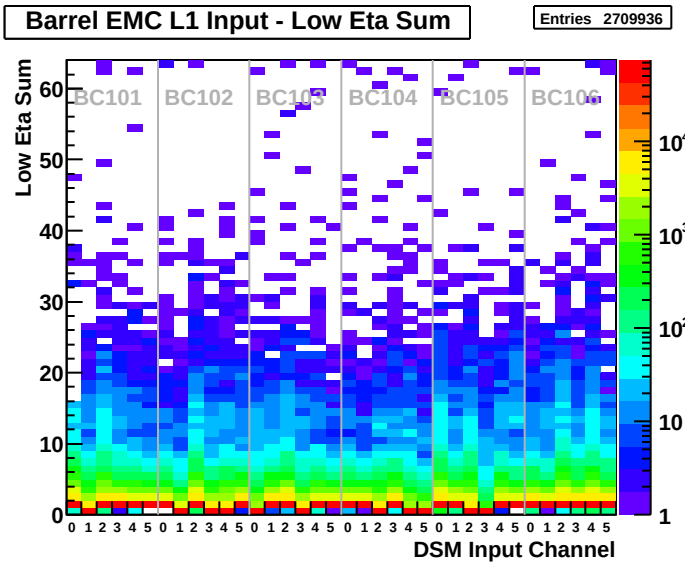
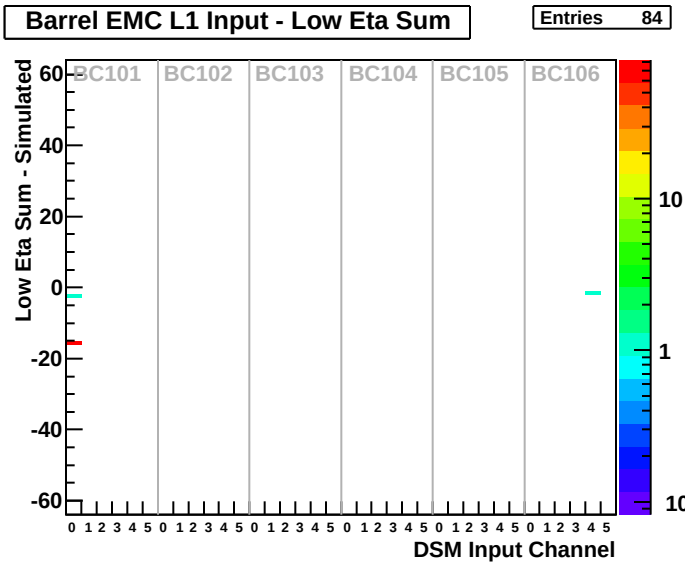
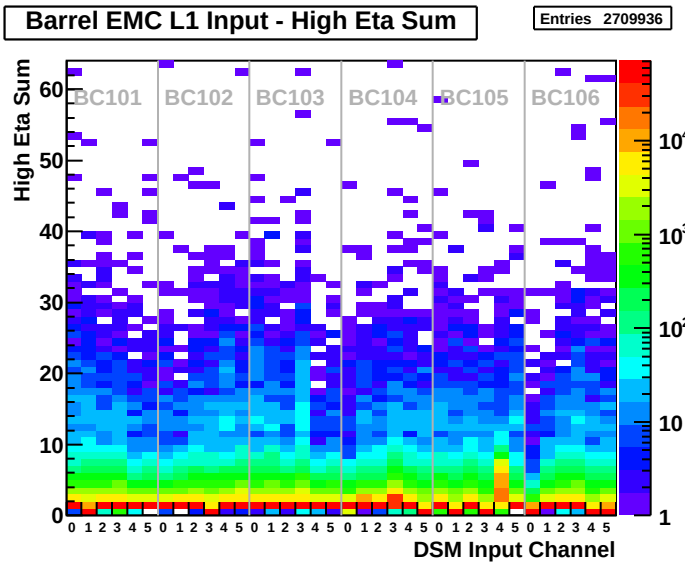
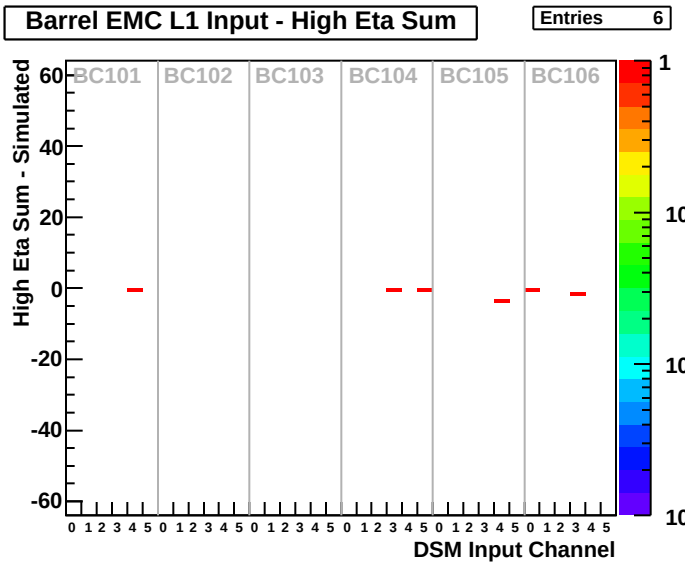
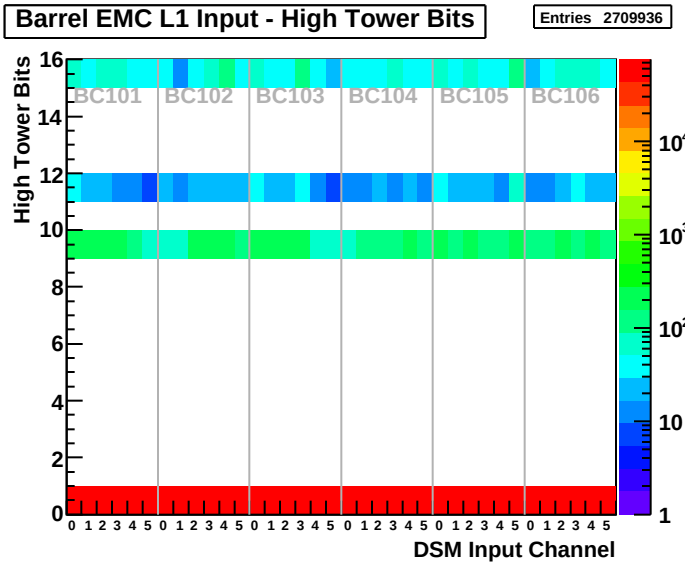
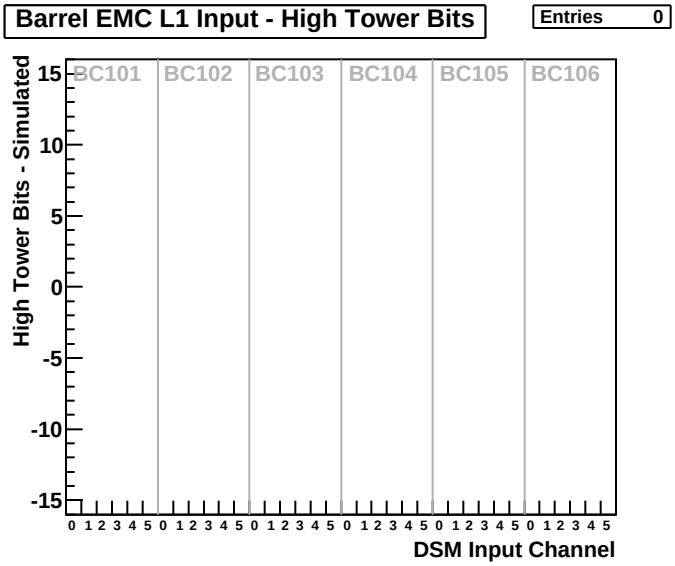

Barrel EMC L1 Input - Low Eta Sum
Entries 2709936
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

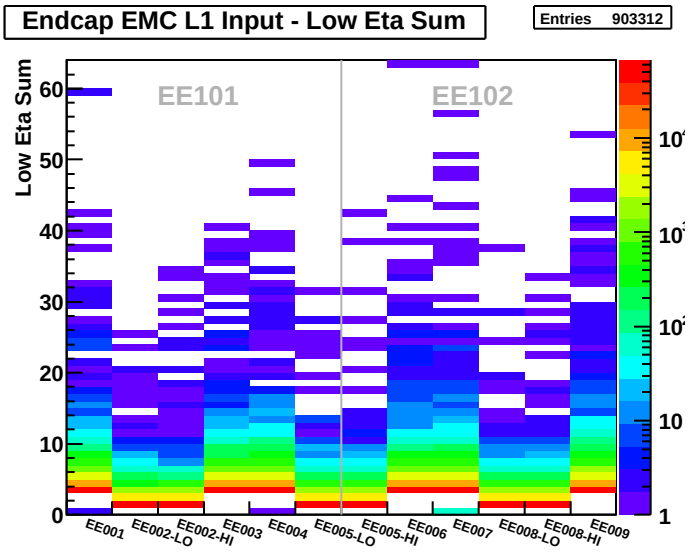

Barrel EMC L1 Input - Low Eta Sum
Entries 84
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

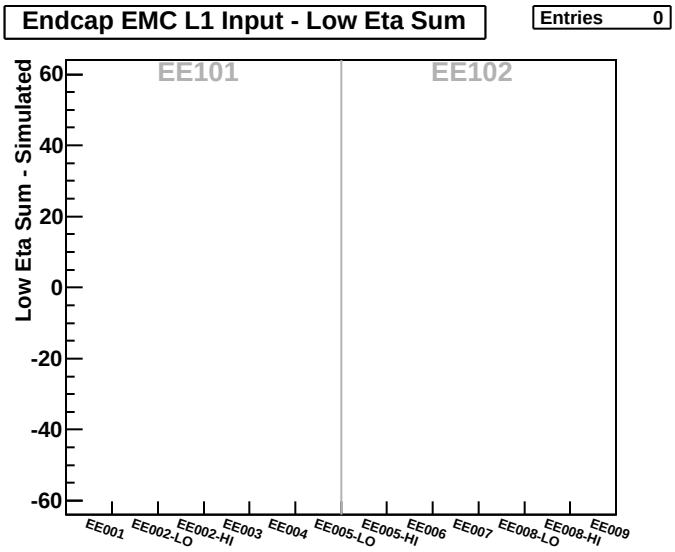

Barrel EMC L1 Input - High Eta Sum
Entries 2709936
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

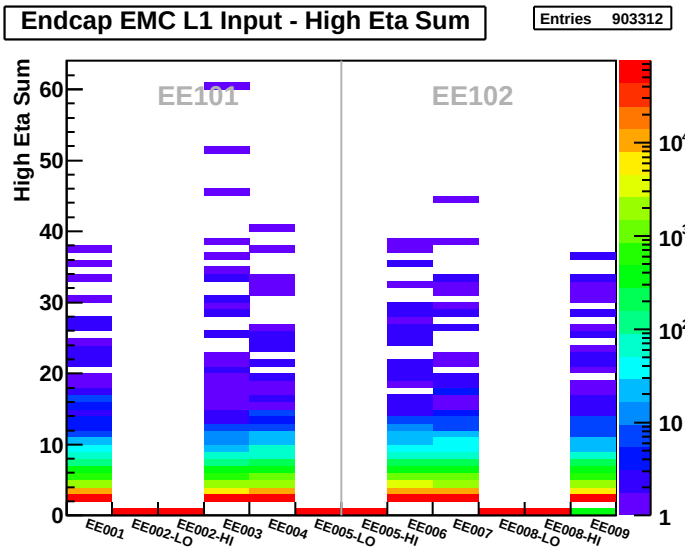

Barrel EMC L1 Input - High Eta Sum
Entries 6
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

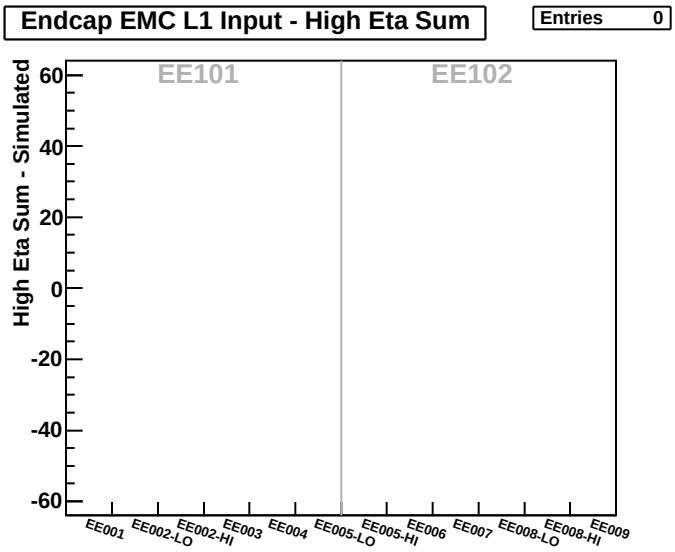

Barrel EMC L1 Input - High Tower Bits
Entries 2709936
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

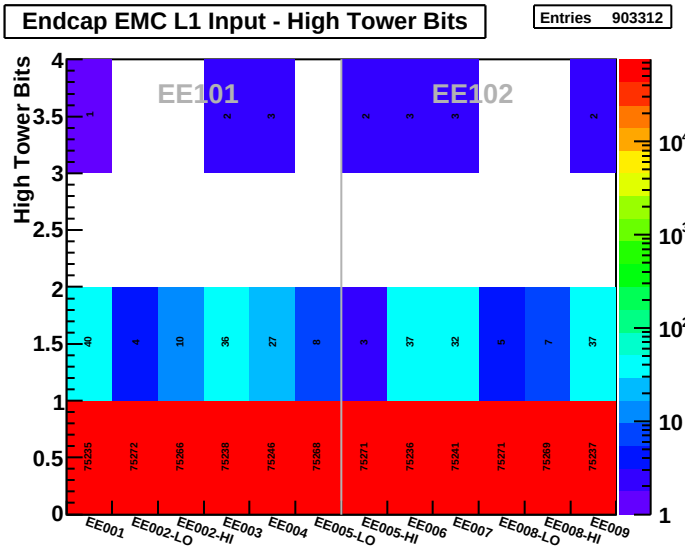

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

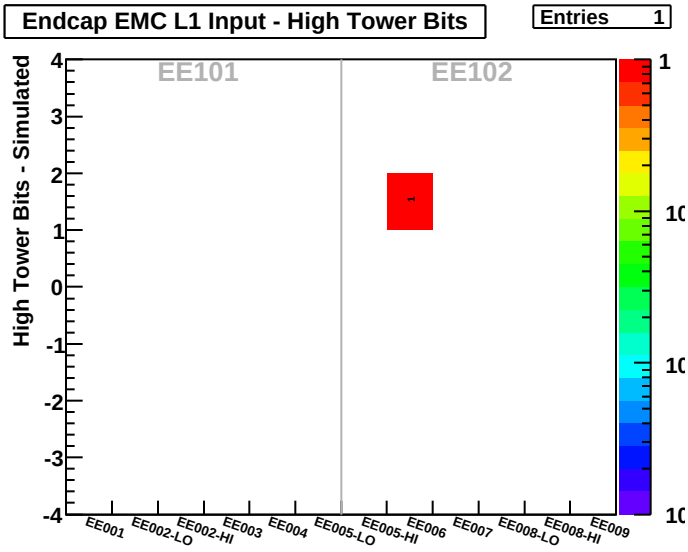

Endcap EMC L1 Input - Low Eta Sum
Entries 903312
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

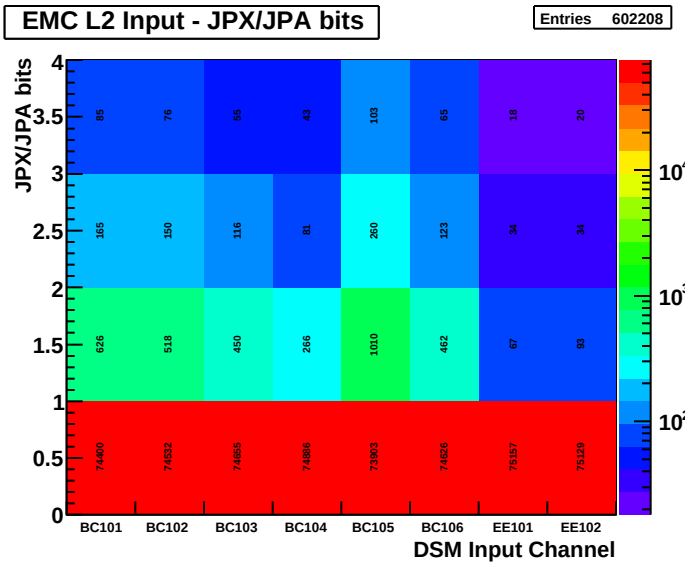

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

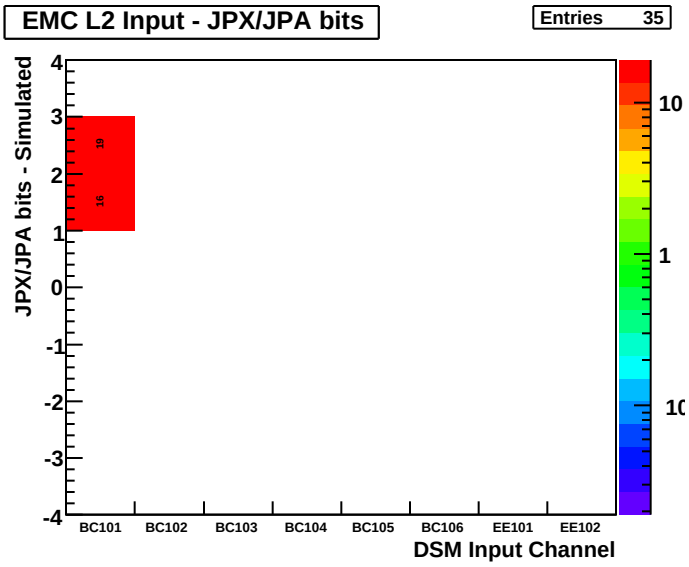

Endcap EMC L1 Input - High Eta Sum
Entries 903312
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

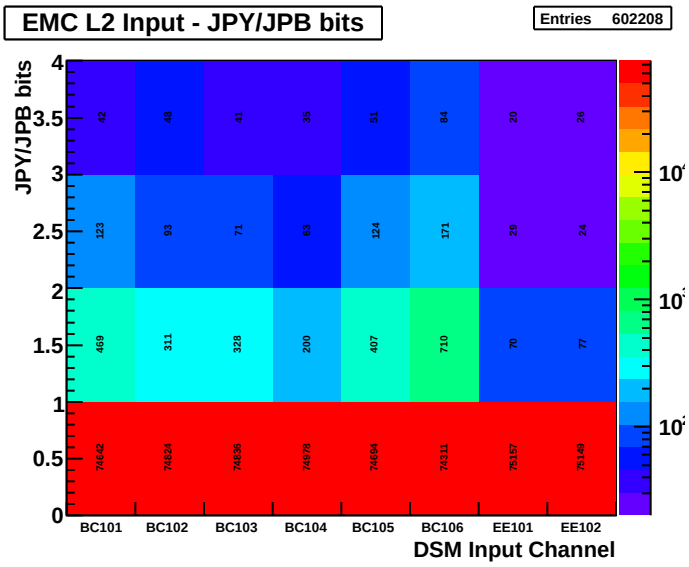

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

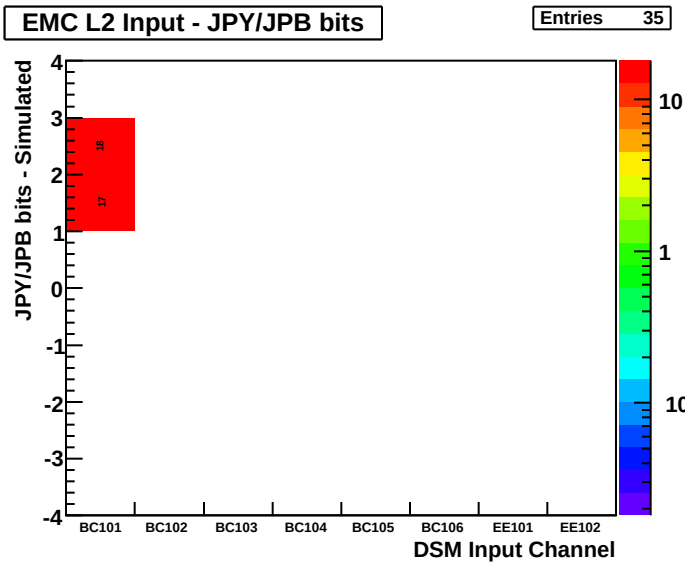

Endcap EMC L1 Input - High Tower Bits
Entries 903312
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

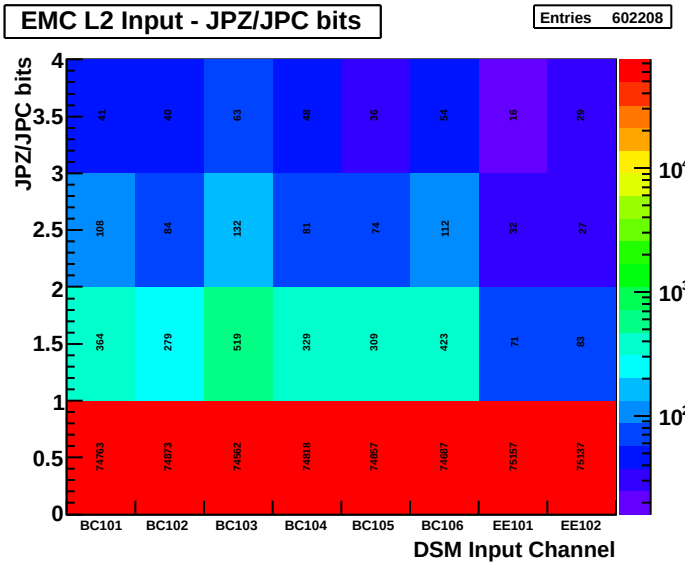

Endcap EMC L1 Input - High Tower Bits
Entries 1
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

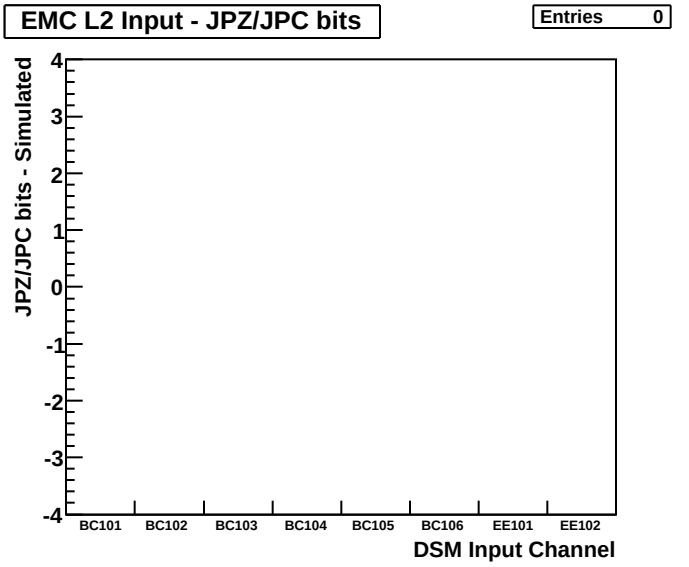

EMC L2 Input - JPX/JPA bits
Entries 602208
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
85 76 55 43 103 65 18 20
165 150 116 81 260 123 34 34
626 518 450 266 1010 462 67 93
74400 74632 74655 74886 73903 74626 75157 75129

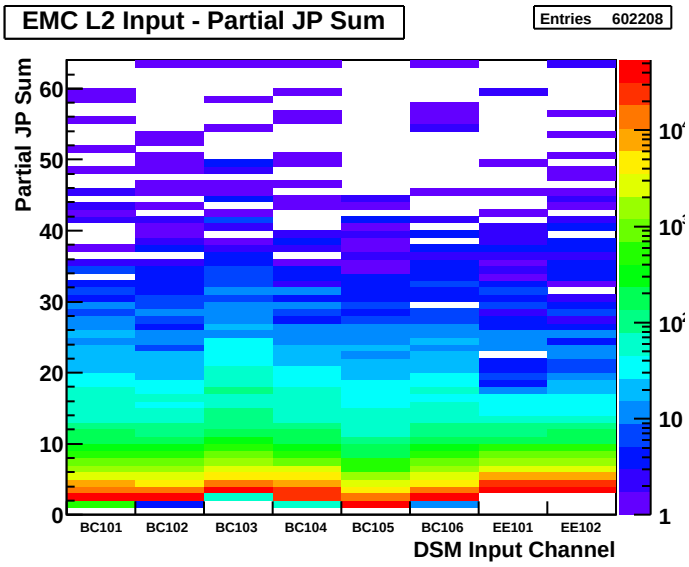

EMC L2 Input - JPX/JPA bits
Entries 35
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
19
16

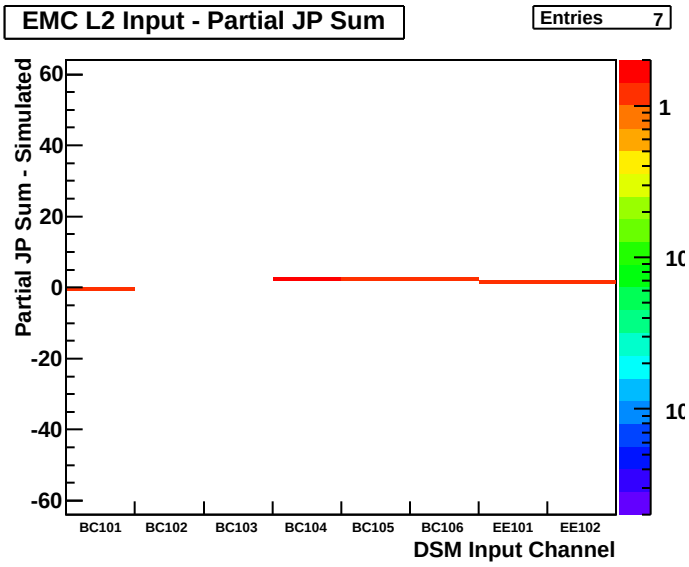

EMC L2 Input - JPY/JPB bits
Entries 602208
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
42 48 41 35 51 84 20 26
123 93 71 63 124 171 29 24
469 311 328 200 407 710 70 77
74642 74824 74836 74978 74694 74311 75157 75149

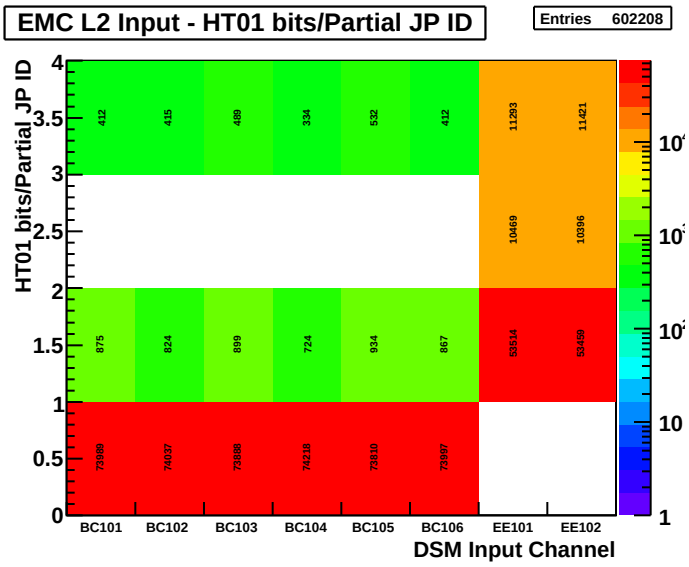

EMC L2 Input - JPY/JPB bits
Entries 35
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
18
17

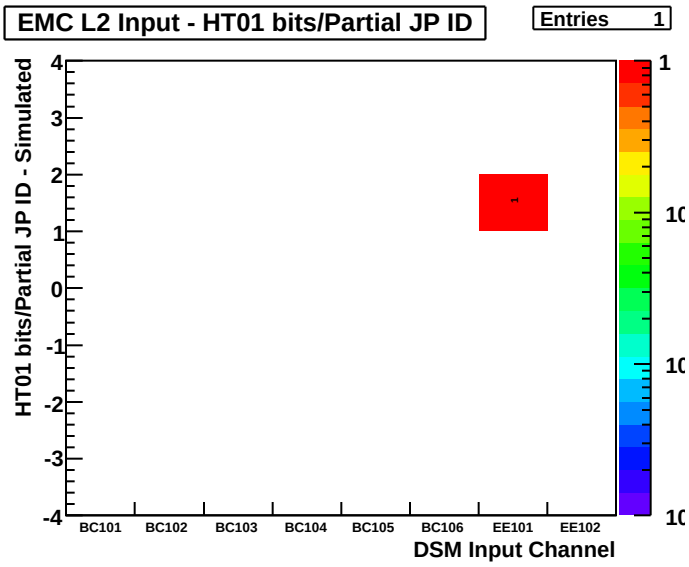

EMC L2 Input - JPZ/JPC bits
Entries 602208
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
41 40 63 48 36 54 16 29
108 84 132 81 74 112 32 27
364 279 519 329 309 423 71 83
74763 74973 74562 74818 74857 74687 75157 75137

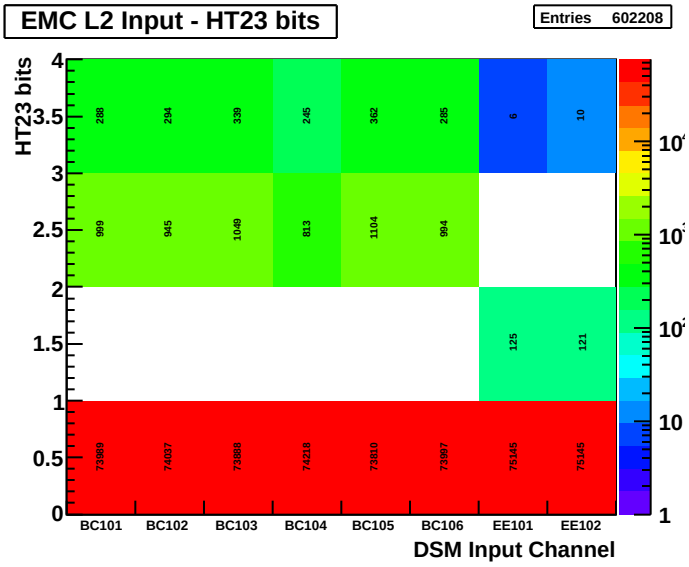

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

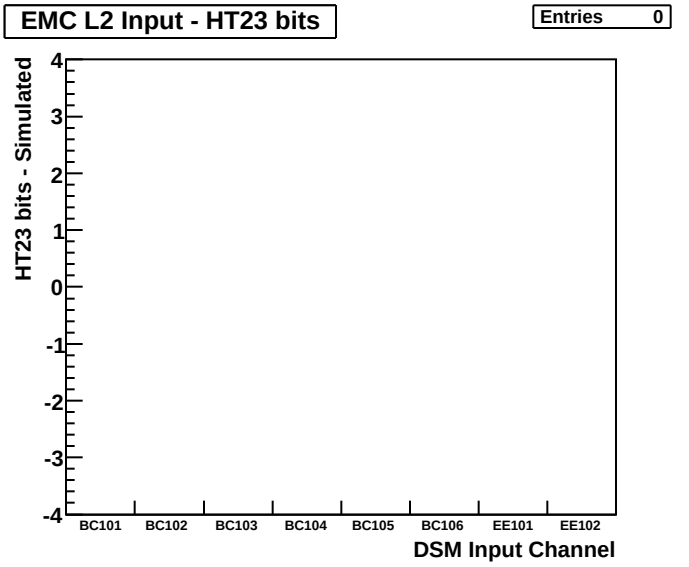

EMC L2 Input - Partial JP Sum
Entries 602208
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

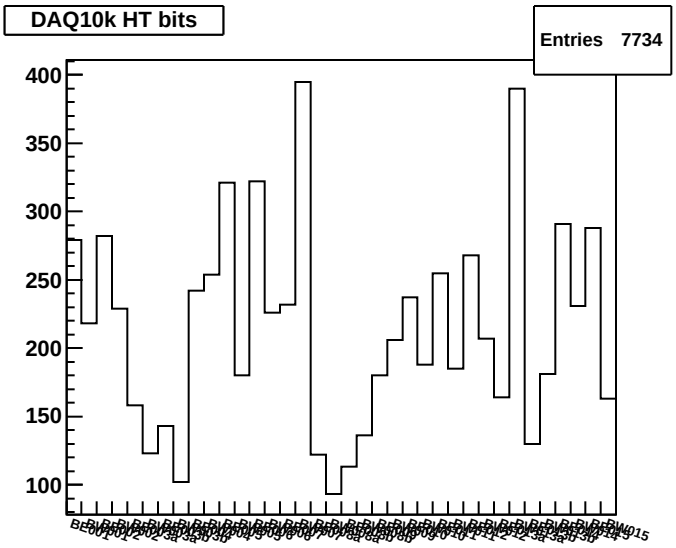

EMC L2 Input - Partial JP Sum
Entries 7
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

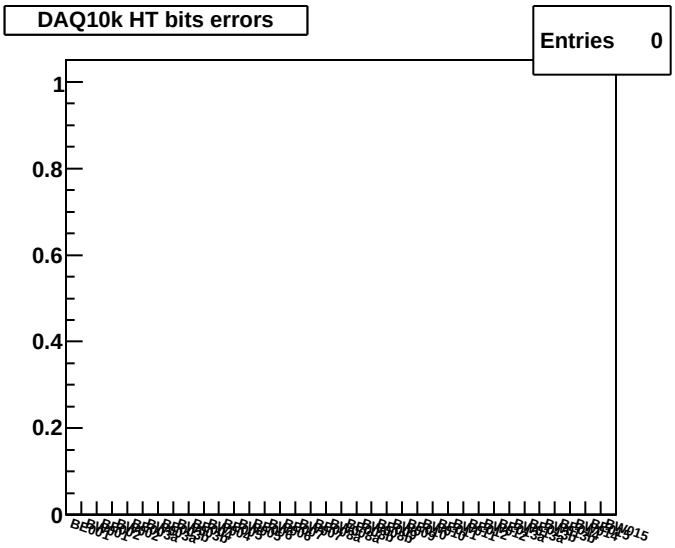

EMC L2 Input - HT01 bits/Partial JP ID
Entries 602208
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

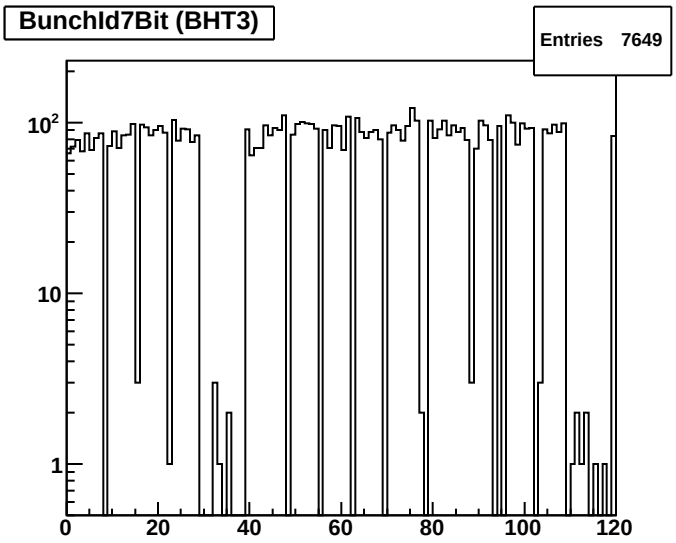

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

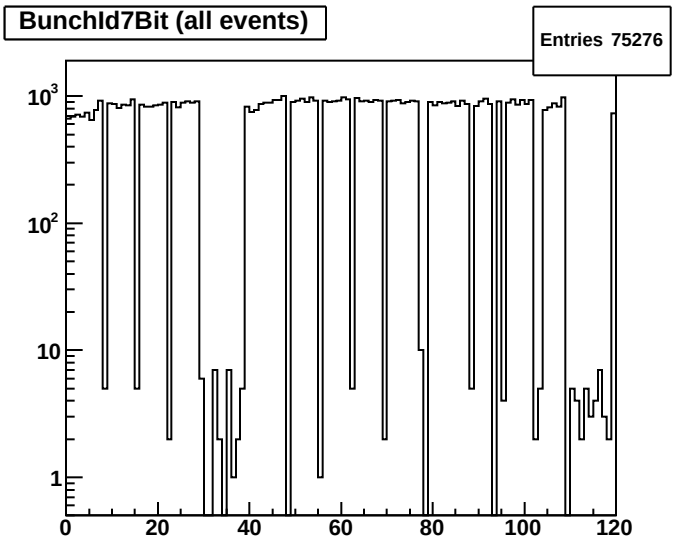

EMC L2 Input - HT23 bits
Entries 602208
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

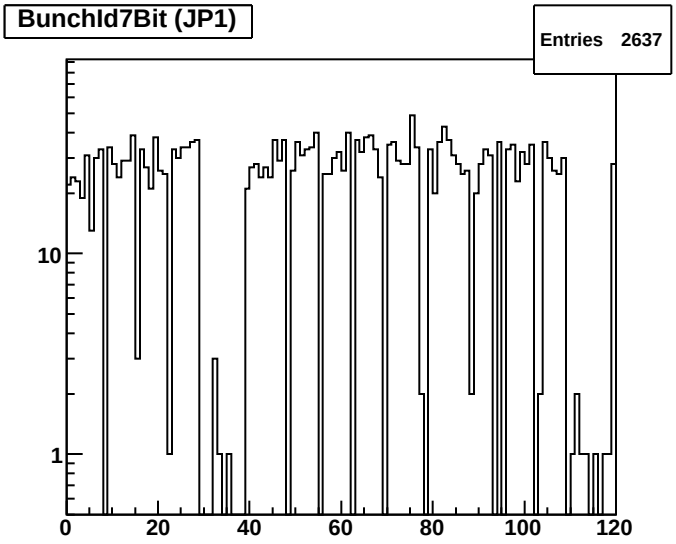

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

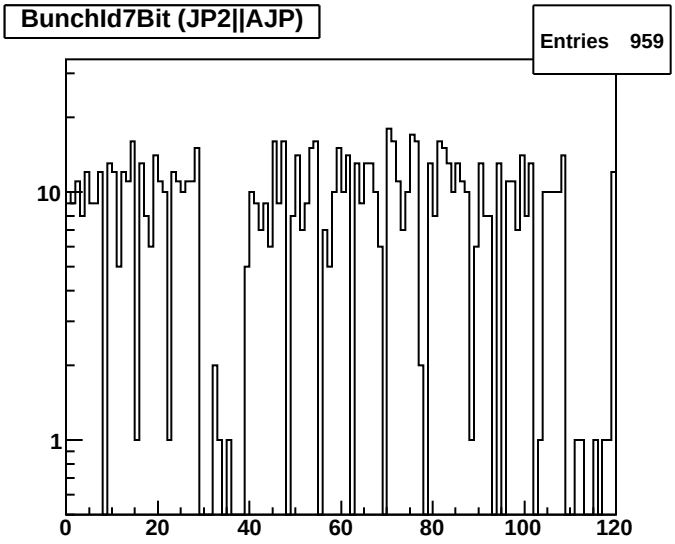

DAQ10k HT bits
Entries 7734
400
350
300
250
200
150
100

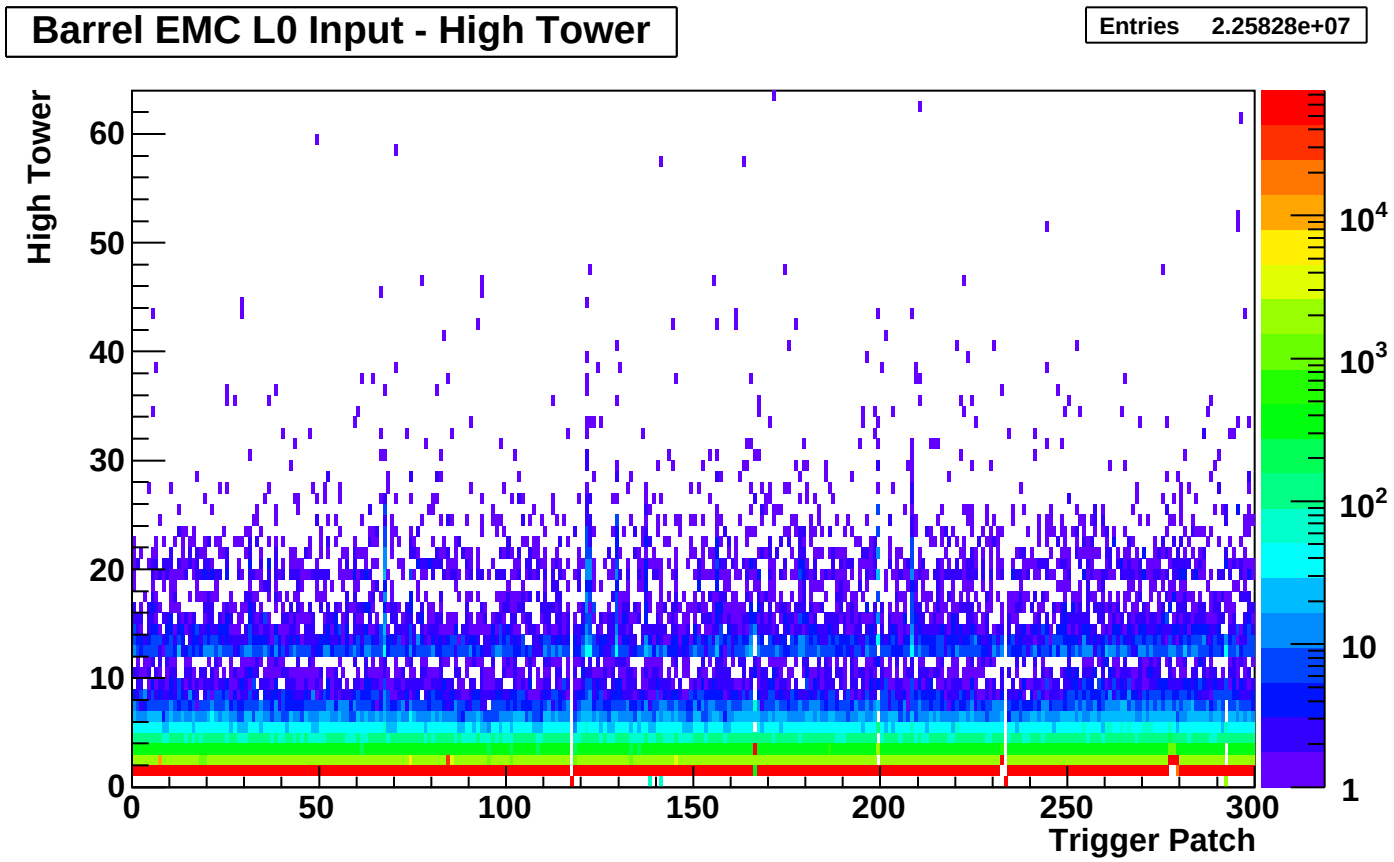

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0

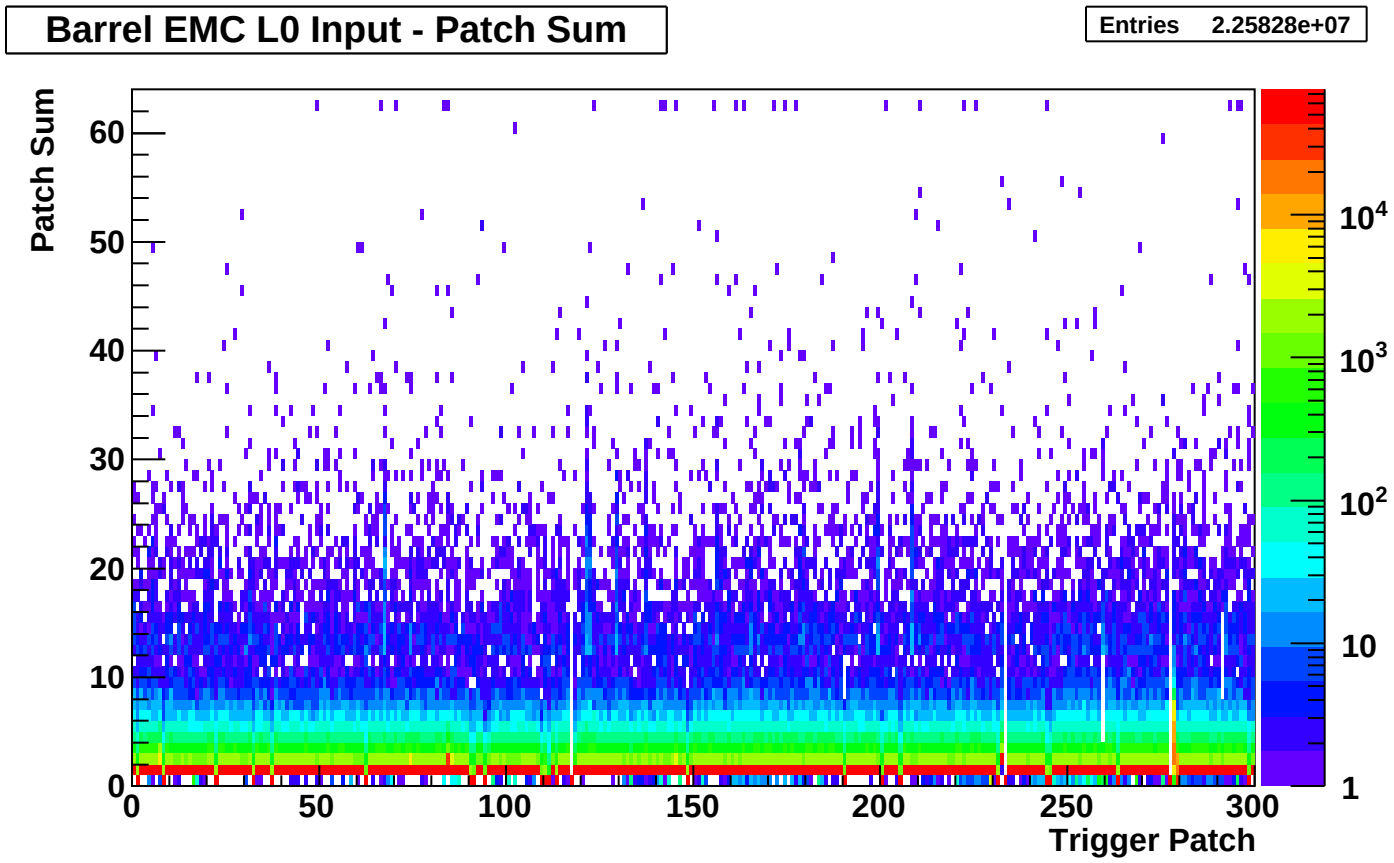

BunchId7Bit (BHT3)
Entries 7649
10^2
10
1
0
20
40
60
80
100
120

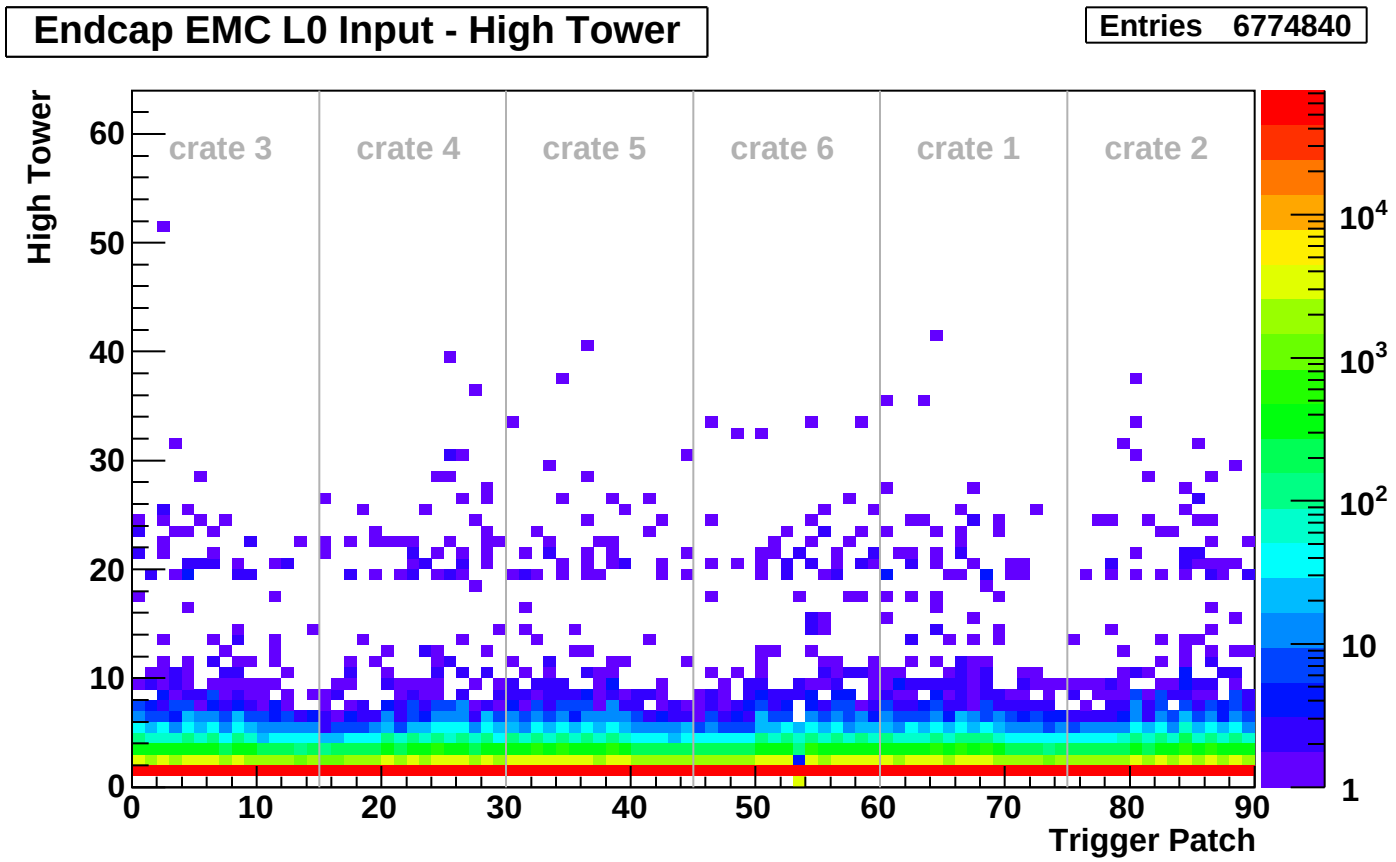

BunchId7Bit (all events)
Entries 75276
10^3
10^2
10
1
0
20
40
60
80
100
120

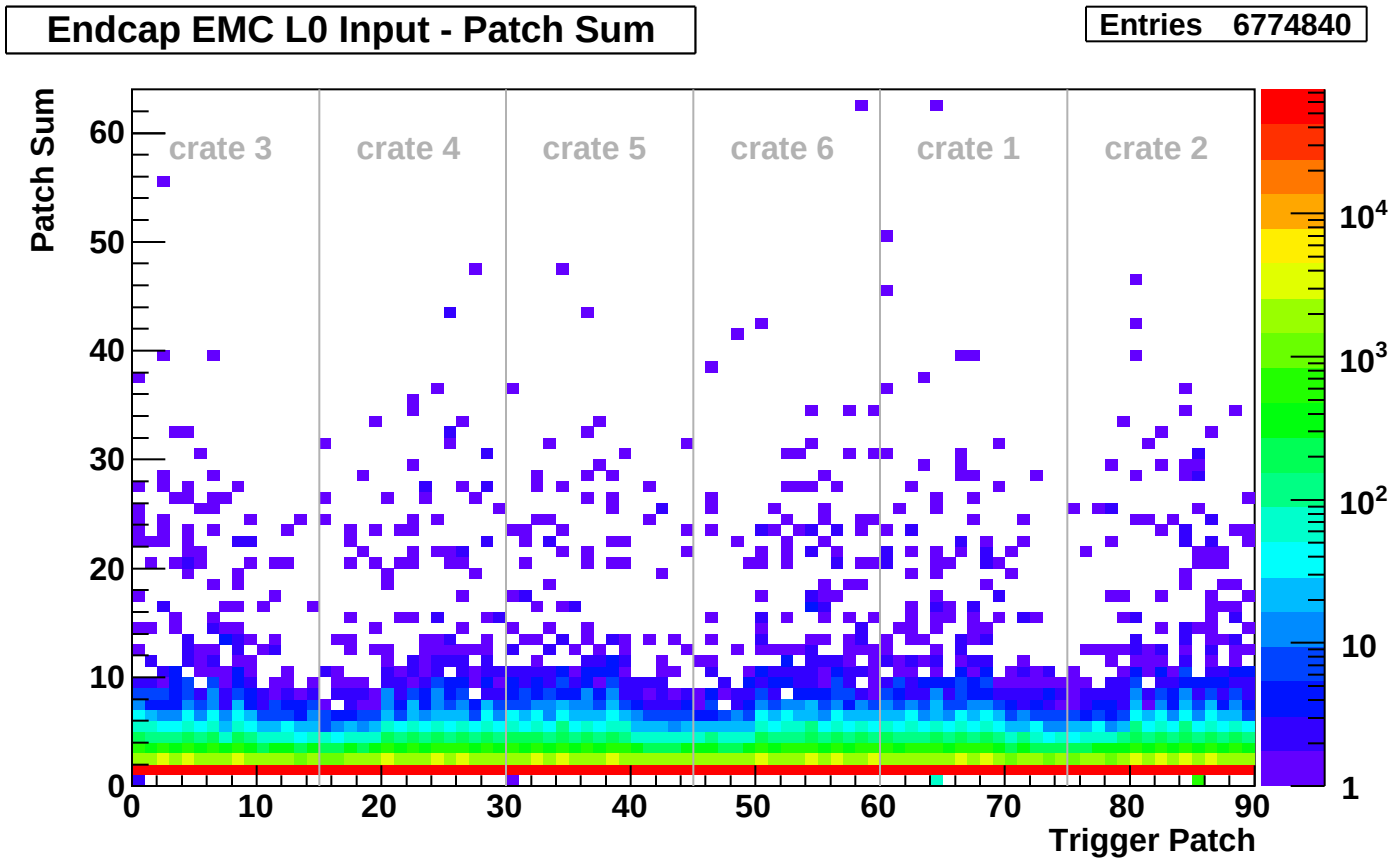

BunchId7Bit (JP1)
Entries 2637
10
1
0
20
40
60
80
100
120

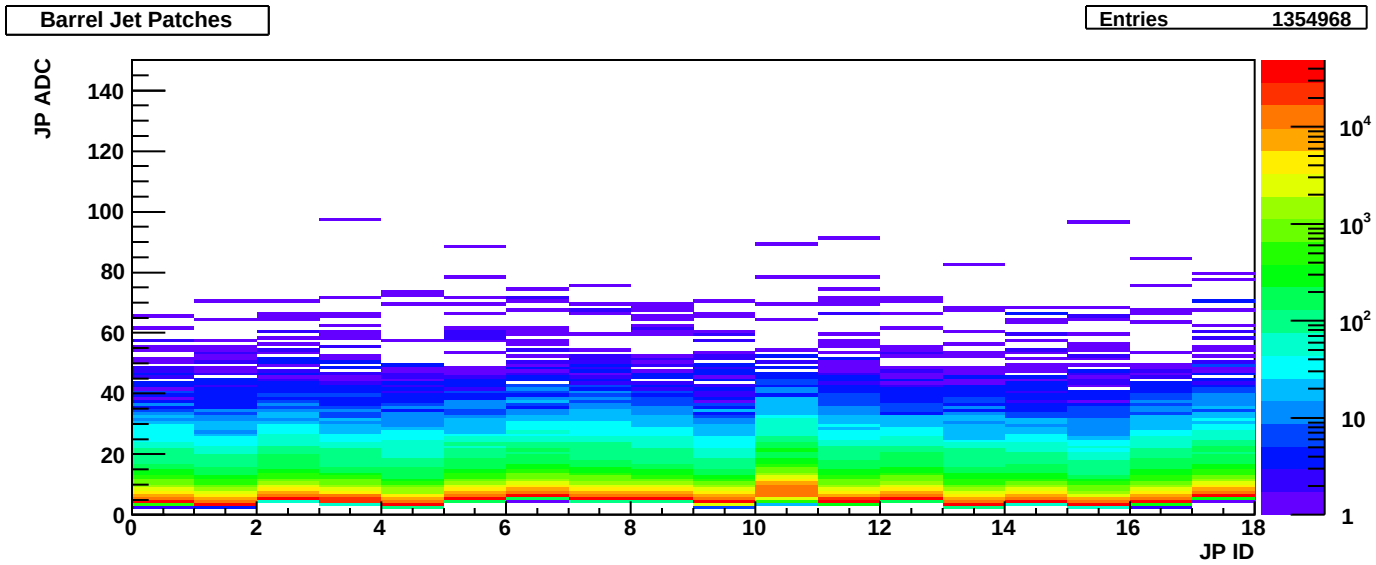

BunchId7Bit (JP2||AJP)
Entries 959
10
1
0
20
40
60
80
100
120

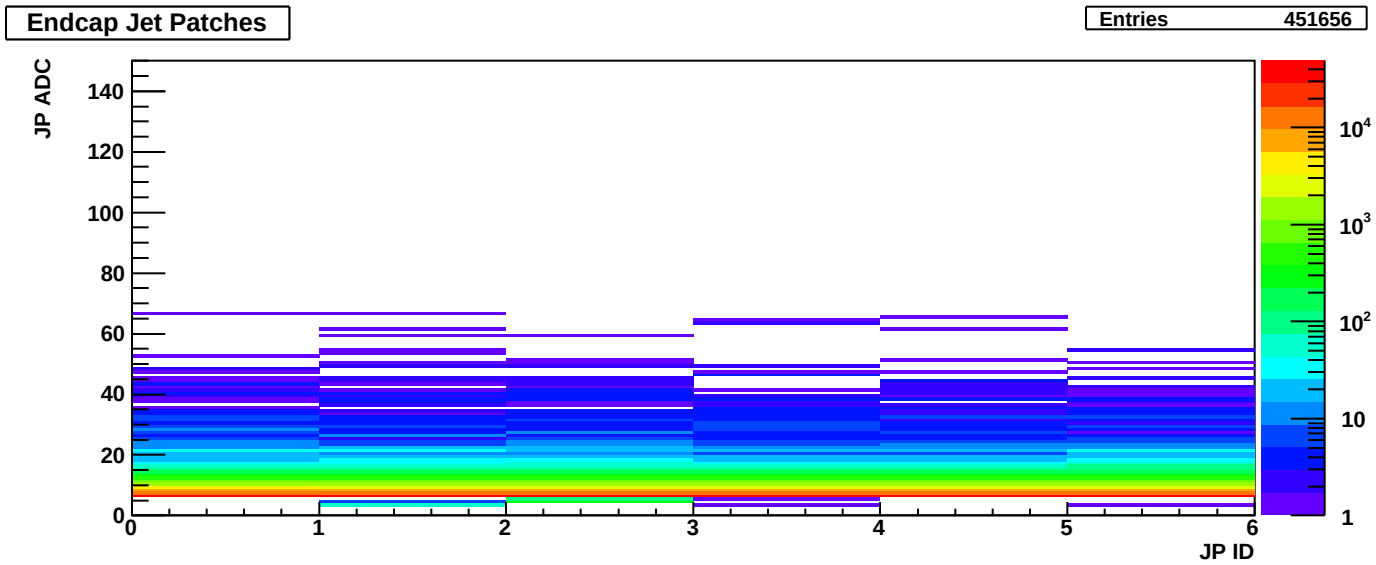

Barrel EMC L0 Input - High Tower
Entries 2.25828e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

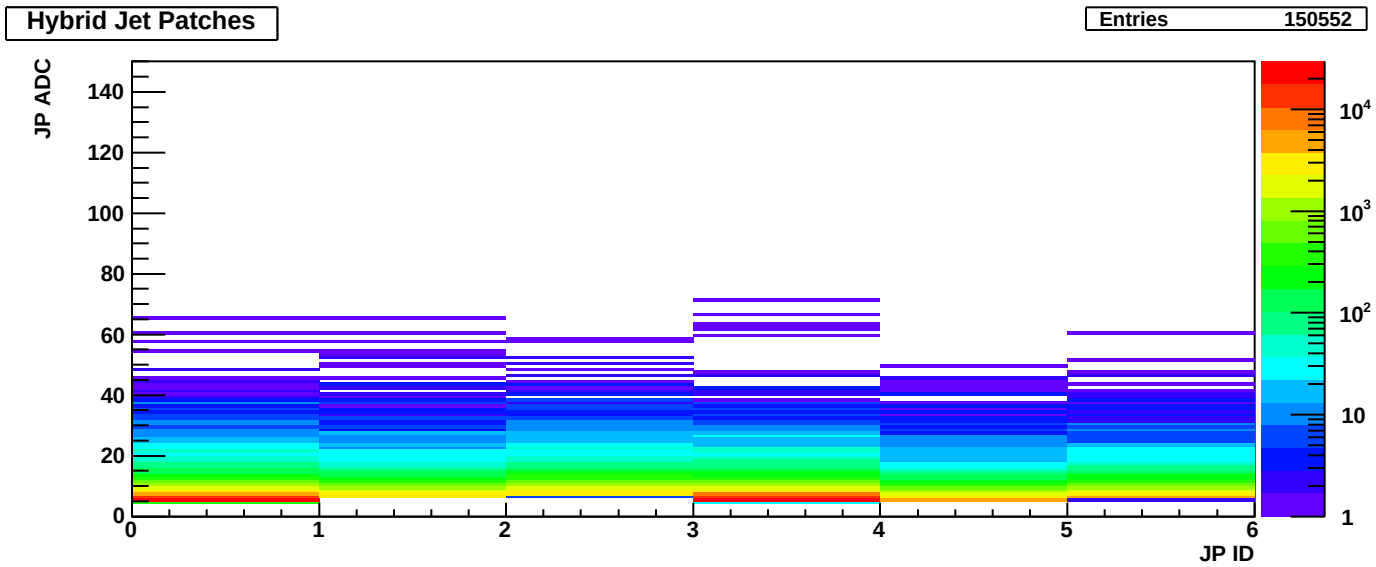

Barrel EMC L0 Input - Patch Sum
Entries 2.25828e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

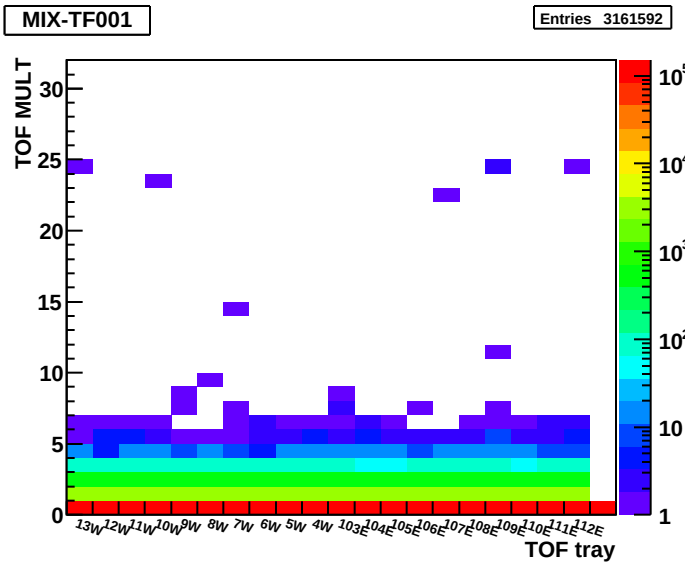

Endcap EMC L0 Input - High Tower
Entries 6774840
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

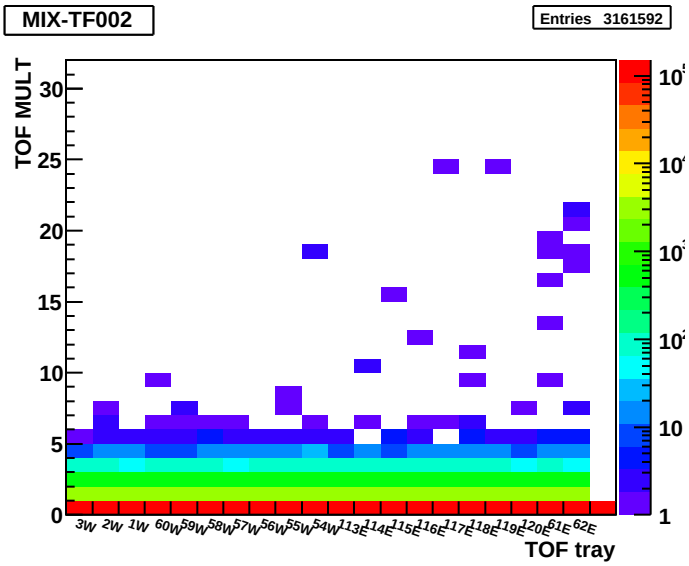

Endcap EMC L0 Input - Patch Sum
Entries 6774840
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

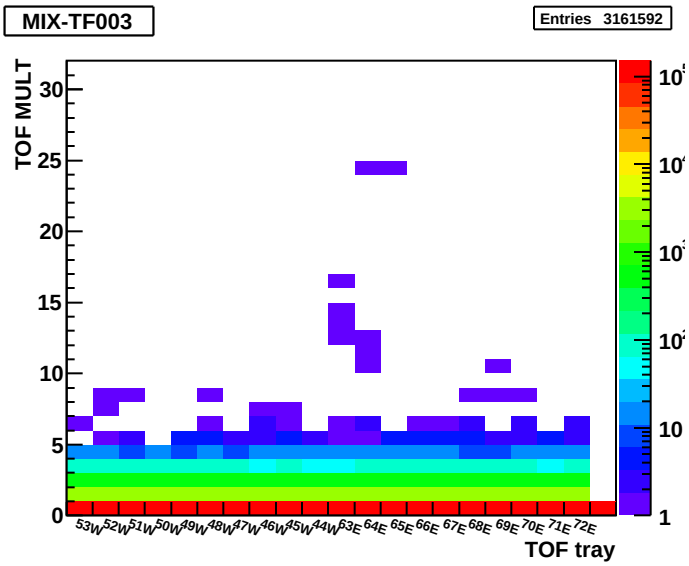

Barrel Jet Patches
Entries 1354968
JP ADC
JP ID

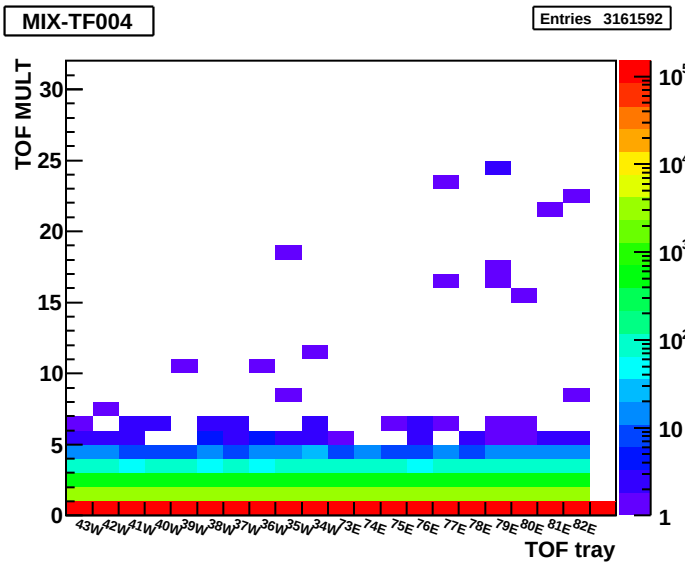

Endcap Jet Patches
Entries 451656
JP ADC
JP ID

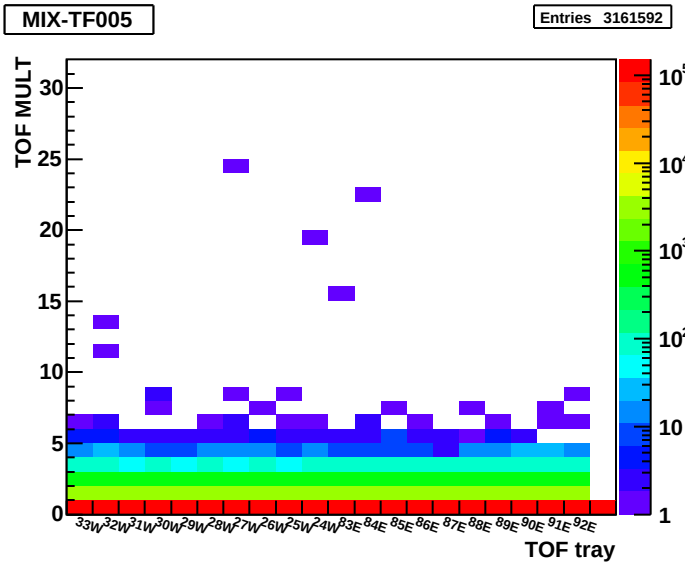

Hybrid Jet Patches
Entries 150552
JP ADC
JP ID

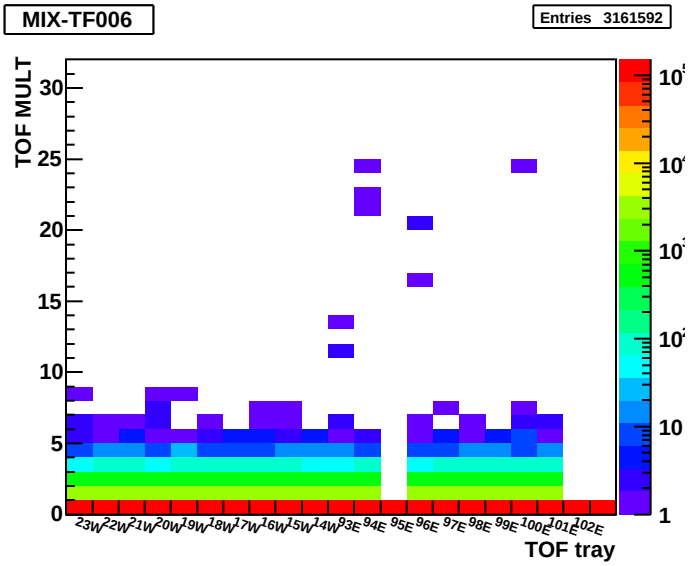

MIX-TF001
Entries 3161592
TOF MULT
TOF tray

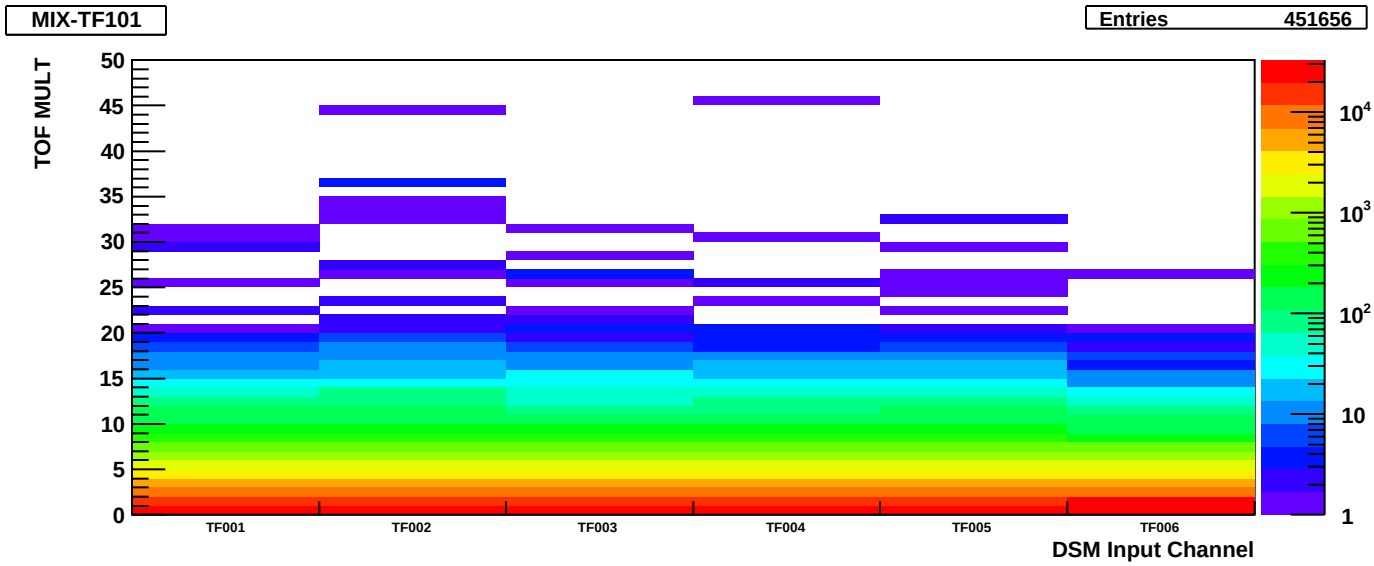

MIX-TF002
Entries 3161592
TOF MULT
TOF tray

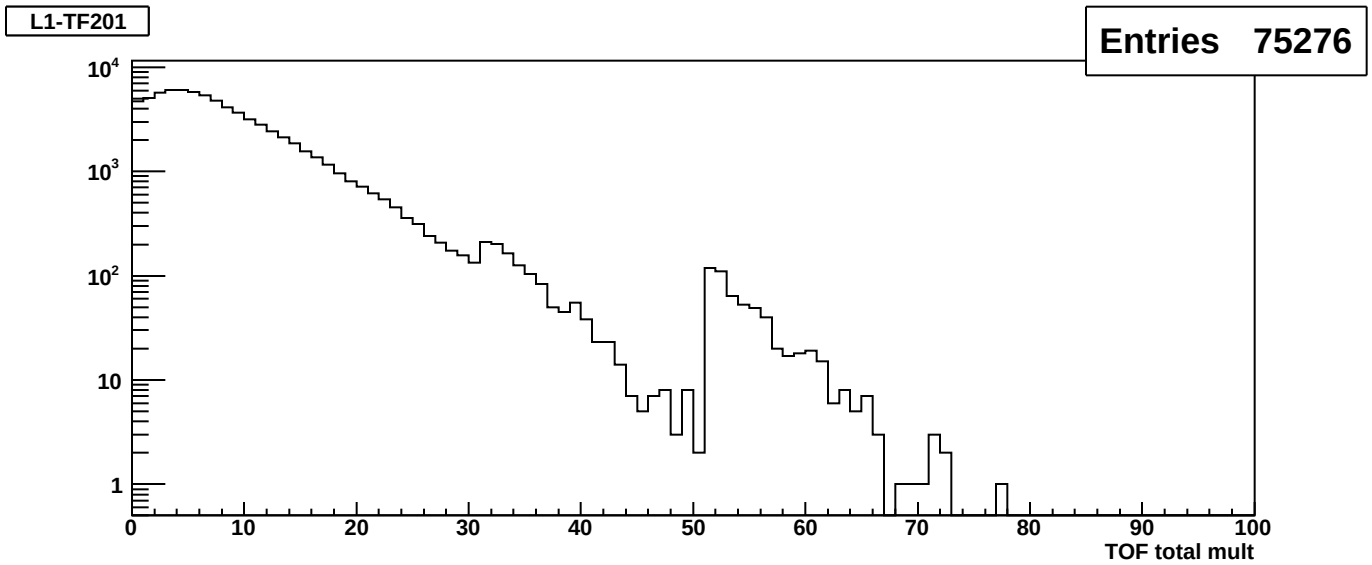

MIX-TF003
Entries 3161592
TOF MULT
TOF tray

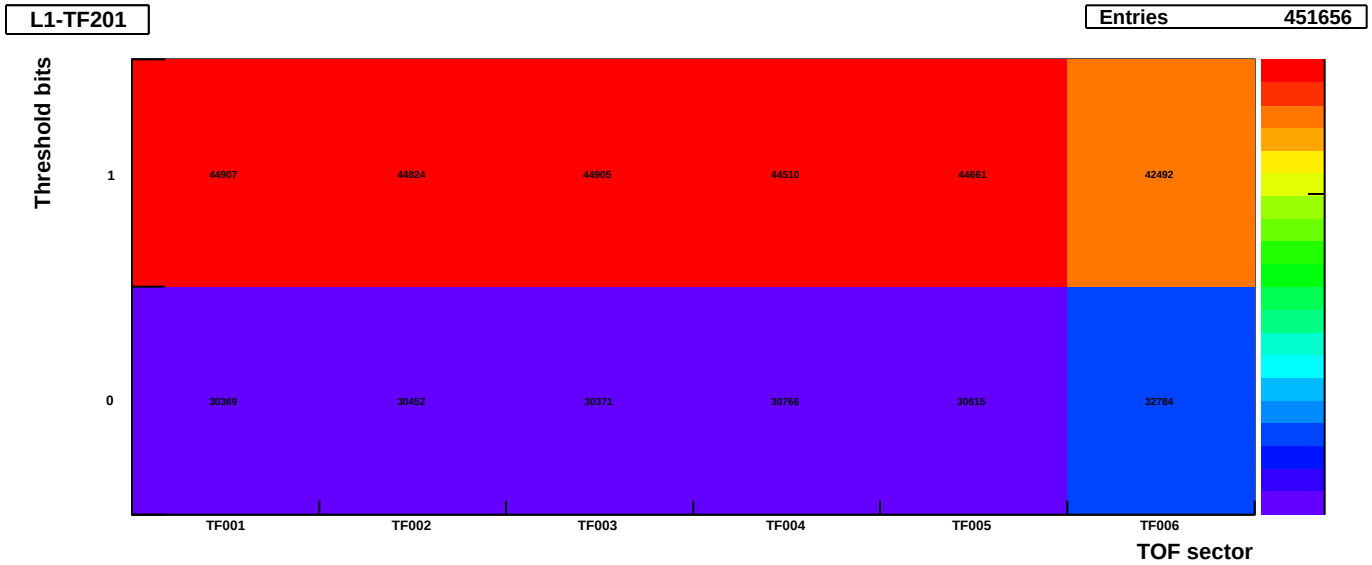

MIX-TF004
Entries 3161592
TOF MULT
TOF tray

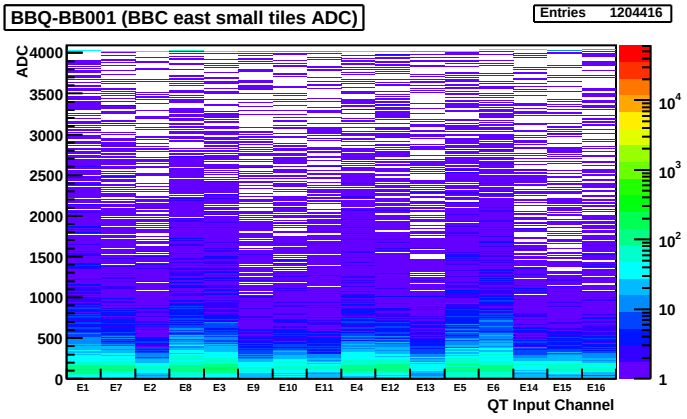

MIX-TF005
Entries 3161592
TOF MULT
TOF tray

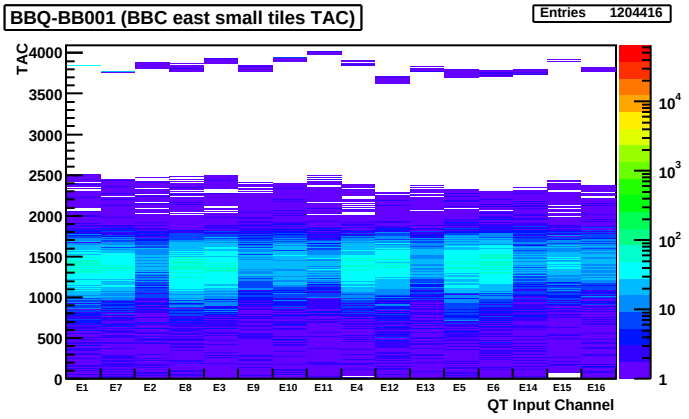

MIX-TF006
Entries 3161592
TOF MULT
TOF tray

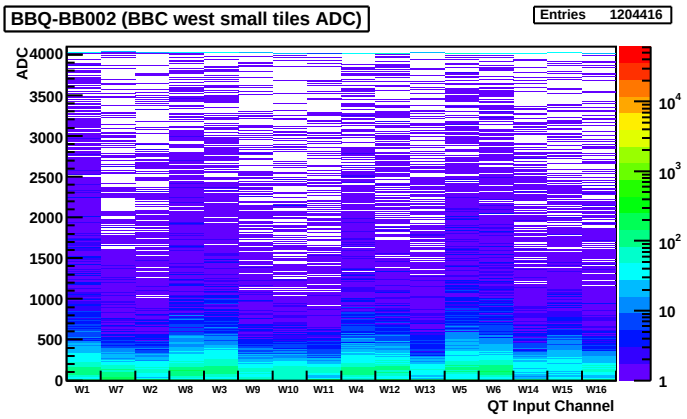

MIX-TF101
Entries 451656
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

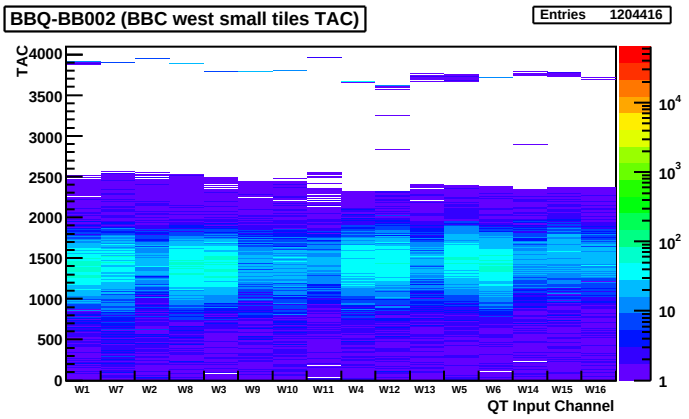

L1-TF201
Entries 75276
TOF total mult

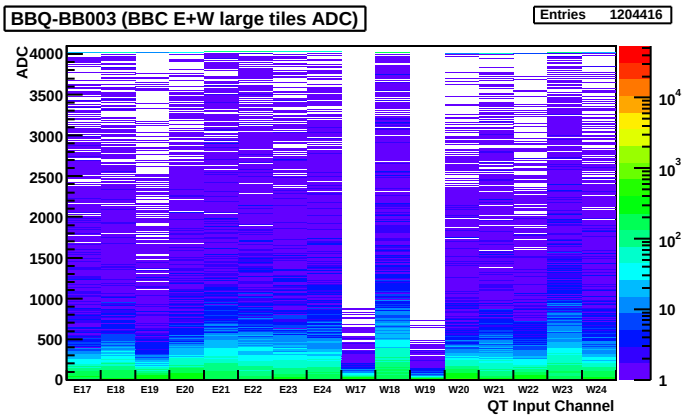

L1-TF201
Entries 451656
Threshold bits
44907
44824
44905
44510
44661
42492
30369
30452
30371
30766
30615
32784
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

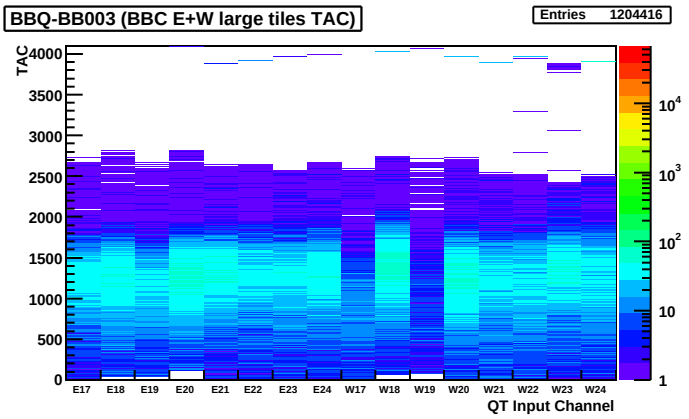

BBQ-BB001 (BBC east small tiles ADC)
Entries 1204416
ADC
QT Input Channel

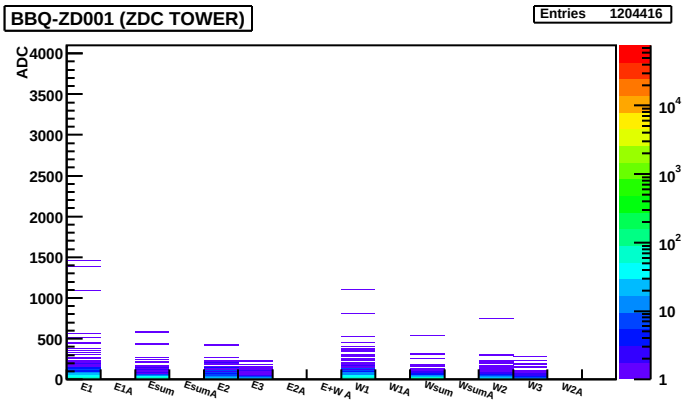

BBQ-BB001 (BBC east small tiles TAC)
Entries 1204416
TAC
QT Input Channel

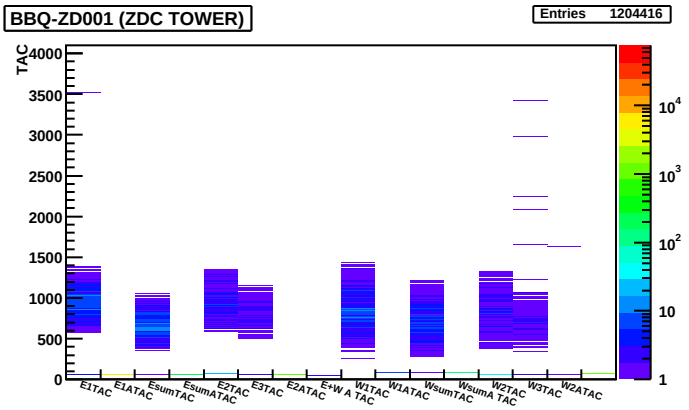

BBQ-BB002 (BBC west small tiles ADC)
Entries 1204416
ADC
QT Input Channel

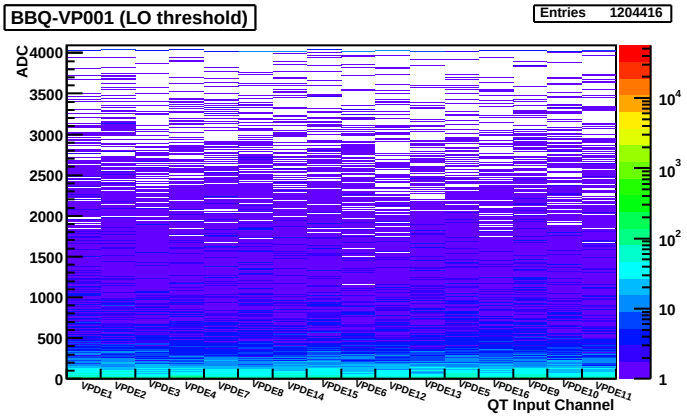

BBQ-BB002 (BBC west small tiles TAC)
Entries 1204416
TAC
QT Input Channel

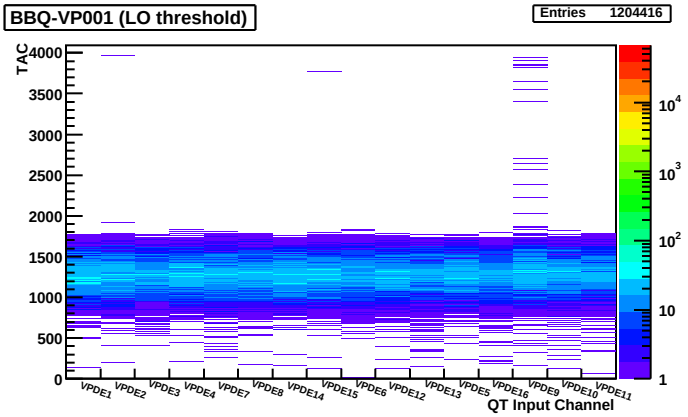

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1204416
ADC
QT Input Channel

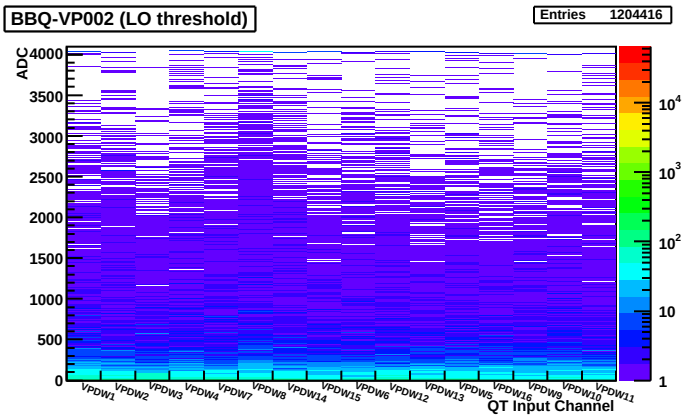

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1204416
TAC
QT Input Channel

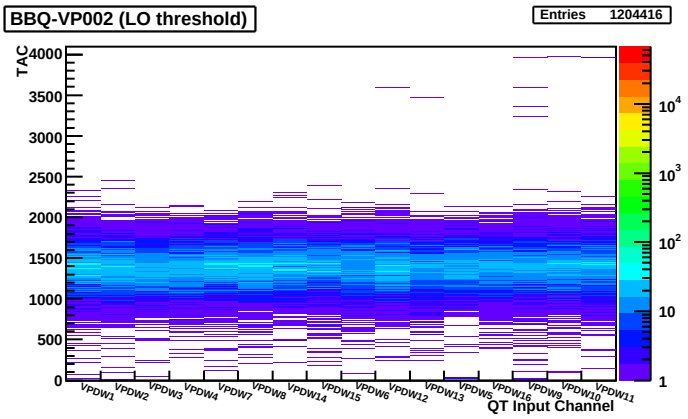

BBQ-ZD001 (ZDC TOWER)
Entries 1204416
ADC

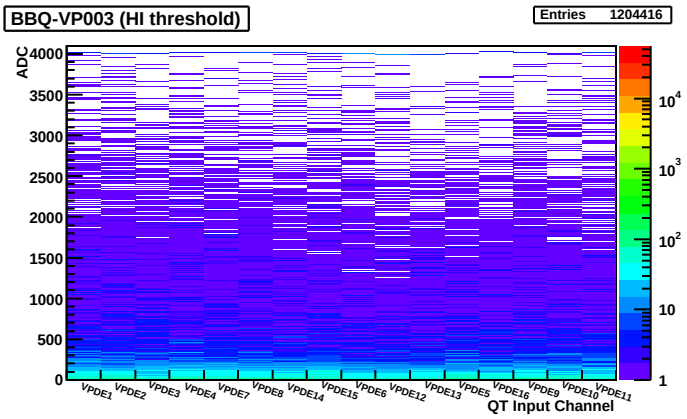

BBQ-ZD001 (ZDC TOWER)
Entries 1204416
TAC

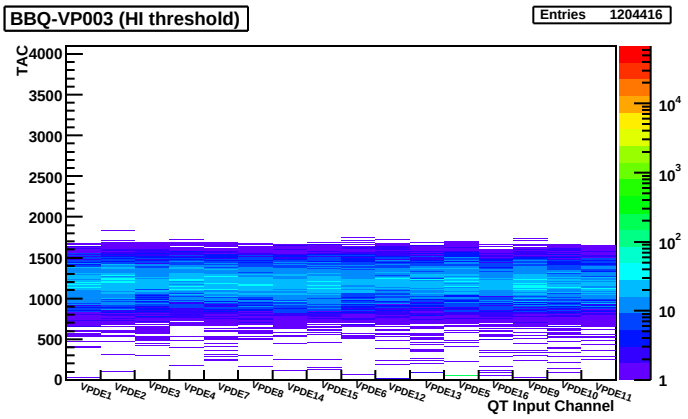

BBQ-VP001 (LO threshold)
Entries 1204416
ADC
QT Input Channel

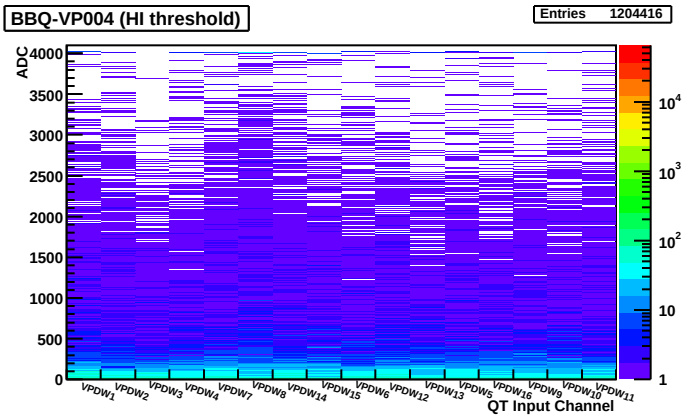

BBQ-VP001 (LO threshold)
Entries 1204416
TAC
QT Input Channel

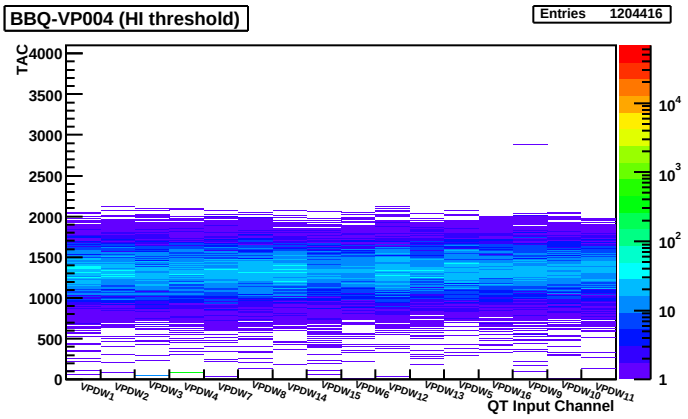

BBQ-VP002 (LO threshold)
Entries 1204416
ADC
QT Input Channel

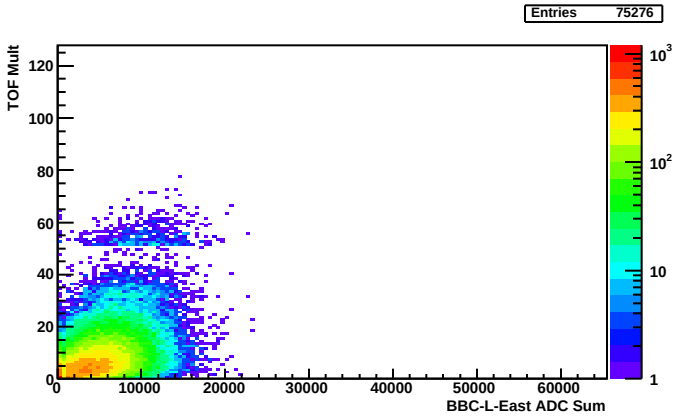

BBQ-VP002 (LO threshold)
Entries 1204416
TAC
QT Input Channel

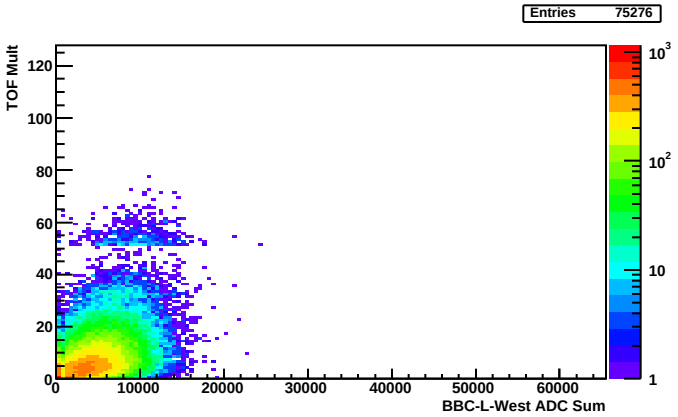

BBQ-VP003 (HI threshold)
Entries 1204416
ADC
QT Input Channel

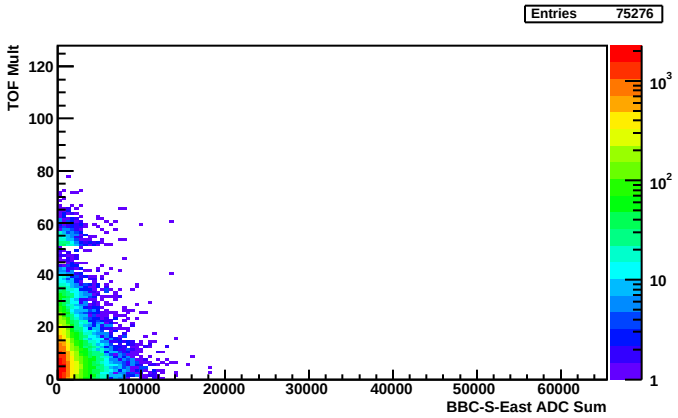

BBQ-VP003 (HI threshold)
Entries 1204416
TAC
QT Input Channel

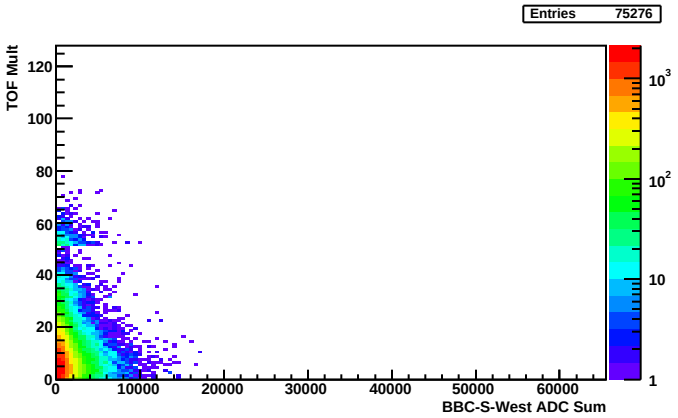

BBQ-VP004 (HI threshold)
Entries 1204416
ADC
QT Input Channel

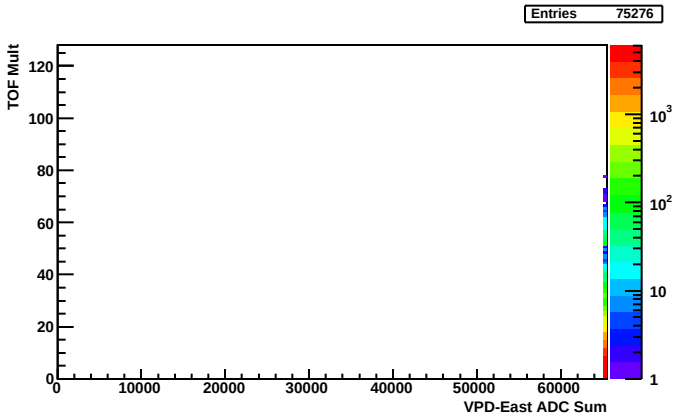

BBQ-VP004 (HI threshold)
Entries 1204416
TAC
QT Input Channel

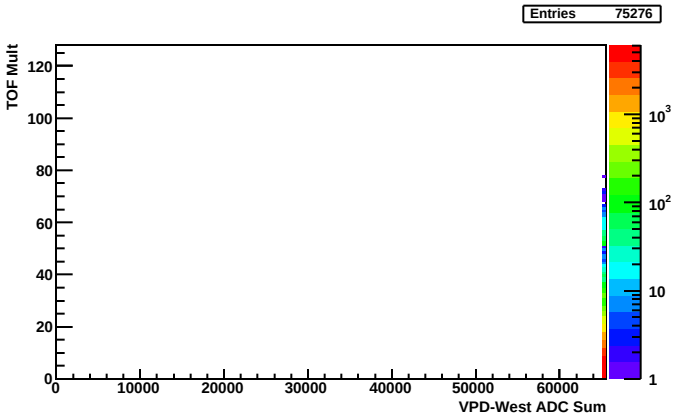

Entries 75276
TOF Mult
BBC-L-East ADC Sum

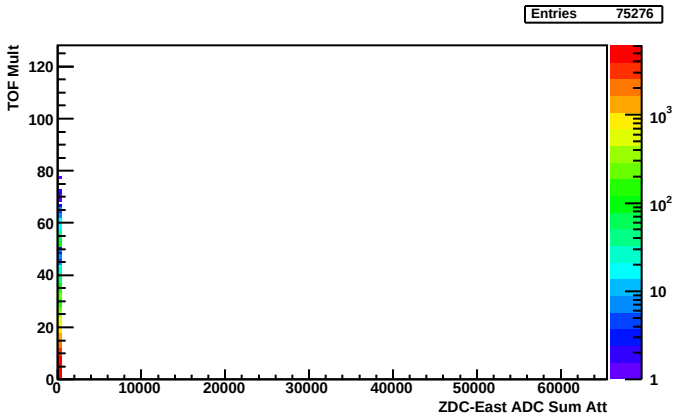

Entries 75276
TOF Mult
BBC-L-West ADC Sum

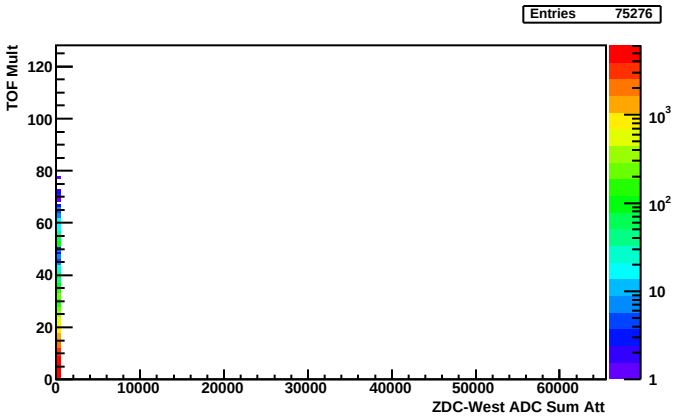

Entries 75276
TOF Mult
BBC-S-East ADC Sum

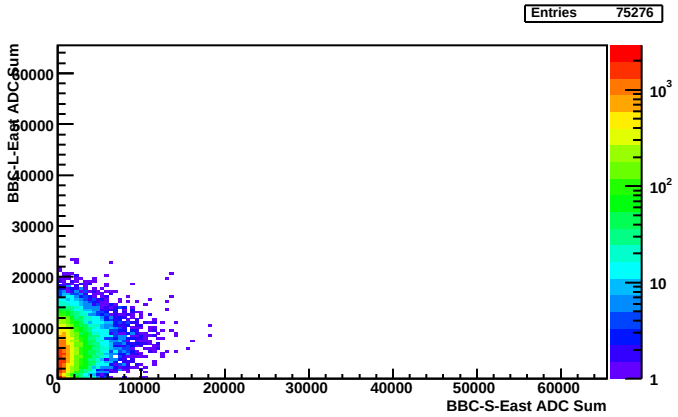

Entries 75276
TOF Mult
BBC-S-West ADC Sum

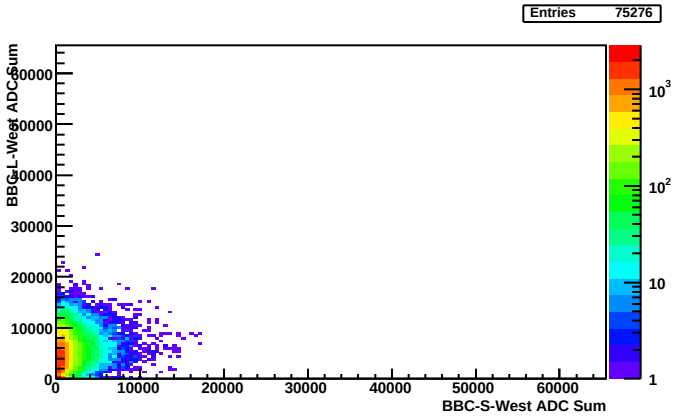

Entries 75276
TOF Mult
VPD-East ADC Sum

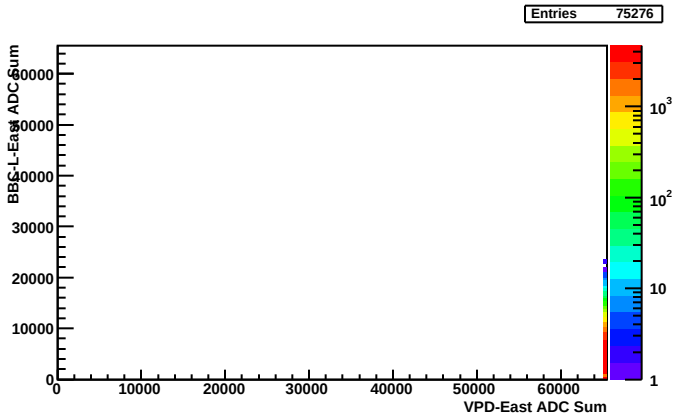

Entries 75276
TOF Mult
VPD-West ADC Sum

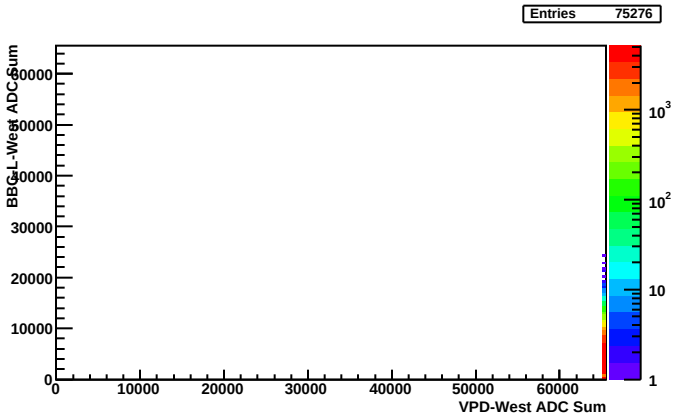

Entries 75276
TOF Mult
ZDC-East ADC Sum Att

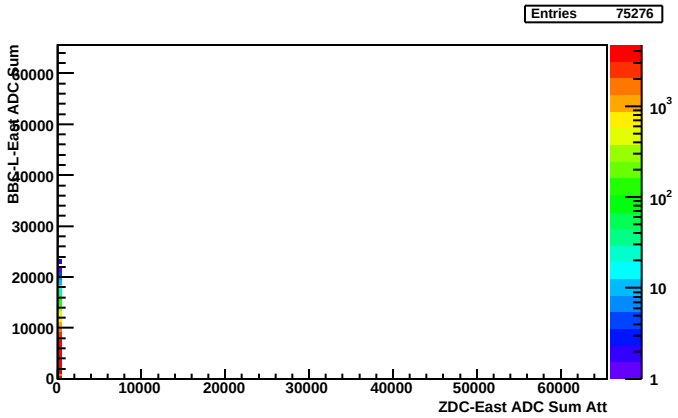

Entries 75276
TOF Mult
ZDC-West ADC Sum Att

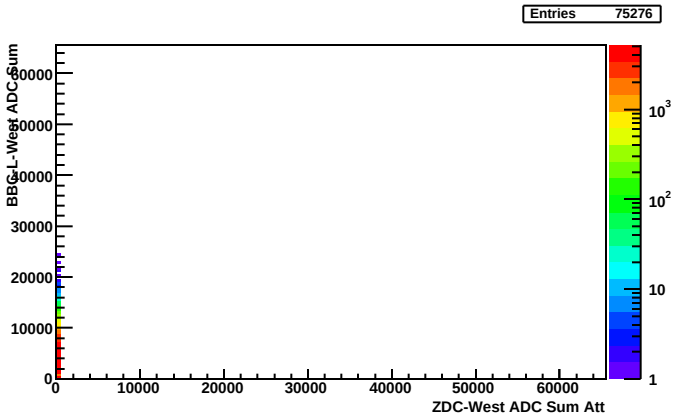

Entries 75276
BBC-L-East ADC Sum
BBC-S-East ADC Sum

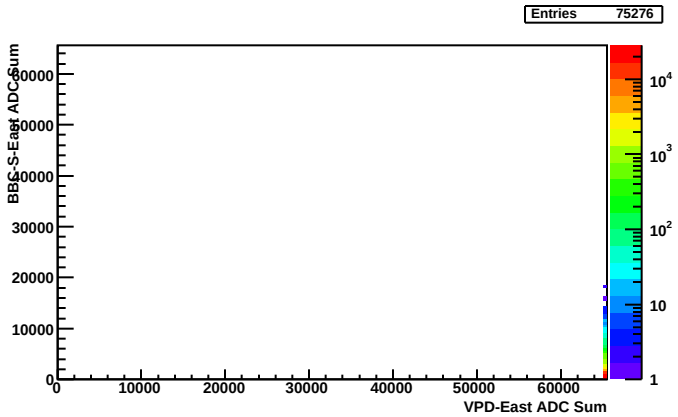

Entries 75276
BBC-L-West ADC Sum
BBC-S-West ADC Sum

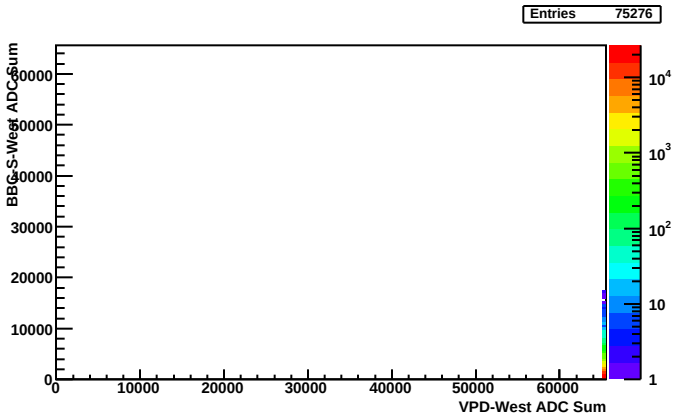

Entries 75276
BBC-L-East ADC Sum
VPD-East ADC Sum

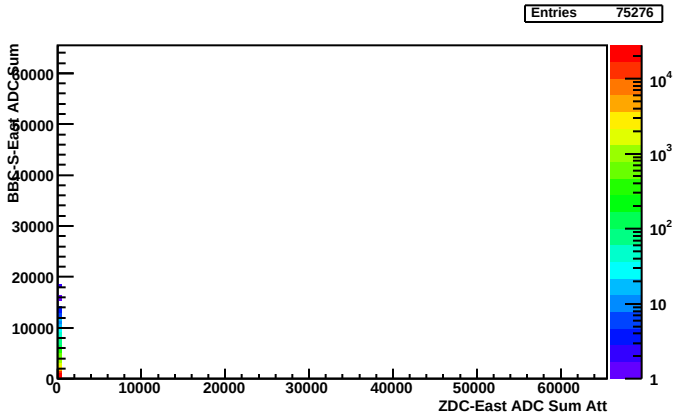

Entries 75276
BBC-L-West ADC Sum
VPD-West ADC Sum

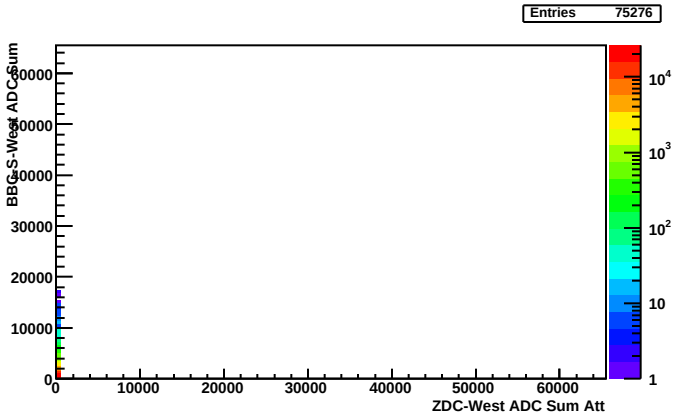

Entries 75276
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

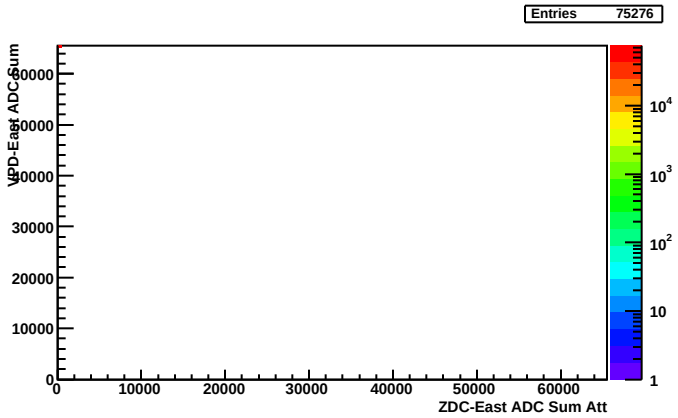

Entries 75276
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

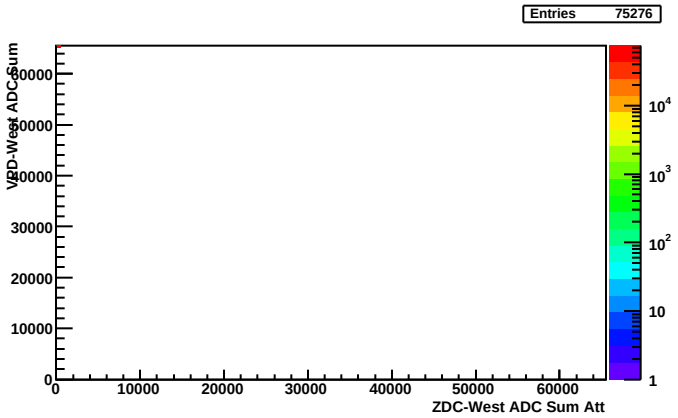

Entries 75276
BBC-S-East ADC Sum
VPD-East ADC Sum

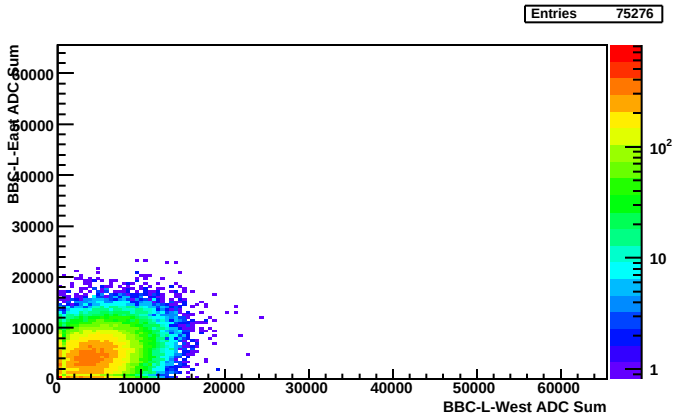

Entries 75276
BBC-S-West ADC Sum
VPD-West ADC Sum

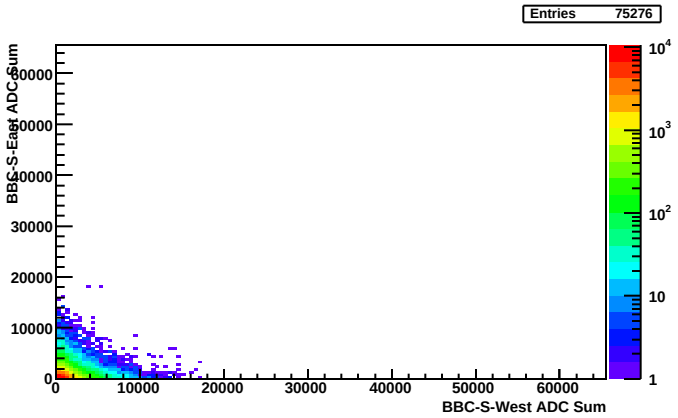

Entries 75276
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

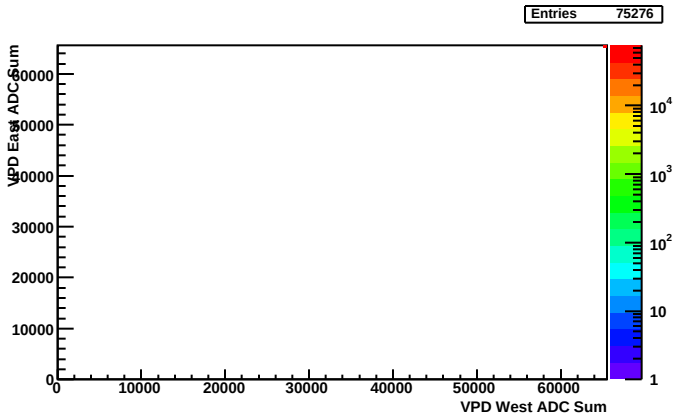

Entries 75276
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

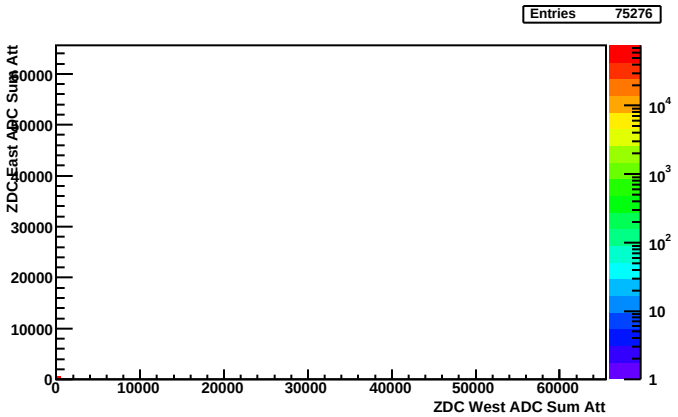

Entries 75276
VPD-East ADC Sum
ZDC-East ADC Sum Att

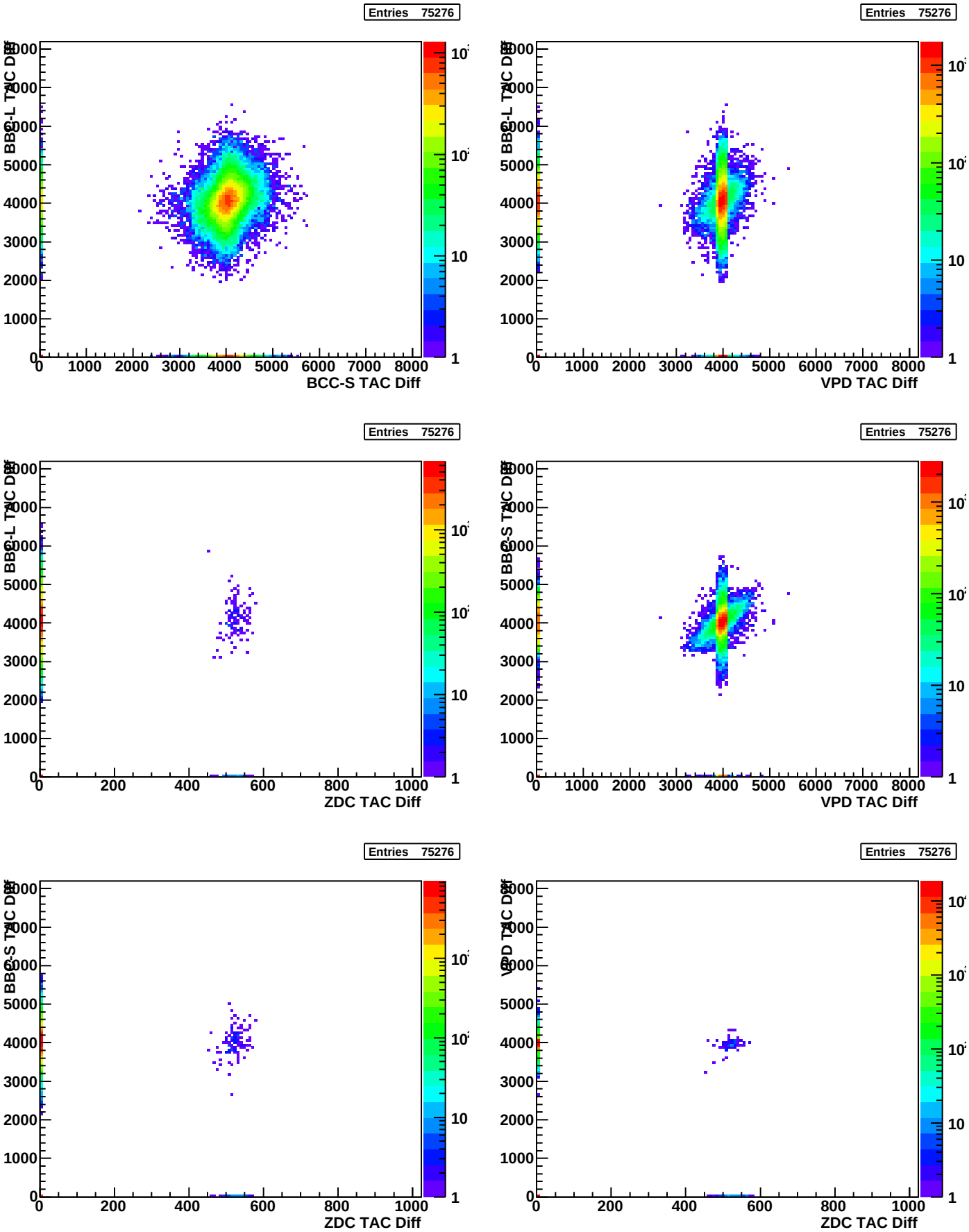

Entries 75276
VPD-West ADC Sum
ZDC-West ADC Sum Att

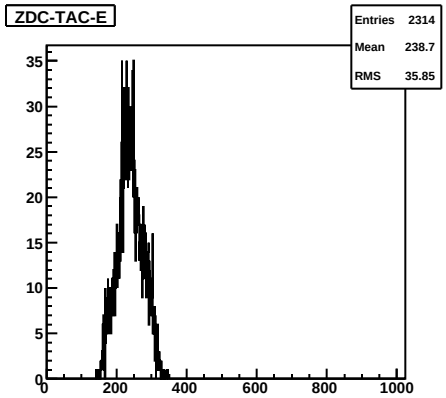

Entries 75276
BBC-L-East ADC Sum
BBC-L-West ADC Sum

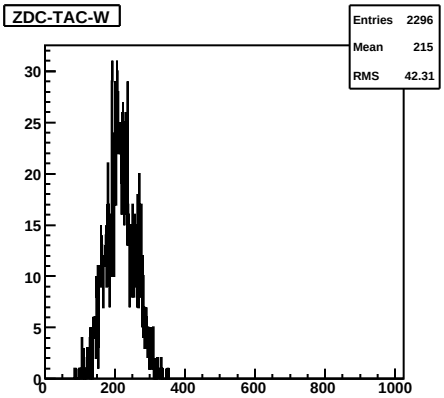

Entries 75276
BBC-S-East ADC Sum
BBC-S-West ADC Sum

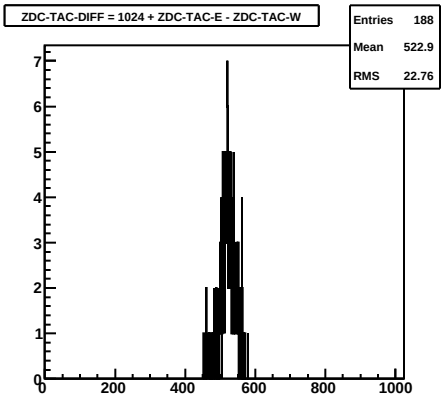

Entries 75276
VPD East ADC Sum
VPD West ADC Sum

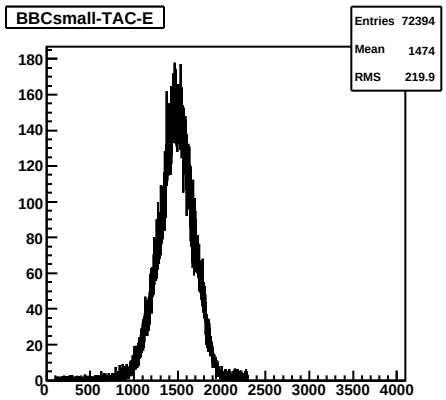

Entries 75276
ZDC-East ADC Sum Att
ZDC West ADC Sum Att

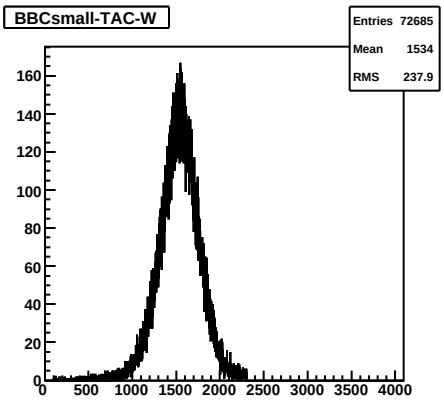

Entries 75276
BBC-L TAC Diff
BCC-S TAC Diff
Entries 75276
BBC-L TAC Diff
VPD TAC Diff
Entries 75276
BBC-L TAC Diff
ZDC TAC Diff
Entries 75276
BBC-S TAC Diff
VPD TAC Diff
Entries 75276
BBC-S TAC Diff
ZDC TAC Diff
Entries 75276
VPD TAC Diff
ZDC TAC Diff

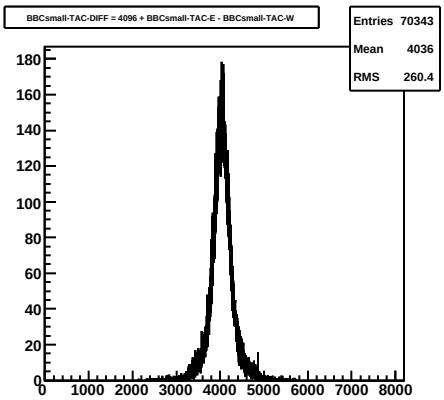

ZDC-TAC-E
Entries 2314
Mean 238.7
RMS 35.85

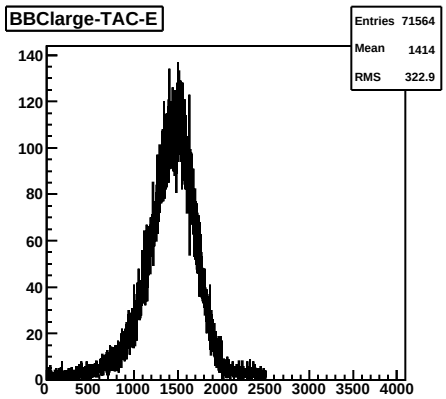

ZDC-TAC-W
Entries 2296
Mean 215
RMS 42.31

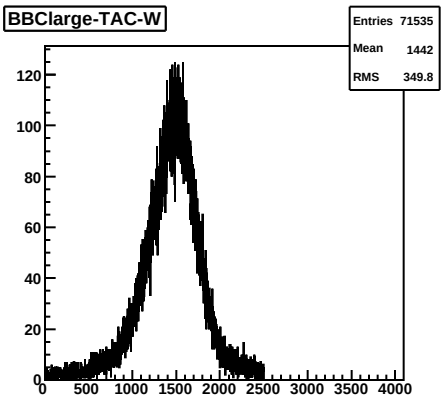

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 188
Mean 522.9
RMS 22.76

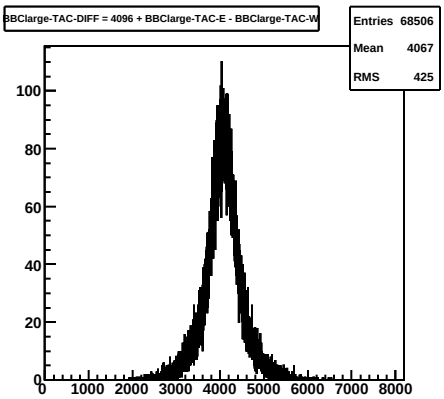

BBCsmall-TAC-E
Entries 72394
Mean 1474
RMS 219.9

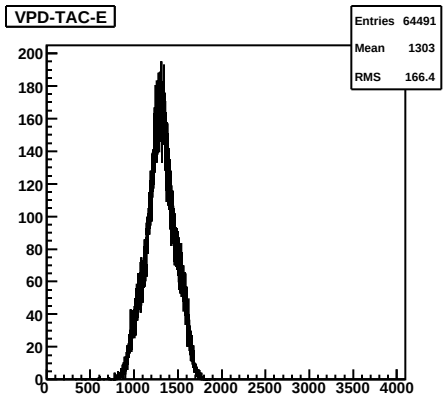

BBCsmall-TAC-W
Entries 72685
Mean 1534
RMS 237.9

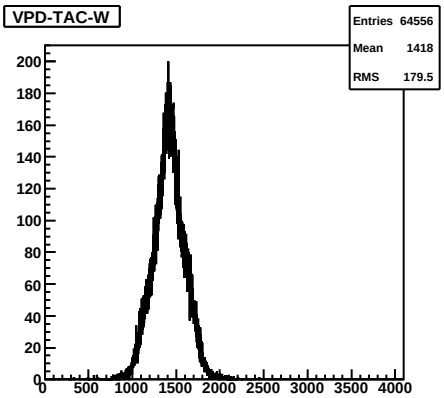

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 70343
Mean 4036
RMS 260.4

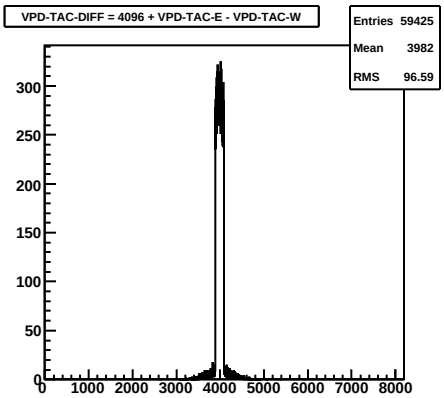

BBClarge-TAC-E
Entries 71564
Mean 1414
RMS 322.9

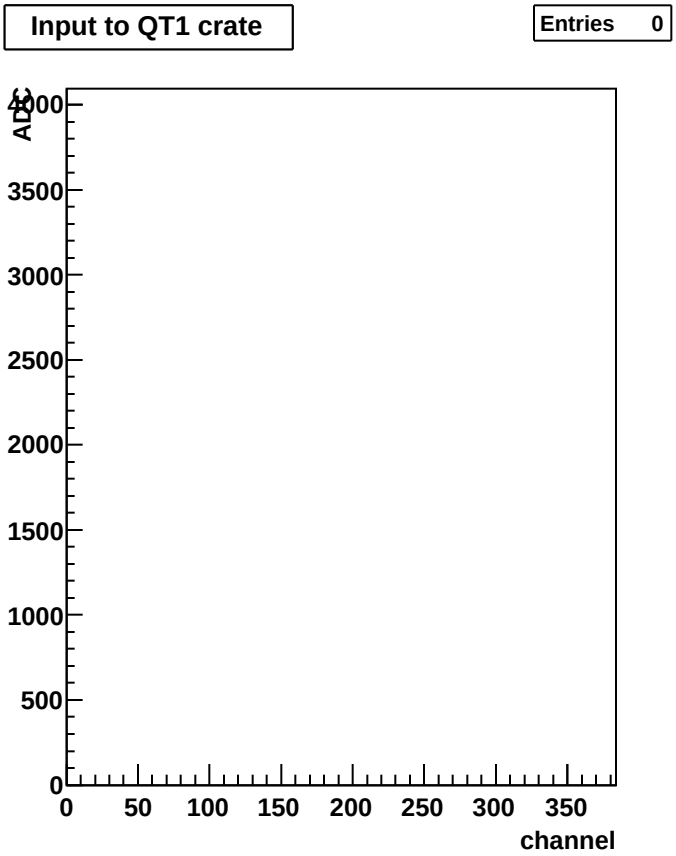

BBClarge-TAC-W
Entries 71535
Mean 1442
RMS 349.8

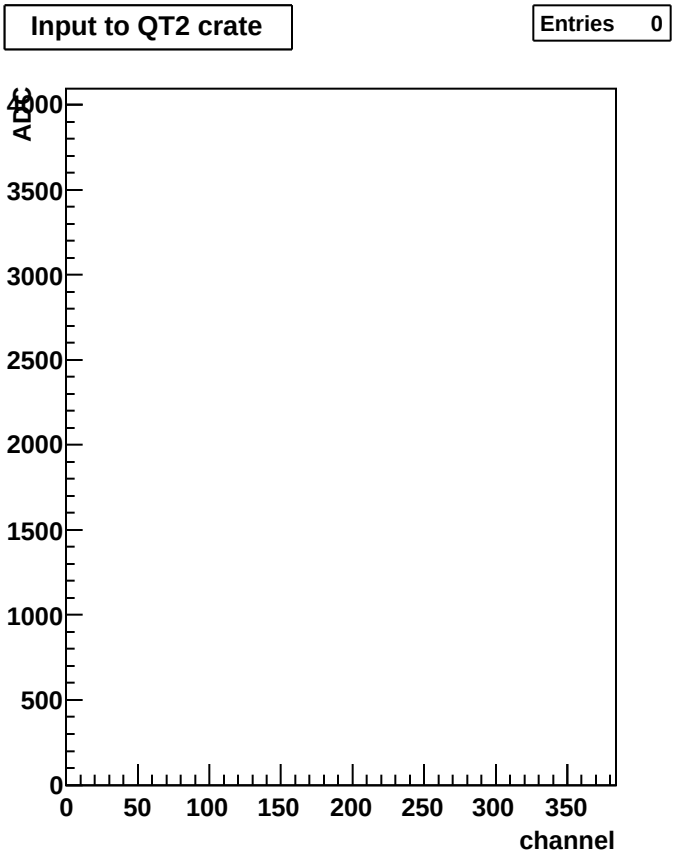

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 68506
Mean 4067
RMS 425

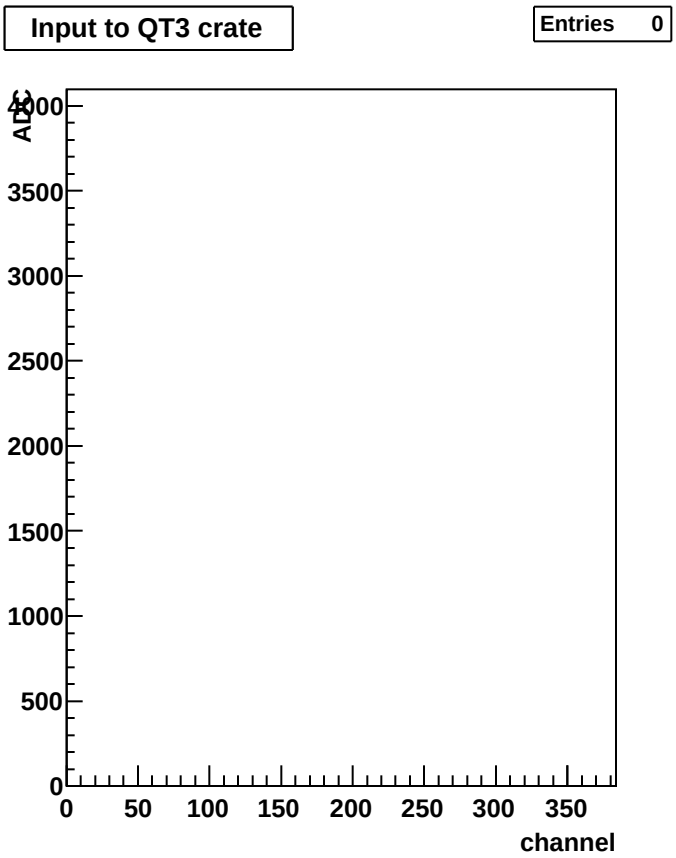

VPD-TAC-E
Entries 64491
Mean 1303
RMS 166.4

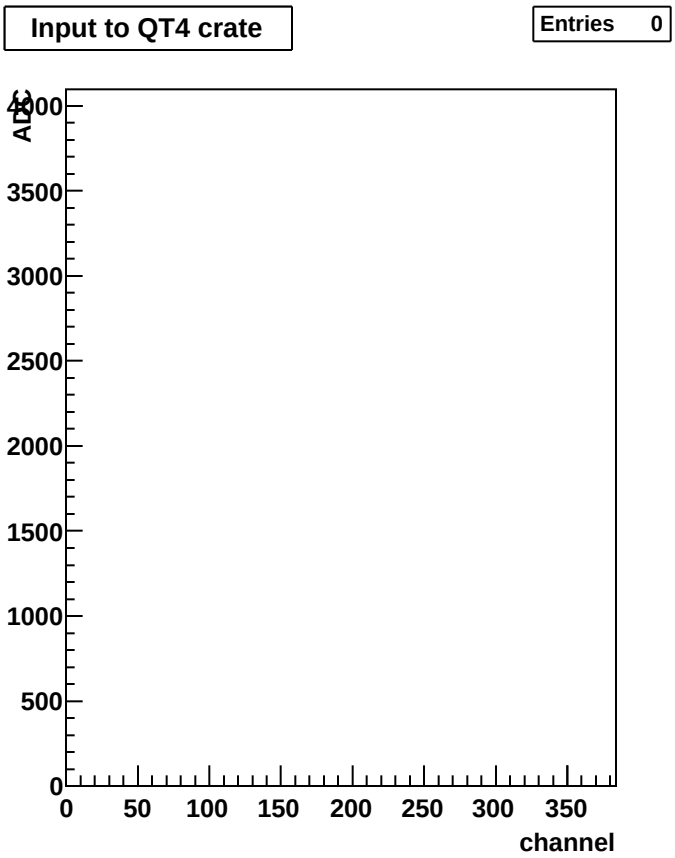

VPD-TAC-W
Entries 64556
Mean 1418
RMS 179.5

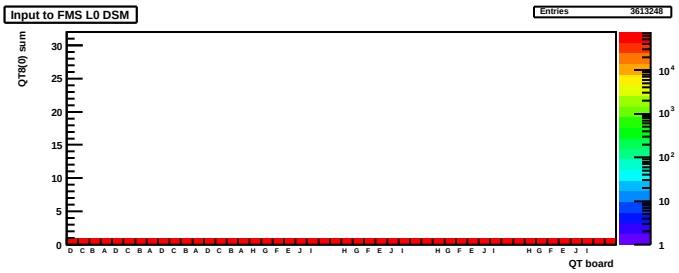

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 59425
Mean 3982
RMS 96.59

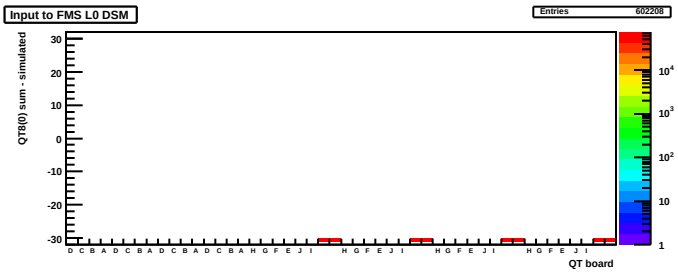

Input to QT1 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

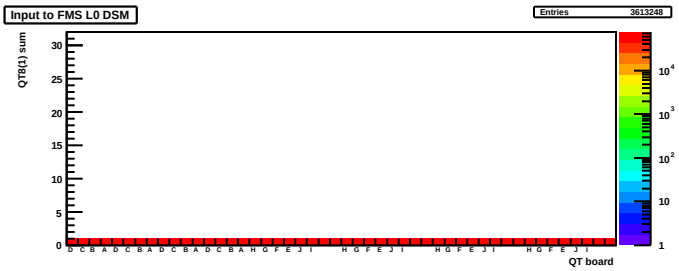

Input to QT2 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

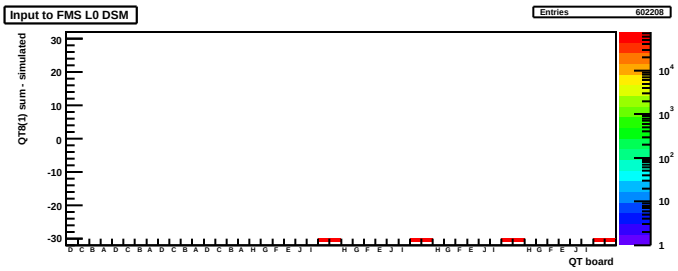

Input to QT3 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

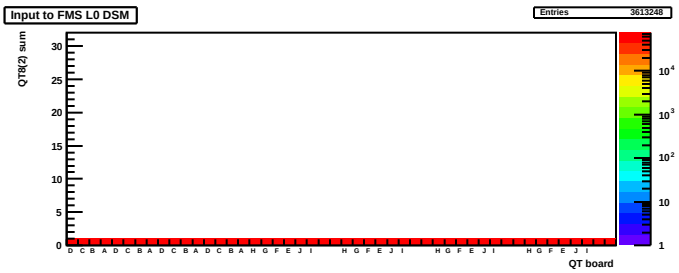

Input to QT4 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

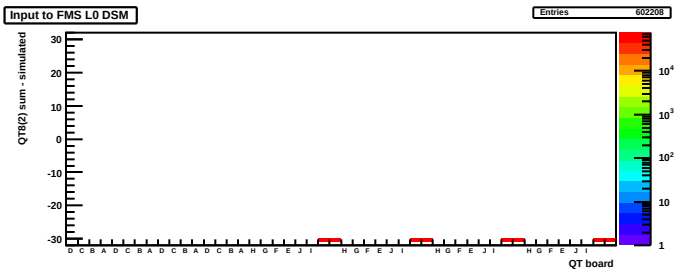

Input to FMS L0 DSM
Entries 3613248
QT8(0) sum
QT board

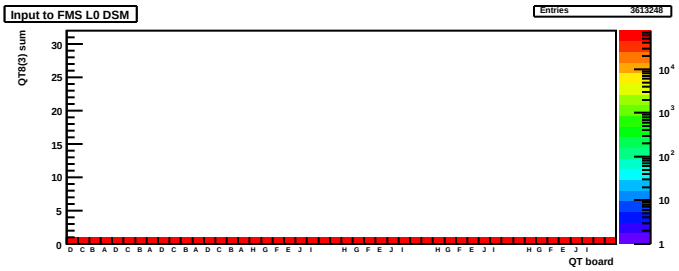

Input to FMS L0 DSM
Entries 602208
QT8(0) sum - simulated
QT board

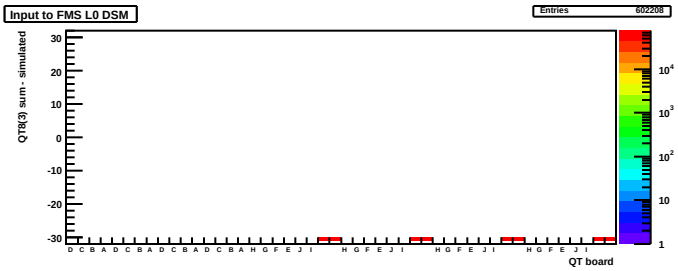

Input to FMS L0 DSM
Entries 3613248
QT8(1) sum
QT board

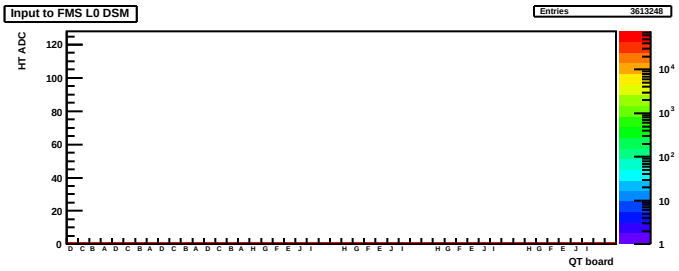

Input to FMS L0 DSM
Entries 602208
QT8(1) sum - simulated
QT board

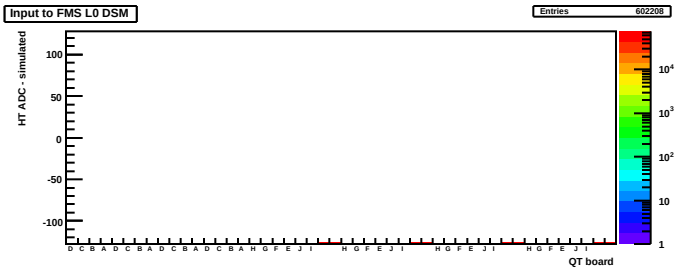

Input to FMS L0 DSM
Entries 3613248
QT8(2) sum
QT board

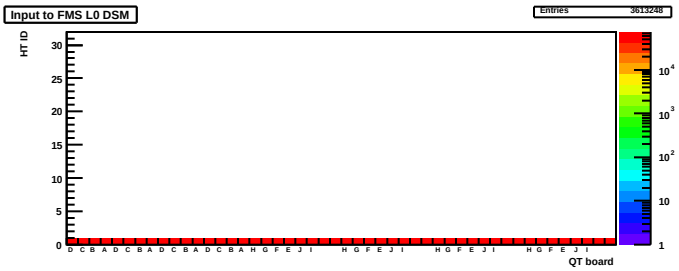

Input to FMS L0 DSM
Entries 602208
QT8(2) sum - simulated
QT board

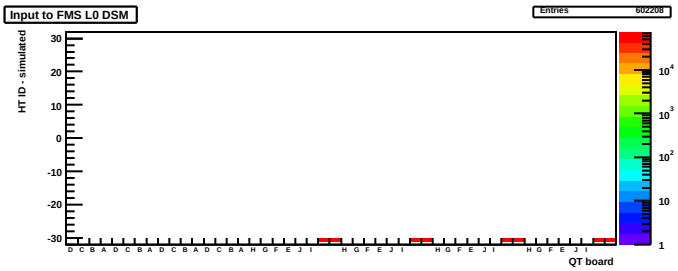

Input to FMS L0 DSM
Entries 3613248
QT8(3) sum
QT board

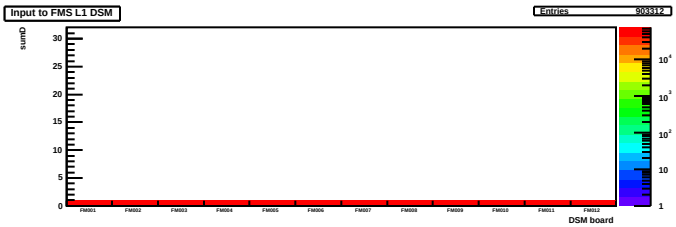

Input to FMS L0 DSM
Entries 602208
QT8(3) sum - simulated
QT board

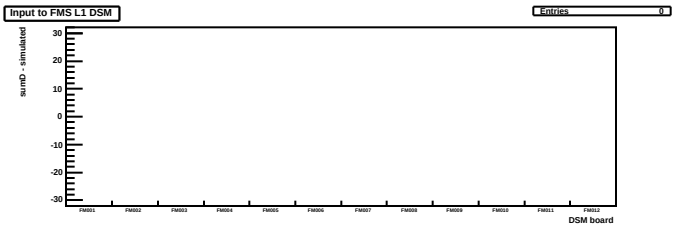

Input to FMS L0 DSM
Entries 3613248
HT ADC
QT board

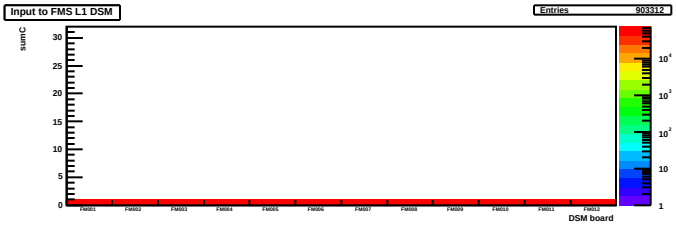

Input to FMS L0 DSM
Entries 602208
HT ADC - simulated
QT board

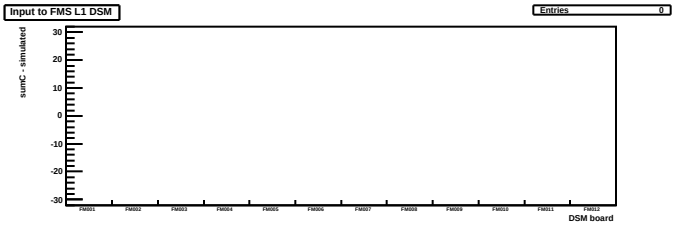

Input to FMS L0 DSM
Entries 3613248
HT ID
QT board

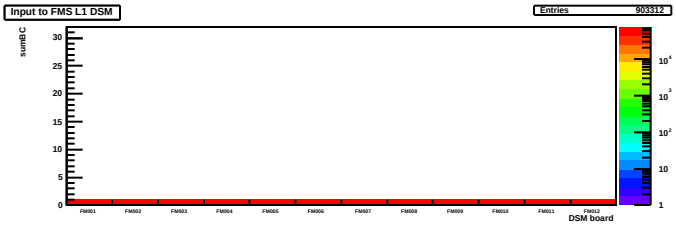

Input to FMS L0 DSM
Entries 602208
HT ID - simulated
QT board

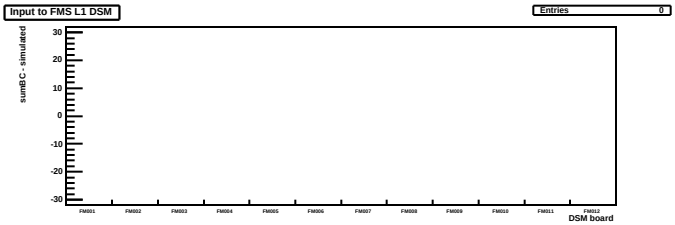

Input to FMS L1 DSM
Entries 903312
sumD
DSM board

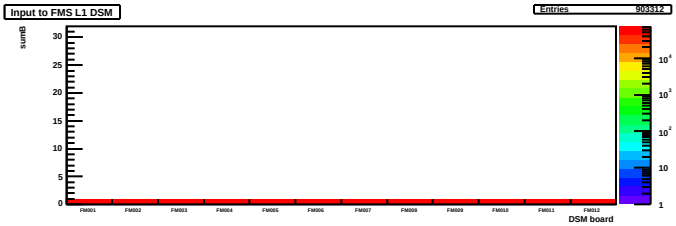

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

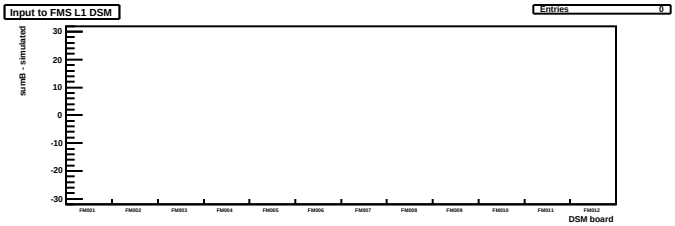

Input to FMS L1 DSM
Entries 903312
sumC
DSM board

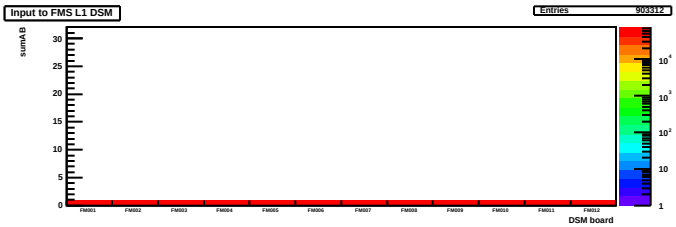

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

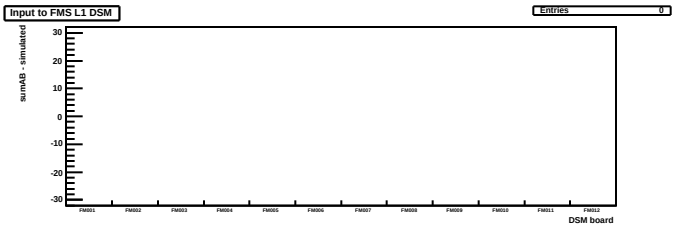

Input to FMS L1 DSM
Entries 903312
sumBC
DSM board

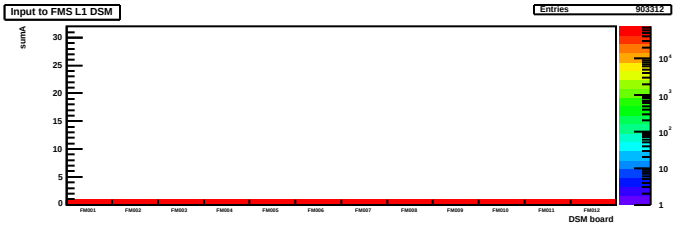

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

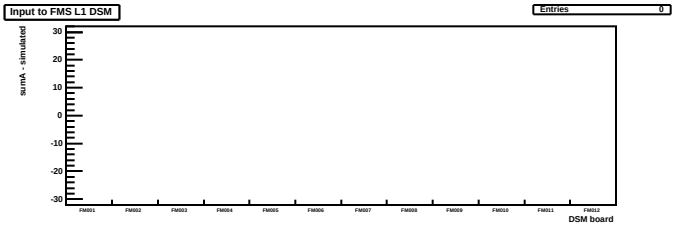

Input to FMS L1 DSM
Entries 903312
sumB
DSM board

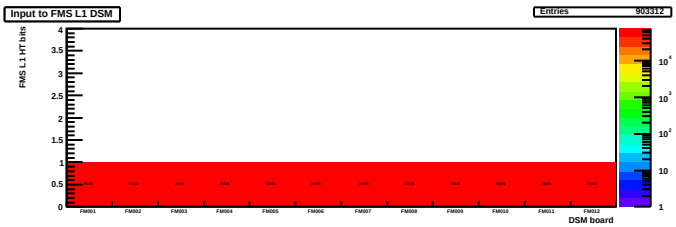

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

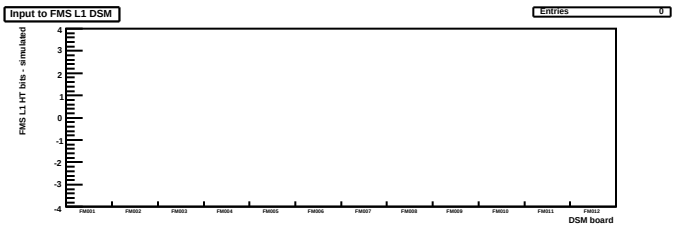

Input to FMS L1 DSM
Entries 903312
sumAB
DSM board

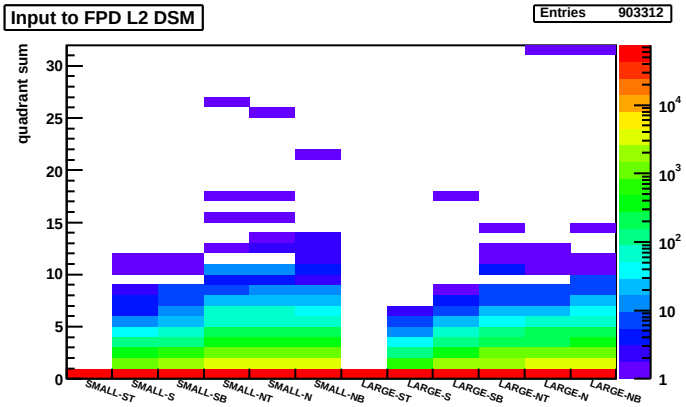

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

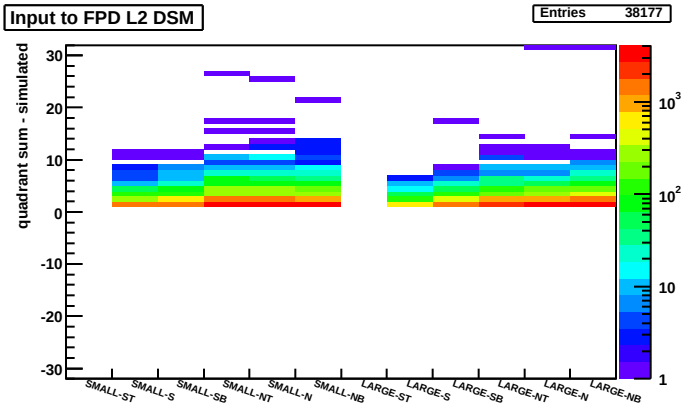

Input to FMS L1 DSM
Entries 903312
sumA
DSM board

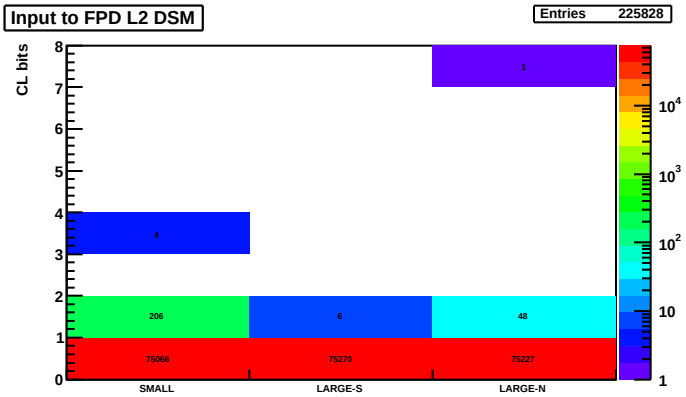

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

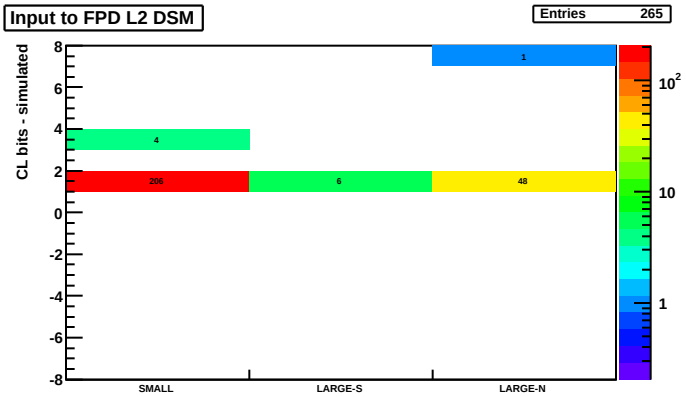

Input to FMS L1 DSM
Entries 903312
FMS L1 HT bits
DSM board

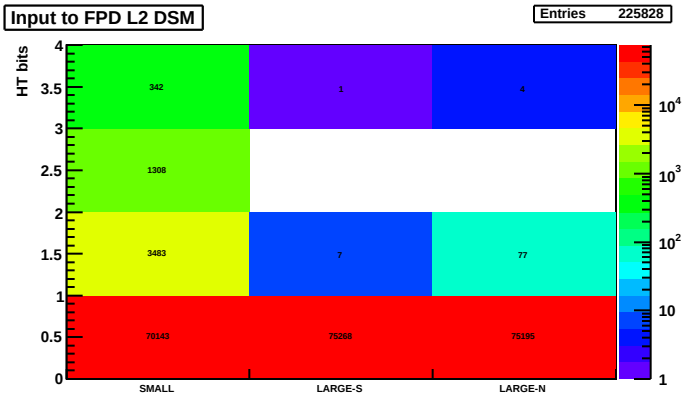

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

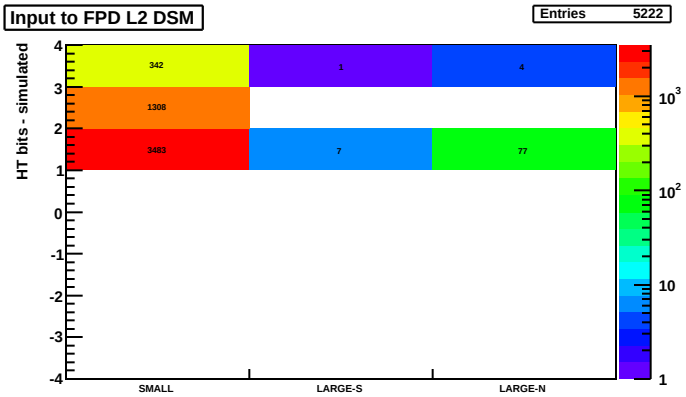

Input to FPD L2 DSM
Entries 903312
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

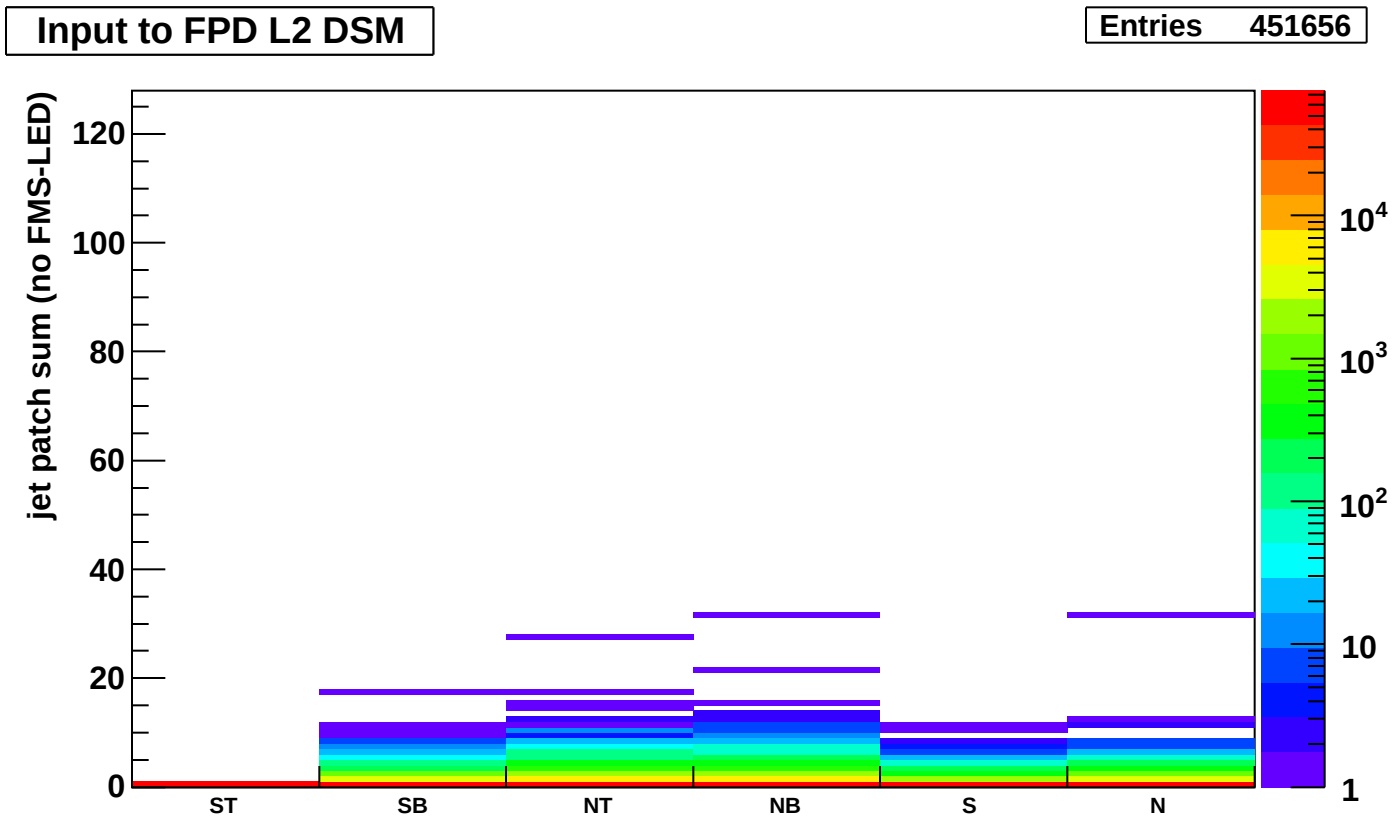

Input to FPD L2 DSM
Entries 38177
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

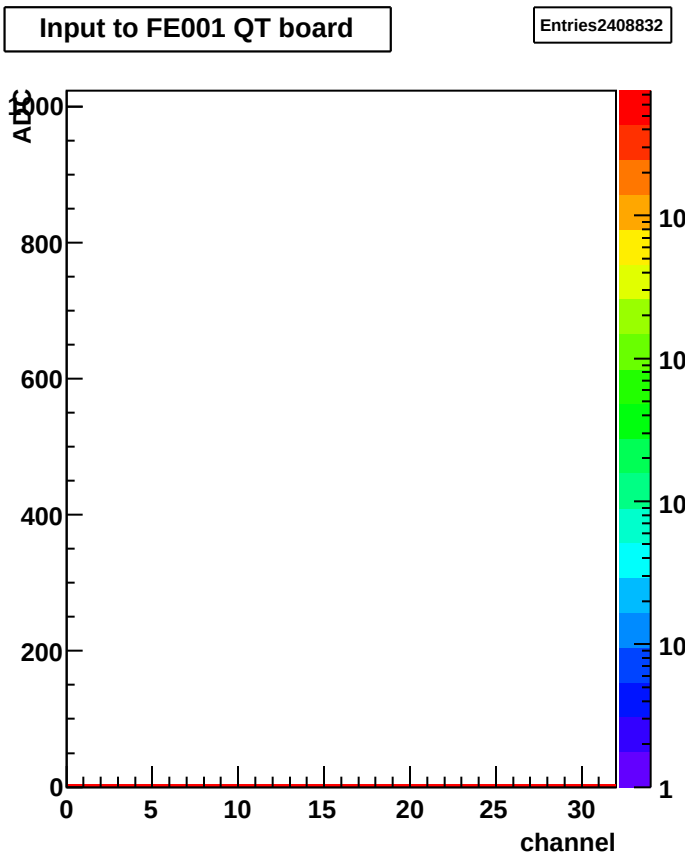

Input to FPD L2 DSM
Entries 225828
CL bits
1
4
206
6
48
75066
75270
75227
SMALL
LARGE-S
LARGE-N

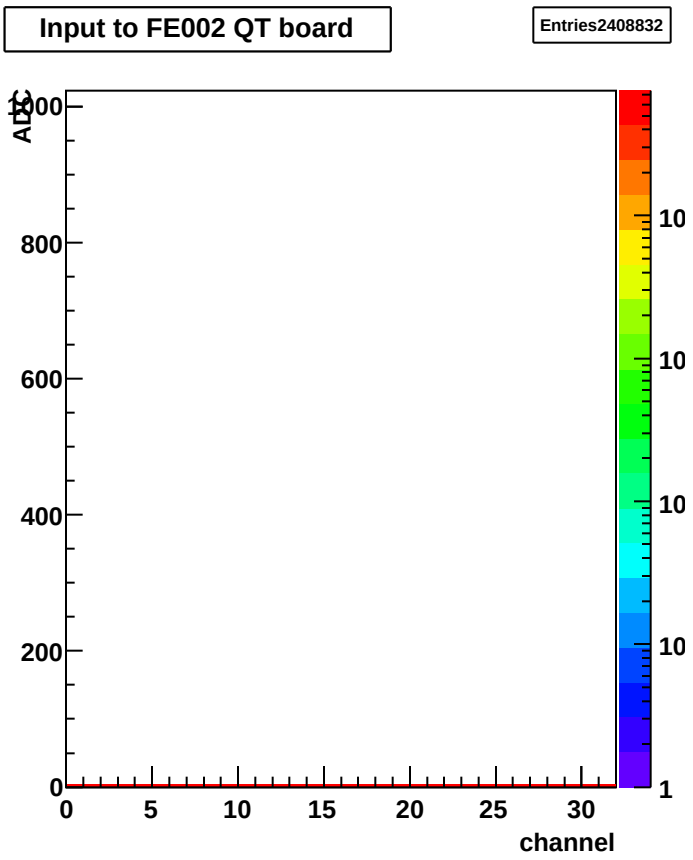

Input to FPD L2 DSM
Entries 265
CL bits - simulated
1
4
206
6
48
SMALL
LARGE-S
LARGE-N

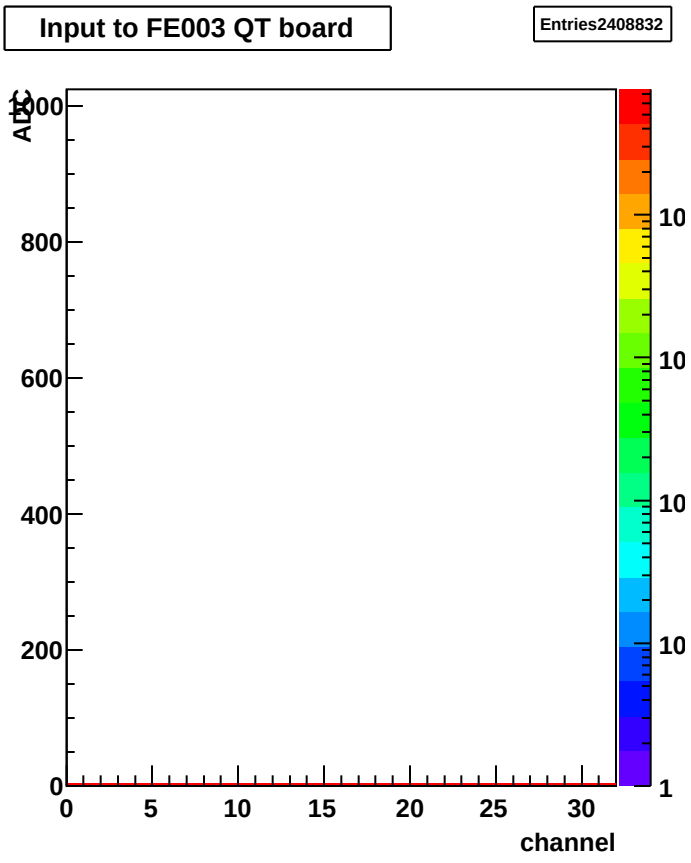

Input to FPD L2 DSM
Entries 225828
HT bits
342
1
4
1308
3483
7
77
70143
75268
75195
SMALL
LARGE-S
LARGE-N

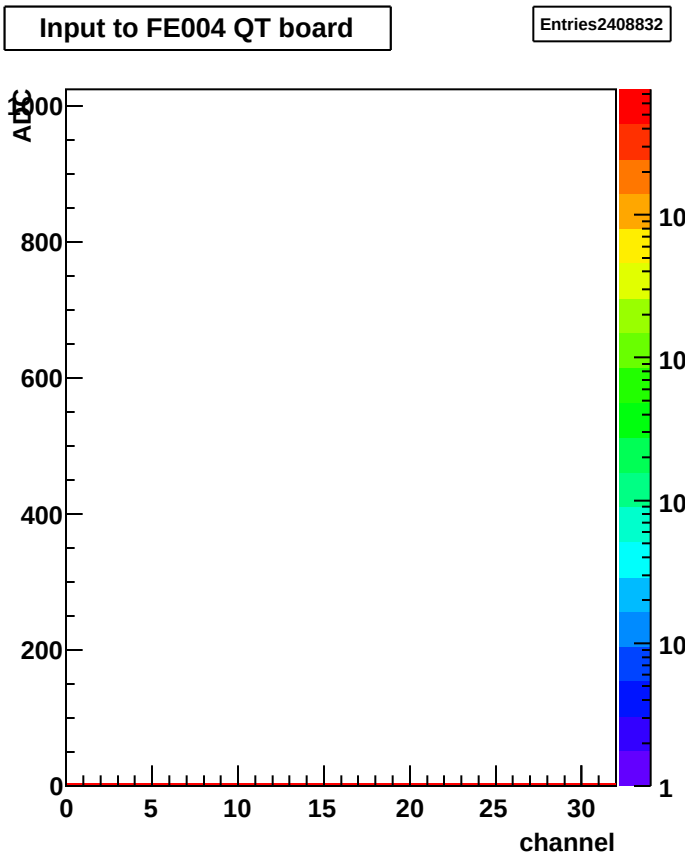

Input to FPD L2 DSM
Entries 5222
HT bits - simulated
342
1
4
1308
3483
7
77
SMALL
LARGE-S
LARGE-N

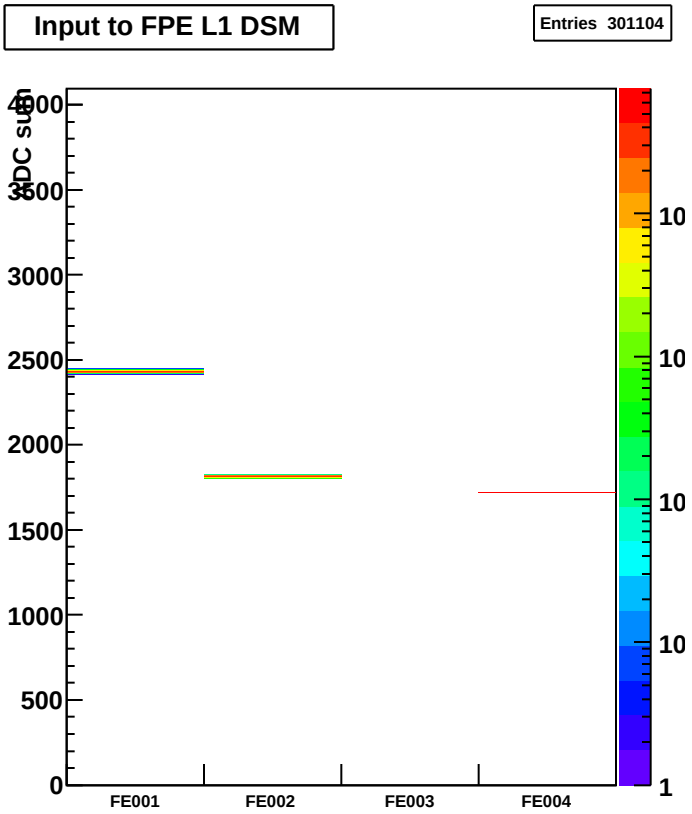

Input to FPD L2 DSM
Entries 451656
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

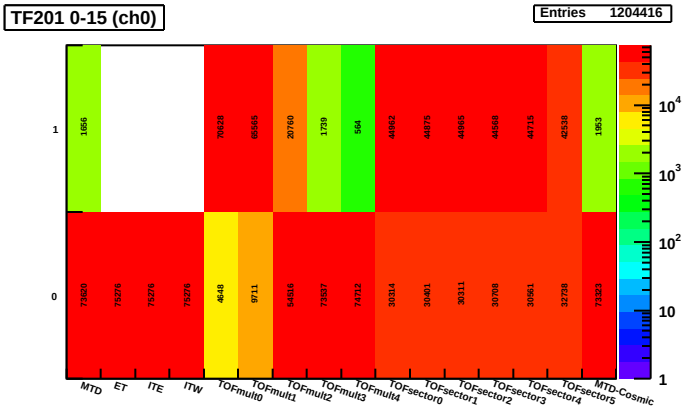

Input to FE001 QT board
Entries2408832
ADC
channel

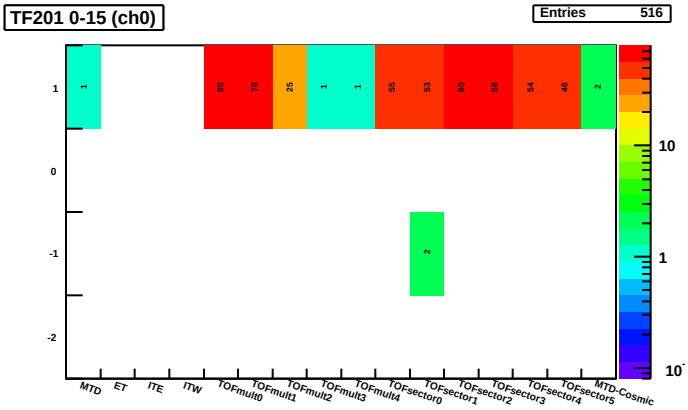

Input to FE002 QT board
Entries2408832
ADC
channel

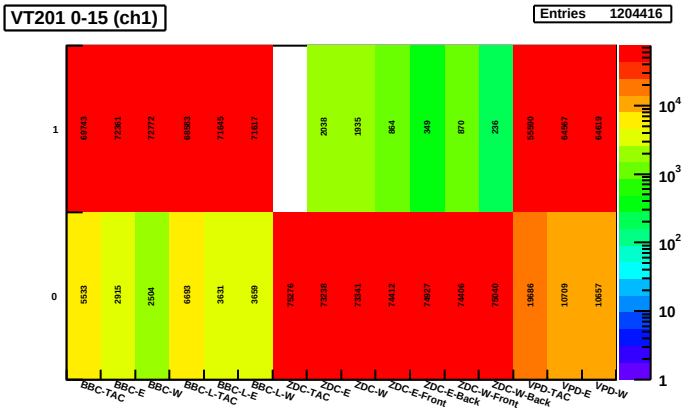

Input to FE003 QT board
Entries2408832
ADC
channel

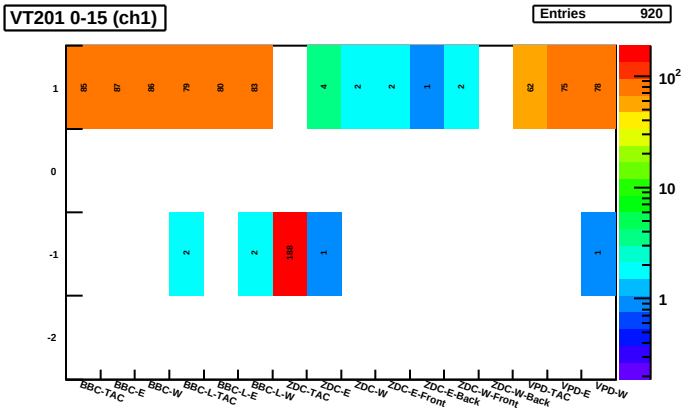

Input to FE004 QT board
Entries2408832
ADC
channel

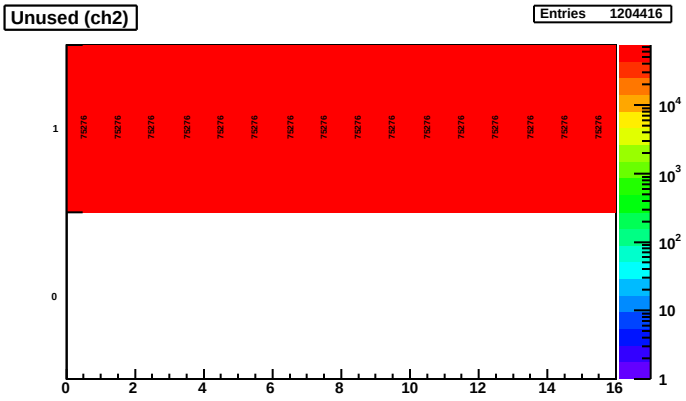

Input to FPE L1 DSM
Entries 301104
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

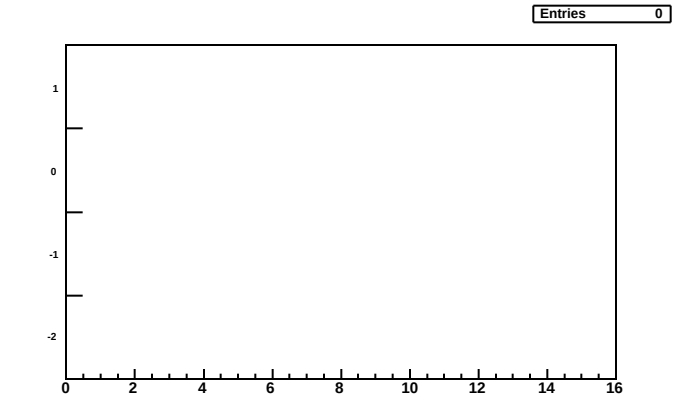

TF201 0-15 (ch0)
Entries 1204416
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

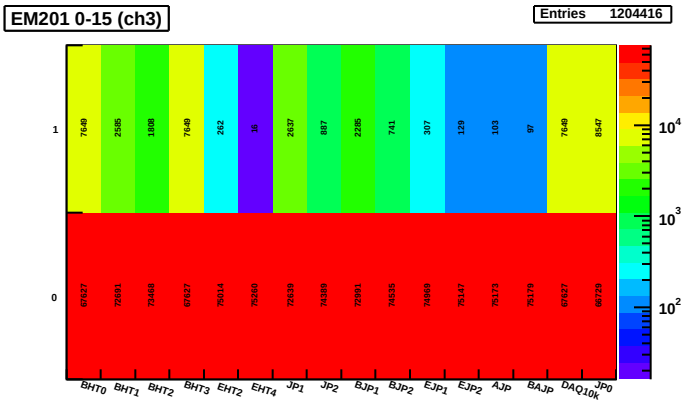

TF201 0-15 (ch0)
Entries 516
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

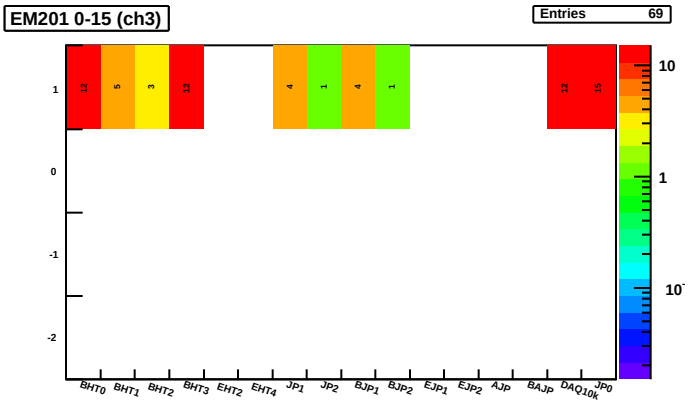

VT201 0-15 (ch1)
Entries 1204416
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

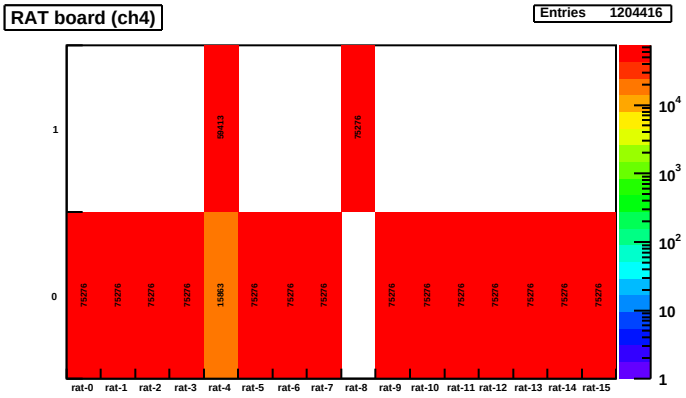

VT201 0-15 (ch1)
Entries 920
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

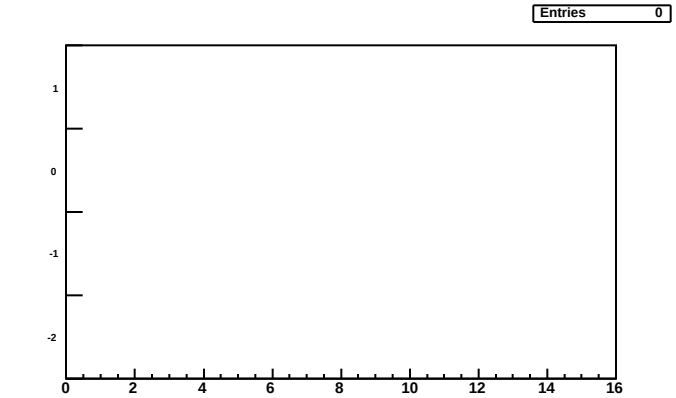

Unused (ch2)
Entries 1204416

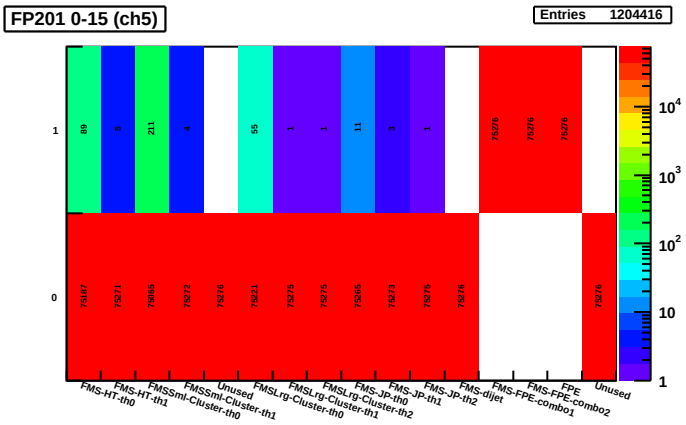

Entries 0

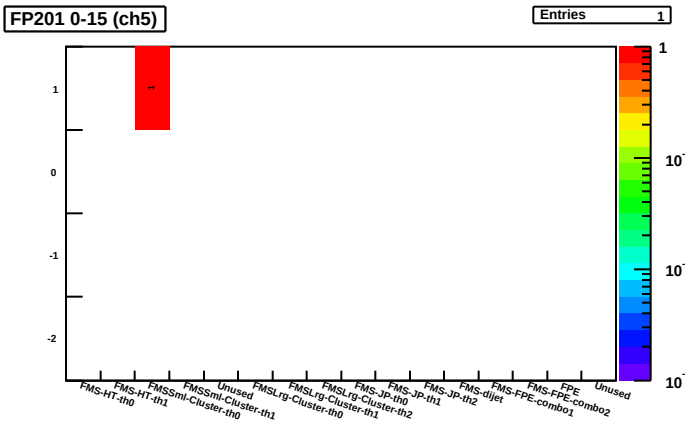

EM201 0-15 (ch3)
Entries 1204416
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

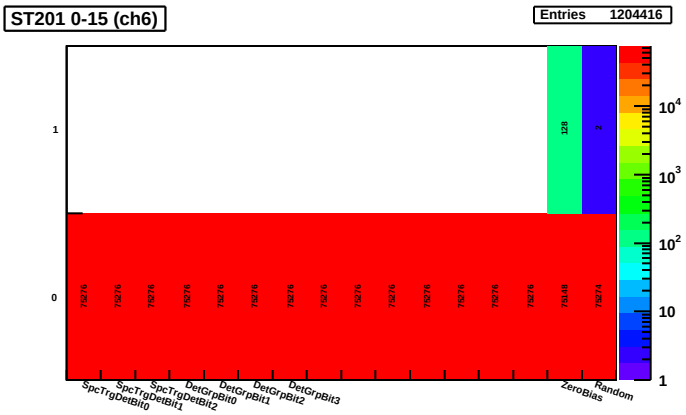

EM201 0-15 (ch3)
Entries 69
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

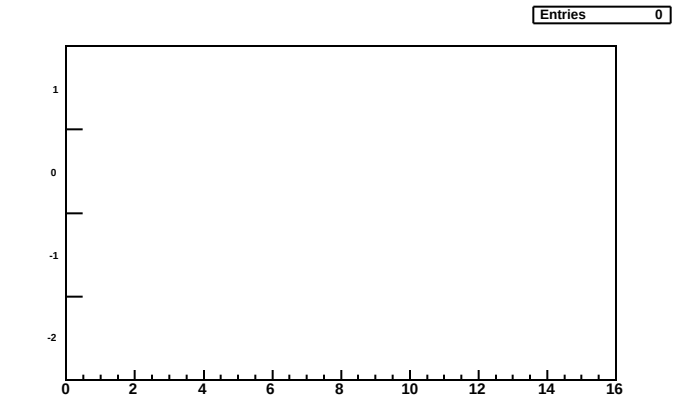

RAT board (ch4)
Entries 1204416
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

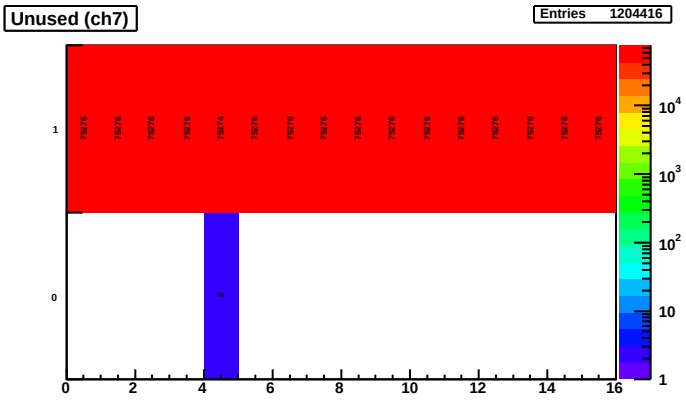

Entries 0

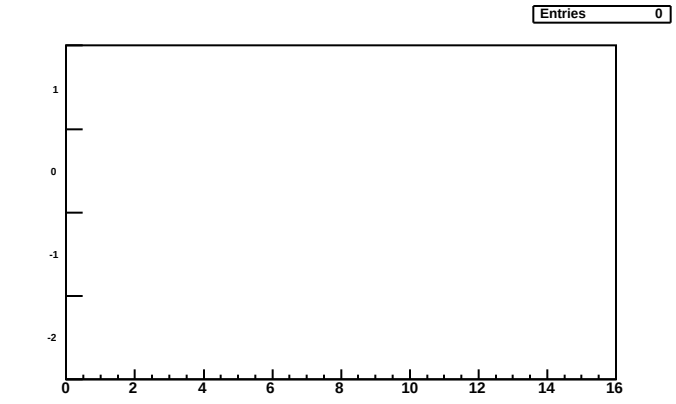

FP201 0-15 (ch5)
Entries 1204416
FMS-HT-th0 FMS-HT-th1 FMSSml-Cluster-th0 FMSSml-Cluster-th1 Unused FMSLrg-Cluster-th0 FMSLrg-Cluster-th1 FMSLrg-Cluster-th2 FMS-JP-th0 FMS-JP-th1 FMS-JP-th2 FMS-diJet FMS-FPE-combo1 FMS-FPE-combo2 FPE Unused


FP201 0-15 (ch5)
Entries 1
FMS-HT-th0 FMS-HT-th1 FMSSml-Cluster-th0 FMSSml-Cluster-th1 Unused FMSLrg-Cluster-th0 FMSLrg-Cluster-th1 FMSLrg-Cluster-th2 FMS-JP-th0 FMS-JP-th1 FMS-JP-th2 FMS-diJet FMS-FPE-combo1 FMS-FPE-combo2 FPE Unused


ST201 0-15 (ch6)
Entries 1204416
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetGrpBit0 DetGrpBit1 DetGrpBit2 DetGrpBit3 ZeroBias Random


Entries 0


Unused (ch7)
Entries 1204416


Entries 0