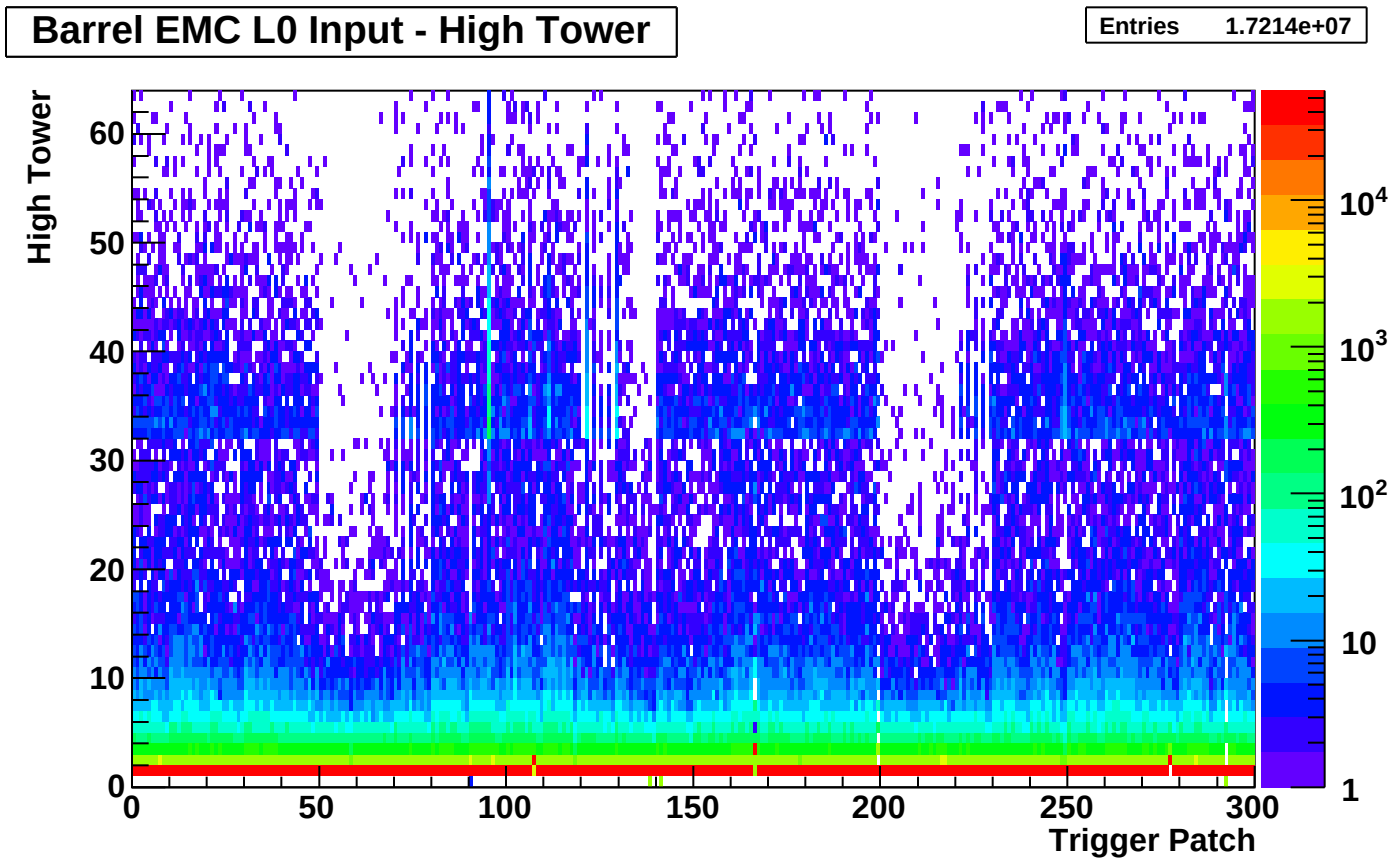
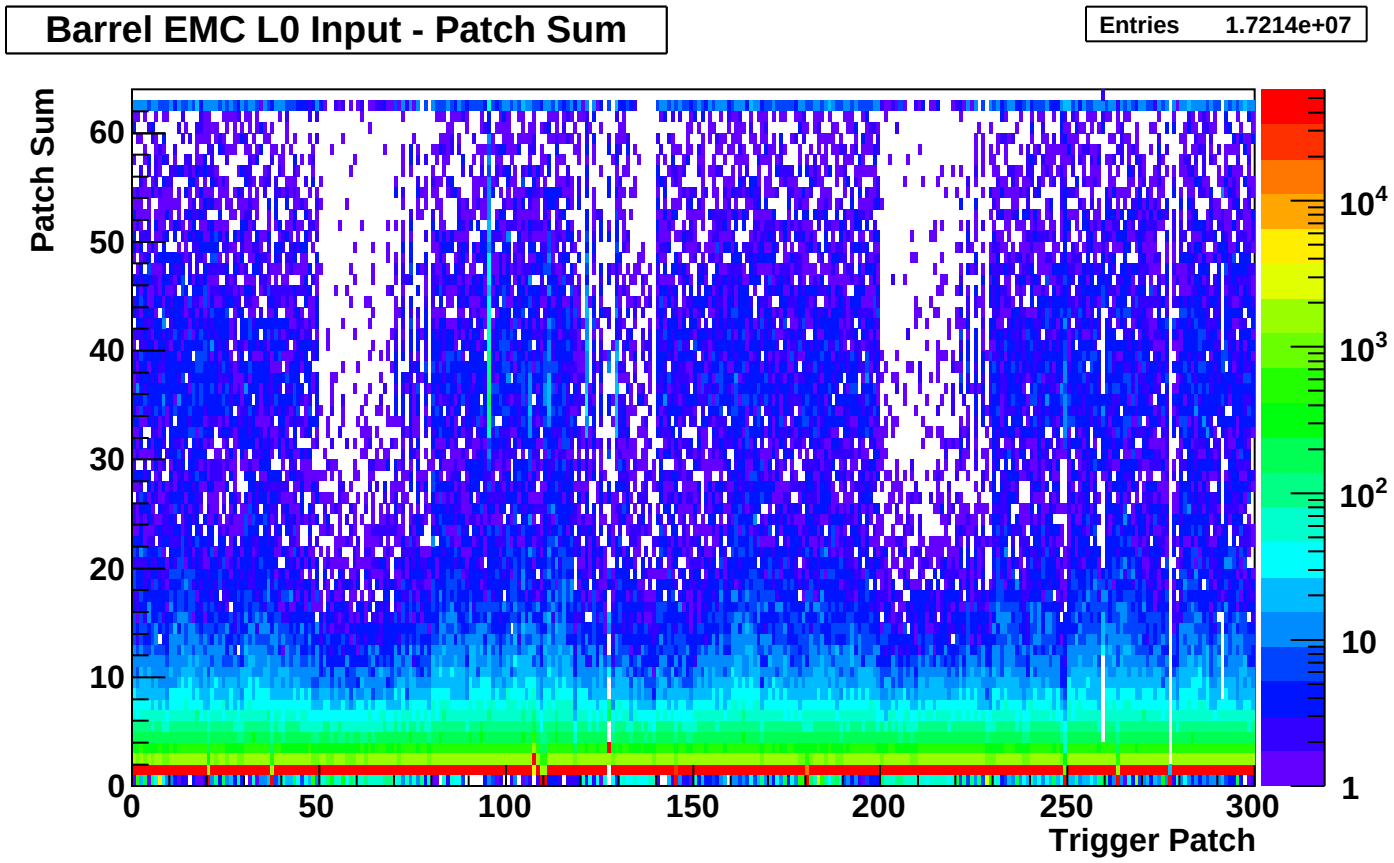
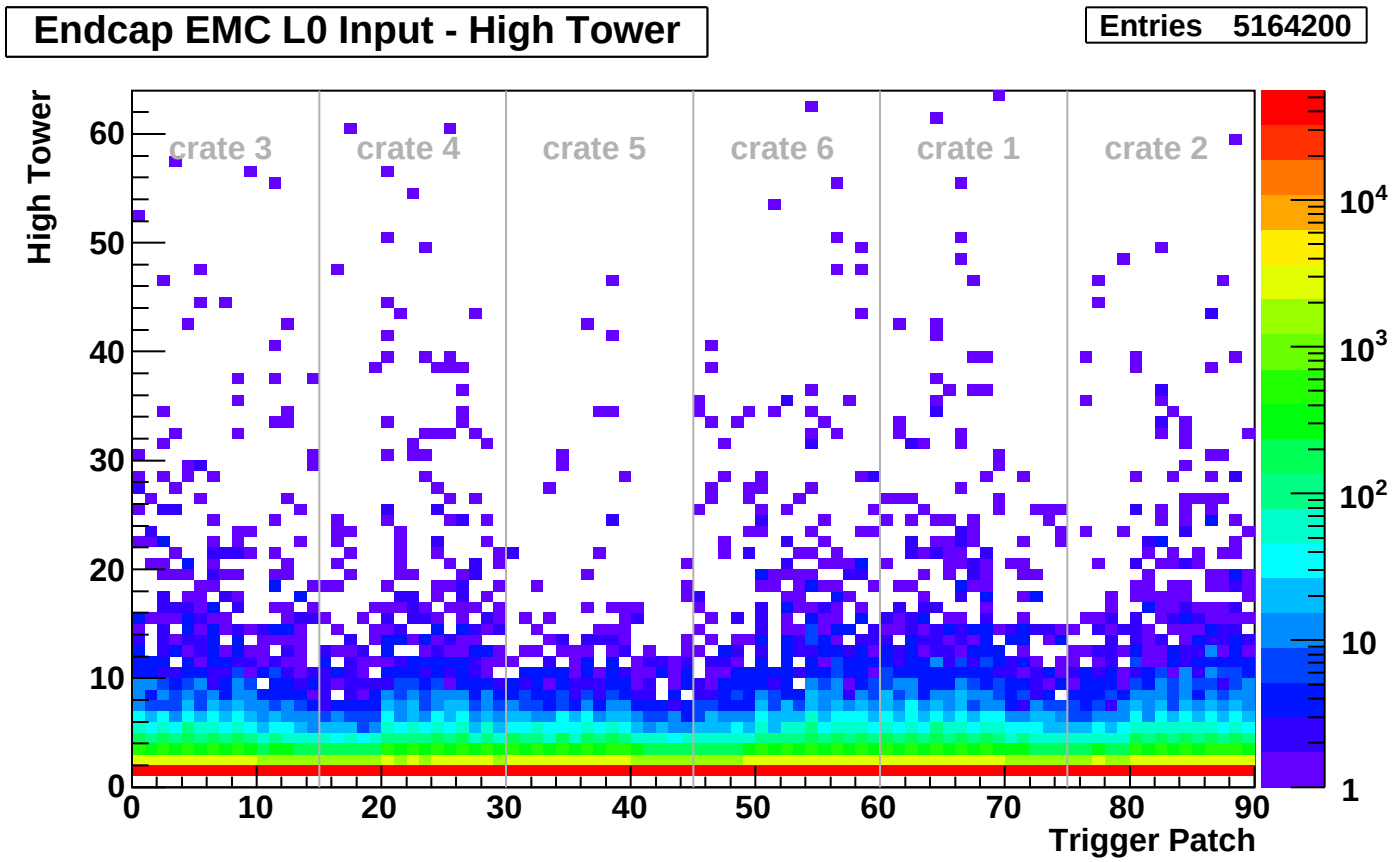
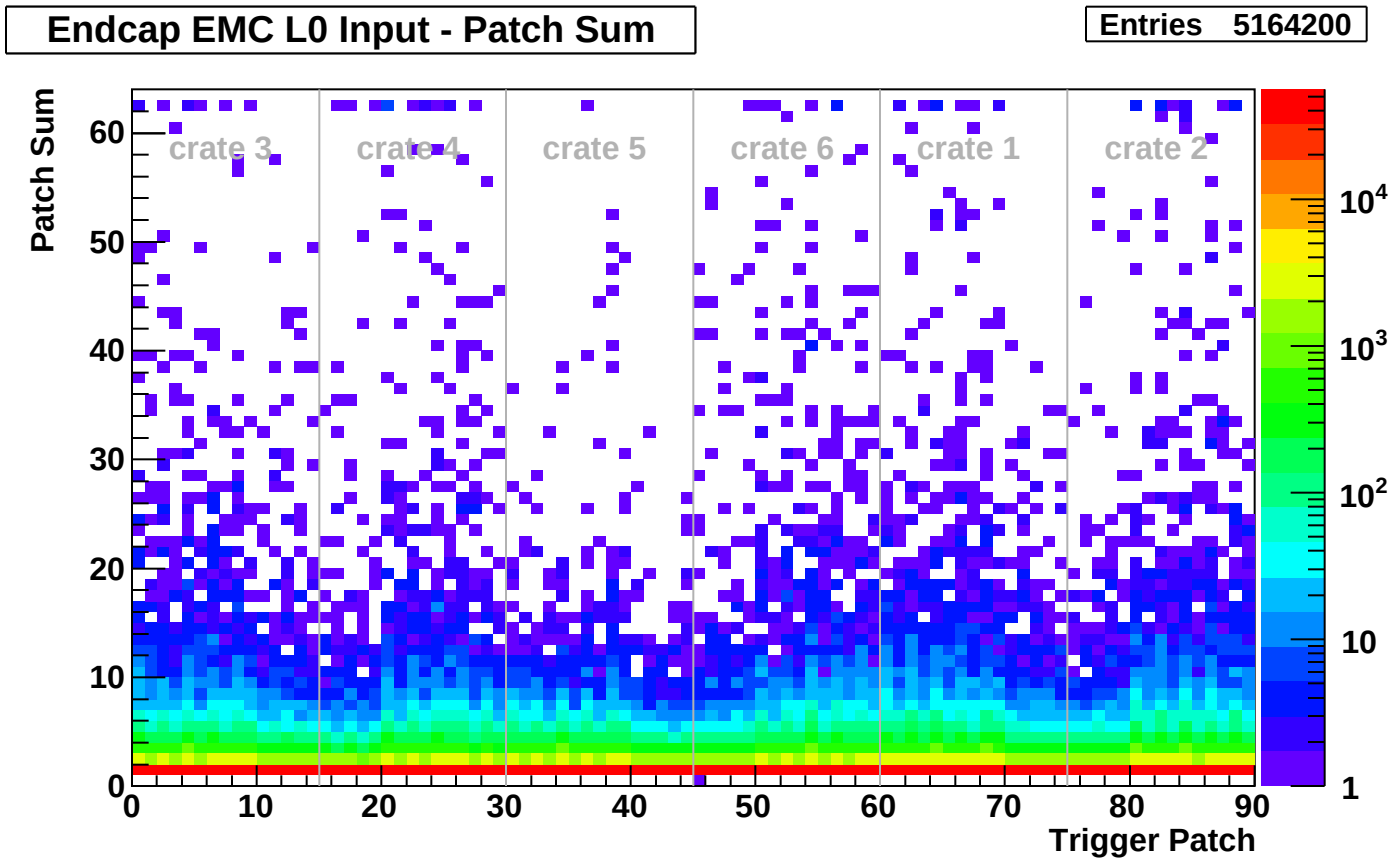
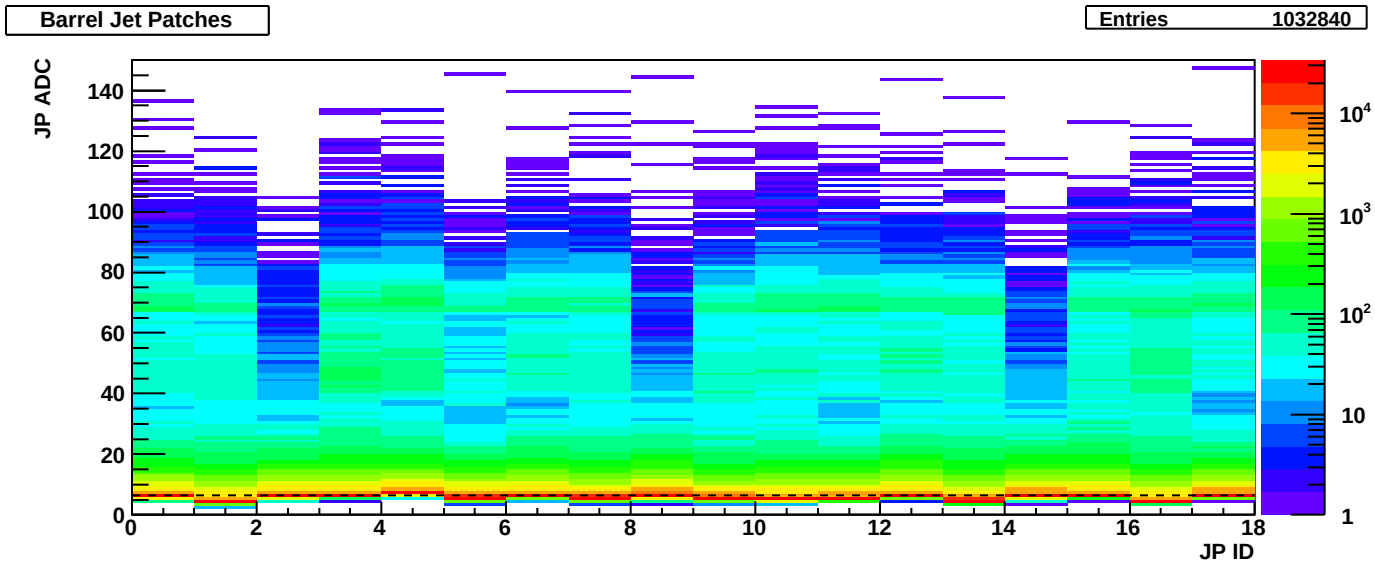
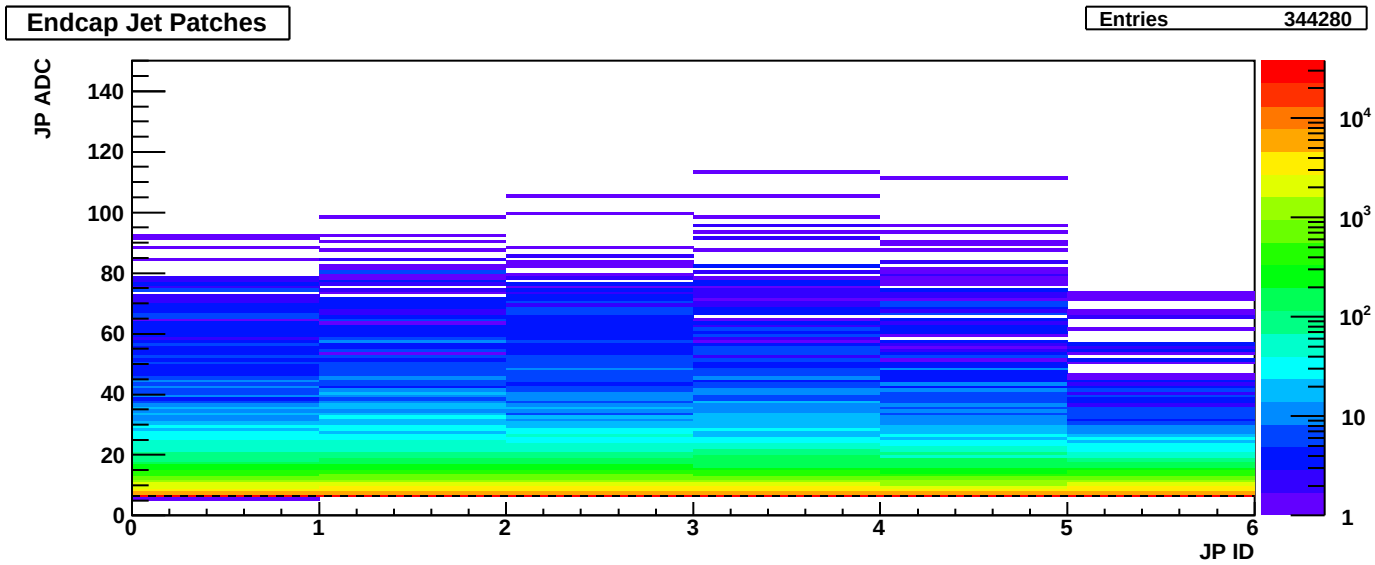

Barrel EMC L0 Input - High Tower
Entries 1.7214e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

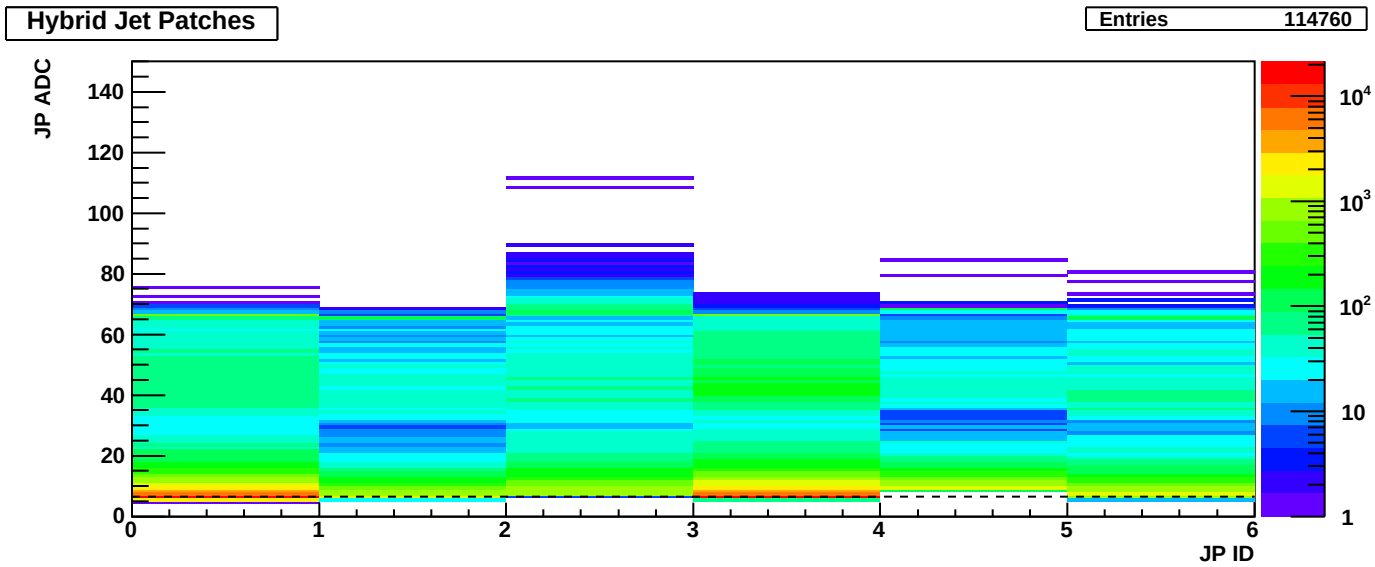

Barrel EMC L0 Input - Patch Sum
Entries 1.7214e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

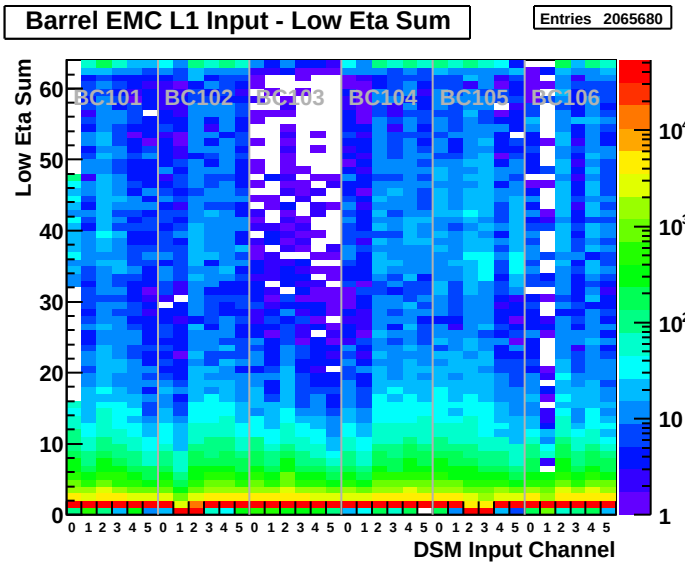

Endcap EMC L0 Input - High Tower
Entries 5164200
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

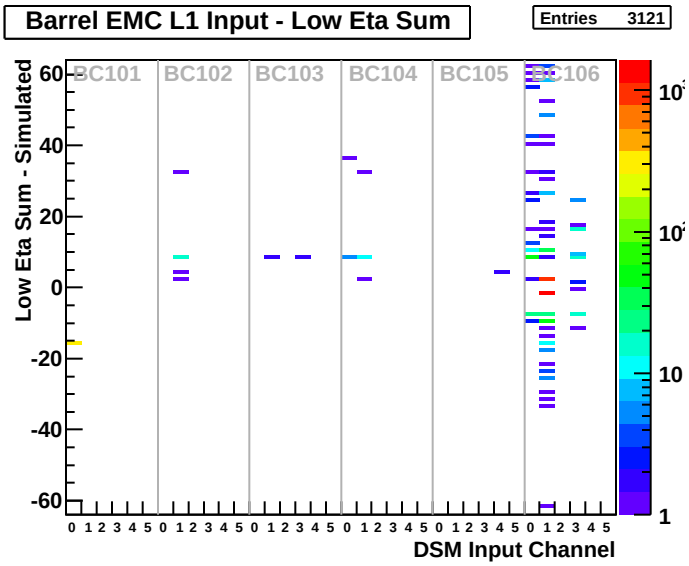

Endcap EMC L0 Input - Patch Sum
Entries 5164200
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

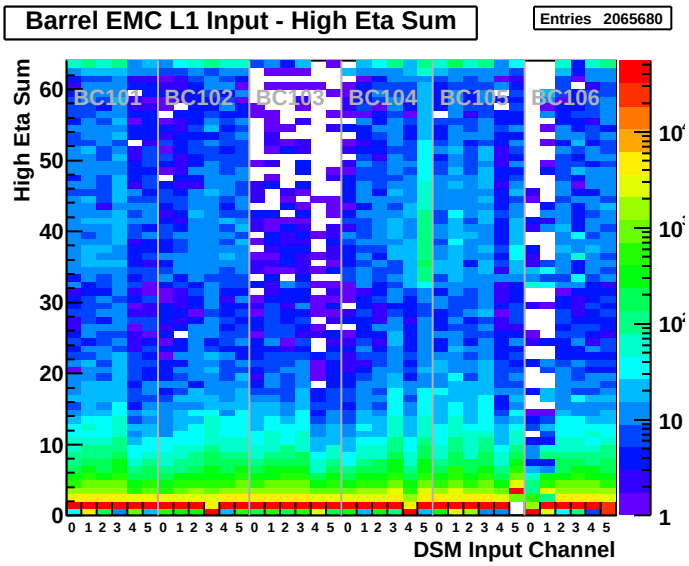

Barrel Jet Patches
Entries 1032840
JP ADC
JP ID

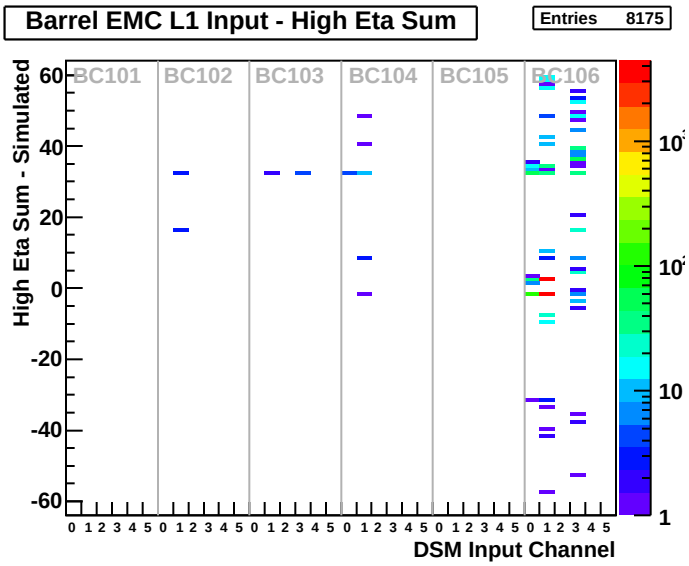

Endcap Jet Patches
Entries 344280
JP ADC
JP ID

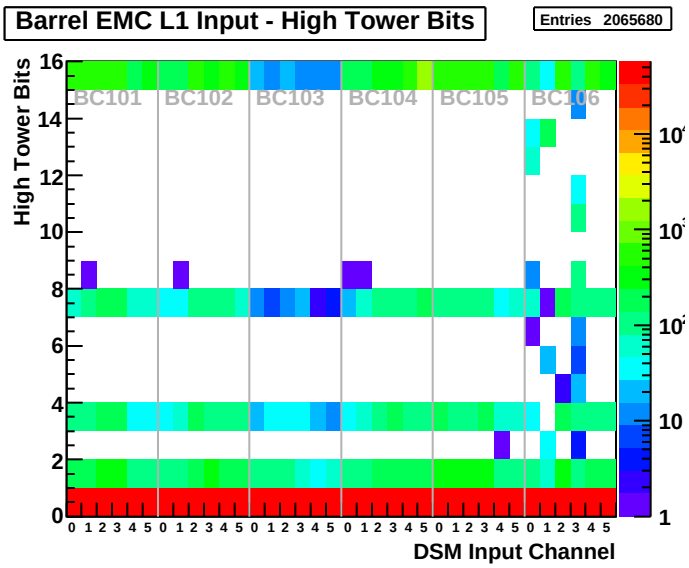

Hybrid Jet Patches
Entries 114760
JP ADC
JP ID

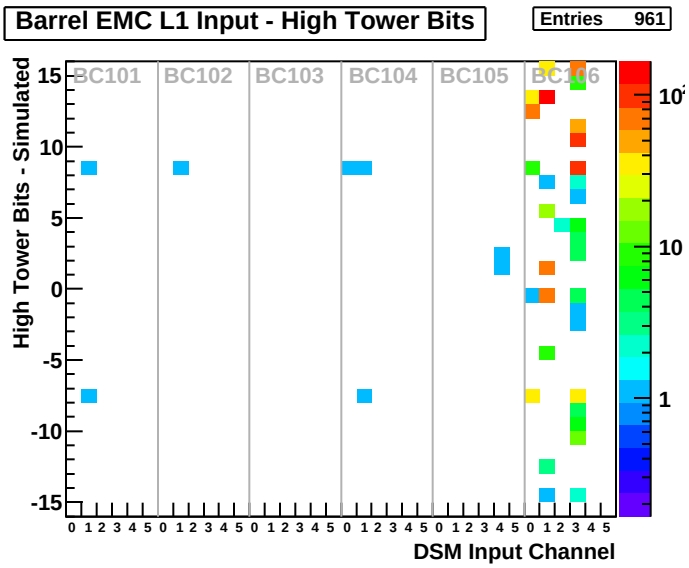

Barrel EMC L1 Input - Low Eta Sum
Entries 2065680
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

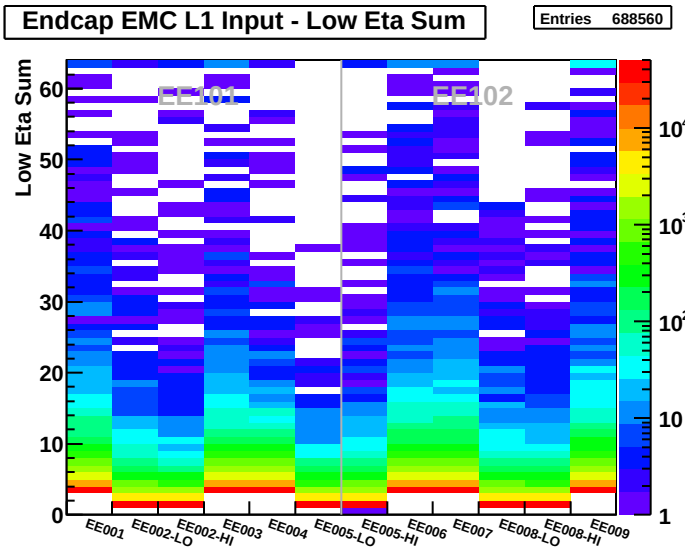

Barrel EMC L1 Input - Low Eta Sum
Entries 3121
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

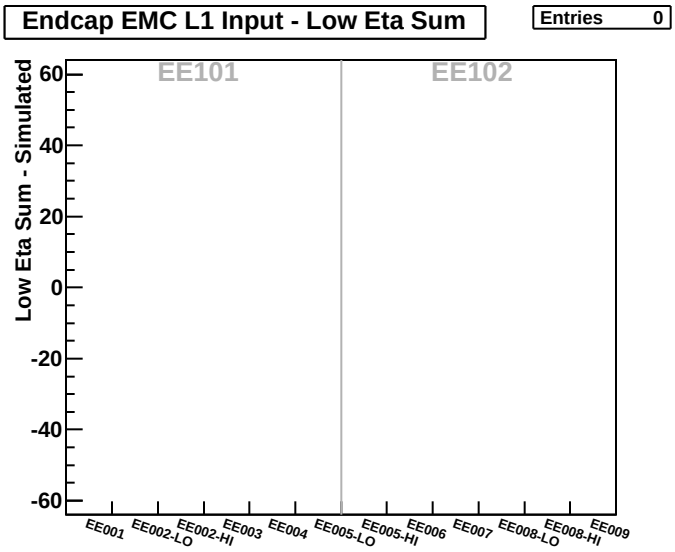

Barrel EMC L1 Input - High Eta Sum
Entries 2065680
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

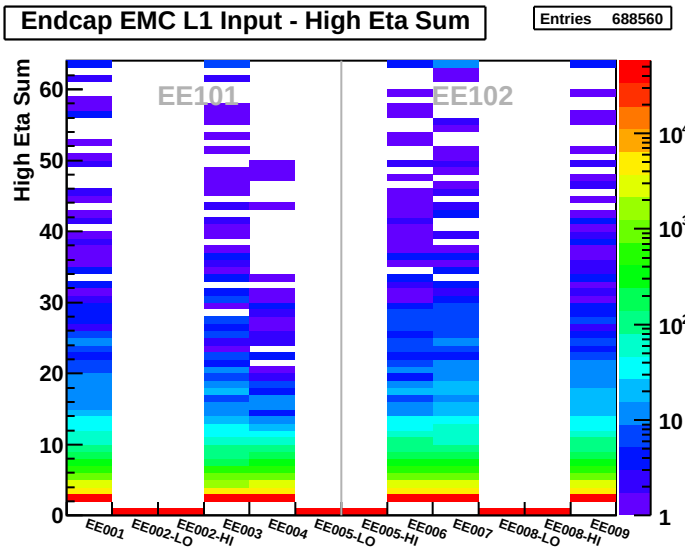

Barrel EMC L1 Input - High Eta Sum
Entries 8175
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

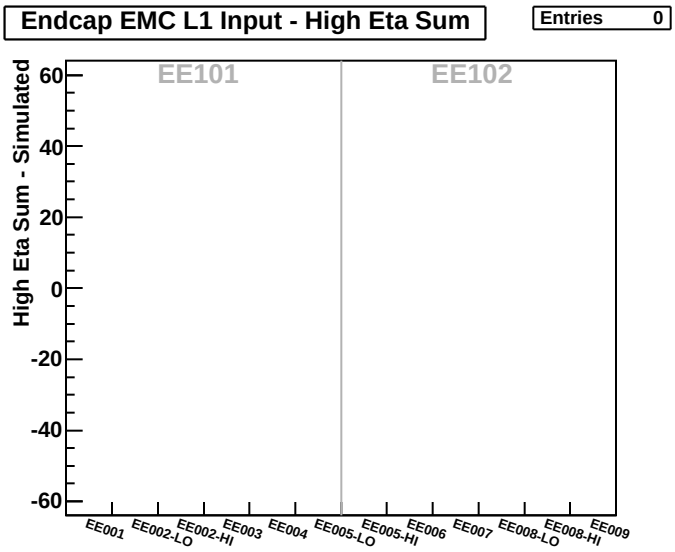

Barrel EMC L1 Input - High Tower Bits
Entries 2065680
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

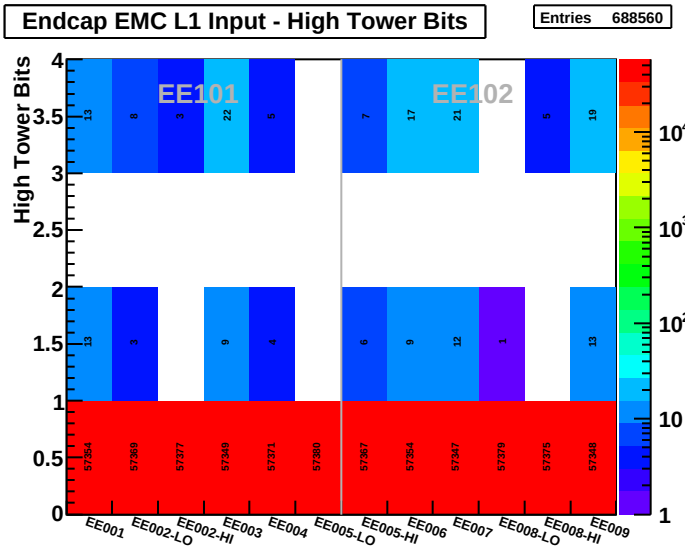

Barrel EMC L1 Input - High Tower Bits
Entries 961
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

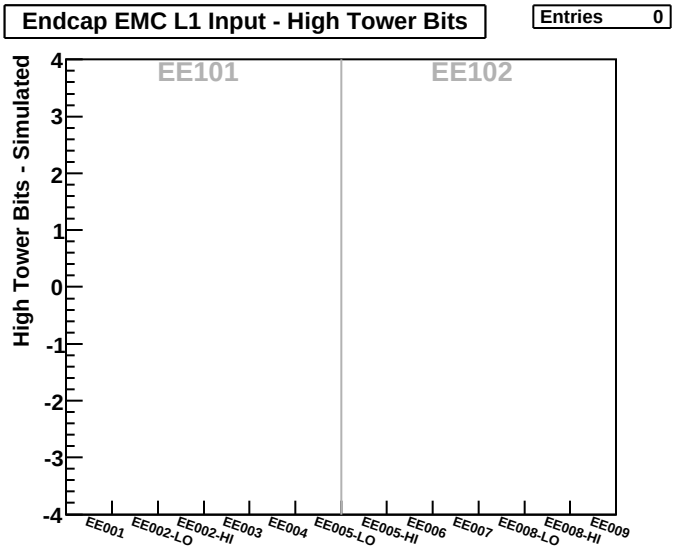

Endcap EMC L1 Input - Low Eta Sum
Entries 688560
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

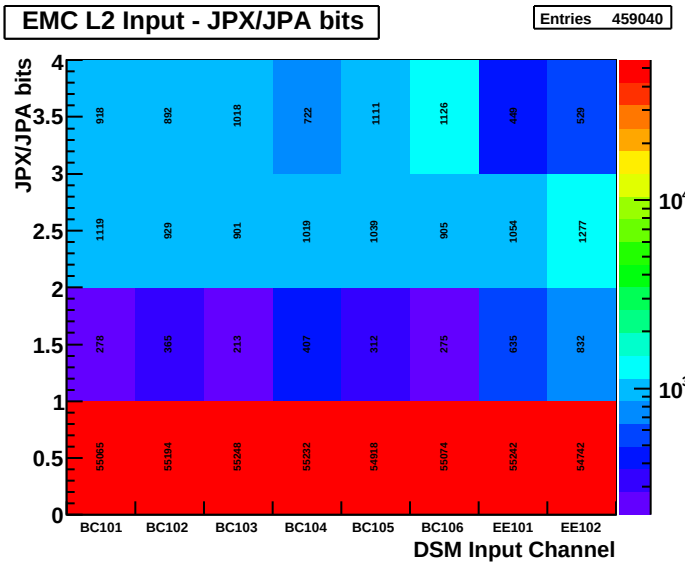

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

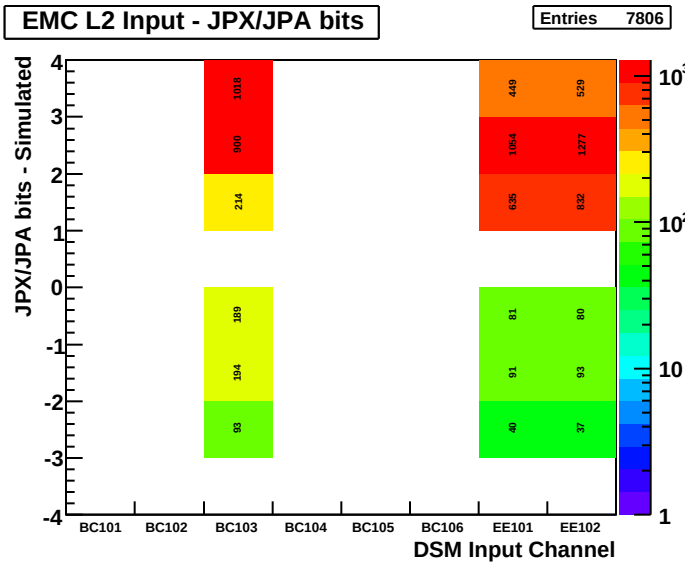

Endcap EMC L1 Input - High Eta Sum
Entries 688560
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

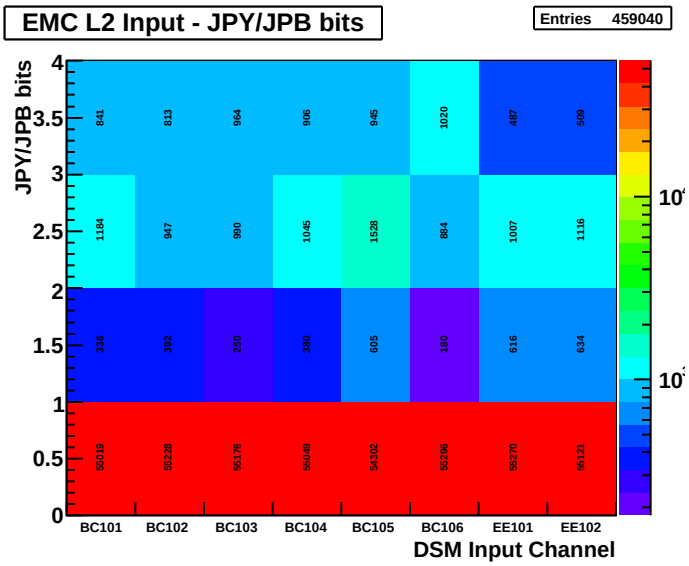

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

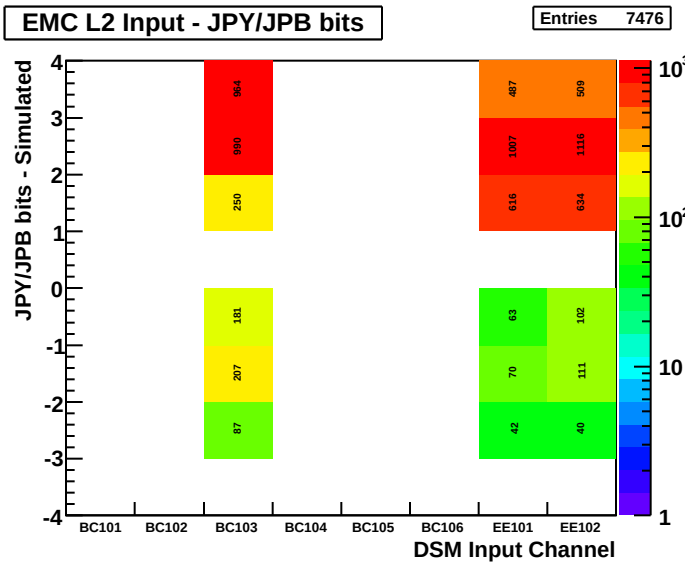

Endcap EMC L1 Input - High Tower Bits
Entries 688560
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

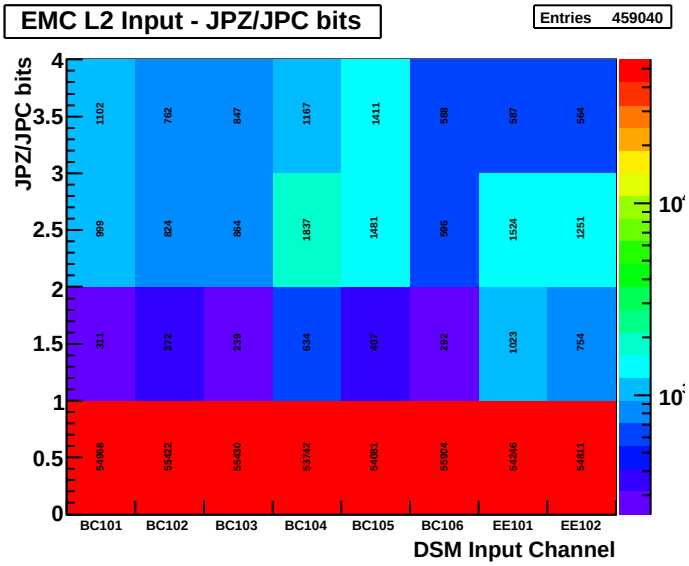

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

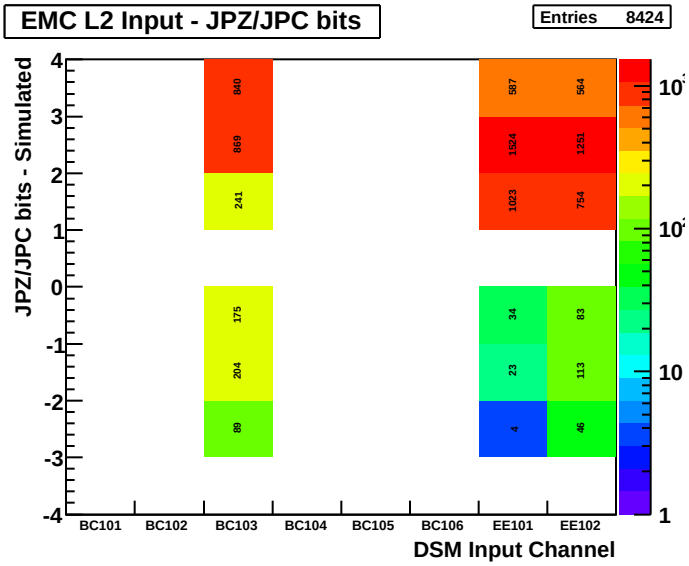

EMC L2 Input - JPX/JPA bits
Entries 459040
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
918 892 1018 722 1111 1126 449 529
1119 929 901 1019 1039 905 1054 1277
278 365 213 407 312 275 635 832
55065 55194 55248 55232 54918 55074 55242 54742

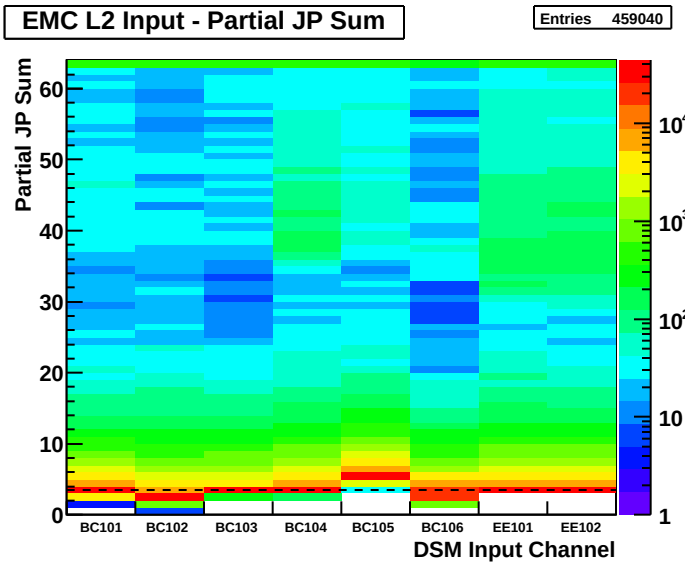

EMC L2 Input - JPX/JPA bits
Entries 7806
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1018 449 529
900 1054 1277
214 635 832
189 81 80
194 91 93
93 40 37

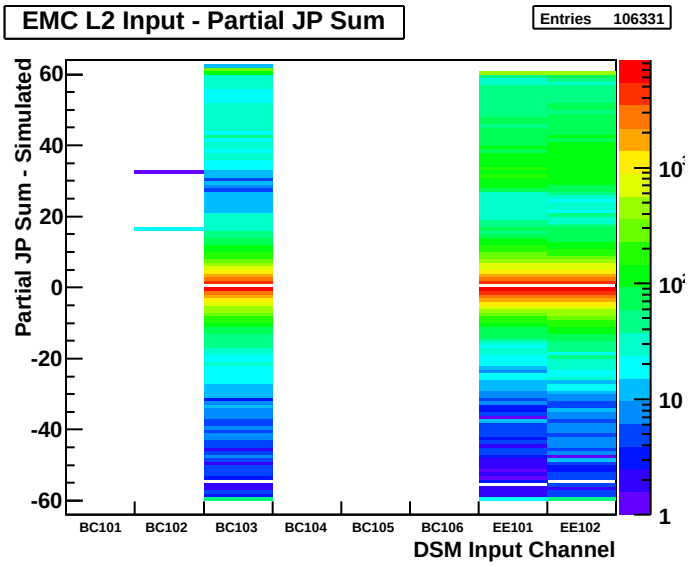

EMC L2 Input - JPY/JPB bits
Entries 459040
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
841 813 964 906 945 1020 487 509
1184 947 990 1045 1528 884 1007 1116
336 392 250 380 605 180 616 634
55019 55228 55176 55040 54302 55296 55270 55121

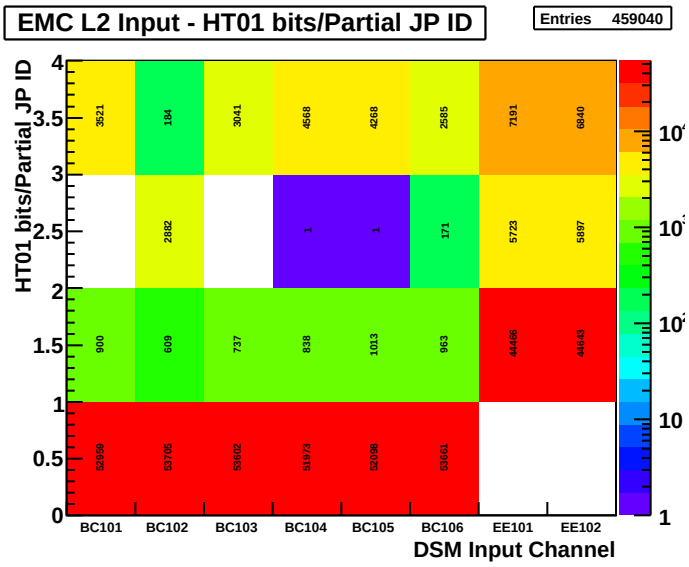

EMC L2 Input - JPY/JPB bits
Entries 7476
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
964 487 509
990 1007 1116
250 616 634
181 63 102
207 70 111
87 42 40

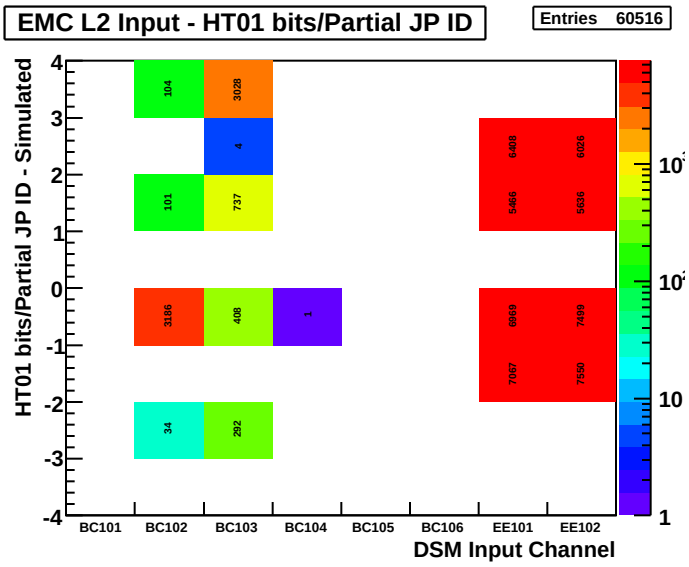

EMC L2 Input - JPZ/JPC bits
Entries 459040
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1102 762 847 1167 1411 588 587 564
999 824 864 1837 1481 596 1524 1251
311 372 239 634 407 292 1023 754
54868 55422 55420 53742 54081 55904 54246 54811

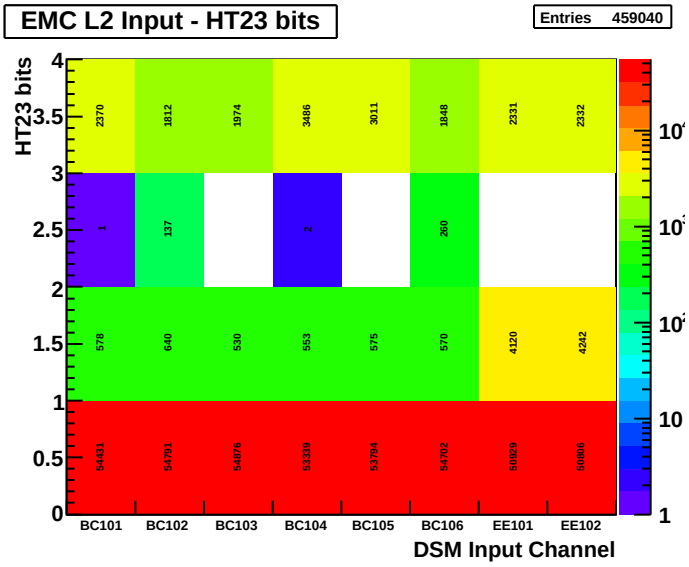

EMC L2 Input - JPZ/JPC bits
Entries 8424
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
840 587 564
869 1524 1251
241 1023 754
175 34 83
204 23 113
89 4 46

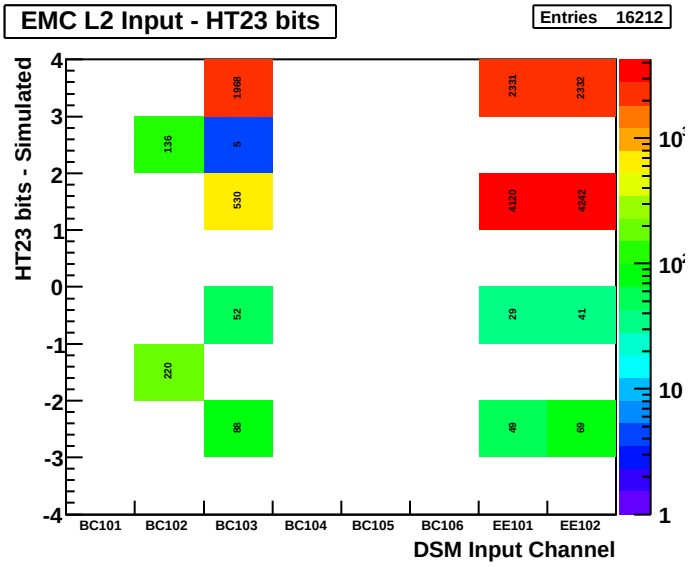

EMC L2 Input - Partial JP Sum
Entries 459040
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

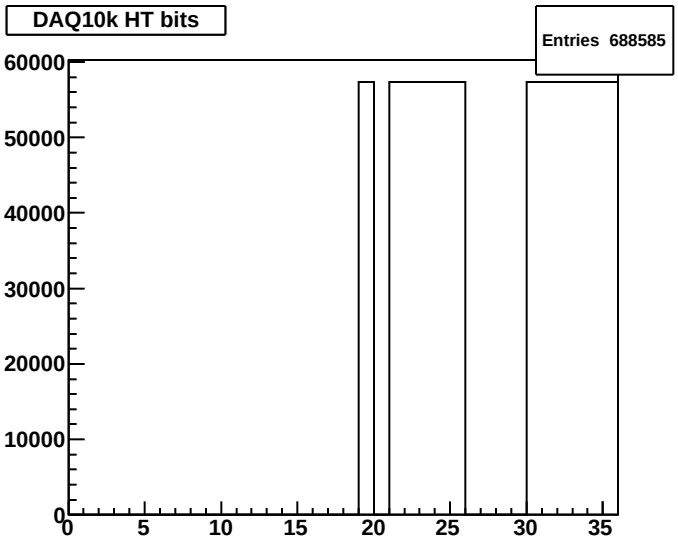

EMC L2 Input - Partial JP Sum
Entries 106331
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

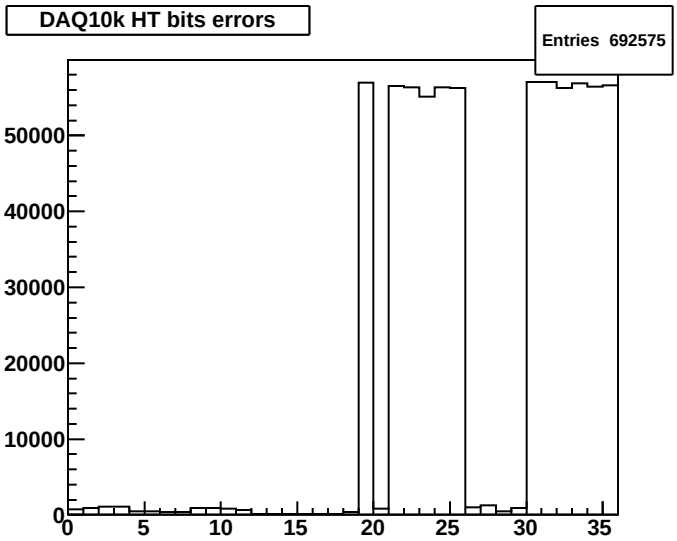

EMC L2 Input - HT01 bits/Partial JP ID
Entries 459040
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

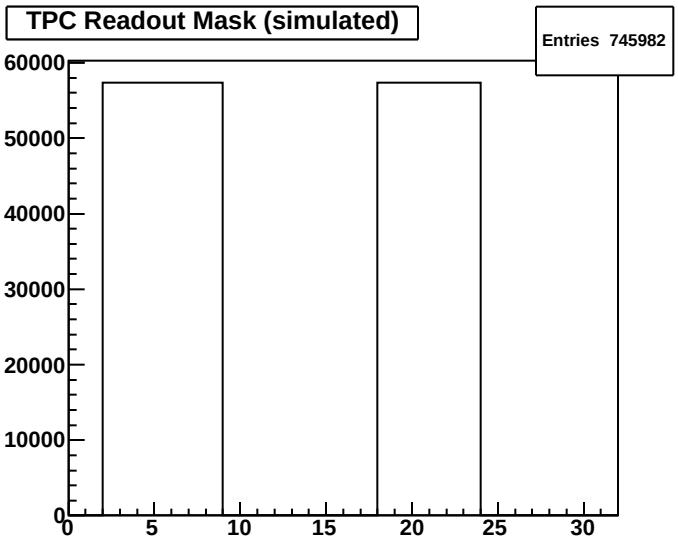

EMC L2 Input - HT01 bits/Partial JP ID
Entries 60516
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

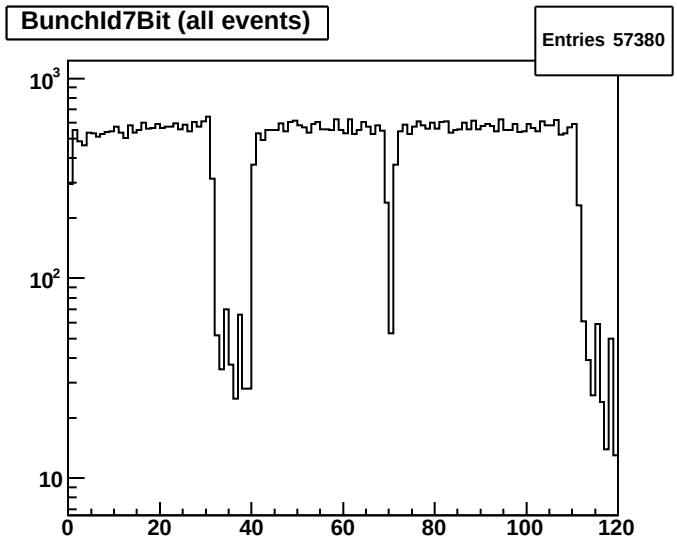

EMC L2 Input - HT23 bits
Entries 459040
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

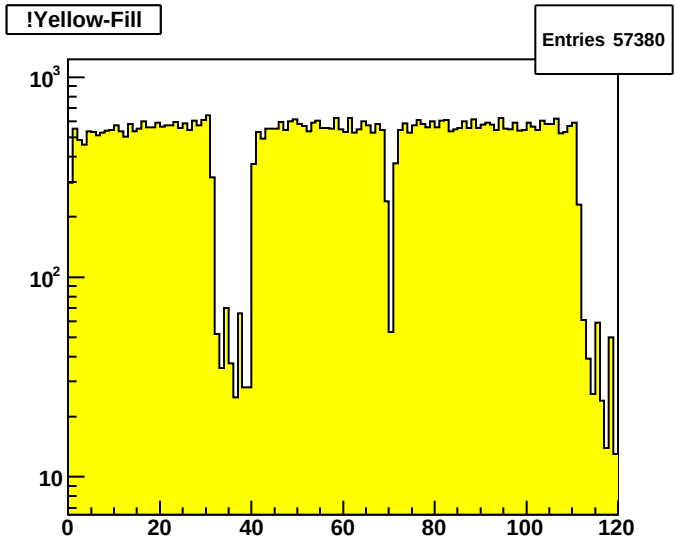

EMC L2 Input - HT23 bits
Entries 16212
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

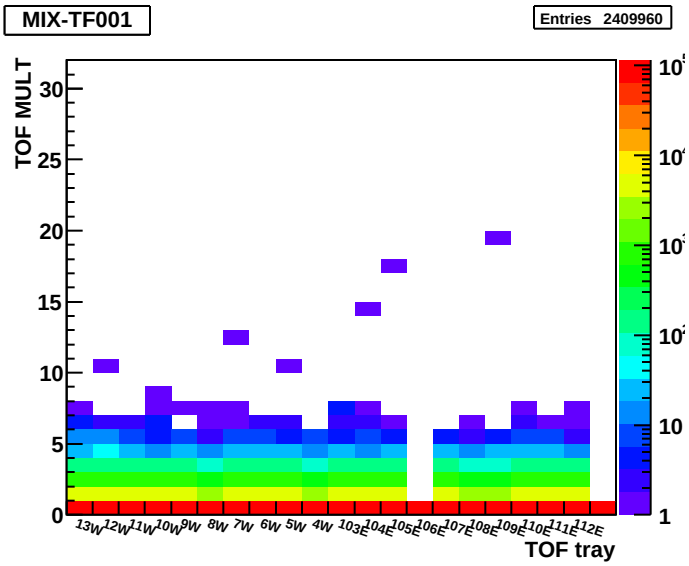

DAQ10k HT bits
Entries 688585
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

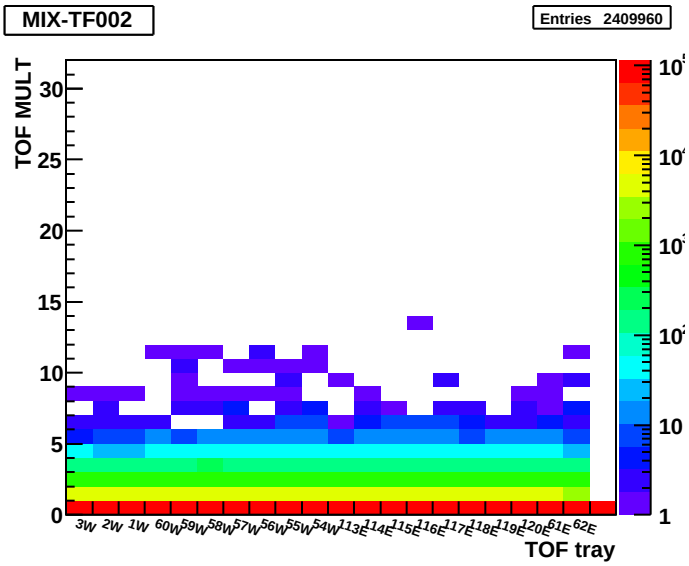

DAQ10k HT bits errors
Entries 692575
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

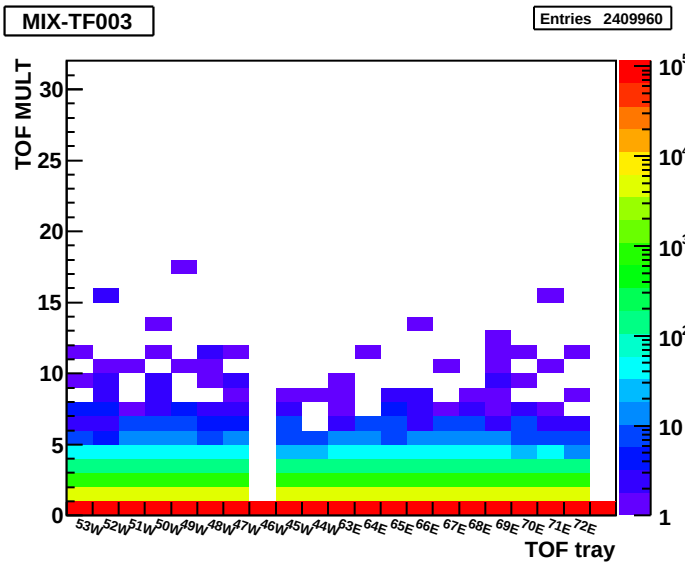

TPC Readout Mask (simulated)
Entries 745982
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

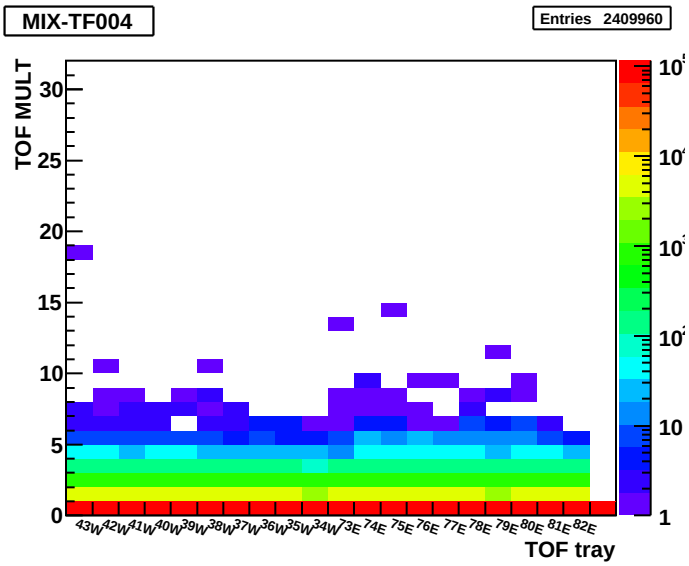

BunchId7Bit (all events)
Entries 57380
10^3
10^2
10
0 20 40 60 80 100 120

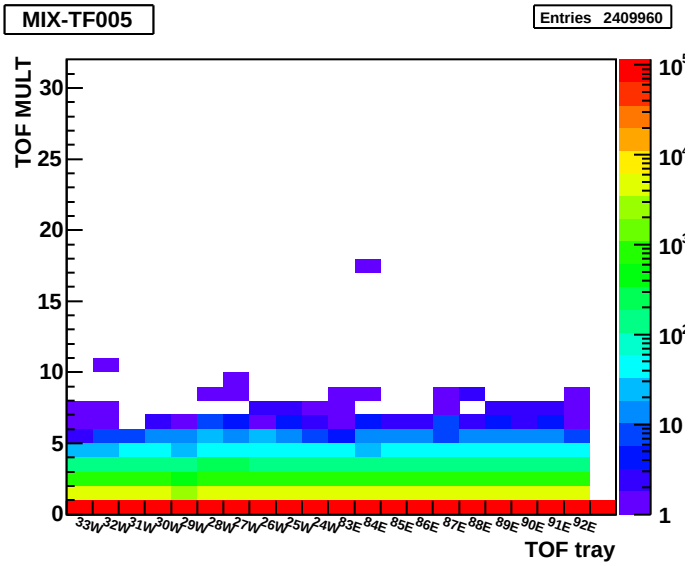

!Yellow-Fill
Entries 57380
10^3
10^2
10
0 20 40 60 80 100 120

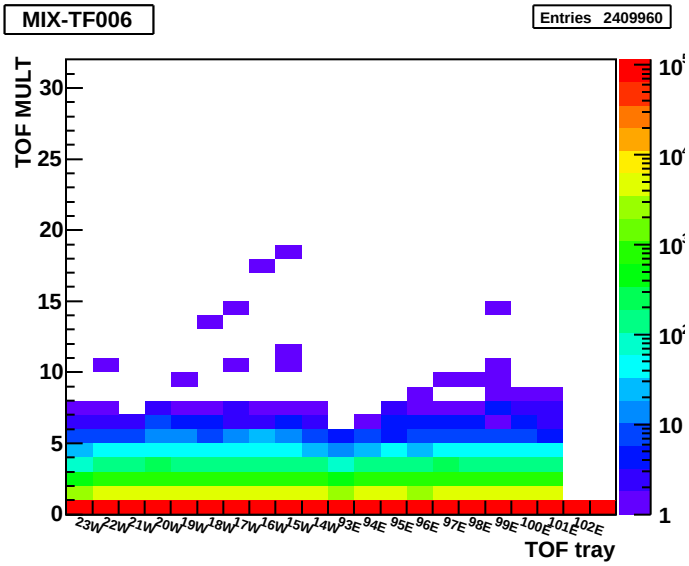

MIX-TF001
Entries 2409960
TOF MULT
TOF tray

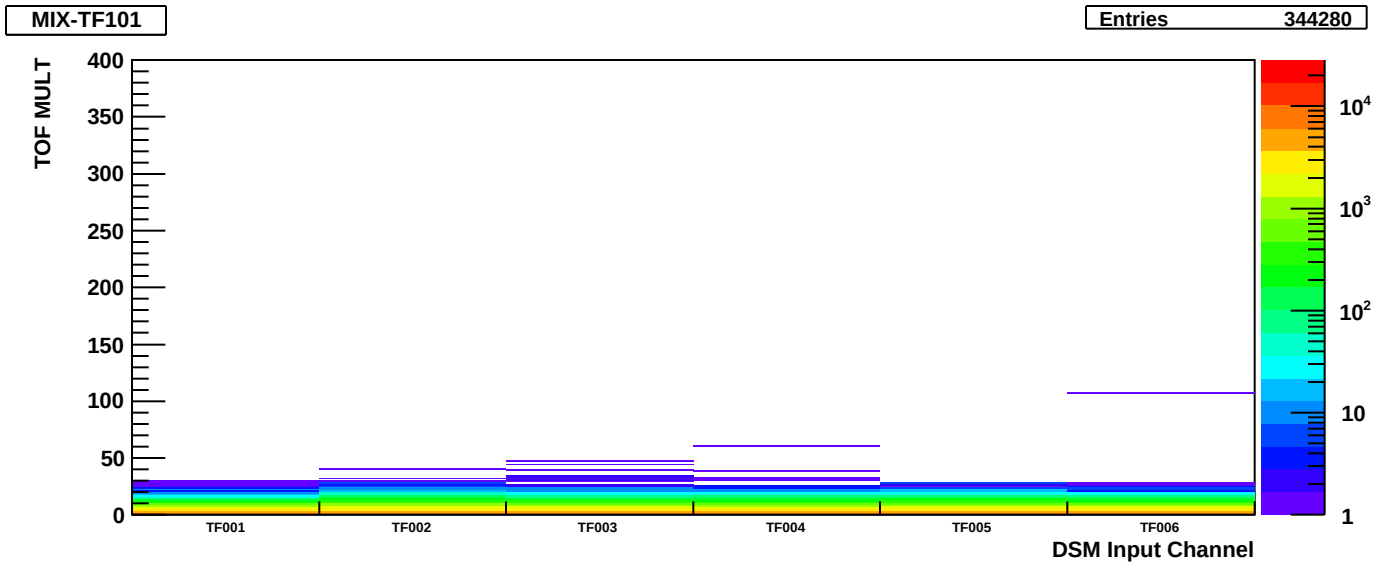

MIX-TF002
Entries 2409960
TOF MULT
TOF tray

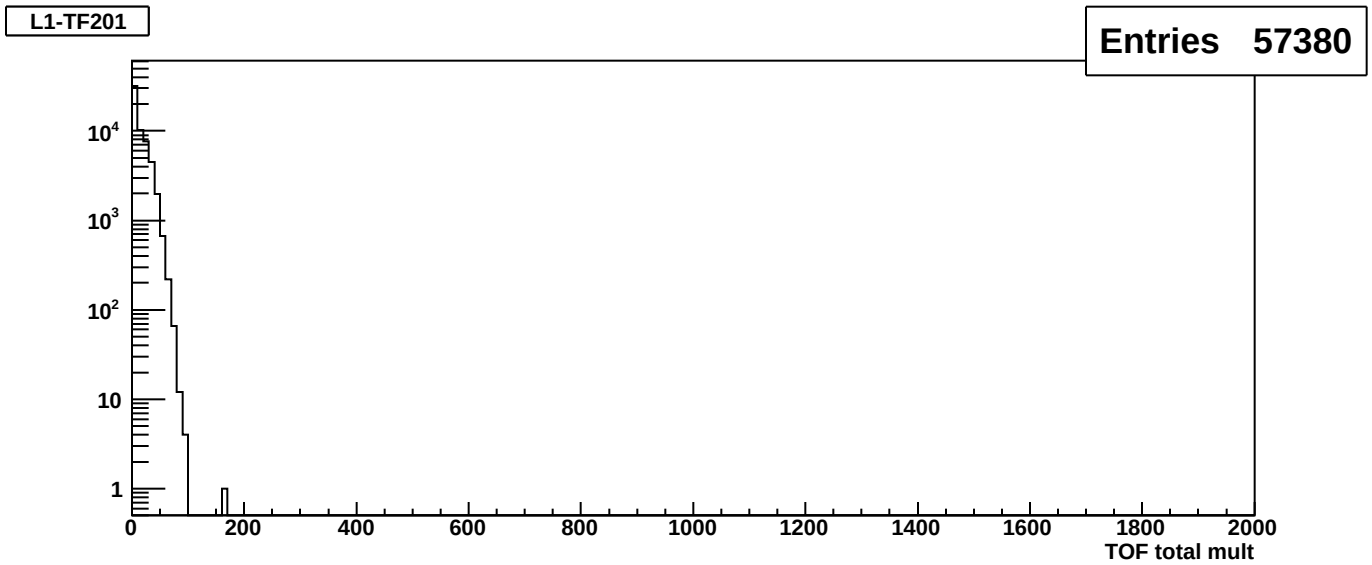

MIX-TF003
Entries 2409960
TOF MULT
TOF tray

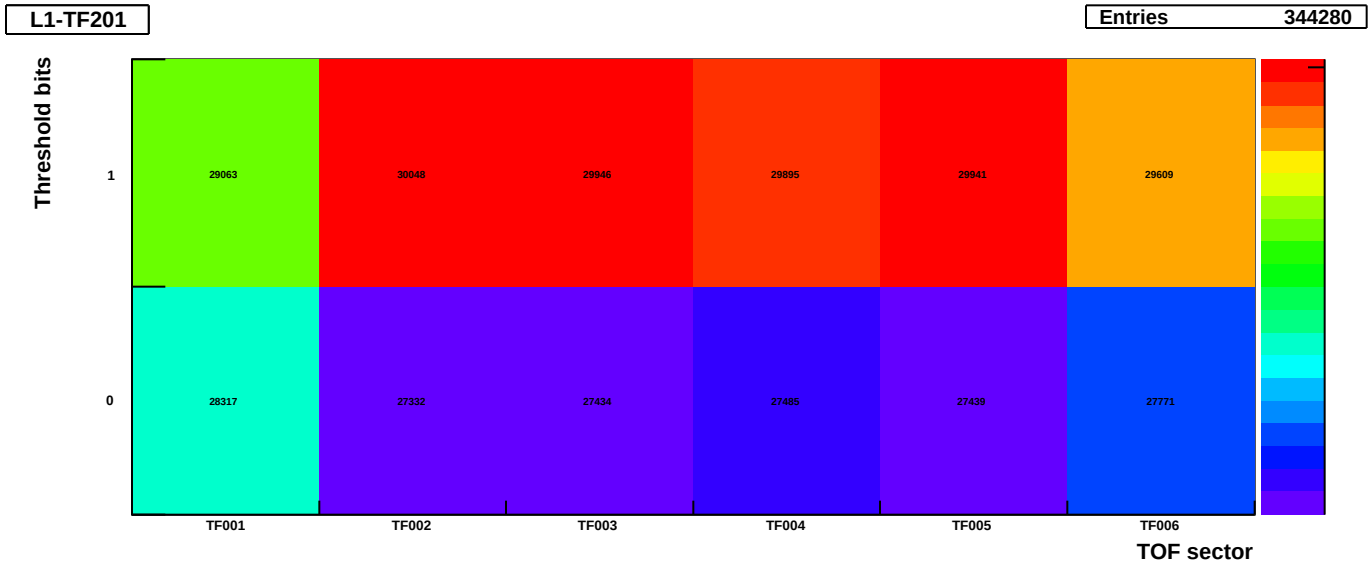

MIX-TF004
Entries 2409960
TOF MULT
TOF tray

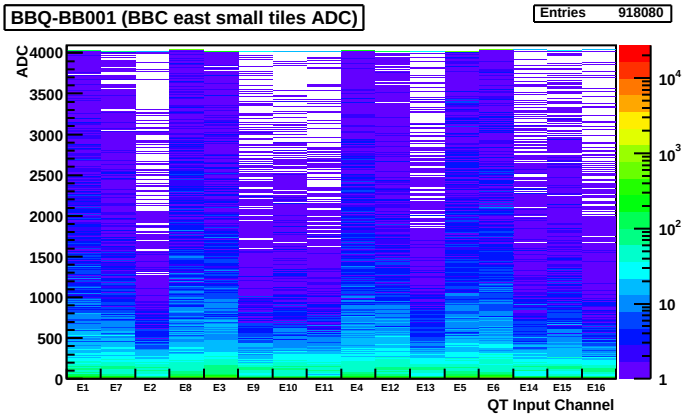

MIX-TF005
Entries 2409960
TOF MULT
TOF tray

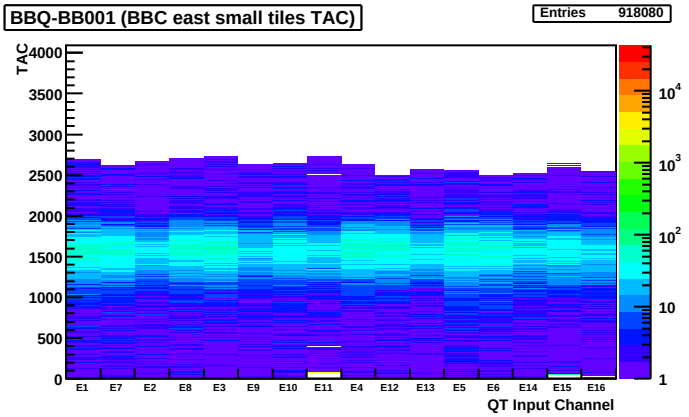

MIX-TF006
Entries 2409960
TOF MULT
TOF tray

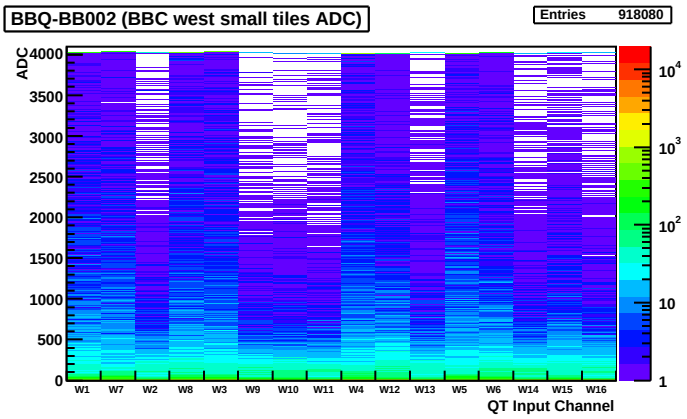

MIX-TF101
Entries 344280
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

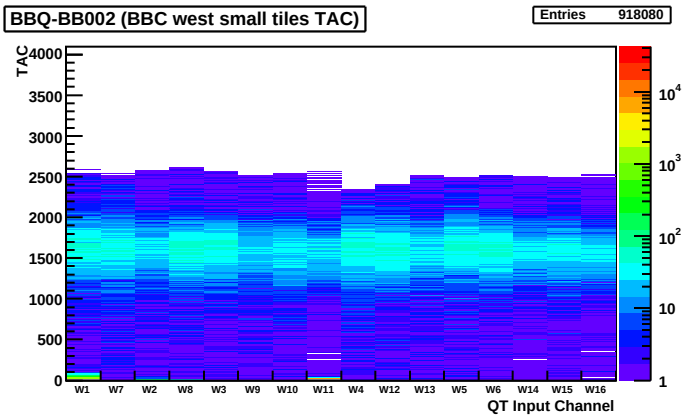

L1-TF201
Entries 57380
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

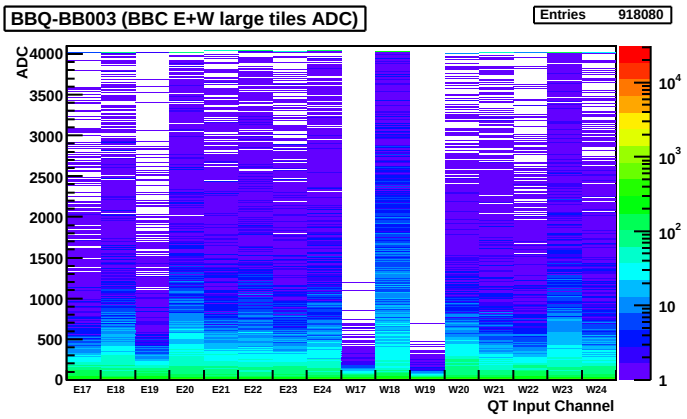

L1-TF201
Entries 344280
Threshold bits
1
0
29063
30048
29946
29895
29941
29609
28317
27332
27434
27485
27439
27771
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

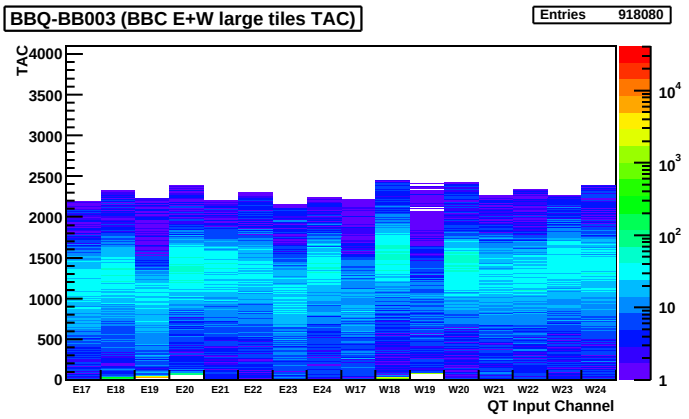

BBQ-BB001 (BBC east small tiles ADC)
Entries 918080
ADC
QT Input Channel

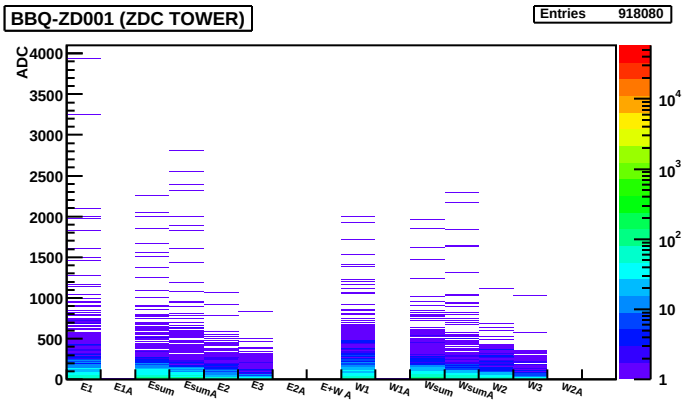

BBQ-BB001 (BBC east small tiles TAC)
Entries 918080
TAC
QT Input Channel

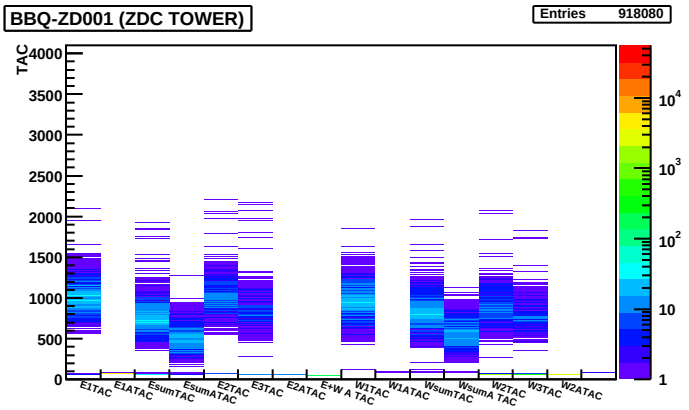

BBQ-BB002 (BBC west small tiles ADC)
Entries 918080
ADC
QT Input Channel

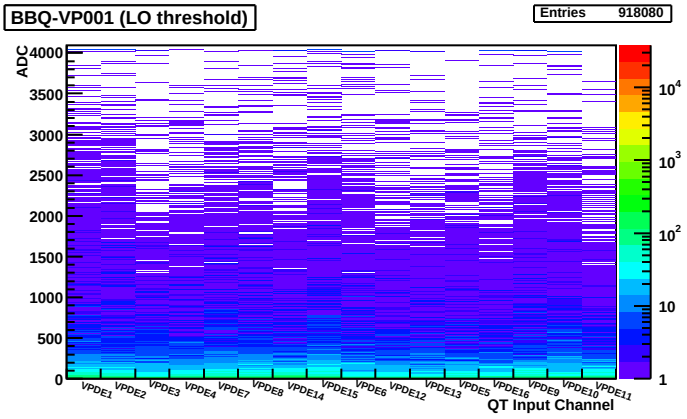

BBQ-BB002 (BBC west small tiles TAC)
Entries 918080
TAC
QT Input Channel

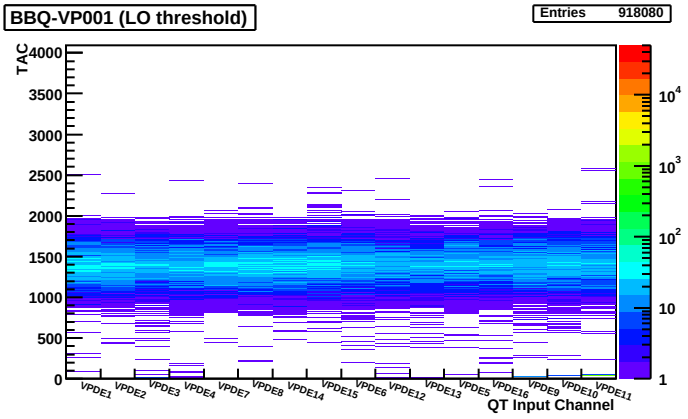

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 918080
ADC
QT Input Channel

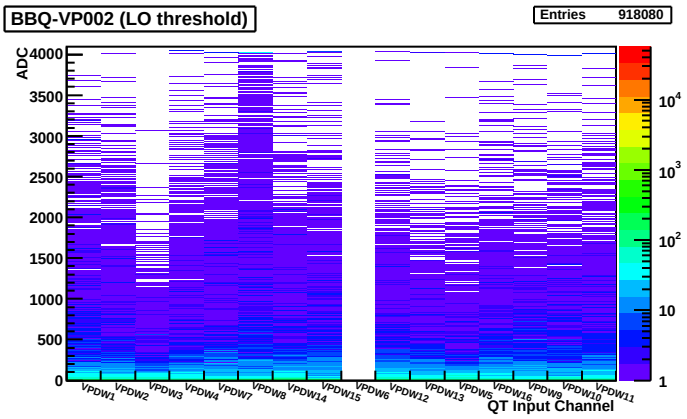

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 918080
TAC
QT Input Channel

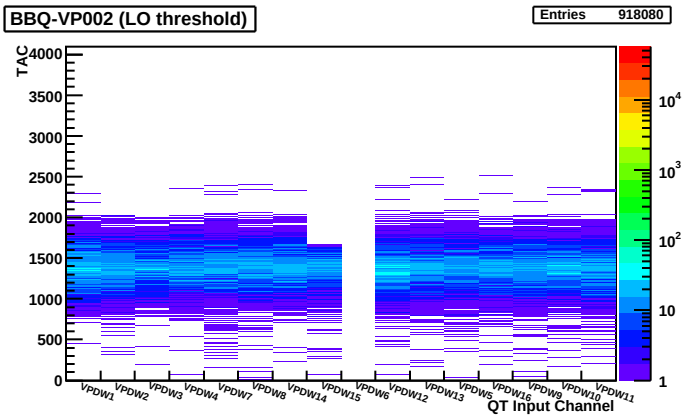

BBQ-ZD001 (ZDC TOWER)
Entries 918080
ADC

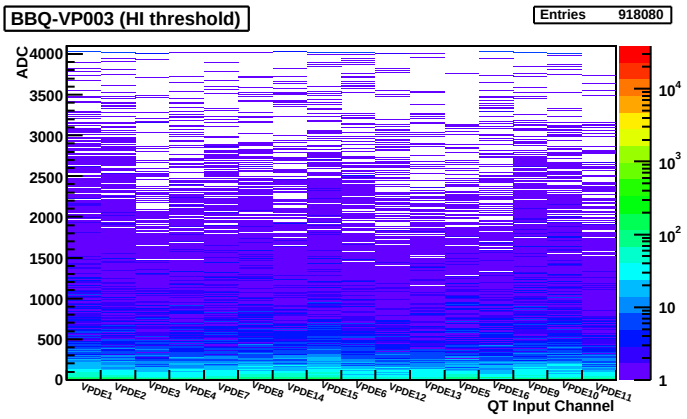

BBQ-ZD001 (ZDC TOWER)
Entries 918080
TAC

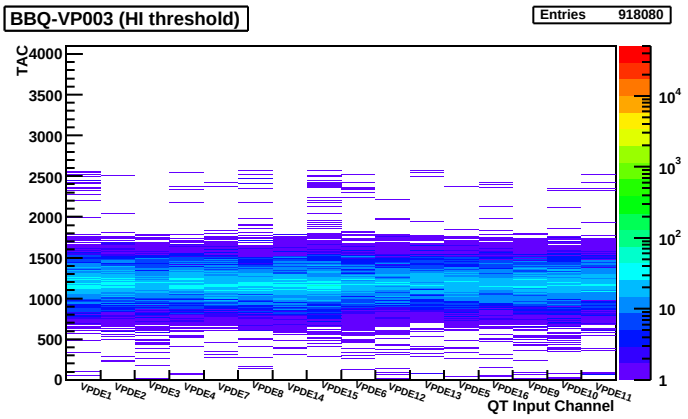

BBQ-VP001 (LO threshold)
Entries 918080
ADC
QT Input Channel

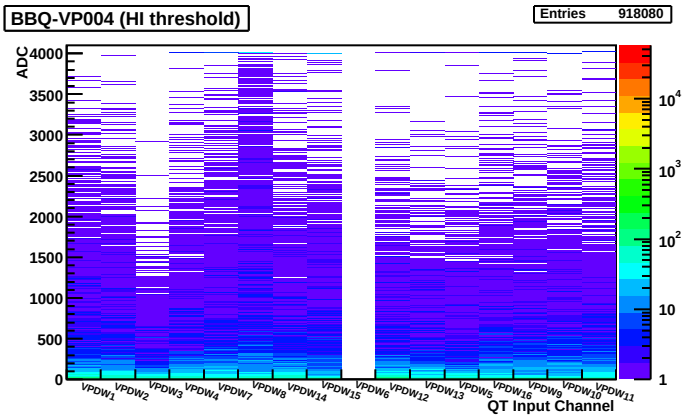

BBQ-VP001 (LO threshold)
Entries 918080
TAC
QT Input Channel

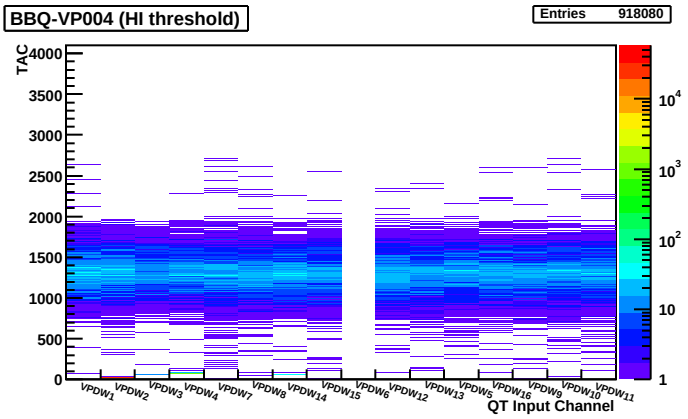

BBQ-VP002 (LO threshold)
Entries 918080
ADC
QT Input Channel

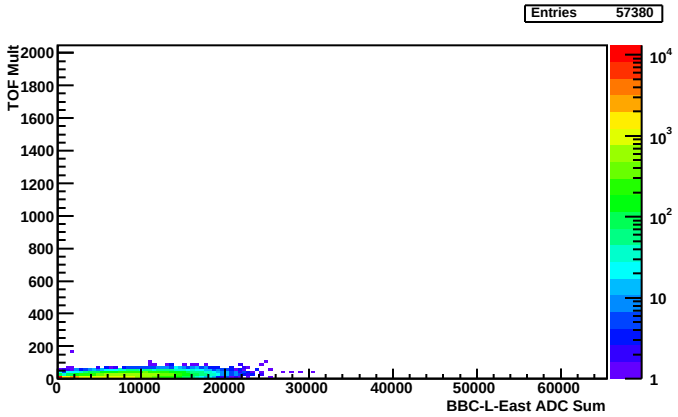

BBQ-VP002 (LO threshold)
Entries 918080
TAC
QT Input Channel

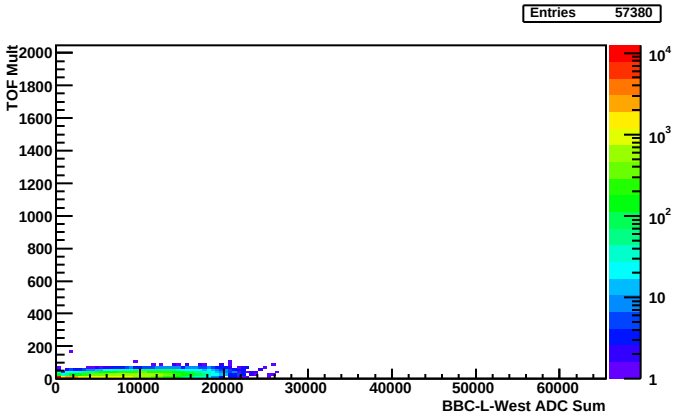

BBQ-VP003 (HI threshold)
Entries 918080
ADC
QT Input Channel

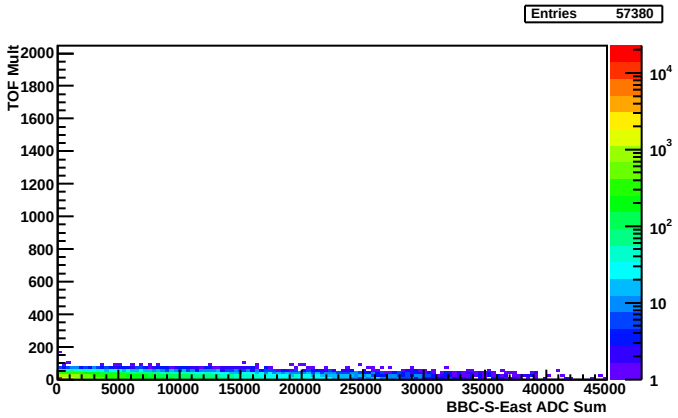

BBQ-VP003 (HI threshold)
Entries 918080
TAC
QT Input Channel

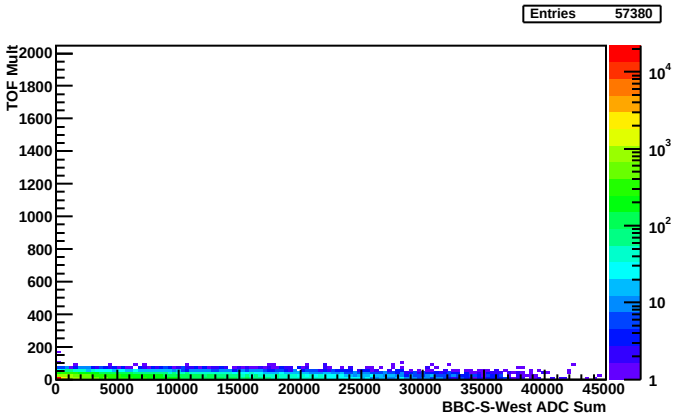

BBQ-VP004 (HI threshold)
Entries 918080
ADC
QT Input Channel

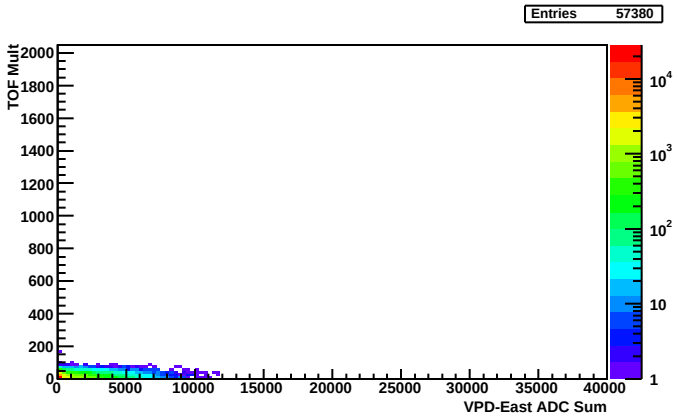

BBQ-VP004 (HI threshold)
Entries 918080
TAC
QT Input Channel

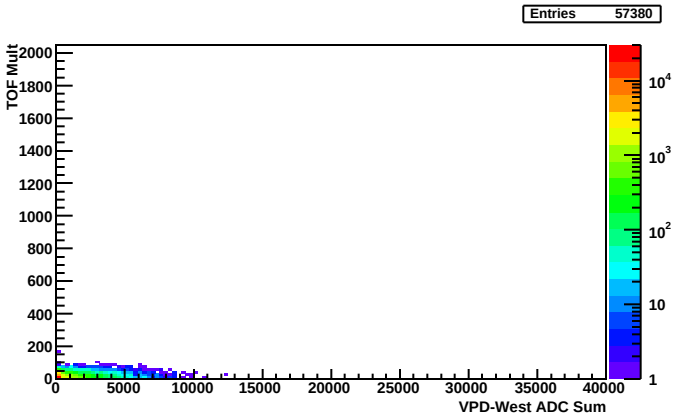

Entries 57380
TOF Mult
BBC-L-East ADC Sum

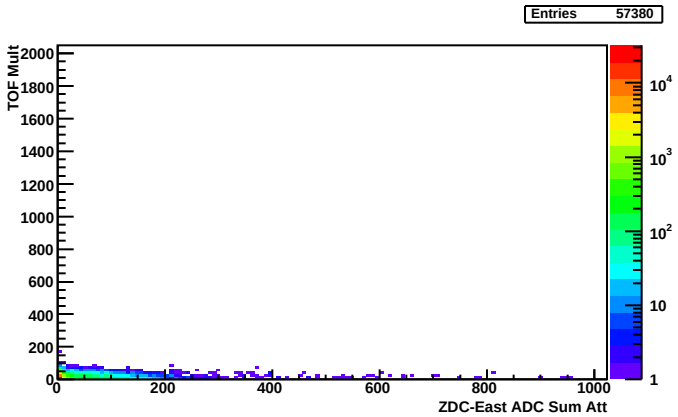

Entries 57380
TOF Mult
BBC-L-West ADC Sum

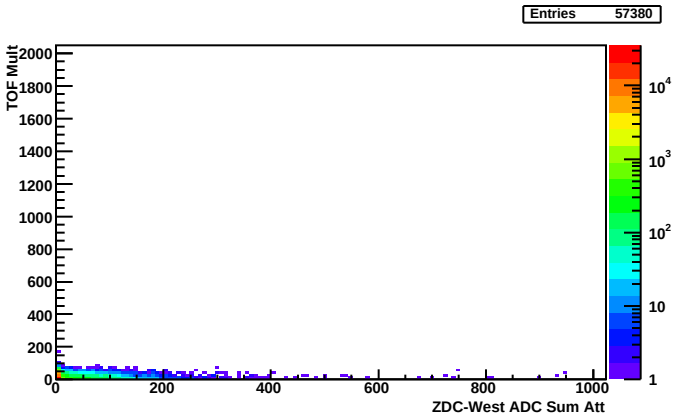

Entries 57380
TOF Mult
BBC-S-East ADC Sum

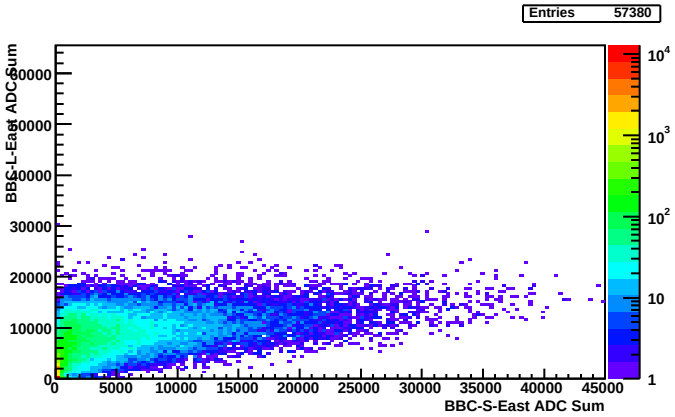

Entries 57380
TOF Mult
BBC-S-West ADC Sum

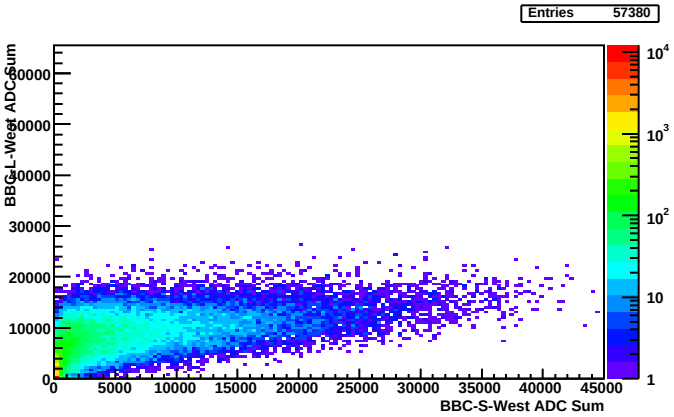

Entries 57380
TOF Mult
VPD-East ADC Sum

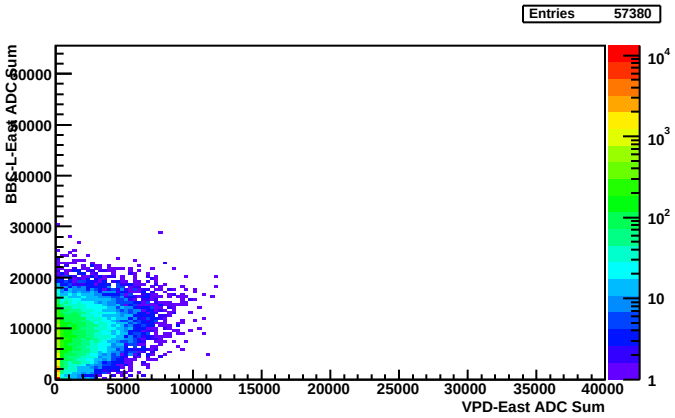

Entries 57380
TOF Mult
VPD-West ADC Sum

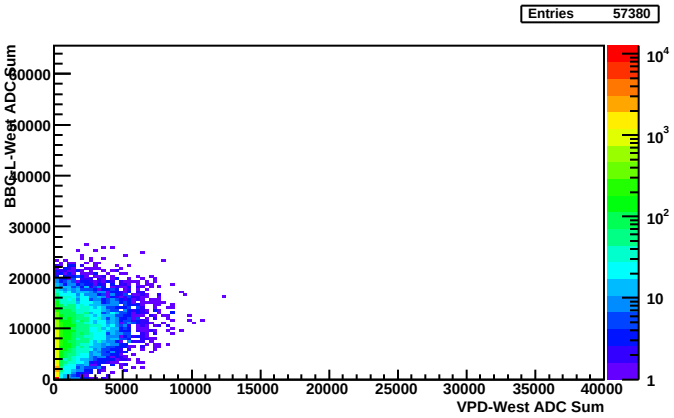

Entries 57380
TOF Mult
ZDC-East ADC Sum Att

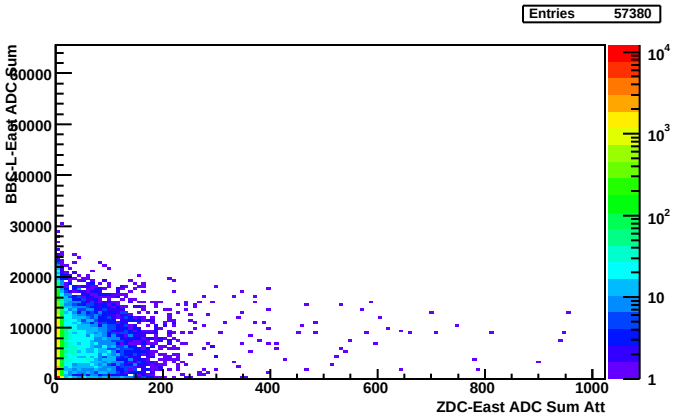

Entries 57380
TOF Mult
ZDC-West ADC Sum Att

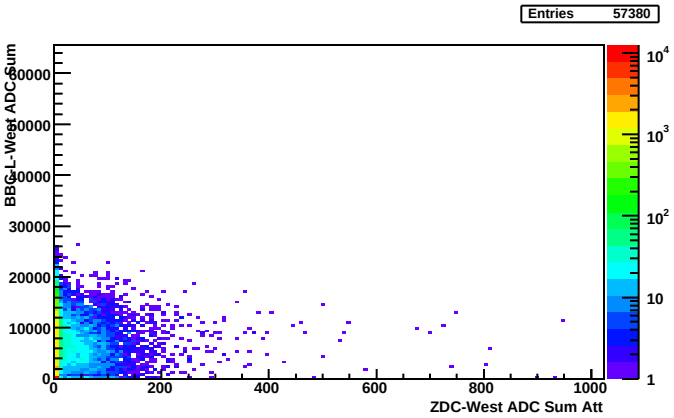

Entries 57380
BBC-L-East ADC Sum
BBC-S-East ADC Sum

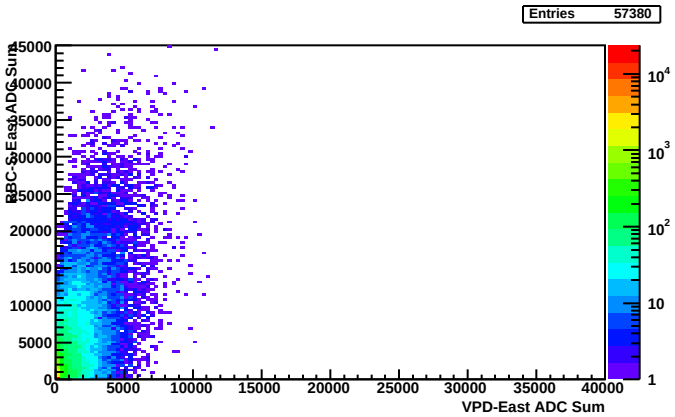

Entries 57380
BBC-L-West ADC Sum
BBC-S-West ADC Sum

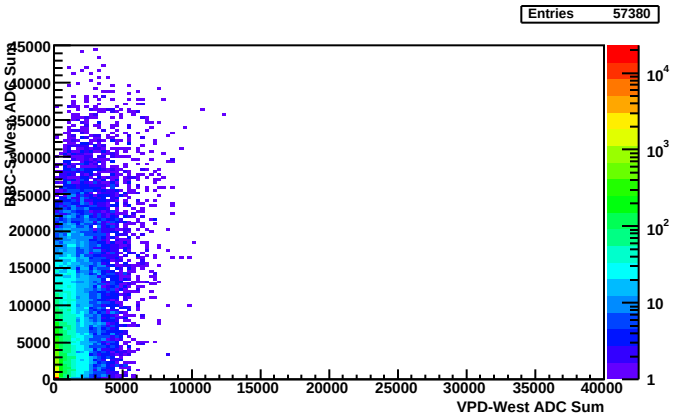

Entries 57380
BBC-L-East ADC Sum
VPD-East ADC Sum

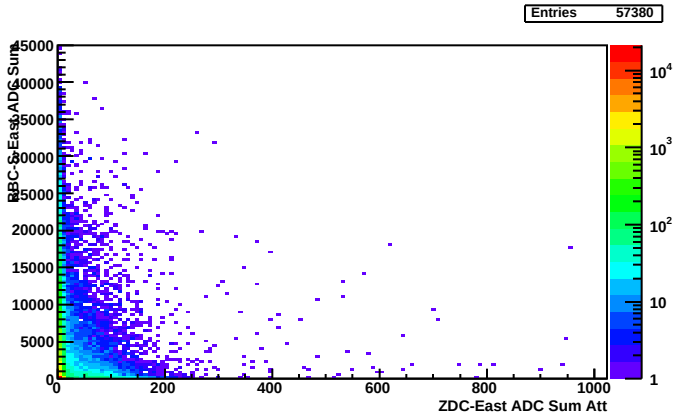

Entries 57380
BBC-L-West ADC Sum
VPD-West ADC Sum

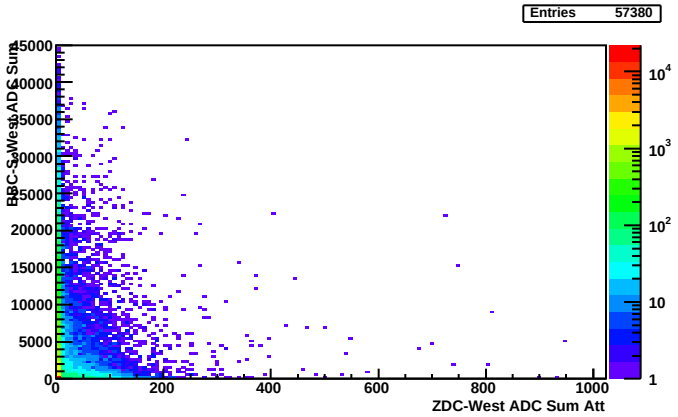

Entries 57380
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

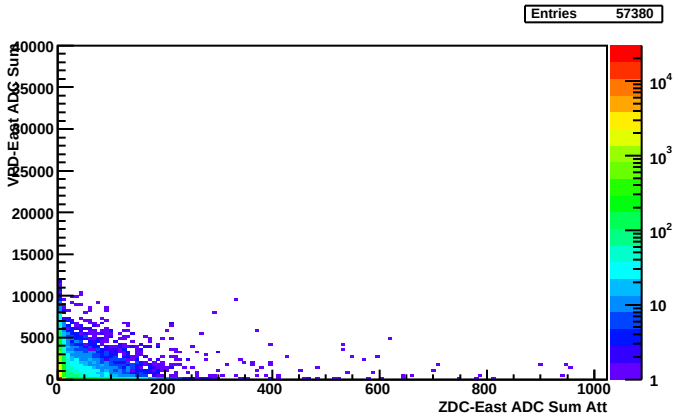

Entries 57380
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

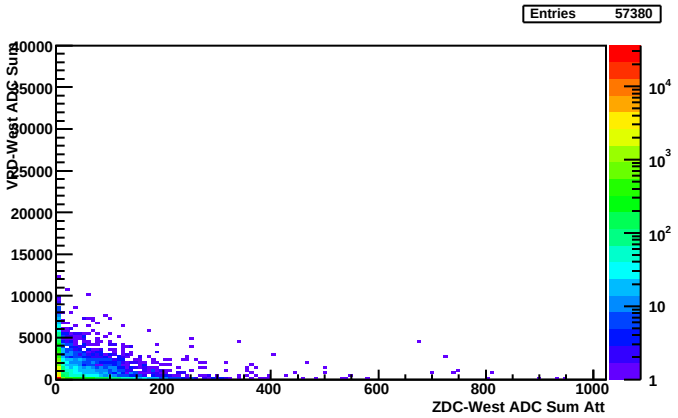

Entries 57380
BBC-S-East ADC Sum
VPD-East ADC Sum

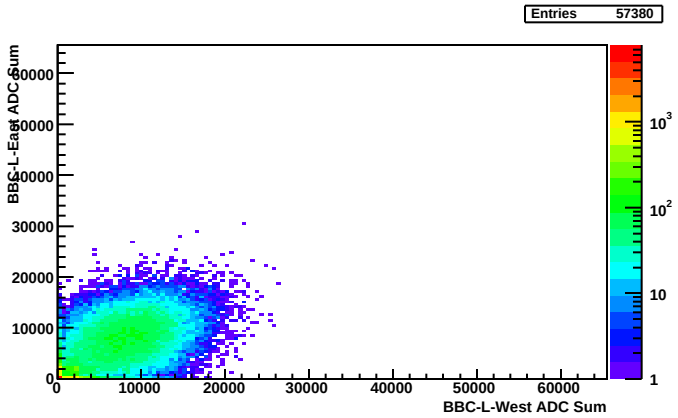

Entries 57380
BBC-S-West ADC Sum
VPD-West ADC Sum

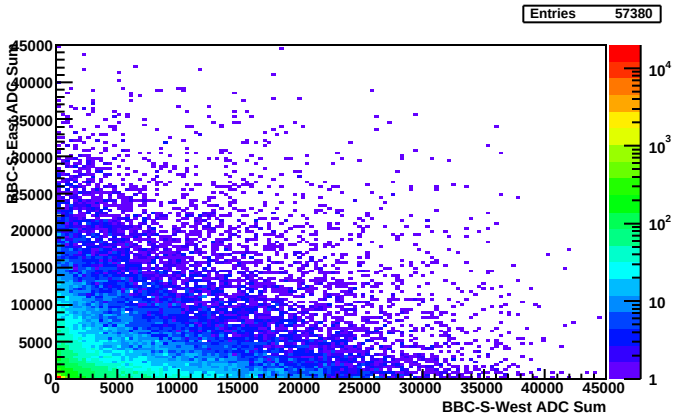

Entries 57380
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

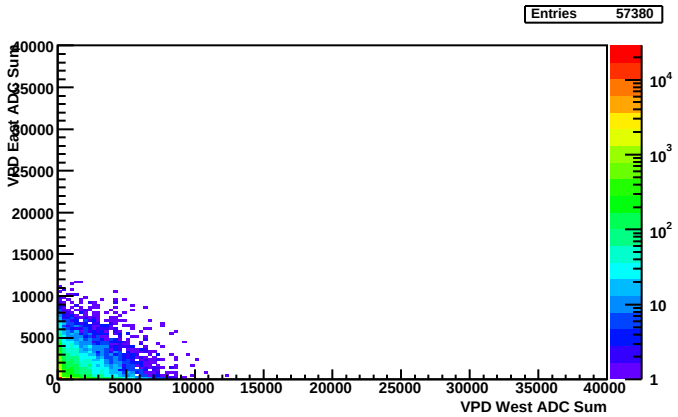

Entries 57380
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

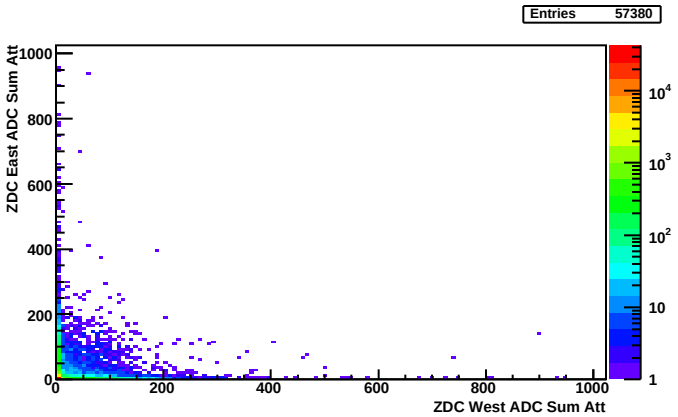

Entries 57380
VPD-East ADC Sum
ZDC-East ADC Sum Att

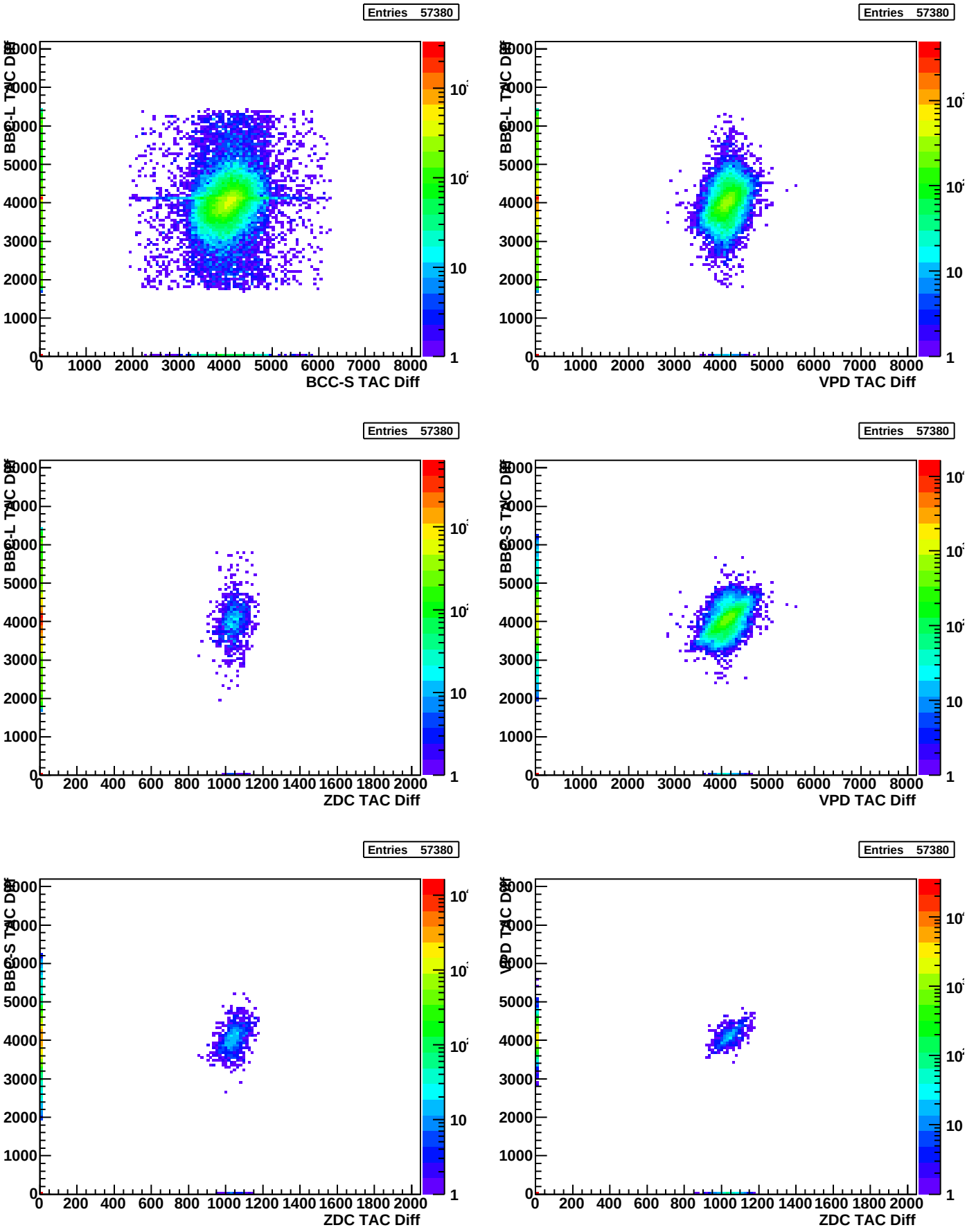

Entries 57380
VPD-West ADC Sum
ZDC-West ADC Sum Att

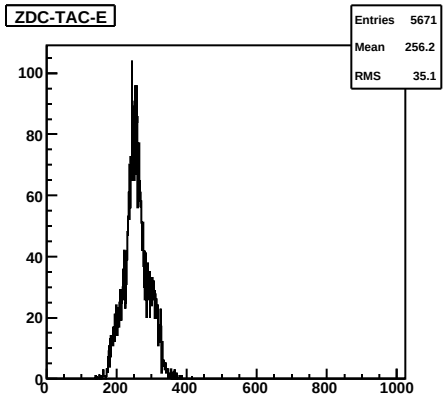

Entries 57380
BBC-L-East ADC Sum
BBC-L-West ADC Sum

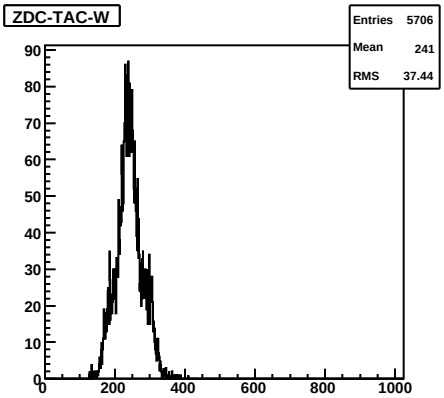

Entries 57380
BBC-S-East ADC Sum
BBC-S-West ADC Sum

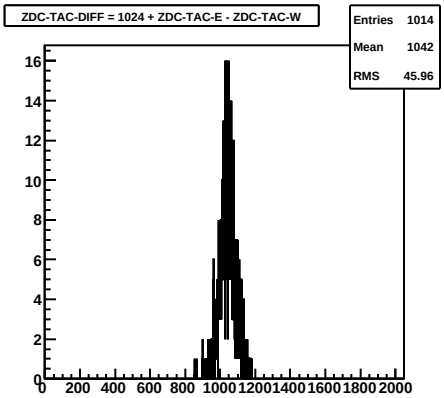

Entries 57380
VPD East ADC Sum
VPD West ADC Sum

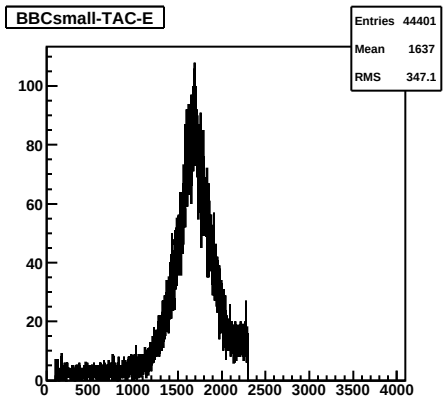

Entries 57380
ZDC East ADC Sum Att
ZDC West ADC Sum Att

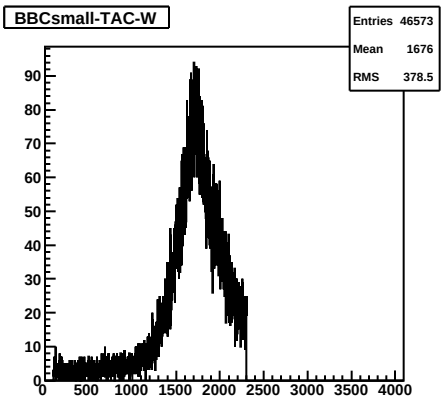

Entries 57380
BBC-L TAC Diff
BCC-S TAC Diff
Entries 57380
BBC-L TAC Diff
VPD TAC Diff
Entries 57380
BBC-L TAC Diff
ZDC TAC Diff
Entries 57380
BBC-S TAC Diff
VPD TAC Diff
Entries 57380
BBC-S TAC Diff
ZDC TAC Diff
Entries 57380
VPD TAC Diff
ZDC TAC Diff

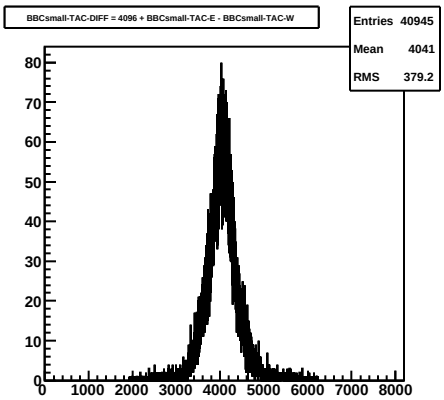

ZDC-TAC-E
Entries 5671
Mean 256.2
RMS 35.1

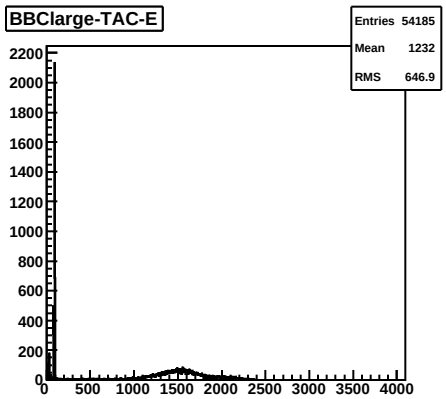

ZDC-TAC-W
Entries 5706
Mean 241
RMS 37.44

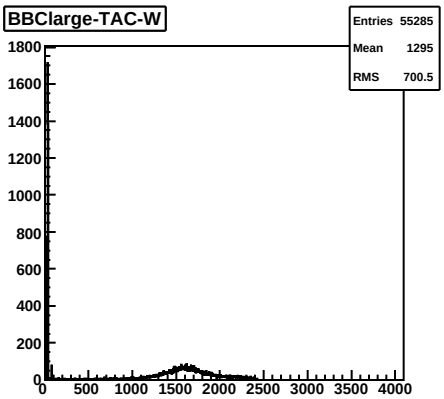

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1014
Mean 1042
RMS 45.96

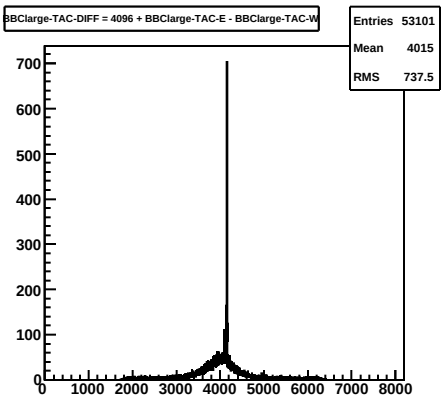

BBCsmall-TAC-E
Entries 44401
Mean 1637
RMS 347.1

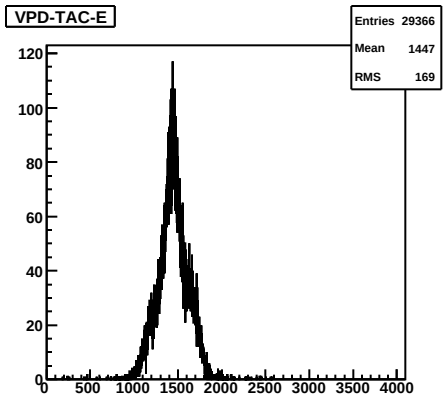

BBCsmall-TAC-W
Entries 46573
Mean 1676
RMS 378.5

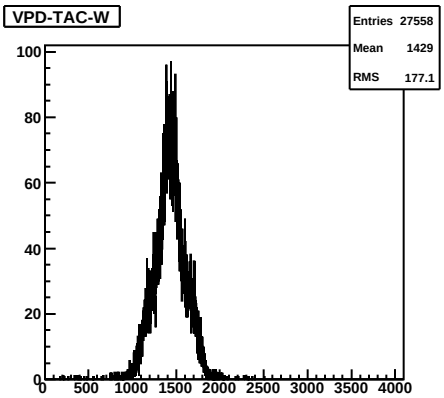

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 40945
Mean 4041
RMS 379.2

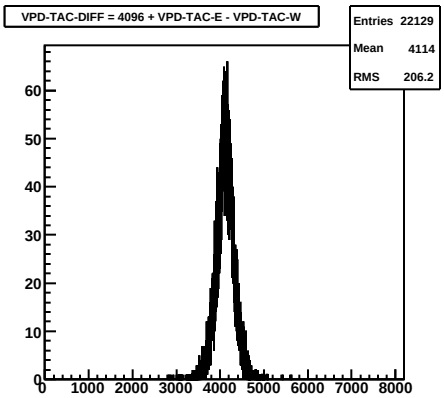

BBClarge-TAC-E
Entries 54185
Mean 1232
RMS 646.9

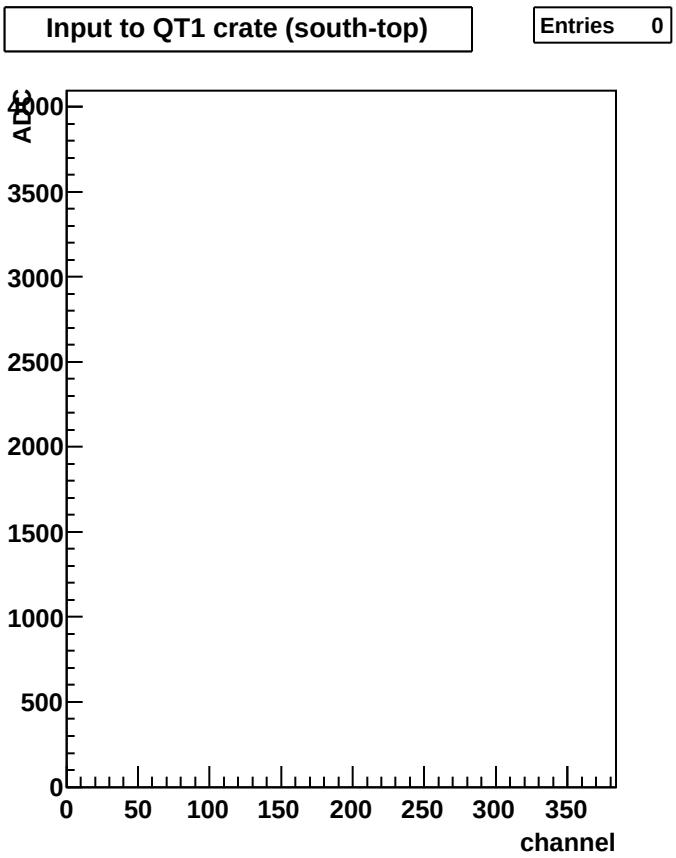

BBClarge-TAC-W
Entries 55285
Mean 1295
RMS 700.5

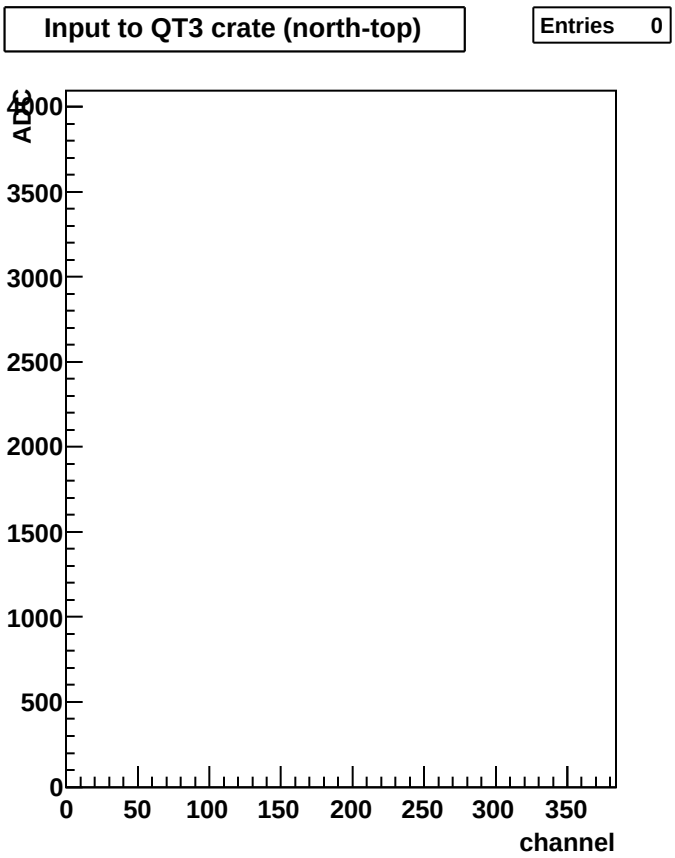

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 53101
Mean 4015
RMS 737.5

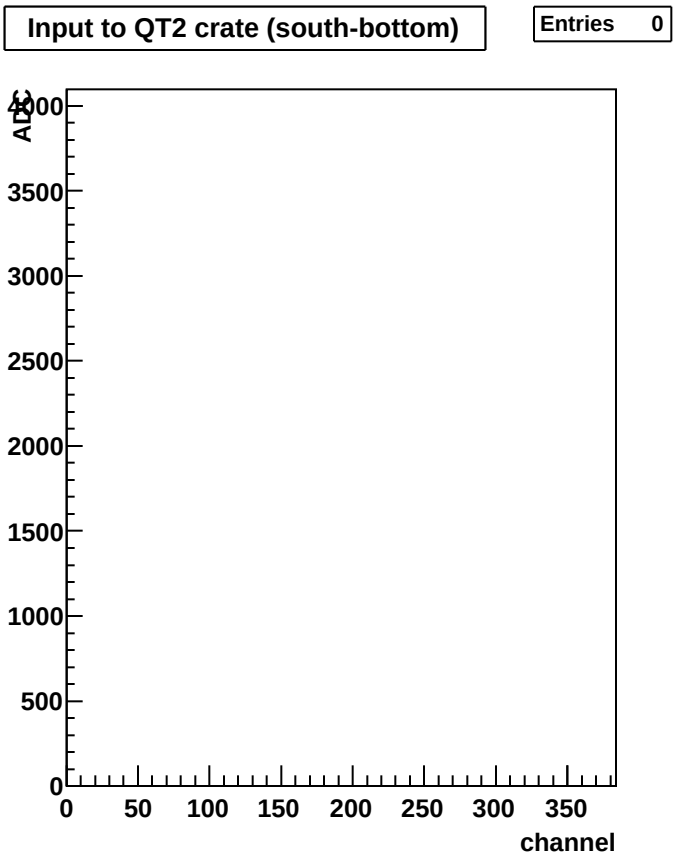

VPD-TAC-E
Entries 29366
Mean 1447
RMS 169

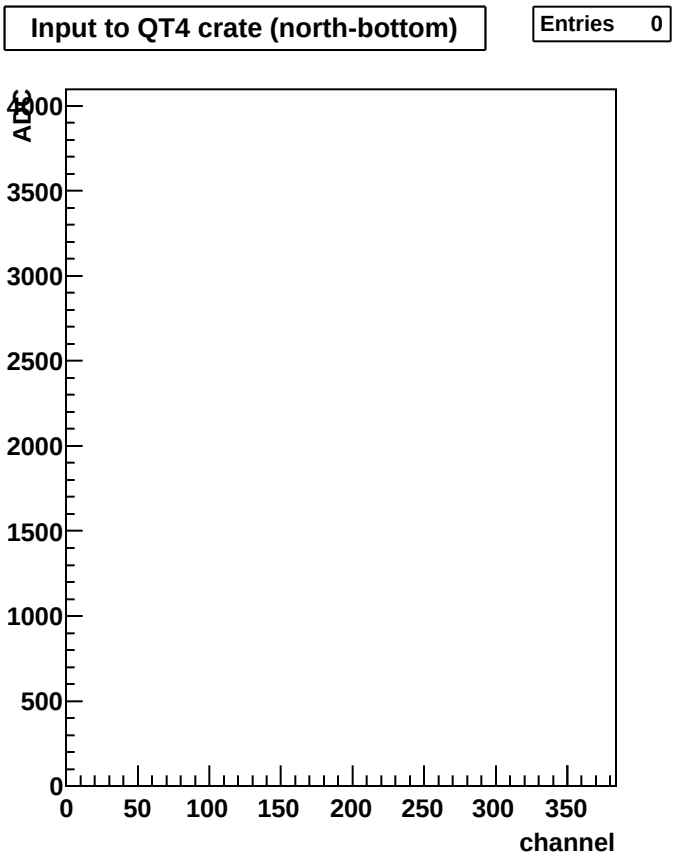

VPD-TAC-W
Entries 27558
Mean 1429
RMS 177.1

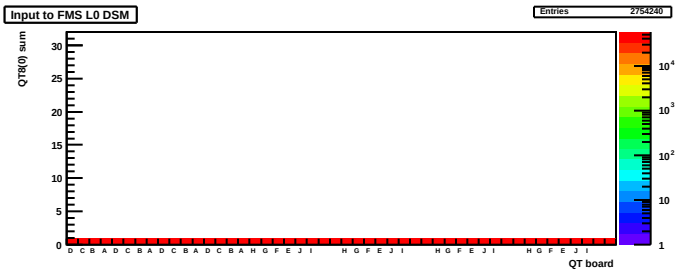

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 22129
Mean 4114
RMS 206.2

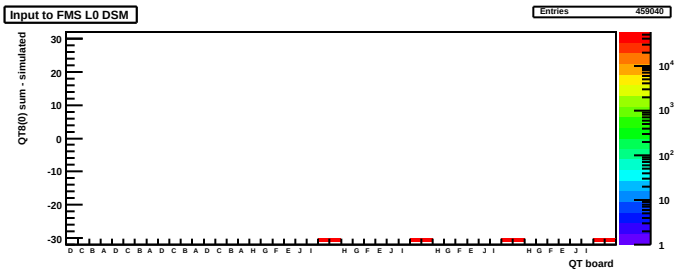

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

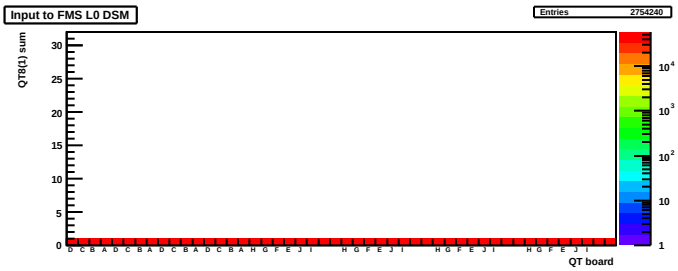

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

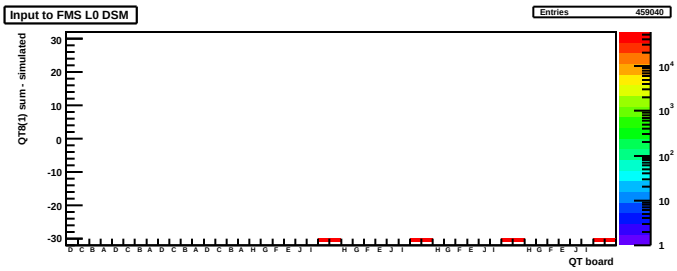

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

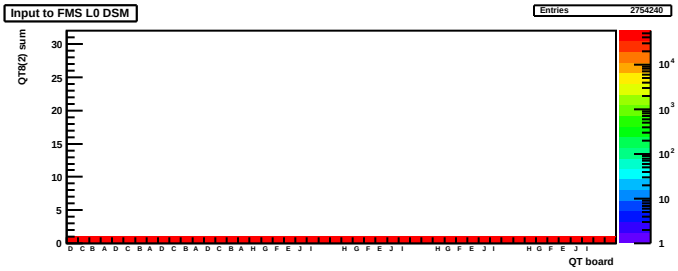

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

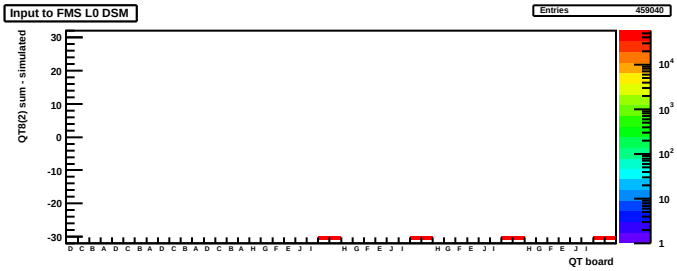

Input to FMS L0 DSM
Entries 2754240
QT8(0) sum
QT board

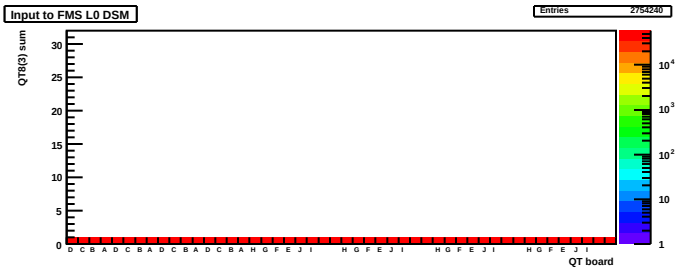

Input to FMS L0 DSM
Entries 459040
QT8(0) sum - simulated
QT board

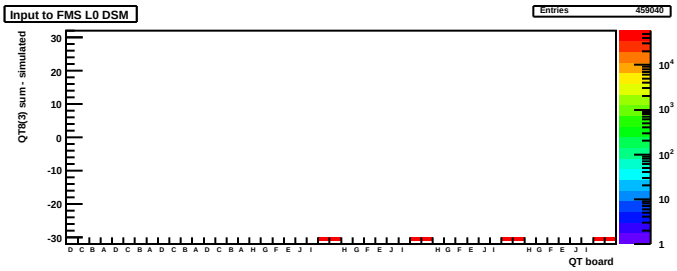

Input to FMS L0 DSM
Entries 2754240
QT8(1) sum
QT board

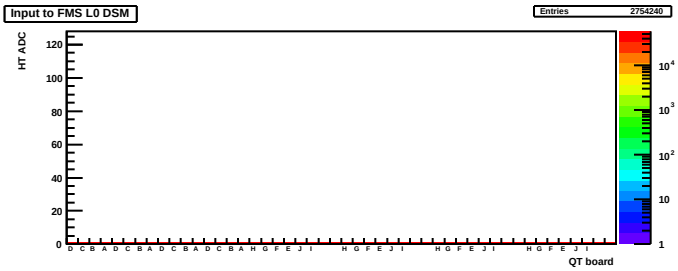

Input to FMS L0 DSM
Entries 459040
QT8(1) sum - simulated
QT board

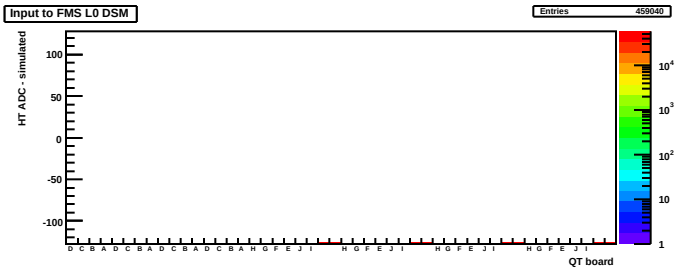

Input to FMS L0 DSM
Entries 2754240
QT8(2) sum
QT board

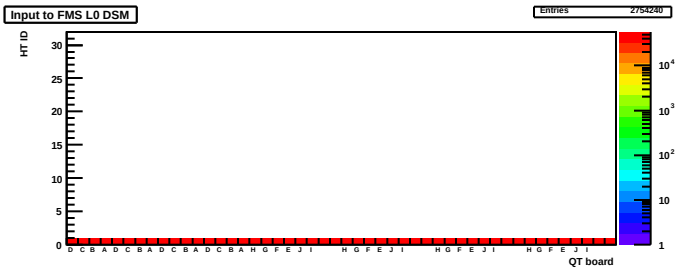

Input to FMS L0 DSM
Entries 459040
QT8(2) sum - simulated
QT board

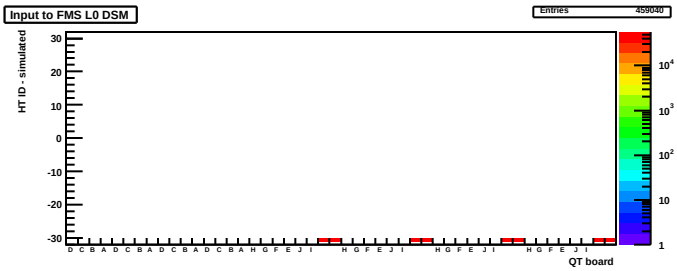

Input to FMS L0 DSM
Entries 2754240
QT8(3) sum
QT board

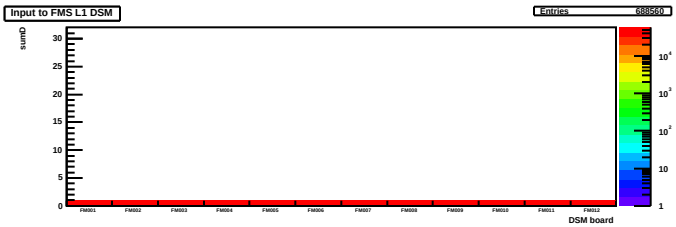

Input to FMS L0 DSM
Entries 459040
QT8(3) sum - simulated
QT board

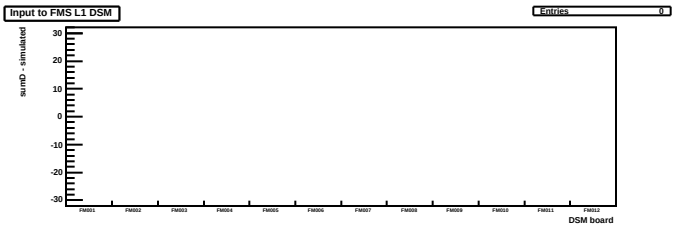

Input to FMS L0 DSM
Entries 2754240
HT ADC
QT board

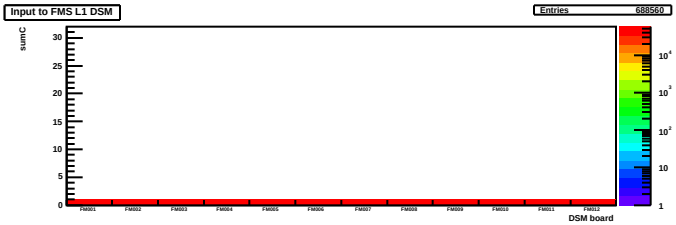

Input to FMS L0 DSM
Entries 459040
HT ADC - simulated
QT board

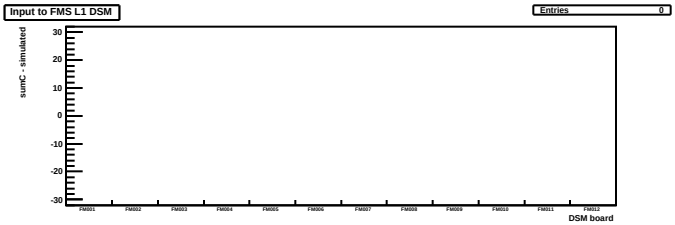

Input to FMS L0 DSM
Entries 2754240
HT ID
QT board

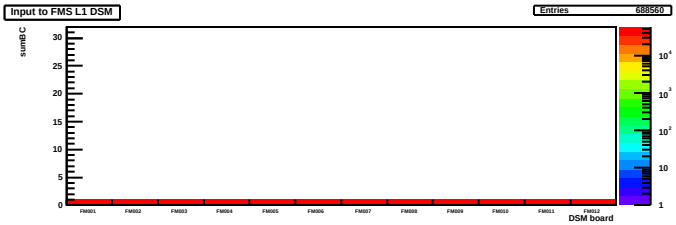

Input to FMS L0 DSM
Entries 459040
HT ID - simulated
QT board

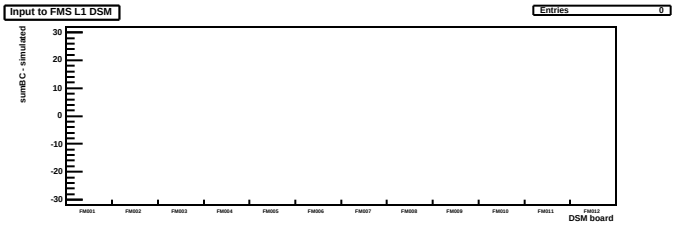

Input to FMS L1 DSM
Entries 688560
sumD
DSM board

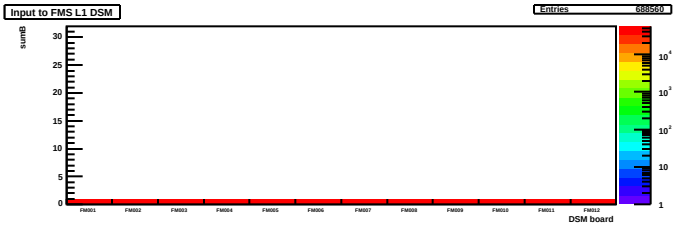

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

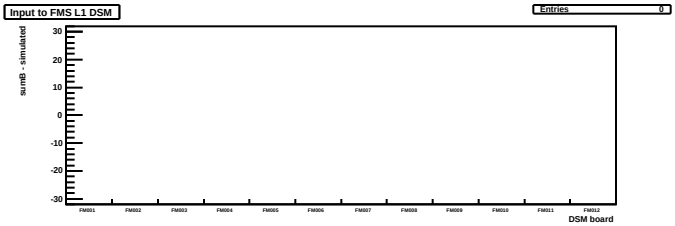

Input to FMS L1 DSM
Entries 688560
sumC
DSM board

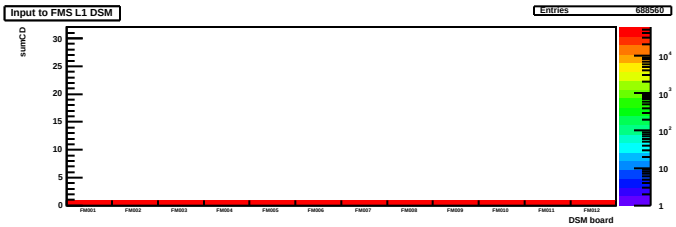

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

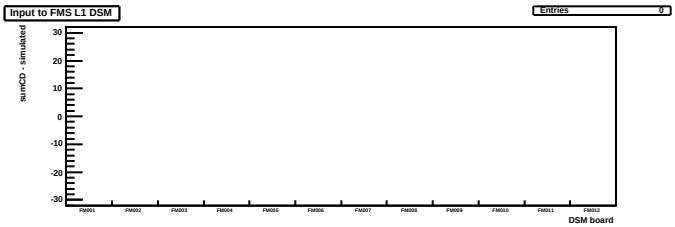

Input to FMS L1 DSM
Entries 688560
sumBC
DSM board

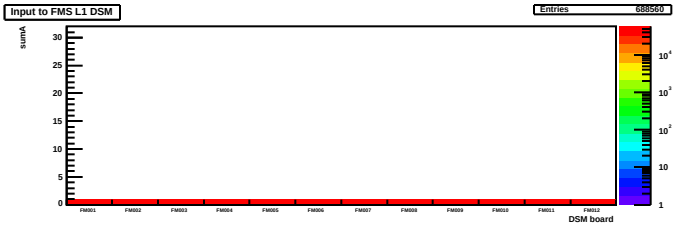

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

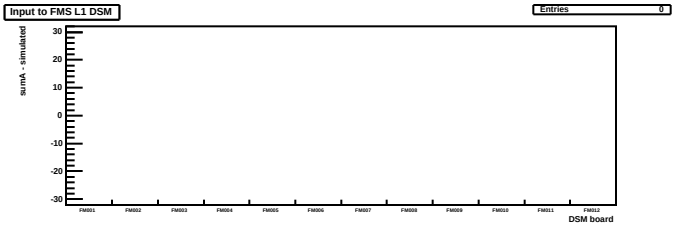

Input to FMS L1 DSM
Entries 688560
sumB
DSM board

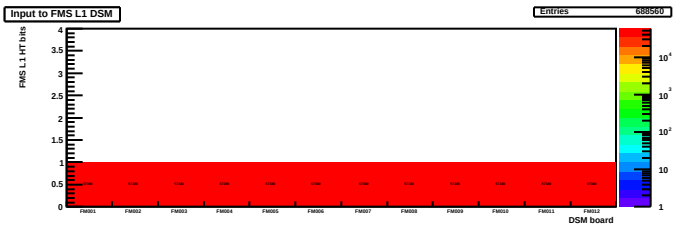

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

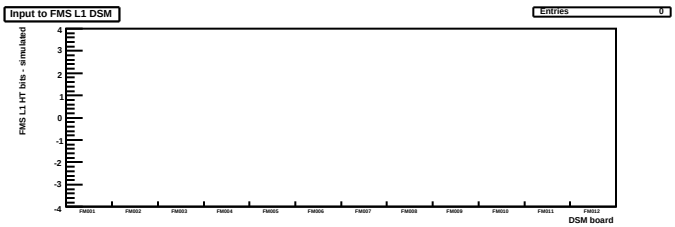

Input to FMS L1 DSM
Entries 688560
sumCD
DSM board

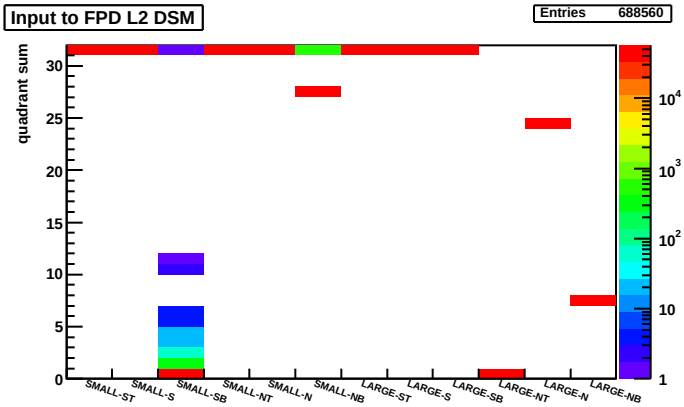

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

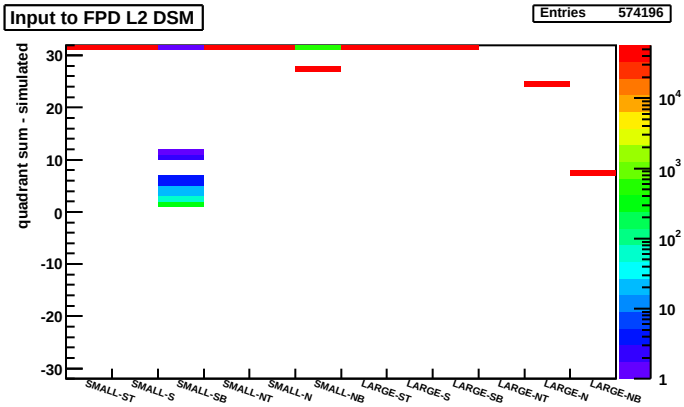

Input to FMS L1 DSM
Entries 688560
sumA
DSM board

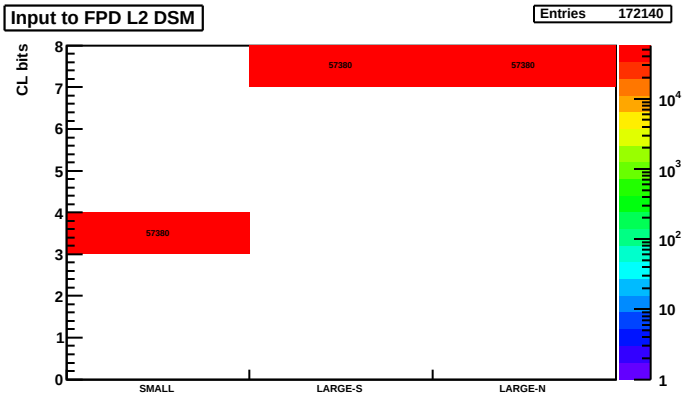

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

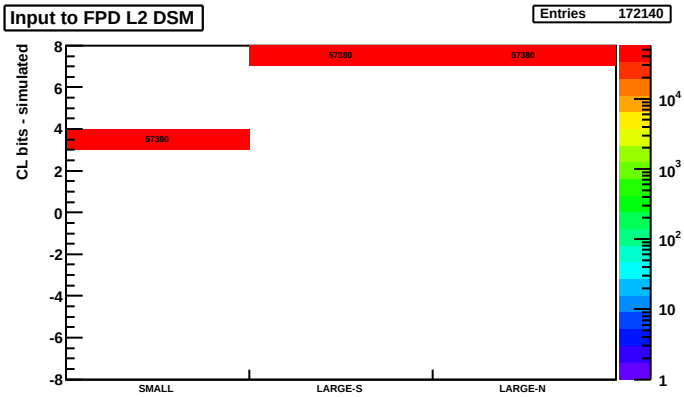

Input to FMS L1 DSM
Entries 688560
FMS L1 HT bits
DSM board

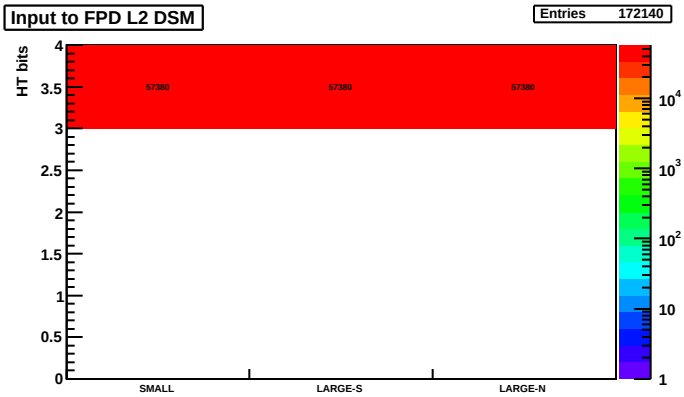

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

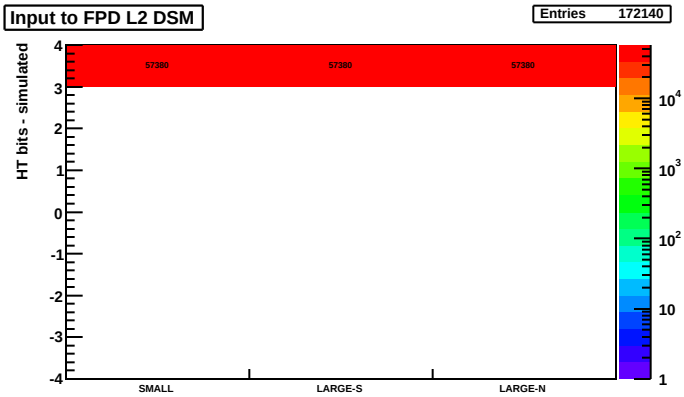

Input to FPD L2 DSM
Entries 688560
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

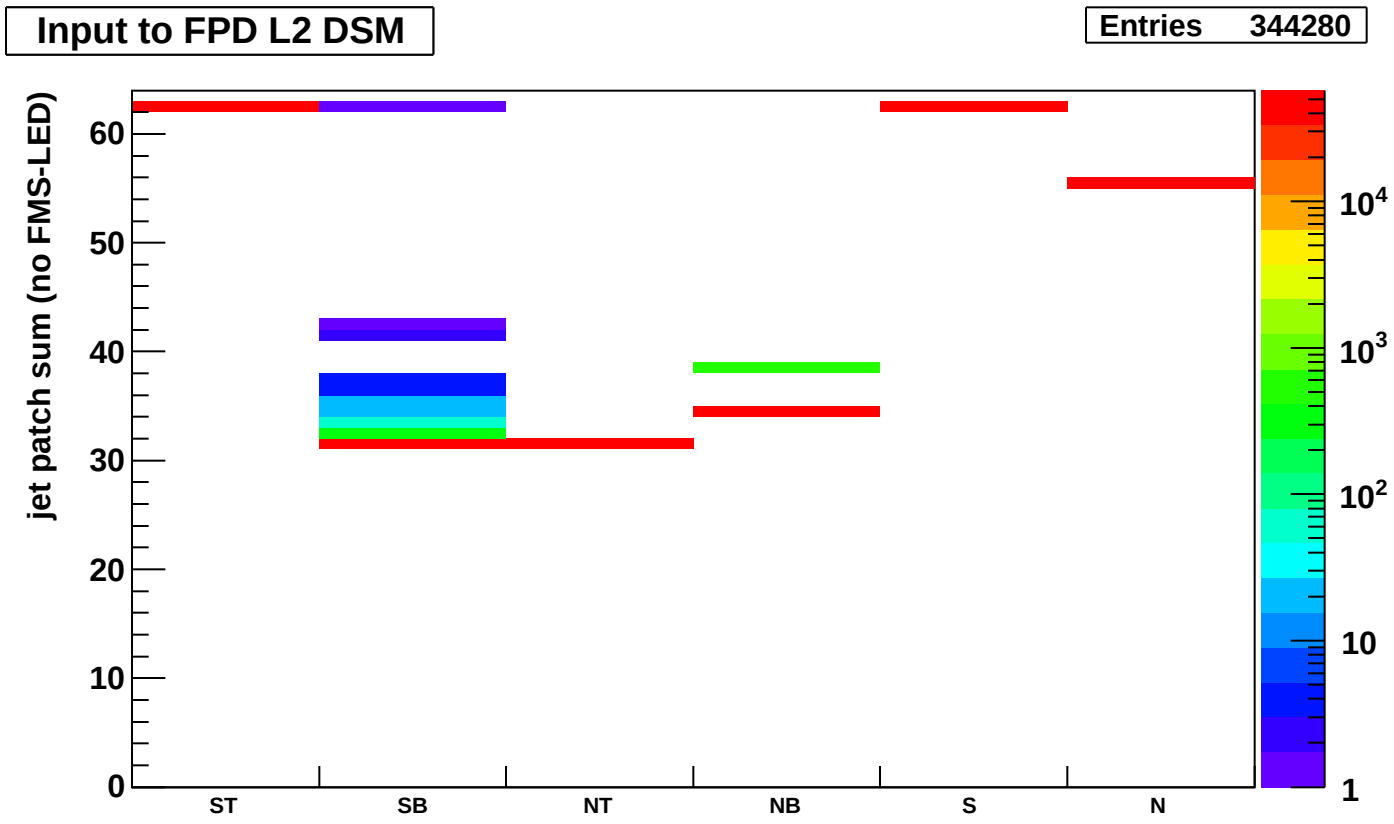

Input to FPD L2 DSM
Entries 574196
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

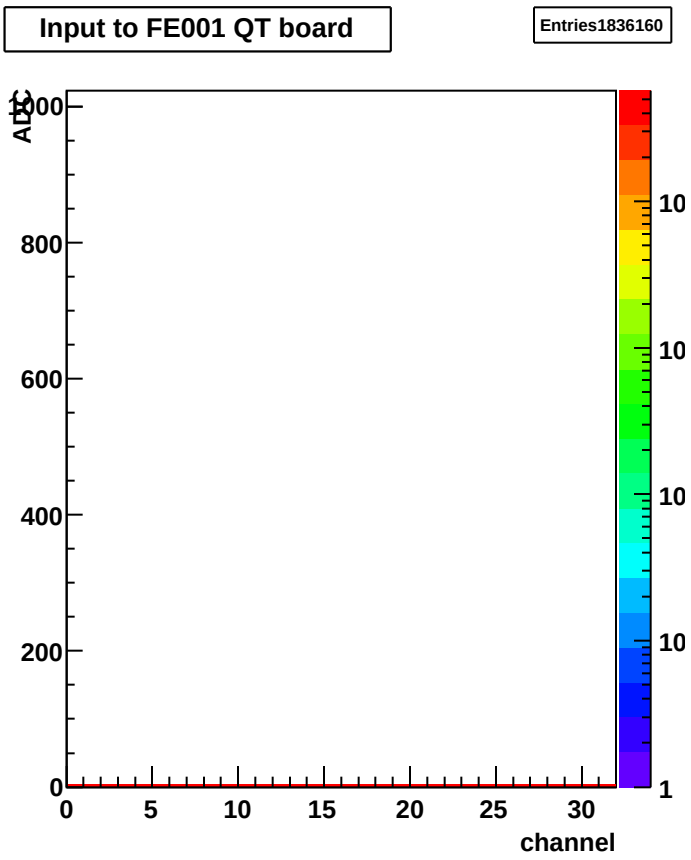

Input to FPD L2 DSM
Entries 172140
CL bits
57380
57380
57380
SMALL
LARGE-S
LARGE-N

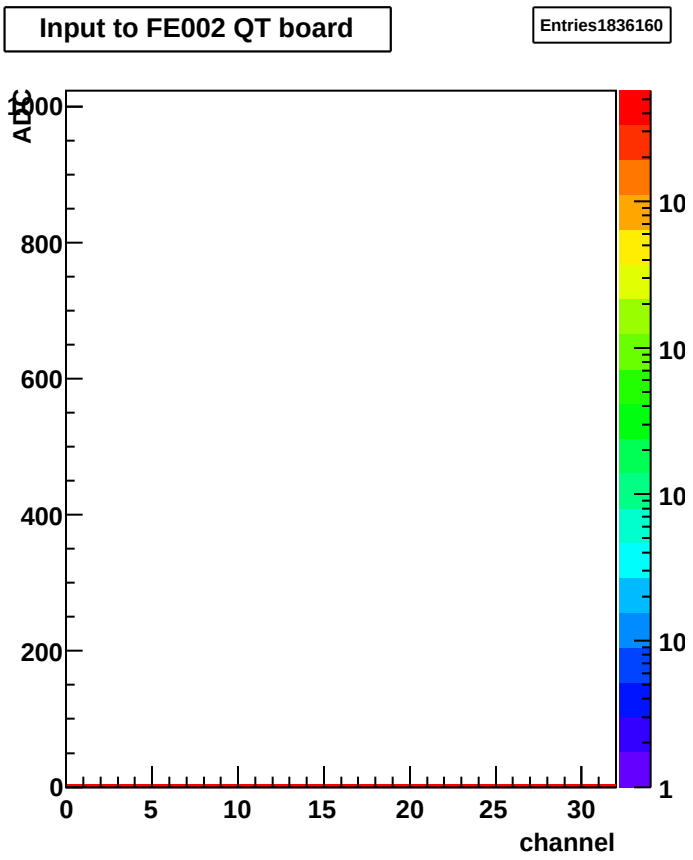

Input to FPD L2 DSM
Entries 172140
CL bits - simulated
57380
57380
57380
SMALL
LARGE-S
LARGE-N

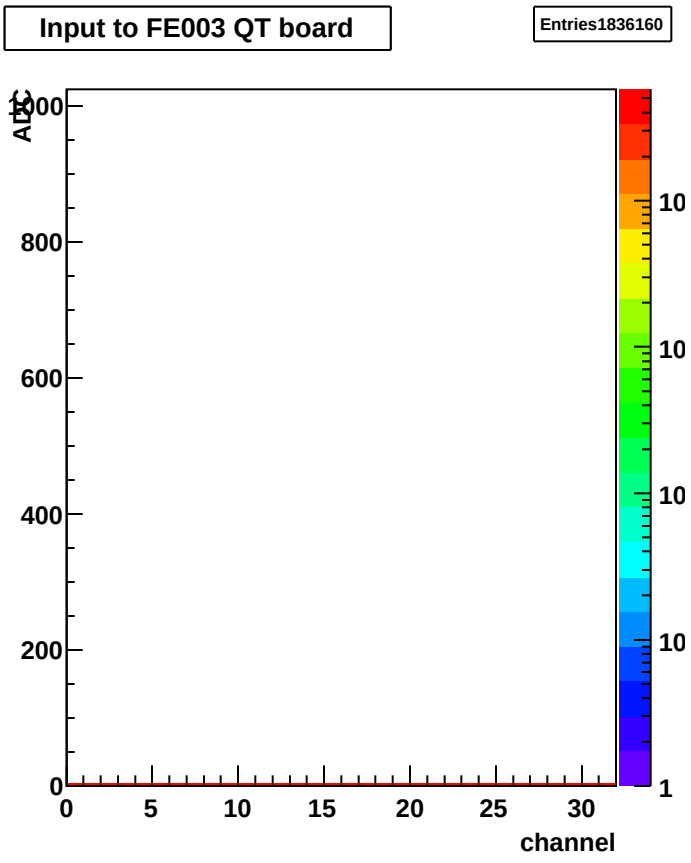

Input to FPD L2 DSM
Entries 172140
HT bits
57380
57380
57380
SMALL
LARGE-S
LARGE-N

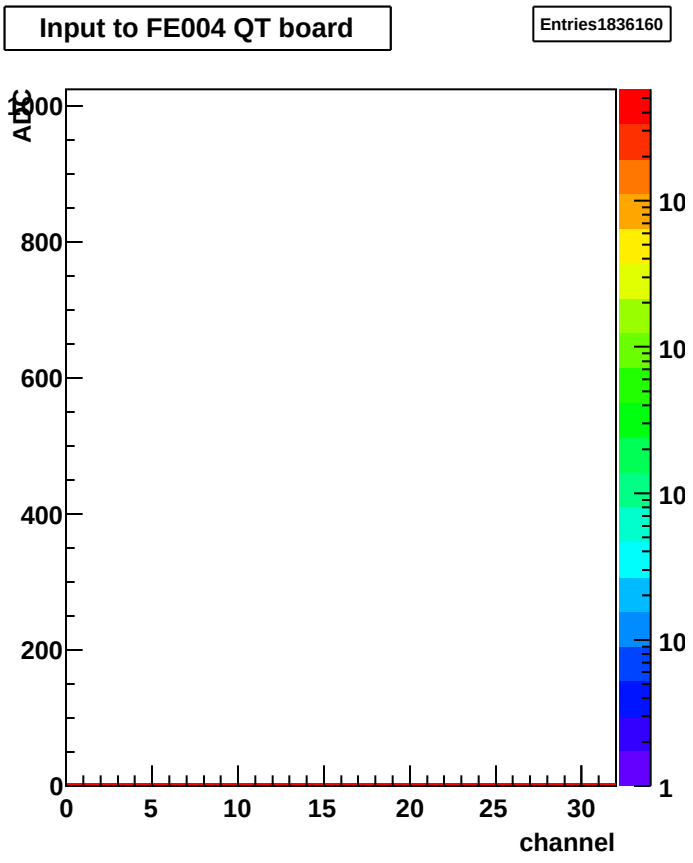

Input to FPD L2 DSM
Entries 172140
HT bits - simulated
57380
57380
57380
SMALL
LARGE-S
LARGE-N

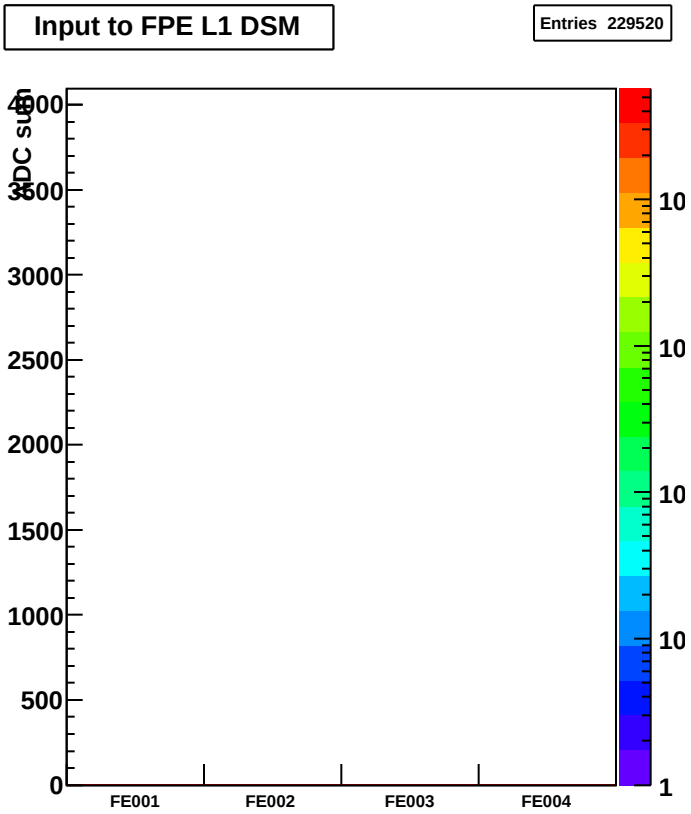

Input to FPD L2 DSM
Entries 344280
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

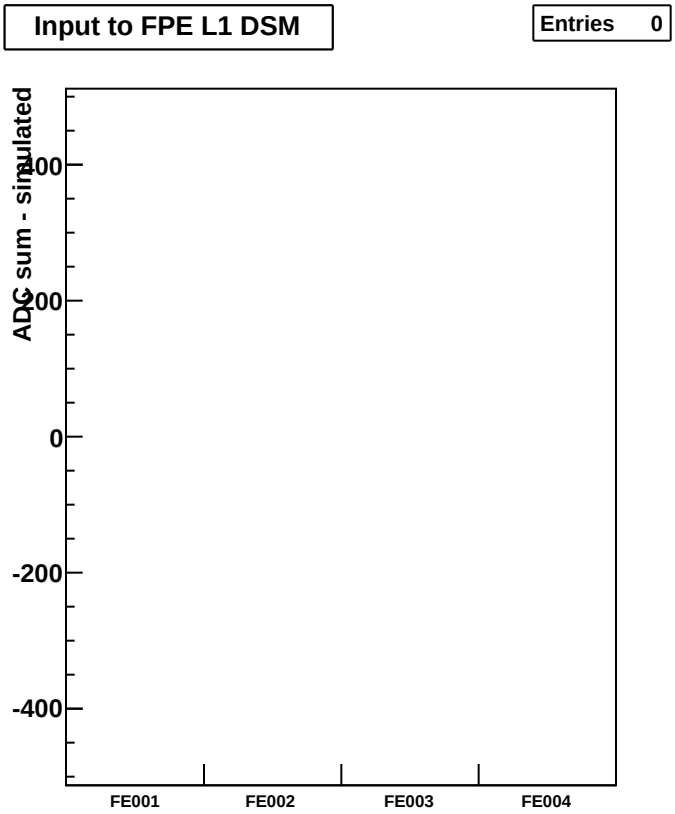

Input to FE001 QT board
Entries1836160
ADC
channel

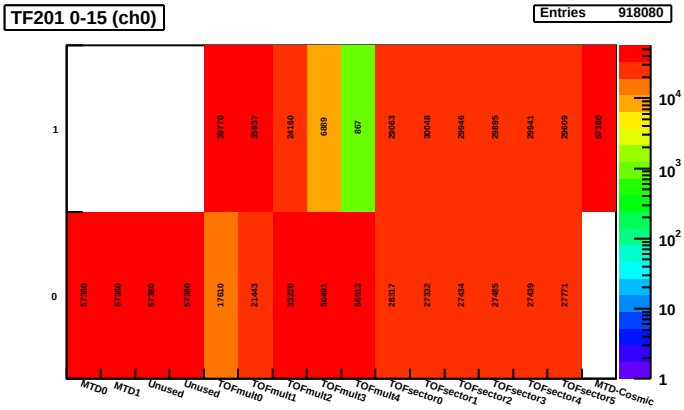

Input to FE002 QT board
Entries1836160
ADC
channel

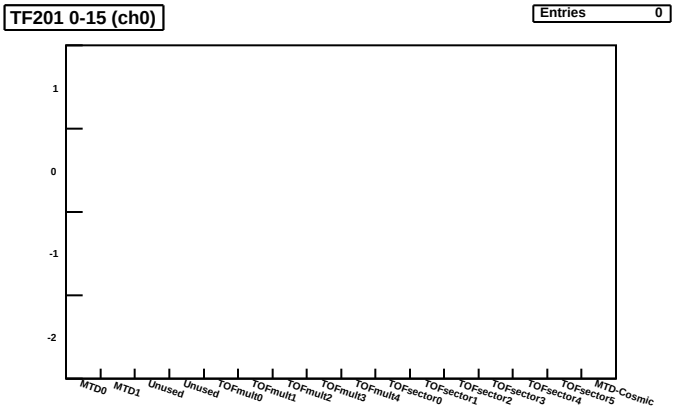

Input to FE003 QT board
Entries1836160
ADC
channel

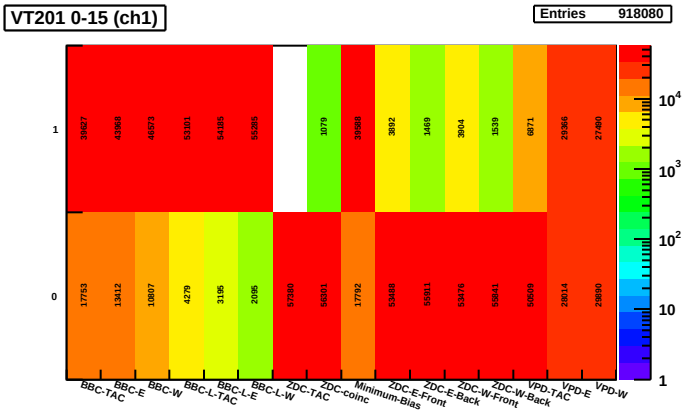

Input to FE004 QT board
Entries1836160
ADC
channel

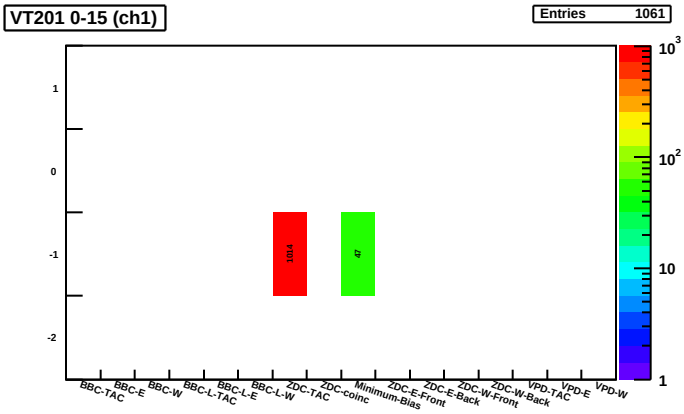

Input to FPE L1 DSM
Entries 229520
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

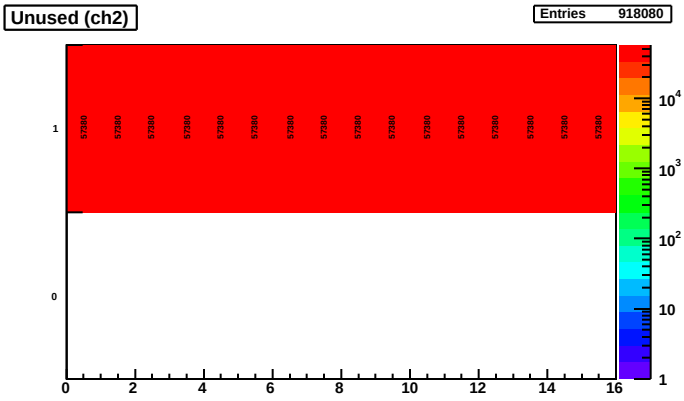

Input to FPE L1 DSM
Entries 0
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004

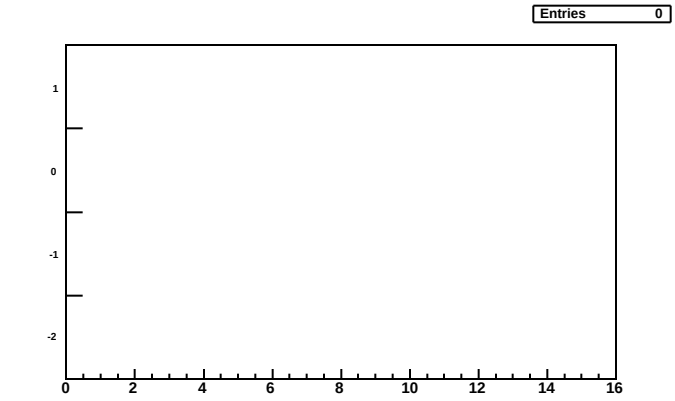

TF201 0-15 (ch0)
Entries 918080
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

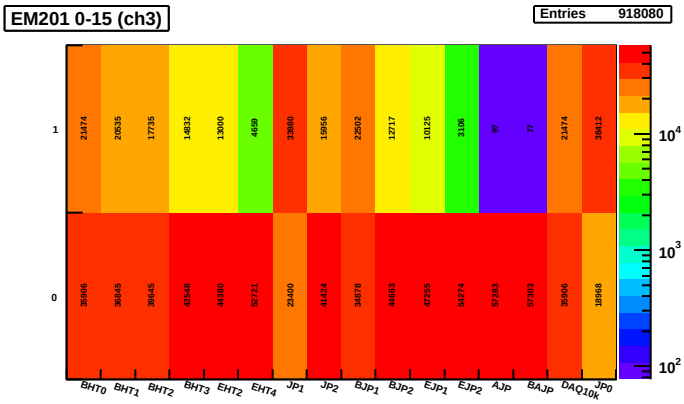

TF201 0-15 (ch0)
Entries 0
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

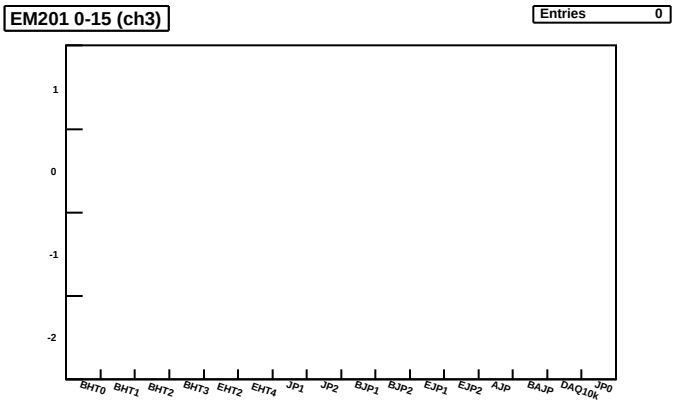

VT201 0-15 (ch1)
Entries 918080
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 1061
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

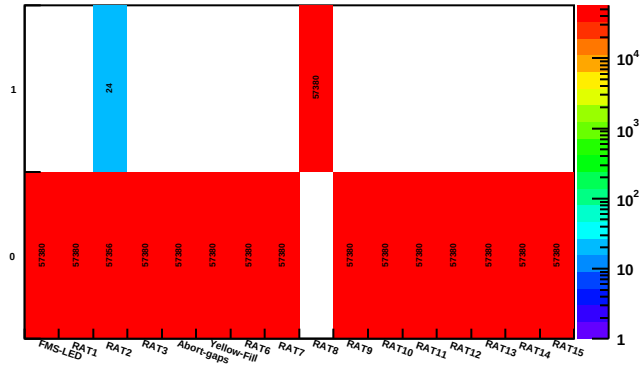

Unused (ch2)
Entries 918080

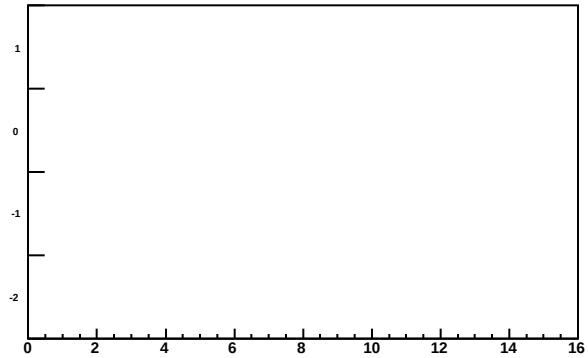

Entries 0


EM201 0-15 (ch3)
Entries 918080
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

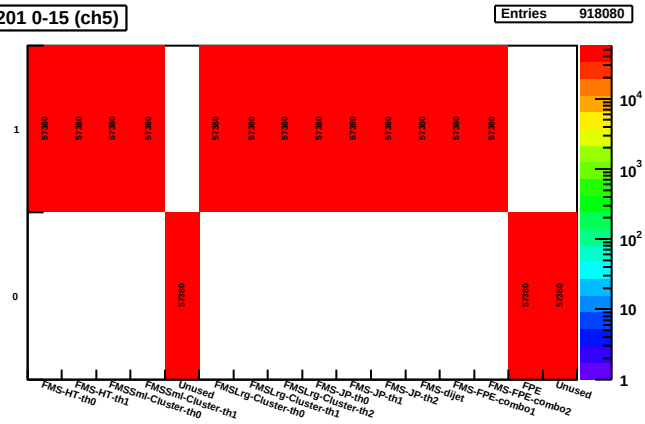

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

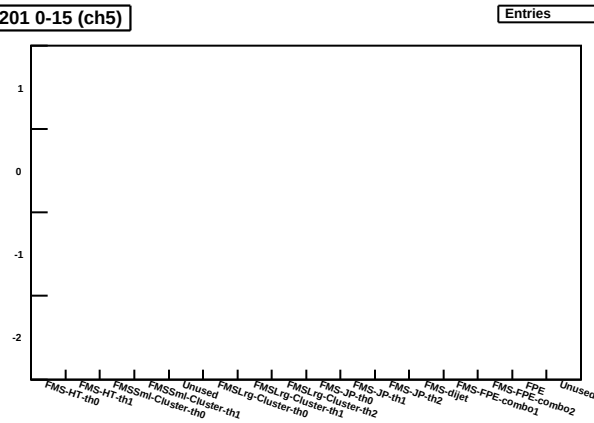




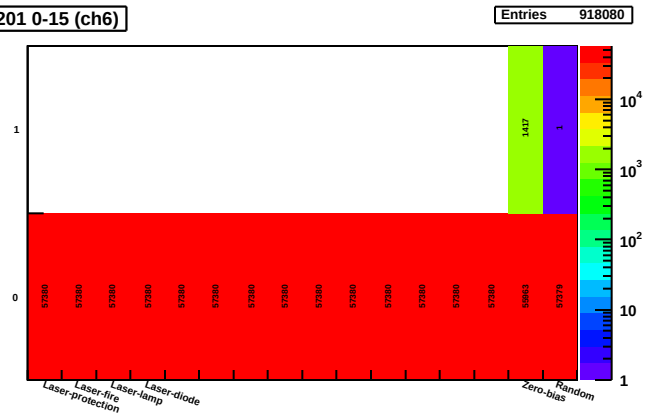
FP201 0-15 (ch5)

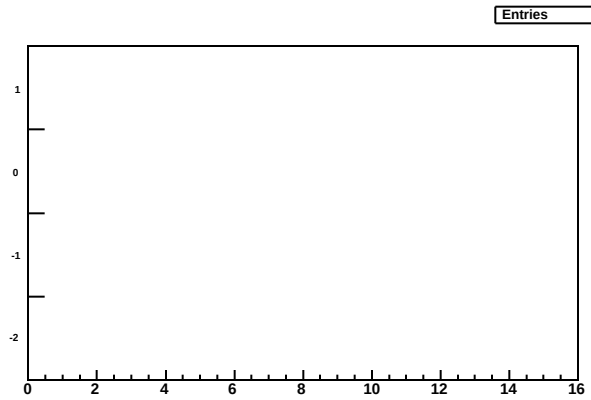
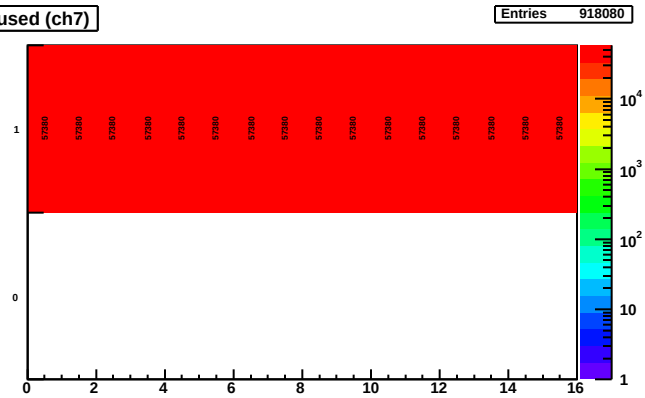
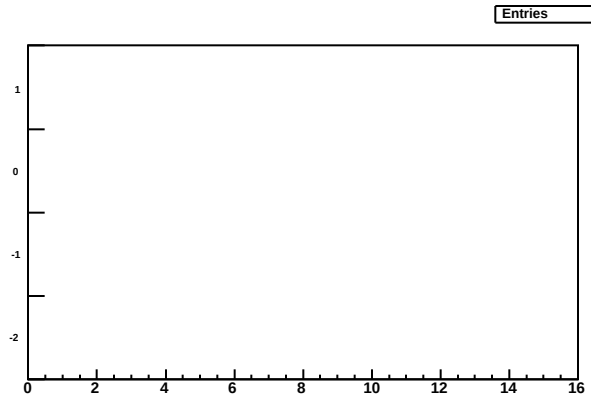


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)