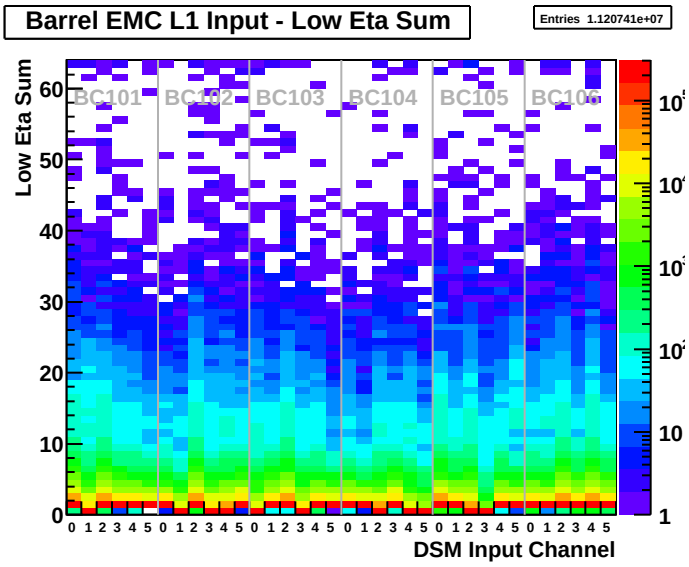
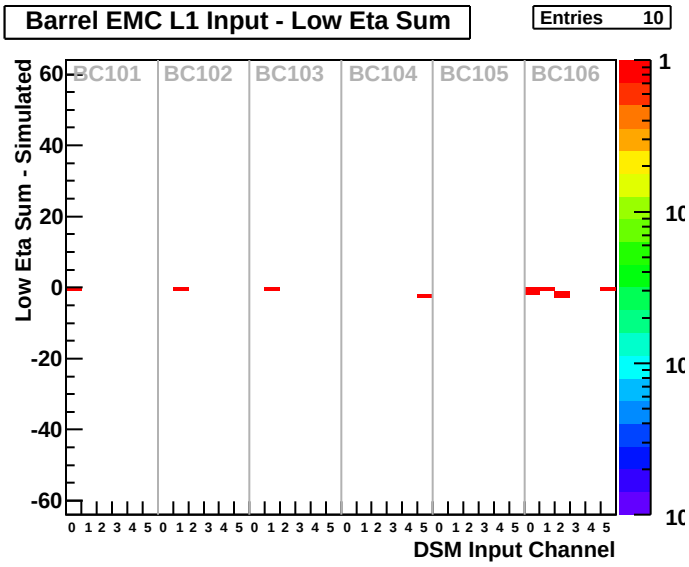
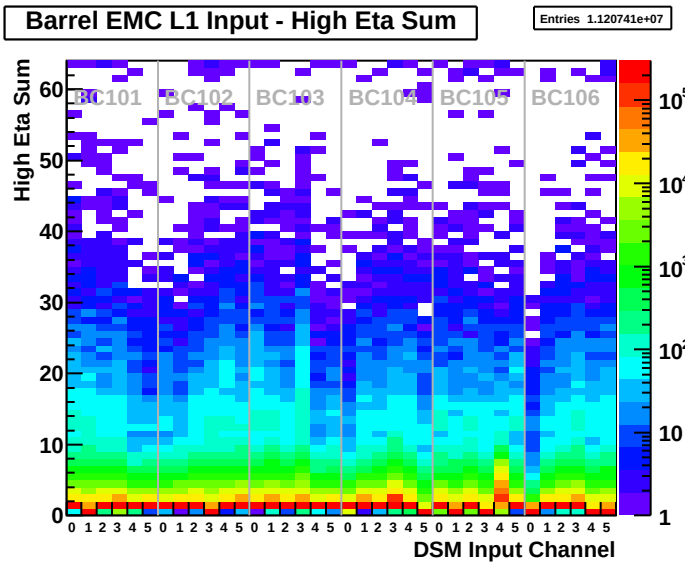
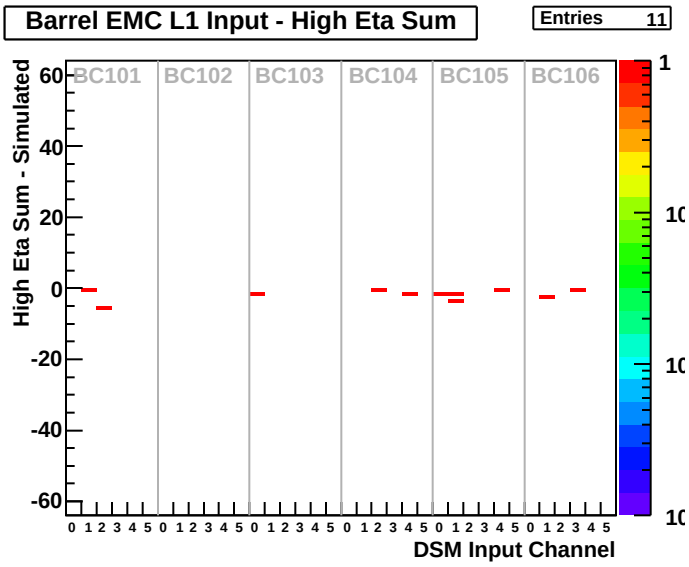
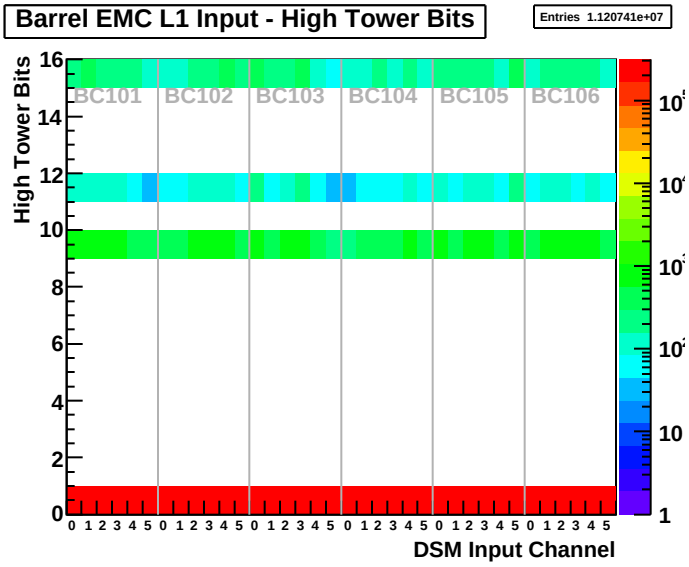
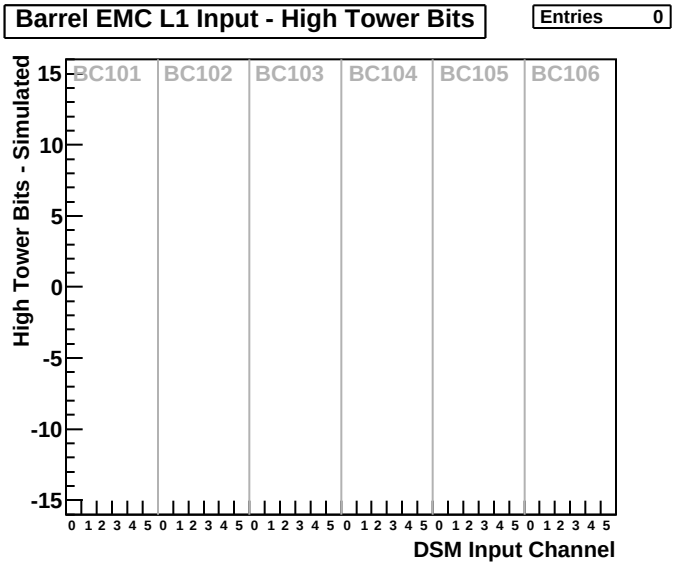

Barrel EMC L1 Input - Low Eta Sum
Entries 1.120741e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

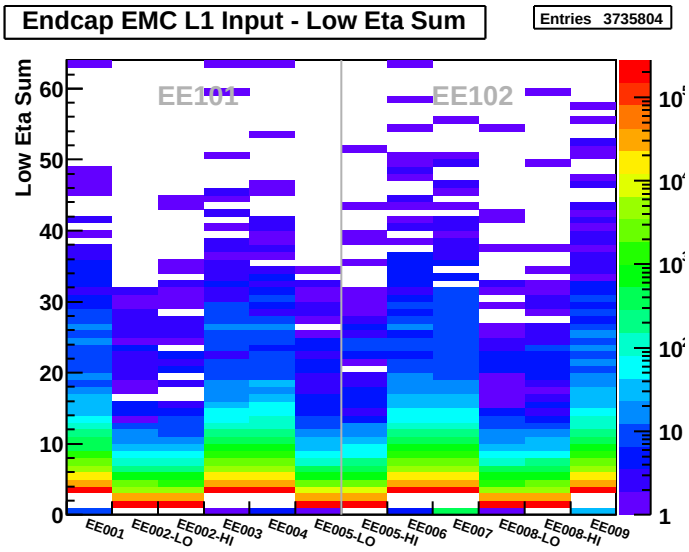

Barrel EMC L1 Input - Low Eta Sum
Entries 10
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

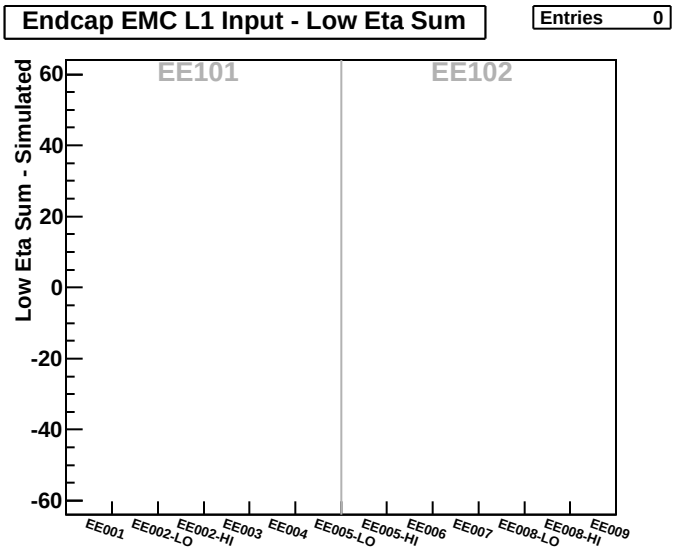

Barrel EMC L1 Input - High Eta Sum
Entries 1.120741e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

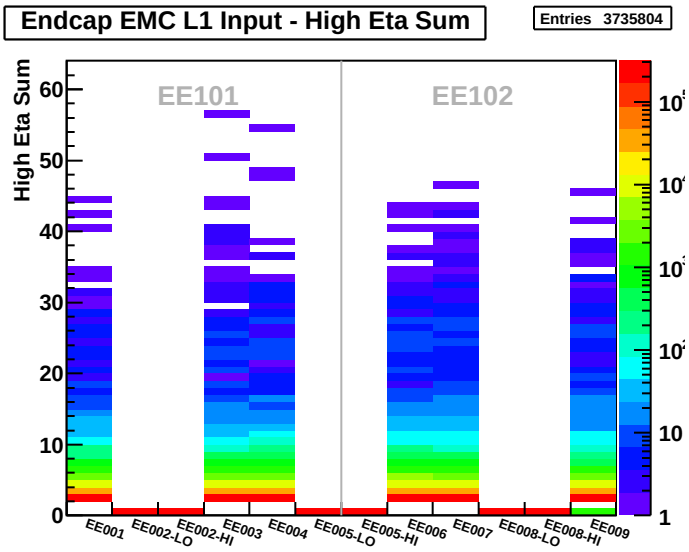

Barrel EMC L1 Input - High Eta Sum
Entries 11
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

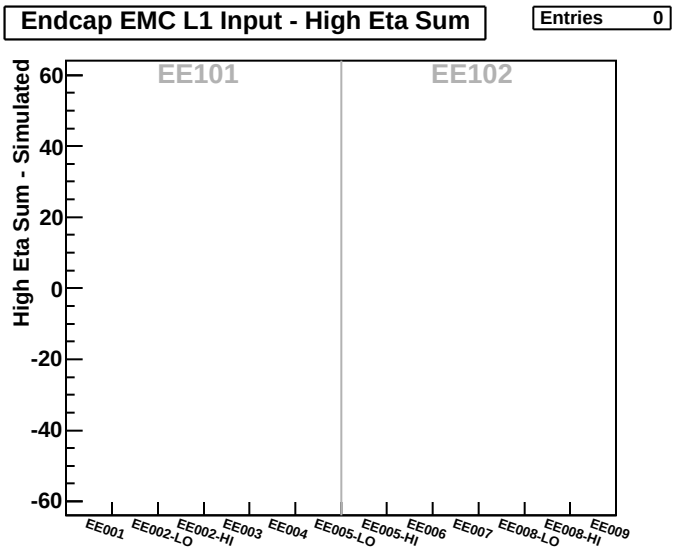

Barrel EMC L1 Input - High Tower Bits
Entries 1.120741e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

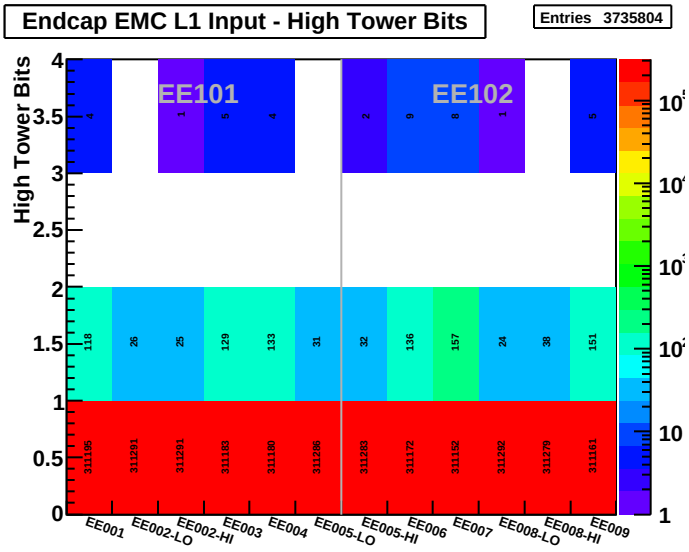

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

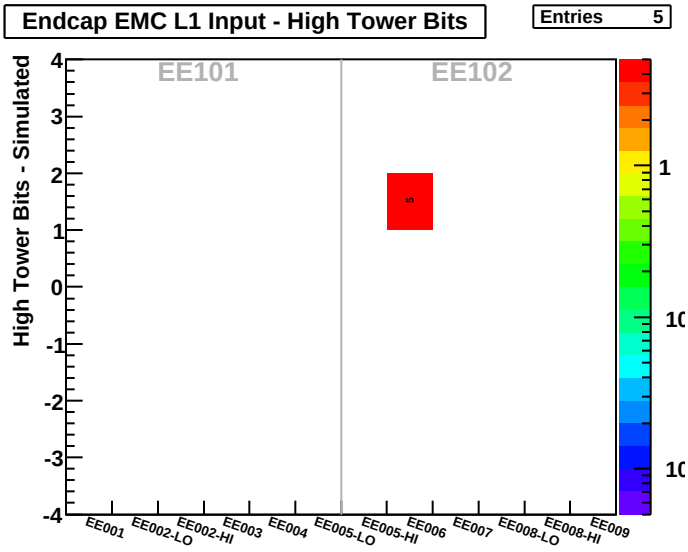

Endcap EMC L1 Input - Low Eta Sum
Entries 3735804
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

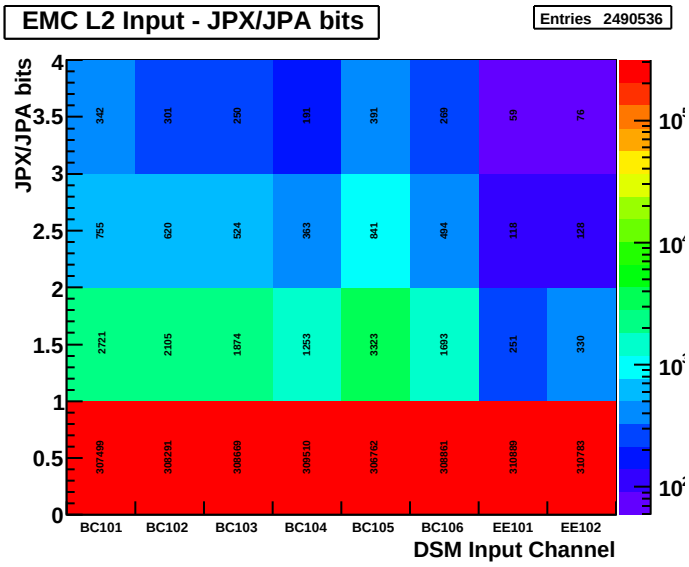

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

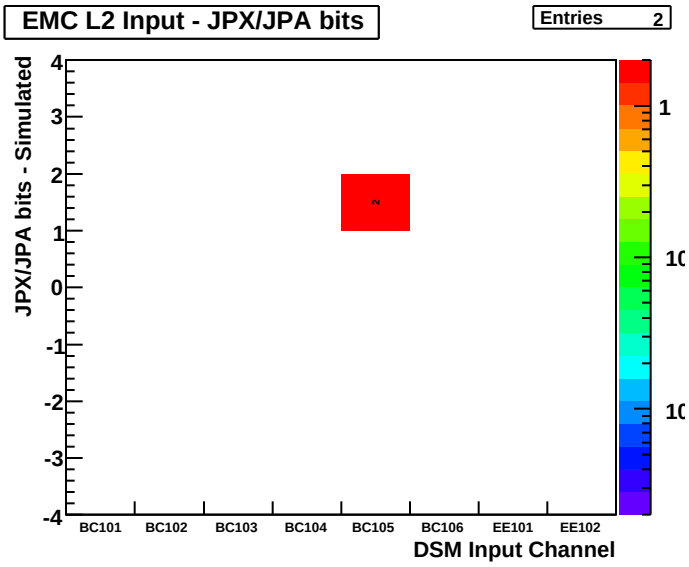

Endcap EMC L1 Input - High Eta Sum
Entries 3735804
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

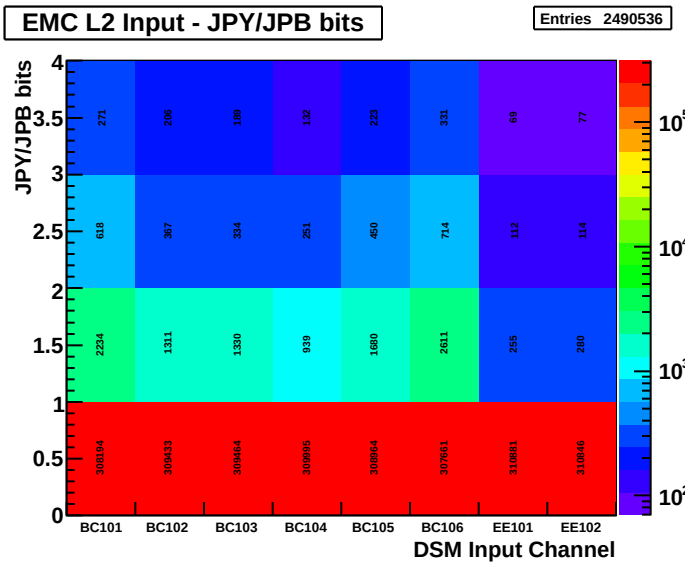

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

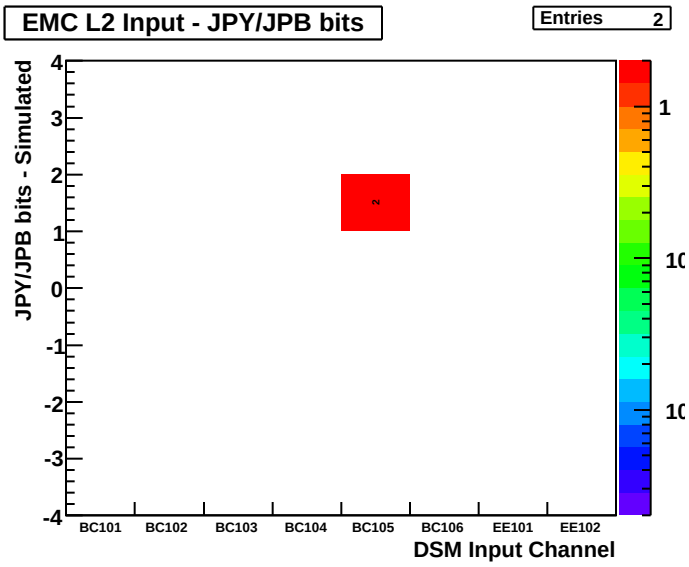

Endcap EMC L1 Input - High Tower Bits
Entries 3735804
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

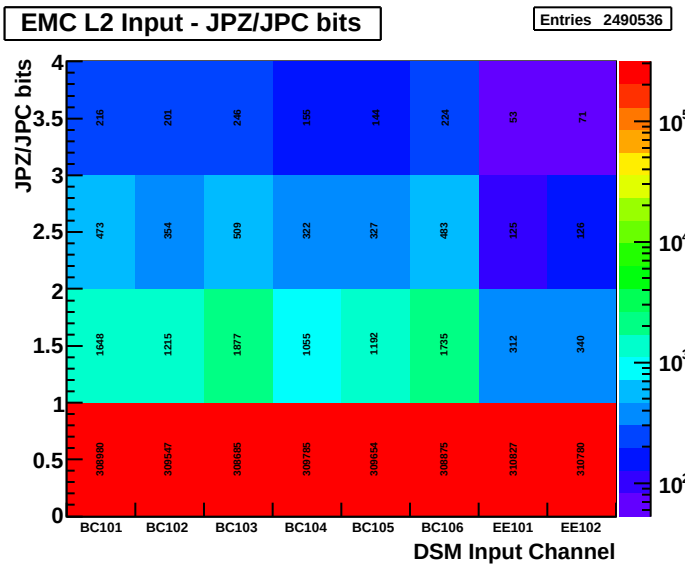

Endcap EMC L1 Input - High Tower Bits
Entries 5
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

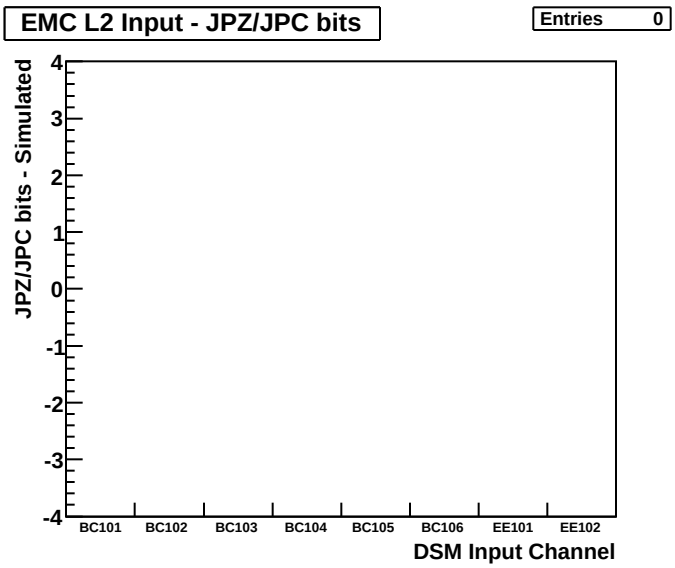

EMC L2 Input - JPX/JPA bits
Entries 2490536
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
342 301 250 191 391 269 59 76
755 620 524 383 841 494 118 128
2721 2105 1874 1253 3323 1693 251 330
307499 308281 308669 309510 306762 308861 310889 310783

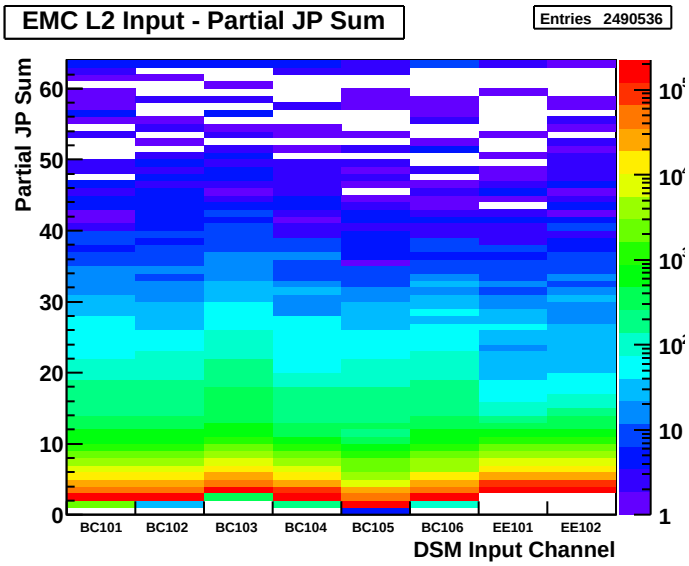

EMC L2 Input - JPX/JPA bits
Entries 2
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2

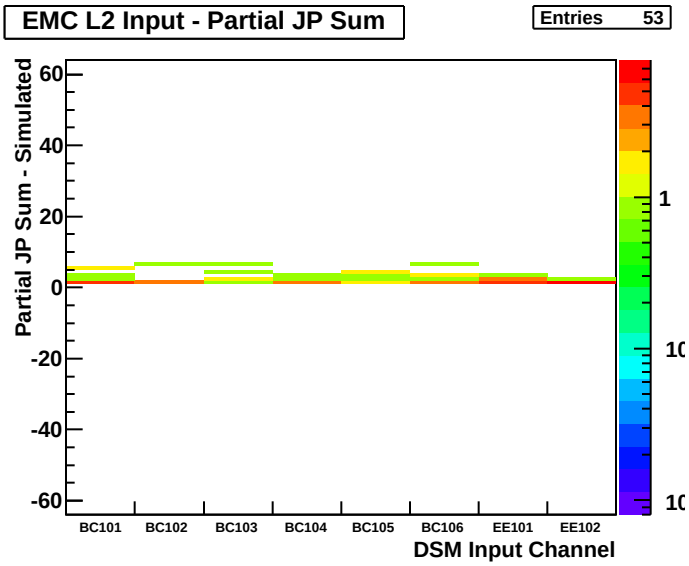

EMC L2 Input - JPY/JPB bits
Entries 2490536
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
271 206 189 132 223 331 69 77
618 367 324 251 450 714 112 114
2234 1311 1330 939 1680 2611 255 280
309194 309433 309464 309995 308964 307661 310881 310846

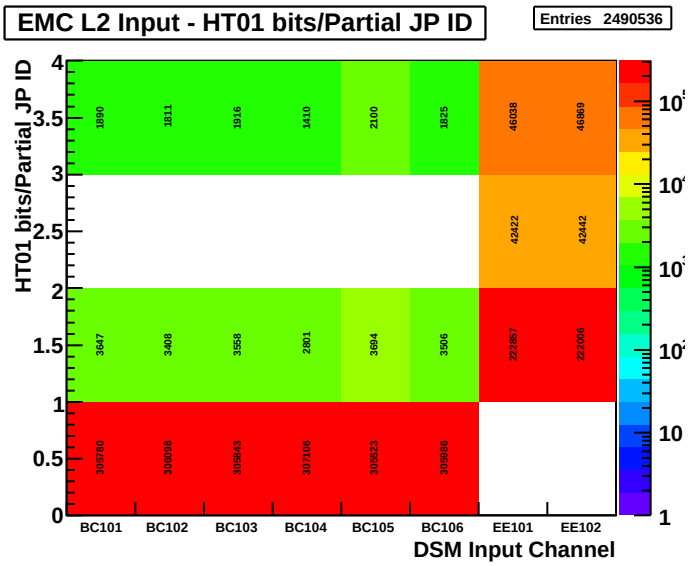

EMC L2 Input - JPY/JPB bits
Entries 2
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2

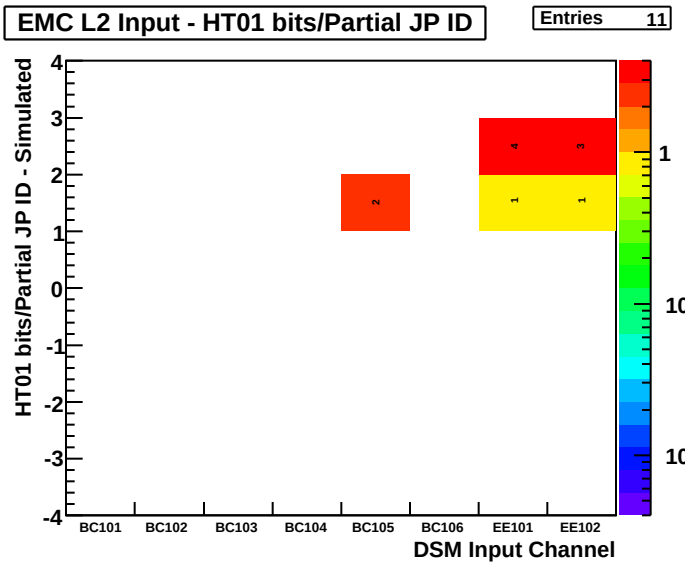

EMC L2 Input - JPZ/JPC bits
Entries 2490536
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
216 201 246 155 144 224 53 71
473 354 509 322 327 483 125 126
1648 1215 1877 1065 1192 1735 312 340
308980 309547 309685 309785 309654 308875 310927 310780

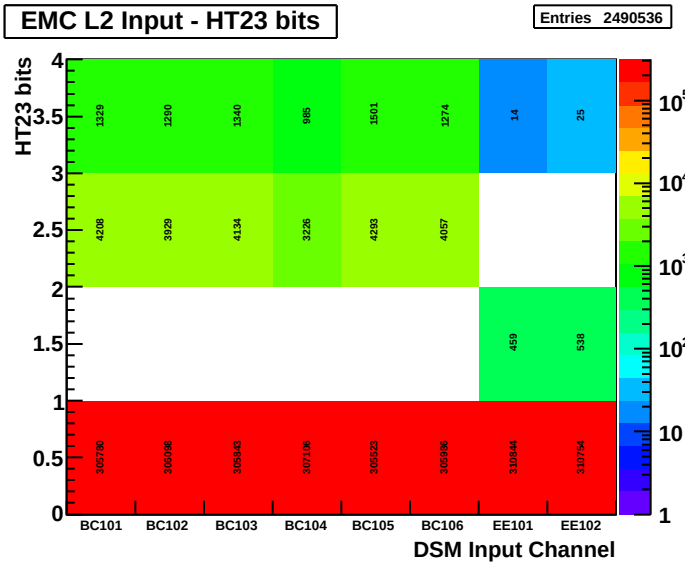

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

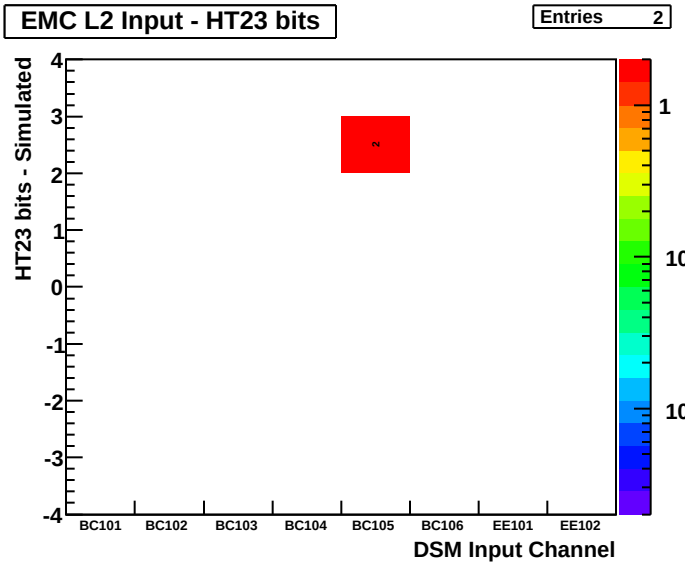

EMC L2 Input - Partial JP Sum
Entries 2490536
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

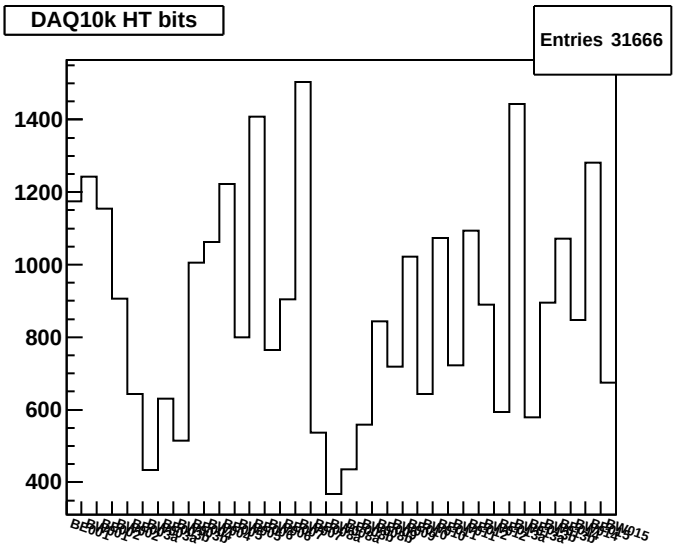

EMC L2 Input - Partial JP Sum
Entries 53
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

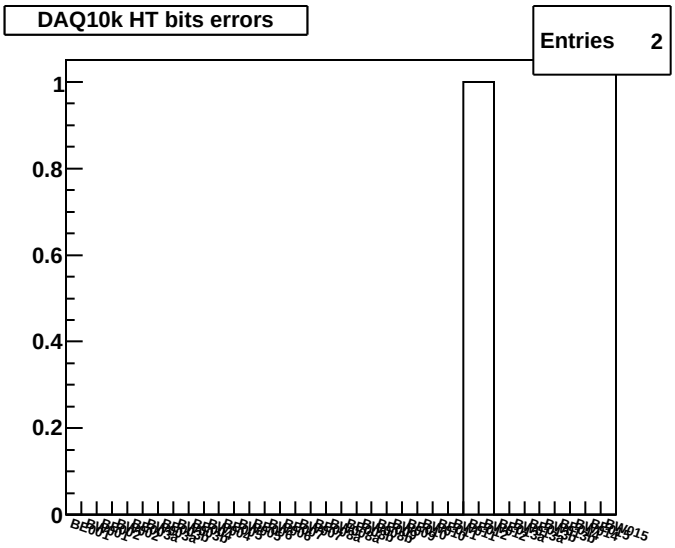

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2490536
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

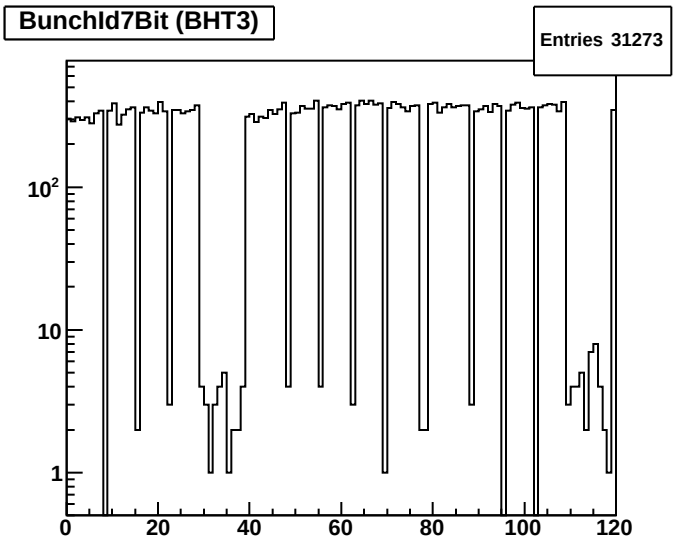

EMC L2 Input - HT01 bits/Partial JP ID
Entries 11
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

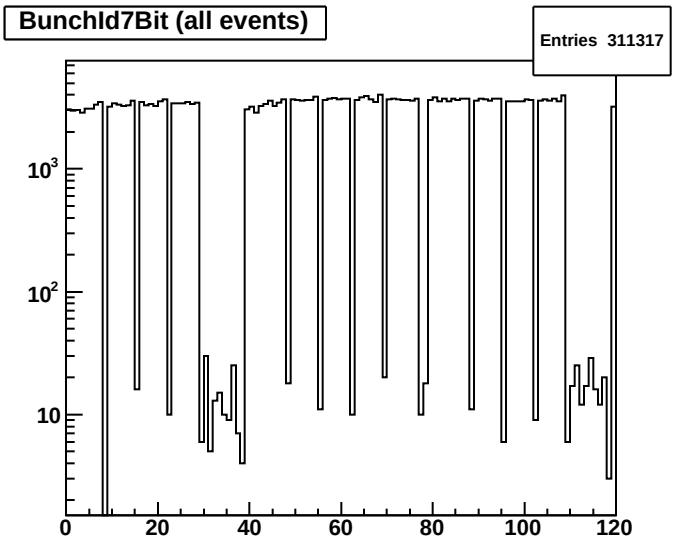

EMC L2 Input - HT23 bits
Entries 2490536
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

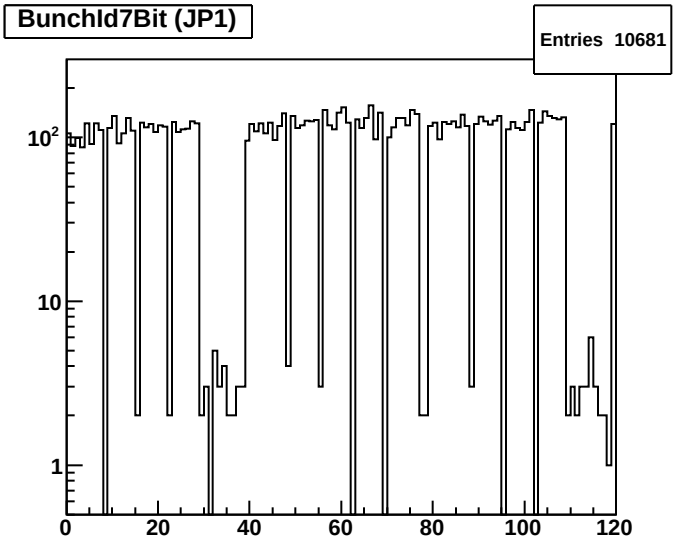

EMC L2 Input - HT23 bits
Entries 2
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

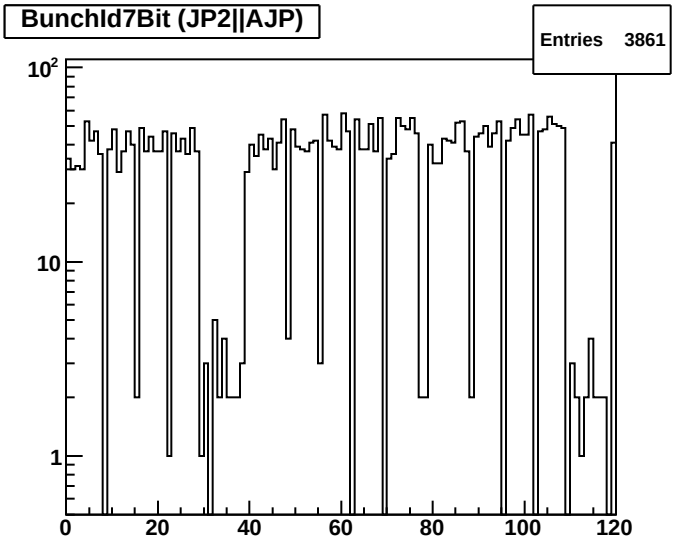

DAQ10k HT bits
Entries 31666
1400
1200
1000
800
600
400

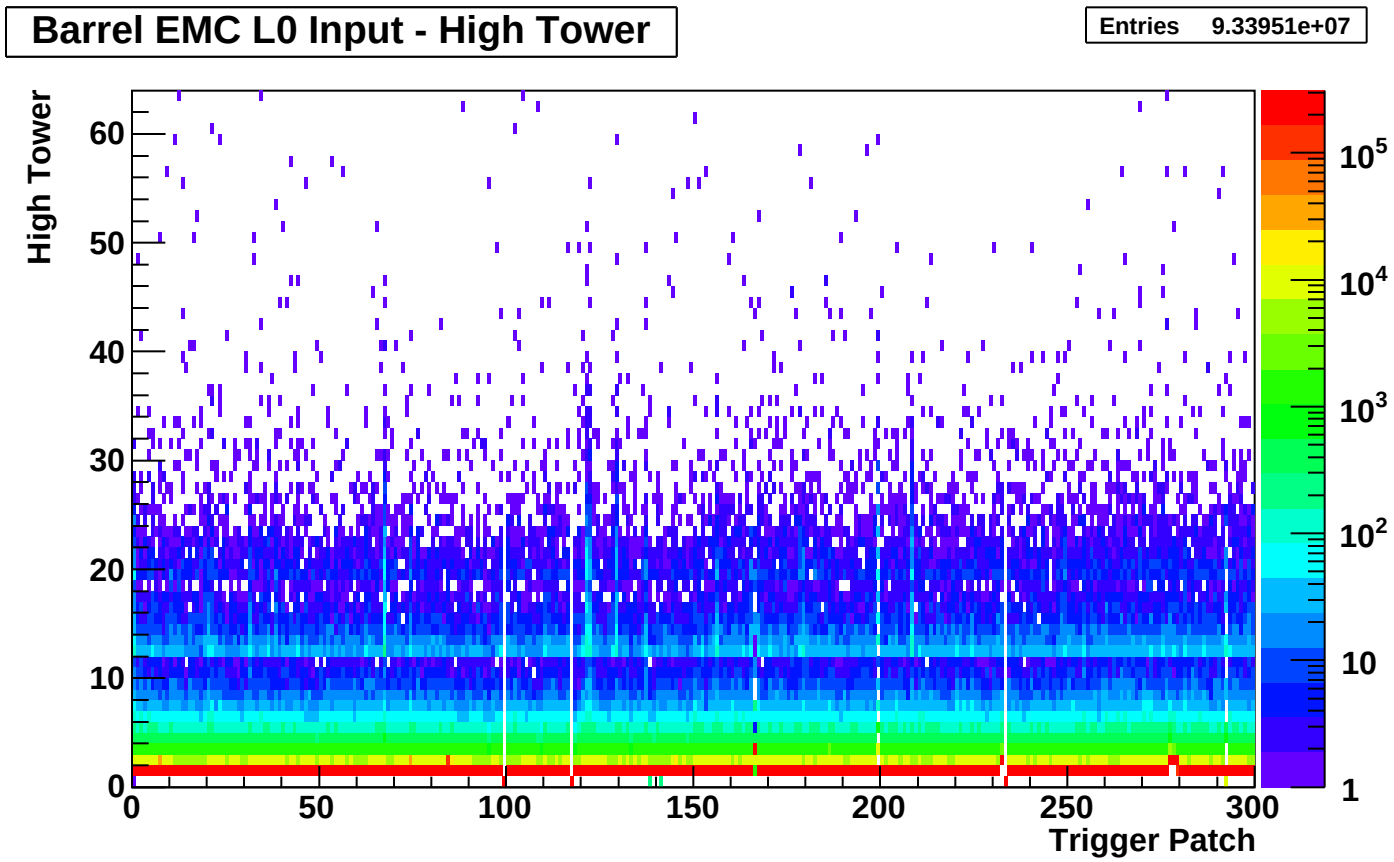

DAQ10k HT bits errors
Entries 2
1
0.8
0.6
0.4
0.2
0

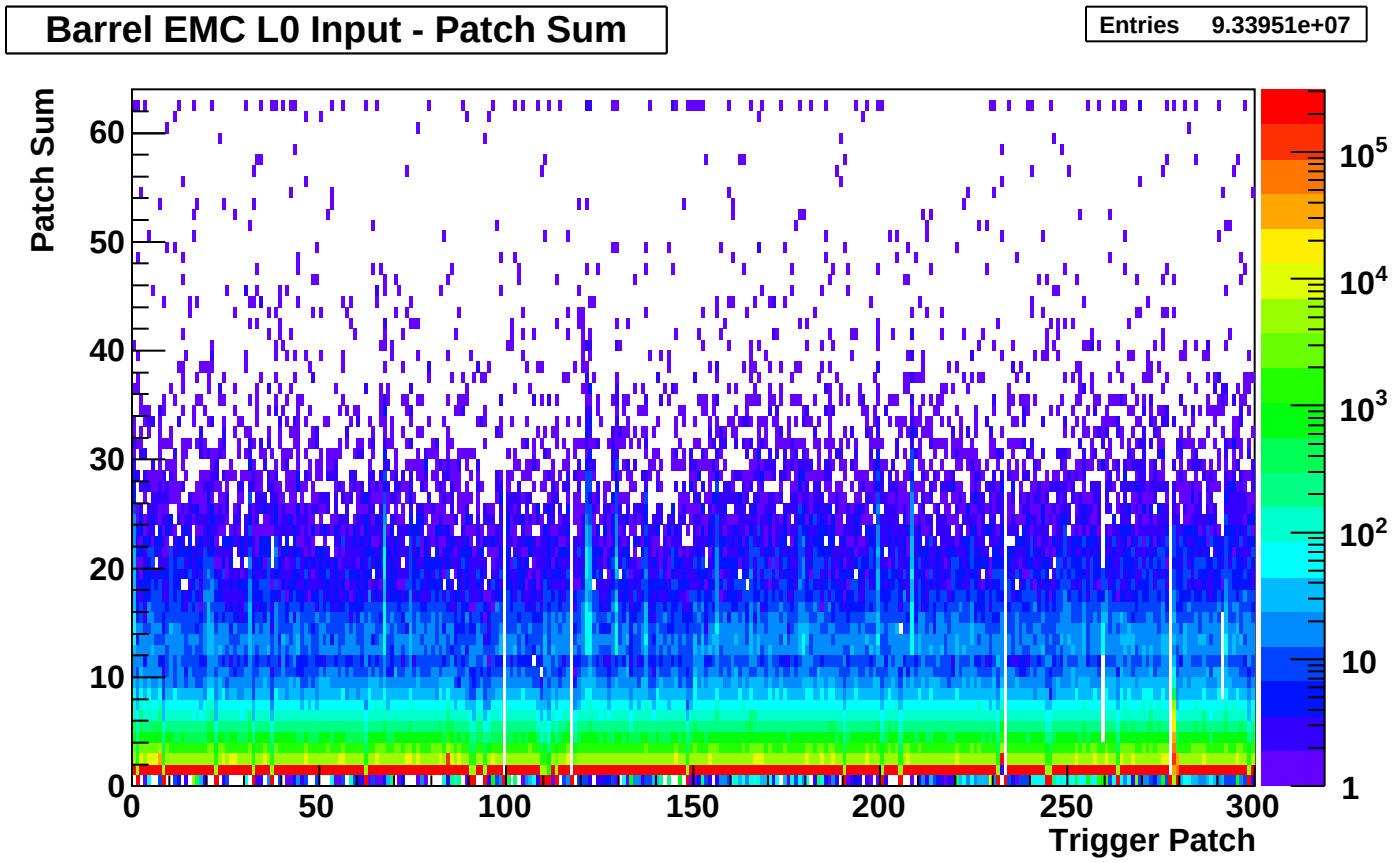

BunchId7Bit (BHT3)
Entries 31273
10^2
10
1
0
20
40
60
80
100
120

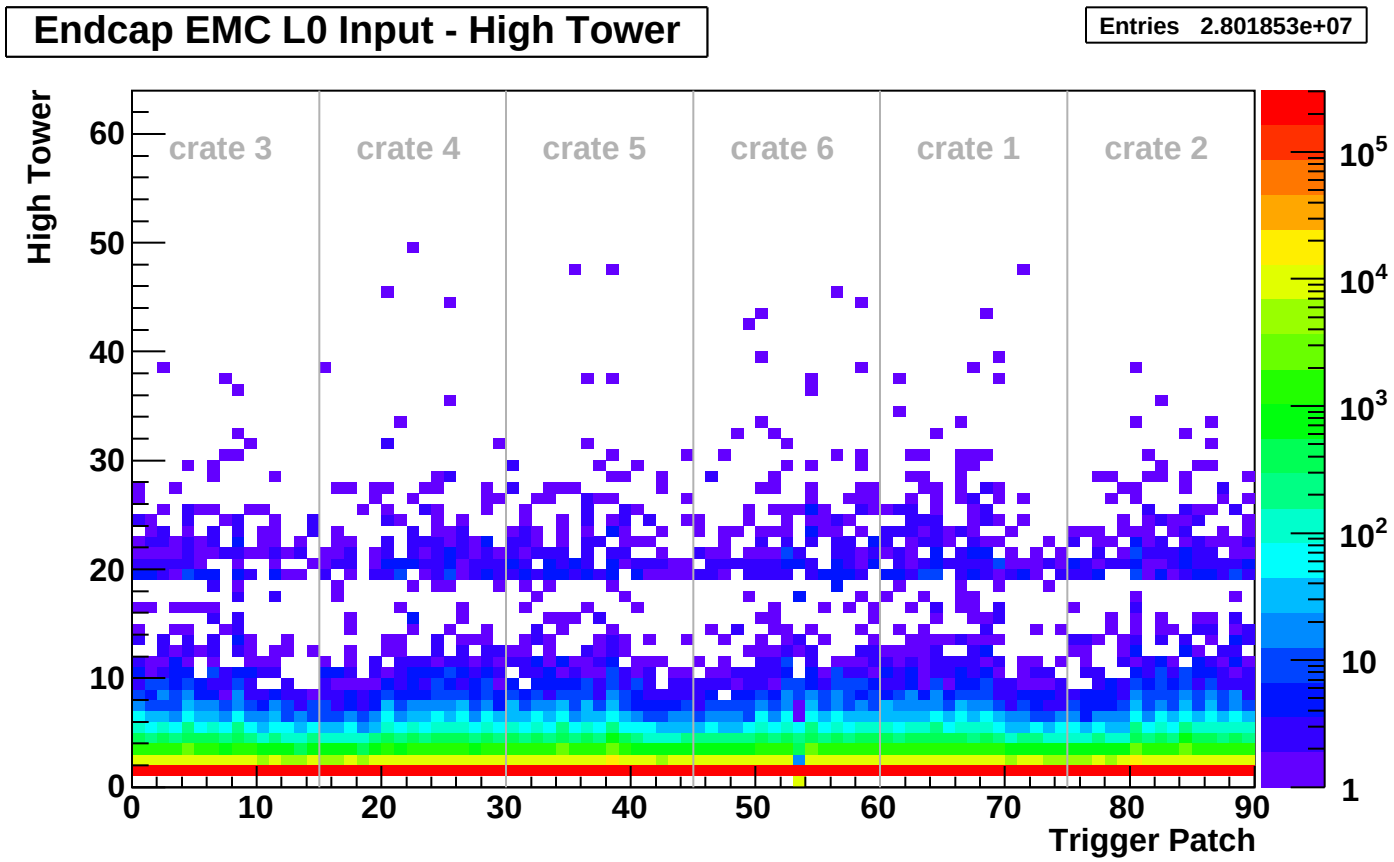

BunchId7Bit (all events)
Entries 311317
10^3
10^2
10
0
20
40
60
80
100
120

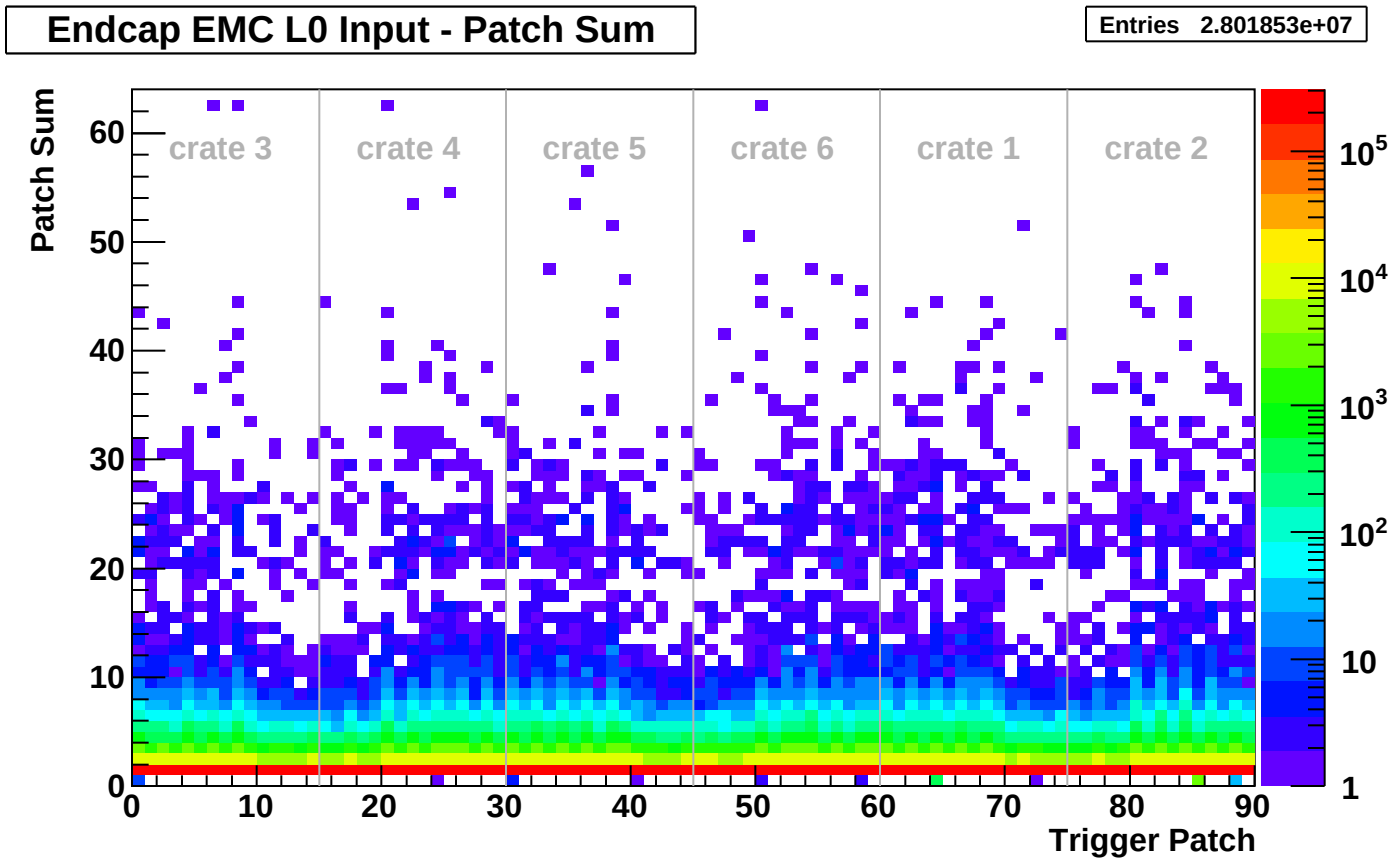

BunchId7Bit (JP1)
Entries 10681
10^2
10
1
0
20
40
60
80
100
120

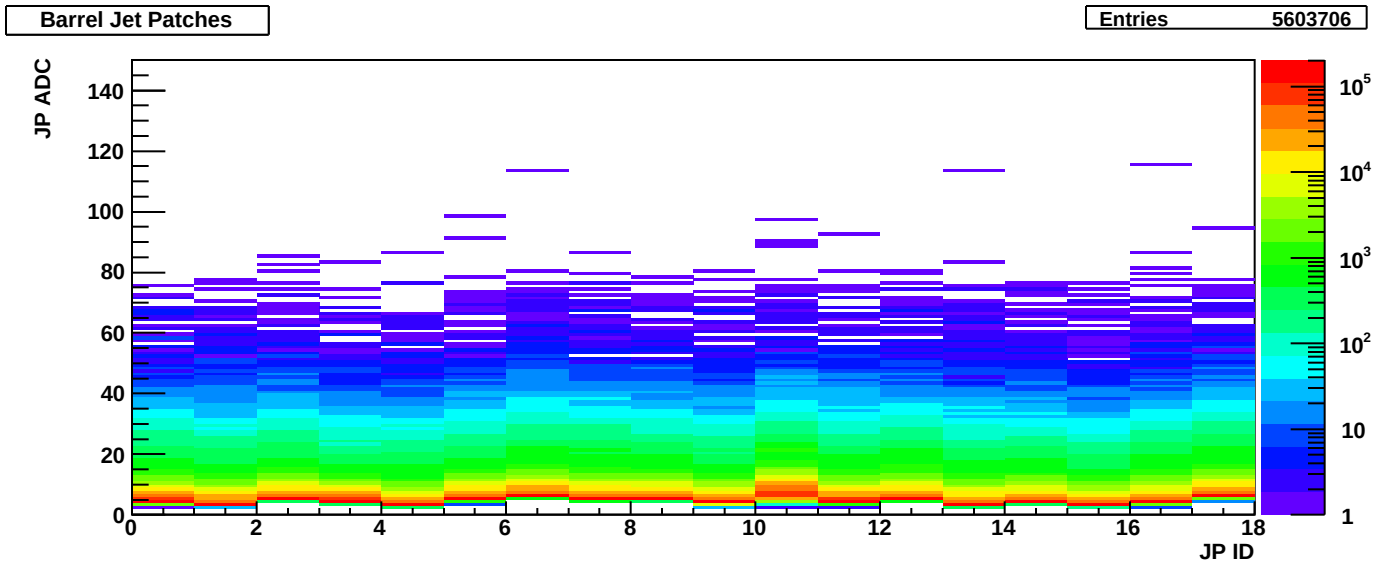

BunchId7Bit (JP2||AJP)
Entries 3861
10^2
10
1
0
20
40
60
80
100
120

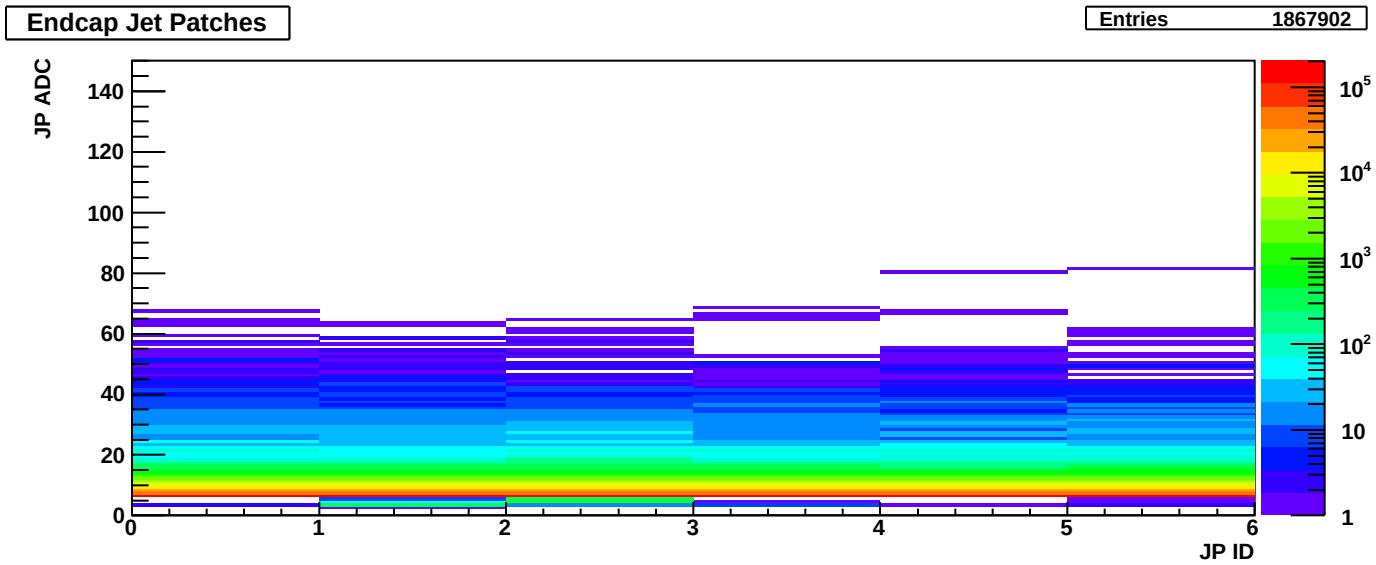

Barrel EMC L0 Input - High Tower
Entries 9.33951e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

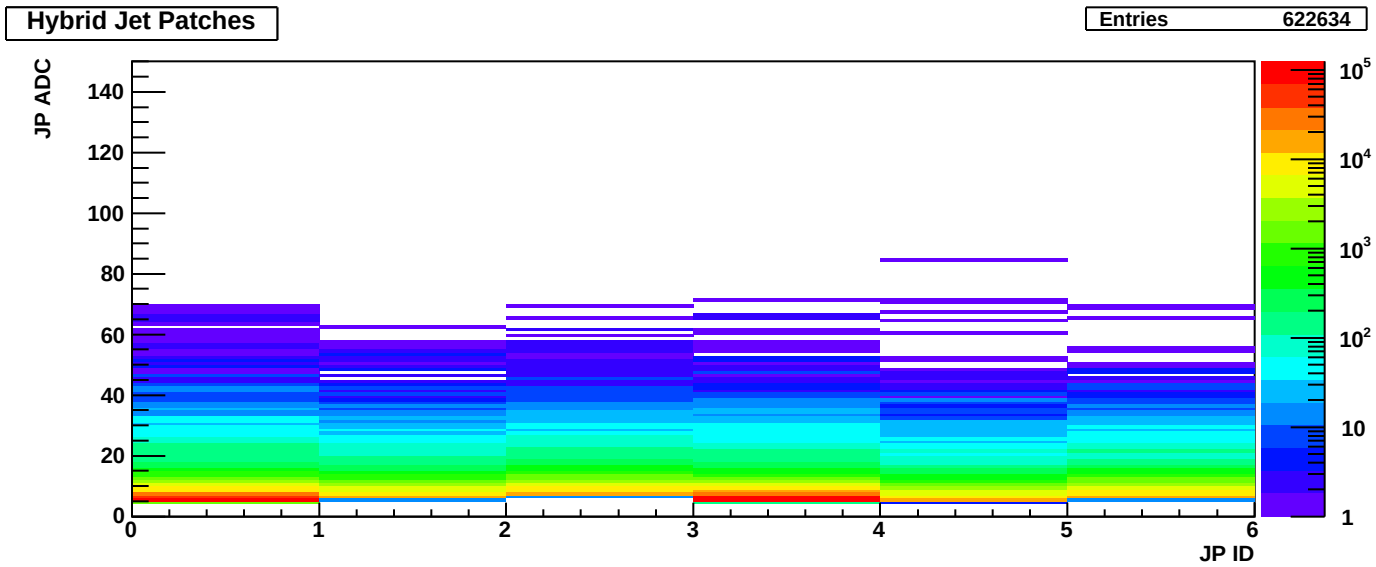

Barrel EMC L0 Input - Patch Sum
Entries 9.33951e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

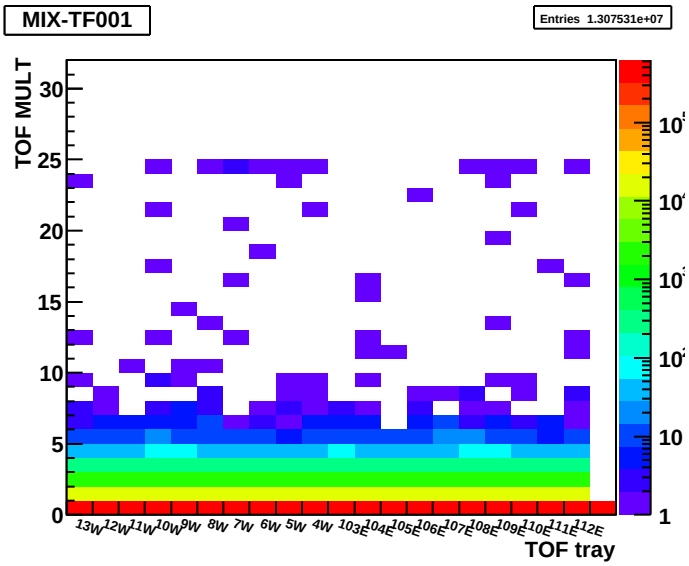

Endcap EMC L0 Input - High Tower
Entries 2.801853e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

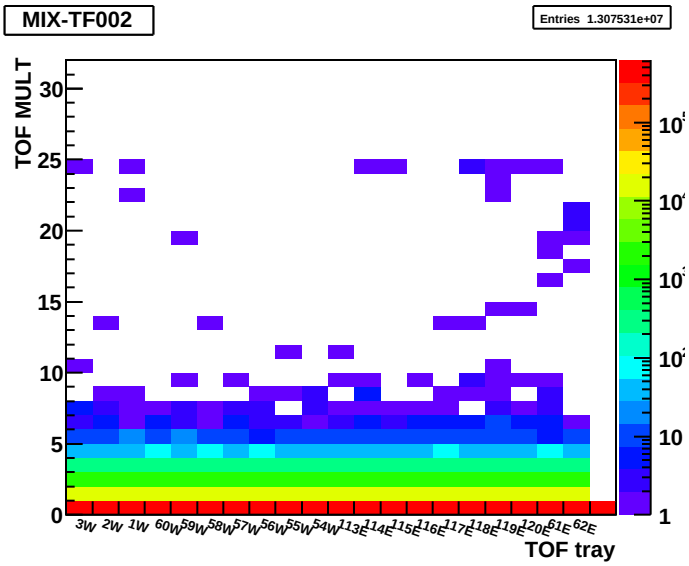

Endcap EMC L0 Input - Patch Sum
Entries 2.801853e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

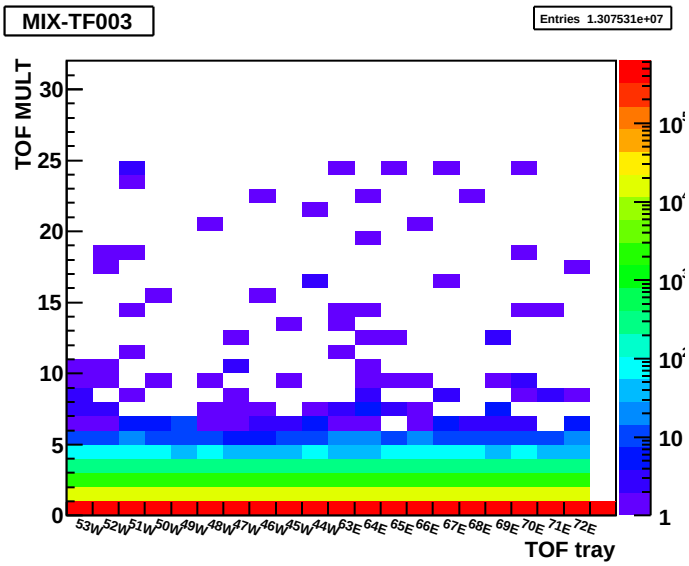

Barrel Jet Patches
Entries 5603706
JP ADC
JP ID

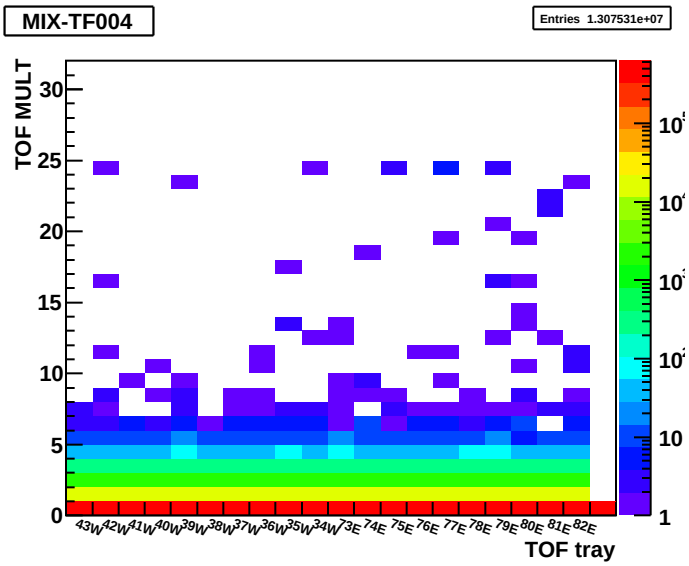

Endcap Jet Patches
Entries 1867902
JP ADC
JP ID

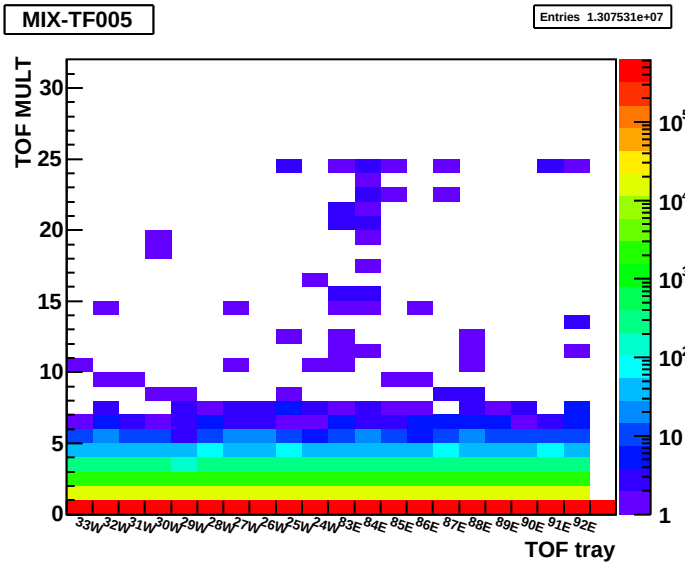

Hybrid Jet Patches
Entries 622634
JP ADC
JP ID

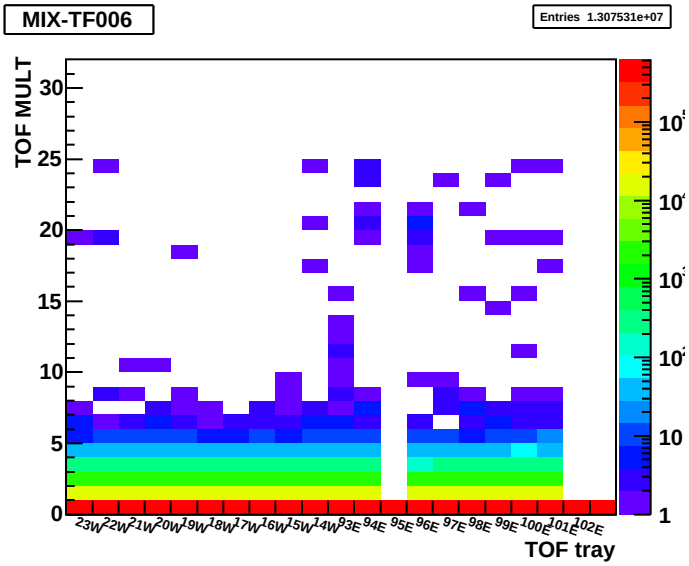

MIX-TF001
Entries 1.307531e+07
TOF MULT
TOF tray

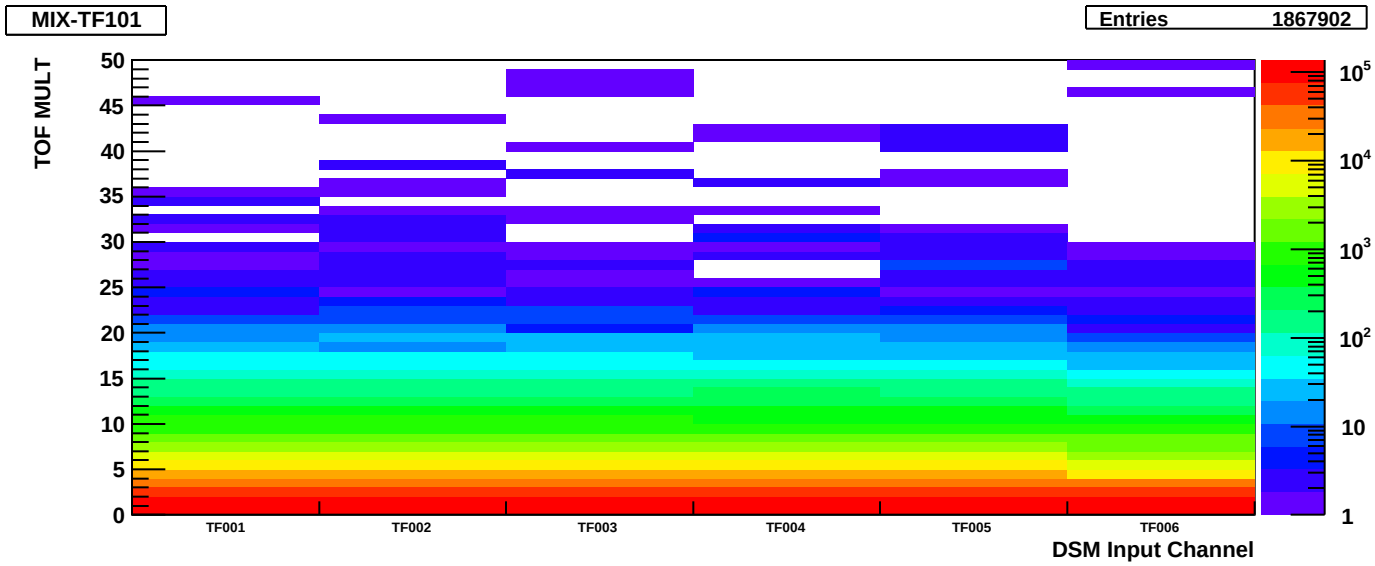

MIX-TF002
Entries 1.307531e+07
TOF MULT
TOF tray

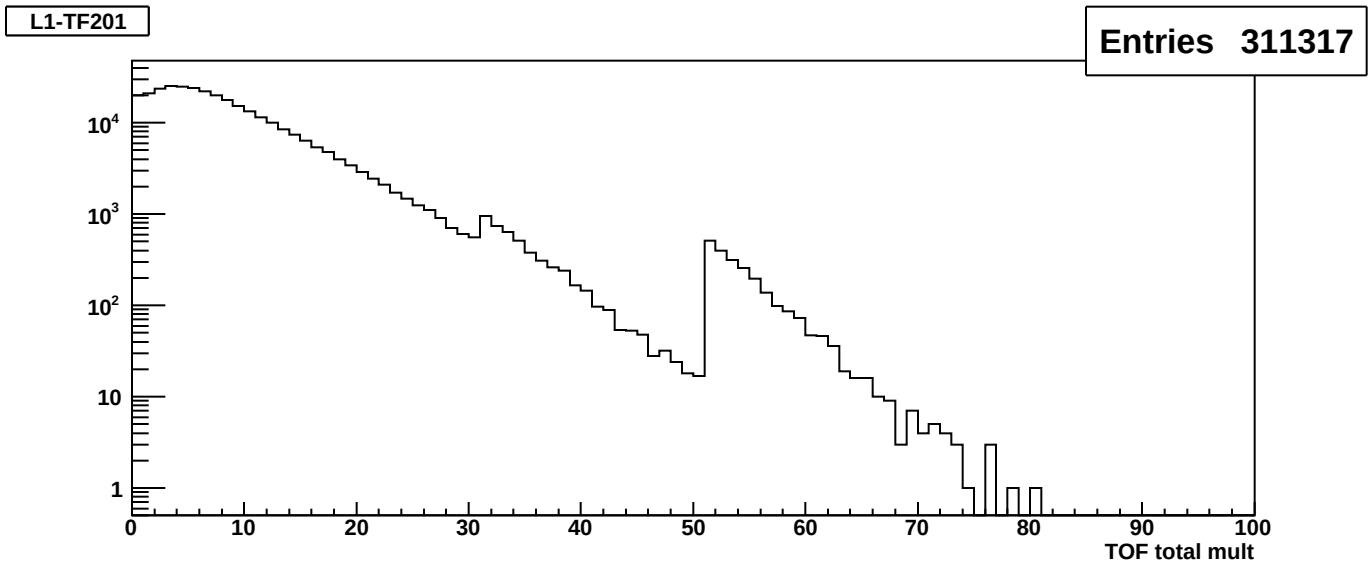

MIX-TF003
Entries 1.307531e+07
TOF MULT
TOF tray

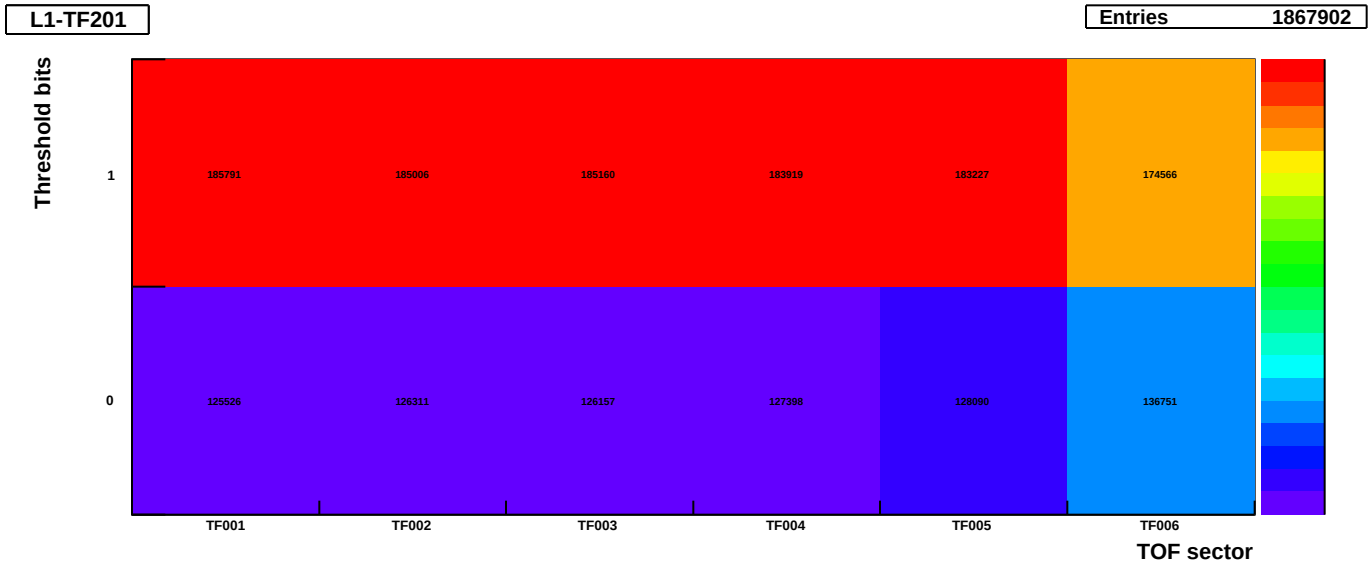

MIX-TF004
Entries 1.307531e+07
TOF MULT
TOF tray

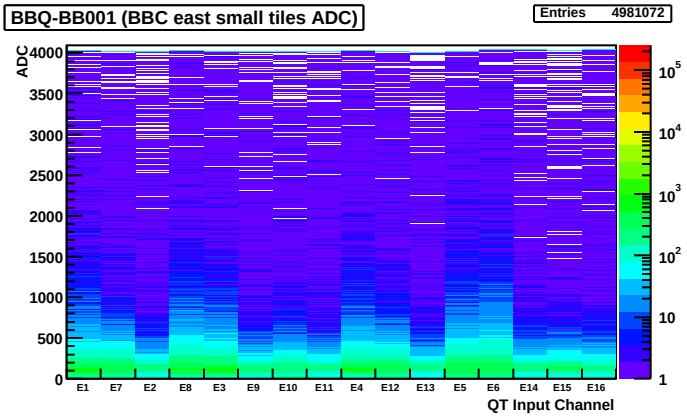

MIX-TF005
Entries 1.307531e+07
TOF MULT
TOF tray

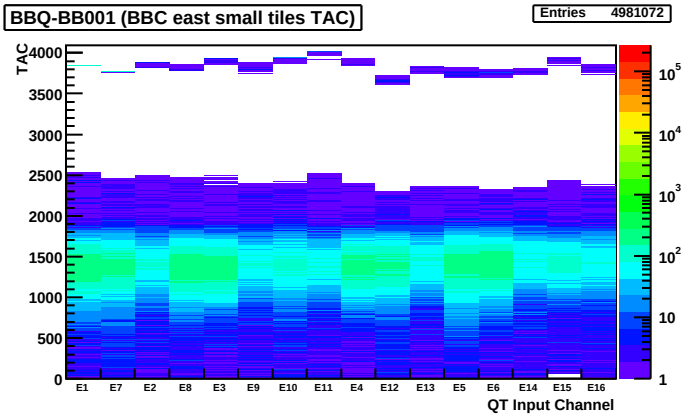

MIX-TF006
Entries 1.307531e+07
TOF MULT
TOF tray

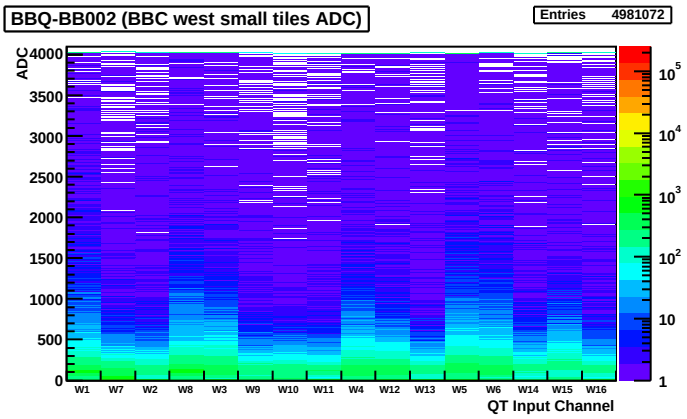

MIX-TF101
Entries 1867902
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

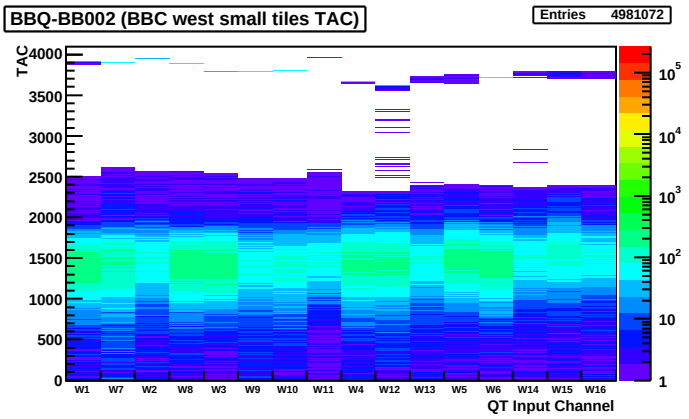

L1-TF201
Entries 311317
TOF total mult

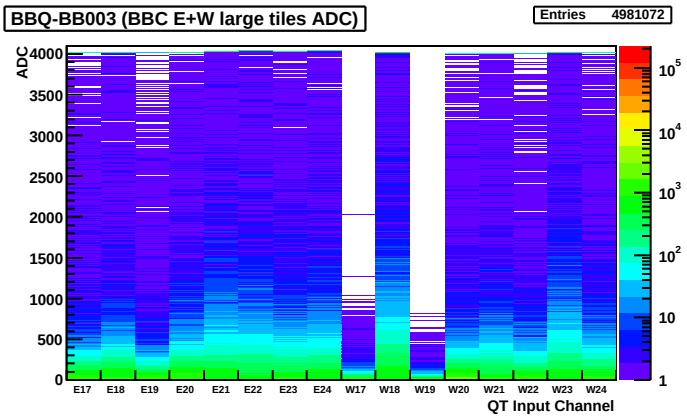

L1-TF201
Entries 1867902
Threshold bits
185791
185006
185160
183919
183227
174566
125526
126311
126157
127398
128090
136751
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

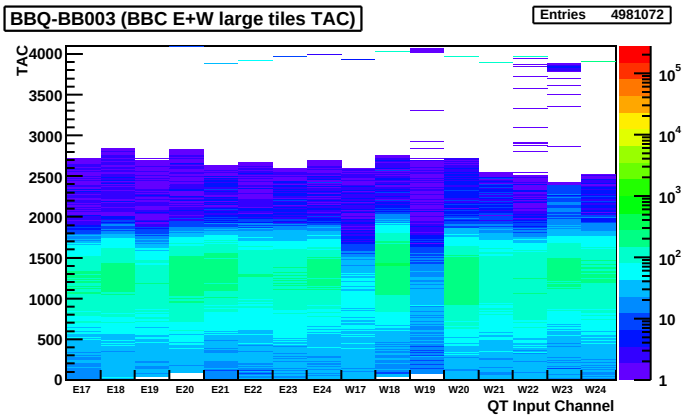

BBQ-BB001 (BBC east small tiles ADC)
Entries 4981072
ADC
QT Input Channel

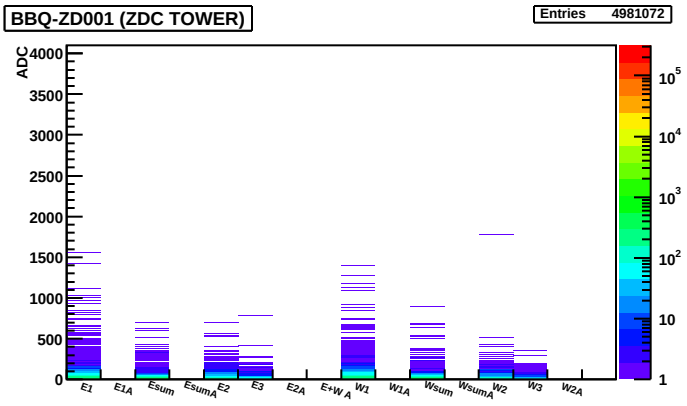

BBQ-BB001 (BBC east small tiles TAC)
Entries 4981072
TAC
QT Input Channel

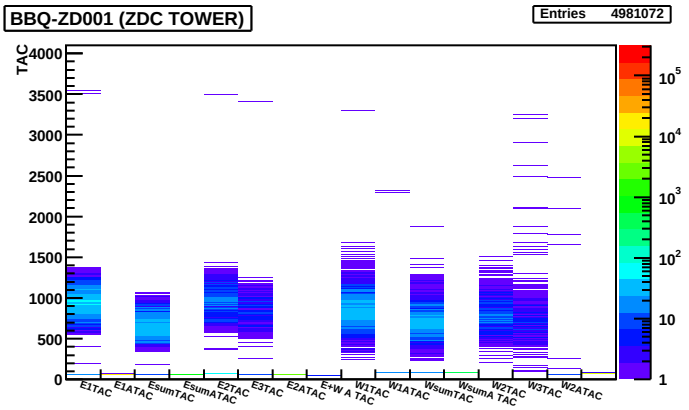

BBQ-BB002 (BBC west small tiles ADC)
Entries 4981072
ADC
QT Input Channel

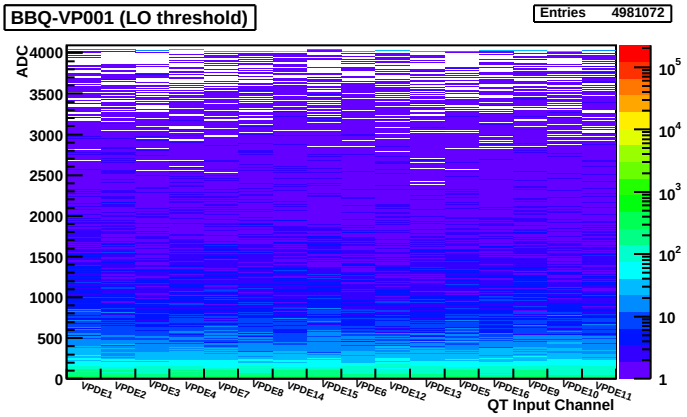

BBQ-BB002 (BBC west small tiles TAC)
Entries 4981072
TAC
QT Input Channel

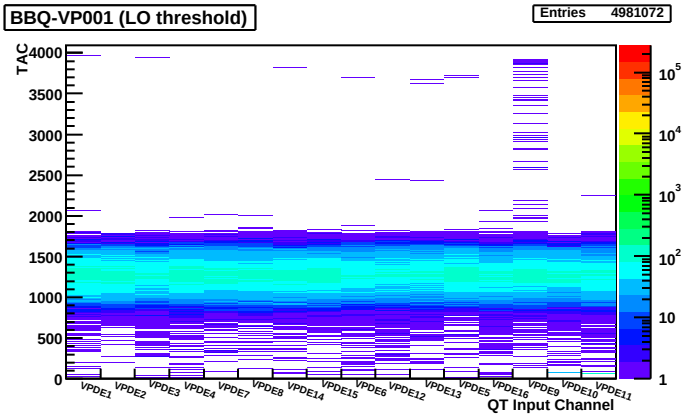

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4981072
ADC
QT Input Channel

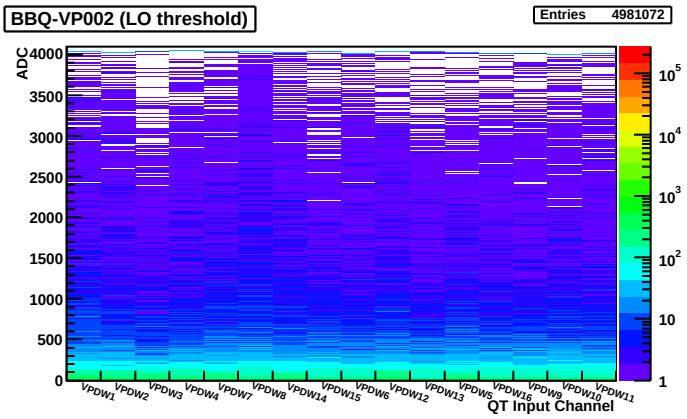

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4981072
TAC
QT Input Channel

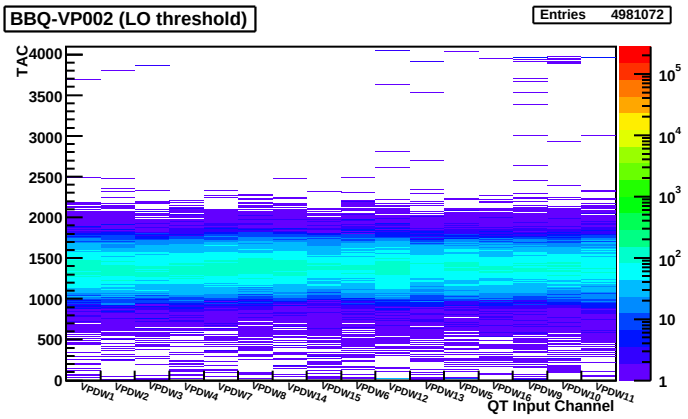

BBQ-ZD001 (ZDC TOWER)
Entries 4981072
ADC

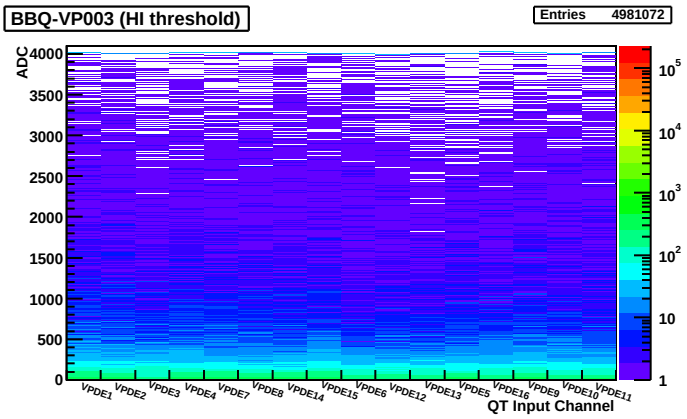

BBQ-ZD001 (ZDC TOWER)
Entries 4981072
TAC

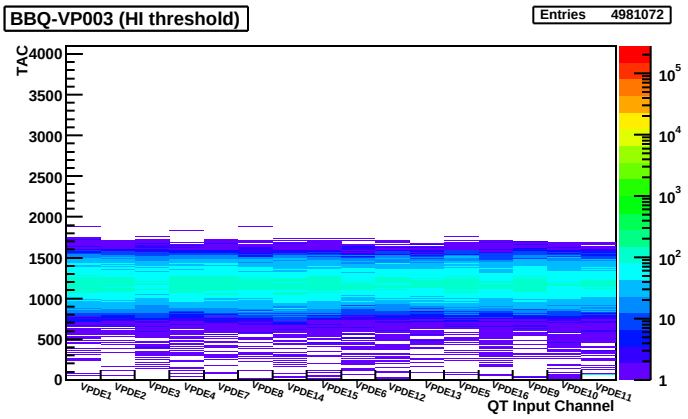

BBQ-VP001 (LO threshold)
Entries 4981072
ADC
QT Input Channel

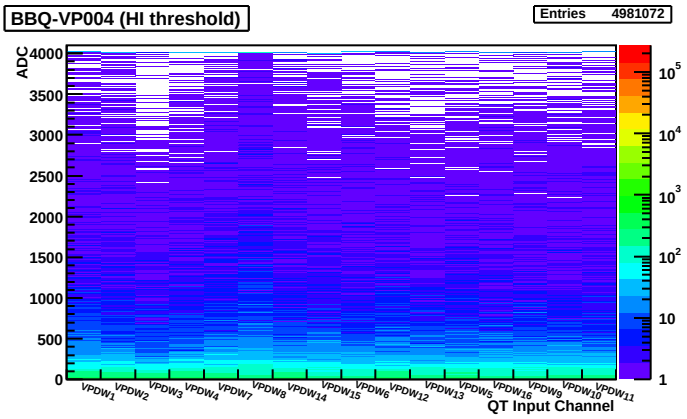

BBQ-VP001 (LO threshold)
Entries 4981072
TAC
QT Input Channel

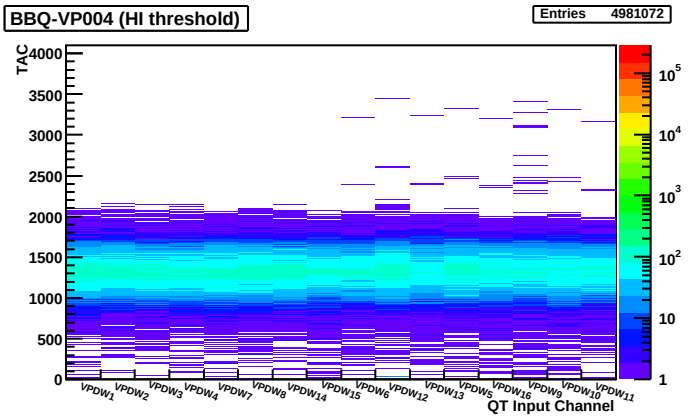

BBQ-VP002 (LO threshold)
Entries 4981072
ADC
QT Input Channel

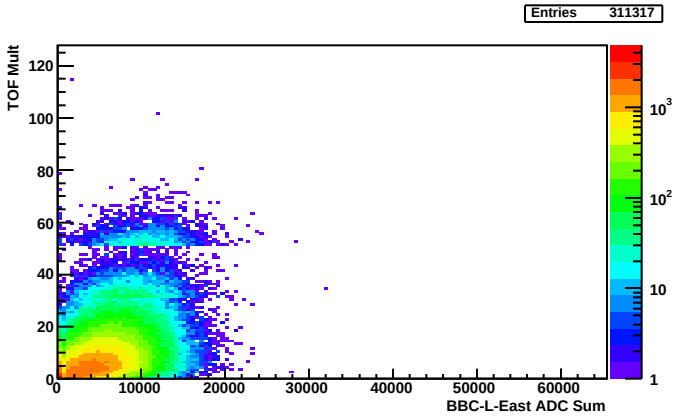

BBQ-VP002 (LO threshold)
Entries 4981072
TAC
QT Input Channel

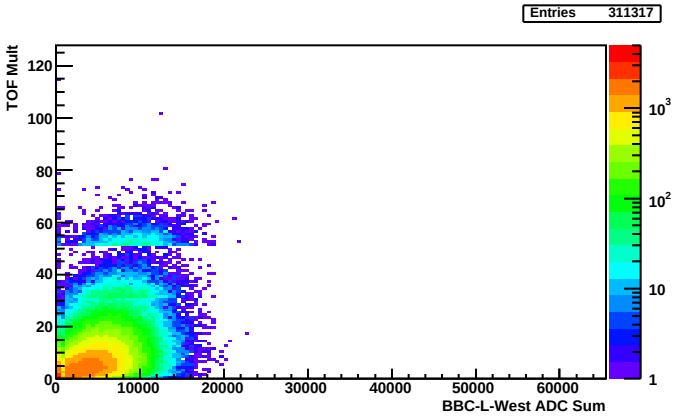

BBQ-VP003 (HI threshold)
Entries 4981072
ADC
QT Input Channel

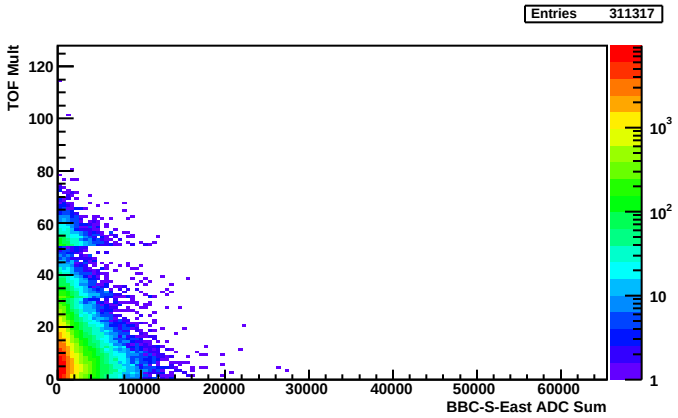

BBQ-VP003 (HI threshold)
Entries 4981072
TAC
QT Input Channel

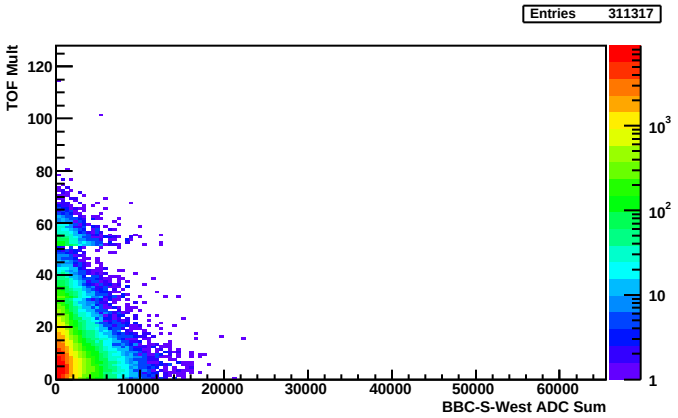

BBQ-VP004 (HI threshold)
Entries 4981072
ADC
QT Input Channel

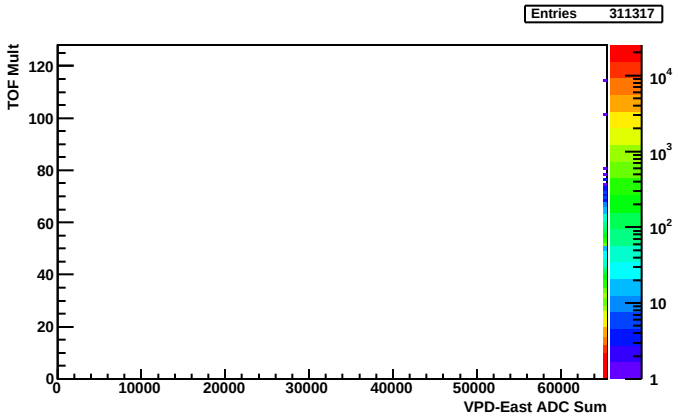

BBQ-VP004 (HI threshold)
Entries 4981072
TAC
QT Input Channel

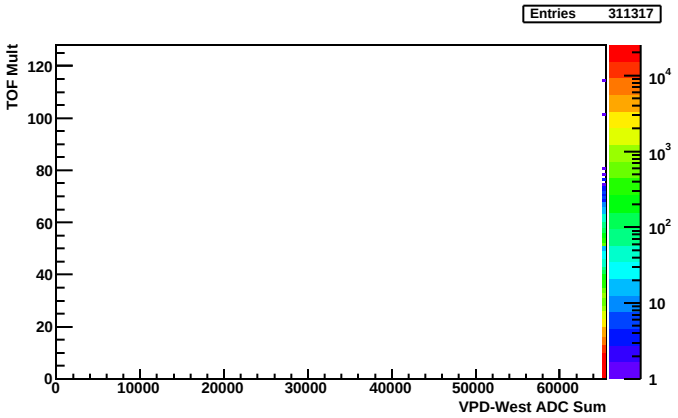

Entries 311317
TOF Mult
BBC-L-East ADC Sum

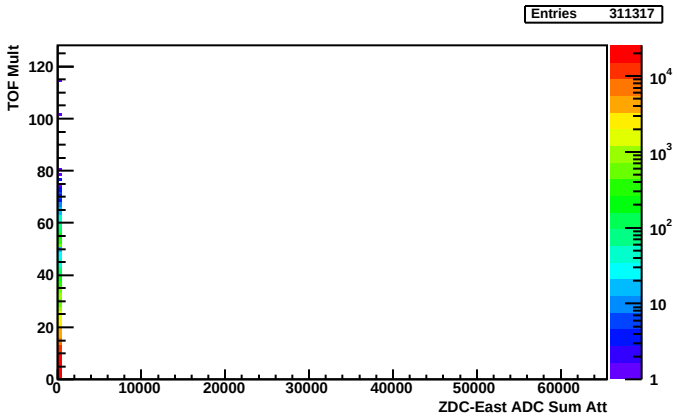

Entries 311317
TOF Mult
BBC-L-West ADC Sum

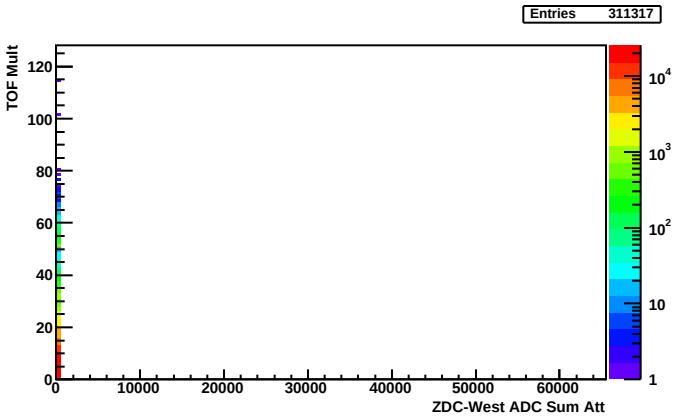

Entries 311317
TOF Mult
BBC-S-East ADC Sum

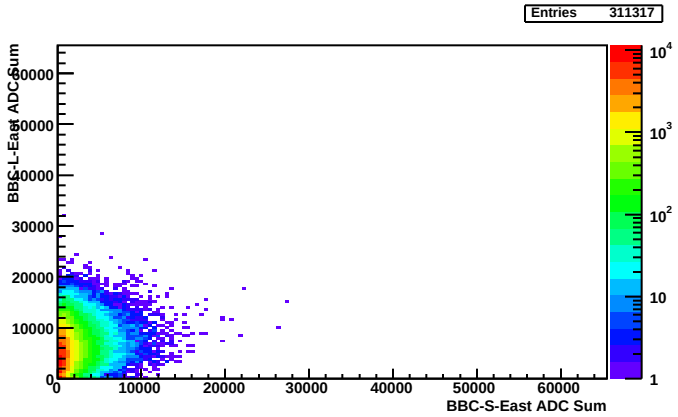

Entries 311317
TOF Mult
BBC-S-West ADC Sum

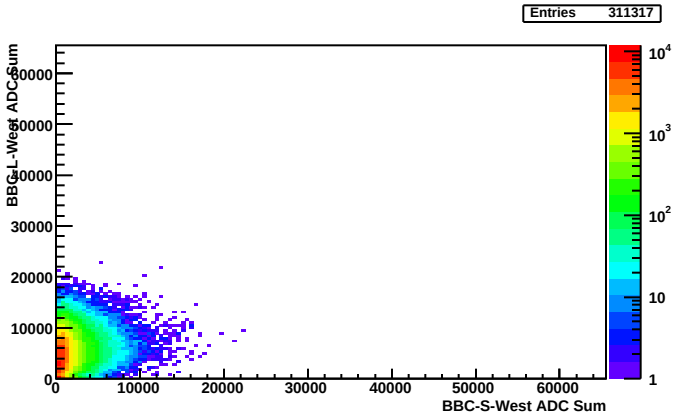

Entries 311317
TOF Mult
VPD-East ADC Sum

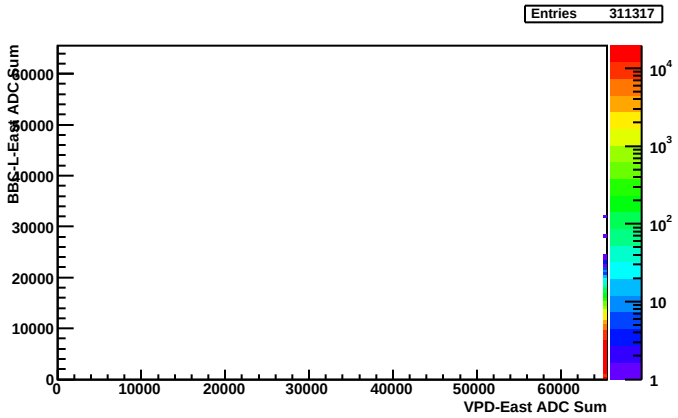

Entries 311317
TOF Mult
VPD-West ADC Sum

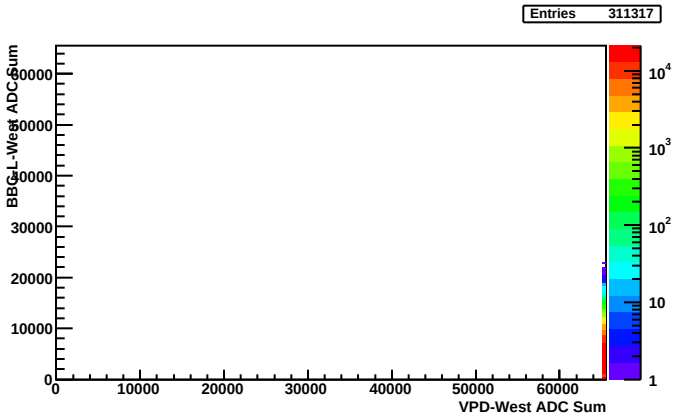

Entries 311317
TOF Mult
ZDC-East ADC Sum Att

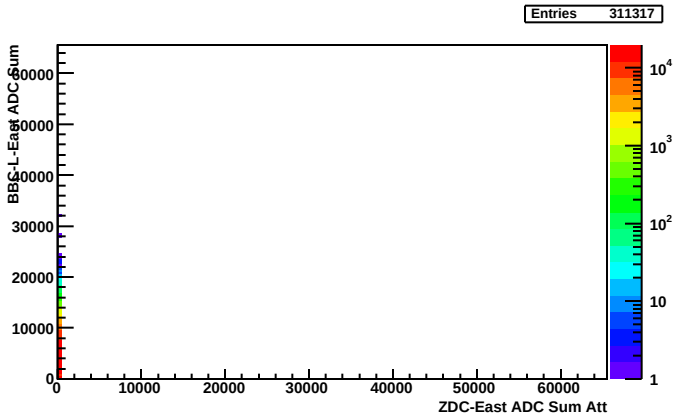

Entries 311317
TOF Mult
ZDC-West ADC Sum Att

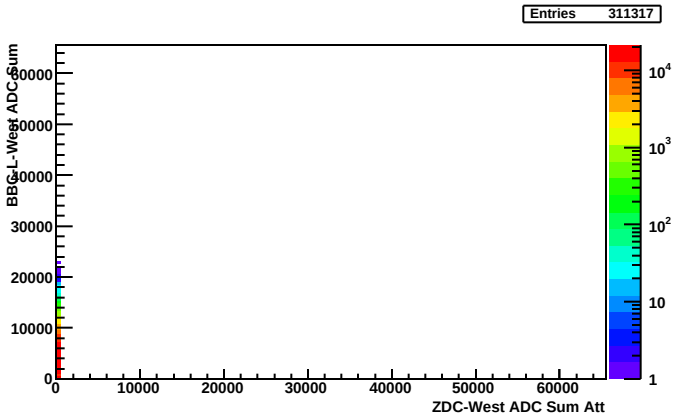

Entries 311317
BBC-L-East ADC Sum
BBC-S-East ADC Sum

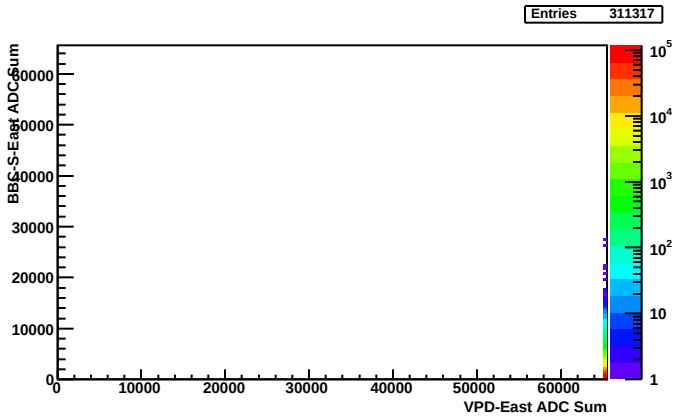

Entries 311317
BBC-L-West ADC Sum
BBC-S-West ADC Sum

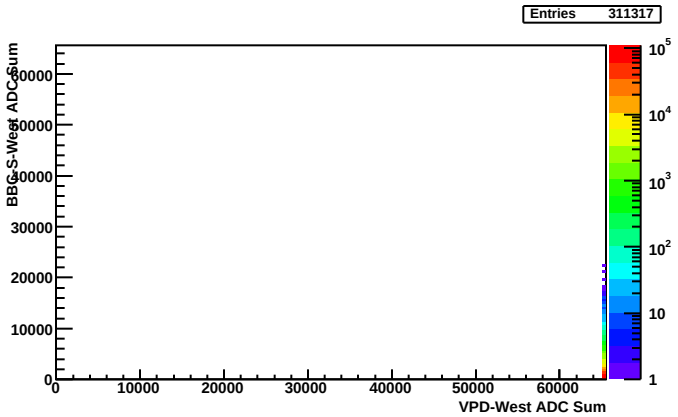

Entries 311317
BBC-L-East ADC Sum
VPD-East ADC Sum

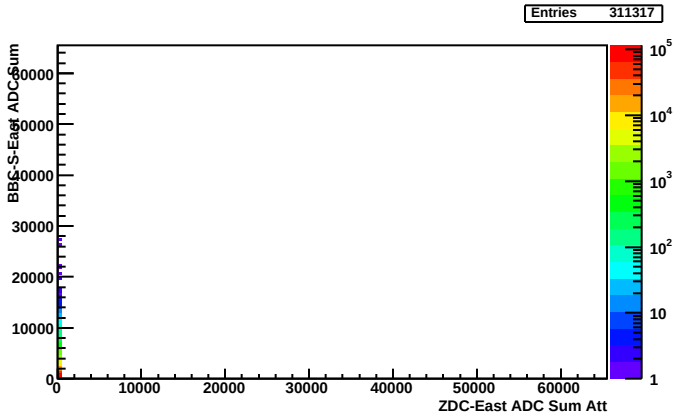

Entries 311317
BBC-L-West ADC Sum
VPD-West ADC Sum

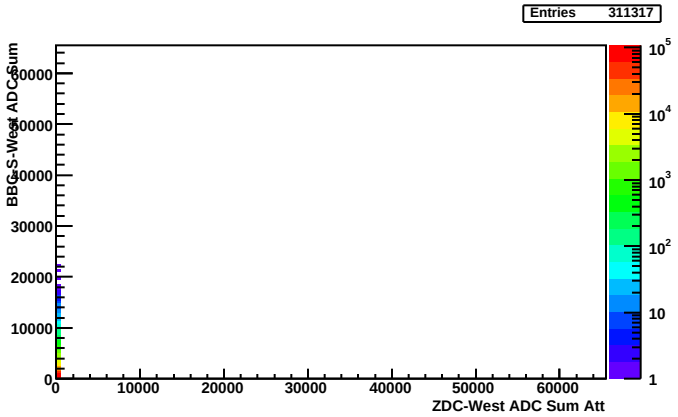

Entries 311317
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

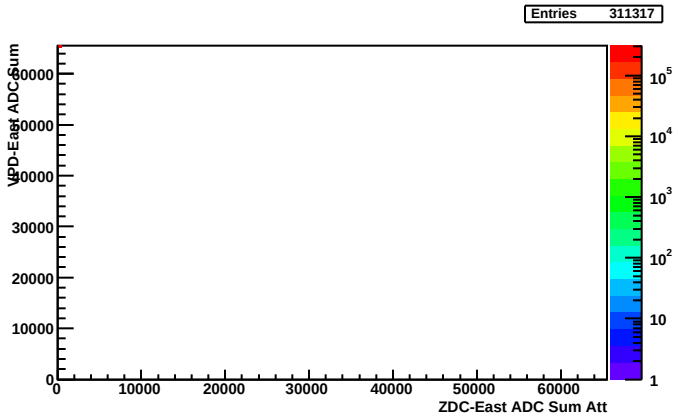

Entries 311317
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

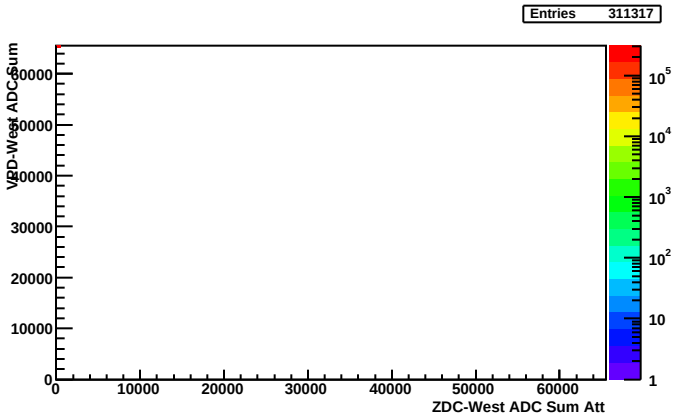

Entries 311317
BBC-S-East ADC Sum
VPD-East ADC Sum

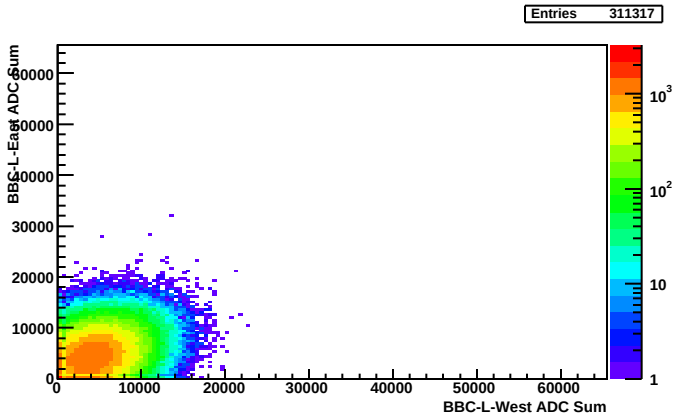

Entries 311317
BBC-S-West ADC Sum
VPD-West ADC Sum

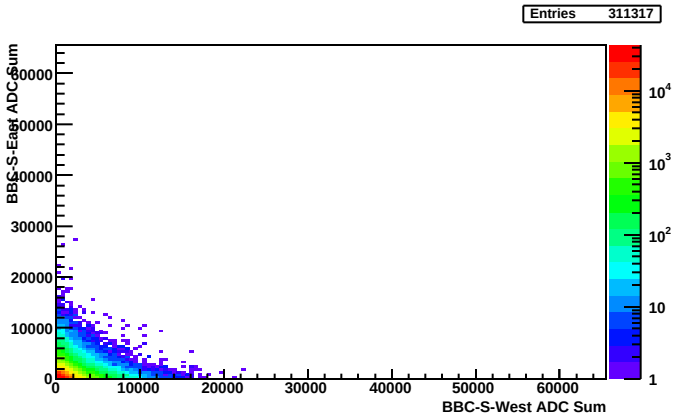

Entries 311317
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

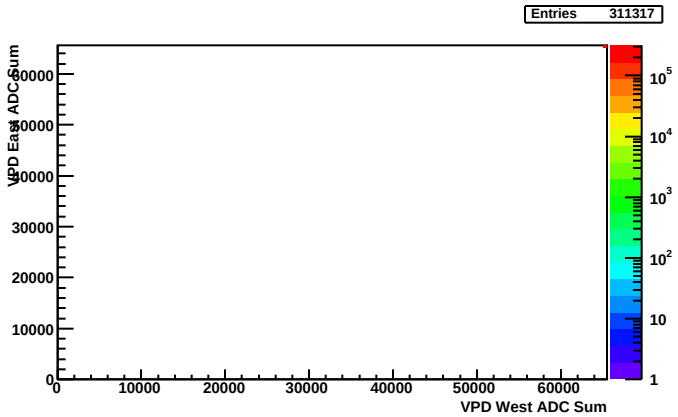

Entries 311317
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

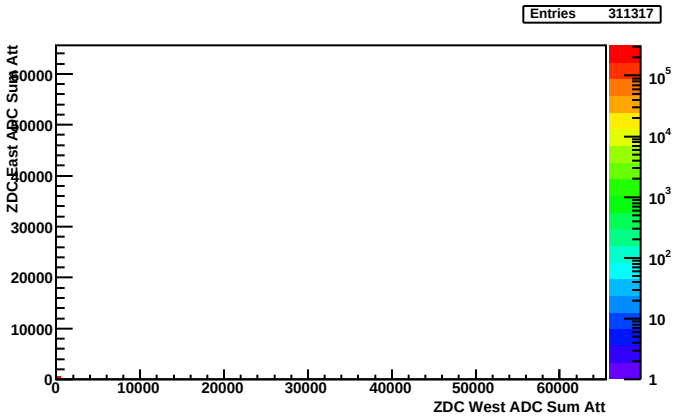

Entries 311317
VPD-East ADC Sum
ZDC-East ADC Sum Att

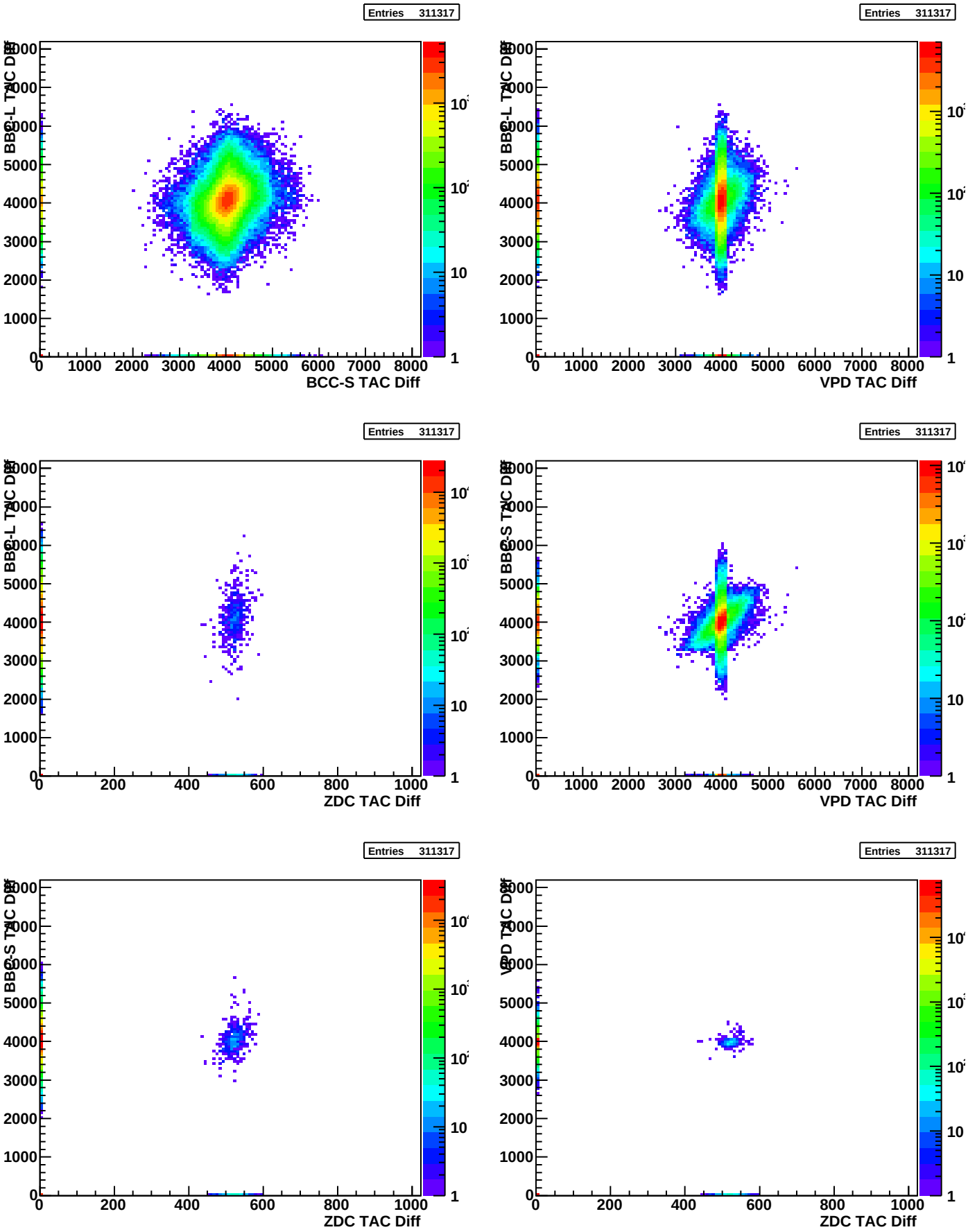

Entries 311317
VPD-West ADC Sum
ZDC-West ADC Sum Att

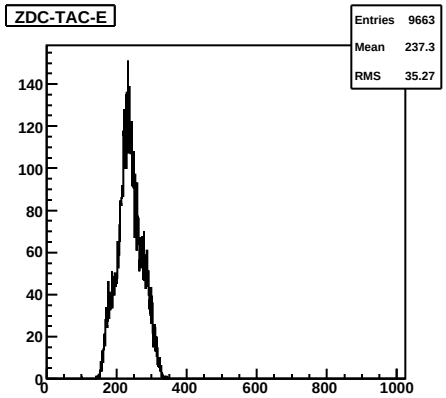

Entries 311317
BBC-L-East ADC Sum
BBC-L-West ADC Sum

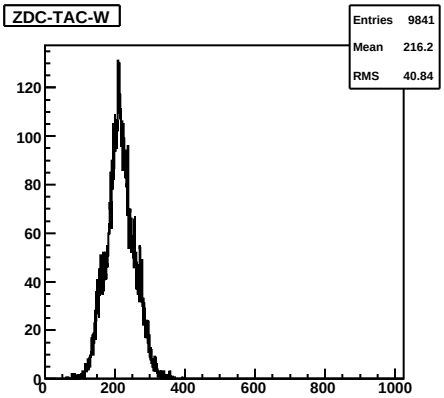

Entries 311317
BBC-S-East ADC Sum
BBC-S-West ADC Sum

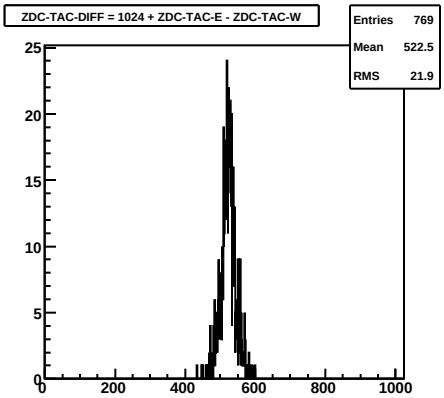

Entries 311317
VPD East ADC Sum
VPD West ADC Sum

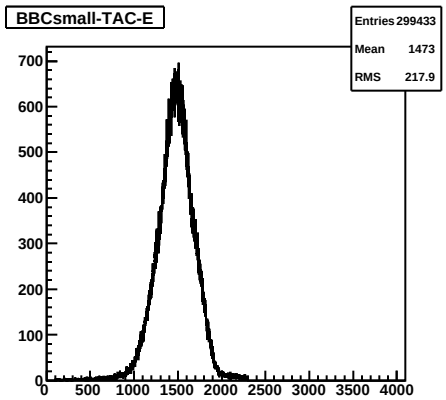

Entries 311317
ZDC East ADC Sum Att
ZDC West ADC Sum Att

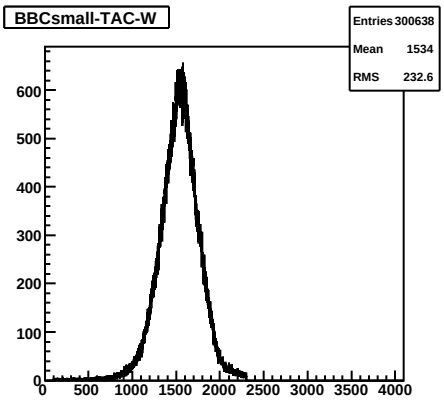

Entries 311317
BBC-L TAC Diff
BCC-S TAC Diff
Entries 311317
BBC-L TAC Diff
VPD TAC Diff
Entries 311317
BBC-L TAC Diff
ZDC TAC Diff
Entries 311317
BBC-S TAC Diff
VPD TAC Diff
Entries 311317
BBC-S TAC Diff
ZDC TAC Diff
Entries 311317
VPD TAC Diff
ZDC TAC Diff

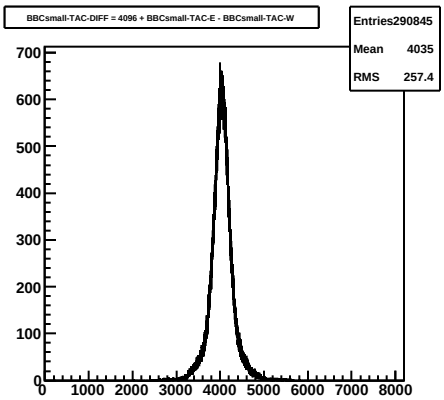

ZDC-TAC-E
Entries 9663
Mean 237.3
RMS 35.27

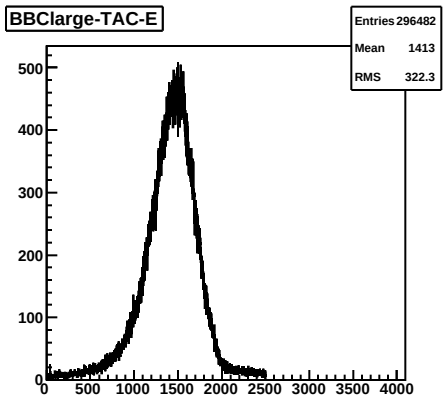

ZDC-TAC-W
Entries 9841
Mean 216.2
RMS 40.84

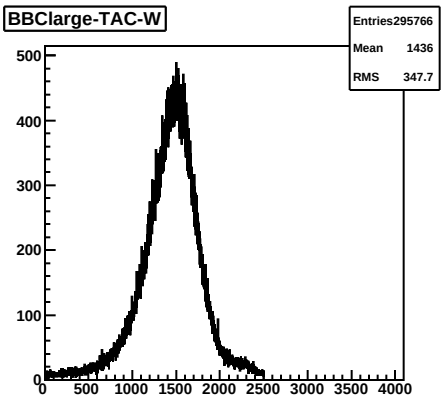

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 769
Mean 522.5
RMS 21.9

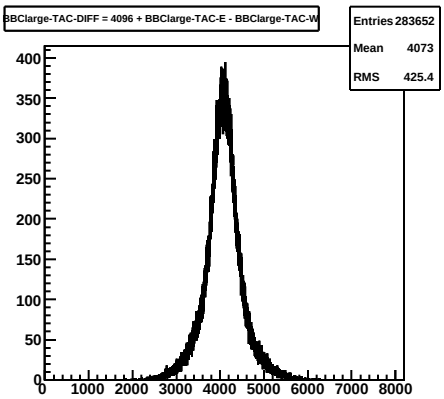

BBCsmall-TAC-E
Entries 299433
Mean 1473
RMS 217.9

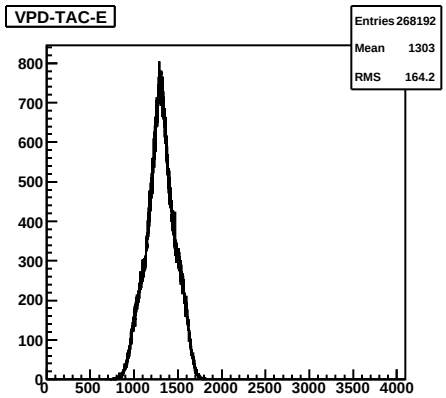

BBCsmall-TAC-W
Entries 300638
Mean 1534
RMS 232.6

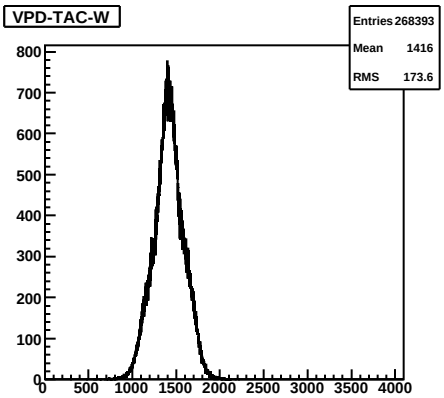

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 290845
Mean 4035
RMS 257.4

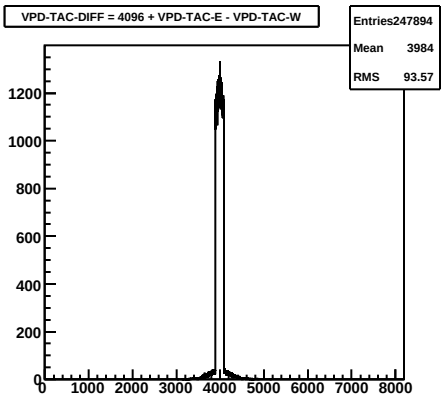

BBClarge-TAC-E
Entries 296482
Mean 1413
RMS 322.3

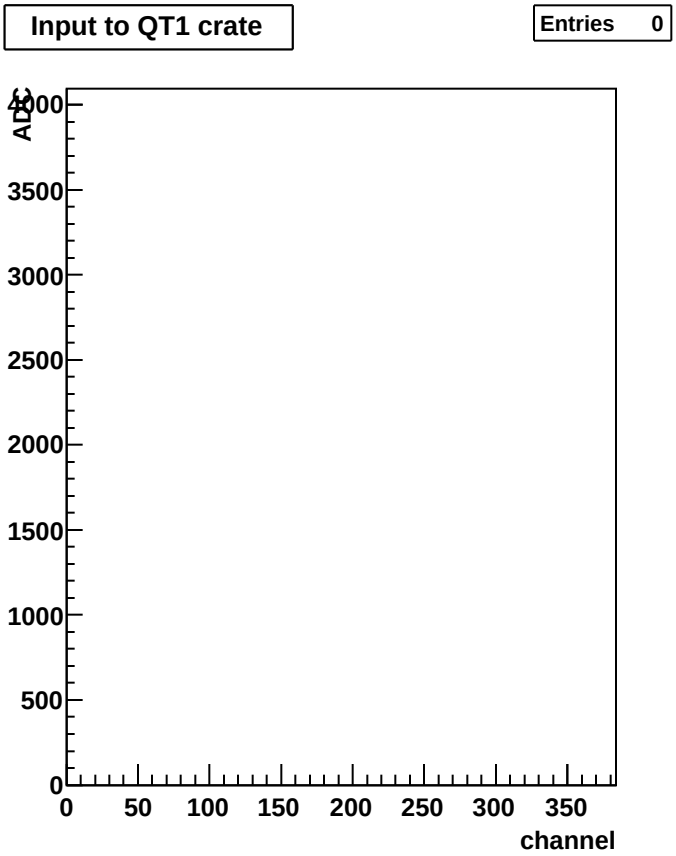

BBClarge-TAC-W
Entries 295766
Mean 1436
RMS 347.7

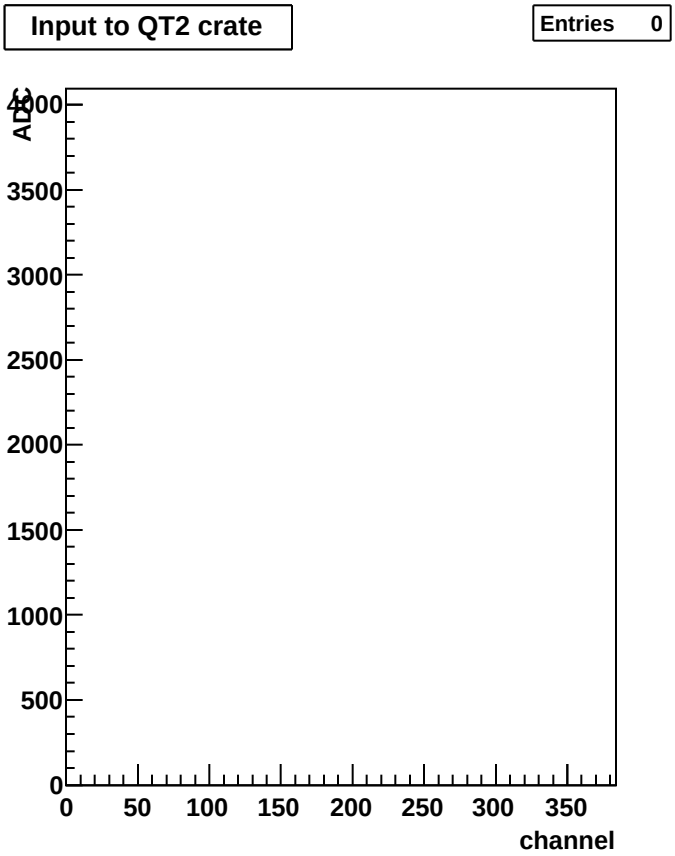

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 283652
Mean 4073
RMS 425.4

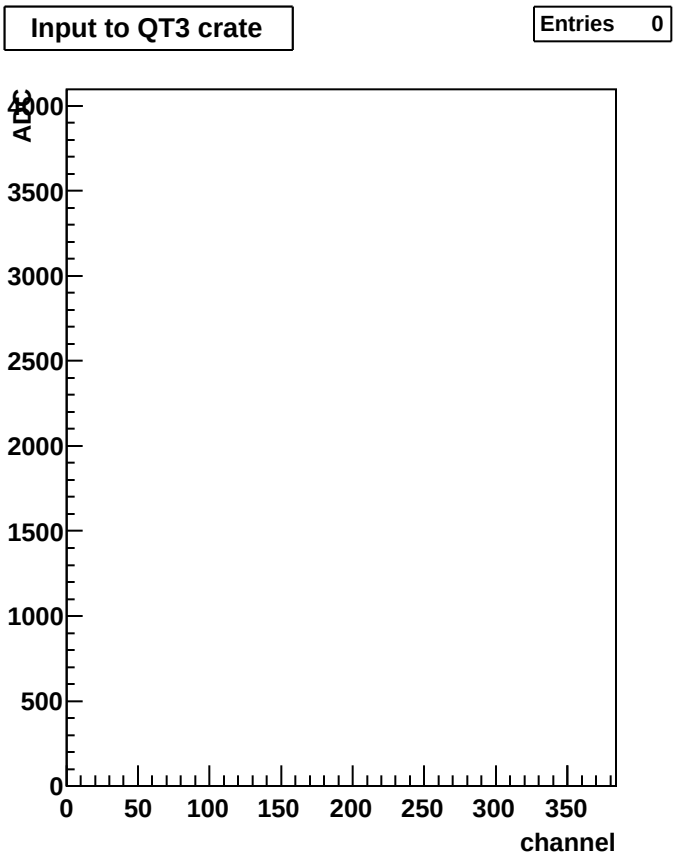

VPD-TAC-E
Entries 268192
Mean 1303
RMS 164.2

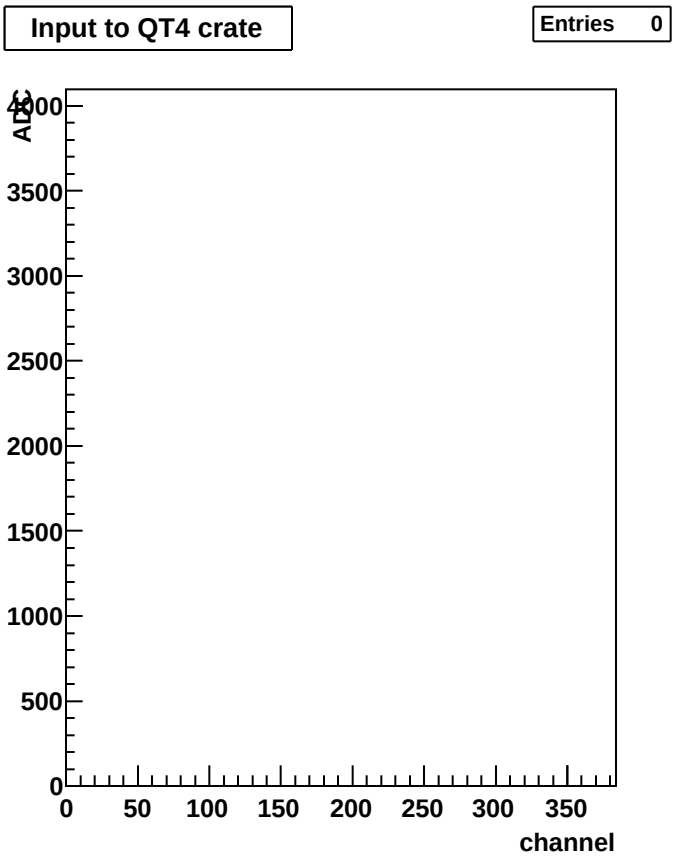

VPD-TAC-W
Entries 268393
Mean 1416
RMS 173.6

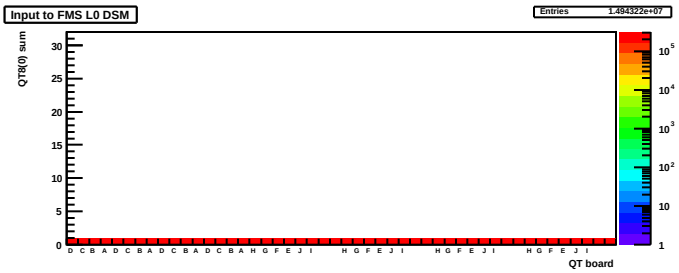

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 247894
Mean 3984
RMS 93.57

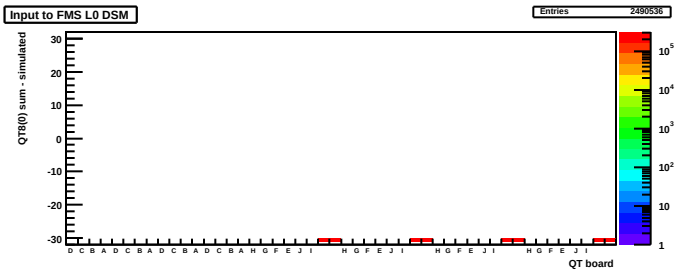

Input to QT1 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

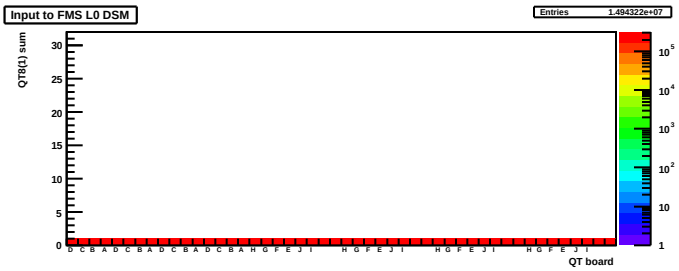

Input to QT2 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

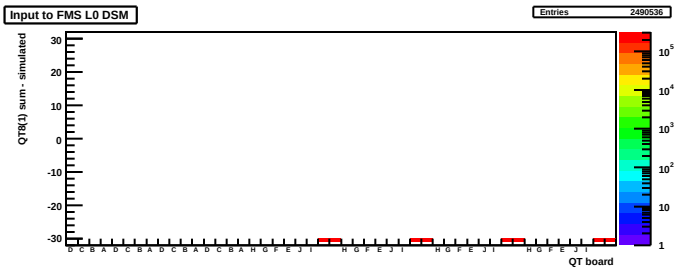

Input to QT3 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

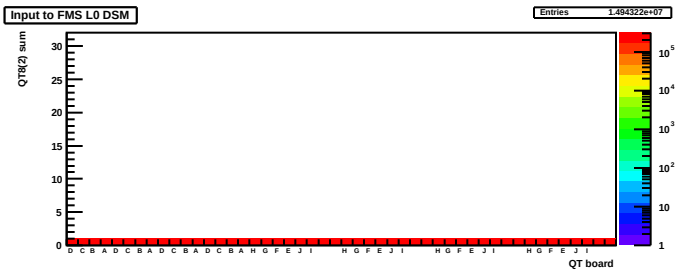

Input to QT4 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

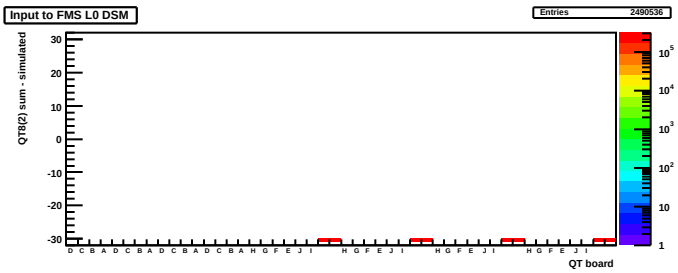

Input to FMS L0 DSM
Entries 1.494322e+07
QT8(0) sum
QT board

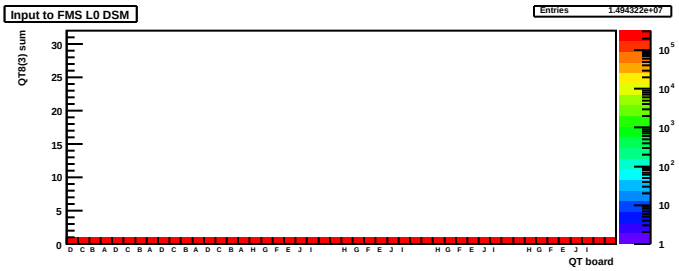

Input to FMS L0 DSM
Entries 2490536
QT8(0) sum - simulated
QT board

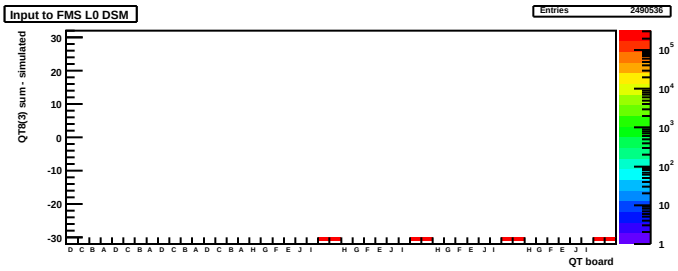

Input to FMS L0 DSM
Entries 1.494322e+07
QT8(1) sum
QT board

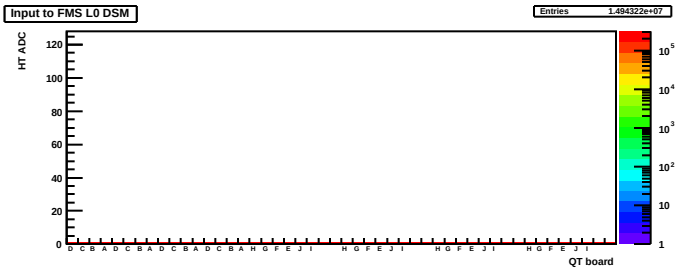

Input to FMS L0 DSM
Entries 2490536
QT8(1) sum - simulated
QT board

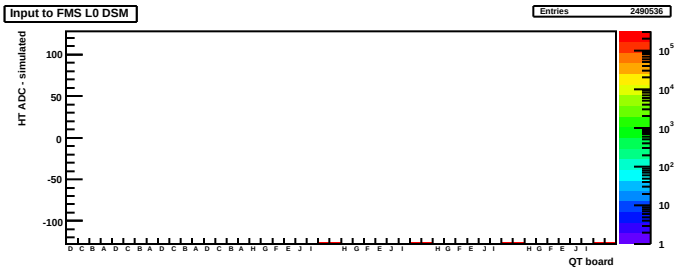

Input to FMS L0 DSM
Entries 1.494322e+07
QT8(2) sum
QT board

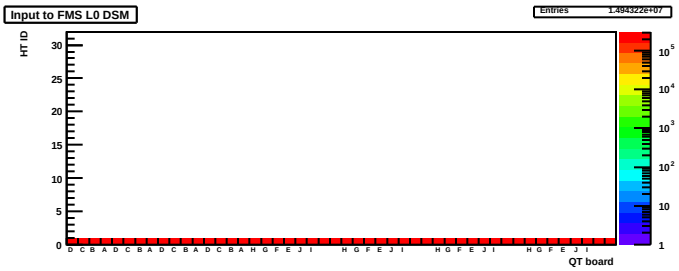

Input to FMS L0 DSM
Entries 2490536
QT8(2) sum - simulated
QT board

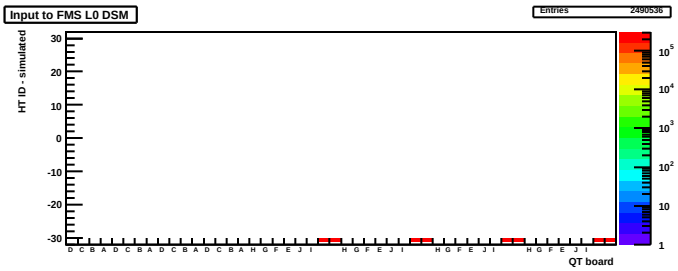

Input to FMS L0 DSM
Entries 1.494322e+07
QT8(3) sum
QT board

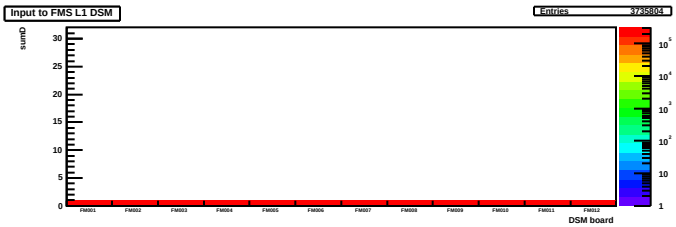

Input to FMS L0 DSM
Entries 2490536
QT8(3) sum - simulated
QT board

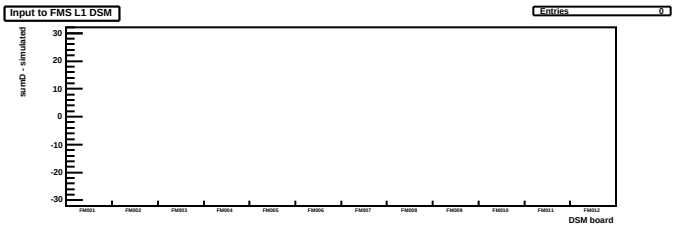

Input to FMS L0 DSM
Entries 1.494322e+07
HT ADC
QT board

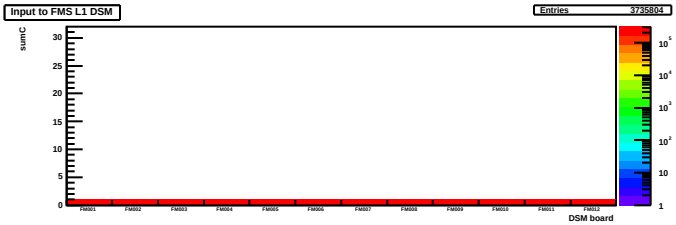

Input to FMS L0 DSM
Entries 2490536
HT ADC - simulated
QT board

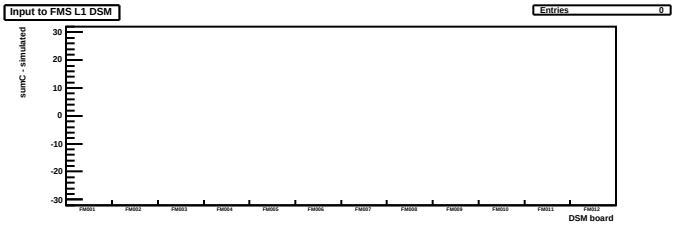

Input to FMS L0 DSM
Entries 1.494322e+07
HT ID
QT board

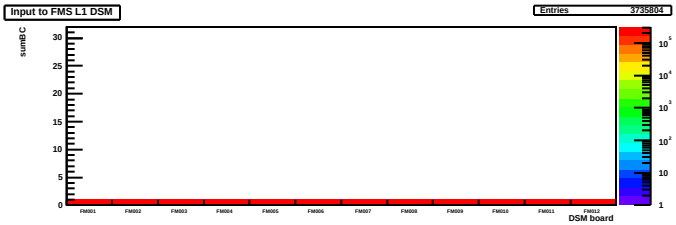

Input to FMS L0 DSM
Entries 2490536
HT ID - simulated
QT board

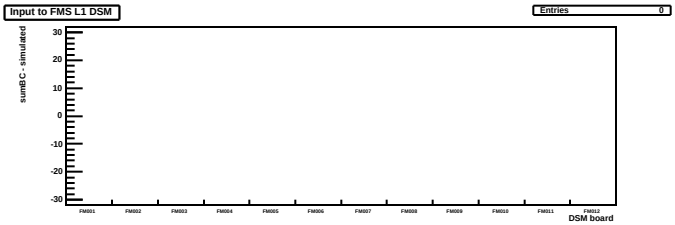

Input to FMS L1 DSM
Entries 3735804
sumD
DSM board

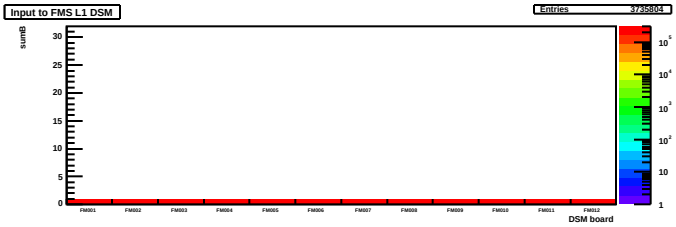

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

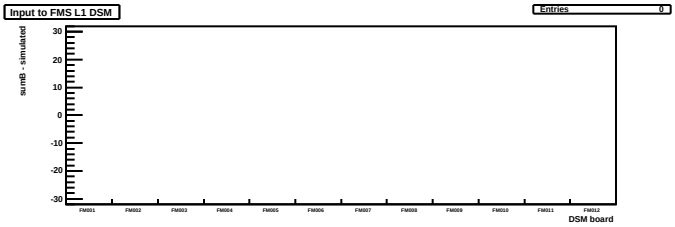

Input to FMS L1 DSM
Entries 3735804
sumC
DSM board

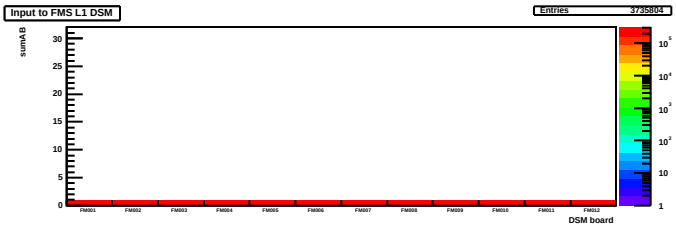

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

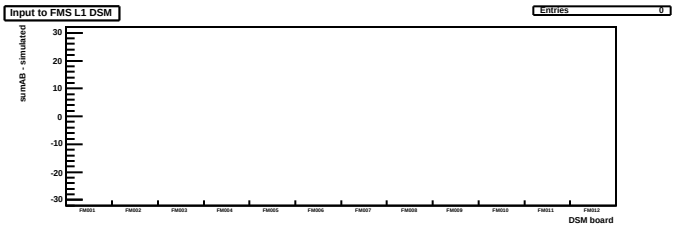

Input to FMS L1 DSM
Entries 3735804
sumBC
DSM board

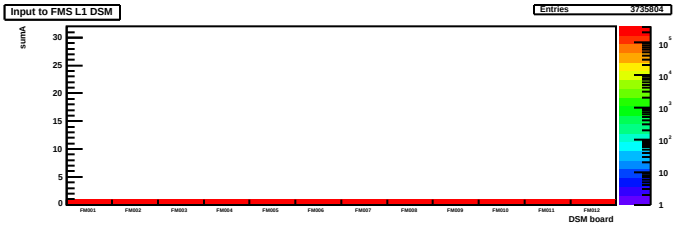

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

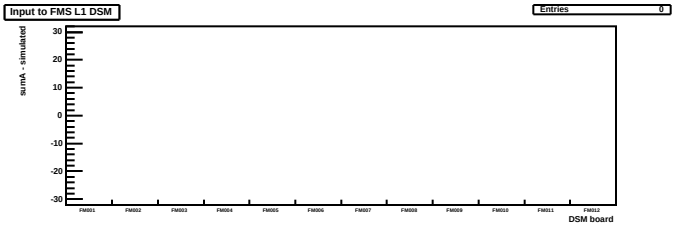

Input to FMS L1 DSM
Entries 3735804
sumB
DSM board

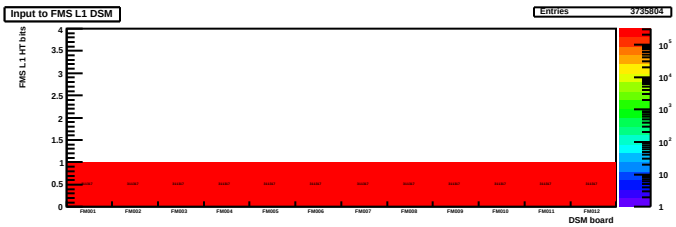

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

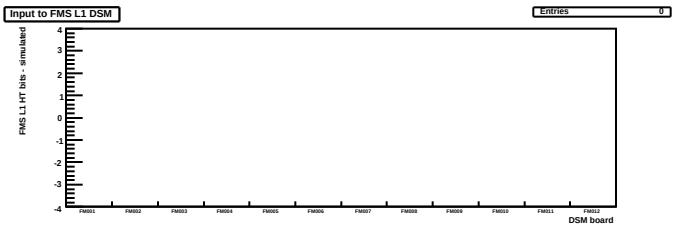

Input to FMS L1 DSM
Entries 3735804
sumAB
DSM board

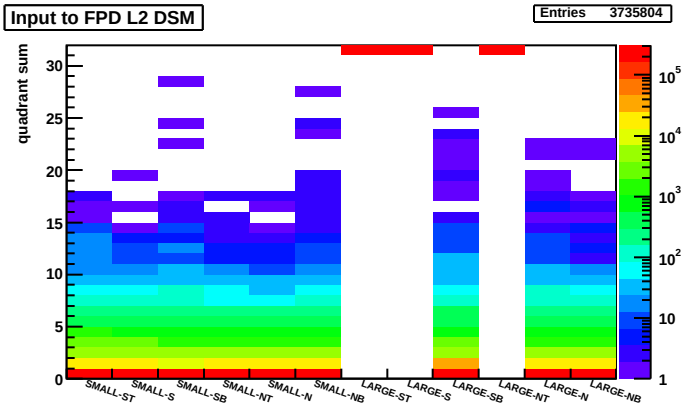

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

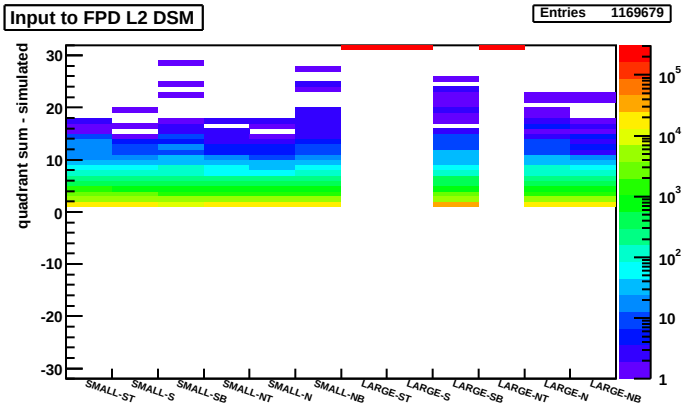

Input to FMS L1 DSM
Entries 3735804
sumA
DSM board

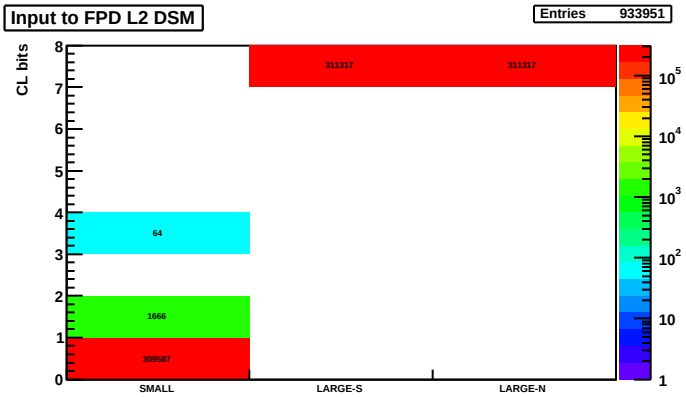

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

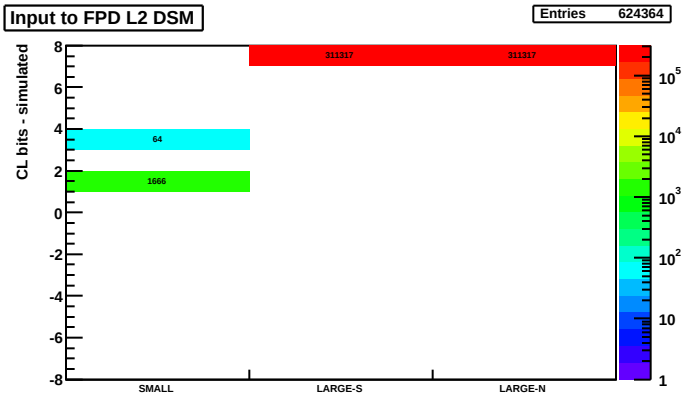

Input to FMS L1 DSM
Entries 3735804
FMS L1 HT bits
DSM board

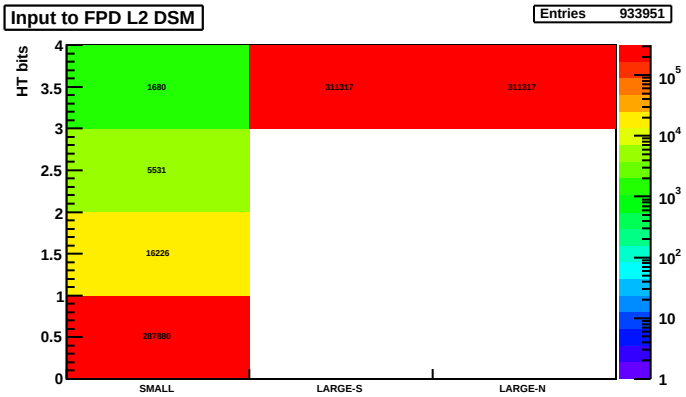

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

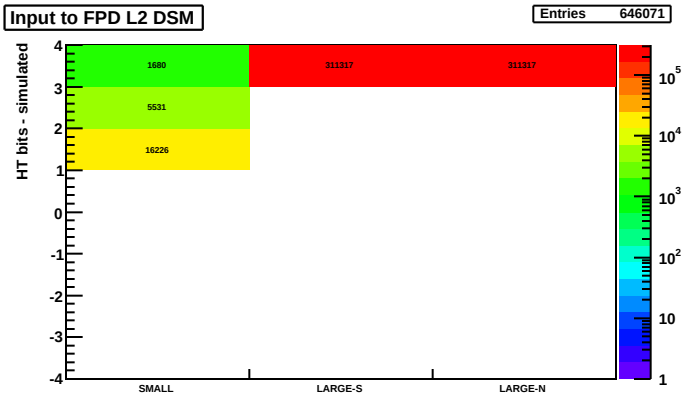

Input to FPD L2 DSM
Entries 3735804
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

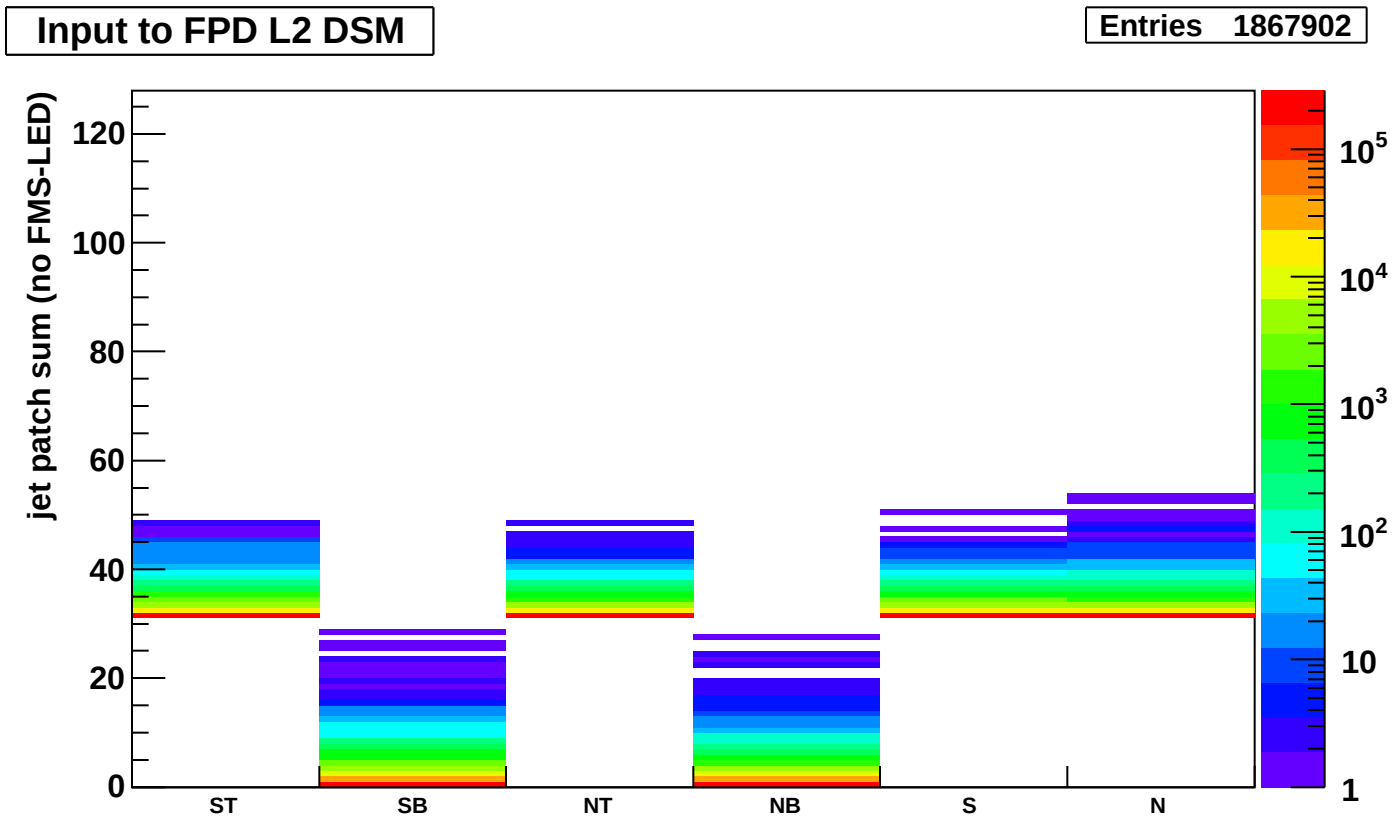

Input to FPD L2 DSM
Entries 1169679
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

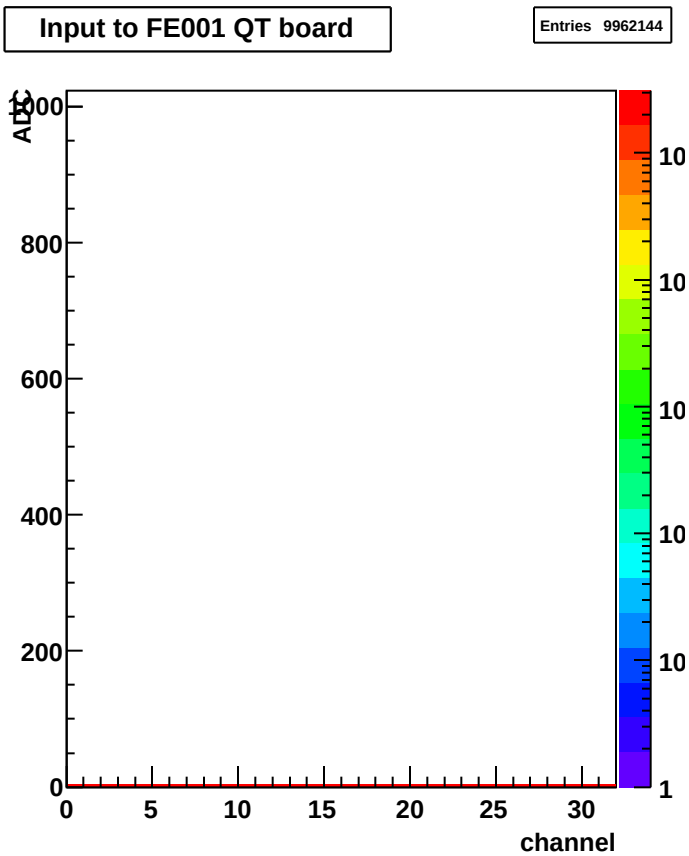

Input to FPD L2 DSM
Entries 933951
CL bits
311317
311317
64
1666
309587
SMALL
LARGE-S
LARGE-N

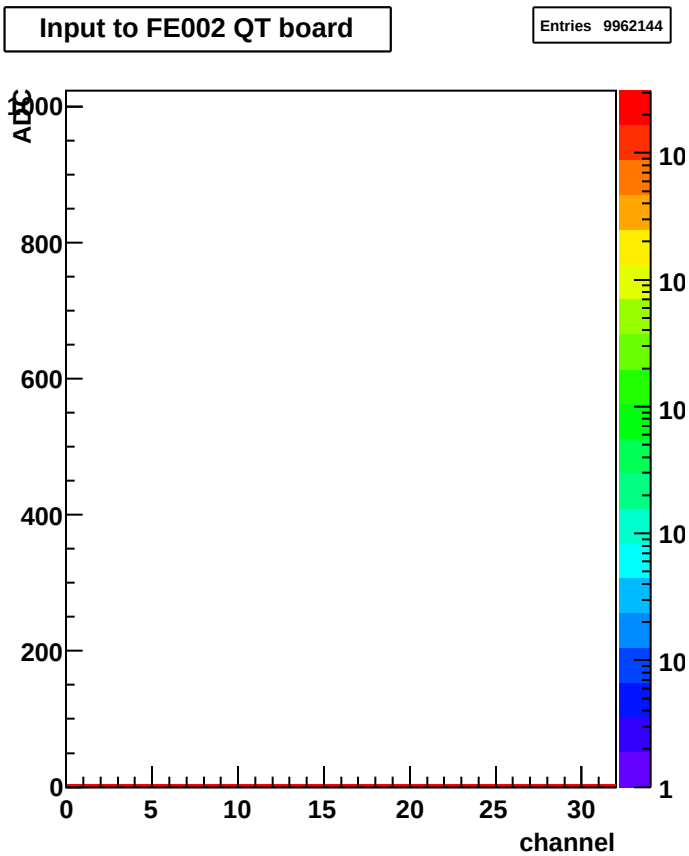

Input to FPD L2 DSM
Entries 624364
CL bits - simulated
311317
311317
64
1666
SMALL
LARGE-S
LARGE-N

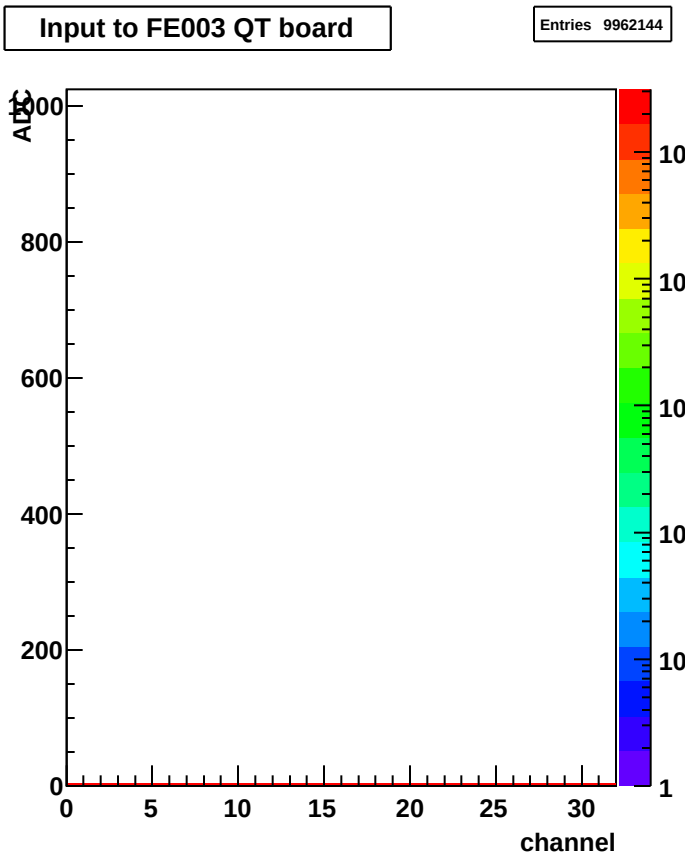

Input to FPD L2 DSM
Entries 933951
HT bits
1680
311317
311317
5531
16226
287880
SMALL
LARGE-S
LARGE-N

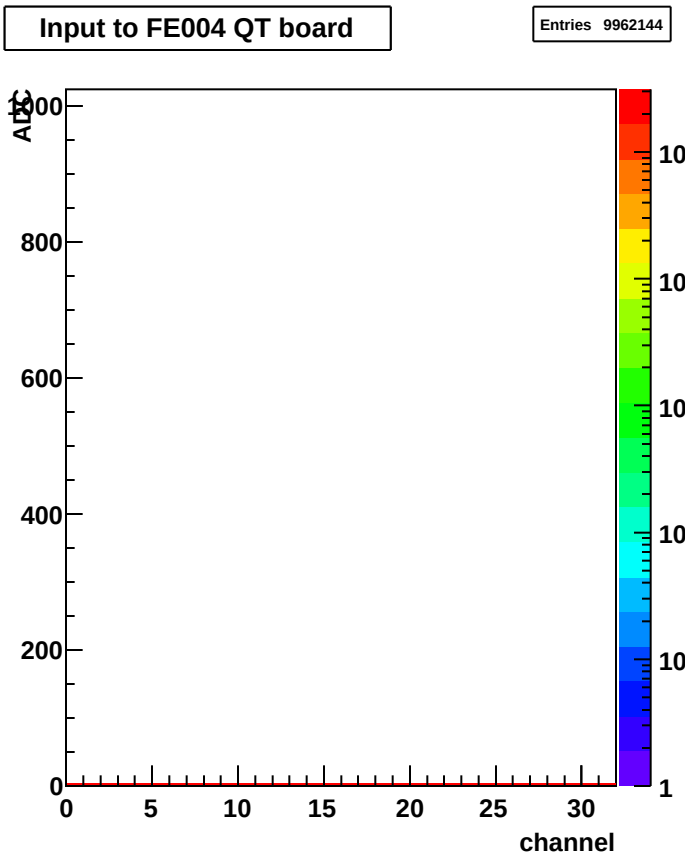

Input to FPD L2 DSM
Entries 646071
HT bits - simulated
1680
311317
311317
5531
16226
SMALL
LARGE-S
LARGE-N

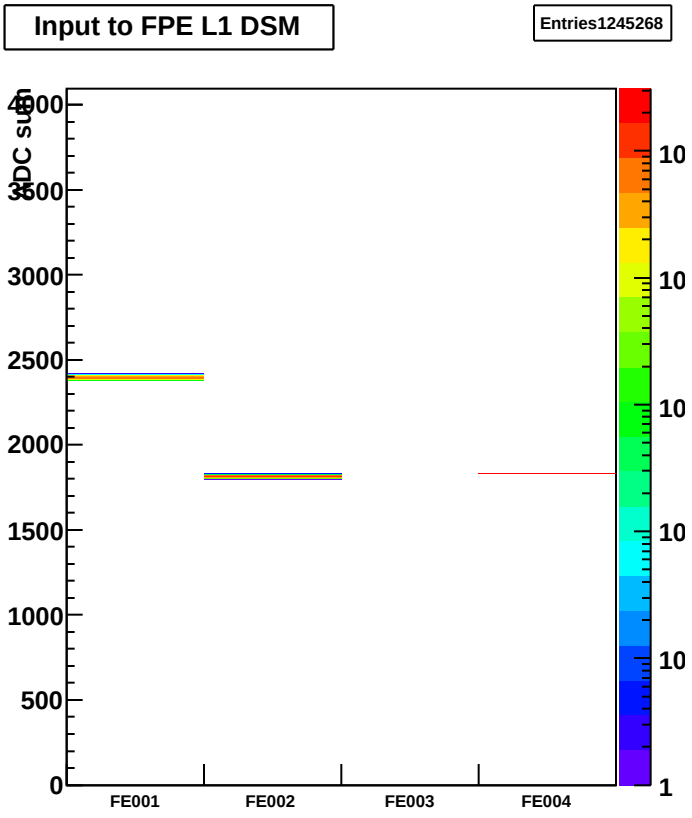

Input to FPD L2 DSM
Entries 1867902
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5


Input to FE001 QT board
Entries 9962144
ADC
channel

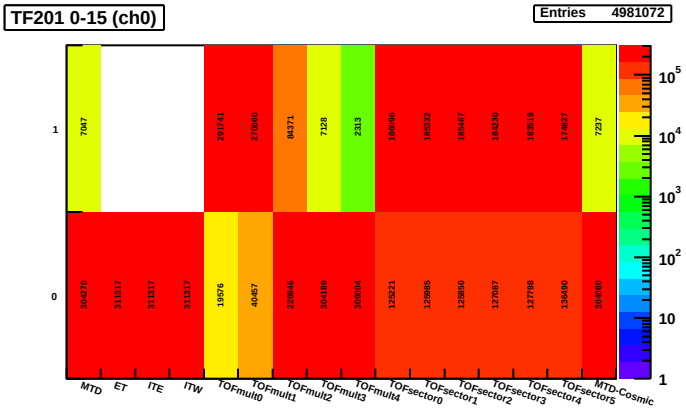

Input to FE002 QT board
Entries 9962144
ADC
channel


Input to FE003 QT board
Entries 9962144
ADC
channel

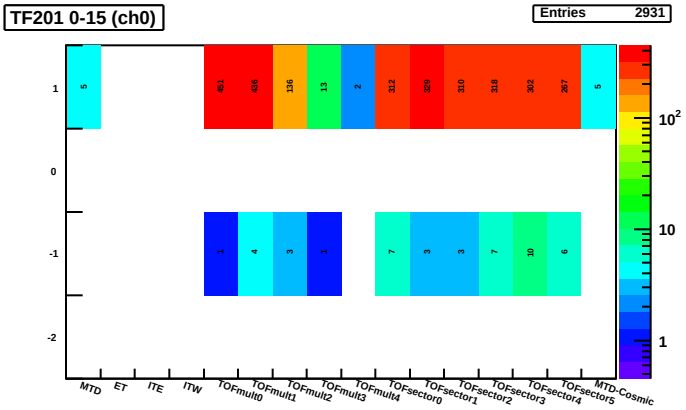

Input to FE004 QT board
Entries 9962144
ADC
channel


Input to FPE L1 DSM
Entries1245268
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

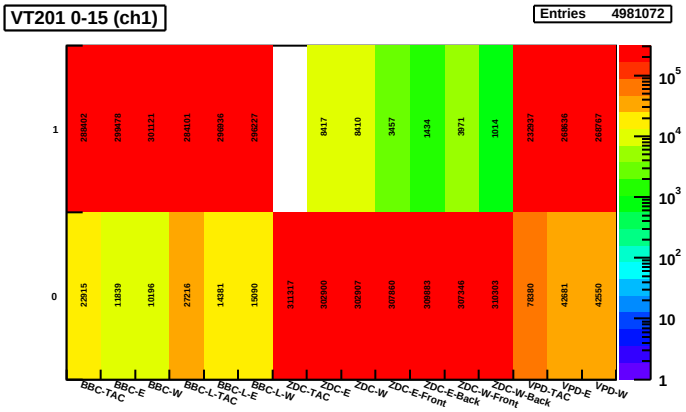
TF201 0-15 (ch0)



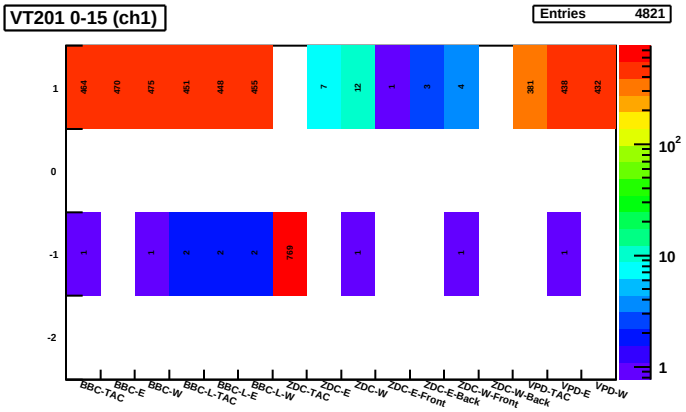
TF201 0-15 (ch0)



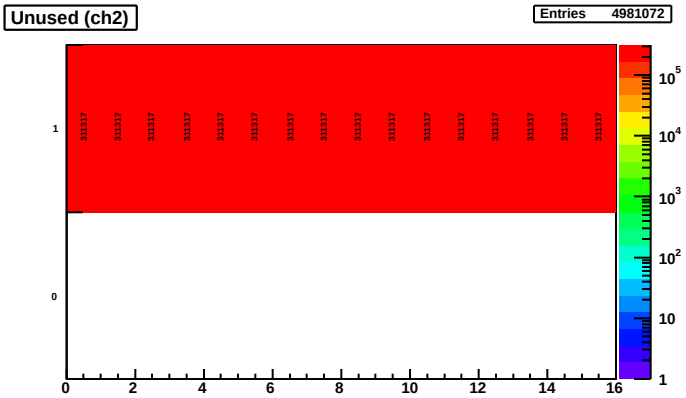
VT201 0-15 (ch1)

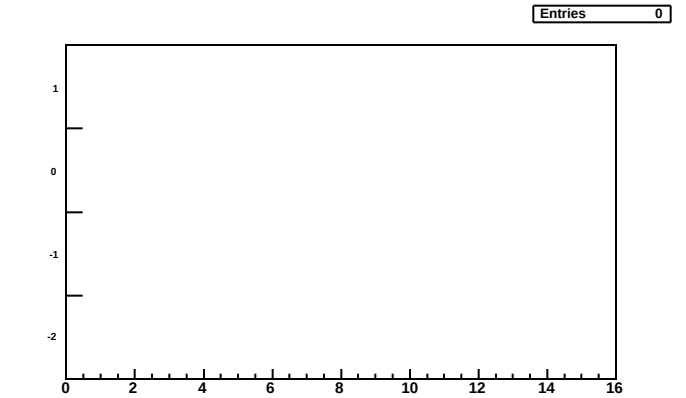


VT201 0-15 (ch1)

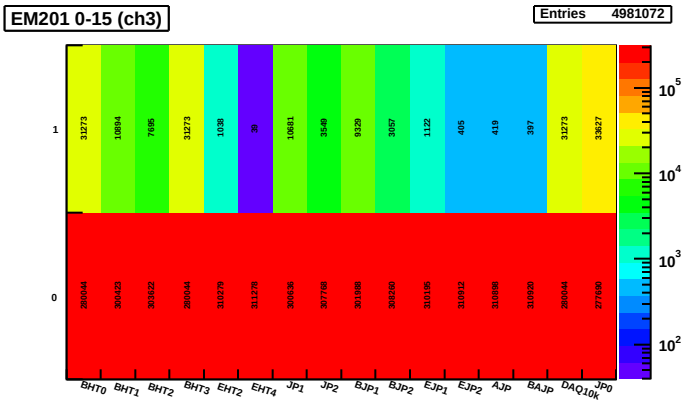


Unused (ch2)





EM201 0-15 (ch3)



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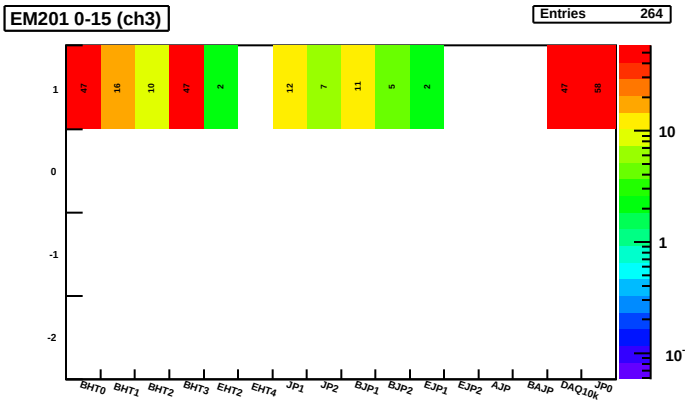
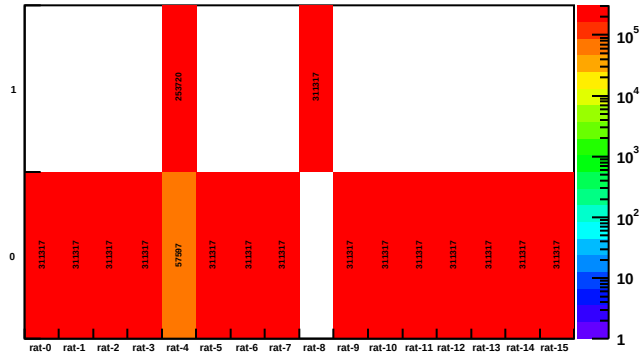
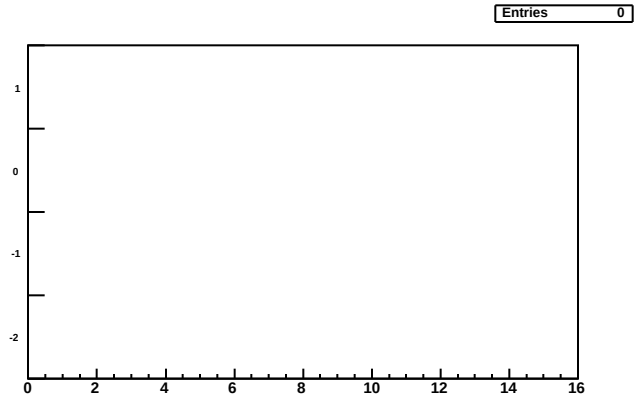
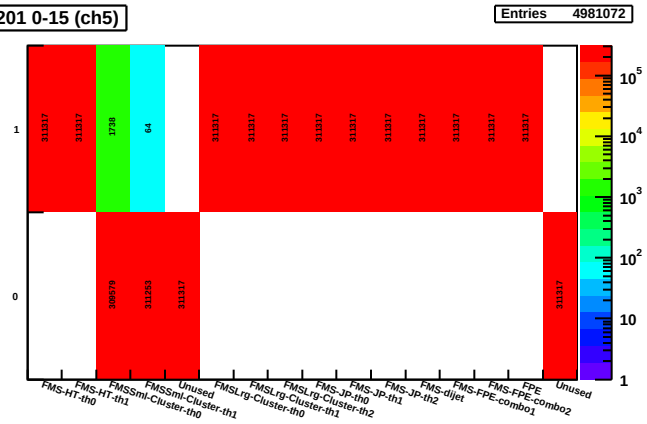


RAT board (ch4)

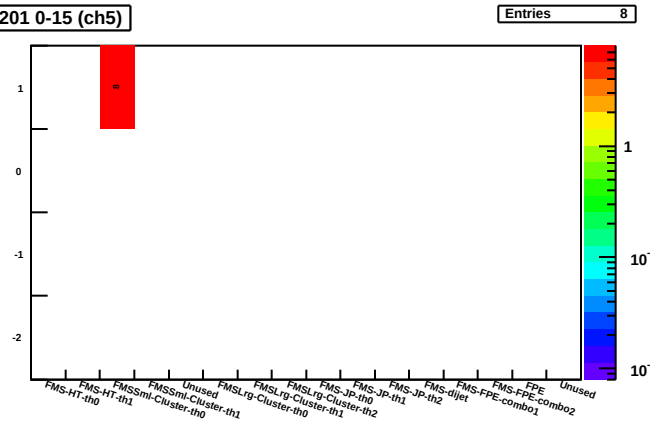




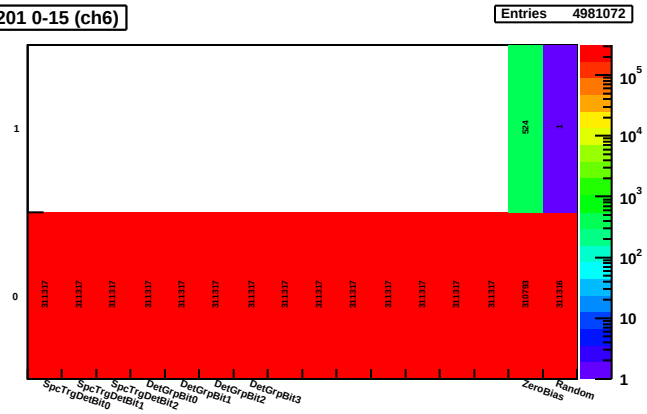
FP201 0-15 (ch5)

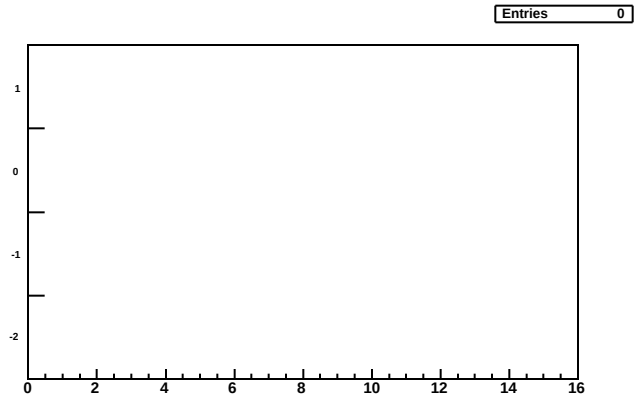
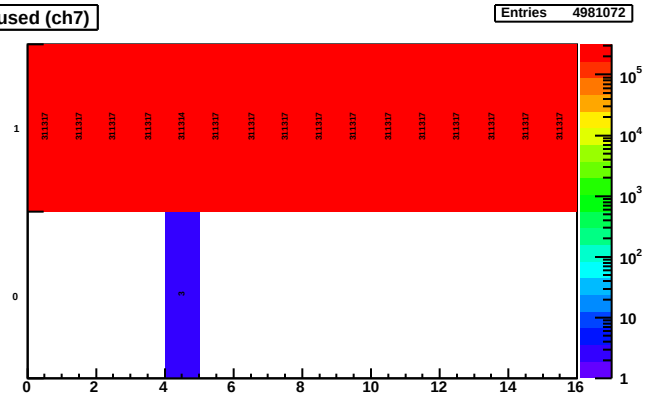
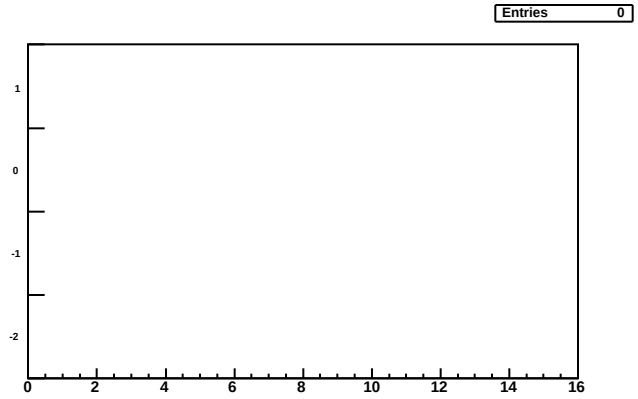


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)