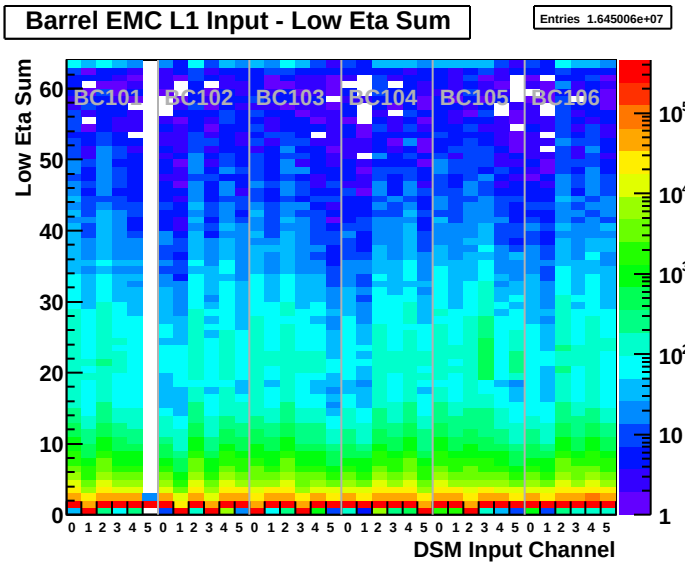
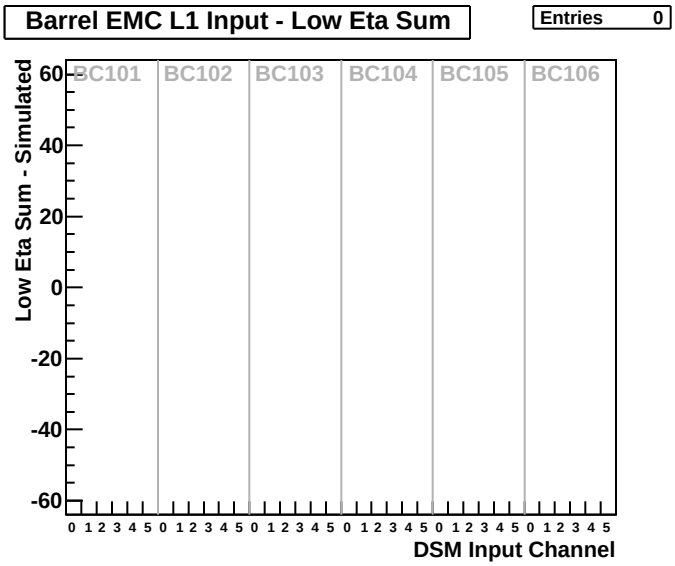
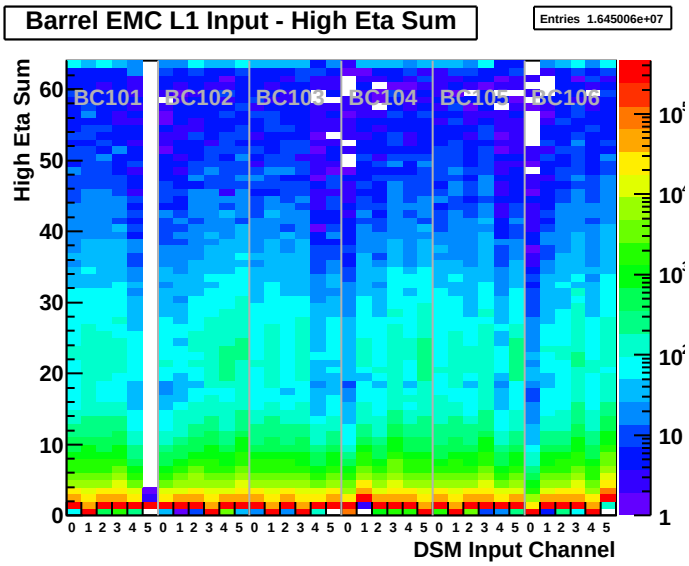
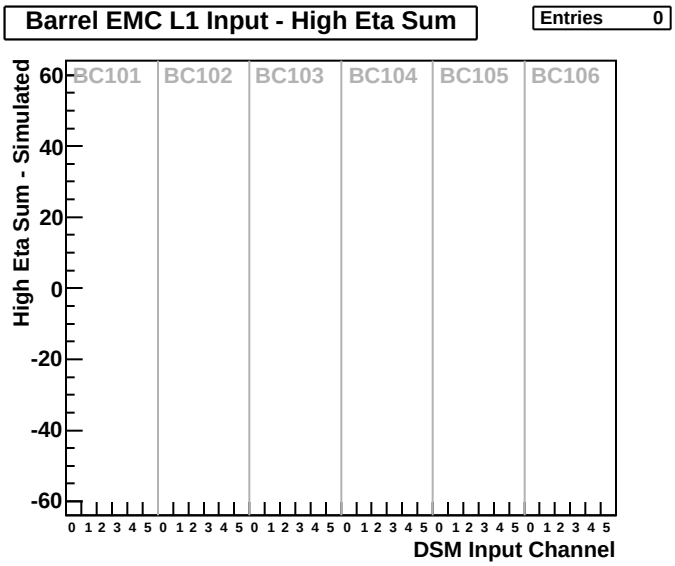
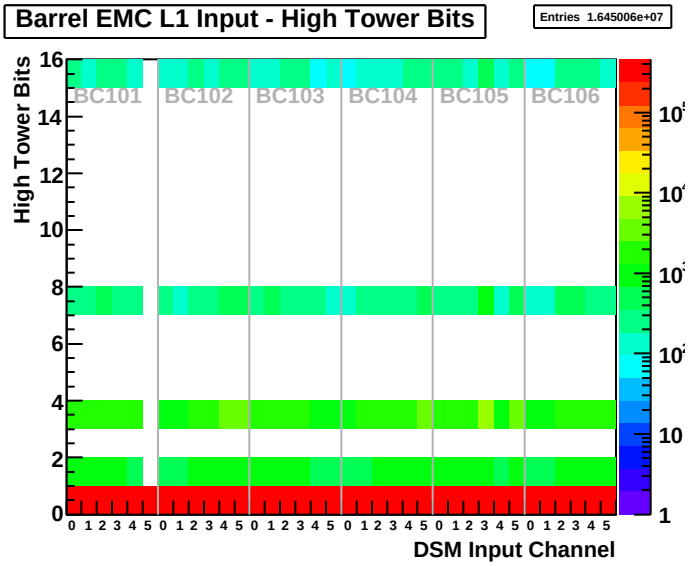
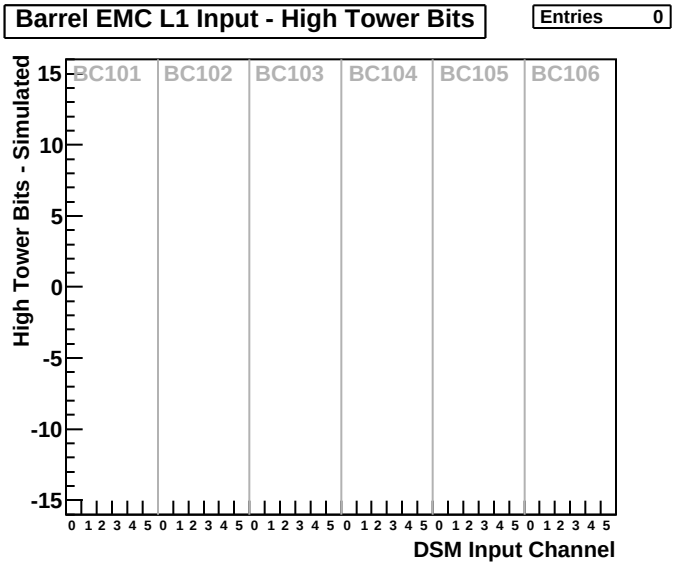

Barrel EMC L1 Input - Low Eta Sum
Entries 1.645006e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

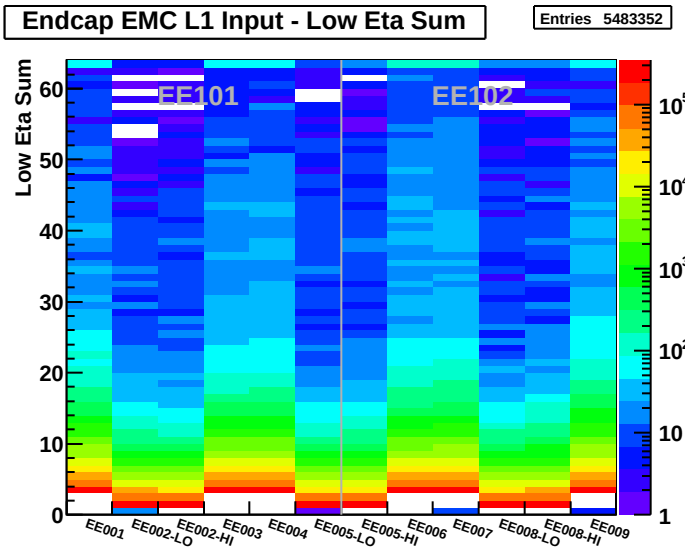

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

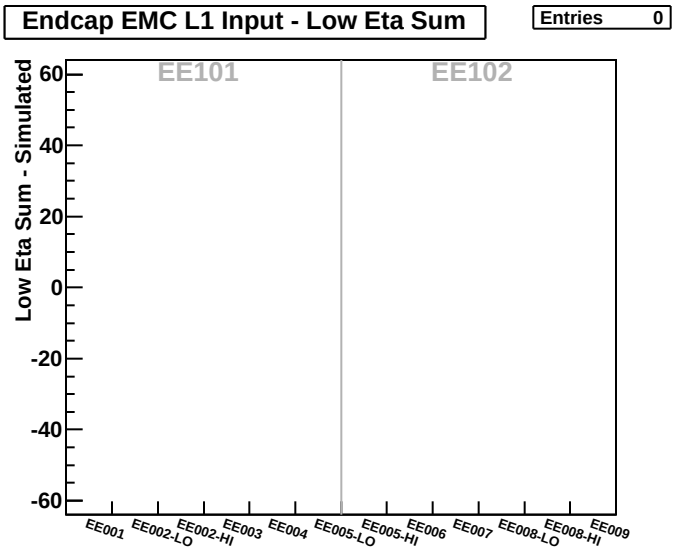

Barrel EMC L1 Input - High Eta Sum
Entries 1.645006e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

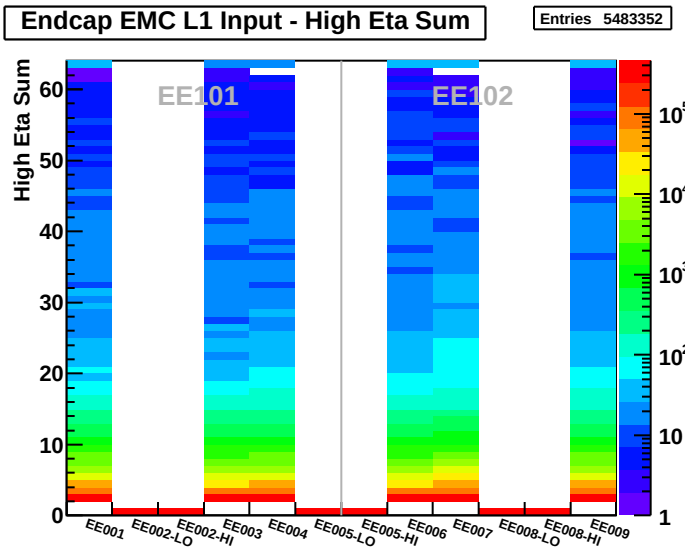

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

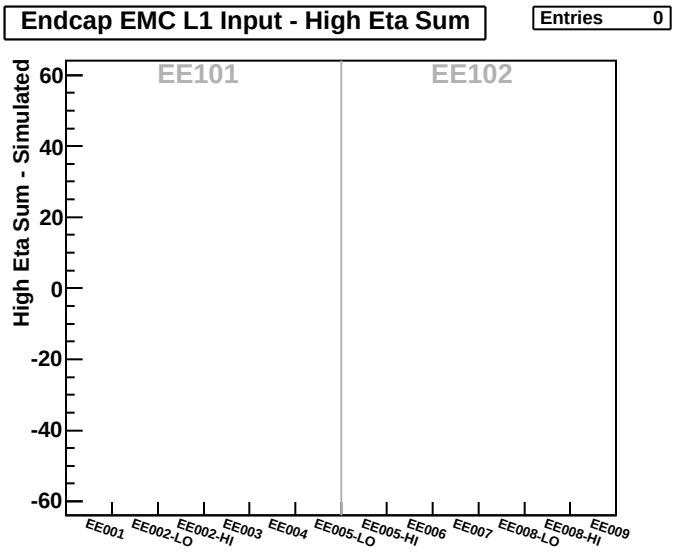

Barrel EMC L1 Input - High Tower Bits
Entries 1.645006e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

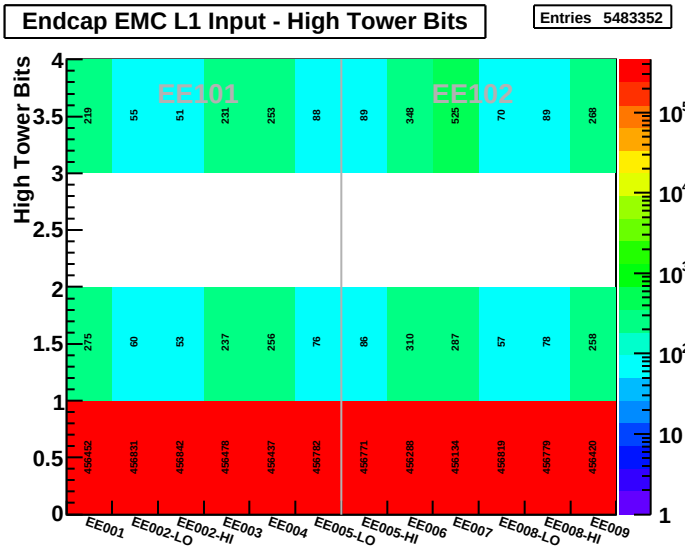

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

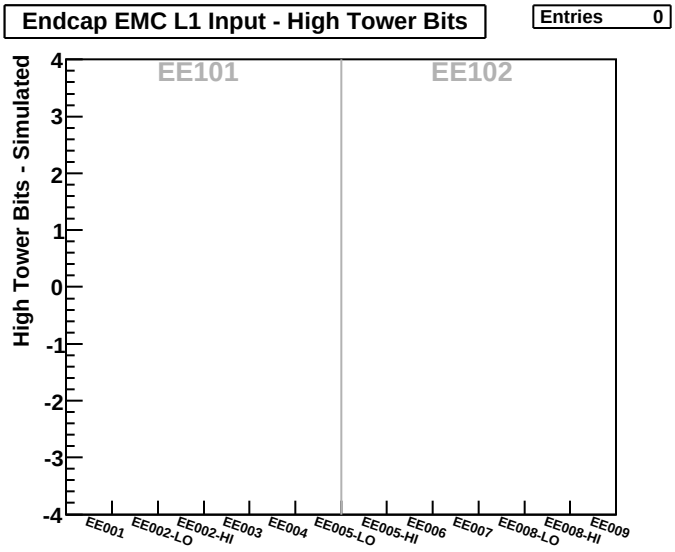

Endcap EMC L1 Input - Low Eta Sum
Entries 5483352
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

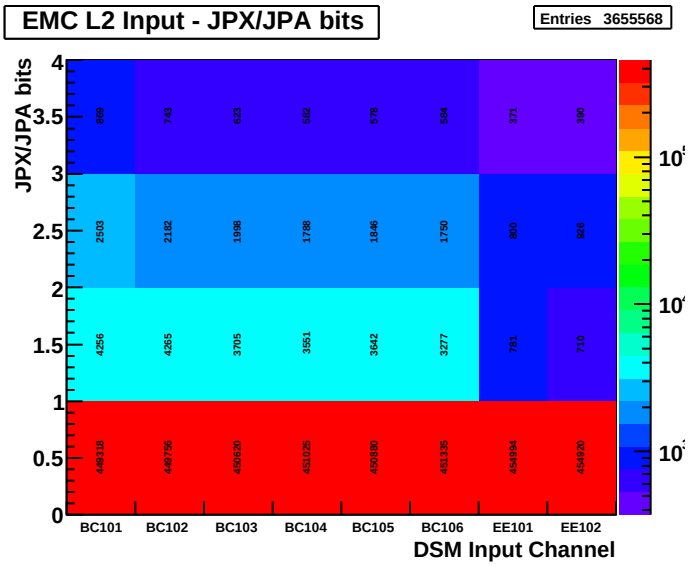

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

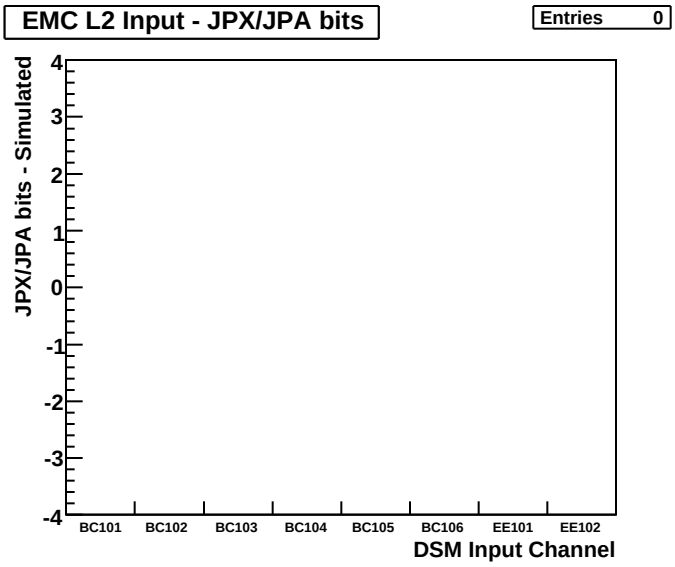

Endcap EMC L1 Input - High Eta Sum
Entries 5483352
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

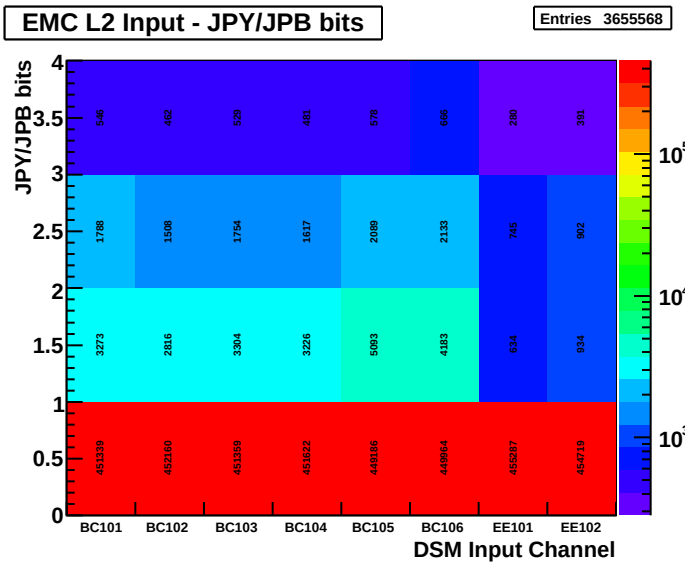

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

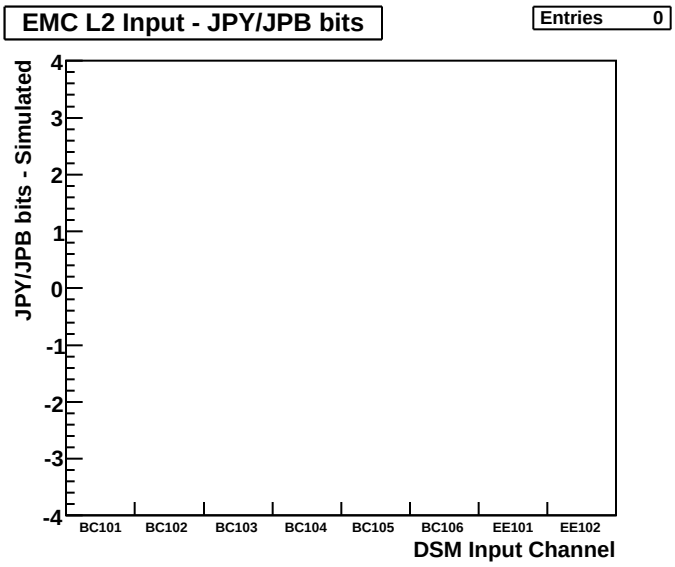

Endcap EMC L1 Input - High Tower Bits
Entries 5483352
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

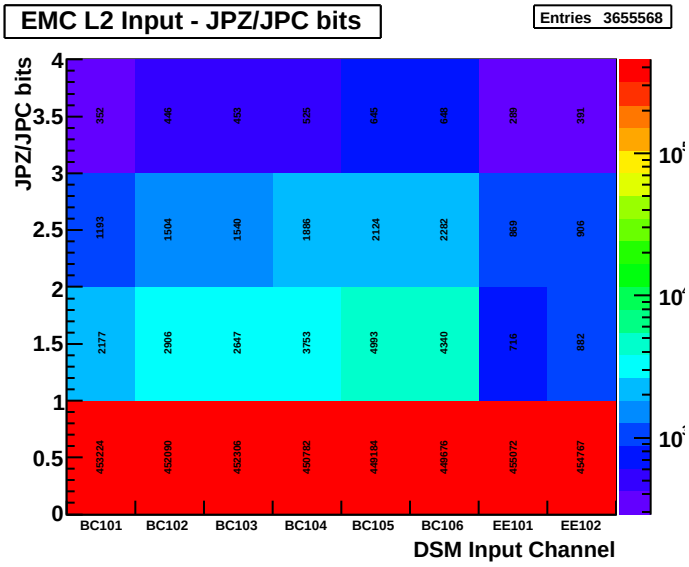

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

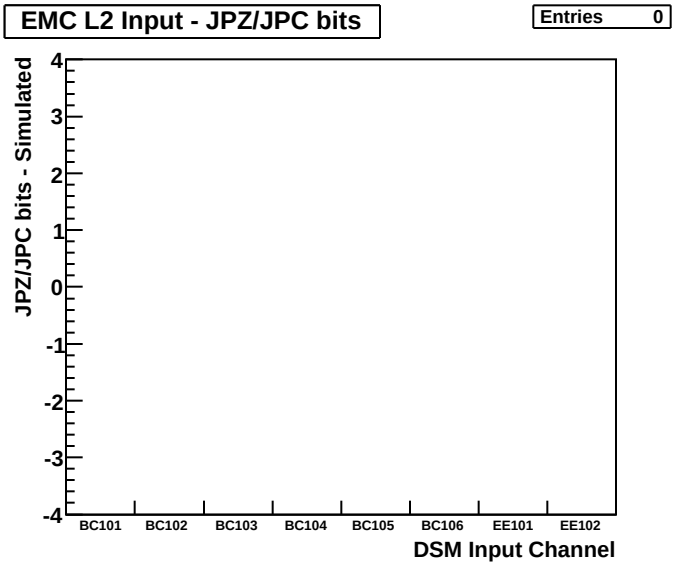

EMC L2 Input - JPX/JPA bits
Entries 3655568
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
869 743 623 582 578 594 371 390
2503 2182 1998 1788 1846 1750 800 926
4256 4265 3705 3551 3642 3277 781 710
448318 449756 450620 451025 450880 451335 454994 454920

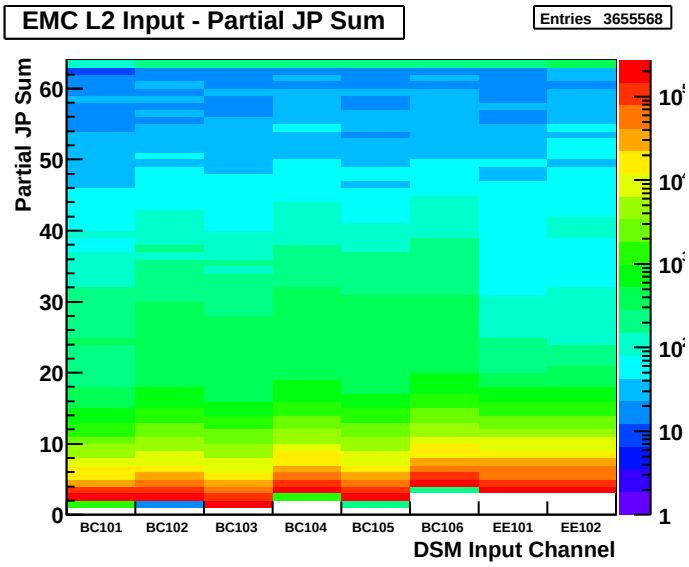

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

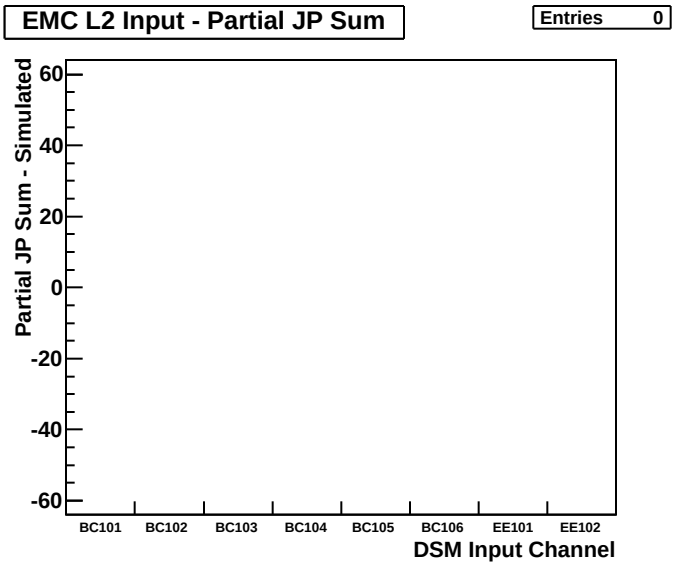

EMC L2 Input - JPY/JPB bits
Entries 3655568
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
546 462 529 481 578 666 280 391
1788 1508 1754 1617 2089 2133 745 902
3273 2816 3304 3226 5093 4183 634 934
451339 452160 451359 451622 449186 449964 455287 454719

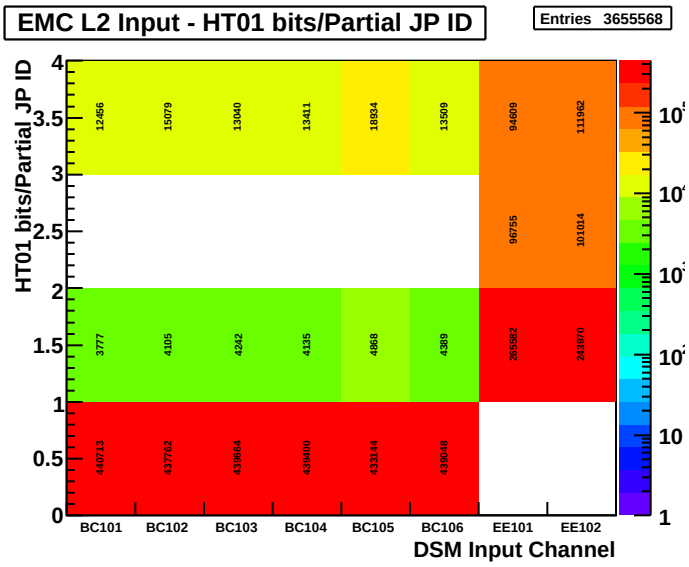

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

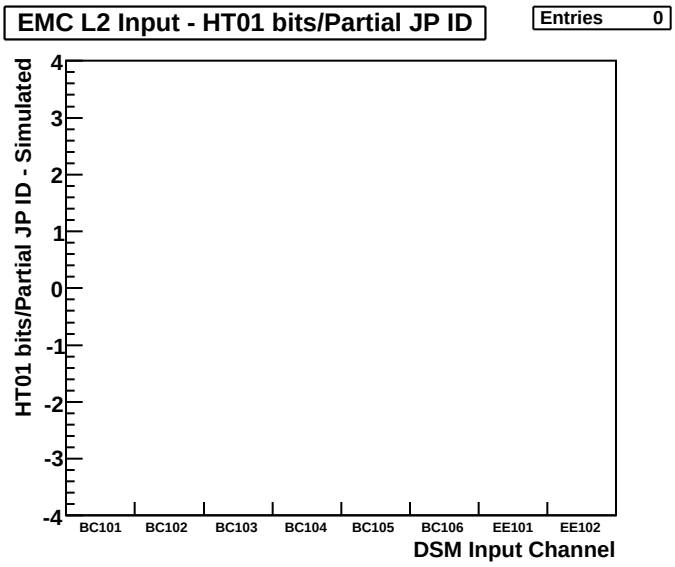

EMC L2 Input - JPZ/JPC bits
Entries 3655568
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
352 446 453 525 645 648 289 391
1193 1504 1540 1886 2124 2282 869 906
2177 2906 2647 3753 4993 4340 716 832
453224 452090 452306 450782 449184 449676 455072 454767

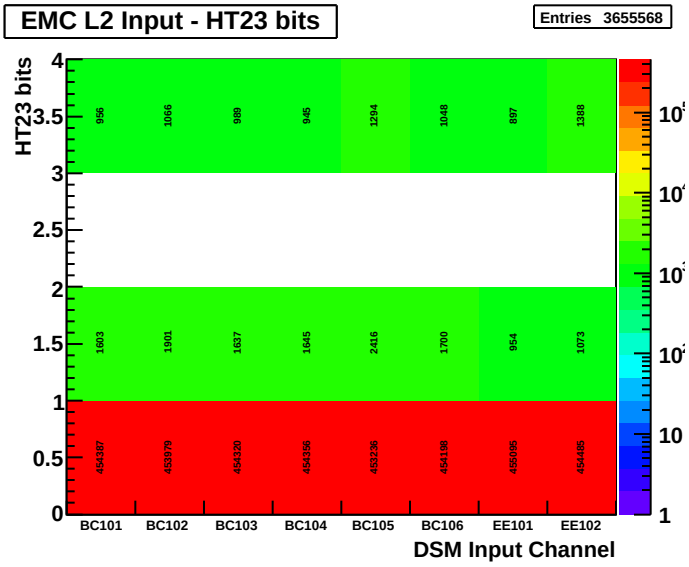

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

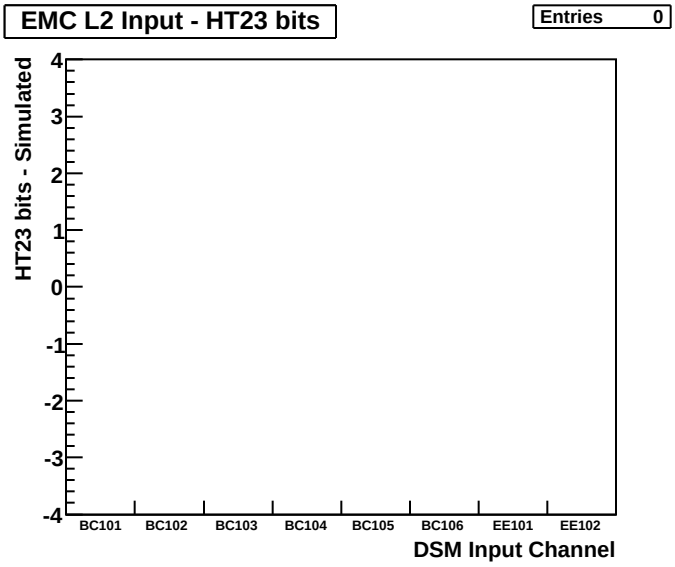

EMC L2 Input - Partial JP Sum
Entries 3655568
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

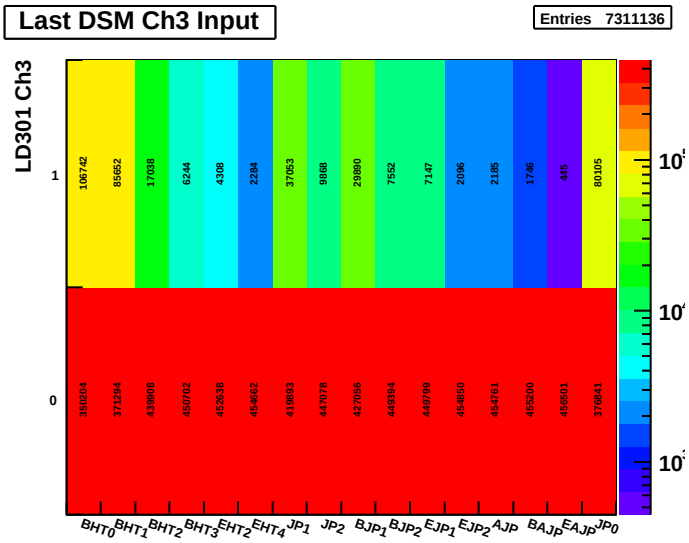

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

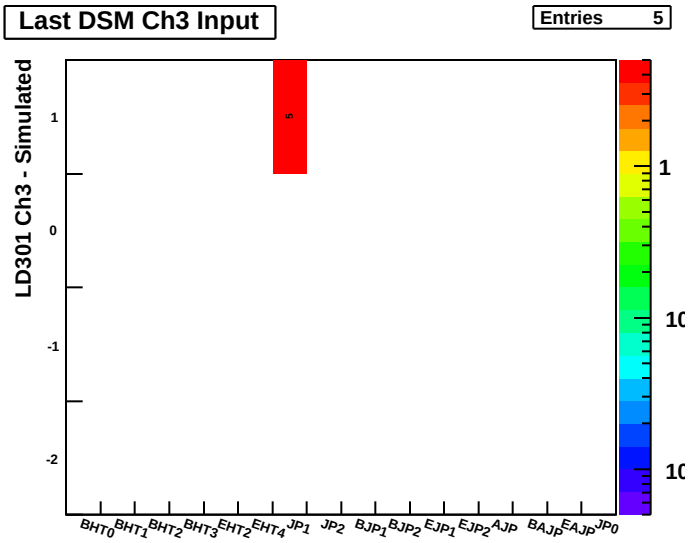

EMC L2 Input - HT01 bits/Partial JP ID
Entries 3655568
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

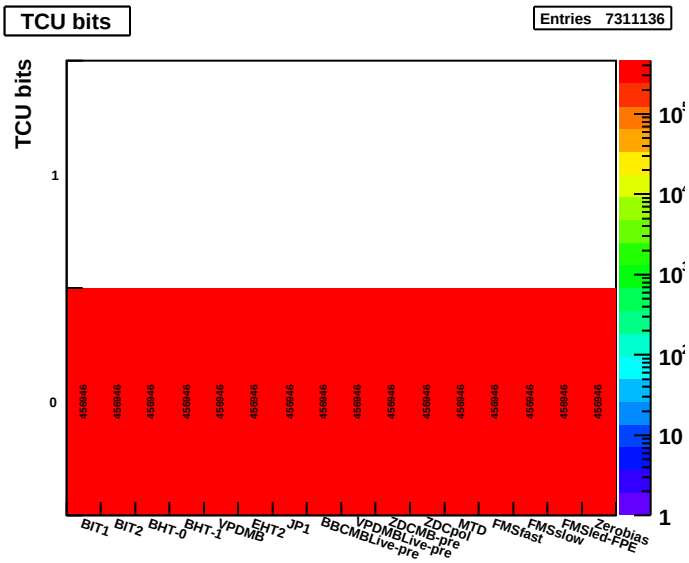

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

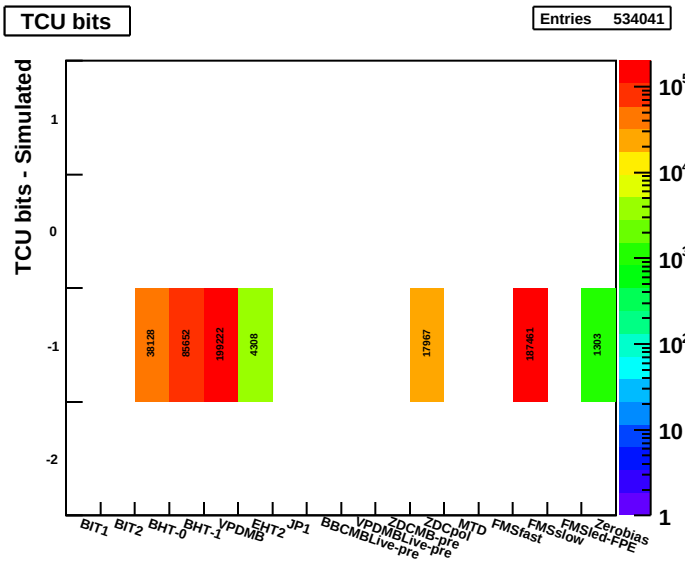

EMC L2 Input - HT23 bits
Entries 3655568
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

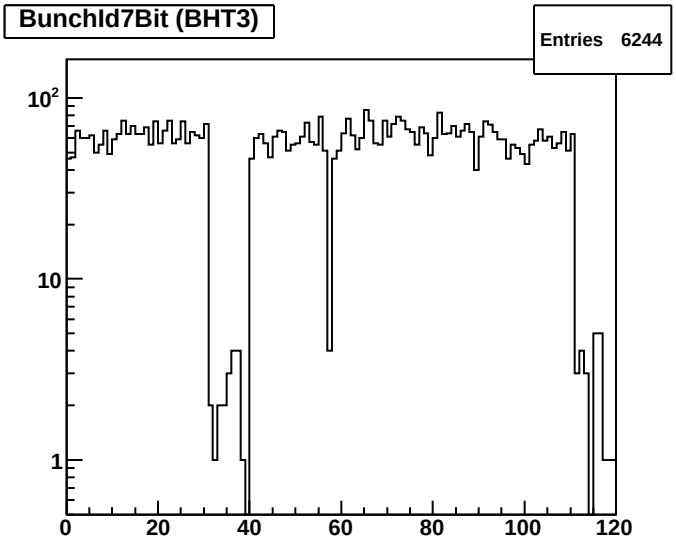

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

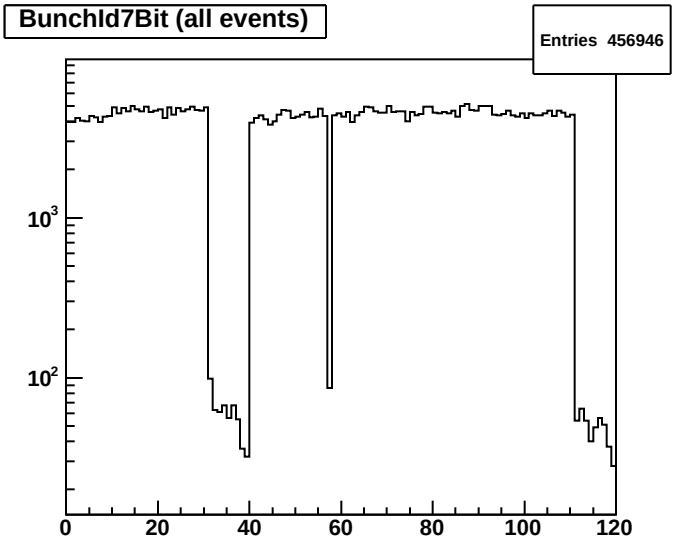

Last DSM Ch3 Input
Entries 7311136
LD301 Ch3
1
0
106742
85652
17038
6244
4308
2284
37053
9868
29890
7552
7147
2096
2185
1746
445
80105
350204
371294
439908
450702
452638
454652
419893
447078
427056
448384
449799
454850
454761
455200
456601
376841
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

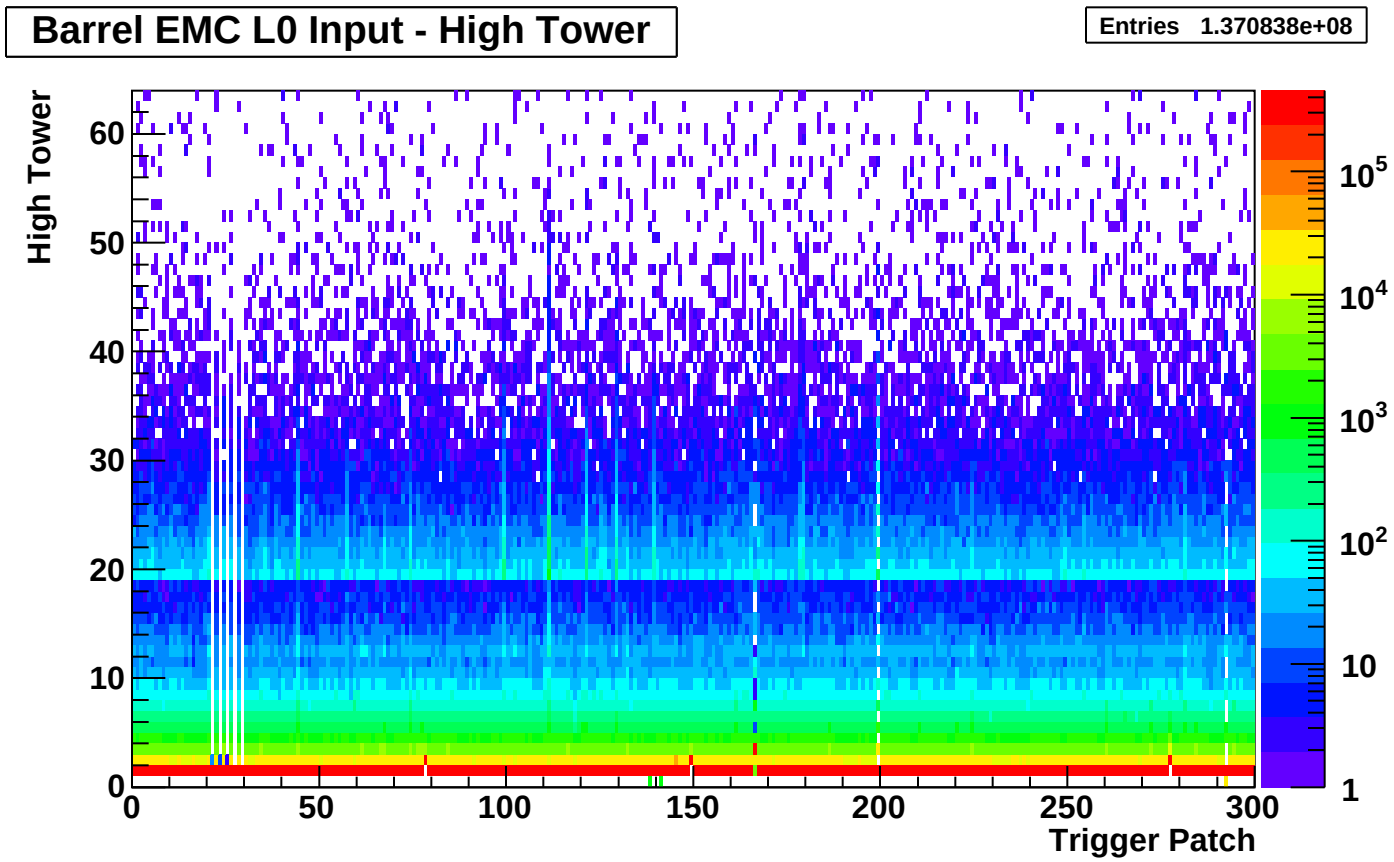

Last DSM Ch3 Input
Entries 5
LD301 Ch3 - Simulated
1
0
-1
-2
5
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

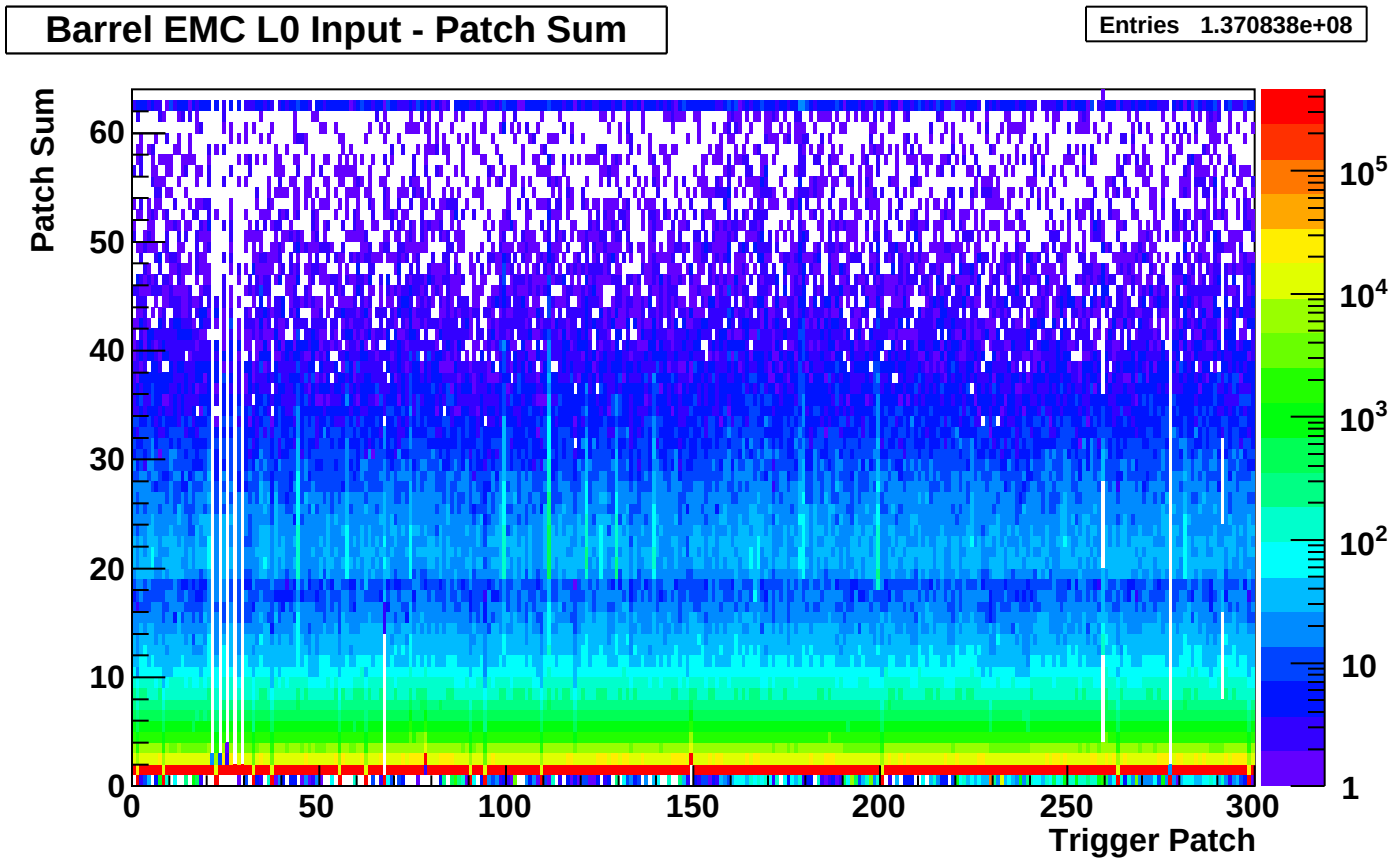

TCU bits
Entries 7311136
TCU bits
1
0
456946
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

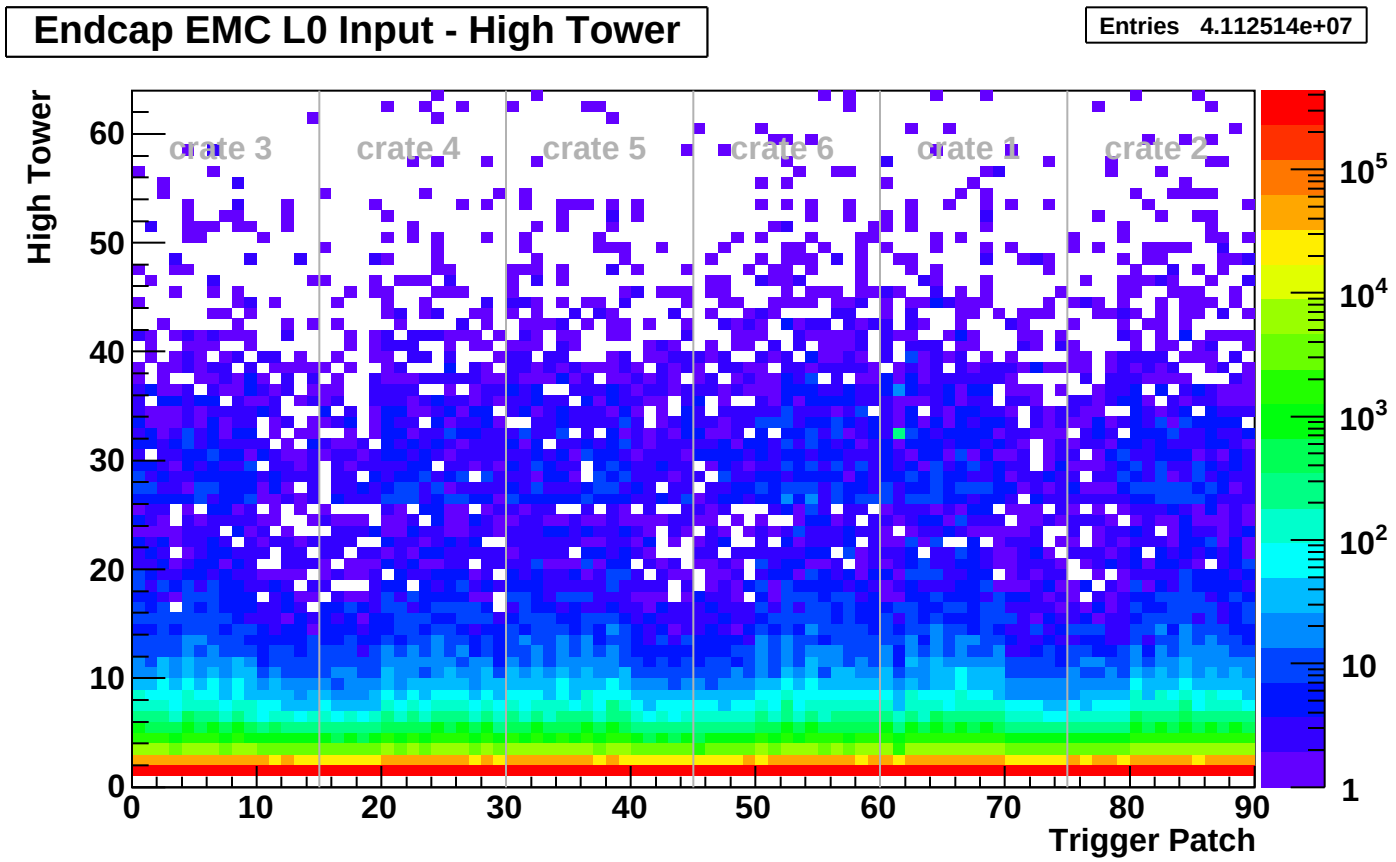

TCU bits
Entries 534041
TCU bits - Simulated
1
0
-1
-2
38128
85652
199222
4308
17967
187461
1303
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

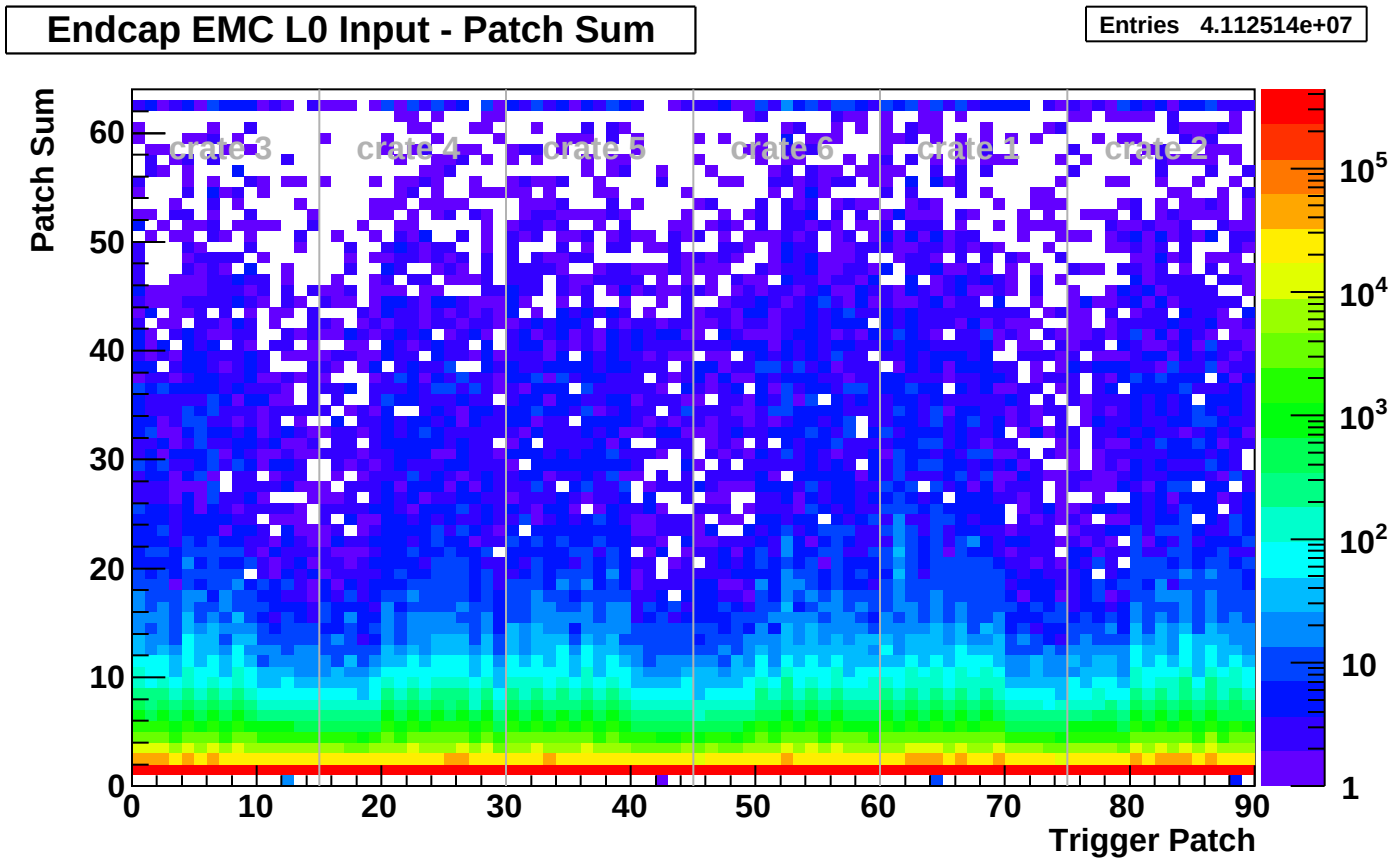

BunchId7Bit (BHT3)
Entries 6244
10²
10
1
0
20
40
60
80
100
120

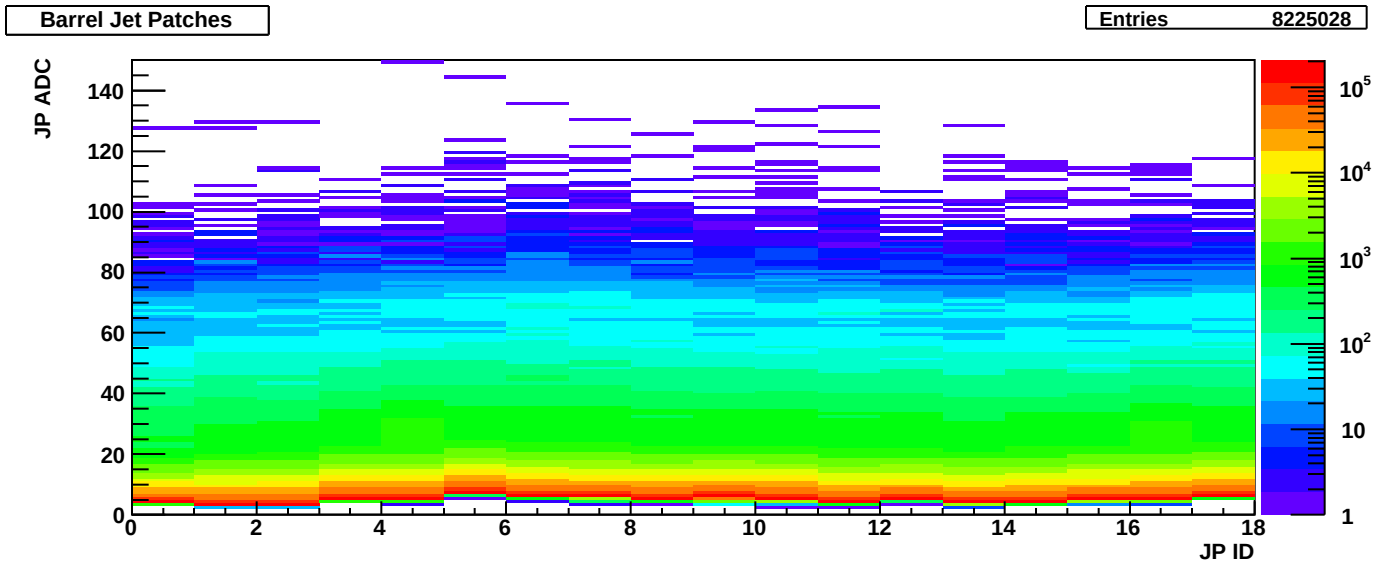

BunchId7Bit (all events)
Entries 456946
10³
10²
0
20
40
60
80
100
120

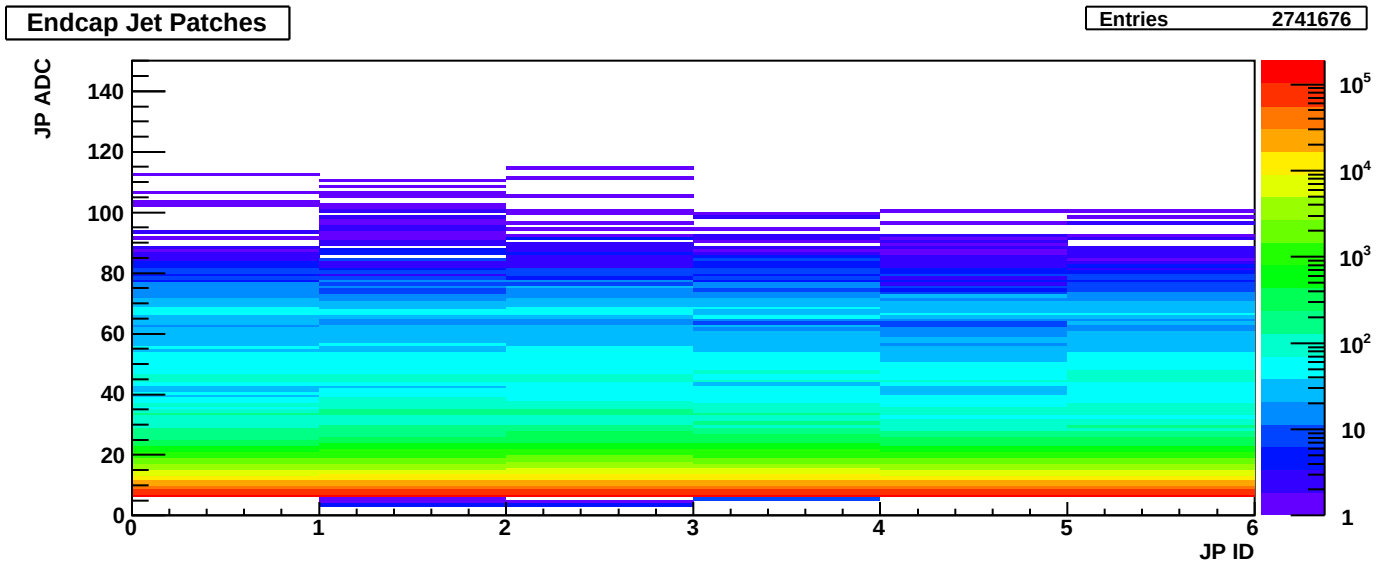

Barrel EMC L0 Input - High Tower
Entries 1.370838e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

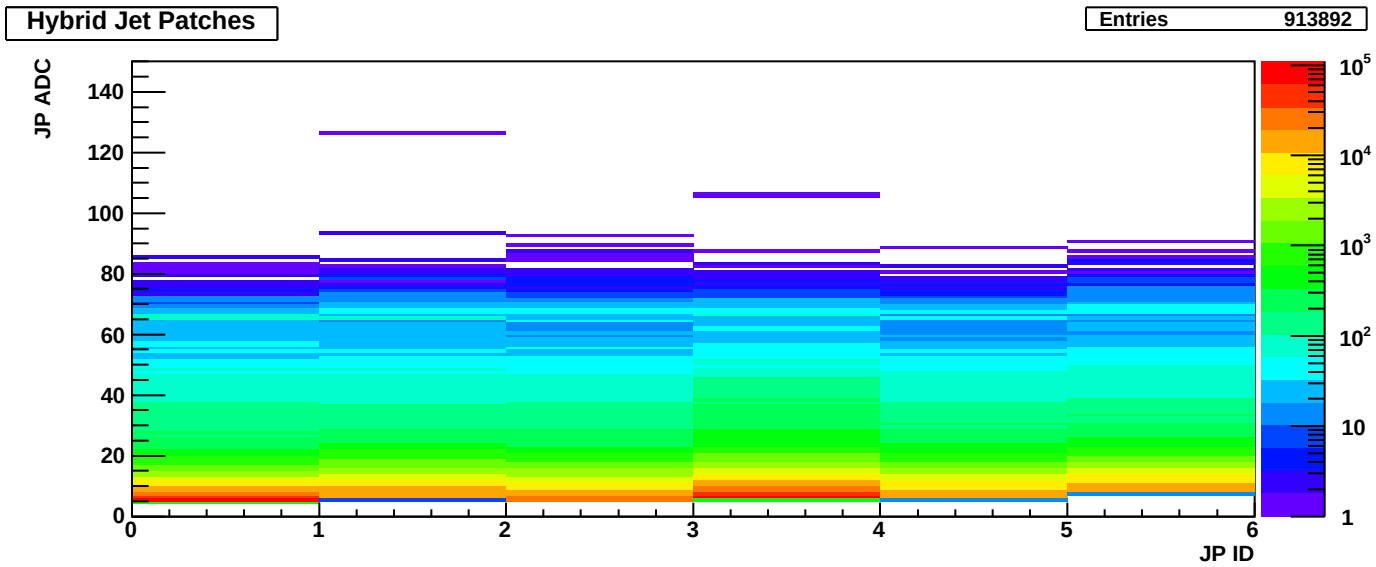

Barrel EMC L0 Input - Patch Sum
Entries 1.370838e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

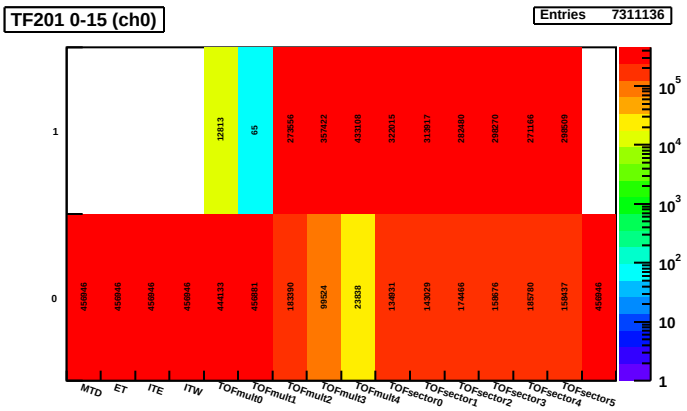

Endcap EMC L0 Input - High Tower
Entries 4.112514e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

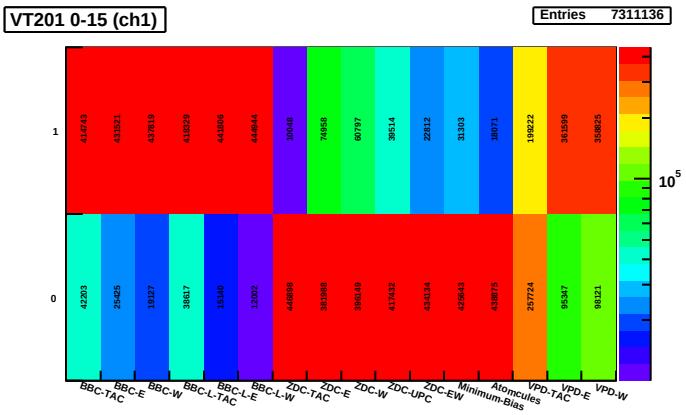

Endcap EMC L0 Input - Patch Sum
Entries 4.112514e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

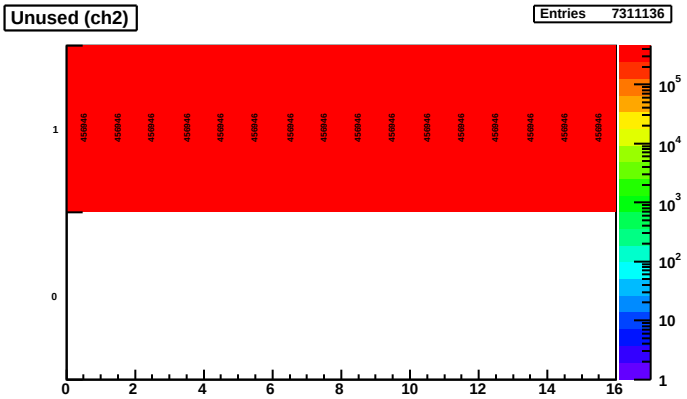

Barrel Jet Patches
Entries 8225028
JP ADC
JP ID

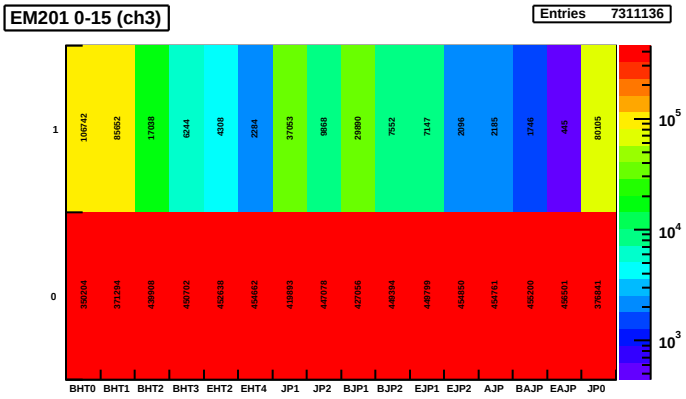

Endcap Jet Patches
Entries 2741676
JP ADC
JP ID

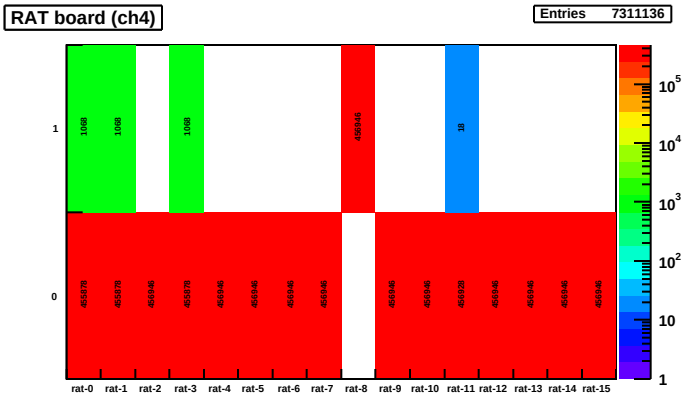

Hybrid Jet Patches
Entries 913892
JP ADC
JP ID

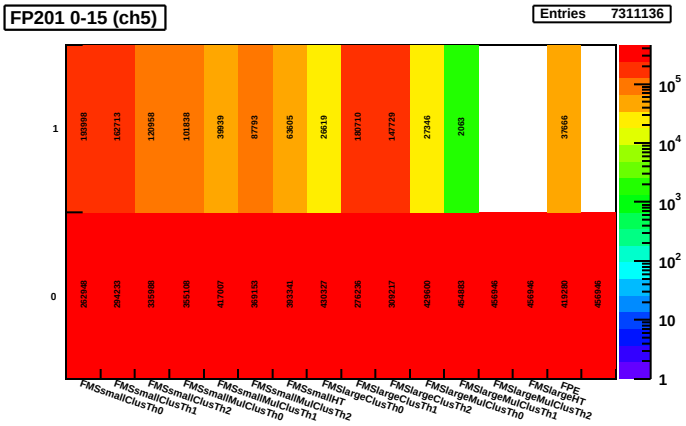

TF201 0-15 (ch0)
Entries 7311136
MTD
ET
ITE
ITW
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5

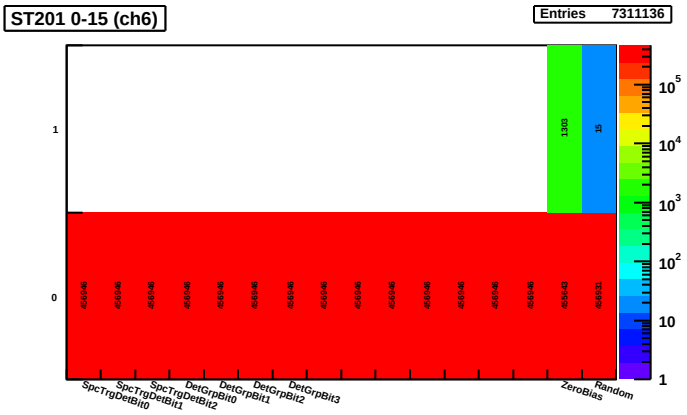

VT201 0-15 (ch1)
Entries 7311136
BBC-TAC
BBC-E
BBC-W
BBC-L-TAC
BBC-L-E
BBC-L-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-UPC
ZDC-EW
Minimum-Bias
Atomcules
VPD-TAC
VPD-E
VPD-W

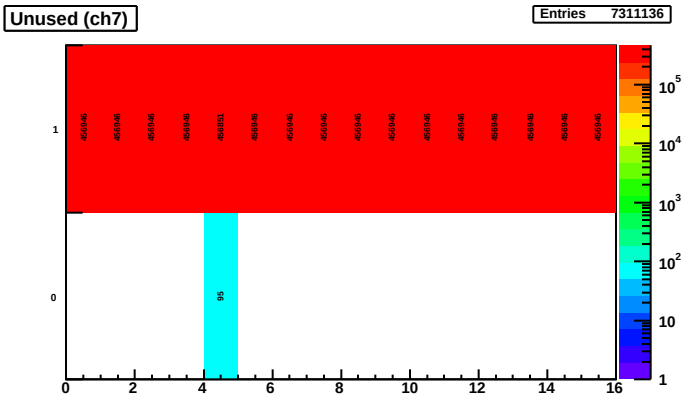

Unused (ch2)
Entries 7311136

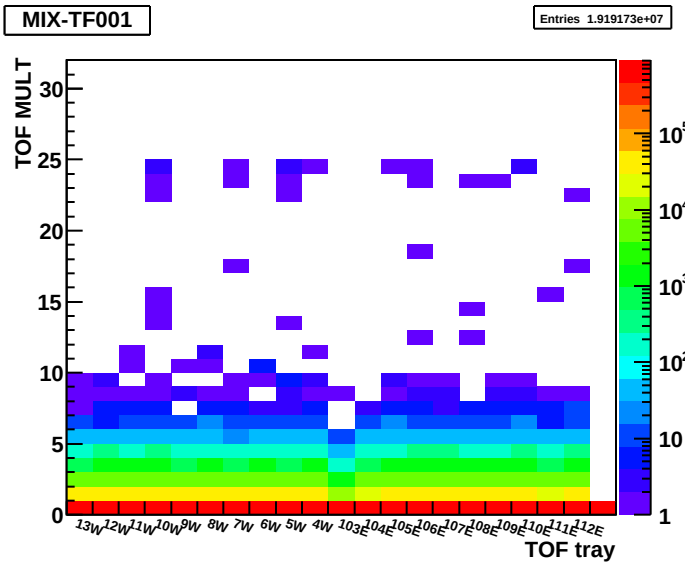

EM201 0-15 (ch3)
Entries 7311136
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
EAJP
JP0

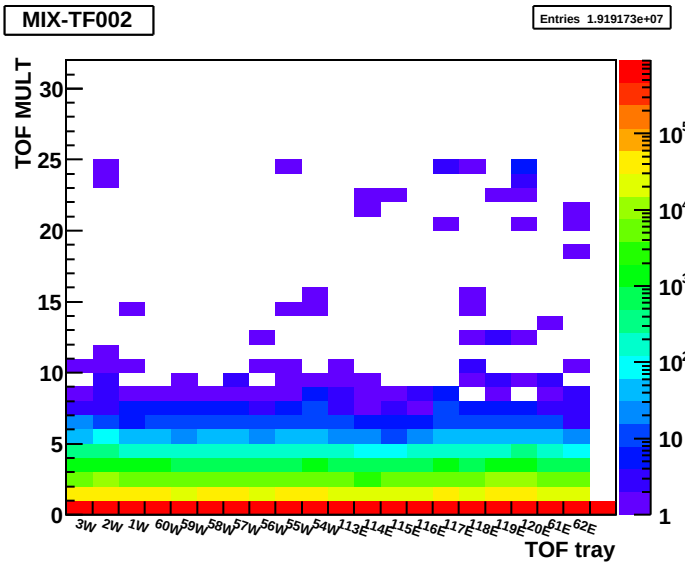

RAT board (ch4)
Entries 7311136
rat-0
rat-1
rat-2
rat-3
rat-4
rat-5
rat-6
rat-7
rat-8
rat-9
rat-10
rat-11
rat-12
rat-13
rat-14
rat-15

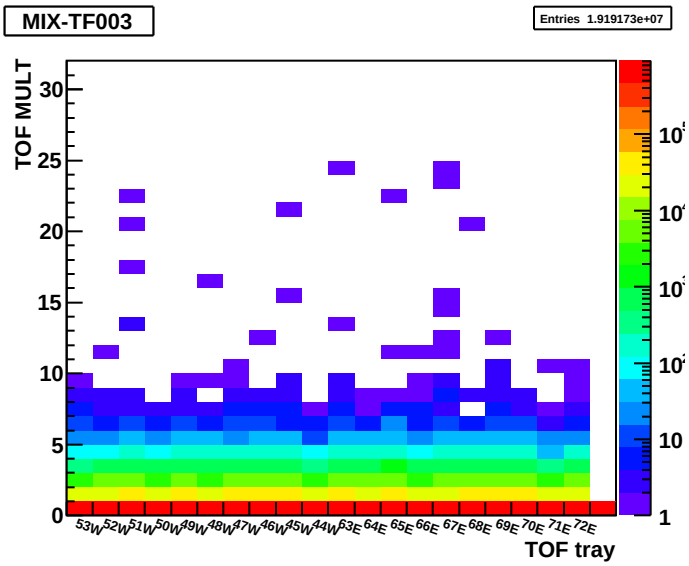

FP201 0-15 (ch5)
Entries 7311136
FMSsmallClusTh0
FMSsmallClusTh1
FMSsmallClusTh2
FMSsmallMulClusTh0
FMSsmallMulClusTh1
FMSsmallMulClusTh2
FMSsmallHT
FMSlargeClusTh0
FMSlargeClusTh1
FMSlargeClusTh2
FMSlargeMulClusTh0
FMSlargeMulClusTh1
FMSlargeMulClusTh2
FMSlargeHT
FPE

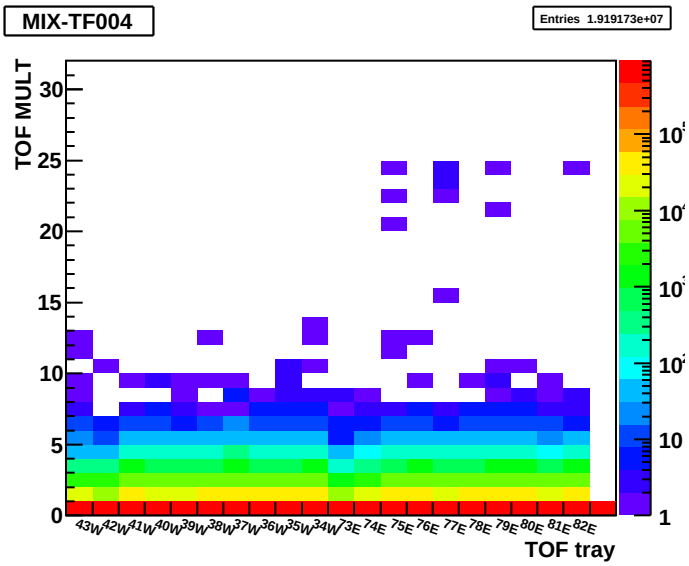

ST201 0-15 (ch6)
Entries 7311136
SpcTrgDetBit0
SpcTrgDetBit1
SpcTrgDetBit2
DetCrpBit0
DetCrpBit1
DetCrpBit2
DetCrpBit3
ZeroBias
Random

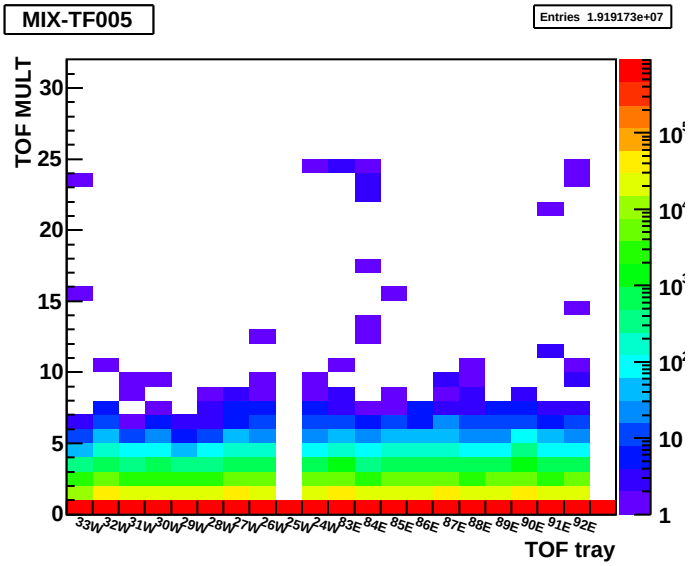

Unused (ch7)
Entries 7311136

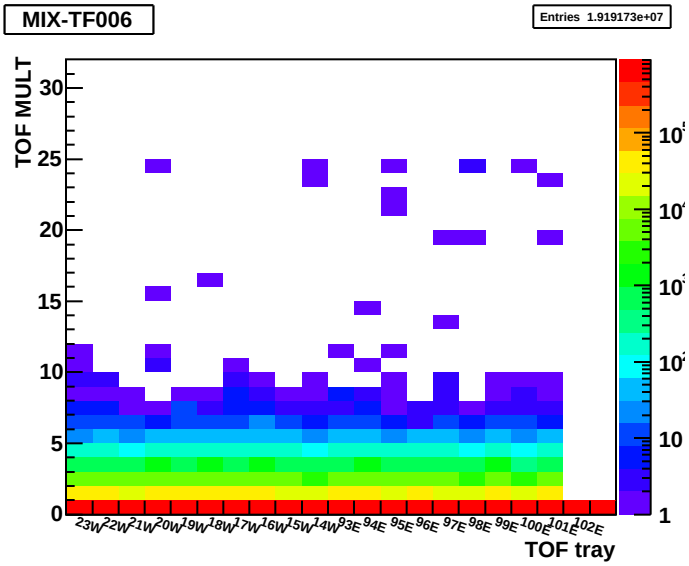

MIX-TF001
Entries 1.919173e+07
TOF MULT
TOF tray

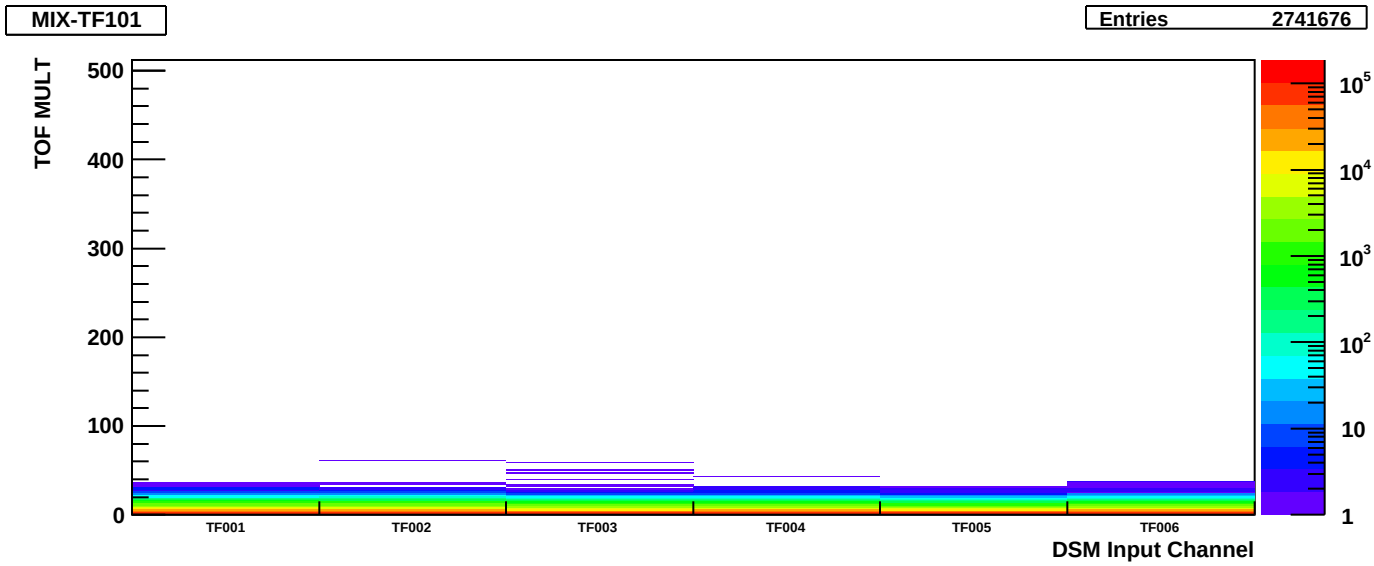

MIX-TF002
Entries 1.919173e+07
TOF MULT
TOF tray

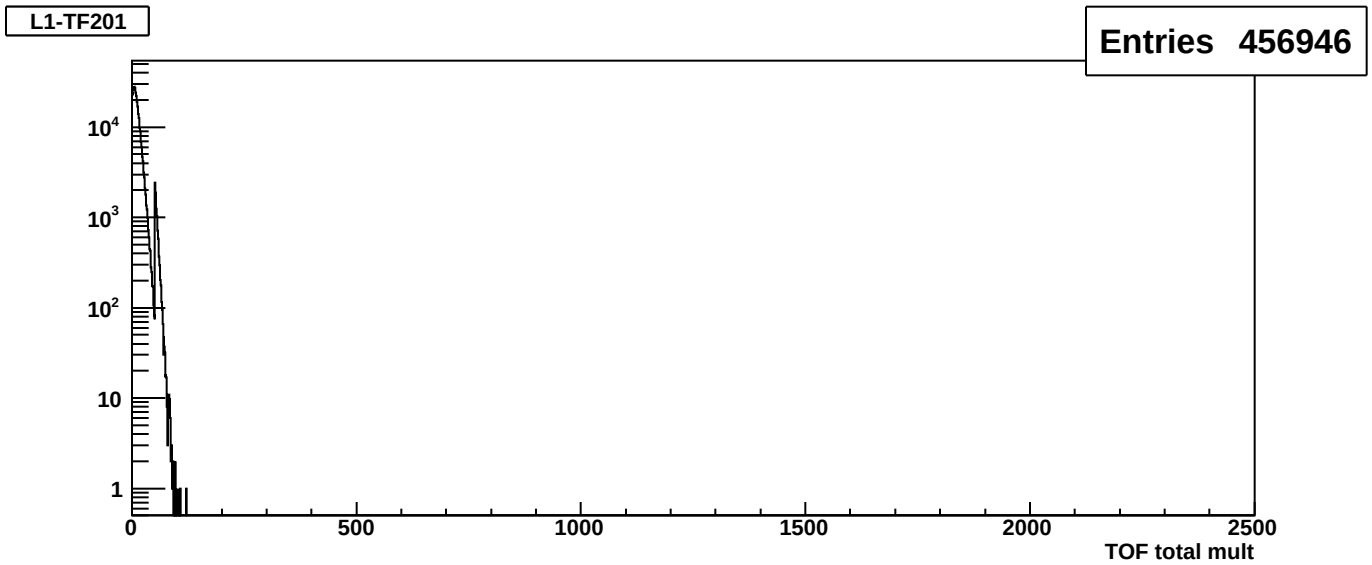

MIX-TF003
Entries 1.919173e+07
TOF MULT
TOF tray

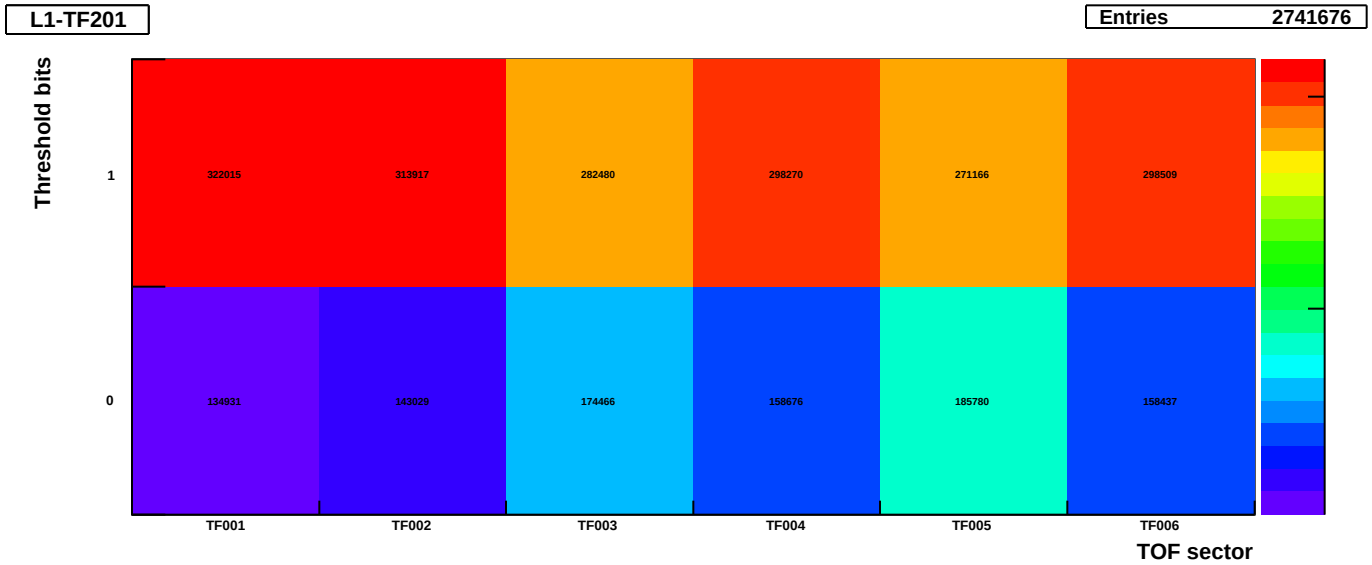

MIX-TF004
Entries 1.919173e+07
TOF MULT
TOF tray

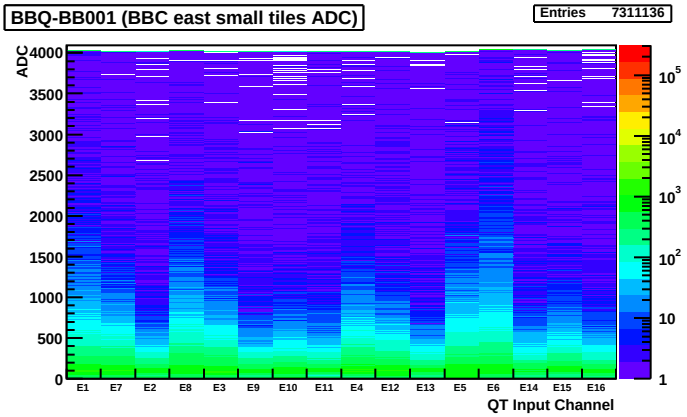

MIX-TF005
Entries 1.919173e+07
TOF MULT
TOF tray

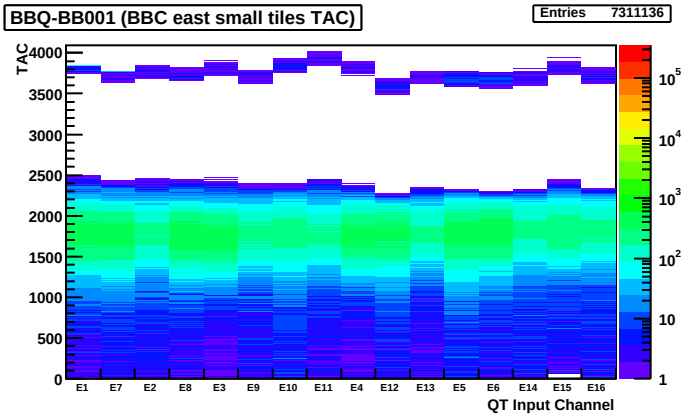

MIX-TF006
Entries 1.919173e+07
TOF MULT
TOF tray

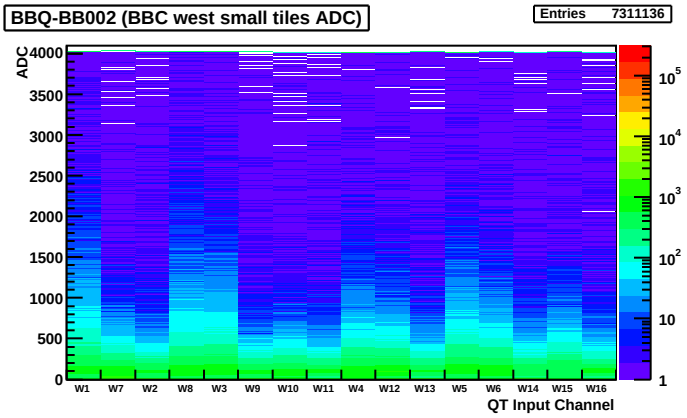

MIX-TF101
Entries 2741676
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

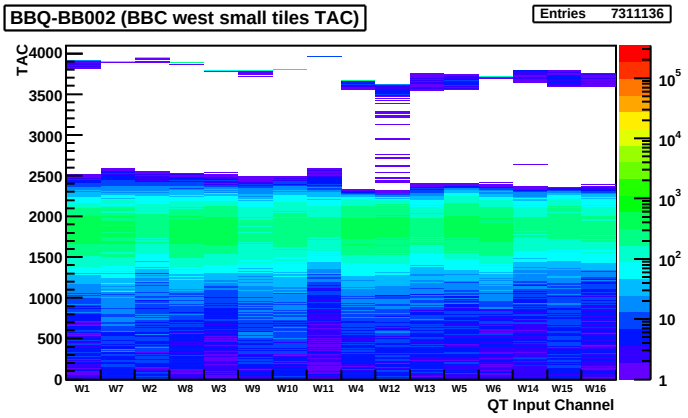

L1-TF201
Entries 456946
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

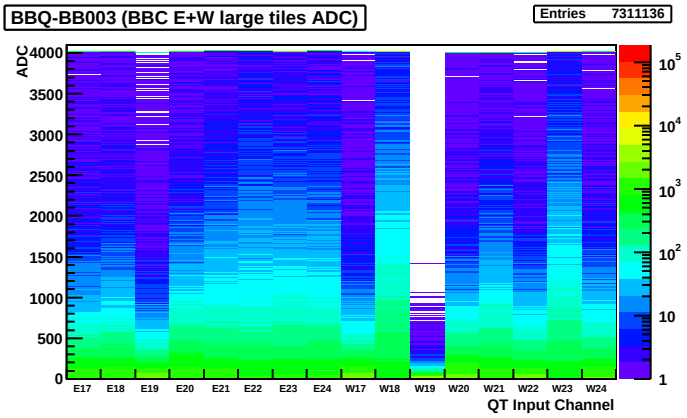

L1-TF201
Entries 2741676
Threshold bits
1
0
322015
313917
282480
298270
271166
298509
134931
143029
174466
158676
185780
158437
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

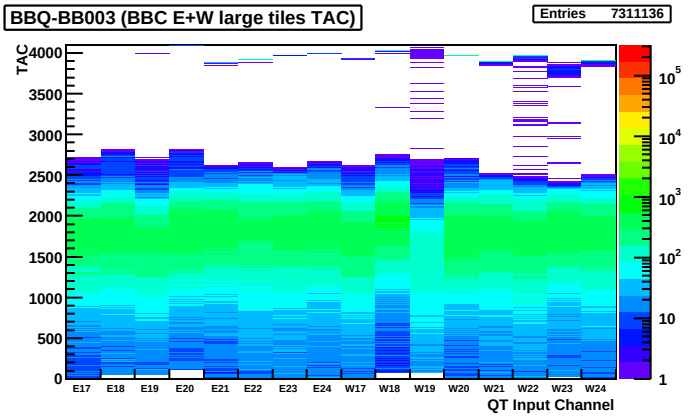

BBQ-BB001 (BBC east small tiles ADC)
Entries 7311136
ADC
QT Input Channel

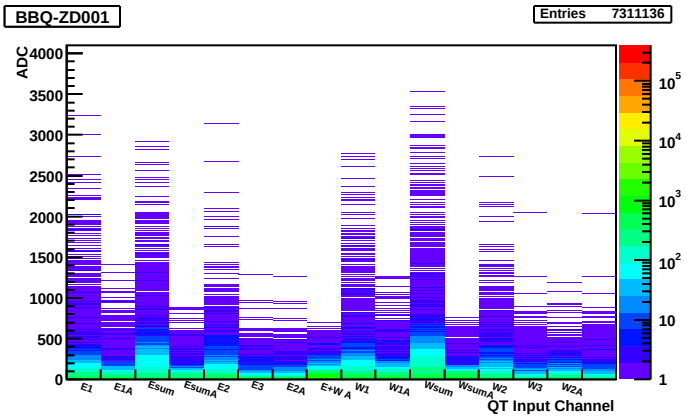

BBQ-BB001 (BBC east small tiles TAC)
Entries 7311136
TAC
QT Input Channel

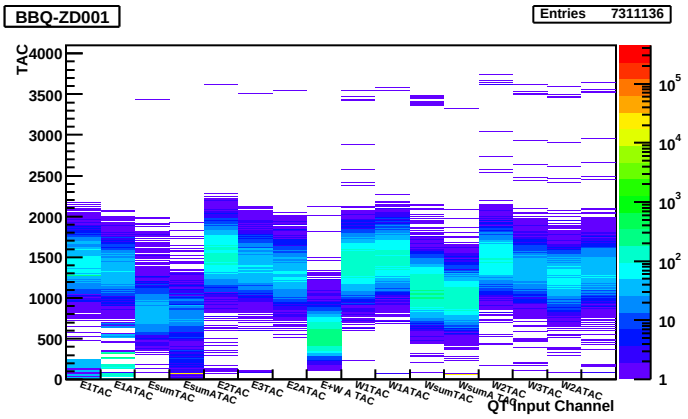

BBQ-BB002 (BBC west small tiles ADC)
Entries 7311136
ADC
QT Input Channel

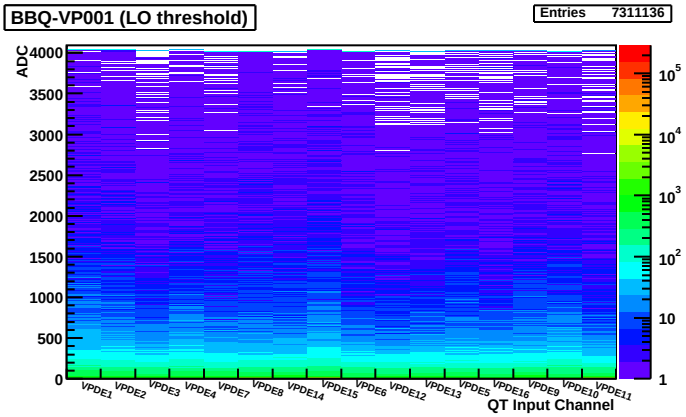

BBQ-BB002 (BBC west small tiles TAC)
Entries 7311136
TAC
QT Input Channel

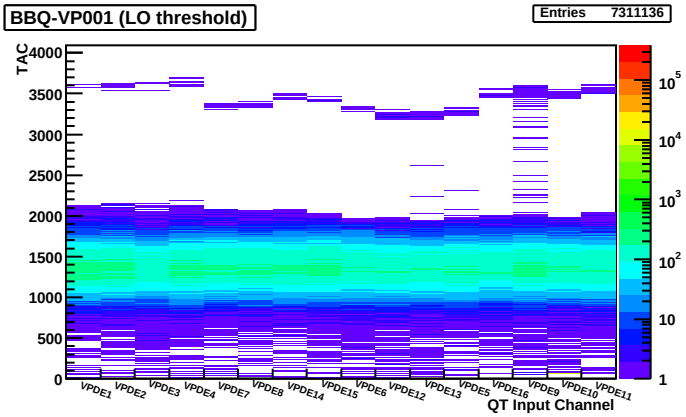

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 7311136
ADC
QT Input Channel

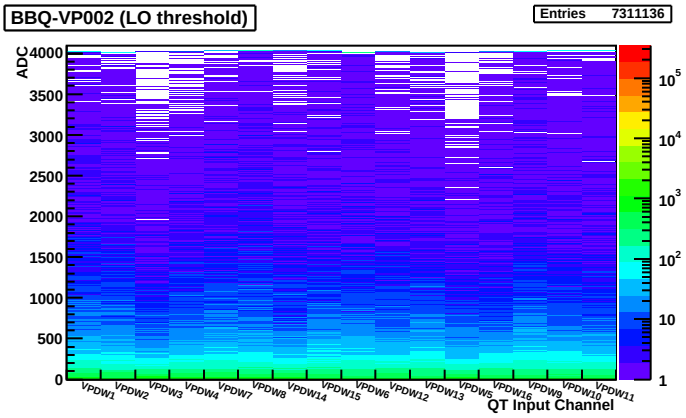

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 7311136
TAC
QT Input Channel

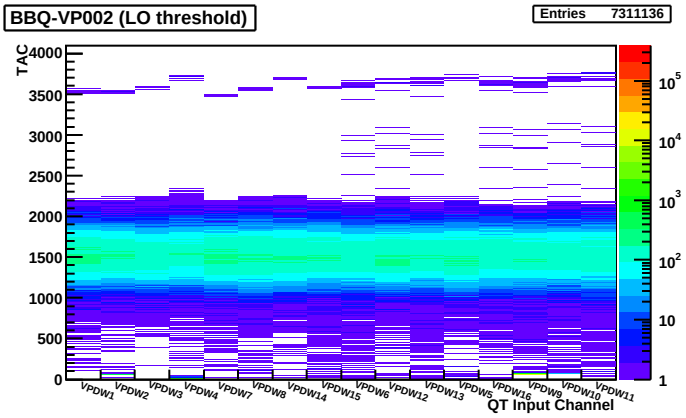

BBQ-ZD001
Entries 7311136
ADC
QT Input Channel

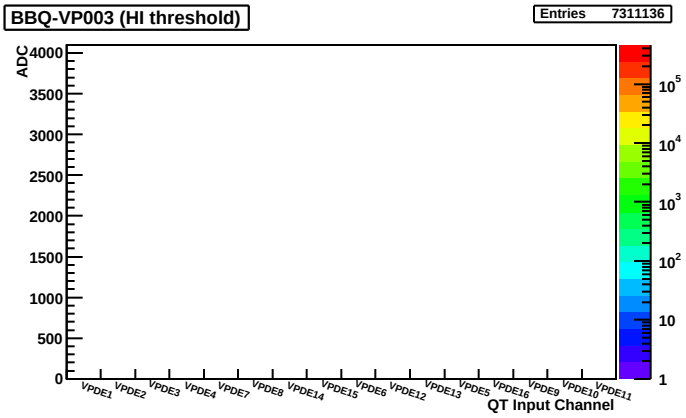

BBQ-ZD001
Entries 7311136
TAC
QT Input Channel

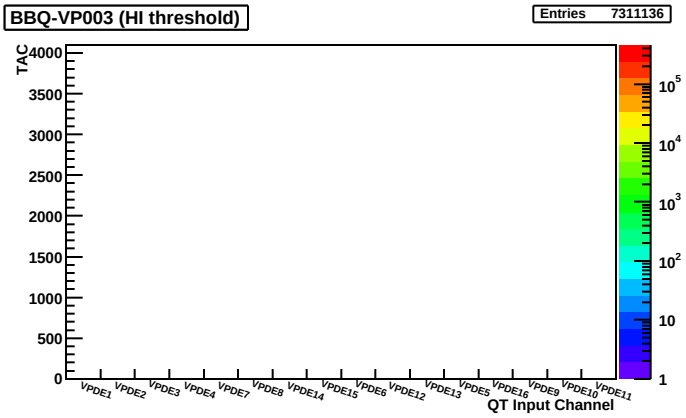

BBQ-VP001 (LO threshold)
Entries 7311136
ADC
QT Input Channel

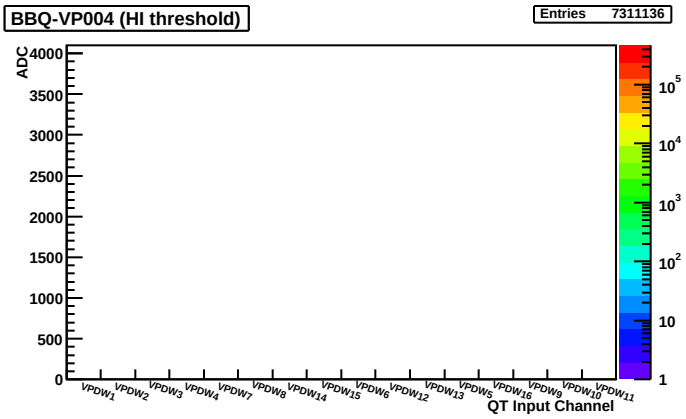

BBQ-VP001 (LO threshold)
Entries 7311136
TAC
QT Input Channel

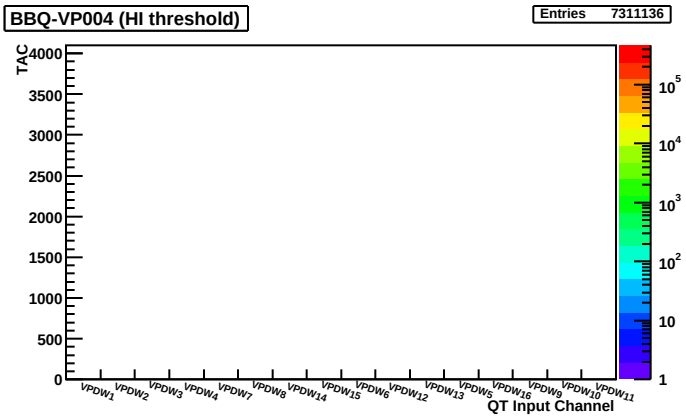

BBQ-VP002 (LO threshold)
Entries 7311136
ADC
QT Input Channel

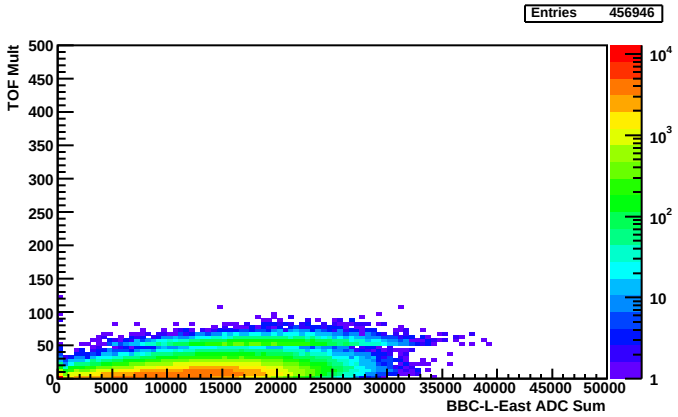

BBQ-VP002 (LO threshold)
Entries 7311136
TAC
QT Input Channel

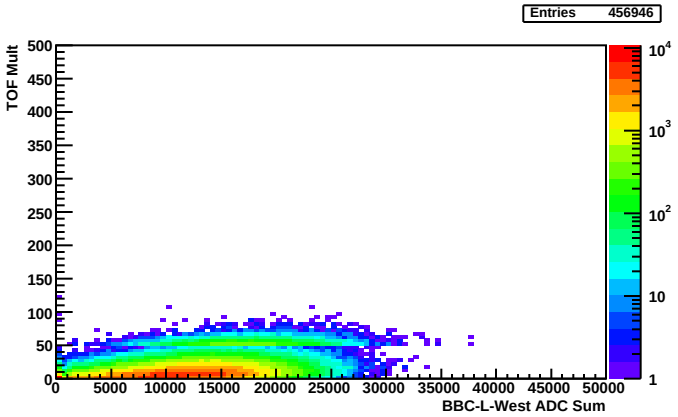

BBQ-VP003 (HI threshold)
Entries 7311136
ADC
QT Input Channel

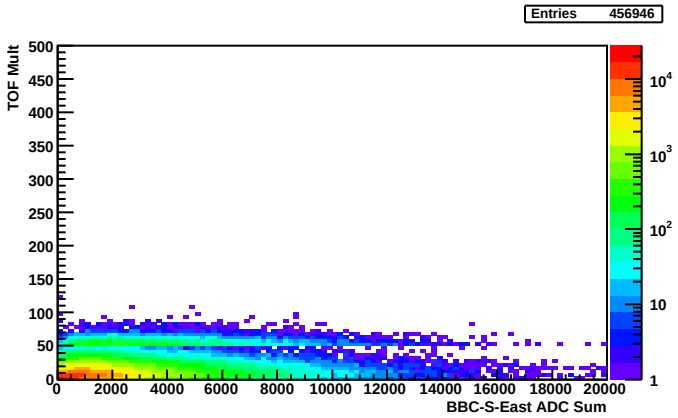

BBQ-VP003 (HI threshold)
Entries 7311136
TAC
QT Input Channel

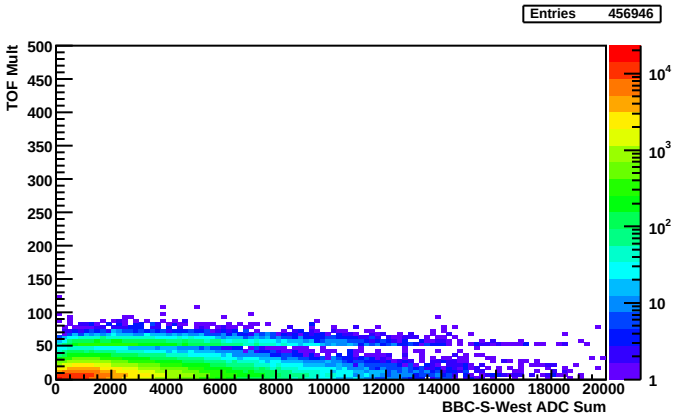

BBQ-VP004 (HI threshold)
Entries 7311136
ADC
QT Input Channel

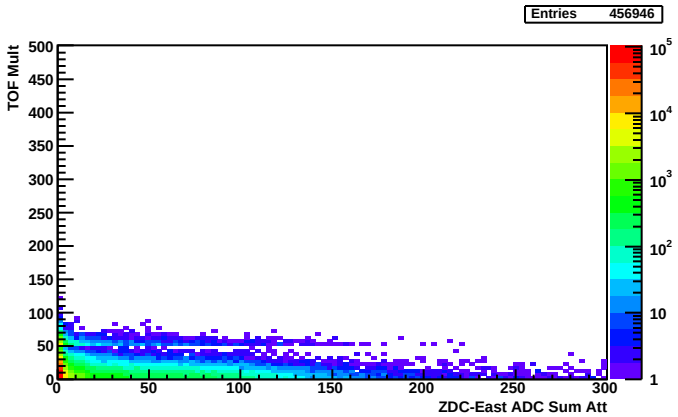

BBQ-VP004 (HI threshold)
Entries 7311136
TAC
QT Input Channel

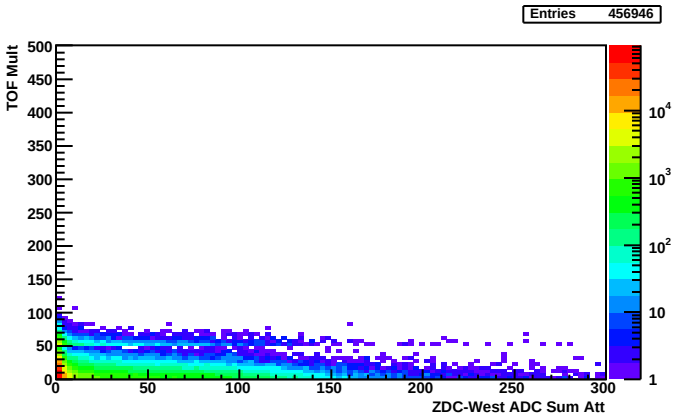

Entries 456946
TOF Mult
BBC-L-East ADC Sum

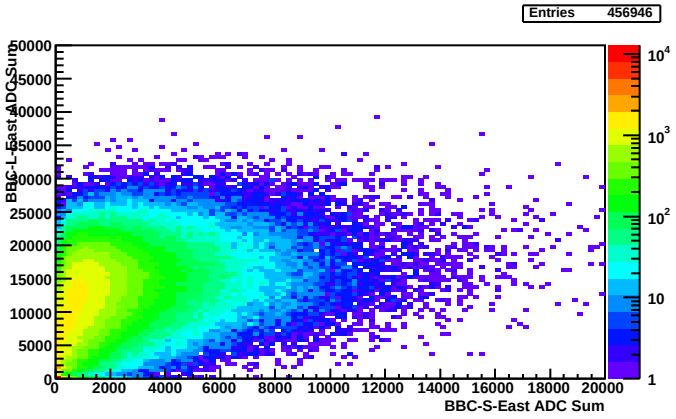

Entries 456946
TOF Mult
BBC-L-West ADC Sum

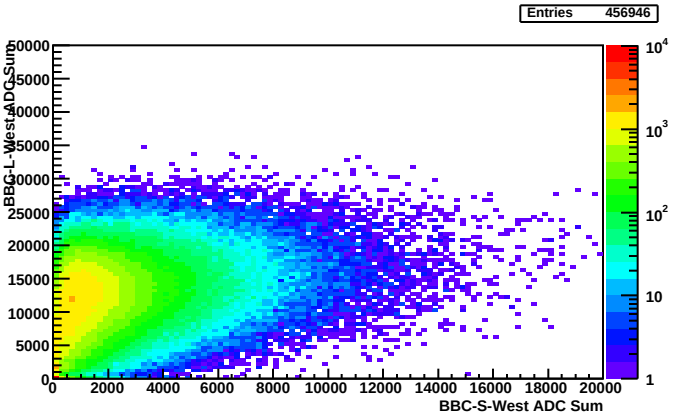

Entries 456946
TOF Mult
BBC-S-East ADC Sum

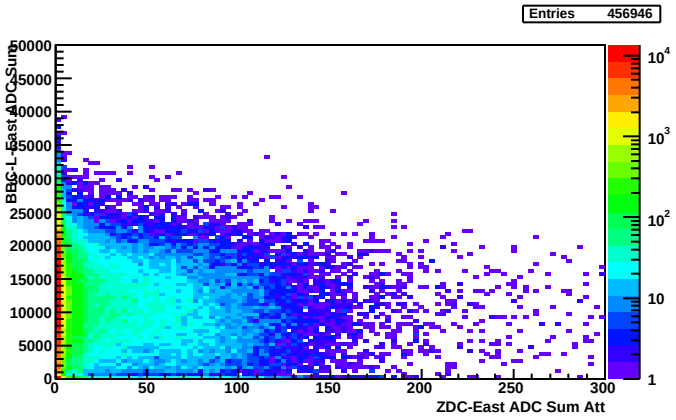

Entries 456946
TOF Mult
BBC-S-West ADC Sum

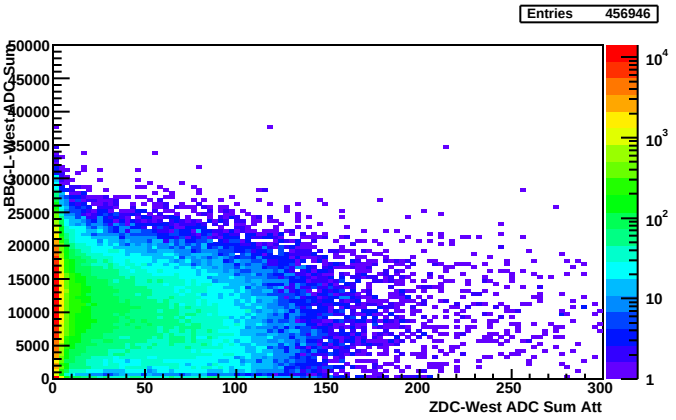

Entries 456946
TOF Mult
ZDC-East ADC Sum Att

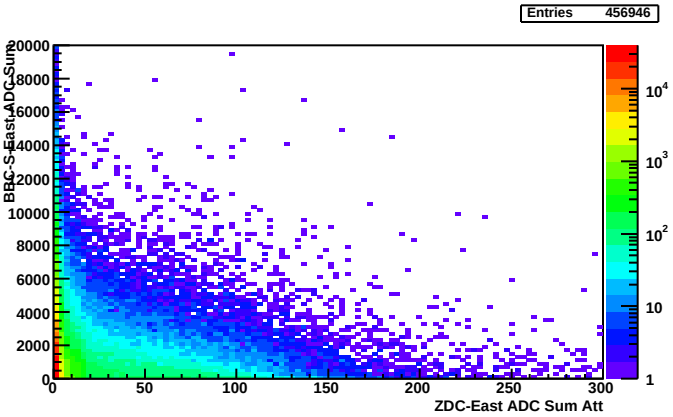

Entries 456946
TOF Mult
ZDC-West ADC Sum Att

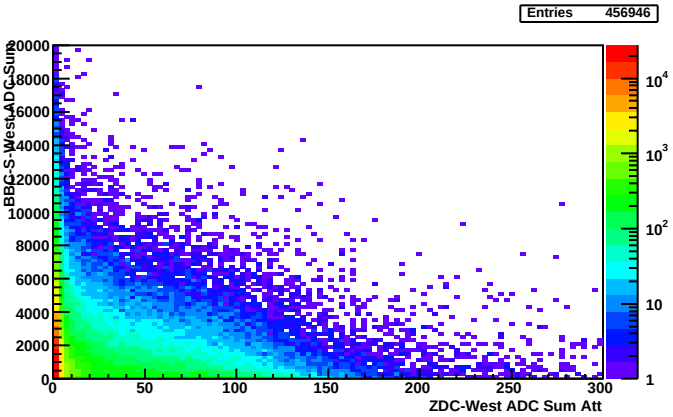

Entries 456946
BBC-L-East ADC Sum
BBC-S-East ADC Sum

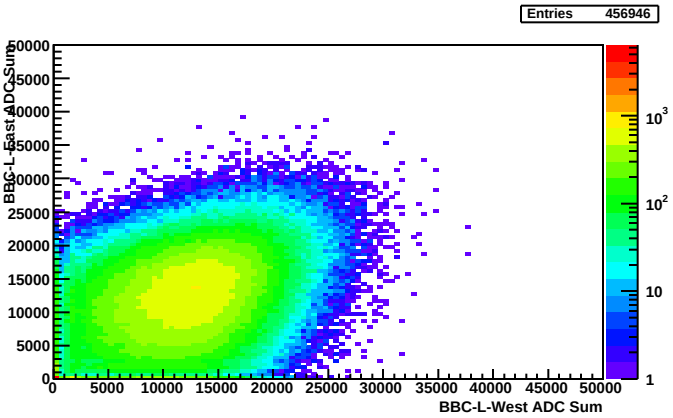

Entries 456946
BBC-L-West ADC Sum
BBC-S-West ADC Sum

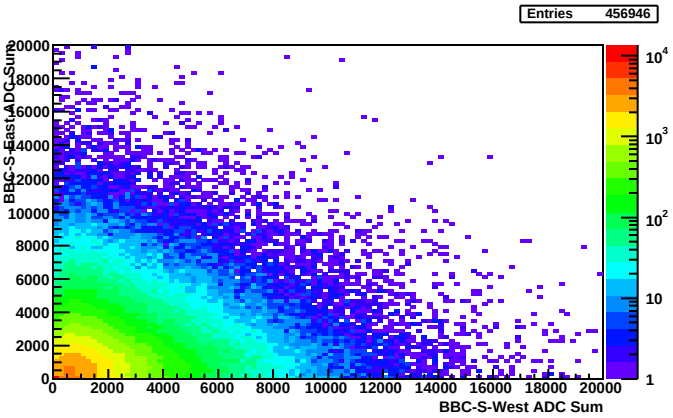

Entries 456946
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

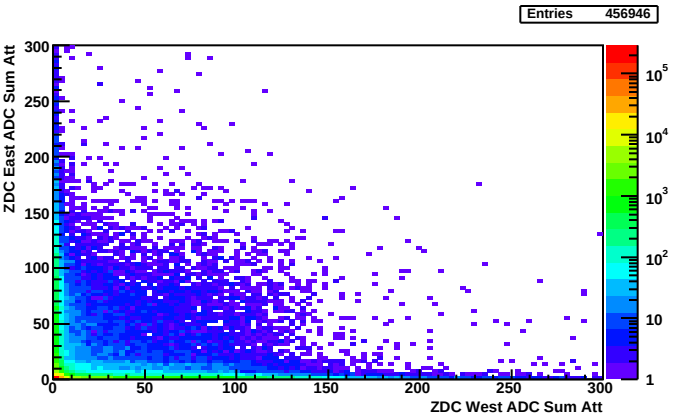

Entries 456946
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

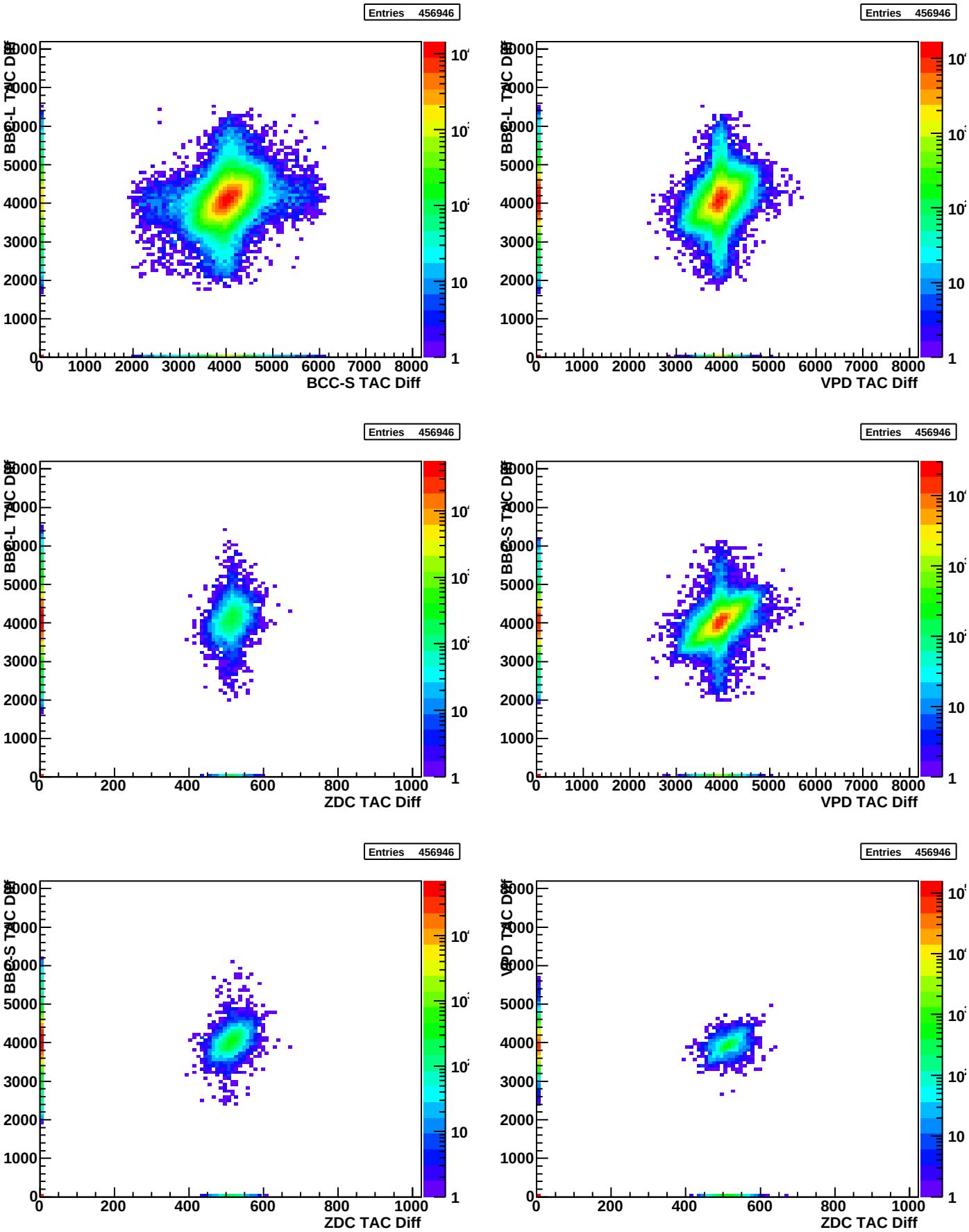

Entries 456946
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

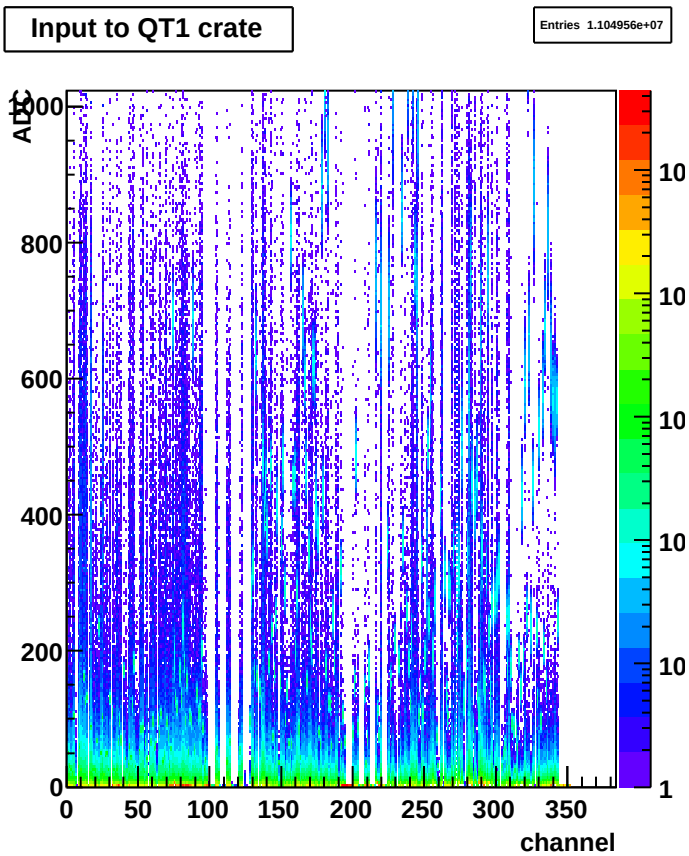

Entries 456946
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

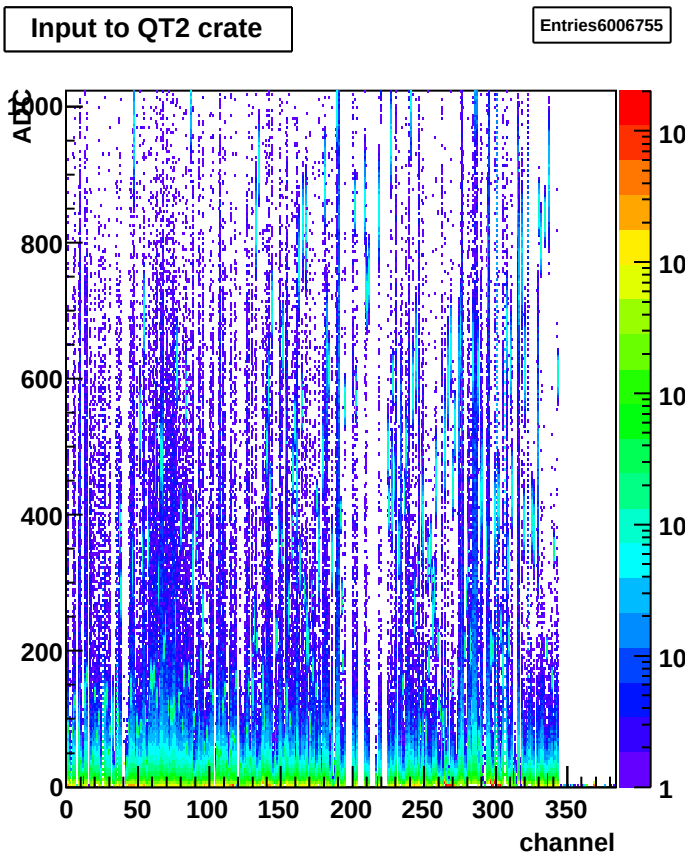

Entries 456946
BBC-L-East ADC Sum
BBC-L-West ADC Sum

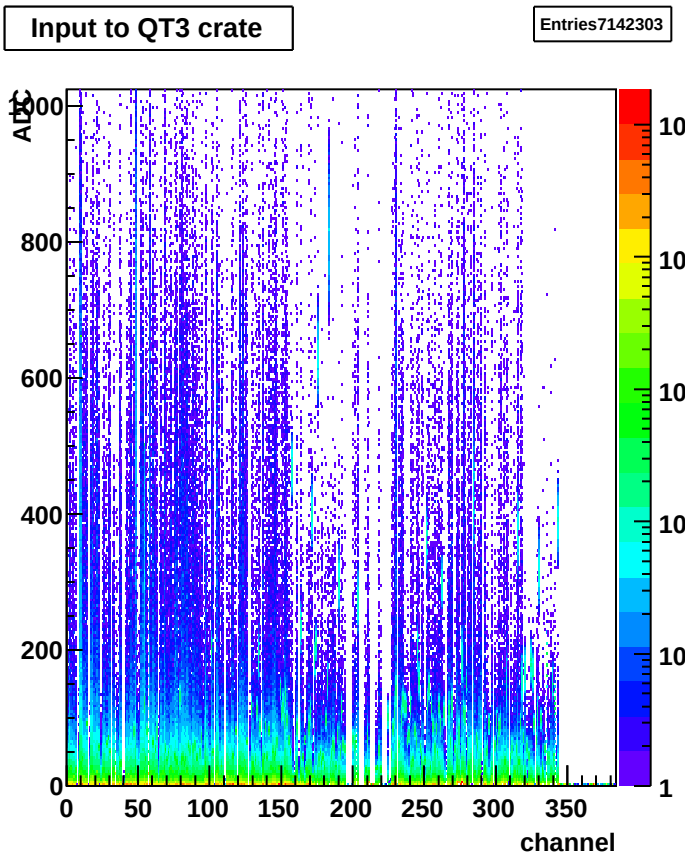

Entries 456946
BBC-S-East ADC Sum
BBC-S-West ADC Sum

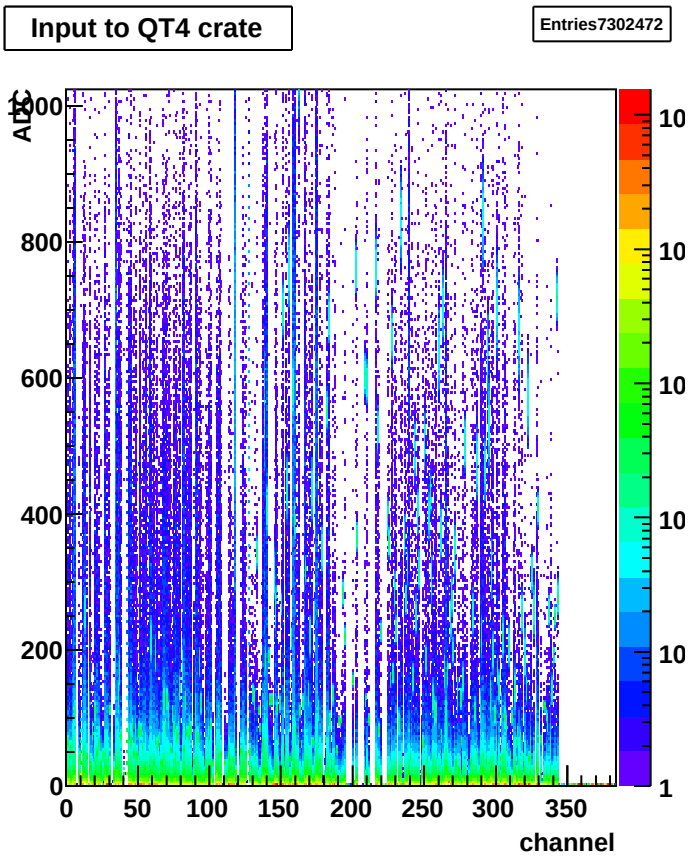

Entries 456946
ZDC East ADC Sum Att
ZDC West ADC Sum Att

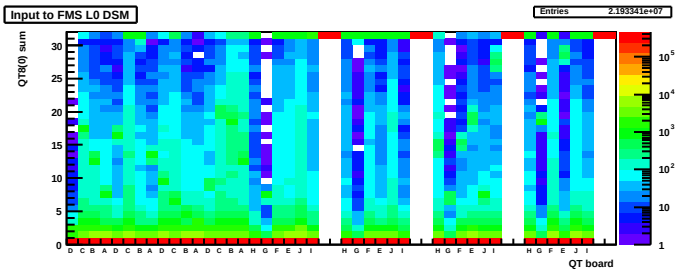

Entries 456946
BBC-L TAC Diff
BCC-S TAC Diff
Entries 456946
BBC-L TAC Diff
VPD TAC Diff
Entries 456946
BBC-L TAC Diff
ZDC TAC Diff
Entries 456946
BBC-S TAC Diff
VPD TAC Diff
Entries 456946
BBC-S TAC Diff
ZDC TAC Diff
Entries 456946
VPD TAC Diff
ZDC TAC Diff

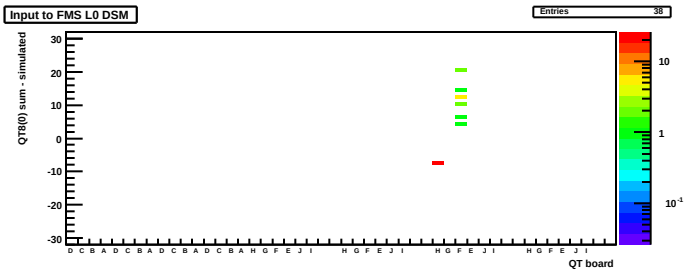

Input to QT1 crate
Entries 1.104956e+07
ADC
channel

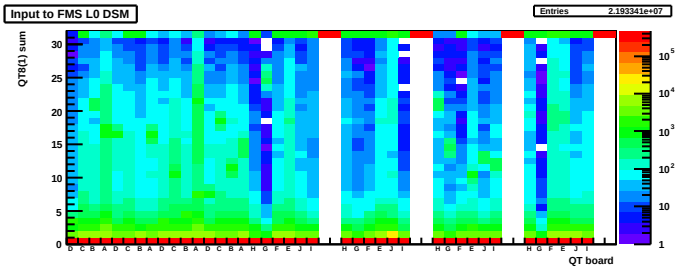

Input to QT2 crate
Entries6006755
ADC
channel

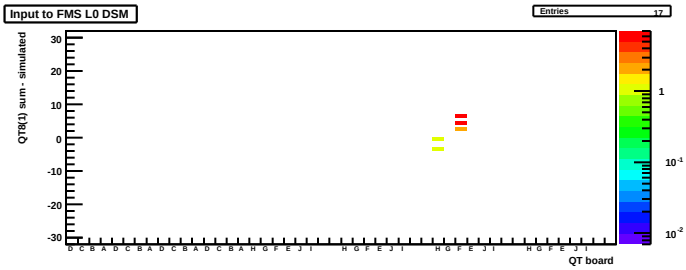

Input to QT3 crate
Entries7142303
ADC
channel

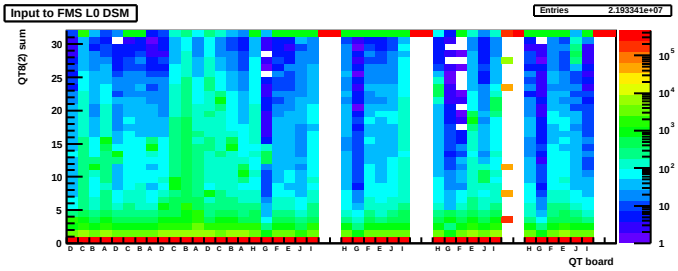

Input to QT4 crate
Entries7302472
ADC
channel

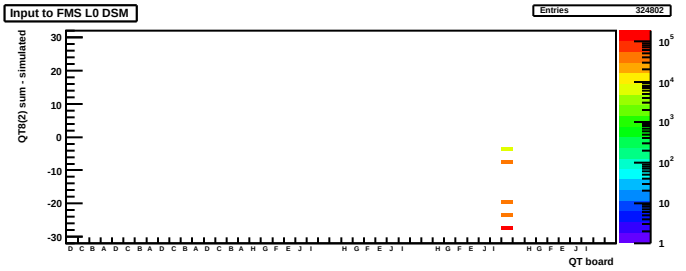

Input to FMS L0 DSM
Entries 2.193341e+07
QT8(0) sum
QT board

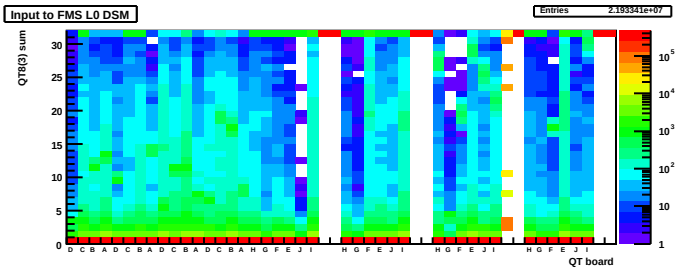

Input to FMS L0 DSM
Entries 38
QT8(0) sum - simulated
QT board

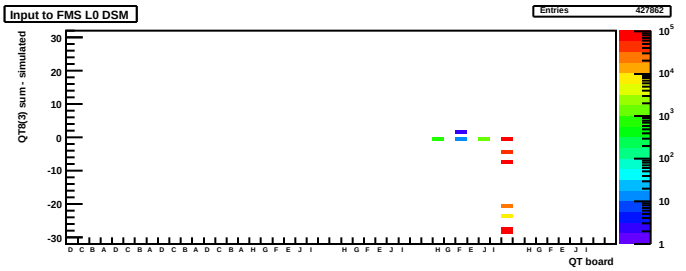

Input to FMS L0 DSM
Entries 2.193341e+07
QT8(1) sum
QT board

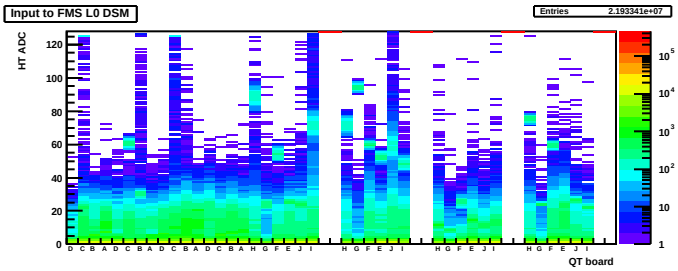

Input to FMS L0 DSM
Entries 17
QT8(1) sum - simulated
QT board

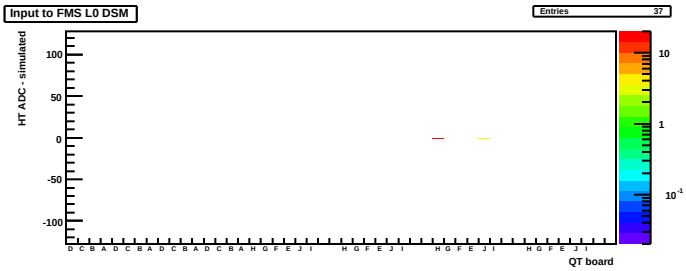

Input to FMS L0 DSM
Entries 2.193341e+07
QT8(2) sum
QT board

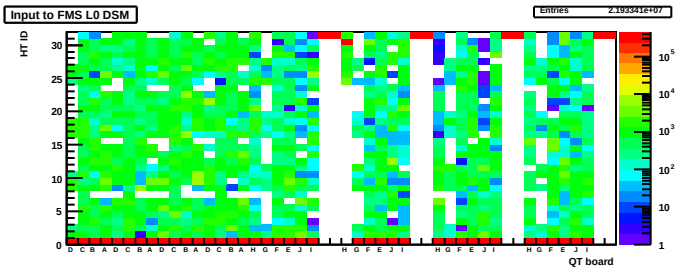

Input to FMS L0 DSM
Entries 324802
QT8(2) sum - simulated
QT board

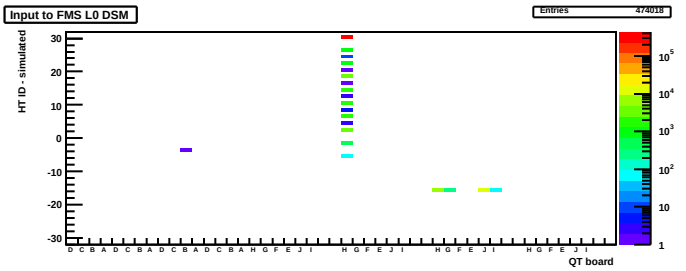

Input to FMS L0 DSM
Entries 2.193341e+07
QT8(3) sum
QT board

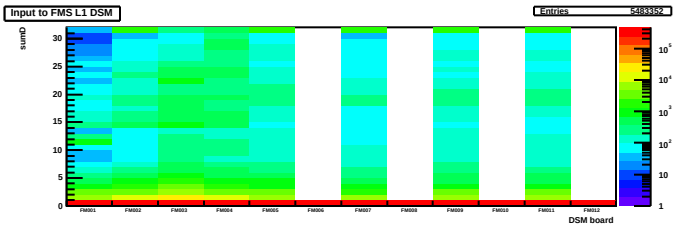

Input to FMS L0 DSM
Entries 427862
QT8(3) sum - simulated
QT board

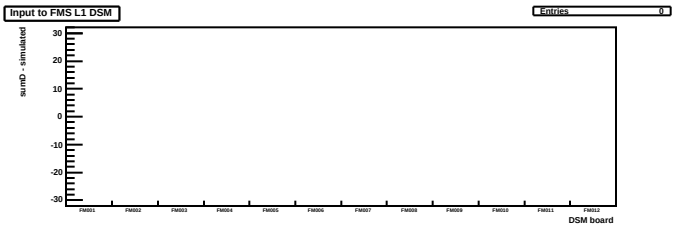

Input to FMS L0 DSM
Entries 2.193341e+07
HT ADC
QT board

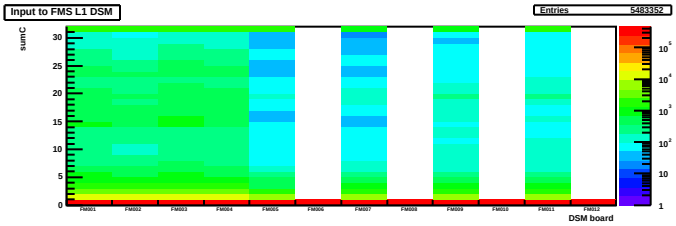

Input to FMS L0 DSM
Entries 37
HT ADC - simulated
QT board

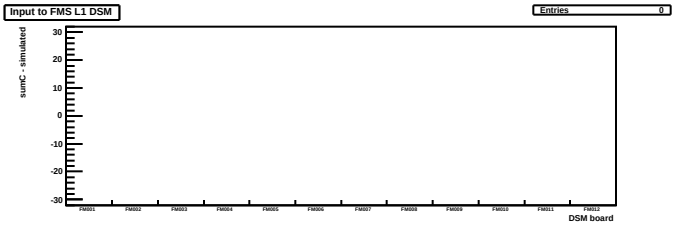

Input to FMS L0 DSM
Entries 2.193341e+07
HT ID
QT board

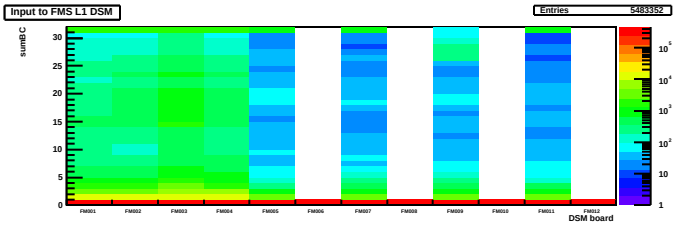

Input to FMS L0 DSM
Entries 474018
HT ID - simulated
QT board

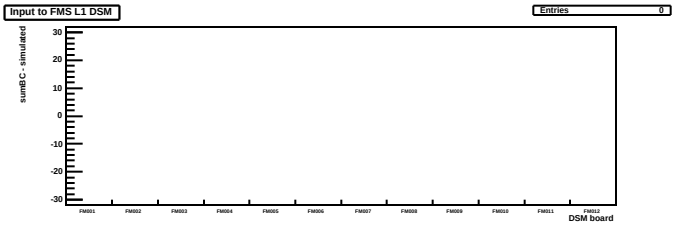

Input to FMS L1 DSM
Entries 5483352
sumD
DSM board

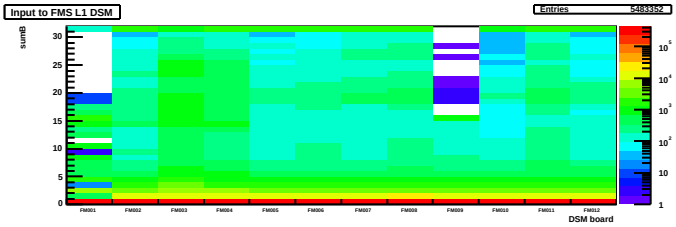

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

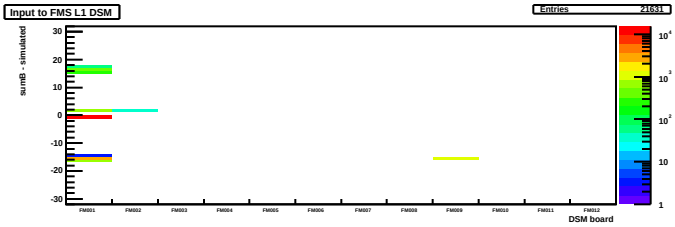

Input to FMS L1 DSM
Entries 5483352
sumC
DSM board

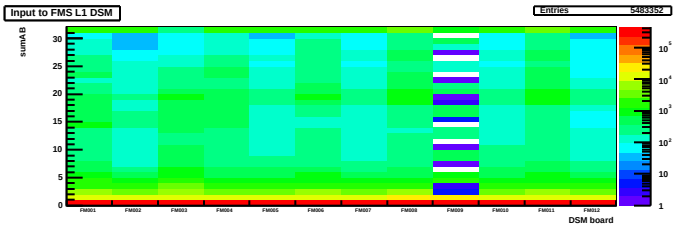

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

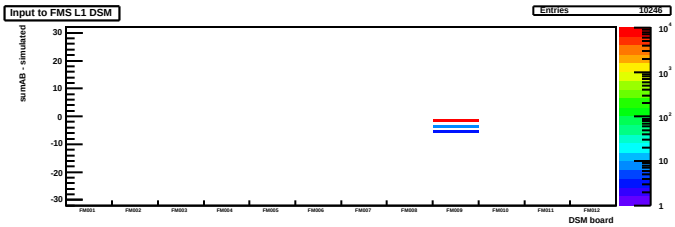

Input to FMS L1 DSM
Entries 5483352
sumBC
DSM board

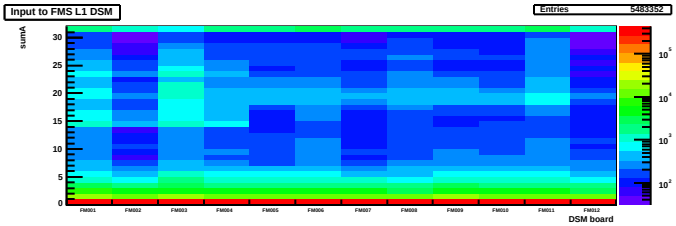

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

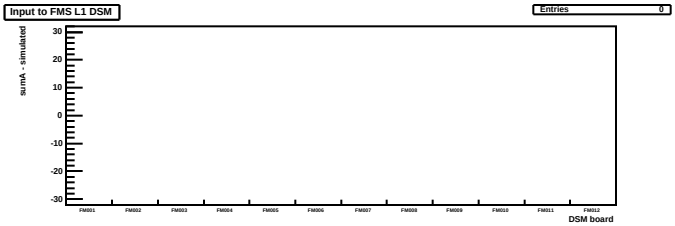

Input to FMS L1 DSM
Entries 5483352
sumB
DSM board

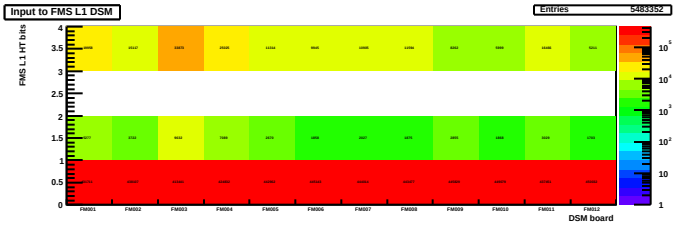

Input to FMS L1 DSM
Entries 21631
sumB - simulated
DSM board

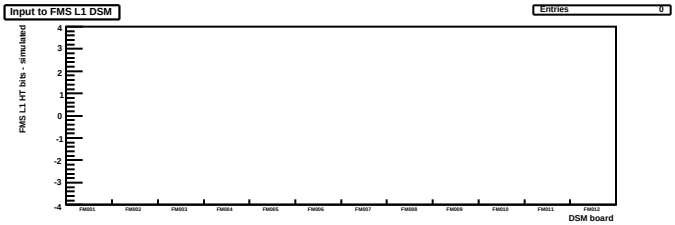

Input to FMS L1 DSM
Entries 5483352
sumAB
DSM board

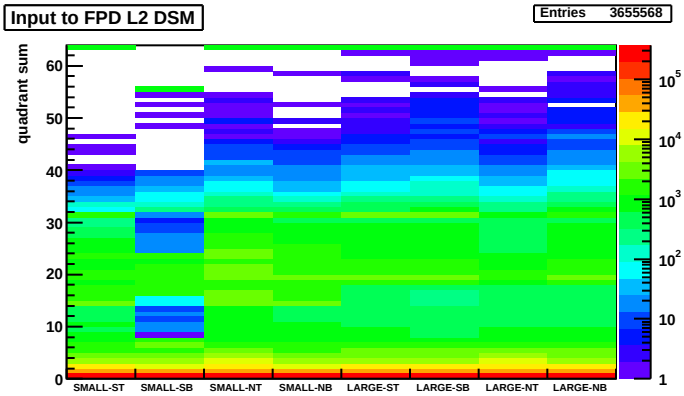

Input to FMS L1 DSM
Entries 10246
sumAB - simulated
DSM board

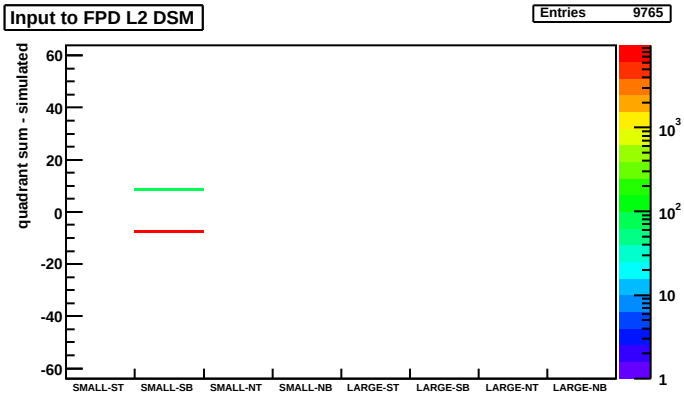

Input to FMS L1 DSM
Entries 5483352
sumA
DSM board

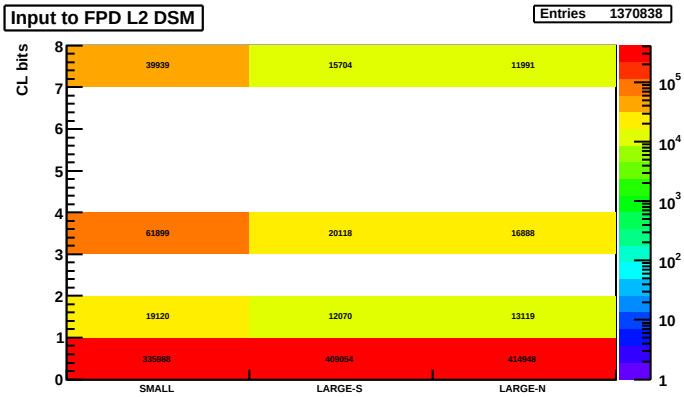

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

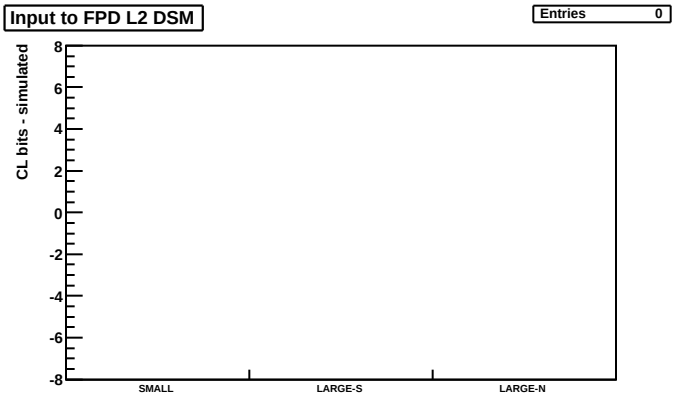

Input to FMS L1 DSM
Entries 5483352
FMS L1 HT bits
DSM board

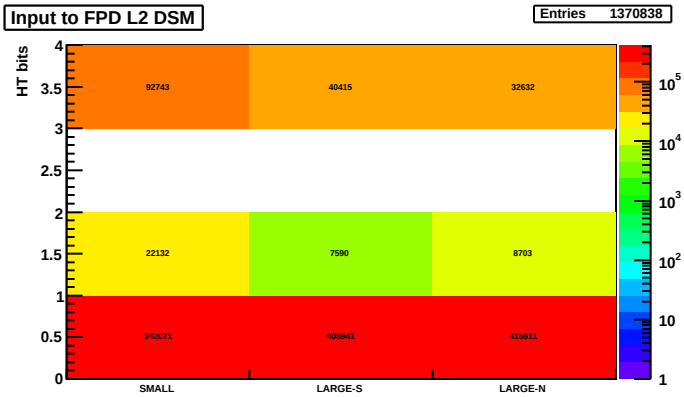

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

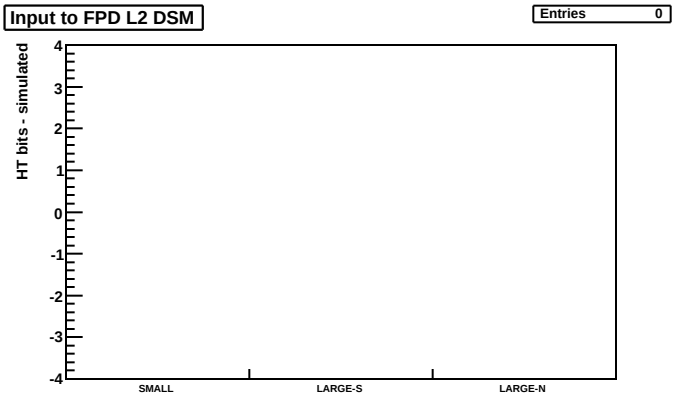

Input to FPD L2 DSM
Entries 3655568
quadrant sum
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

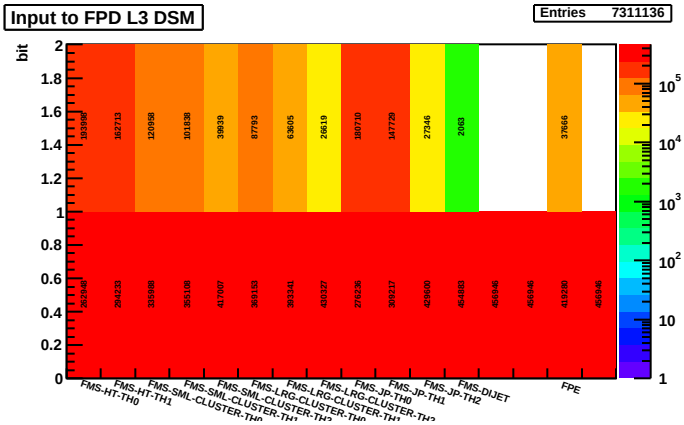

Input to FPD L2 DSM
Entries 9765
quadrant sum - simulated
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

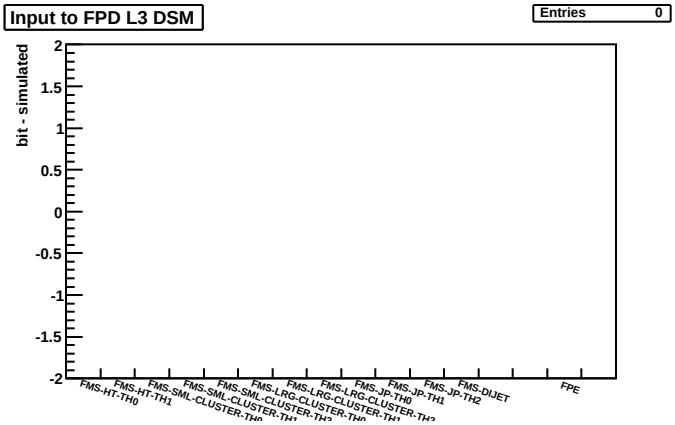

Input to FPD L2 DSM
Entries 1370838
CL bits
39939 15704 11991
61899 20118 16888
19120 12070 13119
335988 409054 414948
SMALL LARGE-S LARGE-N

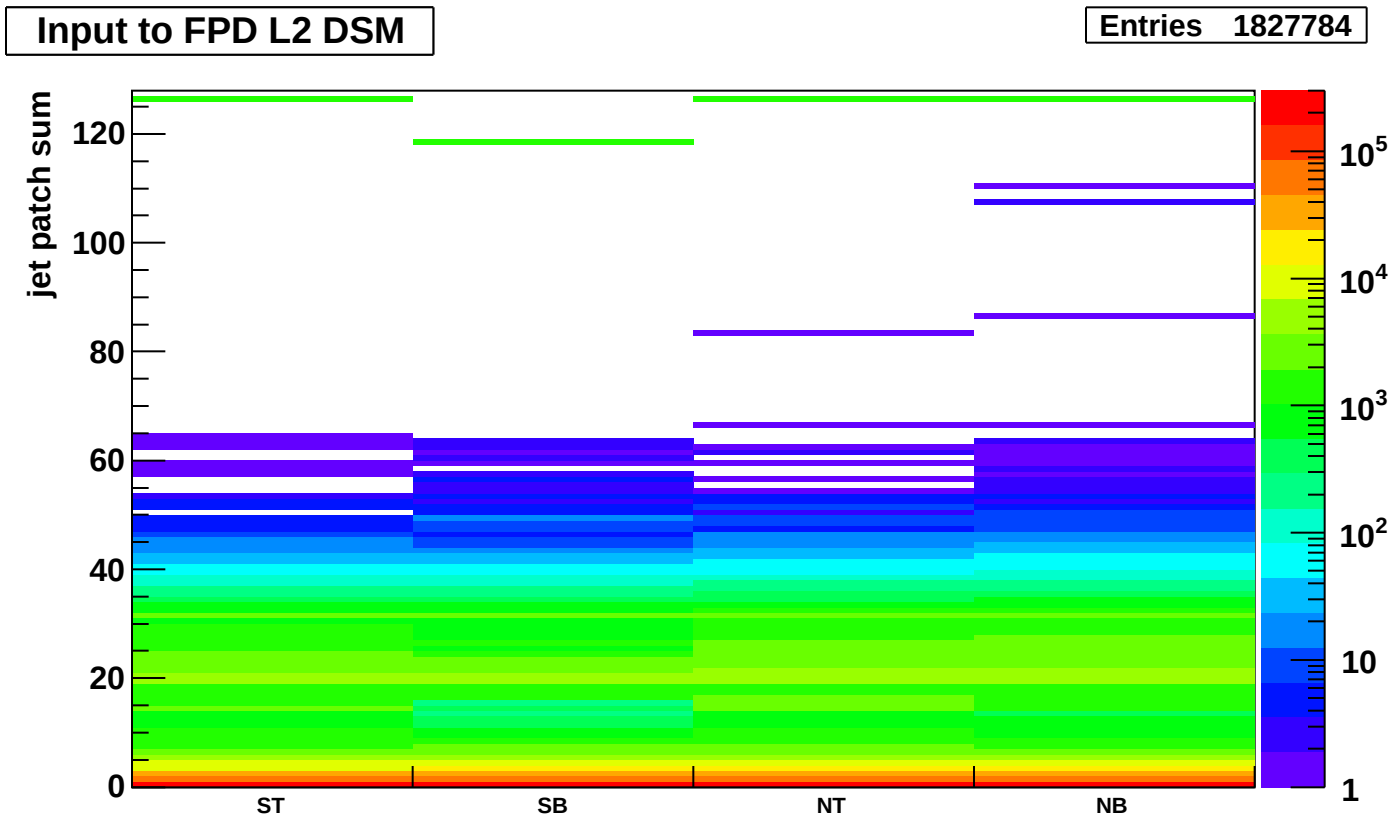

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL LARGE-S LARGE-N

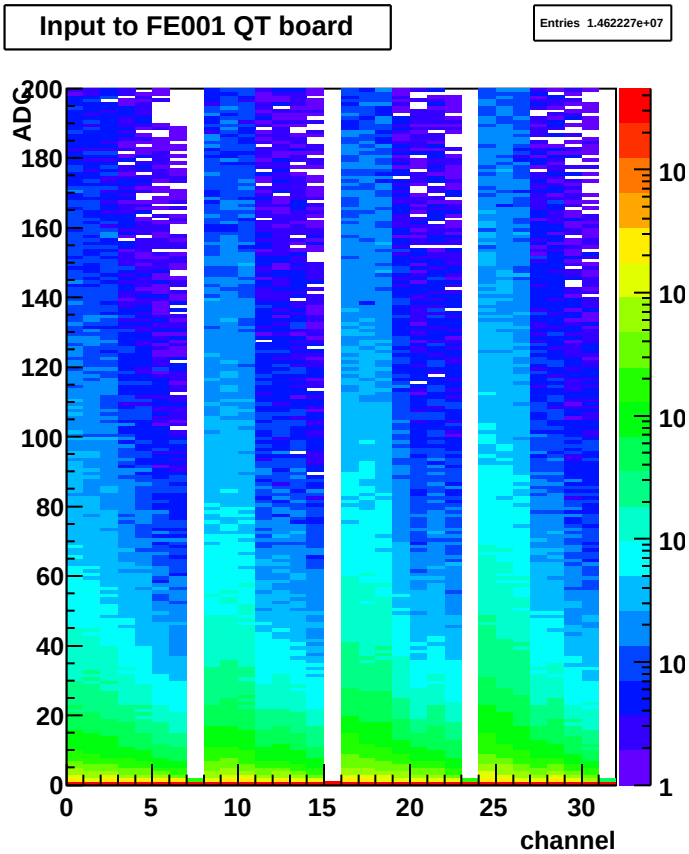

Input to FPD L2 DSM
Entries 1370838
HT bits
92743 40415 32632
22132 7590 8703
342071 408941 415611
SMALL LARGE-S LARGE-N

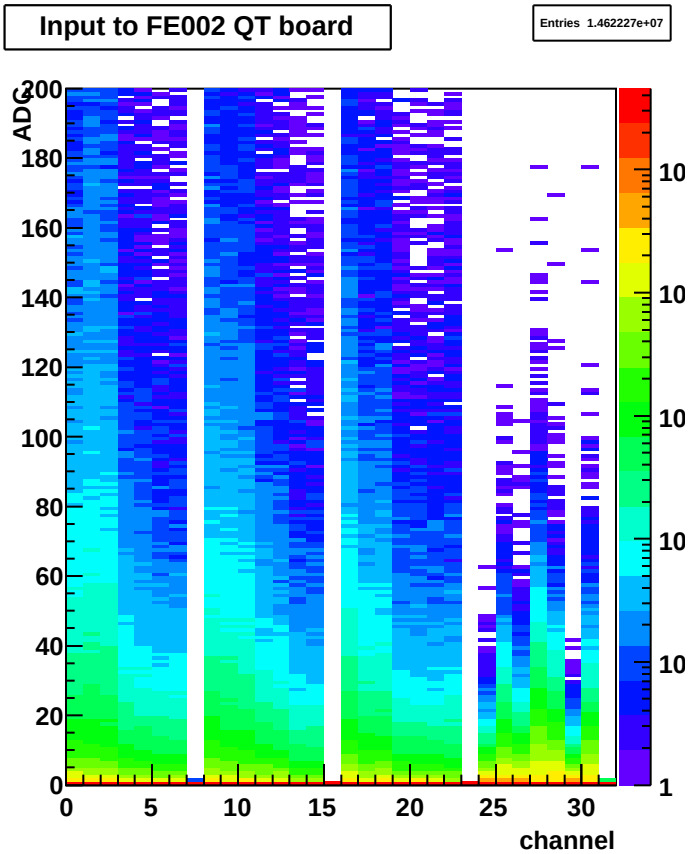

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL LARGE-S LARGE-N

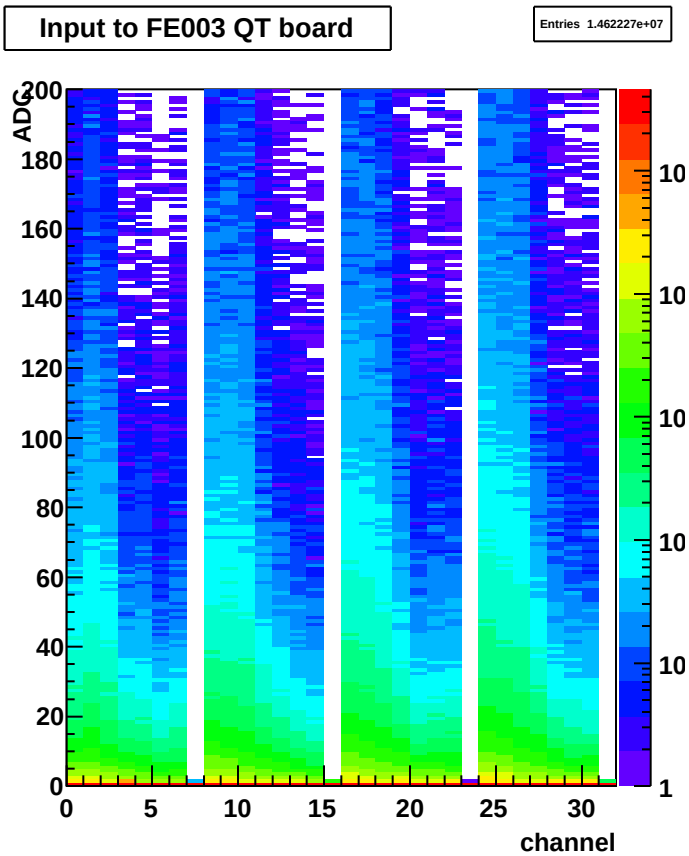

Input to FPD L3 DSM
Entries 7311136
bit
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

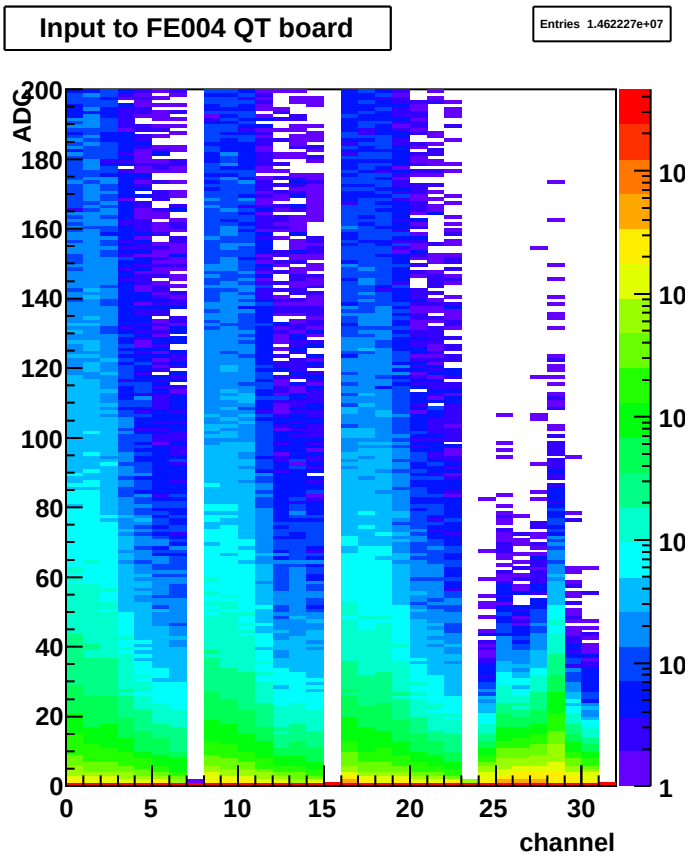

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

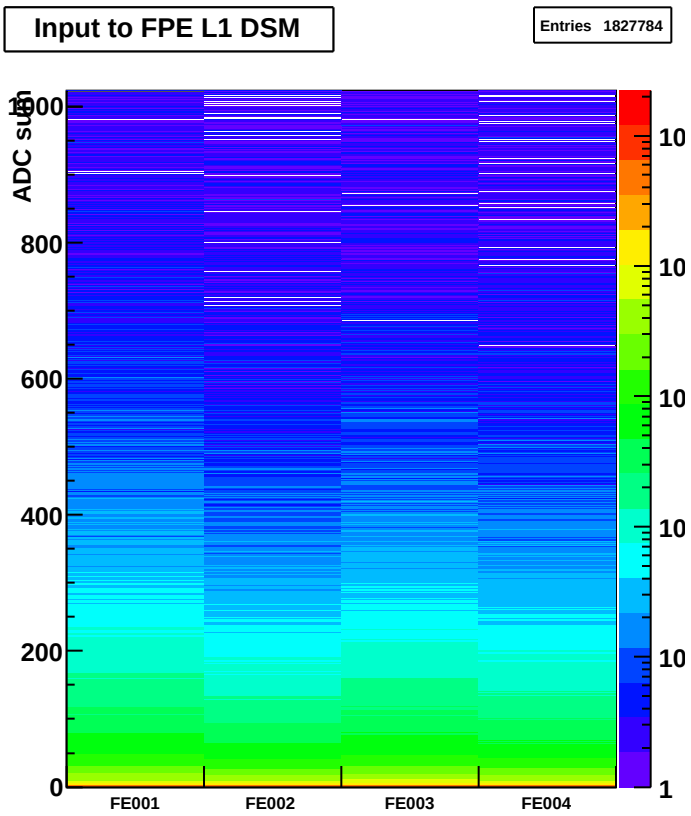

Input to FPD L2 DSM
Entries 1827784
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

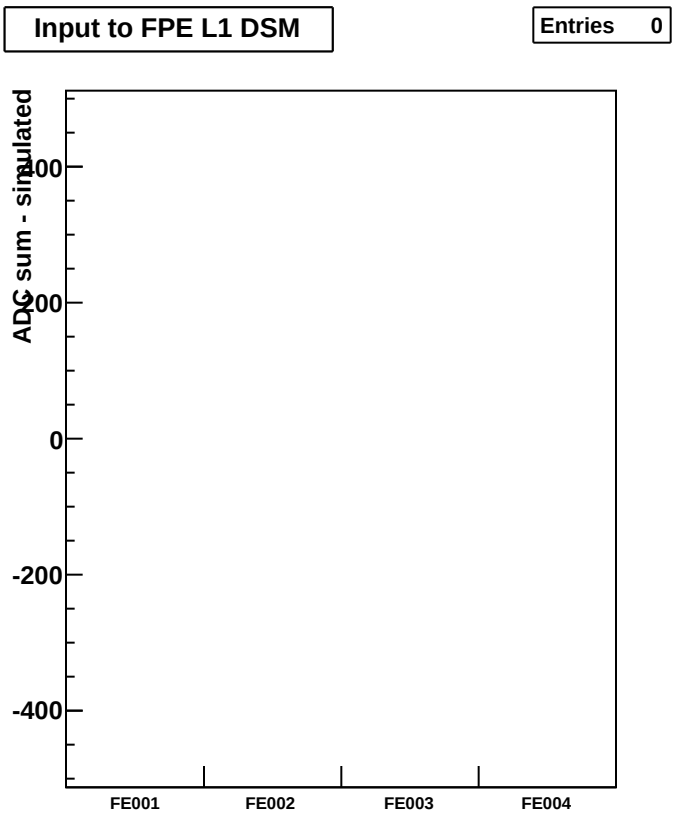

Input to FE001 QT board
Entries 1.462227e+07
ADC
channel

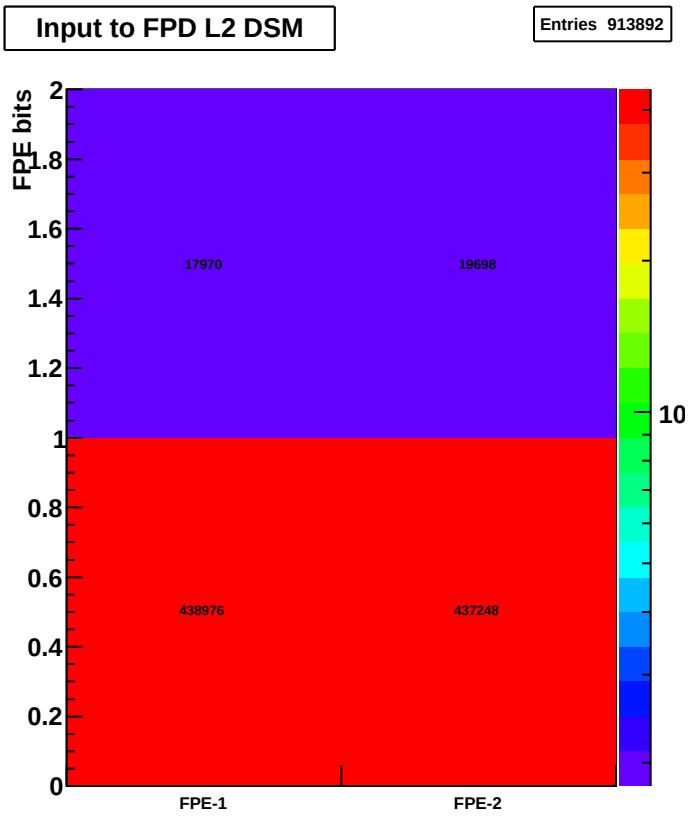

Input to FE002 QT board
Entries 1.462227e+07
ADC
channel

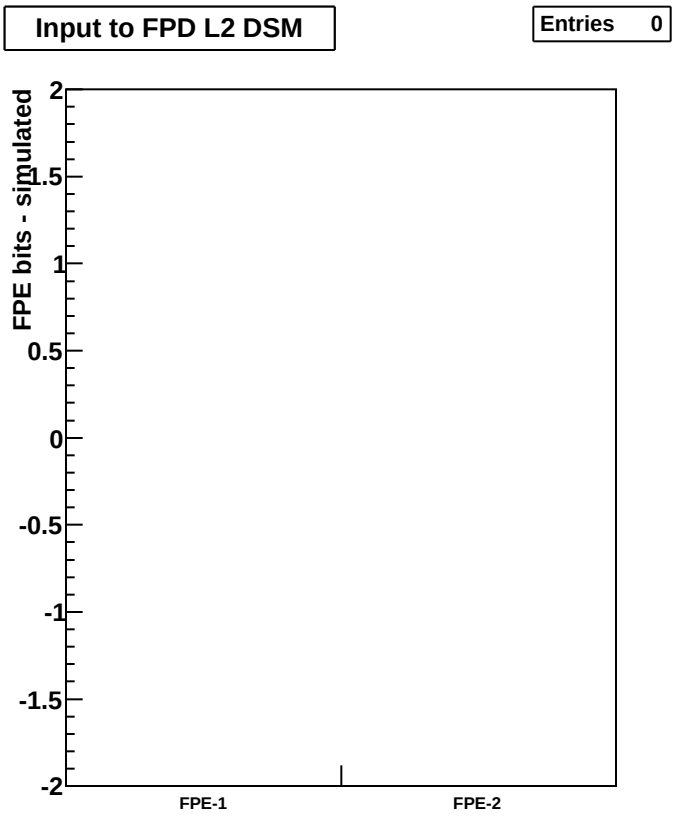

Input to FE003 QT board
Entries 1.462227e+07
ADC
channel


Input to FE004 QT board
Entries 1.462227e+07
ADC
channel


Input to FPE L1 DSM
Entries 1827784
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


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


Input to FPD L2 DSM
Entries 913892
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
17970
19698
438976
437248
FPE-1
FPE-2
10


Input to FPD L2 DSM
Entries 0
FPE bits - simulated
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
FPE-1
FPE-2