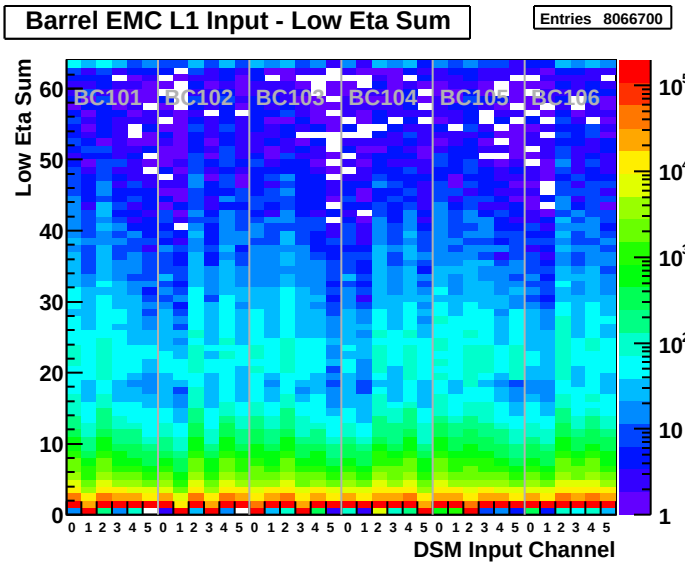
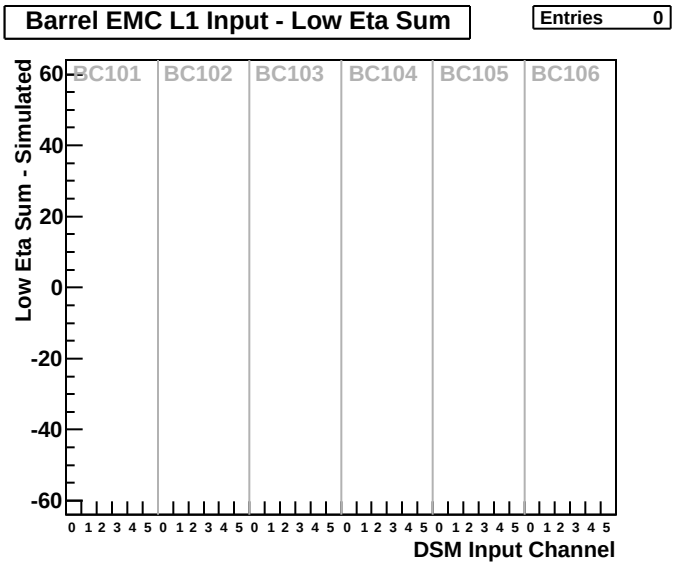
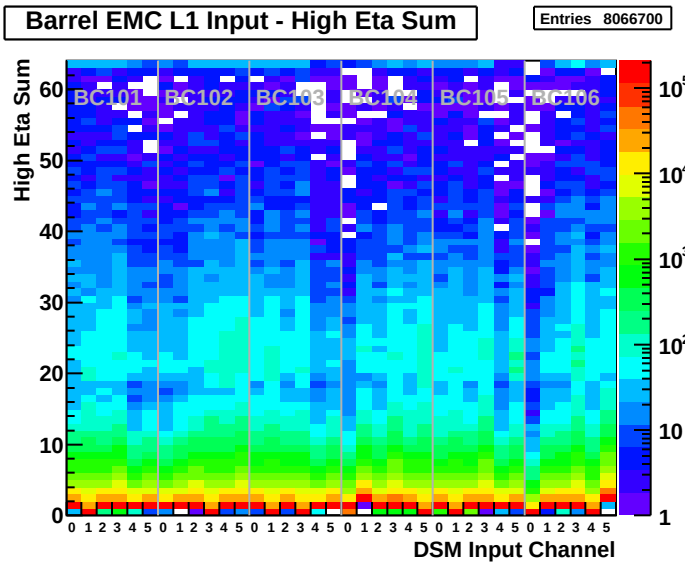
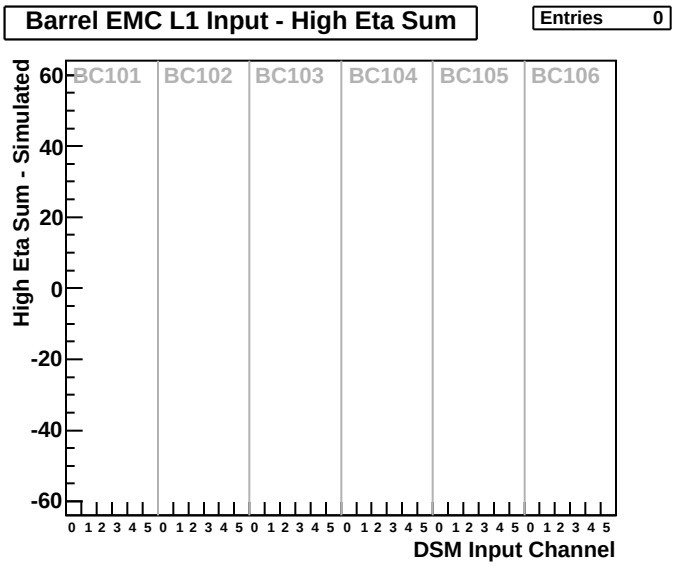
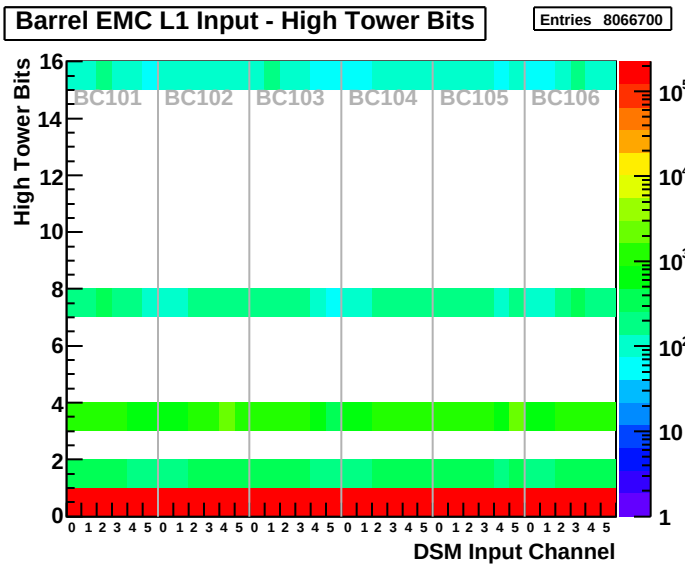
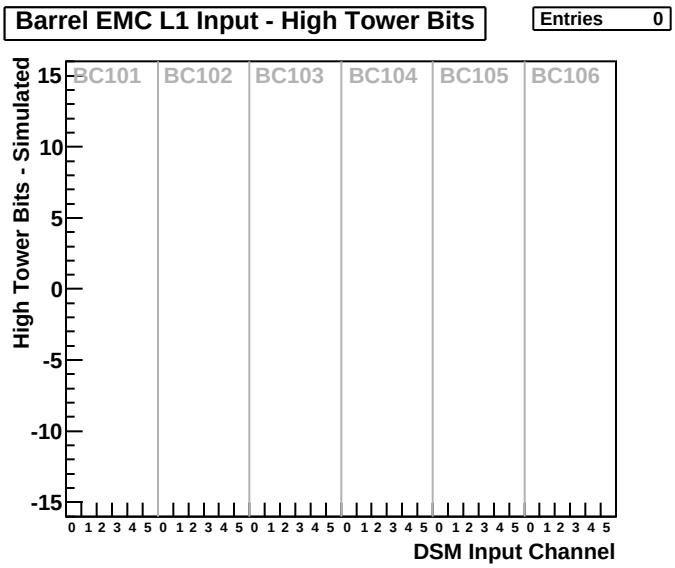

Barrel EMC L1 Input - Low Eta Sum
Entries 8066700
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

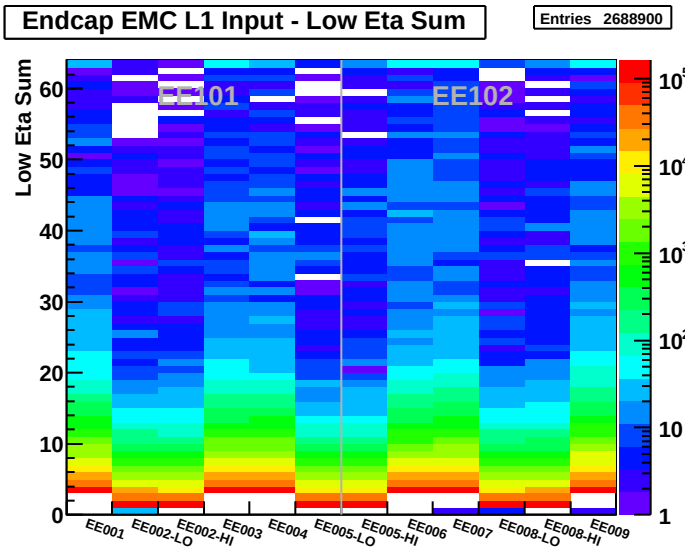

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

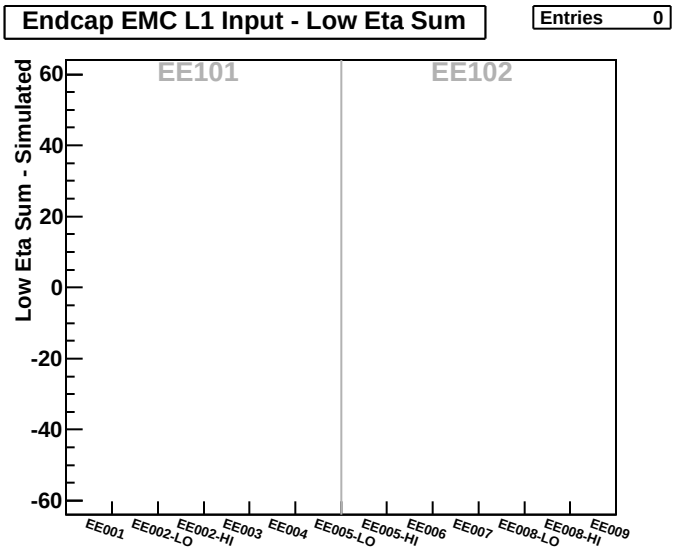

Barrel EMC L1 Input - High Eta Sum
Entries 8066700
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

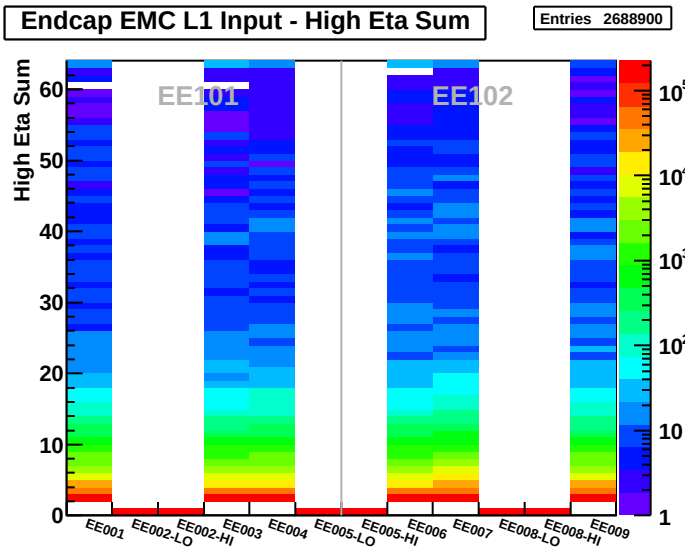

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

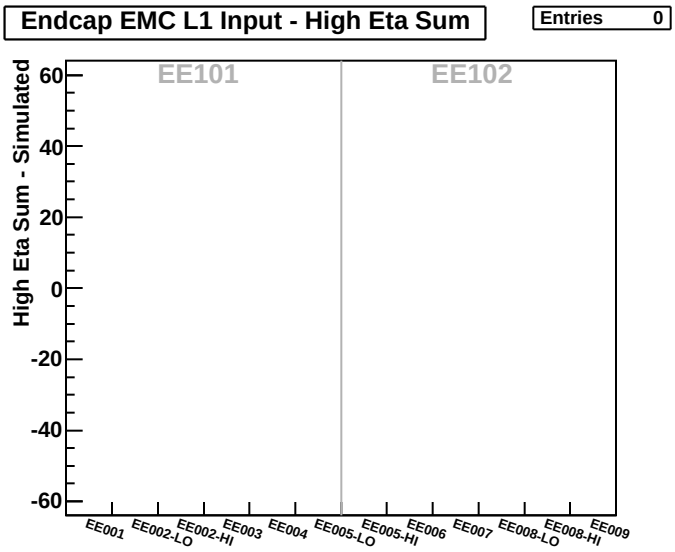

Barrel EMC L1 Input - High Tower Bits
Entries 8066700
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

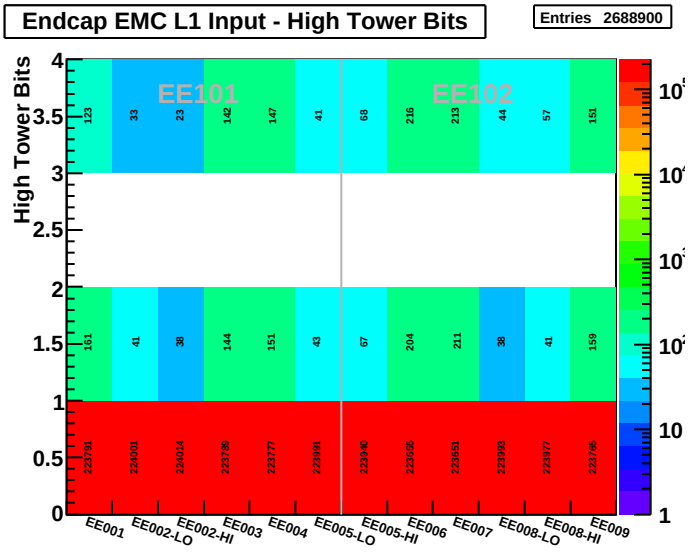

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

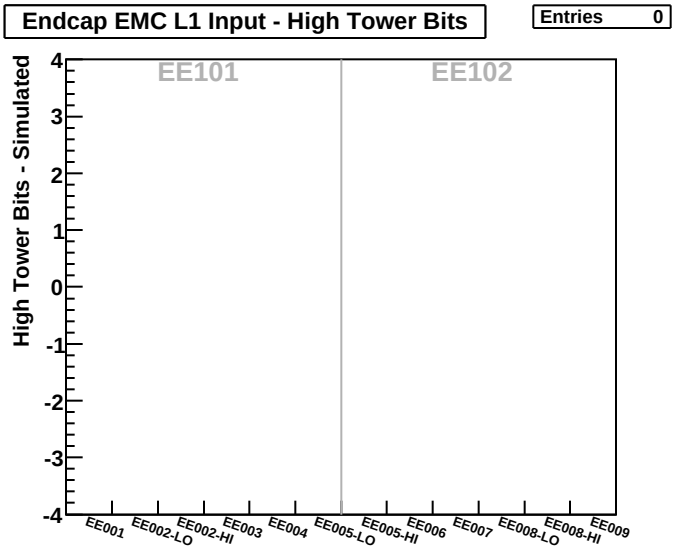

Endcap EMC L1 Input - Low Eta Sum
Entries 2688900
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

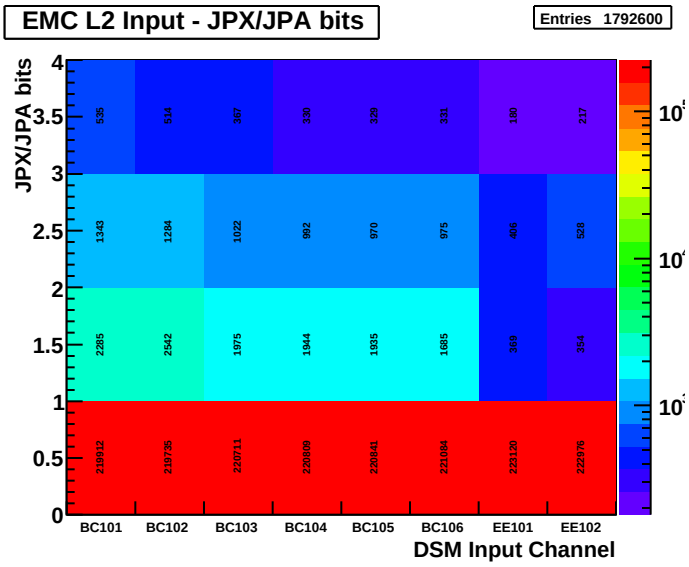

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

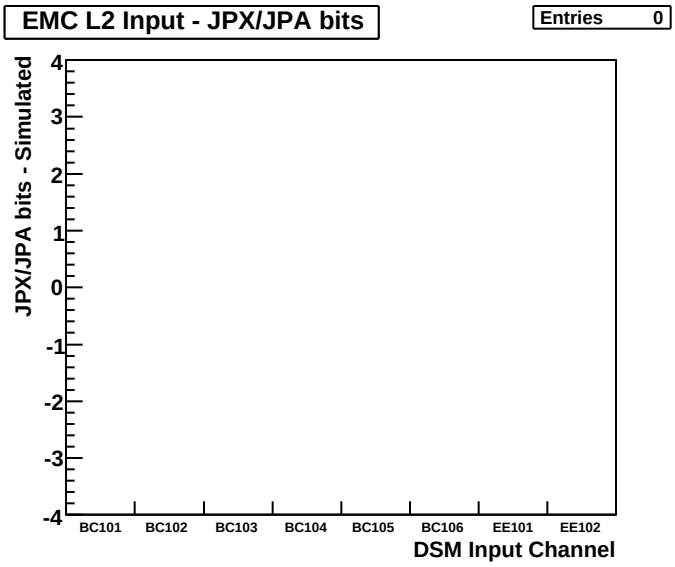

Endcap EMC L1 Input - High Eta Sum
Entries 2688900
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

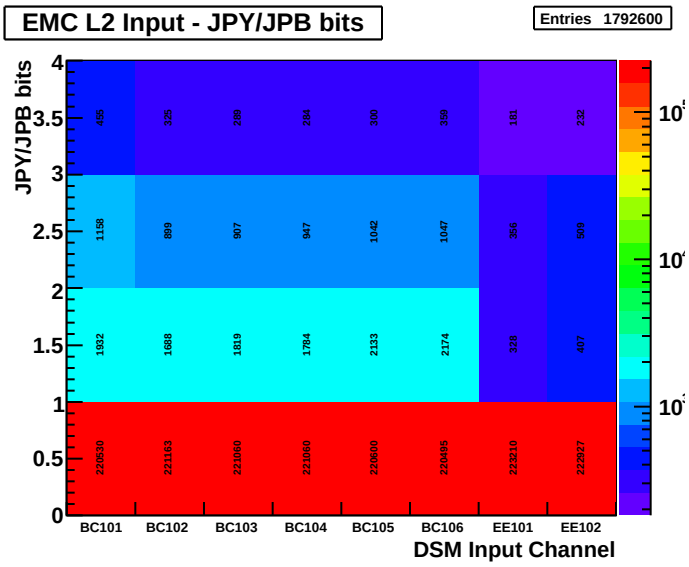

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

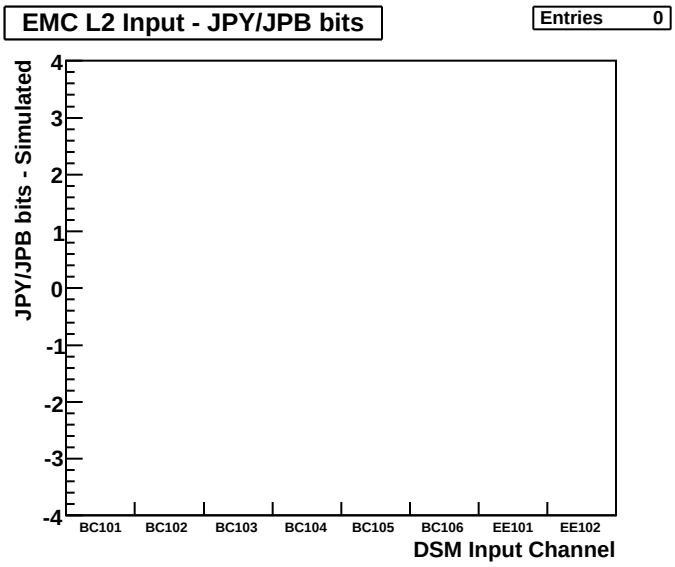

Endcap EMC L1 Input - High Tower Bits
Entries 2688900
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

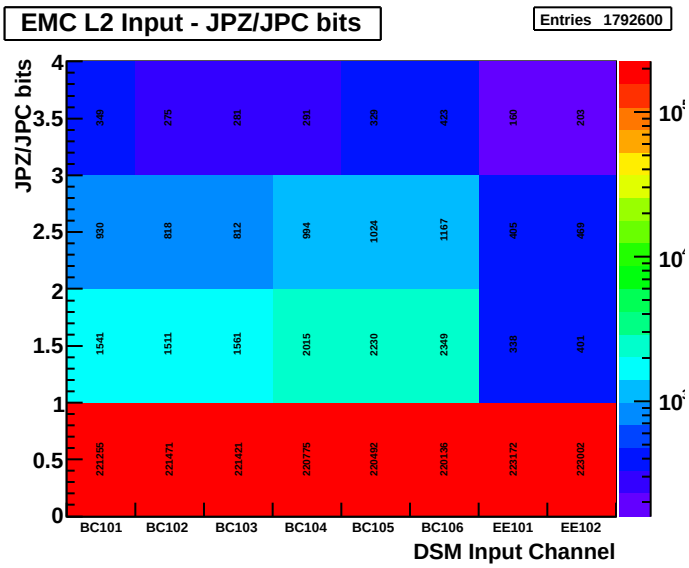

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

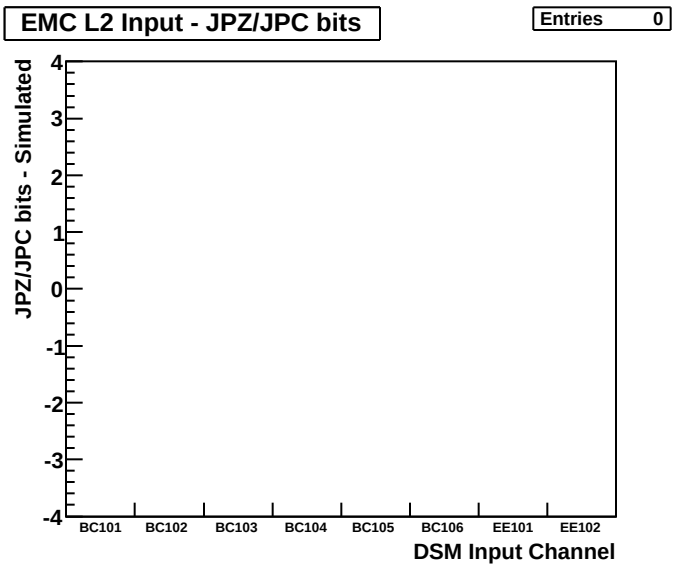

EMC L2 Input - JPX/JPA bits
Entries 1792600
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
535 514 367 330 329 331 180 217
1343 1284 1022 992 970 975 406 528
2285 2542 1975 1944 1935 1685 369 354
219912 219725 220711 220809 220841 221084 223120 222976

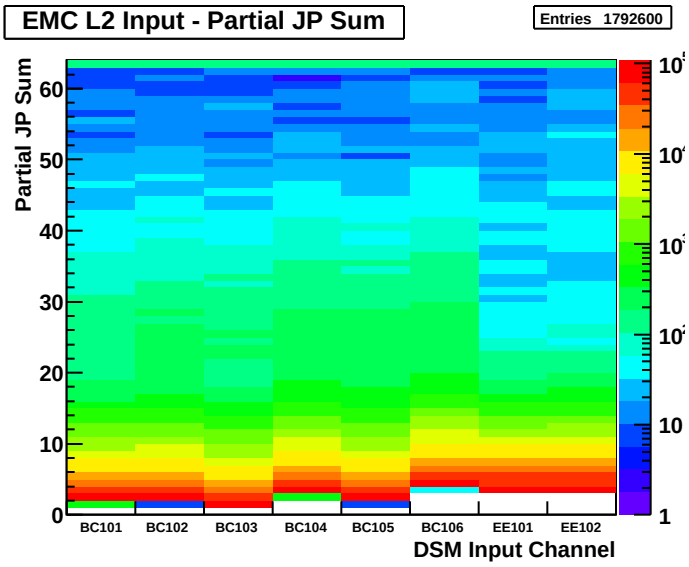

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

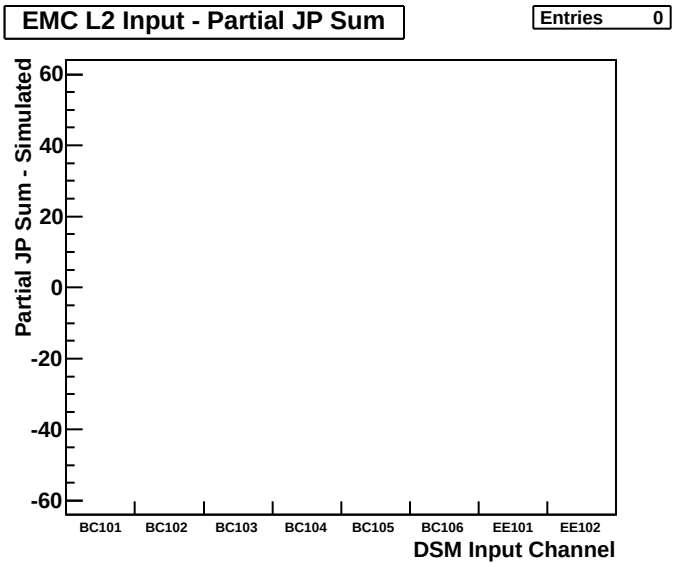

EMC L2 Input - JPY/JPB bits
Entries 1792600
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
455 325 289 284 300 359 181 232
1158 899 907 947 1042 1047 356 509
1932 1688 1819 1784 2133 2174 328 407
220530 221163 221060 221060 220600 220495 223210 222927

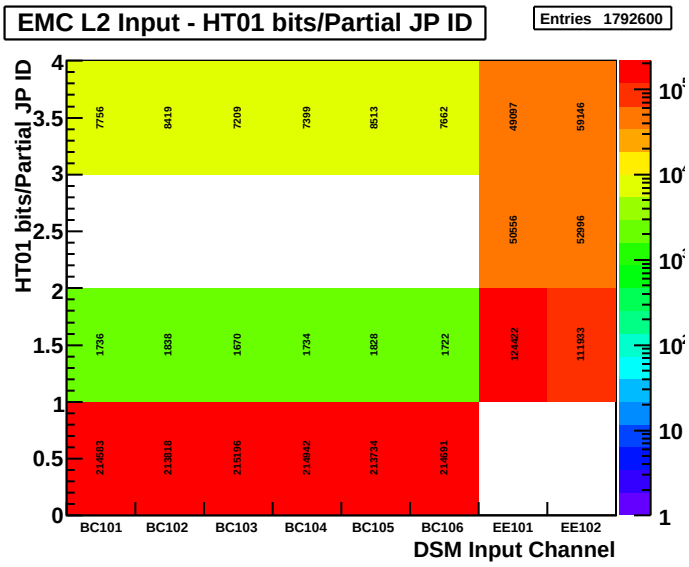

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

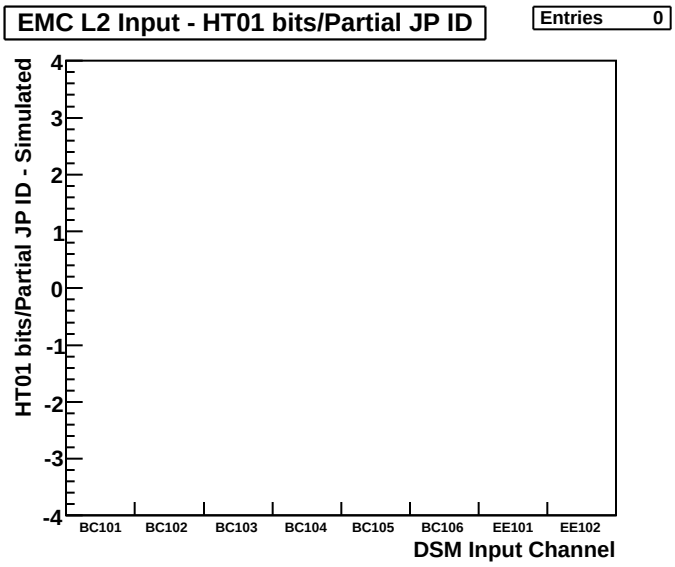

EMC L2 Input - JPZ/JPC bits
Entries 1792600
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
349 275 281 291 329 423 160 203
930 818 812 994 1024 1167 405 459
1541 1511 1561 2015 2230 2349 338 401
221255 221471 221421 220775 220492 220138 223172 223002

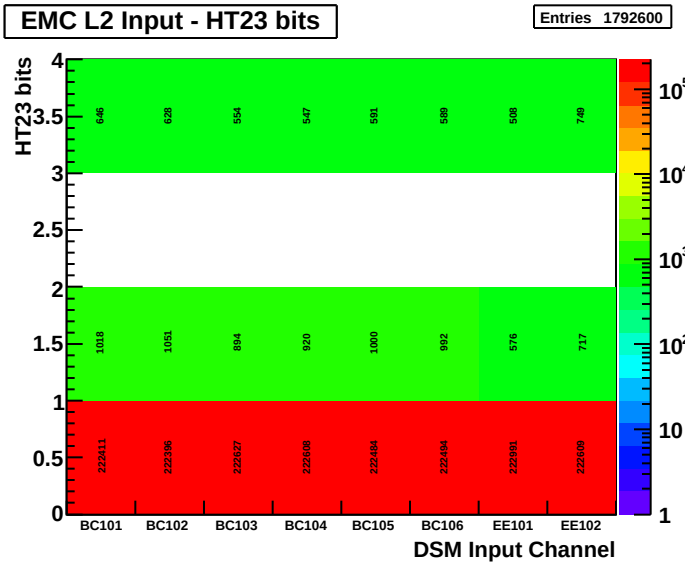

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

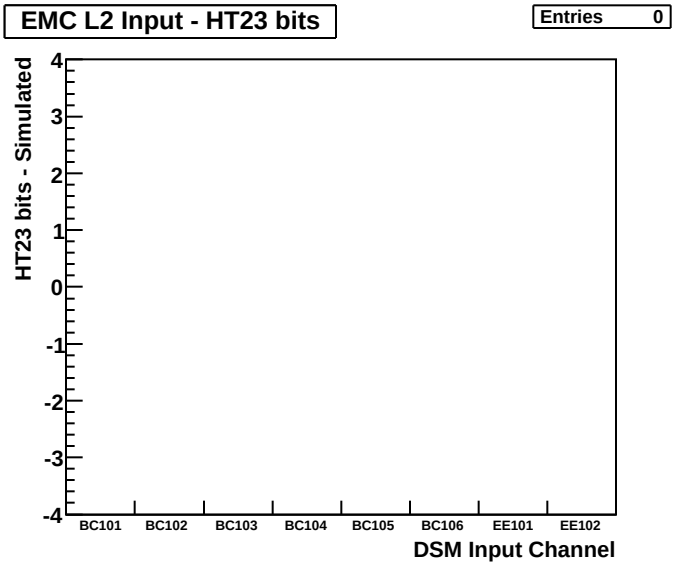

EMC L2 Input - Partial JP Sum
Entries 1792600
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

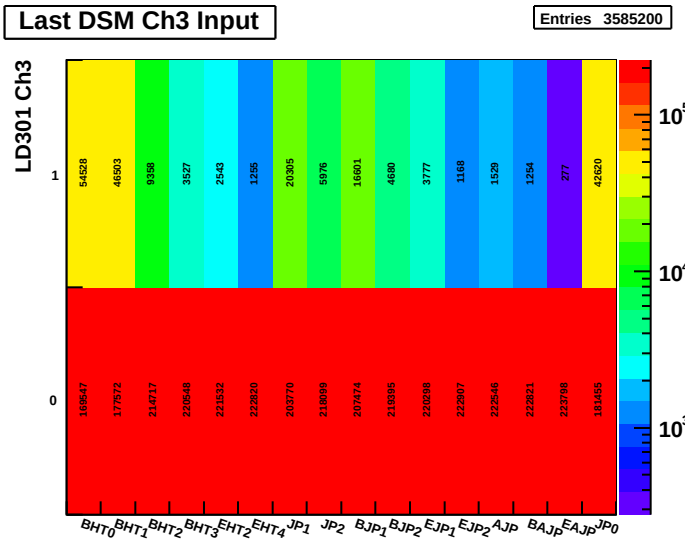

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

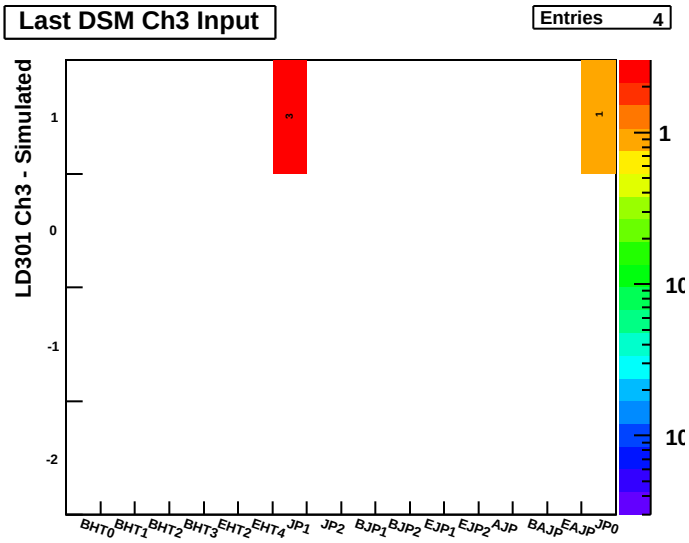

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1792600
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

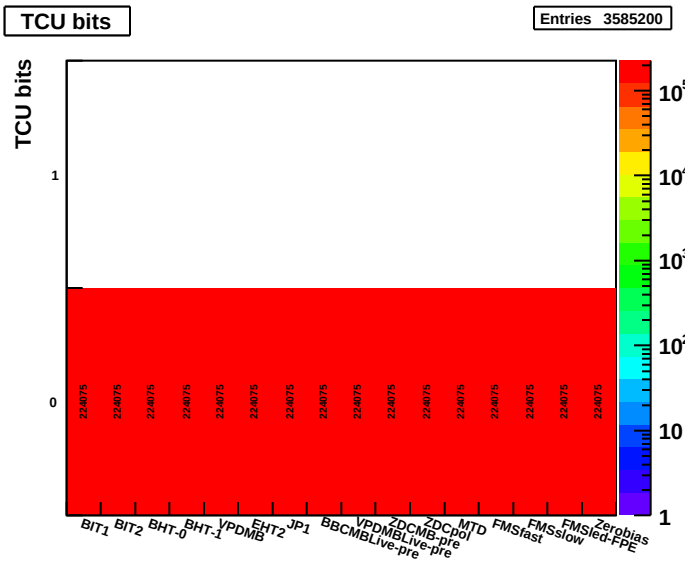

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

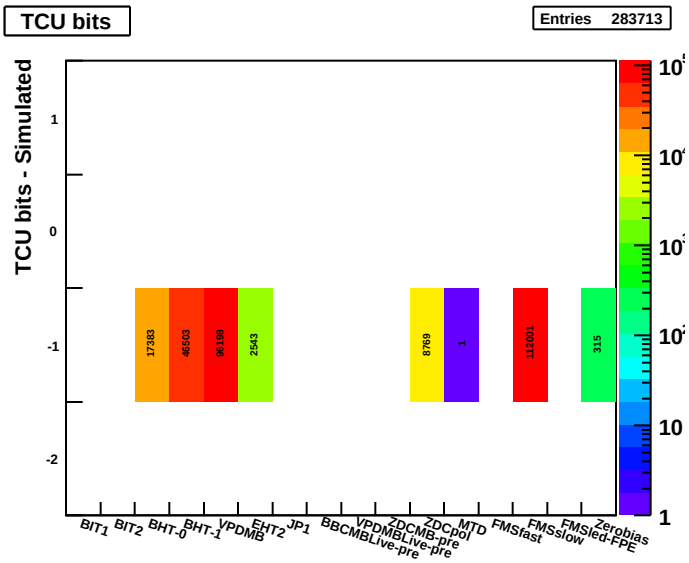

EMC L2 Input - HT23 bits
Entries 1792600
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

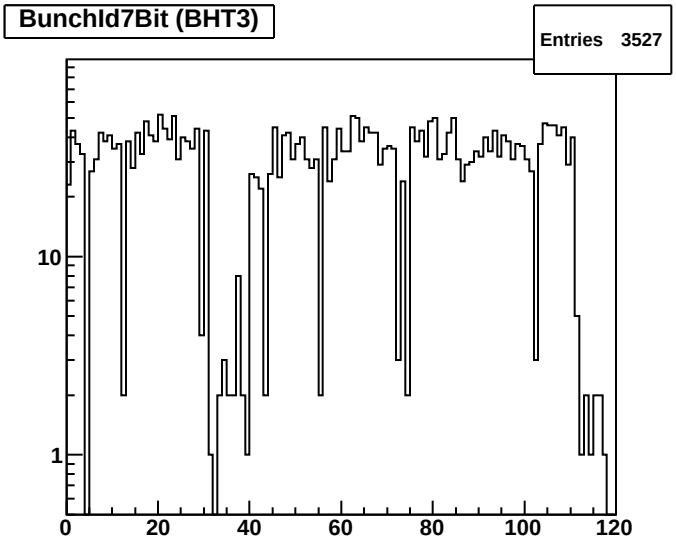

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

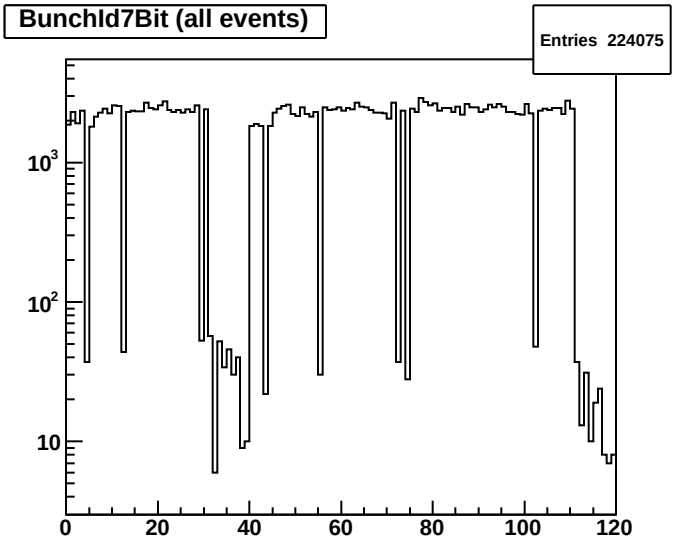

Last DSM Ch3 Input
Entries 3585200
LD301 Ch3
1
0
54528 46503 9358 3527 2543 1235 20305 5976 16601 4680 3777 1168 1529 1254 277 42620
169547 177572 214717 220548 221532 222820 203770 218099 207474 219395 220298 222907 222546 222821 223798 181455
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

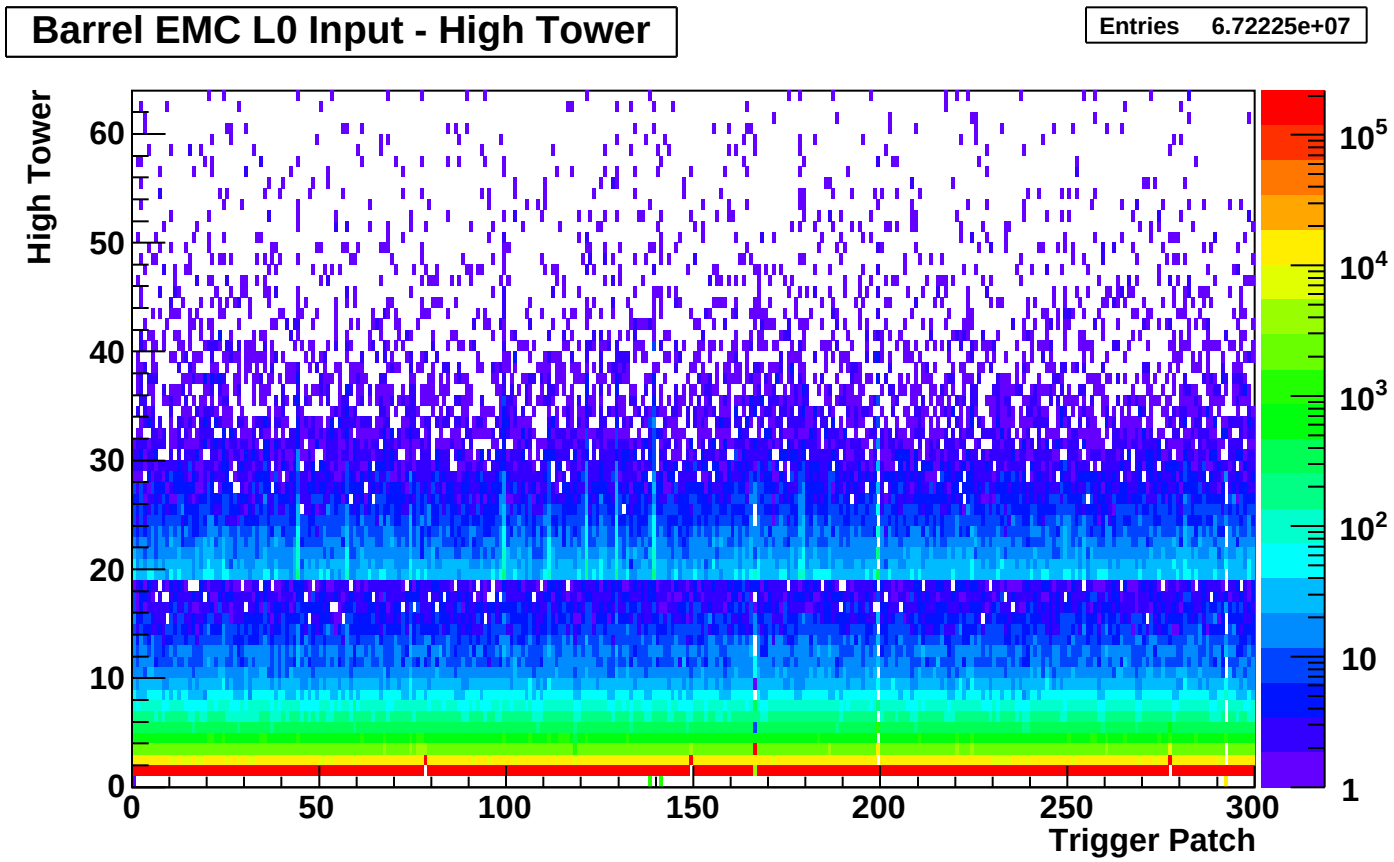

Last DSM Ch3 Input
Entries 4
LD301 Ch3 - Simulated
1
0
-1
-2
3
1
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

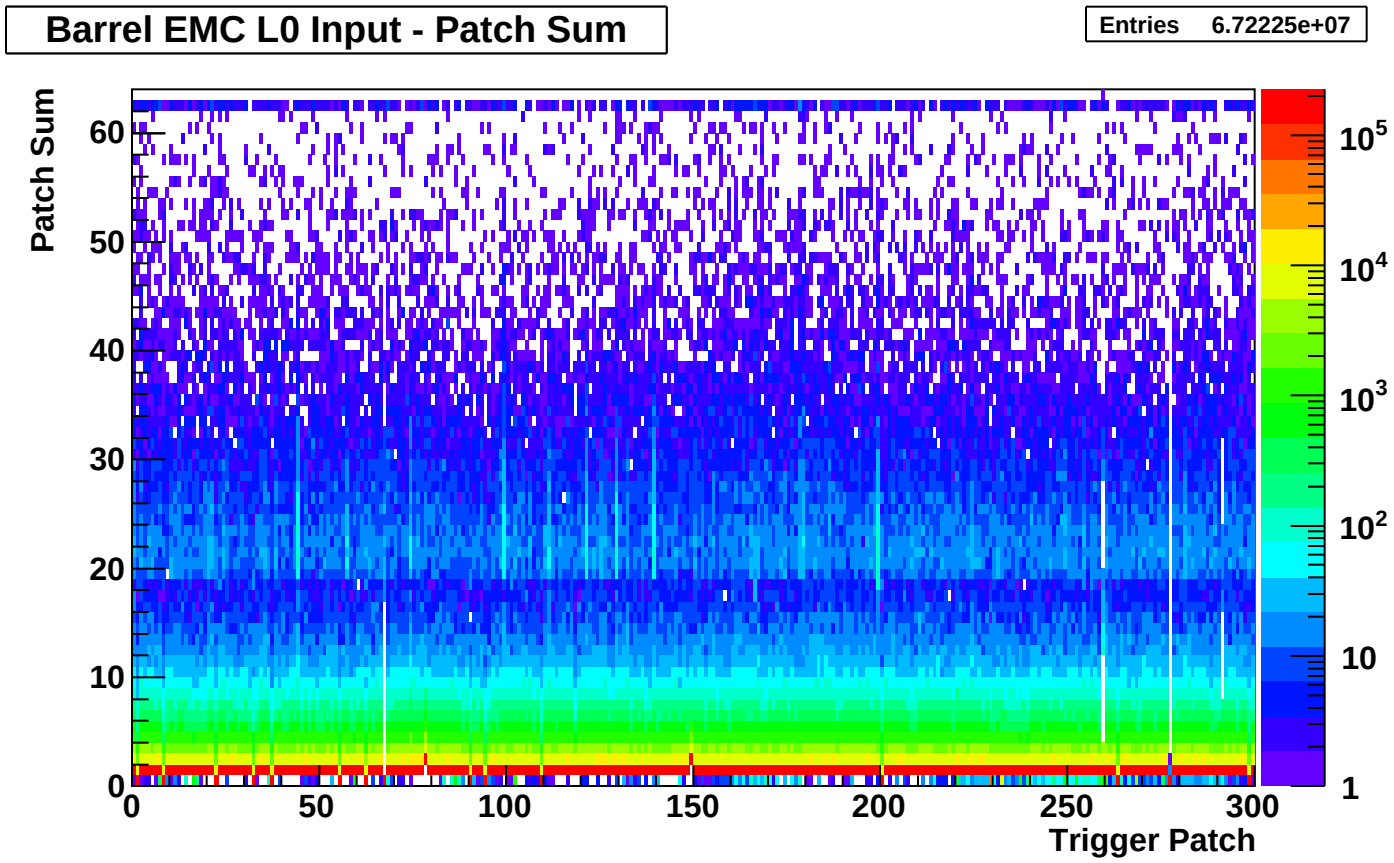

TCU bits
Entries 3585200
TCU bits
1
0
224075 224075 224075 224075 224075 224075 224075 224075 224075 224075 224075 224075 224075 224075 224075 224075
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

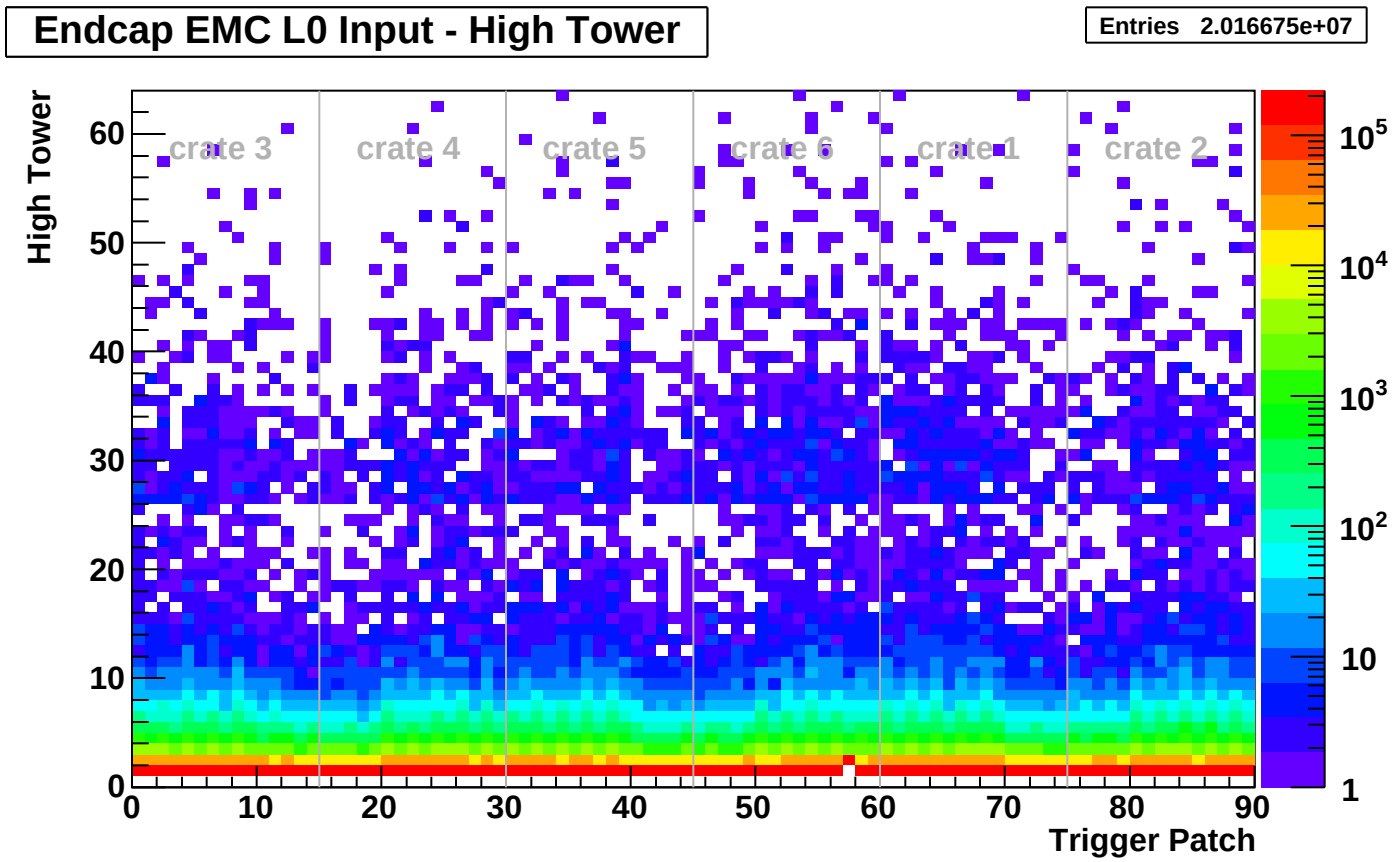

TCU bits
Entries 283713
TCU bits - Simulated
1
0
-1
-2
17383 46503 96198 2543 8769 1 112001 315
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

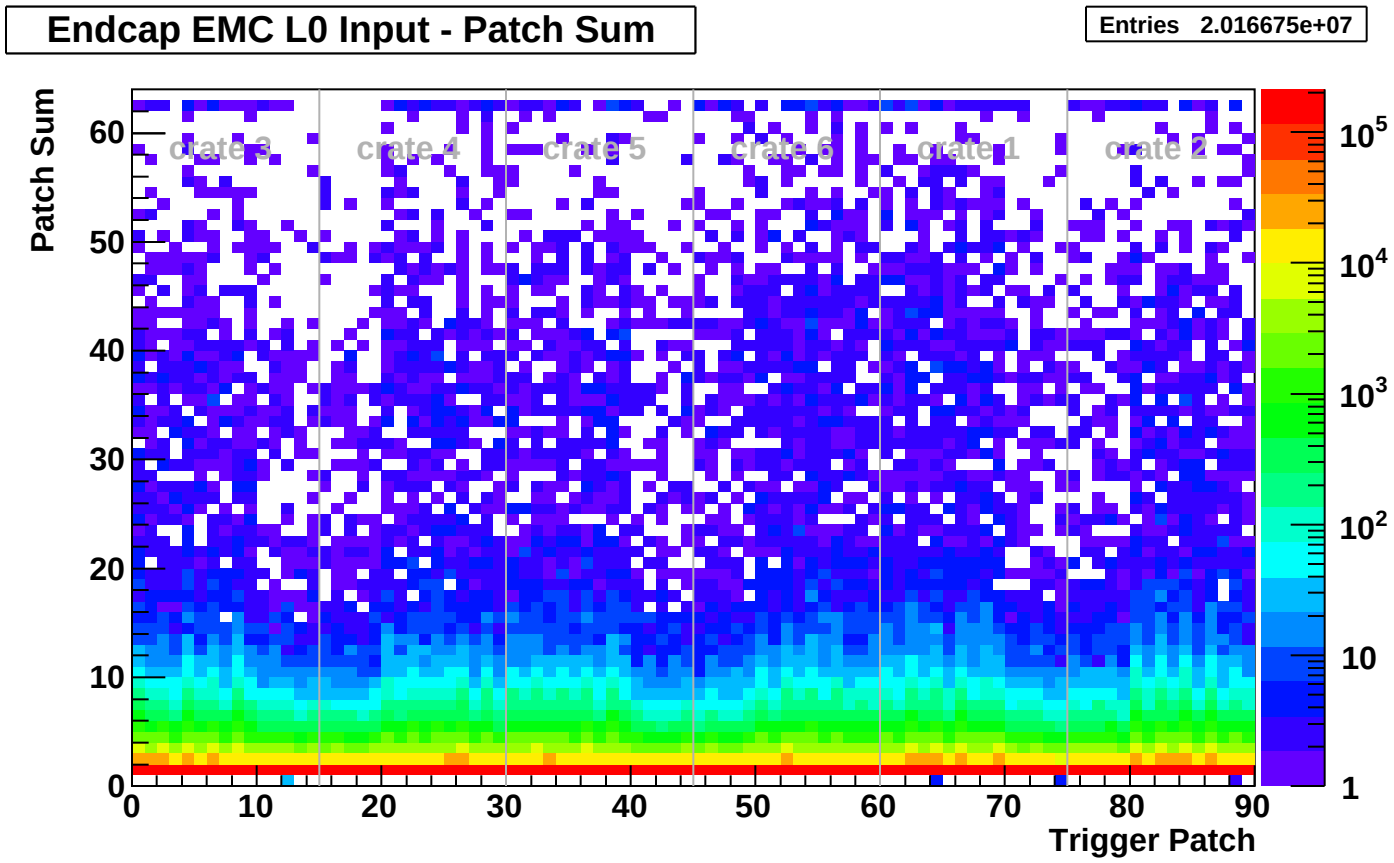

BunchId7Bit (BHT3)
Entries 3527
10
1
0 20 40 60 80 100 120

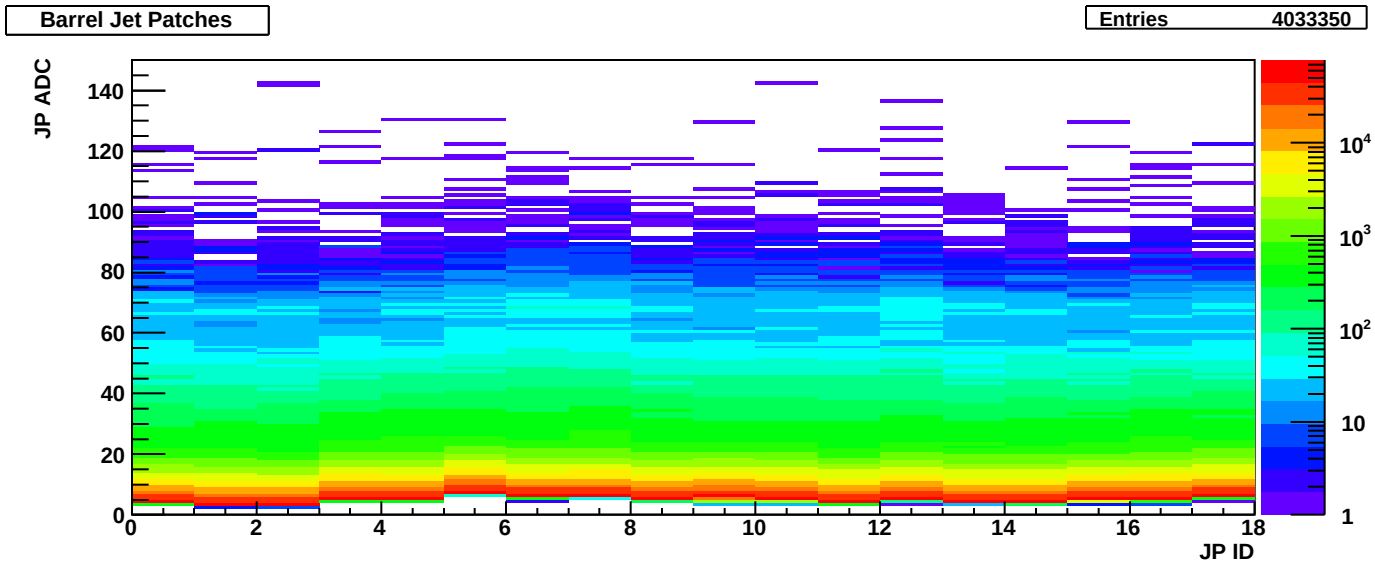

BunchId7Bit (all events)
Entries 224075
10^3
10^2
10
0 20 40 60 80 100 120

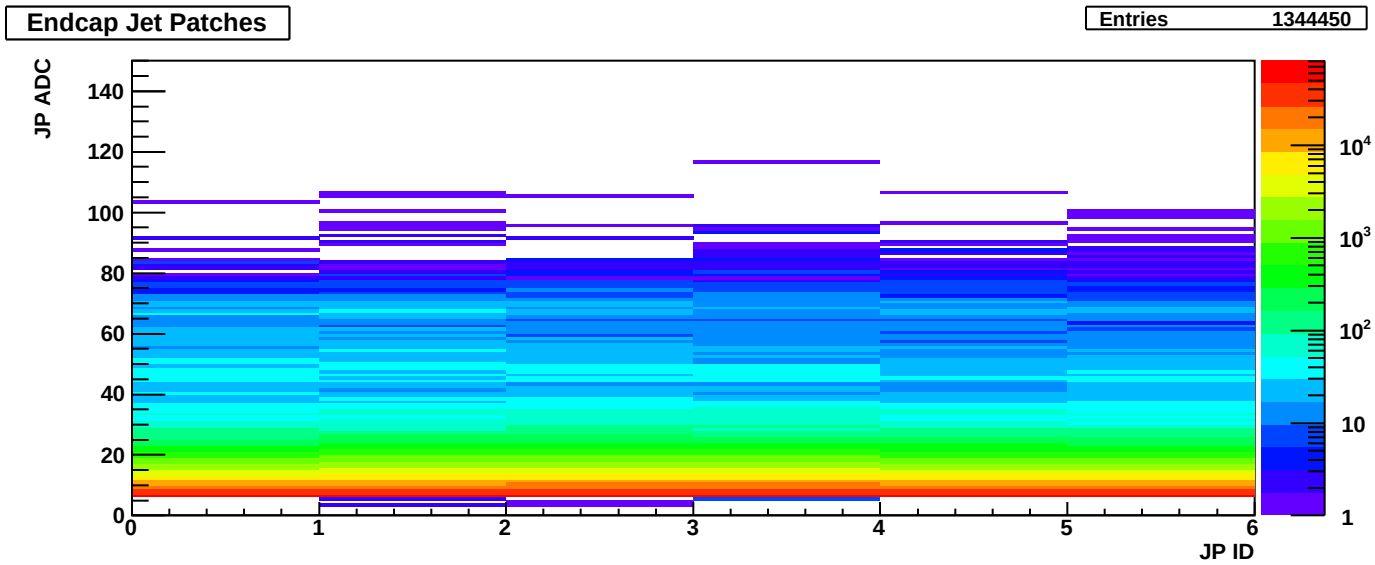

Barrel EMC L0 Input - High Tower
Entries 6.72225e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

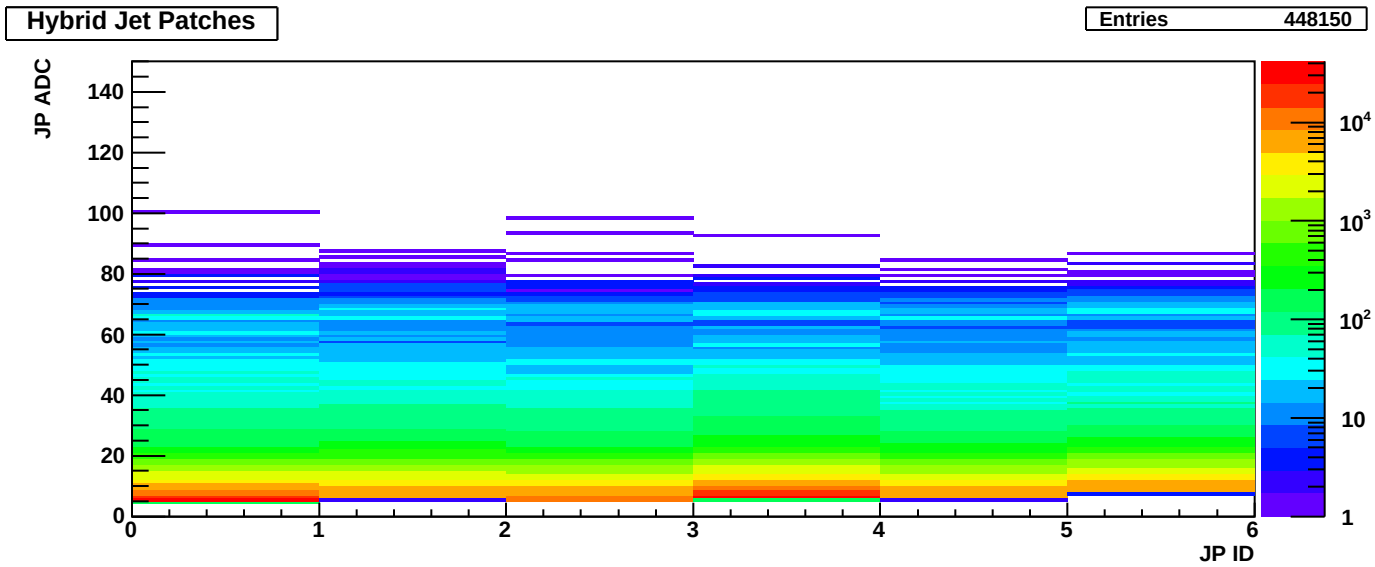

Barrel EMC L0 Input - Patch Sum
Entries 6.72225e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

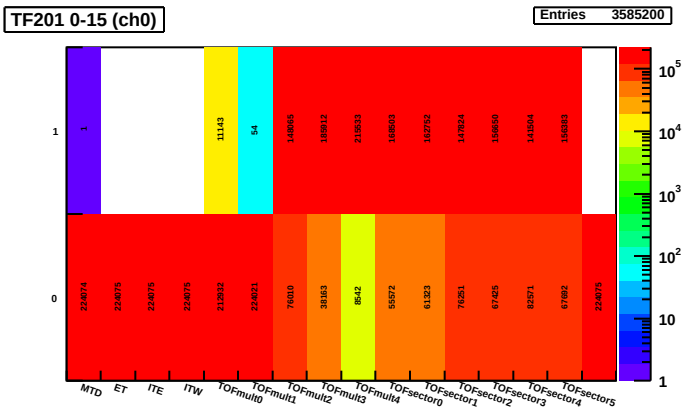

Endcap EMC L0 Input - High Tower
Entries 2.016675e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

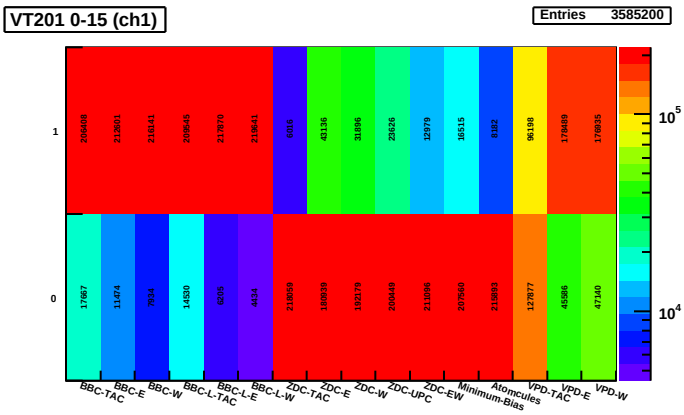

Endcap EMC L0 Input - Patch Sum
Entries 2.016675e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

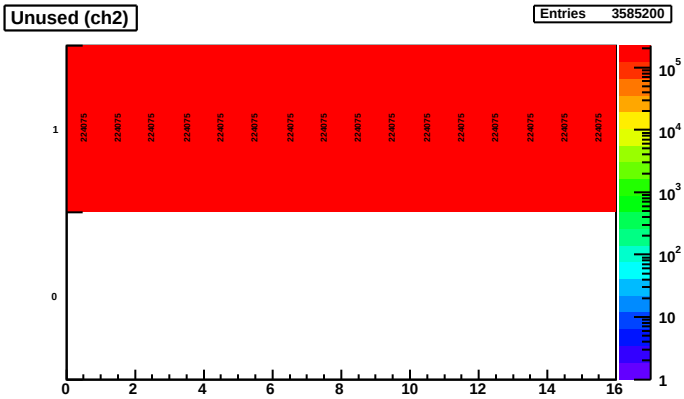

Barrel Jet Patches
Entries 4033350
JP ADC
JP ID

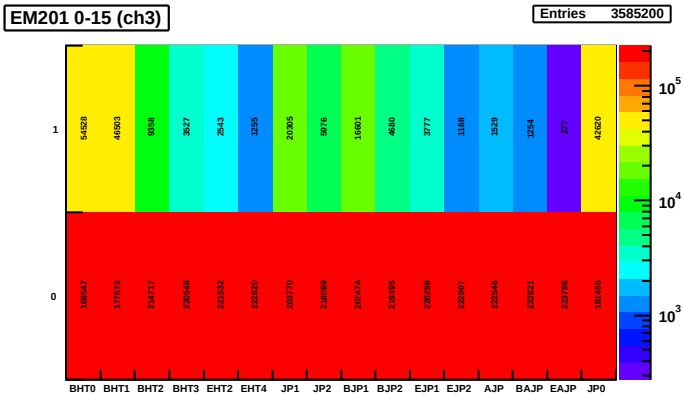

Endcap Jet Patches
Entries 1344450
JP ADC
JP ID

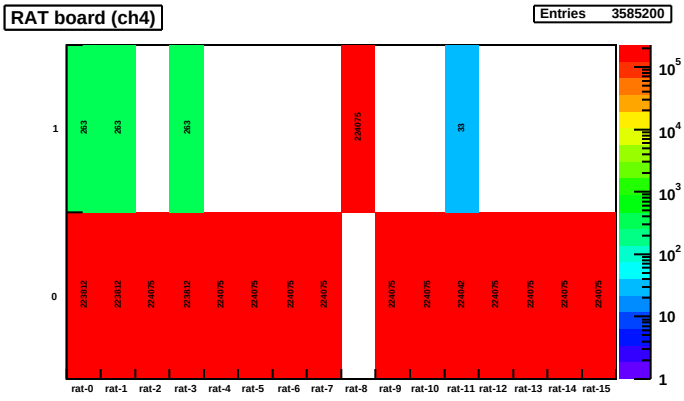

Hybrid Jet Patches
Entries 448150
JP ADC
JP ID

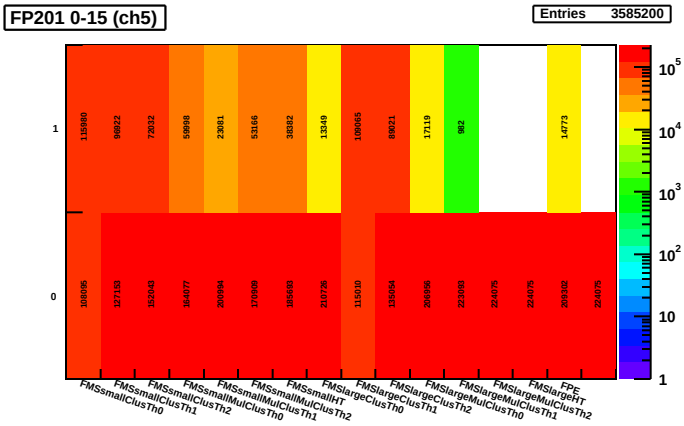

TF201 0-15 (ch0)
Entries 3585200
MTD
ET
ITE
ITW
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5

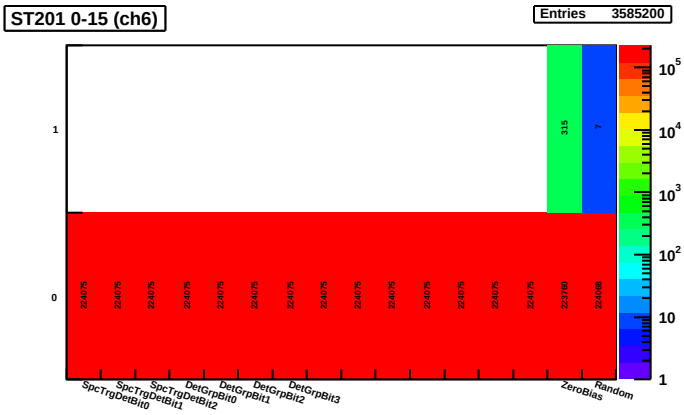

VT201 0-15 (ch1)
Entries 3585200
BBC-TAC
BBC-E
BBC-W
BBC-L-TAC
BBC-L-E
BBC-L-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-UPC
ZDC-EW
Minimum-Bias
Atomcules
VPD-TAC
VPD-E
VPD-W

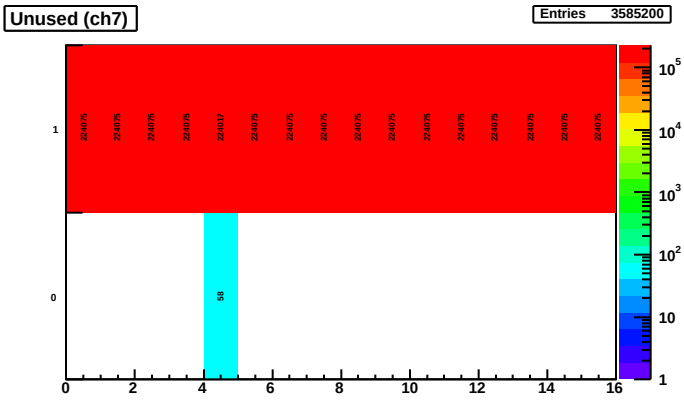

Unused (ch2)
Entries 3585200

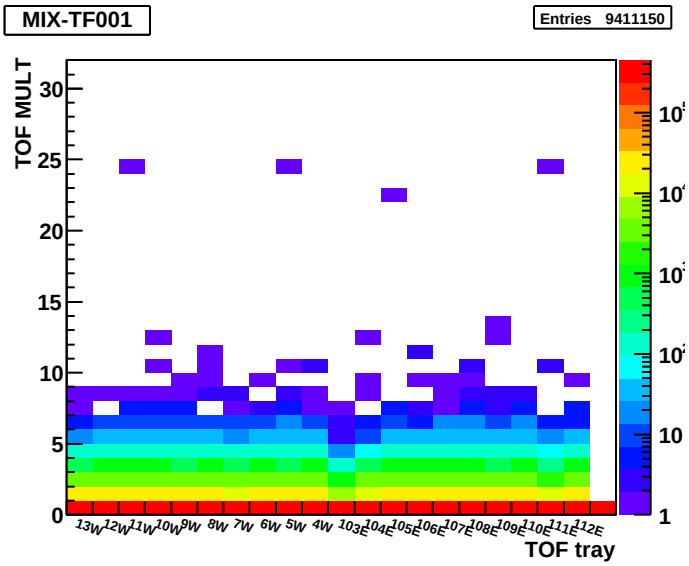

EM201 0-15 (ch3)
Entries 3585200
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
EAJP
JP0

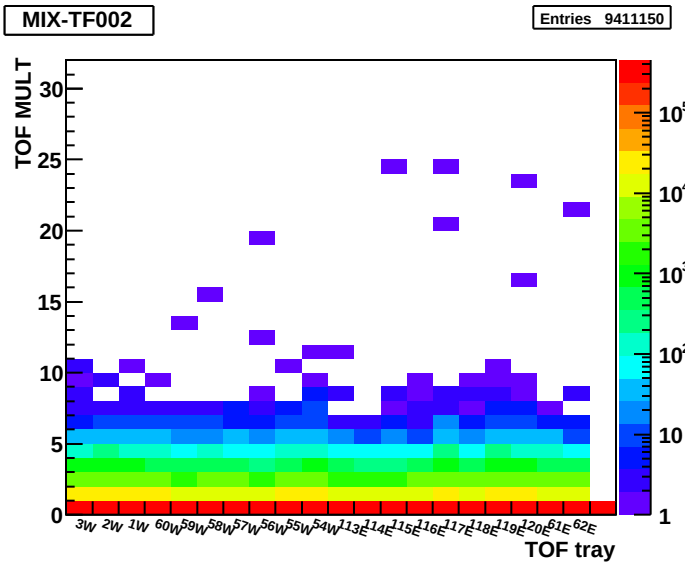

RAT board (ch4)
Entries 3585200
rat-0
rat-1
rat-2
rat-3
rat-4
rat-5
rat-6
rat-7
rat-8
rat-9
rat-10
rat-11
rat-12
rat-13
rat-14
rat-15

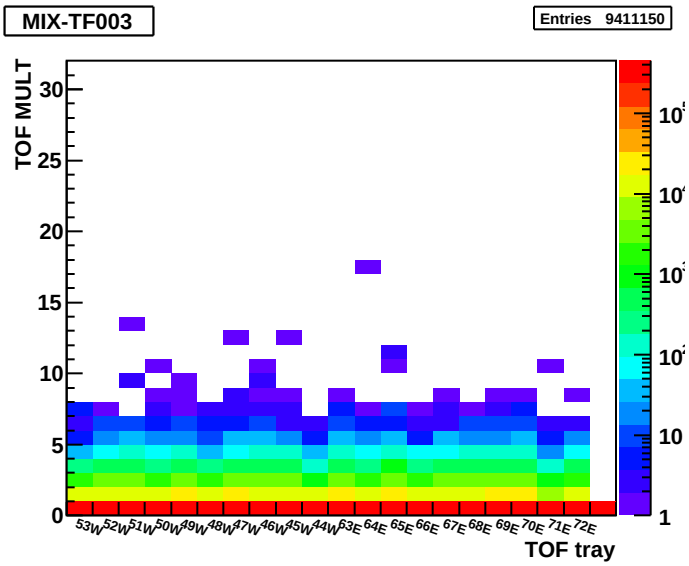

FP201 0-15 (ch5)
Entries 3585200
FMSsmallClusTh0
FMSsmallClusTh1
FMSsmallClusTh2
FMSsmallMulClusTh0
FMSsmallMulClusTh1
FMSsmallMulClusTh2
FMSsmallHT
FMSlargeClusTh0
FMSlargeClusTh1
FMSlargeClusTh2
FMSlargeMulClusTh0
FMSlargeMulClusTh1
FMSlargeMulClusTh2
FMSlargeHT
FPE

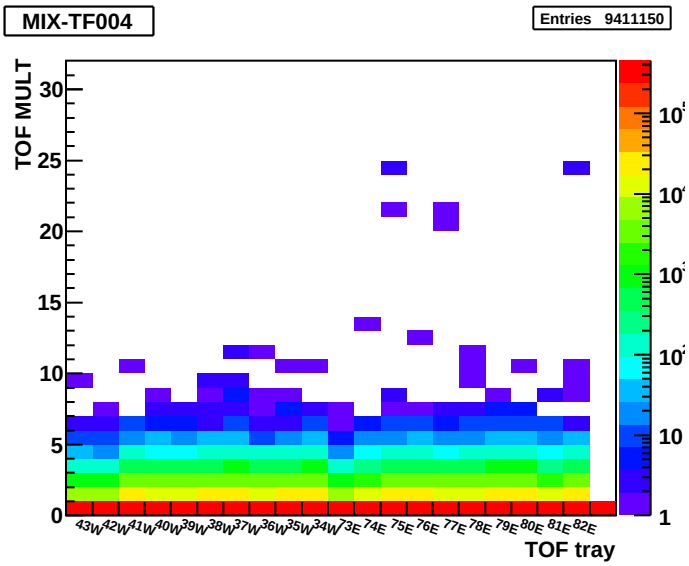

ST201 0-15 (ch6)
Entries 3585200
SpcTrgDetBit0
SpcTrgDetBit1
SpcTrgDetBit2
DetGrpBit0
DetGrpBit1
DetGrpBit2
DetGrpBit3
ZeroBias
Random

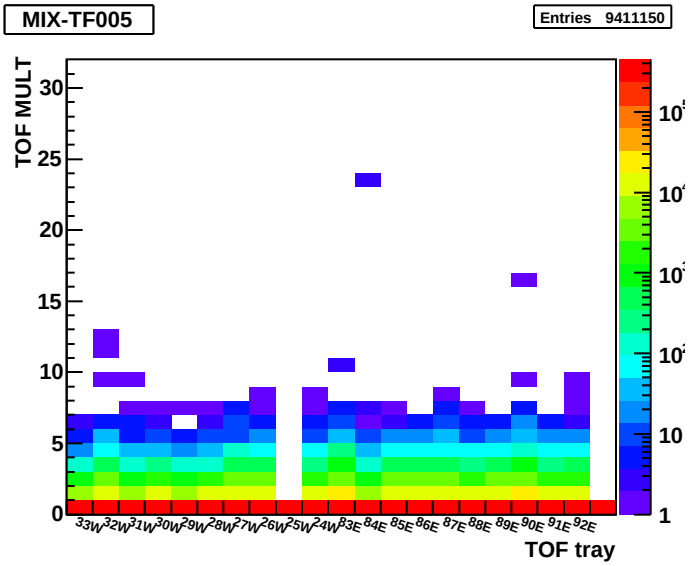

Unused (ch7)
Entries 3585200

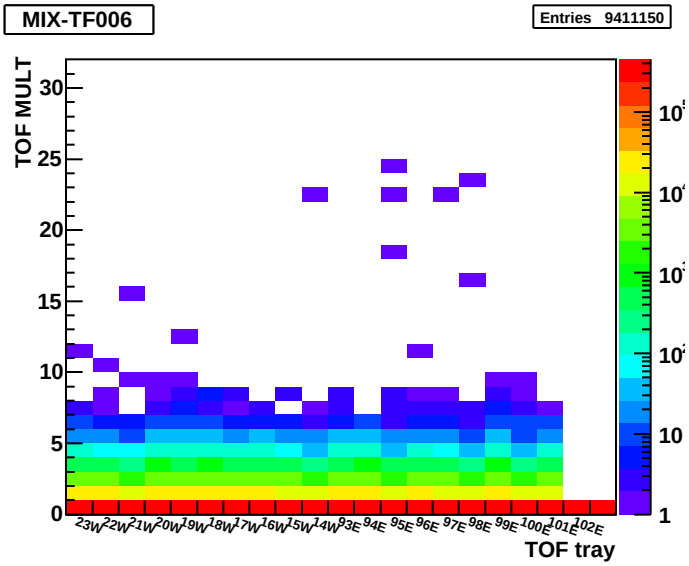

MIX-TF001
Entries 9411150
TOF MULT
TOF tray

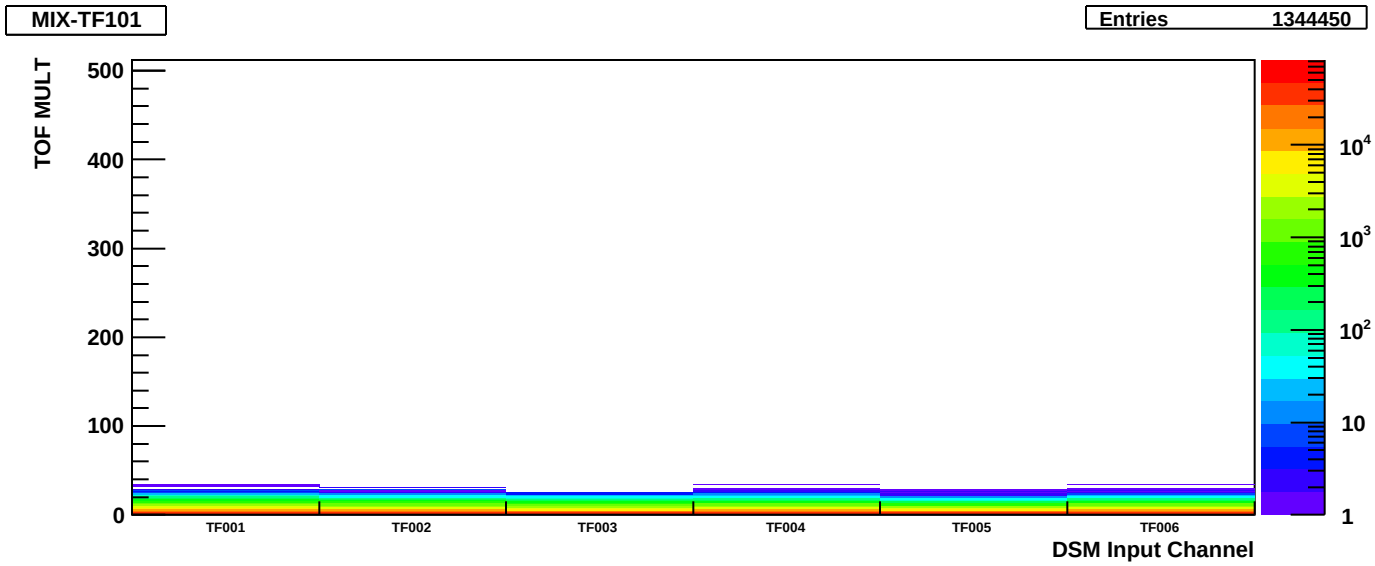

MIX-TF002
Entries 9411150
TOF MULT
TOF tray

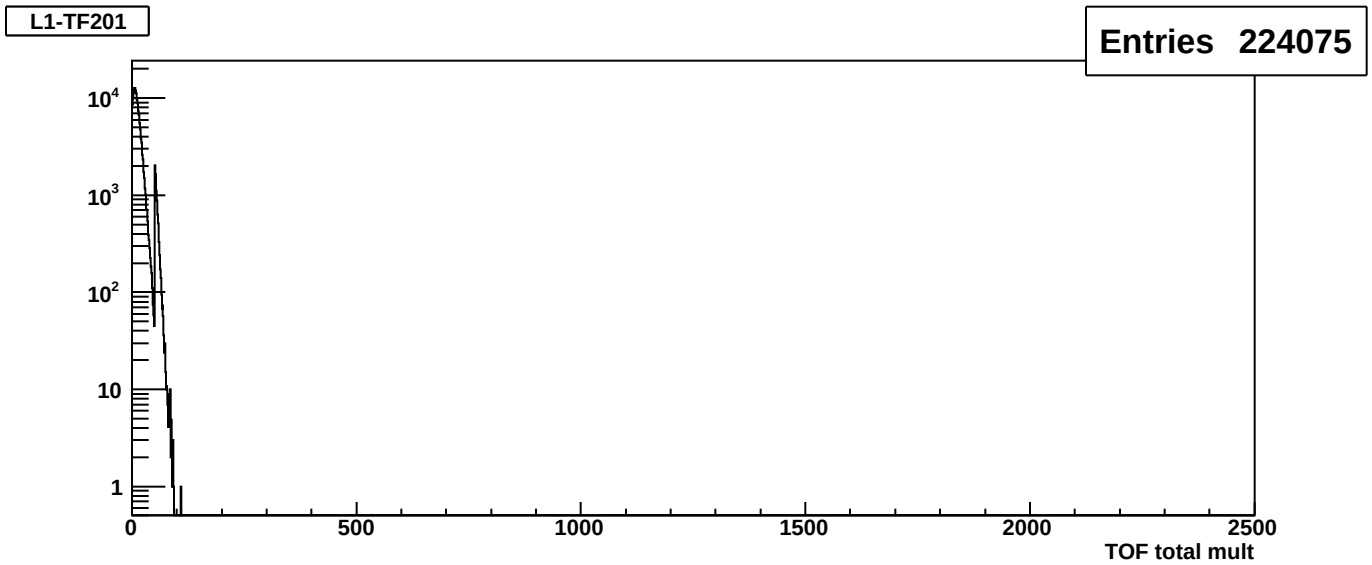

MIX-TF003
Entries 9411150
TOF MULT
TOF tray

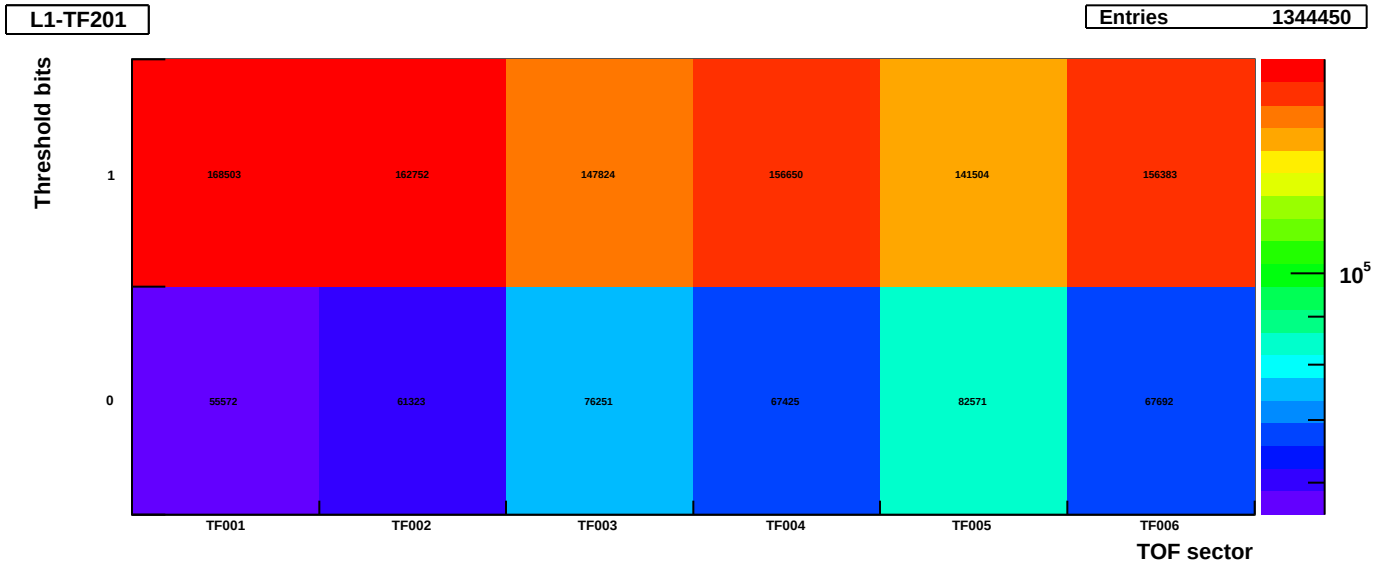

MIX-TF004
Entries 9411150
TOF MULT
TOF tray

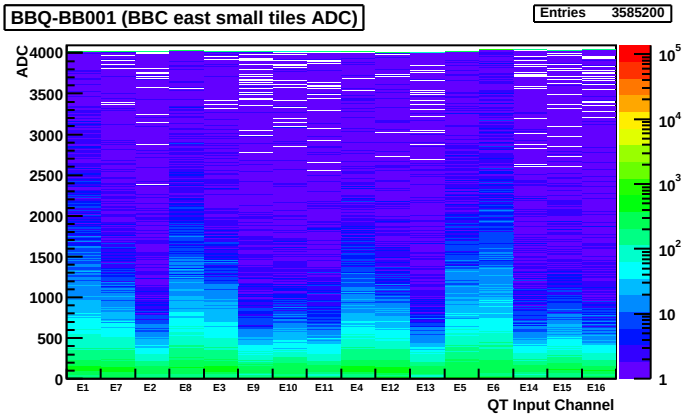

MIX-TF005
Entries 9411150
TOF MULT
TOF tray

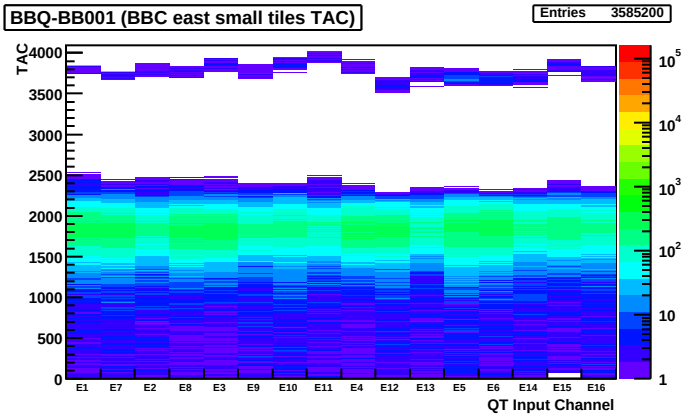

MIX-TF006
Entries 9411150
TOF MULT
TOF tray

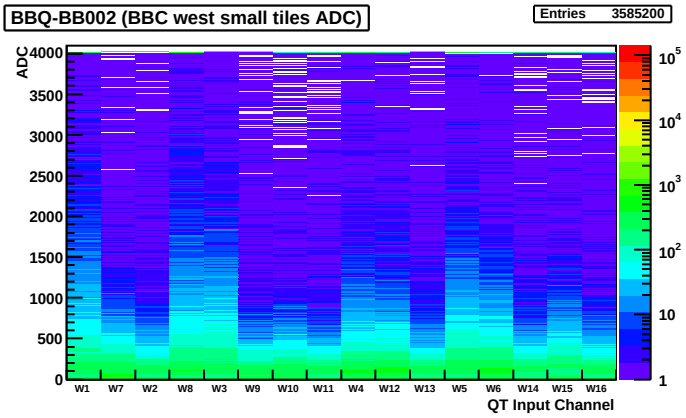

MIX-TF101
Entries 1344450
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

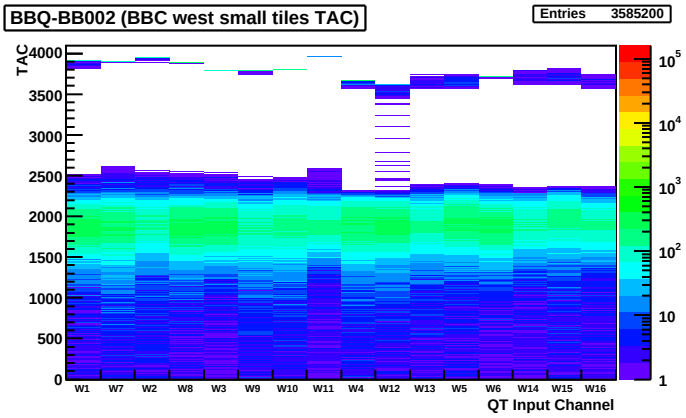

L1-TF201
Entries 224075
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

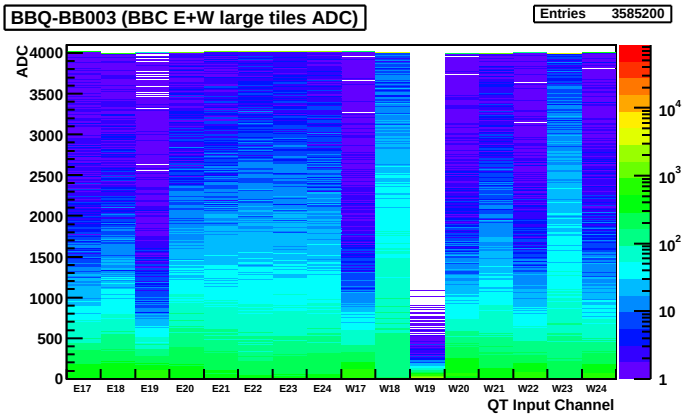

L1-TF201
Entries 1344450
Threshold bits
1
0
168503
162752
147824
156650
141504
156383
55572
61323
76251
67425
82571
67692
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

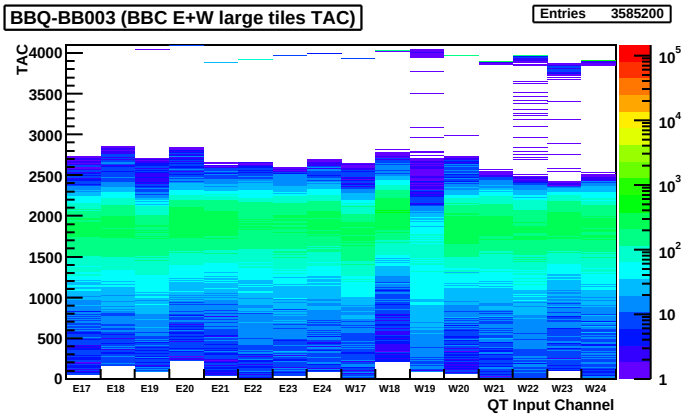

BBQ-BB001 (BBC east small tiles ADC)
Entries 3585200
ADC
QT Input Channel

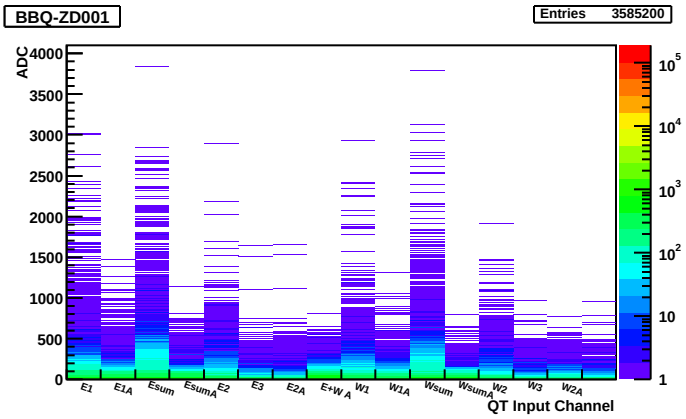

BBQ-BB001 (BBC east small tiles TAC)
Entries 3585200
TAC
QT Input Channel

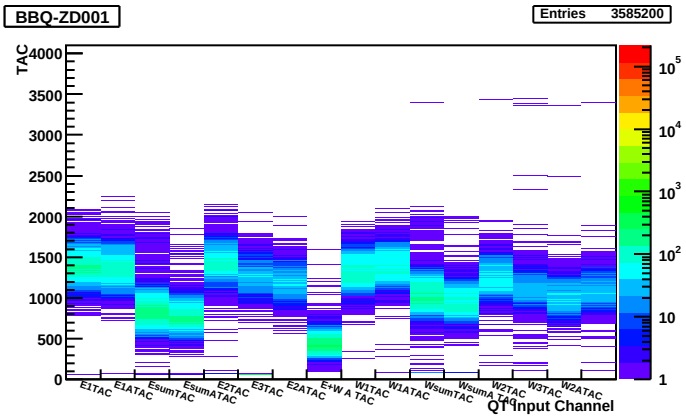

BBQ-BB002 (BBC west small tiles ADC)
Entries 3585200
ADC
QT Input Channel

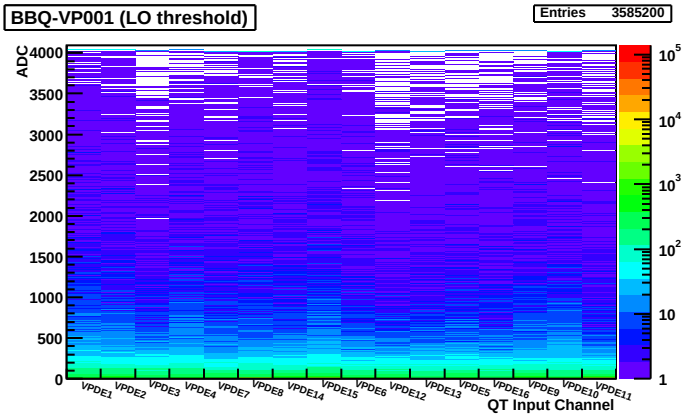

BBQ-BB002 (BBC west small tiles TAC)
Entries 3585200
TAC
QT Input Channel

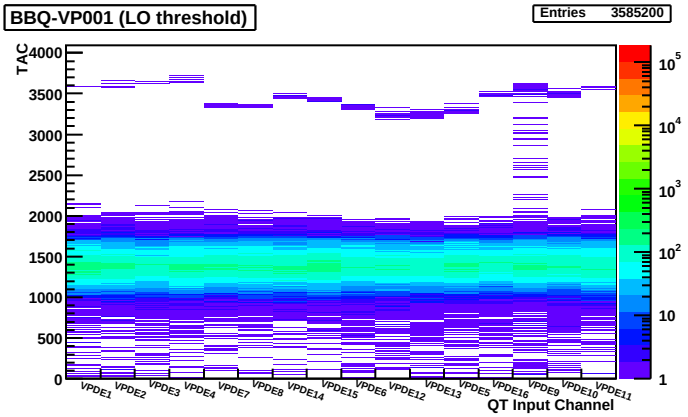

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 3585200
ADC
QT Input Channel

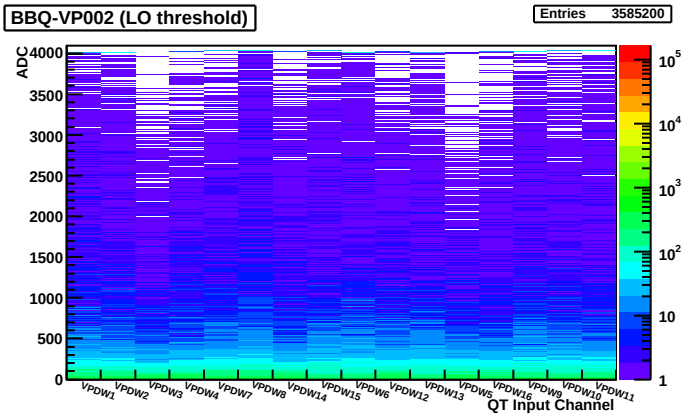

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 3585200
TAC
QT Input Channel

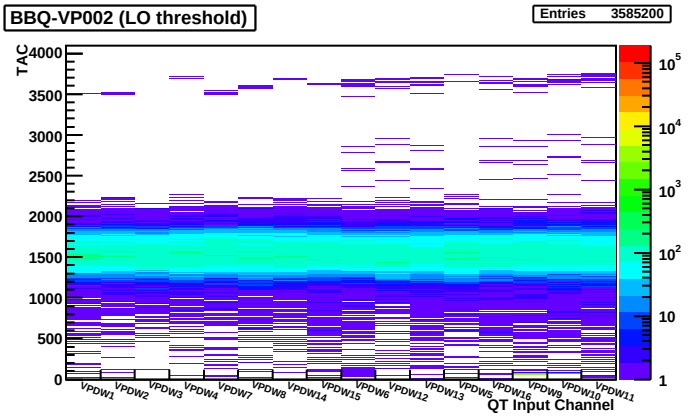

BBQ-ZD001
Entries 3585200
ADC
QT Input Channel

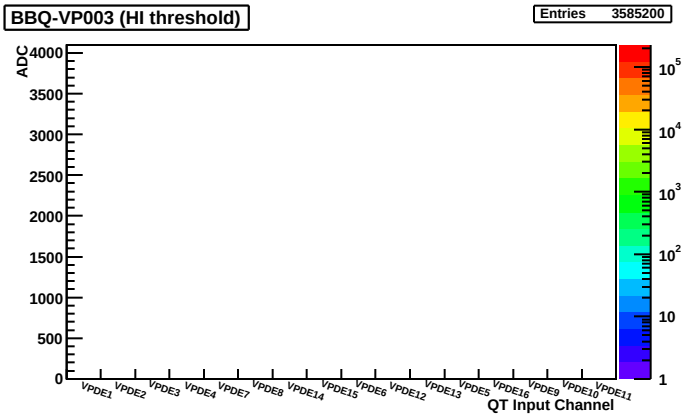

BBQ-ZD001
Entries 3585200
TAC
QT Input Channel

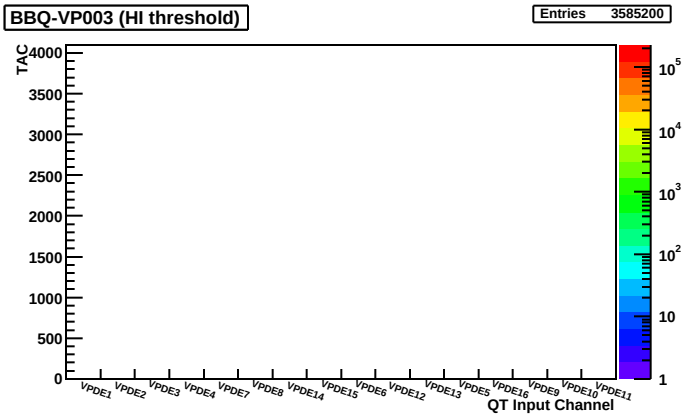

BBQ-VP001 (LO threshold)
Entries 3585200
ADC
QT Input Channel

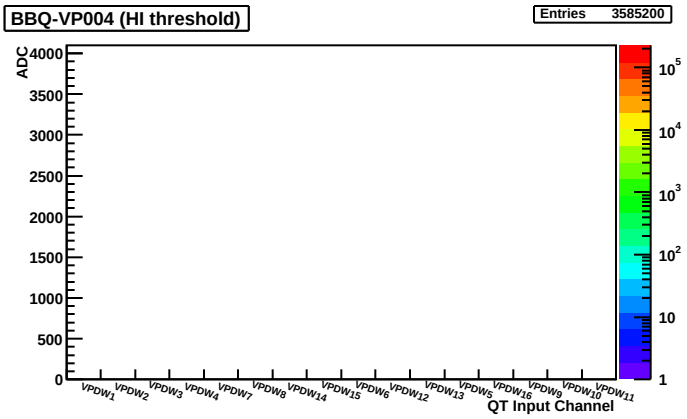

BBQ-VP001 (LO threshold)
Entries 3585200
TAC
QT Input Channel

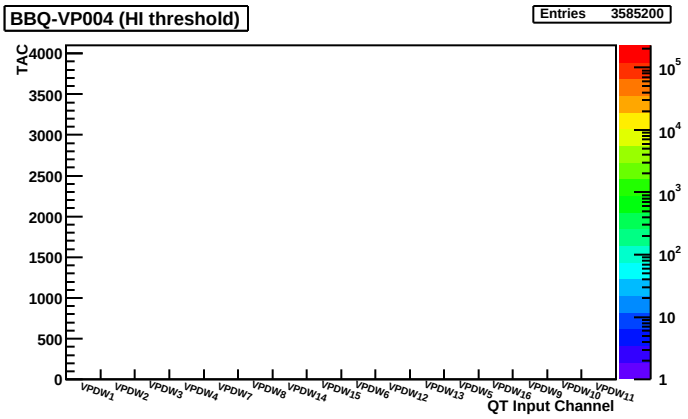

BBQ-VP002 (LO threshold)
Entries 3585200
ADC
QT Input Channel

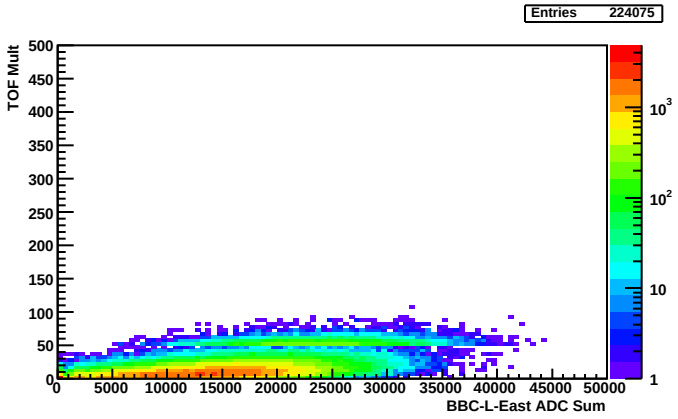

BBQ-VP002 (LO threshold)
Entries 3585200
TAC
QT Input Channel

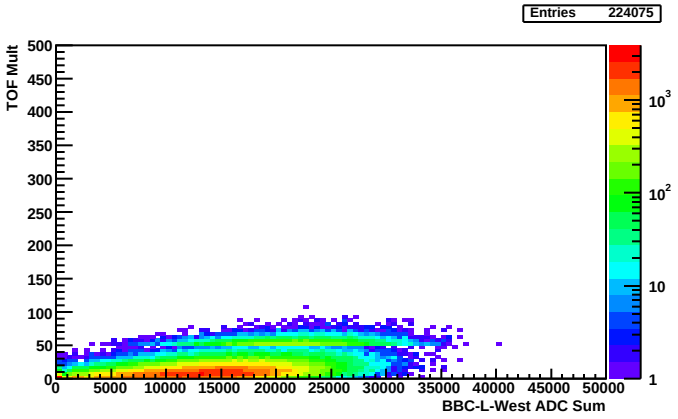

BBQ-VP003 (HI threshold)
Entries 3585200
ADC
QT Input Channel

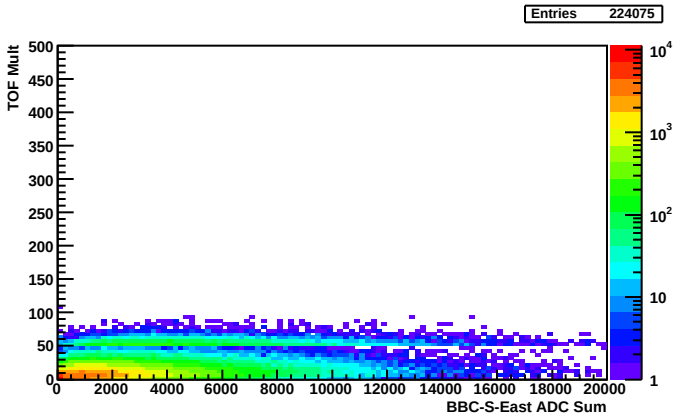

BBQ-VP003 (HI threshold)
Entries 3585200
TAC
QT Input Channel

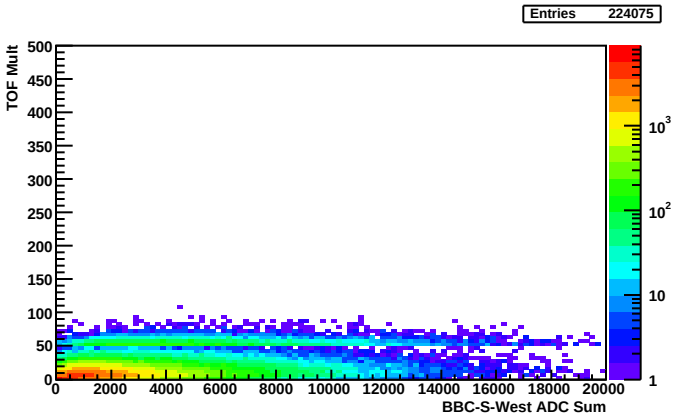

BBQ-VP004 (HI threshold)
Entries 3585200
ADC
QT Input Channel

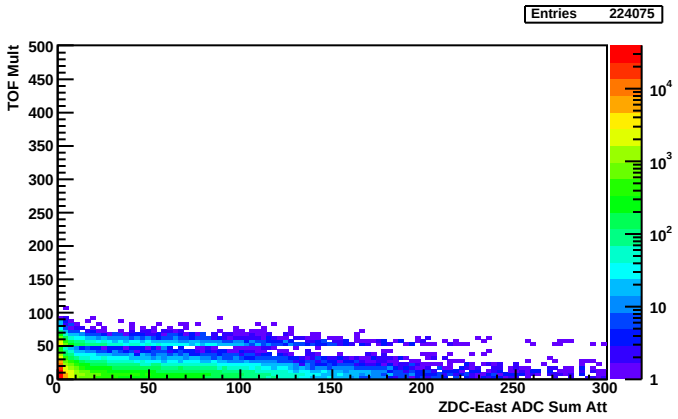

BBQ-VP004 (HI threshold)
Entries 3585200
TAC
QT Input Channel

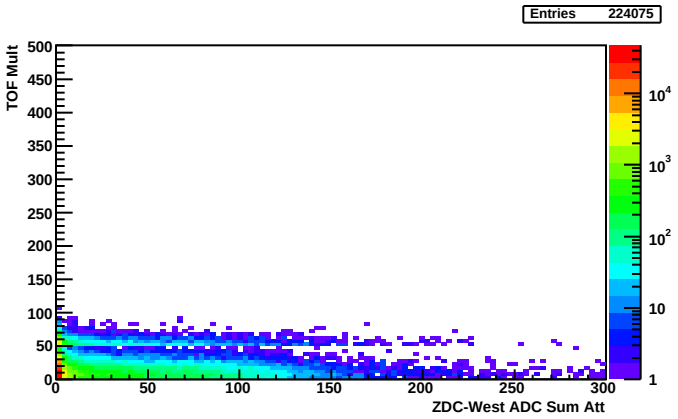

Entries 224075
TOF Mult
BBC-L-East ADC Sum

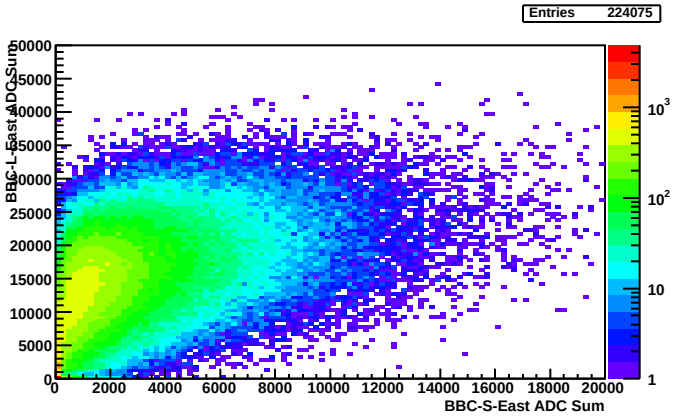

Entries 224075
TOF Mult
BBC-L-West ADC Sum

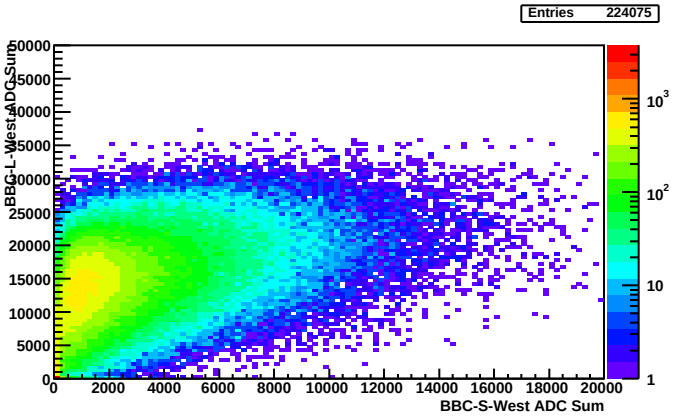

Entries 224075
TOF Mult
BBC-S-East ADC Sum

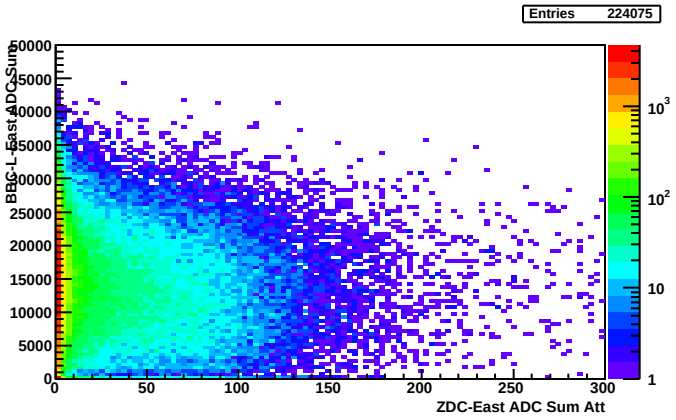

Entries 224075
TOF Mult
BBC-S-West ADC Sum

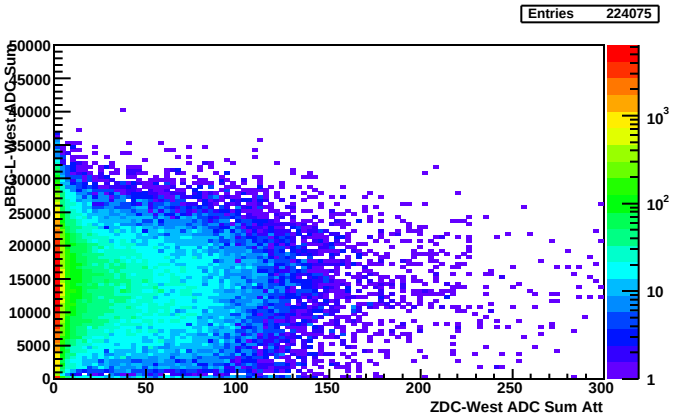

Entries 224075
TOF Mult
ZDC-East ADC Sum Att

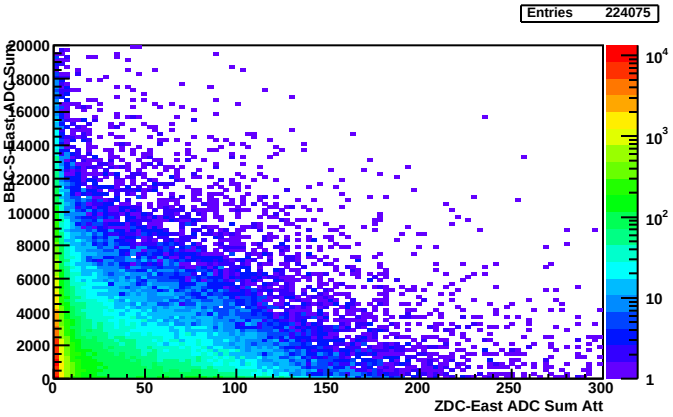

Entries 224075
TOF Mult
ZDC-West ADC Sum Att

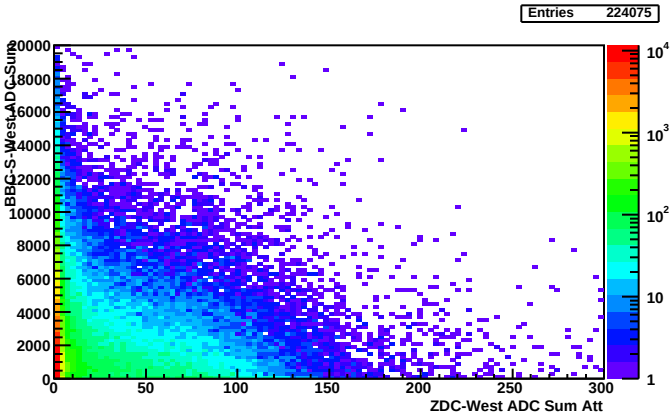

Entries 224075
BBC-L-East ADC Sum
BBC-S-East ADC Sum

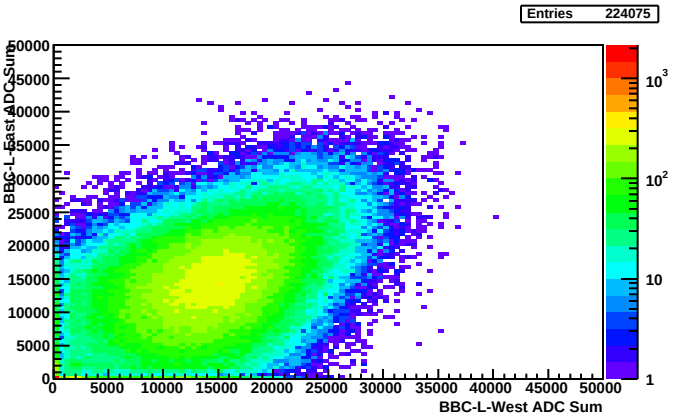

Entries 224075
BBC-L-West ADC Sum
BBC-S-West ADC Sum

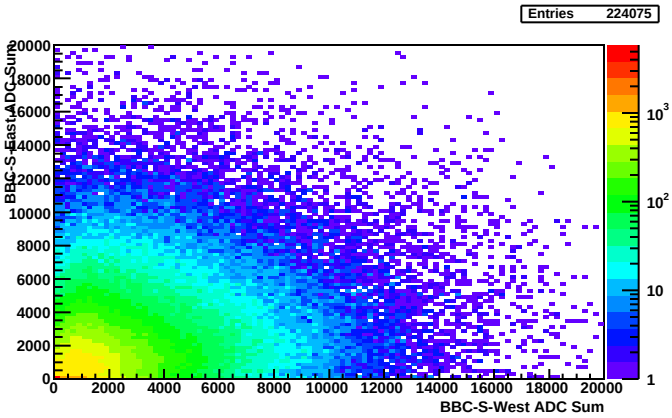

Entries 224075
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

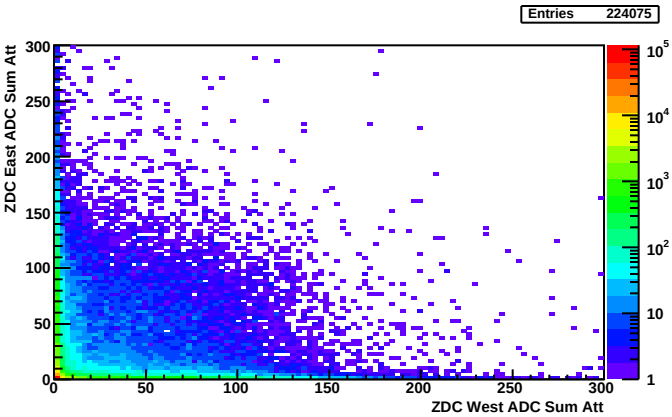

Entries 224075
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

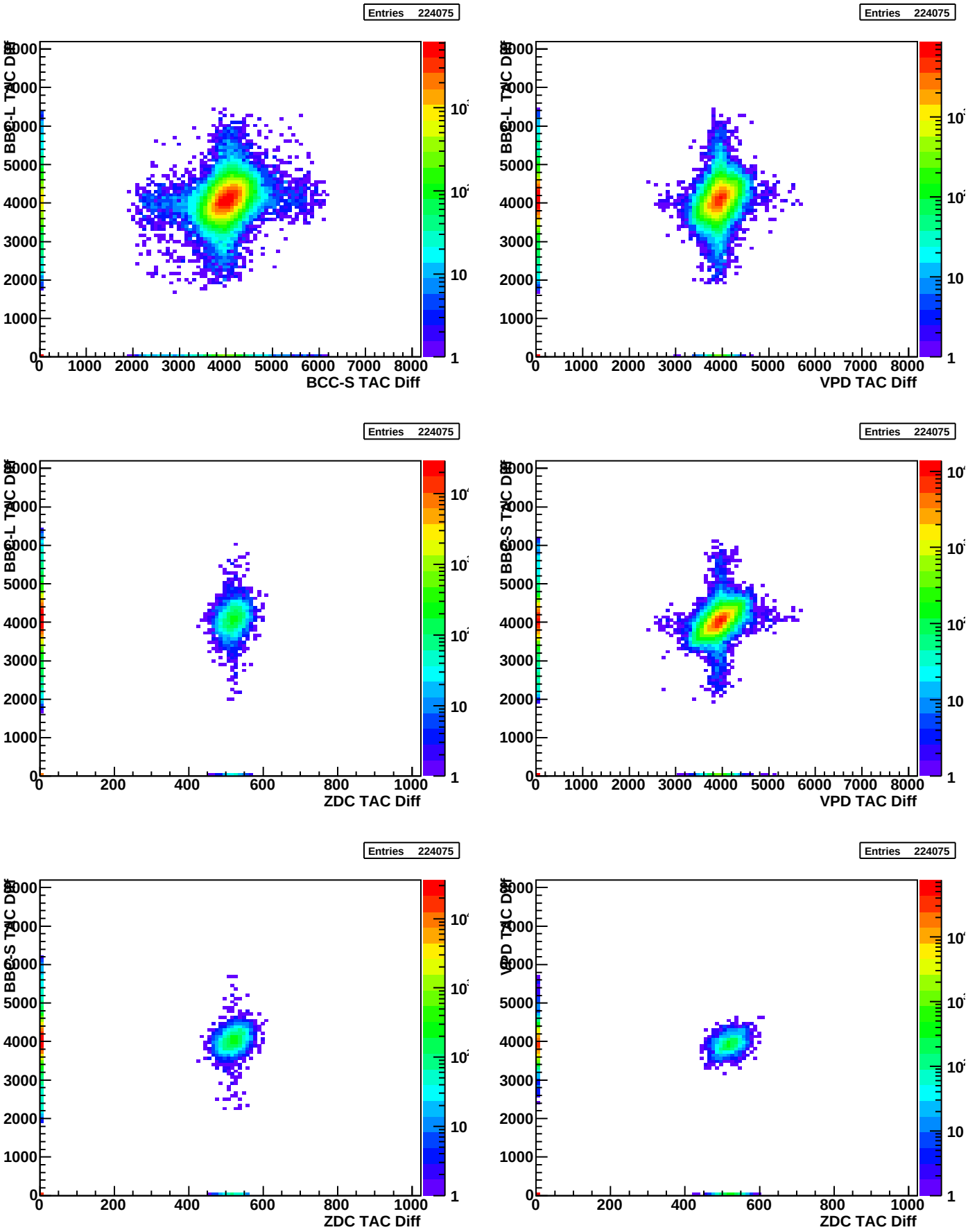

Entries 224075
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

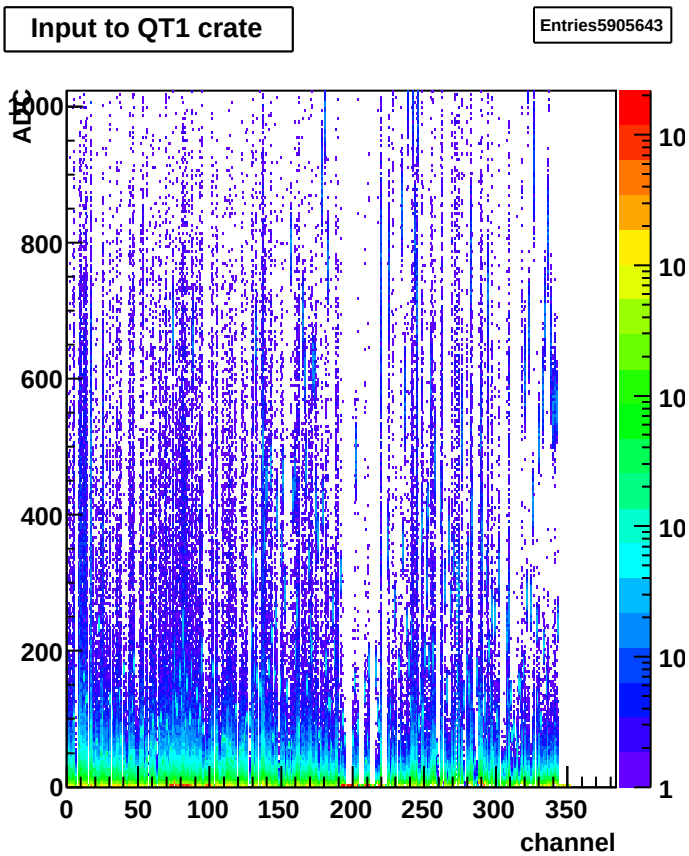

Entries 224075
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

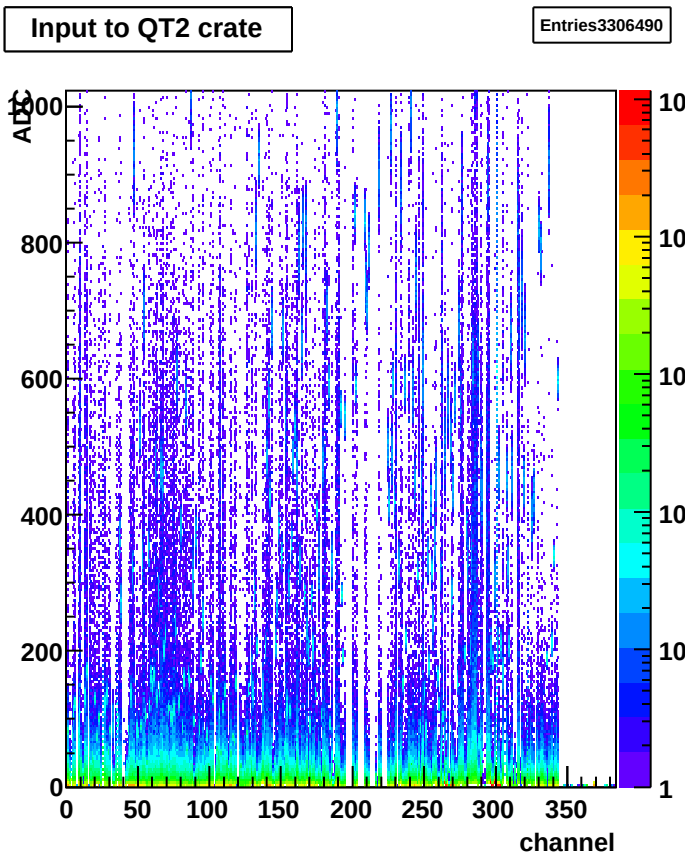

Entries 224075
BBC-L-East ADC Sum
BBC-L-West ADC Sum

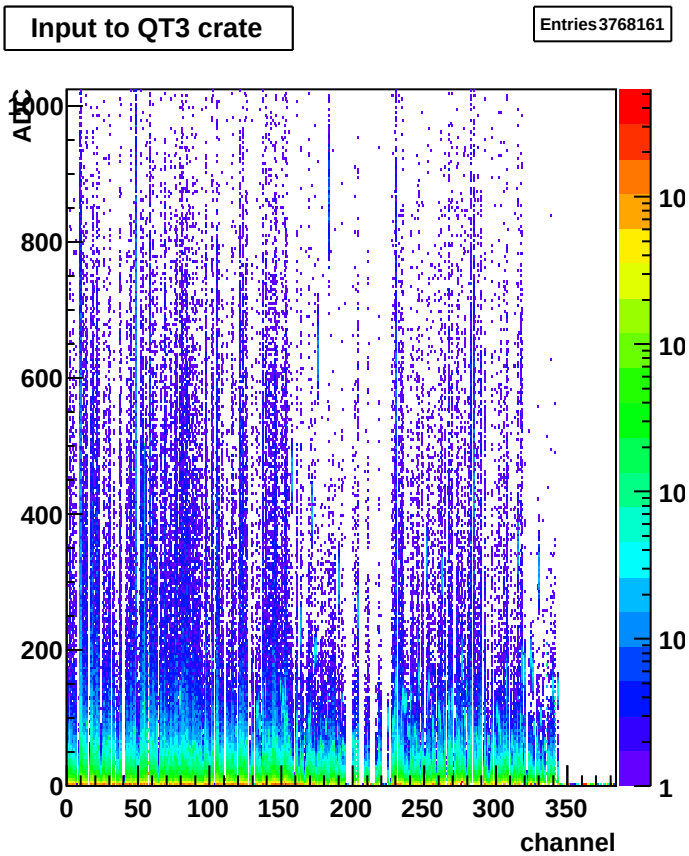

Entries 224075
BBC-S-East ADC Sum
BBC-S-West ADC Sum

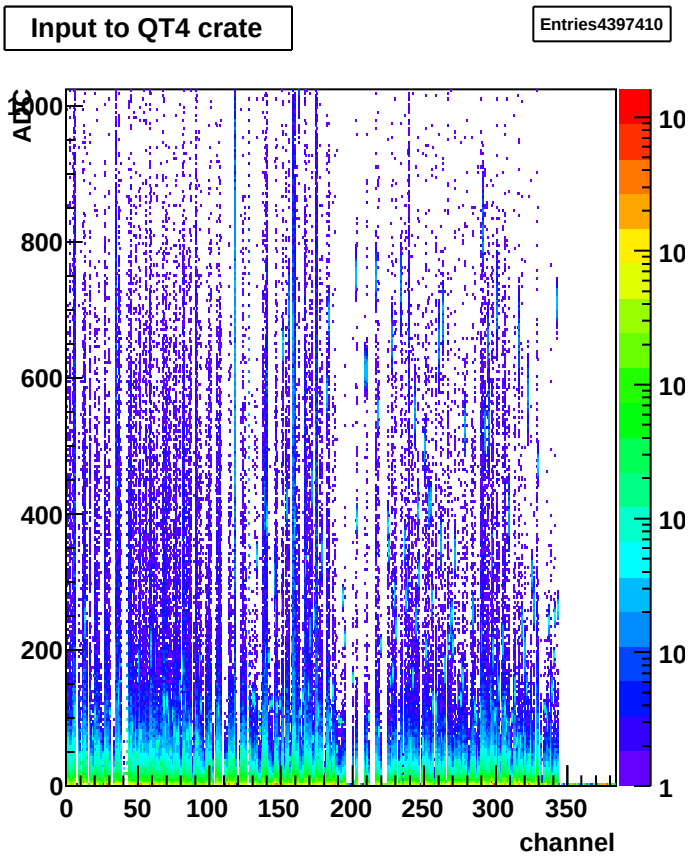

Entries 224075
ZDC East ADC Sum Att
ZDC West ADC Sum Att

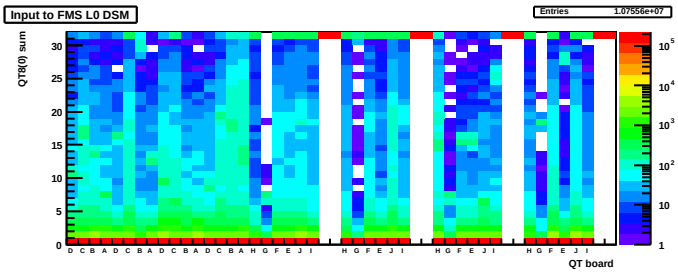

Entries 224075
BBC-L TAC Diff
BCC-S TAC Diff
Entries 224075
BBC-L TAC Diff
VPD TAC Diff
Entries 224075
BBC-L TAC Diff
ZDC TAC Diff
Entries 224075
BBC-S TAC Diff
VPD TAC Diff
Entries 224075
BBC-S TAC Diff
ZDC TAC Diff
Entries 224075
VPD TAC Diff
ZDC TAC Diff

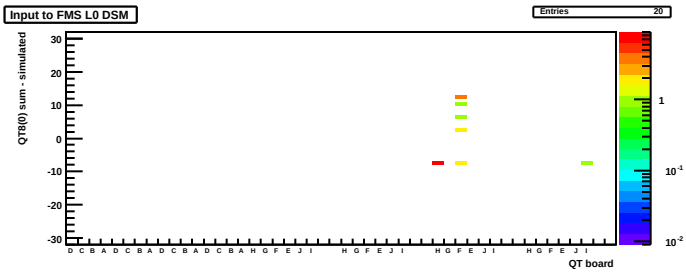

Input to QT1 crate
Entries5905643
ADC
channel

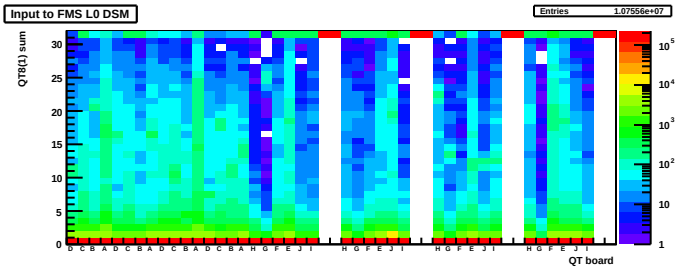

Input to QT2 crate
Entries3306490
ADC
channel

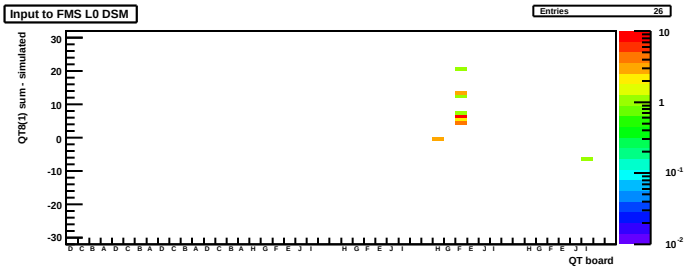

Input to QT3 crate
Entries3768161
ADC
channel

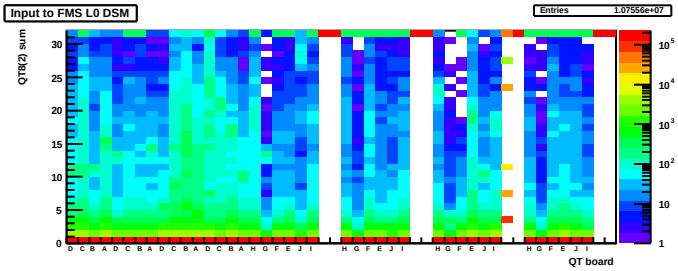

Input to QT4 crate
Entries4397410
ADC
channel

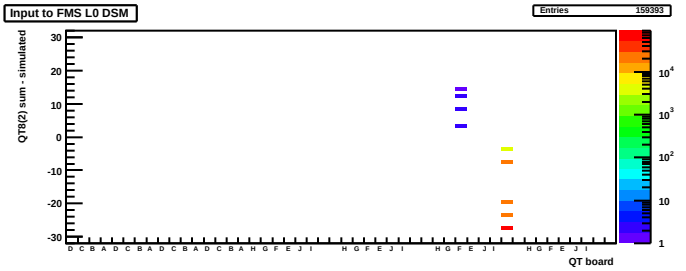

Input to FMS L0 DSM
Entries 1.07556e+07
QT8(0) sum
QT board

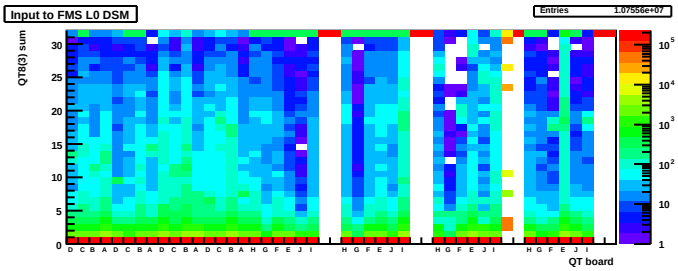

Input to FMS L0 DSM
Entries 20
QT8(0) sum - simulated
QT board

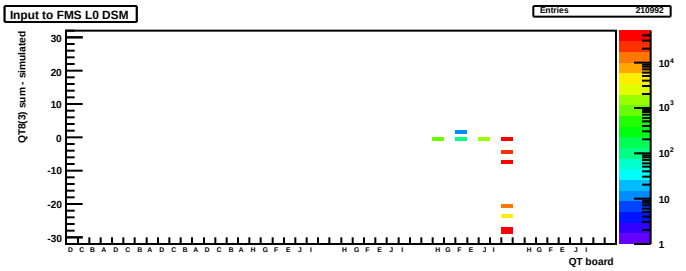

Input to FMS L0 DSM
Entries 1.07556e+07
QT8(1) sum
QT board

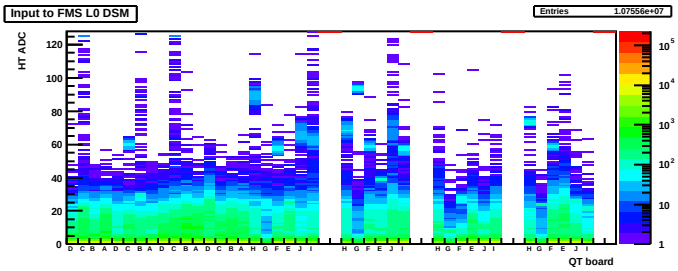

Input to FMS L0 DSM
Entries 26
QT8(1) sum - simulated
QT board

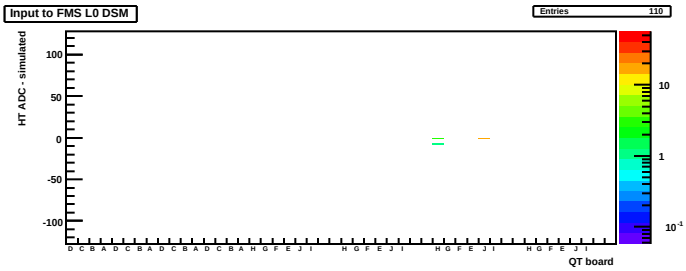

Input to FMS L0 DSM
Entries 1.07556e+07
QT8(2) sum
QT board

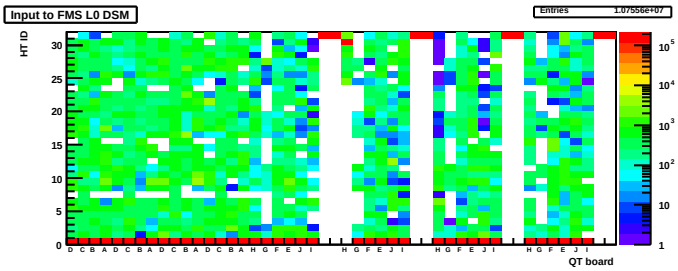

Input to FMS L0 DSM
Entries 159393
QT8(2) sum - simulated
QT board

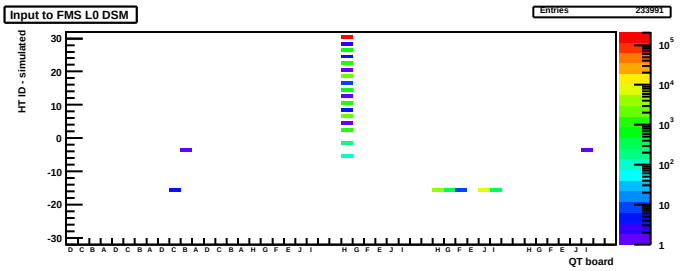

Input to FMS L0 DSM
Entries 1.07556e+07
QT8(3) sum
QT board

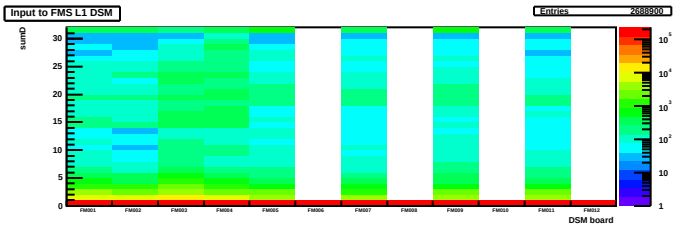

Input to FMS L0 DSM
Entries 210992
QT8(3) sum - simulated
QT board

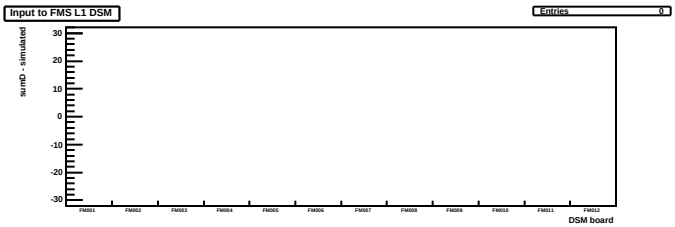

Input to FMS L0 DSM
Entries 1.07556e+07
HT ADC
QT board

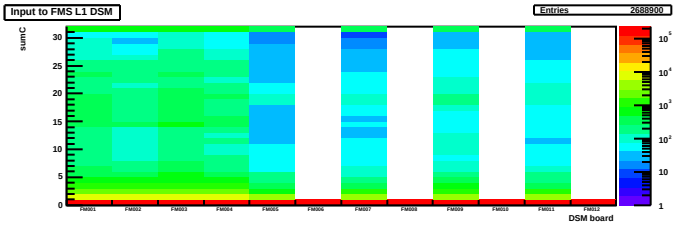

Input to FMS L0 DSM
Entries 110
HT ADC - simulated
QT board

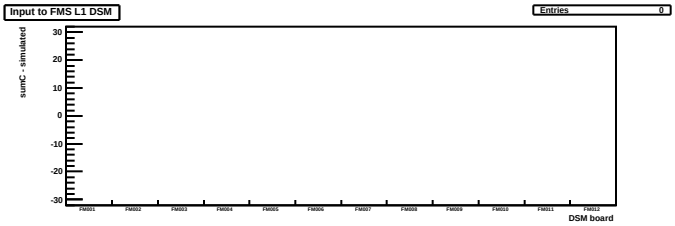

Input to FMS L0 DSM
Entries 1.07556e+07
HT ID
QT board

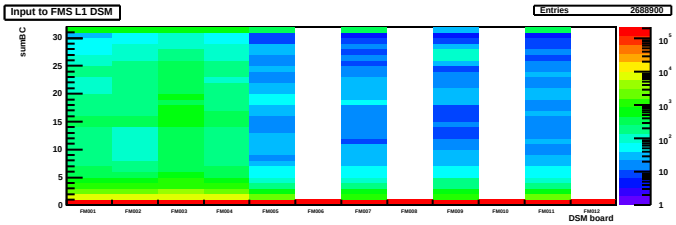

Input to FMS L0 DSM
Entries 233991
HT ID - simulated
QT board

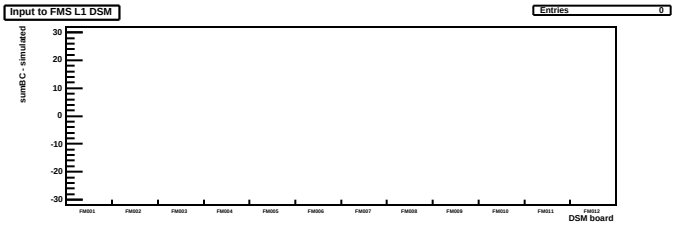

Input to FMS L1 DSM
Entries 2688900
sumD
DSM board

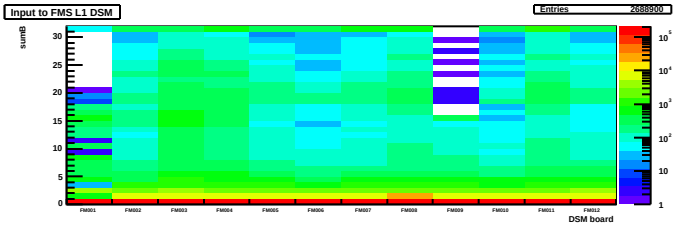

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

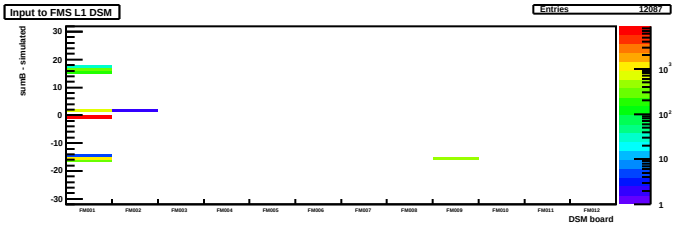

Input to FMS L1 DSM
Entries 2688900
sumC
DSM board

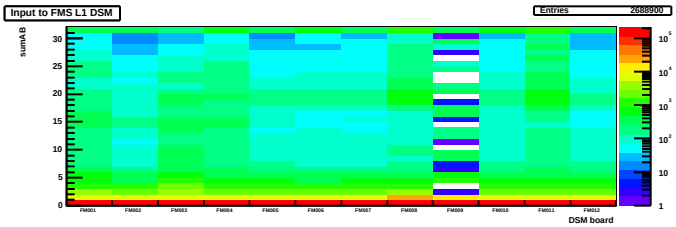

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

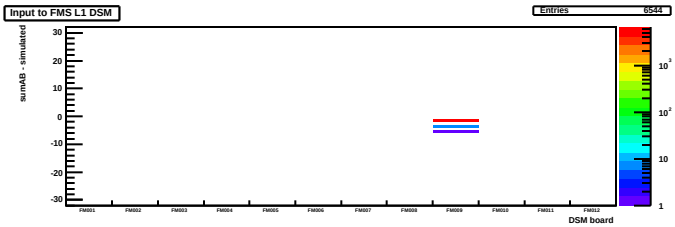

Input to FMS L1 DSM
Entries 2688900
sumBC
DSM board

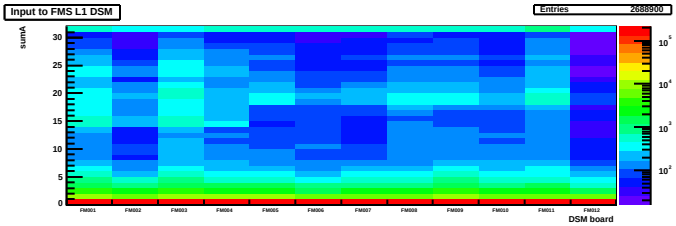

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

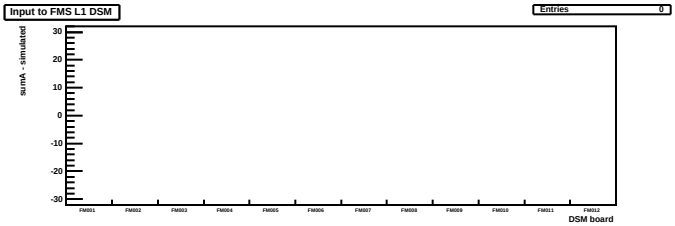

Input to FMS L1 DSM
Entries 2688900
sumB
DSM board

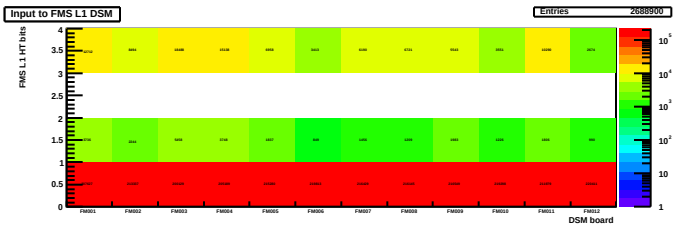

Input to FMS L1 DSM
Entries 12087
sumB - simulated
DSM board

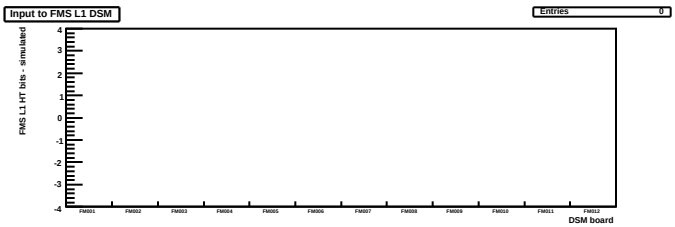

Input to FMS L1 DSM
Entries 2688900
sumAB
DSM board

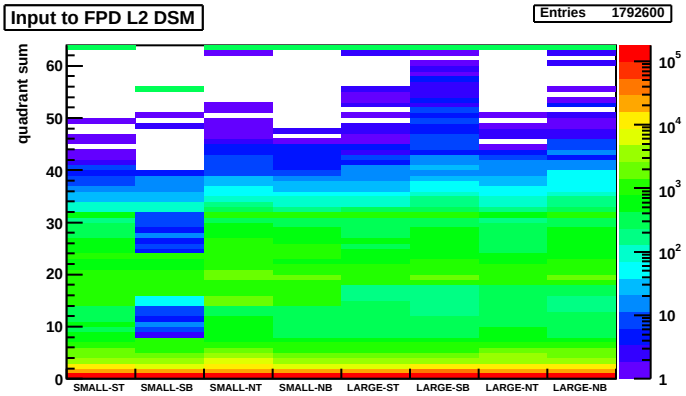

Input to FMS L1 DSM
Entries 6544
sumAB - simulated
DSM board

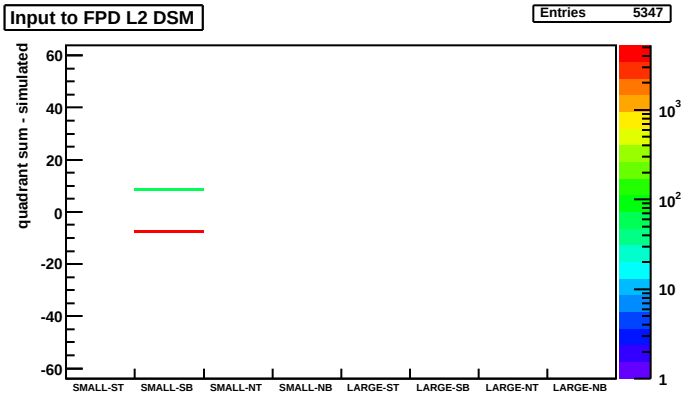

Input to FMS L1 DSM
Entries 2688900
sumA
DSM board

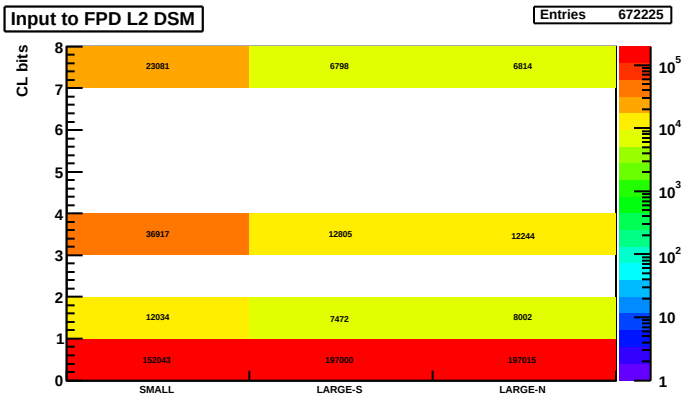

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

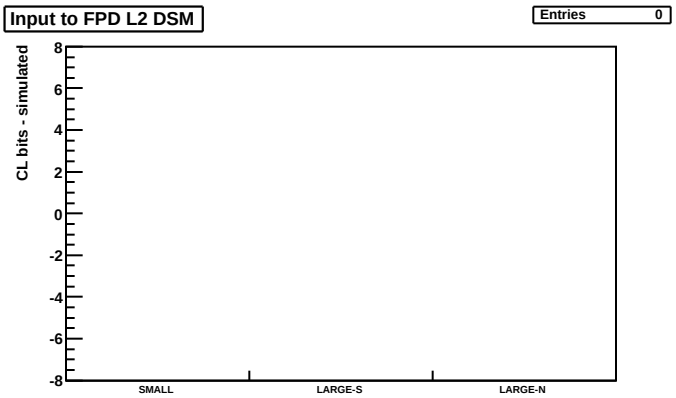

Input to FMS L1 DSM
Entries 2688900
FMS L1 HT bits
DSM board

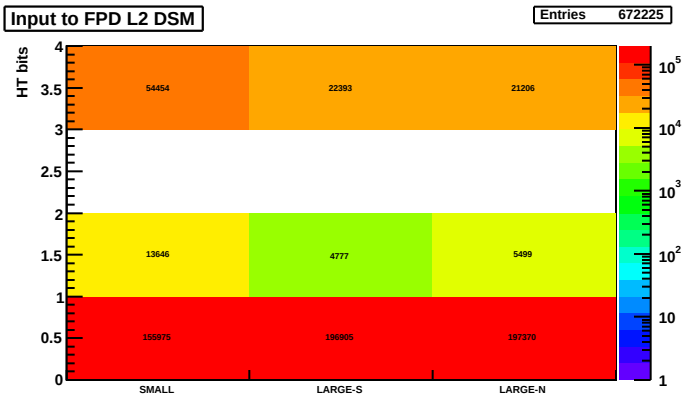

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

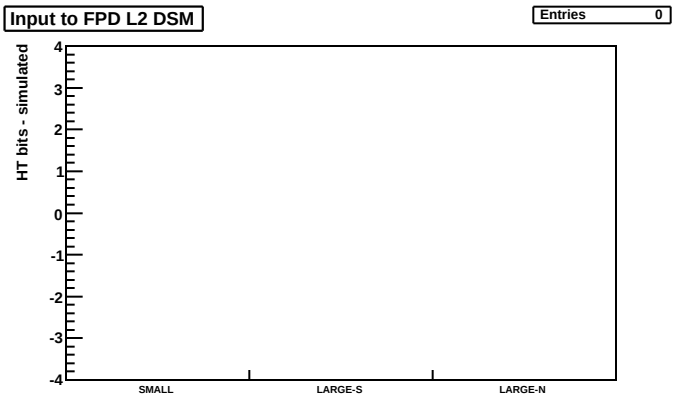

Input to FPD L2 DSM
Entries 1792600
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

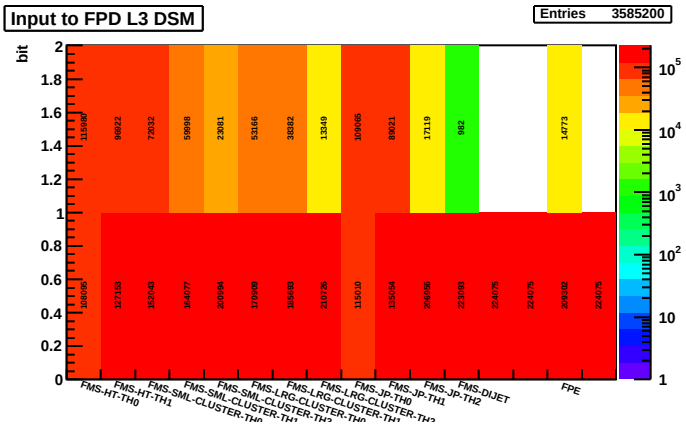

Input to FPD L2 DSM
Entries 5347
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

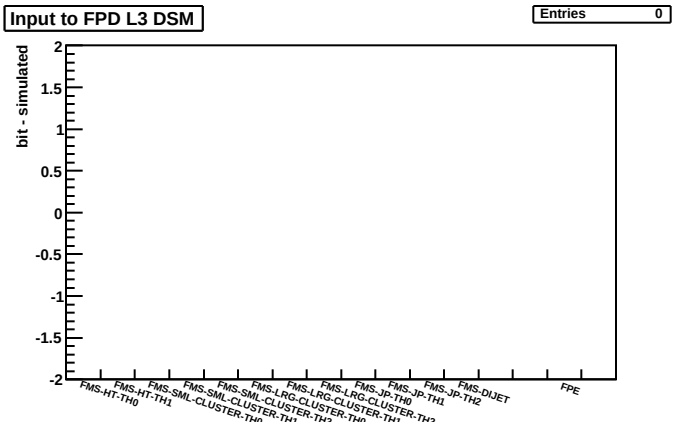

Input to FPD L2 DSM
Entries 672225
CL bits
23081
6798
6814
36917
12805
12244
12034
7472
8002
152043
197000
197015
SMALL
LARGE-S
LARGE-N

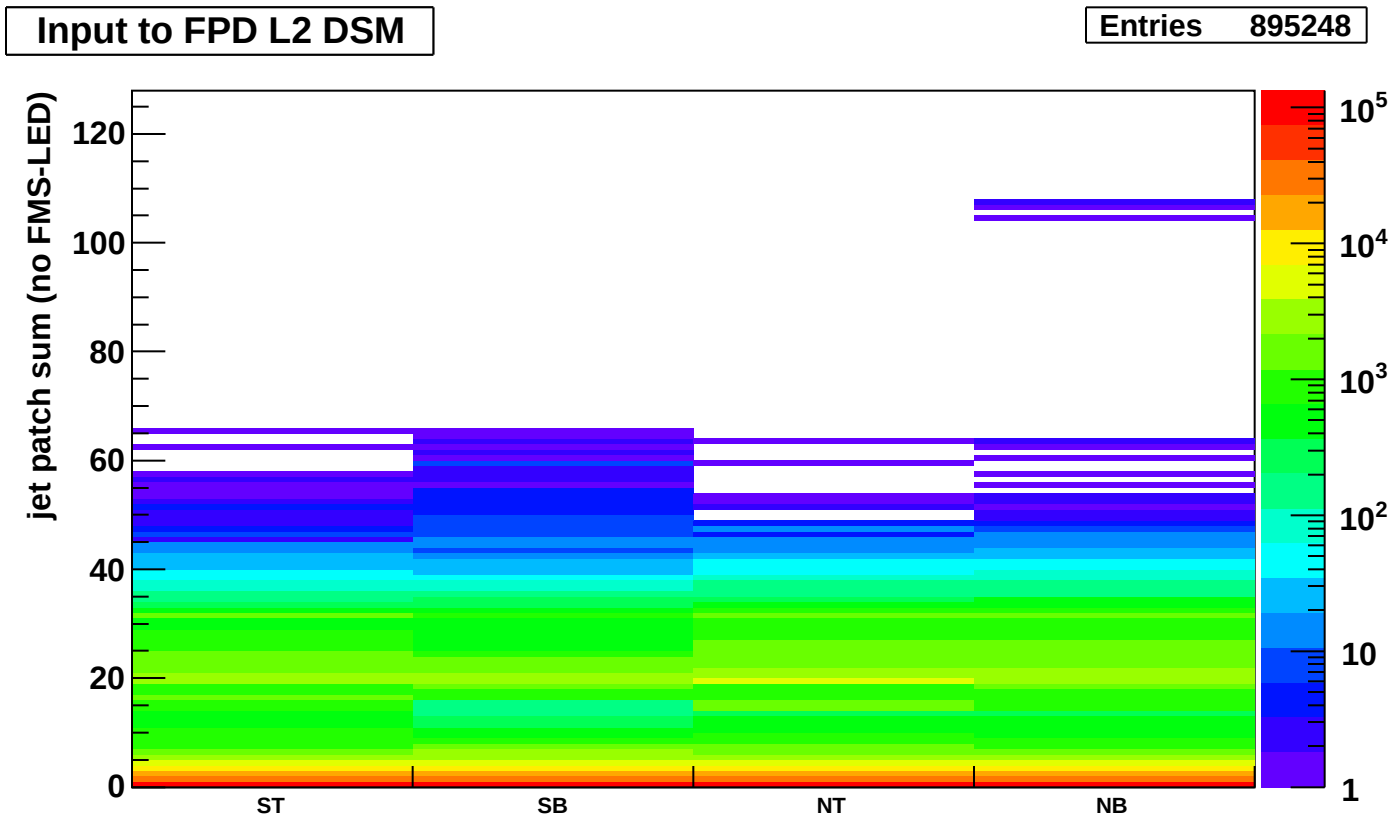

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

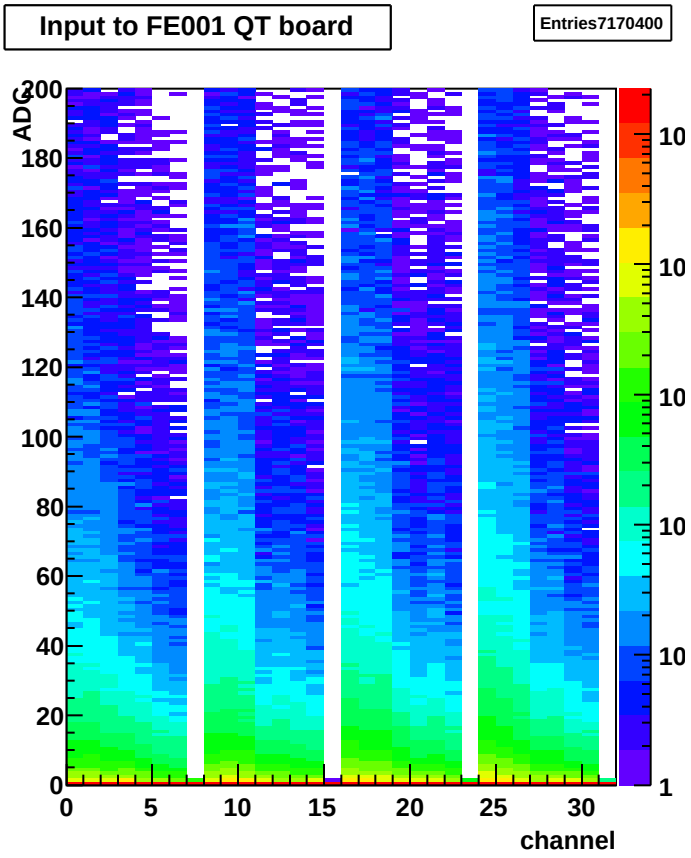

Input to FPD L2 DSM
Entries 672225
HT bits
54454
22393
21206
13646
4777
5499
155975
196905
197370
SMALL
LARGE-S
LARGE-N

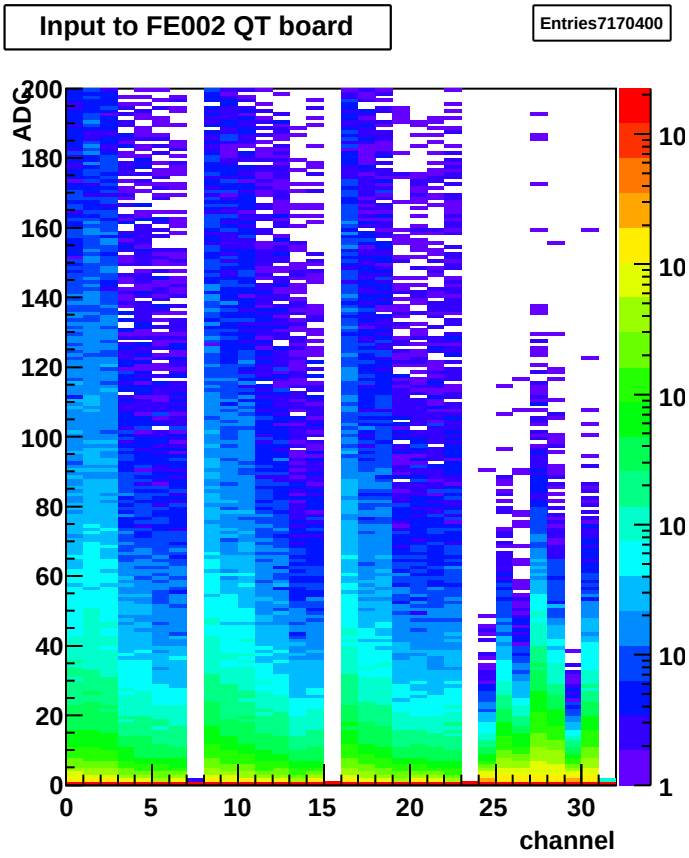

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

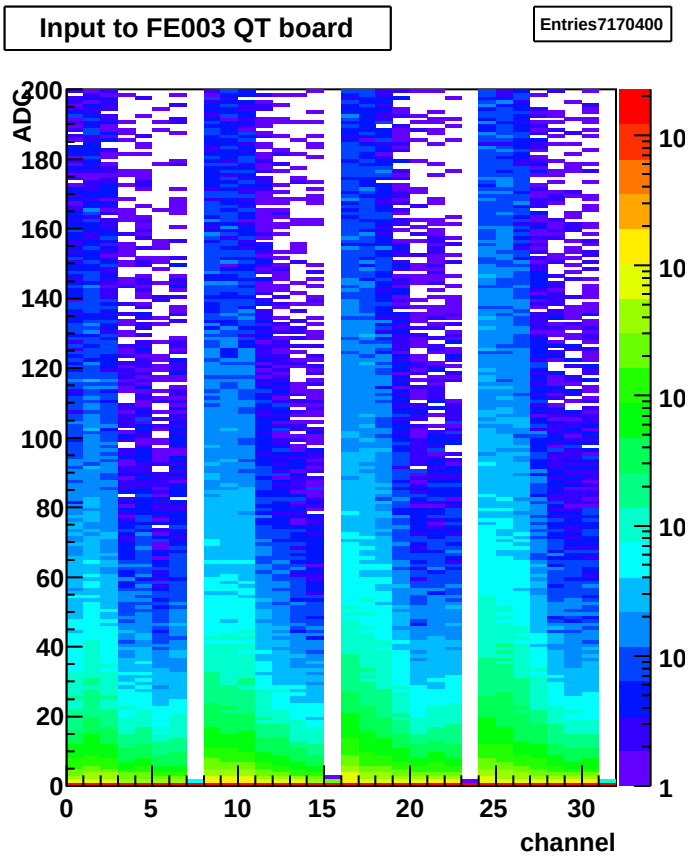

Input to FPD L3 DSM
Entries 3585200
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

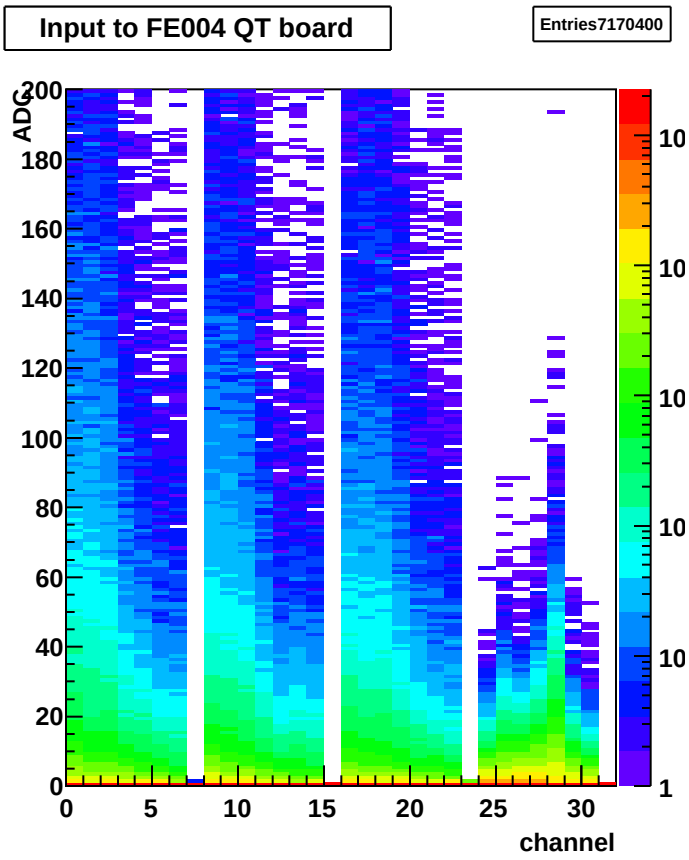

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

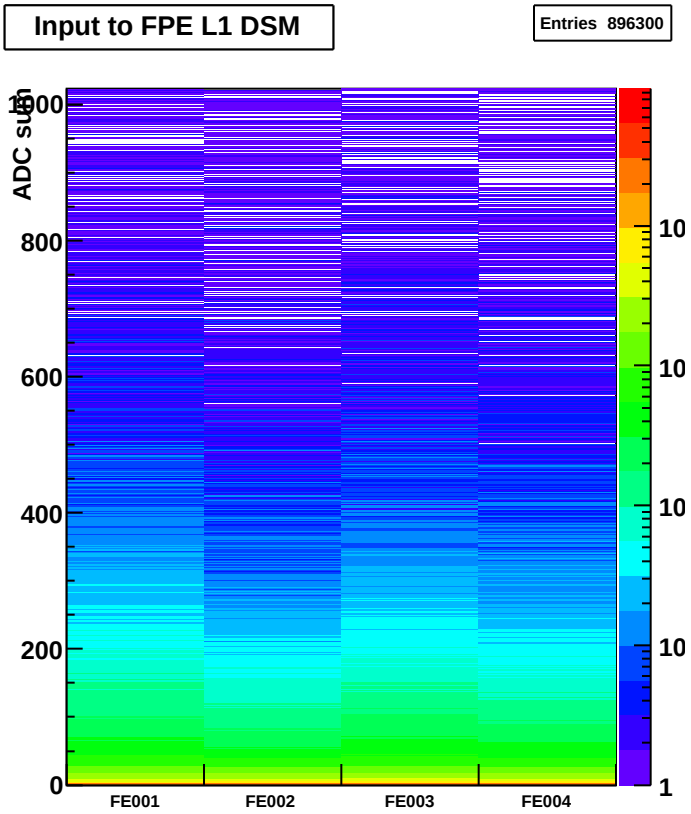

Input to FPD L2 DSM
Entries 895248
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

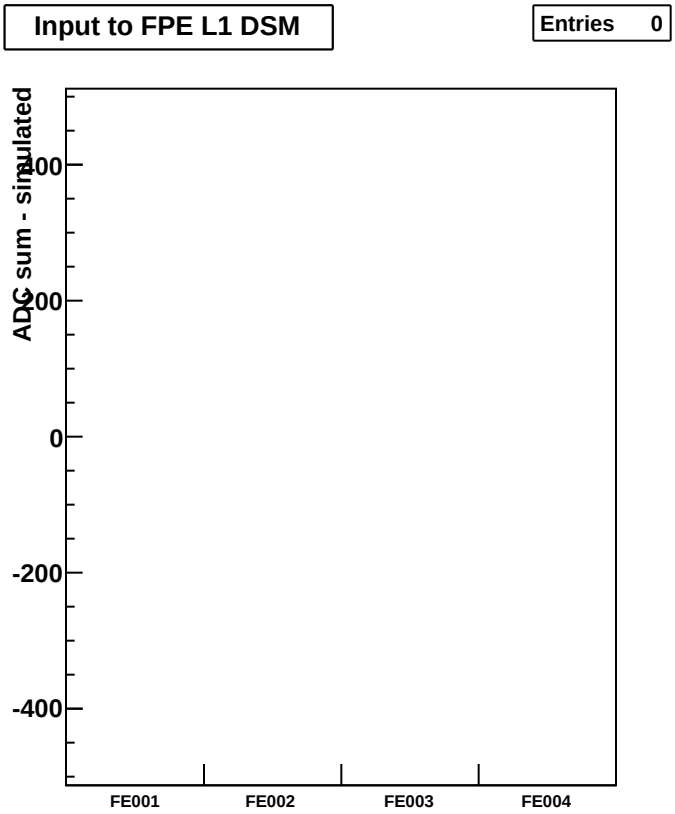

Input to FE001 QT board
Entries7170400
ADC
channel

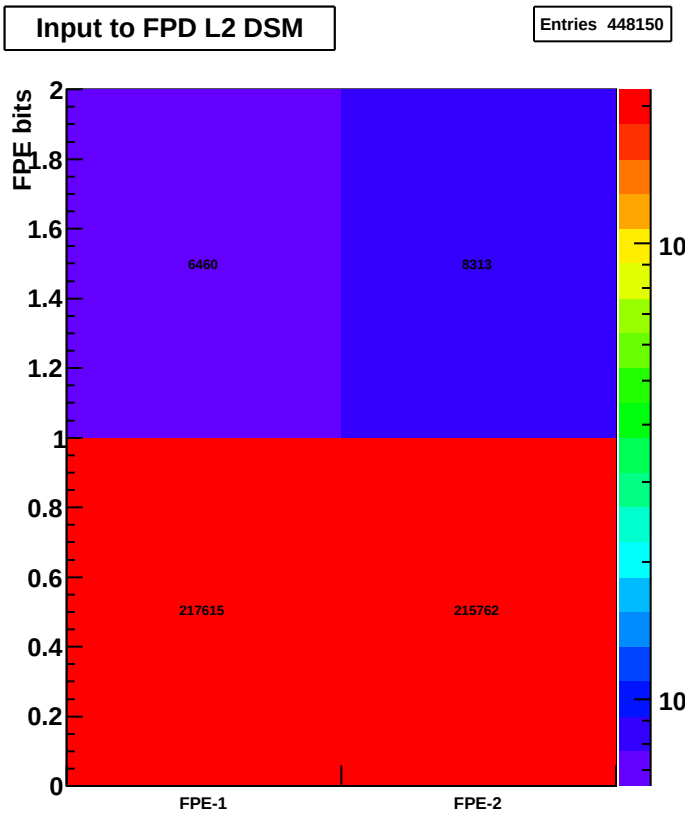

Input to FE002 QT board
Entries7170400
ADC
channel

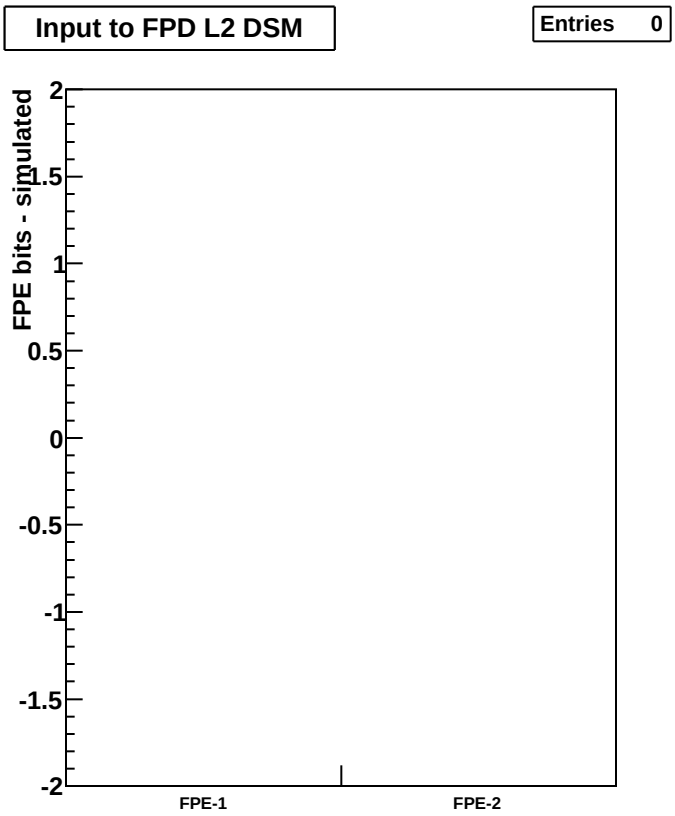

Input to FE003 QT board
Entries7170400
ADC
channel


Input to FE004 QT board
Entries7170400
ADC
channel


Input to FPE L1 DSM
Entries 896300
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
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 448150
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
6460
8313
217615
215762
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