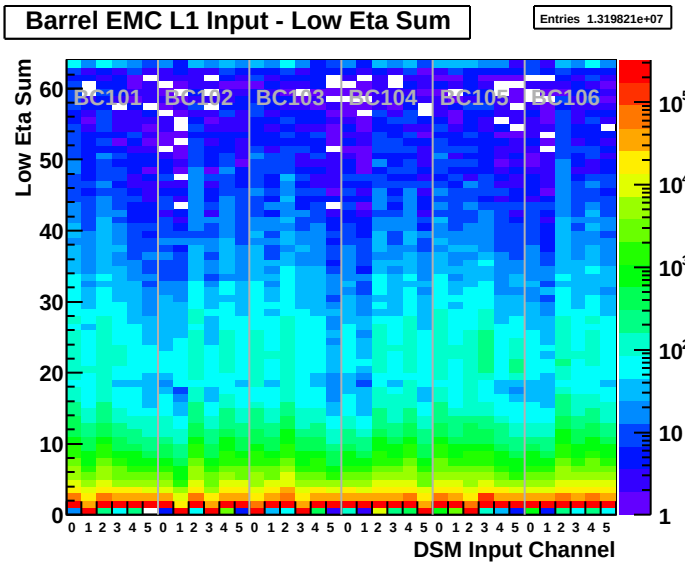
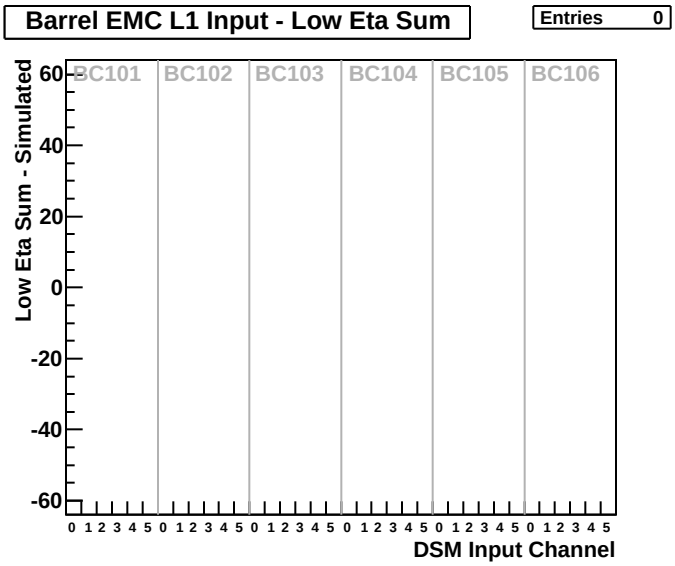
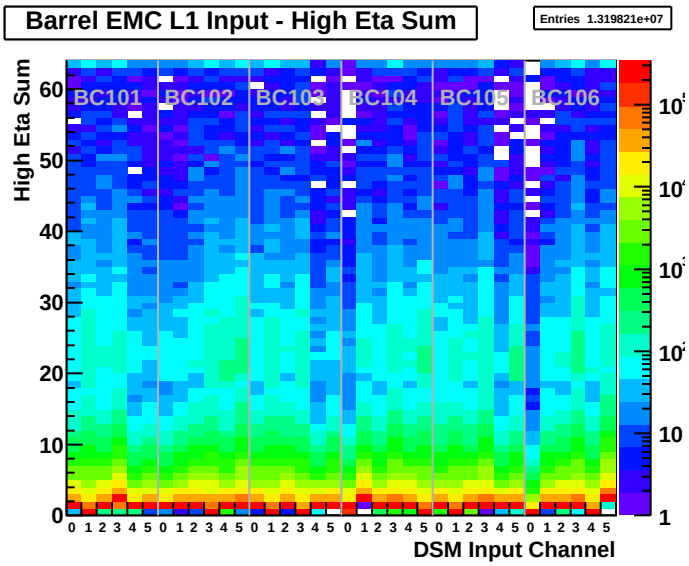
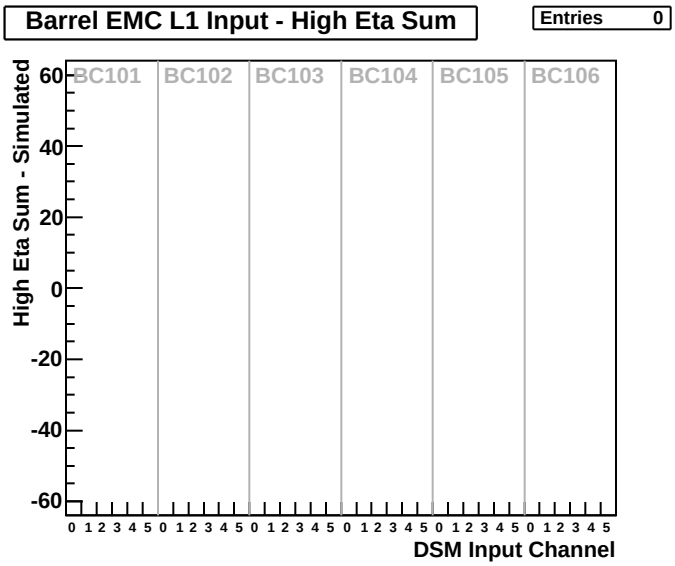
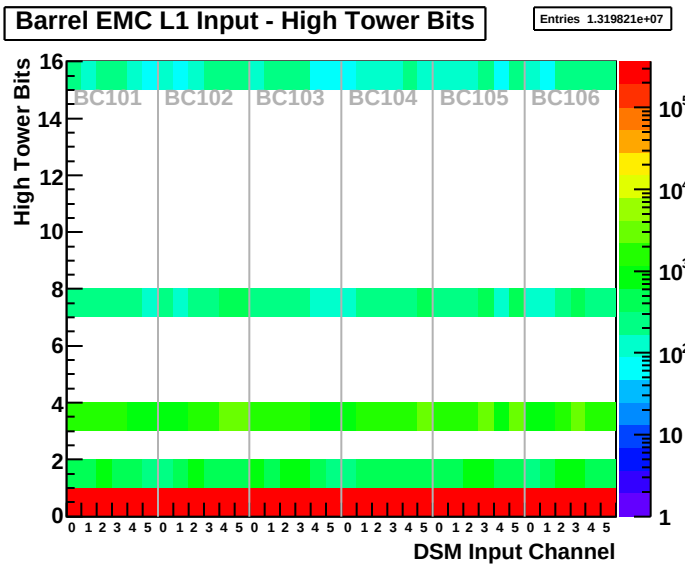
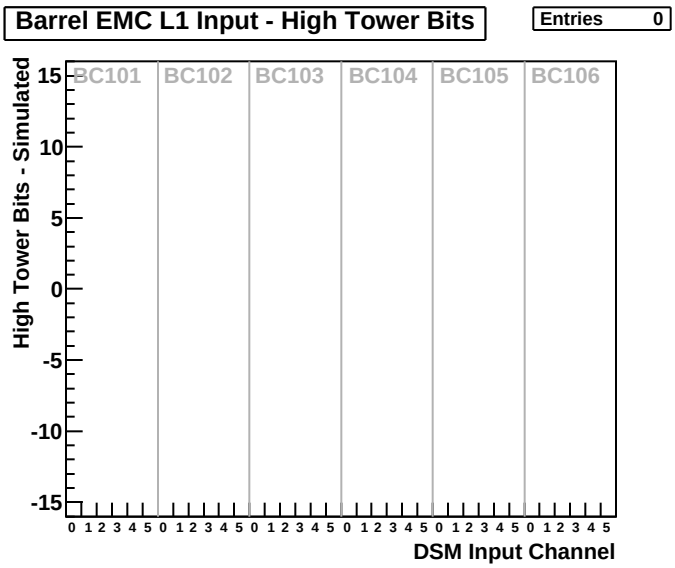

Barrel EMC L1 Input - Low Eta Sum
Entries 1.319821e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

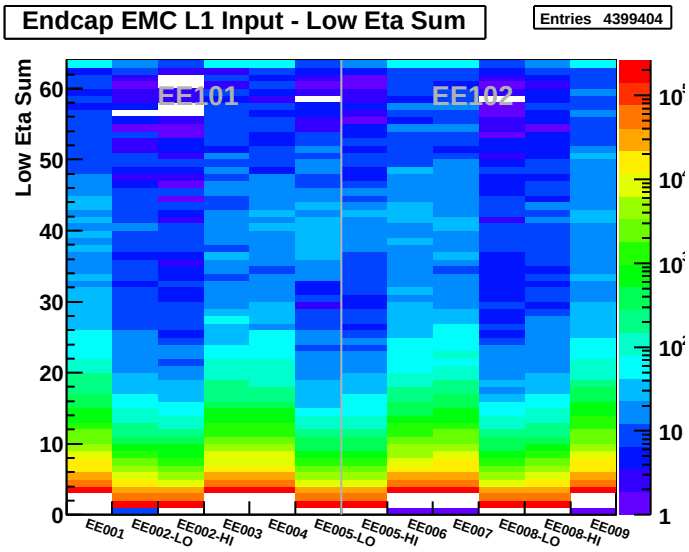

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

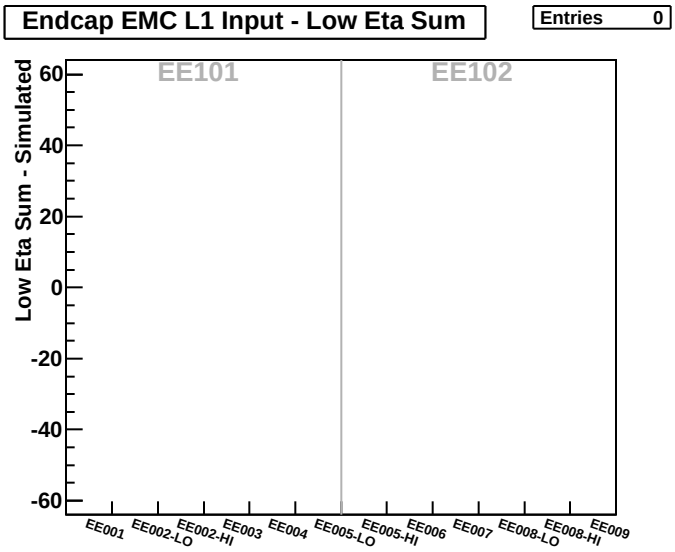

Barrel EMC L1 Input - High Eta Sum
Entries 1.319821e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

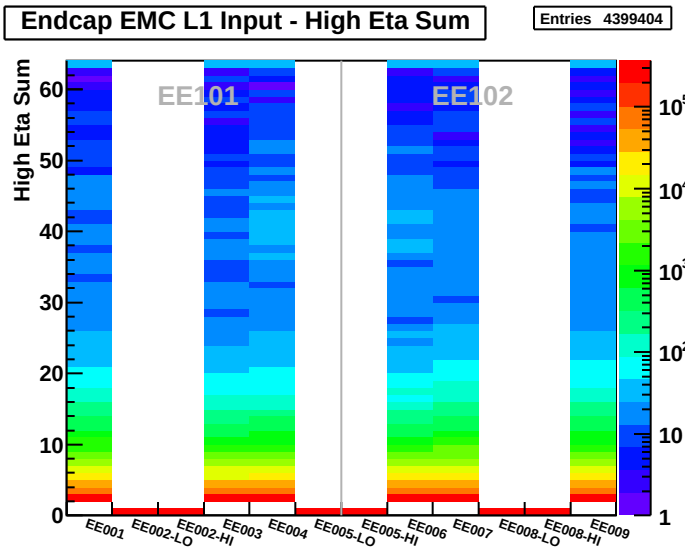

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

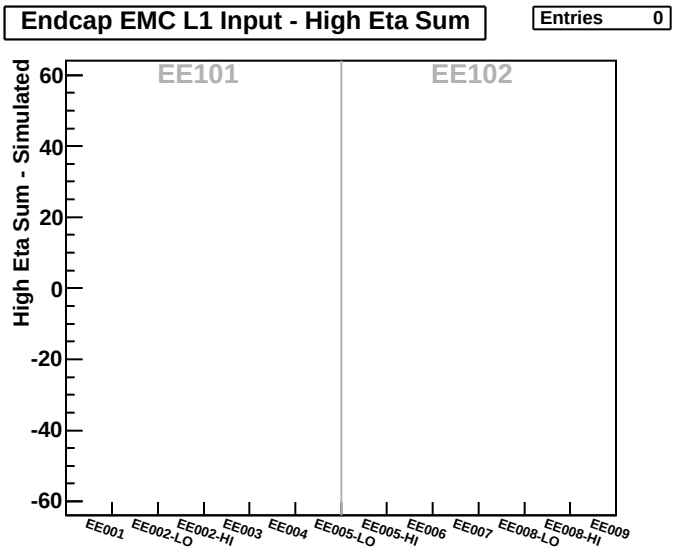

Barrel EMC L1 Input - High Tower Bits
Entries 1.319821e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

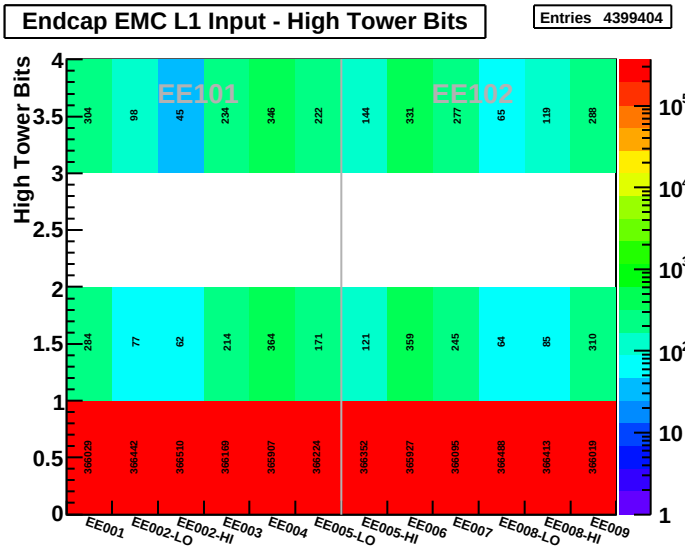

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

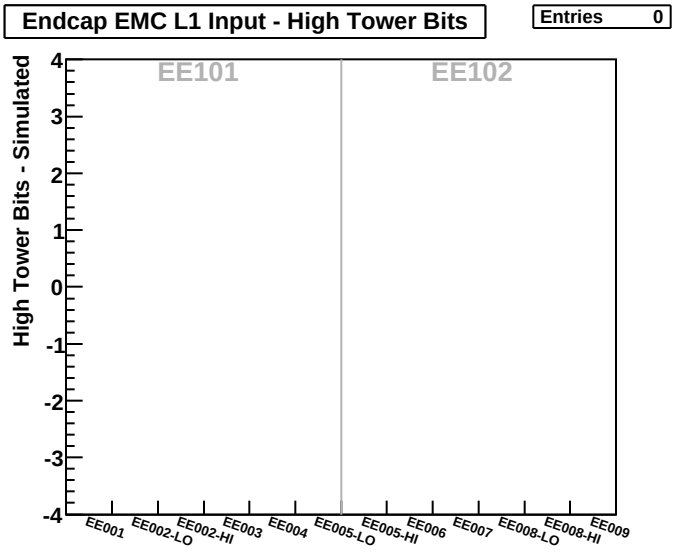

Endcap EMC L1 Input - Low Eta Sum
Entries 4399404
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

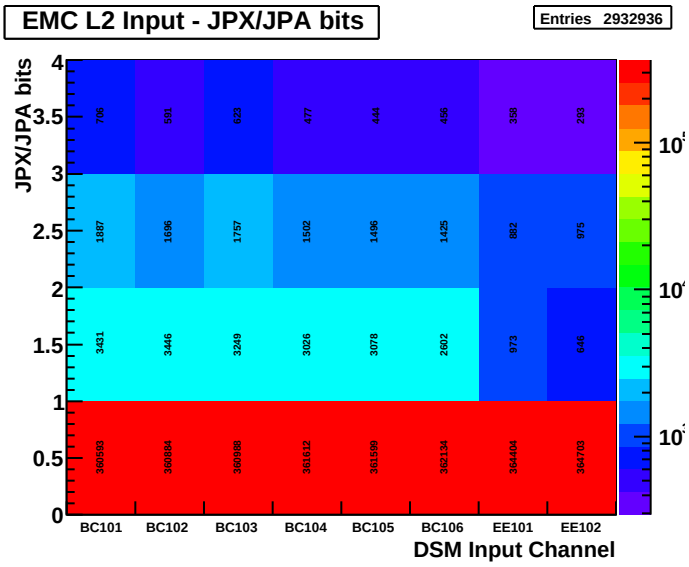

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

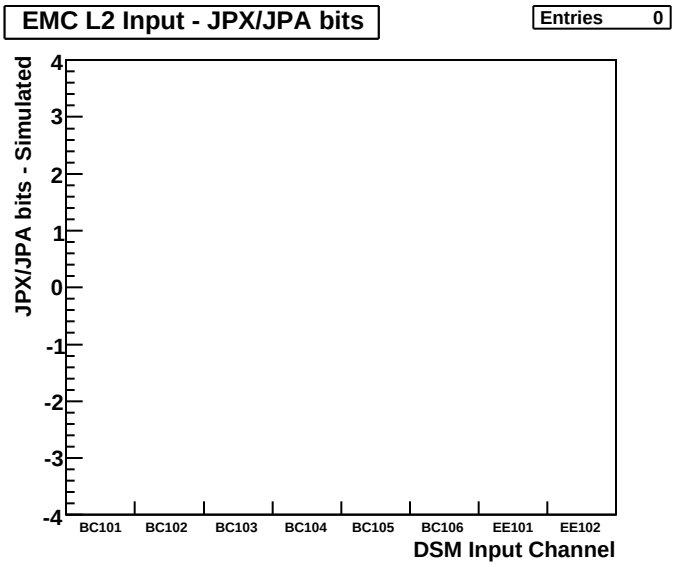

Endcap EMC L1 Input - High Eta Sum
Entries 4399404
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

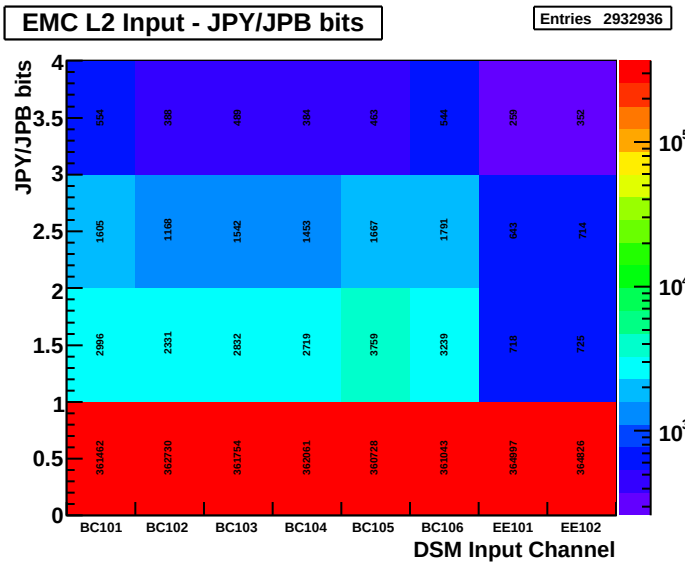

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

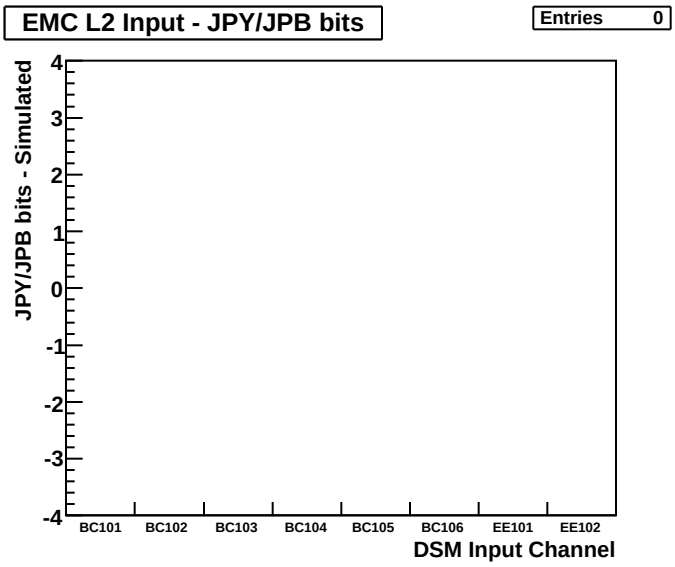

Endcap EMC L1 Input - High Tower Bits
Entries 4399404
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

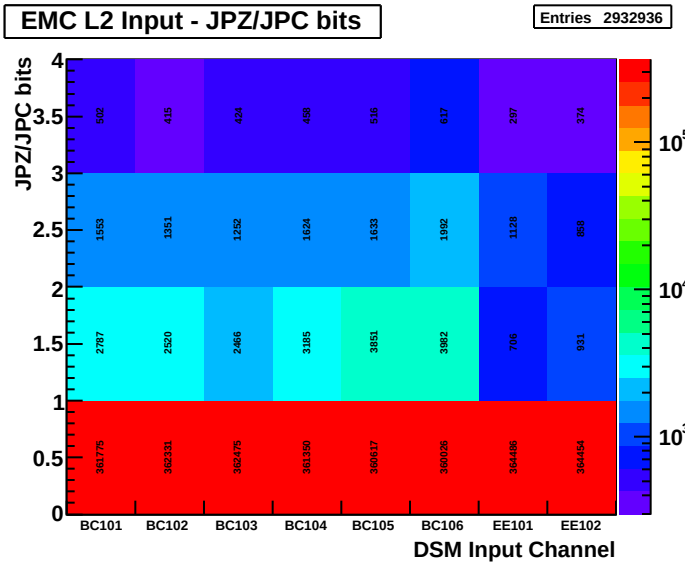

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

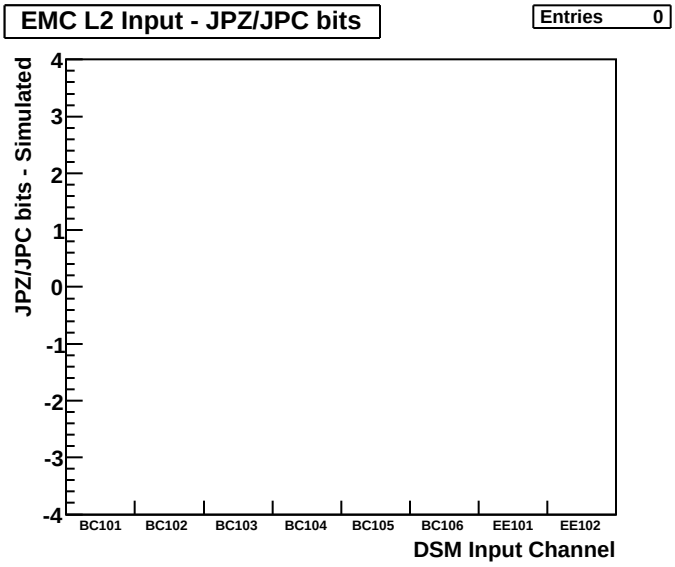

EMC L2 Input - JPX/JPA bits
Entries 2932936
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
706 591 623 477 444 456 358 293
1887 1696 1757 1502 1496 1425 882 975
3431 3446 3249 3026 3078 2602 973 646
360593 360884 360988 361612 361599 362134 364404 364703

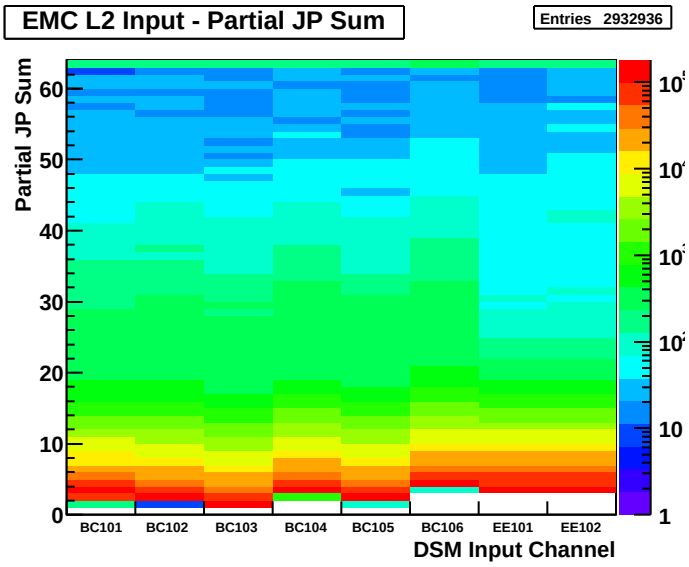

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

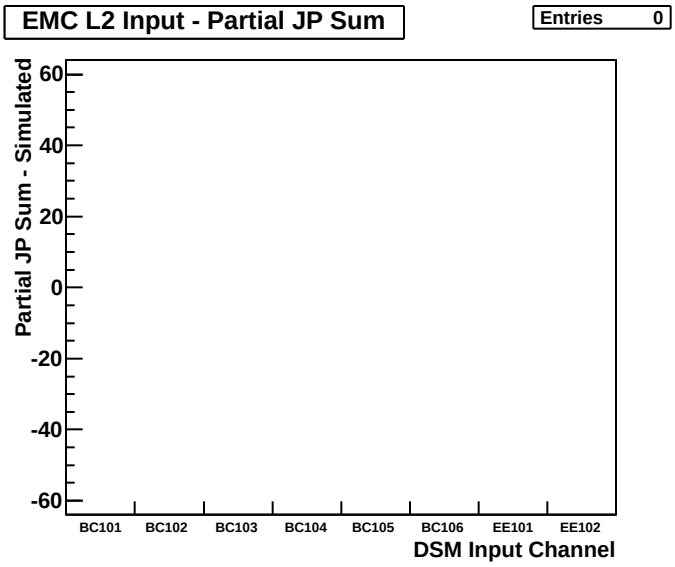

EMC L2 Input - JPY/JPB bits
Entries 2932936
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
554 388 409 384 463 544 259 332
1605 1168 1542 1453 1667 1791 643 714
2996 2331 2832 2719 3759 3239 718 725
361462 362730 361754 362061 360728 361043 364897 364826

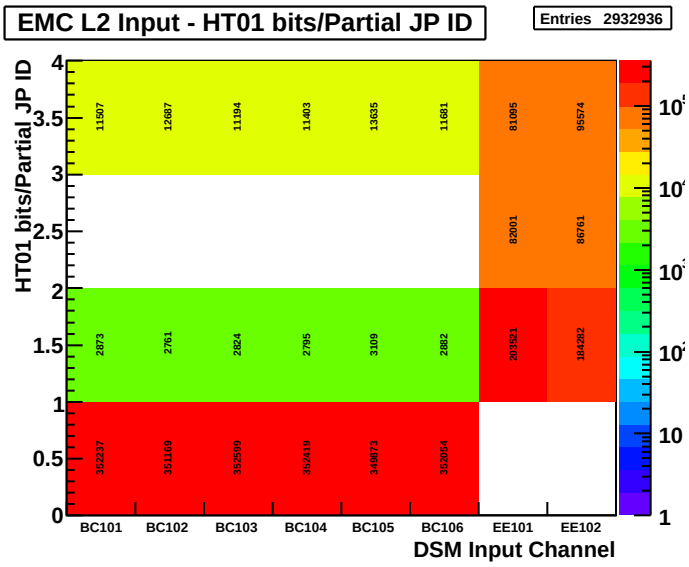

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

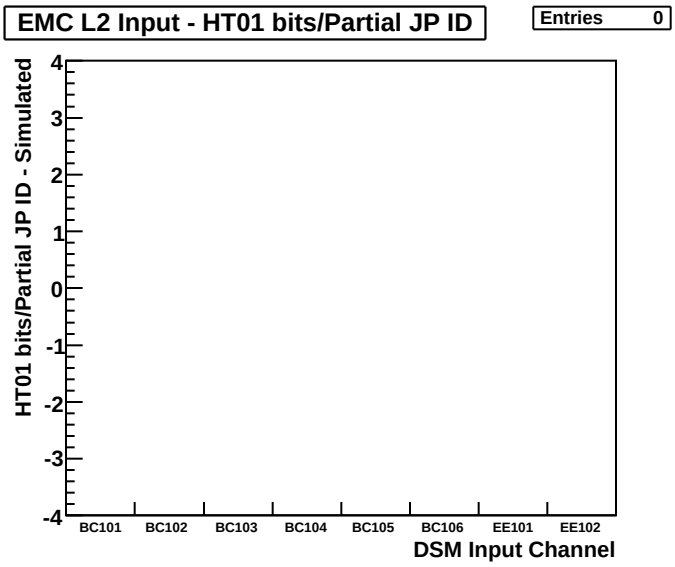

EMC L2 Input - JPZ/JPC bits
Entries 2932936
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
502 415 424 458 516 617 297 374
1553 1351 1252 1624 1633 1992 1128 858
2787 2520 2466 3185 3851 3982 706 931
361775 362331 362475 361350 360617 360026 364486 364454

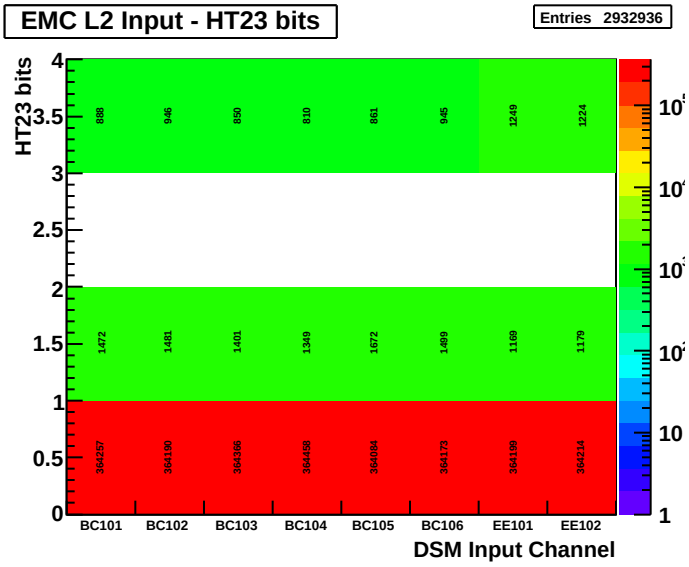

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

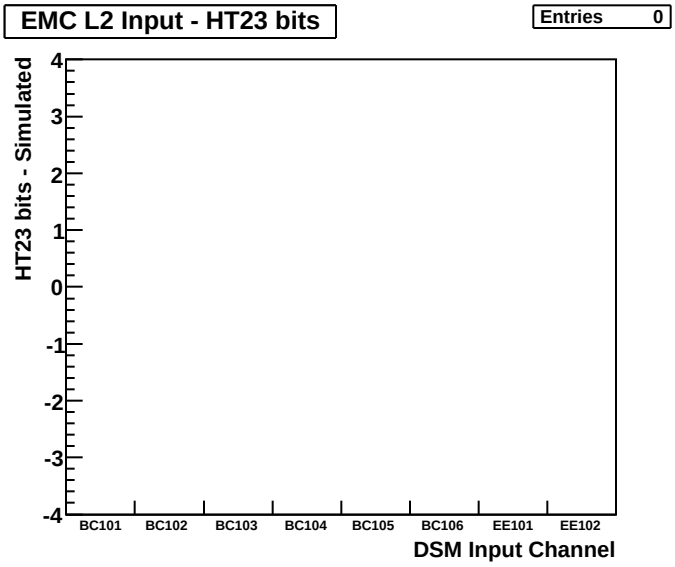

EMC L2 Input - Partial JP Sum
Entries 2932936
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

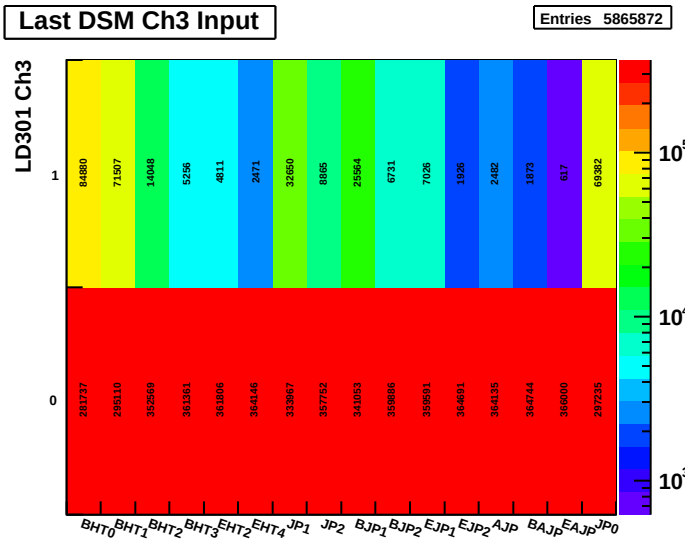

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

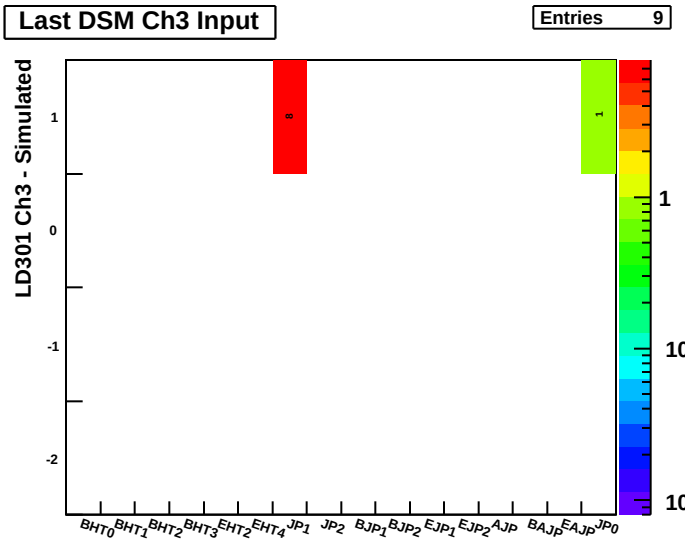

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2932936
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

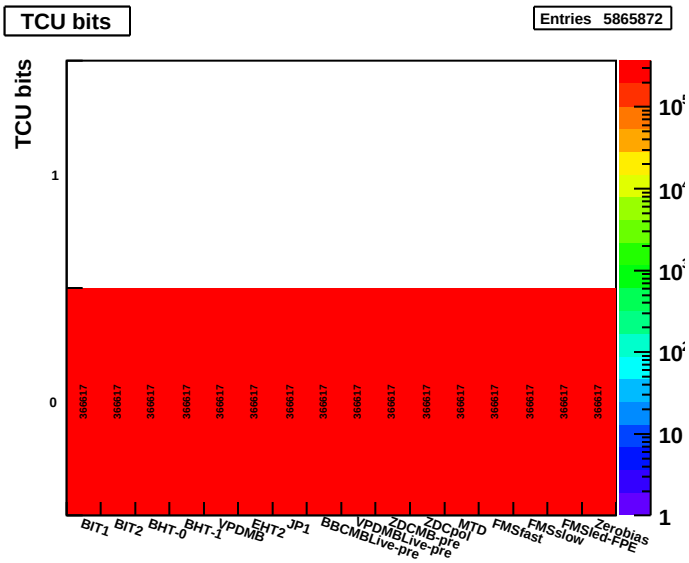

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

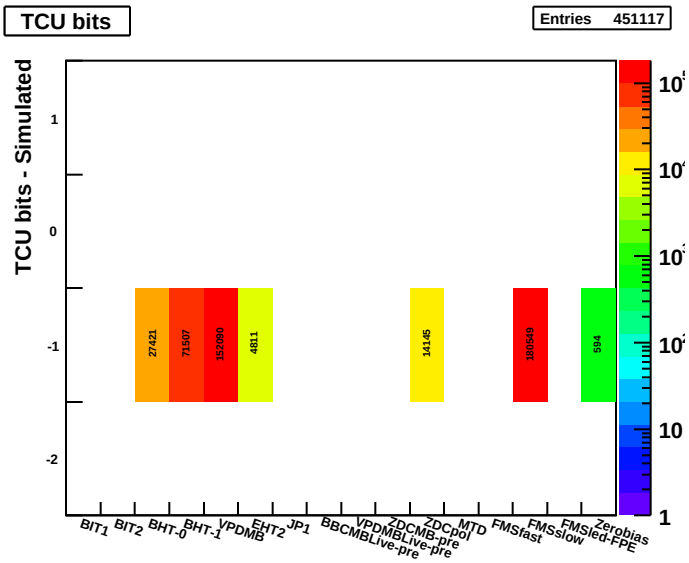

EMC L2 Input - HT23 bits
Entries 2932936
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

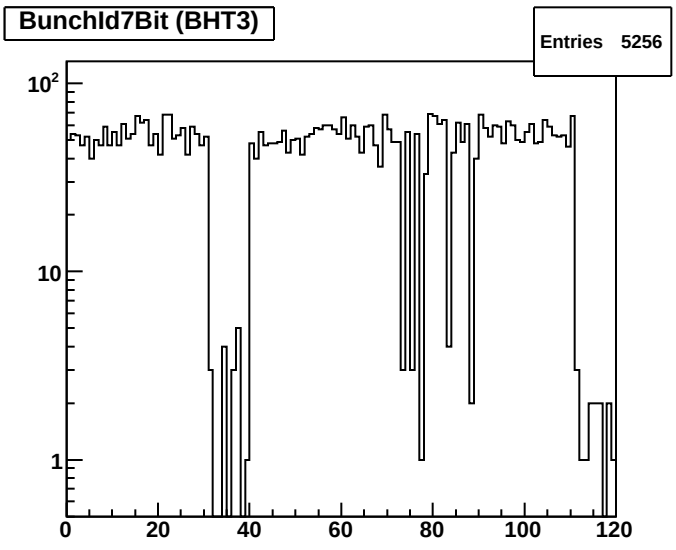

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

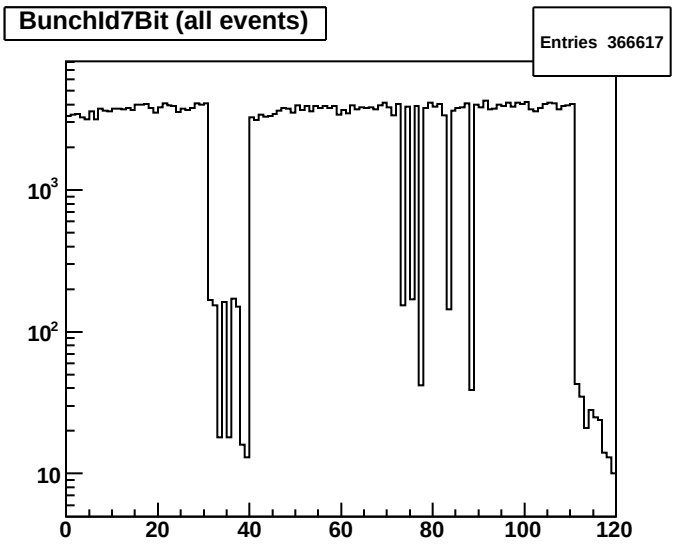

Last DSM Ch3 Input
Entries 5865872
LD301 Ch3
1
0
84980
71507
14048
5256
4811
2471
32650
8865
25564
6731
7026
1926
2482
1873
617
69382
281737
295110
352569
361361
361806
364146
333967
357752
341053
358086
359591
364691
364135
364744
366000
297235
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

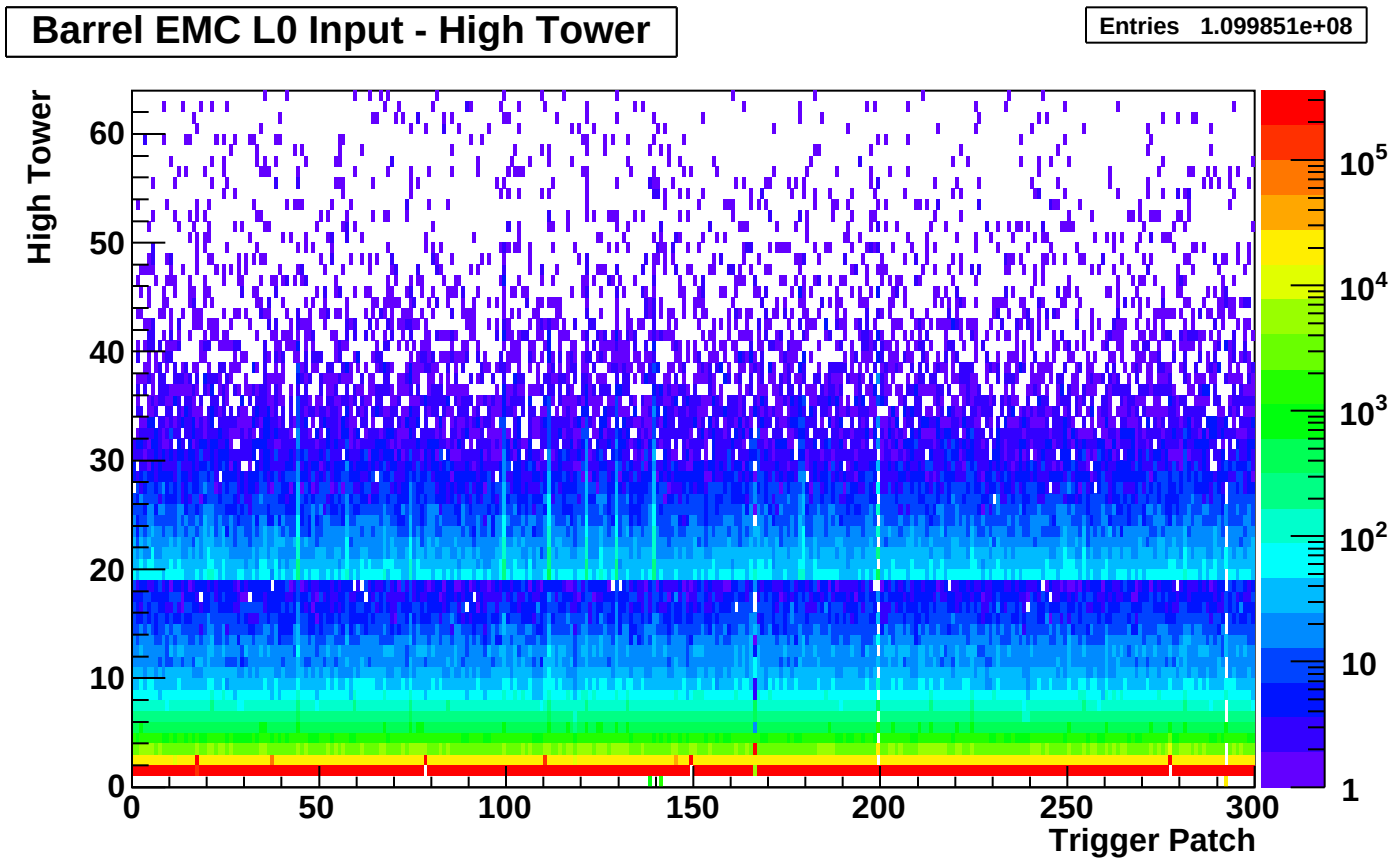

Last DSM Ch3 Input
Entries 9
LD301 Ch3 - Simulated
1
0
-1
-2
8
1
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

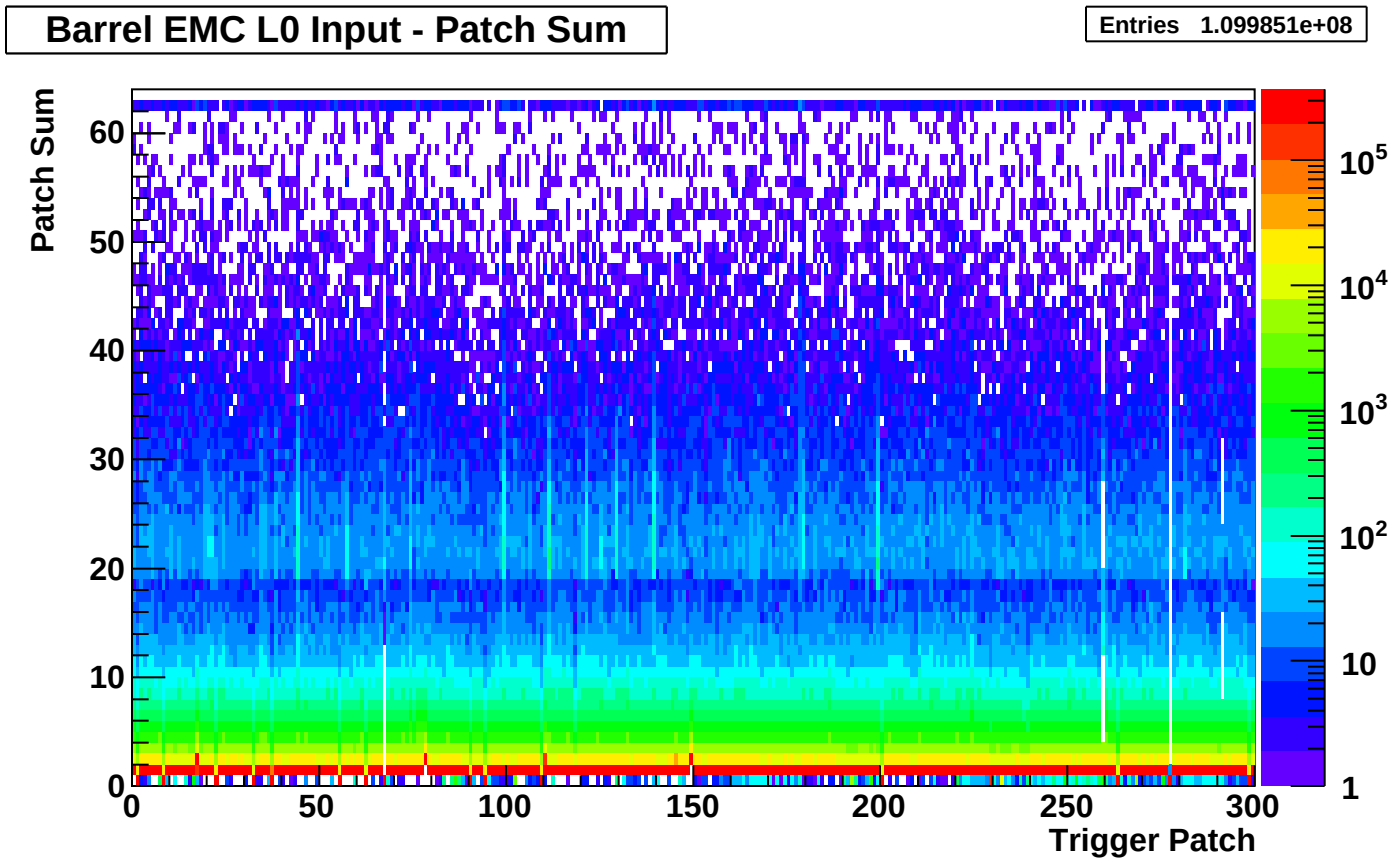

TCU bits
Entries 5865872
TCU bits
1
0
366617
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

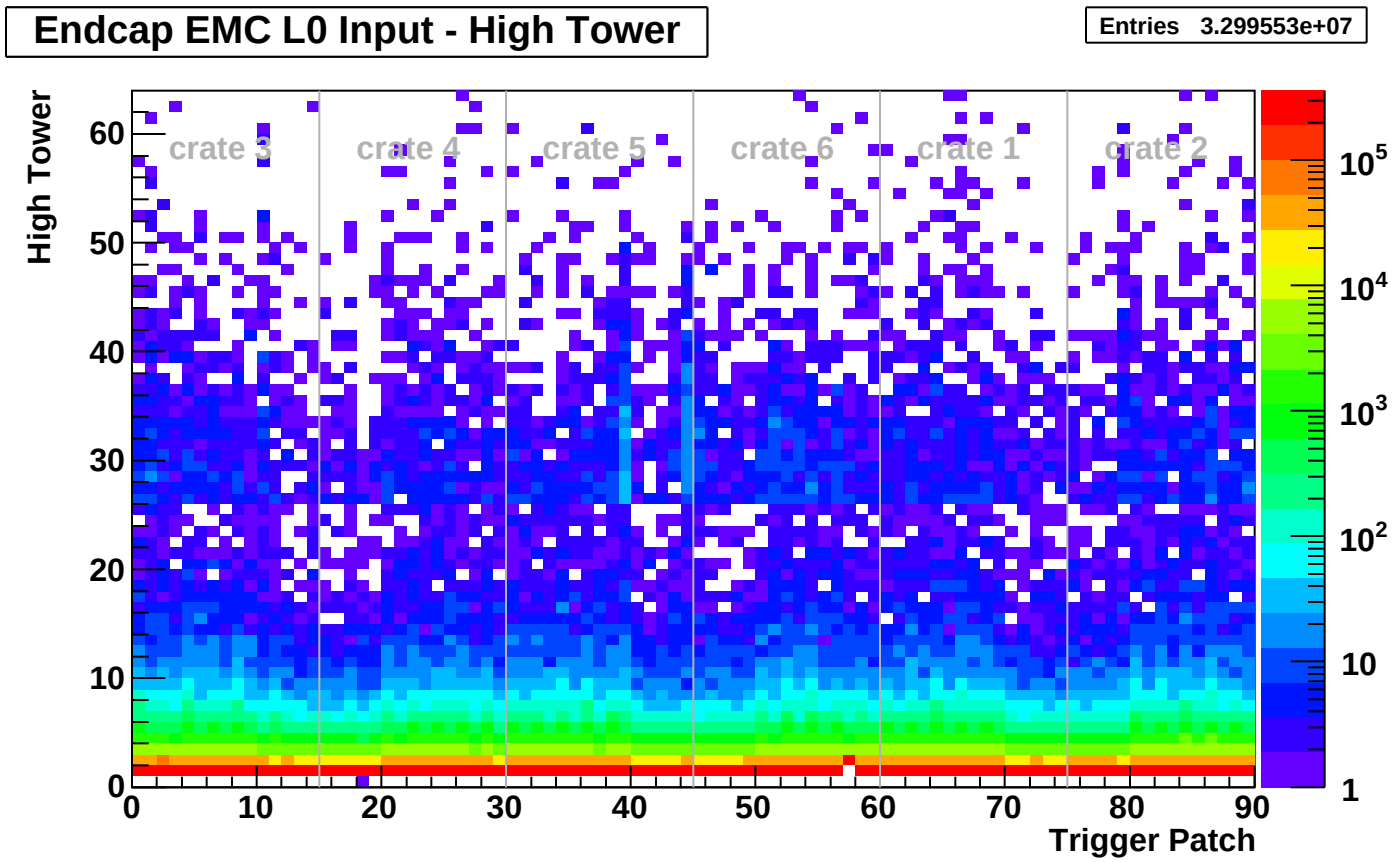

TCU bits
Entries 451117
TCU bits - Simulated
1
0
-1
-2
27421
71507
152090
4811
14145
180549
594
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

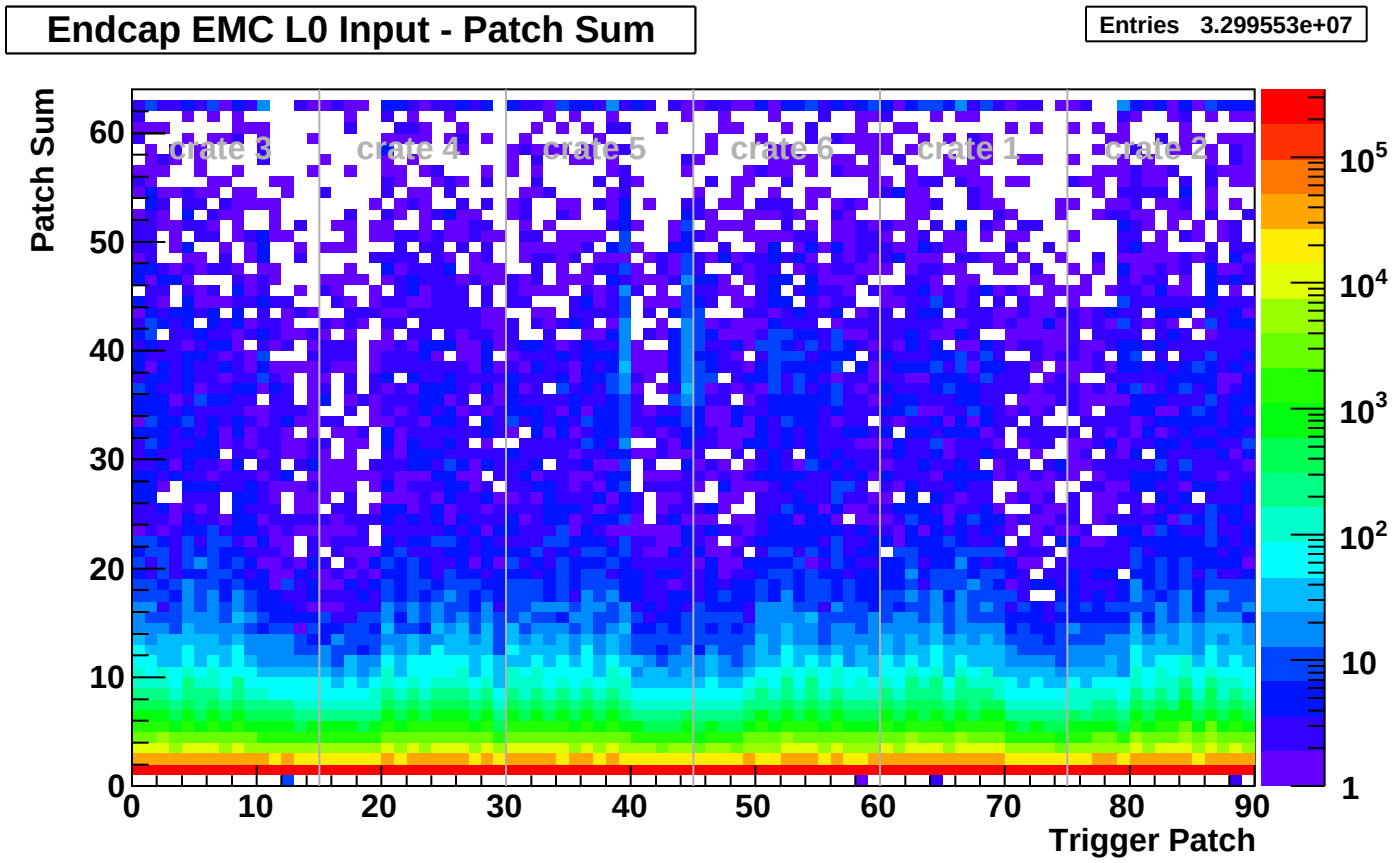

BunchId7Bit (BHT3)
Entries 5256
10²
10
1
0
20
40
60
80
100
120

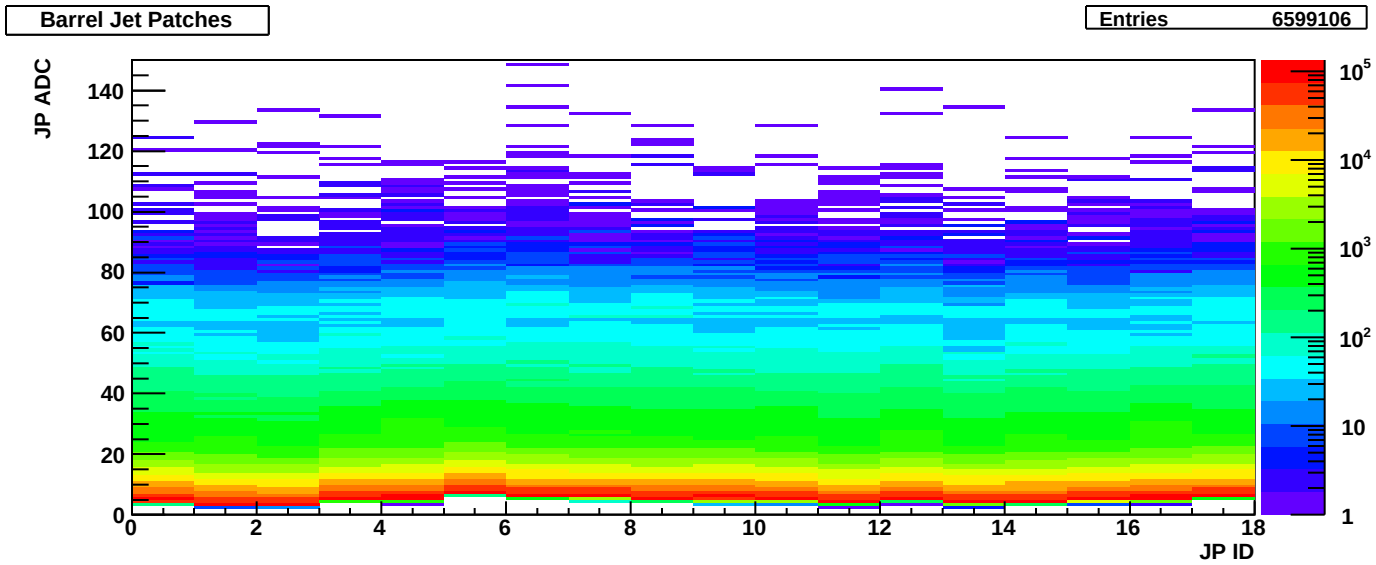

BunchId7Bit (all events)
Entries 366617
10³
10²
10
0
20
40
60
80
100
120

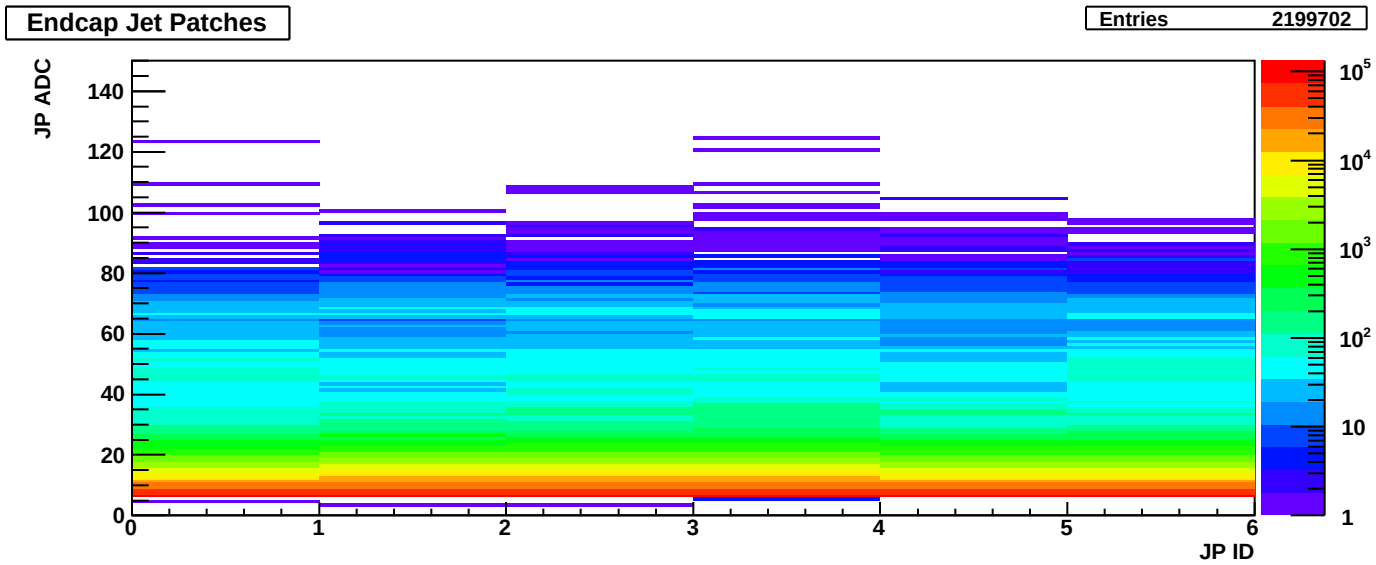

Barrel EMC L0 Input - High Tower
Entries 1.099851e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

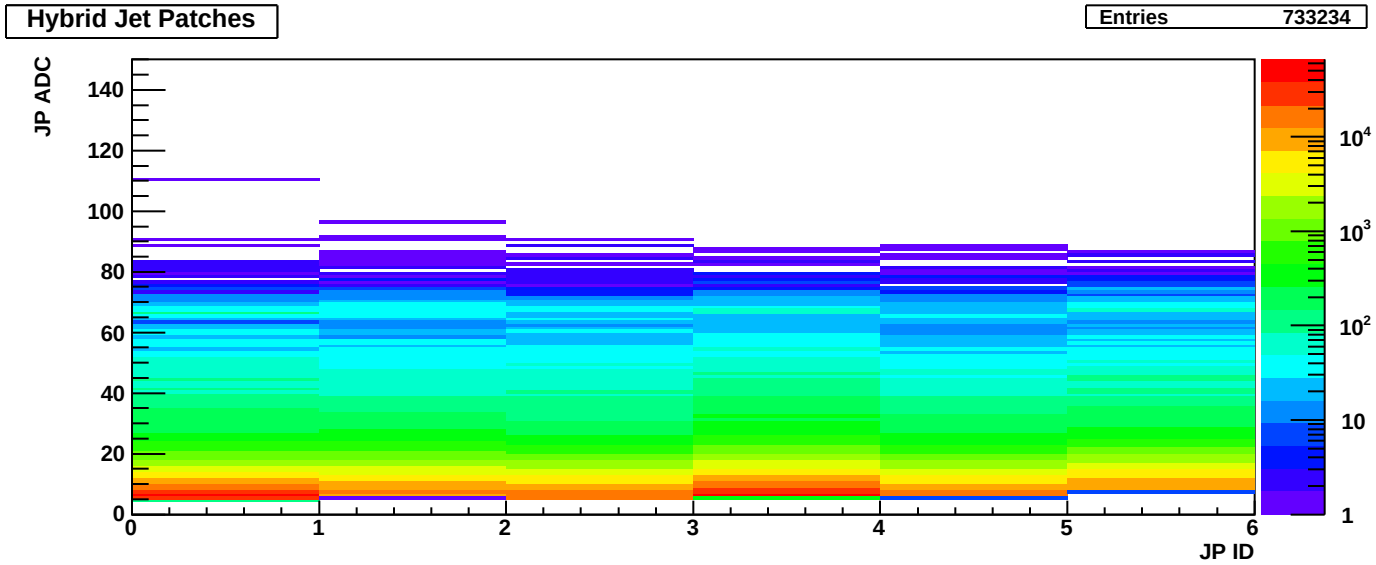

Barrel EMC L0 Input - Patch Sum
Entries 1.099851e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

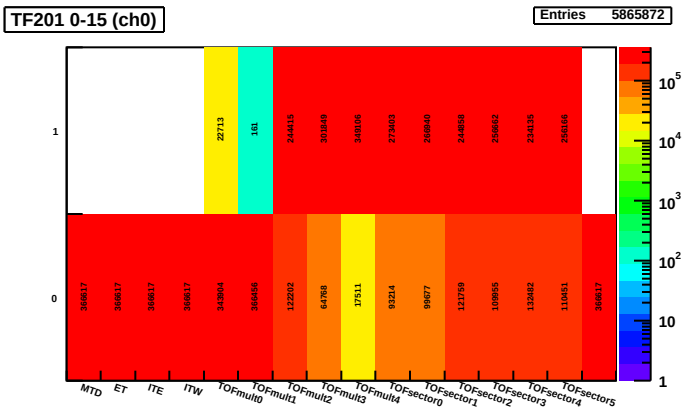

Endcap EMC L0 Input - High Tower
Entries 3.299553e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

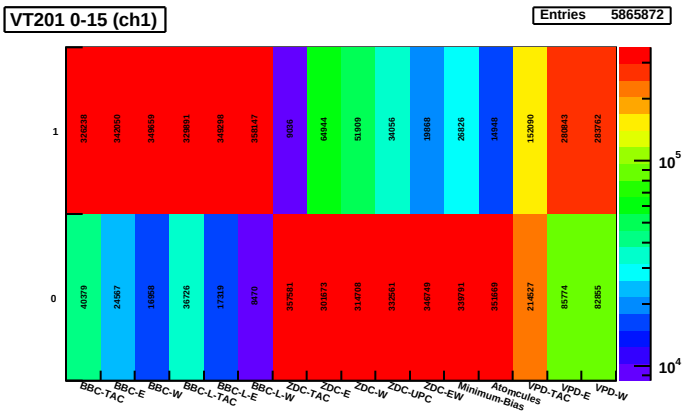

Endcap EMC L0 Input - Patch Sum
Entries 3.299553e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

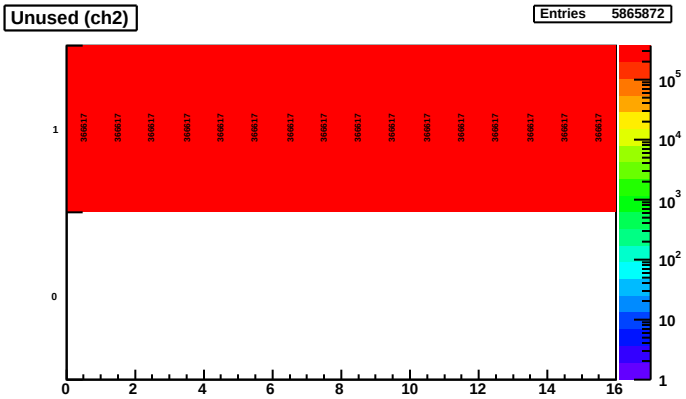

Barrel Jet Patches
Entries 6599106
JP ADC
JP ID

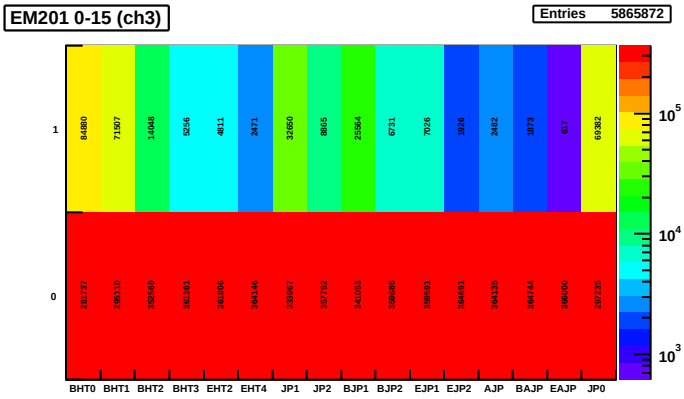

Endcap Jet Patches
Entries 2199702
JP ADC
JP ID

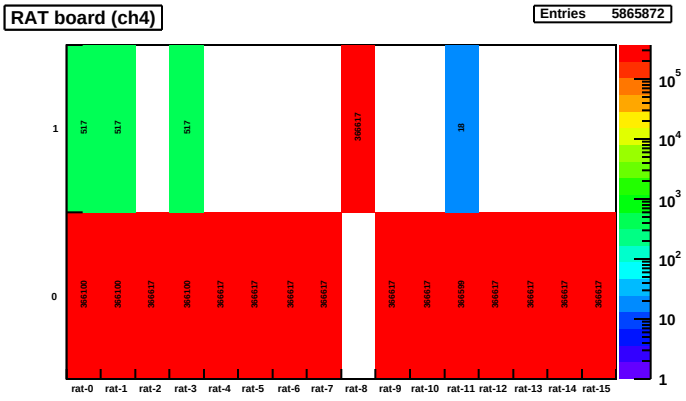

Hybrid Jet Patches
Entries 733234
JP ADC
JP ID

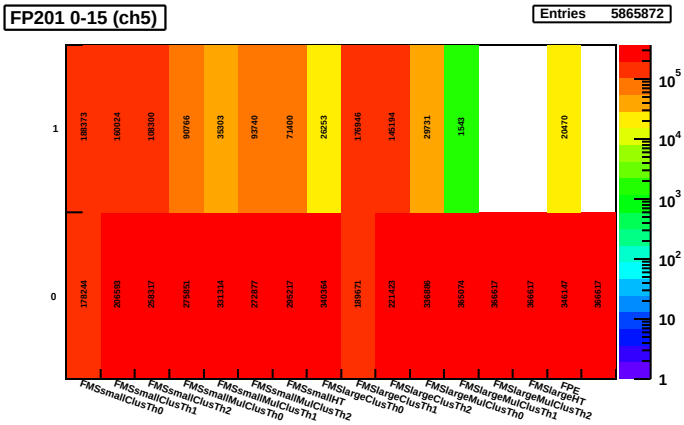

TF201 0-15 (ch0)
Entries 5865872
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

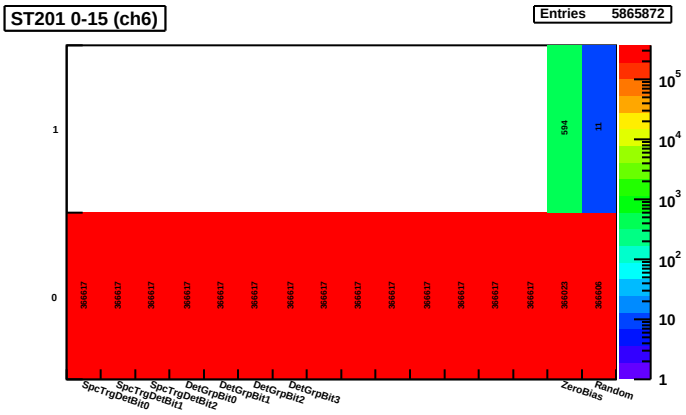

VT201 0-15 (ch1)
Entries 5865872
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Atomcules Minimum-Bias VPD-TAC VPD-E VPD-W

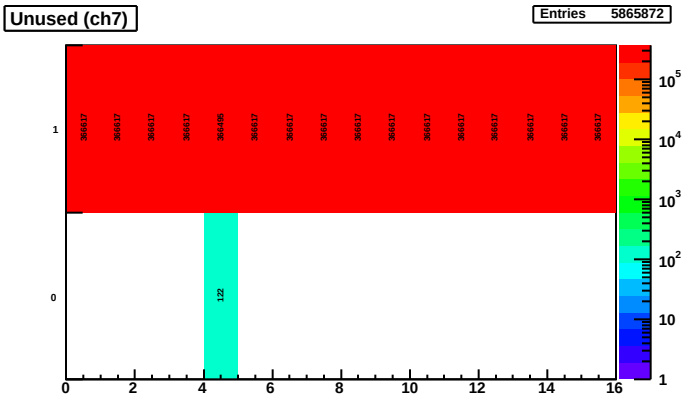

Unused (ch2)
Entries 5865872

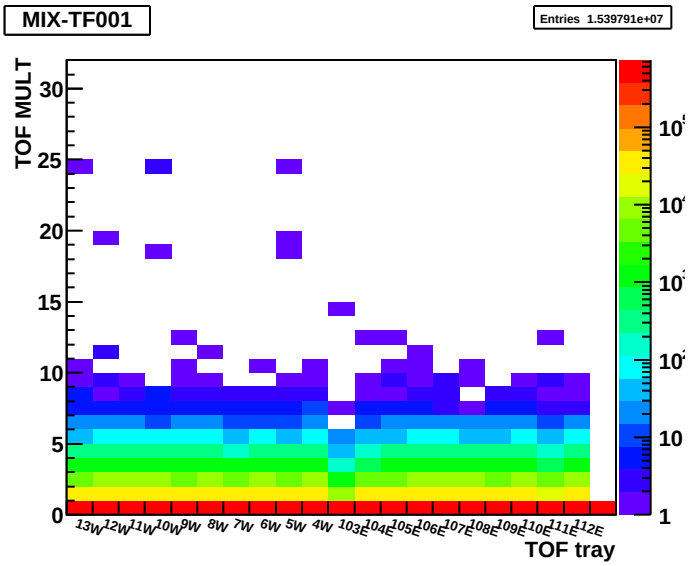

EM201 0-15 (ch3)
Entries 5865872
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

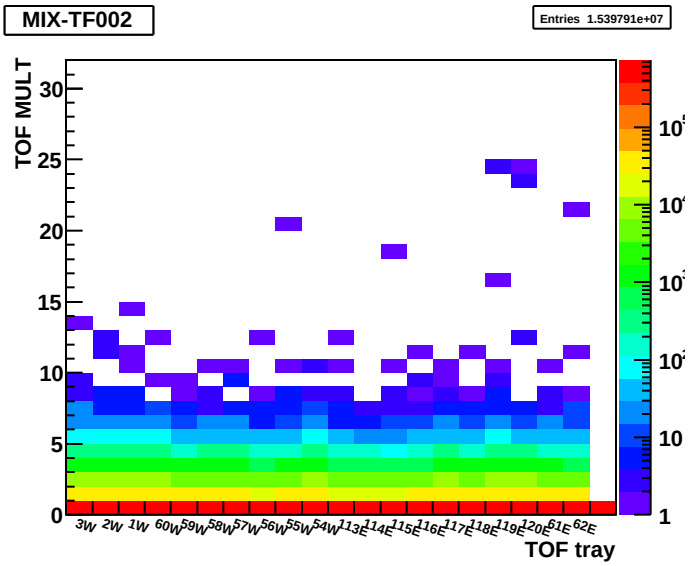

RAT board (ch4)
Entries 5865872
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

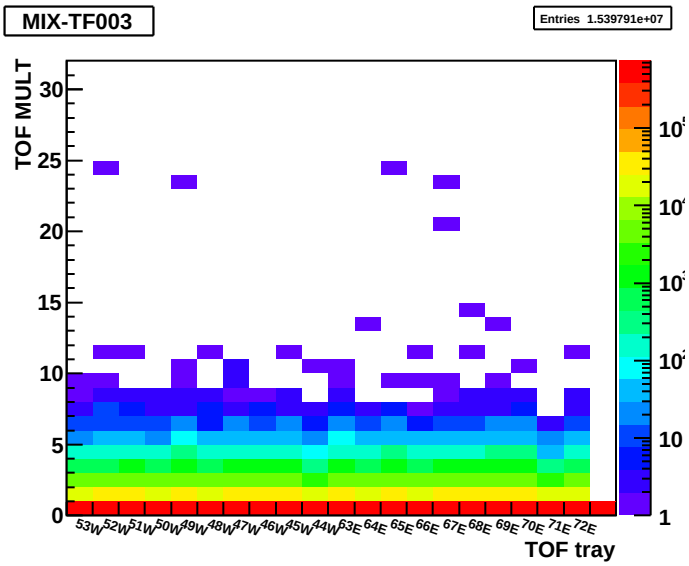

FP201 0-15 (ch5)
Entries 5865872
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

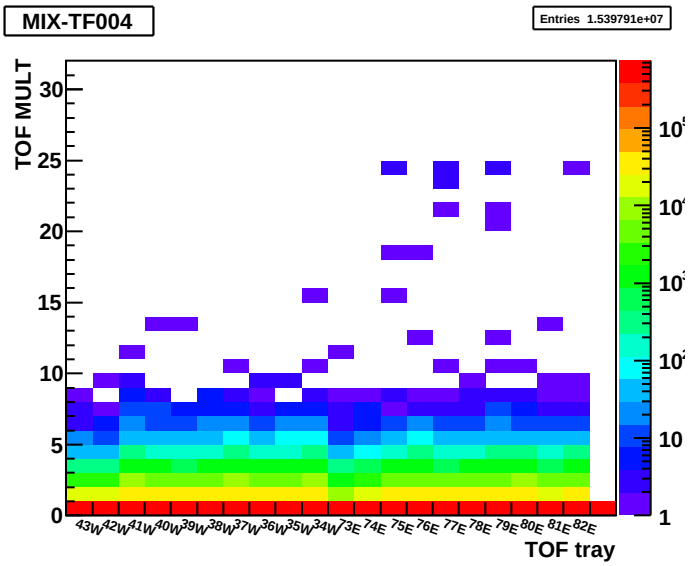

ST201 0-15 (ch6)
Entries 5865872
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetCrpBit0 DetCrpBit1 DetCrpBit2 DetCrpBit3 ZeroBias Random

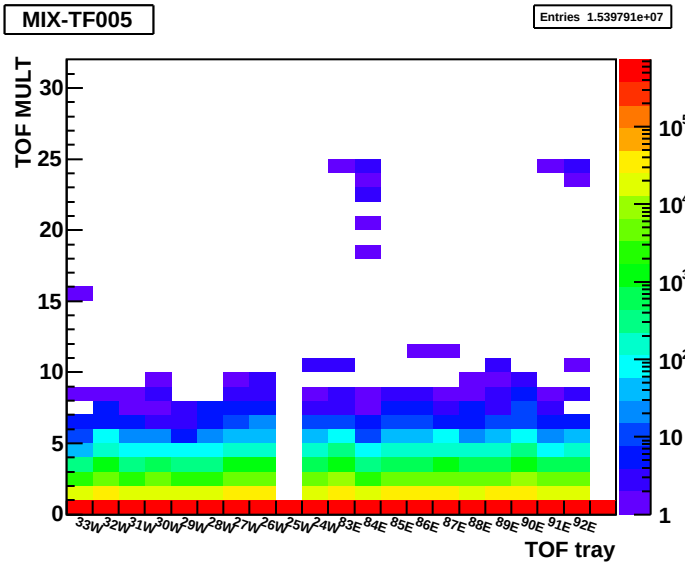

Unused (ch7)
Entries 5865872

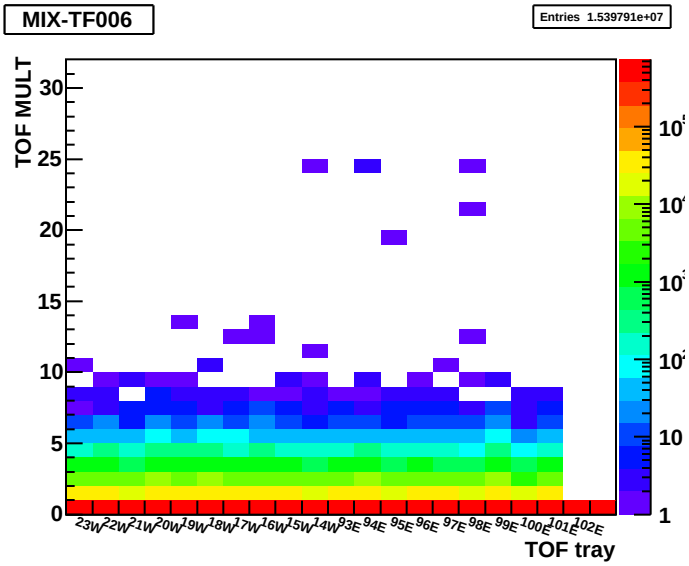

MIX-TF001
Entries 1.539791e+07
TOF MULT
TOF tray

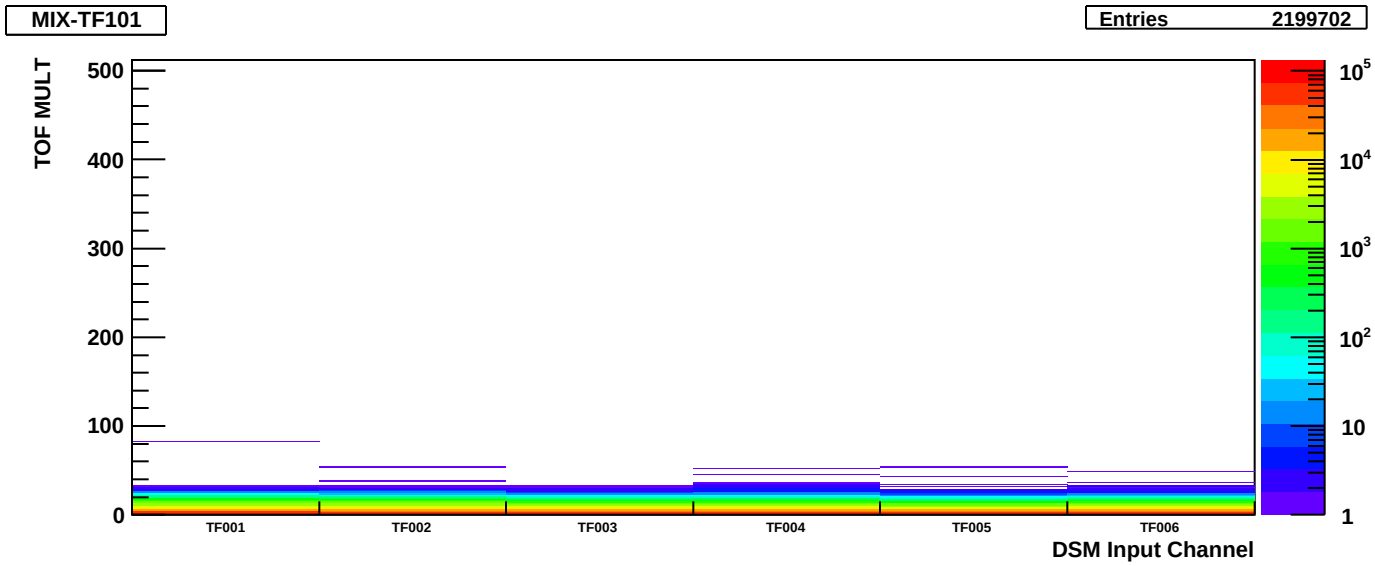

MIX-TF002
Entries 1.539791e+07
TOF MULT
TOF tray

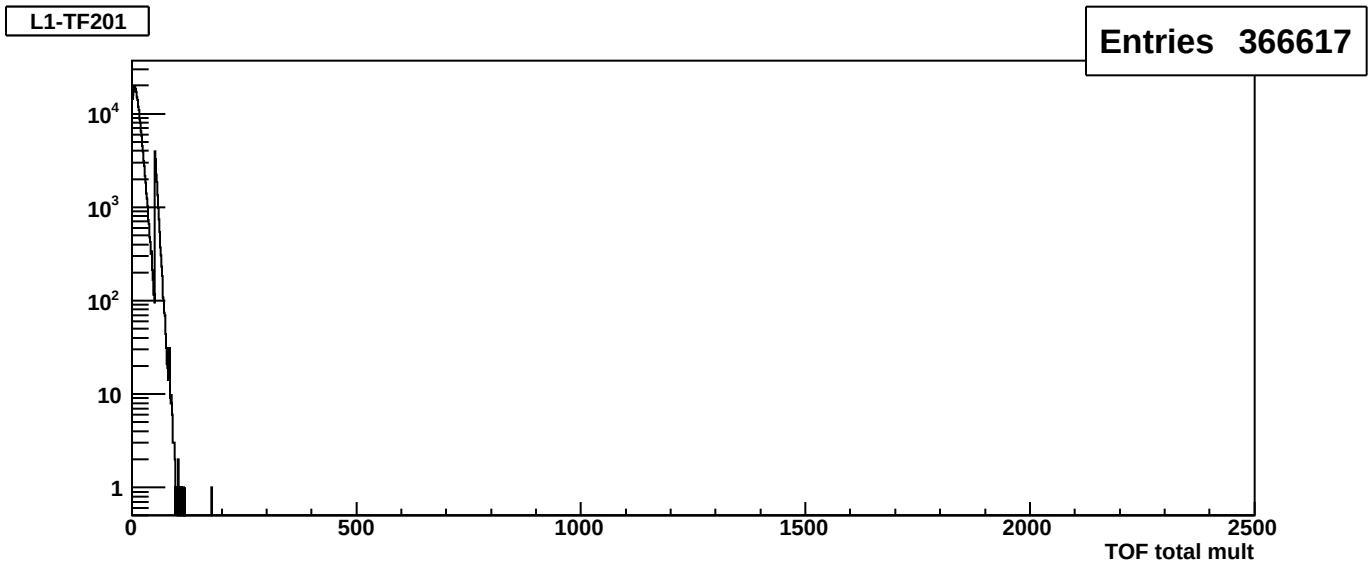

MIX-TF003
Entries 1.539791e+07
TOF MULT
TOF tray

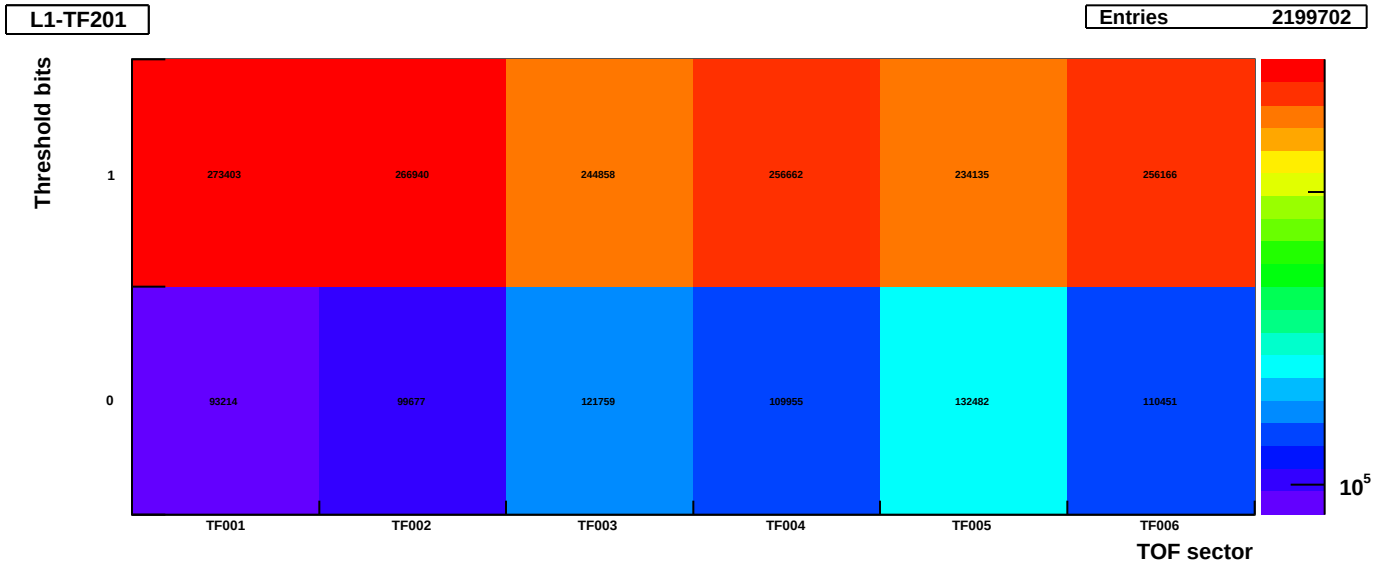

MIX-TF004
Entries 1.539791e+07
TOF MULT
TOF tray

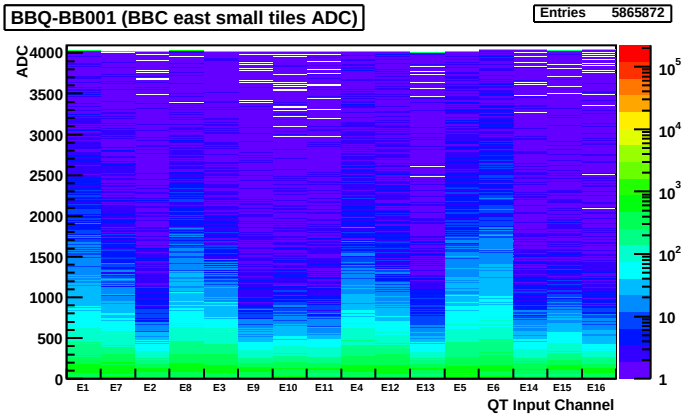

MIX-TF005
Entries 1.539791e+07
TOF MULT
TOF tray

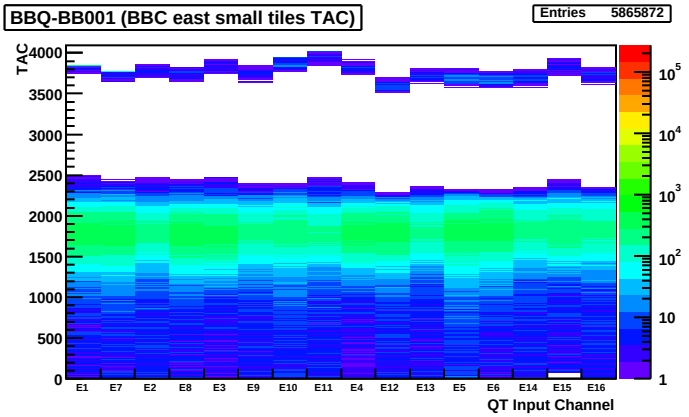

MIX-TF006
Entries 1.539791e+07
TOF MULT
TOF tray

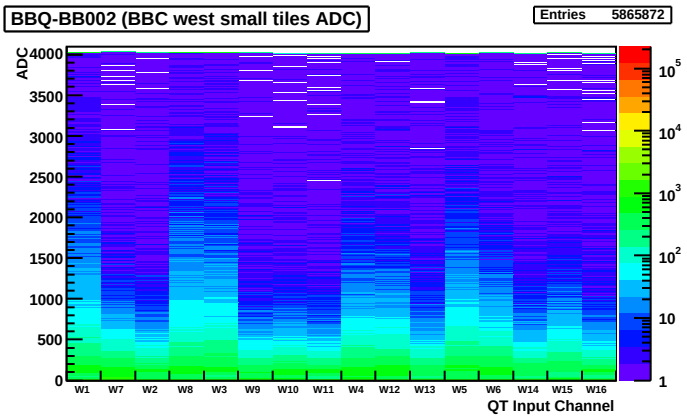

MIX-TF101
Entries 2199702
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

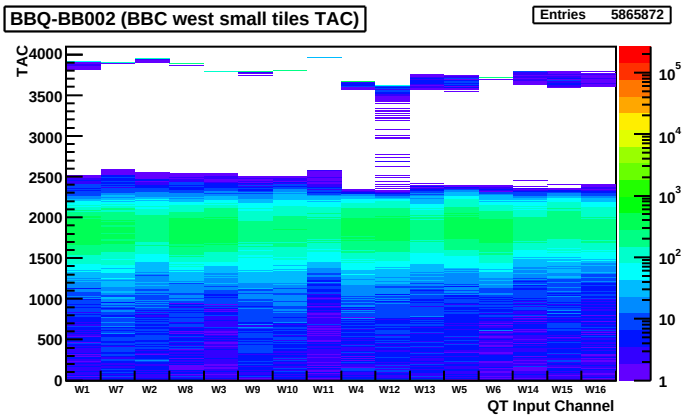

L1-TF201
Entries 366617
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

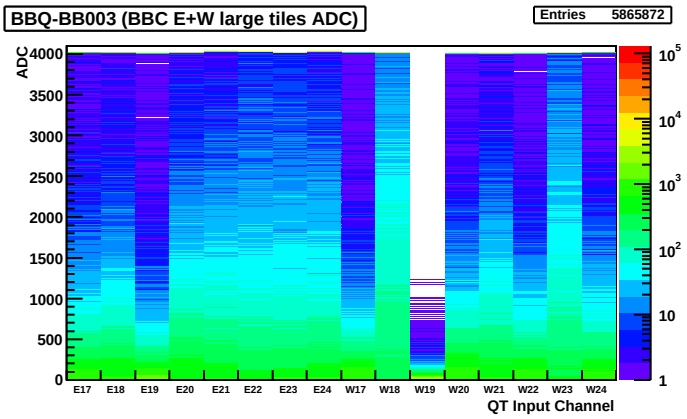

L1-TF201
Entries 2199702
Threshold bits
1
0
273403
266940
244858
256662
234135
256166
93214
99677
121759
109955
132482
110451
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

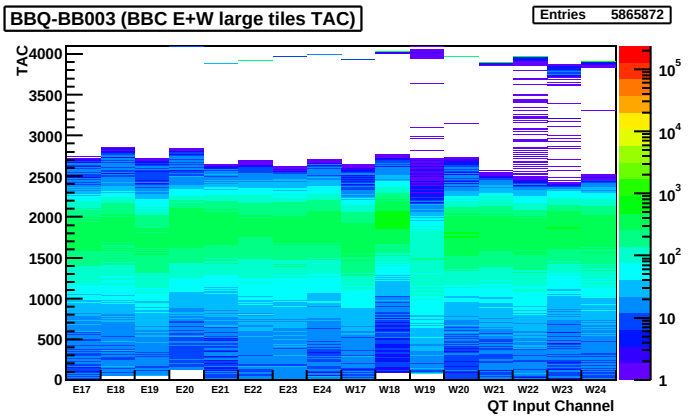

BBQ-BB001 (BBC east small tiles ADC)
Entries 5865872
ADC
QT Input Channel

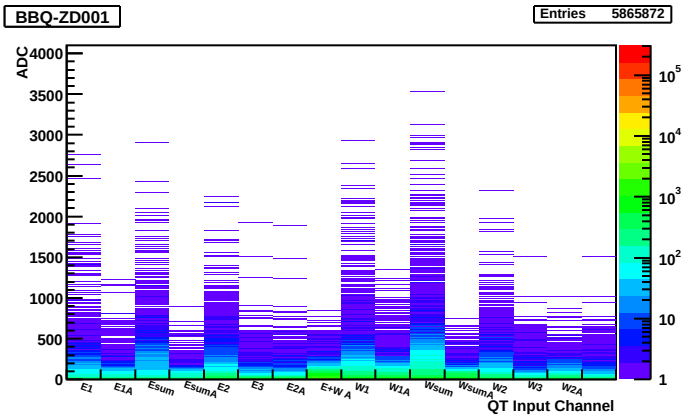

BBQ-BB001 (BBC east small tiles TAC)
Entries 5865872
TAC
QT Input Channel

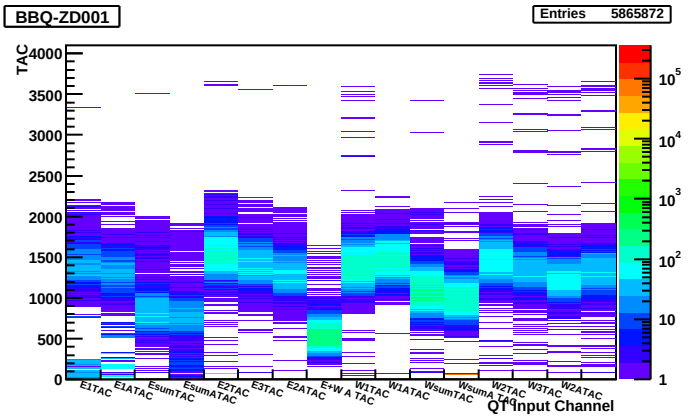

BBQ-BB002 (BBC west small tiles ADC)
Entries 5865872
ADC
QT Input Channel

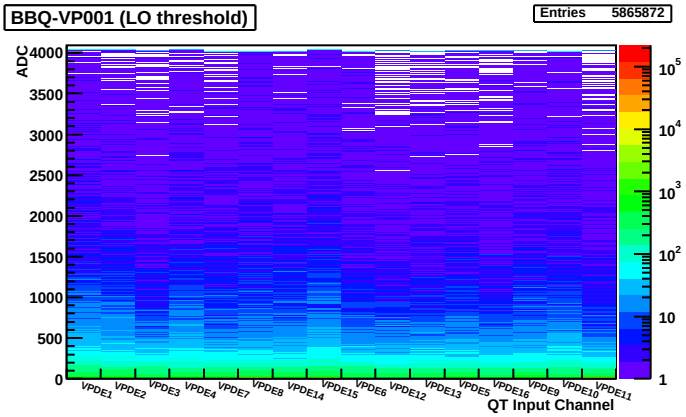

BBQ-BB002 (BBC west small tiles TAC)
Entries 5865872
TAC
QT Input Channel

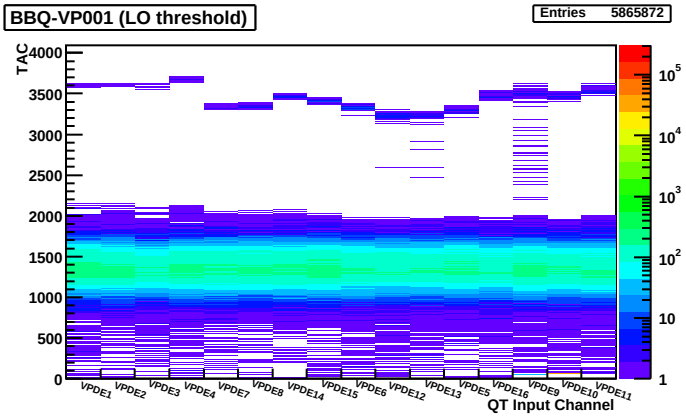

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 5865872
ADC
QT Input Channel

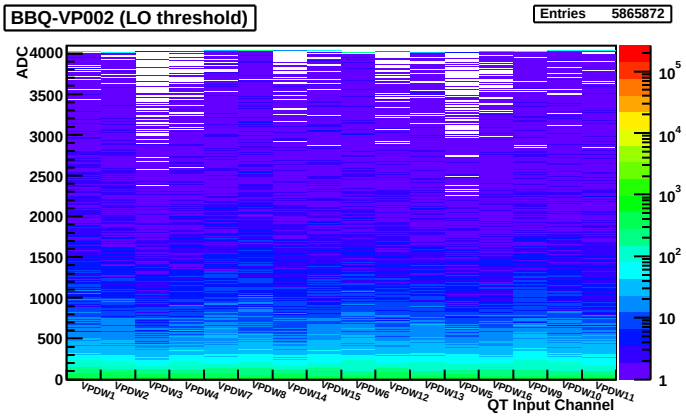

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 5865872
TAC
QT Input Channel

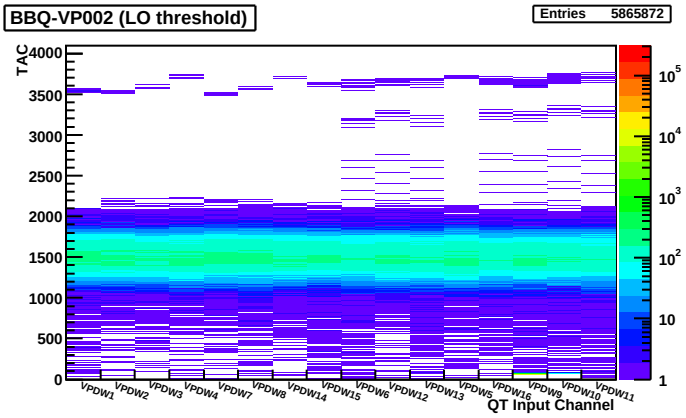

BBQ-ZD001
Entries 5865872
ADC
QT Input Channel

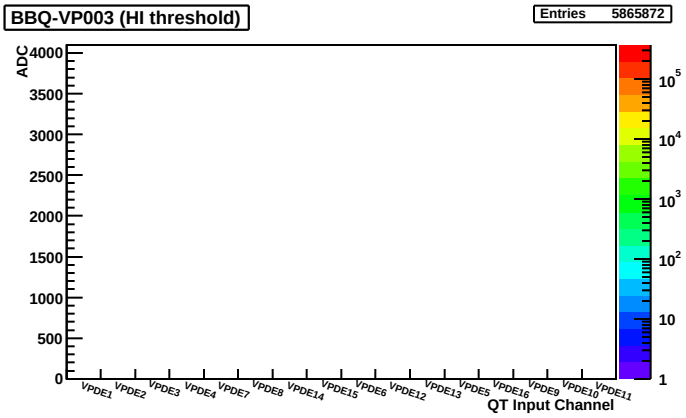

BBQ-ZD001
Entries 5865872
TAC
QT Input Channel

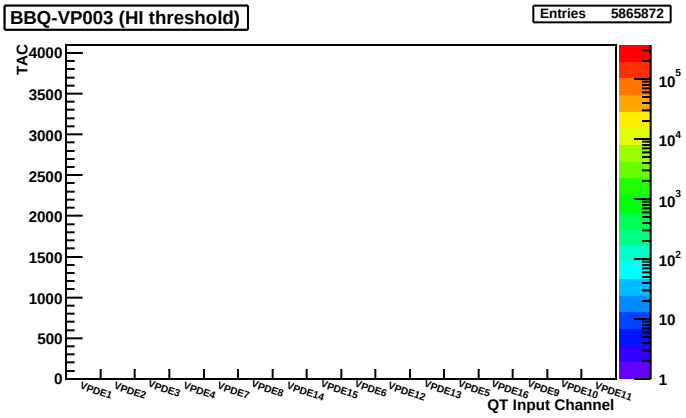

BBQ-VP001 (LO threshold)
Entries 5865872
ADC
QT Input Channel

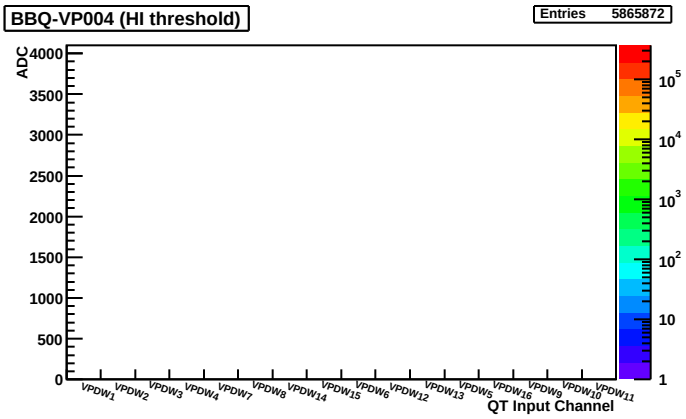

BBQ-VP001 (LO threshold)
Entries 5865872
TAC
QT Input Channel

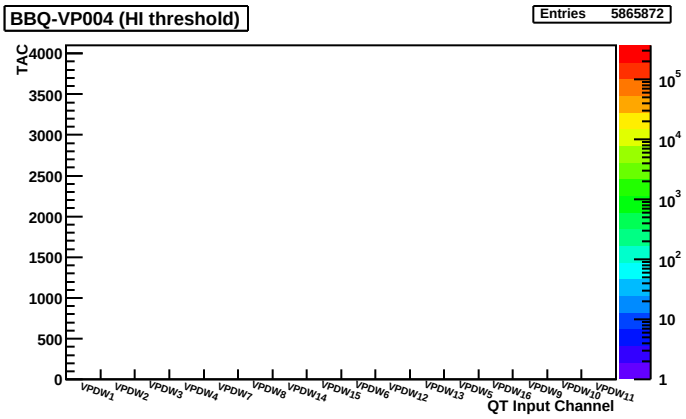

BBQ-VP002 (LO threshold)
Entries 5865872
ADC
QT Input Channel

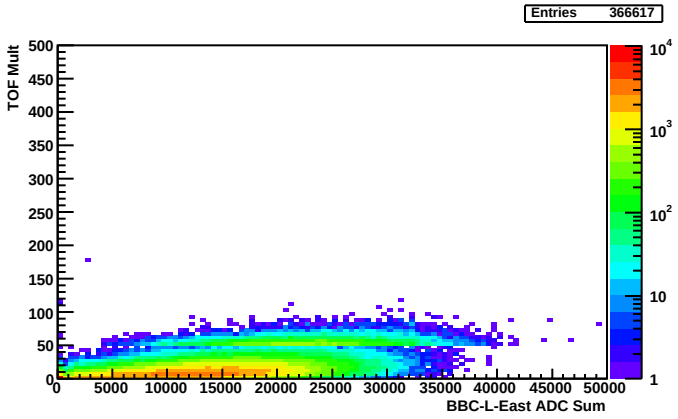

BBQ-VP002 (LO threshold)
Entries 5865872
TAC
QT Input Channel

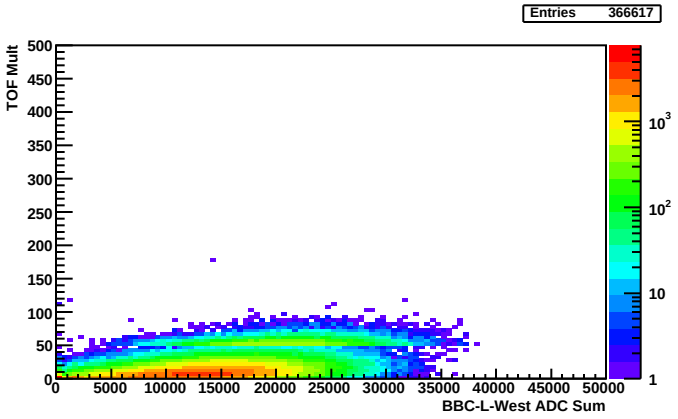

BBQ-VP003 (HI threshold)
Entries 5865872
ADC
QT Input Channel

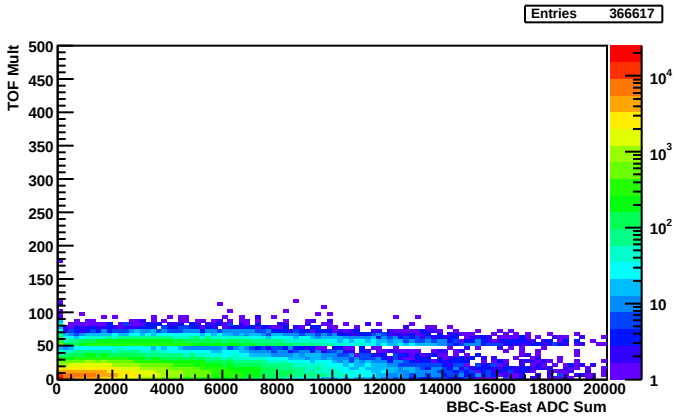

BBQ-VP003 (HI threshold)
Entries 5865872
TAC
QT Input Channel

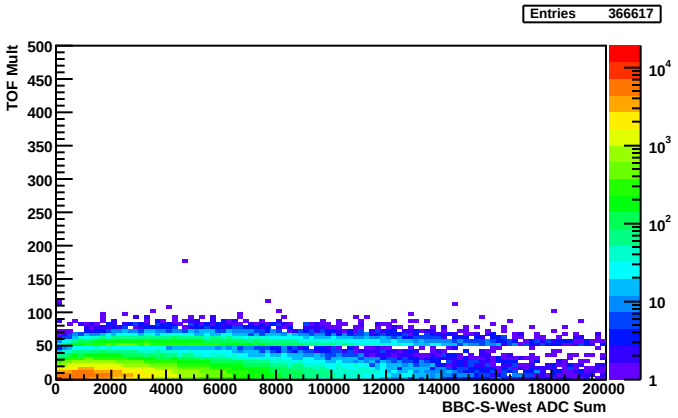

BBQ-VP004 (HI threshold)
Entries 5865872
ADC
QT Input Channel

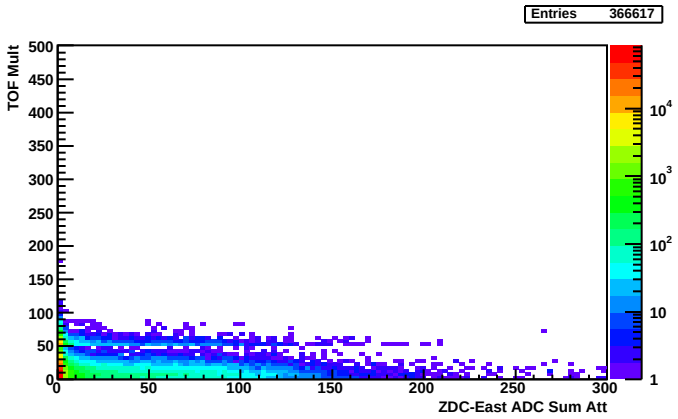

BBQ-VP004 (HI threshold)
Entries 5865872
TAC
QT Input Channel

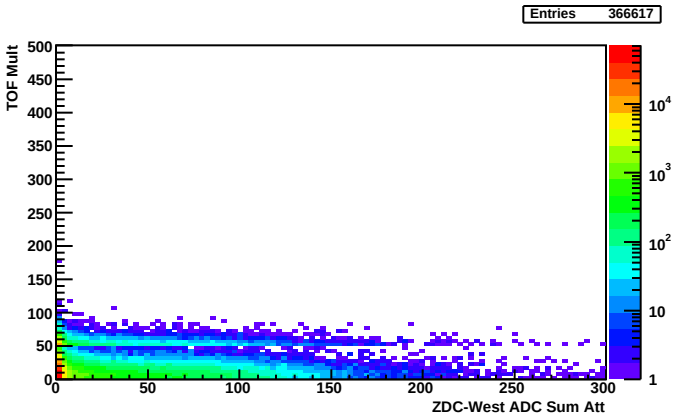

Entries 366617
TOF Mult
BBC-L-East ADC Sum

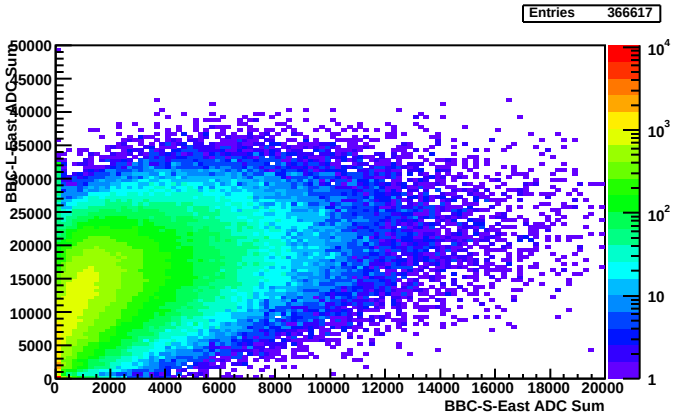

Entries 366617
TOF Mult
BBC-L-West ADC Sum

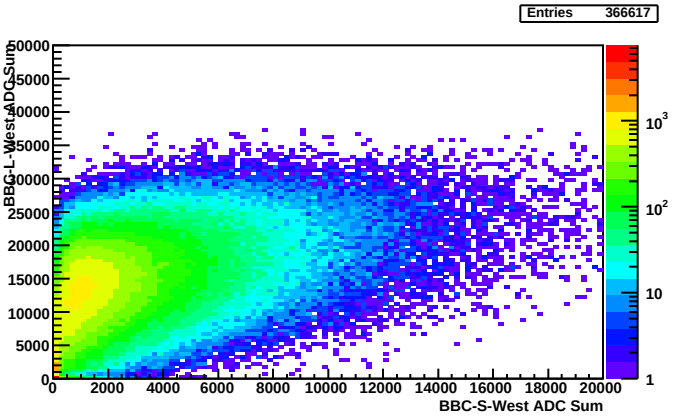

Entries 366617
TOF Mult
BBC-S-East ADC Sum

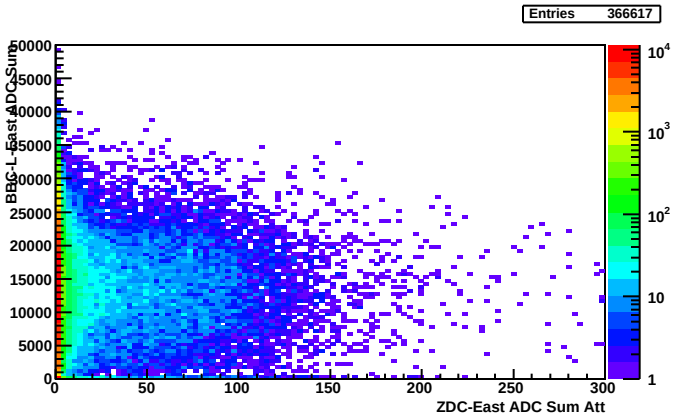

Entries 366617
TOF Mult
BBC-S-West ADC Sum

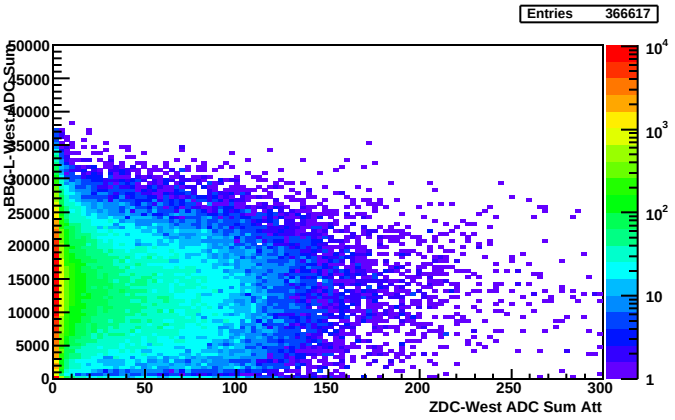

Entries 366617
TOF Mult
ZDC-East ADC Sum Att

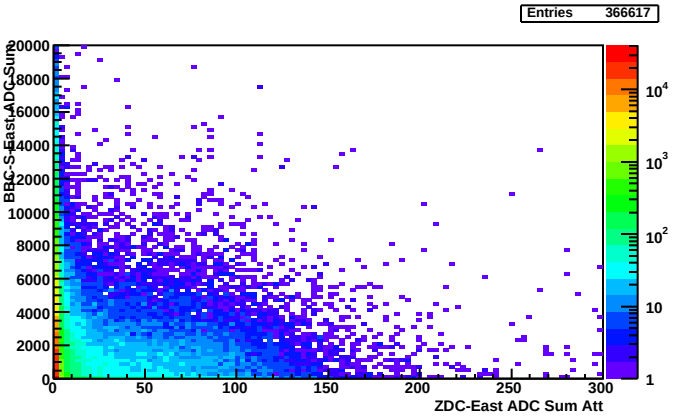

Entries 366617
TOF Mult
ZDC-West ADC Sum Att

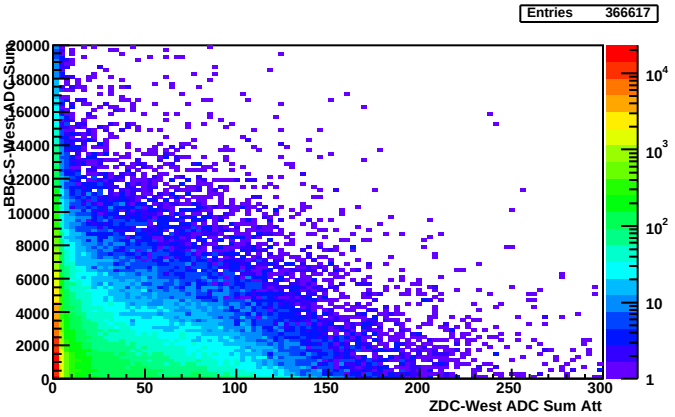

Entries 366617
BBC-L-East ADC Sum
BBC-S-East ADC Sum

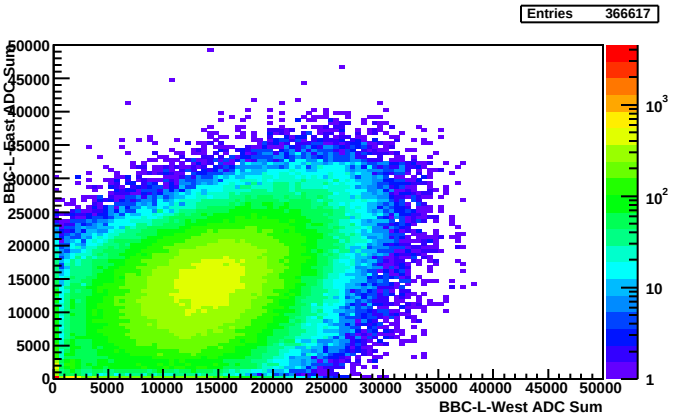

Entries 366617
BBC-L-West ADC Sum
BBC-S-West ADC Sum

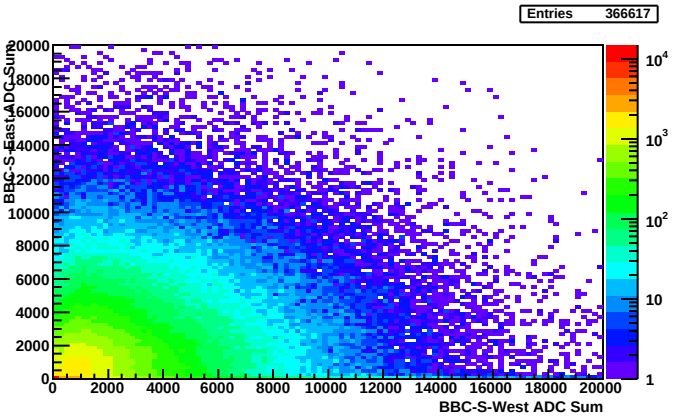

Entries 366617
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

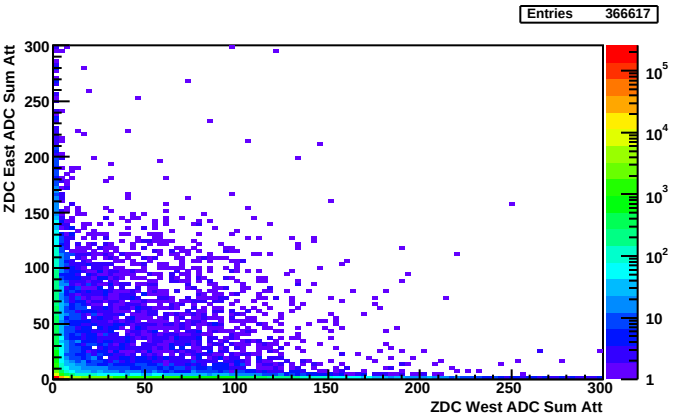

Entries 366617
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

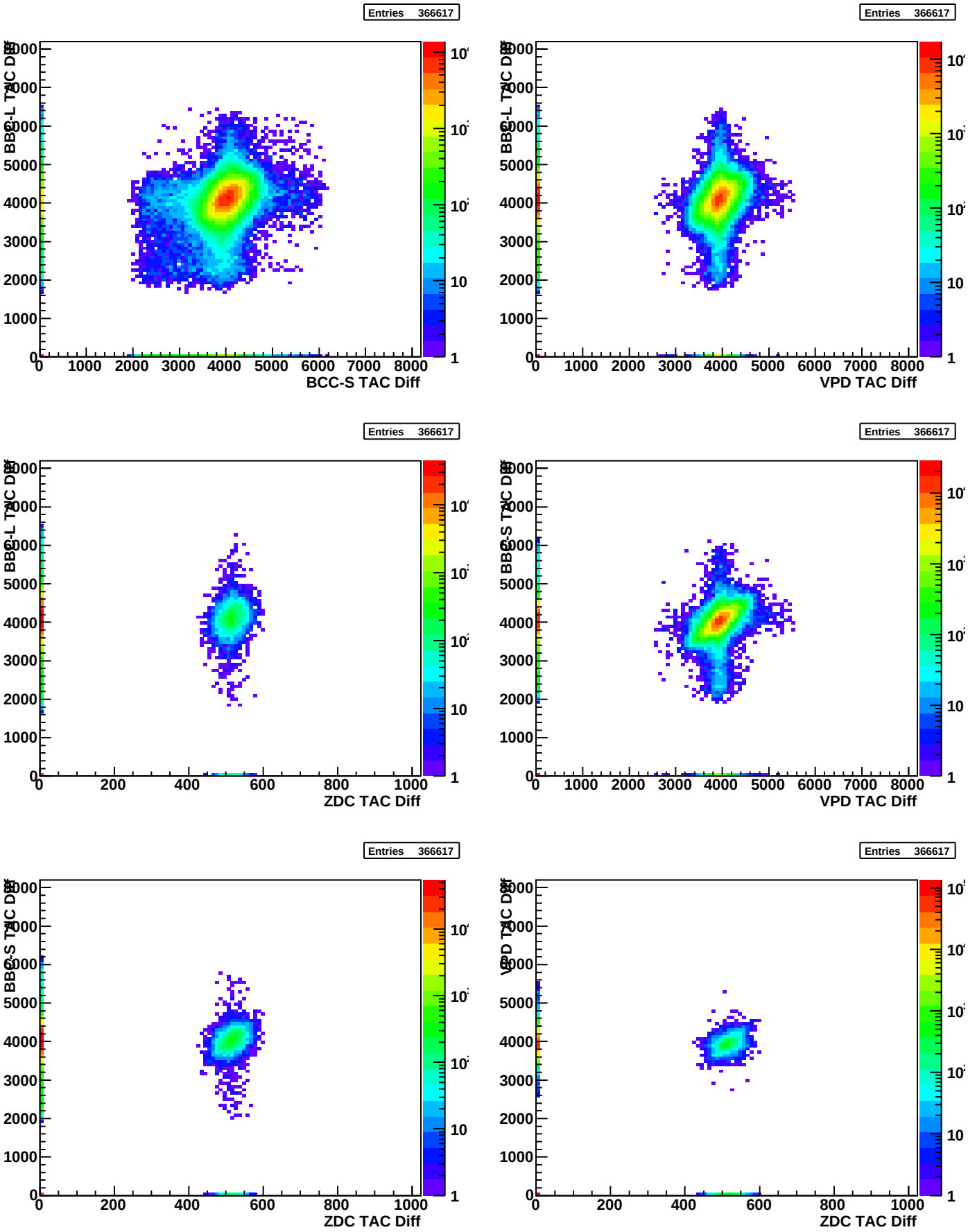

Entries 366617
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

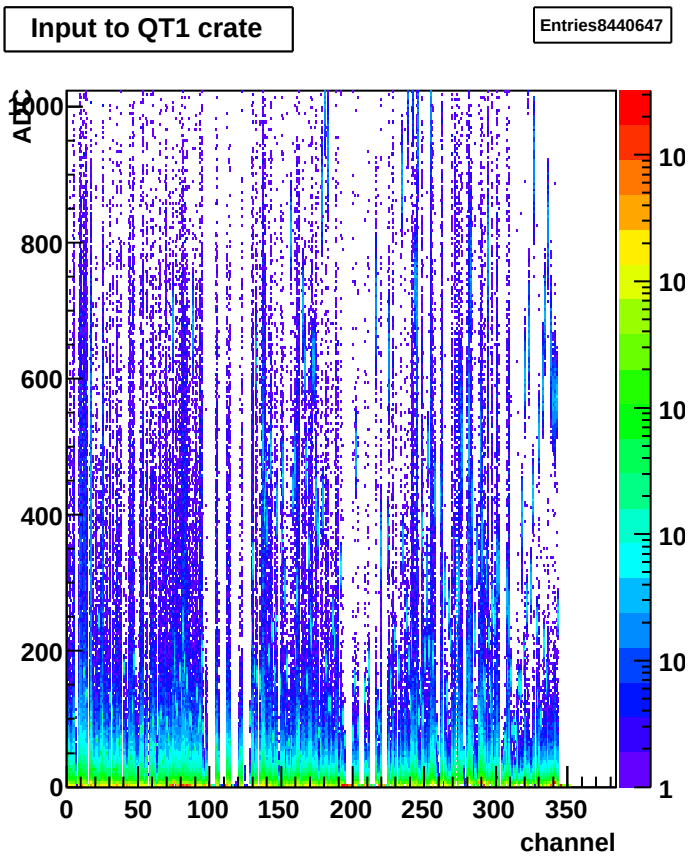

Entries 366617
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

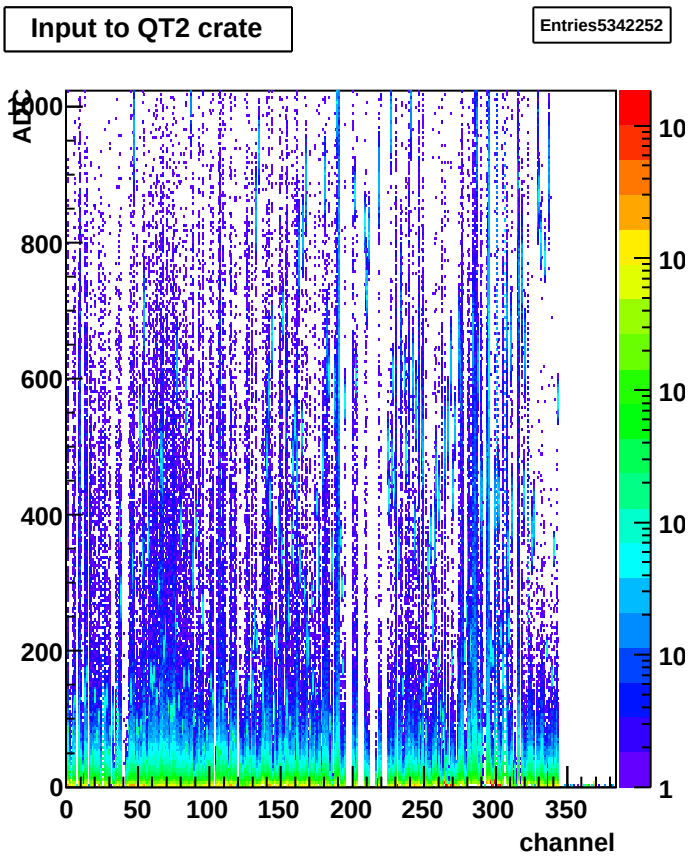

Entries 366617
BBC-L-East ADC Sum
BBC-L-West ADC Sum

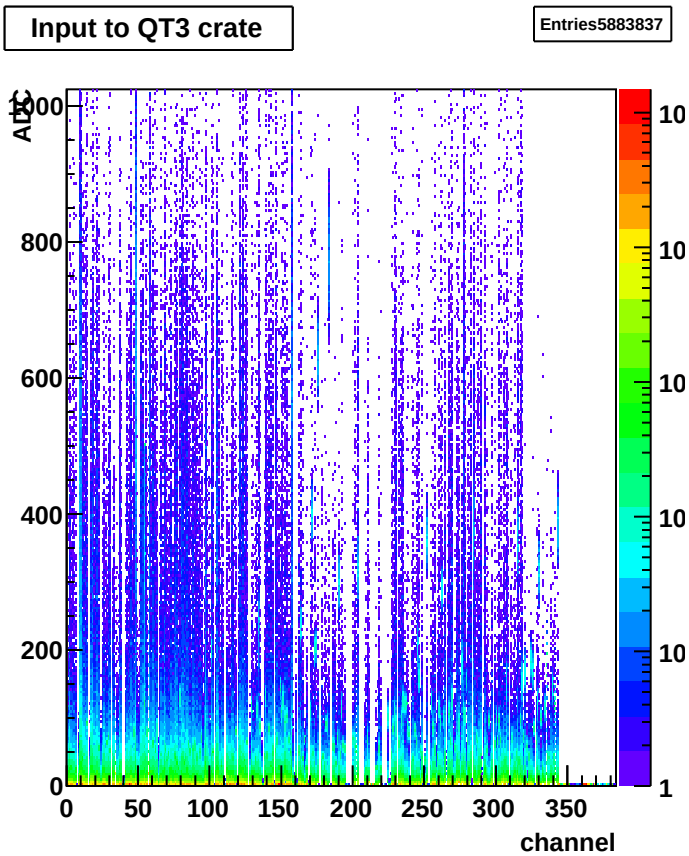

Entries 366617
BBC-S-East ADC Sum
BBC-S-West ADC Sum

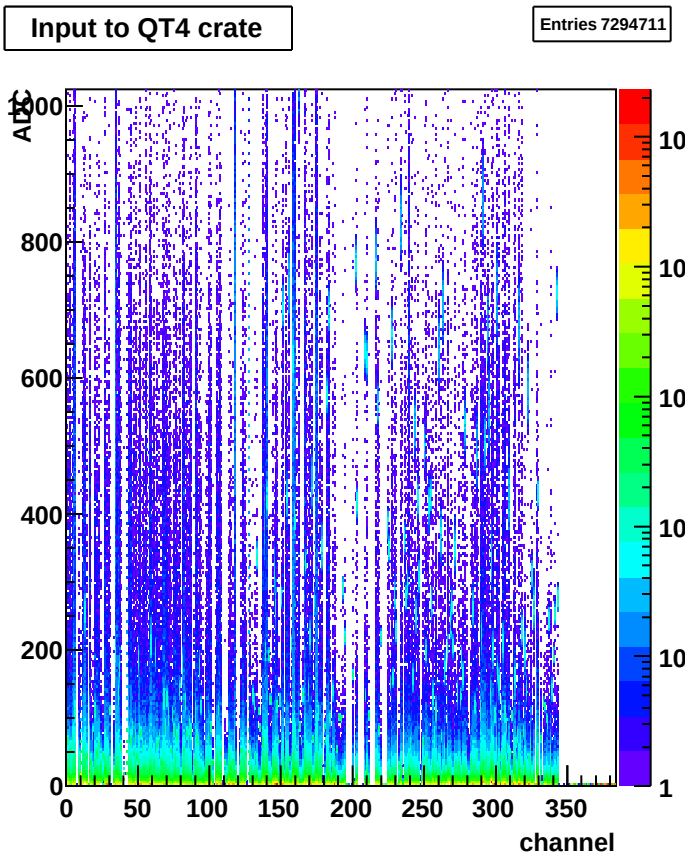

Entries 366617
ZDC East ADC Sum Att
ZDC West ADC Sum Att

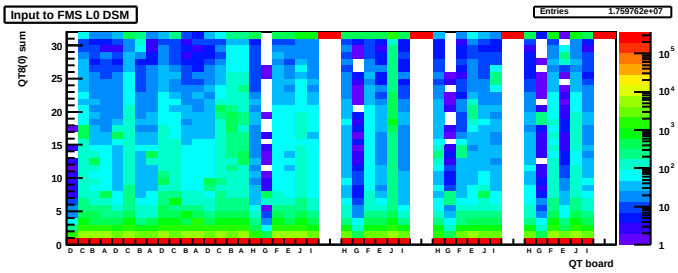

Entries 366617
BBC-L TAC Diff
BCC-S TAC Diff
Entries 366617
BBC-L TAC Diff
VPD TAC Diff
Entries 366617
BBC-L TAC Diff
ZDC TAC Diff
Entries 366617
BBC-S TAC Diff
VPD TAC Diff
Entries 366617
BBC-S TAC Diff
ZDC TAC Diff
Entries 366617
VPD TAC Diff
ZDC TAC Diff

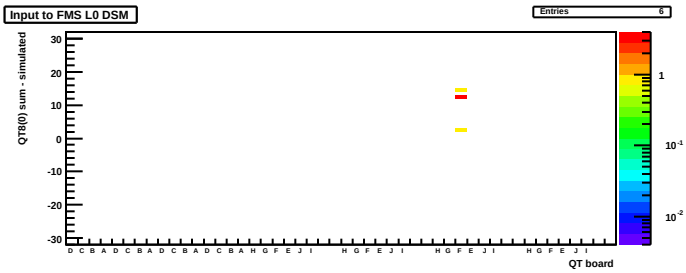

Input to QT1 crate
Entries8440647
ADC
channel

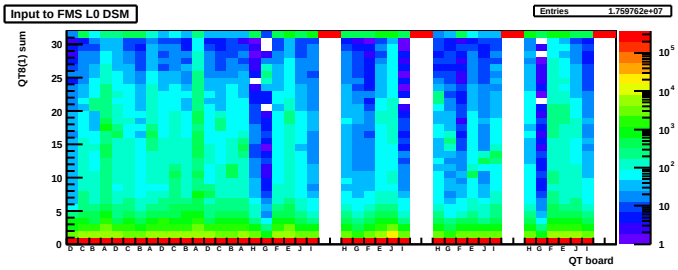

Input to QT2 crate
Entries5342252
ADC
channel

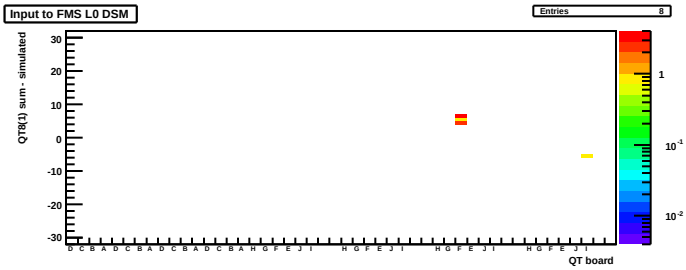

Input to QT3 crate
Entries5883837
ADC
channel

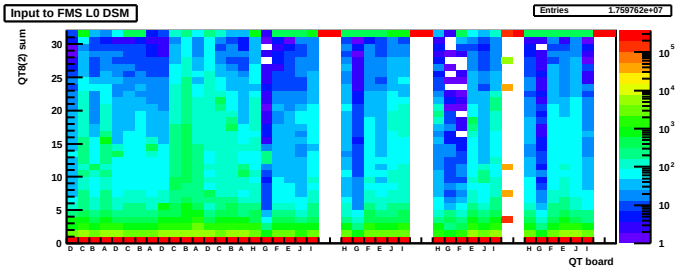

Input to QT4 crate
Entries 7294711
ADC
channel

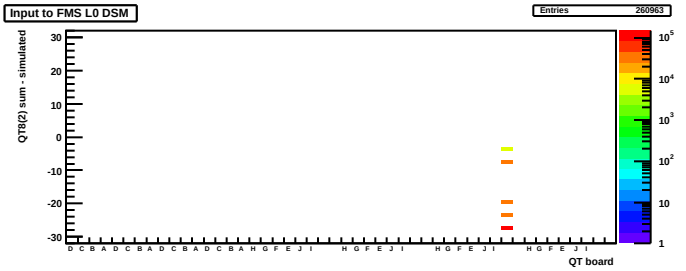

Input to FMS L0 DSM
Entries 1.759762e+07
QT8(0) sum
QT board

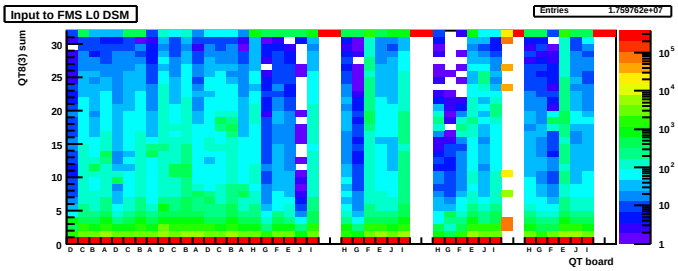

Input to FMS L0 DSM
Entries 6
QT8(0) sum - simulated
QT board

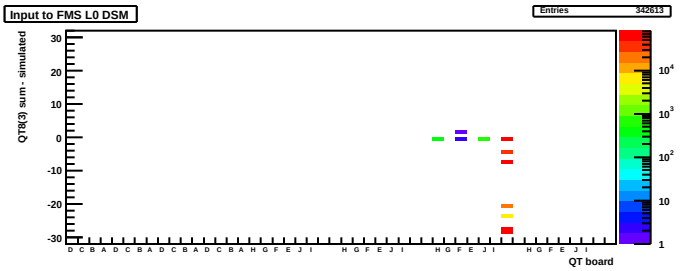

Input to FMS L0 DSM
Entries 1.759762e+07
QT8(1) sum
QT board

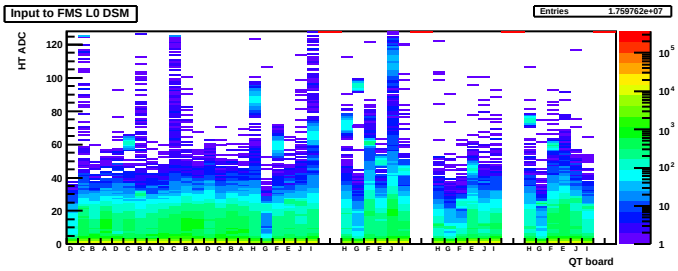

Input to FMS L0 DSM
Entries 8
QT8(1) sum - simulated
QT board

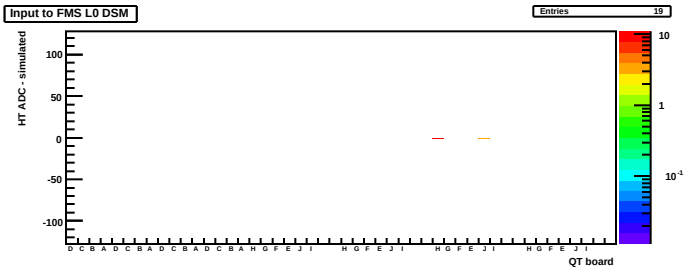

Input to FMS L0 DSM
Entries 1.759762e+07
QT8(2) sum
QT board

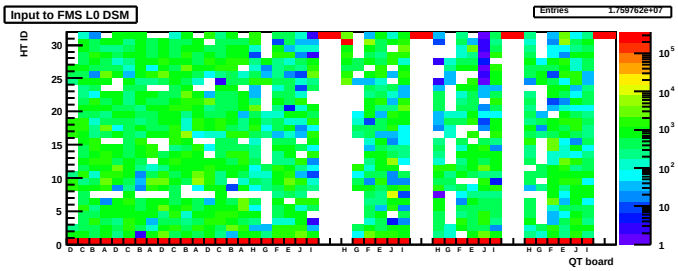

Input to FMS L0 DSM
Entries 260963
QT8(2) sum - simulated
QT board

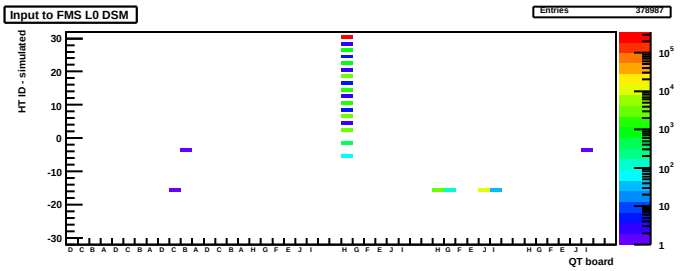

Input to FMS L0 DSM
Entries 1.759762e+07
QT8(3) sum
QT board

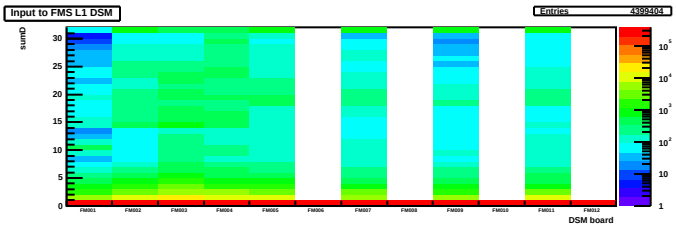

Input to FMS L0 DSM
Entries 342613
QT8(3) sum - simulated
QT board

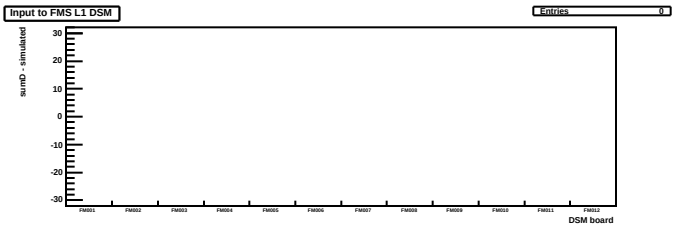

Input to FMS L0 DSM
Entries 1.759762e+07
HT ADC
QT board

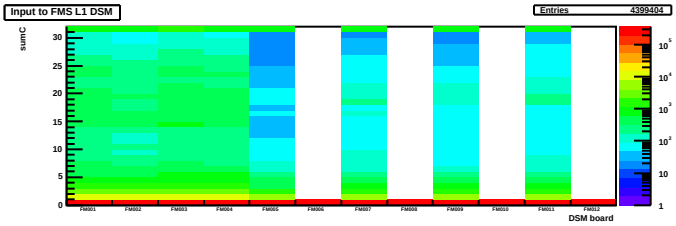

Input to FMS L0 DSM
Entries 19
HT ADC - simulated
QT board

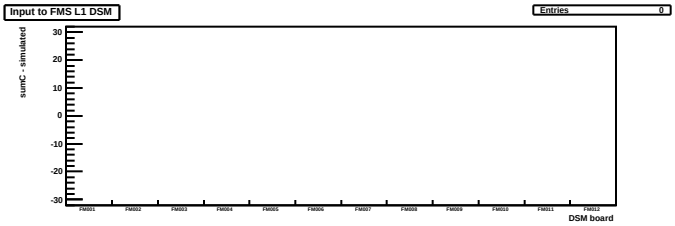

Input to FMS L0 DSM
Entries 1.759762e+07
HT ID
QT board

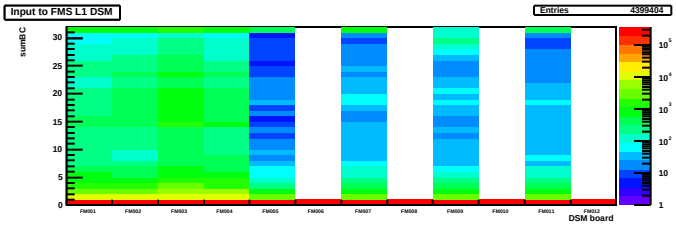

Input to FMS L0 DSM
Entries 378987
HT ID - simulated
QT board

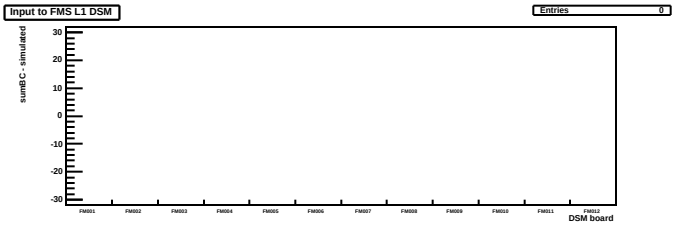

Input to FMS L1 DSM
Entries 4399404
sumD
DSM board

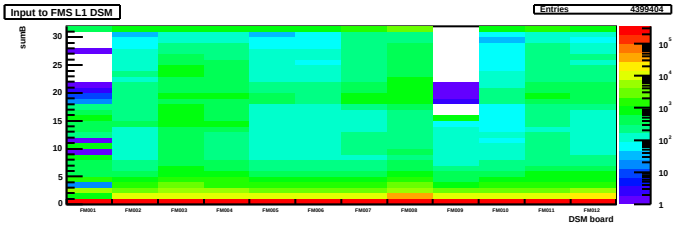

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

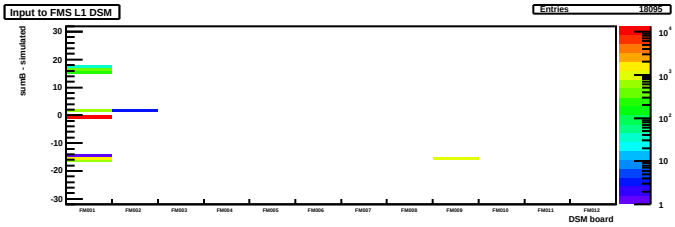

Input to FMS L1 DSM
Entries 4399404
sumC
DSM board

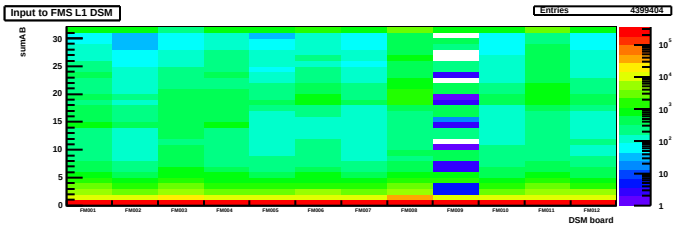

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

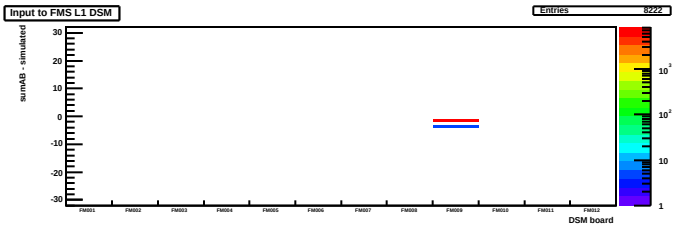

Input to FMS L1 DSM
Entries 4399404
sumBC
DSM board

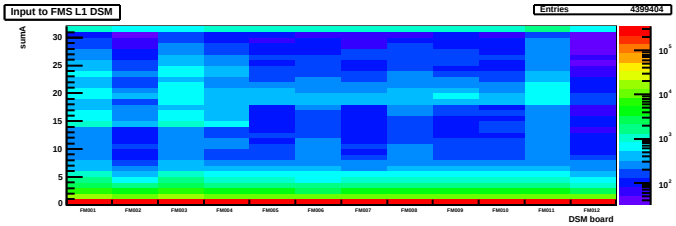

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

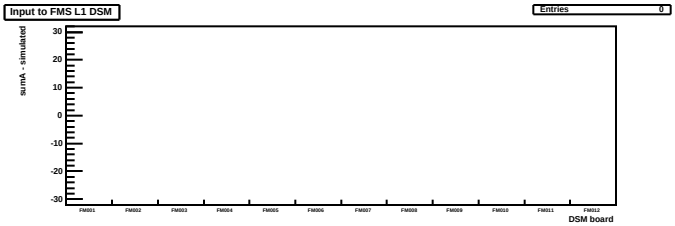

Input to FMS L1 DSM
Entries 4399404
sumB
DSM board

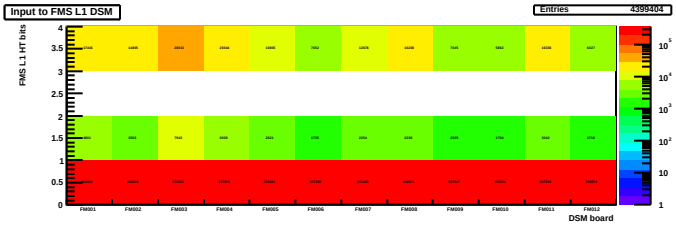

Input to FMS L1 DSM
Entries 18095
sumB - simulated
DSM board

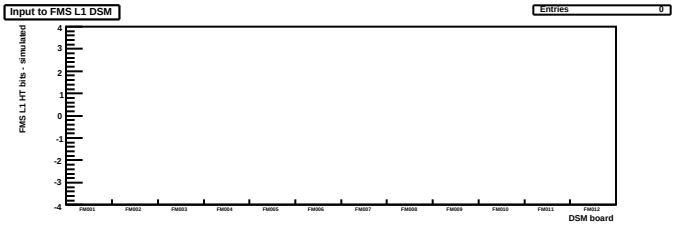

Input to FMS L1 DSM
Entries 4399404
sumAB
DSM board

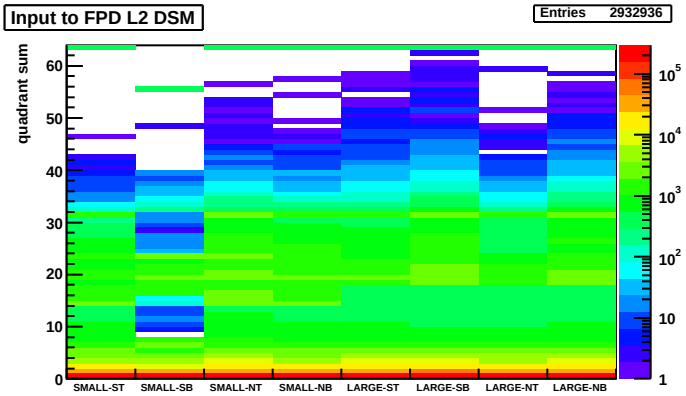

Input to FMS L1 DSM
Entries 8222
sumAB - simulated
DSM board

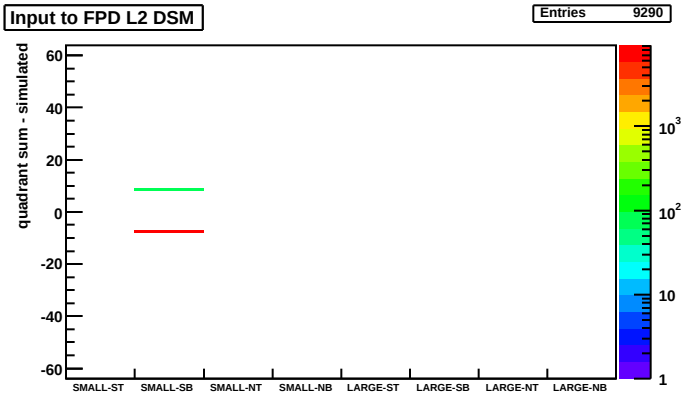

Input to FMS L1 DSM
Entries 4399404
sumA
DSM board

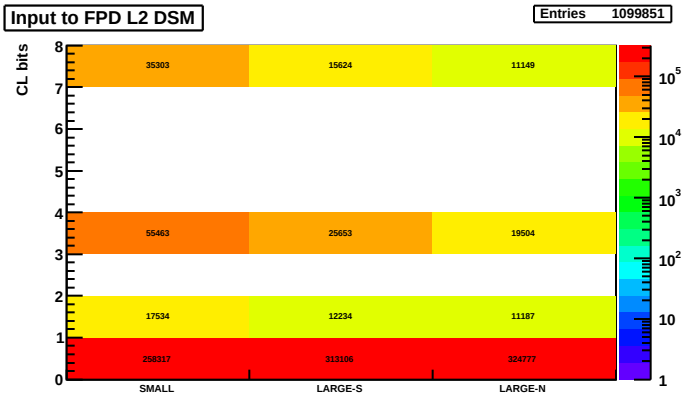

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

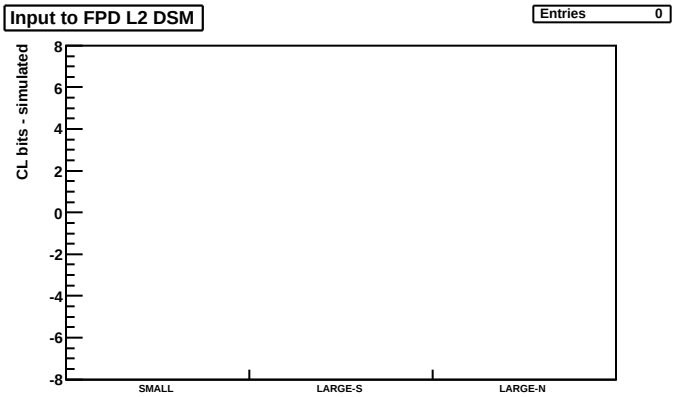

Input to FMS L1 DSM
Entries 4399404
FMS L1 HT bits
DSM board

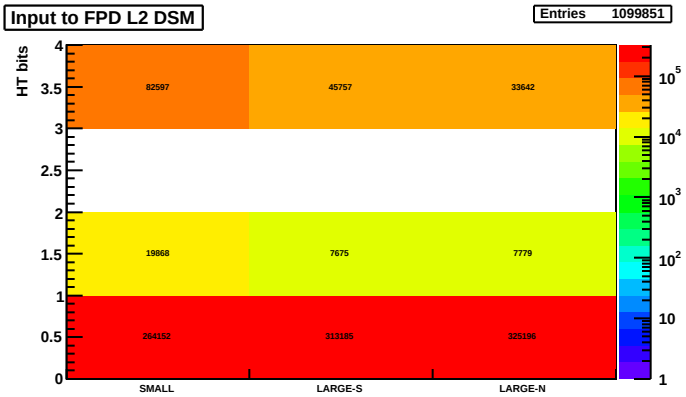

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

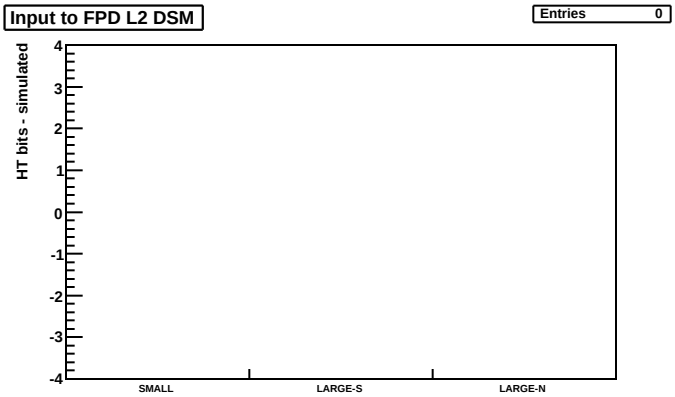

Input to FPD L2 DSM
Entries 2932936
quadrant sum
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

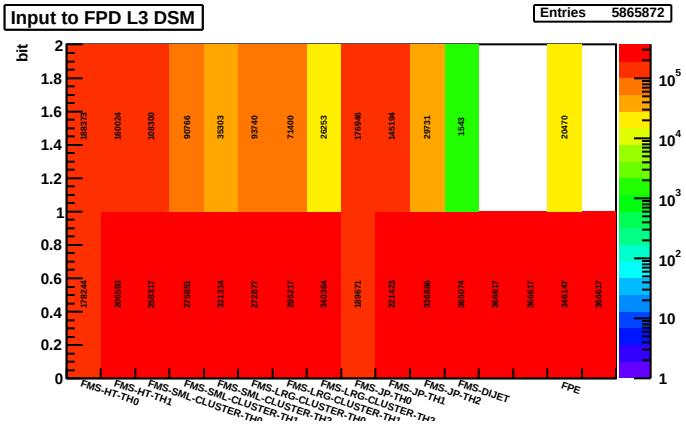

Input to FPD L2 DSM
Entries 9290
quadrant sum - simulated
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

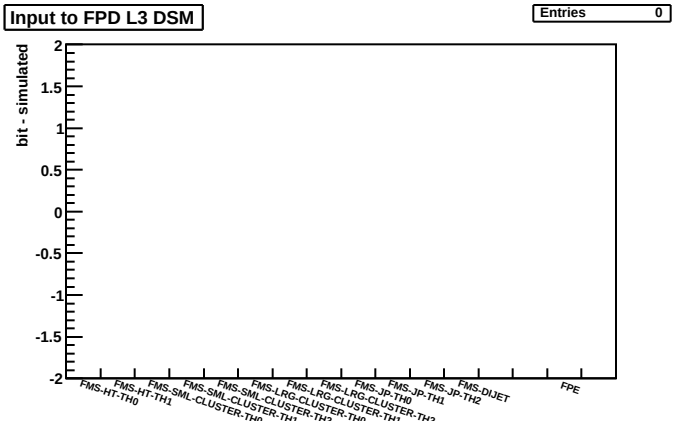

Input to FPD L2 DSM
Entries 1099851
CL bits
35303 15624 11149
55463 25653 19504
17534 12234 11187
258317 313106 324777
SMALL LARGE-S LARGE-N

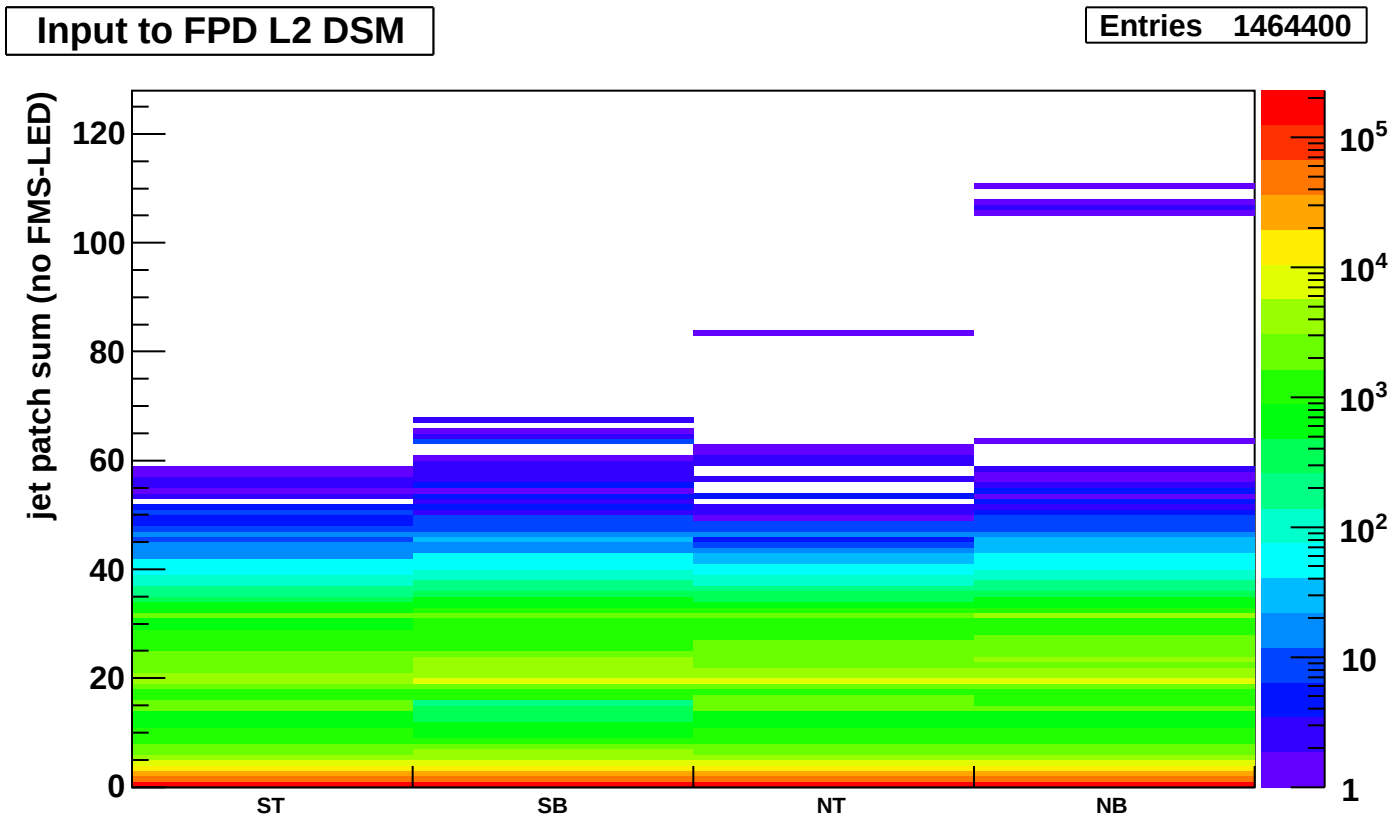

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL LARGE-S LARGE-N

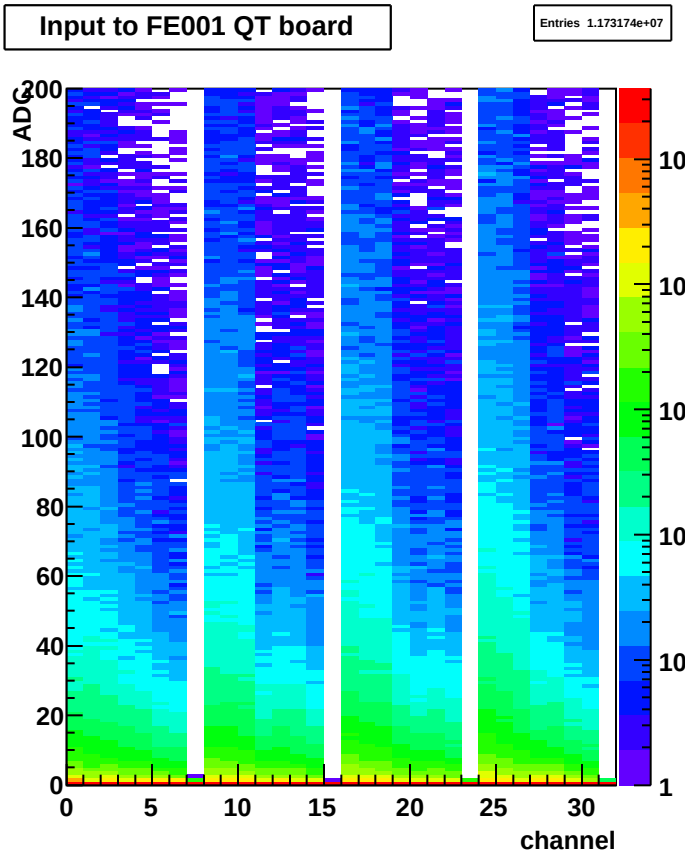

Input to FPD L2 DSM
Entries 1099851
HT bits
82597 45757 33642
19868 7675 7779
264152 313185 325196
SMALL LARGE-S LARGE-N

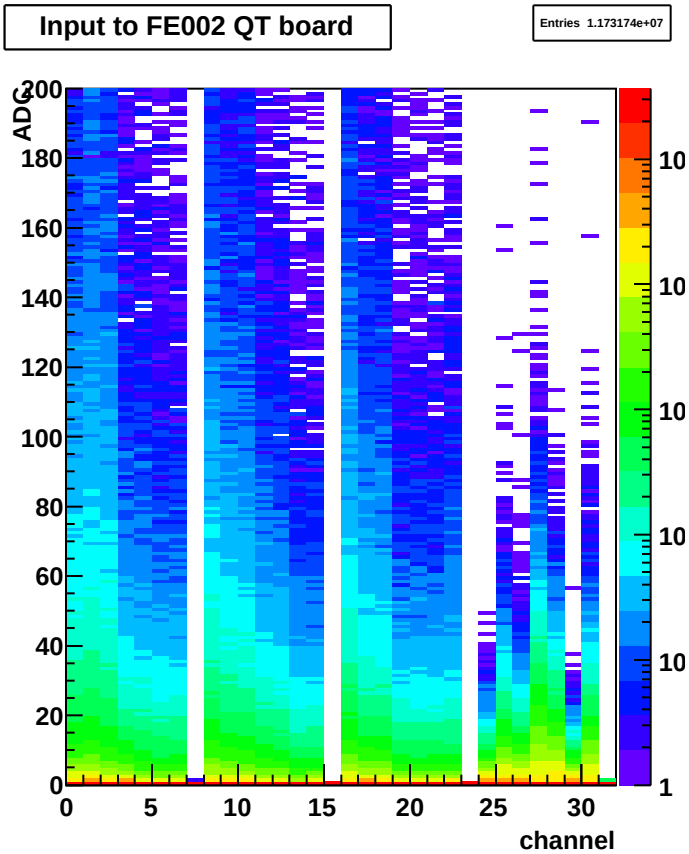

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL LARGE-S LARGE-N

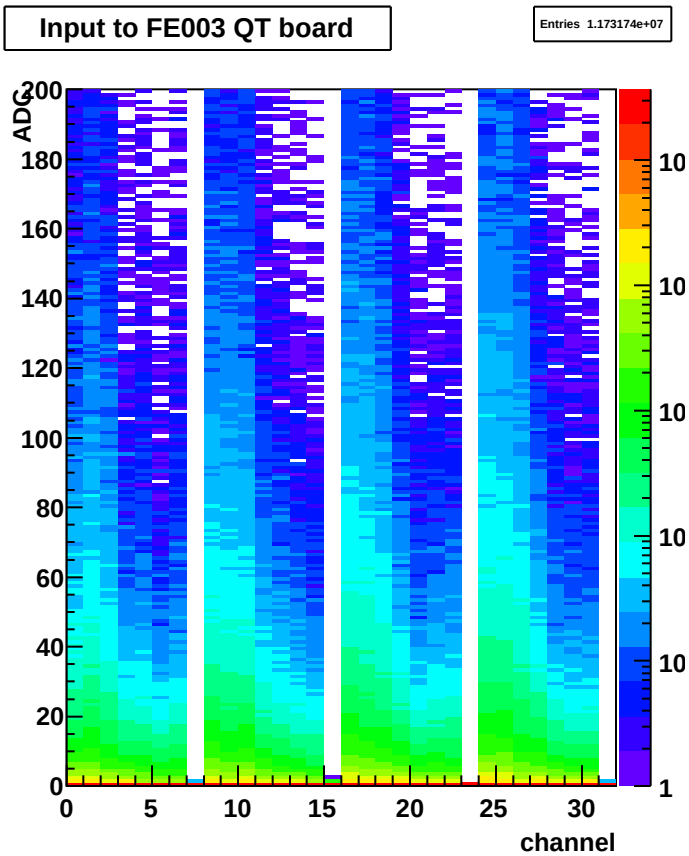

Input to FPD L3 DSM
Entries 5865872
bit
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

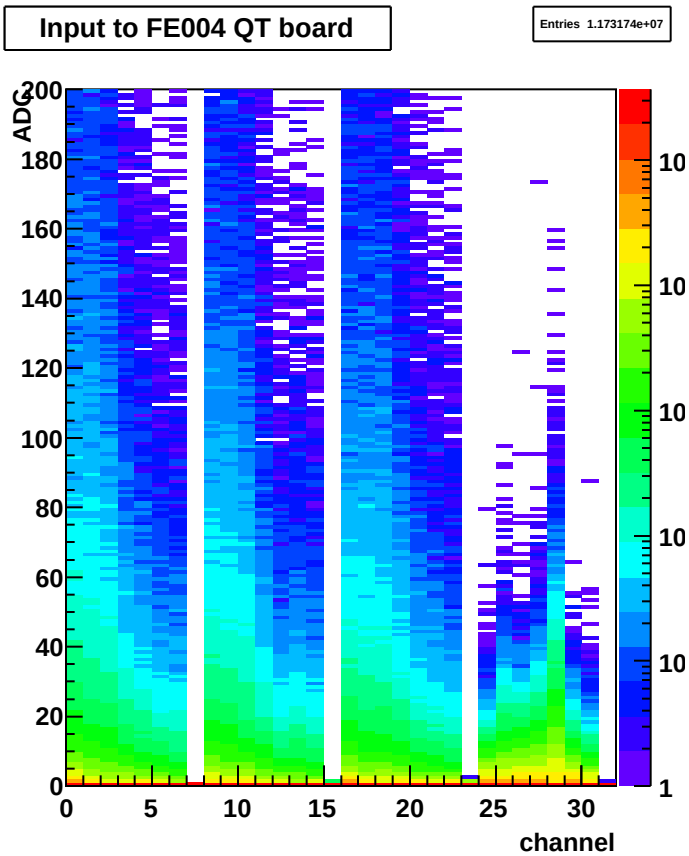

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

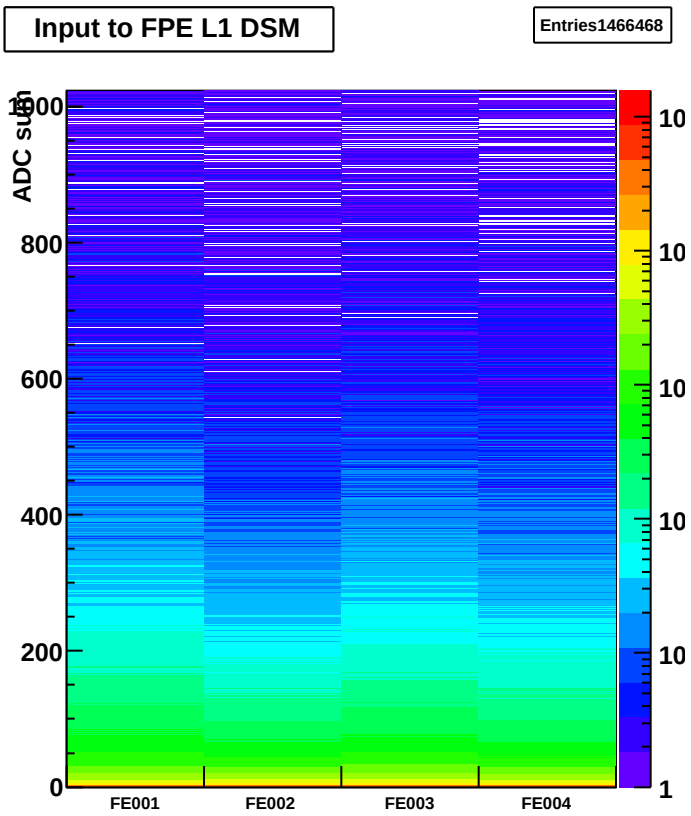

Input to FPD L2 DSM
Entries 1464400
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

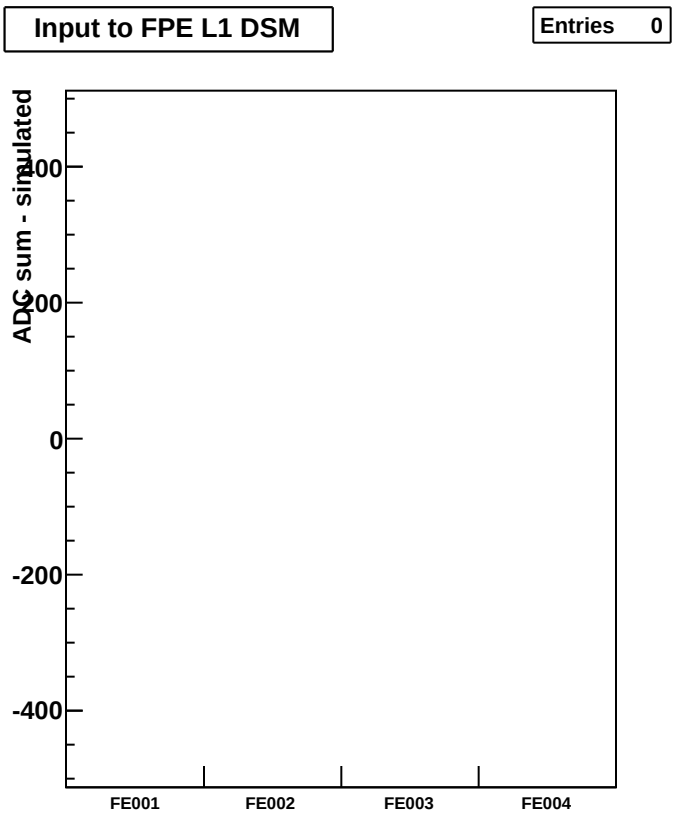

Input to FE001 QT board
Entries 1.173174e+07
ADC
channel

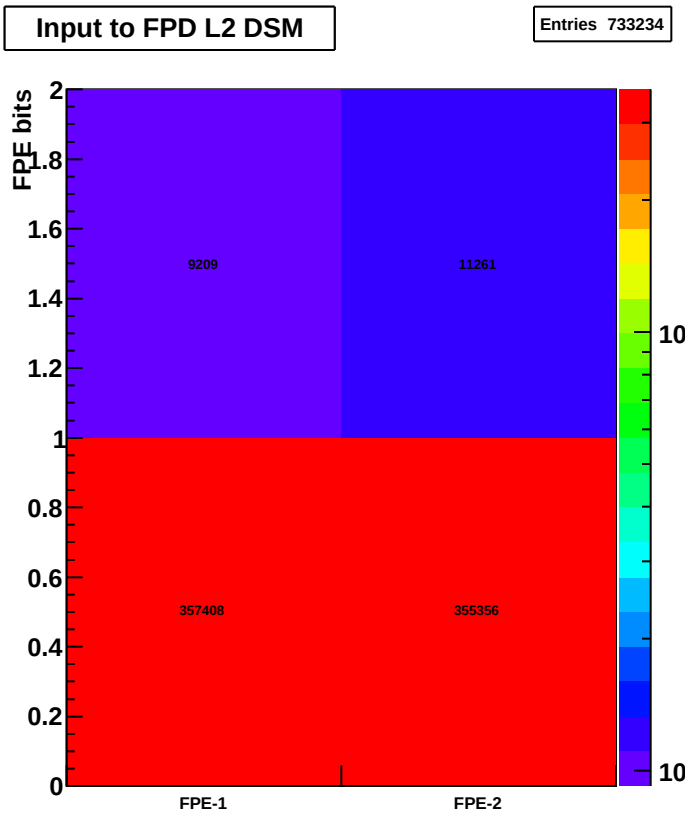

Input to FE002 QT board
Entries 1.173174e+07
ADC
channel

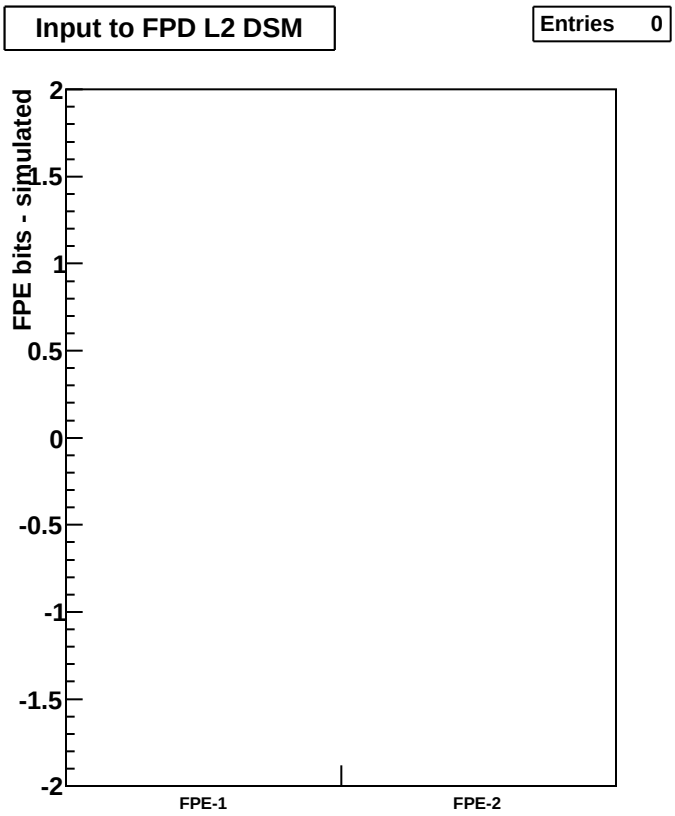

Input to FE003 QT board
Entries 1.173174e+07
ADC
channel


Input to FE004 QT board
Entries 1.173174e+07
ADC
channel


Input to FPE L1 DSM
Entries1466468
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 733234
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
9209
11261
357408
355356
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