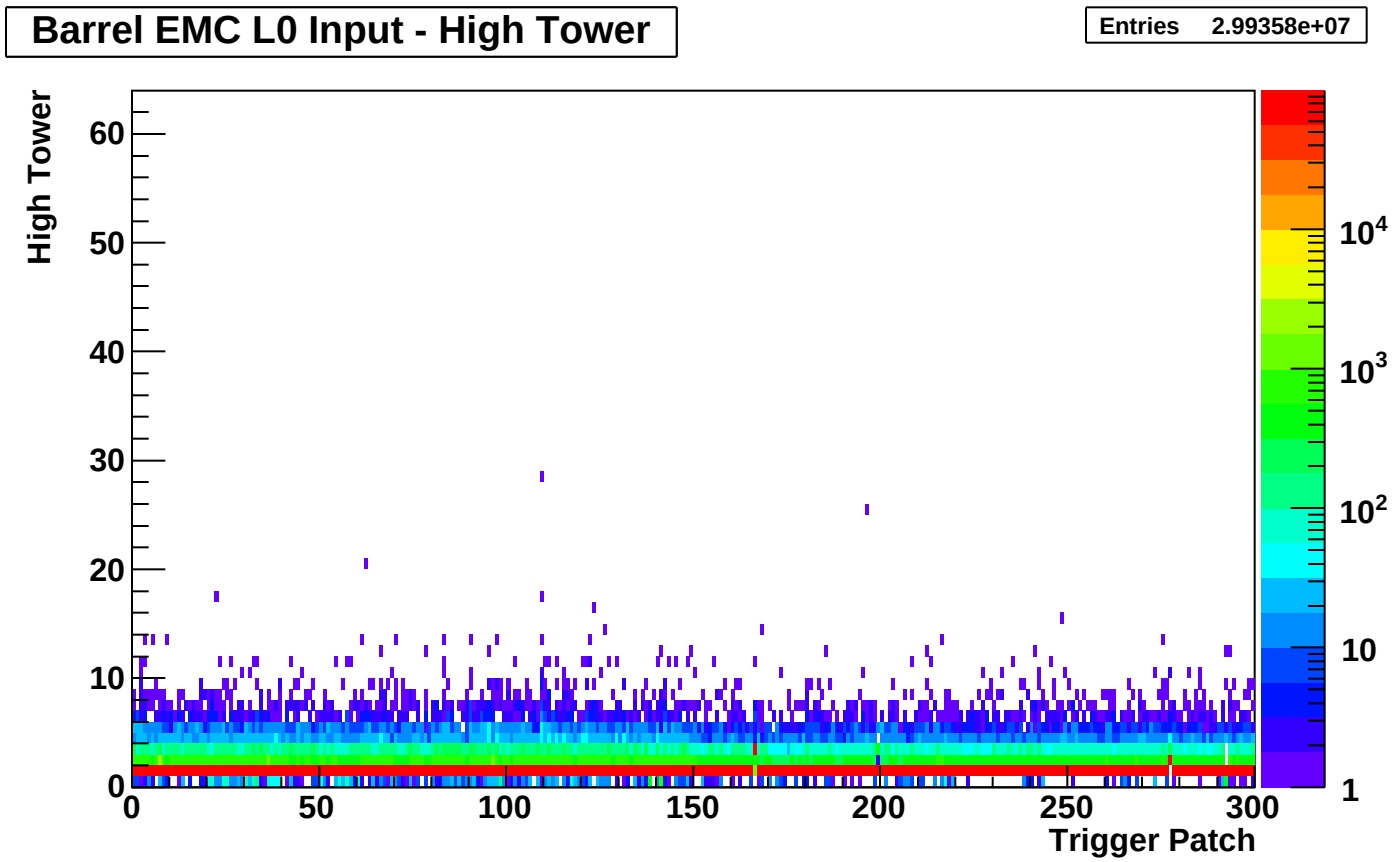
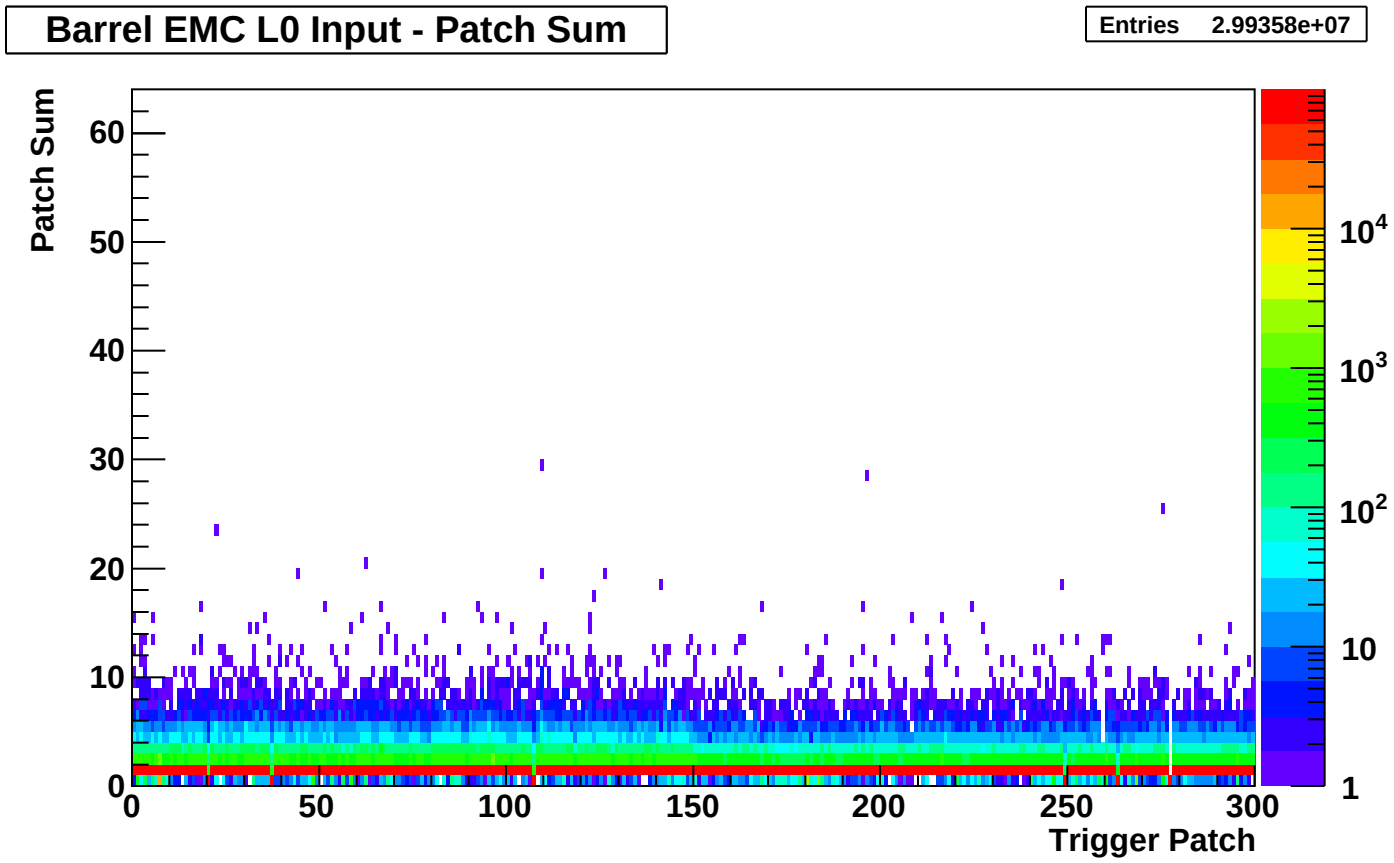
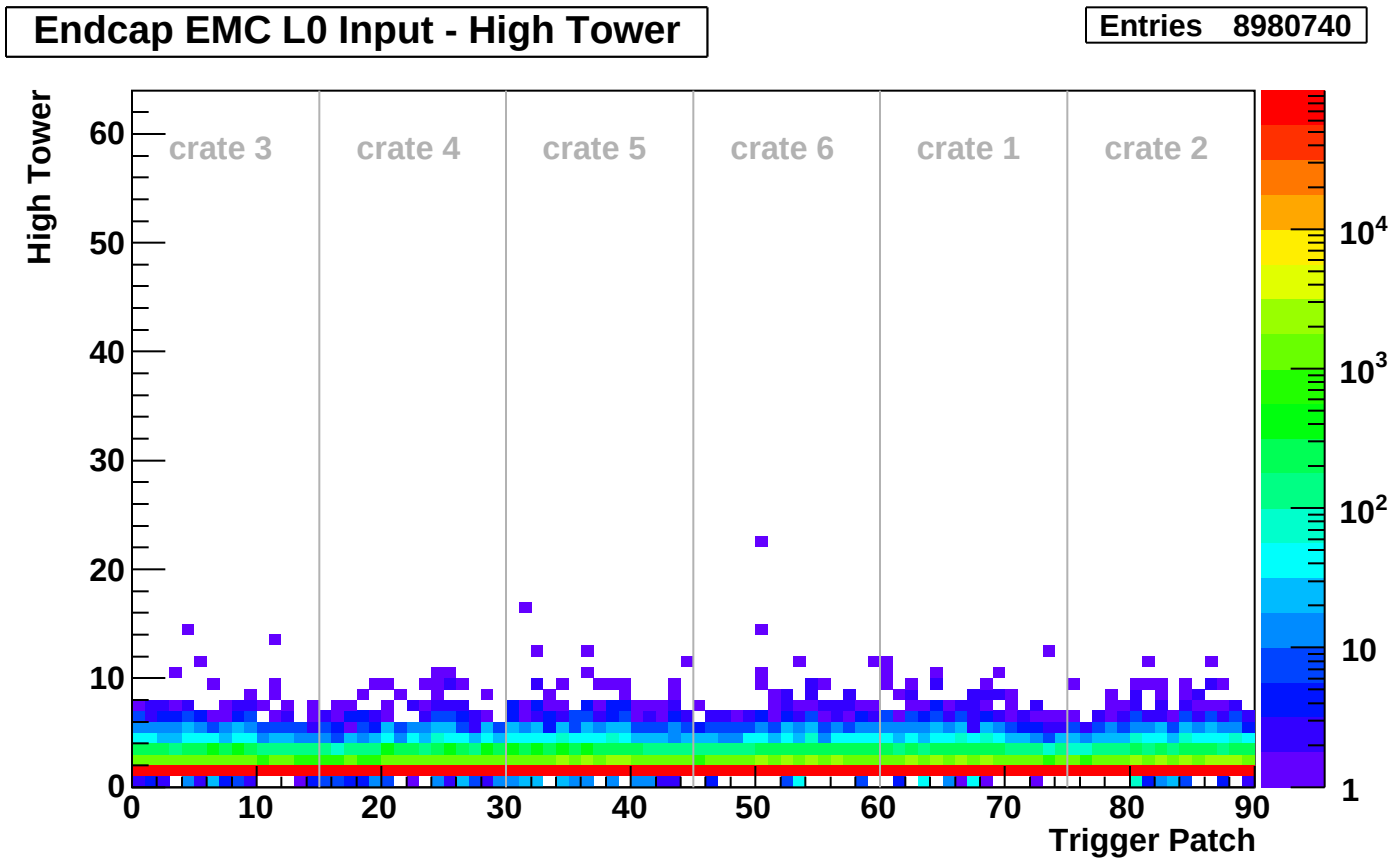
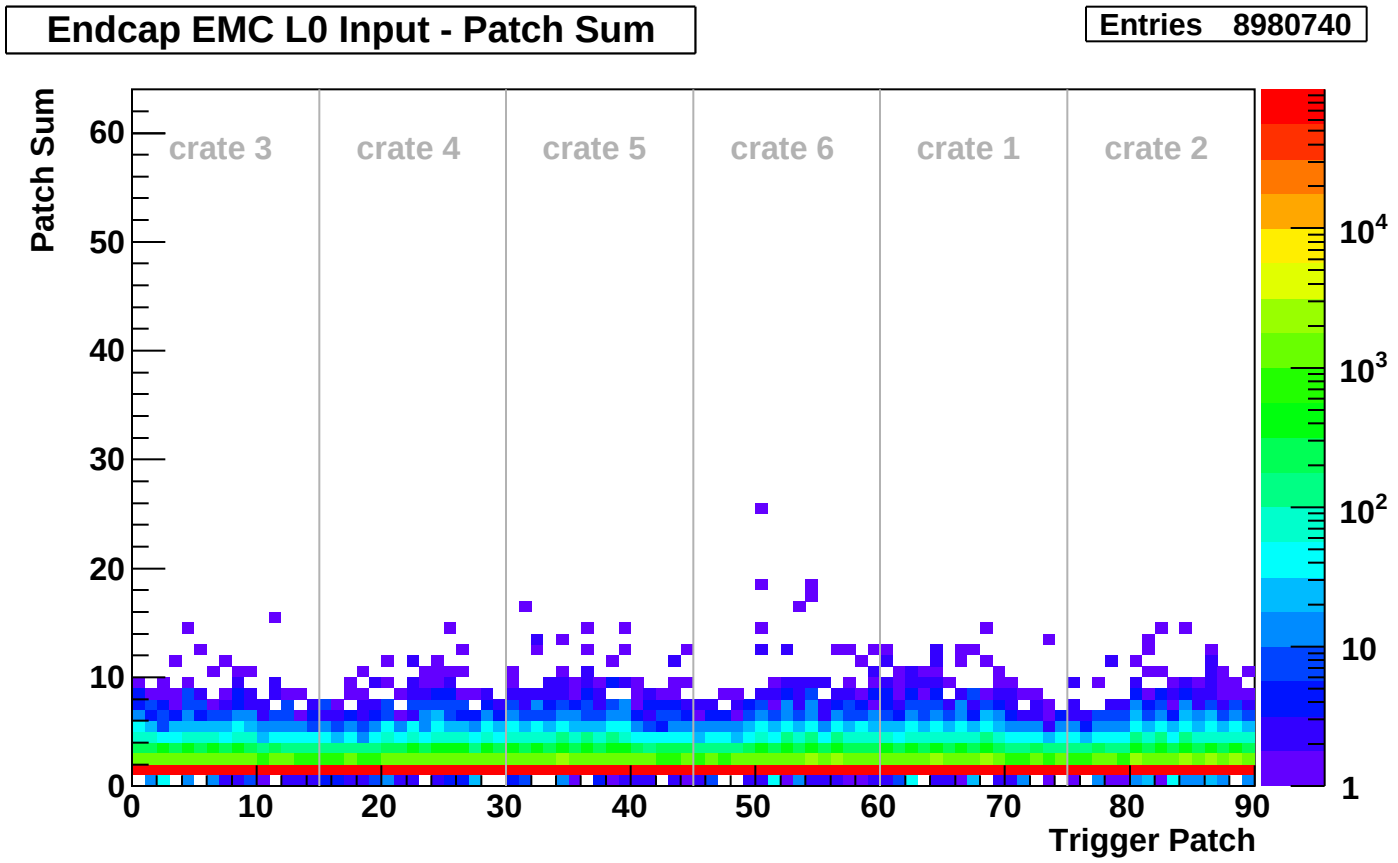
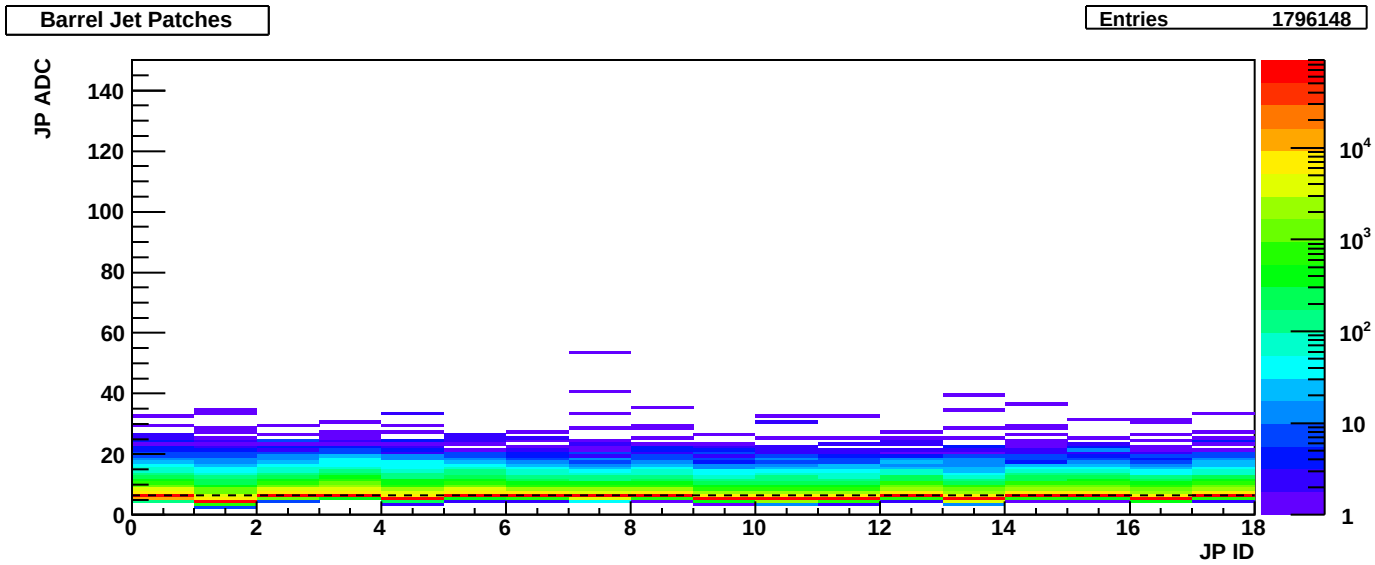
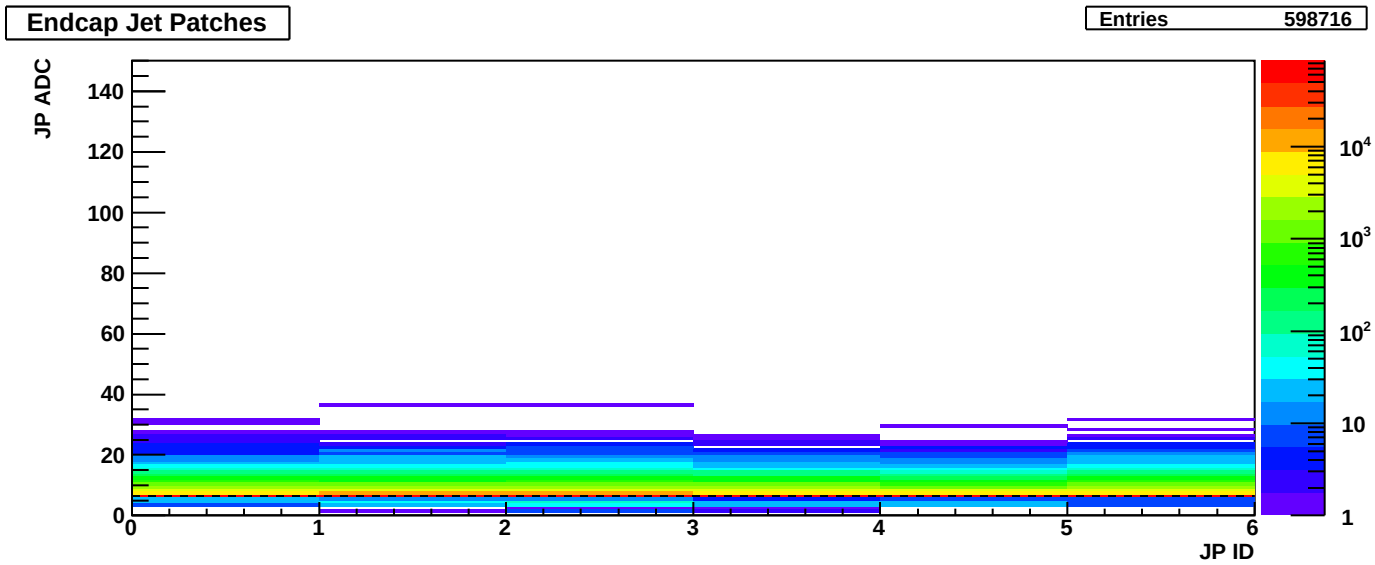

Barrel EMC L0 Input - High Tower
Entries 2.99358e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

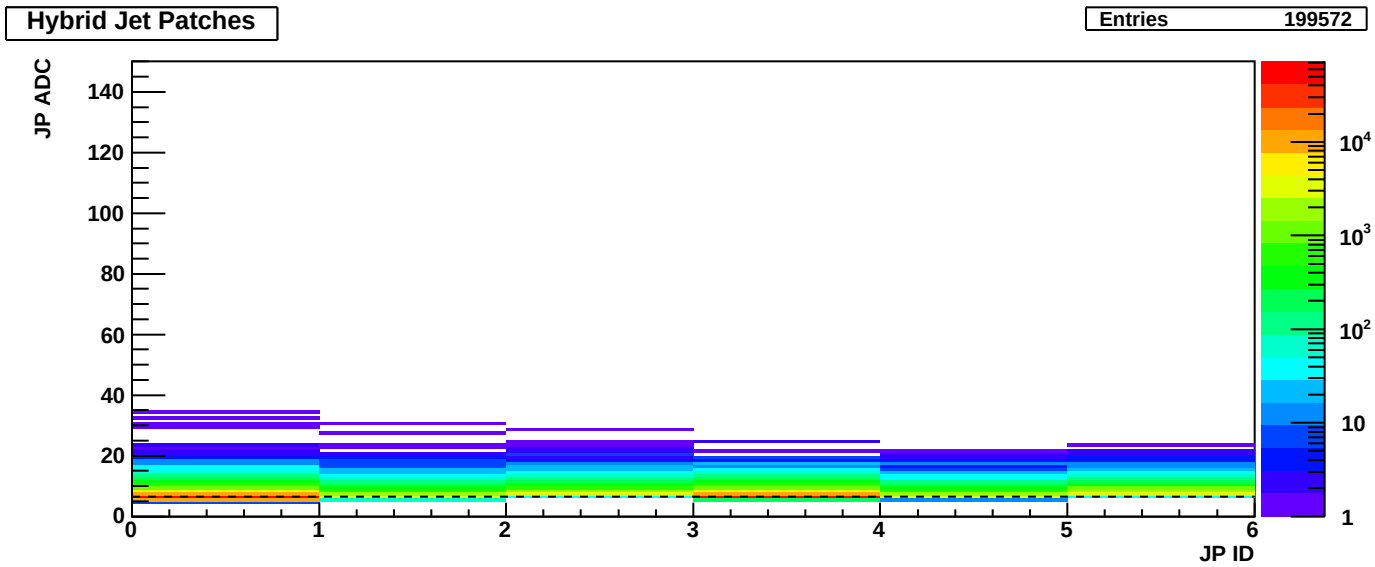

Barrel EMC L0 Input - Patch Sum
Entries 2.99358e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

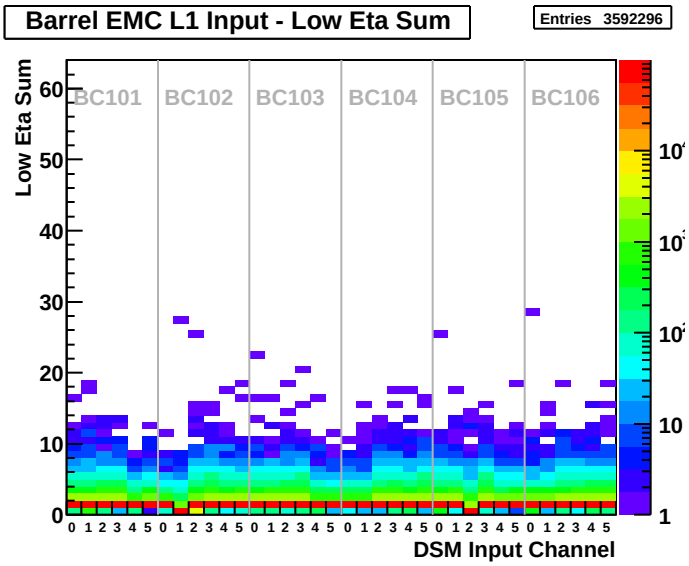

Endcap EMC L0 Input - High Tower
Entries 8980740
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

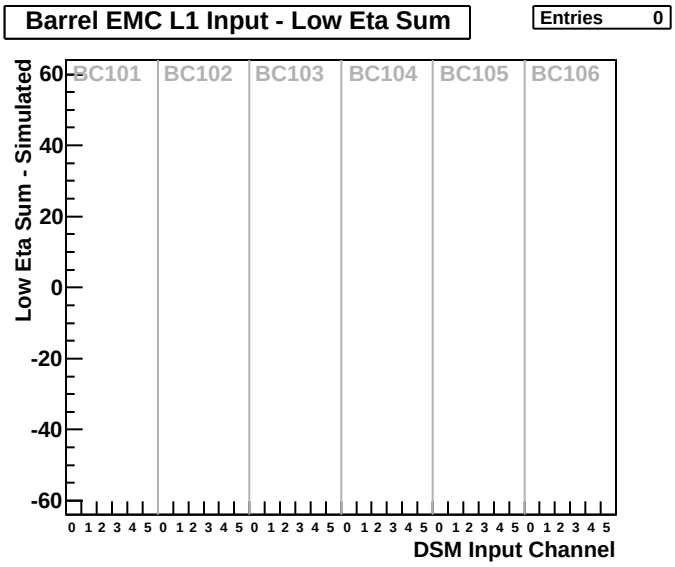

Endcap EMC L0 Input - Patch Sum
Entries 8980740
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

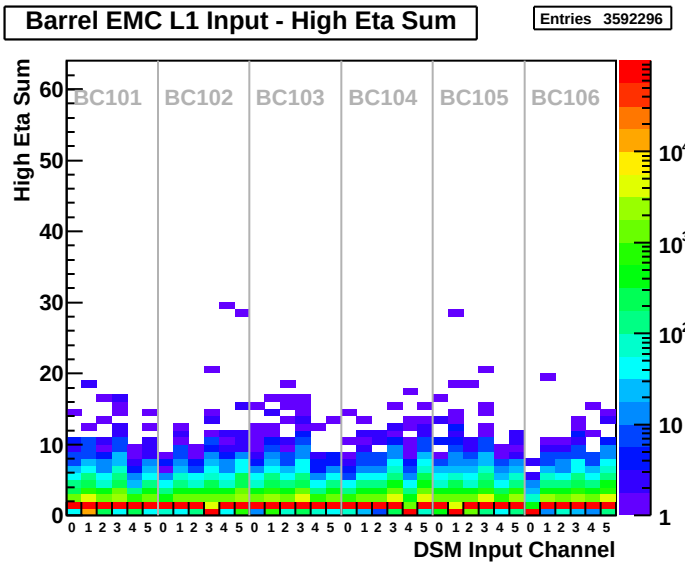

Barrel Jet Patches
Entries 1796148
JP ADC
JP ID

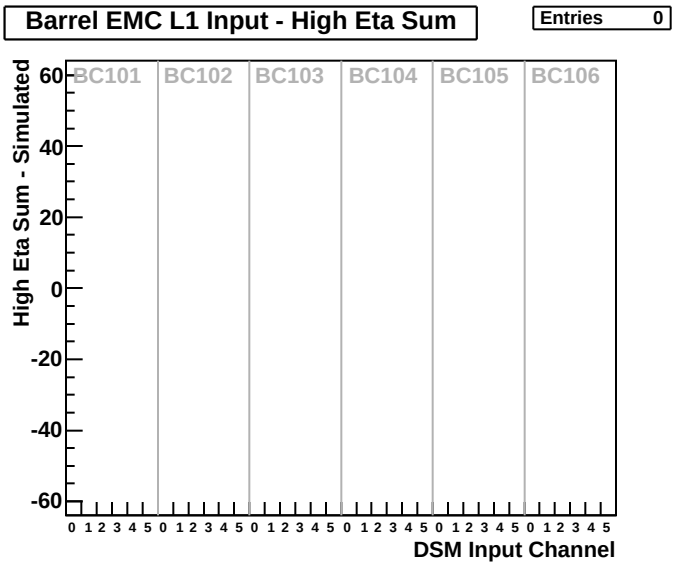

Endcap Jet Patches
Entries 598716
JP ADC
JP ID

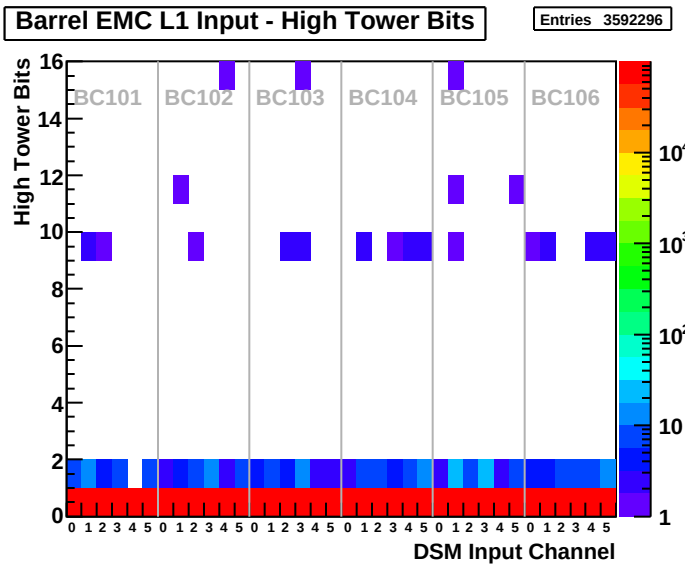

Hybrid Jet Patches
Entries 199572
JP ADC
JP ID

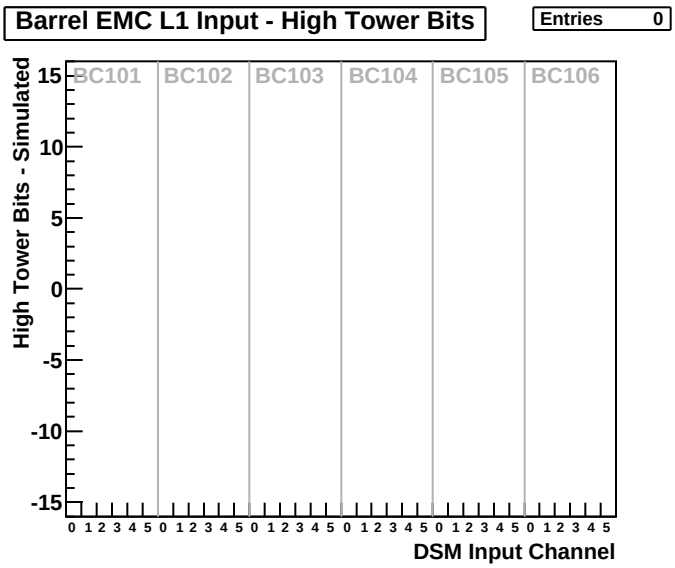

Barrel EMC L1 Input - Low Eta Sum
Entries 3592296
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

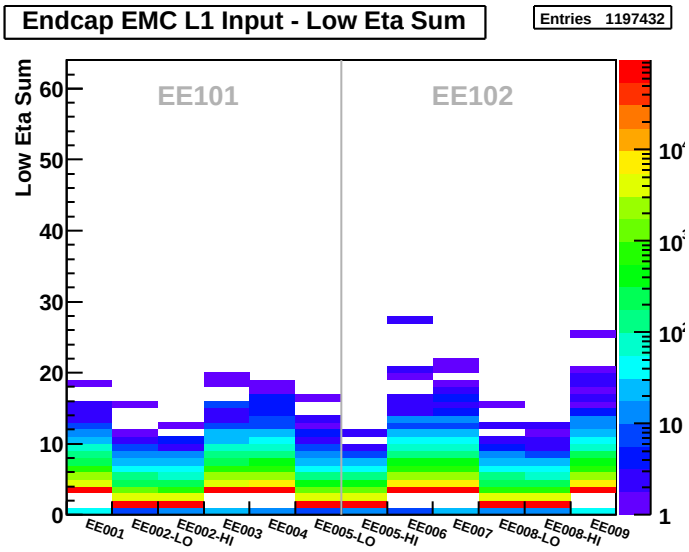

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

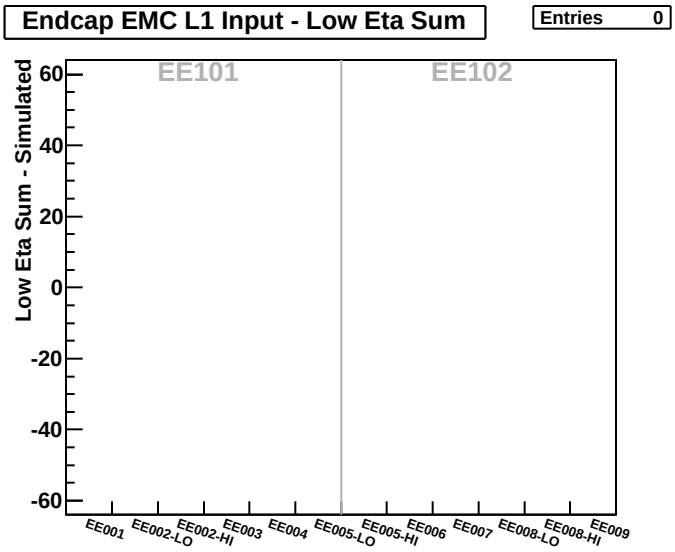

Barrel EMC L1 Input - High Eta Sum
Entries 3592296
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

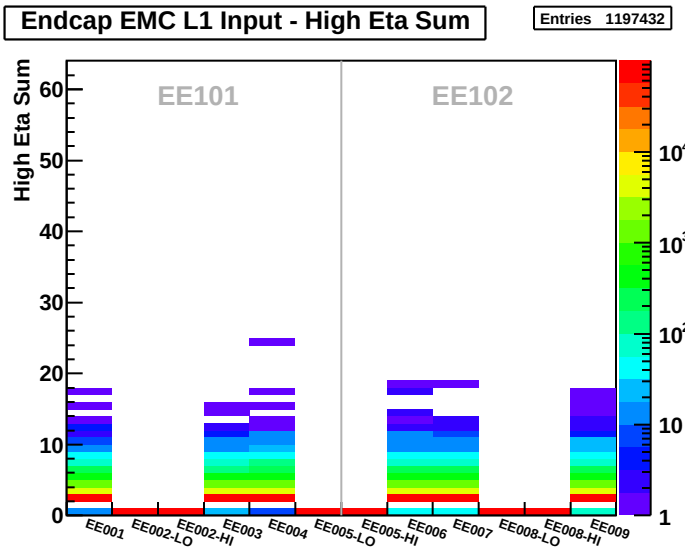

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

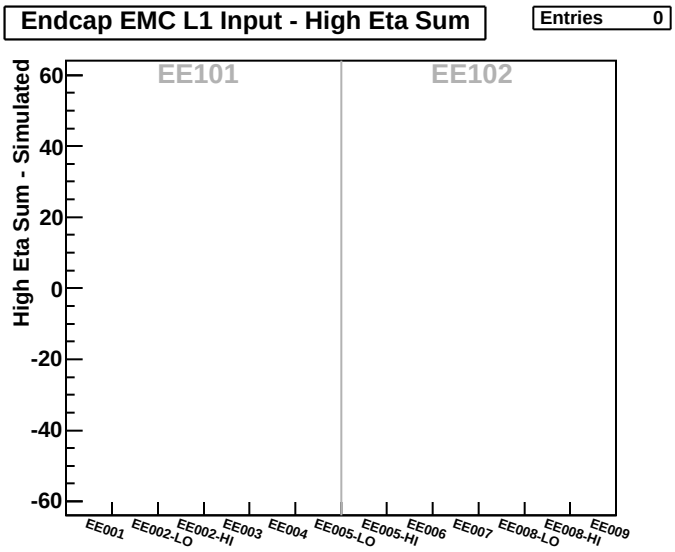

Barrel EMC L1 Input - High Tower Bits
Entries 3592296
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

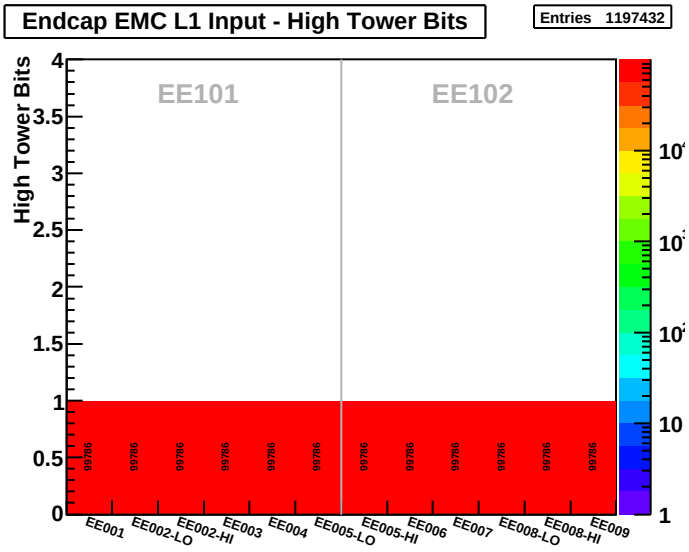

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

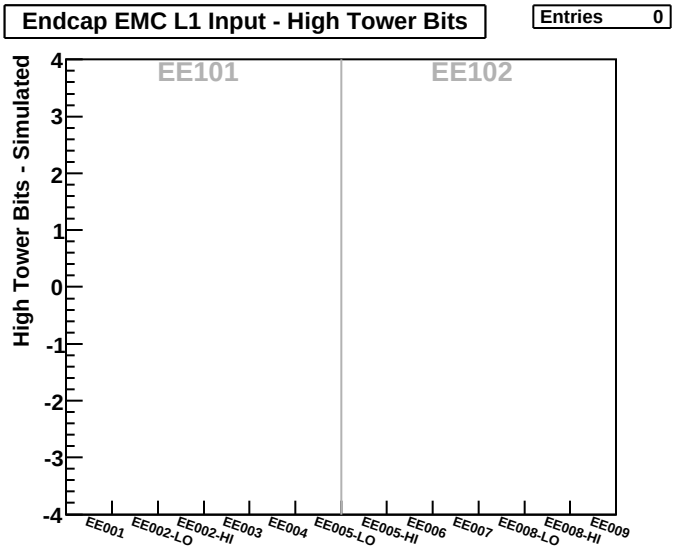

Endcap EMC L1 Input - Low Eta Sum
Entries 1197432
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

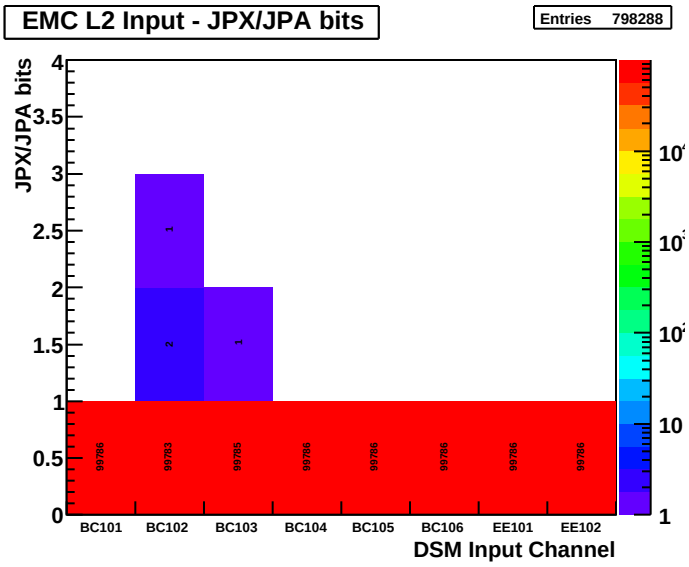

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

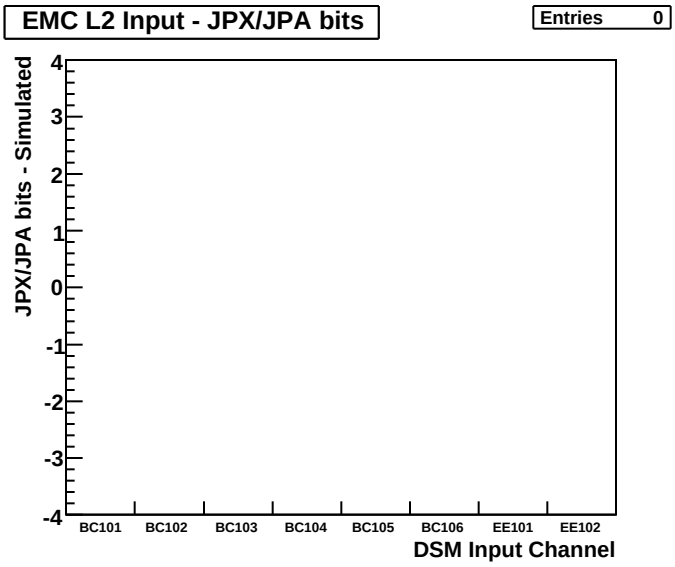

Endcap EMC L1 Input - High Eta Sum
Entries 1197432
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

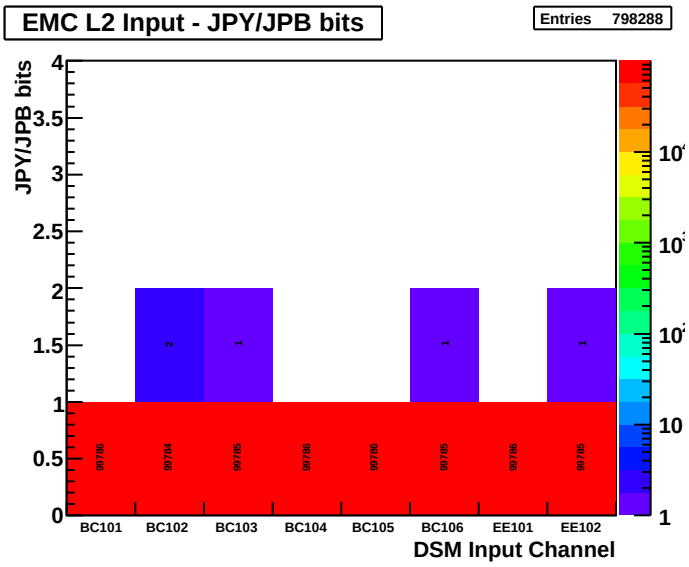

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

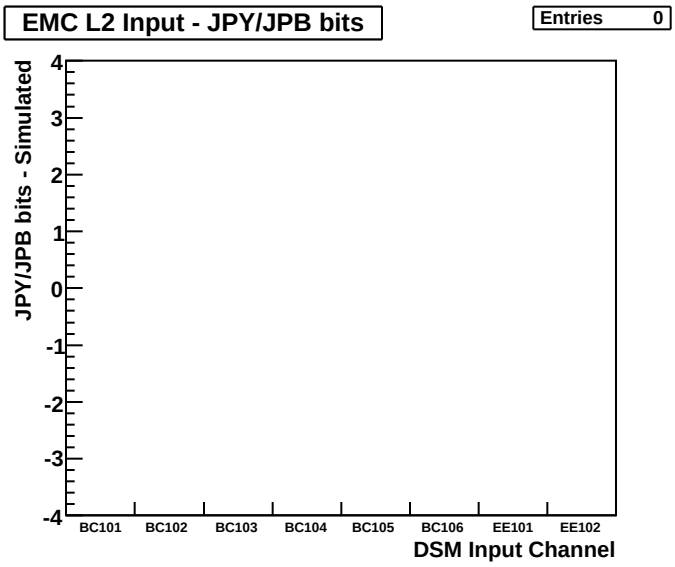

Endcap EMC L1 Input - High Tower Bits
Entries 1197432
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

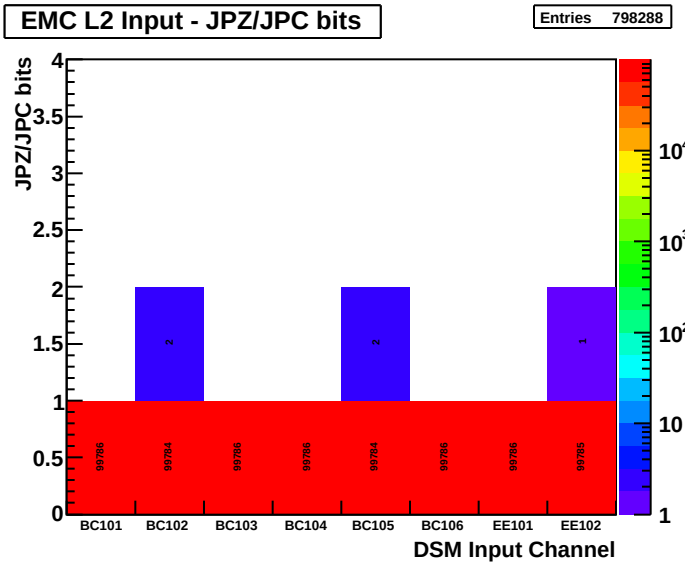

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

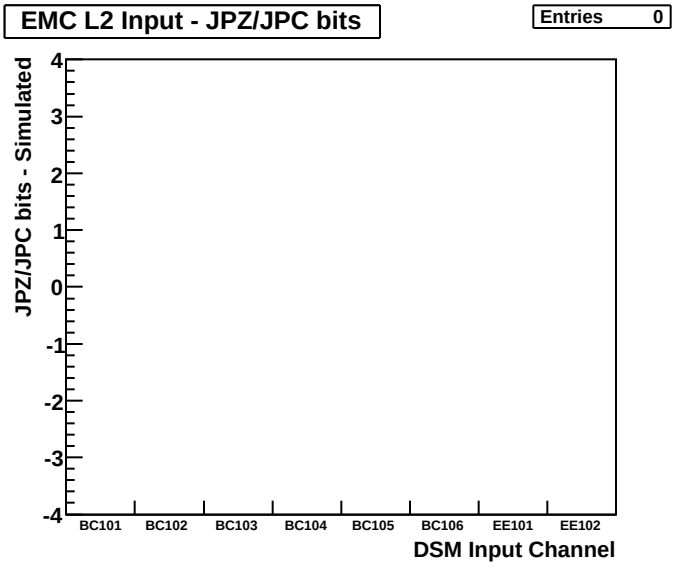

EMC L2 Input - JPX/JPA bits
Entries 798288
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

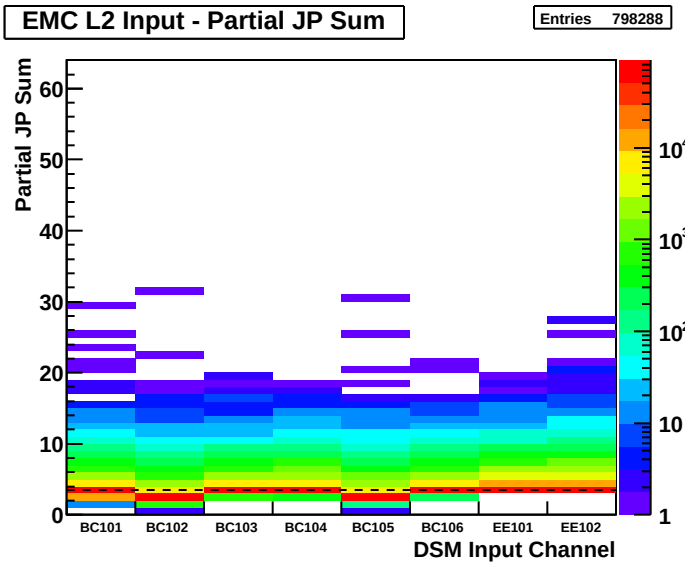

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

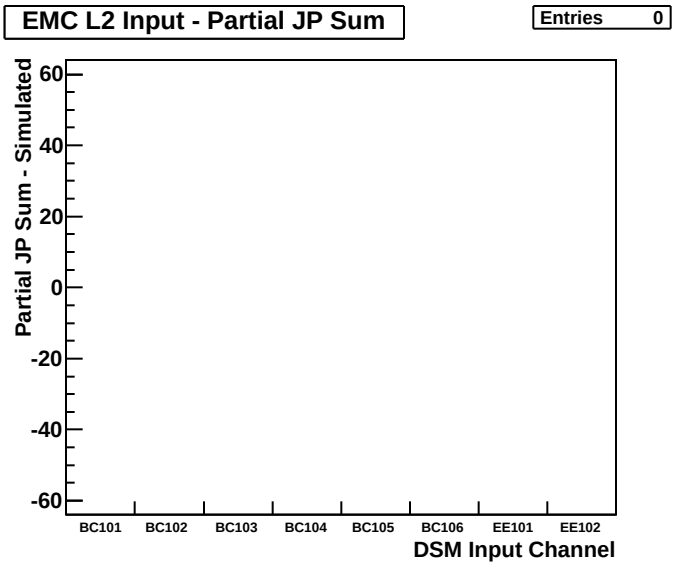

EMC L2 Input - JPY/JPB bits
Entries 798288
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

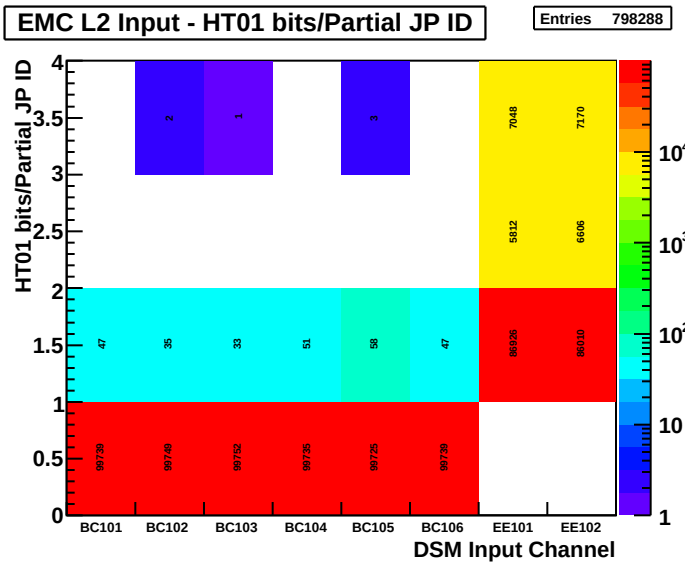

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

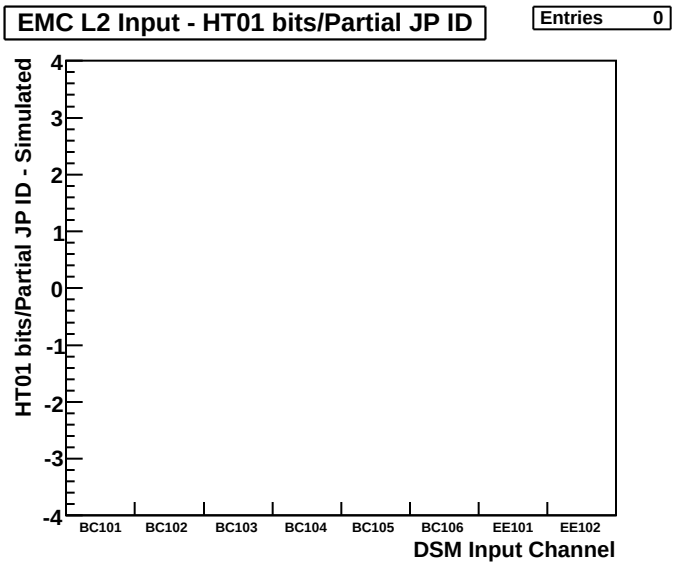

EMC L2 Input - JPZ/JPC bits
Entries 798288
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

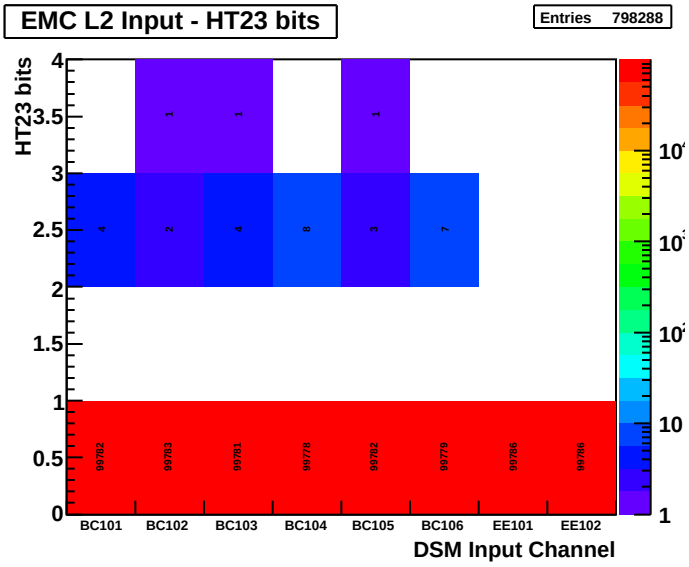

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

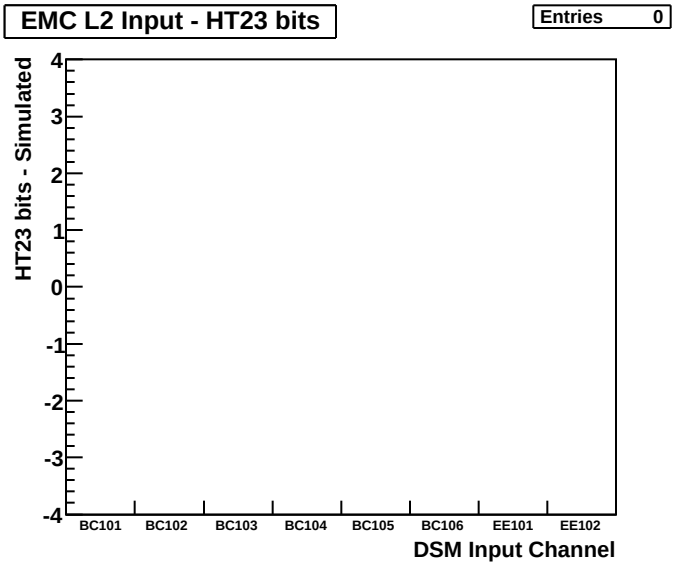

EMC L2 Input - Partial JP Sum
Entries 798288
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

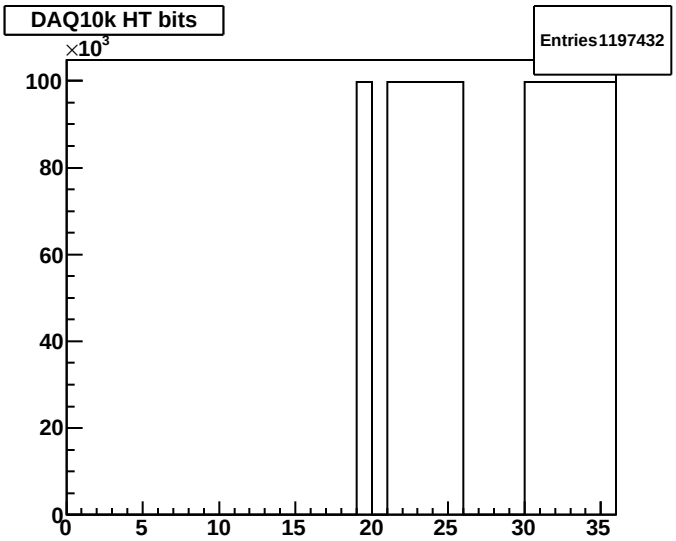

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

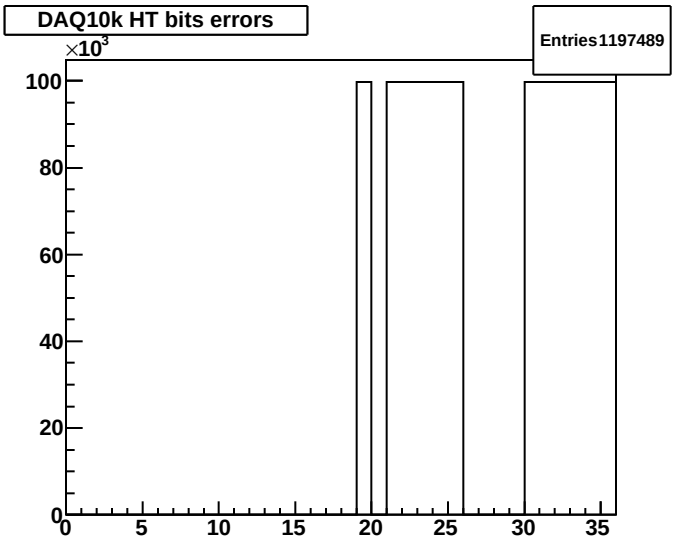

EMC L2 Input - HT01 bits/Partial JP ID
Entries 798288
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

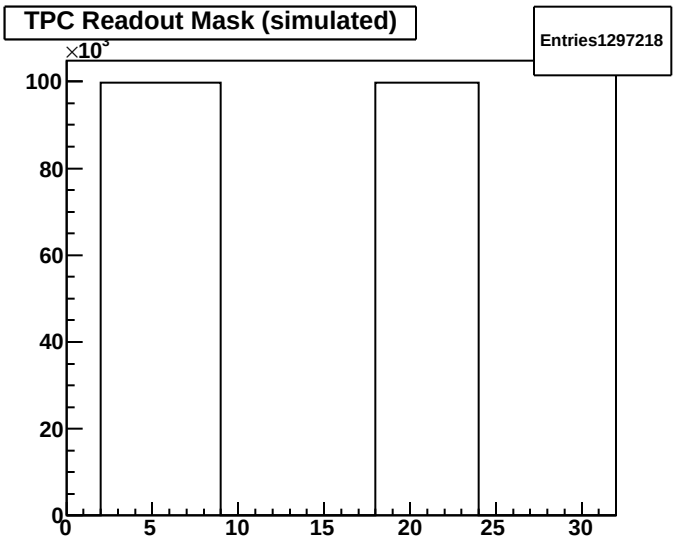

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

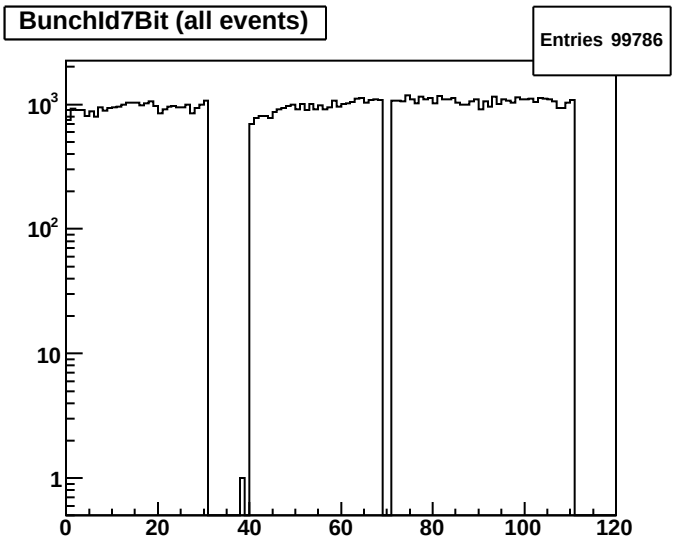

EMC L2 Input - HT23 bits
Entries 798288
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

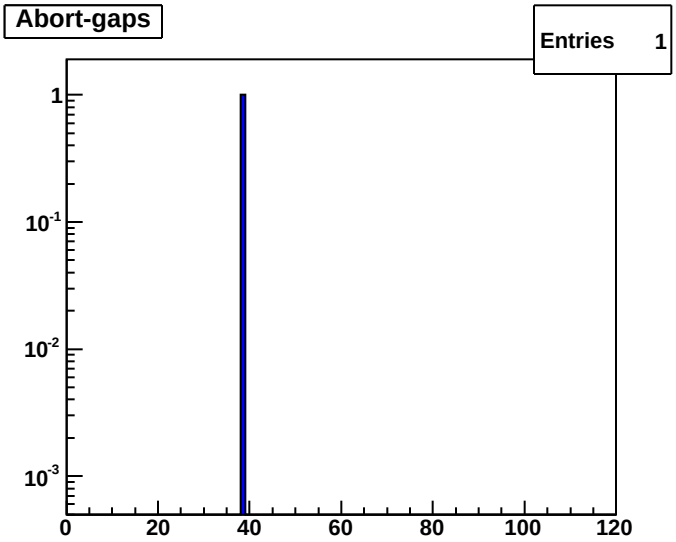

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

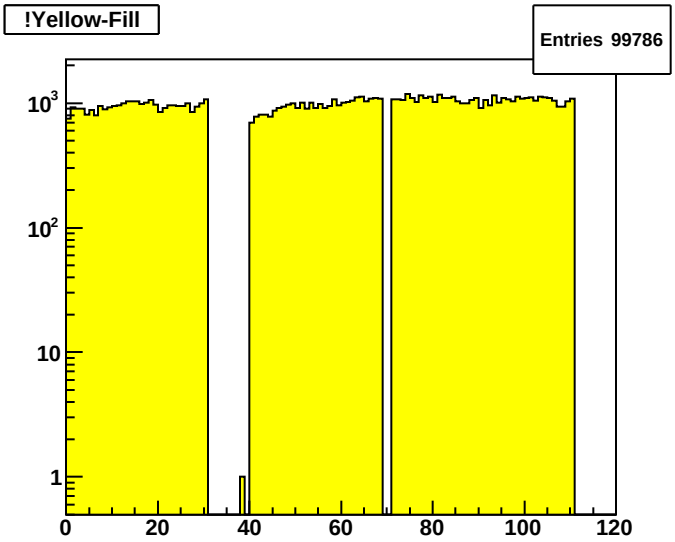

DAQ10k HT bits
Entries 1197432
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30 35

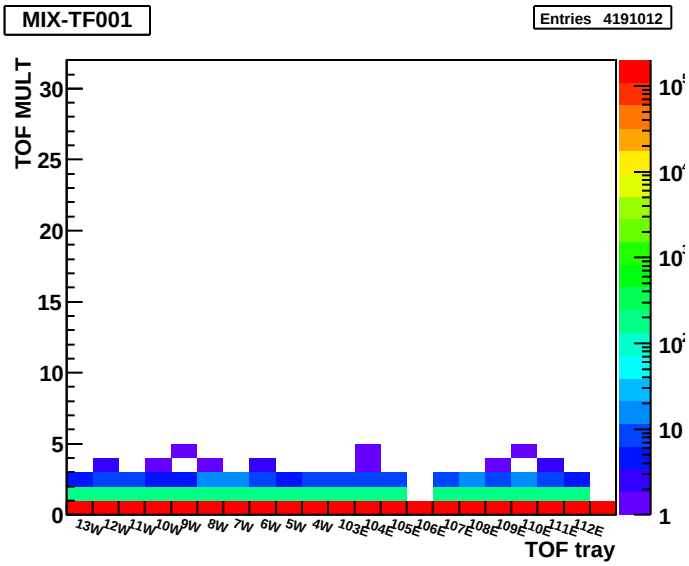

DAQ10k HT bits errors
Entries 1197489
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30 35

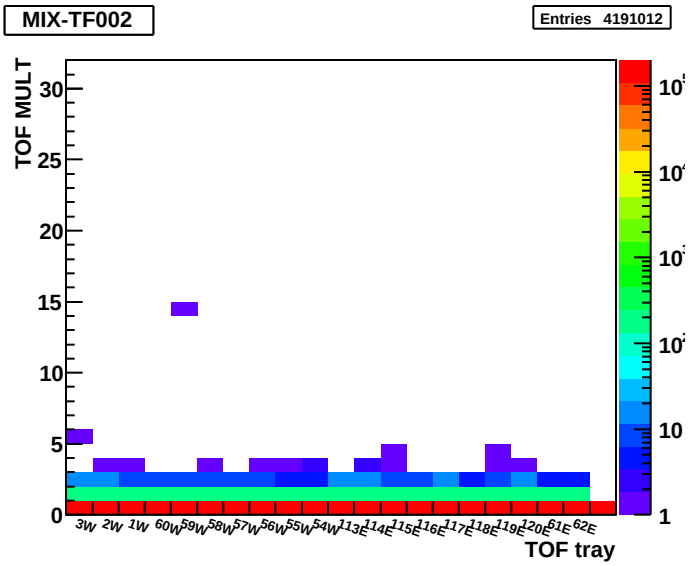

TPC Readout Mask (simulated)
Entries 1297218
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30

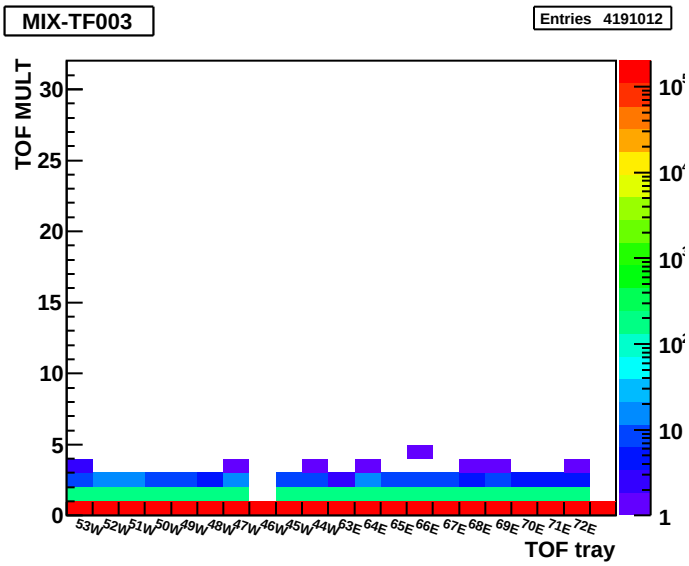

BunchId7Bit (all events)
Entries 99786
10^3
10^2
10
1
0 20 40 60 80 100 120

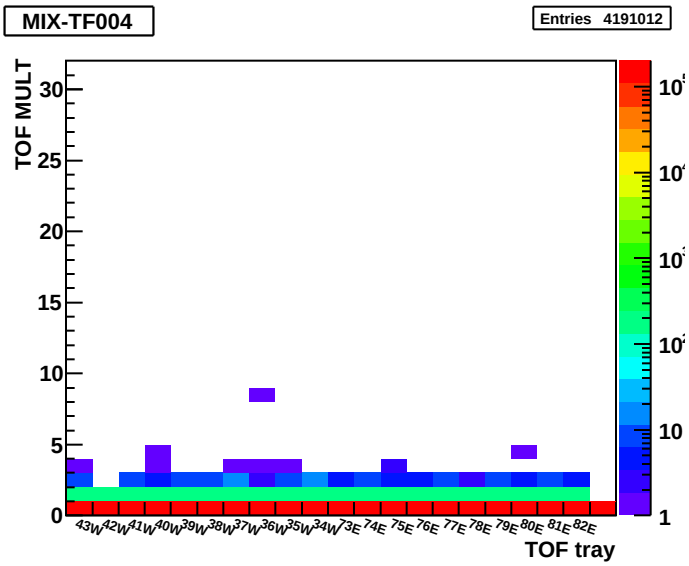

Abort-gaps
Entries 1
1
10^-1
10^-2
10^-3
0 20 40 60 80 100 120

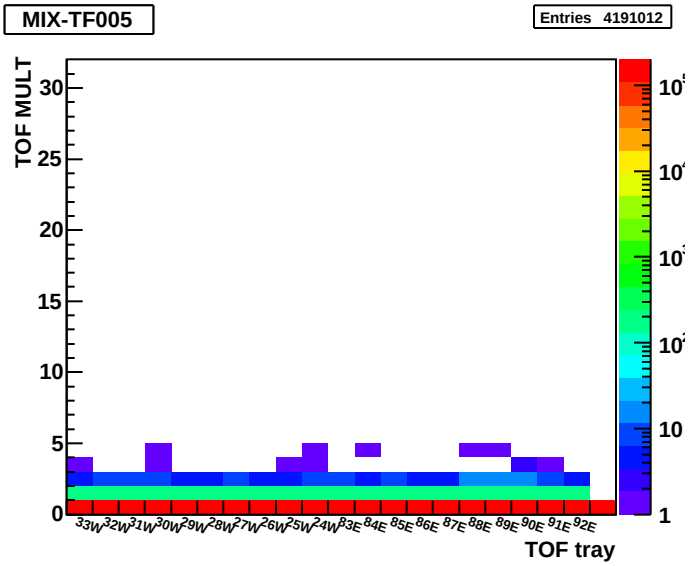

!Yellow-Fill
Entries 99786
10^3
10^2
10
1
0 20 40 60 80 100 120

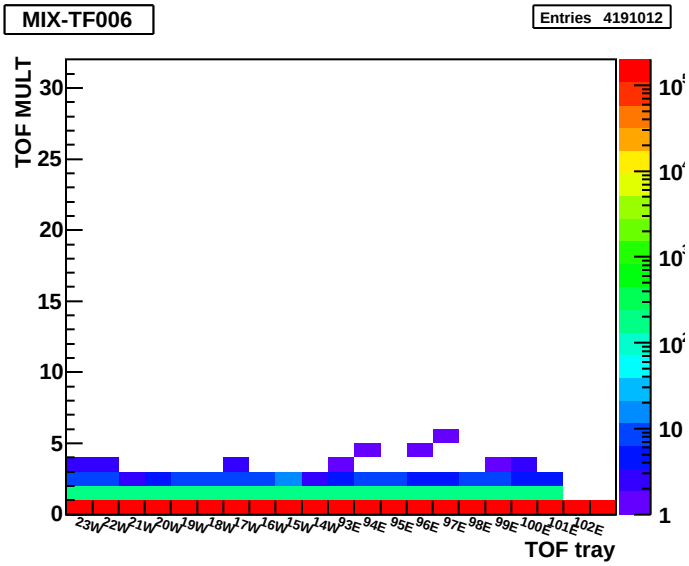

MIX-TF001
Entries 4191012
TOF MULT
TOF tray

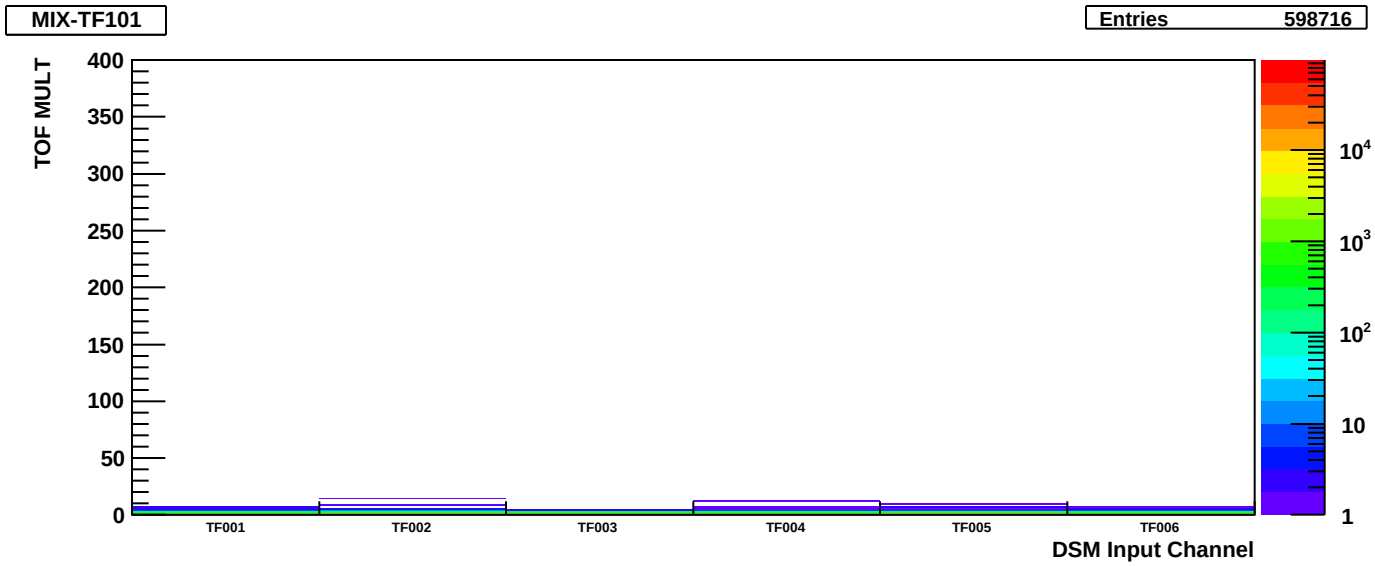

MIX-TF002
Entries 4191012
TOF MULT
TOF tray

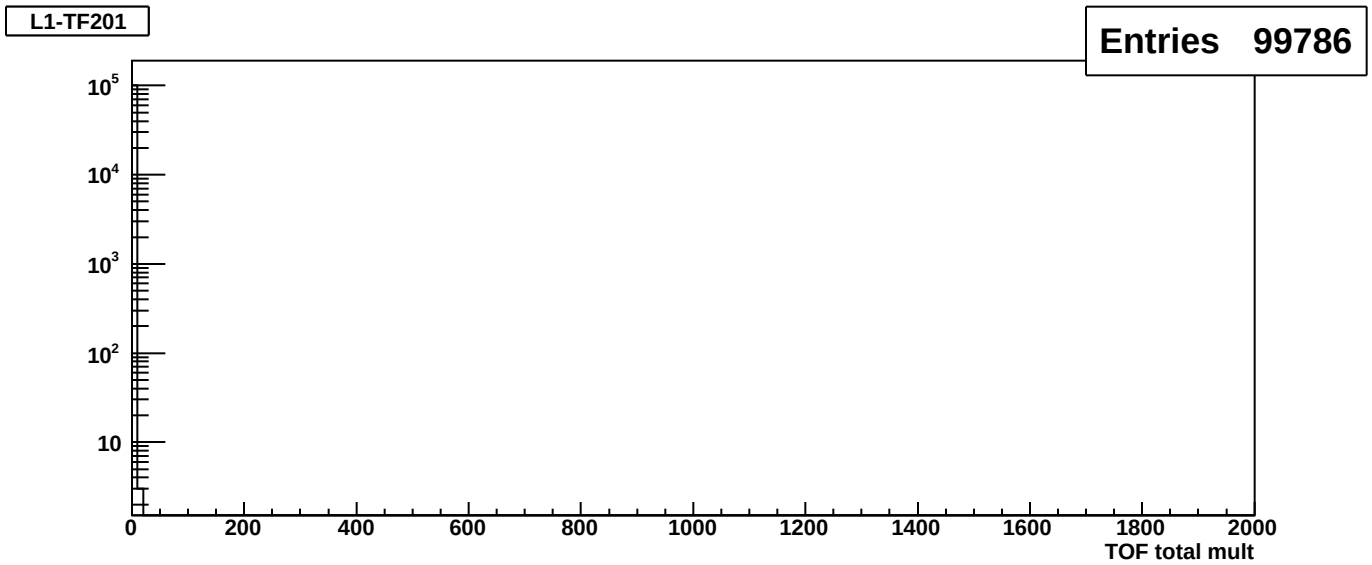

MIX-TF003
Entries 4191012
TOF MULT
TOF tray

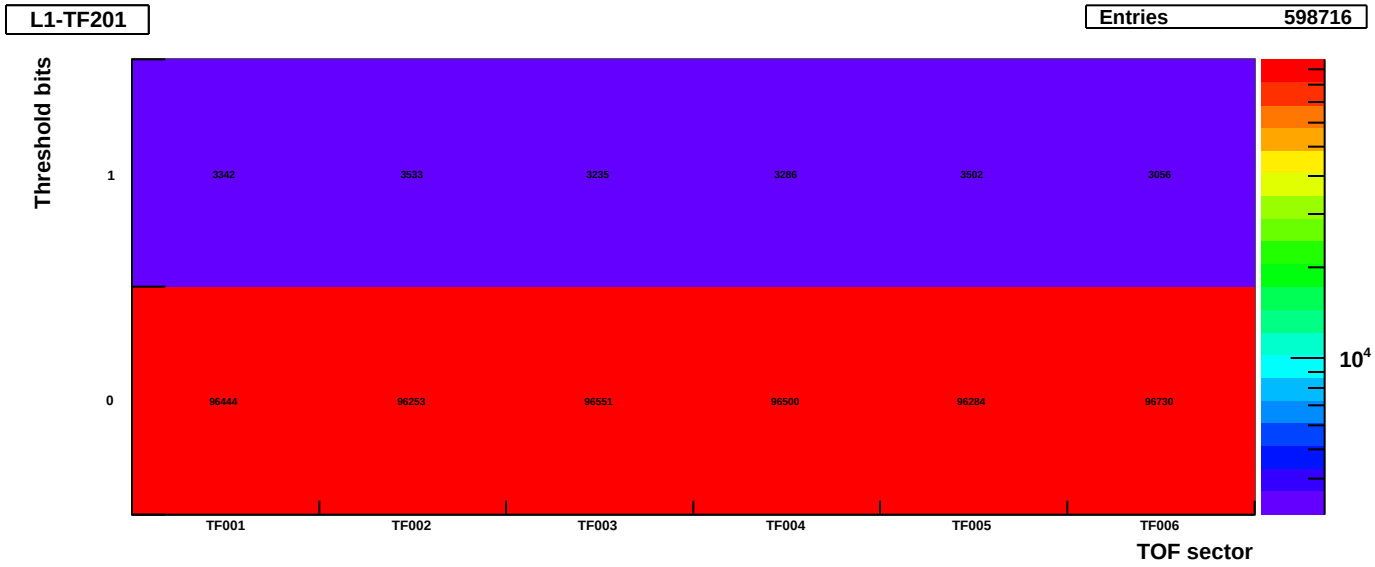

MIX-TF004
Entries 4191012
TOF MULT
TOF tray

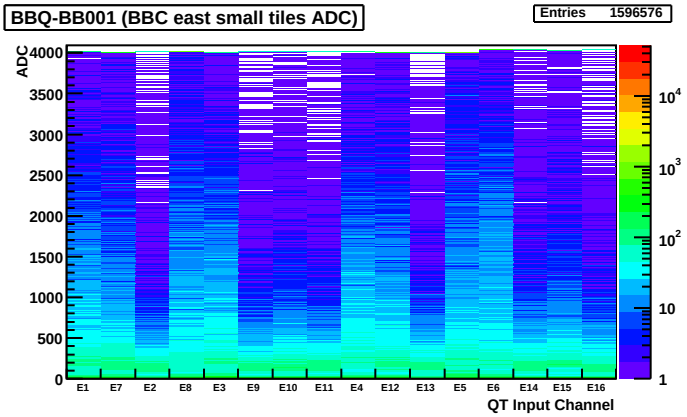

MIX-TF005
Entries 4191012
TOF MULT
TOF tray

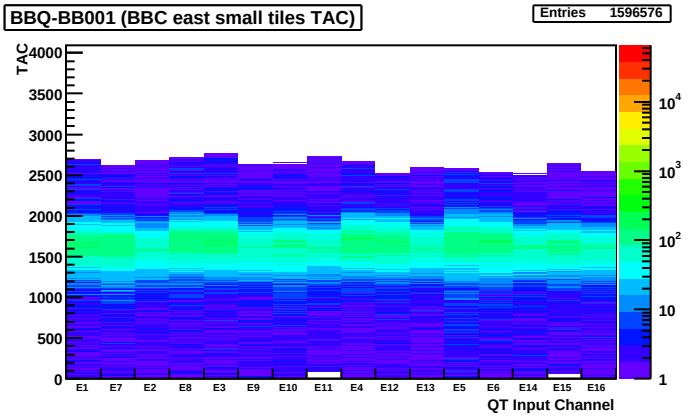

MIX-TF006
Entries 4191012
TOF MULT
TOF tray

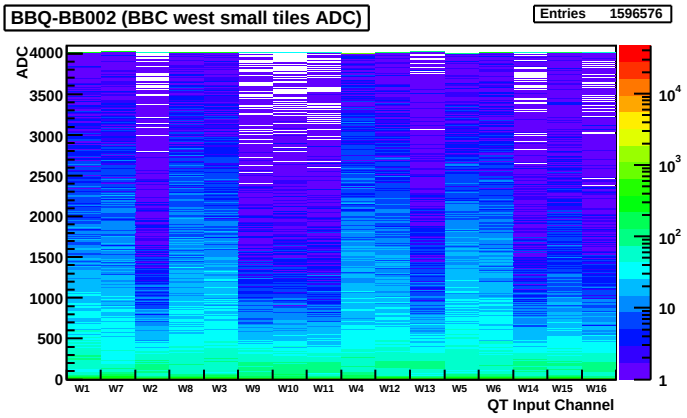

MIX-TF101
Entries 598716
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

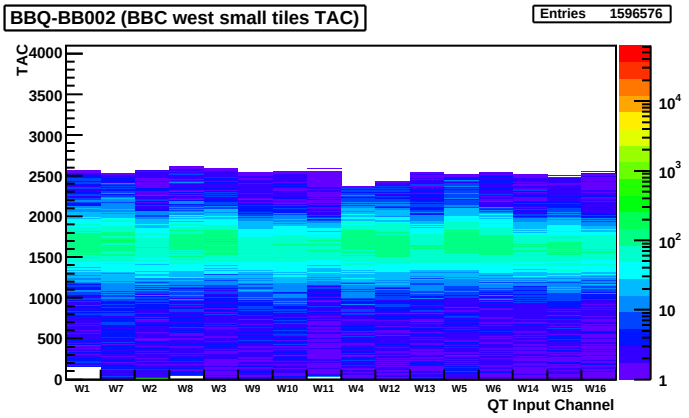

L1-TF201
Entries 99786
10^5
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

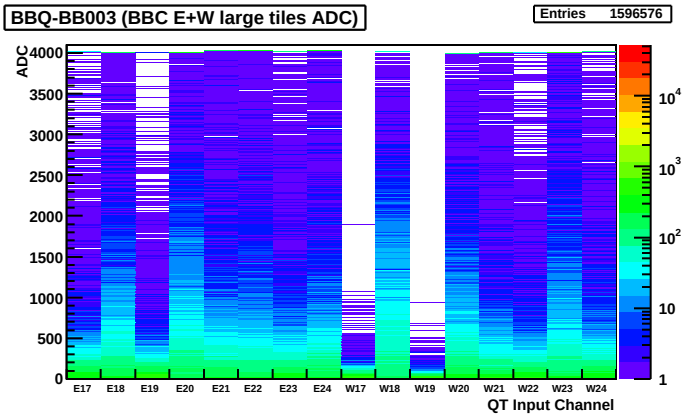

L1-TF201
Entries 598716
Threshold bits
1
0
3342
3533
3235
3286
3502
3056
96444
96253
96551
96500
96284
96730
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

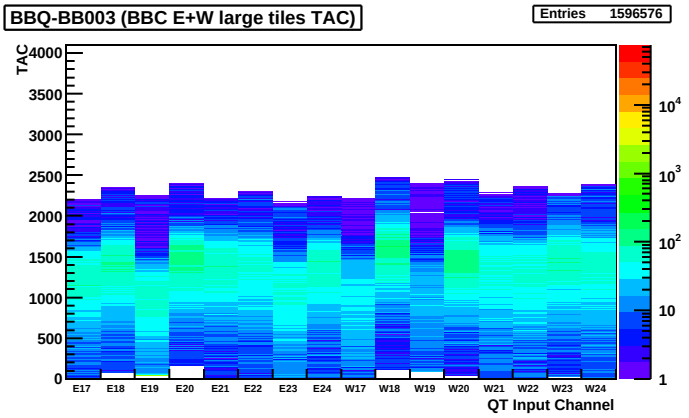

BBQ-BB001 (BBC east small tiles ADC)
Entries 1596576
ADC
QT Input Channel

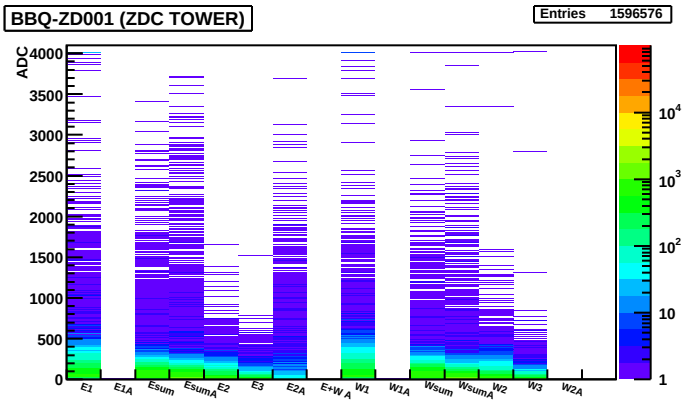

BBQ-BB001 (BBC east small tiles TAC)
Entries 1596576
TAC
QT Input Channel

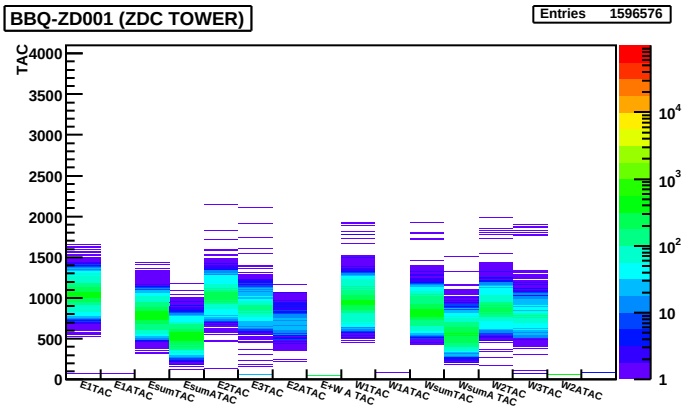

BBQ-BB002 (BBC west small tiles ADC)
Entries 1596576
ADC
QT Input Channel

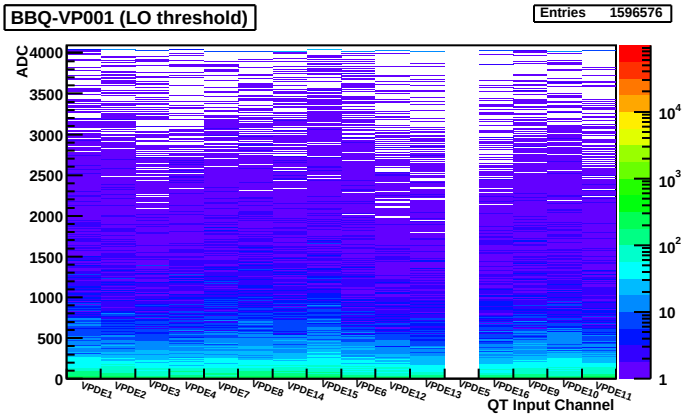

BBQ-BB002 (BBC west small tiles TAC)
Entries 1596576
TAC
QT Input Channel

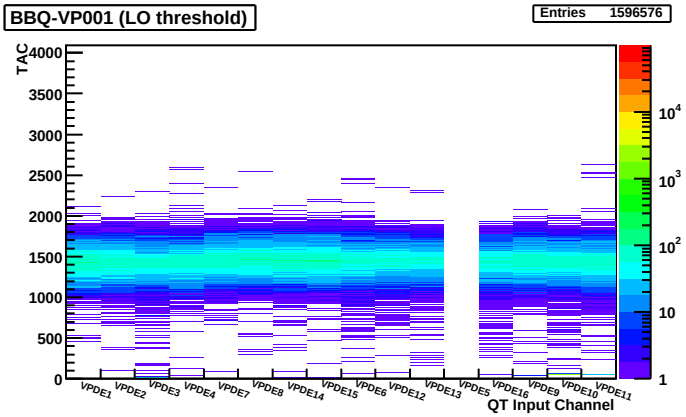

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1596576
ADC
QT Input Channel

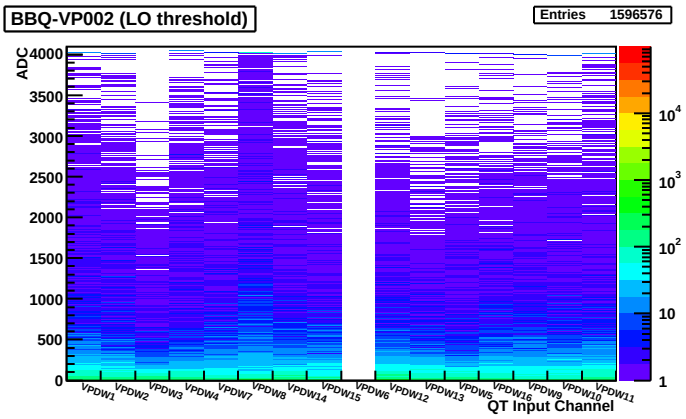

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1596576
TAC
QT Input Channel

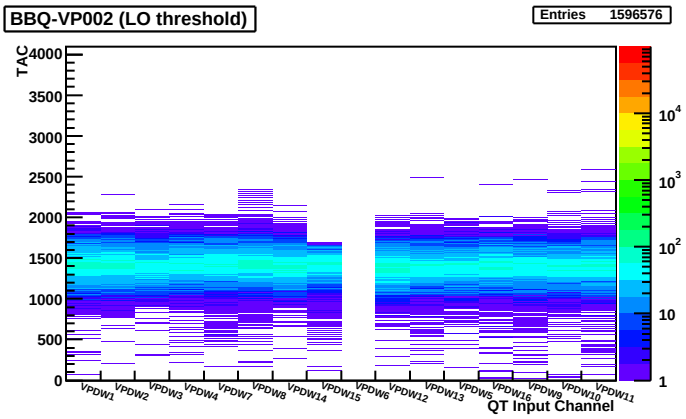

BBQ-ZD001 (ZDC TOWER)
Entries 1596576
ADC

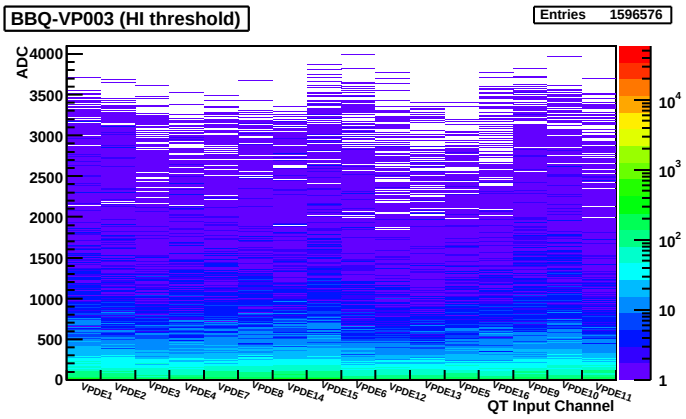

BBQ-ZD001 (ZDC TOWER)
Entries 1596576
TAC

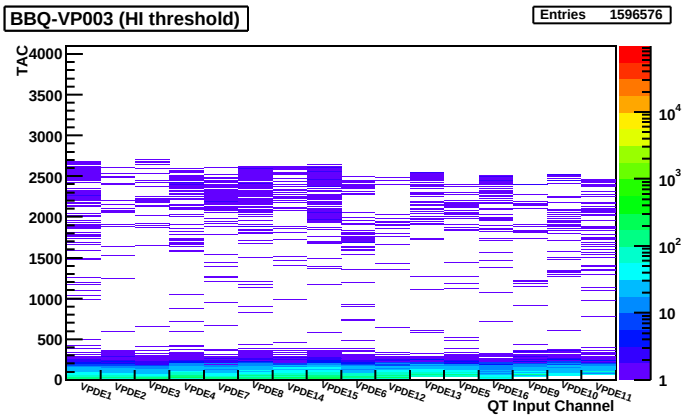

BBQ-VP001 (LO threshold)
Entries 1596576
ADC
QT Input Channel

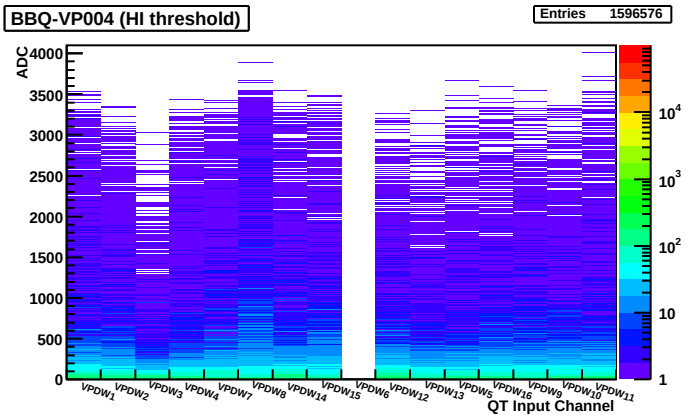

BBQ-VP001 (LO threshold)
Entries 1596576
TAC
QT Input Channel

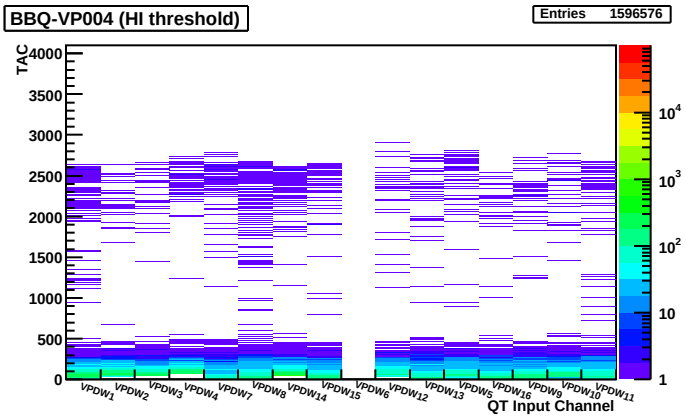

BBQ-VP002 (LO threshold)
Entries 1596576
ADC
QT Input Channel

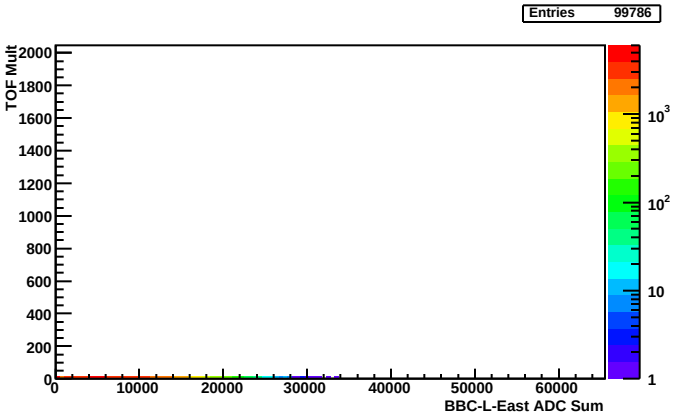

BBQ-VP002 (LO threshold)
Entries 1596576
TAC
QT Input Channel

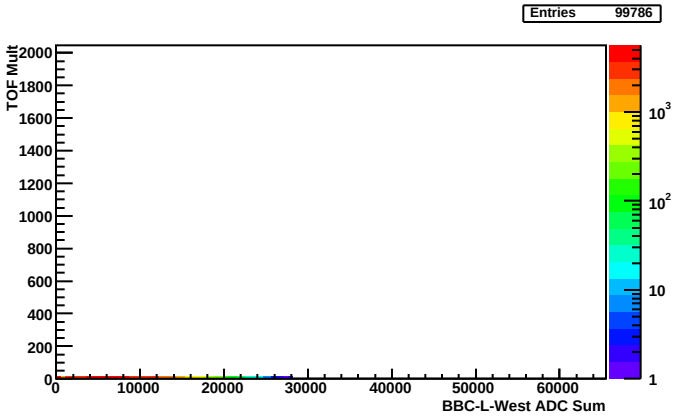

BBQ-VP003 (HI threshold)
Entries 1596576
ADC
QT Input Channel

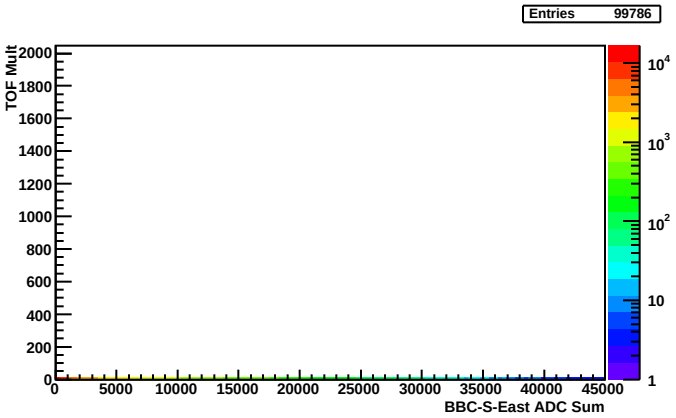

BBQ-VP003 (HI threshold)
Entries 1596576
TAC
QT Input Channel

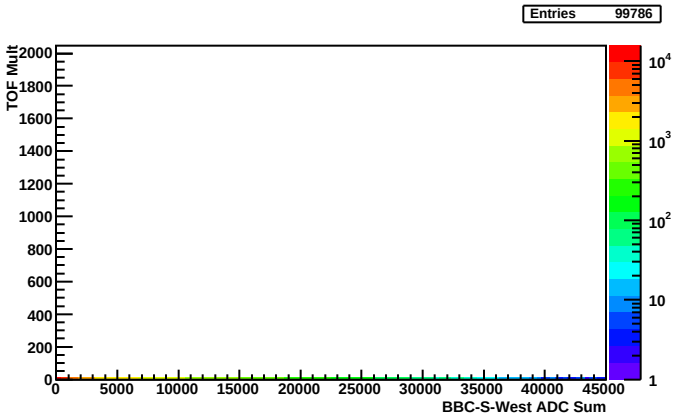

BBQ-VP004 (HI threshold)
Entries 1596576
ADC
QT Input Channel

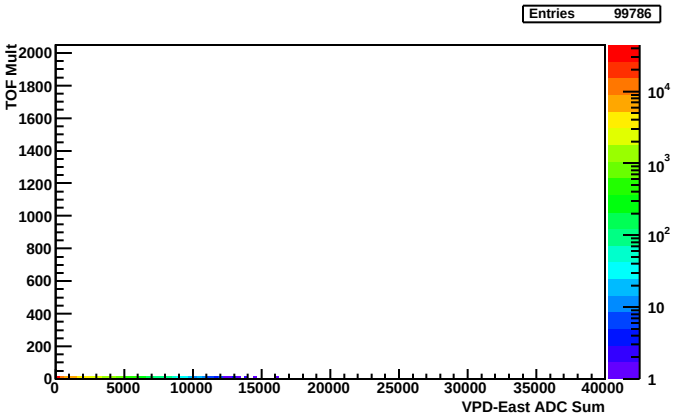

BBQ-VP004 (HI threshold)
Entries 1596576
TAC
QT Input Channel

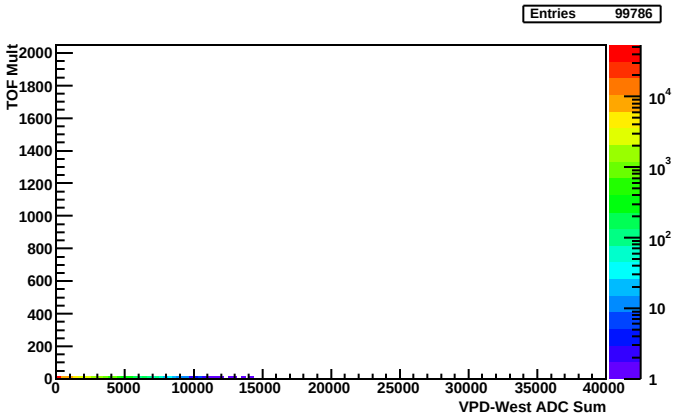

Entries 99786
TOF Mult
BBC-L-East ADC Sum

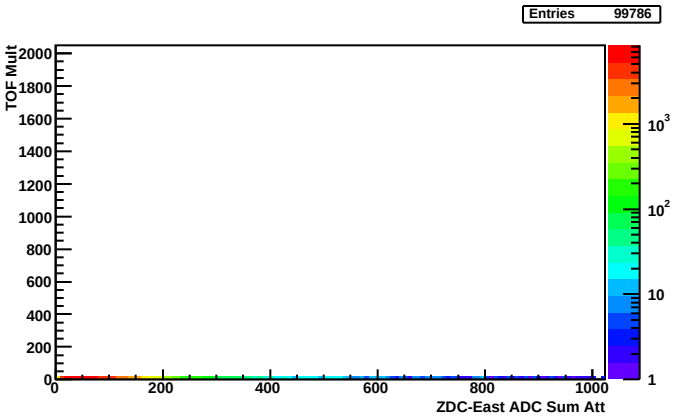

Entries 99786
TOF Mult
BBC-L-West ADC Sum

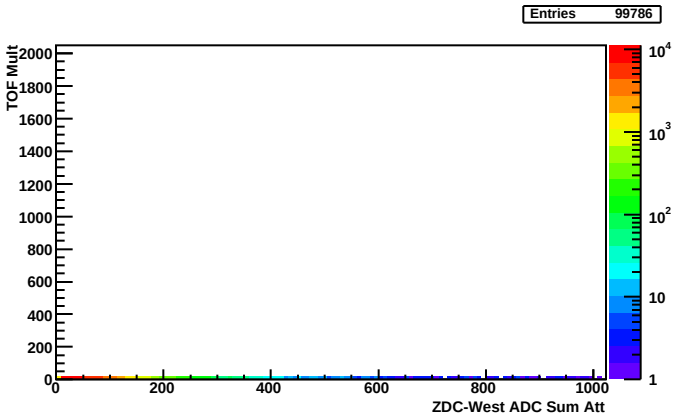

Entries 99786
TOF Mult
BBC-S-East ADC Sum

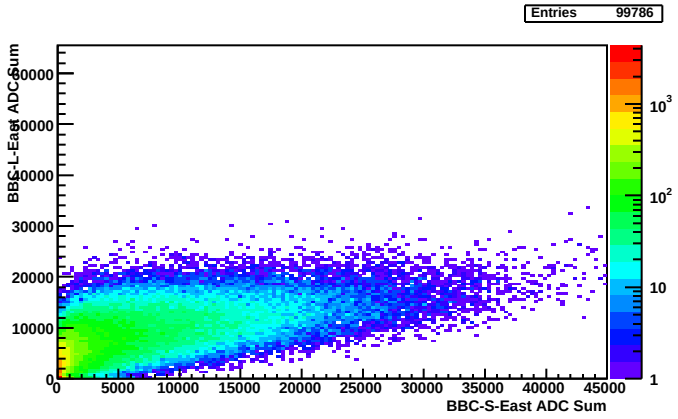

Entries 99786
TOF Mult
BBC-S-West ADC Sum

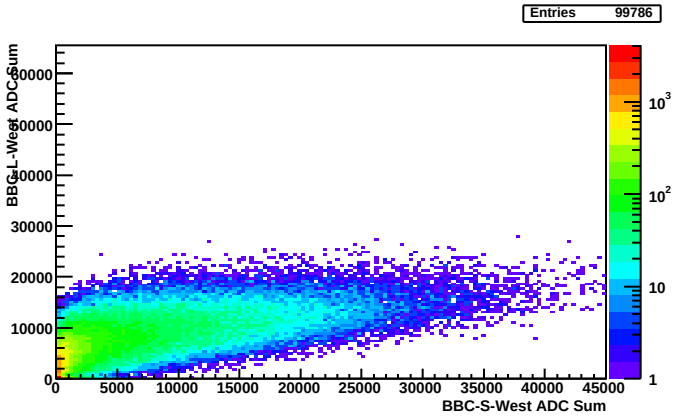

Entries 99786
TOF Mult
VPD-East ADC Sum

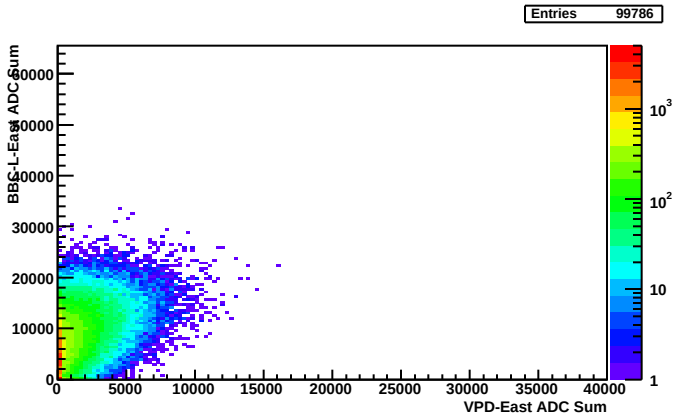

Entries 99786
TOF Mult
VPD-West ADC Sum

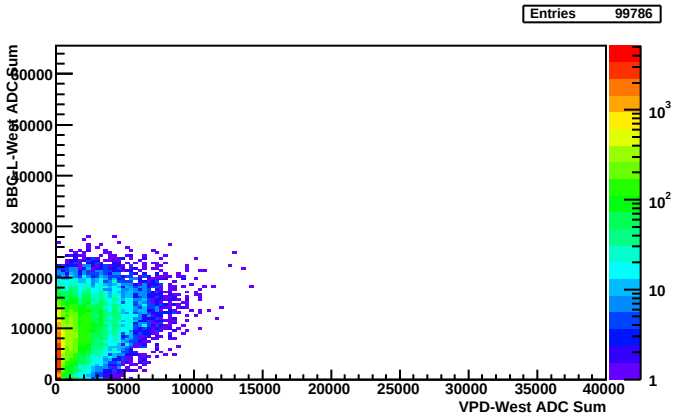

Entries 99786
TOF Mult
ZDC-East ADC Sum Att

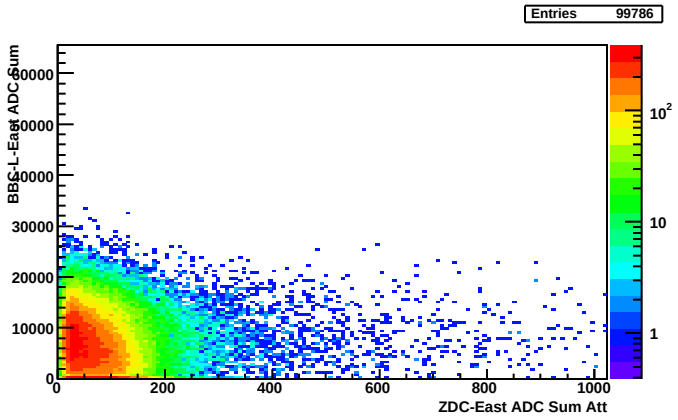

Entries 99786
TOF Mult
ZDC-West ADC Sum Att

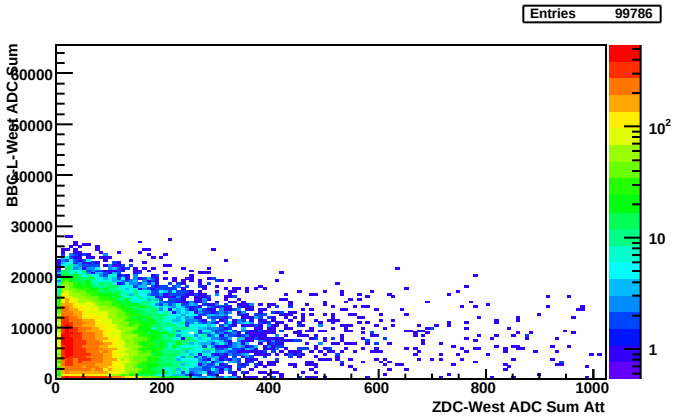

Entries 99786
BBC-L-East ADC Sum
BBC-S-East ADC Sum

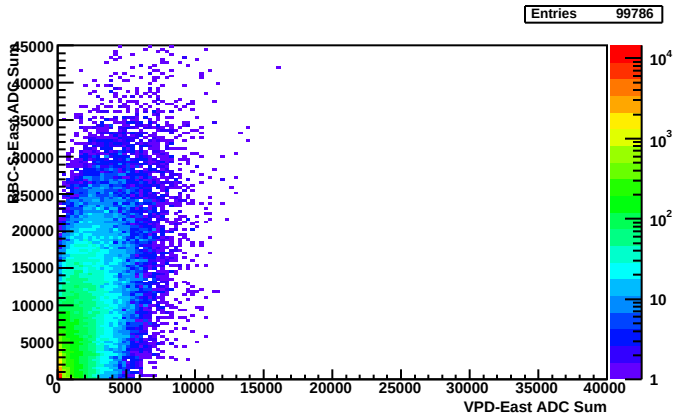

Entries 99786
BBC-L-West ADC Sum
BBC-S-West ADC Sum

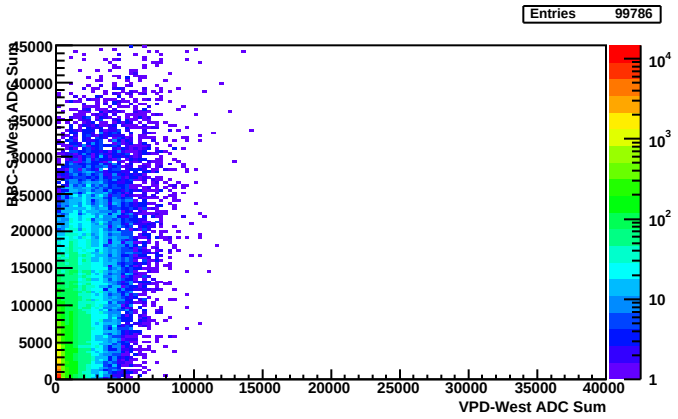

Entries 99786
BBC-L-East ADC Sum
VPD-East ADC Sum

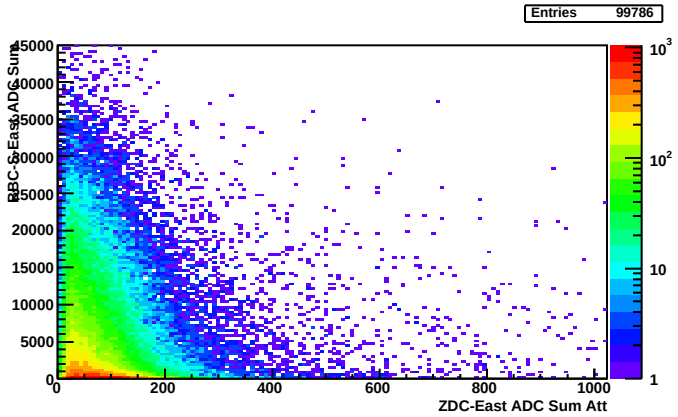

Entries 99786
BBC-L-West ADC Sum
VPD-West ADC Sum

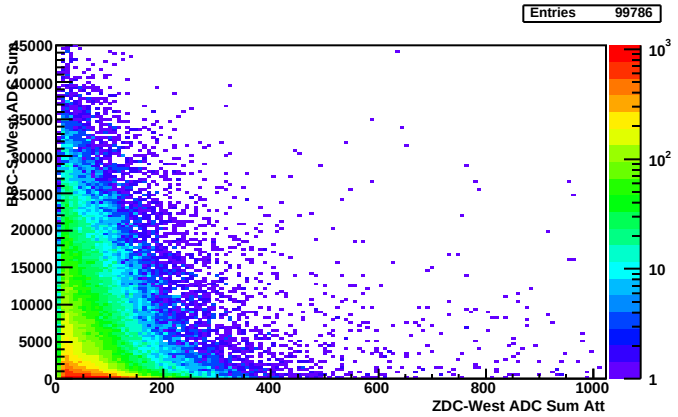

Entries 99786
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

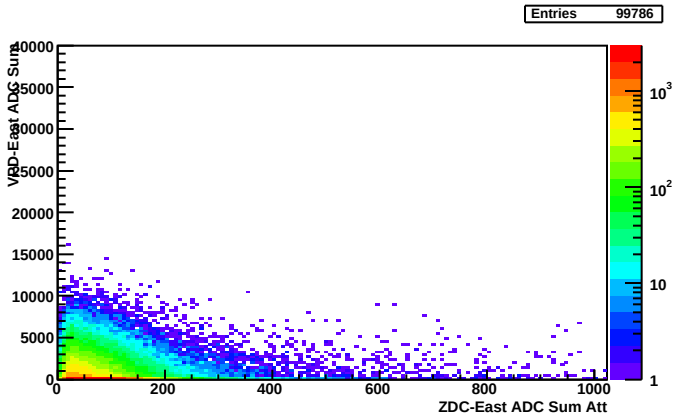

Entries 99786
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

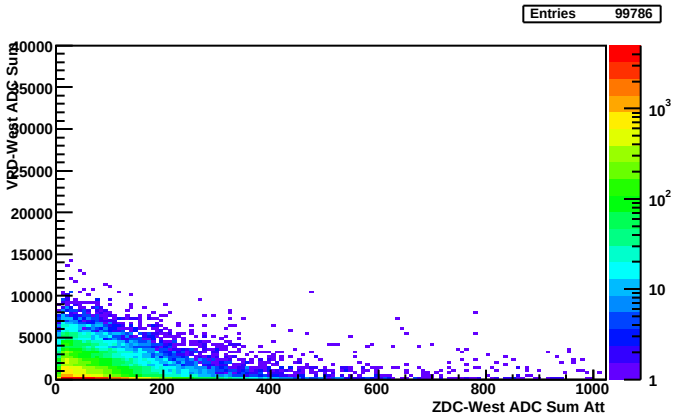

Entries 99786
BBC-S-East ADC Sum
VPD-East ADC Sum

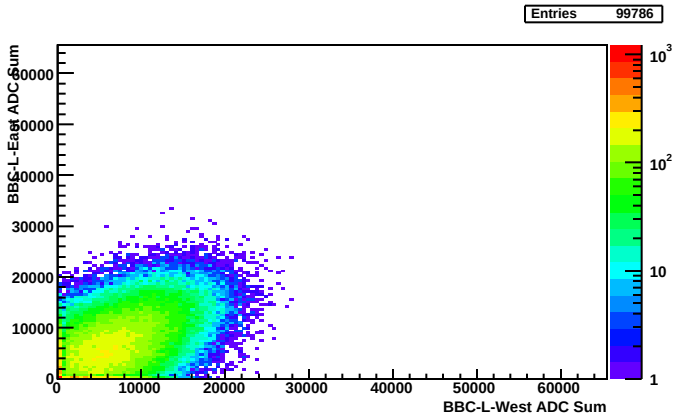

Entries 99786
BBC-S-West ADC Sum
VPD-West ADC Sum

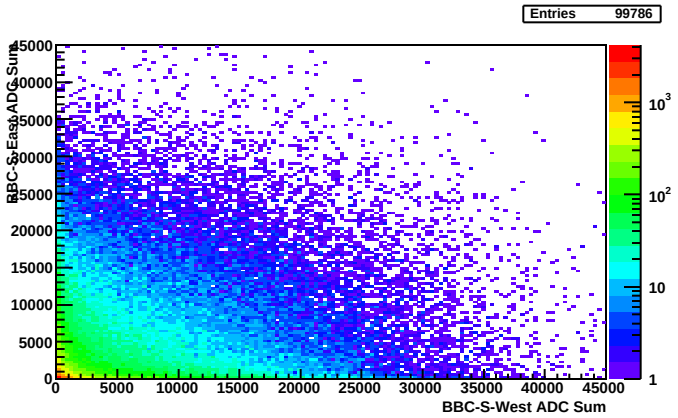

Entries 99786
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

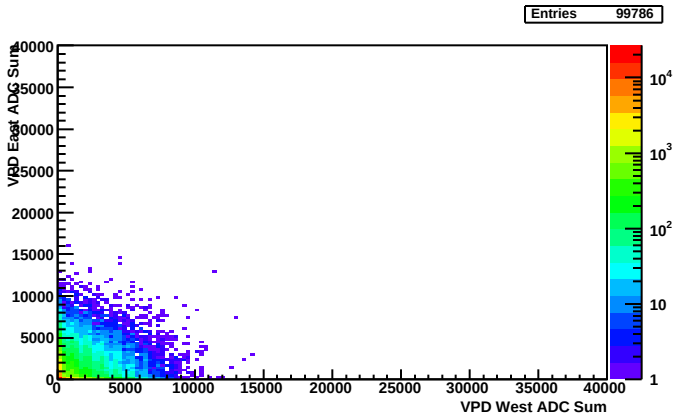

Entries 99786
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

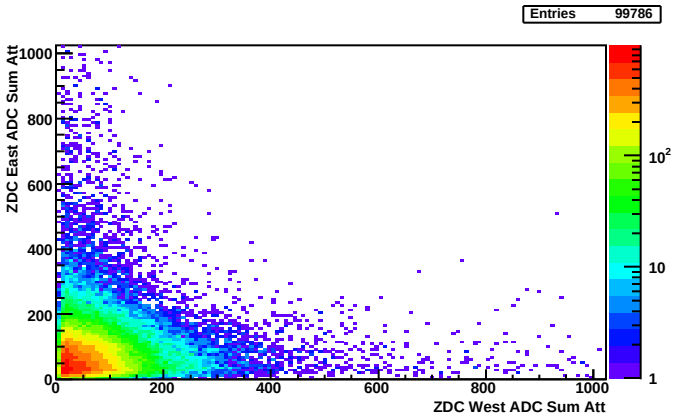

Entries 99786
VPD-East ADC Sum
ZDC-East ADC Sum Att

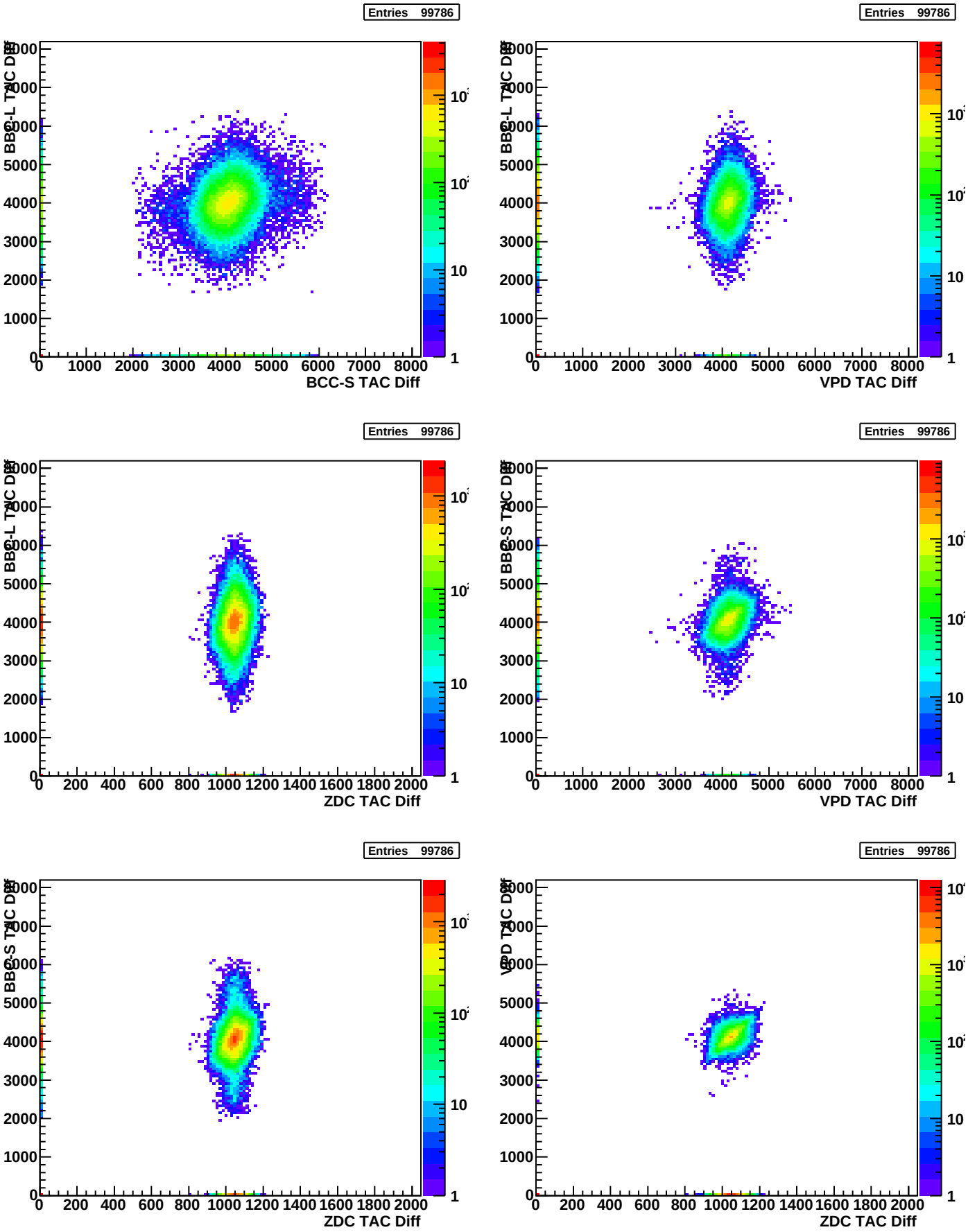

Entries 99786
VPD-West ADC Sum
ZDC-West ADC Sum Att

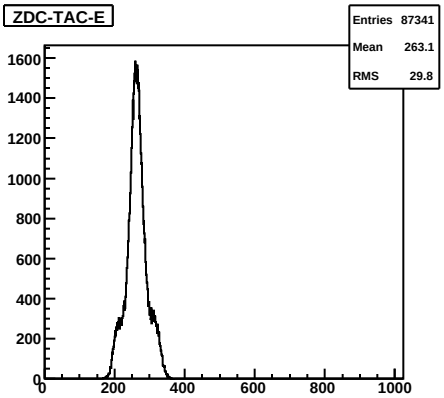

Entries 99786
BBC-L-East ADC Sum
BBC-L-West ADC Sum

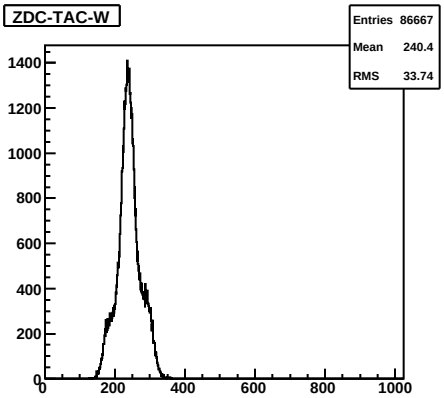

Entries 99786
BBC-S-East ADC Sum
BBC-S-West ADC Sum

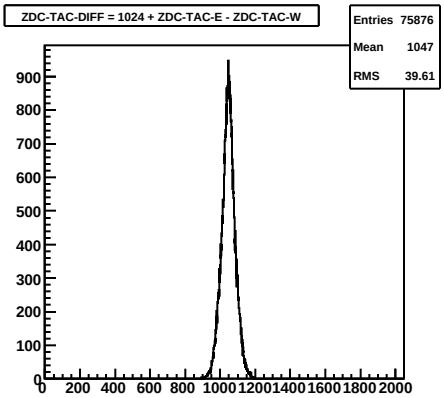

Entries 99786
VPD East ADC Sum
VPD West ADC Sum

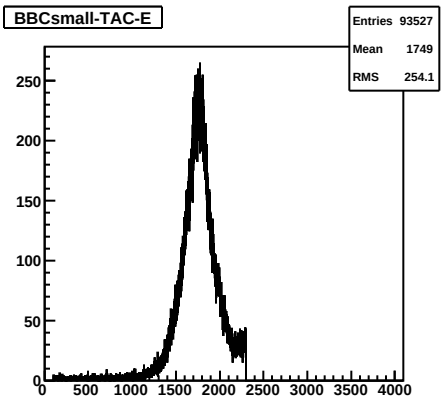

Entries 99786
ZDC East ADC Sum Att
ZDC West ADC Sum Att

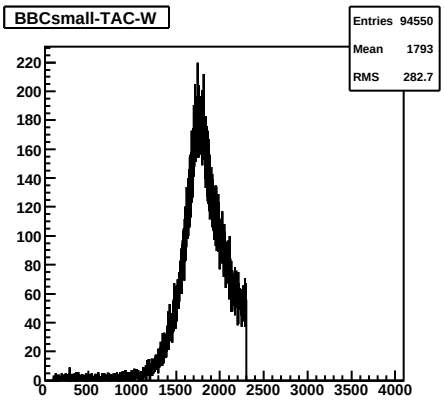

Entries 99786
BBC-L TAC Diff
BCC-S TAC Diff
Entries 99786
BBC-L TAC Diff
VPD TAC Diff
Entries 99786
BBC-L TAC Diff
ZDC TAC Diff
Entries 99786
BBC-S TAC Diff
VPD TAC Diff
Entries 99786
BBC-S TAC Diff
ZDC TAC Diff
Entries 99786
VPD TAC Diff
ZDC TAC Diff

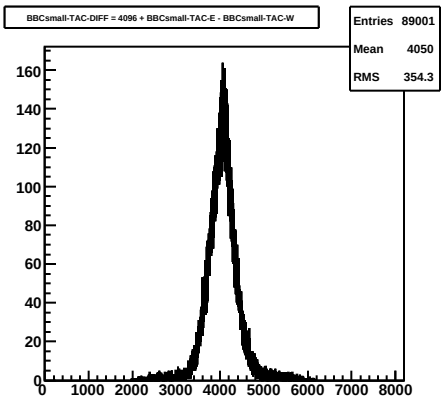

ZDC-TAC-E
Entries 87341
Mean 263.1
RMS 29.8

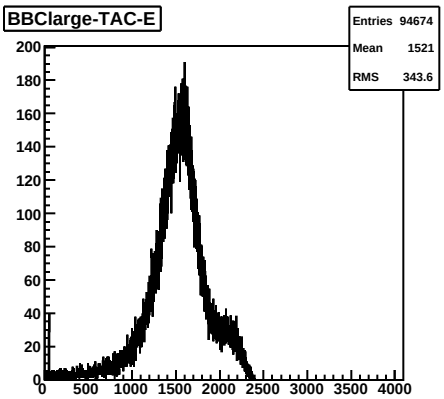

ZDC-TAC-W
Entries 86667
Mean 240.4
RMS 33.74

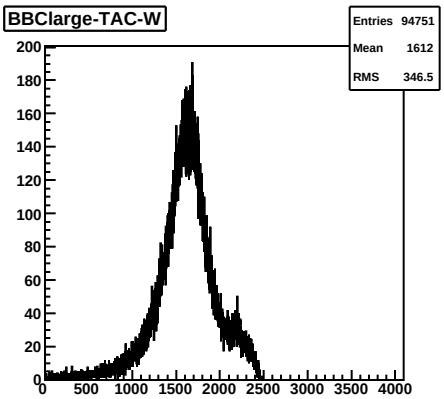

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 75876
Mean 1047
RMS 39.61

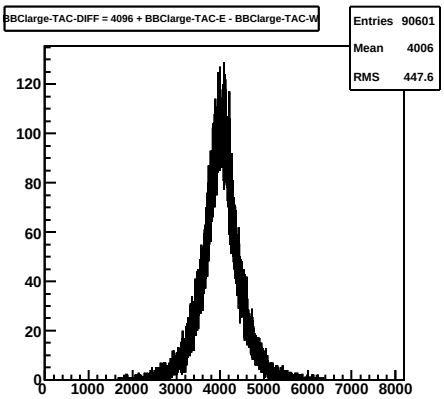

BBCsmall-TAC-E
Entries 93527
Mean 1749
RMS 254.1

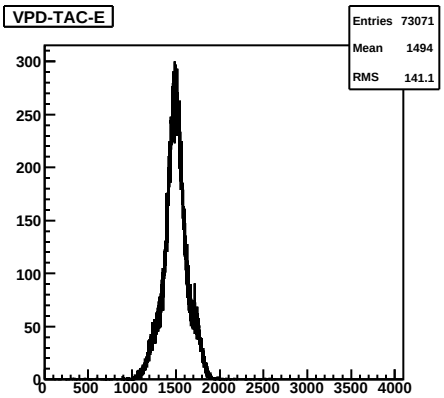

BBCsmall-TAC-W
Entries 94550
Mean 1793
RMS 282.7

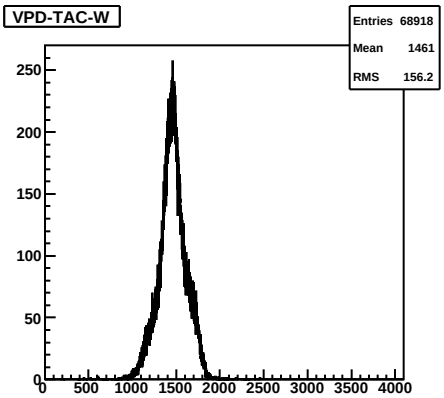

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 89001
Mean 4050
RMS 354.3

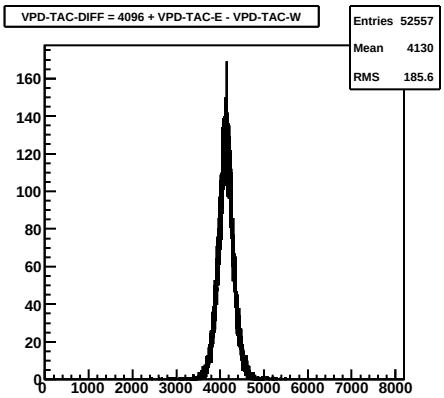

BBClarge-TAC-E
Entries 94674
Mean 1521
RMS 343.6

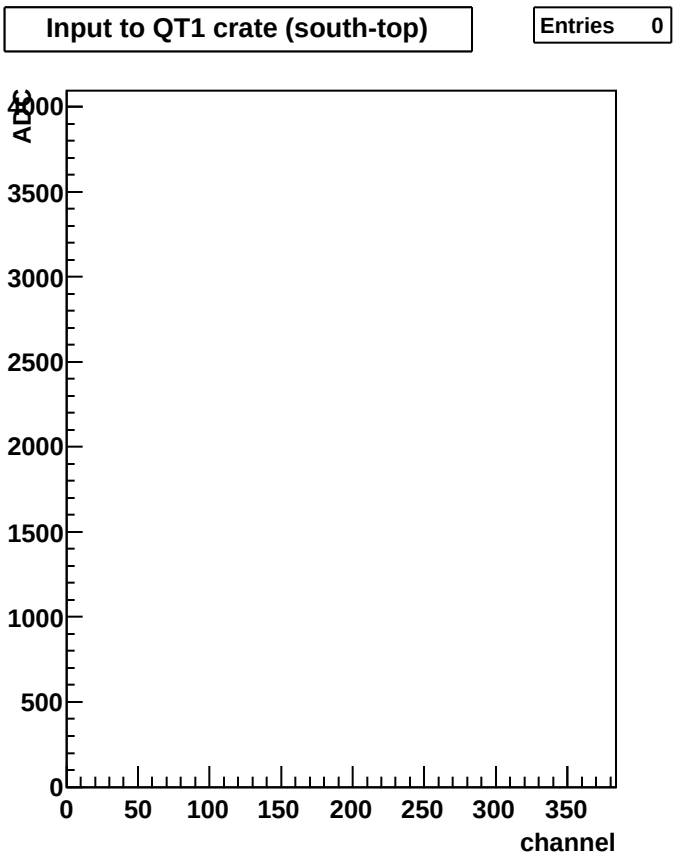

BBClarge-TAC-W
Entries 94751
Mean 1612
RMS 346.5

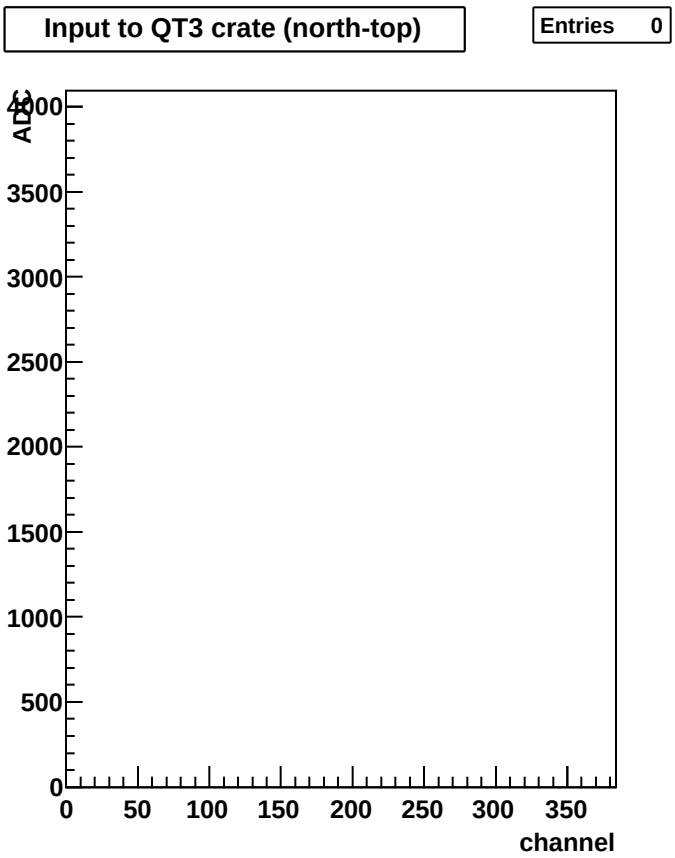

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 90601
Mean 4006
RMS 447.6

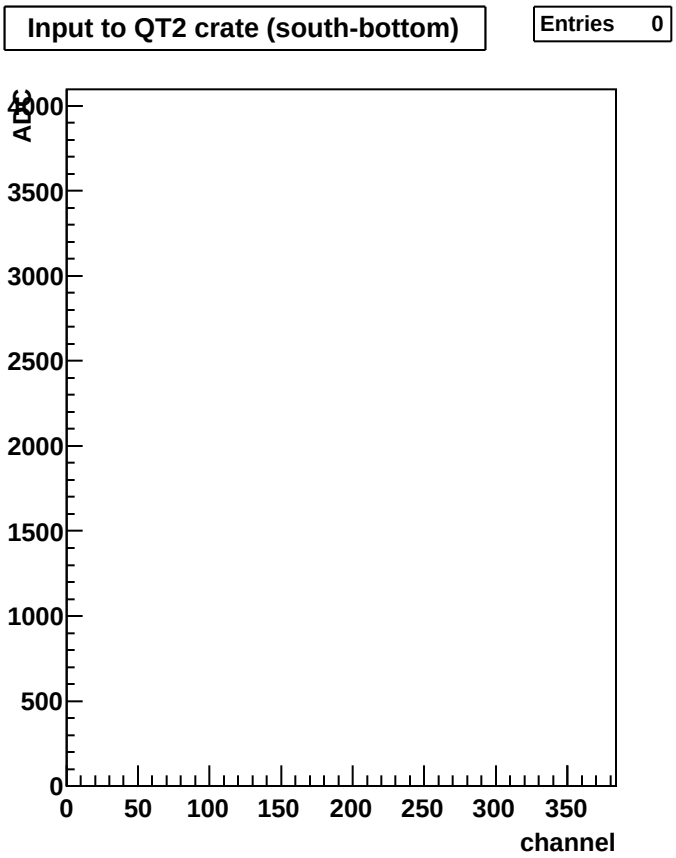

VPD-TAC-E
Entries 73071
Mean 1494
RMS 141.1

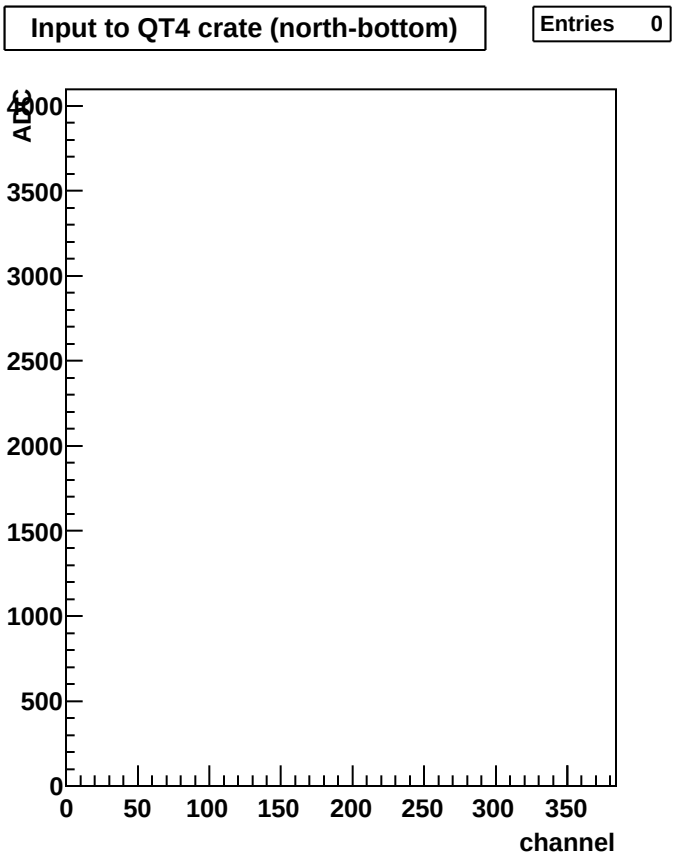

VPD-TAC-W
Entries 68918
Mean 1461
RMS 156.2

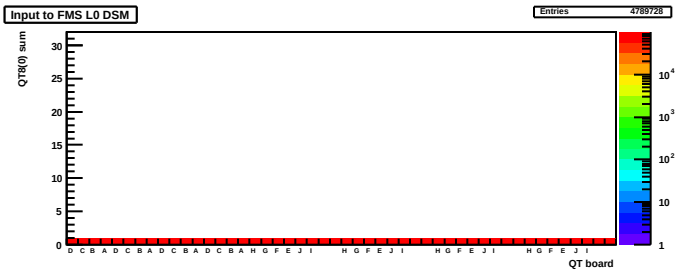

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 52557
Mean 4130
RMS 185.6

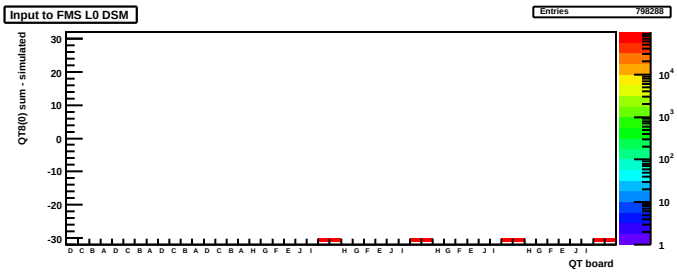

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

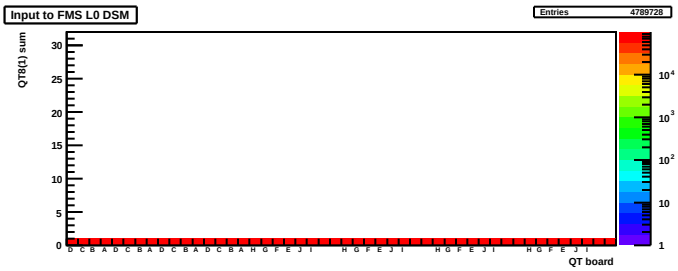

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

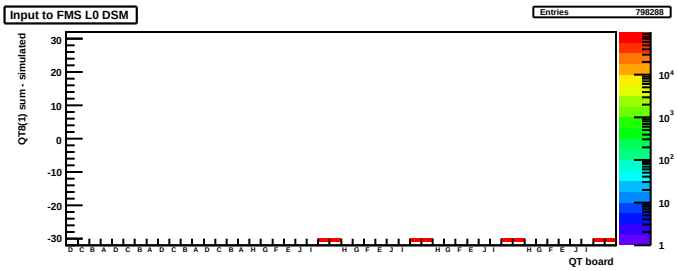

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

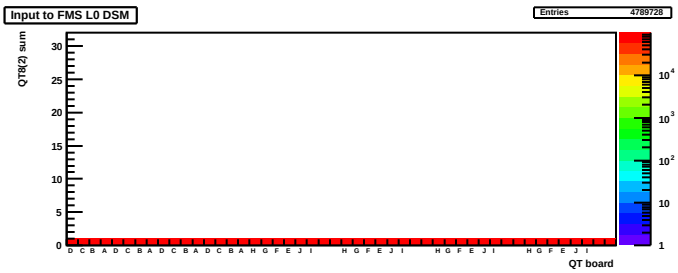

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

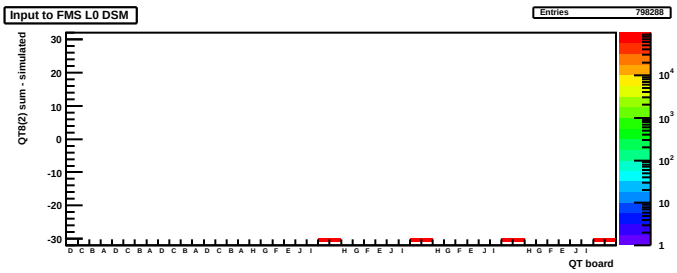

Input to FMS L0 DSM
Entries 4789728
QT8(0) sum
QT board

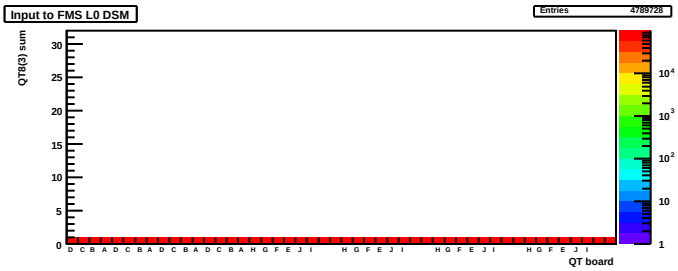

Input to FMS L0 DSM
Entries 798288
QT8(0) sum - simulated
QT board

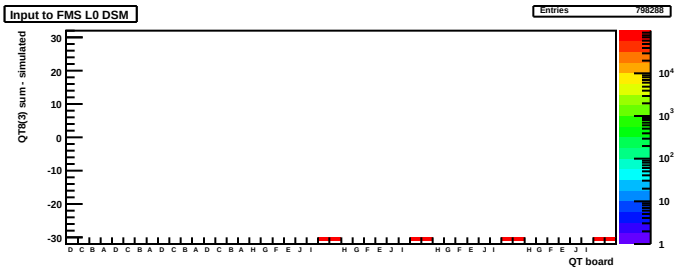

Input to FMS L0 DSM
Entries 4789728
QT8(1) sum
QT board

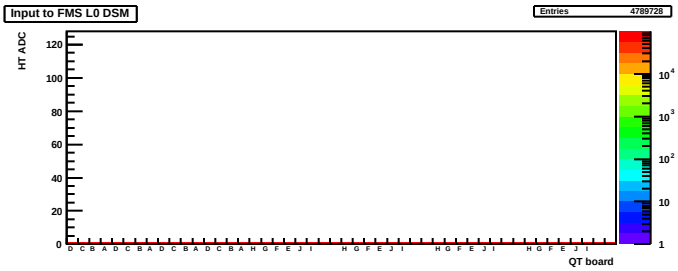

Input to FMS L0 DSM
Entries 798288
QT8(1) sum - simulated
QT board

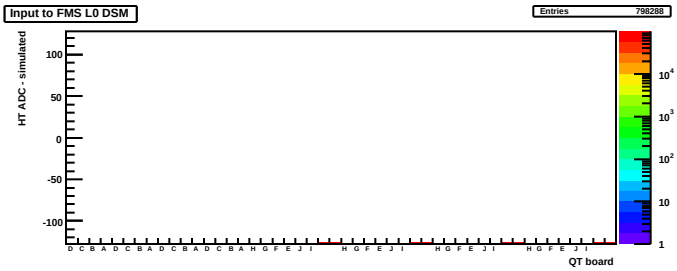

Input to FMS L0 DSM
Entries 4789728
QT8(2) sum
QT board

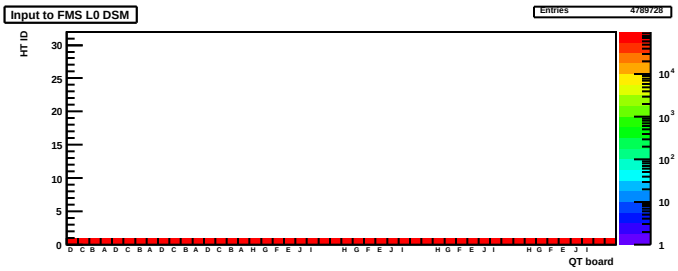

Input to FMS L0 DSM
Entries 798288
QT8(2) sum - simulated
QT board

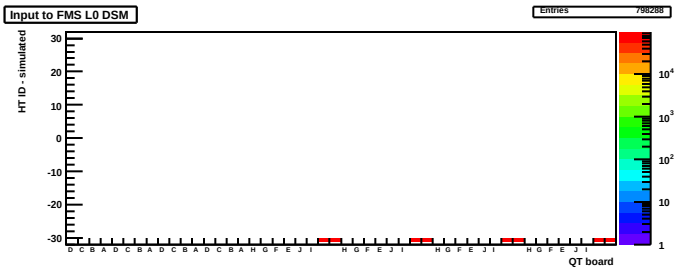

Input to FMS L0 DSM
Entries 4789728
QT8(3) sum
QT board

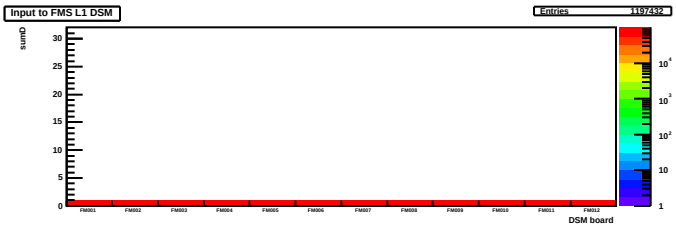

Input to FMS L0 DSM
Entries 798288
QT8(3) sum - simulated
QT board

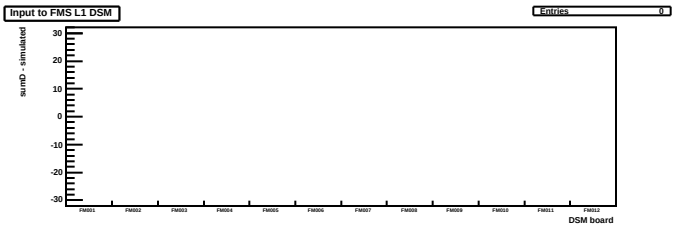

Input to FMS L0 DSM
Entries 4789728
HT ADC
QT board

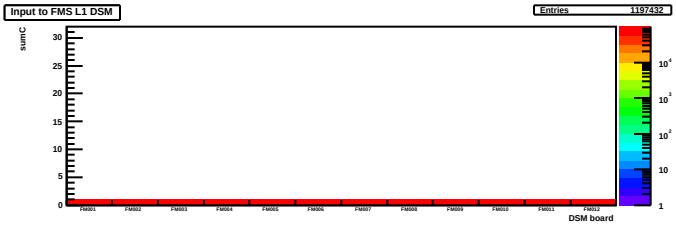

Input to FMS L0 DSM
Entries 798288
HT ADC - simulated
QT board

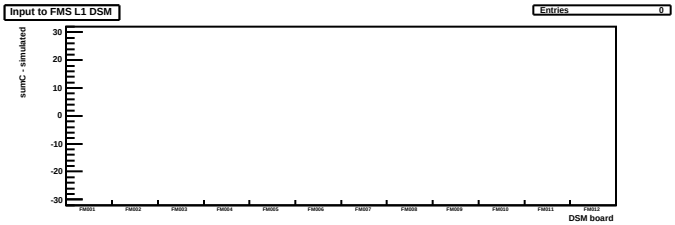

Input to FMS L0 DSM
Entries 4789728
HT ID
QT board

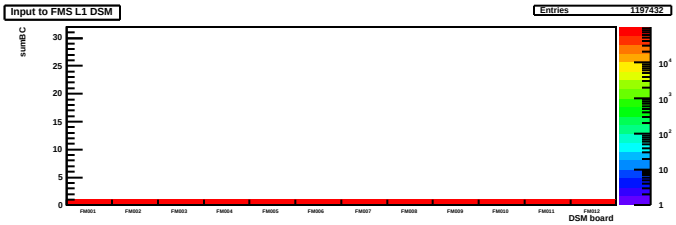

Input to FMS L0 DSM
Entries 798288
HT ID - simulated
QT board

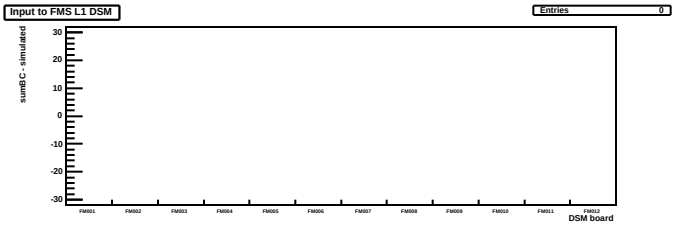

Input to FMS L1 DSM
Entries 1197432
sumD
DSM board

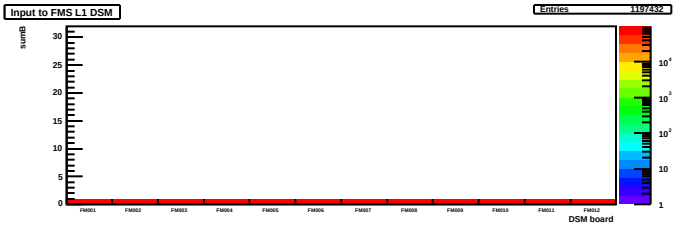

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

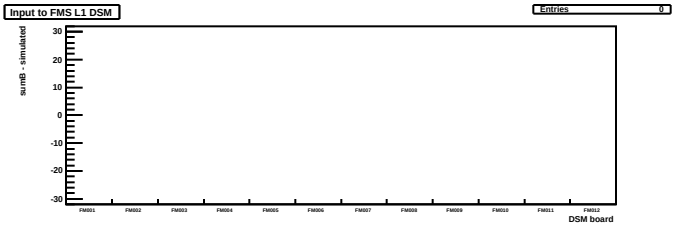

Input to FMS L1 DSM
Entries 1197432
sumC
DSM board

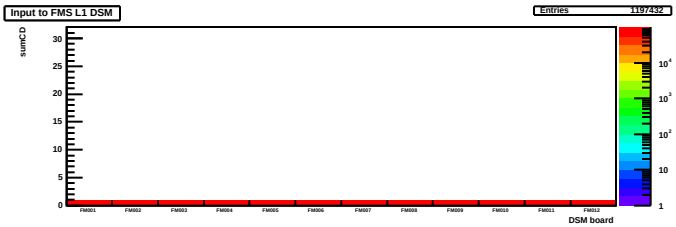

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

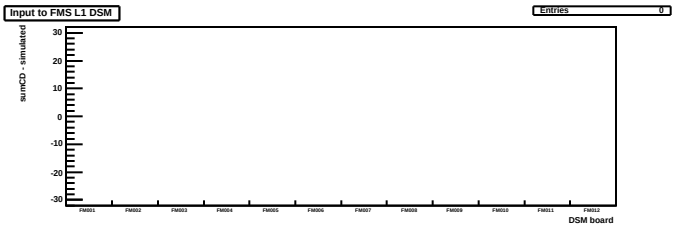

Input to FMS L1 DSM
Entries 1197432
sumBC
DSM board

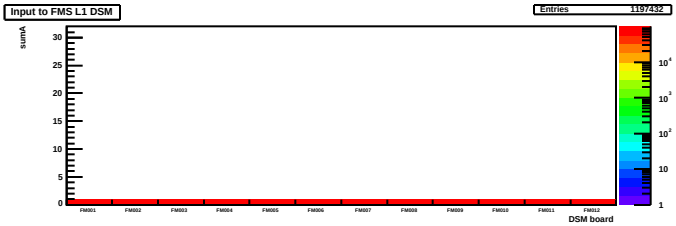

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

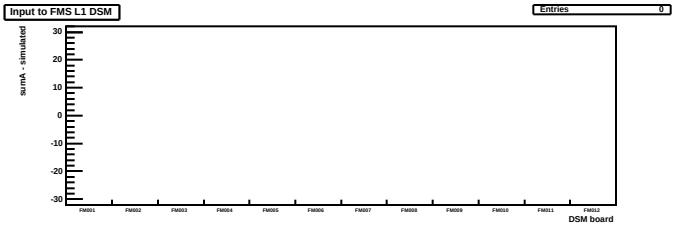

Input to FMS L1 DSM
Entries 1197432
sumB
DSM board

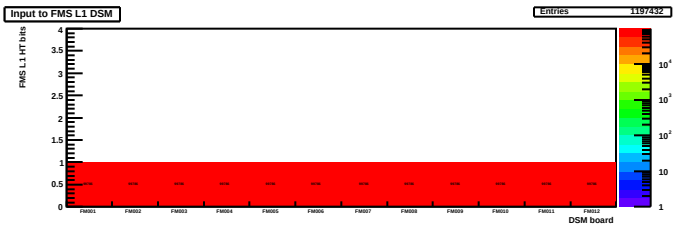

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

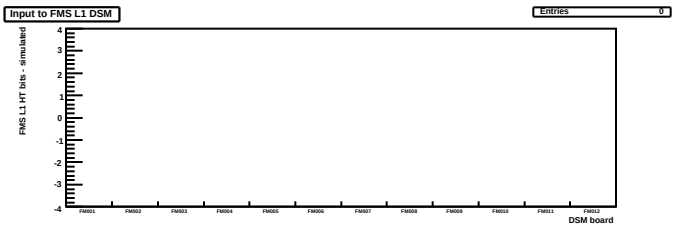

Input to FMS L1 DSM
Entries 1197432
sumCD
DSM board

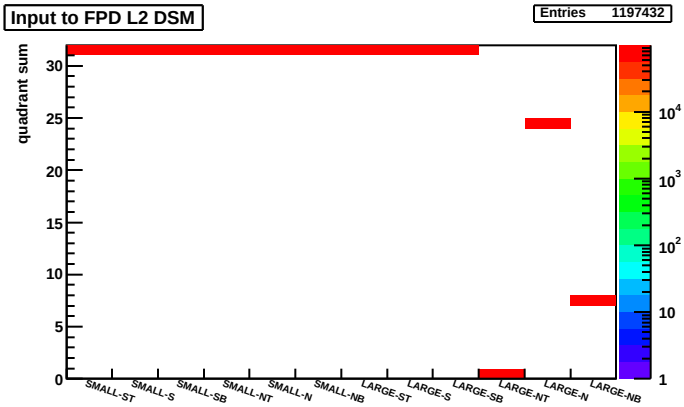

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

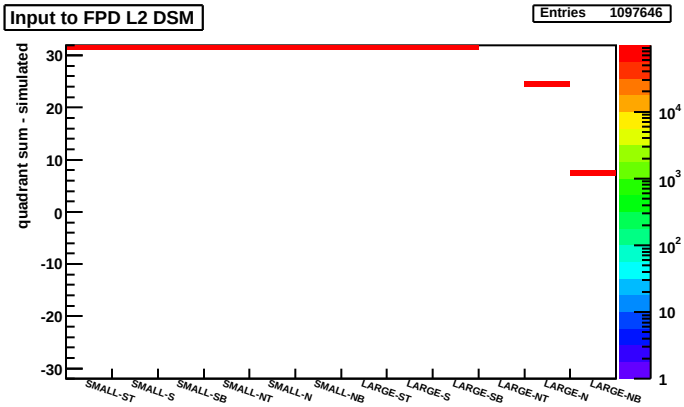

Input to FMS L1 DSM
Entries 1197432
sumA
DSM board

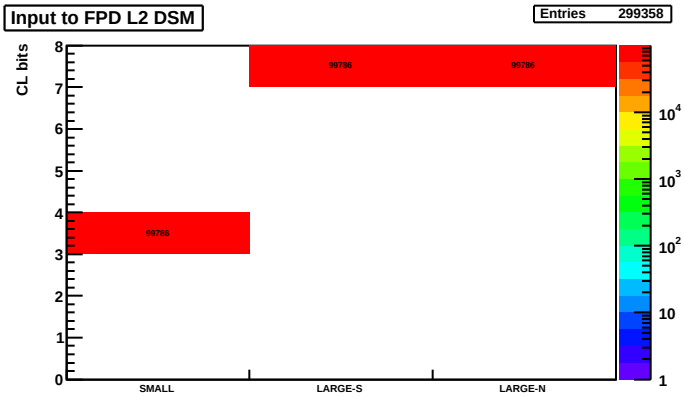

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

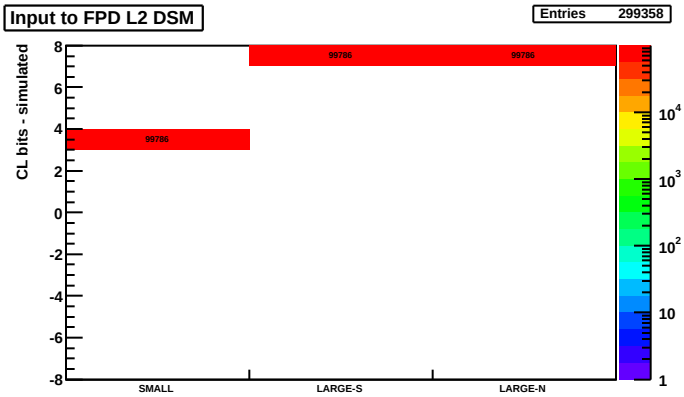

Input to FMS L1 DSM
Entries 1197432
FMS L1 HT bits
DSM board

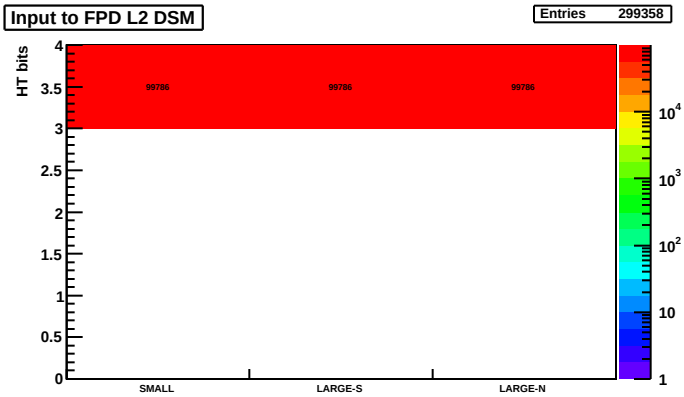

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

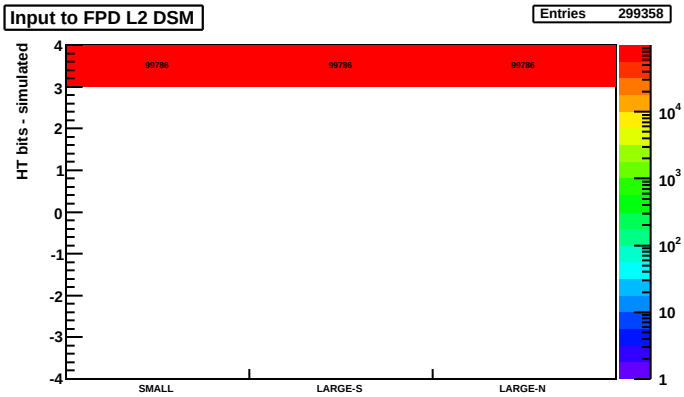

Input to FPD L2 DSM
Entries 1197432
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

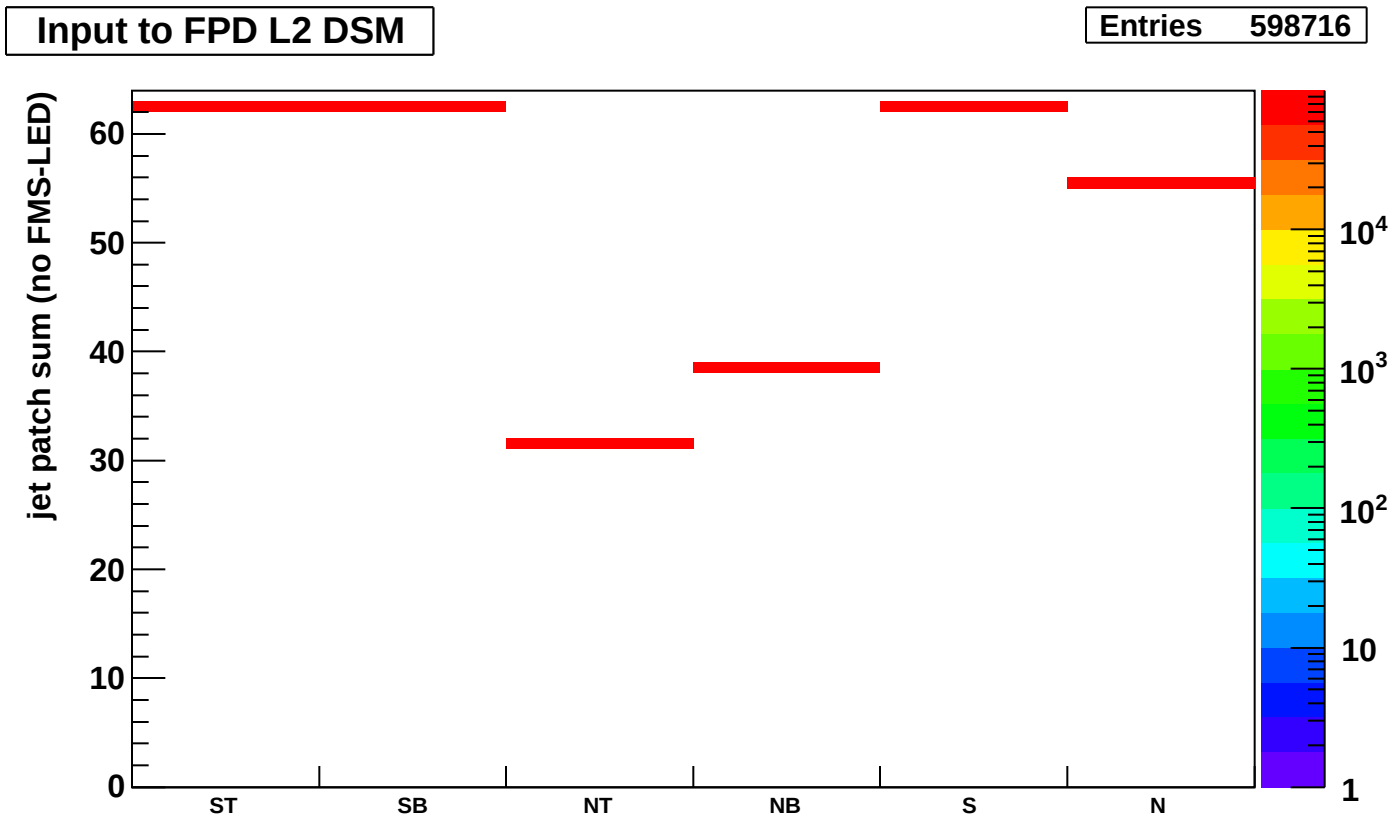

Input to FPD L2 DSM
Entries 1097646
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

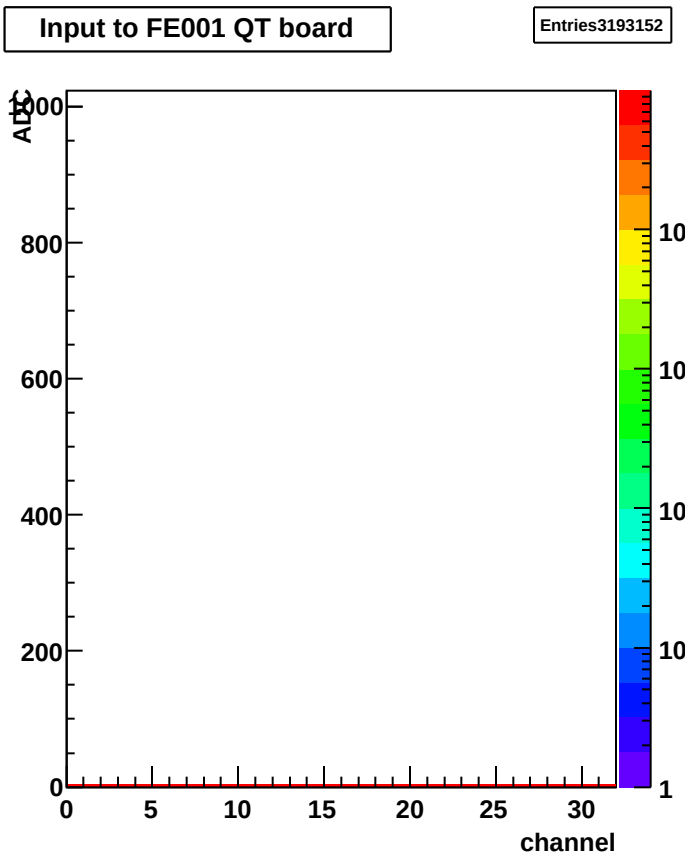

Input to FPD L2 DSM
Entries 299358
CL bits
99786
99786
99786
SMALL
LARGE-S
LARGE-N

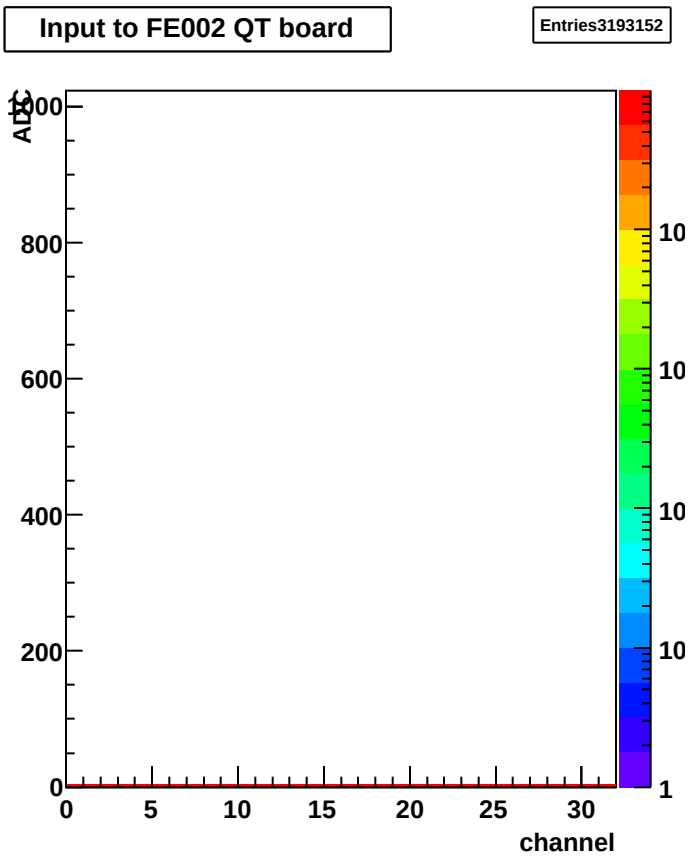

Input to FPD L2 DSM
Entries 299358
CL bits - simulated
99786
99786
99786
SMALL
LARGE-S
LARGE-N

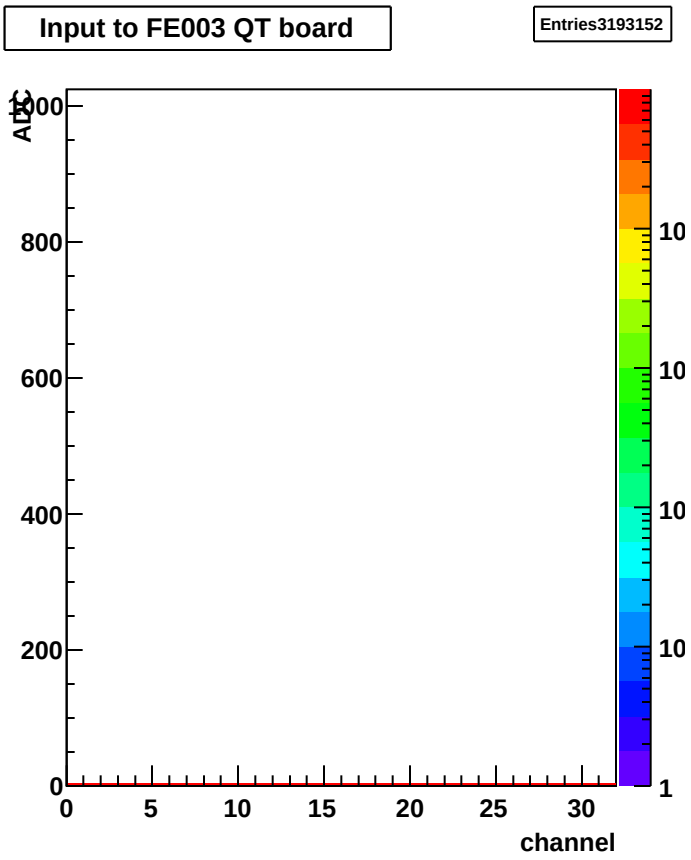

Input to FPD L2 DSM
Entries 299358
HT bits
99786
99786
99786
SMALL
LARGE-S
LARGE-N

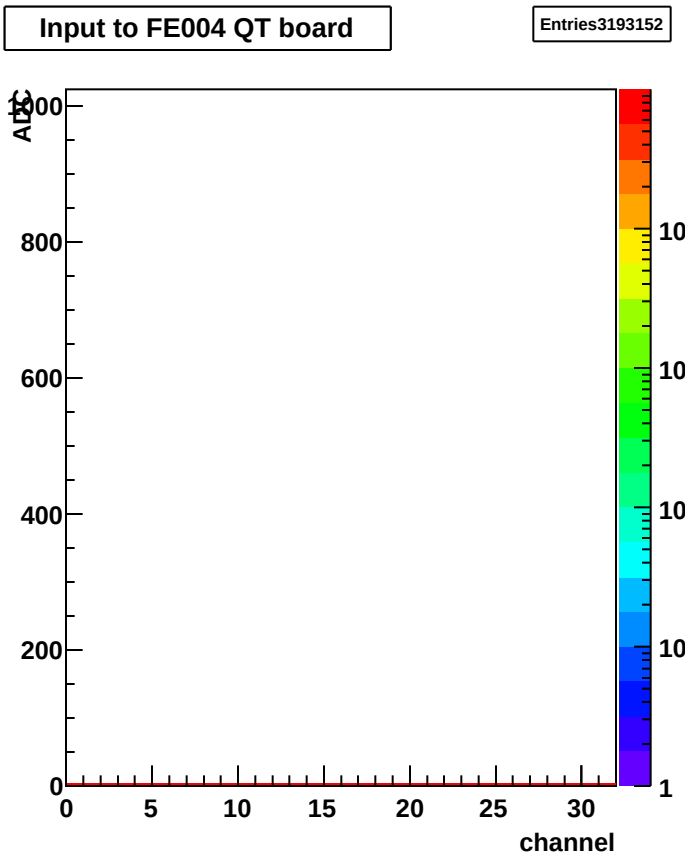

Input to FPD L2 DSM
Entries 299358
HT bits - simulated
99786
99786
99786
SMALL
LARGE-S
LARGE-N

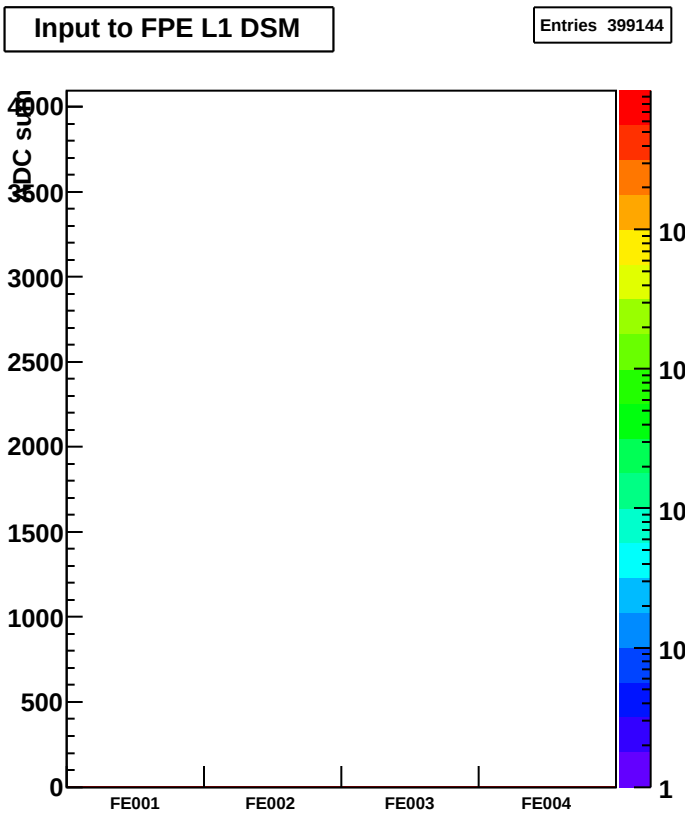

Input to FPD L2 DSM
Entries 598716
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

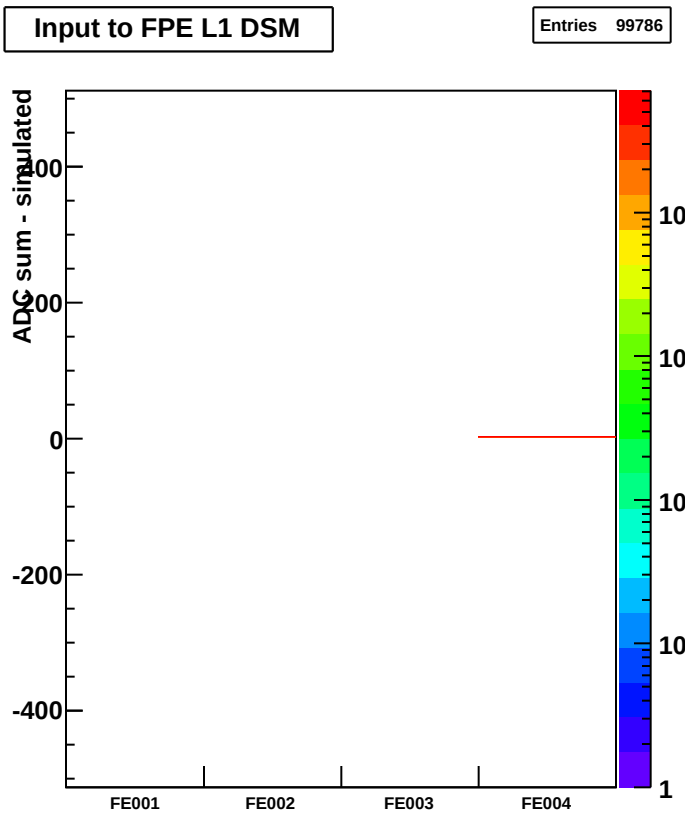

Input to FE001 QT board
Entries3193152
ADC
channel


Input to FE002 QT board
Entries3193152
ADC
channel

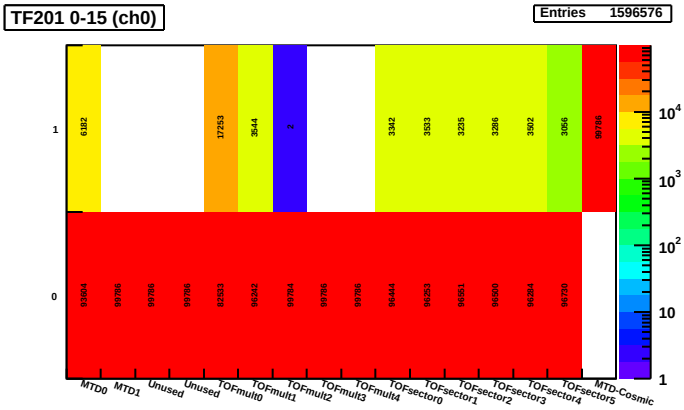

Input to FE003 QT board
Entries3193152
ADC
channel


Input to FE004 QT board
Entries3193152
ADC
channel

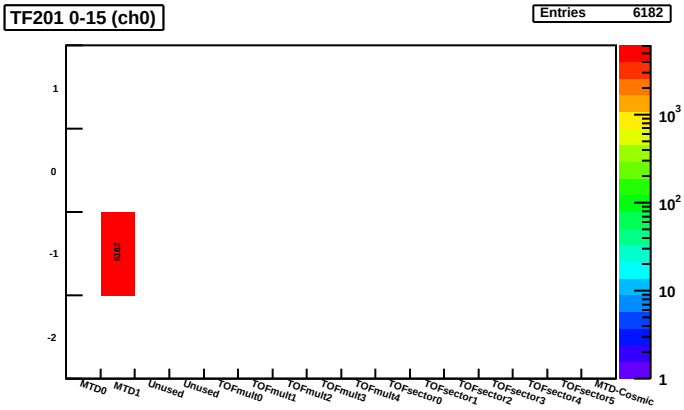

Input to FPE L1 DSM
Entries 399144
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 99786
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

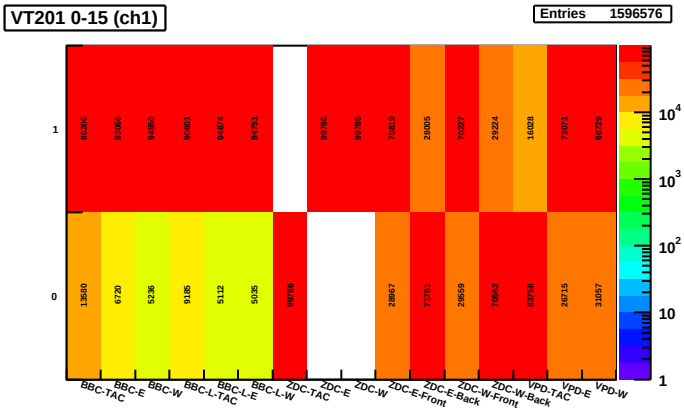
TF201 0-15 (ch0)



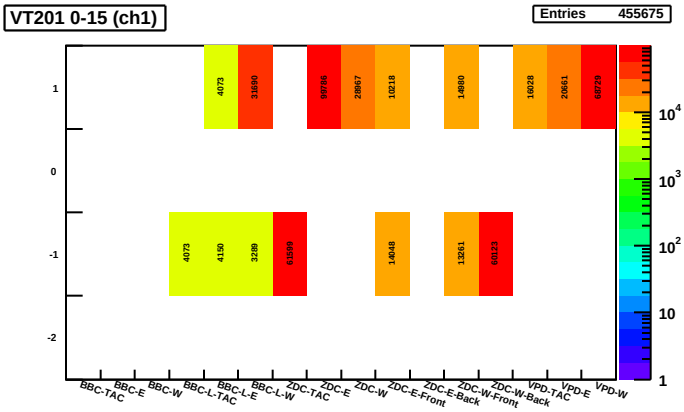
TF201 0-15 (ch0)



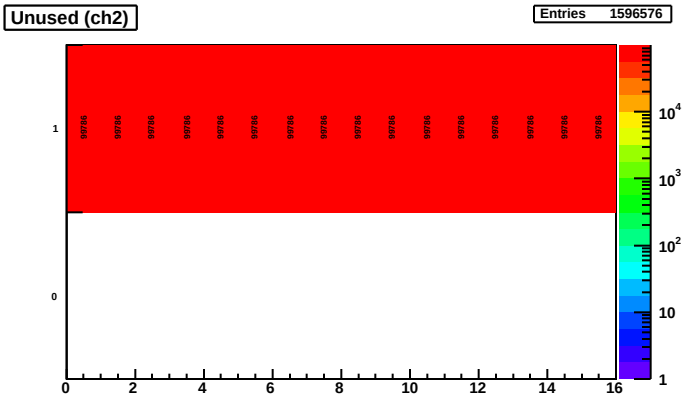
VT201 0-15 (ch1)

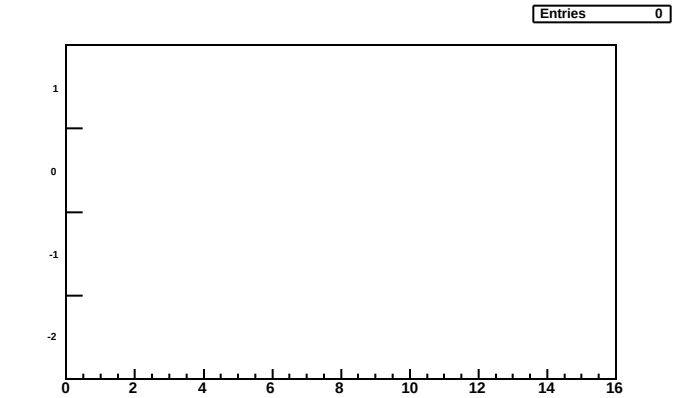


VT201 0-15 (ch1)

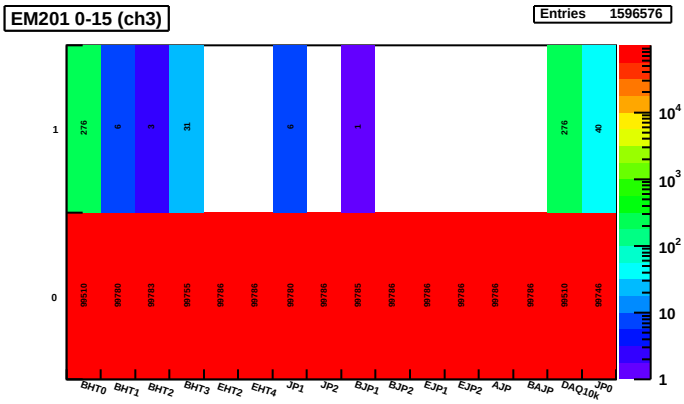


Unused (ch2)

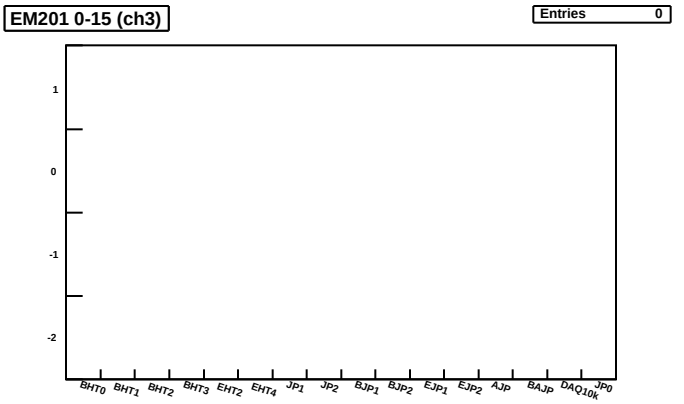




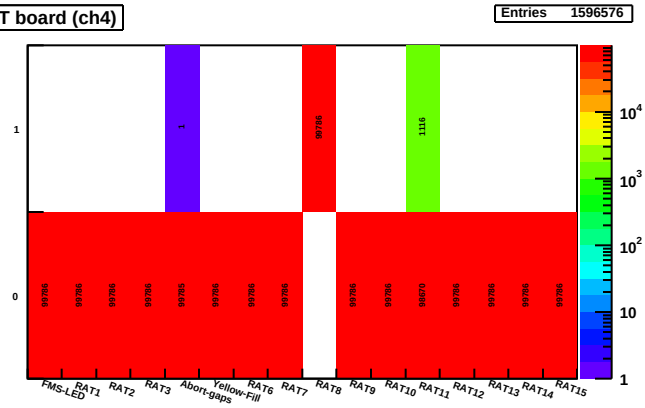
EM201 0-15 (ch3)

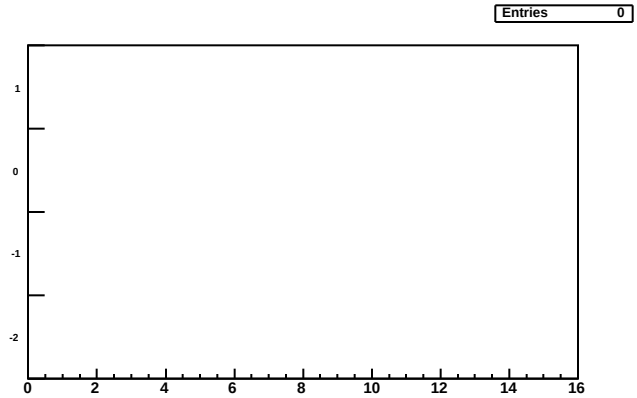


EM201 0-15 (ch3)

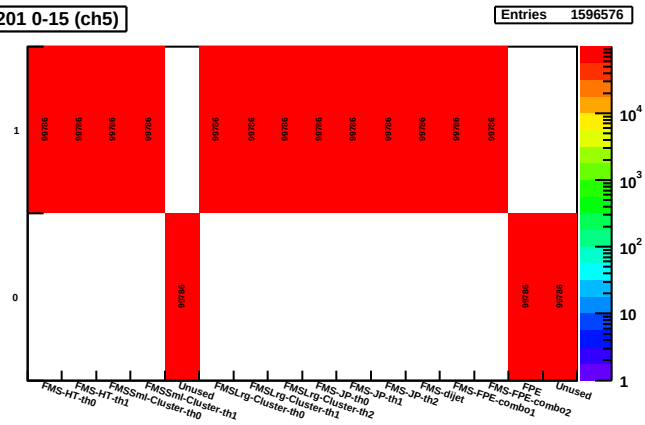


RAT board (ch4)

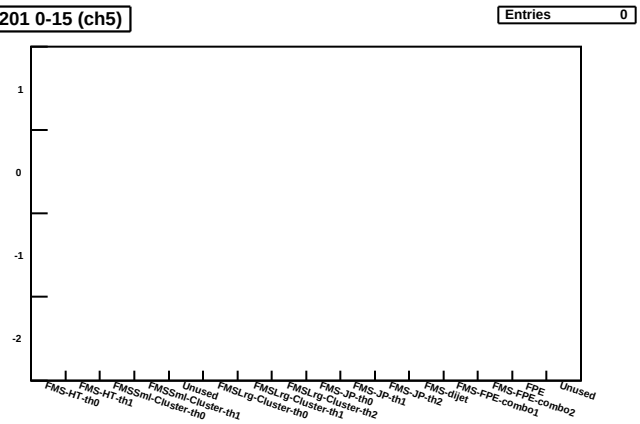




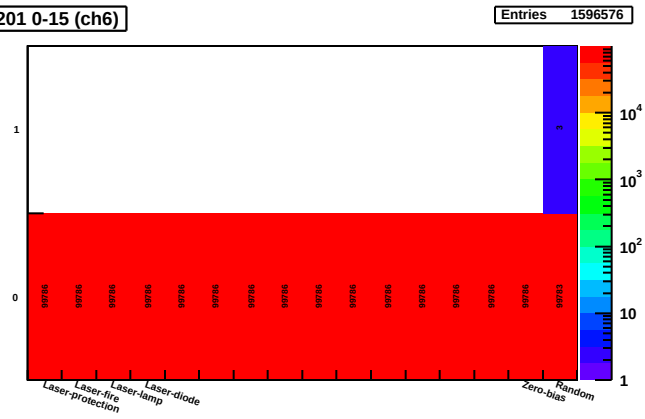
FP201 0-15 (ch5)

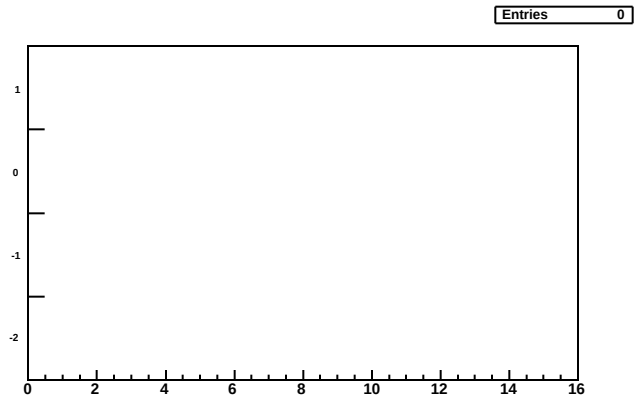
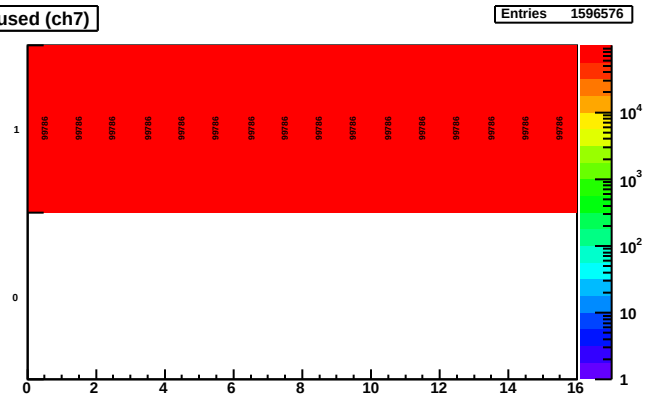
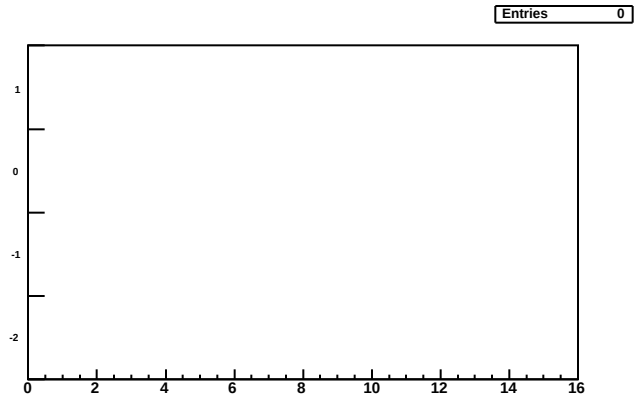


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)