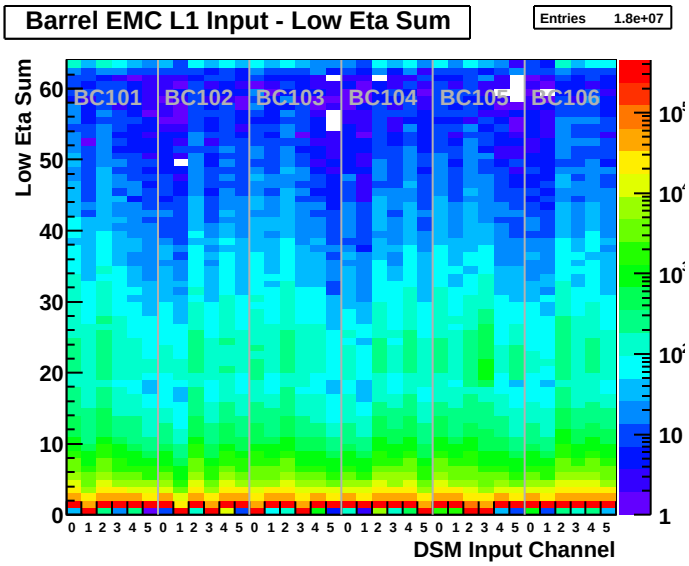
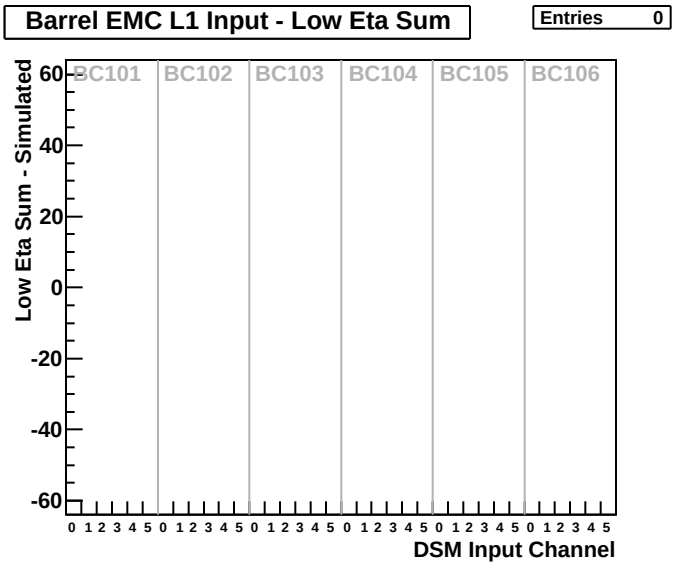
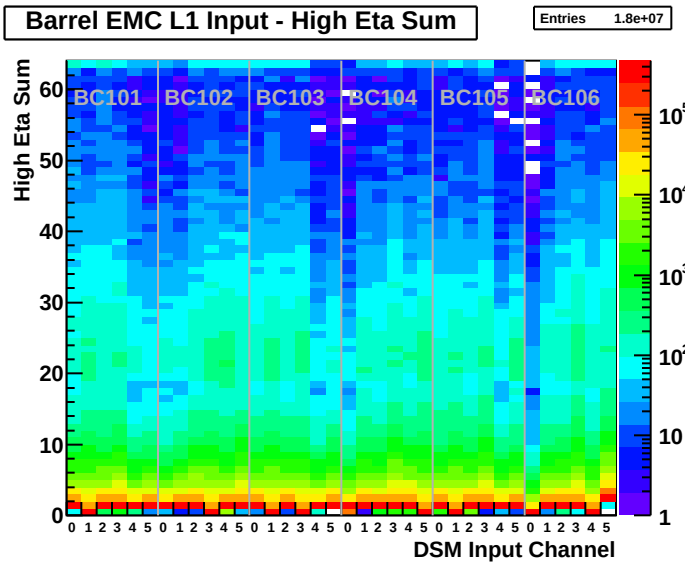
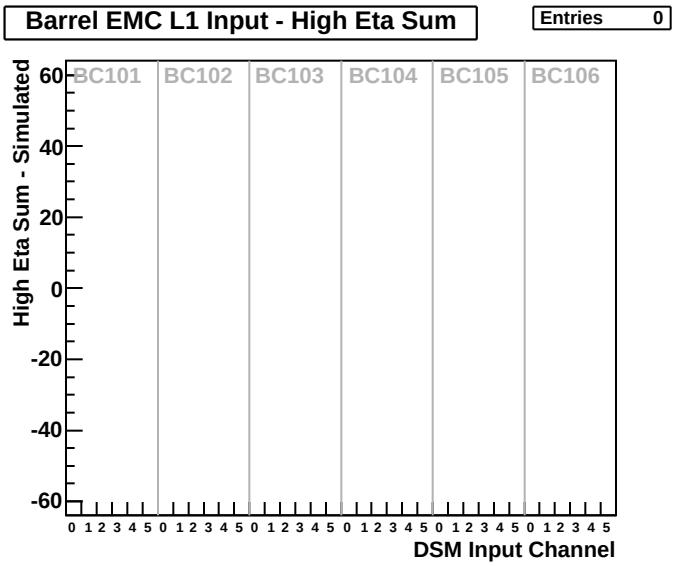
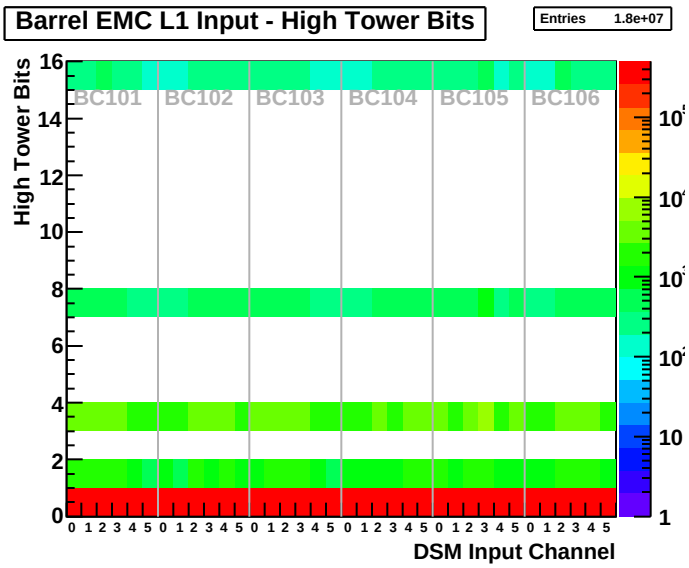
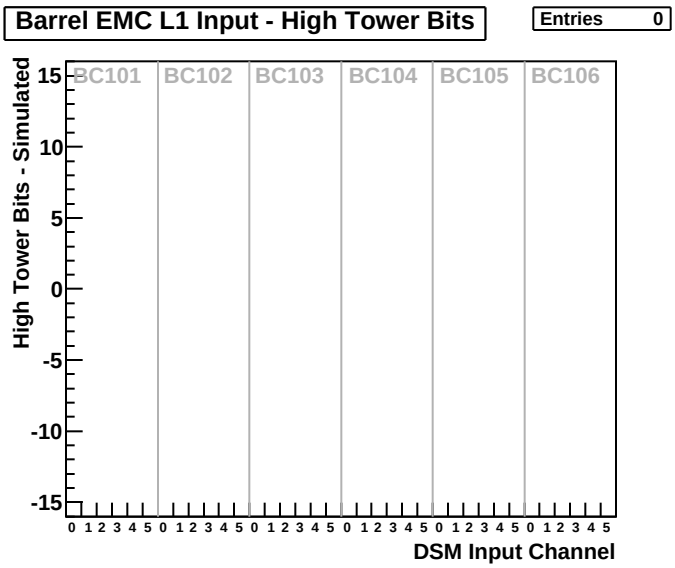

Barrel EMC L1 Input - Low Eta Sum
Entries 1.8e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

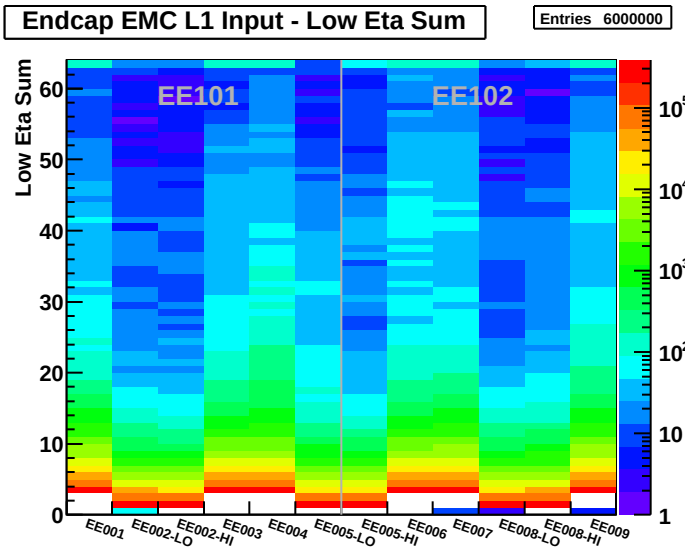

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

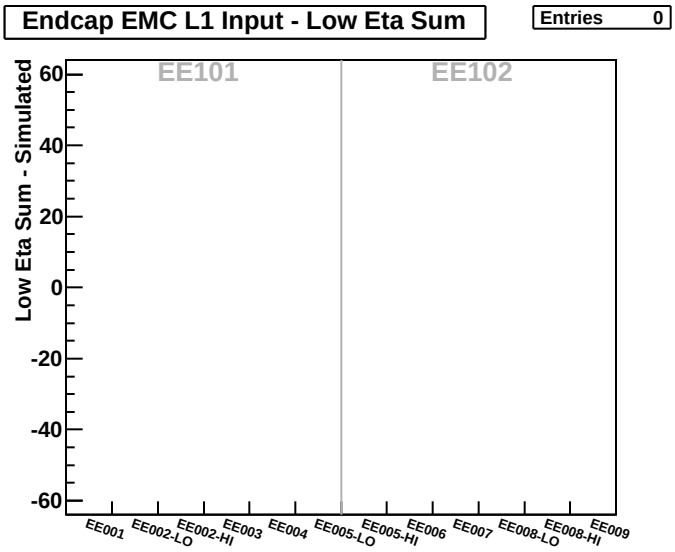

Barrel EMC L1 Input - High Eta Sum
Entries 1.8e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

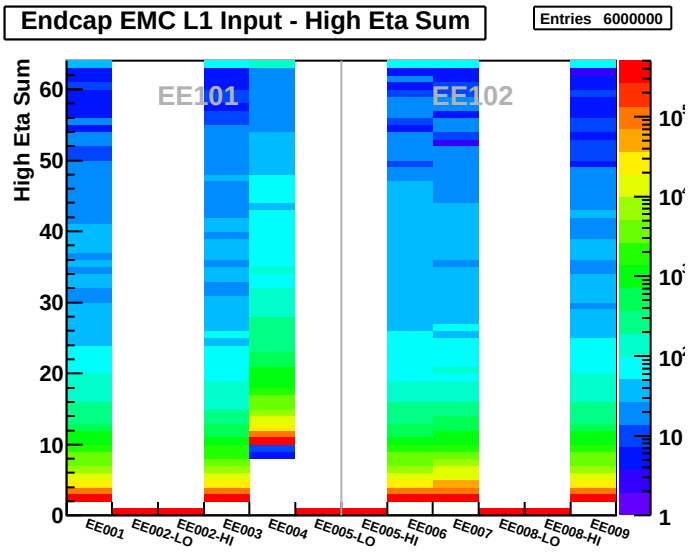

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

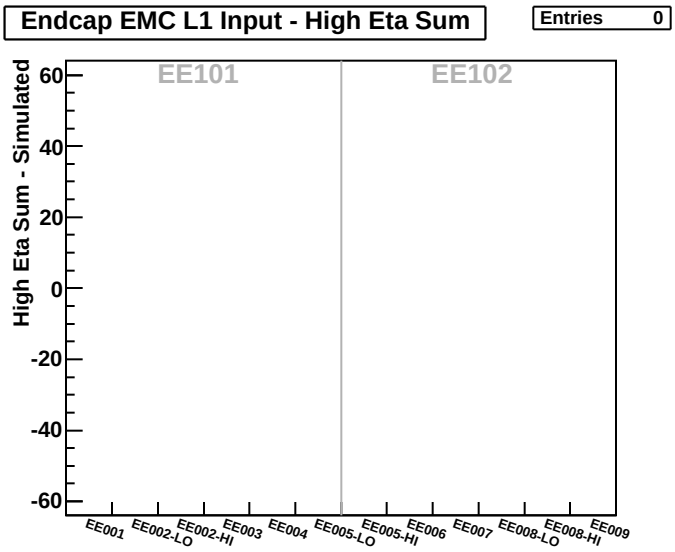

Barrel EMC L1 Input - High Tower Bits
Entries 1.8e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

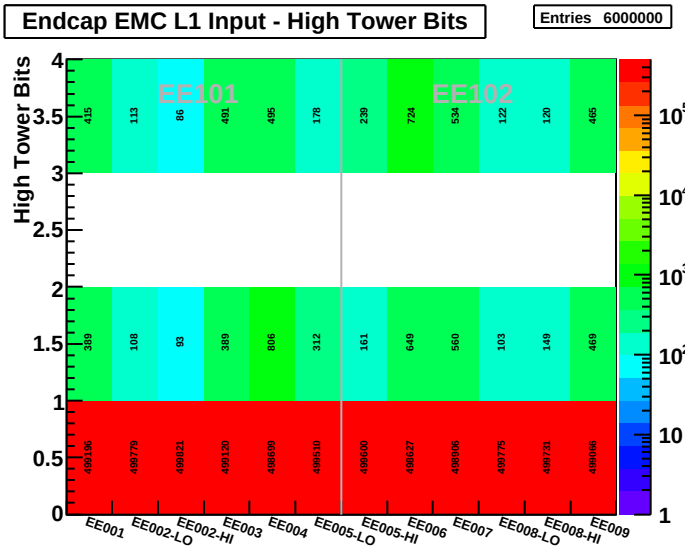

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

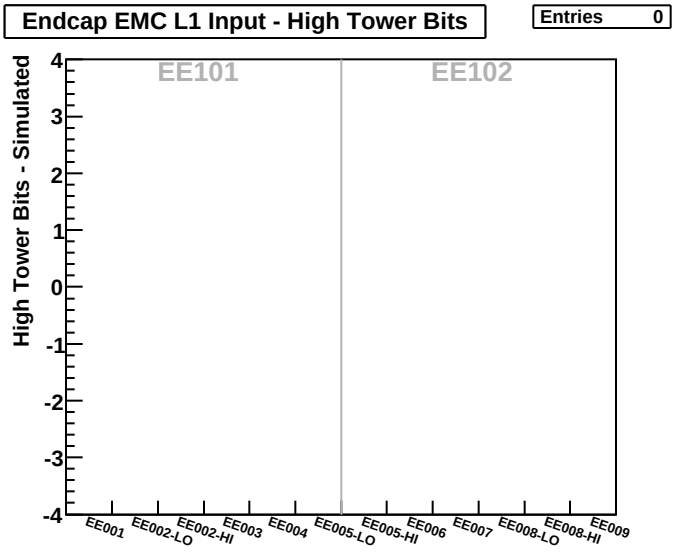

Endcap EMC L1 Input - Low Eta Sum
Entries 6000000
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

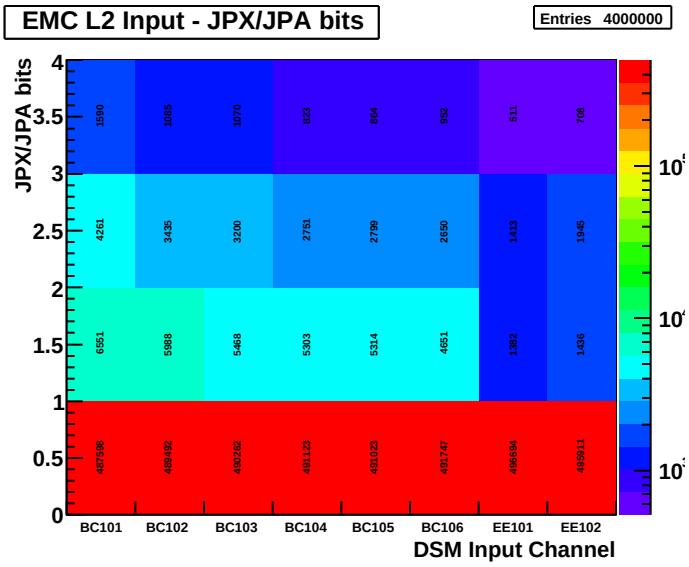

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

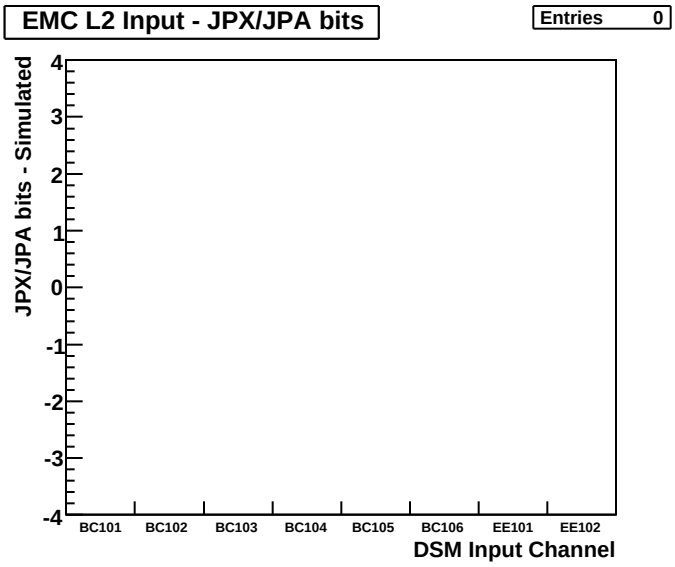

Endcap EMC L1 Input - High Eta Sum
Entries 6000000
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

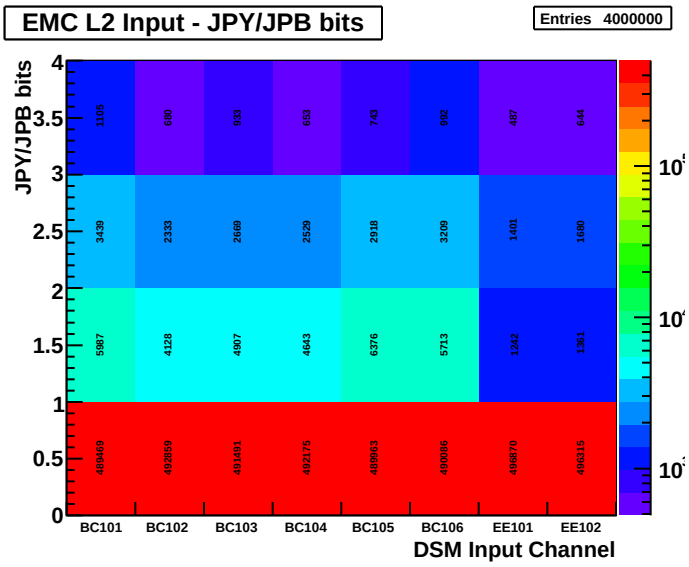

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

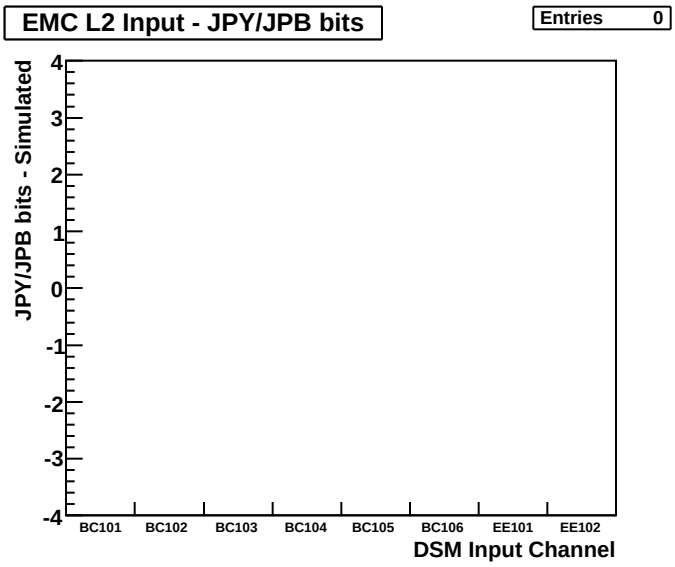

Endcap EMC L1 Input - High Tower Bits
Entries 6000000
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

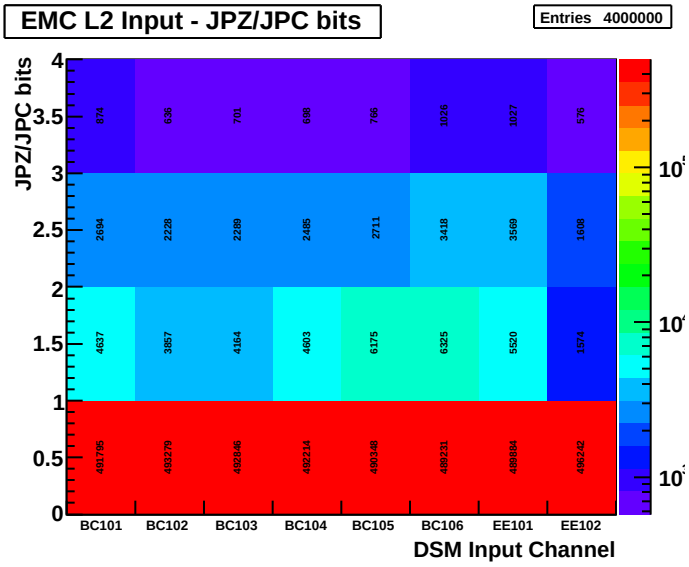

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

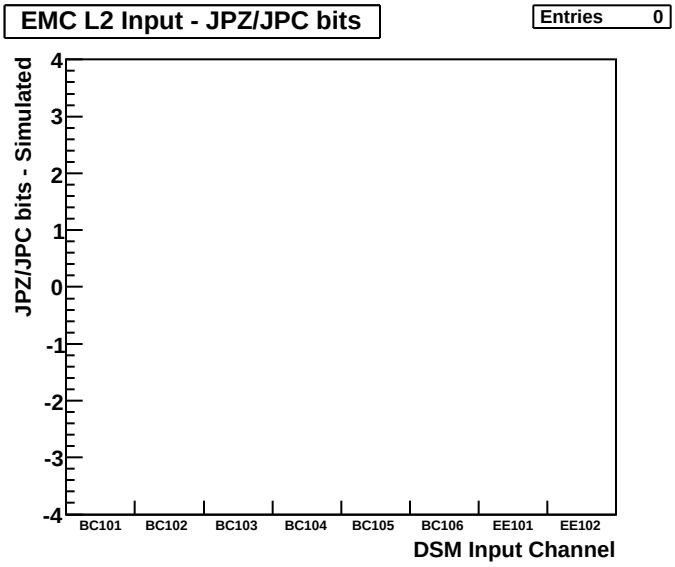

EMC L2 Input - JPX/JPA bits
Entries 4000000
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1590 1085 1070 823 864 952 511 708
4261 3435 3200 2751 2799 2650 1413 1945
6551 5988 5468 5303 5314 4651 1382 1436
487598 489492 490262 491123 491023 491747 496694 495911

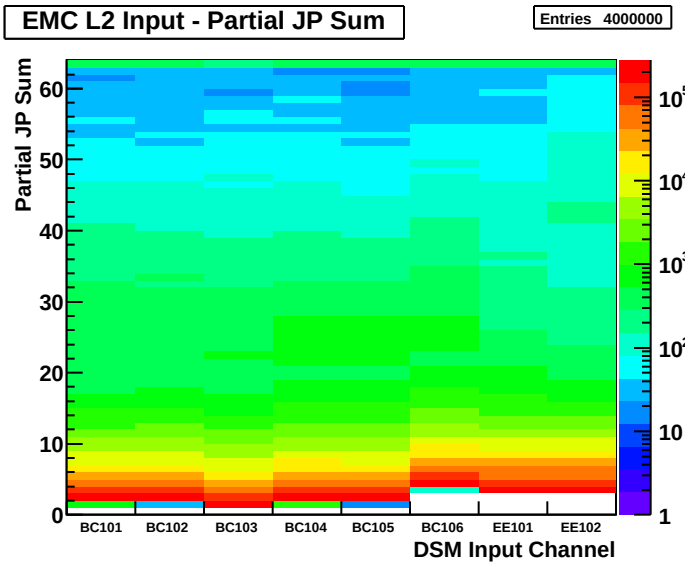

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

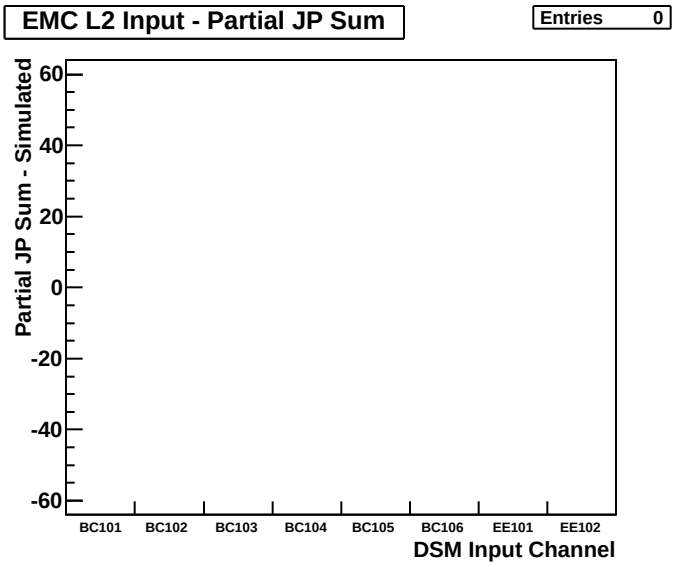

EMC L2 Input - JPY/JPB bits
Entries 4000000
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1105 680 933 653 743 992 487 644
3439 2333 2669 2529 2918 3209 1401 1680
5987 4128 4907 4643 6376 5713 1242 1361
489469 492359 491491 492175 489963 490086 498870 496315

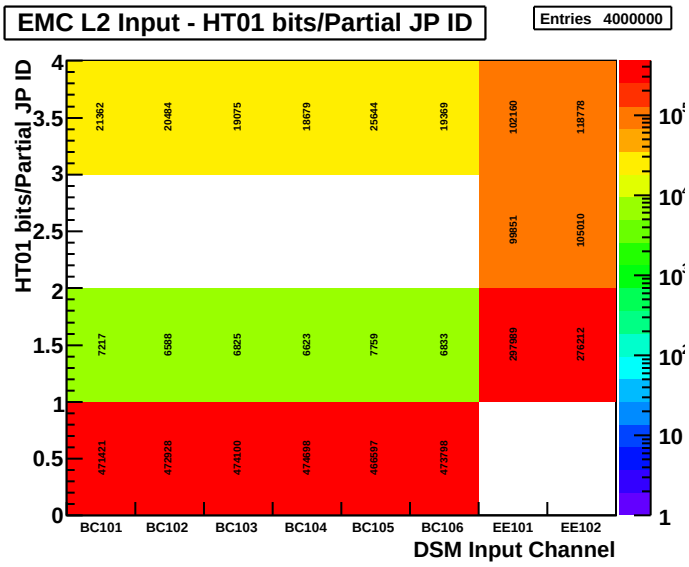

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

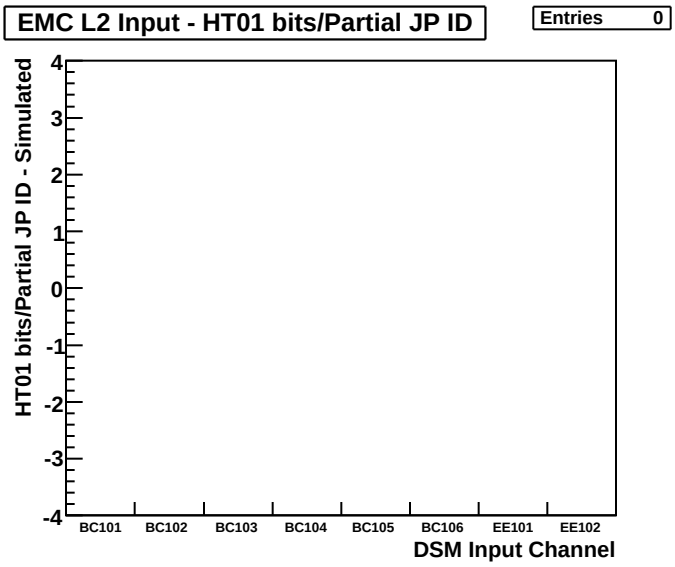

EMC L2 Input - JPZ/JPC bits
Entries 4000000
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
874 636 701 698 766 1026 1027 576
2694 2228 2289 2485 2711 3418 3569 1608
4637 3857 4164 4603 6175 6325 5520 1574
491795 493279 492846 492214 490348 489231 489884 496242

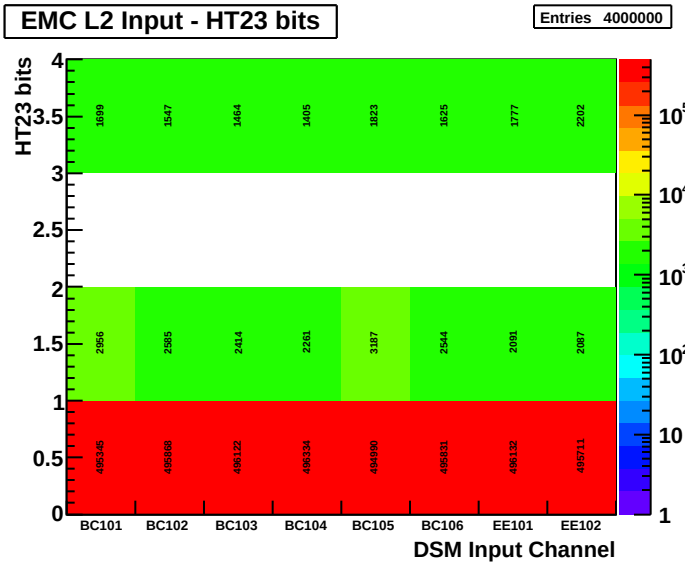

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

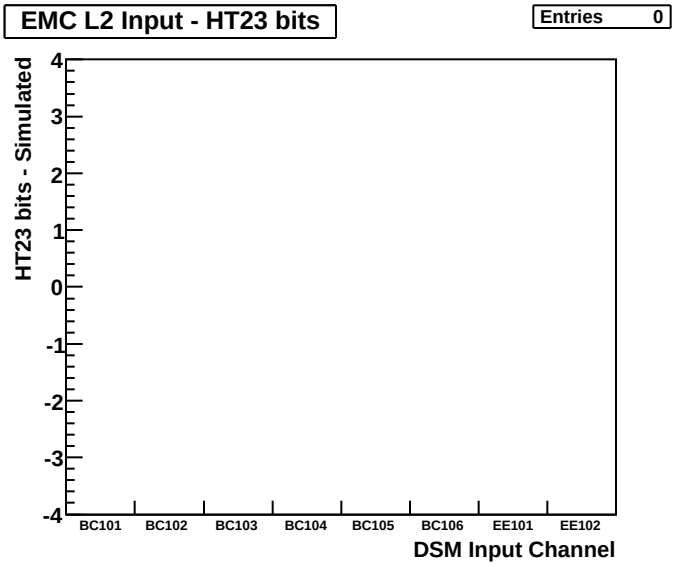

EMC L2 Input - Partial JP Sum
Entries 4000000
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

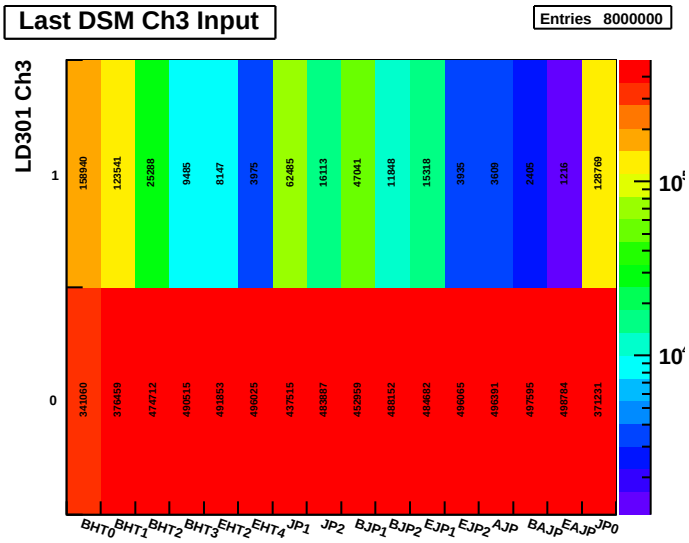

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

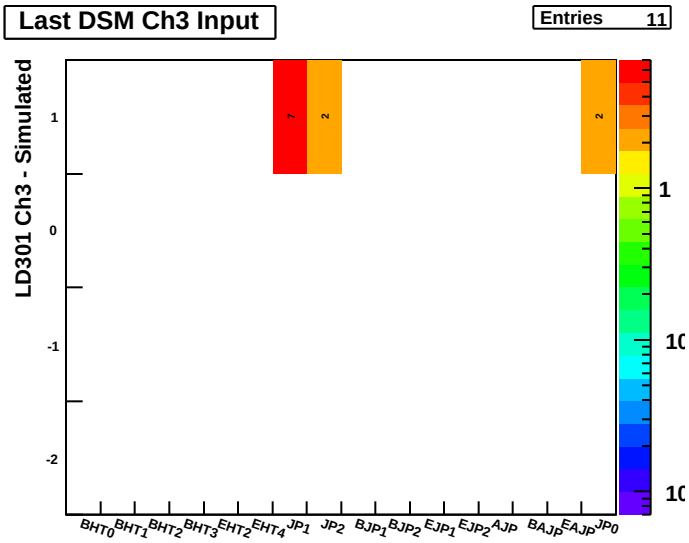

EMC L2 Input - HT01 bits/Partial JP ID
Entries 4000000
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

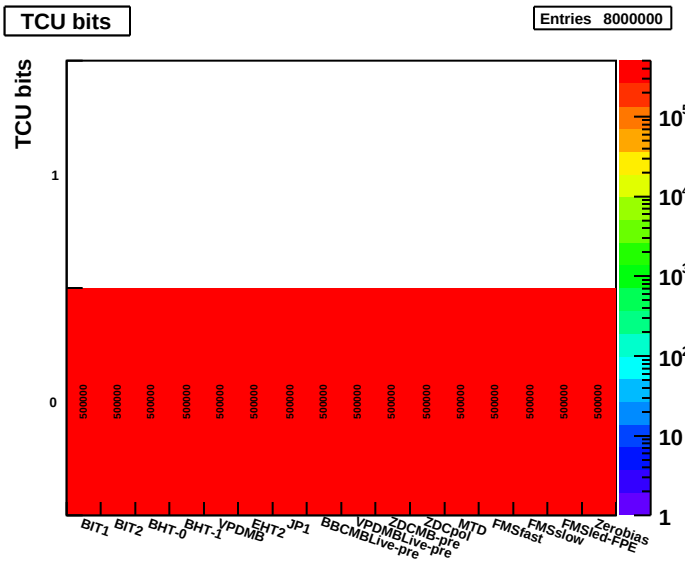

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

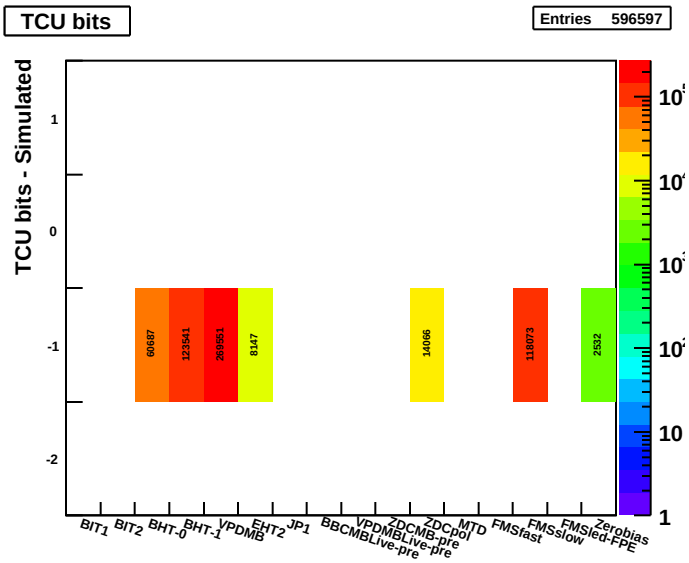

EMC L2 Input - HT23 bits
Entries 4000000
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

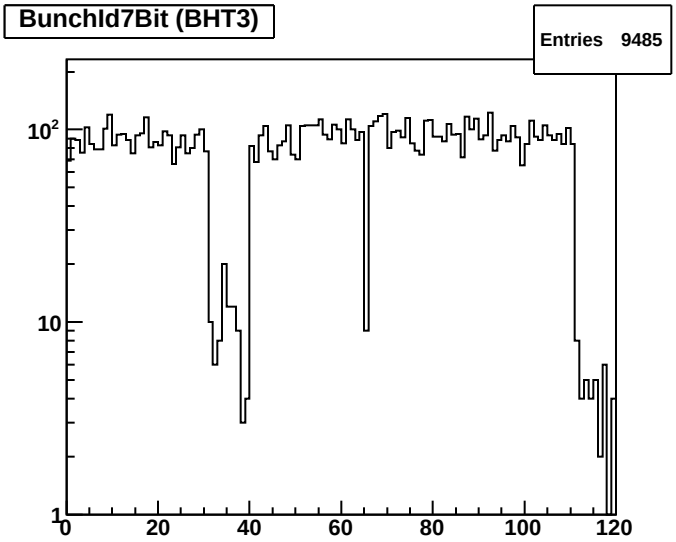

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

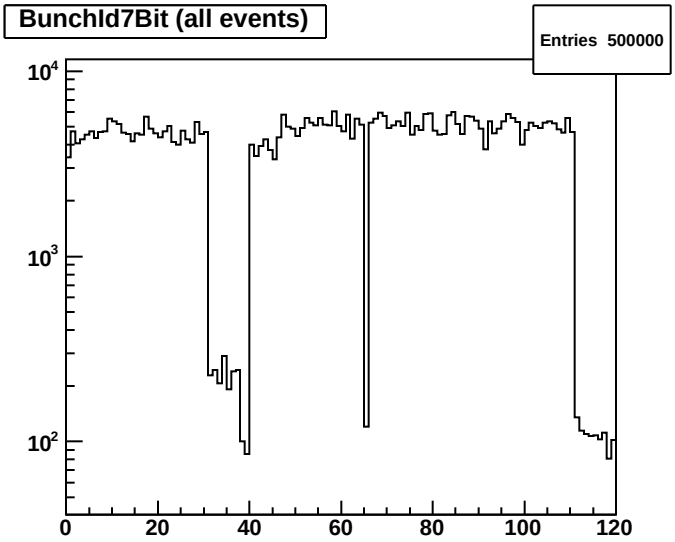

Last DSM Ch3 Input
Entries 8000000
LD301 Ch3
1
0
159940 123541 25288 9485 8147 3975 62495 16113 47041 11848 15318 3935 3609 2405 1216 128769
341060 376459 474712 490515 491853 496025 437515 483887 452959 488152 484682 496065 496391 497595 498784 371231
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

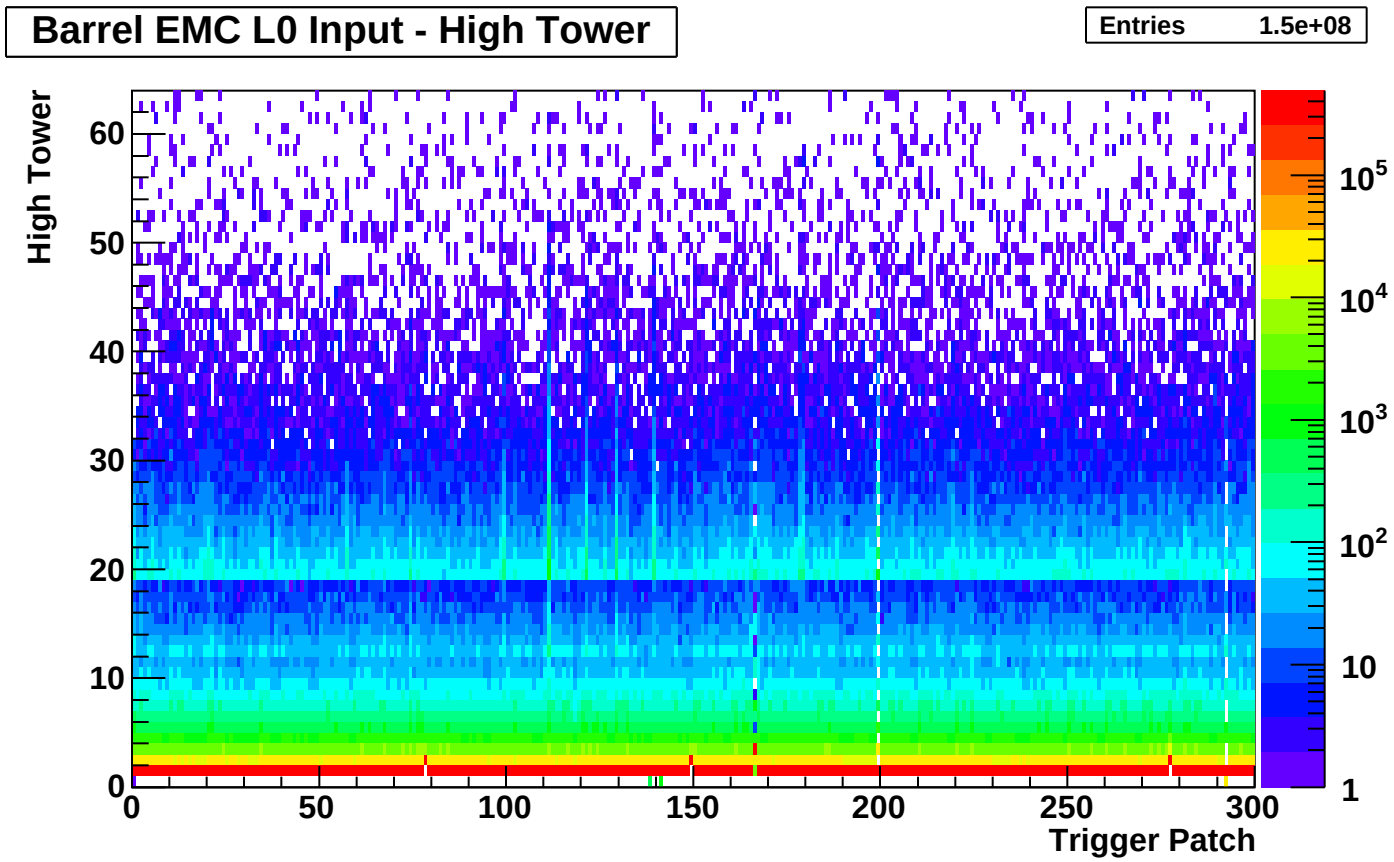

Last DSM Ch3 Input
Entries 11
LD301 Ch3 - Simulated
1
0
-1
-2
7 2 2
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

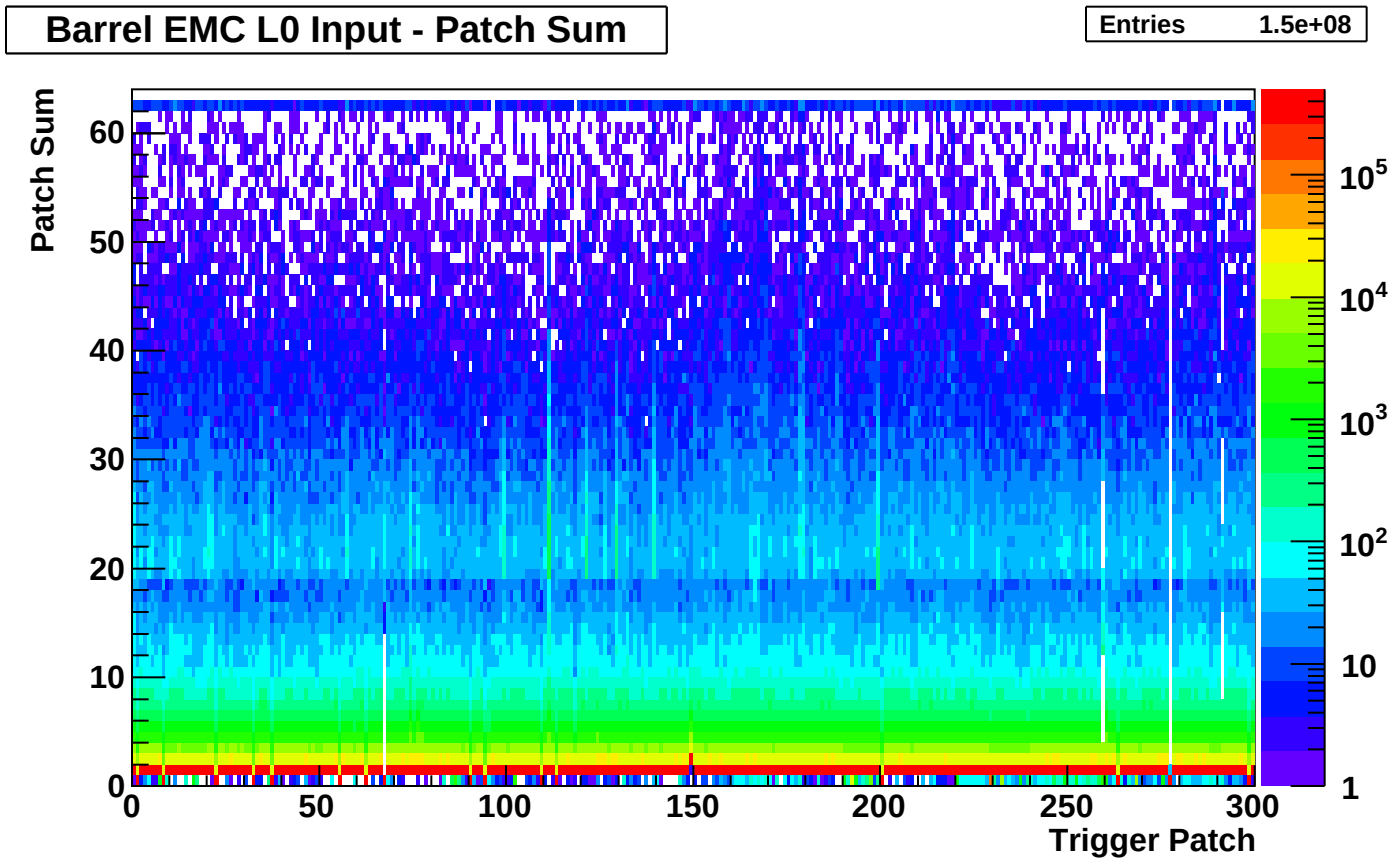

TCU bits
Entries 8000000
TCU bits
1
0
500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

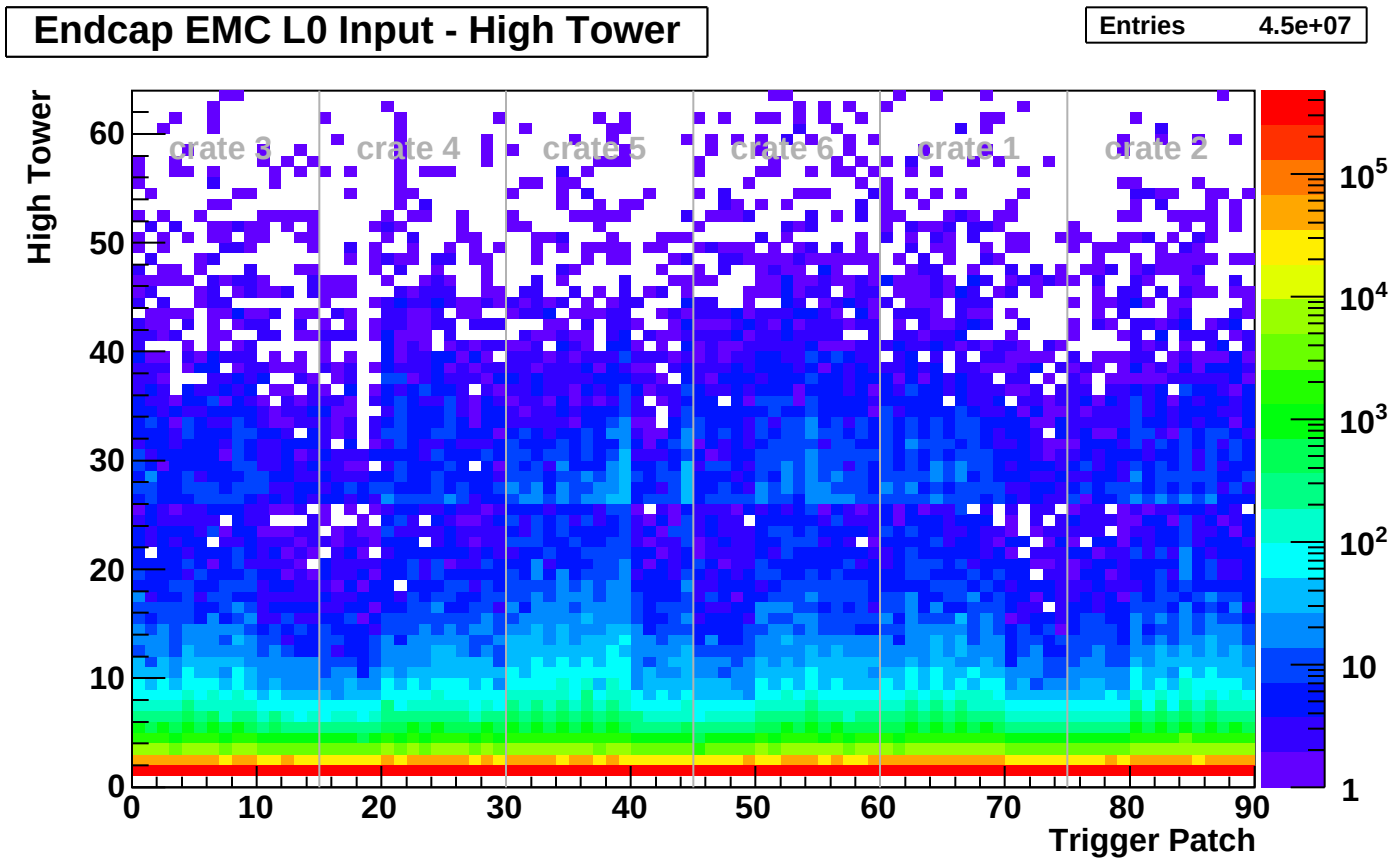

TCU bits
Entries 596597
TCU bits - Simulated
1
0
-1
-2
60687 123541 269551 8147 14066 118073 2532
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

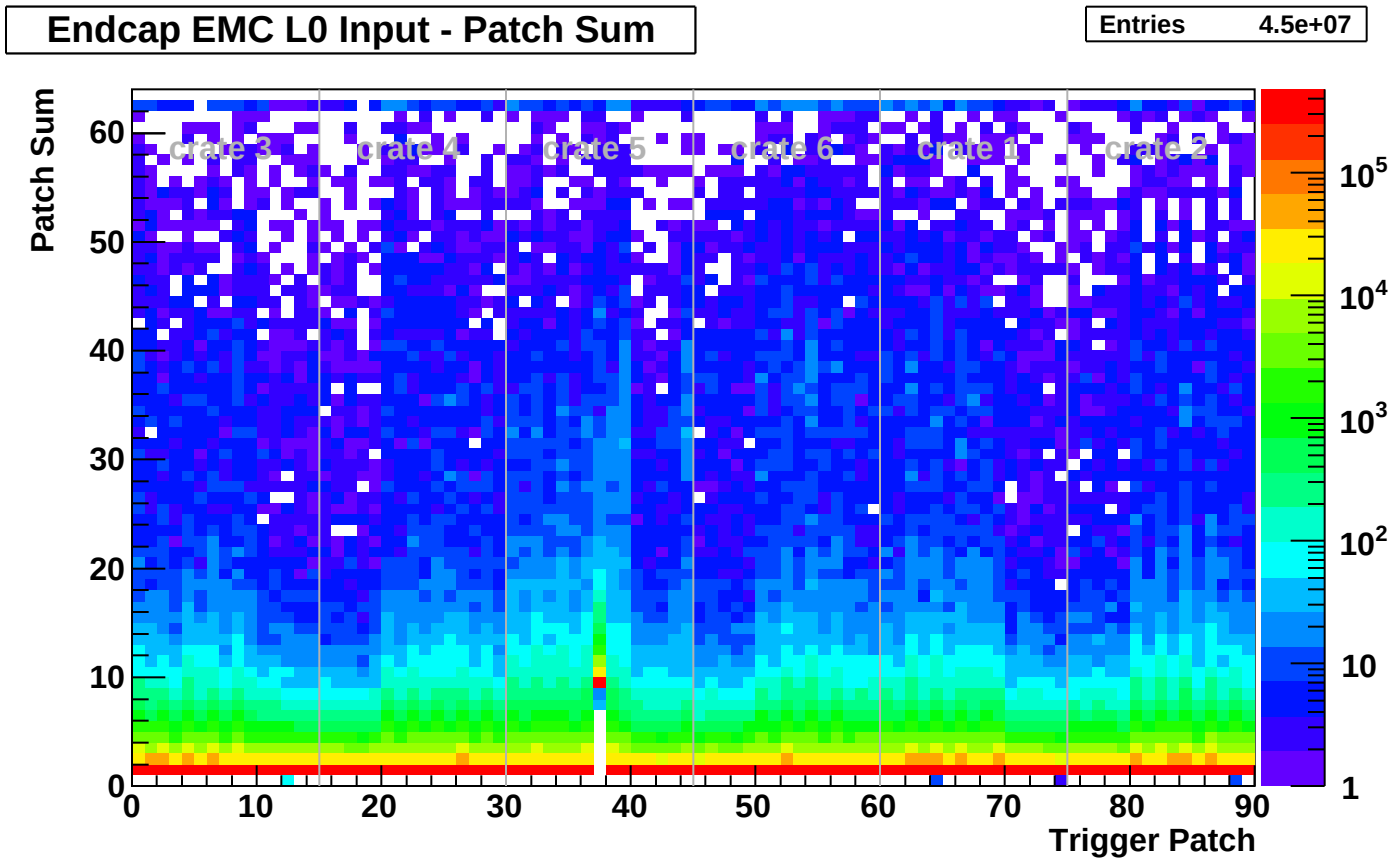

BunchId7Bit (BHT3)
Entries 9485
10^2
10
1
0 20 40 60 80 100 120

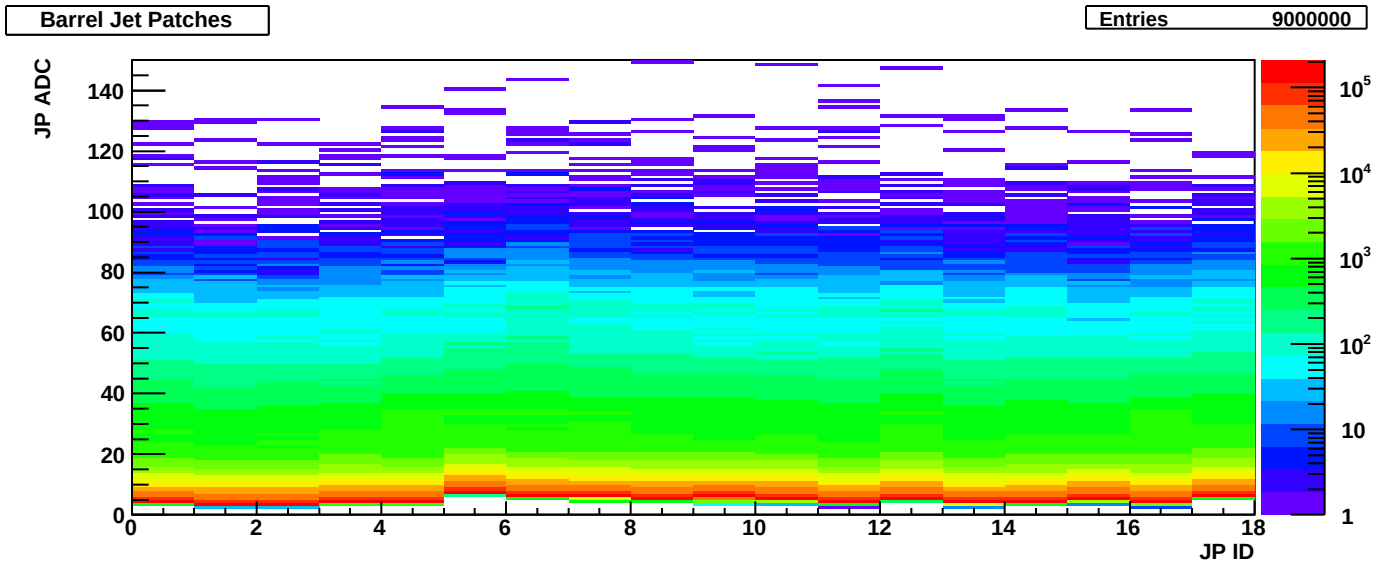

BunchId7Bit (all events)
Entries 500000
10^4
10^3
10^2
0 20 40 60 80 100 120

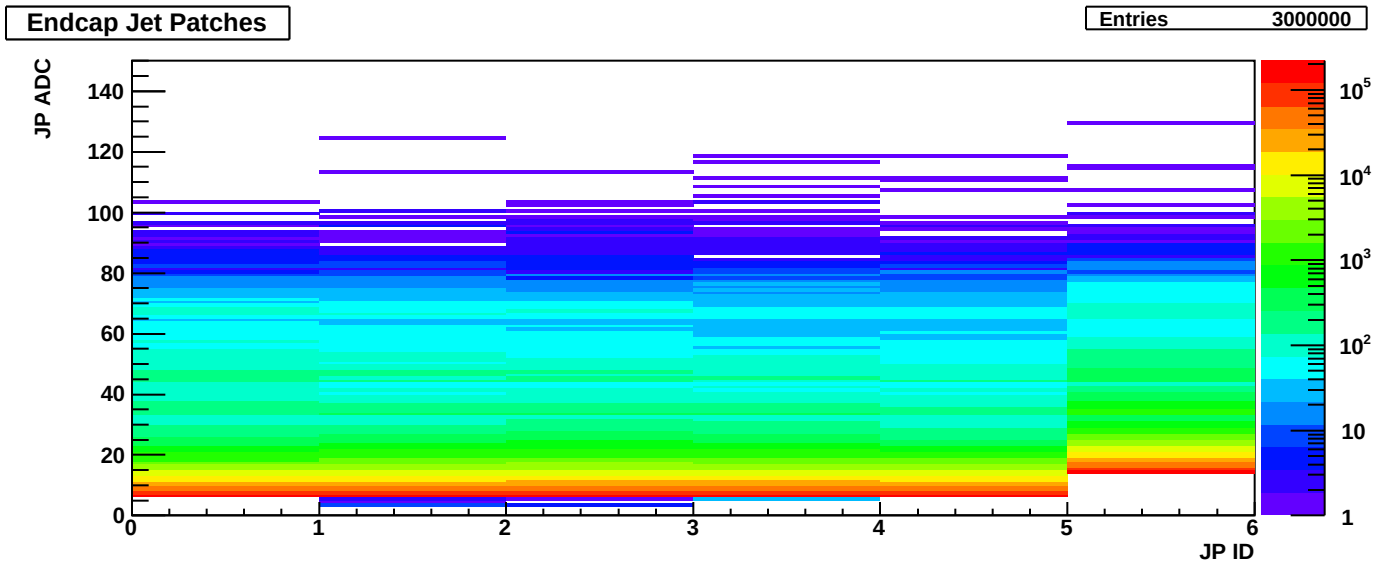

Barrel EMC L0 Input - High Tower
Entries 1.5e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

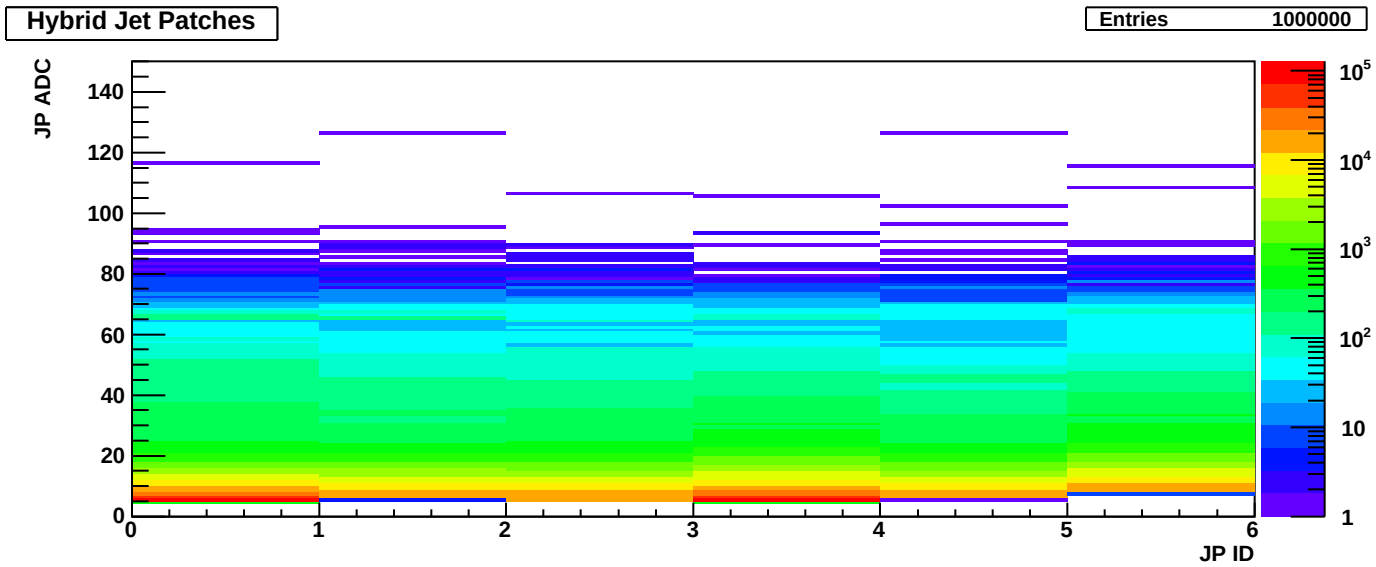

Barrel EMC L0 Input - Patch Sum
Entries 1.5e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

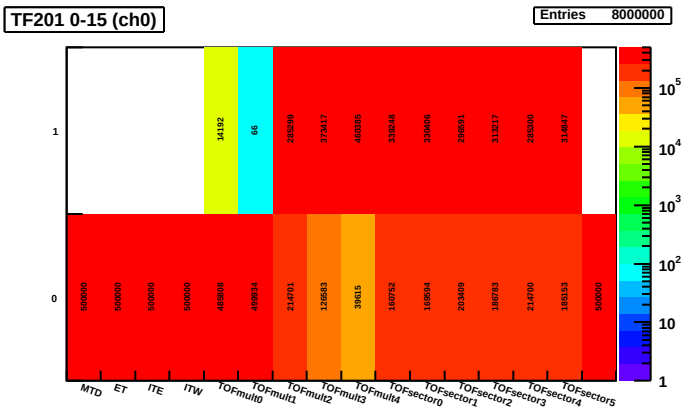

Endcap EMC L0 Input - High Tower
Entries 4.5e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

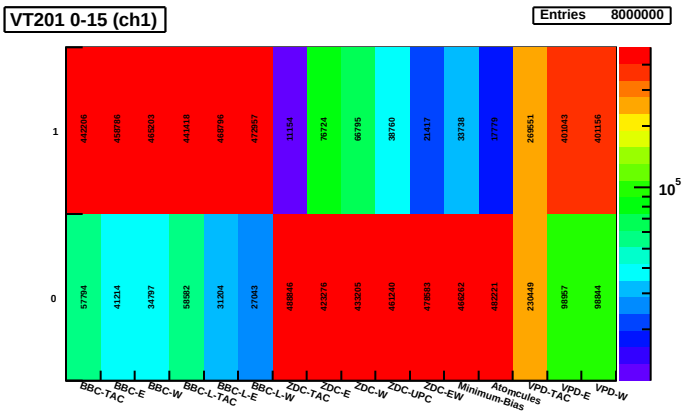

Endcap EMC L0 Input - Patch Sum
Entries 4.5e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

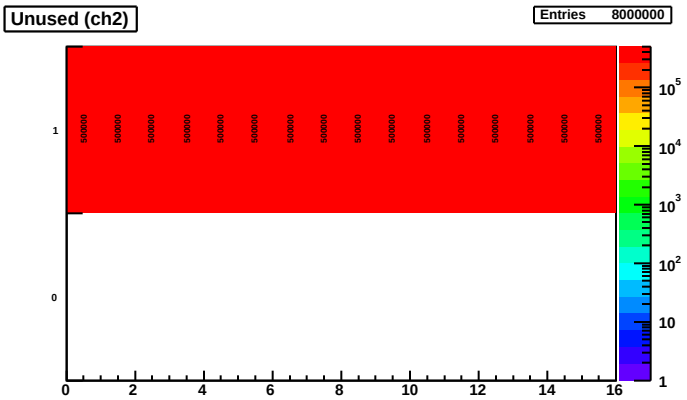

Barrel Jet Patches
Entries 9000000
JP ADC
JP ID

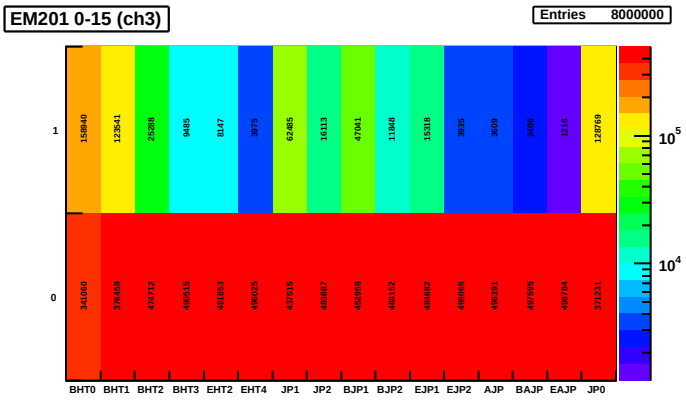

Endcap Jet Patches
Entries 3000000
JP ADC
JP ID

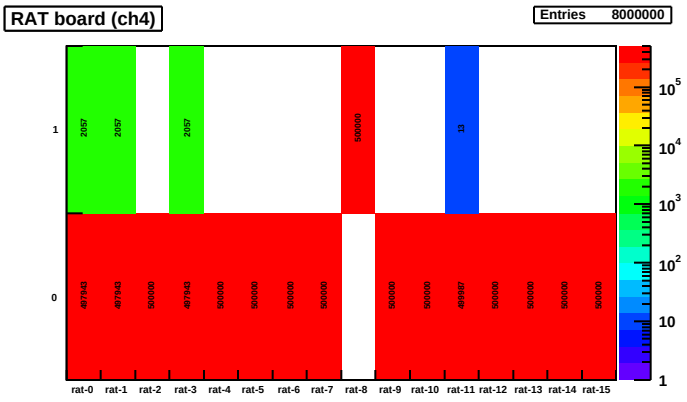

Hybrid Jet Patches
Entries 1000000
JP ADC
JP ID

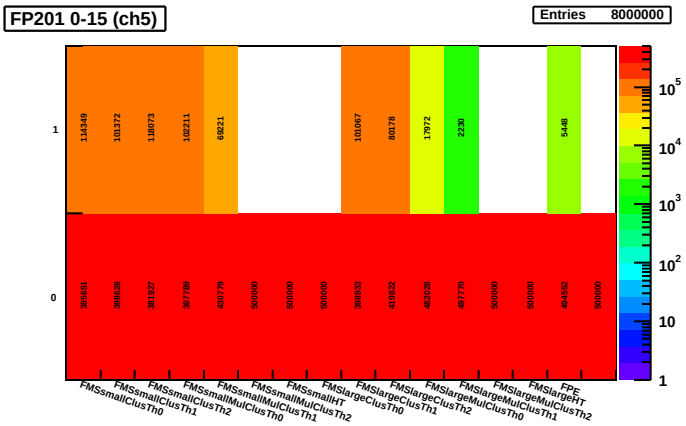

TF201 0-15 (ch0)
Entries 8000000
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

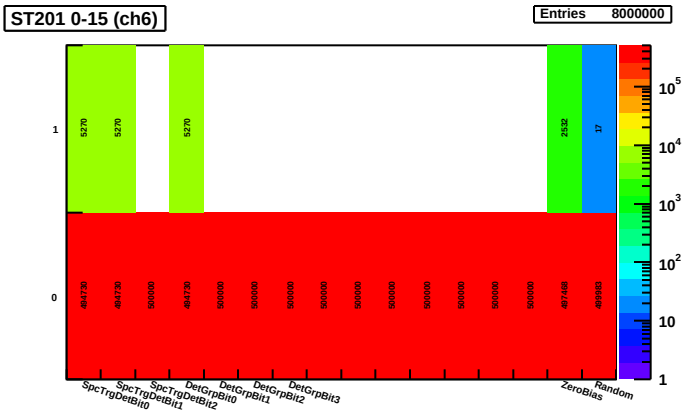

VT201 0-15 (ch1)
Entries 8000000
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Atomcules Minimum-Bias VPD-TAC VPD-E VPD-W

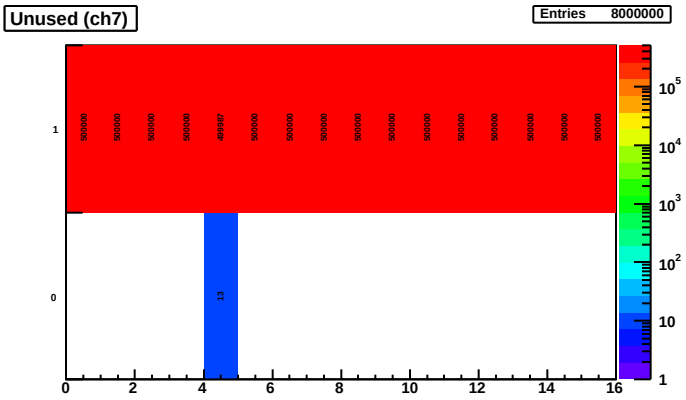

Unused (ch2)
Entries 8000000

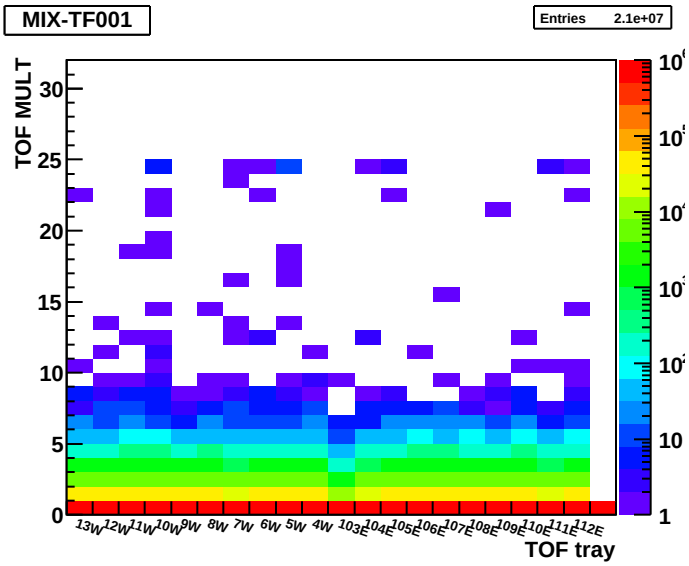

EM201 0-15 (ch3)
Entries 8000000
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

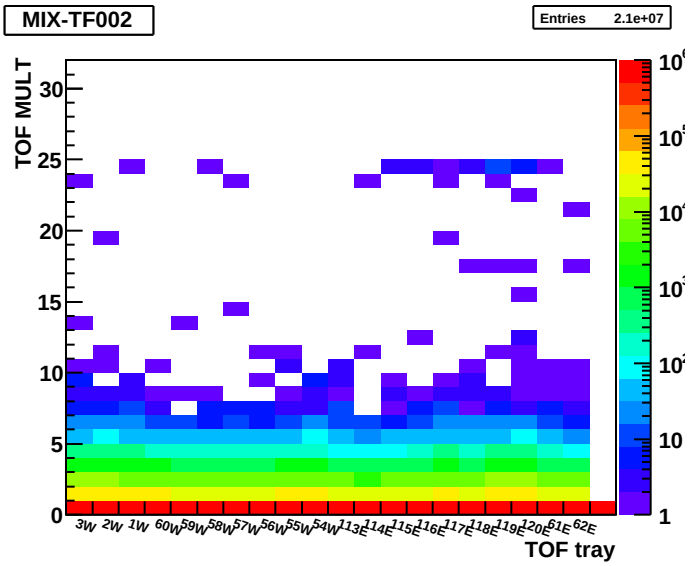

RAT board (ch4)
Entries 8000000
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

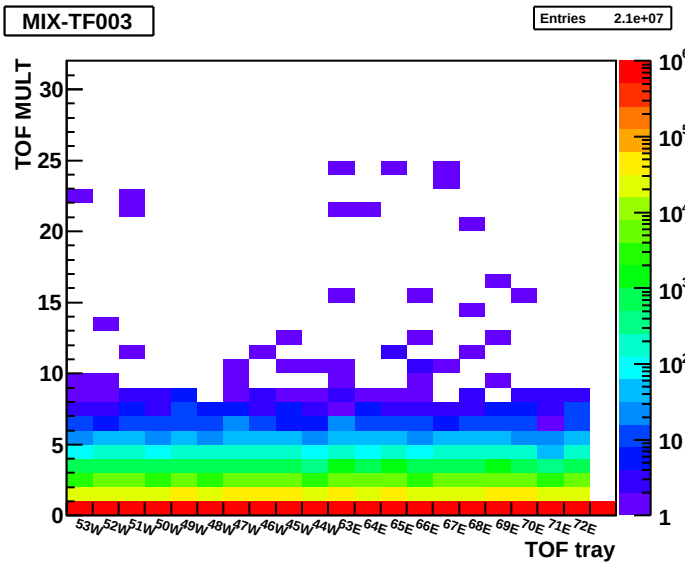

FP201 0-15 (ch5)
Entries 8000000
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

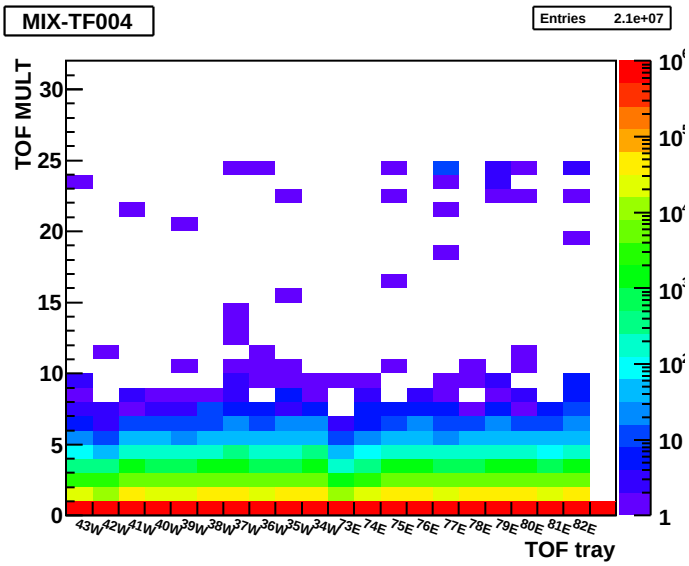

ST201 0-15 (ch6)
Entries 8000000
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetCrpBit0 DetCrpBit1 DetCrpBit2 DetCrpBit3 ZeroBias Random

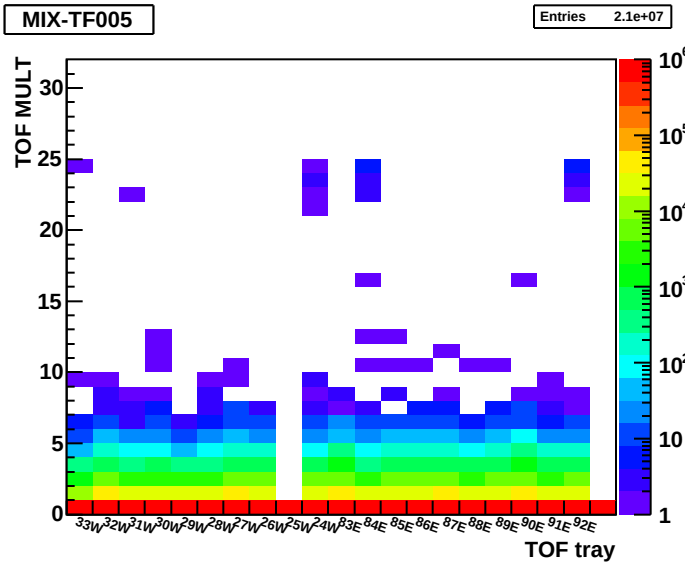

Unused (ch7)
Entries 8000000

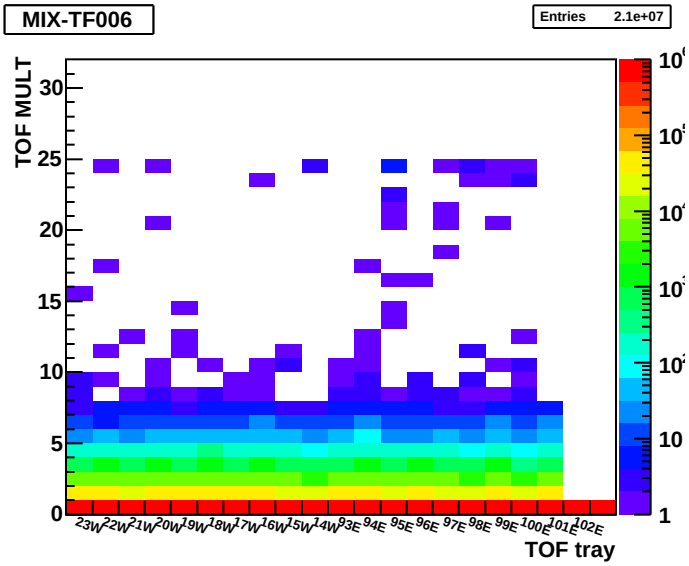

MIX-TF001
Entries 2.1e+07
TOF MULT
TOF tray

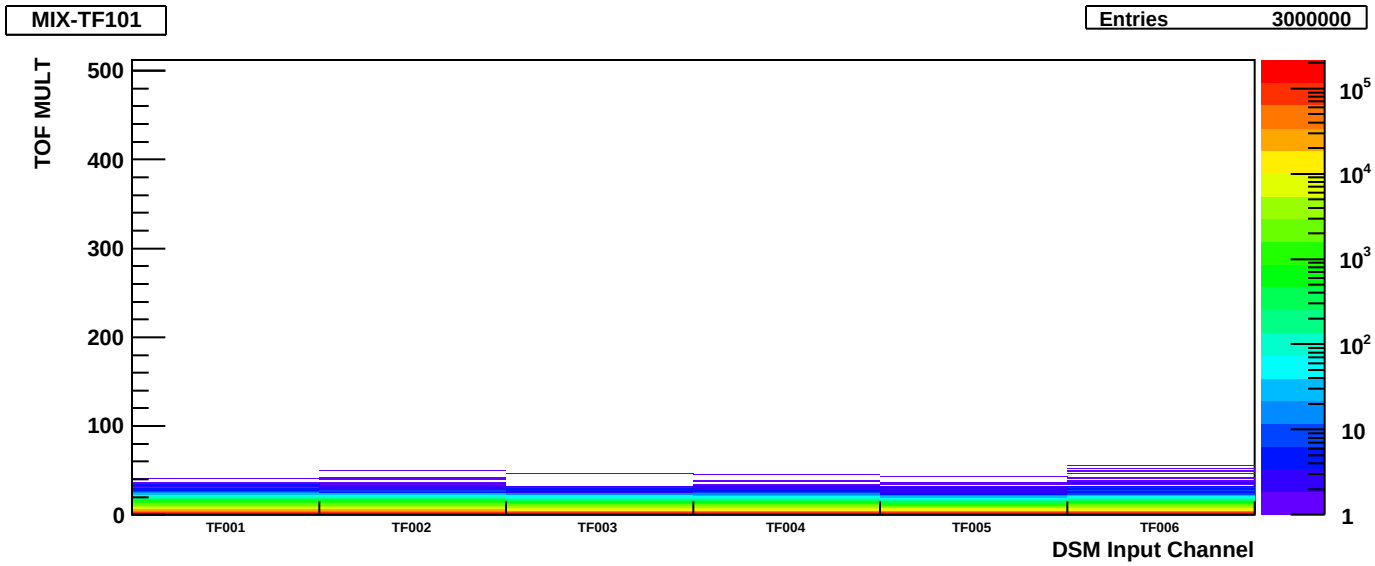

MIX-TF002
Entries 2.1e+07
TOF MULT
TOF tray

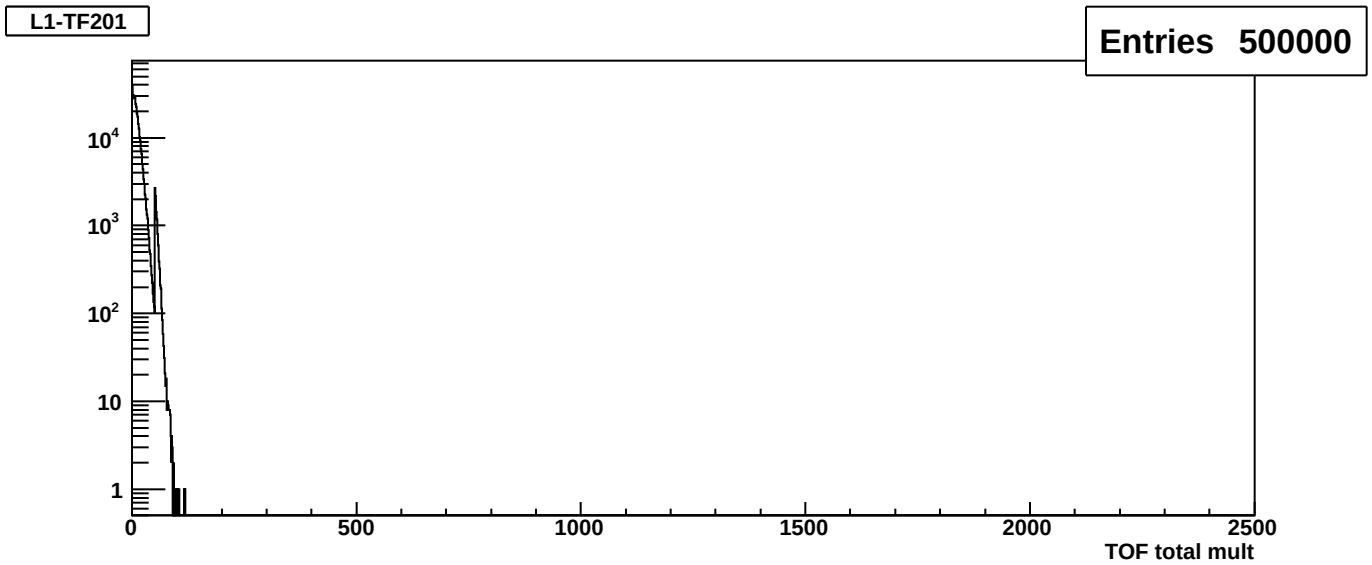

MIX-TF003
Entries 2.1e+07
TOF MULT
TOF tray

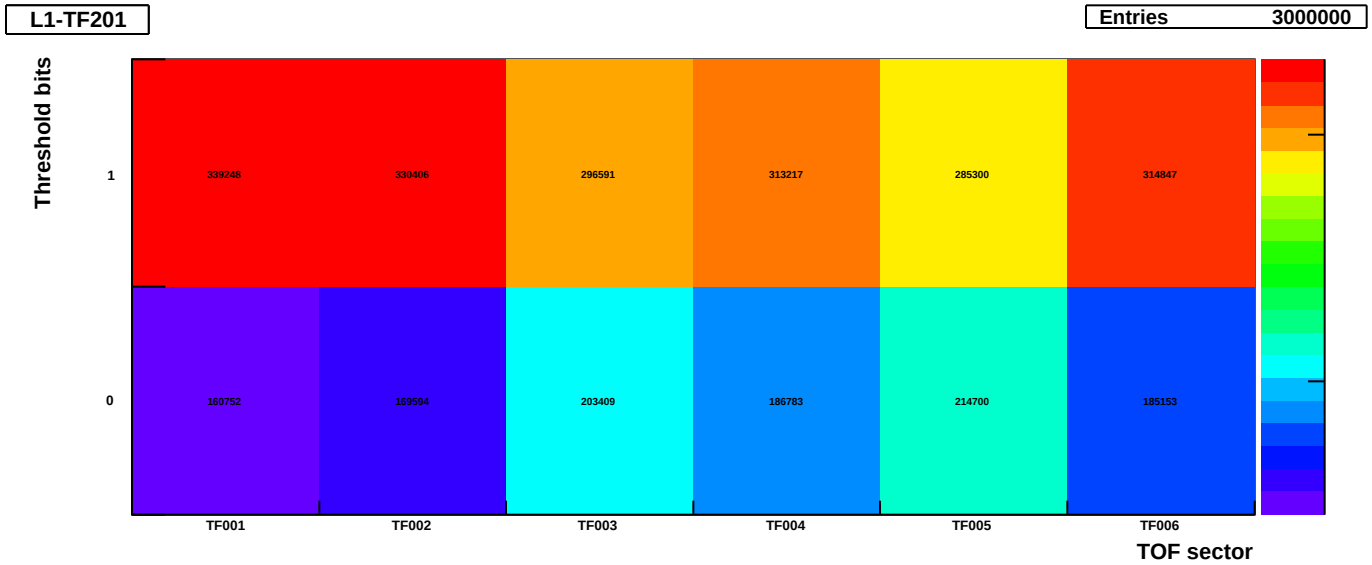

MIX-TF004
Entries 2.1e+07
TOF MULT
TOF tray

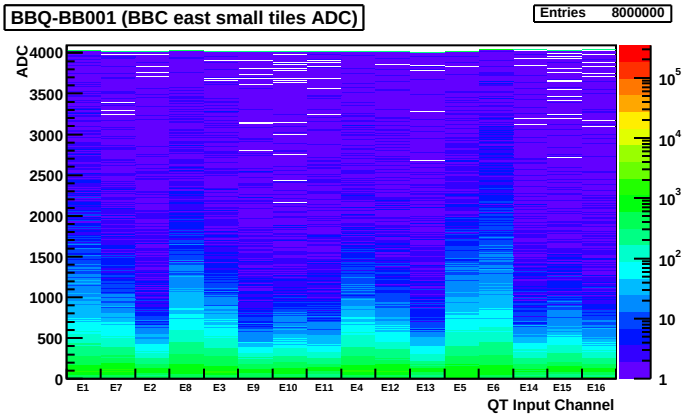

MIX-TF005
Entries 2.1e+07
TOF MULT
TOF tray

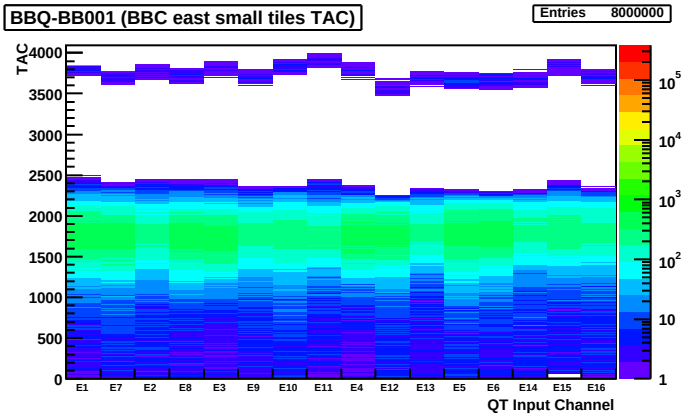

MIX-TF006
Entries 2.1e+07
TOF MULT
TOF tray

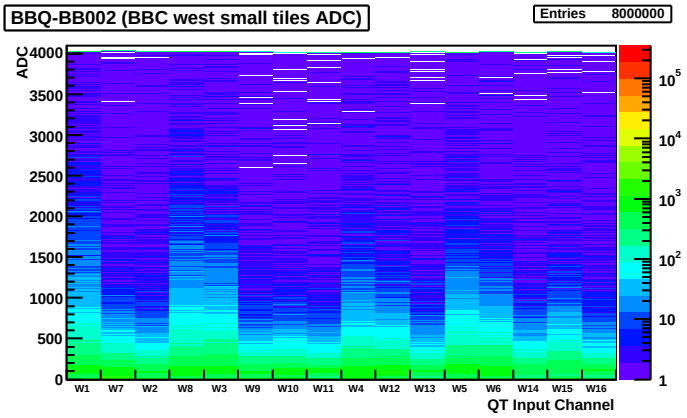

MIX-TF101
Entries 3000000
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

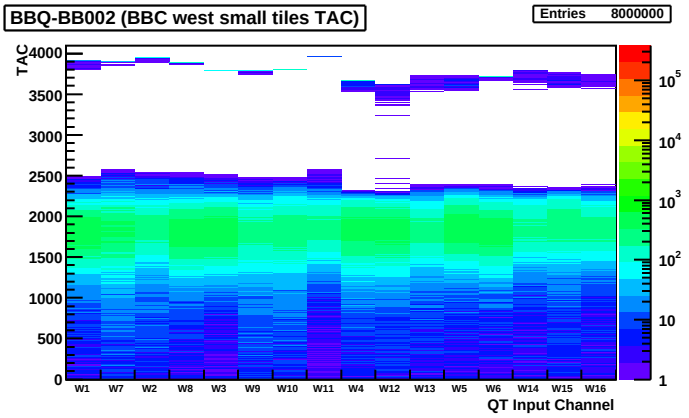

L1-TF201
Entries 500000
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

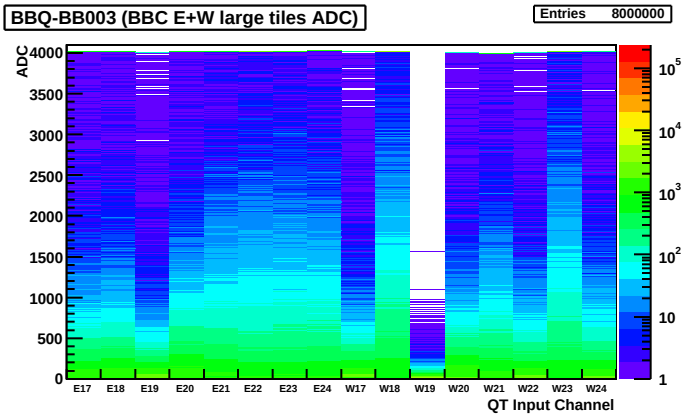

L1-TF201
Entries 3000000
Threshold bits
1
0
339248
330406
296591
313217
285300
314847
160752
169594
203409
186783
214700
185153
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

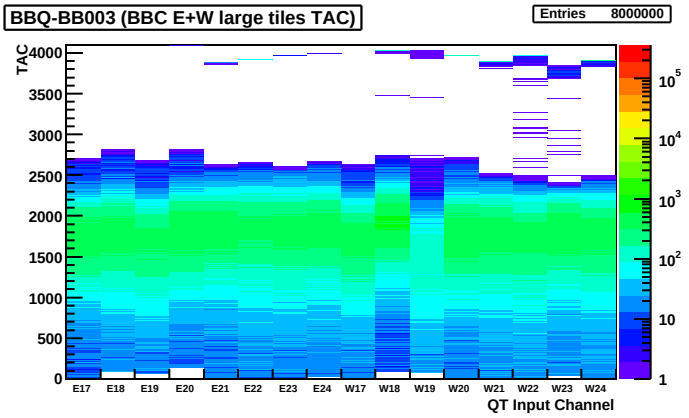

BBQ-BB001 (BBC east small tiles ADC)
Entries 8000000
ADC
QT Input Channel

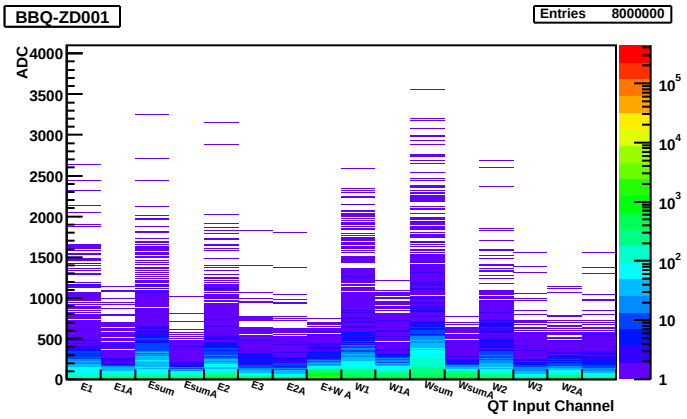

BBQ-BB001 (BBC east small tiles TAC)
Entries 8000000
TAC
QT Input Channel

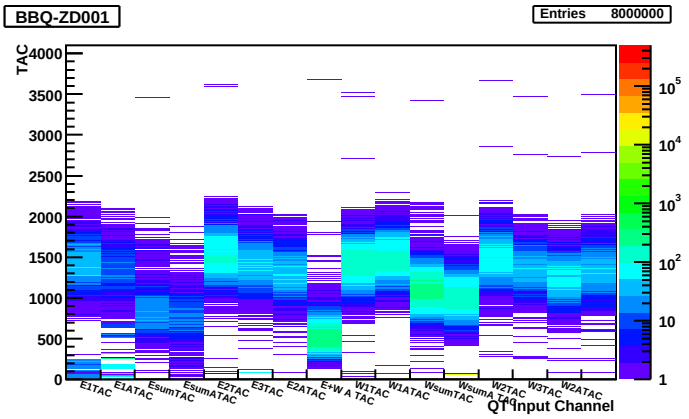

BBQ-BB002 (BBC west small tiles ADC)
Entries 8000000
ADC
QT Input Channel

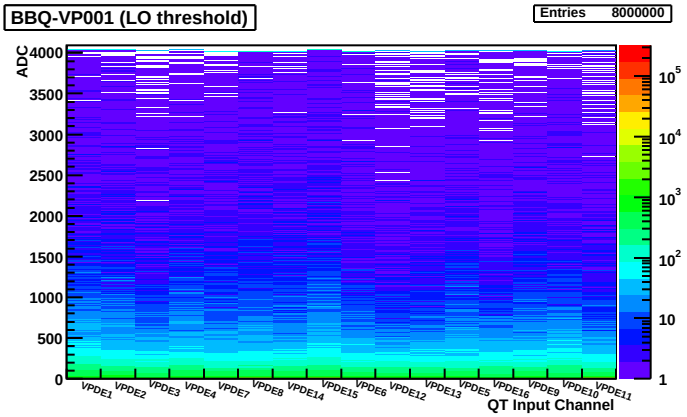

BBQ-BB002 (BBC west small tiles TAC)
Entries 8000000
TAC
QT Input Channel

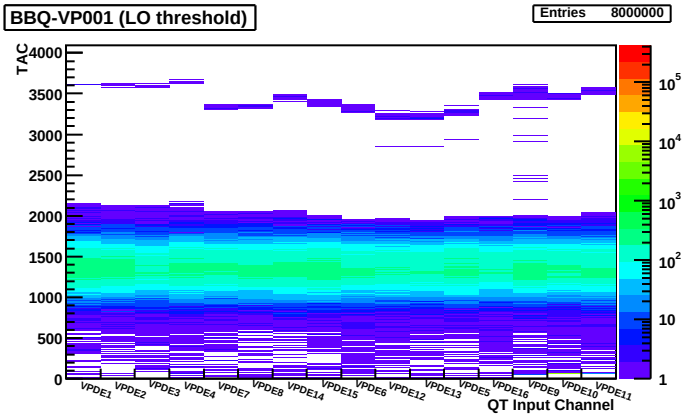

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 8000000
ADC
QT Input Channel

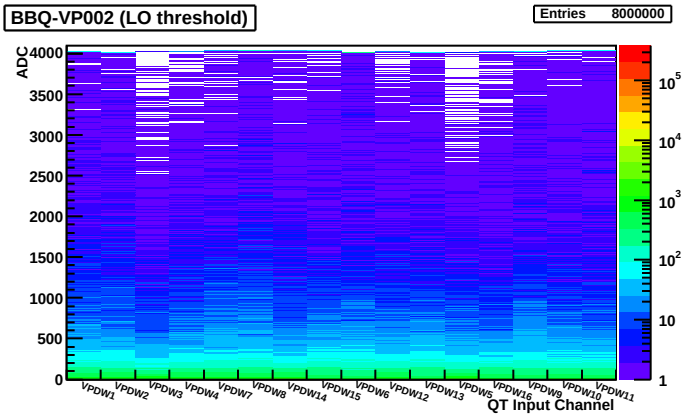

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 8000000
TAC
QT Input Channel

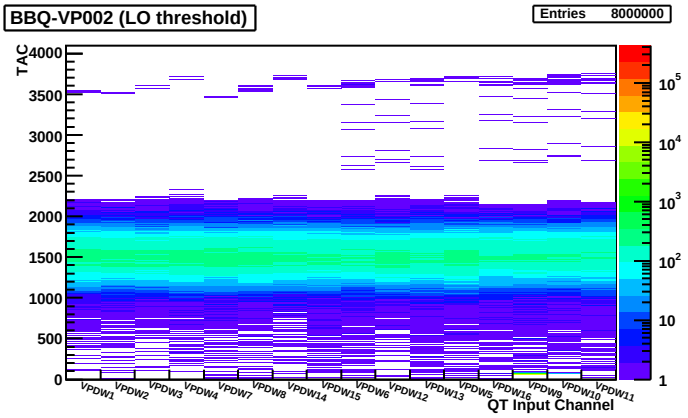

BBQ-ZD001
Entries 8000000
ADC
QT Input Channel

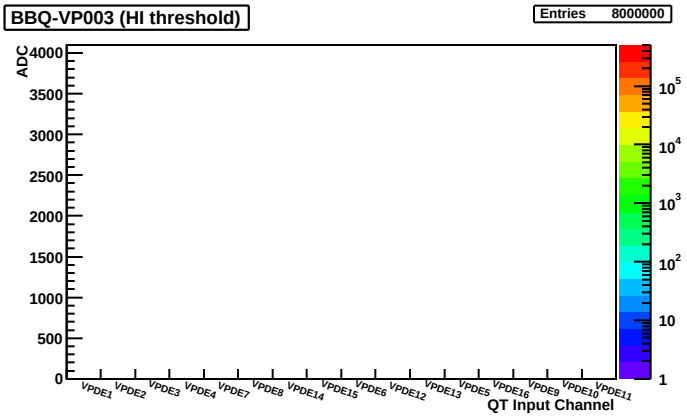

BBQ-ZD001
Entries 8000000
TAC
QT Input Channel

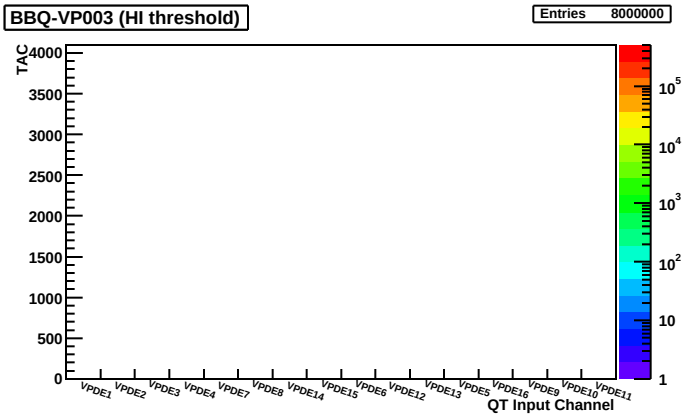

BBQ-VP001 (LO threshold)
Entries 8000000
ADC
QT Input Channel

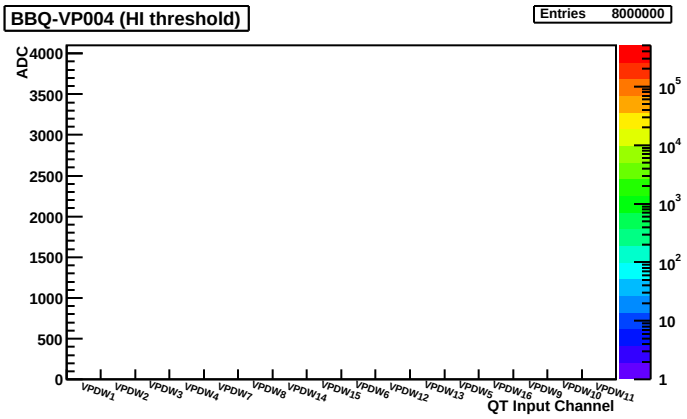

BBQ-VP001 (LO threshold)
Entries 8000000
TAC
QT Input Channel

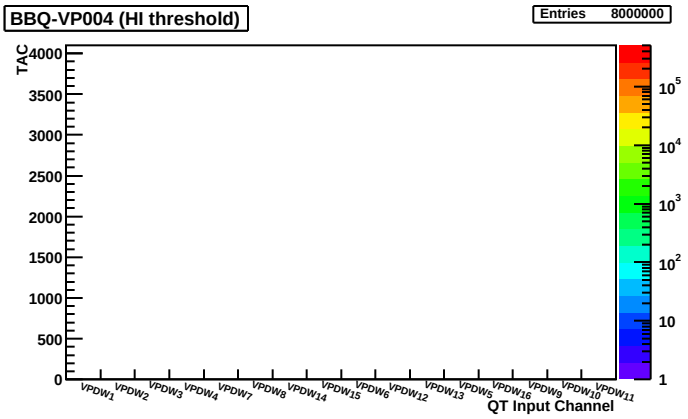

BBQ-VP002 (LO threshold)
Entries 8000000
ADC
QT Input Channel

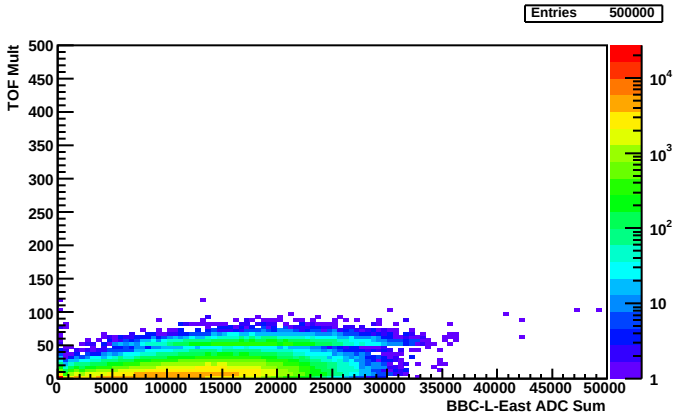

BBQ-VP002 (LO threshold)
Entries 8000000
TAC
QT Input Channel

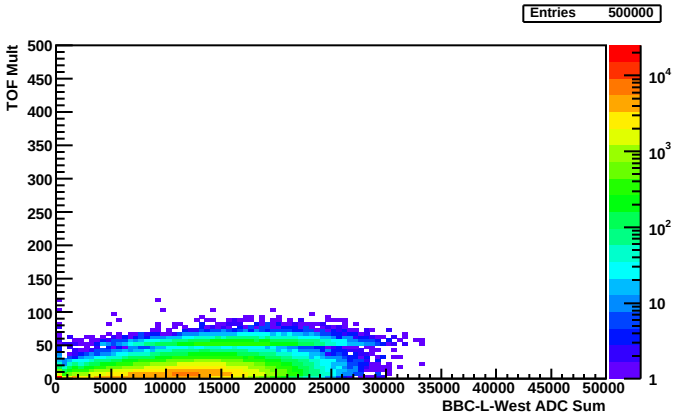

BBQ-VP003 (HI threshold)
Entries 8000000
ADC
QT Input Channel

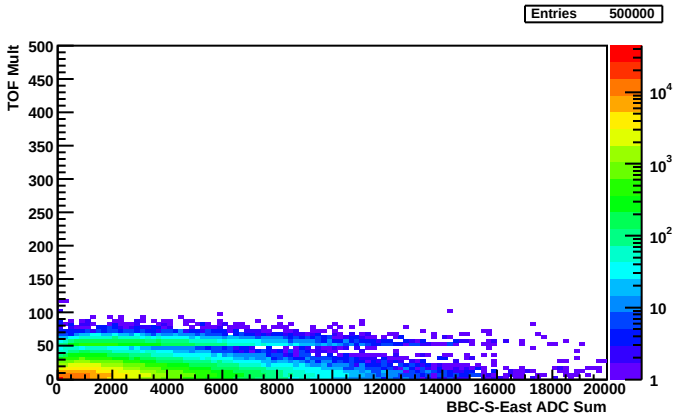

BBQ-VP003 (HI threshold)
Entries 8000000
TAC
QT Input Channel

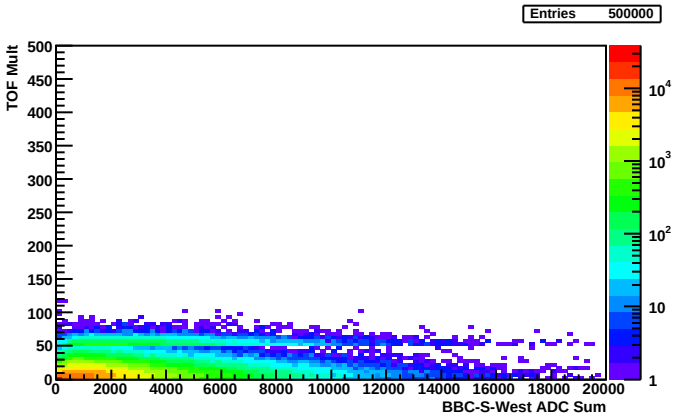

BBQ-VP004 (HI threshold)
Entries 8000000
ADC
QT Input Channel

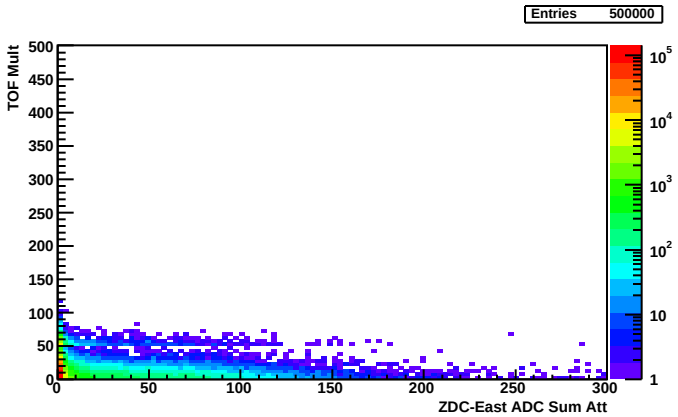

BBQ-VP004 (HI threshold)
Entries 8000000
TAC
QT Input Channel

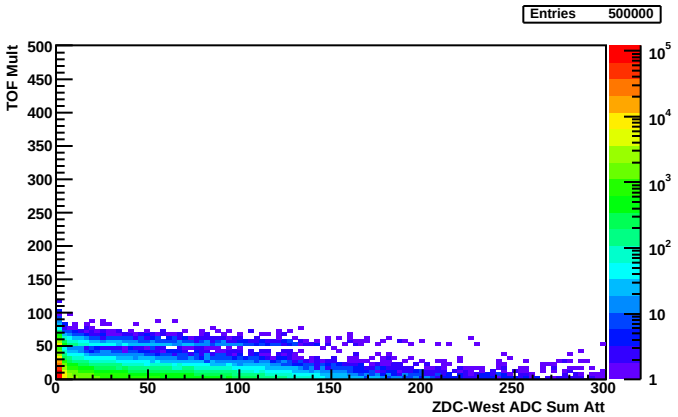

Entries 500000
TOF Mult
BBC-L-East ADC Sum

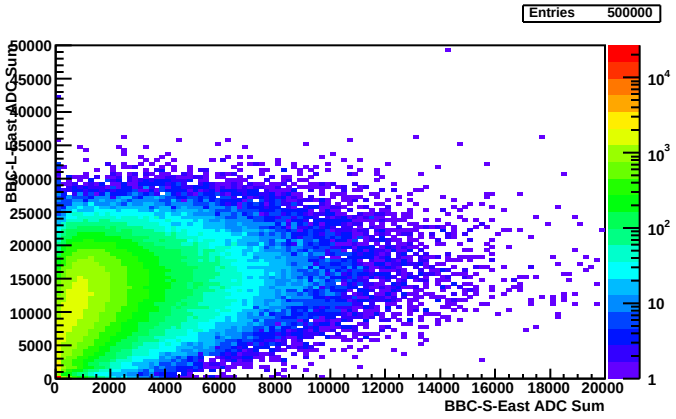

Entries 500000
TOF Mult
BBC-L-West ADC Sum

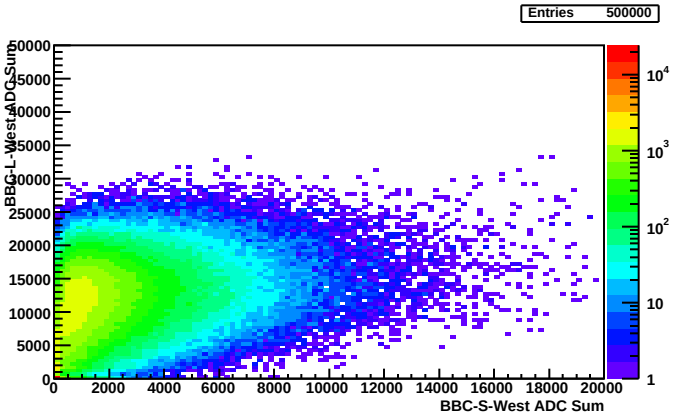

Entries 500000
TOF Mult
BBC-S-East ADC Sum

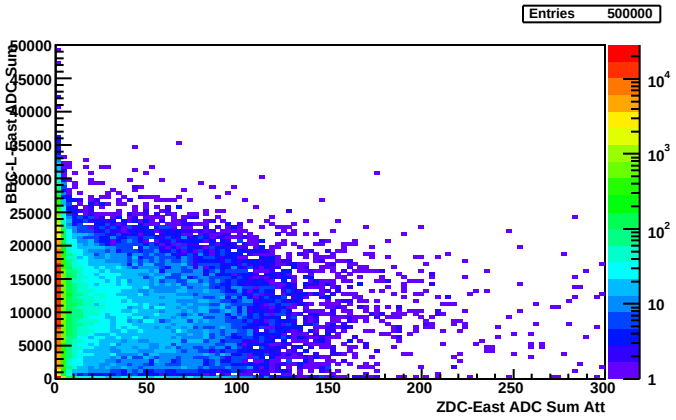

Entries 500000
TOF Mult
BBC-S-West ADC Sum

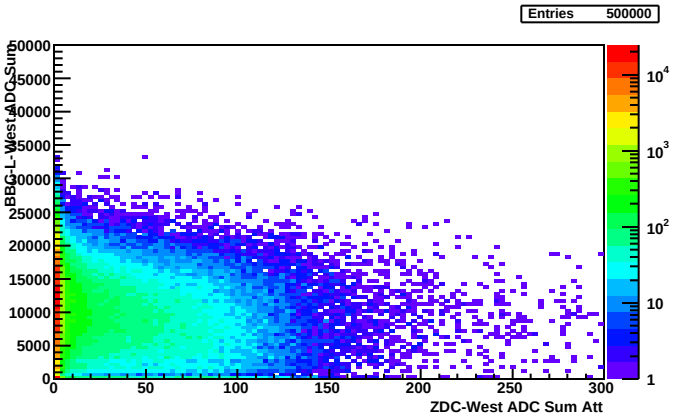

Entries 500000
TOF Mult
ZDC-East ADC Sum Att

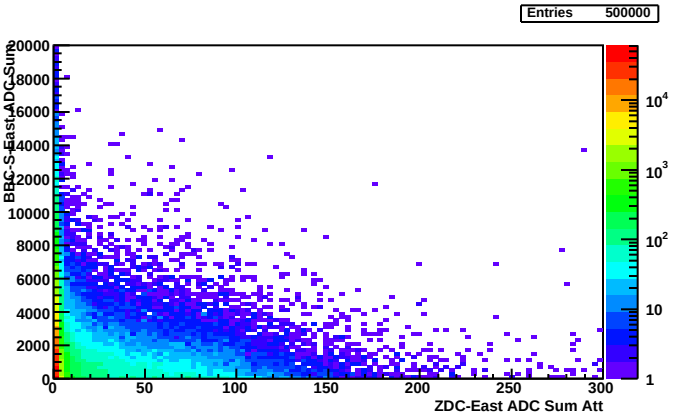

Entries 500000
TOF Mult
ZDC-West ADC Sum Att

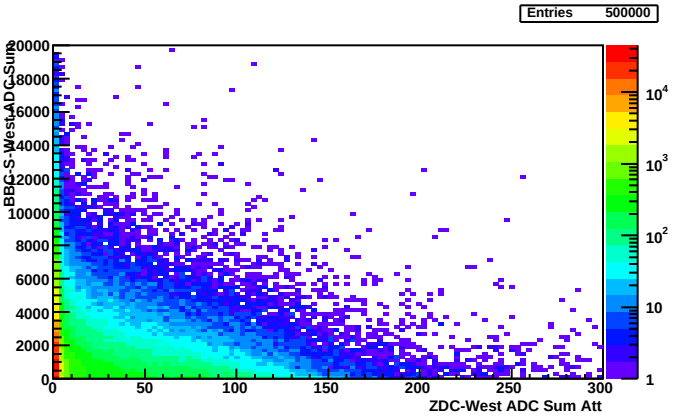

Entries 500000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

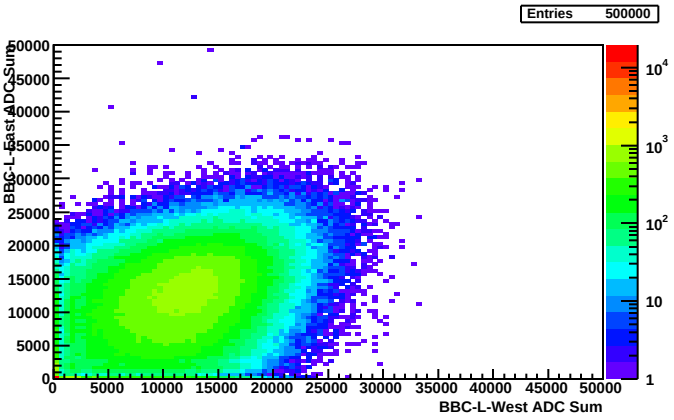

Entries 500000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

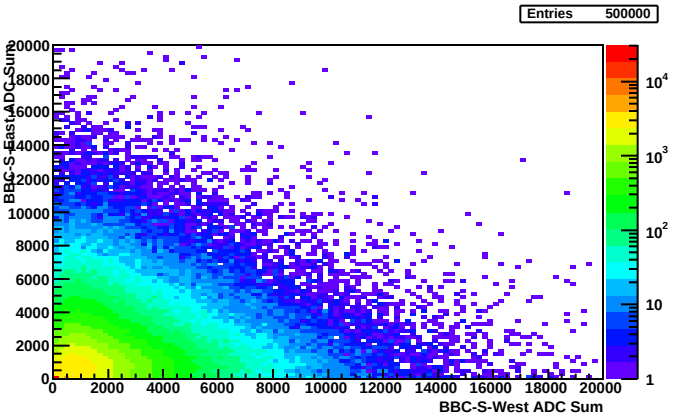

Entries 500000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

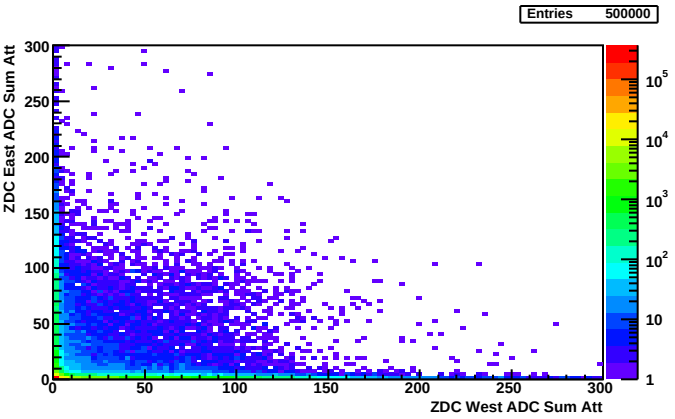

Entries 500000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

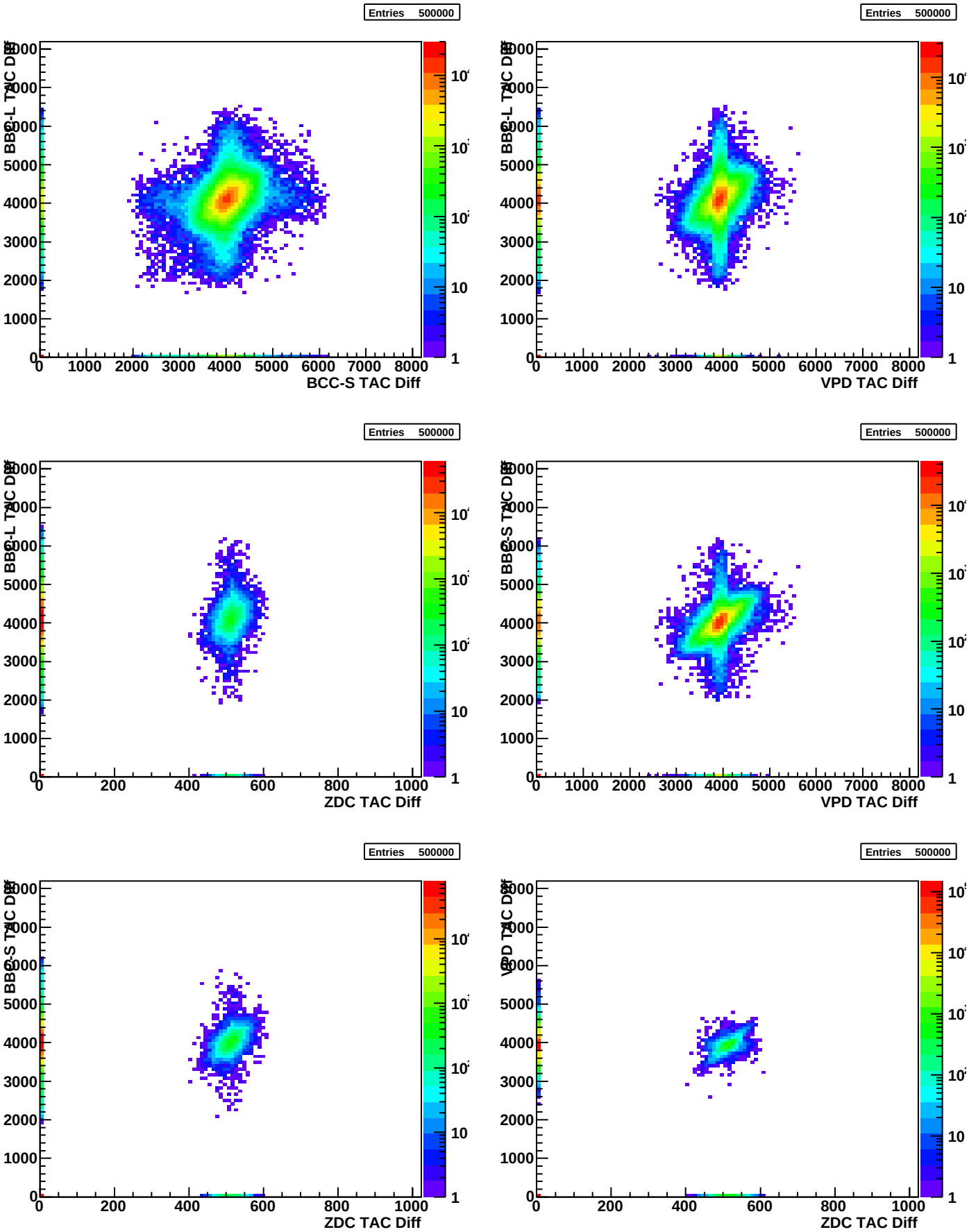

Entries 500000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

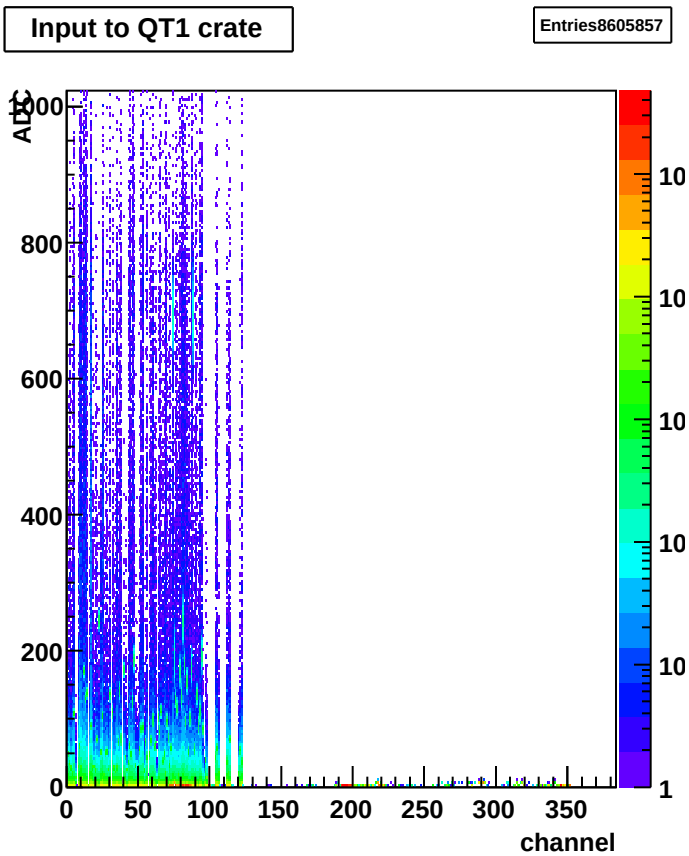

Entries 500000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

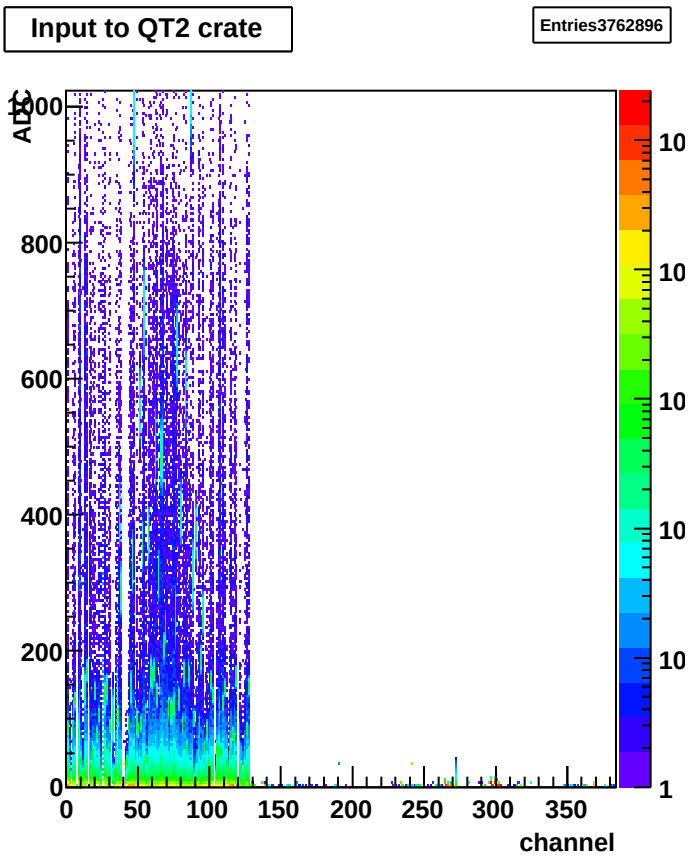

Entries 500000
BBC-L-East ADC Sum
BBC-L-West ADC Sum

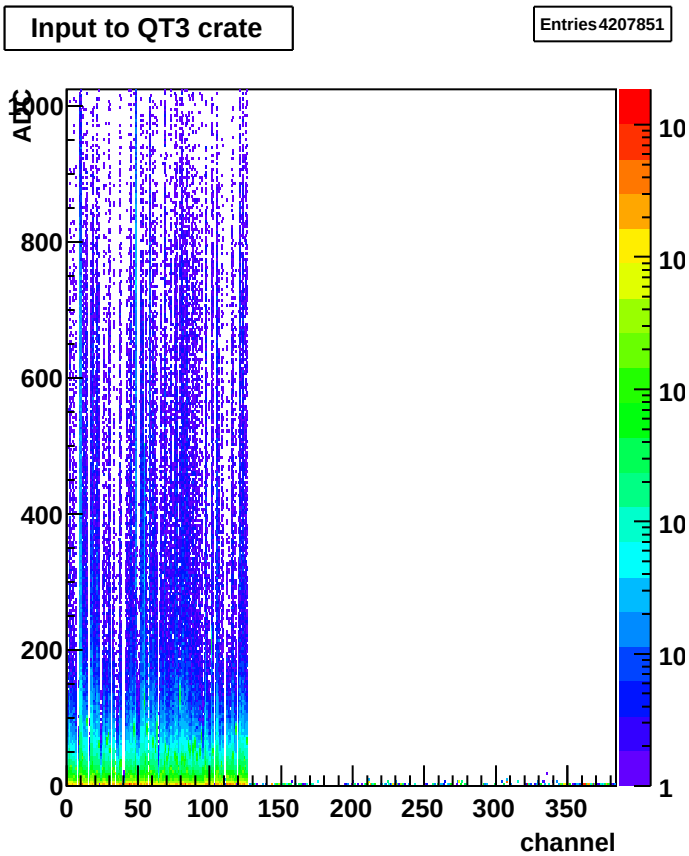

Entries 500000
BBC-S-East ADC Sum
BBC-S-West ADC Sum

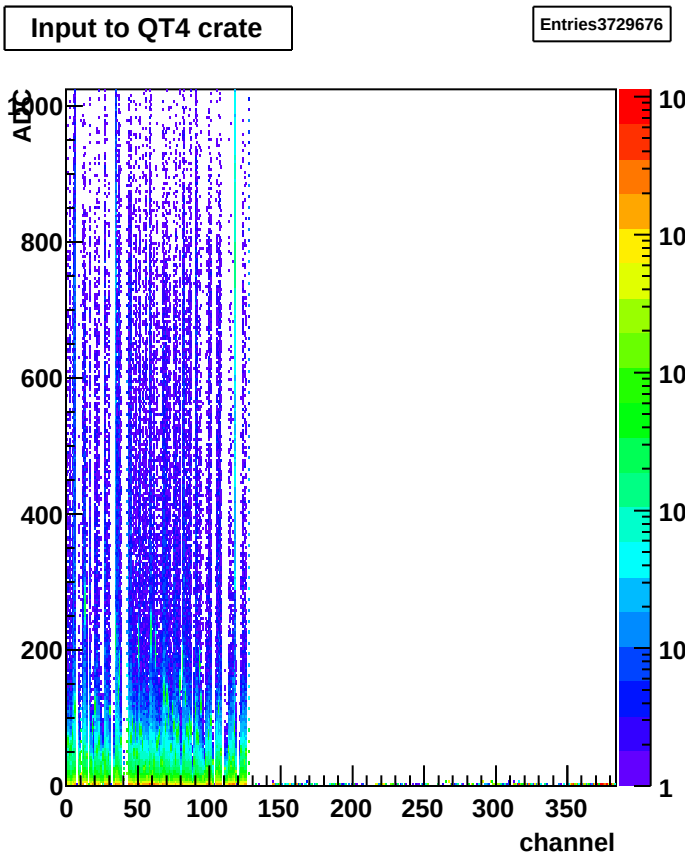

Entries 500000
ZDC East ADC Sum Att
ZDC West ADC Sum Att

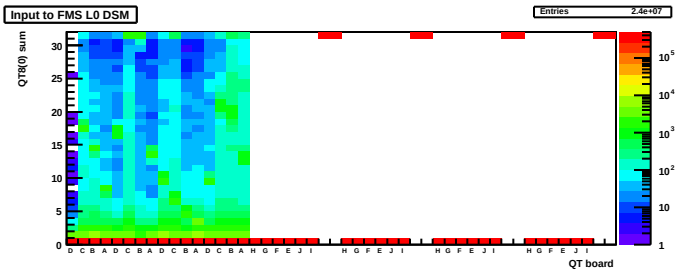

Entries 500000
BBC-L TAC Diff
BCC-S TAC Diff
Entries 500000
BBC-L TAC Diff
VPD TAC Diff
Entries 500000
BBC-L TAC Diff
ZDC TAC Diff
Entries 500000
BBC-S TAC Diff
VPD TAC Diff
Entries 500000
BBC-S TAC Diff
ZDC TAC Diff
Entries 500000
VPD TAC Diff
ZDC TAC Diff

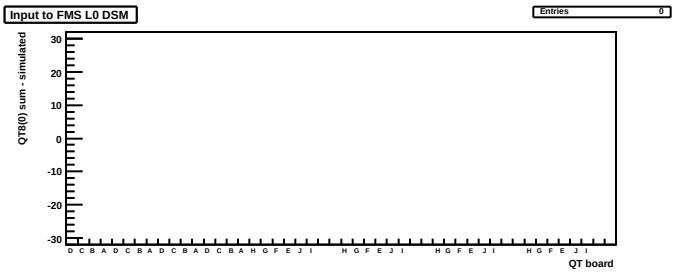

Input to QT1 crate
Entries8605857
ADC
channel

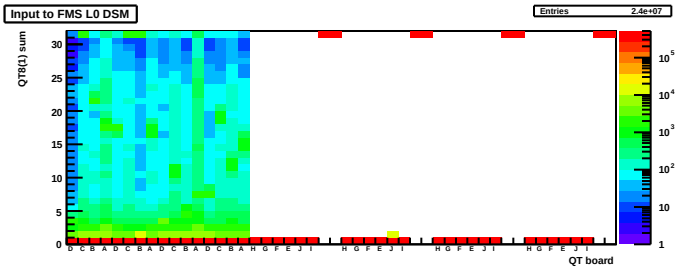

Input to QT2 crate
Entries3762896
ADC
channel

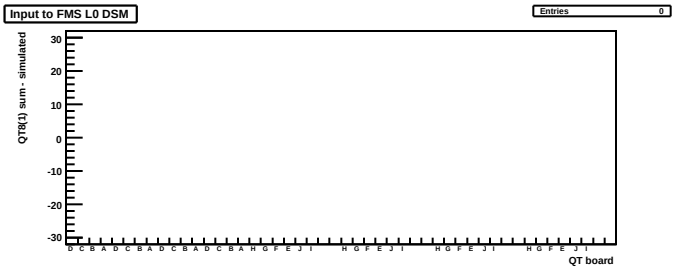

Input to QT3 crate
Entries4207851
ADC
channel

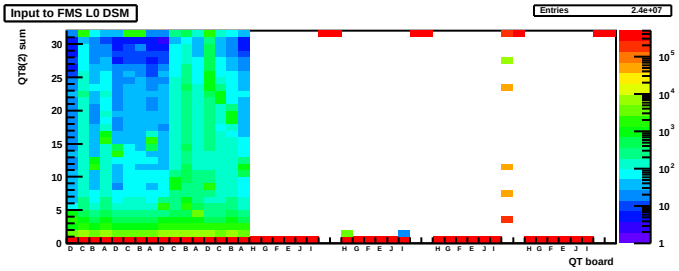

Input to QT4 crate
Entries3729676
ADC
channel

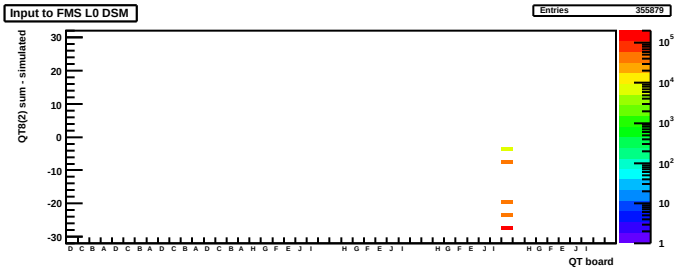

Input to FMS L0 DSM
Entries 2.4e+07
QT8(0) sum
QT board

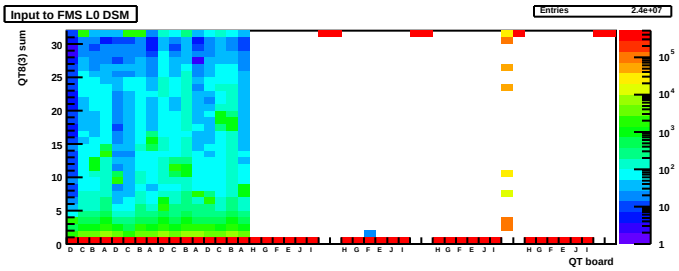

Input to FMS L0 DSM
Entries 0
QT8(0) sum - simulated
QT board

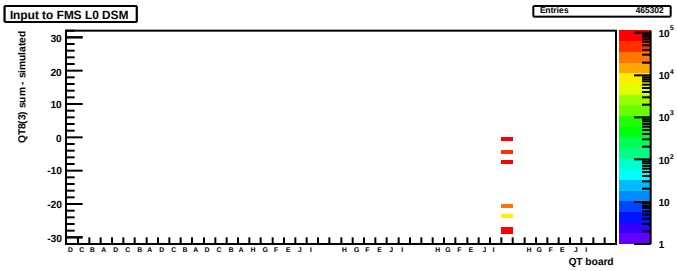

Input to FMS L0 DSM
Entries 2.4e+07
QT8(1) sum
QT board

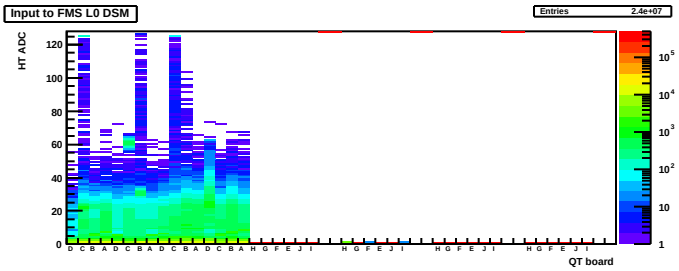

Input to FMS L0 DSM
Entries 0
QT8(1) sum - simulated
QT board

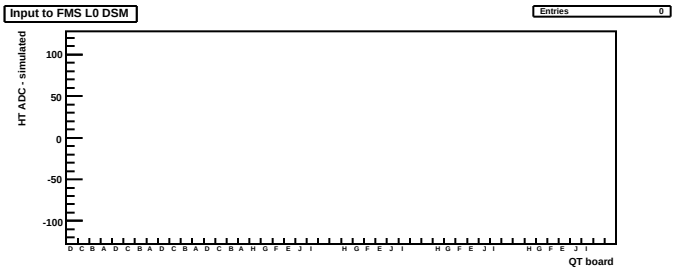

Input to FMS L0 DSM
Entries 2.4e+07
QT8(2) sum
QT board

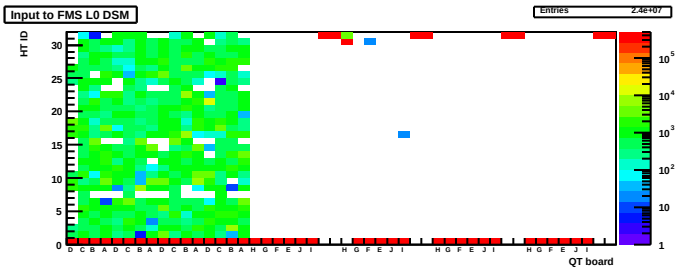

Input to FMS L0 DSM
Entries 355879
QT8(2) sum - simulated
QT board

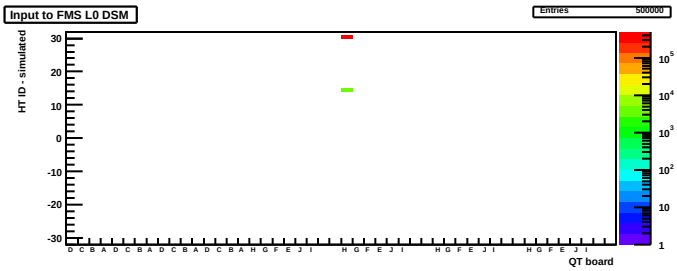

Input to FMS L0 DSM
Entries 2.4e+07
QT8(3) sum
QT board

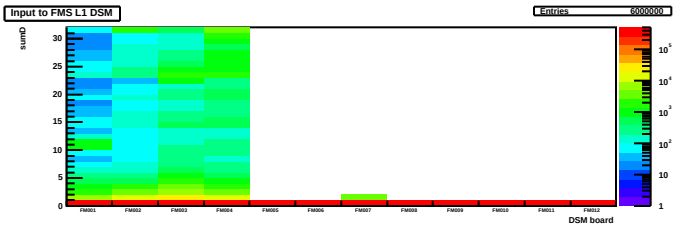

Input to FMS L0 DSM
Entries 465302
QT8(3) sum - simulated
QT board

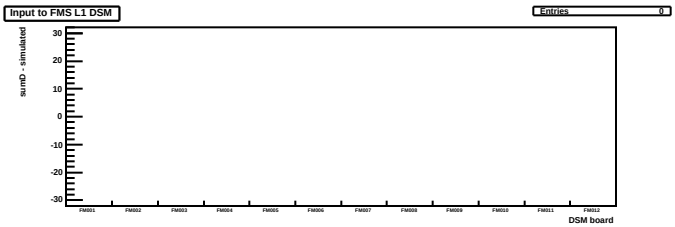

Input to FMS L0 DSM
Entries 2.4e+07
HT ADC
QT board

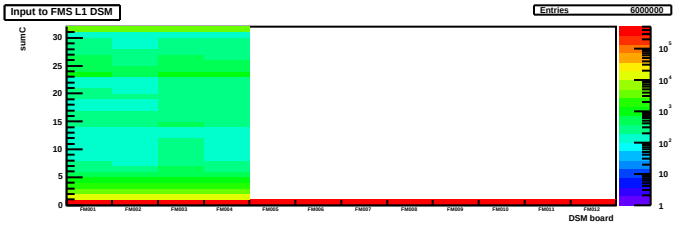

Input to FMS L0 DSM
Entries 0
HT ADC - simulated
QT board

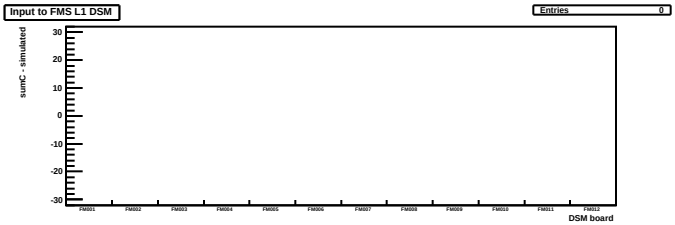

Input to FMS L0 DSM
Entries 2.4e+07
HT ID
QT board

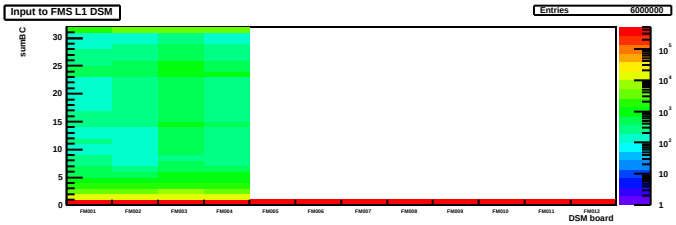

Input to FMS L0 DSM
Entries 500000
HT ID - simulated
QT board

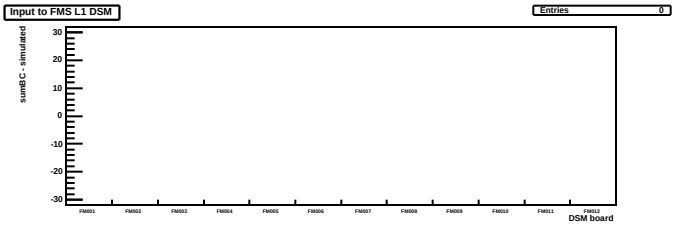

Input to FMS L1 DSM
Entries 6000000
sumD
DSM board

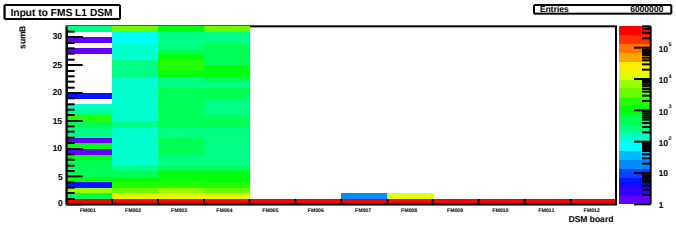

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

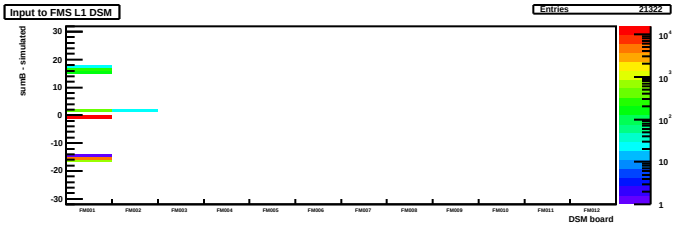

Input to FMS L1 DSM
Entries 6000000
sumC
DSM board

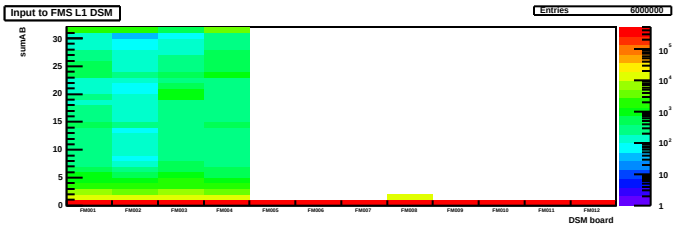

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

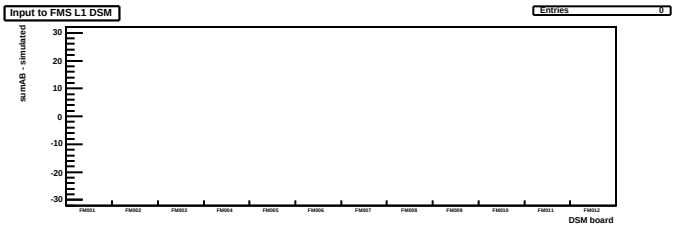

Input to FMS L1 DSM
Entries 6000000
sumBC
DSM board

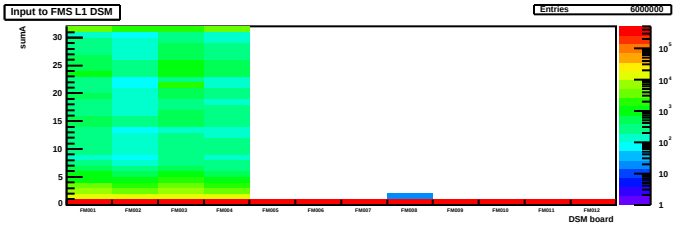

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

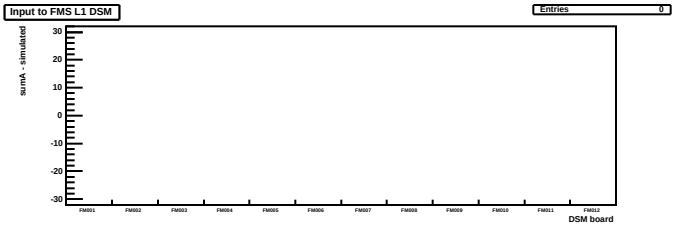

Input to FMS L1 DSM
Entries 6000000
sumB
DSM board

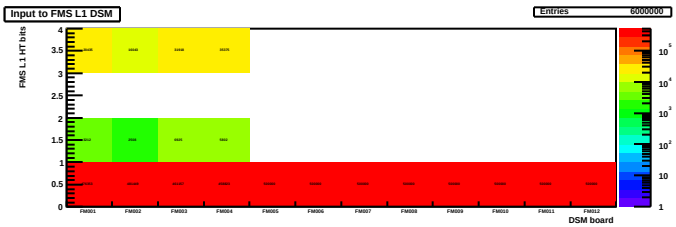

Input to FMS L1 DSM
Entries 21322
sumB - simulated
DSM board

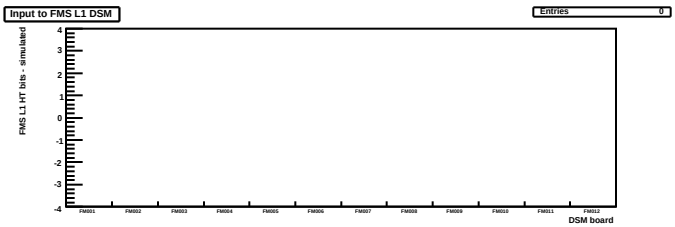

Input to FMS L1 DSM
Entries 6000000
sumAB
DSM board

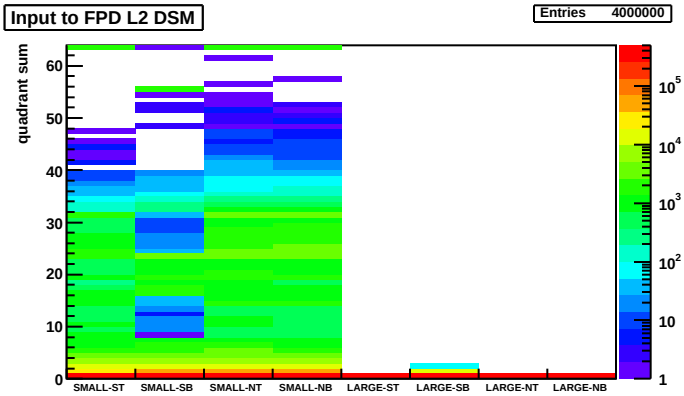

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

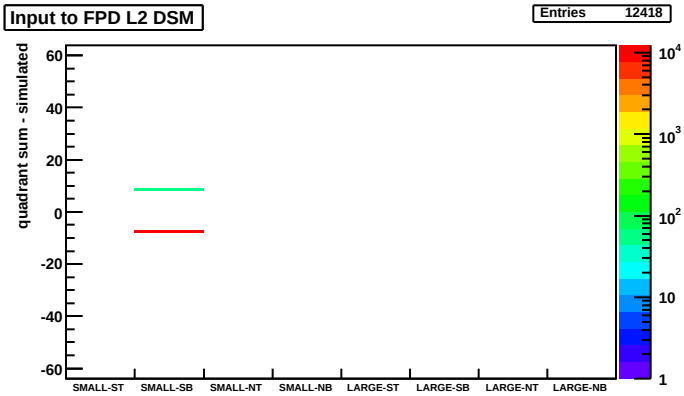

Input to FMS L1 DSM
Entries 6000000
sumA
DSM board

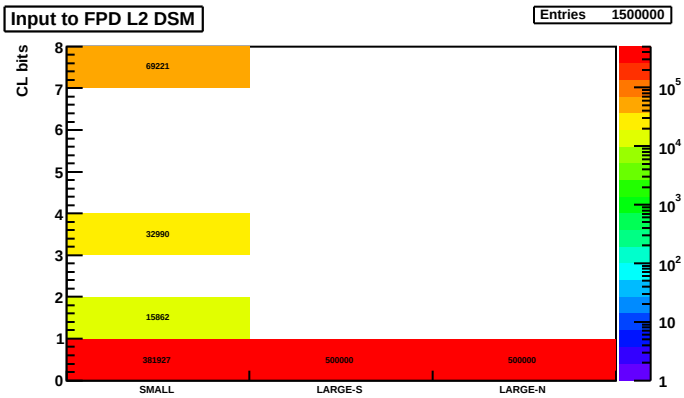

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

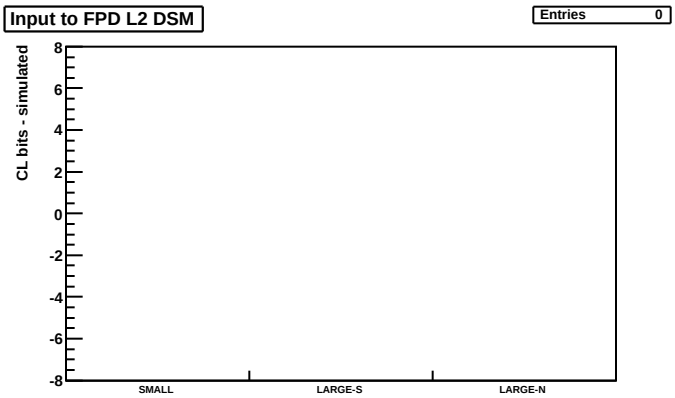

Input to FMS L1 DSM
Entries 6000000
FMS L1 HT bits
DSM board

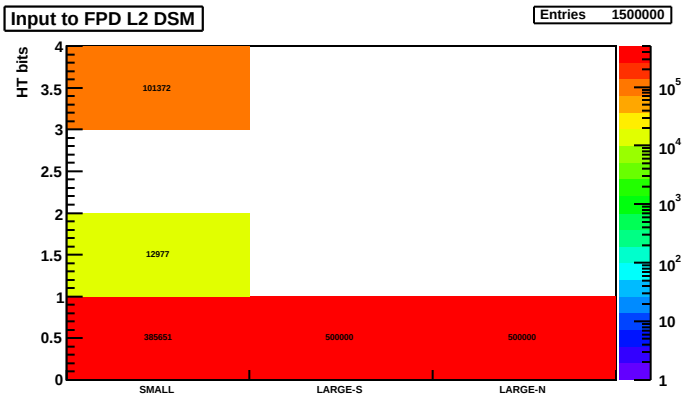

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

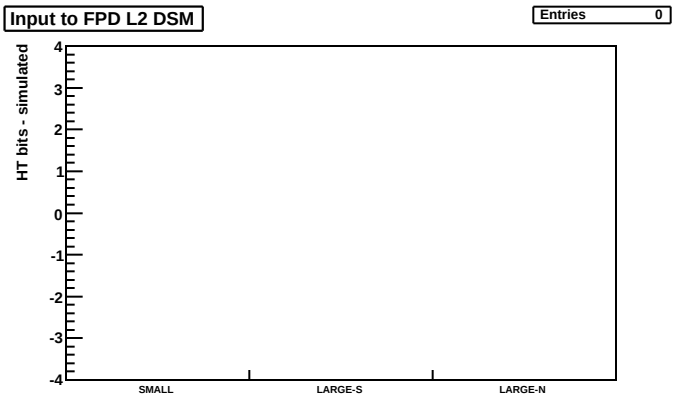

Input to FPD L2 DSM
Entries 4000000
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

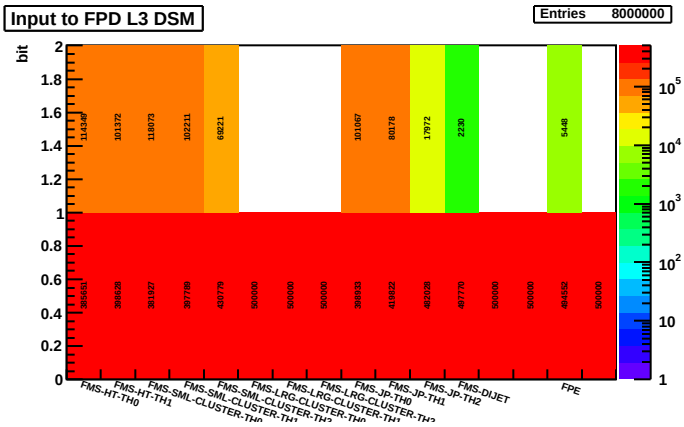

Input to FPD L2 DSM
Entries 12418
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

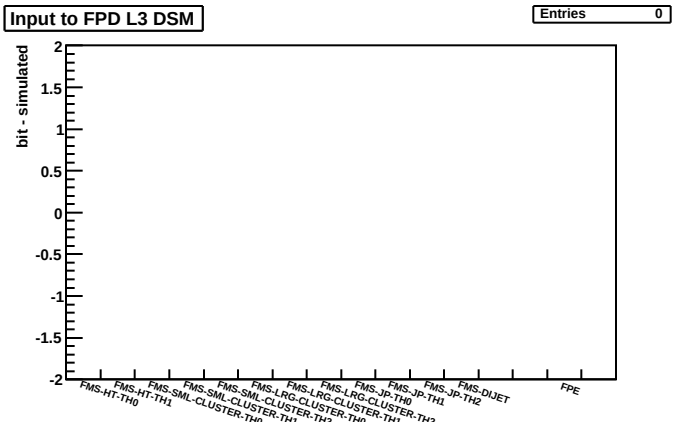

Input to FPD L2 DSM
Entries 1500000
CL bits
69221
32990
15862
381927
500000
500000
SMALL
LARGE-S
LARGE-N

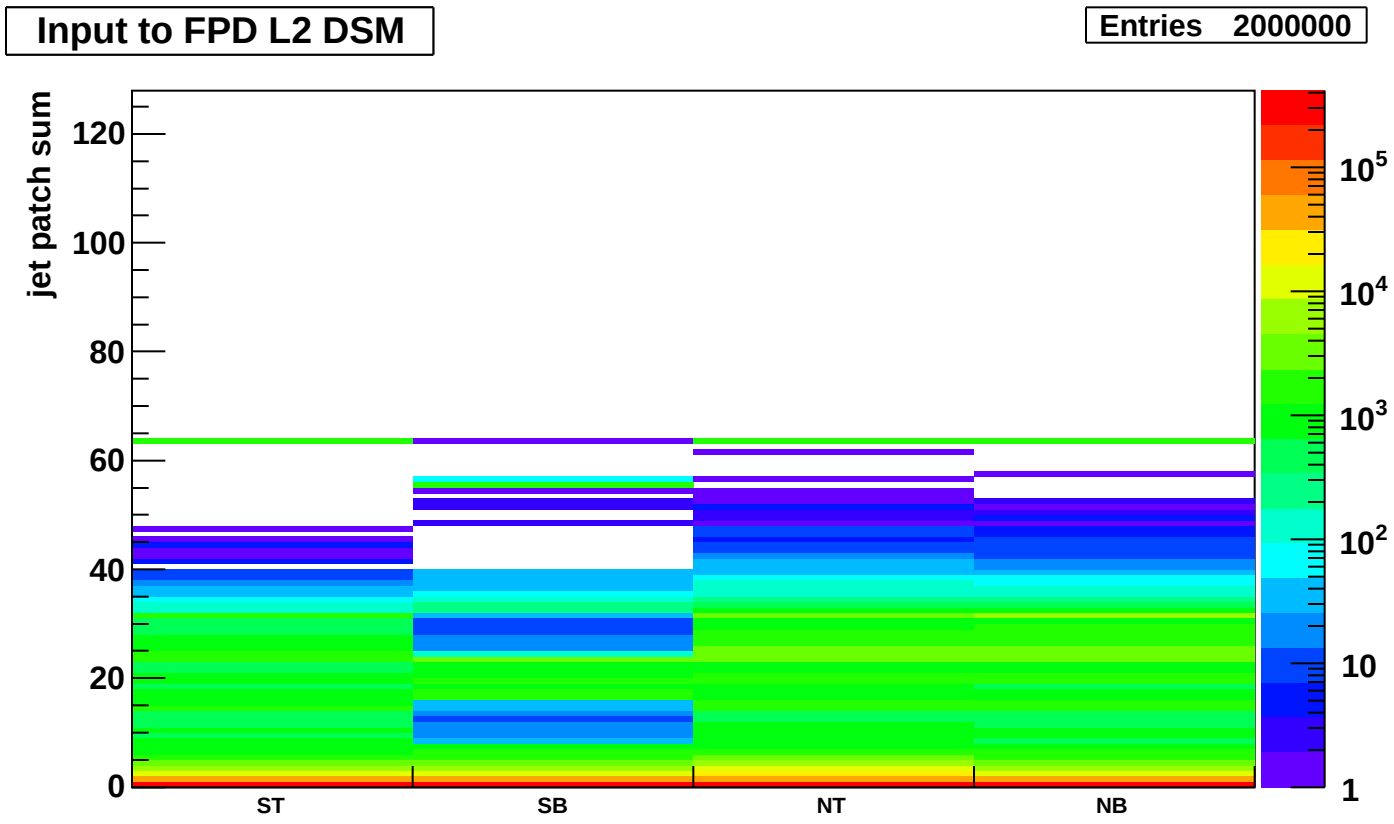

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

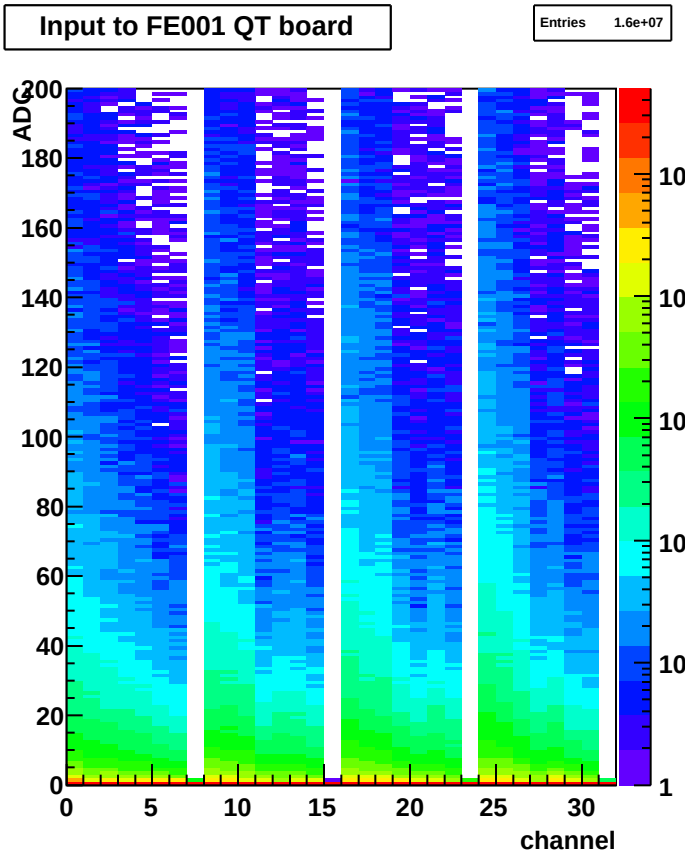

Input to FPD L2 DSM
Entries 1500000
HT bits
101372
12977
385651
500000
500000
SMALL
LARGE-S
LARGE-N

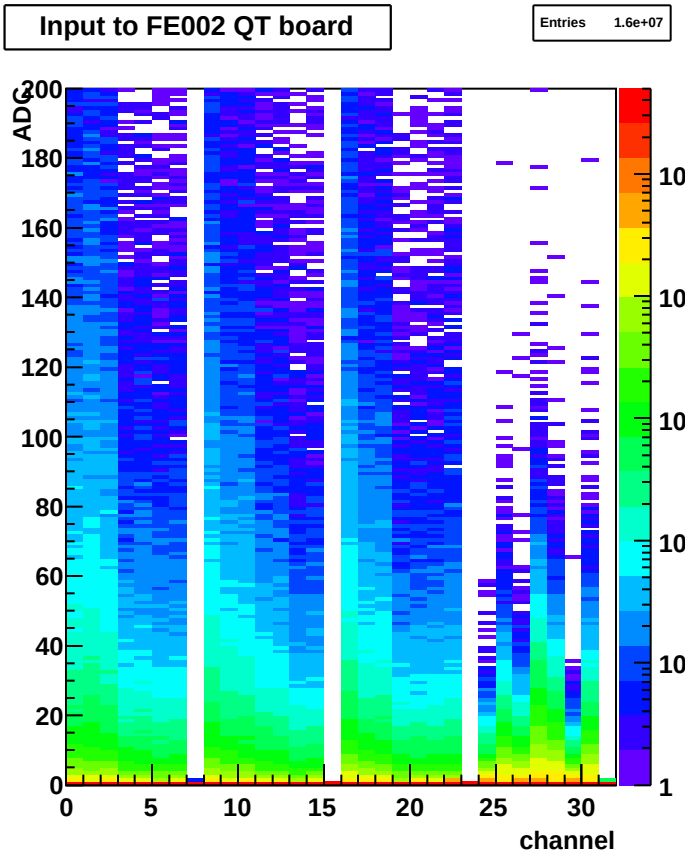

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

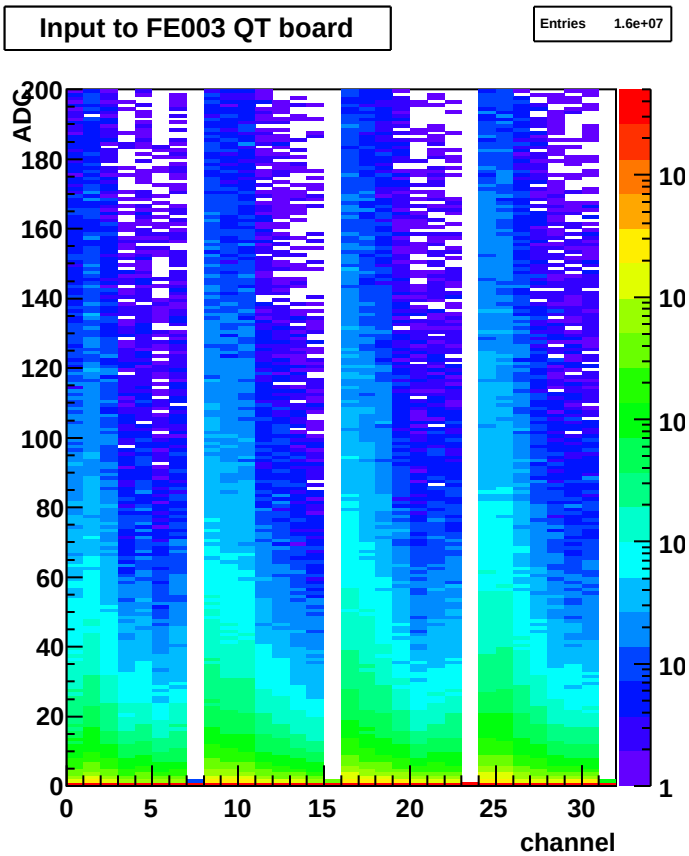

Input to FPD L3 DSM
Entries 8000000
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

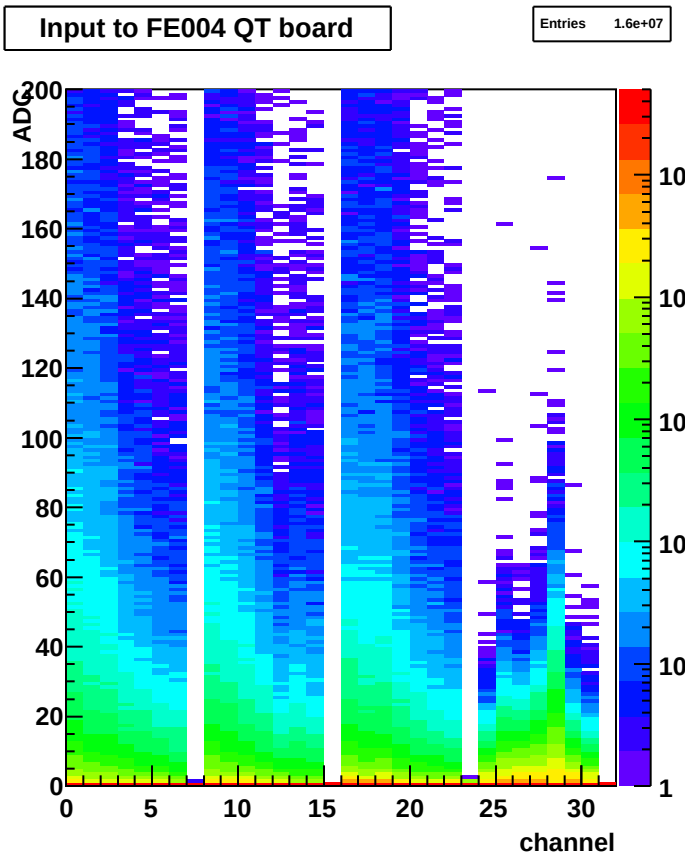

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

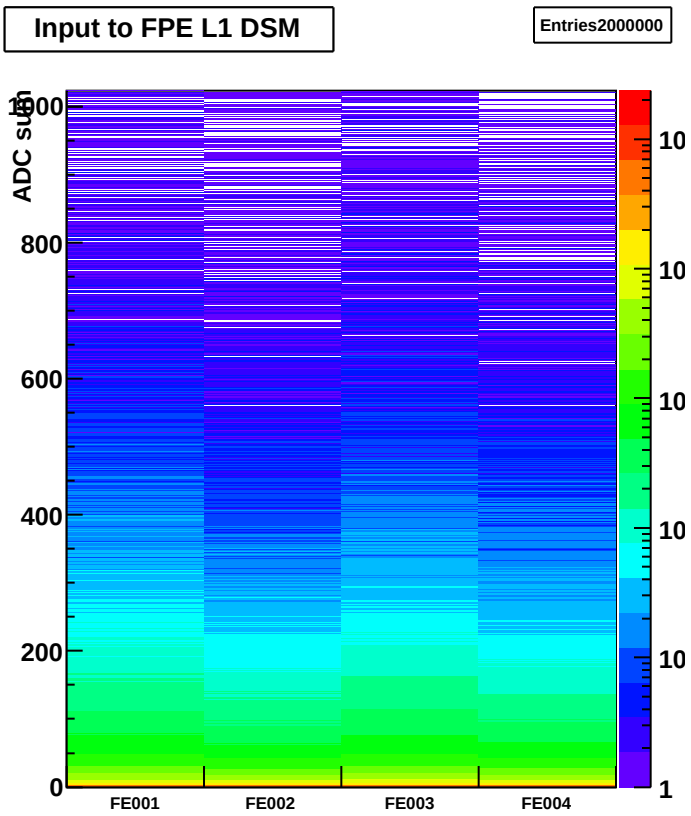

Input to FPD L2 DSM
Entries 2000000
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

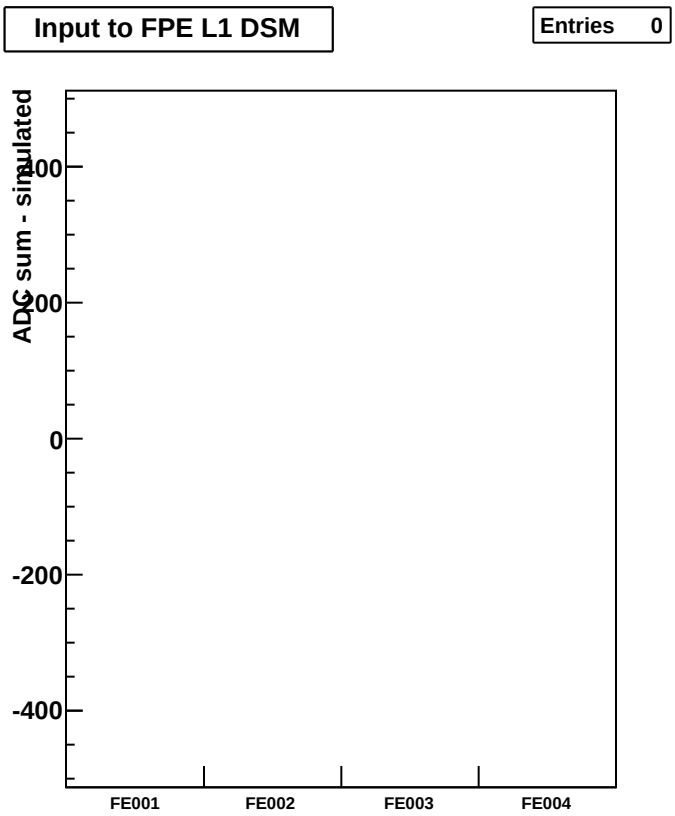

Input to FE001 QT board
Entries 1.6e+07
ADC
channel

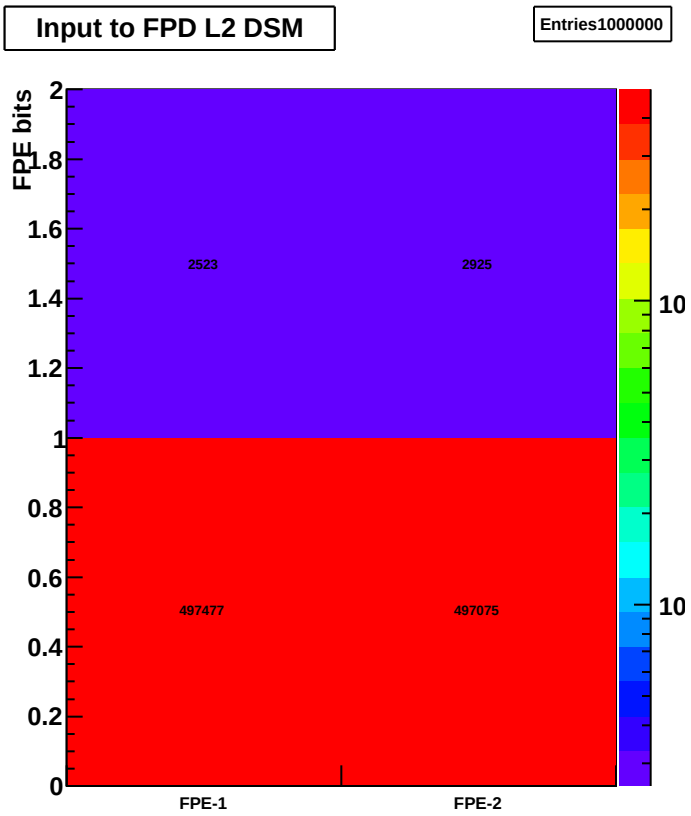

Input to FE002 QT board
Entries 1.6e+07
ADC
channel

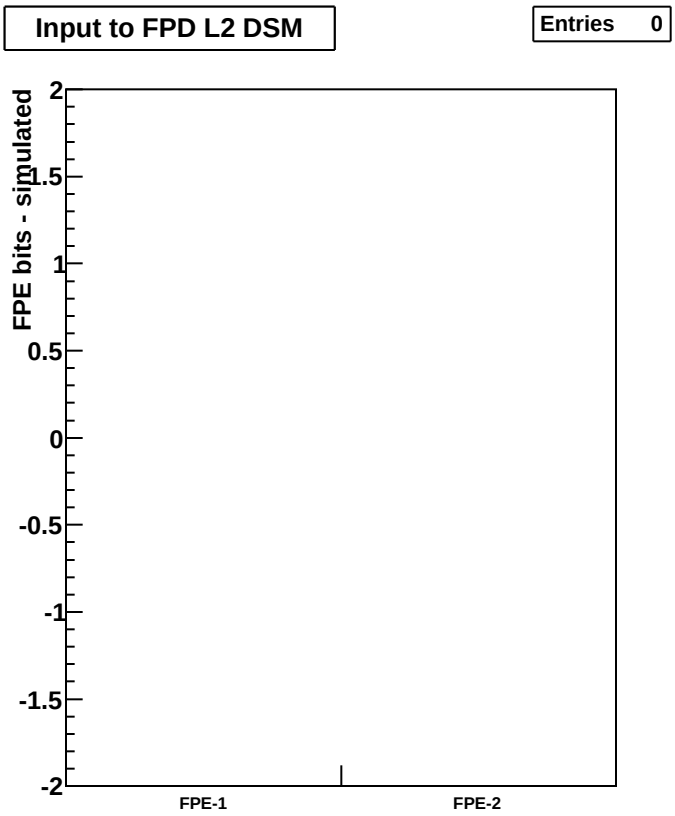

Input to FE003 QT board
Entries 1.6e+07
ADC
channel


Input to FE004 QT board
Entries 1.6e+07
ADC
channel


Input to FPE L1 DSM
Entries2000000
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
Entries1000000
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2523
2925
497477
497075
FPE-1
FPE-2
10
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