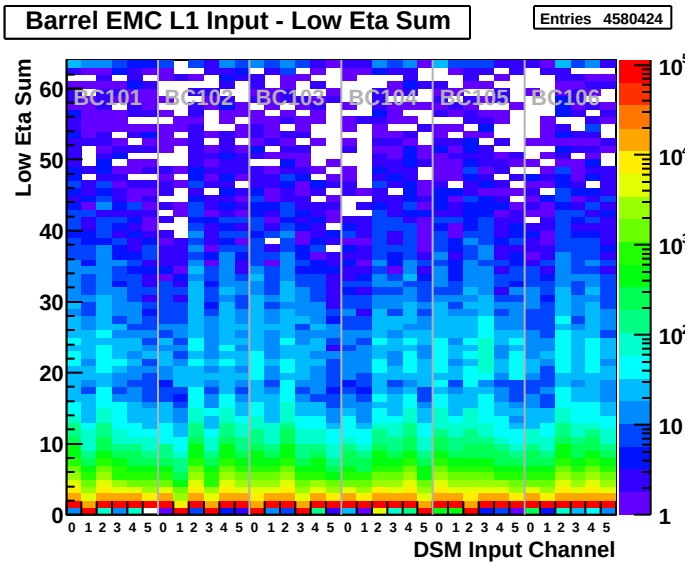
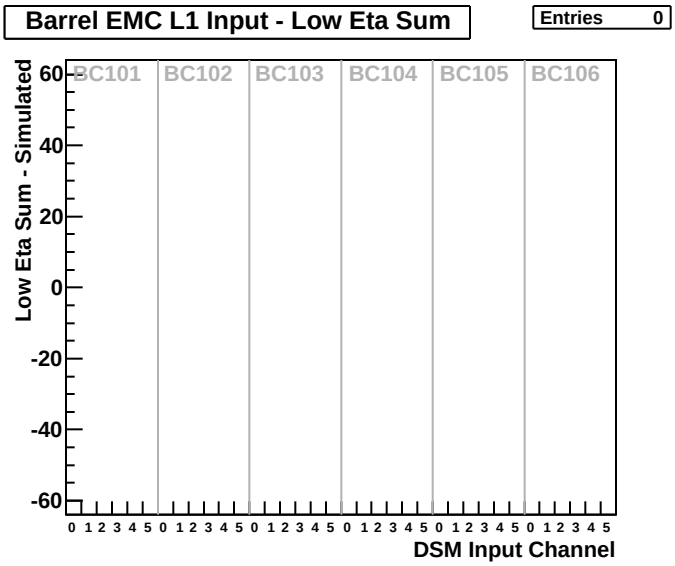
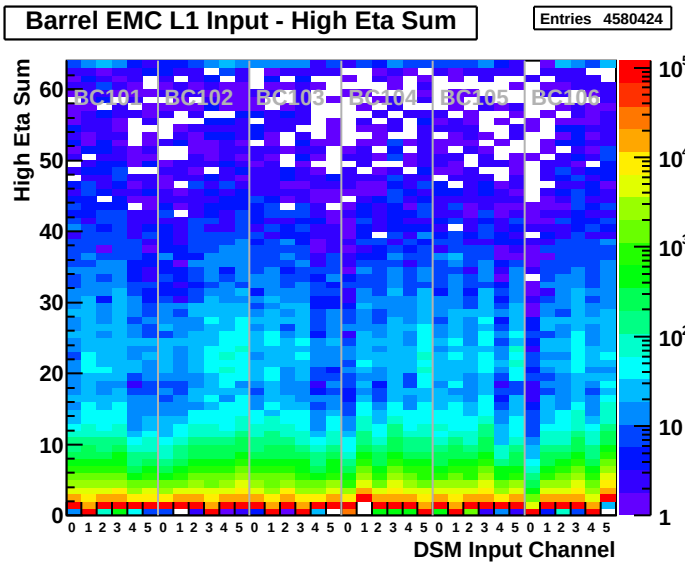
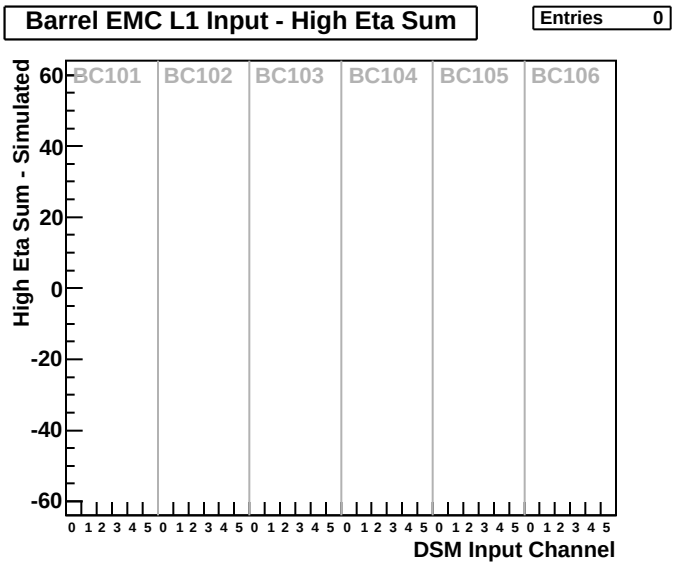
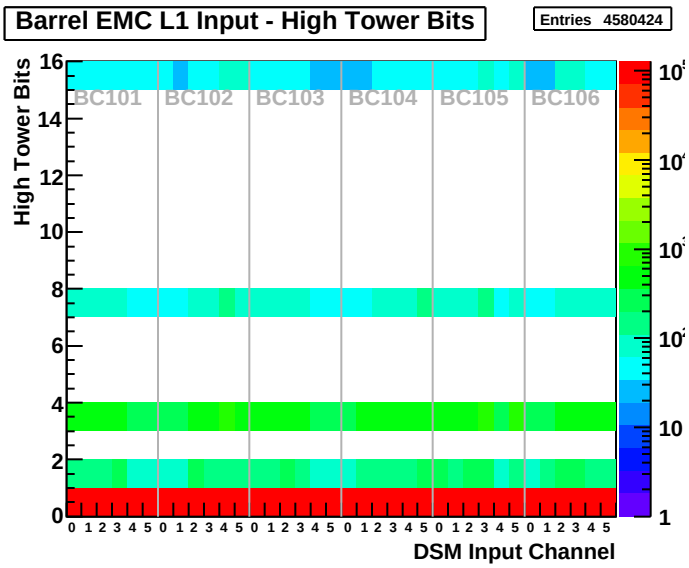
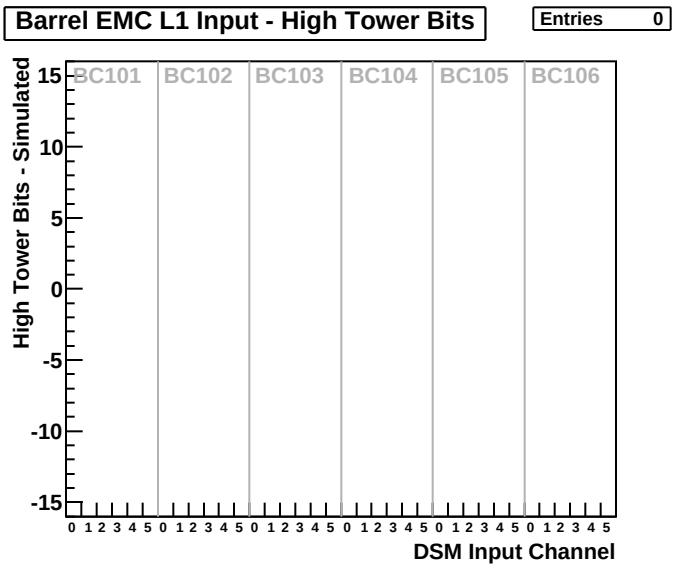

Barrel EMC L1 Input - Low Eta Sum
Entries 4580424
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

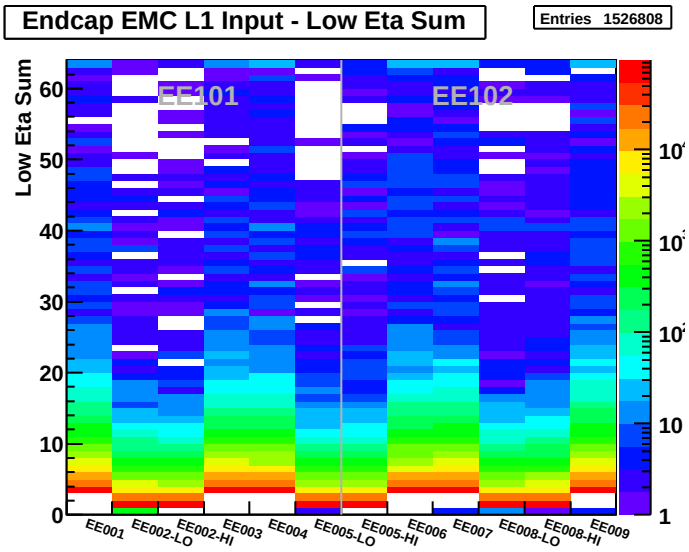

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

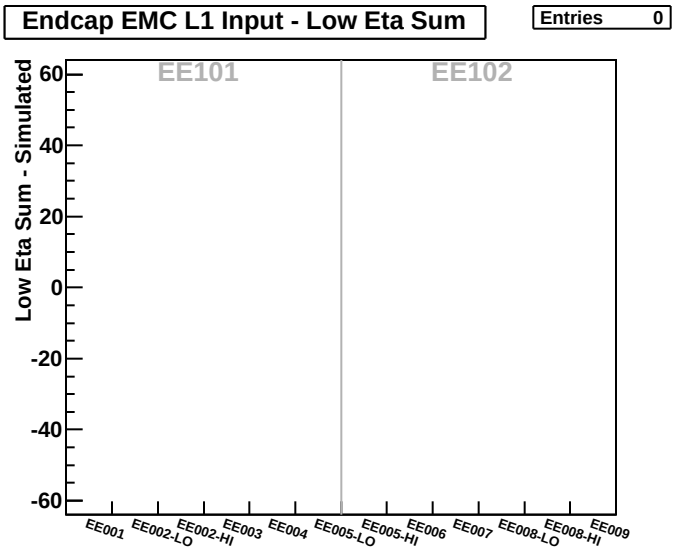

Barrel EMC L1 Input - High Eta Sum
Entries 4580424
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

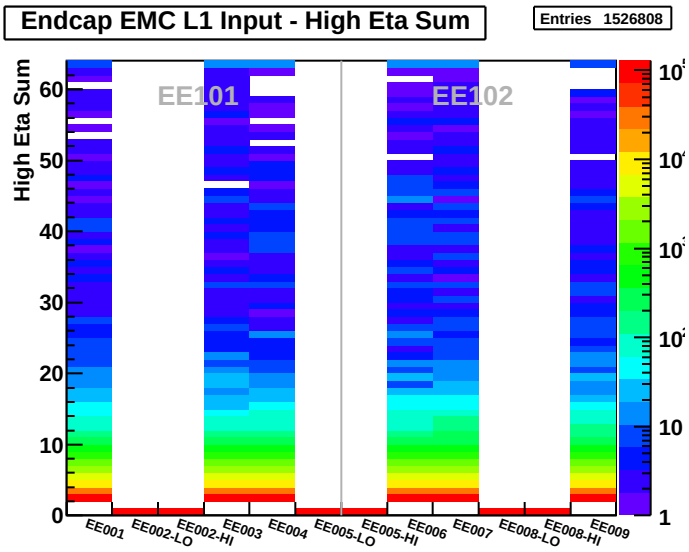

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

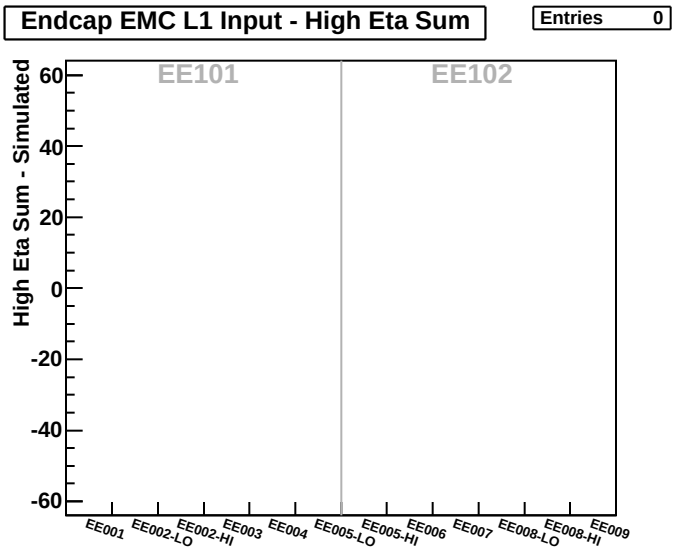

Barrel EMC L1 Input - High Tower Bits
Entries 4580424
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

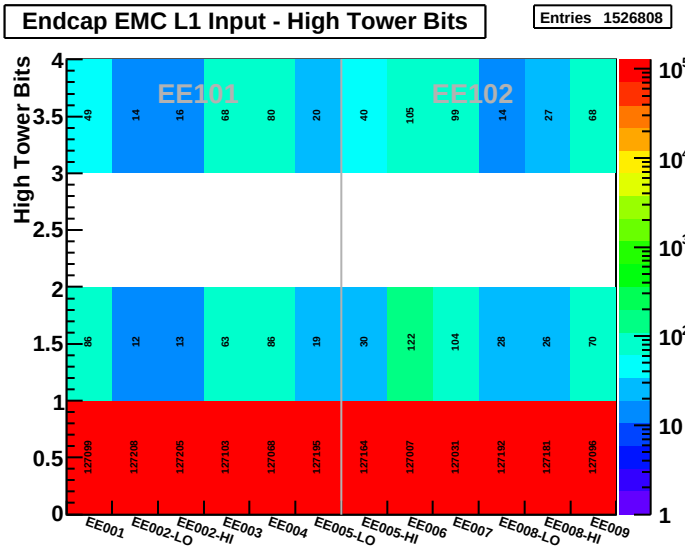

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

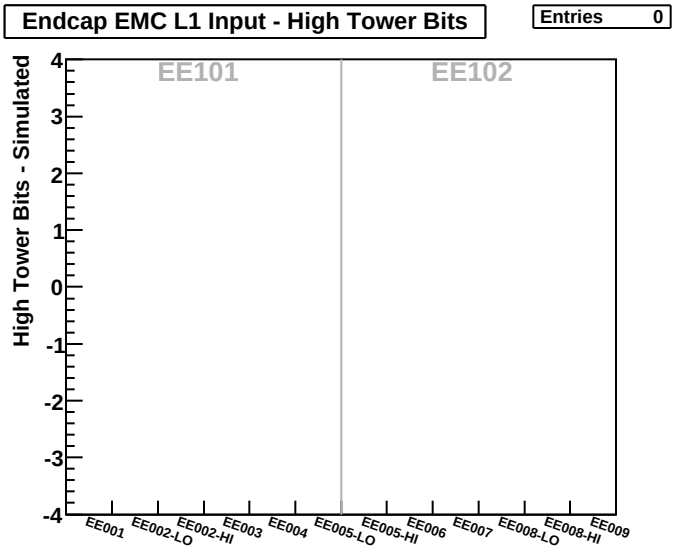

Endcap EMC L1 Input - Low Eta Sum
Entries 1526808
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

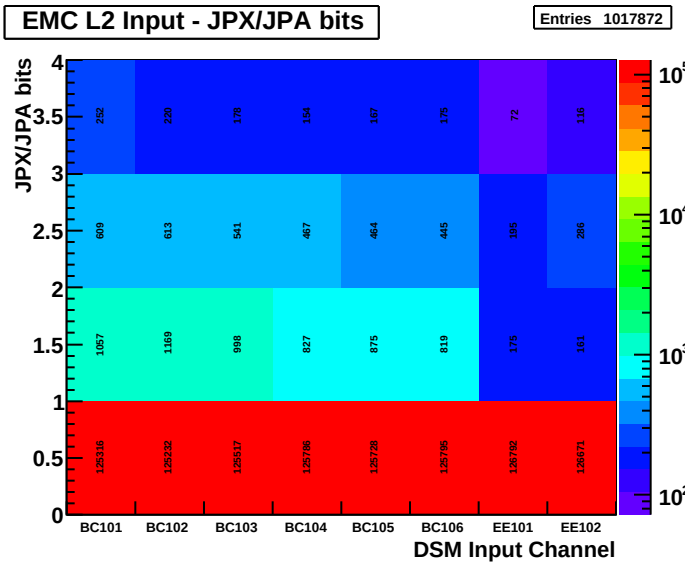

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

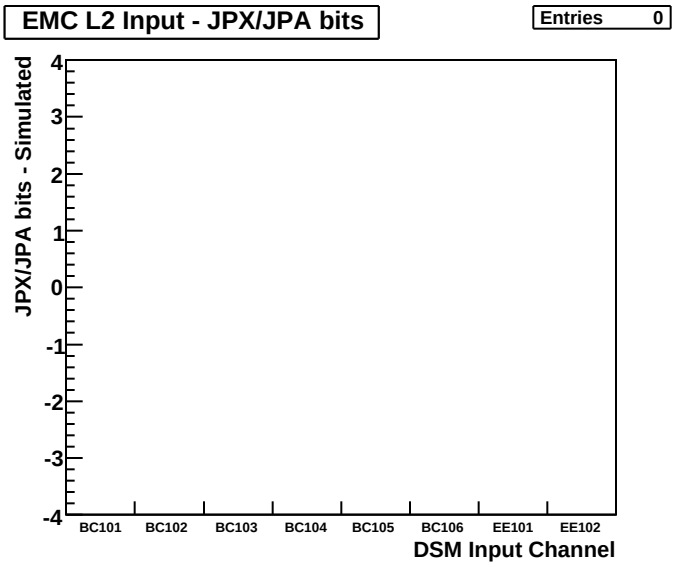

Endcap EMC L1 Input - High Eta Sum
Entries 1526808
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

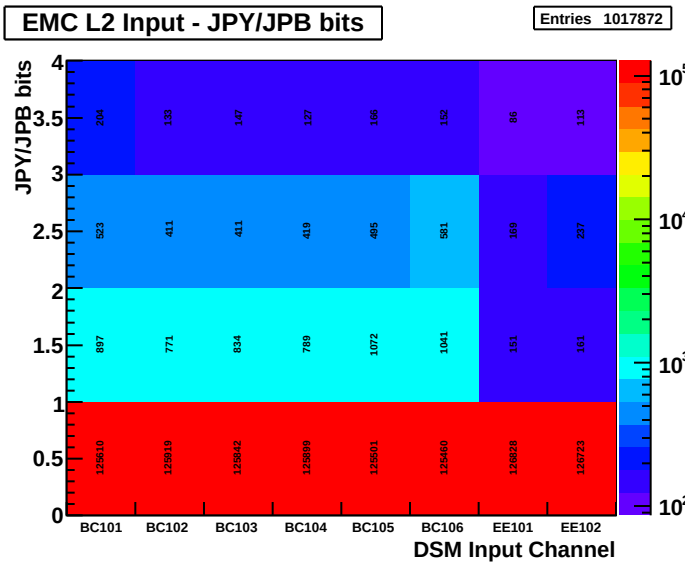

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

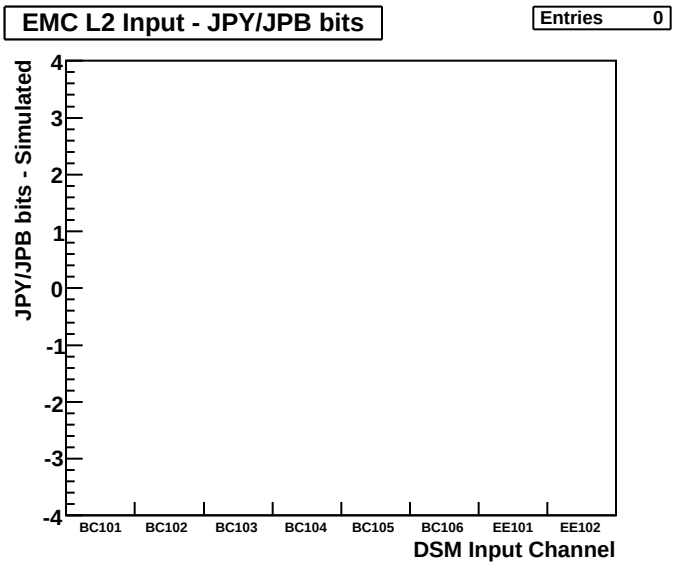

Endcap EMC L1 Input - High Tower Bits
Entries 1526808
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

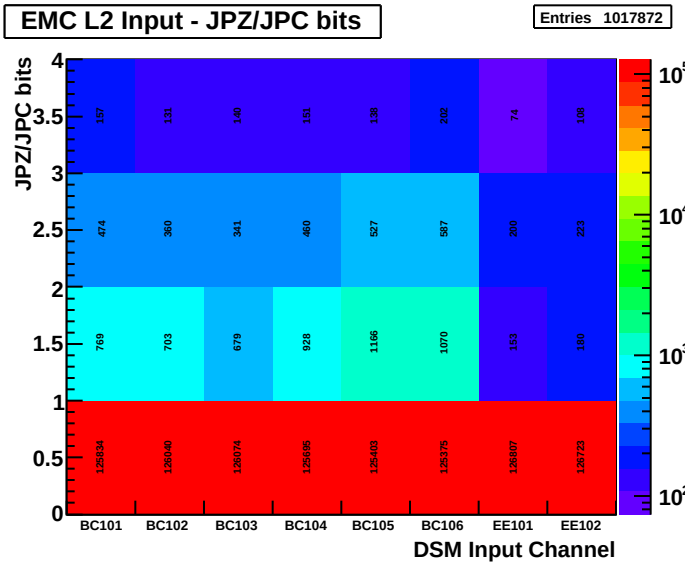

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

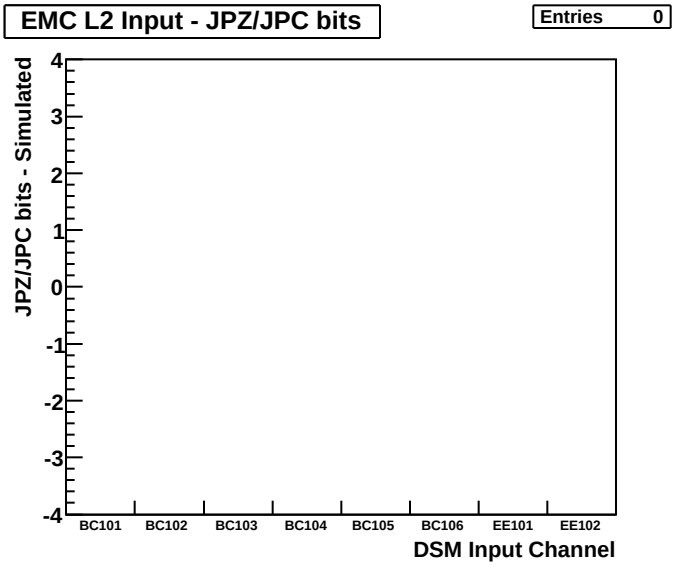

EMC L2 Input - JPX/JPA bits
Entries 1017872
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
252 220 178 154 167 175 72 116
609 613 541 467 464 445 195 286
1057 1169 998 827 875 819 175 161
125316 125222 125517 125786 125728 125795 126792 126671

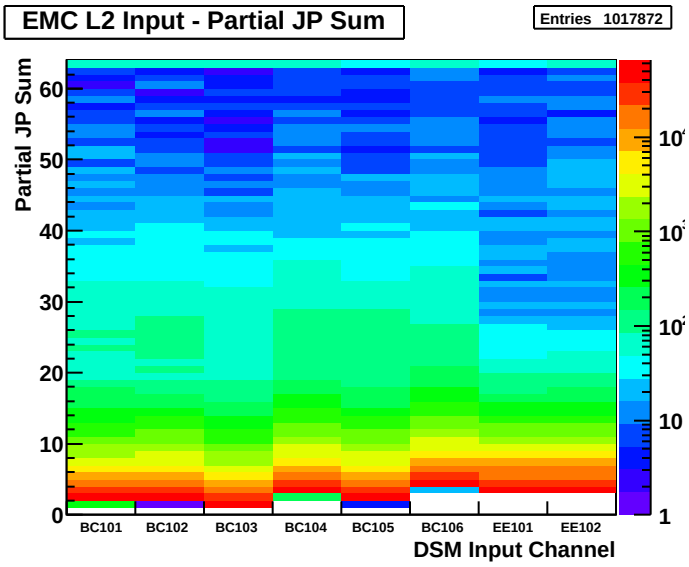

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

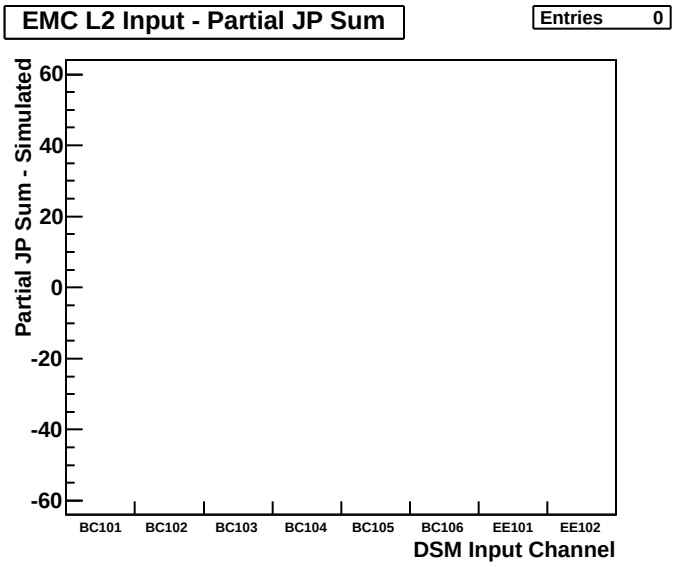

EMC L2 Input - JPY/JPB bits
Entries 1017872
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
204 133 147 127 166 152 86 113
523 411 411 419 495 581 169 237
897 771 834 789 1072 1041 151 161
125610 125919 125842 125899 125591 125460 126828 126723

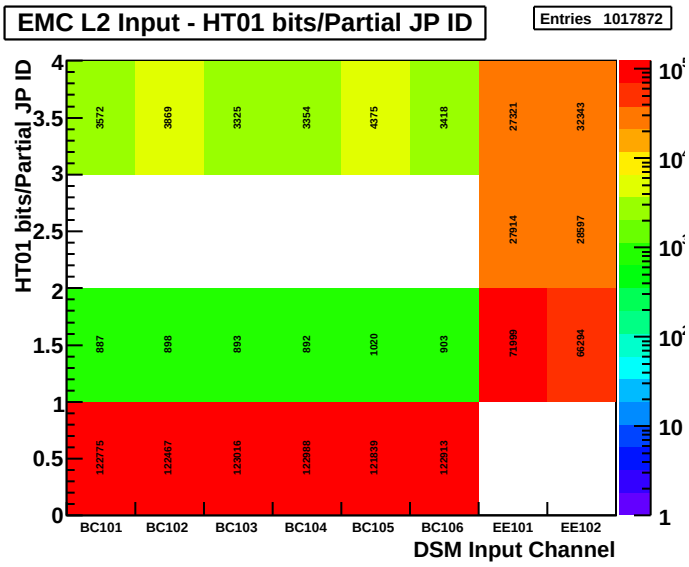

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

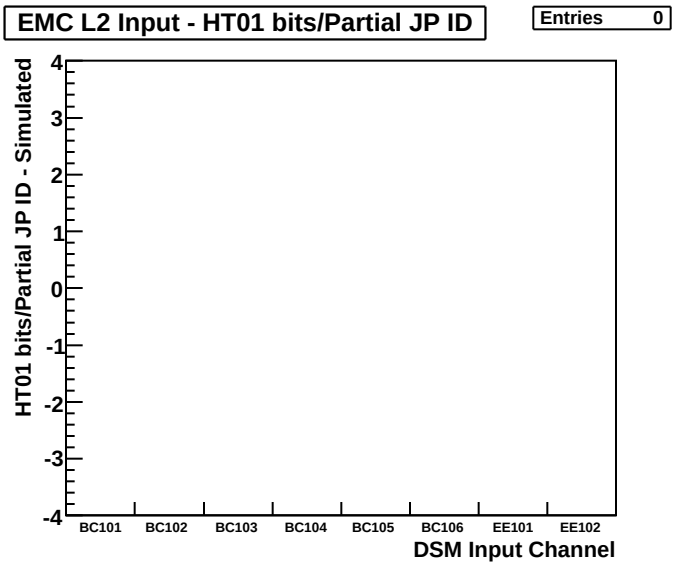

EMC L2 Input - JPZ/JPC bits
Entries 1017872
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
157 131 140 151 138 202 74 108
474 360 341 460 527 587 200 223
769 703 679 928 1166 1070 153 180
125834 126040 126074 125695 125403 125375 126807 126723

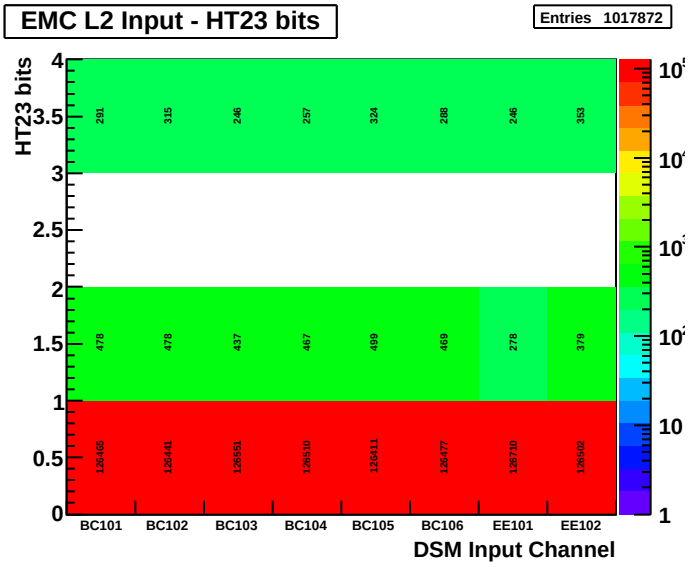

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

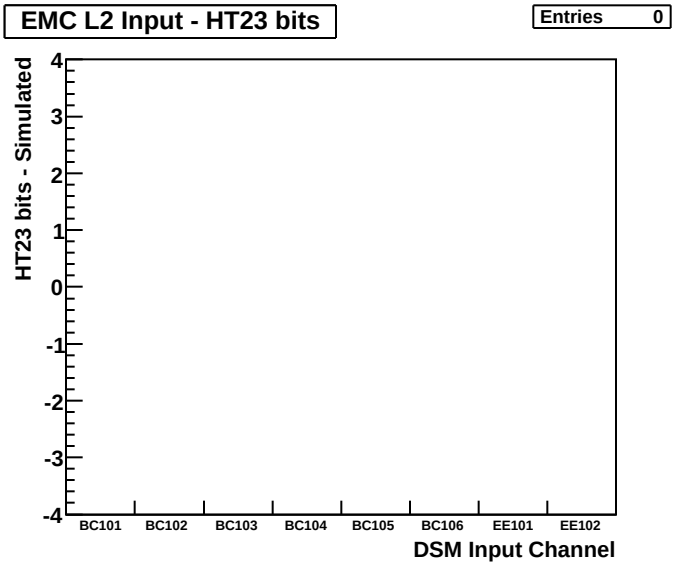

EMC L2 Input - Partial JP Sum
Entries 1017872
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

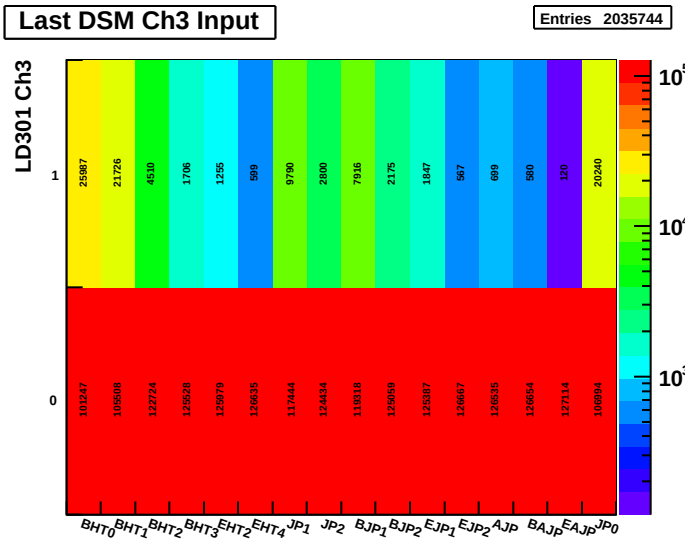

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

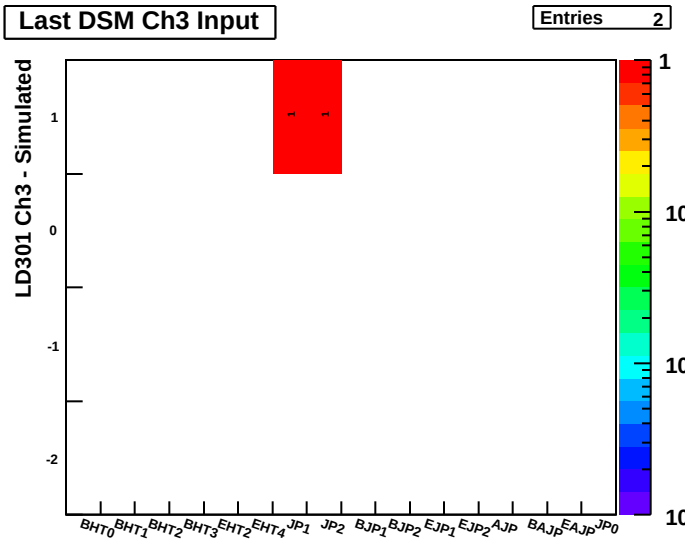

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1017872
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

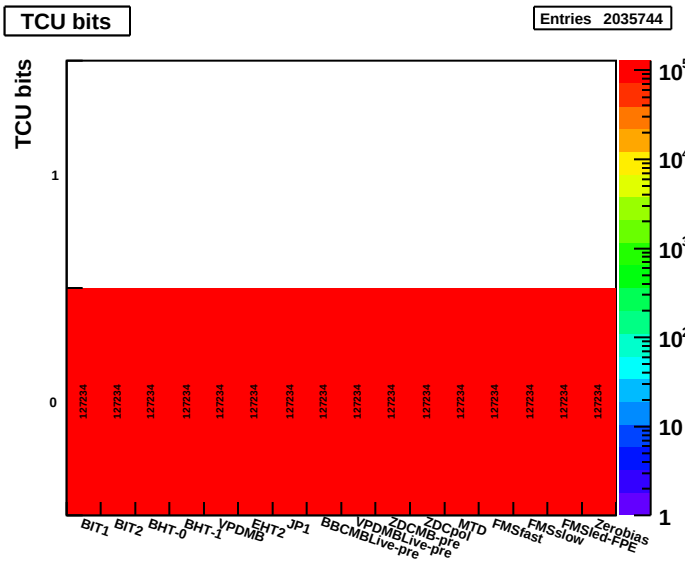

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

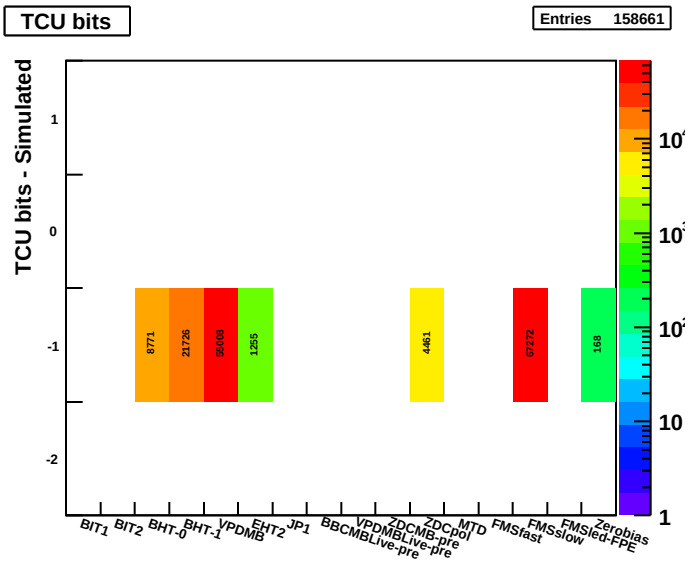

EMC L2 Input - HT23 bits
Entries 1017872
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

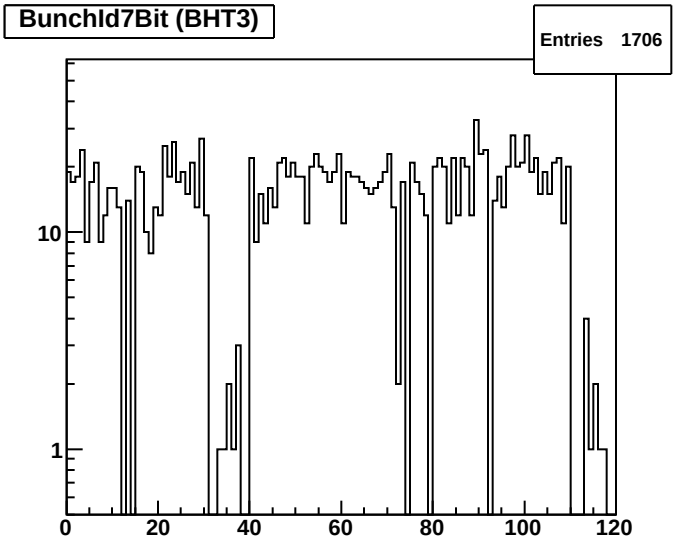

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

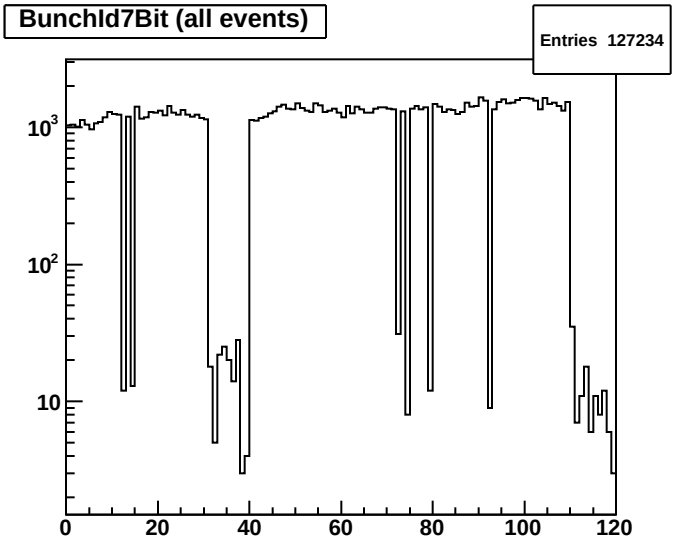

Last DSM Ch3 Input
Entries 2035744
LD301 Ch3
25987 21726 4510 1706 1255 599 9790 2800 7916 2175 1847 567 699 580 120 20240
101247 105508 122724 125528 125979 126635 117444 124434 118318 125059 125387 126667 126535 126554 127114 106994
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

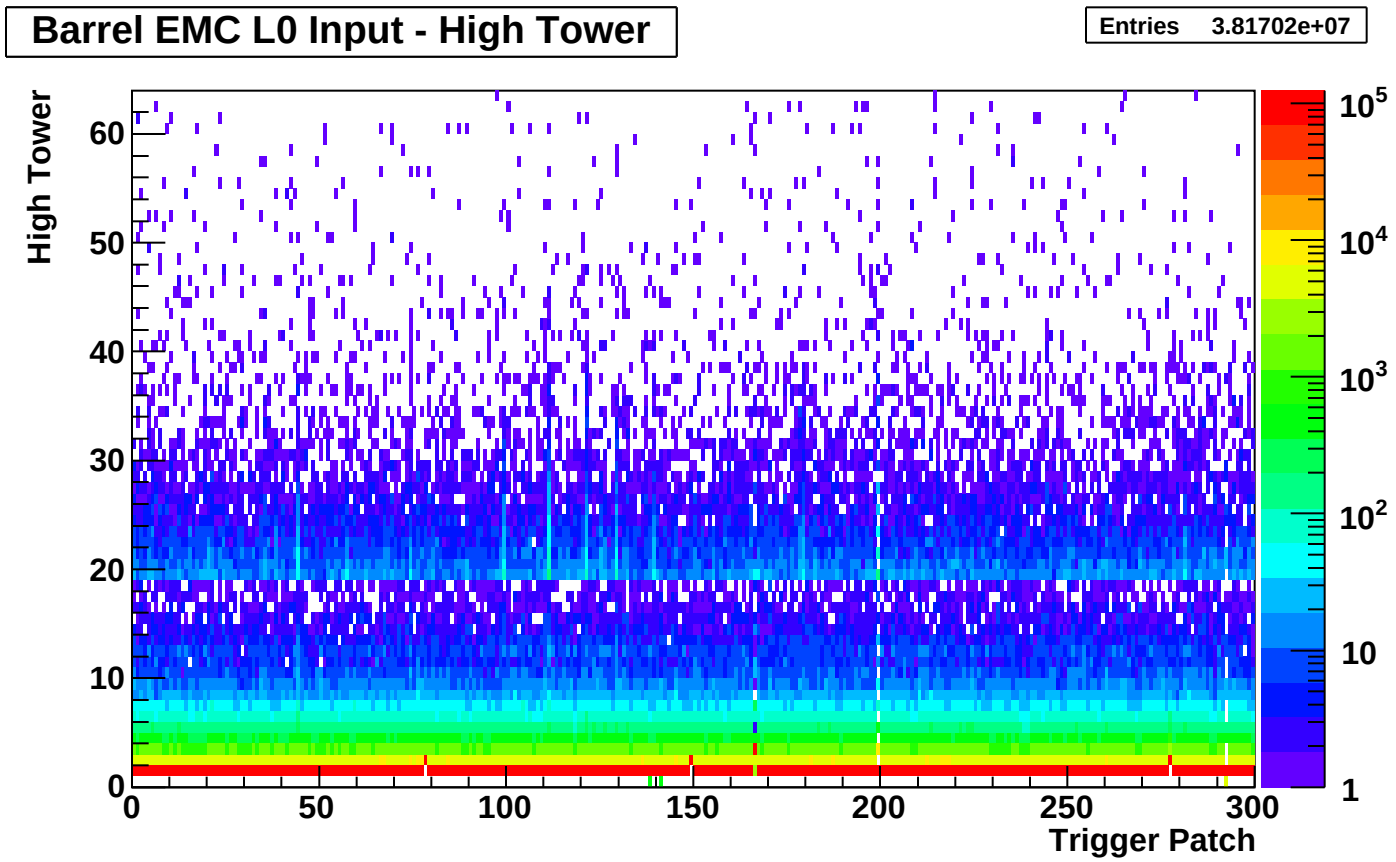

Last DSM Ch3 Input
Entries 2
LD301 Ch3 - Simulated
1 1
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

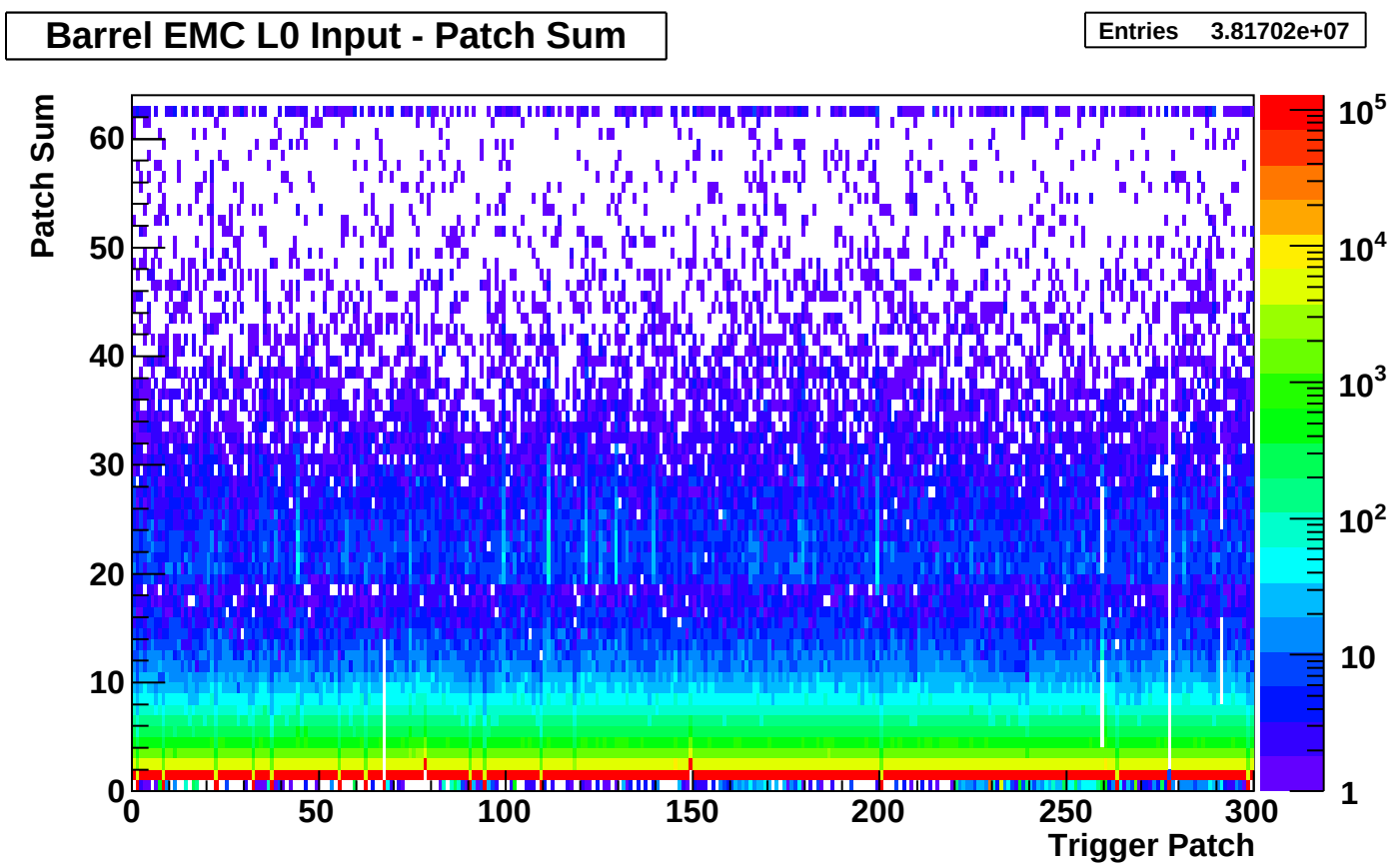

TCU bits
Entries 2035744
TCU bits
127234 127234 127234 127234 127234 127234 127234 127234 127234 127234 127234 127234 127234 127234 127234 127234
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

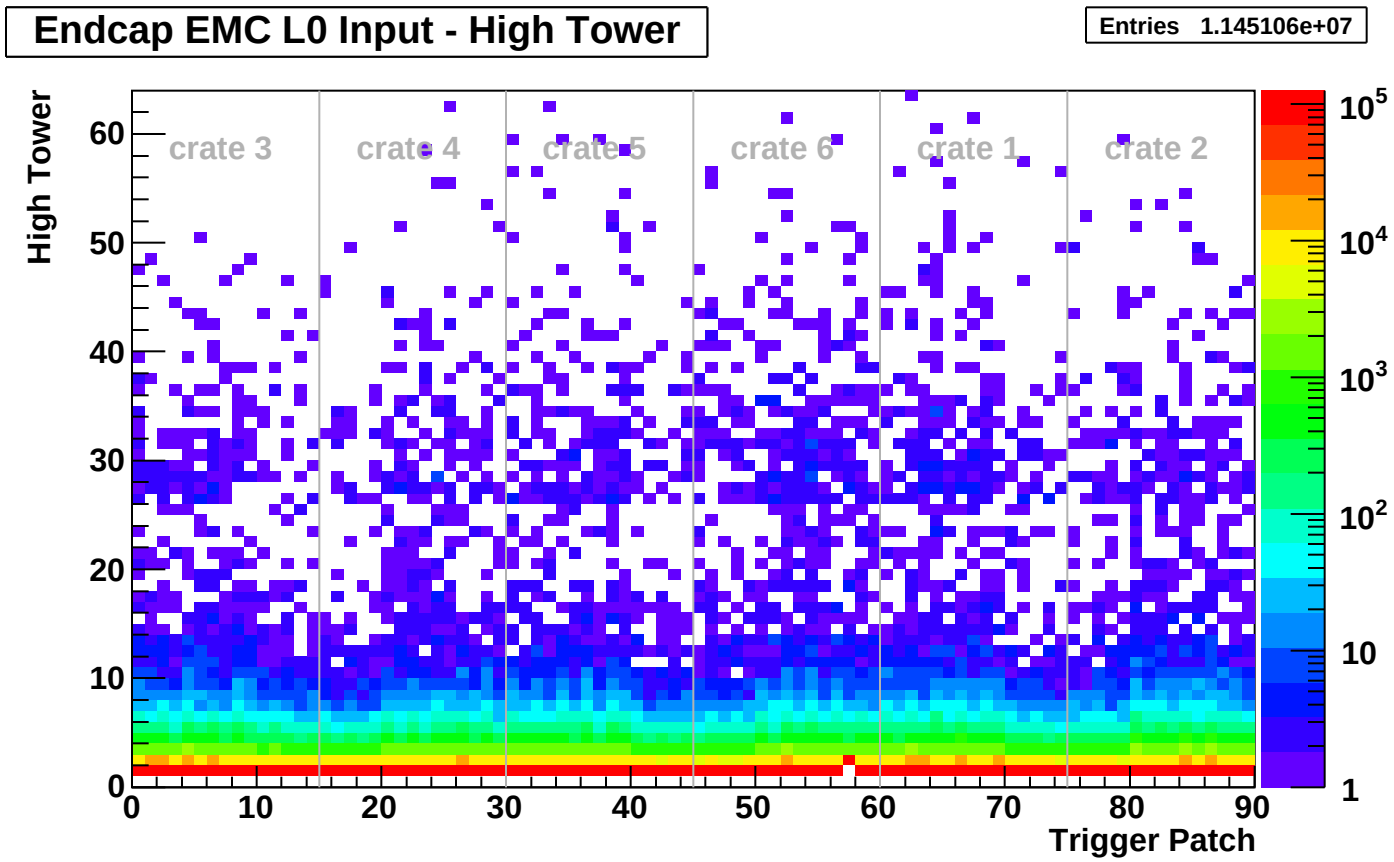

TCU bits
Entries 158661
TCU bits - Simulated
8771 21726 55008 1255 4461 67272 168
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

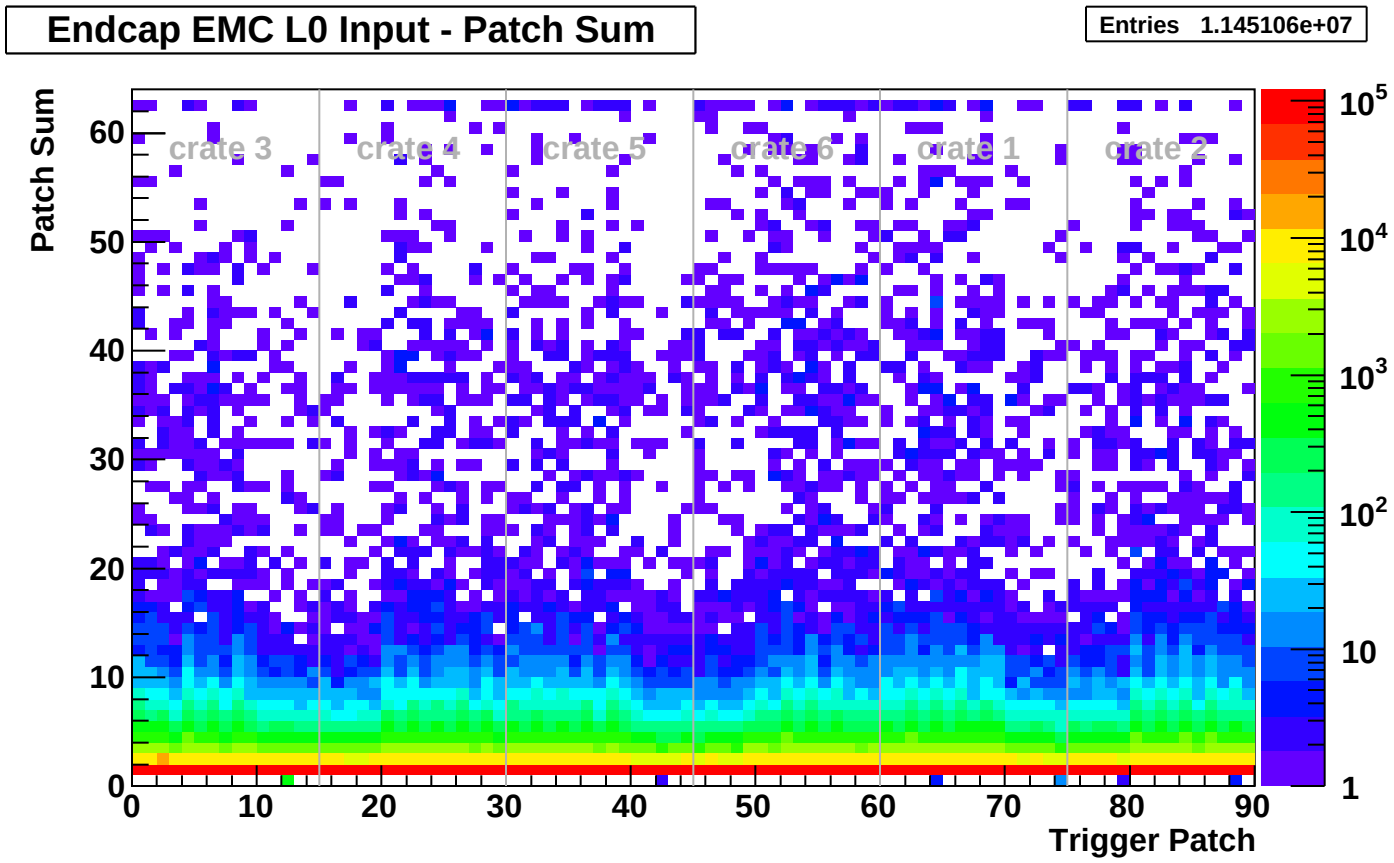

BunchId7Bit (BHT3)
Entries 1706
0 20 40 60 80 100 120

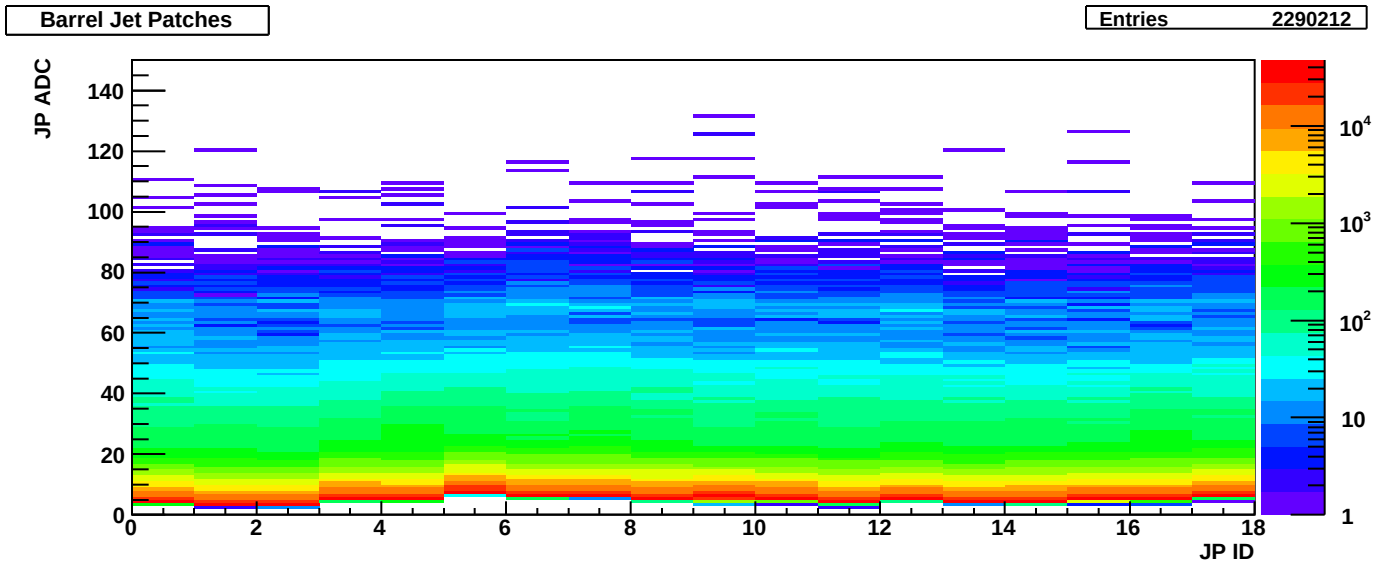

BunchId7Bit (all events)
Entries 127234
0 20 40 60 80 100 120

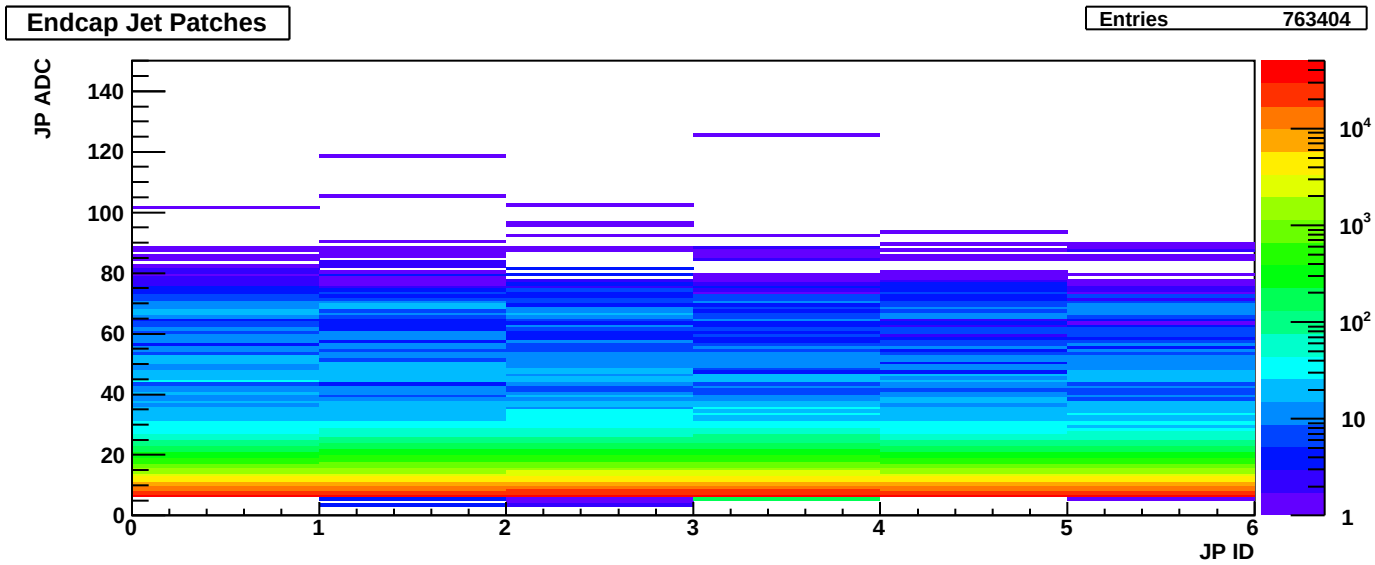

Barrel EMC L0 Input - High Tower
Entries 3.81702e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

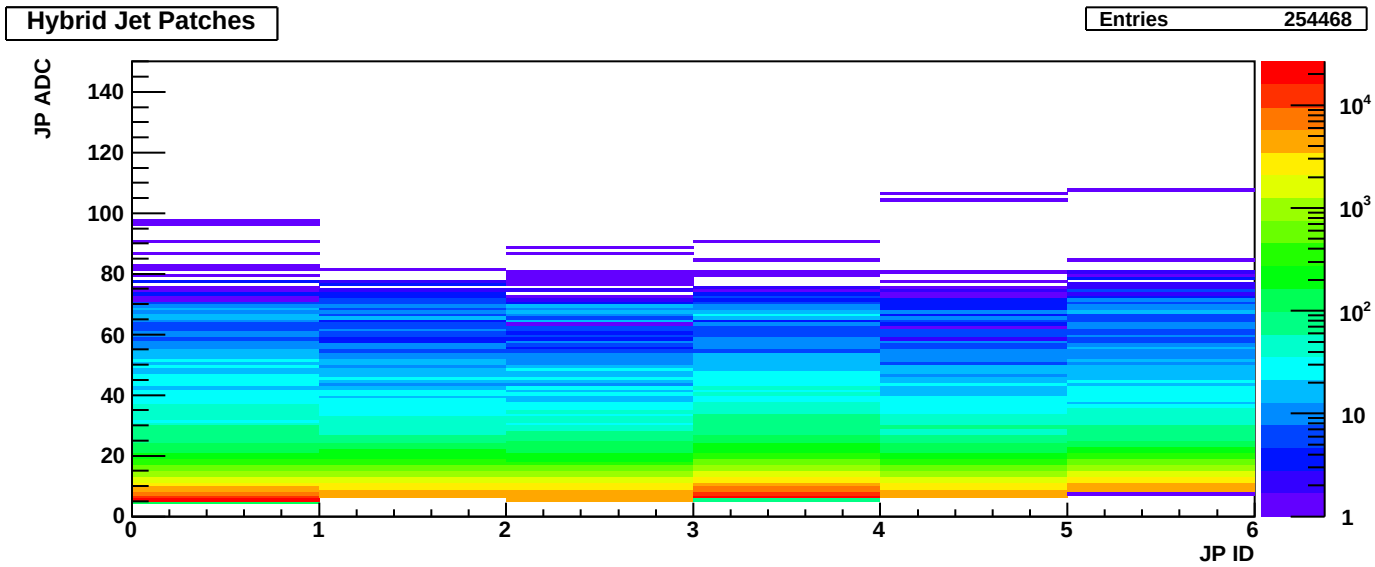

Barrel EMC L0 Input - Patch Sum
Entries 3.81702e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

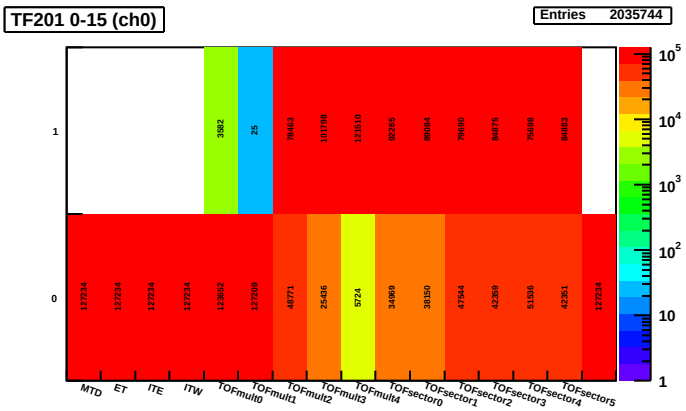

Endcap EMC L0 Input - High Tower
Entries 1.145106e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

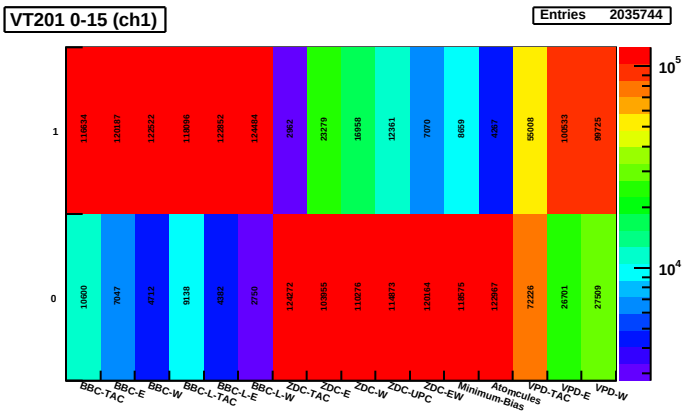

Endcap EMC L0 Input - Patch Sum
Entries 1.145106e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

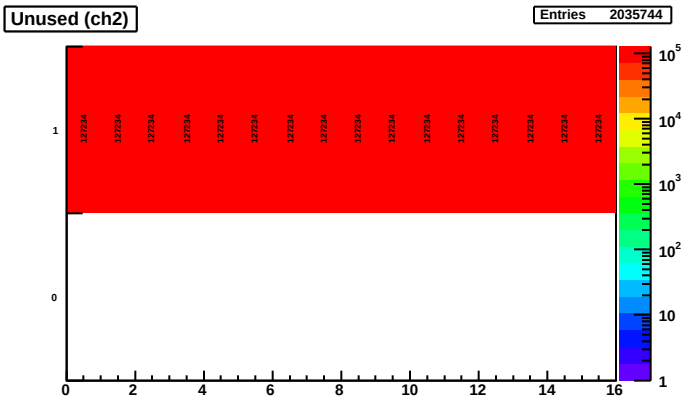

Barrel Jet Patches
Entries 2290212
JP ADC
JP ID

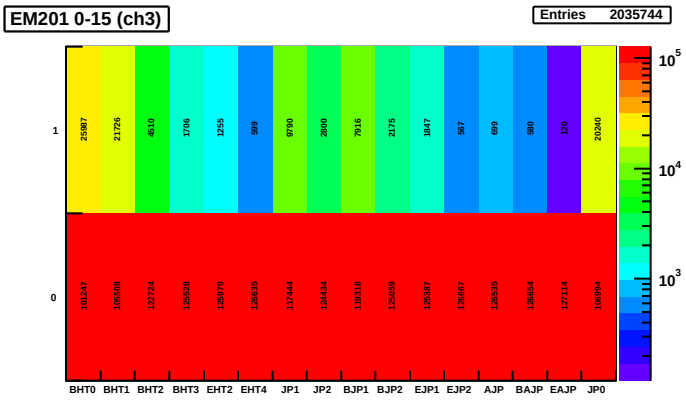

Endcap Jet Patches
Entries 763404
JP ADC
JP ID

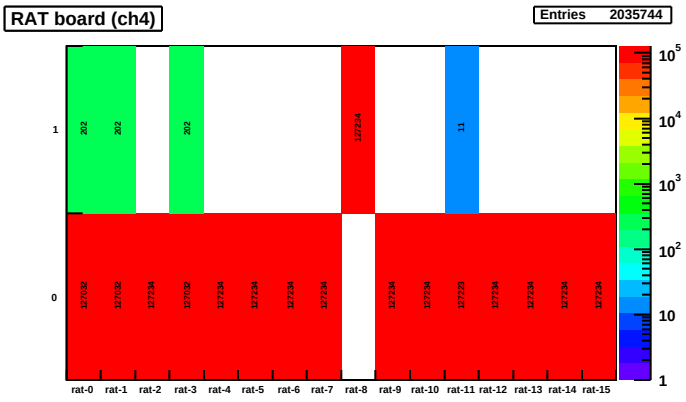

Hybrid Jet Patches
Entries 254468
JP ADC
JP ID

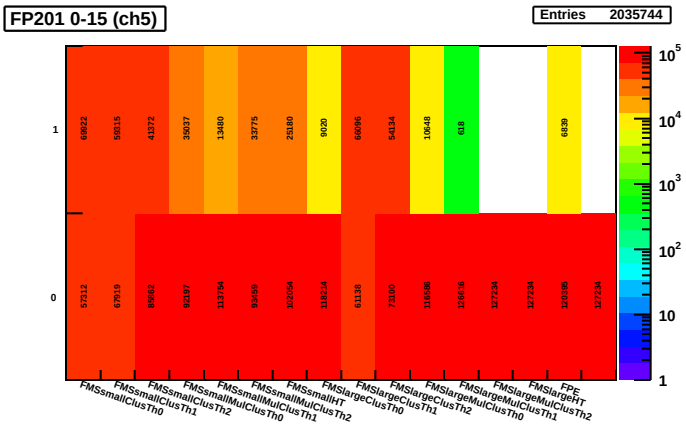

TF201 0-15 (ch0)
Entries 2035744
MTD
ET
ITE
ITW
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5

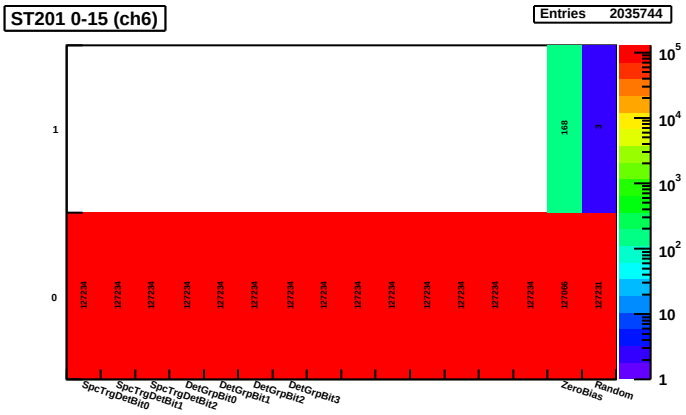

VT201 0-15 (ch1)
Entries 2035744
BBC-TAC
BBC-E
BBC-W
BBC-L-TAC
BBC-L-E
BBC-L-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-UPC
ZDC-EW
Minimum-Bias
Atomcules
VPD-TAC
VPD-E
VPD-W

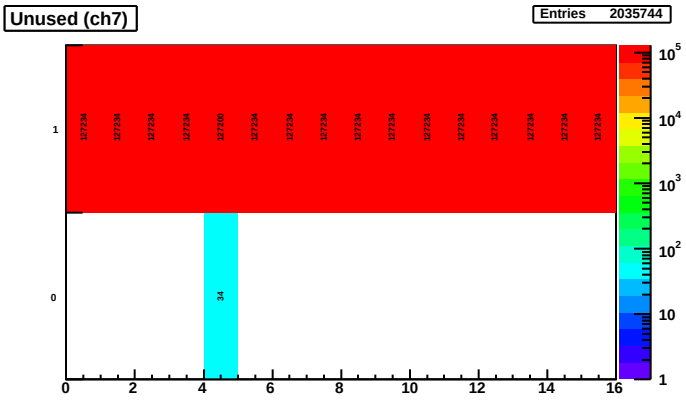

Unused (ch2)
Entries 2035744

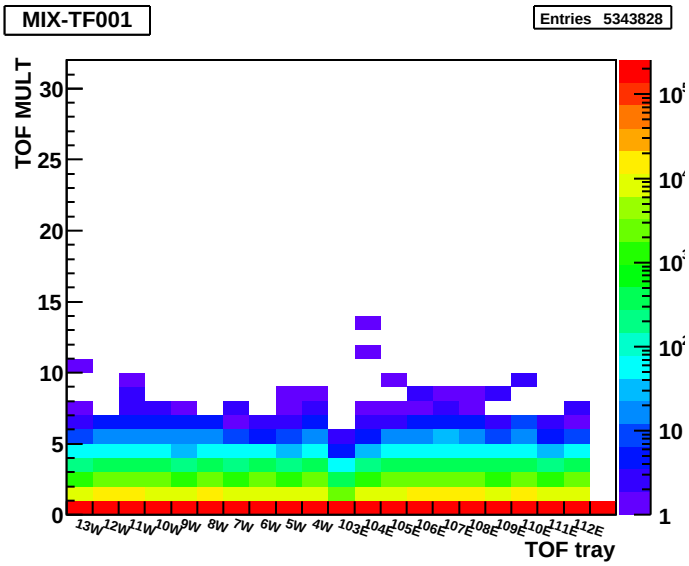

EM201 0-15 (ch3)
Entries 2035744
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
EAJP
JP0

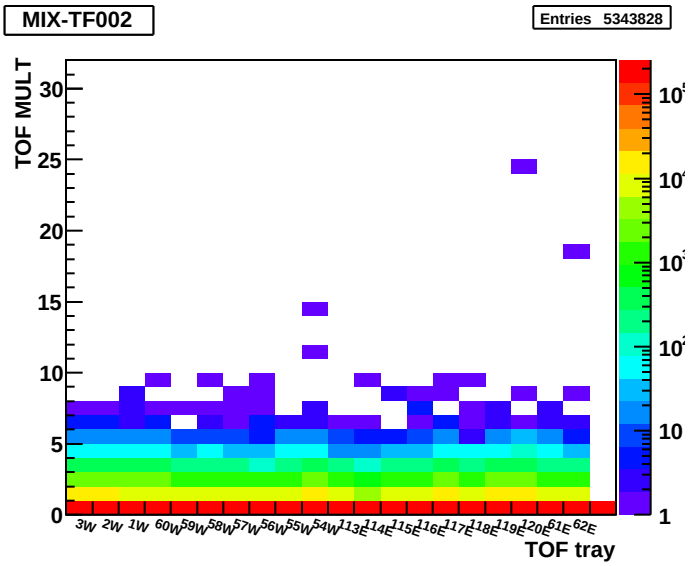

RAT board (ch4)
Entries 2035744
rat-0
rat-1
rat-2
rat-3
rat-4
rat-5
rat-6
rat-7
rat-8
rat-9
rat-10
rat-11
rat-12
rat-13
rat-14
rat-15

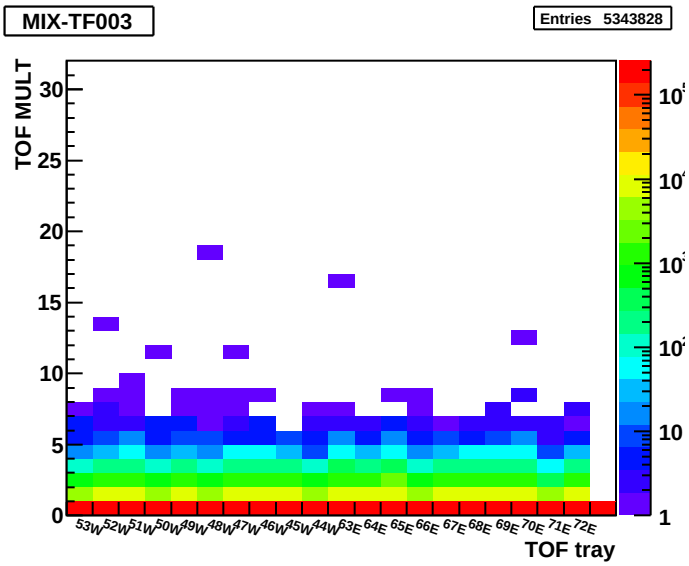

FP201 0-15 (ch5)
Entries 2035744
FMSsmallClusTh0
FMSsmallClusTh1
FMSsmallClusTh2
FMSsmallMulClusTh0
FMSsmallMulClusTh1
FMSsmallMulClusTh2
FMSsmallHT
FMSlargeClusTh0
FMSlargeClusTh1
FMSlargeClusTh2
FMSlargeMulClusTh0
FMSlargeMulClusTh1
FMSlargeMulClusTh2
FMSlargeHT
FPE

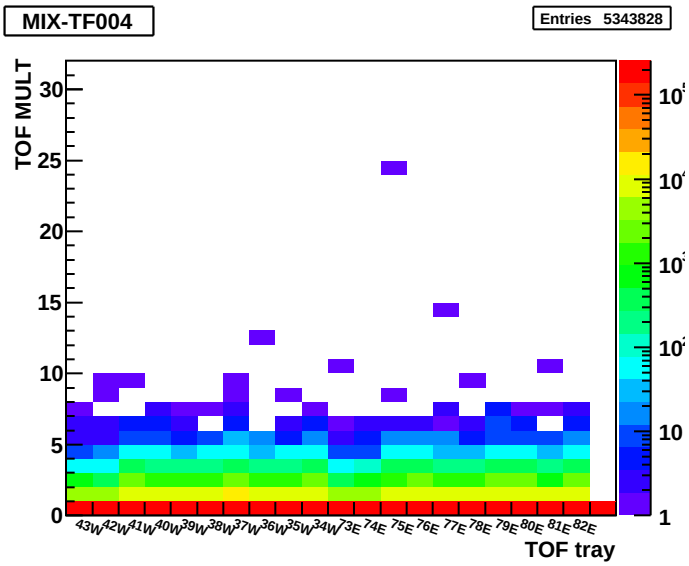

ST201 0-15 (ch6)
Entries 2035744
SpcTrgDetBit0
SpcTrgDetBit1
SpcTrgDetBit2
DetGrpBit0
DetGrpBit1
DetGrpBit2
DetGrpBit3
ZeroBias
Random

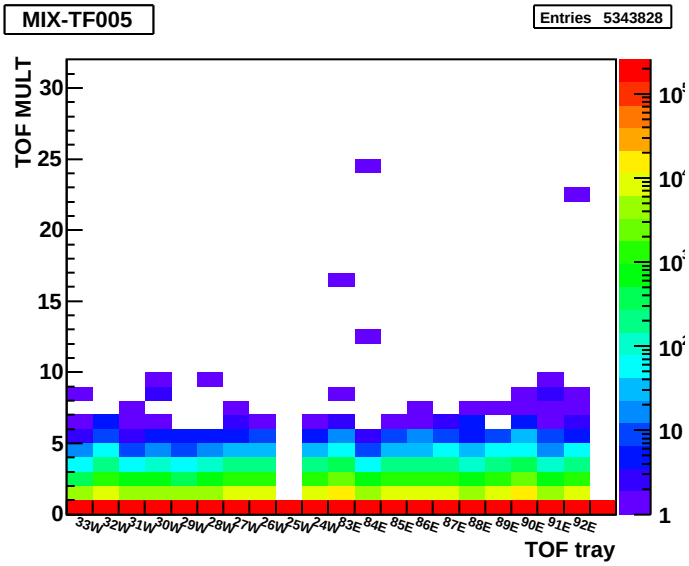

Unused (ch7)
Entries 2035744

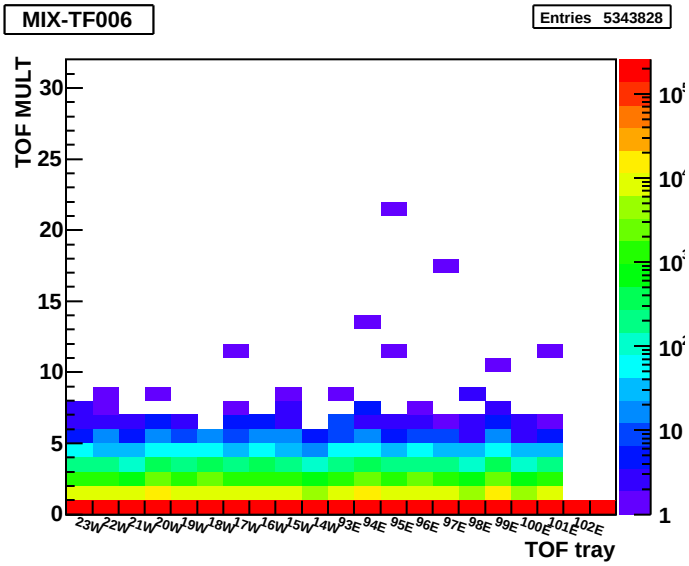

MIX-TF001
Entries 5343828
TOF MULT
TOF tray

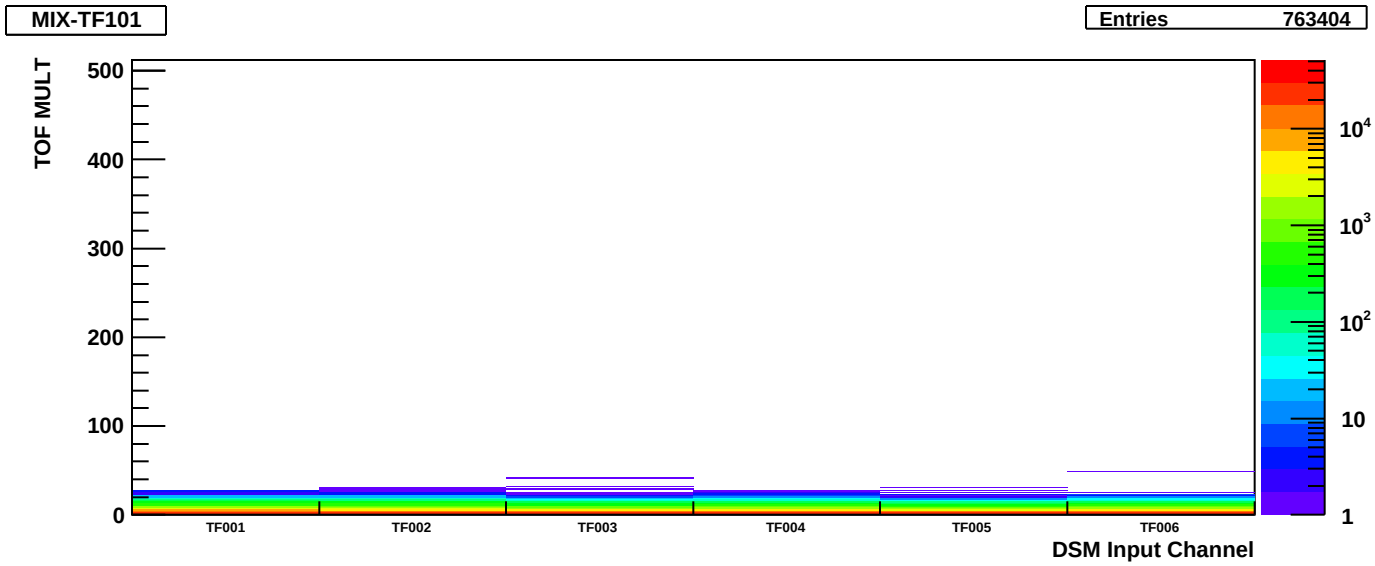

MIX-TF002
Entries 5343828
TOF MULT
TOF tray

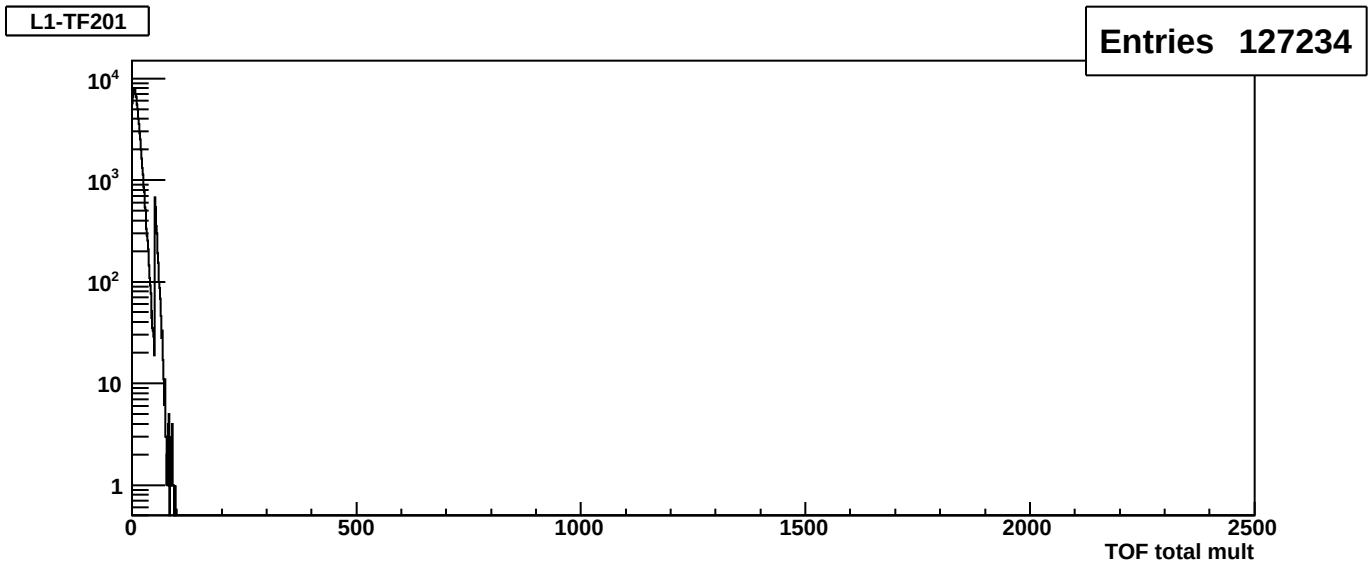

MIX-TF003
Entries 5343828
TOF MULT
TOF tray

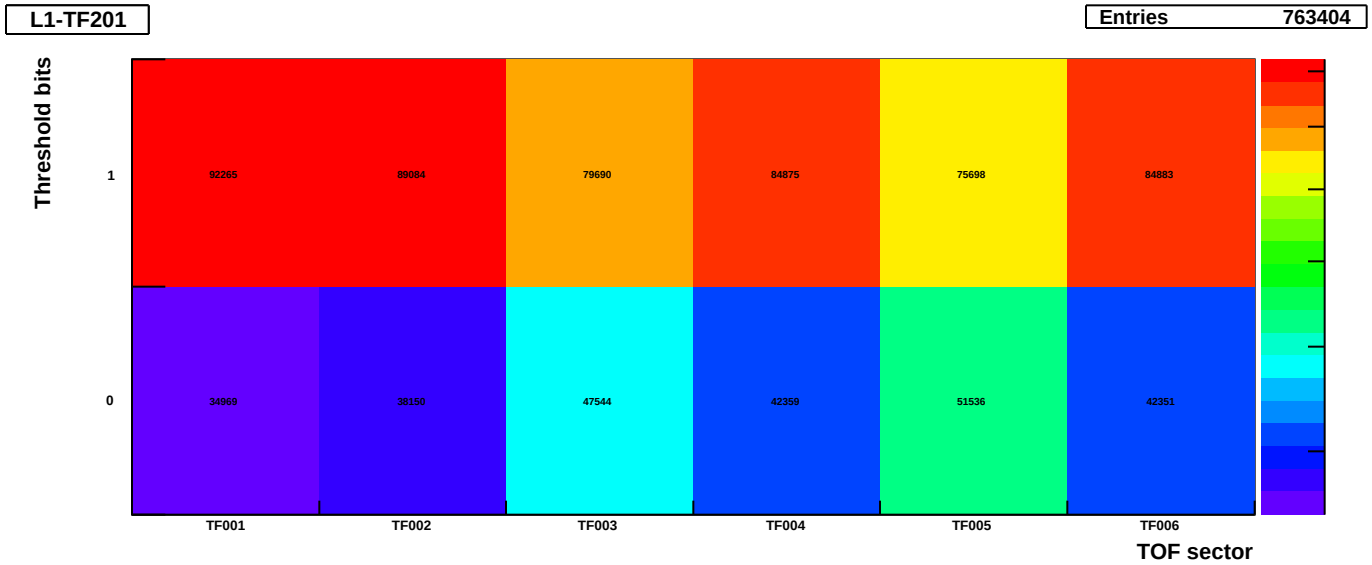

MIX-TF004
Entries 5343828
TOF MULT
TOF tray

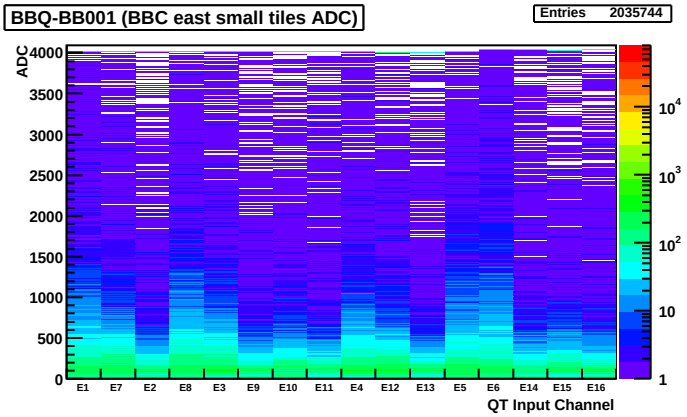

MIX-TF005
Entries 5343828
TOF MULT
TOF tray

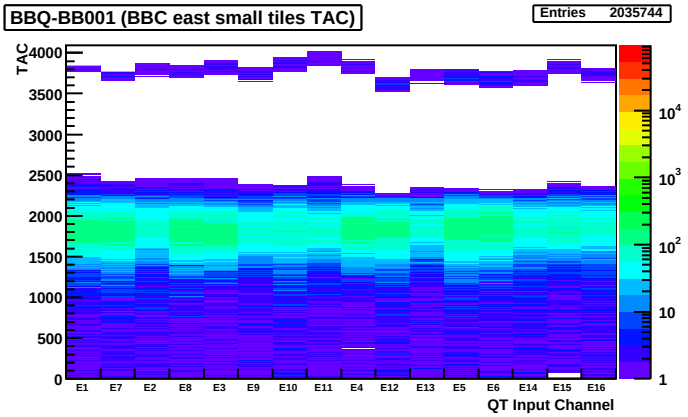

MIX-TF006
Entries 5343828
TOF MULT
TOF tray

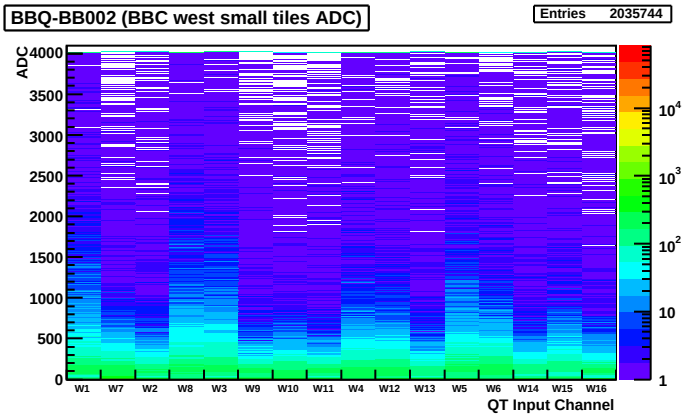

MIX-TF101
Entries 763404
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

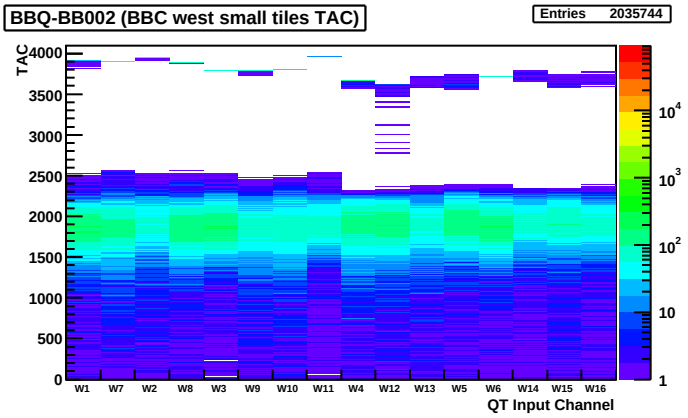

L1-TF201
Entries 127234
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

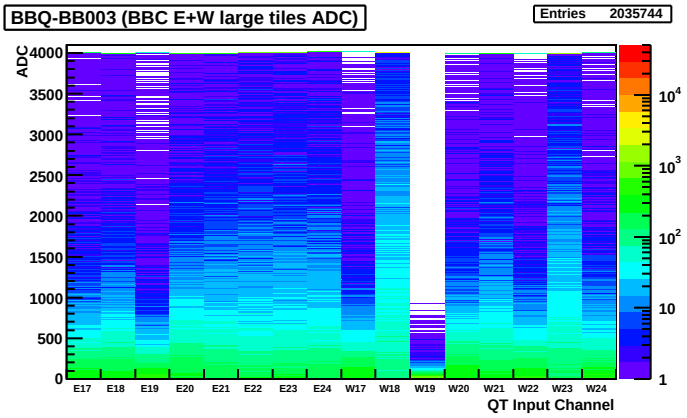

L1-TF201
Entries 763404
Threshold bits
1
0
92265
89084
79690
84875
75698
84883
34969
38150
47544
42359
51536
42351
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

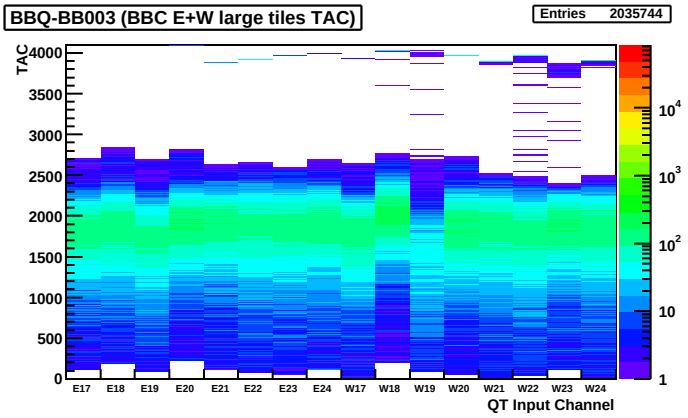

BBQ-BB001 (BBC east small tiles ADC)
Entries 2035744
ADC
QT Input Channel

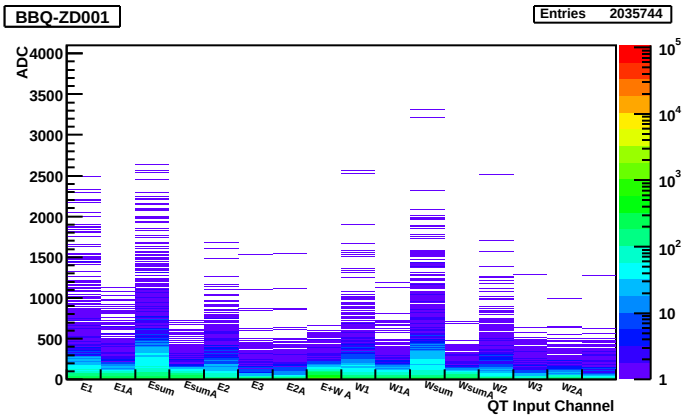

BBQ-BB001 (BBC east small tiles TAC)
Entries 2035744
TAC
QT Input Channel

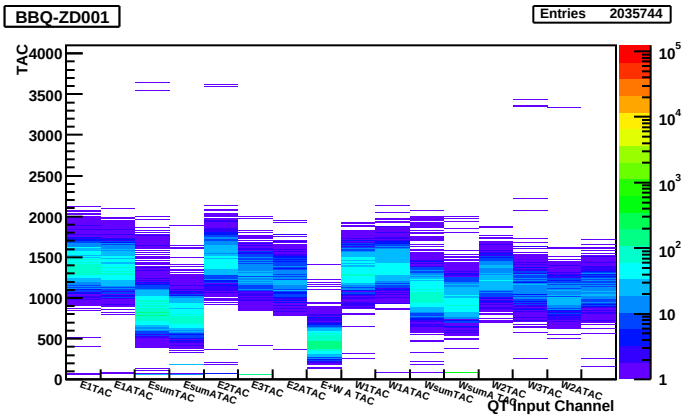

BBQ-BB002 (BBC west small tiles ADC)
Entries 2035744
ADC
QT Input Channel

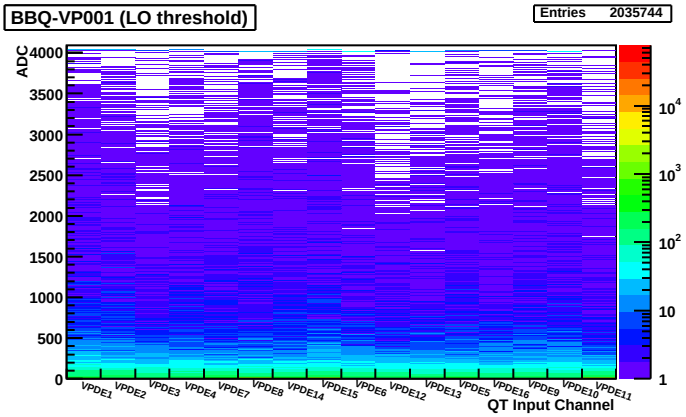

BBQ-BB002 (BBC west small tiles TAC)
Entries 2035744
TAC
QT Input Channel

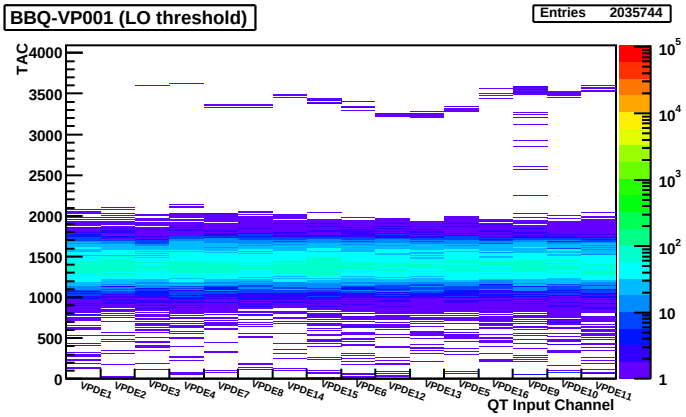

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2035744
ADC
QT Input Channel

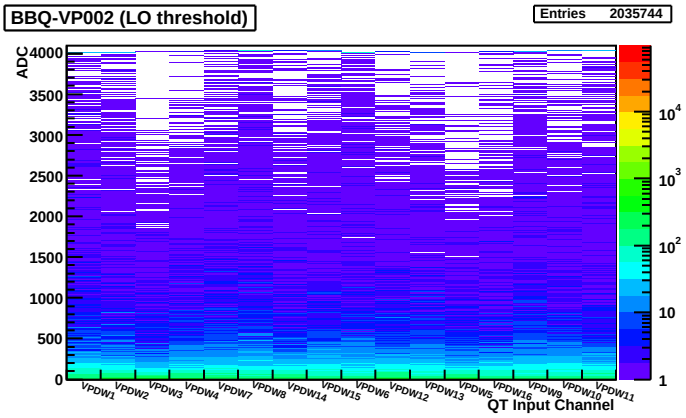

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2035744
TAC
QT Input Channel

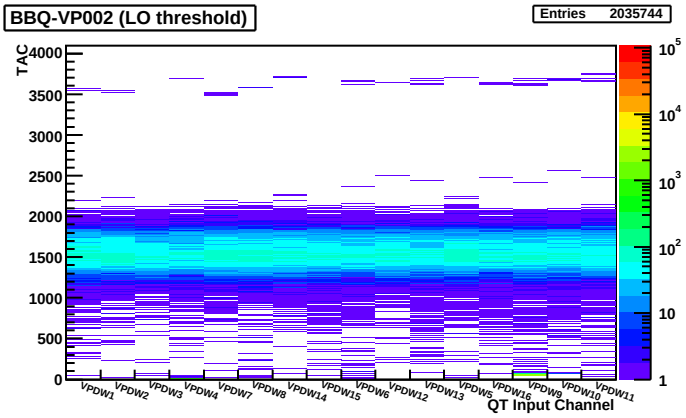

BBQ-ZD001
Entries 2035744
ADC
QT Input Channel

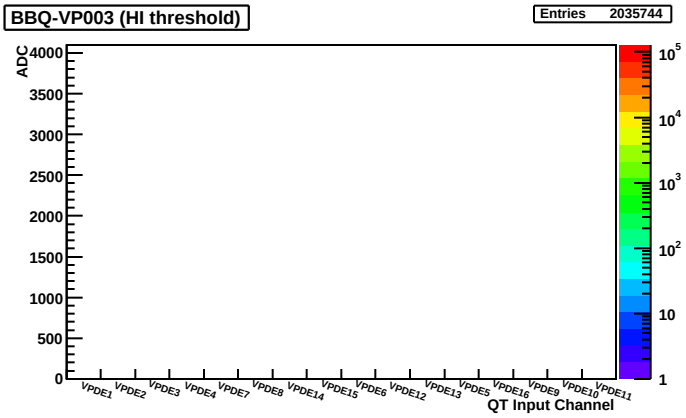

BBQ-ZD001
Entries 2035744
TAC
QT Input Channel

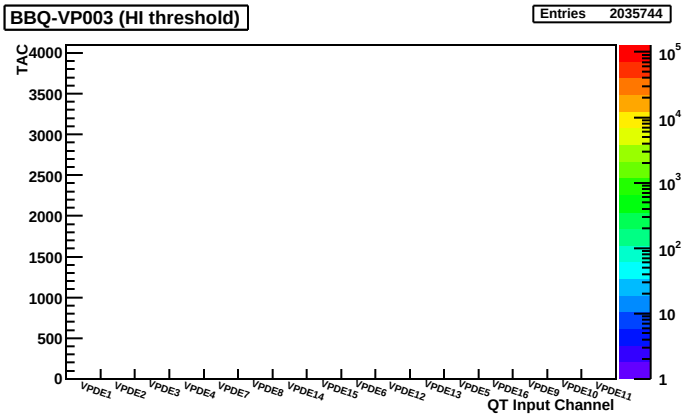

BBQ-VP001 (LO threshold)
Entries 2035744
ADC
QT Input Channel

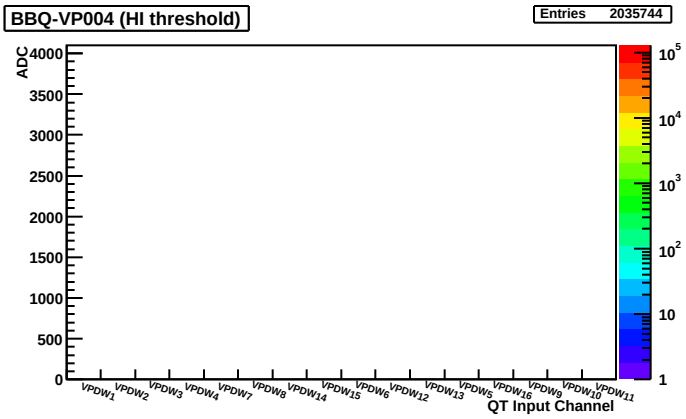

BBQ-VP001 (LO threshold)
Entries 2035744
TAC
QT Input Channel

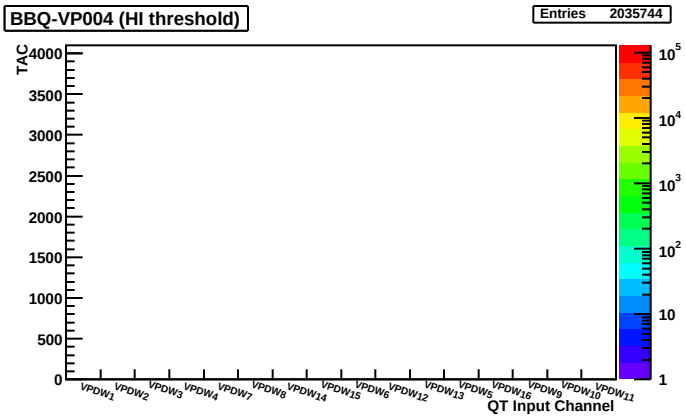

BBQ-VP002 (LO threshold)
Entries 2035744
ADC
QT Input Channel

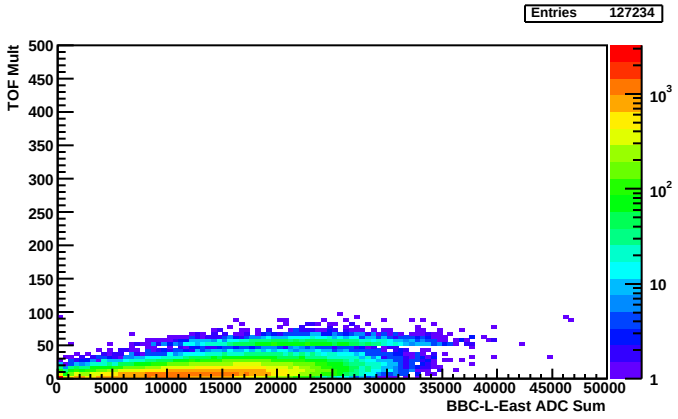

BBQ-VP002 (LO threshold)
Entries 2035744
TAC
QT Input Channel

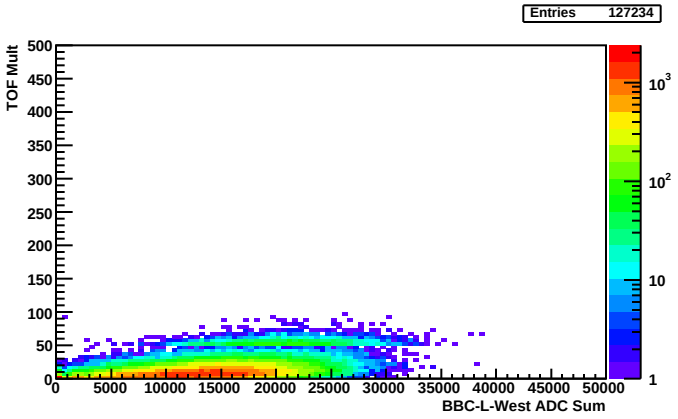

BBQ-VP003 (HI threshold)
Entries 2035744
ADC
QT Input Channel

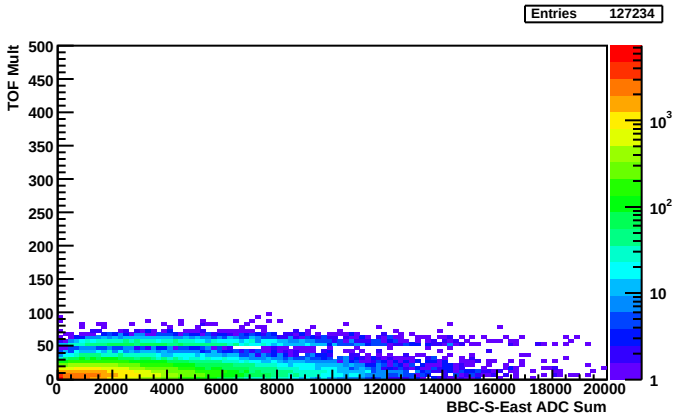

BBQ-VP003 (HI threshold)
Entries 2035744
TAC
QT Input Channel

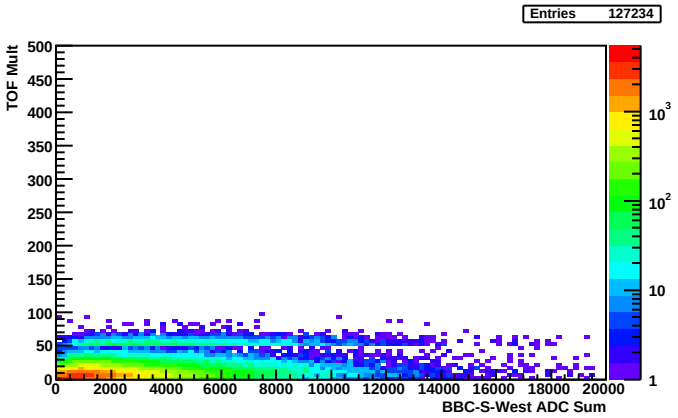

BBQ-VP004 (HI threshold)
Entries 2035744
ADC
QT Input Channel

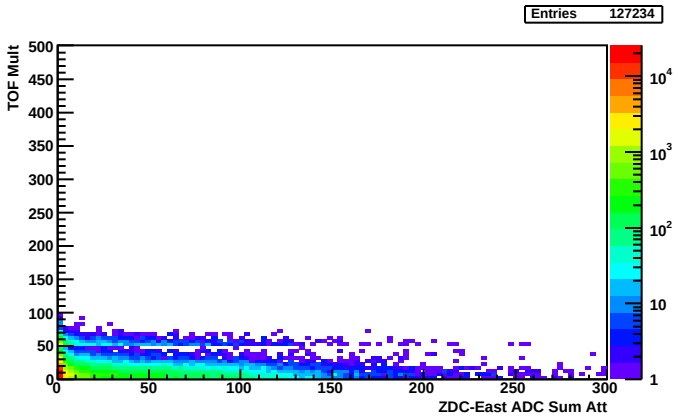

BBQ-VP004 (HI threshold)
Entries 2035744
TAC
QT Input Channel

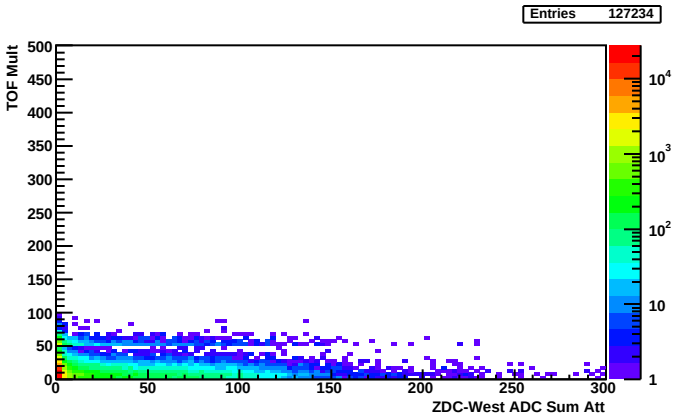

Entries 127234
TOF Mult
BBC-L-East ADC Sum

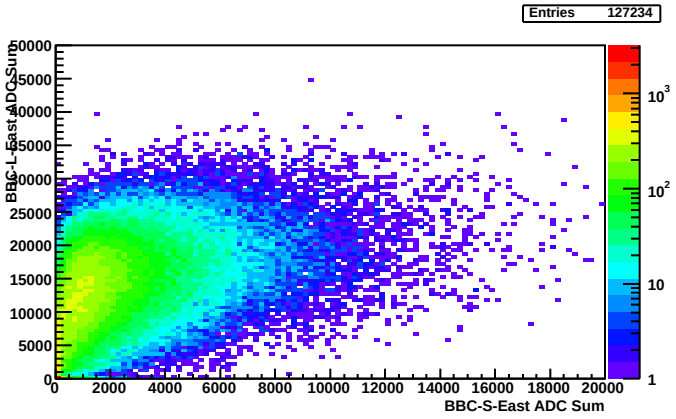

Entries 127234
TOF Mult
BBC-L-West ADC Sum

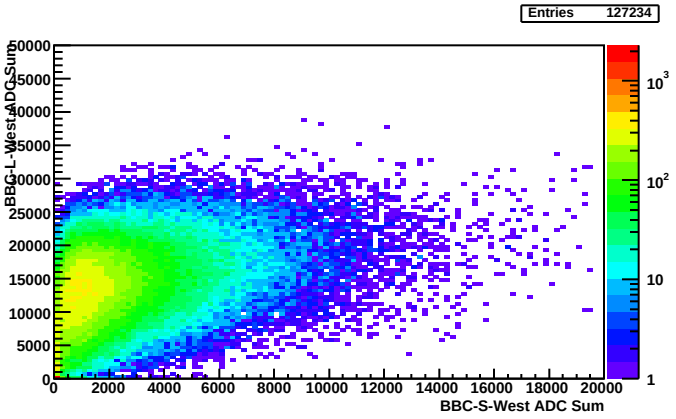

Entries 127234
TOF Mult
BBC-S-East ADC Sum

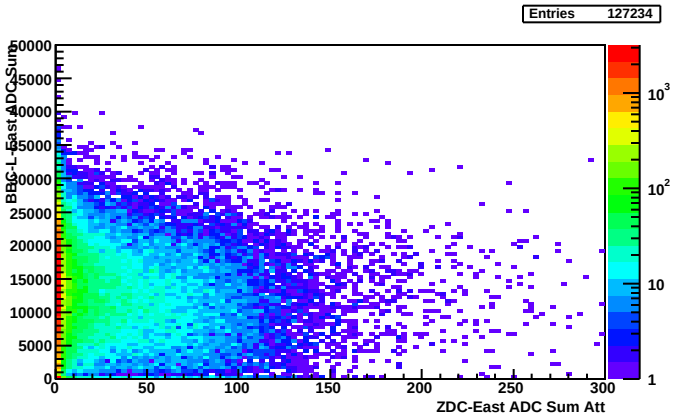

Entries 127234
TOF Mult
BBC-S-West ADC Sum

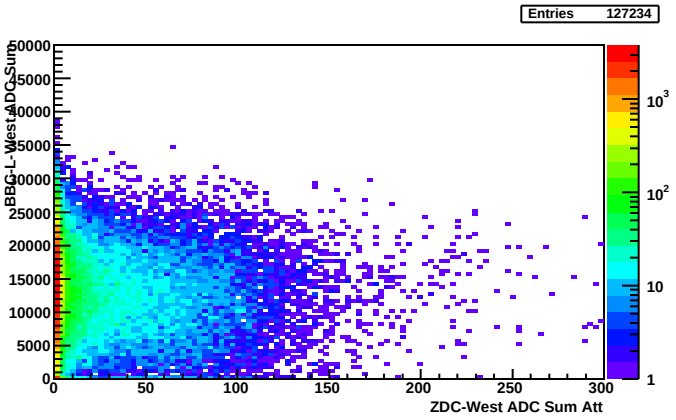

Entries 127234
TOF Mult
ZDC-East ADC Sum Att

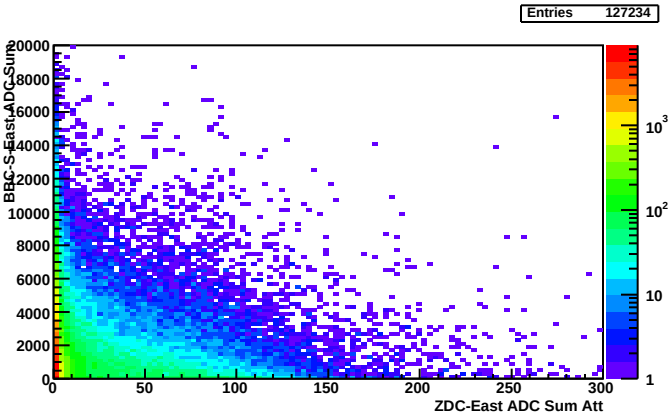

Entries 127234
TOF Mult
ZDC-West ADC Sum Att

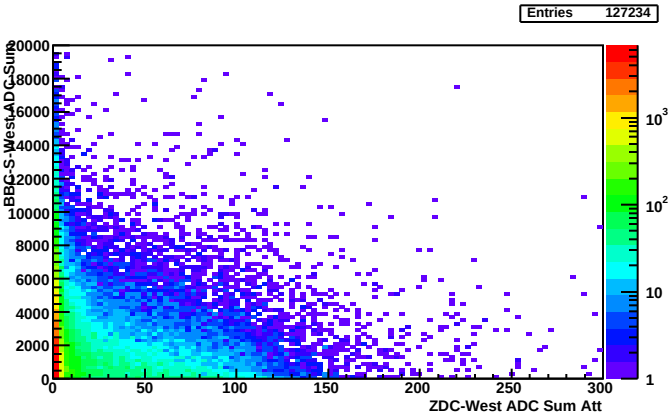

Entries 127234
BBC-L-East ADC Sum
BBC-S-East ADC Sum

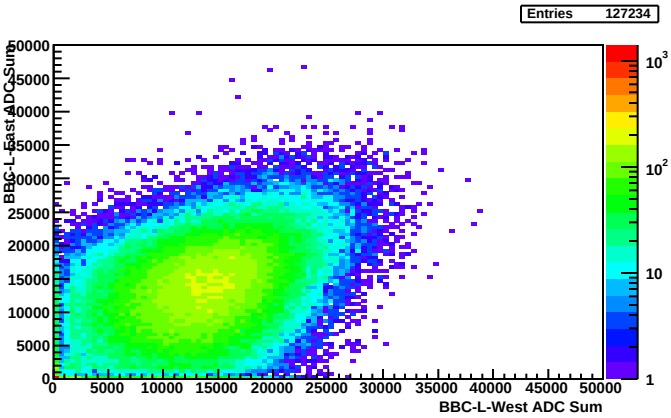

Entries 127234
BBC-L-West ADC Sum
BBC-S-West ADC Sum

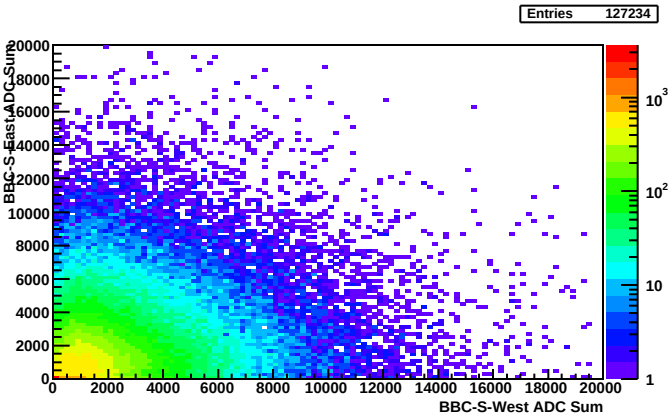

Entries 127234
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

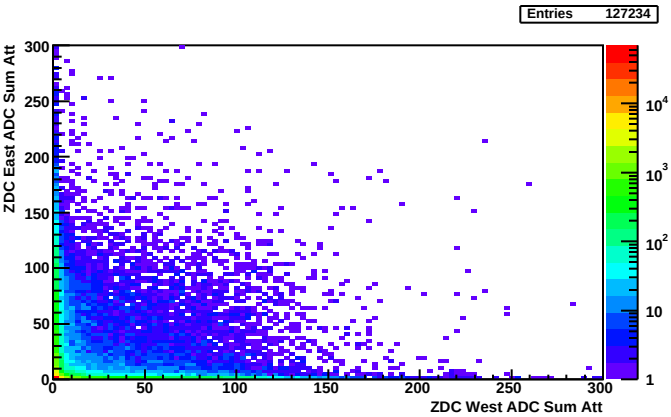

Entries 127234
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

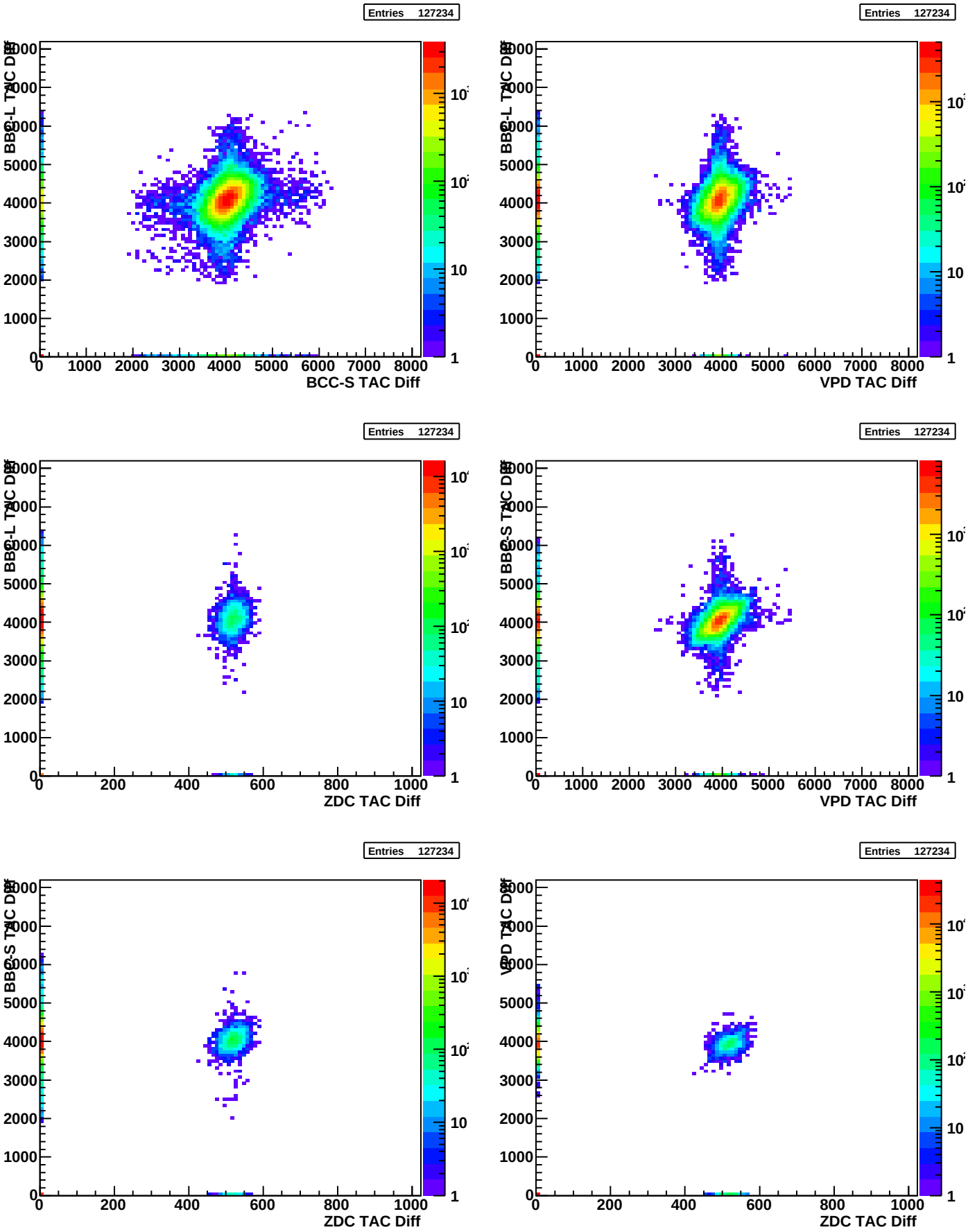

Entries 127234
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

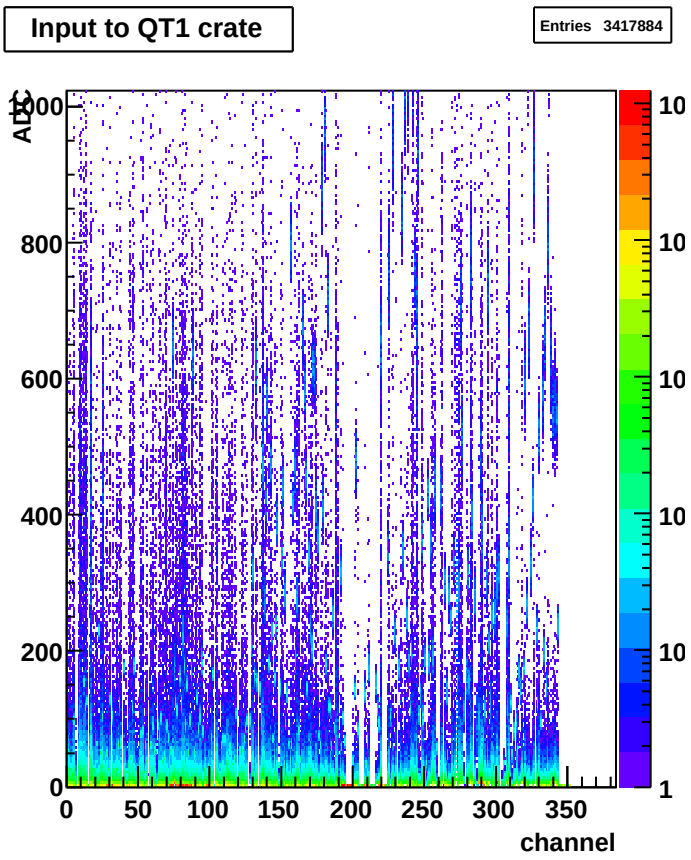

Entries 127234
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

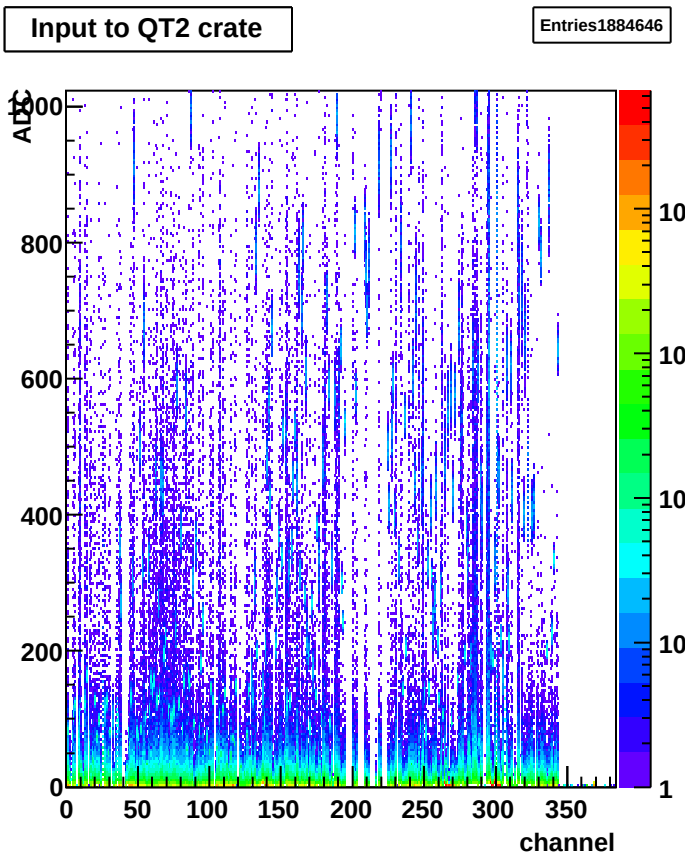

Entries 127234
BBC-L-East ADC Sum
BBC-L-West ADC Sum

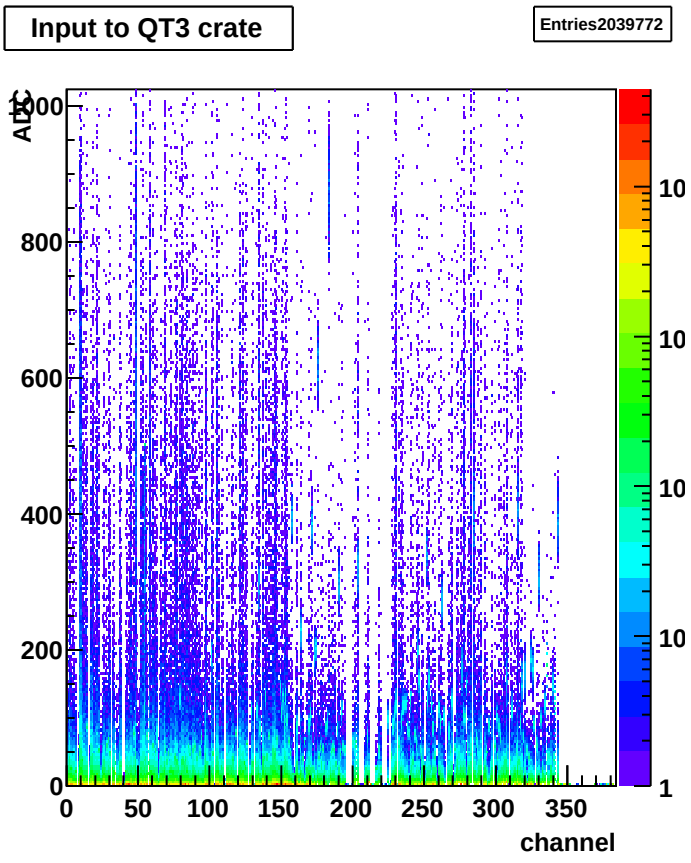

Entries 127234
BBC-S-East ADC Sum
BBC-S-West ADC Sum

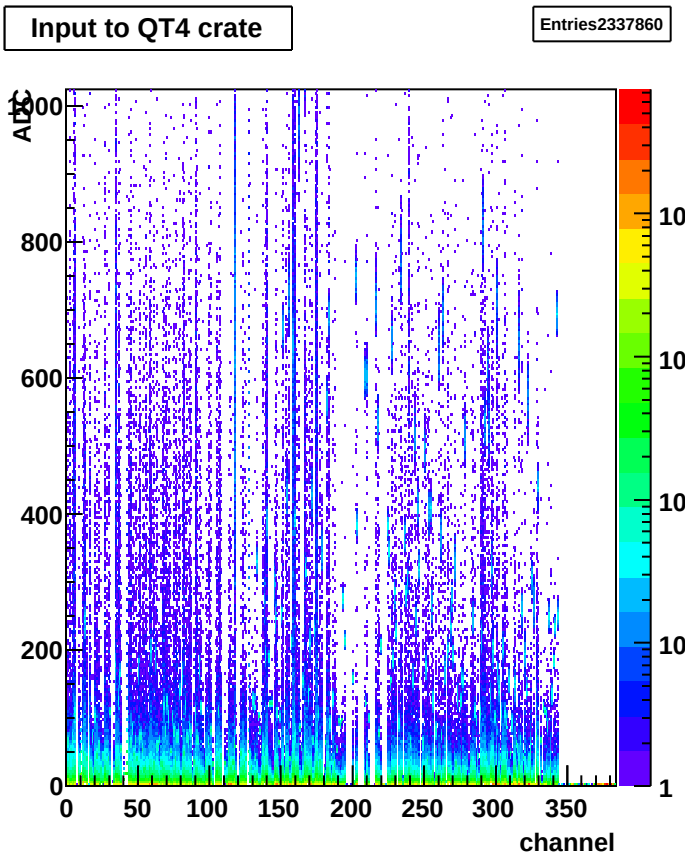

Entries 127234
ZDC East ADC Sum Att
ZDC West ADC Sum Att

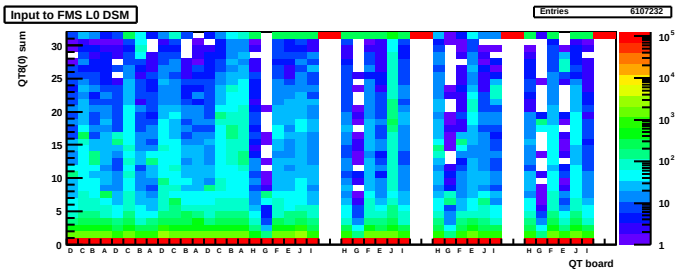

Entries 127234
BBC-L TAC Diff
BCC-S TAC Diff
Entries 127234
BBC-L TAC Diff
VPD TAC Diff
Entries 127234
BBC-L TAC Diff
ZDC TAC Diff
Entries 127234
BBC-S TAC Diff
VPD TAC Diff
Entries 127234
BBC-S TAC Diff
ZDC TAC Diff
Entries 127234
VPD TAC Diff
ZDC TAC Diff

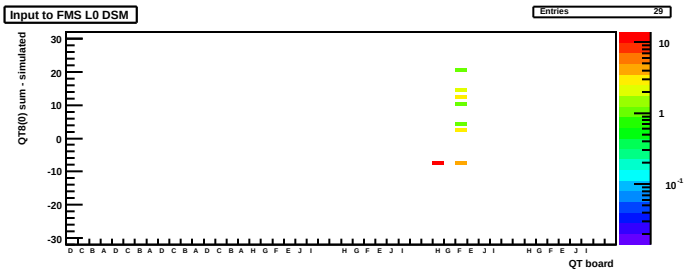

Input to QT1 crate
Entries 3417884
ADC
channel

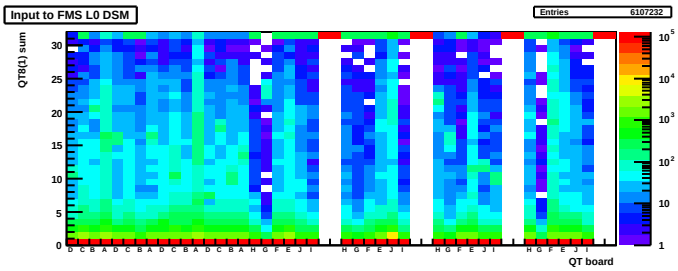

Input to QT2 crate
Entries1884646
ADC
channel

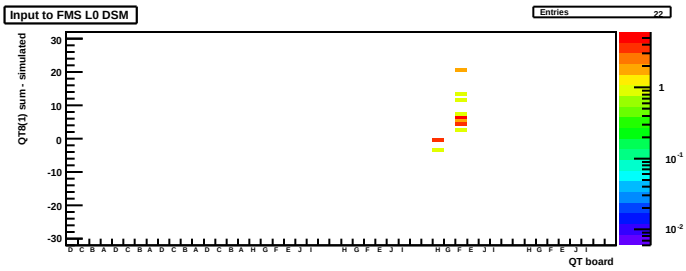

Input to QT3 crate
Entries2039772
ADC
channel

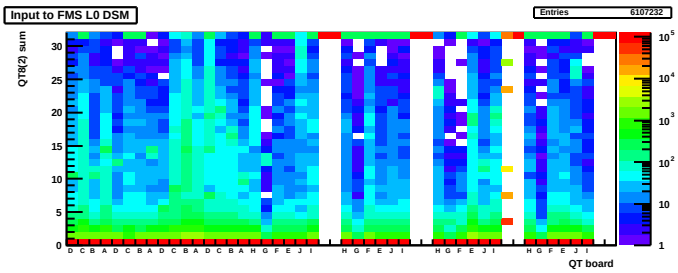

Input to QT4 crate
Entries2337860
ADC
channel

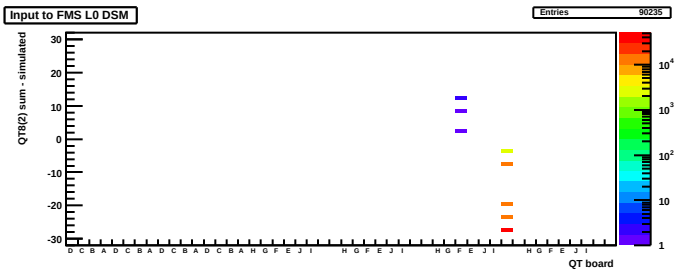

Input to FMS L0 DSM
Entries 6107232
QT8(0) sum
QT board

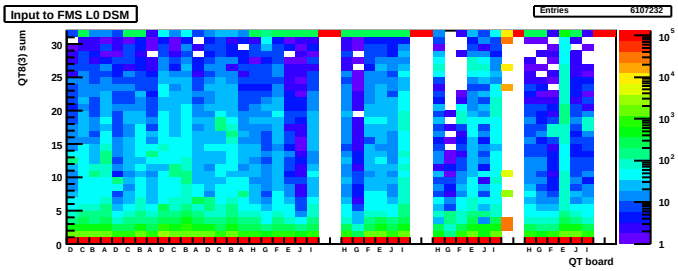

Input to FMS L0 DSM
Entries 29
QT8(0) sum - simulated
QT board

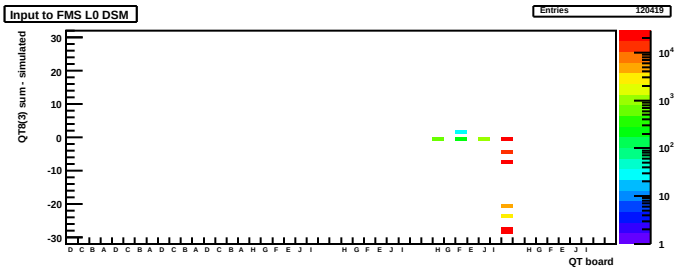

Input to FMS L0 DSM
Entries 6107232
QT8(1) sum
QT board

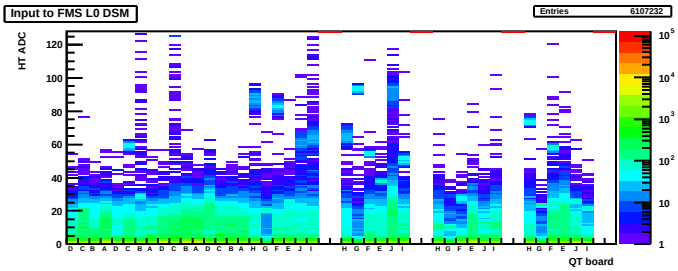

Input to FMS L0 DSM
Entries 22
QT8(1) sum - simulated
QT board

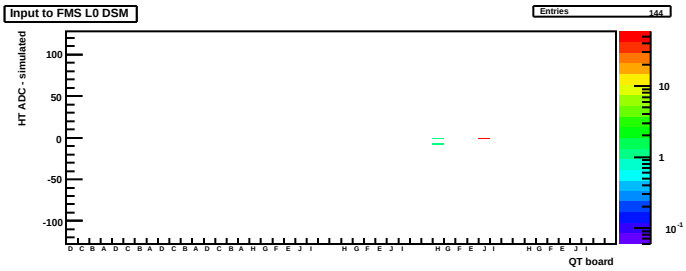

Input to FMS L0 DSM
Entries 6107232
QT8(2) sum
QT board

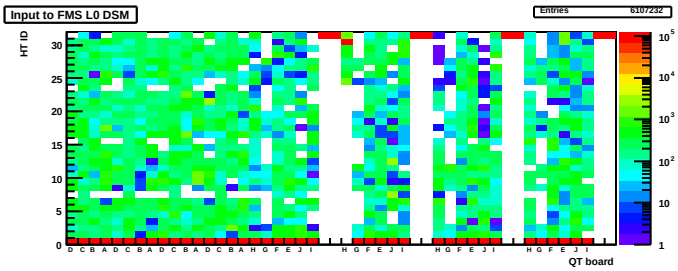

Input to FMS L0 DSM
Entries 90235
QT8(2) sum - simulated
QT board

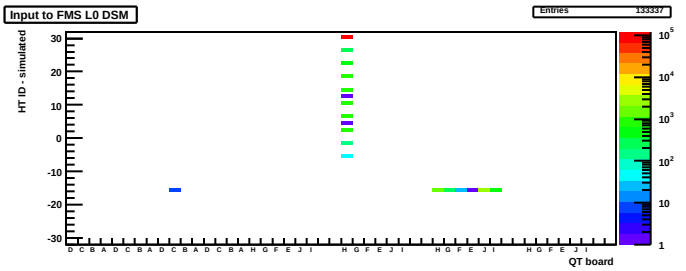

Input to FMS L0 DSM
Entries 6107232
QT8(3) sum
QT board

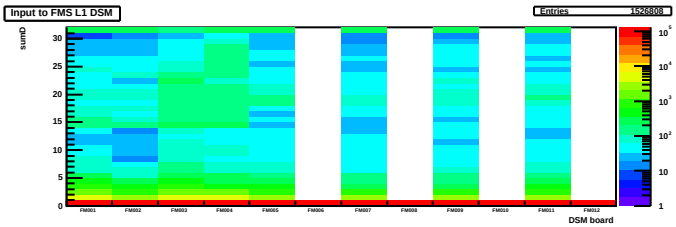

Input to FMS L0 DSM
Entries 120419
QT8(3) sum - simulated
QT board

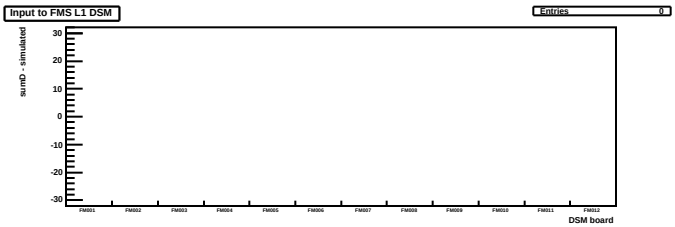

Input to FMS L0 DSM
Entries 6107232
HT ADC
QT board

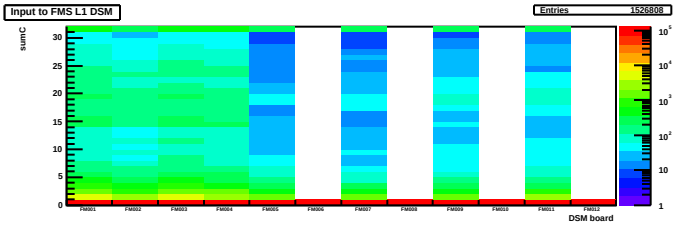

Input to FMS L0 DSM
Entries 144
HT ADC - simulated
QT board

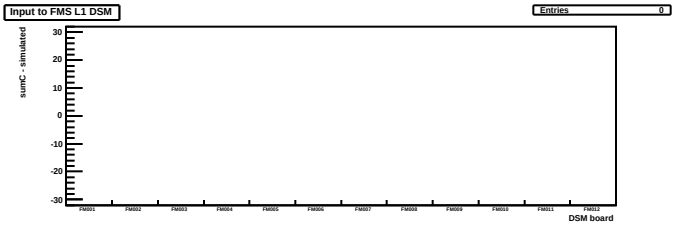

Input to FMS L0 DSM
Entries 6107232
HT ID
QT board

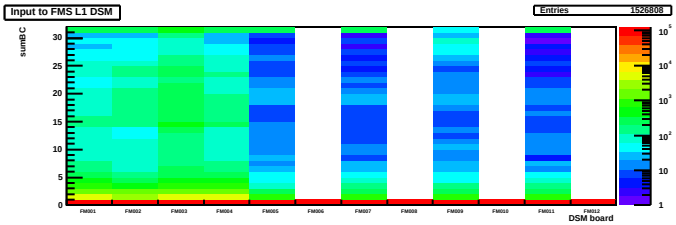

Input to FMS L0 DSM
Entries 133337
HT ID - simulated
QT board

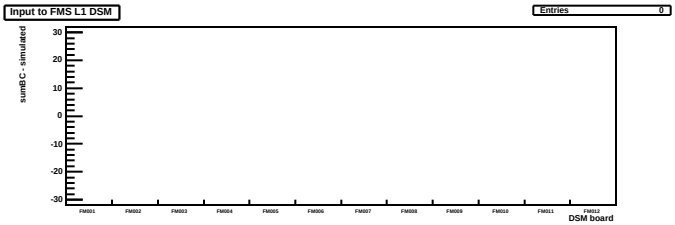

Input to FMS L1 DSM
Entries 1526808
sumD
DSM board

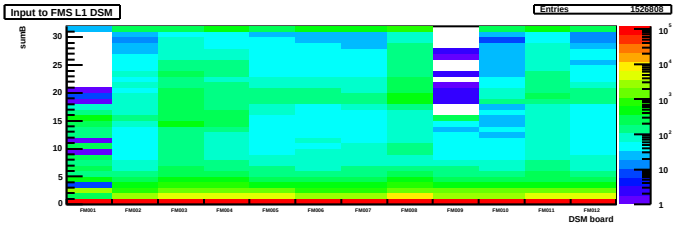

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

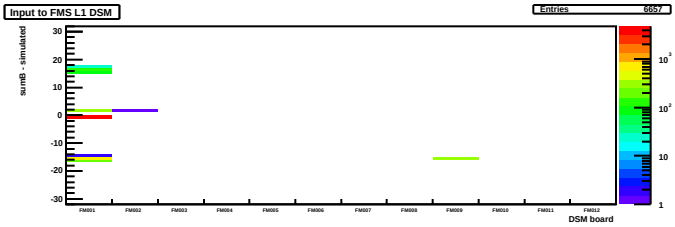

Input to FMS L1 DSM
Entries 1526808
sumC
DSM board

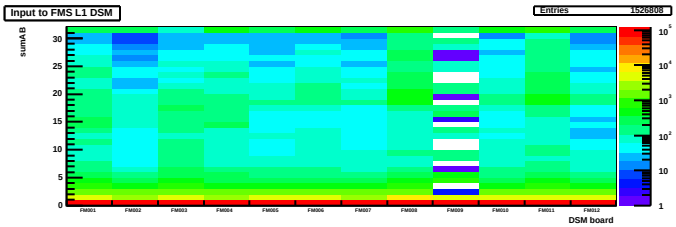

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

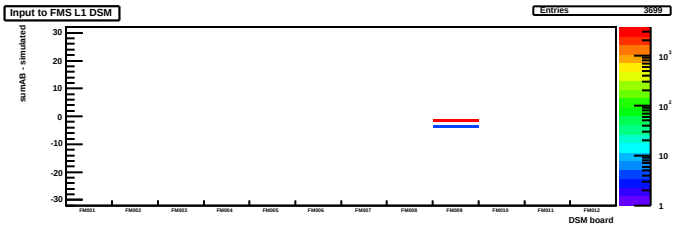

Input to FMS L1 DSM
Entries 1526808
sumBC
DSM board

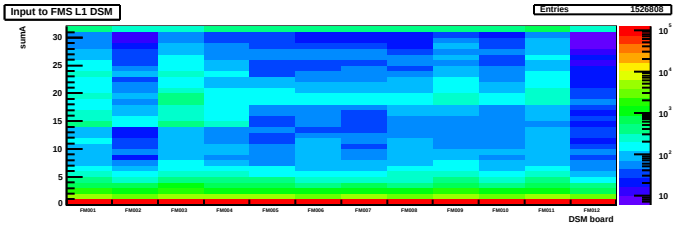

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

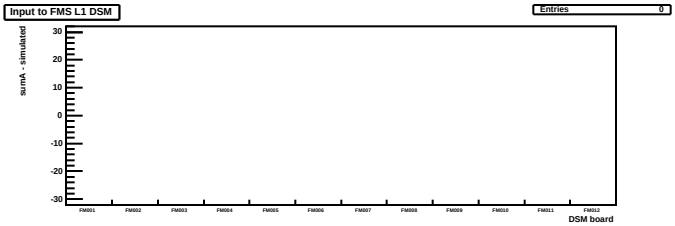

Input to FMS L1 DSM
Entries 1526808
sumB
DSM board

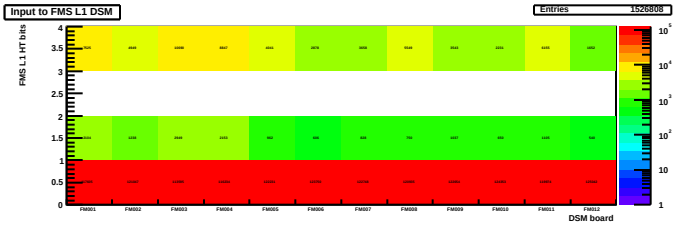

Input to FMS L1 DSM
Entries 6657
sumB - simulated
DSM board

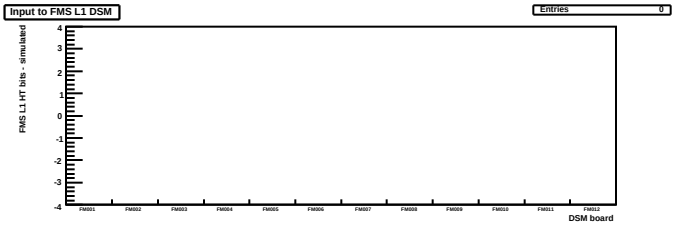

Input to FMS L1 DSM
Entries 1526808
sumAB
DSM board

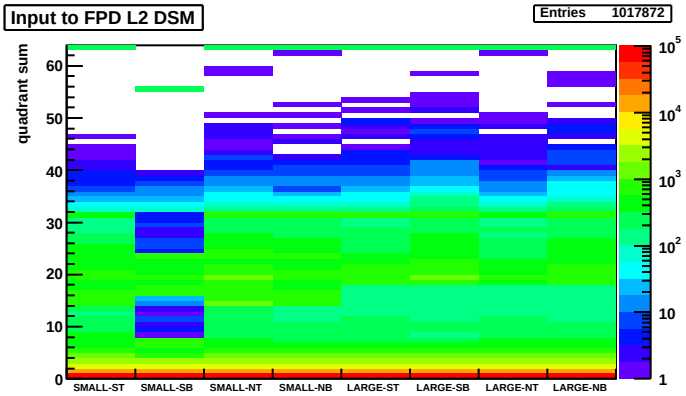

Input to FMS L1 DSM
Entries 3699
sumAB - simulated
DSM board

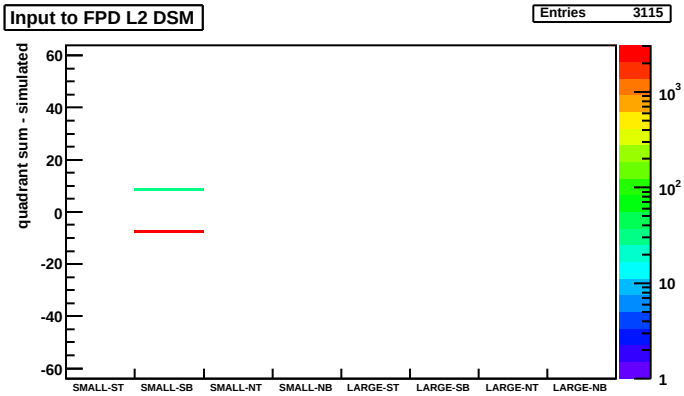

Input to FMS L1 DSM
Entries 1526808
sumA
DSM board

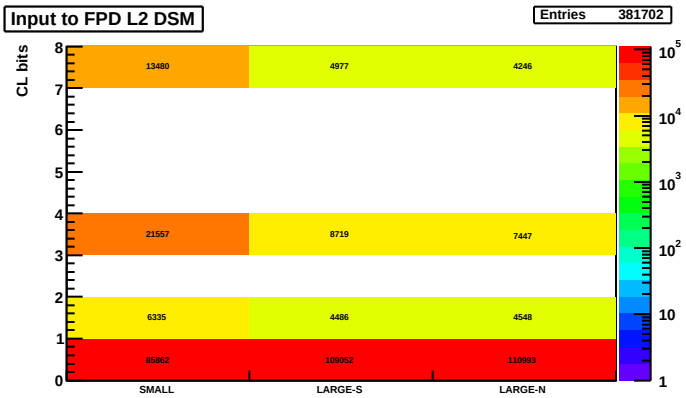

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

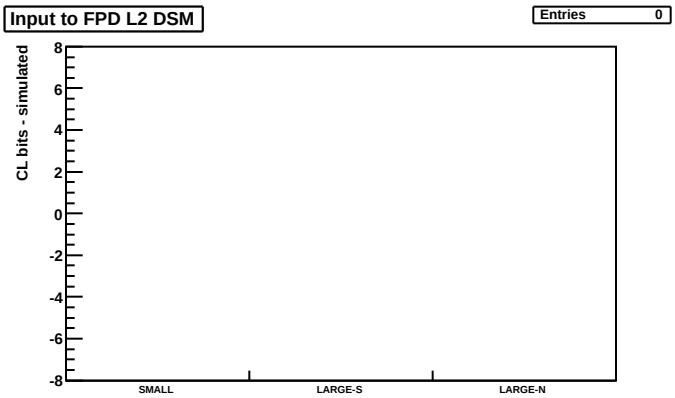

Input to FMS L1 DSM
Entries 1526808
FMS L1 HT bits
DSM board

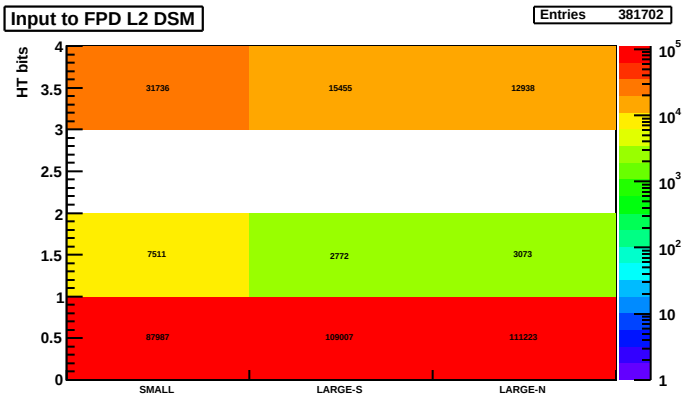

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

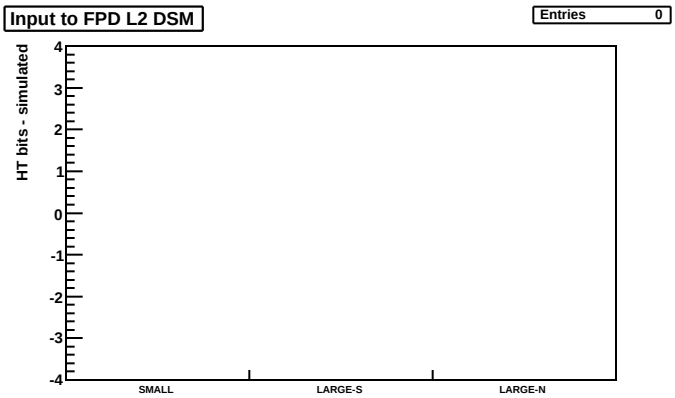

Input to FPD L2 DSM
Entries 1017872
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

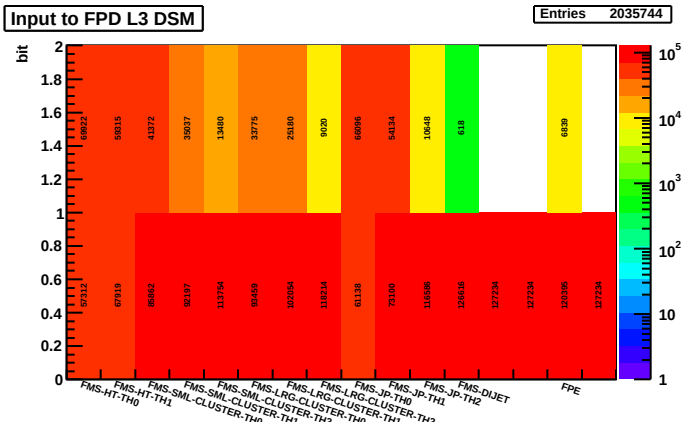

Input to FPD L2 DSM
Entries 3115
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

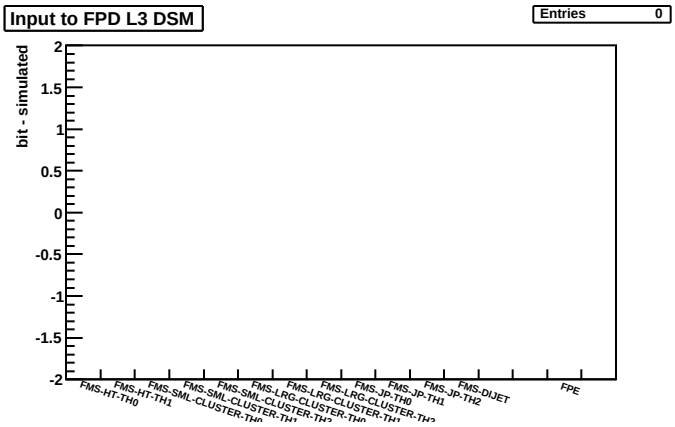

Input to FPD L2 DSM
Entries 381702
CL bits
13480
4977
4246
21557
8719
7447
6335
4486
4548
85862
109052
110993
SMALL
LARGE-S
LARGE-N

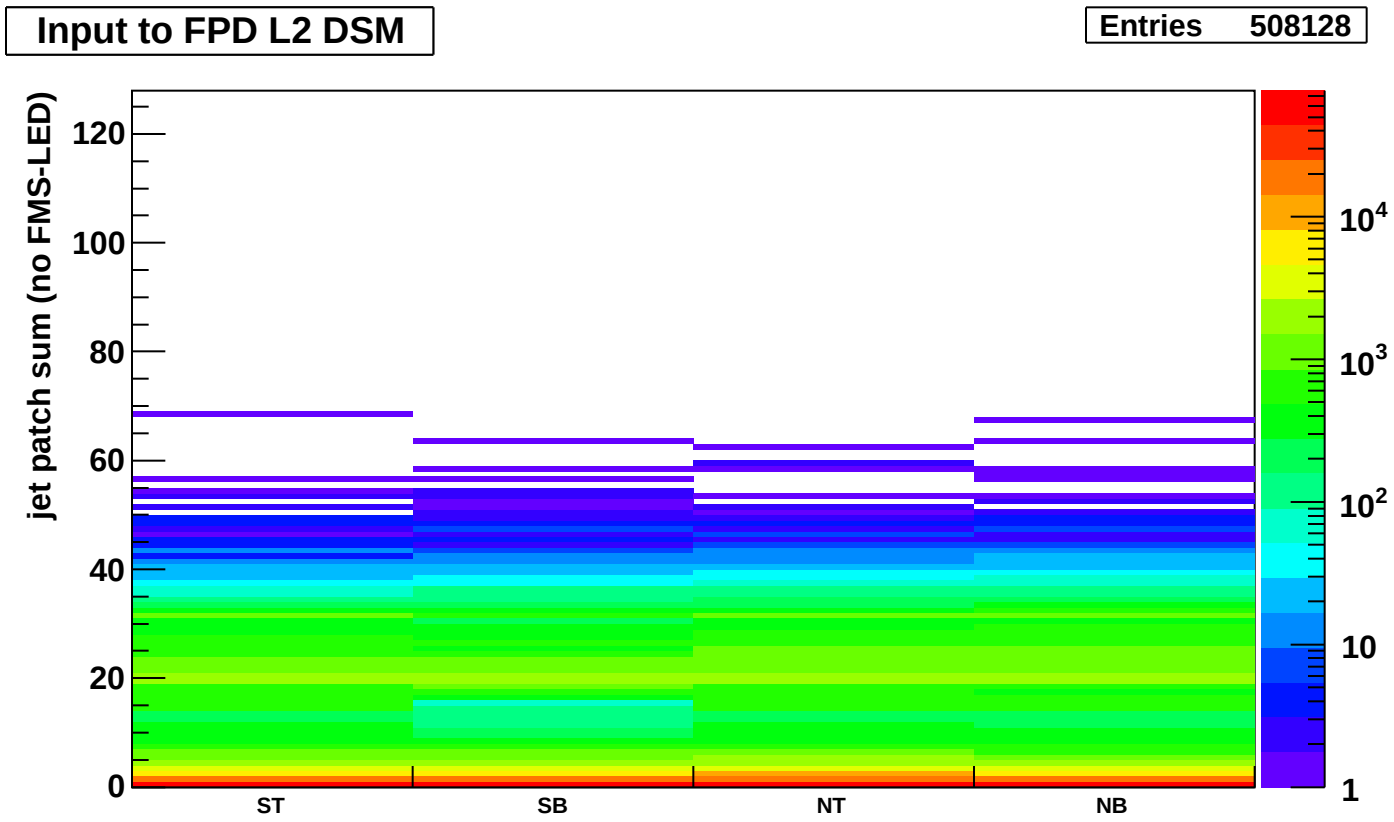

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

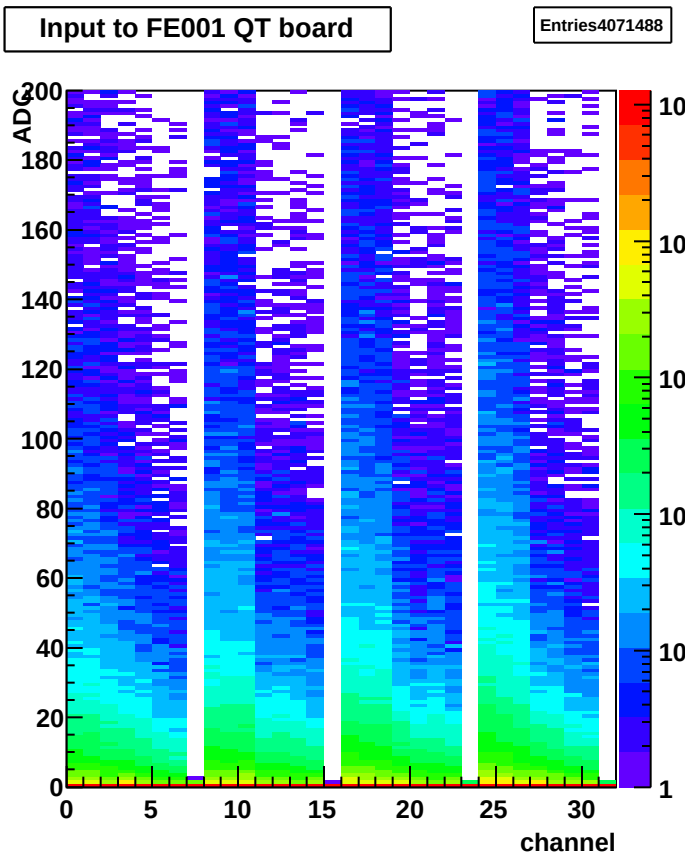

Input to FPD L2 DSM
Entries 381702
HT bits
31736
15455
12938
7511
2772
3073
87987
109007
111223
SMALL
LARGE-S
LARGE-N

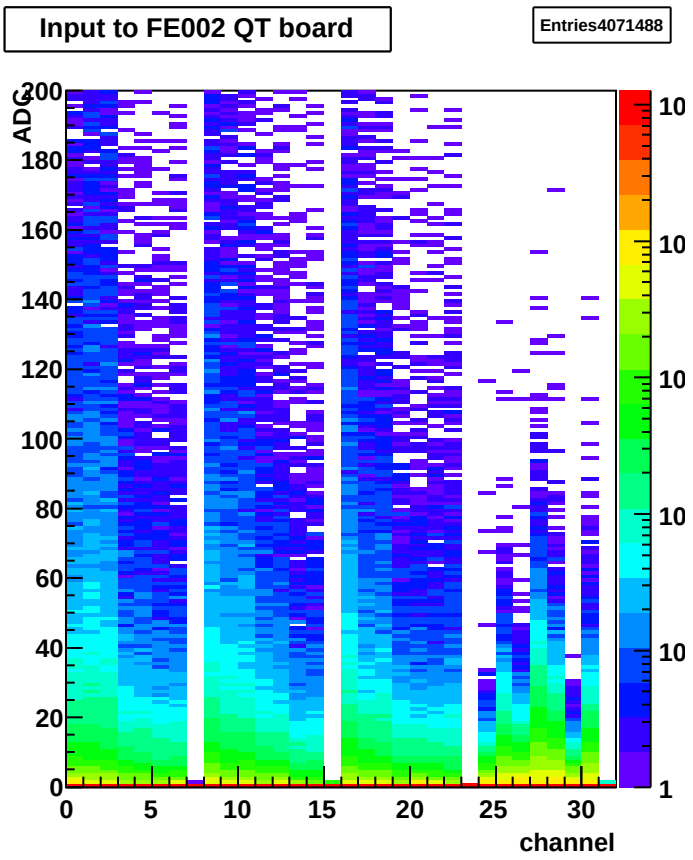

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

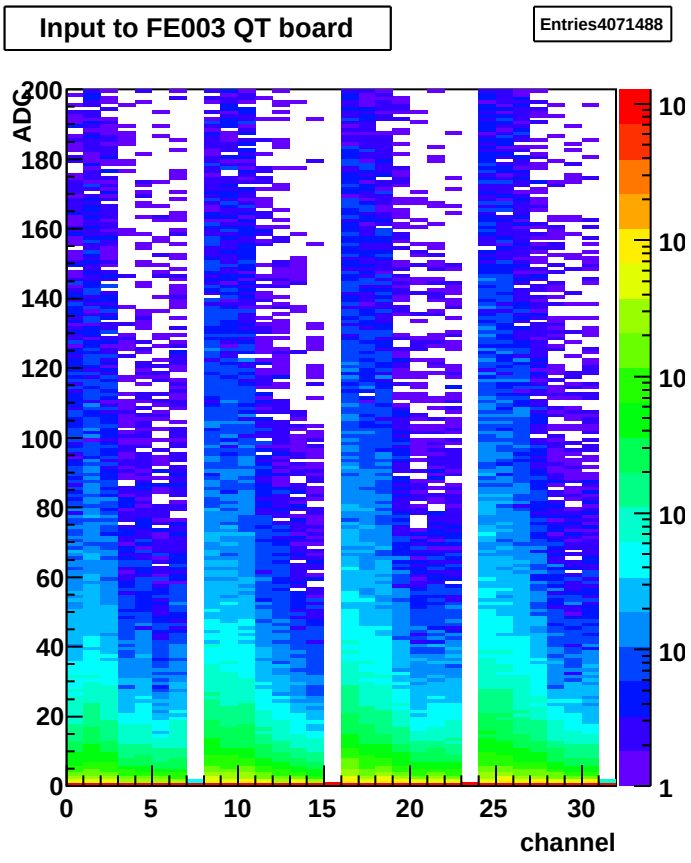

Input to FPD L3 DSM
Entries 2035744
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

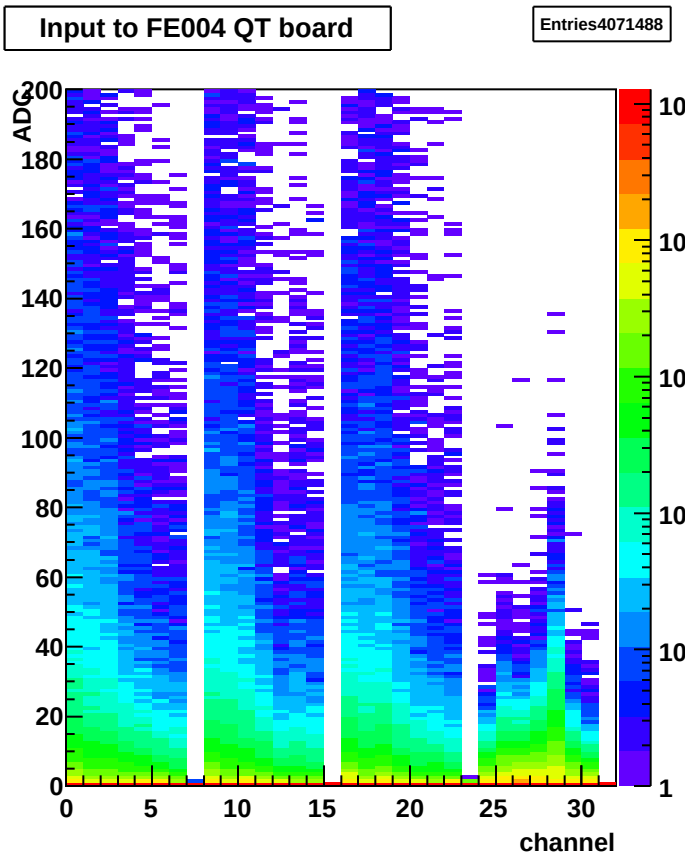

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

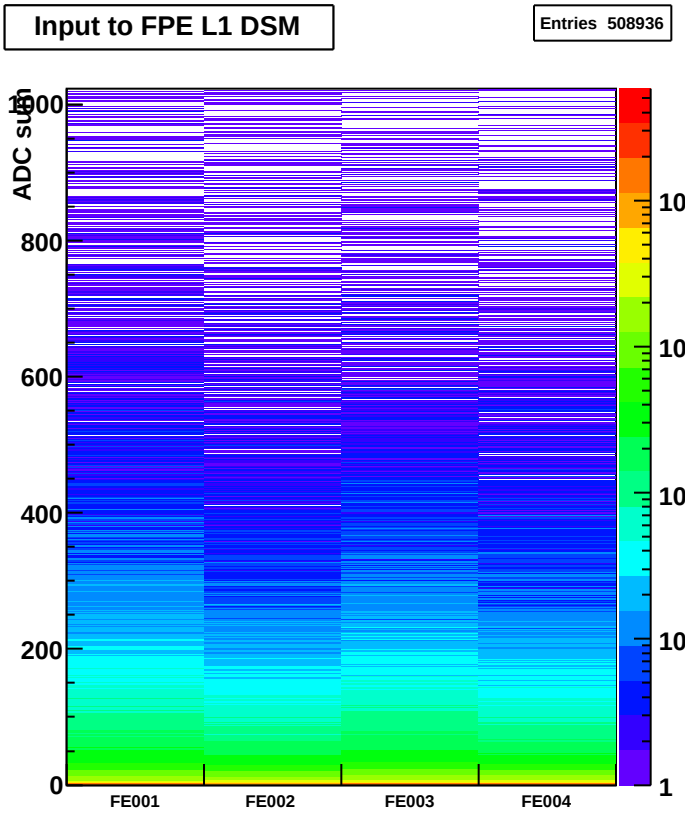

Input to FPD L2 DSM
Entries 508128
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4

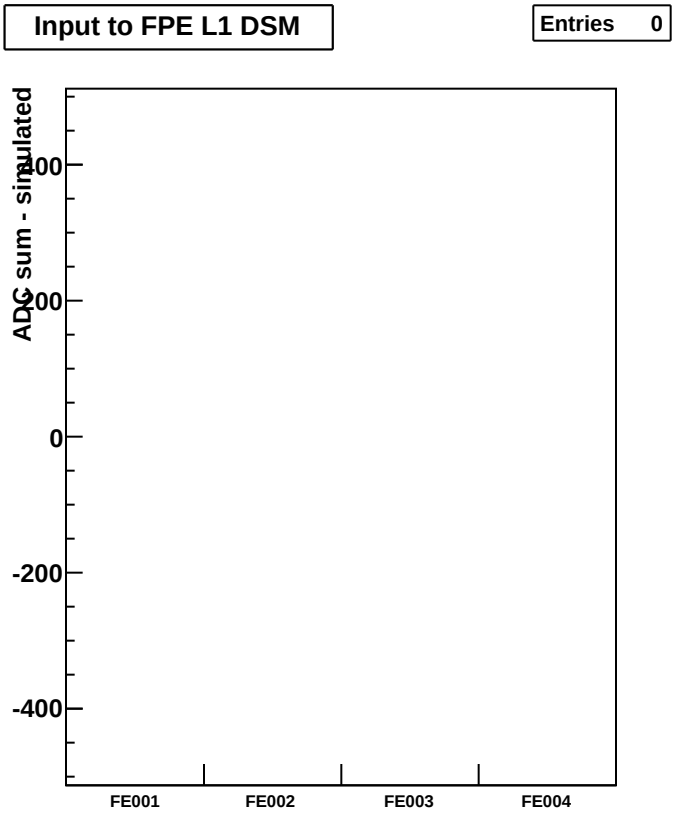

Input to FE001 QT board
Entries4071488
ADC
channel

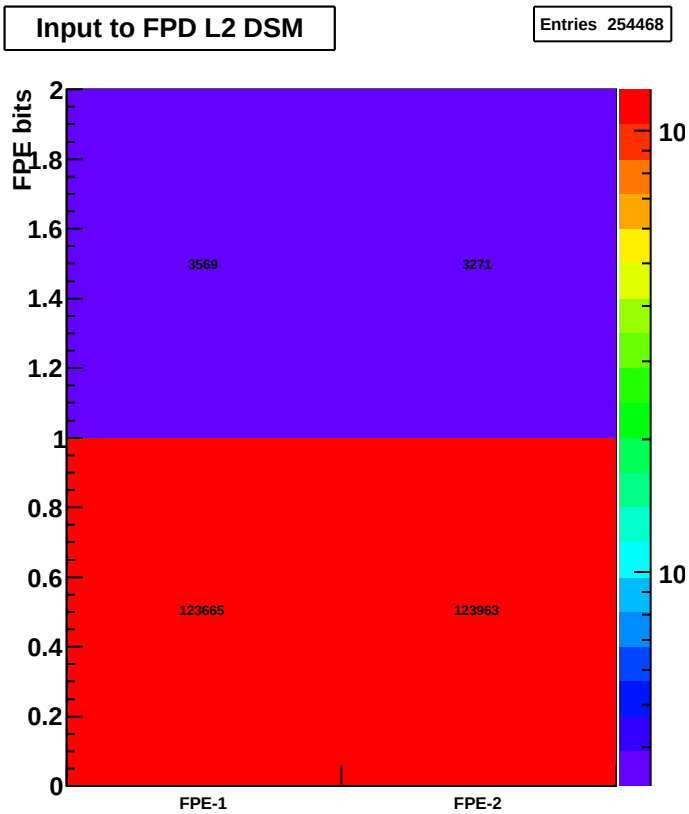

Input to FE002 QT board
Entries4071488
ADC
channel

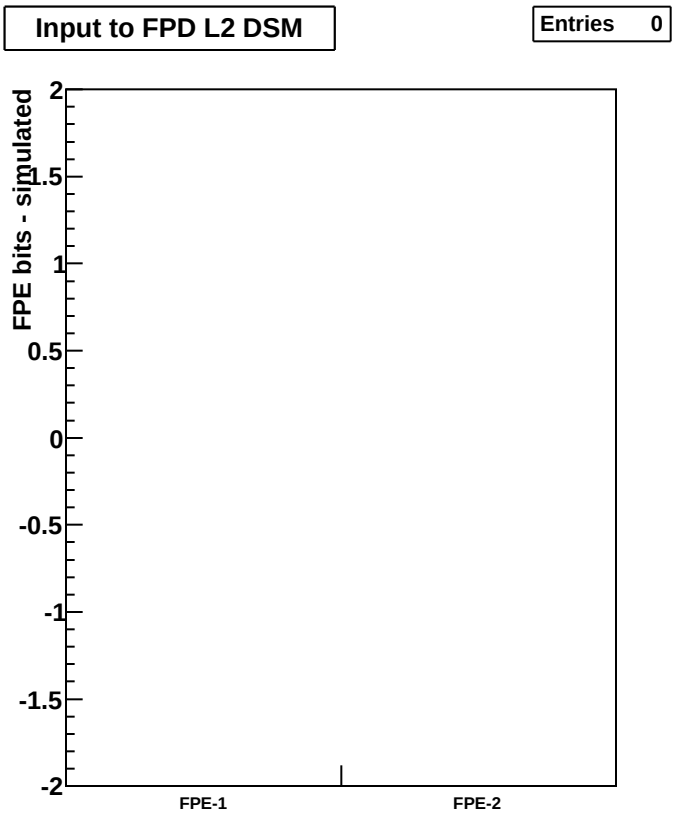

Input to FE003 QT board
Entries4071488
ADC
channel


Input to FE004 QT board
Entries4071488
ADC
channel


Input to FPE L1 DSM
Entries 508936
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 254468
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
3569
3271
123665
123963
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