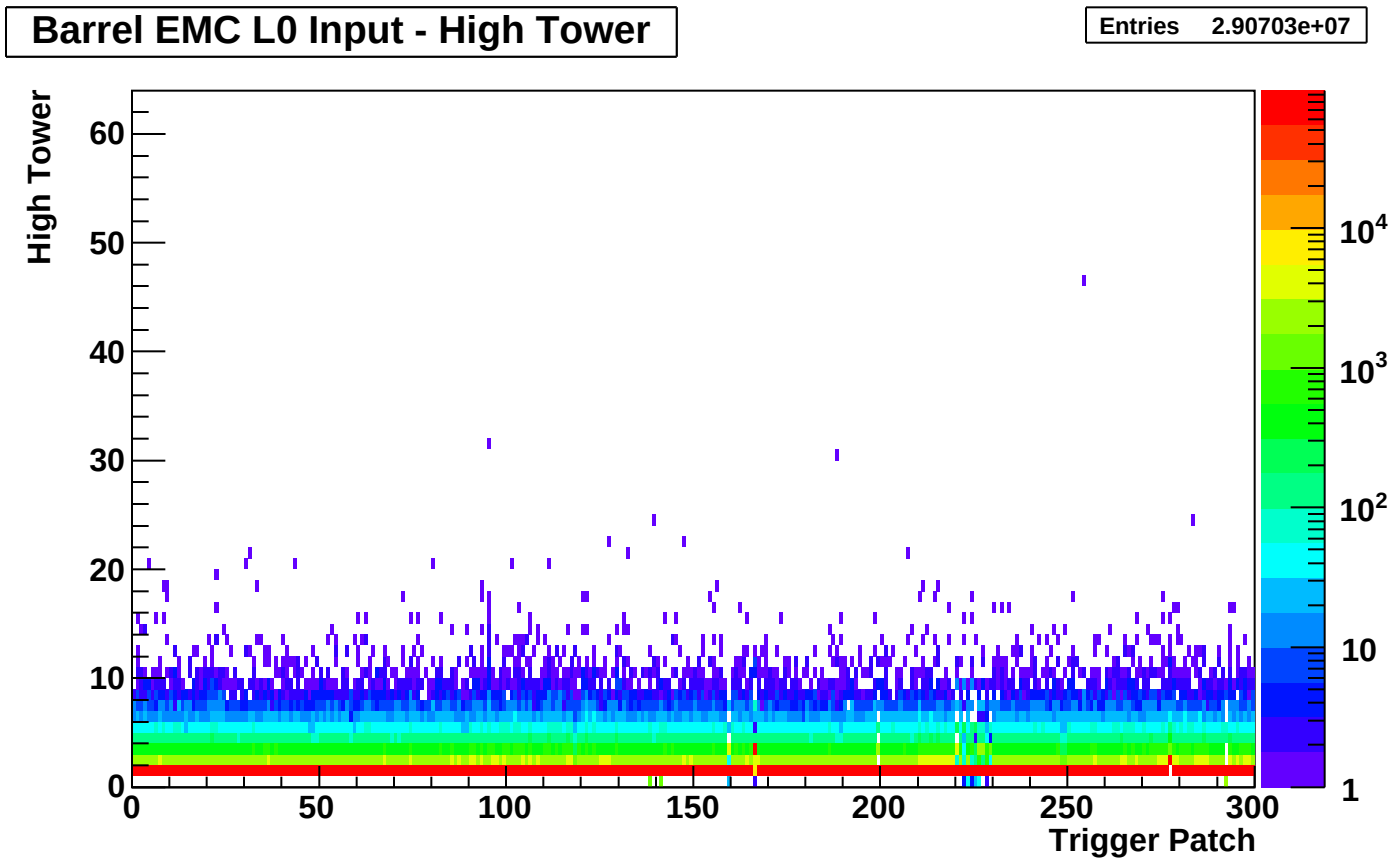
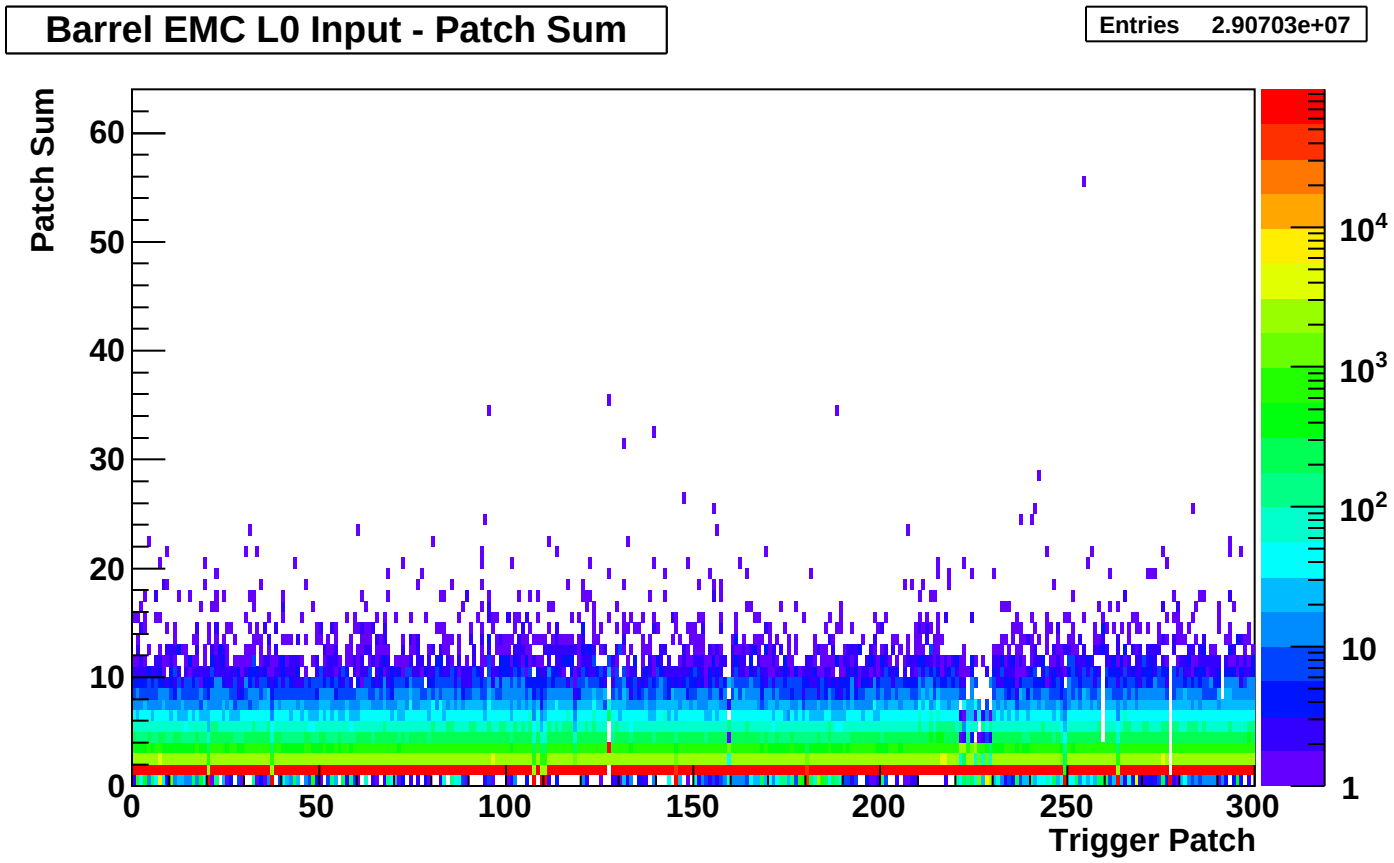
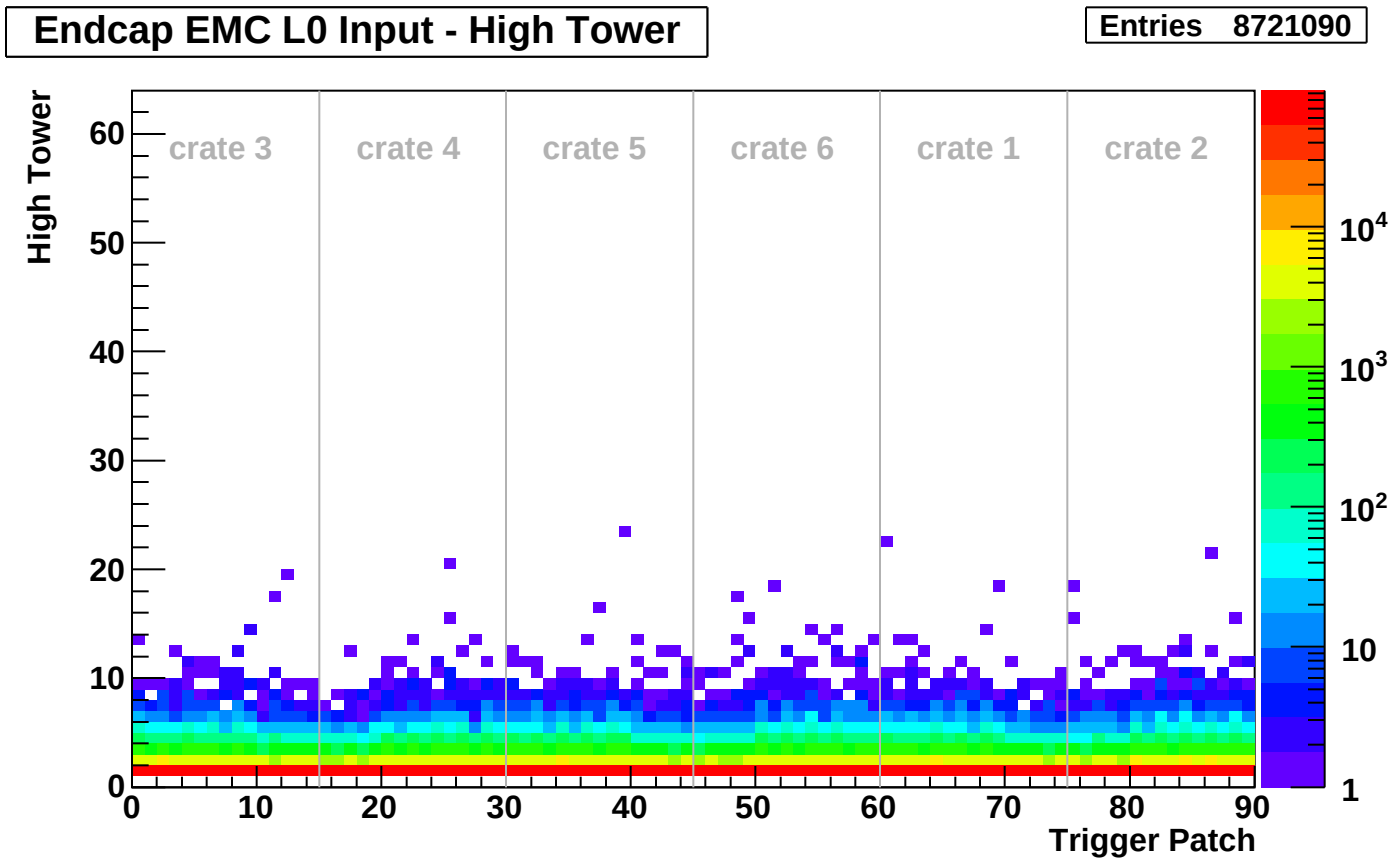
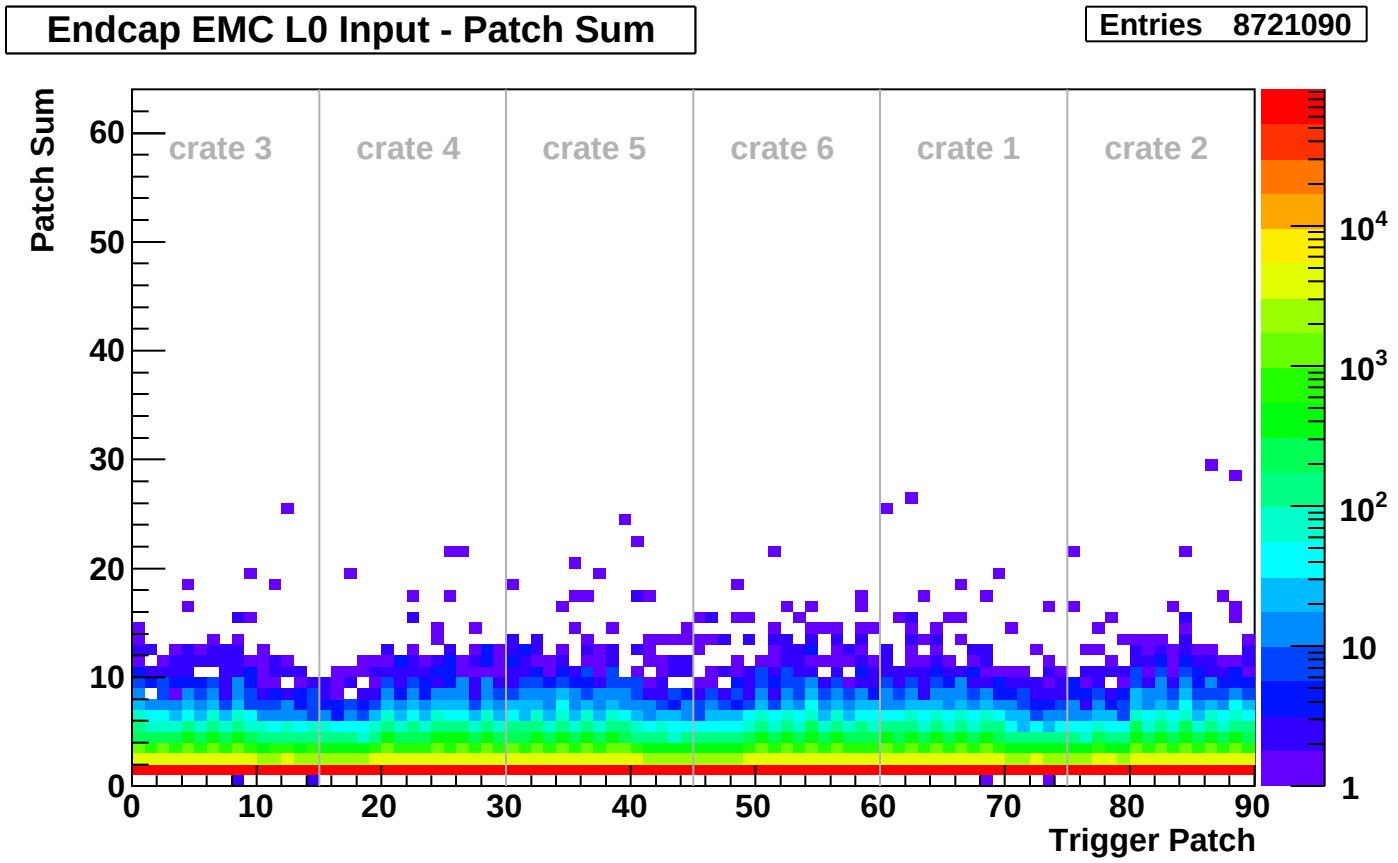
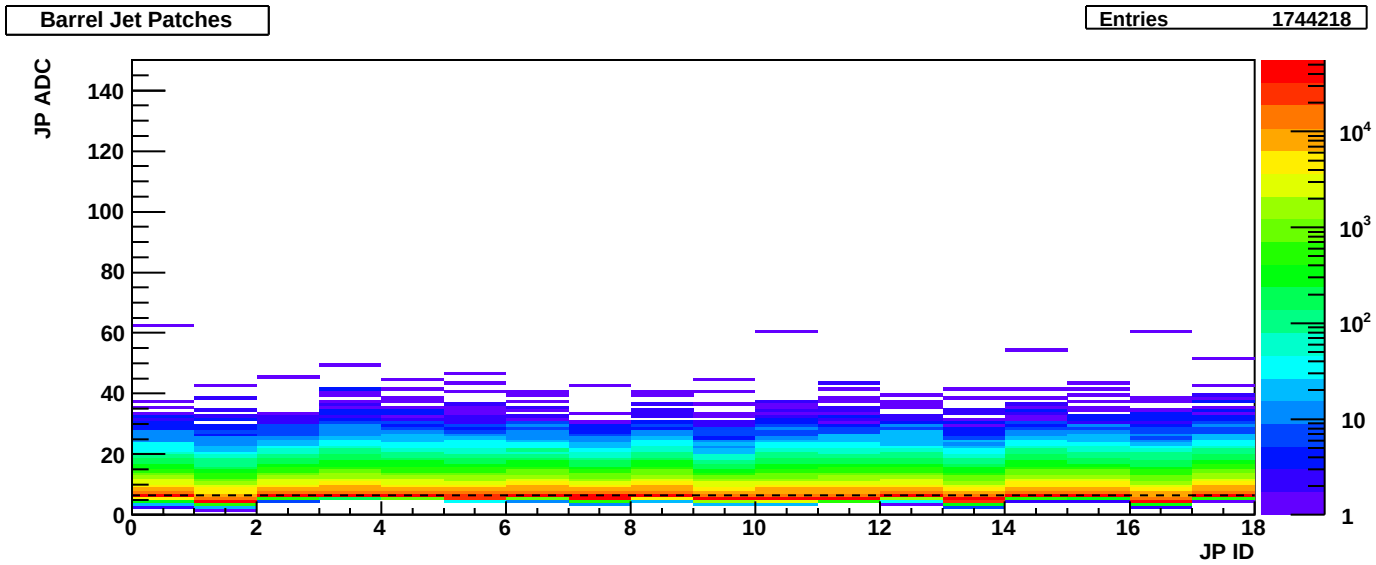
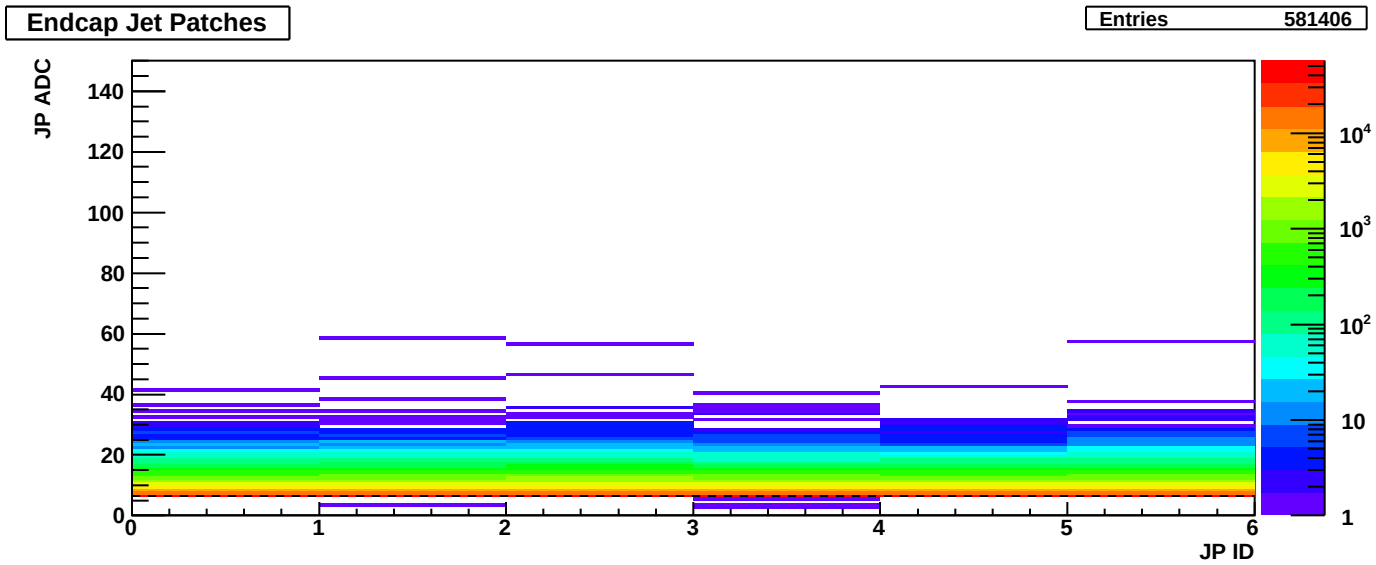

Barrel EMC L0 Input - High Tower
Entries 2.90703e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

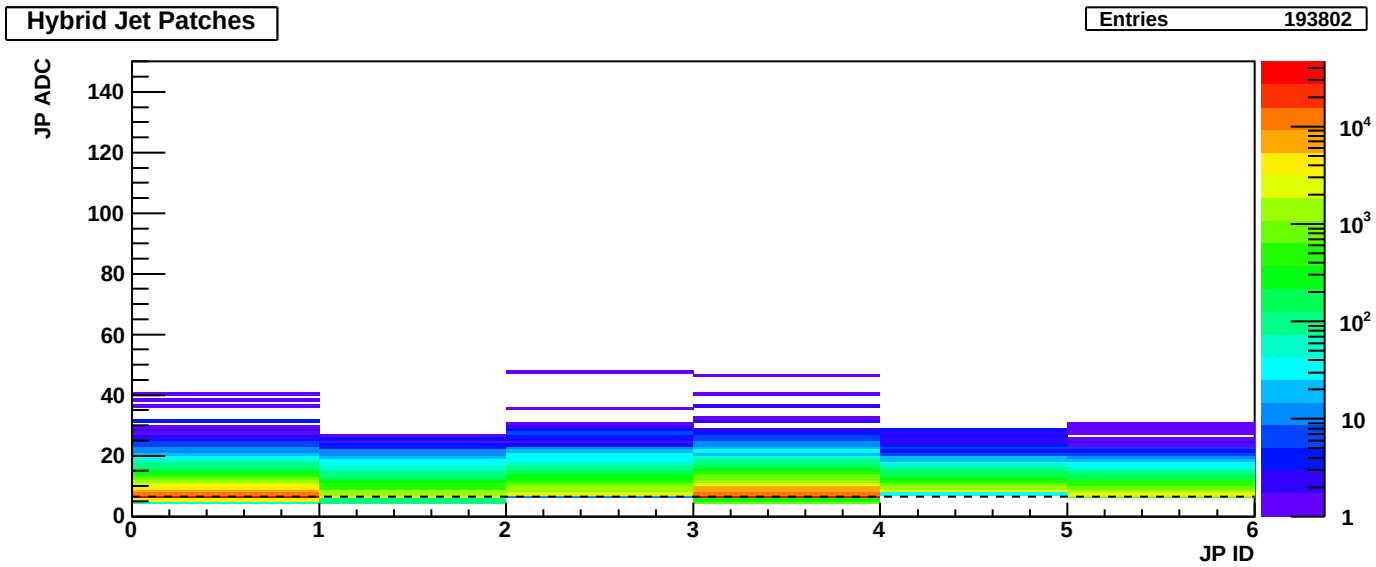

Barrel EMC L0 Input - Patch Sum
Entries 2.90703e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

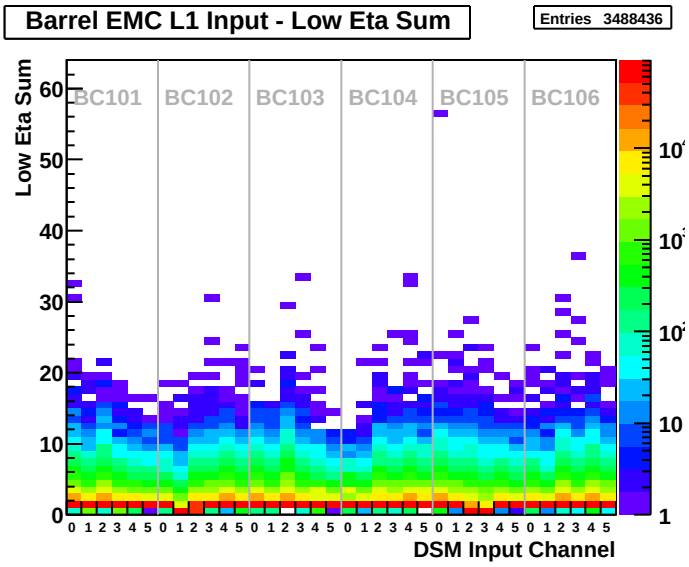

Endcap EMC L0 Input - High Tower
Entries 8721090
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

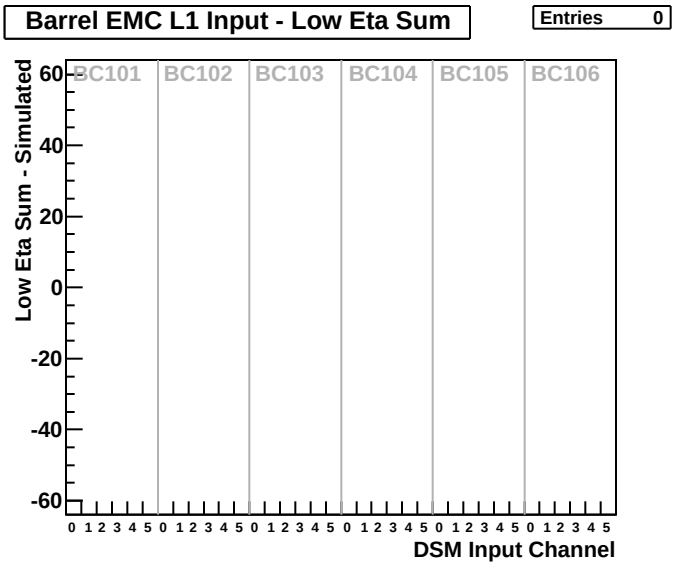

Endcap EMC L0 Input - Patch Sum
Entries 8721090
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

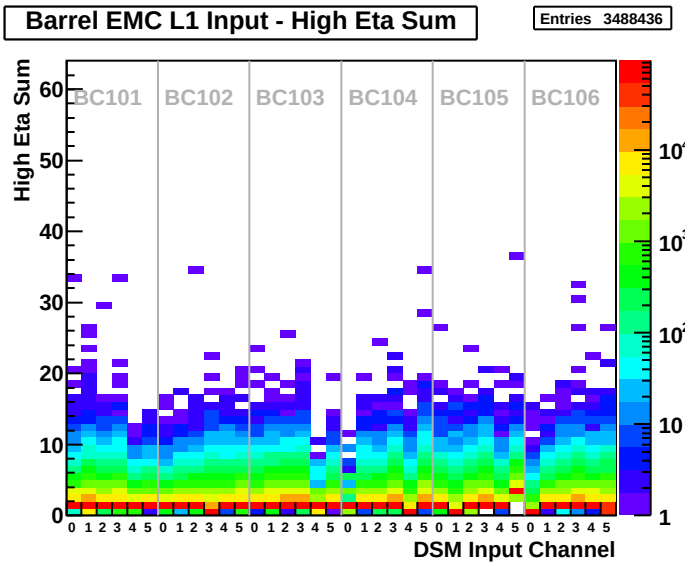

Barrel Jet Patches
Entries 1744218
JP ADC
JP ID

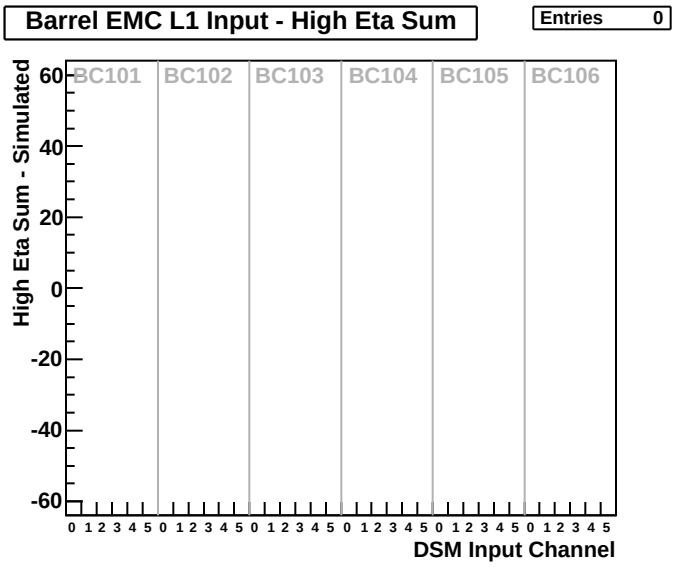

Endcap Jet Patches
Entries 581406
JP ADC
JP ID

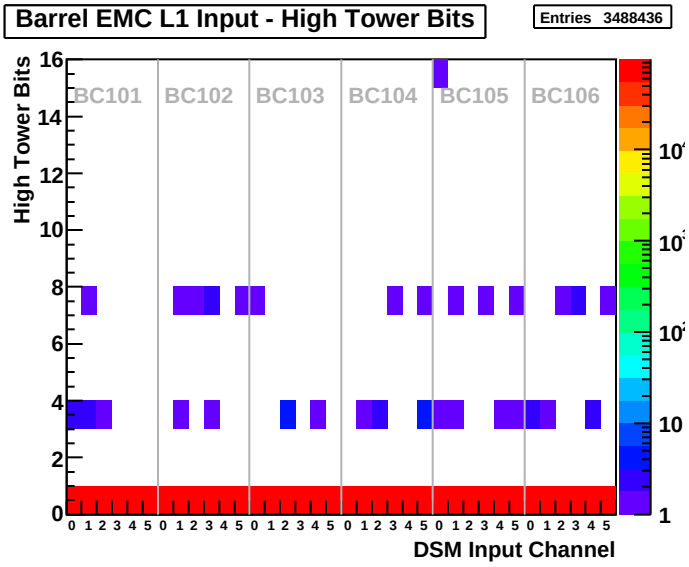

Hybrid Jet Patches
Entries 193802
JP ADC
JP ID

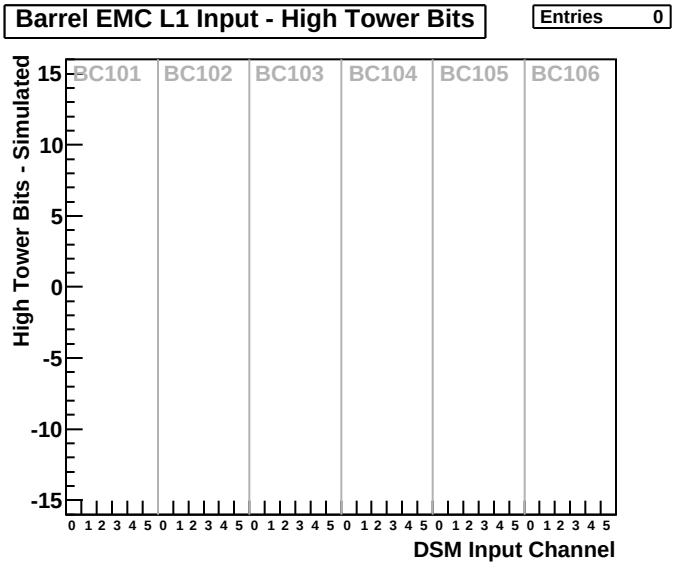

Barrel EMC L1 Input - Low Eta Sum
Entries 3488436
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

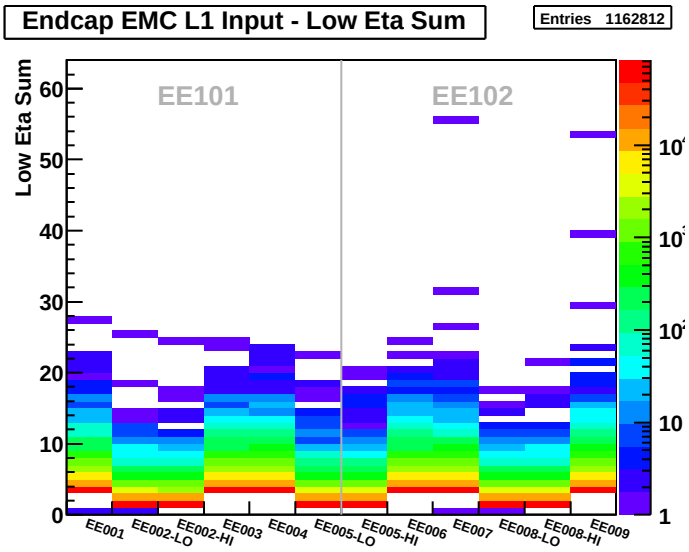

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

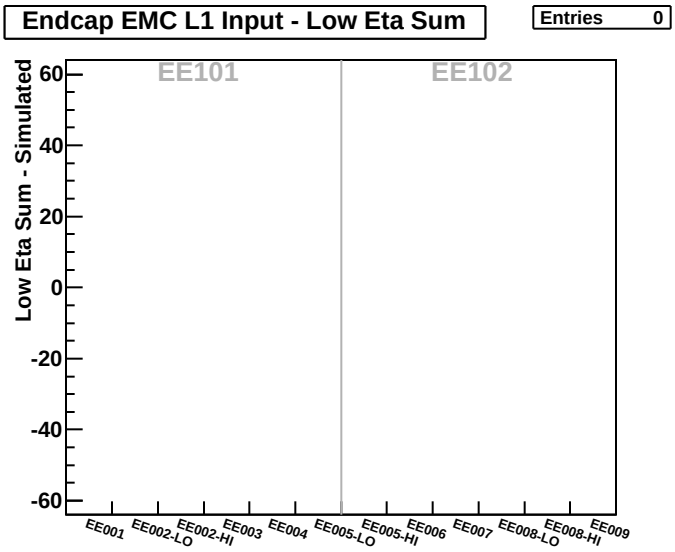

Barrel EMC L1 Input - High Eta Sum
Entries 3488436
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

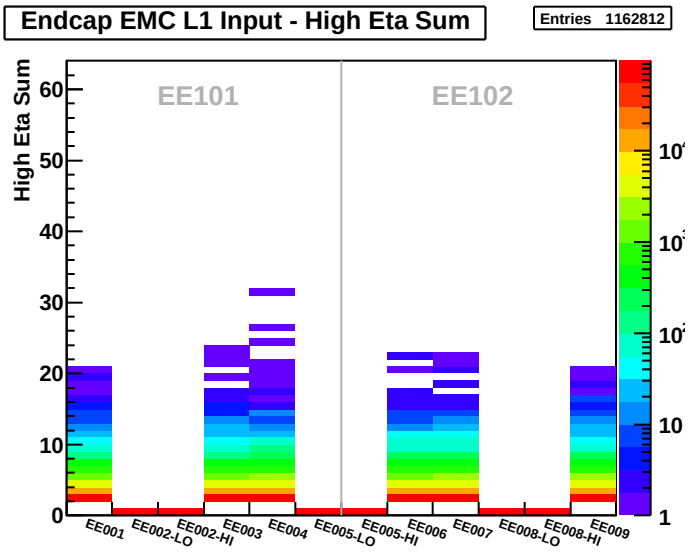

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

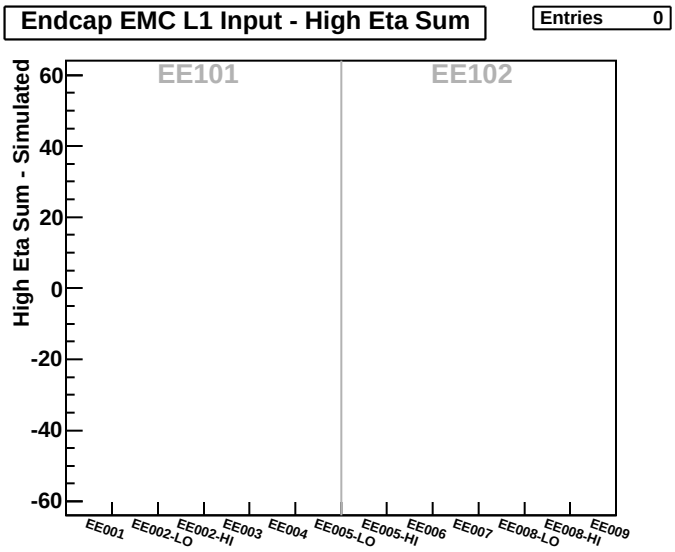

Barrel EMC L1 Input - High Tower Bits
Entries 3488436
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

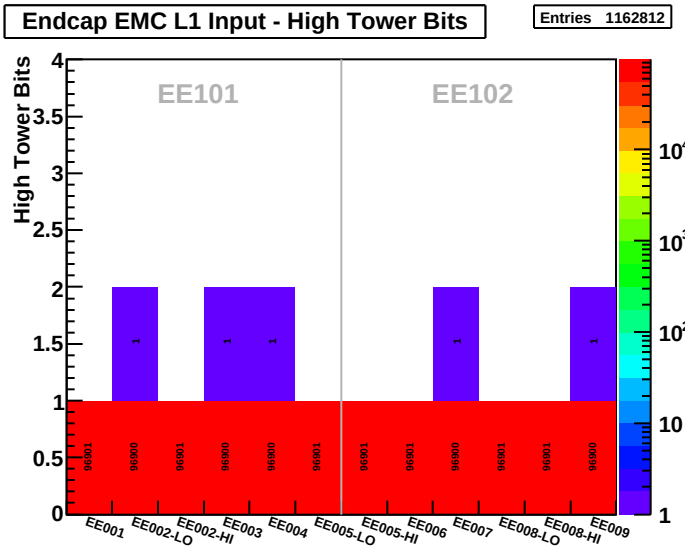

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

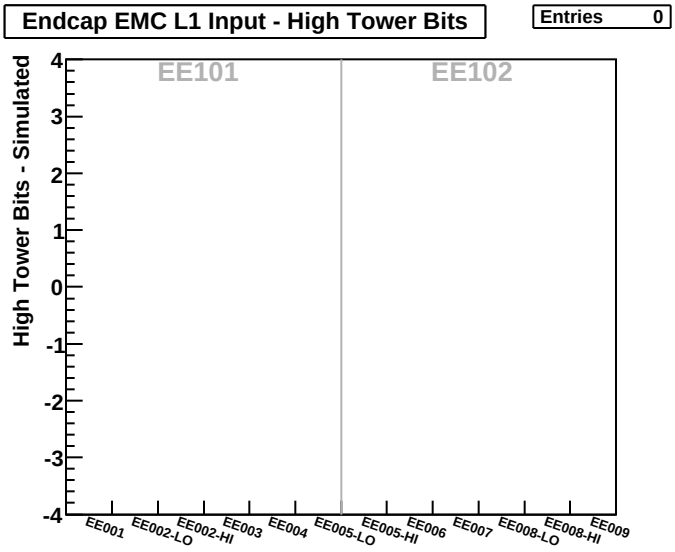

Endcap EMC L1 Input - Low Eta Sum
Entries 1162812
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

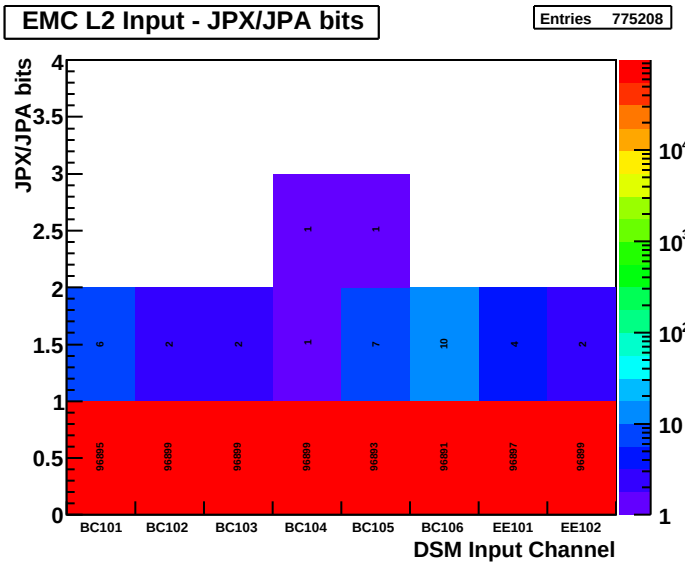

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

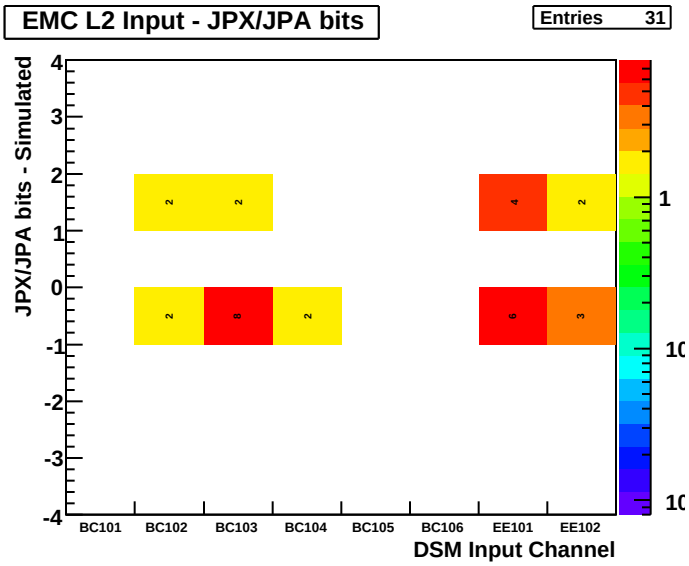

Endcap EMC L1 Input - High Eta Sum
Entries 1162812
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

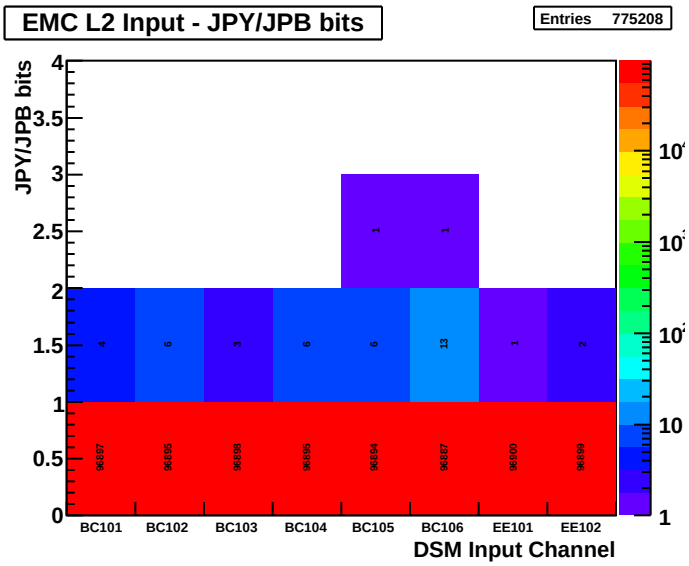

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

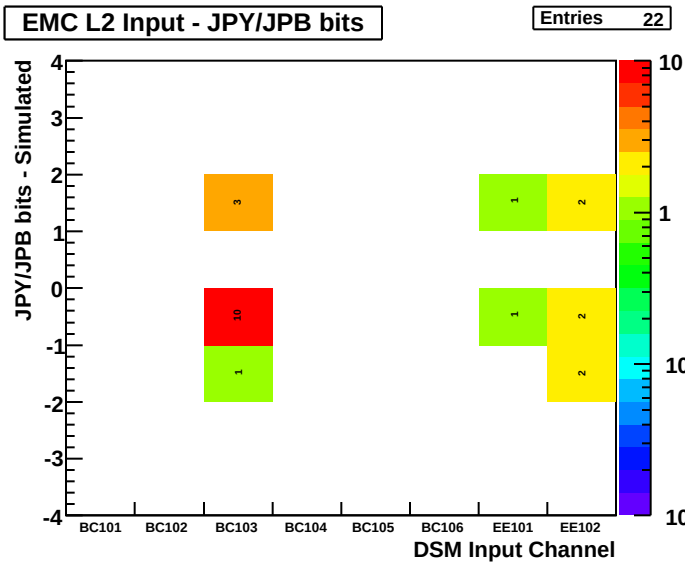

Endcap EMC L1 Input - High Tower Bits
Entries 1162812
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

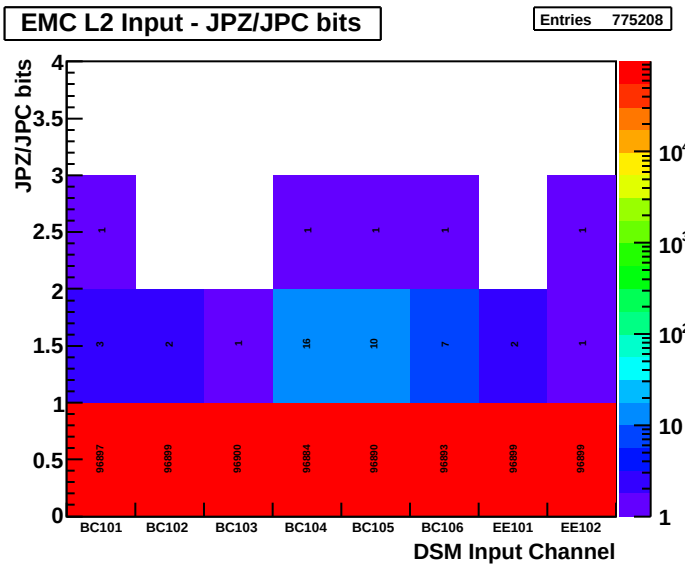

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

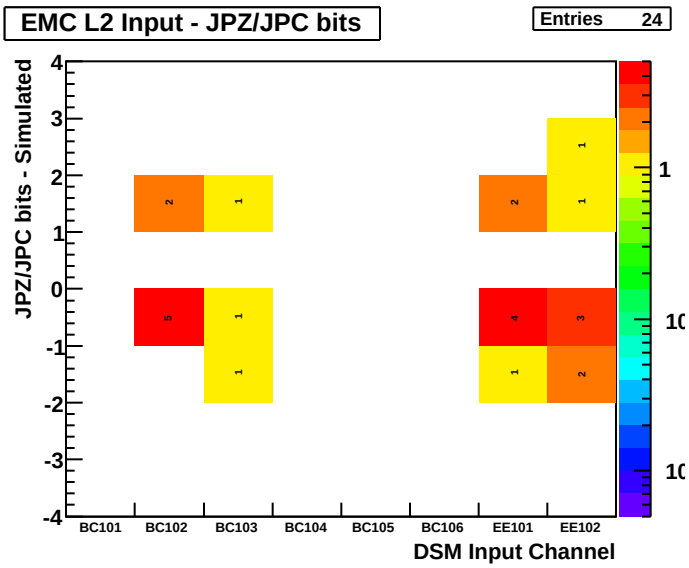

EMC L2 Input - JPX/JPA bits
Entries 775208
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

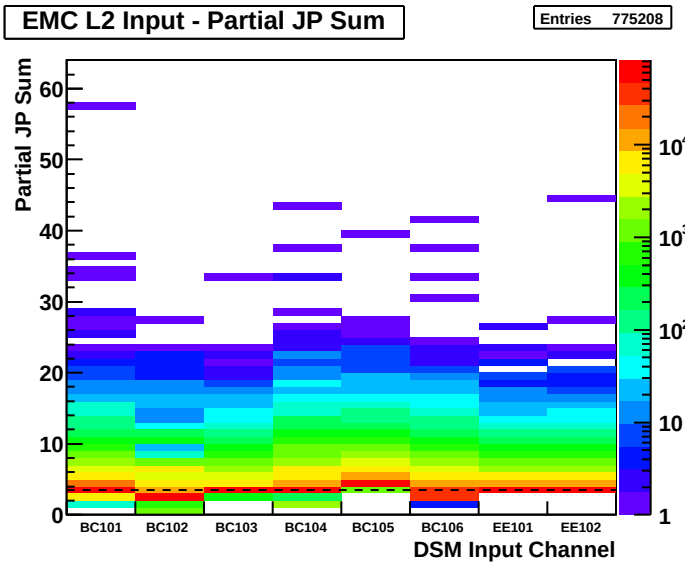

EMC L2 Input - JPX/JPA bits
Entries 31
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

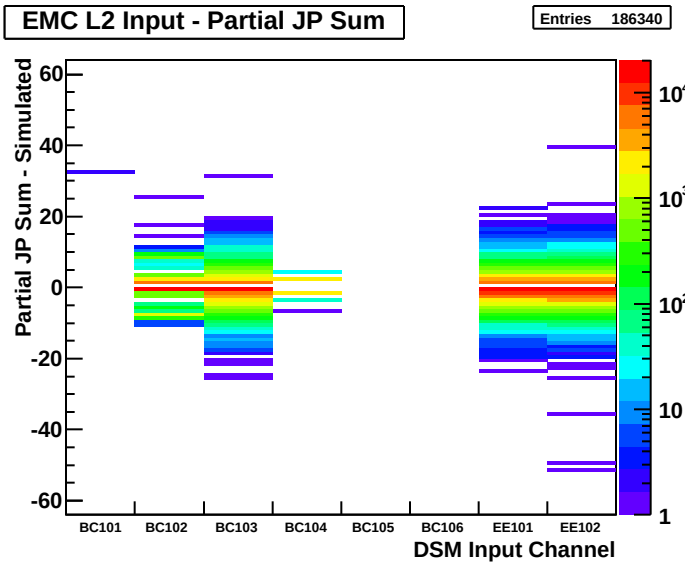

EMC L2 Input - JPY/JPB bits
Entries 775208
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

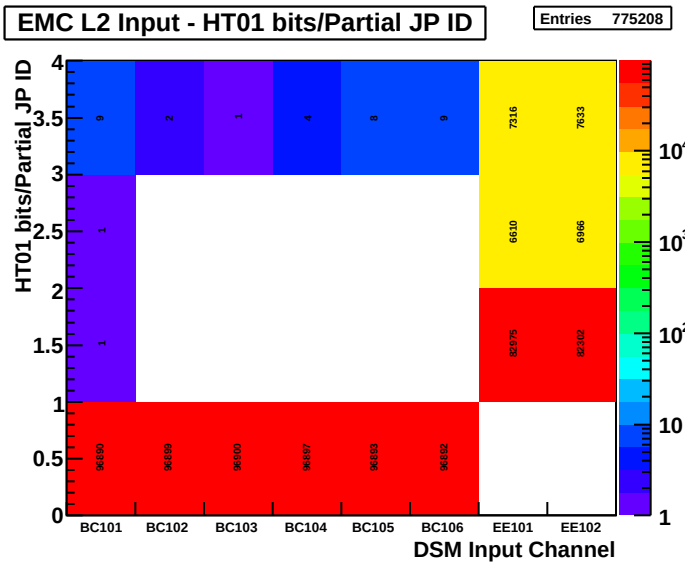

EMC L2 Input - JPY/JPB bits
Entries 22
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

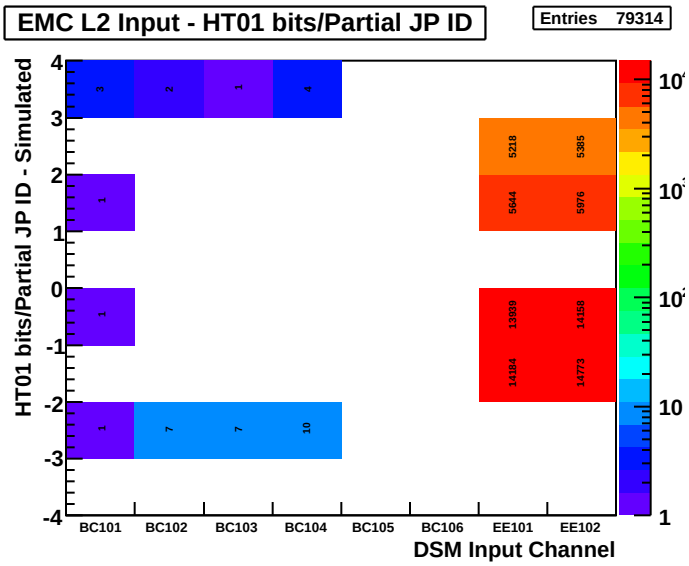

EMC L2 Input - JPZ/JPC bits
Entries 775208
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

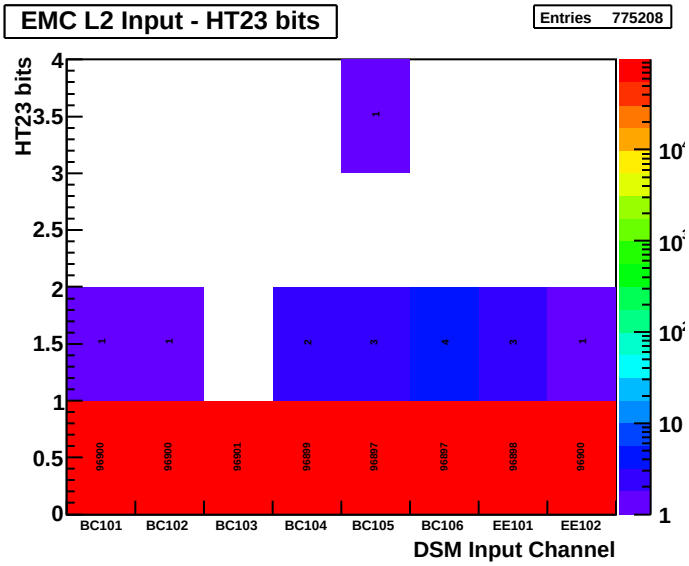

EMC L2 Input - JPZ/JPC bits
Entries 24
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

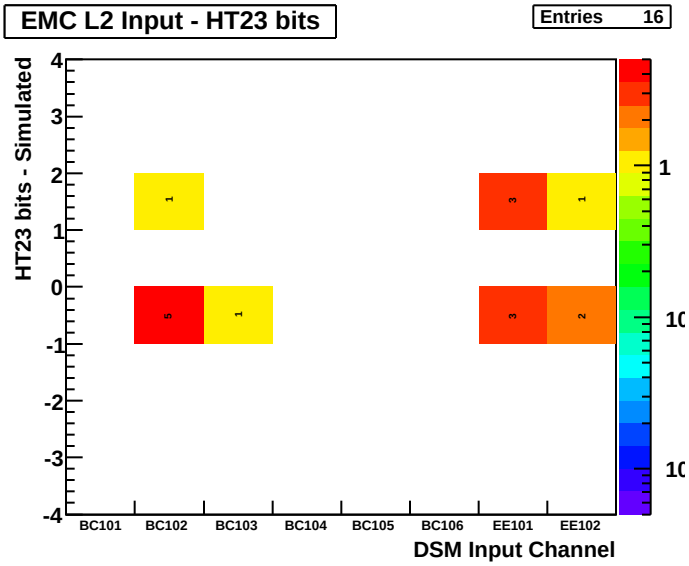

EMC L2 Input - Partial JP Sum
Entries 775208
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

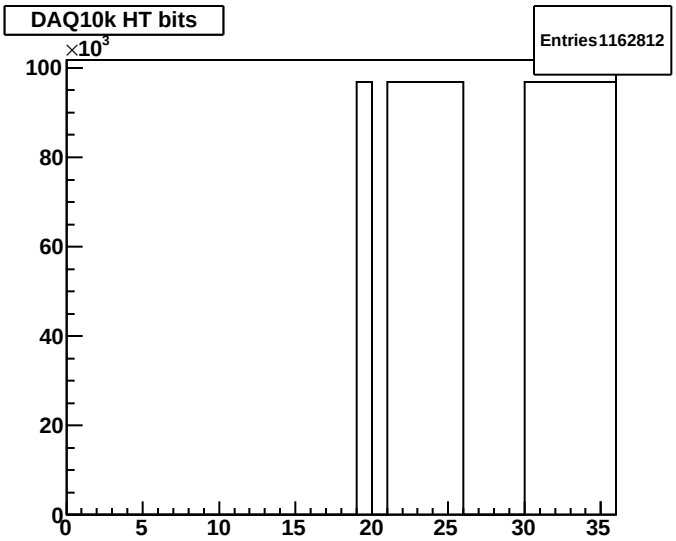

EMC L2 Input - Partial JP Sum
Entries 186340
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

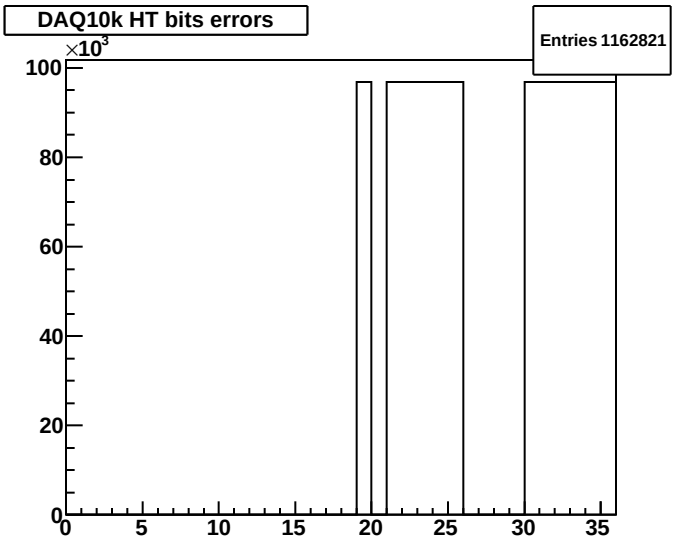

EMC L2 Input - HT01 bits/Partial JP ID
Entries 775208
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

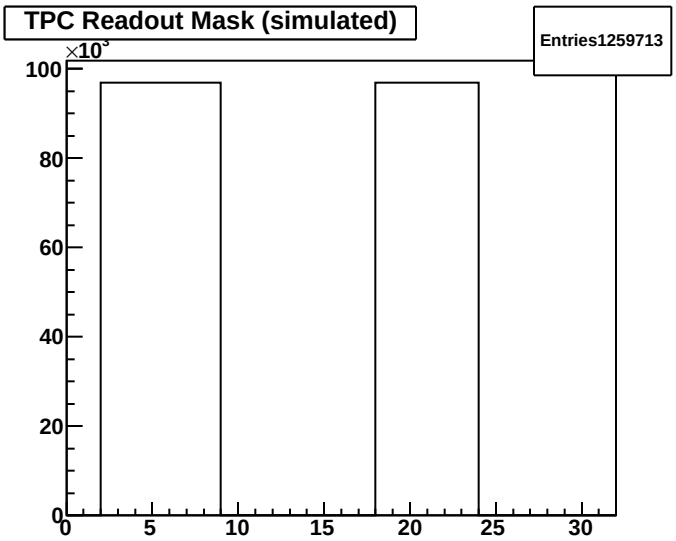

EMC L2 Input - HT01 bits/Partial JP ID
Entries 79314
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

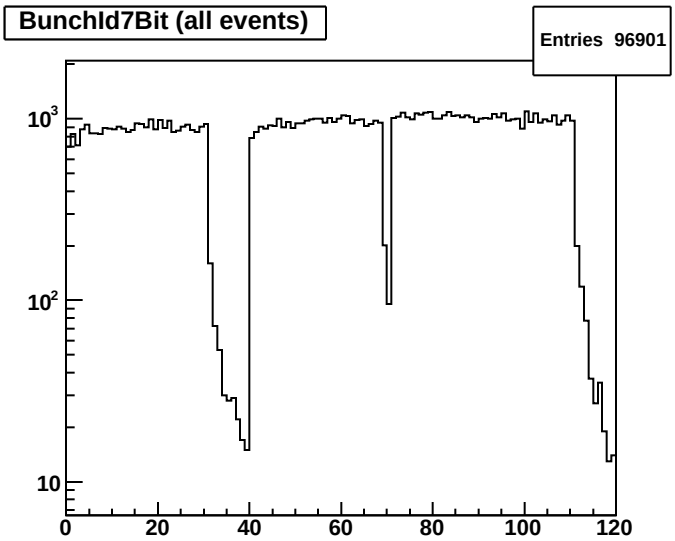

EMC L2 Input - HT23 bits
Entries 775208
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

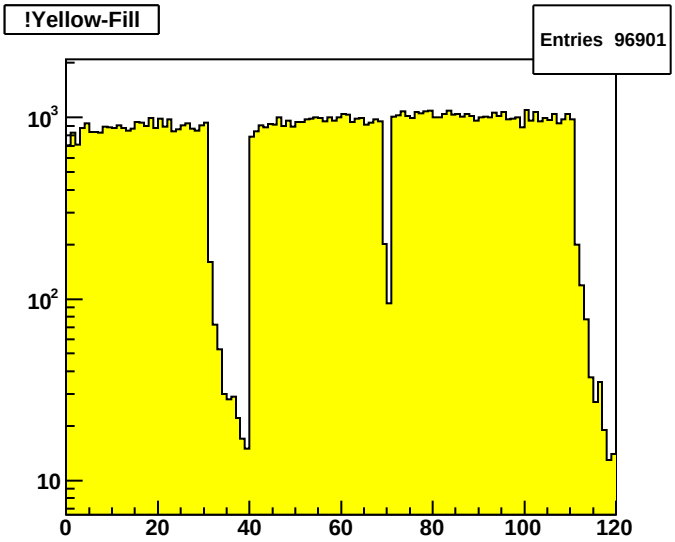

EMC L2 Input - HT23 bits
Entries 16
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

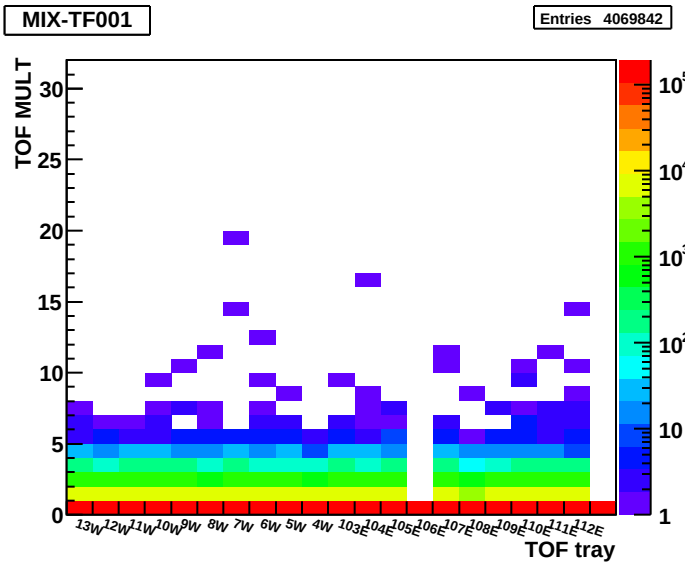

DAQ10k HT bits
Entries 1162812
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30 35

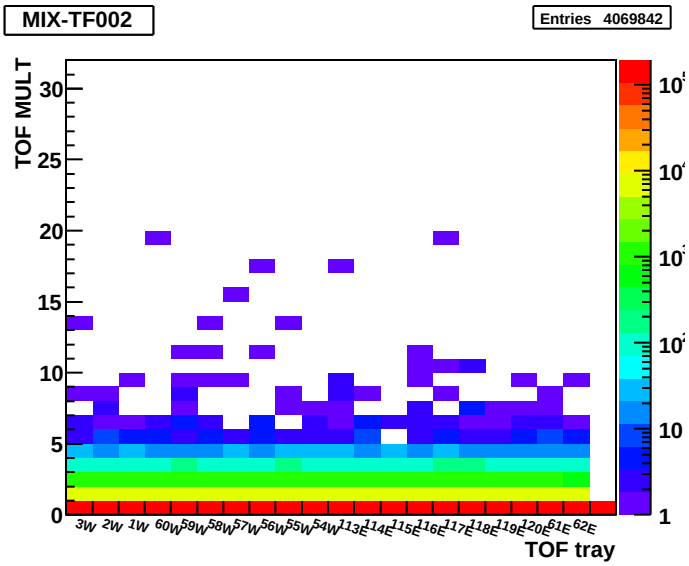

DAQ10k HT bits errors
Entries 1162821
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30 35

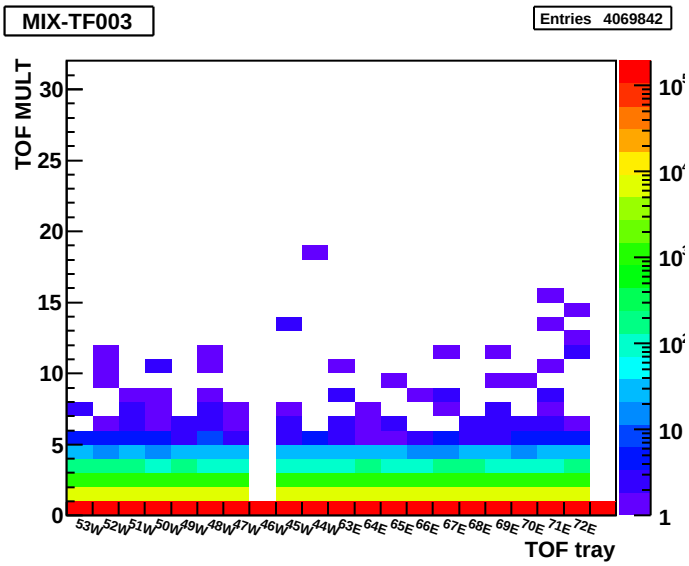

TPC Readout Mask (simulated)
Entries 1259713
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30

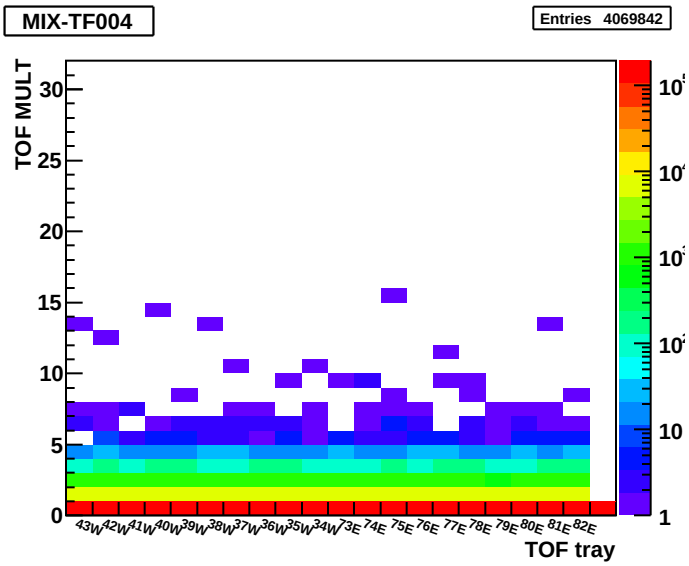

BunchId7Bit (all events)
Entries 96901
10^3
10^2
10
0 20 40 60 80 100 120

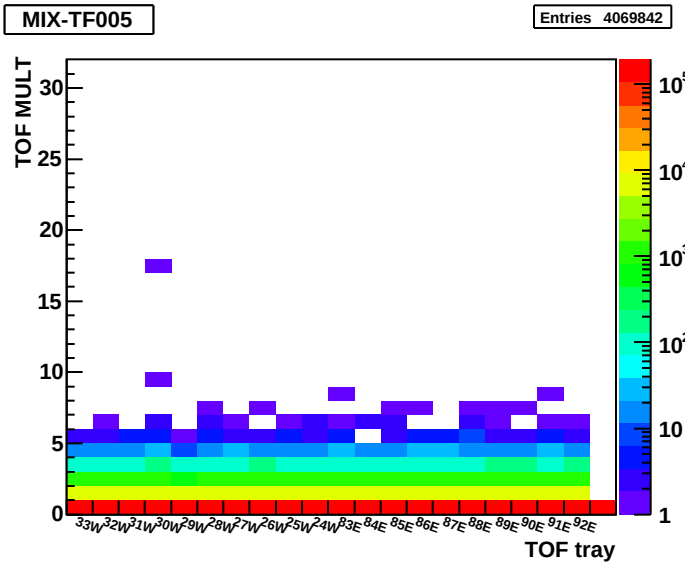

!Yellow-Fill
Entries 96901
10^3
10^2
10
0 20 40 60 80 100 120

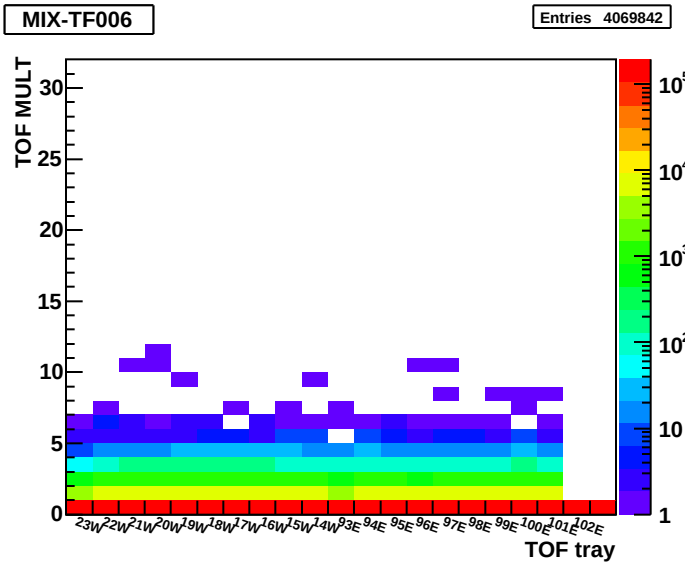

MIX-TF001
Entries 4069842
TOF MULT
TOF tray

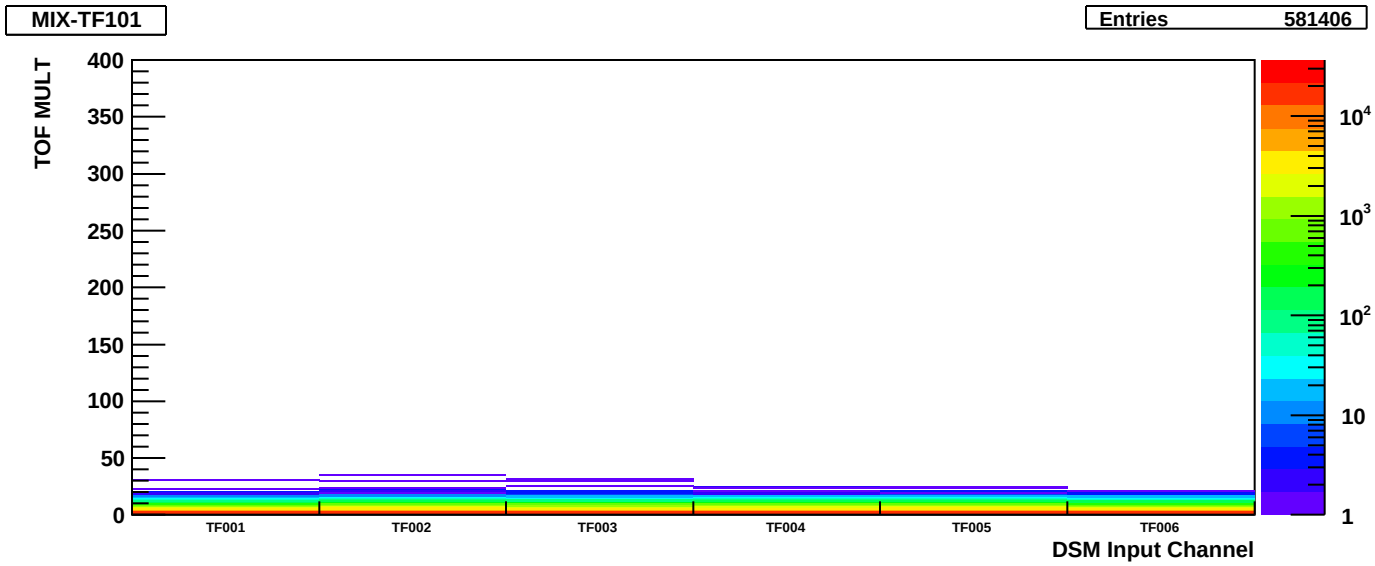

MIX-TF002
Entries 4069842
TOF MULT
TOF tray

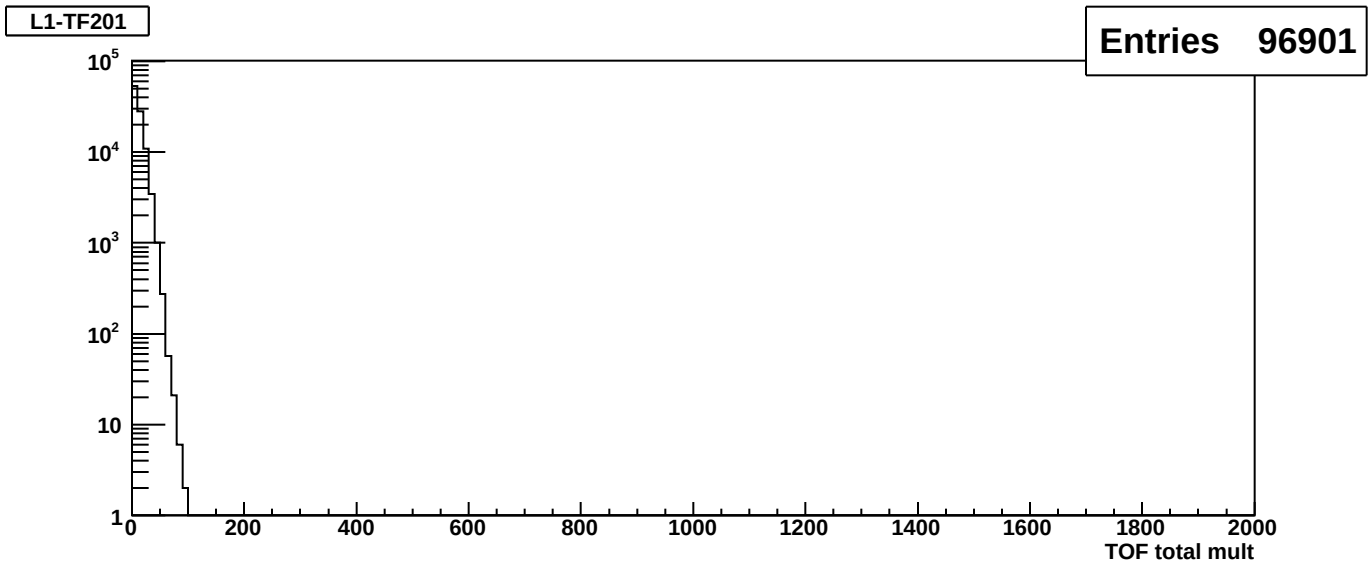

MIX-TF003
Entries 4069842
TOF MULT
TOF tray

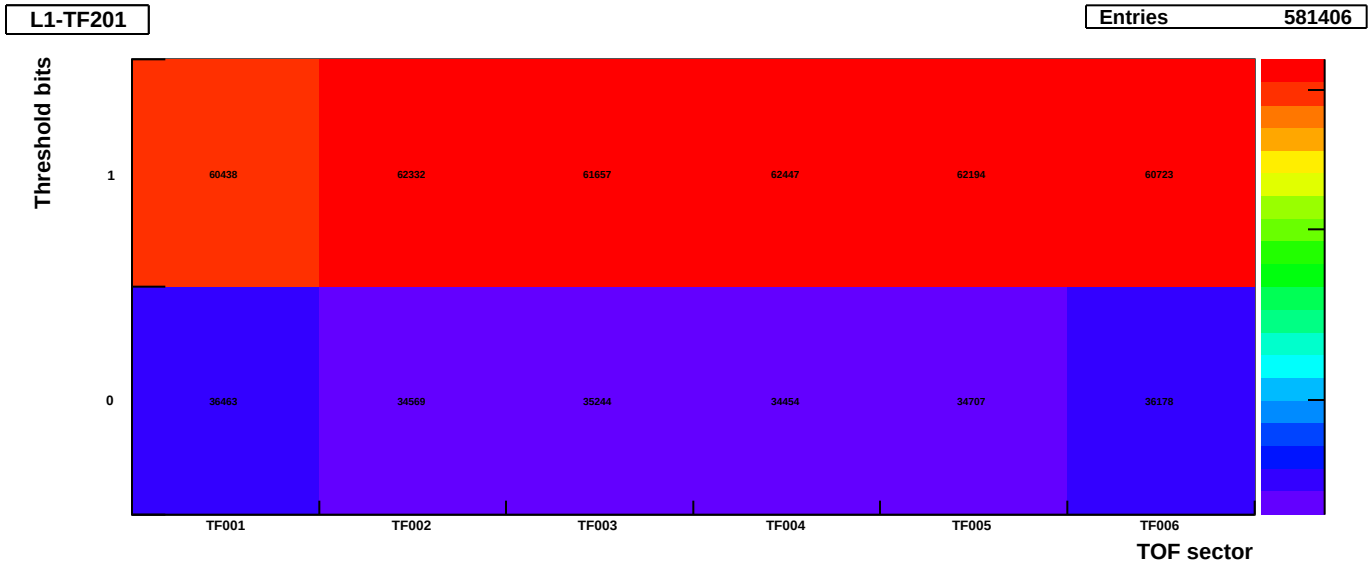

MIX-TF004
Entries 4069842
TOF MULT
TOF tray

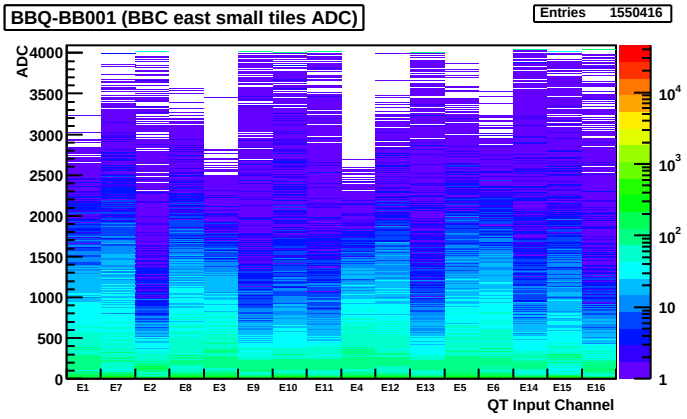

MIX-TF005
Entries 4069842
TOF MULT
TOF tray

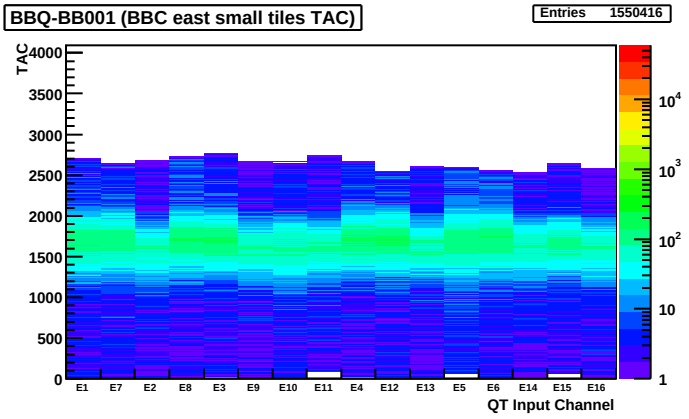

MIX-TF006
Entries 4069842
TOF MULT
TOF tray

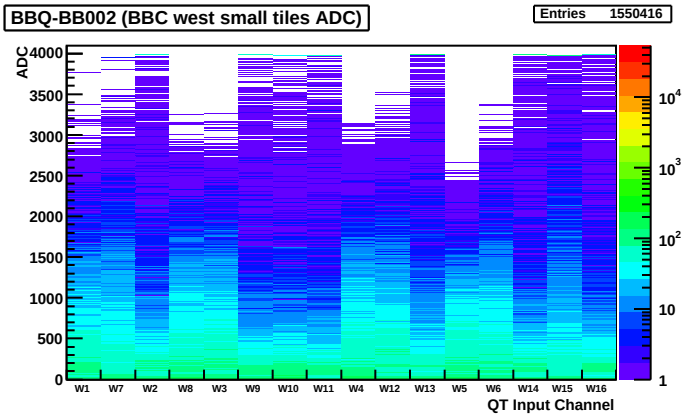

MIX-TF101
Entries 581406
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

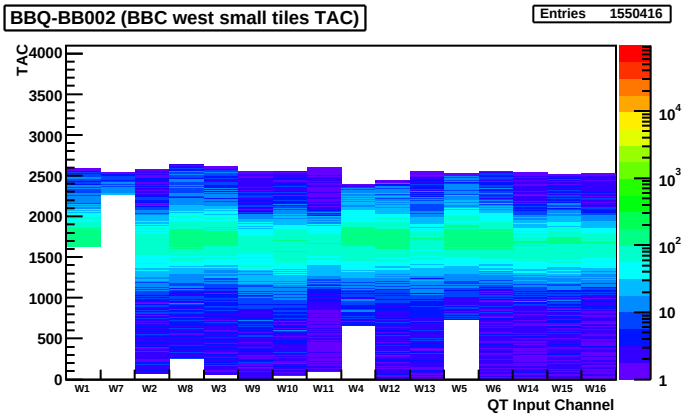

L1-TF201
Entries 96901
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

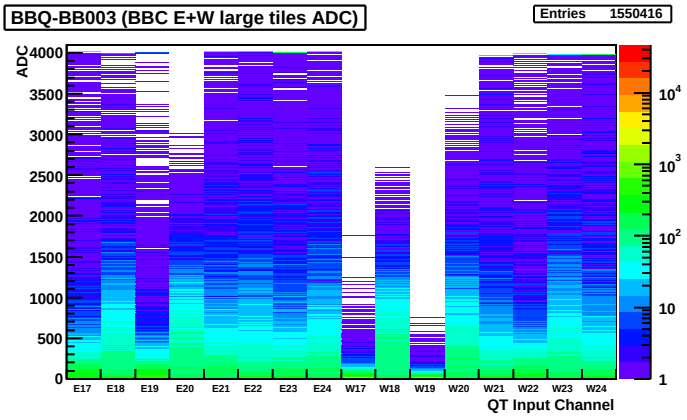

L1-TF201
Entries 581406
Threshold bits
1
0
60438
62332
61657
62447
62194
60723
36463
34569
35244
34454
34707
36178
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

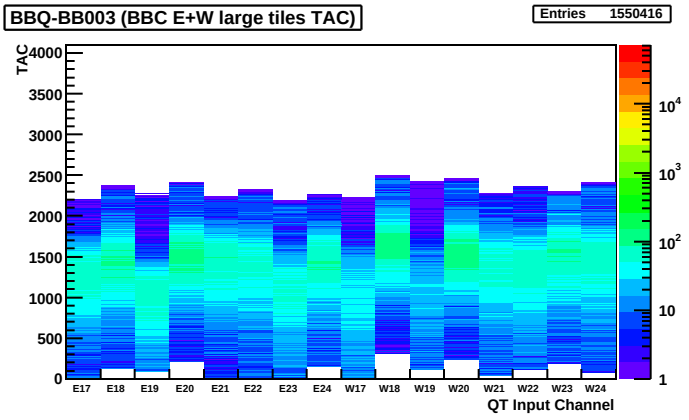

BBQ-BB001 (BBC east small tiles ADC)
Entries 1550416
ADC
QT Input Channel

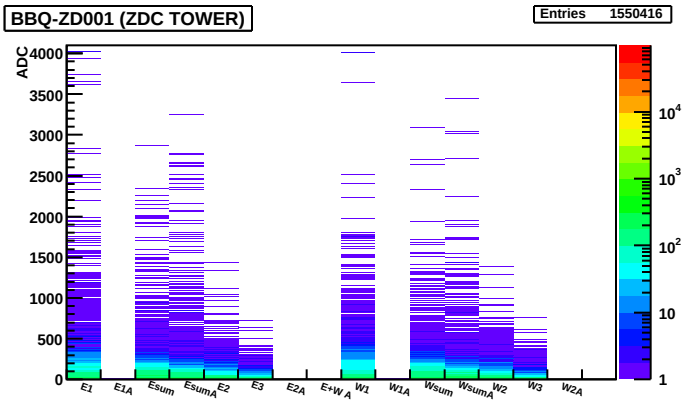

BBQ-BB001 (BBC east small tiles TAC)
Entries 1550416
TAC
QT Input Channel

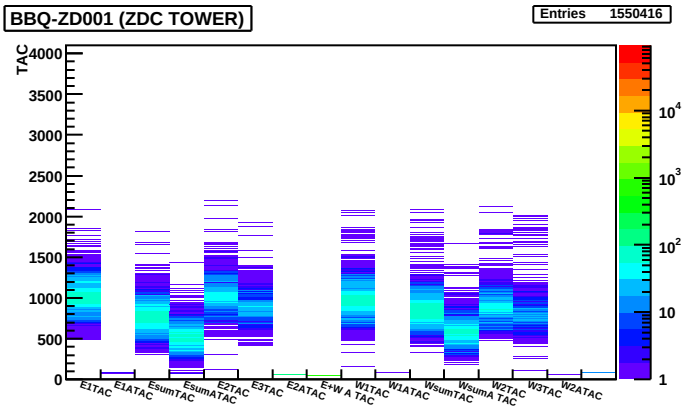

BBQ-BB002 (BBC west small tiles ADC)
Entries 1550416
ADC
QT Input Channel

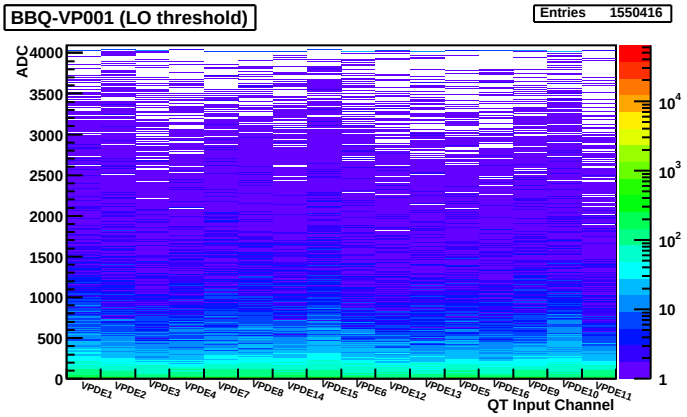

BBQ-BB002 (BBC west small tiles TAC)
Entries 1550416
TAC
QT Input Channel

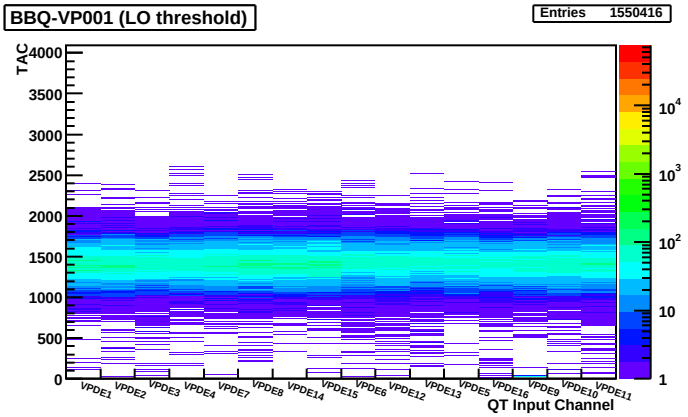

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1550416
ADC
QT Input Channel

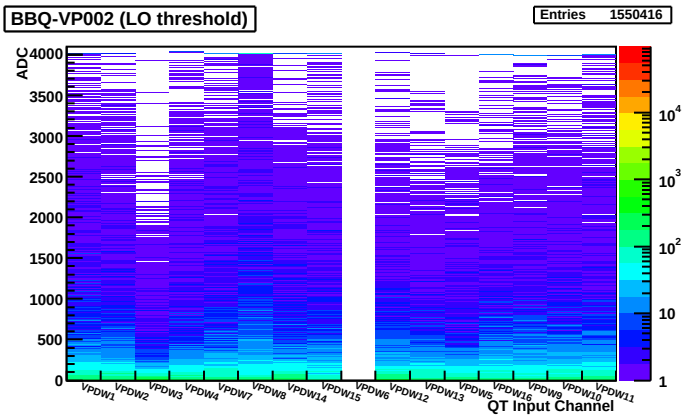

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1550416
TAC
QT Input Channel

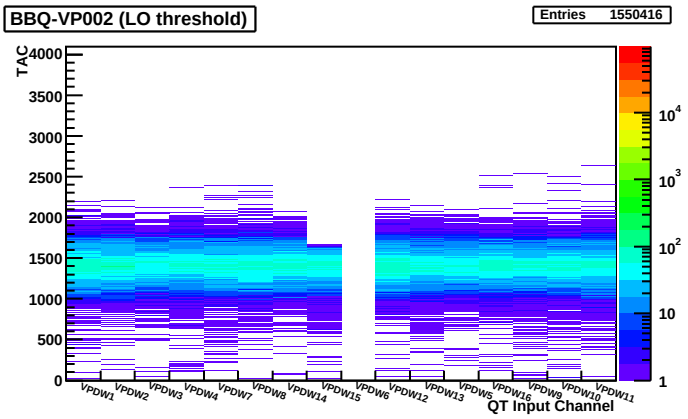

BBQ-ZD001 (ZDC TOWER)
Entries 1550416
ADC

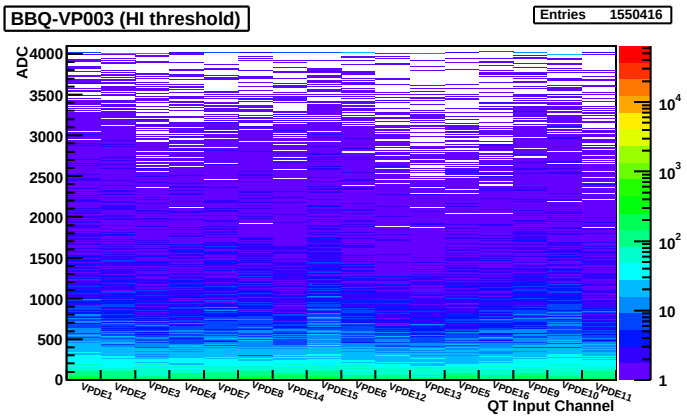

BBQ-ZD001 (ZDC TOWER)
Entries 1550416
TAC

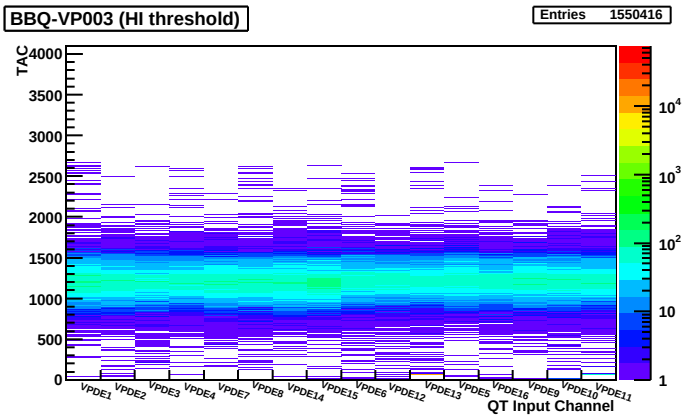

BBQ-VP001 (LO threshold)
Entries 1550416
ADC
QT Input Channel

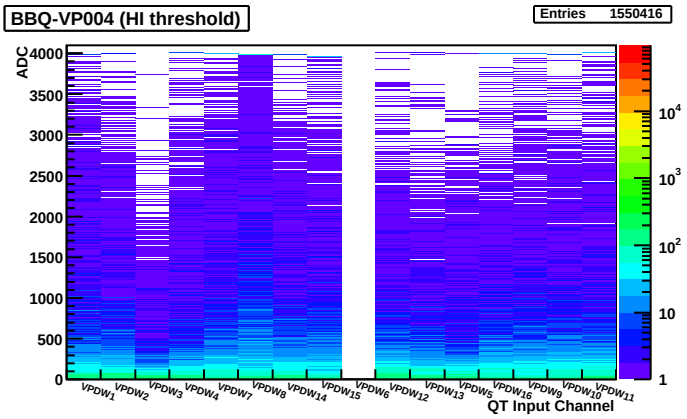

BBQ-VP001 (LO threshold)
Entries 1550416
TAC
QT Input Channel

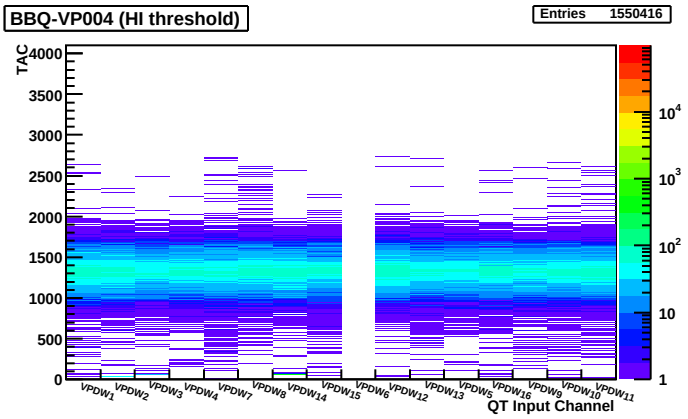

BBQ-VP002 (LO threshold)
Entries 1550416
ADC
QT Input Channel

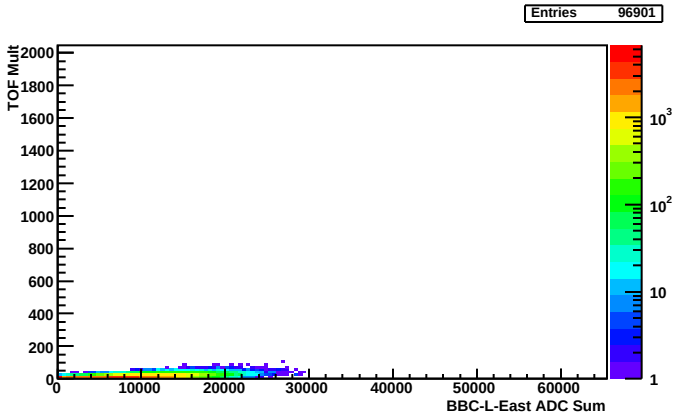

BBQ-VP002 (LO threshold)
Entries 1550416
TAC
QT Input Channel

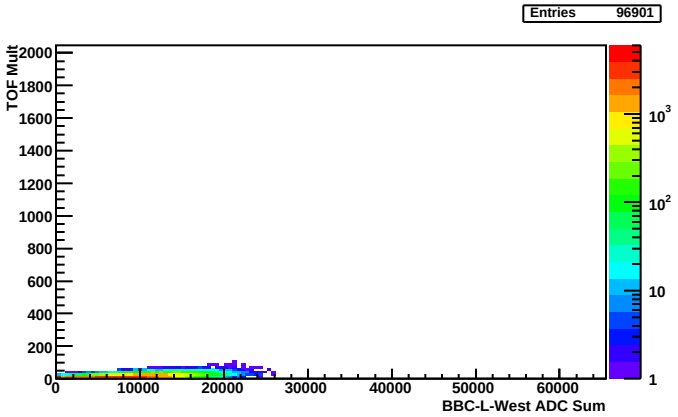

BBQ-VP003 (HI threshold)
Entries 1550416
ADC
QT Input Channel

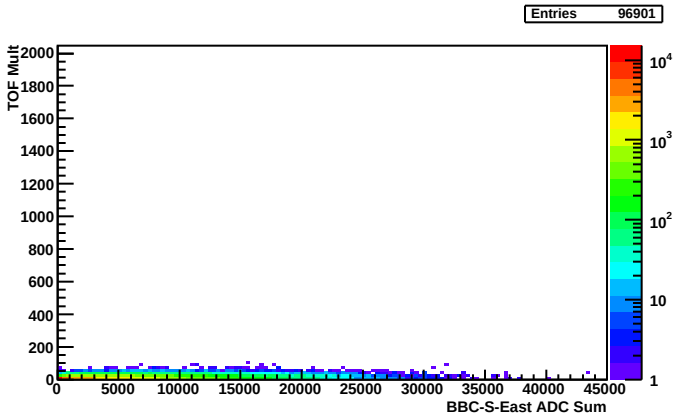

BBQ-VP003 (HI threshold)
Entries 1550416
TAC
QT Input Channel

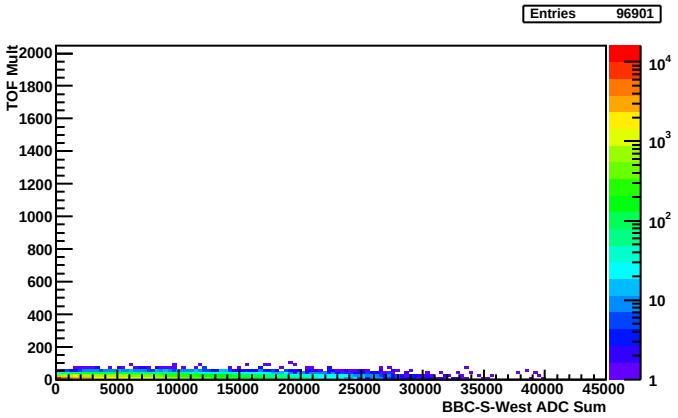

BBQ-VP004 (HI threshold)
Entries 1550416
ADC
QT Input Channel

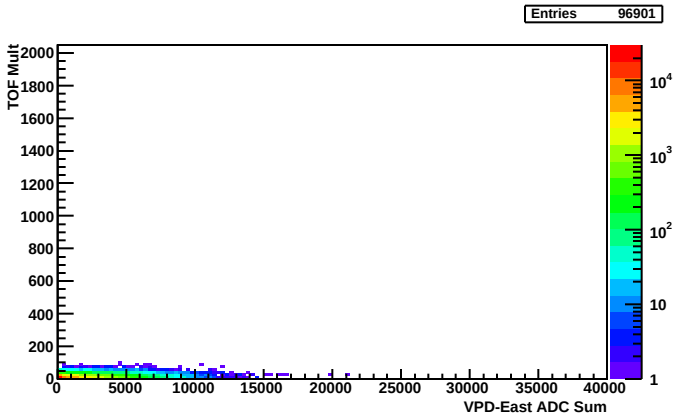

BBQ-VP004 (HI threshold)
Entries 1550416
TAC
QT Input Channel

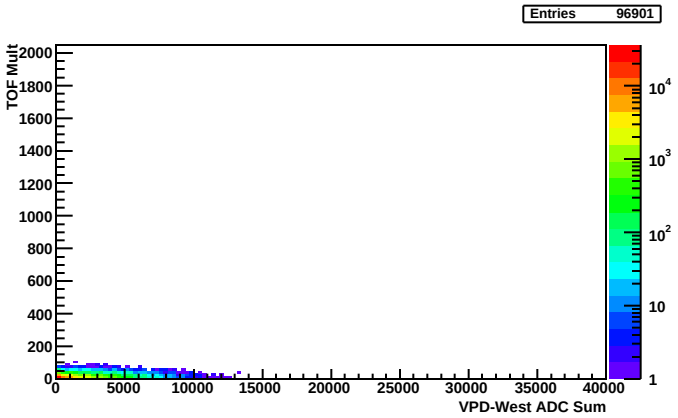

Entries 96901
TOF Mult
BBC-L-East ADC Sum

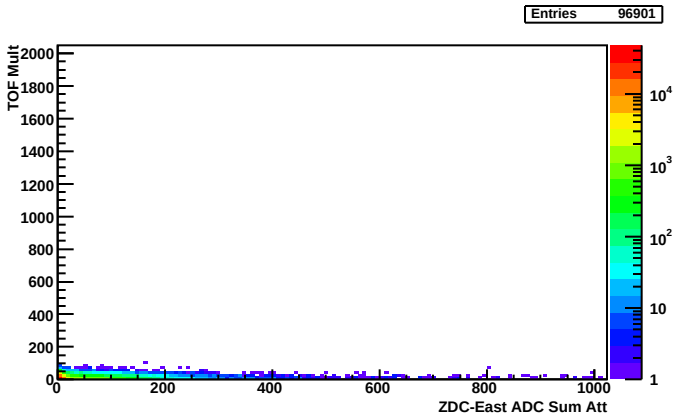

Entries 96901
TOF Mult
BBC-L-West ADC Sum

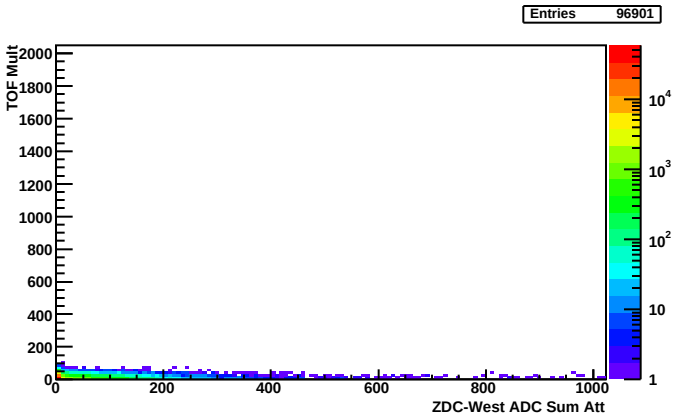

Entries 96901
TOF Mult
BBC-S-East ADC Sum

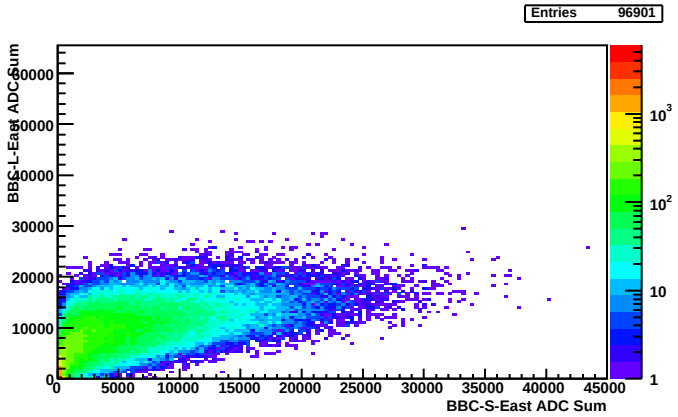

Entries 96901
TOF Mult
BBC-S-West ADC Sum

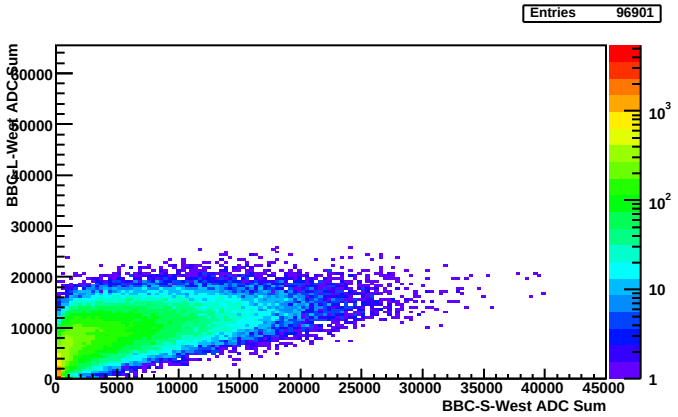

Entries 96901
TOF Mult
VPD-East ADC Sum

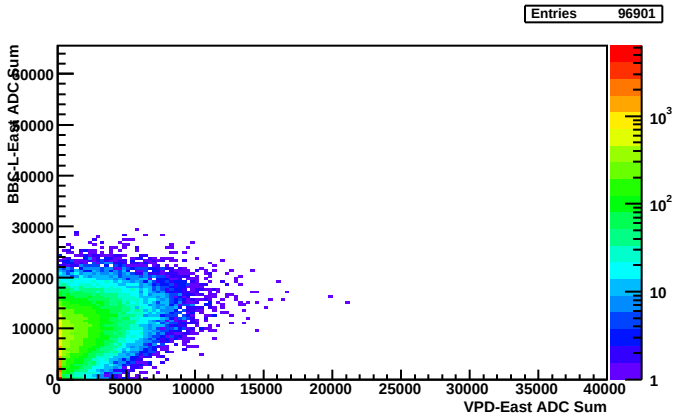

Entries 96901
TOF Mult
VPD-West ADC Sum

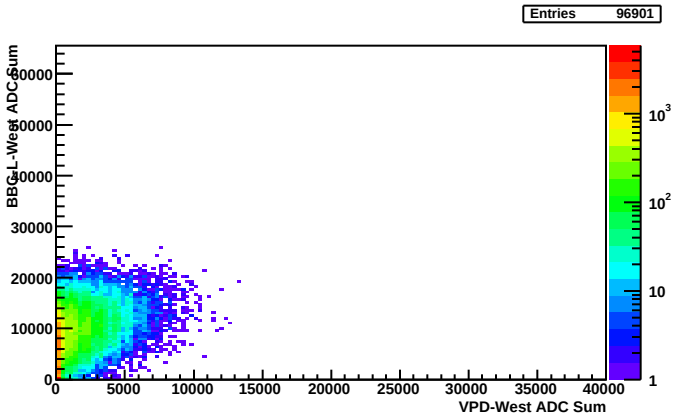

Entries 96901
TOF Mult
ZDC-East ADC Sum Att

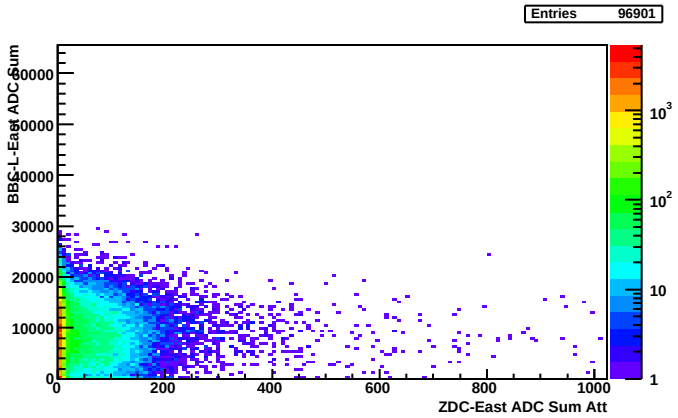

Entries 96901
TOF Mult
ZDC-West ADC Sum Att

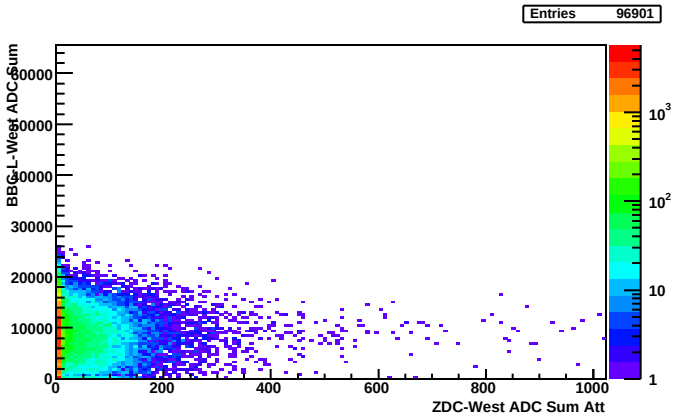

Entries 96901
BBC-L-East ADC Sum
BBC-S-East ADC Sum

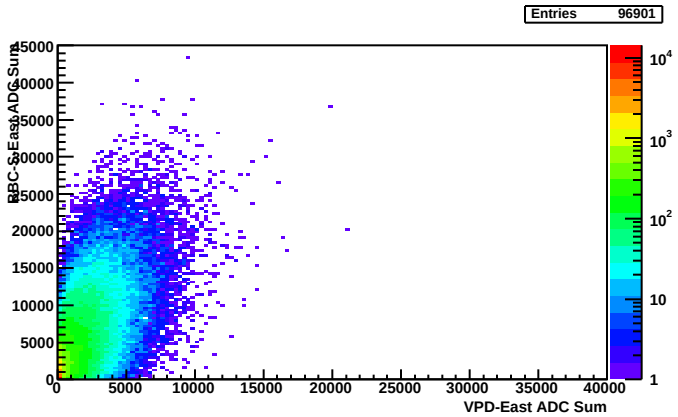

Entries 96901
BBC-L-West ADC Sum
BBC-S-West ADC Sum

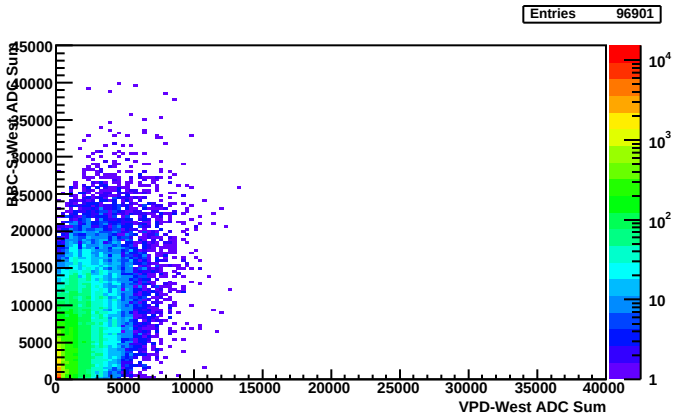

Entries 96901
BBC-L-East ADC Sum
VPD-East ADC Sum

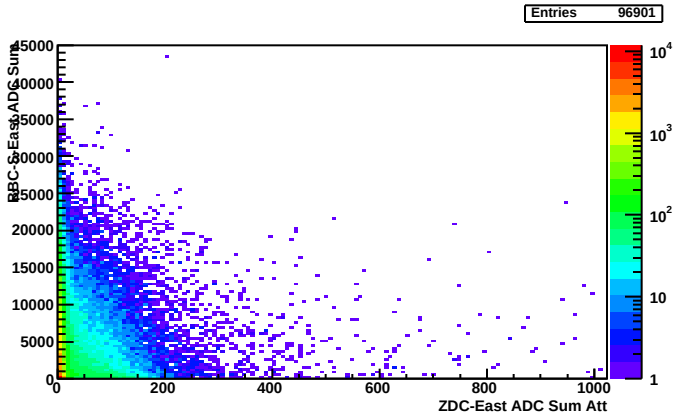

Entries 96901
BBC-L-West ADC Sum
VPD-West ADC Sum

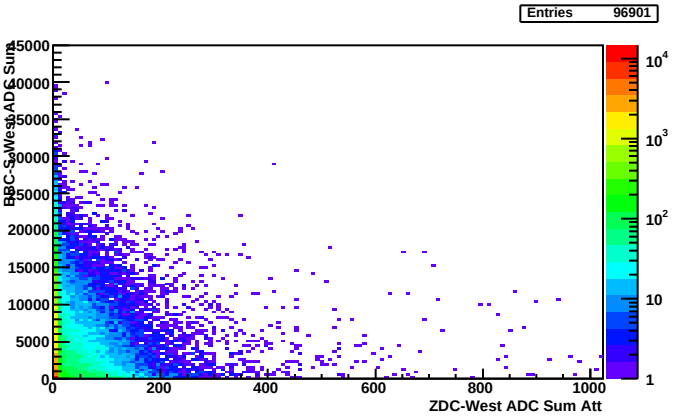

Entries 96901
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

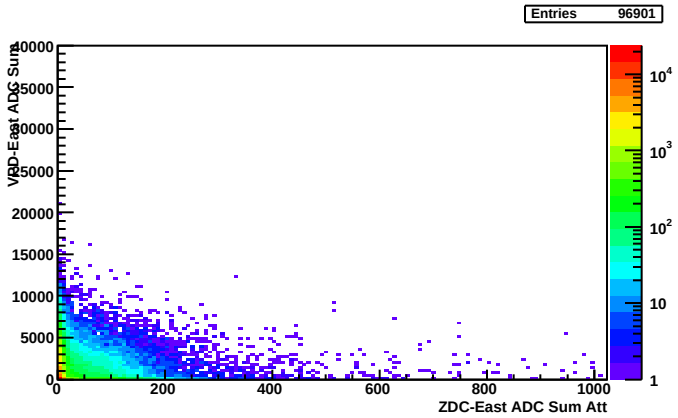

Entries 96901
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

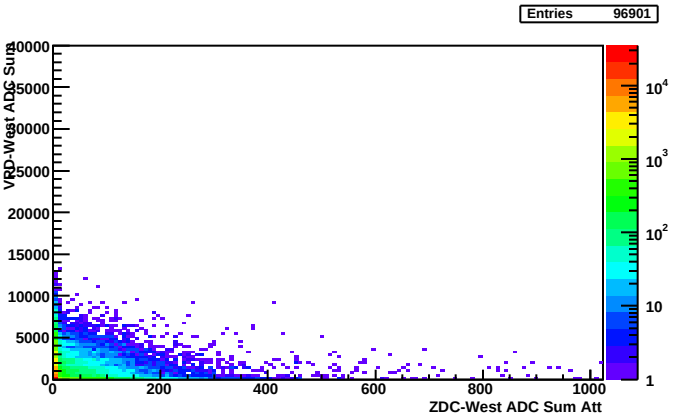

Entries 96901
BBC-S-East ADC Sum
VPD-East ADC Sum

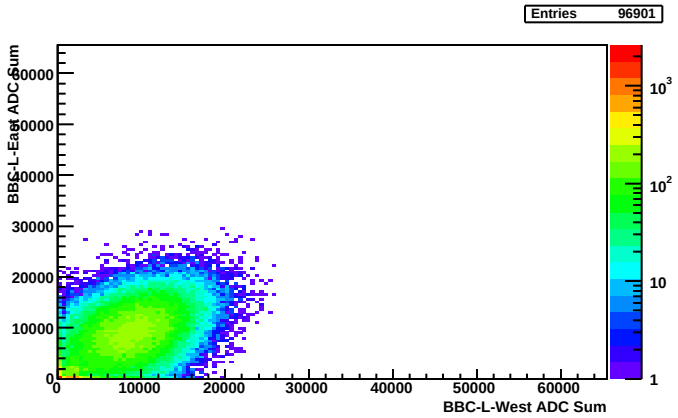

Entries 96901
BBC-S-West ADC Sum
VPD-West ADC Sum

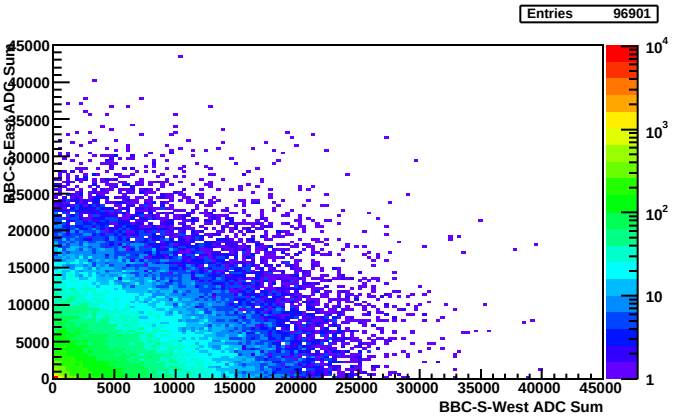

Entries 96901
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

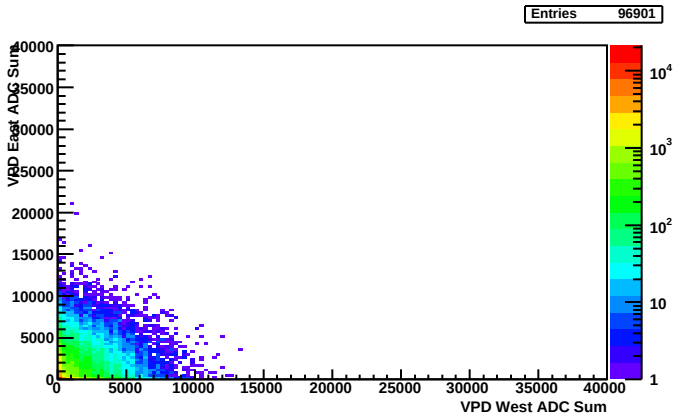

Entries 96901
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

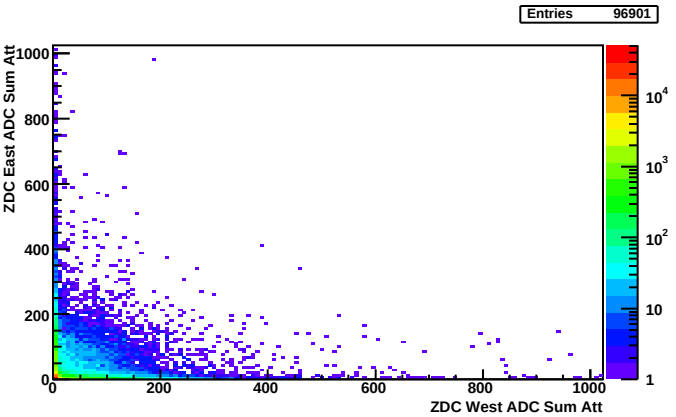

Entries 96901
VPD-East ADC Sum
ZDC-East ADC Sum Att

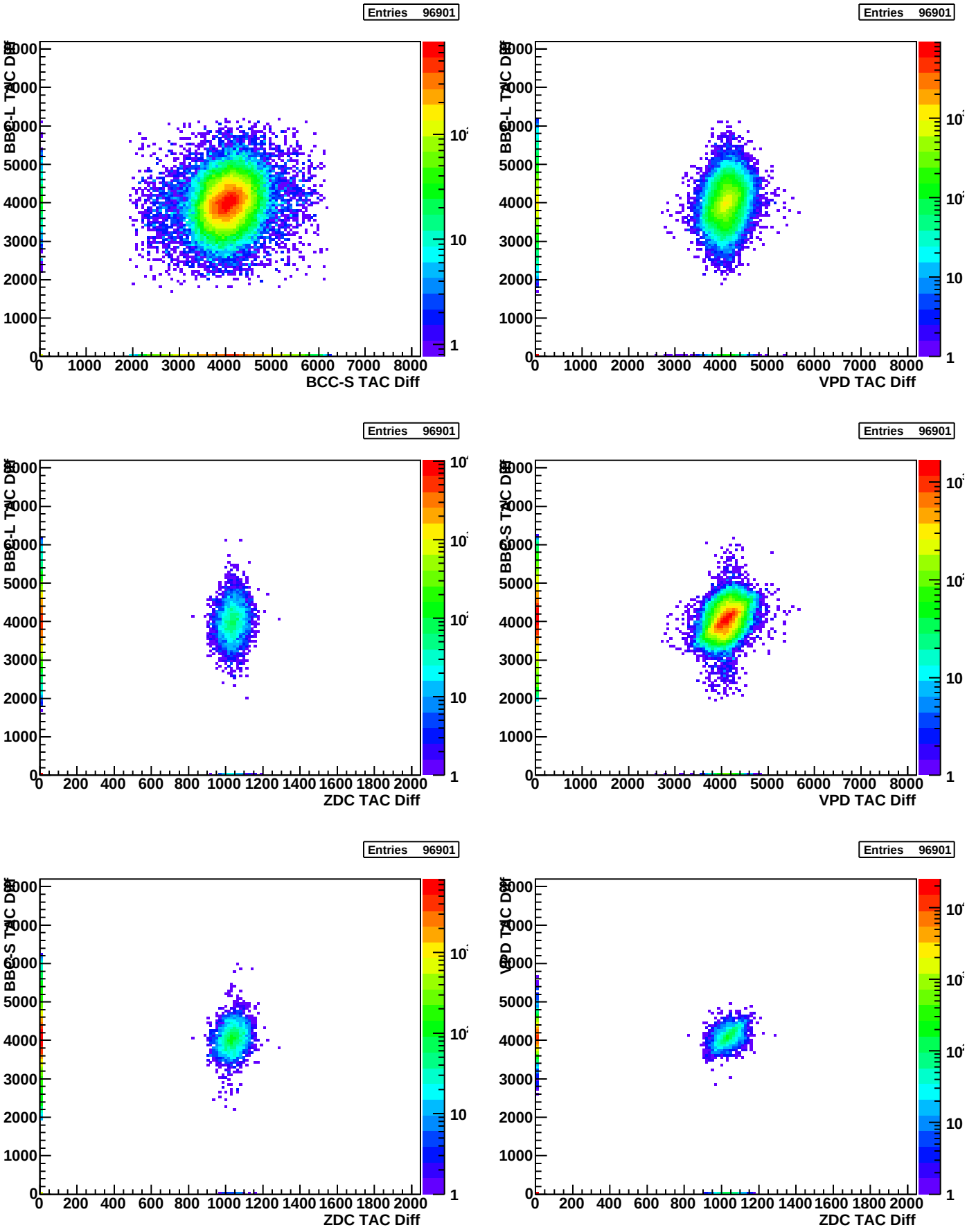

Entries 96901
VPD-West ADC Sum
ZDC-West ADC Sum Att

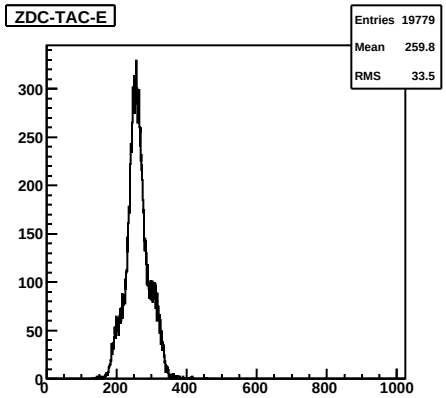

Entries 96901
BBC-L-East ADC Sum
BBC-L-West ADC Sum

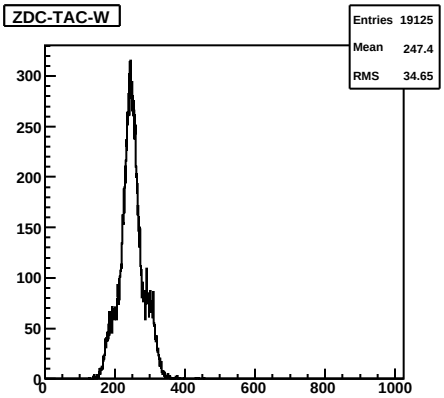

Entries 96901
BBC-S-East ADC Sum
BBC-S-West ADC Sum

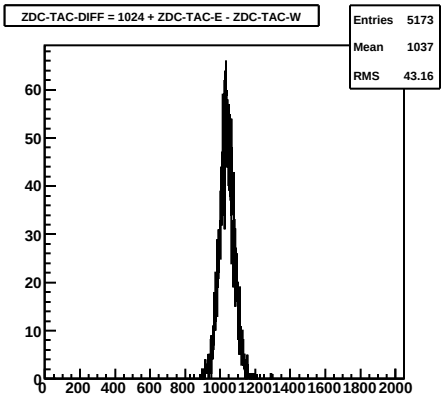

Entries 96901
VPD East ADC Sum
VPD West ADC Sum

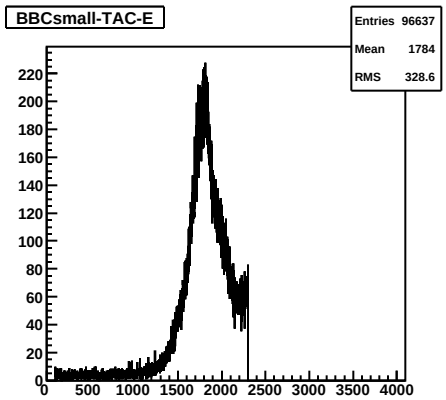

Entries 96901
ZDC East ADC Sum Att
ZDC West ADC Sum Att

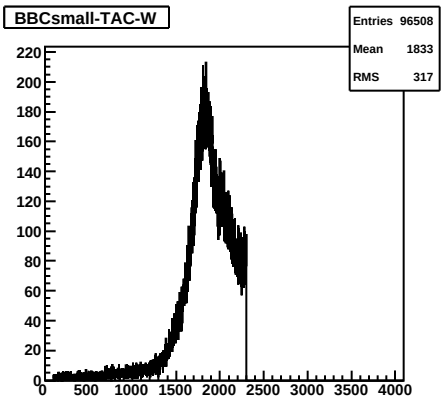

Entries 96901
BBC-L TAC Diff
BCC-S TAC Diff
Entries 96901
BBC-L TAC Diff
VPD TAC Diff
Entries 96901
BBC-L TAC Diff
ZDC TAC Diff
Entries 96901
BBC-S TAC Diff
VPD TAC Diff
Entries 96901
BBC-S TAC Diff
ZDC TAC Diff
Entries 96901
VPD TAC Diff
ZDC TAC Diff

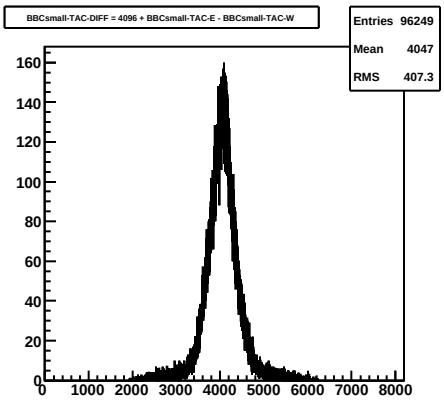

ZDC-TAC-E
Entries 19779
Mean 259.8
RMS 33.5

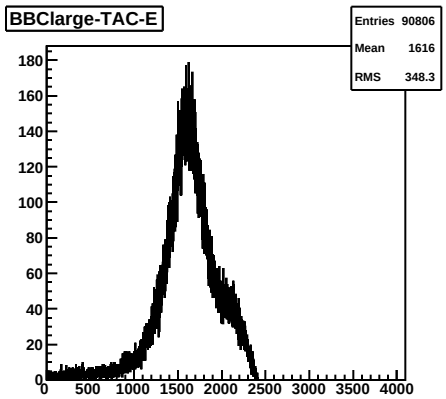

ZDC-TAC-W
Entries 19125
Mean 247.4
RMS 34.65

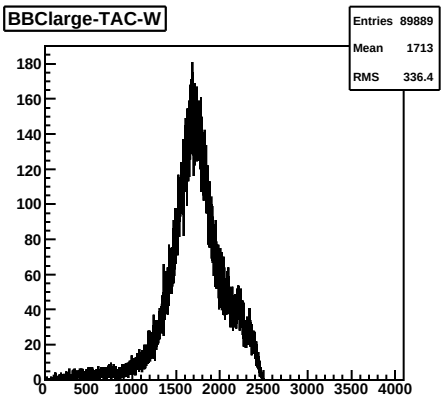

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 5173
Mean 1037
RMS 43.16

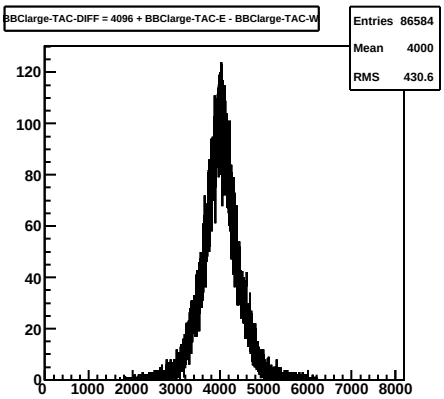

BBCsmall-TAC-E
Entries 96637
Mean 1784
RMS 328.6

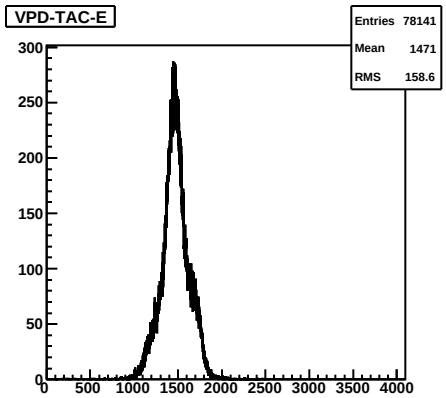

BBCsmall-TAC-W
Entries 96508
Mean 1833
RMS 317

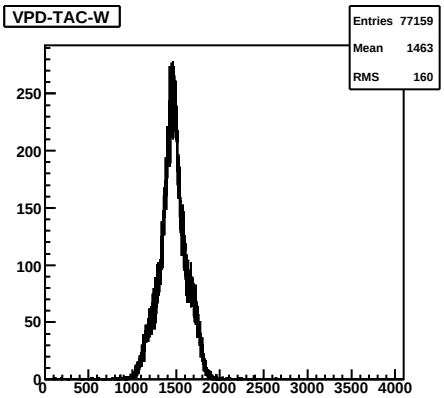

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 96249
Mean 4047
RMS 407.3

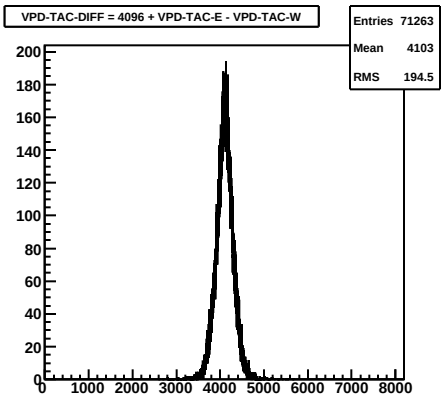

BBClarge-TAC-E
Entries 90806
Mean 1616
RMS 348.3

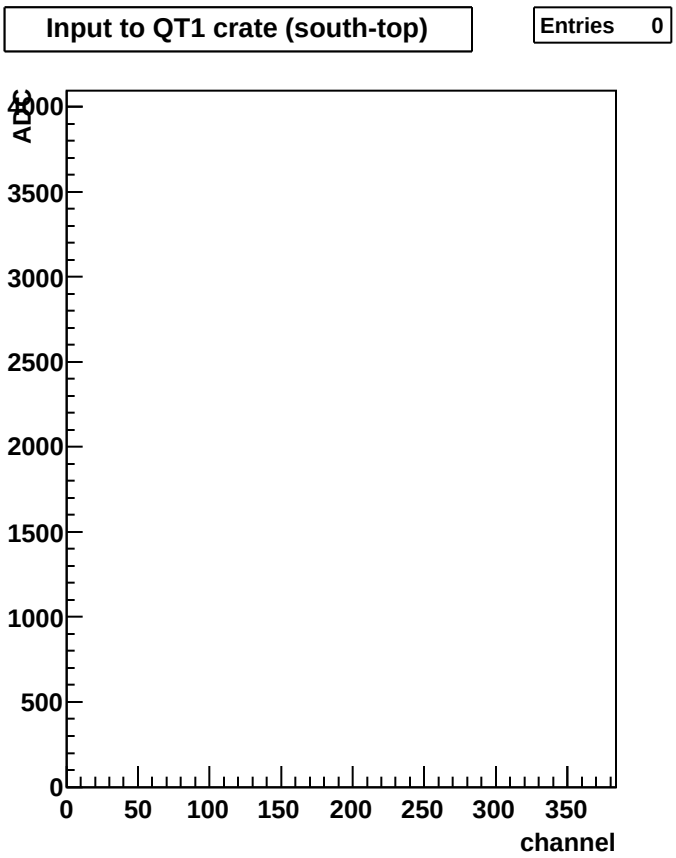

BBClarge-TAC-W
Entries 89889
Mean 1713
RMS 336.4

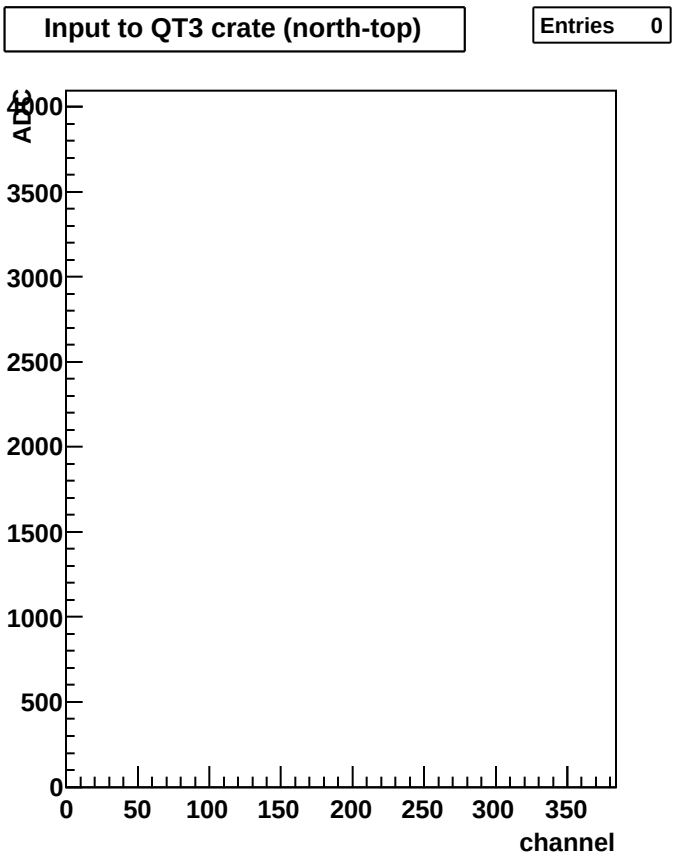

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 86584
Mean 4000
RMS 430.6

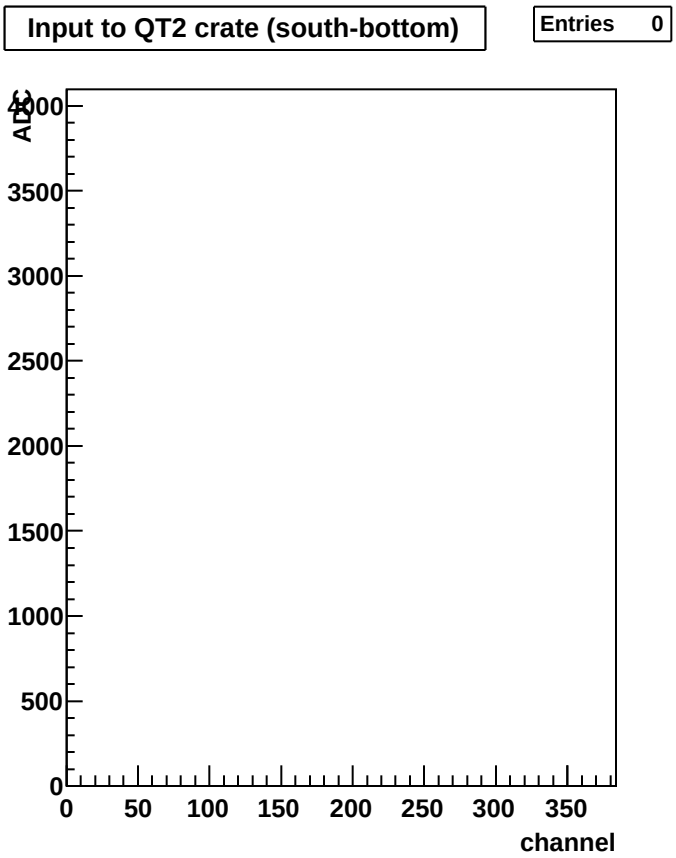

VPD-TAC-E
Entries 78141
Mean 1471
RMS 158.6

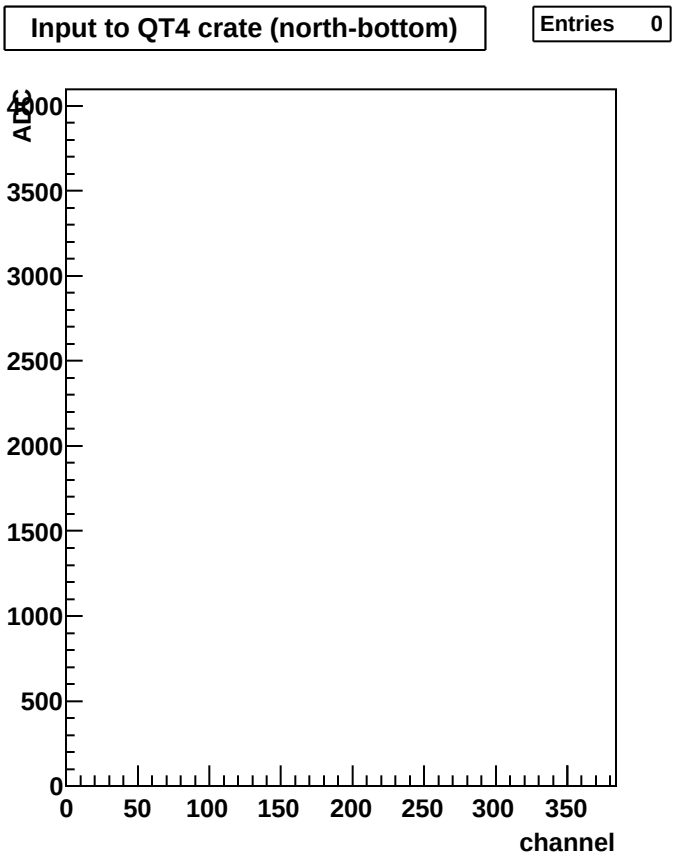

VPD-TAC-W
Entries 77159
Mean 1463
RMS 160

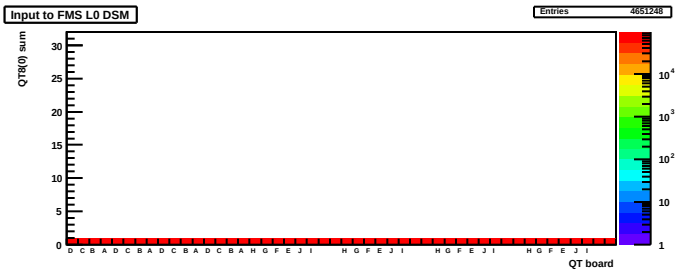

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 71263
Mean 4103
RMS 194.5

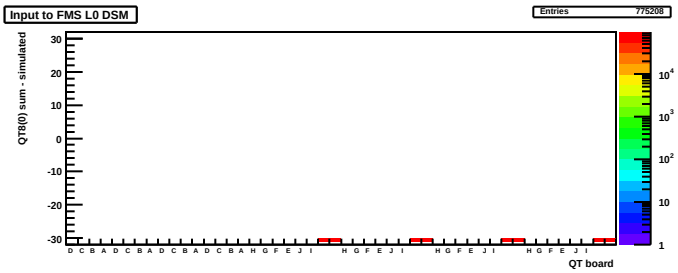

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

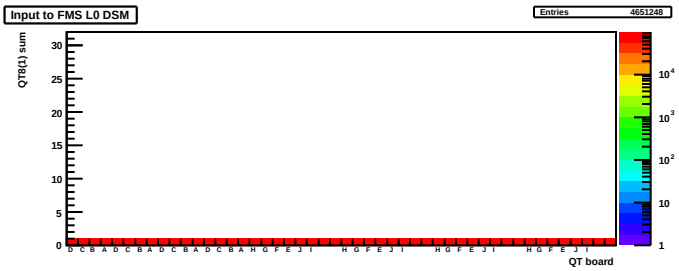

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

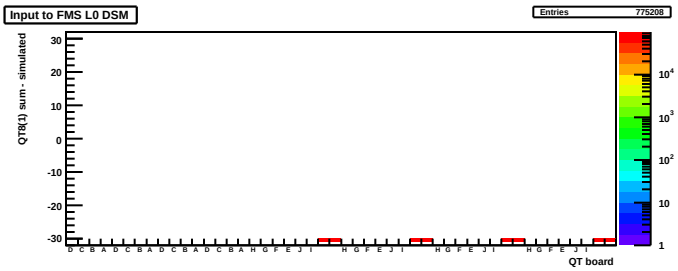

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

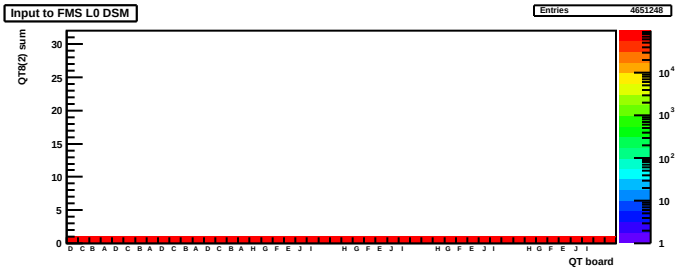

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

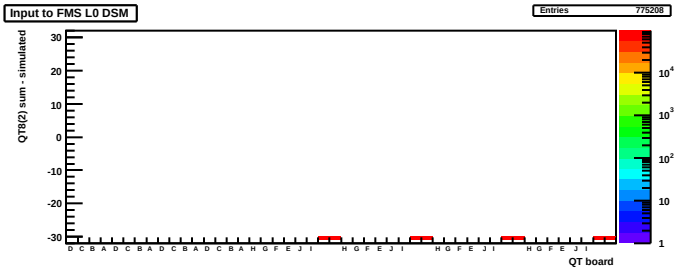

Input to FMS L0 DSM
Entries 4651248
QT8(0) sum
QT board

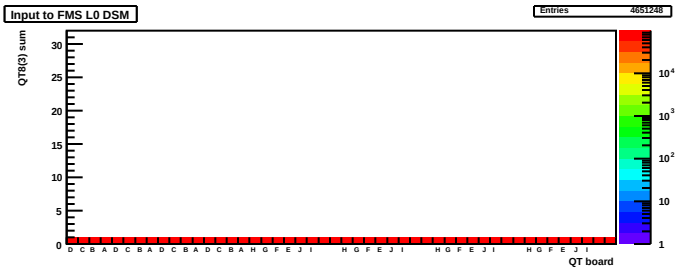

Input to FMS L0 DSM
Entries 775208
QT8(0) sum - simulated
QT board

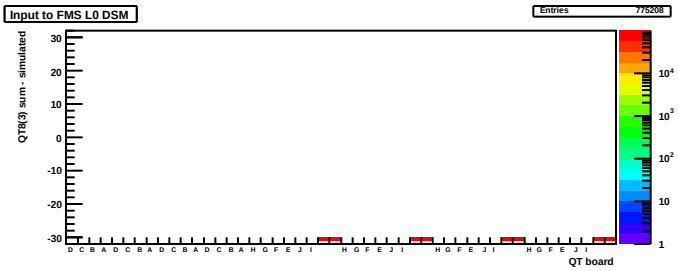

Input to FMS L0 DSM
Entries 4651248
QT8(1) sum
QT board

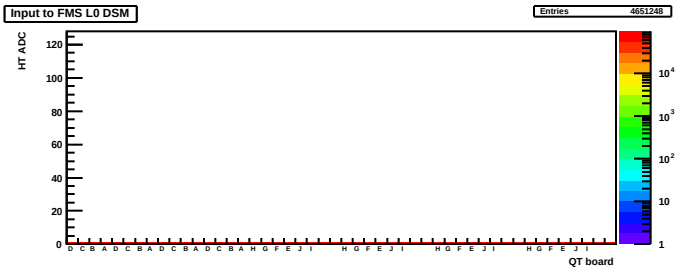

Input to FMS L0 DSM
Entries 775208
QT8(1) sum - simulated
QT board

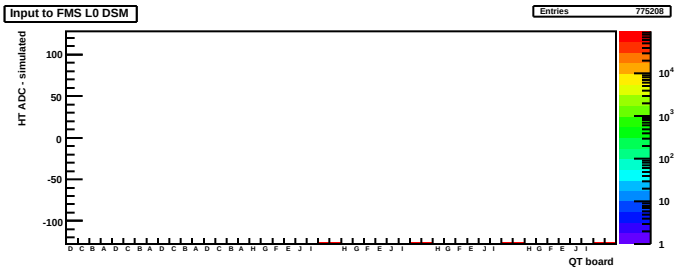

Input to FMS L0 DSM
Entries 4651248
QT8(2) sum
QT board

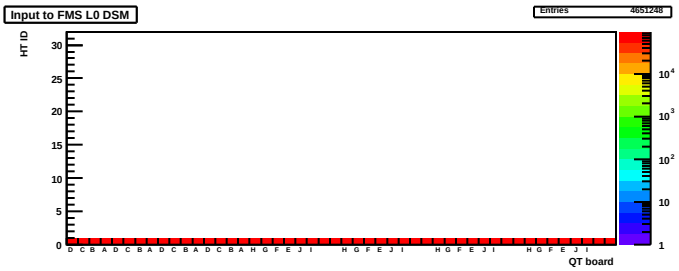

Input to FMS L0 DSM
Entries 775208
QT8(2) sum - simulated
QT board

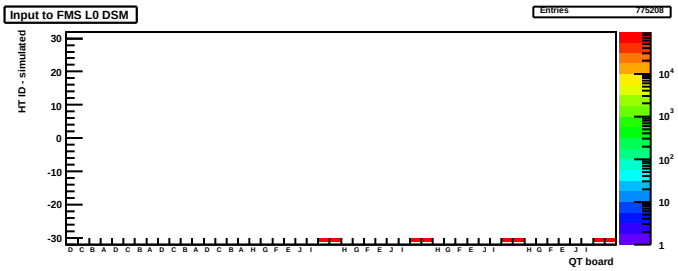

Input to FMS L0 DSM
Entries 4651248
QT8(3) sum
QT board

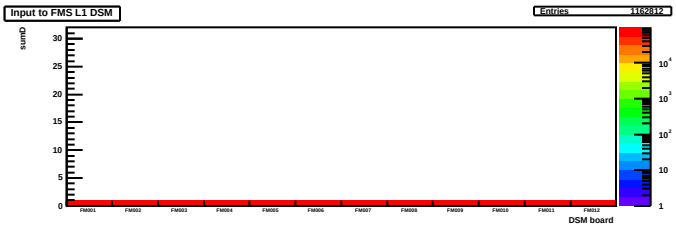

Input to FMS L0 DSM
Entries 775208
QT8(3) sum - simulated
QT board

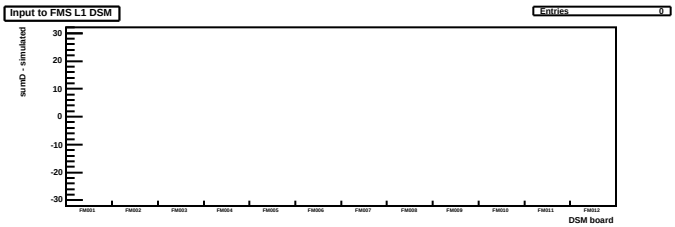

Input to FMS L0 DSM
Entries 4651248
HT ADC
QT board

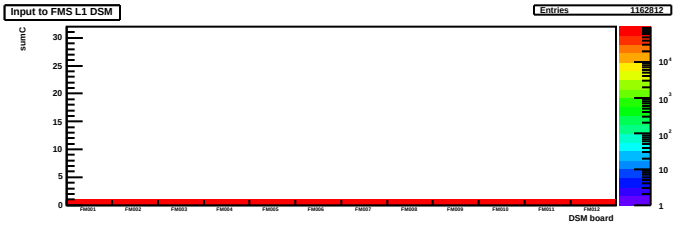

Input to FMS L0 DSM
Entries 775208
HT ADC - simulated
QT board

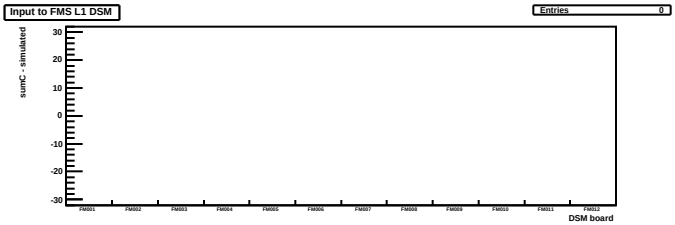

Input to FMS L0 DSM
Entries 4651248
HT ID
QT board

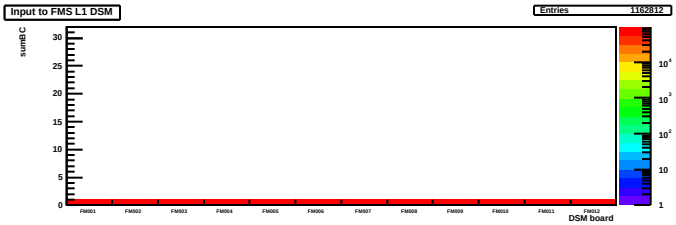

Input to FMS L0 DSM
Entries 775208
HT ID - simulated
QT board

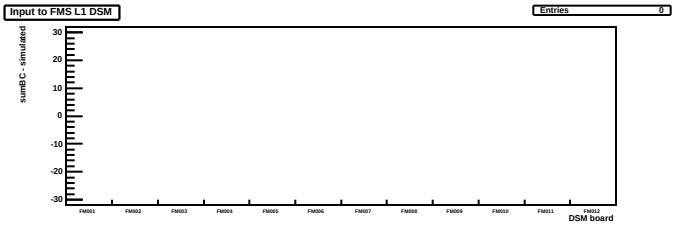

Input to FMS L1 DSM
Entries 1162812
sumD
DSM board

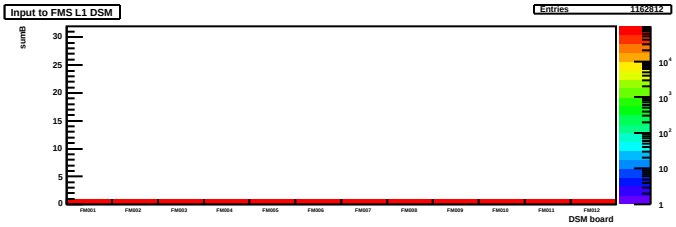

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

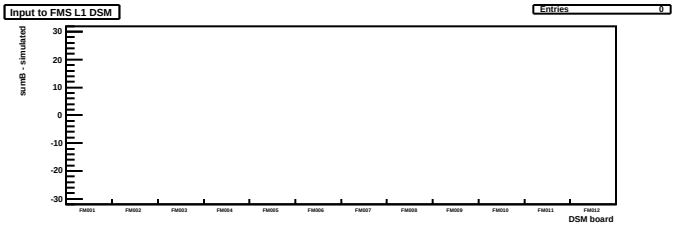

Input to FMS L1 DSM
Entries 1162812
sumC
DSM board

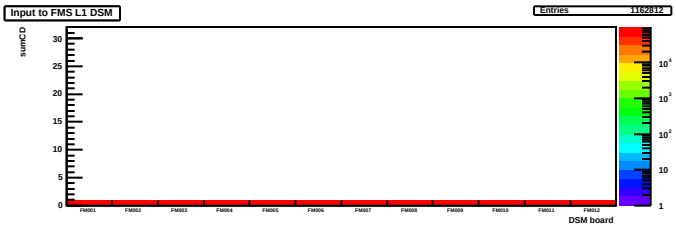

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

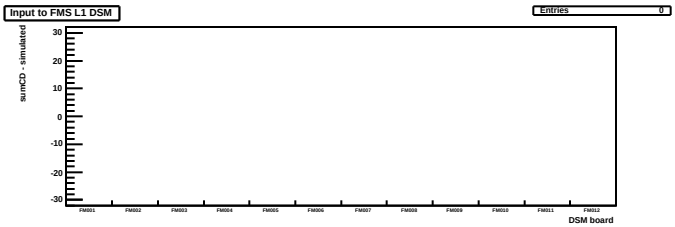

Input to FMS L1 DSM
Entries 1162812
sumBC
DSM board

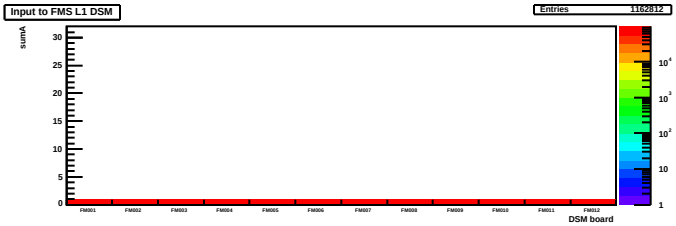

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

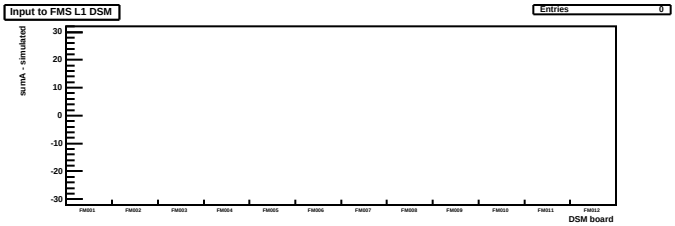

Input to FMS L1 DSM
Entries 1162812
sumB
DSM board

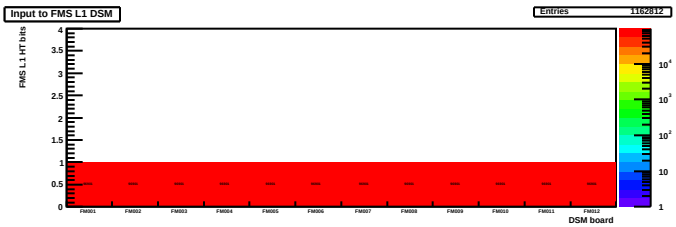

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

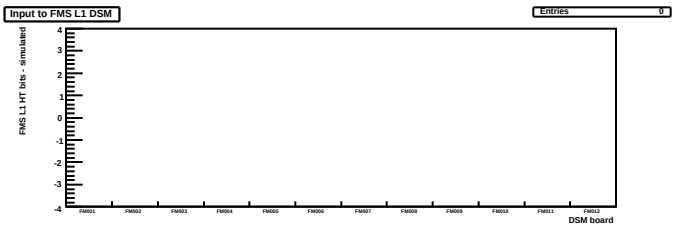

Input to FMS L1 DSM
Entries 1162812
sumCD
DSM board

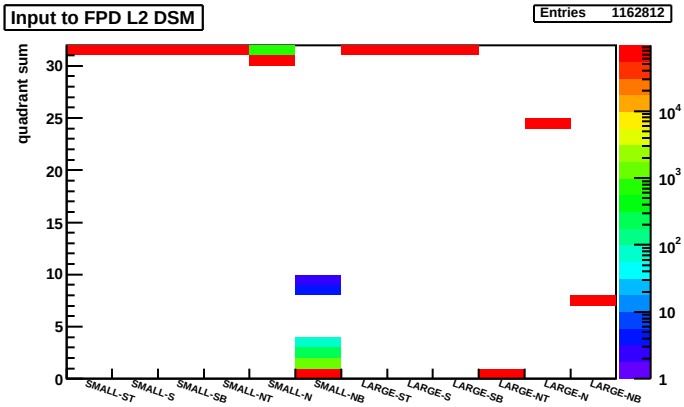

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

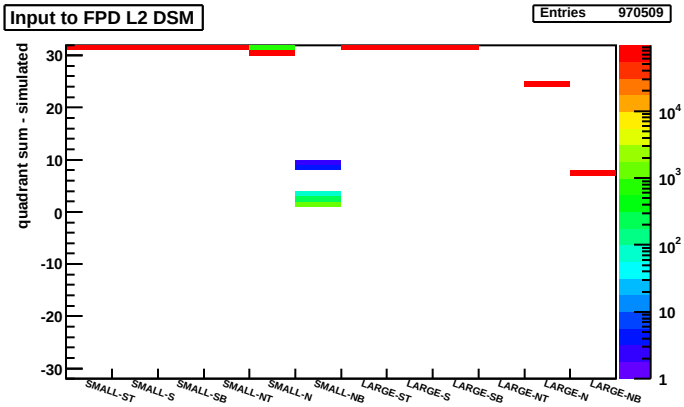

Input to FMS L1 DSM
Entries 1162812
sumA
DSM board

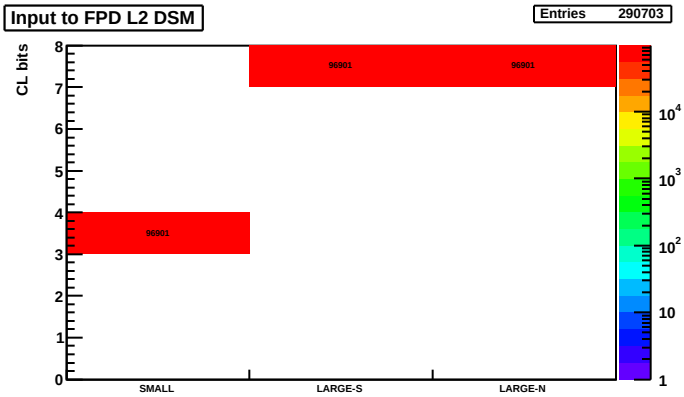

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

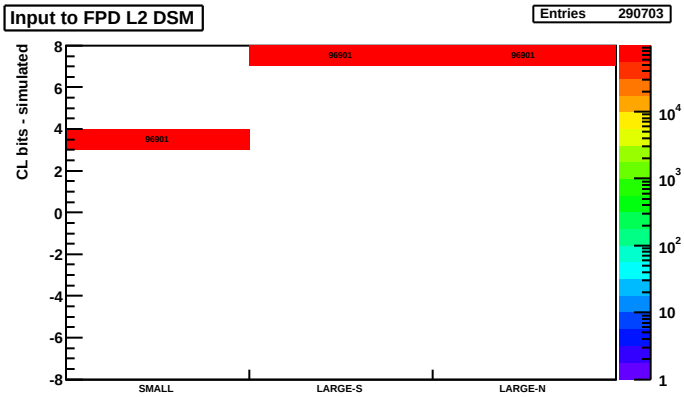

Input to FMS L1 DSM
Entries 1162812
FMS L1 HT bits
DSM board

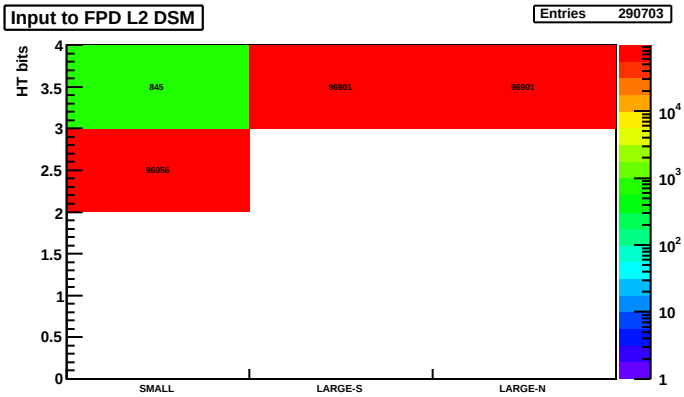

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

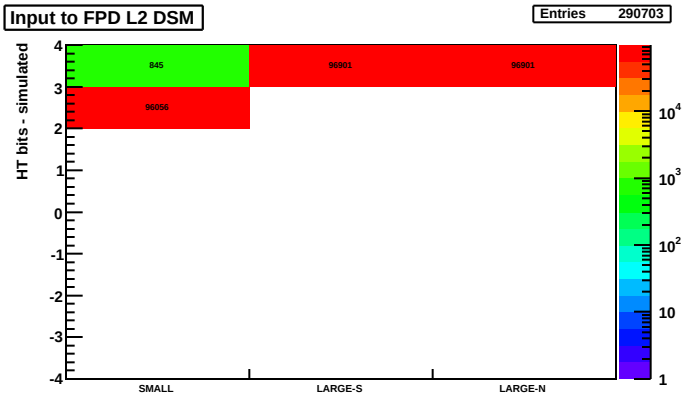

Input to FPD L2 DSM
Entries 1162812
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

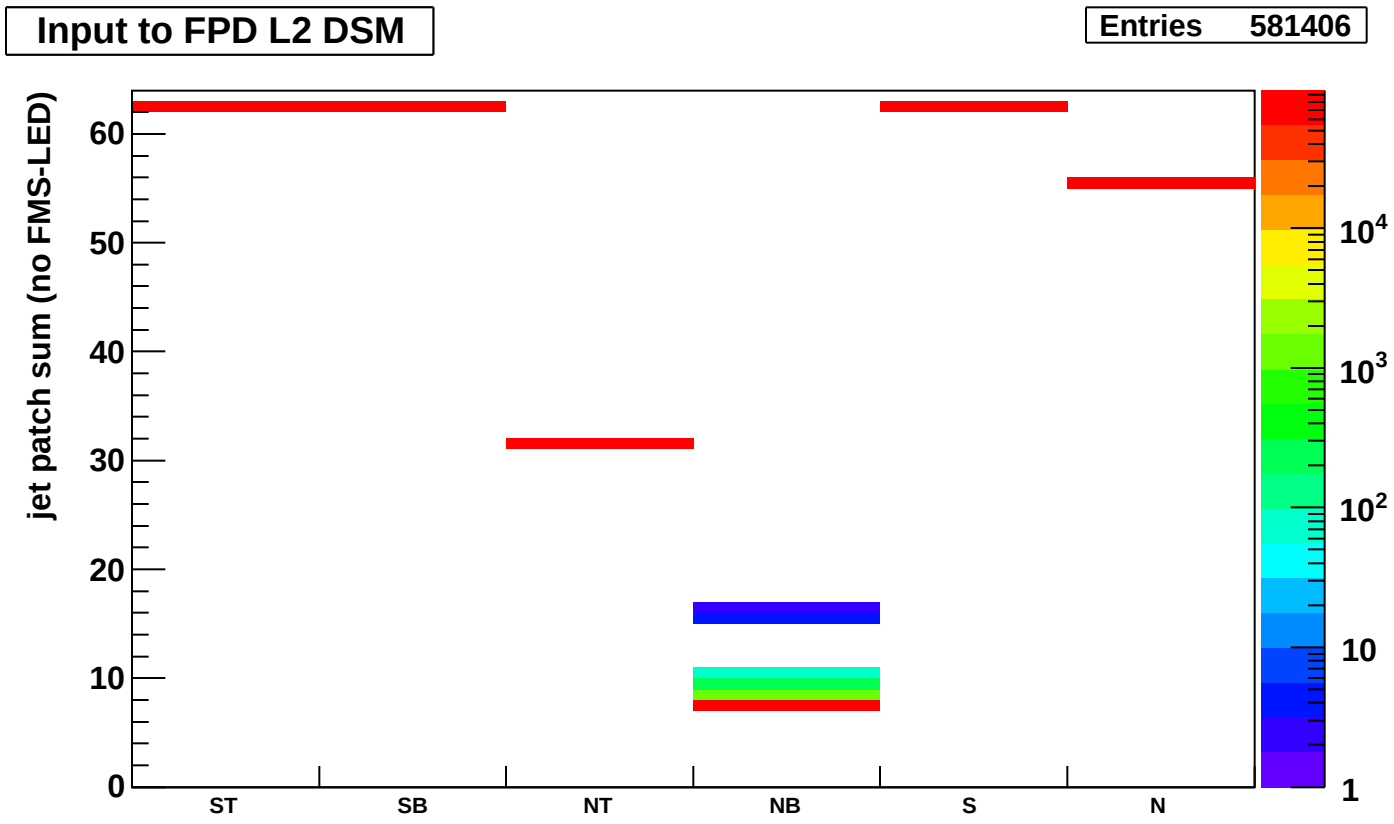

Input to FPD L2 DSM
Entries 970509
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

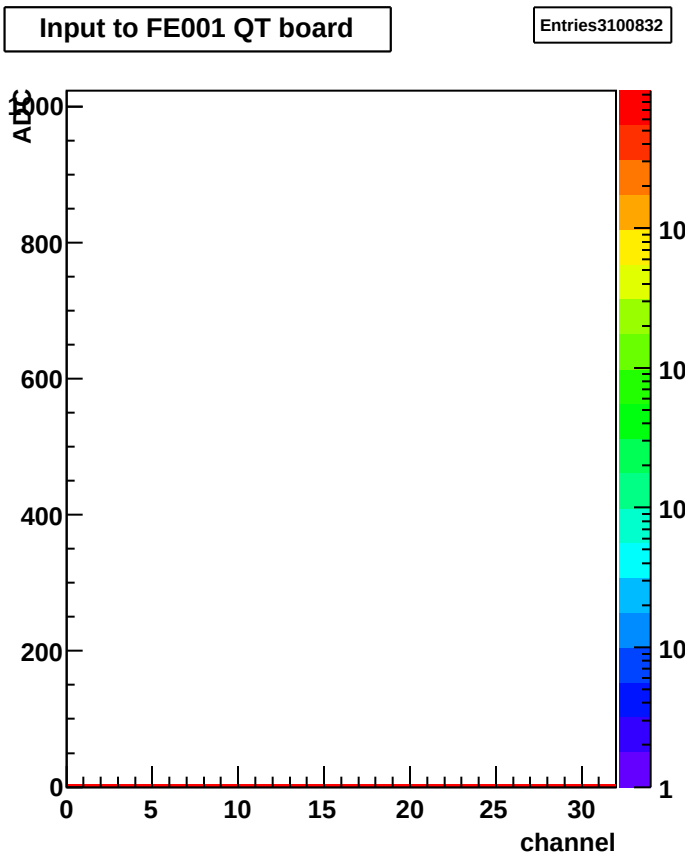

Input to FPD L2 DSM
Entries 290703
CL bits
96901
96901
96901
SMALL
LARGE-S
LARGE-N

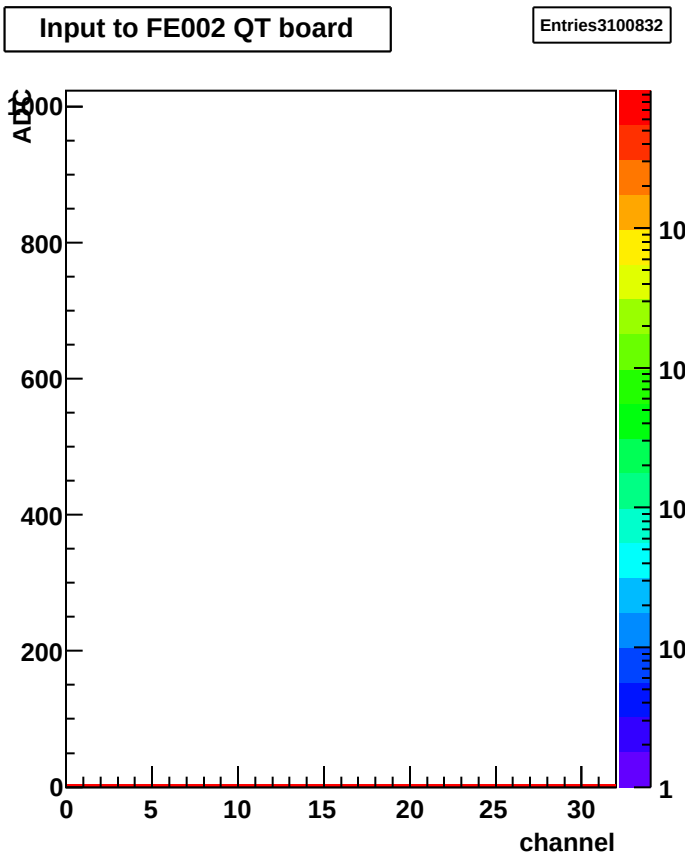

Input to FPD L2 DSM
Entries 290703
CL bits - simulated
96901
96901
96901
SMALL
LARGE-S
LARGE-N

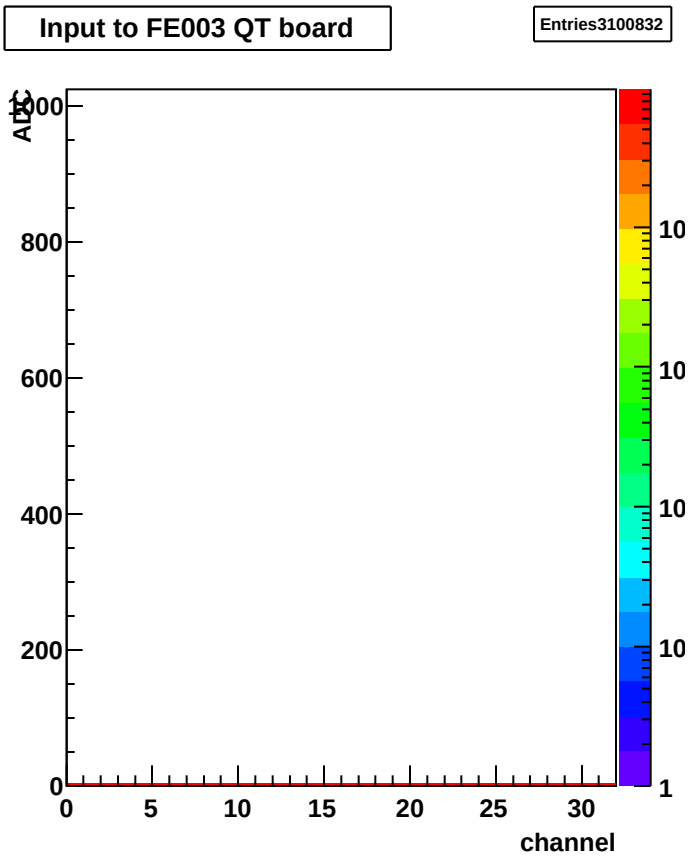

Input to FPD L2 DSM
Entries 290703
HT bits
845
96056
96901
96901
SMALL
LARGE-S
LARGE-N

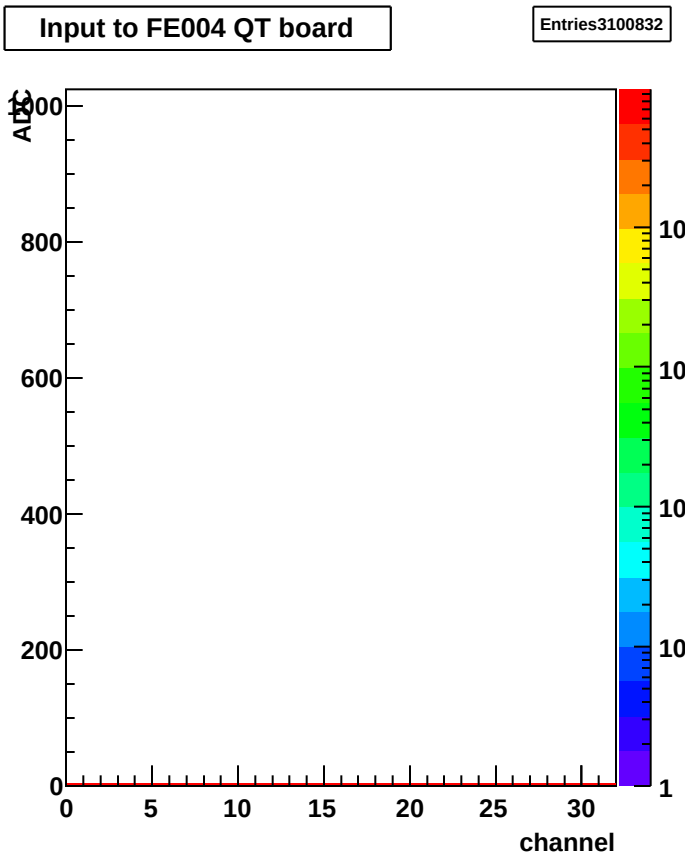

Input to FPD L2 DSM
Entries 290703
HT bits - simulated
845
96056
96901
96901
SMALL
LARGE-S
LARGE-N

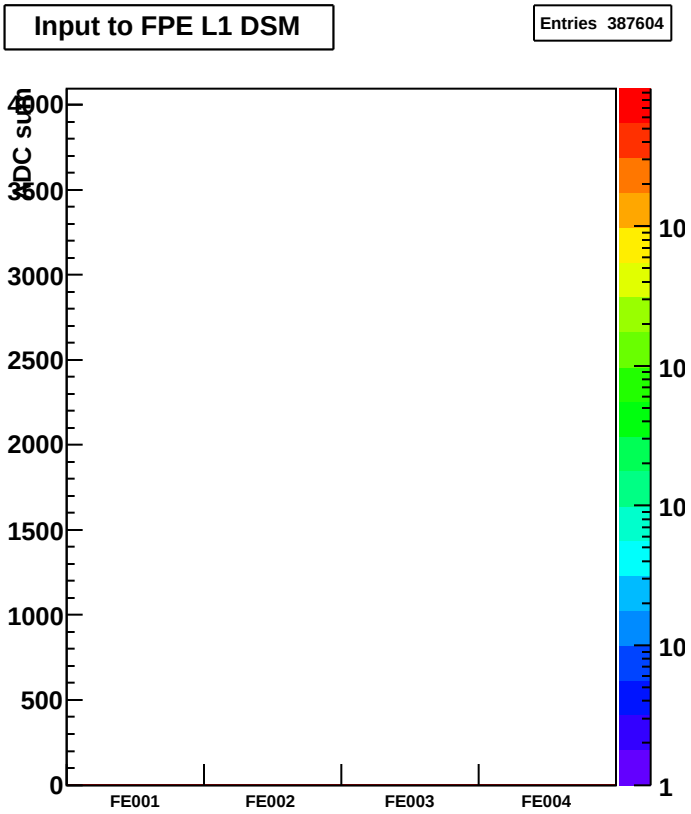

Input to FPD L2 DSM
Entries 581406
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

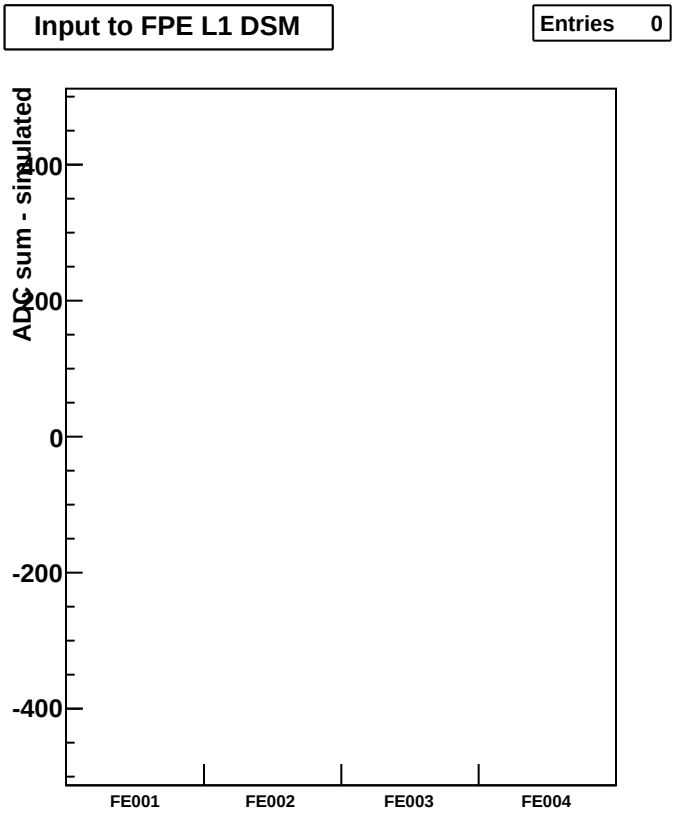

Input to FE001 QT board
Entries3100832
ADC
channel

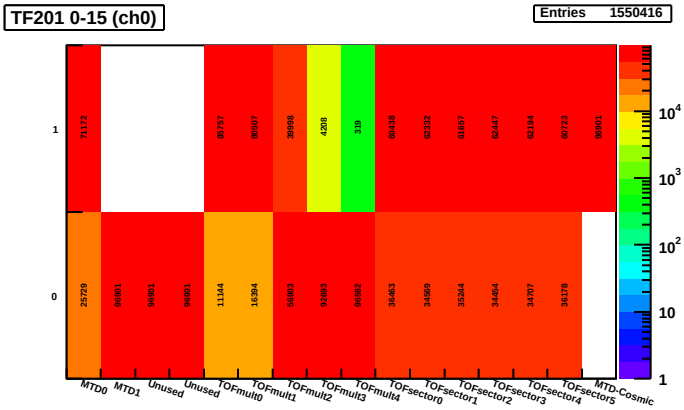

Input to FE002 QT board
Entries3100832
ADC
channel

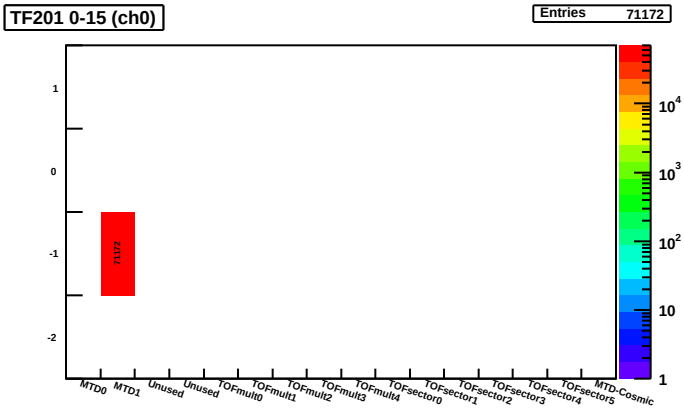

Input to FE003 QT board
Entries3100832
ADC
channel

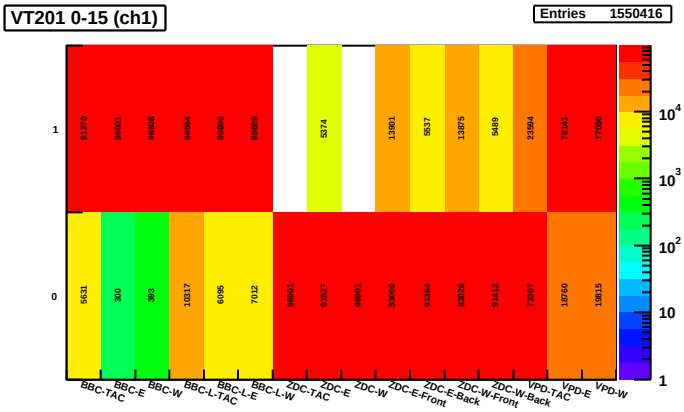

Input to FE004 QT board
Entries3100832
ADC
channel

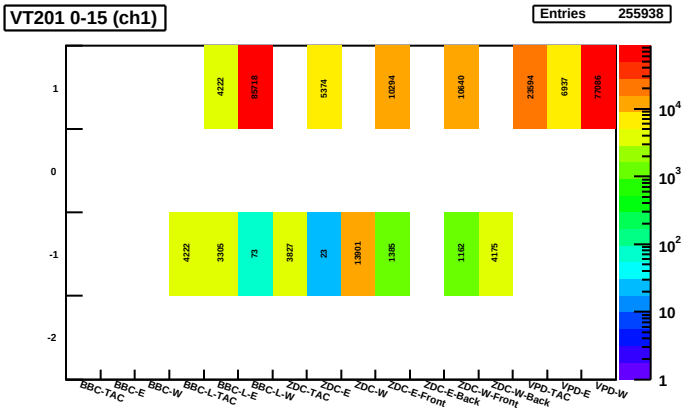

Input to FPE L1 DSM
Entries 387604
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

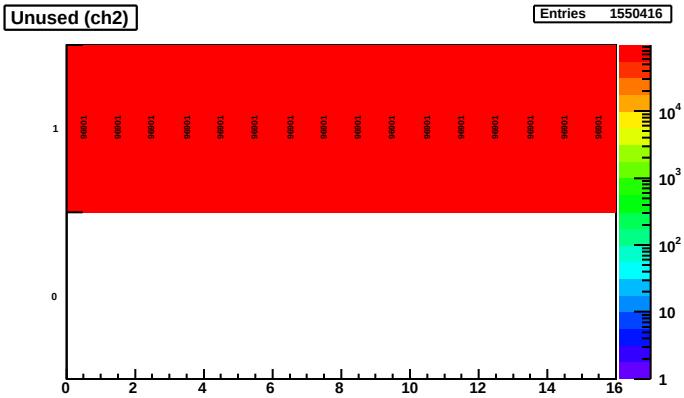

Input to FPE L1 DSM
Entries 0
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004

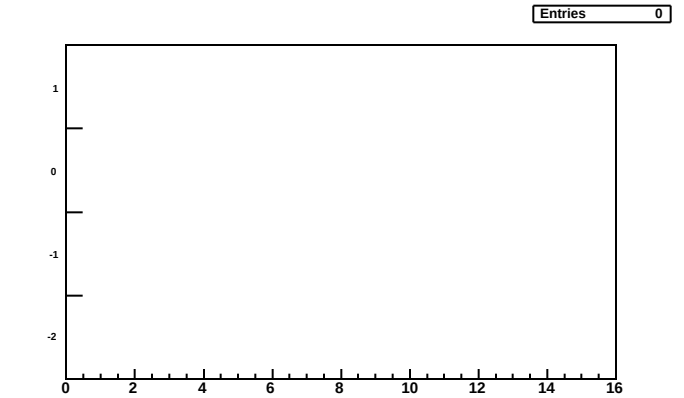

TF201 0-15 (ch0)
Entries 1550416
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

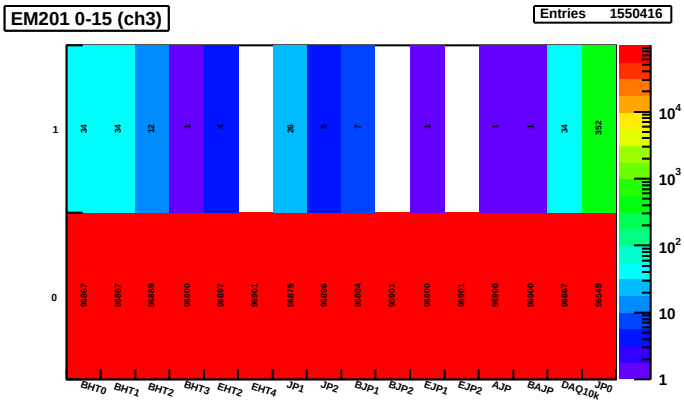

TF201 0-15 (ch0)
Entries 71172
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

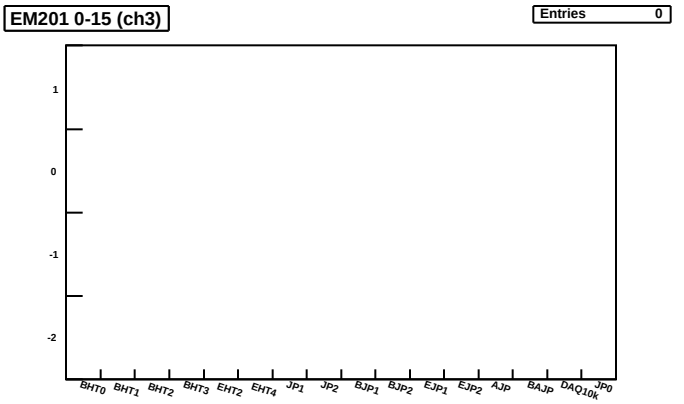

VT201 0-15 (ch1)
Entries 1550416
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 255938
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

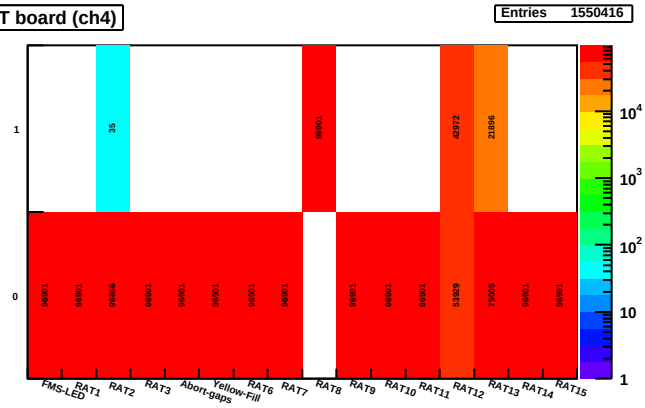

Unused (ch2)
Entries 1550416

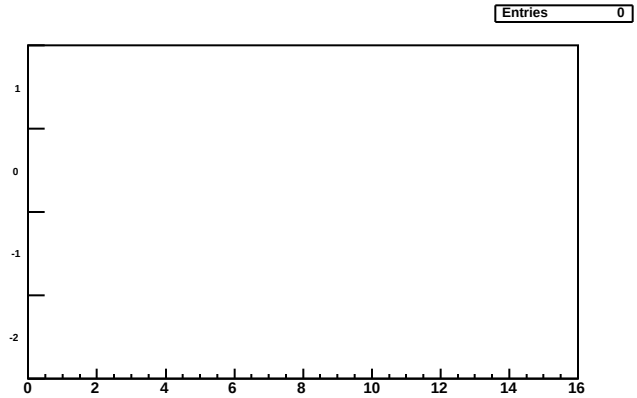

Entries 0


EM201 0-15 (ch3)
Entries 1550416
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

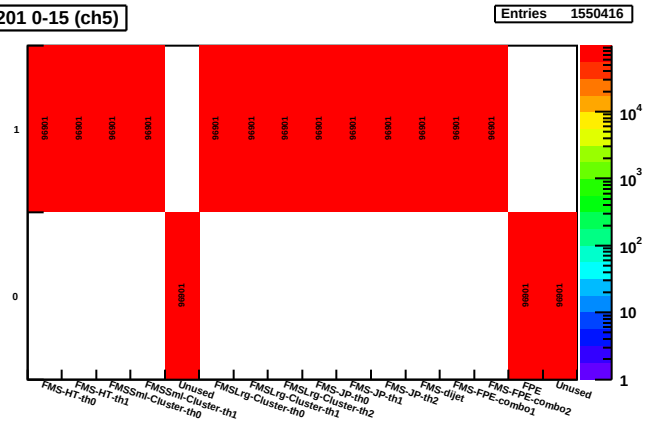

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

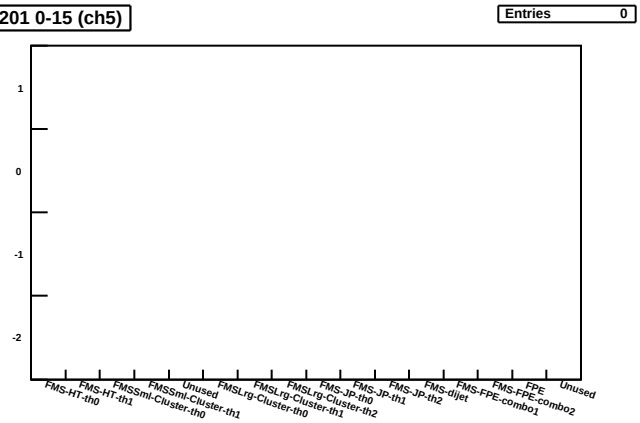




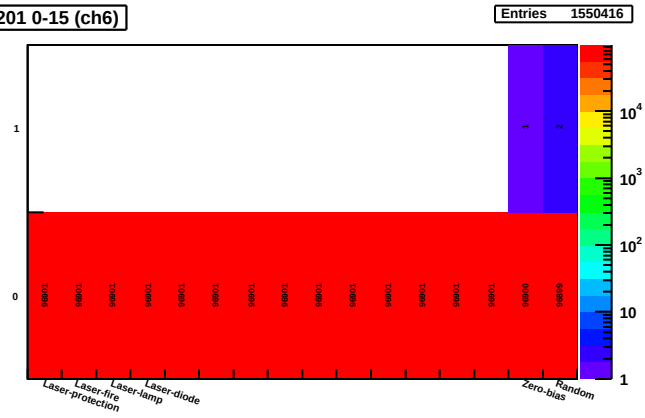
FP201 0-15 (ch5)

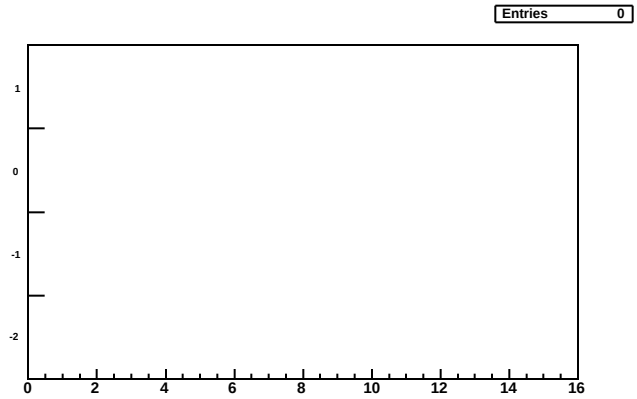
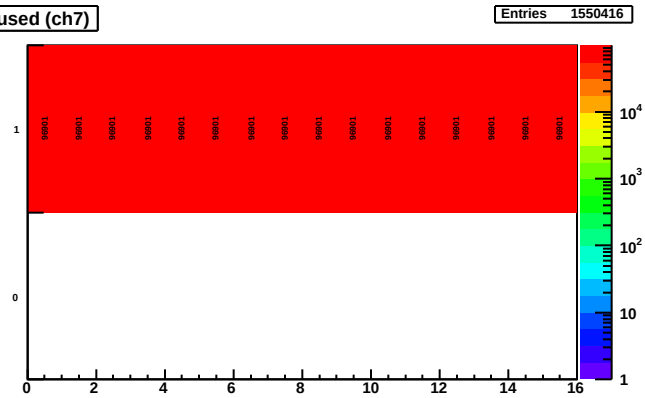
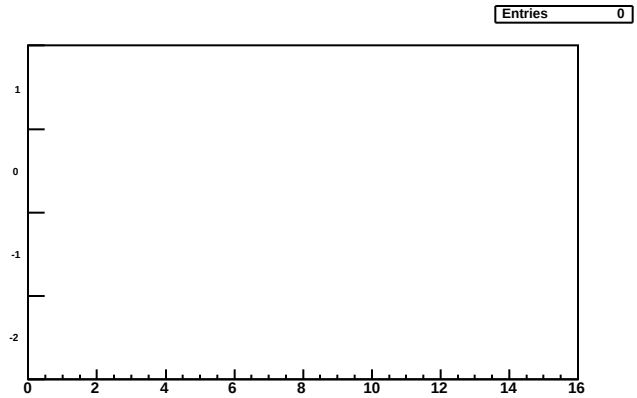


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)