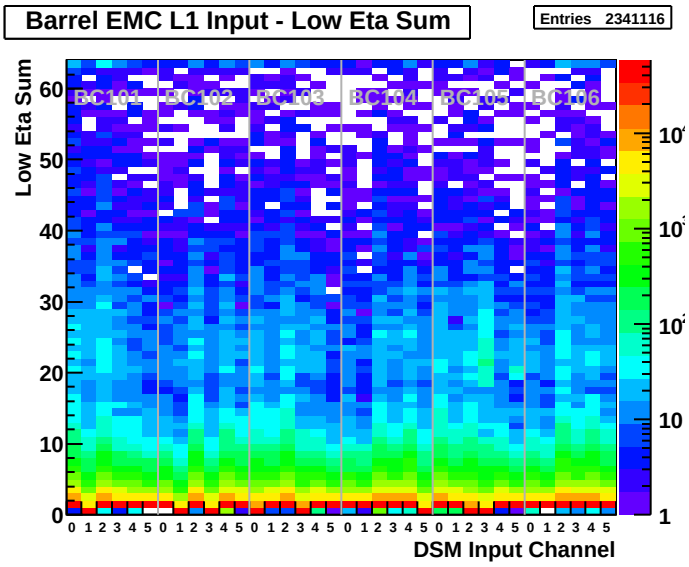
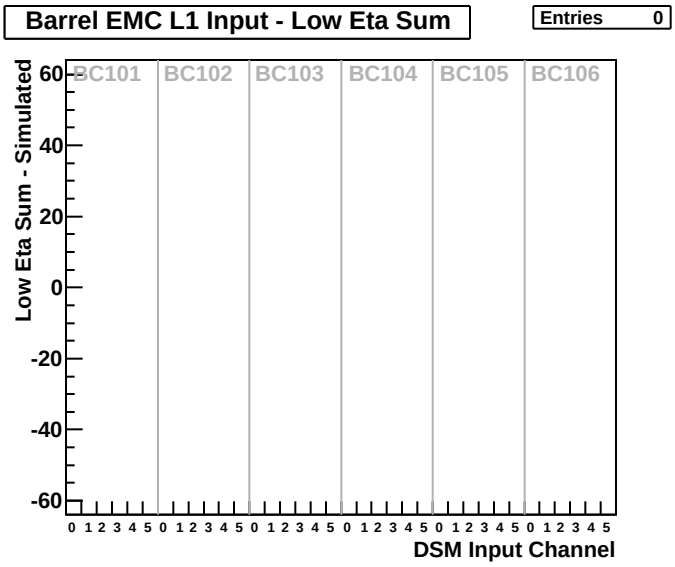
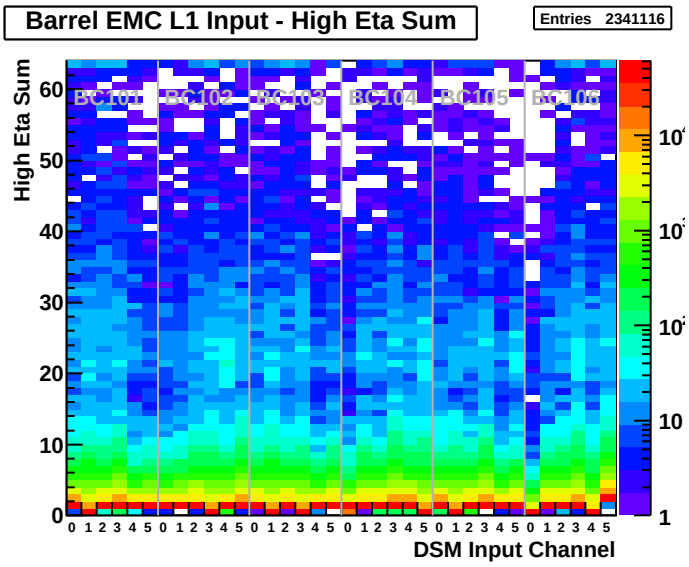
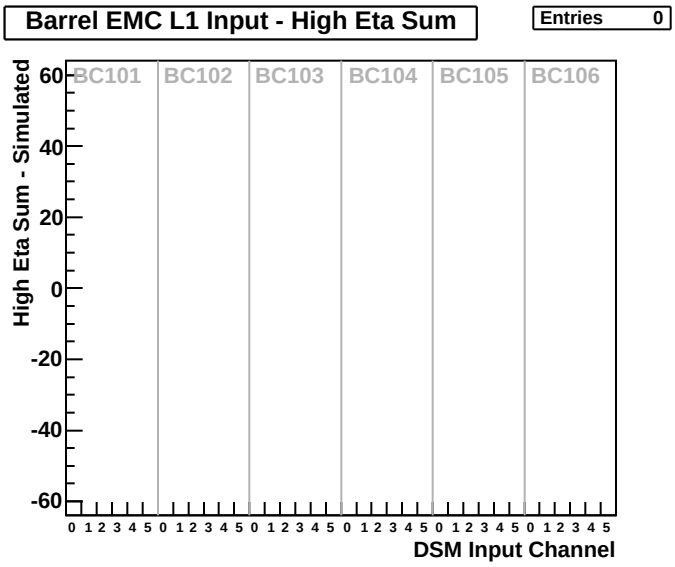
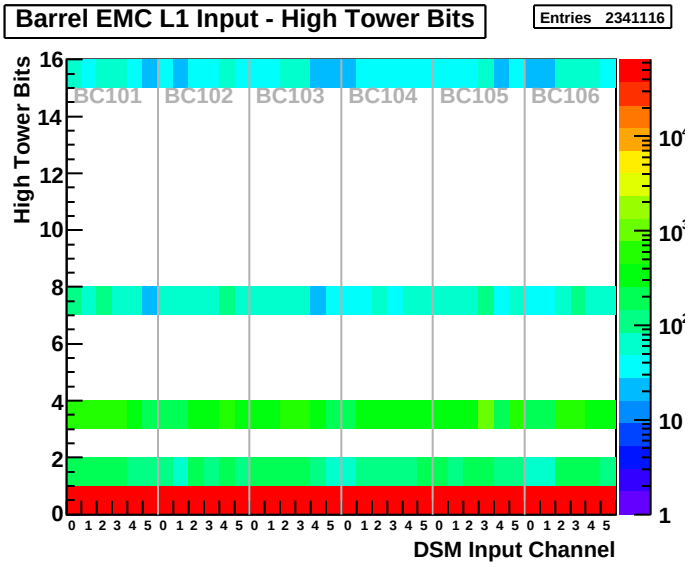
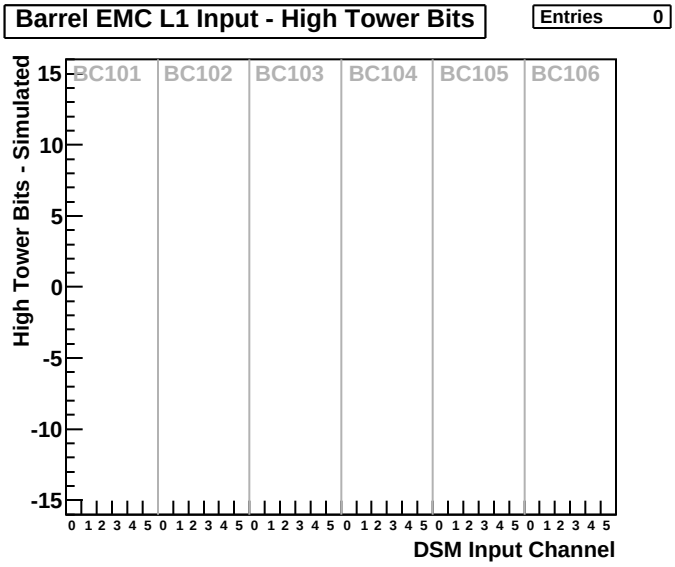

Barrel EMC L1 Input - Low Eta Sum
Entries 2341116
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

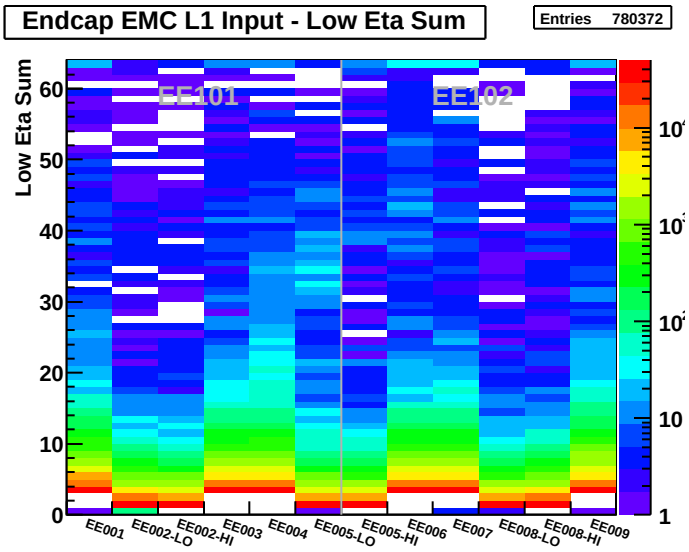

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

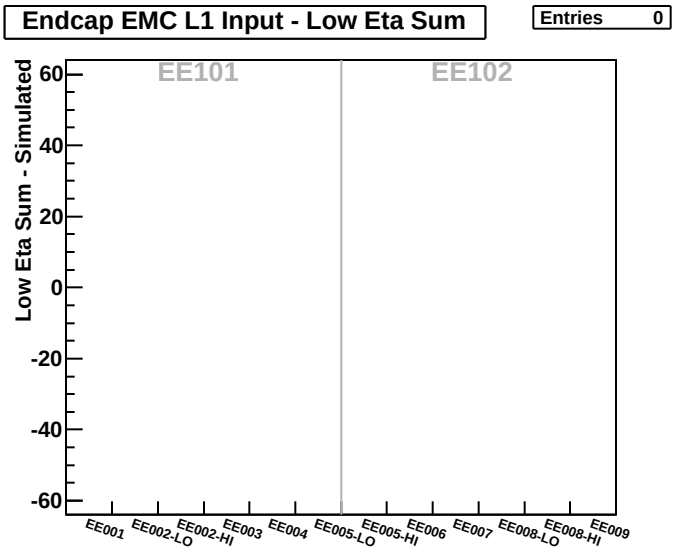

Barrel EMC L1 Input - High Eta Sum
Entries 2341116
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

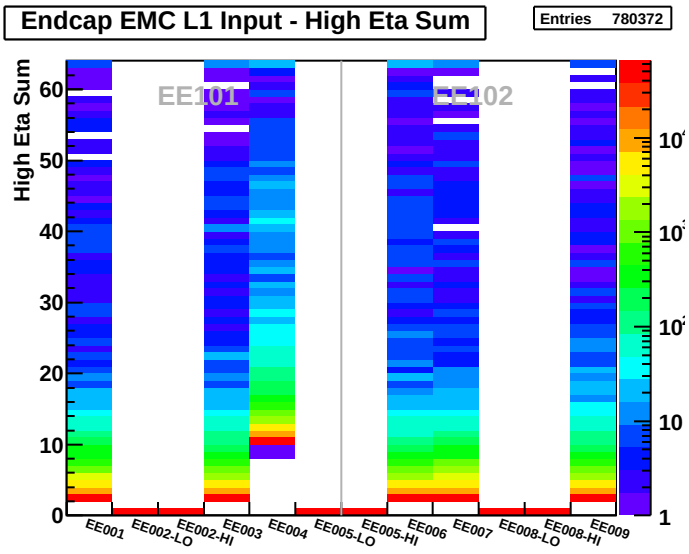

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

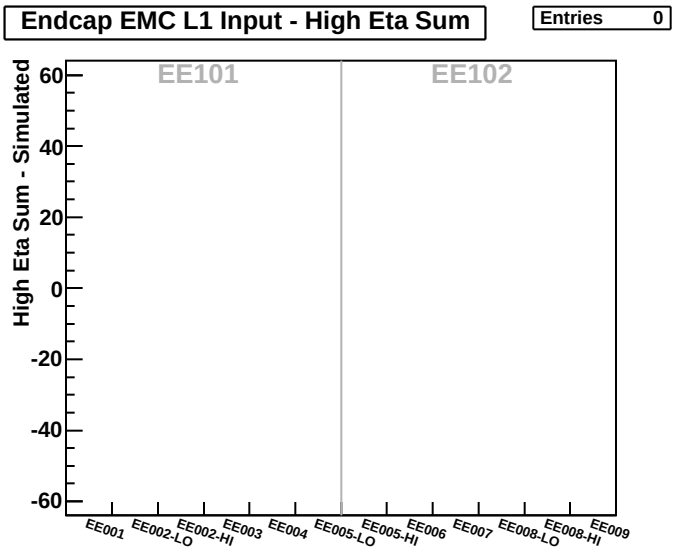

Barrel EMC L1 Input - High Tower Bits
Entries 2341116
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

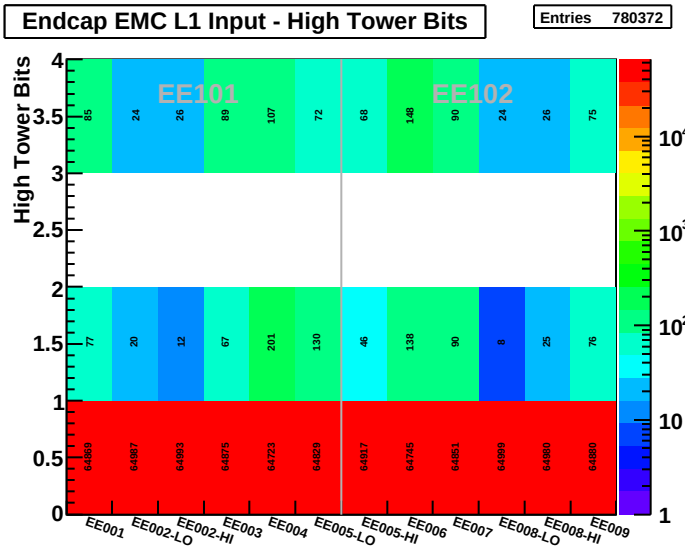

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

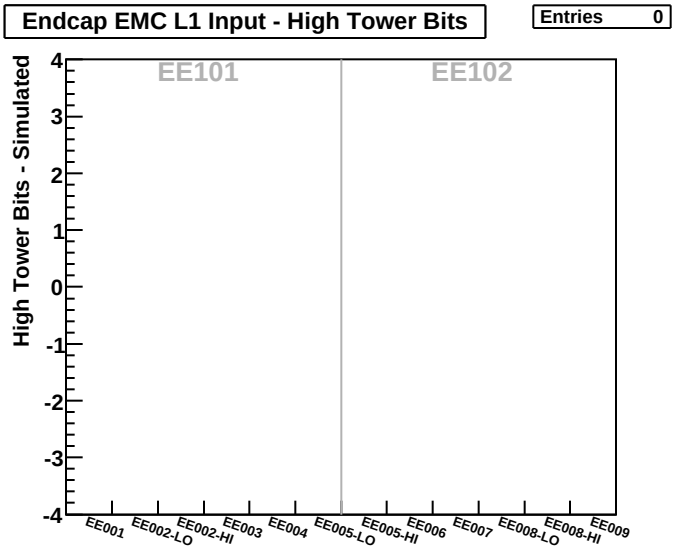

Endcap EMC L1 Input - Low Eta Sum
Entries 780372
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

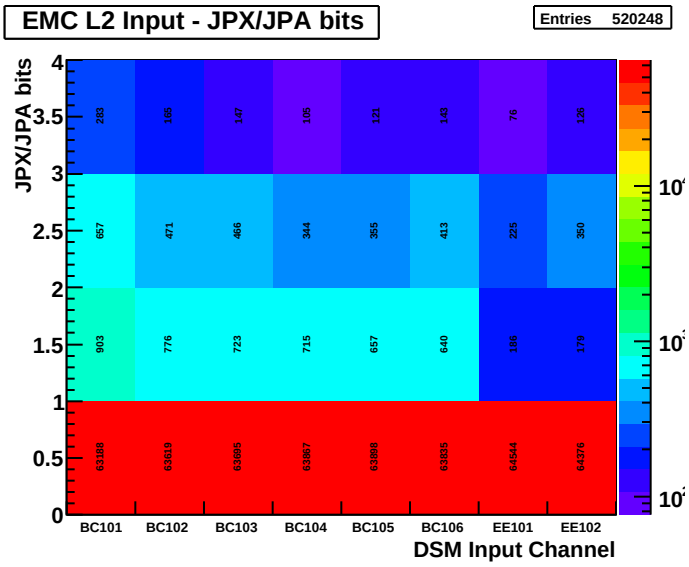

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

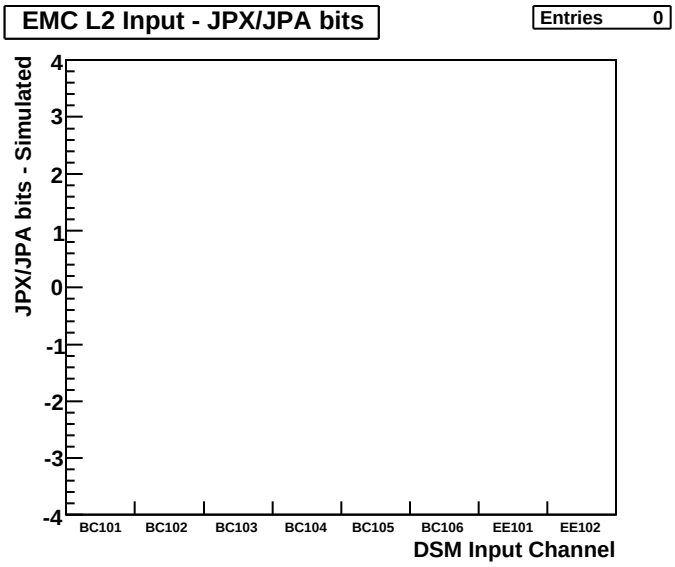

Endcap EMC L1 Input - High Eta Sum
Entries 780372
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

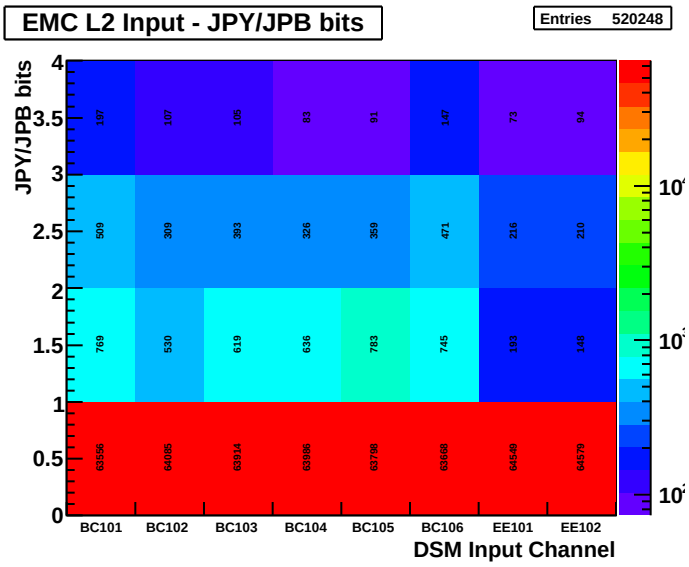

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

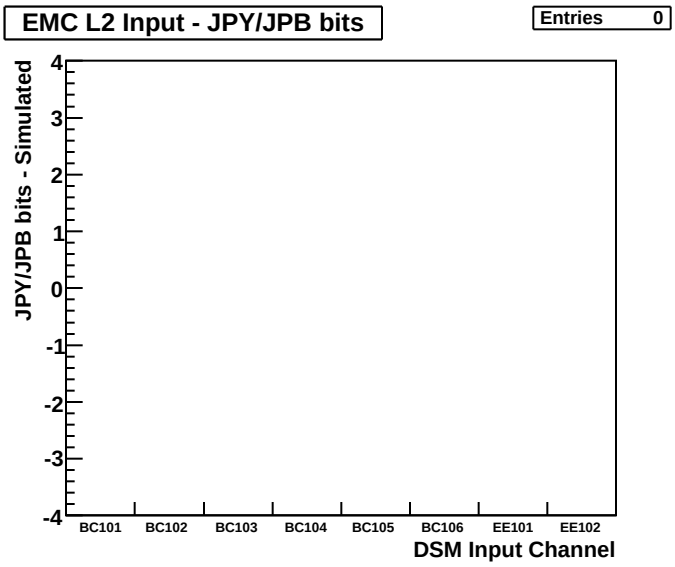

Endcap EMC L1 Input - High Tower Bits
Entries 780372
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

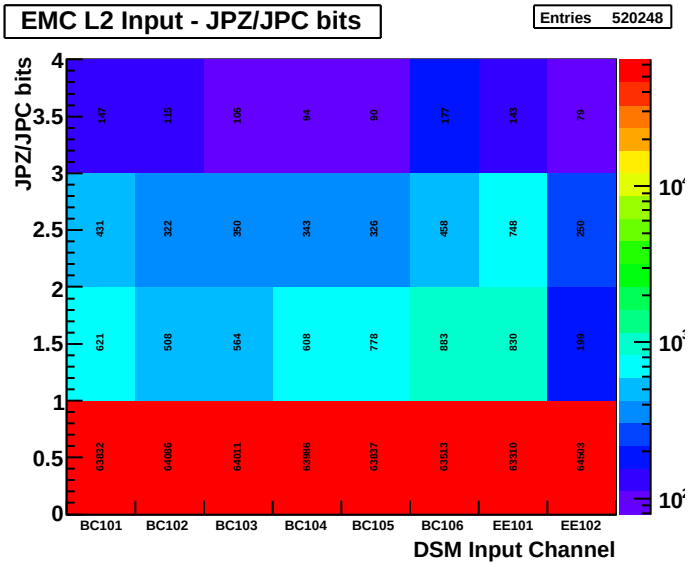

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

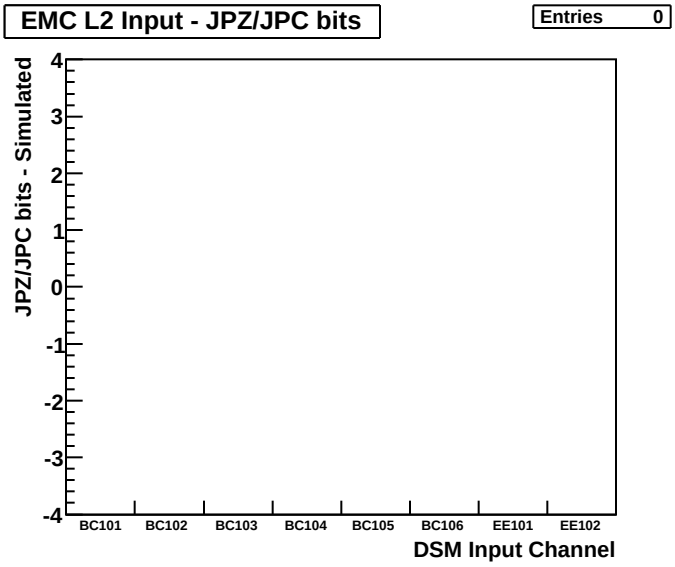

EMC L2 Input - JPX/JPA bits
Entries 520248
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
283 165 147 105 121 143 76 126
657 471 466 344 355 413 225 350
903 776 723 715 657 640 186 179
63168 63619 63695 63867 63898 63835 64544 64376

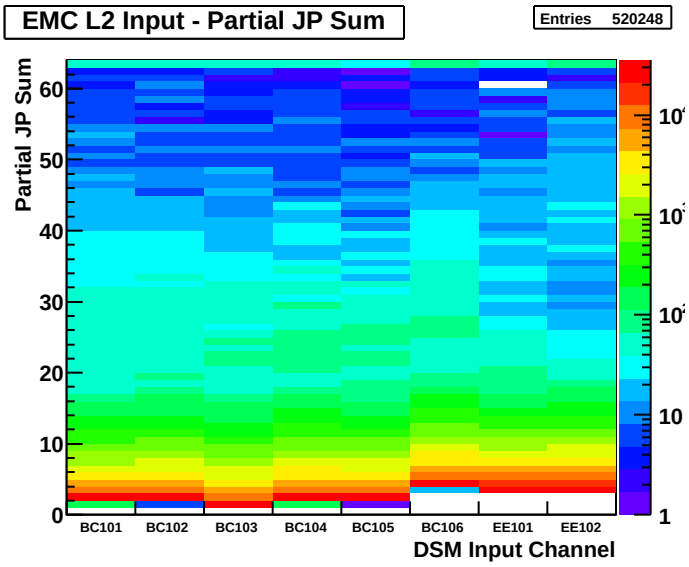

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

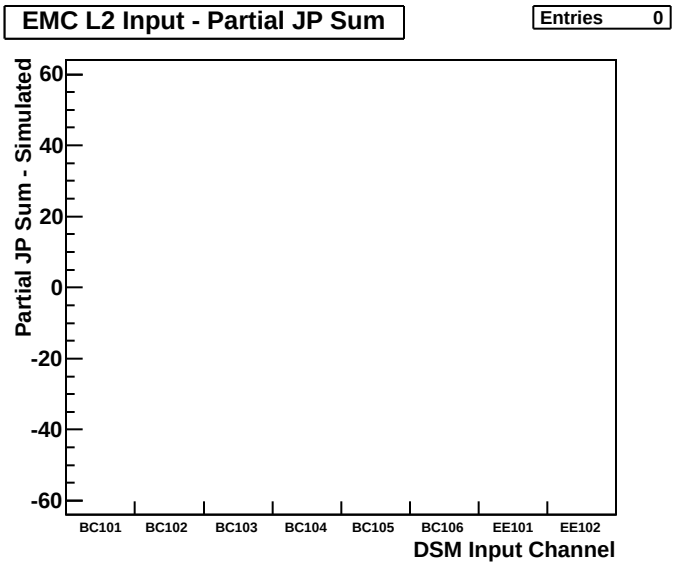

EMC L2 Input - JPY/JPB bits
Entries 520248
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
197 107 105 83 91 147 73 94
509 309 393 326 359 471 216 210
769 530 619 636 783 745 193 148
63556 64085 63914 63986 63798 63668 64549 64579

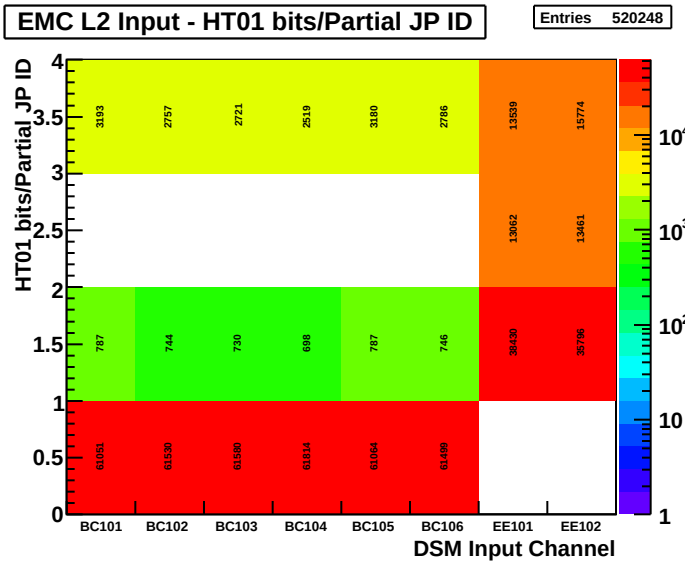

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

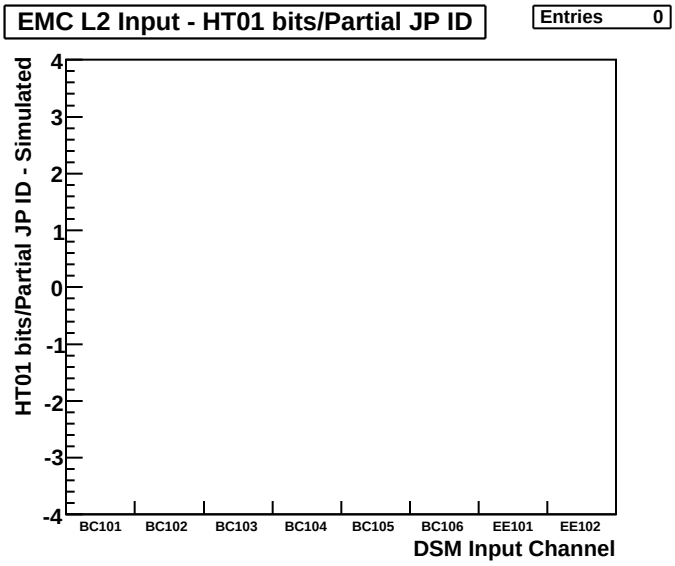

EMC L2 Input - JPZ/JPC bits
Entries 520248
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
147 115 106 94 90 177 143 79
431 322 350 343 326 458 748 250
621 508 564 608 778 883 830 199
63832 64086 64011 63986 63837 63513 63310 64303

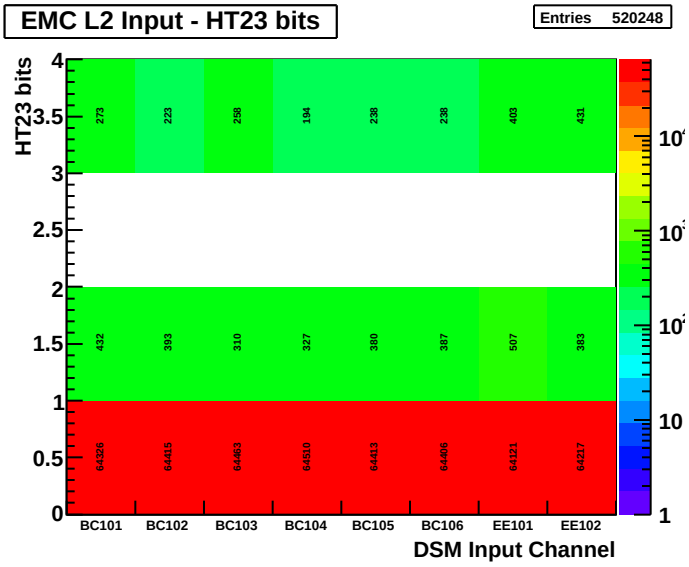

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

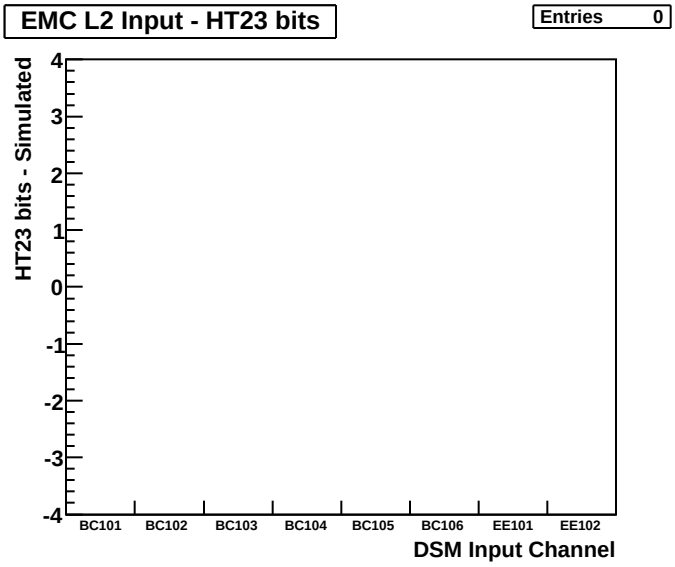

EMC L2 Input - Partial JP Sum
Entries 520248
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

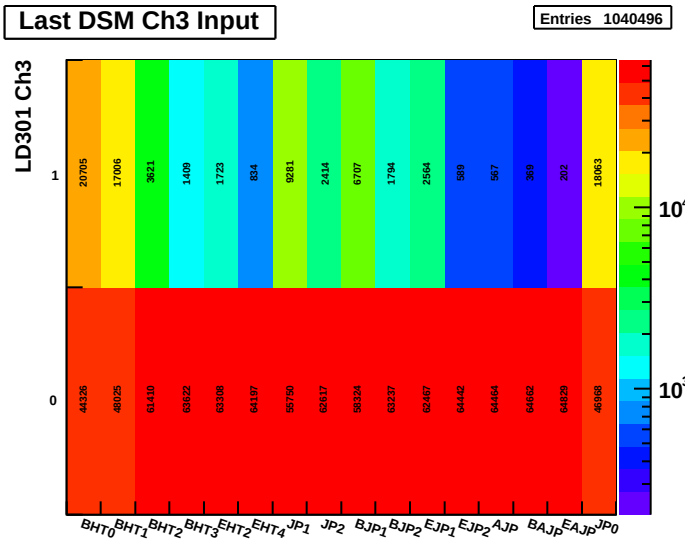

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

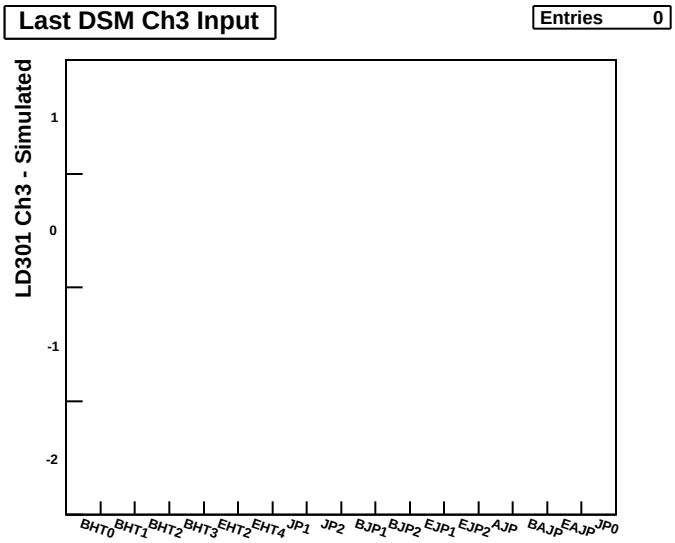

EMC L2 Input - HT01 bits/Partial JP ID
Entries 520248
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

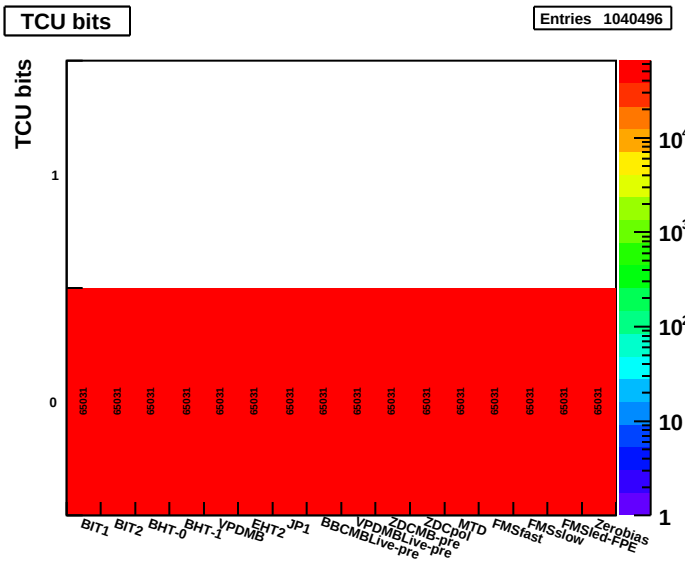

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

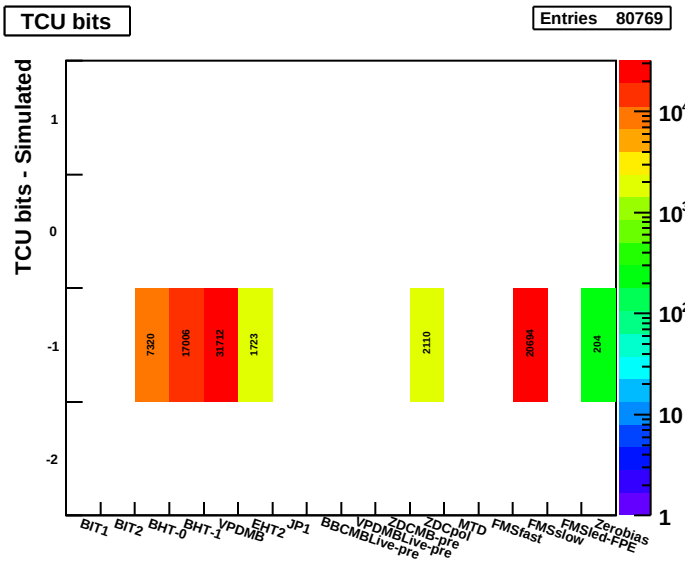

EMC L2 Input - HT23 bits
Entries 520248
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

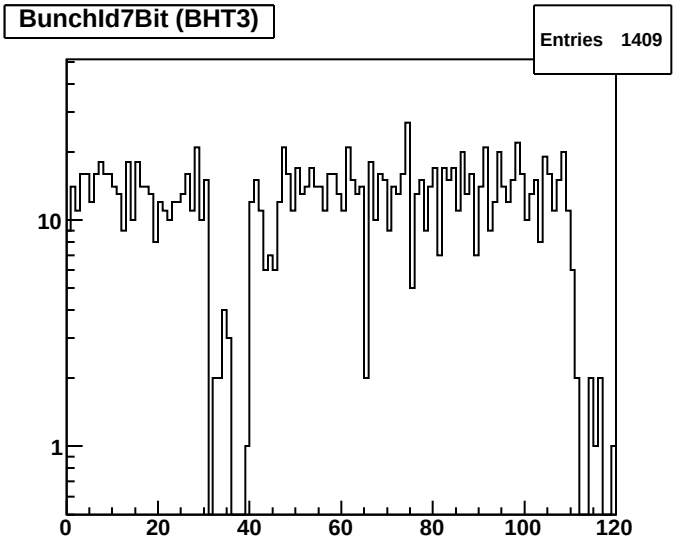

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

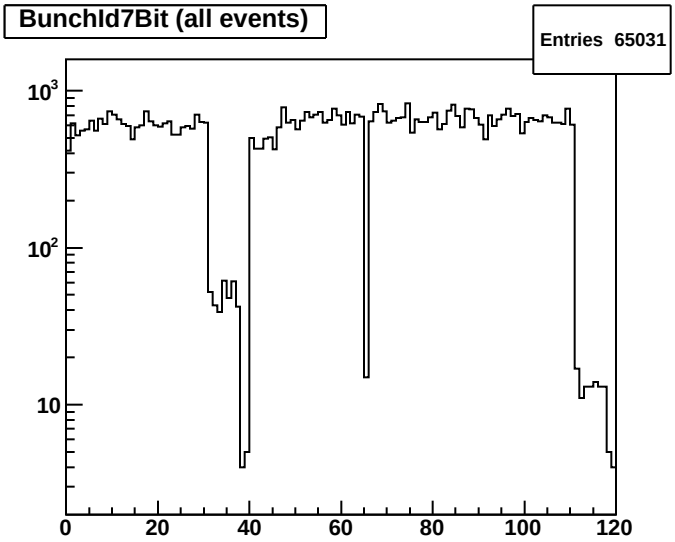

Last DSM Ch3 Input
Entries 1040496
LD301 Ch3
1
0
20705 17006 3621 1409 1723 834 9281 2414 6707 1794 2564 589 567 369 202 18063
44326 49025 61410 63622 63308 64197 55750 62617 58324 63237 62467 64442 64464 64662 64829 46968
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

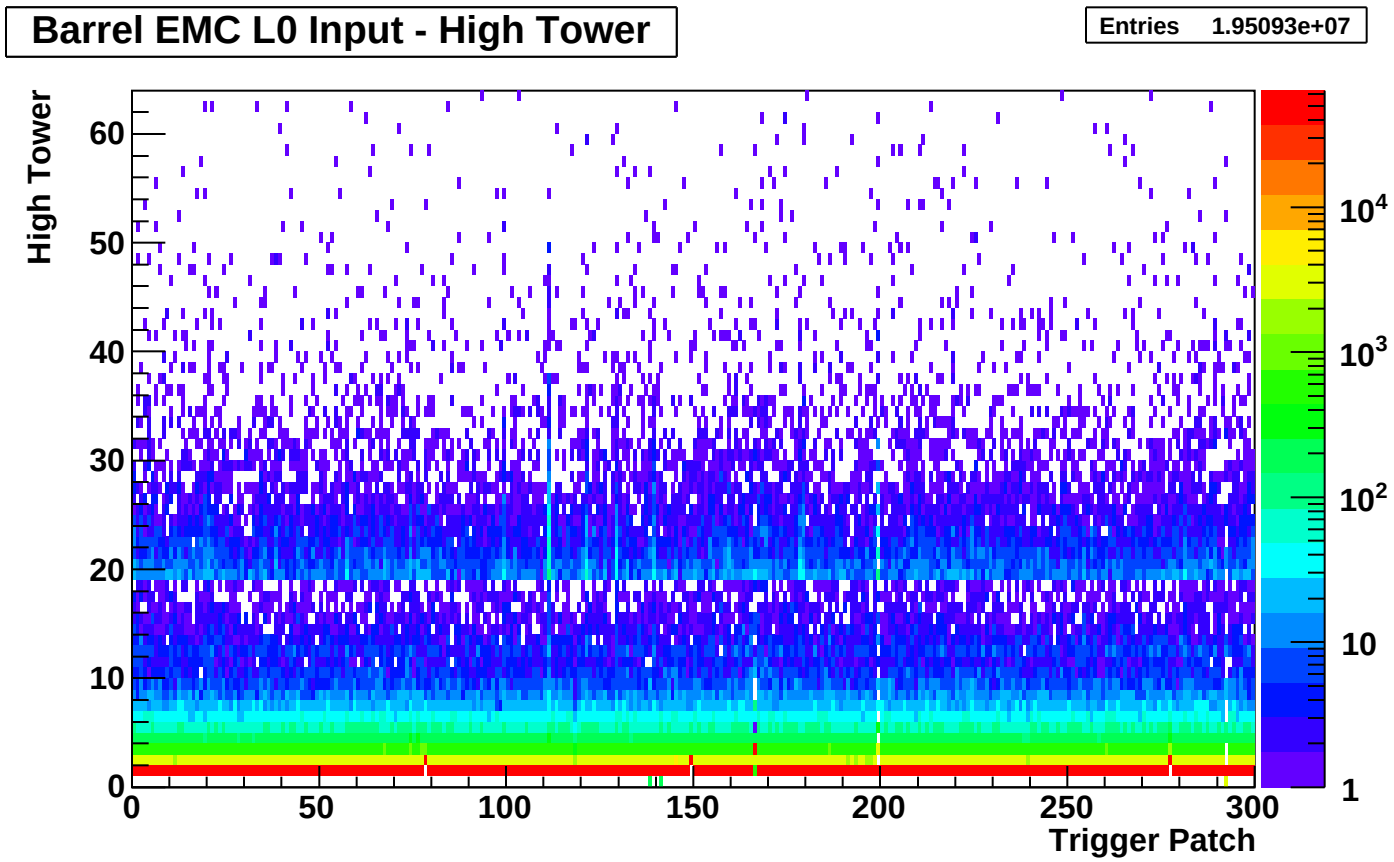

Last DSM Ch3 Input
Entries 0
LD301 Ch3 - Simulated
1
0
-1
-2
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

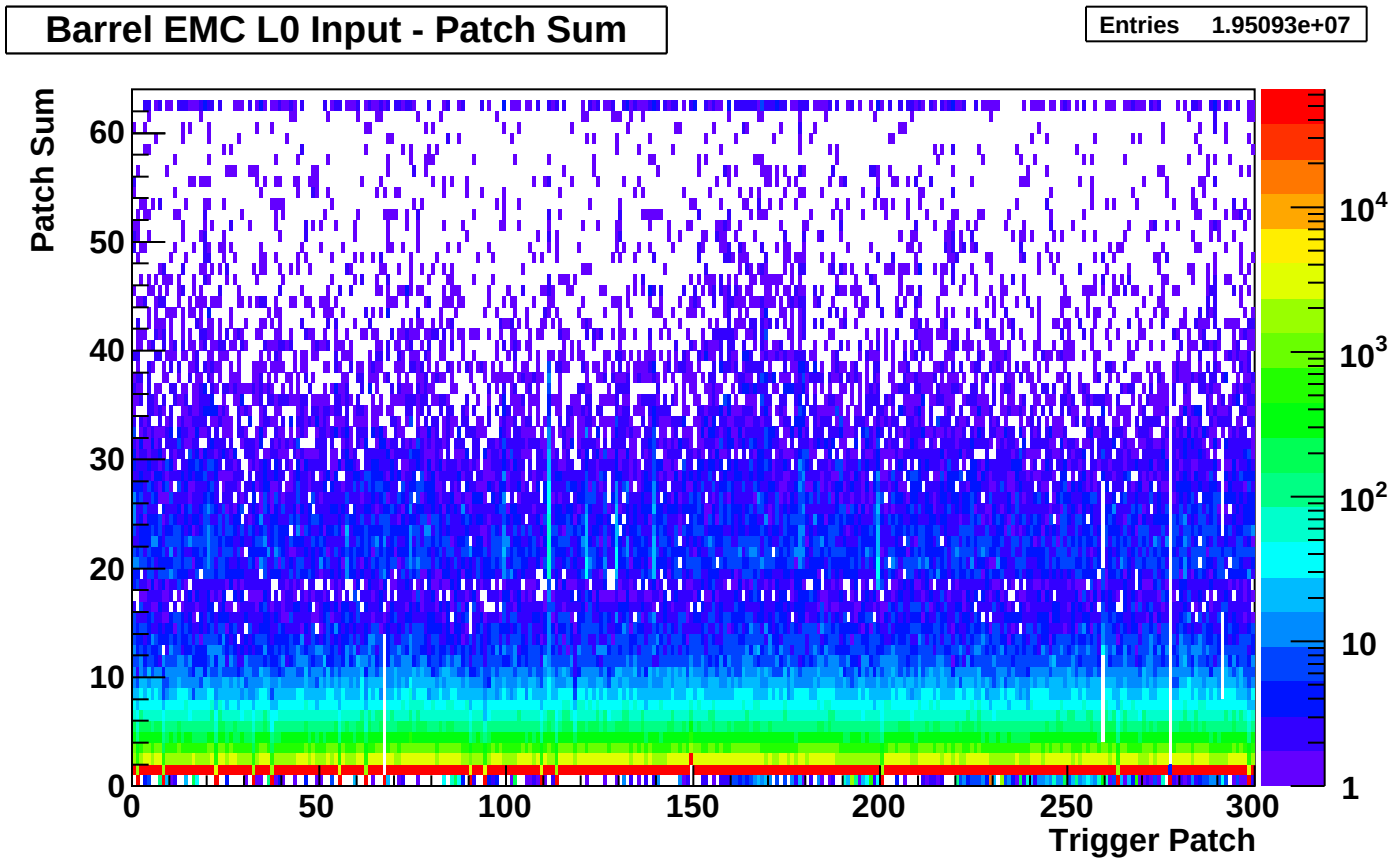

TCU bits
Entries 1040496
TCU bits
1
0
65031 65031 65031 65031 65031 65031 65031 65031 65031 65031 65031 65031 65031 65031 65031 65031
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias
10
1

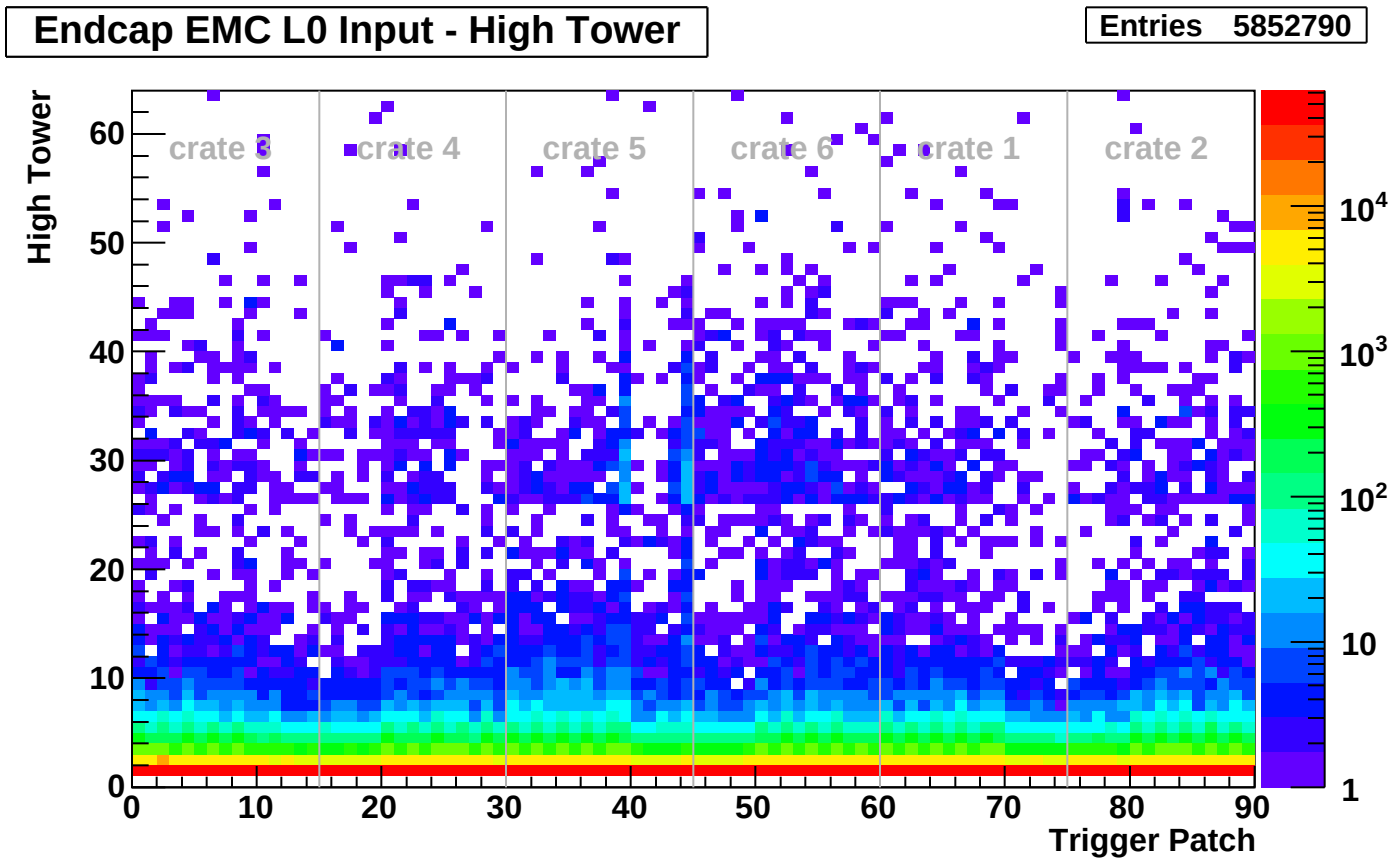

TCU bits
Entries 80769
TCU bits - Simulated
1
0
-1
-2
7320 17006 31712 1723 2110 20694 204
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias
10
1

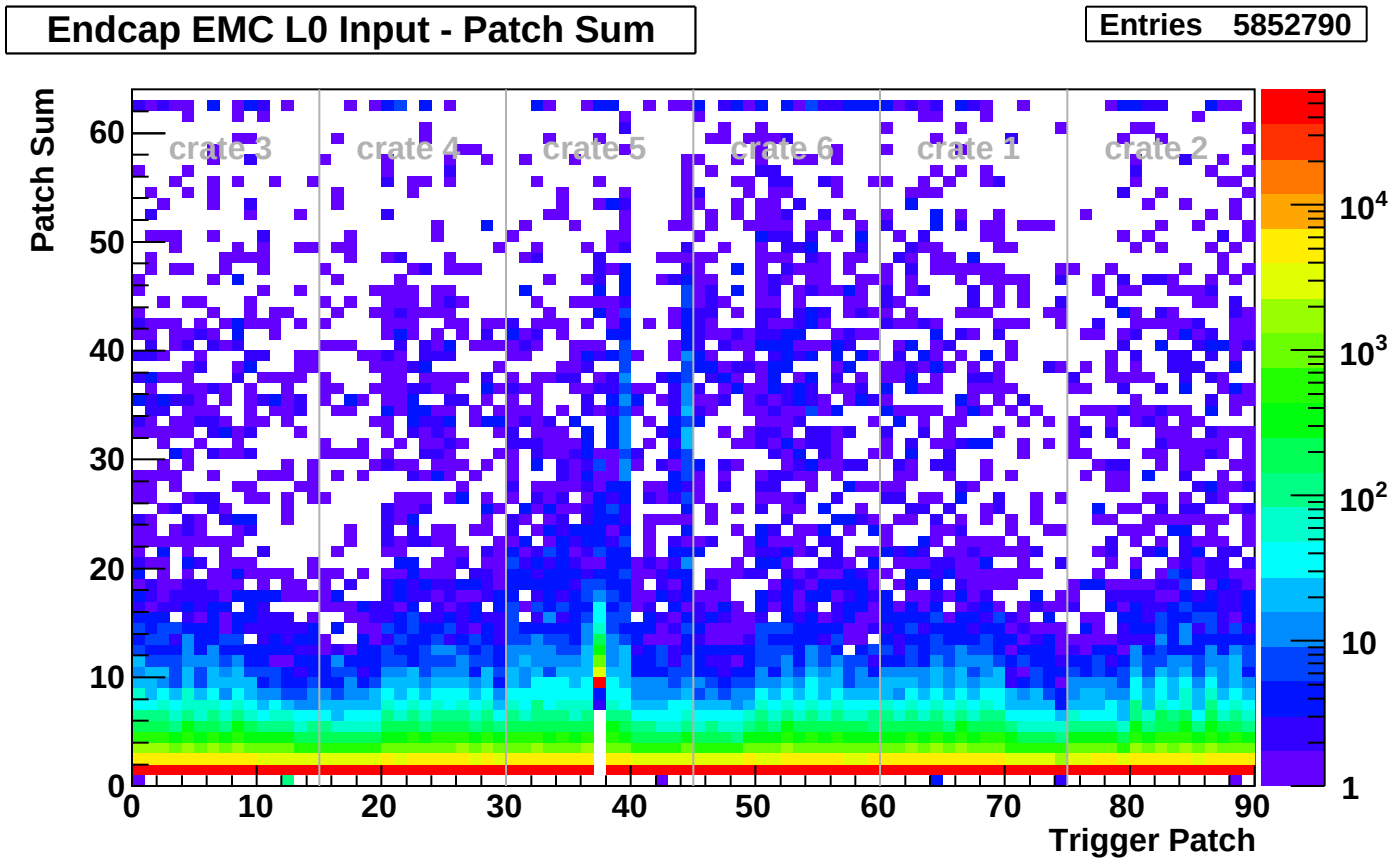

BunchId7Bit (BHT3)
Entries 1409
10
1
0 20 40 60 80 100 120

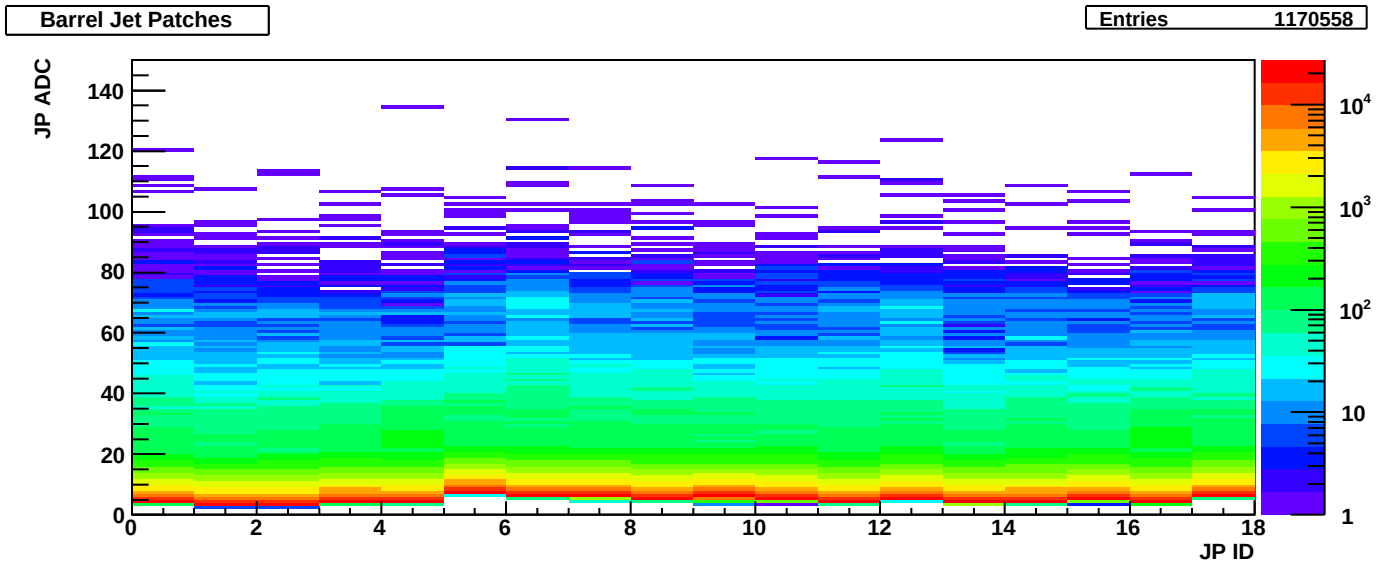

BunchId7Bit (all events)
Entries 65031
10^3
10^2
10
0 20 40 60 80 100 120

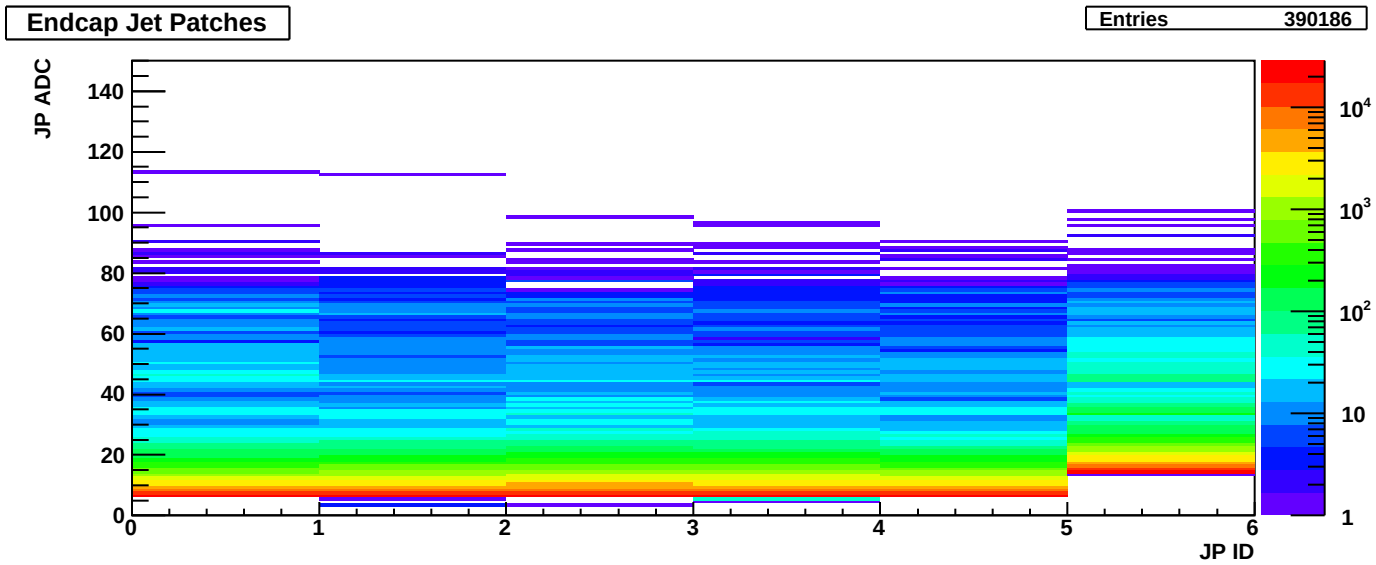

Barrel EMC L0 Input - High Tower
Entries 1.95093e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

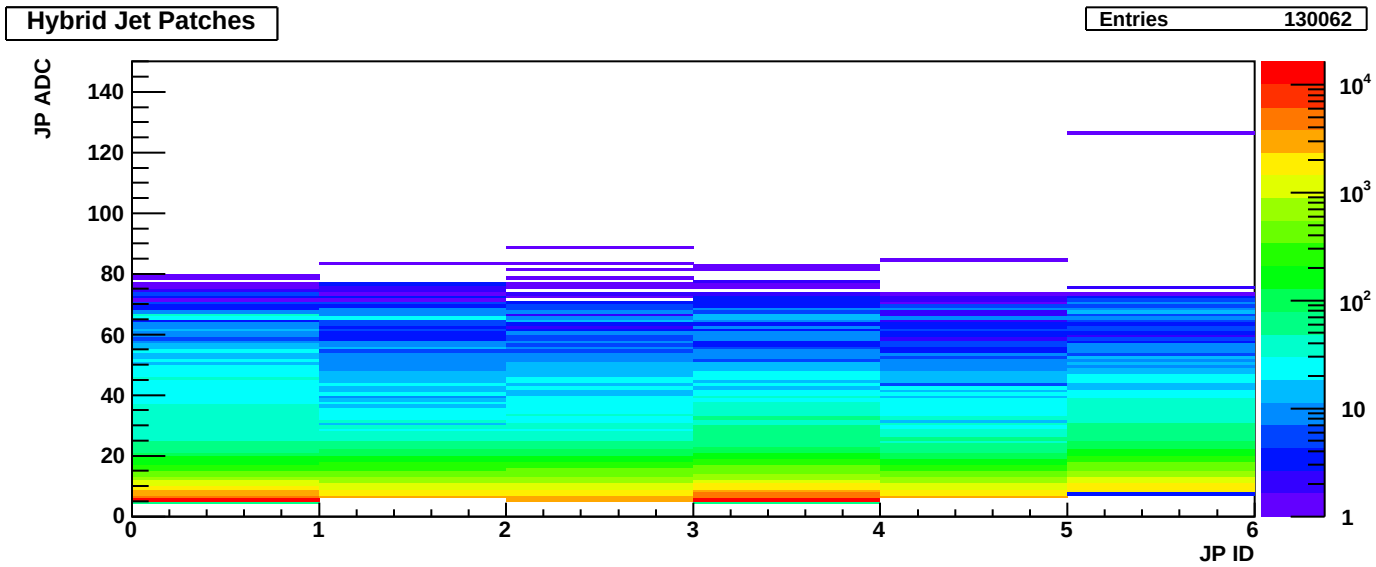

Barrel EMC L0 Input - Patch Sum
Entries 1.95093e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

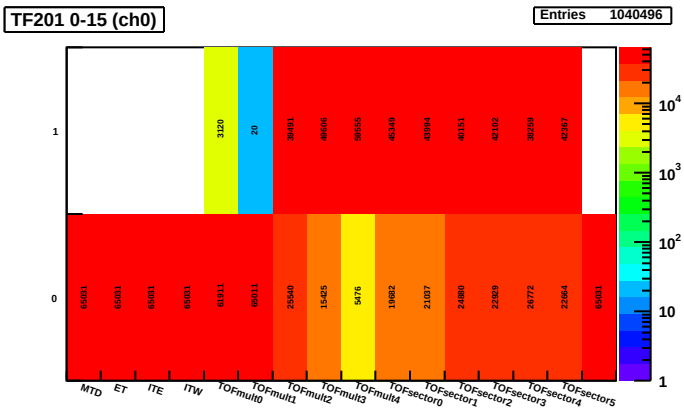

Endcap EMC L0 Input - High Tower
Entries 5852790
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

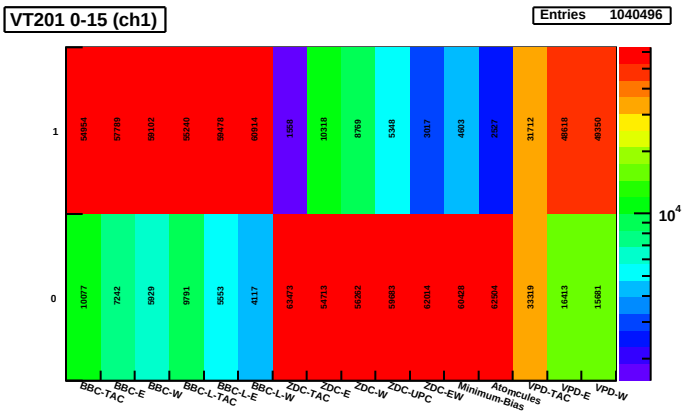

Endcap EMC L0 Input - Patch Sum
Entries 5852790
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

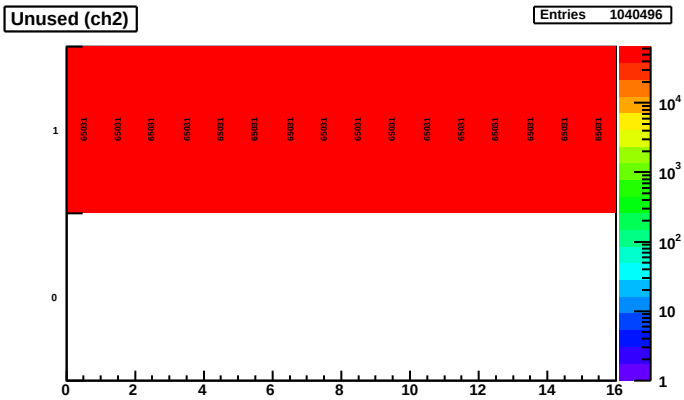

Barrel Jet Patches
Entries 1170558
JP ADC
JP ID

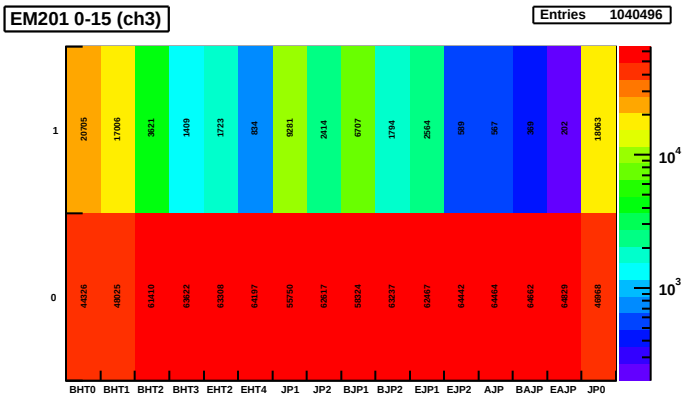

Endcap Jet Patches
Entries 390186
JP ADC
JP ID

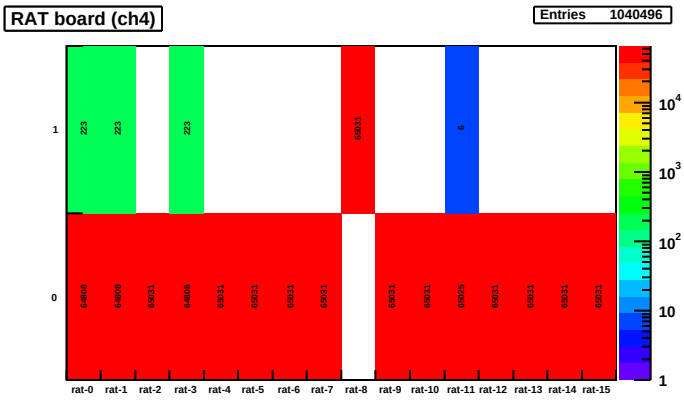

Hybrid Jet Patches
Entries 130062
JP ADC
JP ID

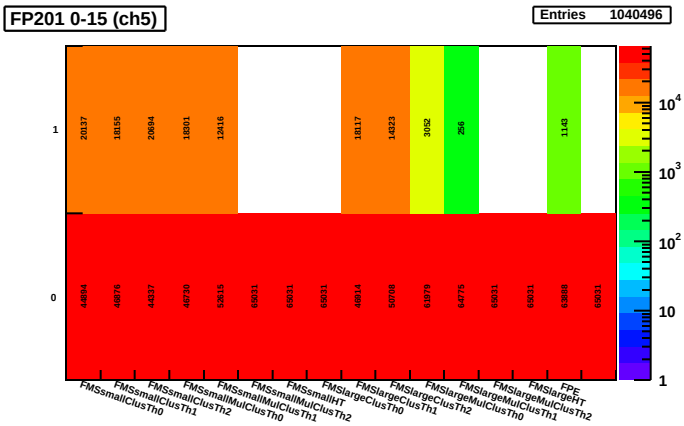

TF201 0-15 (ch0)
Entries 1040496
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

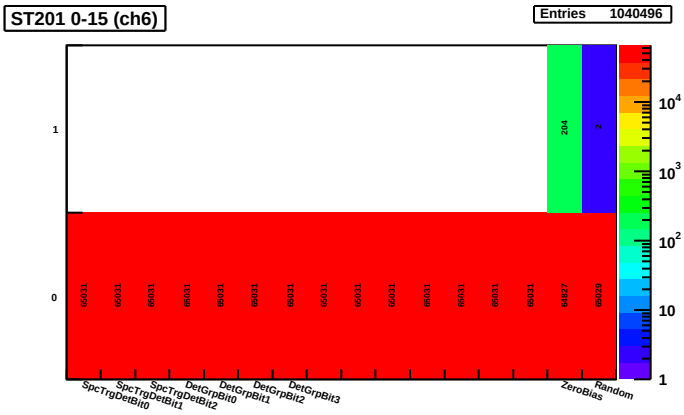

VT201 0-15 (ch1)
Entries 1040496
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

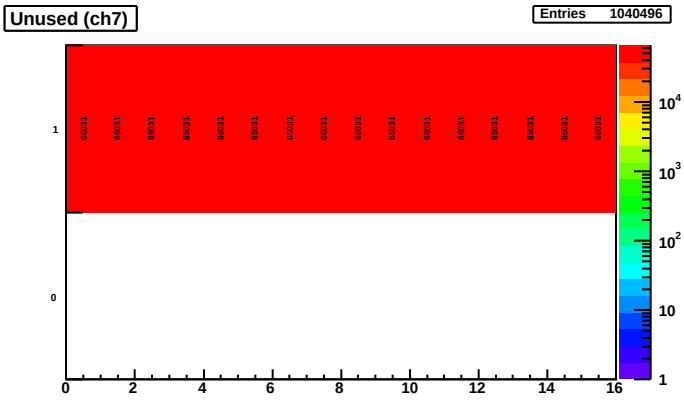

Unused (ch2)
Entries 1040496

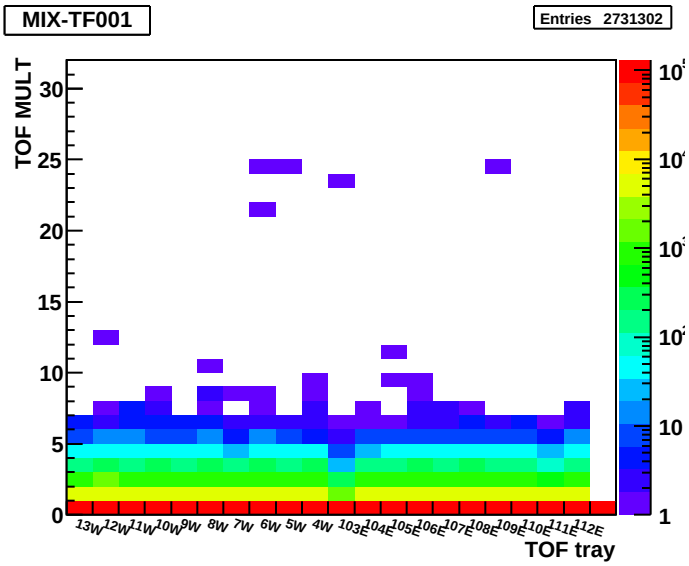

EM201 0-15 (ch3)
Entries 1040496
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

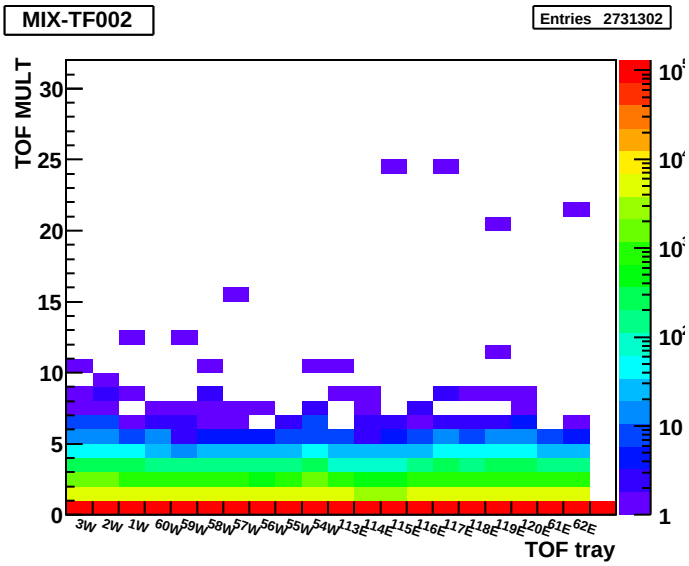

RAT board (ch4)
Entries 1040496
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

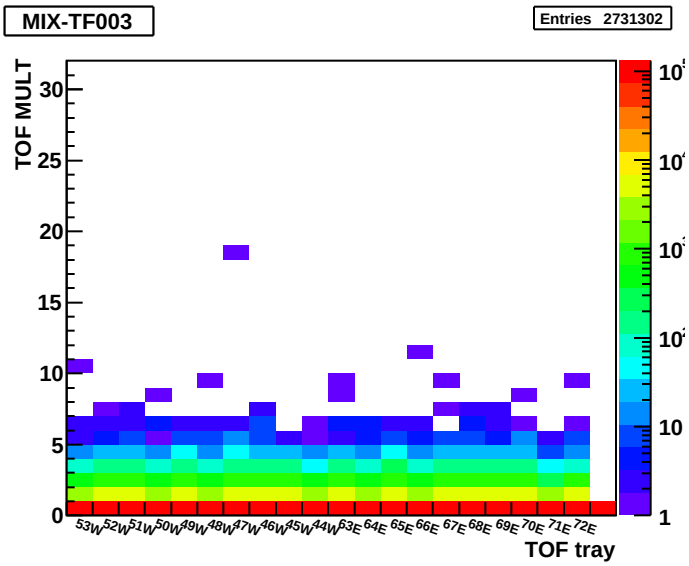

FP201 0-15 (ch5)
Entries 1040496
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

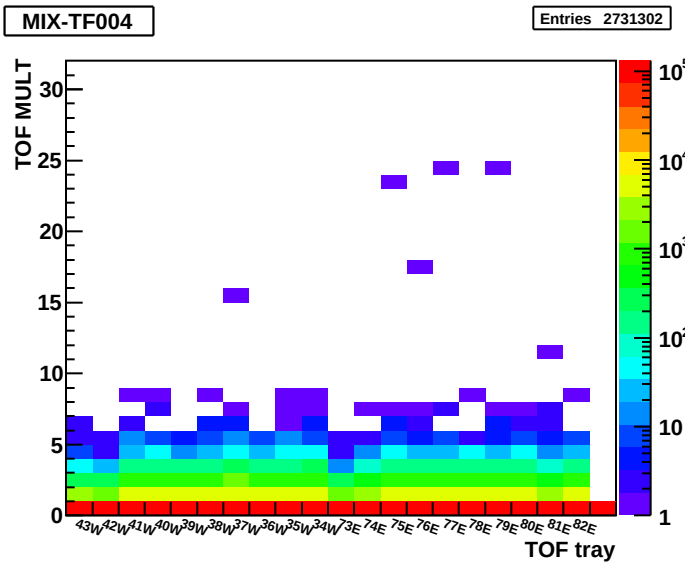

ST201 0-15 (ch6)
Entries 1040496
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetGrpBit0 DetGrpBit1 DetGrpBit2 DetGrpBit3 ZeroBias Random

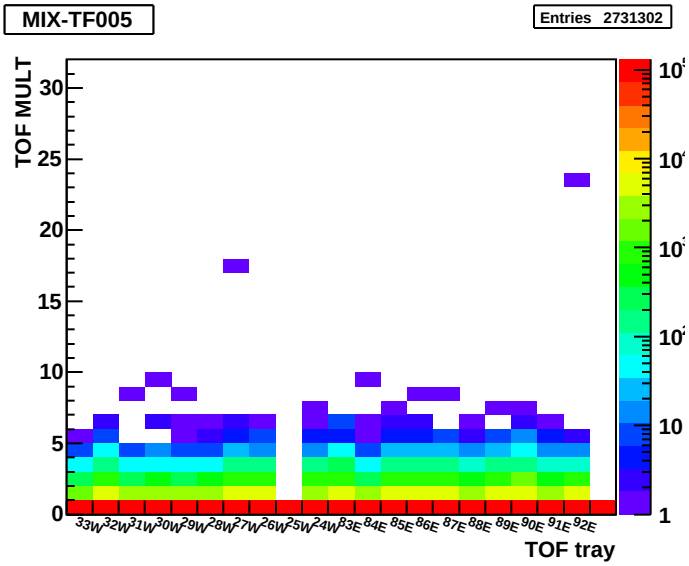

Unused (ch7)
Entries 1040496

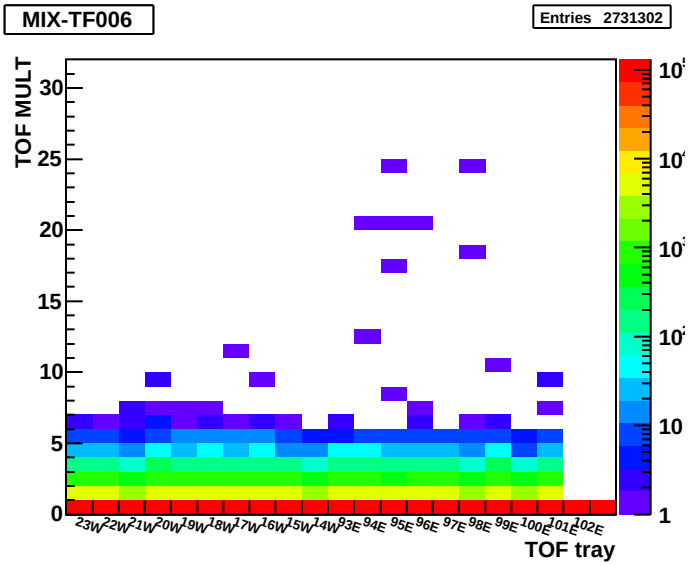

MIX-TF001
Entries 2731302
TOF MULT
TOF tray

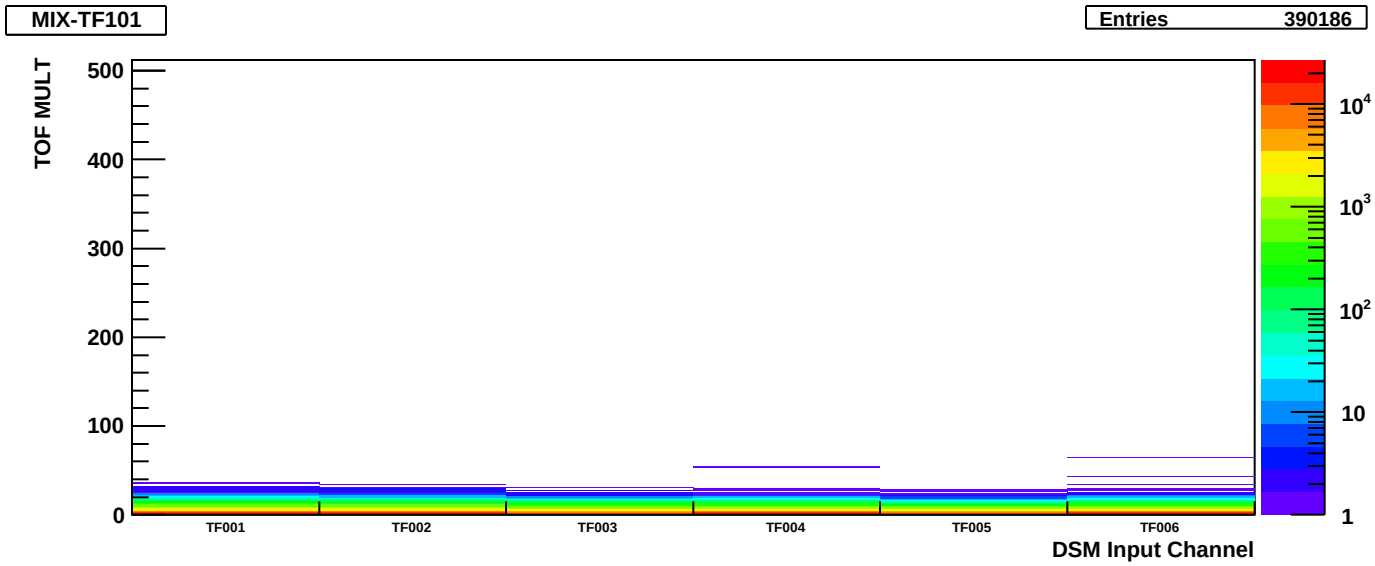

MIX-TF002
Entries 2731302
TOF MULT
TOF tray

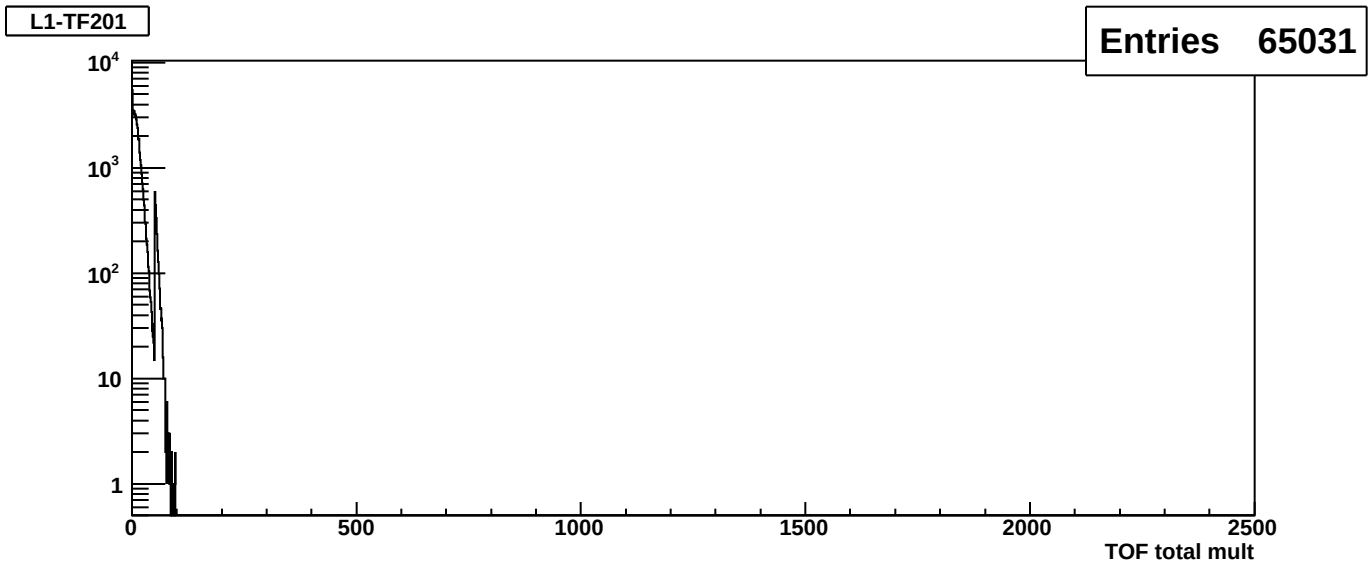

MIX-TF003
Entries 2731302
TOF MULT
TOF tray

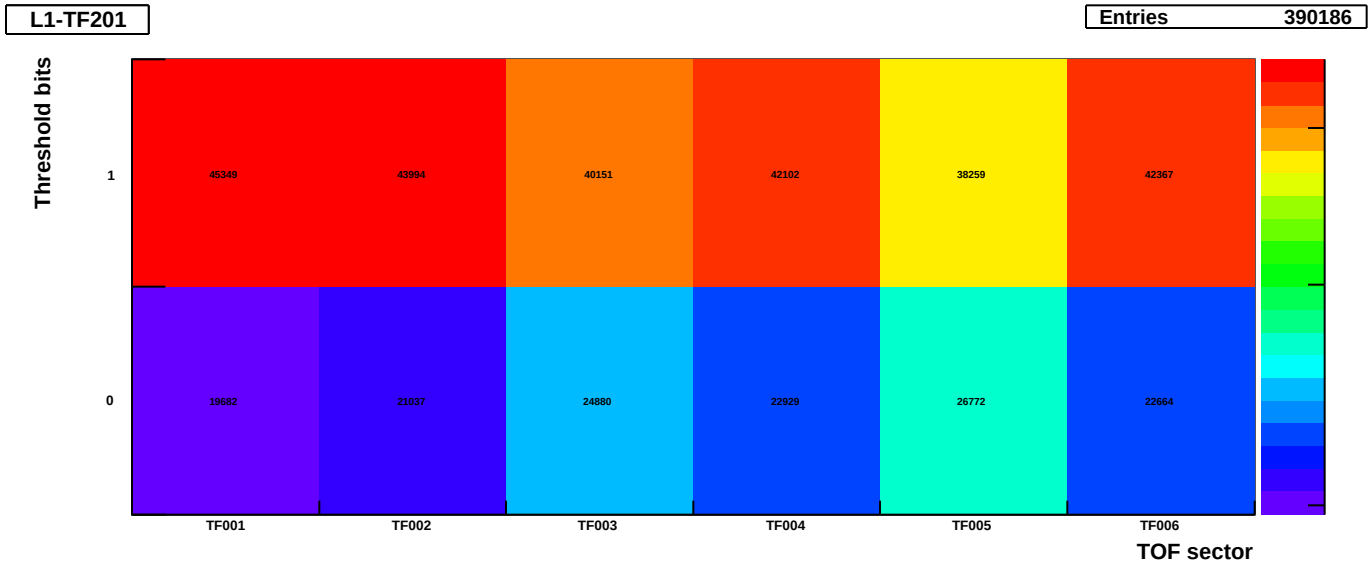

MIX-TF004
Entries 2731302
TOF MULT
TOF tray

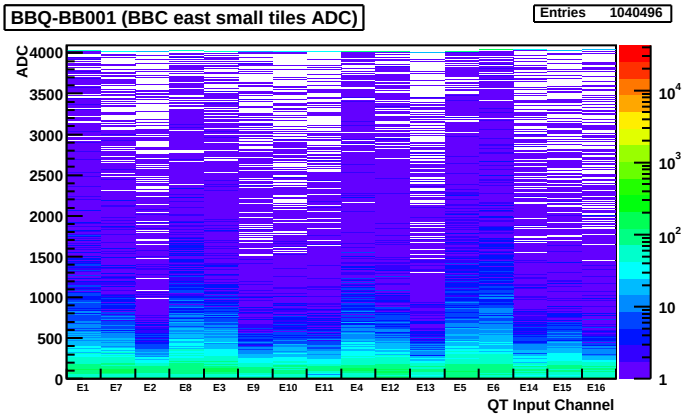

MIX-TF005
Entries 2731302
TOF MULT
TOF tray

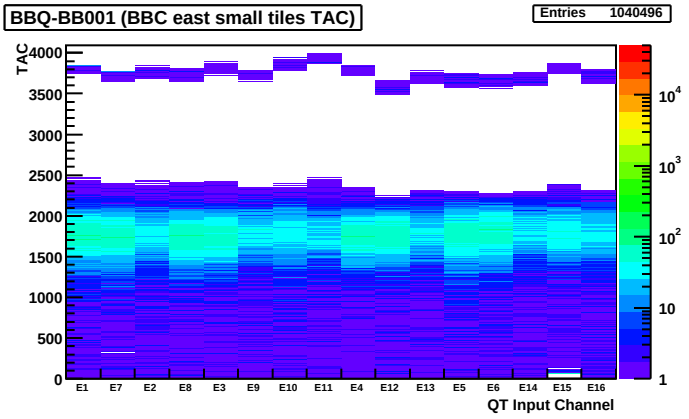

MIX-TF006
Entries 2731302
TOF MULT
TOF tray

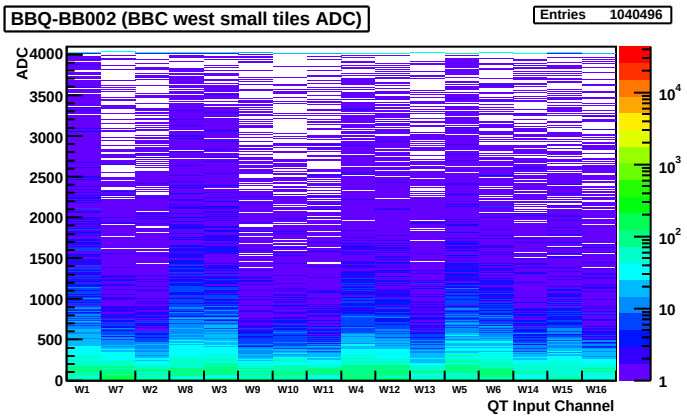

MIX-TF101
Entries 390186
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

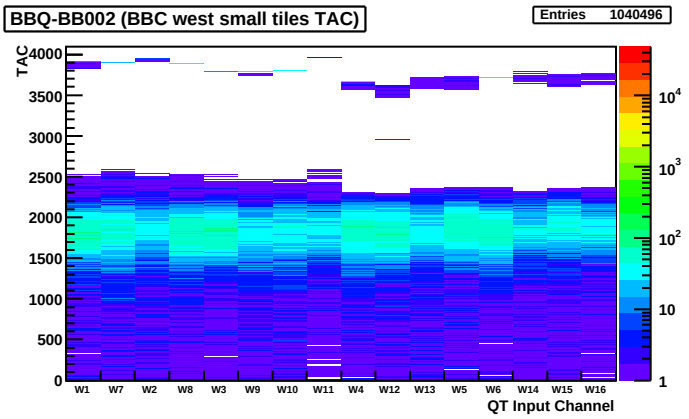

L1-TF201
Entries 65031
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

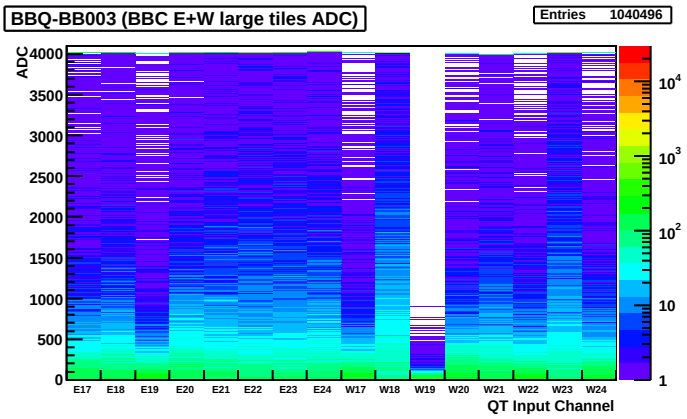

L1-TF201
Entries 390186
Threshold bits
1
0
45349
43994
40151
42102
38259
42367
19682
21037
24880
22929
26772
22664
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

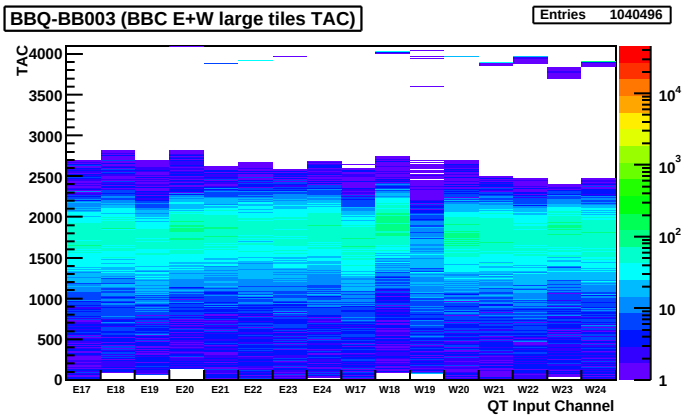

BBQ-BB001 (BBC east small tiles ADC)
Entries 1040496
ADC
QT Input Channel

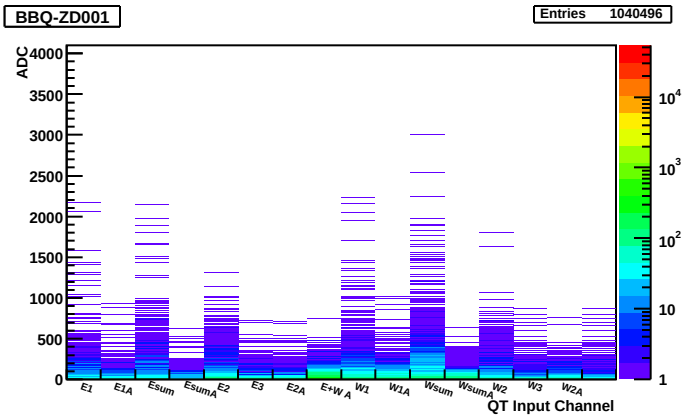

BBQ-BB001 (BBC east small tiles TAC)
Entries 1040496
TAC
QT Input Channel

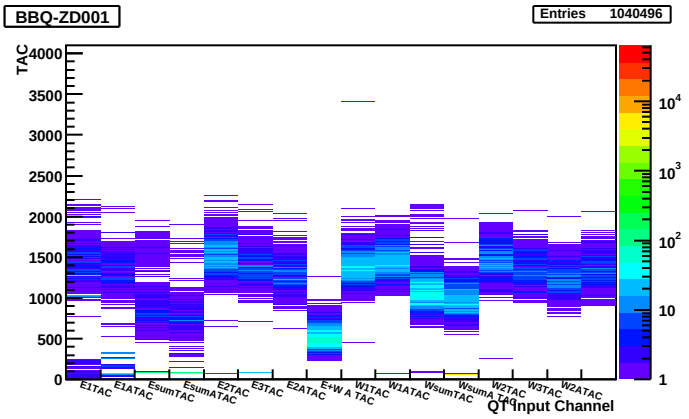

BBQ-BB002 (BBC west small tiles ADC)
Entries 1040496
ADC
QT Input Channel

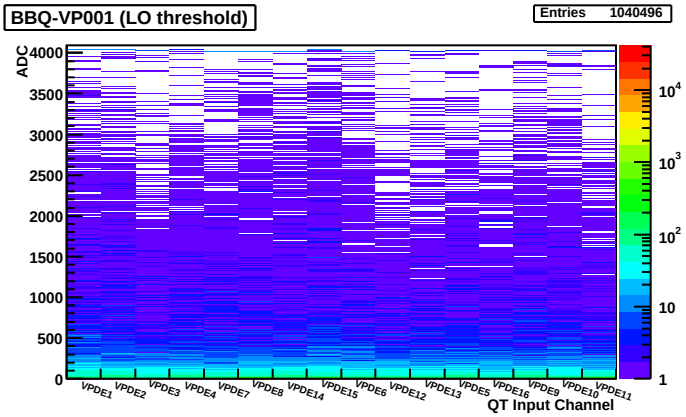

BBQ-BB002 (BBC west small tiles TAC)
Entries 1040496
TAC
QT Input Channel

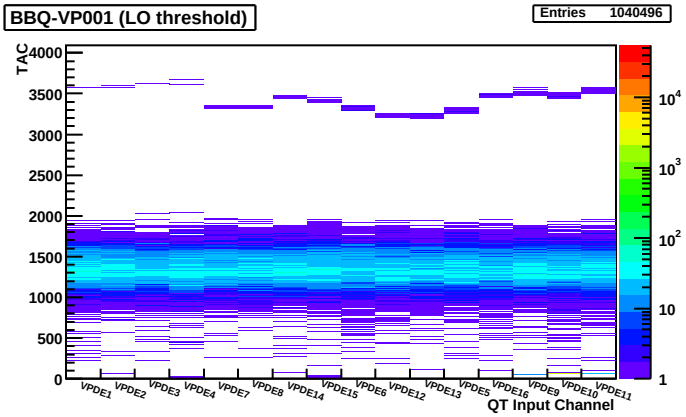

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1040496
ADC
QT Input Channel

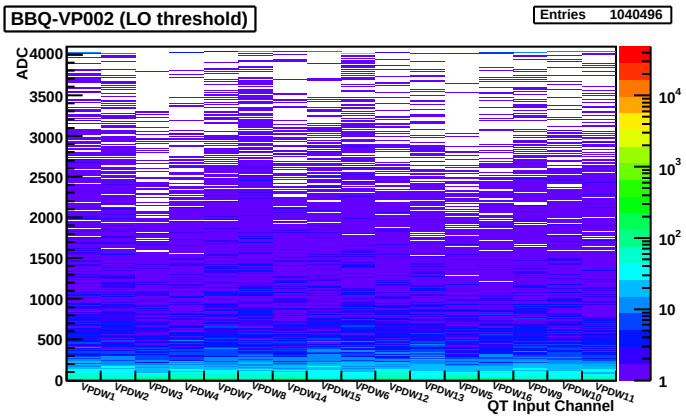

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1040496
TAC
QT Input Channel

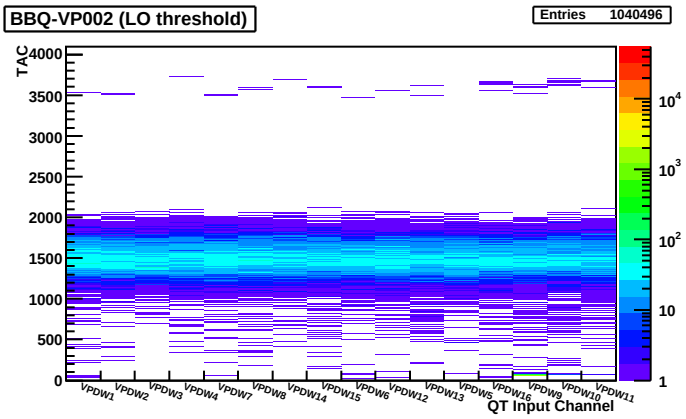

BBQ-ZD001
Entries 1040496
ADC
QT Input Channel

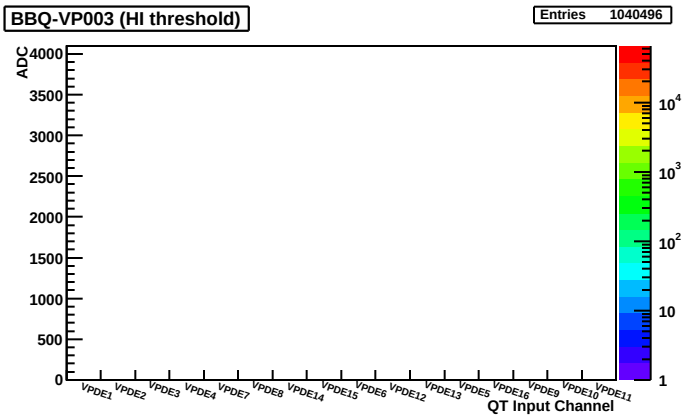

BBQ-ZD001
Entries 1040496
TAC
QT Input Channel

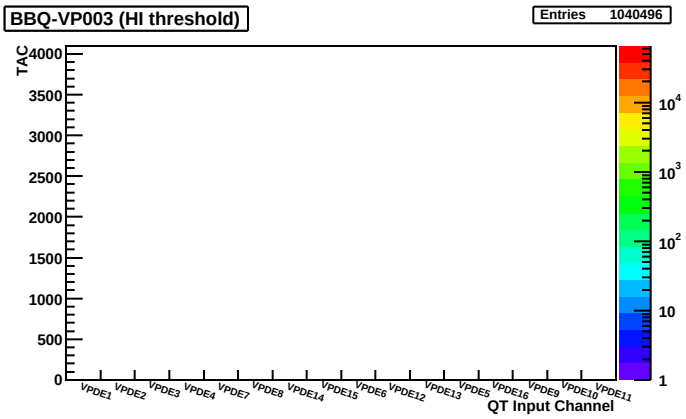

BBQ-VP001 (LO threshold)
Entries 1040496
ADC
QT Input Channel

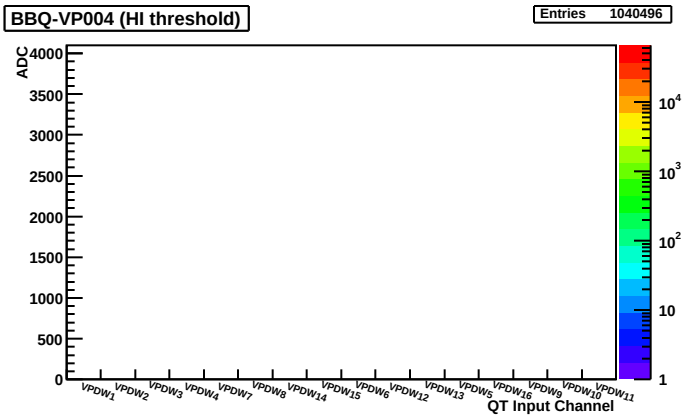

BBQ-VP001 (LO threshold)
Entries 1040496
TAC
QT Input Channel

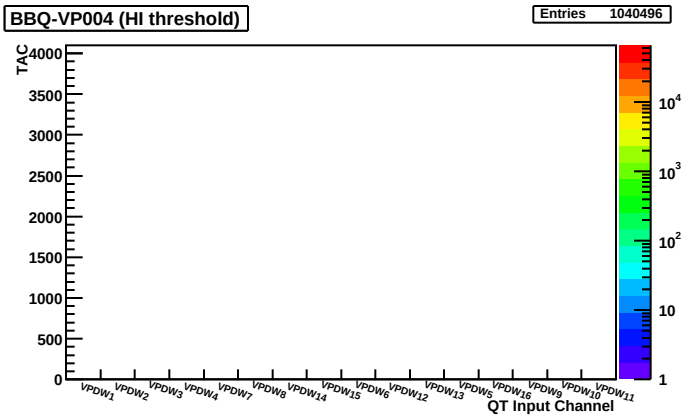

BBQ-VP002 (LO threshold)
Entries 1040496
ADC
QT Input Channel

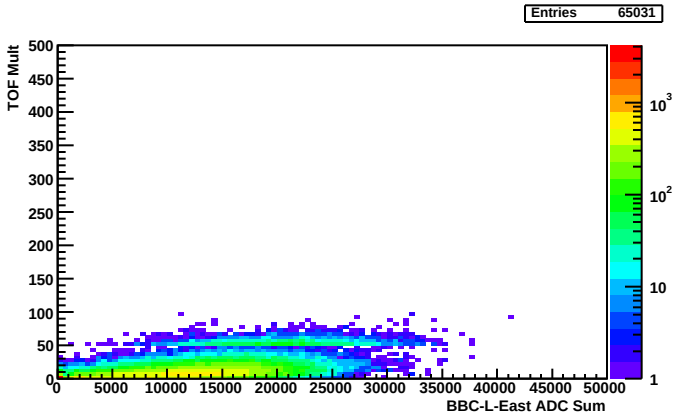

BBQ-VP002 (LO threshold)
Entries 1040496
TAC
QT Input Channel

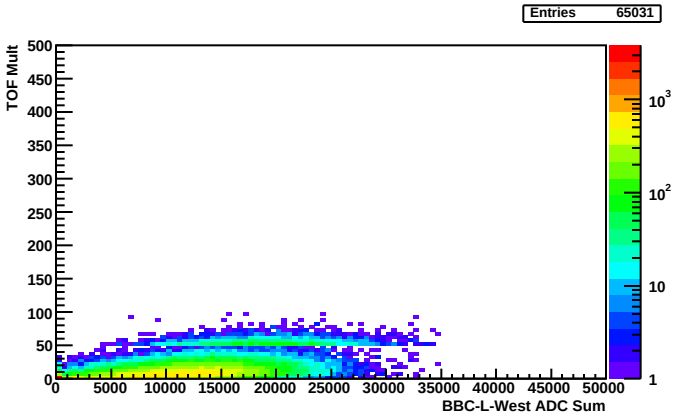

BBQ-VP003 (HI threshold)
Entries 1040496
ADC
QT Input Channel

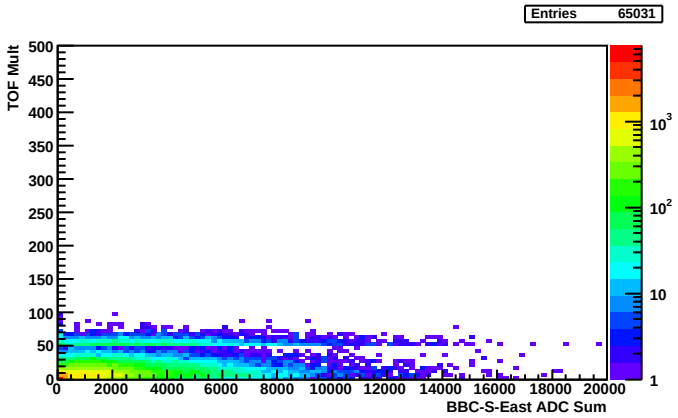

BBQ-VP003 (HI threshold)
Entries 1040496
TAC
QT Input Channel

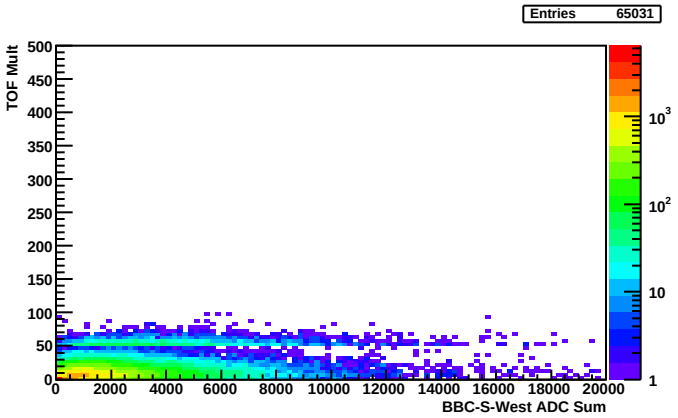

BBQ-VP004 (HI threshold)
Entries 1040496
ADC
QT Input Channel

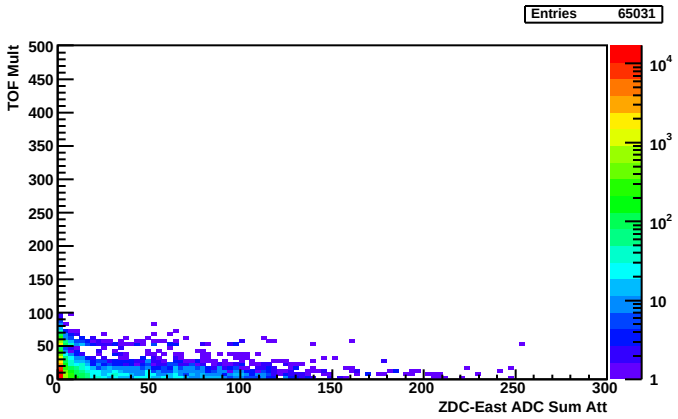

BBQ-VP004 (HI threshold)
Entries 1040496
TAC
QT Input Channel

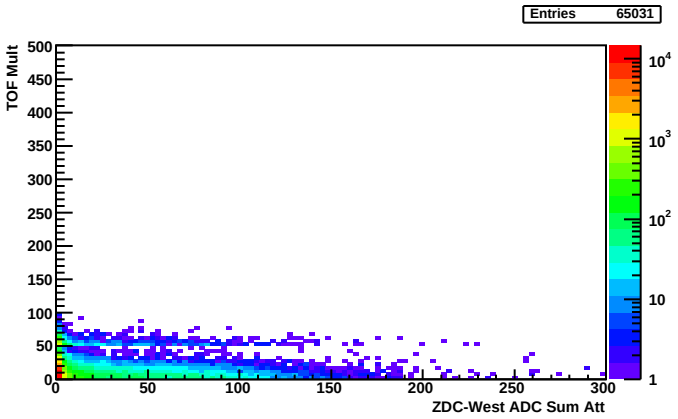

Entries 65031
TOF Mult
BBC-L-East ADC Sum

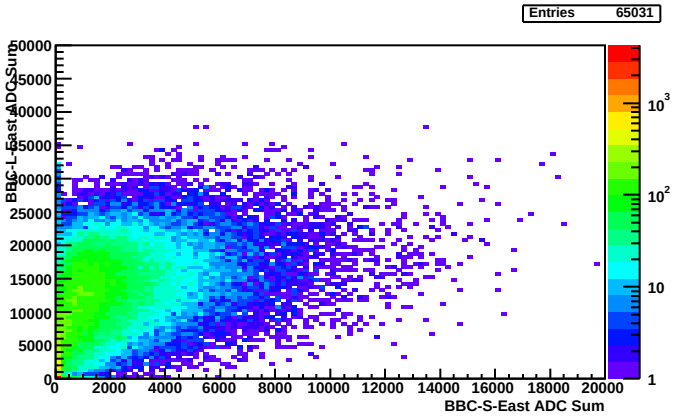

Entries 65031
TOF Mult
BBC-L-West ADC Sum

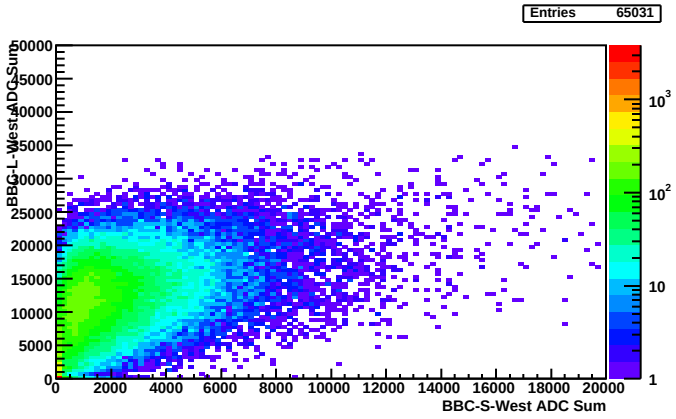

Entries 65031
TOF Mult
BBC-S-East ADC Sum

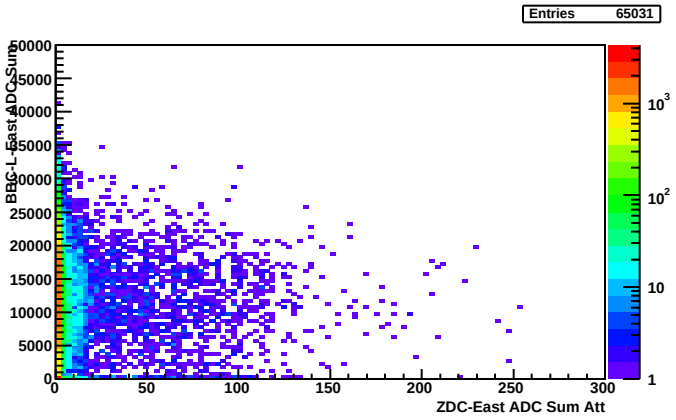

Entries 65031
TOF Mult
BBC-S-West ADC Sum

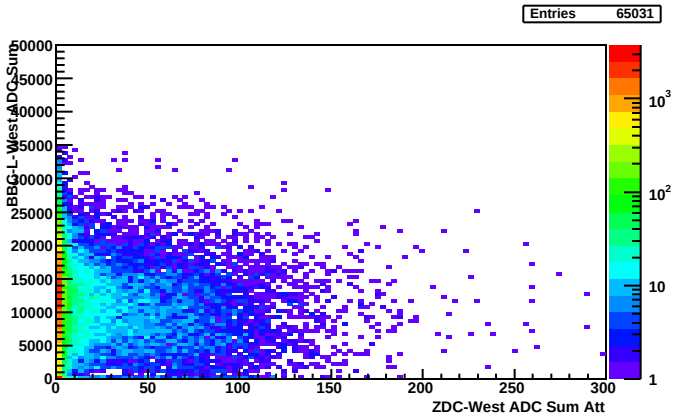

Entries 65031
TOF Mult
ZDC-East ADC Sum Att

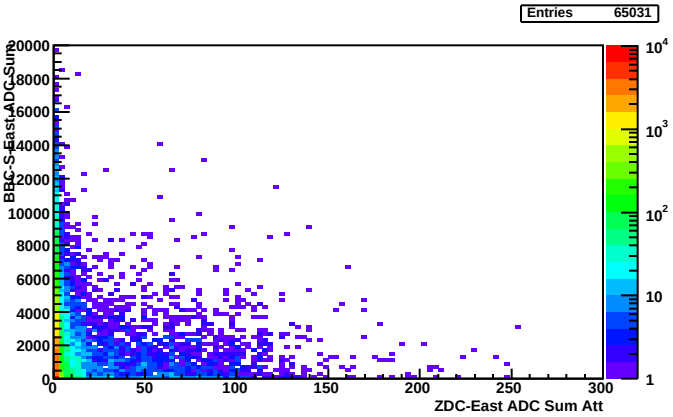

Entries 65031
TOF Mult
ZDC-West ADC Sum Att

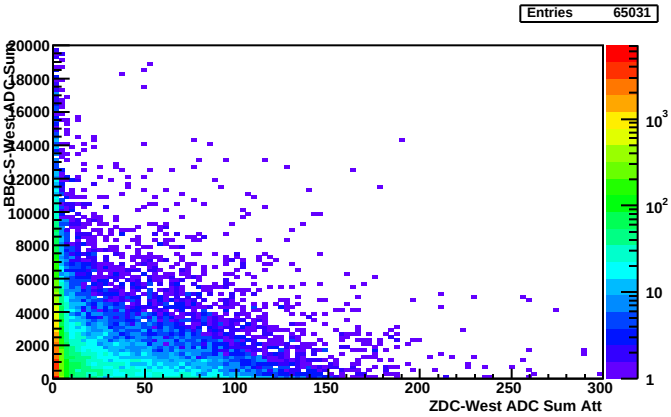

Entries 65031
BBC-L-East ADC Sum
BBC-S-East ADC Sum

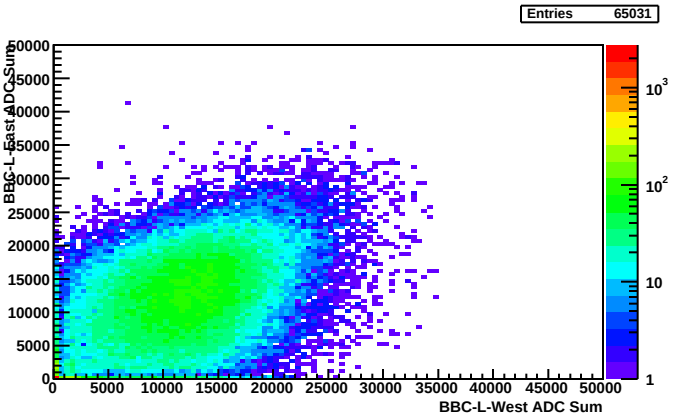

Entries 65031
BBC-L-West ADC Sum
BBC-S-West ADC Sum

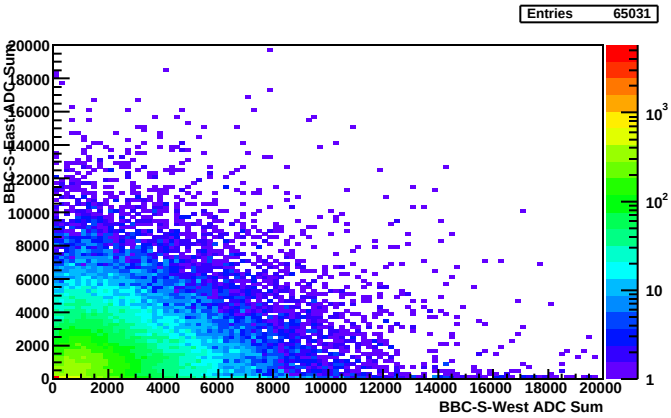

Entries 65031
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

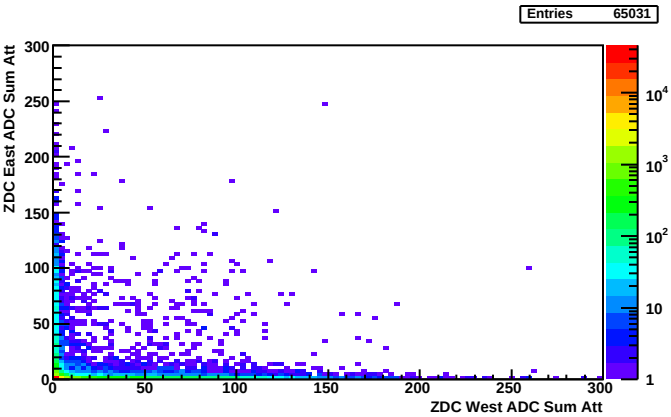

Entries 65031
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

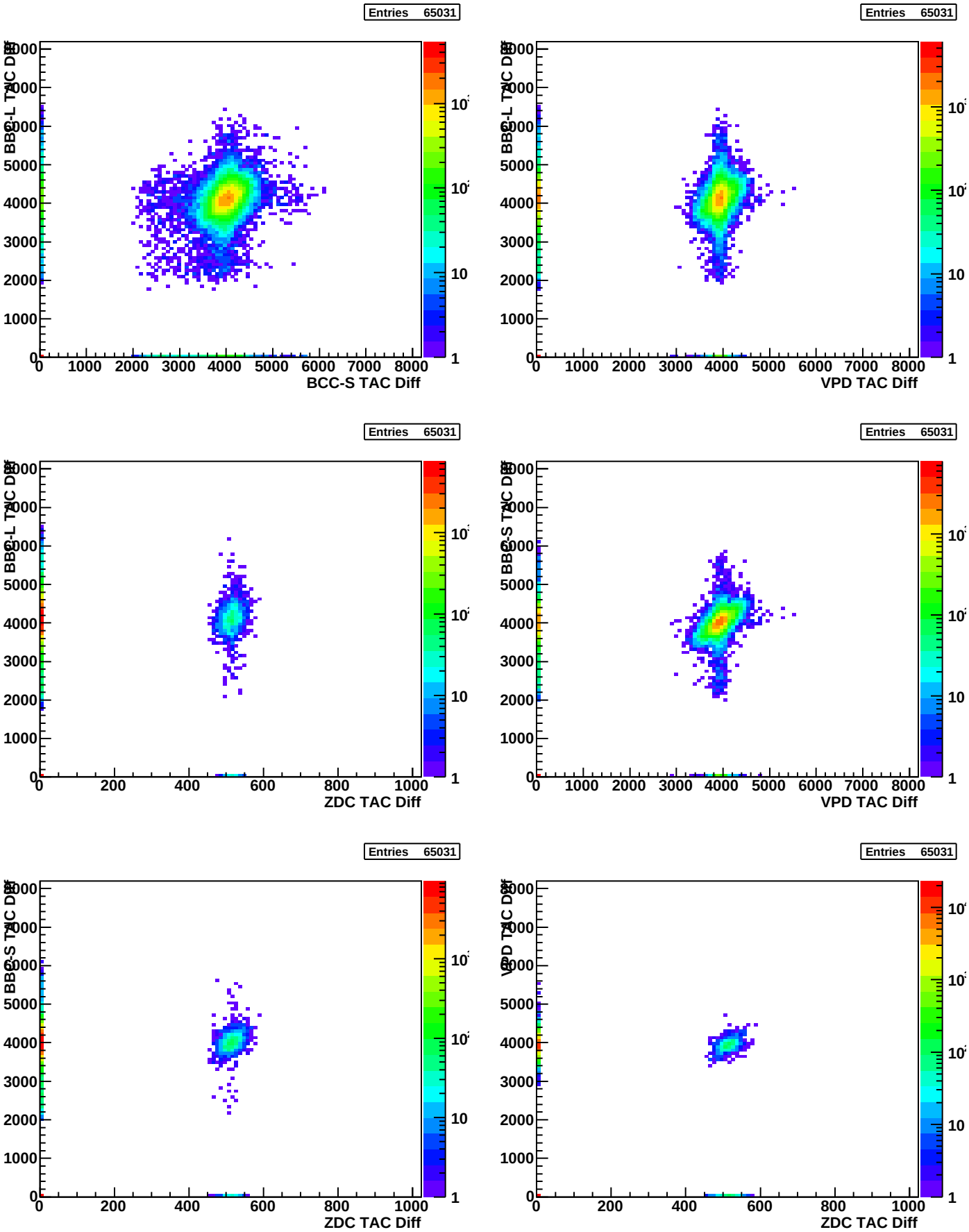

Entries 65031
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

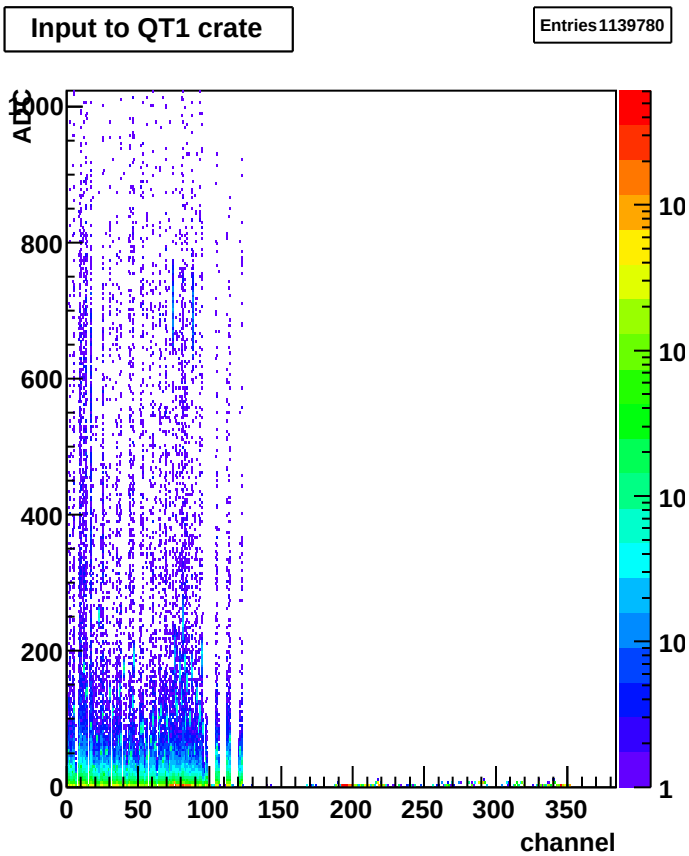

Entries 65031
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

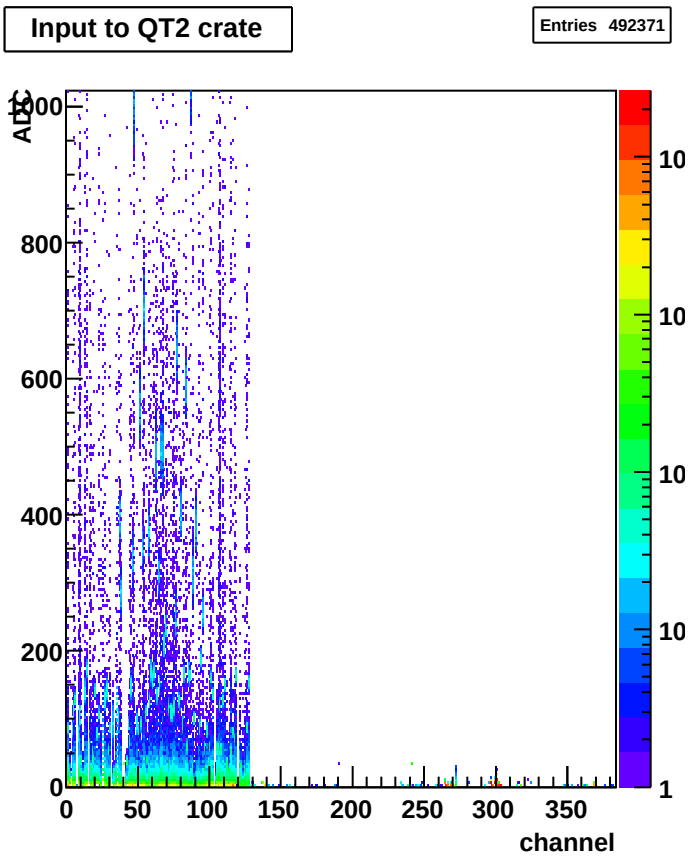

Entries 65031
BBC-L-East ADC Sum
BBC-L-West ADC Sum

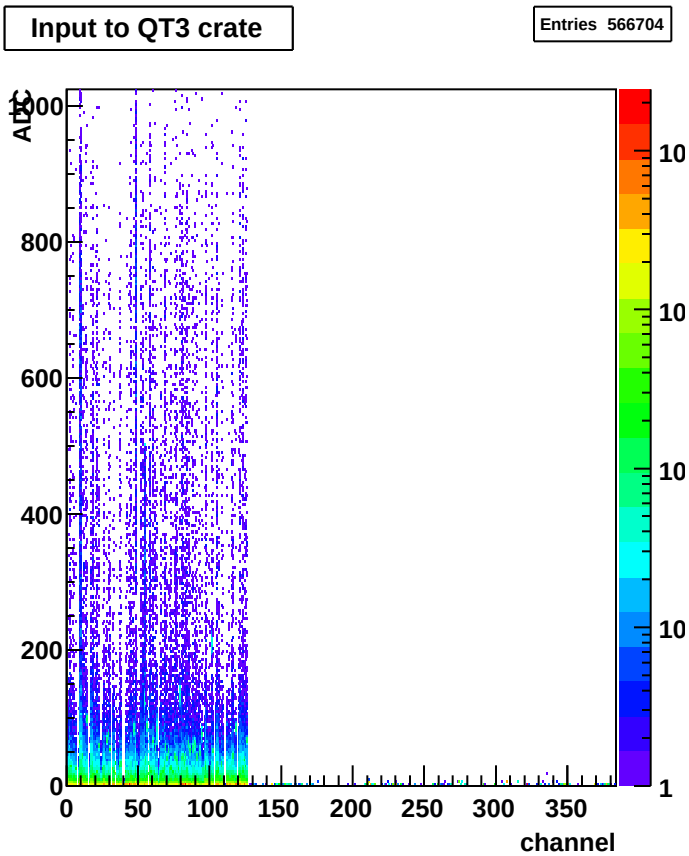

Entries 65031
BBC-S-East ADC Sum
BBC-S-West ADC Sum

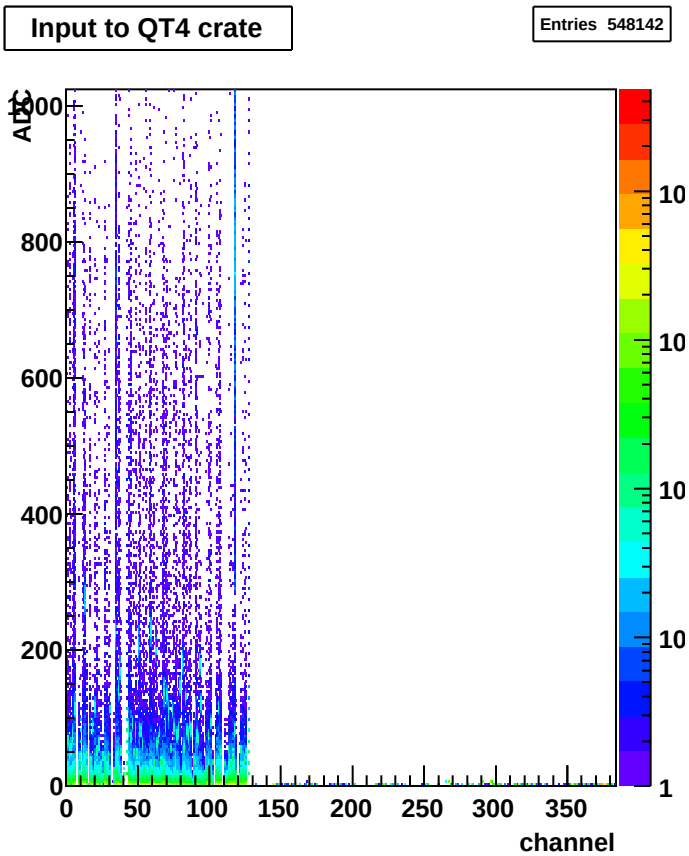

Entries 65031
ZDC East ADC Sum Att
ZDC West ADC Sum Att

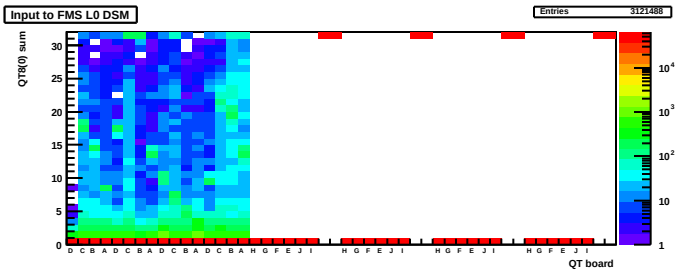

Entries 65031
BBC-L TAC Diff
BCC-S TAC Diff
Entries 65031
BBC-L TAC Diff
VPD TAC Diff
Entries 65031
BBC-L TAC Diff
ZDC TAC Diff
Entries 65031
BBC-S TAC Diff
VPD TAC Diff
Entries 65031
BBC-S TAC Diff
ZDC TAC Diff
Entries 65031
VPD TAC Diff
ZDC TAC Diff

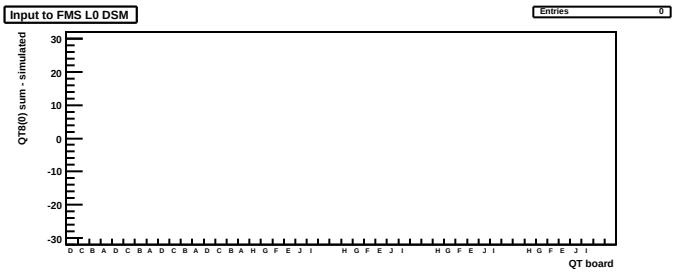

Input to QT1 crate
Entries 1139780
ADC
channel

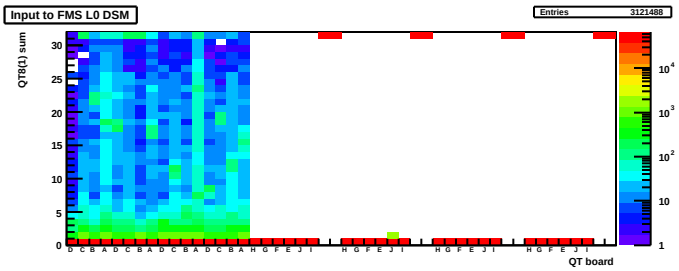

Input to QT2 crate
Entries 492371
ADC
channel

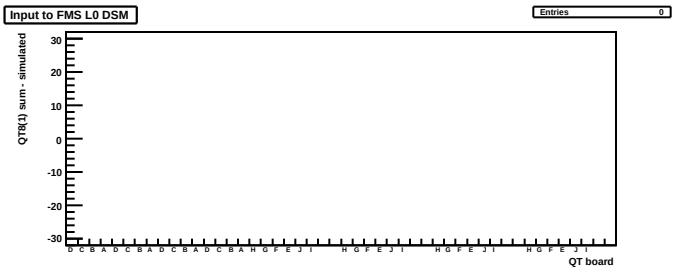

Input to QT3 crate
Entries 566704
ADC
channel

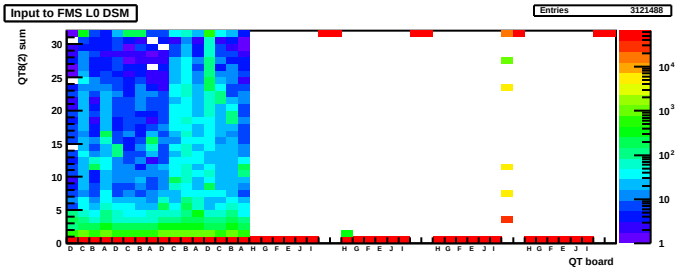

Input to QT4 crate
Entries 548142
ADC
channel

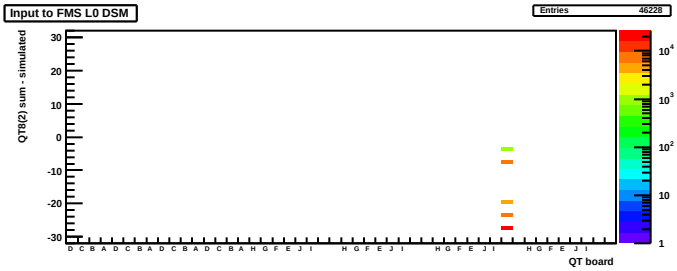

Input to FMS L0 DSM
Entries 3121488
QT8(0) sum
QT board

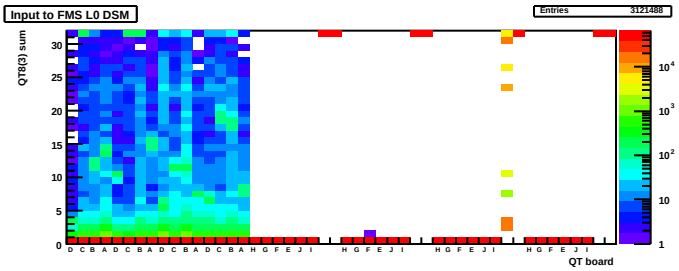

Input to FMS L0 DSM
Entries 0
QT8(0) sum - simulated
QT board

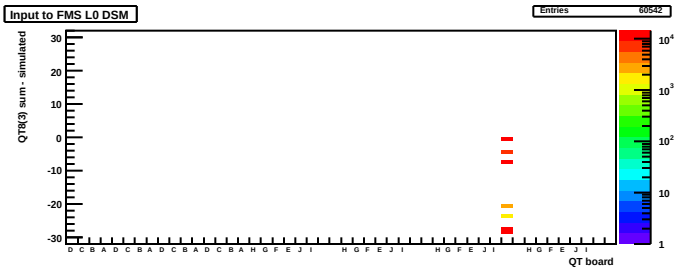

Input to FMS L0 DSM
Entries 3121488
QT8(1) sum
QT board

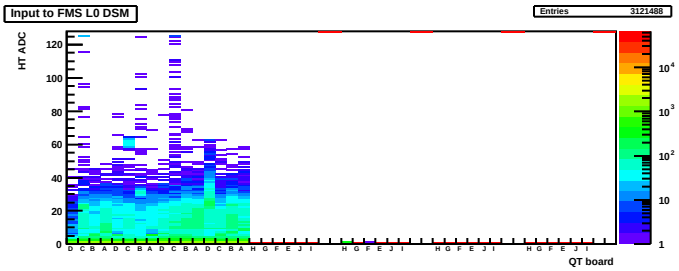

Input to FMS L0 DSM
Entries 0
QT8(1) sum - simulated
QT board

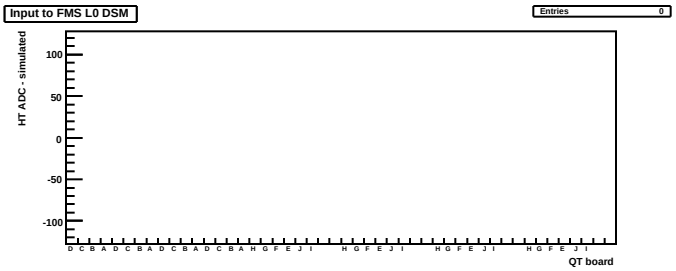

Input to FMS L0 DSM
Entries 3121488
QT8(2) sum
QT board

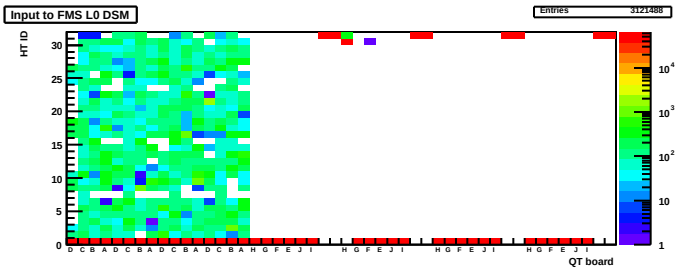

Input to FMS L0 DSM
Entries 46228
QT8(2) sum - simulated
QT board

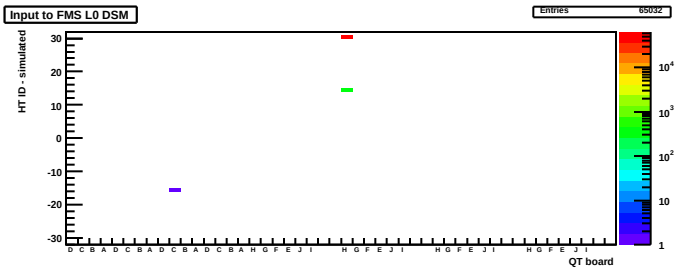

Input to FMS L0 DSM
Entries 3121488
QT8(3) sum
QT board

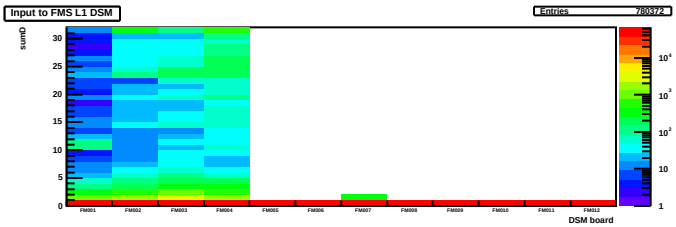

Input to FMS L0 DSM
Entries 60542
QT8(3) sum - simulated
QT board

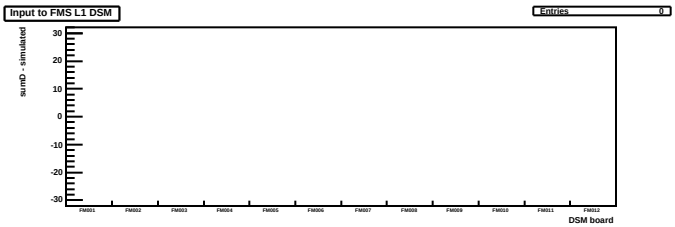

Input to FMS L0 DSM
Entries 3121488
HT ADC
QT board

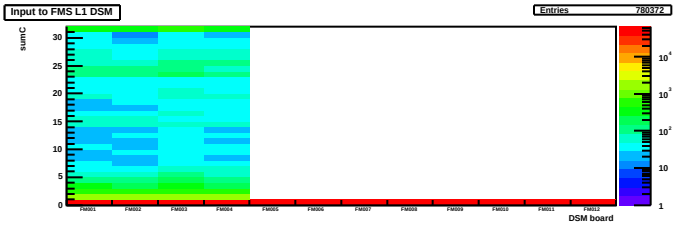

Input to FMS L0 DSM
Entries 0
HT ADC - simulated
QT board

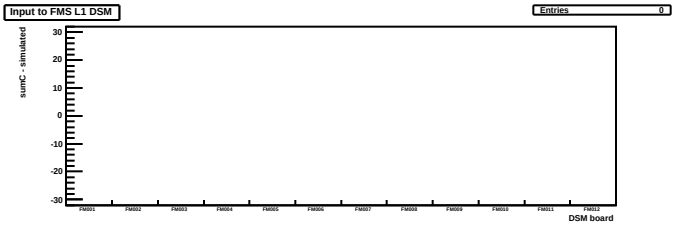

Input to FMS L0 DSM
Entries 3121488
HT ID
QT board

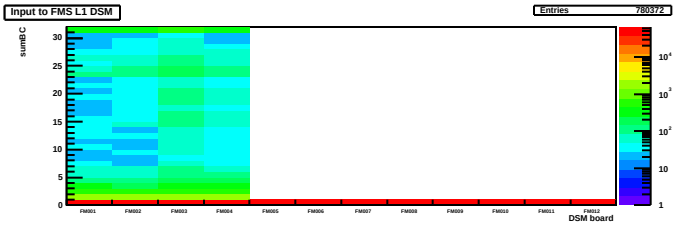

Input to FMS L0 DSM
Entries 65032
HT ID - simulated
QT board

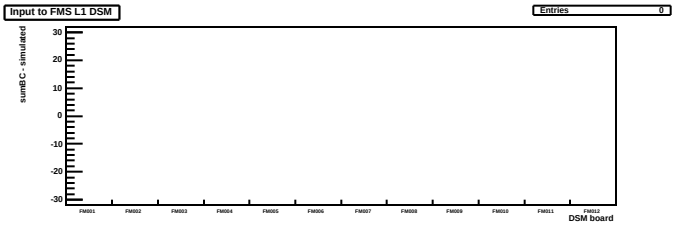

Input to FMS L1 DSM
Entries 780372
sumD
DSM board

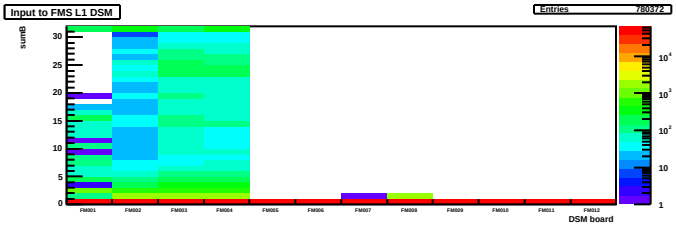

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

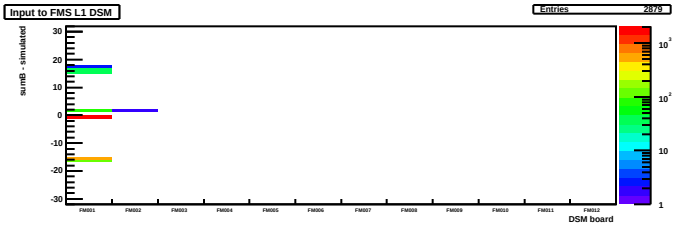

Input to FMS L1 DSM
Entries 780372
sumC
DSM board

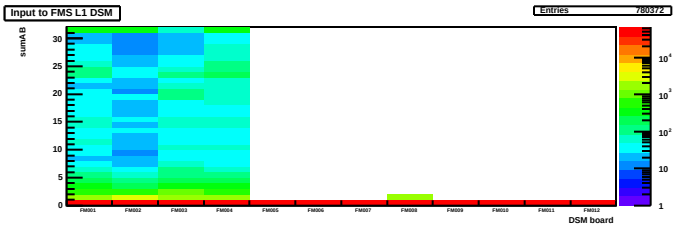

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

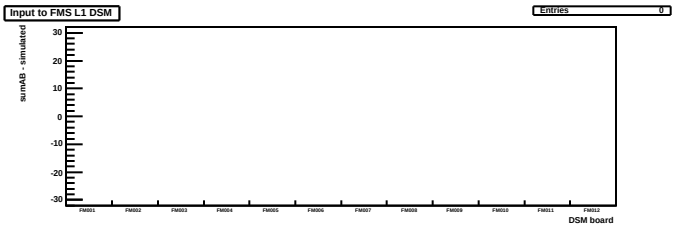

Input to FMS L1 DSM
Entries 780372
sumBC
DSM board

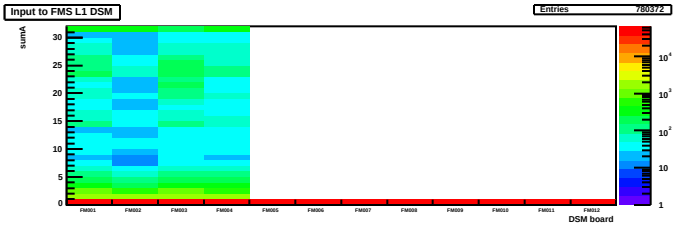

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

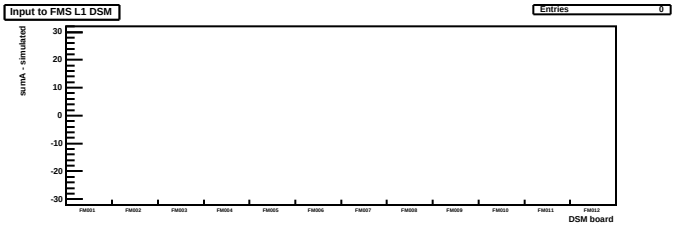

Input to FMS L1 DSM
Entries 780372
sumB
DSM board

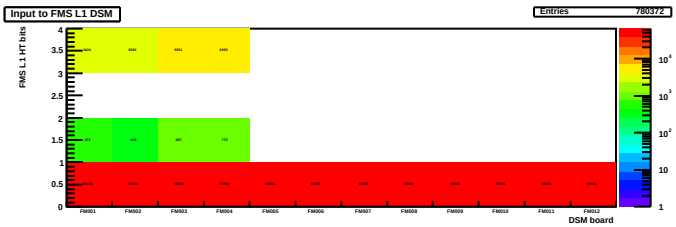

Input to FMS L1 DSM
Entries 2879
sumB - simulated
DSM board

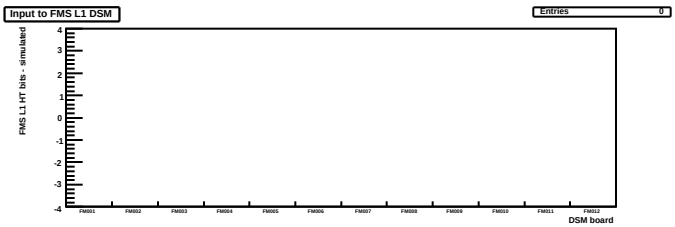

Input to FMS L1 DSM
Entries 780372
sumAB
DSM board

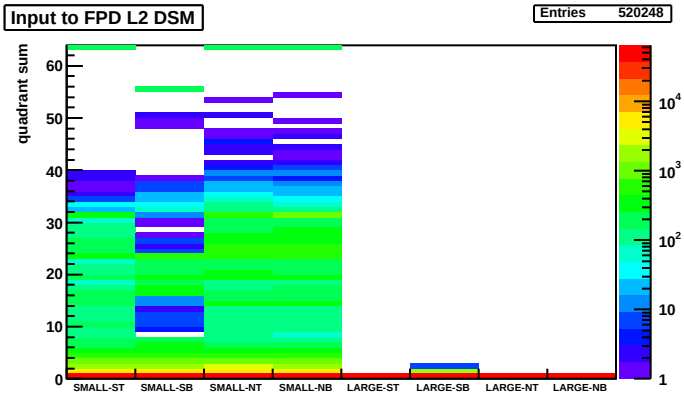

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

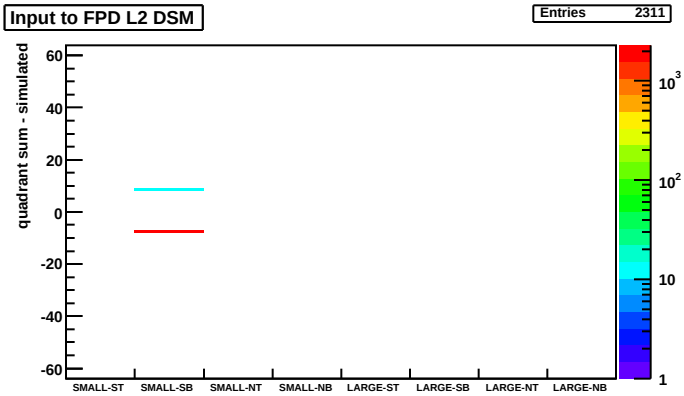

Input to FMS L1 DSM
Entries 780372
sumA
DSM board

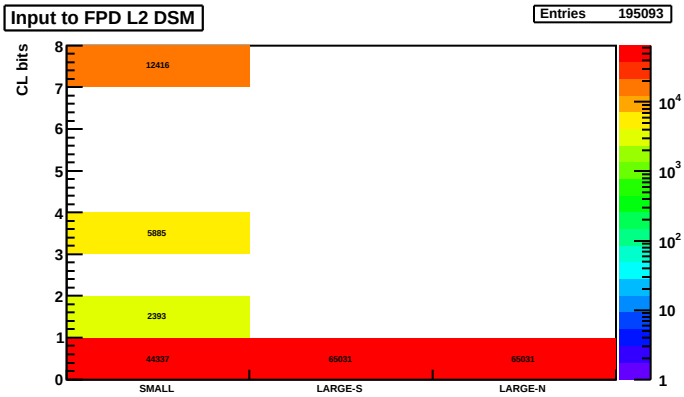

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

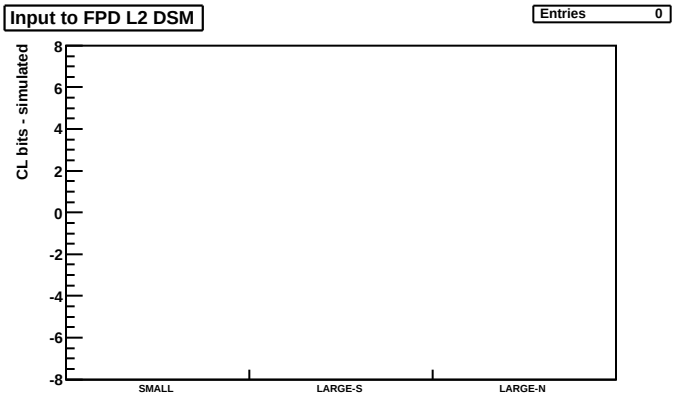

Input to FMS L1 DSM
Entries 780372
FMS L1 HT bits
DSM board

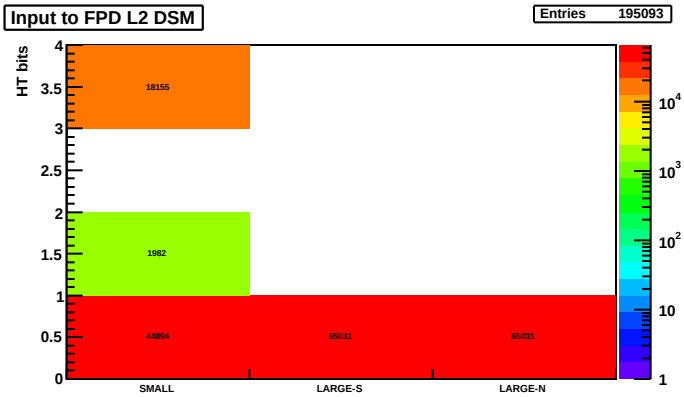

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

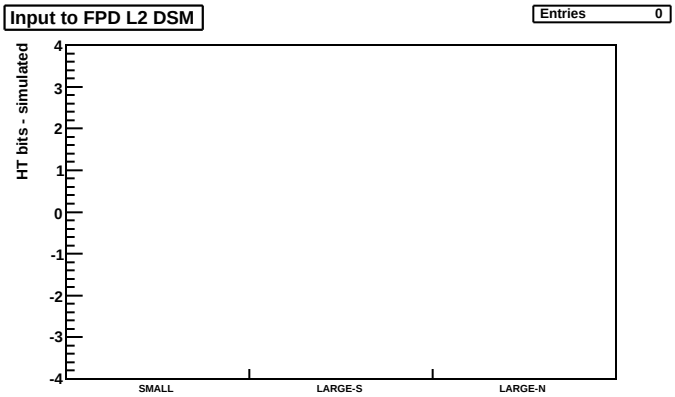

Input to FPD L2 DSM
Entries 520248
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

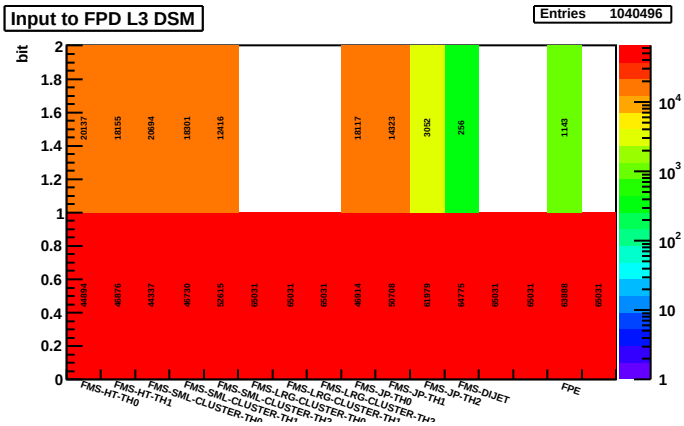

Input to FPD L2 DSM
Entries 2311
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

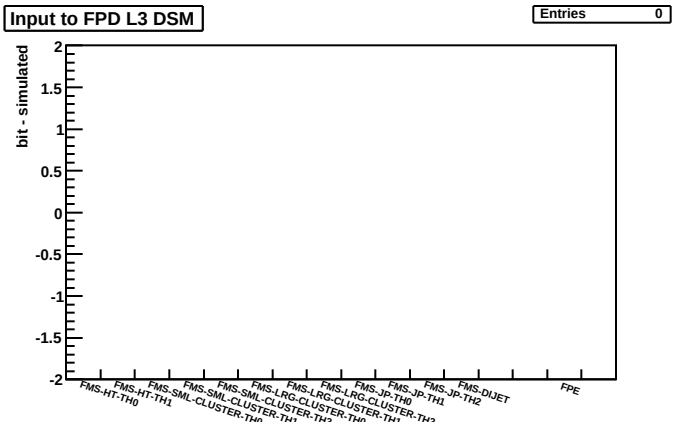

Input to FPD L2 DSM
Entries 195093
CL bits
12416
5885
2393
44337
65031
65031
SMALL
LARGE-S
LARGE-N

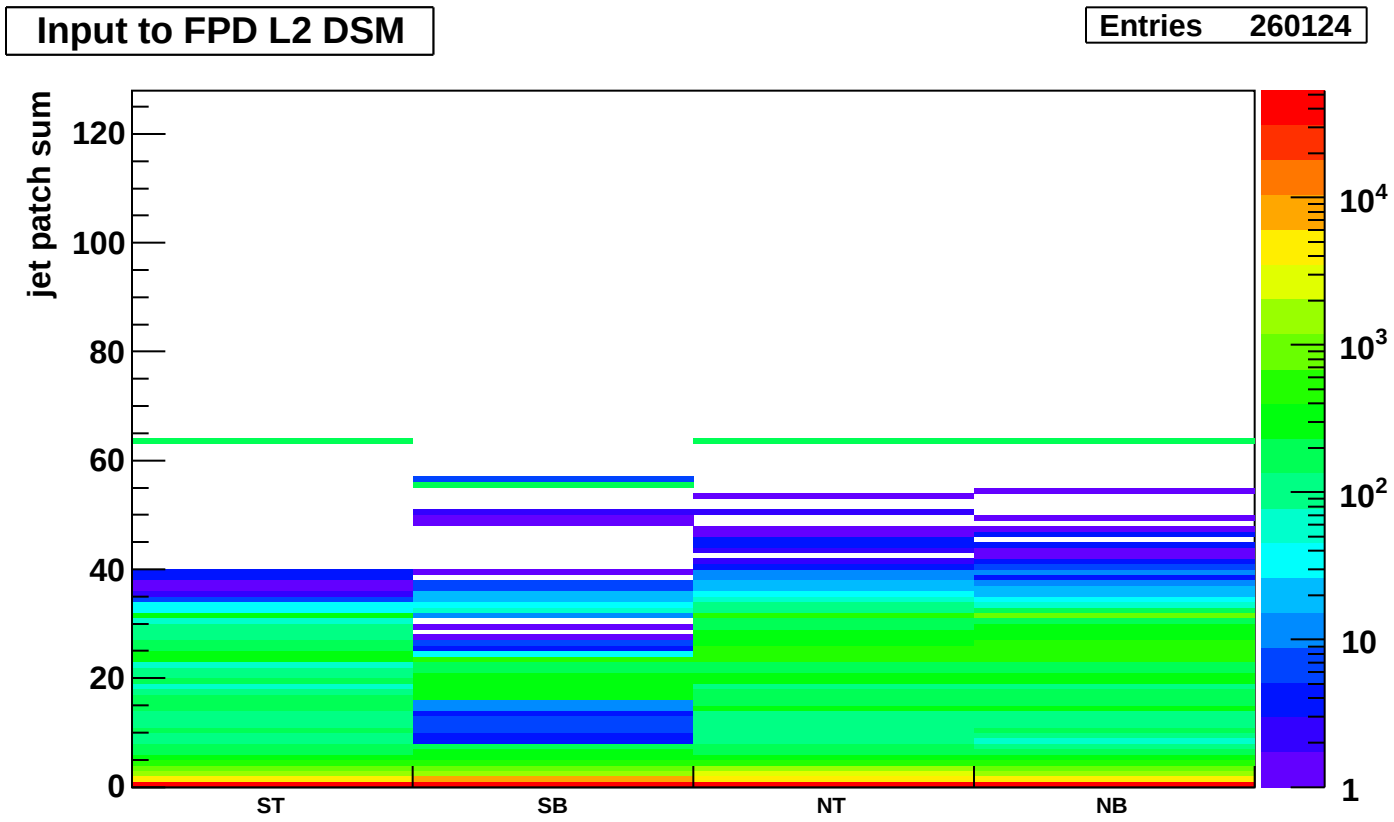

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

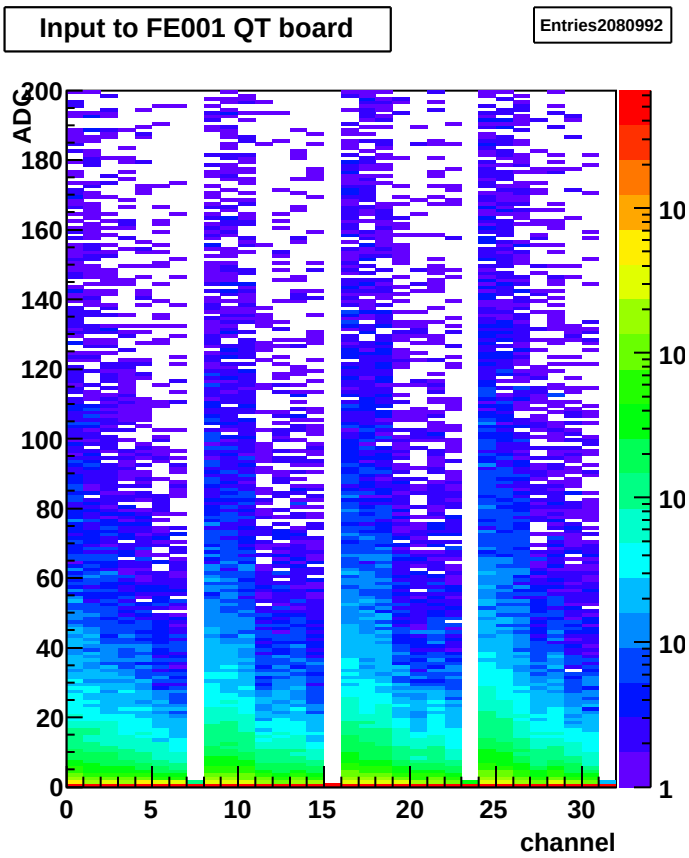

Input to FPD L2 DSM
Entries 195093
HT bits
18155
1982
44894
65031
65031
SMALL
LARGE-S
LARGE-N

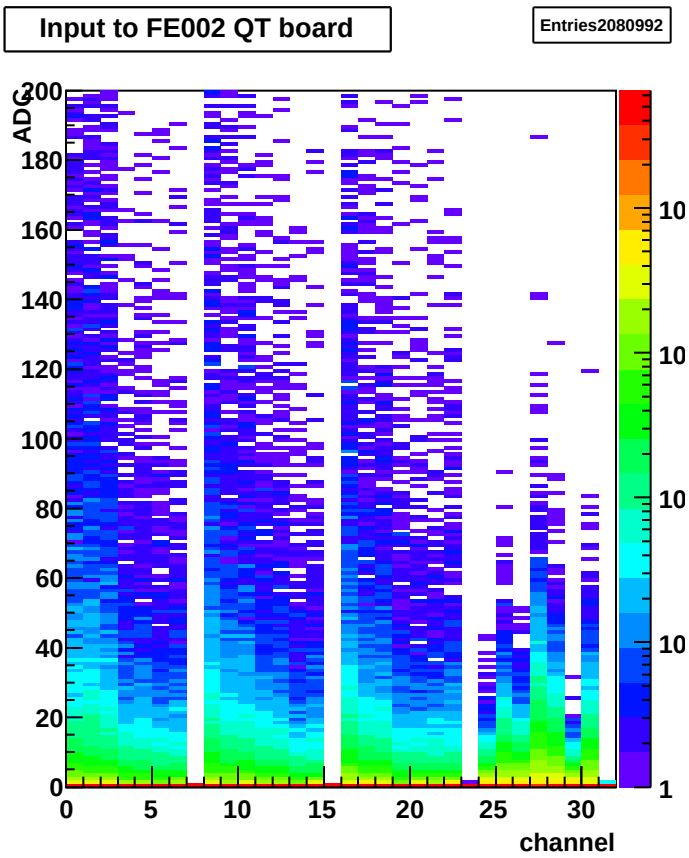

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

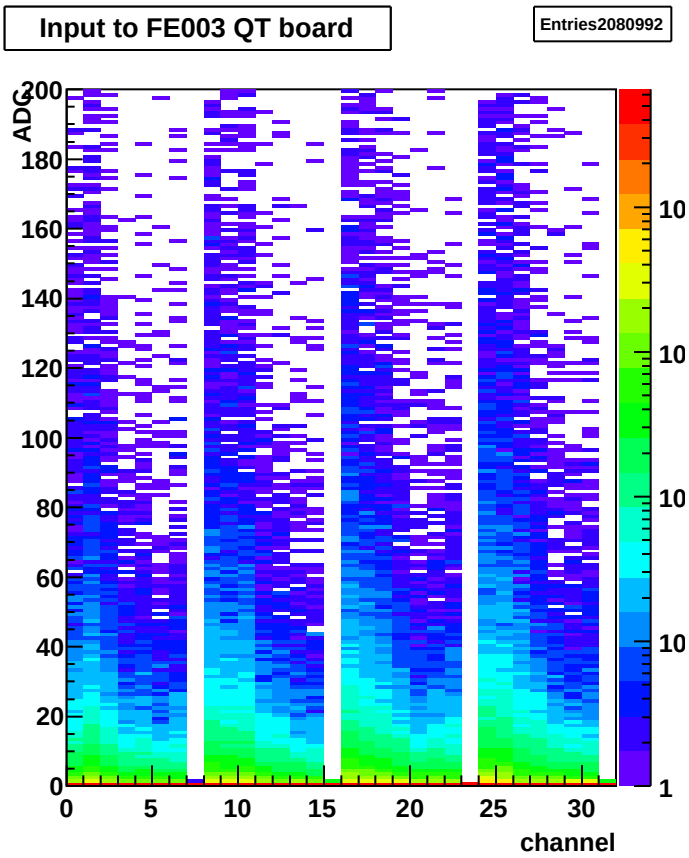

Input to FPD L3 DSM
Entries 1040496
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

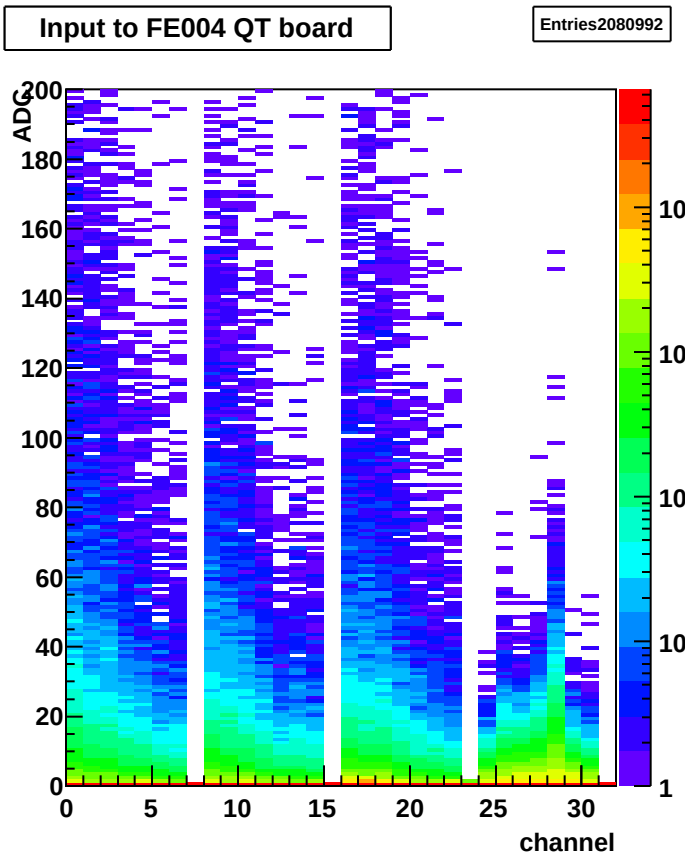

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

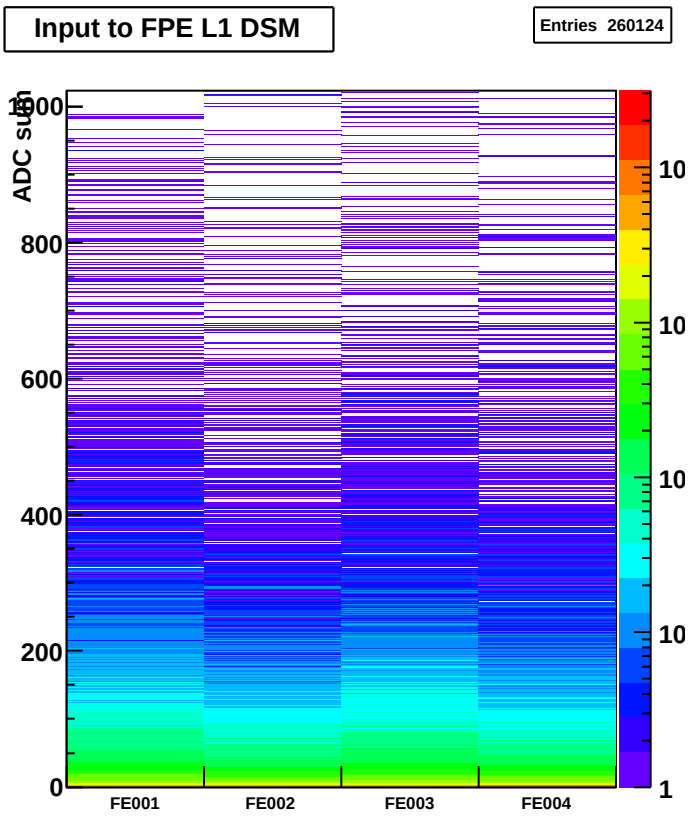

Input to FPD L2 DSM
Entries 260124
jet patch sum
120
100
80
60
40
20
0
ST
SB
NT
NB
10^4
10^3
10^2
10
1

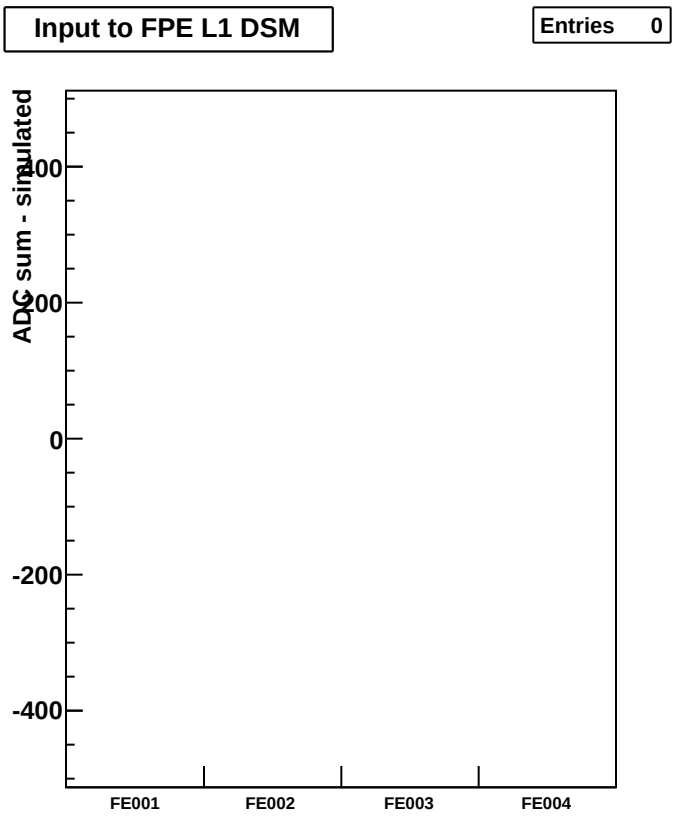

Input to FE001 QT board
Entries2080992
ADC
channel

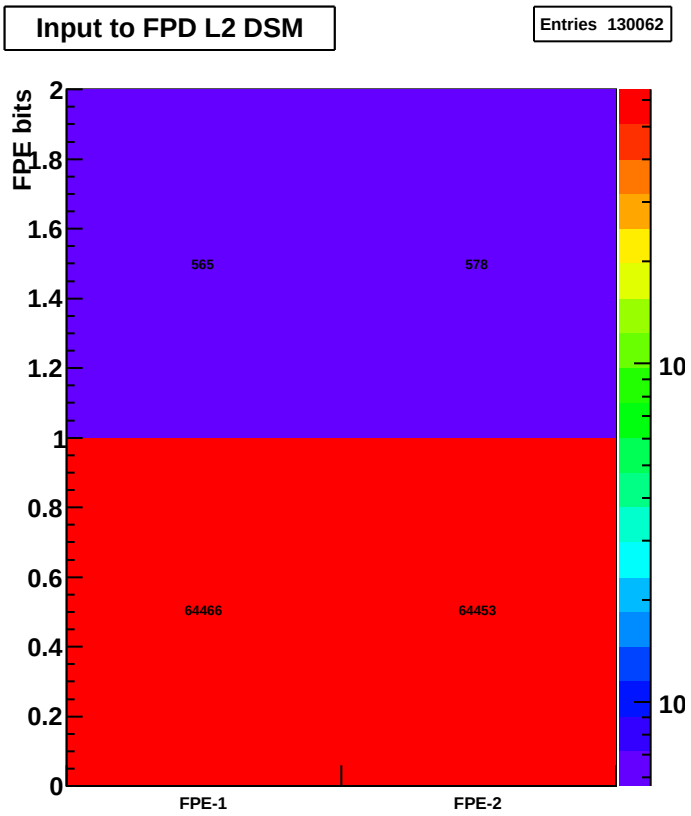

Input to FE002 QT board
Entries2080992
ADC
channel

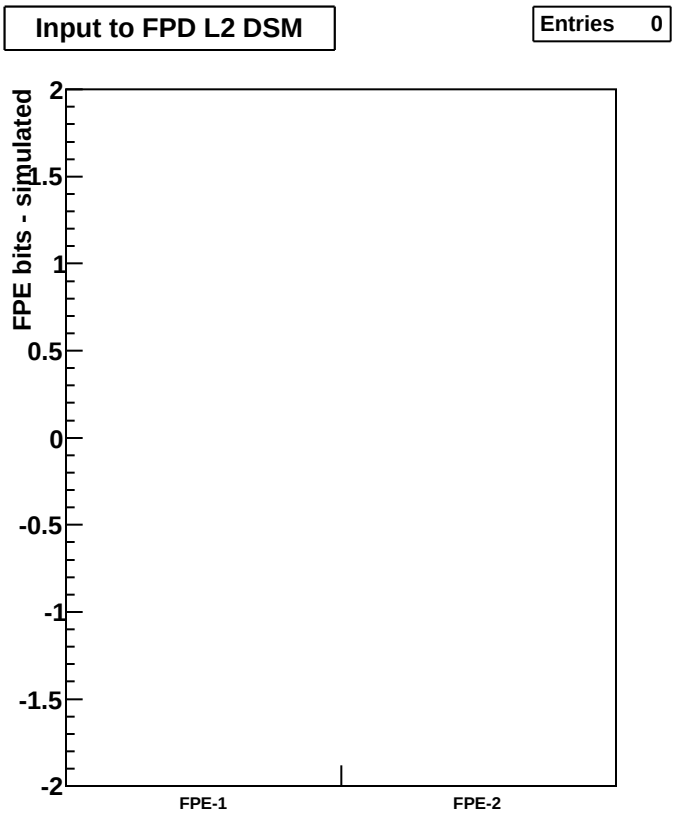

Input to FE003 QT board
Entries2080992
ADC
channel


Input to FE004 QT board
Entries2080992
ADC
channel


Input to FPE L1 DSM
Entries 260124
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 130062
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
565
578
64466
64453
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