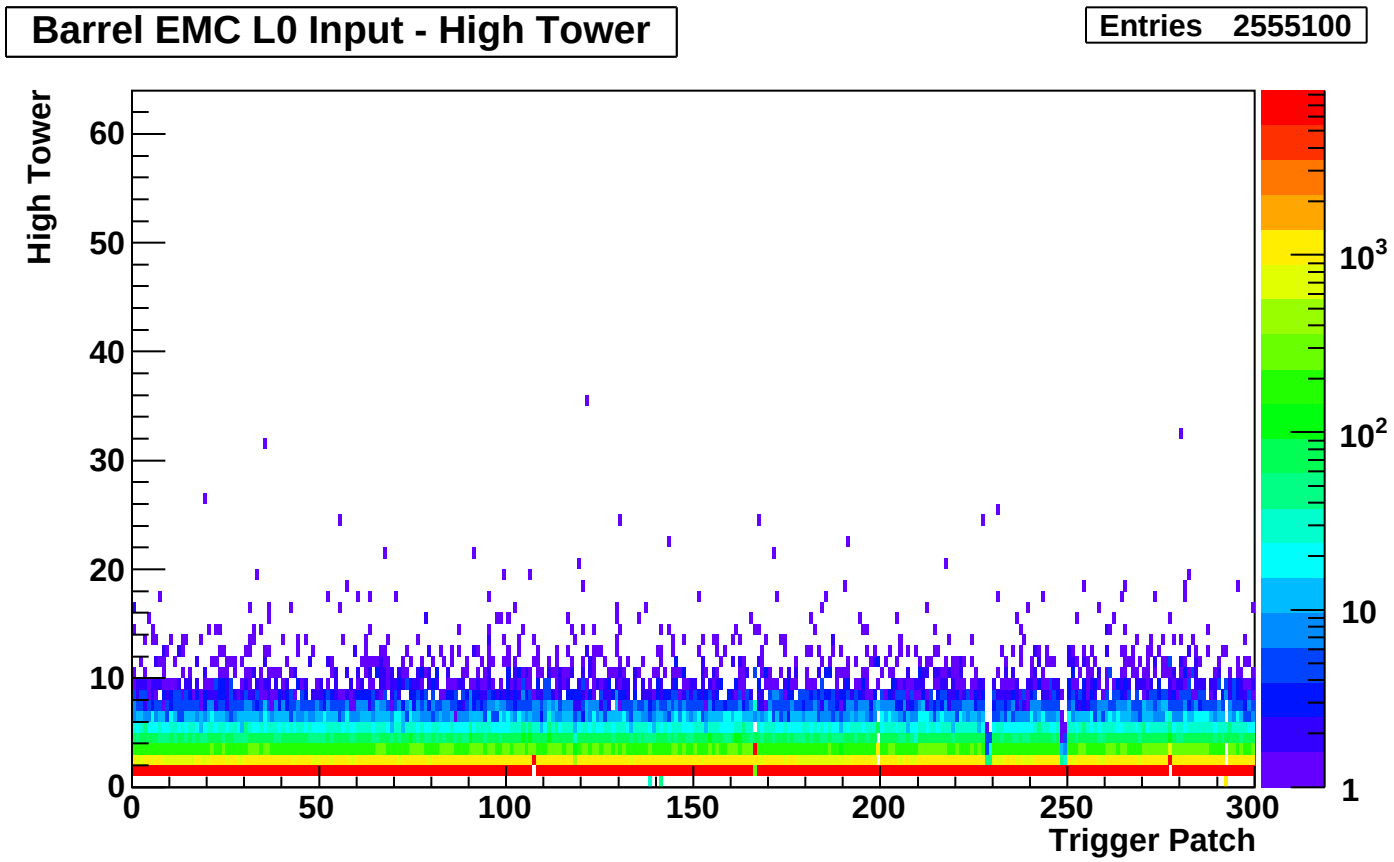
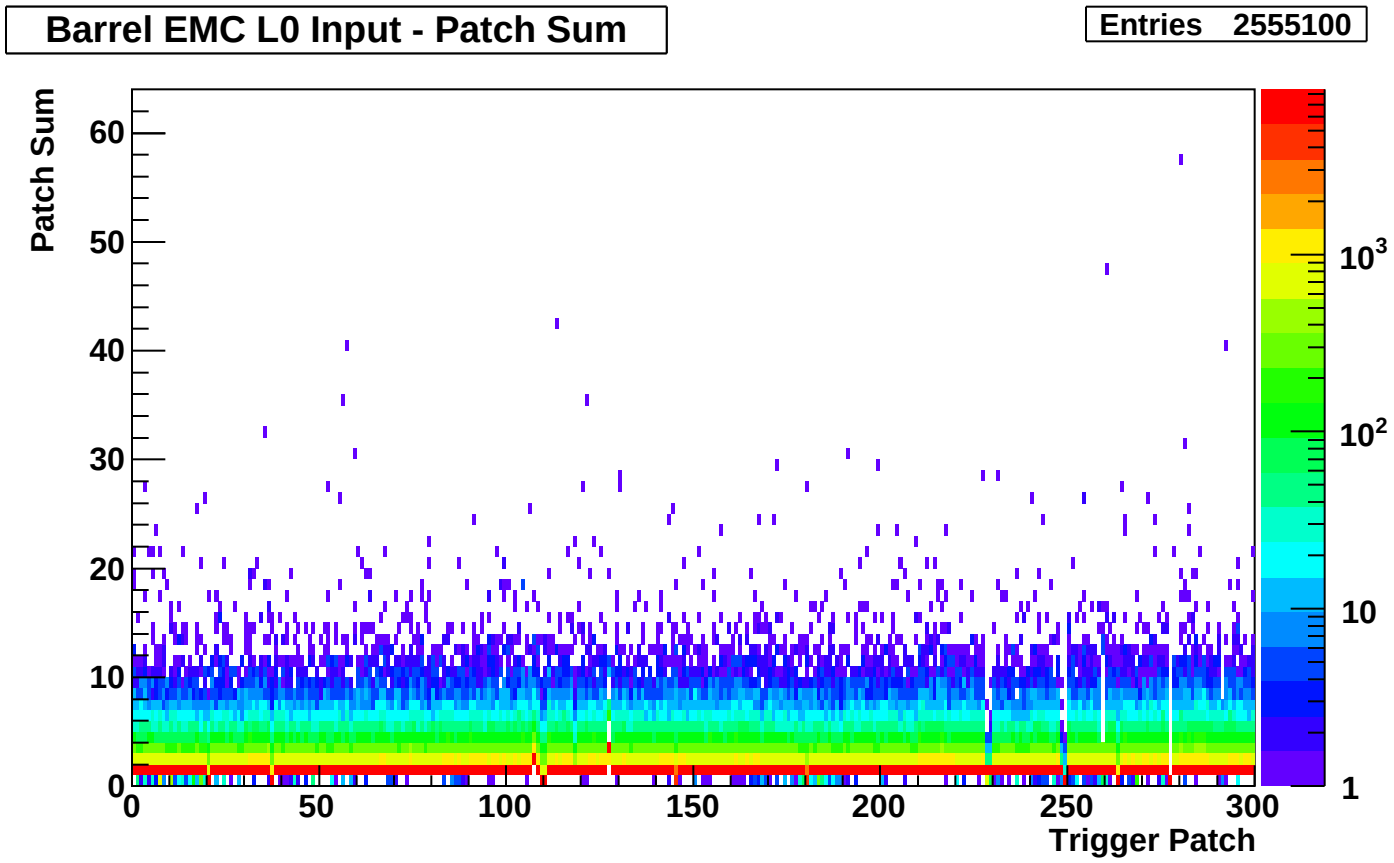
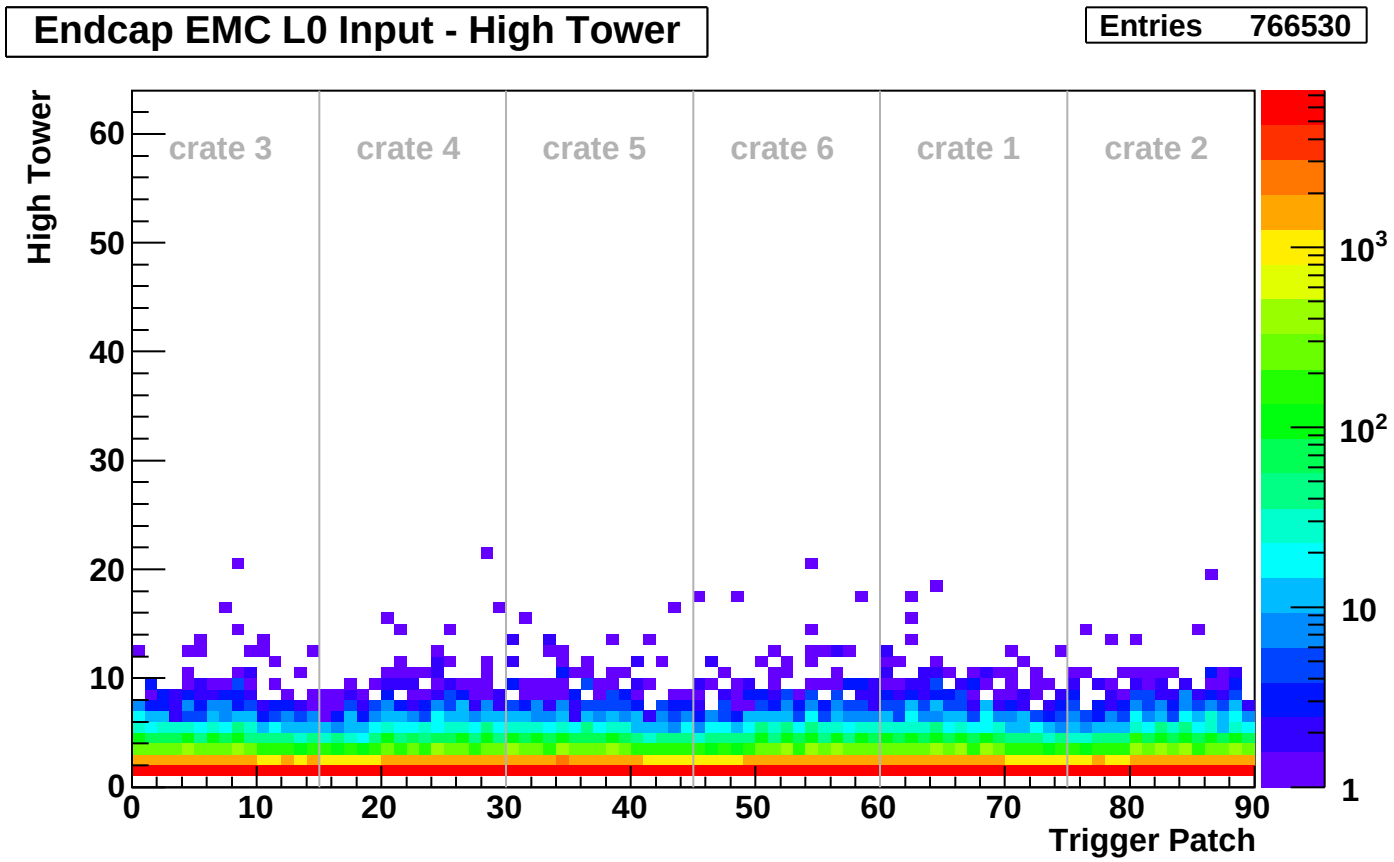
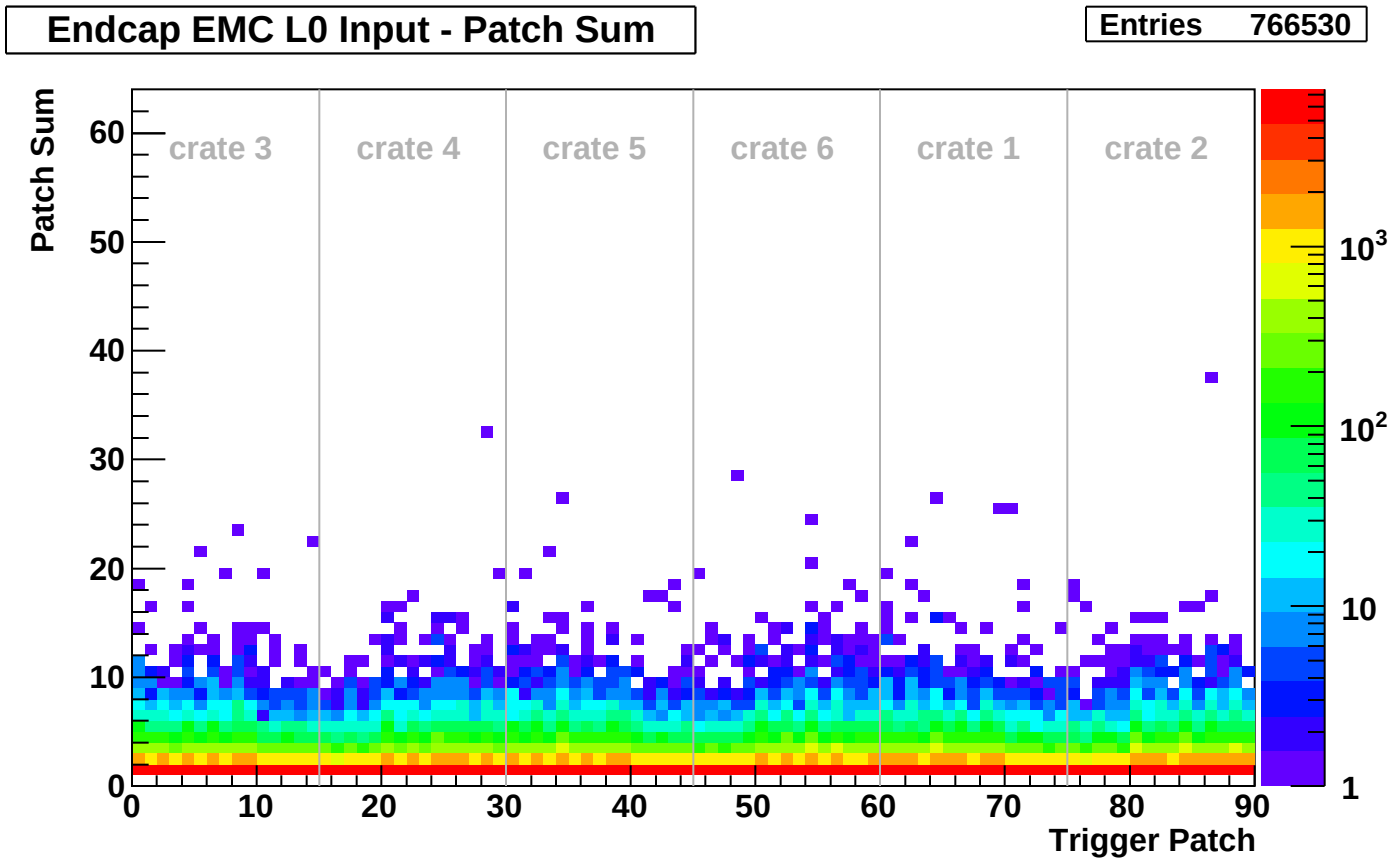
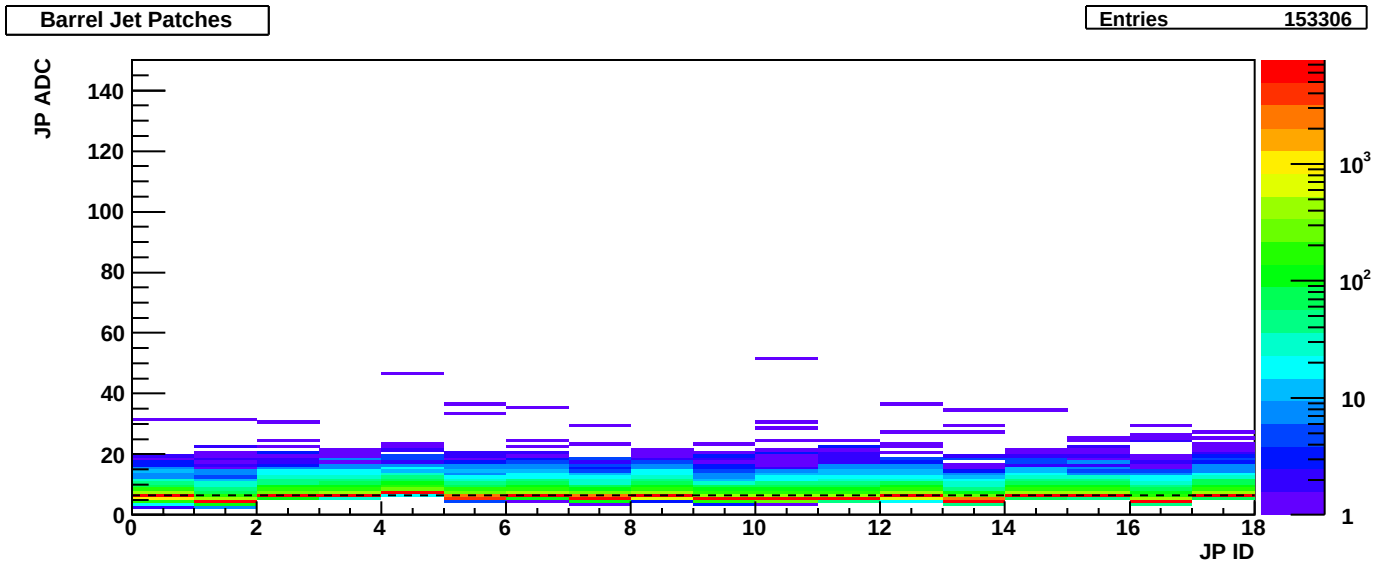
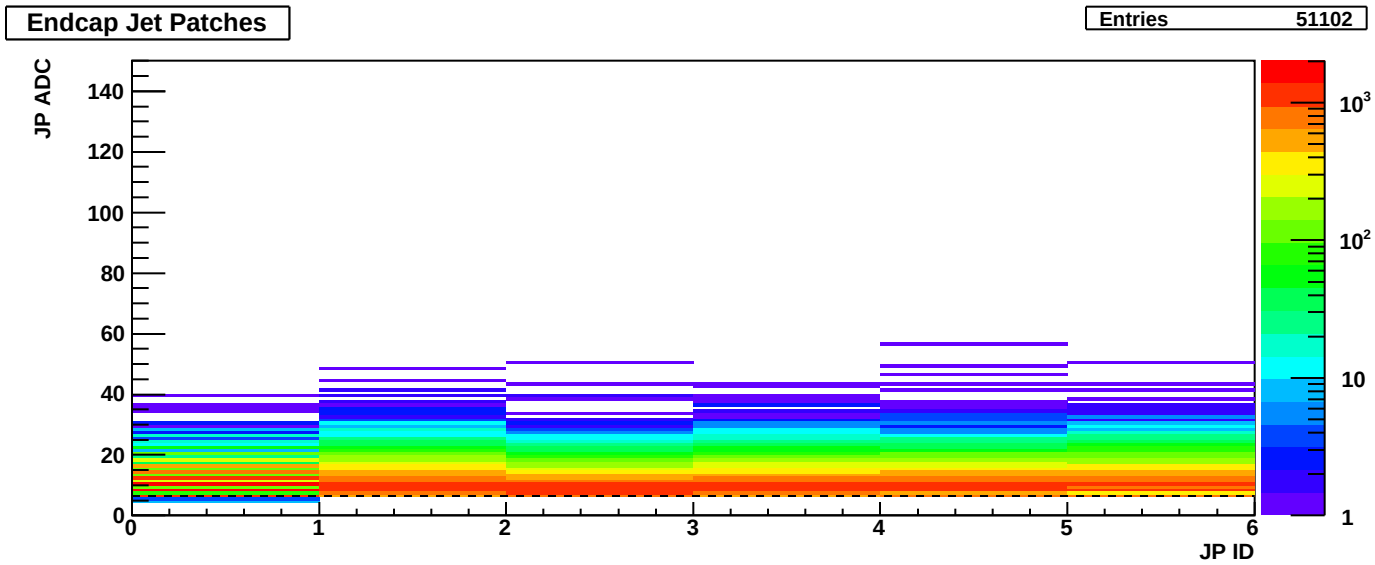

Barrel EMC L0 Input - High Tower
Entries 2555100
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

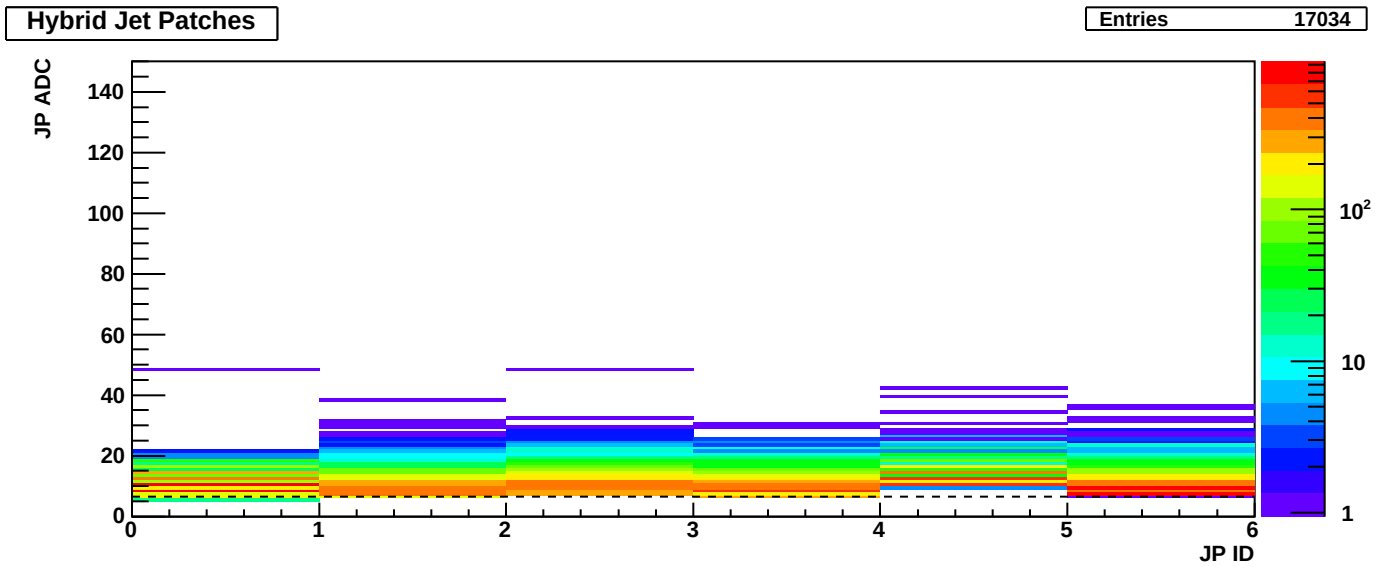

Barrel EMC L0 Input - Patch Sum
Entries 2555100
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

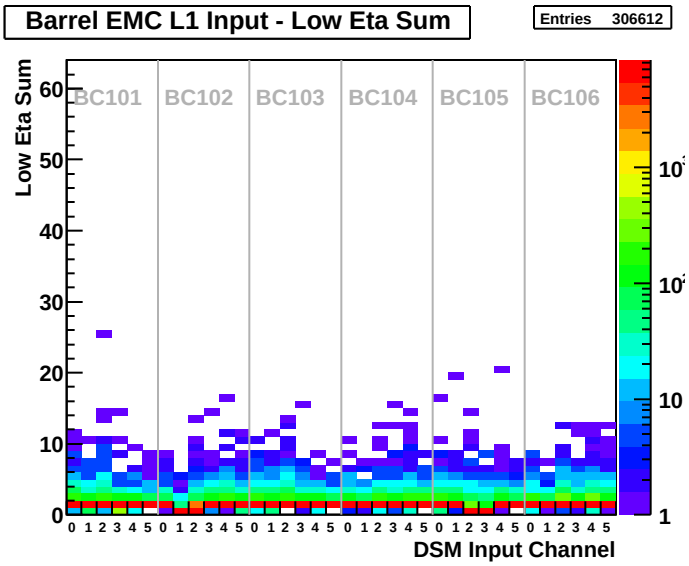

Endcap EMC L0 Input - High Tower
Entries 766530
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

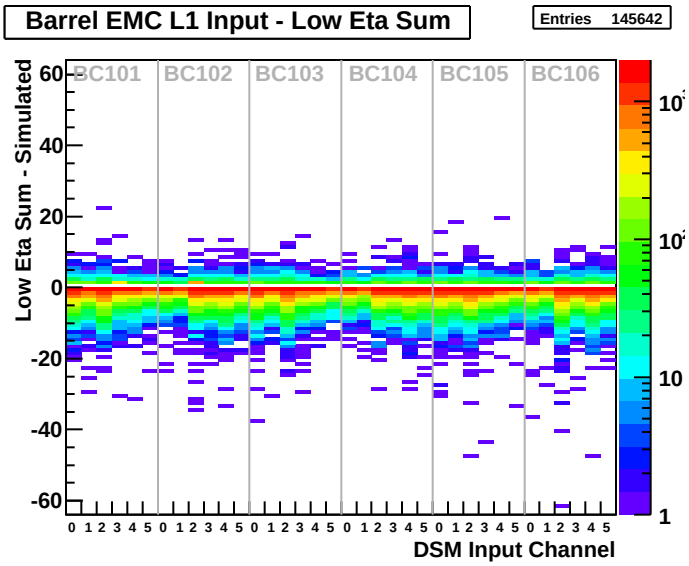

Endcap EMC L0 Input - Patch Sum
Entries 766530
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

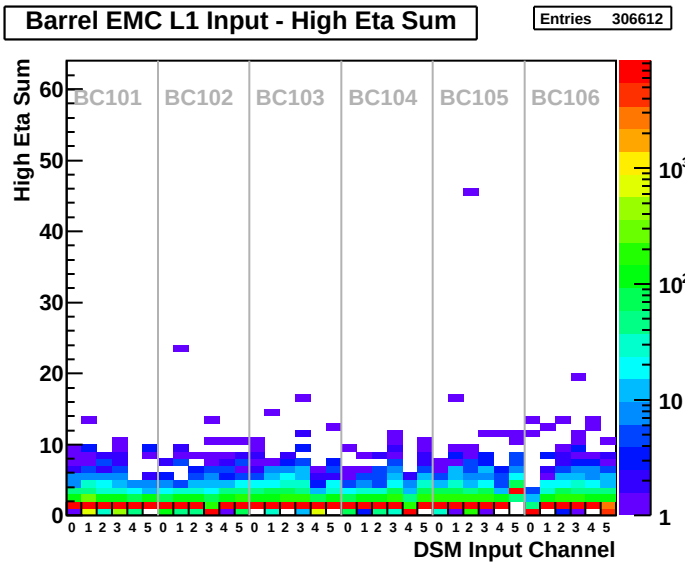

Barrel Jet Patches
Entries 153306
JP ADC
JP ID

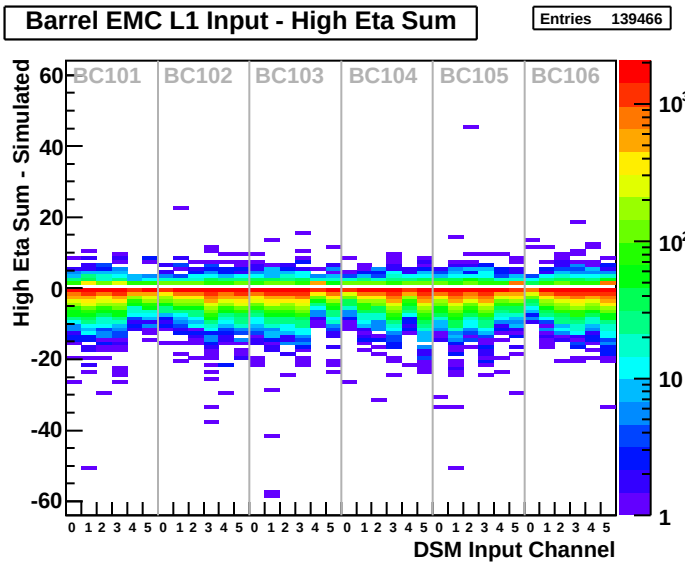

Endcap Jet Patches
Entries 51102
JP ADC
JP ID

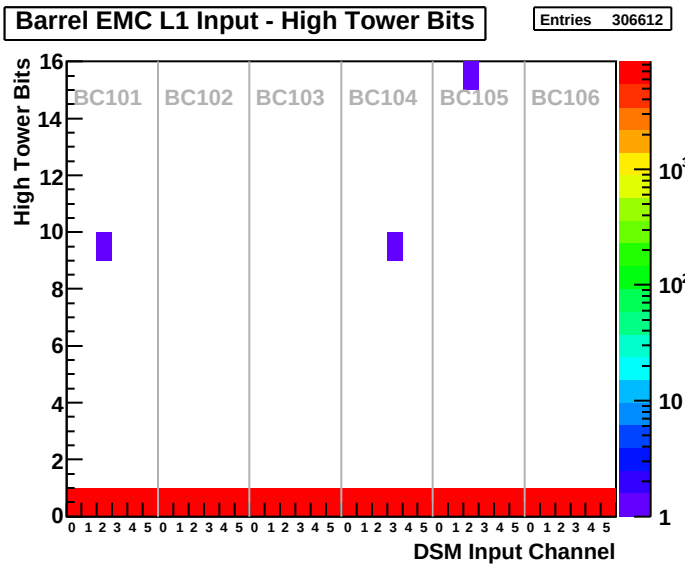

Hybrid Jet Patches
Entries 17034
JP ADC
JP ID

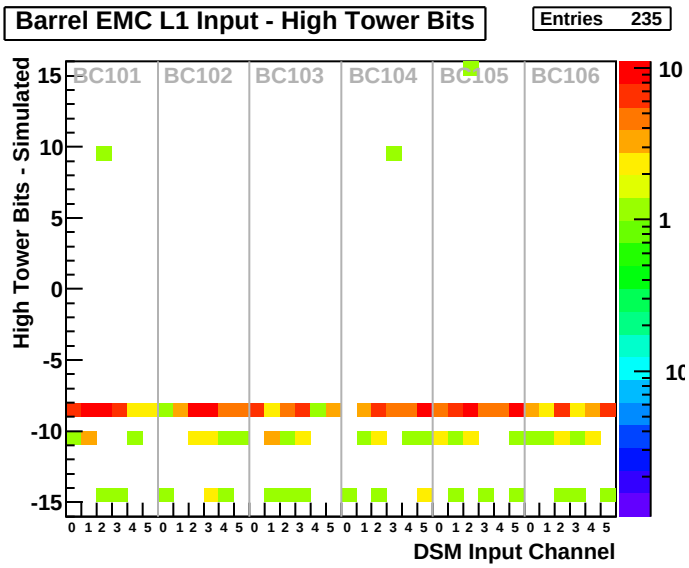

Barrel EMC L1 Input - Low Eta Sum
Entries 306612
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

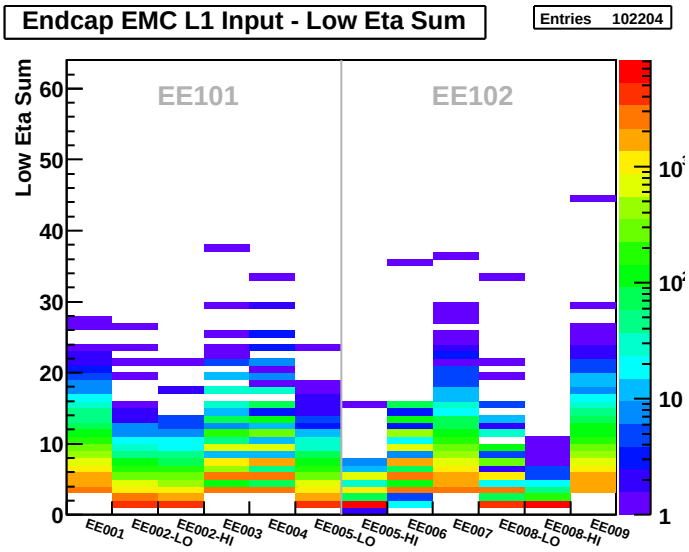

Barrel EMC L1 Input - Low Eta Sum
Entries 145642
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

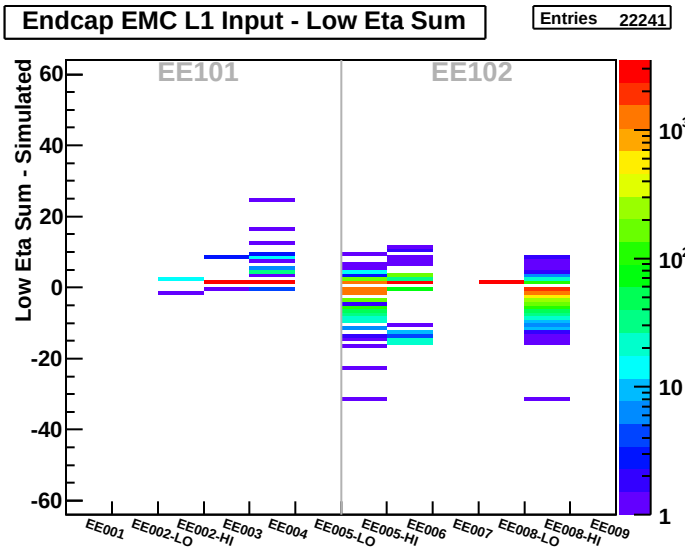

Barrel EMC L1 Input - High Eta Sum
Entries 306612
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

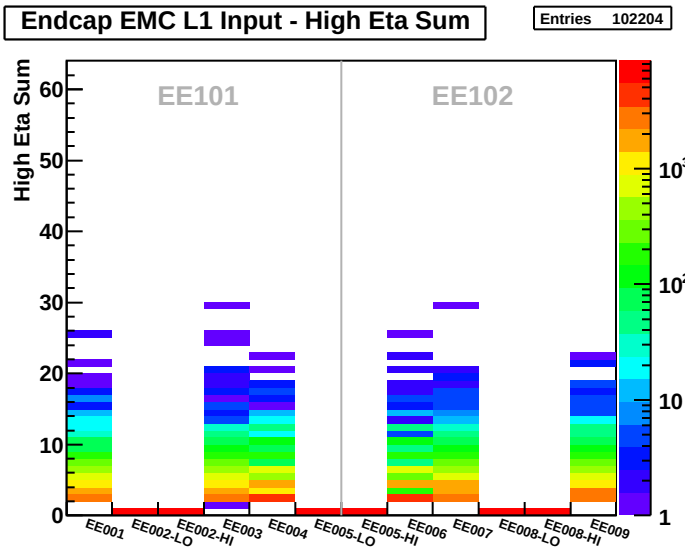

Barrel EMC L1 Input - High Eta Sum
Entries 139466
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

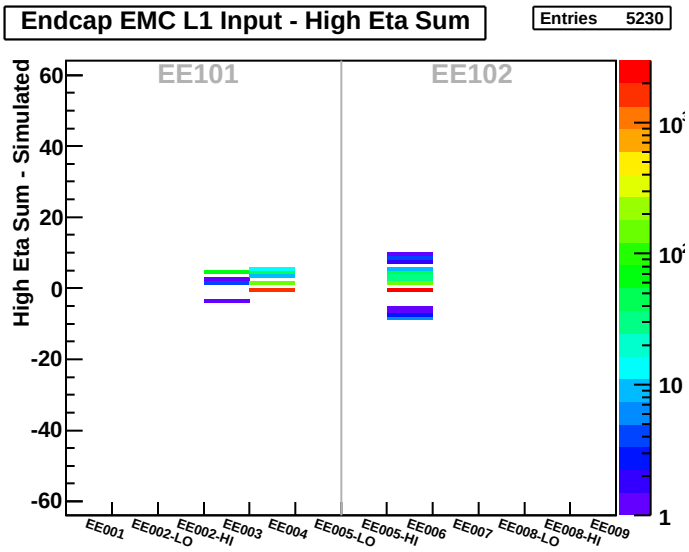

Barrel EMC L1 Input - High Tower Bits
Entries 306612
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

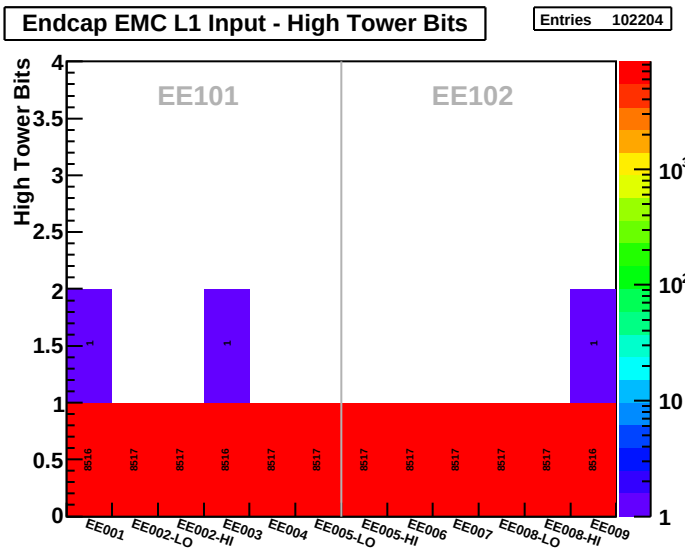

Barrel EMC L1 Input - High Tower Bits
Entries 235
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

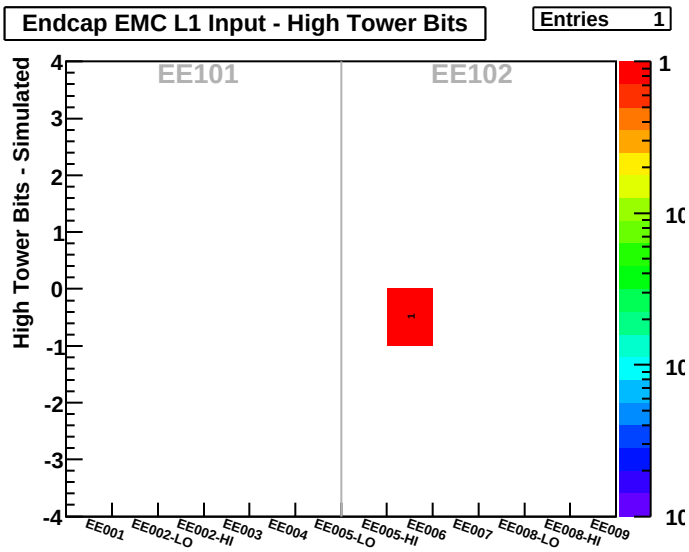

Endcap EMC L1 Input - Low Eta Sum
Entries 102204
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

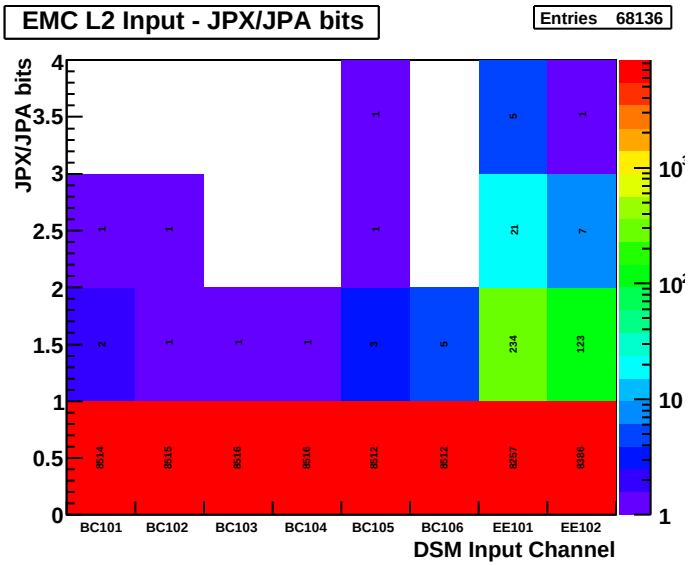

Endcap EMC L1 Input - Low Eta Sum
Entries 22241
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

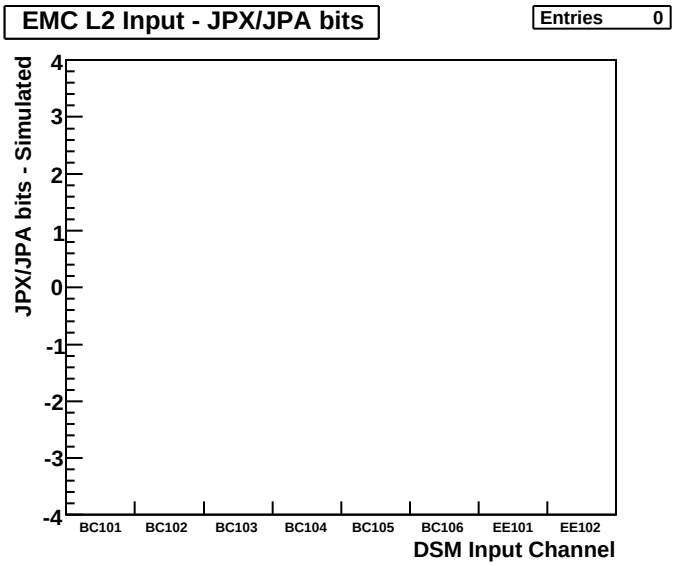

Endcap EMC L1 Input - High Eta Sum
Entries 102204
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

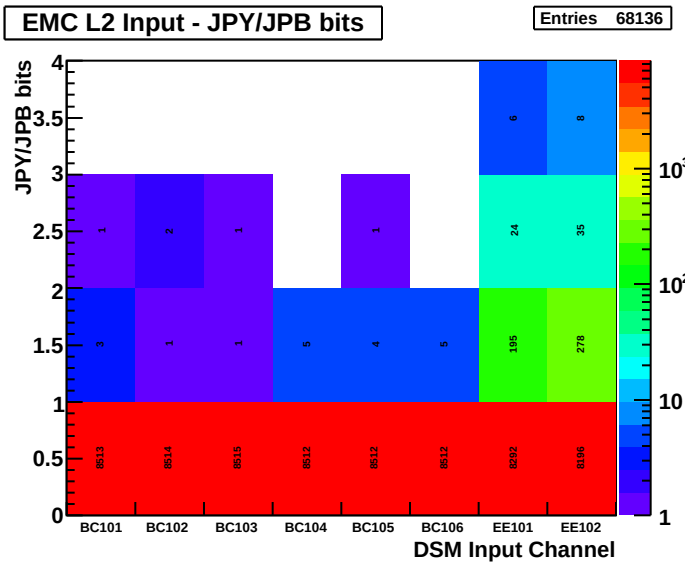

Endcap EMC L1 Input - High Eta Sum
Entries 5230
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

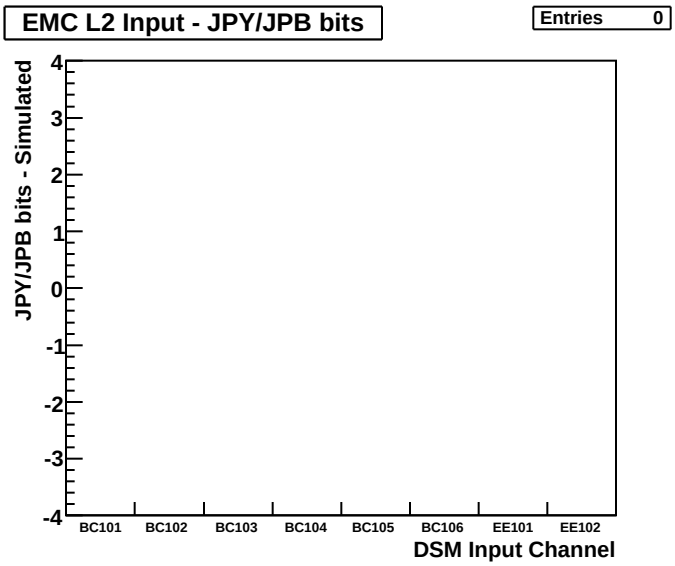

Endcap EMC L1 Input - High Tower Bits
Entries 102204
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

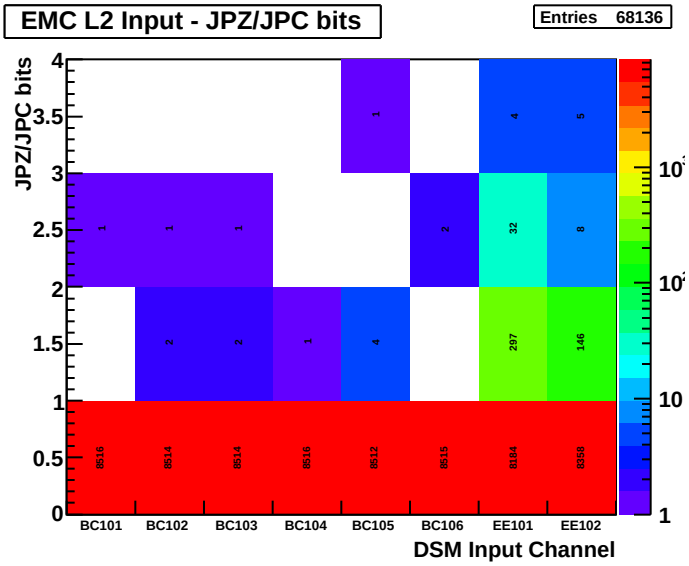

Endcap EMC L1 Input - High Tower Bits
Entries 1
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

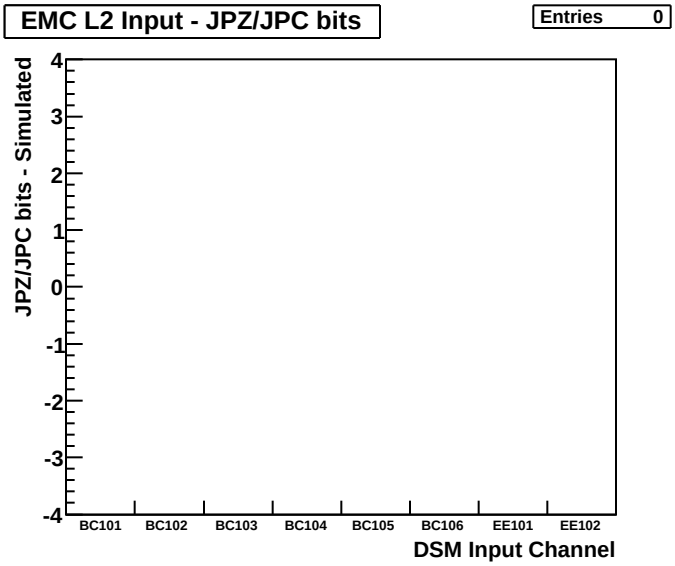

EMC L2 Input - JPX/JPA bits
Entries 68136
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

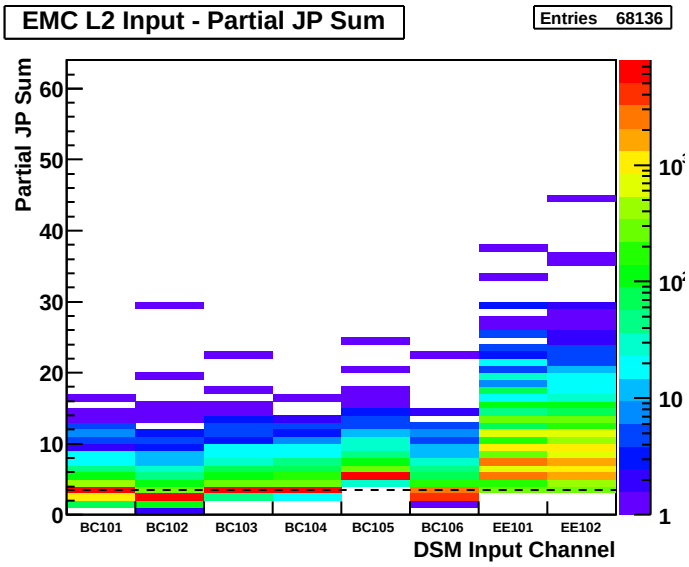

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

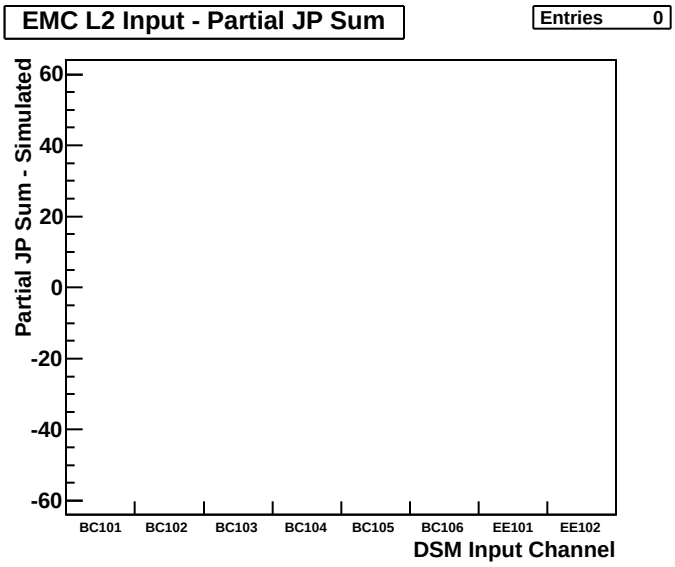

EMC L2 Input - JPY/JPB bits
Entries 68136
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

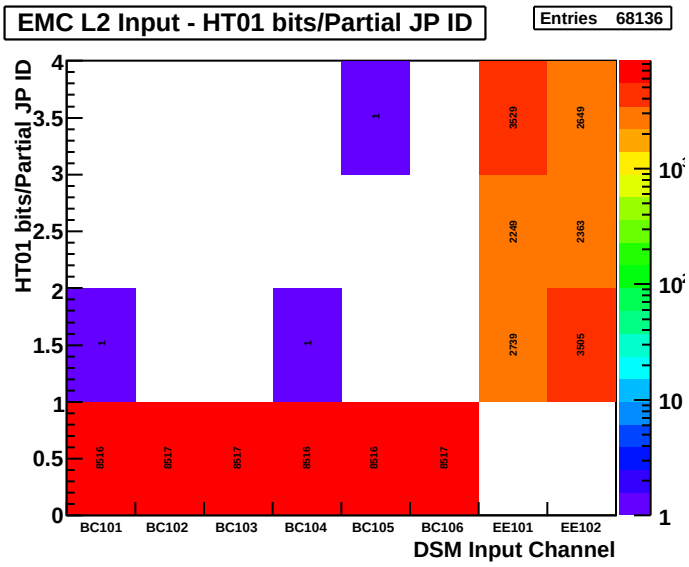

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

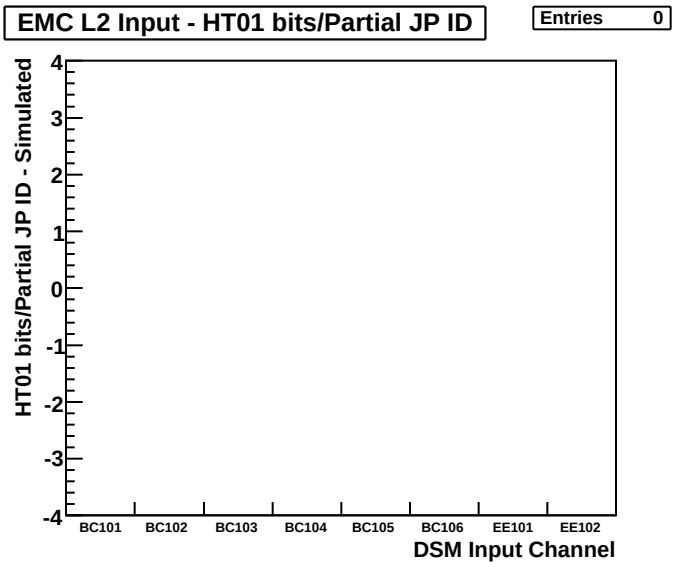

EMC L2 Input - JPZ/JPC bits
Entries 68136
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

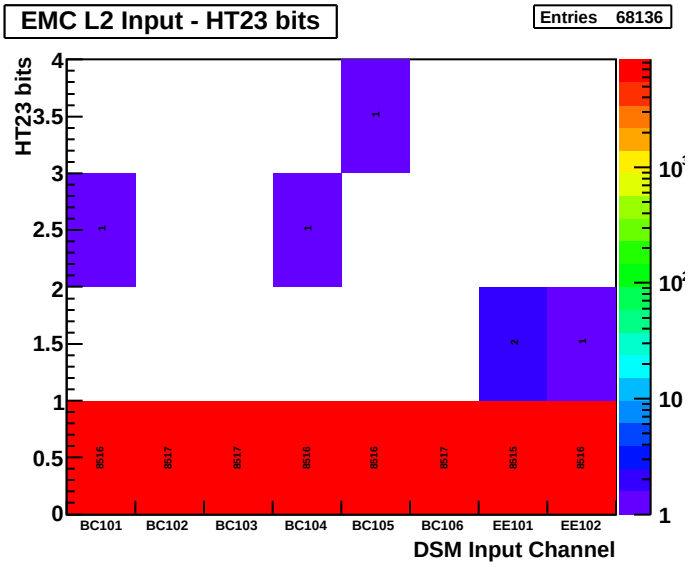

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

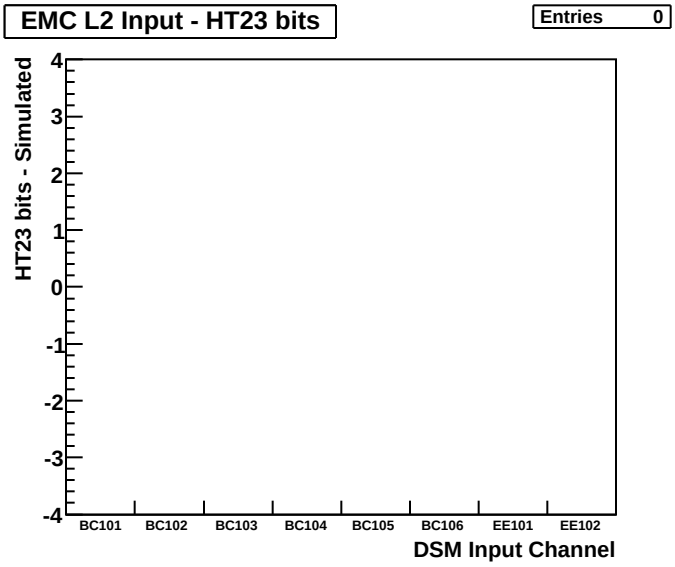

EMC L2 Input - Partial JP Sum
Entries 68136
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

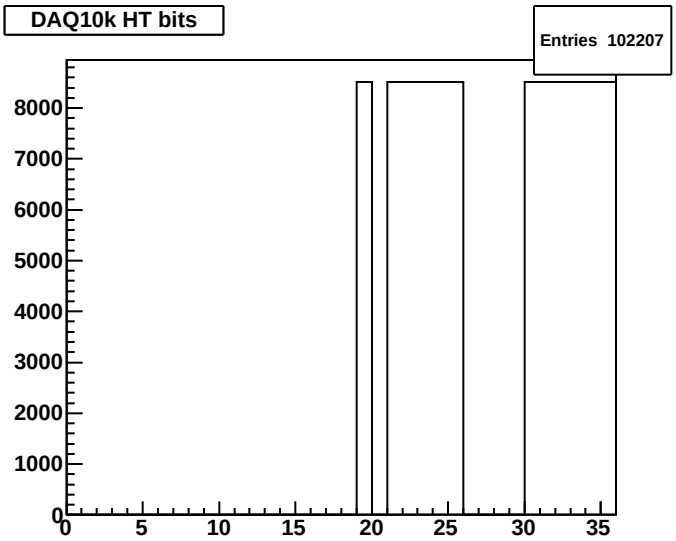

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

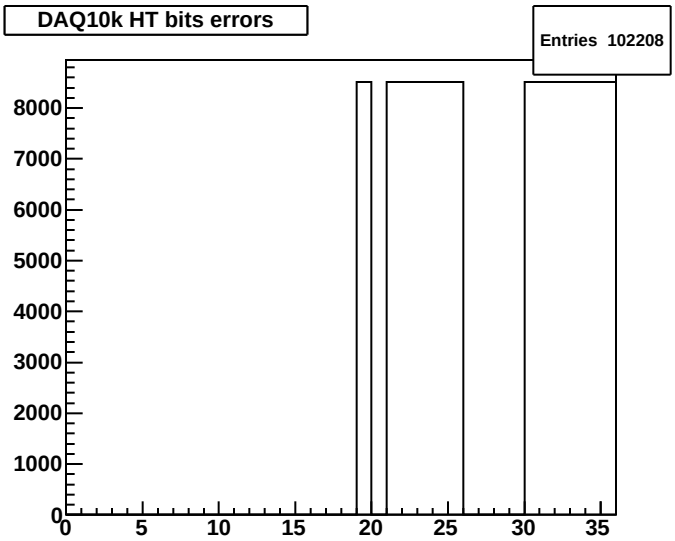

EMC L2 Input - HT01 bits/Partial JP ID
Entries 68136
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

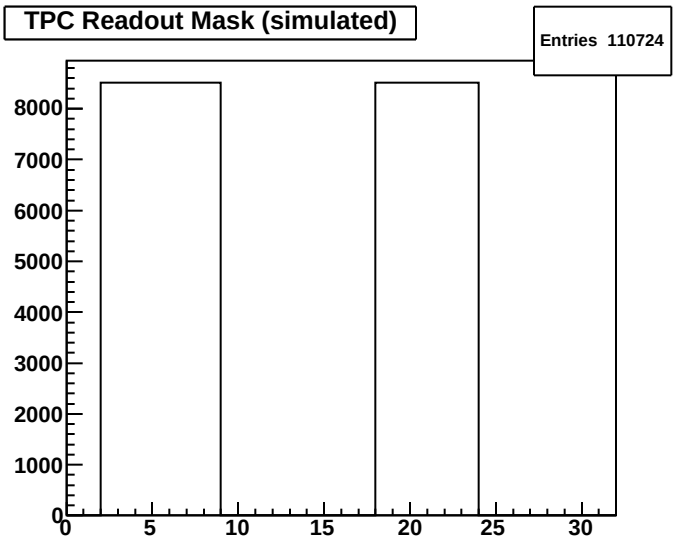

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

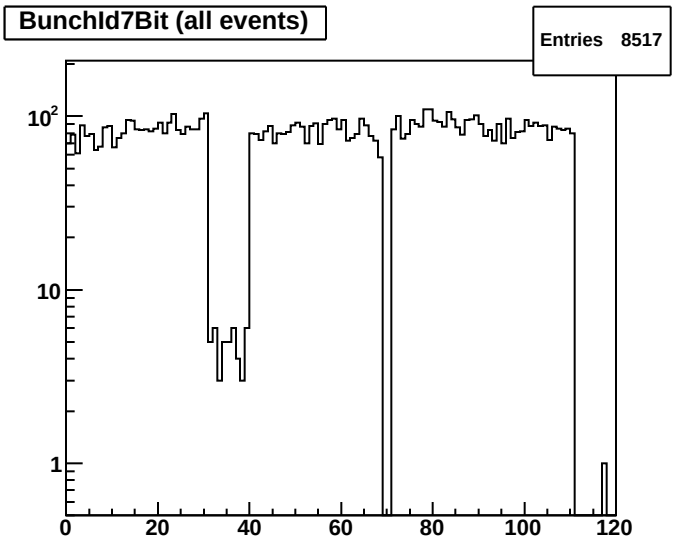

EMC L2 Input - HT23 bits
Entries 68136
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

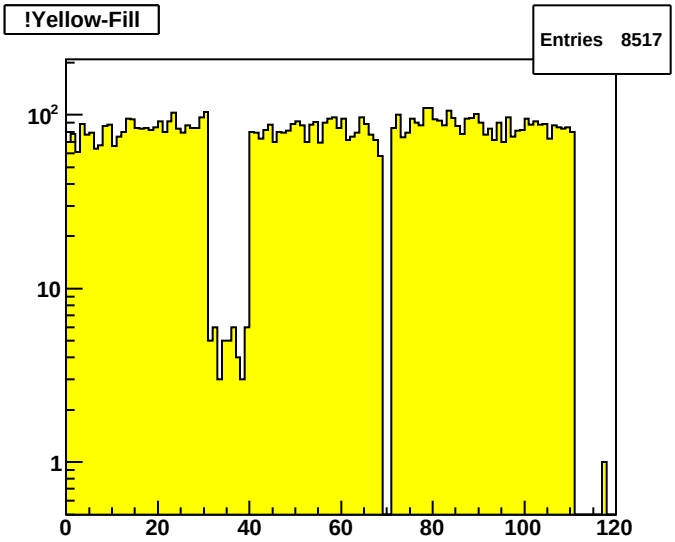

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

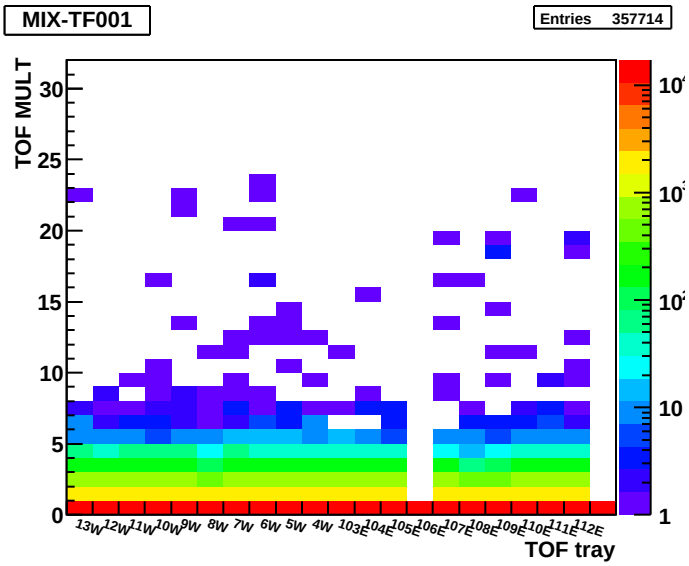

DAQ10k HT bits
Entries 102207
8000
7000
6000
5000
4000
3000
2000
1000
0
0 5 10 15 20 25 30 35

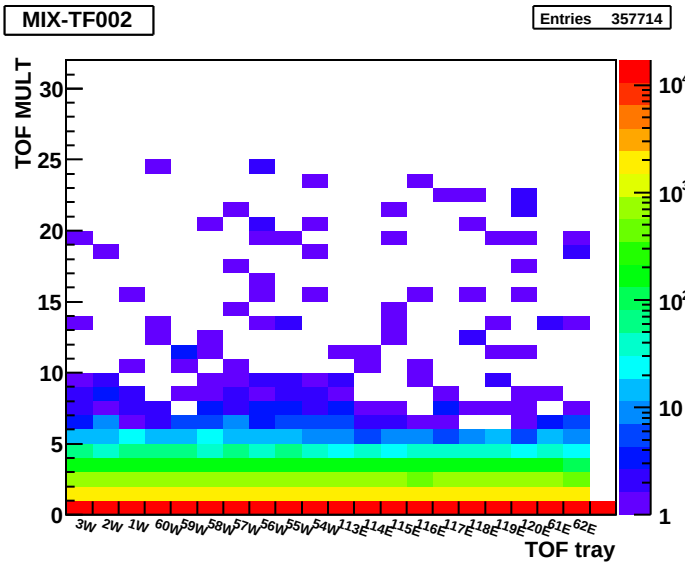

DAQ10k HT bits errors
Entries 102208
8000
7000
6000
5000
4000
3000
2000
1000
0
0 5 10 15 20 25 30 35

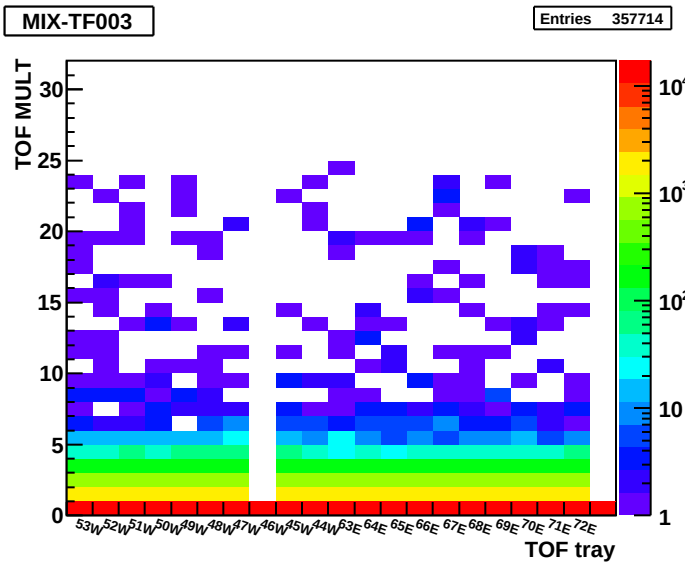

TPC Readout Mask (simulated)
Entries 110724
8000
7000
6000
5000
4000
3000
2000
1000
0
0 5 10 15 20 25 30

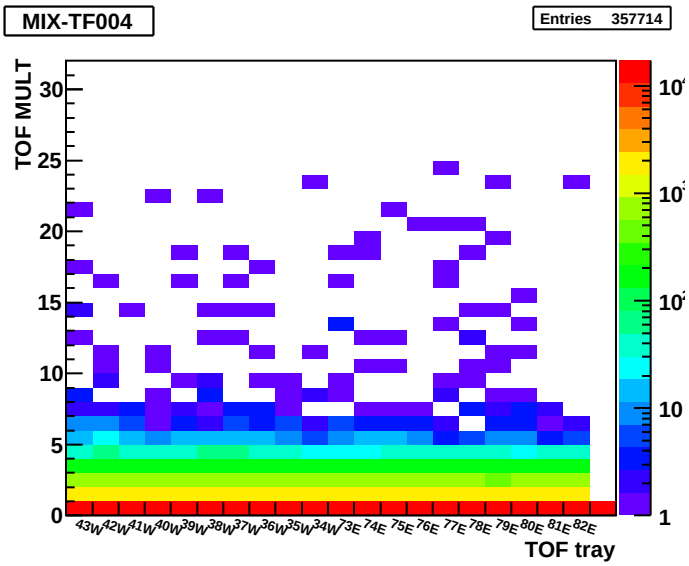

BunchId7Bit (all events)
Entries 8517
10^2
10
1
0 20 40 60 80 100 120

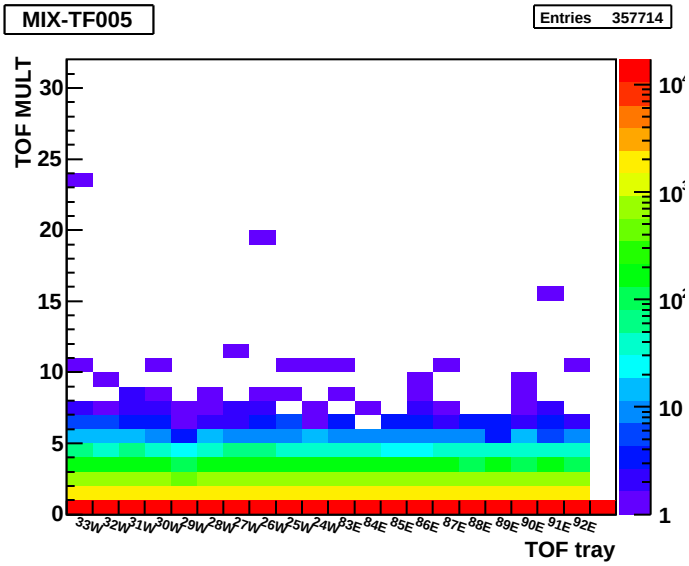

!Yellow-Fill
Entries 8517
10^2
10
1
0 20 40 60 80 100 120

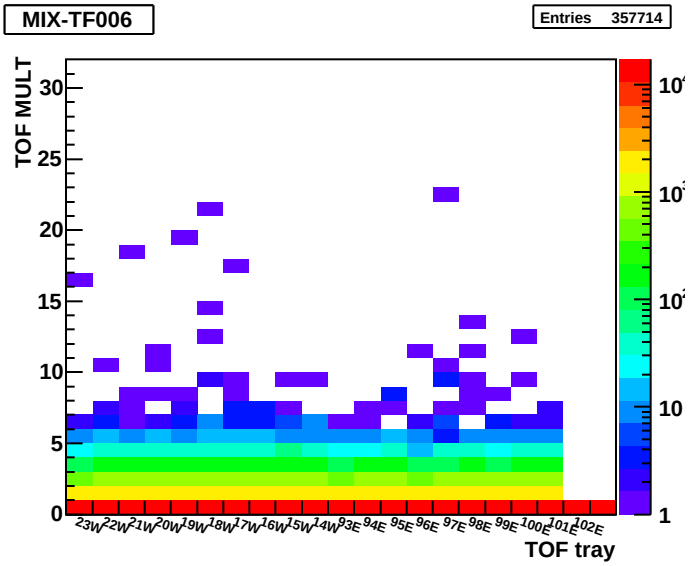

MIX-TF001
Entries 357714
TOF MULT
TOF tray

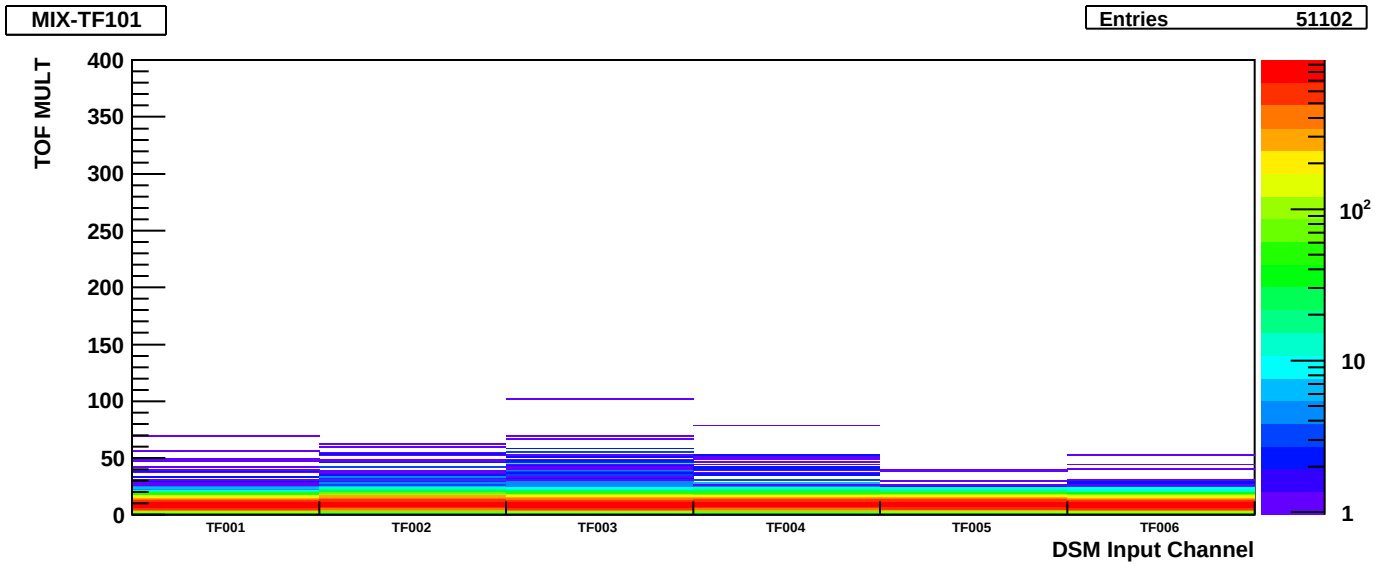

MIX-TF002
Entries 357714
TOF MULT
TOF tray

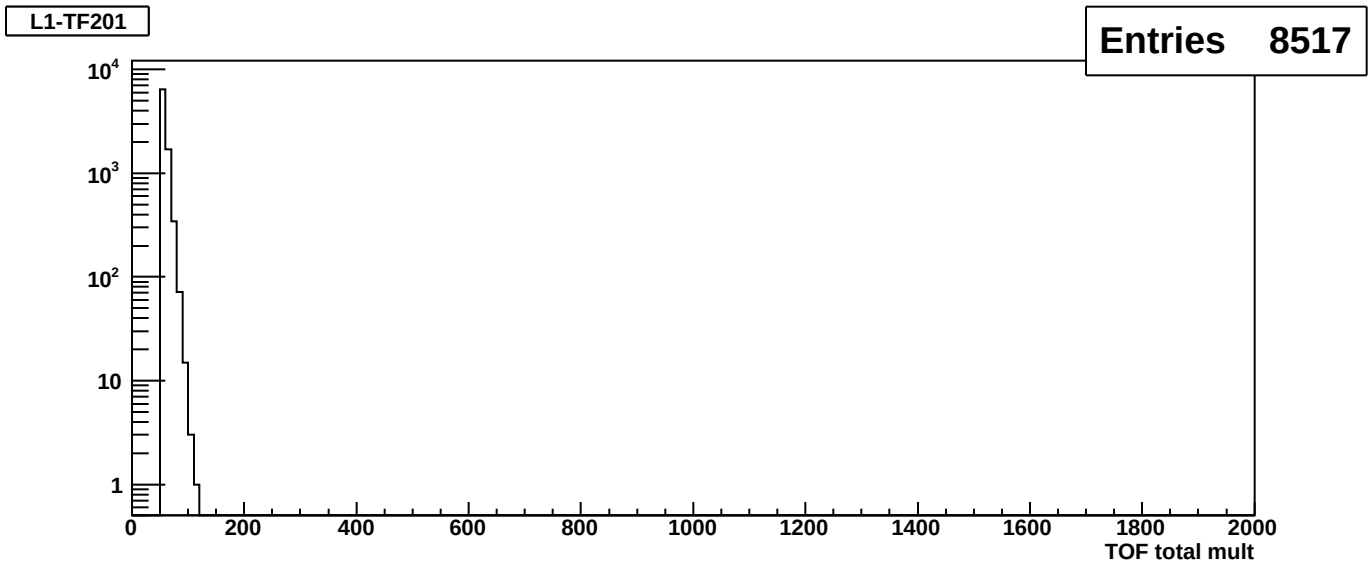

MIX-TF003
Entries 357714
TOF MULT
TOF tray

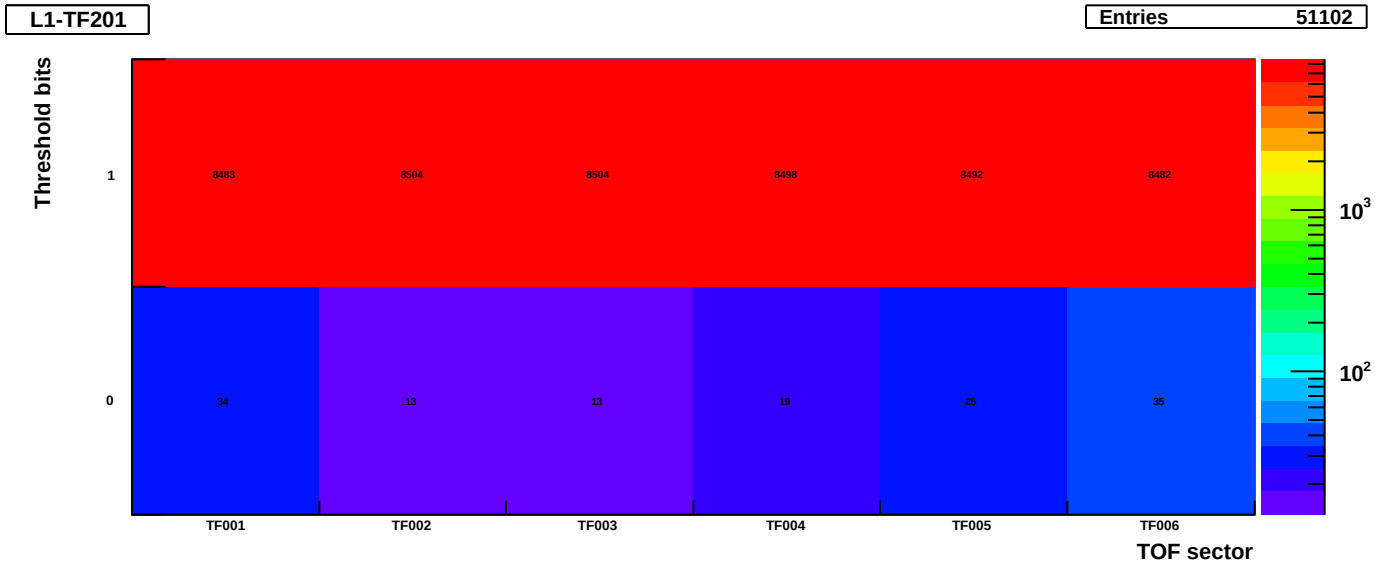

MIX-TF004
Entries 357714
TOF MULT
TOF tray

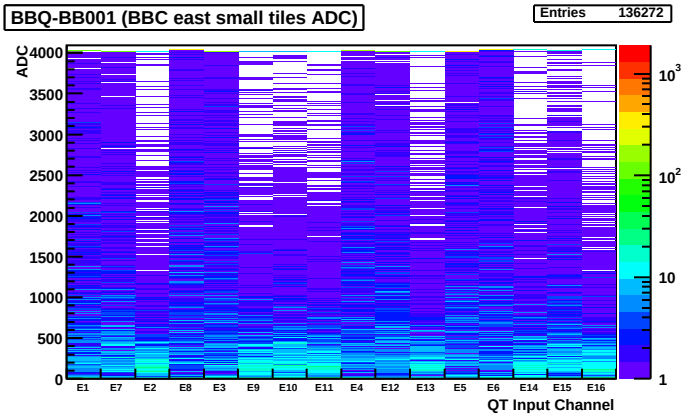

MIX-TF005
Entries 357714
TOF MULT
TOF tray

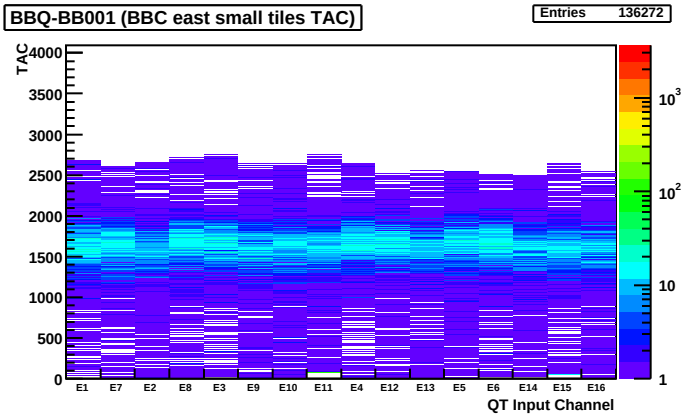

MIX-TF006
Entries 357714
TOF MULT
TOF tray

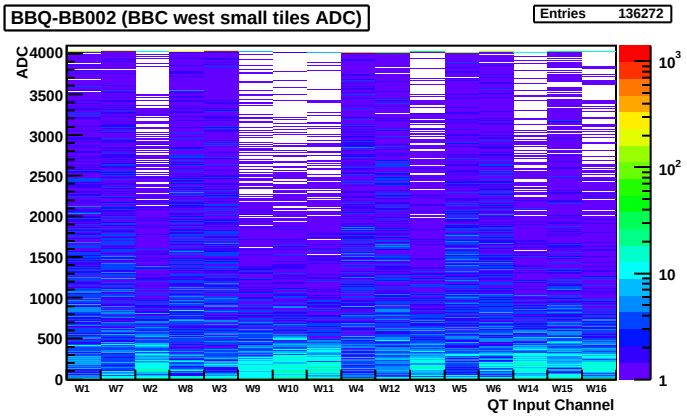

MIX-TF101
Entries 51102
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^2
10
1

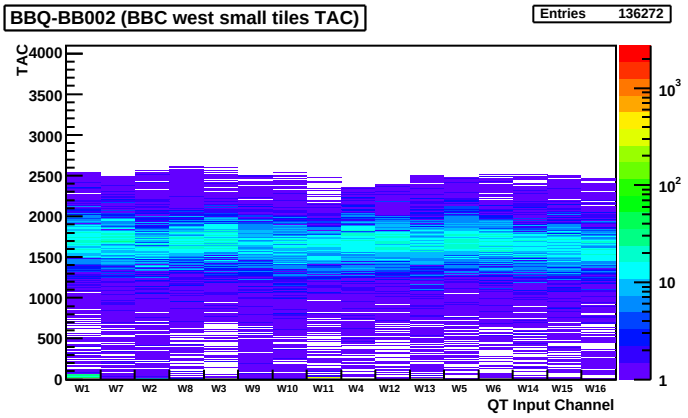

L1-TF201
Entries 8517
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

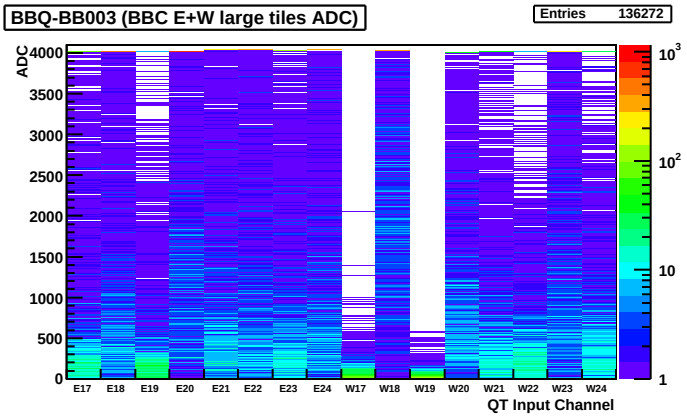

L1-TF201
Entries 51102
Threshold bits
1
0
8483
8504
8504
8498
8492
8482
34
13
13
19
25
35
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^3
10^2

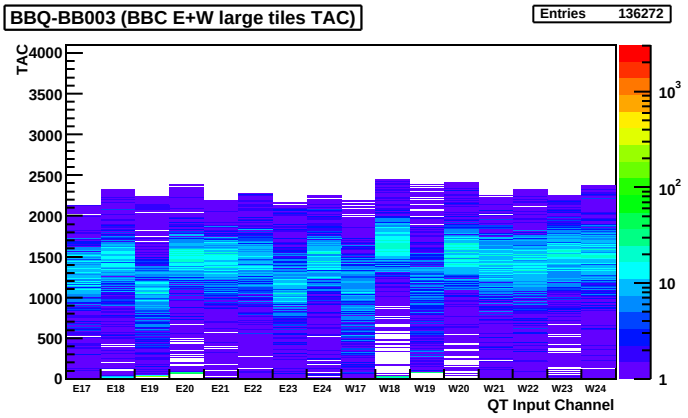

BBQ-BB001 (BBC east small tiles ADC)
Entries 136272
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

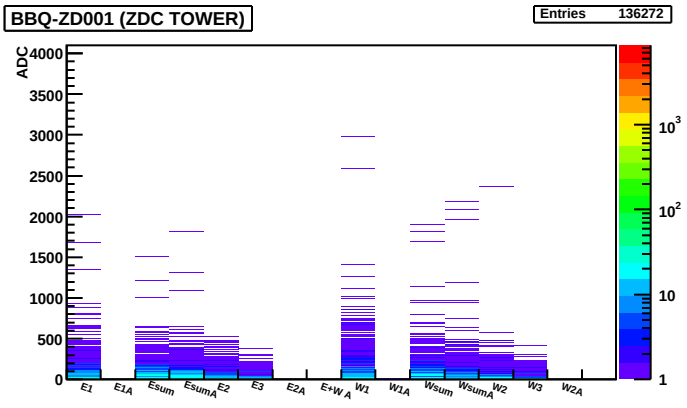

BBQ-BB001 (BBC east small tiles TAC)
Entries 136272
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

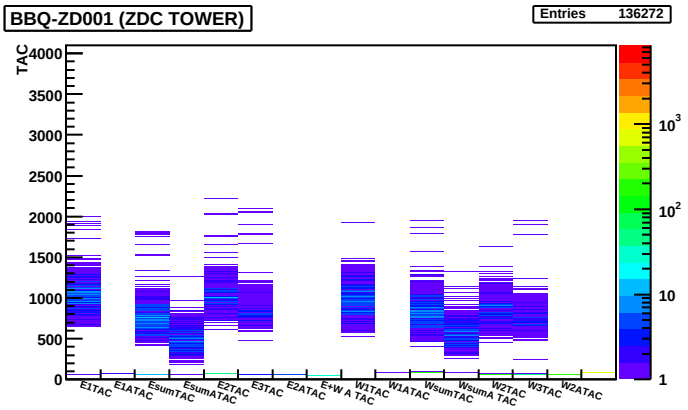

BBQ-BB002 (BBC west small tiles ADC)
Entries 136272
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

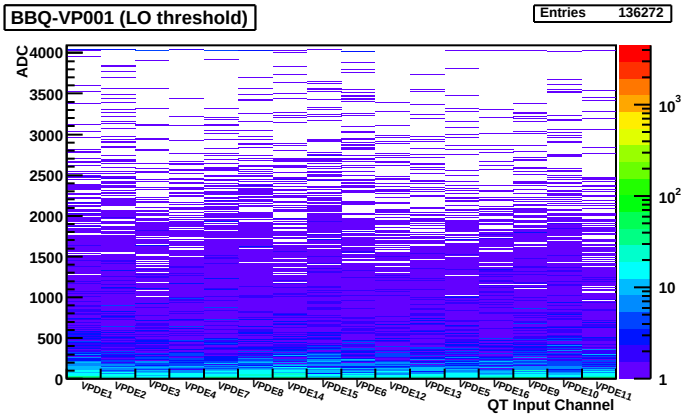

BBQ-BB002 (BBC west small tiles TAC)
Entries 136272
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

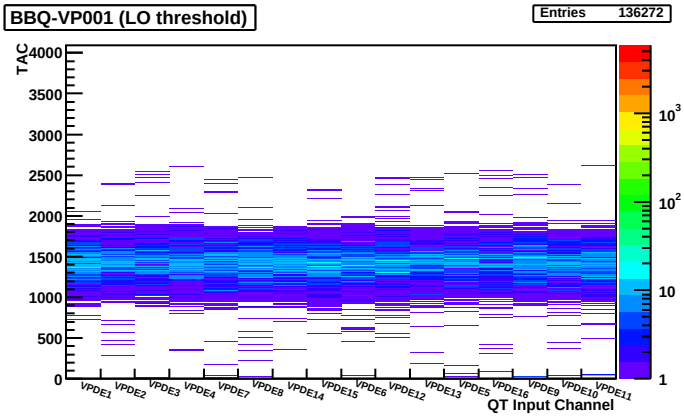

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 136272
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

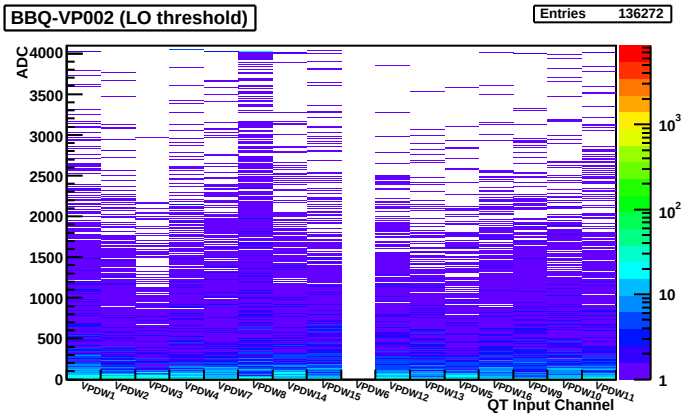

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 136272
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

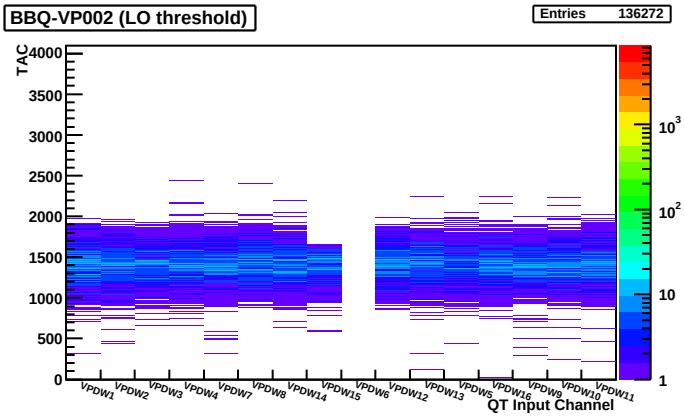

BBQ-ZD001 (ZDC TOWER)
Entries 136272
ADC
E1 E1A Esum EsumA E2 E3 E2A E+W A W1 W1A Wsum WsumA W2 W3 W2A

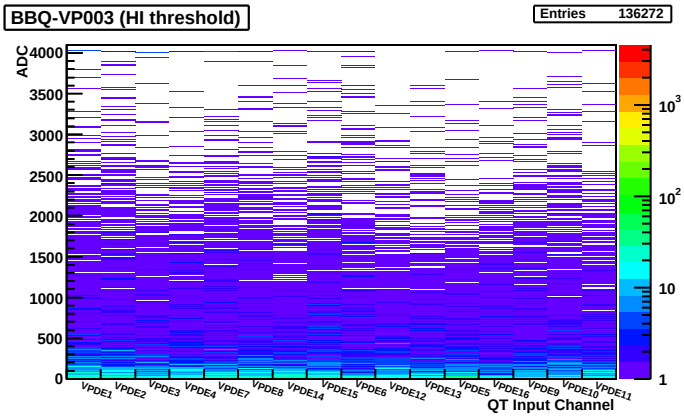

BBQ-ZD001 (ZDC TOWER)
Entries 136272
TAC
E1TAC E1ATAC EsumTAC EsumATAC E2TAC E3TAC E2ATAC E+W A TAC W1TAC W1ATAC WsumTAC WsumA TAC W2TAC W3TAC W2ATAC

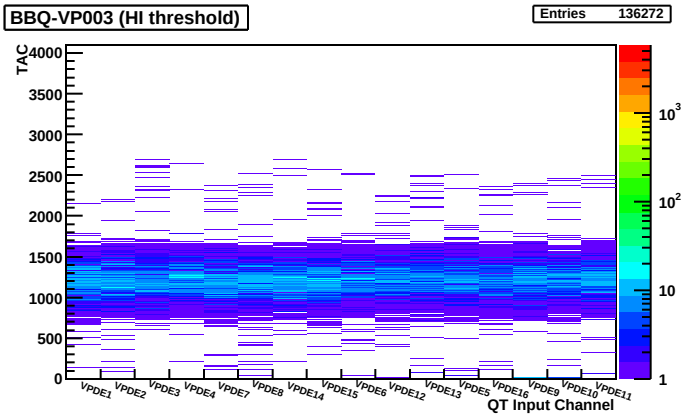

BBQ-VP001 (LO threshold)
Entries 136272
ADC
QT Input Channel

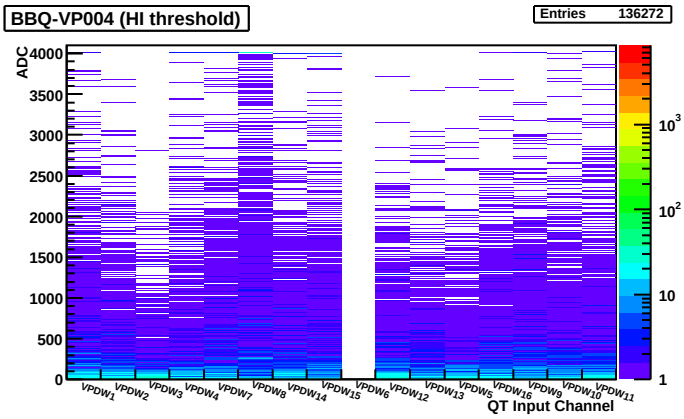

BBQ-VP001 (LO threshold)
Entries 136272
TAC
QT Input Channel

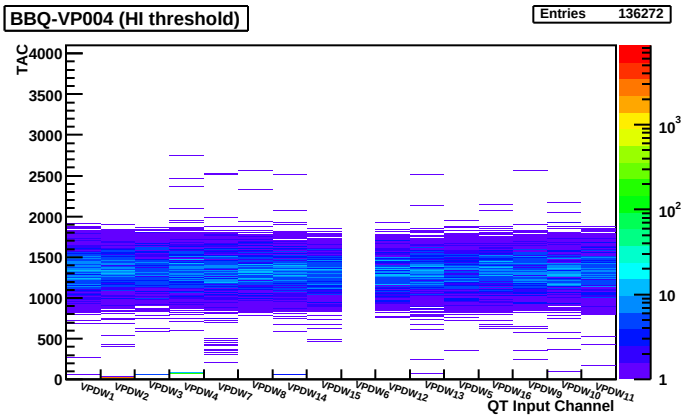

BBQ-VP002 (LO threshold)
Entries 136272
ADC
QT Input Channel

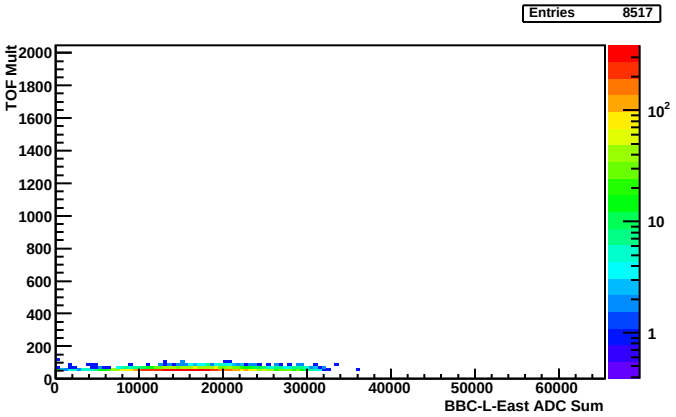

BBQ-VP002 (LO threshold)
Entries 136272
TAC
QT Input Channel

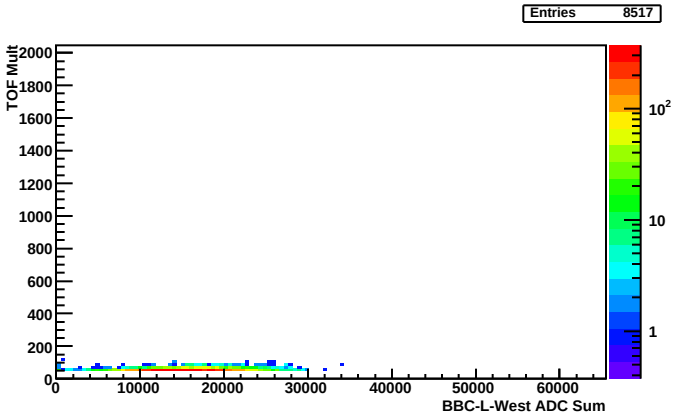

BBQ-VP003 (HI threshold)
Entries 136272
ADC
QT Input Channel

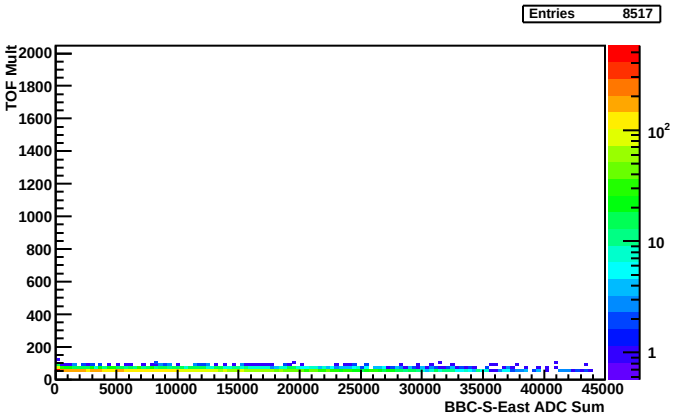

BBQ-VP003 (HI threshold)
Entries 136272
TAC
QT Input Channel

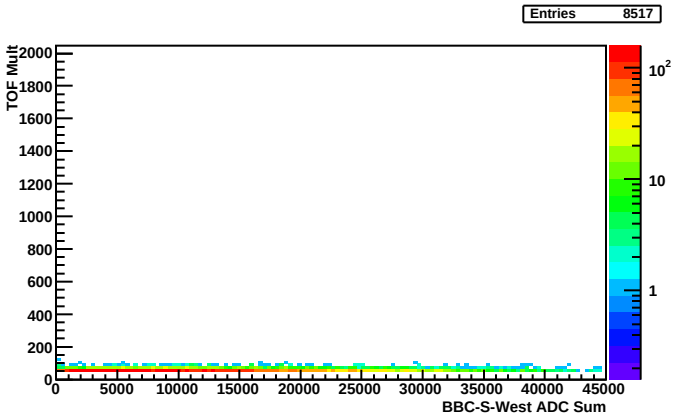

BBQ-VP004 (HI threshold)
Entries 136272
ADC
QT Input Channel

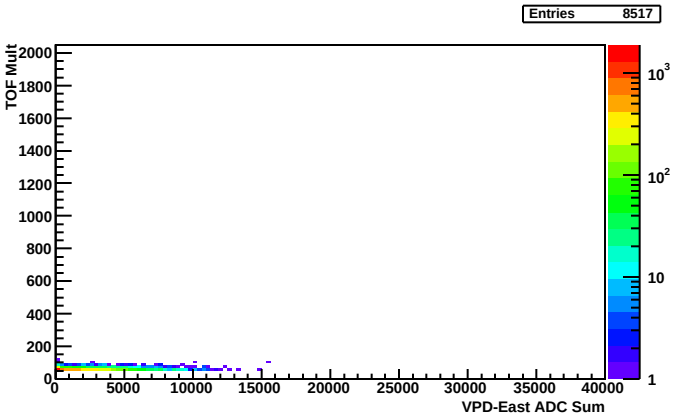

BBQ-VP004 (HI threshold)
Entries 136272
TAC
QT Input Channel

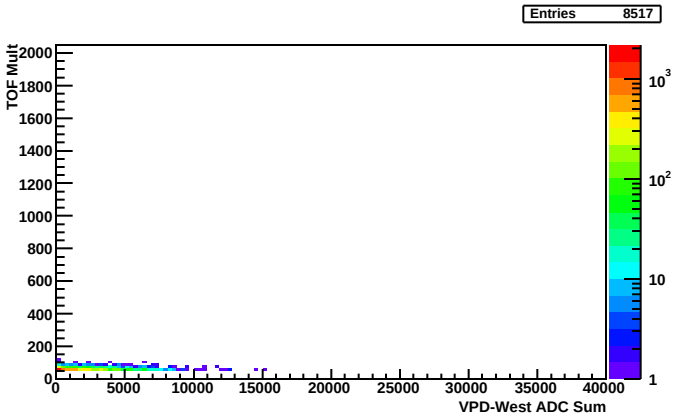

Entries 8517
TOF Mult
BBC-L-East ADC Sum

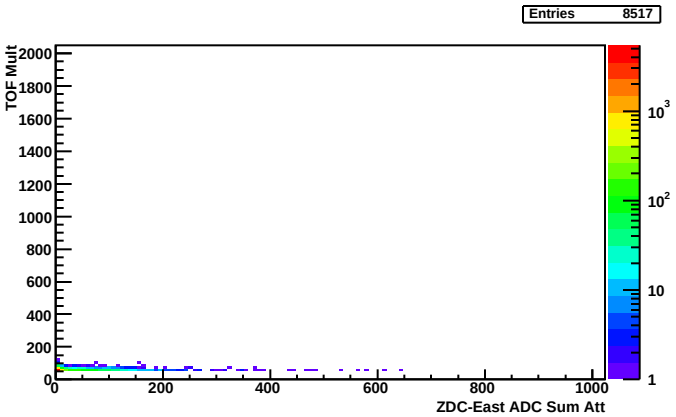

Entries 8517
TOF Mult
BBC-L-West ADC Sum

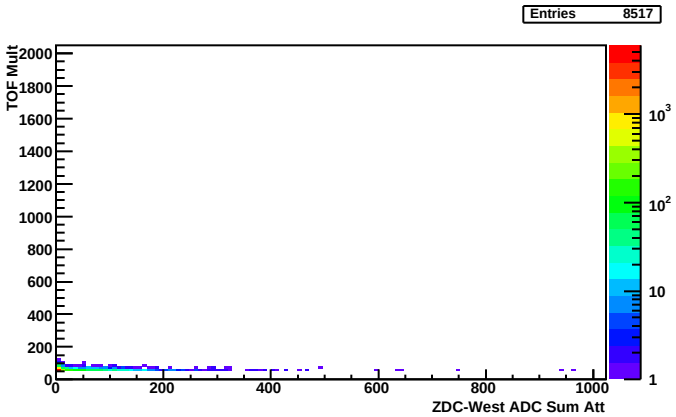

Entries 8517
TOF Mult
BBC-S-East ADC Sum

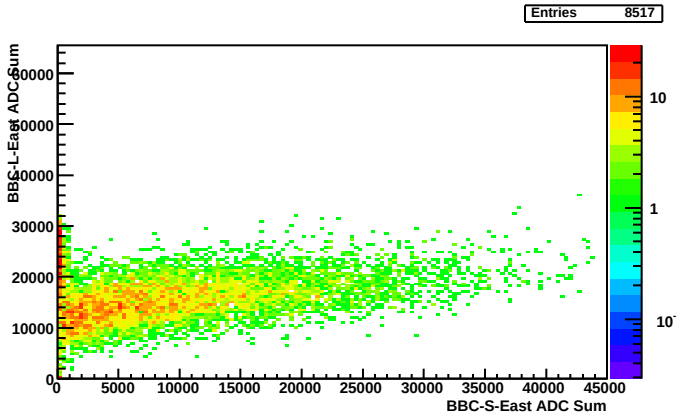

Entries 8517
TOF Mult
BBC-S-West ADC Sum

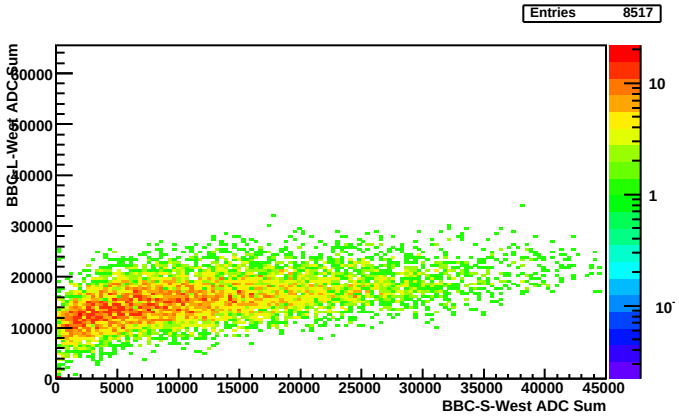

Entries 8517
TOF Mult
VPD-East ADC Sum

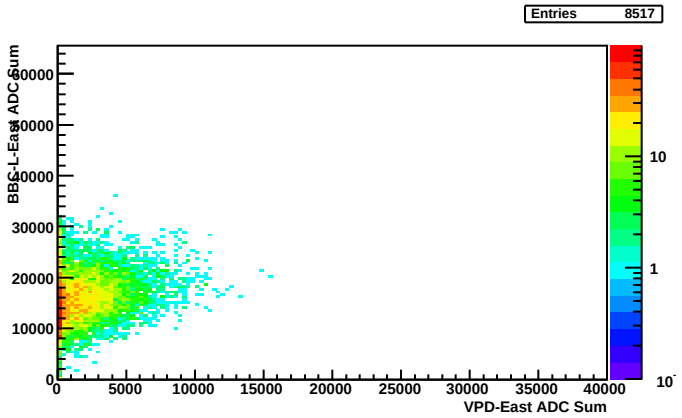

Entries 8517
TOF Mult
VPD-West ADC Sum

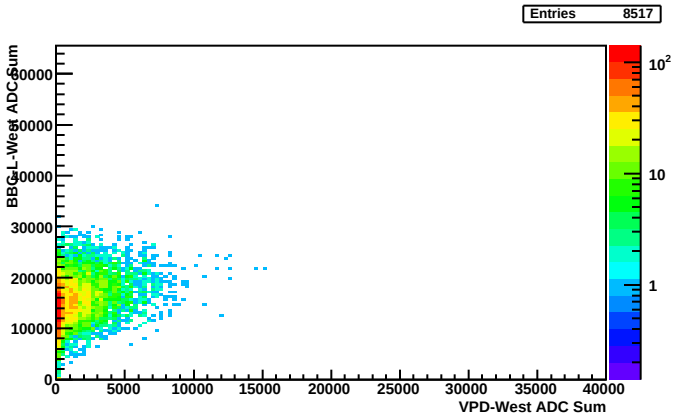

Entries 8517
TOF Mult
ZDC-East ADC Sum Att

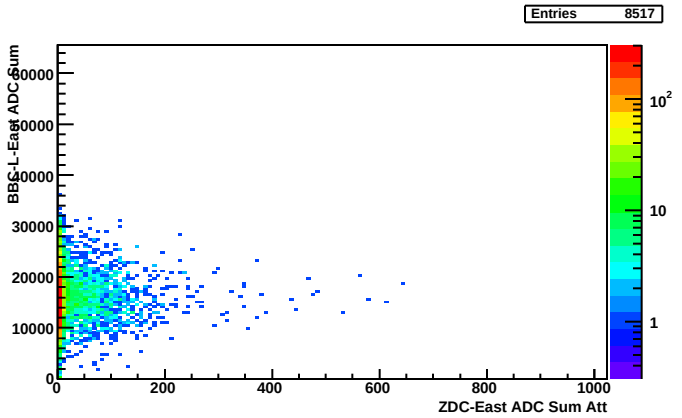

Entries 8517
TOF Mult
ZDC-West ADC Sum Att

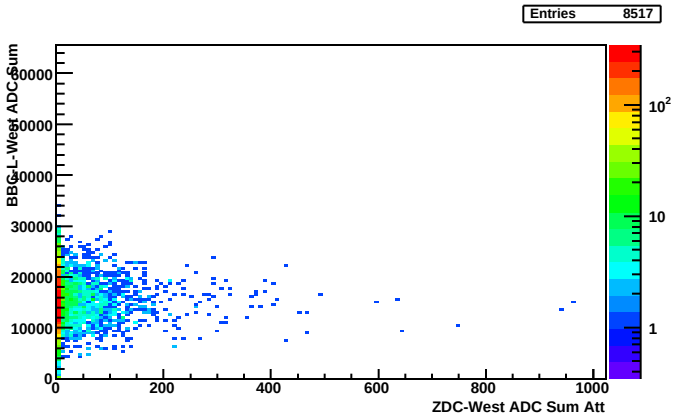

Entries 8517
BBC-L-East ADC Sum
BBC-S-East ADC Sum

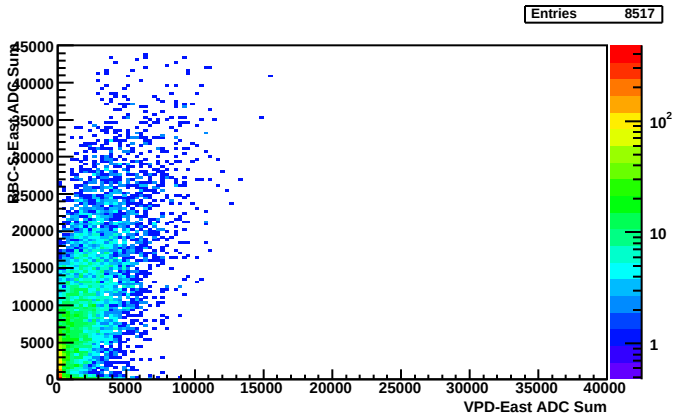

Entries 8517
BBC-L-West ADC Sum
BBC-S-West ADC Sum

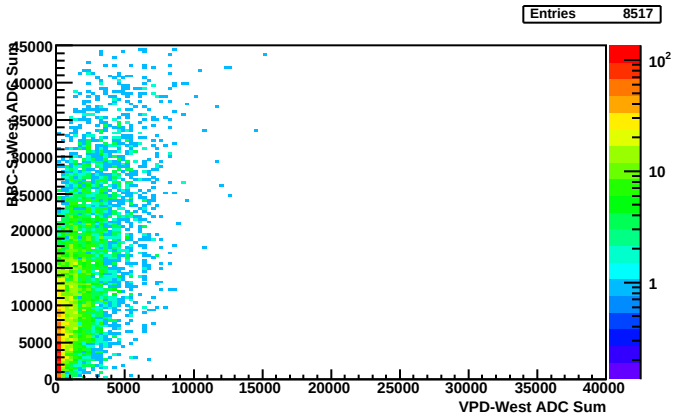

Entries 8517
BBC-L-East ADC Sum
VPD-East ADC Sum

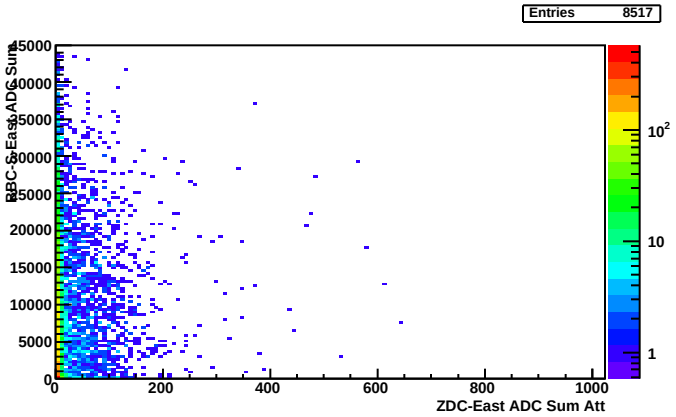

Entries 8517
BBC-L-West ADC Sum
VPD-West ADC Sum

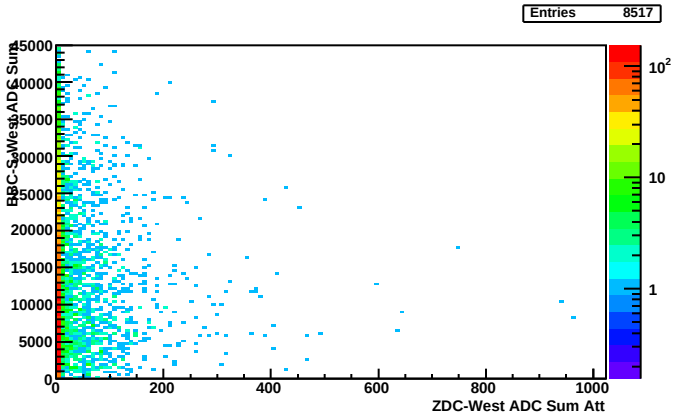

Entries 8517
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

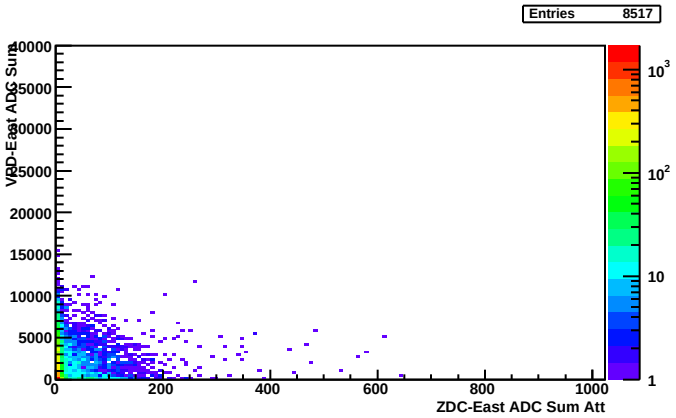

Entries 8517
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

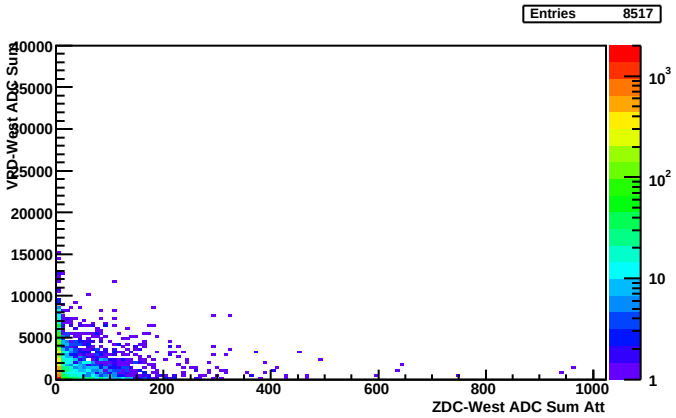

Entries 8517
BBC-S-East ADC Sum
VPD-East ADC Sum

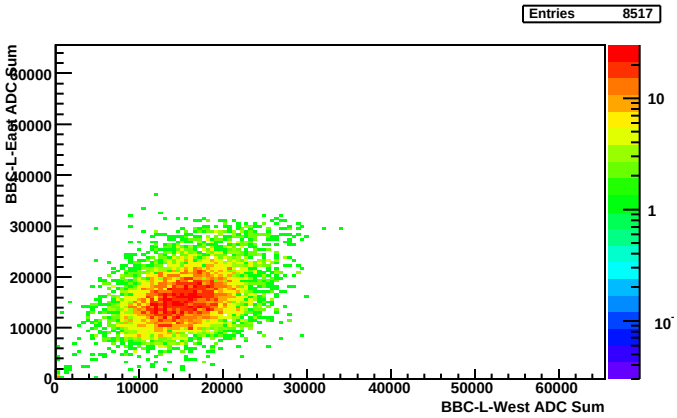

Entries 8517
BBC-S-West ADC Sum
VPD-West ADC Sum

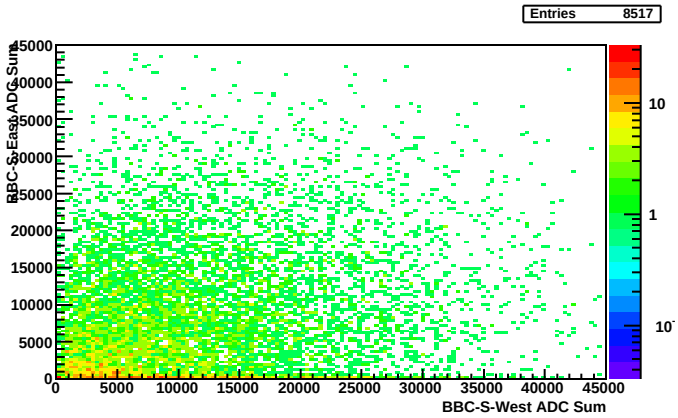

Entries 8517
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

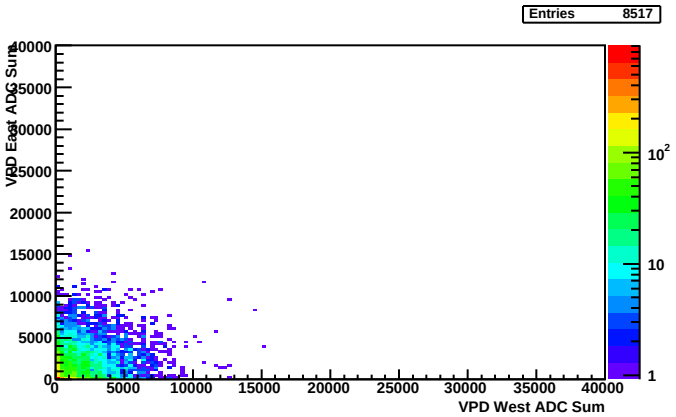

Entries 8517
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

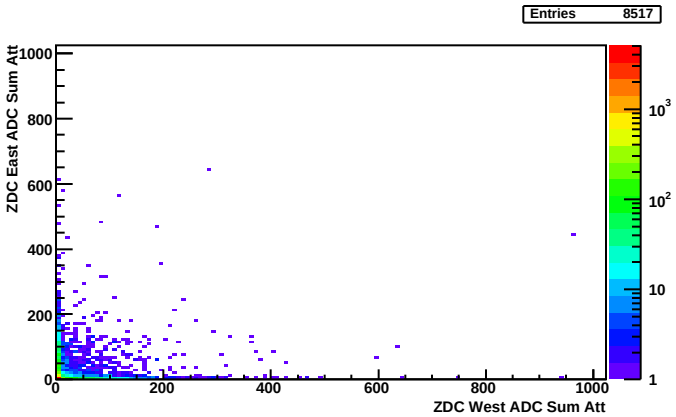

Entries 8517
VPD-East ADC Sum
ZDC-East ADC Sum Att

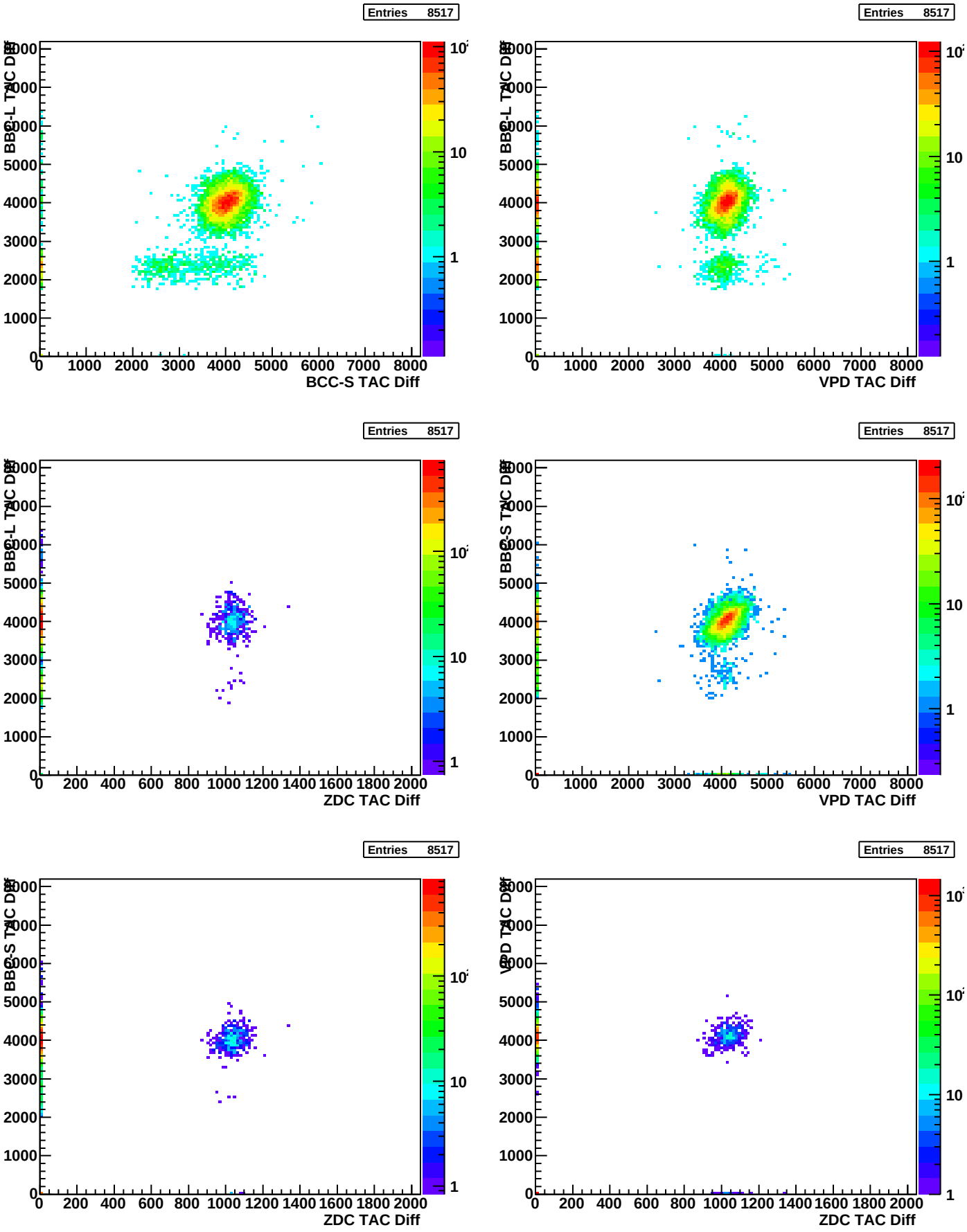

Entries 8517
VPD-West ADC Sum
ZDC-West ADC Sum Att

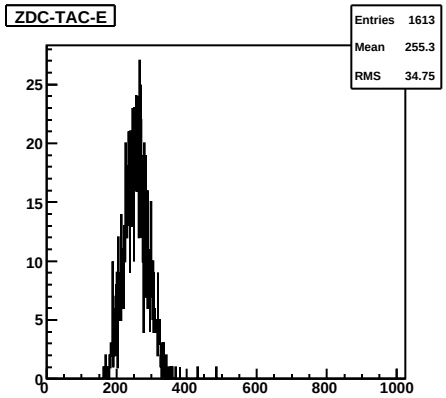

Entries 8517
BBC-L-East ADC Sum
BBC-L-West ADC Sum

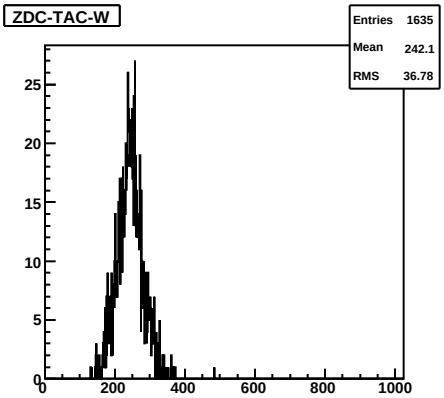

Entries 8517
BBC-S-East ADC Sum
BBC-S-West ADC Sum

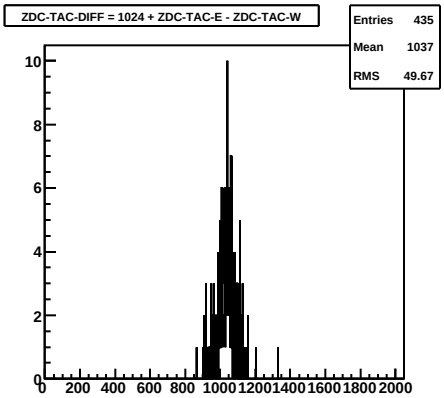

Entries 8517
VPD East ADC Sum
VPD West ADC Sum

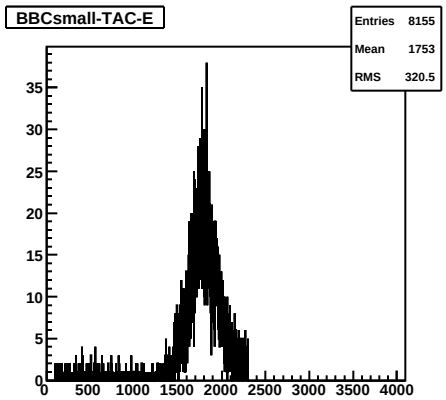

Entries 8517
ZDC East ADC Sum Att
ZDC West ADC Sum Att

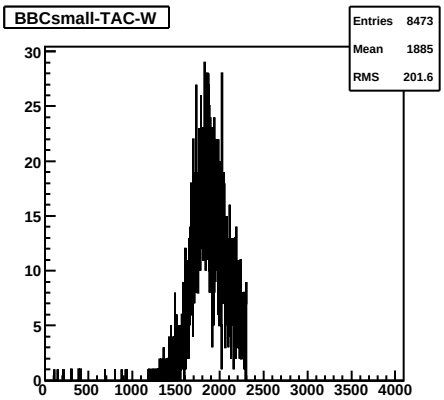

Entries 8517
BBC-L TAC Diff
BCC-S TAC Diff
Entries 8517
BBC-L TAC Diff
VPD TAC Diff
Entries 8517
BBC-L TAC Diff
ZDC TAC Diff
Entries 8517
BBC-S TAC Diff
VPD TAC Diff
Entries 8517
BBC-S TAC Diff
ZDC TAC Diff
Entries 8517
VPD TAC Diff
ZDC TAC Diff

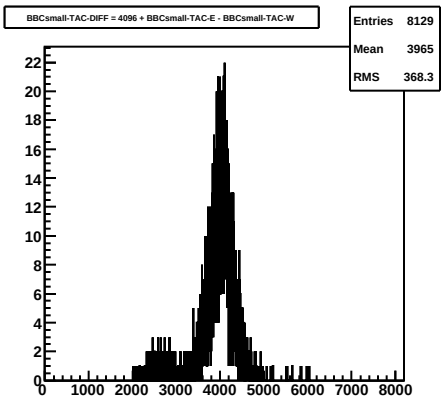

ZDC-TAC-E
Entries 1613
Mean 255.3
RMS 34.75

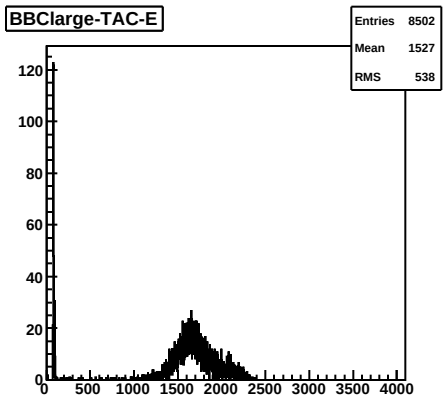

ZDC-TAC-W
Entries 1635
Mean 242.1
RMS 36.78

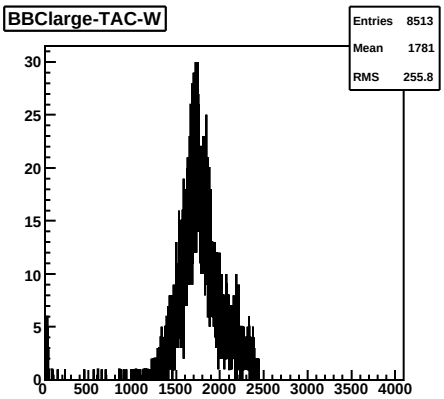

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 435
Mean 1037
RMS 49.67

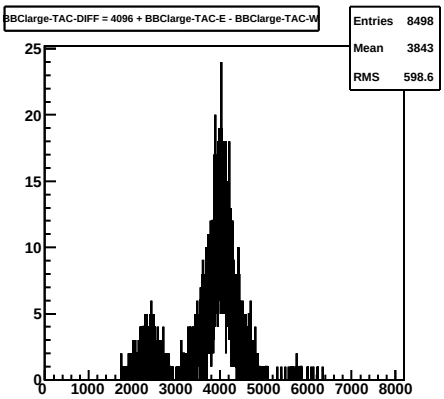

BBCsmall-TAC-E
Entries 8155
Mean 1753
RMS 320.5

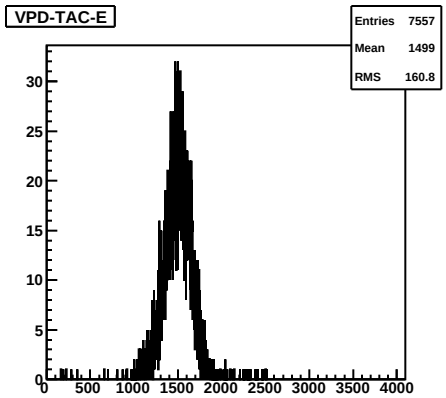

BBCsmall-TAC-W
Entries 8473
Mean 1885
RMS 201.6

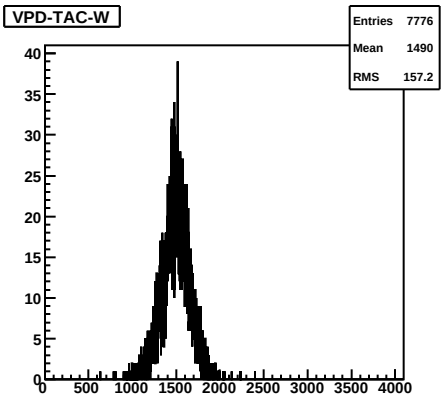

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 8129
Mean 3965
RMS 368.3

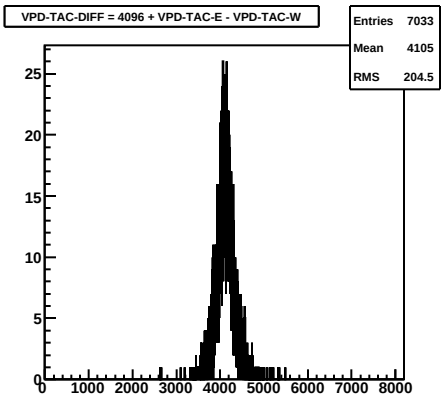

BBClarge-TAC-E
Entries 8502
Mean 1527
RMS 538

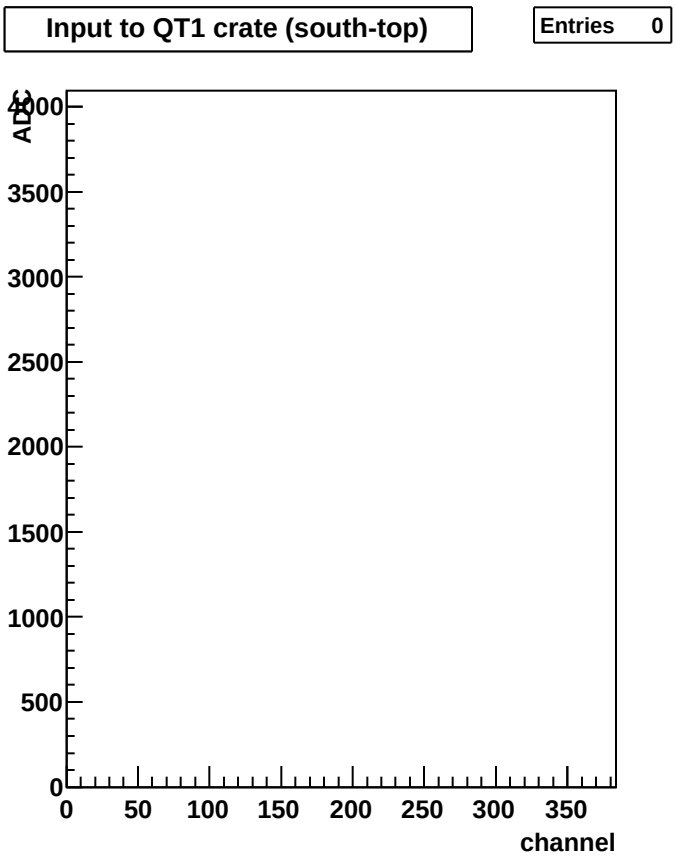

BBClarge-TAC-W
Entries 8513
Mean 1781
RMS 255.8

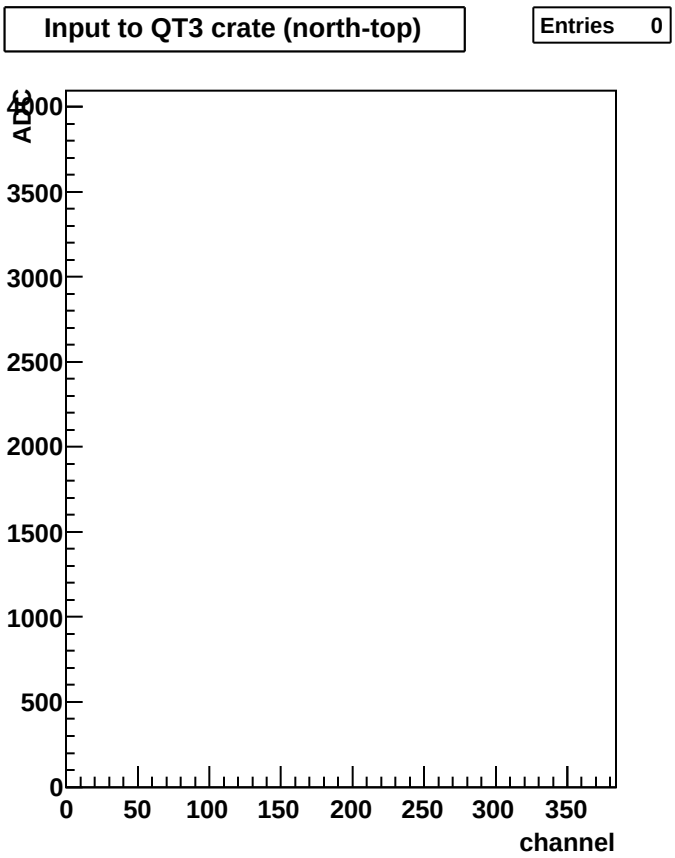

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 8498
Mean 3843
RMS 598.6

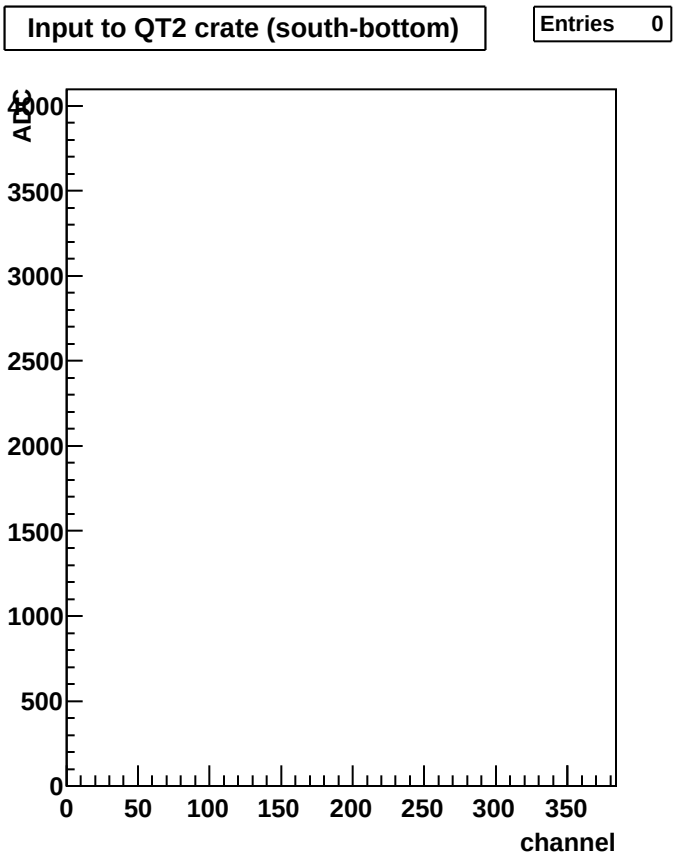

VPD-TAC-E
Entries 7557
Mean 1499
RMS 160.8

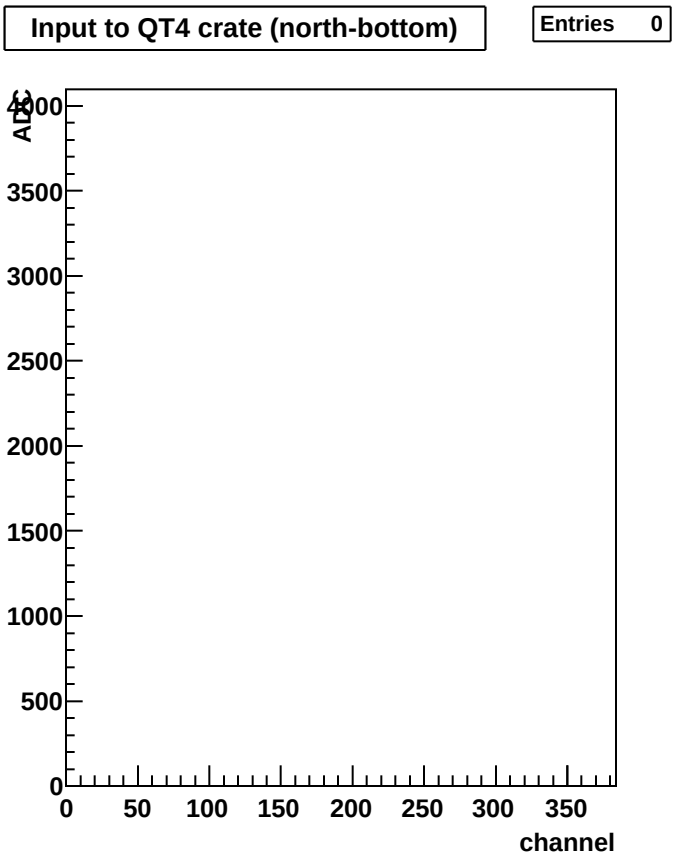

VPD-TAC-W
Entries 7776
Mean 1490
RMS 157.2

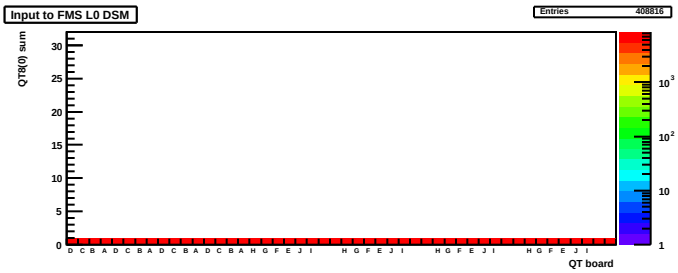

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 7033
Mean 4105
RMS 204.5

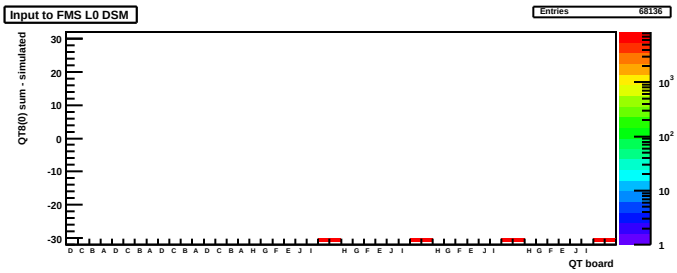

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

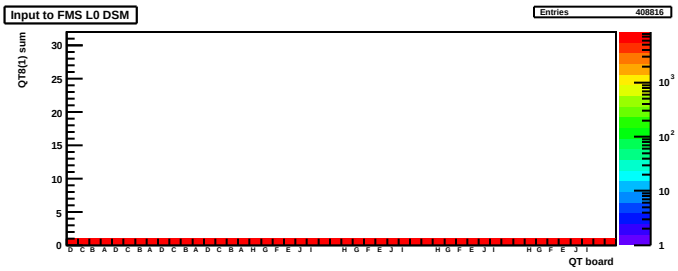

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

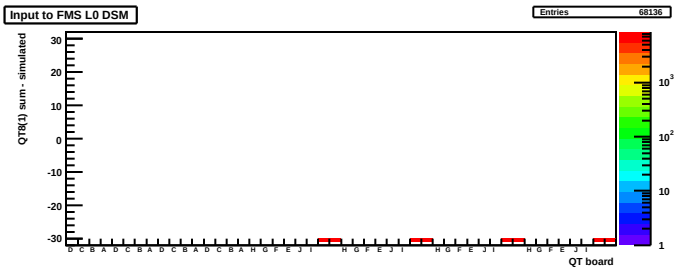

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

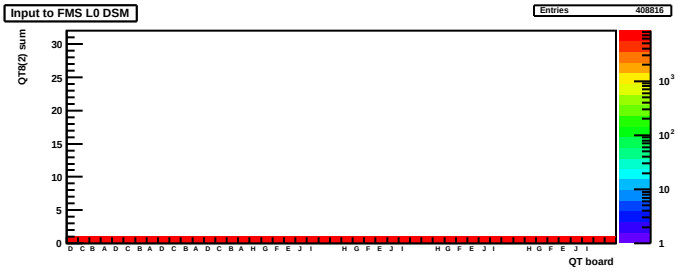

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

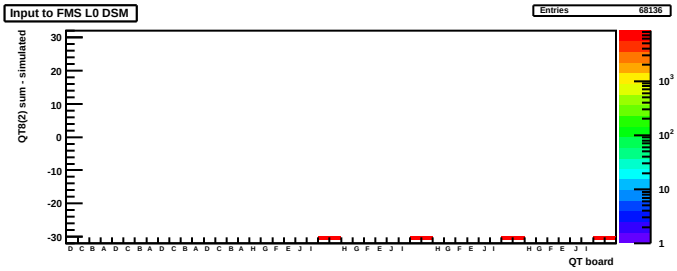

Input to FMS L0 DSM
Entries 408816
QT8(0) sum
QT board

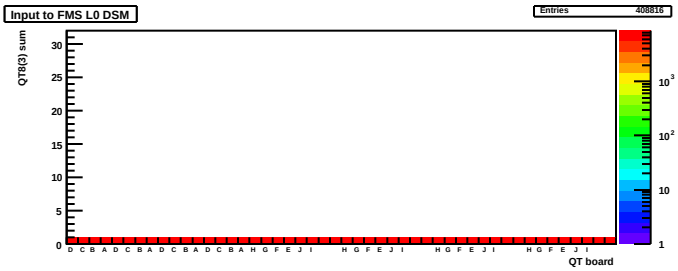

Input to FMS L0 DSM
Entries 68136
QT8(0) sum - simulated
QT board

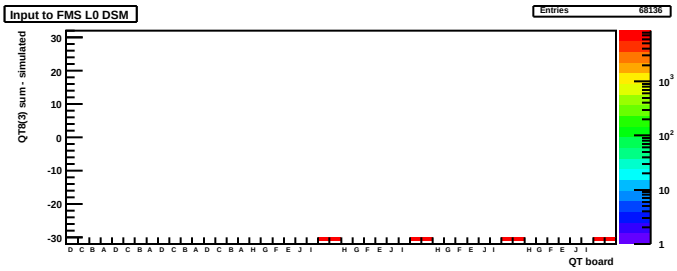

Input to FMS L0 DSM
Entries 408816
QT8(1) sum
QT board

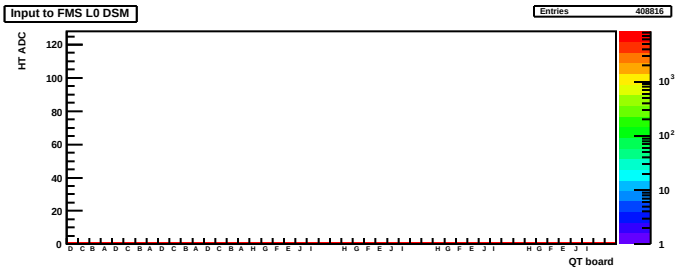

Input to FMS L0 DSM
Entries 68136
QT8(1) sum - simulated
QT board

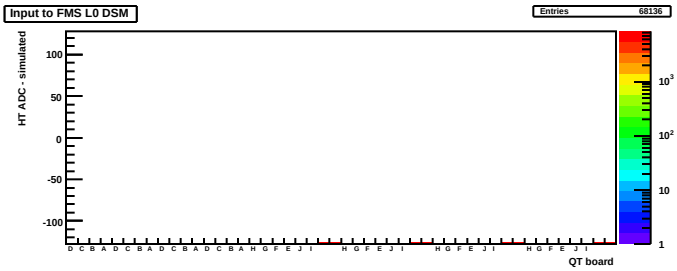

Input to FMS L0 DSM
Entries 408816
QT8(2) sum
QT board

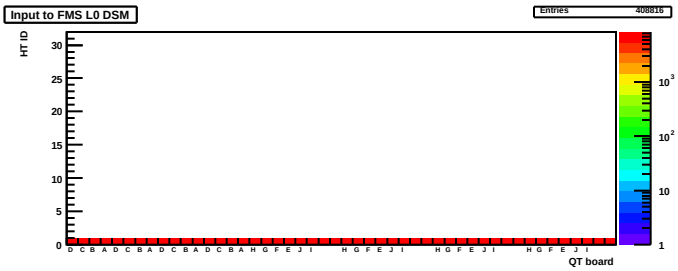

Input to FMS L0 DSM
Entries 68136
QT8(2) sum - simulated
QT board

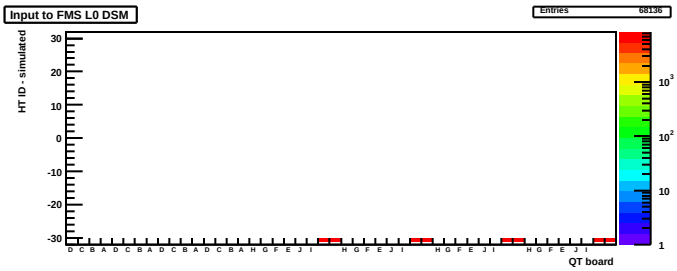

Input to FMS L0 DSM
Entries 408816
QT8(3) sum
QT board

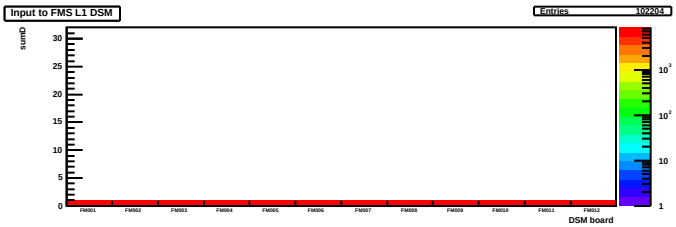

Input to FMS L0 DSM
Entries 68136
QT8(3) sum - simulated
QT board

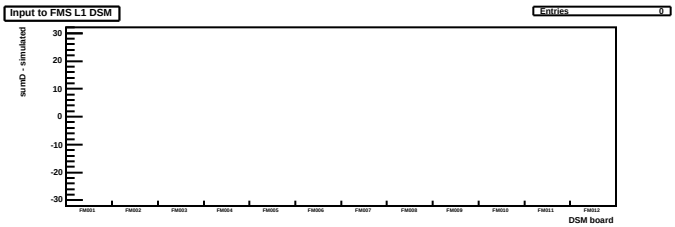

Input to FMS L0 DSM
Entries 408816
HT ADC
QT board

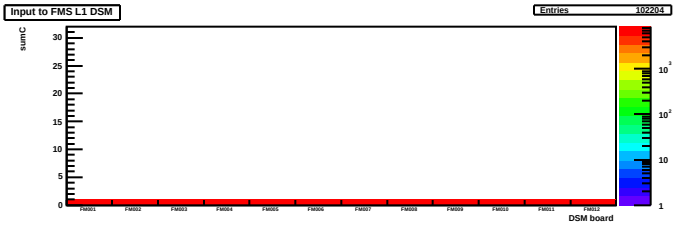

Input to FMS L0 DSM
Entries 68136
HT ADC - simulated
QT board

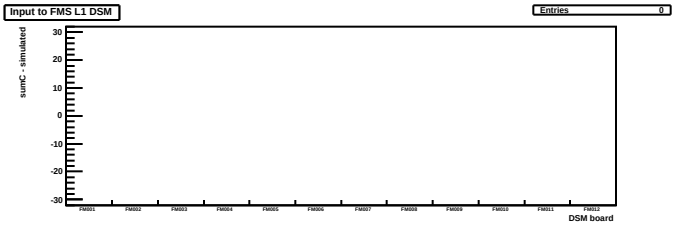

Input to FMS L0 DSM
Entries 408816
HT ID
QT board

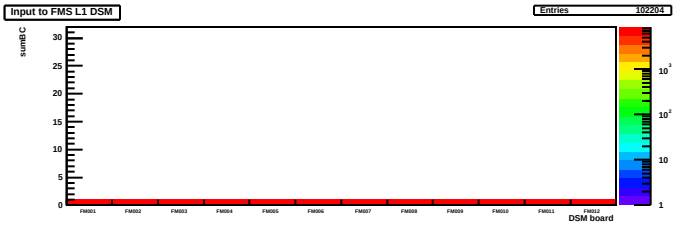

Input to FMS L0 DSM
Entries 68136
HT ID - simulated
QT board

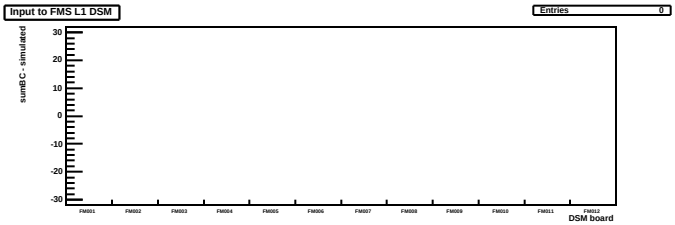

Input to FMS L1 DSM
Entries 102204
sumD
DSM board

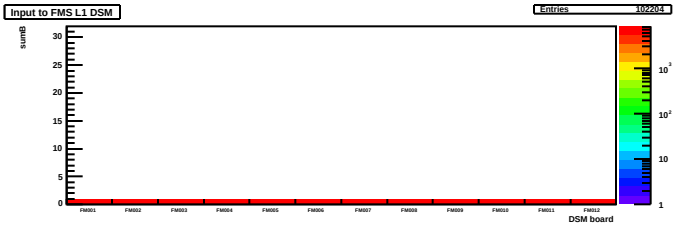

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

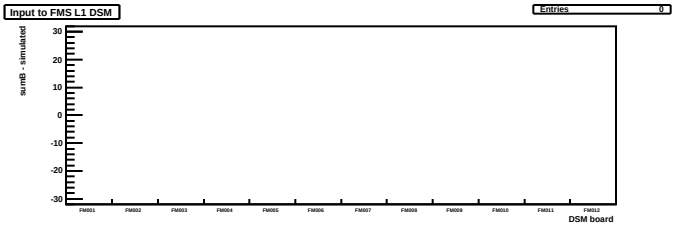

Input to FMS L1 DSM
Entries 102204
sumC
DSM board

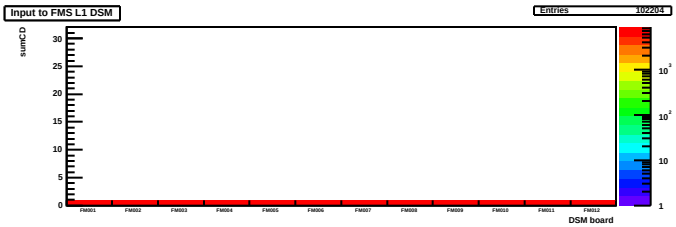

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

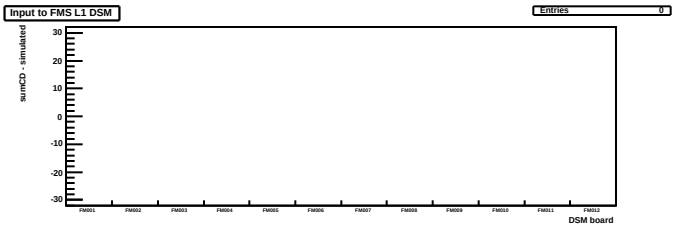

Input to FMS L1 DSM
Entries 102204
sumBC
DSM board

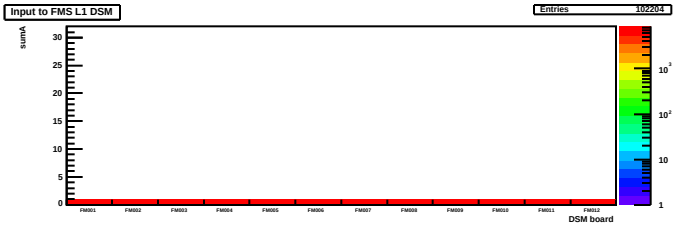

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

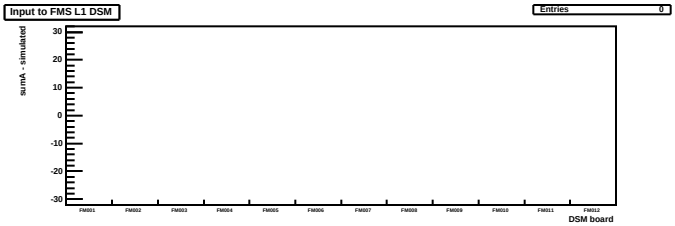

Input to FMS L1 DSM
Entries 102204
sumB
DSM board

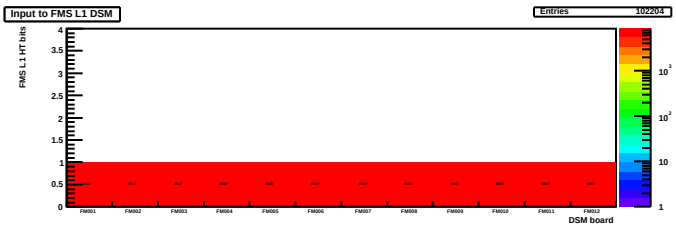

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

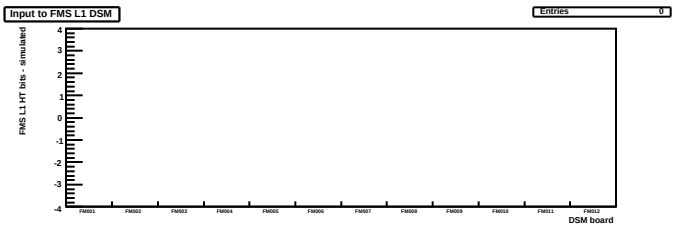

Input to FMS L1 DSM
Entries 102204
sumCD
DSM board

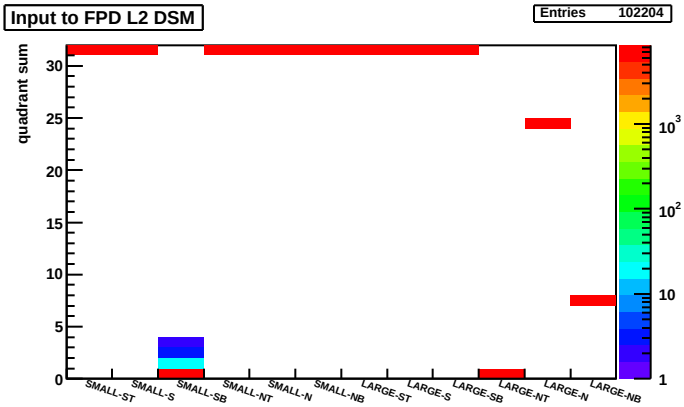

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

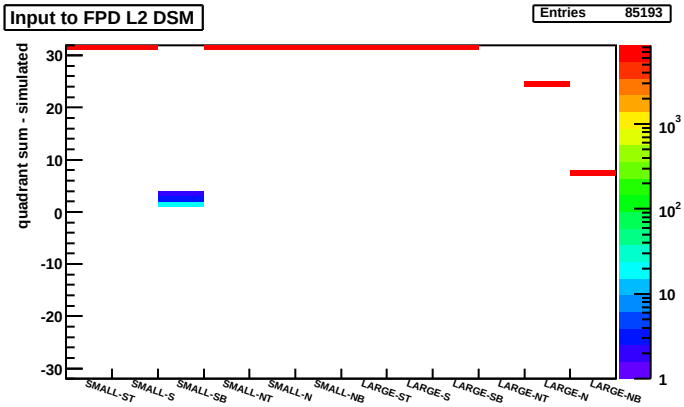

Input to FMS L1 DSM
Entries 102204
sumA
DSM board

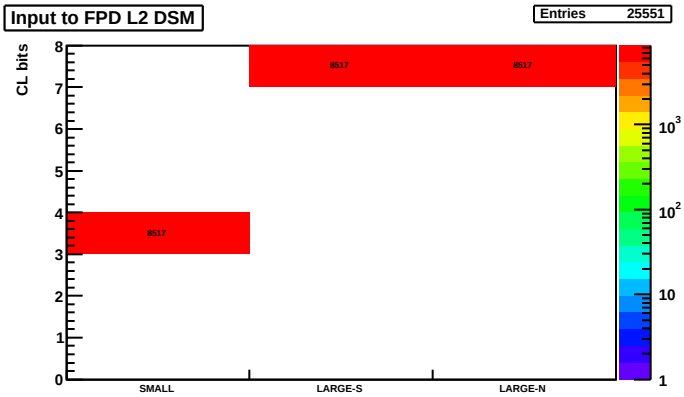

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

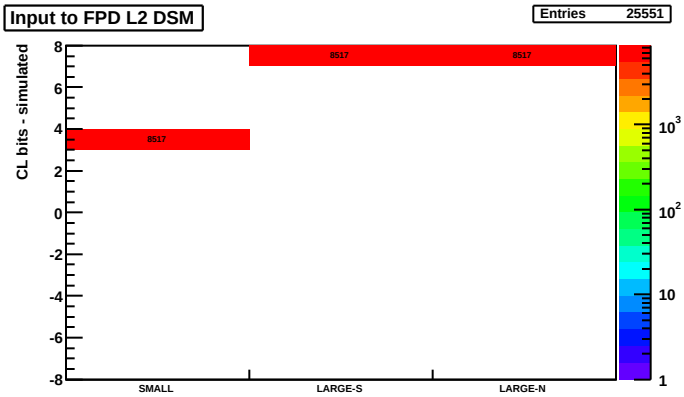

Input to FMS L1 DSM
Entries 102204
FMS L1 HT bits
DSM board

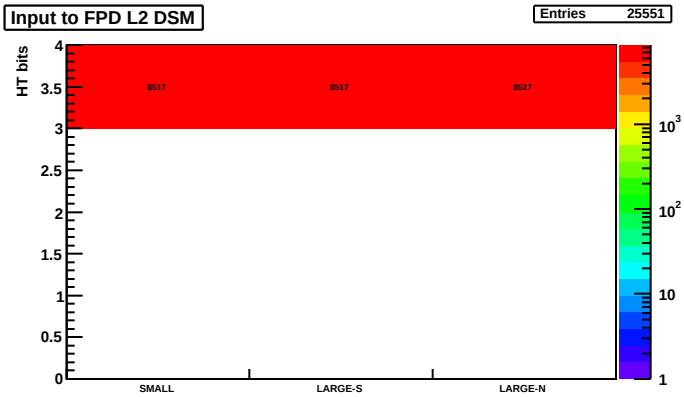

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

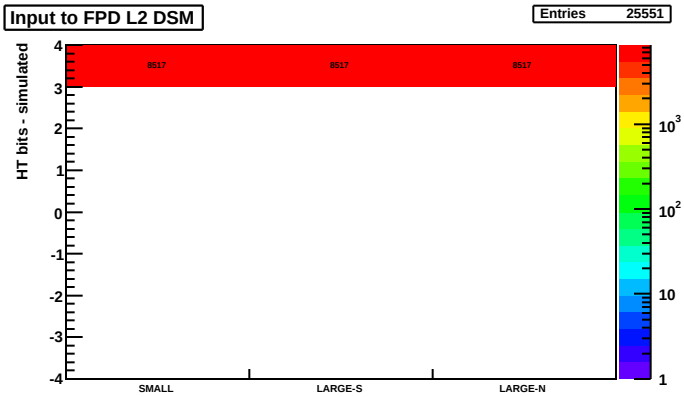

Input to FPD L2 DSM
Entries 102204
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

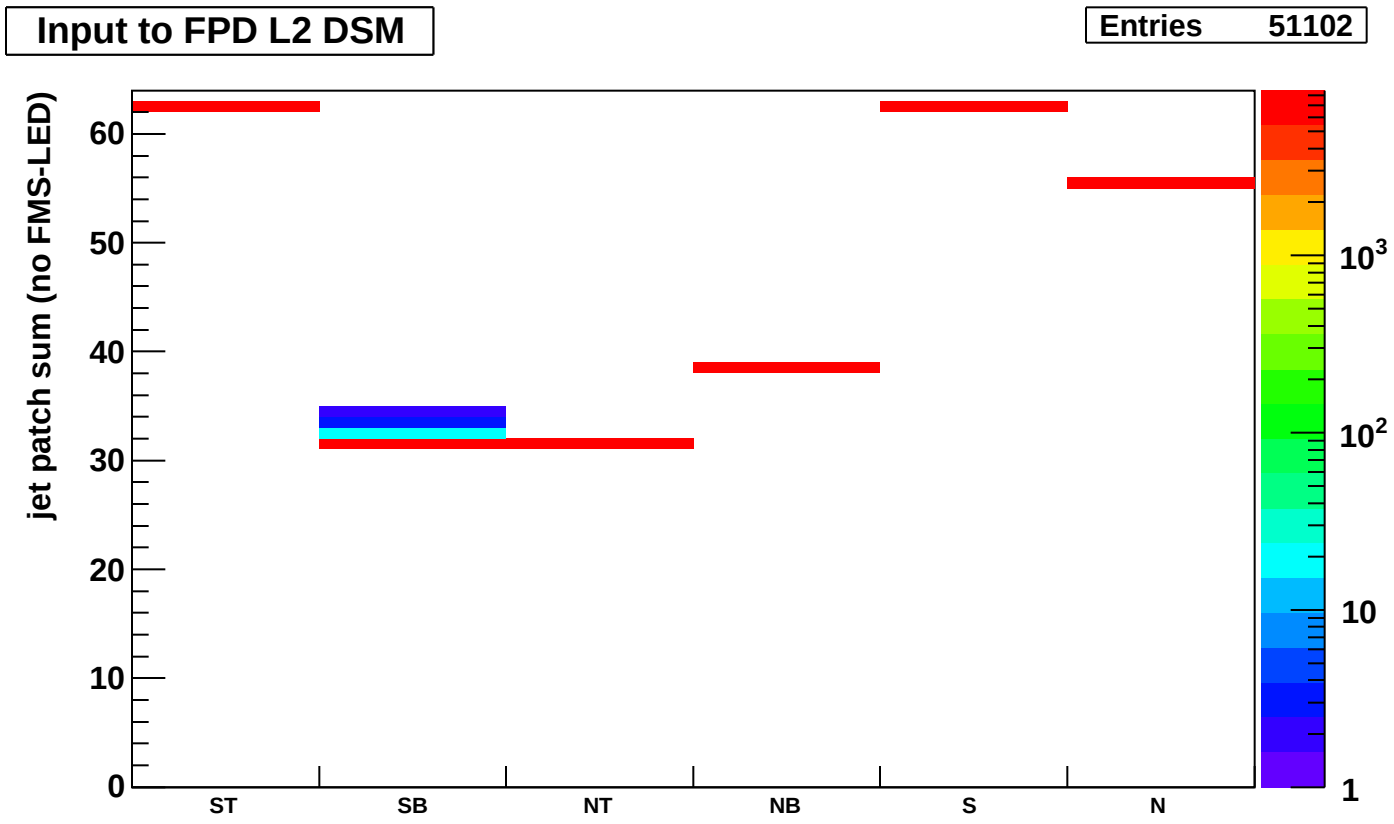

Input to FPD L2 DSM
Entries 85193
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

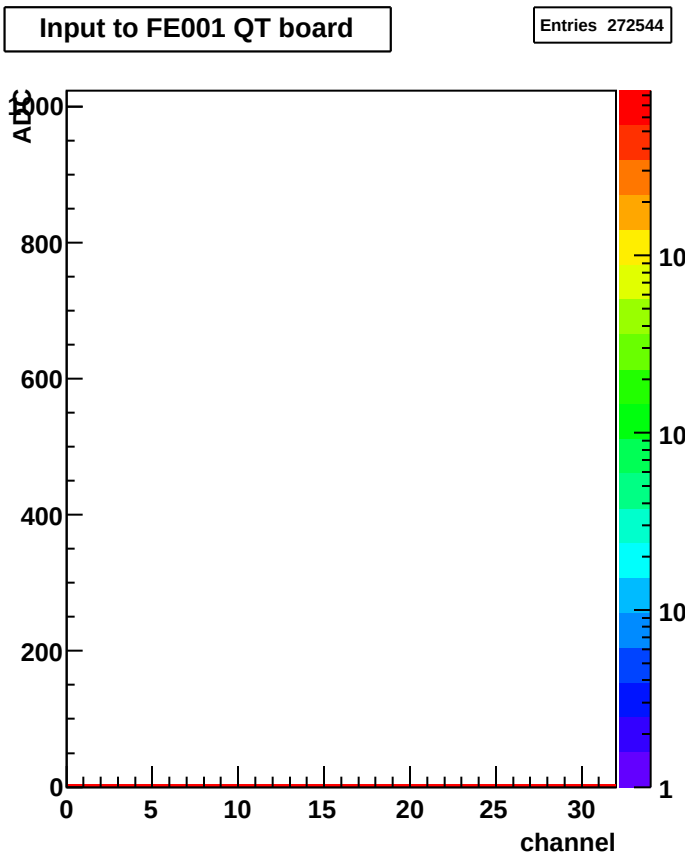

Input to FPD L2 DSM
Entries 25551
CL bits
8517
8517
8517
SMALL
LARGE-S
LARGE-N

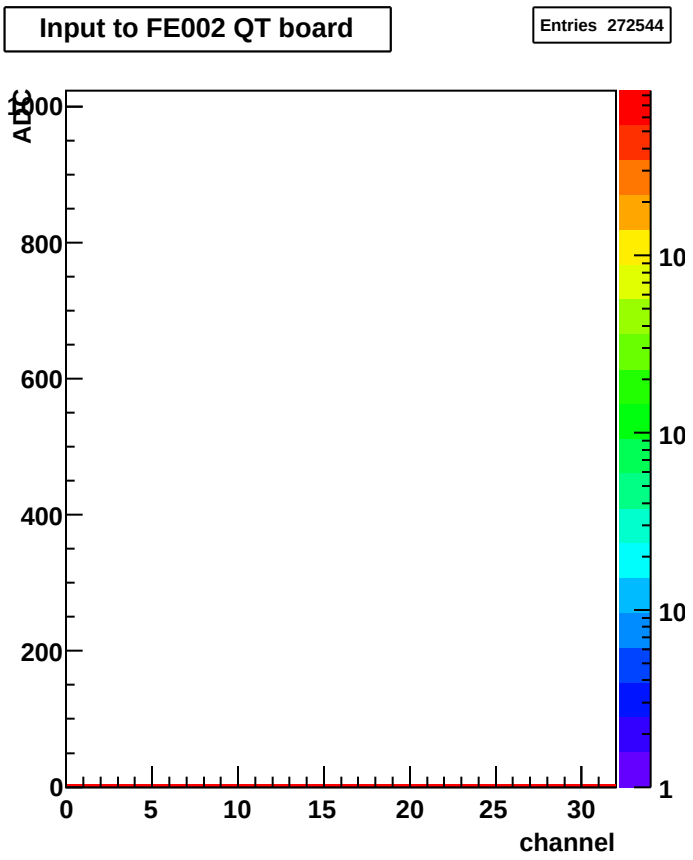

Input to FPD L2 DSM
Entries 25551
CL bits - simulated
8517
8517
8517
SMALL
LARGE-S
LARGE-N

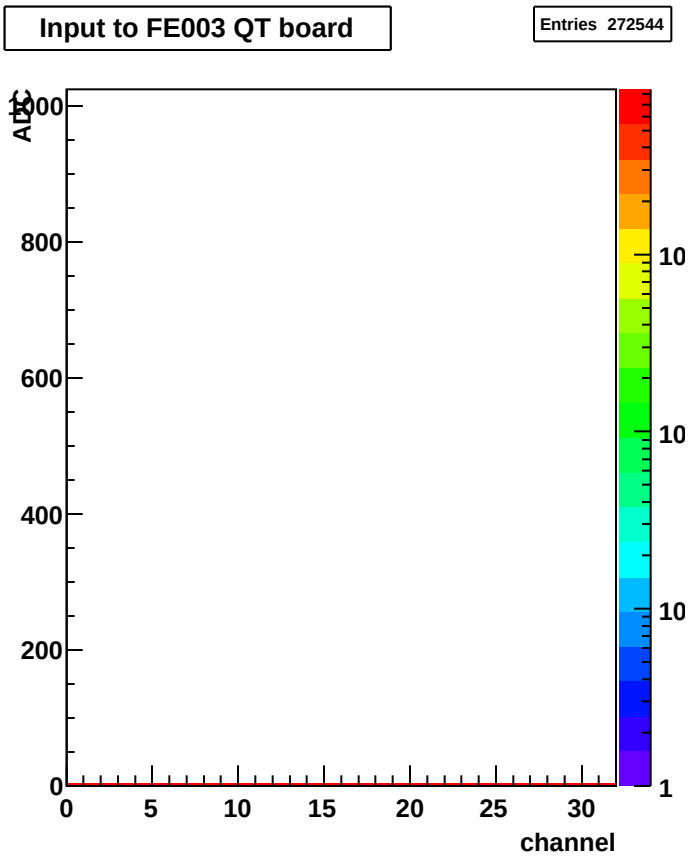

Input to FPD L2 DSM
Entries 25551
HT bits
8517
8517
8517
SMALL
LARGE-S
LARGE-N

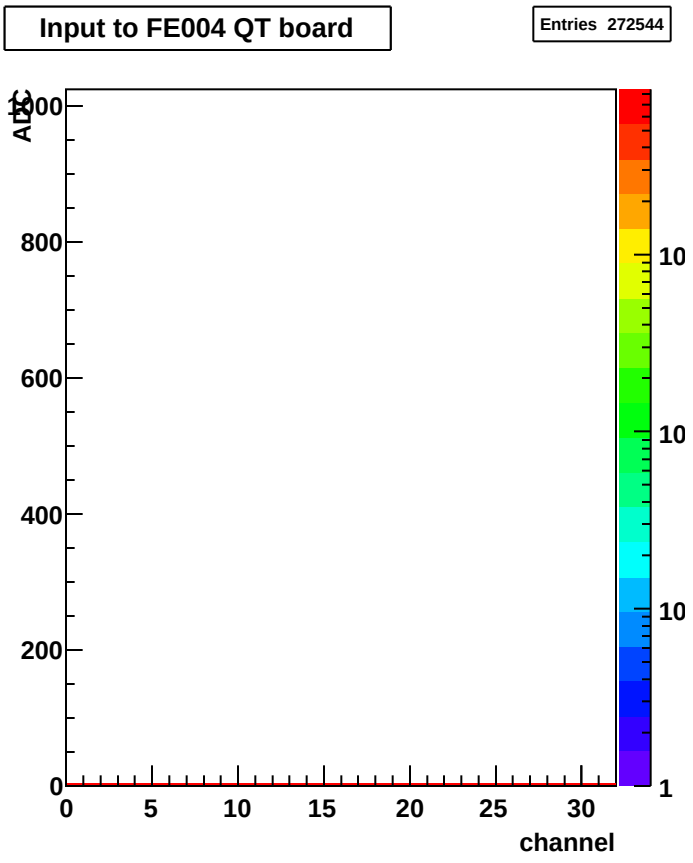

Input to FPD L2 DSM
Entries 25551
HT bits - simulated
8517
8517
8517
SMALL
LARGE-S
LARGE-N

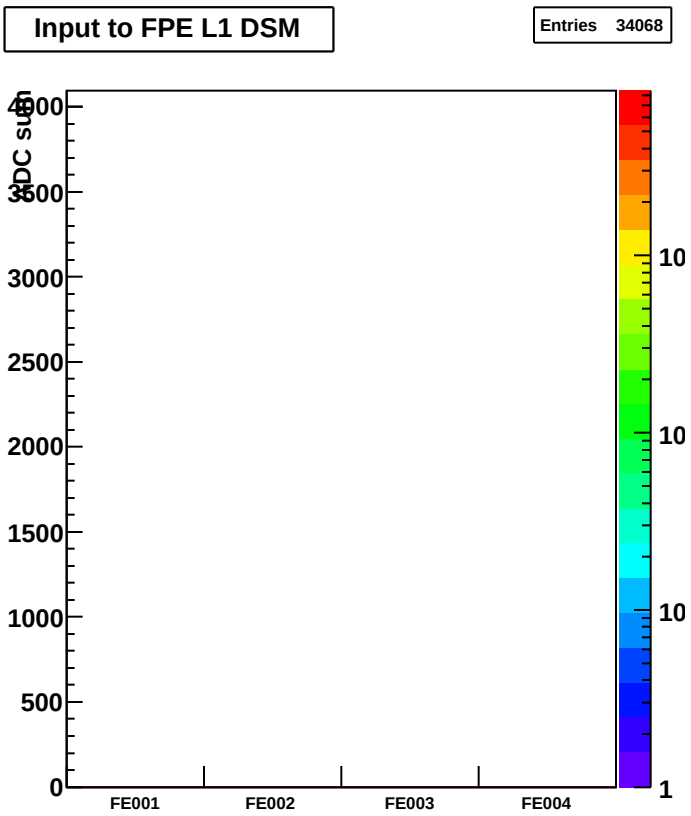

Input to FPD L2 DSM
Entries 51102
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3

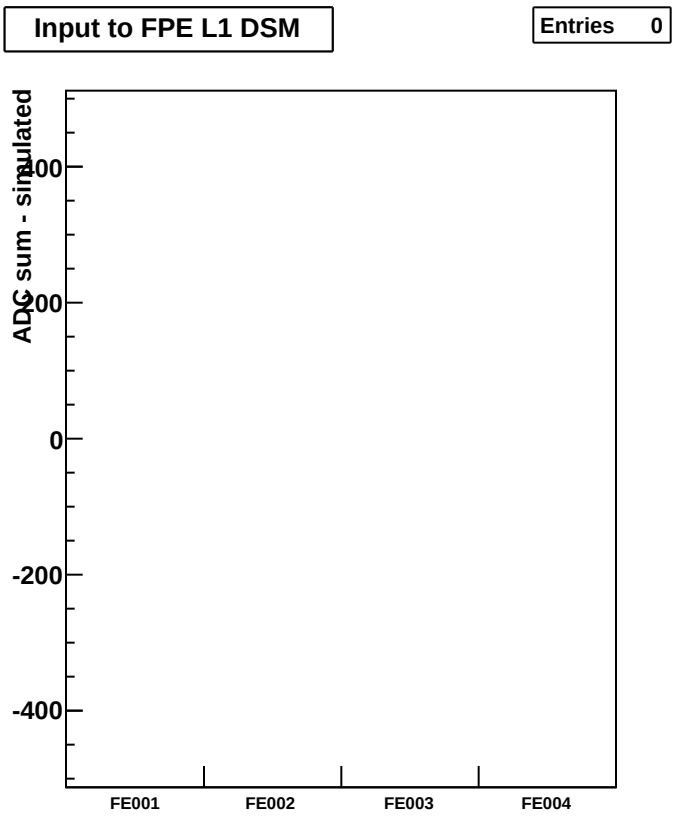

Input to FE001 QT board
Entries 272544
ADC
channel

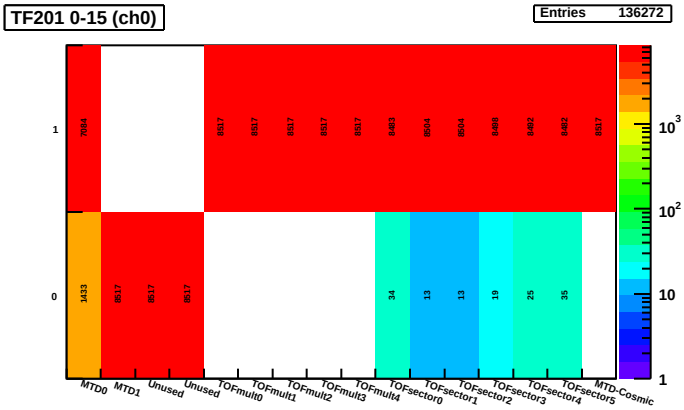

Input to FE002 QT board
Entries 272544
ADC
channel

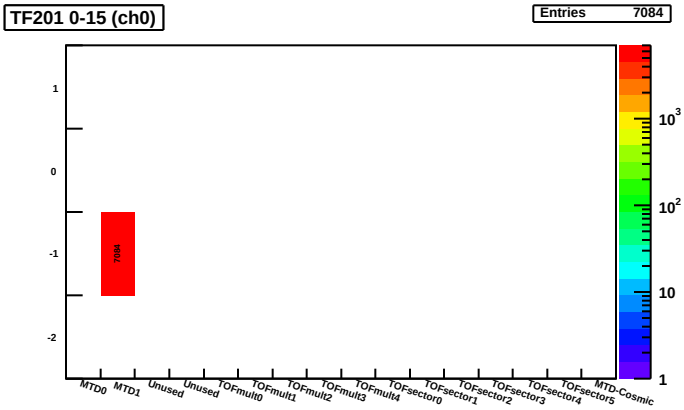

Input to FE003 QT board
Entries 272544
ADC
channel

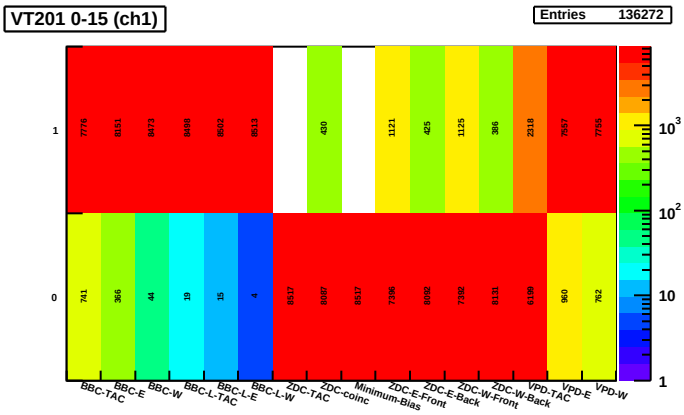

Input to FE004 QT board
Entries 272544
ADC
channel

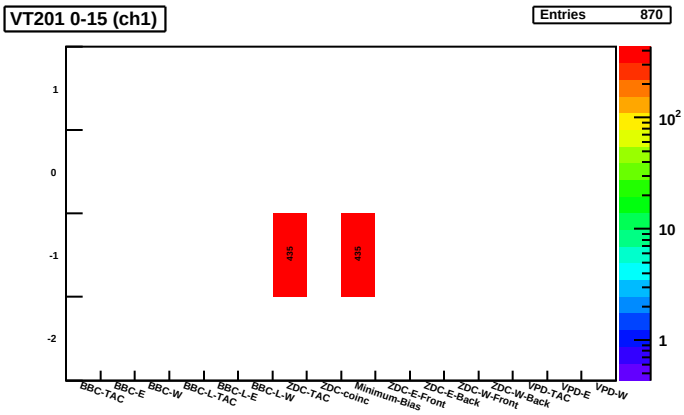

Input to FPE L1 DSM
Entries 34068
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
1


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


TF201 0-15 (ch0)
Entries 136272
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 7084
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 136272
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 870
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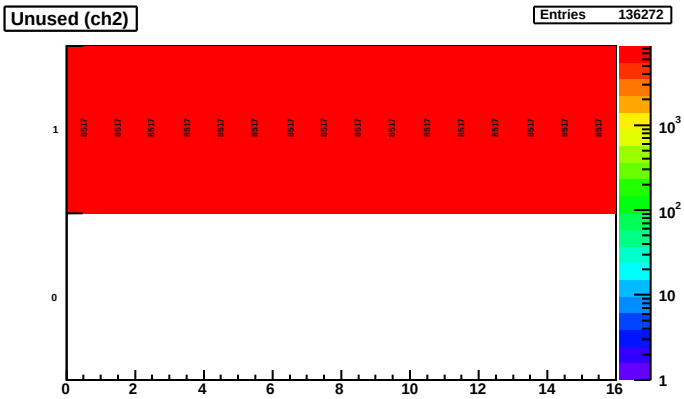
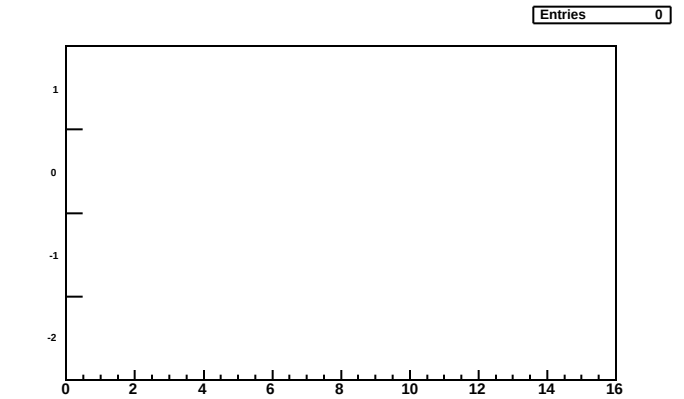
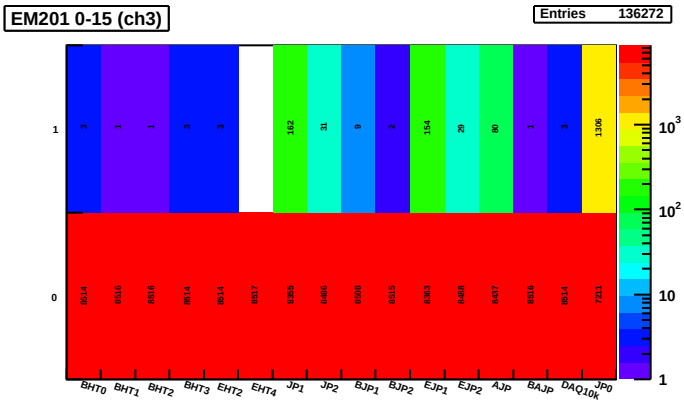
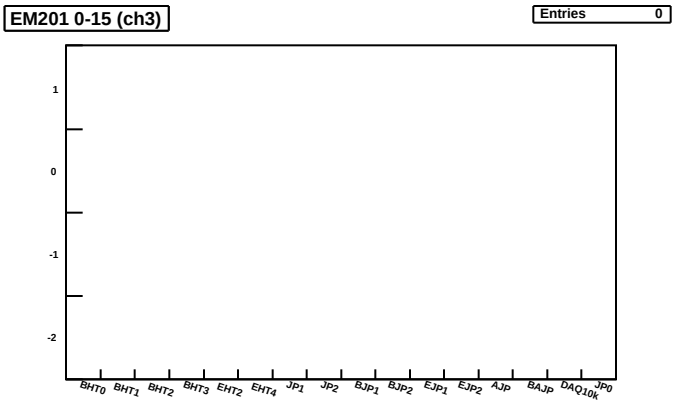

Unused (ch2)
Entries 136272


Entries 0


EM201 0-15 (ch3)
Entries 136272
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


EM201 0-15 (ch3)
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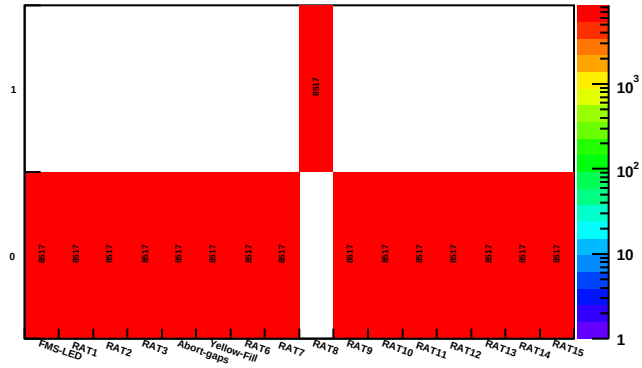
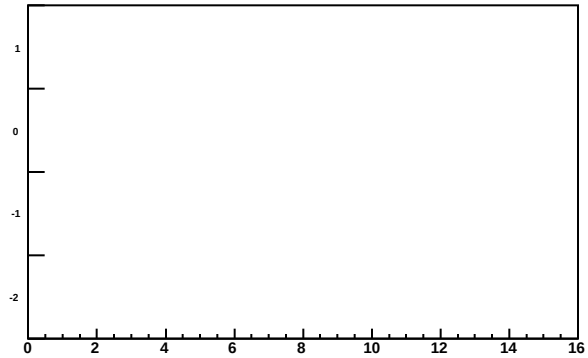
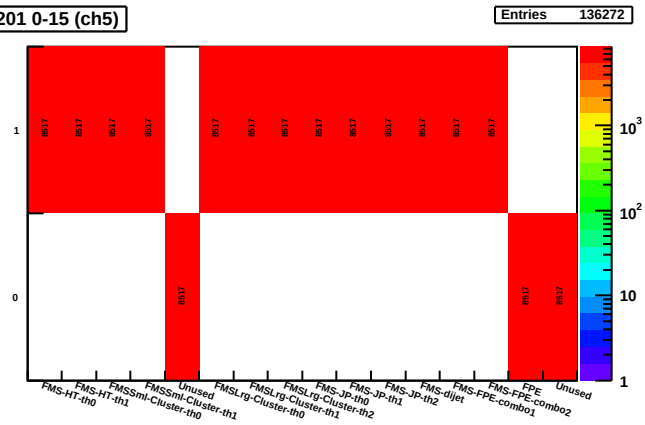
RAT board (ch4)





FP201 0-15 (ch5)



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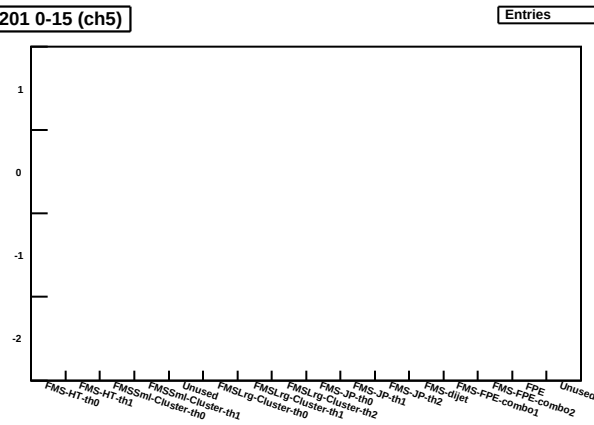
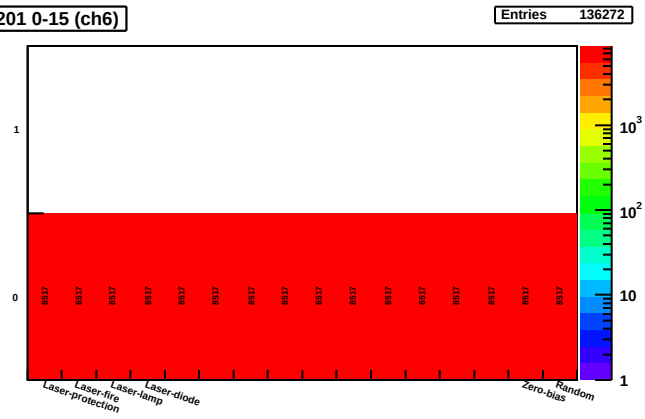
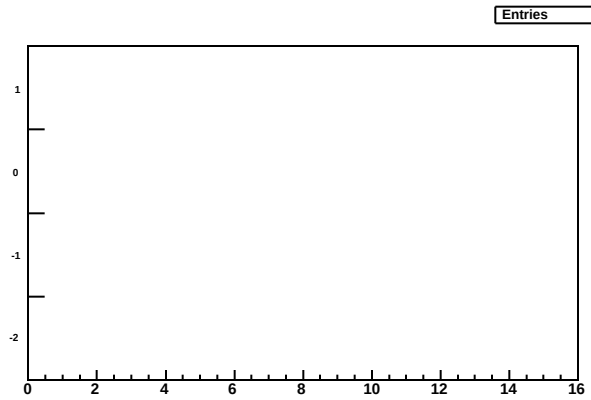
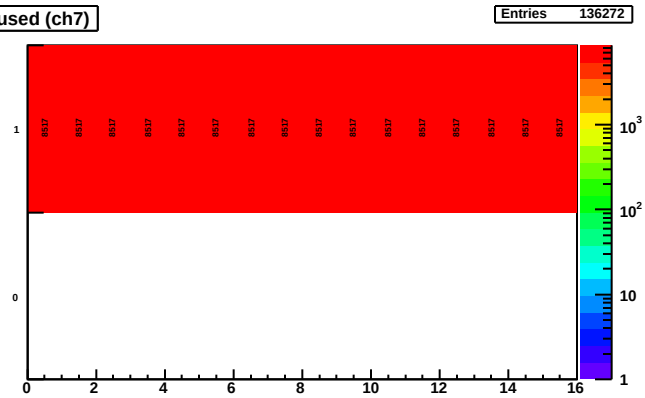
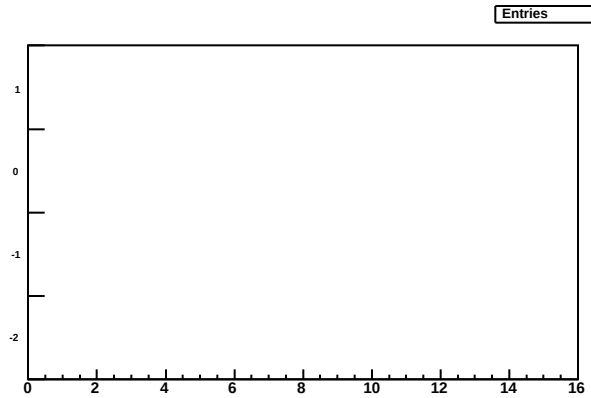


ST201 0-15 (ch6)





Unused (ch7)