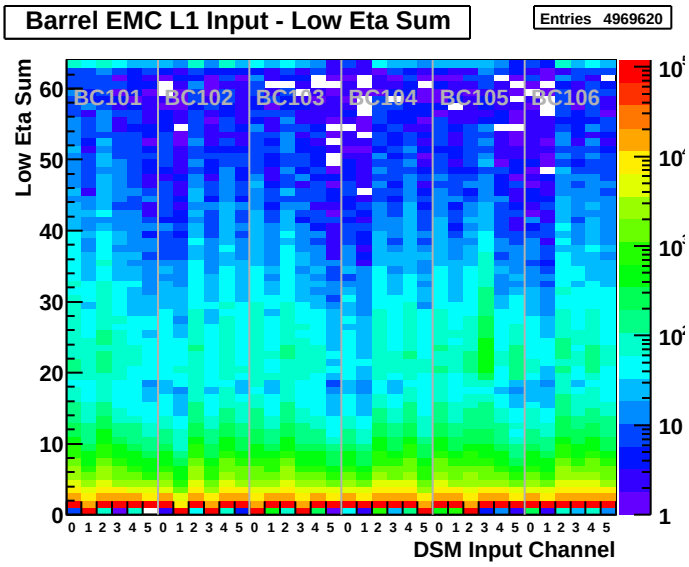
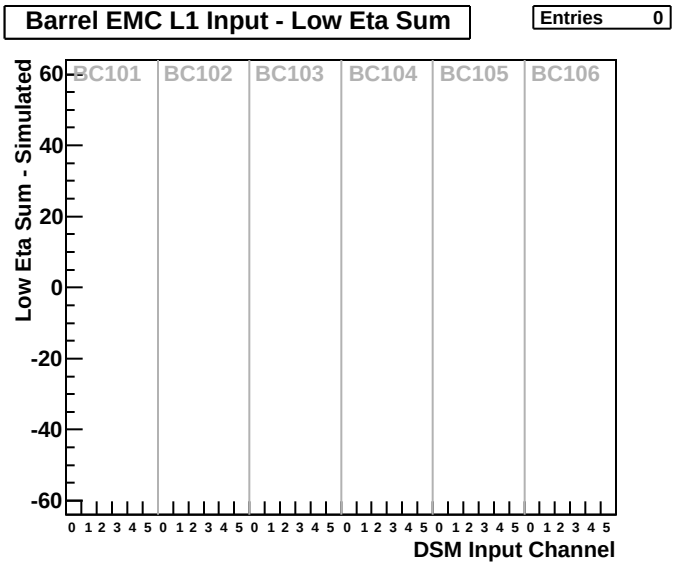
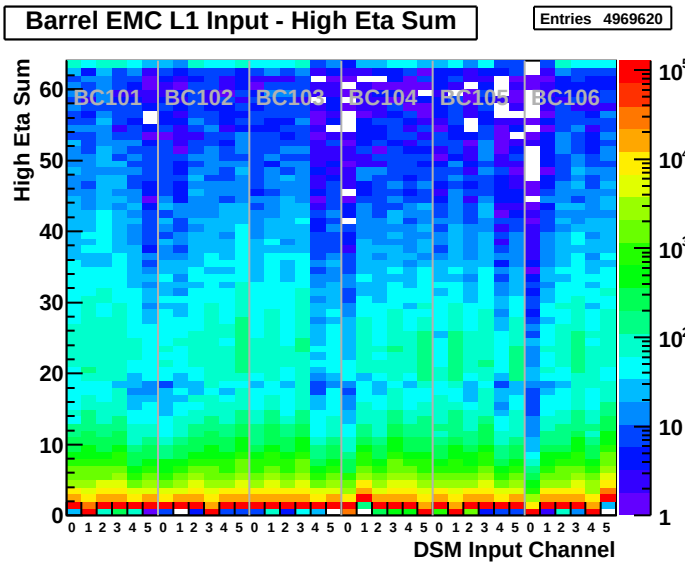
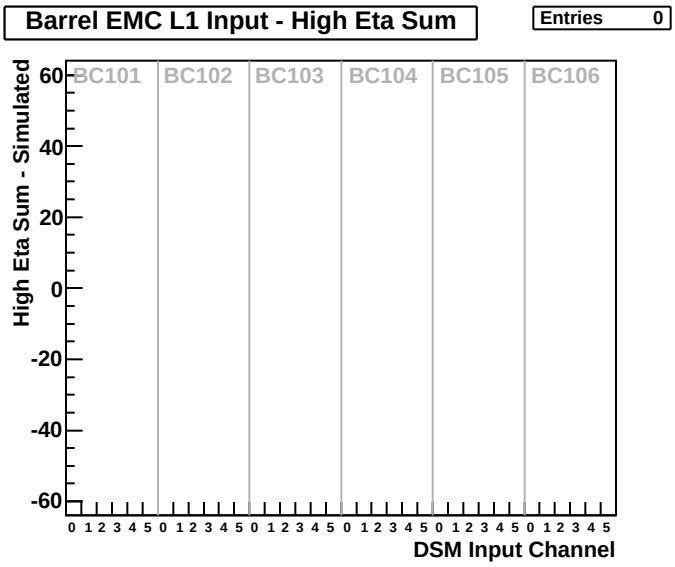
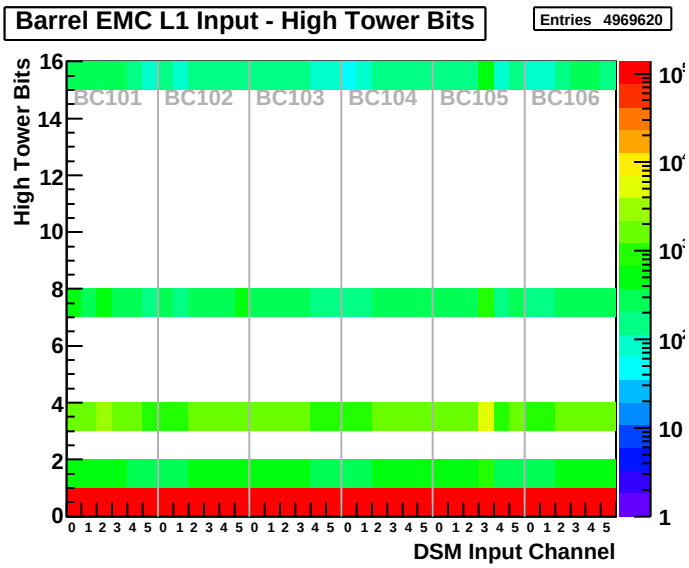
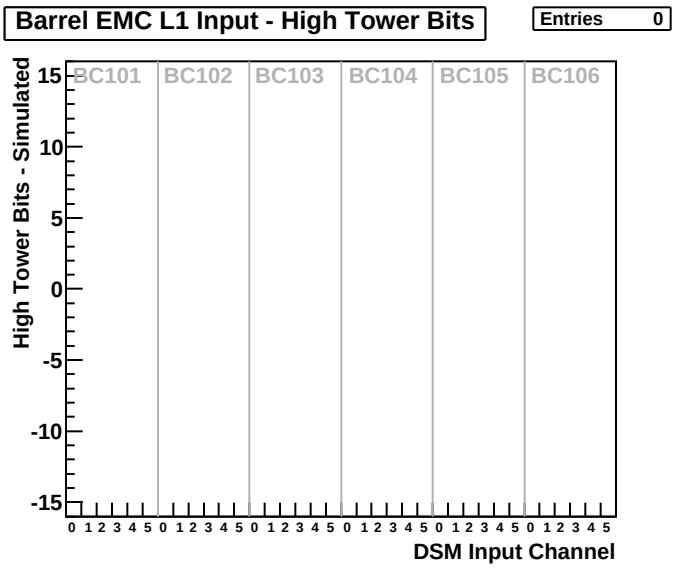

Barrel EMC L1 Input - Low Eta Sum
Entries 4969620
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

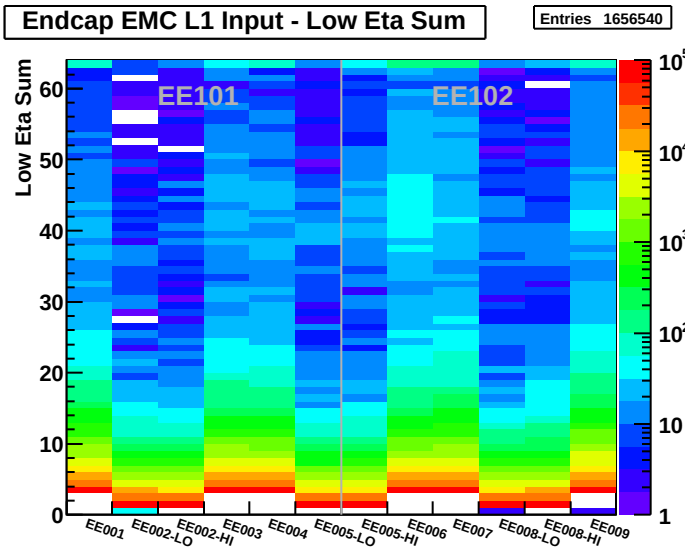

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

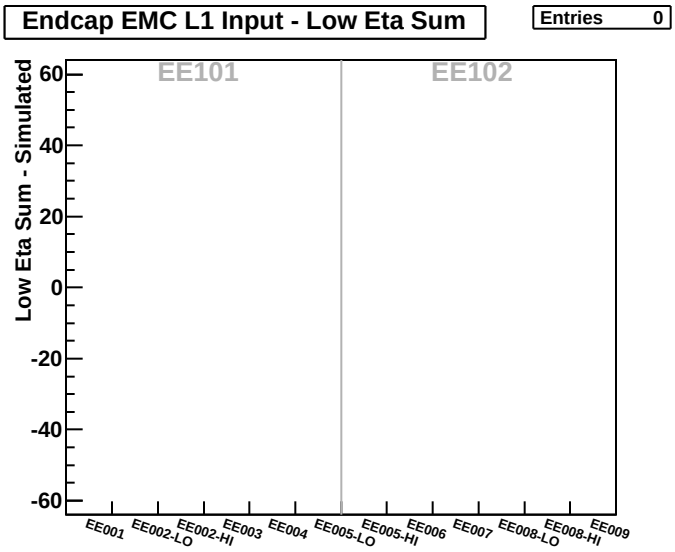

Barrel EMC L1 Input - High Eta Sum
Entries 4969620
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

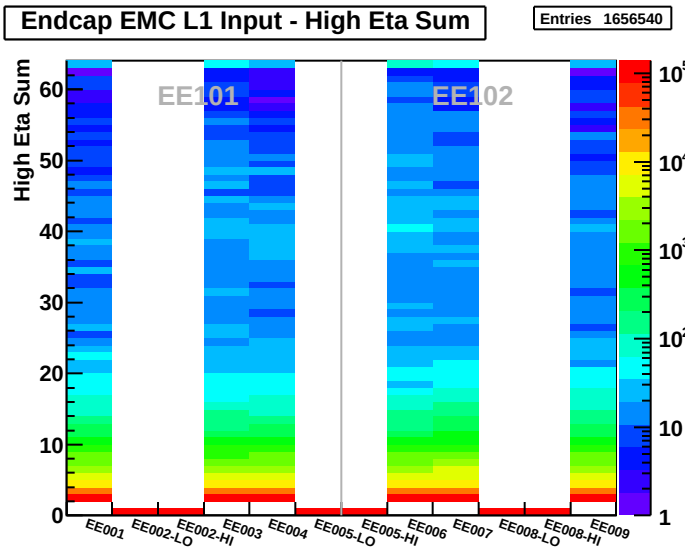

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

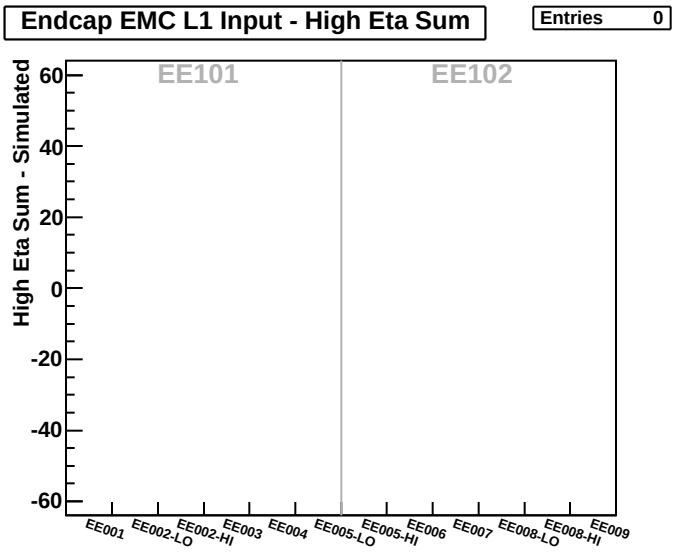

Barrel EMC L1 Input - High Tower Bits
Entries 4969620
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

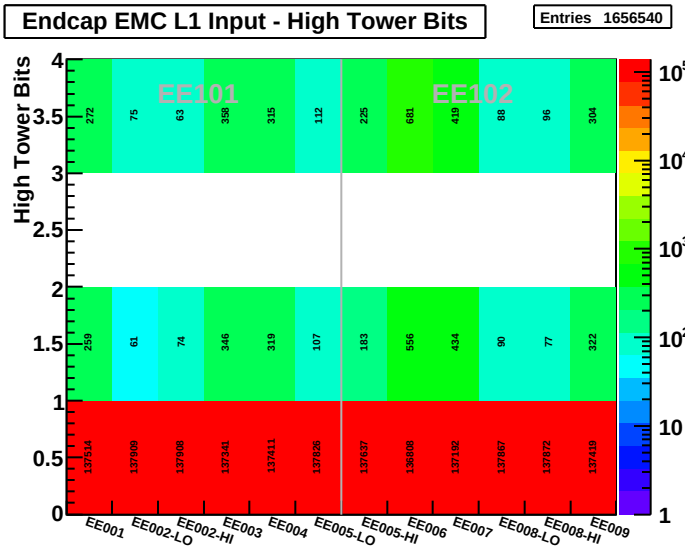

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

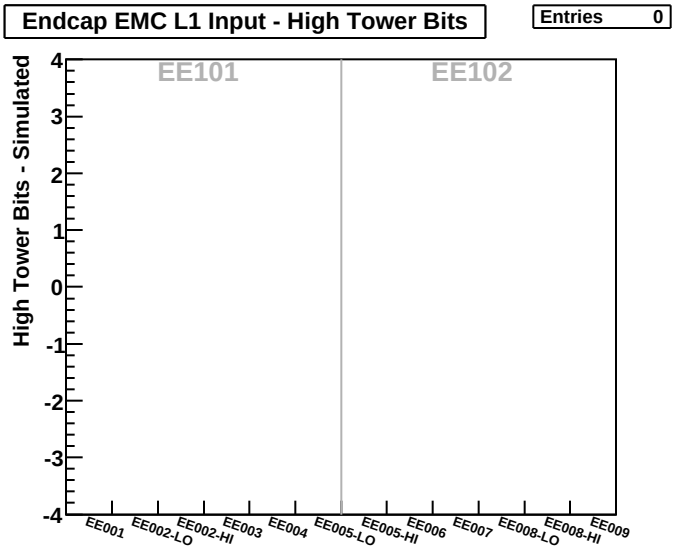

Endcap EMC L1 Input - Low Eta Sum
Entries 1656540
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

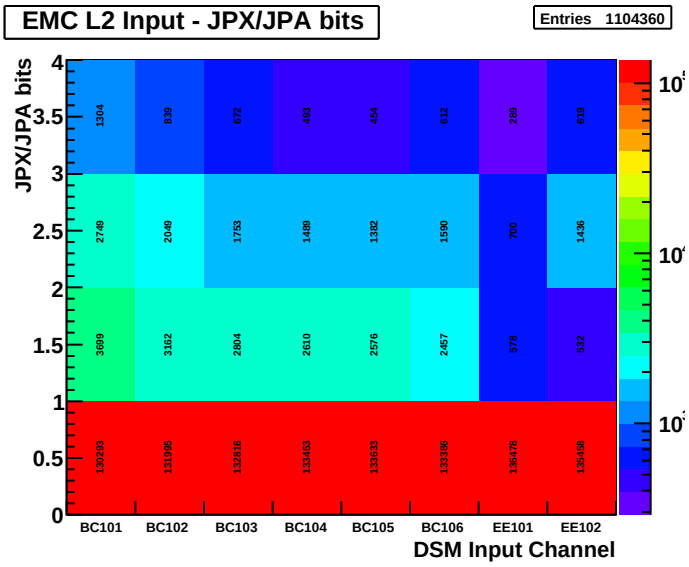

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

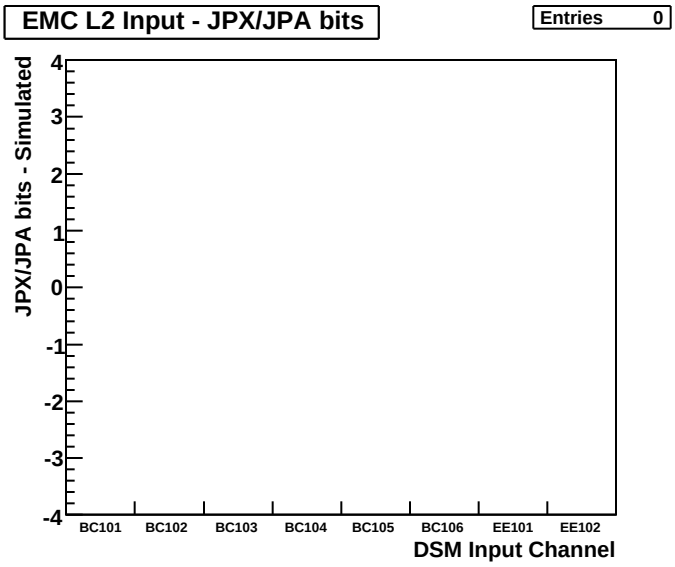

Endcap EMC L1 Input - High Eta Sum
Entries 1656540
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

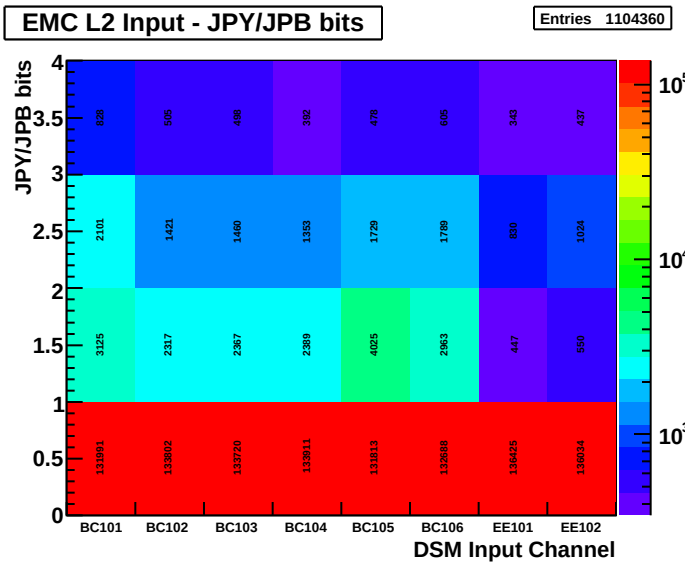

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

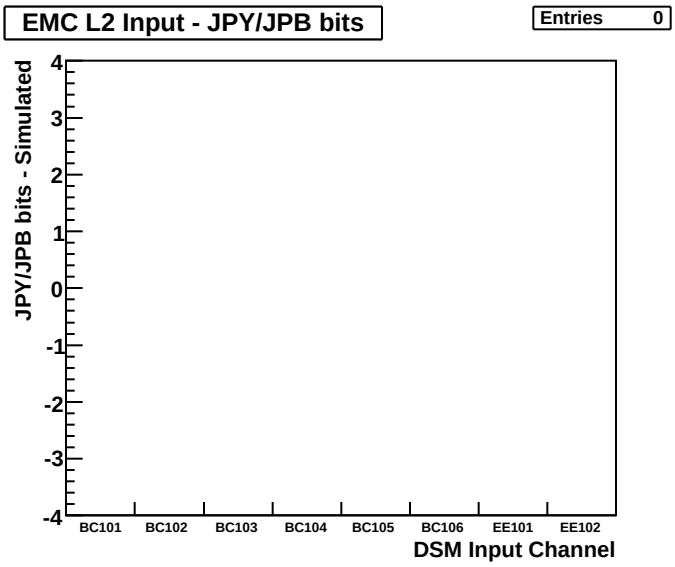

Endcap EMC L1 Input - High Tower Bits
Entries 1656540
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

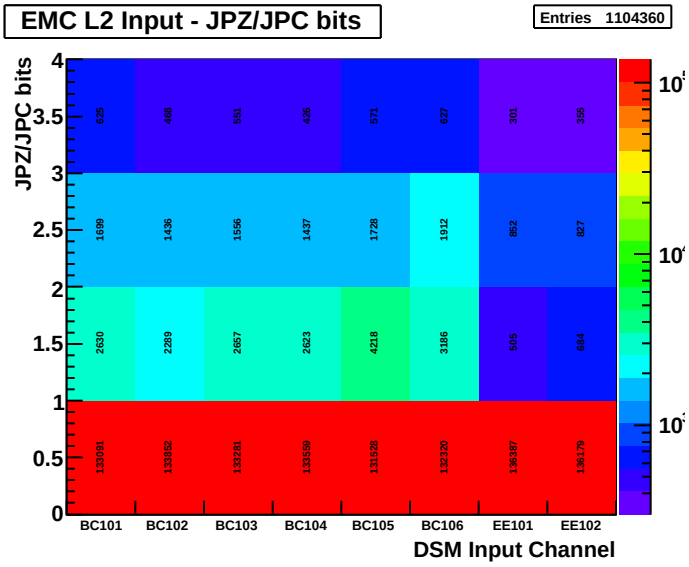

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

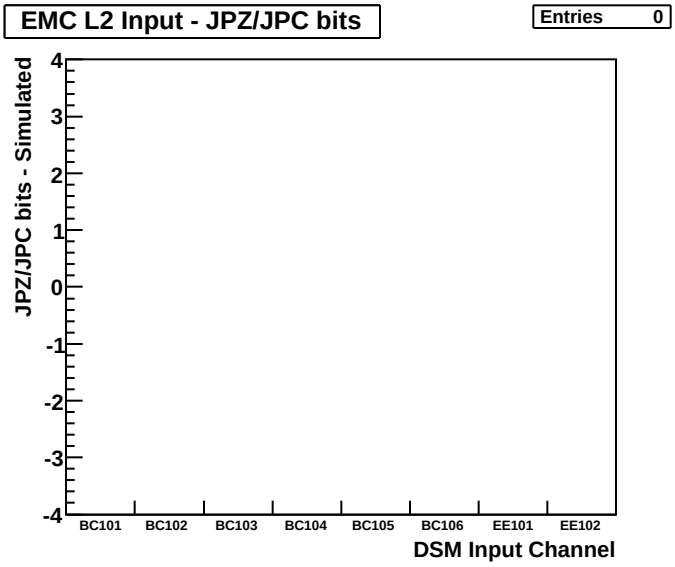

EMC L2 Input - JPX/JPA bits
Entries 1104360
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1304 839 672 493 454 612 289 619
2749 2049 1753 1489 1382 1590 700 1436
3699 3162 2804 2610 2576 2457 576 532
130283 131995 132816 133453 133633 133386 136478 135458

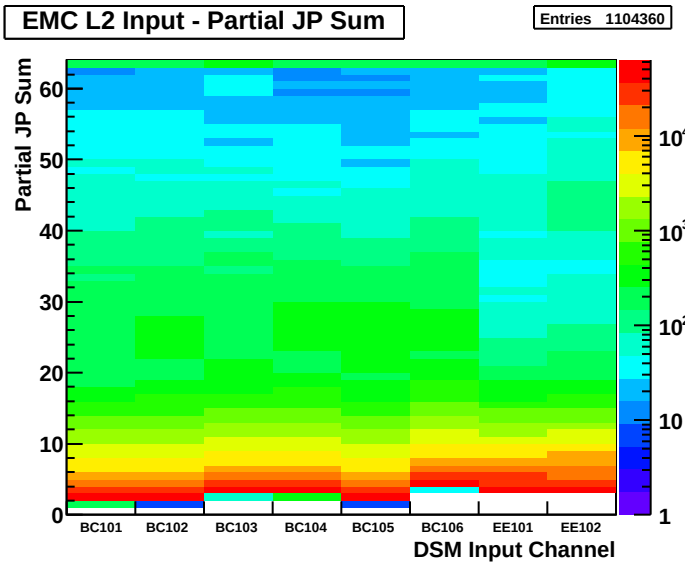

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

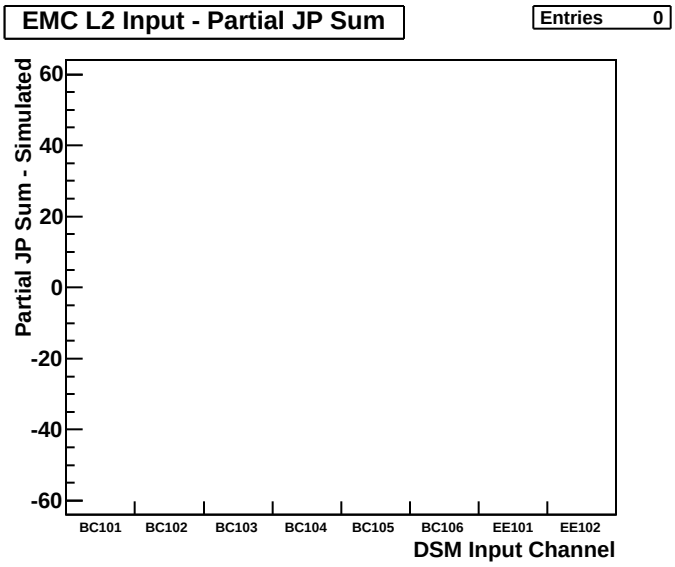

EMC L2 Input - JPY/JPB bits
Entries 1104360
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
626 506 498 392 478 605 343 437
2101 1421 1460 1353 1729 1789 830 1024
3125 2317 2367 2389 4025 2963 447 550
131991 133802 133720 133911 131913 133688 136425 136034

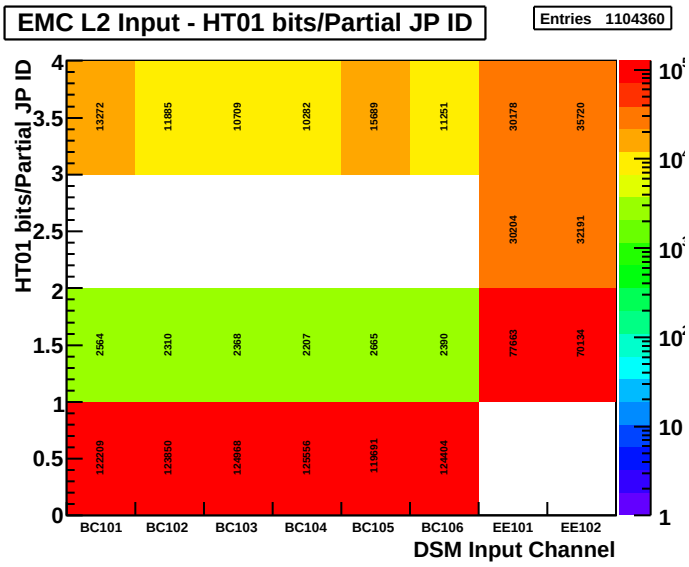

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

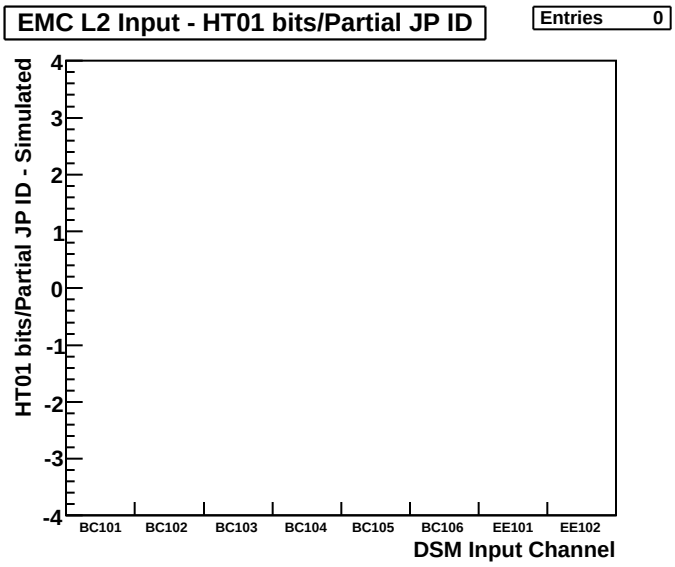

EMC L2 Input - JPZ/JPC bits
Entries 1104360
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
625 468 551 426 571 627 301 355
1699 1436 1556 1437 1728 1912 852 827
2630 2289 2657 2623 4218 3186 505 634
133091 133852 133281 133559 131528 132320 136387 136179

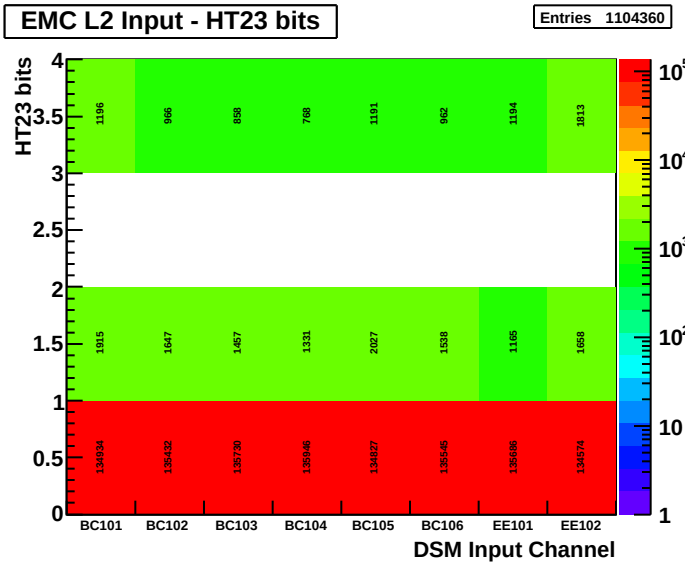

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

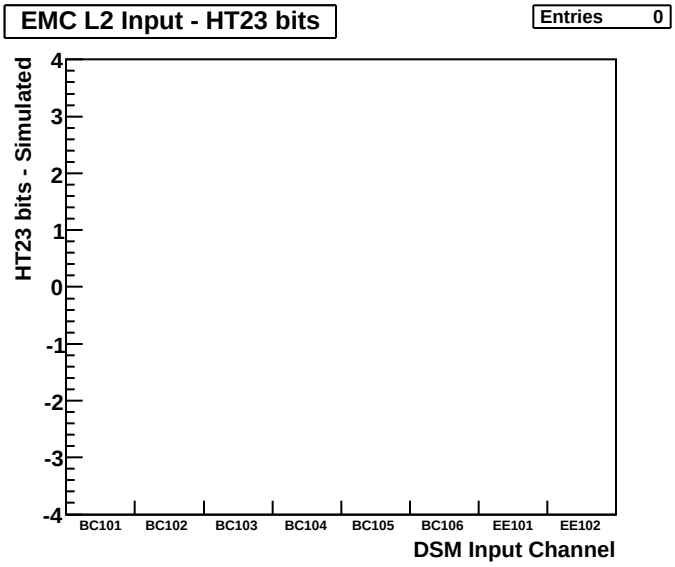

EMC L2 Input - Partial JP Sum
Entries 1104360
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

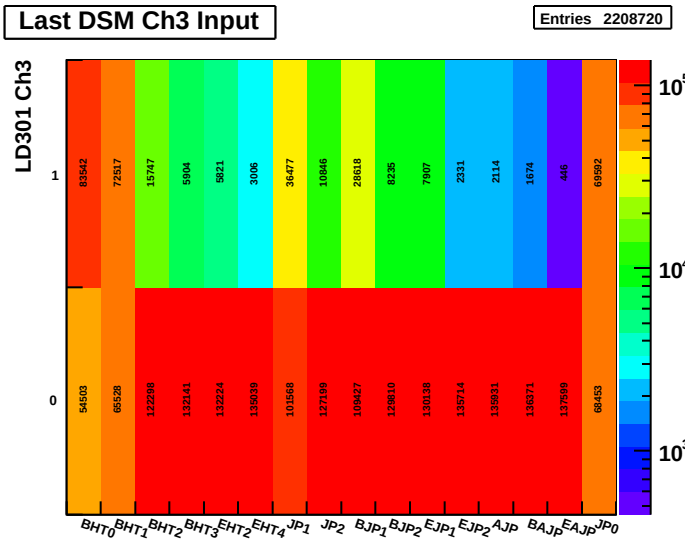

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

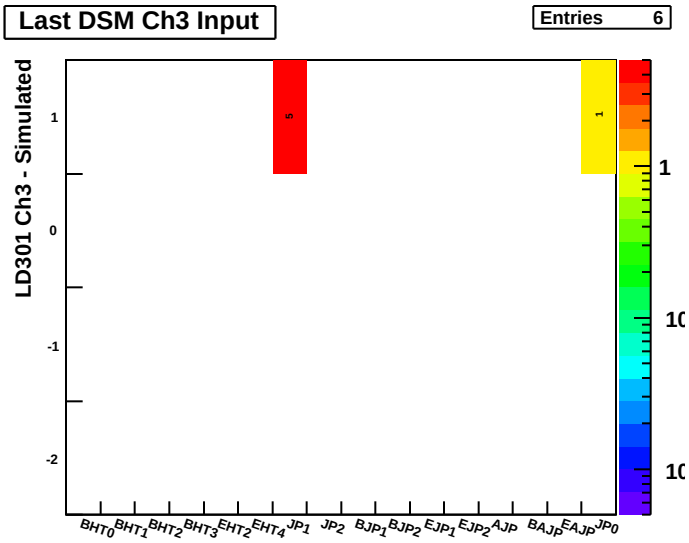

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1104360
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

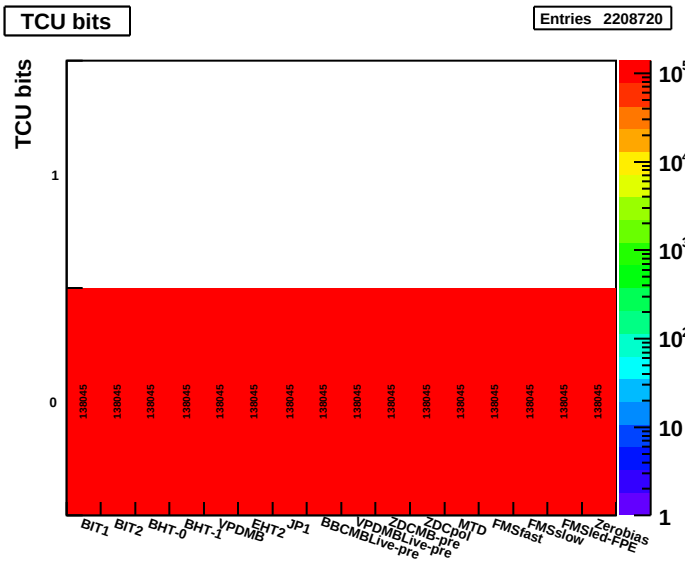

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

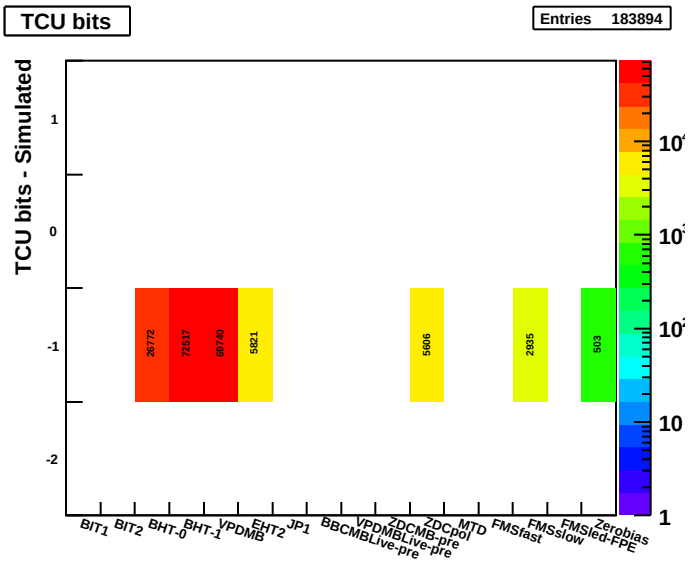

EMC L2 Input - HT23 bits
Entries 1104360
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

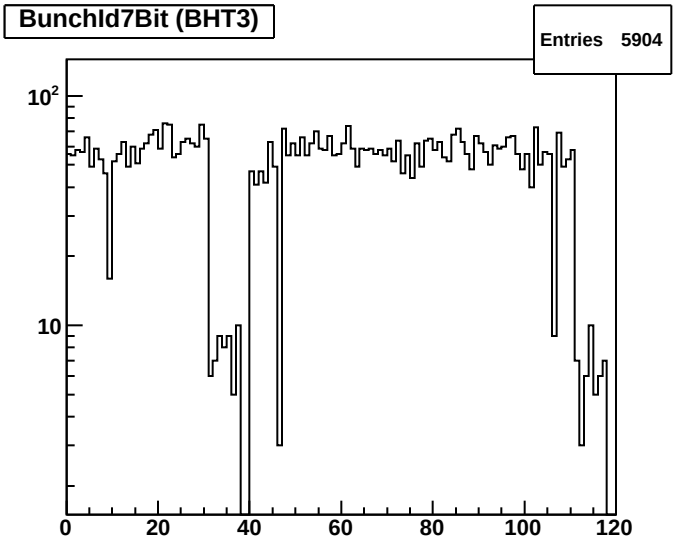

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

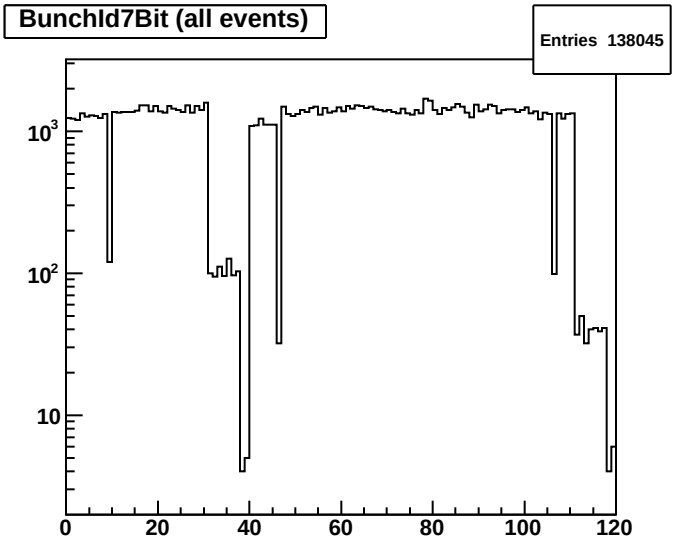

Last DSM Ch3 Input
Entries 2208720
LD301 Ch3
1
0
83542 72517 15747 5904 5821 3006 36477 10846 28618 8235 7907 2331 2114 1674 446 69592
54503 65528 122298 132141 132224 135039 101568 127199 109427 128810 130138 135714 135931 136371 137599 68453
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

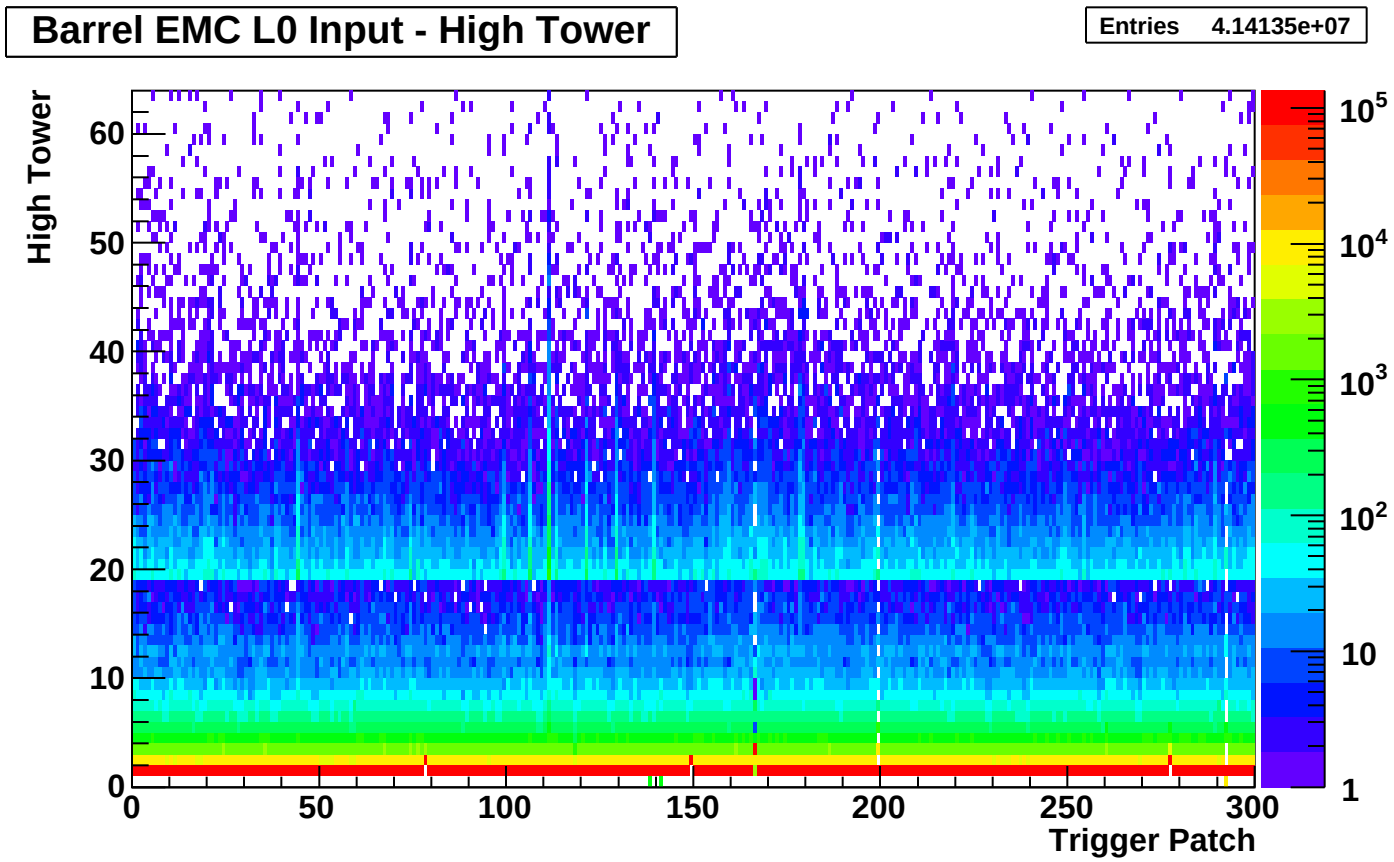

Last DSM Ch3 Input
Entries 6
LD301 Ch3 - Simulated
1
0
-1
-2
5
1
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

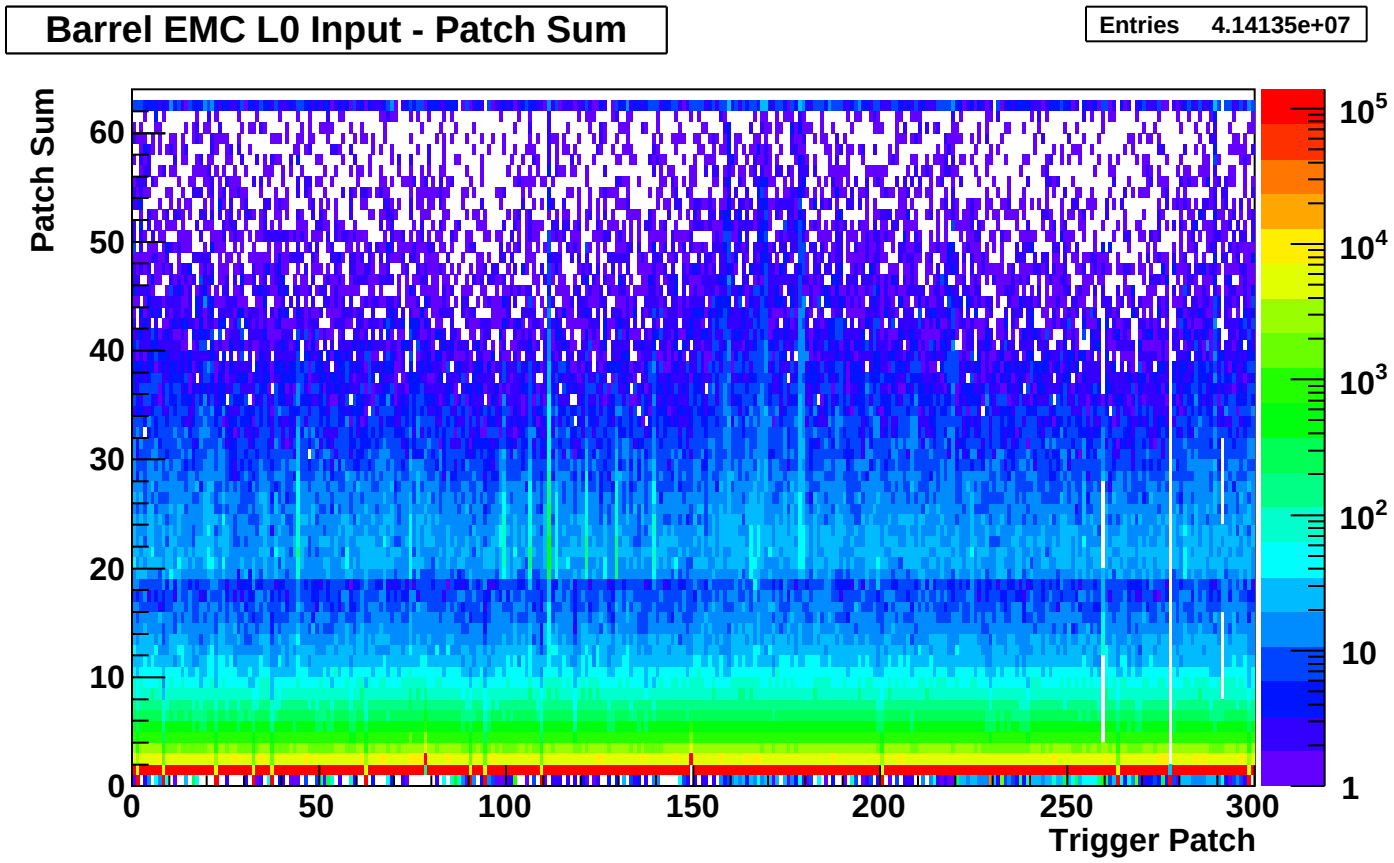

TCU bits
Entries 2208720
TCU bits
1
0
138045 138045 138045 138045 138045 138045 138045 138045 138045 138045 138045 138045 138045 138045 138045 138045
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

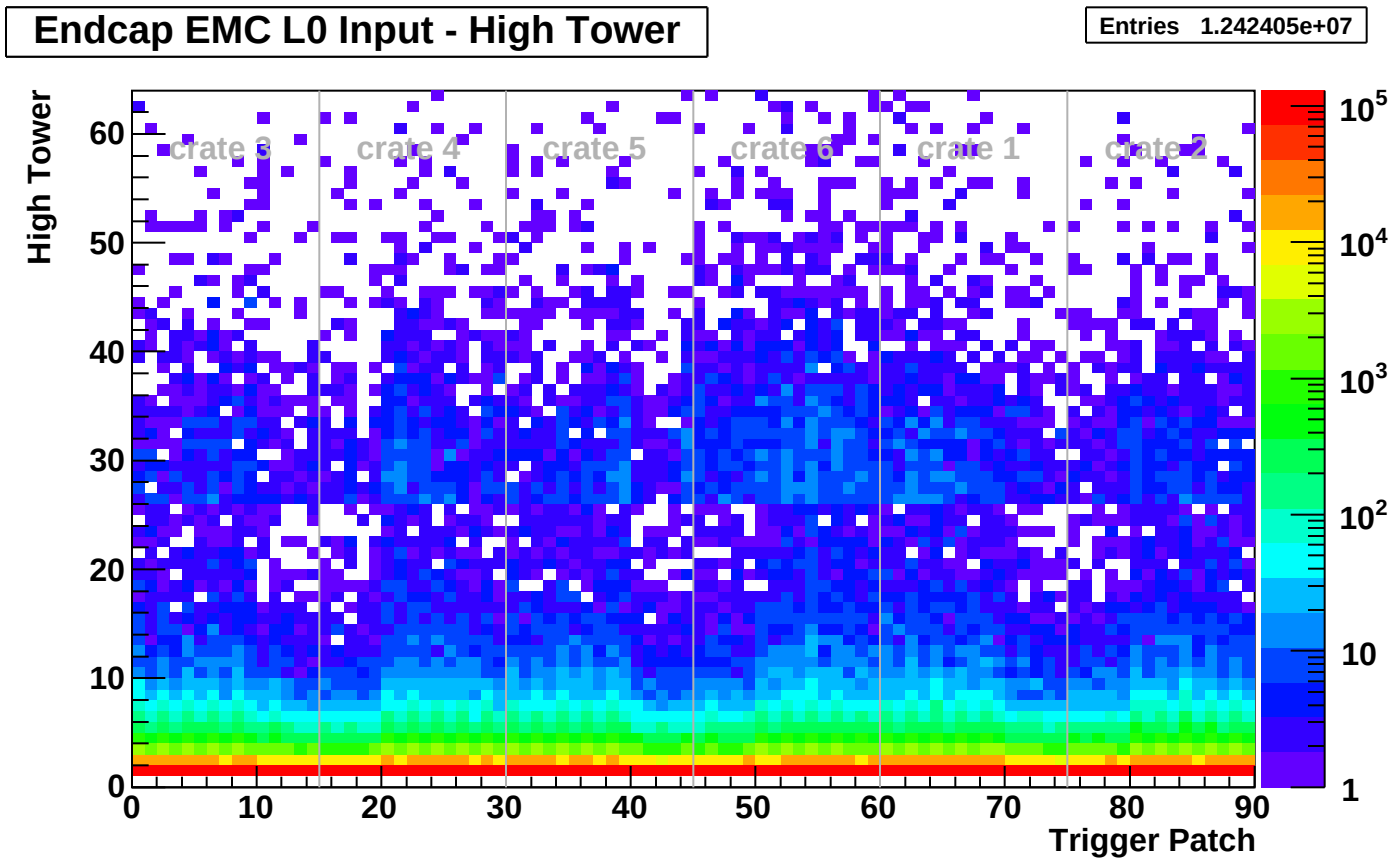

TCU bits
Entries 183894
TCU bits - Simulated
1
0
-1
-2
26772 72517 69740 5821 5606 2935 503
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

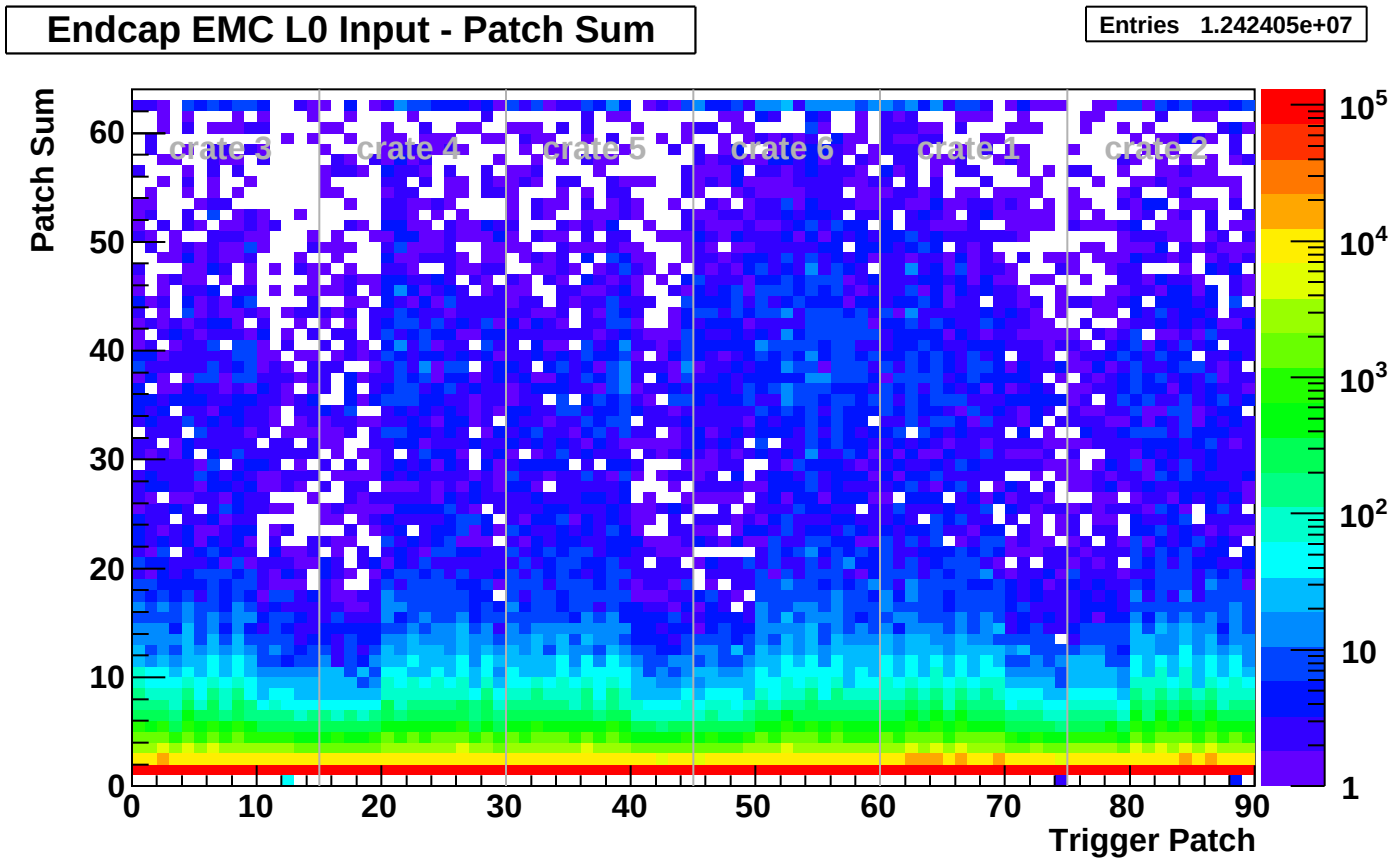

BunchId7Bit (BHT3)
Entries 5904
10
0 20 40 60 80 100 120

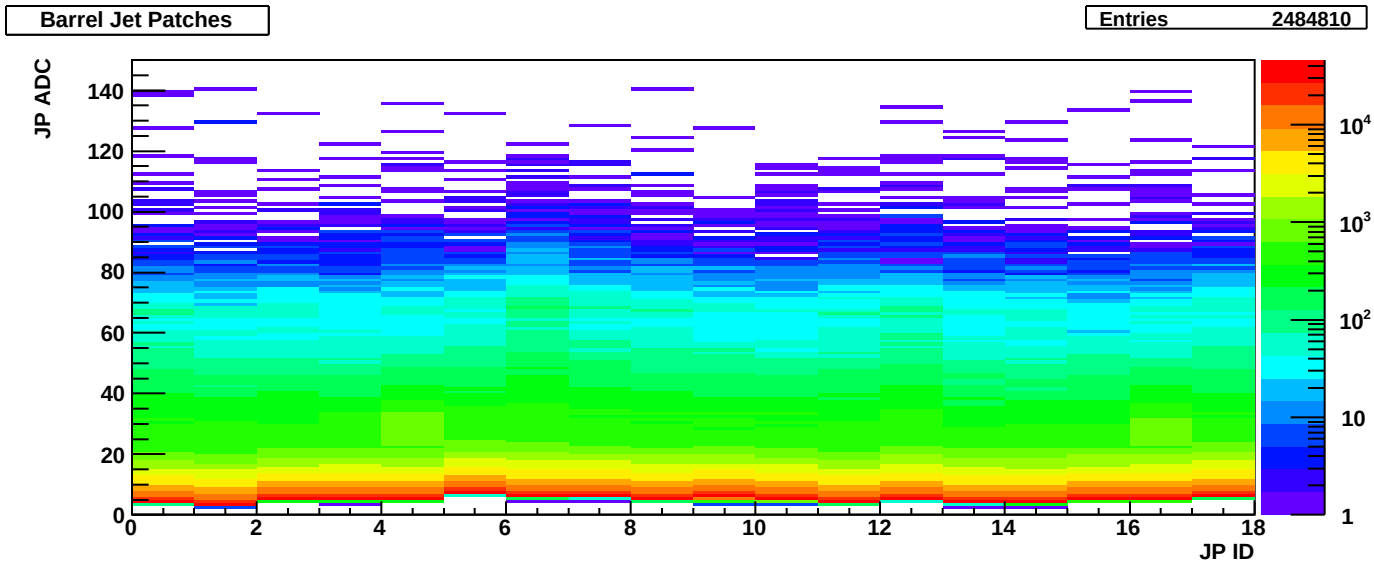

BunchId7Bit (all events)
Entries 138045
10
0 20 40 60 80 100 120

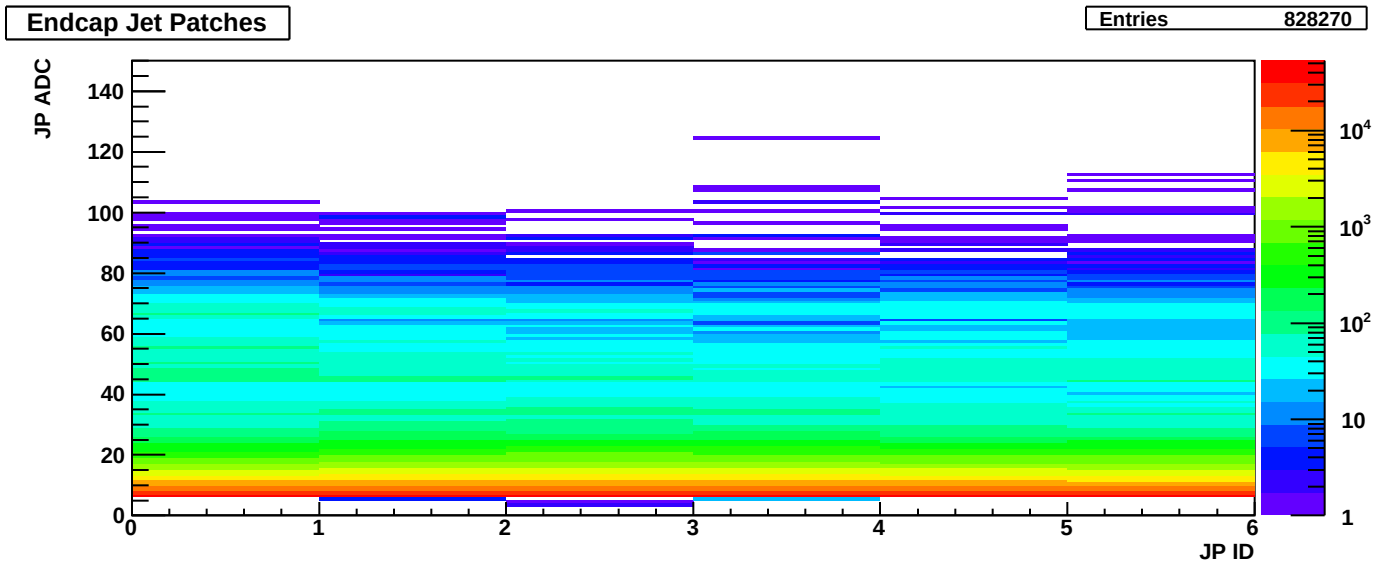

Barrel EMC L0 Input - High Tower
Entries 4.14135e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

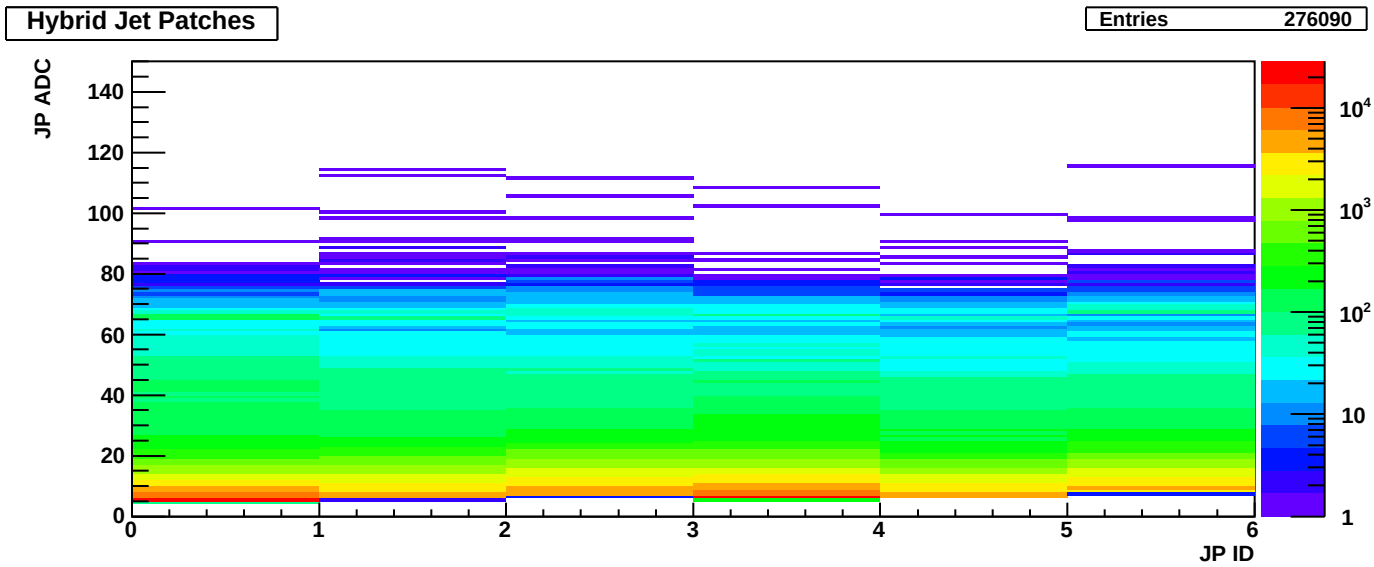

Barrel EMC L0 Input - Patch Sum
Entries 4.14135e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

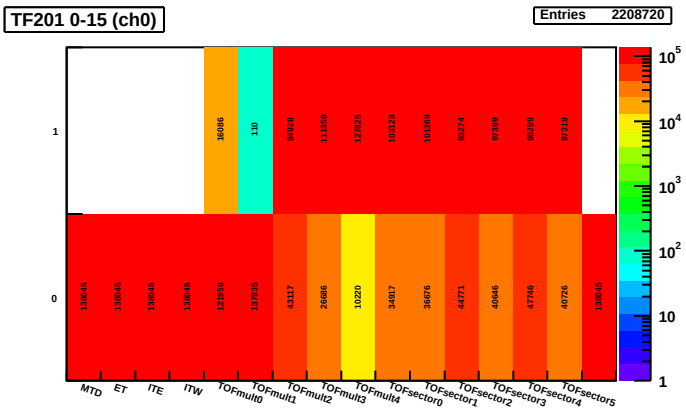

Endcap EMC L0 Input - High Tower
Entries 1.242405e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

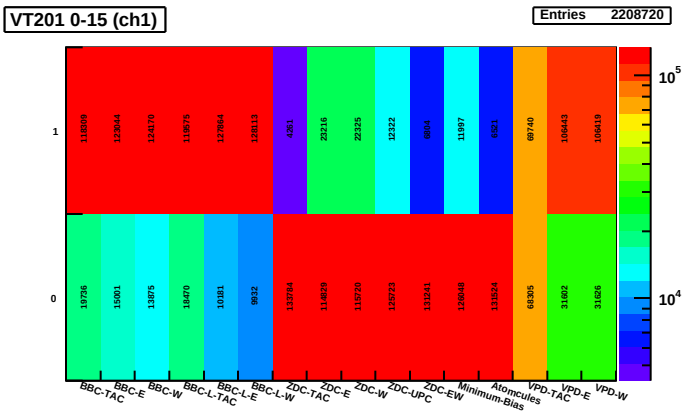

Endcap EMC L0 Input - Patch Sum
Entries 1.242405e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

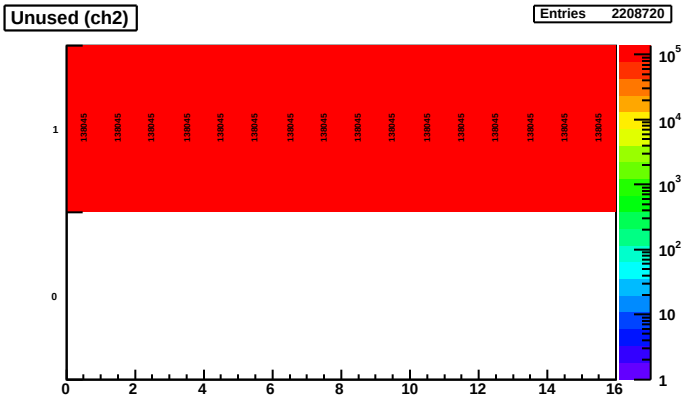

Barrel Jet Patches
Entries 2484810
JP ADC
JP ID

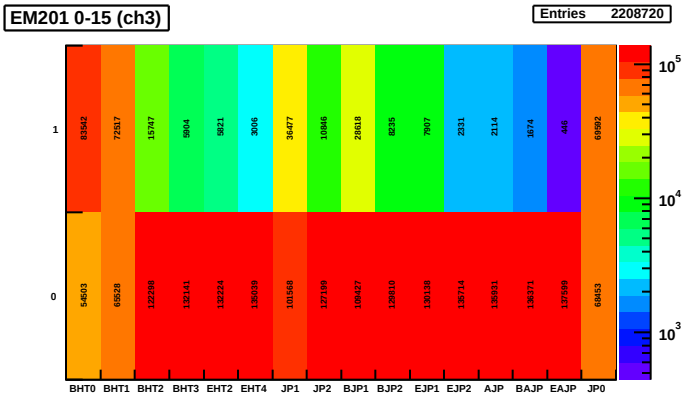

Endcap Jet Patches
Entries 828270
JP ADC
JP ID

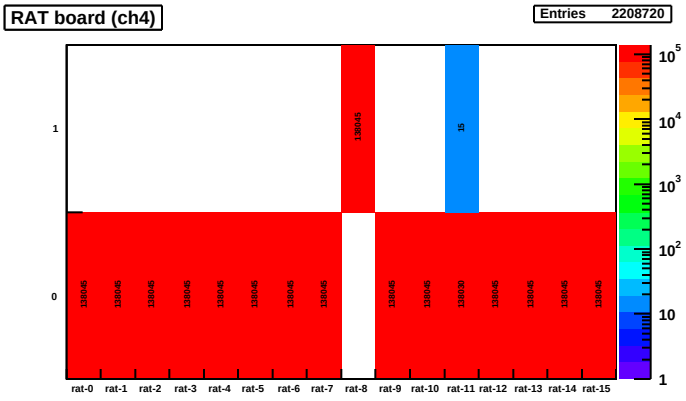

Hybrid Jet Patches
Entries 276090
JP ADC
JP ID

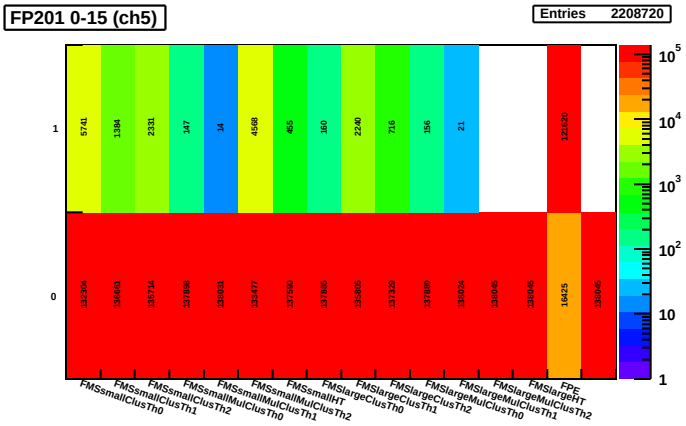

TF201 0-15 (ch0)
Entries 2208720
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

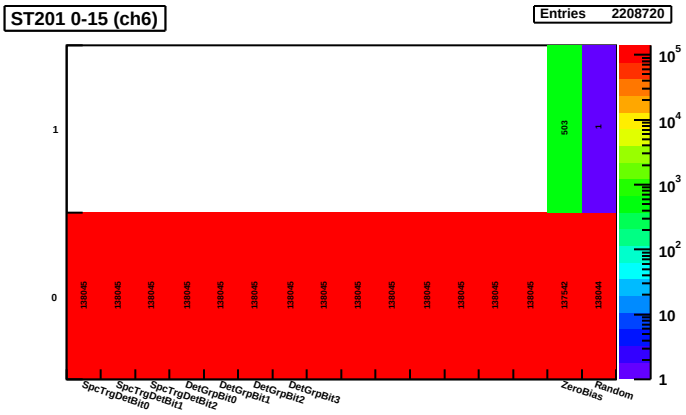

VT201 0-15 (ch1)
Entries 2208720
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

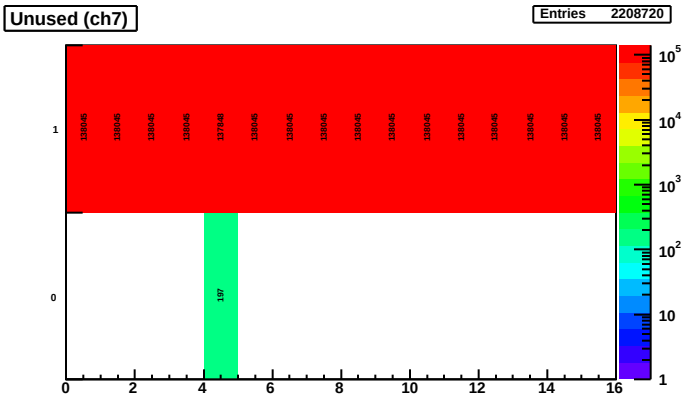

Unused (ch2)
Entries 2208720

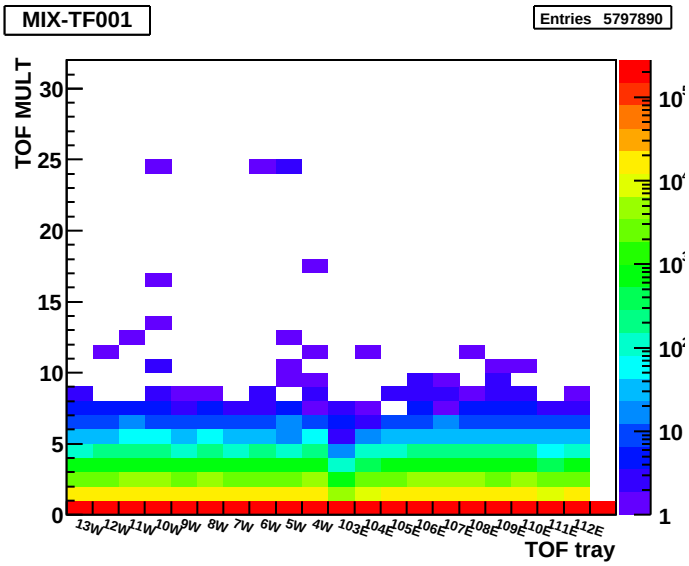

EM201 0-15 (ch3)
Entries 2208720
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

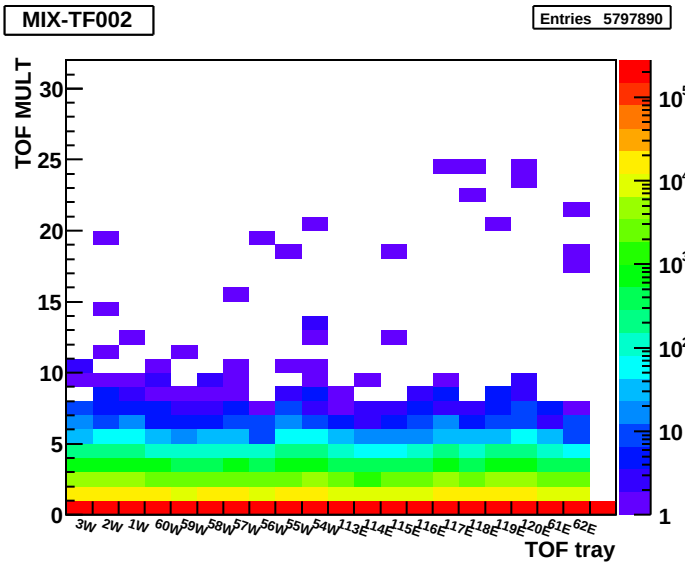

RAT board (ch4)
Entries 2208720
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

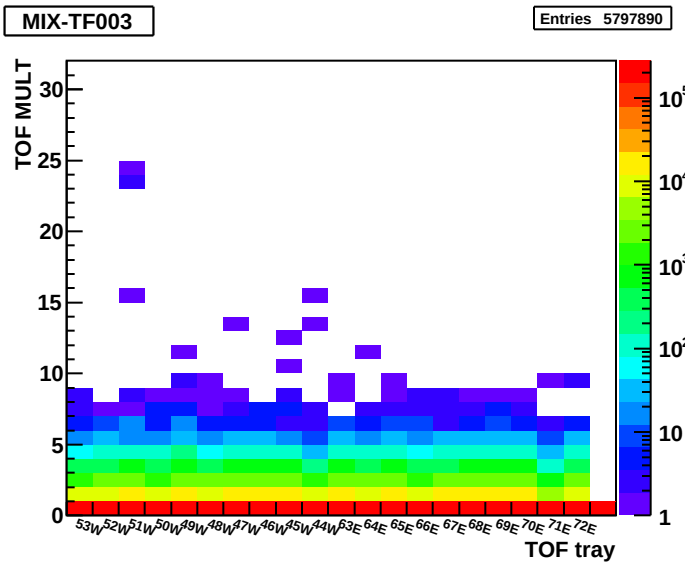

FP201 0-15 (ch5)
Entries 2208720
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

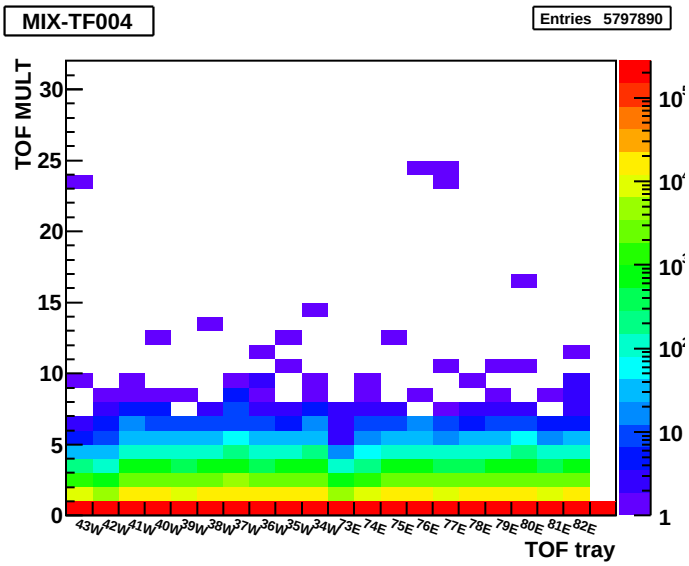

ST201 0-15 (ch6)
Entries 2208720
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetGrpBit0 DetGrpBit1 DetGrpBit2 DetGrpBit3 ZeroBias Random

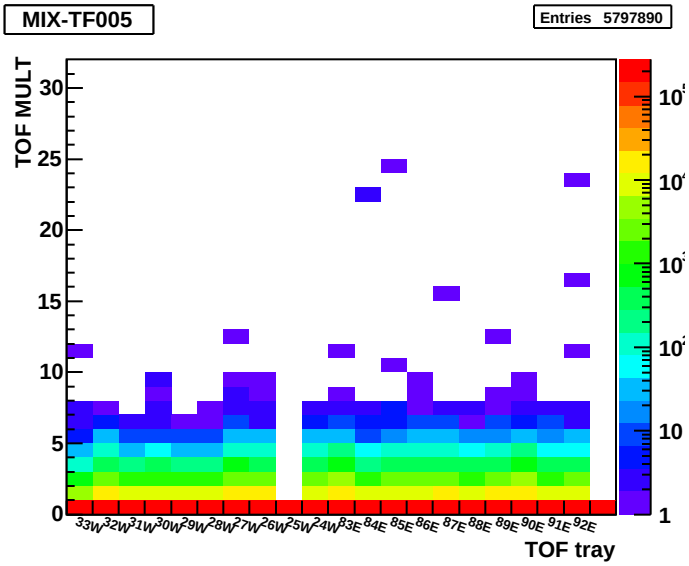

Unused (ch7)
Entries 2208720

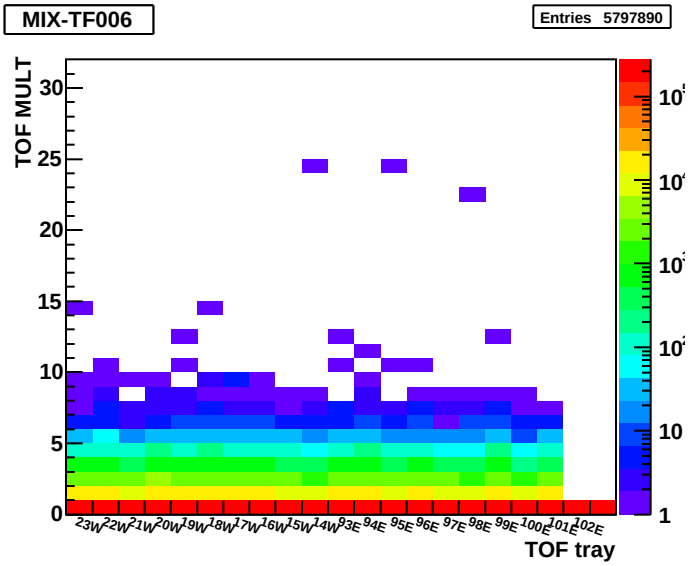

MIX-TF001
Entries 5797890
TOF MULT
TOF tray

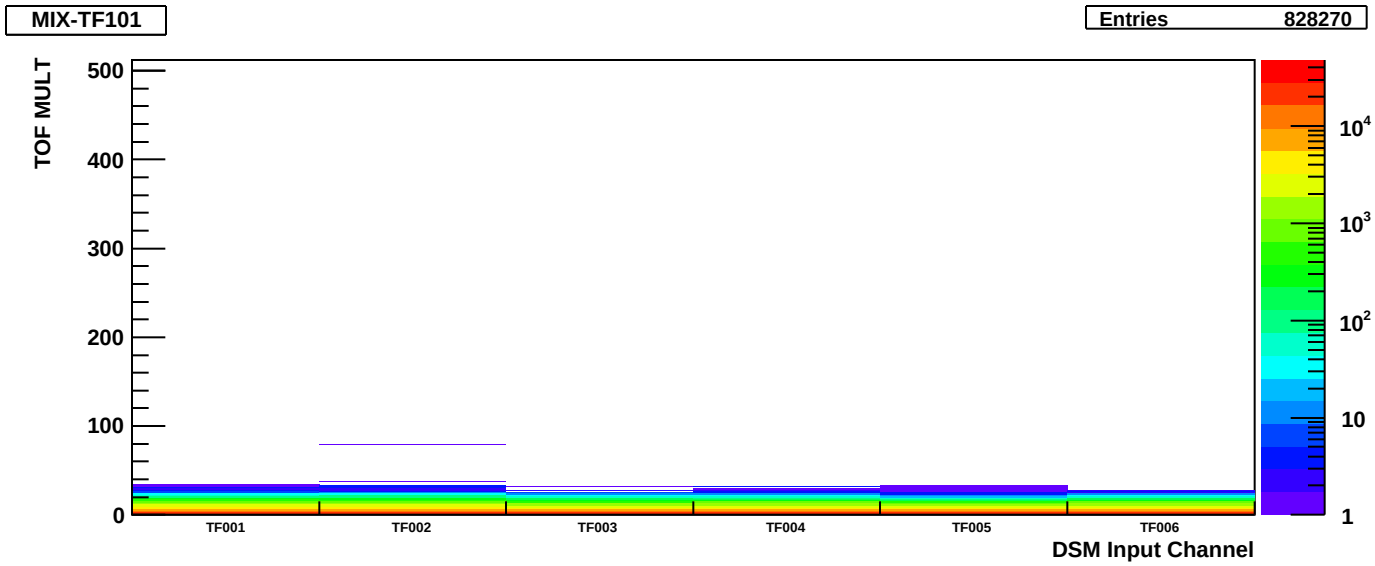

MIX-TF002
Entries 5797890
TOF MULT
TOF tray

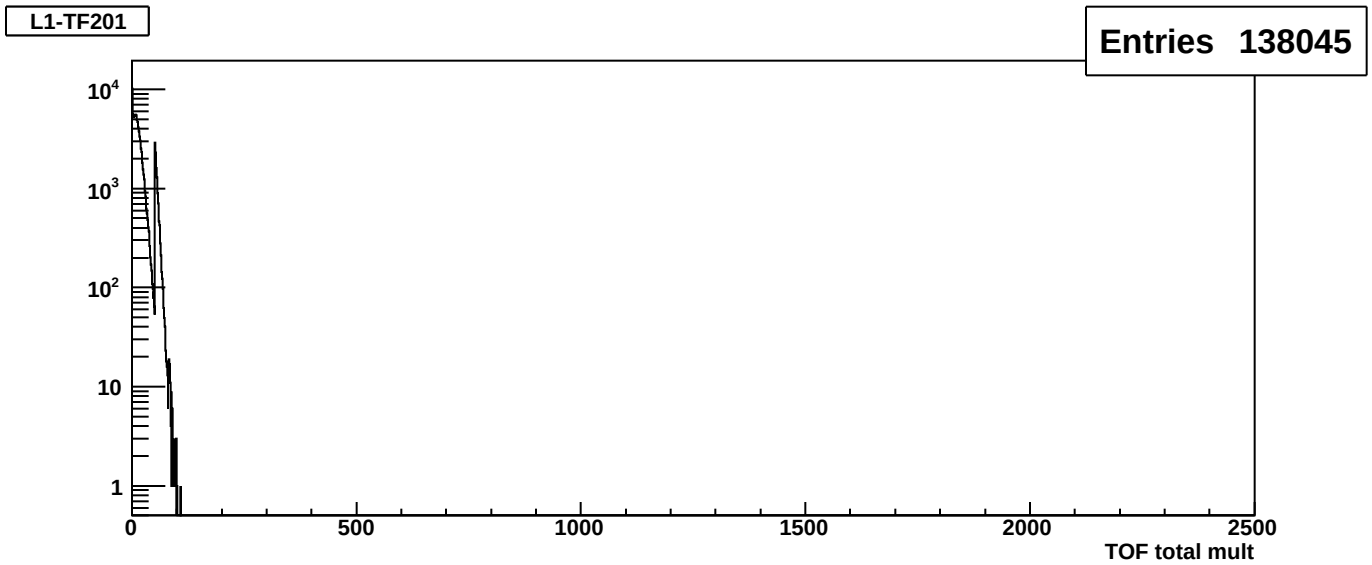

MIX-TF003
Entries 5797890
TOF MULT
TOF tray

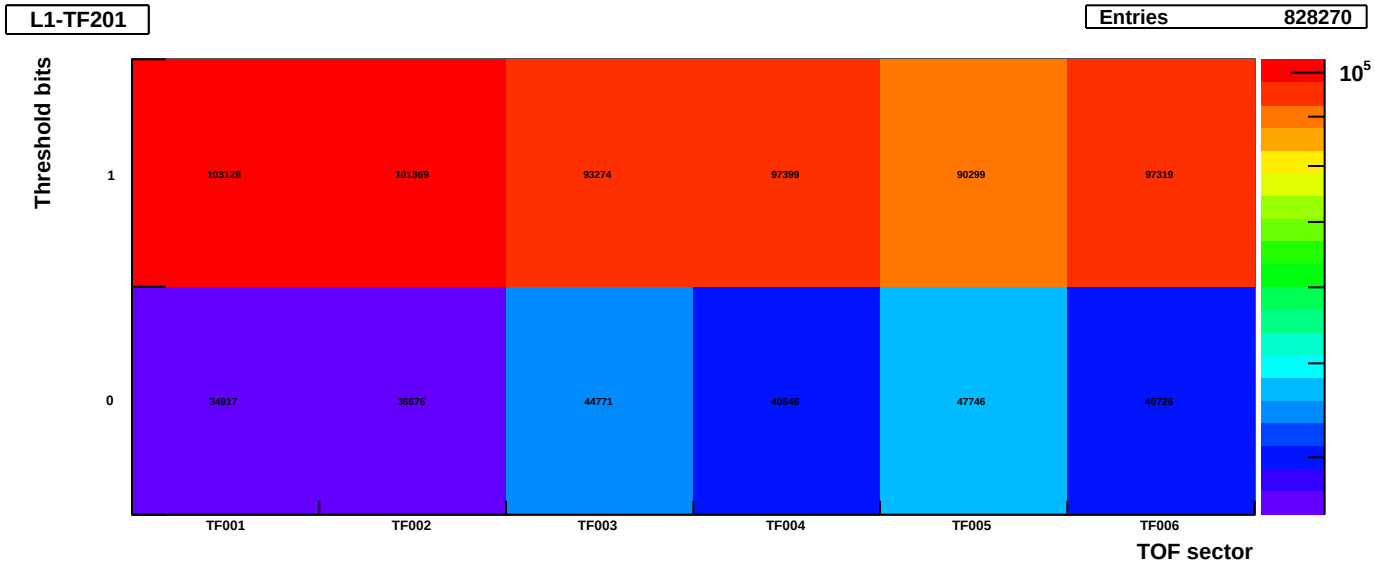

MIX-TF004
Entries 5797890
TOF MULT
TOF tray

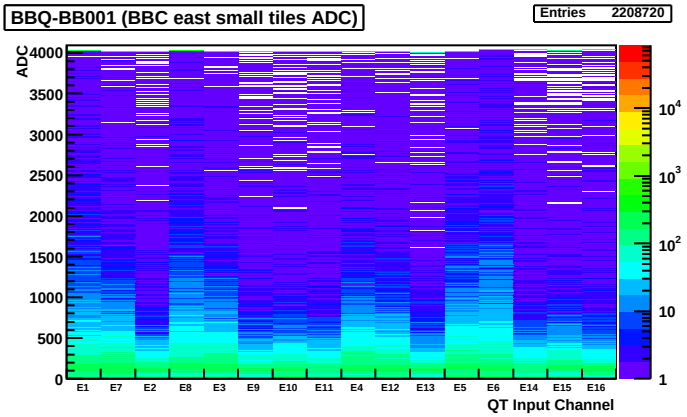

MIX-TF005
Entries 5797890
TOF MULT
TOF tray

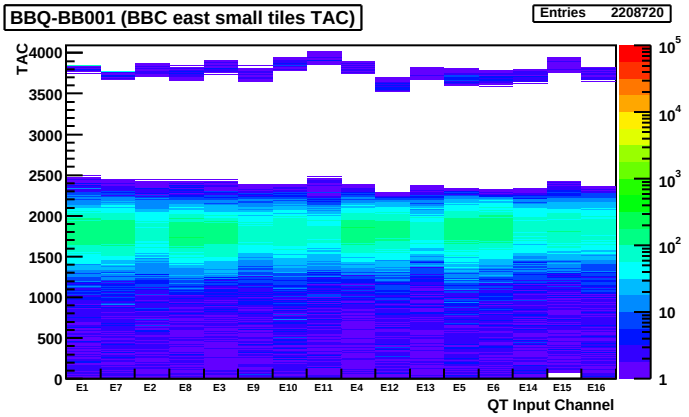

MIX-TF006
Entries 5797890
TOF MULT
TOF tray

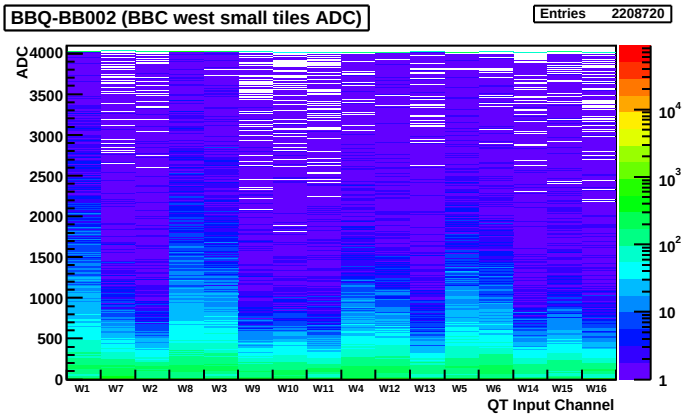

MIX-TF101
Entries 828270
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

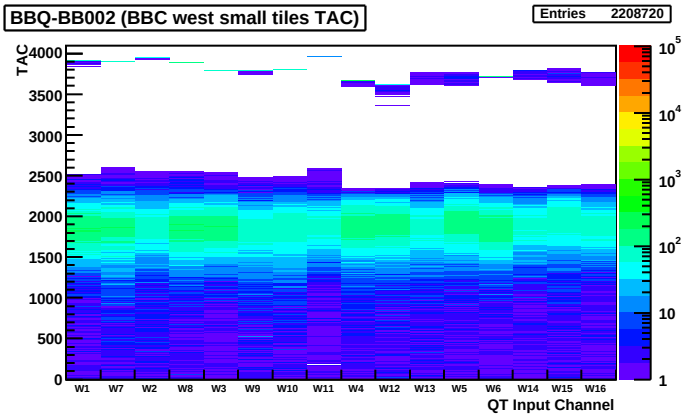

L1-TF201
Entries 138045
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

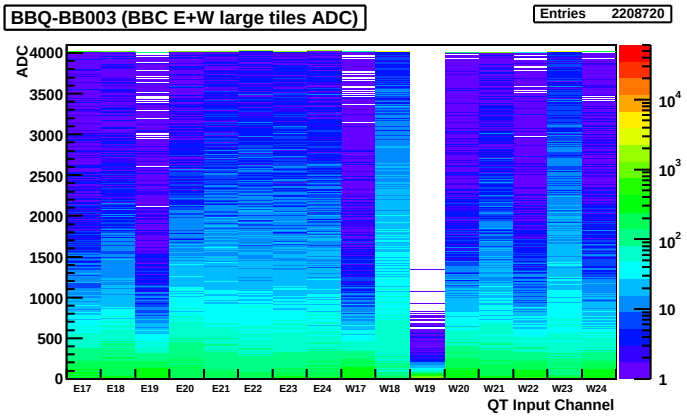

L1-TF201
Entries 828270
Threshold bits
1
0
103128
101369
93274
97399
90299
97319
34917
36676
44771
40646
47746
40726
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

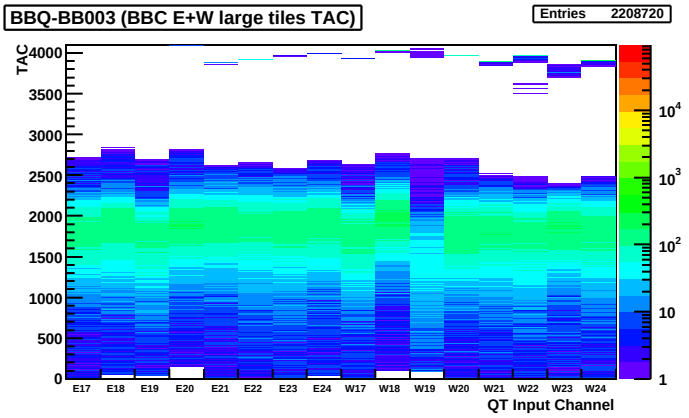

BBQ-BB001 (BBC east small tiles ADC)
Entries 2208720
ADC
QT Input Channel

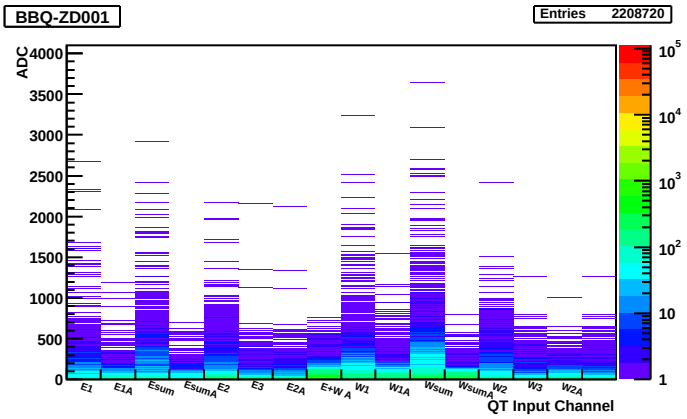

BBQ-BB001 (BBC east small tiles TAC)
Entries 2208720
TAC
QT Input Channel

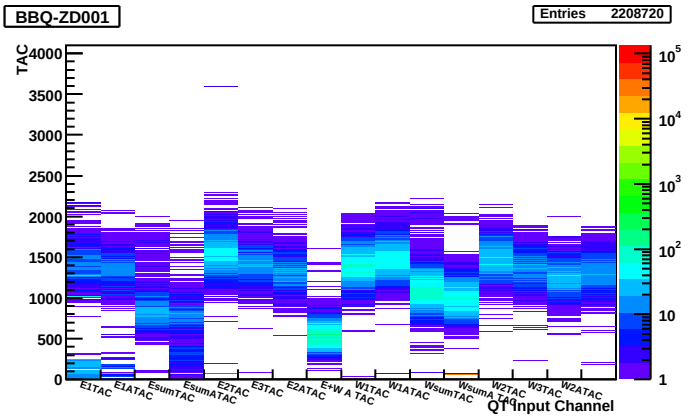

BBQ-BB002 (BBC west small tiles ADC)
Entries 2208720
ADC
QT Input Channel

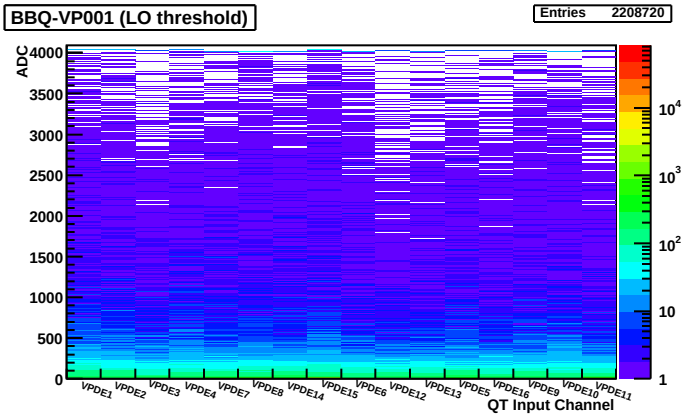

BBQ-BB002 (BBC west small tiles TAC)
Entries 2208720
TAC
QT Input Channel

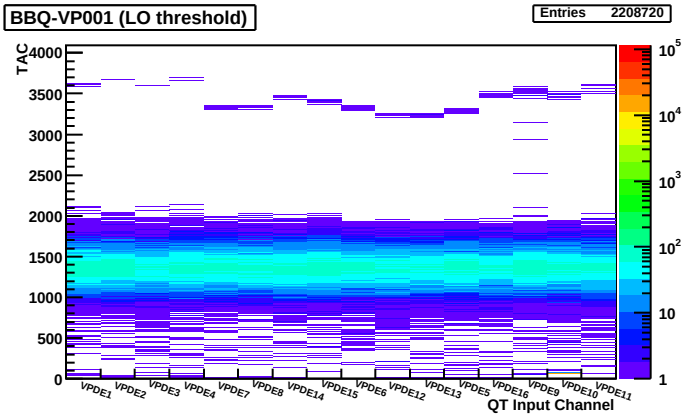

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2208720
ADC
QT Input Channel

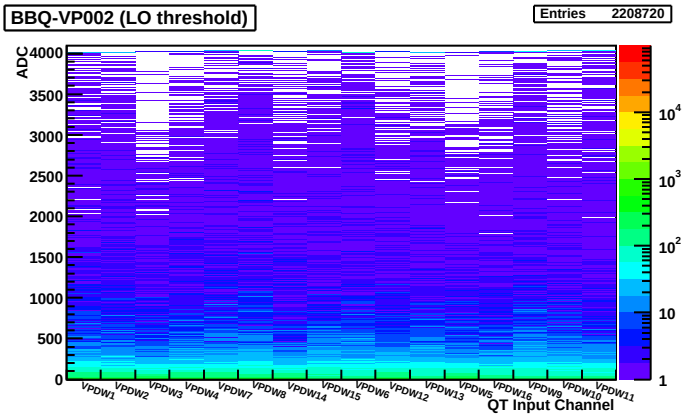

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2208720
TAC
QT Input Channel

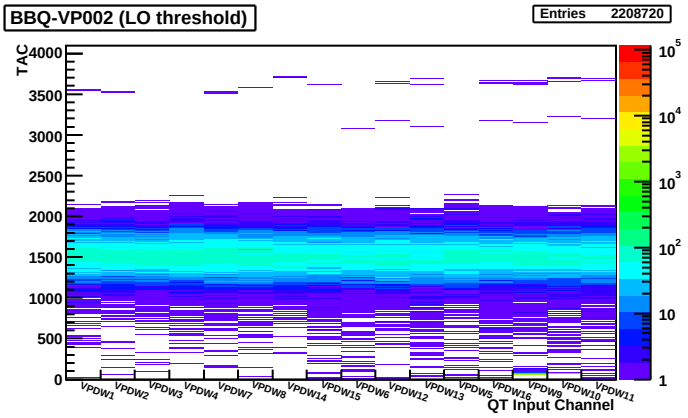

BBQ-ZD001
Entries 2208720
ADC
QT Input Channel

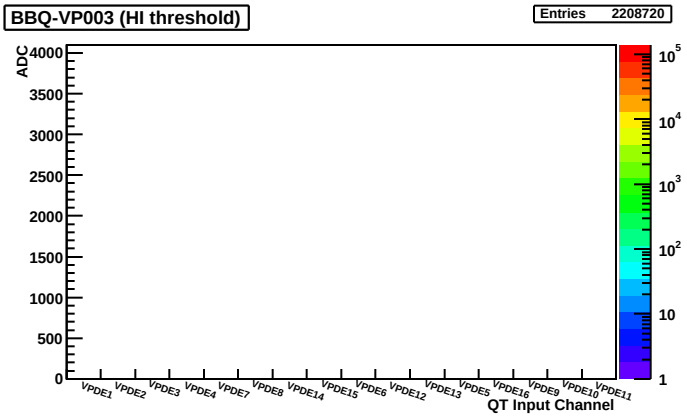

BBQ-ZD001
Entries 2208720
TAC
QT Input Channel

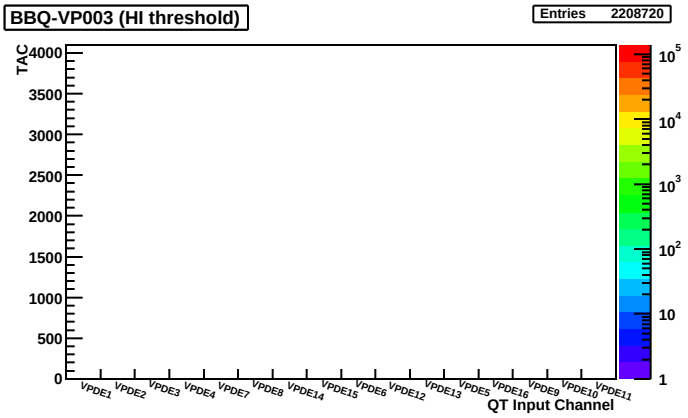

BBQ-VP001 (LO threshold)
Entries 2208720
ADC
QT Input Channel

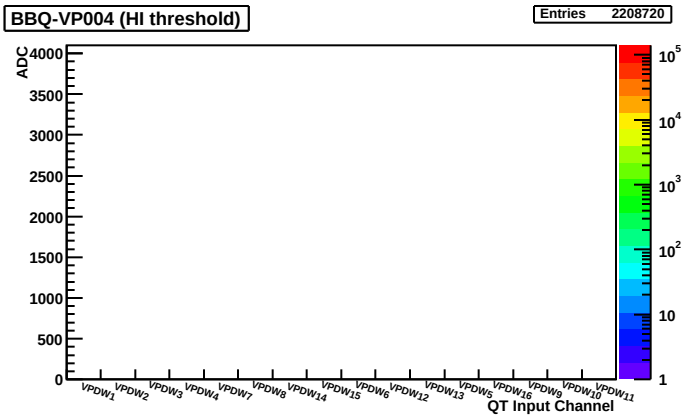

BBQ-VP001 (LO threshold)
Entries 2208720
TAC
QT Input Channel

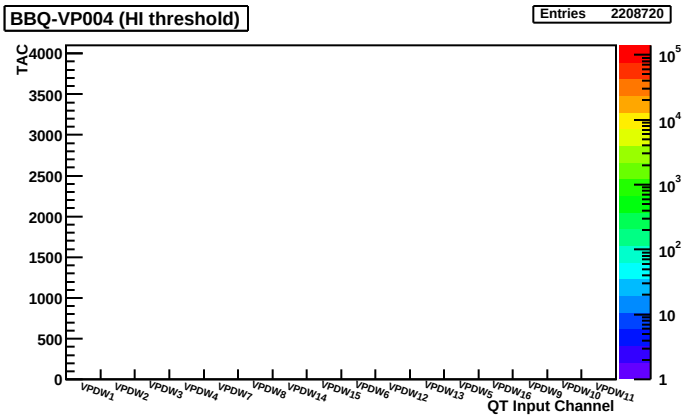

BBQ-VP002 (LO threshold)
Entries 2208720
ADC
QT Input Channel

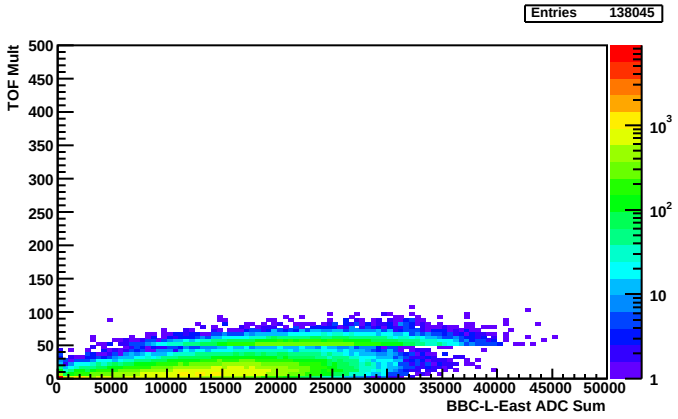

BBQ-VP002 (LO threshold)
Entries 2208720
TAC
QT Input Channel

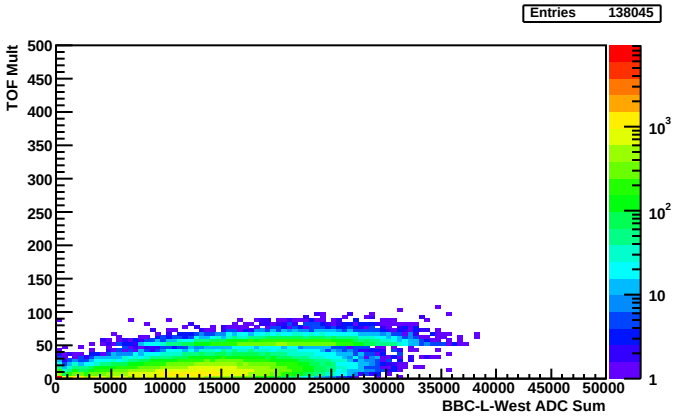

BBQ-VP003 (HI threshold)
Entries 2208720
ADC
QT Input Channel

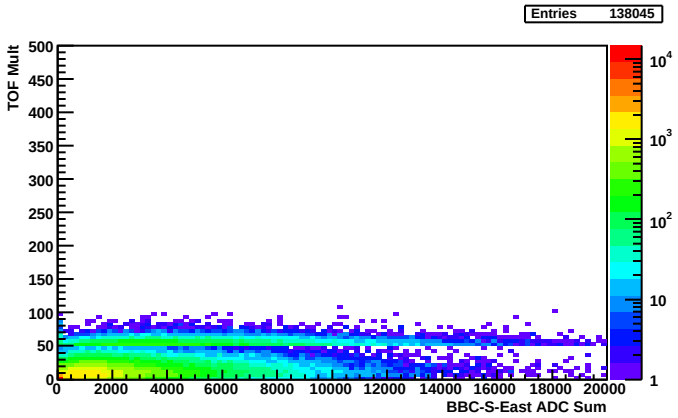

BBQ-VP003 (HI threshold)
Entries 2208720
TAC
QT Input Channel

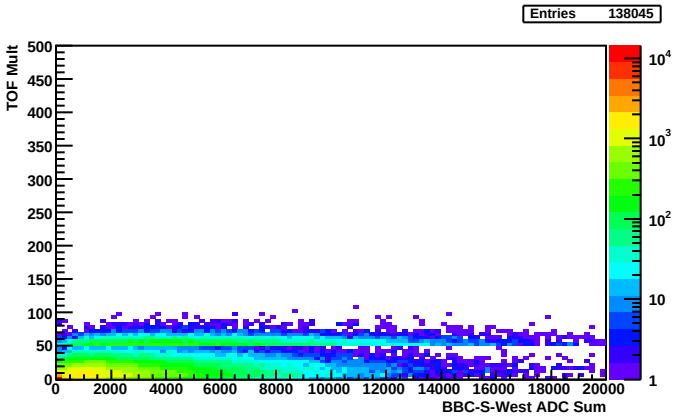

BBQ-VP004 (HI threshold)
Entries 2208720
ADC
QT Input Channel

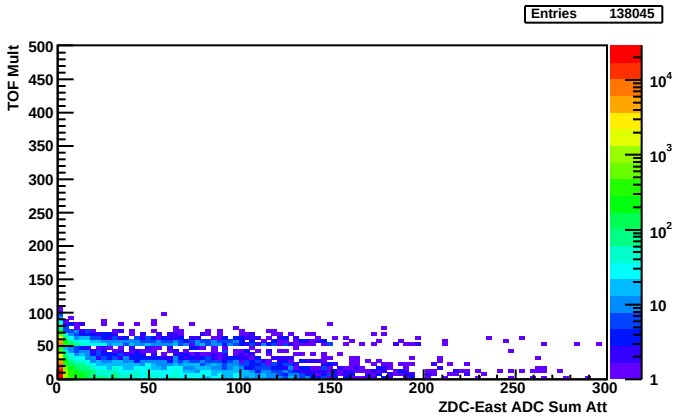

BBQ-VP004 (HI threshold)
Entries 2208720
TAC
QT Input Channel

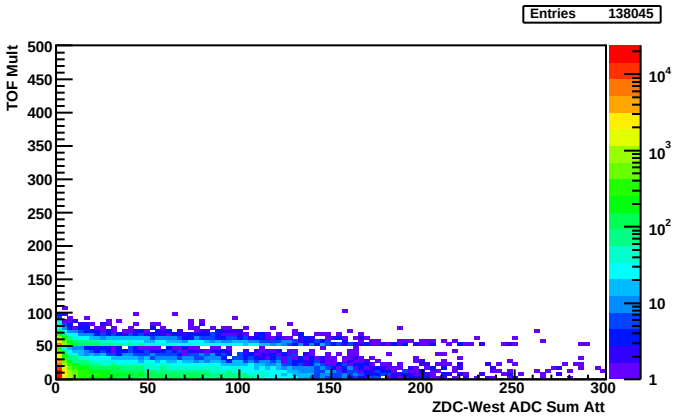

Entries 138045
TOF Mult
BBC-L-East ADC Sum

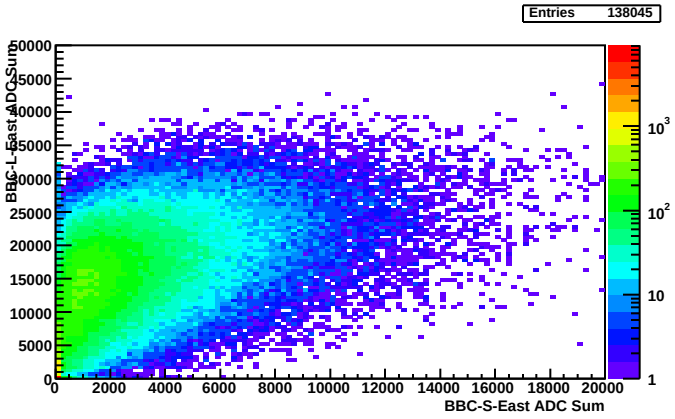

Entries 138045
TOF Mult
BBC-L-West ADC Sum

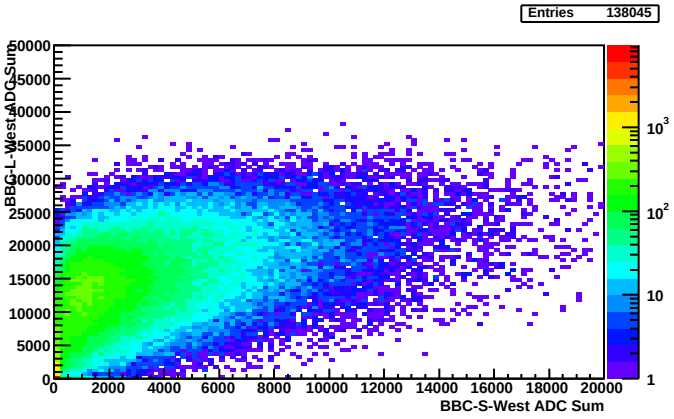

Entries 138045
TOF Mult
BBC-S-East ADC Sum

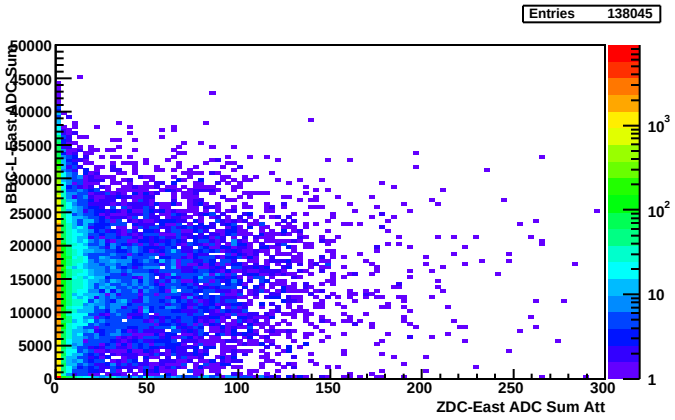

Entries 138045
TOF Mult
BBC-S-West ADC Sum

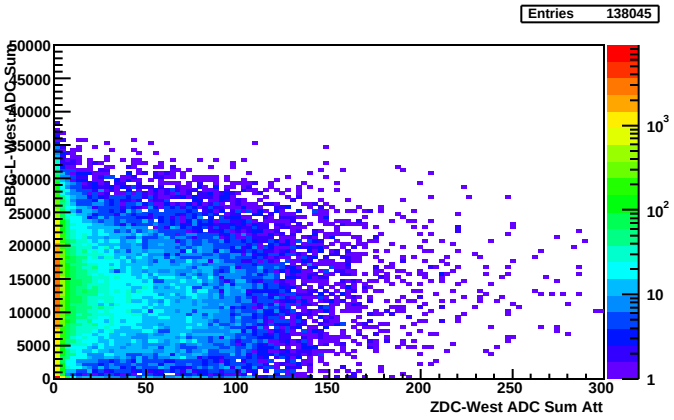

Entries 138045
TOF Mult
ZDC-East ADC Sum Att

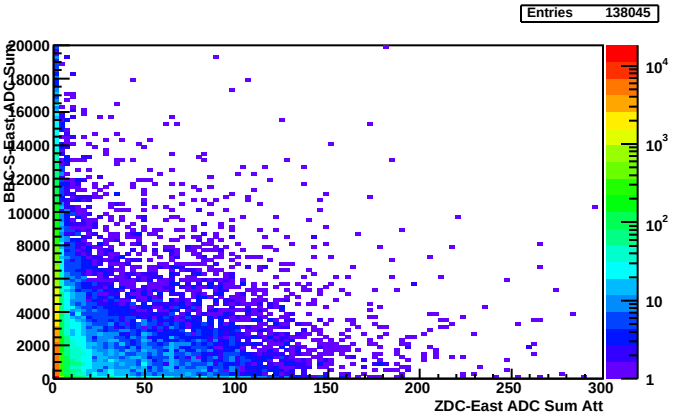

Entries 138045
TOF Mult
ZDC-West ADC Sum Att

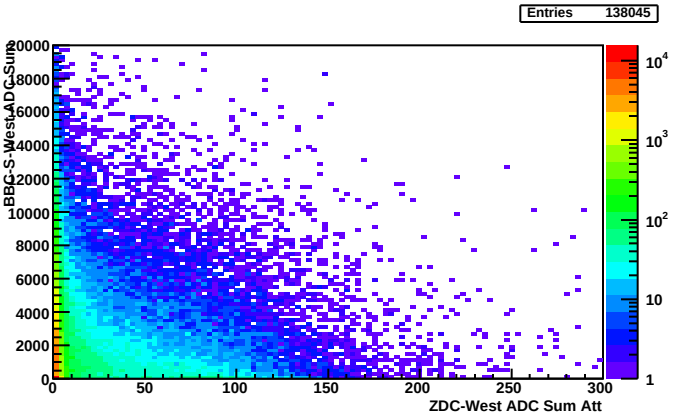

Entries 138045
BBC-L-East ADC Sum
BBC-S-East ADC Sum

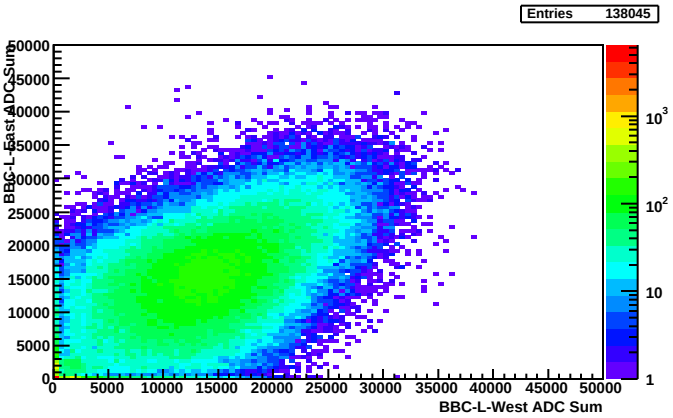

Entries 138045
BBC-L-West ADC Sum
BBC-S-West ADC Sum

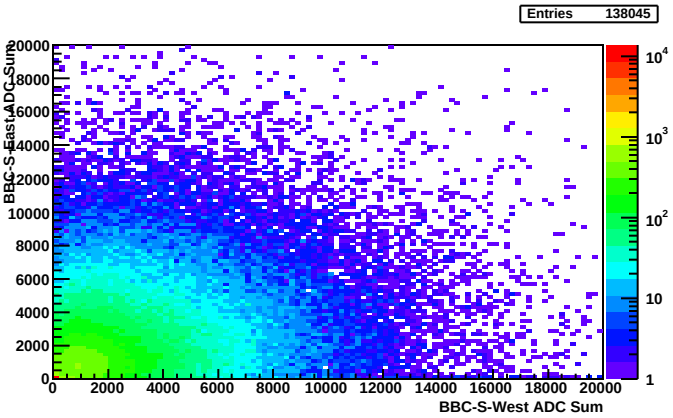

Entries 138045
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

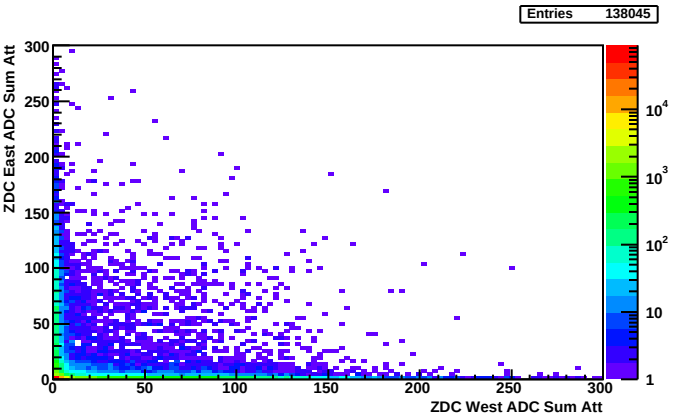

Entries 138045
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

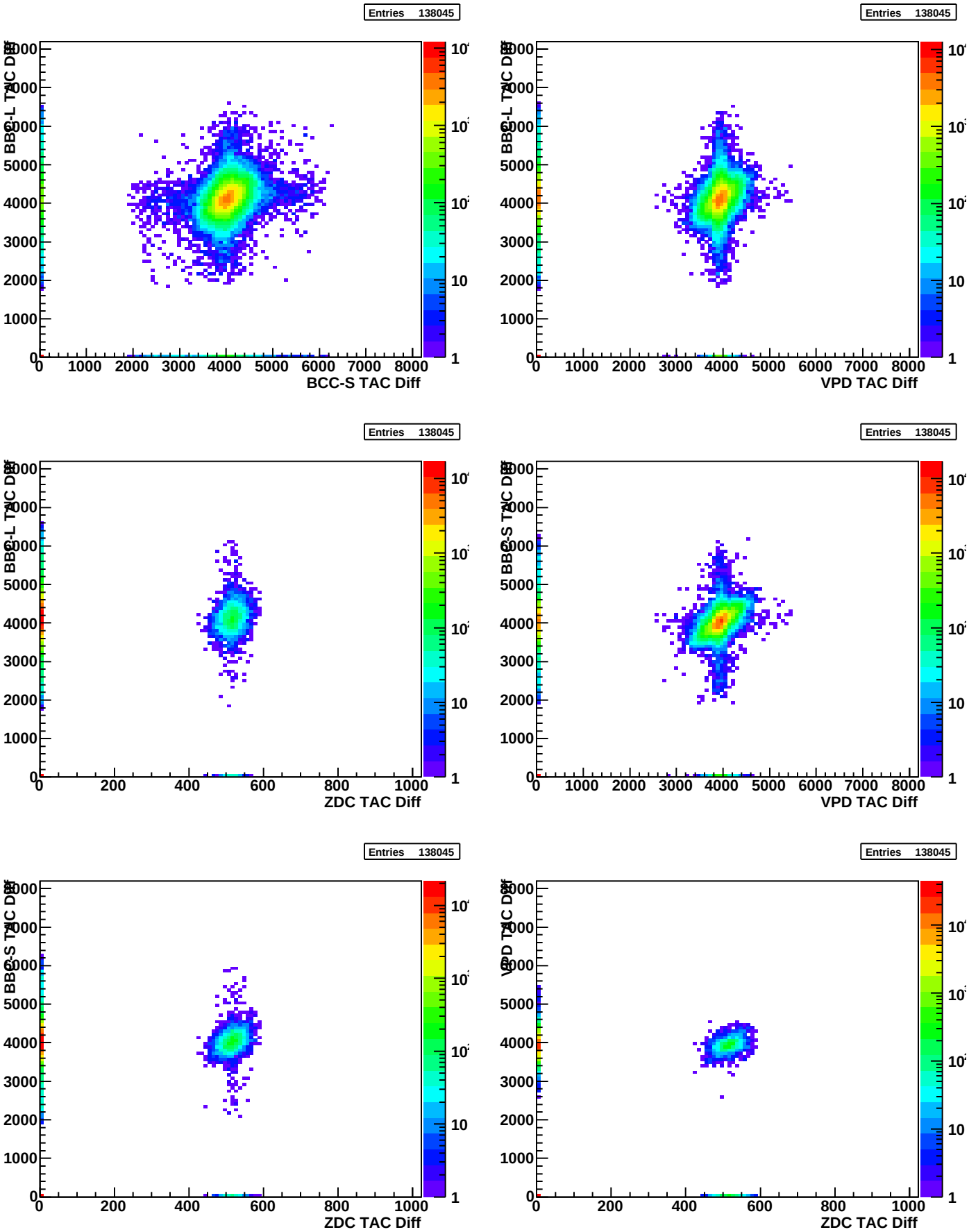

Entries 138045
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

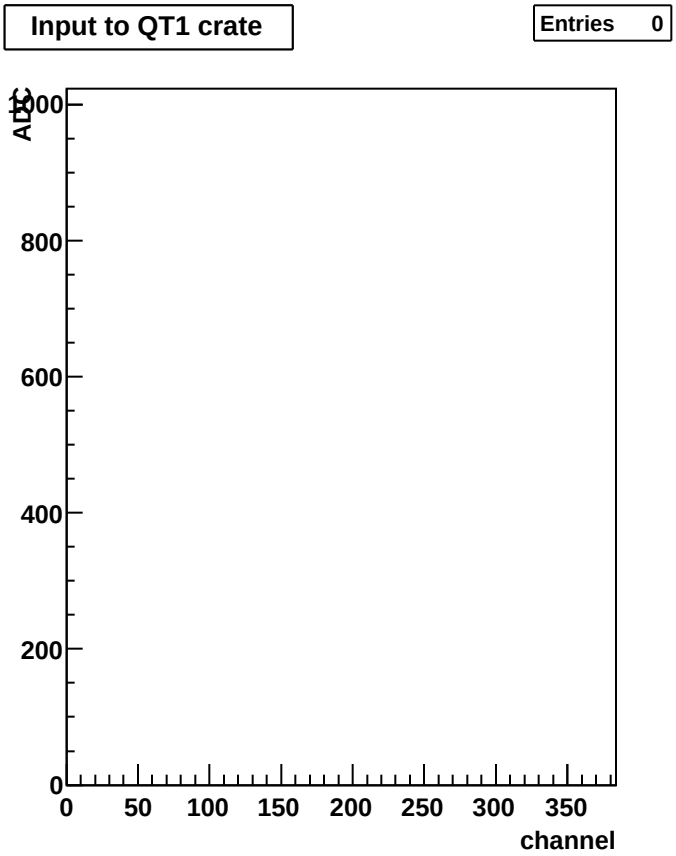

Entries 138045
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

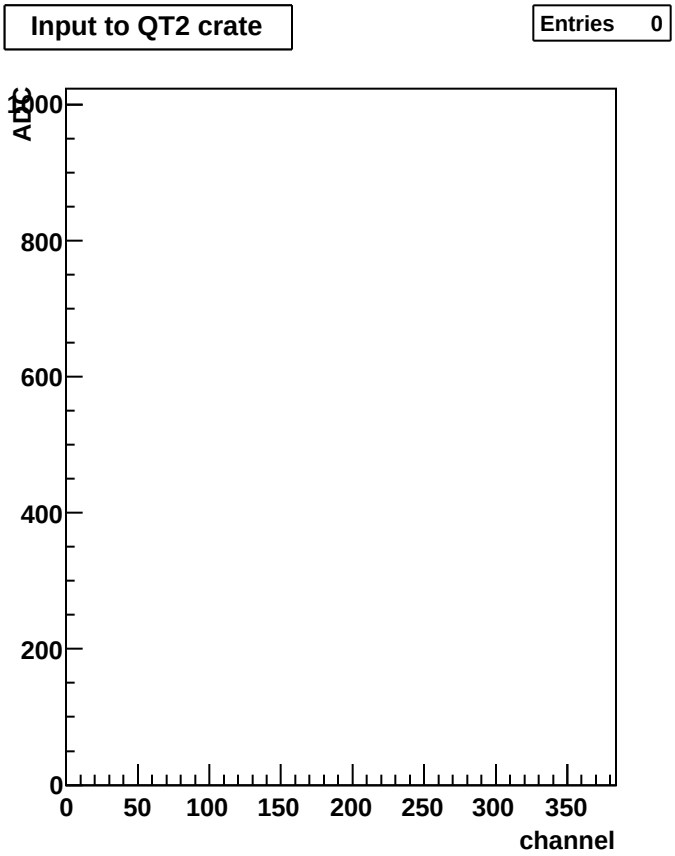

Entries 138045
BBC-L-East ADC Sum
BBC-L-West ADC Sum

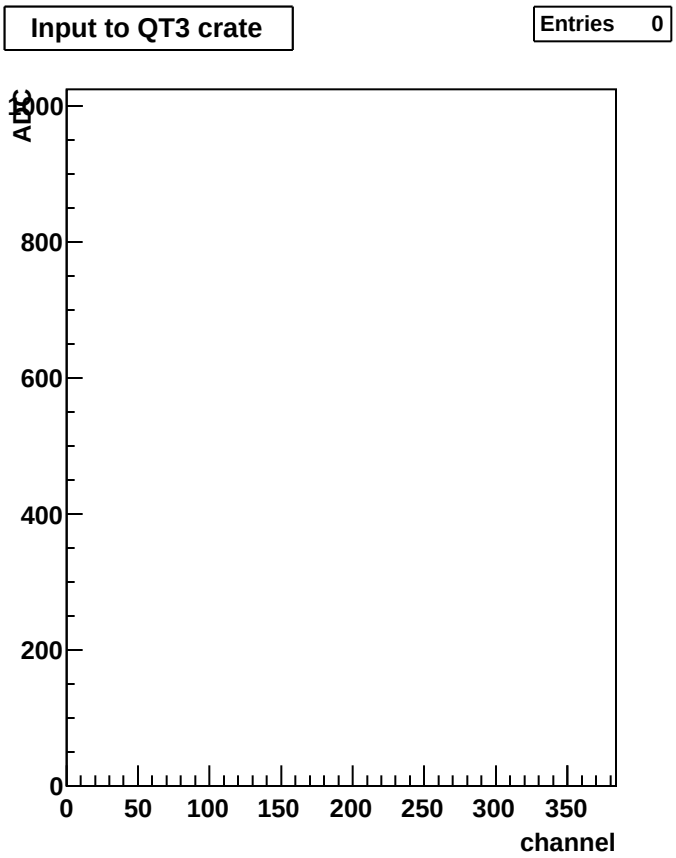

Entries 138045
BBC-S-East ADC Sum
BBC-S-West ADC Sum

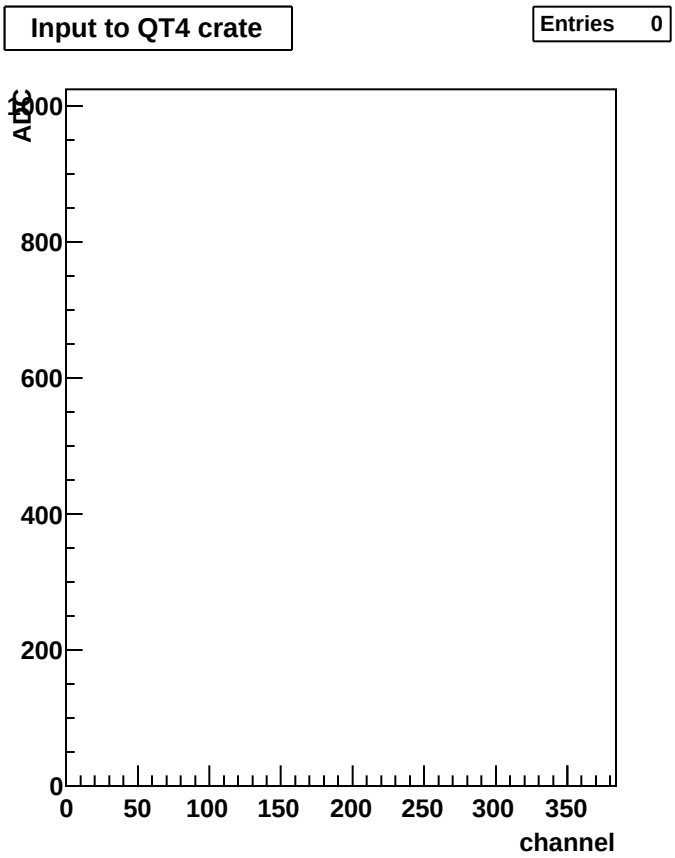

Entries 138045
ZDC East ADC Sum Att
ZDC West ADC Sum Att

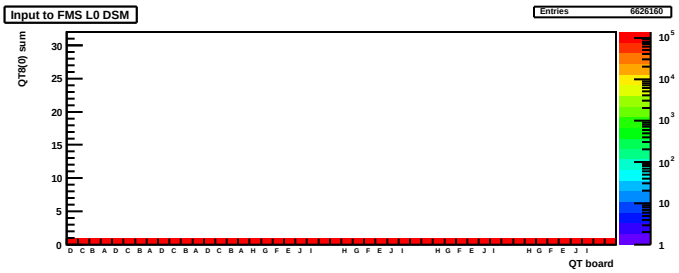

Entries 138045
BBC-L TAC Diff
BCC-S TAC Diff
Entries 138045
BBC-L TAC Diff
VPD TAC Diff
Entries 138045
BBC-L TAC Diff
ZDC TAC Diff
Entries 138045
BBC-S TAC Diff
VPD TAC Diff
Entries 138045
BBC-S TAC Diff
ZDC TAC Diff
Entries 138045
VPD TAC Diff
ZDC TAC Diff

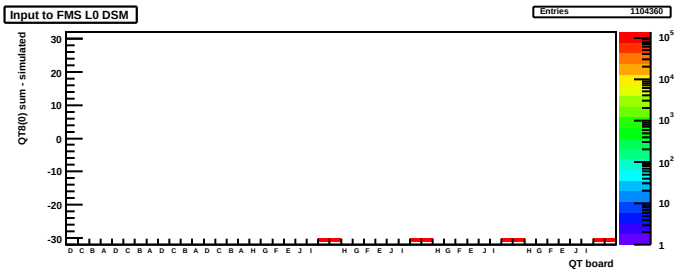

Input to QT1 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

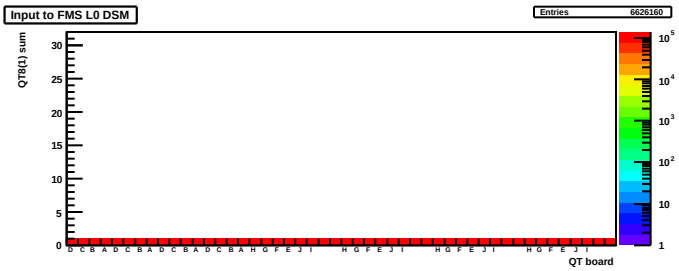

Input to QT2 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

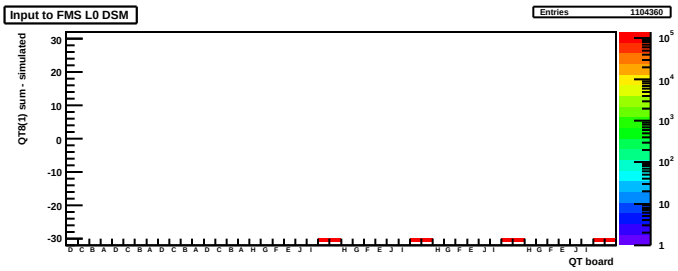

Input to QT3 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

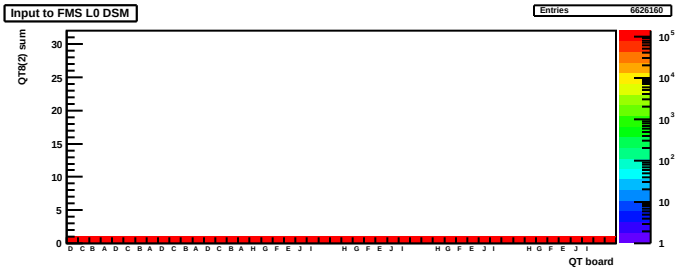

Input to QT4 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

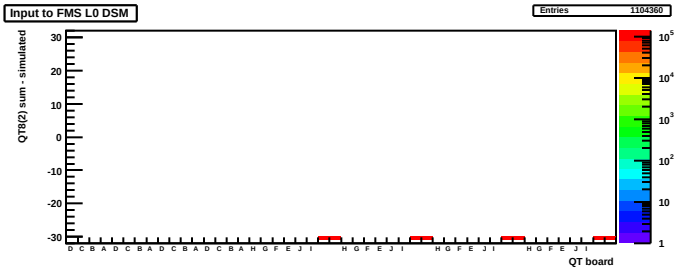

Input to FMS L0 DSM
Entries 6626160
QT8(0) sum
QT board

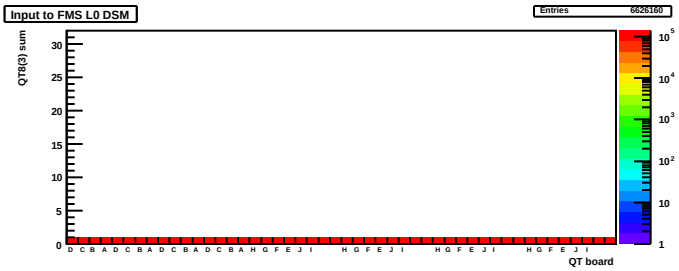

Input to FMS L0 DSM
Entries 1104360
QT8(0) sum - simulated
QT board

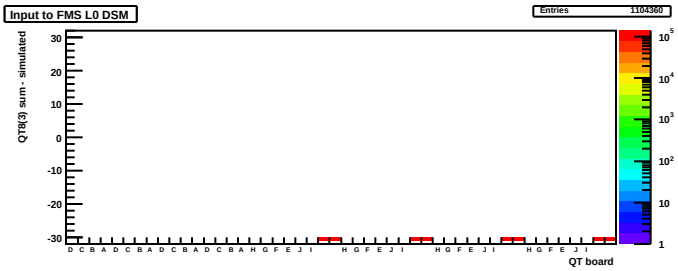

Input to FMS L0 DSM
Entries 6626160
QT8(1) sum
QT board

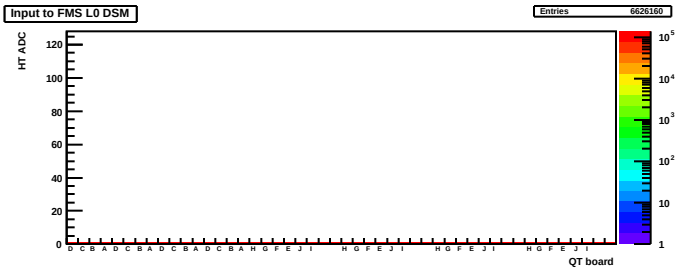

Input to FMS L0 DSM
Entries 1104360
QT8(1) sum - simulated
QT board

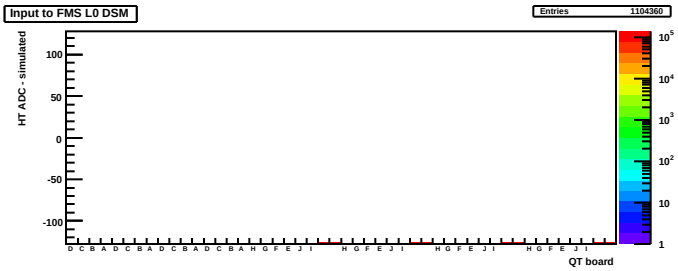

Input to FMS L0 DSM
Entries 6626160
QT8(2) sum
QT board

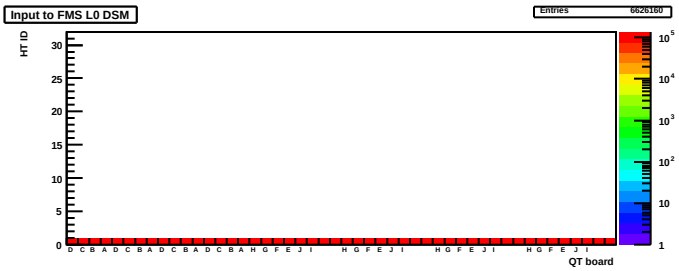

Input to FMS L0 DSM
Entries 1104360
QT8(2) sum - simulated
QT board

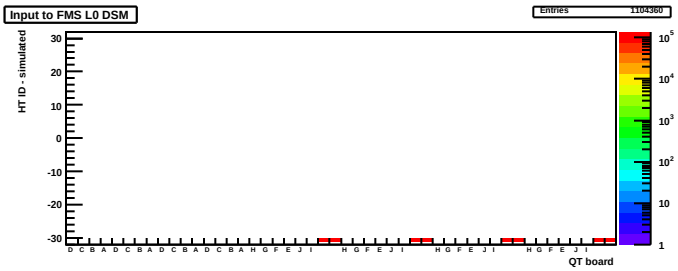

Input to FMS L0 DSM
Entries 6626160
QT8(3) sum
QT board

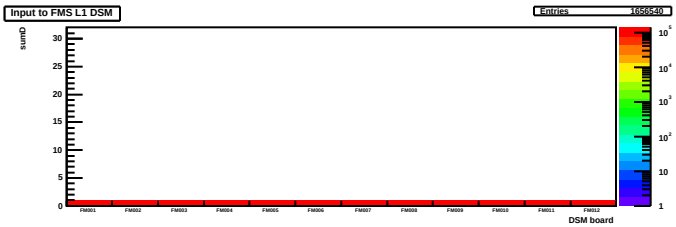

Input to FMS L0 DSM
Entries 1104360
QT8(3) sum - simulated
QT board

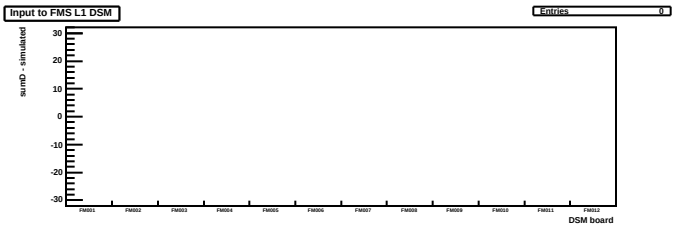

Input to FMS L0 DSM
Entries 6626160
HT ADC
QT board

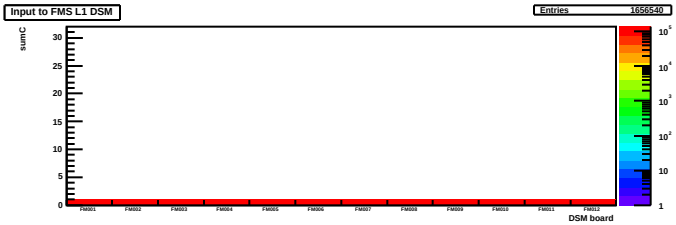

Input to FMS L0 DSM
Entries 1104360
HT ADC - simulated
QT board

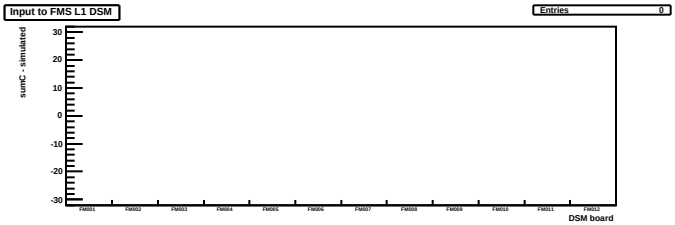

Input to FMS L0 DSM
Entries 6626160
HT ID
QT board

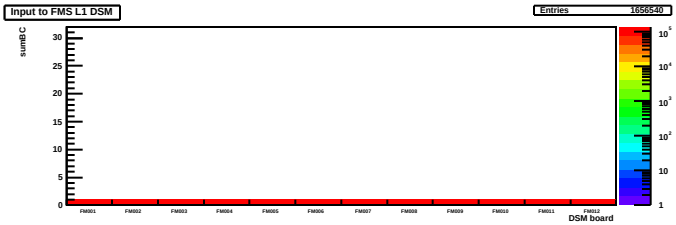

Input to FMS L0 DSM
Entries 1104360
HT ID - simulated
QT board

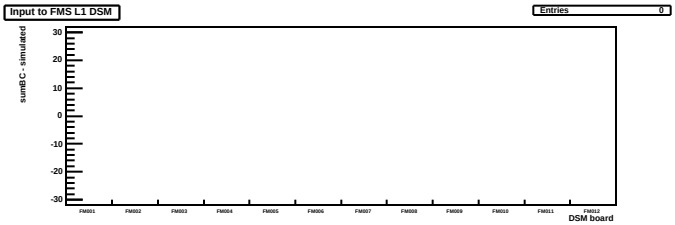

Input to FMS L1 DSM
Entries 1656540
sumD
DSM board

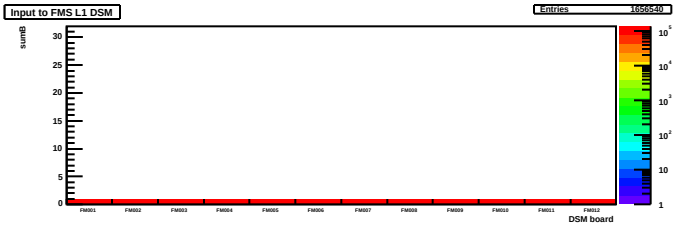

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

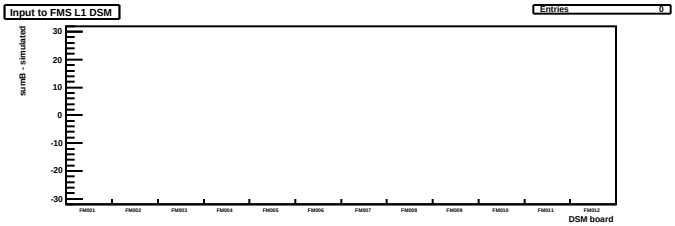

Input to FMS L1 DSM
Entries 1656540
sumC
DSM board

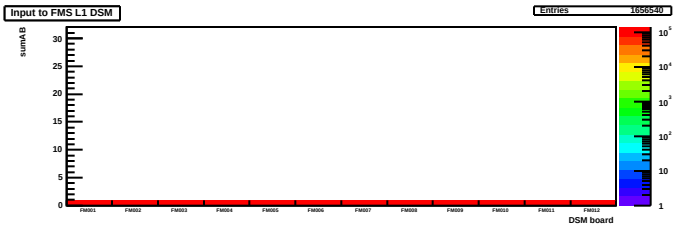

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

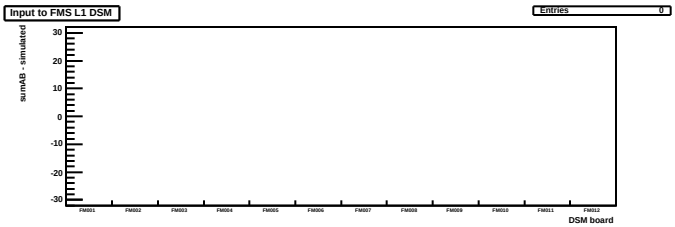

Input to FMS L1 DSM
Entries 1656540
sumBC
DSM board

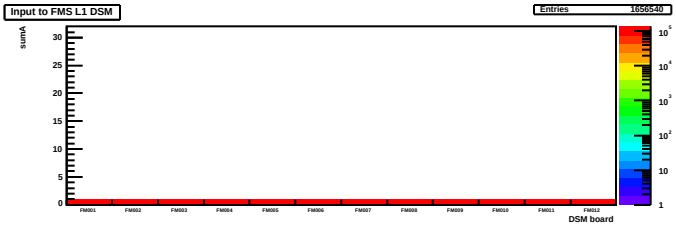

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

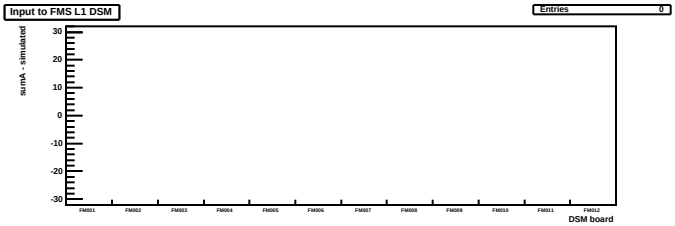

Input to FMS L1 DSM
Entries 1656540
sumB
DSM board

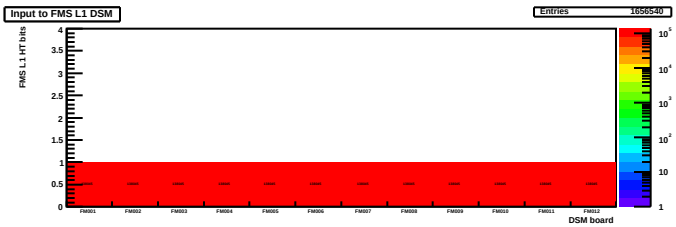

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

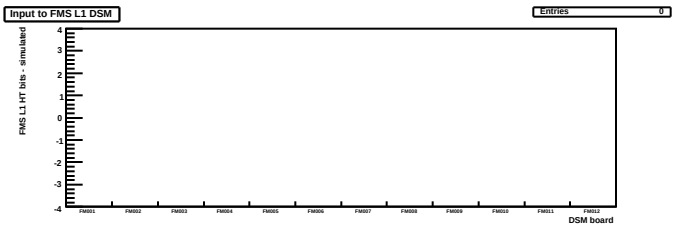

Input to FMS L1 DSM
Entries 1656540
sumAB
DSM board

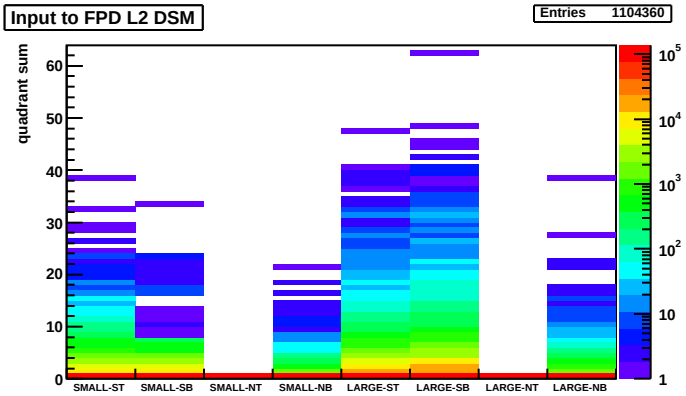

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

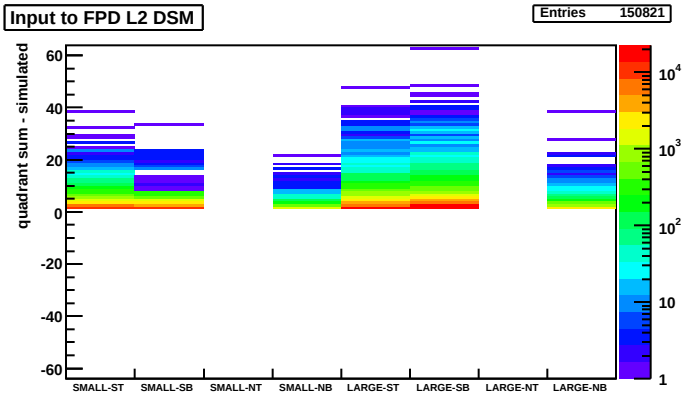

Input to FMS L1 DSM
Entries 1656540
sumA
DSM board

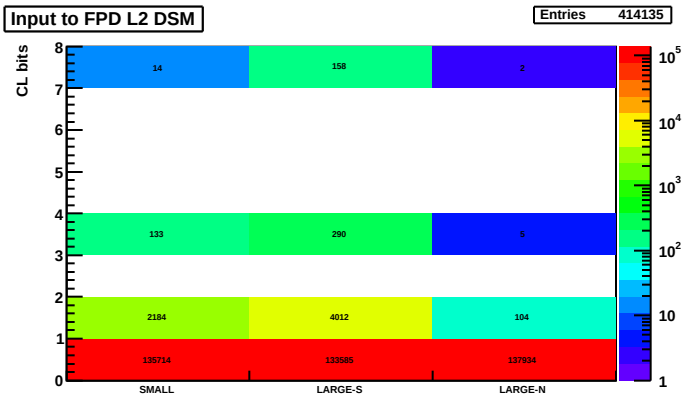

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

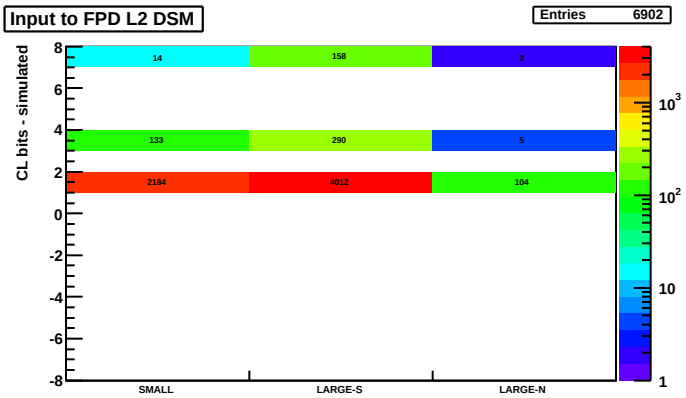

Input to FMS L1 DSM
Entries 1656540
FMS L1 HT bits
DSM board

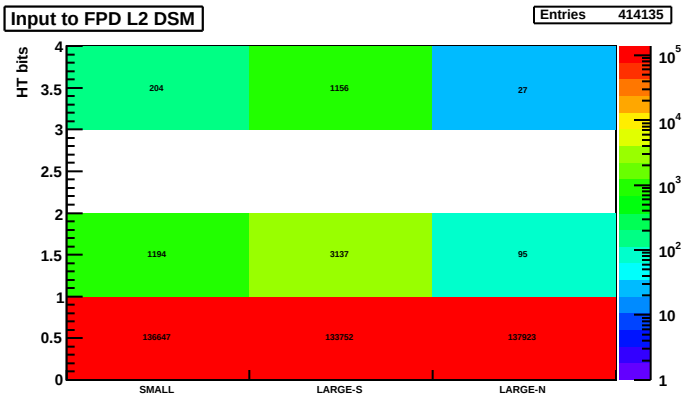

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

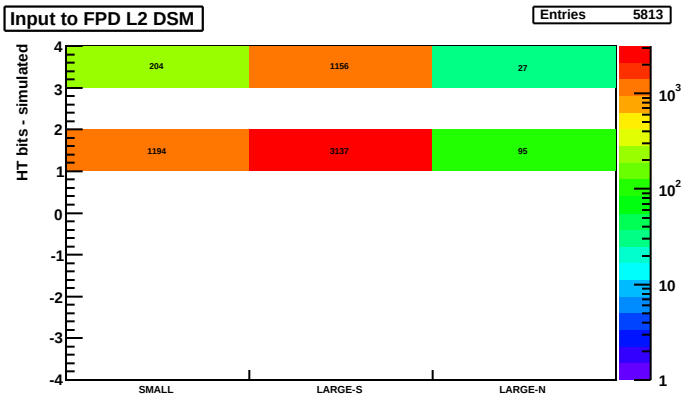

Input to FPD L2 DSM
Entries 1104360
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

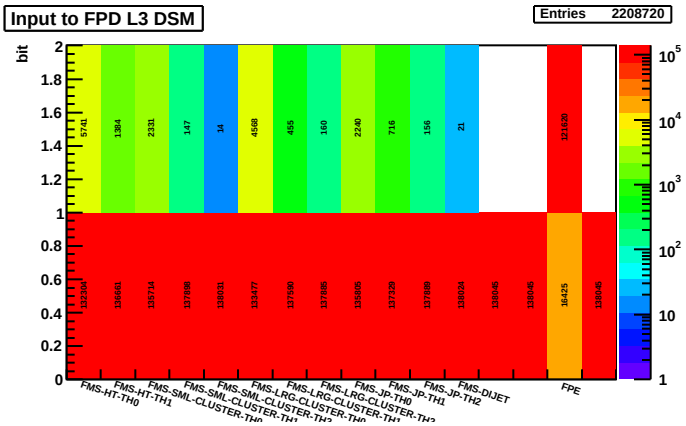

Input to FPD L2 DSM
Entries 150821
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

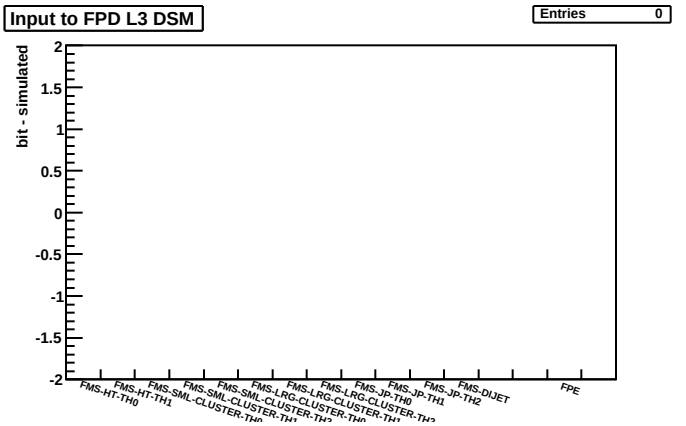

Input to FPD L2 DSM
Entries 414135
CL bits
14
158
2
133
290
5
2184
4012
104
135714
133585
137934
SMALL
LARGE-S
LARGE-N

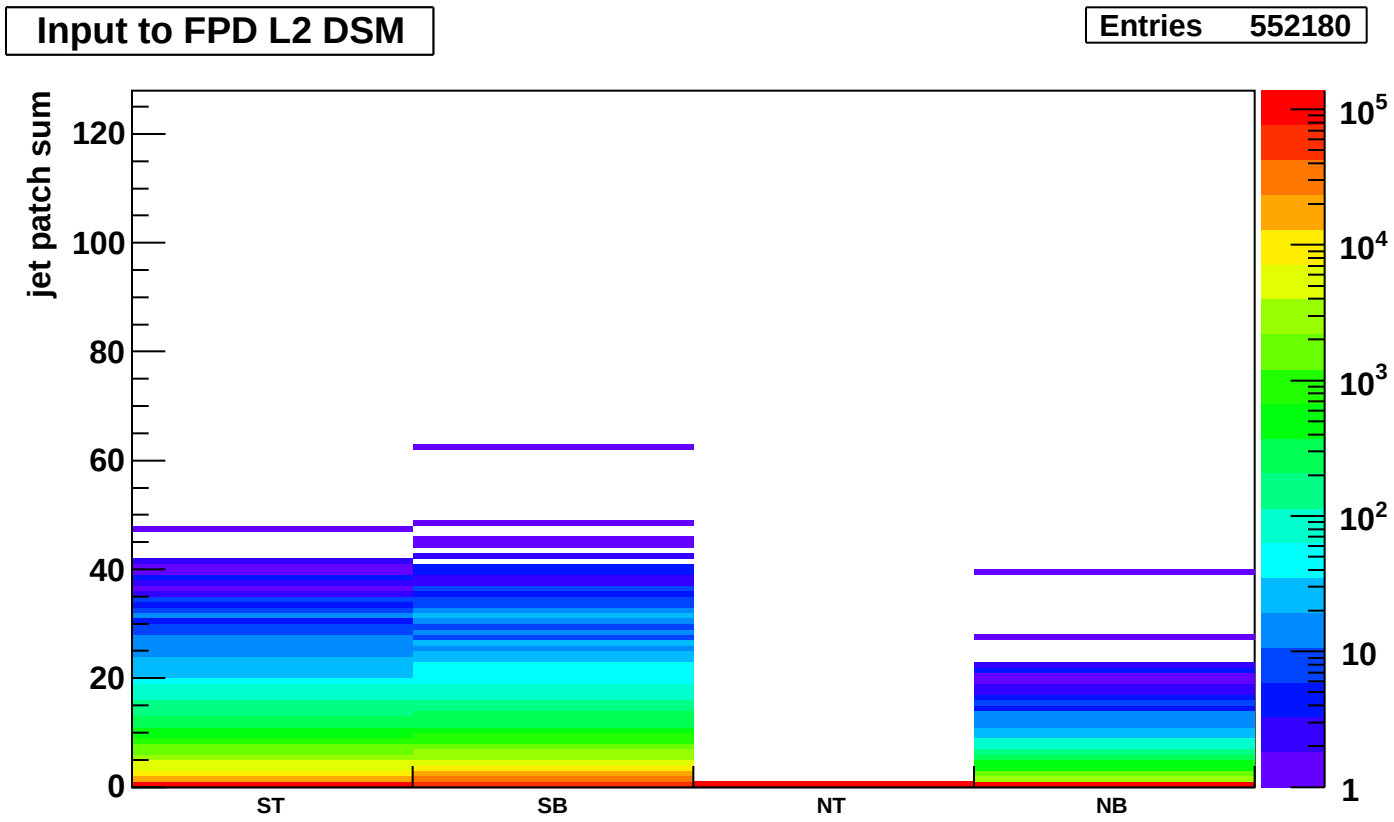

Input to FPD L2 DSM
Entries 6902
CL bits - simulated
14
158
2
133
290
5
2184
4012
104
SMALL
LARGE-S
LARGE-N

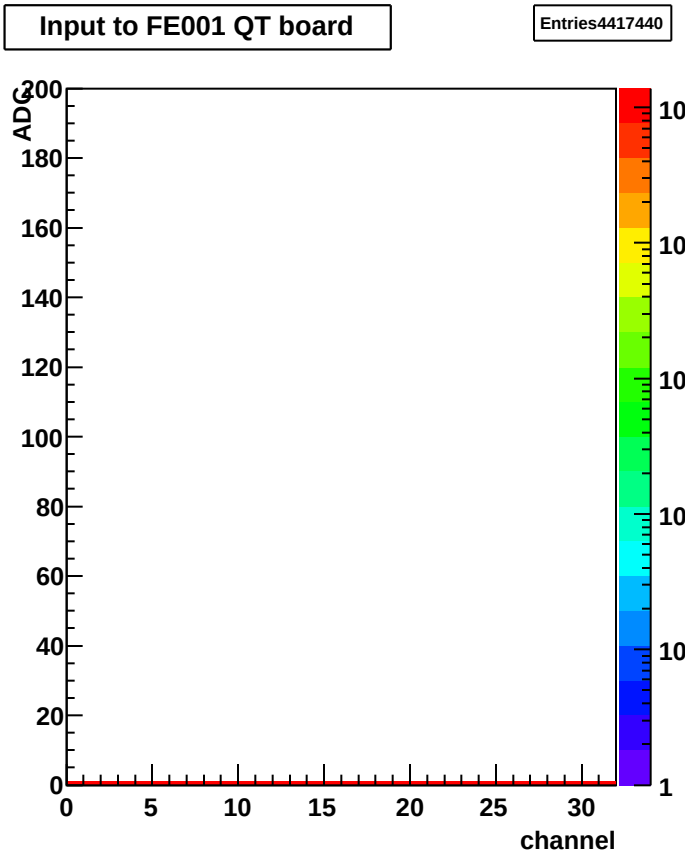

Input to FPD L2 DSM
Entries 414135
HT bits
204
1156
27
1194
3137
95
136647
133752
137923
SMALL
LARGE-S
LARGE-N

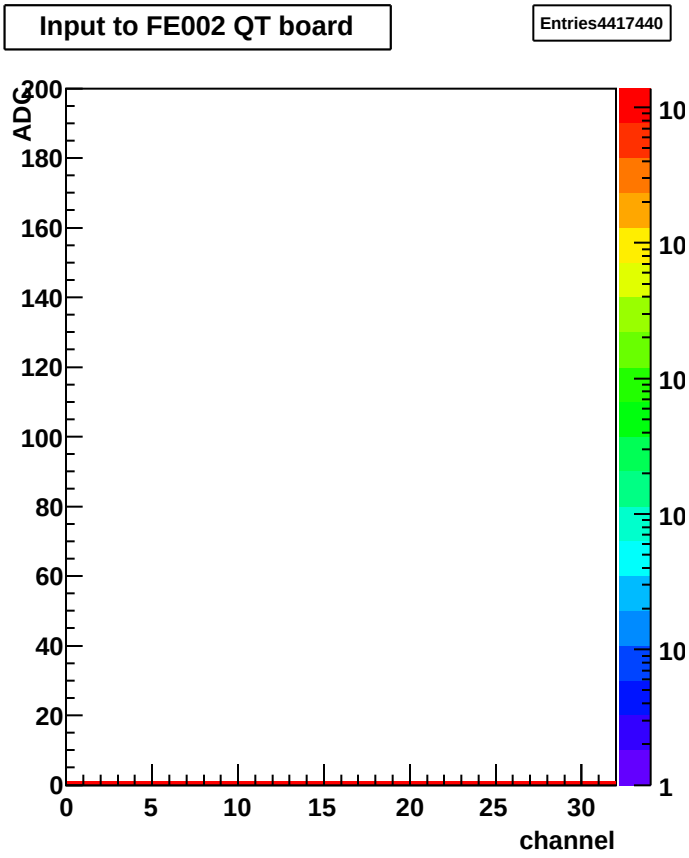

Input to FPD L2 DSM
Entries 5813
HT bits - simulated
204
1156
27
1194
3137
95
SMALL
LARGE-S
LARGE-N

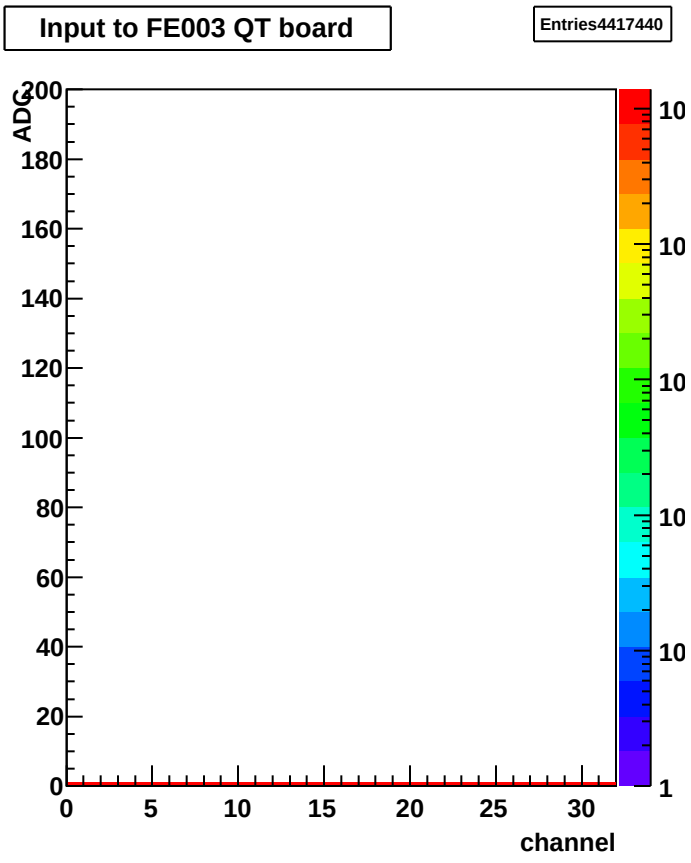

Input to FPD L3 DSM
Entries 2208720
bit
5741
1384
2331
147
14
4568
455
160
2240
716
156
21
121630
122304
136661
135714
137898
138031
133477
137590
137985
135605
137229
137689
138024
138045
138045
16425
138045
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

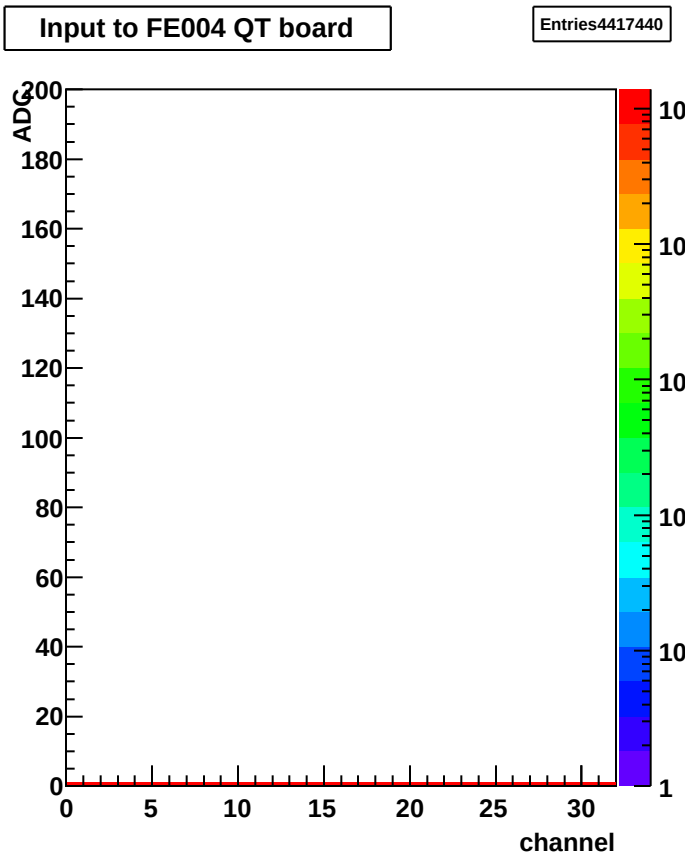

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

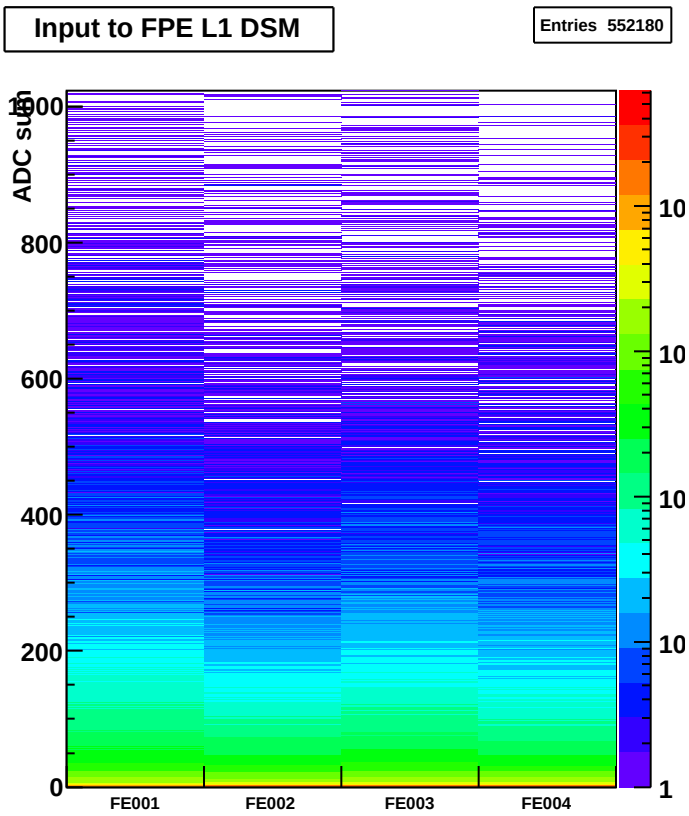

Input to FPD L2 DSM
Entries 552180
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

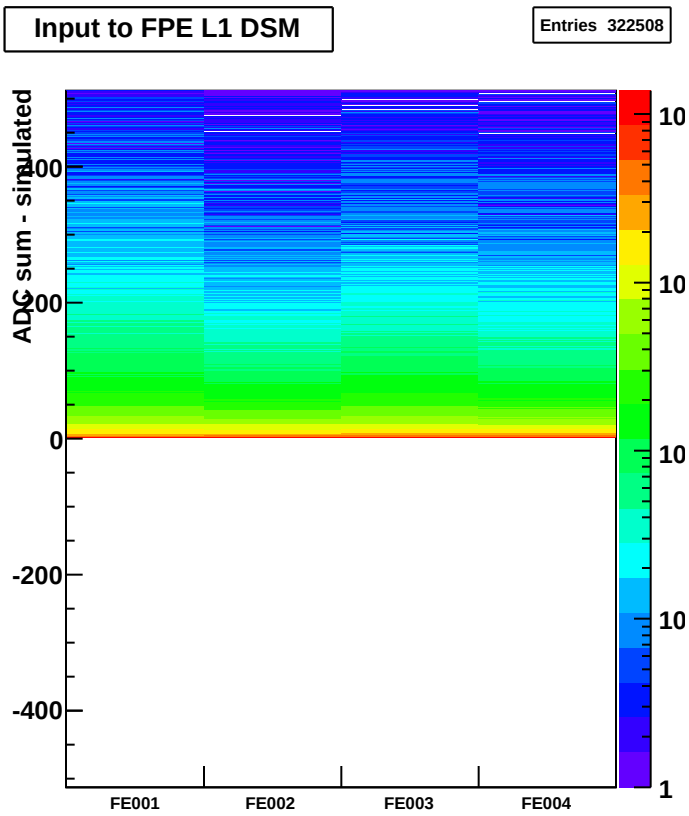

Input to FE001 QT board
Entries4417440
ADC
channel

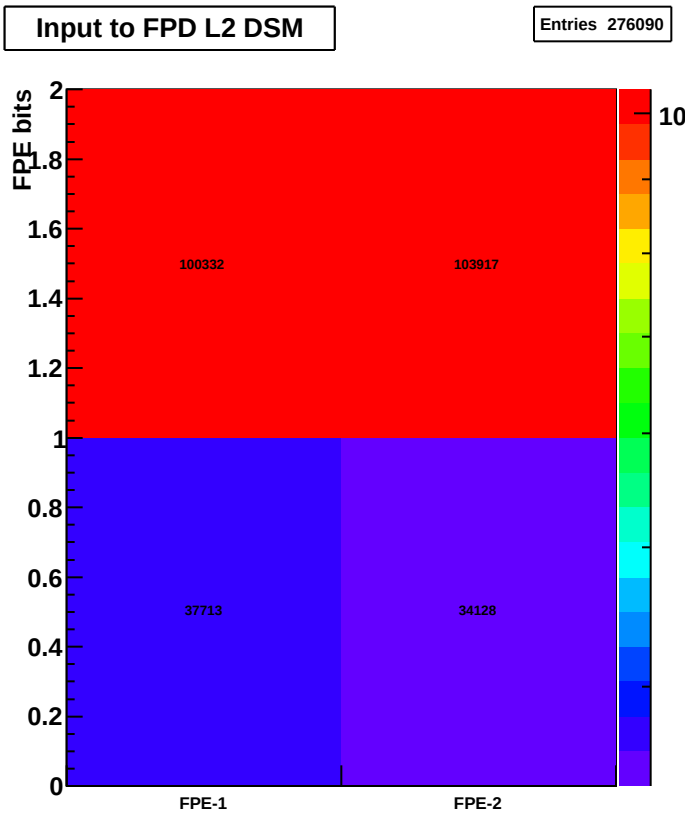

Input to FE002 QT board
Entries4417440
ADC
channel

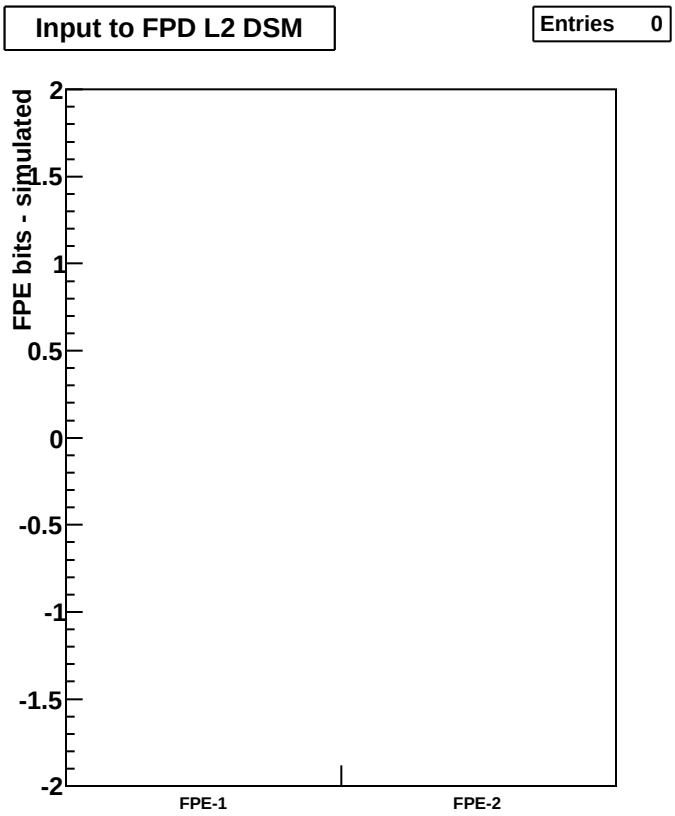

Input to FE003 QT board
Entries4417440
ADC
channel


Input to FE004 QT board
Entries4417440
ADC
channel


Input to FPE L1 DSM
Entries 552180
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 322508
ADC sum - simulated
400
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPD L2 DSM
Entries 276090
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
100332
103917
37713
34128
FPE-1
FPE-2
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