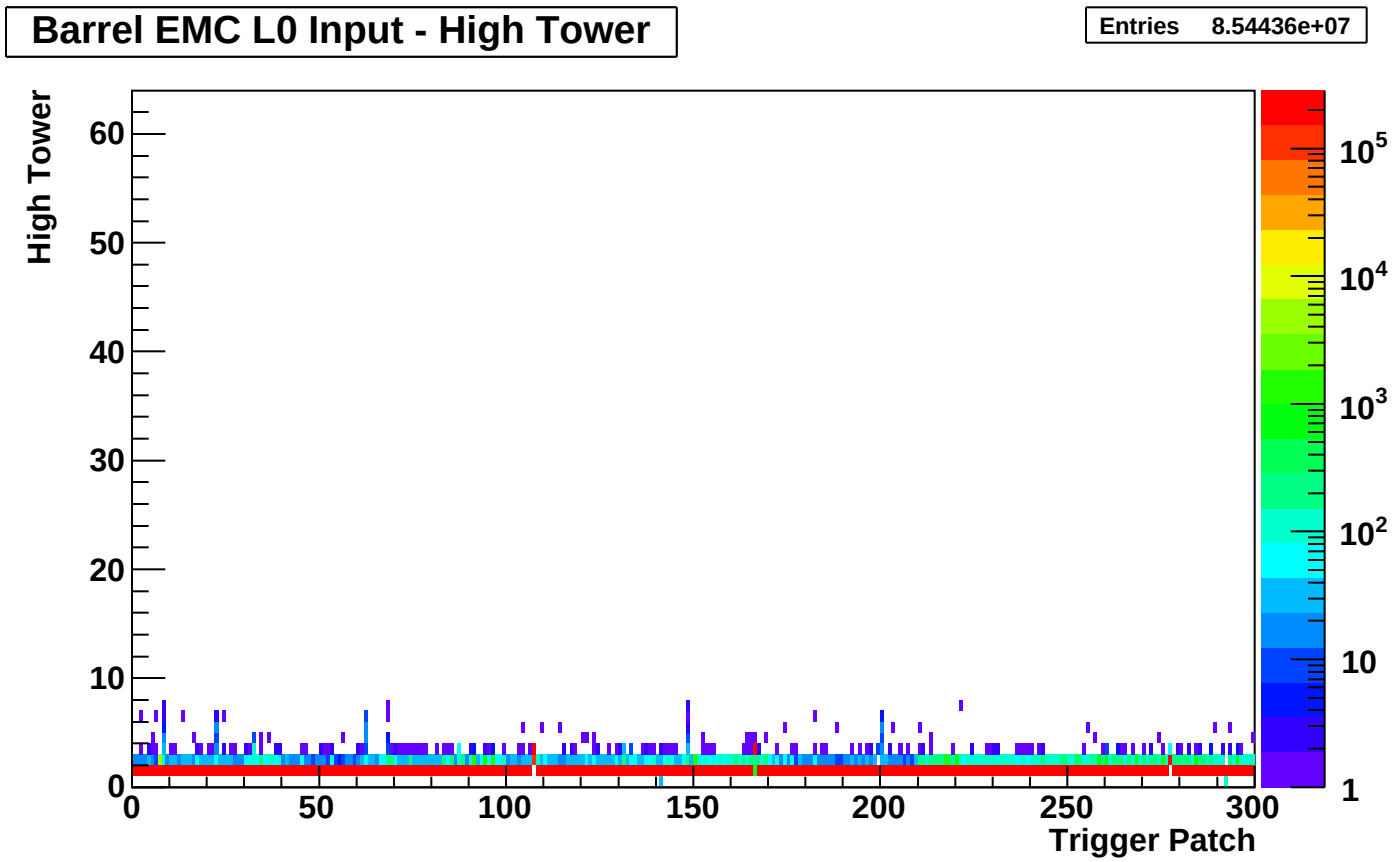
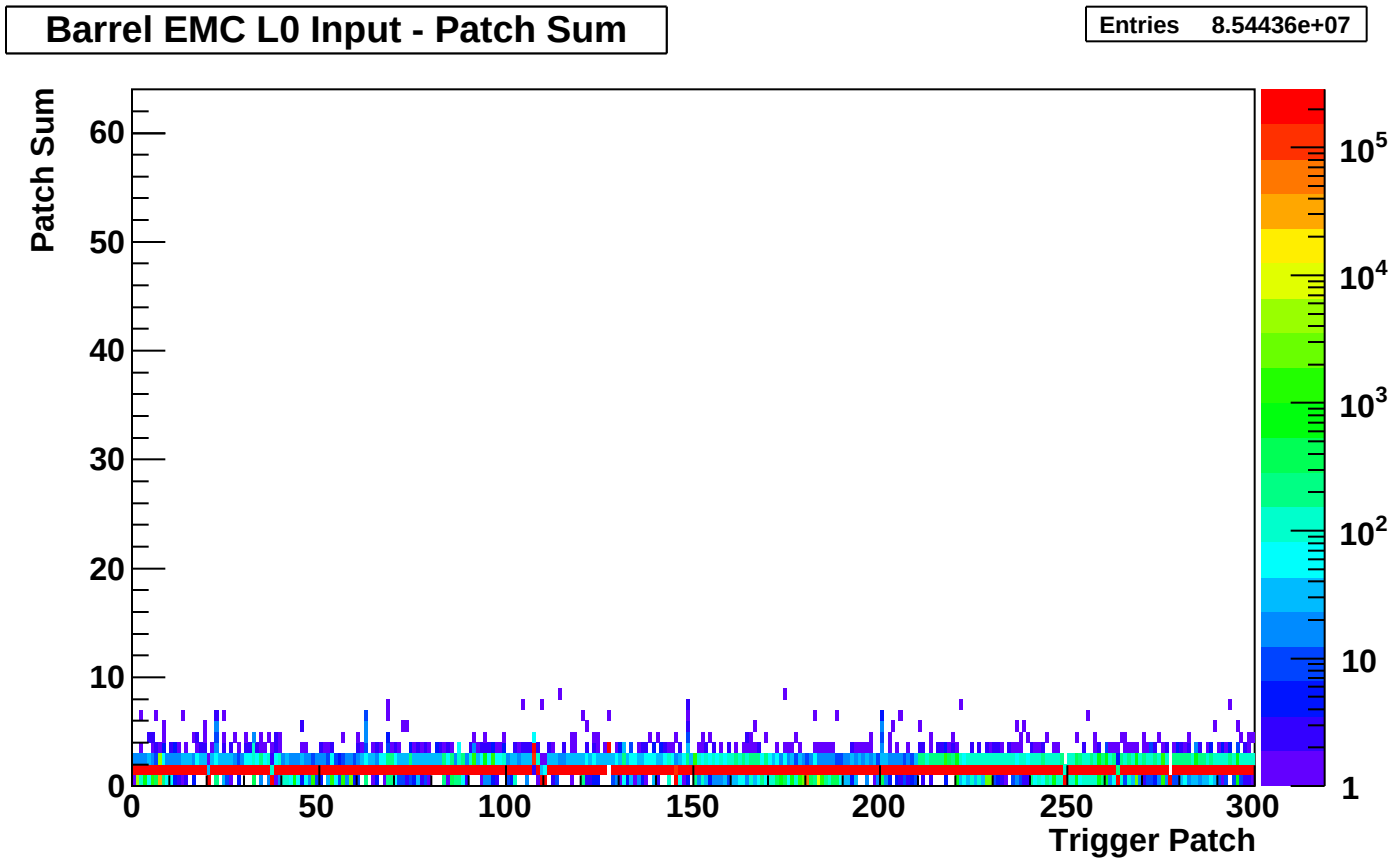
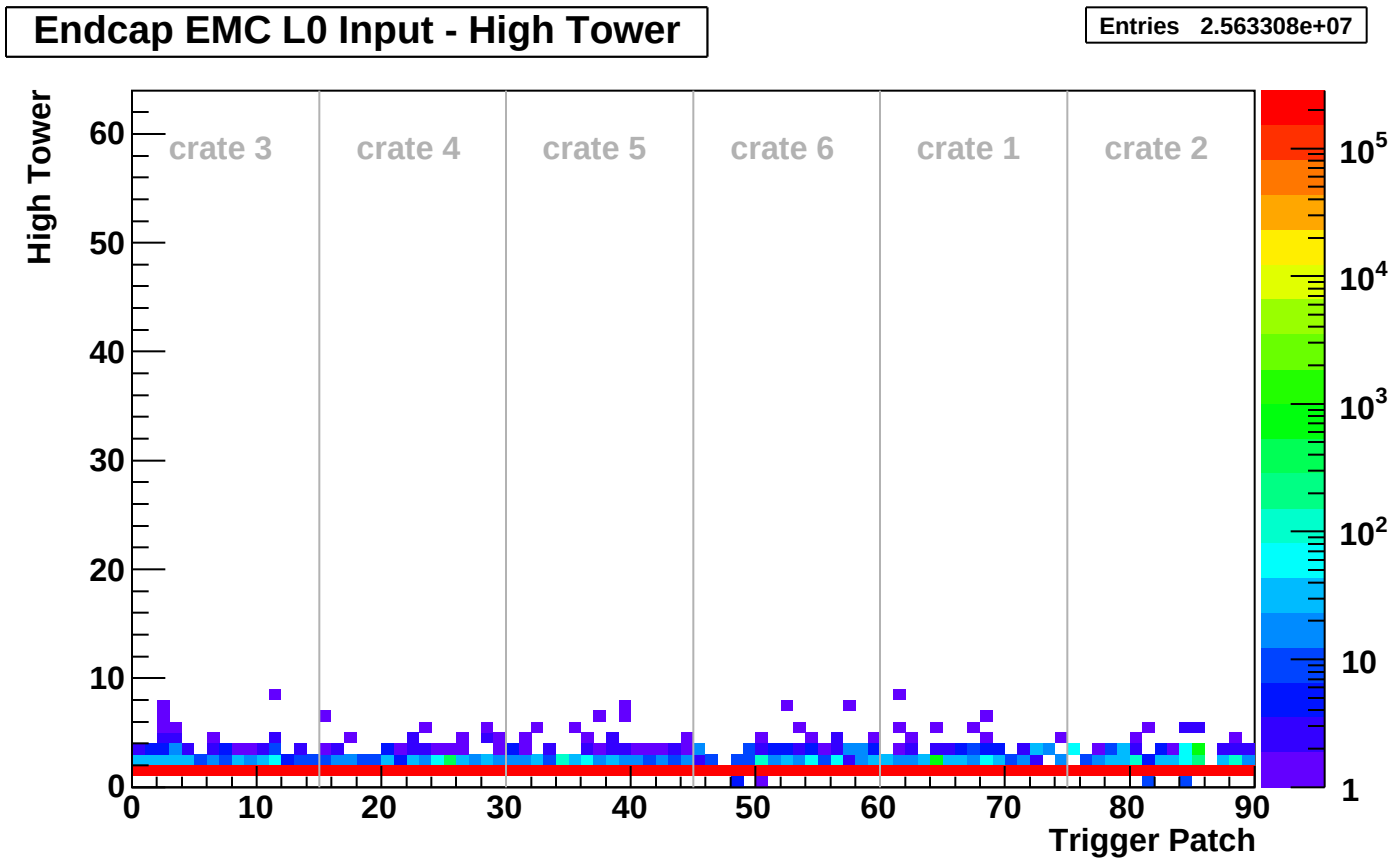
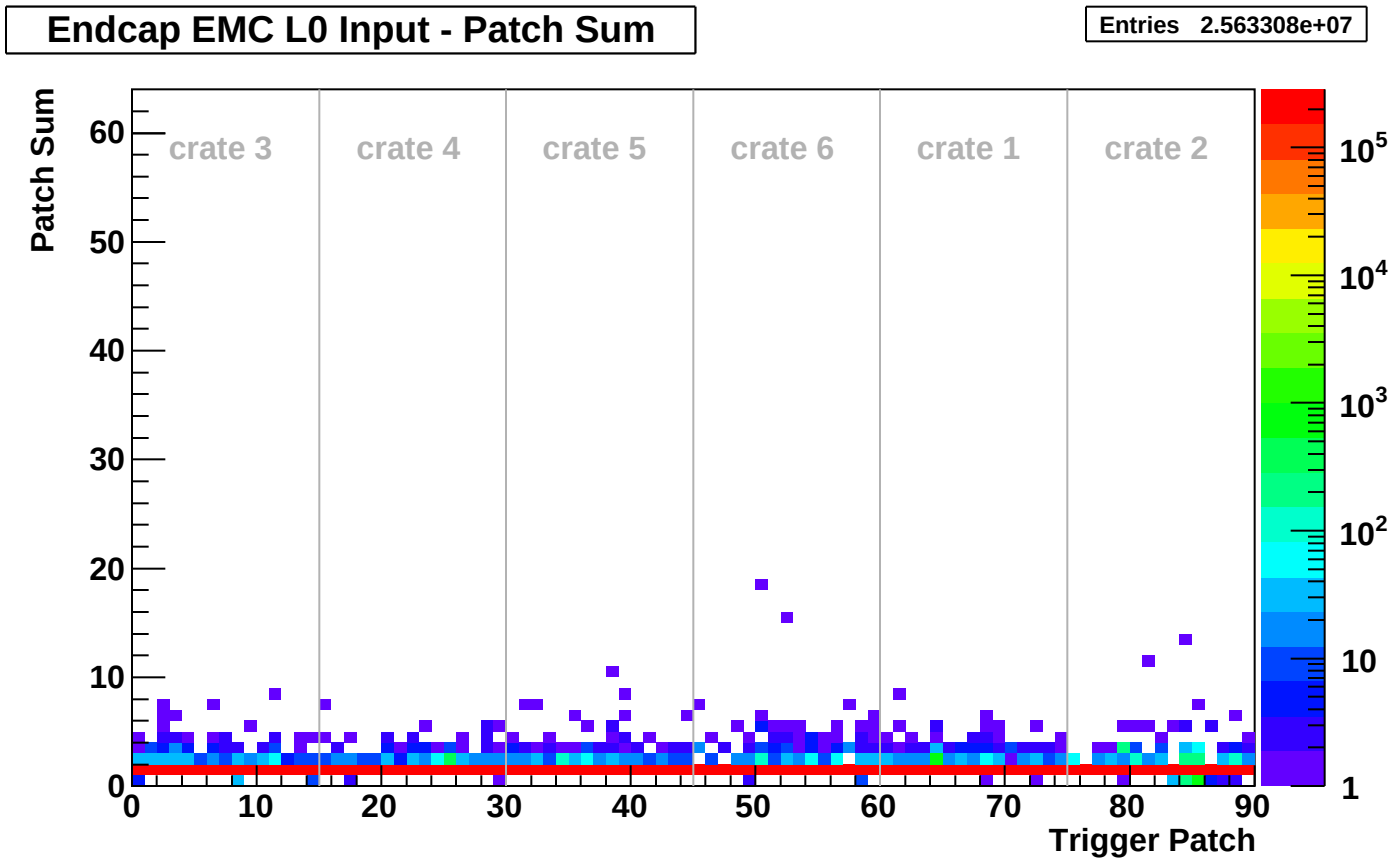
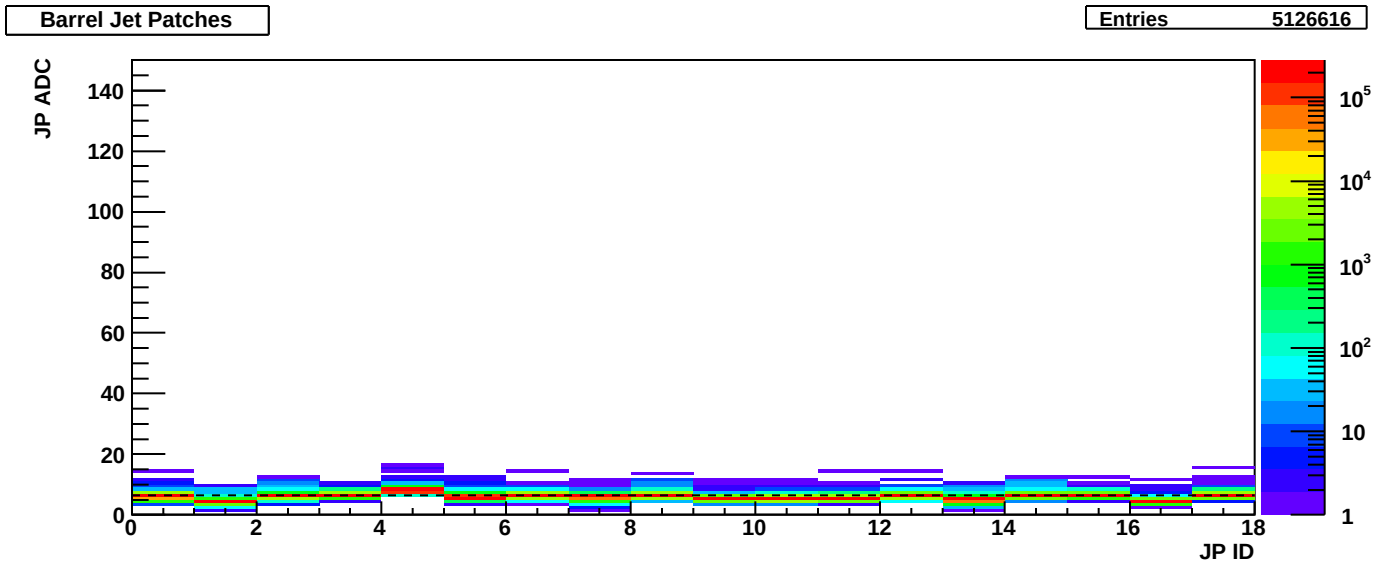
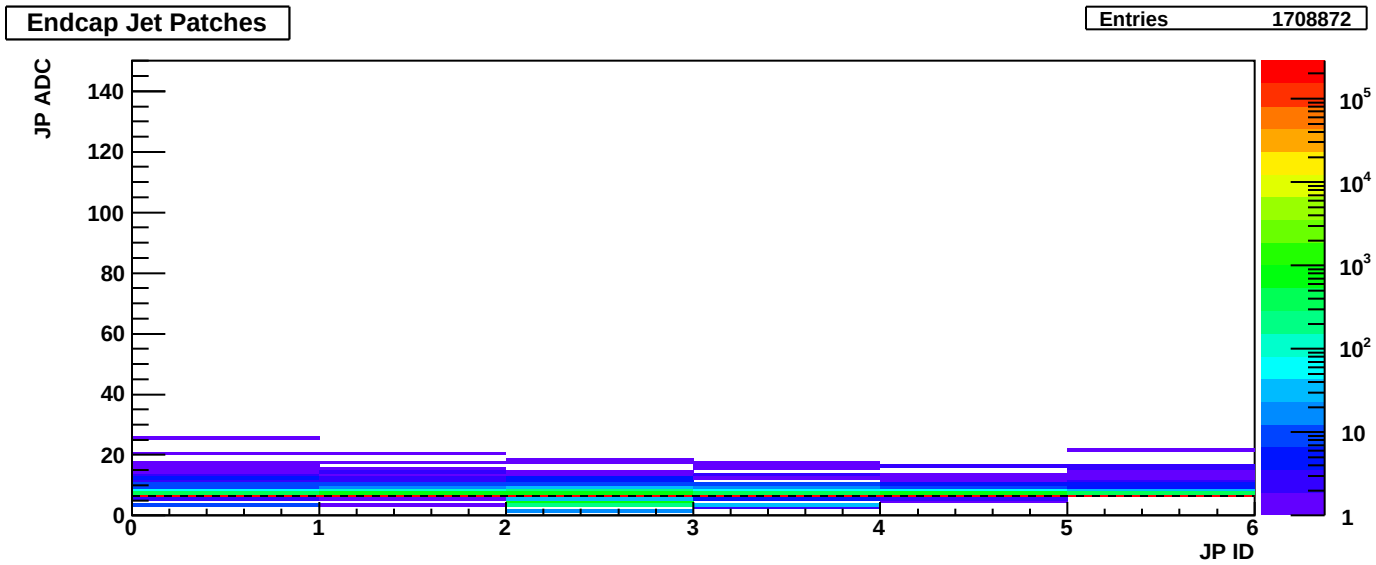

Barrel EMC L0 Input - High Tower
Entries 8.54436e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

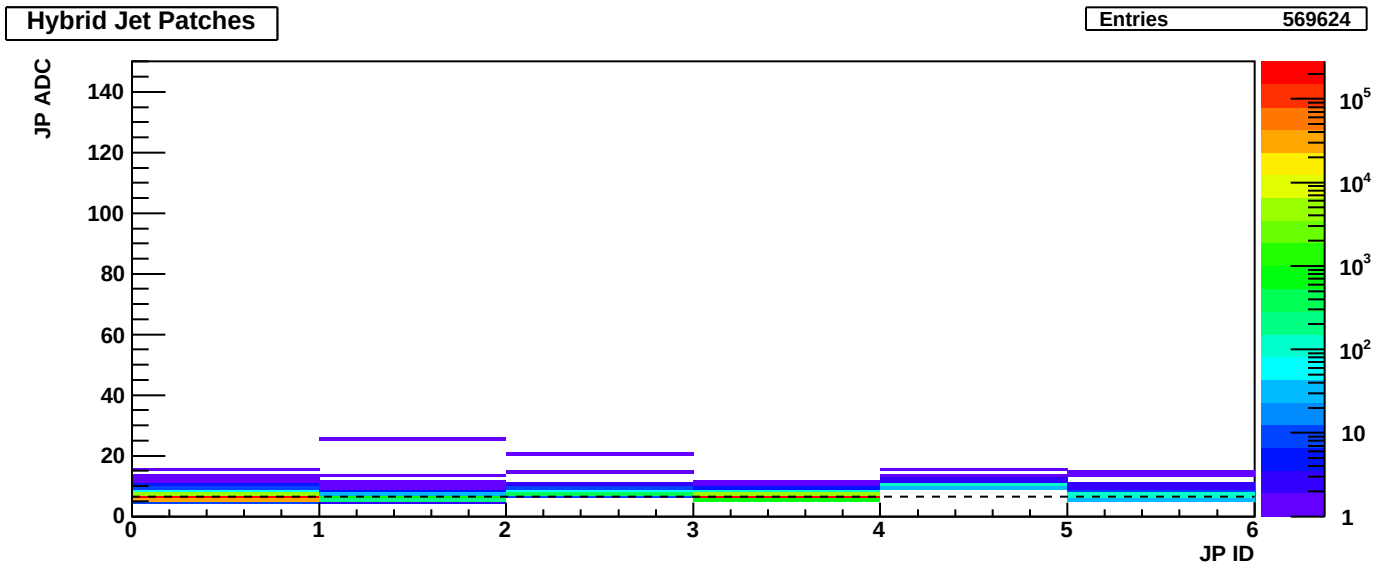

Barrel EMC L0 Input - Patch Sum
Entries 8.54436e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

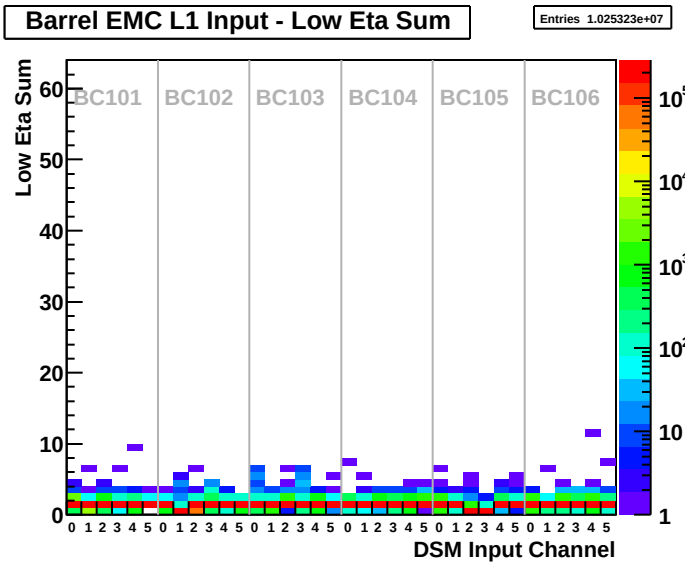

Endcap EMC L0 Input - High Tower
Entries 2.563308e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

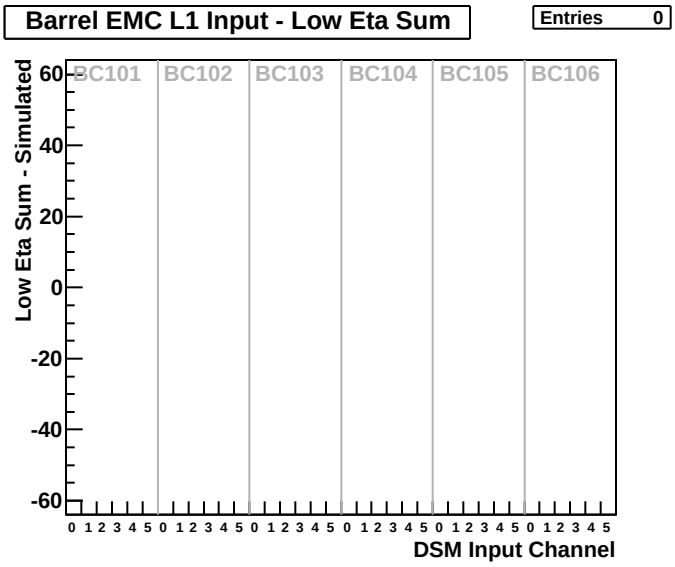

Endcap EMC L0 Input - Patch Sum
Entries 2.563308e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

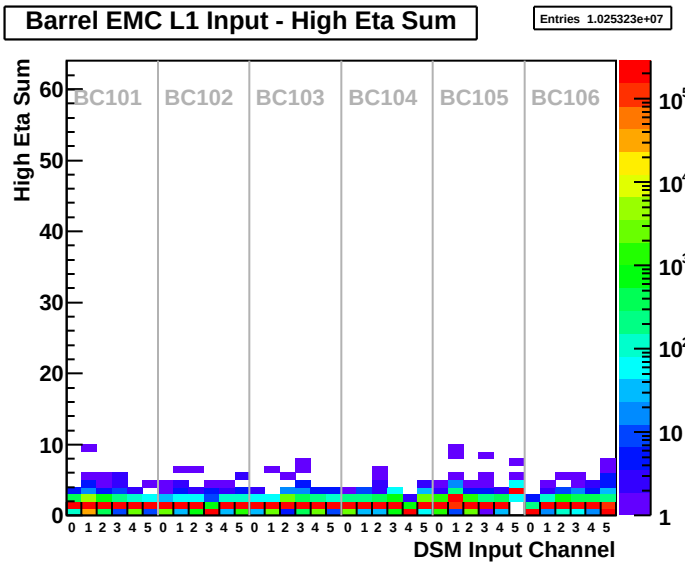

Barrel Jet Patches
Entries 5126616
JP ADC
JP ID

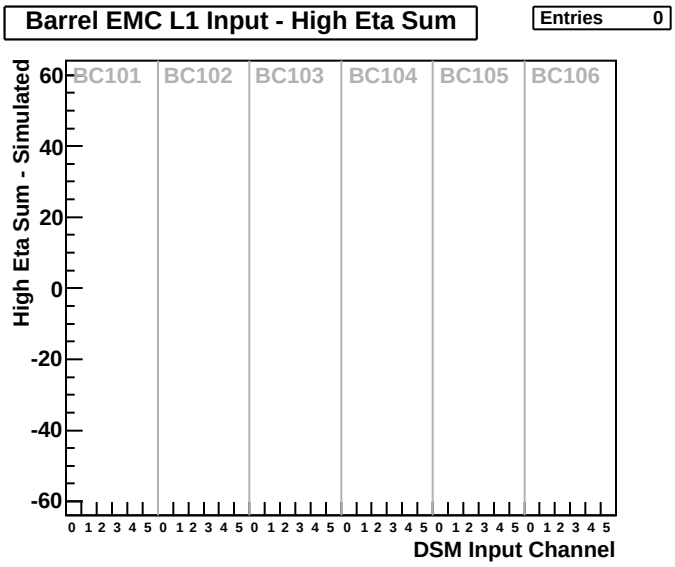

Endcap Jet Patches
Entries 1708872
JP ADC
JP ID

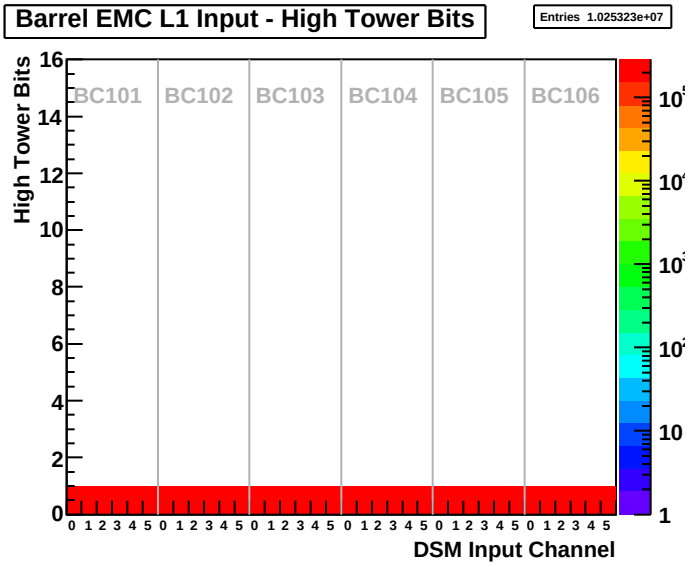

Hybrid Jet Patches
Entries 569624
JP ADC
JP ID

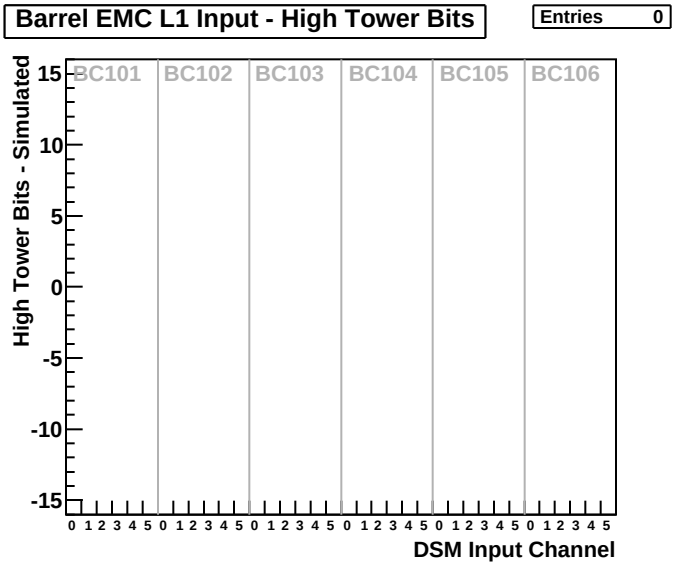

Barrel EMC L1 Input - Low Eta Sum
Entries 1.025323e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

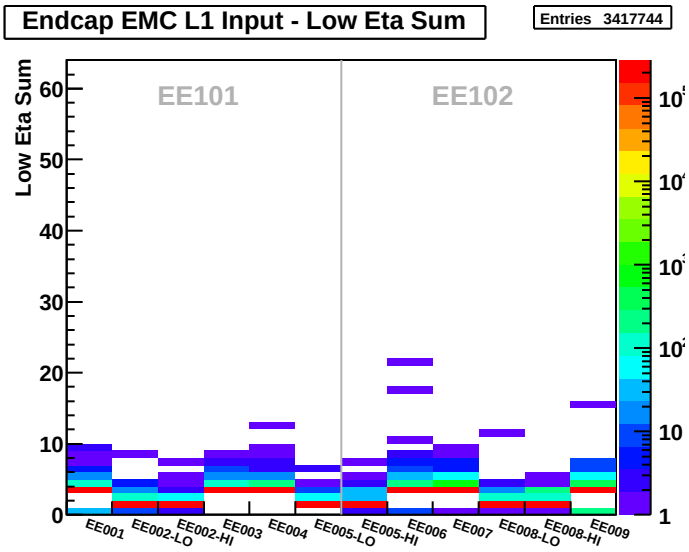

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

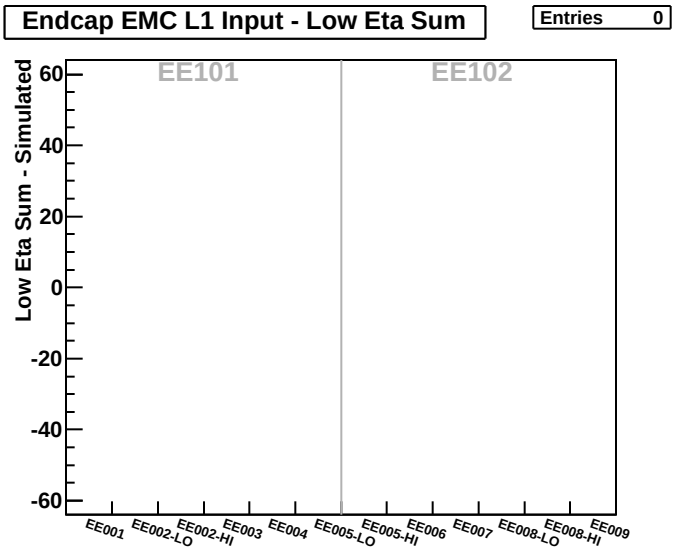

Barrel EMC L1 Input - High Eta Sum
Entries 1.025323e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

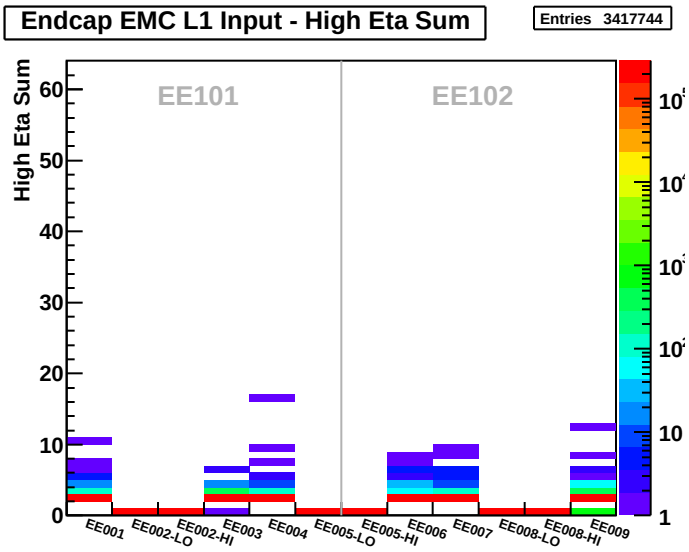

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

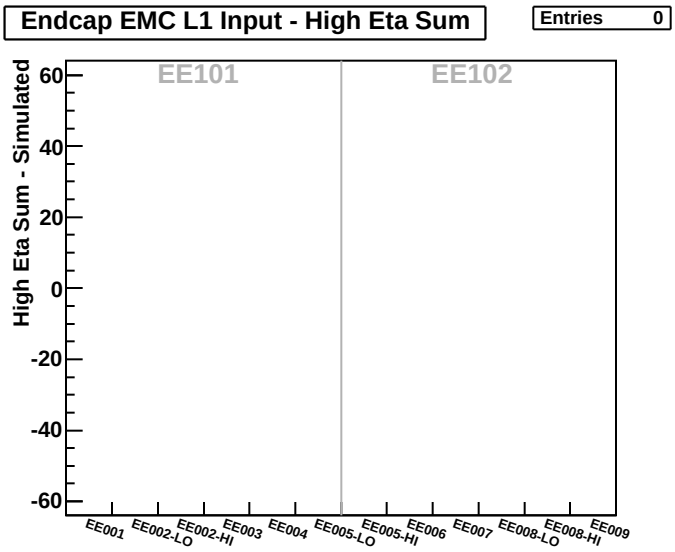

Barrel EMC L1 Input - High Tower Bits
Entries 1.025323e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

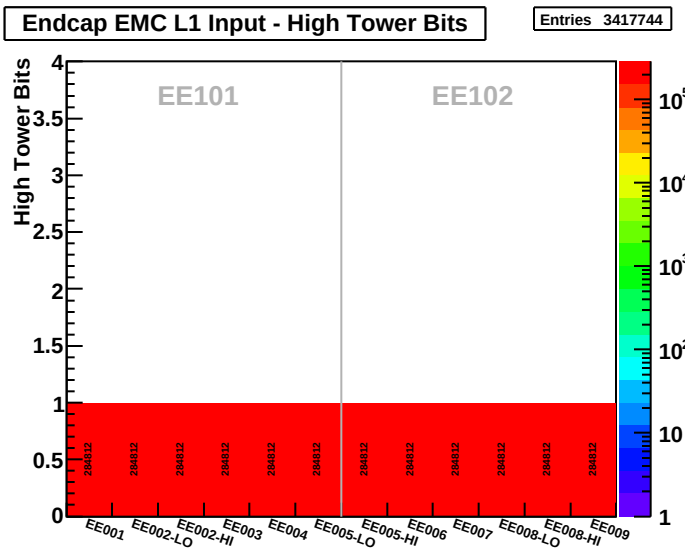

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

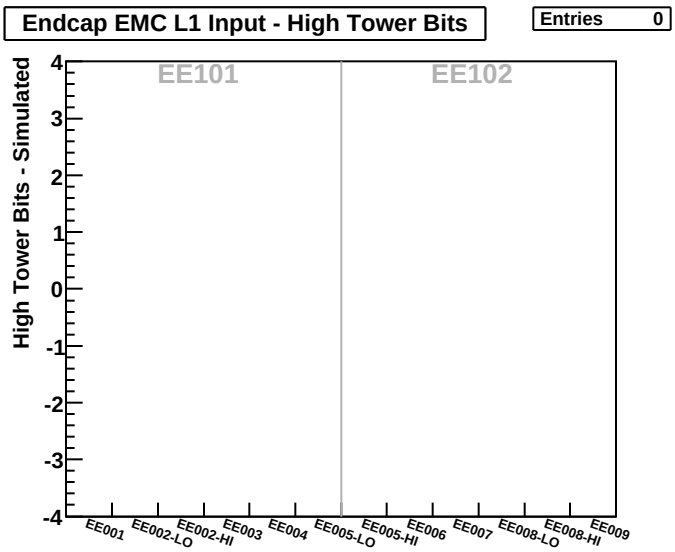

Endcap EMC L1 Input - Low Eta Sum
Entries 3417744
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

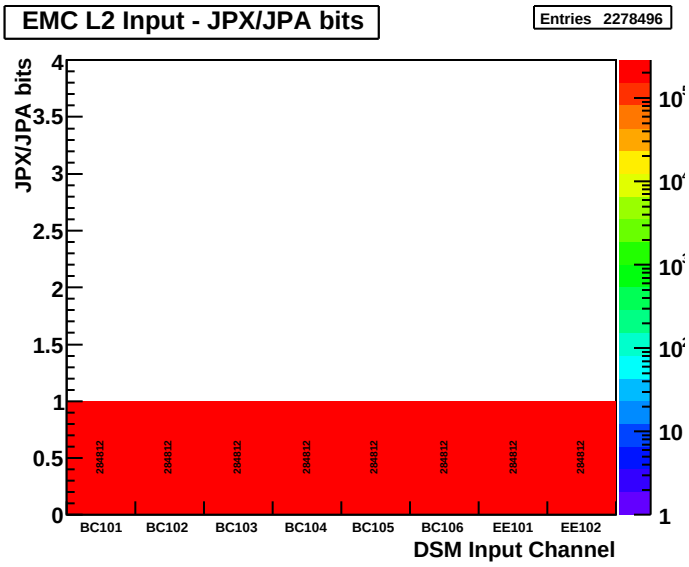

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

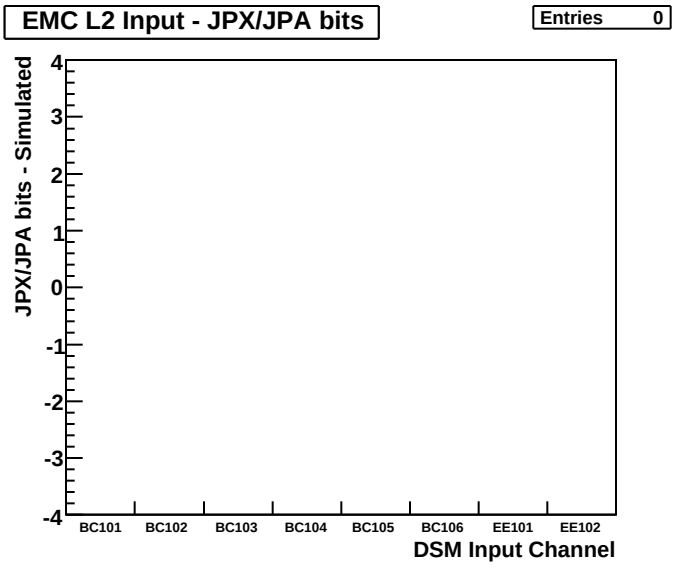

Endcap EMC L1 Input - High Eta Sum
Entries 3417744
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

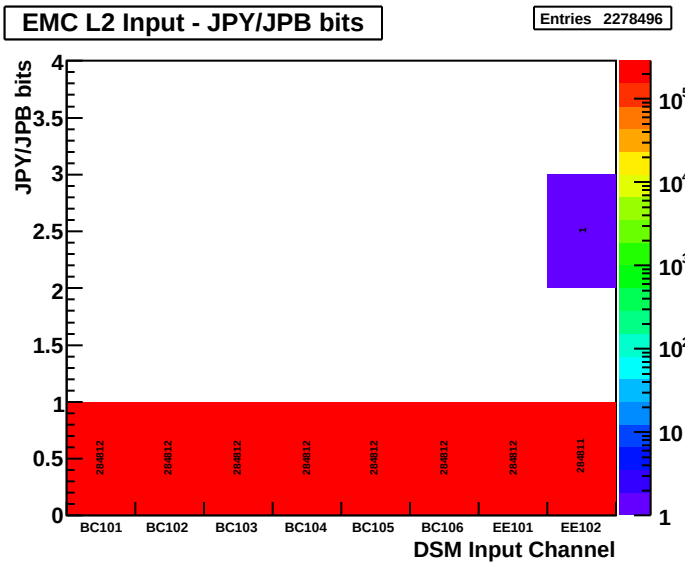

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

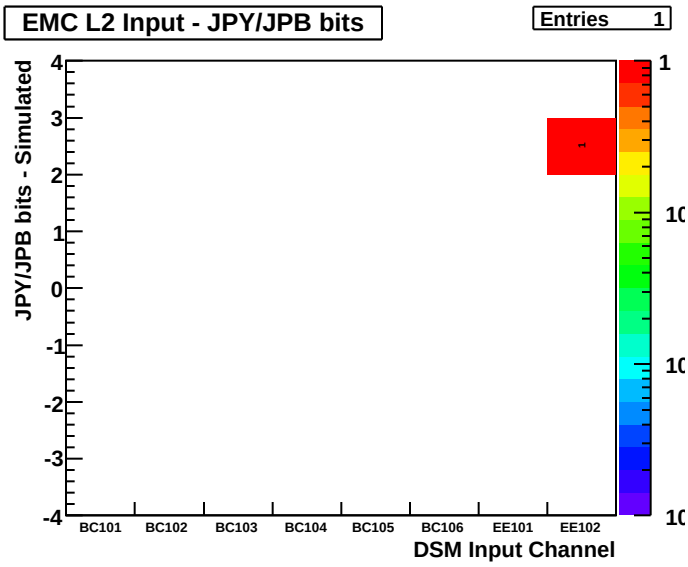

Endcap EMC L1 Input - High Tower Bits
Entries 3417744
High Tower Bits
EE101
EE102
284812
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

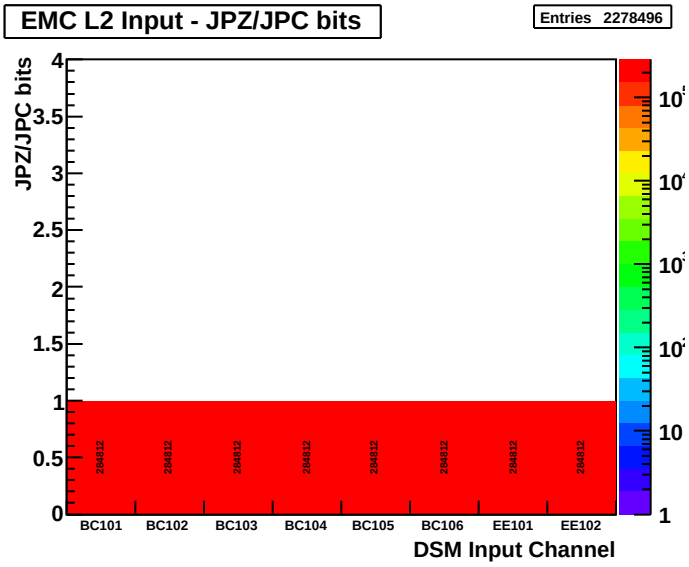

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

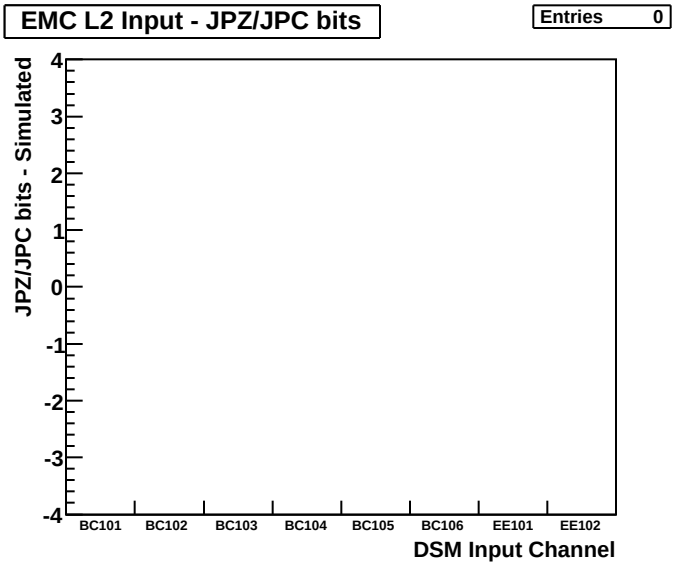

EMC L2 Input - JPX/JPA bits
Entries 2278496
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

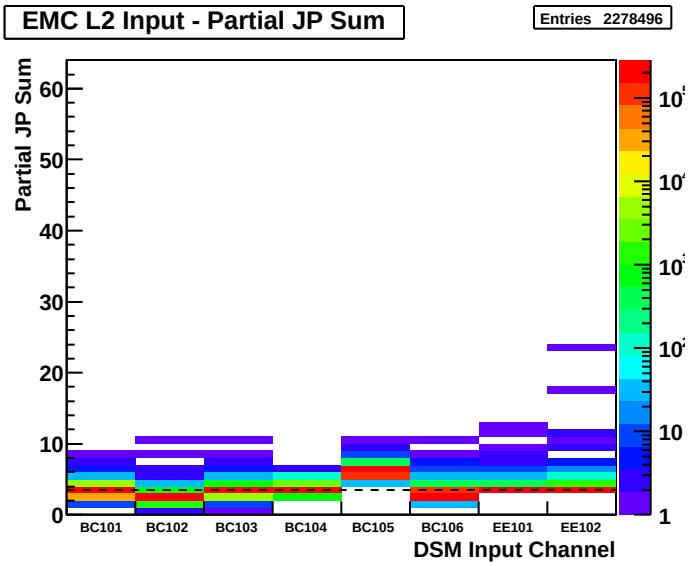

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

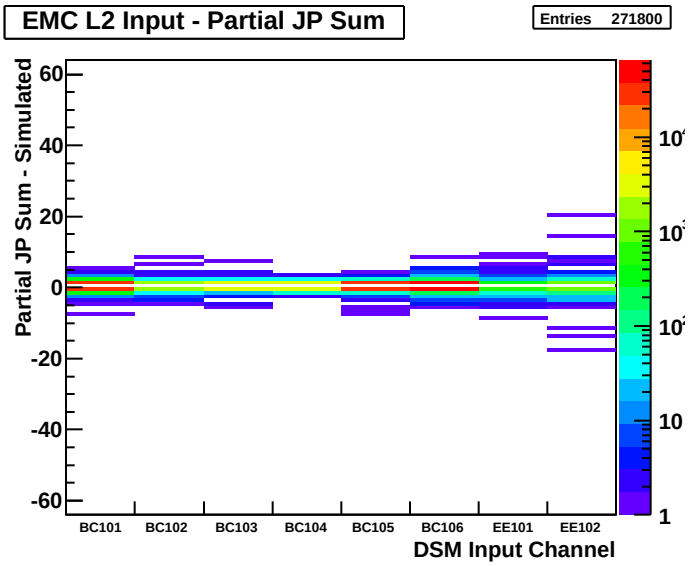

EMC L2 Input - JPY/JPB bits
Entries 2278496
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

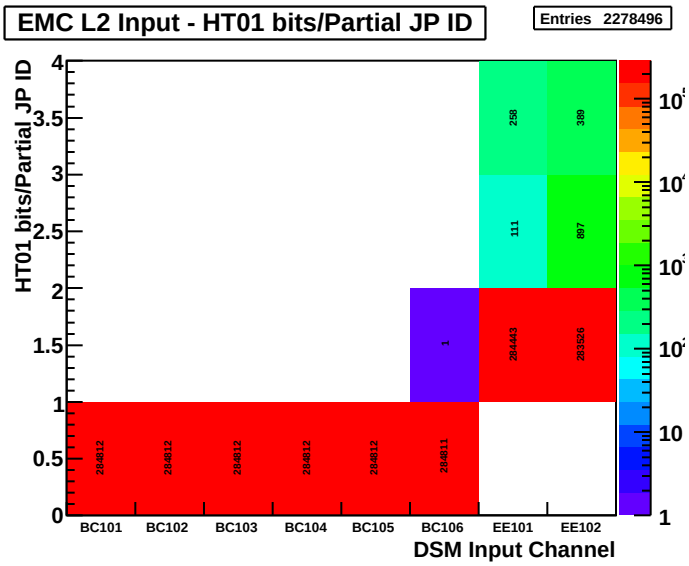

EMC L2 Input - JPY/JPB bits
Entries 1
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

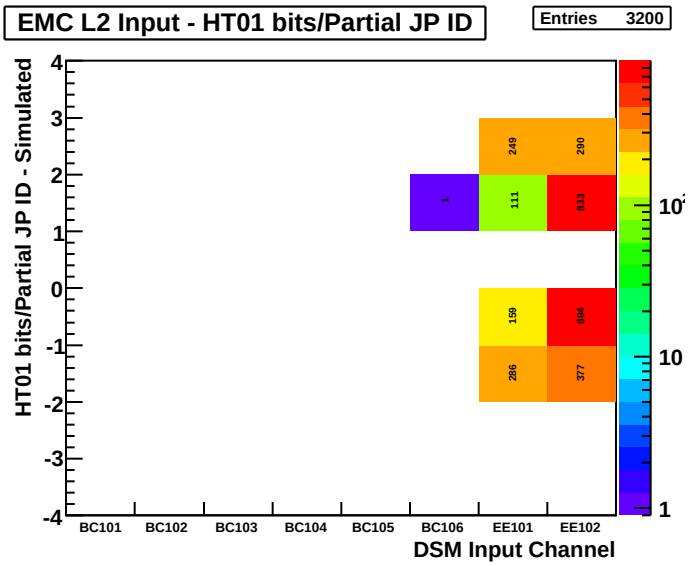

EMC L2 Input - JPZ/JPC bits
Entries 2278496
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

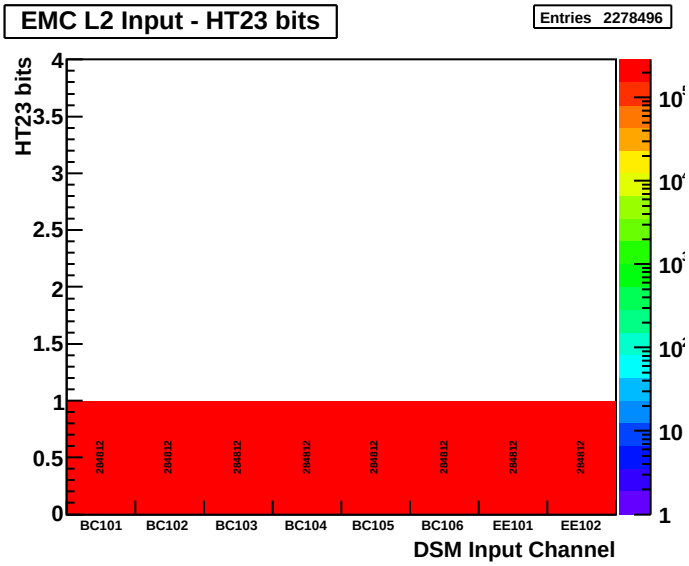

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

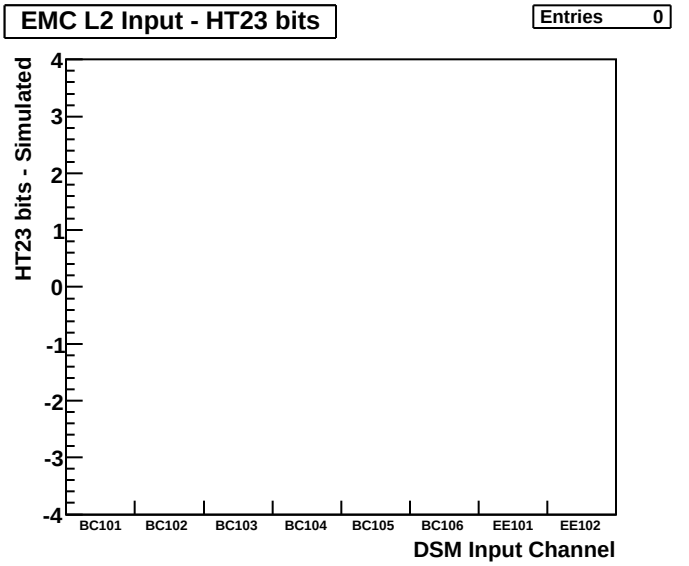

EMC L2 Input - Partial JP Sum
Entries 2278496
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

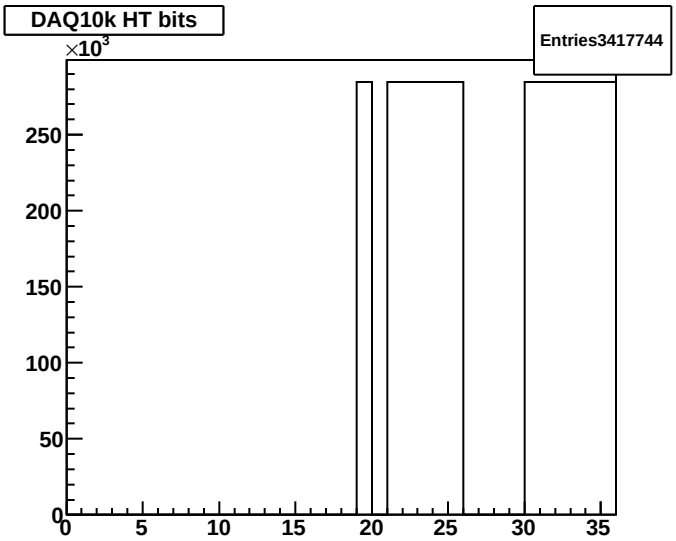

EMC L2 Input - Partial JP Sum
Entries 271800
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

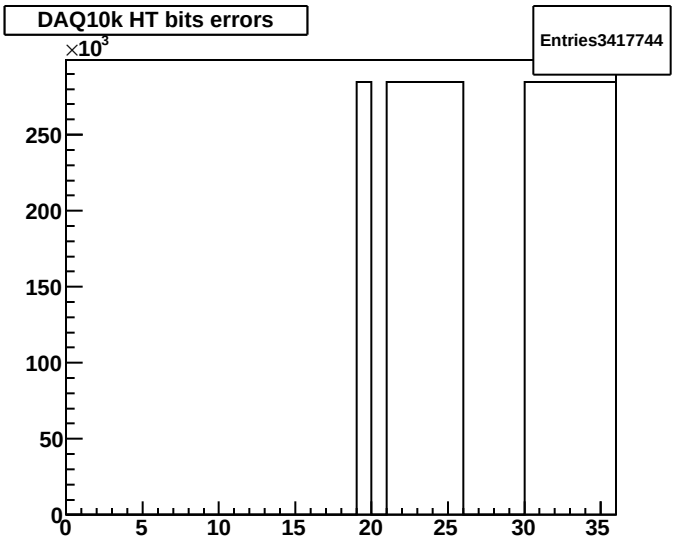

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2278496
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

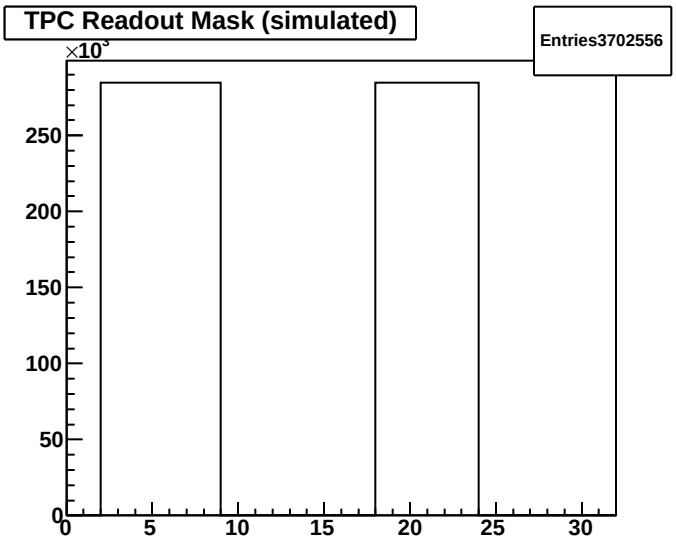

EMC L2 Input - HT01 bits/Partial JP ID
Entries 3200
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

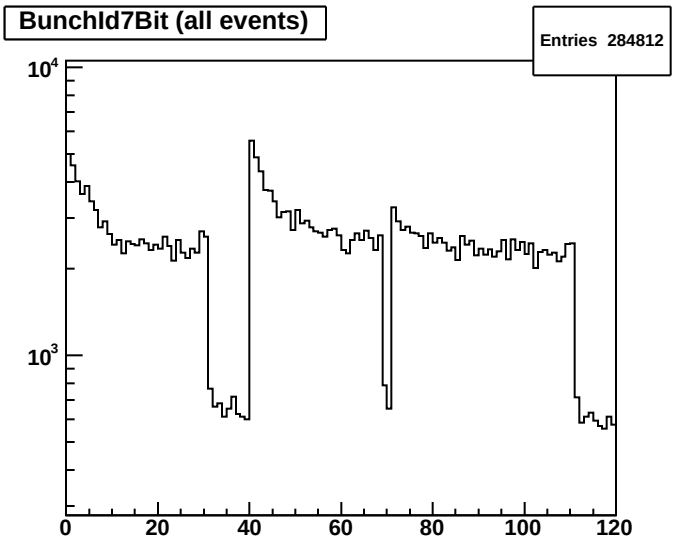

EMC L2 Input - HT23 bits
Entries 2278496
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

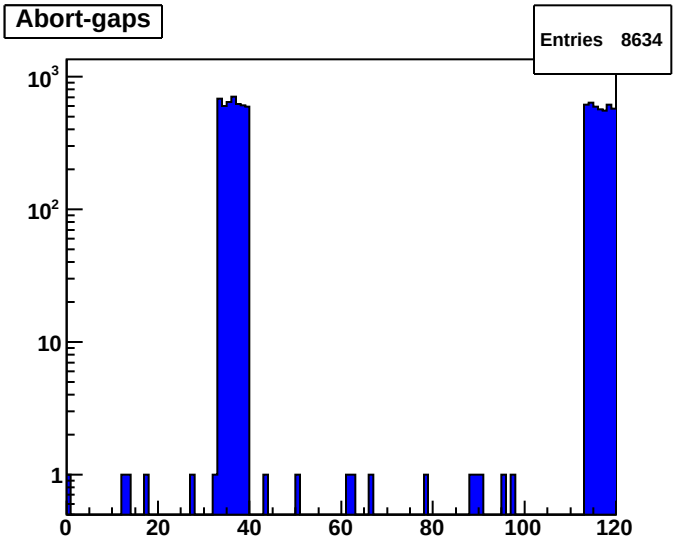

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

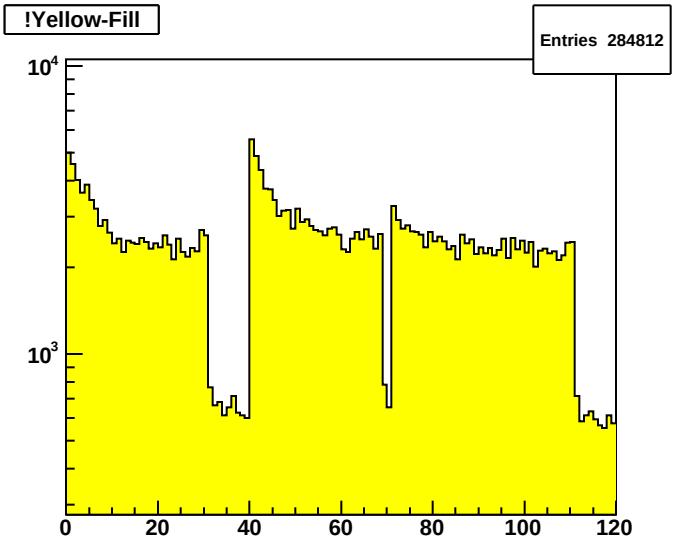

DAQ10k HT bits
Entries3417744
×10^3
250
200
150
100
50
0
0 5 10 15 20 25 30 35

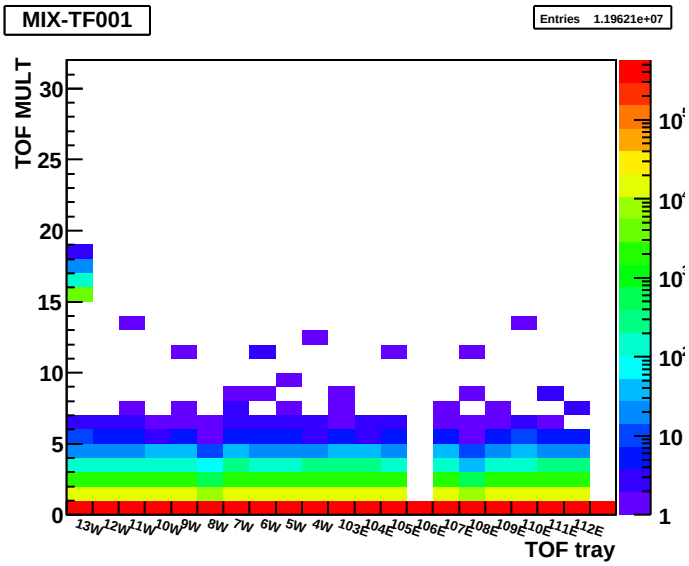

DAQ10k HT bits errors
Entries3417744
×10^3
250
200
150
100
50
0
0 5 10 15 20 25 30 35

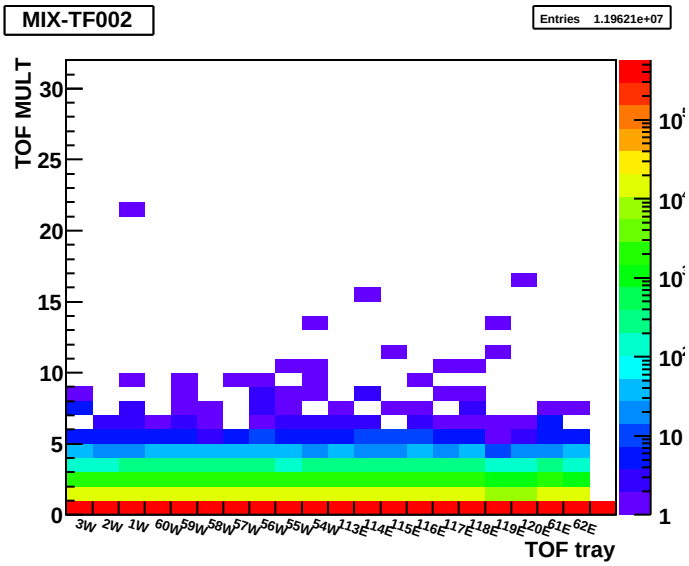

TPC Readout Mask (simulated)
Entries3702556
×10^3
250
200
150
100
50
0
0 5 10 15 20 25 30

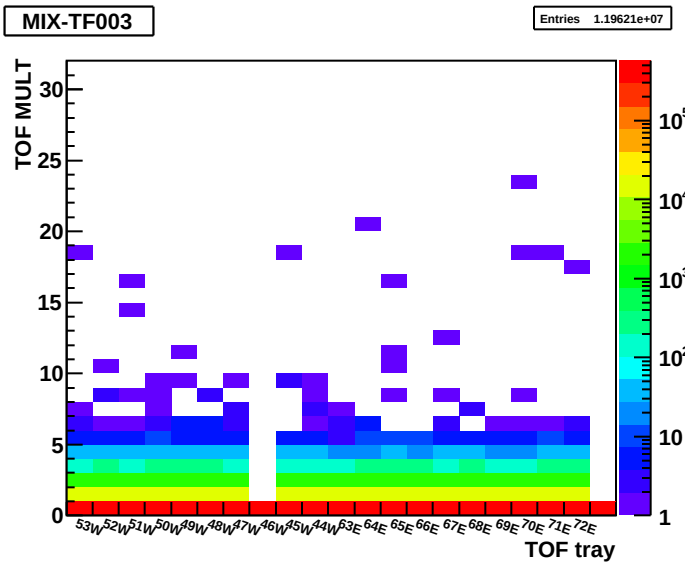

BunchId7Bit (all events)
Entries 284812
10^4
10^3
0 20 40 60 80 100 120

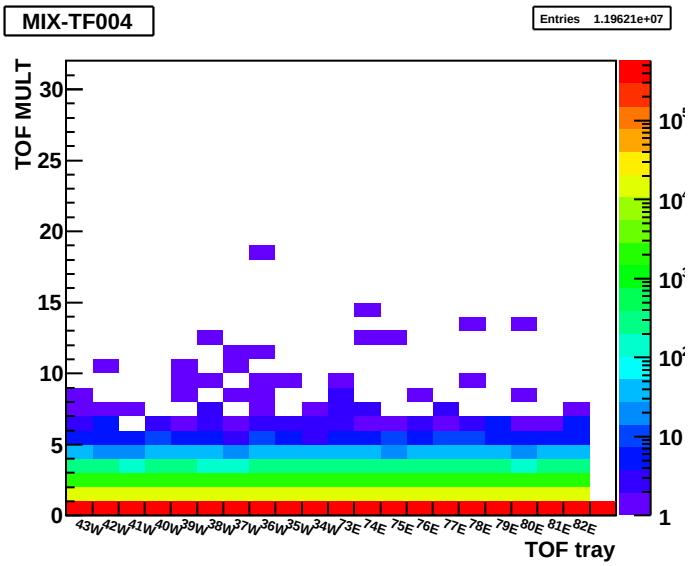

Abort-gaps
Entries 8634
10^3
10^2
10
1
0 20 40 60 80 100 120

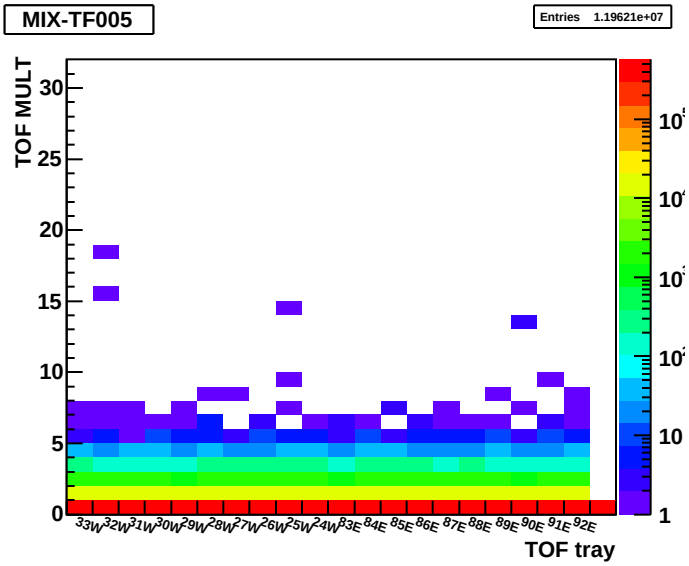

!Yellow-Fill
Entries 284812
10^4
10^3
0 20 40 60 80 100 120

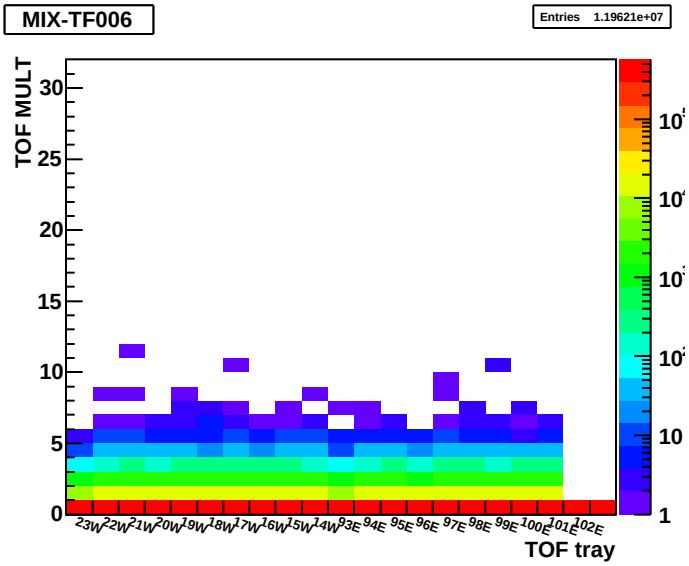

MIX-TF001
Entries 1.19621e+07
TOF MULT
TOF tray

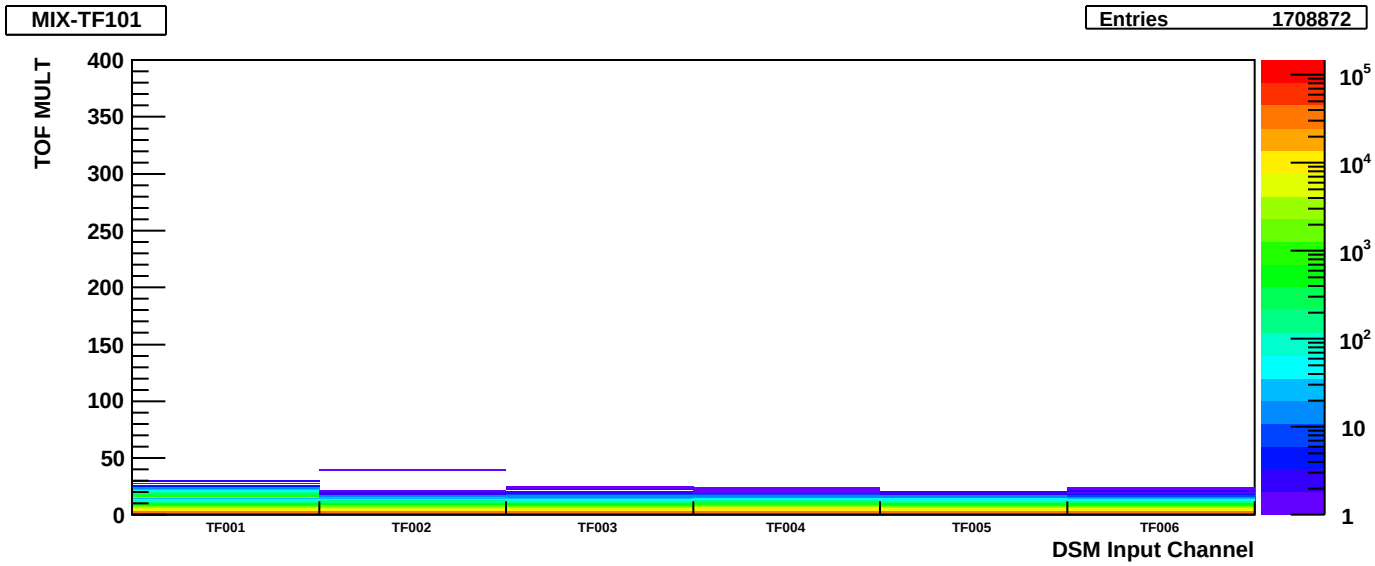

MIX-TF002
Entries 1.19621e+07
TOF MULT
TOF tray

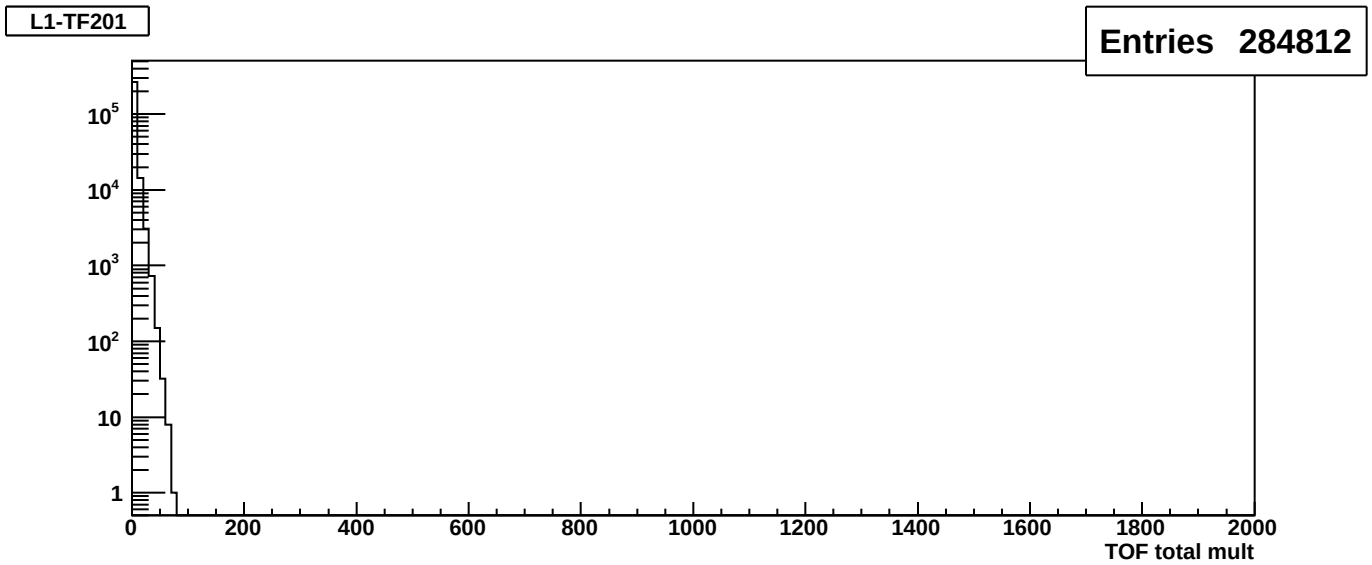

MIX-TF003
Entries 1.19621e+07
TOF MULT
TOF tray

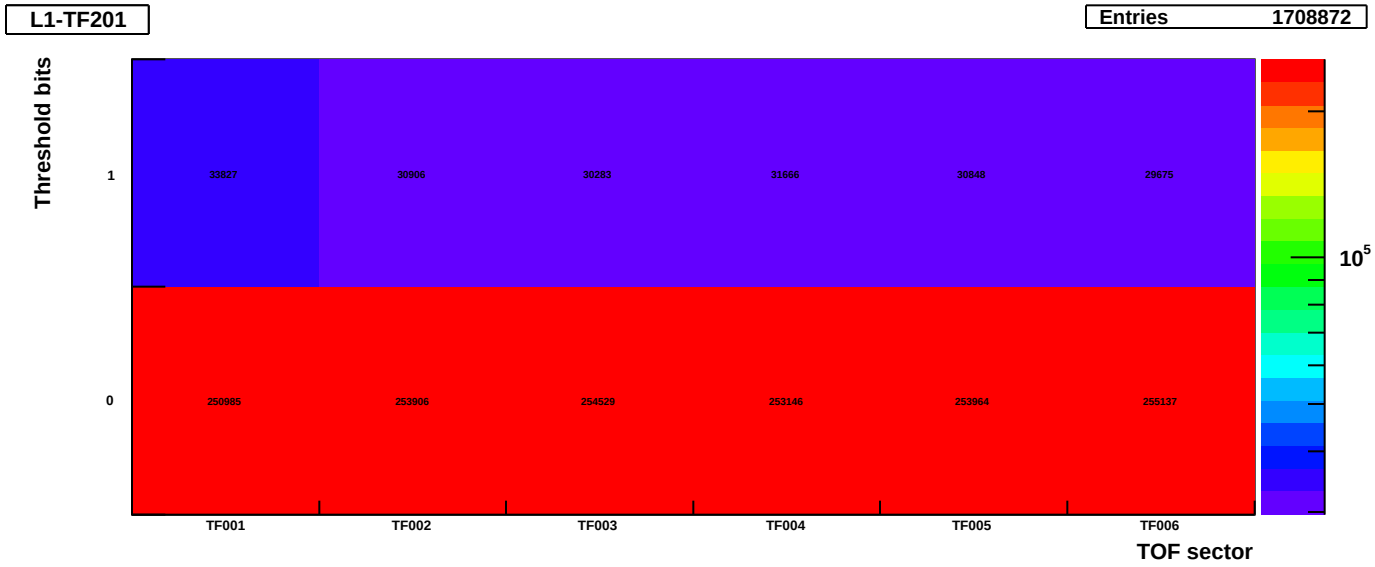

MIX-TF004
Entries 1.19621e+07
TOF MULT
TOF tray

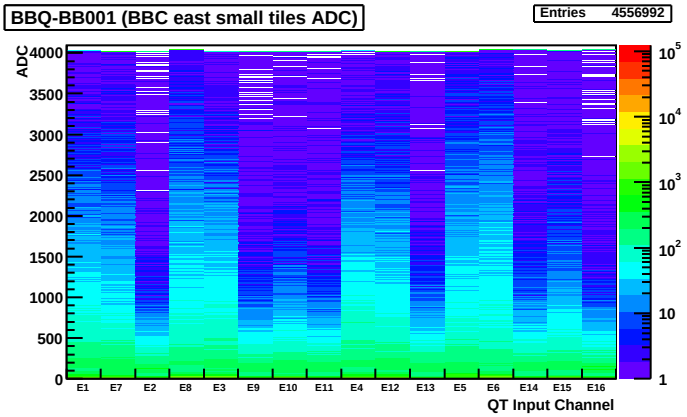

MIX-TF005
Entries 1.19621e+07
TOF MULT
TOF tray

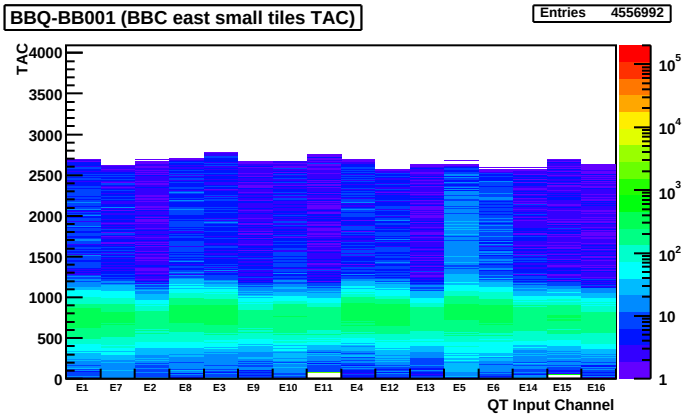

MIX-TF006
Entries 1.19621e+07
TOF MULT
TOF tray

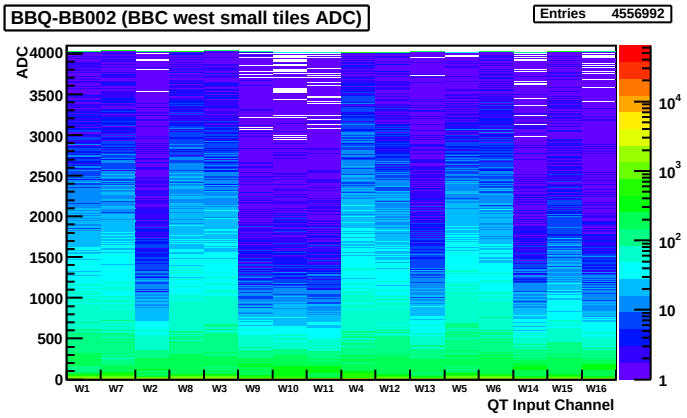

MIX-TF101
Entries 1708872
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

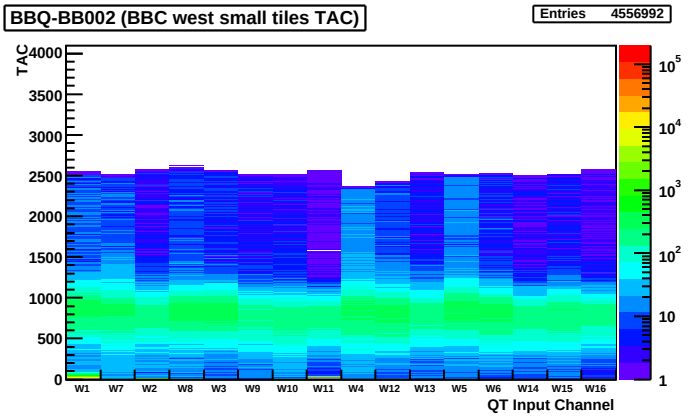

L1-TF201
Entries 284812
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

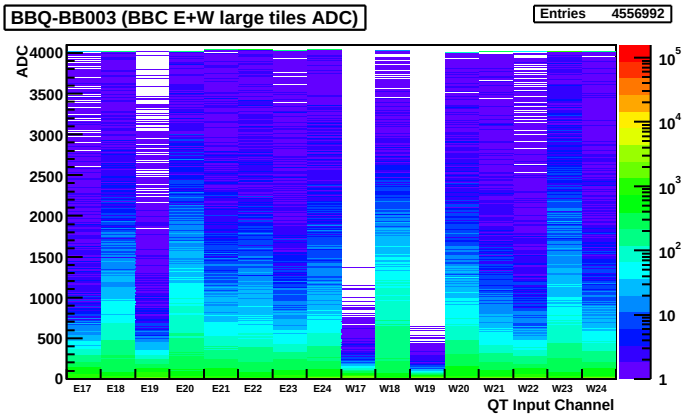

L1-TF201
Entries 1708872
Threshold bits
1
0
33827
30906
30283
31666
30848
29675
250985
253906
254529
253146
253964
255137
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

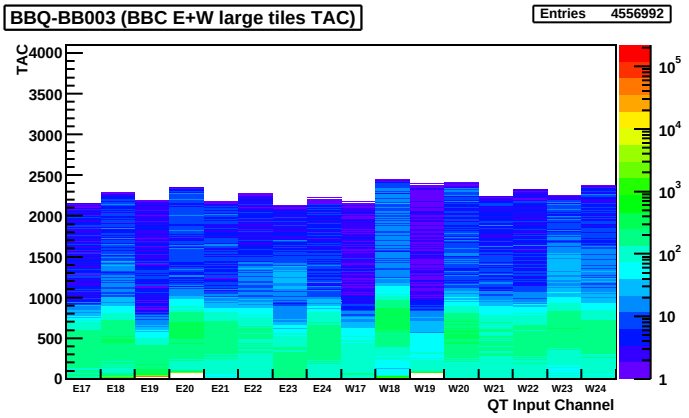

BBQ-BB001 (BBC east small tiles ADC)
Entries 4556992
ADC
QT Input Channel

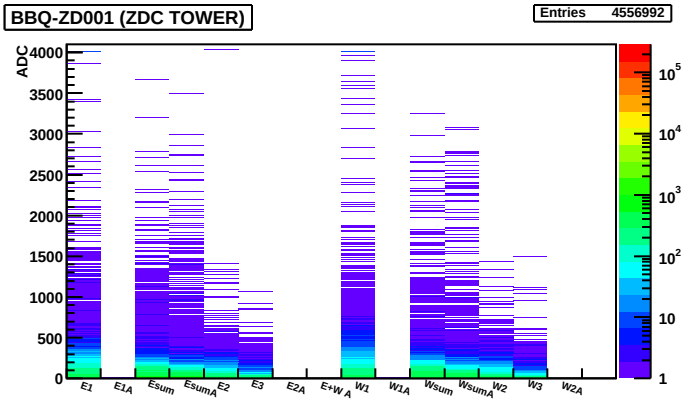

BBQ-BB001 (BBC east small tiles TAC)
Entries 4556992
TAC
QT Input Channel

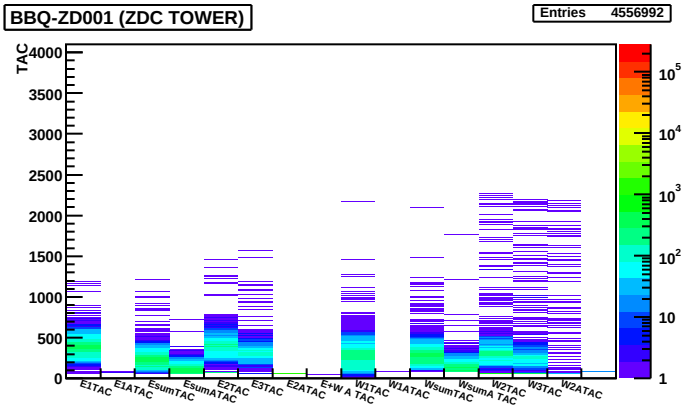

BBQ-BB002 (BBC west small tiles ADC)
Entries 4556992
ADC
QT Input Channel

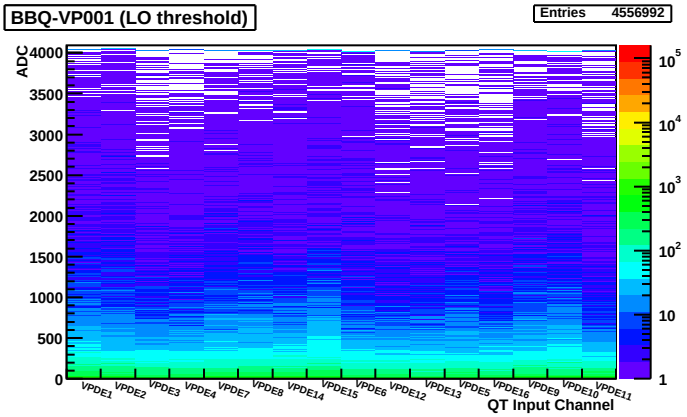

BBQ-BB002 (BBC west small tiles TAC)
Entries 4556992
TAC
QT Input Channel

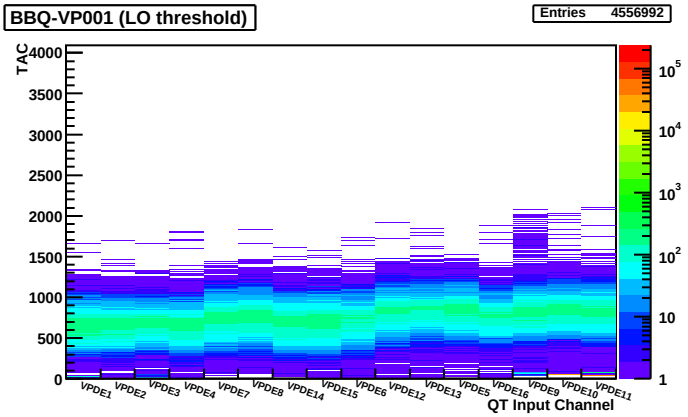

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4556992
ADC
QT Input Channel

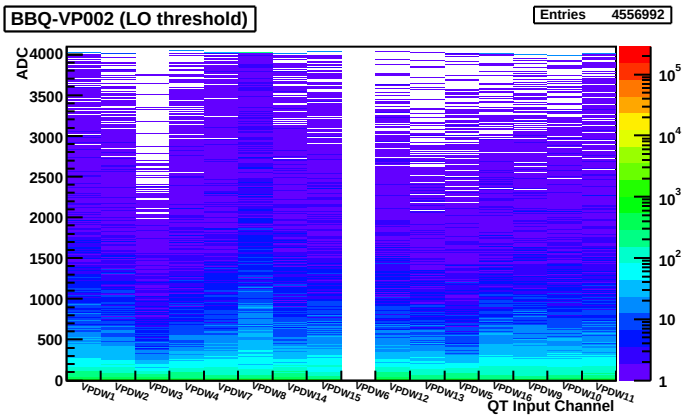

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4556992
TAC
QT Input Channel

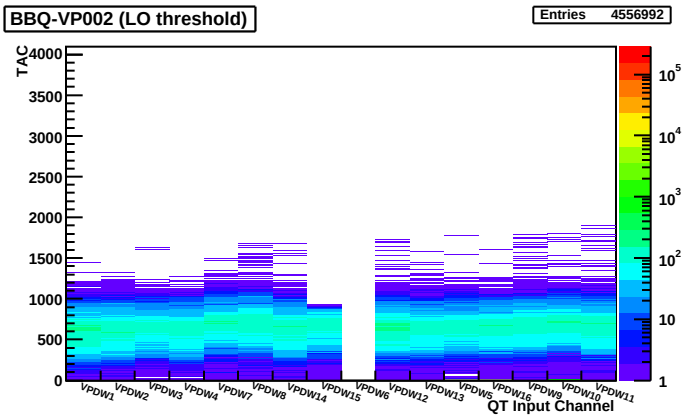

BBQ-ZD001 (ZDC TOWER)
Entries 4556992
ADC

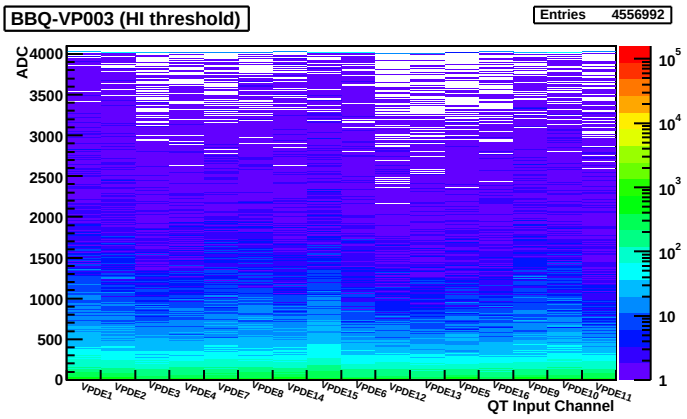

BBQ-ZD001 (ZDC TOWER)
Entries 4556992
TAC

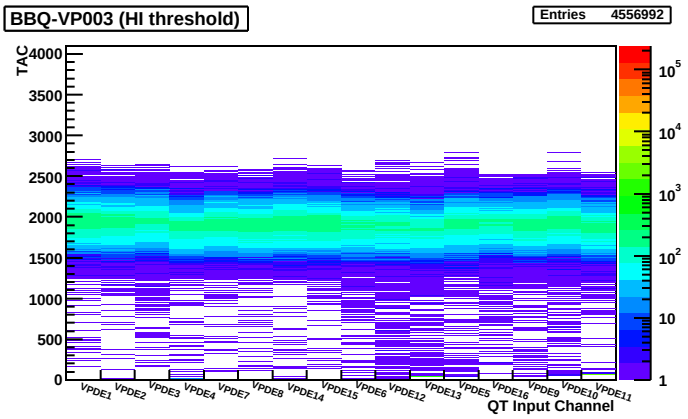

BBQ-VP001 (LO threshold)
Entries 4556992
ADC
QT Input Channel

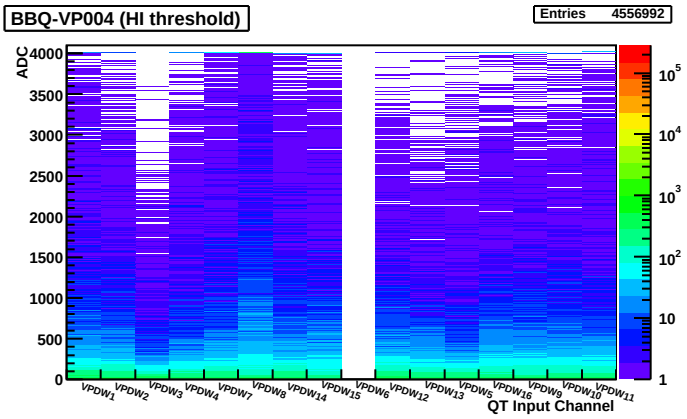

BBQ-VP001 (LO threshold)
Entries 4556992
TAC
QT Input Channel

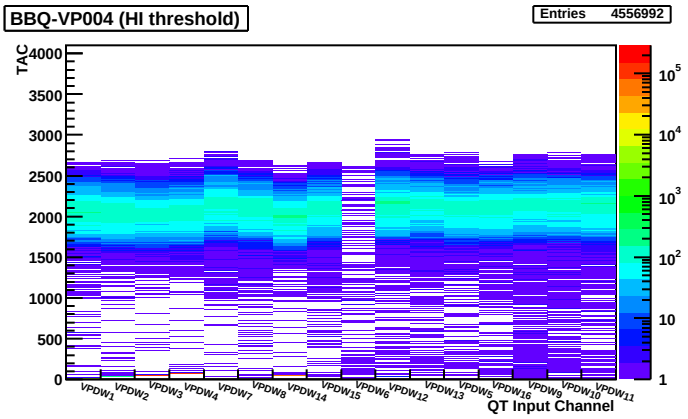

BBQ-VP002 (LO threshold)
Entries 4556992
ADC
QT Input Channel

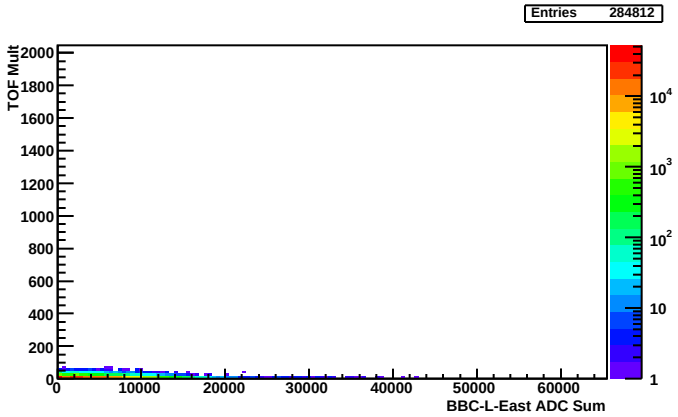

BBQ-VP002 (LO threshold)
Entries 4556992
TAC
QT Input Channel

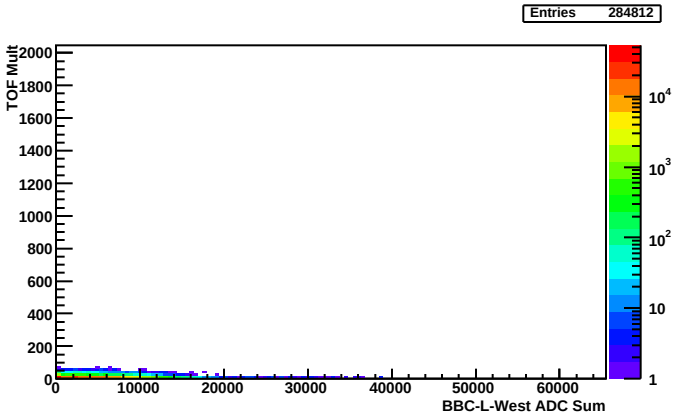

BBQ-VP003 (HI threshold)
Entries 4556992
ADC
QT Input Channel

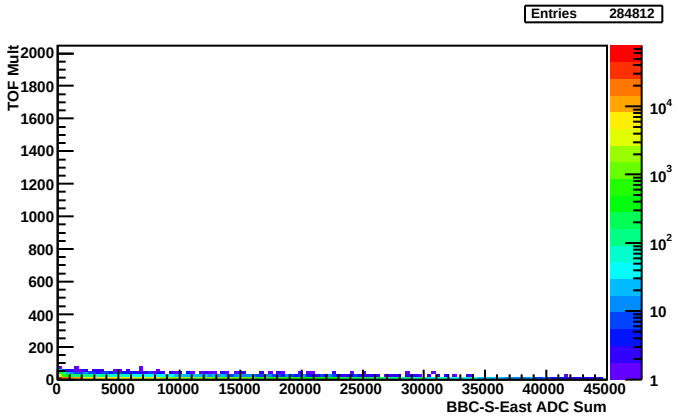

BBQ-VP003 (HI threshold)
Entries 4556992
TAC
QT Input Channel

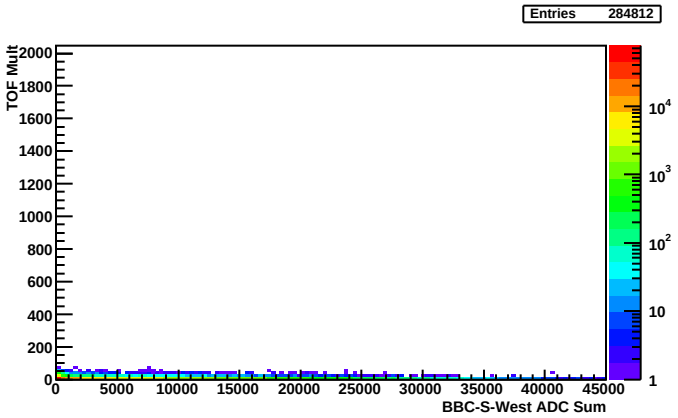

BBQ-VP004 (HI threshold)
Entries 4556992
ADC
QT Input Channel

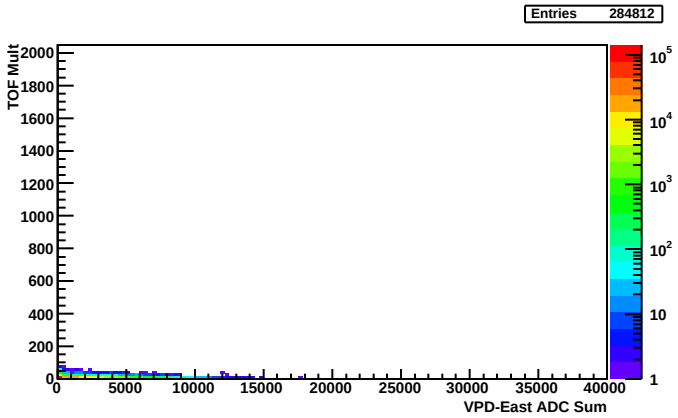

BBQ-VP004 (HI threshold)
Entries 4556992
TAC
QT Input Channel

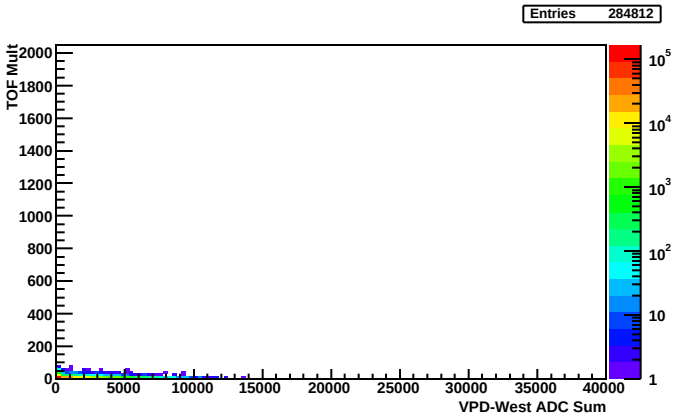

Entries 284812
TOF Mult
BBC-L-East ADC Sum

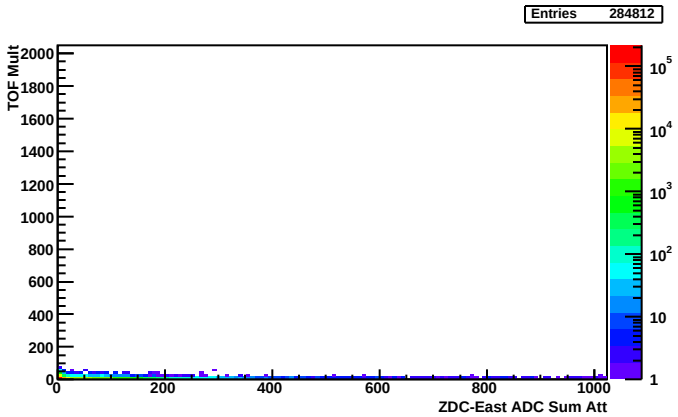

Entries 284812
TOF Mult
BBC-L-West ADC Sum

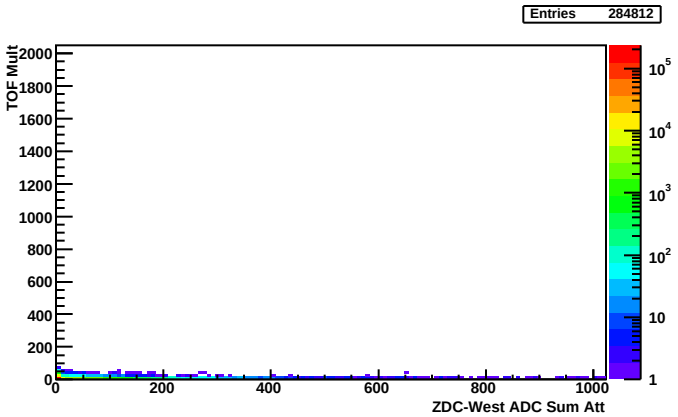

Entries 284812
TOF Mult
BBC-S-East ADC Sum

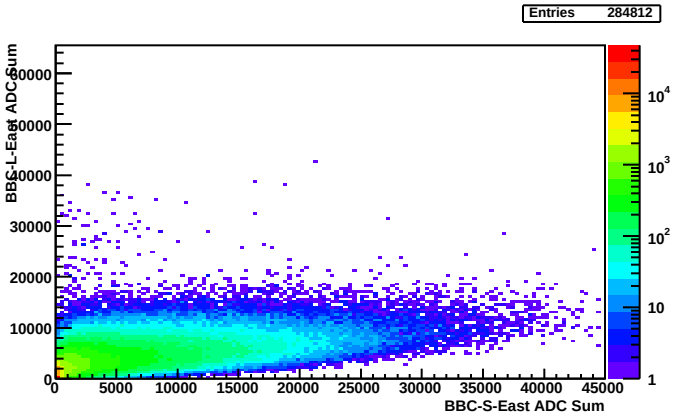

Entries 284812
TOF Mult
BBC-S-West ADC Sum

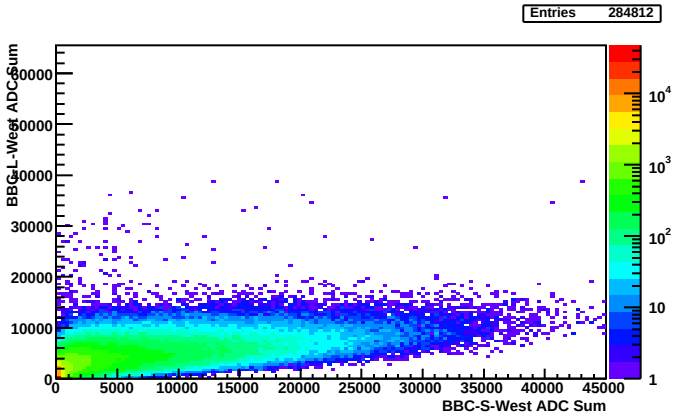

Entries 284812
TOF Mult
VPD-East ADC Sum

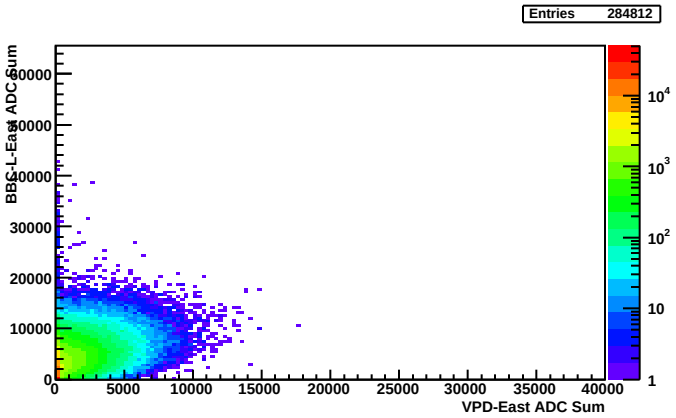

Entries 284812
TOF Mult
VPD-West ADC Sum

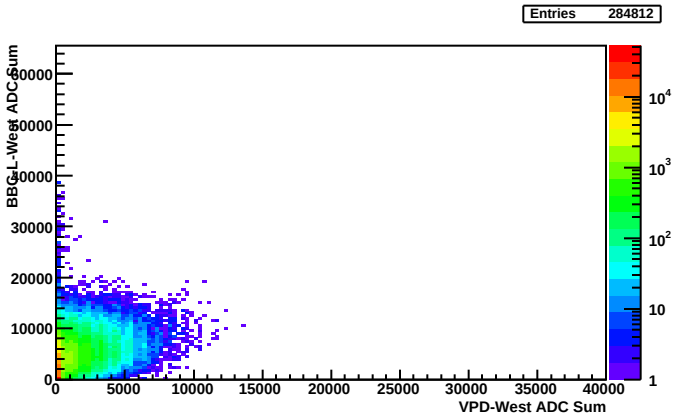

Entries 284812
TOF Mult
ZDC-East ADC Sum Att

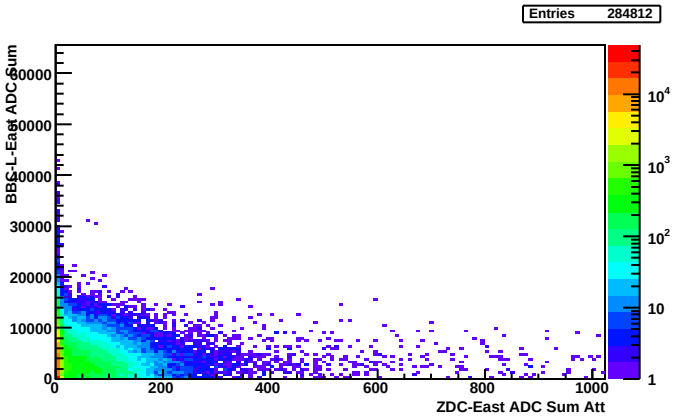

Entries 284812
TOF Mult
ZDC-West ADC Sum Att

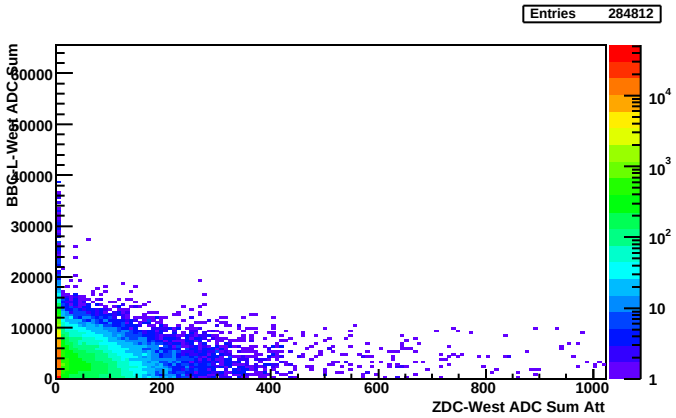

Entries 284812
BBC-L-East ADC Sum
BBC-S-East ADC Sum

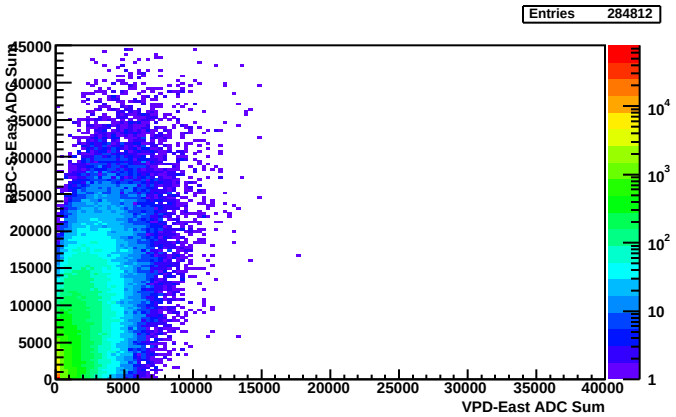

Entries 284812
BBC-L-West ADC Sum
BBC-S-West ADC Sum

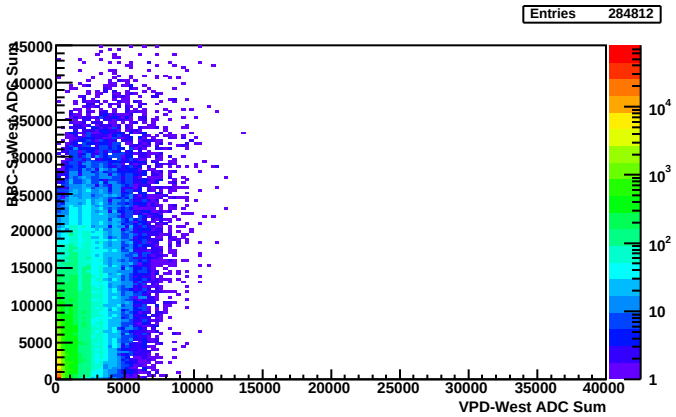

Entries 284812
BBC-L-East ADC Sum
VPD-East ADC Sum

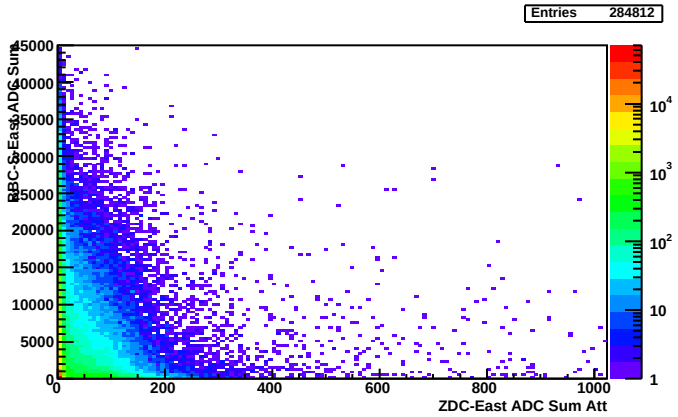

Entries 284812
BBC-L-West ADC Sum
VPD-West ADC Sum

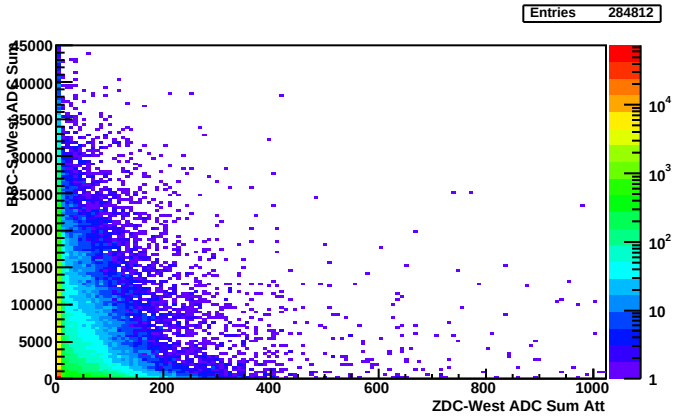

Entries 284812
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

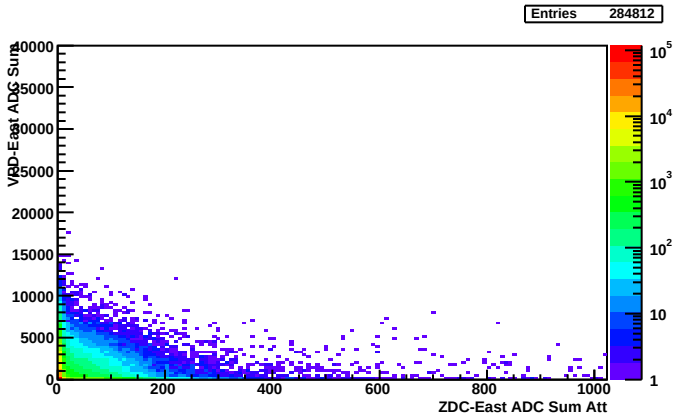

Entries 284812
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

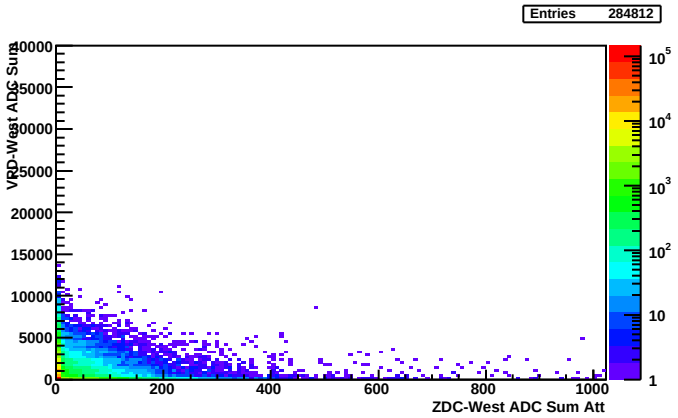

Entries 284812
BBC-S-East ADC Sum
VPD-East ADC Sum

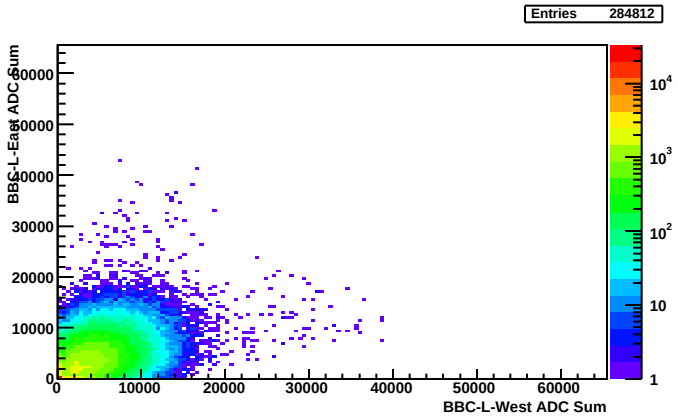

Entries 284812
BBC-S-West ADC Sum
VPD-West ADC Sum

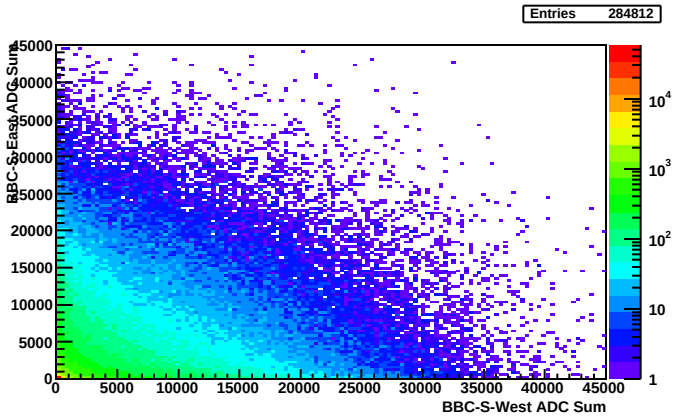

Entries 284812
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

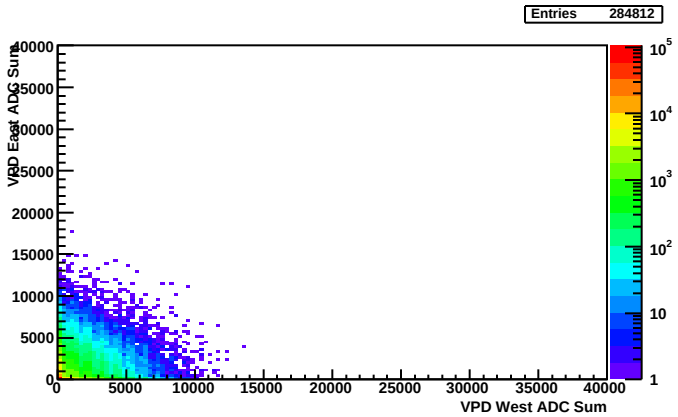

Entries 284812
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

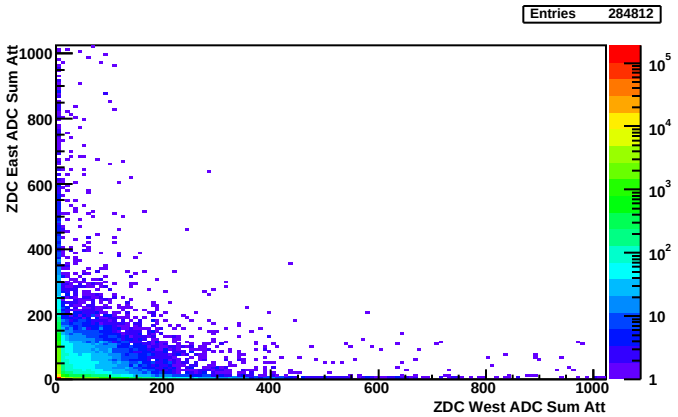

Entries 284812
VPD-East ADC Sum
ZDC-East ADC Sum Att

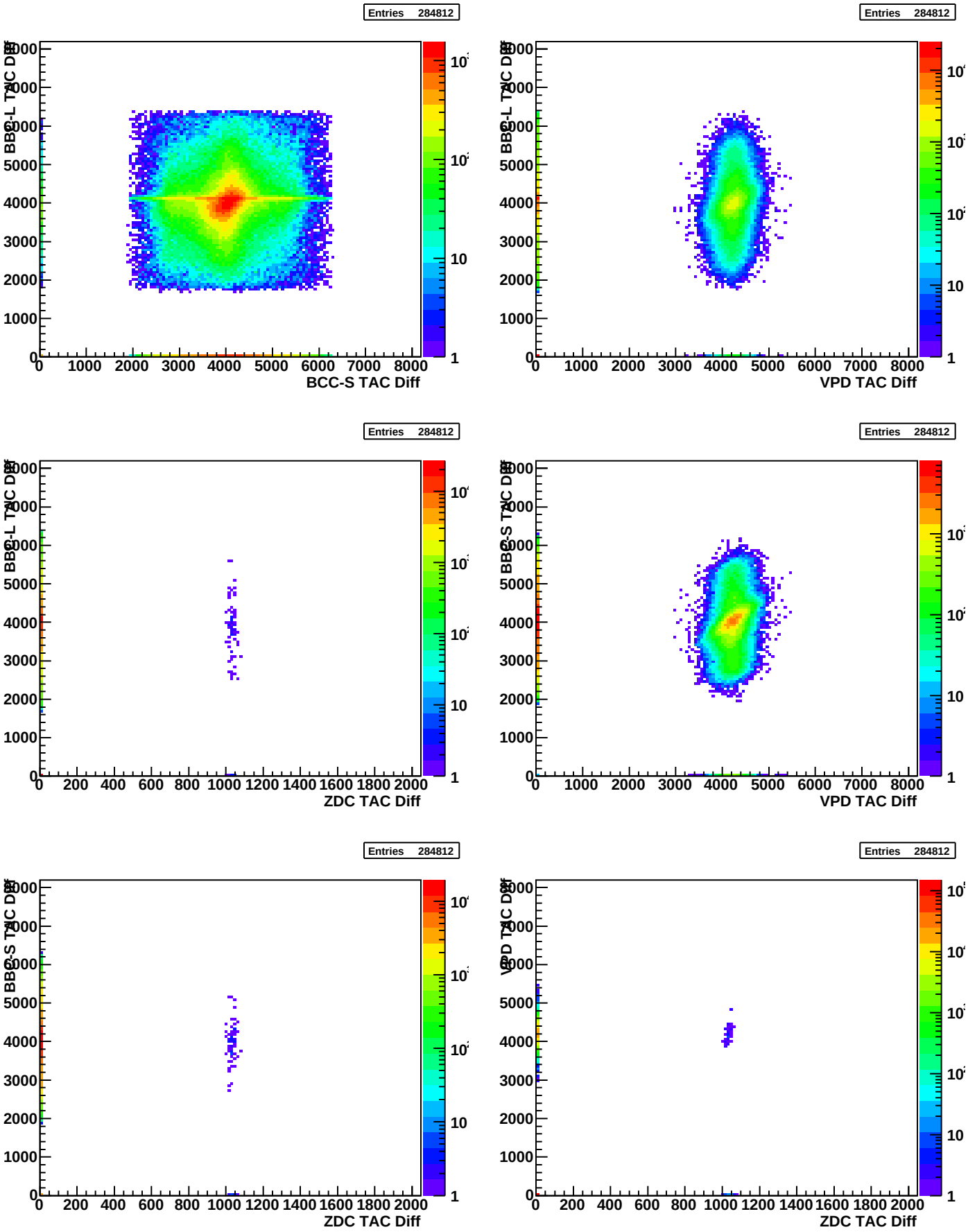

Entries 284812
VPD-West ADC Sum
ZDC-West ADC Sum Att

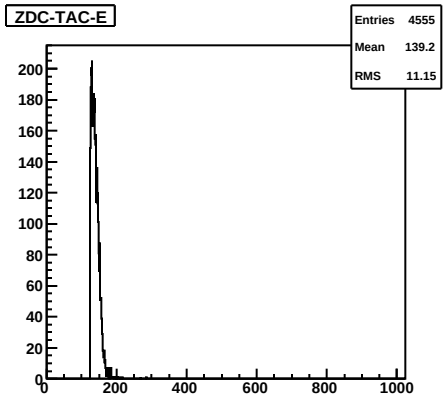

Entries 284812
BBC-L-East ADC Sum
BBC-L-West ADC Sum

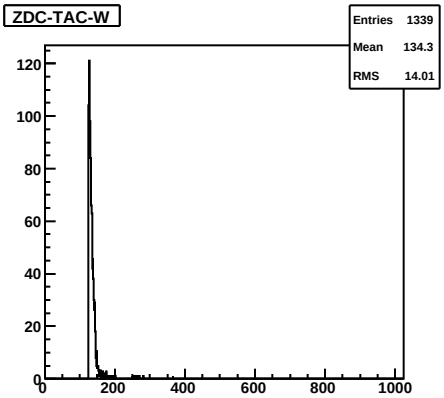

Entries 284812
BBC-S-East ADC Sum
BBC-S-West ADC Sum

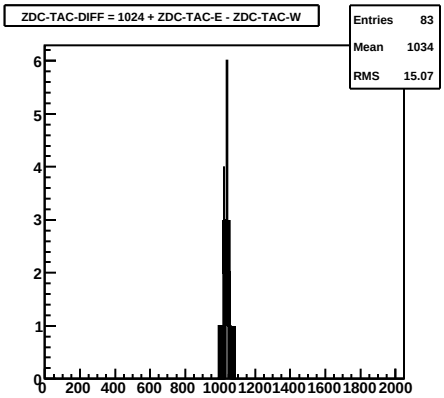

Entries 284812
VPD East ADC Sum
VPD West ADC Sum

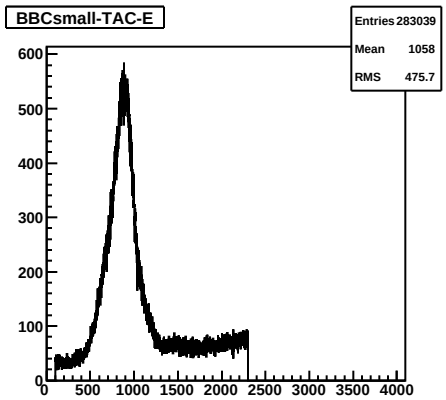

Entries 284812
ZDC East ADC Sum Att
ZDC West ADC Sum Att

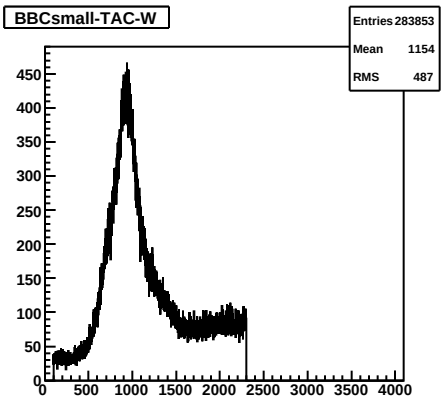

Entries 284812
BBC-L TAC Diff
BCC-S TAC Diff
Entries 284812
BBC-L TAC Diff
VPD TAC Diff
Entries 284812
BBC-L TAC Diff
ZDC TAC Diff
Entries 284812
BBC-S TAC Diff
VPD TAC Diff
Entries 284812
BBC-S TAC Diff
ZDC TAC Diff
Entries 284812
VPD TAC Diff
ZDC TAC Diff

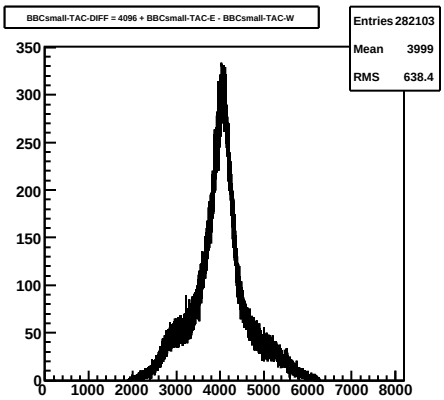

ZDC-TAC-E
Entries 4555
Mean 139.2
RMS 11.15

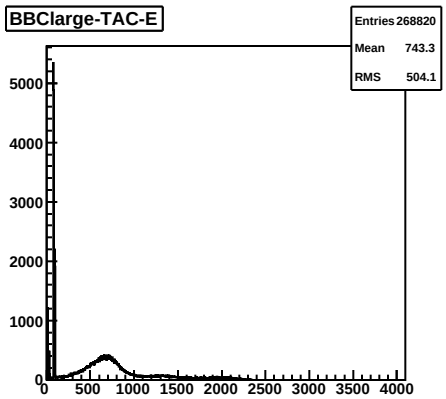

ZDC-TAC-W
Entries 1339
Mean 134.3
RMS 14.01

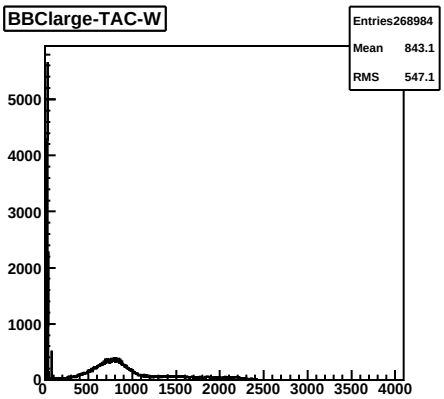

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 83
Mean 1034
RMS 15.07

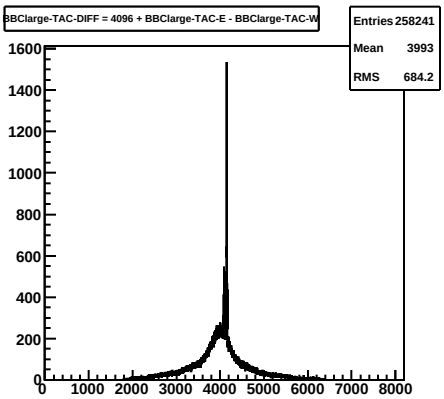

BBCsmall-TAC-E
Entries 283039
Mean 1058
RMS 475.7

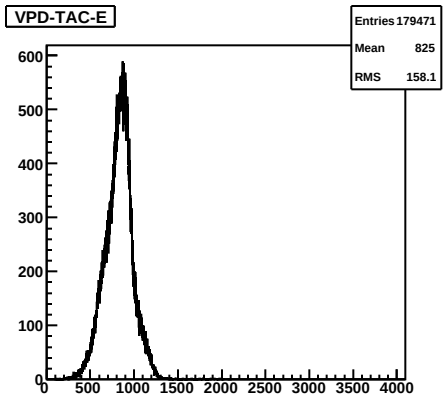

BBCsmall-TAC-W
Entries 283853
Mean 1154
RMS 487

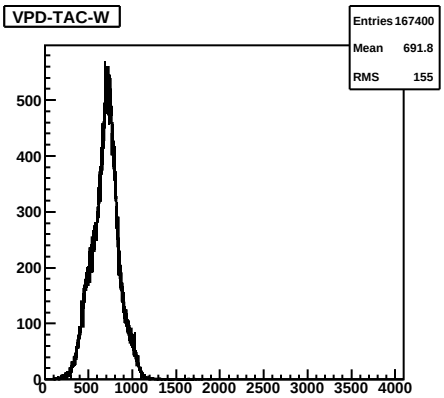

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 282103
Mean 3999
RMS 638.4

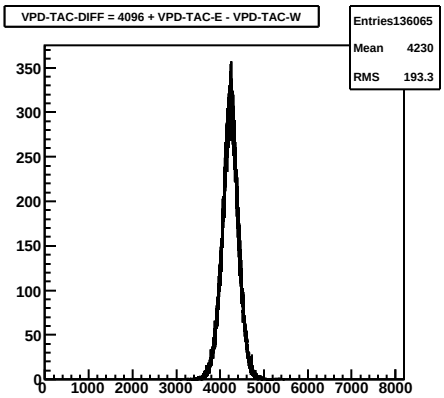

BBClarge-TAC-E
Entries 268820
Mean 743.3
RMS 504.1

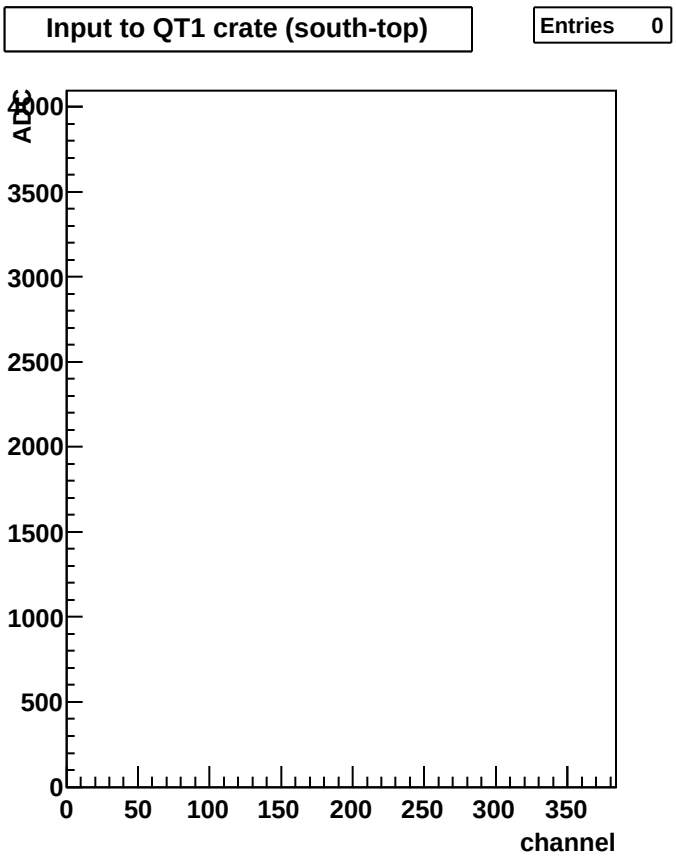

BBClarge-TAC-W
Entries 268984
Mean 843.1
RMS 547.1

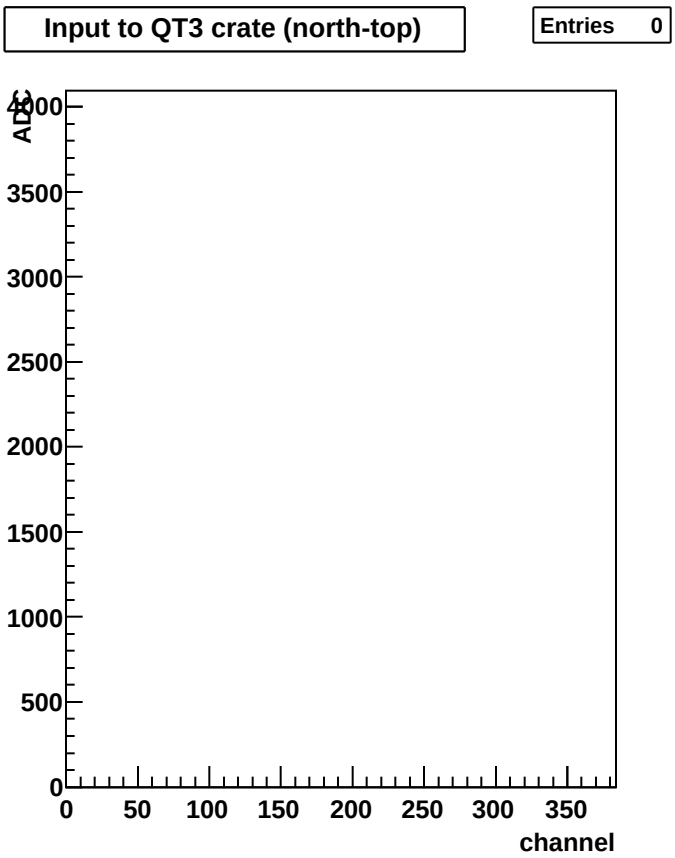

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 258241
Mean 3993
RMS 684.2

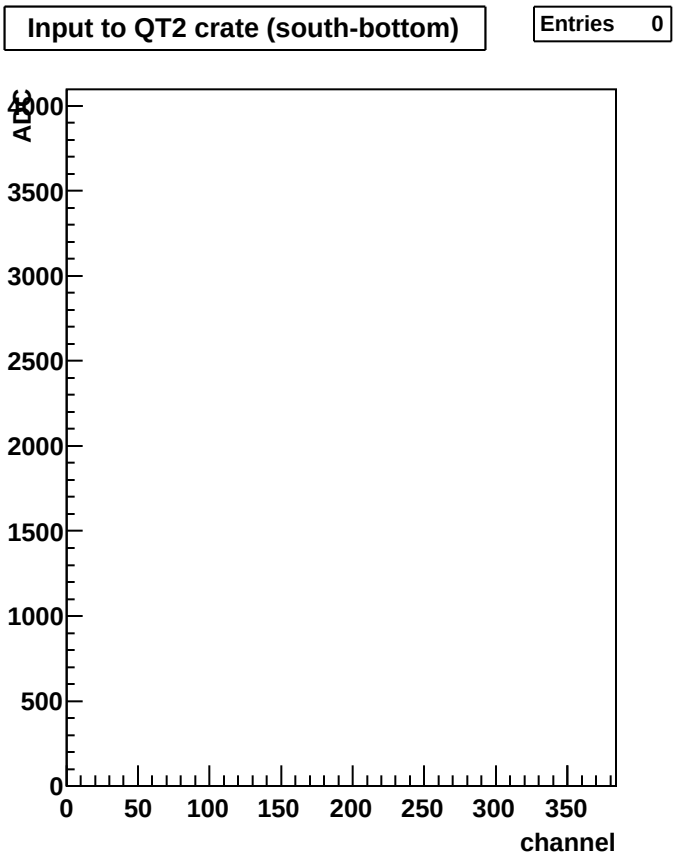

VPD-TAC-E
Entries 179471
Mean 825
RMS 158.1

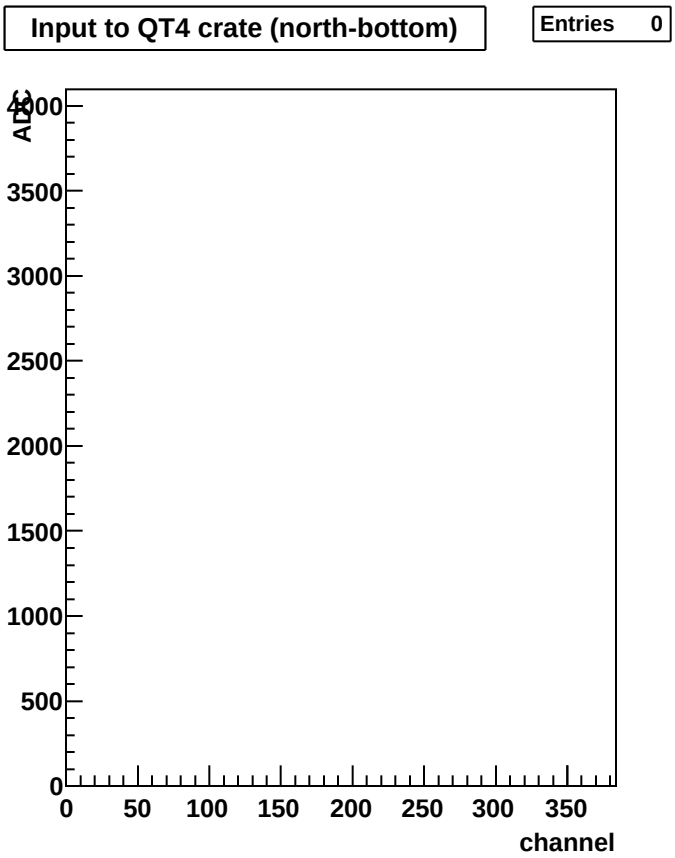

VPD-TAC-W
Entries 167400
Mean 691.8
RMS 155

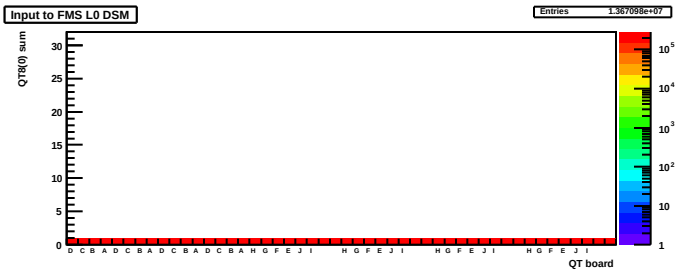

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 136065
Mean 4230
RMS 193.3

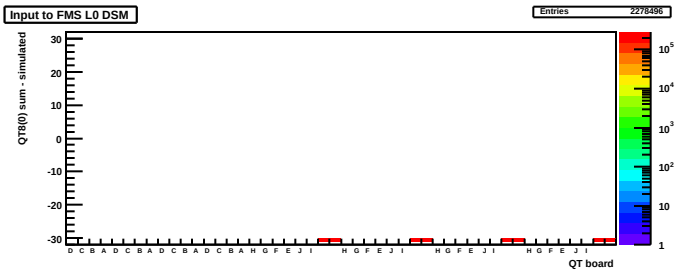

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

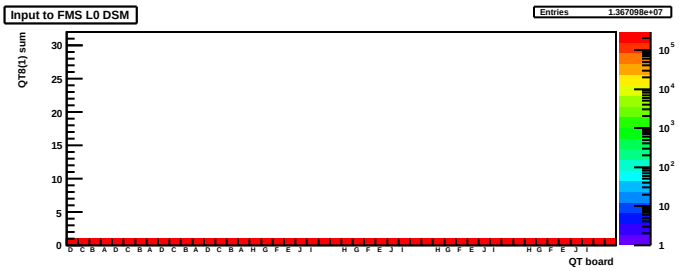

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

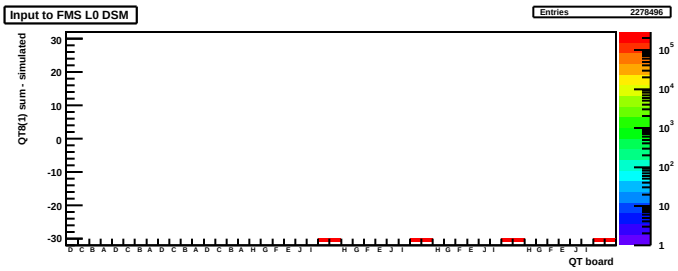

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

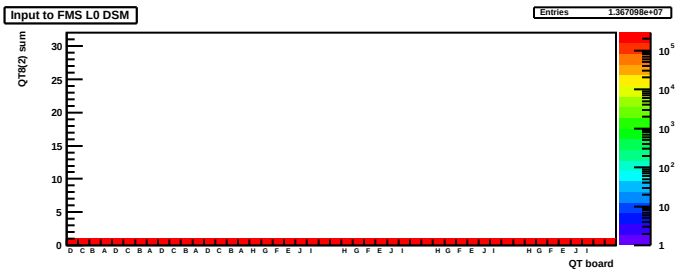

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

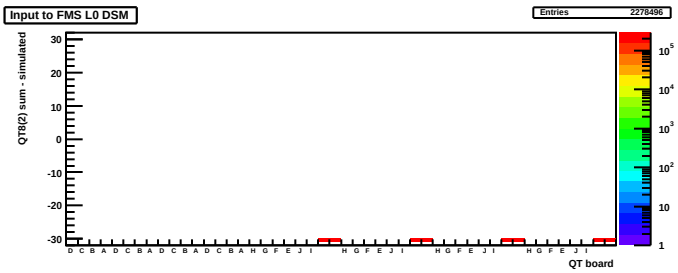

Input to FMS L0 DSM
Entries 1.367098e+07
QT8(0) sum
QT board

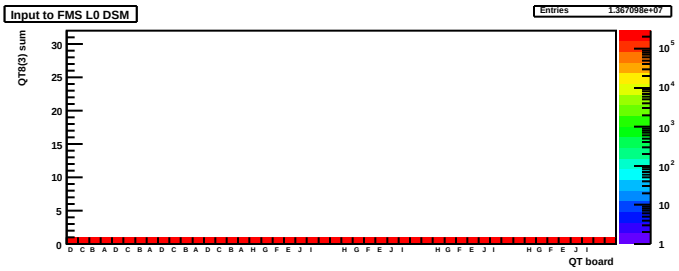

Input to FMS L0 DSM
Entries 2278496
QT8(0) sum - simulated
QT board

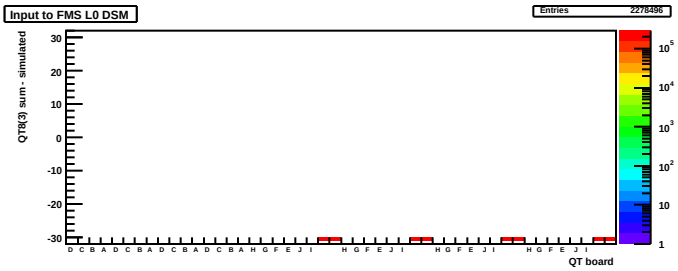

Input to FMS L0 DSM
Entries 1.367098e+07
QT8(1) sum
QT board

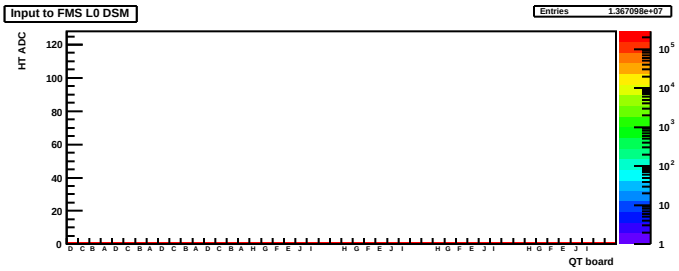

Input to FMS L0 DSM
Entries 2278496
QT8(1) sum - simulated
QT board

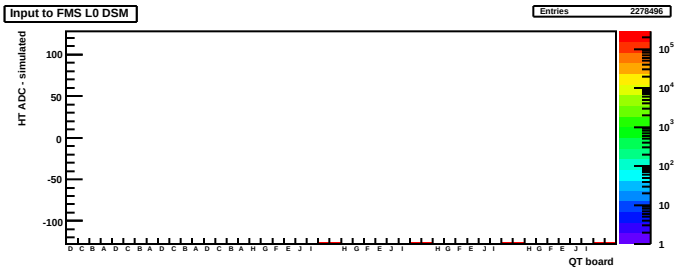

Input to FMS L0 DSM
Entries 1.367098e+07
QT8(2) sum
QT board

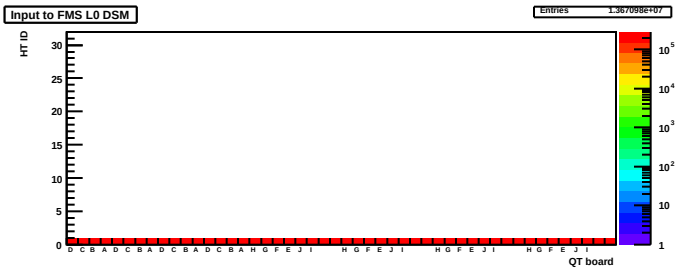

Input to FMS L0 DSM
Entries 2278496
QT8(2) sum - simulated
QT board

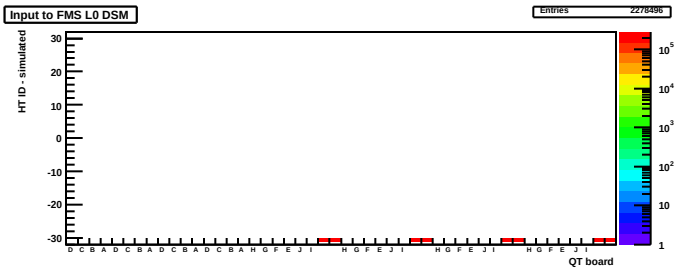

Input to FMS L0 DSM
Entries 1.367098e+07
QT8(3) sum
QT board

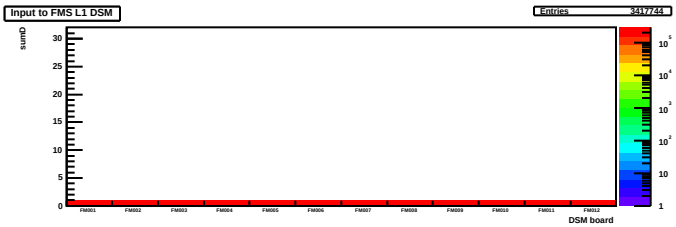

Input to FMS L0 DSM
Entries 2278496
QT8(3) sum - simulated
QT board

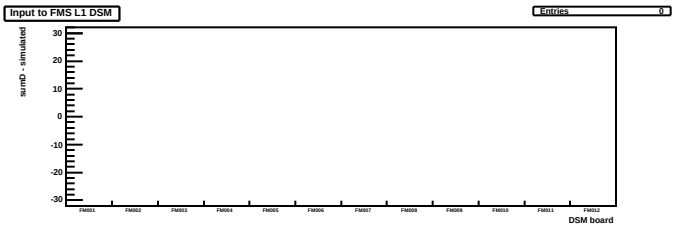

Input to FMS L0 DSM
Entries 1.367098e+07
HT ADC
QT board

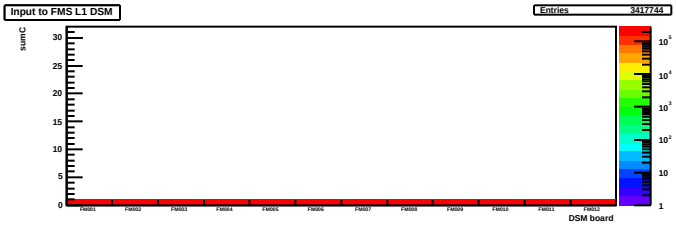

Input to FMS L0 DSM
Entries 2278496
HT ADC - simulated
QT board

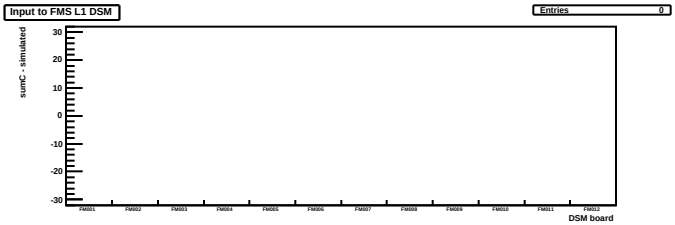

Input to FMS L0 DSM
Entries 1.367098e+07
HT ID
QT board

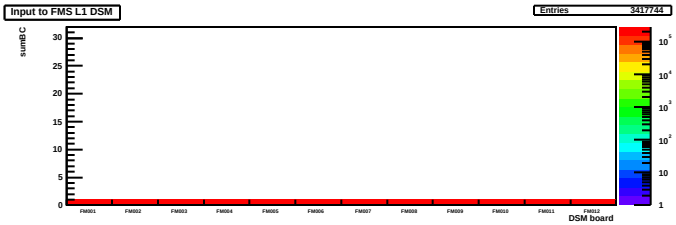

Input to FMS L0 DSM
Entries 2278496
HT ID - simulated
QT board

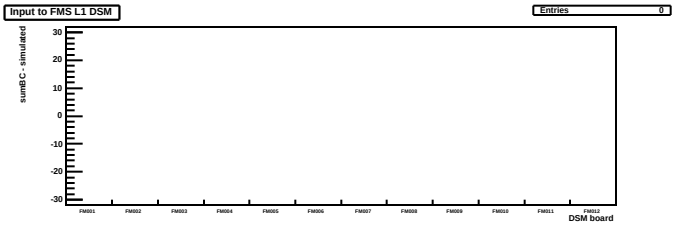

Input to FMS L1 DSM
Entries 3417744
sumD
DSM board

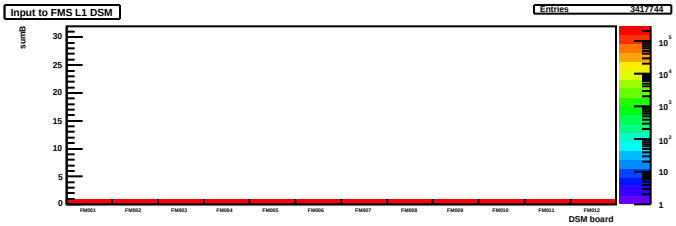

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

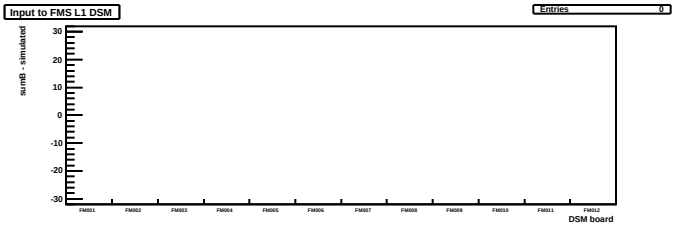

Input to FMS L1 DSM
Entries 3417744
sumC
DSM board

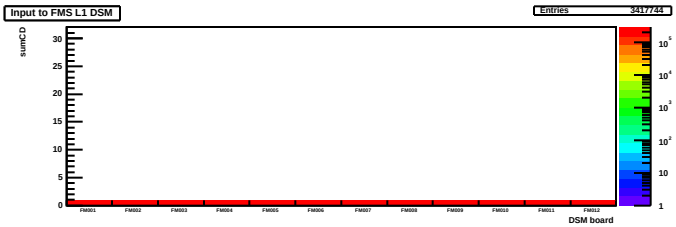

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

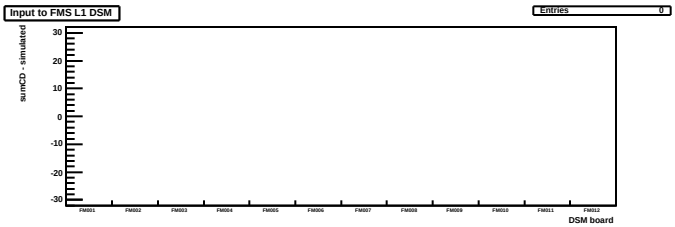

Input to FMS L1 DSM
Entries 3417744
sumBC
DSM board

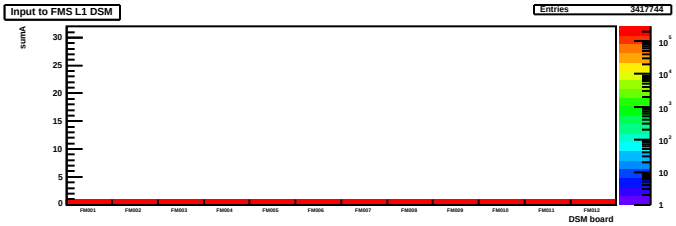

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

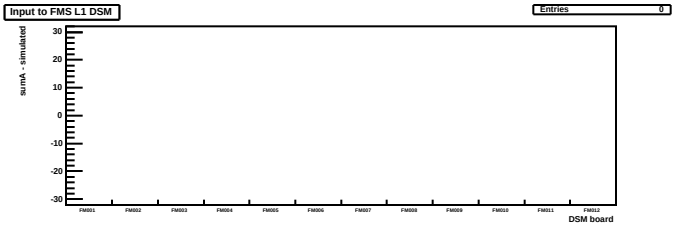

Input to FMS L1 DSM
Entries 3417744
sumB
DSM board

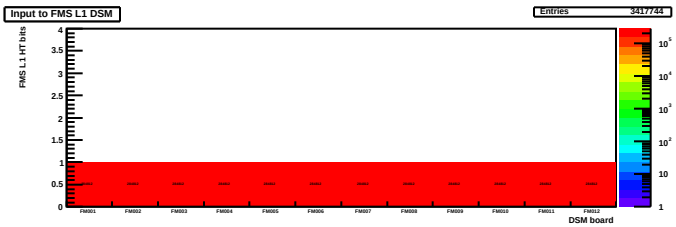

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

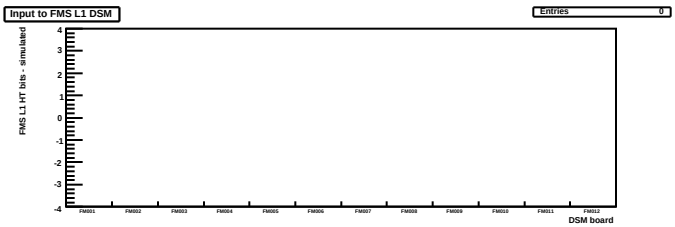

Input to FMS L1 DSM
Entries 3417744
sumCD
DSM board

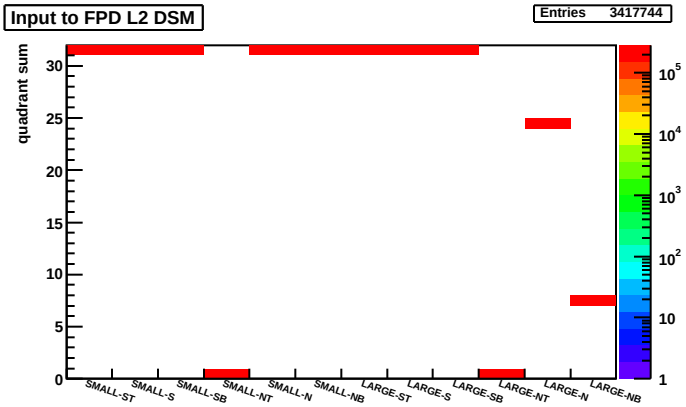

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

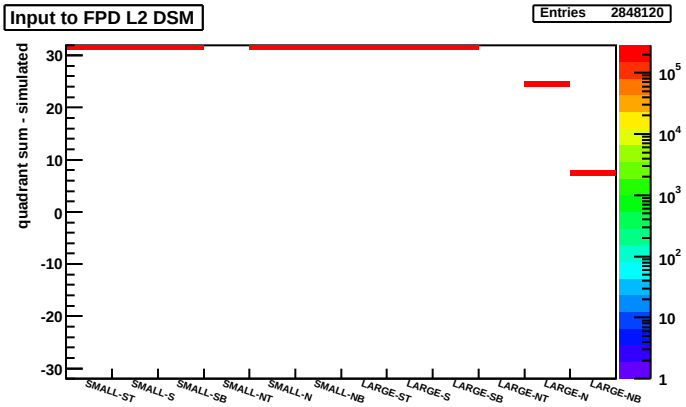

Input to FMS L1 DSM
Entries 3417744
sumA
DSM board

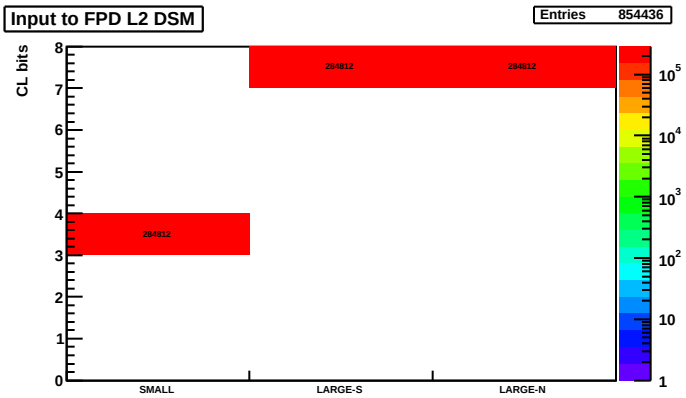

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

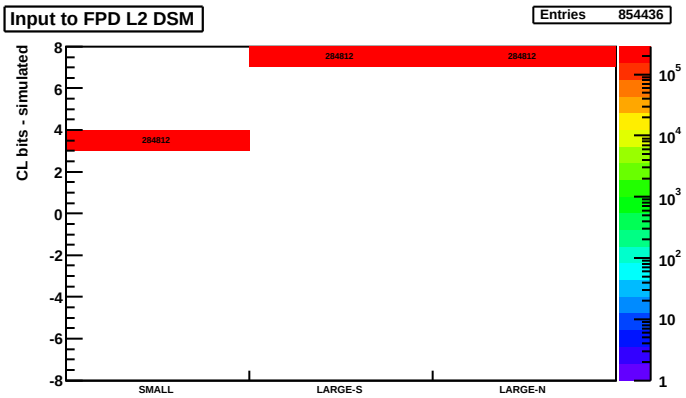

Input to FMS L1 DSM
Entries 3417744
FMS L1 HT bits
DSM board

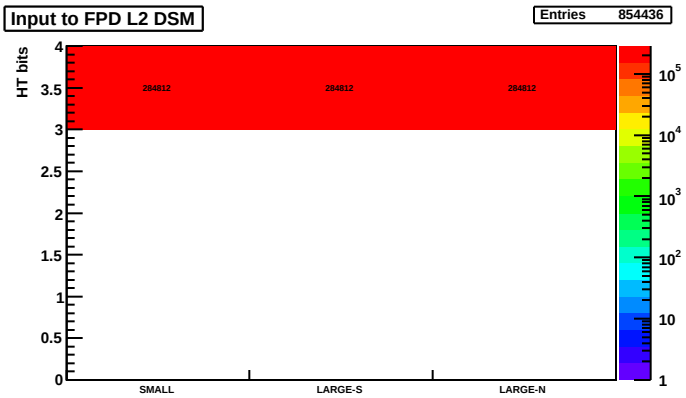

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

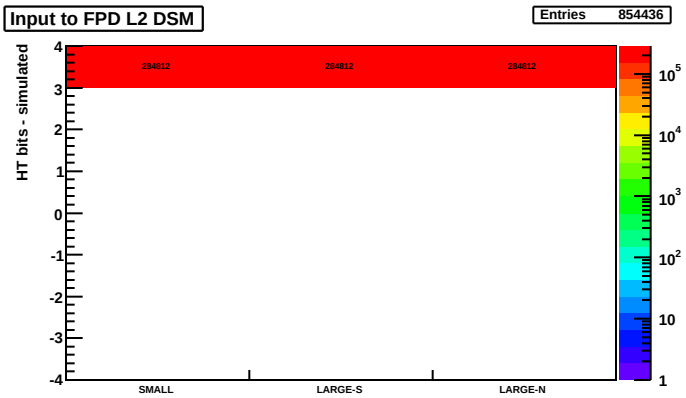

Input to FPD L2 DSM
Entries 3417744
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

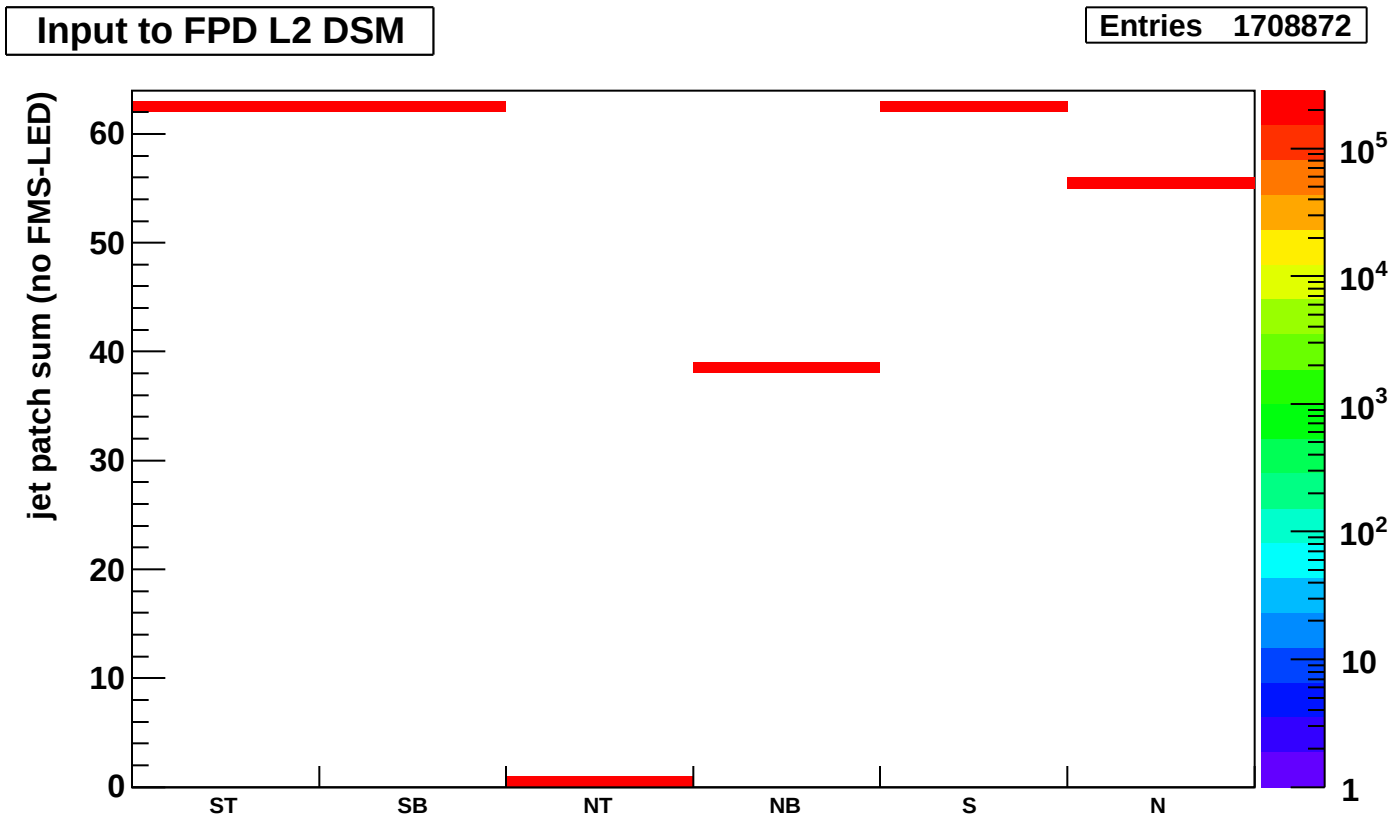

Input to FPD L2 DSM
Entries 2848120
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

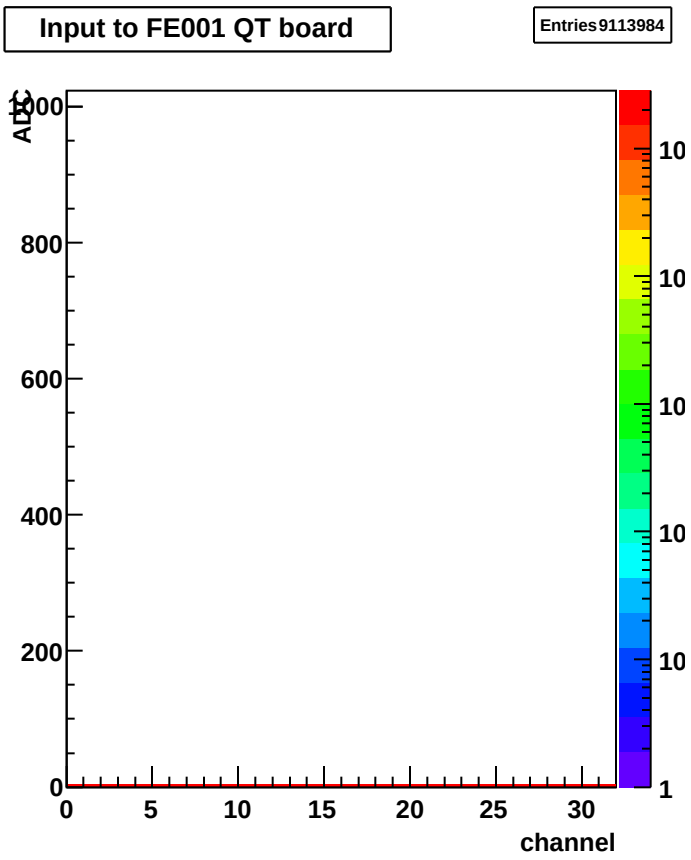

Input to FPD L2 DSM
Entries 854436
CL bits
284812
284812
284812
SMALL
LARGE-S
LARGE-N

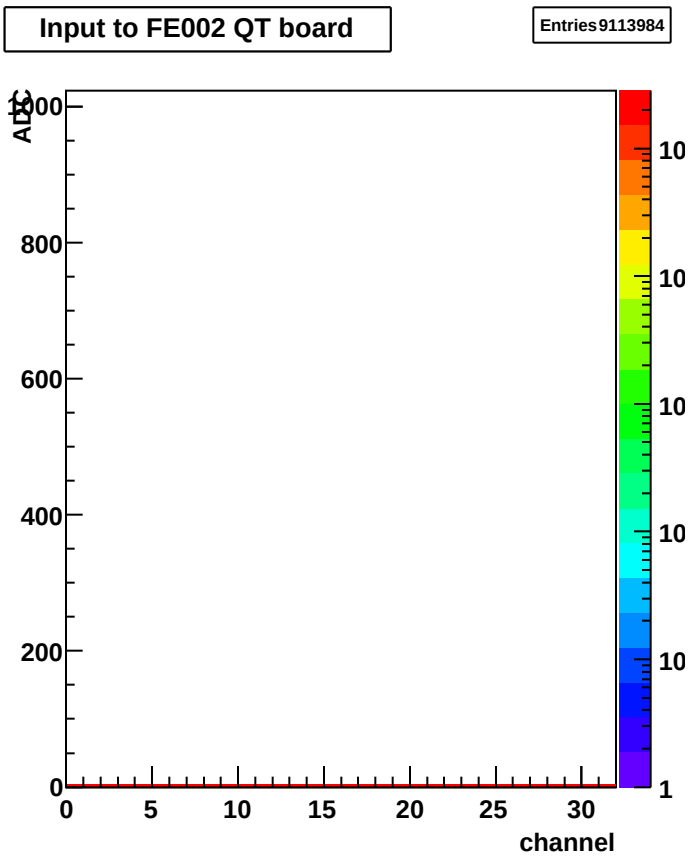

Input to FPD L2 DSM
Entries 854436
CL bits - simulated
284812
284812
284812
SMALL
LARGE-S
LARGE-N

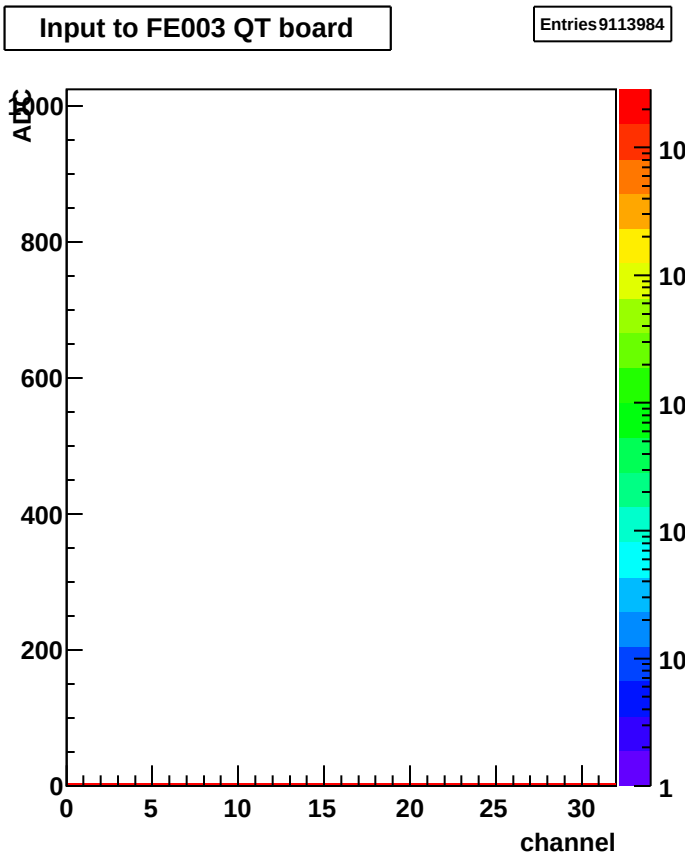

Input to FPD L2 DSM
Entries 854436
HT bits
284812
284812
284812
SMALL
LARGE-S
LARGE-N

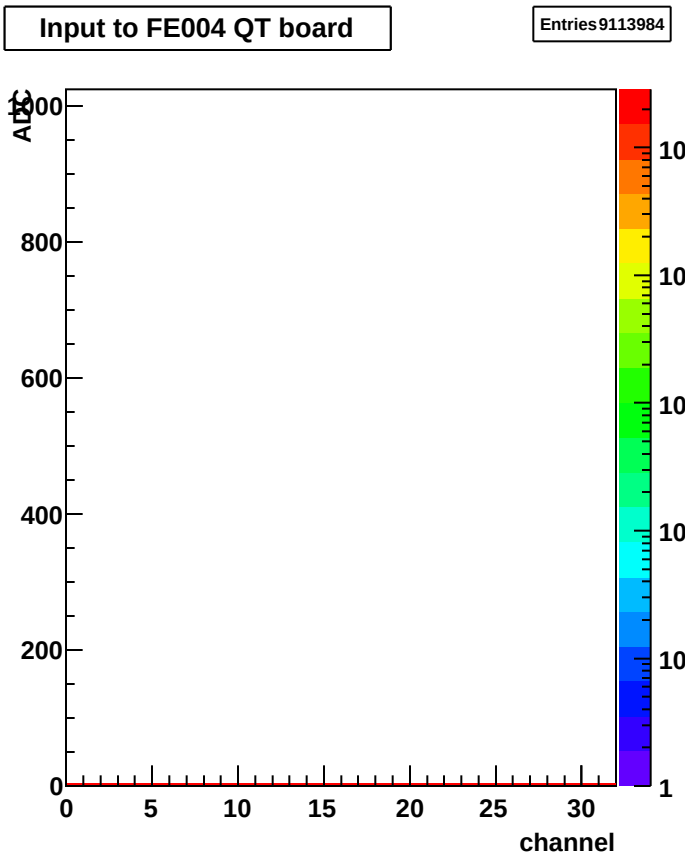

Input to FPD L2 DSM
Entries 854436
HT bits - simulated
284812
284812
284812
SMALL
LARGE-S
LARGE-N

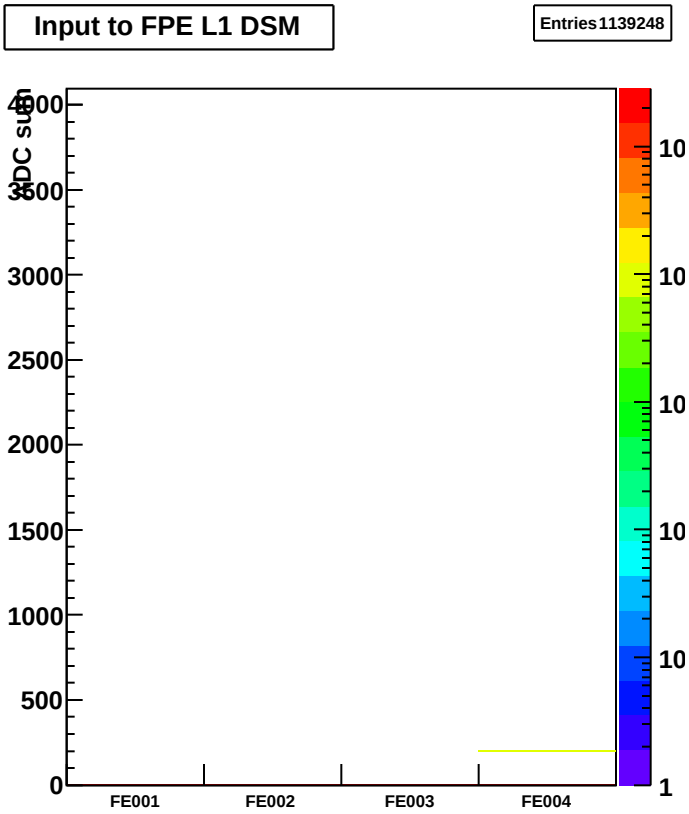

Input to FPD L2 DSM
Entries 1708872
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

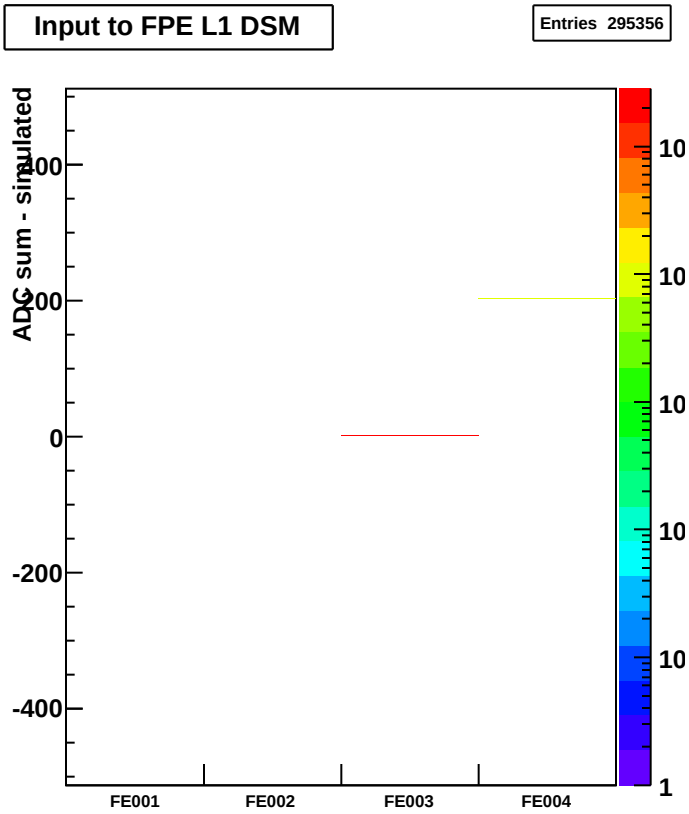

Input to FE001 QT board
Entries 9113984
ADC
channel

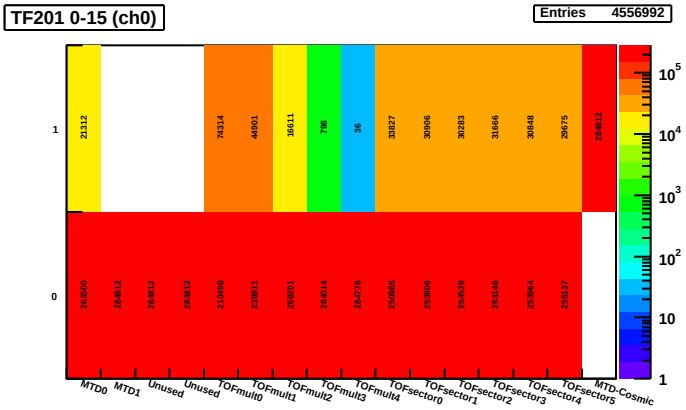

Input to FE002 QT board
Entries 9113984
ADC
channel

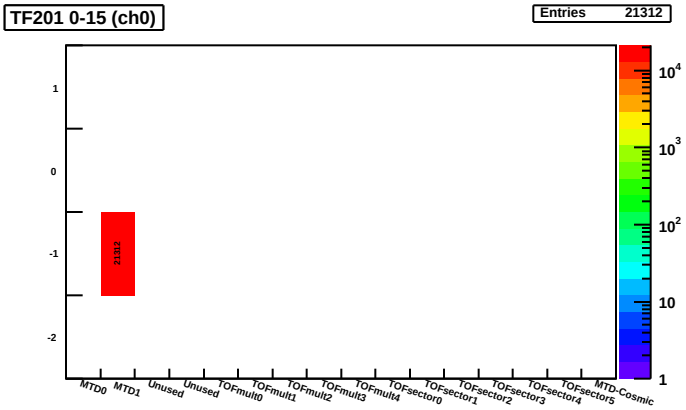

Input to FE003 QT board
Entries 9113984
ADC
channel

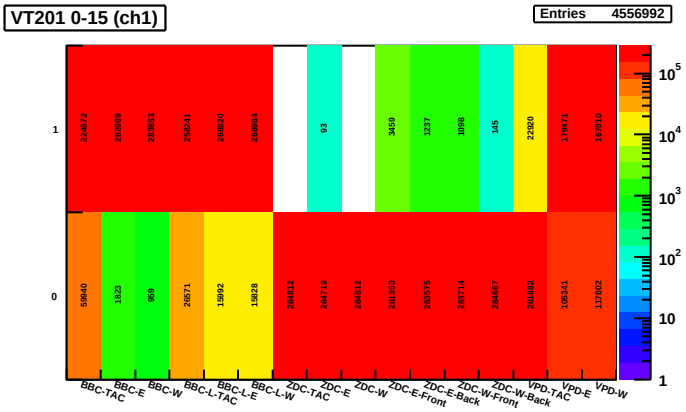

Input to FE004 QT board
Entries 9113984
ADC
channel

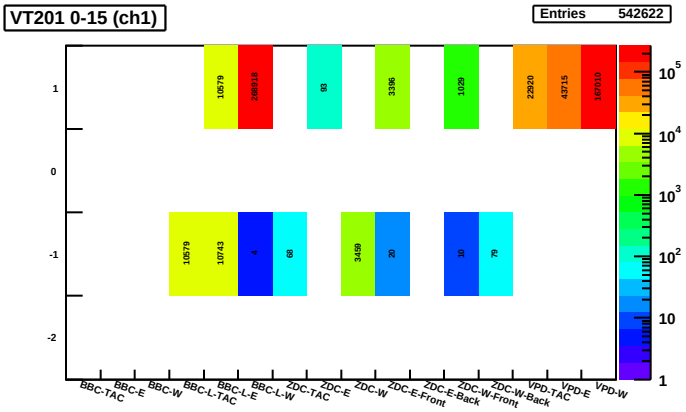

Input to FPE L1 DSM
Entries 1139248
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

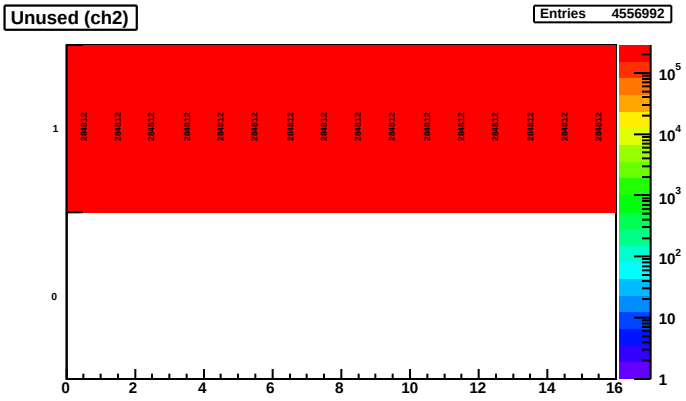

Input to FPE L1 DSM
Entries 295356
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

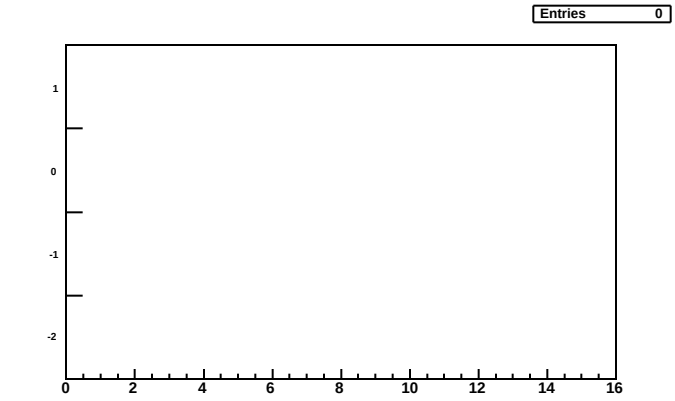

TF201 0-15 (ch0)
Entries 4556992
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

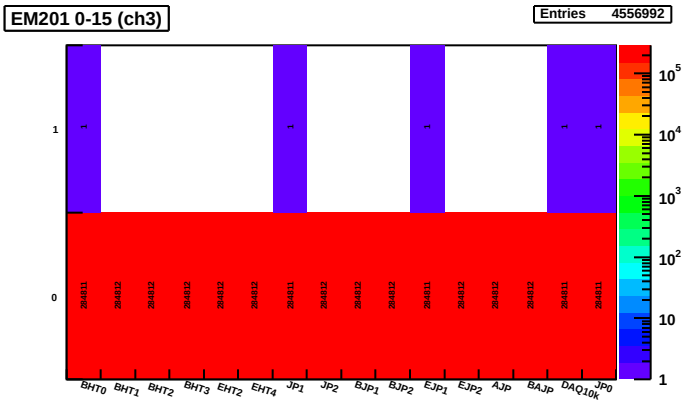

TF201 0-15 (ch0)
Entries 21312
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

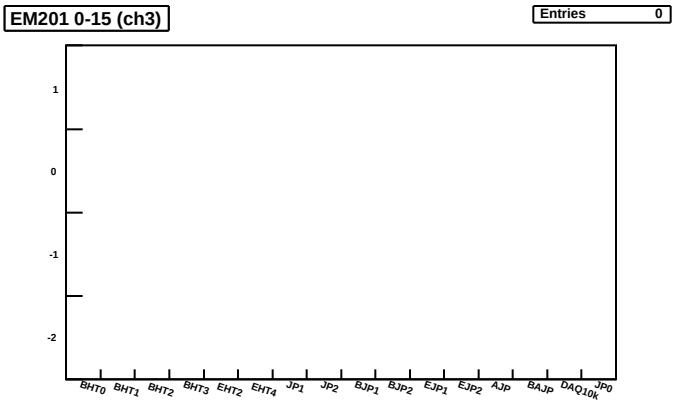

VT201 0-15 (ch1)
Entries 4556992
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 542622
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

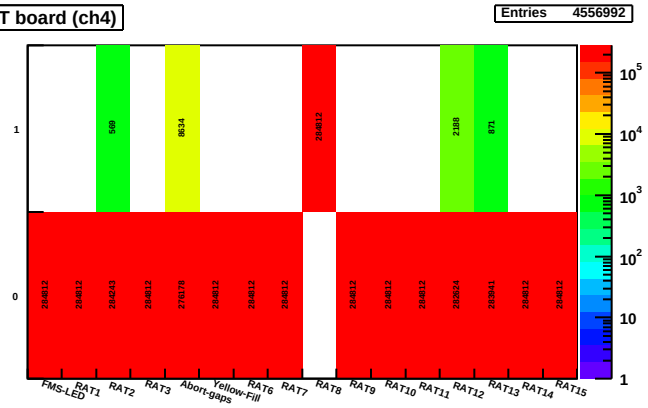

Unused (ch2)
Entries 4556992

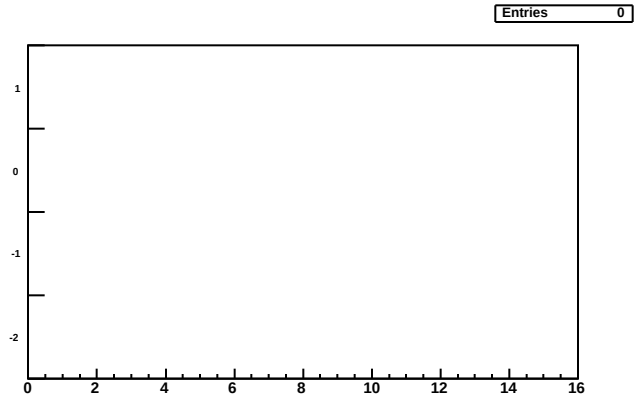

Entries 0


EM201 0-15 (ch3)
Entries 4556992
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

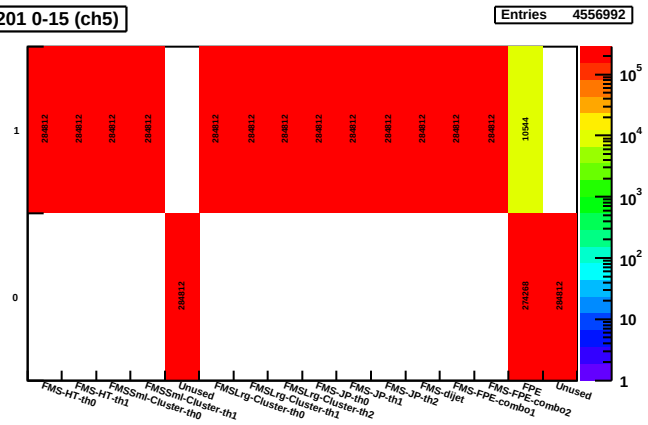

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

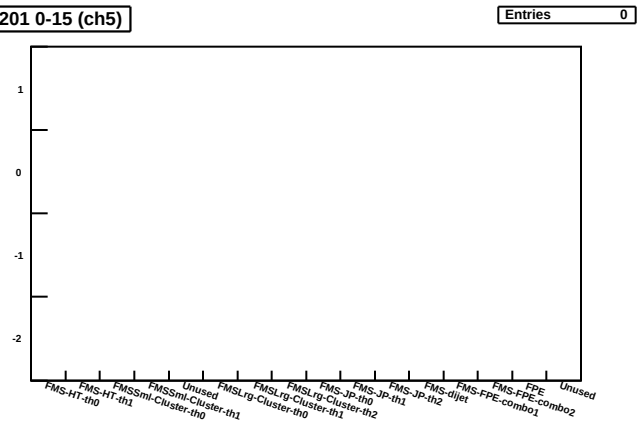




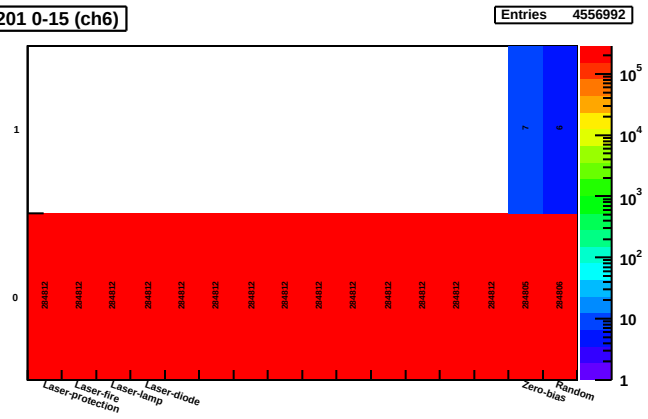
FP201 0-15 (ch5)

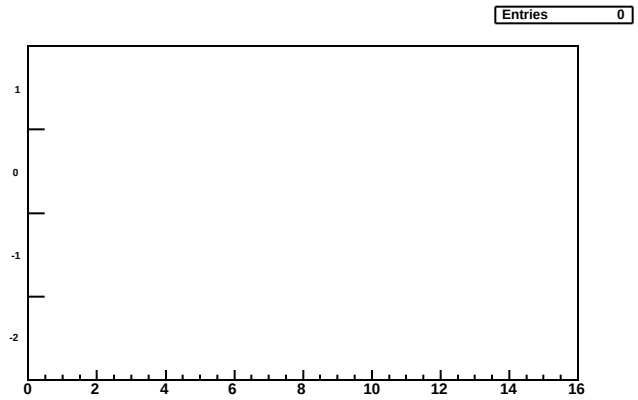
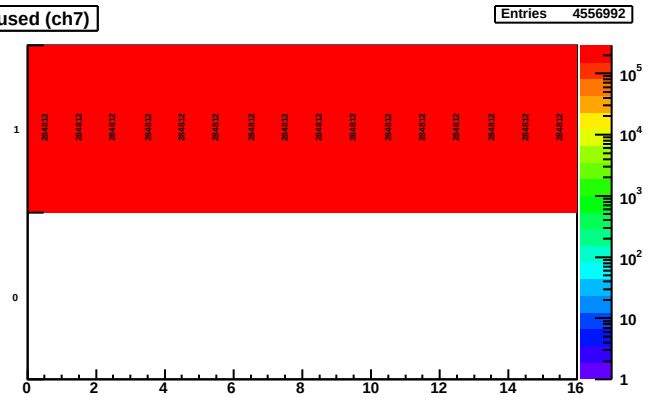
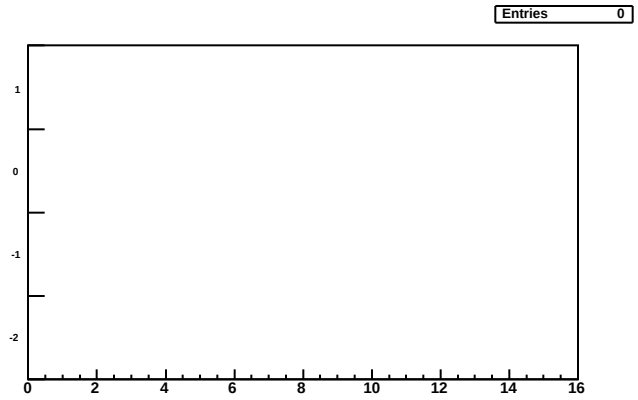


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)