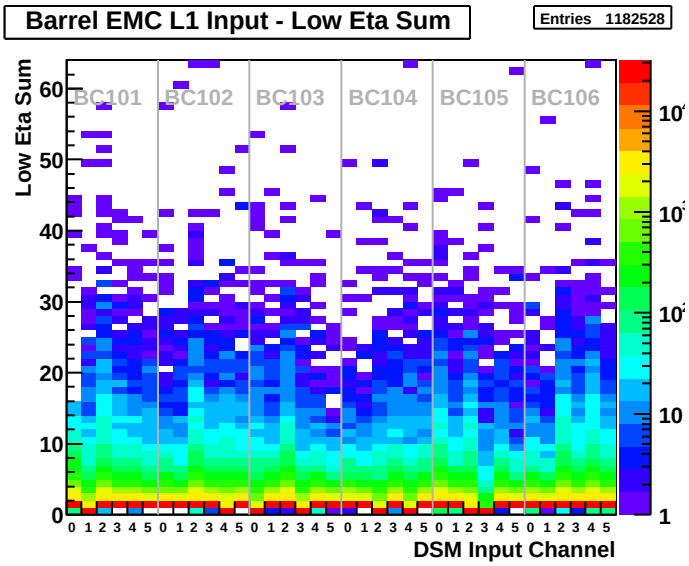
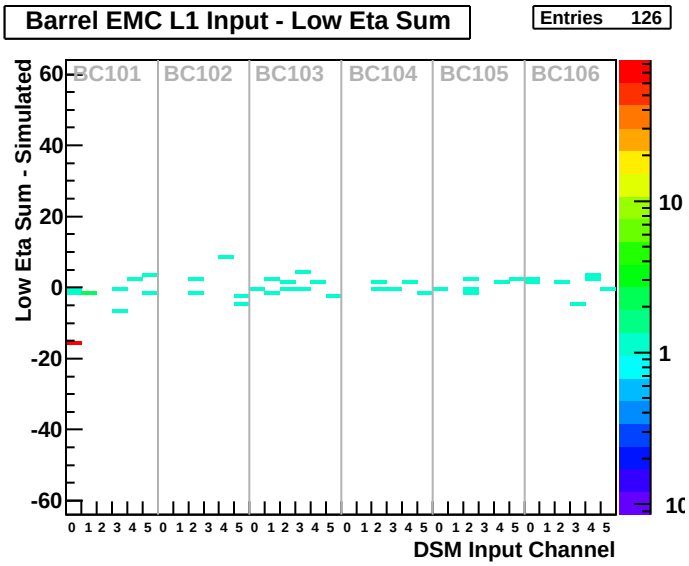
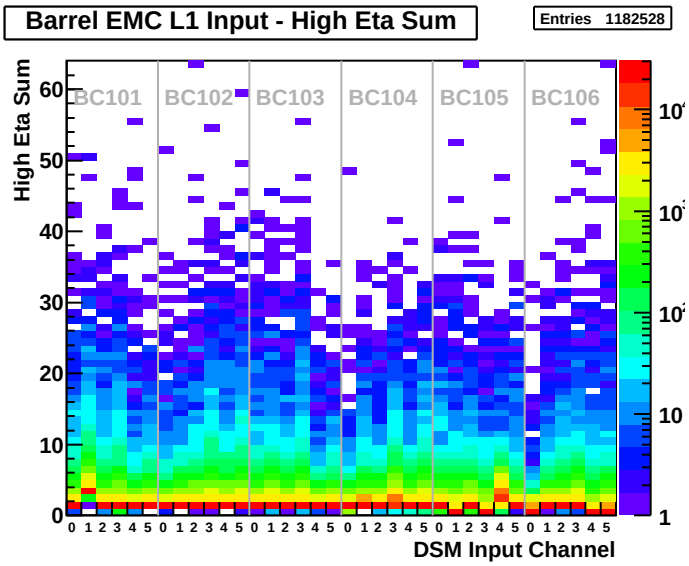
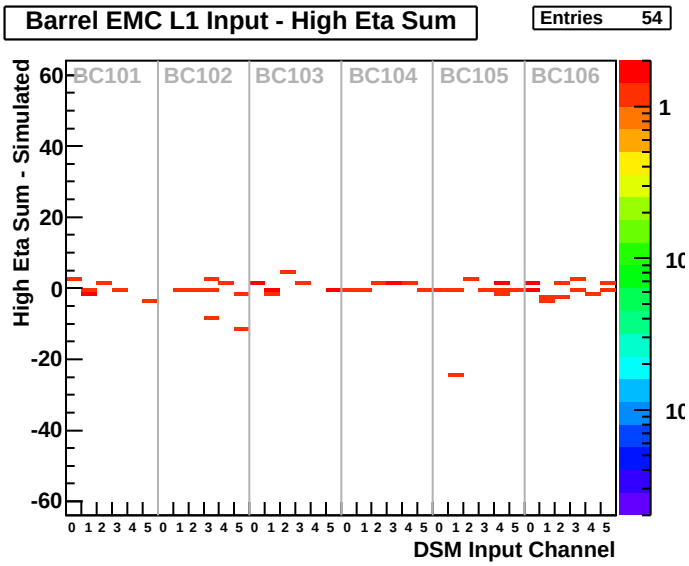
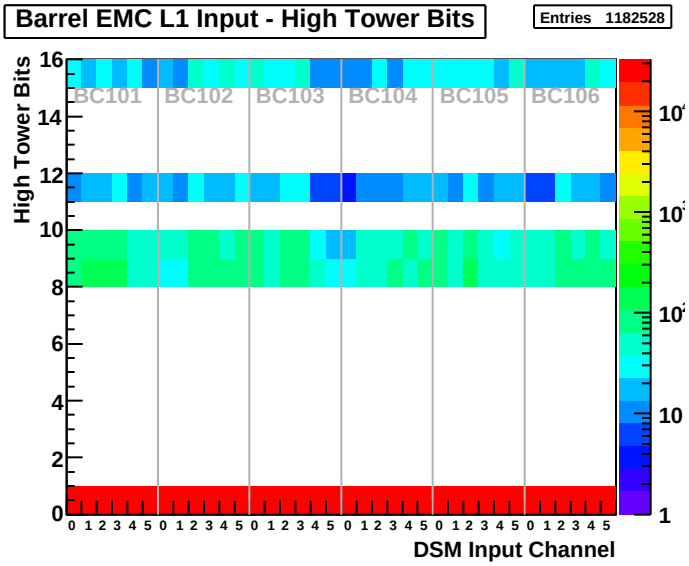
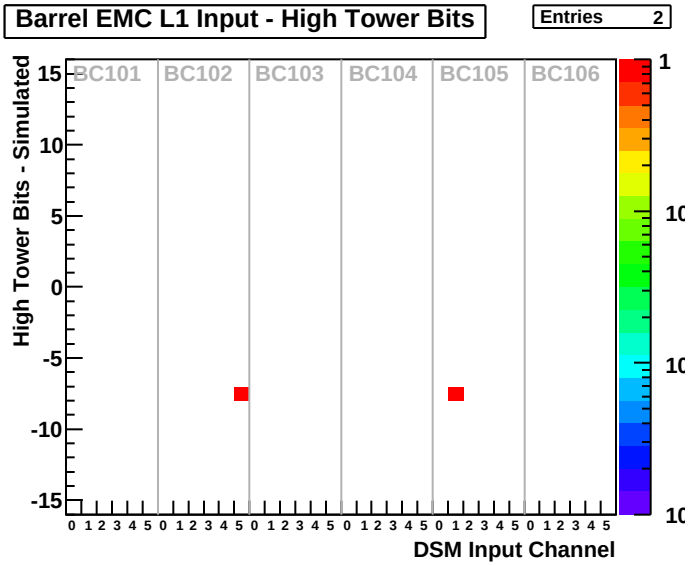

Barrel EMC L1 Input - Low Eta Sum
Entries 1182528
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

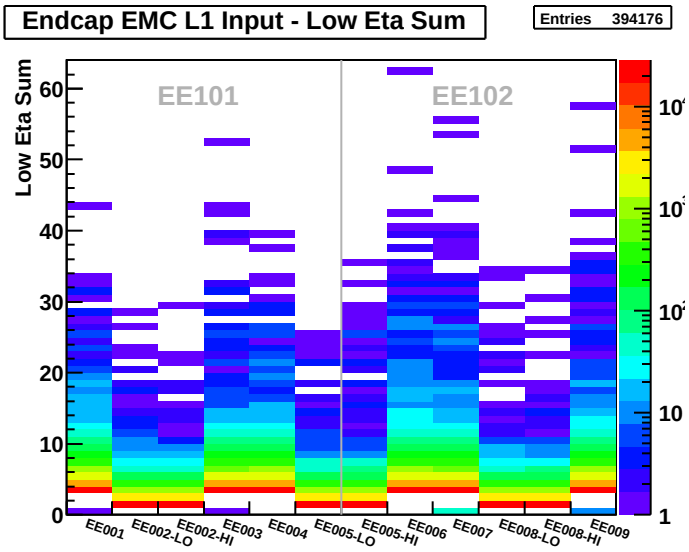

Barrel EMC L1 Input - Low Eta Sum
Entries 126
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

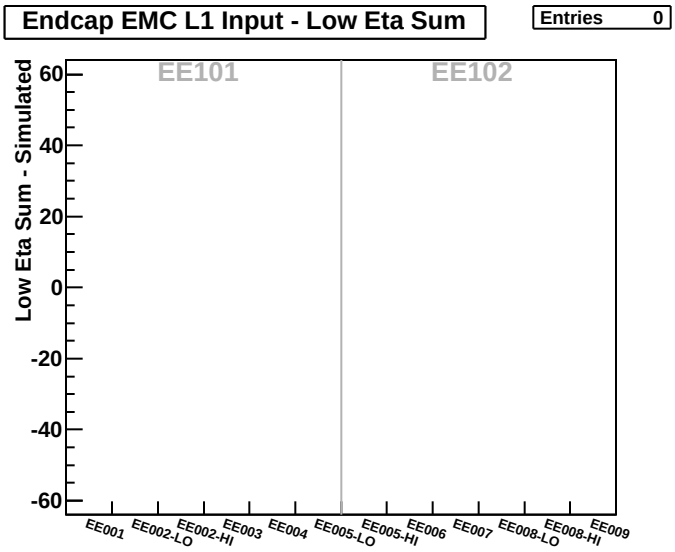

Barrel EMC L1 Input - High Eta Sum
Entries 1182528
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

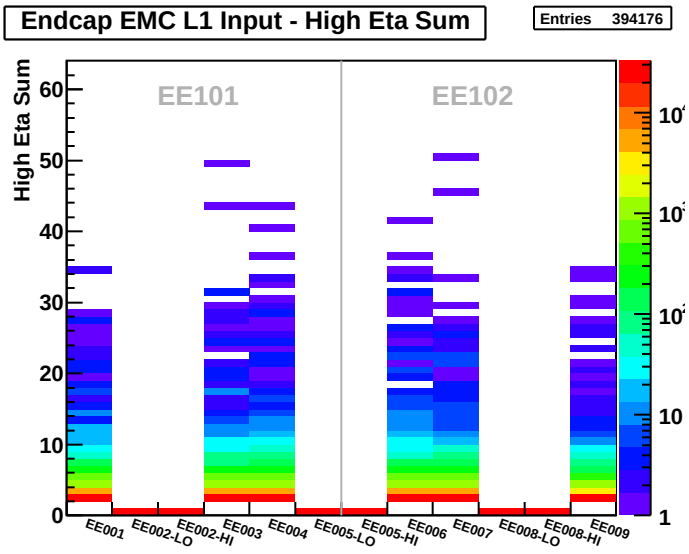

Barrel EMC L1 Input - High Eta Sum
Entries 54
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

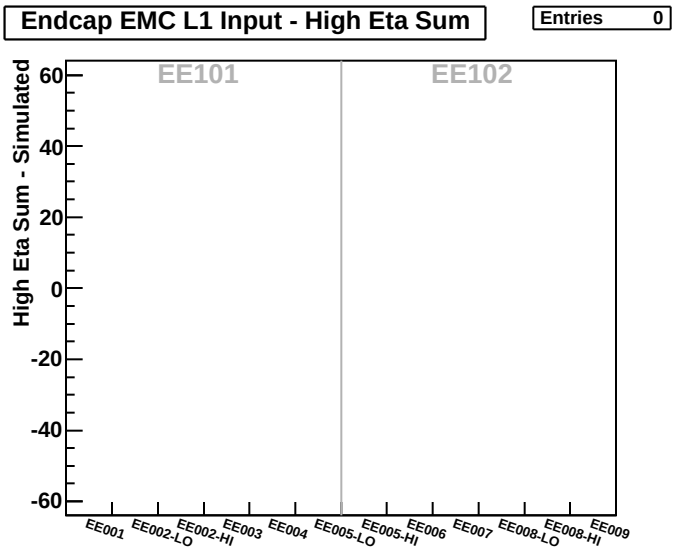

Barrel EMC L1 Input - High Tower Bits
Entries 1182528
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

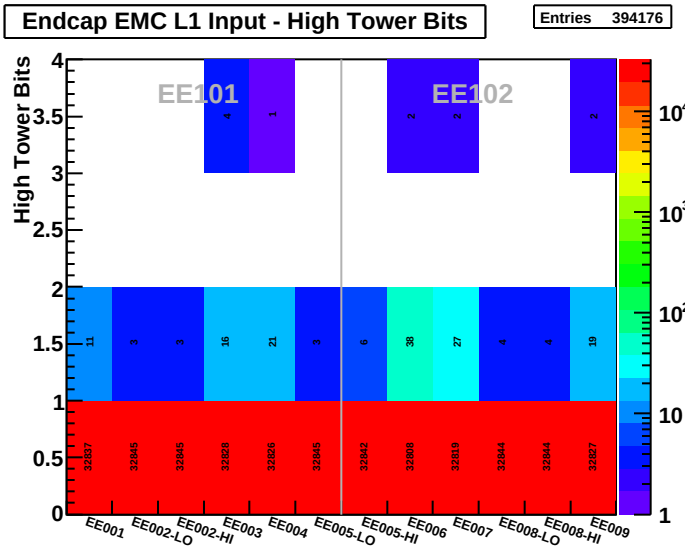

Barrel EMC L1 Input - High Tower Bits
Entries 2
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

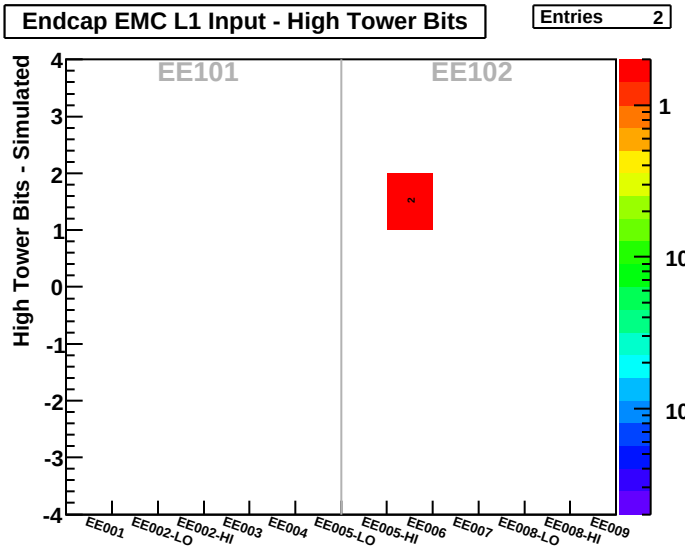

Endcap EMC L1 Input - Low Eta Sum
Entries 394176
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

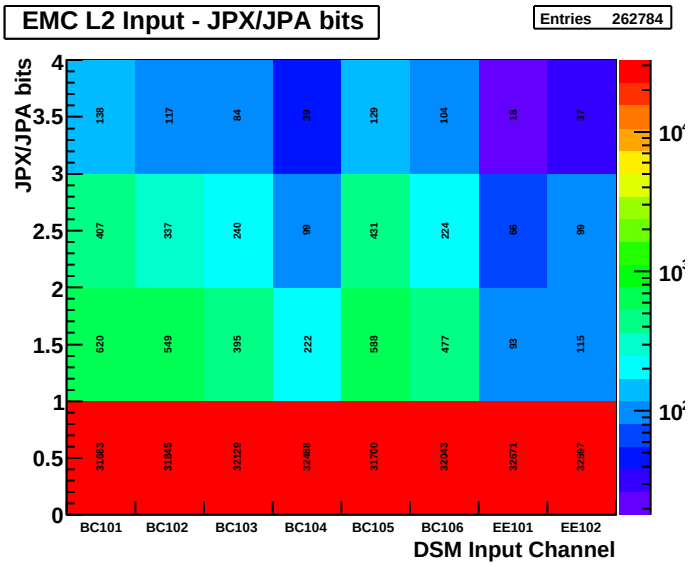

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

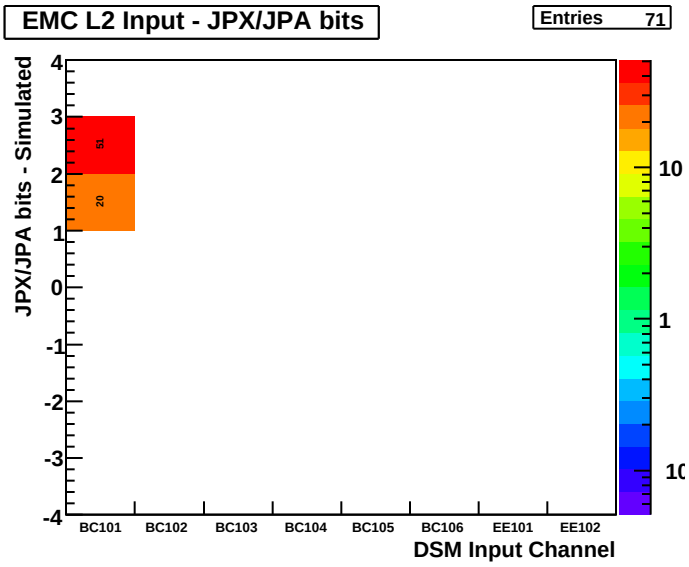

Endcap EMC L1 Input - High Eta Sum
Entries 394176
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

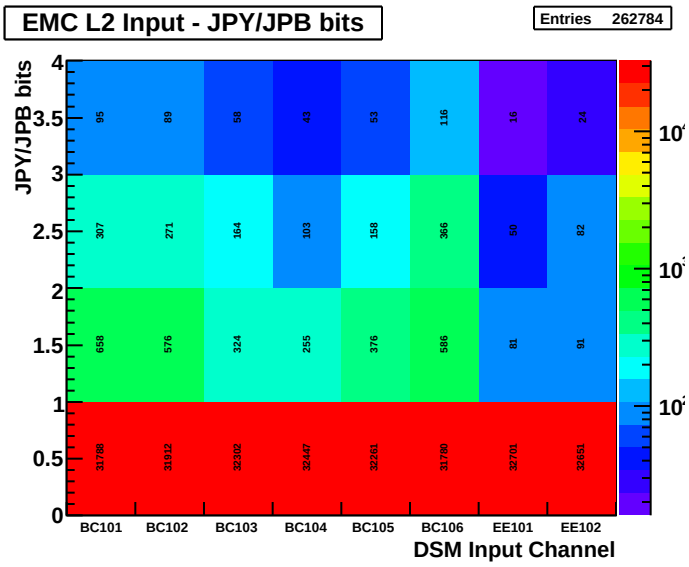

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

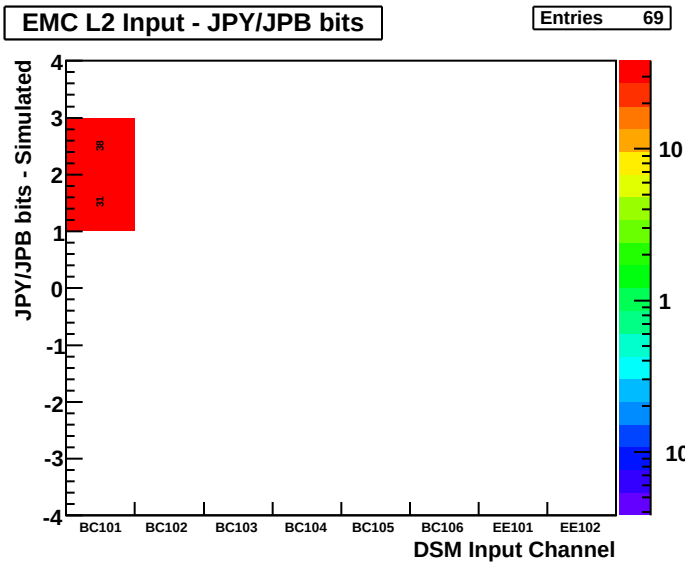

Endcap EMC L1 Input - High Tower Bits
Entries 394176
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

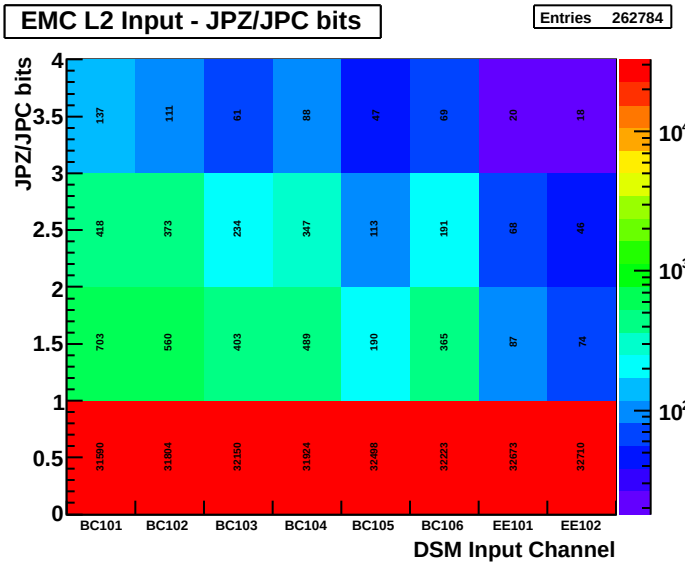

Endcap EMC L1 Input - High Tower Bits
Entries 2
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

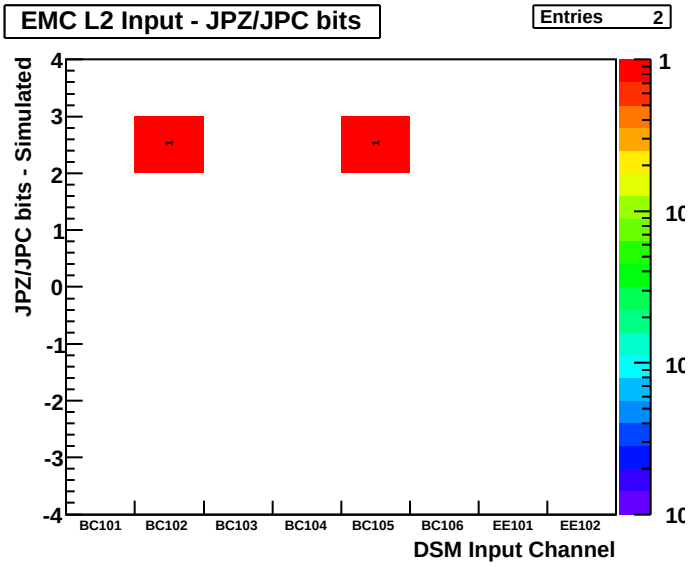

EMC L2 Input - JPX/JPA bits
Entries 262784
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
138 117 84 39 129 104 18 37
407 337 240 99 431 224 66 99
620 549 395 222 588 477 93 115
31683 31845 32129 32488 31700 32043 32671 32597

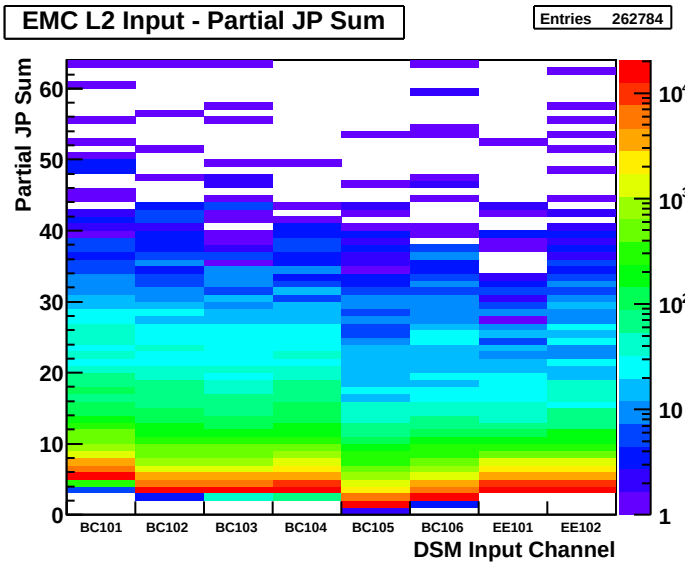

EMC L2 Input - JPX/JPA bits
Entries 71
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
51
20

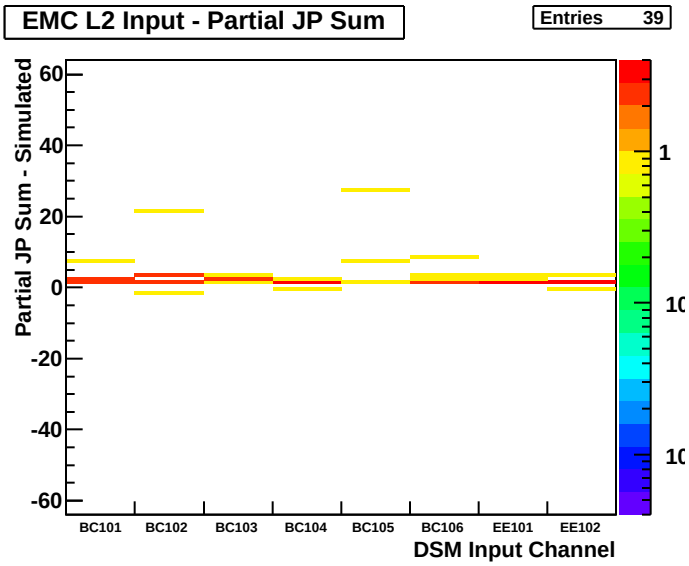

EMC L2 Input - JPY/JPB bits
Entries 262784
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
95 89 58 43 53 116 16 24
307 271 164 103 158 366 50 82
658 576 324 255 376 586 81 91
31788 31912 32302 32447 32261 31780 32701 32651

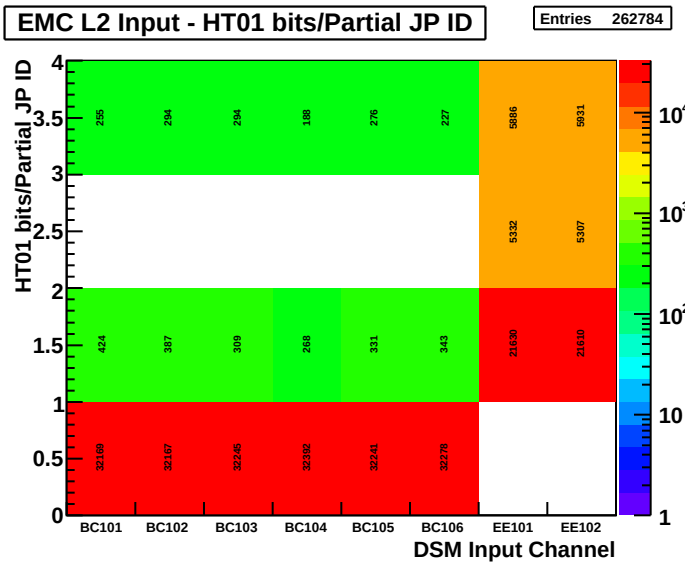

EMC L2 Input - JPY/JPB bits
Entries 69
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
38
31

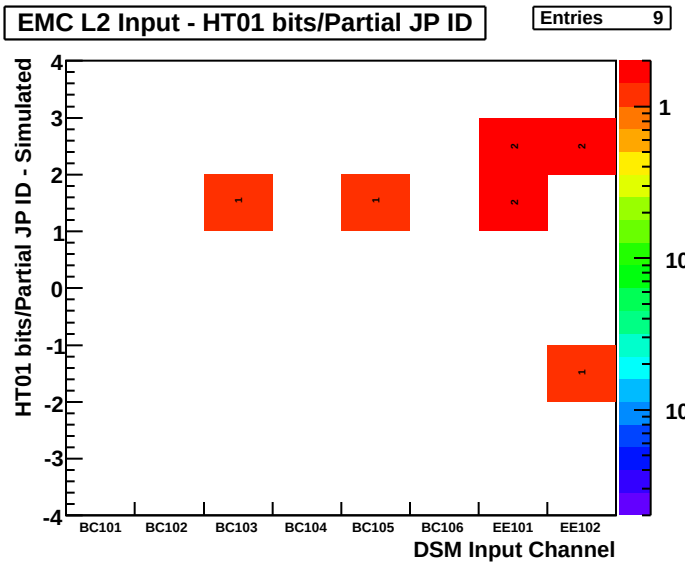

EMC L2 Input - JPZ/JPC bits
Entries 262784
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
137 111 61 88 47 69 20 18
418 373 234 347 113 191 68 46
703 560 403 489 190 365 87 74
31580 31804 32150 31924 32488 32223 32673 32710

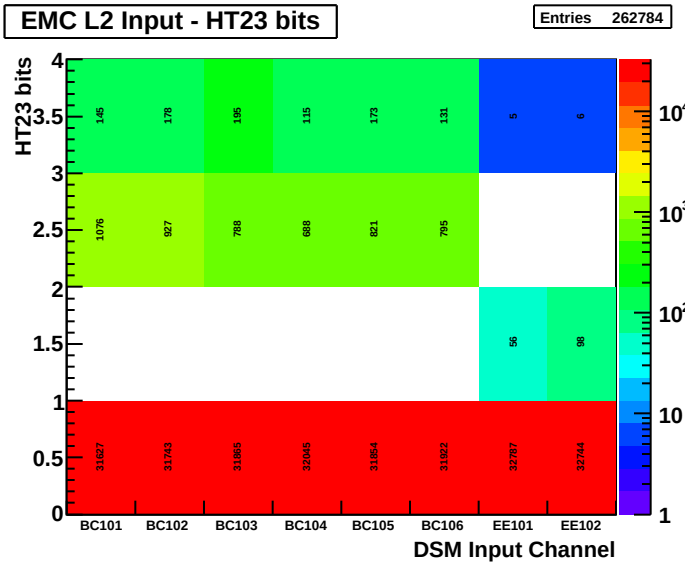

EMC L2 Input - JPZ/JPC bits
Entries 2
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1
1

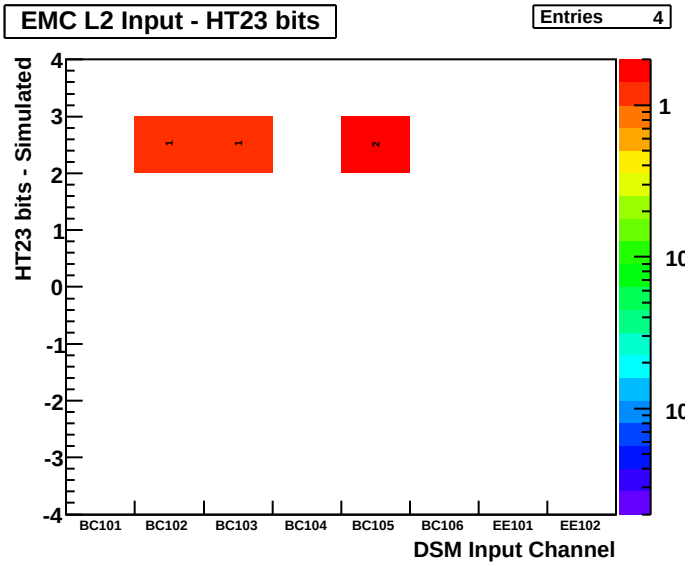

EMC L2 Input - Partial JP Sum
Entries 262784
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

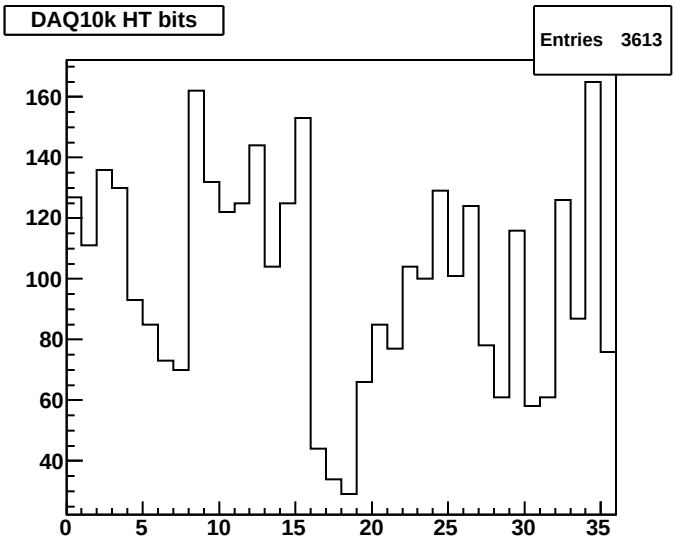

EMC L2 Input - Partial JP Sum
Entries 39
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

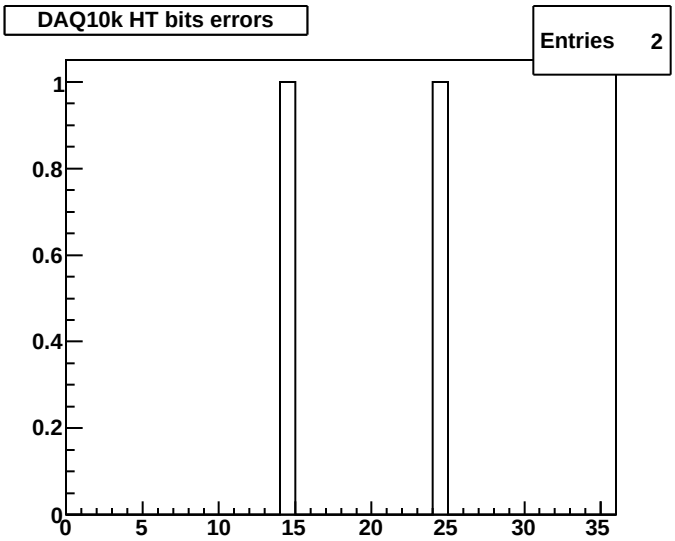

EMC L2 Input - HT01 bits/Partial JP ID
Entries 262784
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

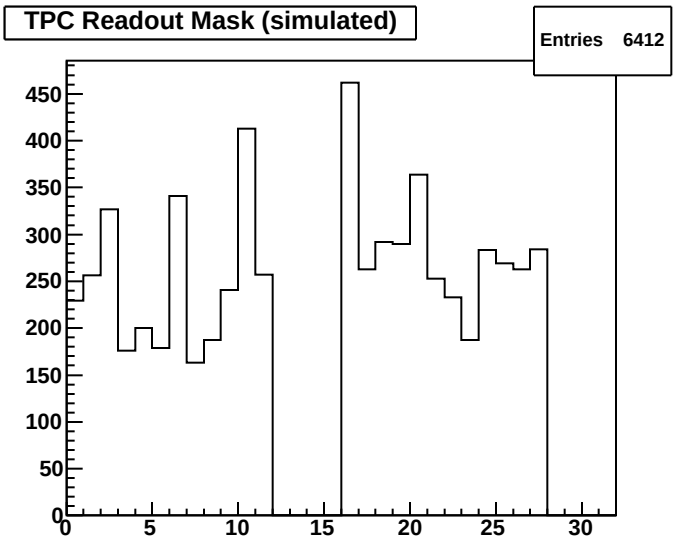

EMC L2 Input - HT01 bits/Partial JP ID
Entries 9
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

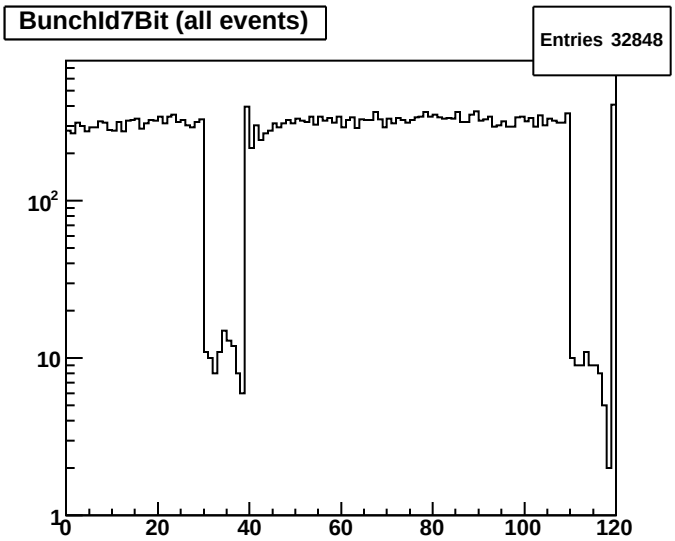

EMC L2 Input - HT23 bits
Entries 262784
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

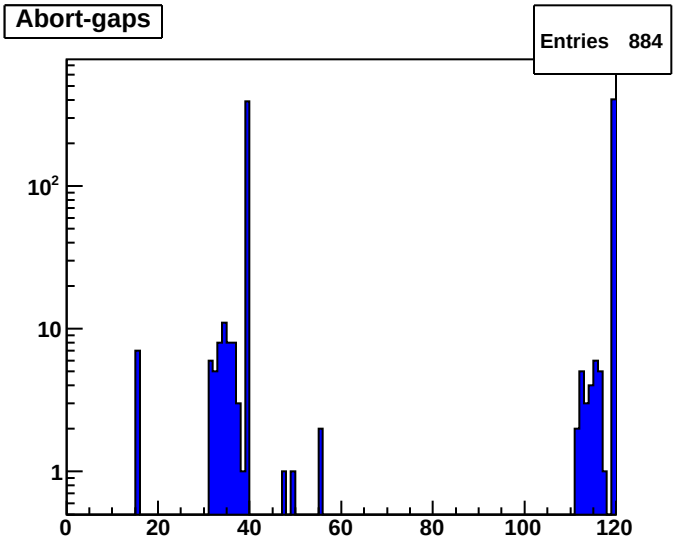

EMC L2 Input - HT23 bits
Entries 4
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

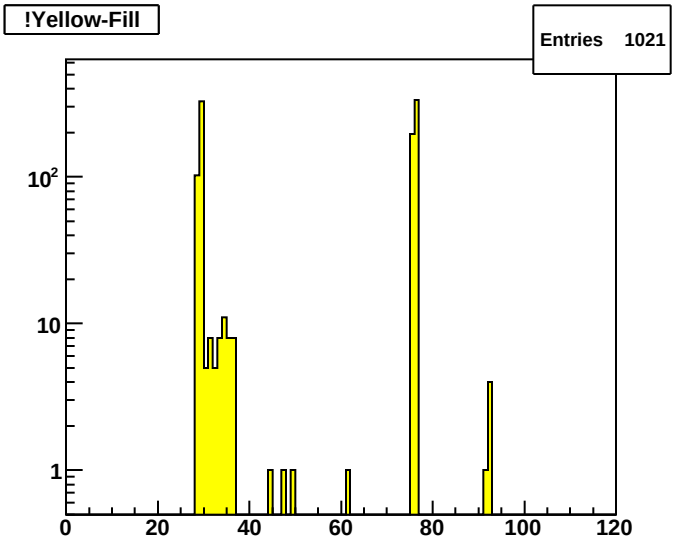

DAQ10k HT bits
Entries 3613

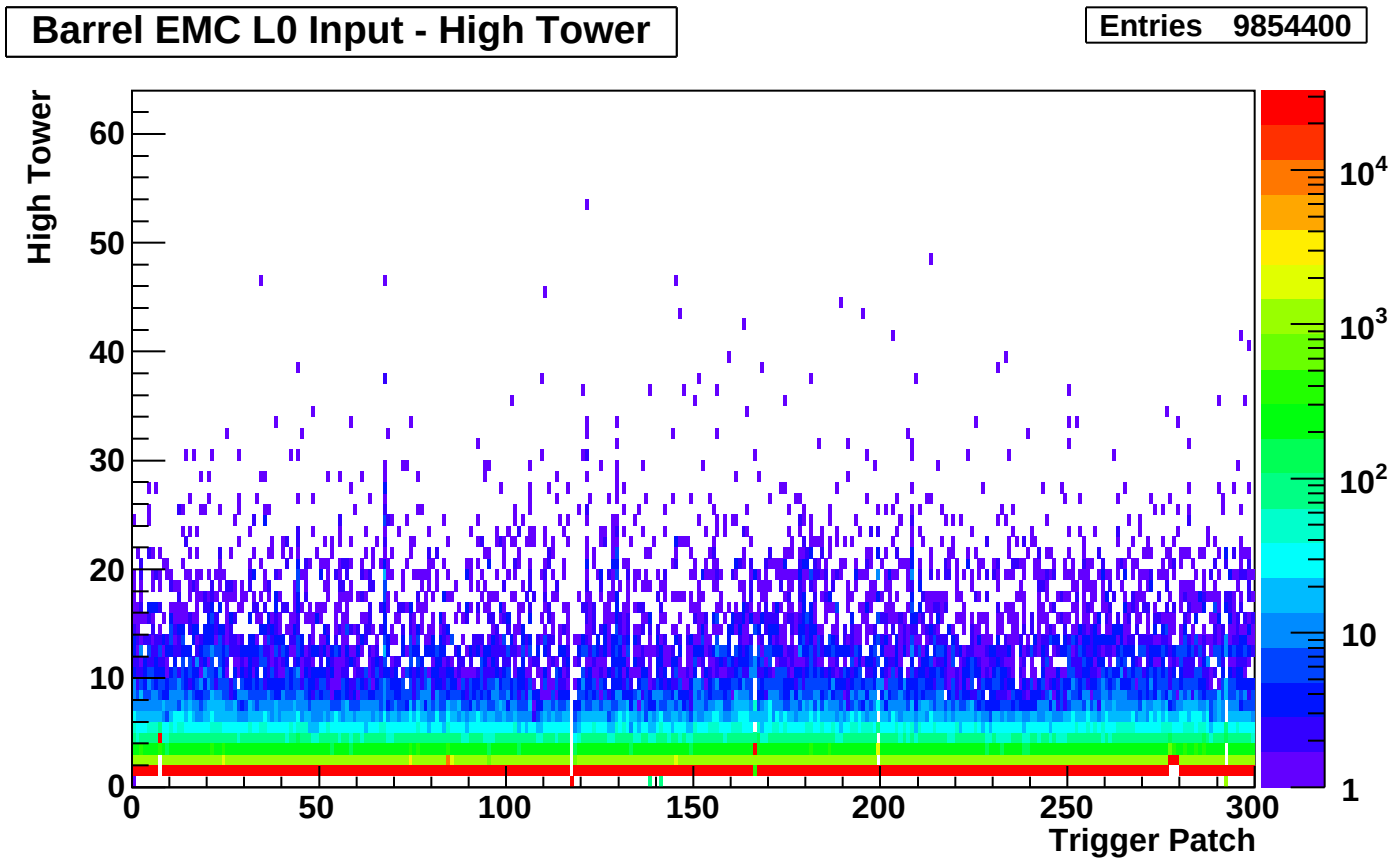

DAQ10k HT bits errors
Entries 2

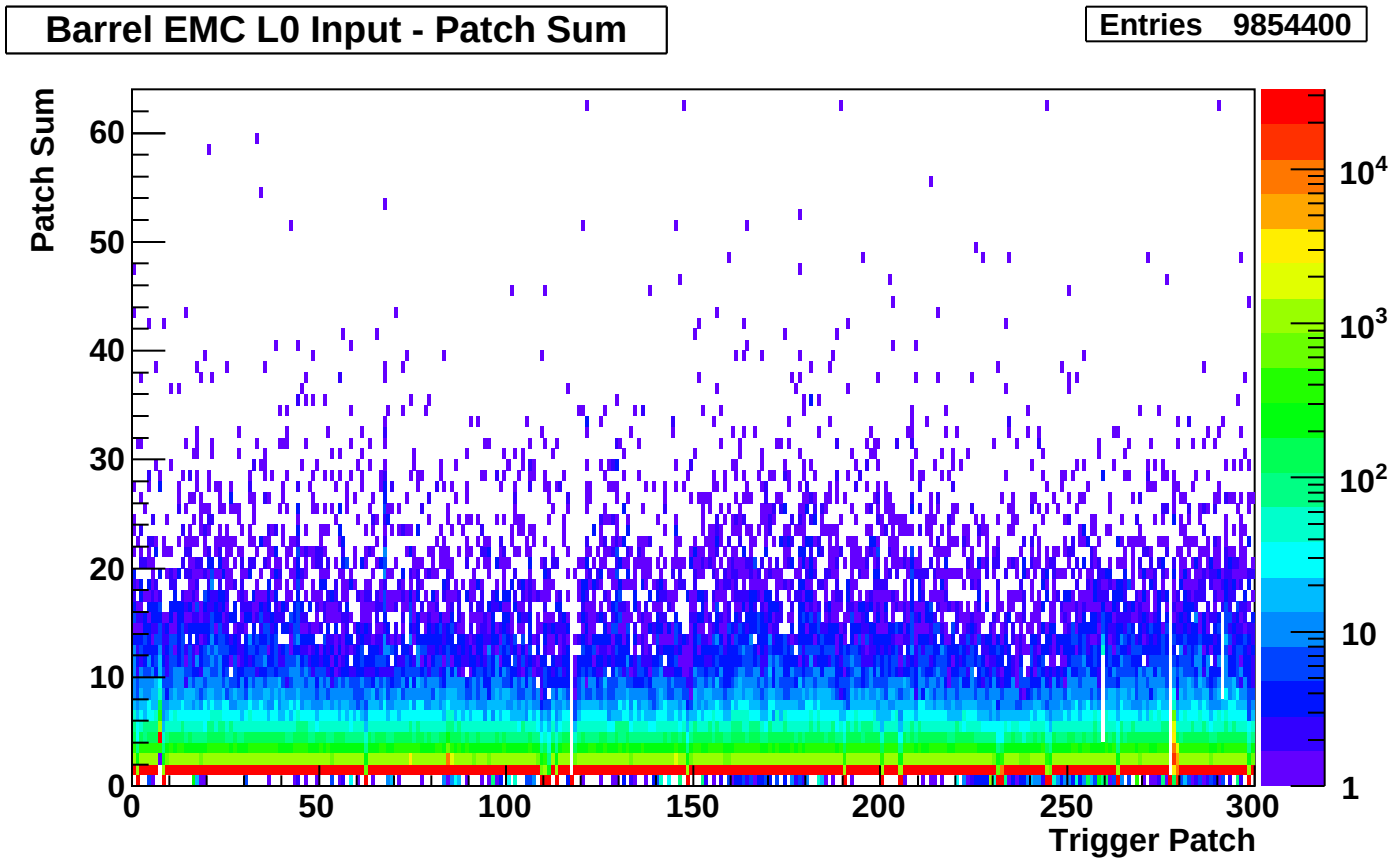

TPC Readout Mask (simulated)
Entries 6412

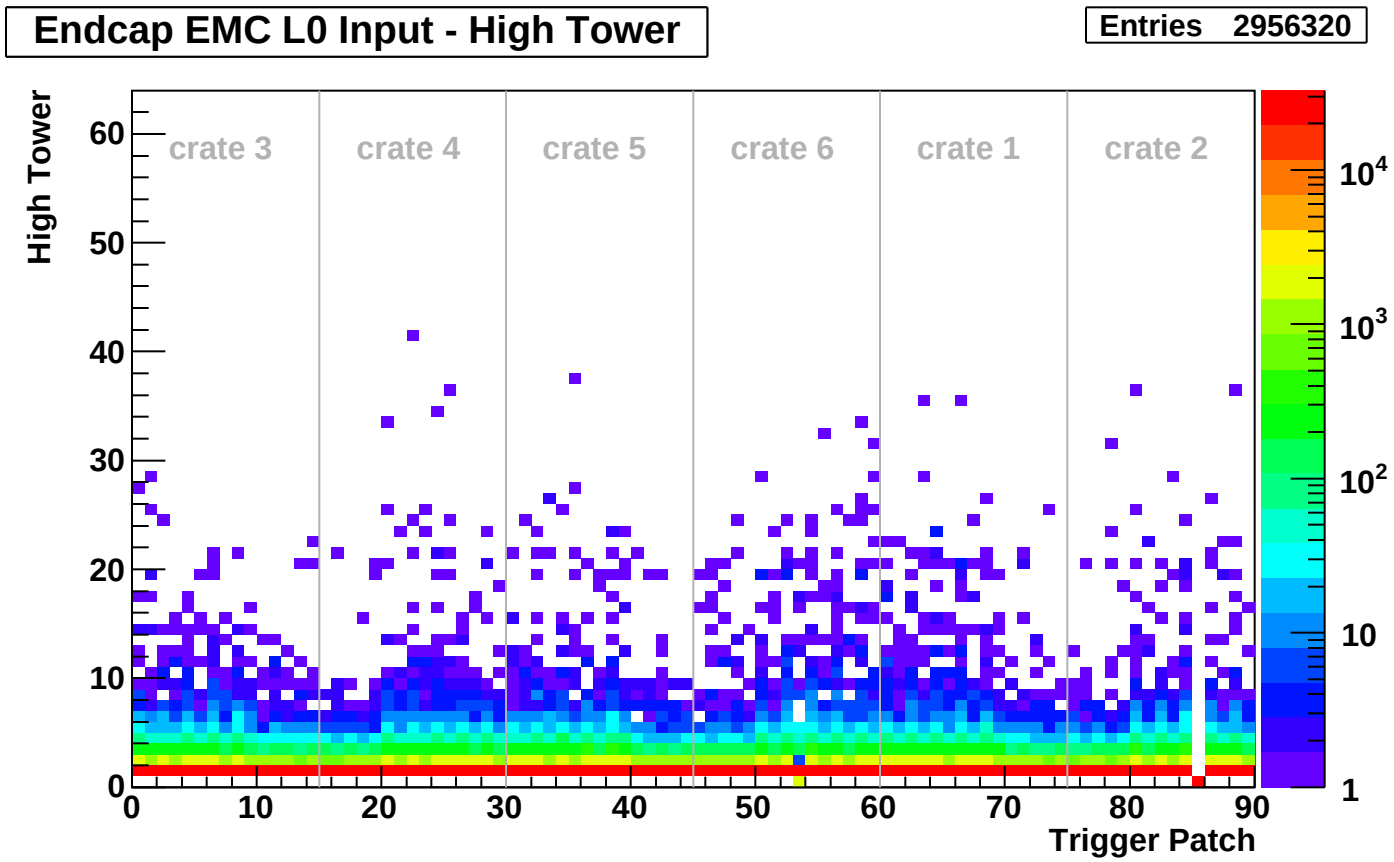

BunchId7Bit (all events)
Entries 32848

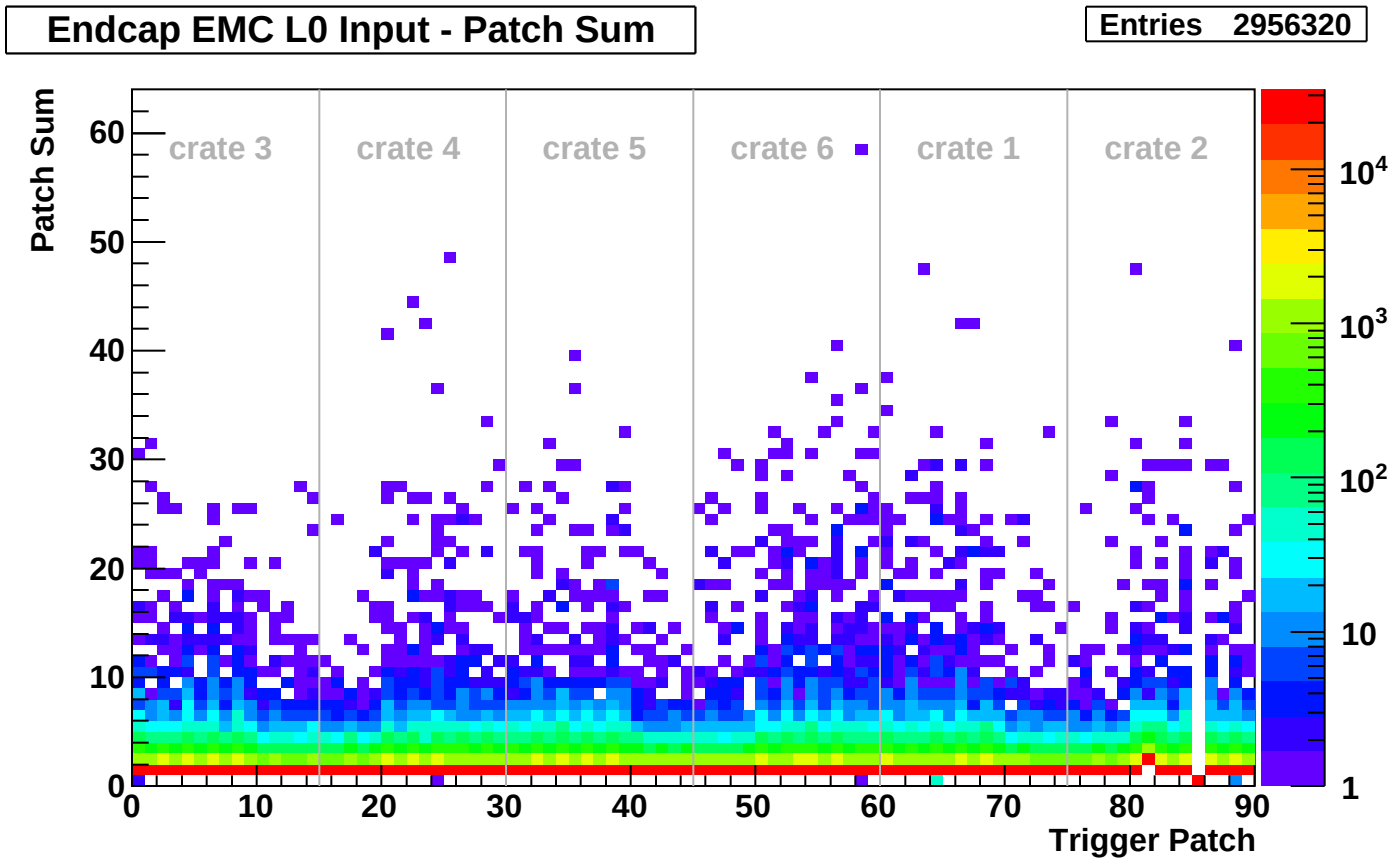

Abort-gaps
Entries 884

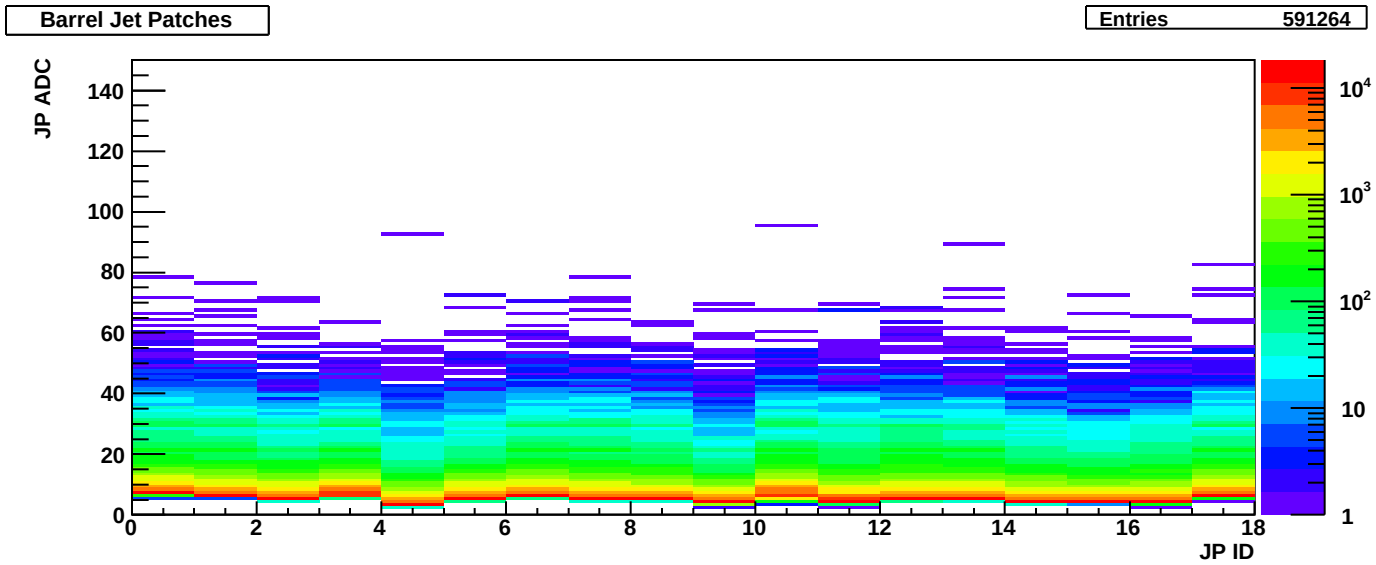

!Yellow-Fill
Entries 1021

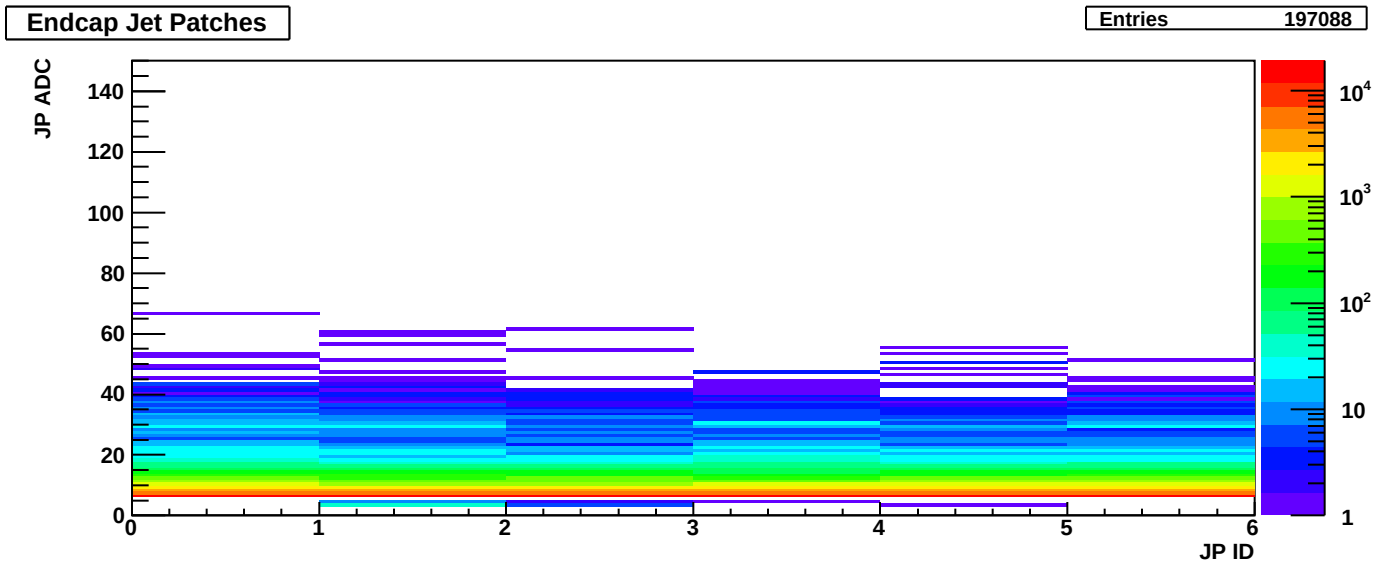

Barrel EMC L0 Input - High Tower
Entries 9854400
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

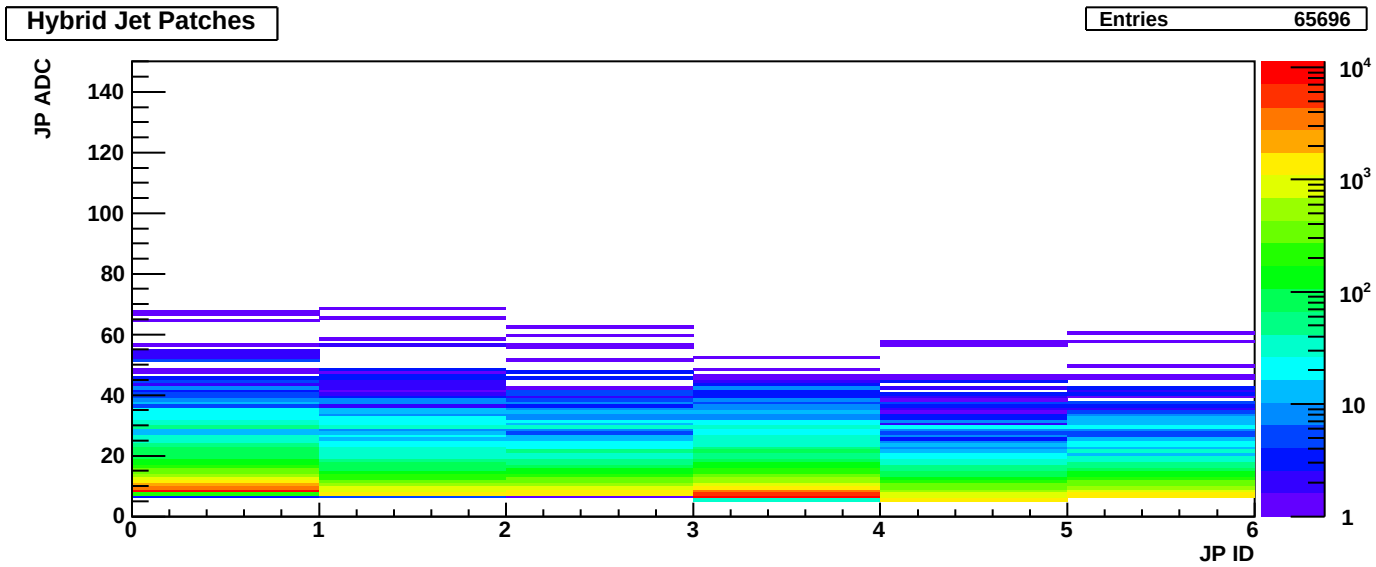

Barrel EMC L0 Input - Patch Sum
Entries 9854400
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

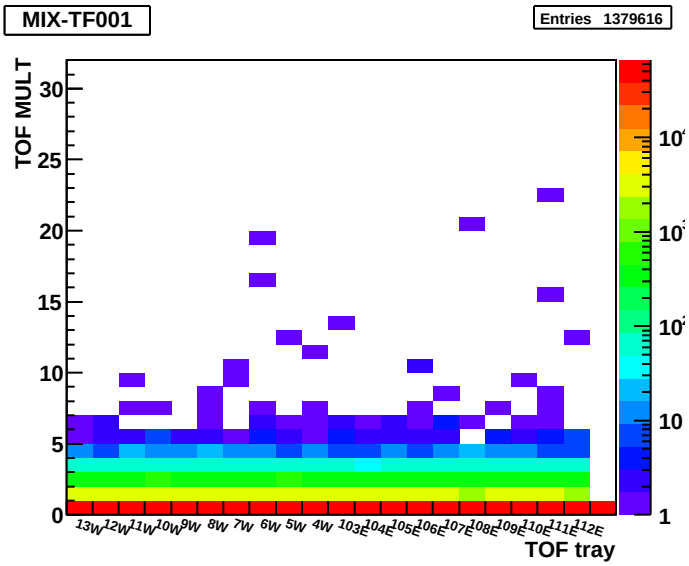

Endcap EMC L0 Input - High Tower
Entries 2956320
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

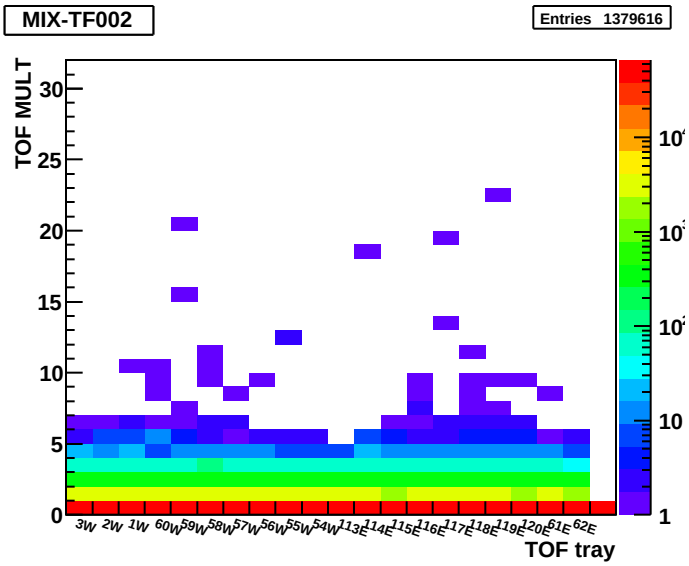

Endcap EMC L0 Input - Patch Sum
Entries 2956320
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

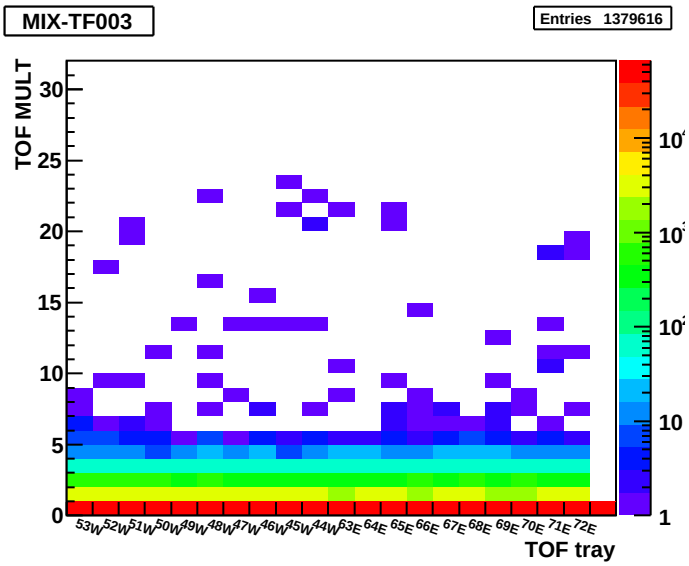

Barrel Jet Patches
Entries 591264
JP ADC
JP ID

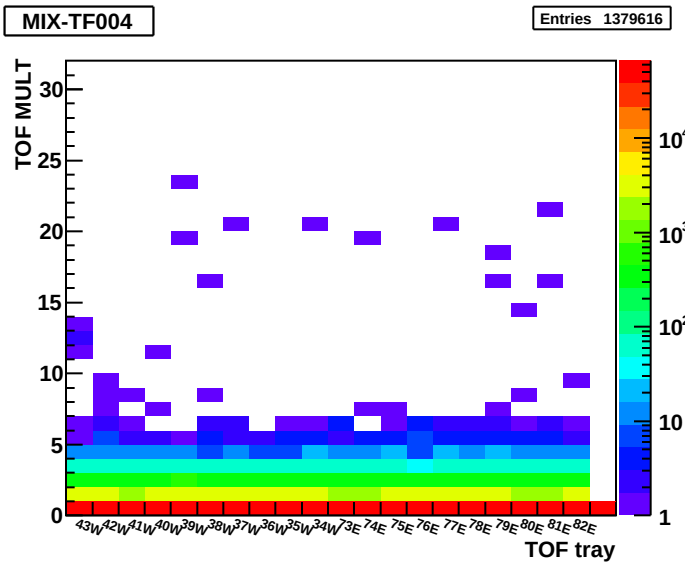

Endcap Jet Patches
Entries 197088
JP ADC
JP ID

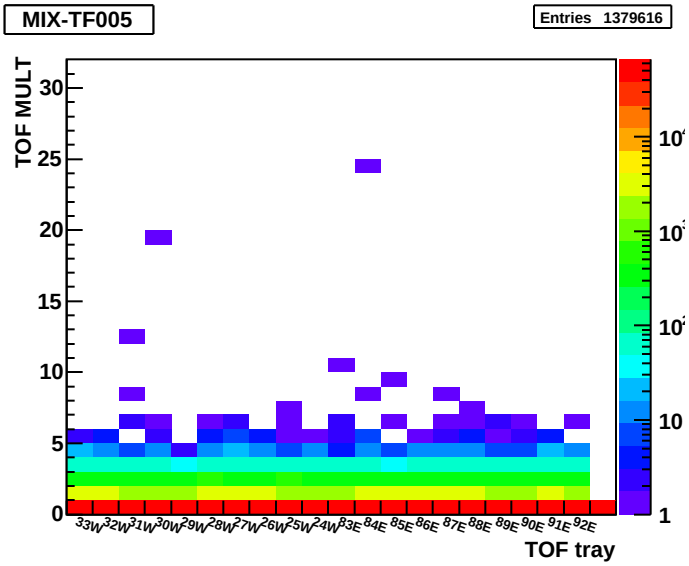

Hybrid Jet Patches
Entries 65696
JP ADC
JP ID

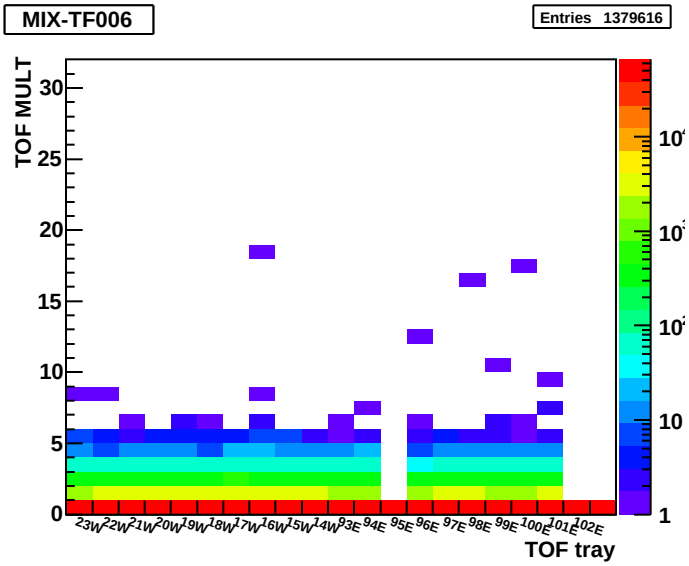

MIX-TF001
Entries 1379616
TOF MULT
TOF tray

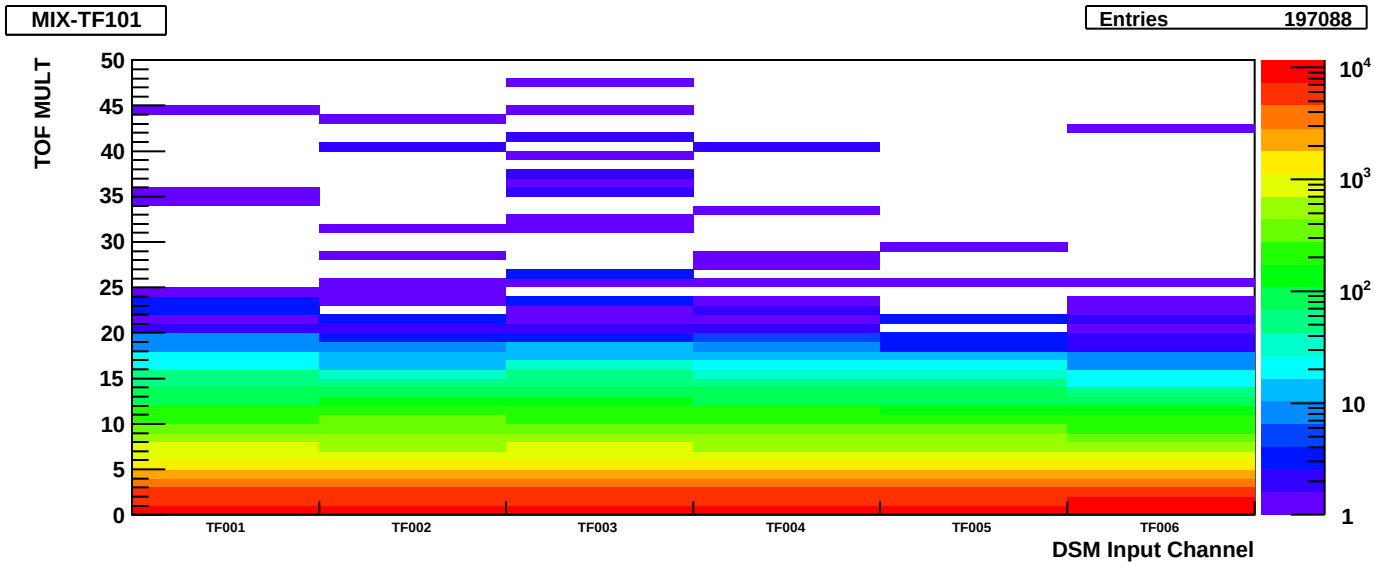

MIX-TF002
Entries 1379616
TOF MULT
TOF tray

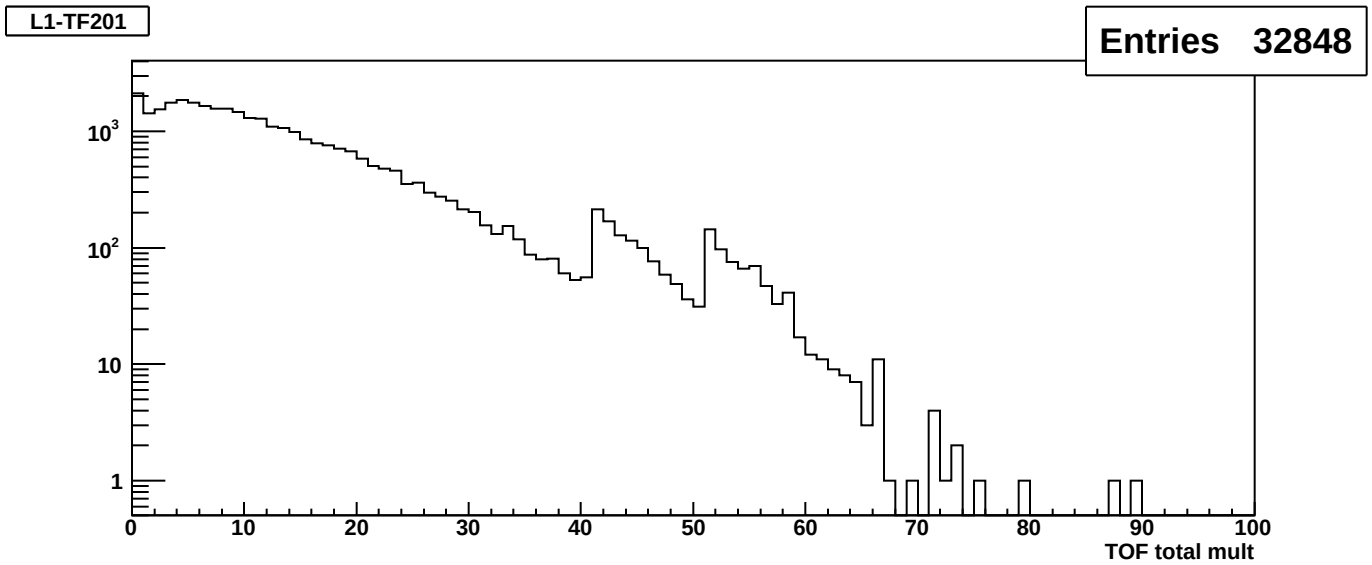

MIX-TF003
Entries 1379616
TOF MULT
TOF tray

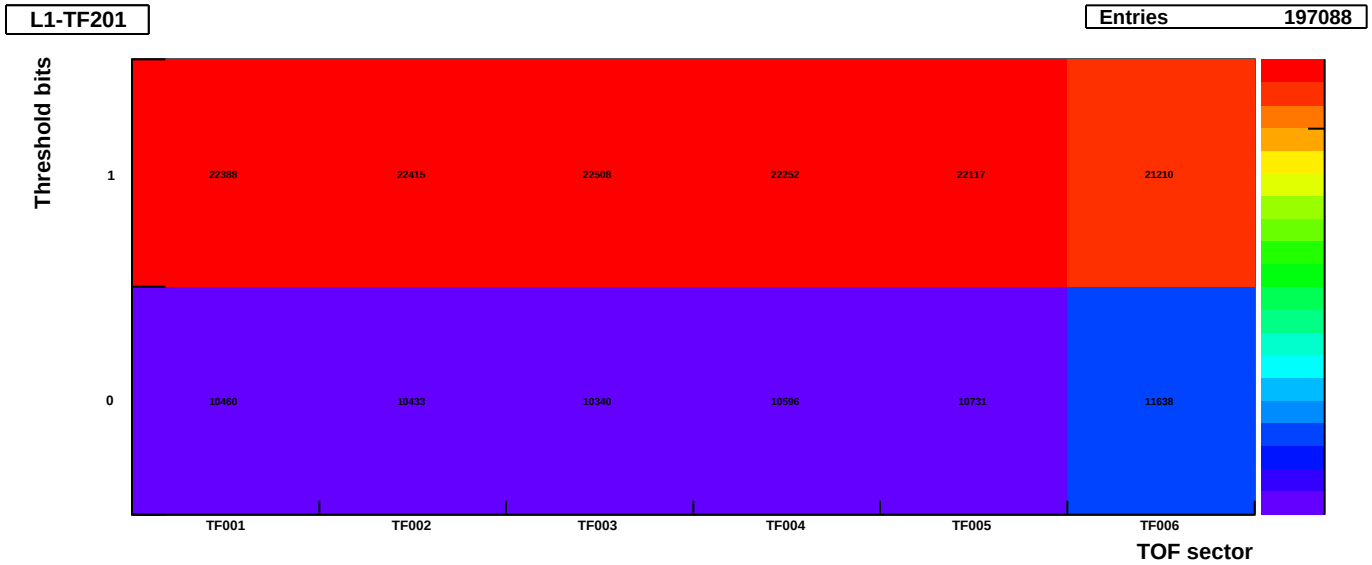

MIX-TF004
Entries 1379616
TOF MULT
TOF tray

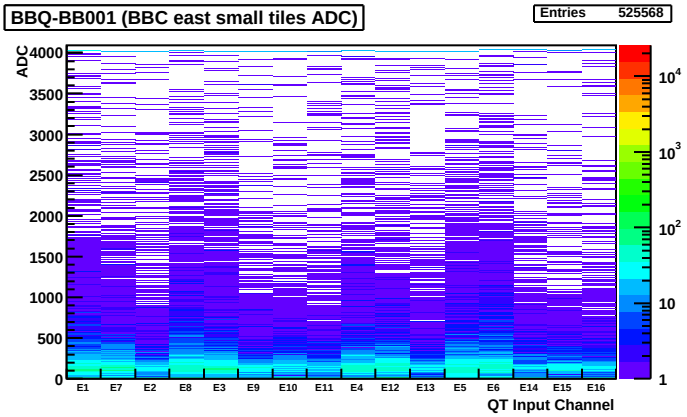

MIX-TF005
Entries 1379616
TOF MULT
TOF tray

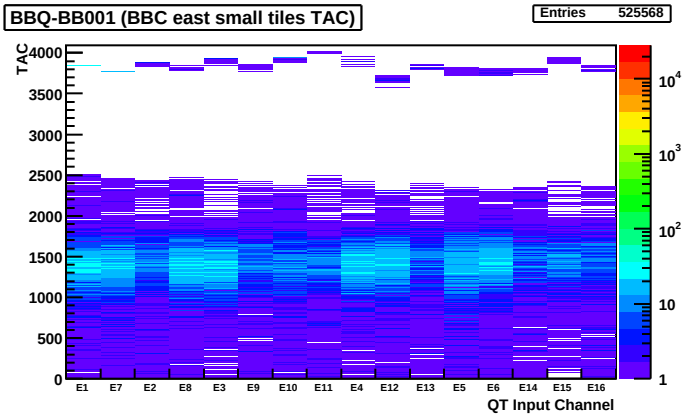

MIX-TF006
Entries 1379616
TOF MULT
TOF tray

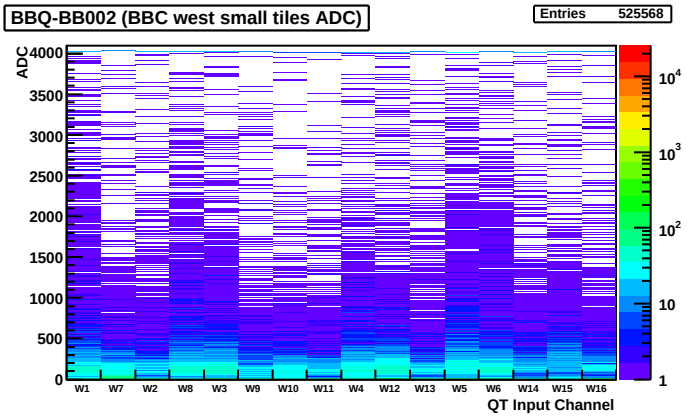

MIX-TF101
Entries 197088
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

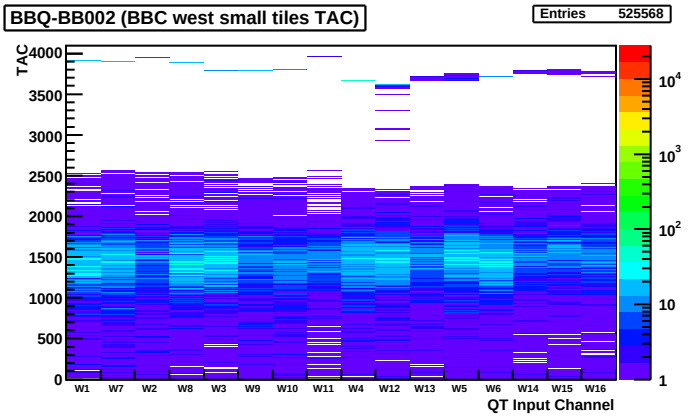

L1-TF201
Entries 32848
TOF total mult

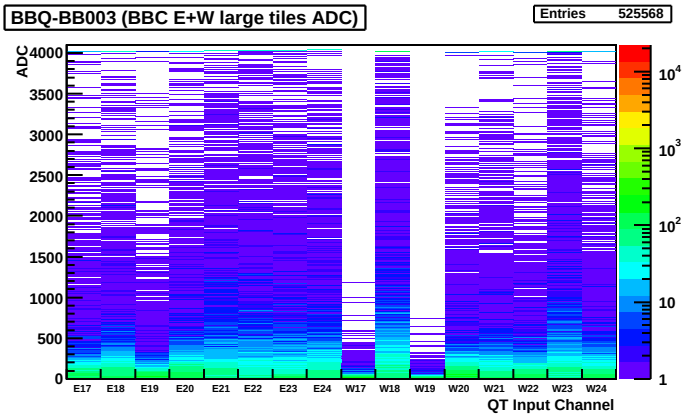

L1-TF201
Entries 197088
Threshold bits
22388
22415
22508
22252
22117
21210
10460
10433
10340
10596
10731
11638
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

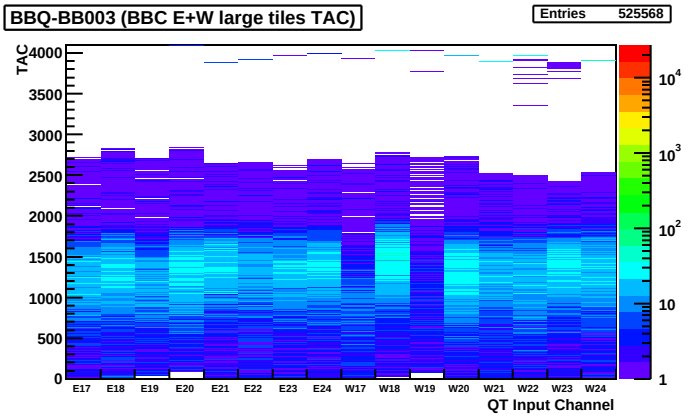

BBQ-BB001 (BBC east small tiles ADC)
Entries 525568
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

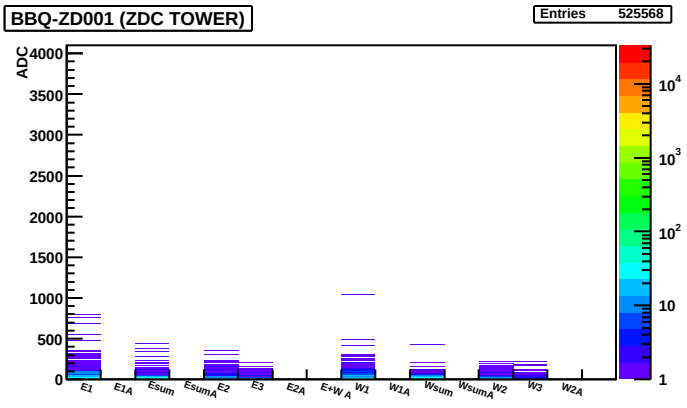

BBQ-BB001 (BBC east small tiles TAC)
Entries 525568
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

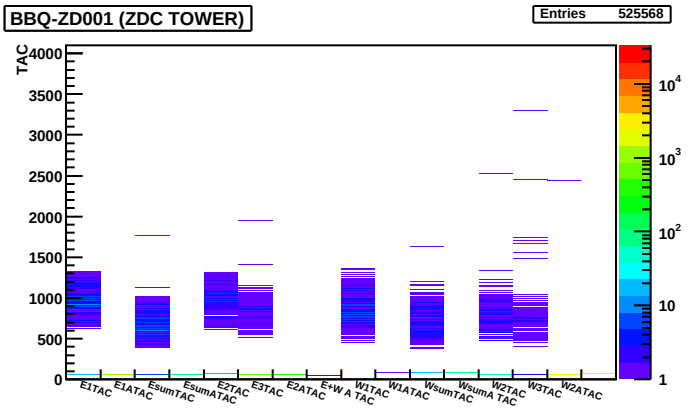

BBQ-BB002 (BBC west small tiles ADC)
Entries 525568
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

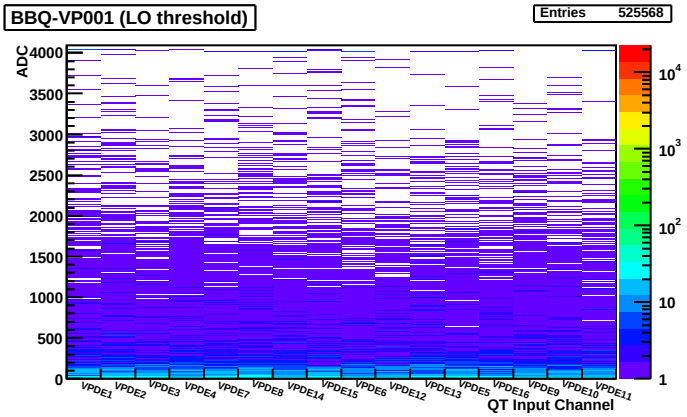

BBQ-BB002 (BBC west small tiles TAC)
Entries 525568
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

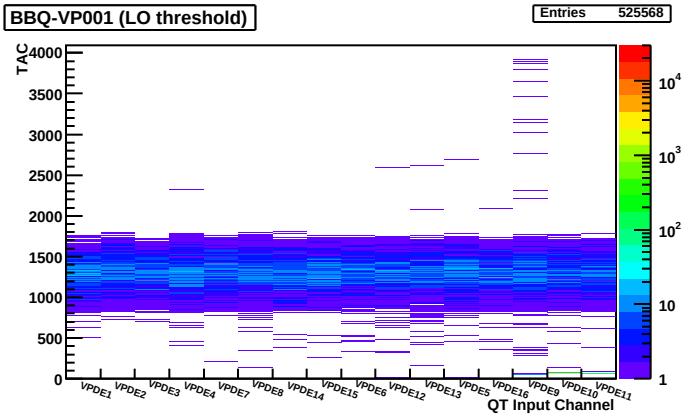

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 525568
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

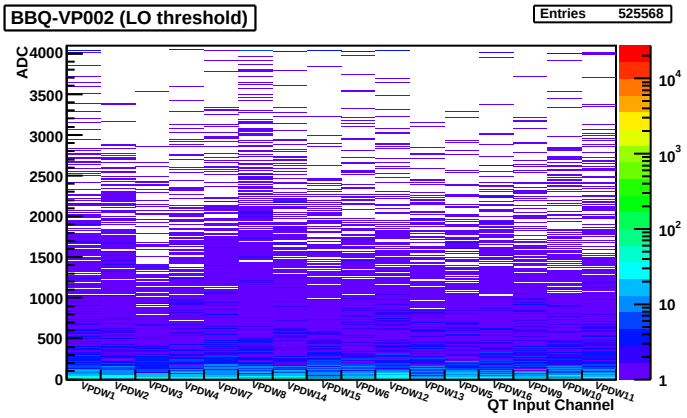

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 525568
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

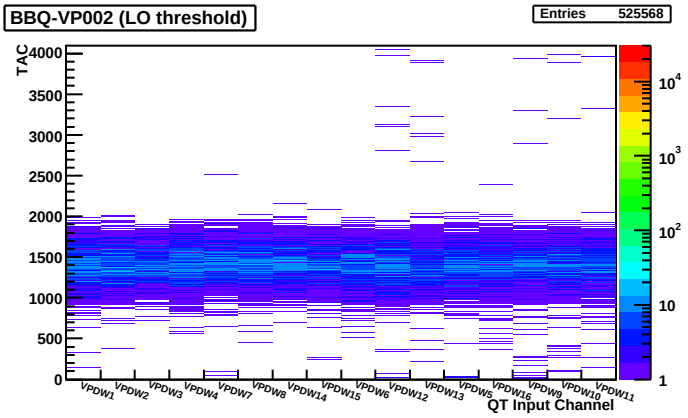

BBQ-ZD001 (ZDC TOWER)
Entries 525568
ADC
E1 E1A Esum EsumA E2 E3 E2A E+W A W1 W1A Wsum WsumA W2 W3 W2A

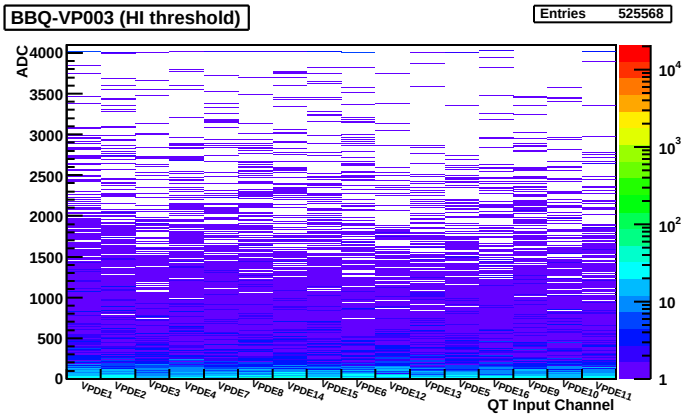

BBQ-ZD001 (ZDC TOWER)
Entries 525568
TAC
E1TAC E1ATAC EsumTAC EsumATAC E2TAC E3TAC E2ATAC E+W A TAC W1TAC W1ATAC WsumTAC WsumA TAC W2TAC W3TAC W2ATAC

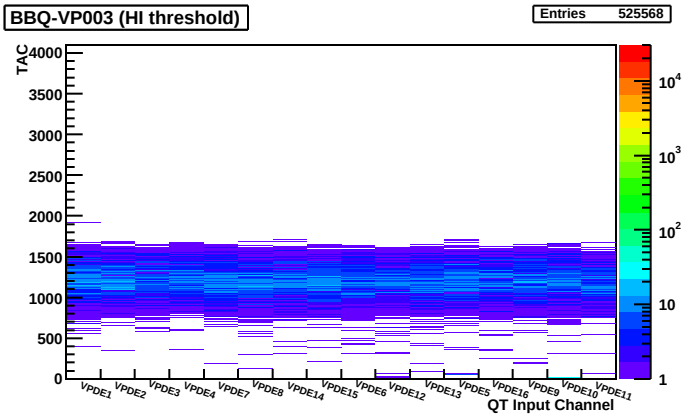

BBQ-VP001 (LO threshold)
Entries 525568
ADC
QT Input Channel

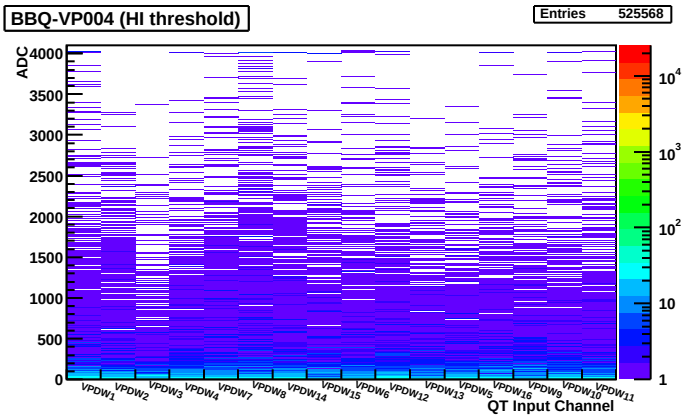

BBQ-VP001 (LO threshold)
Entries 525568
TAC
QT Input Channel

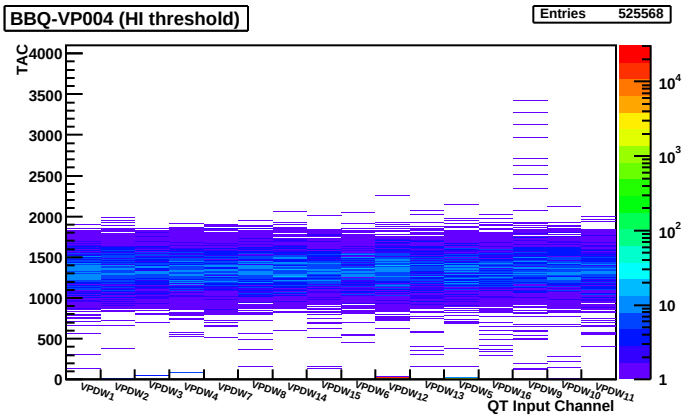

BBQ-VP002 (LO threshold)
Entries 525568
ADC
QT Input Channel

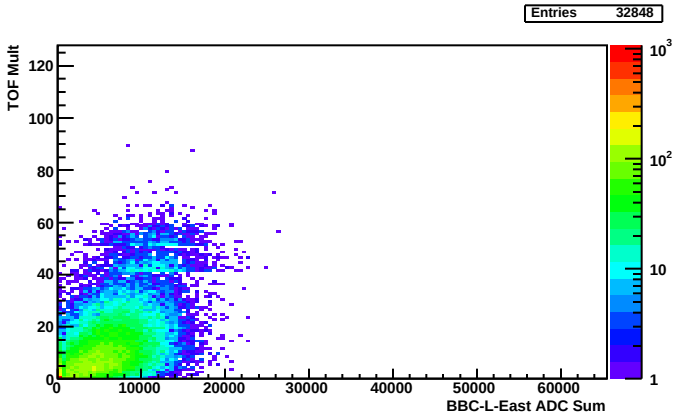

BBQ-VP002 (LO threshold)
Entries 525568
TAC
QT Input Channel

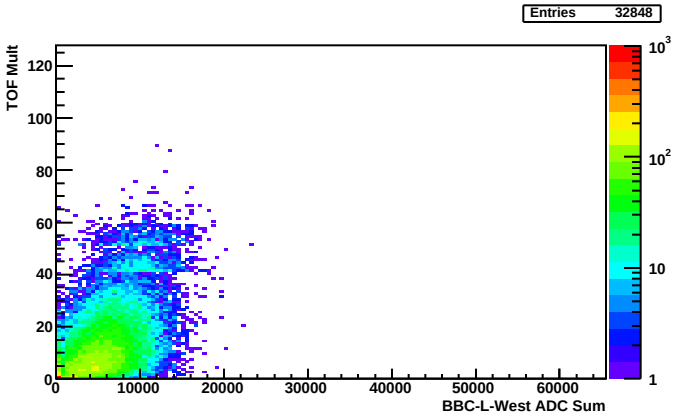

BBQ-VP003 (HI threshold)
Entries 525568
ADC
QT Input Channel

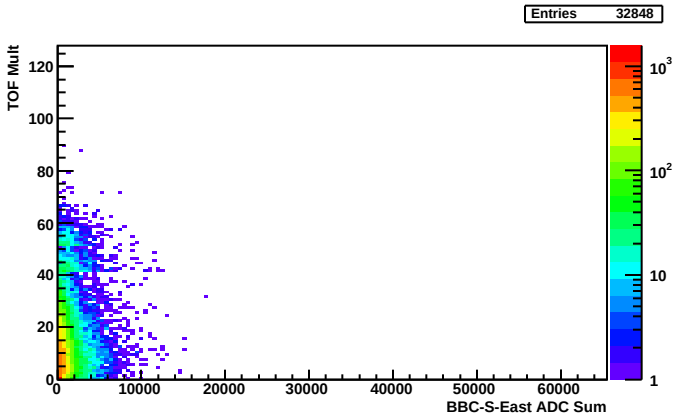

BBQ-VP003 (HI threshold)
Entries 525568
TAC
QT Input Channel

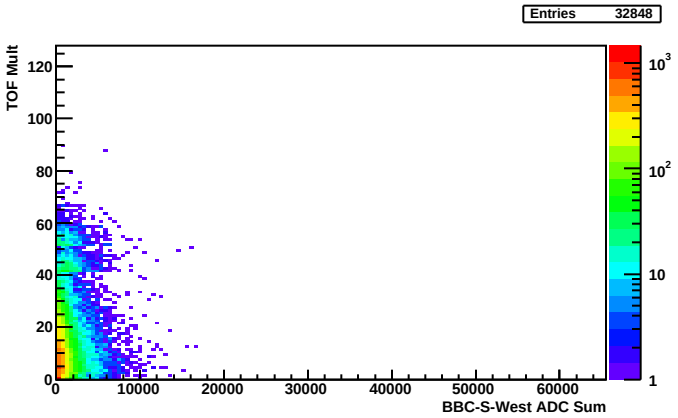

BBQ-VP004 (HI threshold)
Entries 525568
ADC
QT Input Channel

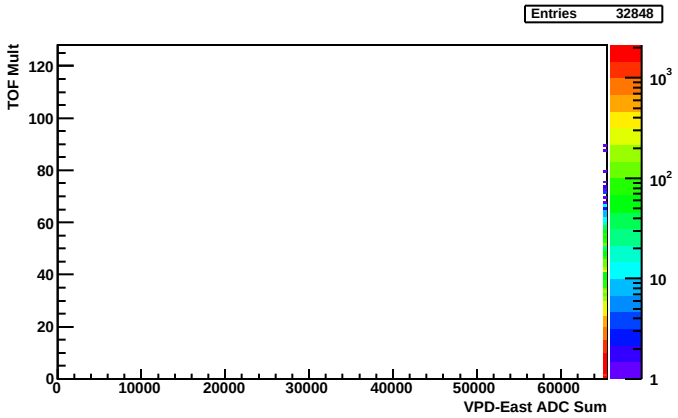

BBQ-VP004 (HI threshold)
Entries 525568
TAC
QT Input Channel

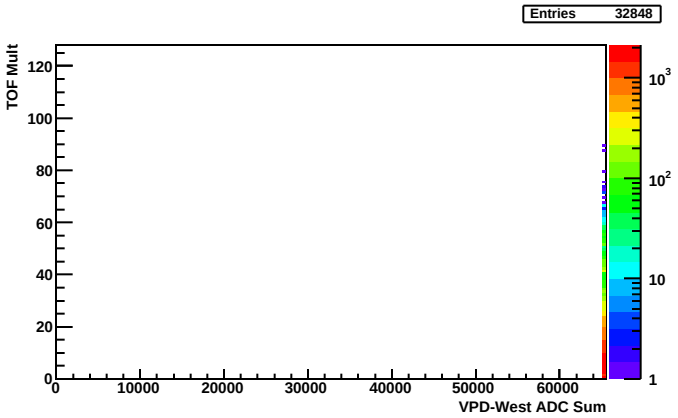

Entries 32848
TOF Mult
BBC-L-East ADC Sum

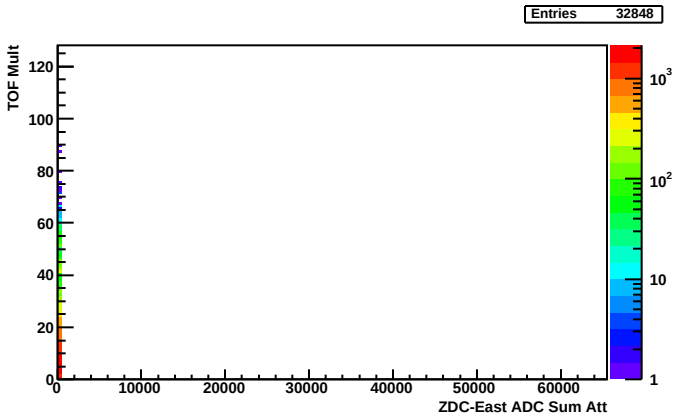

Entries 32848
TOF Mult
BBC-L-West ADC Sum

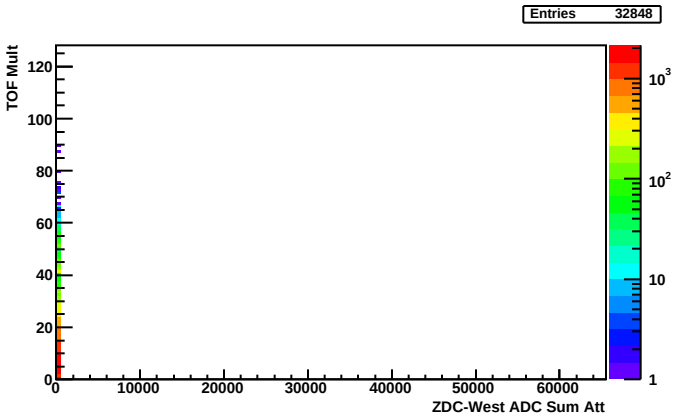

Entries 32848
TOF Mult
BBC-S-East ADC Sum

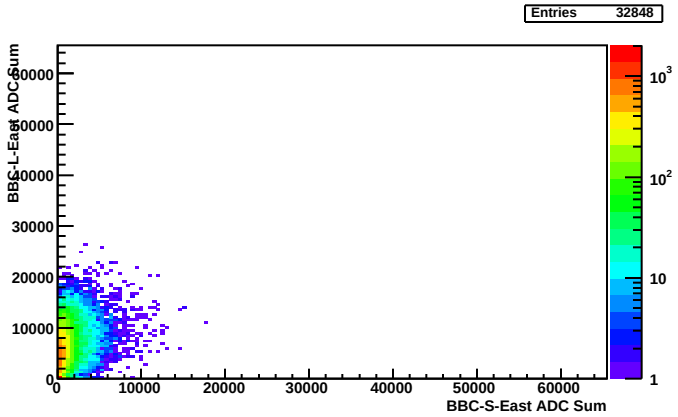

Entries 32848
TOF Mult
BBC-S-West ADC Sum

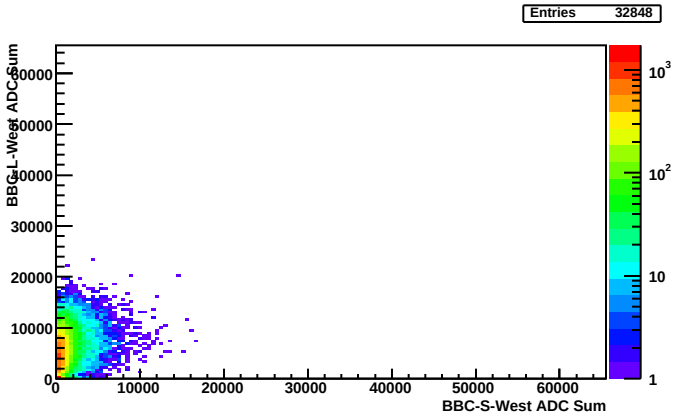

Entries 32848
TOF Mult
VPD-East ADC Sum

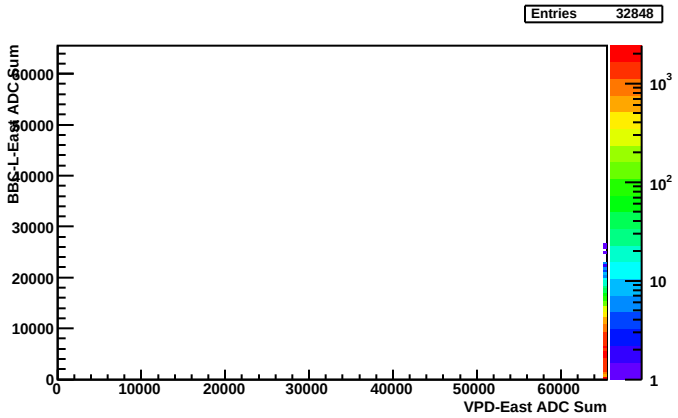

Entries 32848
TOF Mult
VPD-West ADC Sum

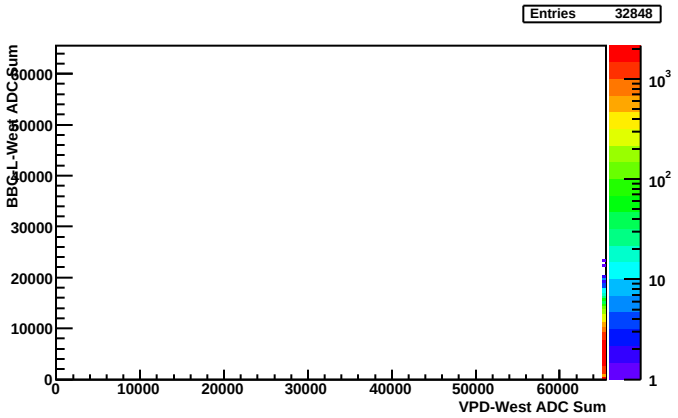

Entries 32848
TOF Mult
ZDC-East ADC Sum Att

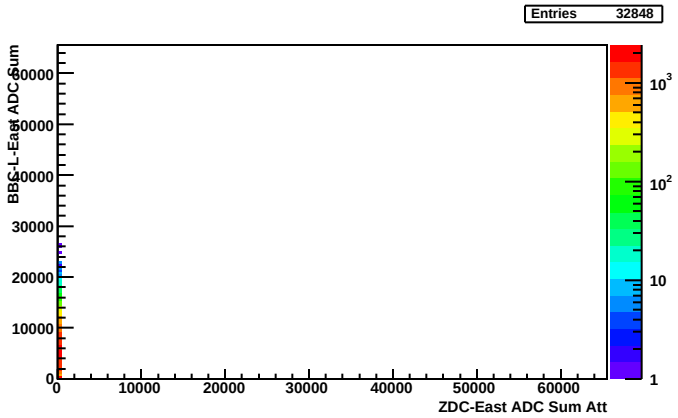

Entries 32848
TOF Mult
ZDC-West ADC Sum Att

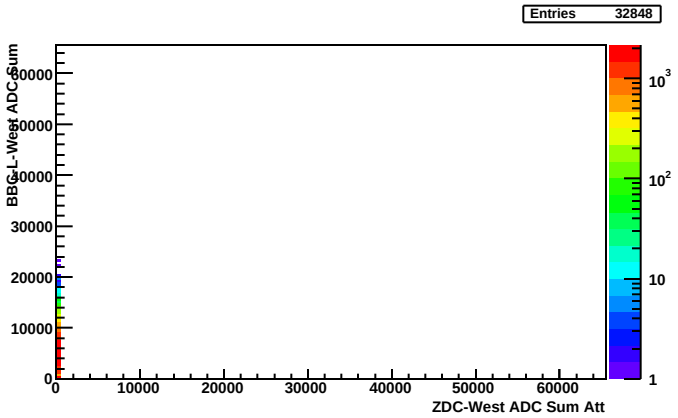

Entries 32848
BBC-L-East ADC Sum
BBC-S-East ADC Sum

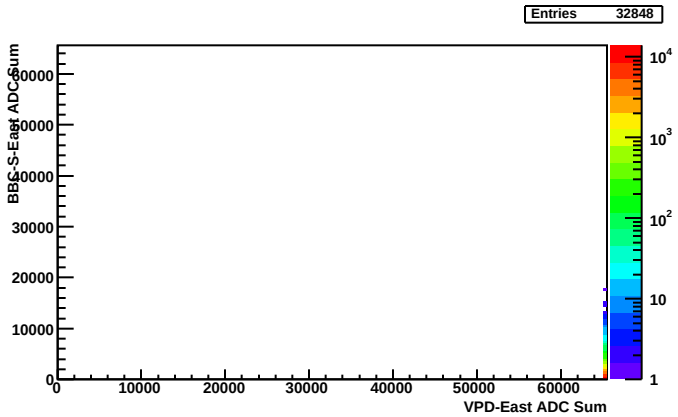

Entries 32848
BBC-L-West ADC Sum
BBC-S-West ADC Sum

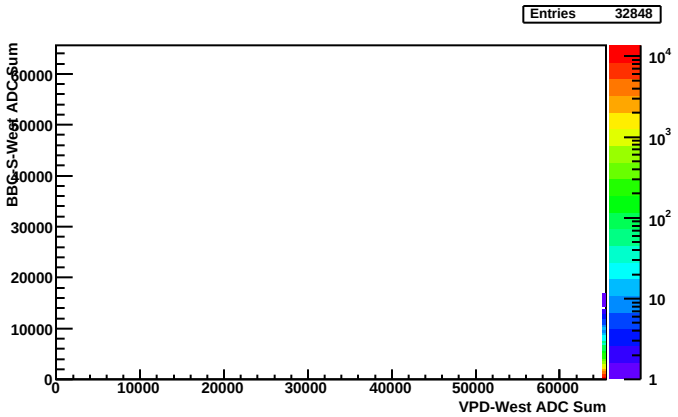

Entries 32848
BBC-L-East ADC Sum
VPD-East ADC Sum

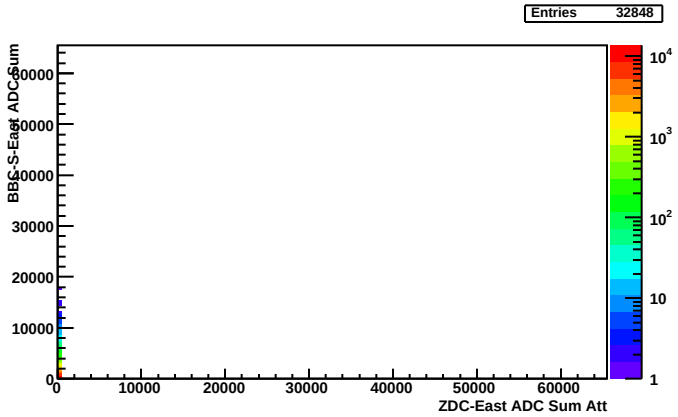

Entries 32848
BBC-L-West ADC Sum
VPD-West ADC Sum

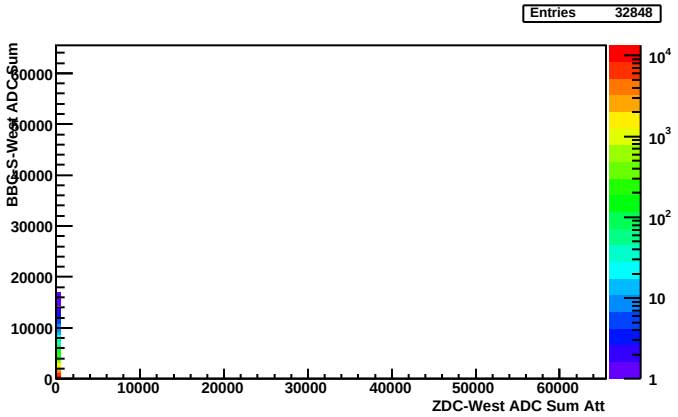

Entries 32848
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

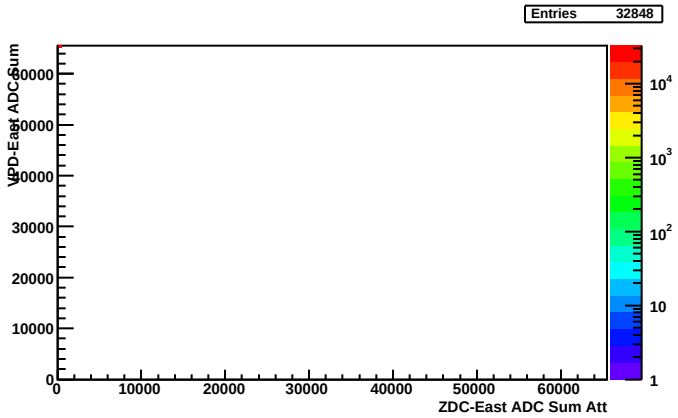

Entries 32848
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

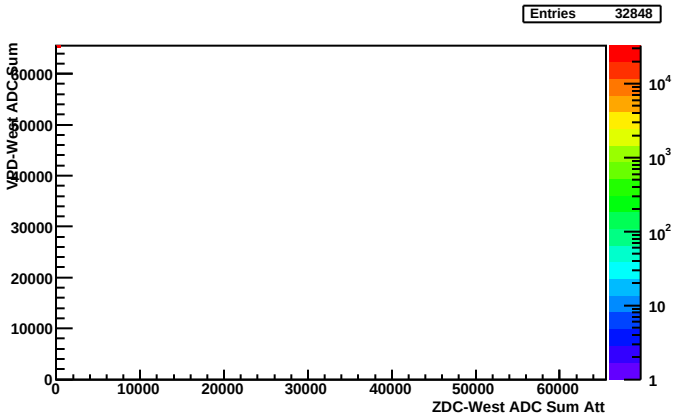

Entries 32848
BBC-S-East ADC Sum
VPD-East ADC Sum

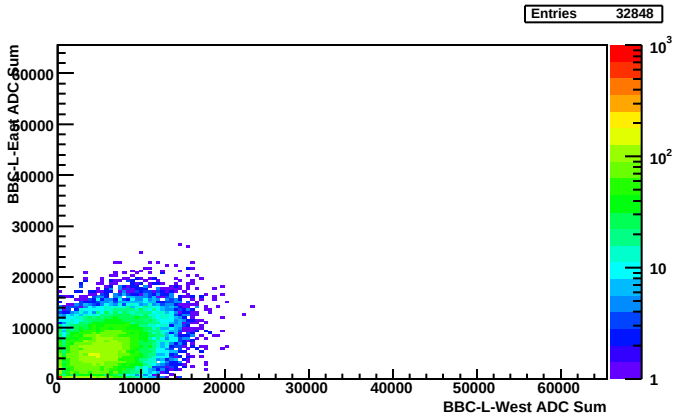

Entries 32848
BBC-S-West ADC Sum
VPD-West ADC Sum

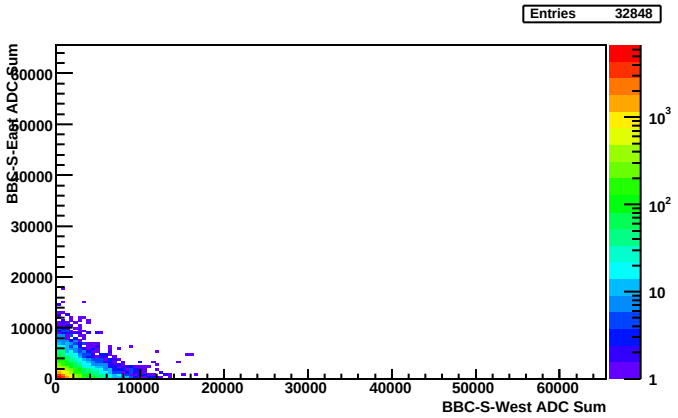

Entries 32848
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

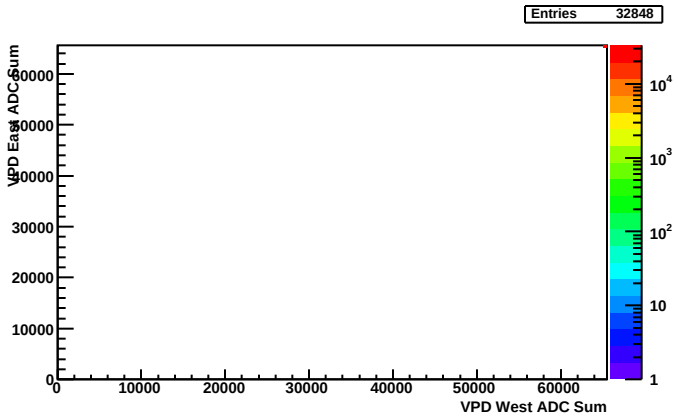

Entries 32848
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

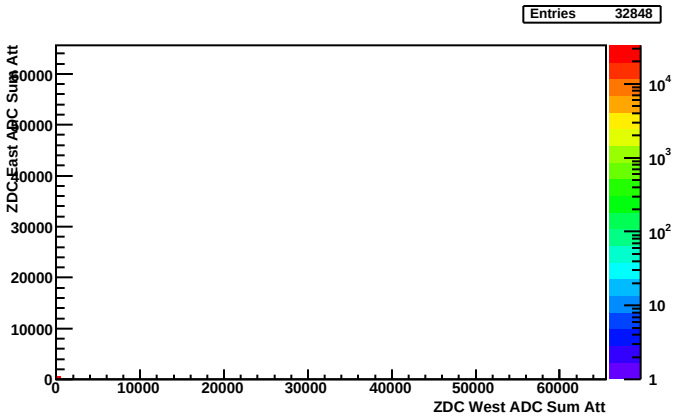

Entries 32848
VPD-East ADC Sum
ZDC-East ADC Sum Att

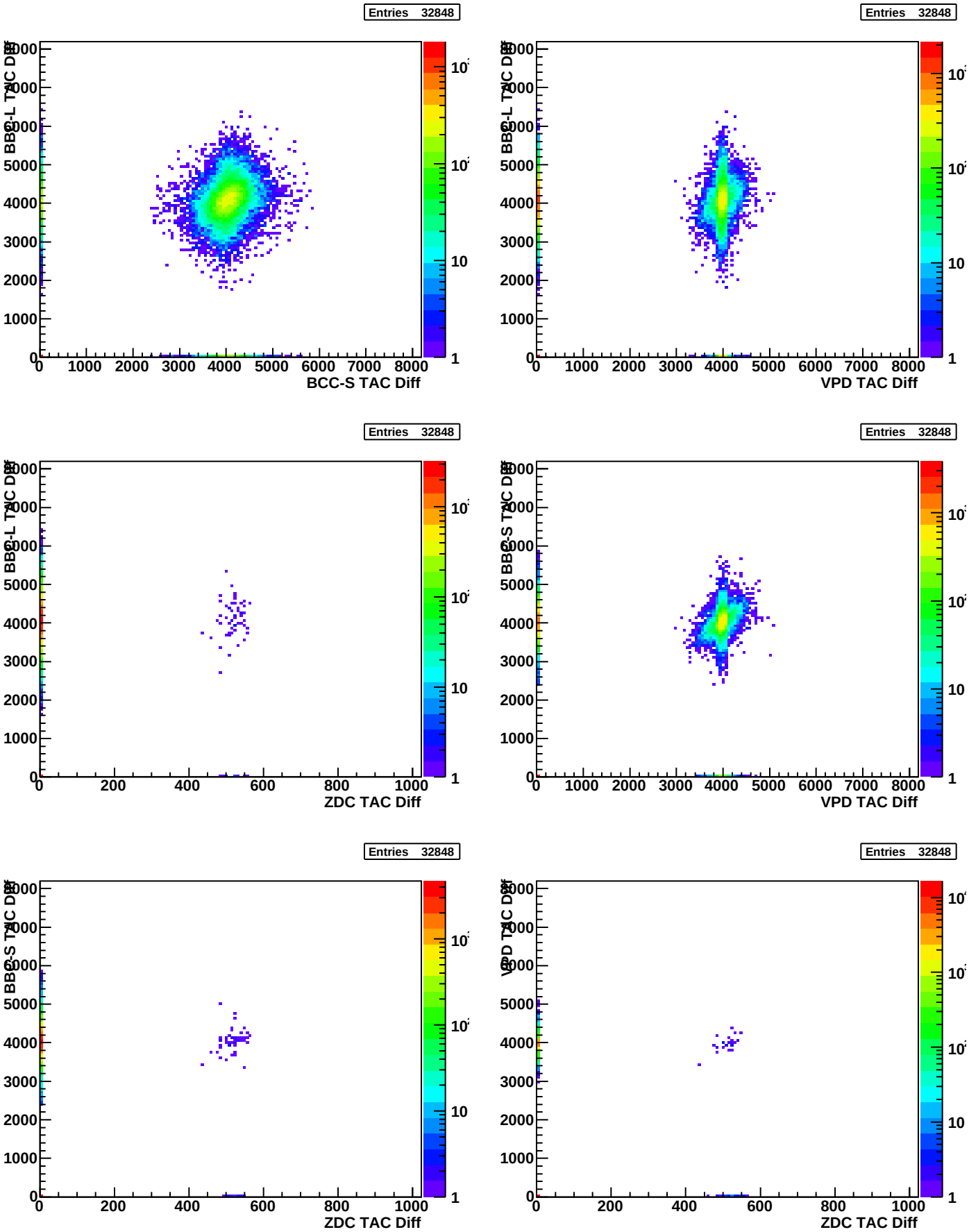

Entries 32848
VPD-West ADC Sum
ZDC-West ADC Sum Att

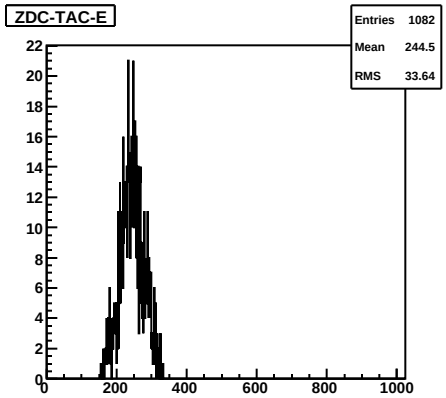

Entries 32848
BBC-L-East ADC Sum
BBC-L-West ADC Sum

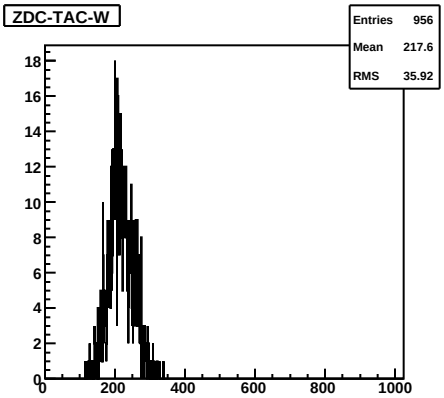

Entries 32848
BBC-S-East ADC Sum
BBC-S-West ADC Sum

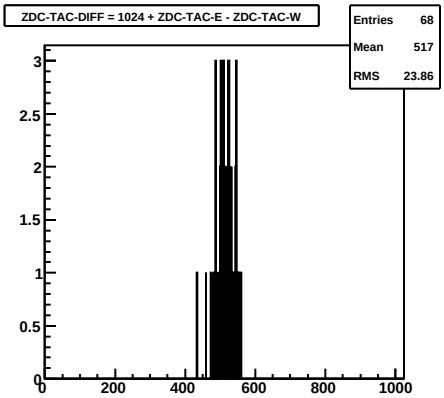

Entries 32848
VPD East ADC Sum
VPD West ADC Sum

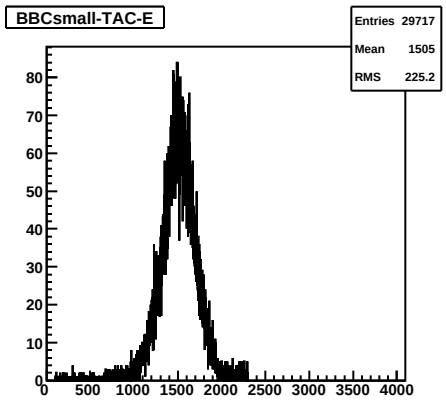

Entries 32848
ZDC East ADC Sum Att
ZDC West ADC Sum Att

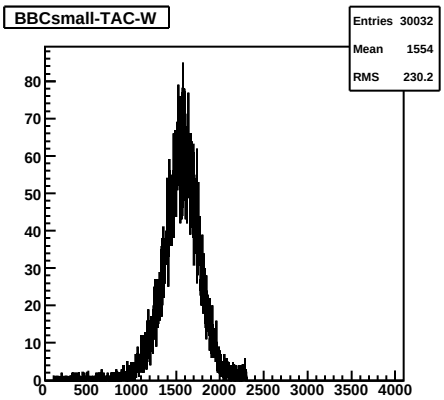

Entries 32848
BBC-L TAC Diff
BCC-S TAC Diff
Entries 32848
BBC-L TAC Diff
VPD TAC Diff
Entries 32848
BBC-L TAC Diff
ZDC TAC Diff
Entries 32848
BBC-S TAC Diff
VPD TAC Diff
Entries 32848
BBC-S TAC Diff
ZDC TAC Diff
Entries 32848
VPD TAC Diff
ZDC TAC Diff

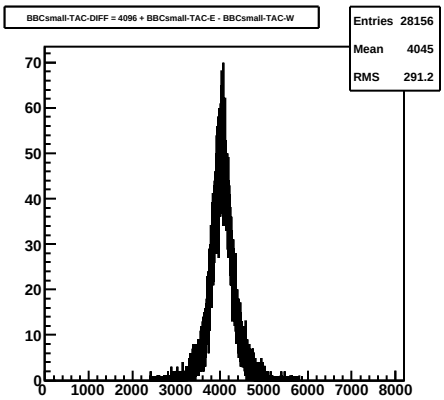

ZDC-TAC-E
Entries 1082
Mean 244.5
RMS 33.64

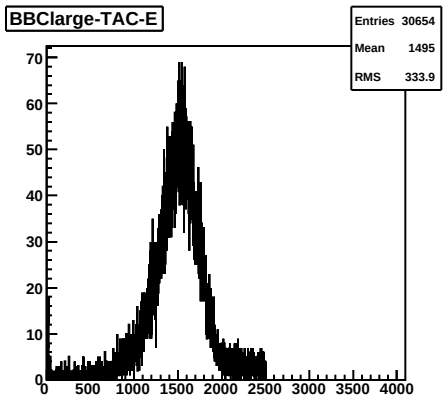

ZDC-TAC-W
Entries 956
Mean 217.6
RMS 35.92

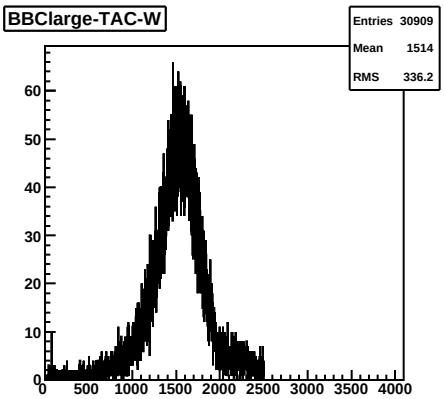

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 68
Mean 517
RMS 23.86

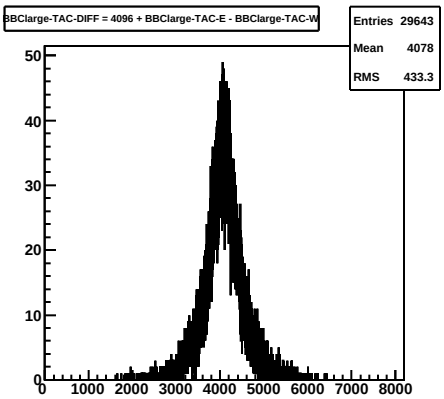

BBCsmall-TAC-E
Entries 29717
Mean 1505
RMS 225.2

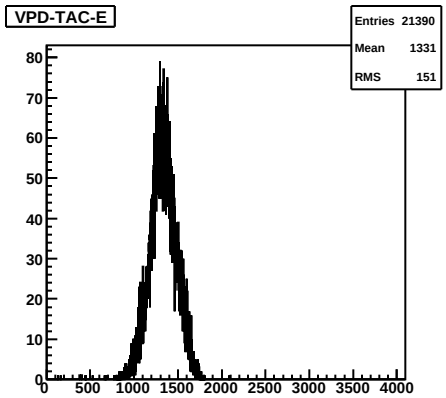

BBCsmall-TAC-W
Entries 30032
Mean 1554
RMS 230.2

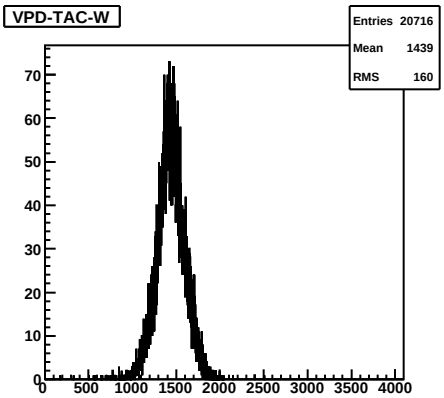

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 28156
Mean 4045
RMS 291.2

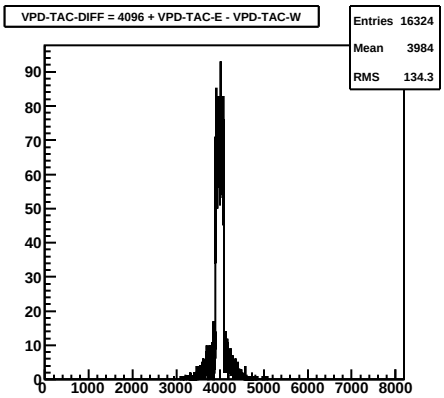

BBClarge-TAC-E
Entries 30654
Mean 1495
RMS 333.9

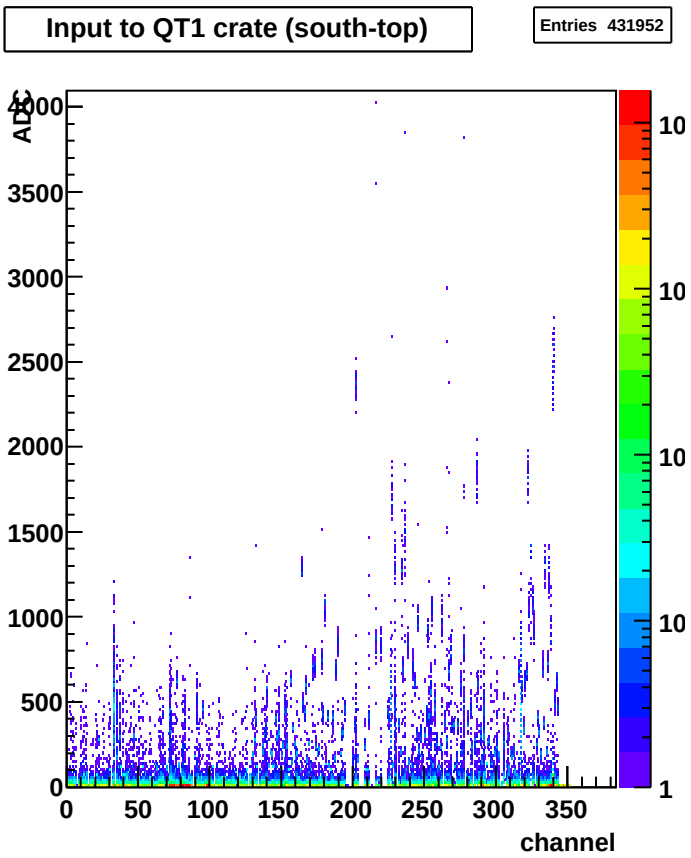

BBClarge-TAC-W
Entries 30909
Mean 1514
RMS 336.2

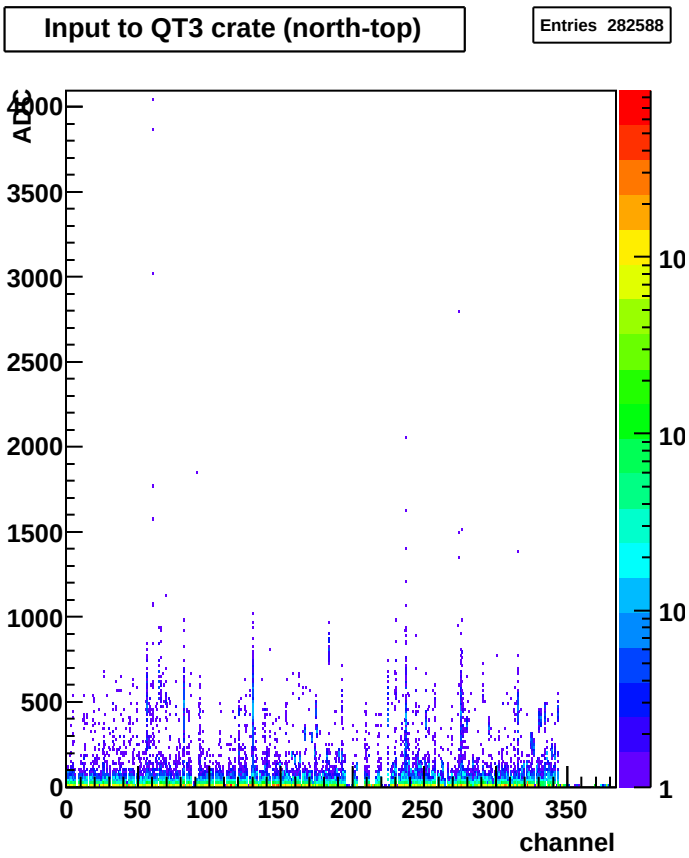

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 29643
Mean 4078
RMS 433.3

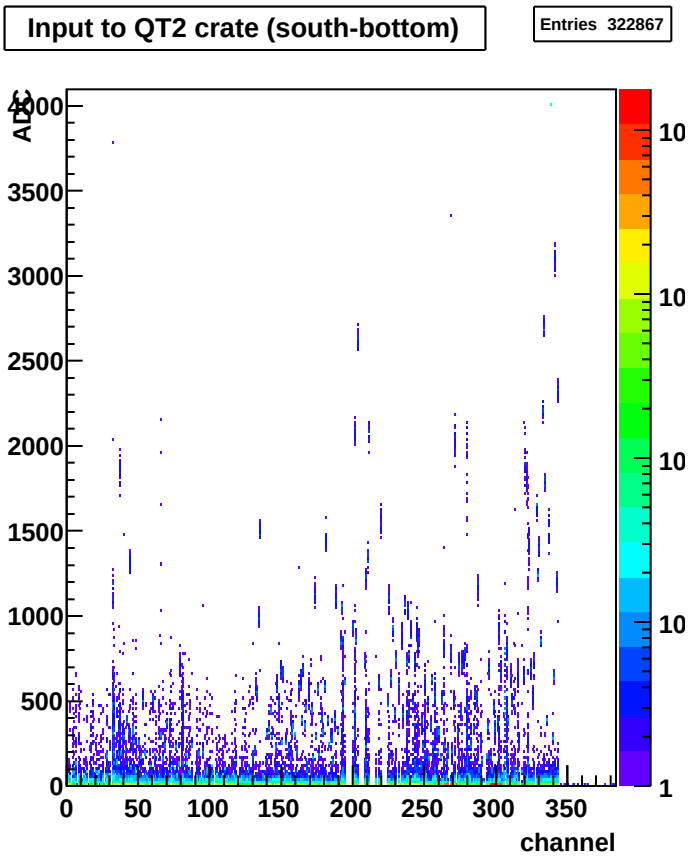

VPD-TAC-E
Entries 21390
Mean 1331
RMS 151

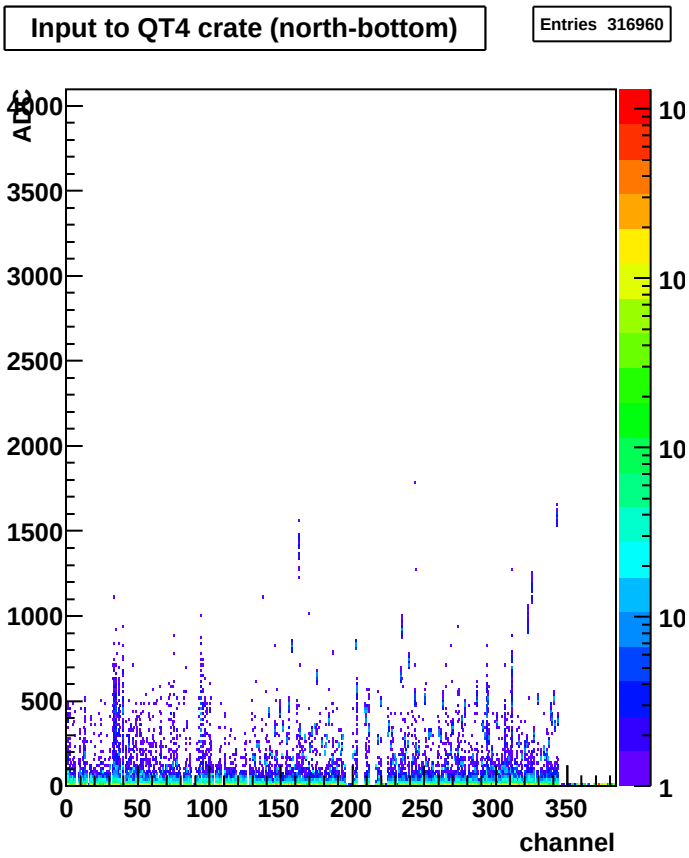

VPD-TAC-W
Entries 20716
Mean 1439
RMS 160

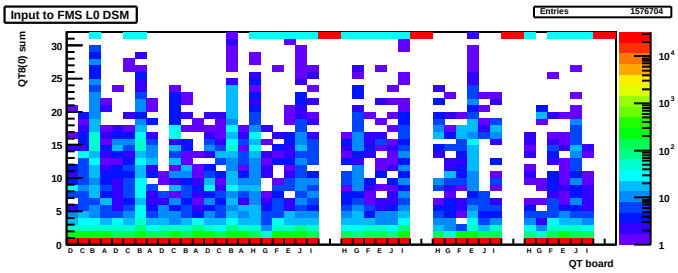

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 16324
Mean 3984
RMS 134.3

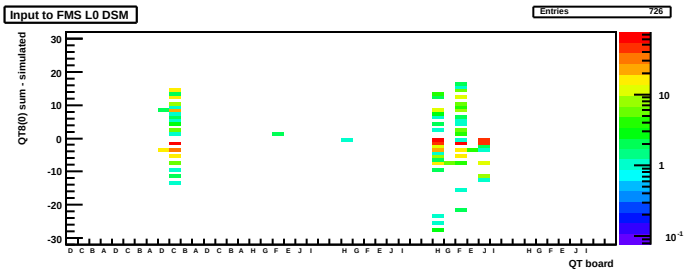

Input to QT1 crate (south-top)
Entries 431952
ADC
channel

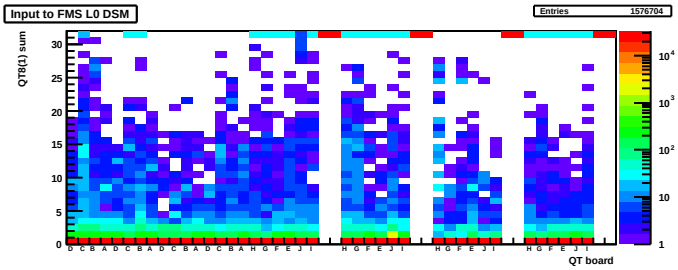

Input to QT3 crate (north-top)
Entries 282588
ADC
channel

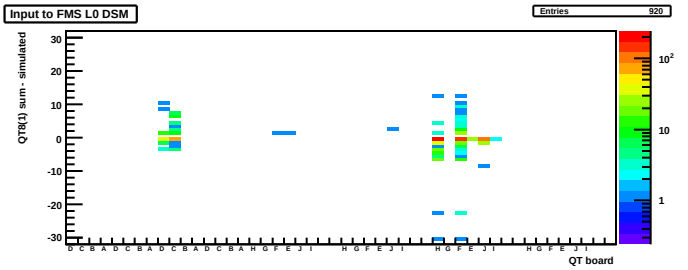

Input to QT2 crate (south-bottom)
Entries 322867
ADC
channel

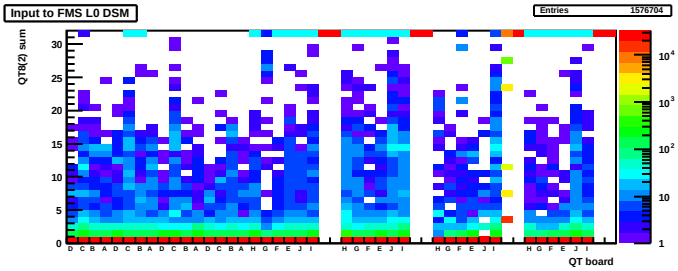

Input to QT4 crate (north-bottom)
Entries 316960
ADC
channel

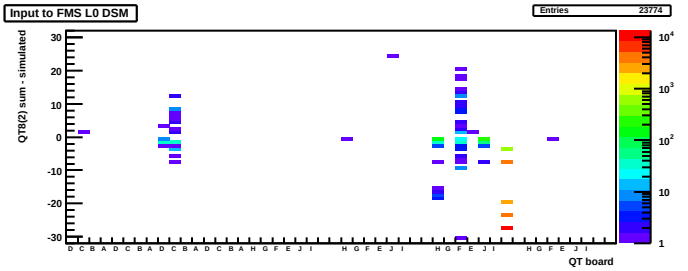

Input to FMS L0 DSM
Entries 1576704
QT8(0) sum
QT board

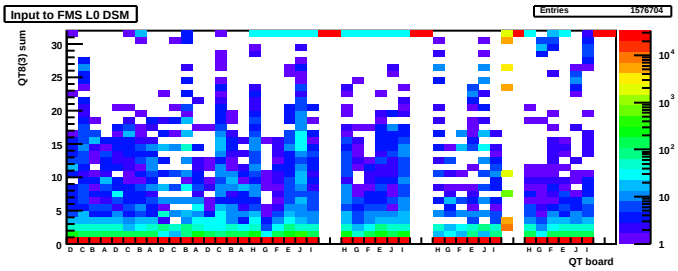

Input to FMS L0 DSM
Entries 726
QT8(0) sum - simulated
QT board

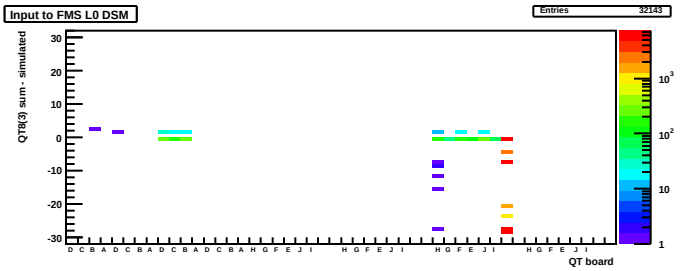

Input to FMS L0 DSM
Entries 1576704
QT8(1) sum
QT board

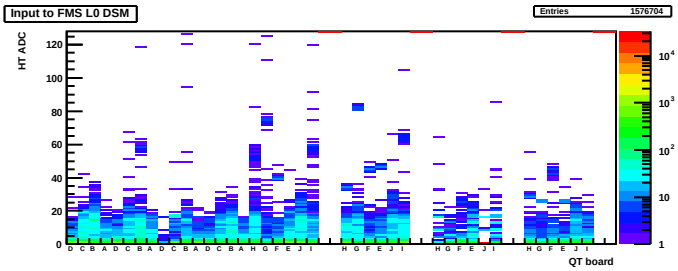

Input to FMS L0 DSM
Entries 920
QT8(1) sum - simulated
QT board

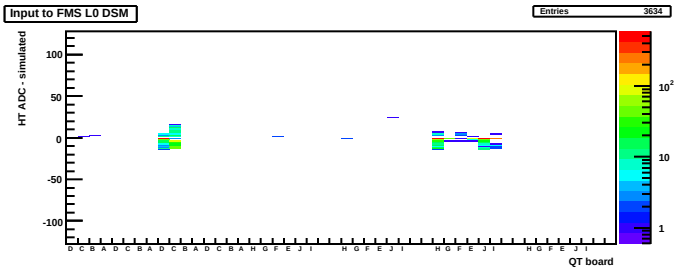

Input to FMS L0 DSM
Entries 1576704
QT8(2) sum
QT board

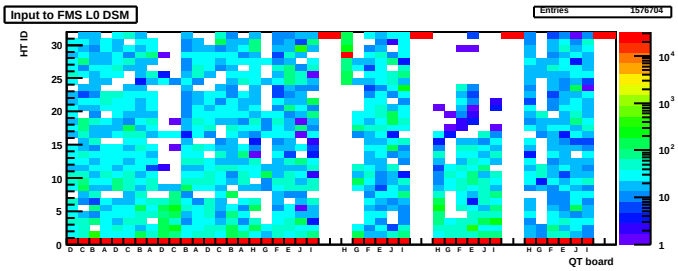

Input to FMS L0 DSM
Entries 23774
QT8(2) sum - simulated
QT board

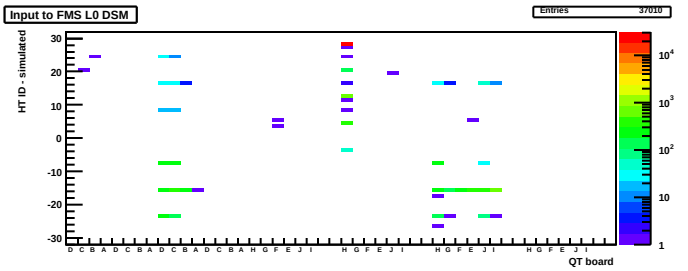

Input to FMS L0 DSM
Entries 1576704
QT8(3) sum
QT board

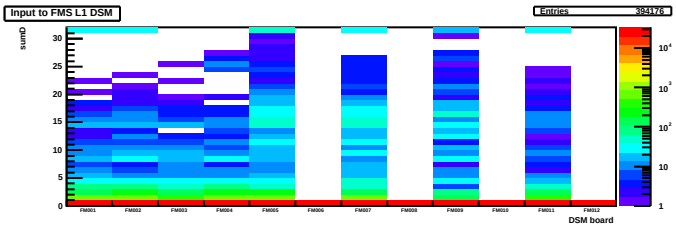

Input to FMS L0 DSM
Entries 32143
QT8(3) sum - simulated
QT board

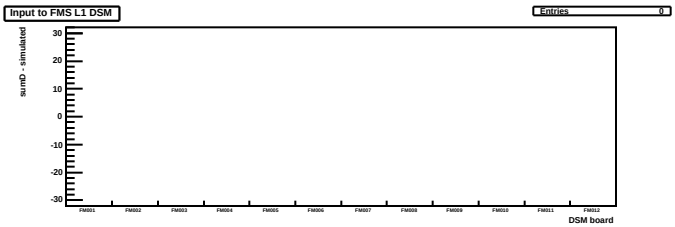

Input to FMS L0 DSM
Entries 1576704
HT ADC
QT board

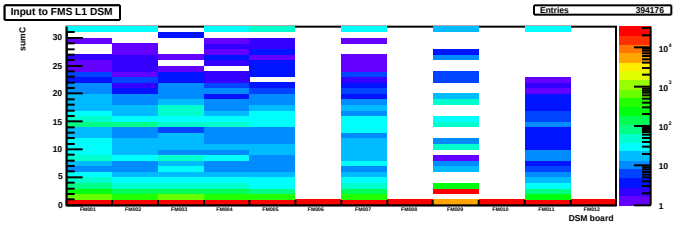

Input to FMS L0 DSM
Entries 3634
HT ADC - simulated
QT board

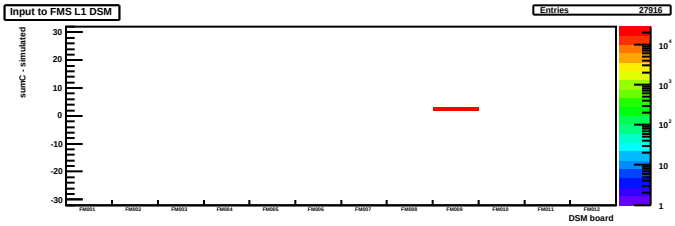

Input to FMS L0 DSM
Entries 1576704
HT ID
QT board

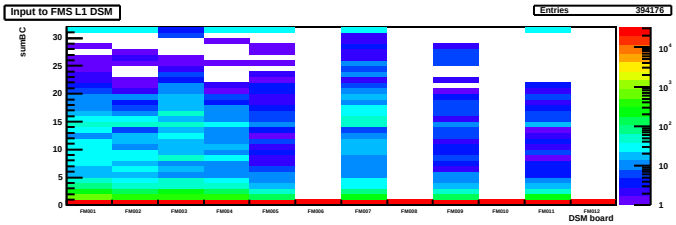

Input to FMS L0 DSM
Entries 37010
HT ID - simulated
QT board

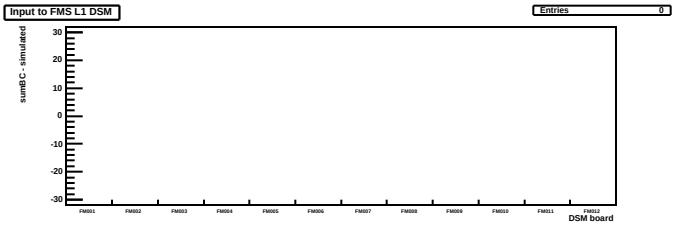

Input to FMS L1 DSM
Entries 394176
sumD
DSM board

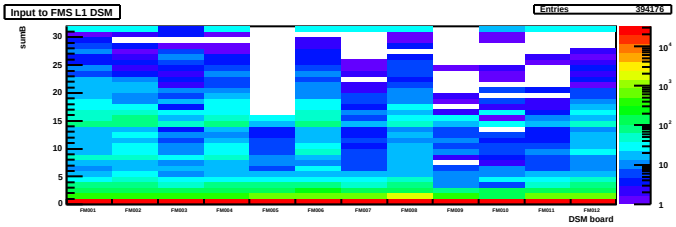

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

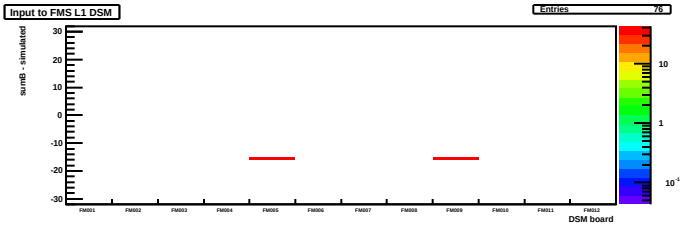

Input to FMS L1 DSM
Entries 394176
sumC
DSM board

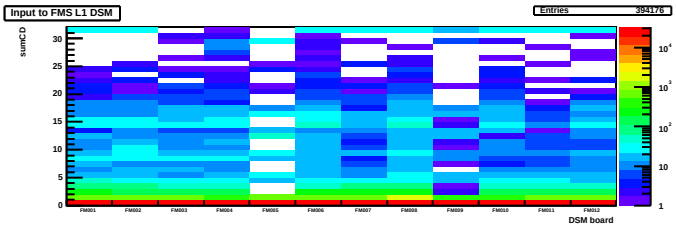

Input to FMS L1 DSM
Entries 27916
sumC - simulated
DSM board

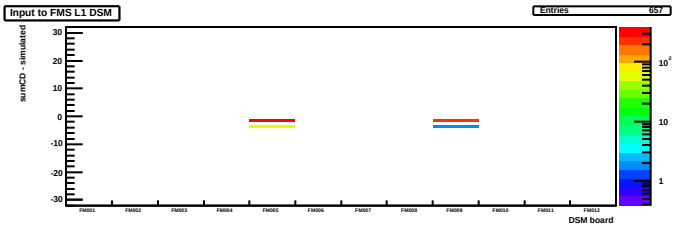

Input to FMS L1 DSM
Entries 394176
sumBC
DSM board

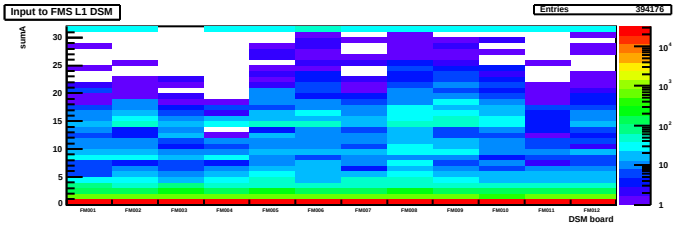

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

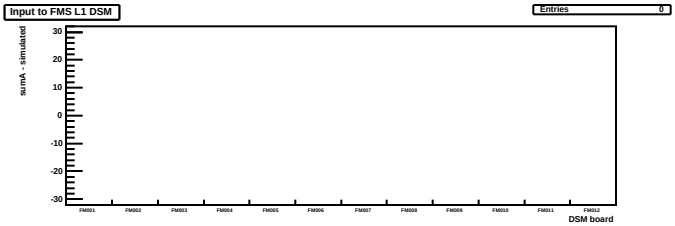

Input to FMS L1 DSM
Entries 394176
sumB
DSM board

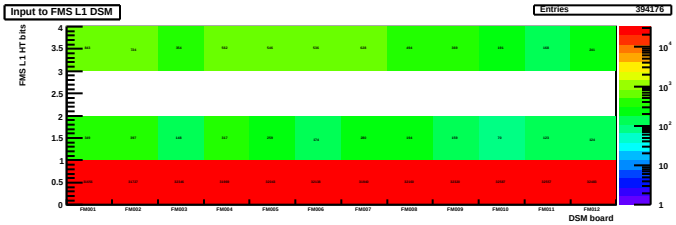

Input to FMS L1 DSM
Entries 76
sumB - simulated
DSM board

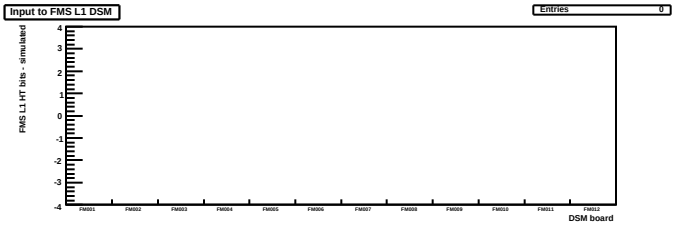

Input to FMS L1 DSM
Entries 394176
sumCD
DSM board

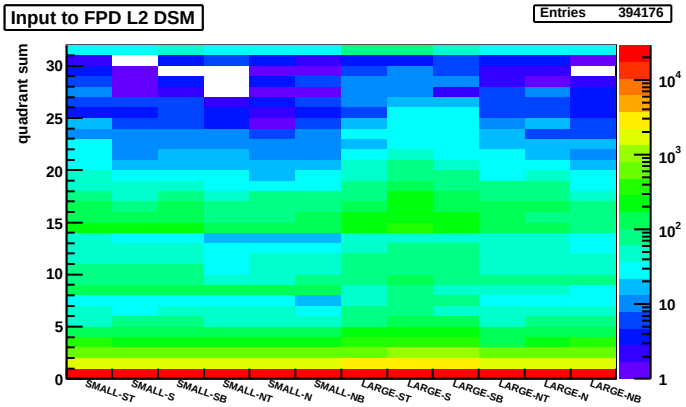

Input to FMS L1 DSM
Entries 657
sumCD - simulated
DSM board

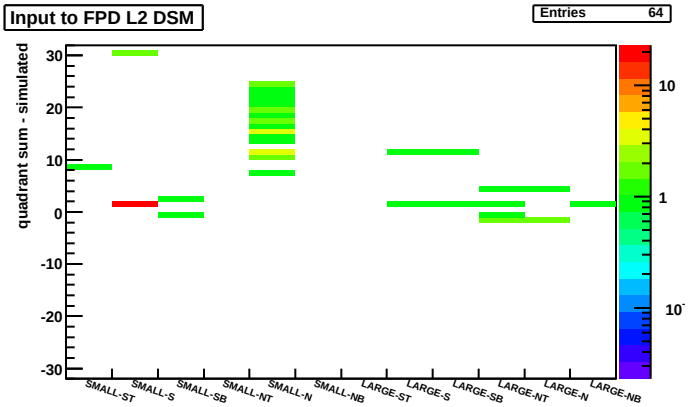

Input to FMS L1 DSM
Entries 394176
sumA
DSM board

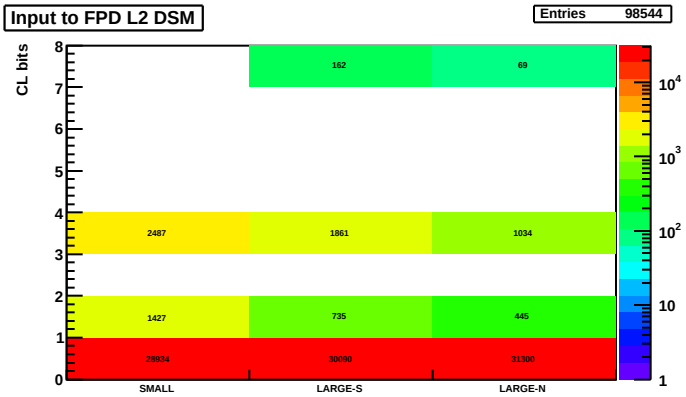

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

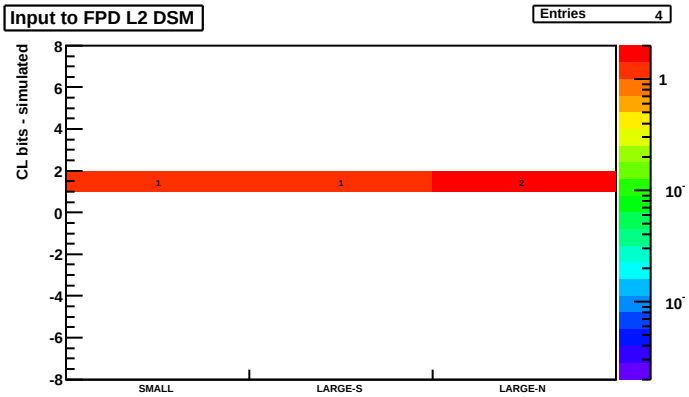

Input to FMS L1 DSM
Entries 394176
FMS L1 HT bits
DSM board

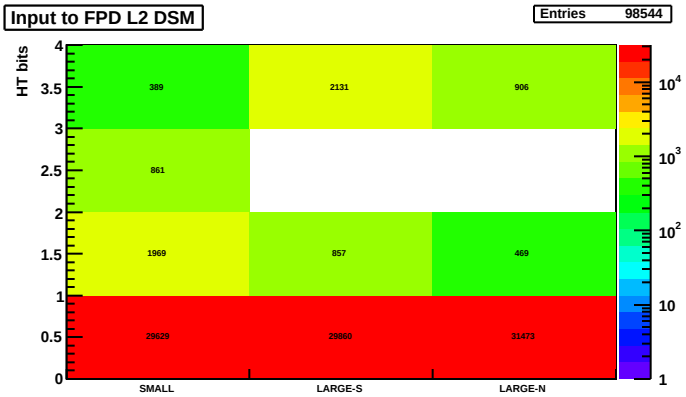

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

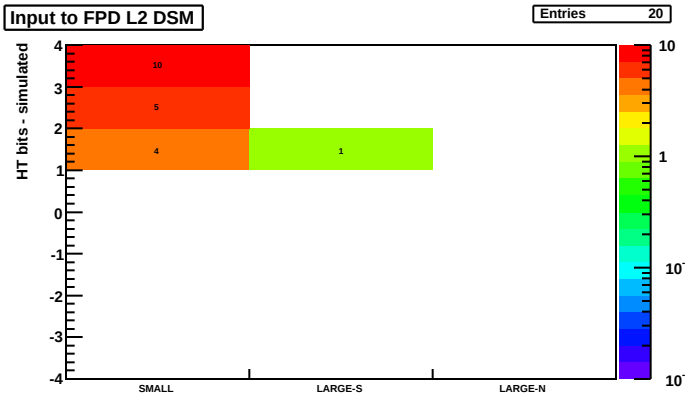

Input to FPD L2 DSM
Entries 394176
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

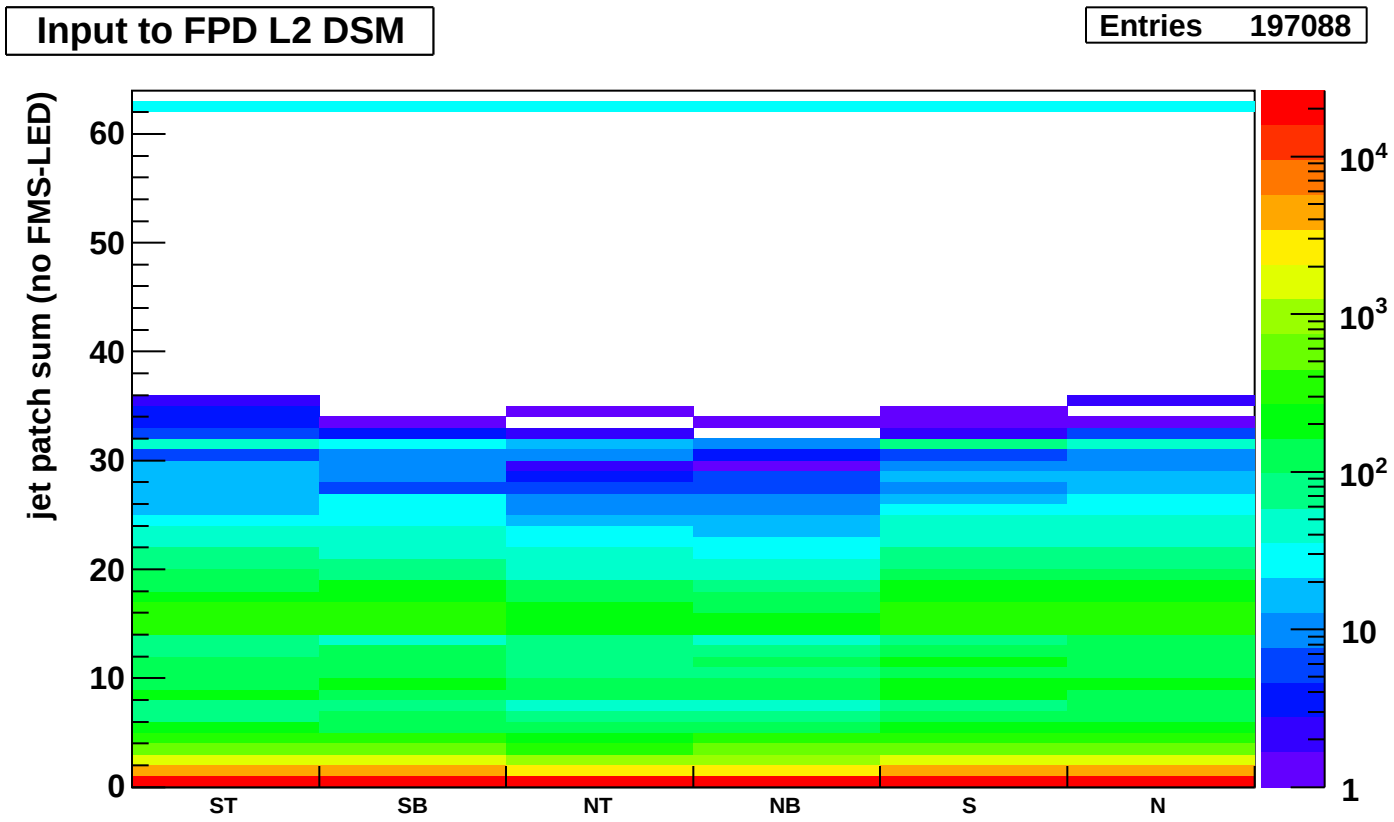

Input to FPD L2 DSM
Entries 64
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

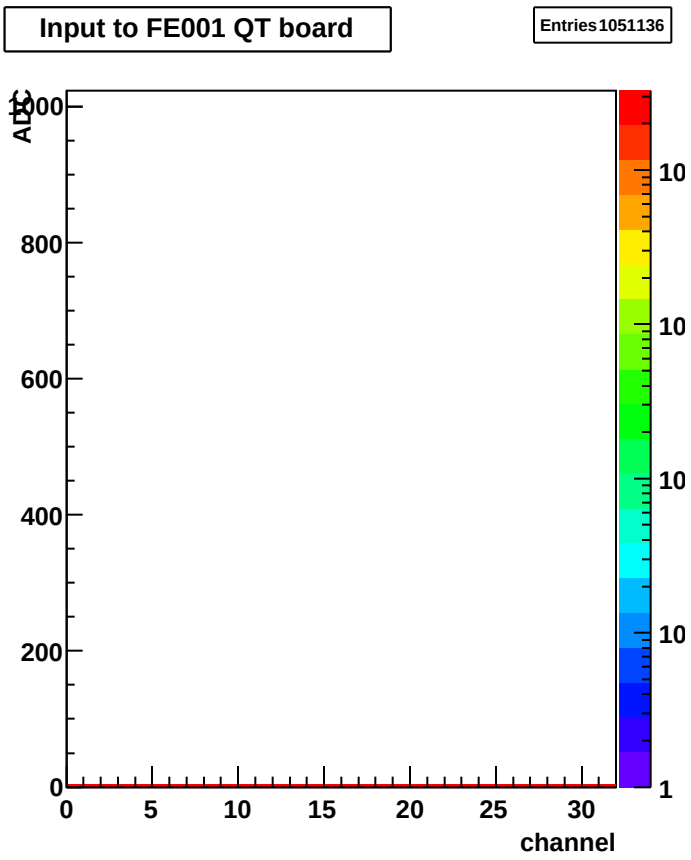

Input to FPD L2 DSM
Entries 98544
CL bits
162
69
2487
1861
1034
1427
735
445
28934
30090
31300
SMALL
LARGE-S
LARGE-N

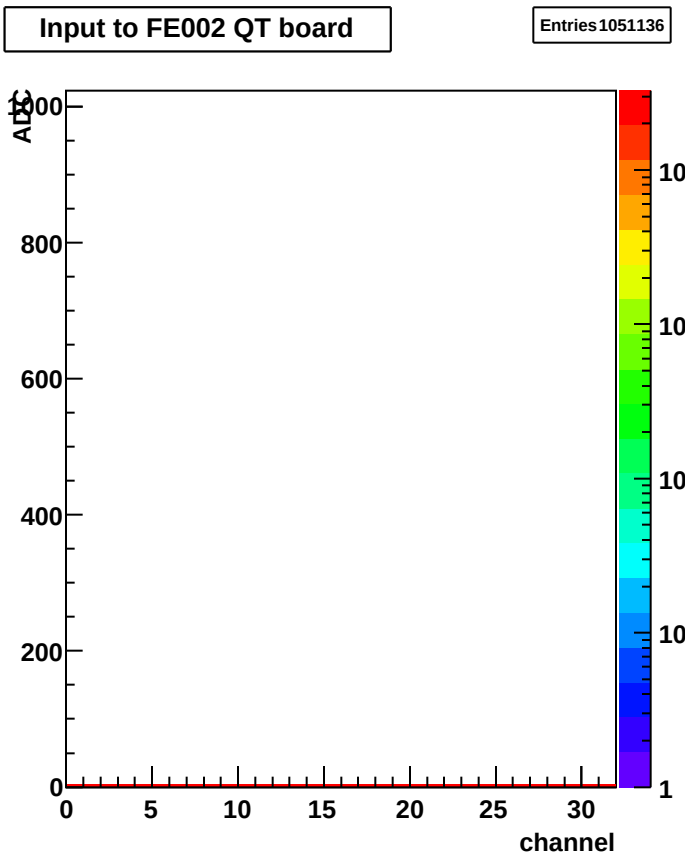

Input to FPD L2 DSM
Entries 4
CL bits - simulated
1
1
2
SMALL
LARGE-S
LARGE-N

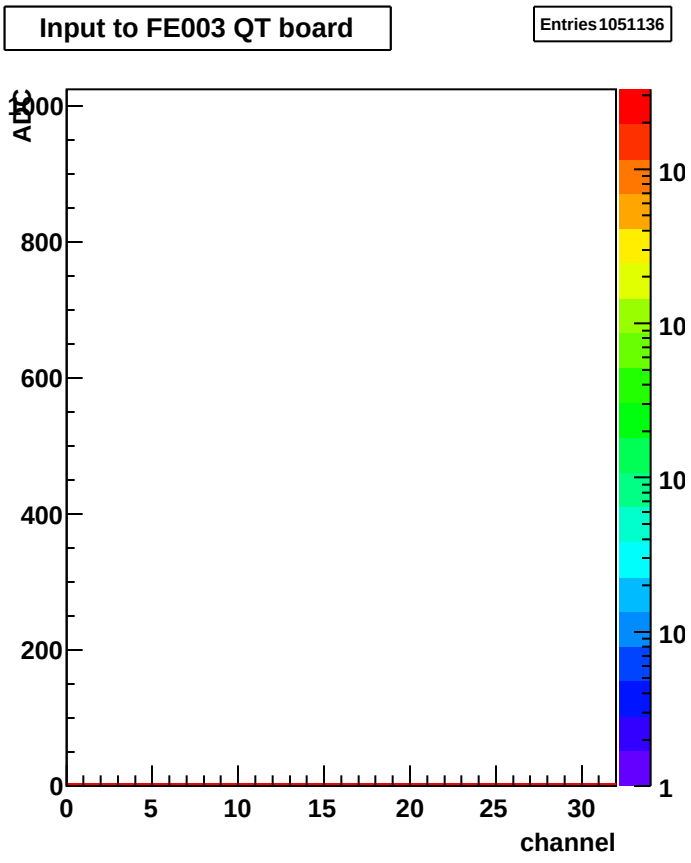

Input to FPD L2 DSM
Entries 98544
HT bits
389
2131
906
861
1969
857
469
29629
29860
31473
SMALL
LARGE-S
LARGE-N

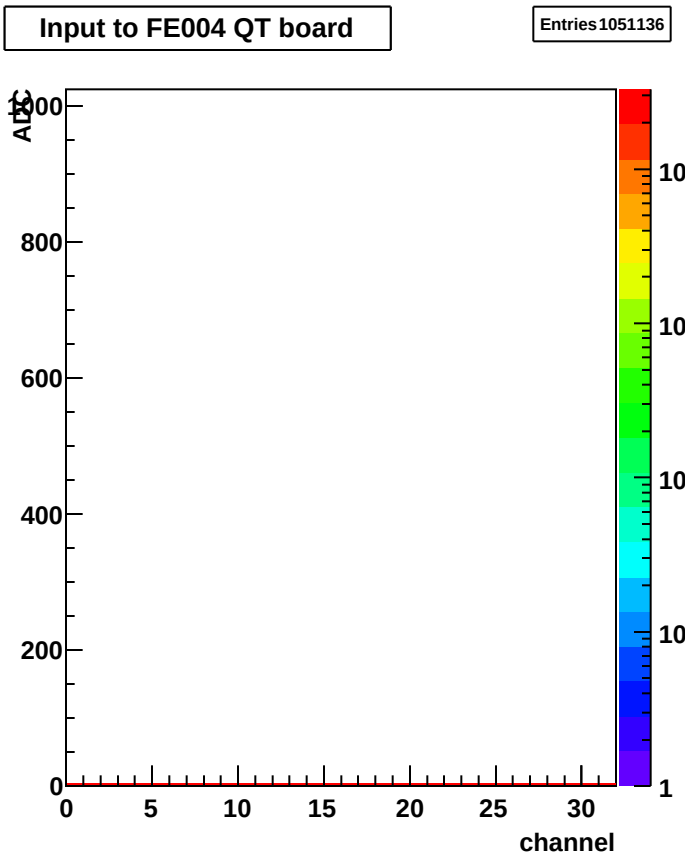

Input to FPD L2 DSM
Entries 20
HT bits - simulated
10
5
4
1
SMALL
LARGE-S
LARGE-N

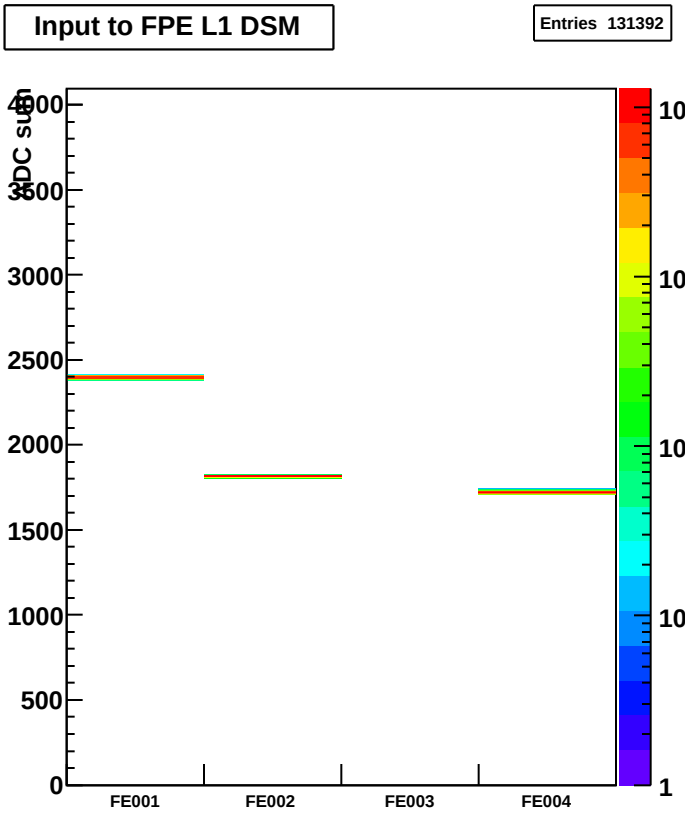

Input to FPD L2 DSM
Entries 197088
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

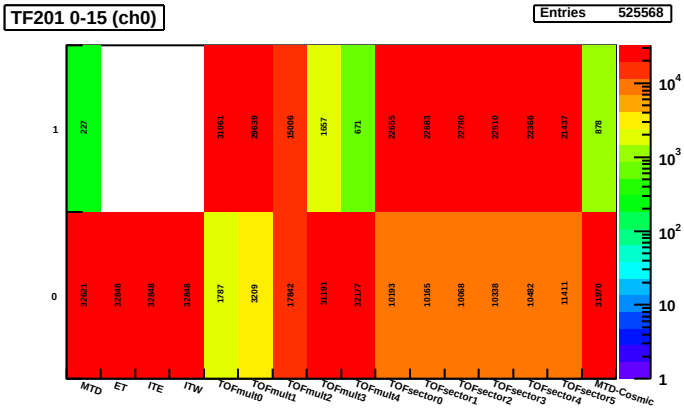

Input to FE001 QT board
Entries 1051136
ADC
channel

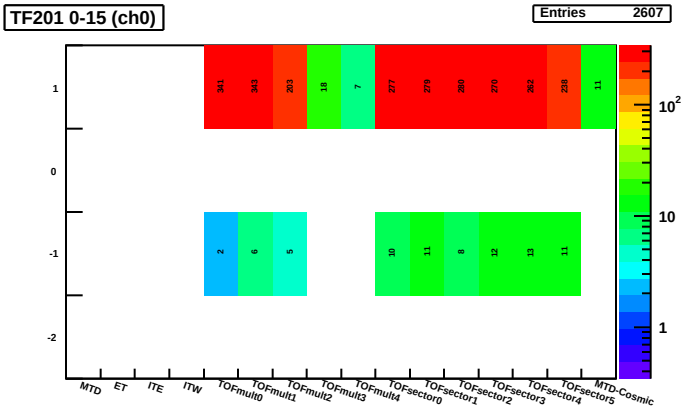

Input to FE002 QT board
Entries 1051136
ADC
channel

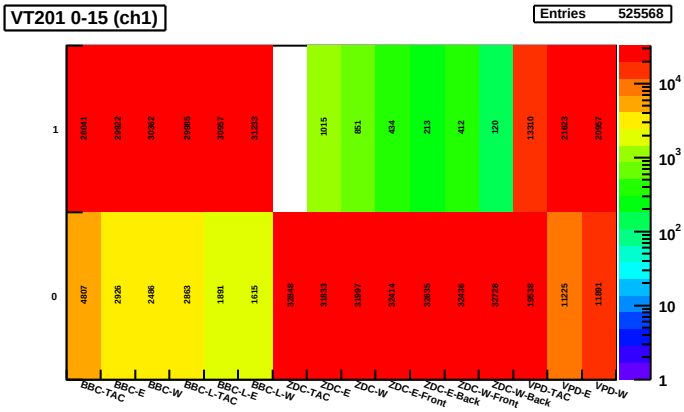

Input to FE003 QT board
Entries 1051136
ADC
channel

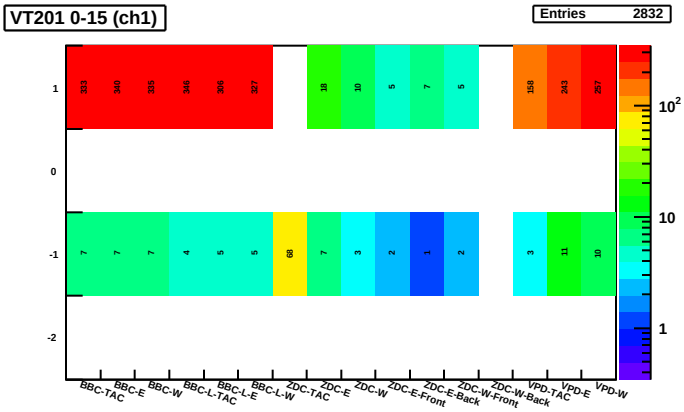

Input to FE004 QT board
Entries 1051136
ADC
channel

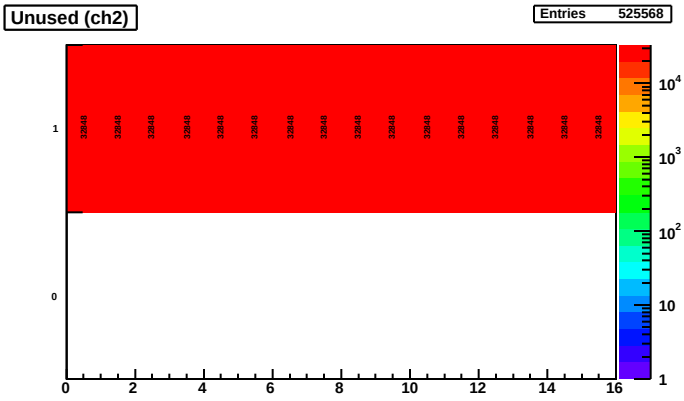

Input to FPE L1 DSM
Entries 131392
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

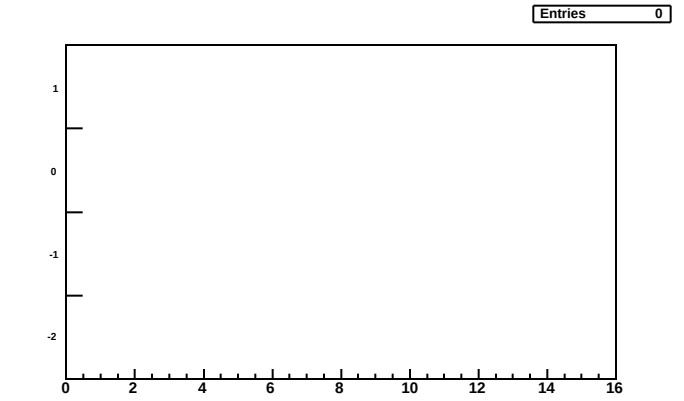

TF201 0-15 (ch0)
Entries 525568
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

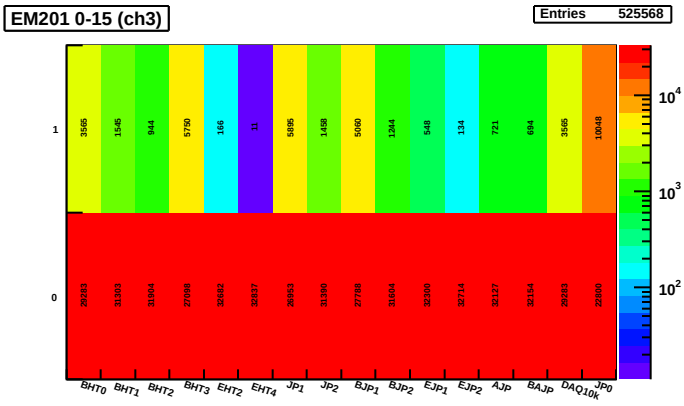

TF201 0-15 (ch0)
Entries 2607
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

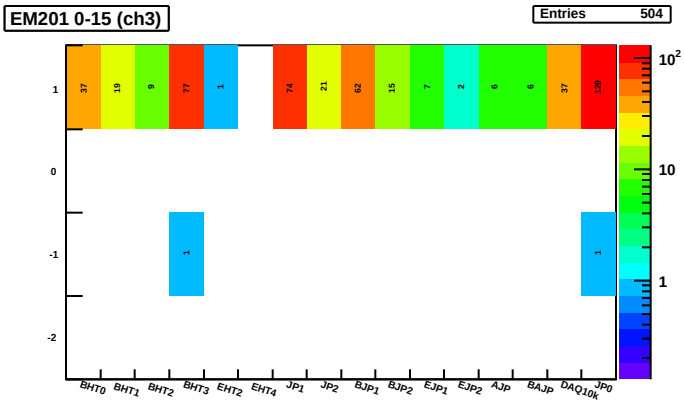

VT201 0-15 (ch1)
Entries 525568
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 2832
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

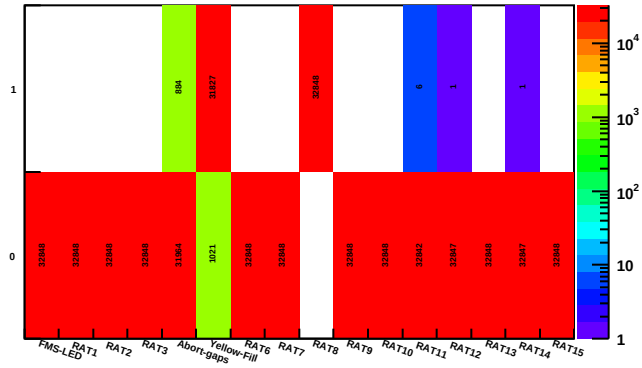

Unused (ch2)
Entries 525568

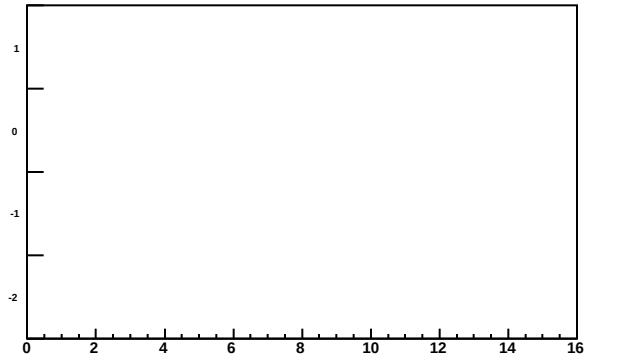

Entries 0


EM201 0-15 (ch3)
Entries 525568
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

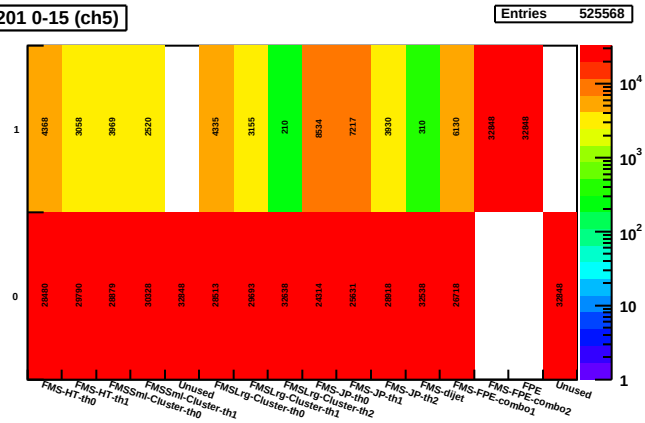

EM201 0-15 (ch3)
Entries 504
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

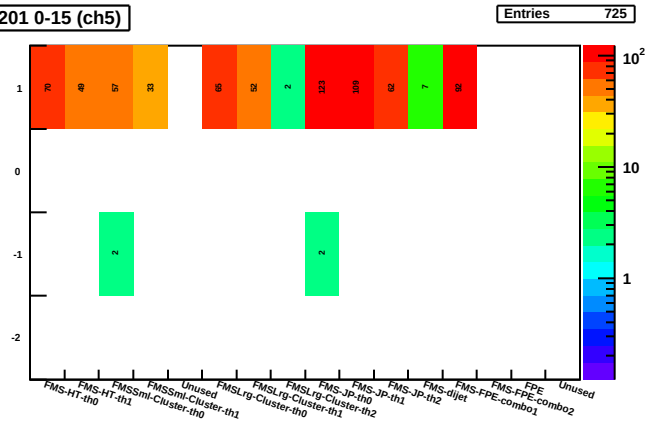




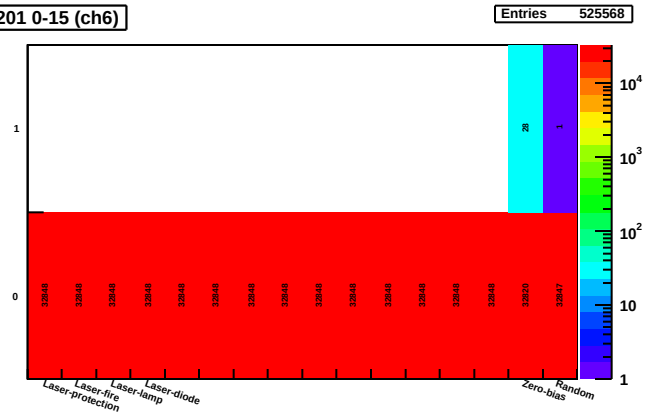
FP201 0-15 (ch5)

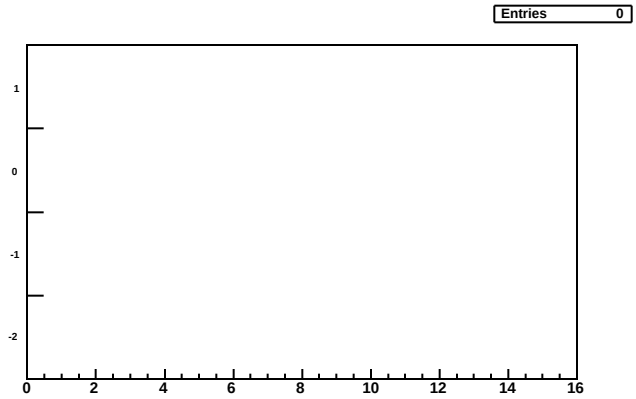
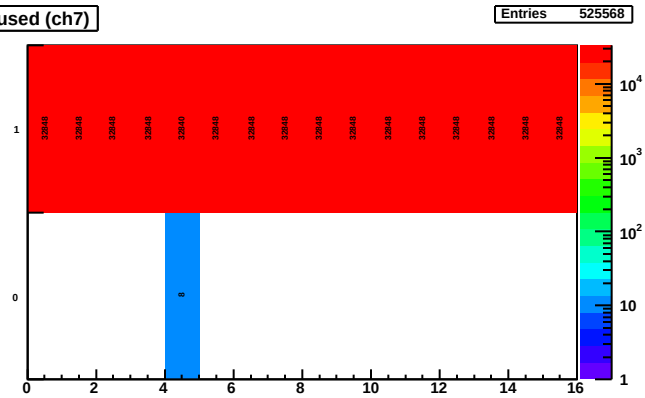
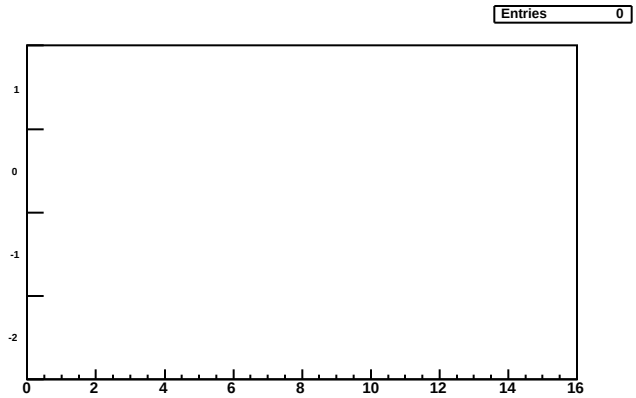


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)