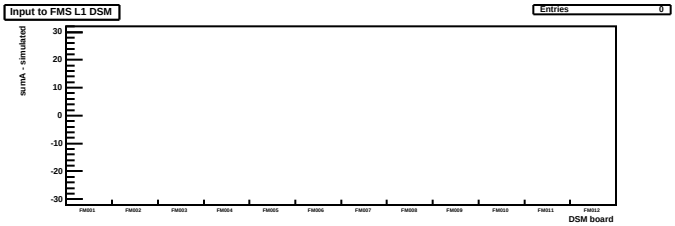

Input to FMS L1 DSM
Entries 3.6e+07
sumB
DSM board

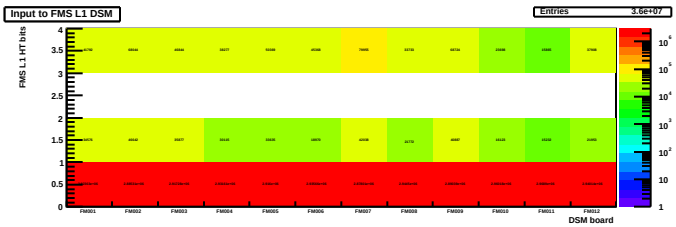

Input to FMS L1 DSM
Entries 6049
sumB - simulated
DSM board

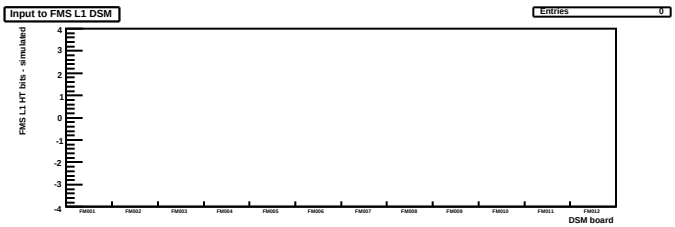

Input to FMS L1 DSM
Entries 3.6e+07
sumCD
DSM board

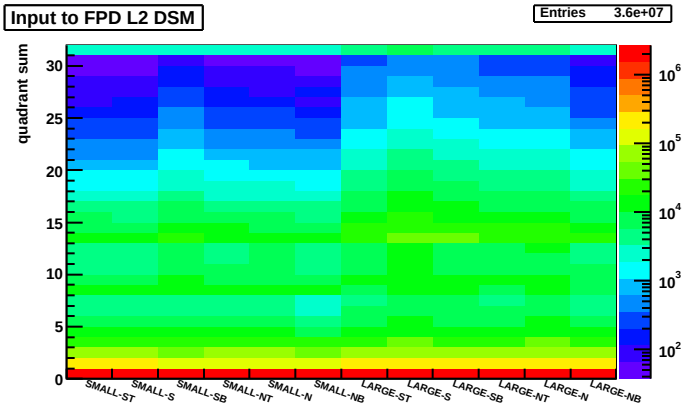

Input to FMS L1 DSM
Entries 81122
sumCD - simulated
DSM board

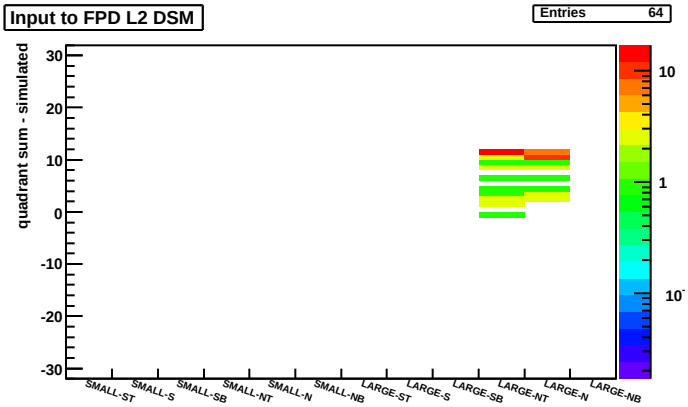

Input to FMS L1 DSM
Entries 3.6e+07
sumA
DSM board

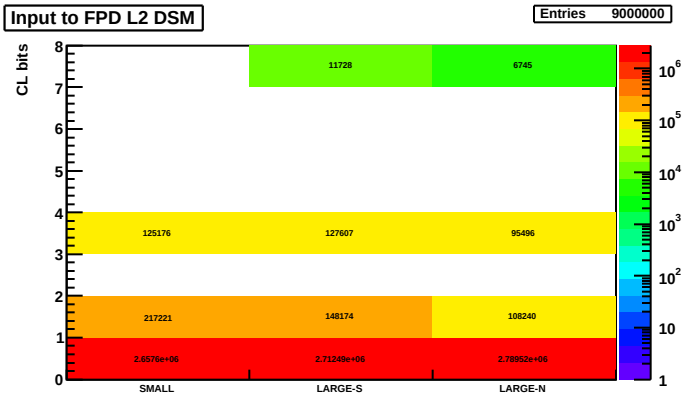

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

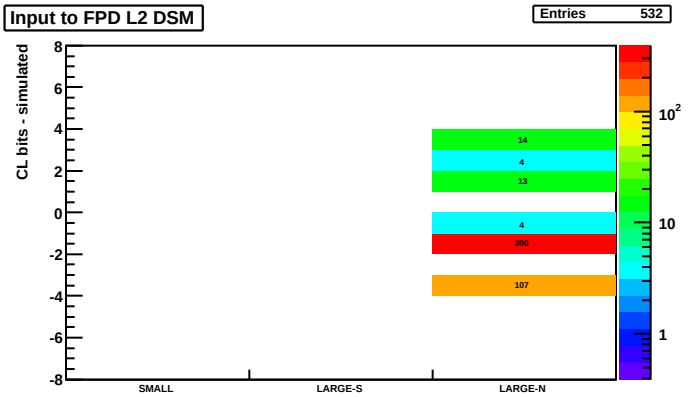

Input to FMS L1 DSM
Entries 3.6e+07
FMS L1 HT bits
DSM board

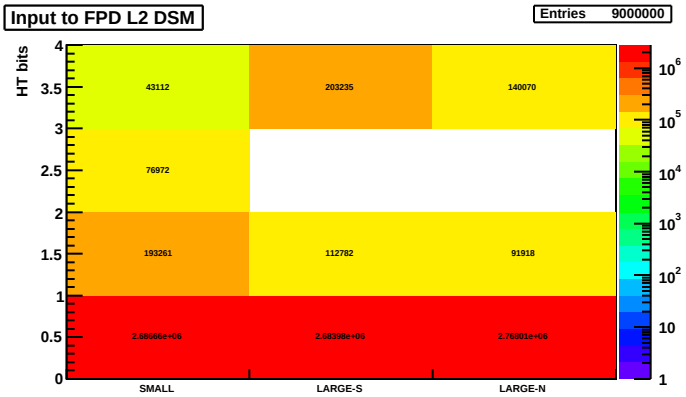

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

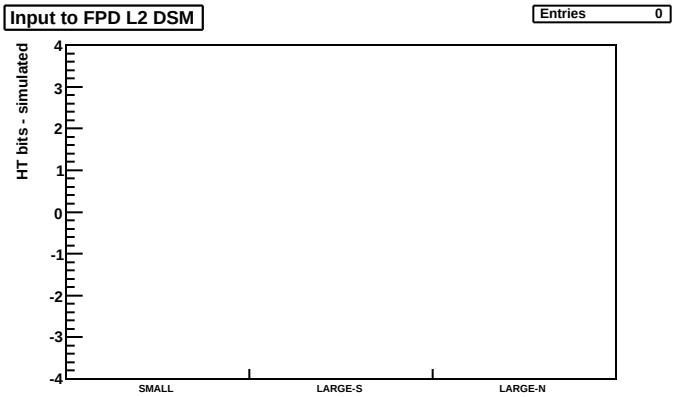

Input to FPD L2 DSM
Entries 3.6e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

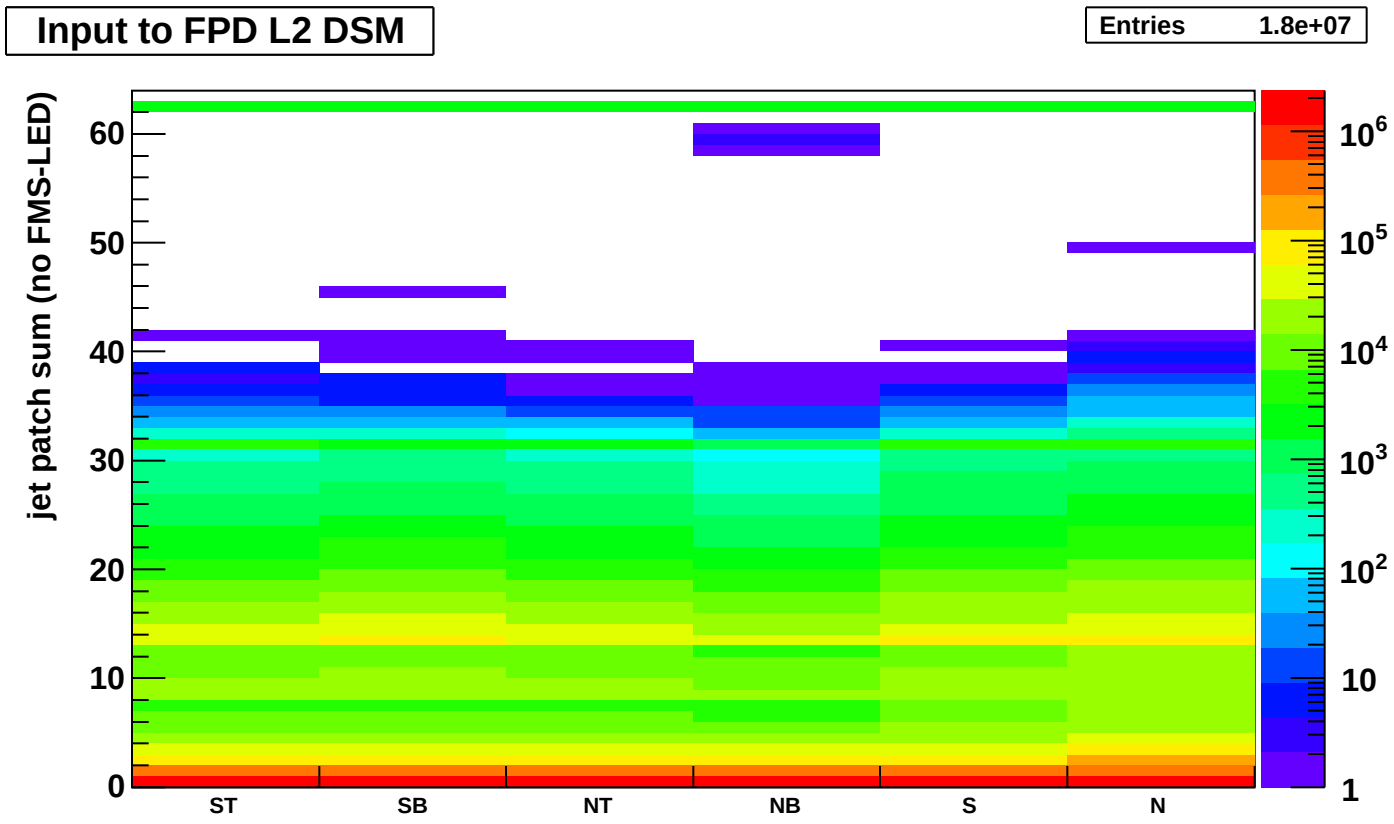

Input to FPD L2 DSM
Entries 64
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

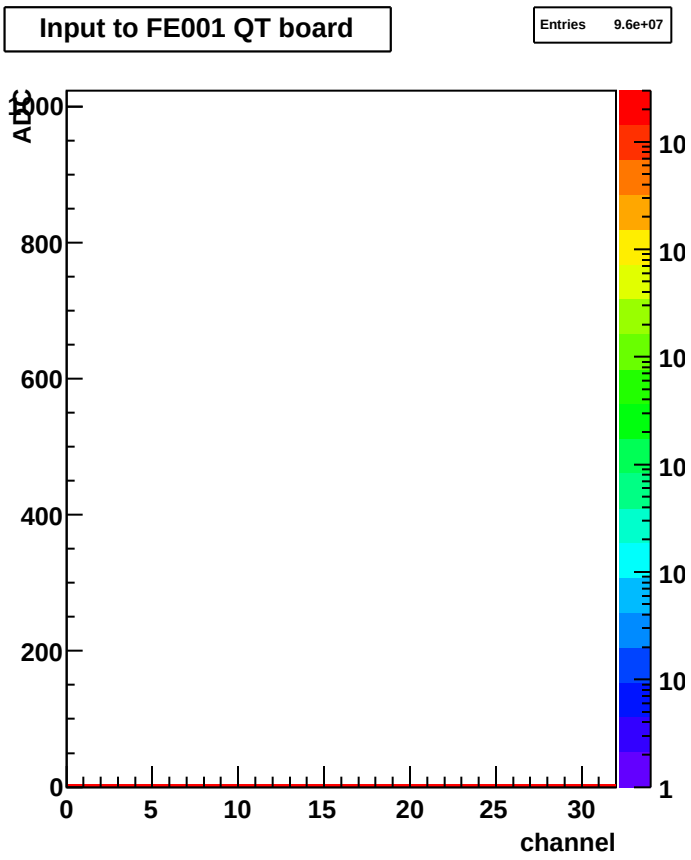

Input to FPD L2 DSM
Entries 9000000
CL bits
11728
6745
125176
127607
95496
217221
148174
108240
2.6576e+06
2.71249e+06
2.78952e+06
SMALL
LARGE-S
LARGE-N

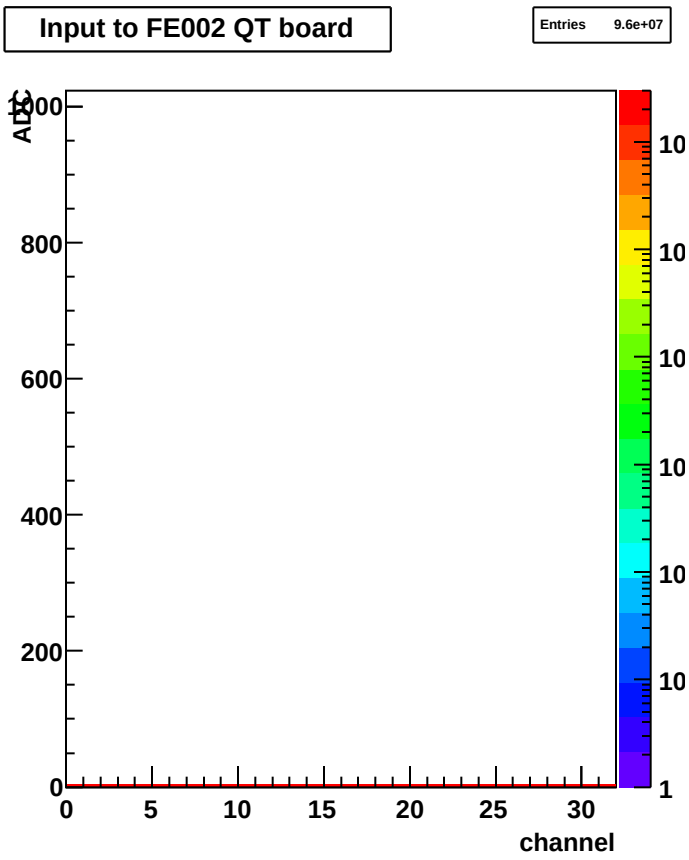

Input to FPD L2 DSM
Entries 532
CL bits - simulated
14
4
13
4
390
107
SMALL
LARGE-S
LARGE-N

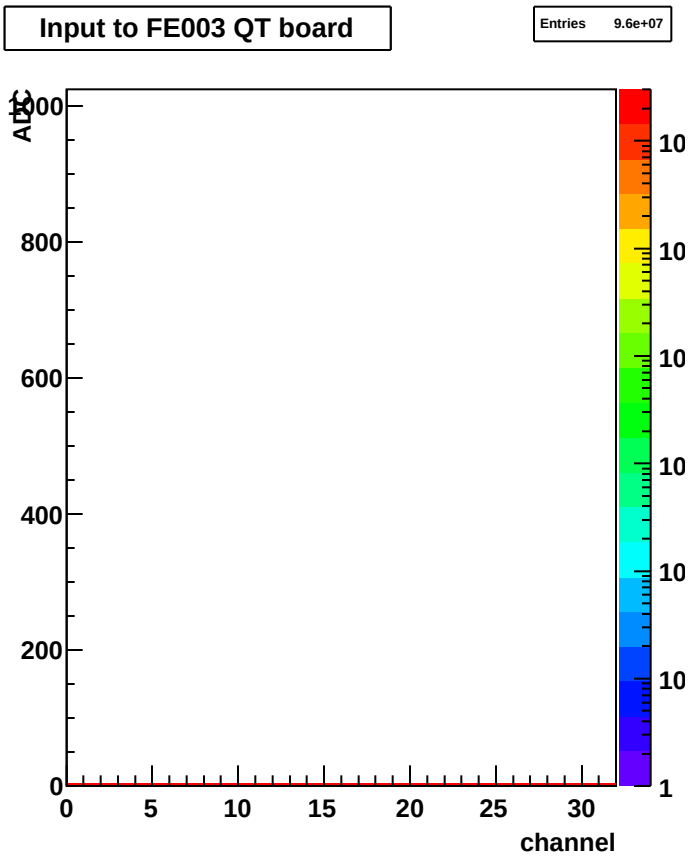

Input to FPD L2 DSM
Entries 9000000
HT bits
43112
203235
140070
76972
193261
112782
91918
2.68666e+06
2.68398e+06
2.76801e+06
SMALL
LARGE-S
LARGE-N

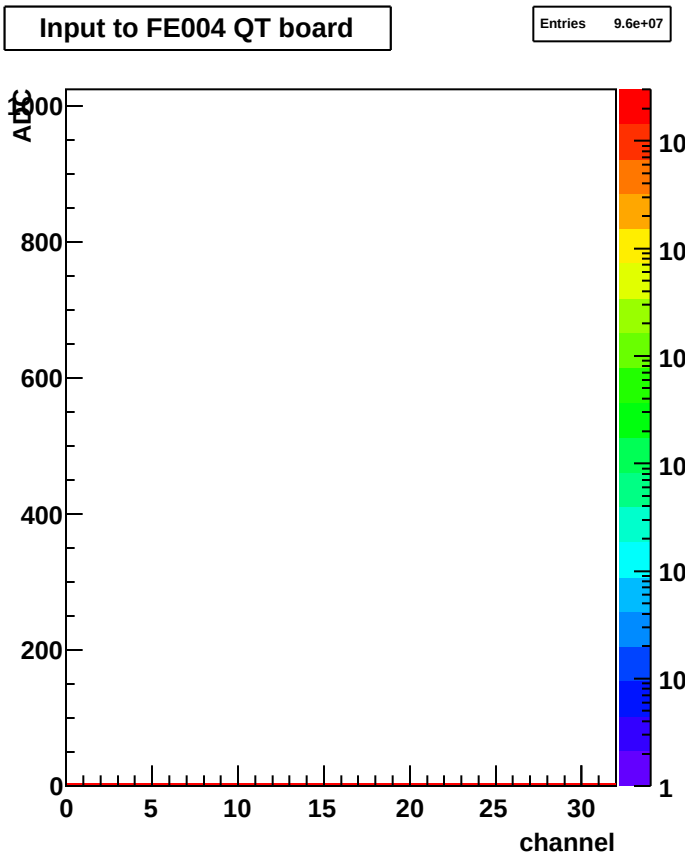

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

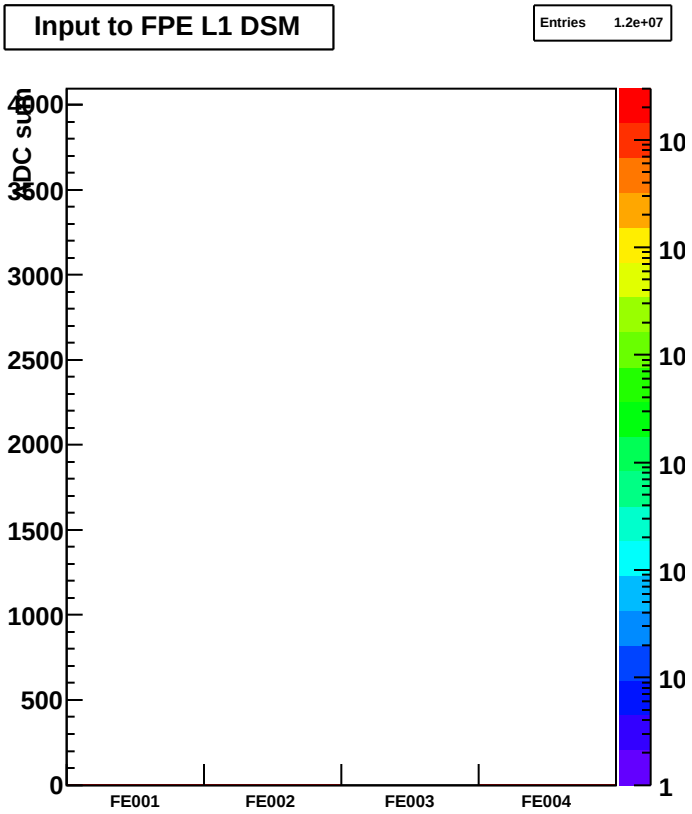

Input to FPD L2 DSM
Entries 1.8e+07
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6

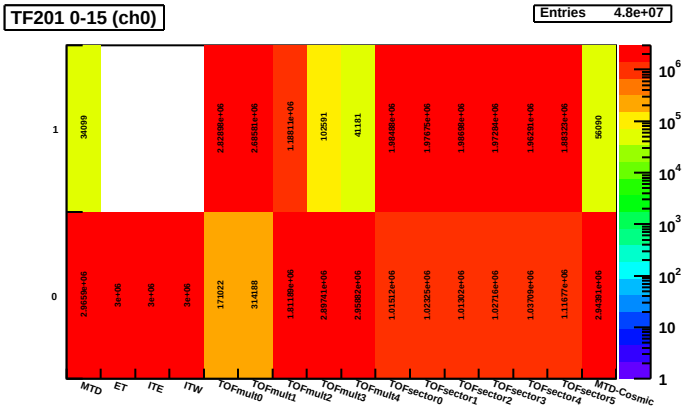

Input to FE001 QT board
Entries 9.6e+07
ADC
channel

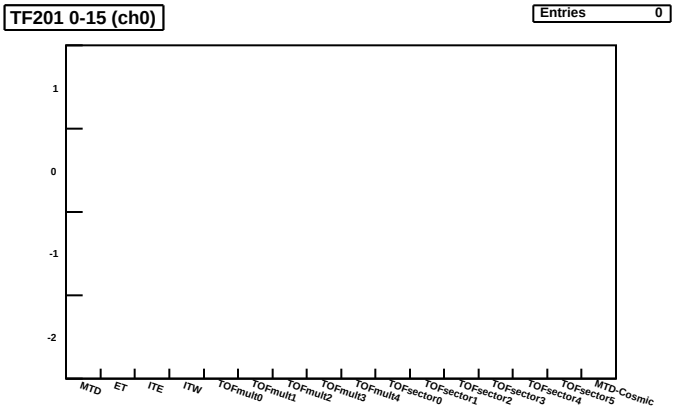

Input to FE002 QT board
Entries 9.6e+07
ADC
channel

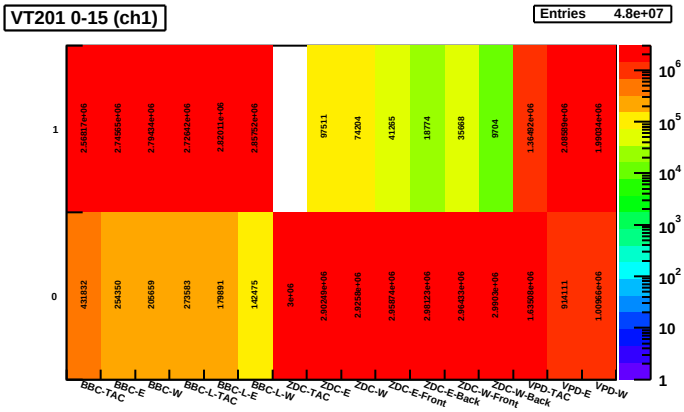

Input to FE003 QT board
Entries 9.6e+07
ADC
channel


Input to FE004 QT board
Entries 9.6e+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)
Entries 4.8e+07
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


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


VT201 0-15 (ch1)
Entries 4.8e+07
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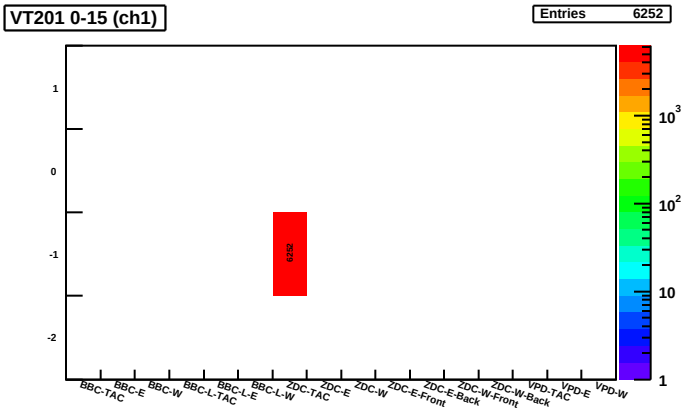
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6252
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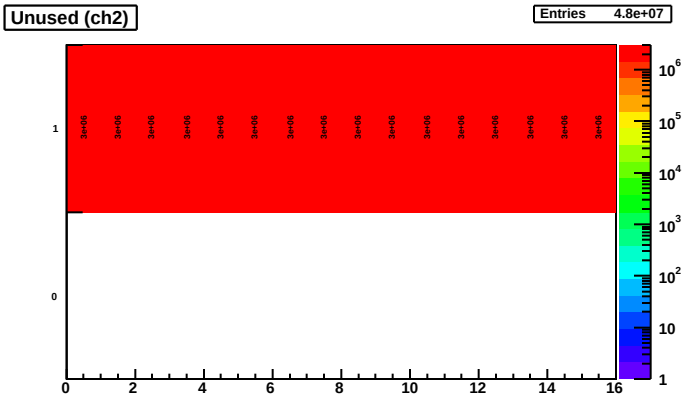
Unused (ch2)
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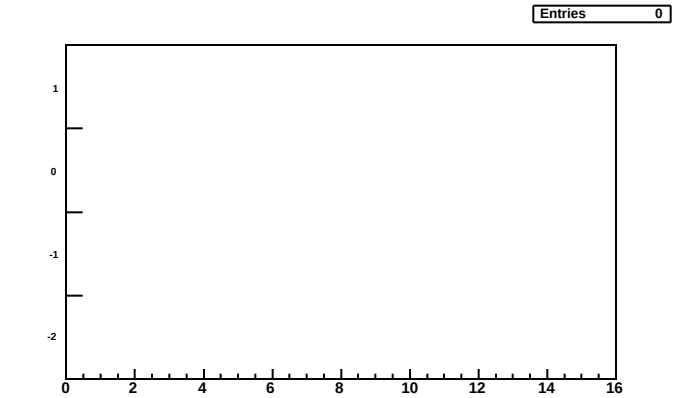
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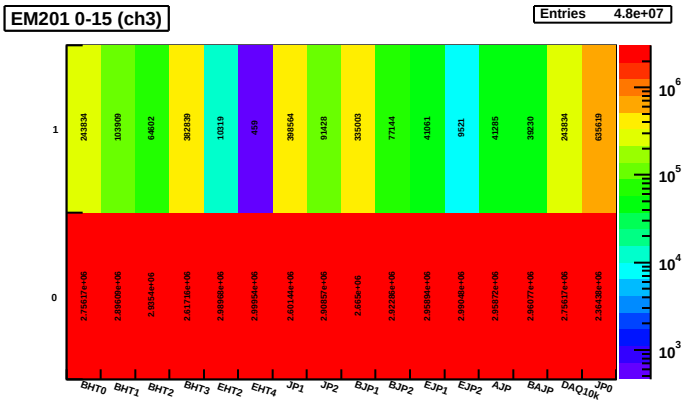
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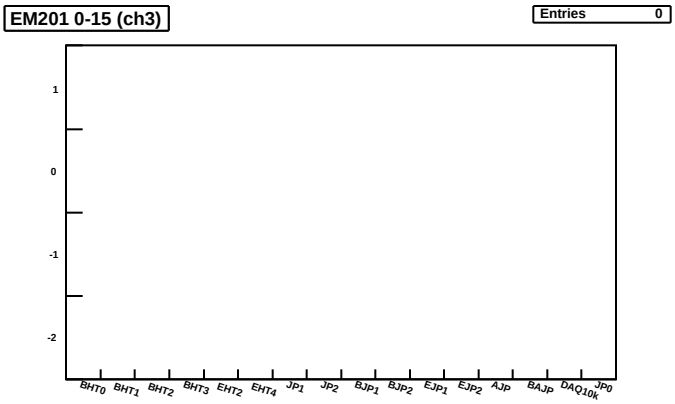
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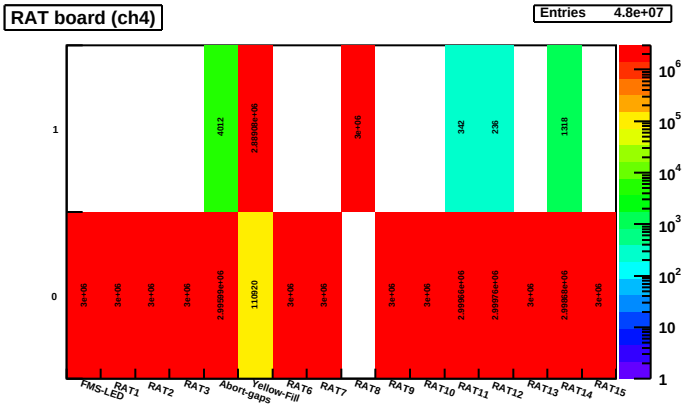
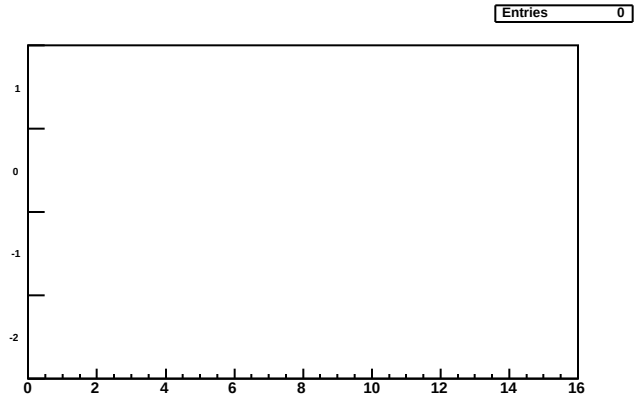
RAT board (ch4)





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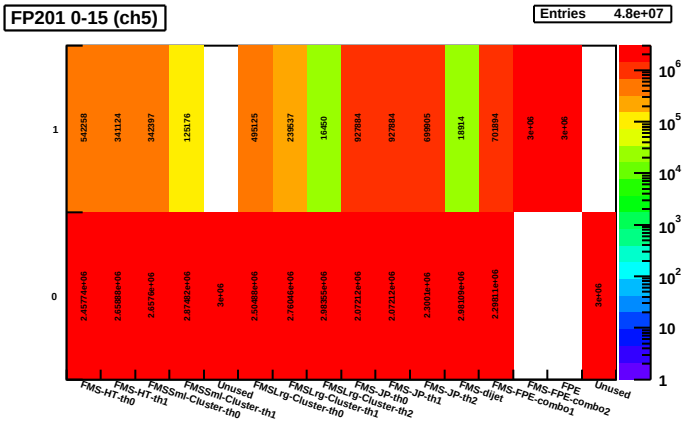

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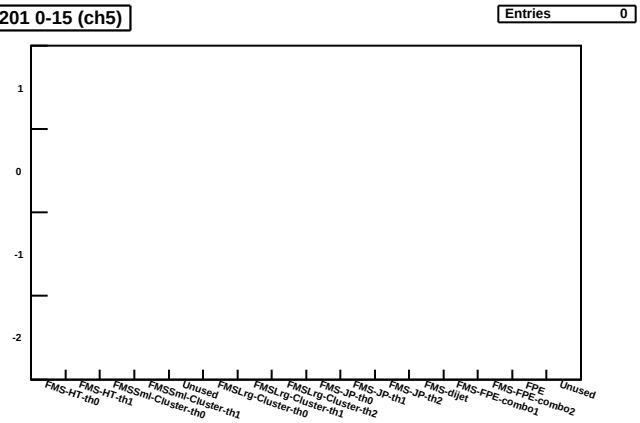
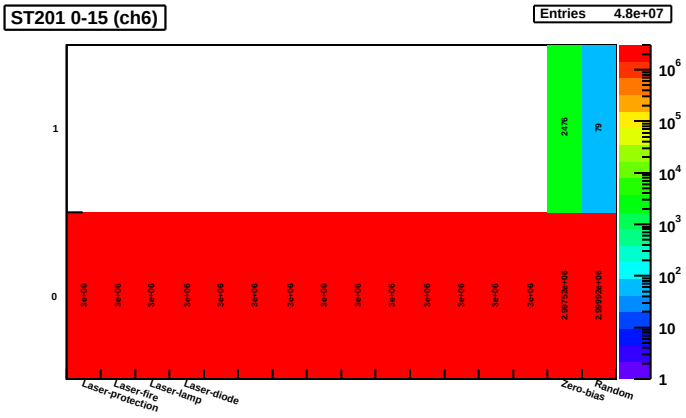
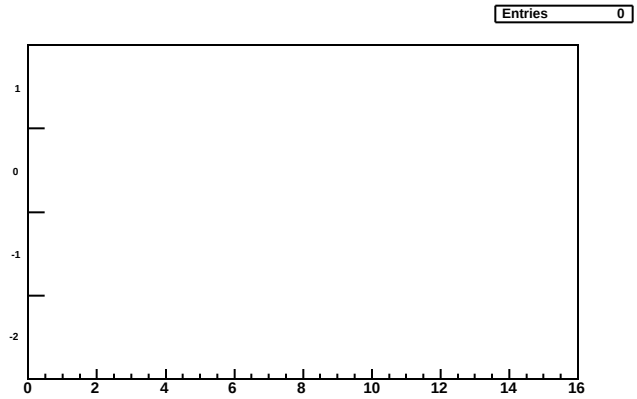
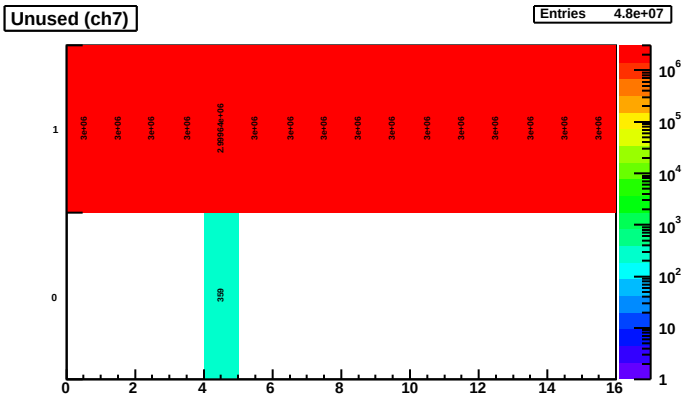
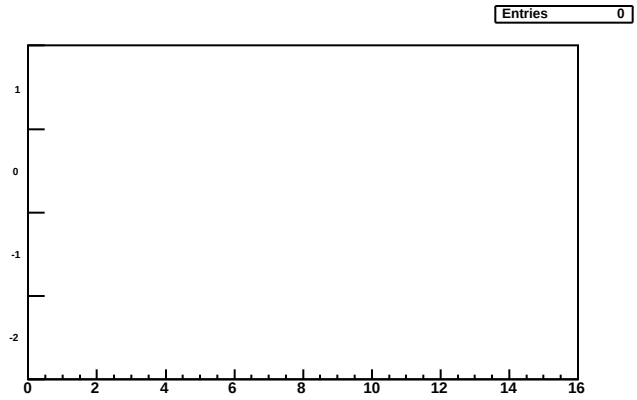


ST201 0-15 (ch6)





Unused (ch7)