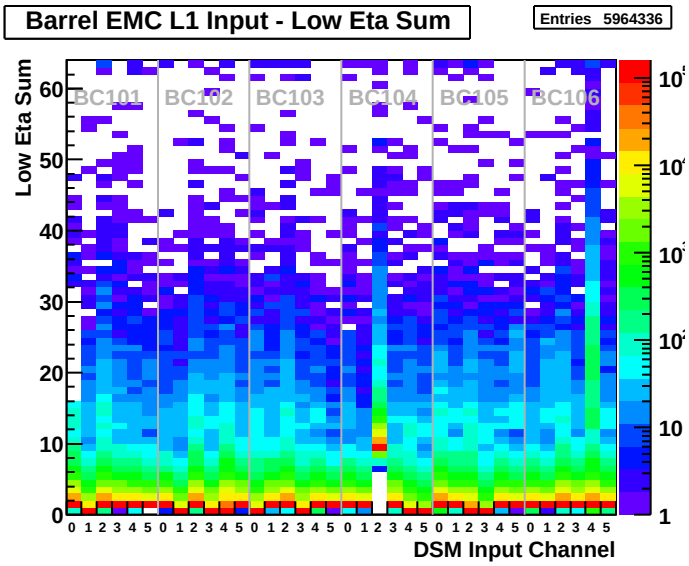
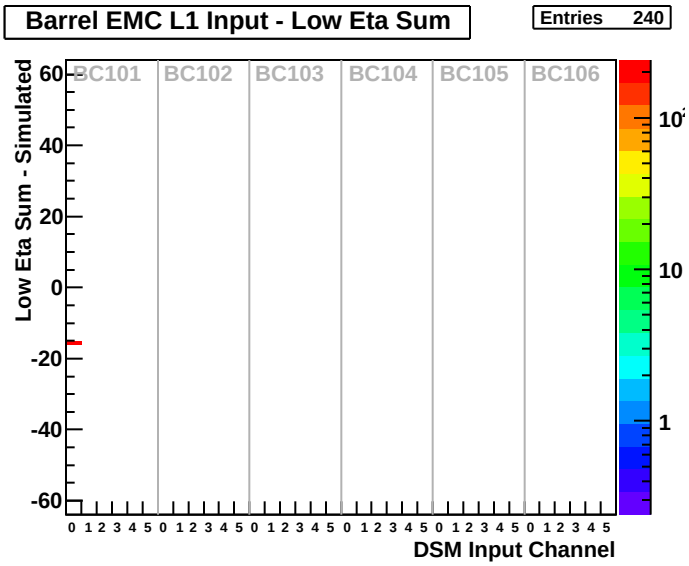
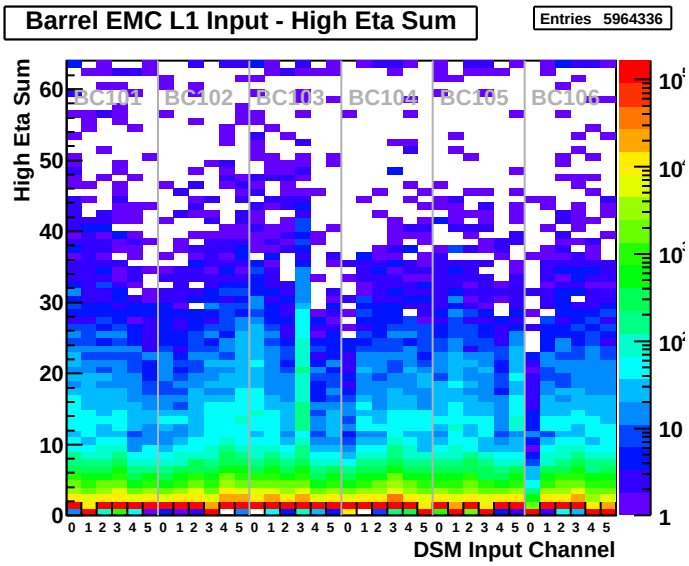
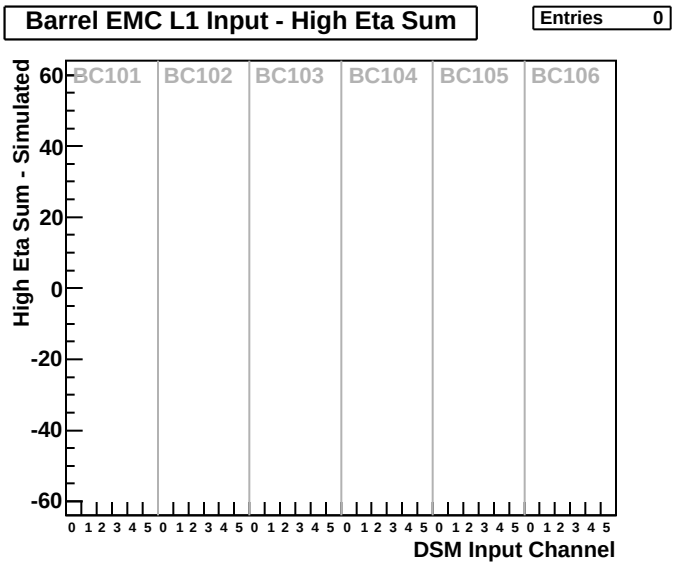
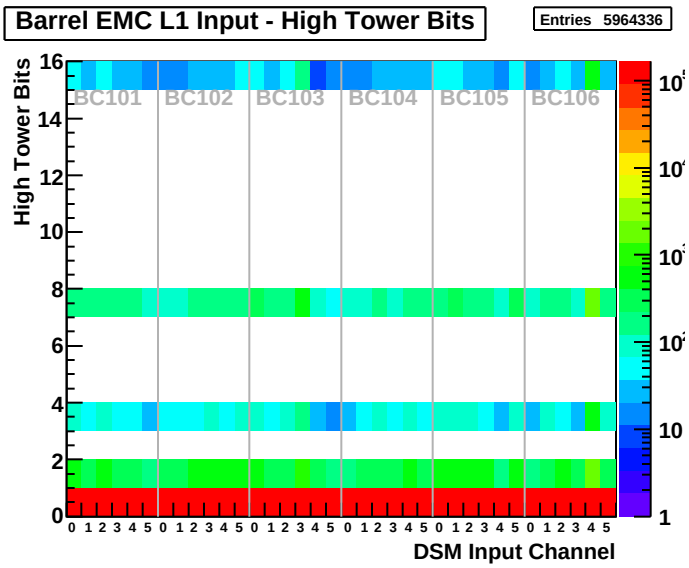
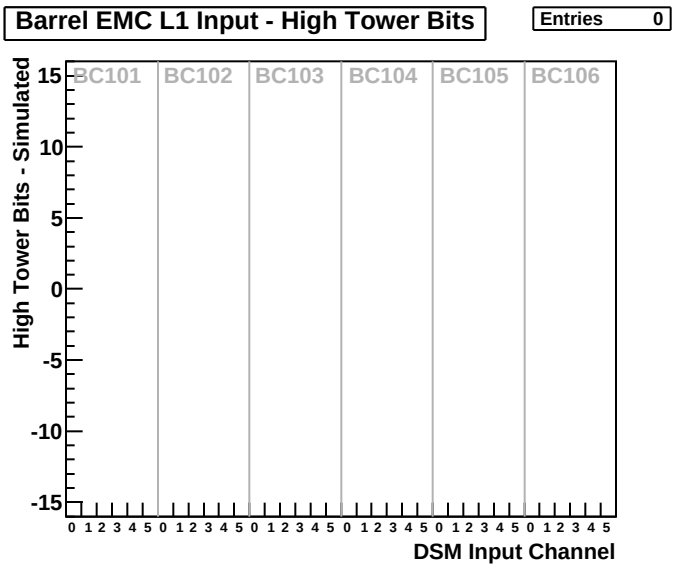

Barrel EMC L1 Input - Low Eta Sum
Entries 5964336
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

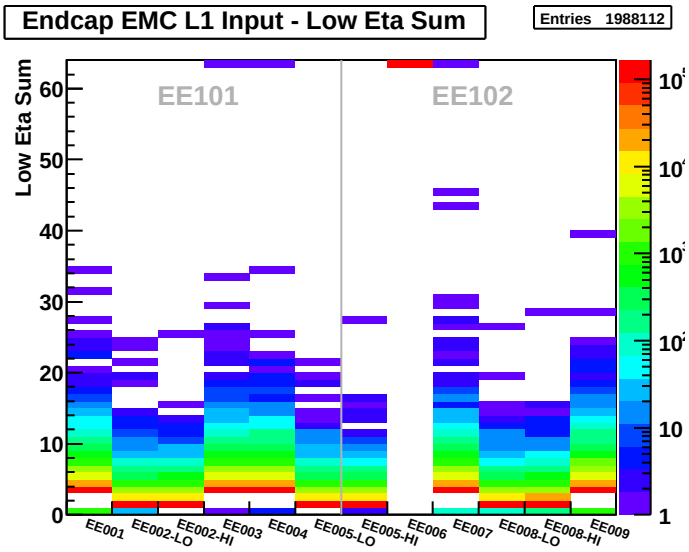

Barrel EMC L1 Input - Low Eta Sum
Entries 240
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

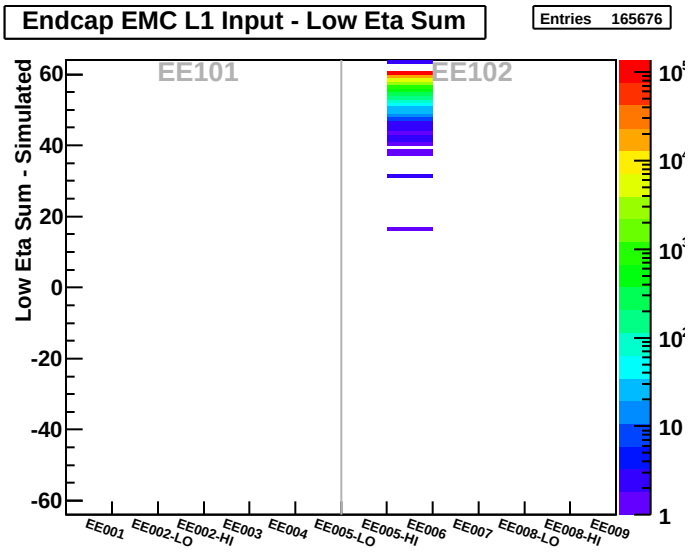

Barrel EMC L1 Input - High Eta Sum
Entries 5964336
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

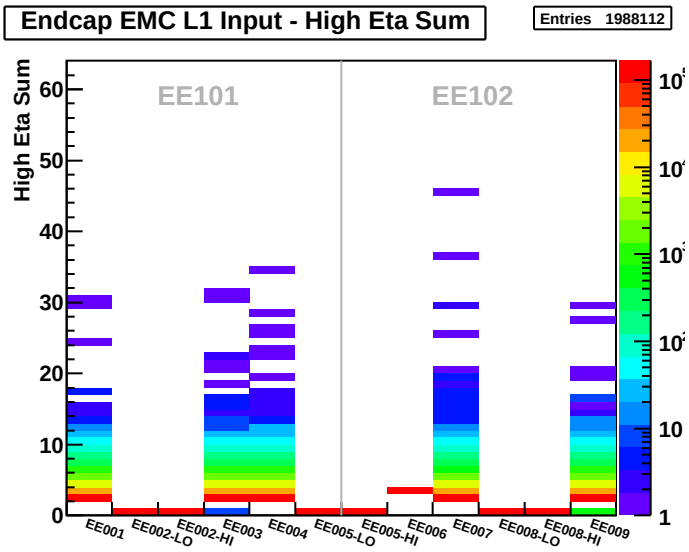

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

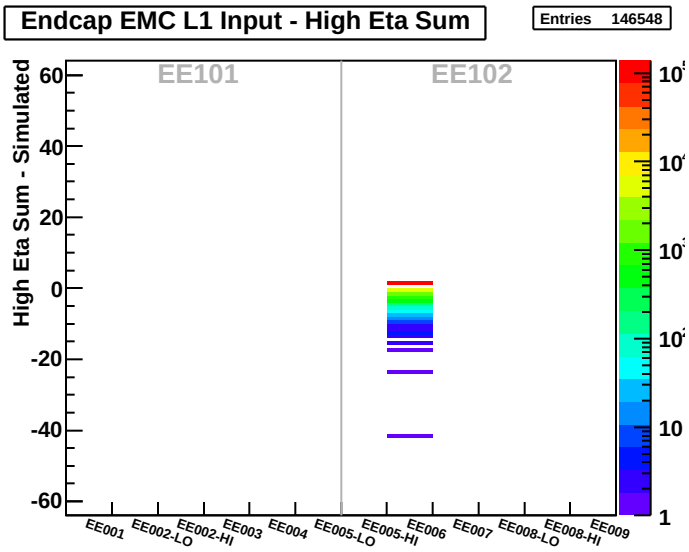

Barrel EMC L1 Input - High Tower Bits
Entries 5964336
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

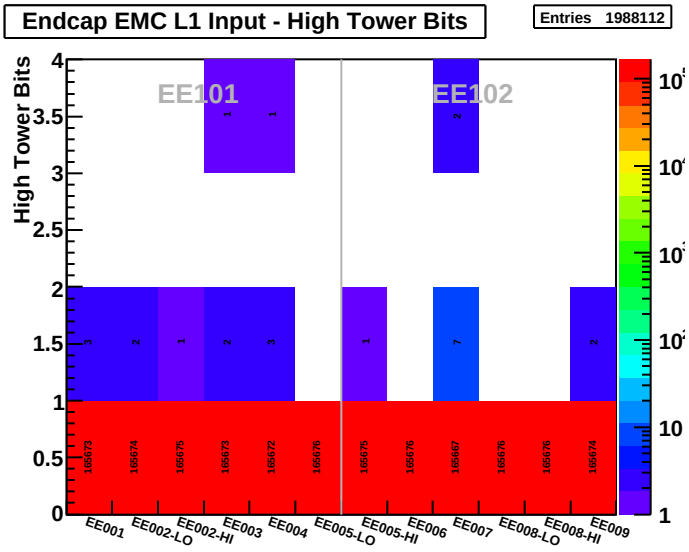

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

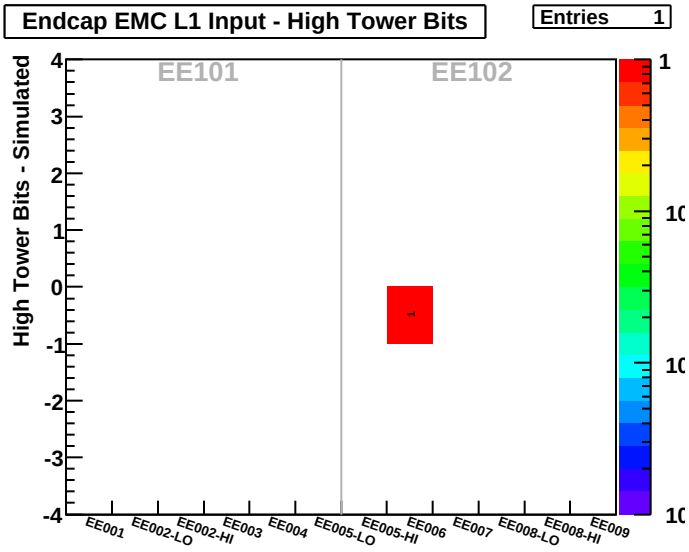

Endcap EMC L1 Input - Low Eta Sum
Entries 1988112
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

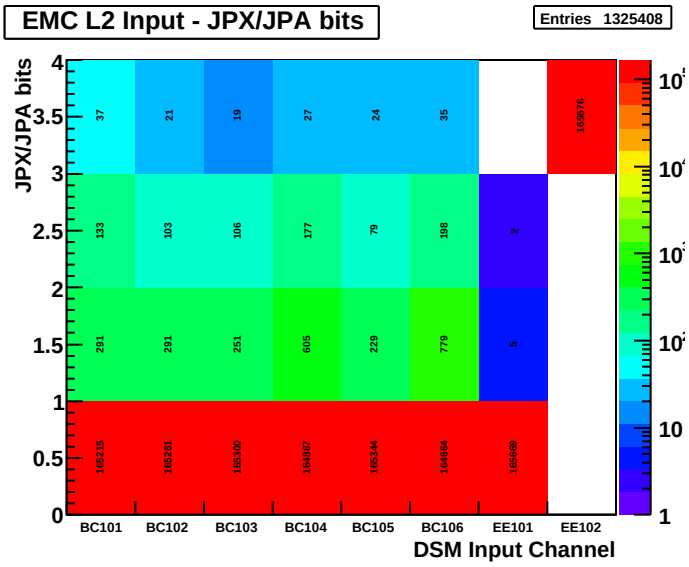

Endcap EMC L1 Input - Low Eta Sum
Entries 165676
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

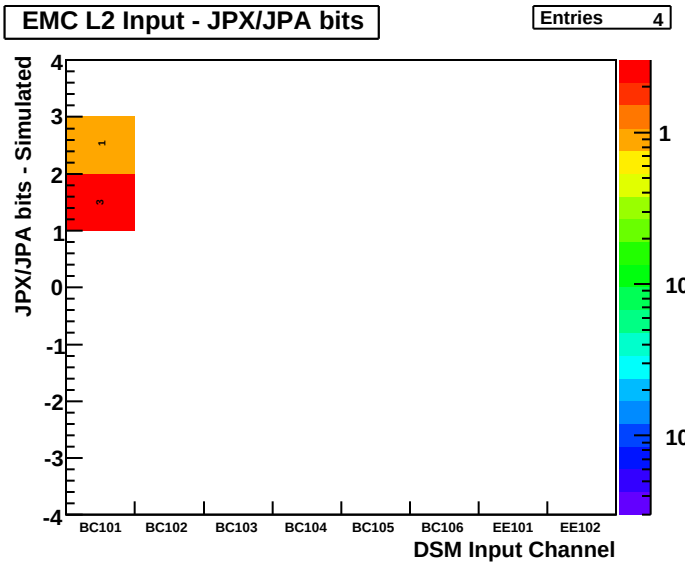

Endcap EMC L1 Input - High Eta Sum
Entries 1988112
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

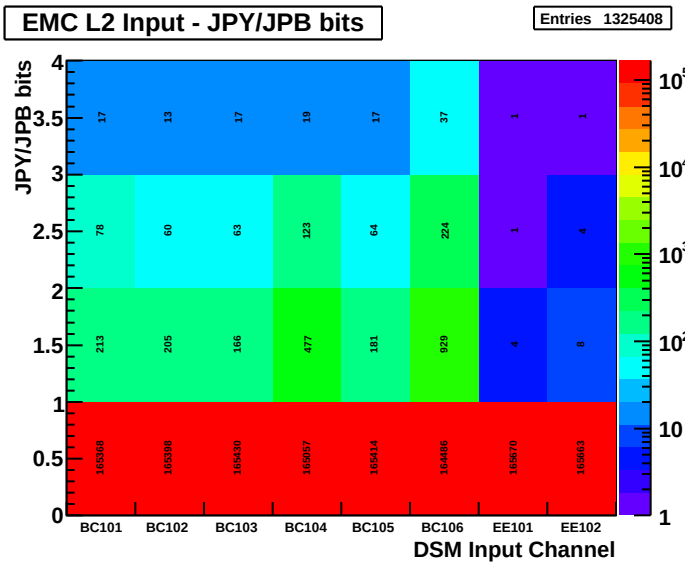

Endcap EMC L1 Input - High Eta Sum
Entries 146548
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

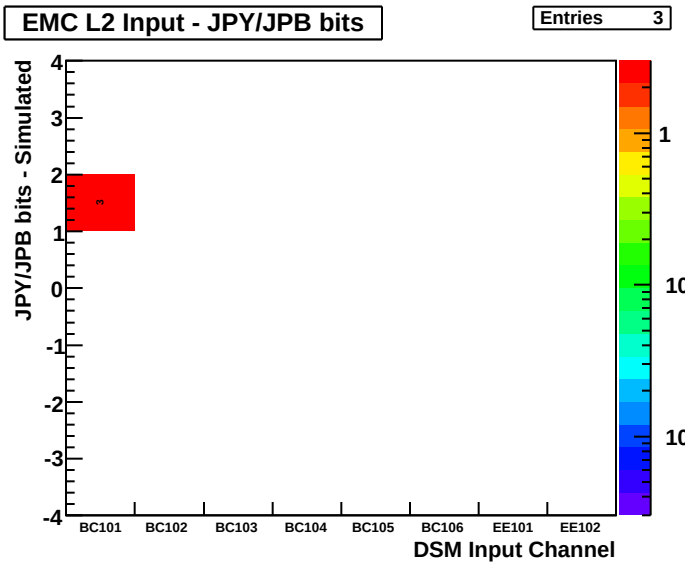

Endcap EMC L1 Input - High Tower Bits
Entries 1988112
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

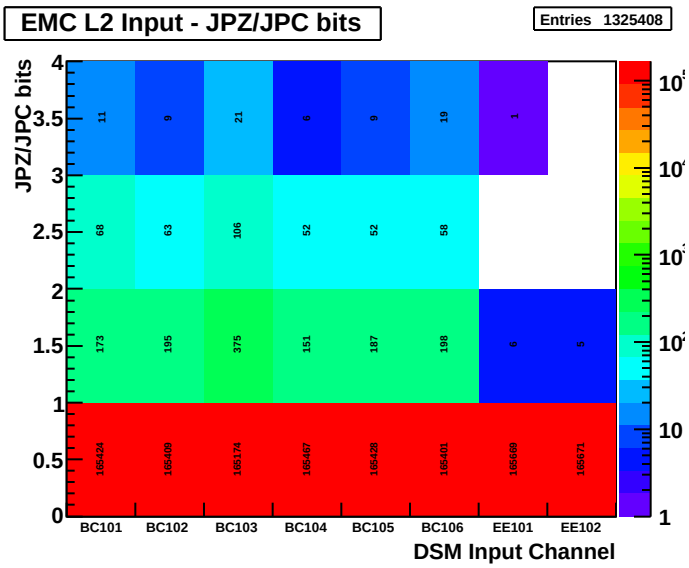

Endcap EMC L1 Input - High Tower Bits
Entries 1
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

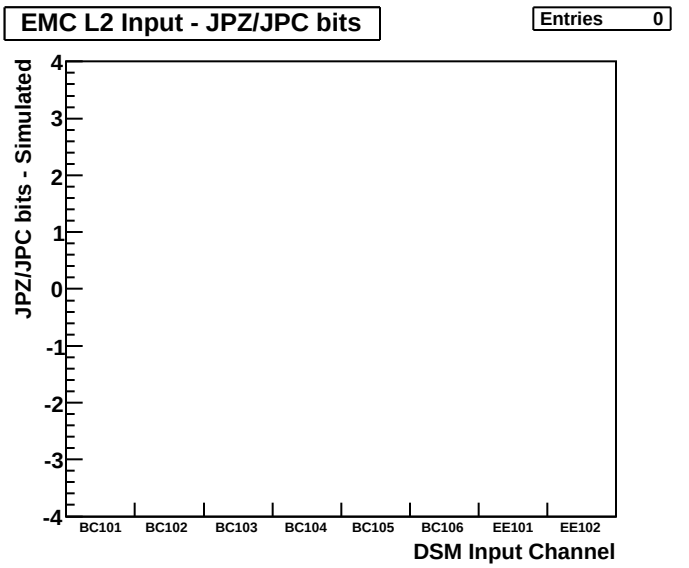

EMC L2 Input - JPX/JPA bits
Entries 1325408
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
37 21 19 27 24 35 165676
133 103 106 177 79 198 2
291 291 251 605 229 779 5
165215 165261 165300 164867 165344 164664 165669

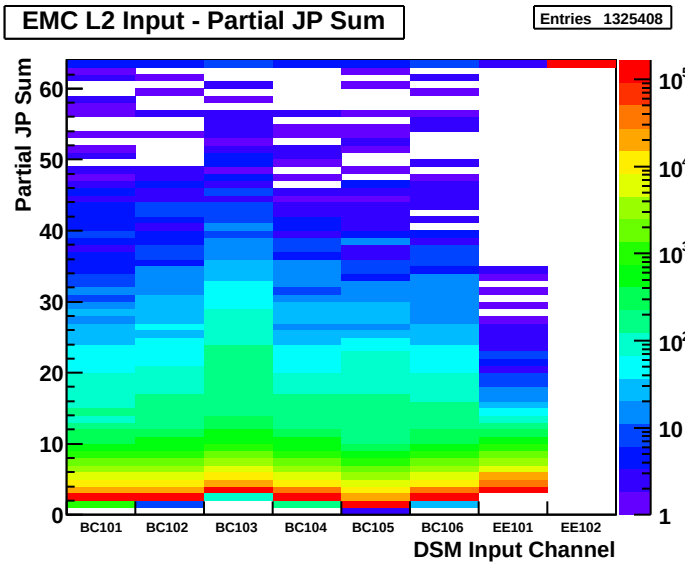

EMC L2 Input - JPX/JPA bits
Entries 4
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1
3

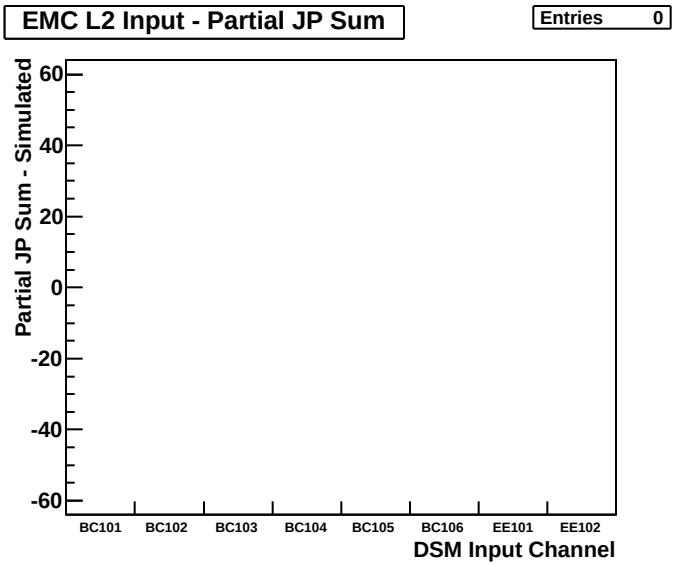

EMC L2 Input - JPY/JPB bits
Entries 1325408
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
17 13 17 19 17 37 1 1
78 60 63 123 64 224 1 4
213 205 166 477 181 929 4 8
165368 165398 165430 165057 165414 164486 165670 165663

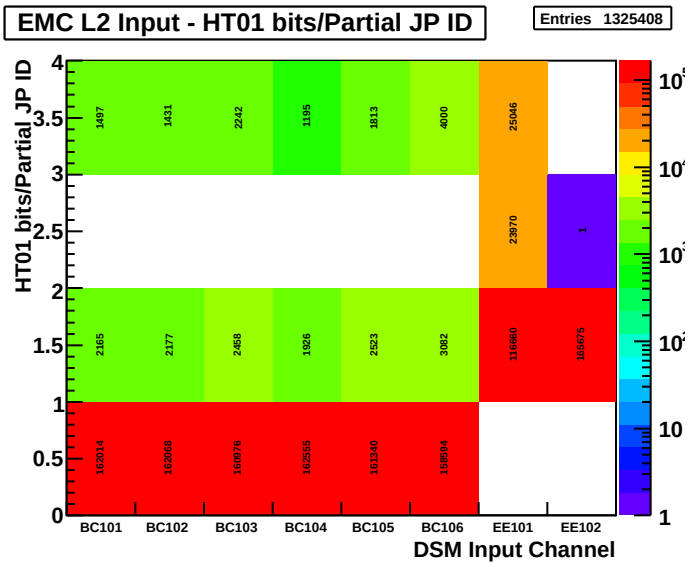

EMC L2 Input - JPY/JPB bits
Entries 3
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
3

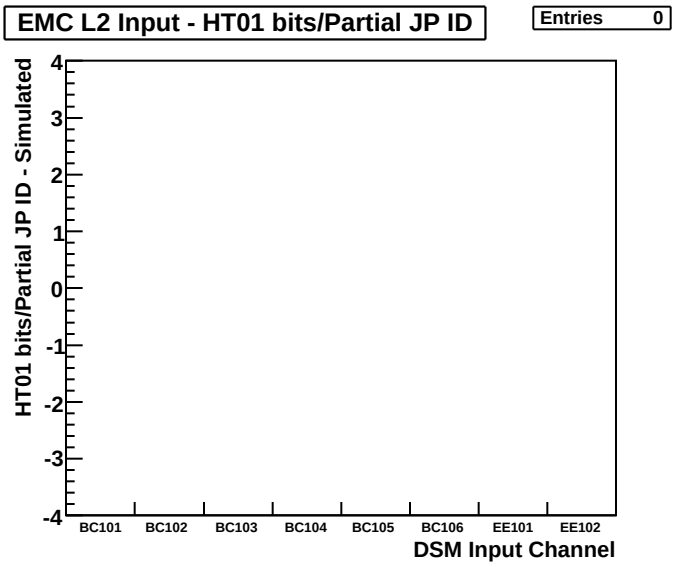

EMC L2 Input - JPZ/JPC bits
Entries 1325408
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
11 9 21 6 9 19 1
68 63 106 52 52 58
173 195 375 151 187 198 6 5
165424 165409 165174 165467 165428 165401 165669 165671

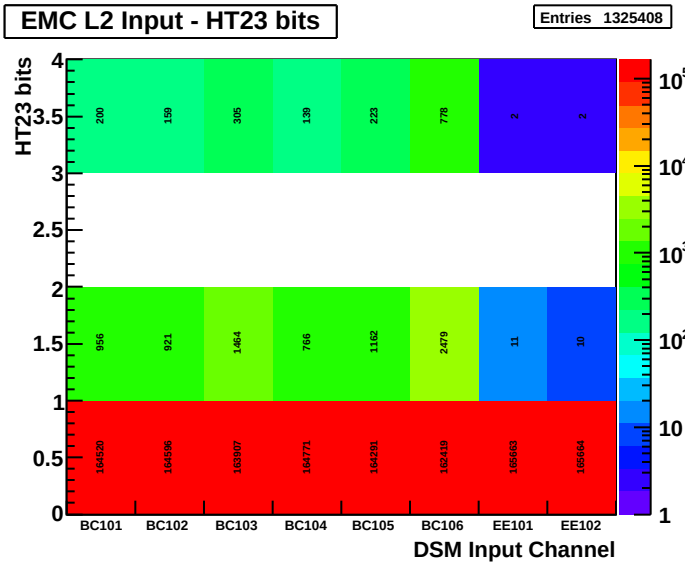

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

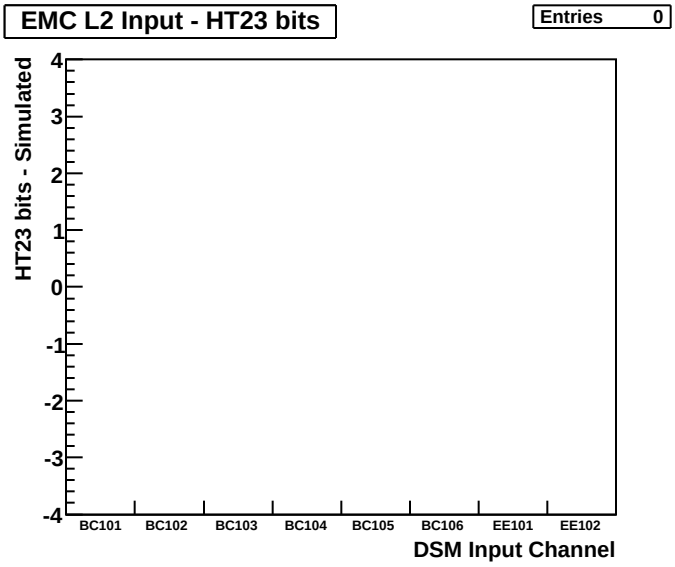

EMC L2 Input - Partial JP Sum
Entries 1325408
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

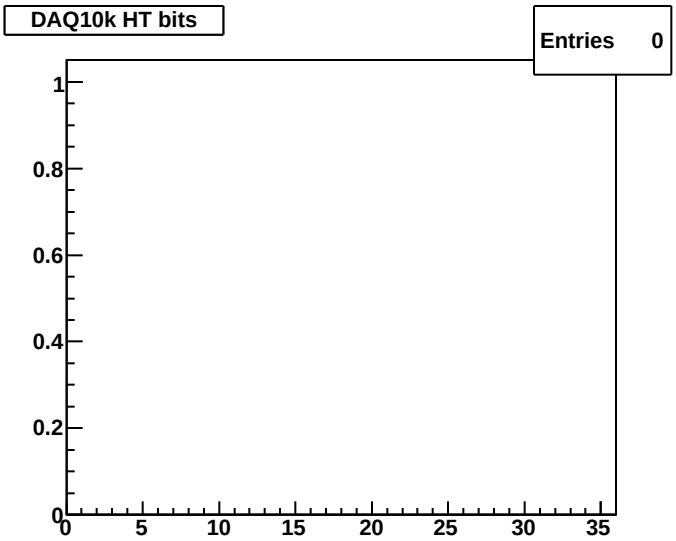

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

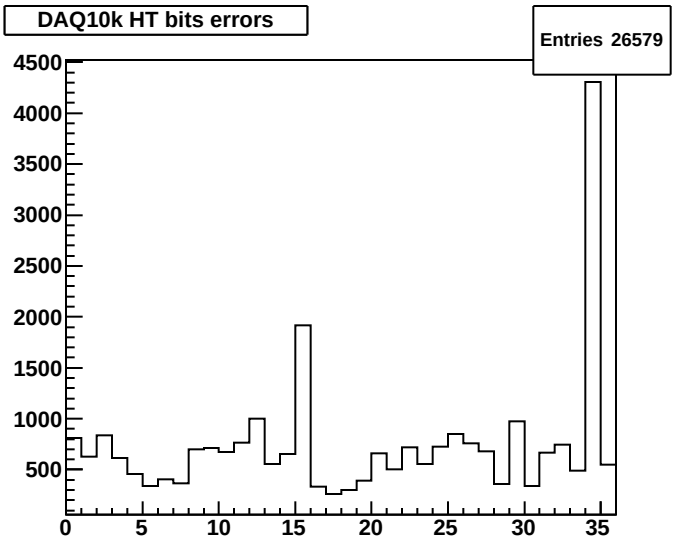

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1325408
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

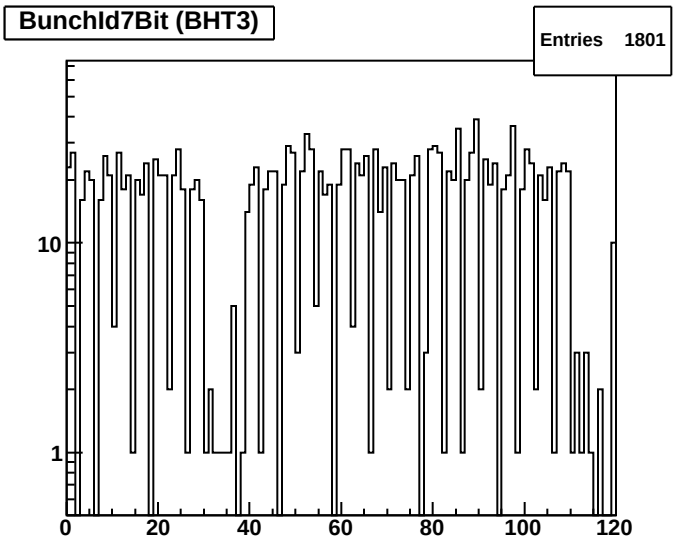

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

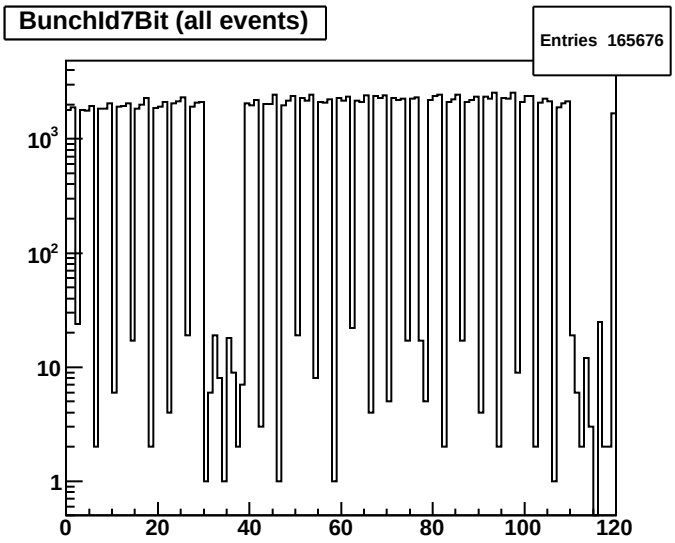

EMC L2 Input - HT23 bits
Entries 1325408
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

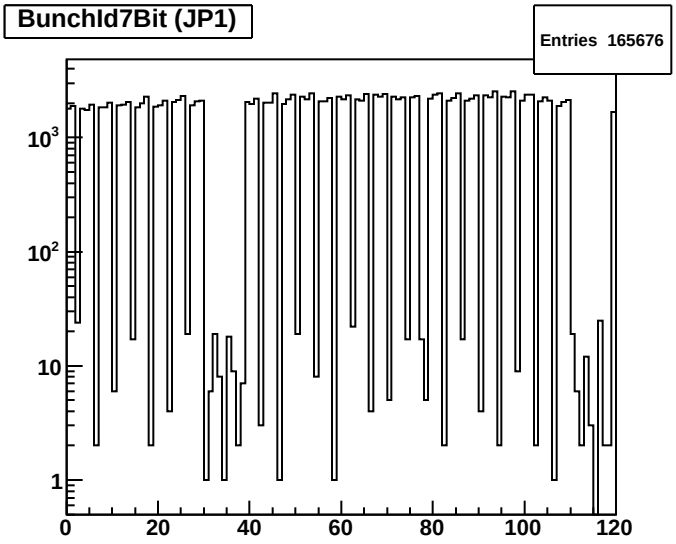

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

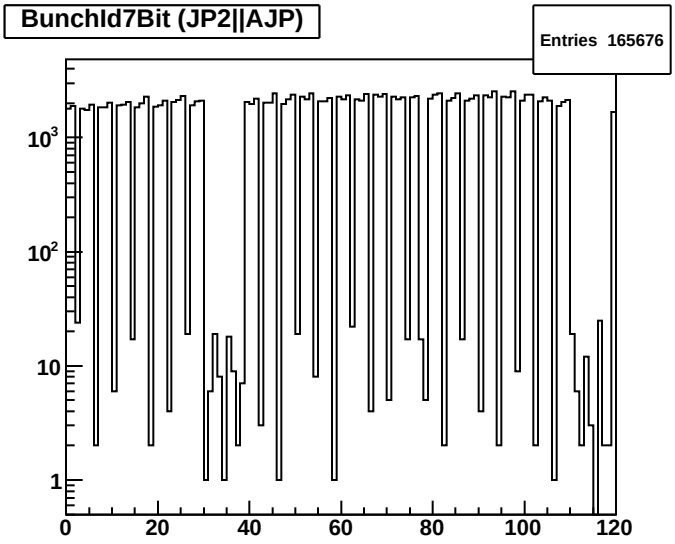

DAQ10k HT bits
Entries 0

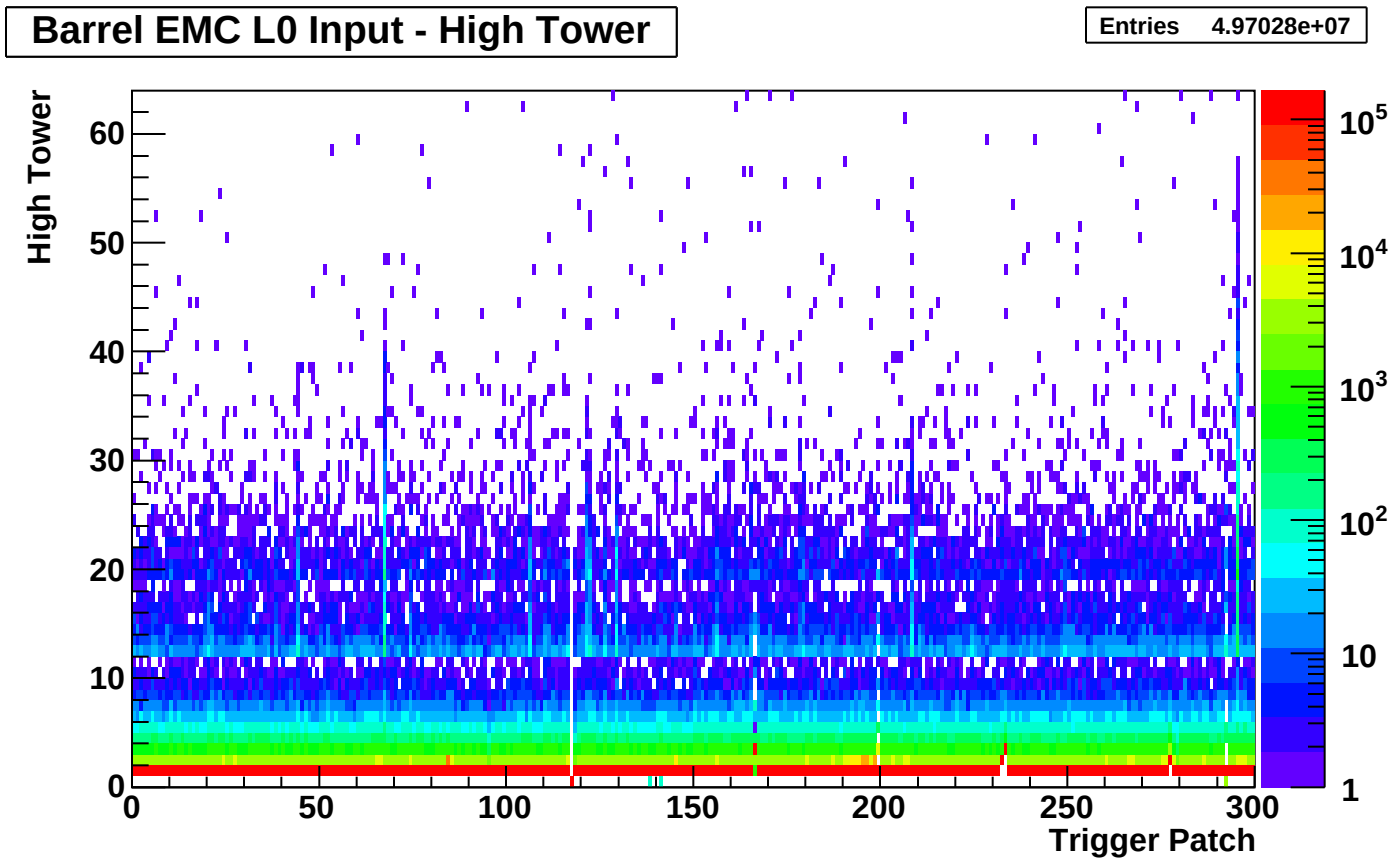

DAQ10k HT bits errors
Entries 26579

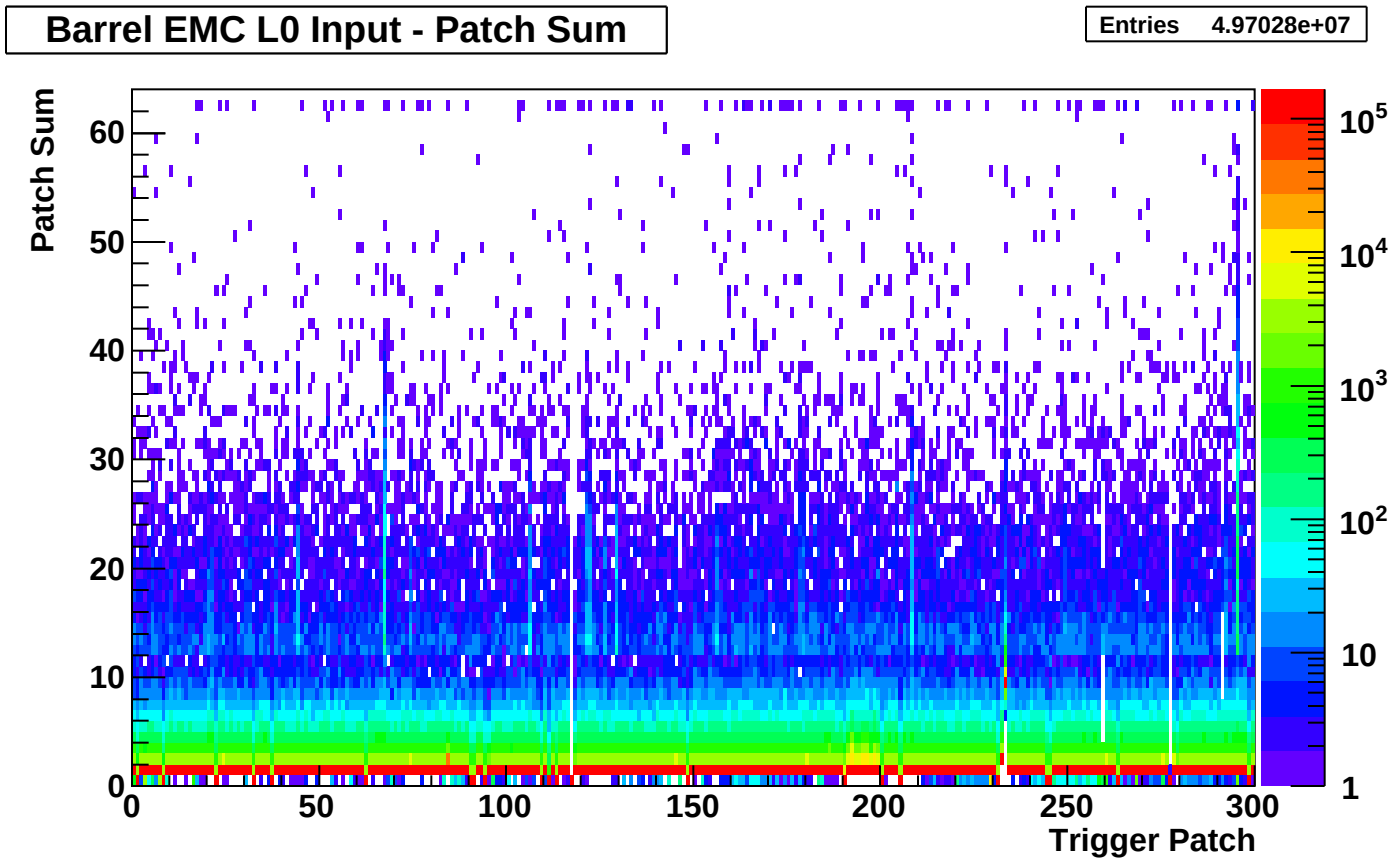

BunchId7Bit (BHT3)
Entries 1801

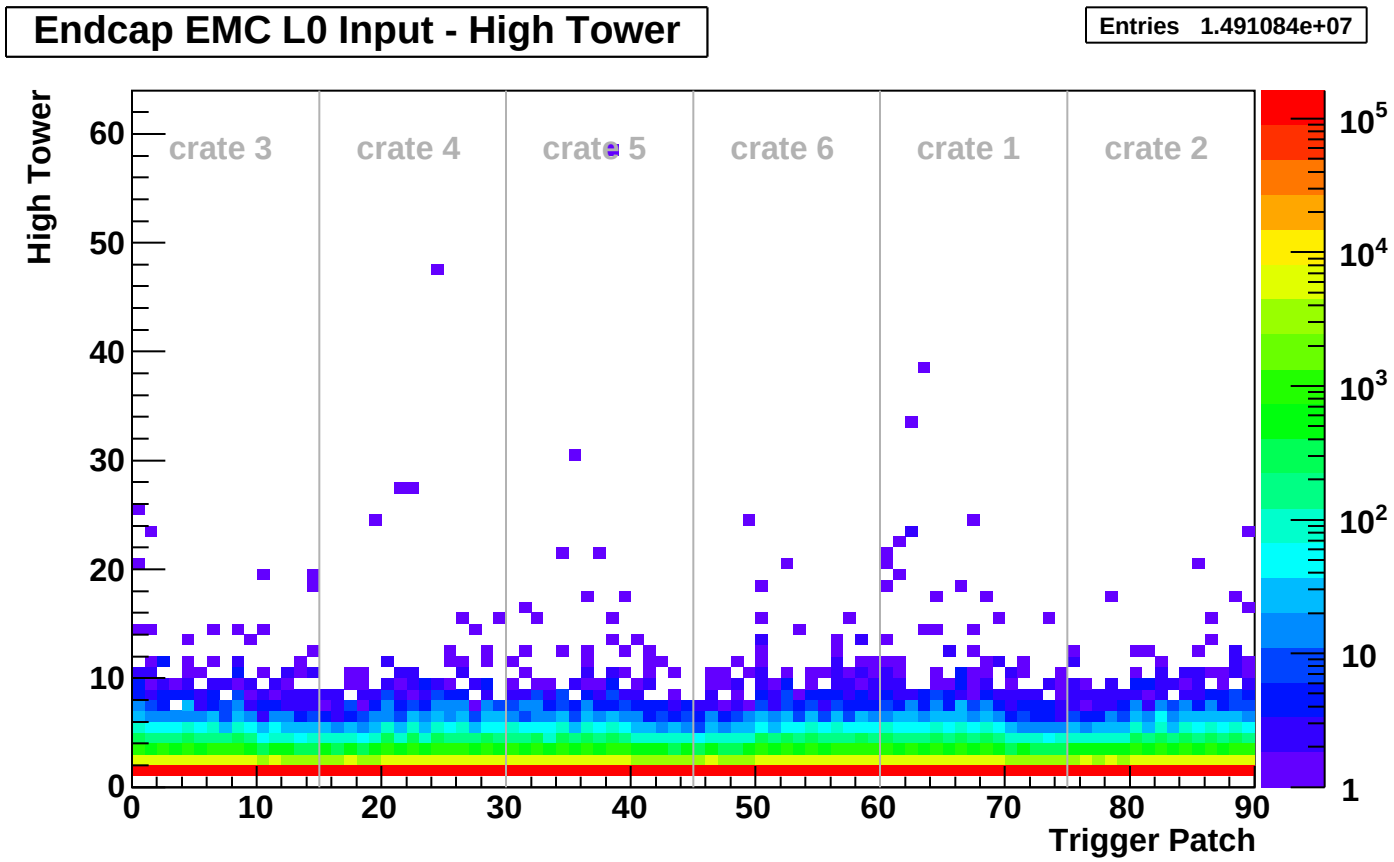

BunchId7Bit (all events)
Entries 165676

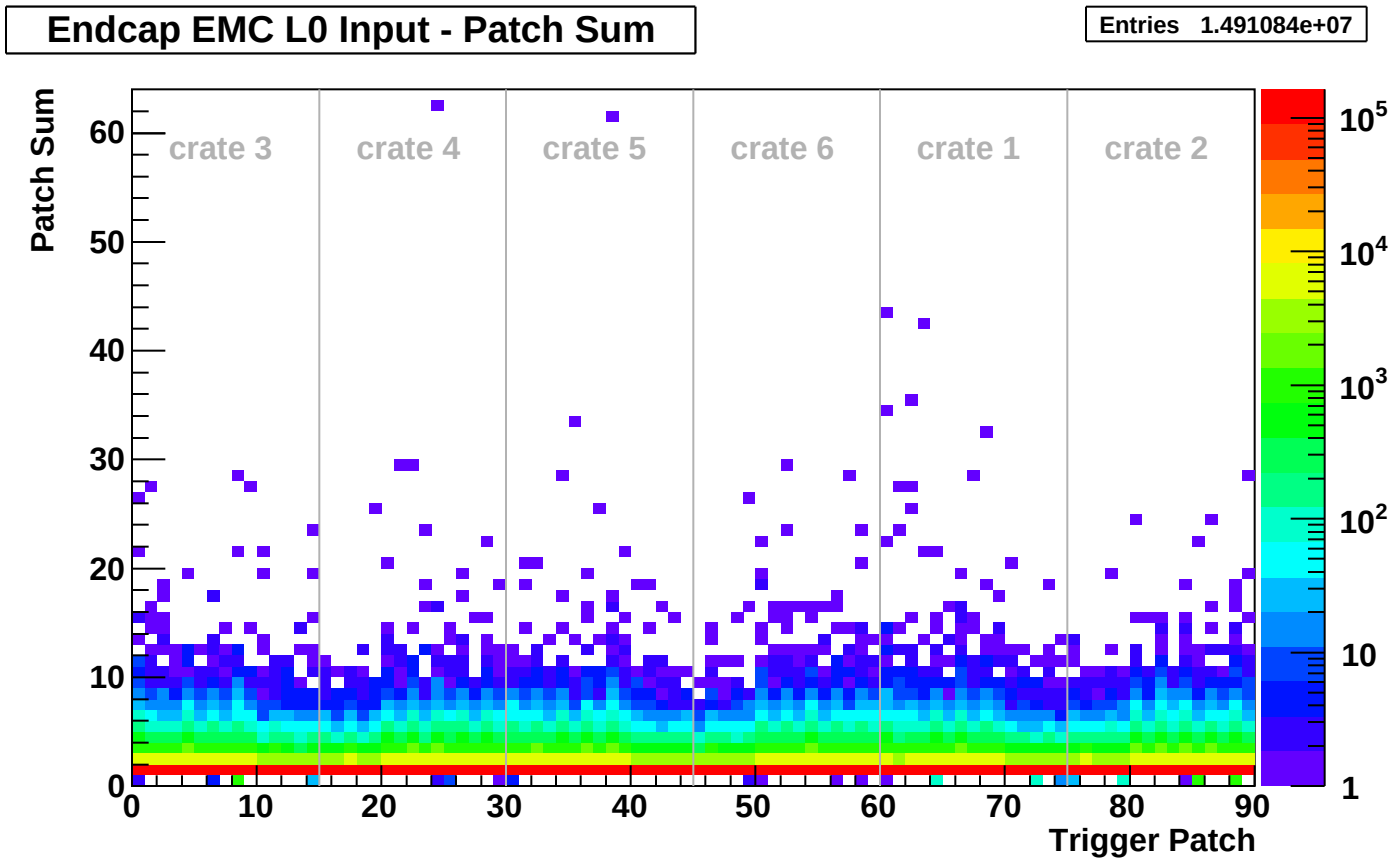

BunchId7Bit (JP1)
Entries 165676

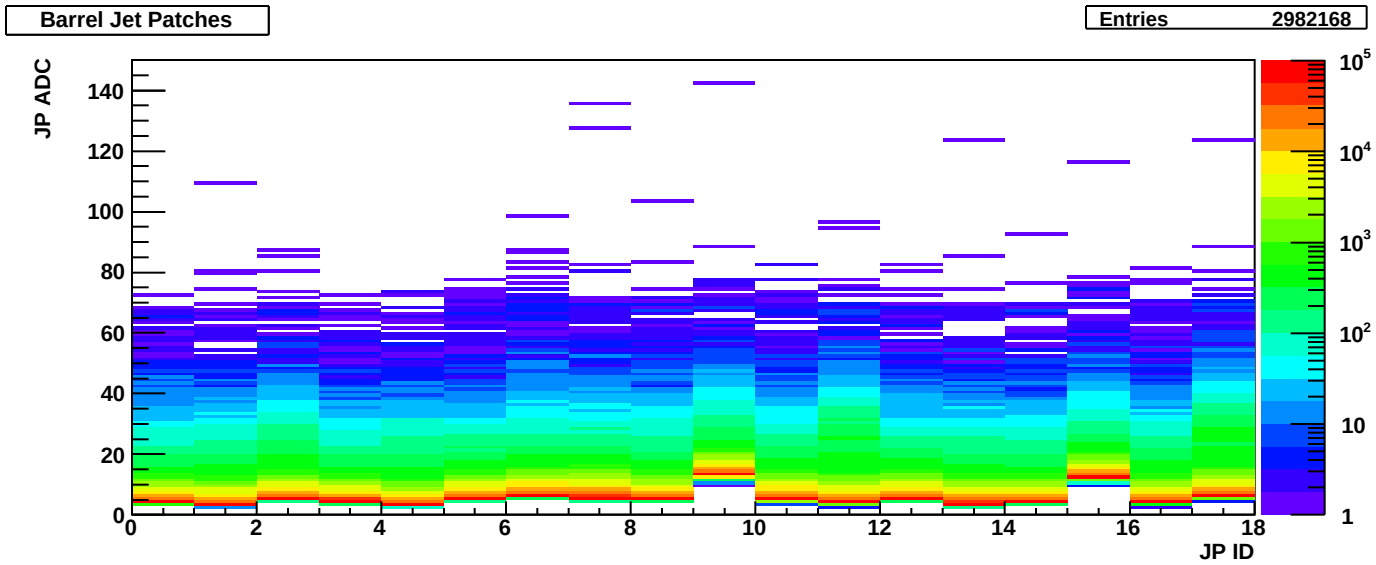

BunchId7Bit (JP2||AJP)
Entries 165676

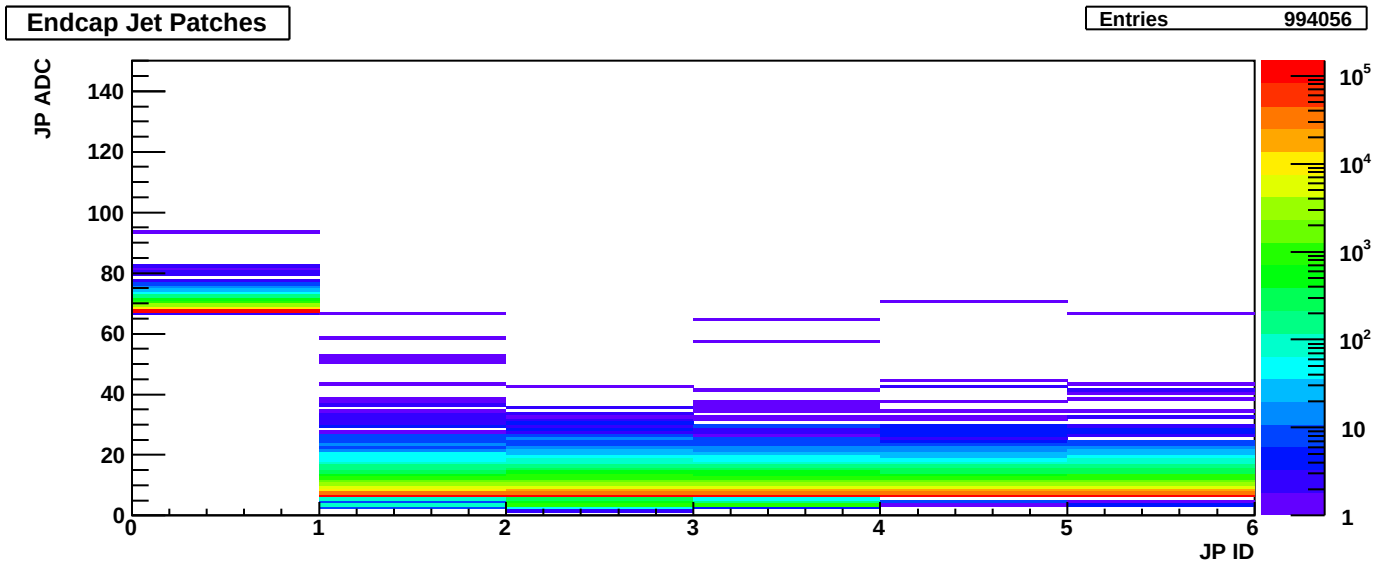

Barrel EMC L0 Input - High Tower
Entries 4.97028e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

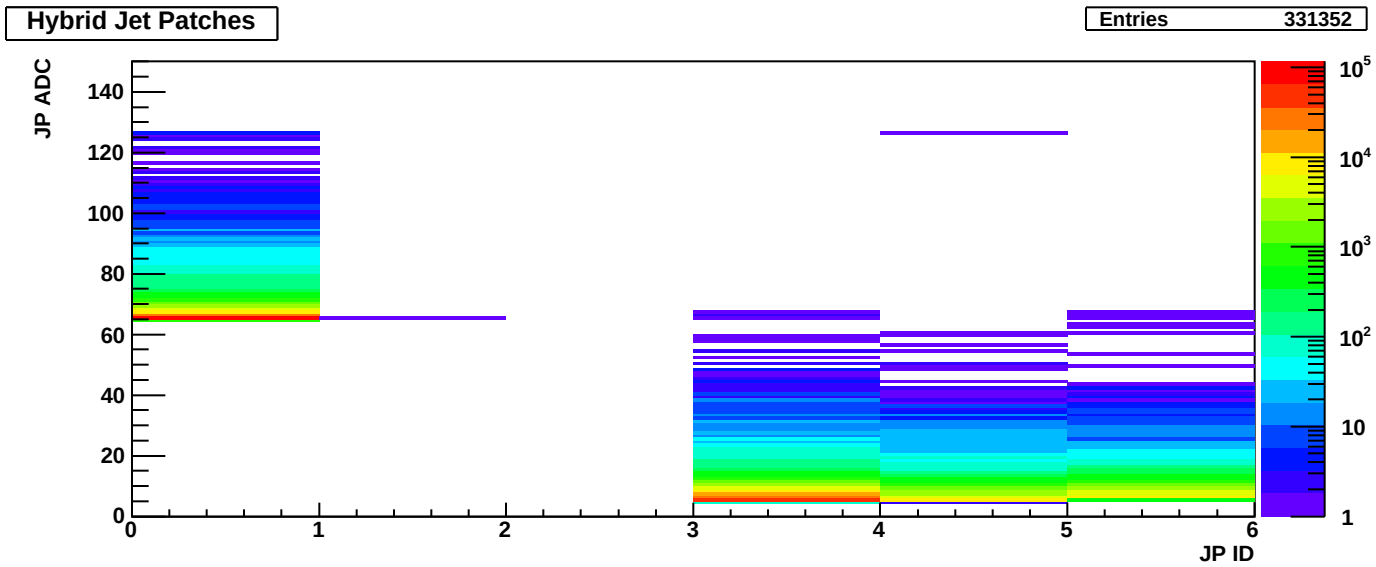

Barrel EMC L0 Input - Patch Sum
Entries 4.97028e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

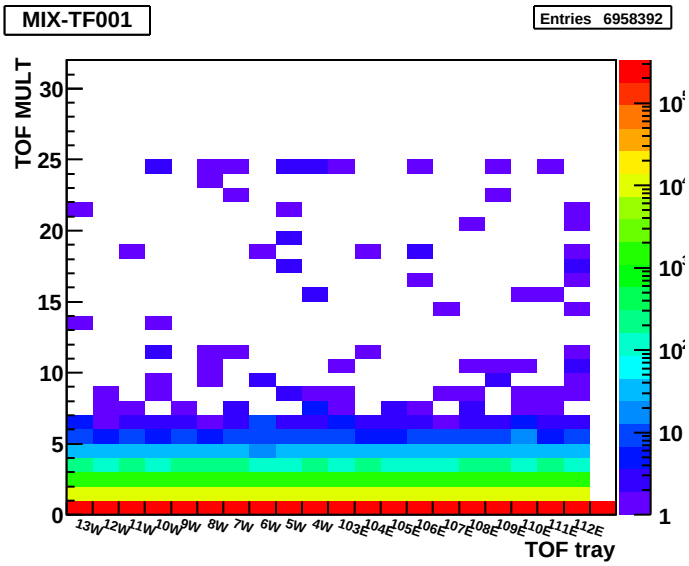

Endcap EMC L0 Input - High Tower
Entries 1.491084e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

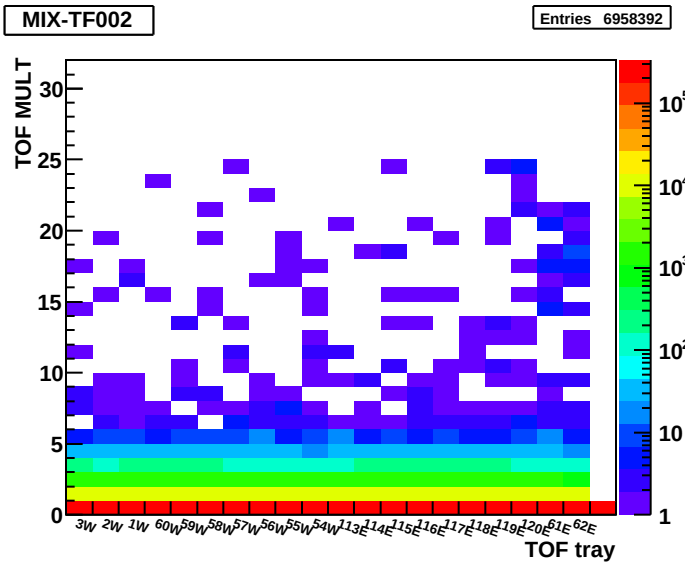

Endcap EMC L0 Input - Patch Sum
Entries 1.491084e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

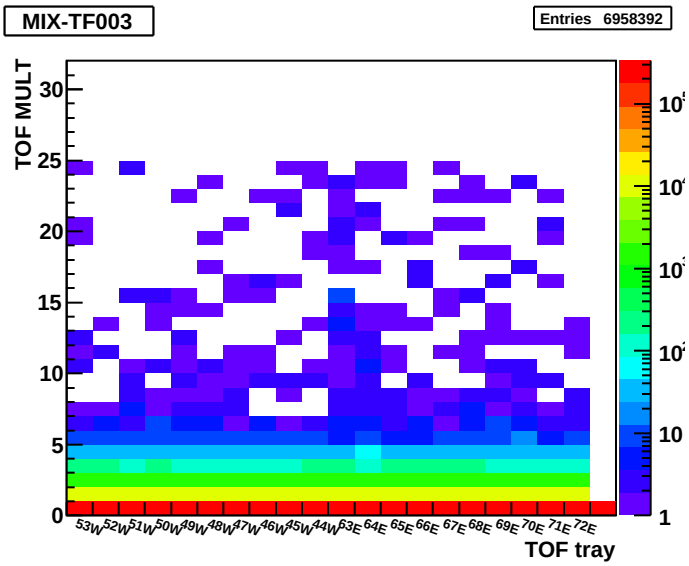

Barrel Jet Patches
Entries 2982168
JP ADC
JP ID

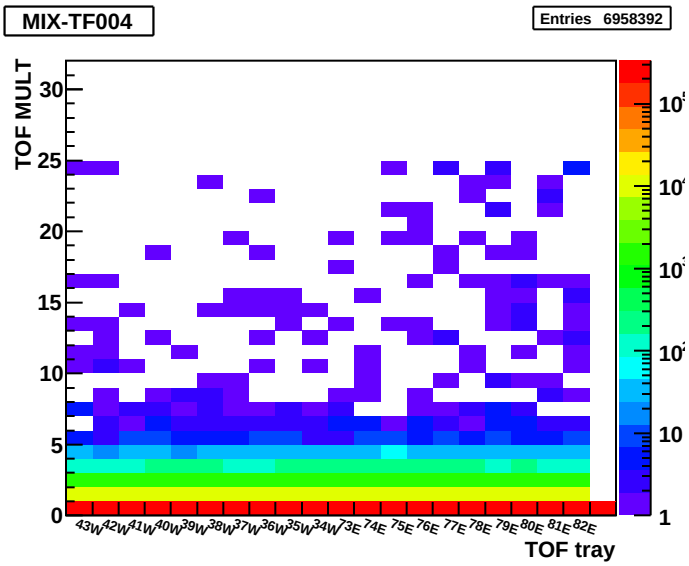

Endcap Jet Patches
Entries 994056
JP ADC
JP ID

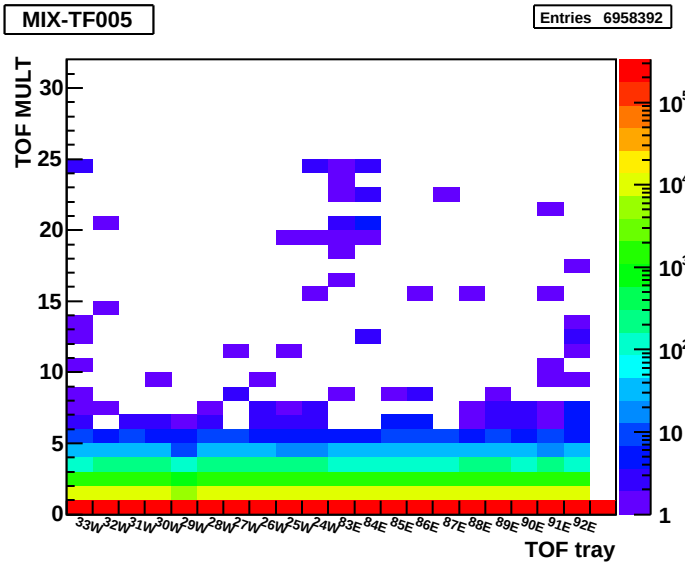

Hybrid Jet Patches
Entries 331352
JP ADC
JP ID

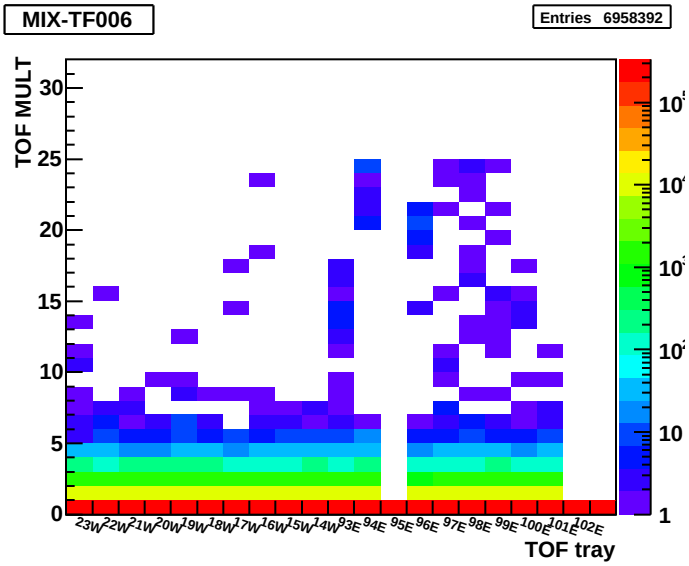

MIX-TF001
Entries 6958392
TOF MULT
TOF tray

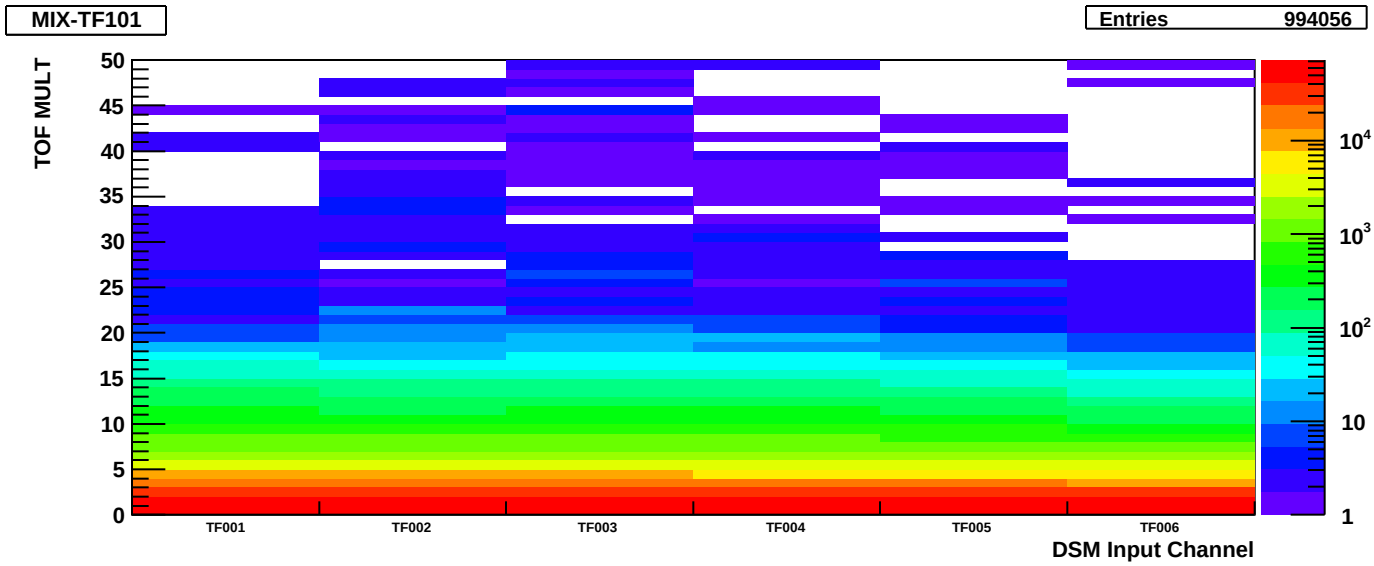

MIX-TF002
Entries 6958392
TOF MULT
TOF tray

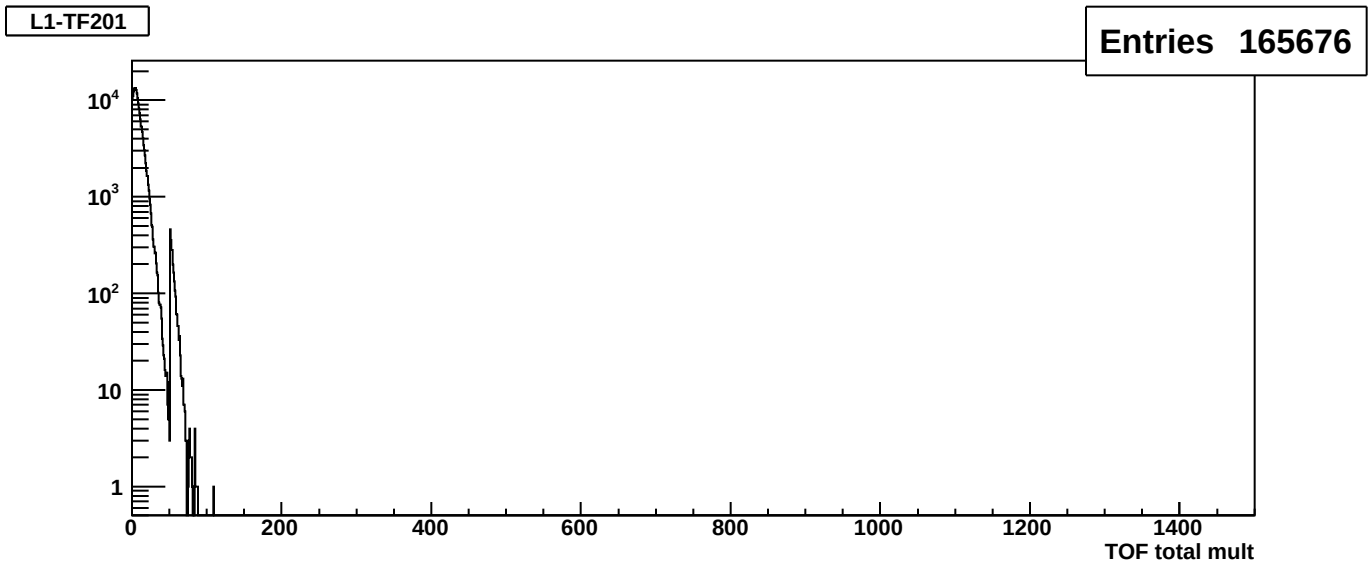

MIX-TF003
Entries 6958392
TOF MULT
TOF tray

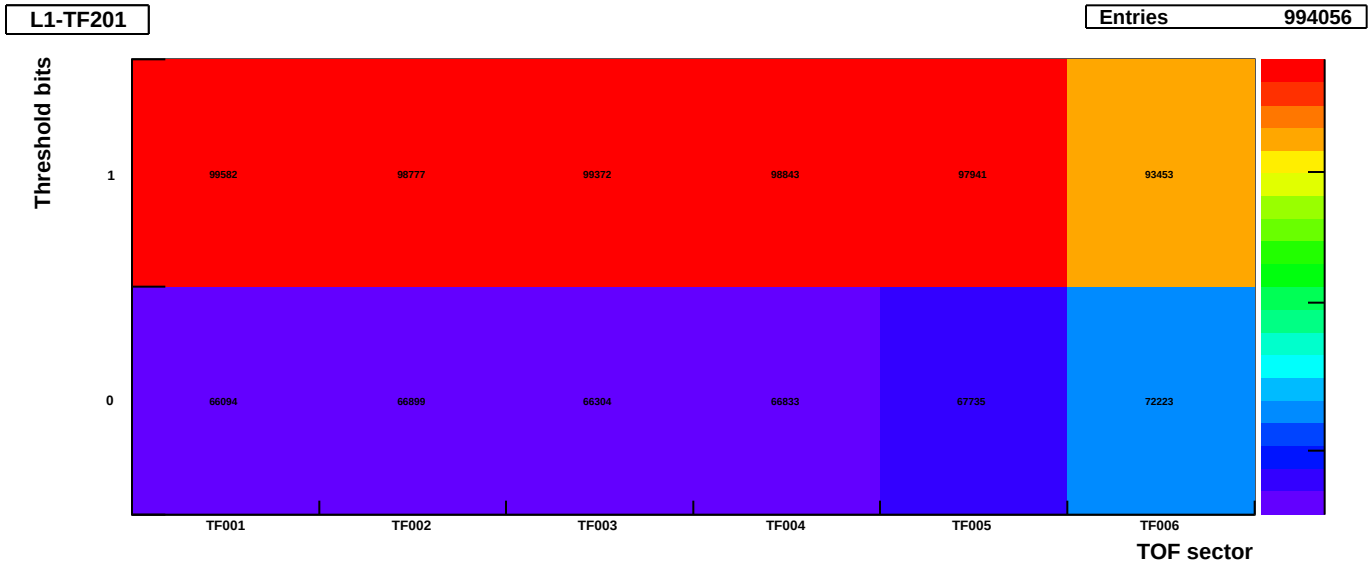

MIX-TF004
Entries 6958392
TOF MULT
TOF tray

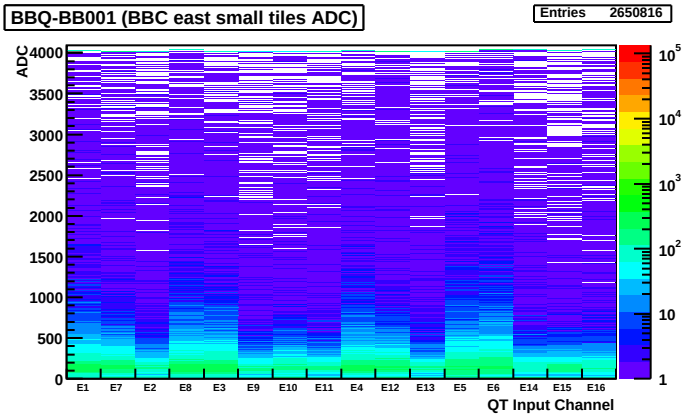

MIX-TF005
Entries 6958392
TOF MULT
TOF tray

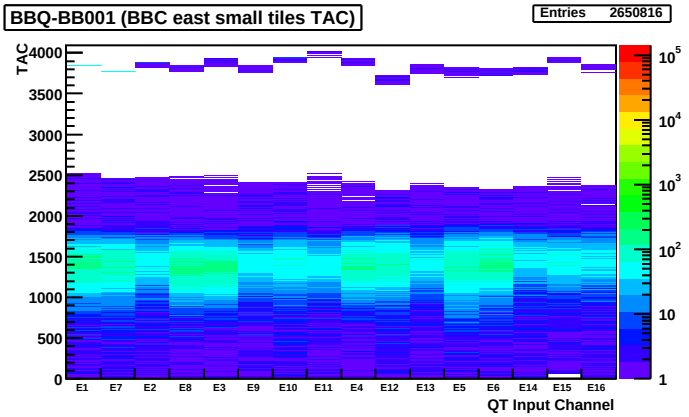

MIX-TF006
Entries 6958392
TOF MULT
TOF tray

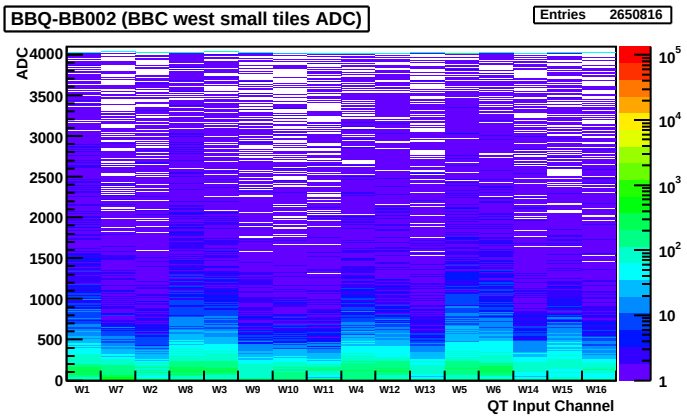

MIX-TF101
Entries 994056
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

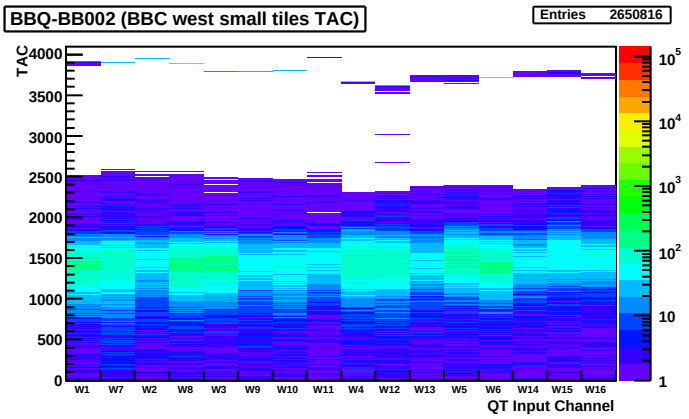

L1-TF201
Entries 165676
TOF total mult

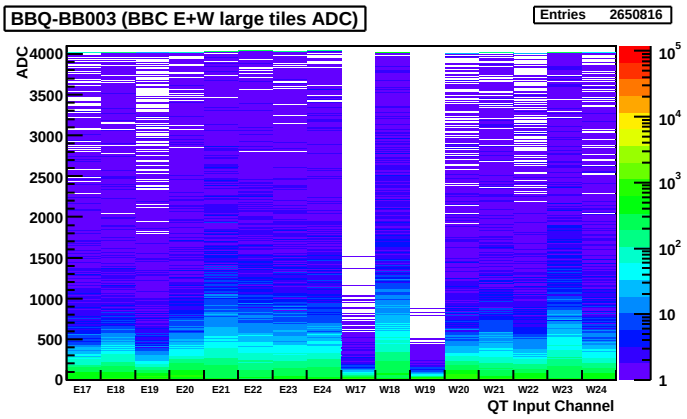

L1-TF201
Entries 994056
Threshold bits
99582
98777
99372
98843
97941
93453
66094
66899
66304
66833
67735
72223
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

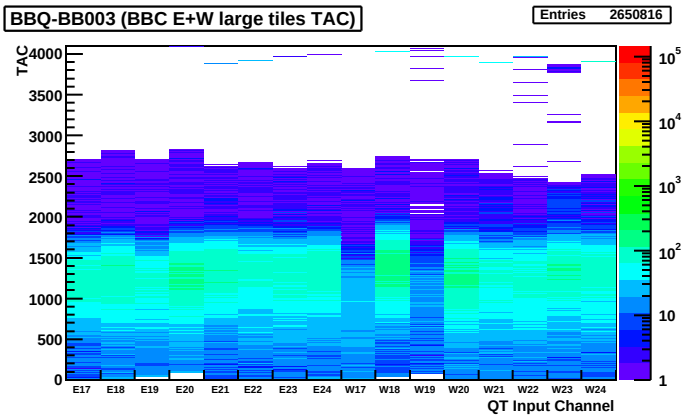

BBQ-BB001 (BBC east small tiles ADC)
Entries 2650816
ADC
QT Input Channel

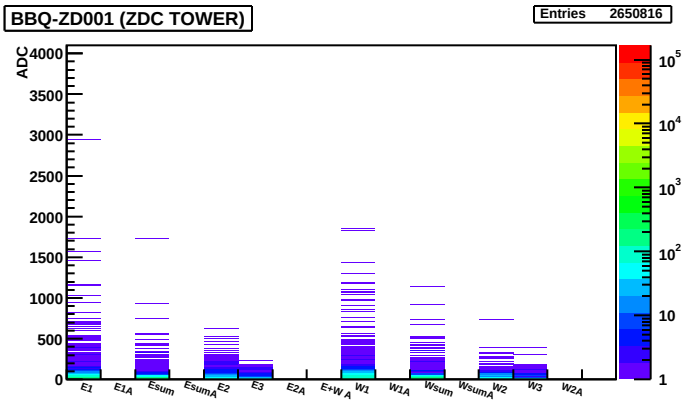

BBQ-BB001 (BBC east small tiles TAC)
Entries 2650816
TAC
QT Input Channel

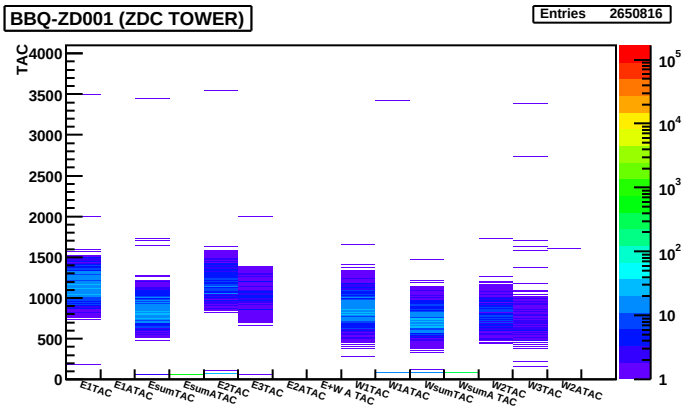

BBQ-BB002 (BBC west small tiles ADC)
Entries 2650816
ADC
QT Input Channel

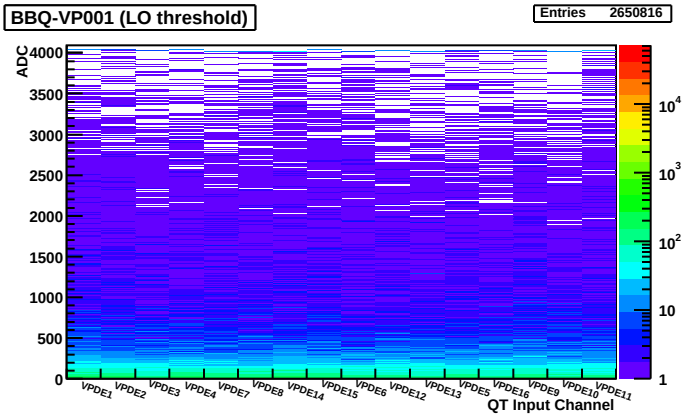

BBQ-BB002 (BBC west small tiles TAC)
Entries 2650816
TAC
QT Input Channel

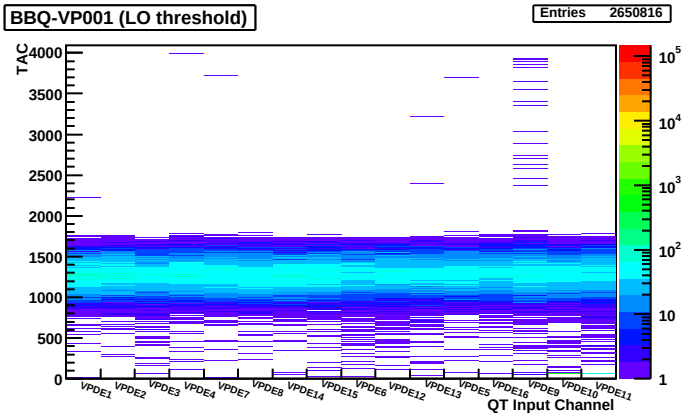

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2650816
ADC
QT Input Channel

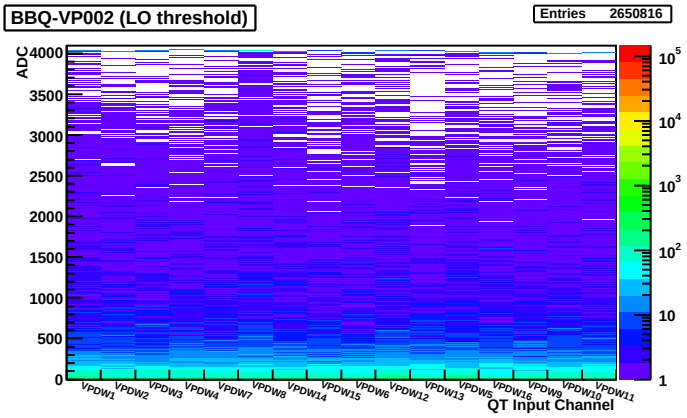

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2650816
TAC
QT Input Channel

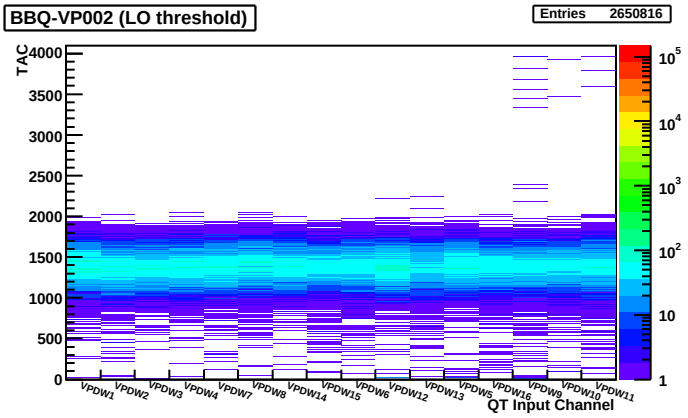

BBQ-ZD001 (ZDC TOWER)
Entries 2650816
ADC

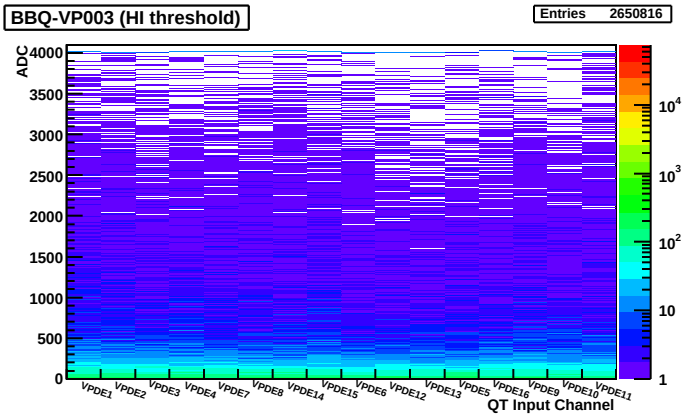

BBQ-ZD001 (ZDC TOWER)
Entries 2650816
TAC

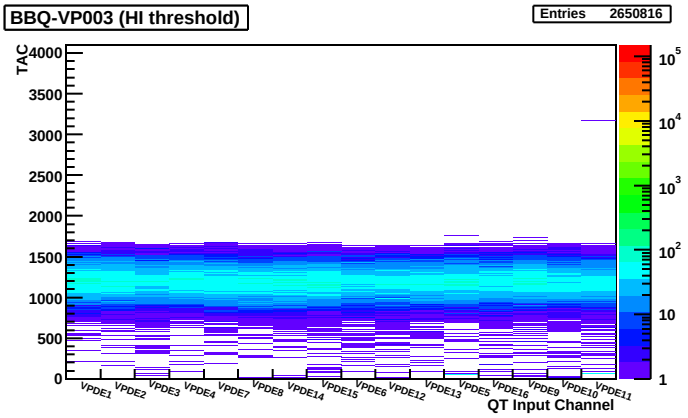

BBQ-VP001 (LO threshold)
Entries 2650816
ADC
QT Input Channel

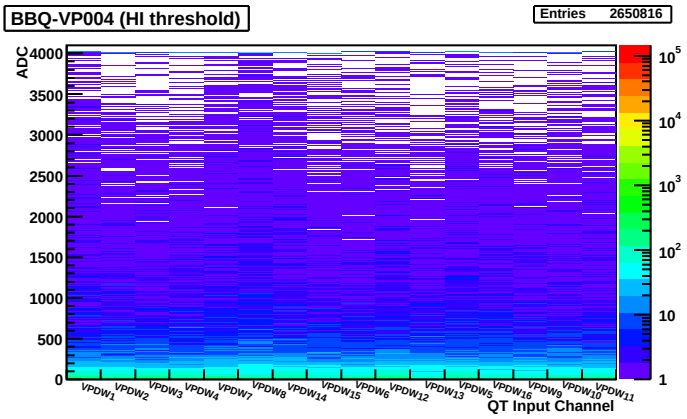

BBQ-VP001 (LO threshold)
Entries 2650816
TAC
QT Input Channel

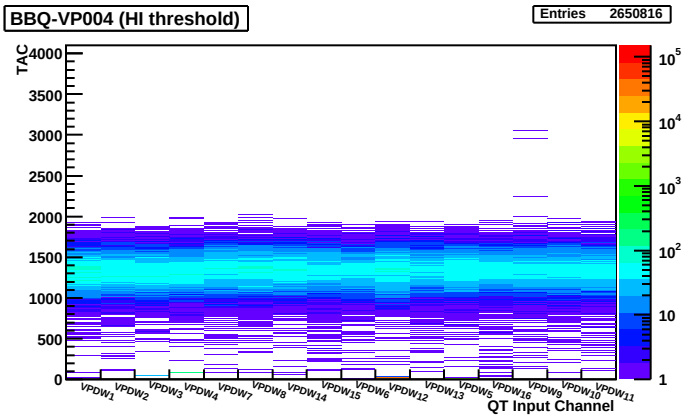

BBQ-VP002 (LO threshold)
Entries 2650816
ADC
QT Input Channel

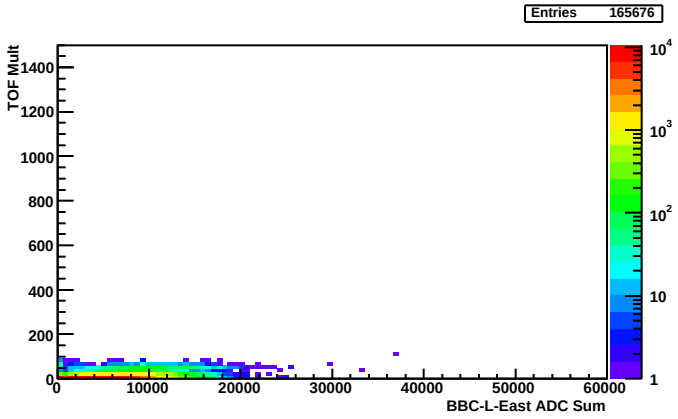

BBQ-VP002 (LO threshold)
Entries 2650816
TAC
QT Input Channel

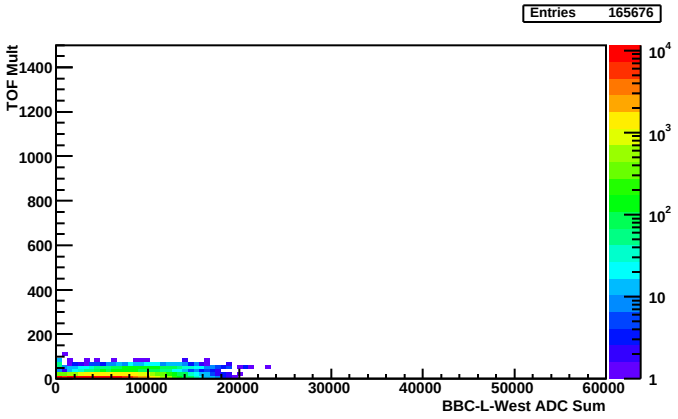

BBQ-VP003 (HI threshold)
Entries 2650816
ADC
QT Input Channel

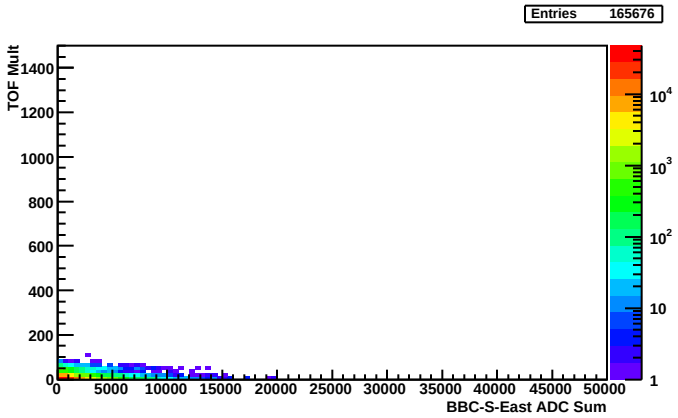

BBQ-VP003 (HI threshold)
Entries 2650816
TAC
QT Input Channel

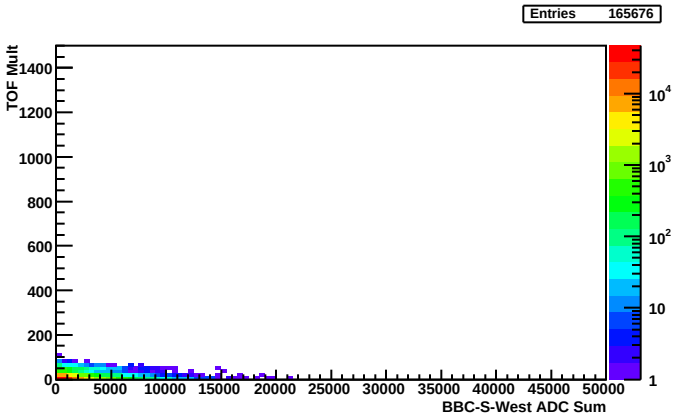

BBQ-VP004 (HI threshold)
Entries 2650816
ADC
QT Input Channel

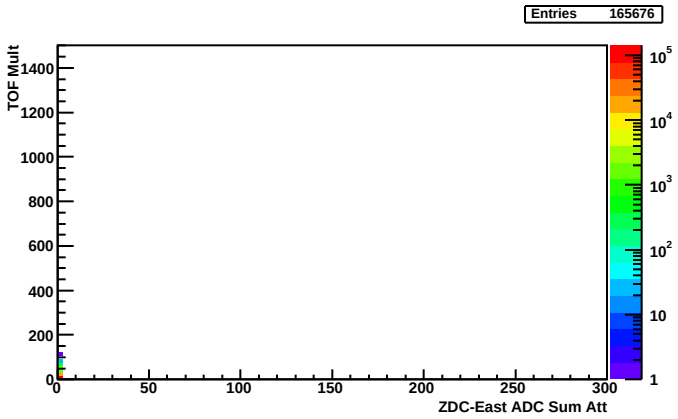

BBQ-VP004 (HI threshold)
Entries 2650816
TAC
QT Input Channel

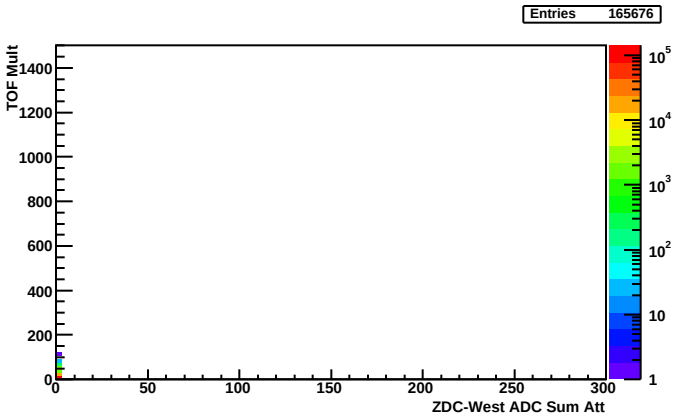

Entries 165676
TOF Mult
BBC-L-East ADC Sum

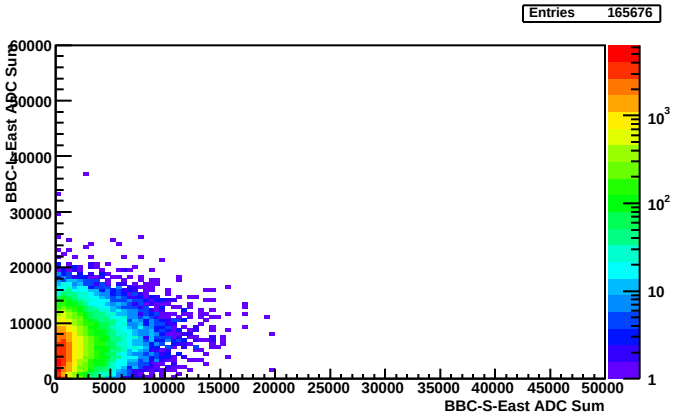

Entries 165676
TOF Mult
BBC-L-West ADC Sum

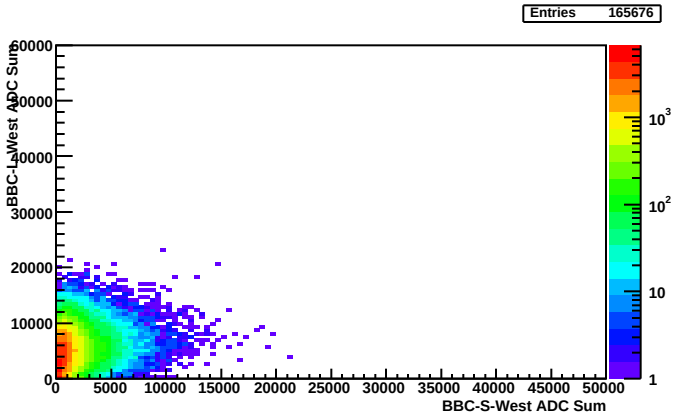

Entries 165676
TOF Mult
BBC-S-East ADC Sum

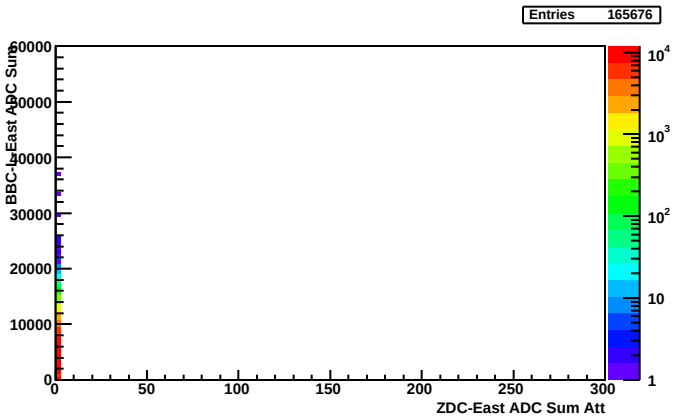

Entries 165676
TOF Mult
BBC-S-West ADC Sum

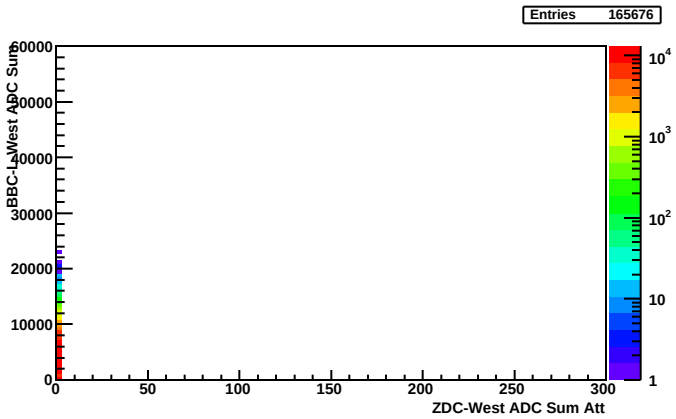

Entries 165676
TOF Mult
ZDC-East ADC Sum Att

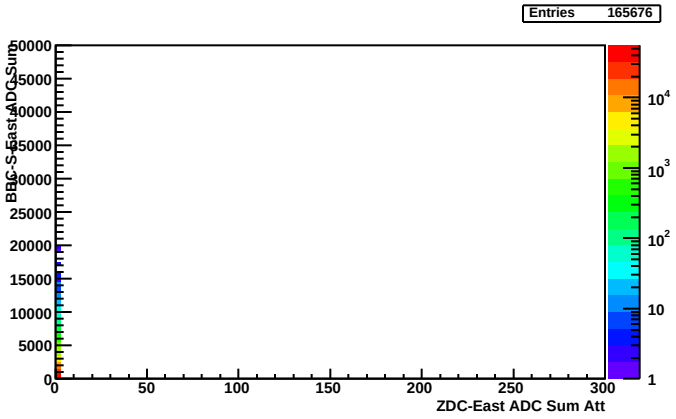

Entries 165676
TOF Mult
ZDC-West ADC Sum Att

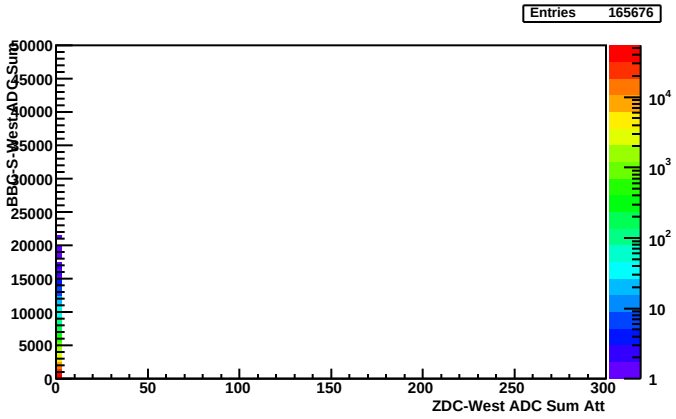

Entries 165676
BBC-L-East ADC Sum
BBC-S-East ADC Sum

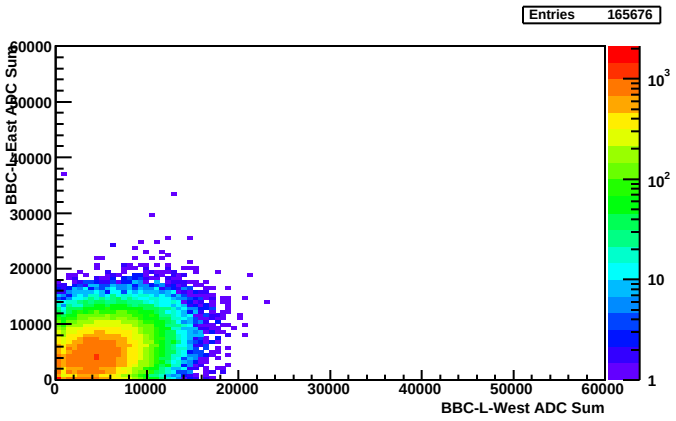

Entries 165676
BBC-L-West ADC Sum
BBC-S-West ADC Sum

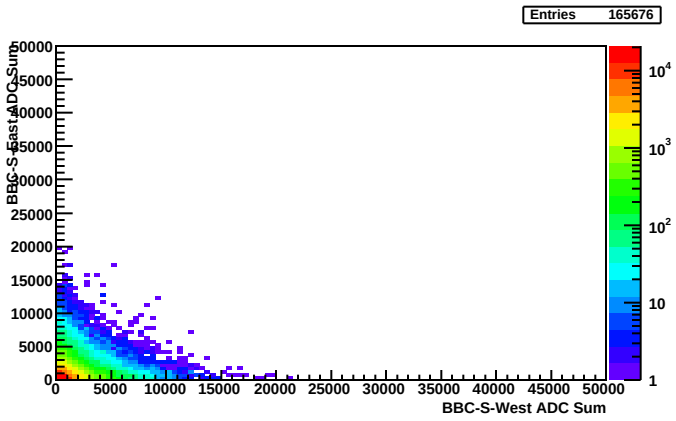

Entries 165676
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

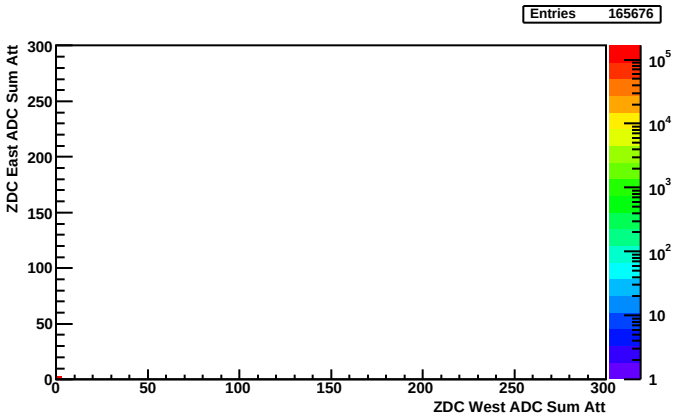

Entries 165676
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

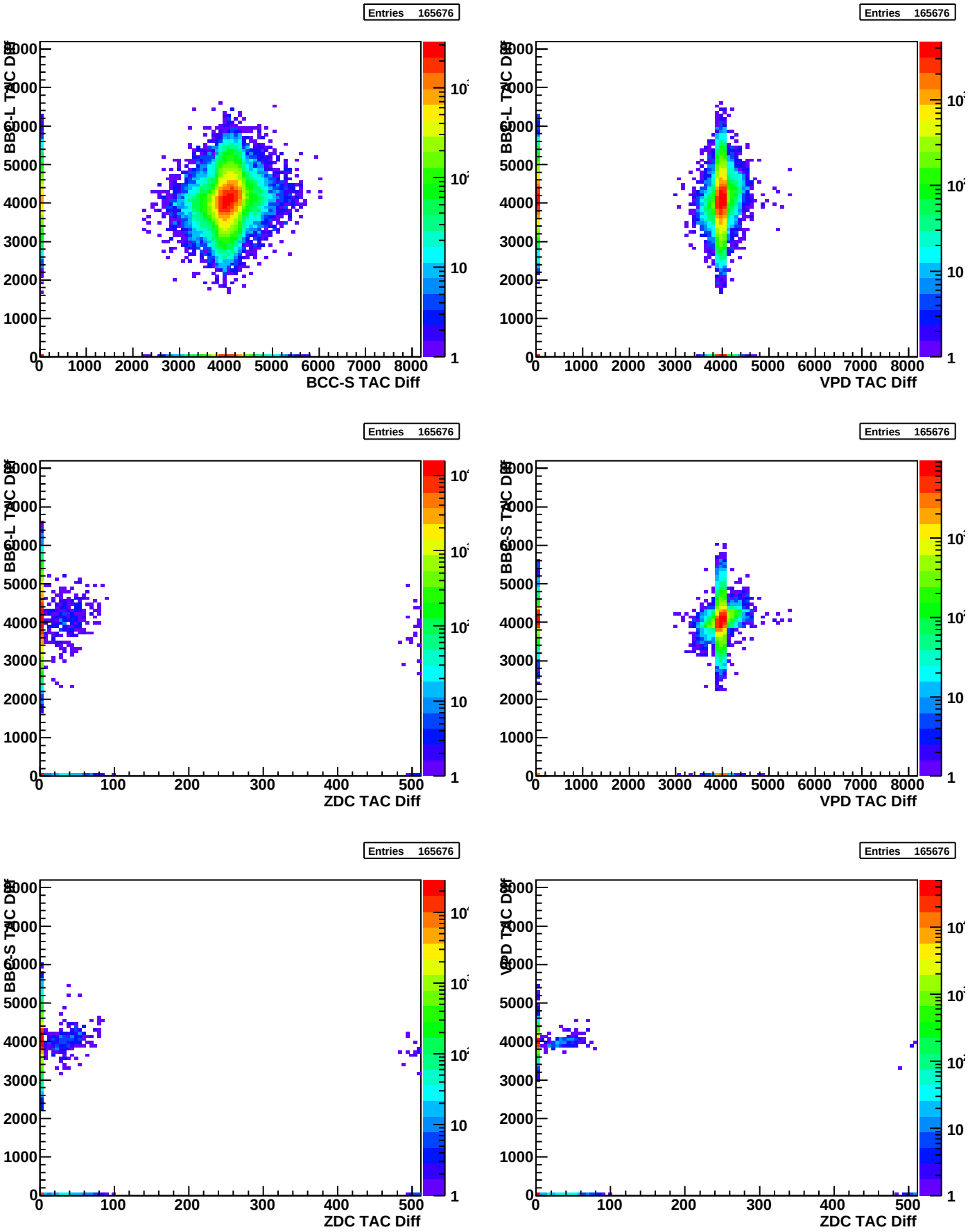

Entries 165676
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

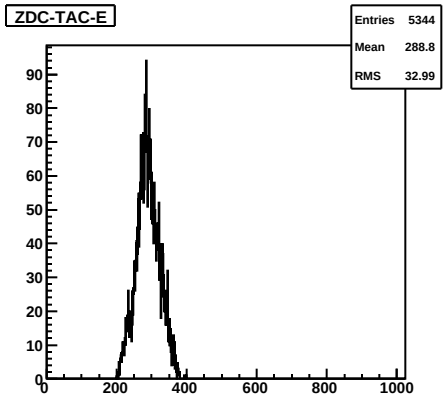

Entries 165676
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

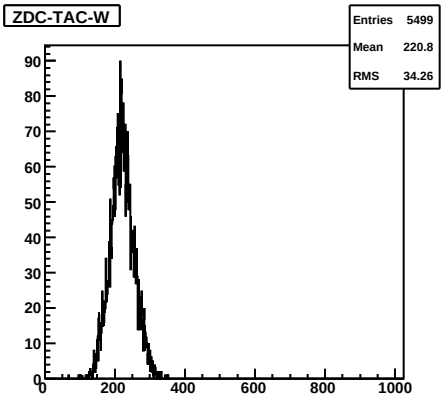

Entries 165676
BBC-L-East ADC Sum
BBC-L-West ADC Sum

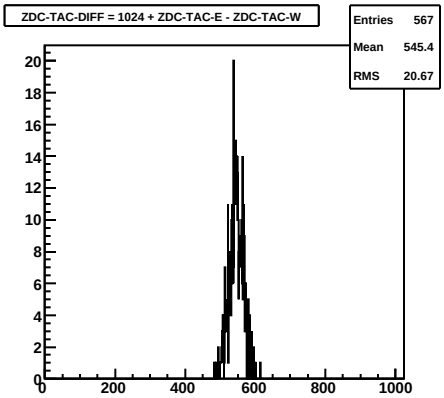

Entries 165676
BBC-S-East ADC Sum
BBC-S-West ADC Sum

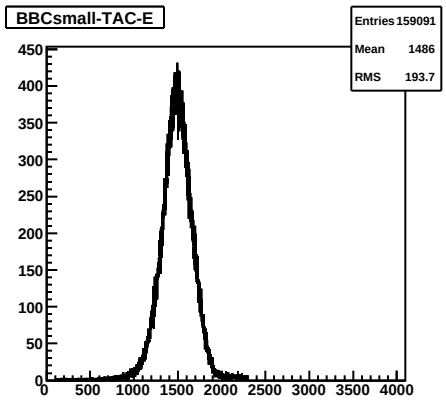

Entries 165676
ZDC East ADC Sum Att
ZDC West ADC Sum Att

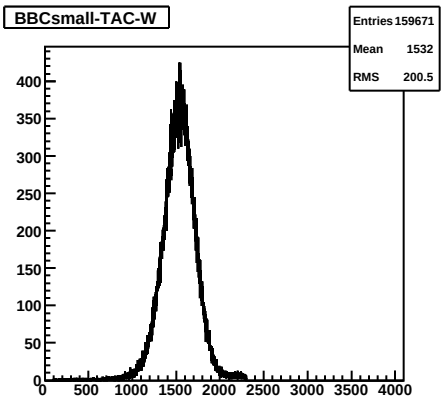

Entries 165676
BBC-L TAC Diff
BCC-S TAC Diff
Entries 165676
BBC-L TAC Diff
VPD TAC Diff
Entries 165676
BBC-L TAC Diff
ZDC TAC Diff
Entries 165676
BBC-S TAC Diff
VPD TAC Diff
Entries 165676
BBC-S TAC Diff
ZDC TAC Diff
Entries 165676
VPD TAC Diff
ZDC TAC Diff

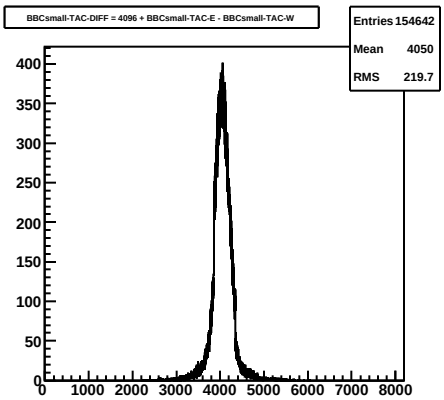

ZDC-TAC-E
Entries 5344
Mean 288.8
RMS 32.99

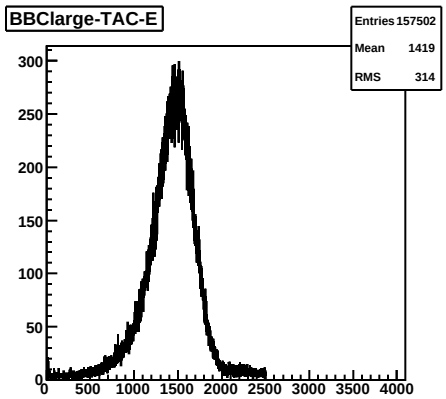

ZDC-TAC-W
Entries 5499
Mean 220.8
RMS 34.26

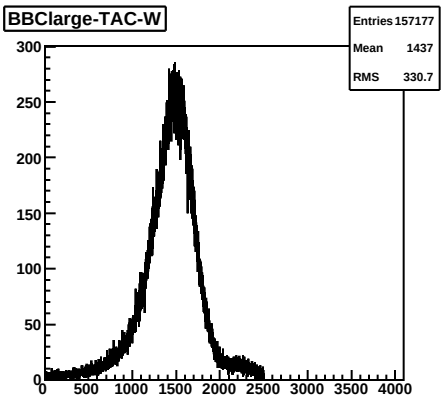

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 567
Mean 545.4
RMS 20.67

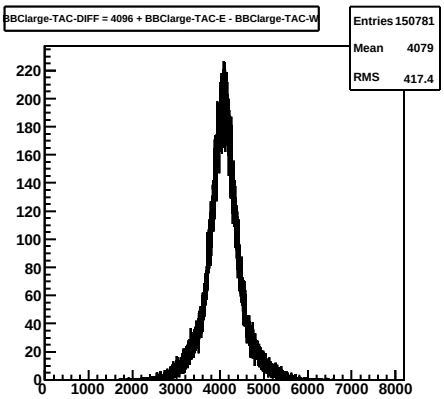

BBCsmall-TAC-E
Entries 159091
Mean 1486
RMS 193.7

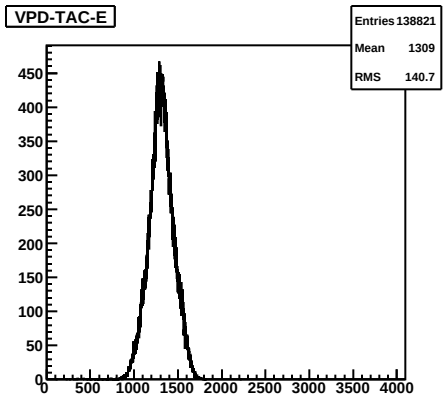

BBCsmall-TAC-W
Entries 159671
Mean 1532
RMS 200.5

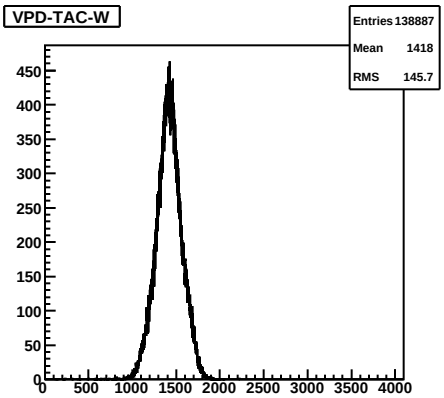

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 154642
Mean 4050
RMS 219.7

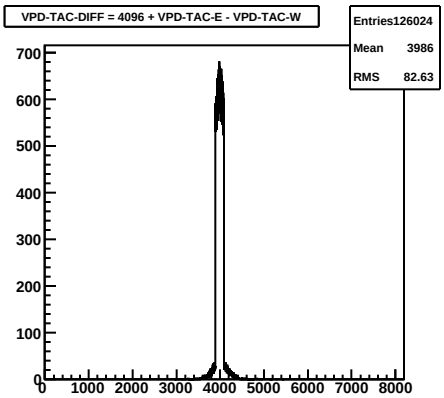

BBClarge-TAC-E
Entries 157502
Mean 1419
RMS 314

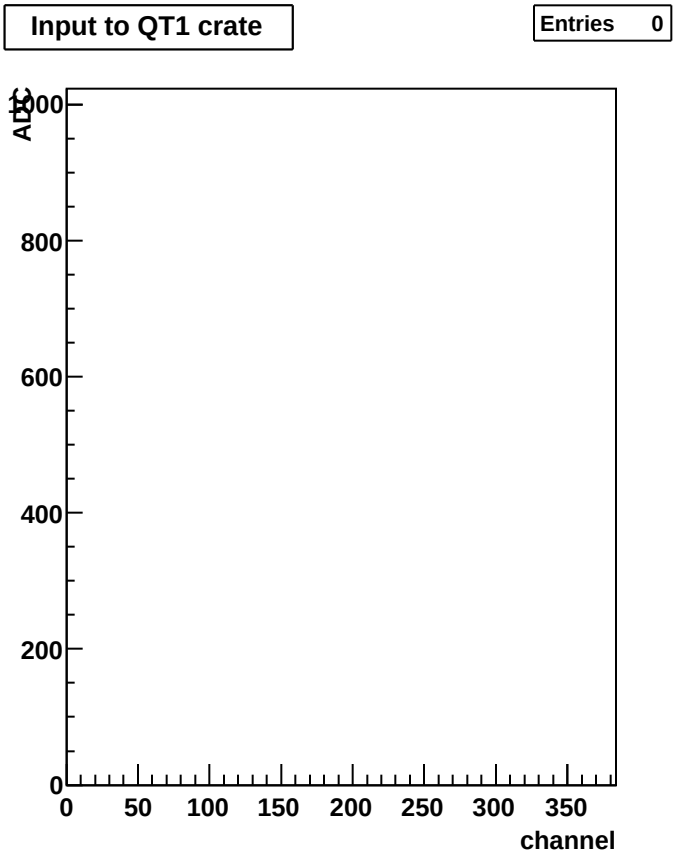

BBClarge-TAC-W
Entries 157177
Mean 1437
RMS 330.7

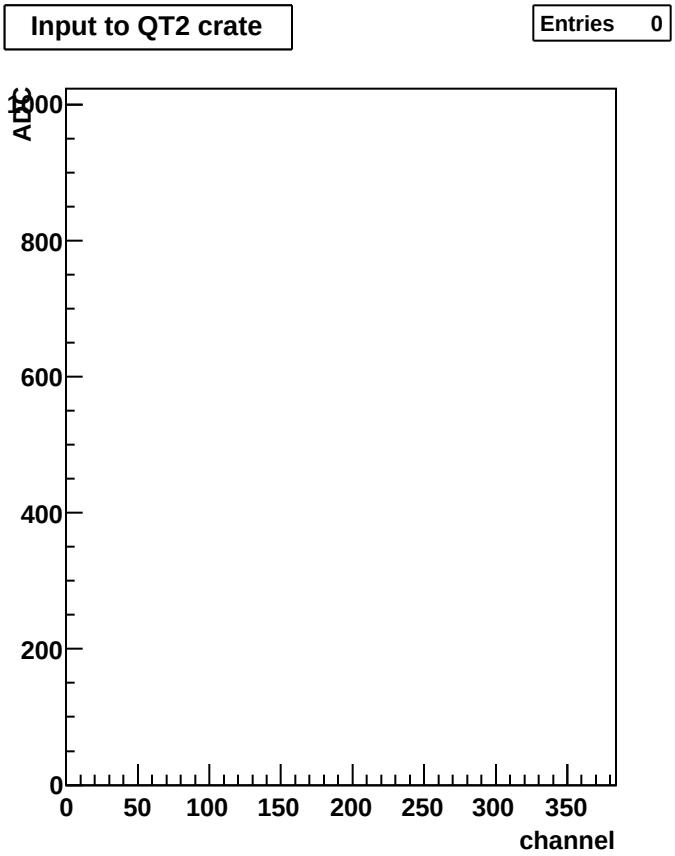

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 150781
Mean 4079
RMS 417.4

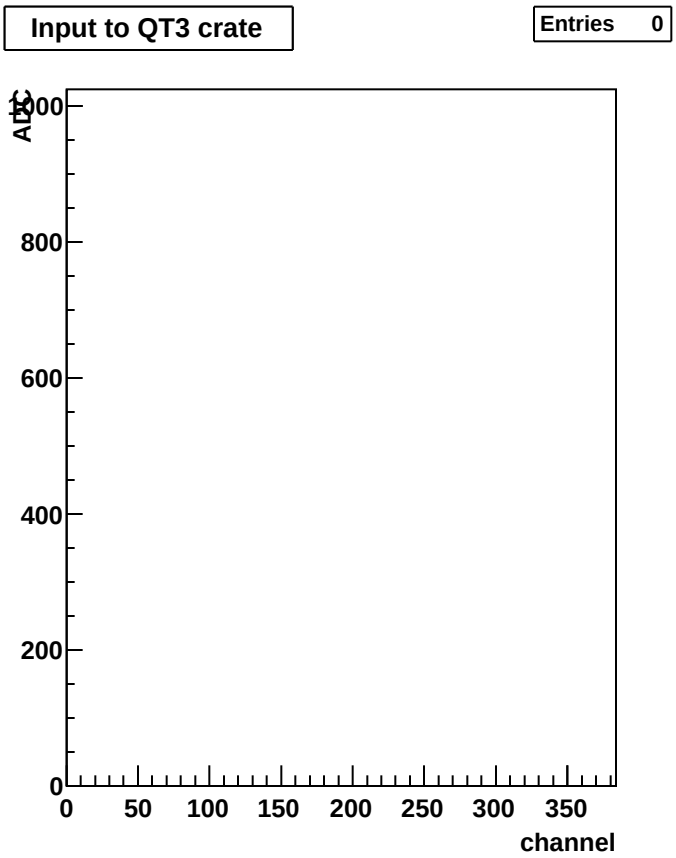

VPD-TAC-E
Entries 138821
Mean 1309
RMS 140.7

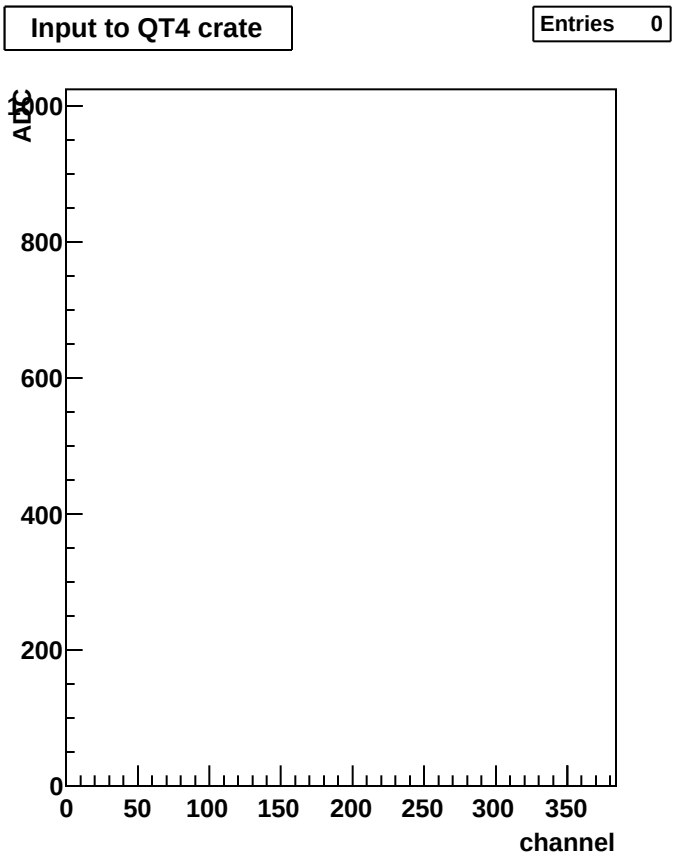

VPD-TAC-W
Entries 138887
Mean 1418
RMS 145.7

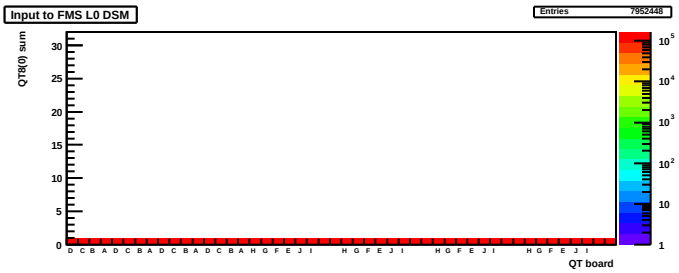

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 126024
Mean 3986
RMS 82.63

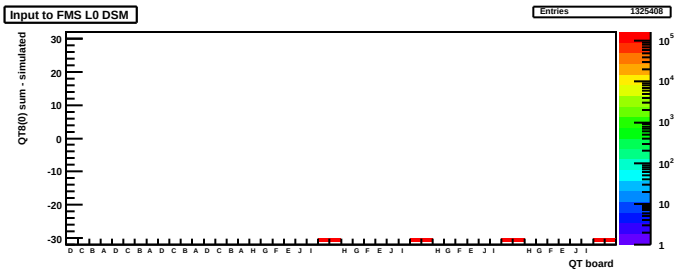

Input to QT1 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

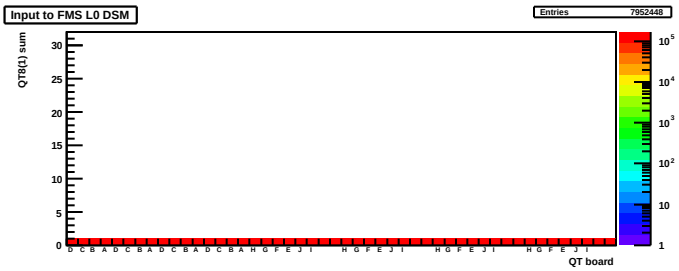

Input to QT2 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

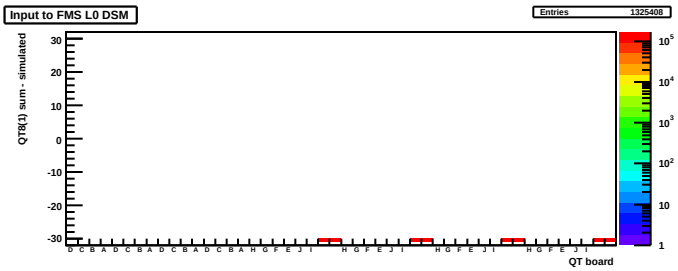

Input to QT3 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

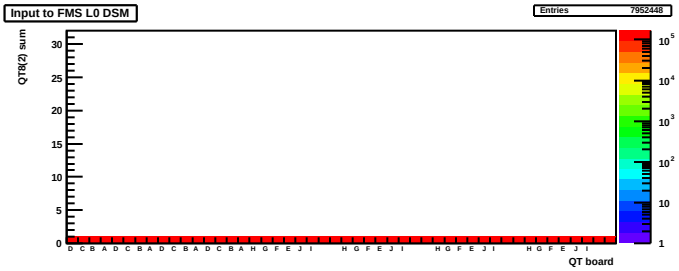

Input to QT4 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

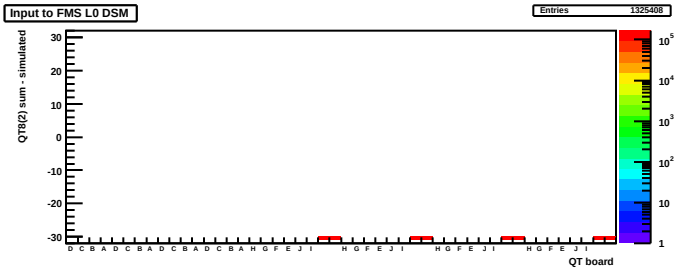

Input to FMS L0 DSM
Entries 7952448
QT8(0) sum
QT board

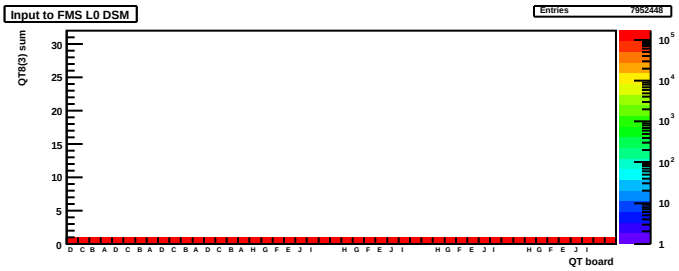

Input to FMS L0 DSM
Entries 1325408
QT8(0) sum - simulated
QT board

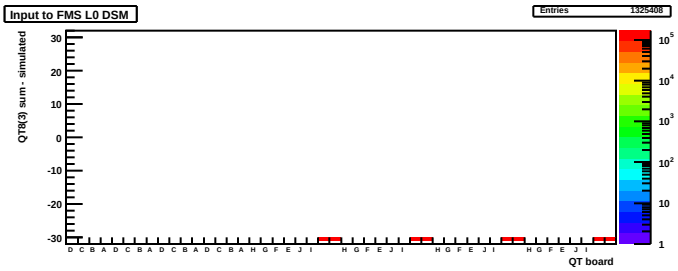

Input to FMS L0 DSM
Entries 7952448
QT8(1) sum
QT board

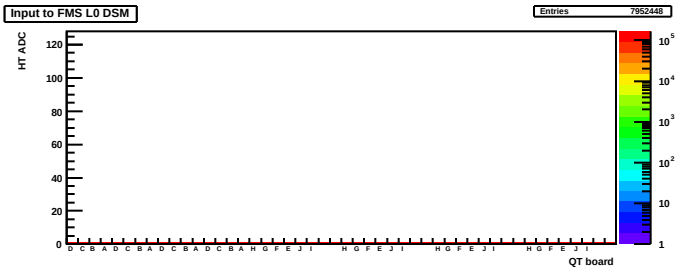

Input to FMS L0 DSM
Entries 1325408
QT8(1) sum - simulated
QT board

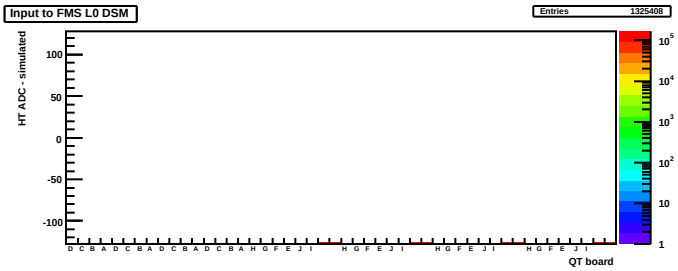

Input to FMS L0 DSM
Entries 7952448
QT8(2) sum
QT board

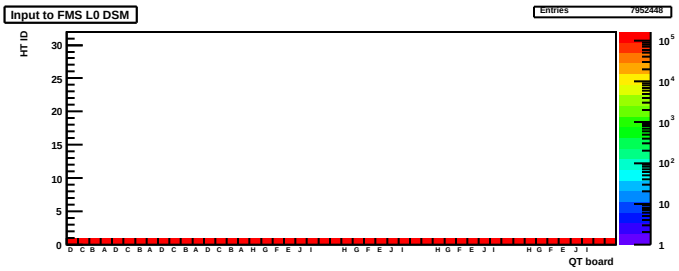

Input to FMS L0 DSM
Entries 1325408
QT8(2) sum - simulated
QT board

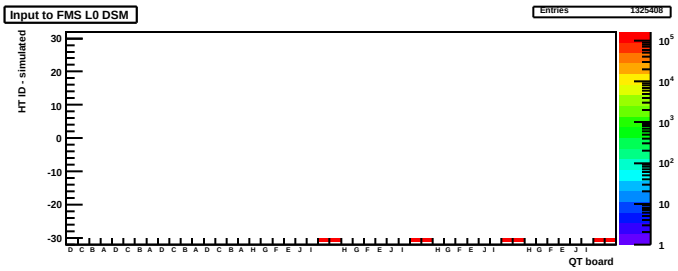

Input to FMS L0 DSM
Entries 7952448
QT8(3) sum
QT board

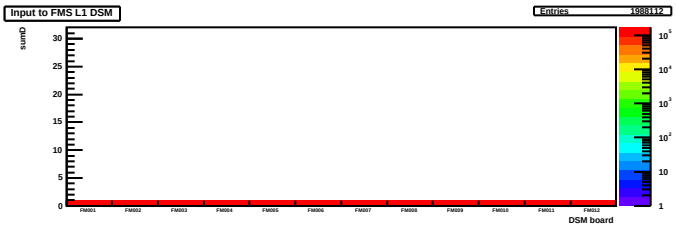

Input to FMS L0 DSM
Entries 1325408
QT8(3) sum - simulated
QT board

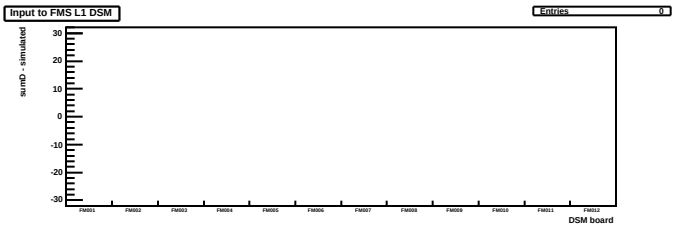

Input to FMS L0 DSM
Entries 7952448
HT ADC
QT board

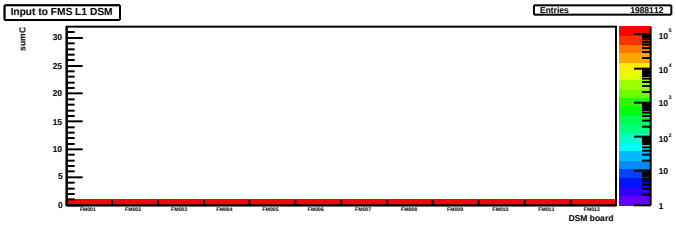

Input to FMS L0 DSM
Entries 1325408
HT ADC - simulated
QT board

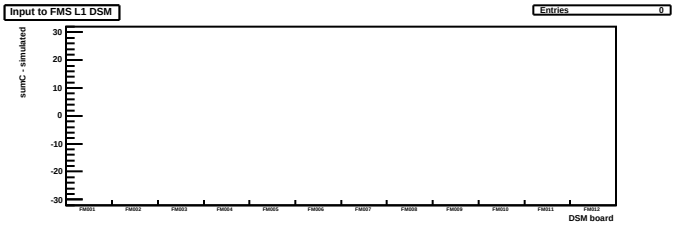

Input to FMS L0 DSM
Entries 7952448
HT ID
QT board

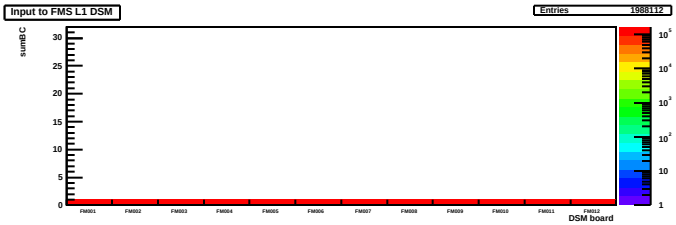

Input to FMS L0 DSM
Entries 1325408
HT ID - simulated
QT board

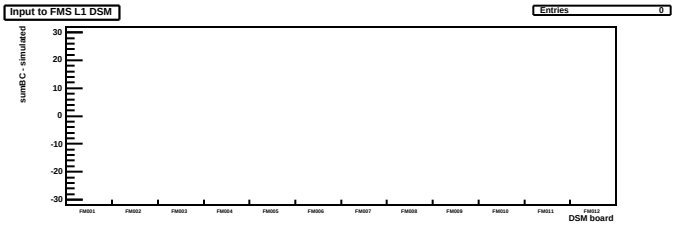

Input to FMS L1 DSM
Entries 1988112
sumD
DSM board

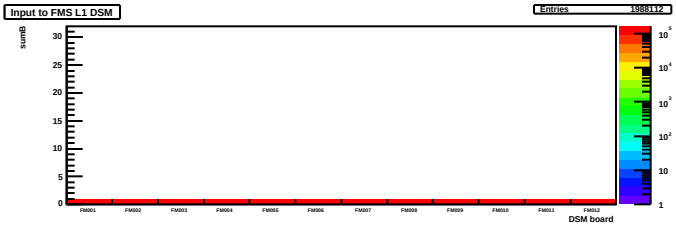

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

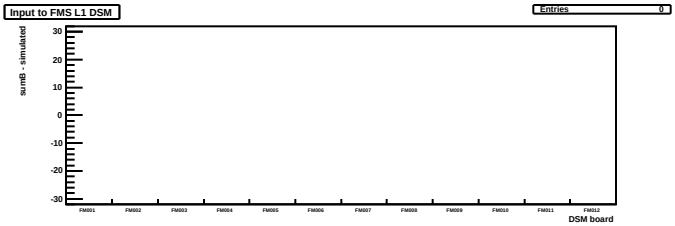

Input to FMS L1 DSM
Entries 1988112
sumC
DSM board

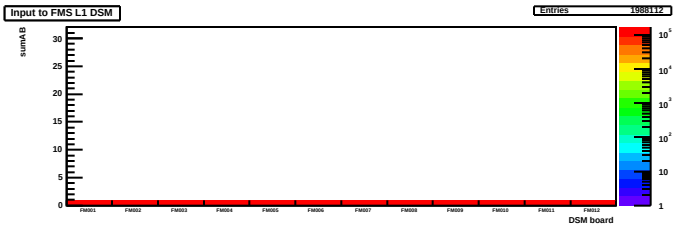

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

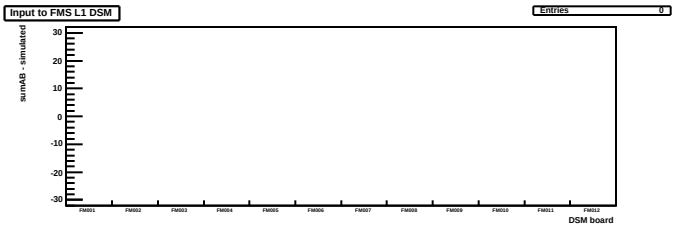

Input to FMS L1 DSM
Entries 1988112
sumBC
DSM board

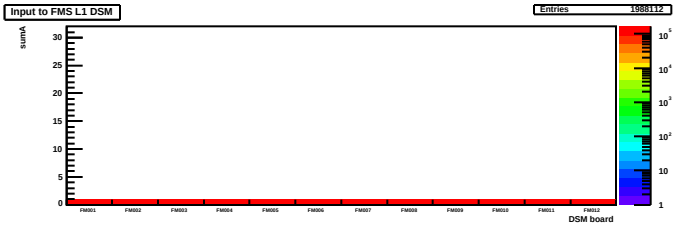

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

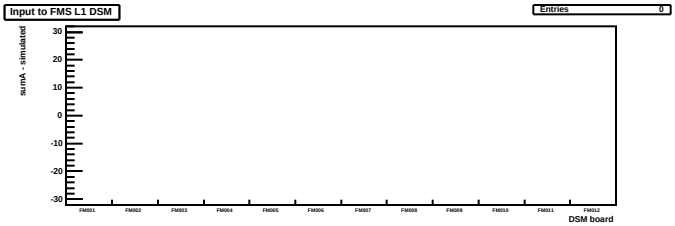

Input to FMS L1 DSM
Entries 1988112
sumB
DSM board

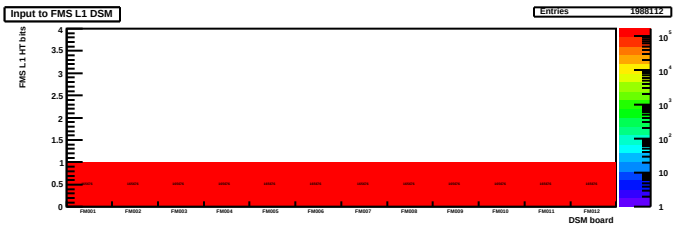

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

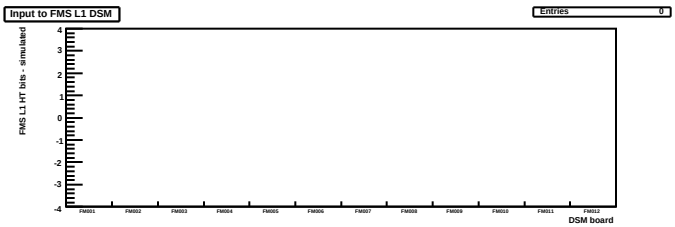

Input to FMS L1 DSM
Entries 1988112
sumAB
DSM board

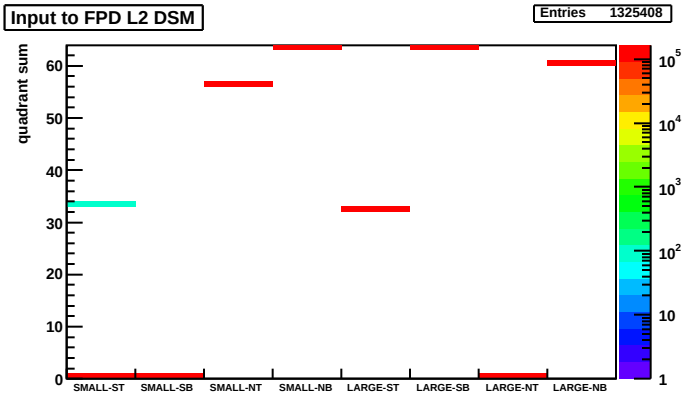

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

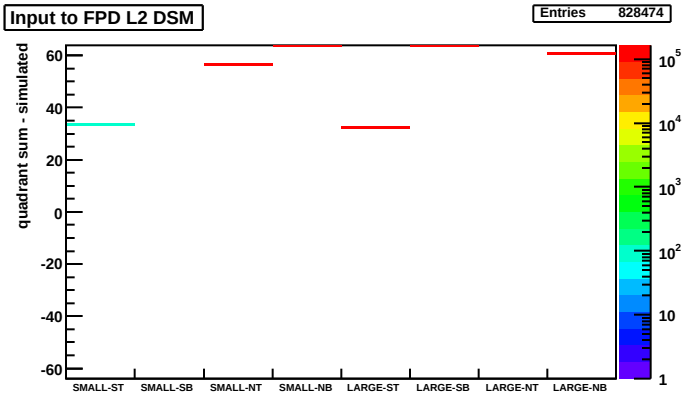

Input to FMS L1 DSM
Entries 1988112
sumA
DSM board

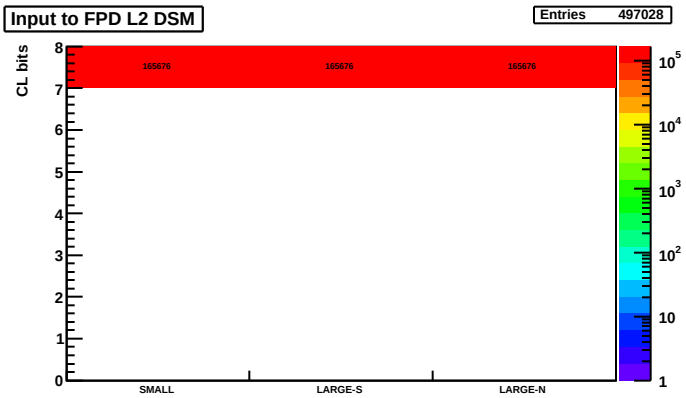

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

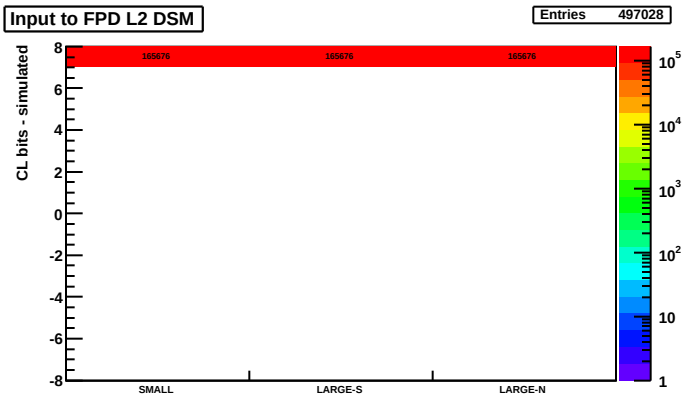

Input to FMS L1 DSM
Entries 1988112
FMS L1 HT bits
DSM board

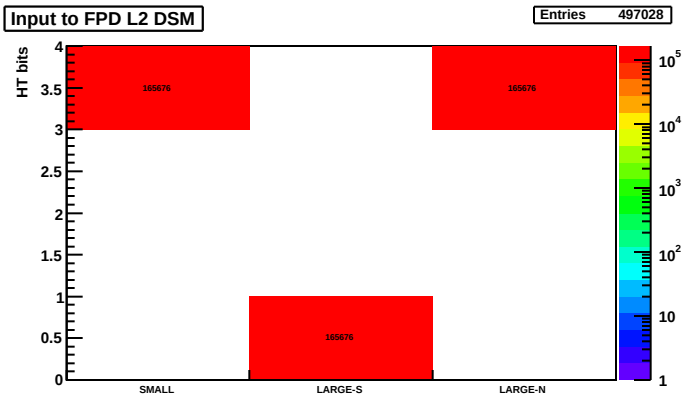

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

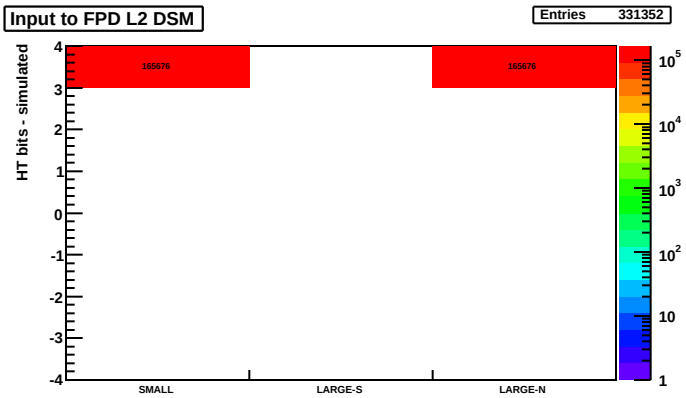

Input to FPD L2 DSM
Entries 1325408
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

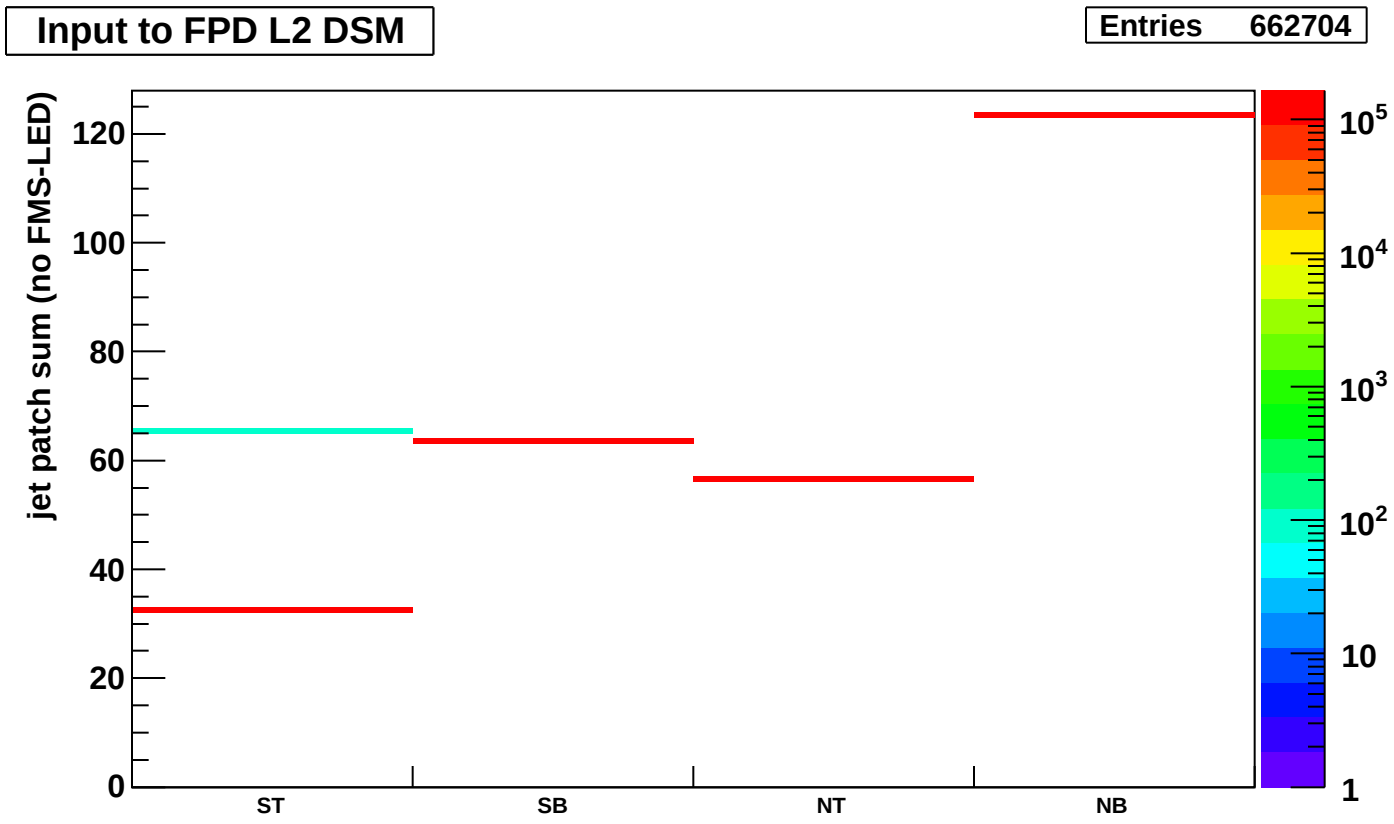

Input to FPD L2 DSM
Entries 828474
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

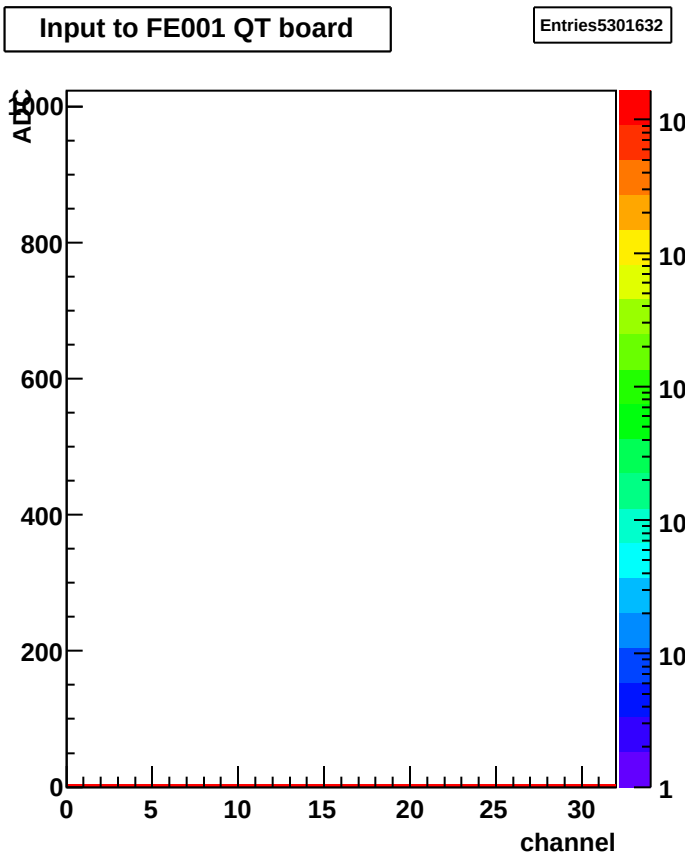

Input to FPD L2 DSM
Entries 497028
CL bits
165676
165676
165676
SMALL
LARGE-S
LARGE-N

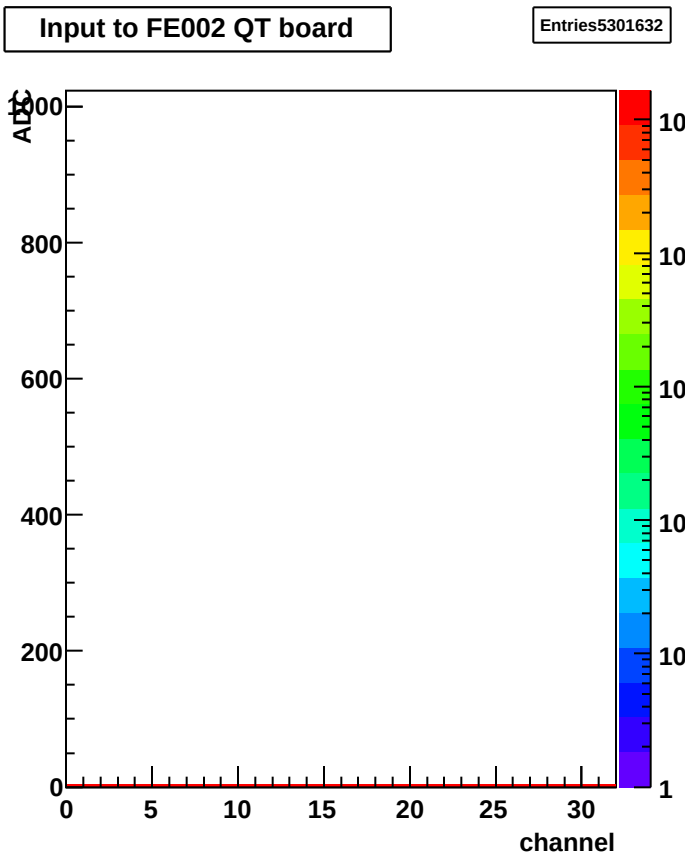

Input to FPD L2 DSM
Entries 497028
CL bits - simulated
165676
165676
165676
SMALL
LARGE-S
LARGE-N

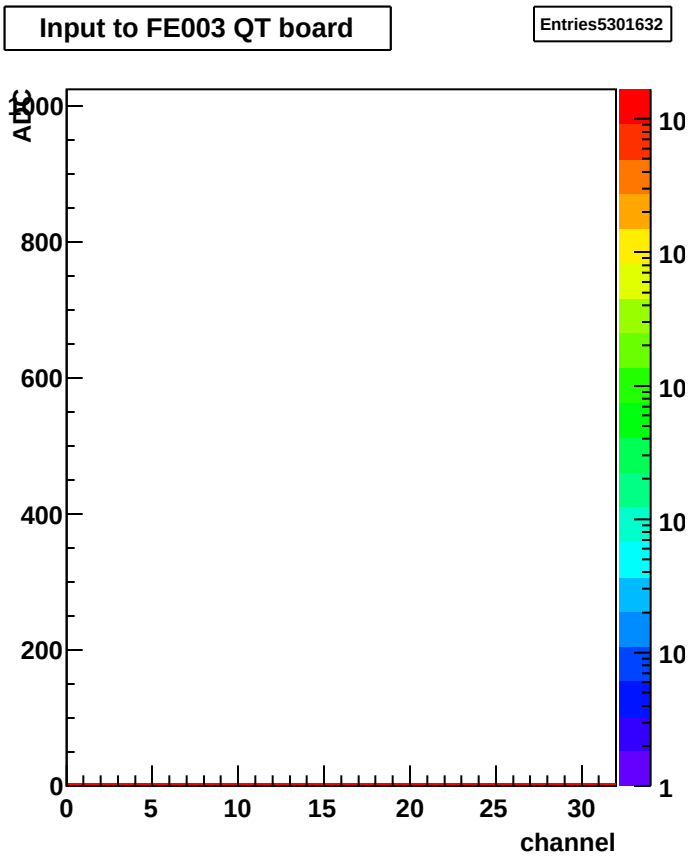

Input to FPD L2 DSM
Entries 497028
HT bits
165676
165676
165676
SMALL
LARGE-S
LARGE-N

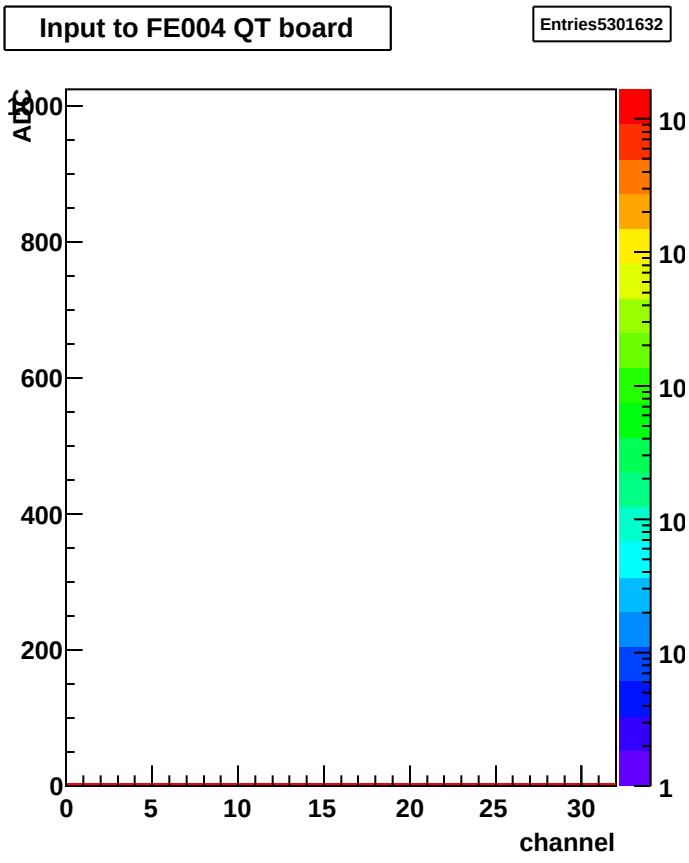

Input to FPD L2 DSM
Entries 331352
HT bits - simulated
165676
165676
SMALL
LARGE-S
LARGE-N

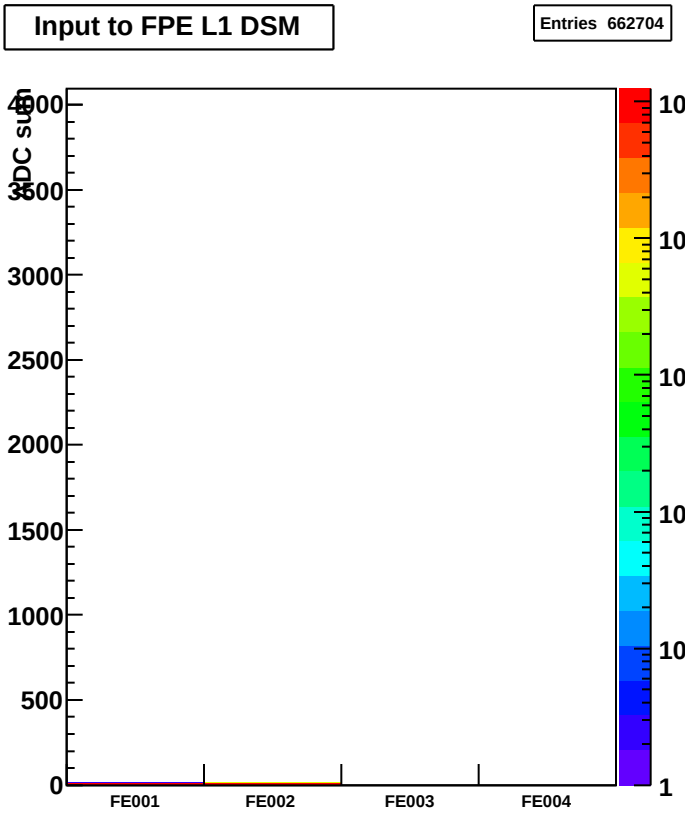

Input to FPD L2 DSM
Entries 662704
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

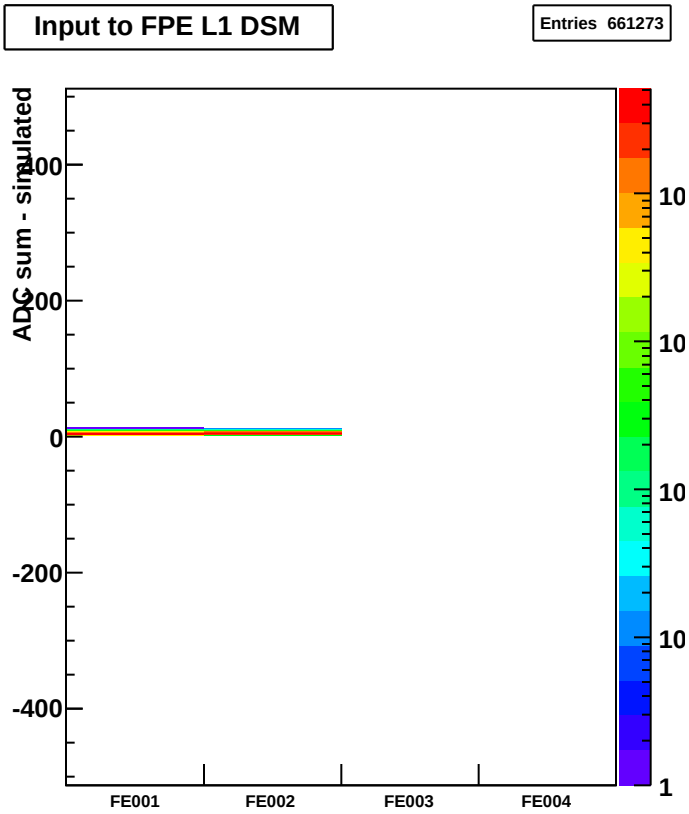

Input to FE001 QT board
Entries5301632
ADC
channel

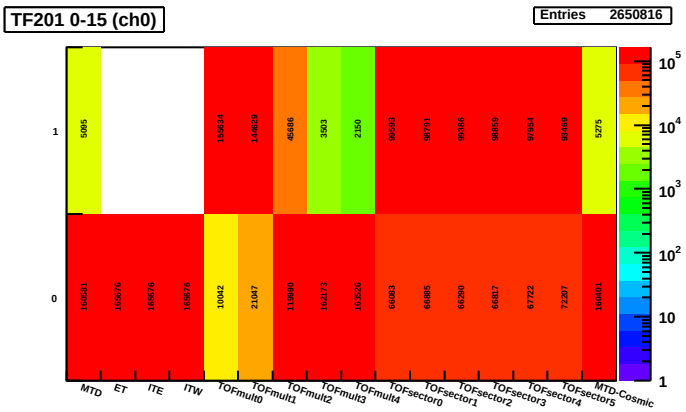

Input to FE002 QT board
Entries5301632
ADC
channel

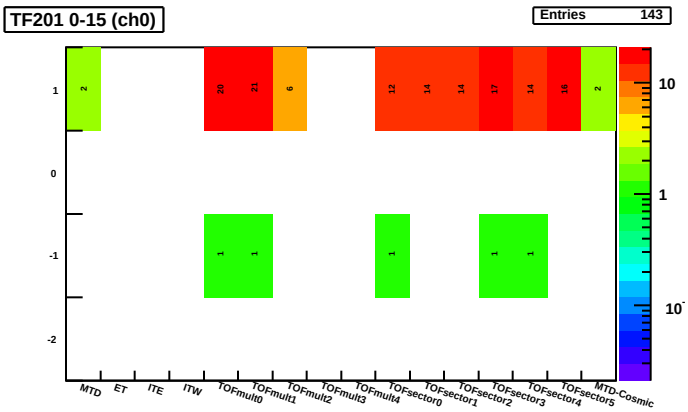

Input to FE003 QT board
Entries5301632
ADC
channel

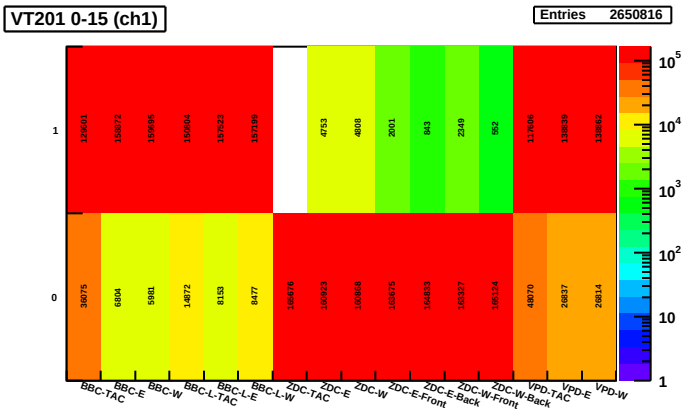

Input to FE004 QT board
Entries5301632
ADC
channel

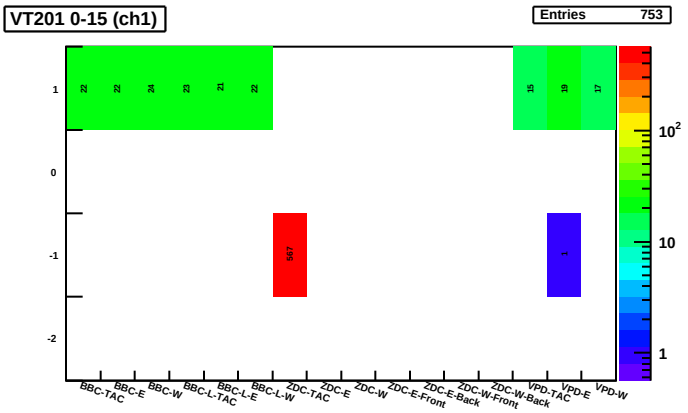

Input to FPE L1 DSM
Entries 662704
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

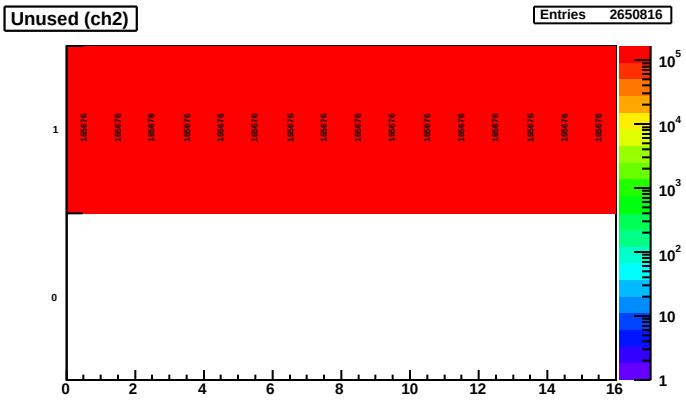

Input to FPE L1 DSM
Entries 661273
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

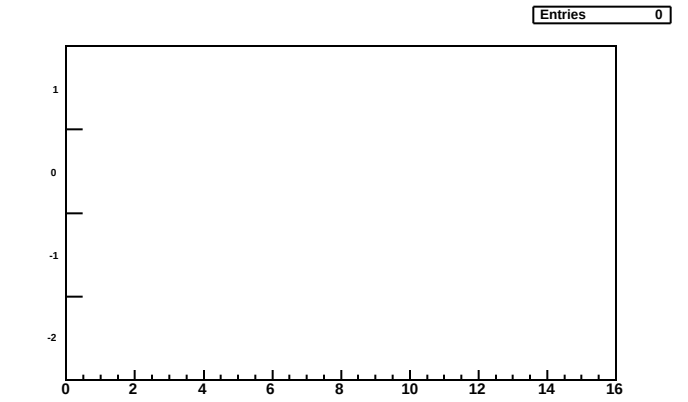

TF201 0-15 (ch0)
Entries 2650816
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

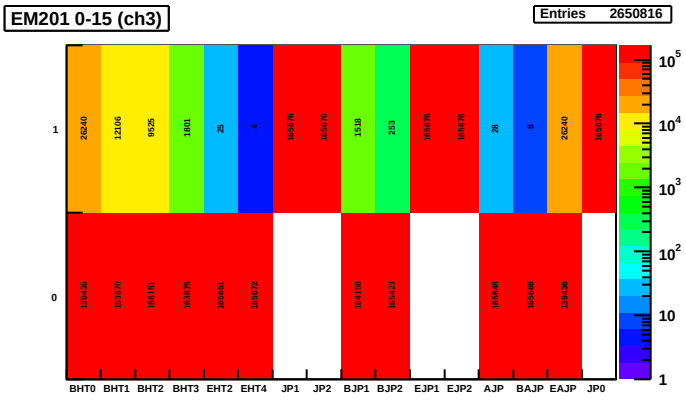

TF201 0-15 (ch0)
Entries 143
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

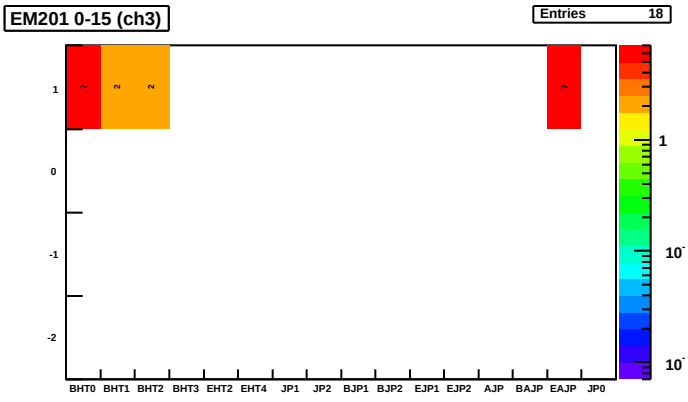

VT201 0-15 (ch1)
Entries 2650816
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 753
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

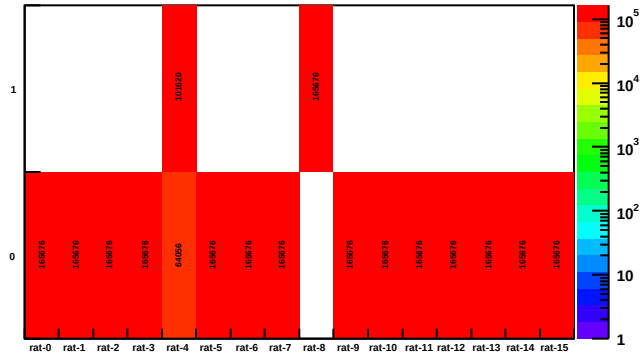

Unused (ch2)
Entries 2650816

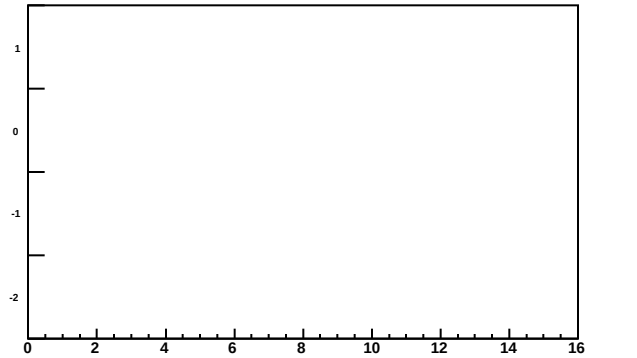

Entries 0


EM201 0-15 (ch3)
Entries 2650816
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

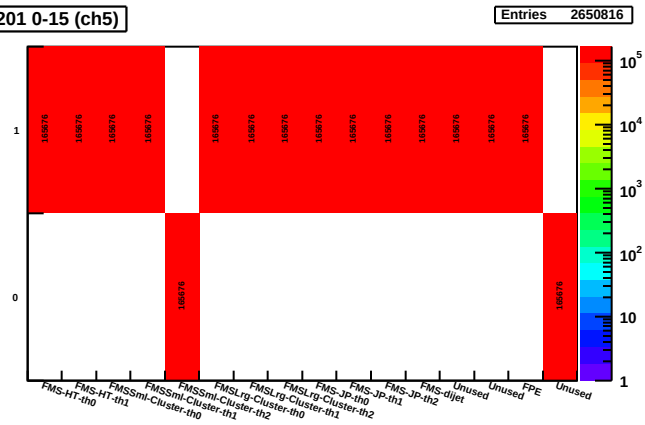

EM201 0-15 (ch3)
Entries 18
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

RAT board (ch4)

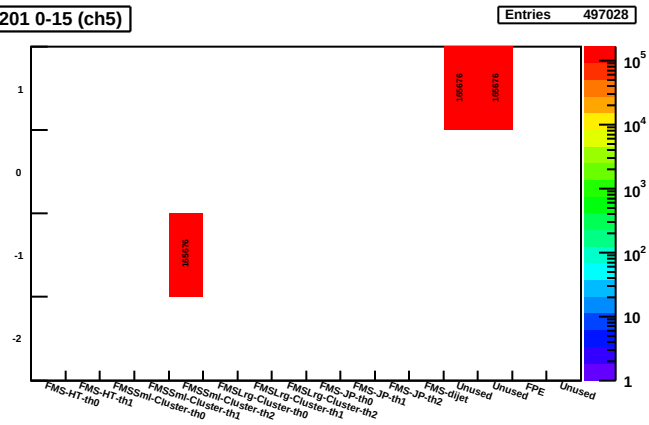




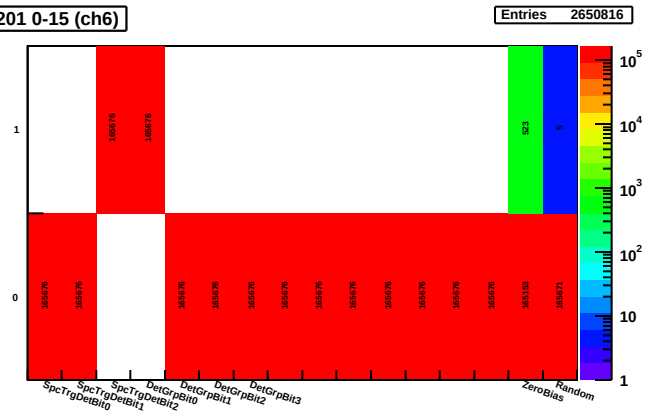
FP201 0-15 (ch5)

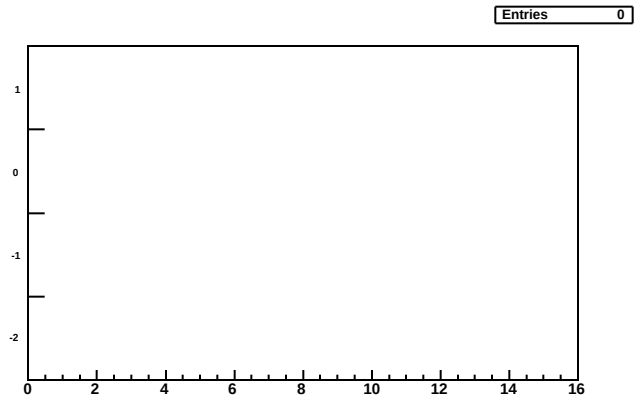
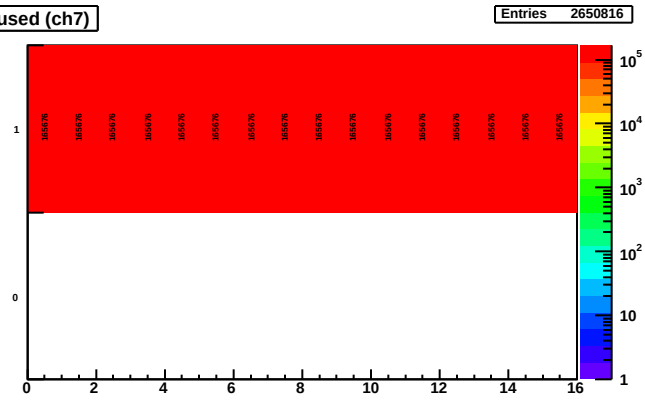
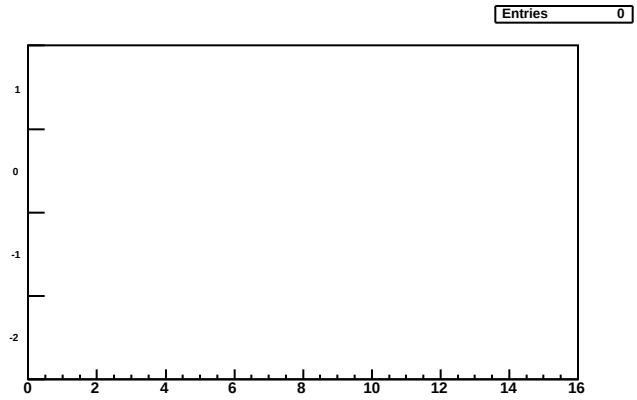


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)