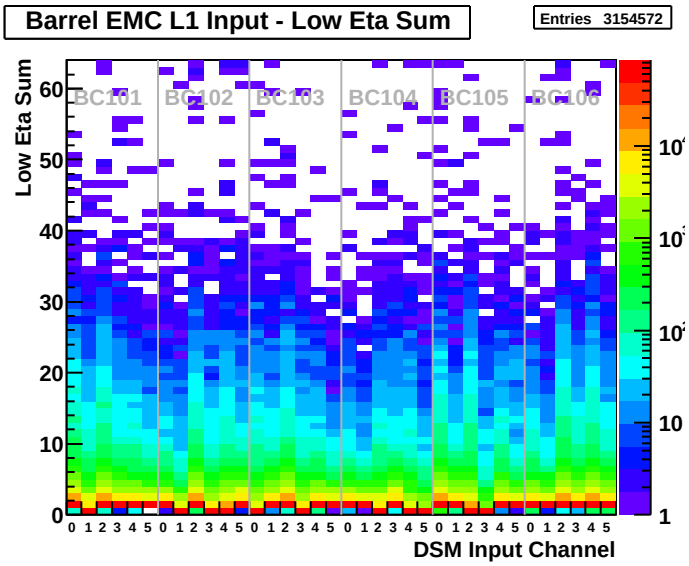
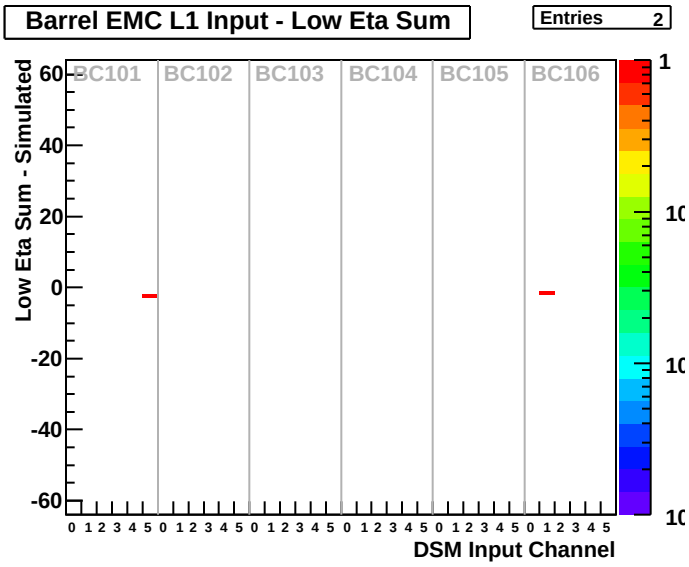
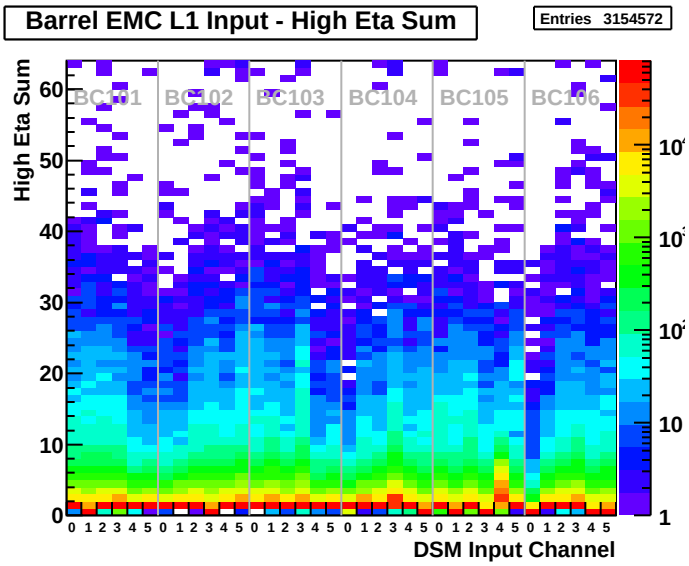
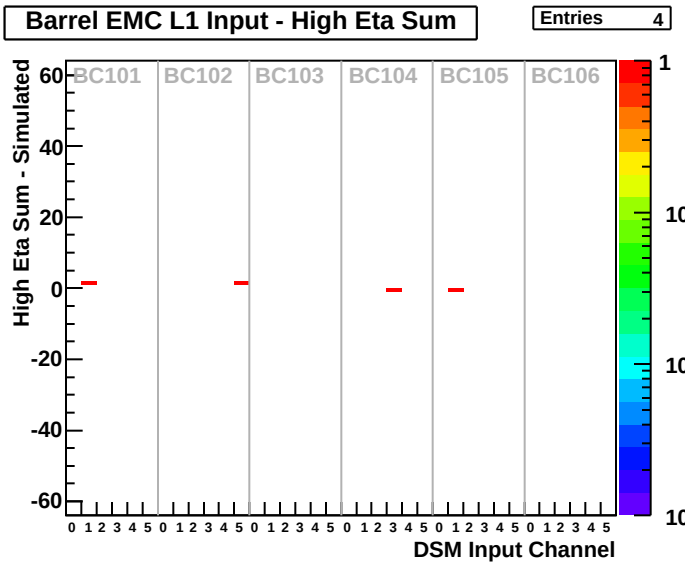
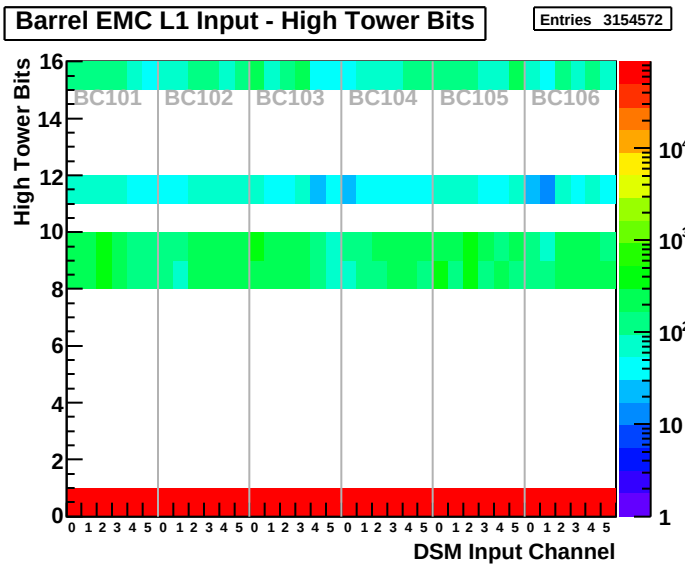
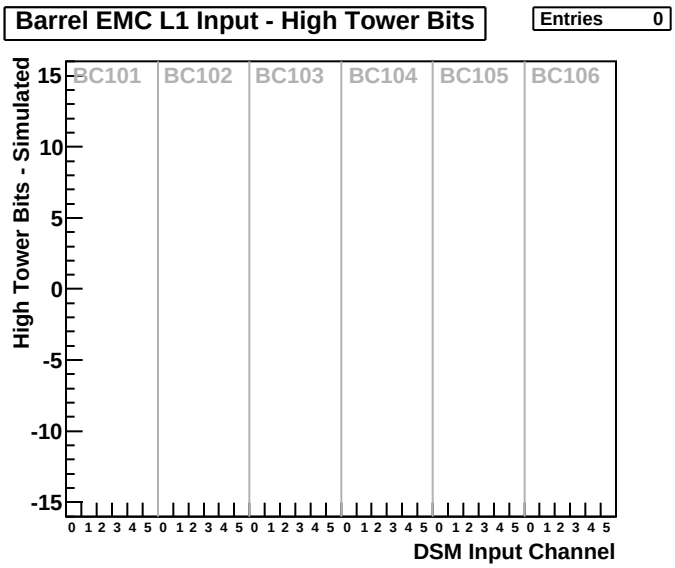

Barrel EMC L1 Input - Low Eta Sum
Entries 3154572
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

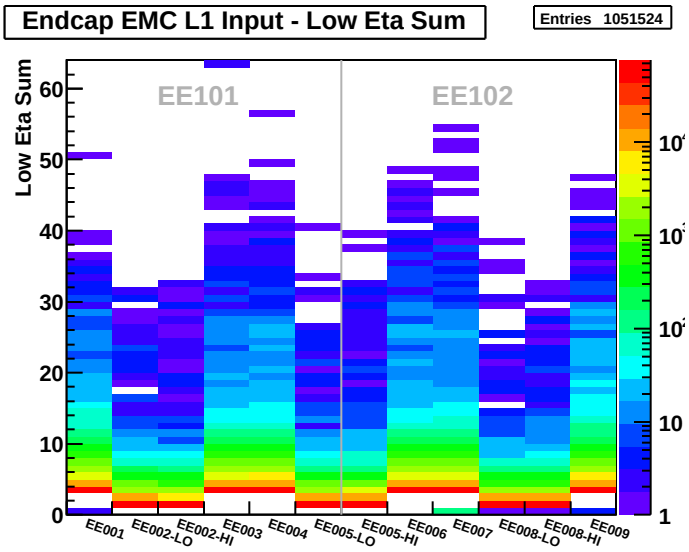

Barrel EMC L1 Input - Low Eta Sum
Entries 2
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

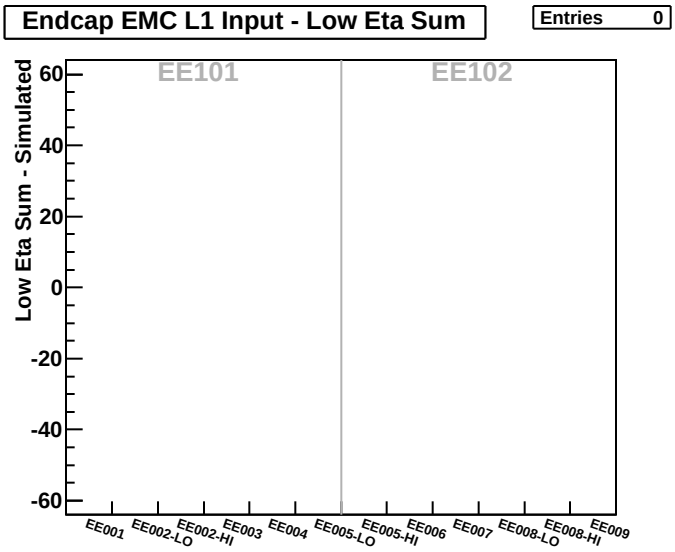

Barrel EMC L1 Input - High Eta Sum
Entries 3154572
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

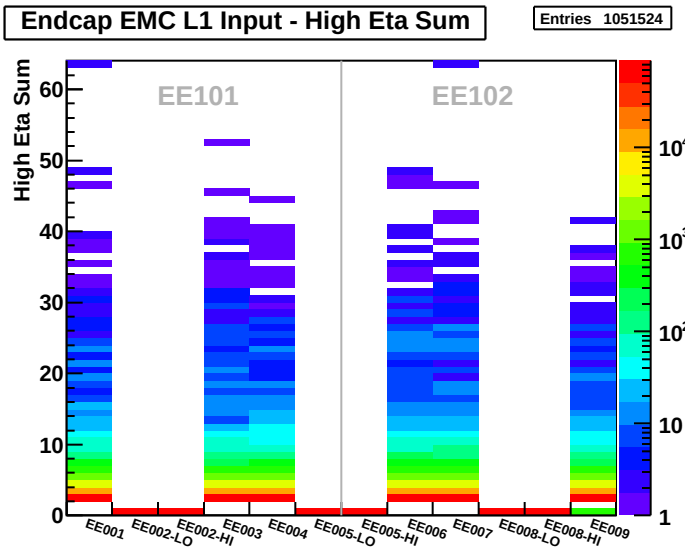

Barrel EMC L1 Input - High Eta Sum
Entries 4
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

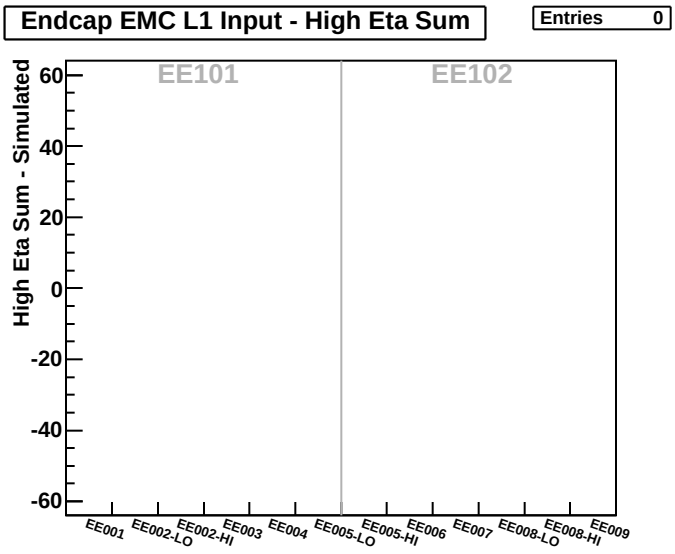

Barrel EMC L1 Input - High Tower Bits
Entries 3154572
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

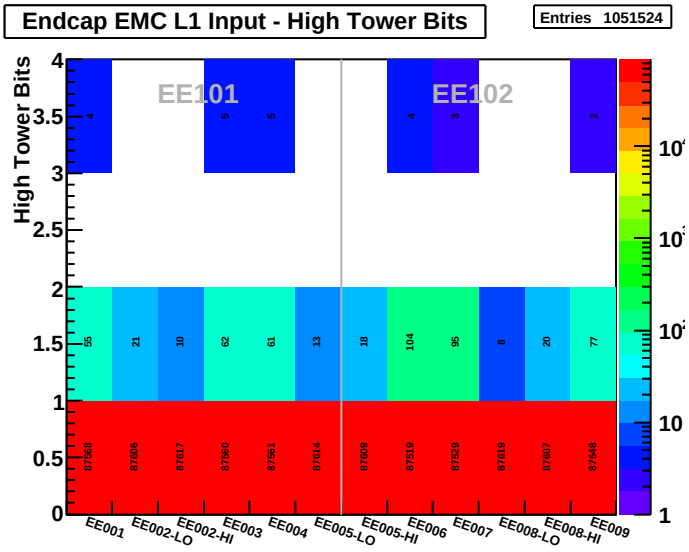

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

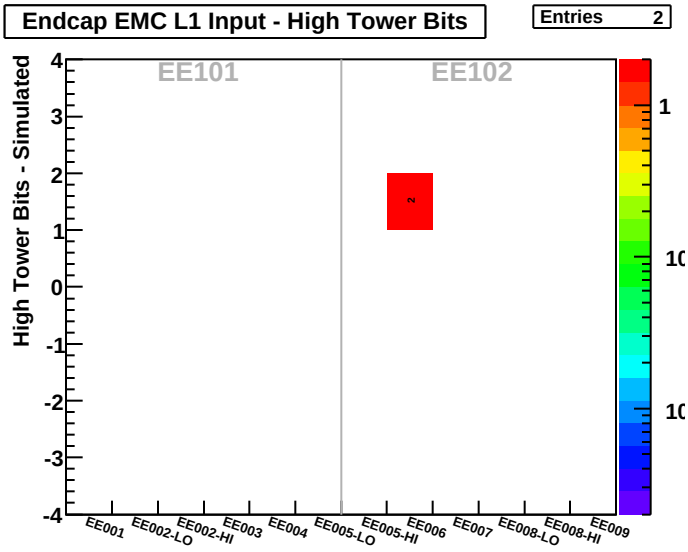

Endcap EMC L1 Input - Low Eta Sum
Entries 1051524
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

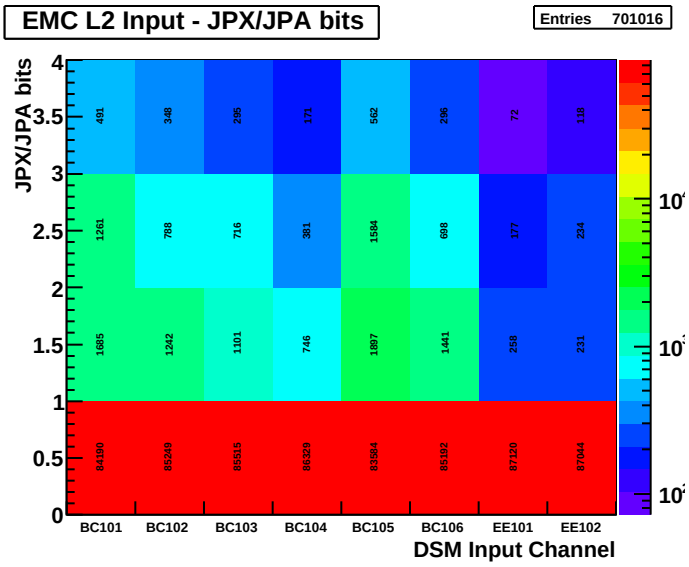

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

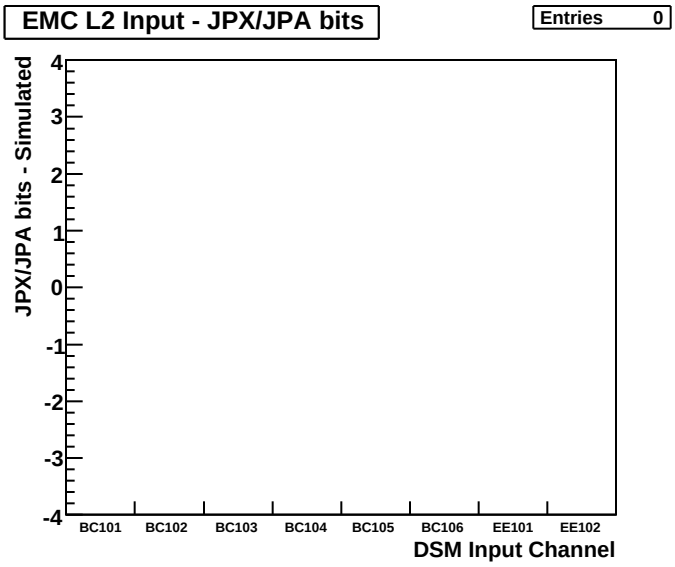

Endcap EMC L1 Input - High Eta Sum
Entries 1051524
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

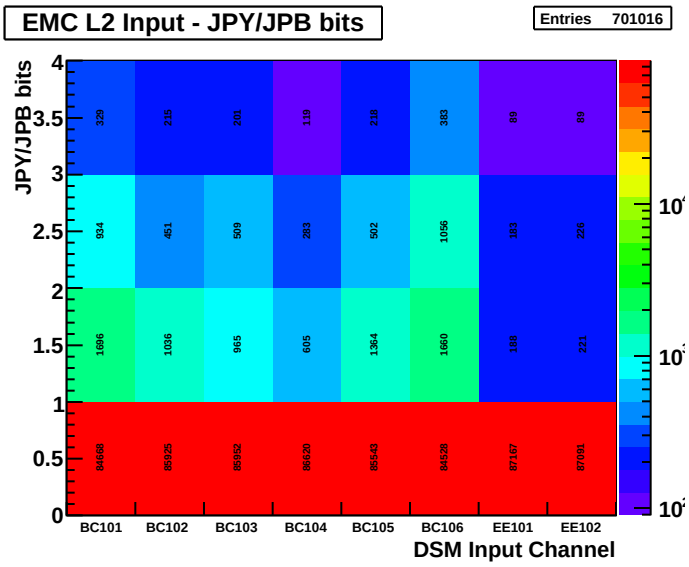

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

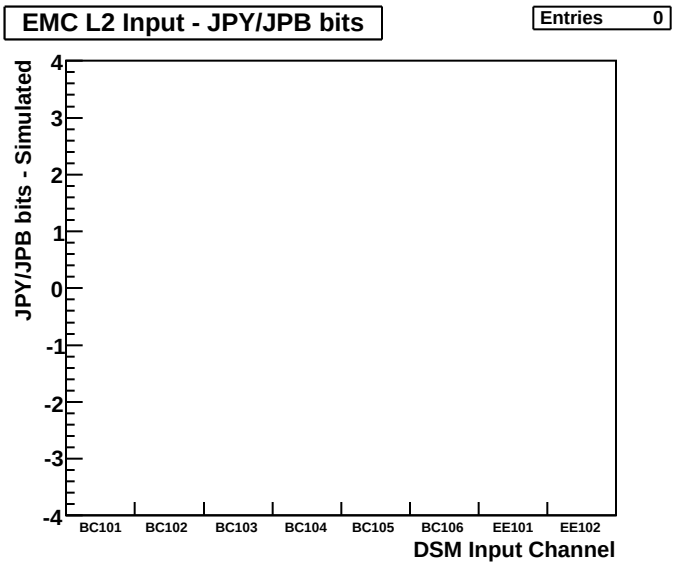

Endcap EMC L1 Input - High Tower Bits
Entries 1051524
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

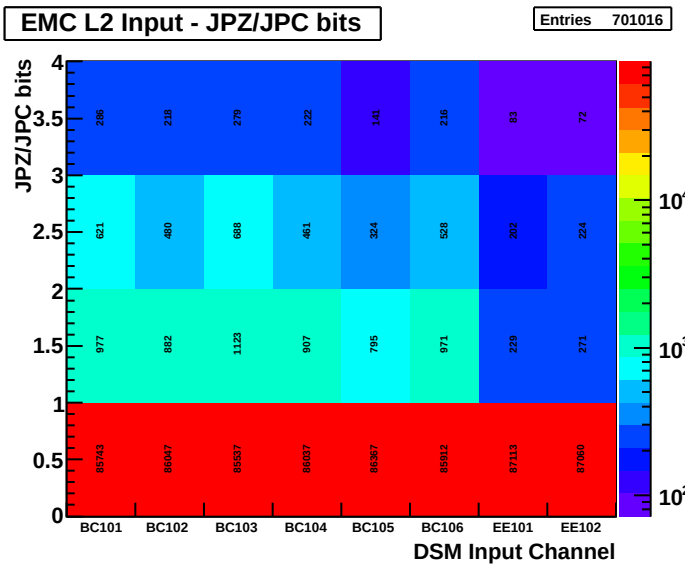

Endcap EMC L1 Input - High Tower Bits
Entries 2
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

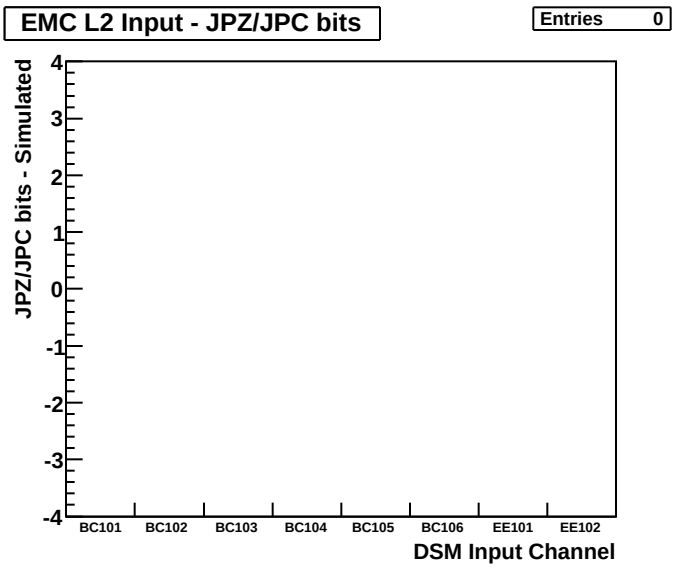

EMC L2 Input - JPX/JPA bits
Entries 701016
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
491 348 295 171 562 296 72 118
1261 788 716 381 1584 698 177 234
1685 1242 1101 746 1897 1441 258 231
84190 85249 85515 86329 83594 85192 87120 87044

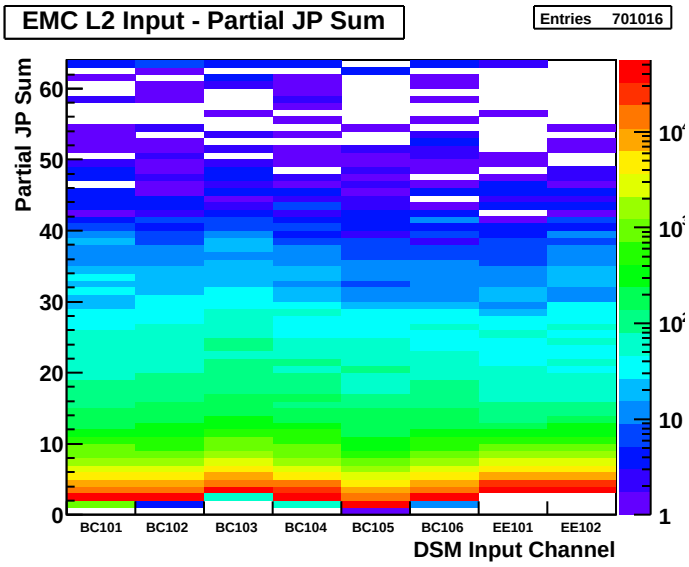

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

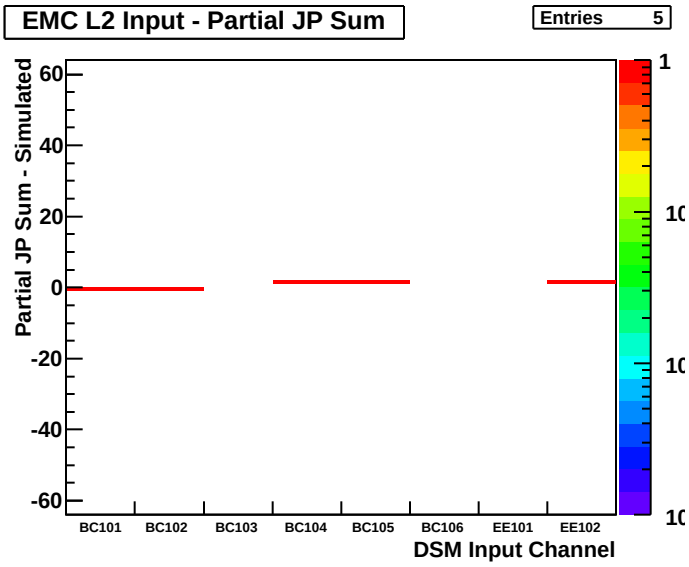

EMC L2 Input - JPY/JPB bits
Entries 701016
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
329 215 201 119 218 383 89 89
934 451 509 283 502 1056 183 226
1696 1036 965 605 1364 1660 188 221
84568 85925 85952 86520 85543 84528 87167 87091

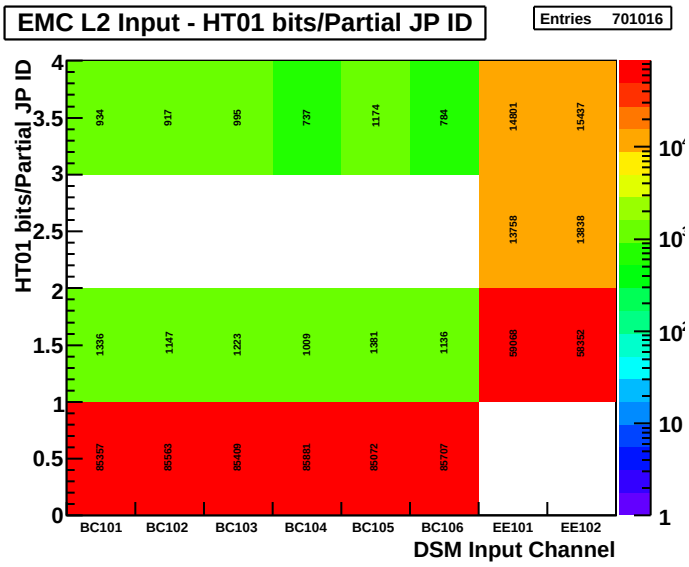

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

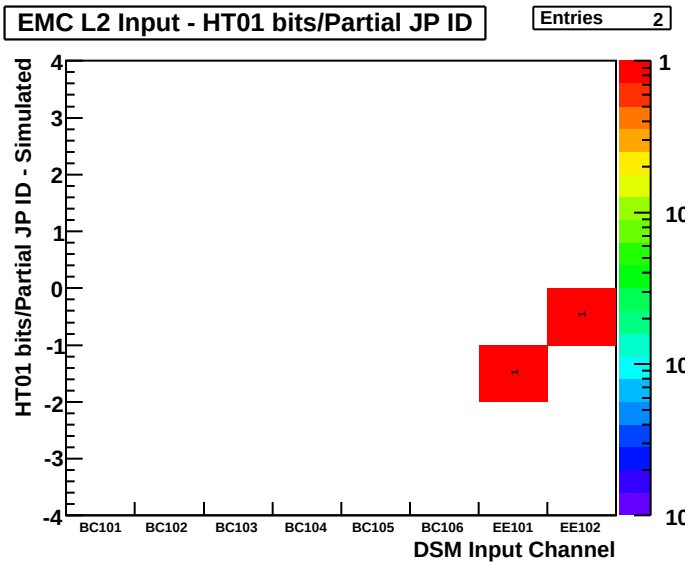

EMC L2 Input - JPZ/JPC bits
Entries 701016
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
286 218 279 222 141 216 83 72
621 480 688 461 324 528 202 224
977 882 1123 907 795 971 229 271
85743 86047 85537 86037 86367 85912 87113 87060

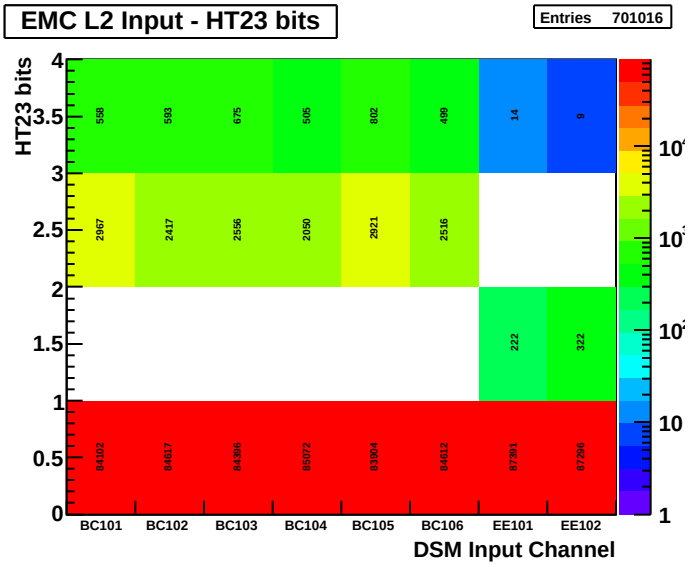

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

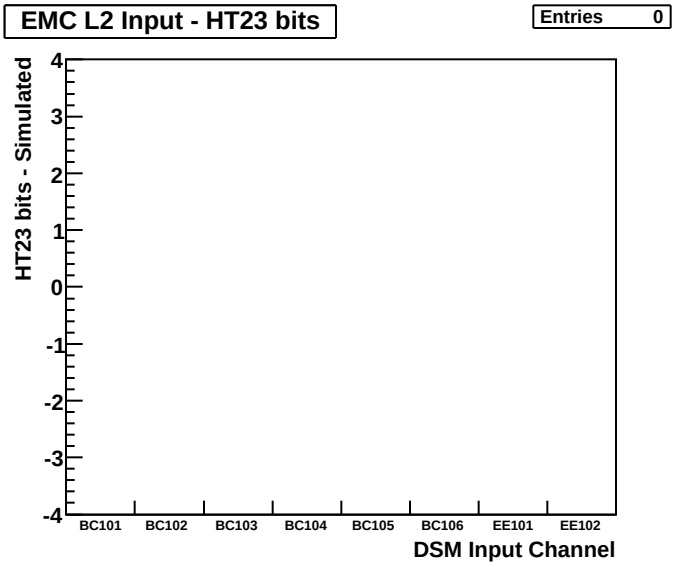

EMC L2 Input - Partial JP Sum
Entries 701016
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

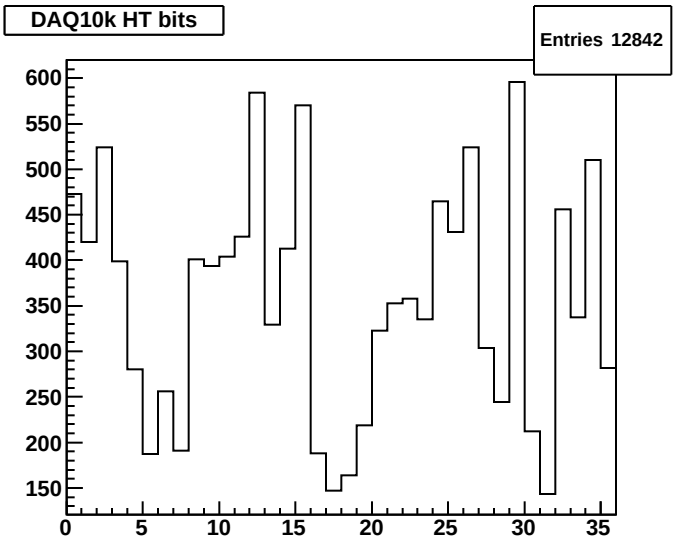

EMC L2 Input - Partial JP Sum
Entries 5
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

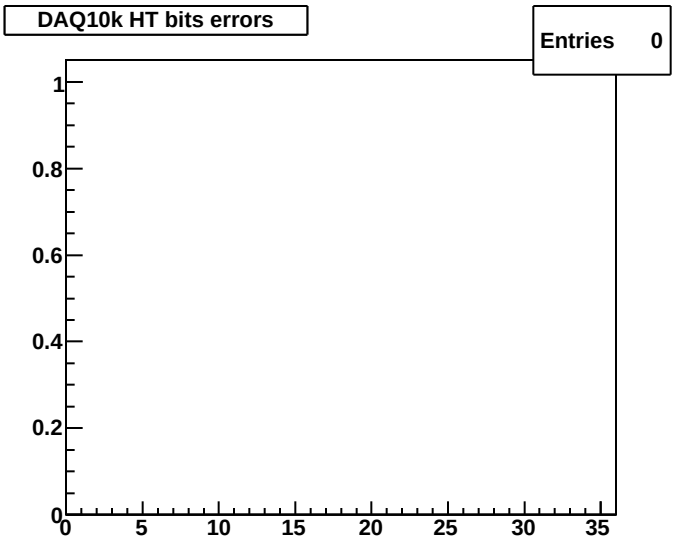

EMC L2 Input - HT01 bits/Partial JP ID
Entries 701016
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

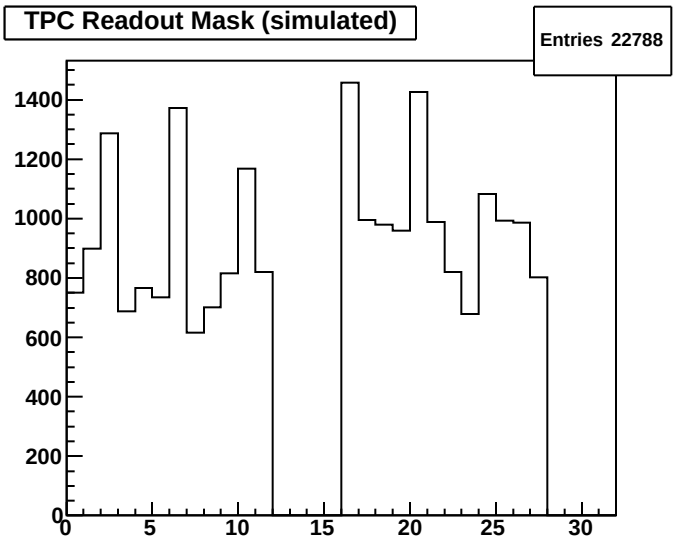

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

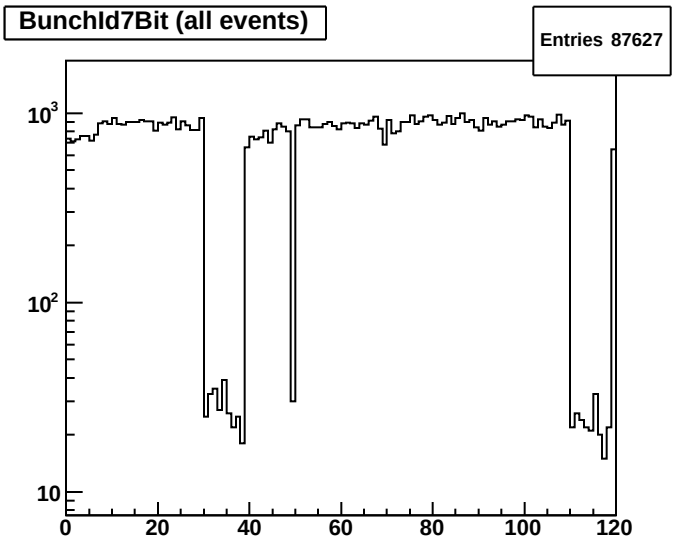

EMC L2 Input - HT23 bits
Entries 701016
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

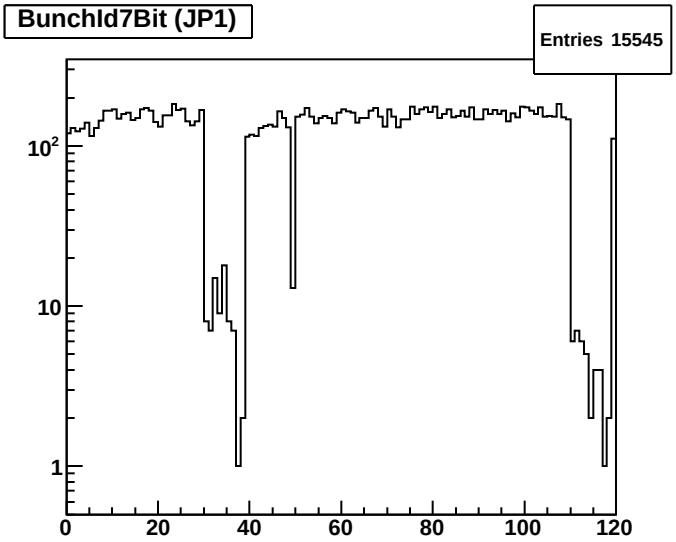

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

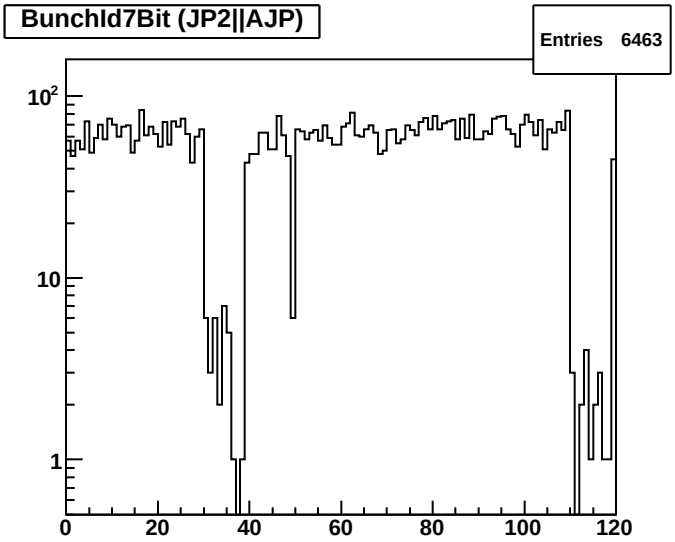

DAQ10k HT bits
Entries 12842

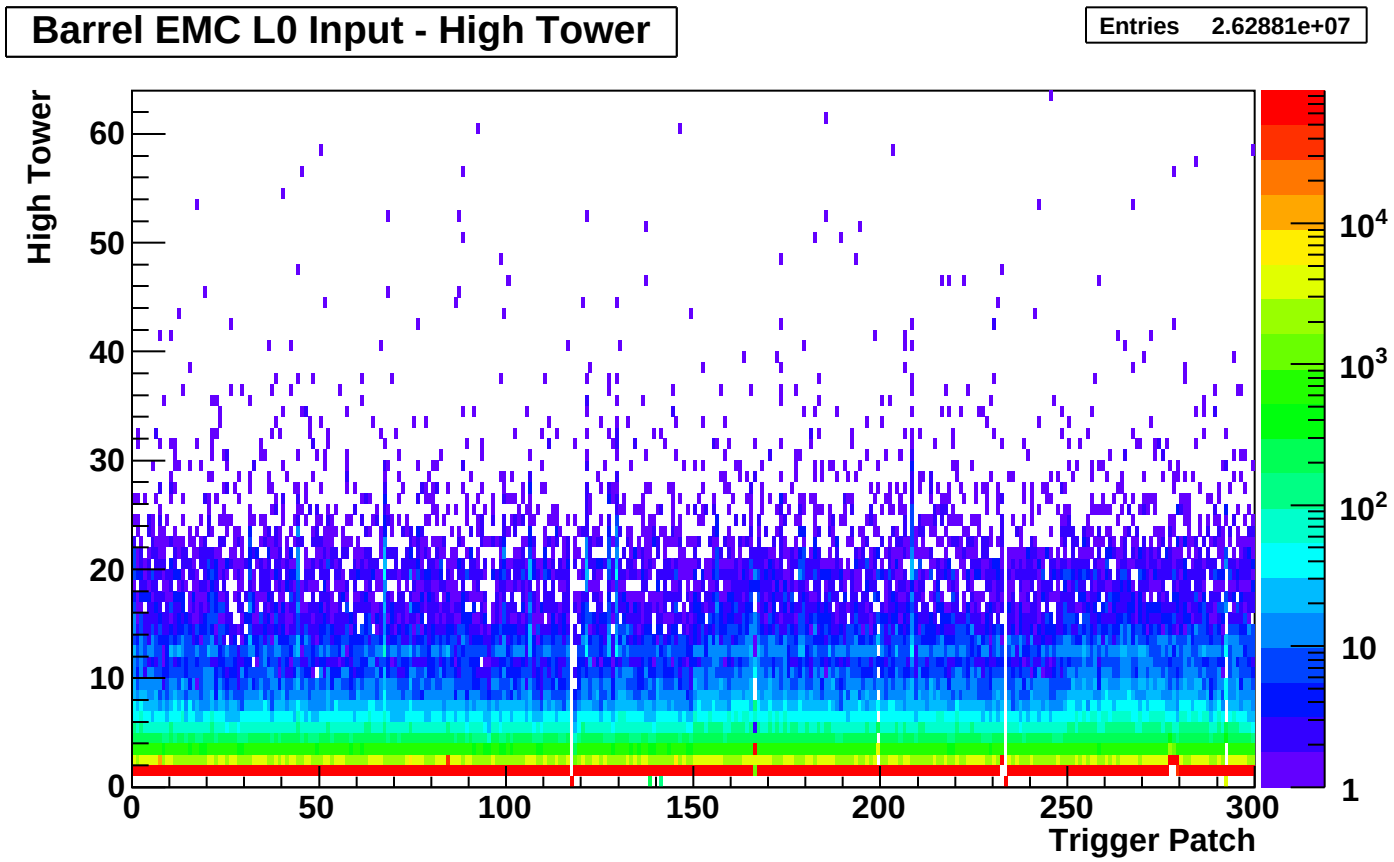

DAQ10k HT bits errors
Entries 0

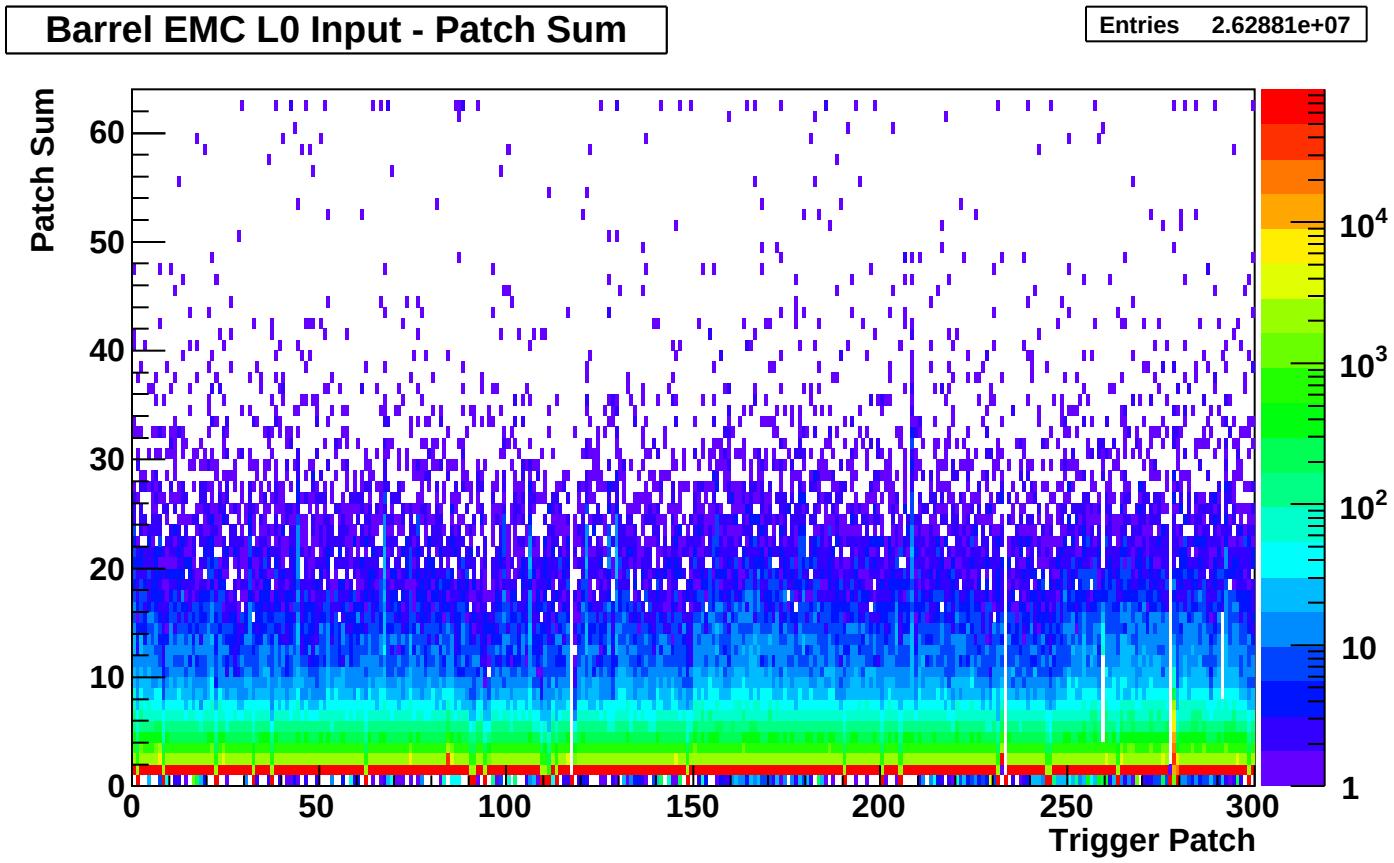

TPC Readout Mask (simulated)
Entries 22788

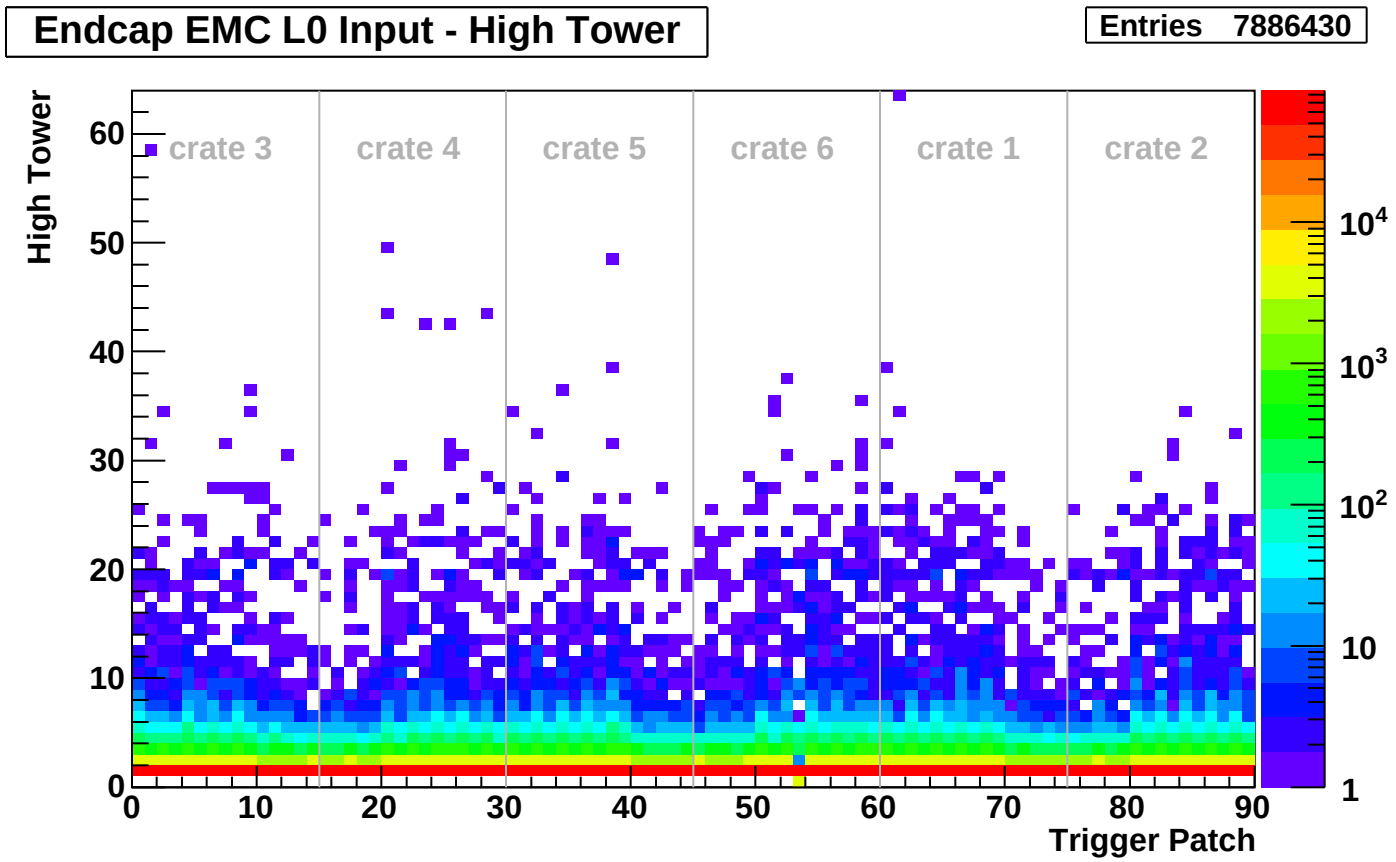

BunchId7Bit (all events)
Entries 87627

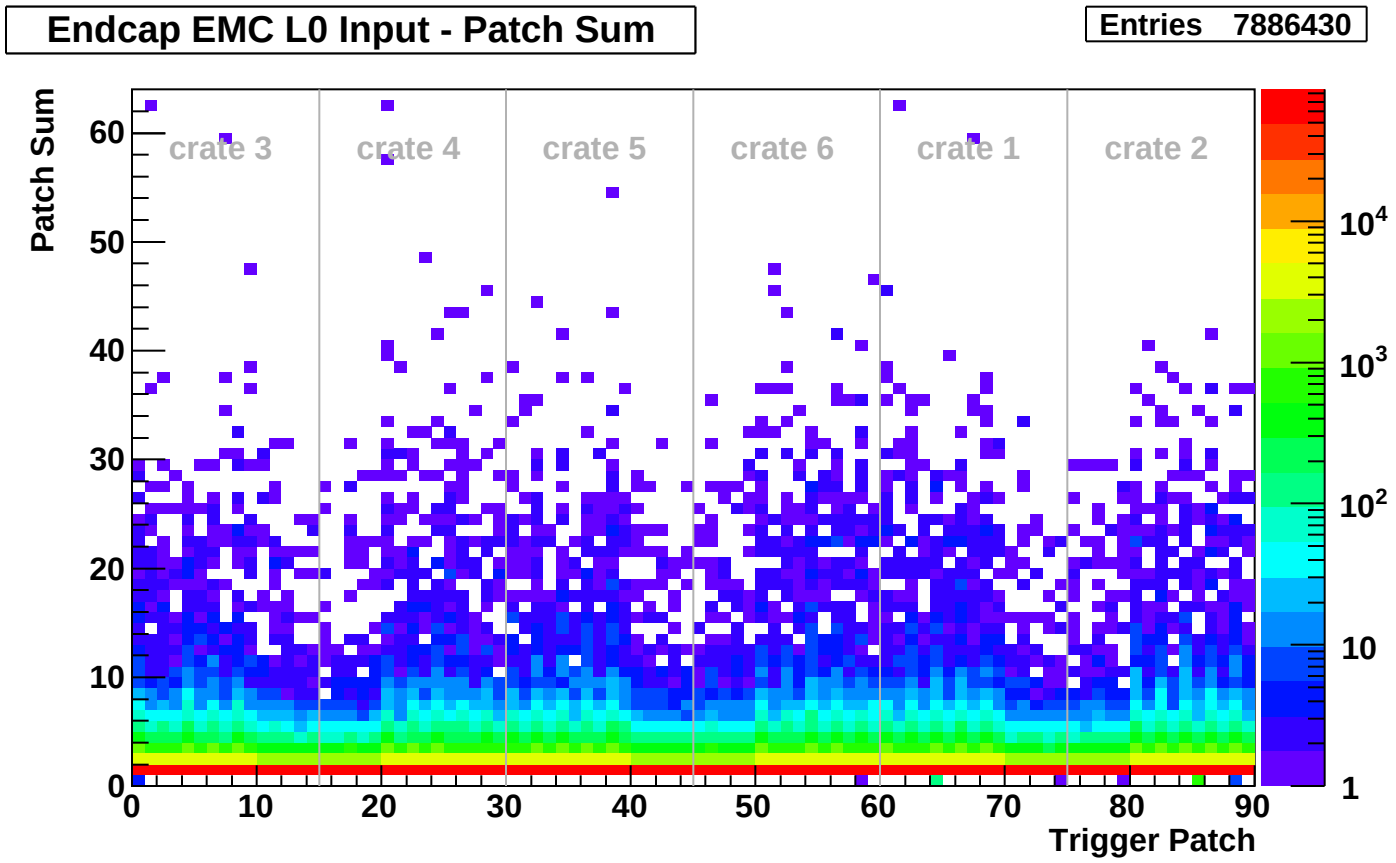

BunchId7Bit (JP1)
Entries 15545

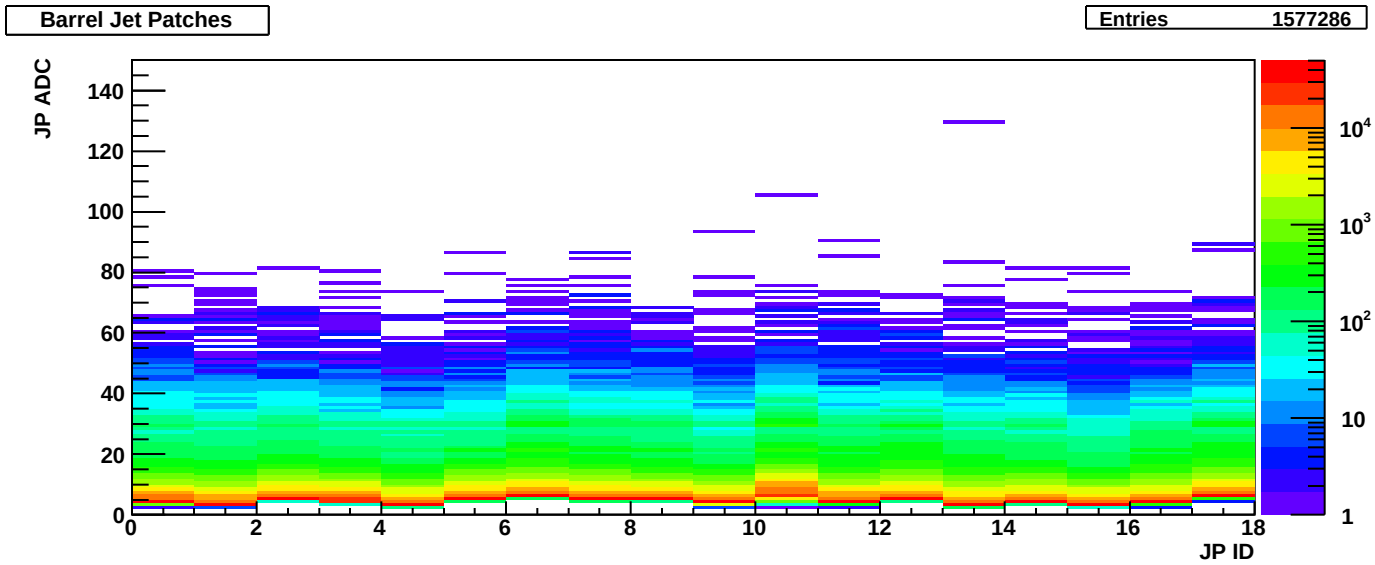

BunchId7Bit (JP2||AJP)
Entries 6463

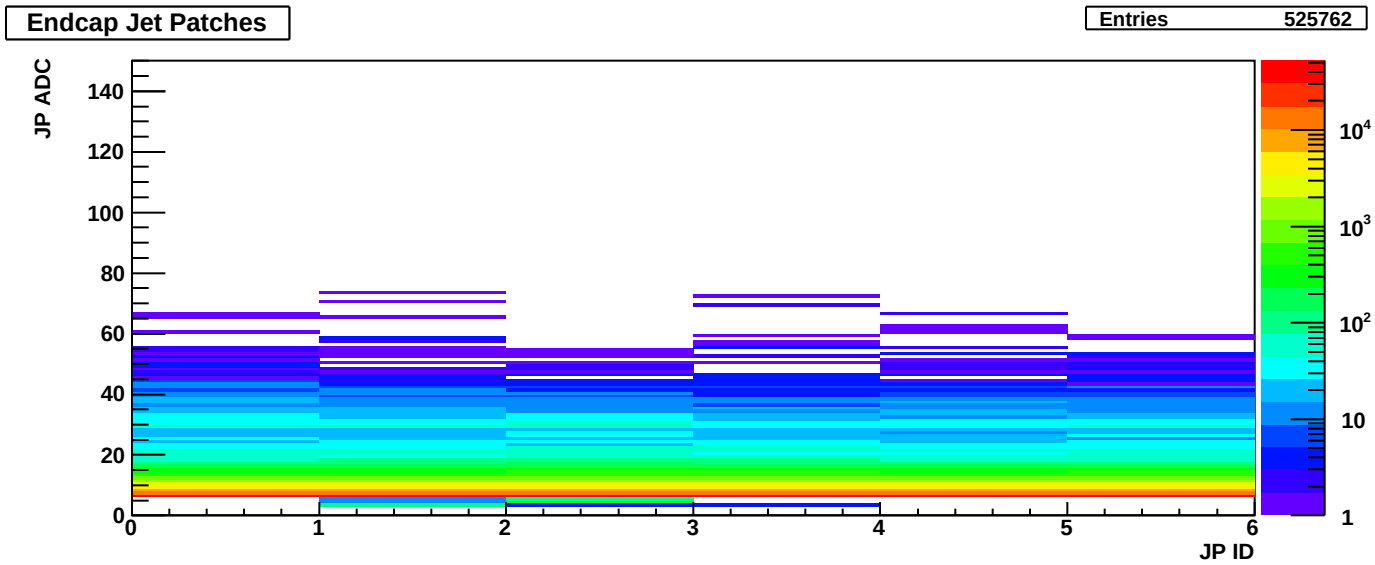

Barrel EMC L0 Input - High Tower
Entries 2.62881e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

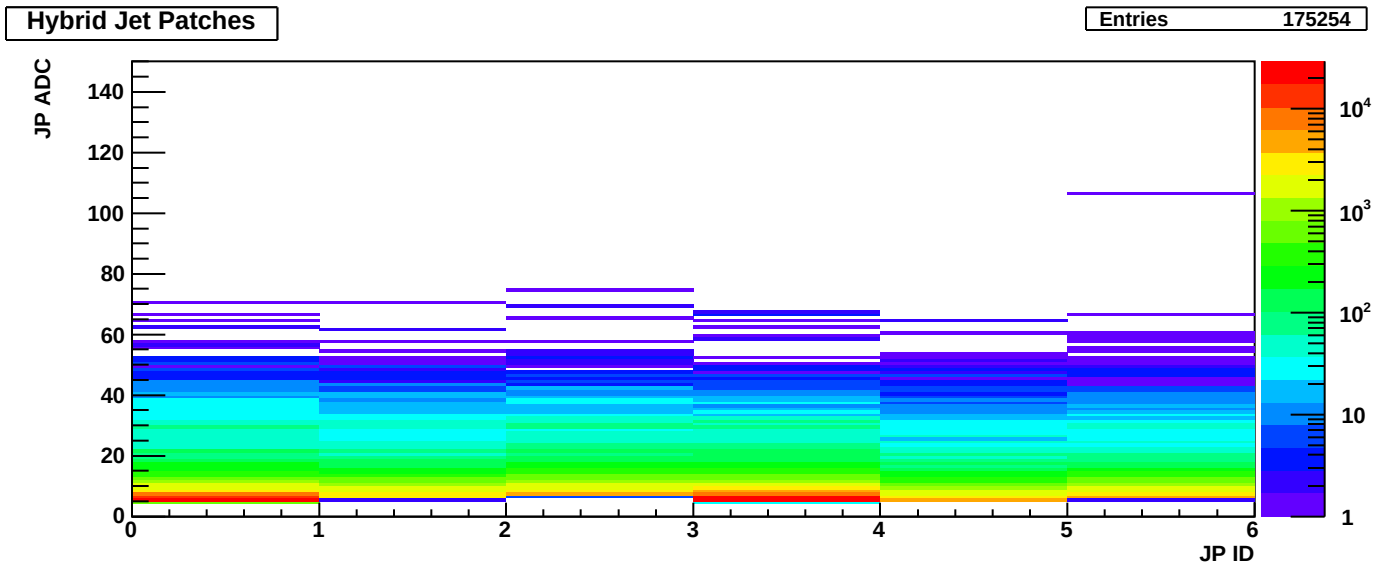

Barrel EMC L0 Input - Patch Sum
Entries 2.62881e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

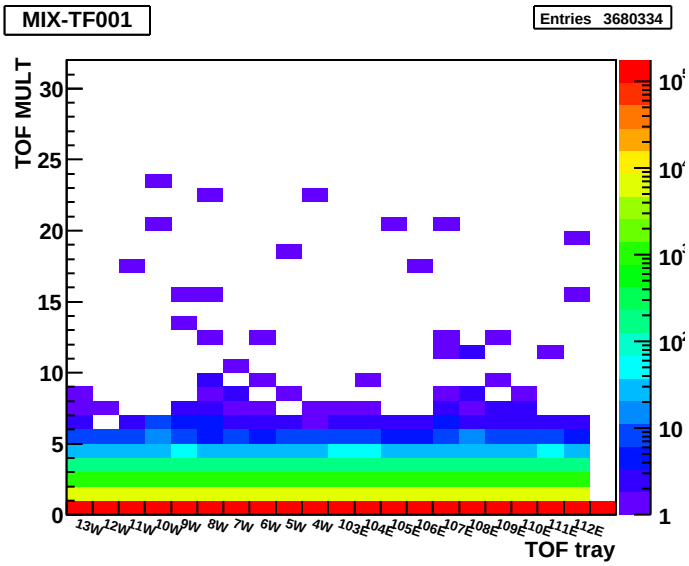

Endcap EMC L0 Input - High Tower
Entries 7886430
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

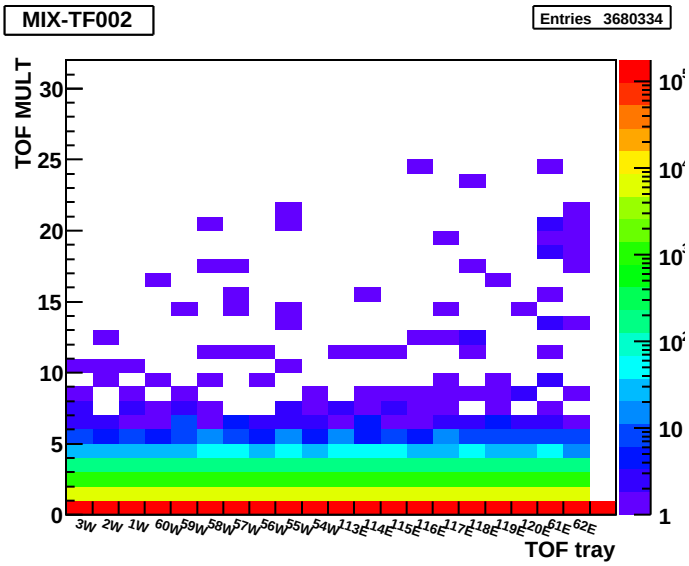

Endcap EMC L0 Input - Patch Sum
Entries 7886430
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

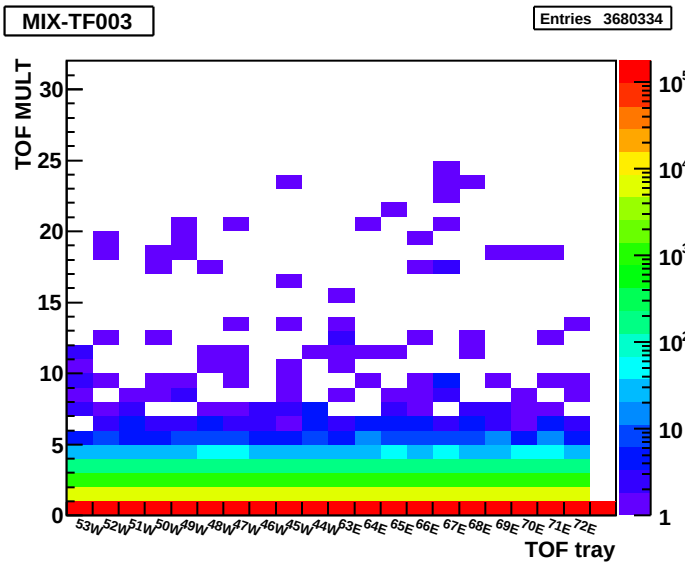

Barrel Jet Patches
Entries 1577286
JP ADC
JP ID

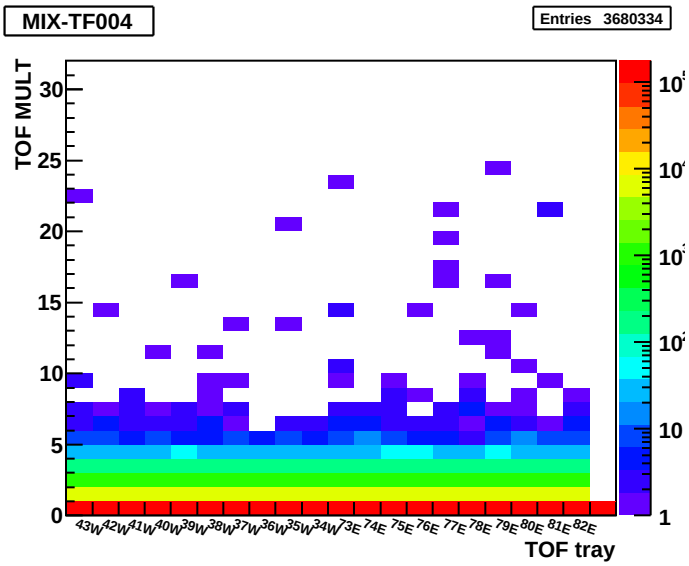

Endcap Jet Patches
Entries 525762
JP ADC
JP ID

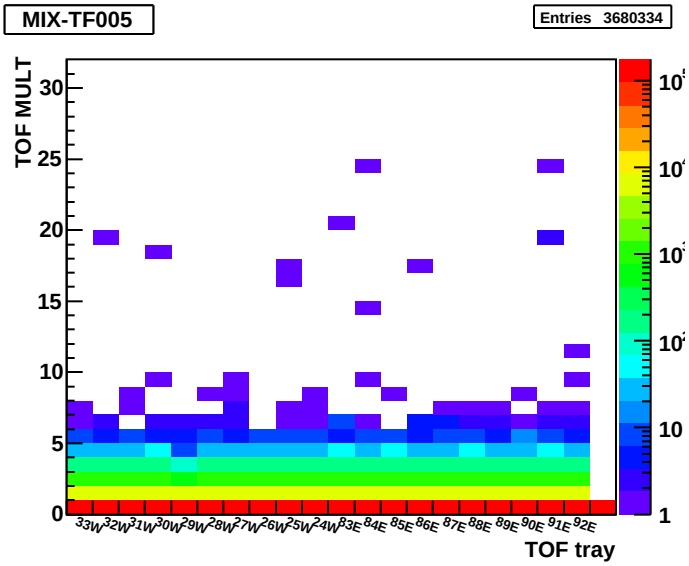

Hybrid Jet Patches
Entries 175254
JP ADC
JP ID

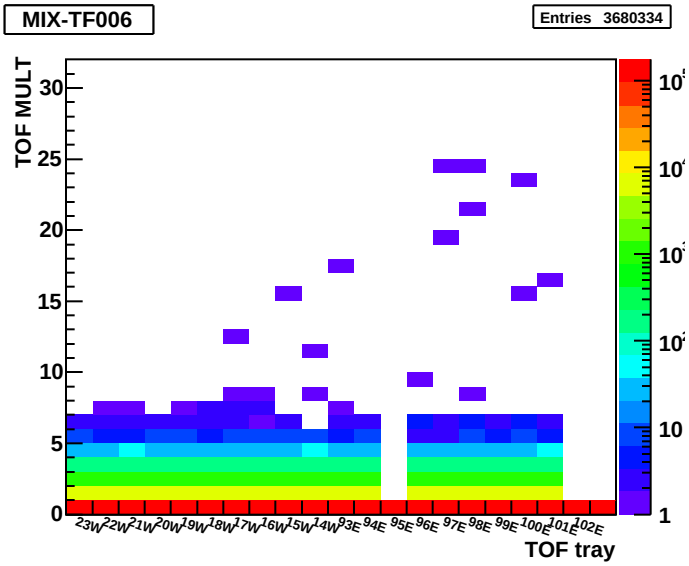

MIX-TF001
Entries 3680334
TOF MULT
TOF tray

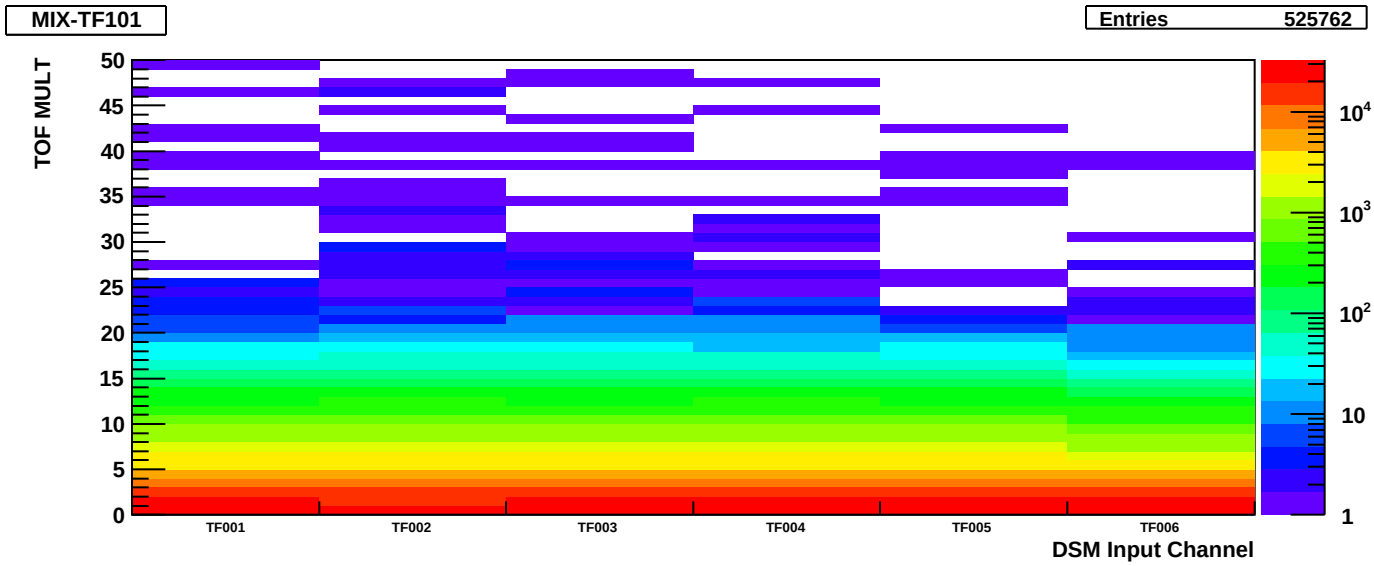

MIX-TF002
Entries 3680334
TOF MULT
TOF tray

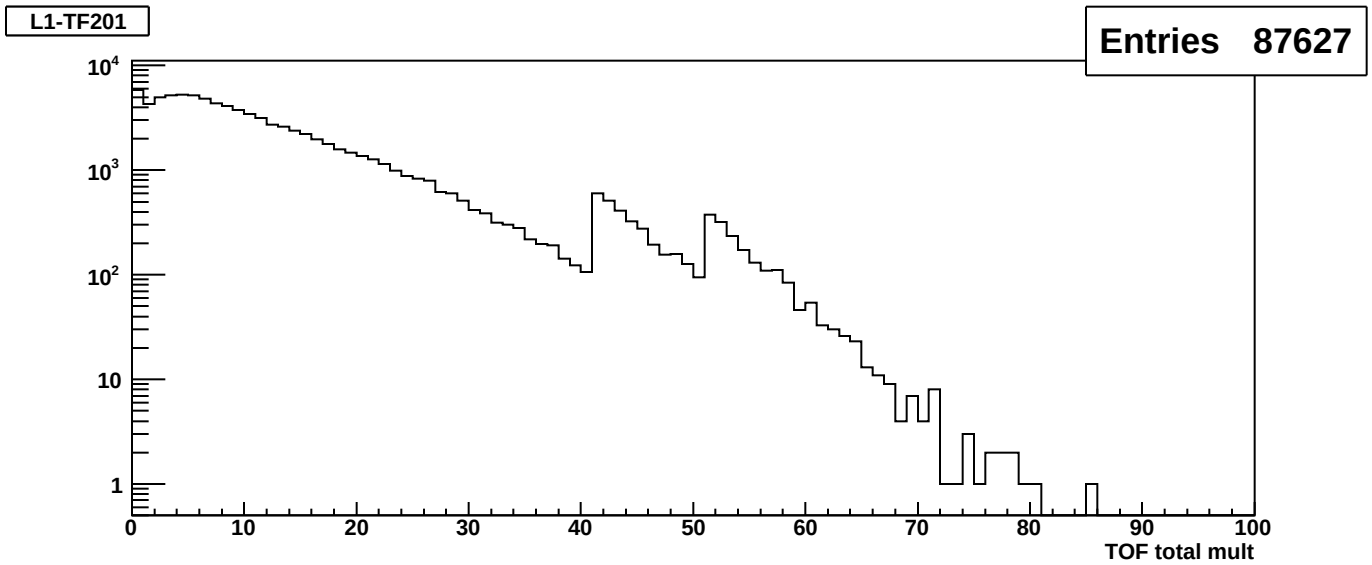

MIX-TF003
Entries 3680334
TOF MULT
TOF tray

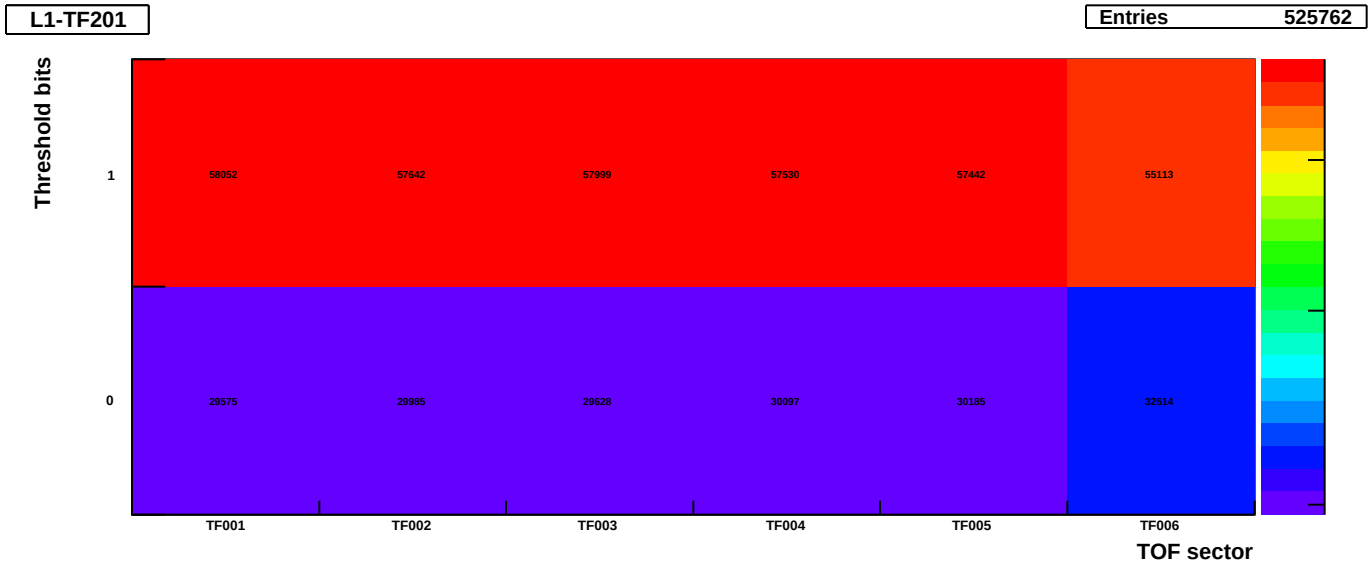

MIX-TF004
Entries 3680334
TOF MULT
TOF tray

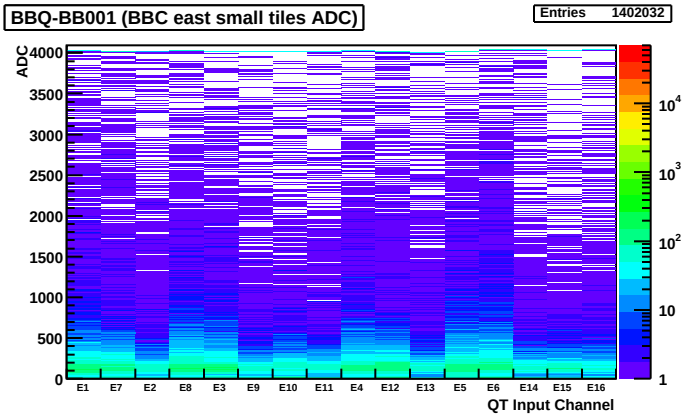

MIX-TF005
Entries 3680334
TOF MULT
TOF tray

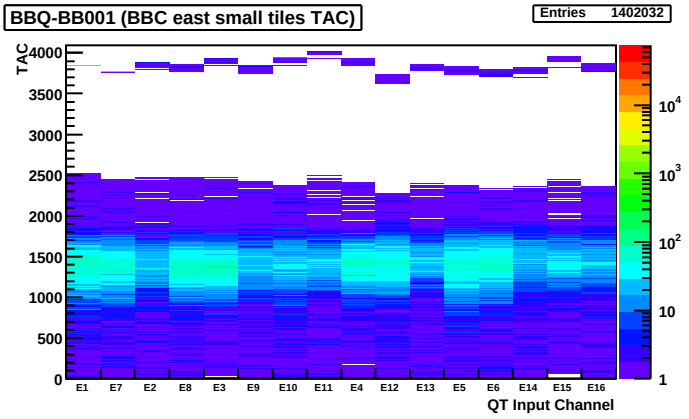

MIX-TF006
Entries 3680334
TOF MULT
TOF tray

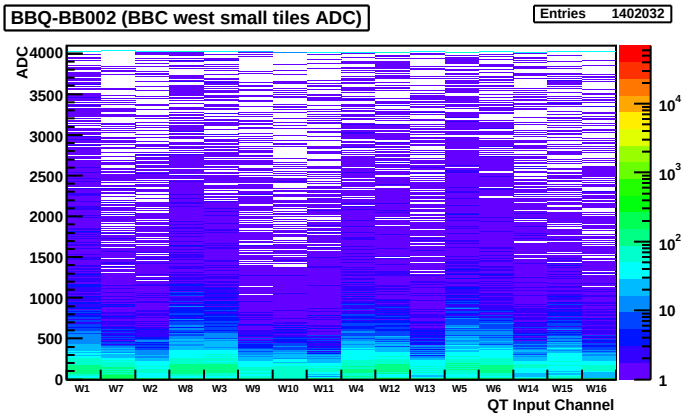

MIX-TF101
Entries 525762
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

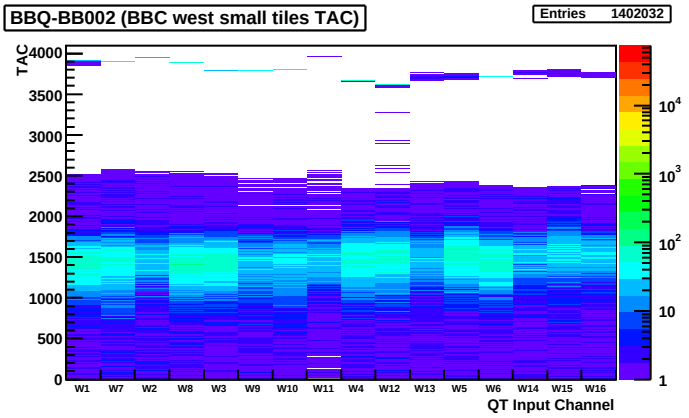

L1-TF201
Entries 87627
TOF total mult

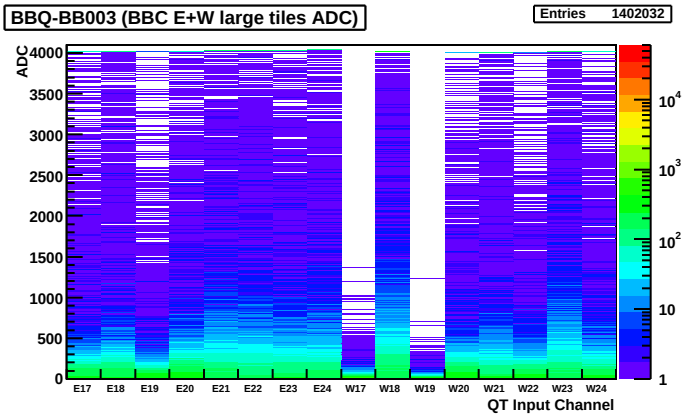

L1-TF201
Entries 525762
Threshold bits
58052
57642
57999
57530
57442
55113
29575
29985
29628
30097
30185
32514
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

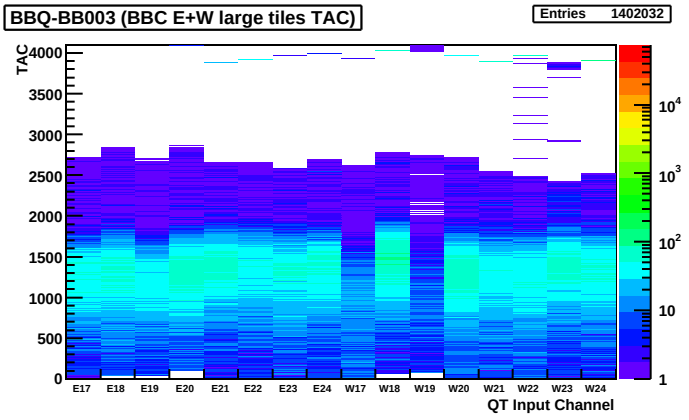

BBQ-BB001 (BBC east small tiles ADC)
Entries 1402032
ADC
QT Input Channel

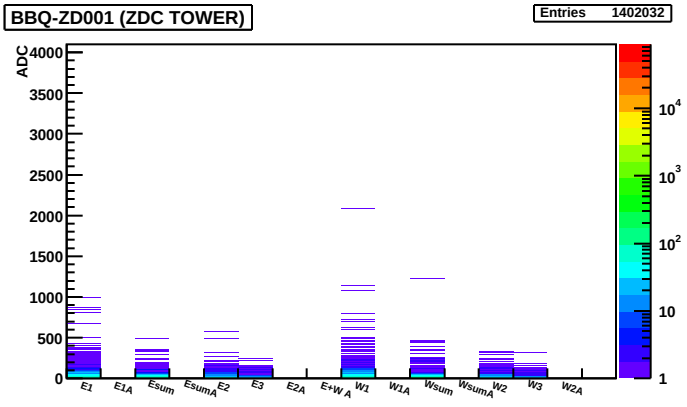

BBQ-BB001 (BBC east small tiles TAC)
Entries 1402032
TAC
QT Input Channel

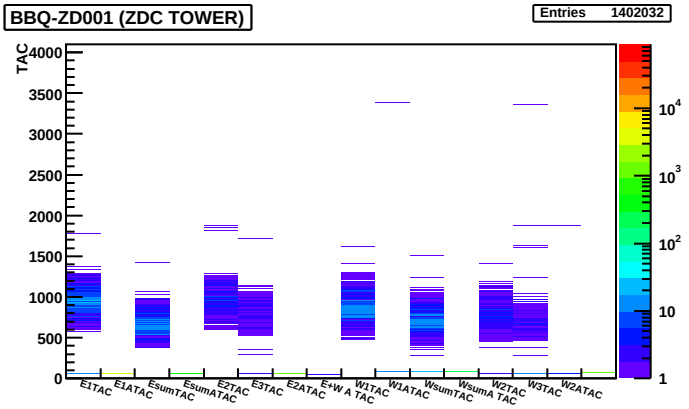

BBQ-BB002 (BBC west small tiles ADC)
Entries 1402032
ADC
QT Input Channel

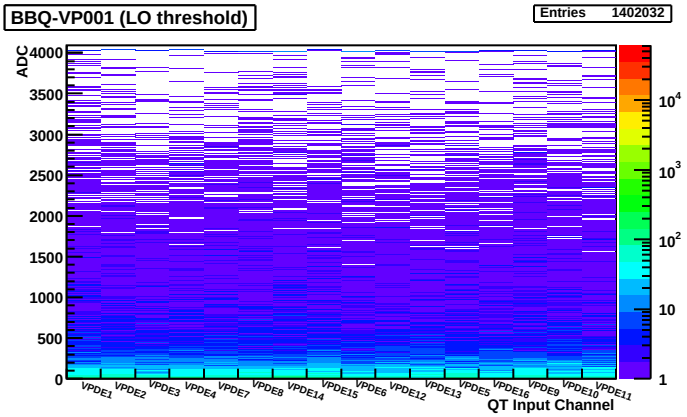

BBQ-BB002 (BBC west small tiles TAC)
Entries 1402032
TAC
QT Input Channel

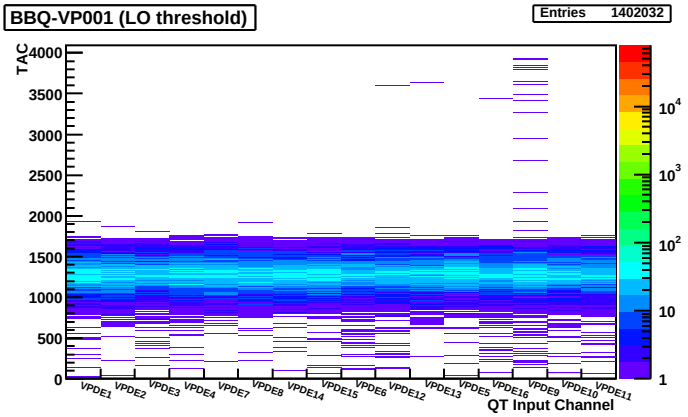

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1402032
ADC
QT Input Channel

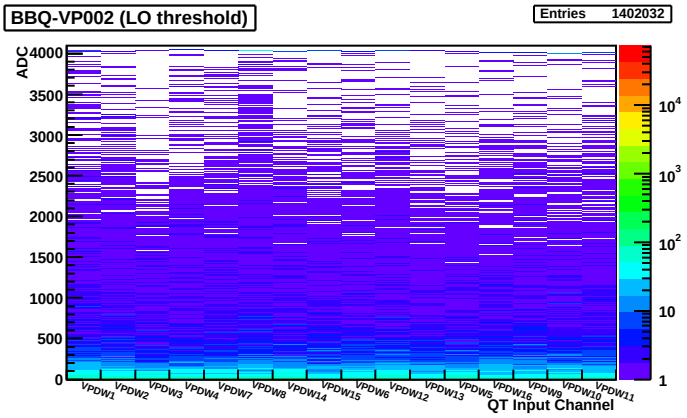

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1402032
TAC
QT Input Channel

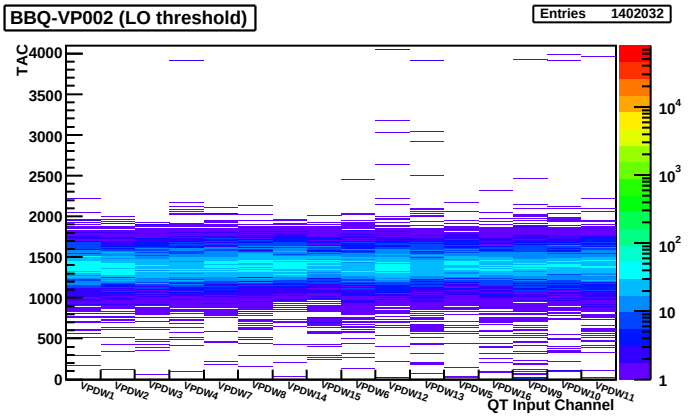

BBQ-ZD001 (ZDC TOWER)
Entries 1402032
ADC

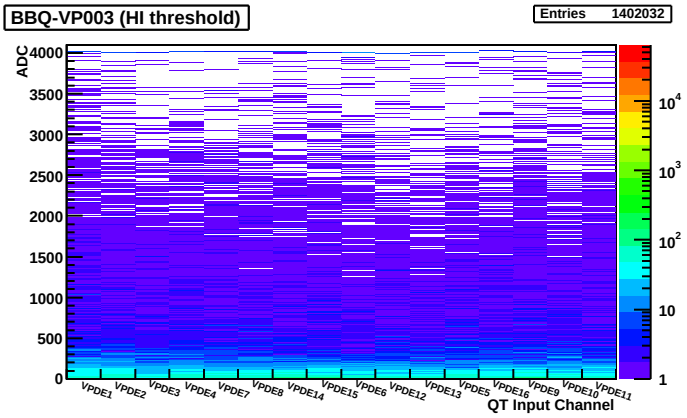

BBQ-ZD001 (ZDC TOWER)
Entries 1402032
TAC

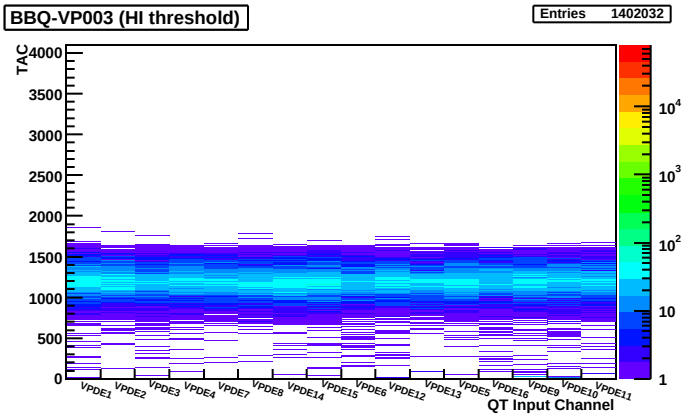

BBQ-VP001 (LO threshold)
Entries 1402032
ADC
QT Input Channel

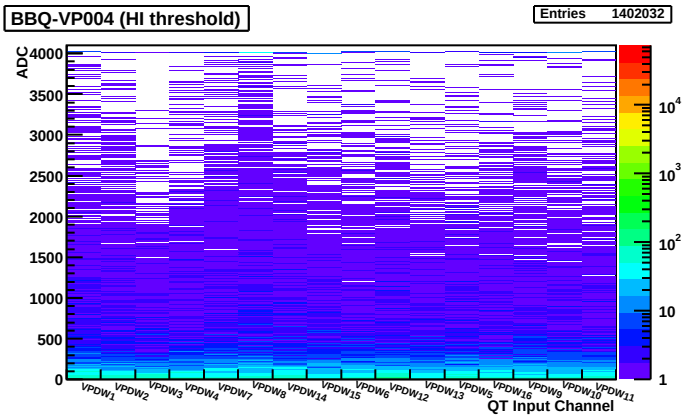

BBQ-VP001 (LO threshold)
Entries 1402032
TAC
QT Input Channel

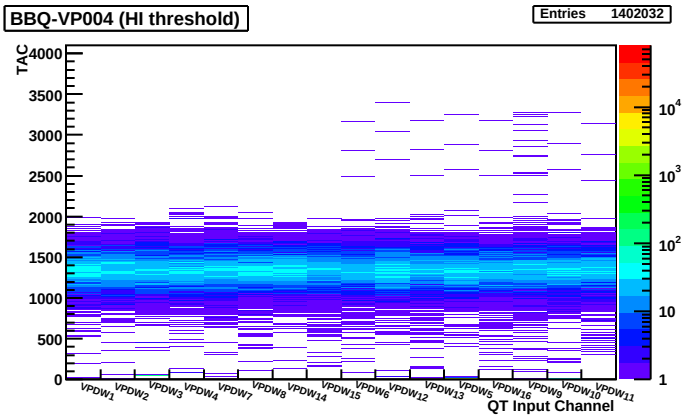

BBQ-VP002 (LO threshold)
Entries 1402032
ADC
QT Input Channel

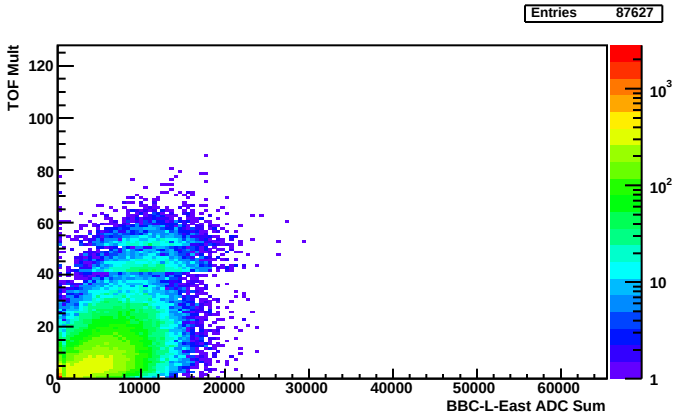

BBQ-VP002 (LO threshold)
Entries 1402032
TAC
QT Input Channel

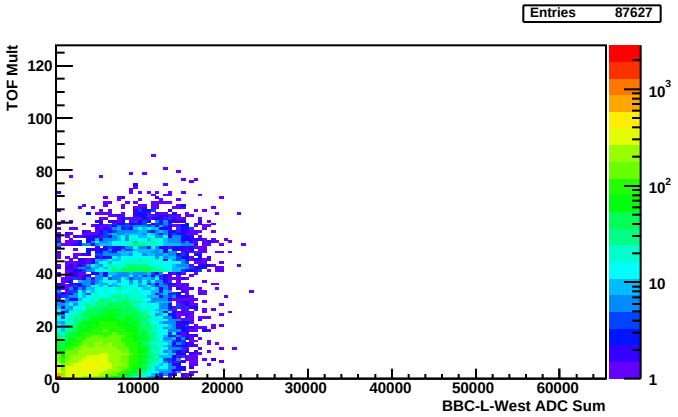

BBQ-VP003 (HI threshold)
Entries 1402032
ADC
QT Input Channel

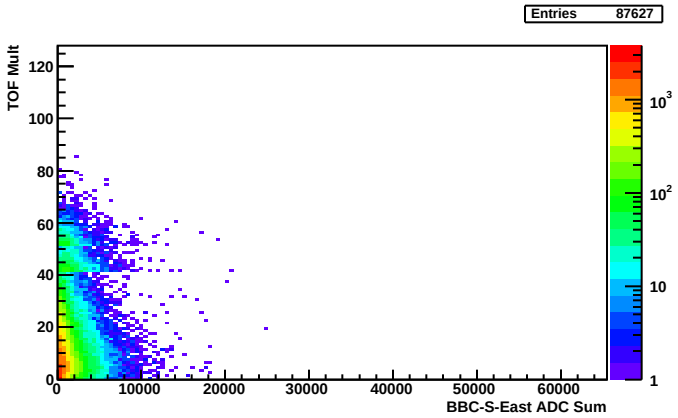

BBQ-VP003 (HI threshold)
Entries 1402032
TAC
QT Input Channel

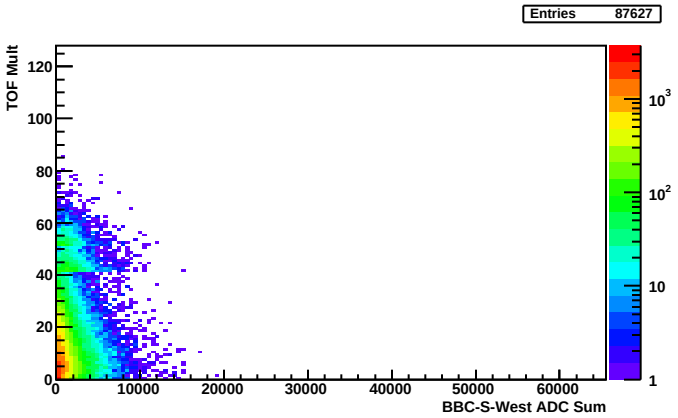

BBQ-VP004 (HI threshold)
Entries 1402032
ADC
QT Input Channel

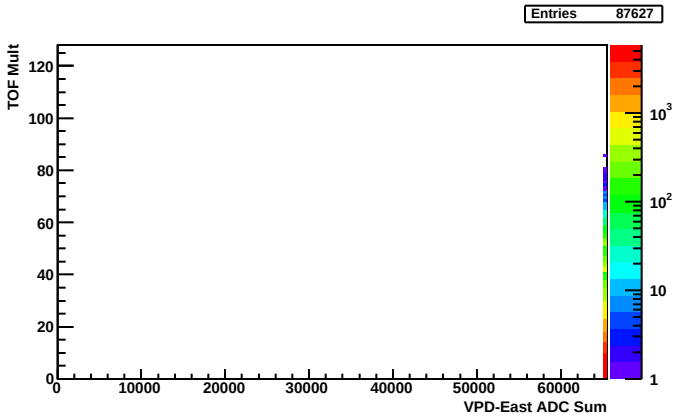

BBQ-VP004 (HI threshold)
Entries 1402032
TAC
QT Input Channel

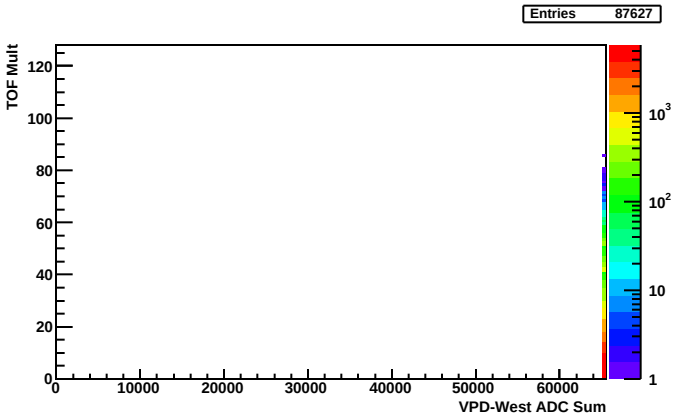

Entries 87627
TOF Mult
BBC-L-East ADC Sum

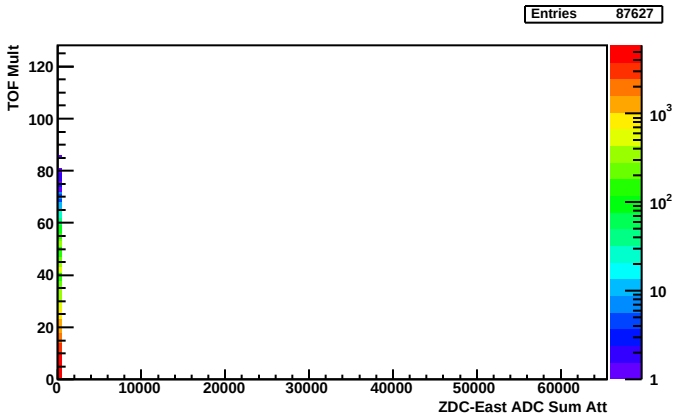

Entries 87627
TOF Mult
BBC-L-West ADC Sum

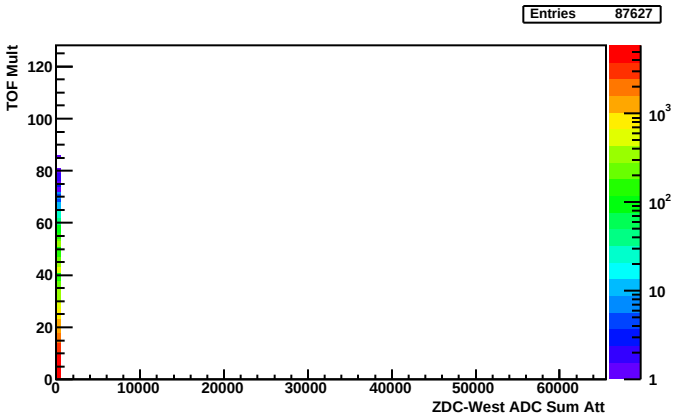

Entries 87627
TOF Mult
BBC-S-East ADC Sum

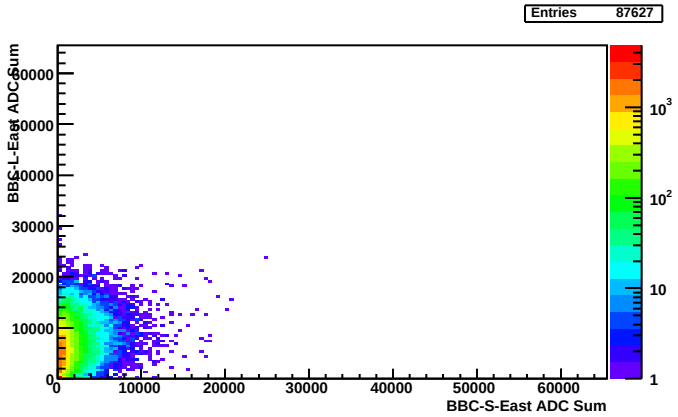

Entries 87627
TOF Mult
BBC-S-West ADC Sum

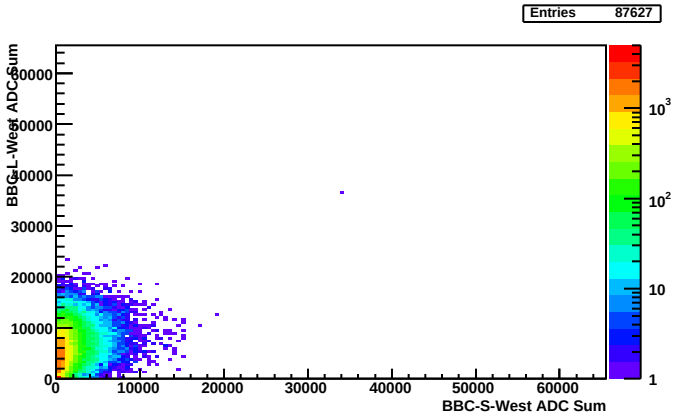

Entries 87627
TOF Mult
VPD-East ADC Sum

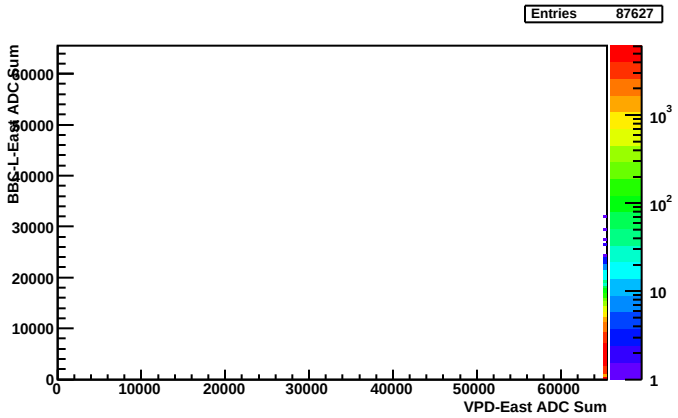

Entries 87627
TOF Mult
VPD-West ADC Sum

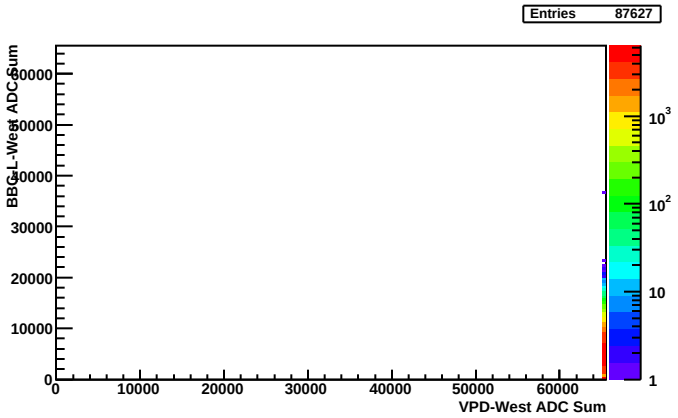

Entries 87627
TOF Mult
ZDC-East ADC Sum Att

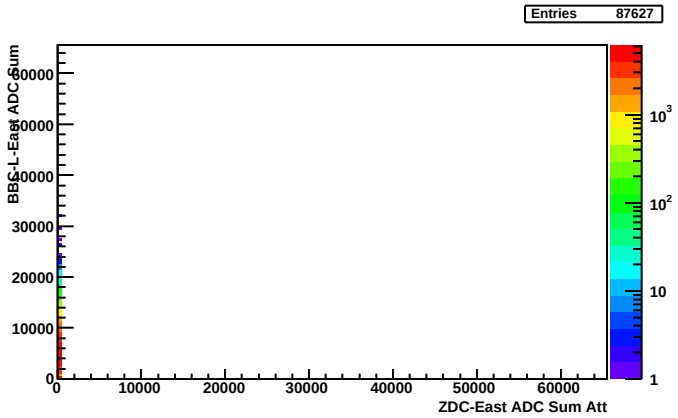

Entries 87627
TOF Mult
ZDC-West ADC Sum Att

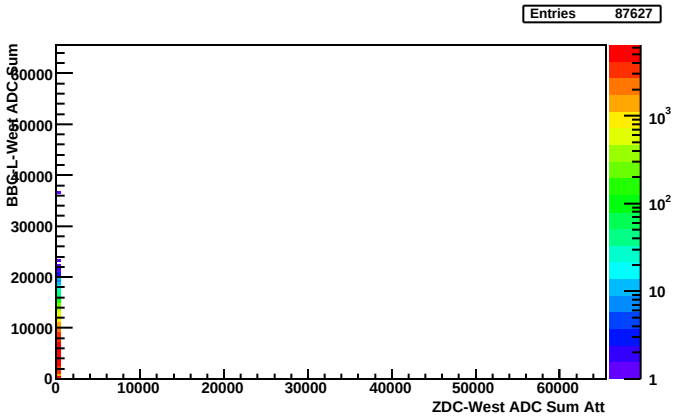

Entries 87627
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 87627
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 87627
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 87627
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 87627
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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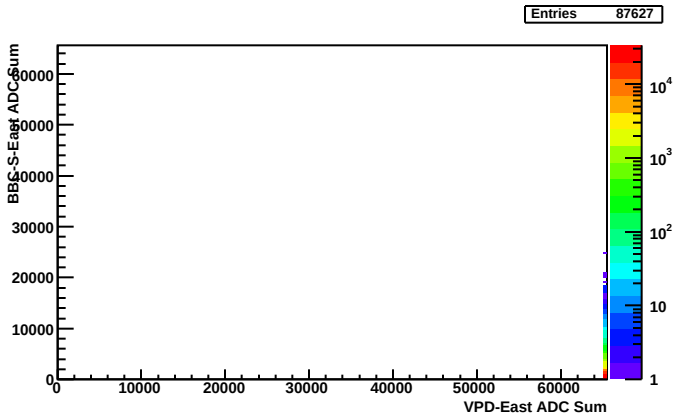
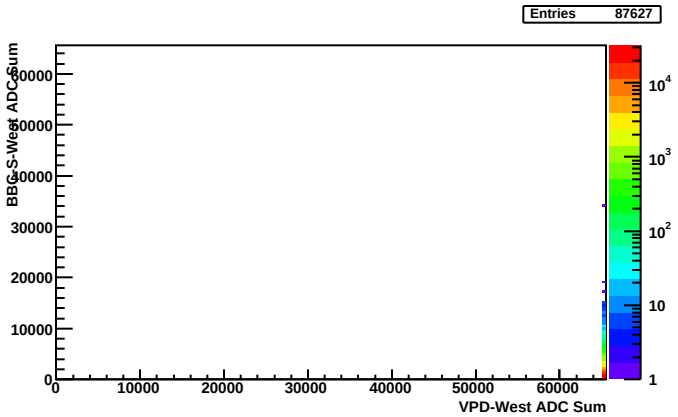
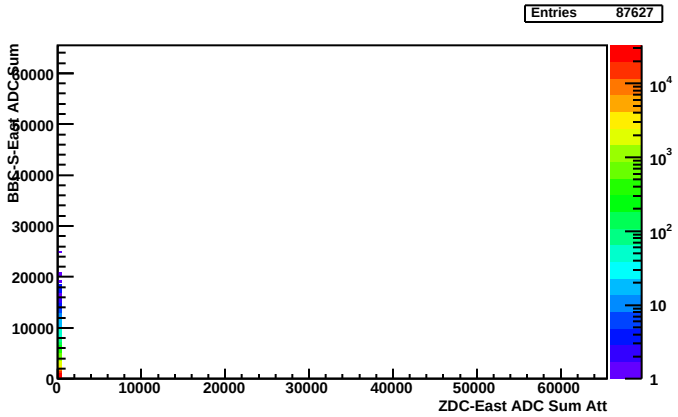
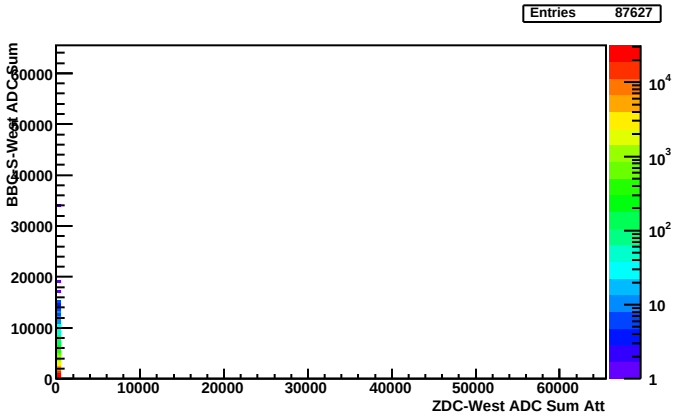
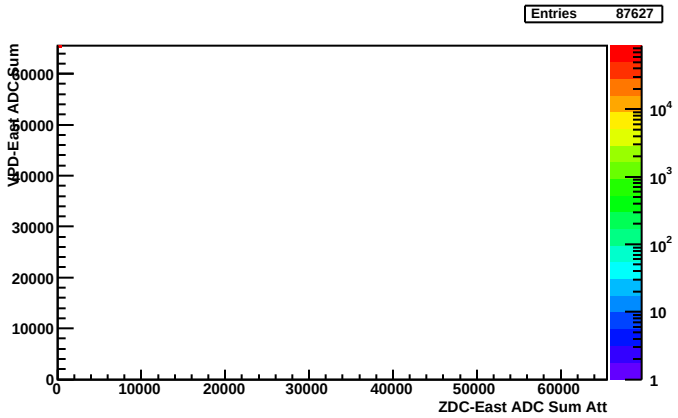
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

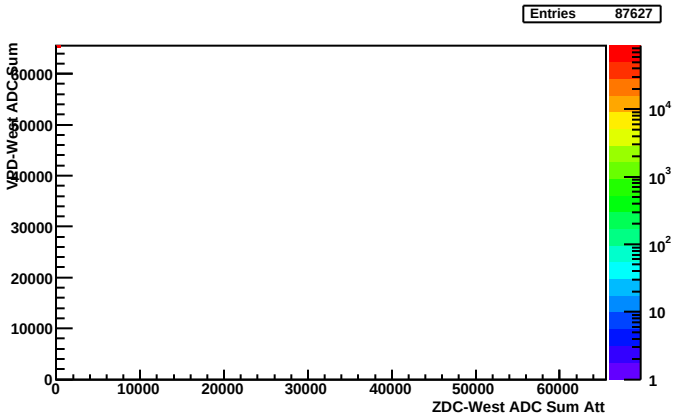

Entries 87627
BBC-S-East ADC Sum
VPD-East ADC Sum

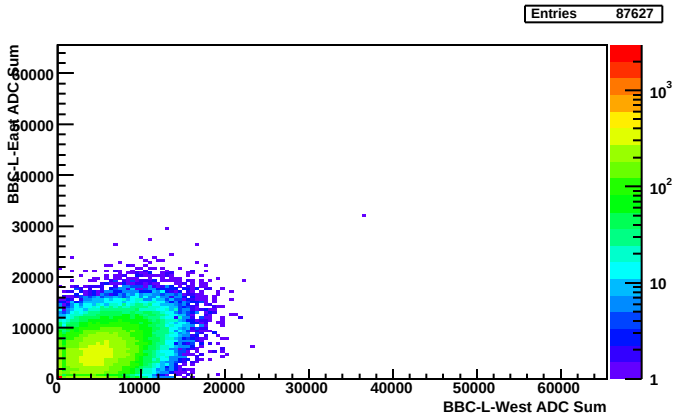

Entries 87627
BBC-S-West ADC Sum
VPD-West ADC Sum

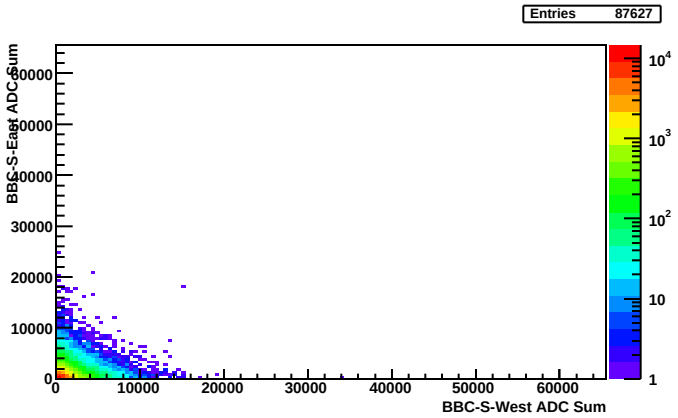

Entries 87627
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

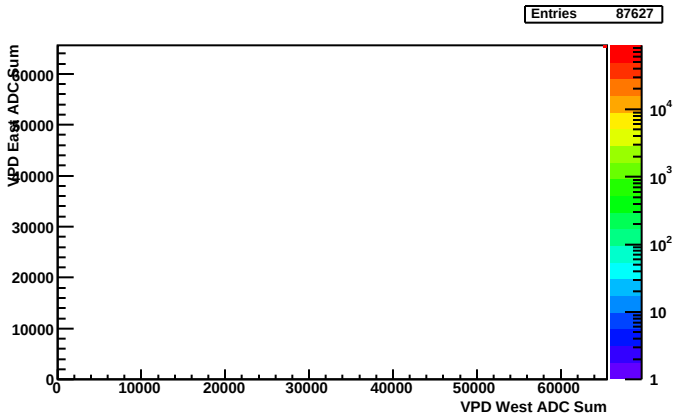

Entries 87627
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

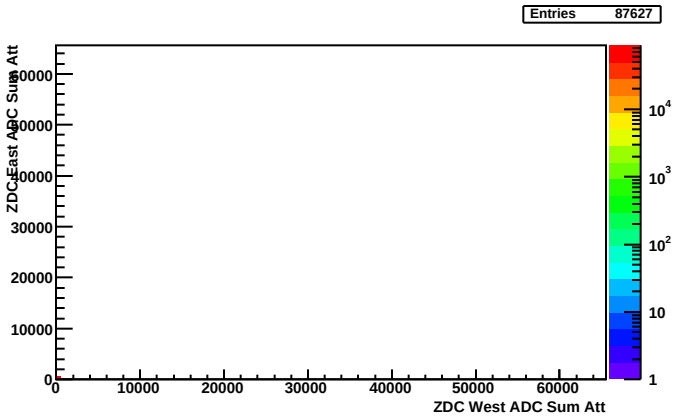

Entries 87627
VPD-East ADC Sum
ZDC-East ADC Sum Att

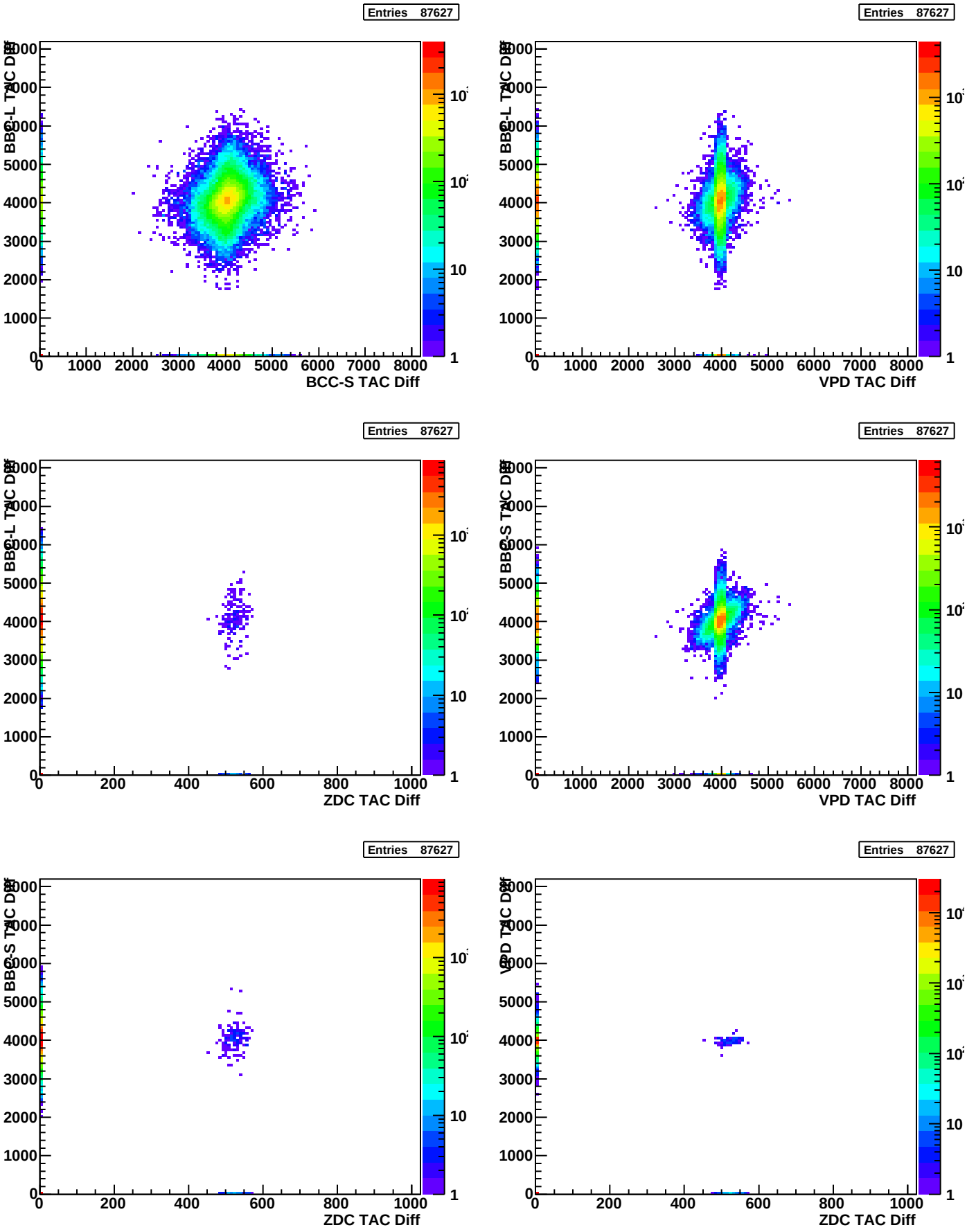

Entries 87627
VPD-West ADC Sum
ZDC-West ADC Sum Att

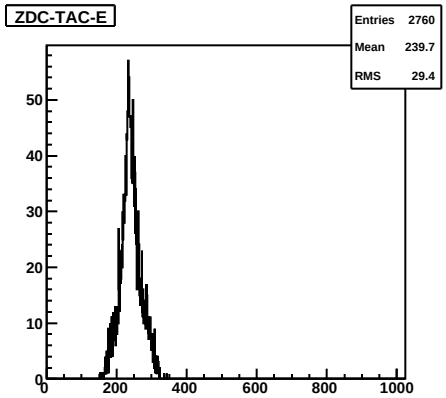

Entries 87627
BBC-L-East ADC Sum
BBC-L-West ADC Sum

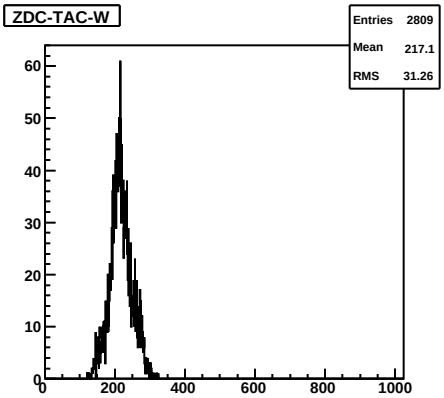

Entries 87627
BBC-S-East ADC Sum
BBC-S-West ADC Sum

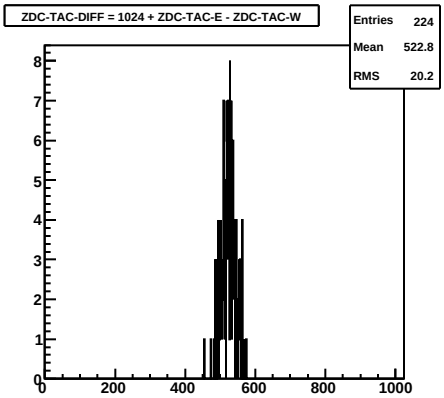

Entries 87627
VPD East ADC Sum
VPD West ADC Sum

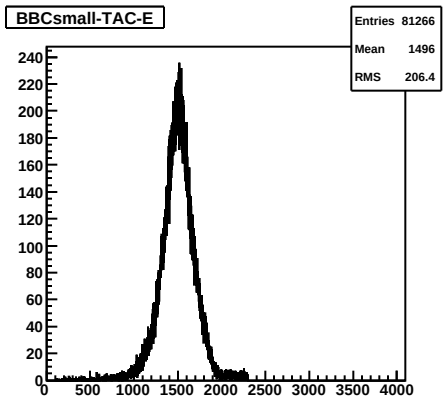

Entries 87627
ZDC East ADC Sum Att
ZDC West ADC Sum Att

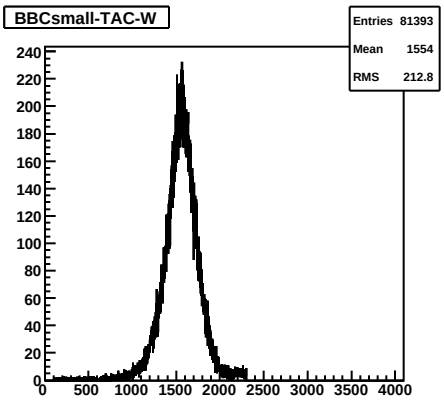

Entries 87627
BBC-L TAC Diff
BCC-S TAC Diff
Entries 87627
BBC-L TAC Diff
VPD TAC Diff
Entries 87627
BBC-L TAC Diff
ZDC TAC Diff
Entries 87627
BBC-S TAC Diff
VPD TAC Diff
Entries 87627
BBC-S TAC Diff
ZDC TAC Diff
Entries 87627
VPD TAC Diff
ZDC TAC Diff

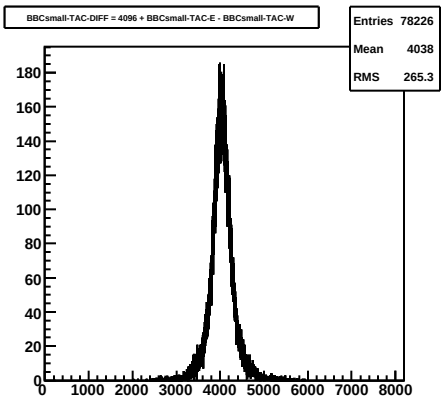

ZDC-TAC-E
Entries 2760
Mean 239.7
RMS 29.4

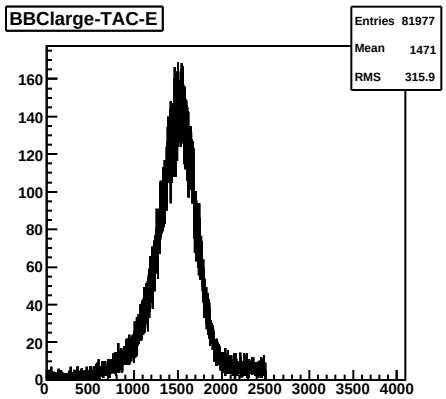

ZDC-TAC-W
Entries 2809
Mean 217.1
RMS 31.26

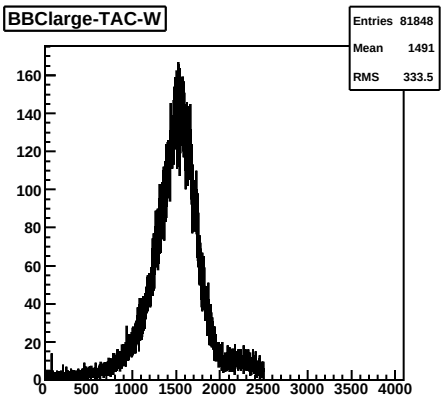

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 224
Mean 522.8
RMS 20.2

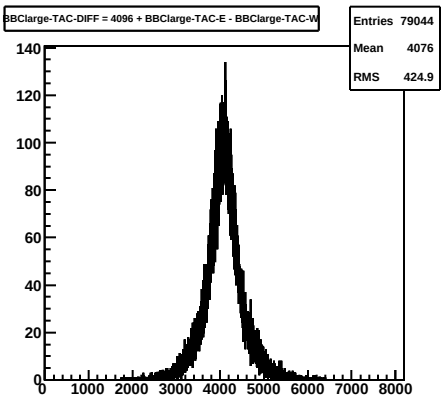

BBCsmall-TAC-E
Entries 81266
Mean 1496
RMS 206.4

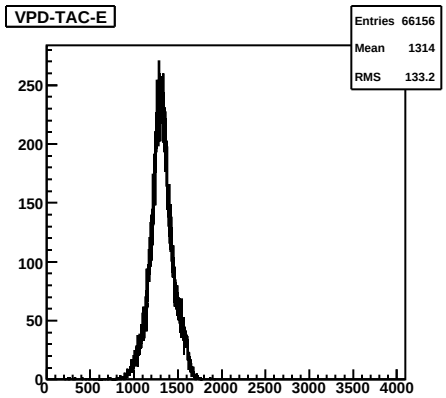

BBCsmall-TAC-W
Entries 81393
Mean 1554
RMS 212.8

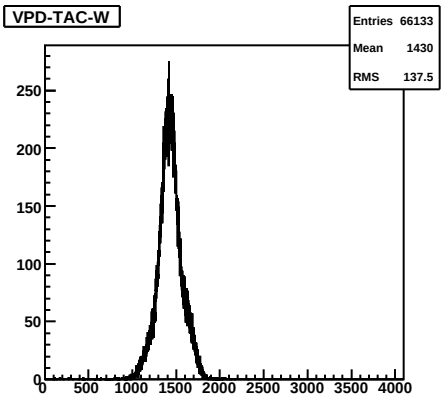

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 78226
Mean 4038
RMS 265.3

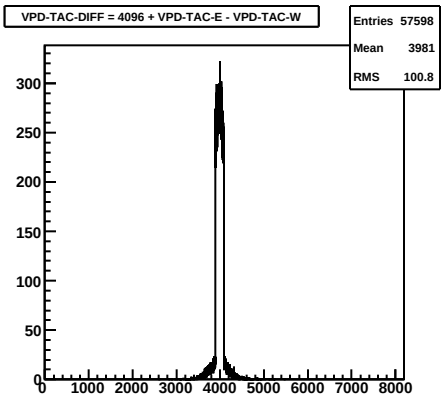

BBClarge-TAC-E
Entries 81977
Mean 1471
RMS 315.9

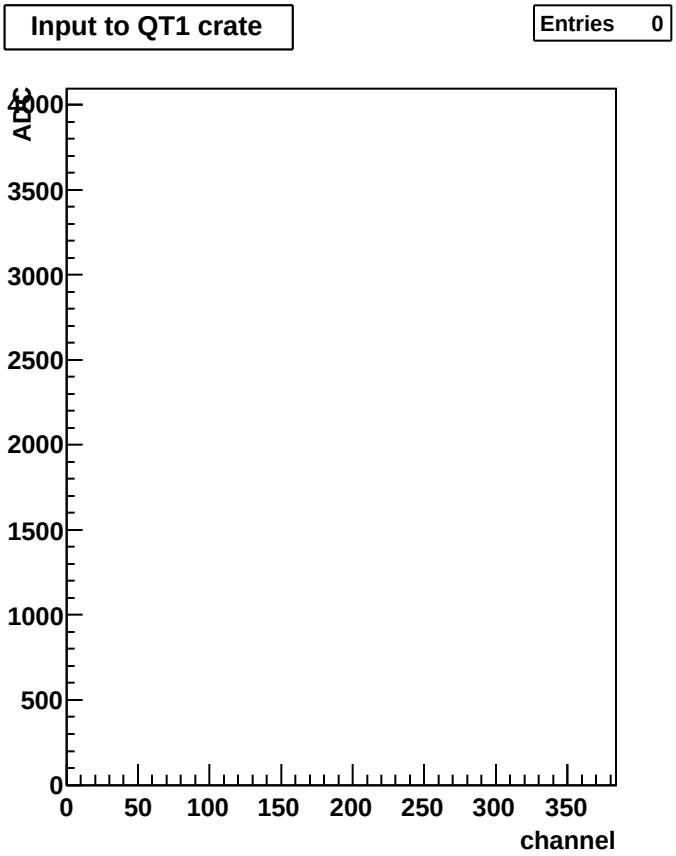

BBClarge-TAC-W
Entries 81848
Mean 1491
RMS 333.5

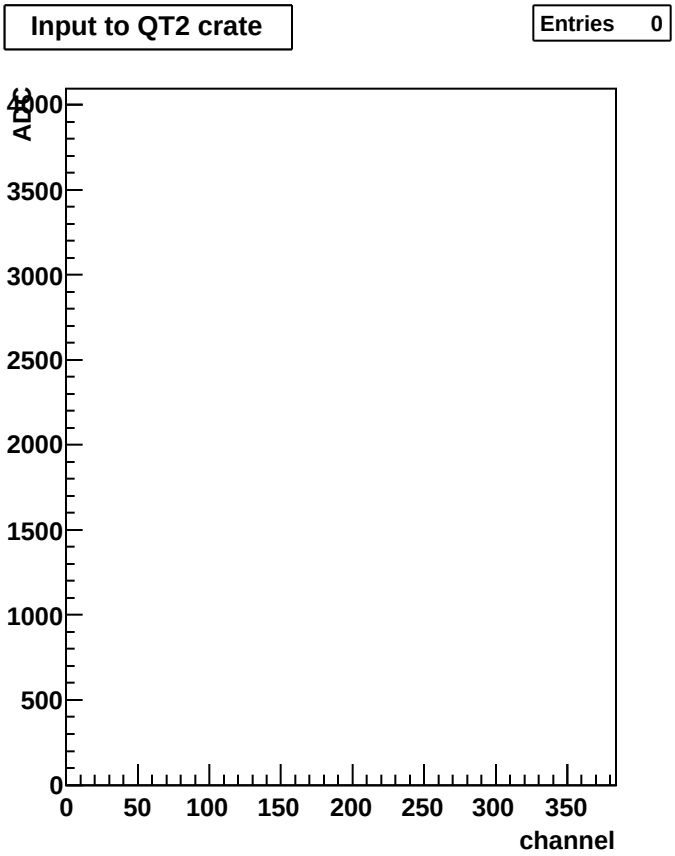

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 79044
Mean 4076
RMS 424.9

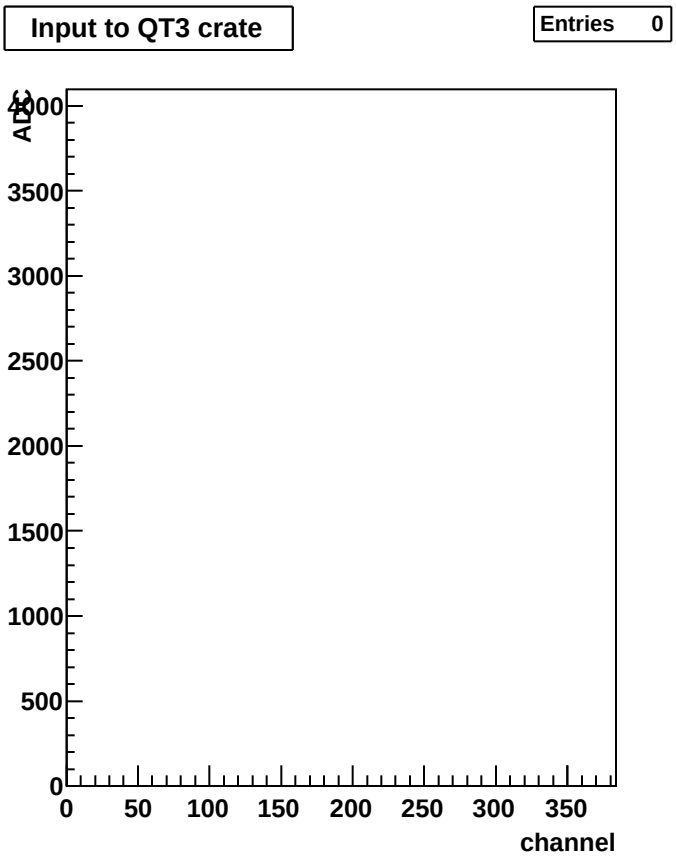

VPD-TAC-E
Entries 66156
Mean 1314
RMS 133.2

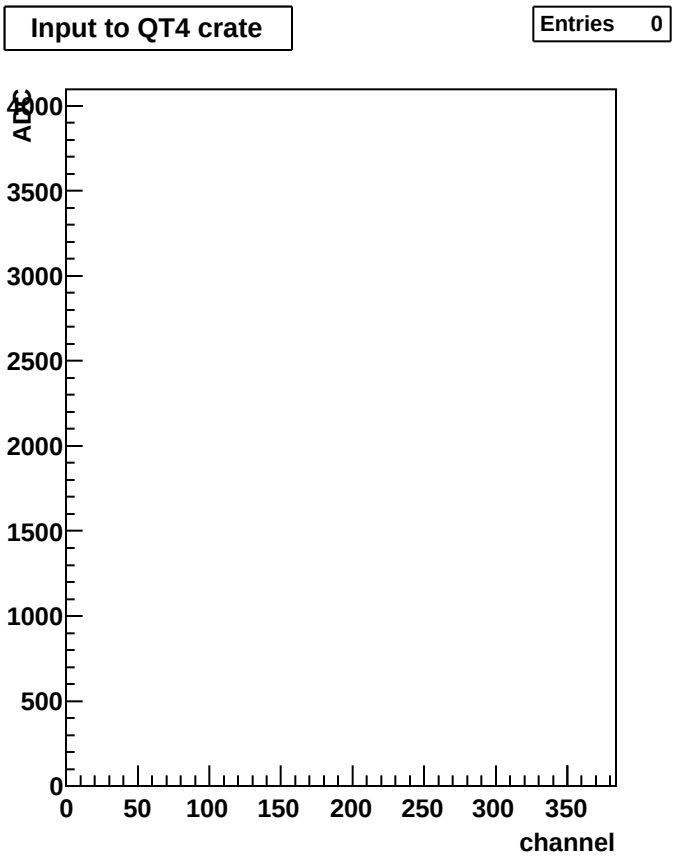

VPD-TAC-W
Entries 66133
Mean 1430
RMS 137.5

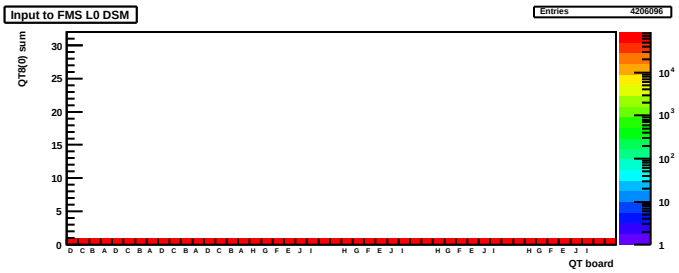

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 57598
Mean 3981
RMS 100.8

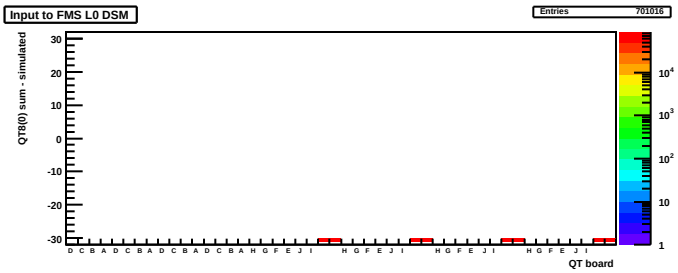

Input to QT1 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

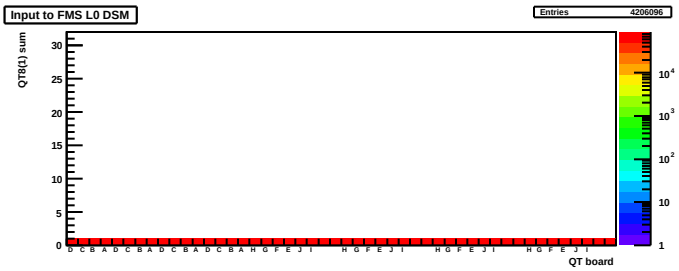

Input to QT2 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

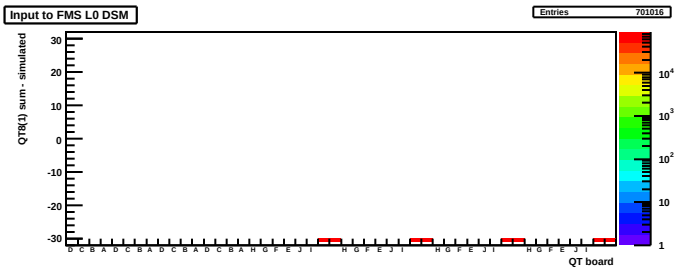

Input to QT3 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

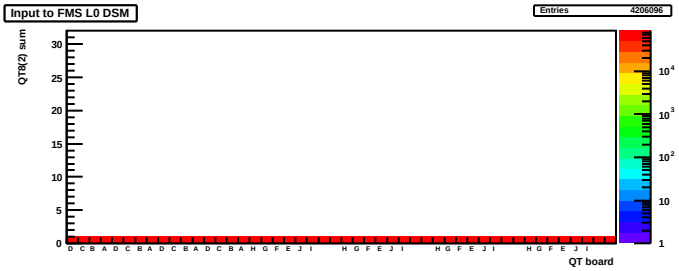

Input to QT4 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

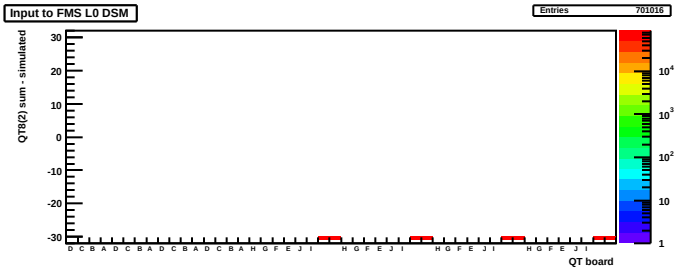

Input to FMS L0 DSM
Entries 4206096
QT8(0) sum
QT board

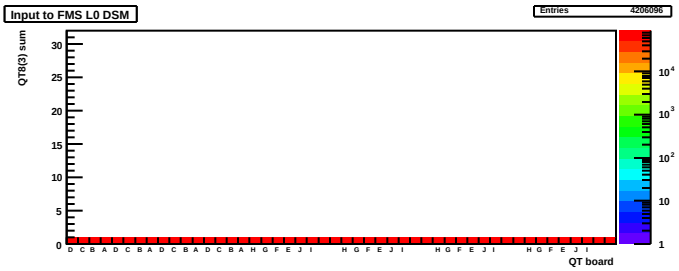

Input to FMS L0 DSM
Entries 701016
QT8(0) sum - simulated
QT board

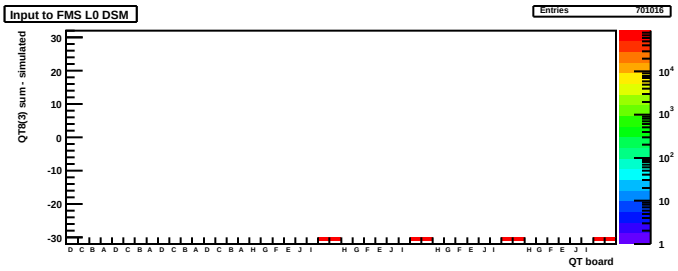

Input to FMS L0 DSM
Entries 4206096
QT8(1) sum
QT board

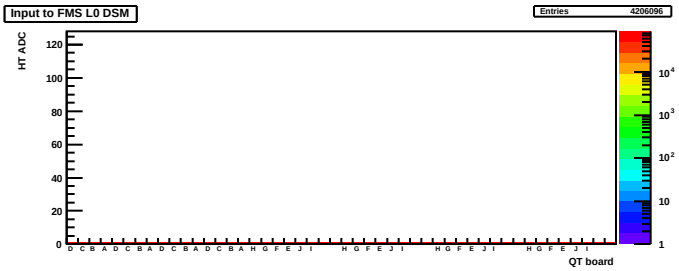

Input to FMS L0 DSM
Entries 701016
QT8(1) sum - simulated
QT board

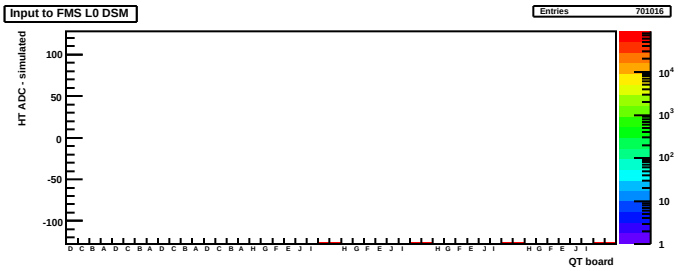

Input to FMS L0 DSM
Entries 4206096
QT8(2) sum
QT board

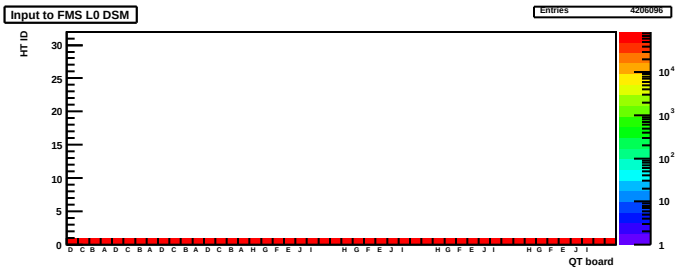

Input to FMS L0 DSM
Entries 701016
QT8(2) sum - simulated
QT board

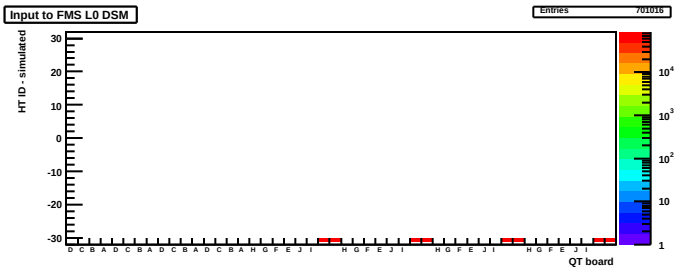

Input to FMS L0 DSM
Entries 4206096
QT8(3) sum
QT board

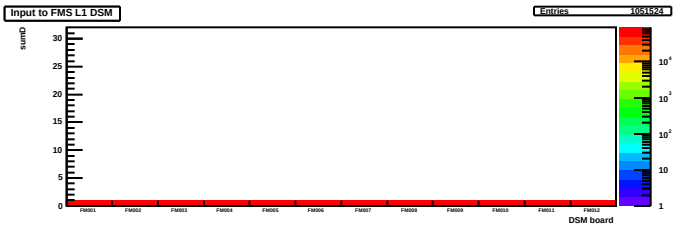

Input to FMS L0 DSM
Entries 701016
QT8(3) sum - simulated
QT board

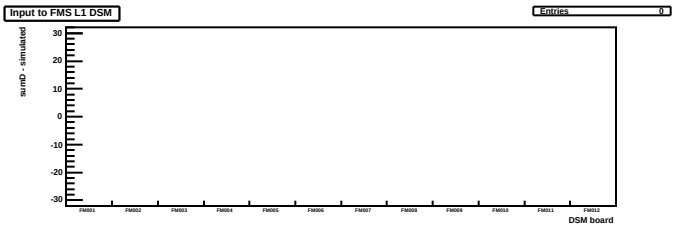

Input to FMS L0 DSM
Entries 4206096
HT ADC
QT board

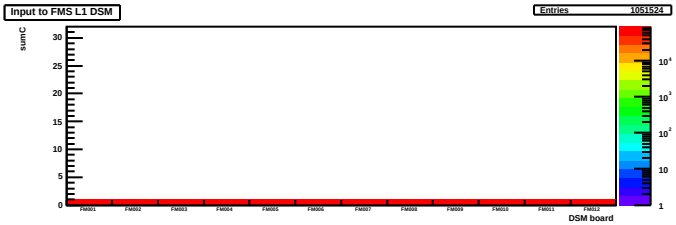

Input to FMS L0 DSM
Entries 701016
HT ADC - simulated
QT board

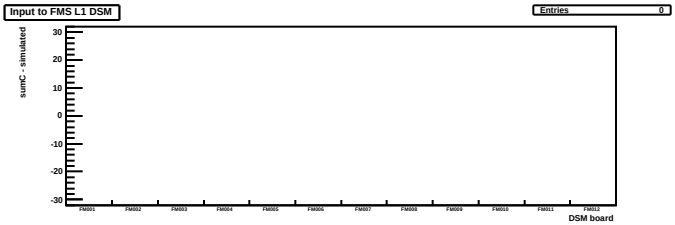

Input to FMS L0 DSM
Entries 4206096
HT ID
QT board

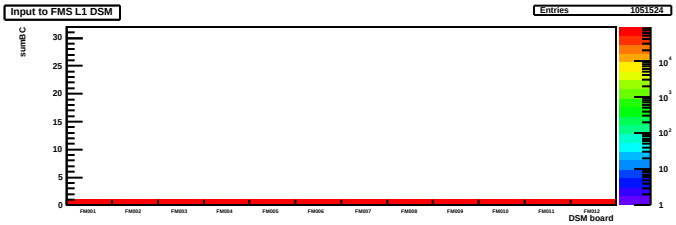

Input to FMS L0 DSM
Entries 701016
HT ID - simulated
QT board

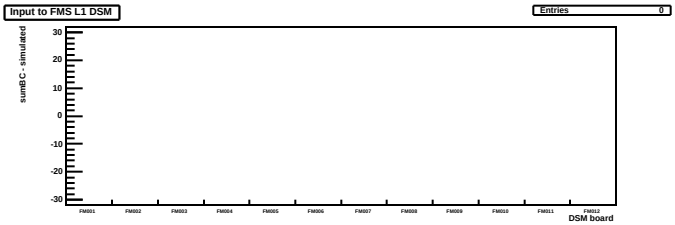

Input to FMS L1 DSM
Entries 1051524
sumD
DSM board

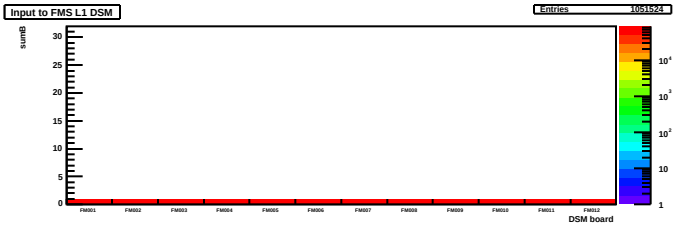

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

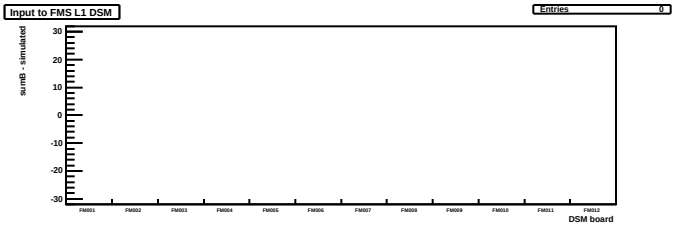

Input to FMS L1 DSM
Entries 1051524
sumC
DSM board

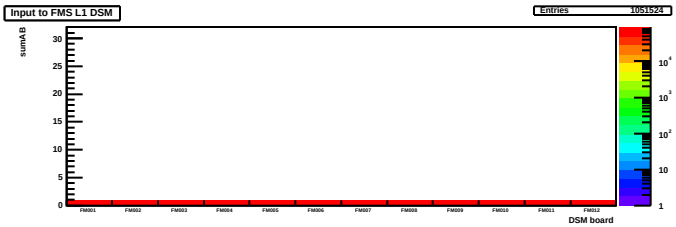

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

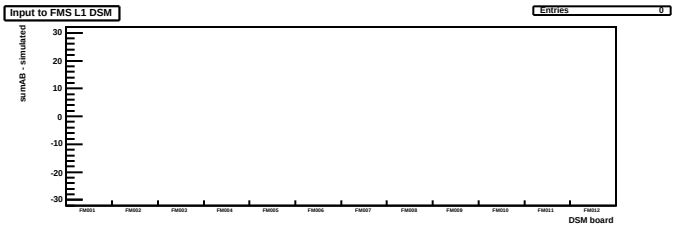

Input to FMS L1 DSM
Entries 1051524
sumBC
DSM board

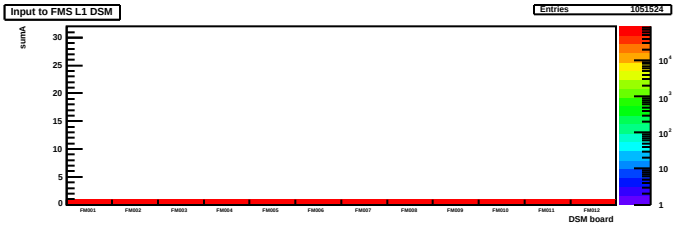

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

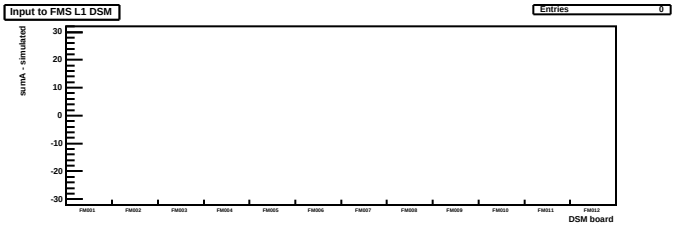

Input to FMS L1 DSM
Entries 1051524
sumB
DSM board

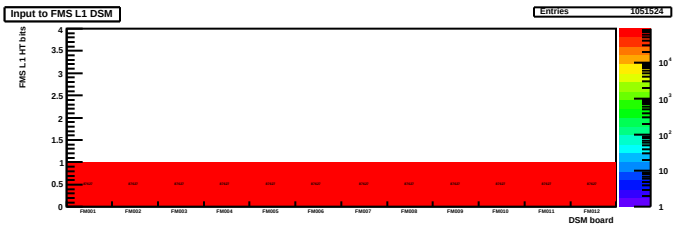

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

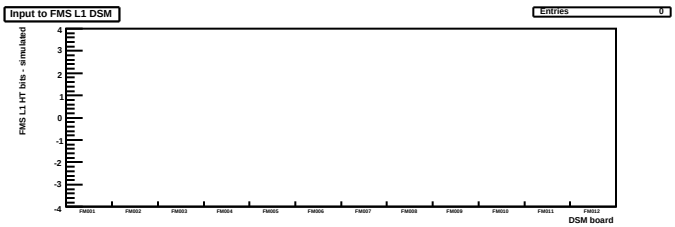

Input to FMS L1 DSM
Entries 1051524
sumAB
DSM board

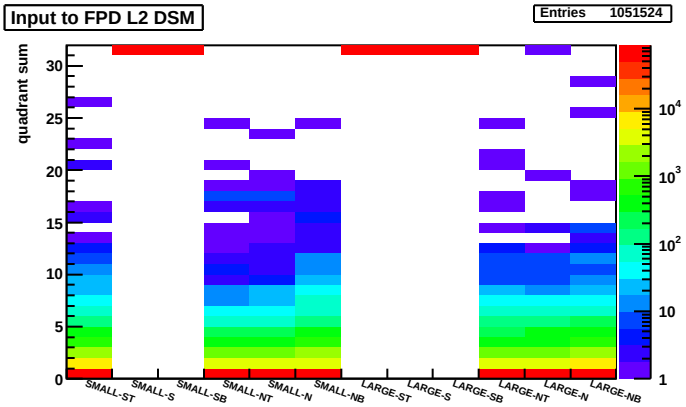

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

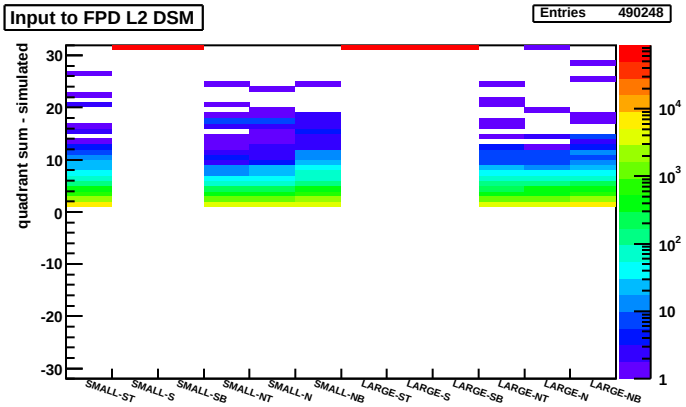

Input to FMS L1 DSM
Entries 1051524
sumA
DSM board

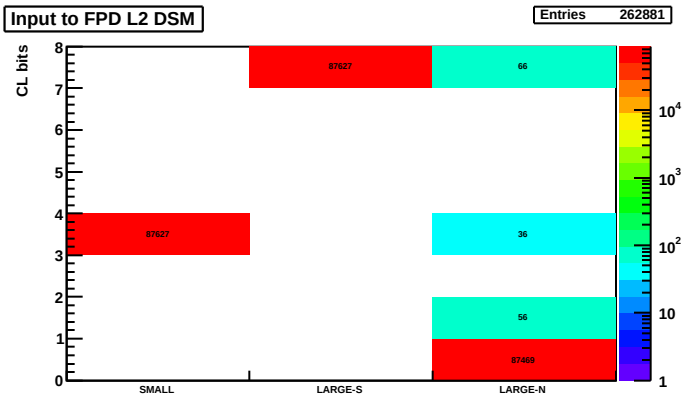

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

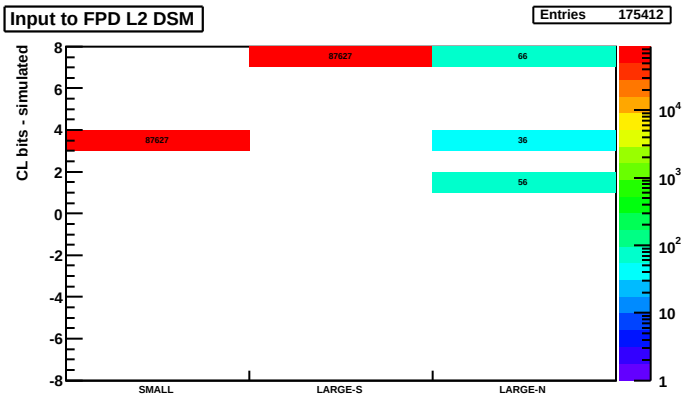

Input to FMS L1 DSM
Entries 1051524
FMS L1 HT bits
DSM board

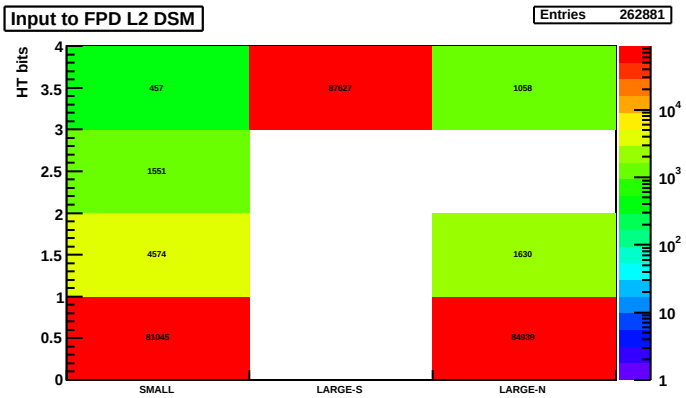

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

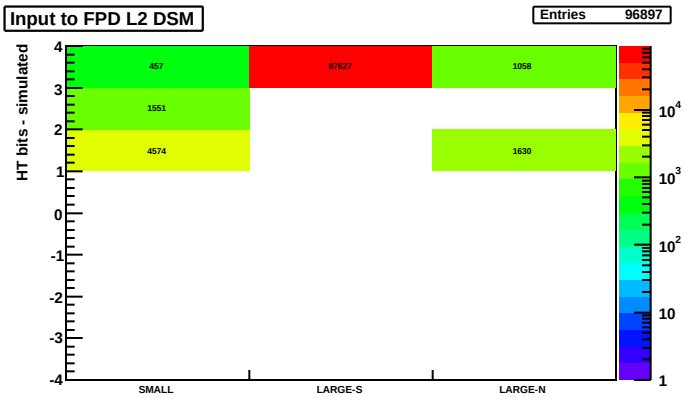

Input to FPD L2 DSM
Entries 1051524
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

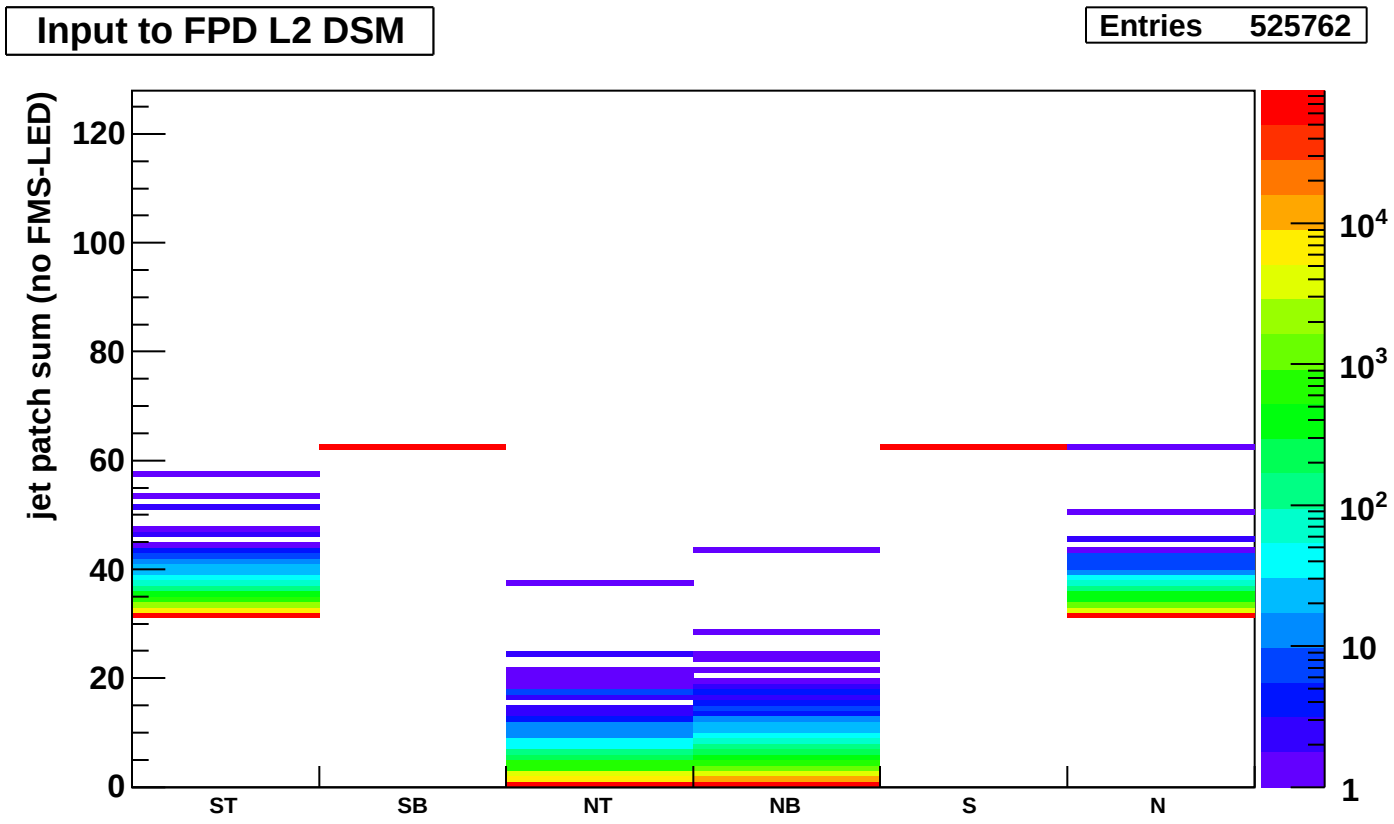

Input to FPD L2 DSM
Entries 490248
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

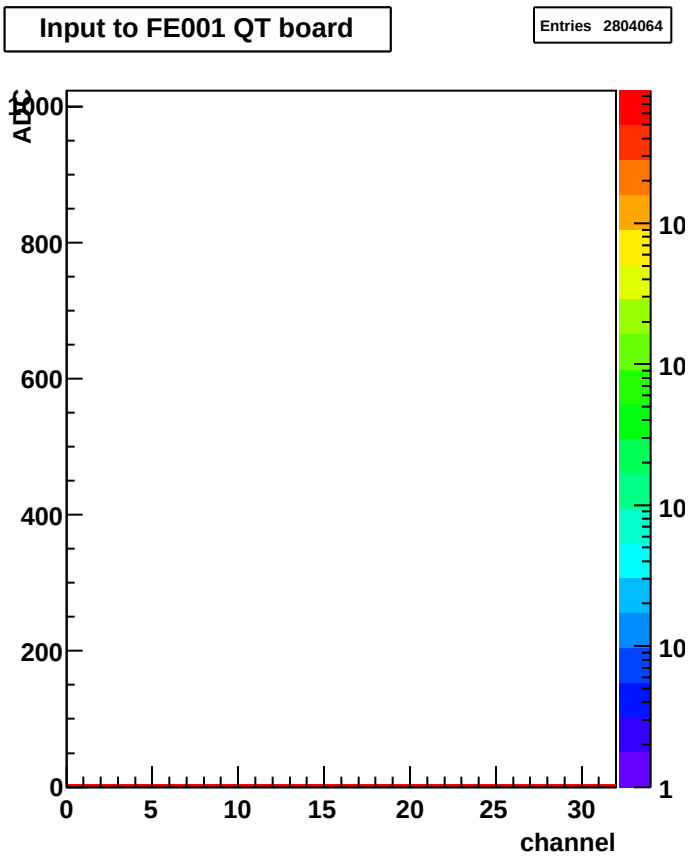

Input to FPD L2 DSM
Entries 262881
CL bits
87627
66
87627
36
56
87469
SMALL
LARGE-S
LARGE-N

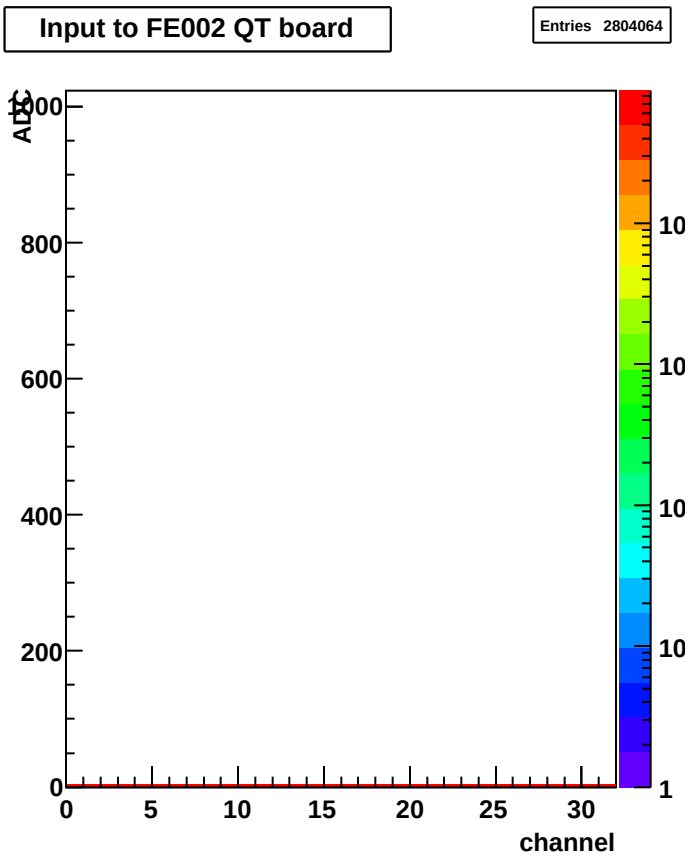

Input to FPD L2 DSM
Entries 175412
CL bits - simulated
87627
66
87627
36
56
SMALL
LARGE-S
LARGE-N

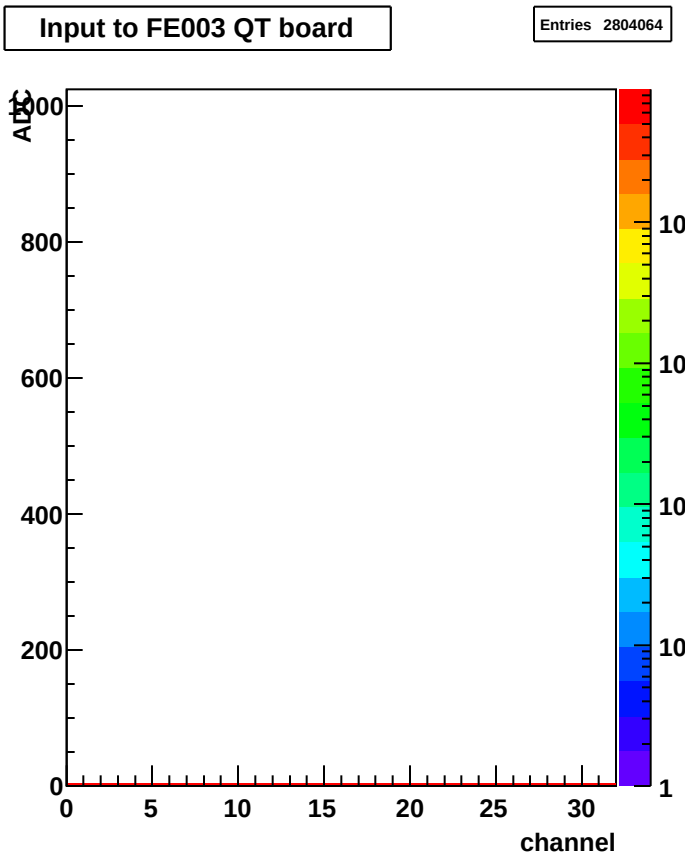

Input to FPD L2 DSM
Entries 262881
HT bits
457
87627
1058
1551
4574
1630
81045
84939
SMALL
LARGE-S
LARGE-N

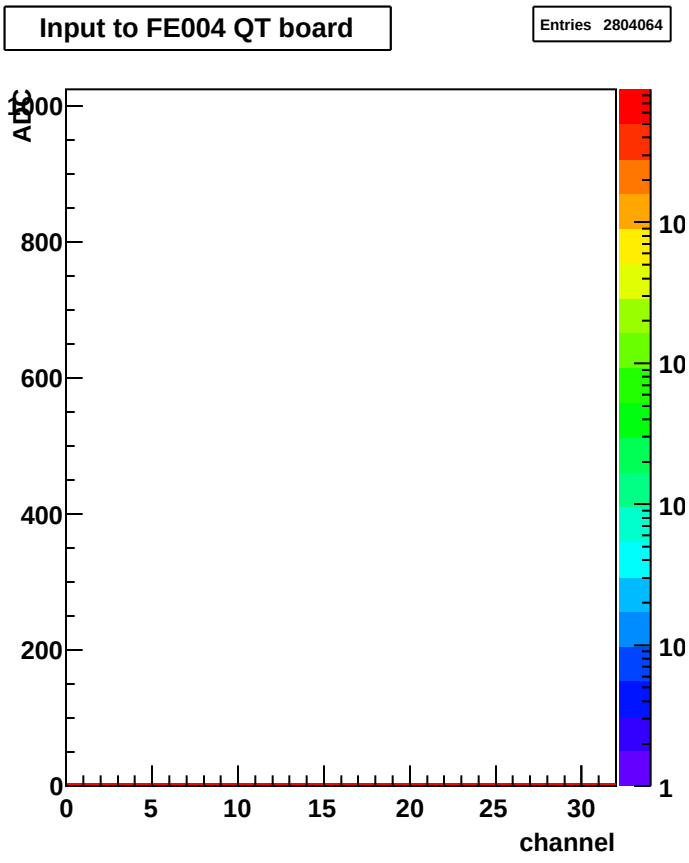

Input to FPD L2 DSM
Entries 96897
HT bits - simulated
457
87627
1058
1551
4574
1630
SMALL
LARGE-S
LARGE-N

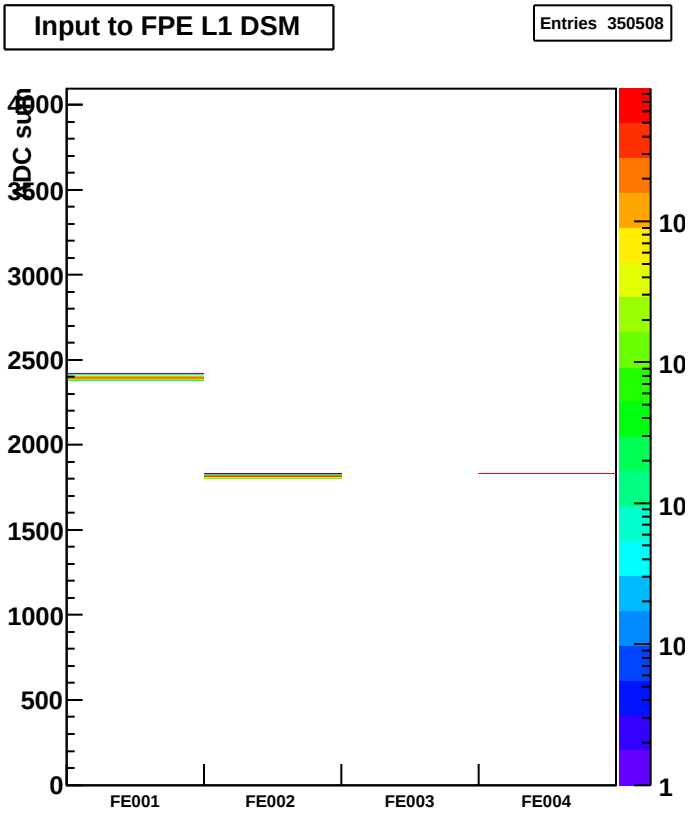

Input to FPD L2 DSM
Entries 525762
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

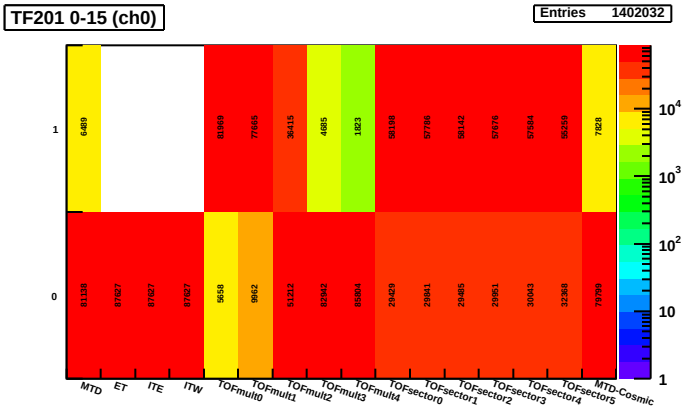

Input to FE001 QT board
Entries 2804064
ADC
channel

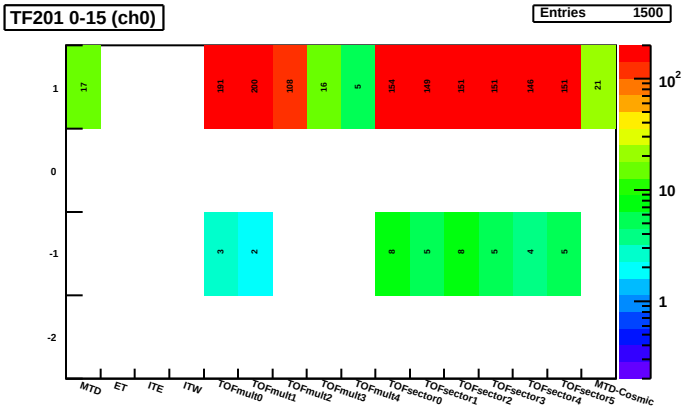

Input to FE002 QT board
Entries 2804064
ADC
channel

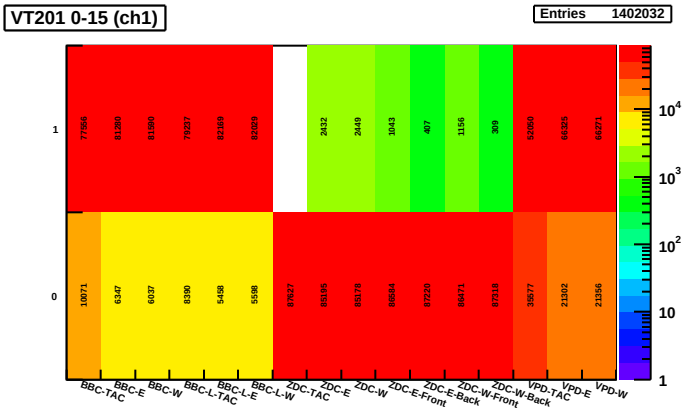

Input to FE003 QT board
Entries 2804064
ADC
channel

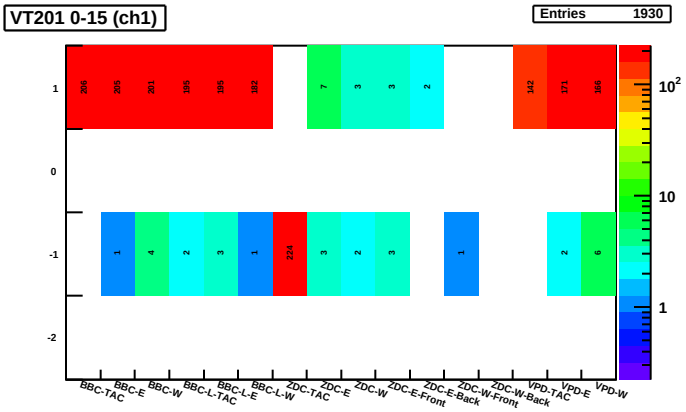

Input to FE004 QT board
Entries 2804064
ADC
channel

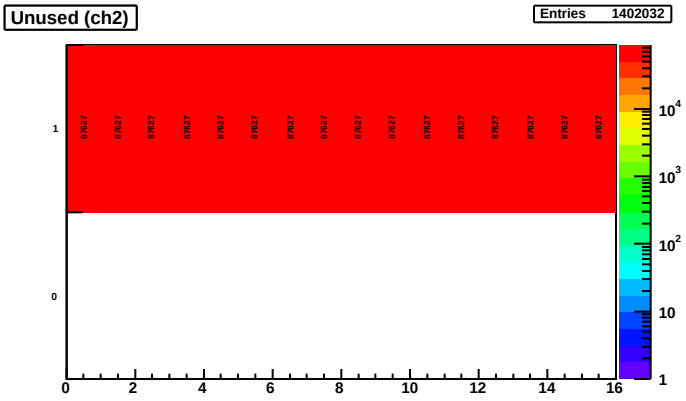

Input to FPE L1 DSM
Entries 350508
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

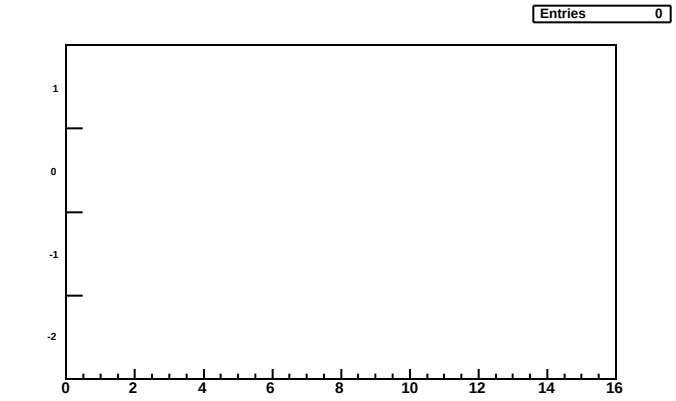

TF201 0-15 (ch0)
Entries 1402032
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

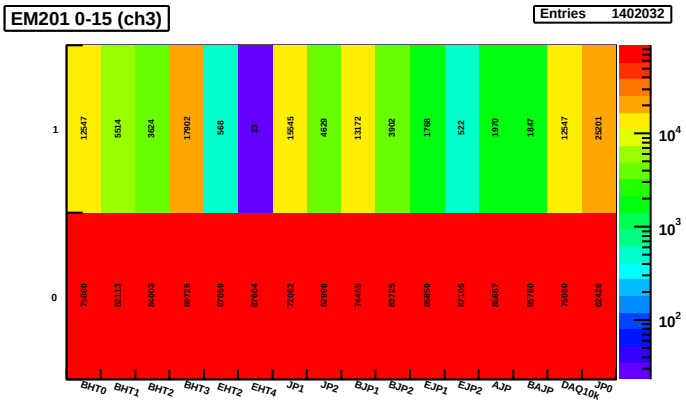

TF201 0-15 (ch0)
Entries 1500
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

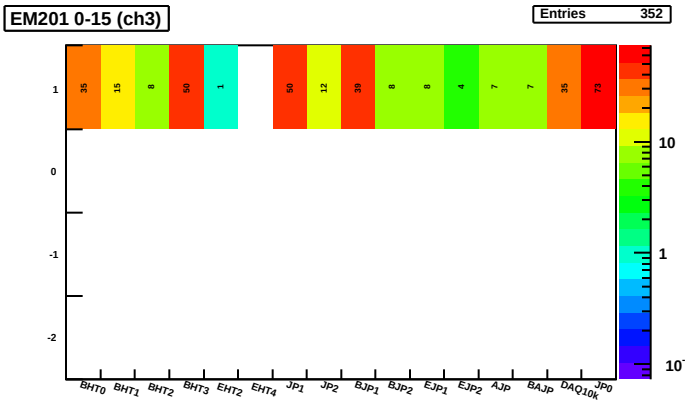

VT201 0-15 (ch1)
Entries 1402032
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

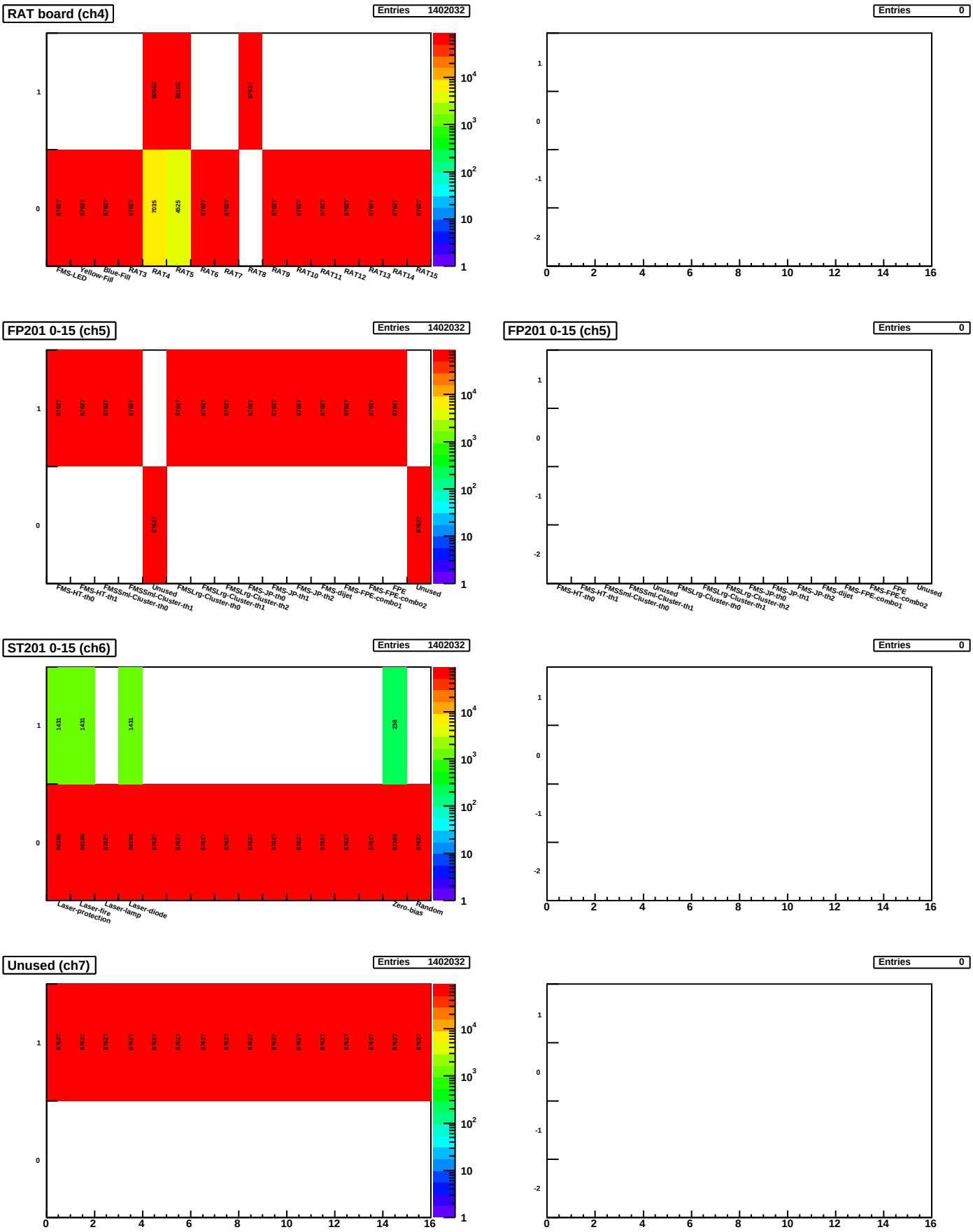

VT201 0-15 (ch1)
Entries 1930
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


Unused (ch2)
Entries 1402032


Entries 0


EM201 0-15 (ch3)
Entries 1402032
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


EM201 0-15 (ch3)
Entries 352
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


RAT board (ch4)
Entries 1402032
Entries 0
FMS-LED
Yellow-Fill
Blue-Fill
RAT3
RAT4
RAT5
RAT6
RAT7
RAT8
RAT9
RAT10
RAT11
RAT12
RAT13
RAT14
RAT15
FP201 0-15 (ch5)
Entries 1402032
Entries 0
FMS-HT-th0
FMS-HT-th1
FMSSml-Cluster-th0
FMSSml-Cluster-th1
Unused
FMSLrg-Cluster-th0
FMSLrg-Cluster-th1
FMSLrg-Cluster-th2
FMS-JP-th0
FMS-JP-th1
FMS-JP-th2
FMS-diijet
FMS-FPE-combo1
FMS-FPE-combo2
FPE
Unused
ST201 0-15 (ch6)
Entries 1402032
Entries 0
Laser-protection
Laser-fire
Laser-lamp
Laser-diode
Zero-bias
Random
Unused (ch7)
Entries 1402032
Entries 0