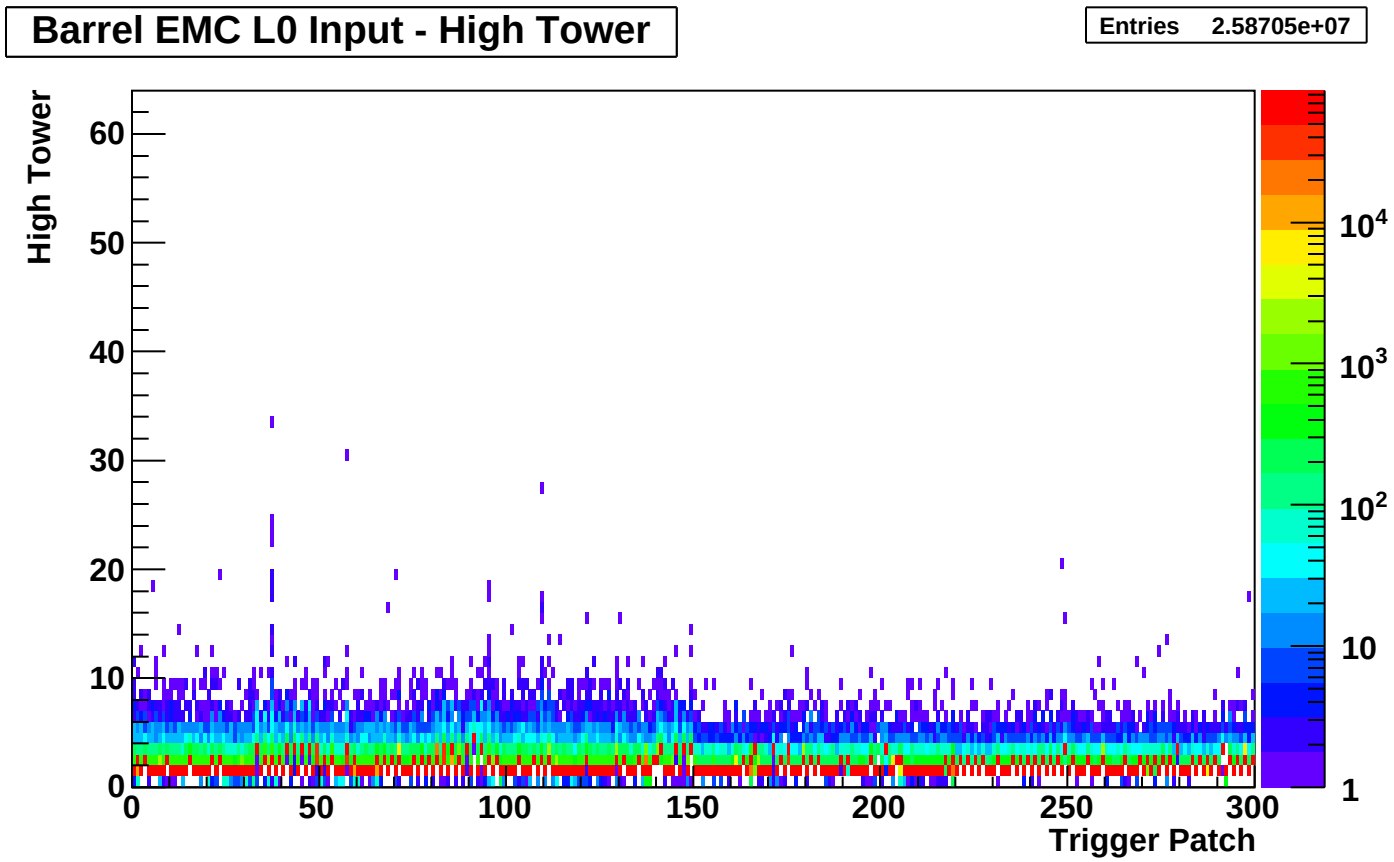
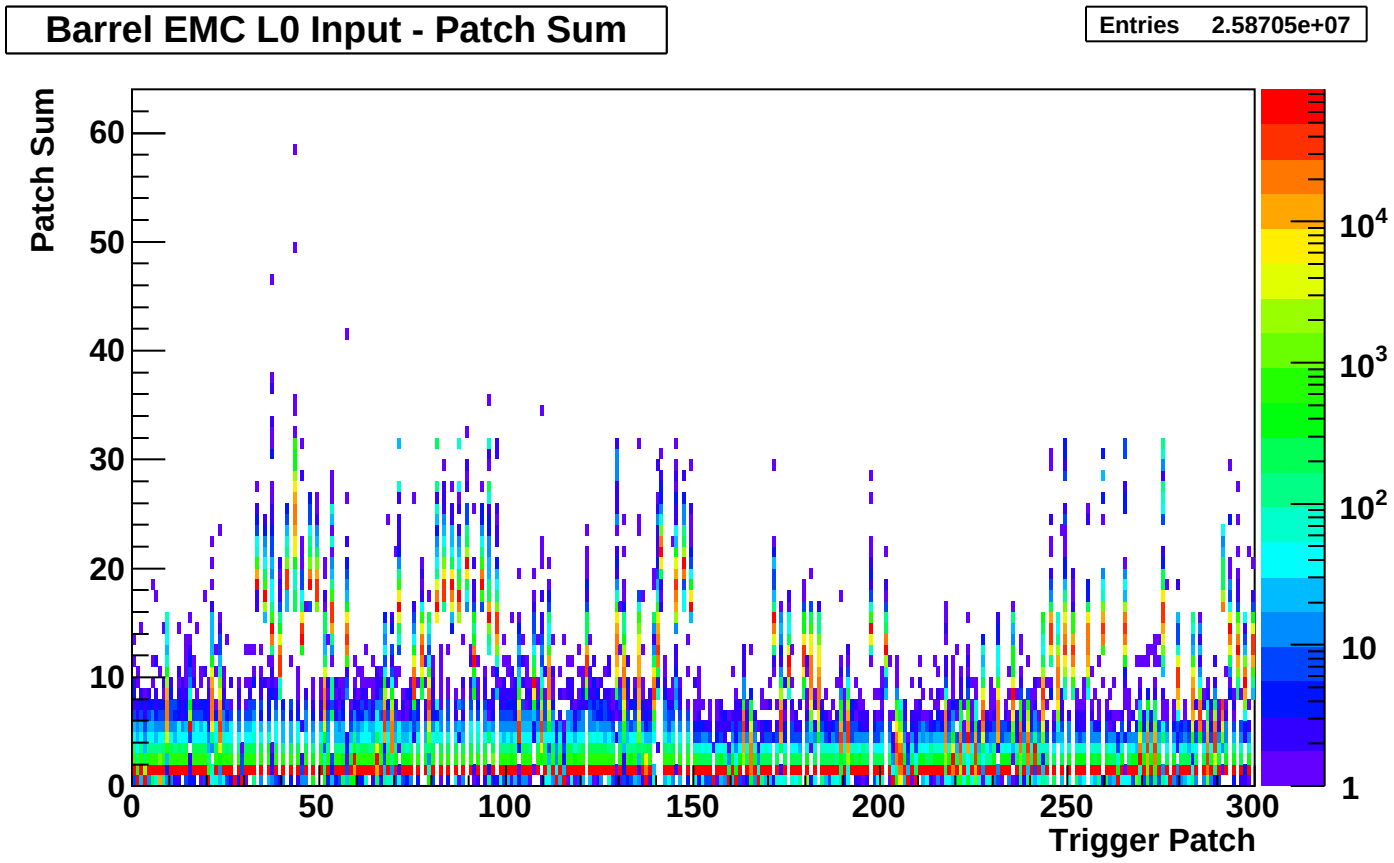
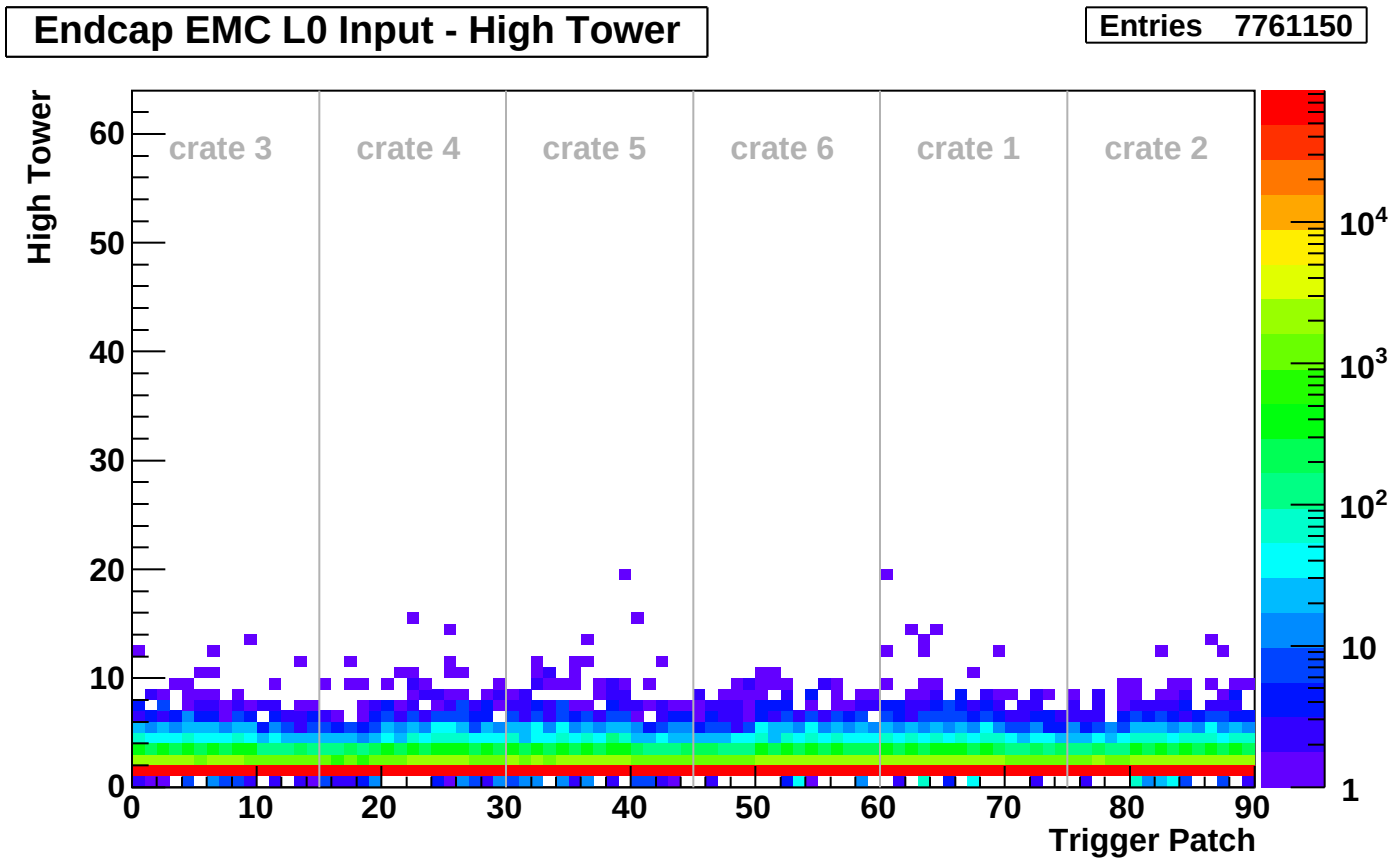
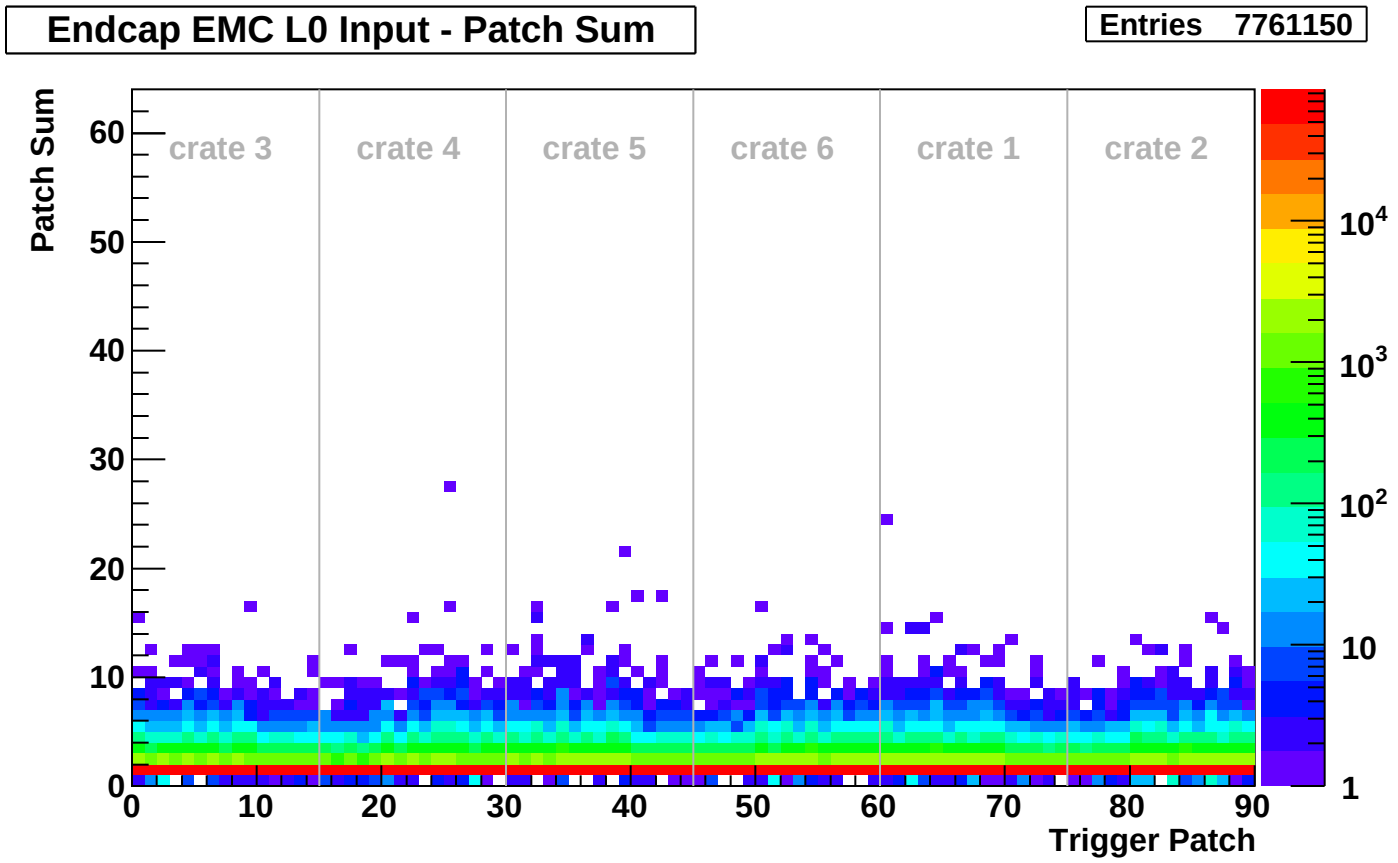
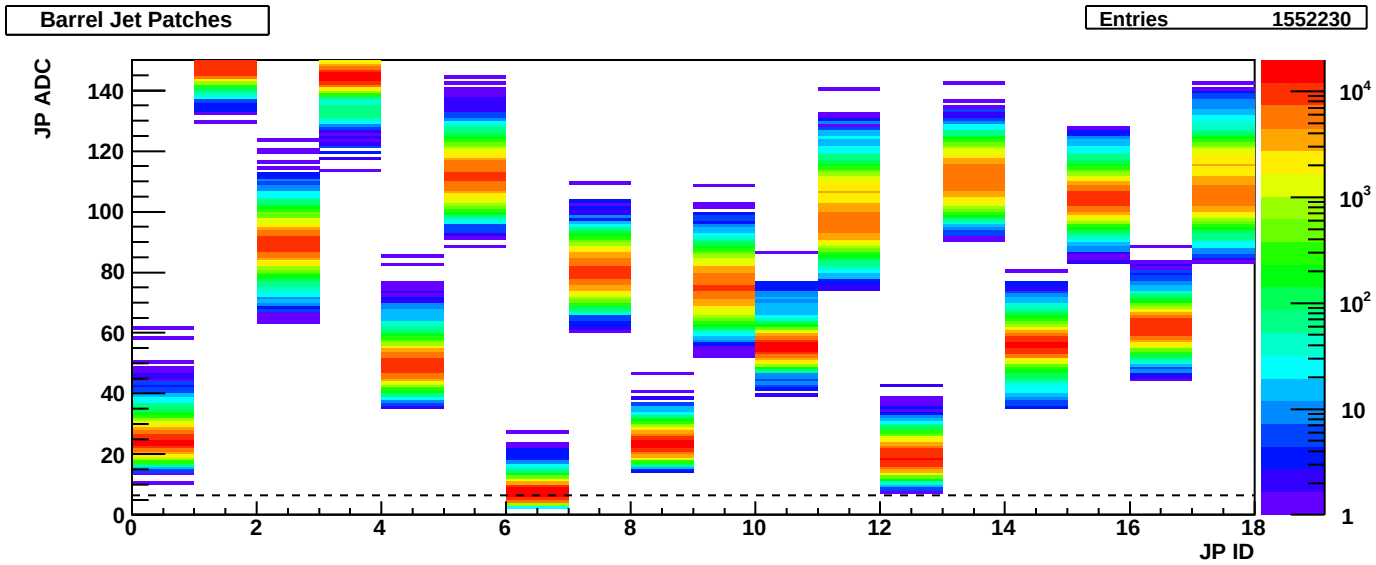
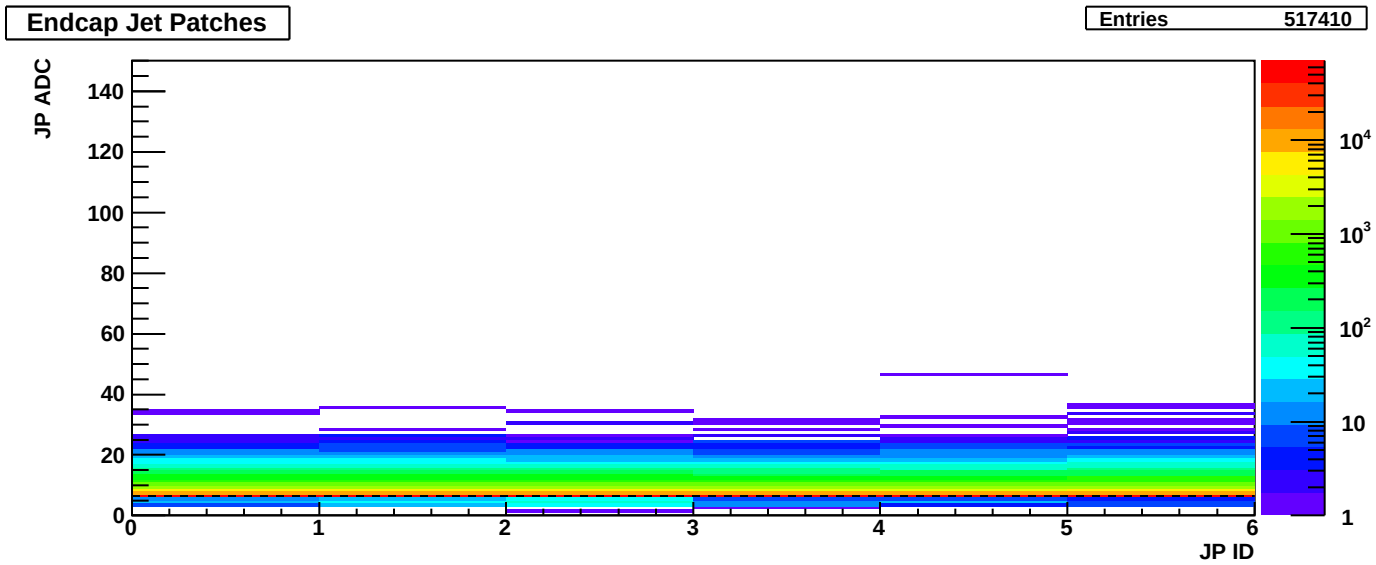

Barrel EMC L0 Input - High Tower
Entries 2.58705e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

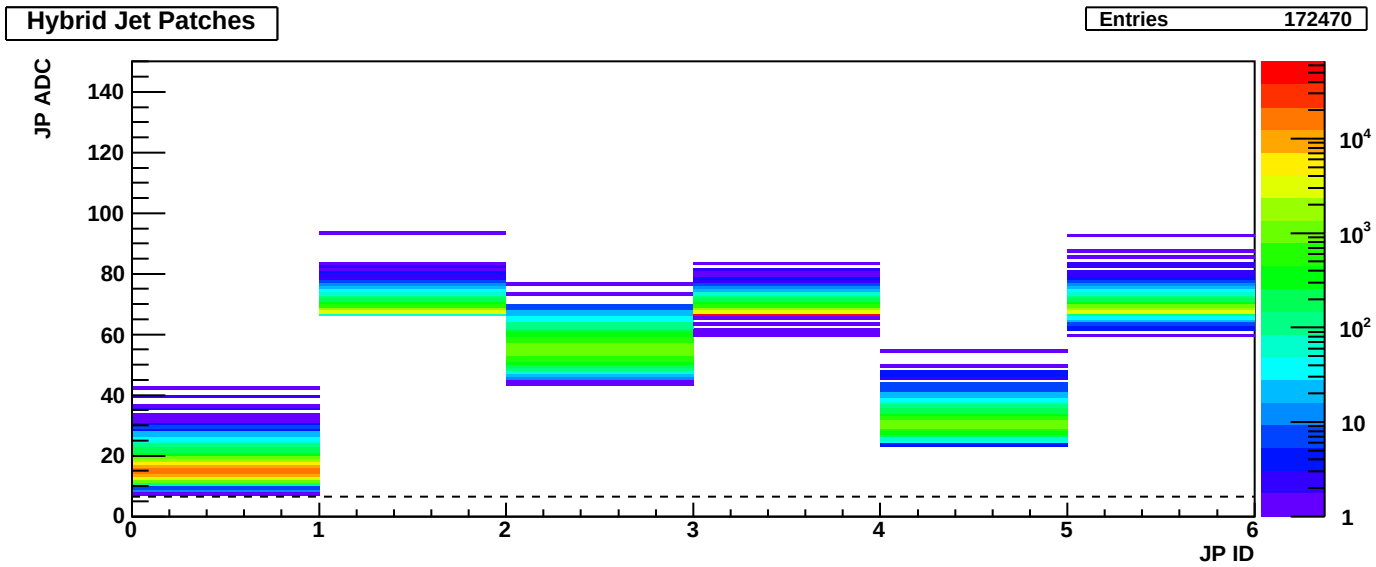

Barrel EMC L0 Input - Patch Sum
Entries 2.58705e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

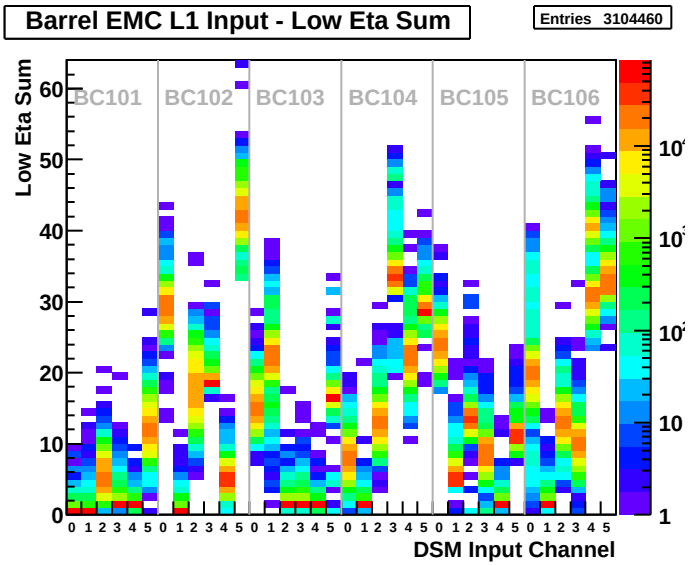

Endcap EMC L0 Input - High Tower
Entries 7761150
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3
10^4

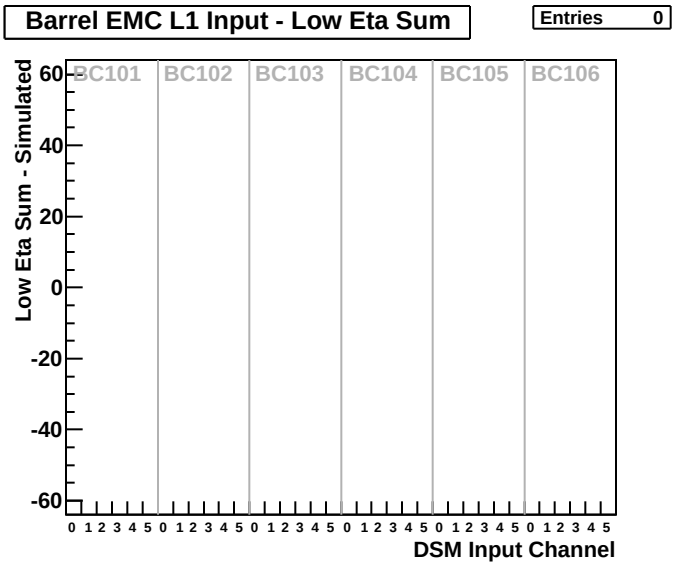

Endcap EMC L0 Input - Patch Sum
Entries 7761150
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3
10^4

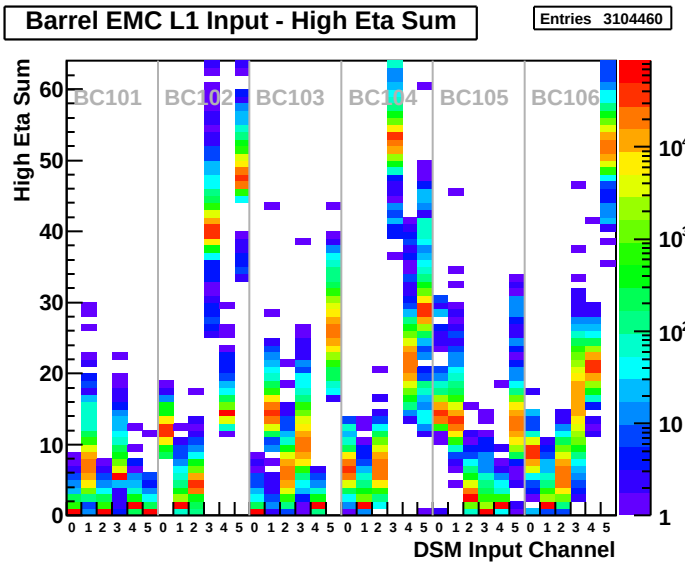

Barrel Jet Patches
Entries 1552230
JP ADC
JP ID

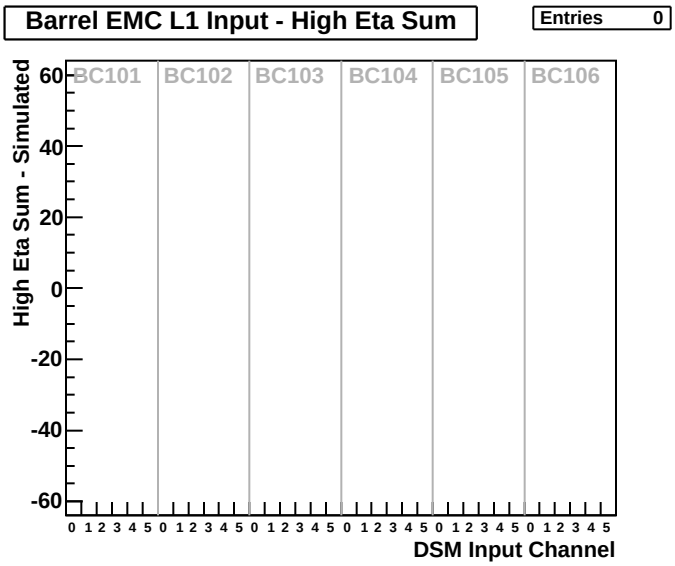

Endcap Jet Patches
Entries 517410
JP ADC
JP ID

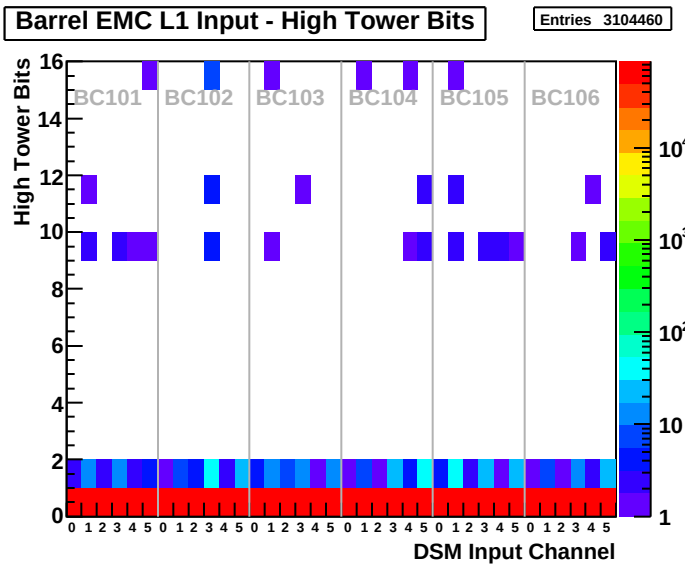

Hybrid Jet Patches
Entries 172470
JP ADC
JP ID

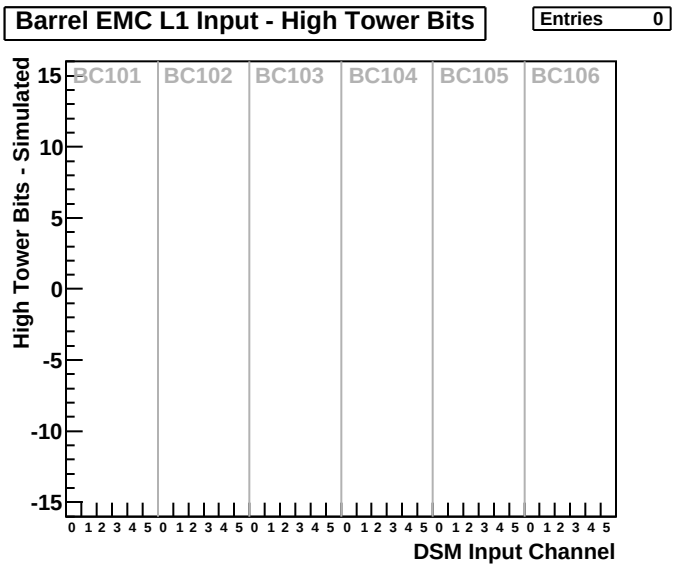

Barrel EMC L1 Input - Low Eta Sum
Entries 3104460
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

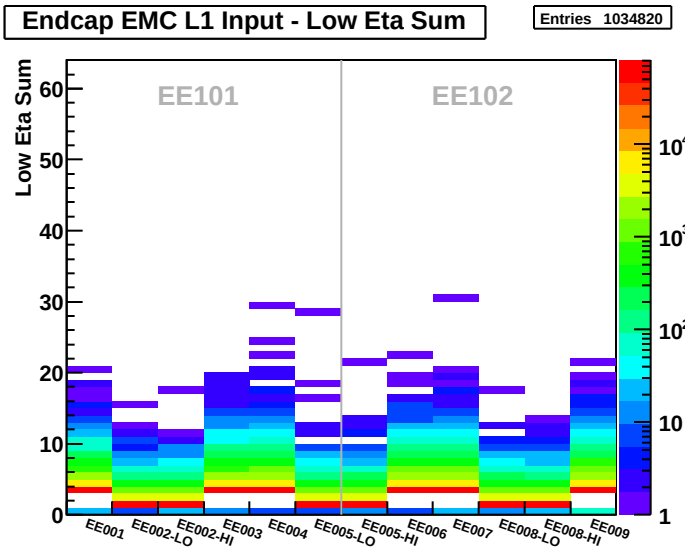

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

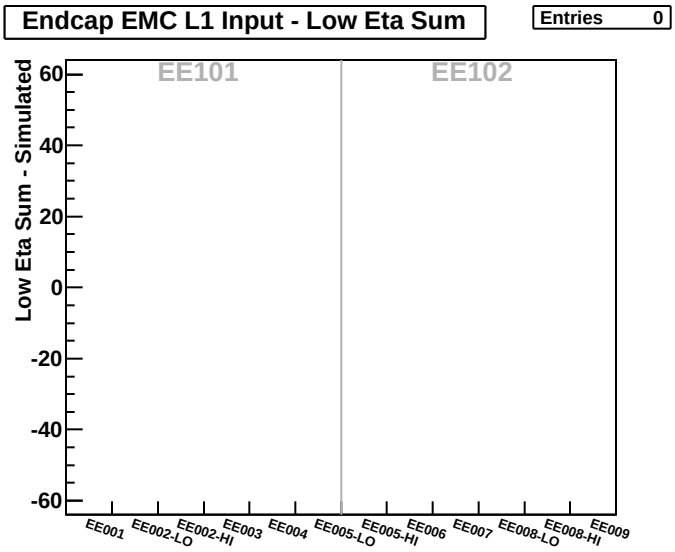

Barrel EMC L1 Input - High Eta Sum
Entries 3104460
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

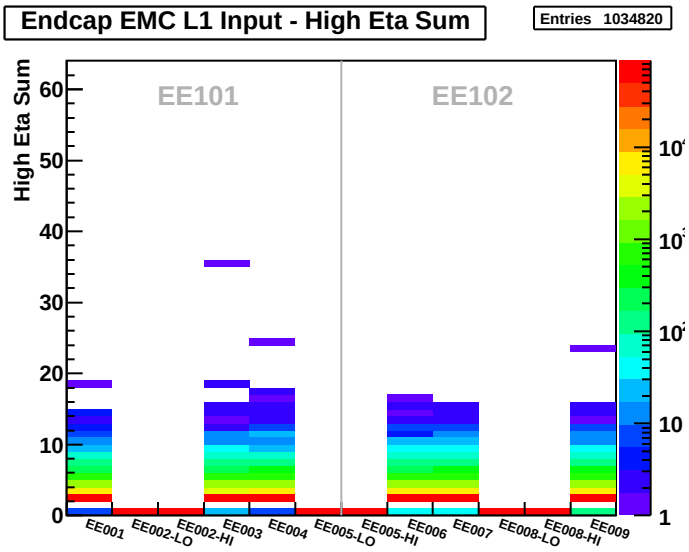

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

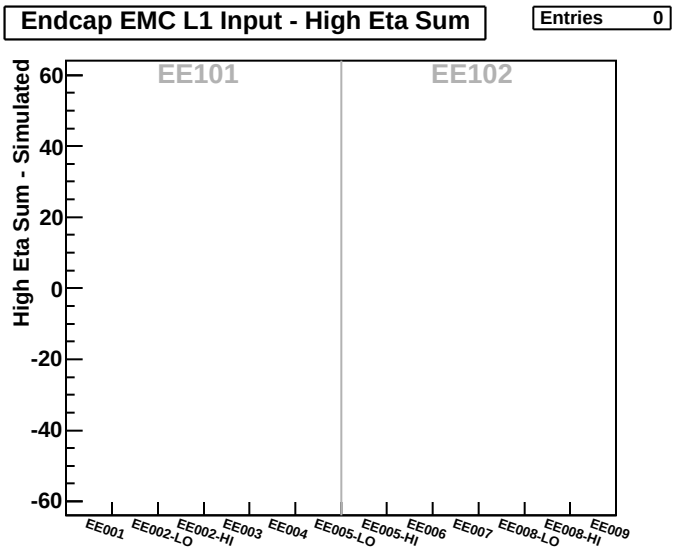

Barrel EMC L1 Input - High Tower Bits
Entries 3104460
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

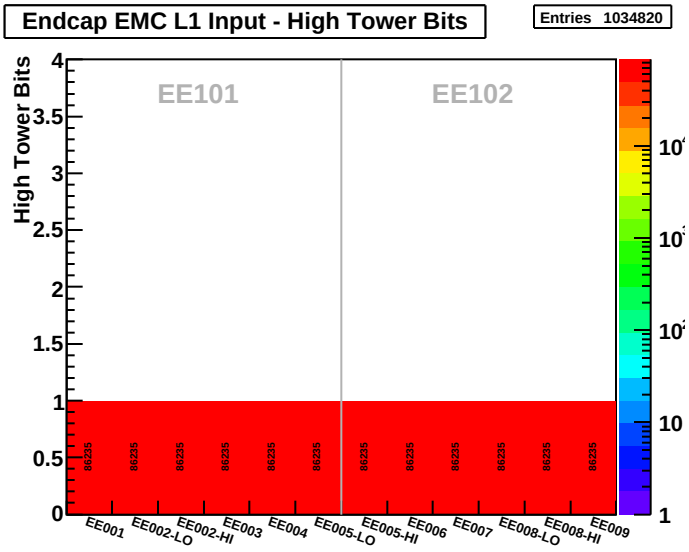

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

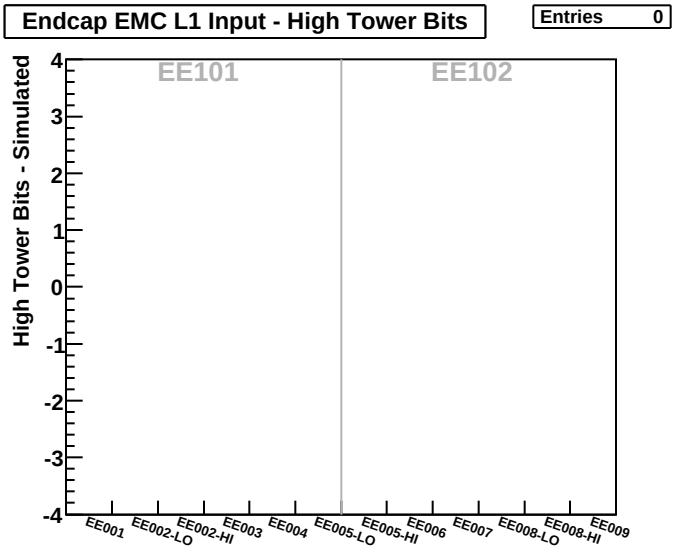

Endcap EMC L1 Input - Low Eta Sum
Entries 1034820
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

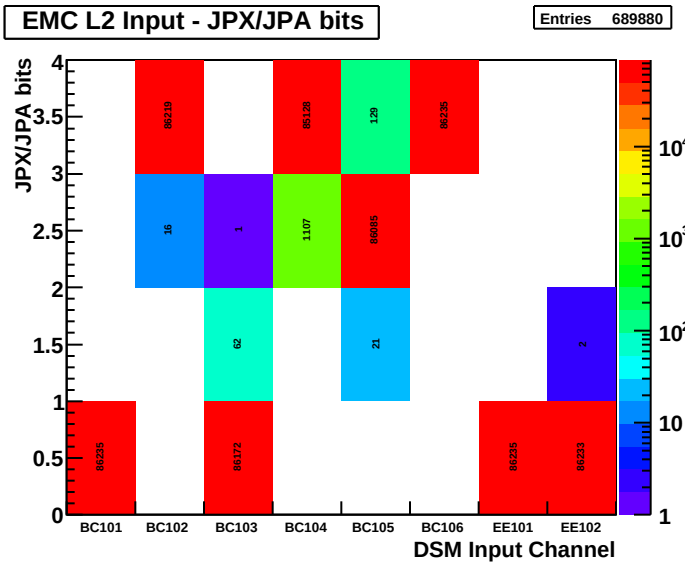

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

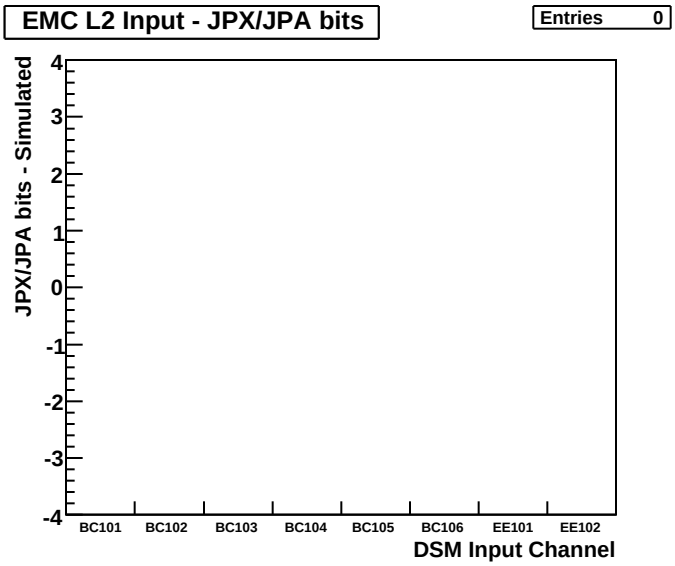

Endcap EMC L1 Input - High Eta Sum
Entries 1034820
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

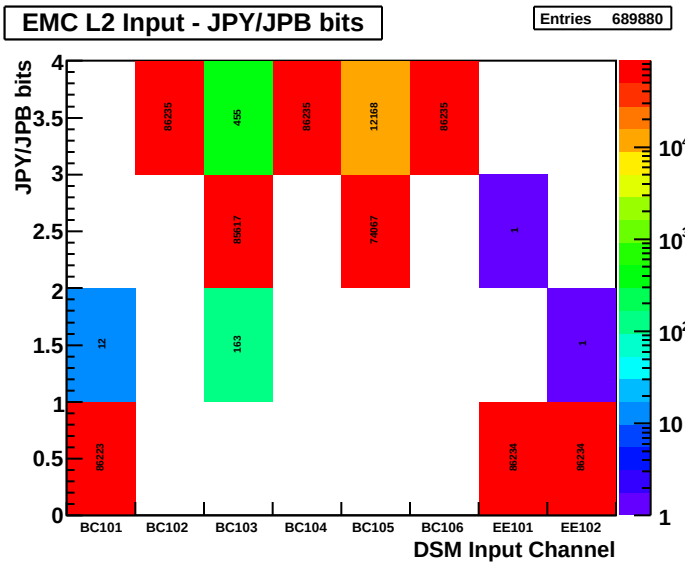

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

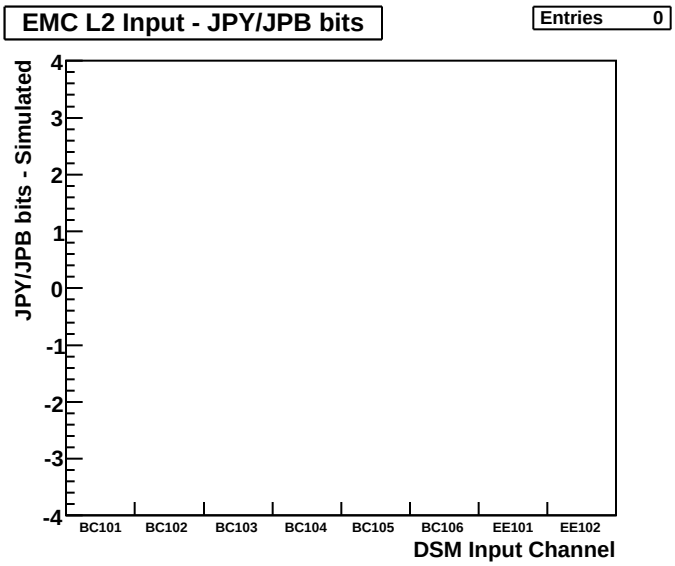

Endcap EMC L1 Input - High Tower Bits
Entries 1034820
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

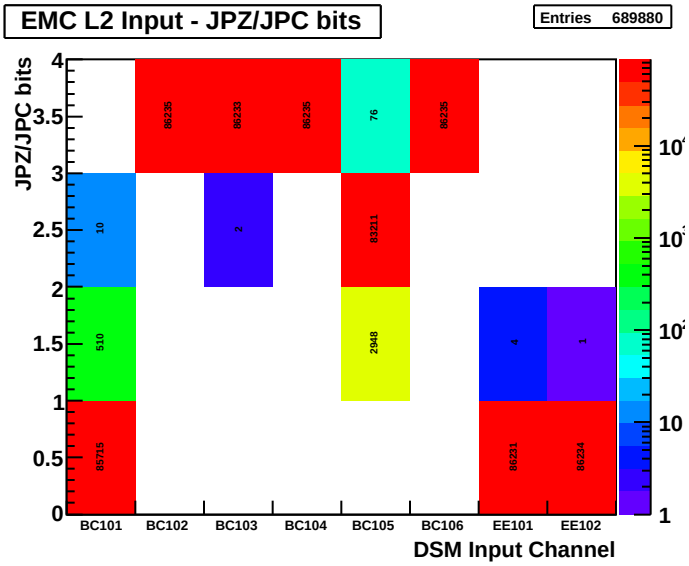

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

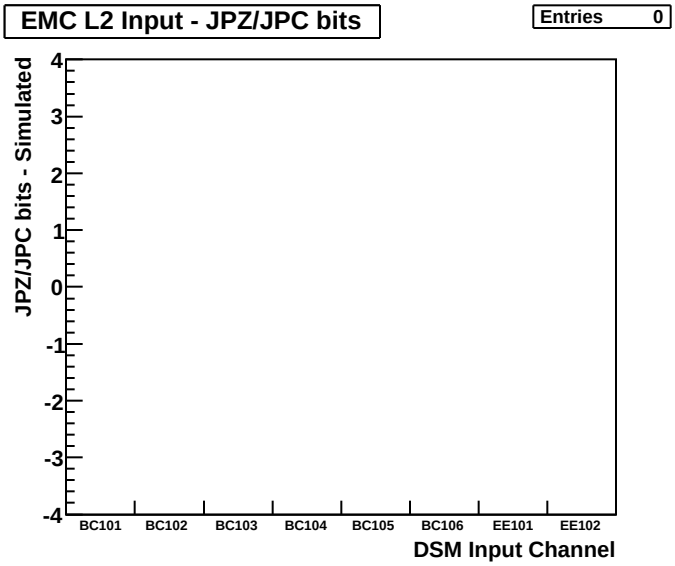

EMC L2 Input - JPX/JPA bits
Entries 689880
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
86219
86128
129
86235
16
1
1107
86085
62
21
2
86235
86172
86235
86233

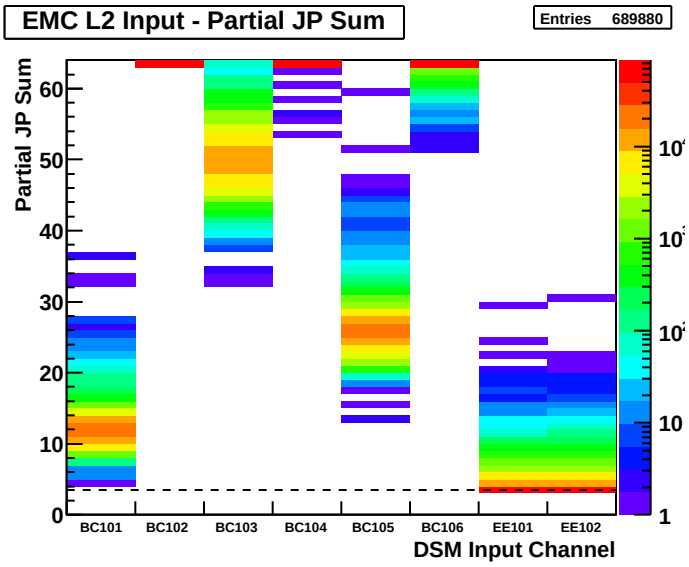

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

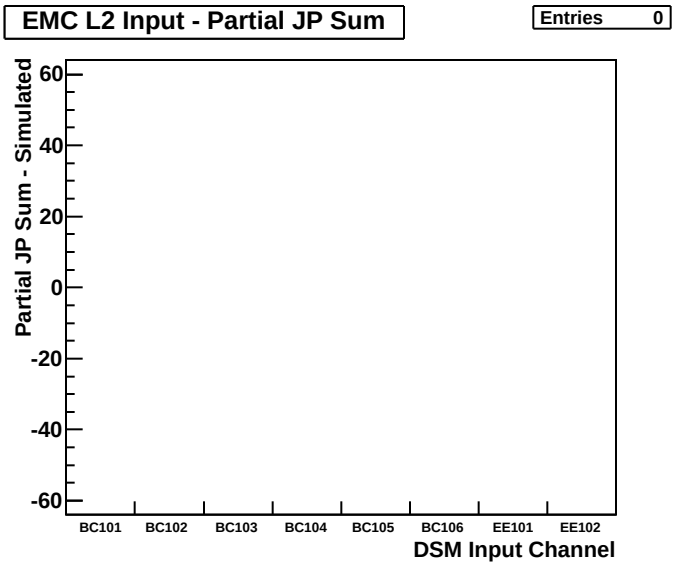

EMC L2 Input - JPY/JPB bits
Entries 689880
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
86235
455
86235
12168
86235
85617
74067
1
12
163
1
86223
86234
86234

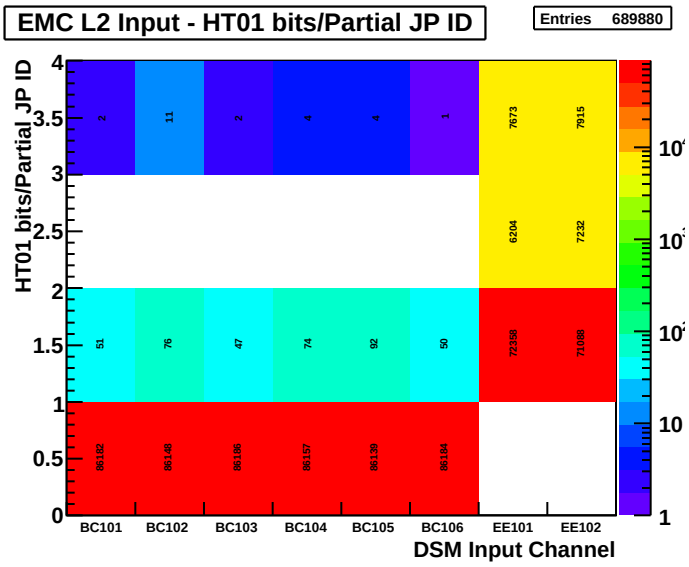

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

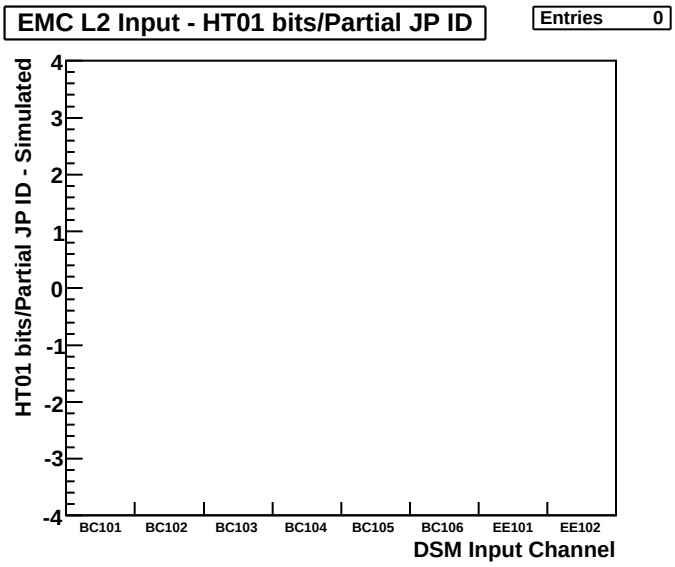

EMC L2 Input - JPZ/JPC bits
Entries 689880
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
86235
86233
86235
76
86235
10
2
83211
510
2948
4
1
85715
86231
86234

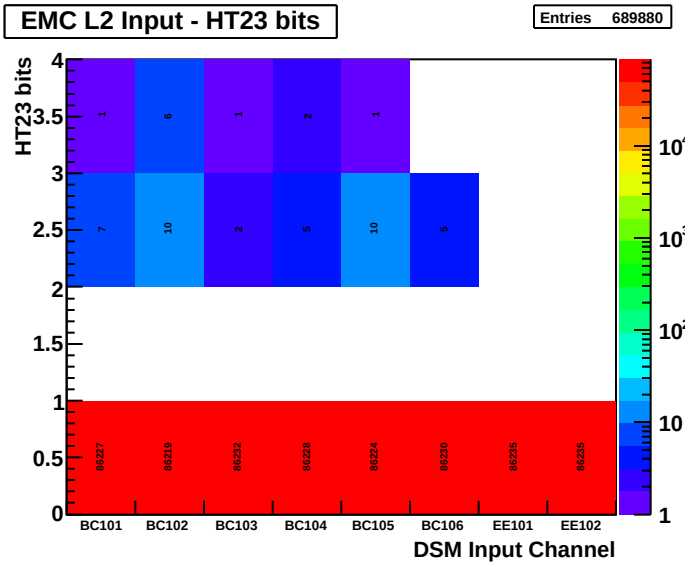

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

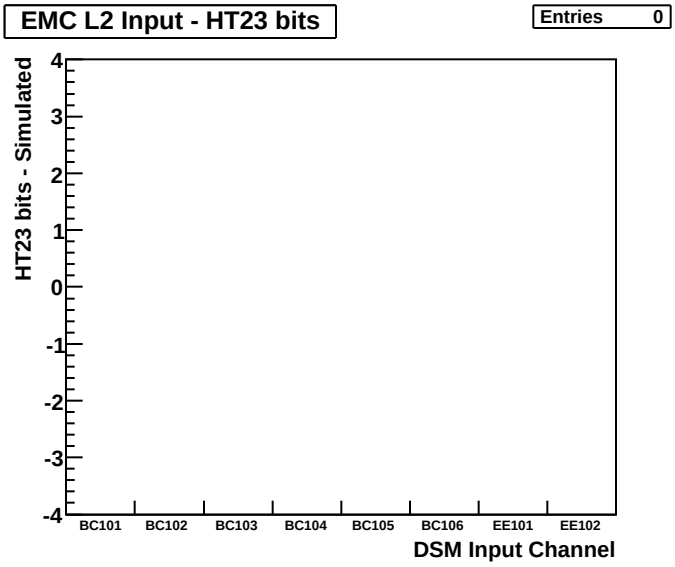

EMC L2 Input - Partial JP Sum
Entries 689880
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

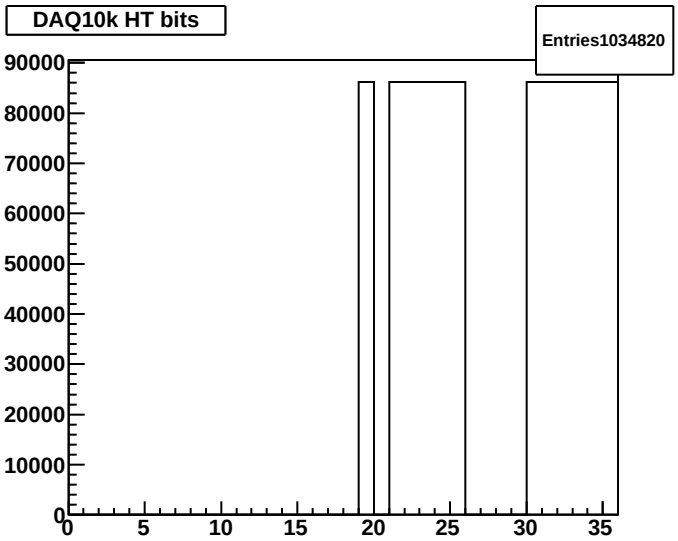

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

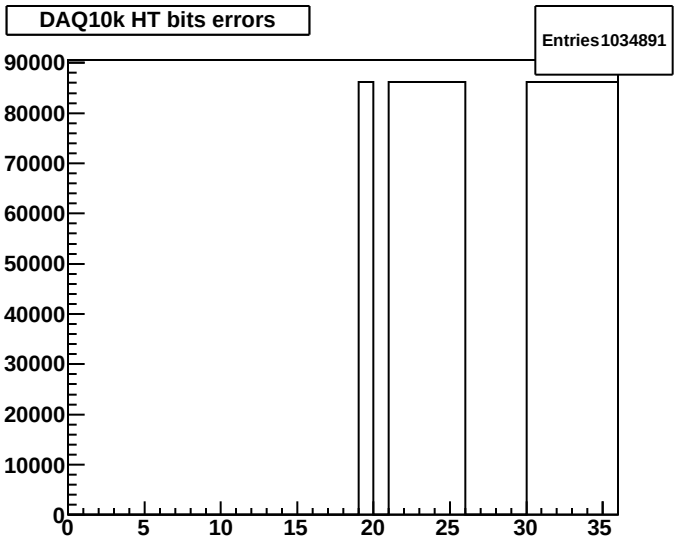

EMC L2 Input - HT01 bits/Partial JP ID
Entries 689880
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

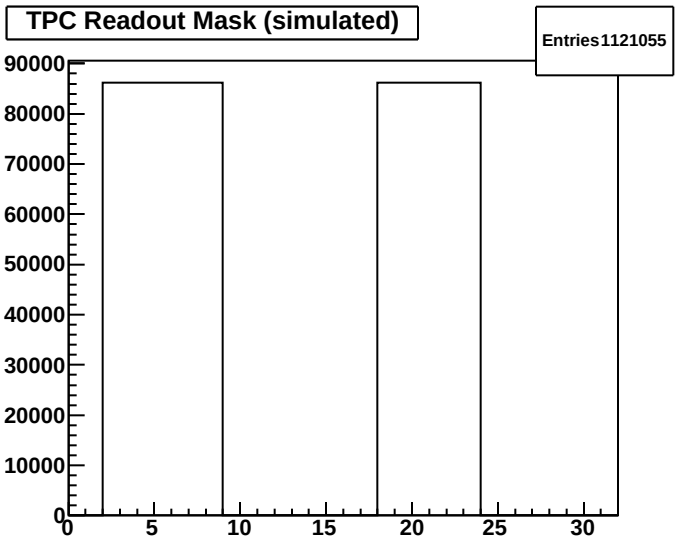

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

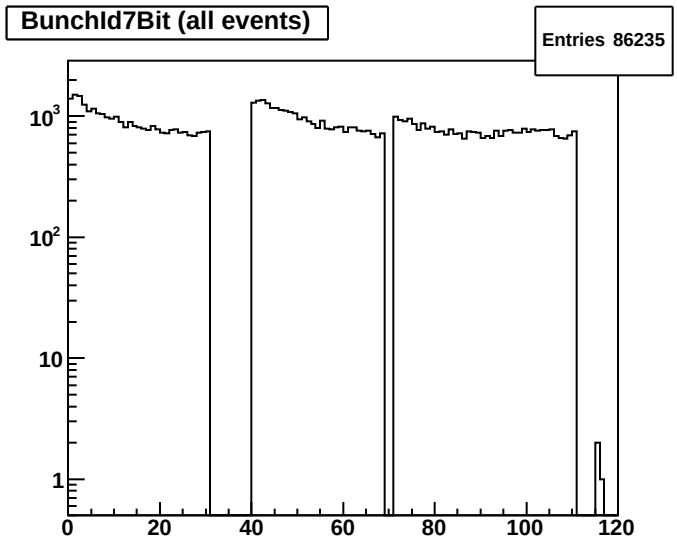

EMC L2 Input - HT23 bits
Entries 689880
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

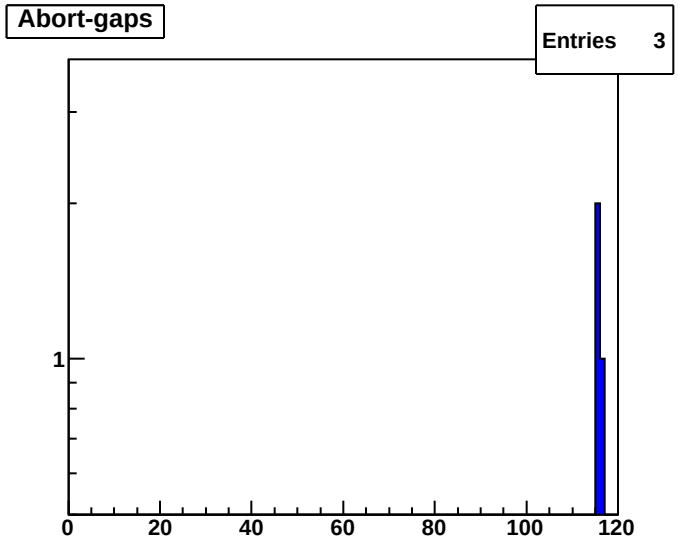

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

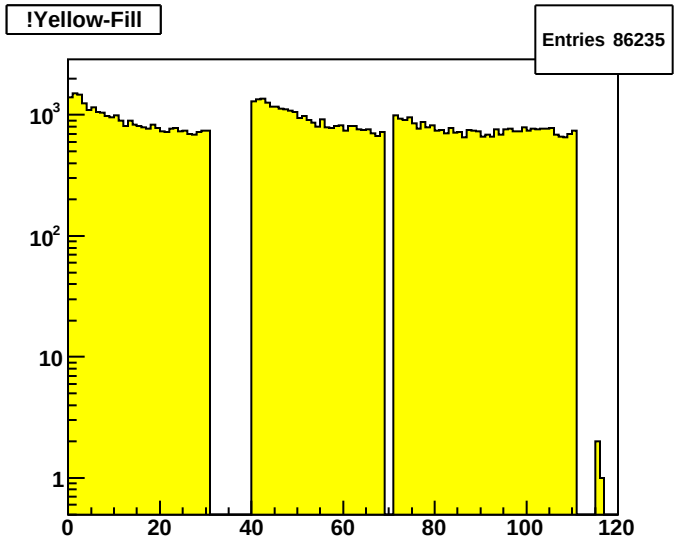

DAQ10k HT bits
Entries1034820
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

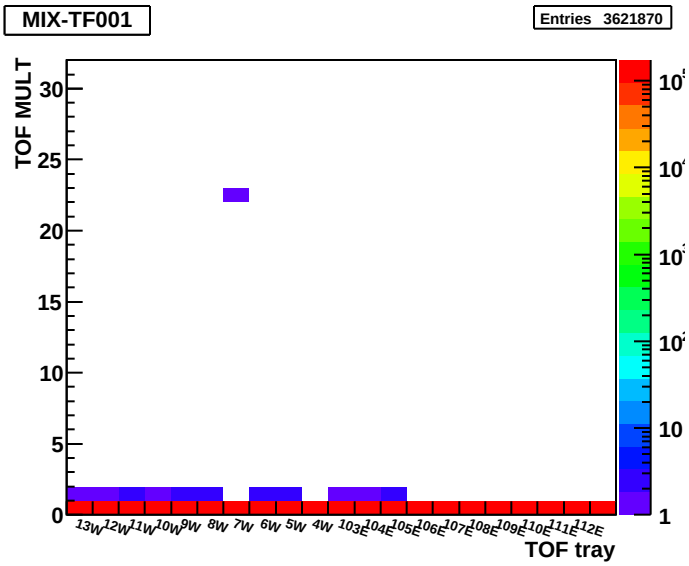

DAQ10k HT bits errors
Entries1034891
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

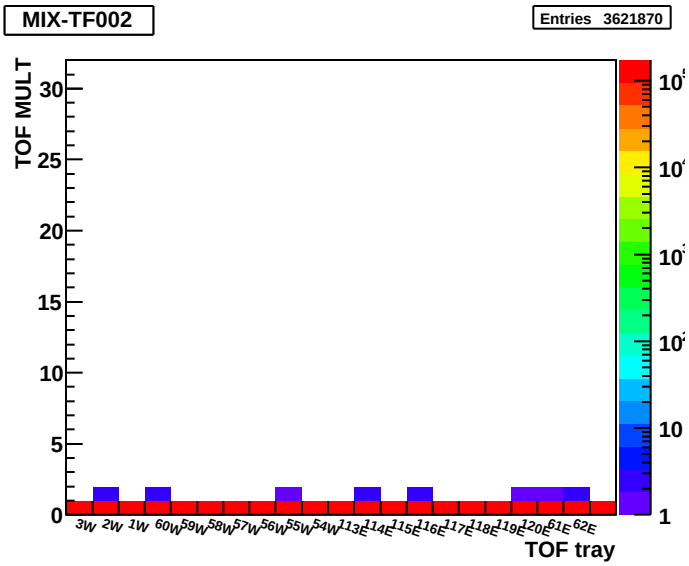

TPC Readout Mask (simulated)
Entries1121055
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

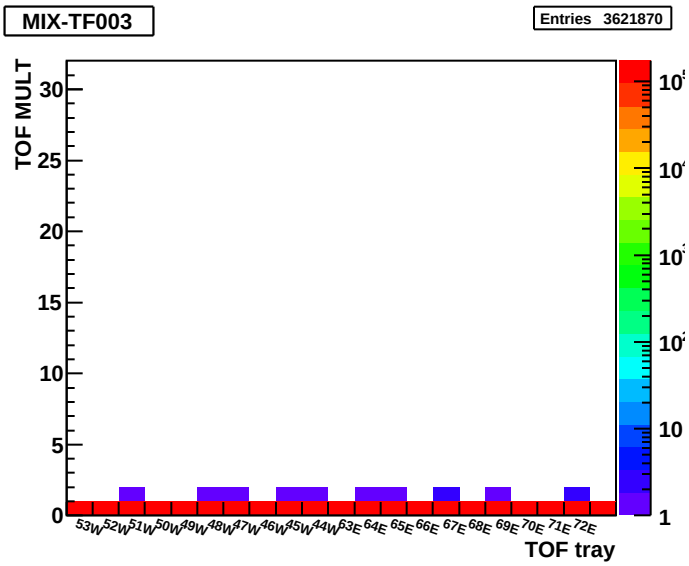

BunchId7Bit (all events)
Entries 86235
10^3
10^2
10
1
0 20 40 60 80 100 120

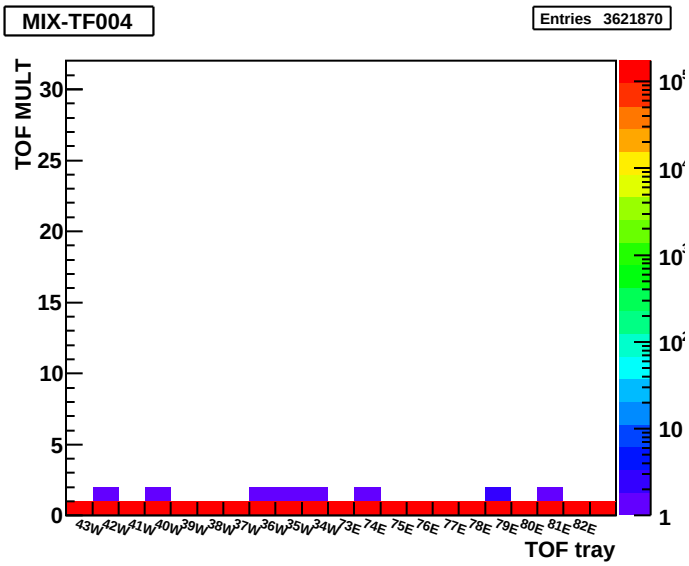

Abort-gaps
Entries 3
1
0 20 40 60 80 100 120

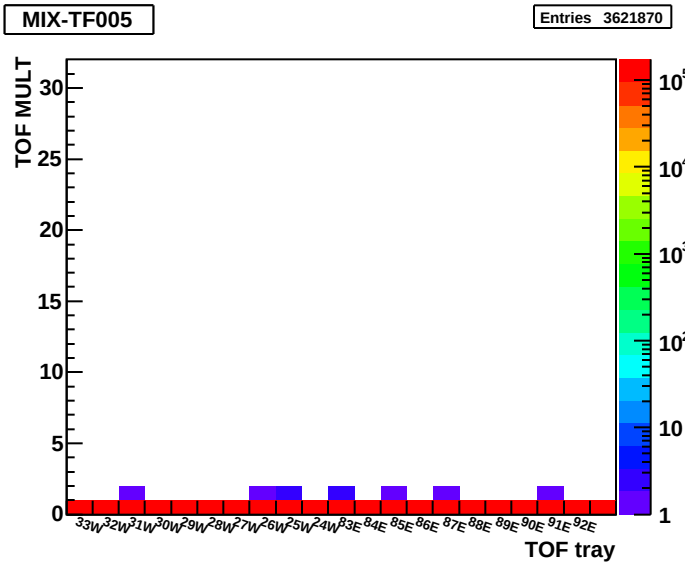

!Yellow-Fill
Entries 86235
10^3
10^2
10
1
0 20 40 60 80 100 120

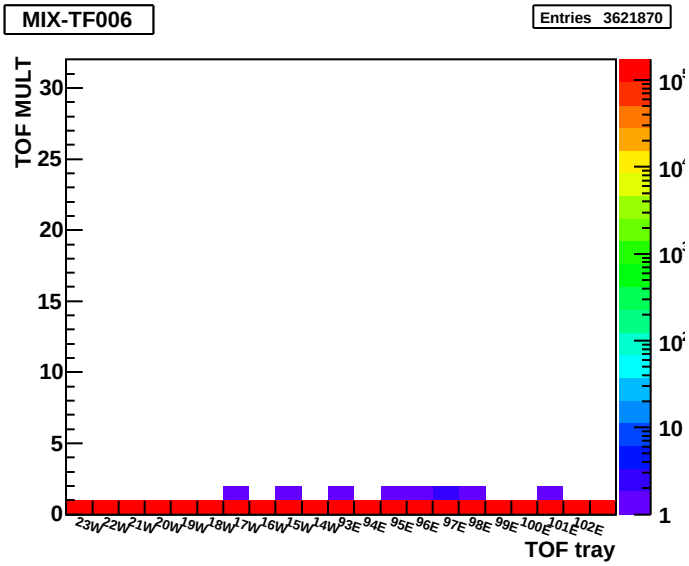

MIX-TF001
Entries 3621870
TOF MULT
TOF tray

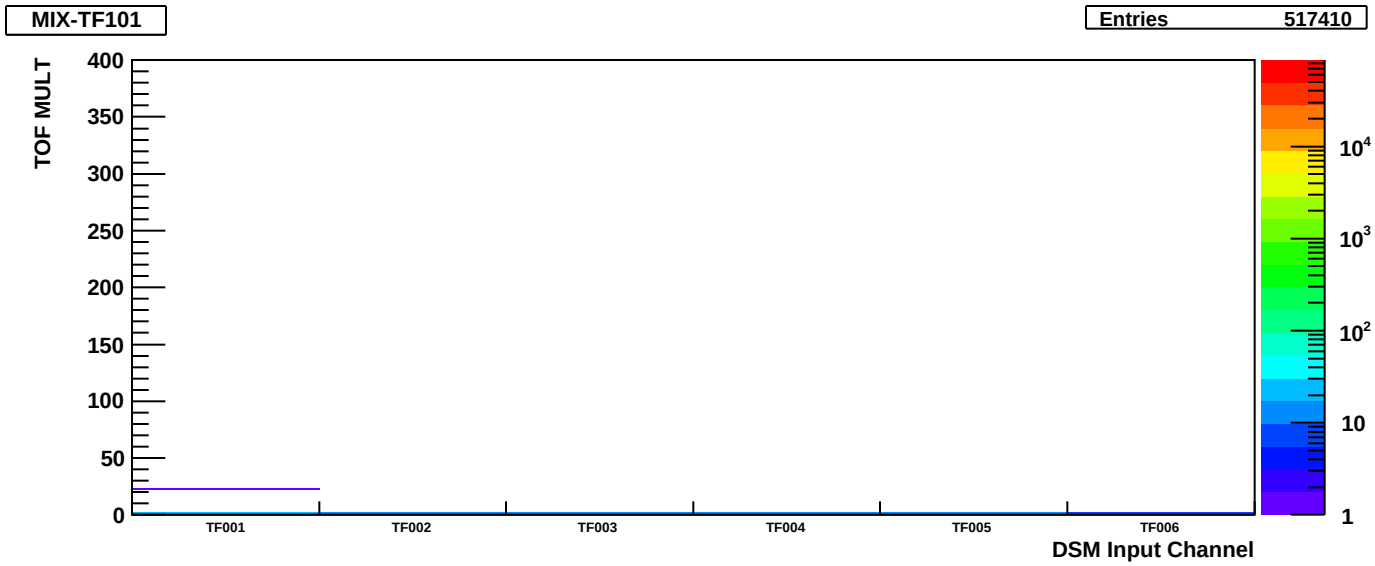

MIX-TF002
Entries 3621870
TOF MULT
TOF tray

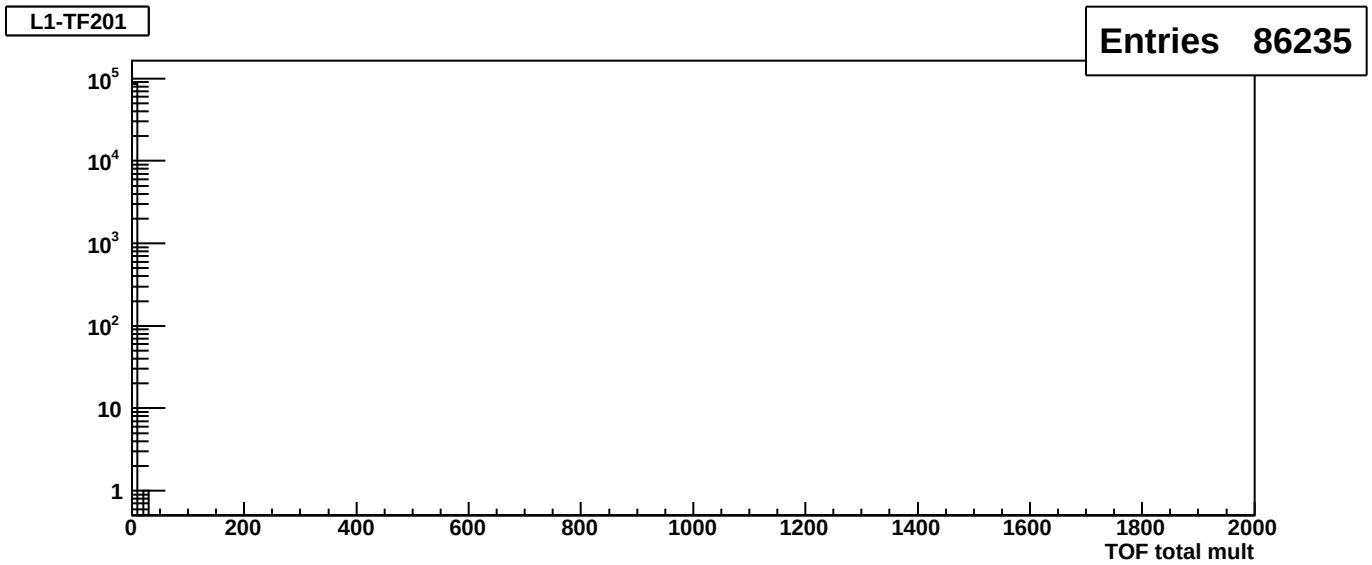

MIX-TF003
Entries 3621870
TOF MULT
TOF tray

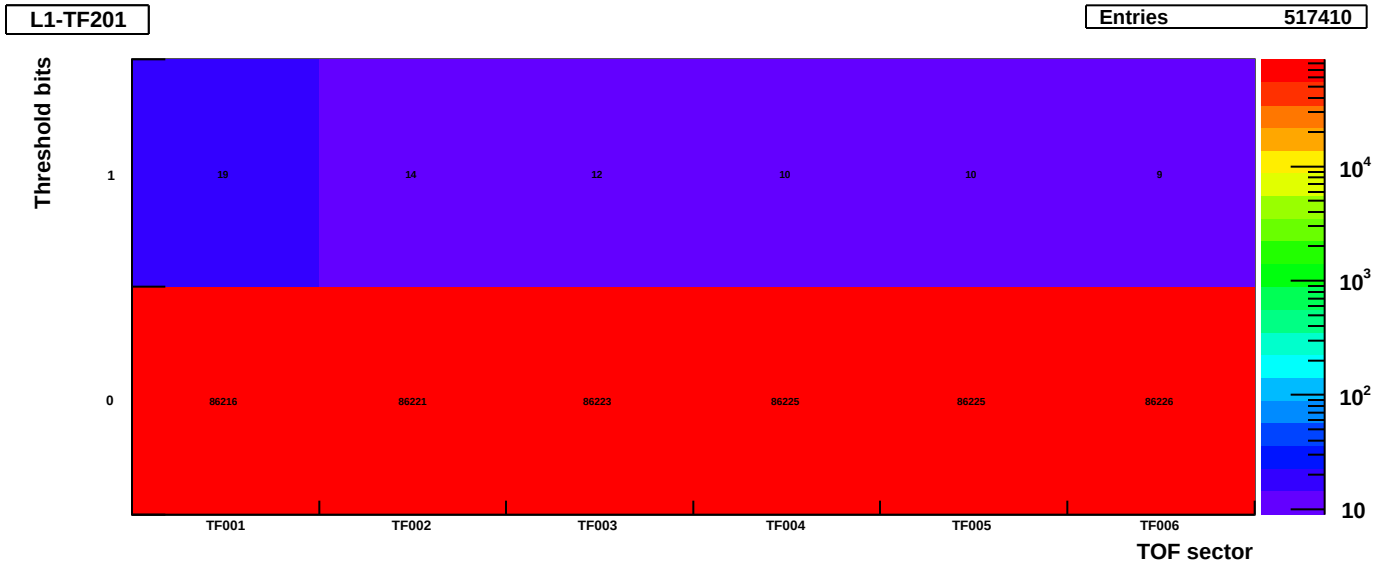

MIX-TF004
Entries 3621870
TOF MULT
TOF tray

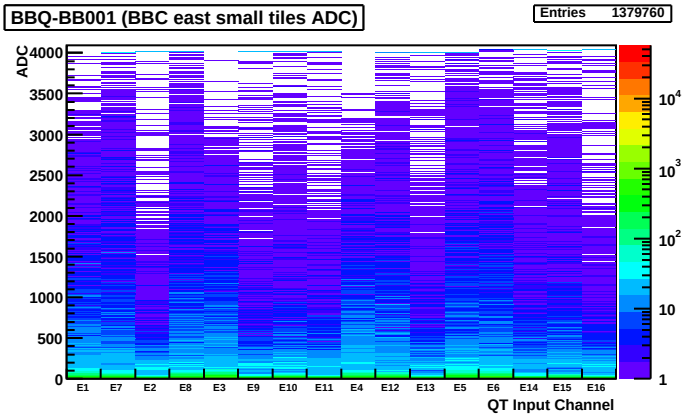

MIX-TF005
Entries 3621870
TOF MULT
TOF tray

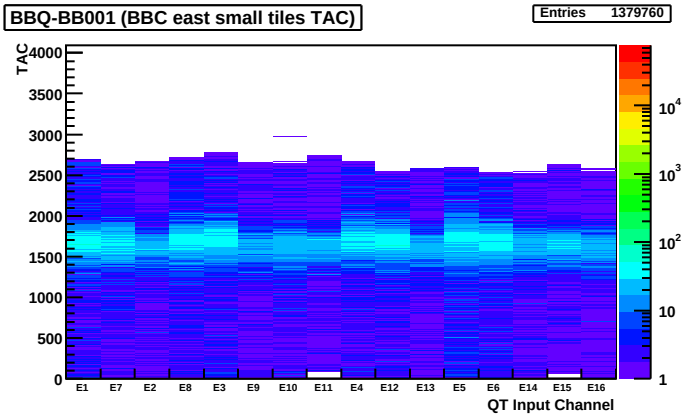

MIX-TF006
Entries 3621870
TOF MULT
TOF tray

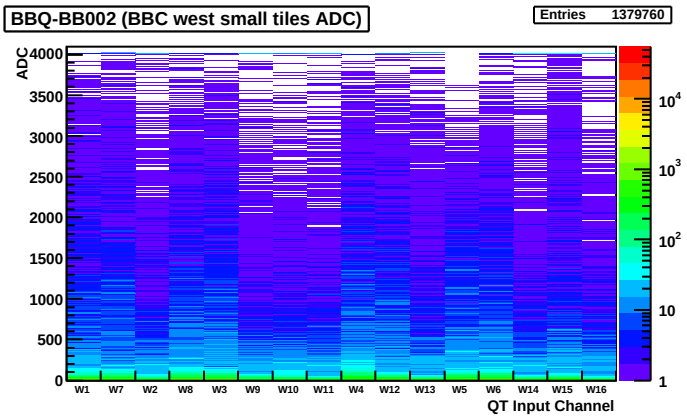

MIX-TF101
Entries 517410
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

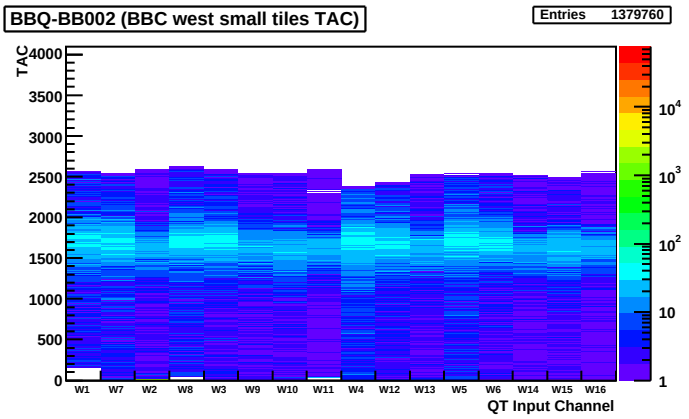

L1-TF201
Entries 86235
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

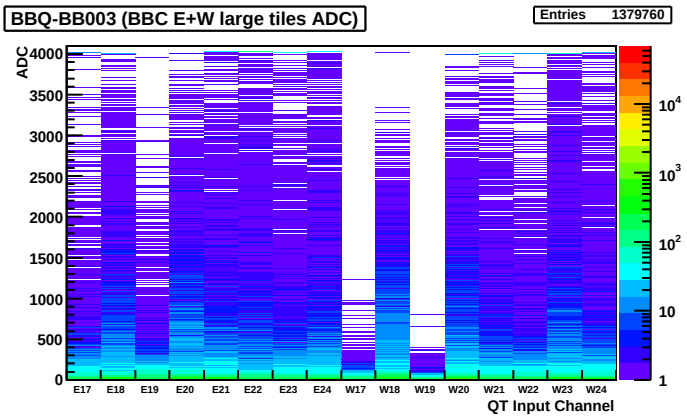

L1-TF201
Entries 517410
Threshold bits
1
0
19
14
12
10
10
9
86216
86221
86223
86225
86225
86226
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3
10^2
10

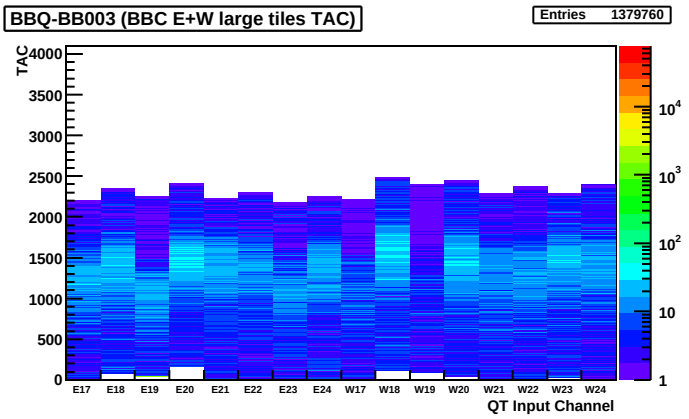

BBQ-BB001 (BBC east small tiles ADC)
Entries 1379760
ADC
QT Input Channel

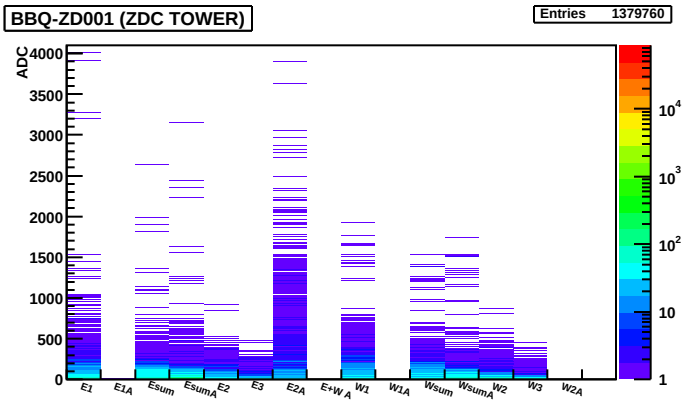

BBQ-BB001 (BBC east small tiles TAC)
Entries 1379760
TAC
QT Input Channel

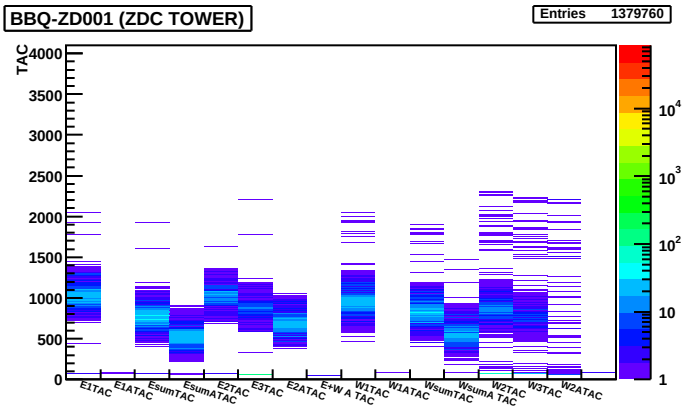

BBQ-BB002 (BBC west small tiles ADC)
Entries 1379760
ADC
QT Input Channel

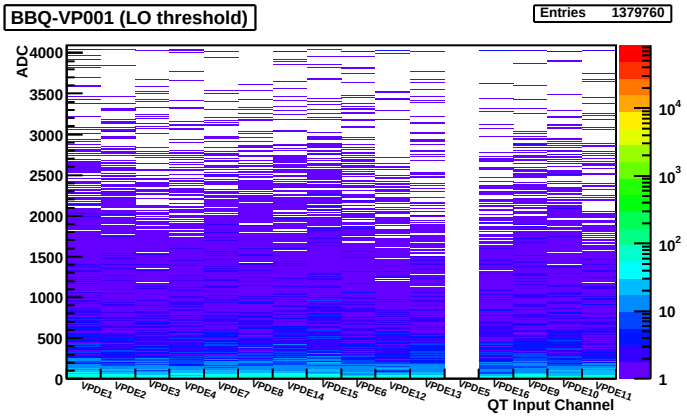

BBQ-BB002 (BBC west small tiles TAC)
Entries 1379760
TAC
QT Input Channel

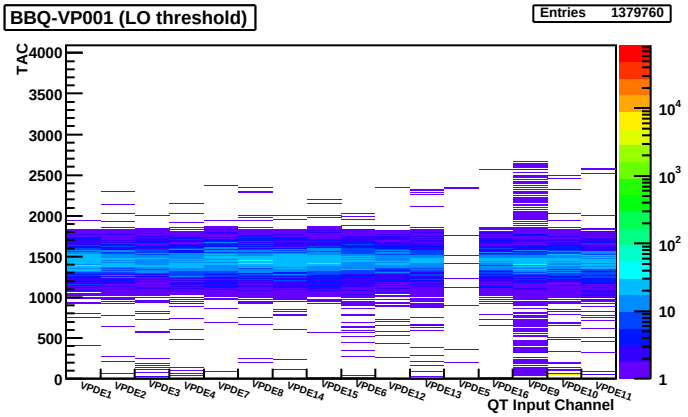

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1379760
ADC
QT Input Channel

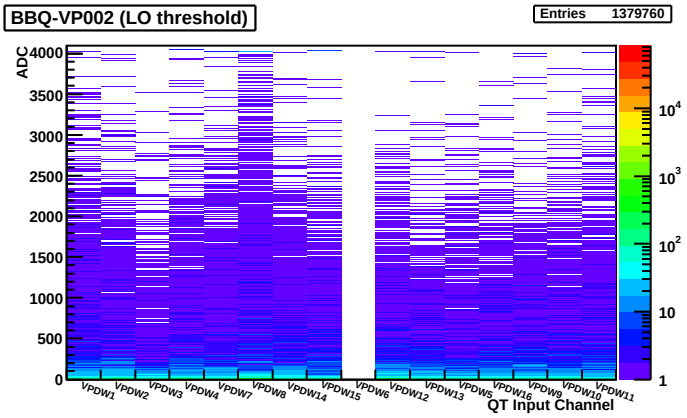

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1379760
TAC
QT Input Channel

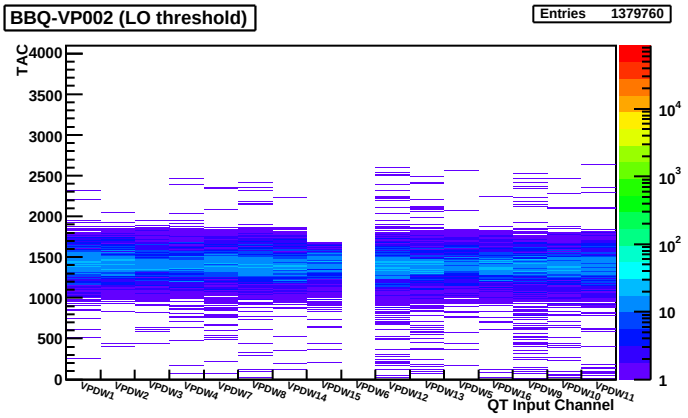

BBQ-ZD001 (ZDC TOWER)
Entries 1379760
ADC

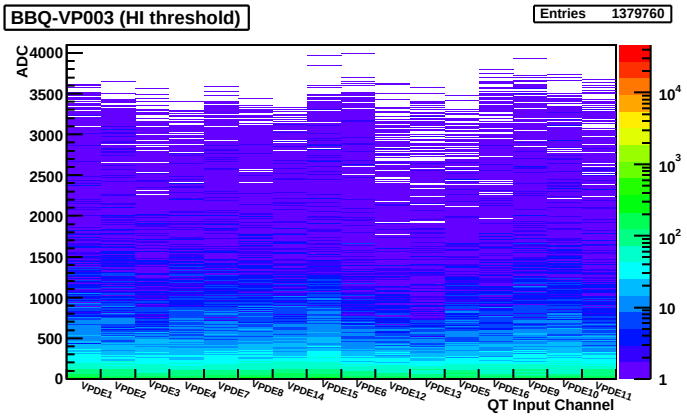

BBQ-ZD001 (ZDC TOWER)
Entries 1379760
TAC

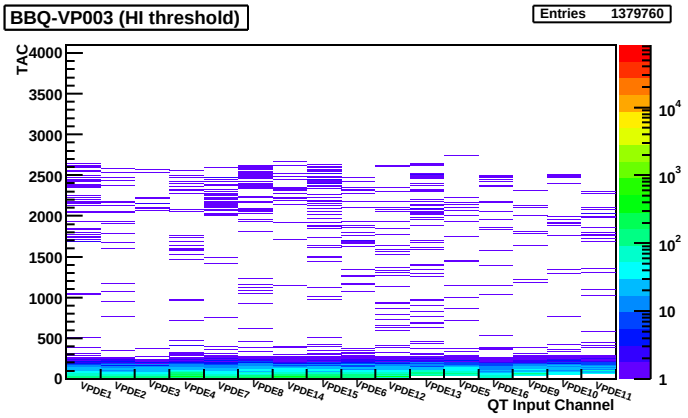

BBQ-VP001 (LO threshold)
Entries 1379760
ADC
QT Input Channel

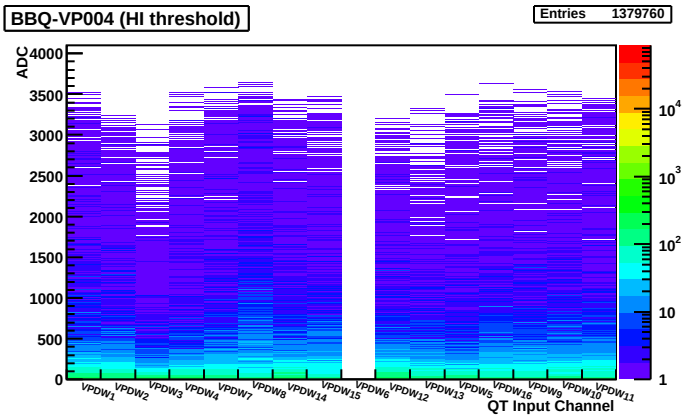

BBQ-VP001 (LO threshold)
Entries 1379760
TAC
QT Input Channel

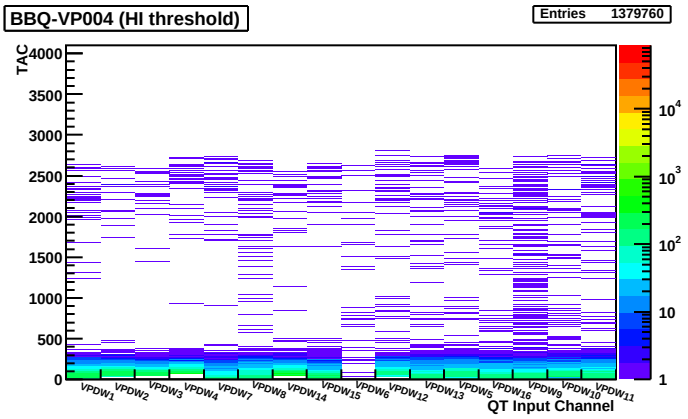

BBQ-VP002 (LO threshold)
Entries 1379760
ADC
QT Input Channel

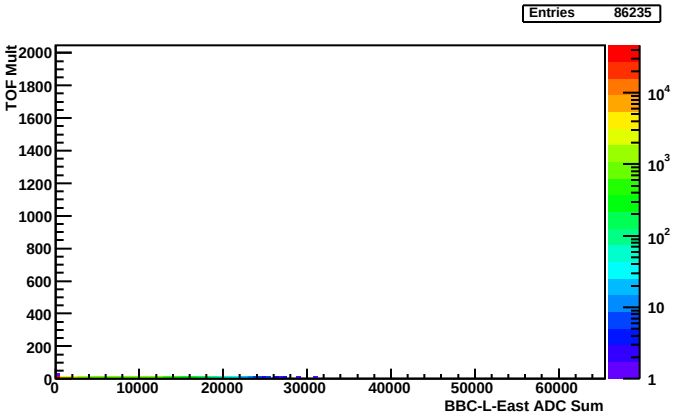

BBQ-VP002 (LO threshold)
Entries 1379760
TAC
QT Input Channel

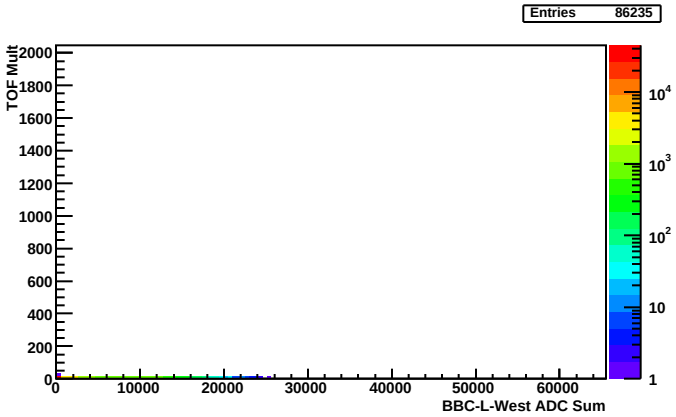

BBQ-VP003 (HI threshold)
Entries 1379760
ADC
QT Input Channel

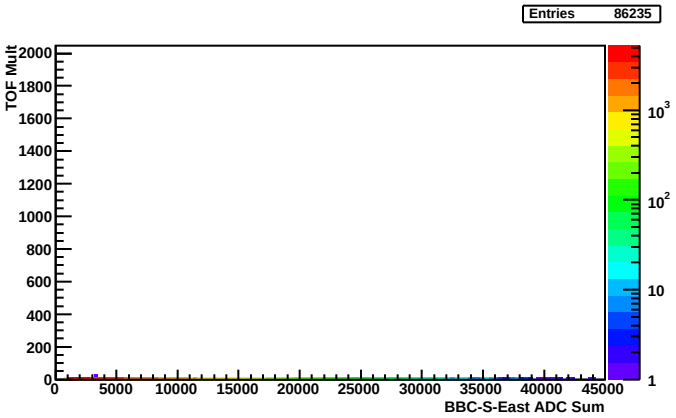

BBQ-VP003 (HI threshold)
Entries 1379760
TAC
QT Input Channel

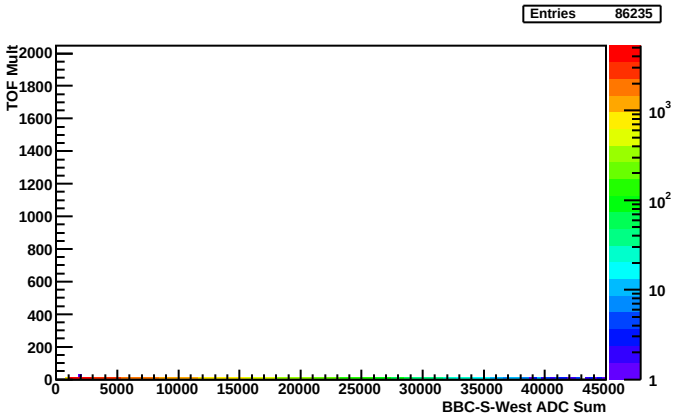

BBQ-VP004 (HI threshold)
Entries 1379760
ADC
QT Input Channel

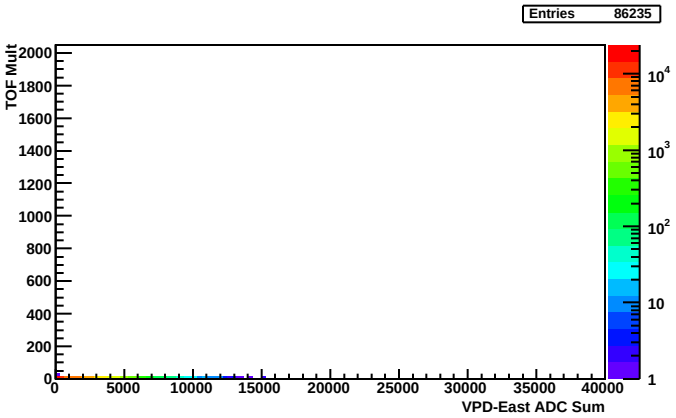

BBQ-VP004 (HI threshold)
Entries 1379760
TAC
QT Input Channel

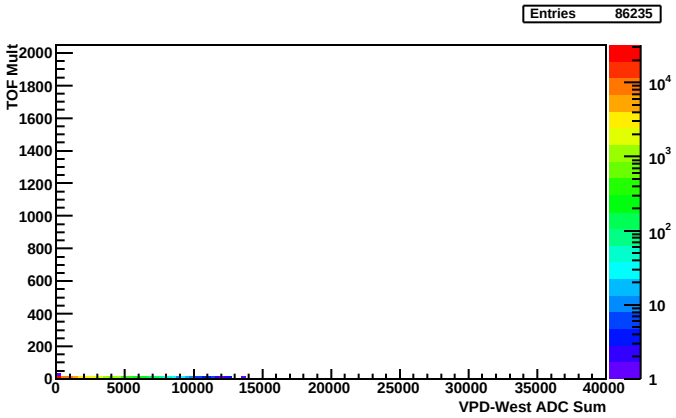

Entries 86235
TOF Mult
BBC-L-East ADC Sum

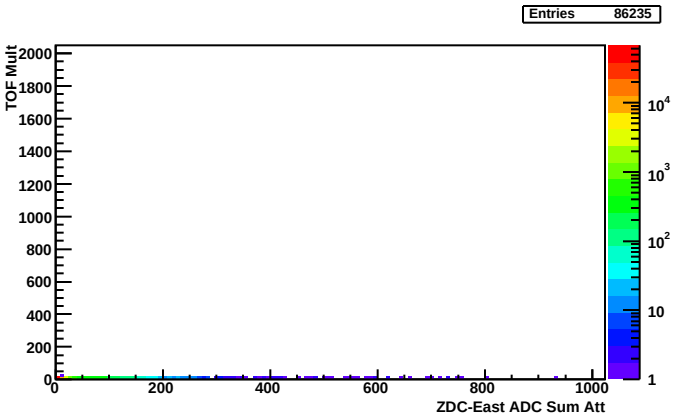

Entries 86235
TOF Mult
BBC-L-West ADC Sum

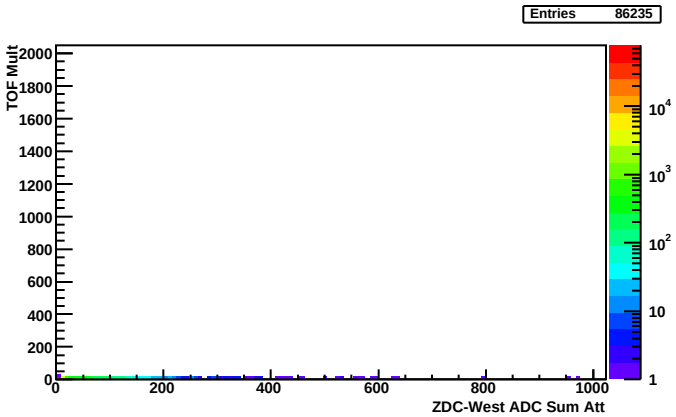

Entries 86235
TOF Mult
BBC-S-East ADC Sum

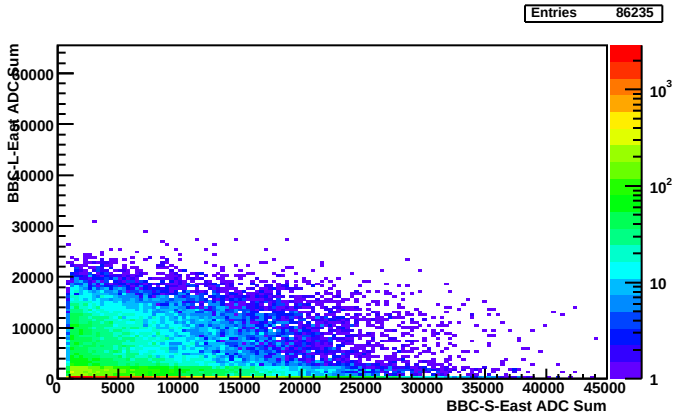

Entries 86235
TOF Mult
BBC-S-West ADC Sum

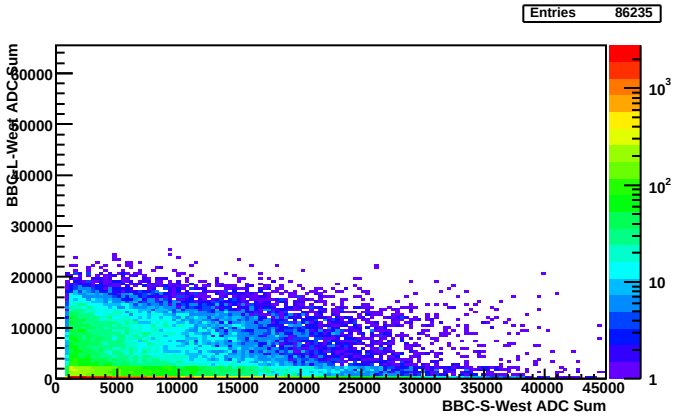

Entries 86235
TOF Mult
VPD-East ADC Sum

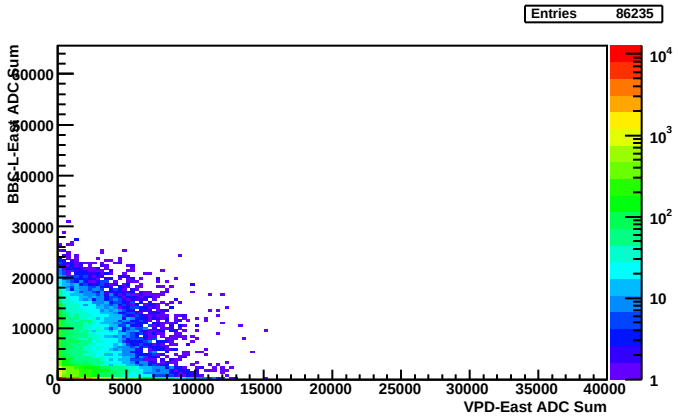

Entries 86235
TOF Mult
VPD-West ADC Sum

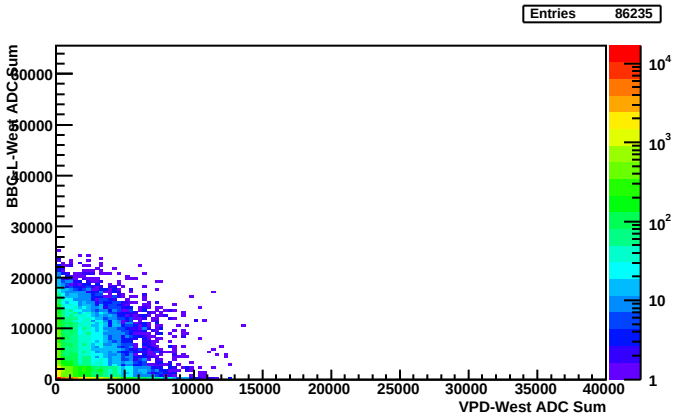

Entries 86235
TOF Mult
ZDC-East ADC Sum Att

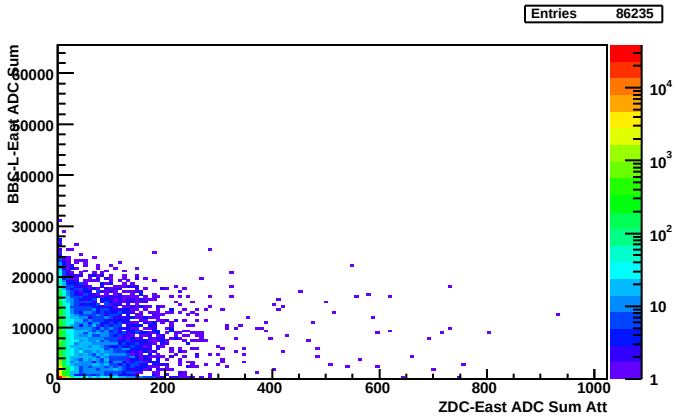

Entries 86235
TOF Mult
ZDC-West ADC Sum Att

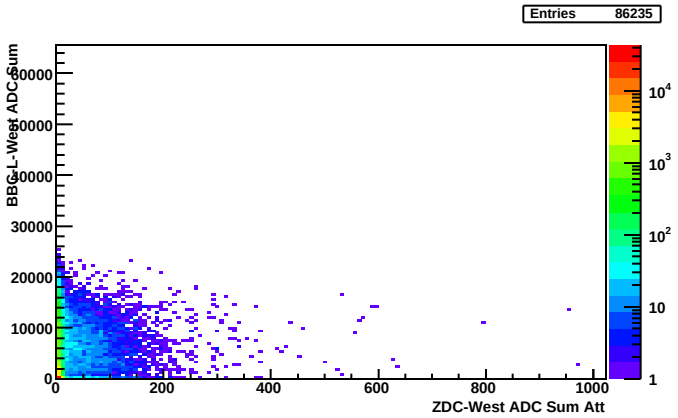

Entries 86235
BBC-L-East ADC Sum
BBC-S-East ADC Sum

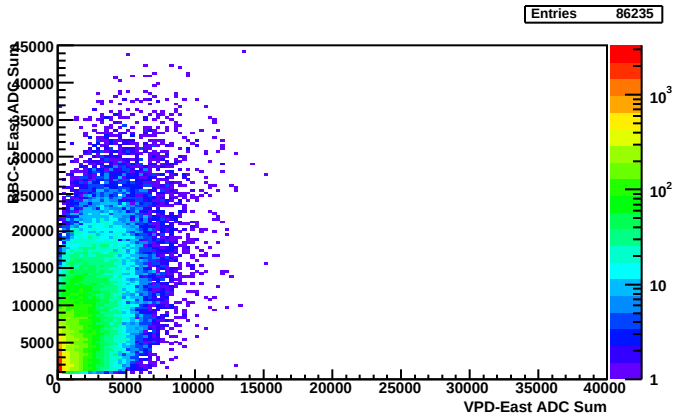

Entries 86235
BBC-L-West ADC Sum
BBC-S-West ADC Sum

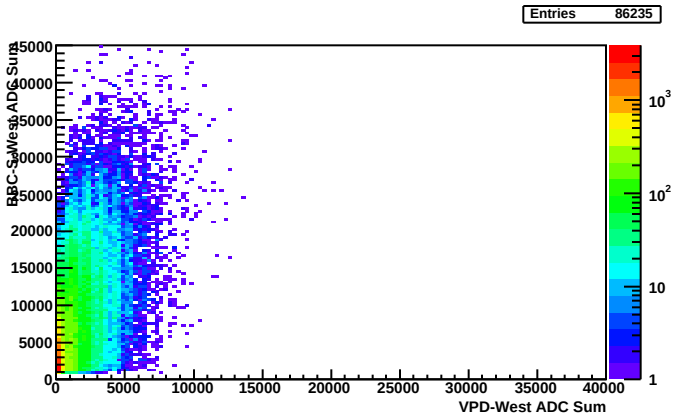

Entries 86235
BBC-L-East ADC Sum
VPD-East ADC Sum

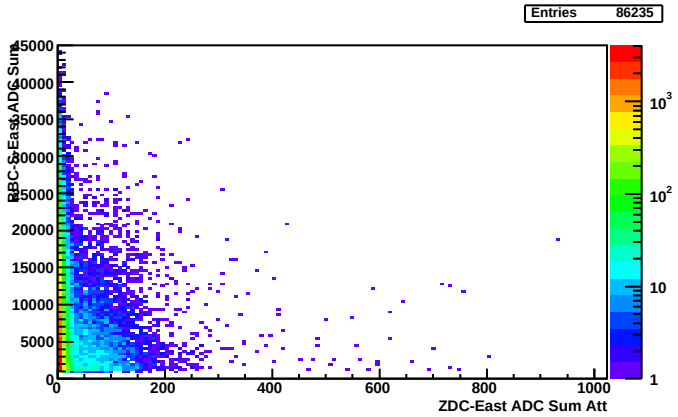

Entries 86235
BBC-L-West ADC Sum
VPD-West ADC Sum

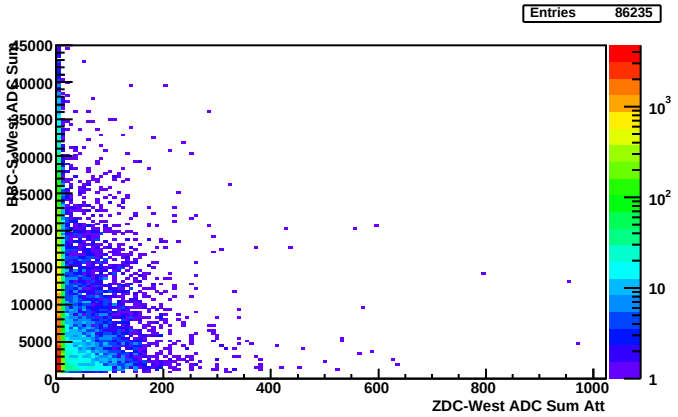

Entries 86235
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

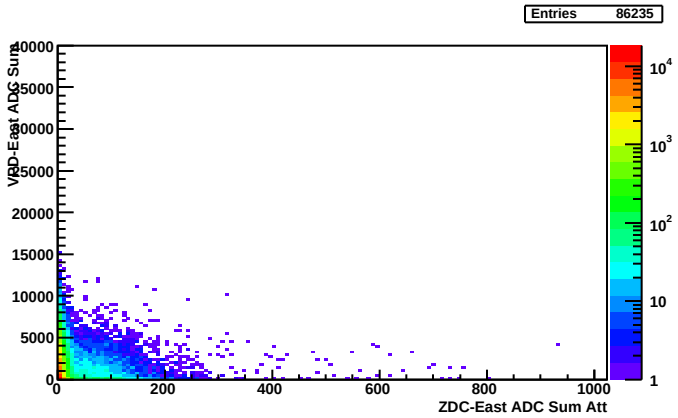

Entries 86235
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

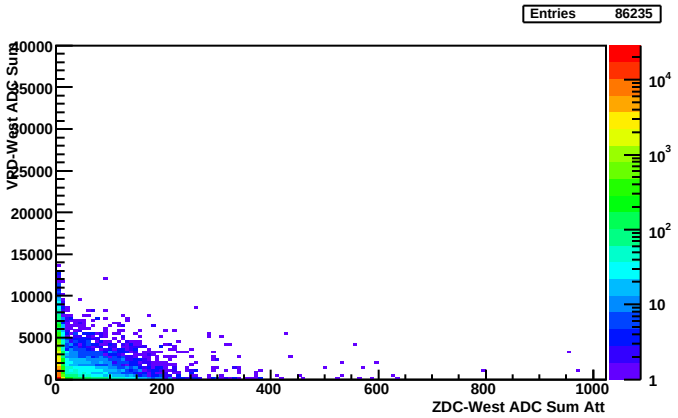

Entries 86235
BBC-S-East ADC Sum
VPD-East ADC Sum

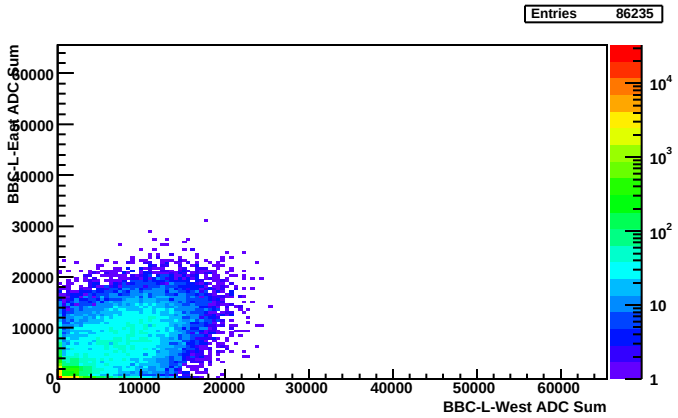

Entries 86235
BBC-S-West ADC Sum
VPD-West ADC Sum

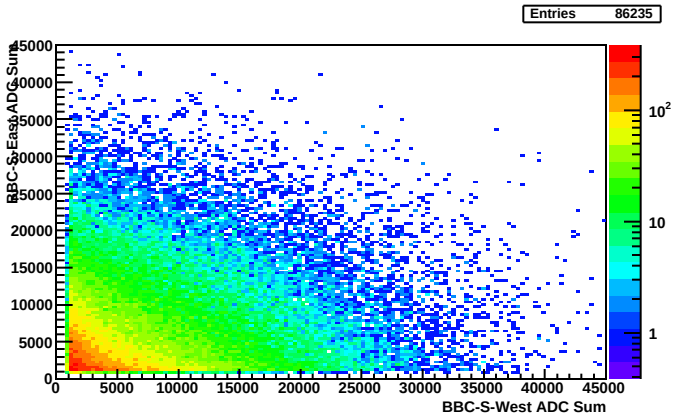

Entries 86235
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

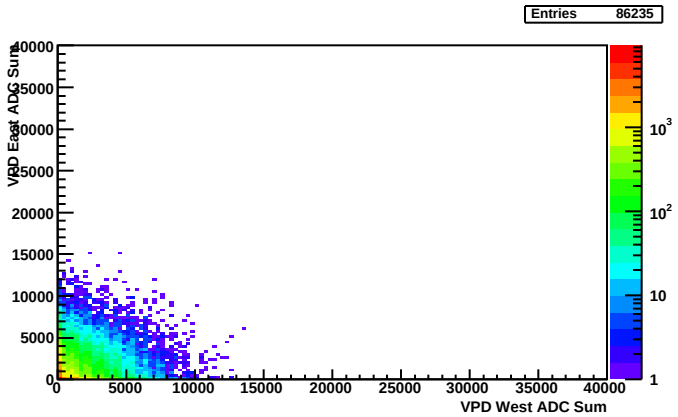

Entries 86235
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

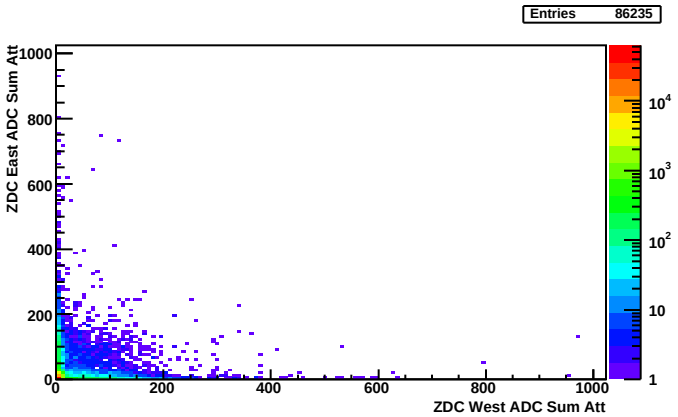

Entries 86235
VPD-East ADC Sum
ZDC-East ADC Sum Att

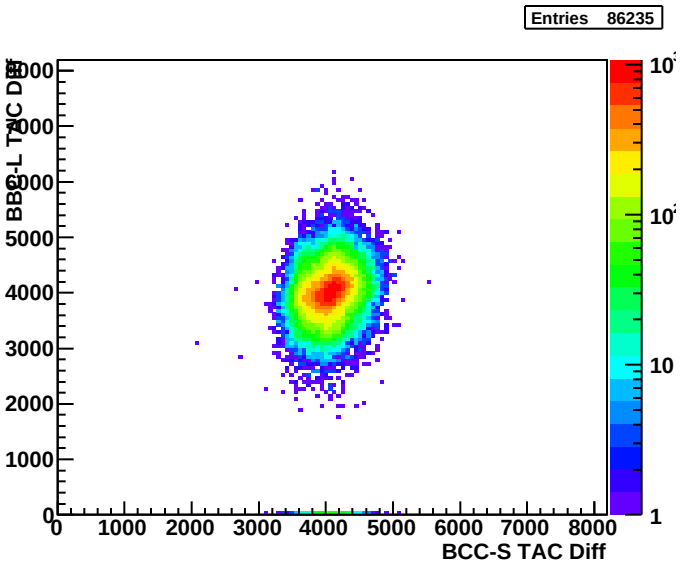

Entries 86235
VPD-West ADC Sum
ZDC-West ADC Sum Att

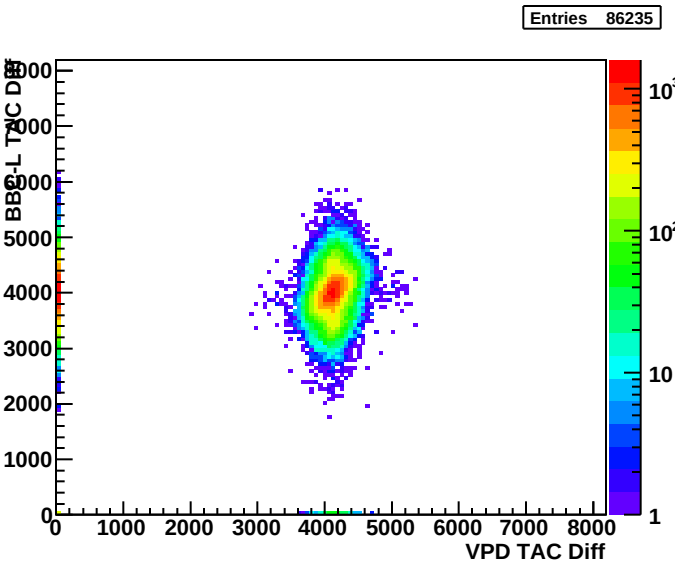

Entries 86235
BBC-L-East ADC Sum
BBC-L-West ADC Sum

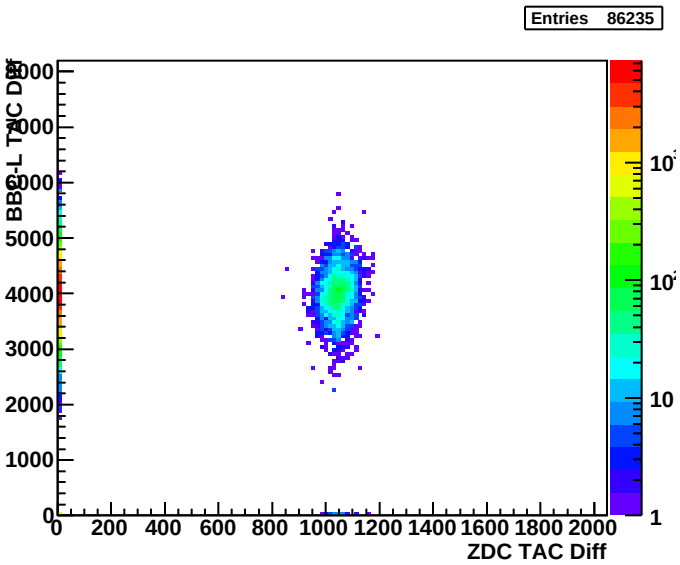

Entries 86235
BBC-S-East ADC Sum
BBC-S-West ADC Sum

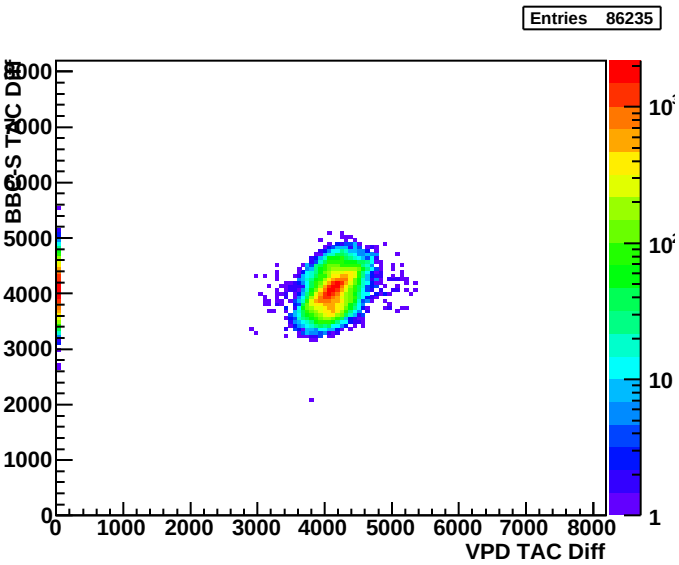

Entries 86235
VPD East ADC Sum
VPD West ADC Sum

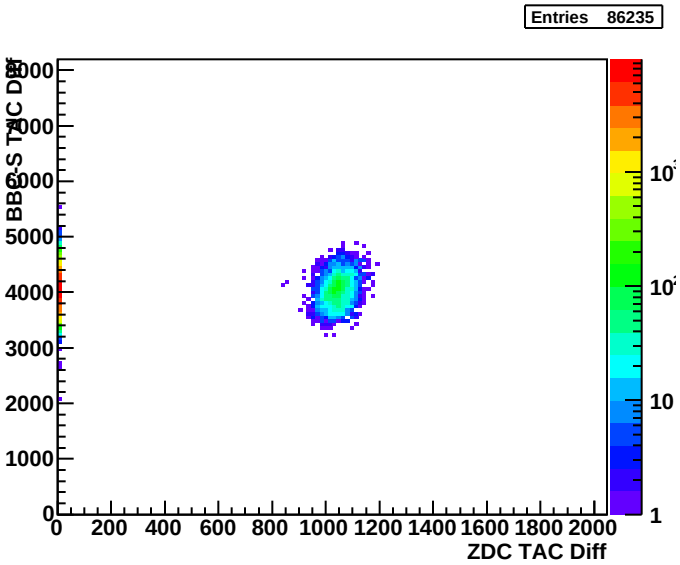

Entries 86235
ZDC East ADC Sum Att
ZDC West ADC Sum Att

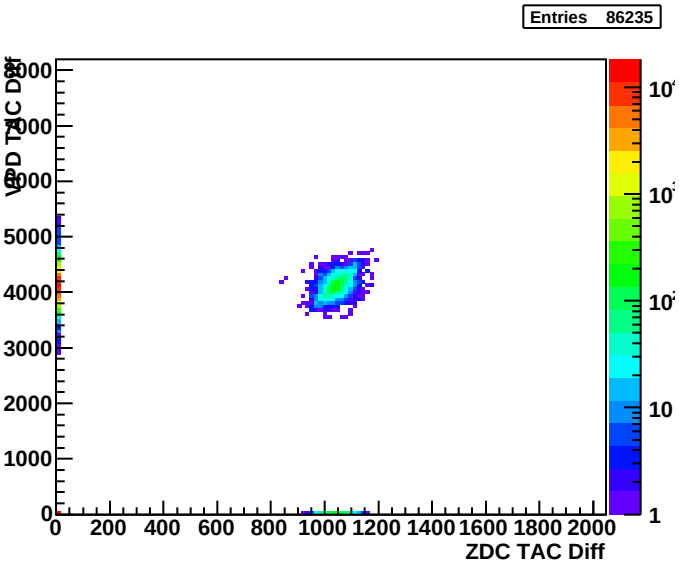

Entries 86235
BBC-L TAC Diff
BCC-S TAC Diff

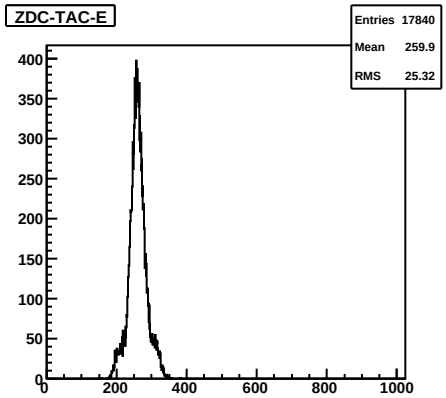

Entries 86235
BBC-L TAC Diff
VPD TAC Diff

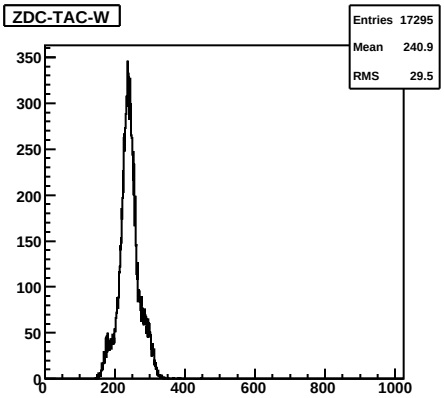

Entries 86235
BBC-L TAC Diff
ZDC TAC Diff

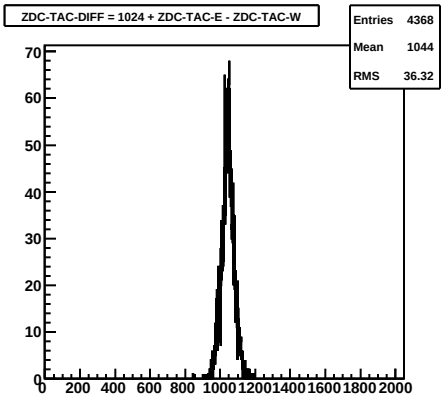

Entries 86235
BBC-S TAC Diff
VPD TAC Diff

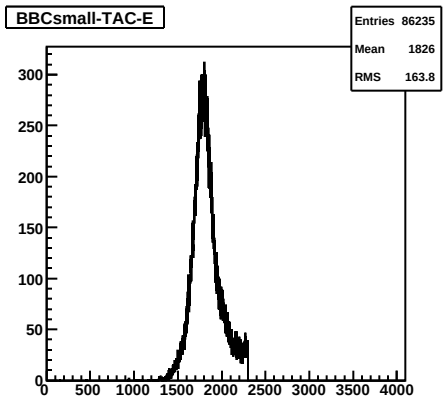

Entries 86235
BBC-S TAC Diff
ZDC TAC Diff

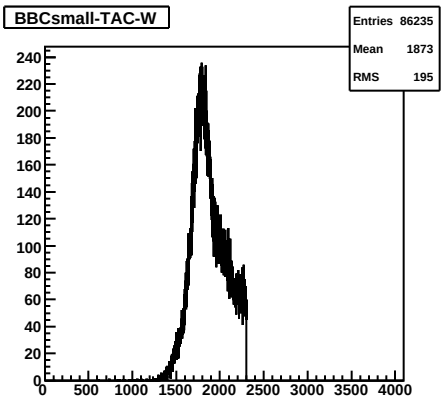

Entries 86235
VPD TAC Diff
ZDC TAC Diff

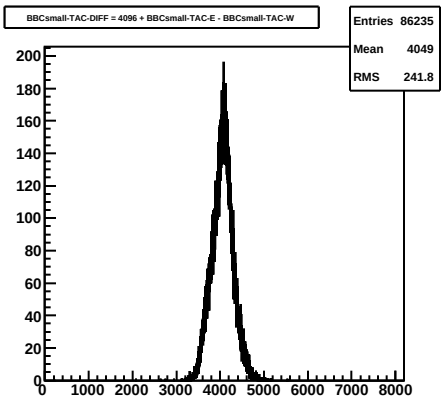

ZDC-TAC-E
Entries 17840
Mean 259.9
RMS 25.32

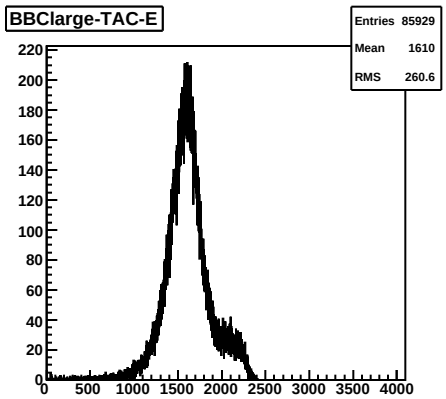

ZDC-TAC-W
Entries 17295
Mean 240.9
RMS 29.5

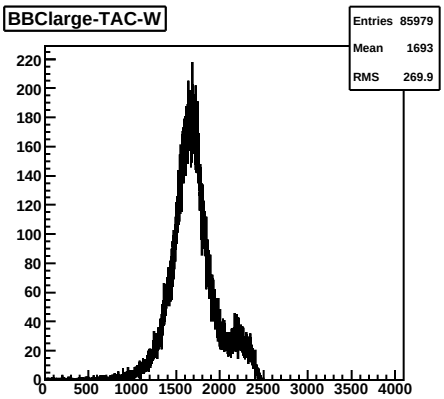

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 4368
Mean 1044
RMS 36.32

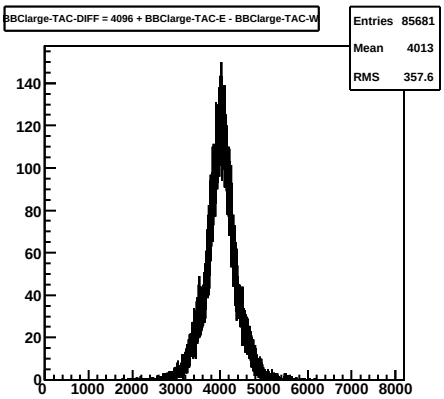

BBCsmall-TAC-E
Entries 86235
Mean 1826
RMS 163.8

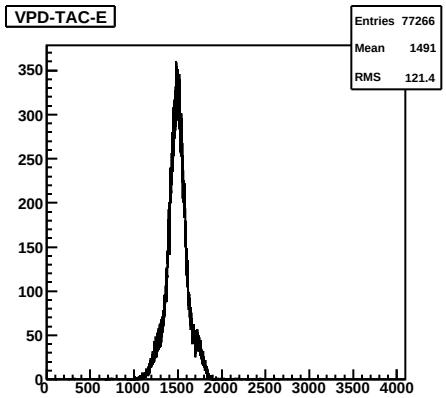

BBCsmall-TAC-W
Entries 86235
Mean 1873
RMS 195

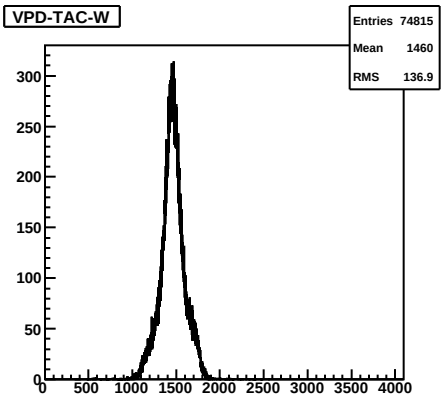

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 86235
Mean 4049
RMS 241.8

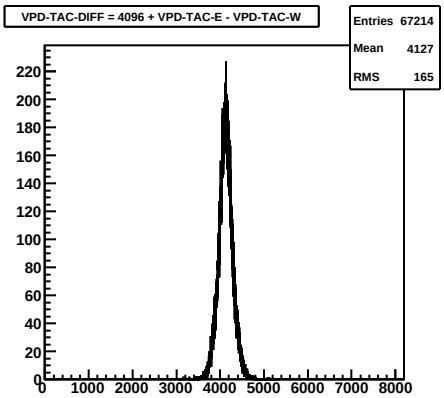

BBClarge-TAC-E
Entries 85929
Mean 1610
RMS 260.6

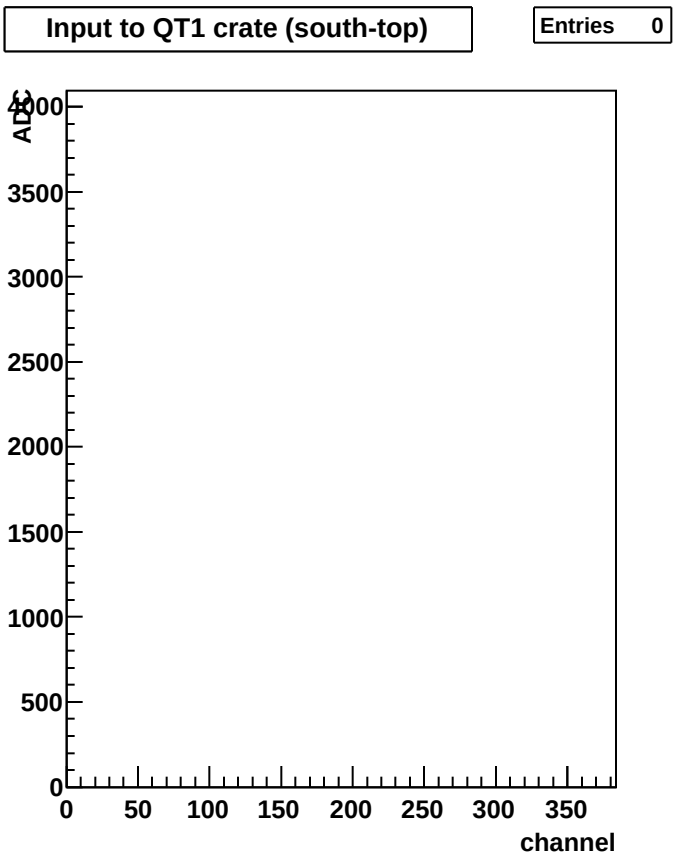

BBClarge-TAC-W
Entries 85979
Mean 1693
RMS 269.9

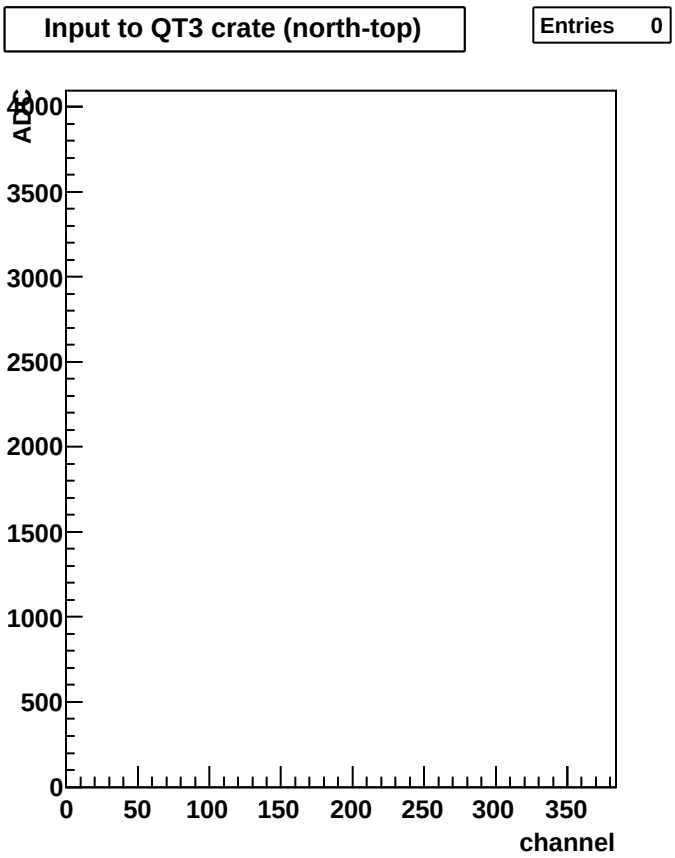

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 85681
Mean 4013
RMS 357.6

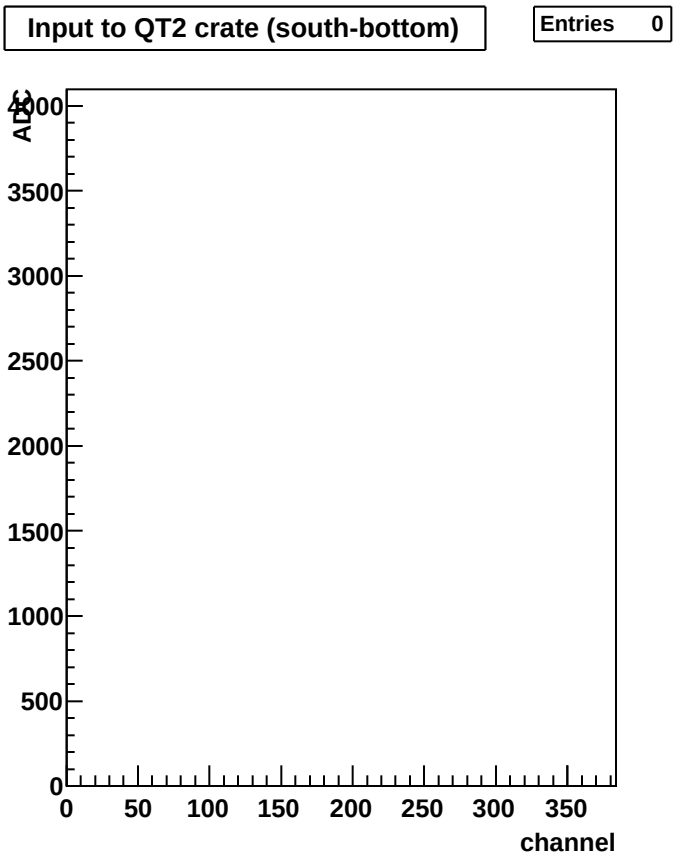

VPD-TAC-E
Entries 77266
Mean 1491
RMS 121.4

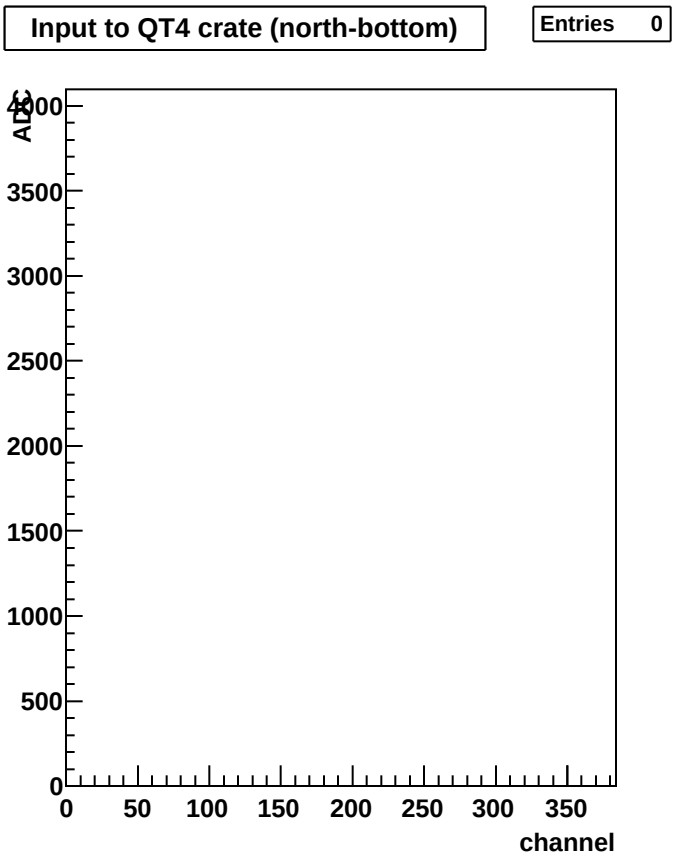

VPD-TAC-W
Entries 74815
Mean 1460
RMS 136.9

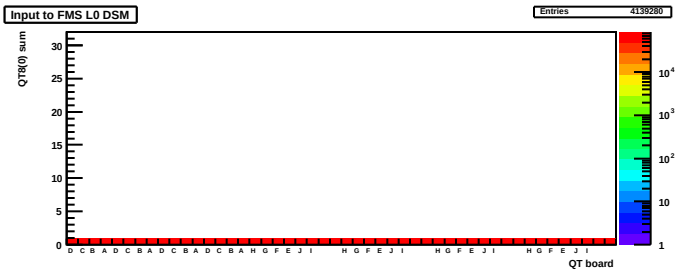

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 67214
Mean 4127
RMS 165

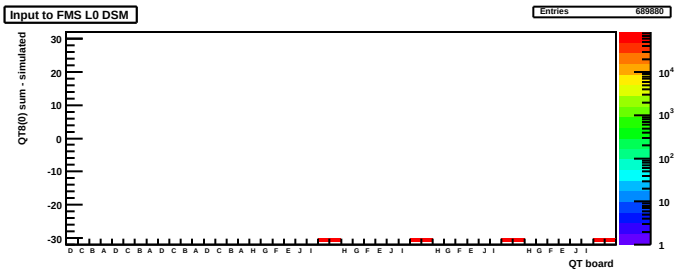

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

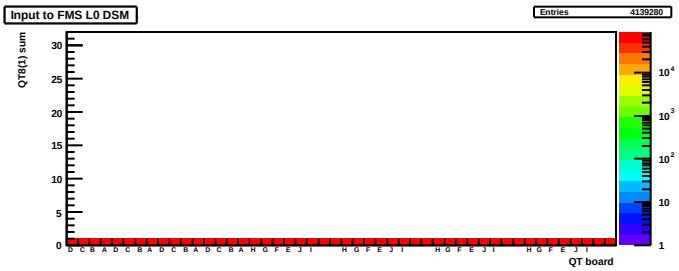

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

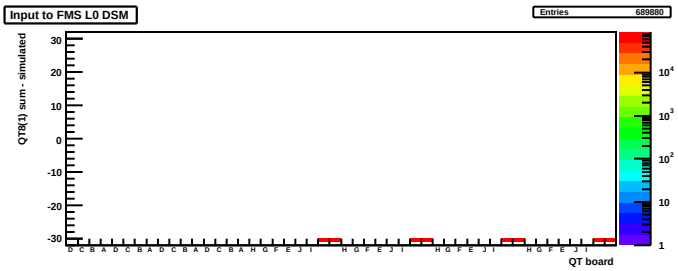

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

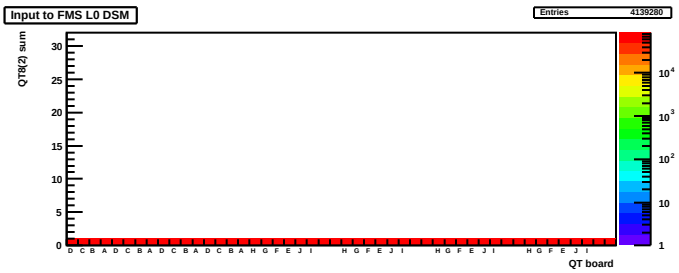

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

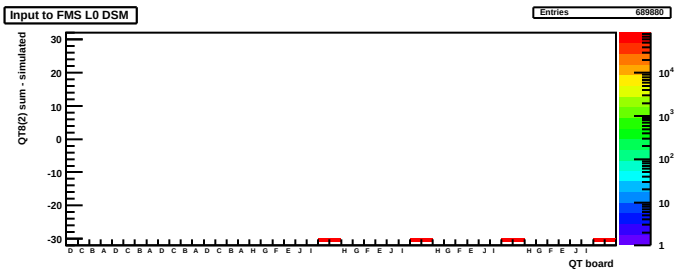

Input to FMS L0 DSM
Entries 4139280
QT8(0) sum
QT board

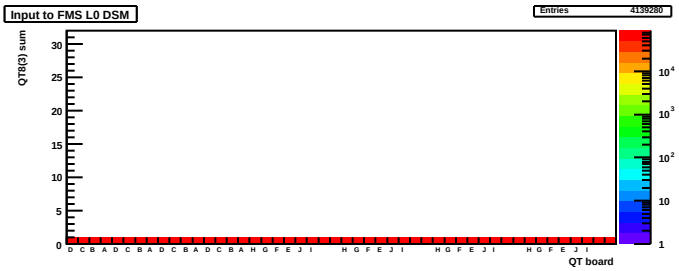

Input to FMS L0 DSM
Entries 689880
QT8(0) sum - simulated
QT board

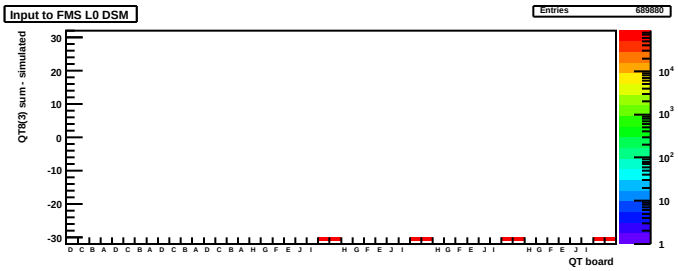

Input to FMS L0 DSM
Entries 4139280
QT8(1) sum
QT board

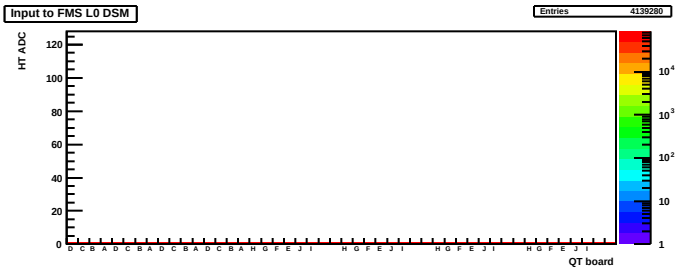

Input to FMS L0 DSM
Entries 689880
QT8(1) sum - simulated
QT board

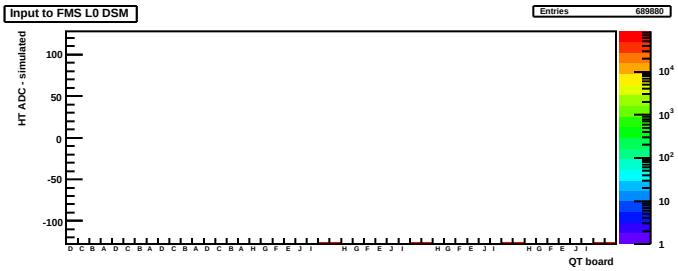

Input to FMS L0 DSM
Entries 4139280
QT8(2) sum
QT board

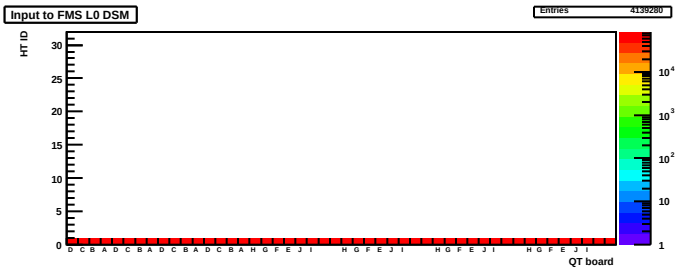

Input to FMS L0 DSM
Entries 689880
QT8(2) sum - simulated
QT board

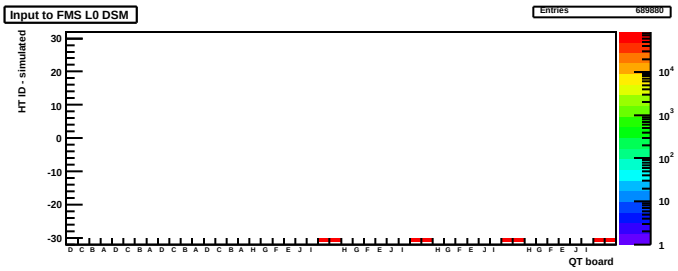

Input to FMS L0 DSM
Entries 4139280
QT8(3) sum
QT board

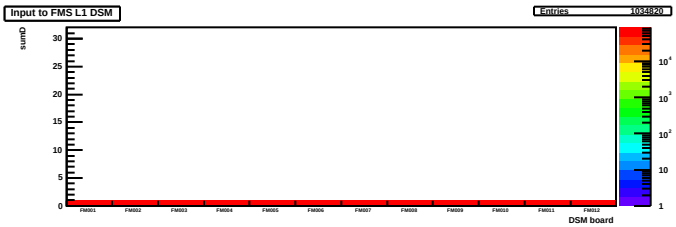

Input to FMS L0 DSM
Entries 689880
QT8(3) sum - simulated
QT board

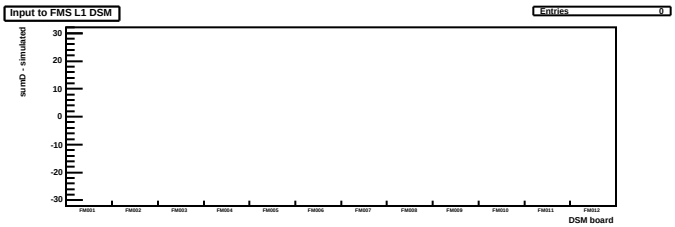

Input to FMS L0 DSM
Entries 4139280
HT ADC
QT board

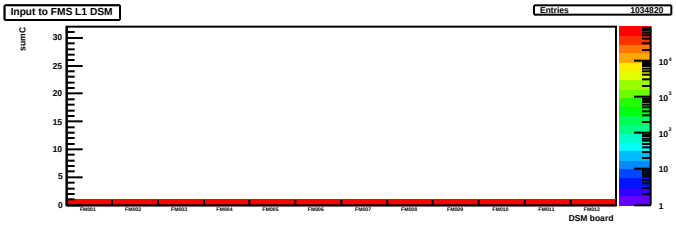

Input to FMS L0 DSM
Entries 689880
HT ADC - simulated
QT board

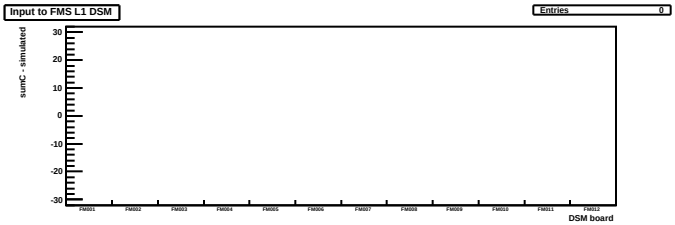

Input to FMS L0 DSM
Entries 4139280
HT ID
QT board

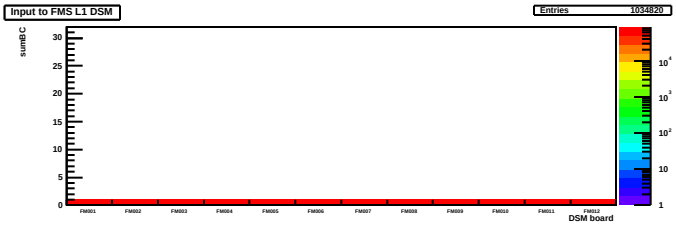

Input to FMS L0 DSM
Entries 689880
HT ID - simulated
QT board

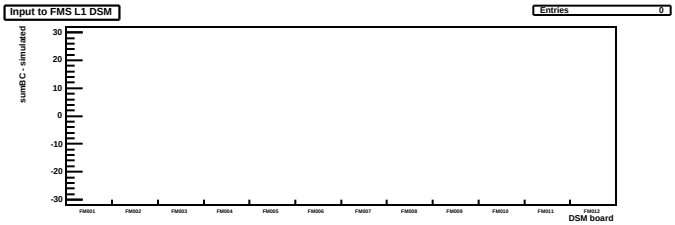

Input to FMS L1 DSM
Entries 1034820
sumD
DSM board

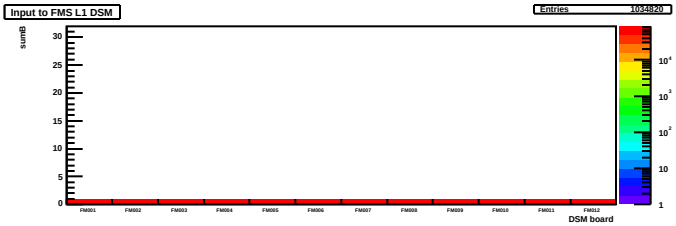

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

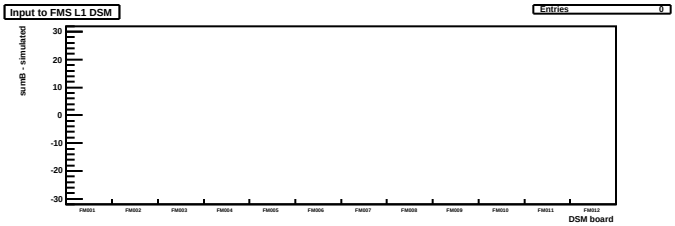

Input to FMS L1 DSM
Entries 1034820
sumC
DSM board

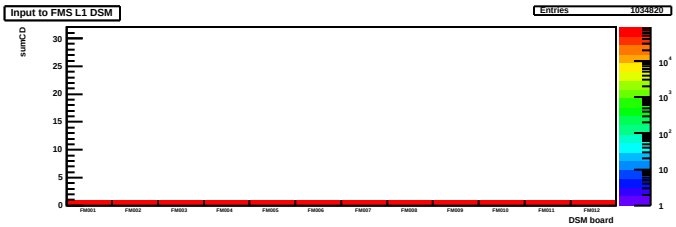

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

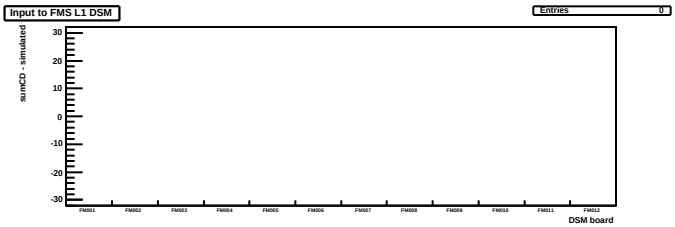

Input to FMS L1 DSM
Entries 1034820
sumBC
DSM board

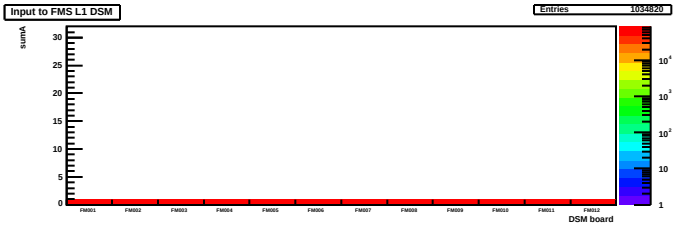

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

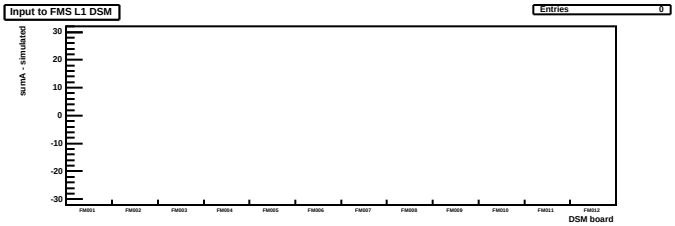

Input to FMS L1 DSM
Entries 1034820
sumB
DSM board

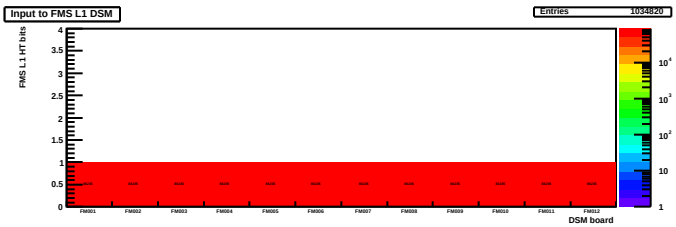

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

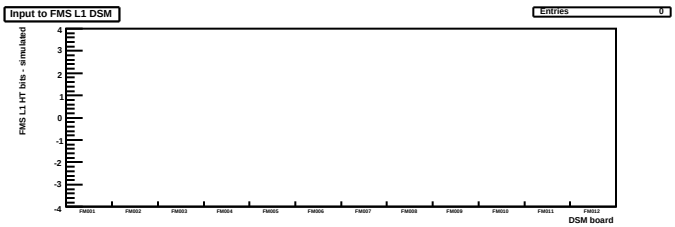

Input to FMS L1 DSM
Entries 1034820
sumCD
DSM board

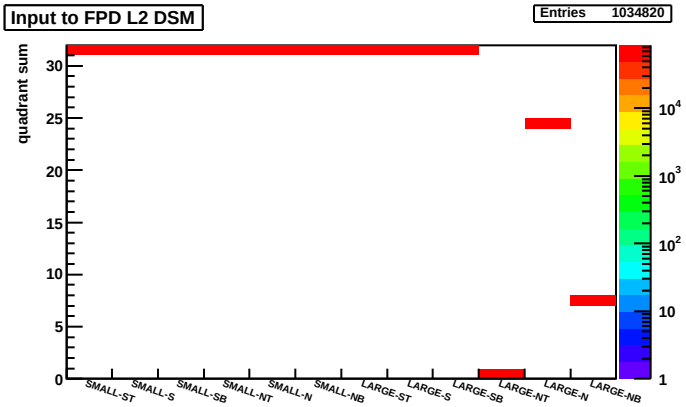

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

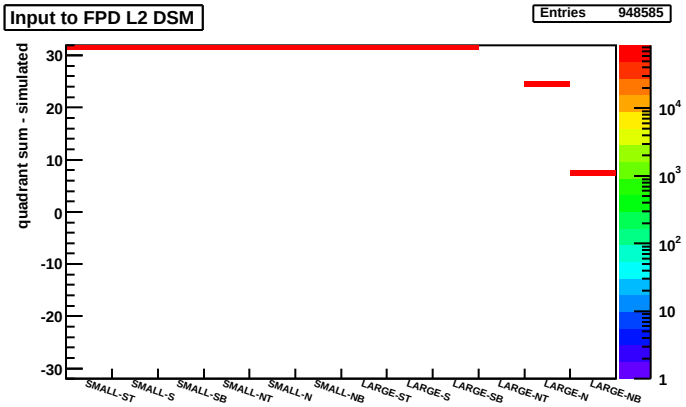

Input to FMS L1 DSM
Entries 1034820
sumA
DSM board

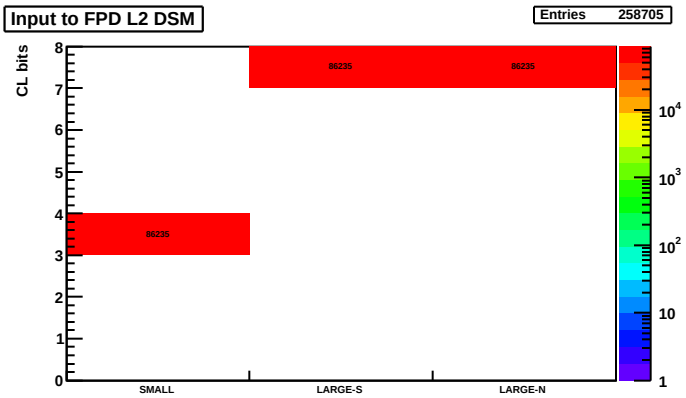

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

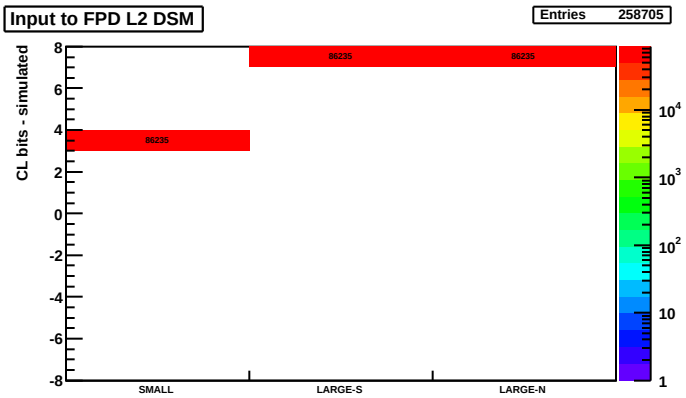

Input to FMS L1 DSM
Entries 1034820
FMS L1 HT bits
DSM board

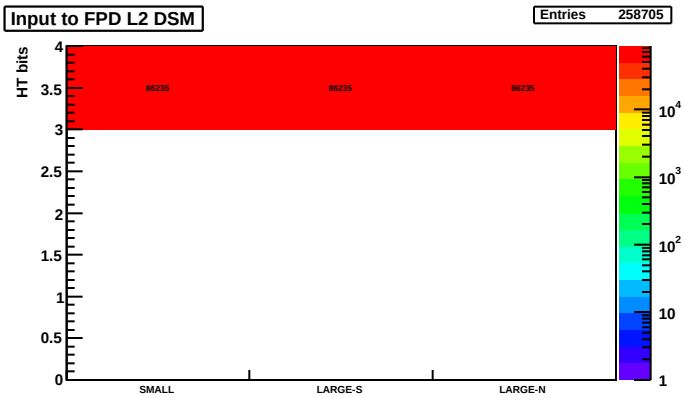

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

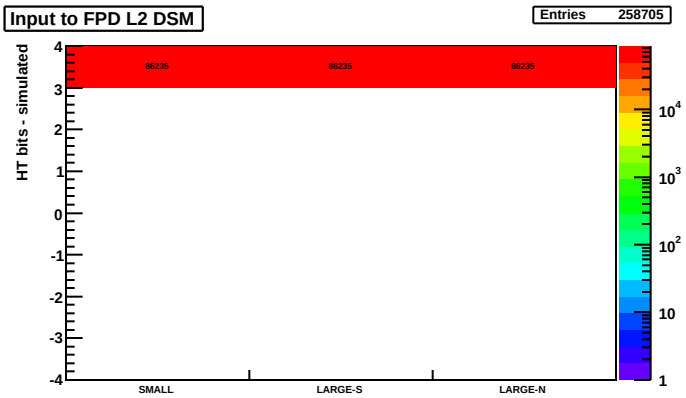

Input to FPD L2 DSM
Entries 1034820
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

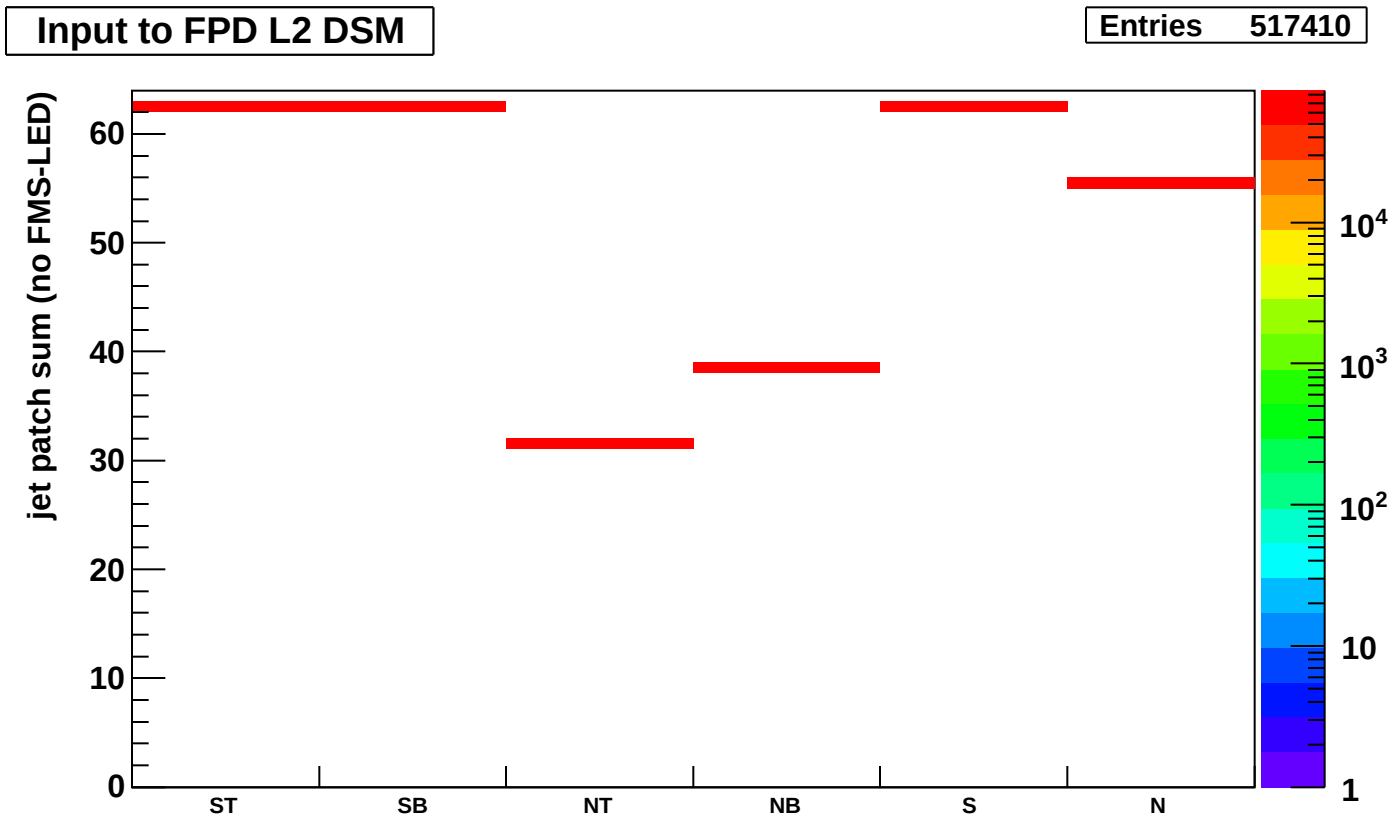

Input to FPD L2 DSM
Entries 948585
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

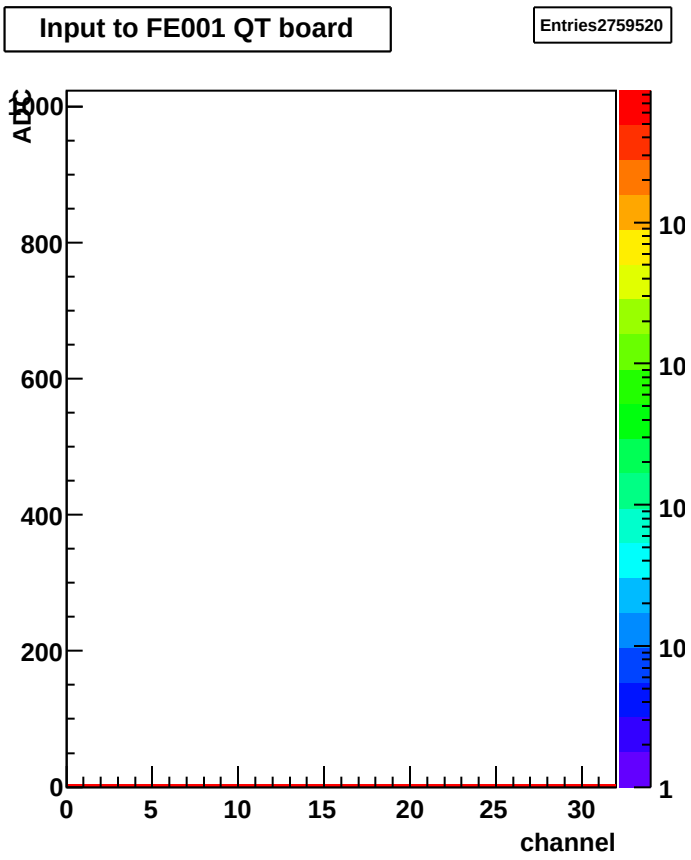

Input to FPD L2 DSM
Entries 258705
CL bits
86235
86235
86235
SMALL
LARGE-S
LARGE-N

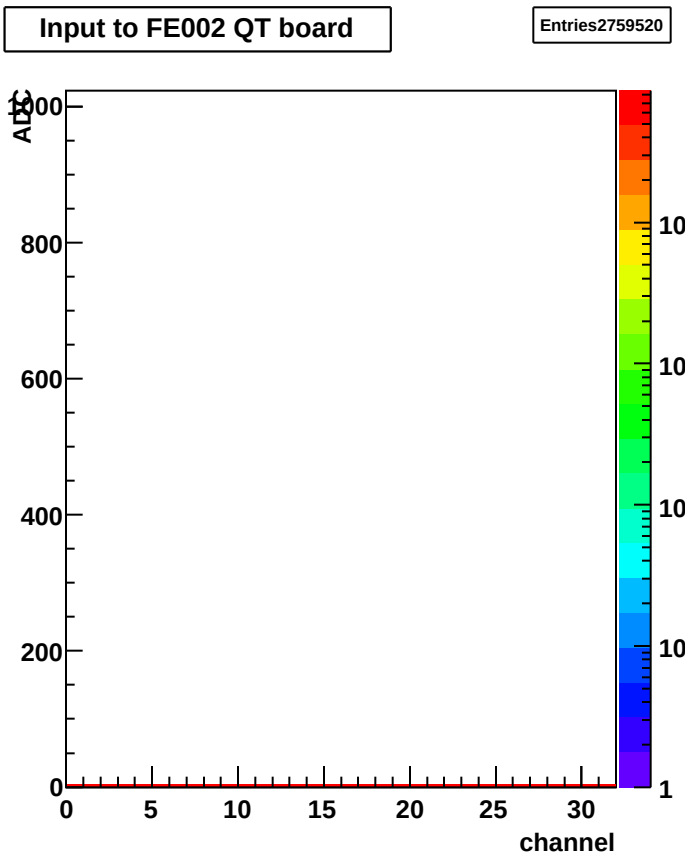

Input to FPD L2 DSM
Entries 258705
CL bits - simulated
86235
86235
86235
SMALL
LARGE-S
LARGE-N

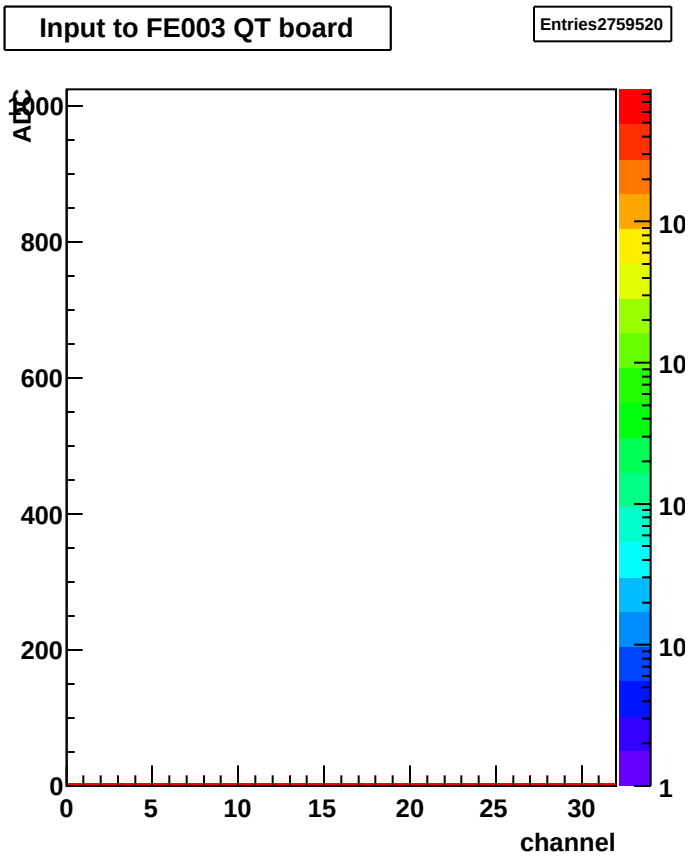

Input to FPD L2 DSM
Entries 258705
HT bits
86235
86235
86235
SMALL
LARGE-S
LARGE-N

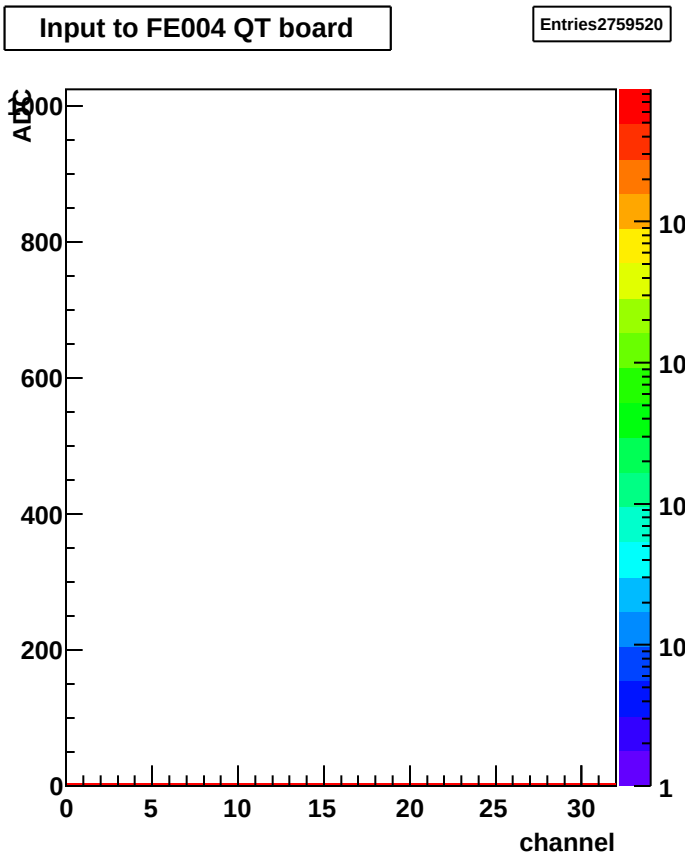

Input to FPD L2 DSM
Entries 258705
HT bits - simulated
86235
86235
86235
SMALL
LARGE-S
LARGE-N

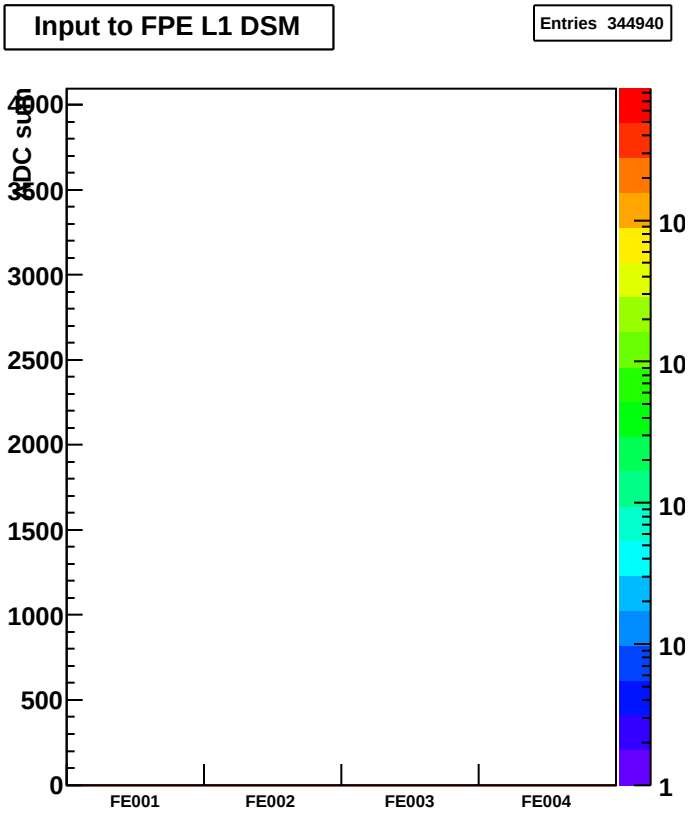

Input to FPD L2 DSM
Entries 517410
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

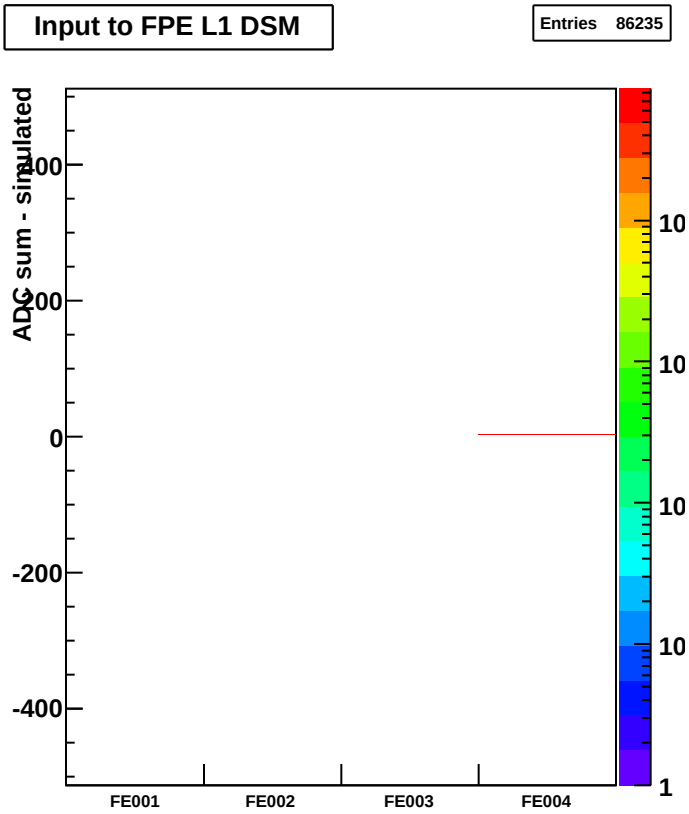

Input to FE001 QT board
Entries2759520
ADC
channel

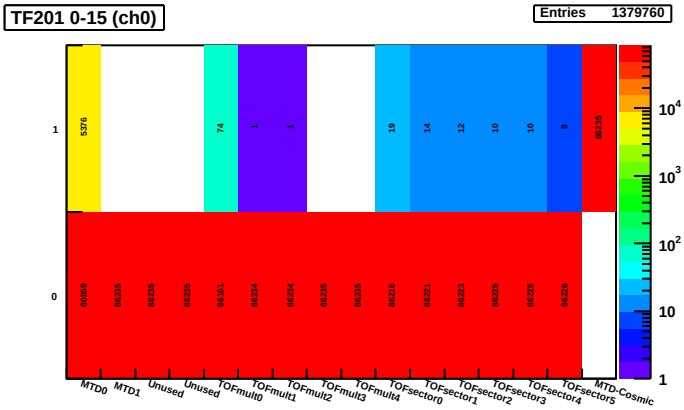

Input to FE002 QT board
Entries2759520
ADC
channel

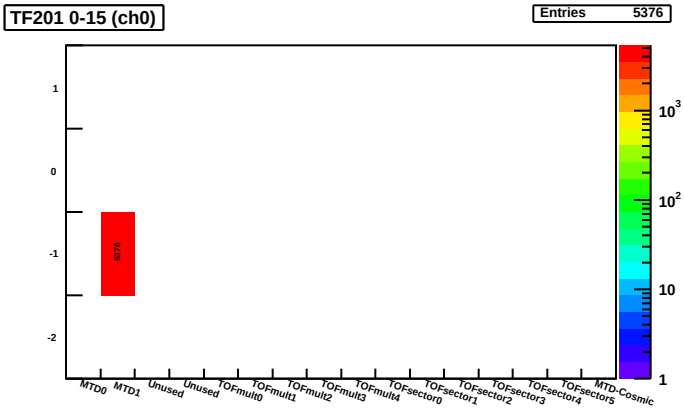

Input to FE003 QT board
Entries2759520
ADC
channel

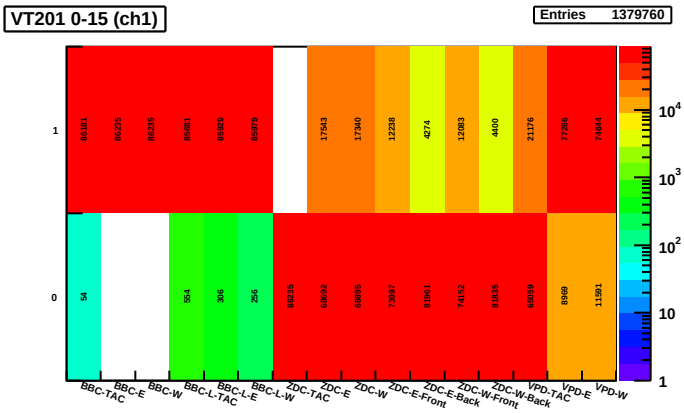

Input to FE004 QT board
Entries2759520
ADC
channel

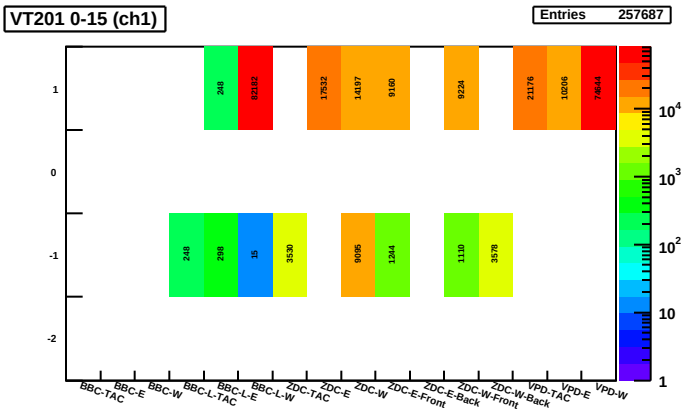

Input to FPE L1 DSM
Entries 344940
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

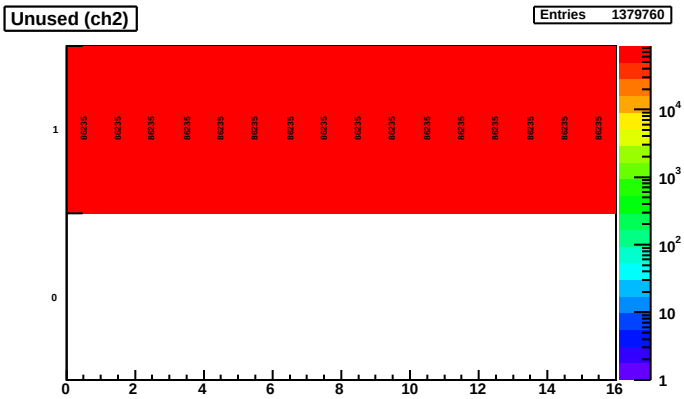

Input to FPE L1 DSM
Entries 86235
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

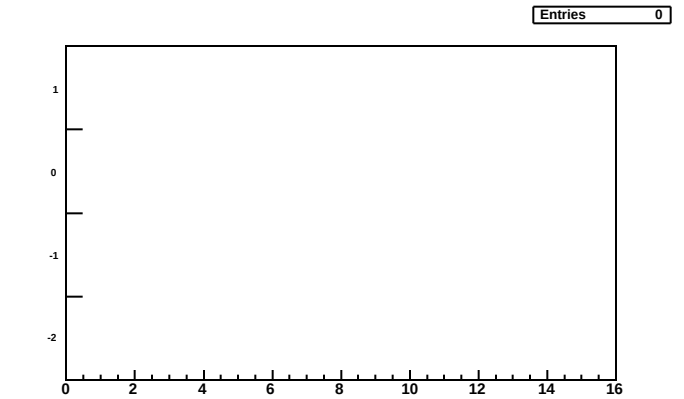

TF201 0-15 (ch0)
Entries 1379760
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

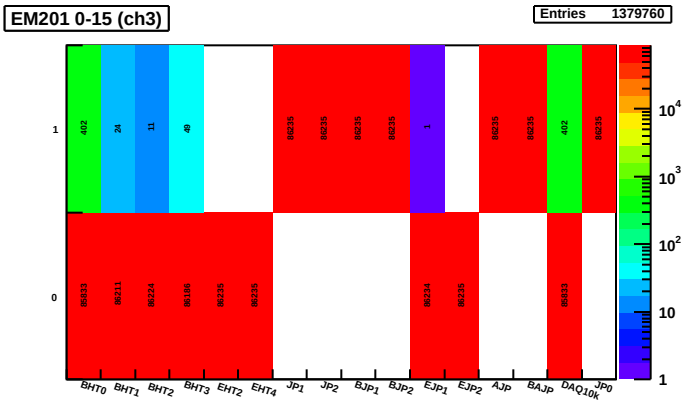

TF201 0-15 (ch0)
Entries 5376
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

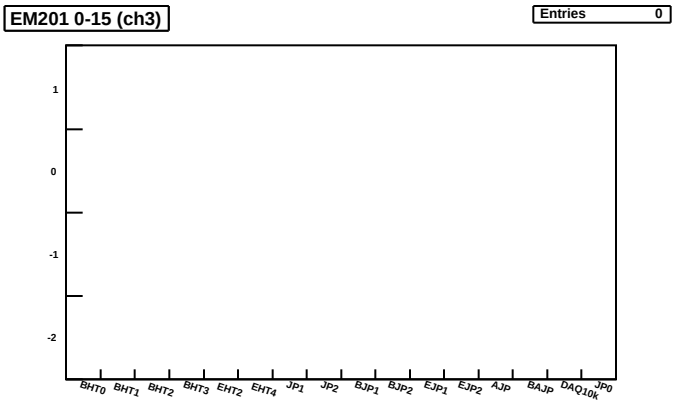

VT201 0-15 (ch1)
Entries 1379760
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 257687
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

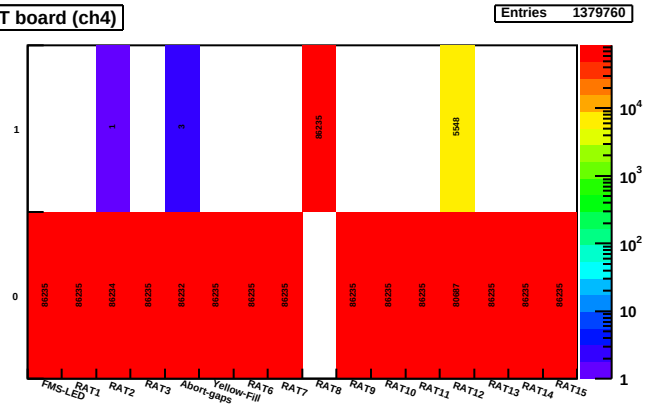

Unused (ch2)
Entries 1379760

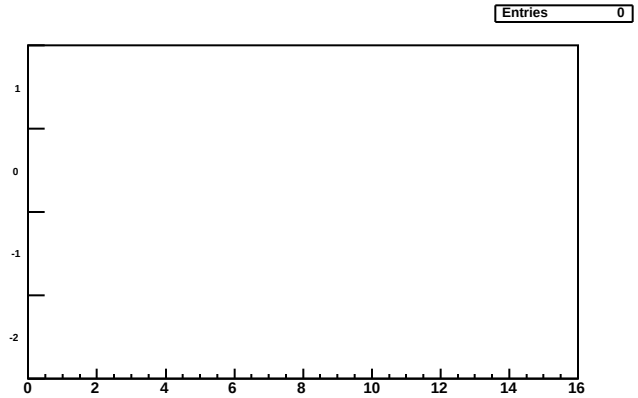

Entries 0


EM201 0-15 (ch3)
Entries 1379760
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

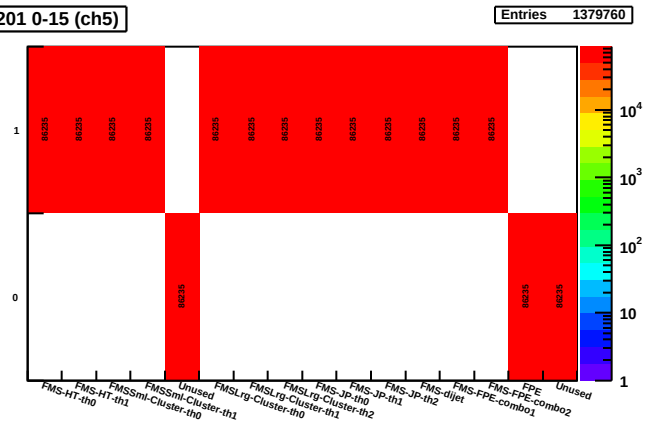

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

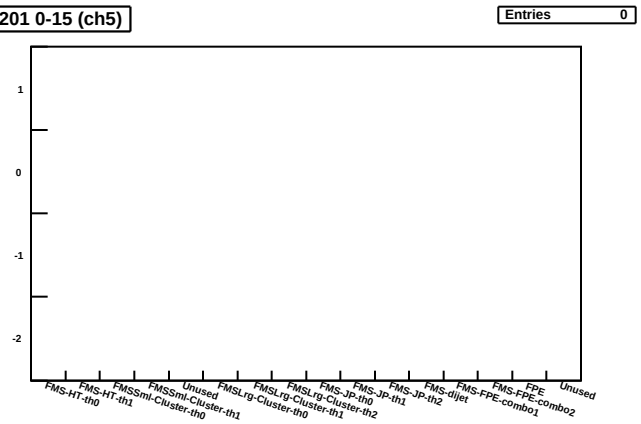




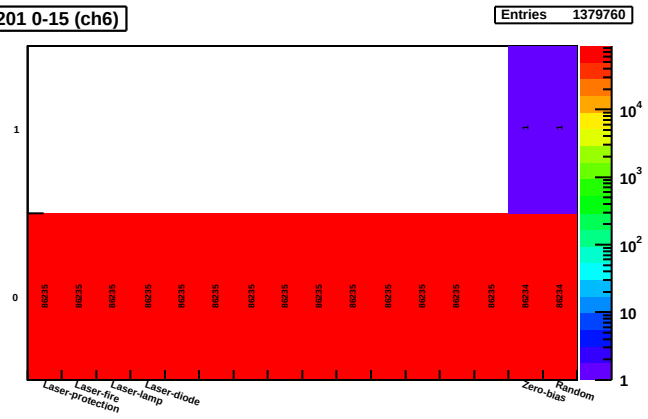
FP201 0-15 (ch5)

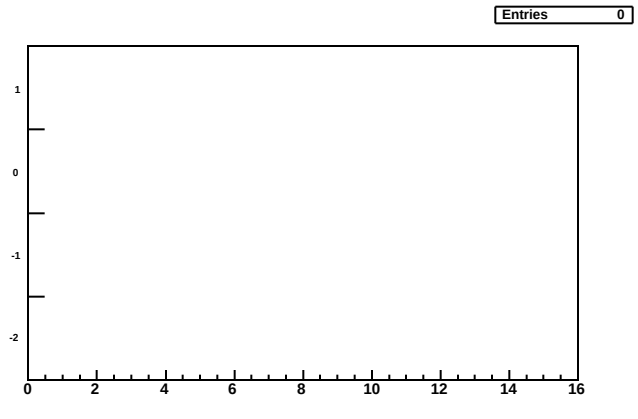
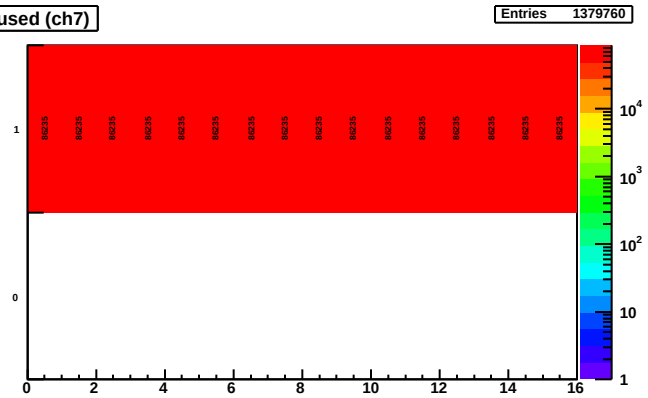
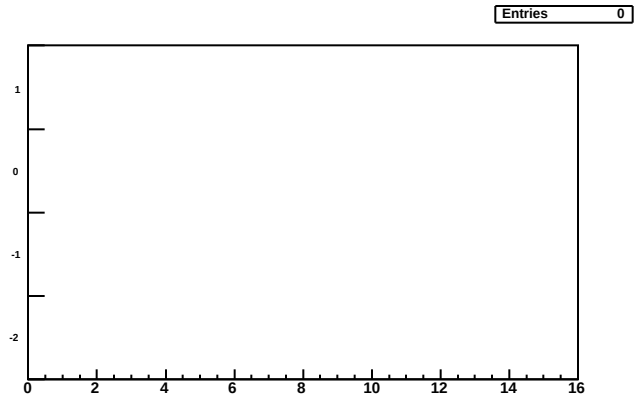


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)