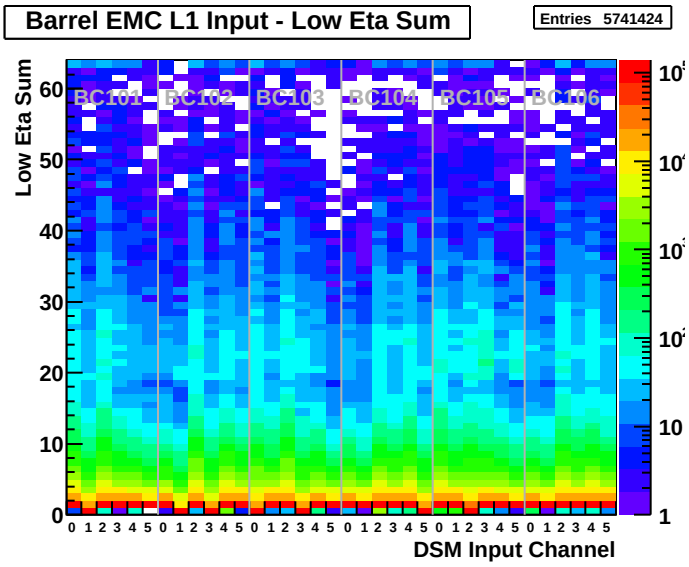
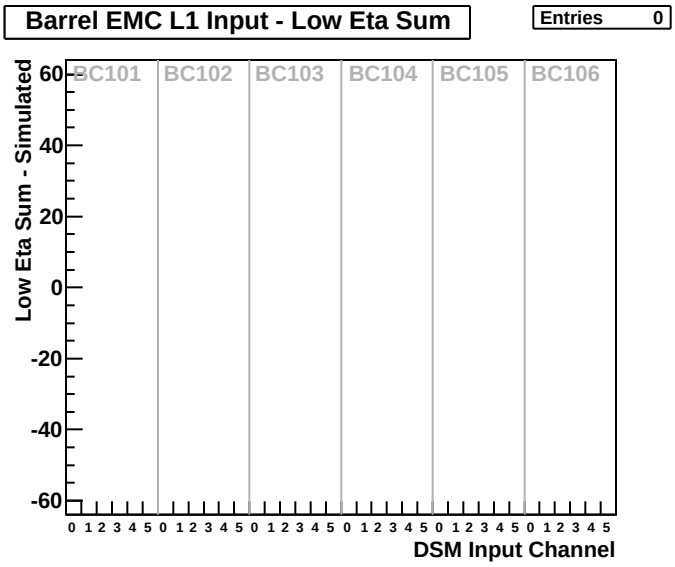
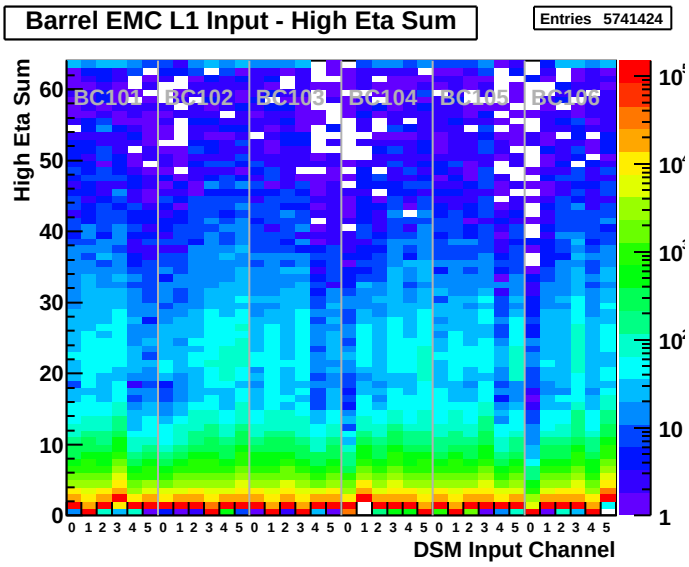
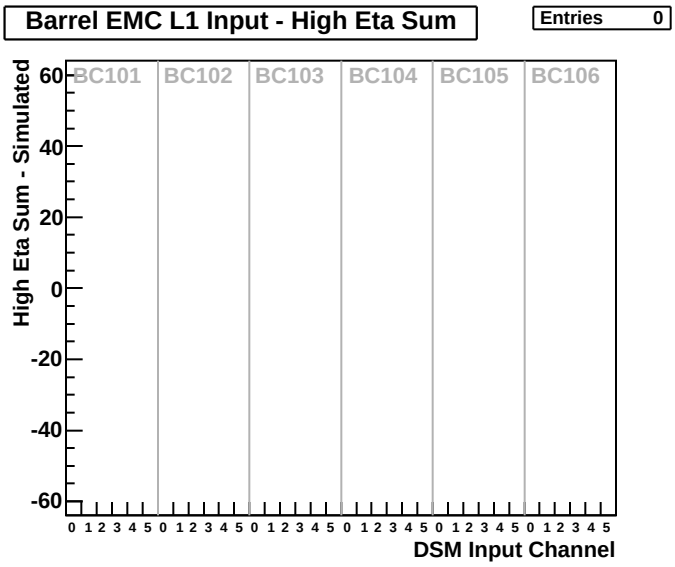
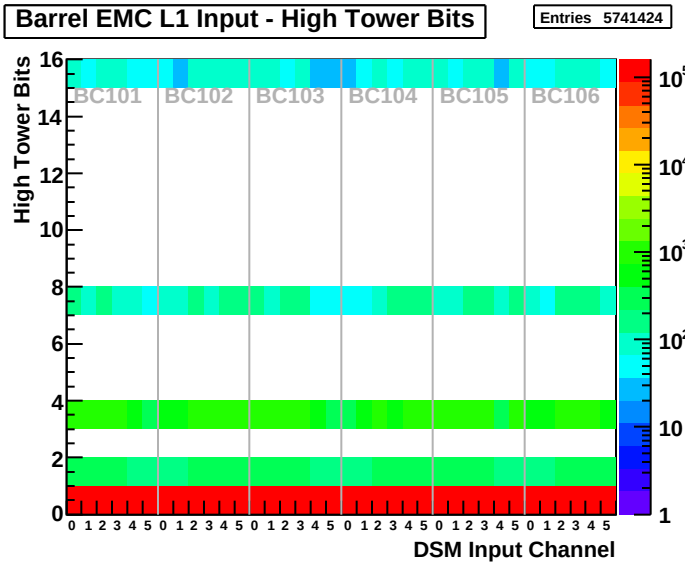
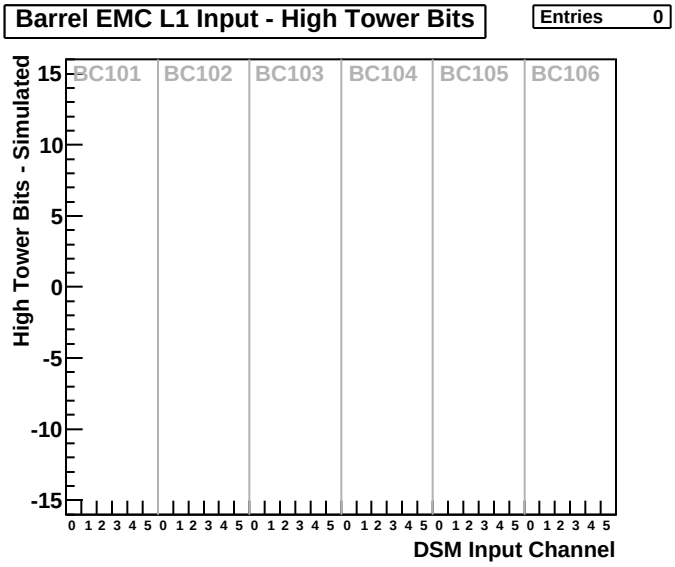

Barrel EMC L1 Input - Low Eta Sum
Entries 5741424
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

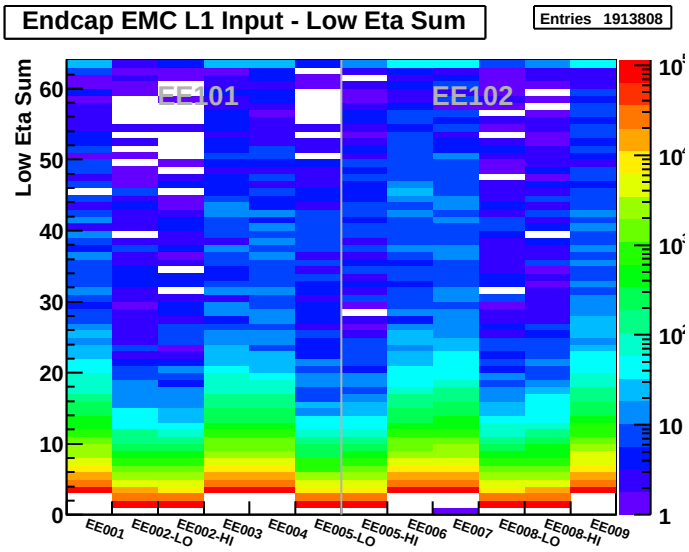

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

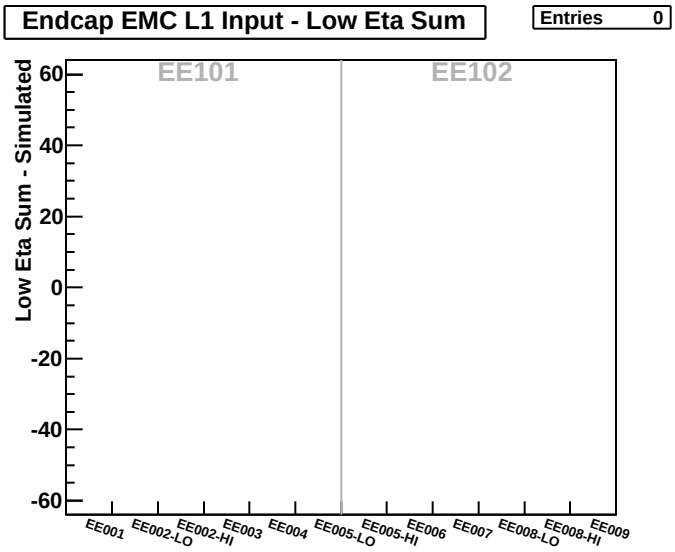

Barrel EMC L1 Input - High Eta Sum
Entries 5741424
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

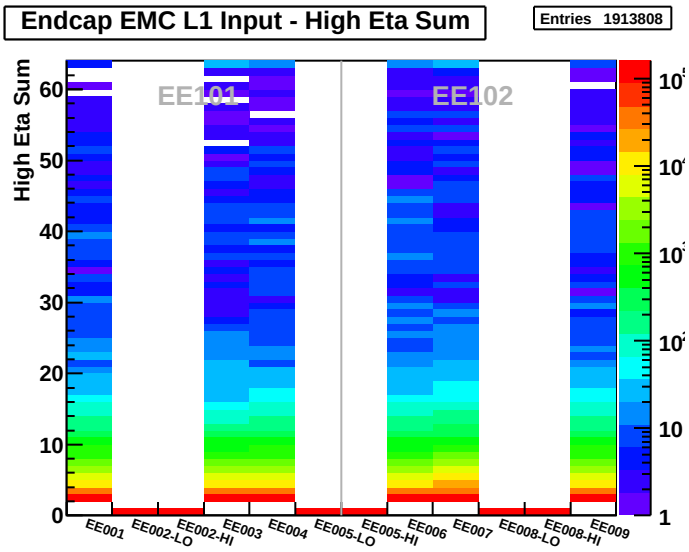

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

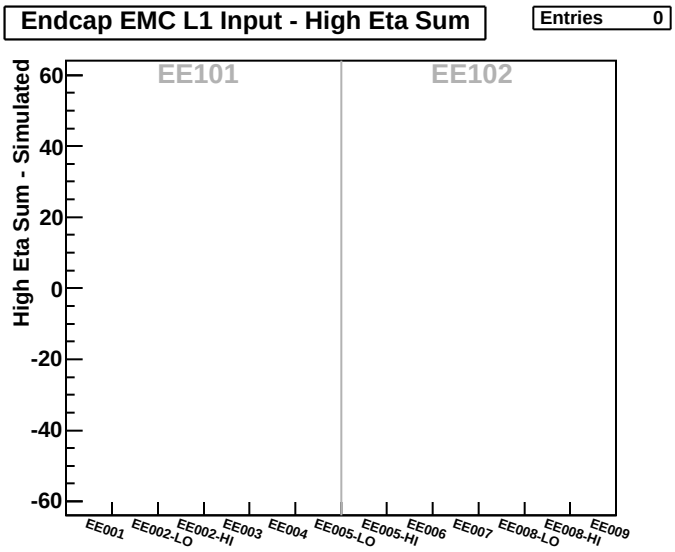

Barrel EMC L1 Input - High Tower Bits
Entries 5741424
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

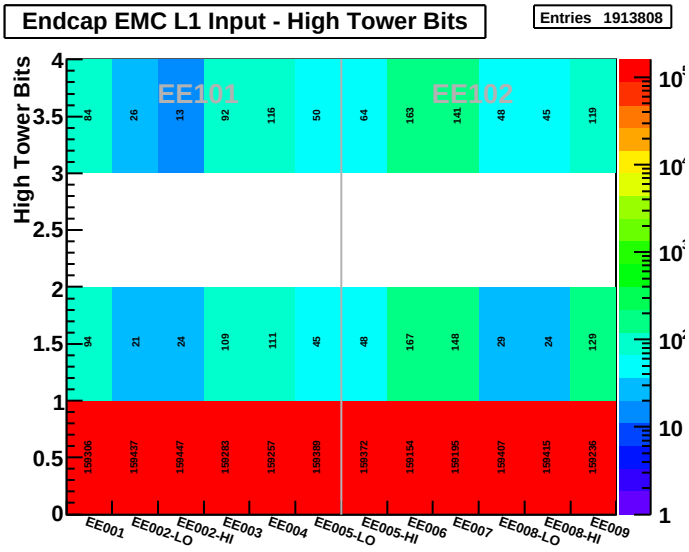

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

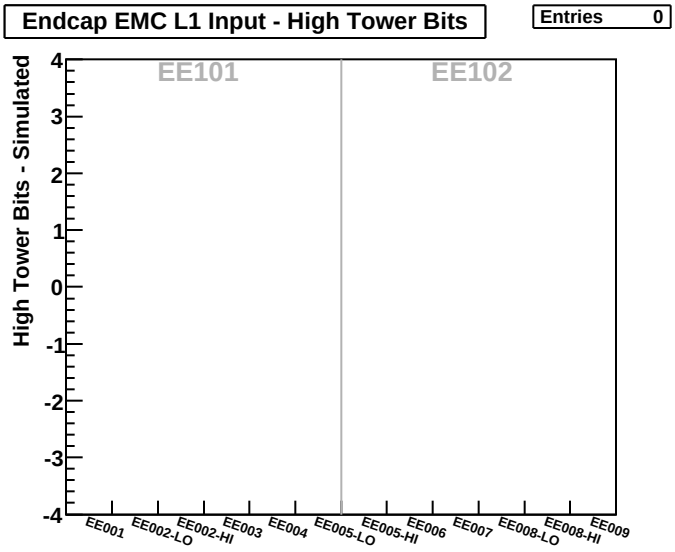

Endcap EMC L1 Input - Low Eta Sum
Entries 1913808
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

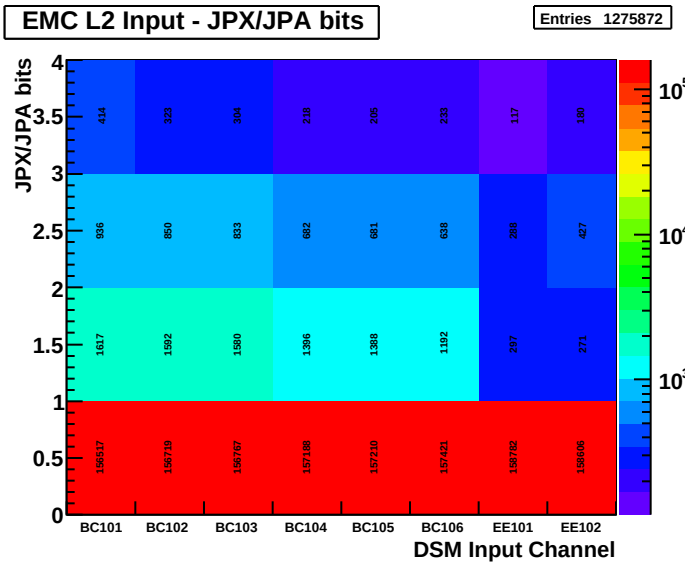

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

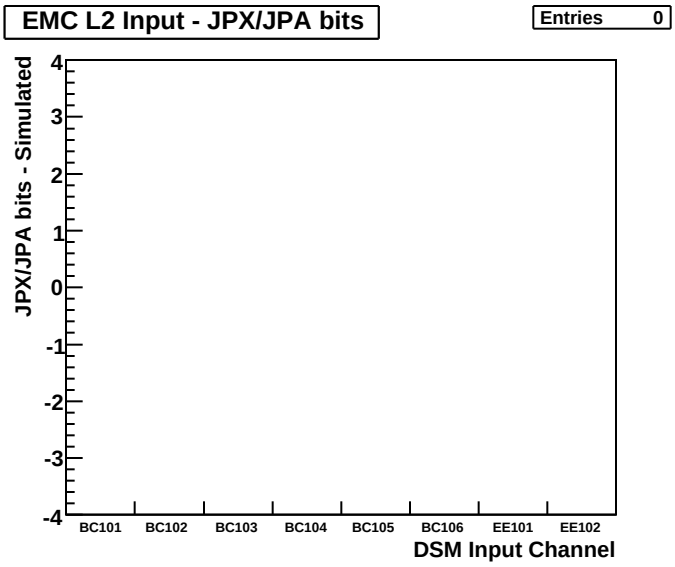

Endcap EMC L1 Input - High Eta Sum
Entries 1913808
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

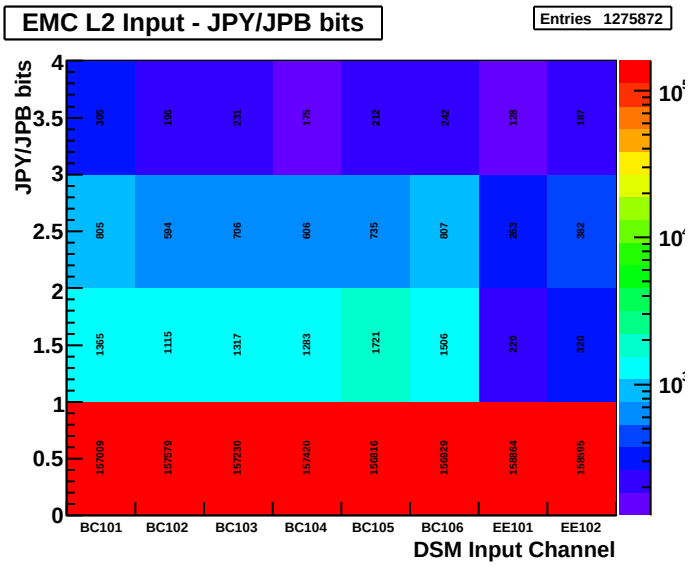

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

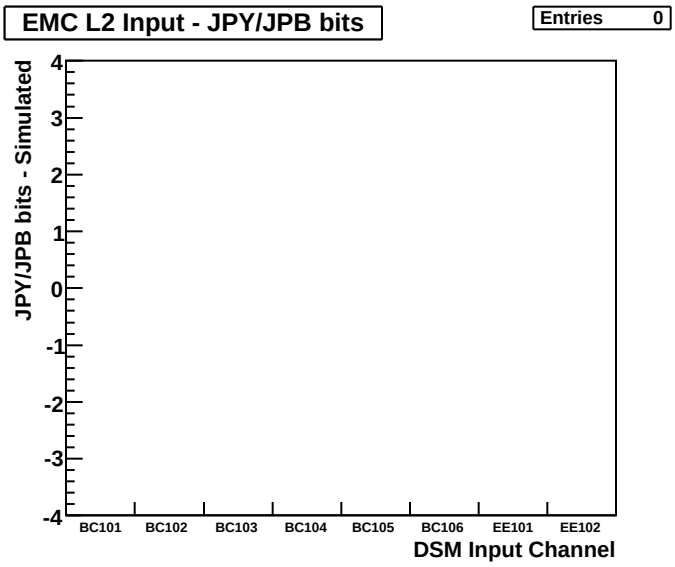

Endcap EMC L1 Input - High Tower Bits
Entries 1913808
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

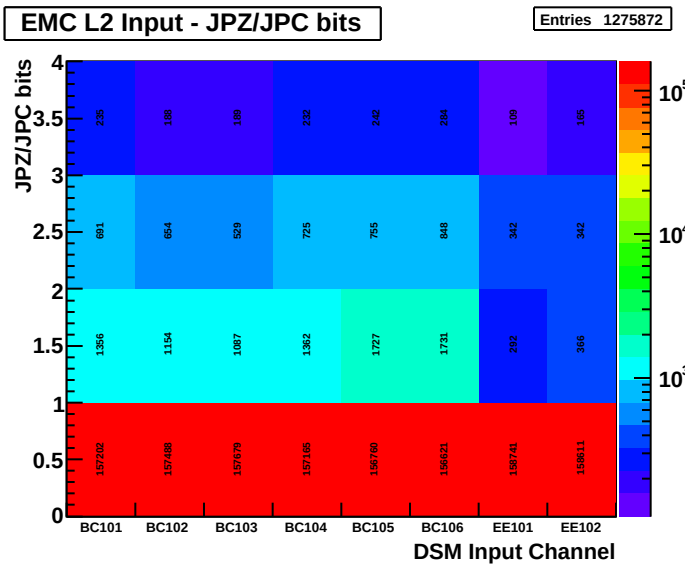

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

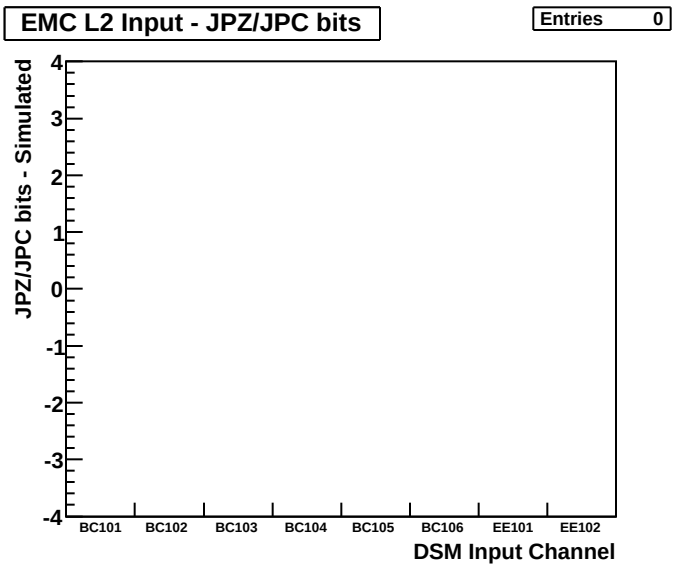

EMC L2 Input - JPX/JPA bits
Entries 1275872
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
414 323 304 218 205 233 117 180
936 850 833 682 681 638 288 427
1617 1592 1580 1396 1388 1192 297 271
156517 158719 158767 157188 157210 157421 158782 158606

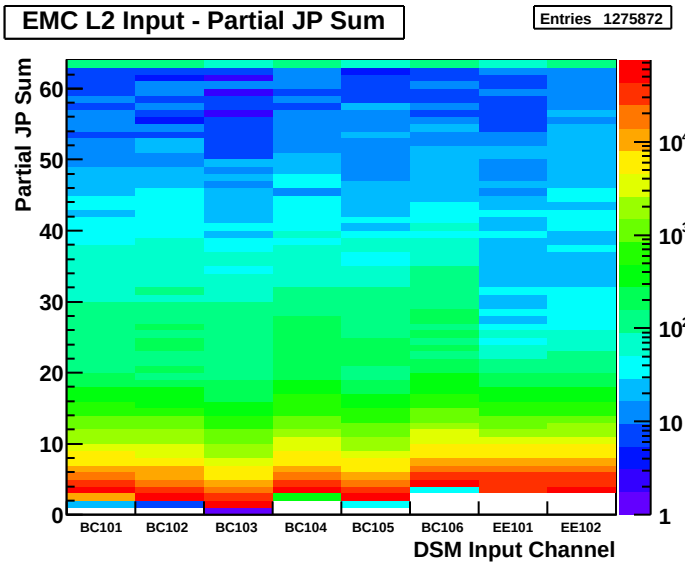

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

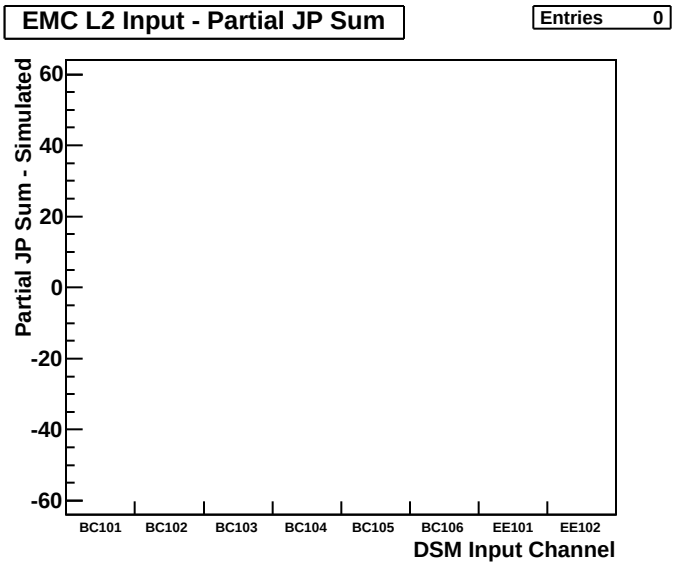

EMC L2 Input - JPY/JPB bits
Entries 1275872
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
305 196 221 175 212 242 128 187
805 594 706 606 735 807 263 382
1365 1115 1317 1283 1721 1506 229 320
157009 157579 157230 157420 158816 158929 158864 158595

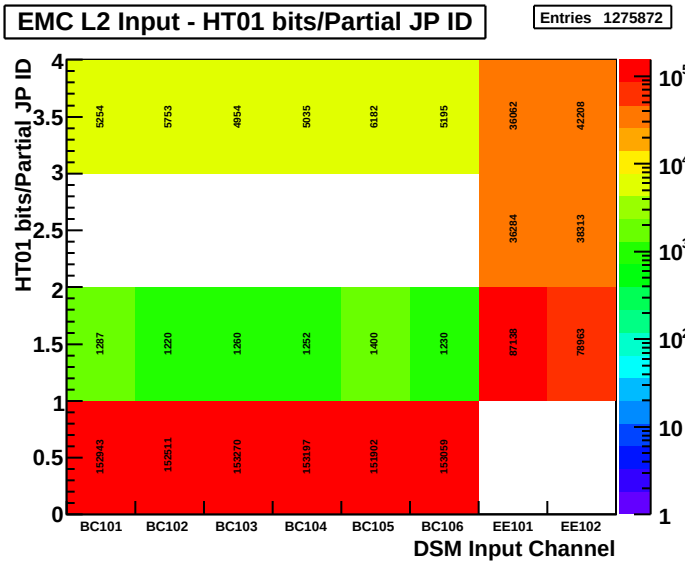

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

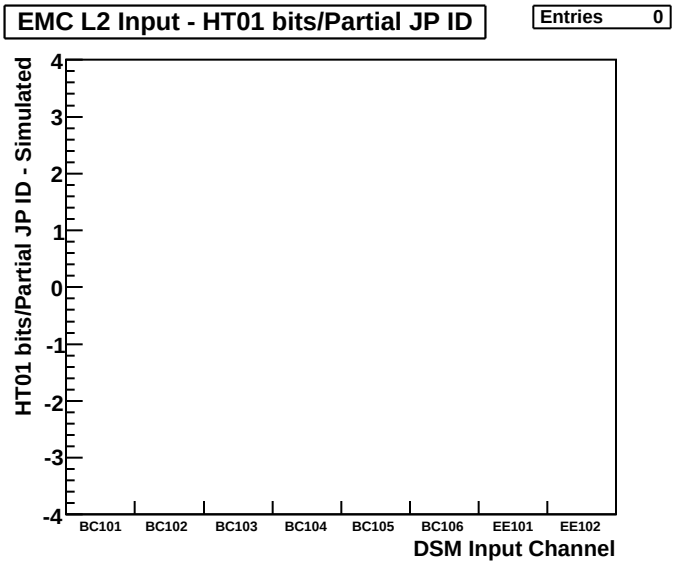

EMC L2 Input - JPZ/JPC bits
Entries 1275872
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
235 188 189 232 242 234 109 165
691 654 529 725 755 848 342 342
1356 1154 1087 1362 1727 1731 292 366
157202 157488 157679 157165 156760 156621 158741 158611

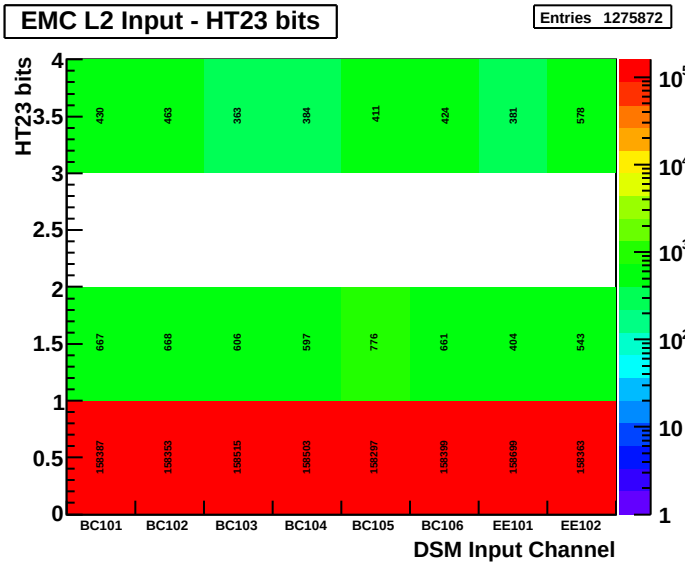

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

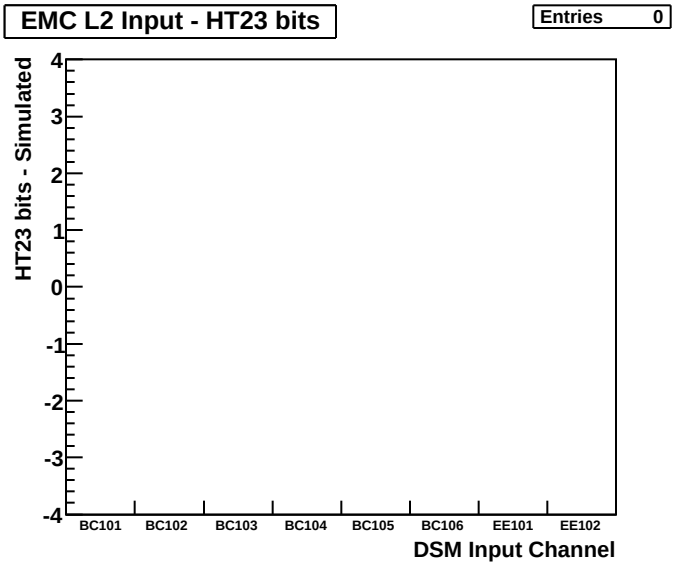

EMC L2 Input - Partial JP Sum
Entries 1275872
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

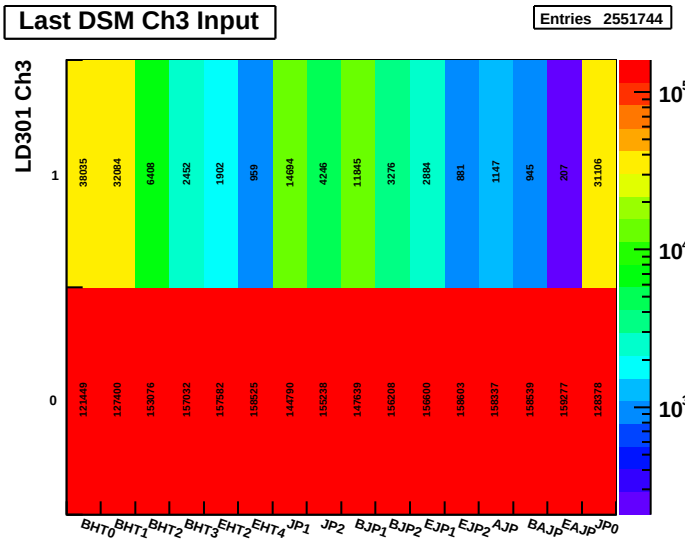

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

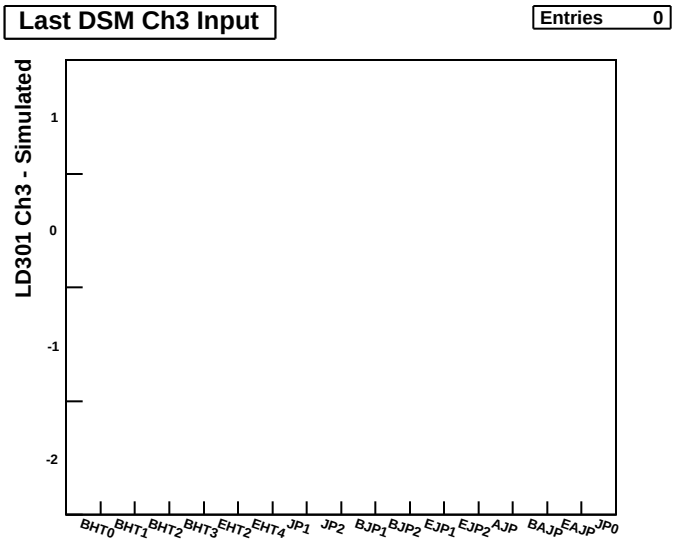

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1275872
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

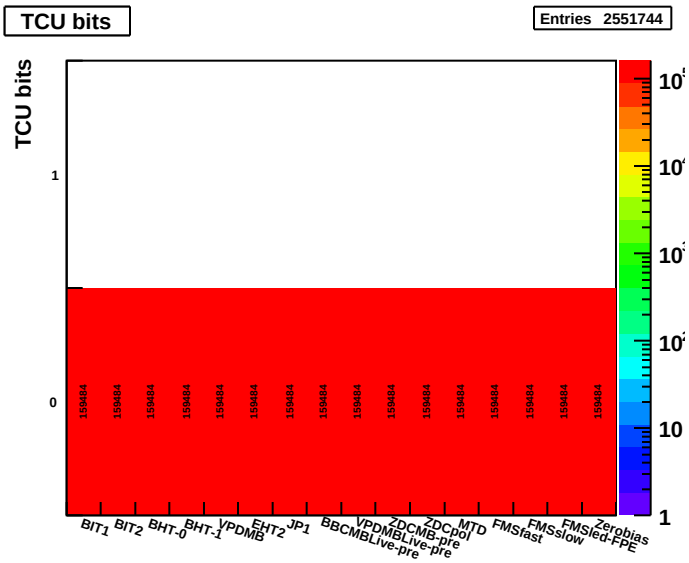

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

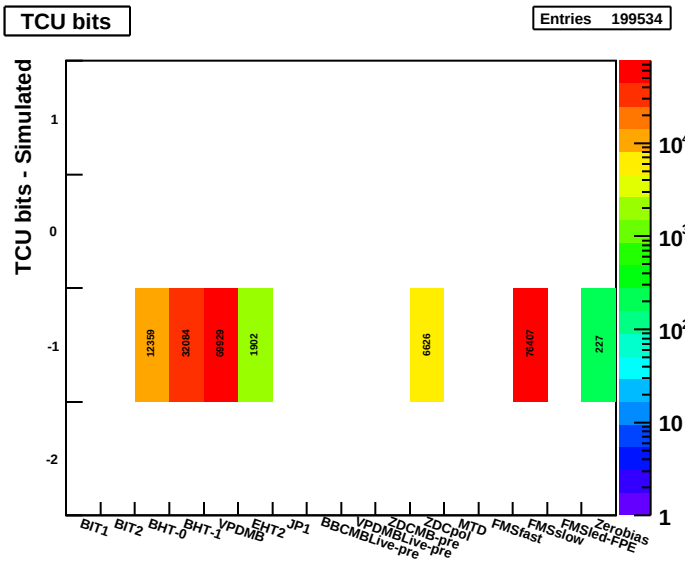

EMC L2 Input - HT23 bits
Entries 1275872
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

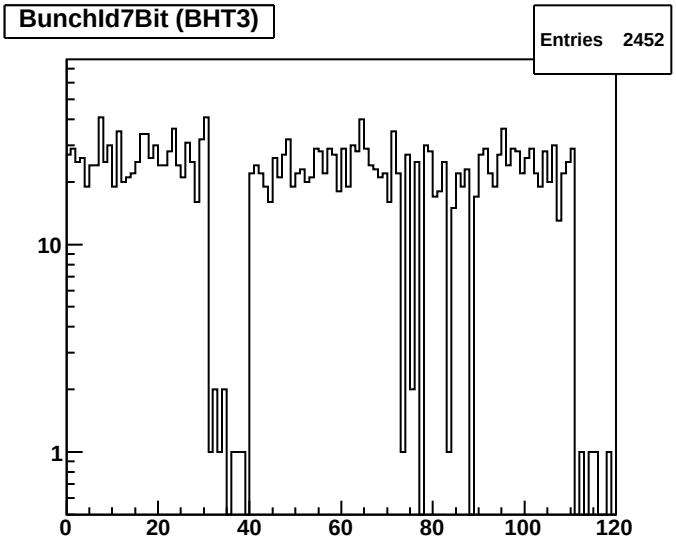

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

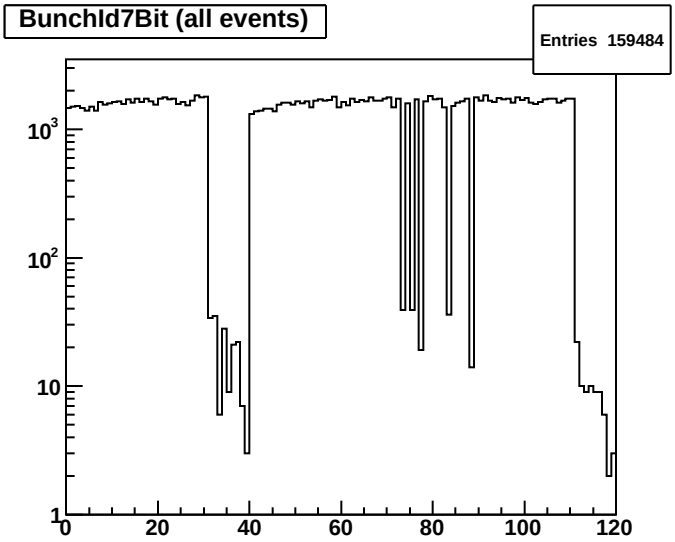

Last DSM Ch3 Input
Entries 2551744
LD301 Ch3
38035 32084 6408 2452 1902 959 14694 4246 11845 3276 2884 881 1147 945 207 31106
121449 127400 153076 157032 157582 158525 144790 155238 147639 156208 156600 158603 158337 158539 159277 128378
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

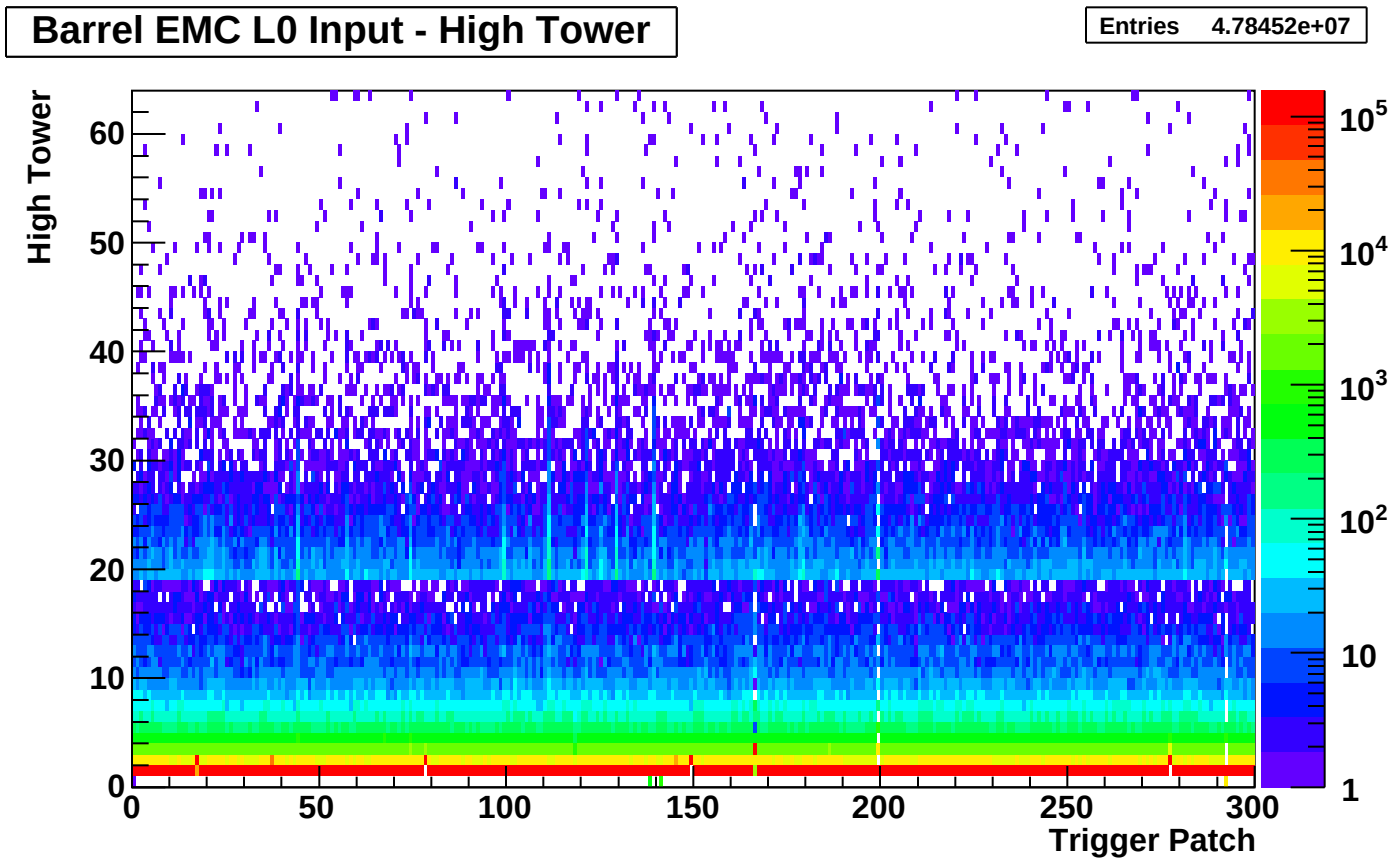

Last DSM Ch3 Input
Entries 0
LD301 Ch3 - Simulated
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

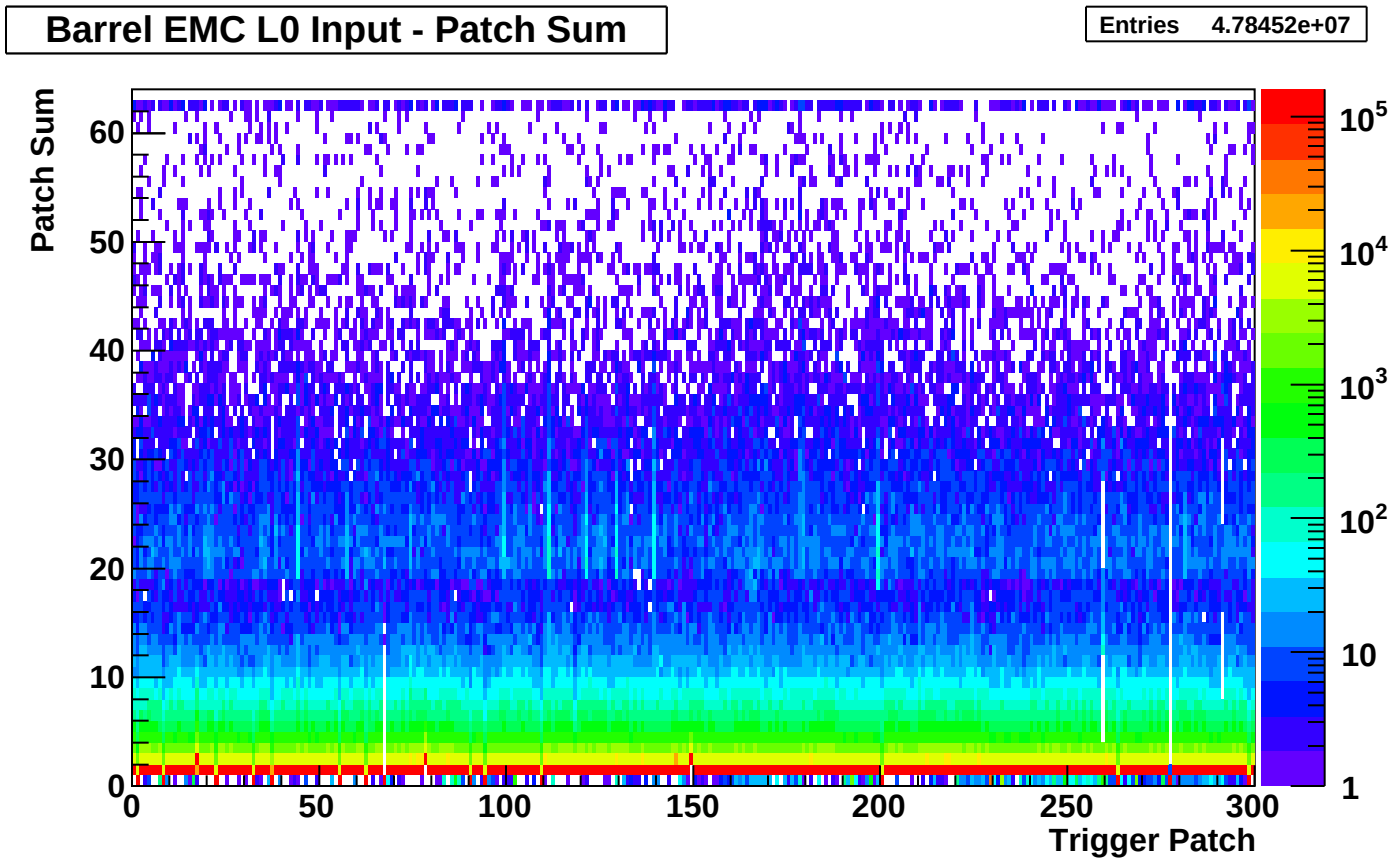

TCU bits
Entries 2551744
TCU bits
159484 159484 159484 159484 159484 159484 159484 159484 159484 159484 159484 159484 159484 159484 159484 159484
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDC-pol MTD FMSfast FMSslow FMSled-FPE Zerobias

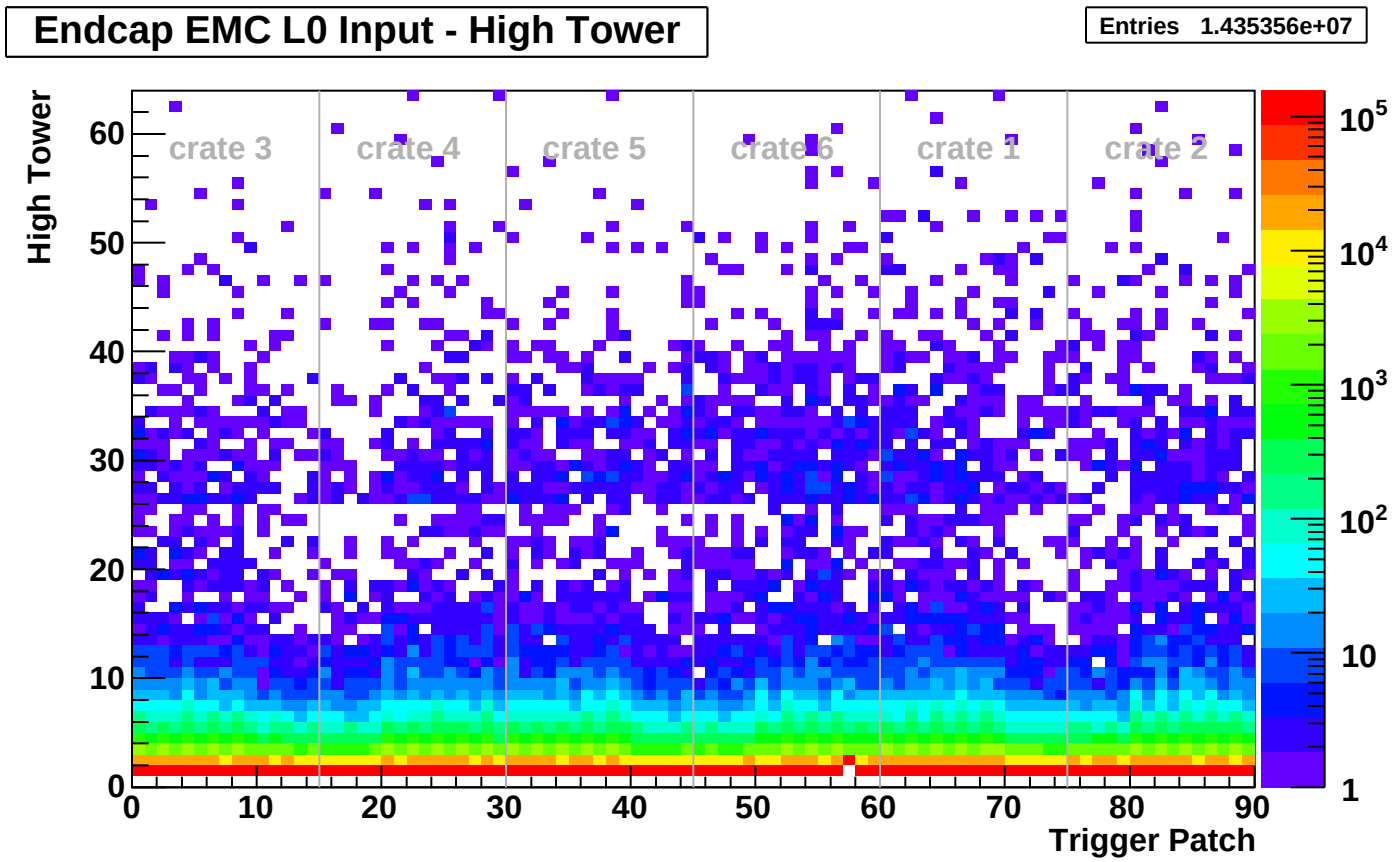

TCU bits
Entries 199534
TCU bits - Simulated
12359 32084 69929 1902 6626 76407 227
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDC-pol MTD FMSfast FMSslow FMSled-FPE Zerobias

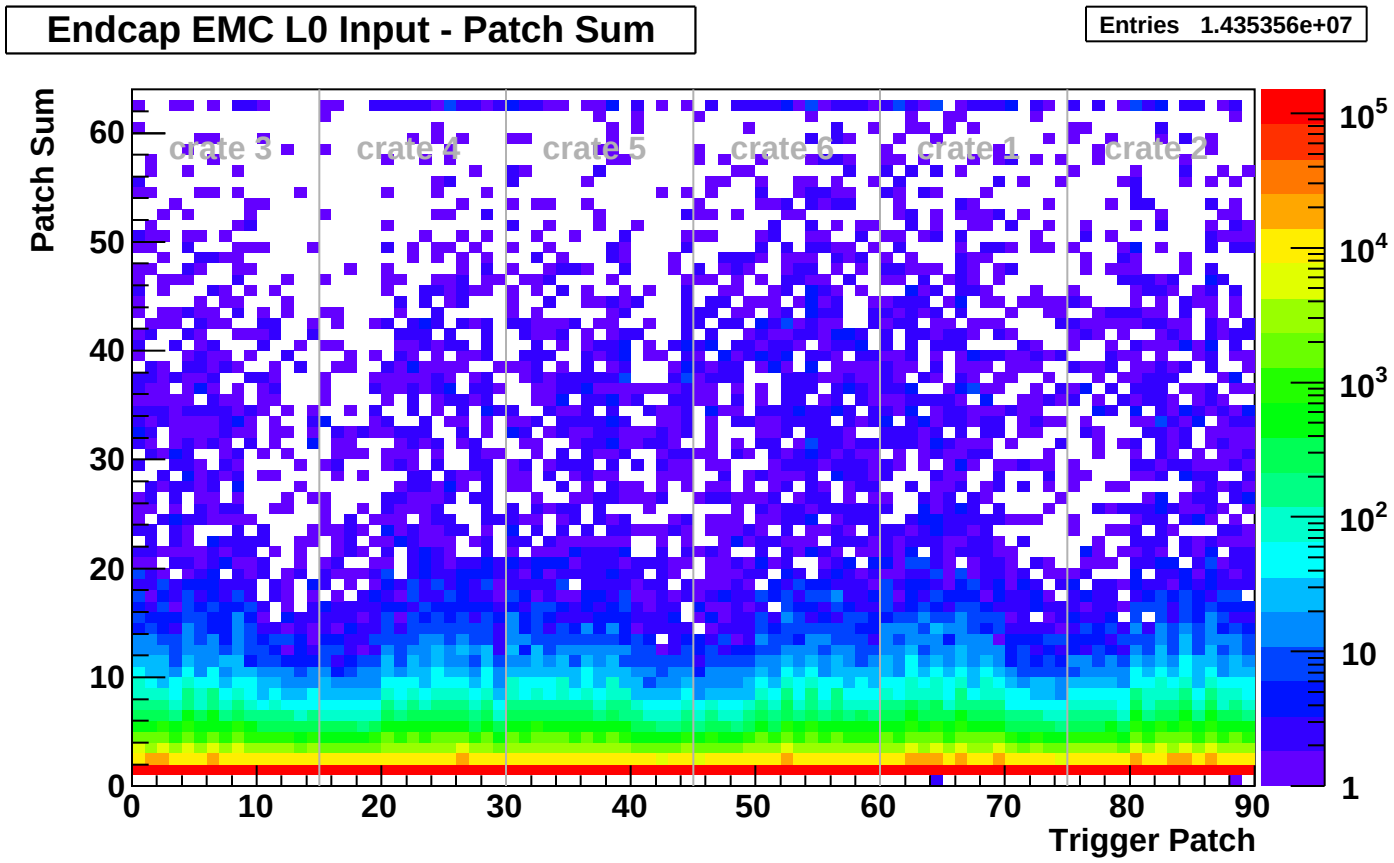

BunchId7Bit (BHT3)
Entries 2452

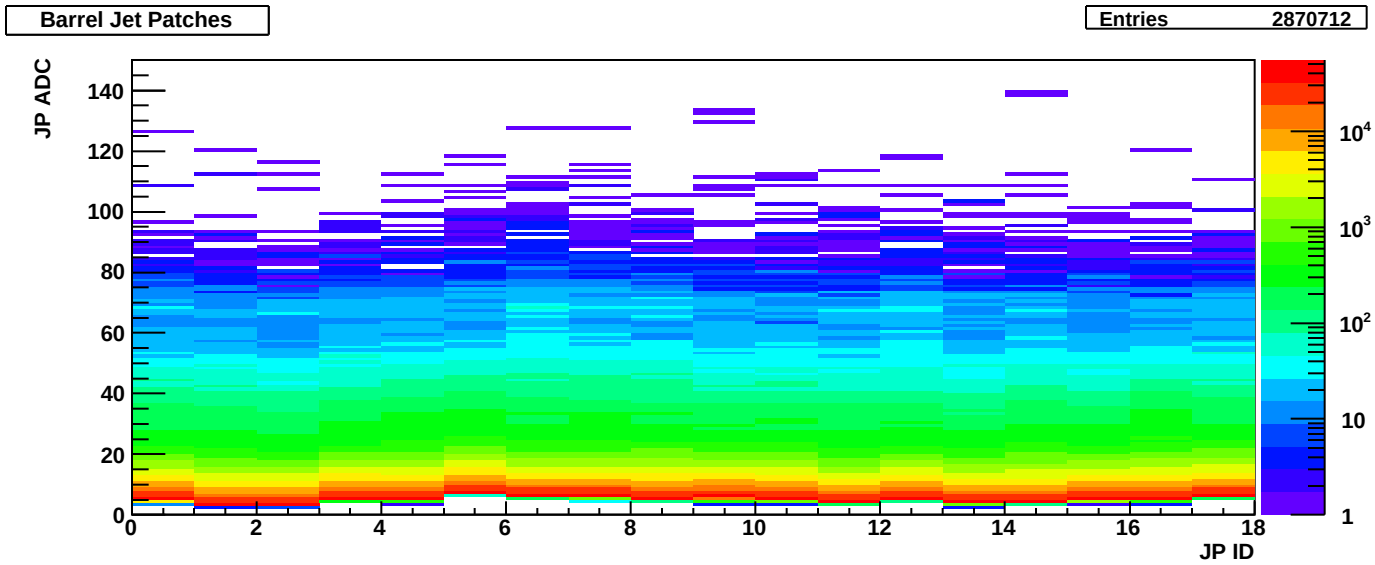

BunchId7Bit (all events)
Entries 159484

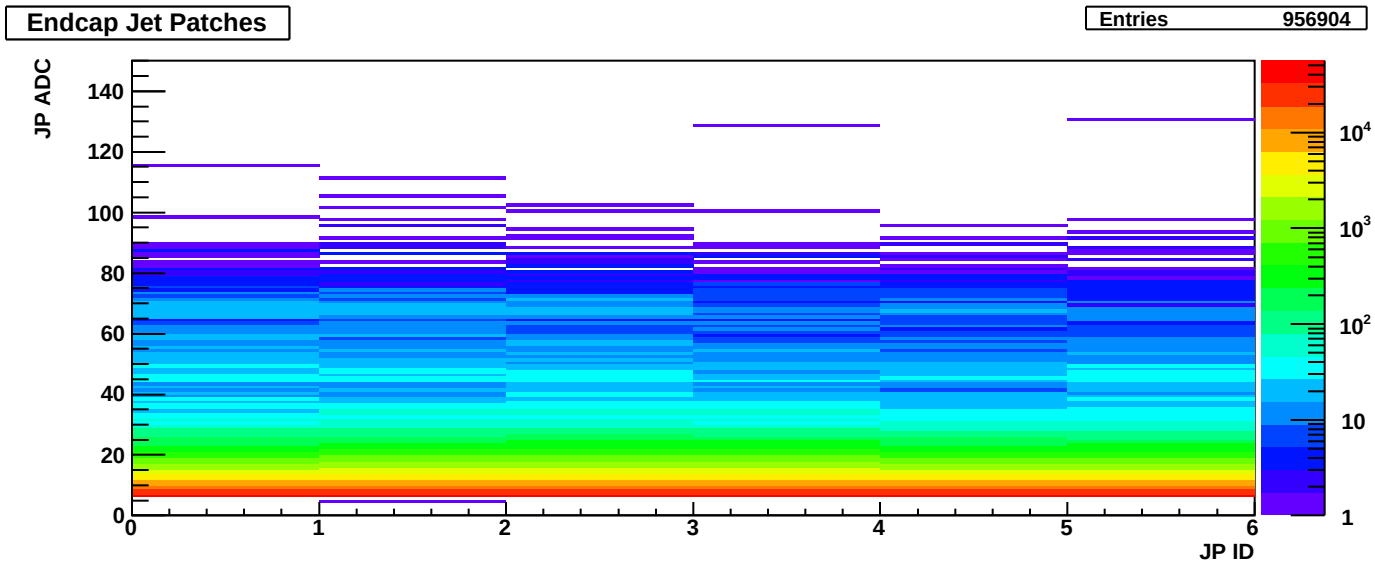

Barrel EMC L0 Input - High Tower
Entries 4.78452e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

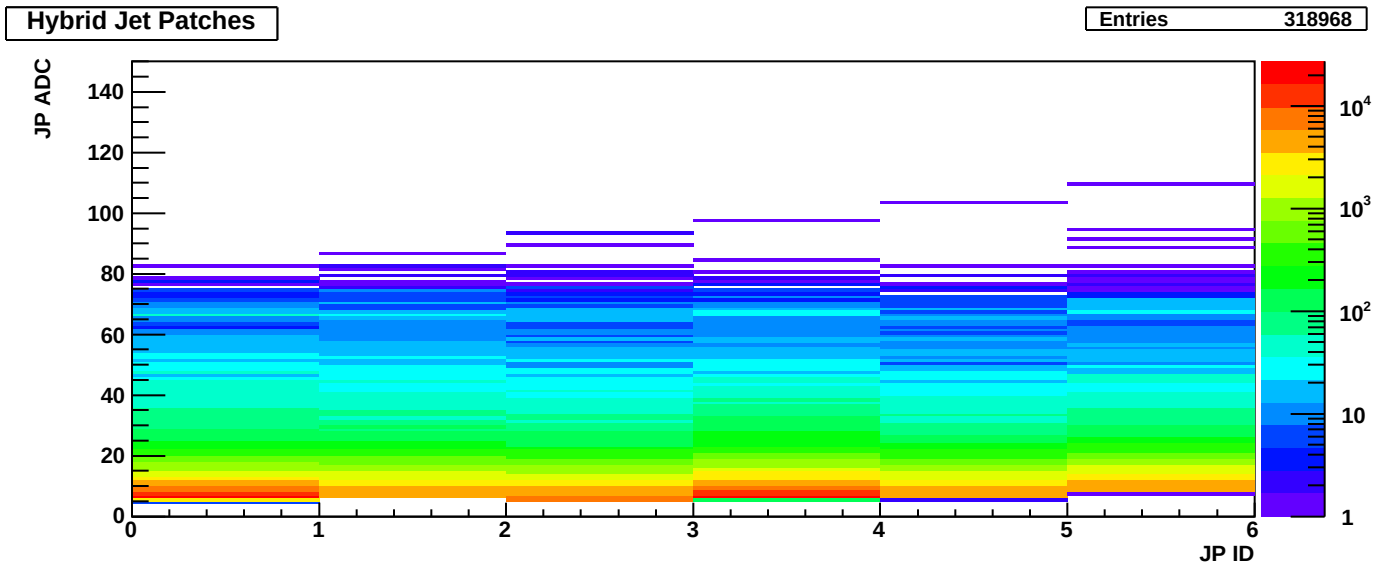

Barrel EMC L0 Input - Patch Sum
Entries 4.78452e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

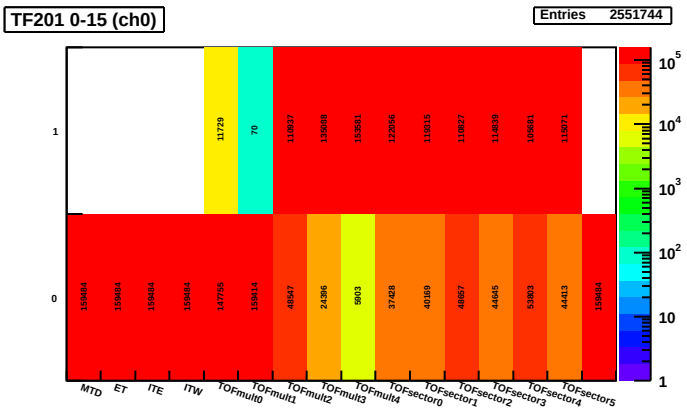

Endcap EMC L0 Input - High Tower
Entries 1.435356e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

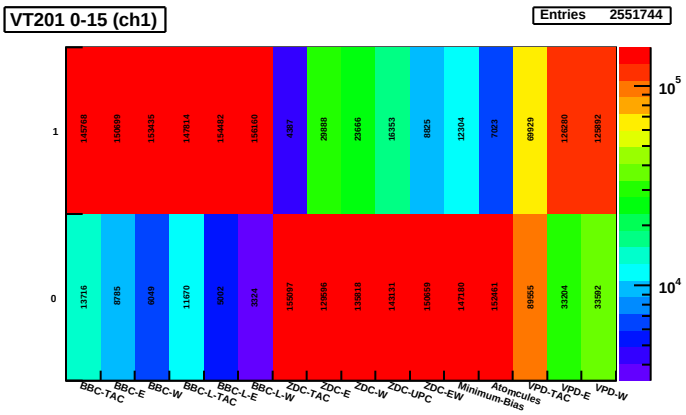

Endcap EMC L0 Input - Patch Sum
Entries 1.435356e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

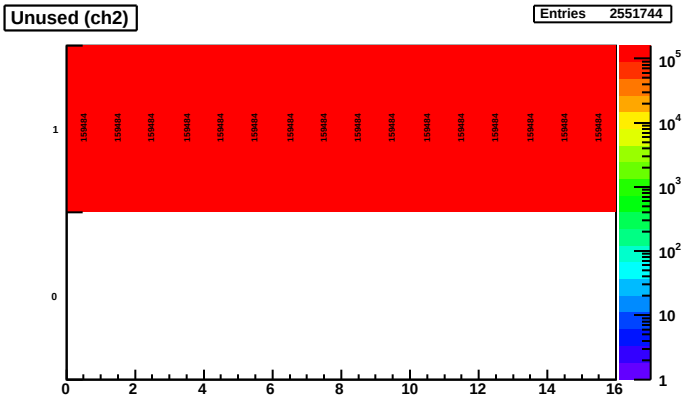

Barrel Jet Patches
Entries 2870712
JP ADC
JP ID

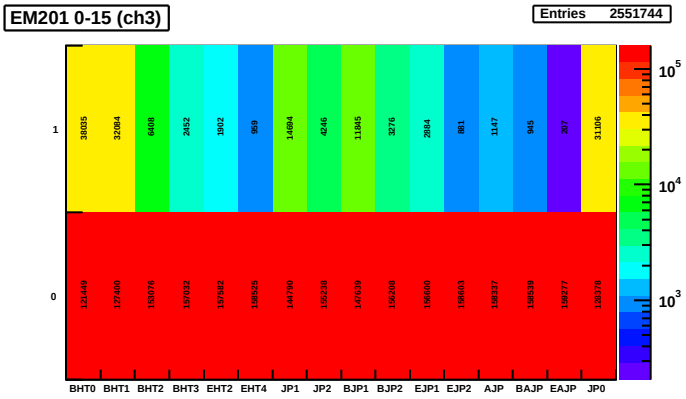

Endcap Jet Patches
Entries 956904
JP ADC
JP ID

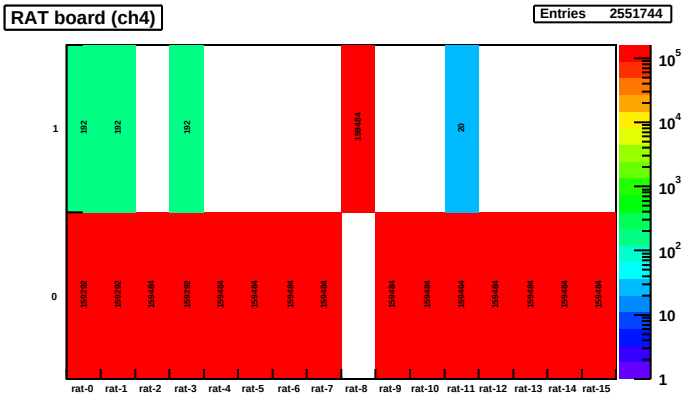

Hybrid Jet Patches
Entries 318968
JP ADC
JP ID

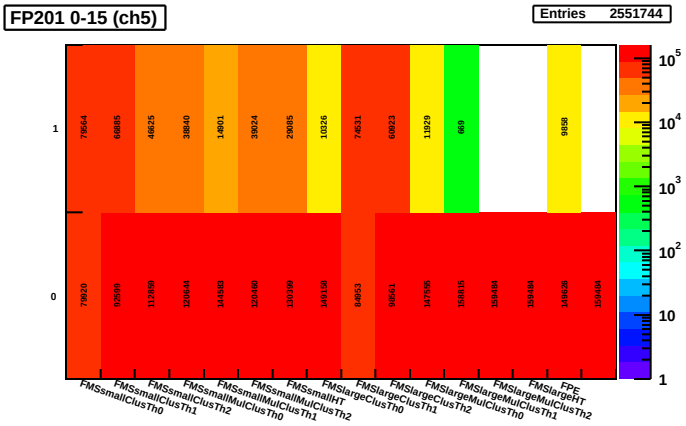

TF201 0-15 (ch0)
Entries 2551744
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

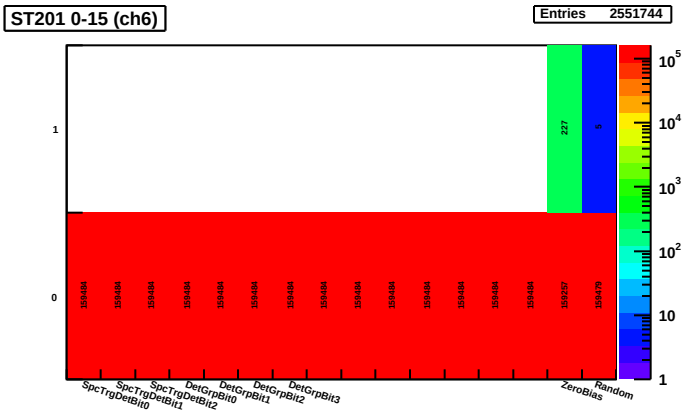

VT201 0-15 (ch1)
Entries 2551744
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

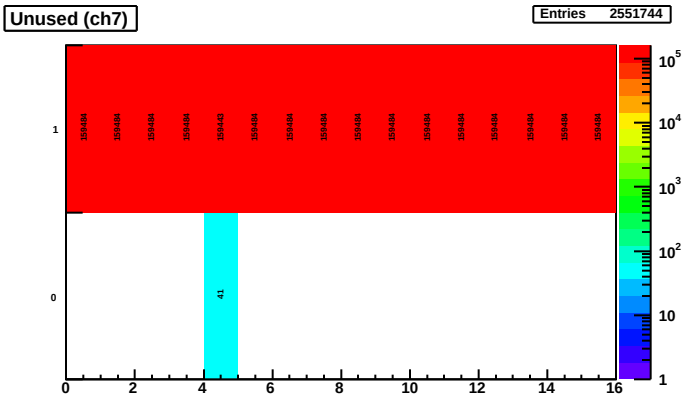

Unused (ch2)
Entries 2551744

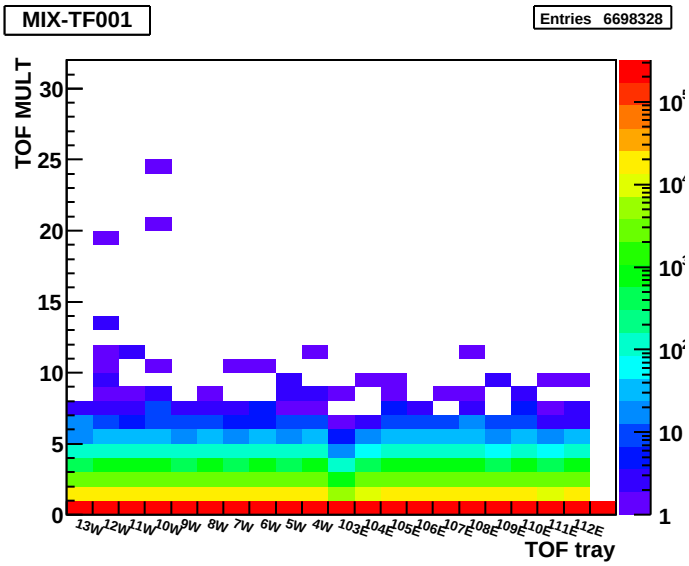

EM201 0-15 (ch3)
Entries 2551744
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

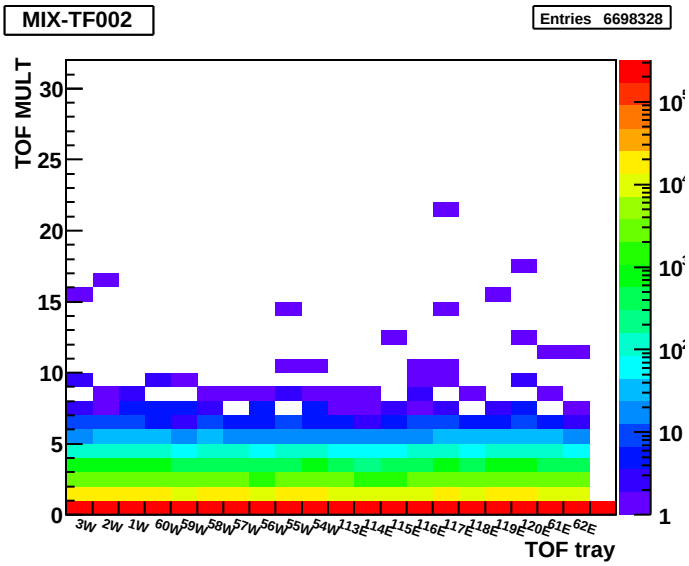

RAT board (ch4)
Entries 2551744
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

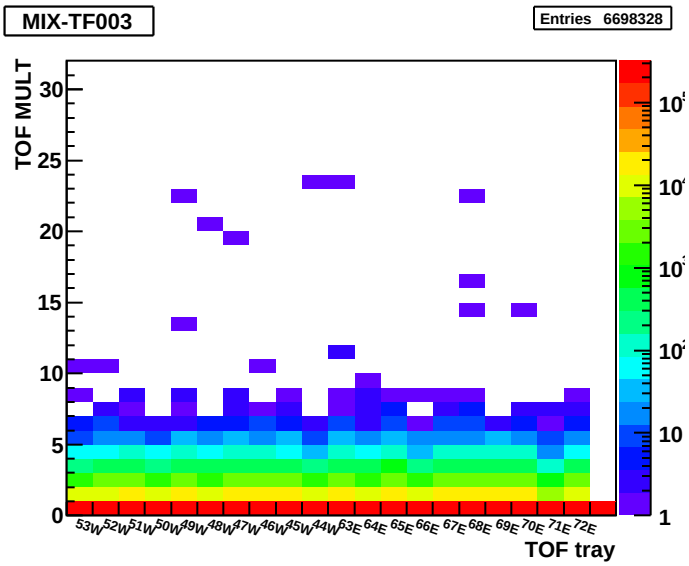

FP201 0-15 (ch5)
Entries 2551744
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

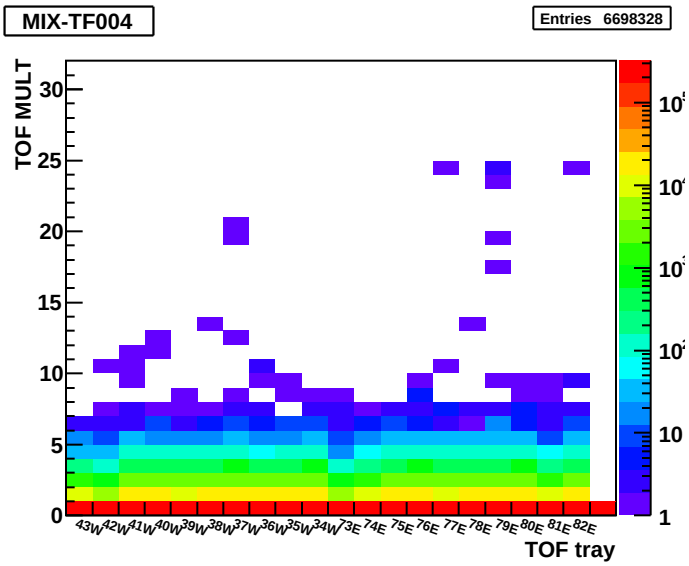

ST201 0-15 (ch6)
Entries 2551744
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetGrpBit0 DetGrpBit1 DetGrpBit2 DetGrpBit3 ZeroBias Random

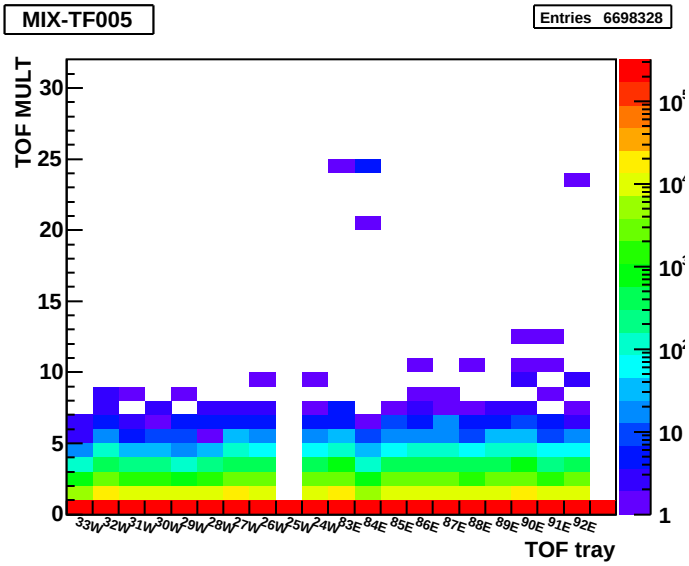

Unused (ch7)
Entries 2551744

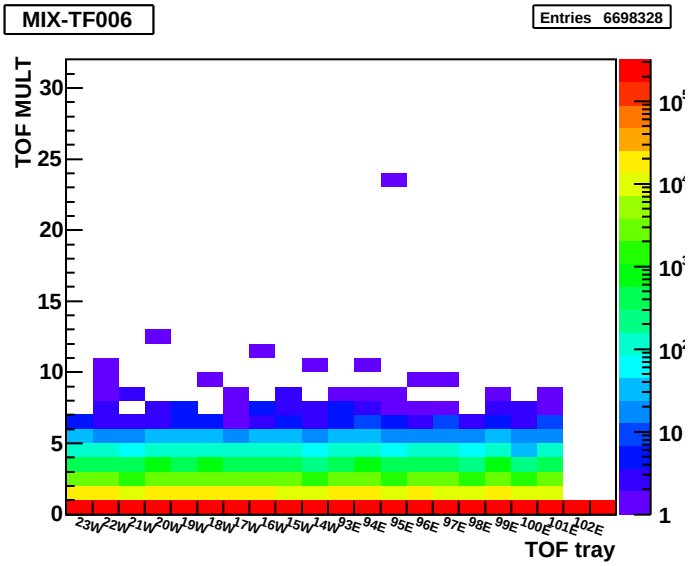

MIX-TF001
Entries 6698328
TOF MULT
TOF tray

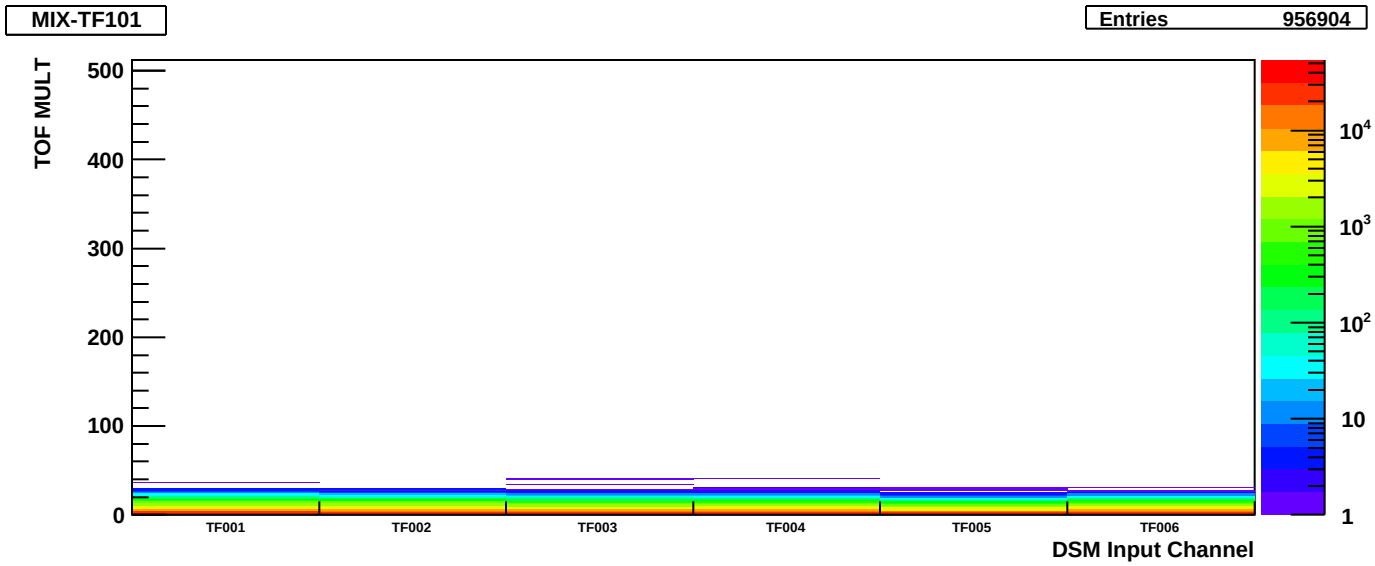

MIX-TF002
Entries 6698328
TOF MULT
TOF tray

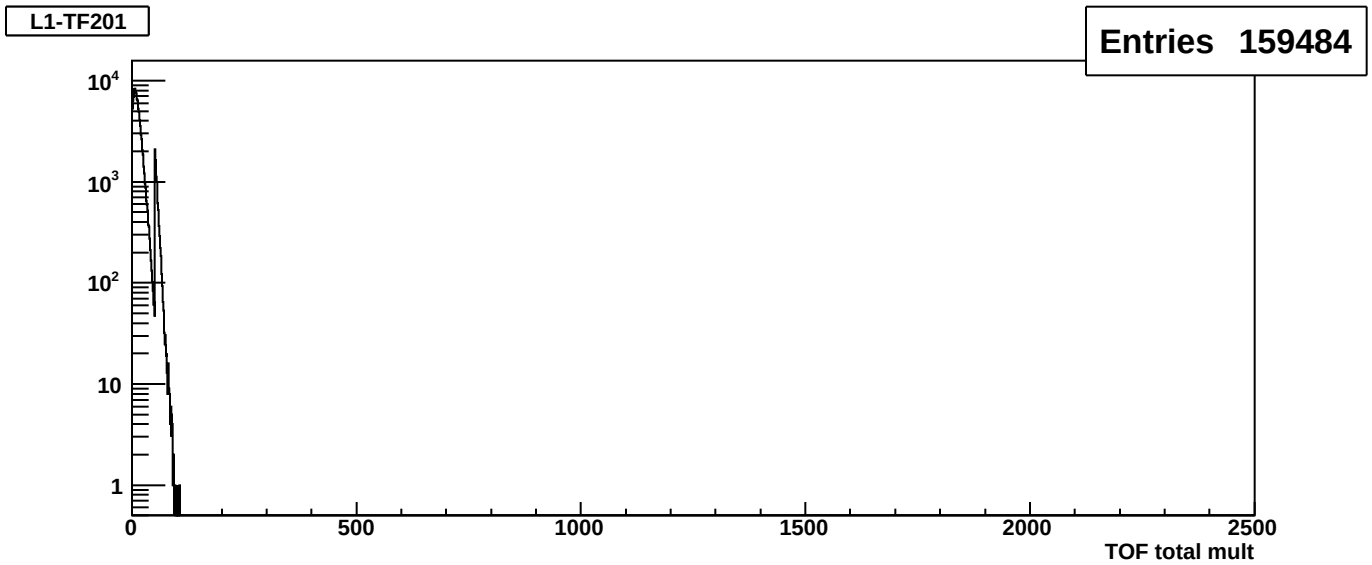

MIX-TF003
Entries 6698328
TOF MULT
TOF tray

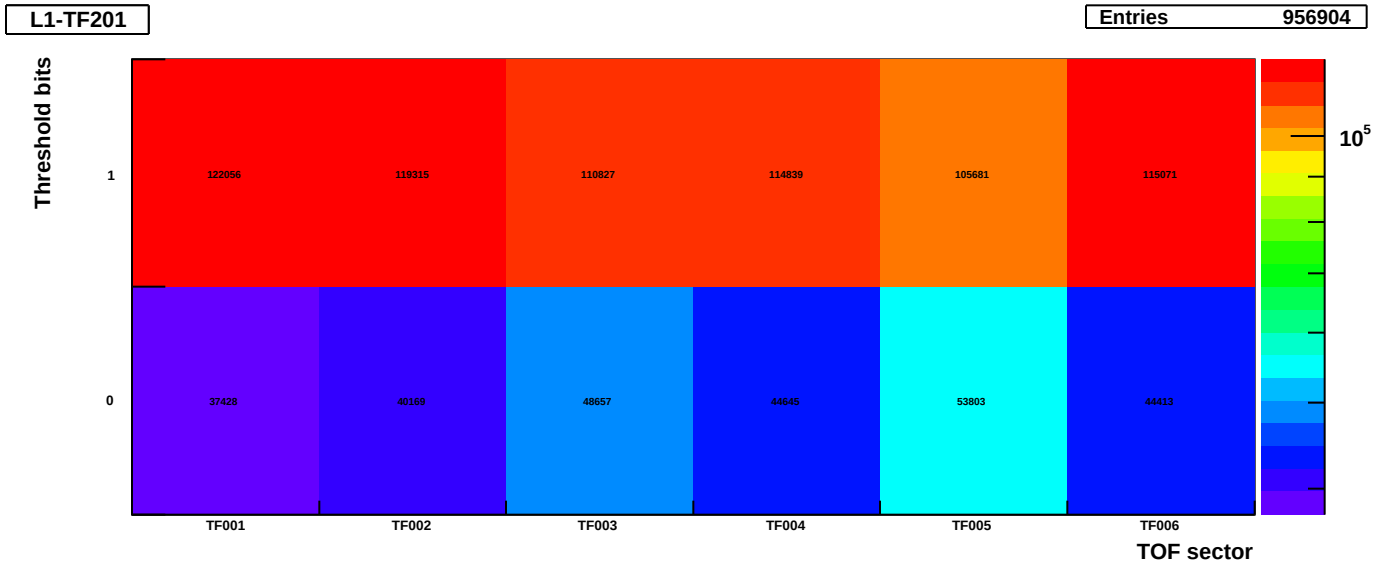

MIX-TF004
Entries 6698328
TOF MULT
TOF tray

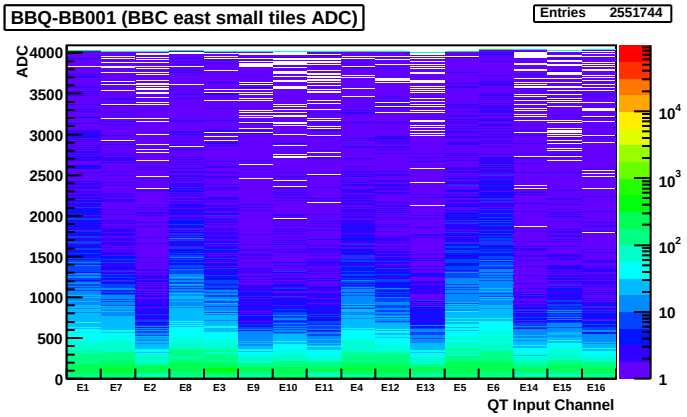

MIX-TF005
Entries 6698328
TOF MULT
TOF tray

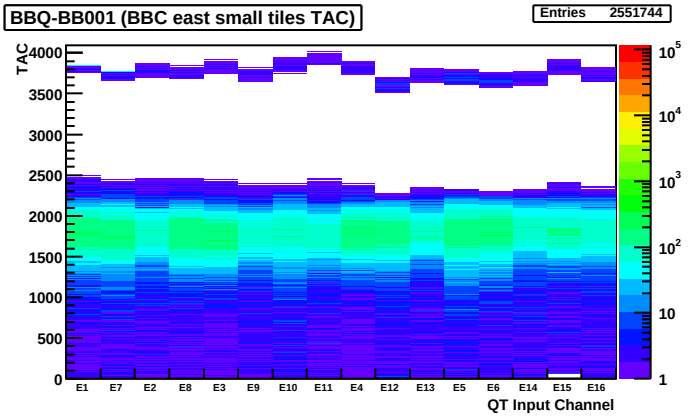

MIX-TF006
Entries 6698328
TOF MULT
TOF tray

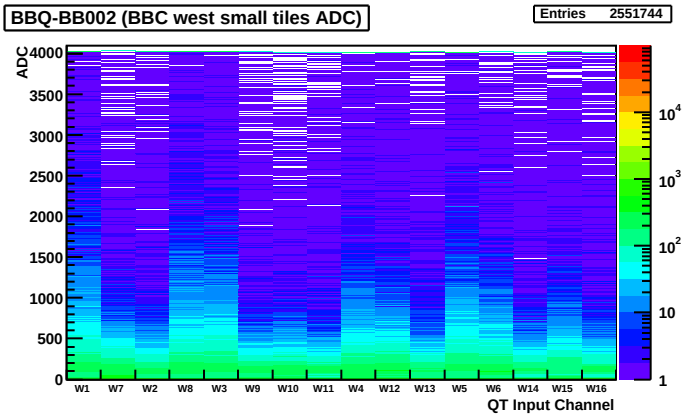

MIX-TF101
Entries 956904
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

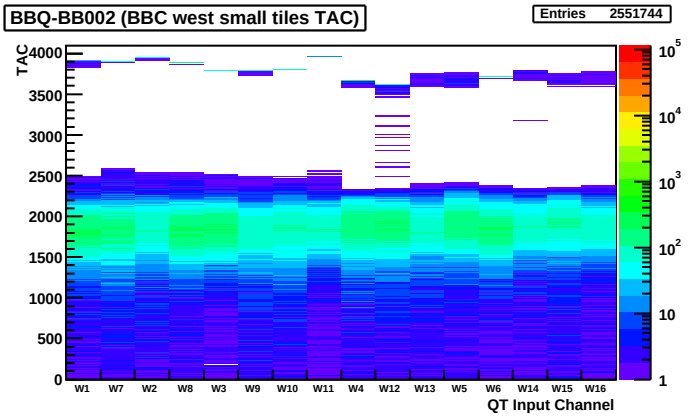

L1-TF201
Entries 159484
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

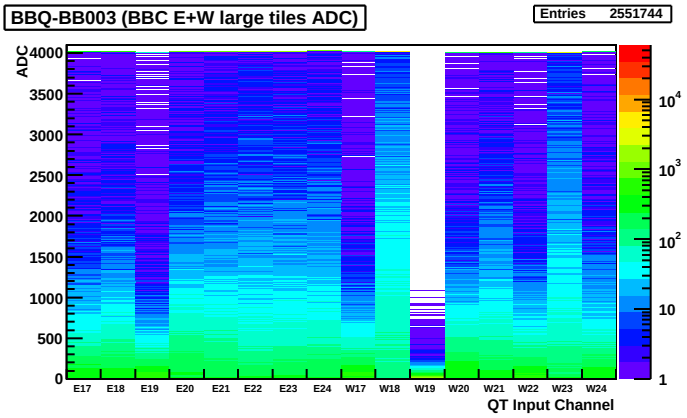

L1-TF201
Entries 956904
Threshold bits
1
0
122056
119315
110827
114839
105681
115071
37428
40169
48657
44645
53803
44413
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

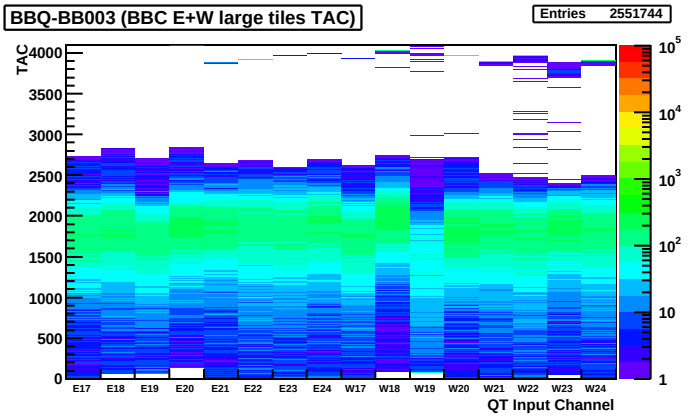

BBQ-BB001 (BBC east small tiles ADC)
Entries 2551744
ADC
QT Input Channel

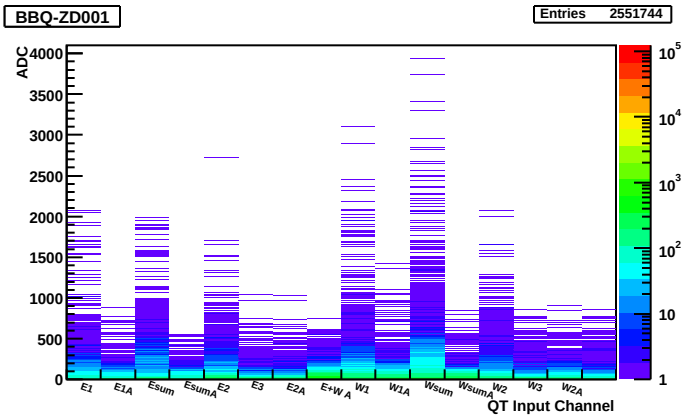

BBQ-BB001 (BBC east small tiles TAC)
Entries 2551744
TAC
QT Input Channel

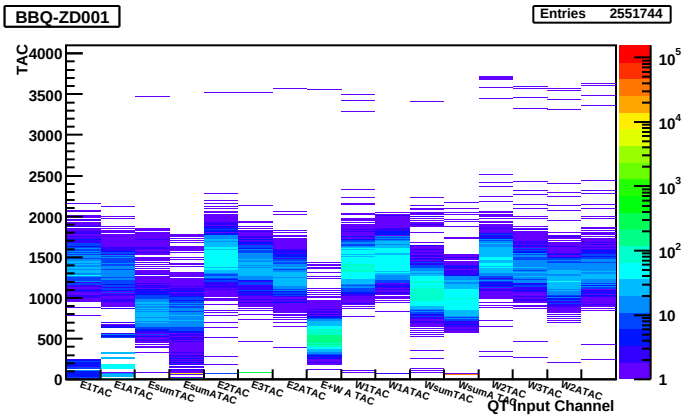

BBQ-BB002 (BBC west small tiles ADC)
Entries 2551744
ADC
QT Input Channel

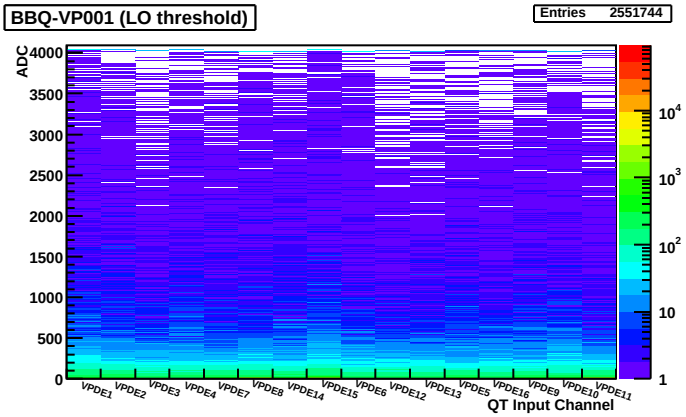

BBQ-BB002 (BBC west small tiles TAC)
Entries 2551744
TAC
QT Input Channel

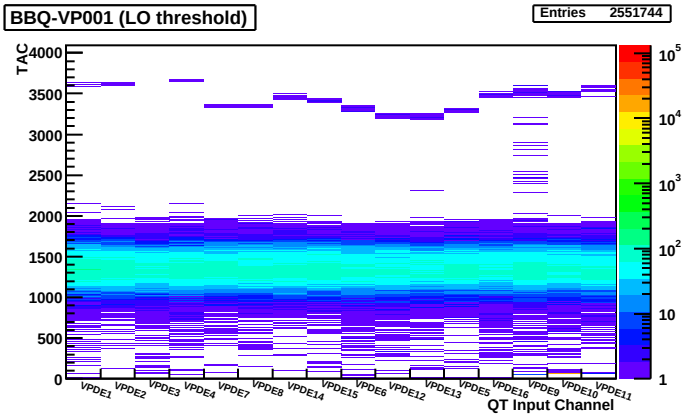

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2551744
ADC
QT Input Channel

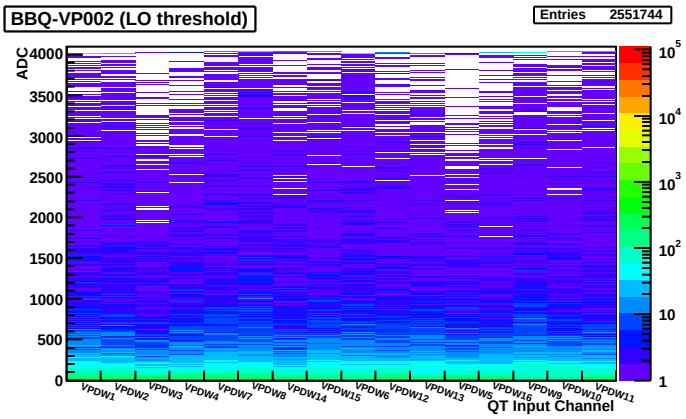

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2551744
TAC
QT Input Channel

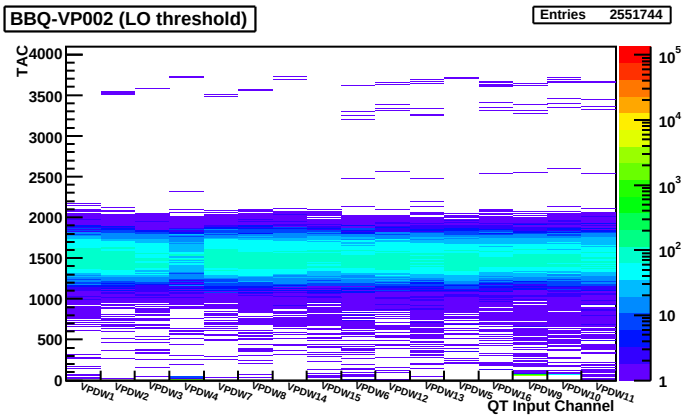

BBQ-ZD001
Entries 2551744
ADC
QT Input Channel

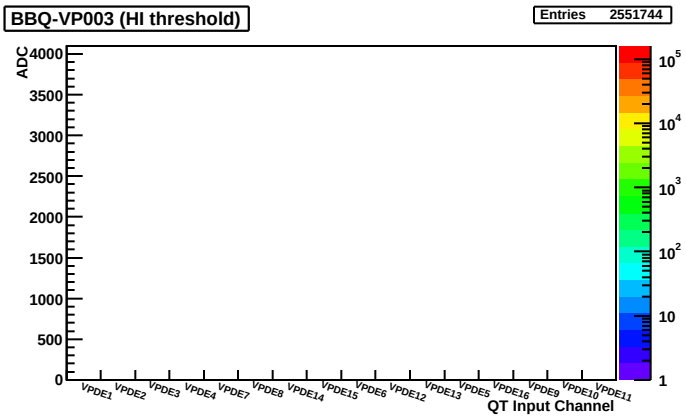

BBQ-ZD001
Entries 2551744
TAC
QT Input Channel

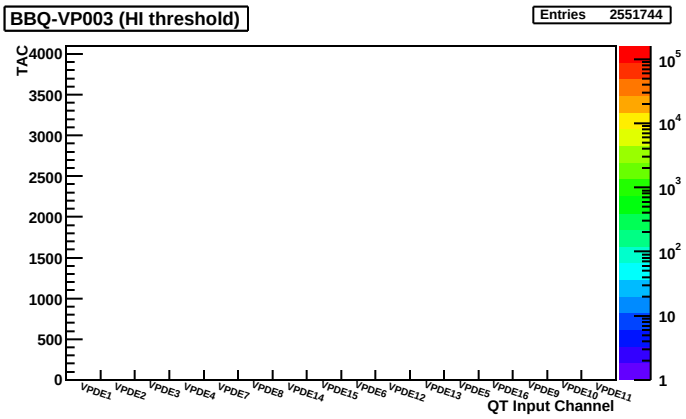

BBQ-VP001 (LO threshold)
Entries 2551744
ADC
QT Input Channel

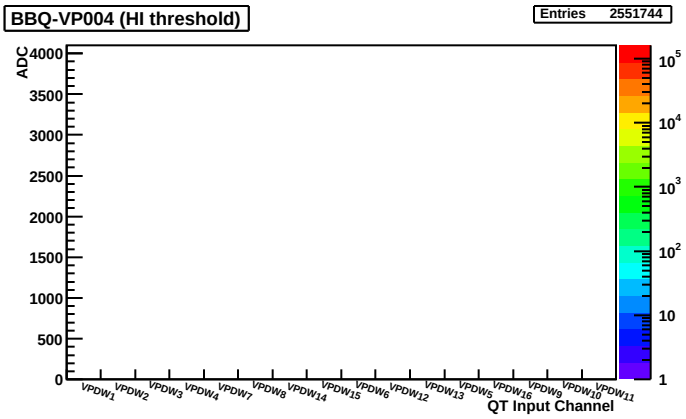

BBQ-VP001 (LO threshold)
Entries 2551744
TAC
QT Input Channel

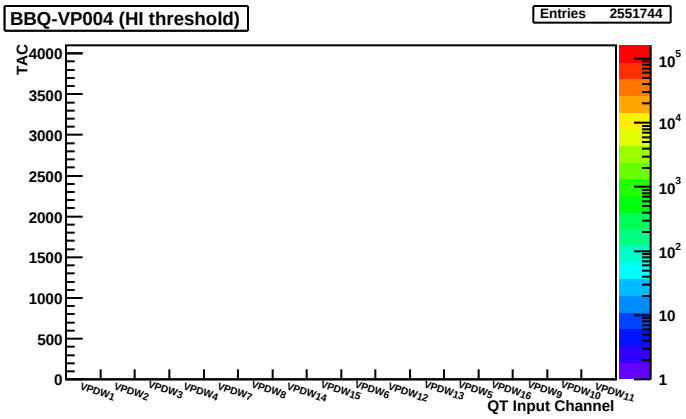

BBQ-VP002 (LO threshold)
Entries 2551744
ADC
QT Input Channel

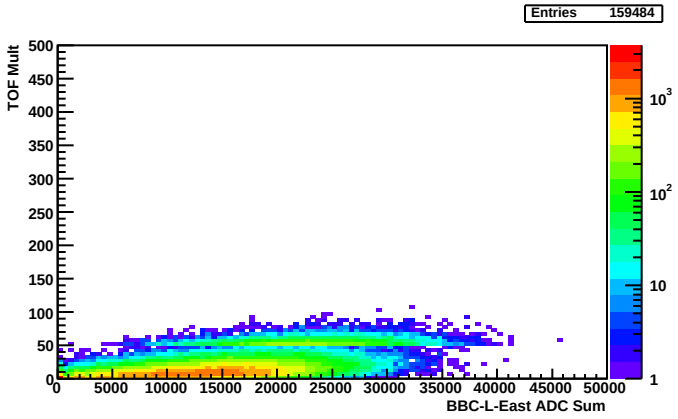

BBQ-VP002 (LO threshold)
Entries 2551744
TAC
QT Input Channel

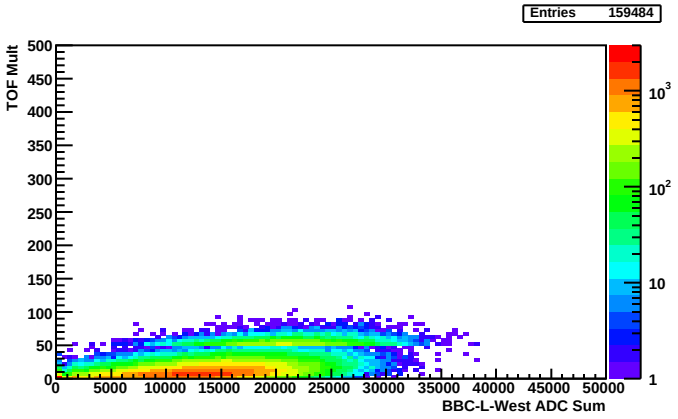

BBQ-VP003 (HI threshold)
Entries 2551744
ADC
QT Input Channel

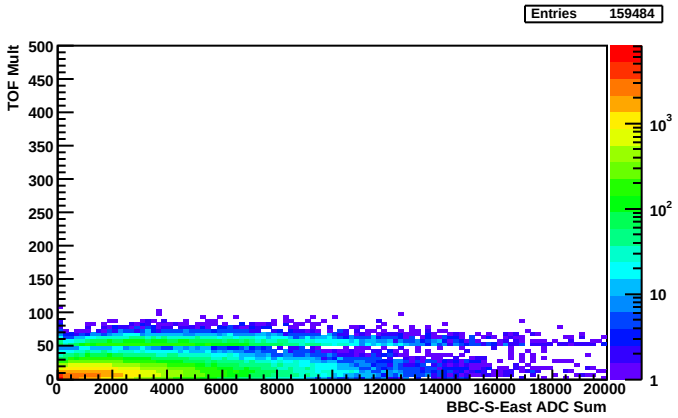

BBQ-VP003 (HI threshold)
Entries 2551744
TAC
QT Input Channel

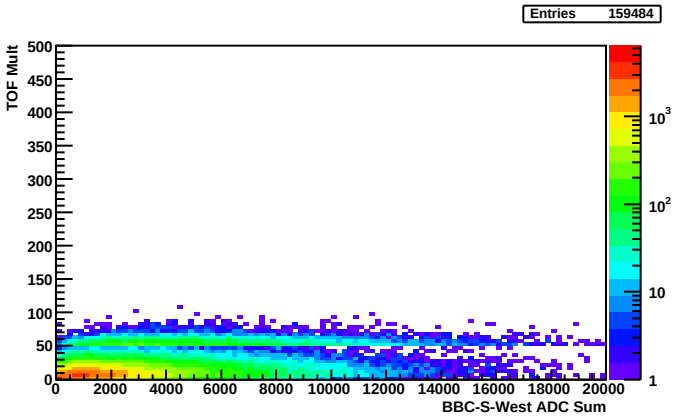

BBQ-VP004 (HI threshold)
Entries 2551744
ADC
QT Input Channel

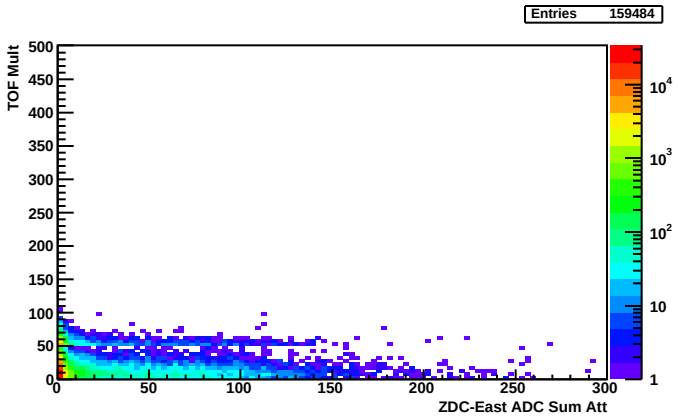

BBQ-VP004 (HI threshold)
Entries 2551744
TAC
QT Input Channel

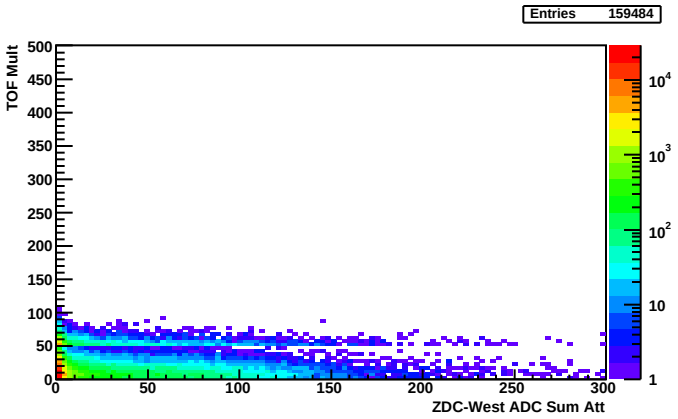

Entries 159484
TOF Mult
BBC-L-East ADC Sum

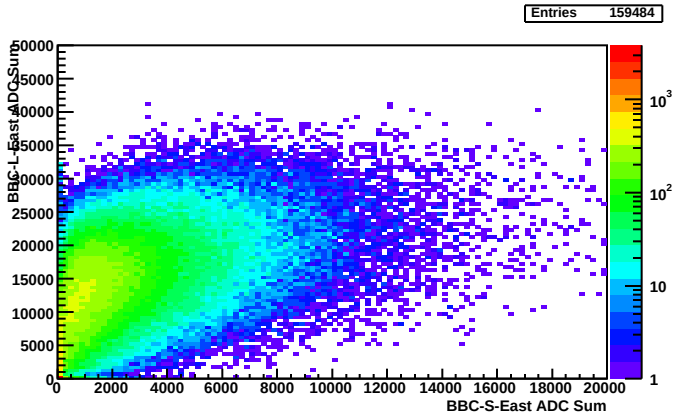

Entries 159484
TOF Mult
BBC-L-West ADC Sum

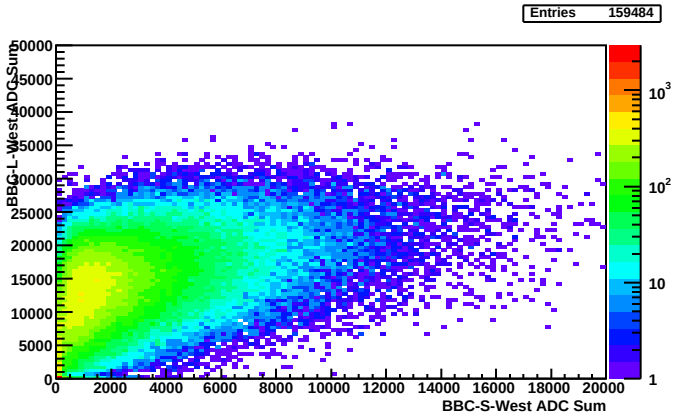

Entries 159484
TOF Mult
BBC-S-East ADC Sum

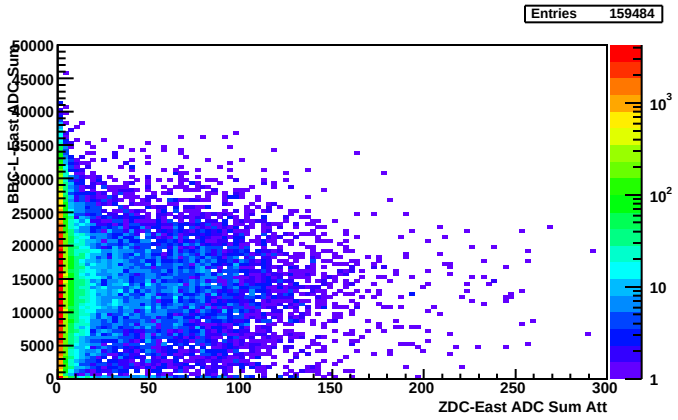

Entries 159484
TOF Mult
BBC-S-West ADC Sum

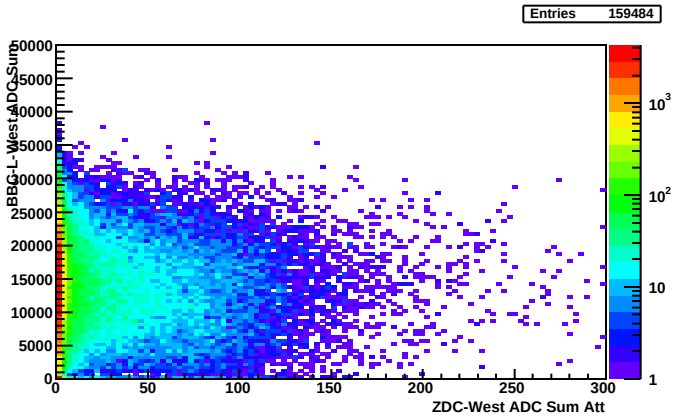

Entries 159484
TOF Mult
ZDC-East ADC Sum Att

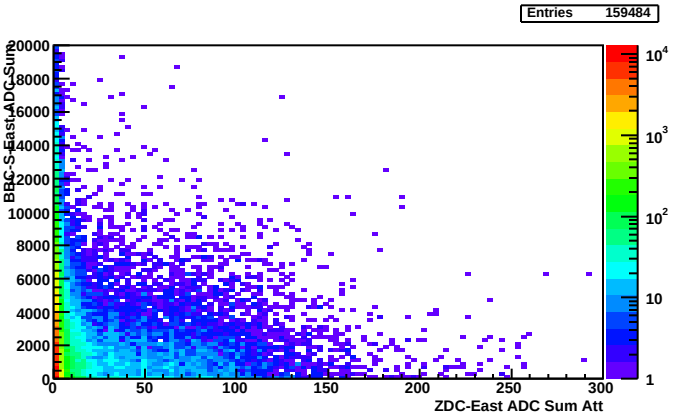

Entries 159484
TOF Mult
ZDC-West ADC Sum Att

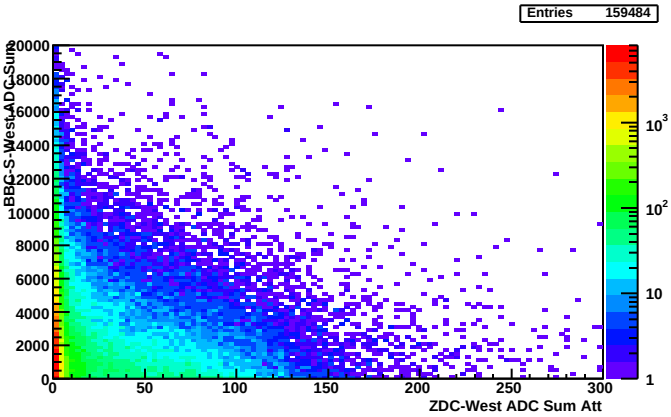

Entries 159484
BBC-L-East ADC Sum
BBC-S-East ADC Sum

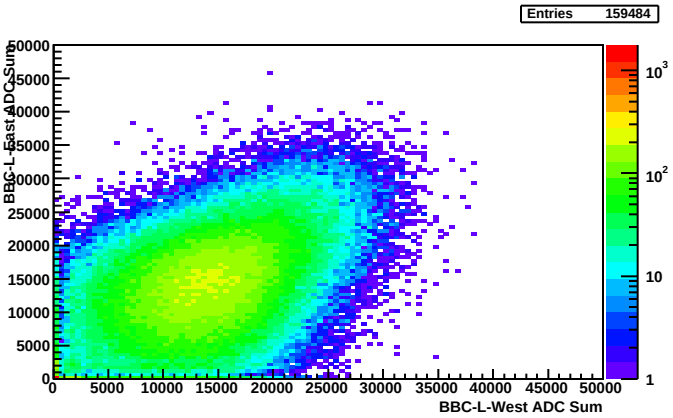

Entries 159484
BBC-L-West ADC Sum
BBC-S-West ADC Sum

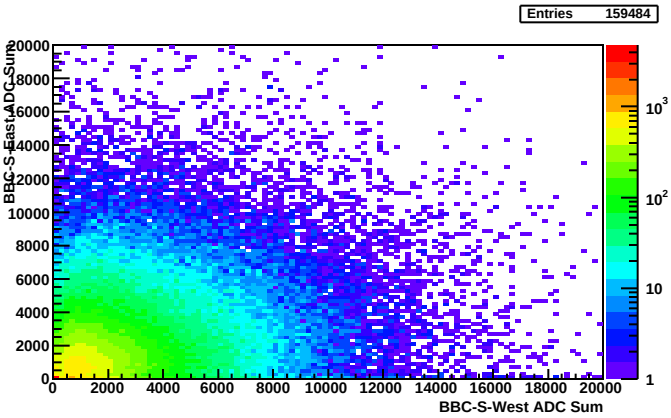

Entries 159484
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

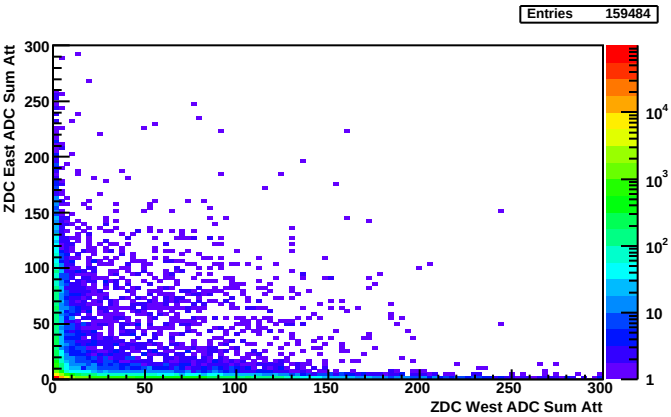

Entries 159484
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

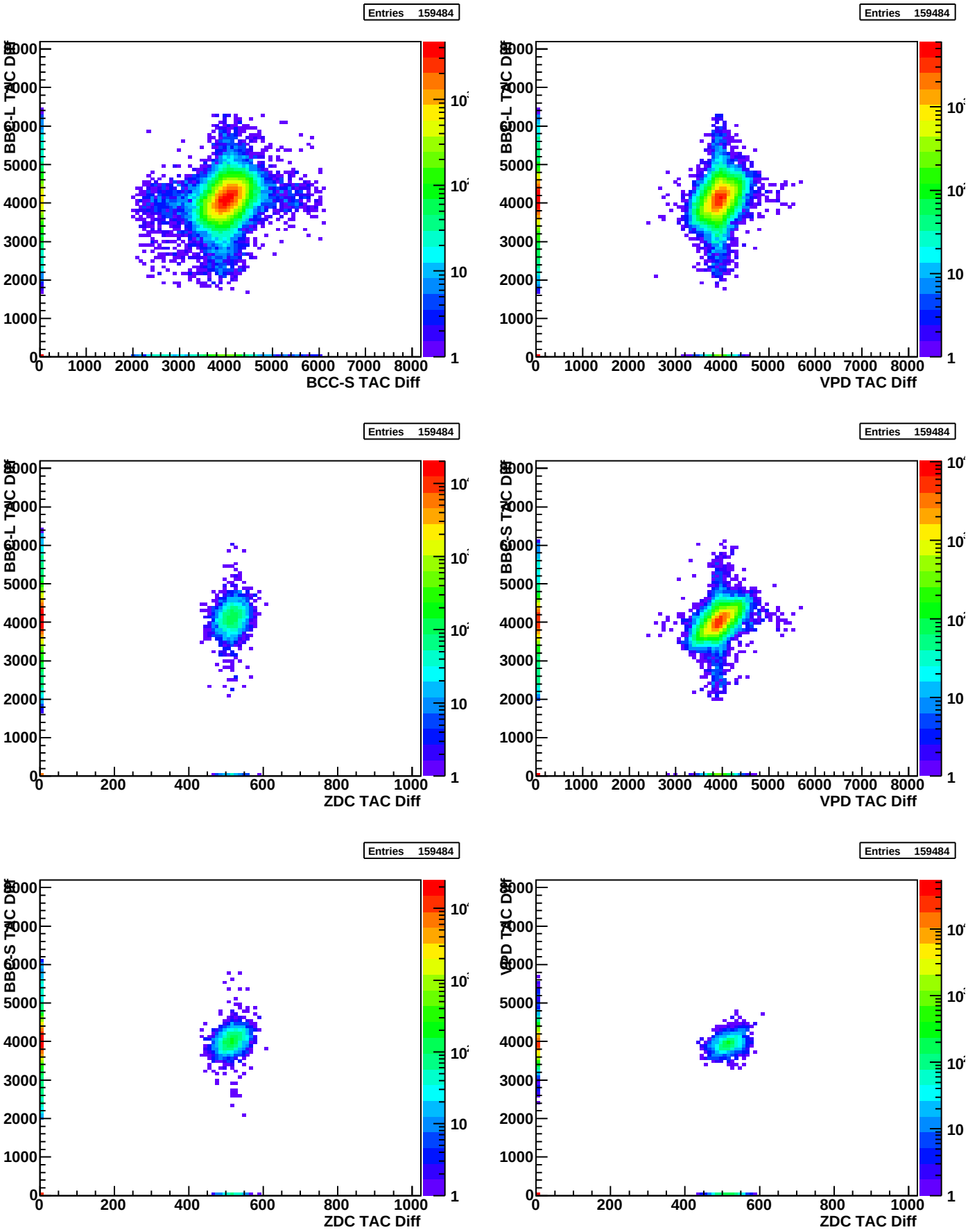

Entries 159484
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

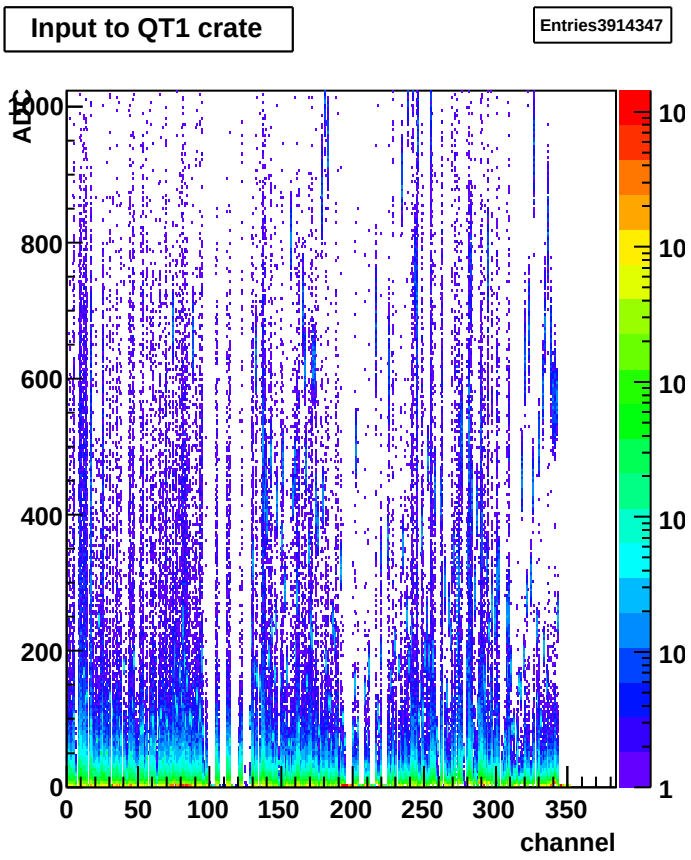

Entries 159484
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

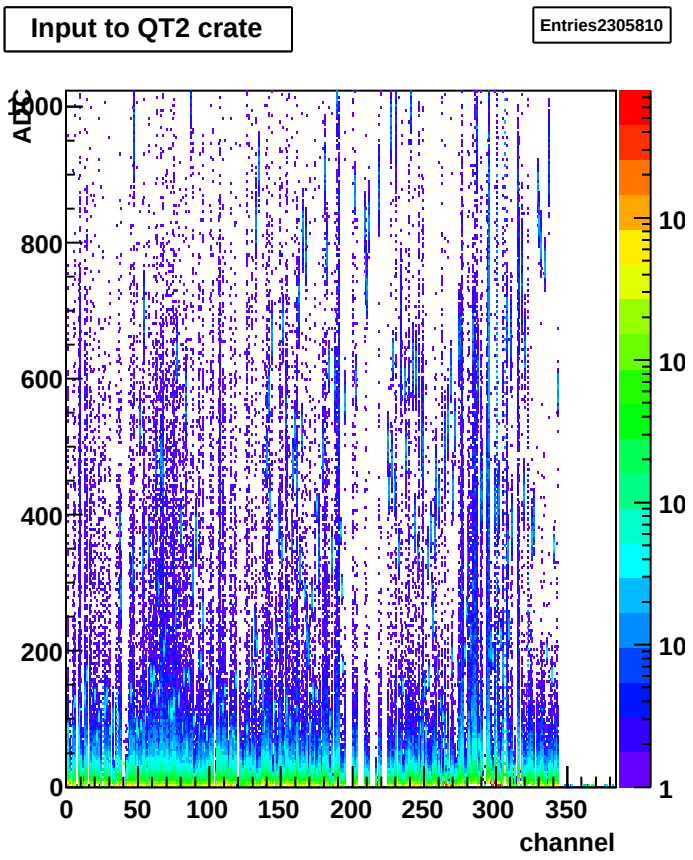

Entries 159484
BBC-L-East ADC Sum
BBC-L-West ADC Sum

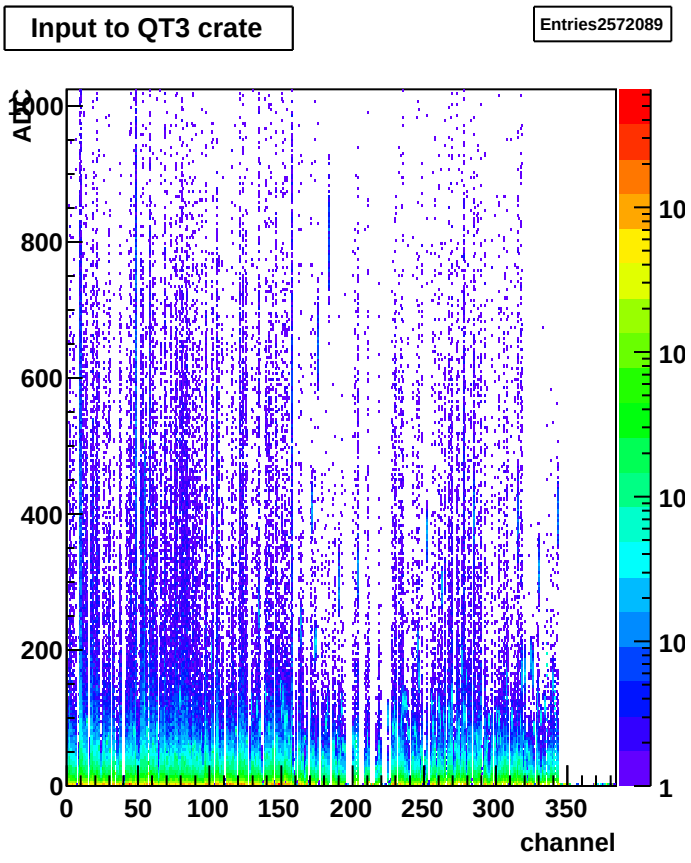

Entries 159484
BBC-S-East ADC Sum
BBC-S-West ADC Sum

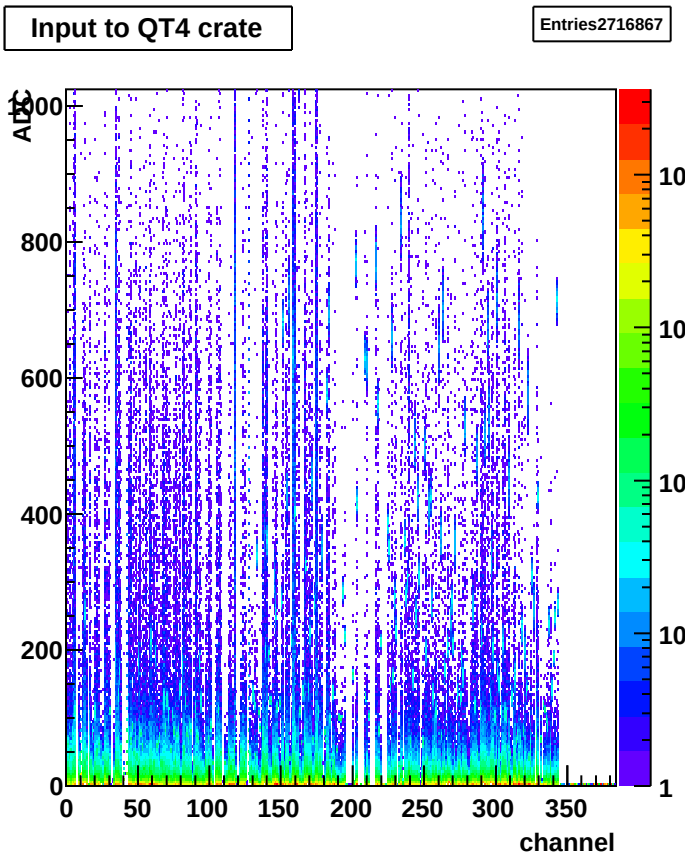

Entries 159484
ZDC East ADC Sum Att
ZDC West ADC Sum Att

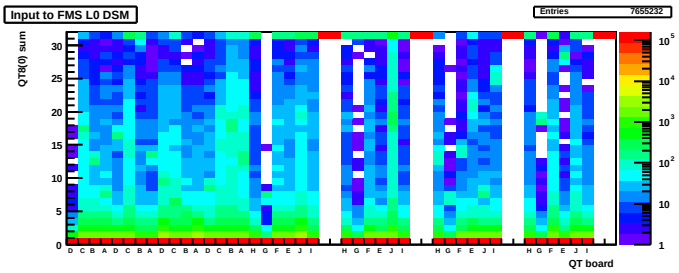

Entries 159484
BBC-L TAC Diff
BCC-S TAC Diff
Entries 159484
BBC-L TAC Diff
VPD TAC Diff
Entries 159484
BBC-L TAC Diff
ZDC TAC Diff
Entries 159484
BBC-S TAC Diff
VPD TAC Diff
Entries 159484
BBC-S TAC Diff
ZDC TAC Diff
Entries 159484
VPD TAC Diff
ZDC TAC Diff

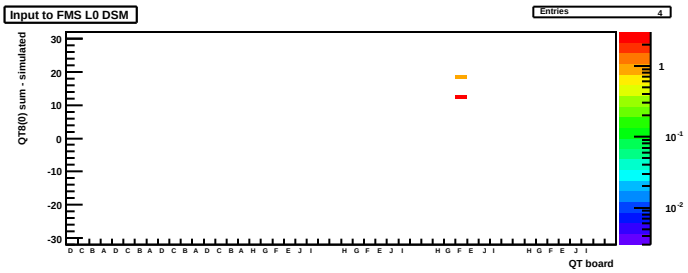

Input to QT1 crate
Entries3914347
ADC
channel

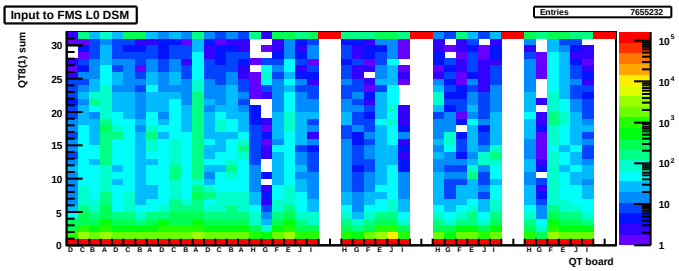

Input to QT2 crate
Entries2305810
ADC
channel

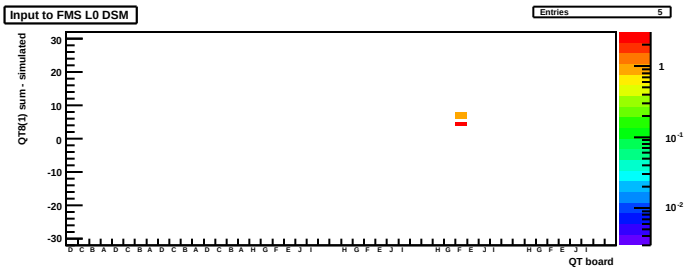

Input to QT3 crate
Entries2572089
ADC
channel

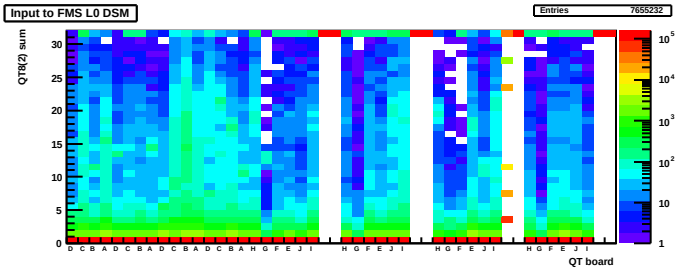

Input to QT4 crate
Entries2716867
ADC
channel

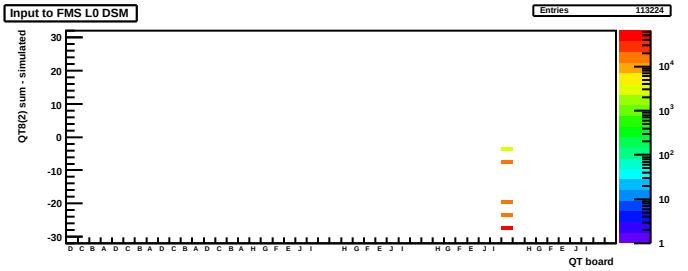

Input to FMS L0 DSM
Entries 7655232
QT8(0) sum
QT board

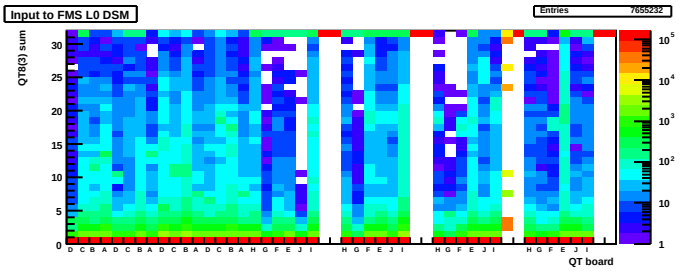

Input to FMS L0 DSM
Entries 4
QT8(0) sum - simulated
QT board

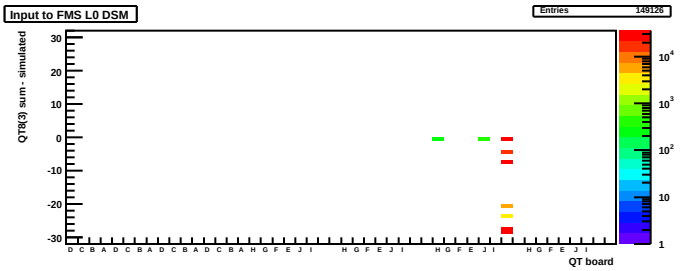

Input to FMS L0 DSM
Entries 7655232
QT8(1) sum
QT board

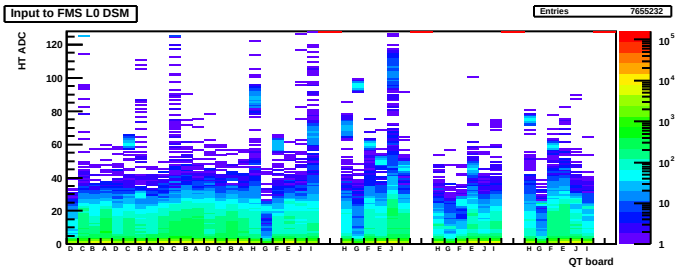

Input to FMS L0 DSM
Entries 5
QT8(1) sum - simulated
QT board

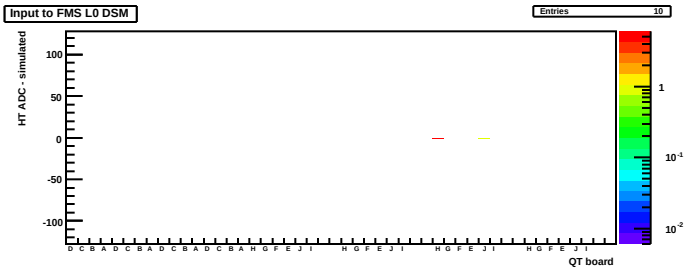

Input to FMS L0 DSM
Entries 7655232
QT8(2) sum
QT board

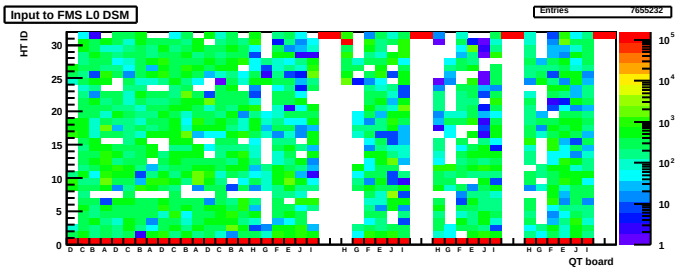

Input to FMS L0 DSM
Entries 113224
QT8(2) sum - simulated
QT board

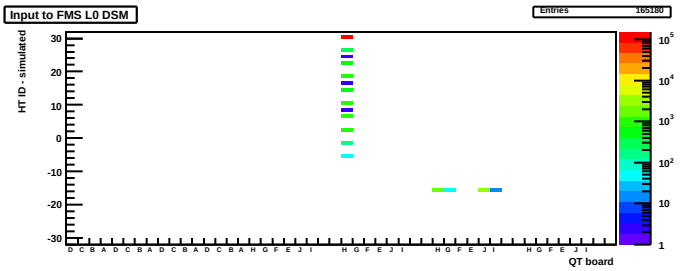

Input to FMS L0 DSM
Entries 7655232
QT8(3) sum
QT board

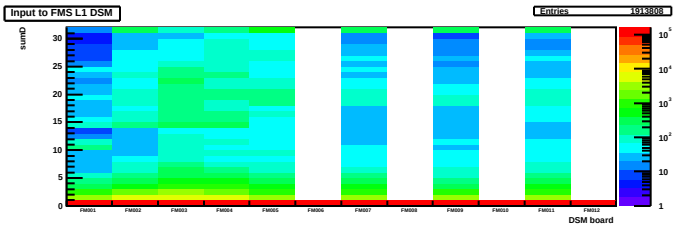

Input to FMS L0 DSM
Entries 149126
QT8(3) sum - simulated
QT board

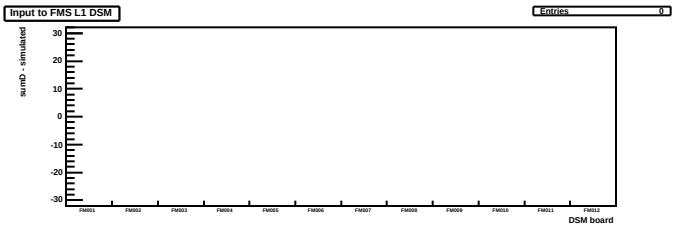

Input to FMS L0 DSM
Entries 7655232
HT ADC
QT board

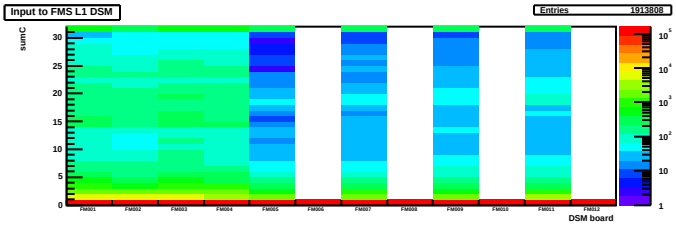

Input to FMS L0 DSM
Entries 10
HT ADC - simulated
QT board

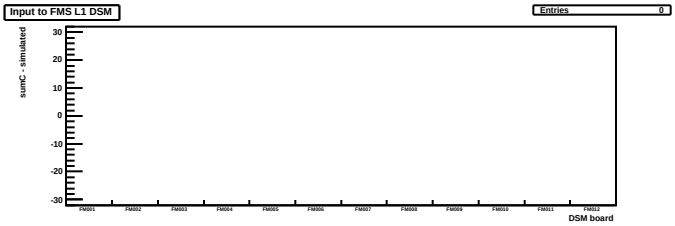

Input to FMS L0 DSM
Entries 7655232
HT ID
QT board

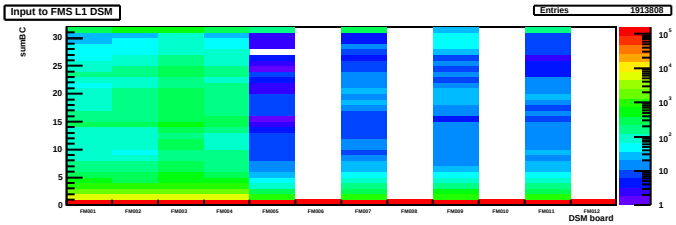

Input to FMS L0 DSM
Entries 165180
HT ID - simulated
QT board

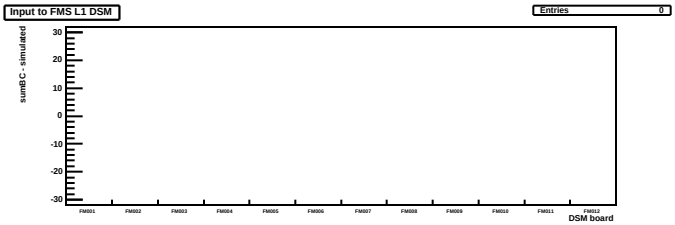

Input to FMS L1 DSM
Entries 1913808
sumD
DSM board

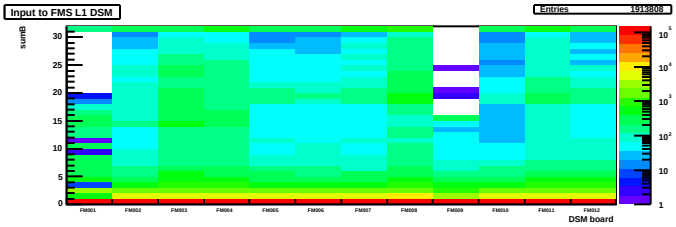

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

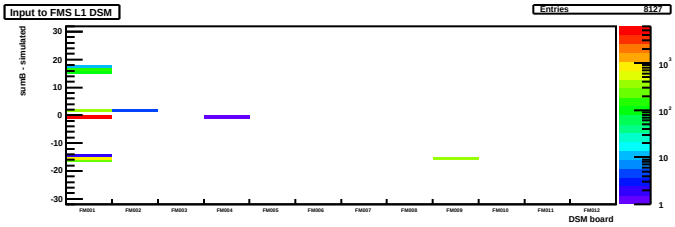

Input to FMS L1 DSM
Entries 1913808
sumC
DSM board

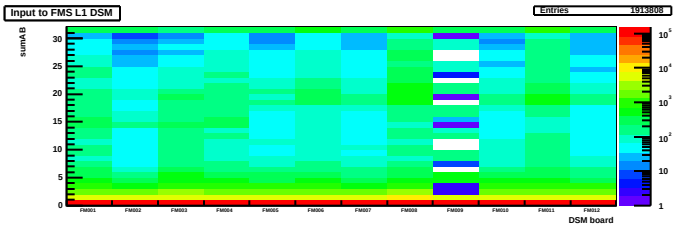

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

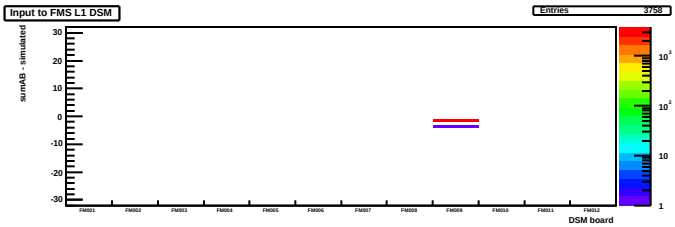

Input to FMS L1 DSM
Entries 1913808
sumBC
DSM board

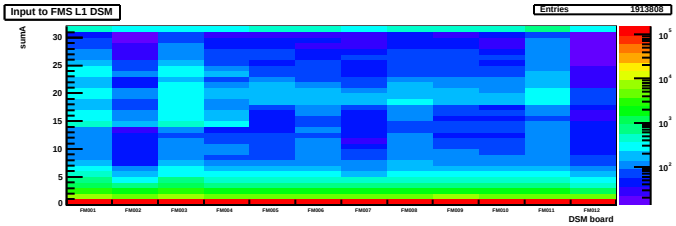

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

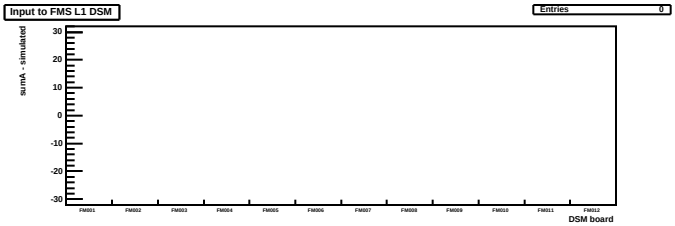

Input to FMS L1 DSM
Entries 1913808
sumB
DSM board

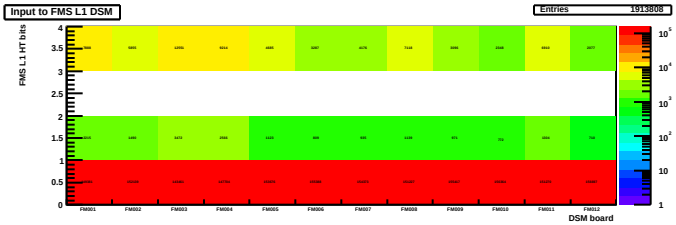

Input to FMS L1 DSM
Entries 8127
sumB - simulated
DSM board

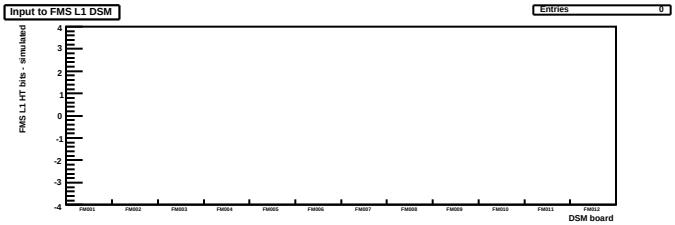

Input to FMS L1 DSM
Entries 1913808
sumAB
DSM board

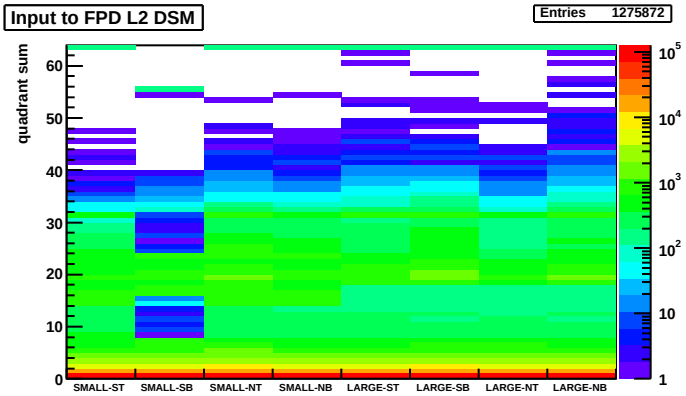

Input to FMS L1 DSM
Entries 3758
sumAB - simulated
DSM board

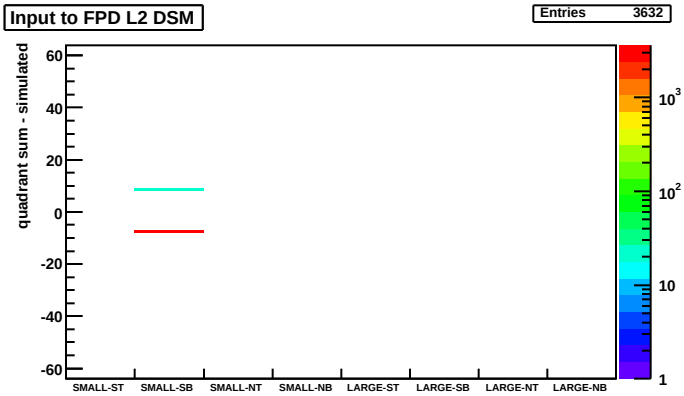

Input to FMS L1 DSM
Entries 1913808
sumA
DSM board

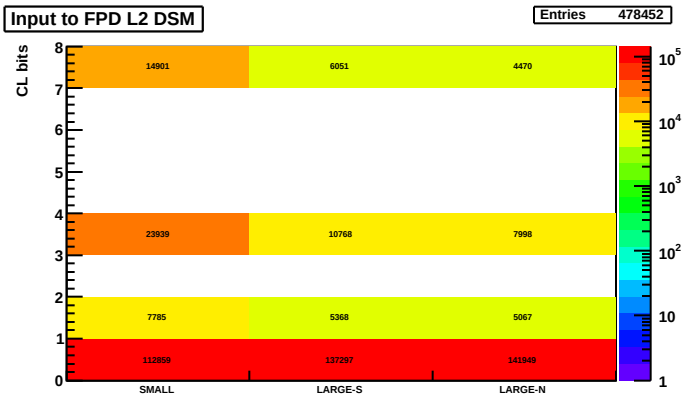

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

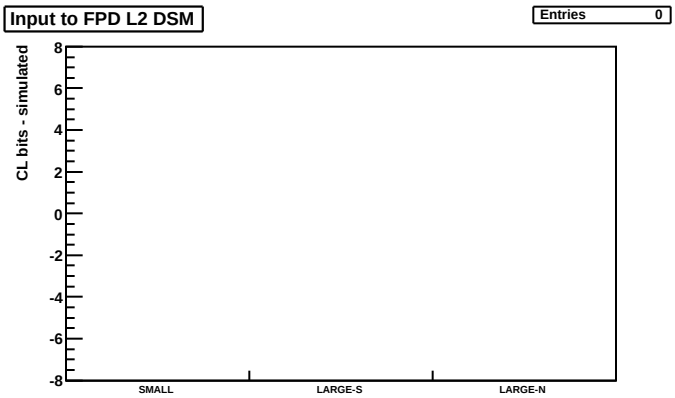

Input to FMS L1 DSM
Entries 1913808
FMS L1 HT bits
DSM board

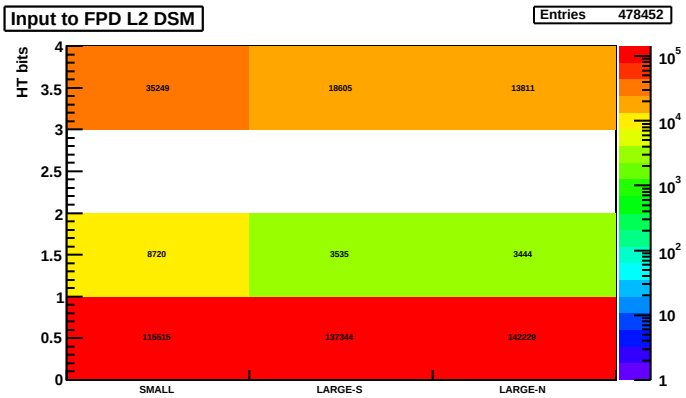

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

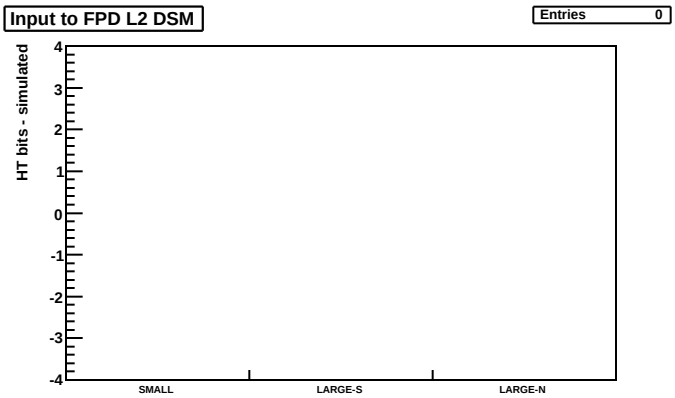

Input to FPD L2 DSM
Entries 1275872
quadrant sum
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

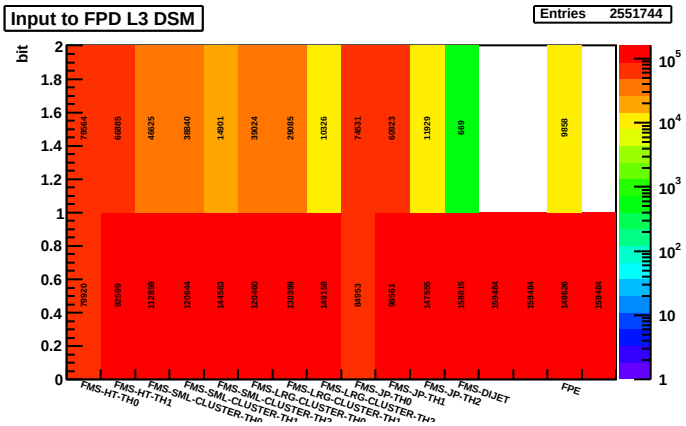

Input to FPD L2 DSM
Entries 3632
quadrant sum - simulated
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

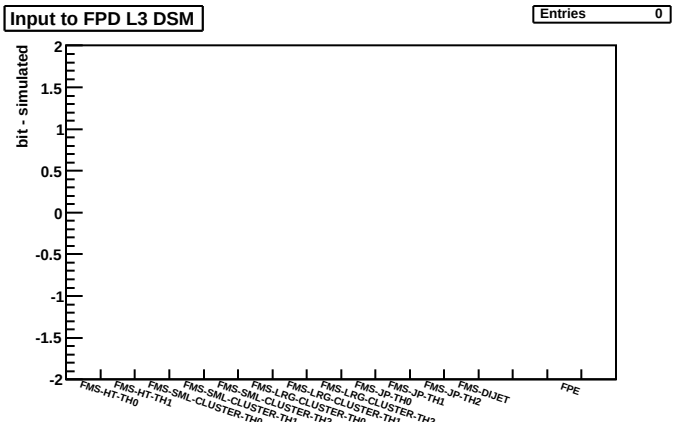

Input to FPD L2 DSM
Entries 478452
CL bits
14901 6051 4470
23939 10768 7998
7785 5368 5067
112859 137297 141949
SMALL LARGE-S LARGE-N

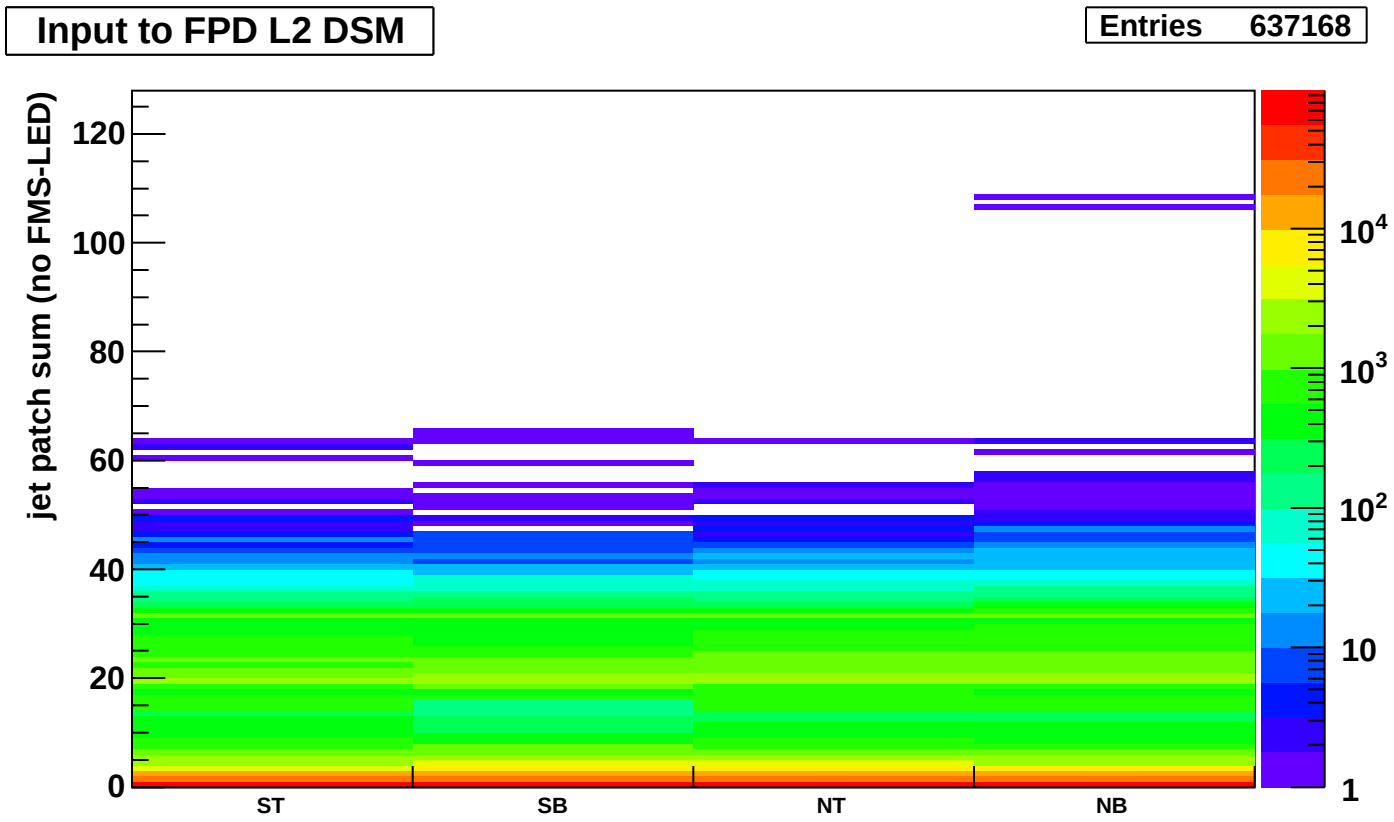

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL LARGE-S LARGE-N

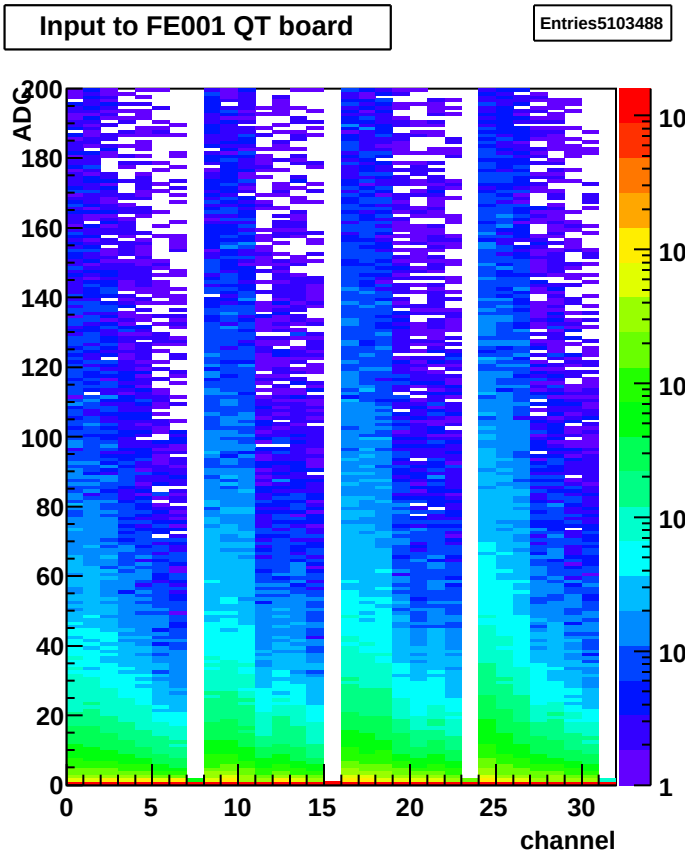

Input to FPD L2 DSM
Entries 478452
HT bits
35249 18605 13811
8720 3535 3444
115515 137344 142229
SMALL LARGE-S LARGE-N

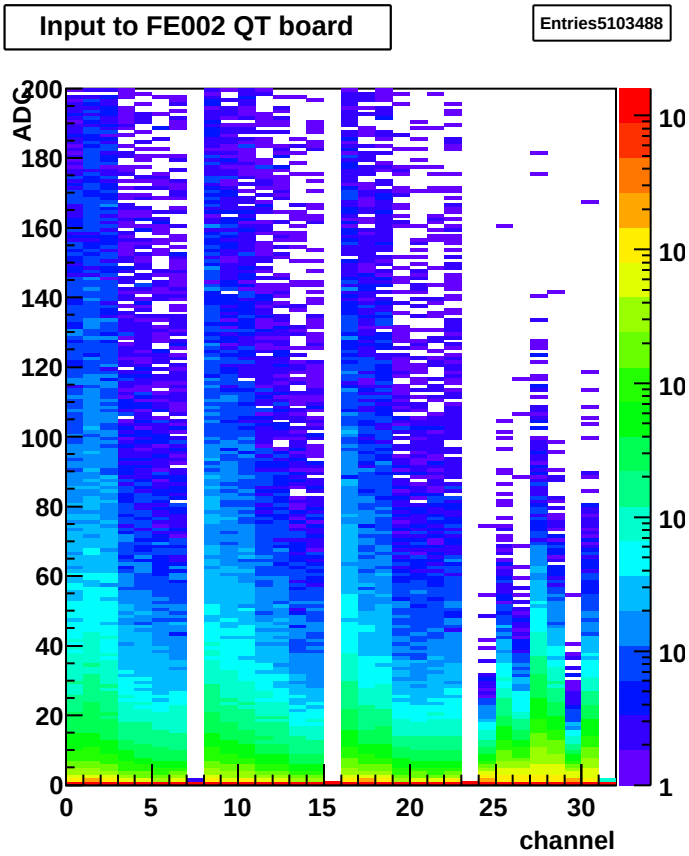

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL LARGE-S LARGE-N

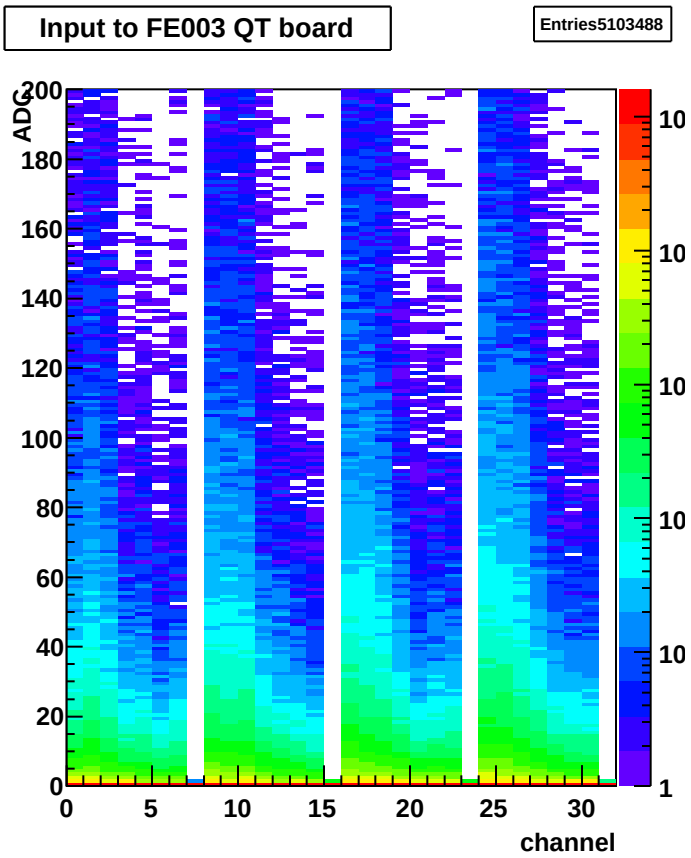

Input to FPD L3 DSM
Entries 2551744
bit
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

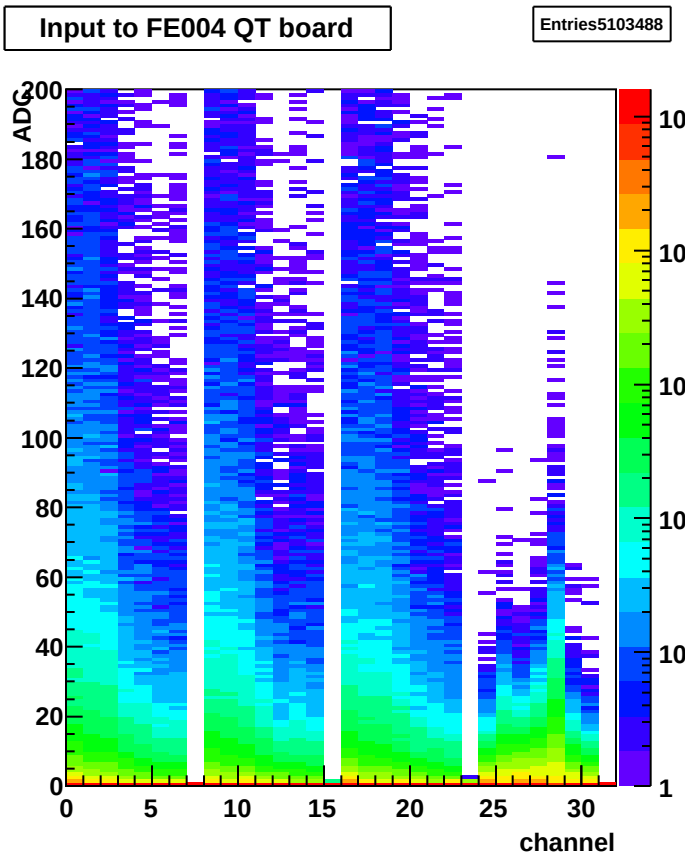

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

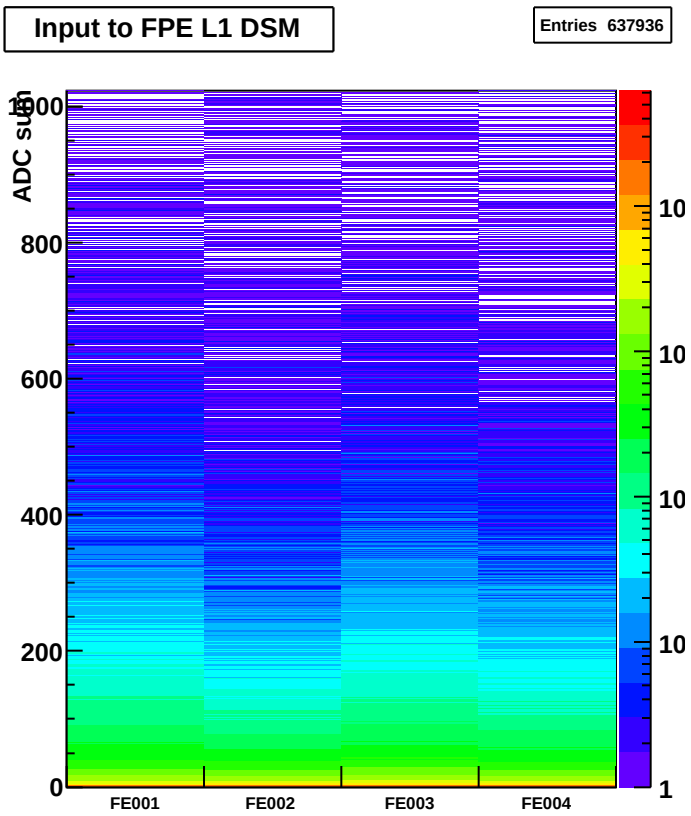

Input to FPD L2 DSM
Entries 637168
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4

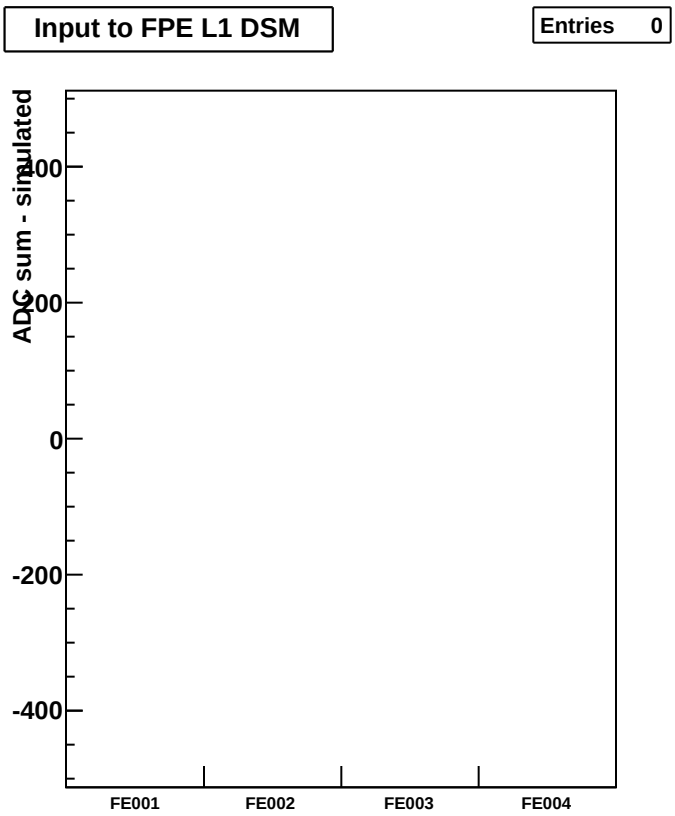

Input to FE001 QT board
Entries5103488
ADC
channel

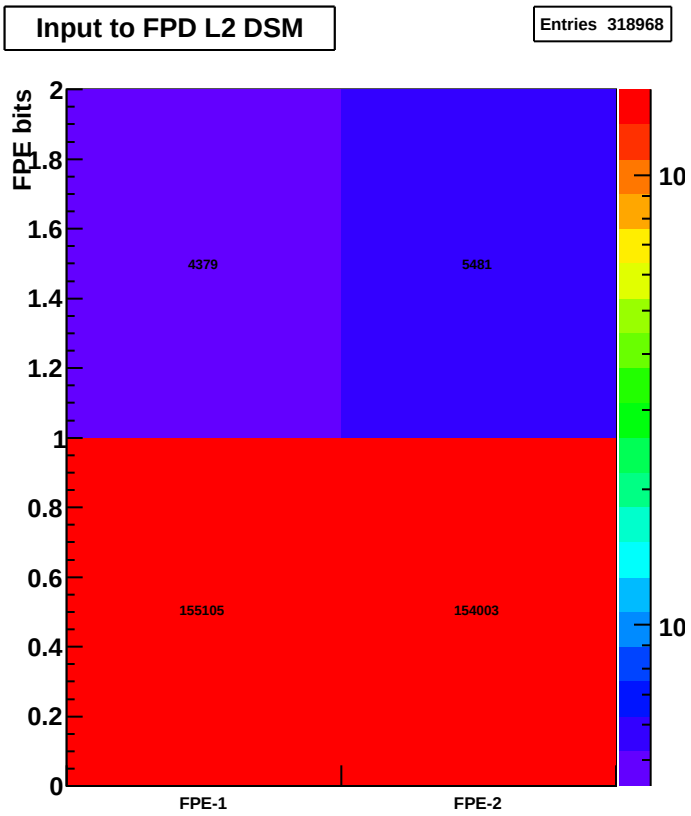

Input to FE002 QT board
Entries5103488
ADC
channel

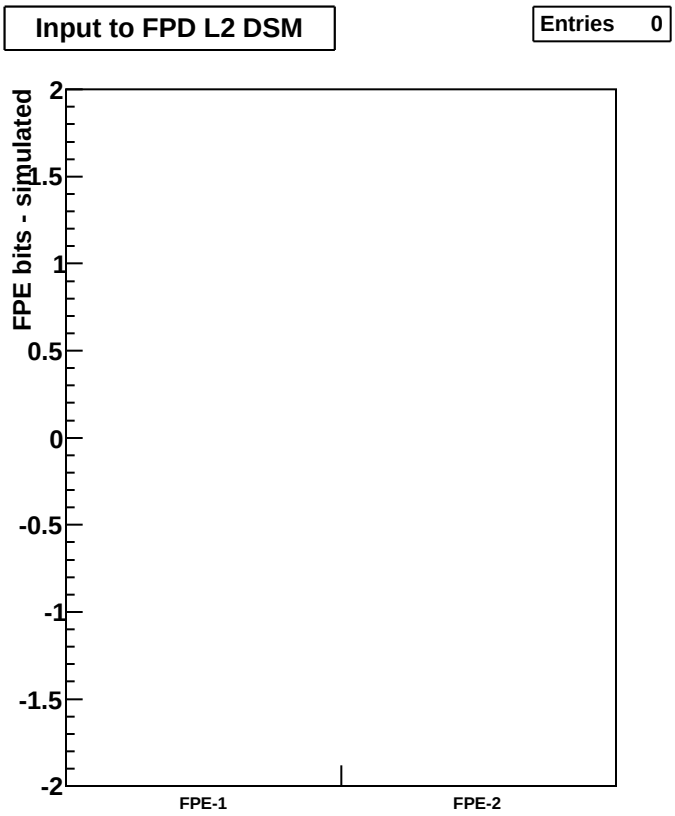

Input to FE003 QT board
Entries5103488
ADC
channel


Input to FE004 QT board
Entries5103488
ADC
channel


Input to FPE L1 DSM
Entries 637936
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 318968
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
4379
5481
155105
154003
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