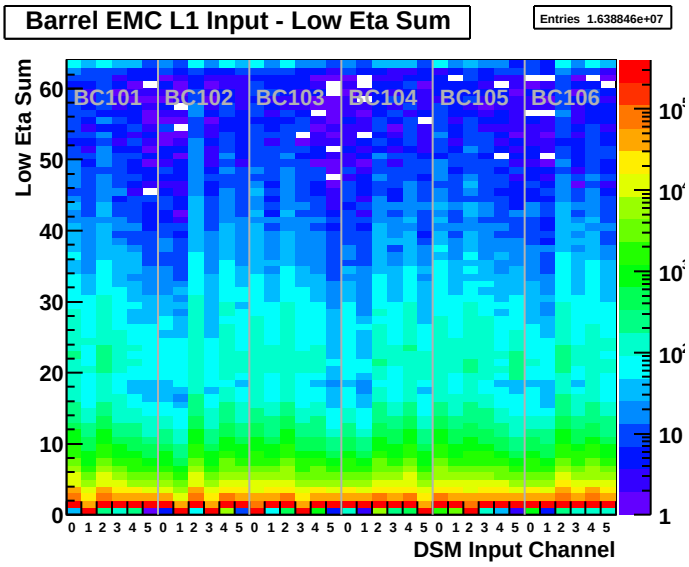
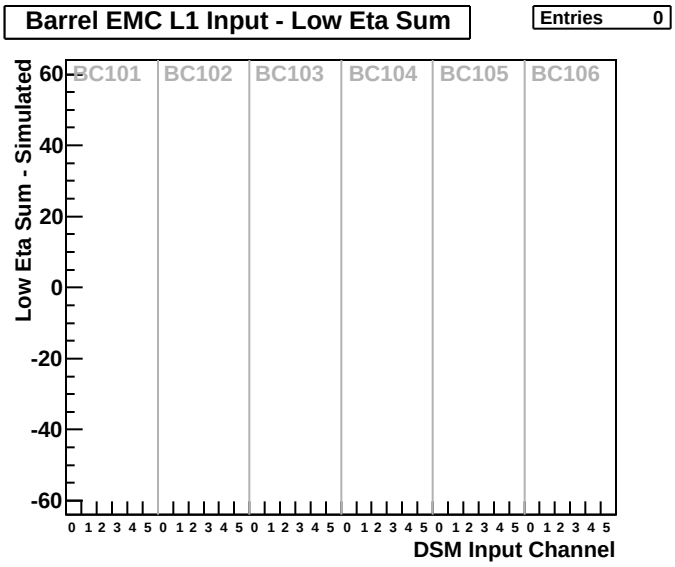
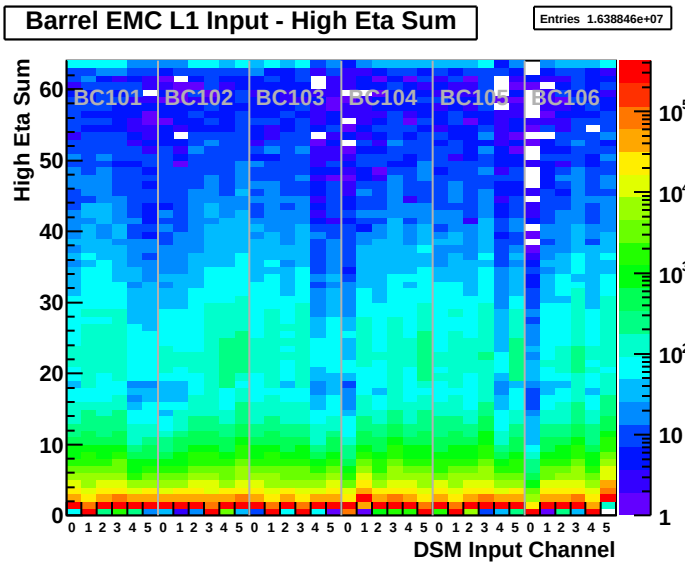
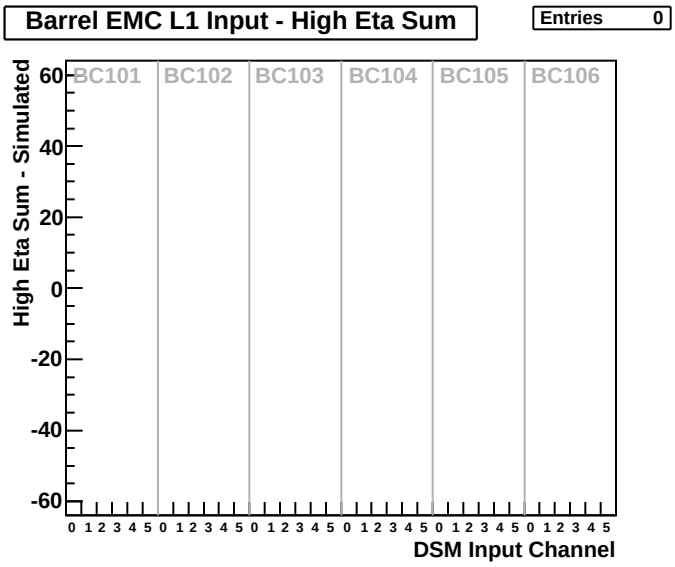
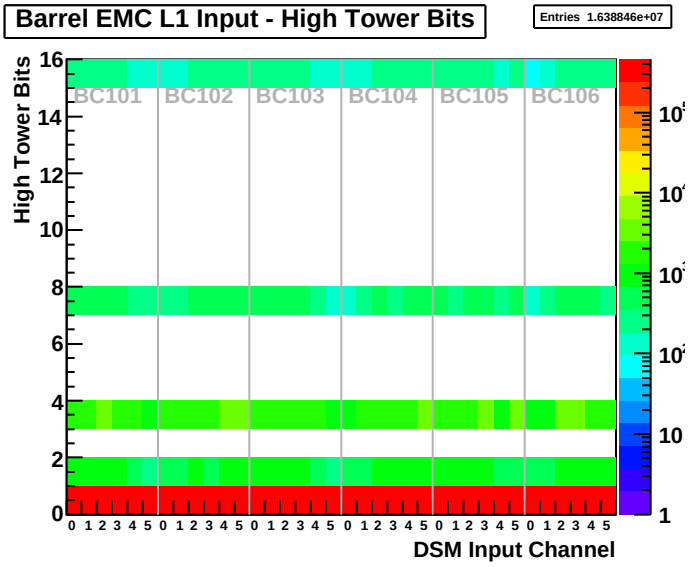
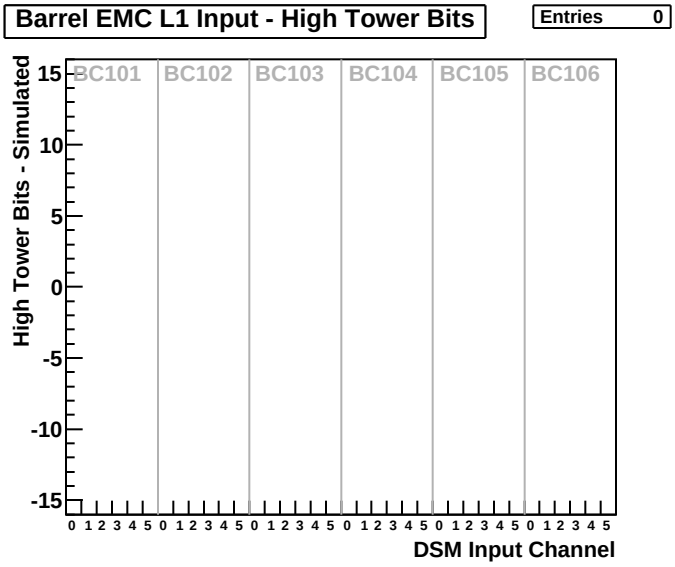

Barrel EMC L1 Input - Low Eta Sum
Entries 1.638846e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

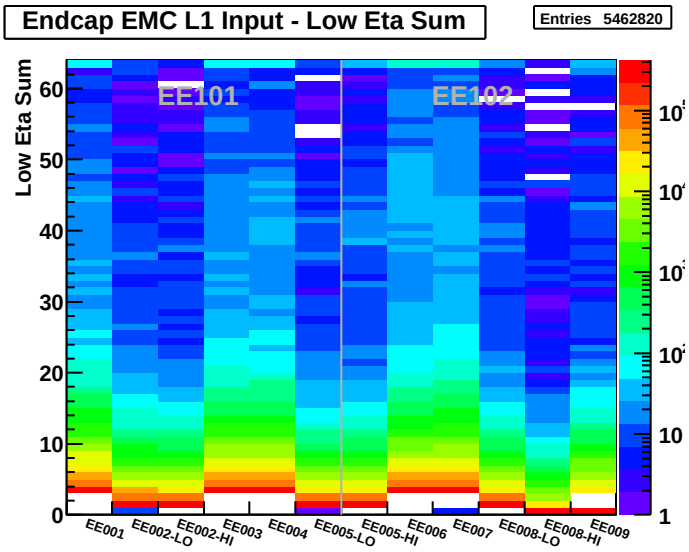

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

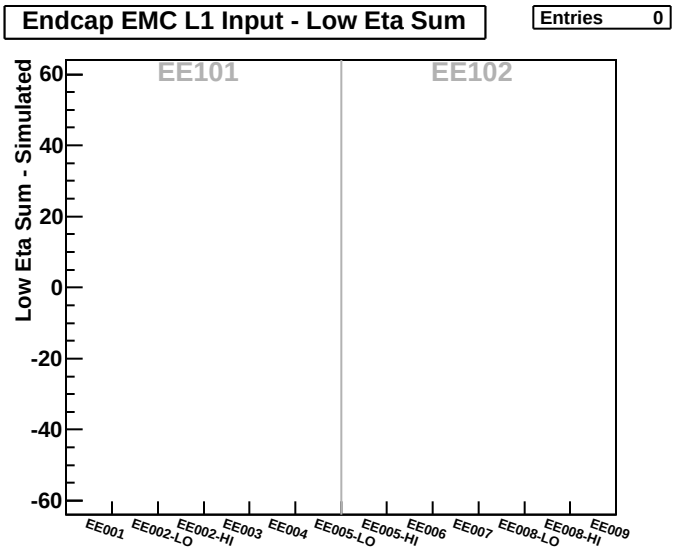

Barrel EMC L1 Input - High Eta Sum
Entries 1.638846e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

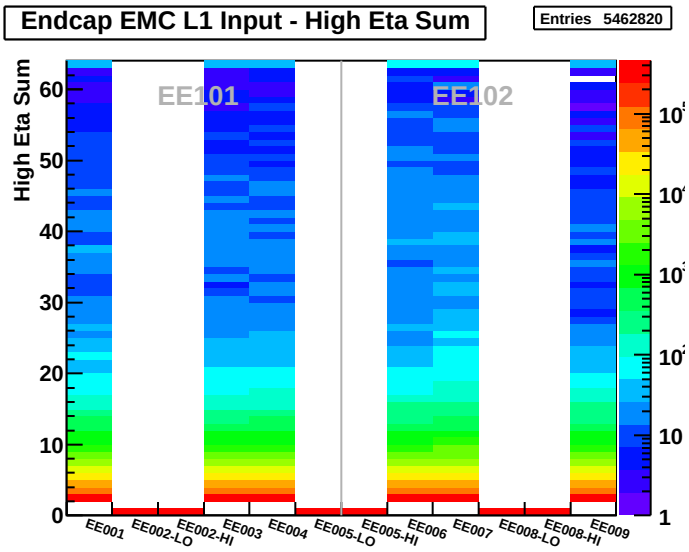

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

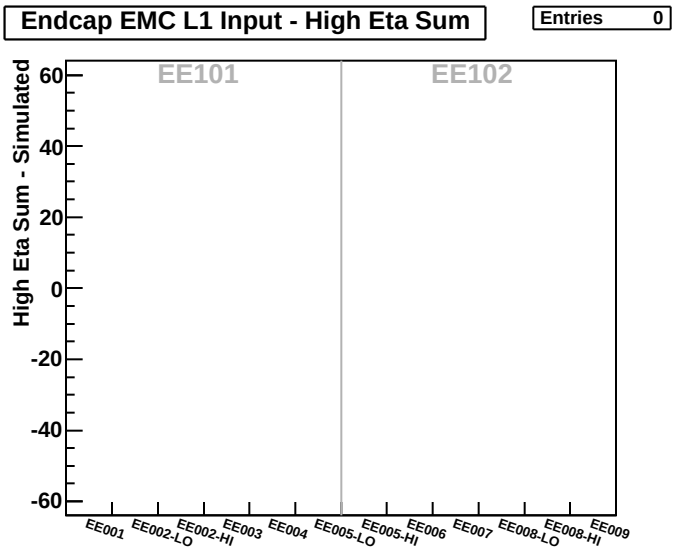

Barrel EMC L1 Input - High Tower Bits
Entries 1.638846e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

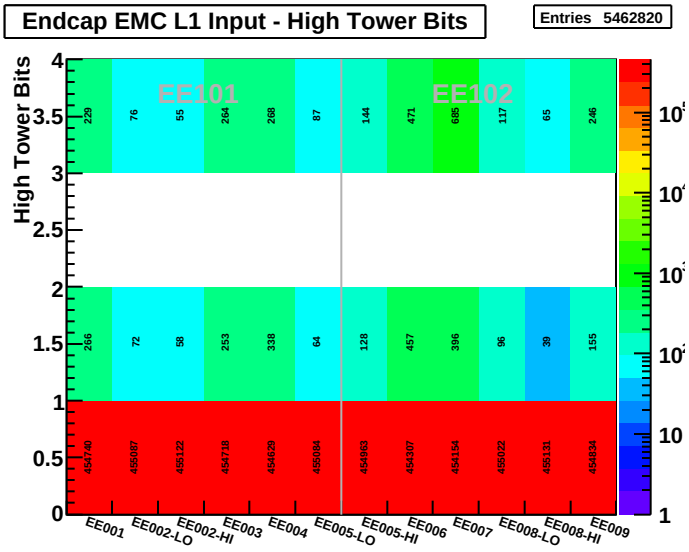

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

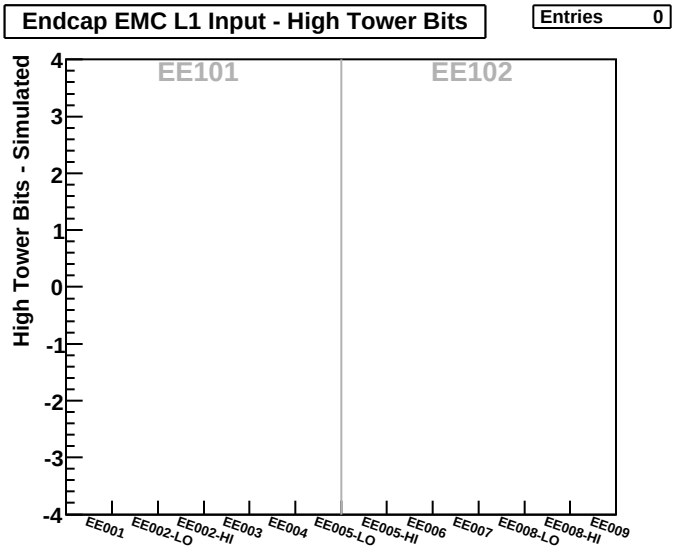

Endcap EMC L1 Input - Low Eta Sum
Entries 5462820
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

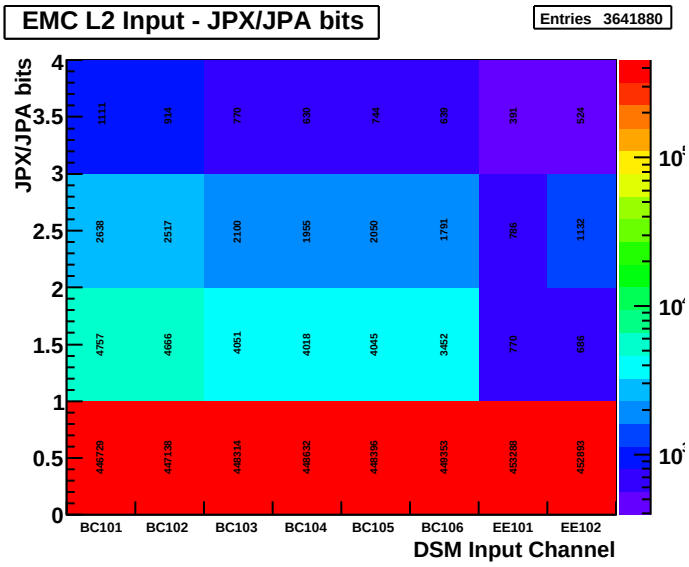

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

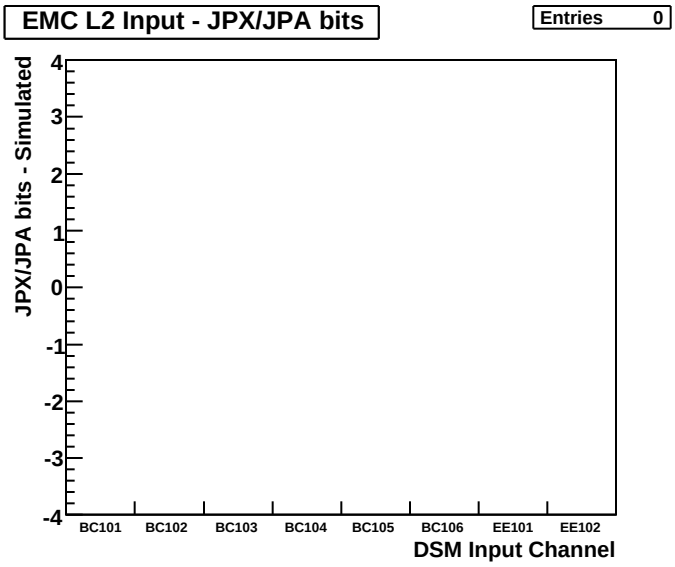

Endcap EMC L1 Input - High Eta Sum
Entries 5462820
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

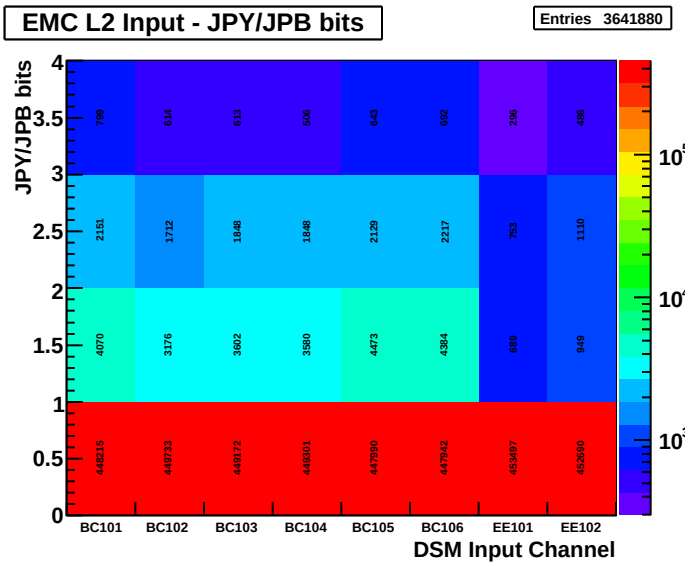

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

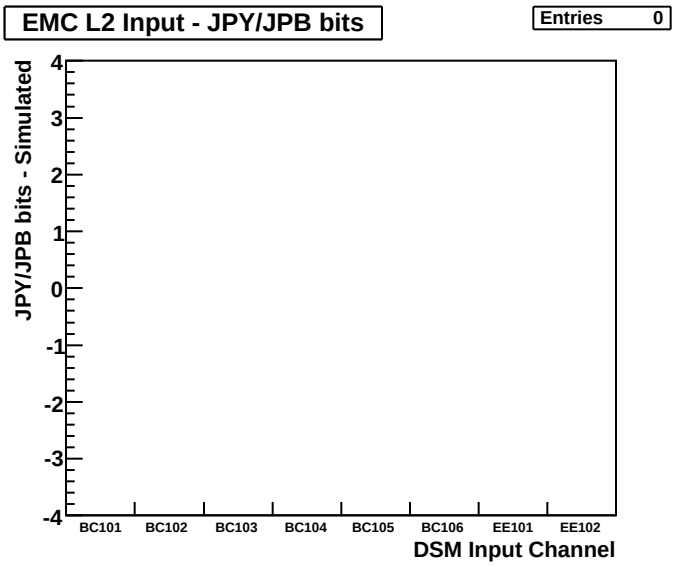

Endcap EMC L1 Input - High Tower Bits
Entries 5462820
High Tower Bits
EE101
EE102
229 76 55 264 268 87 144 471 635 117 65 246
266 72 58 253 338 64 128 457 396 96 39 155
454740 455087 455122 454718 454629 455084 454863 454307 454154 455022 455131 454834
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

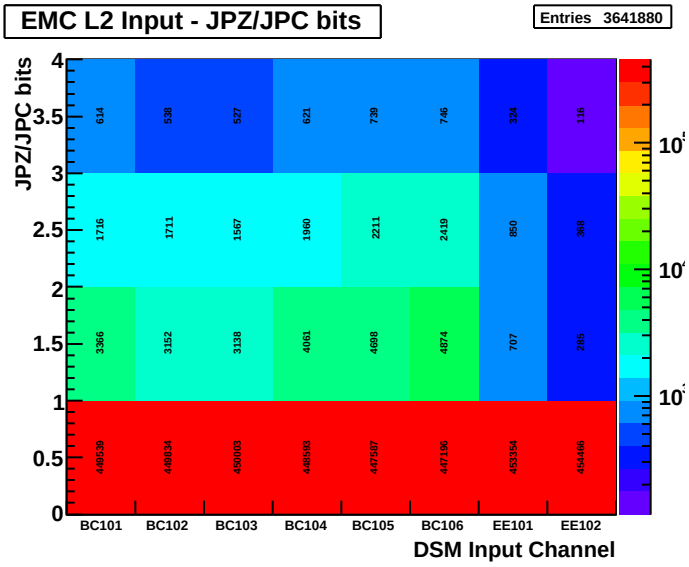

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

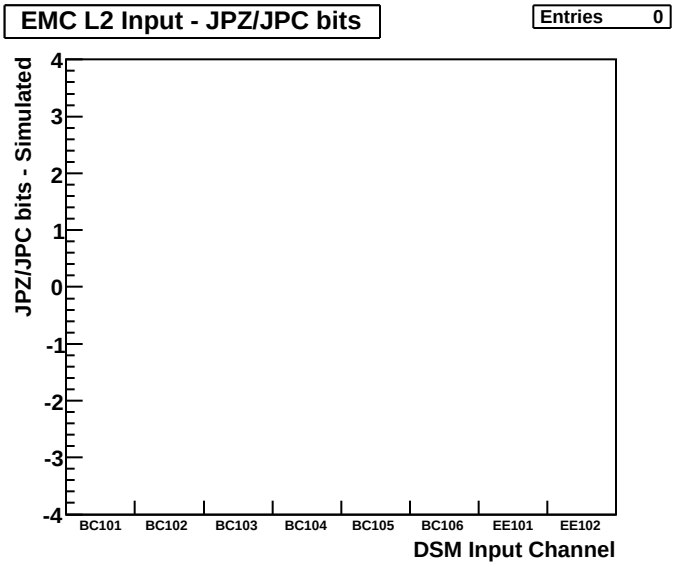

EMC L2 Input - JPX/JPA bits
Entries 3641880
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1111 914 770 630 744 639 391 524
2638 2517 2100 1955 2050 1791 786 1132
4757 4666 4051 4018 4045 3452 770 686
446729 447138 448314 448632 448396 448353 453288 452893

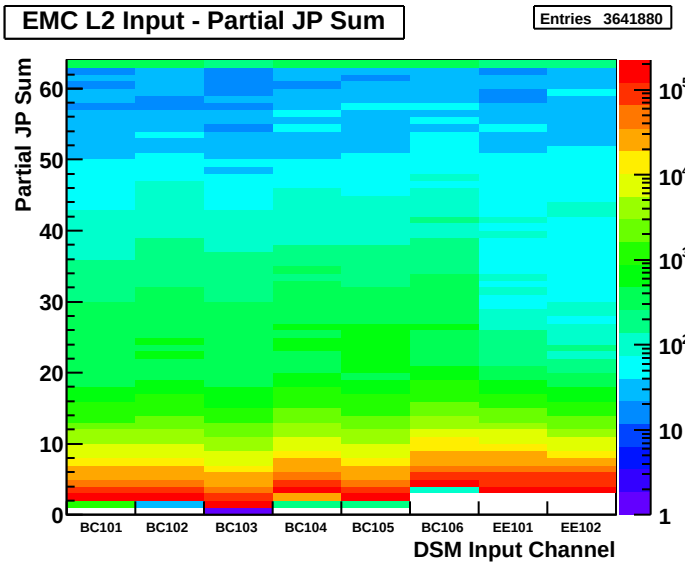

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

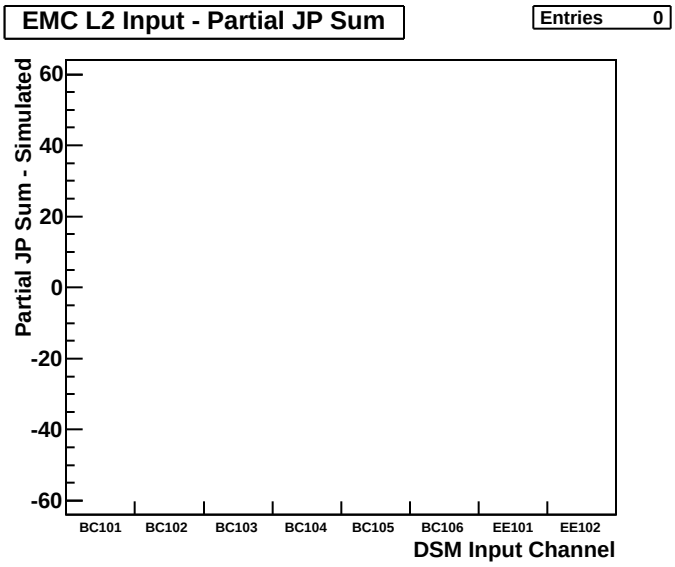

EMC L2 Input - JPY/JPB bits
Entries 3641880
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
799 614 613 506 643 692 296 486
2151 1712 1848 1848 2129 2217 753 1110
4070 3176 3602 3580 4473 4384 689 949
448215 449733 449172 449301 447990 447942 453497 452690

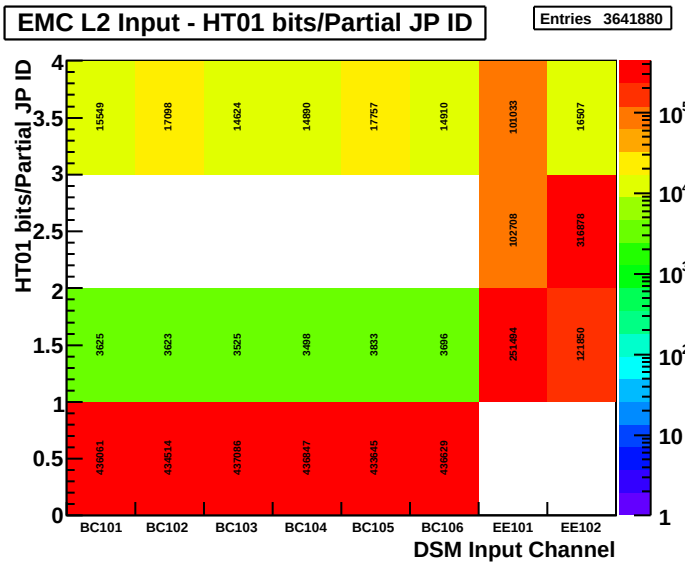

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

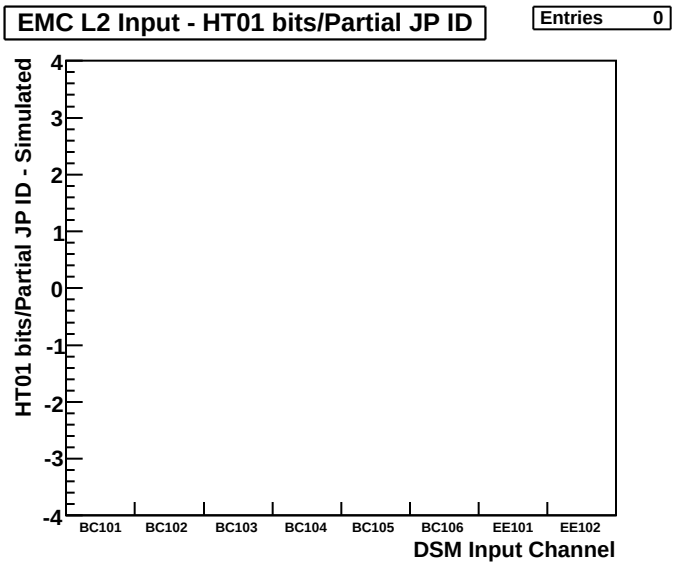

EMC L2 Input - JPZ/JPC bits
Entries 3641880
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
614 538 527 621 739 746 324 116
1716 1711 1567 1960 2211 2419 850 368
3366 3152 3138 4061 4698 4874 707 235
449539 449334 450003 448593 447587 447196 453354 454466

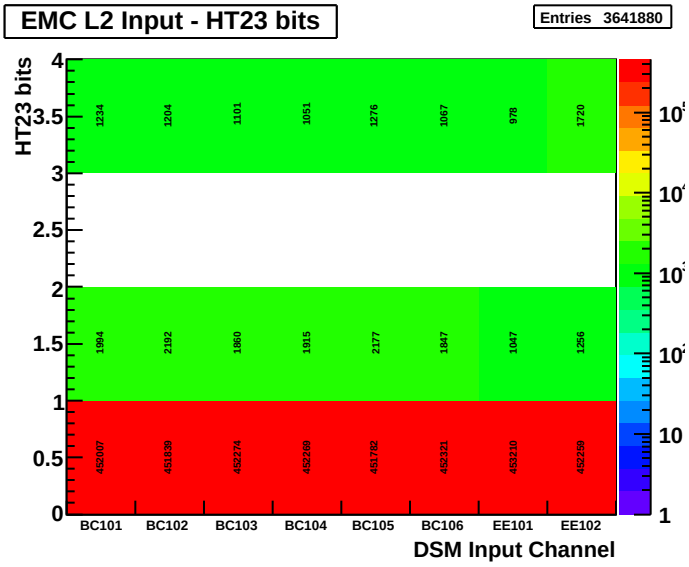

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

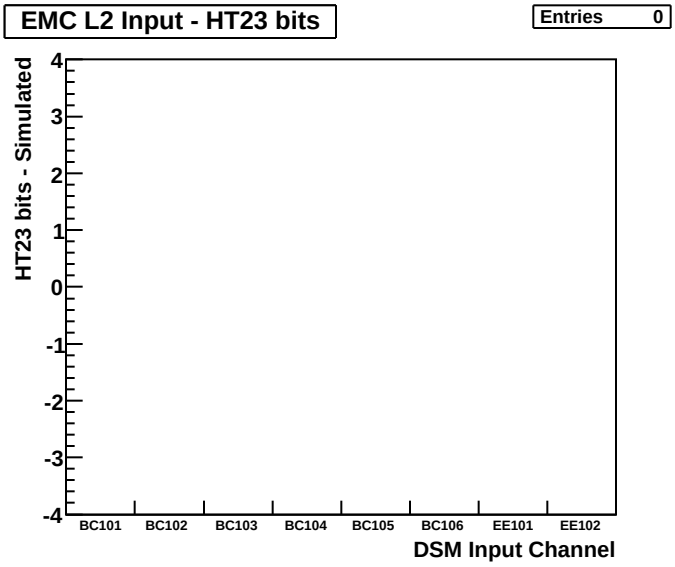

EMC L2 Input - Partial JP Sum
Entries 3641880
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

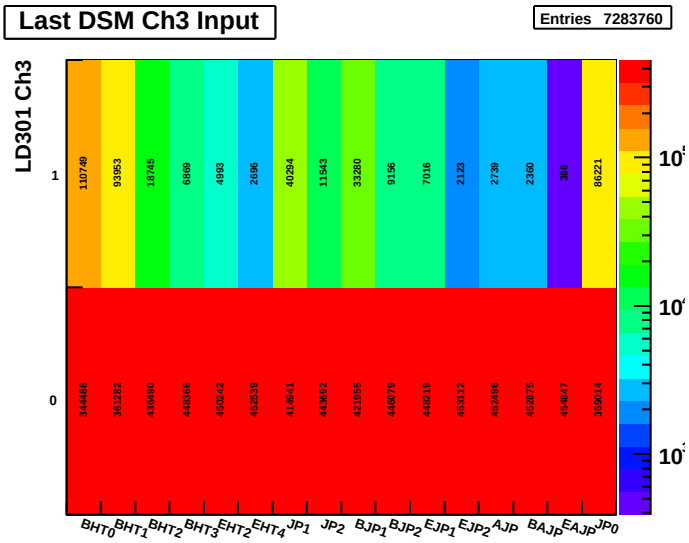

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

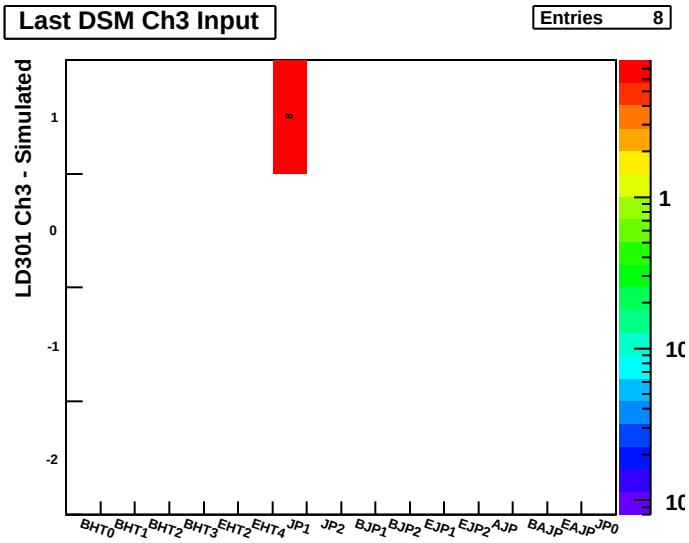

EMC L2 Input - HT01 bits/Partial JP ID
Entries 3641880
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

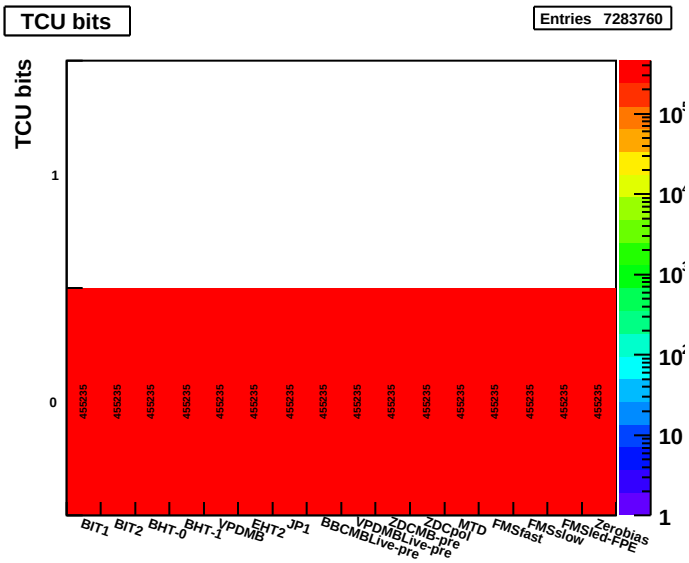

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

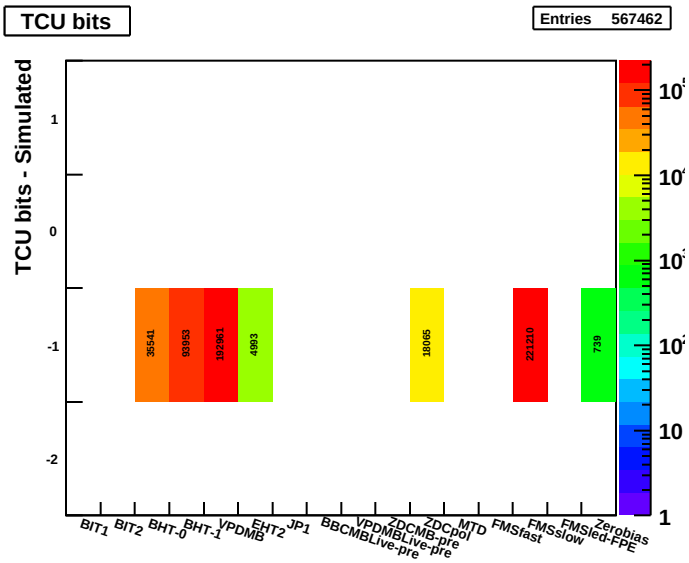

EMC L2 Input - HT23 bits
Entries 3641880
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

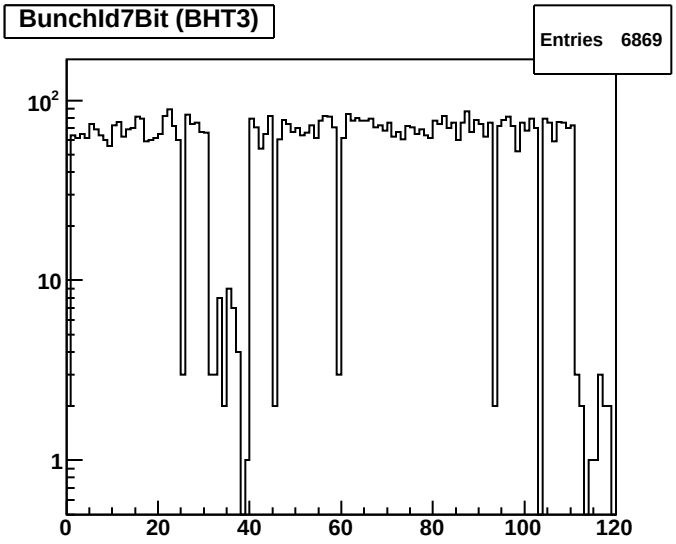

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

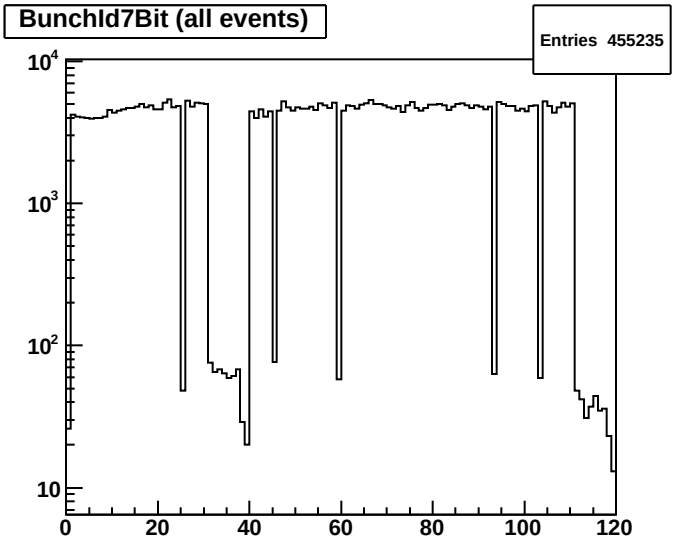

Last DSM Ch3 Input
Entries 7283760
LD301 Ch3
1
0
110749 93953 18745 6869 4993 2696 40294 11543 33280 9156 7016 2123 2739 2360 388 86221
344486 361282 436490 448366 450242 452539 414941 443692 421955 446079 448219 453112 452496 452875 454847 369014
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

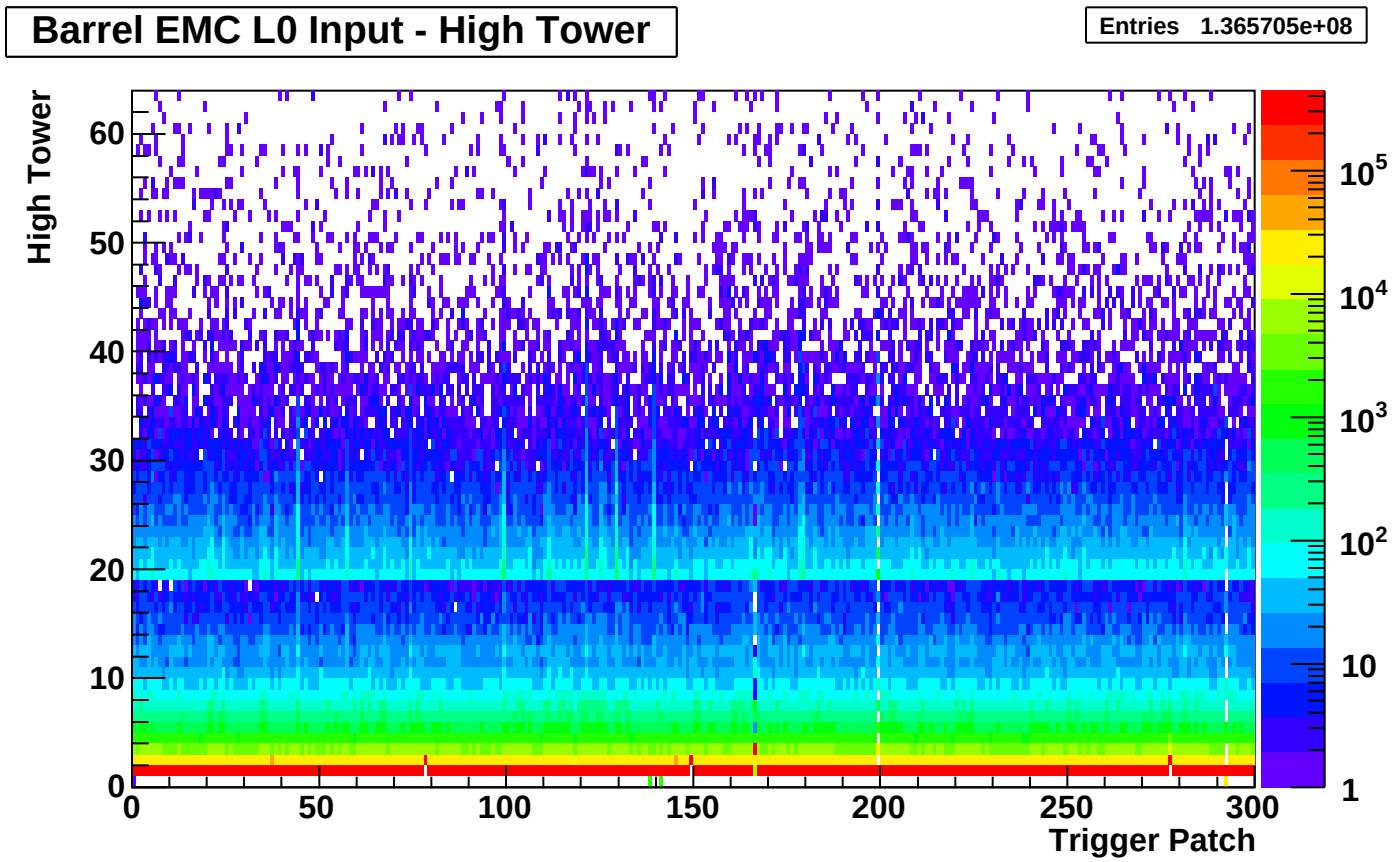

Last DSM Ch3 Input
Entries 8
LD301 Ch3 - Simulated
1
0
-1
-2
8
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

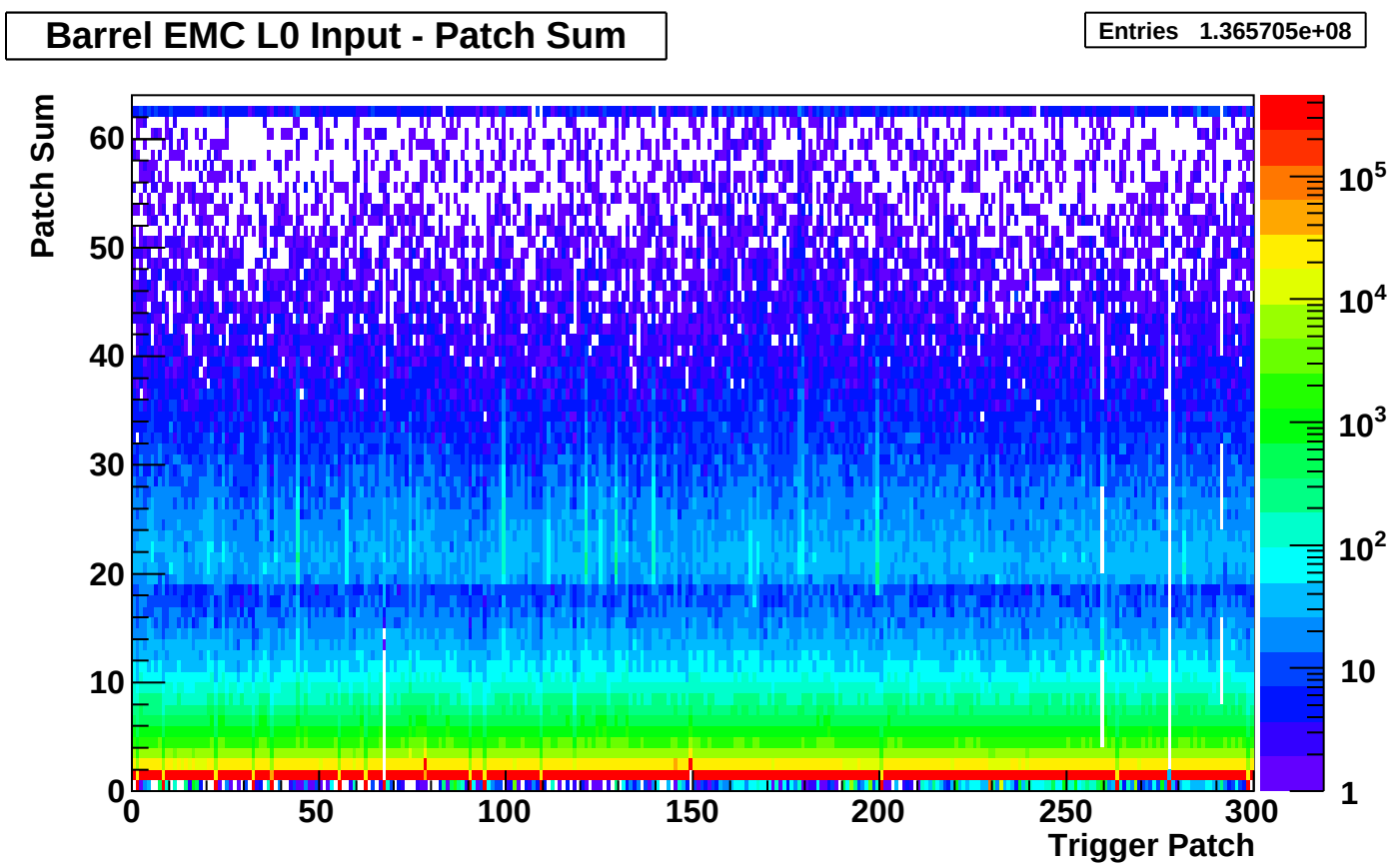

TCU bits
Entries 7283760
TCU bits
1
0
455235 455235 455235 455235 455235 455235 455235 455235 455235 455235 455235 455235 455235 455235 455235 455235
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

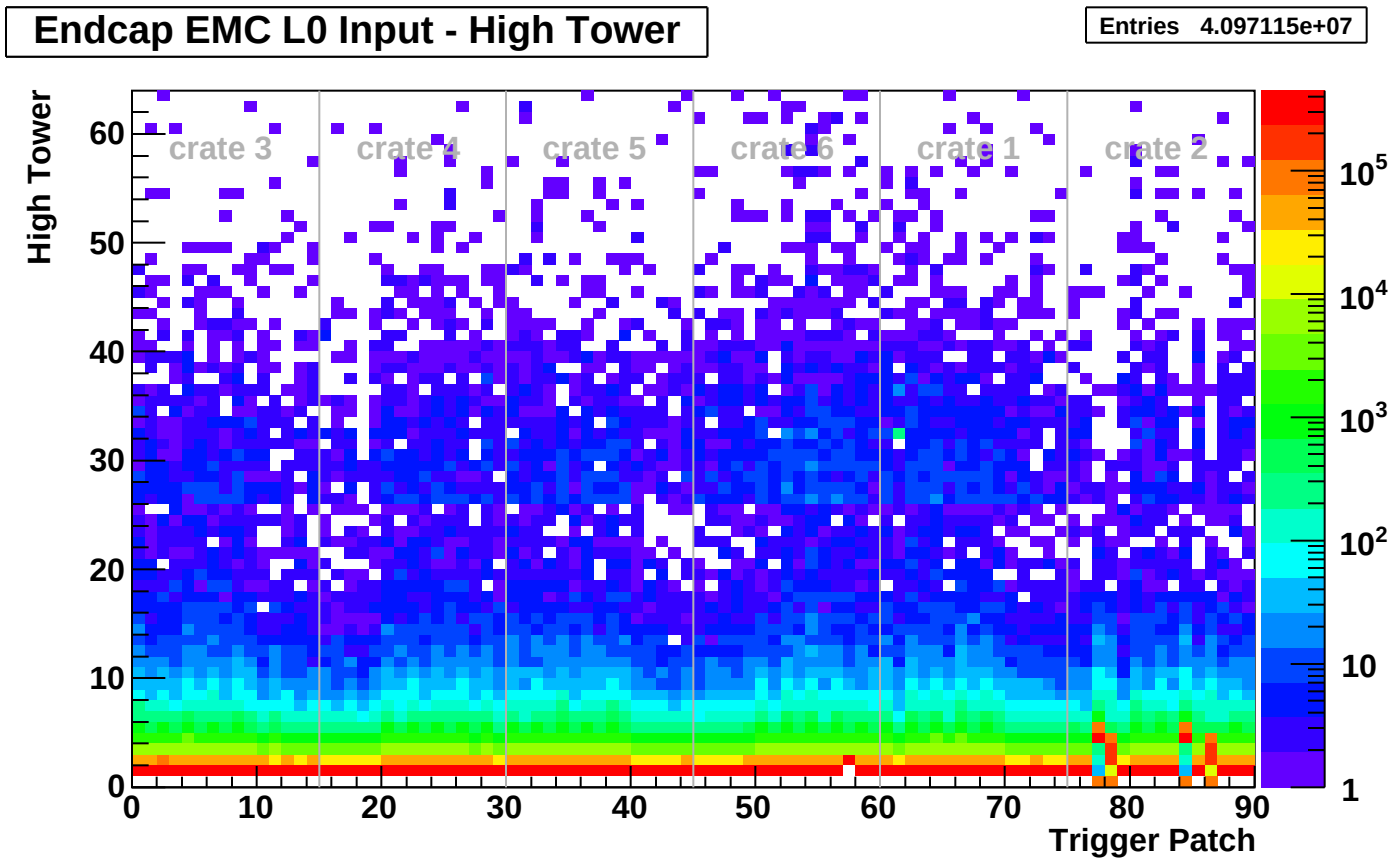

TCU bits
Entries 567462
TCU bits - Simulated
1
0
-1
-2
35541 93953 192961 4993 18065 221210 739
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

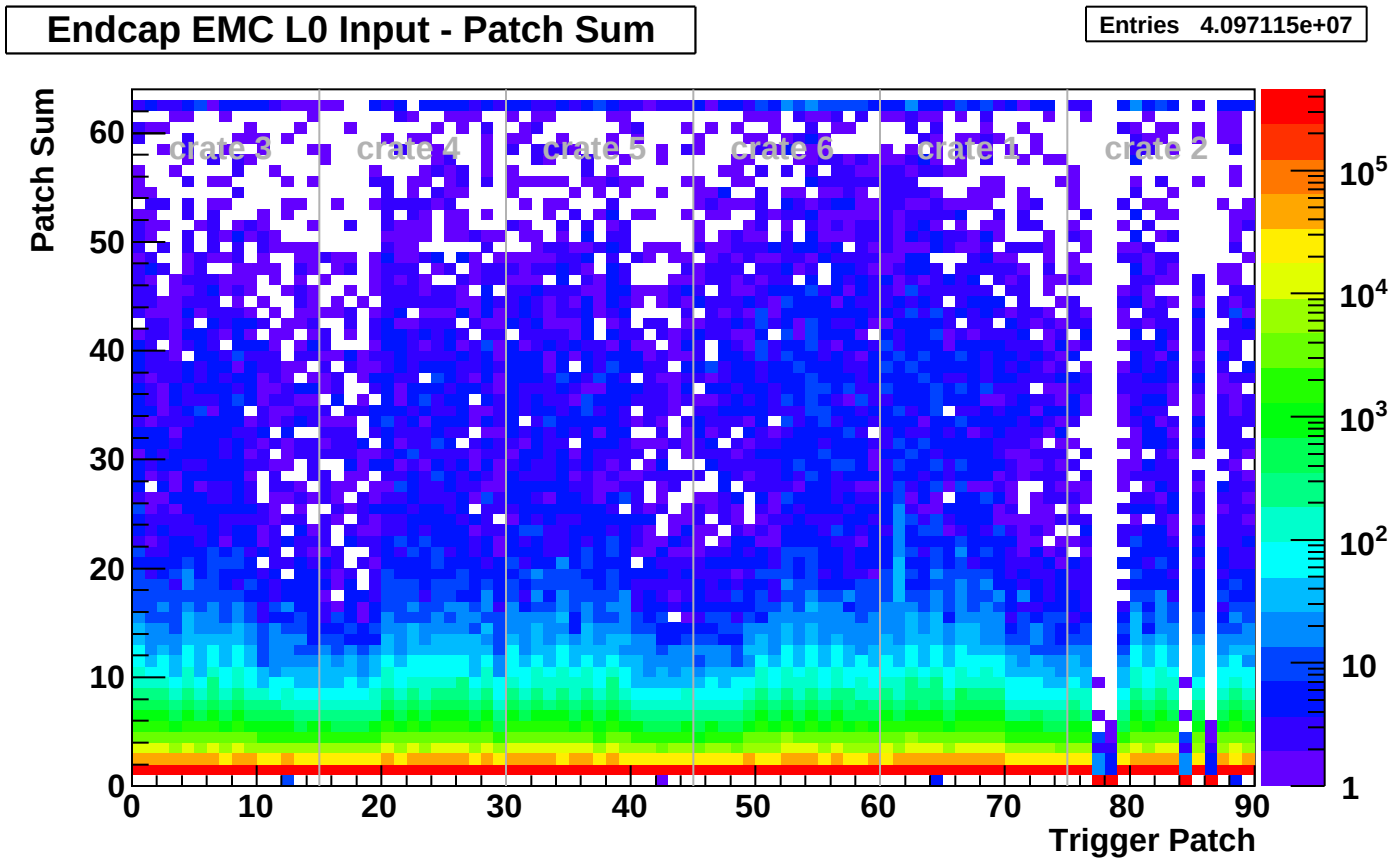

BunchId7Bit (BHT3)
Entries 6869
10²
10
1
0 20 40 60 80 100 120

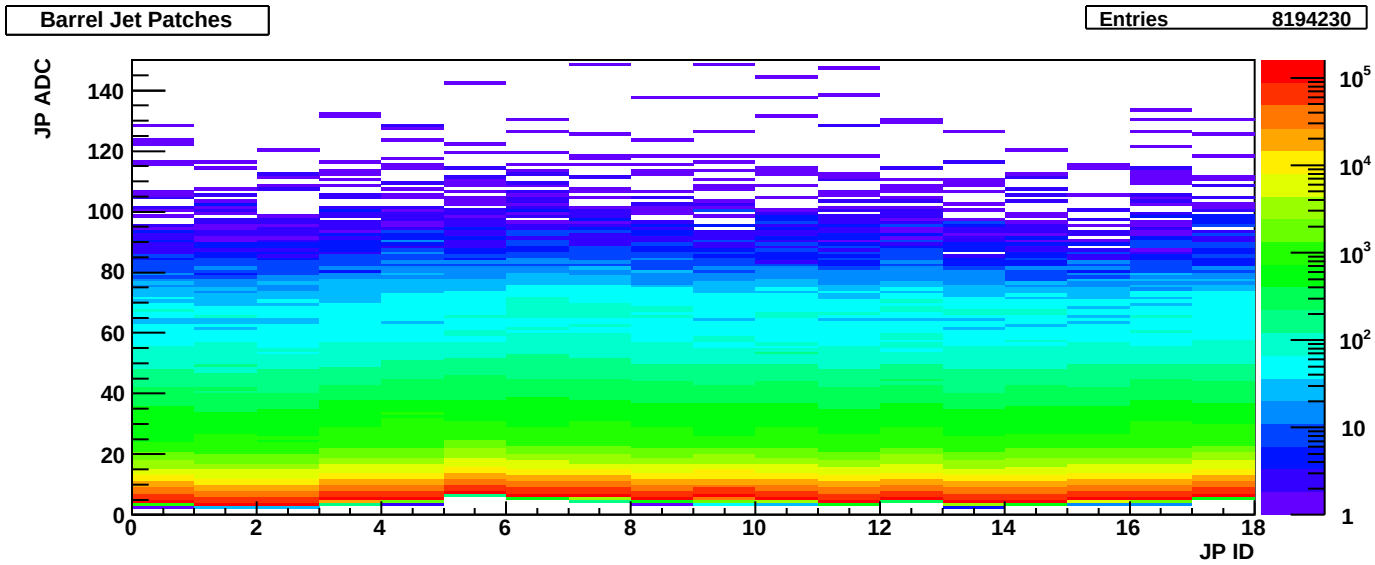

BunchId7Bit (all events)
Entries 455235
10⁴
10³
10²
10
0 20 40 60 80 100 120

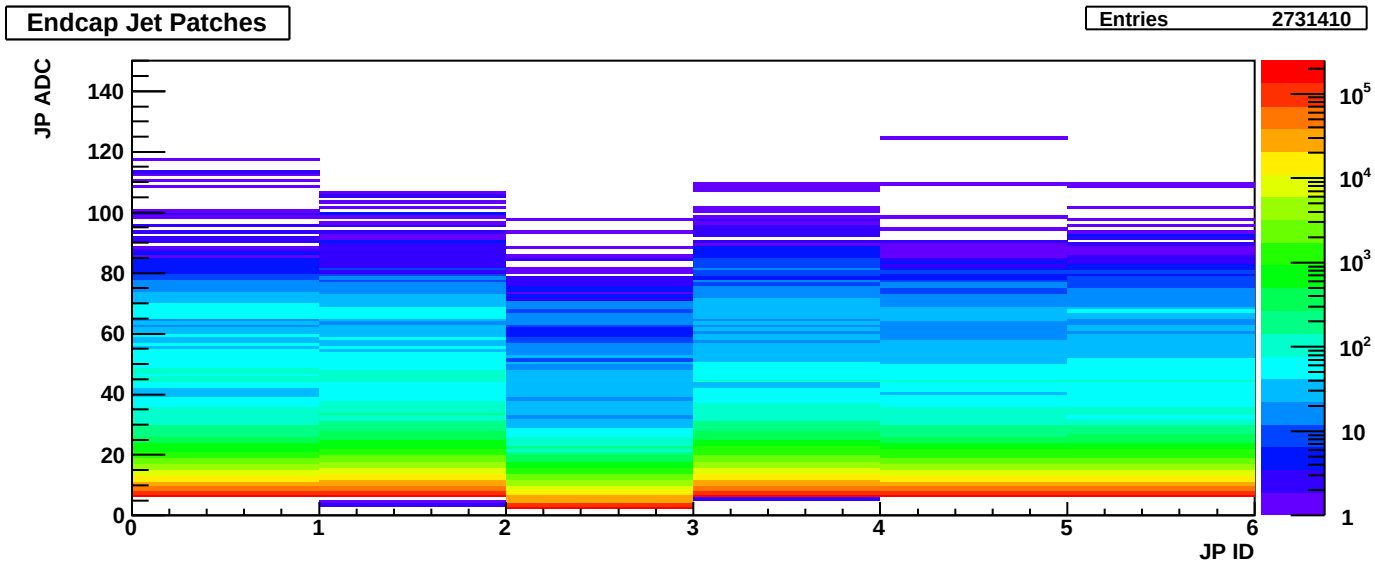

Barrel EMC L0 Input - High Tower
Entries 1.365705e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

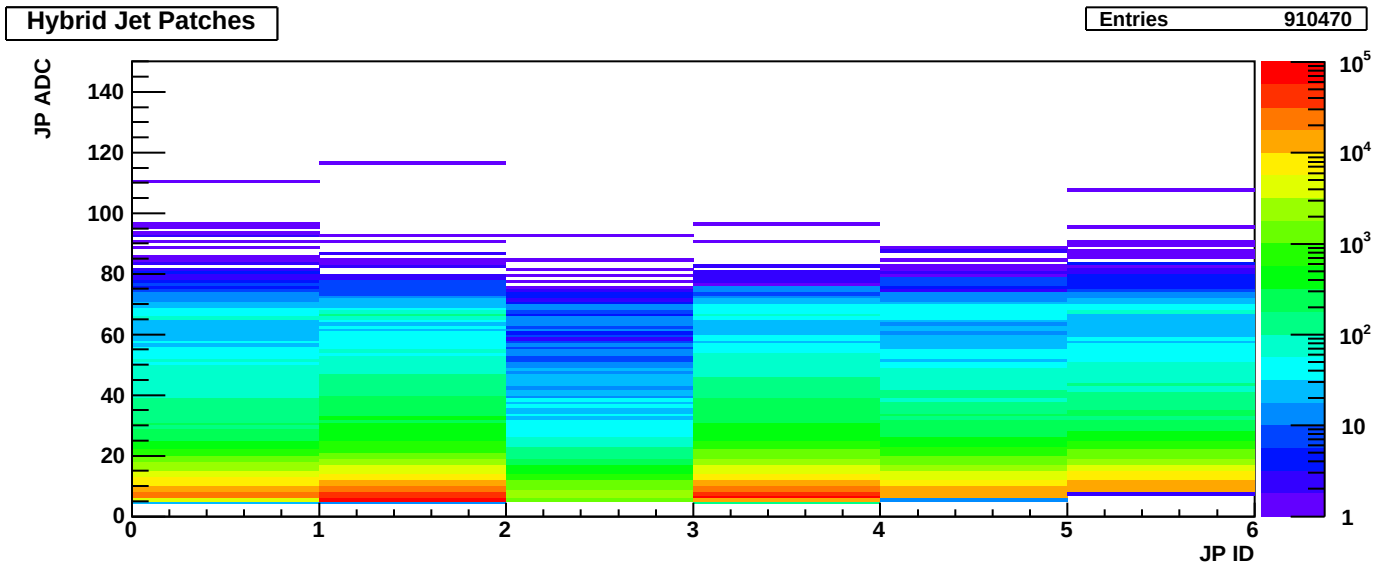

Barrel EMC L0 Input - Patch Sum
Entries 1.365705e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

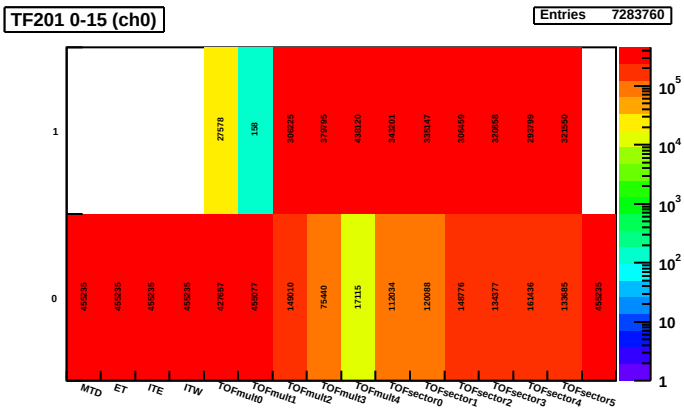

Endcap EMC L0 Input - High Tower
Entries 4.097115e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

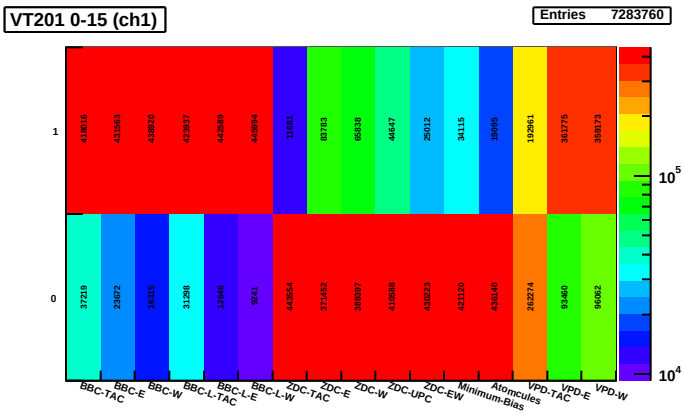

Endcap EMC L0 Input - Patch Sum
Entries 4.097115e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

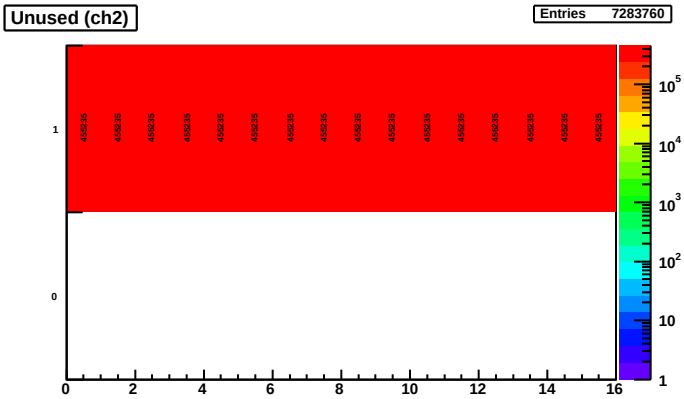

Barrel Jet Patches
Entries 8194230
JP ADC
JP ID

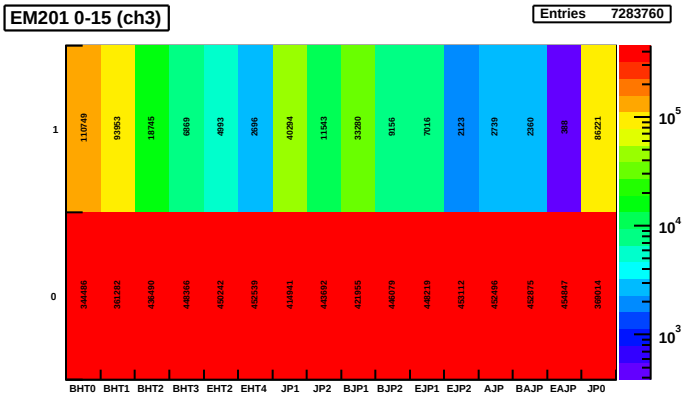

Endcap Jet Patches
Entries 2731410
JP ADC
JP ID

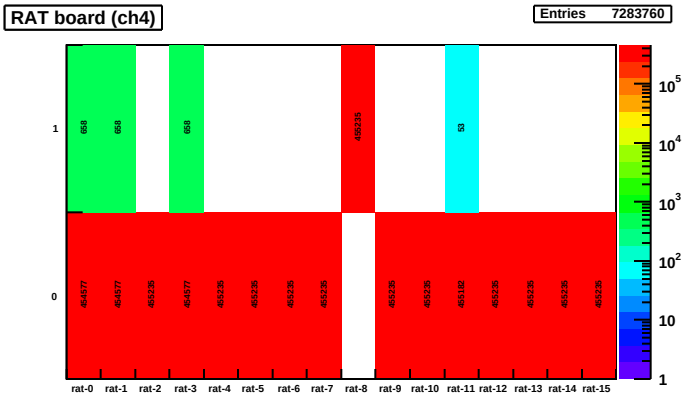

Hybrid Jet Patches
Entries 910470
JP ADC
JP ID

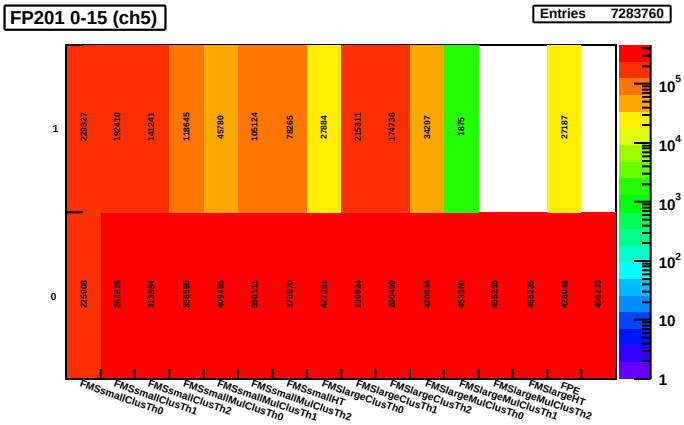

TF201 0-15 (ch0)
Entries 7283760
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

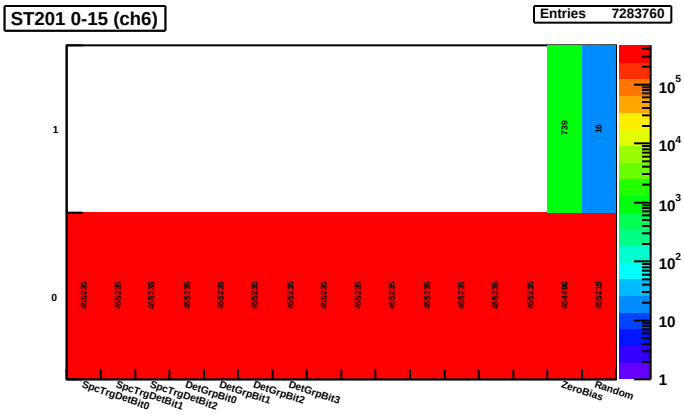

VT201 0-15 (ch1)
Entries 7283760
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

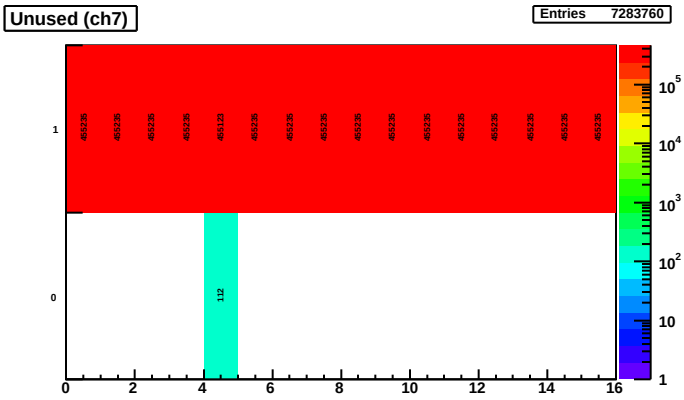

Unused (ch2)
Entries 7283760

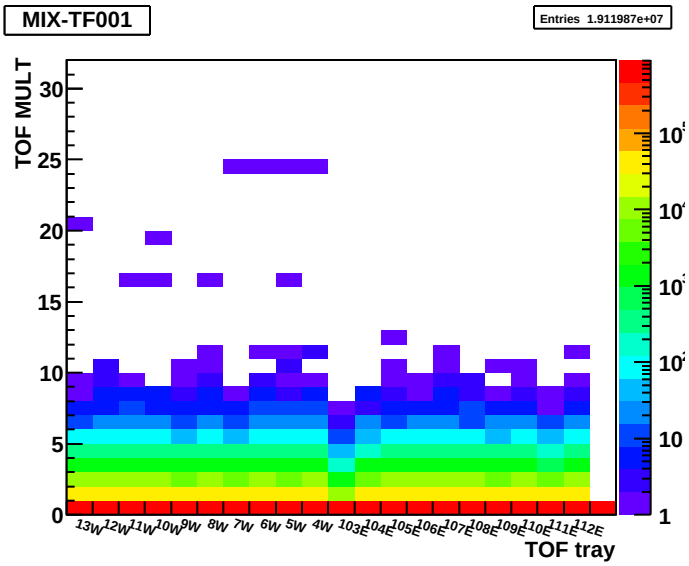

EM201 0-15 (ch3)
Entries 7283760
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

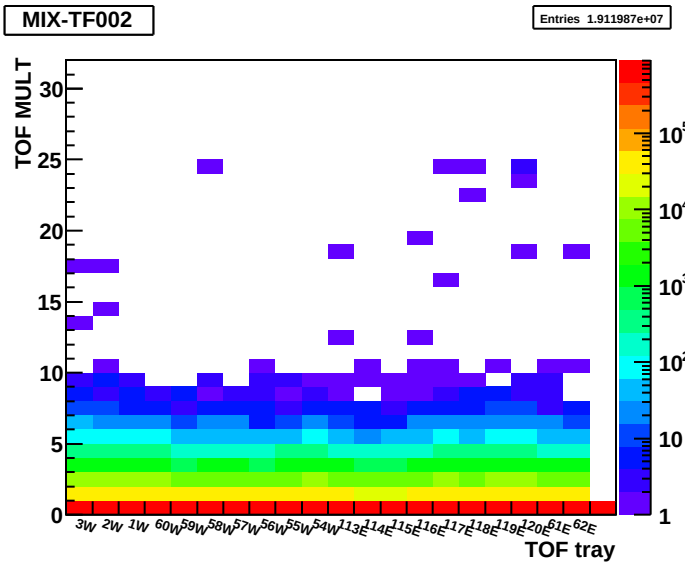

RAT board (ch4)
Entries 7283760
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

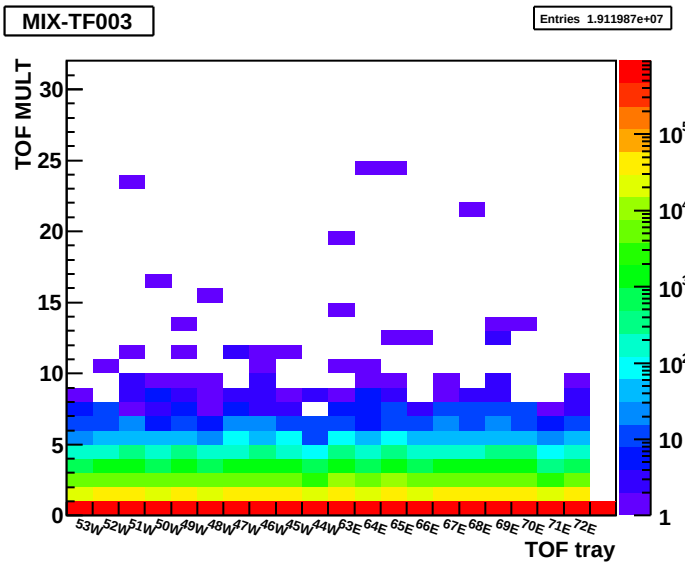

FP201 0-15 (ch5)
Entries 7283760
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

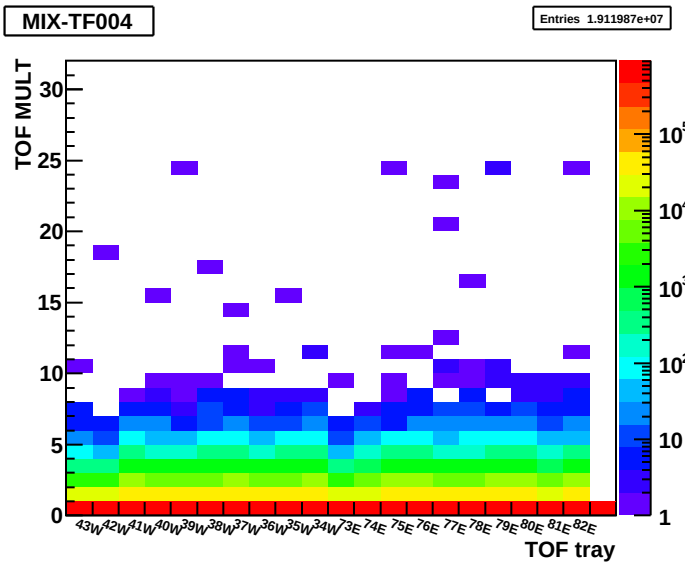

ST201 0-15 (ch6)
Entries 7283760
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetGrpBit0 DetGrpBit1 DetGrpBit2 DetGrpBit3 ZeroBias Random

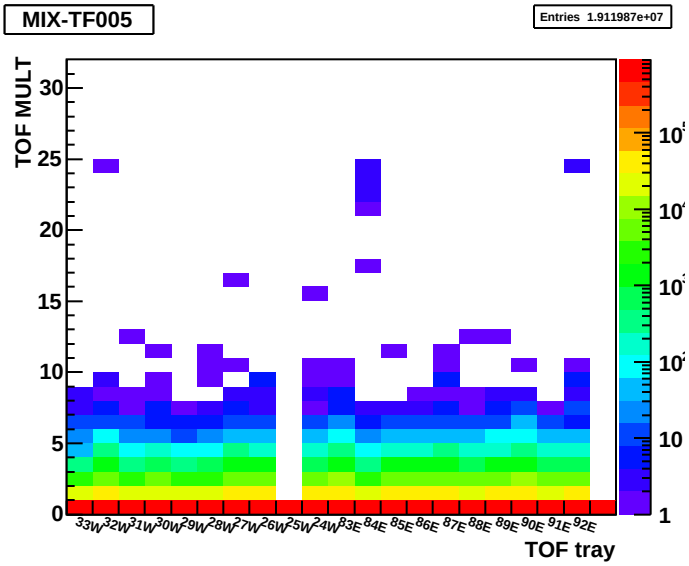

Unused (ch7)
Entries 7283760

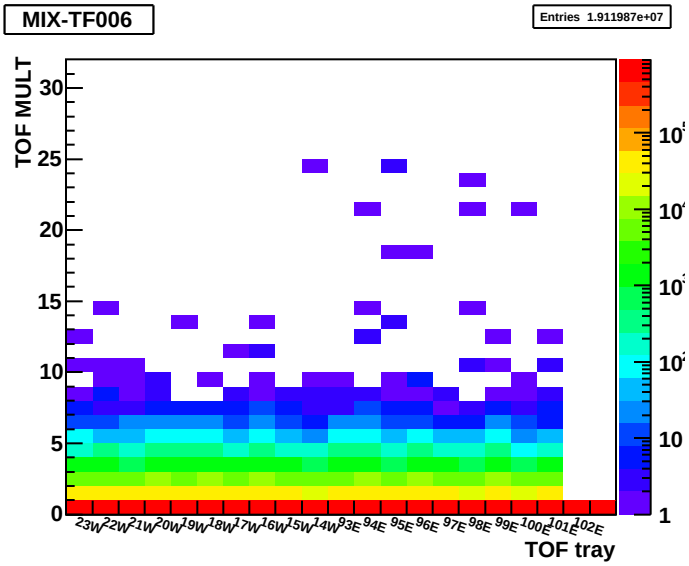

MIX-TF001
Entries 1.911987e+07
TOF MULT
TOF tray

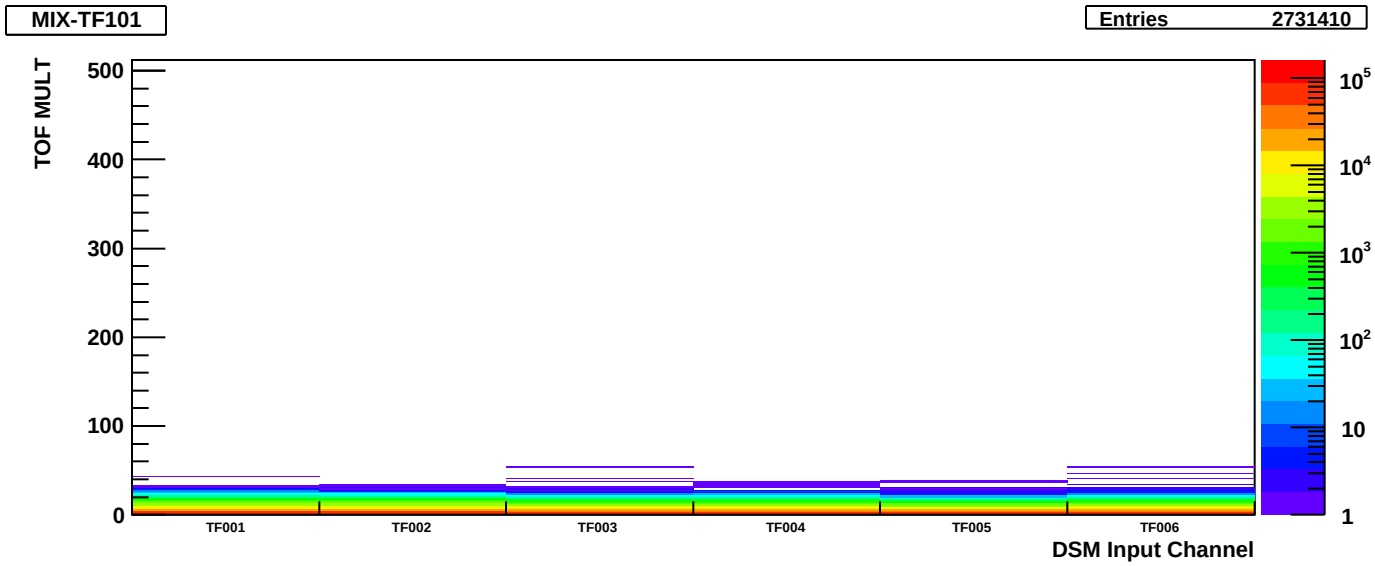

MIX-TF002
Entries 1.911987e+07
TOF MULT
TOF tray

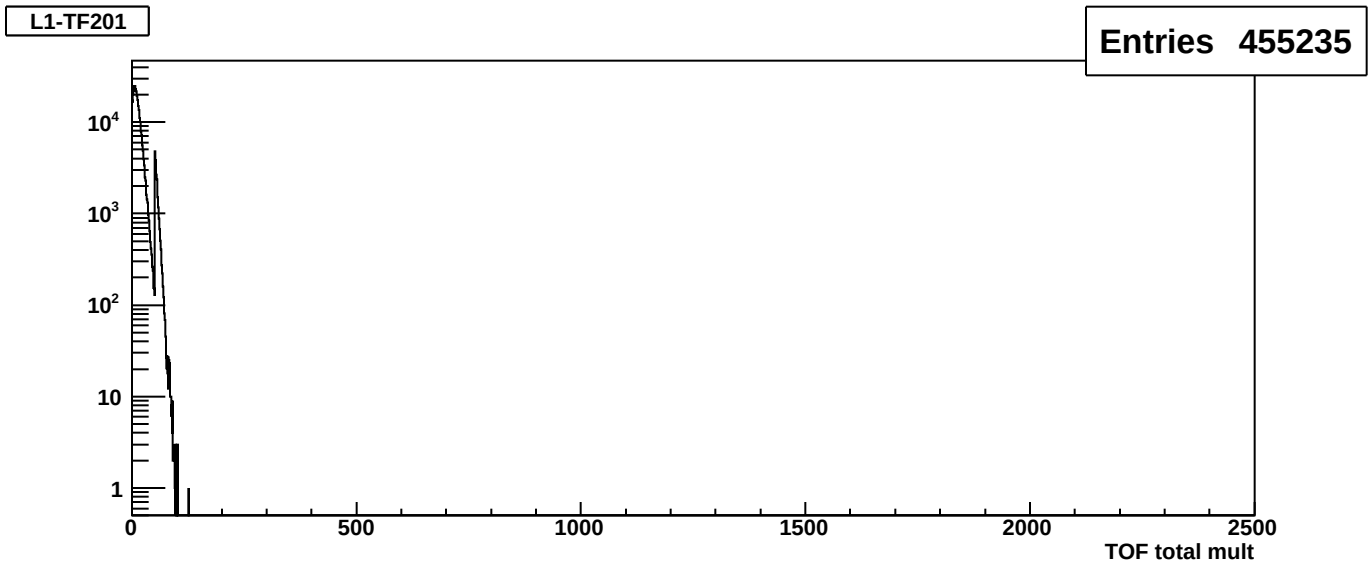

MIX-TF003
Entries 1.911987e+07
TOF MULT
TOF tray

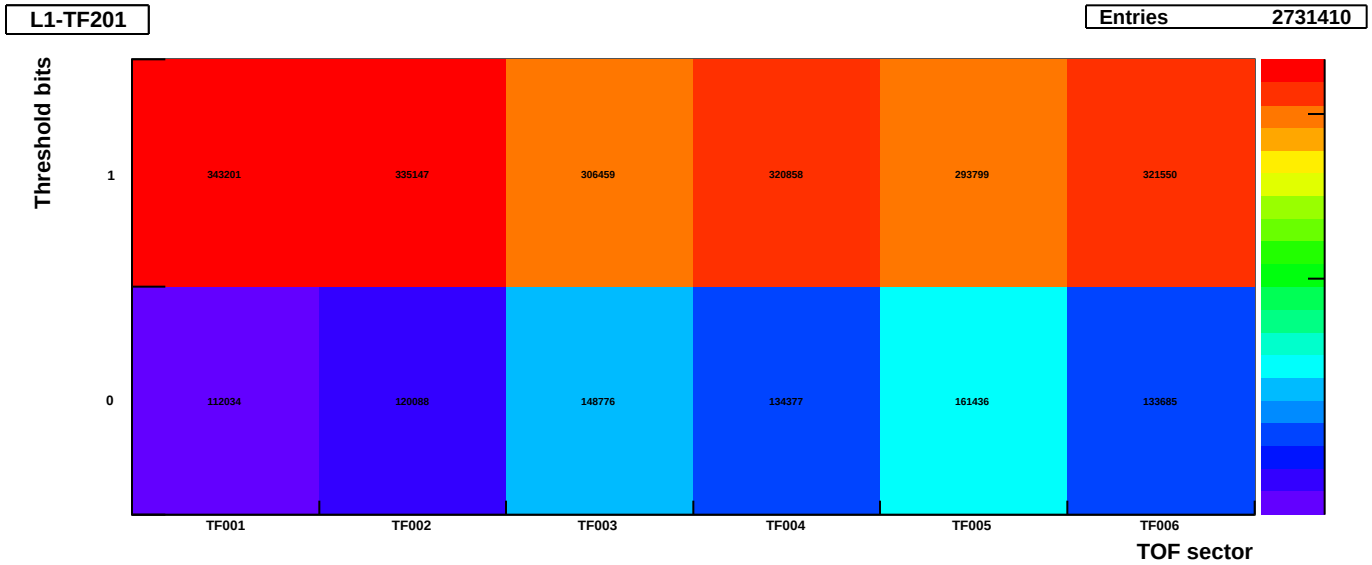

MIX-TF004
Entries 1.911987e+07
TOF MULT
TOF tray

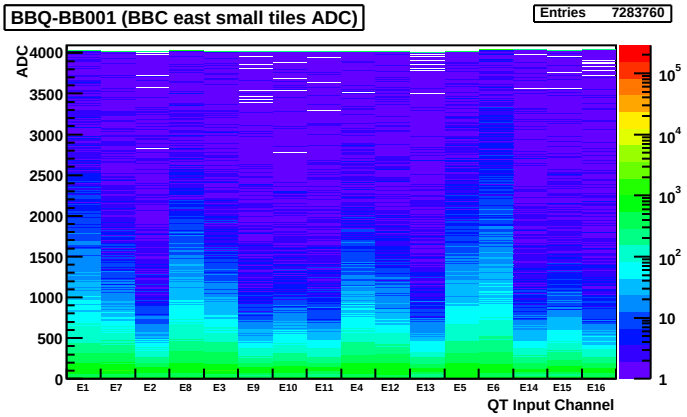

MIX-TF005
Entries 1.911987e+07
TOF MULT
TOF tray

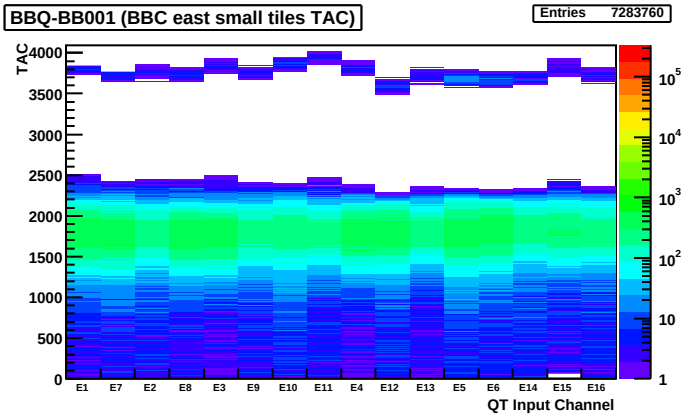

MIX-TF006
Entries 1.911987e+07
TOF MULT
TOF tray

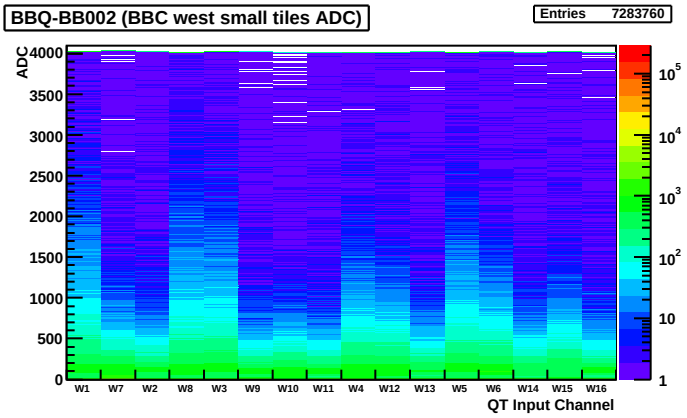

MIX-TF101
Entries 2731410
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

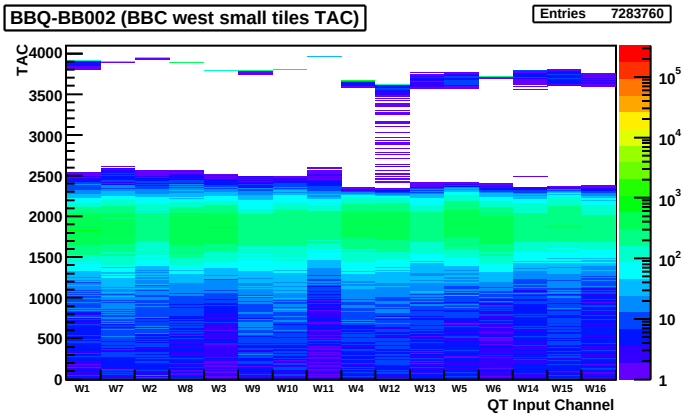

L1-TF201
Entries 455235
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

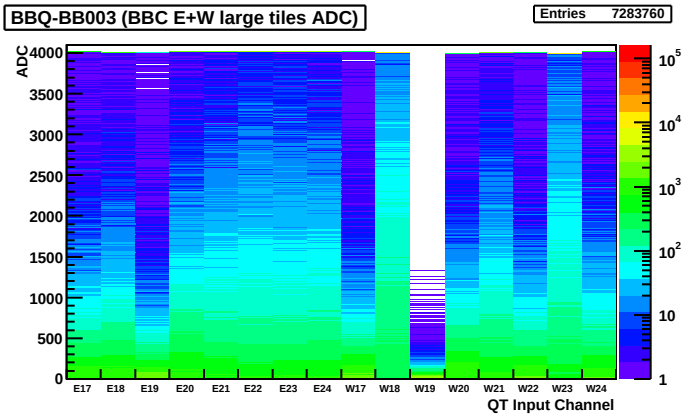

L1-TF201
Entries 2731410
Threshold bits
1
0
343201
335147
306459
320858
293799
321550
112034
120088
148776
134377
161436
133685
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

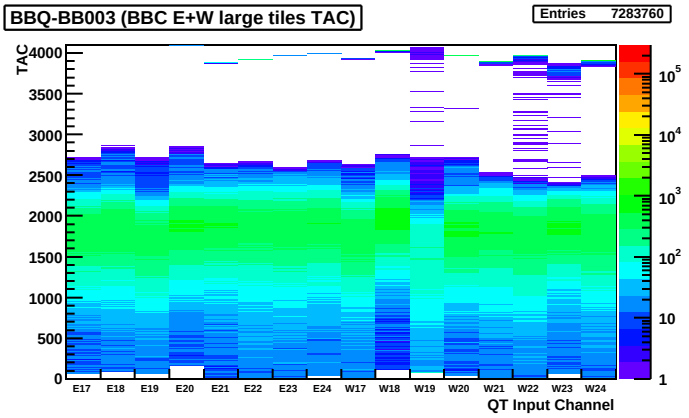

BBQ-BB001 (BBC east small tiles ADC)
Entries 7283760
ADC
QT Input Channel

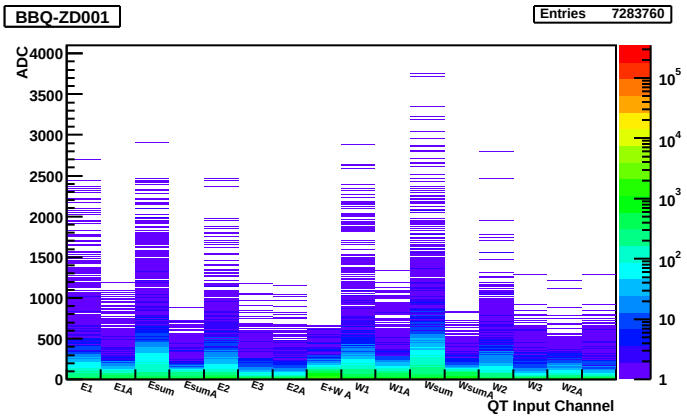

BBQ-BB001 (BBC east small tiles TAC)
Entries 7283760
TAC
QT Input Channel

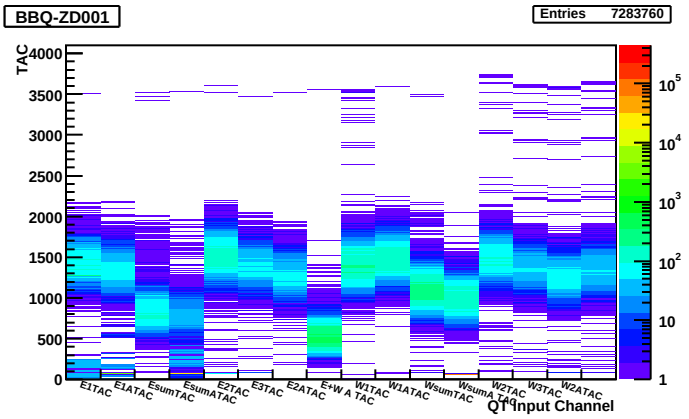

BBQ-BB002 (BBC west small tiles ADC)
Entries 7283760
ADC
QT Input Channel

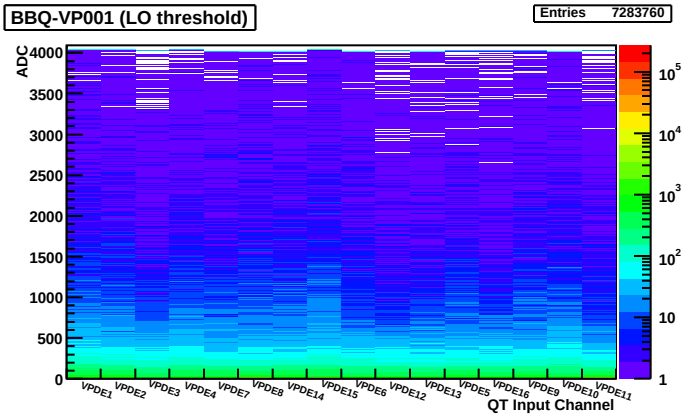

BBQ-BB002 (BBC west small tiles TAC)
Entries 7283760
TAC
QT Input Channel

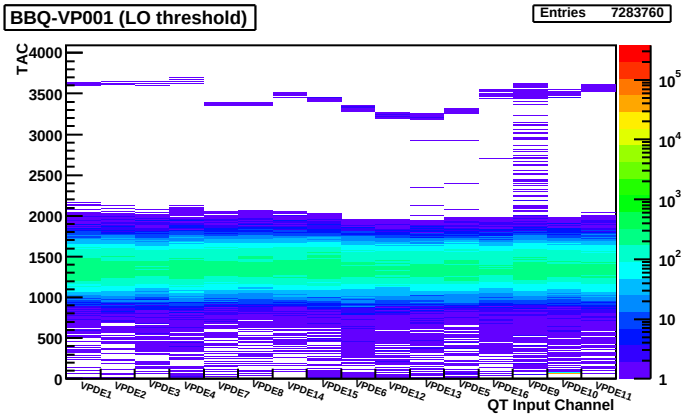

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 7283760
ADC
QT Input Channel

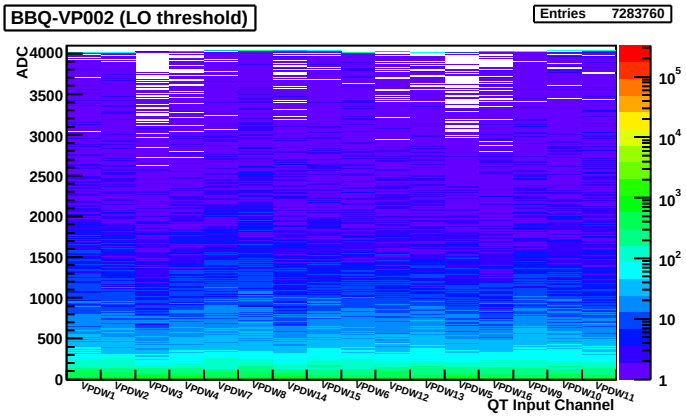

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 7283760
TAC
QT Input Channel

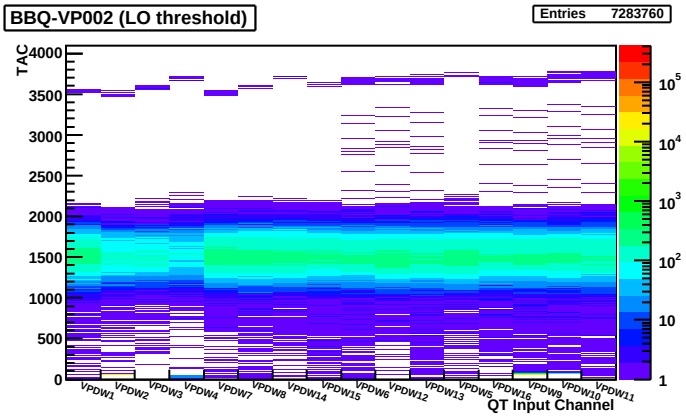

BBQ-ZD001
Entries 7283760
ADC
QT Input Channel

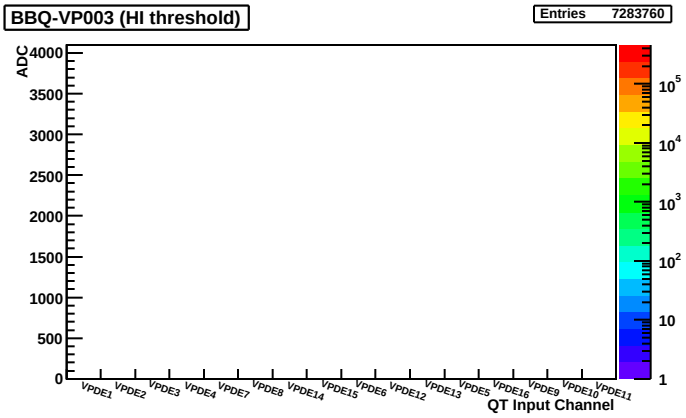

BBQ-ZD001
Entries 7283760
TAC
QT Input Channel

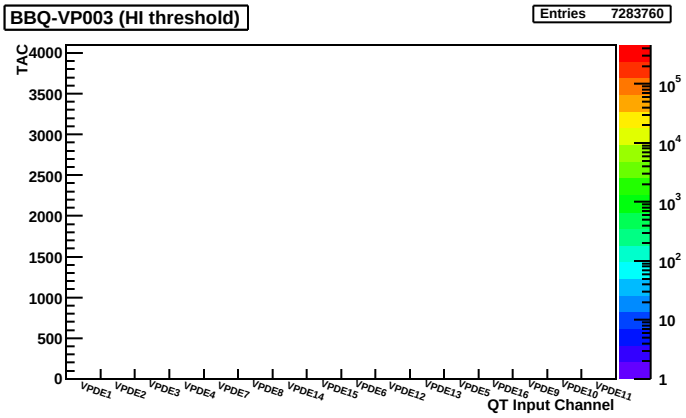

BBQ-VP001 (LO threshold)
Entries 7283760
ADC
QT Input Channel

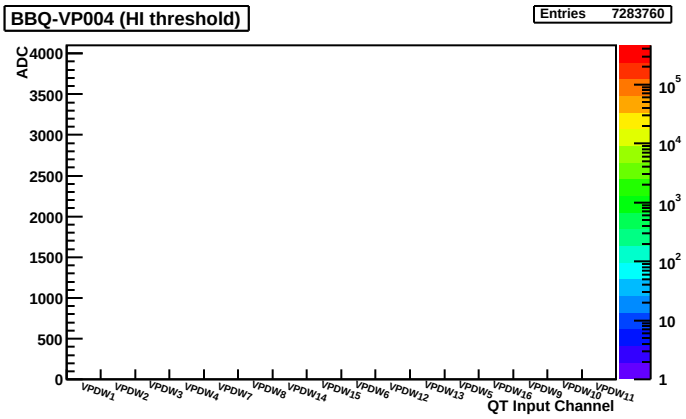

BBQ-VP001 (LO threshold)
Entries 7283760
TAC
QT Input Channel

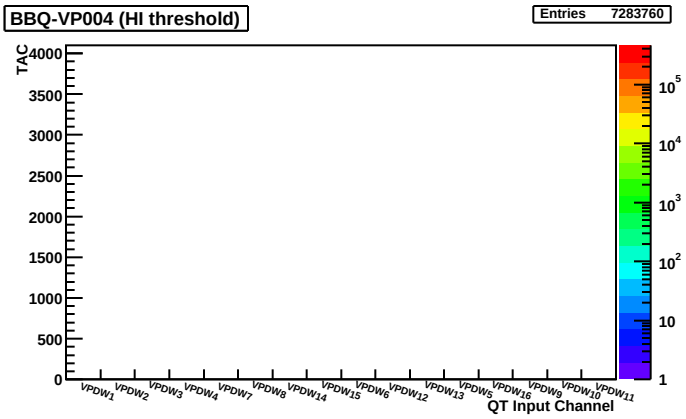

BBQ-VP002 (LO threshold)
Entries 7283760
ADC
QT Input Channel

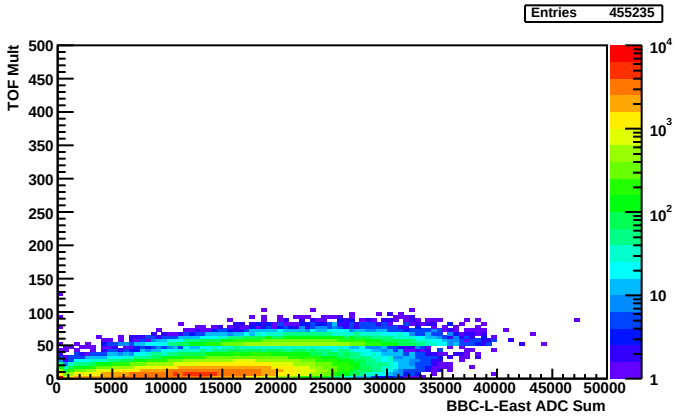

BBQ-VP002 (LO threshold)
Entries 7283760
TAC
QT Input Channel

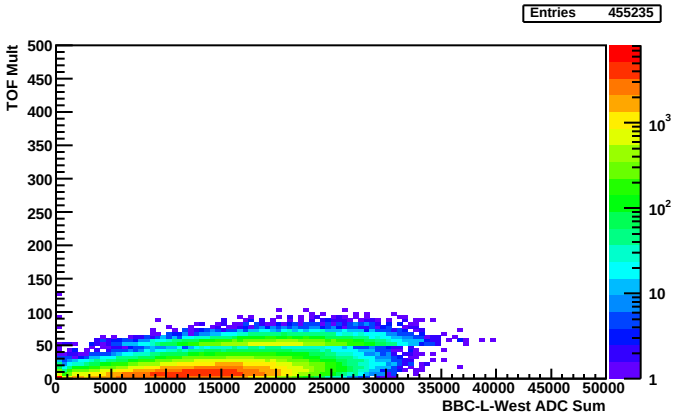

BBQ-VP003 (HI threshold)
Entries 7283760
ADC
QT Input Channel

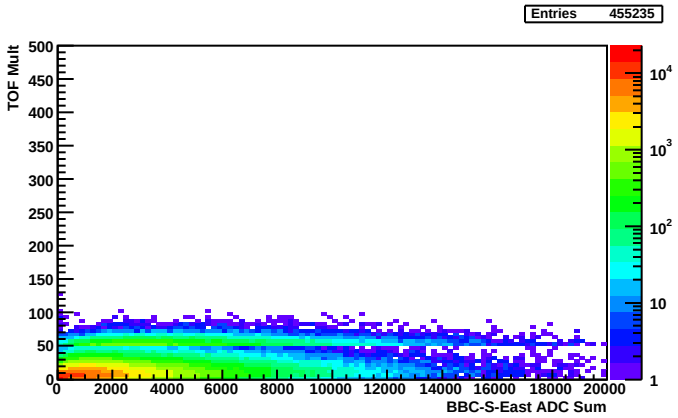

BBQ-VP003 (HI threshold)
Entries 7283760
TAC
QT Input Channel

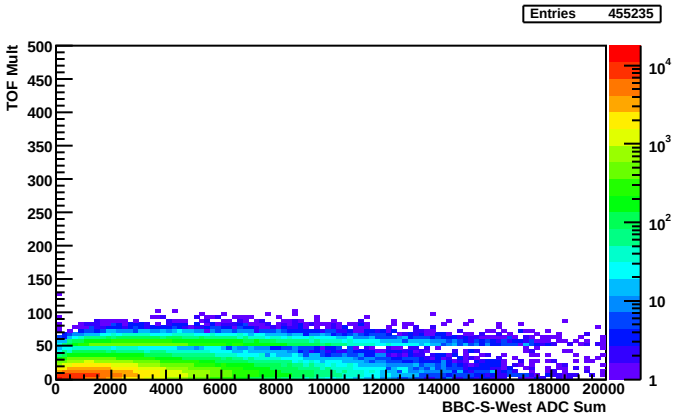

BBQ-VP004 (HI threshold)
Entries 7283760
ADC
QT Input Channel

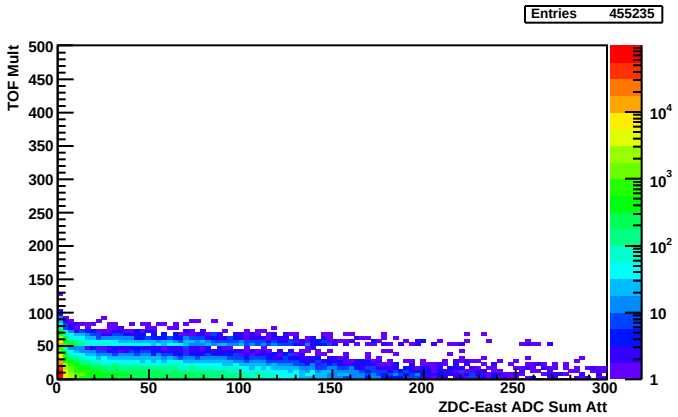

BBQ-VP004 (HI threshold)
Entries 7283760
TAC
QT Input Channel

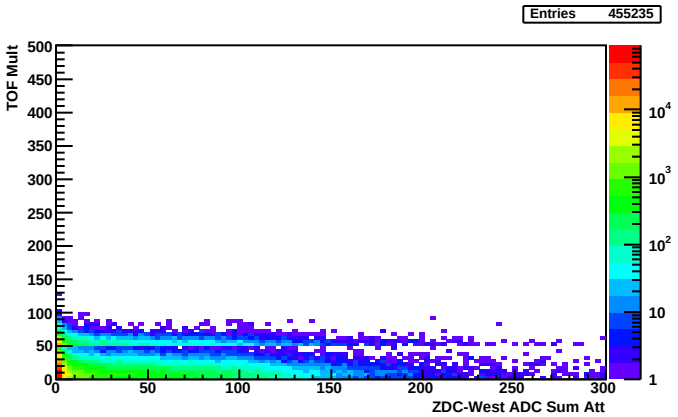

Entries 455235
TOF Mult
BBC-L-East ADC Sum

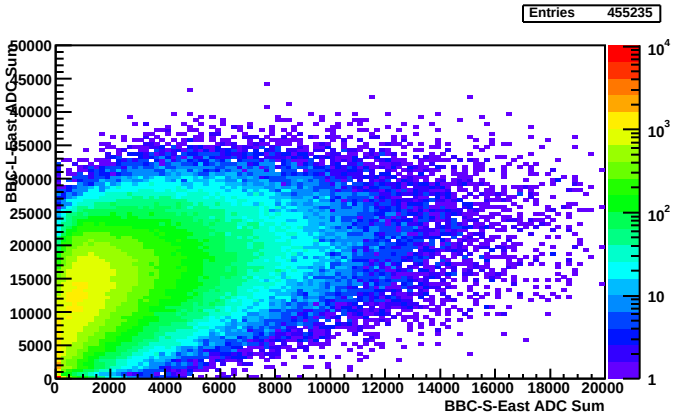

Entries 455235
TOF Mult
BBC-L-West ADC Sum

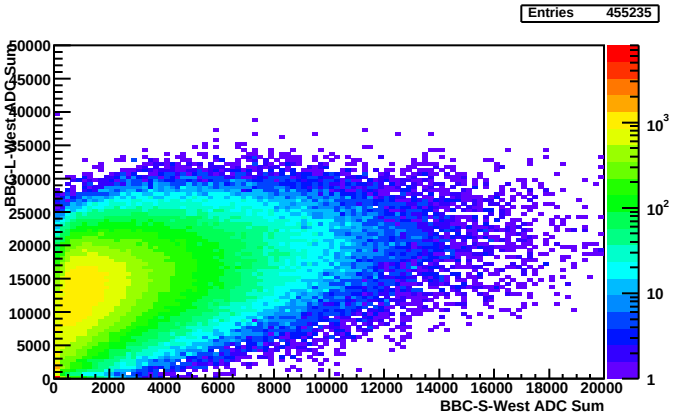

Entries 455235
TOF Mult
BBC-S-East ADC Sum

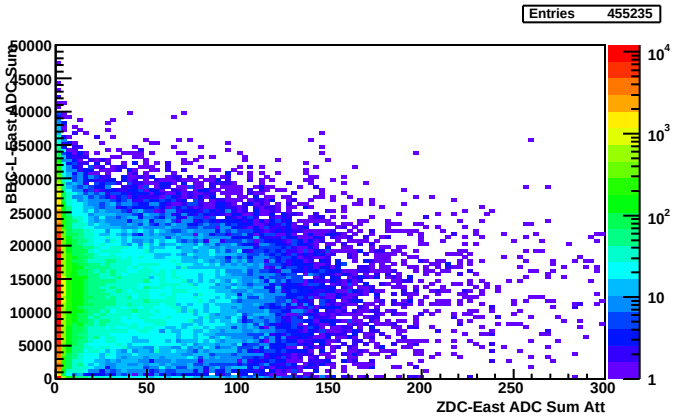

Entries 455235
TOF Mult
BBC-S-West ADC Sum

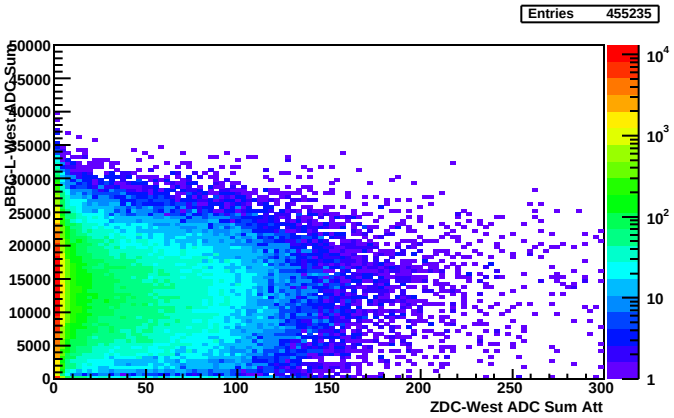

Entries 455235
TOF Mult
ZDC-East ADC Sum Att

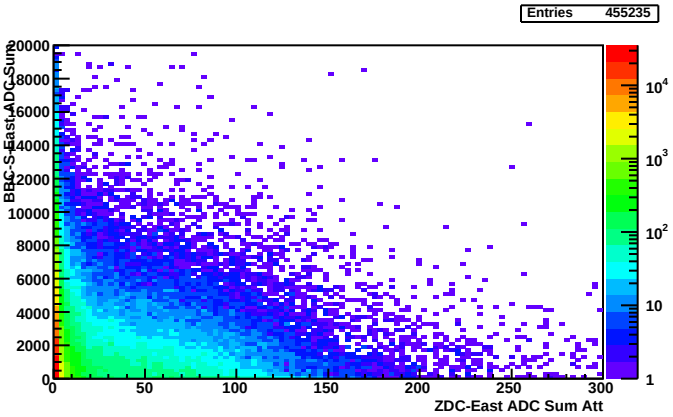

Entries 455235
TOF Mult
ZDC-West ADC Sum Att

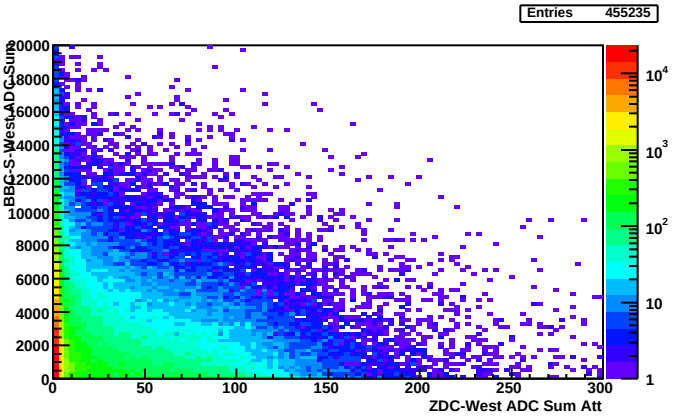

Entries 455235
BBC-L-East ADC Sum
BBC-S-East ADC Sum

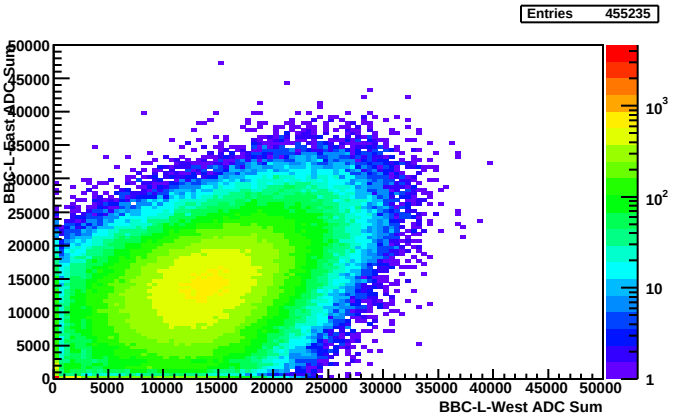

Entries 455235
BBC-L-West ADC Sum
BBC-S-West ADC Sum

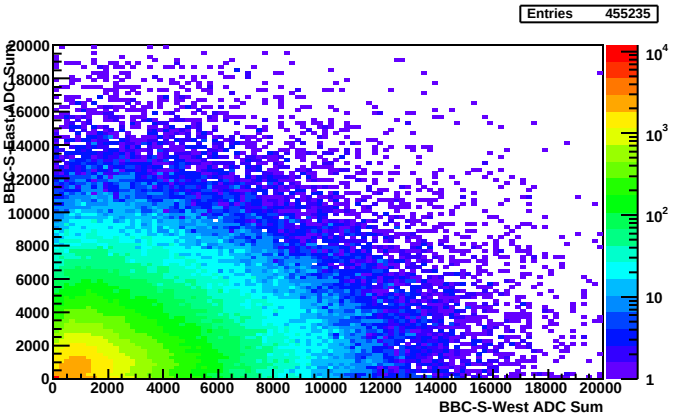

Entries 455235
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

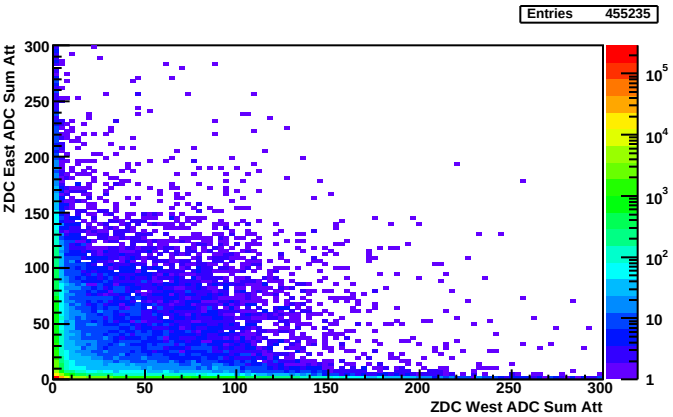

Entries 455235
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

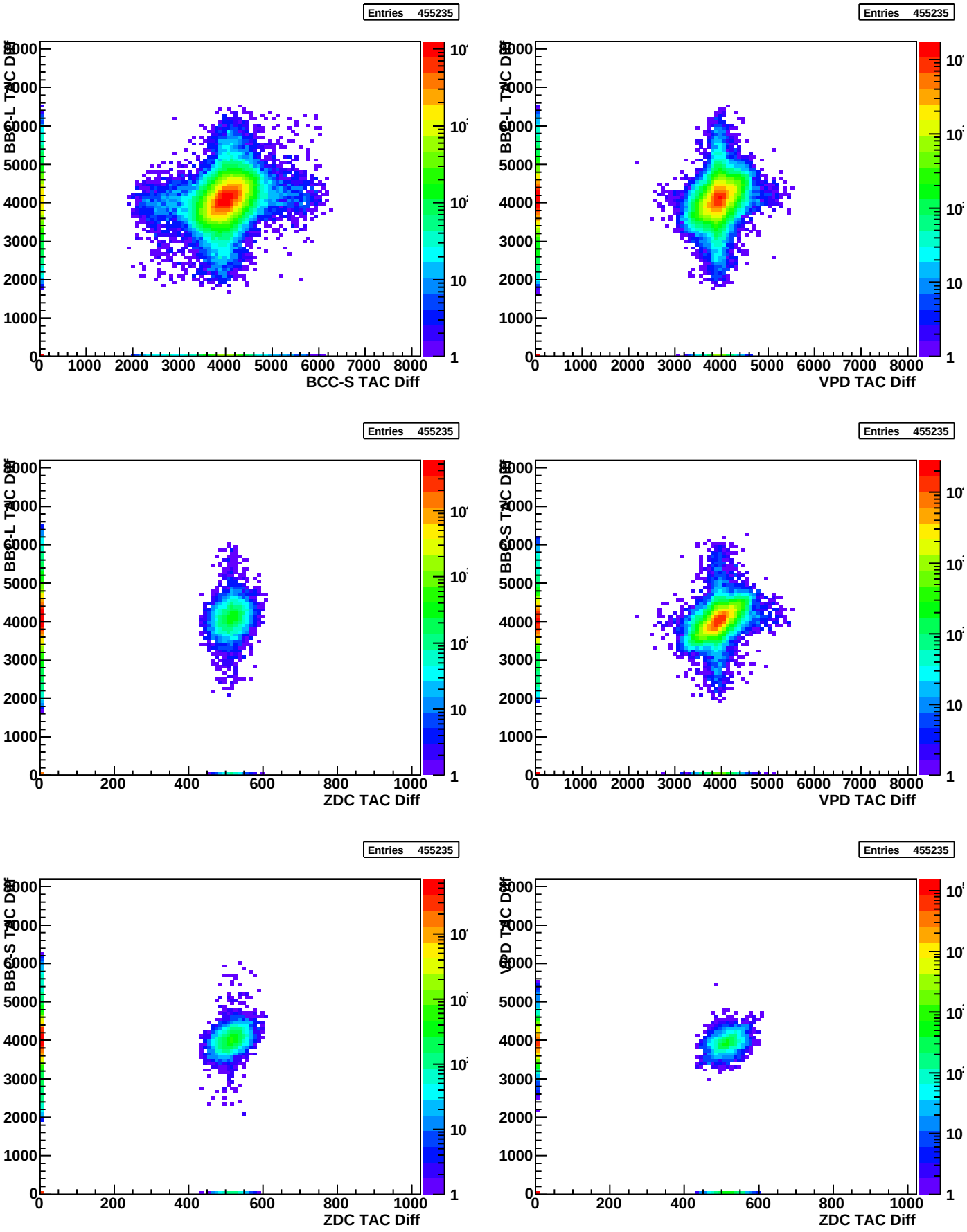

Entries 455235
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

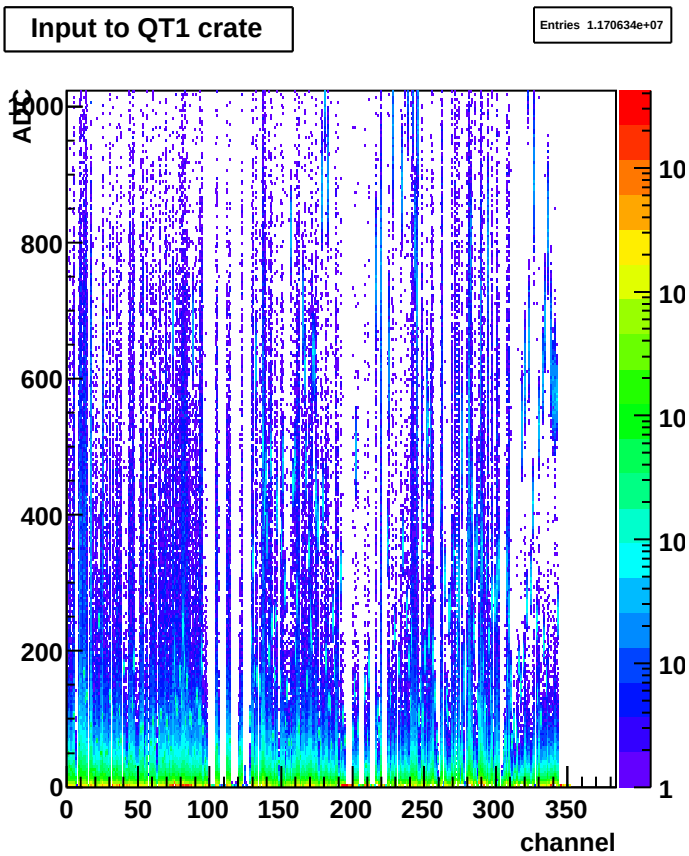

Entries 455235
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

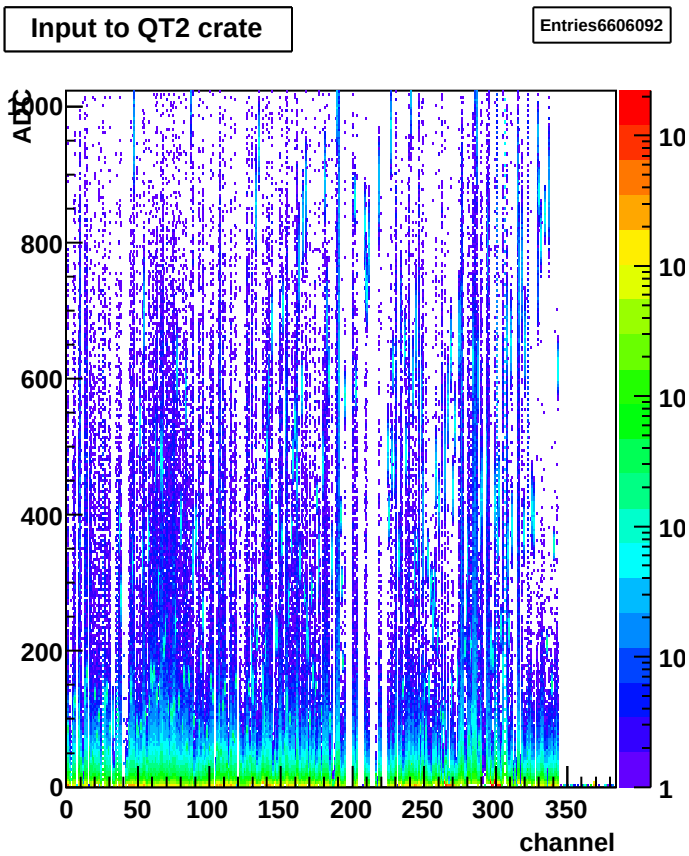

Entries 455235
BBC-L-East ADC Sum
BBC-L-West ADC Sum

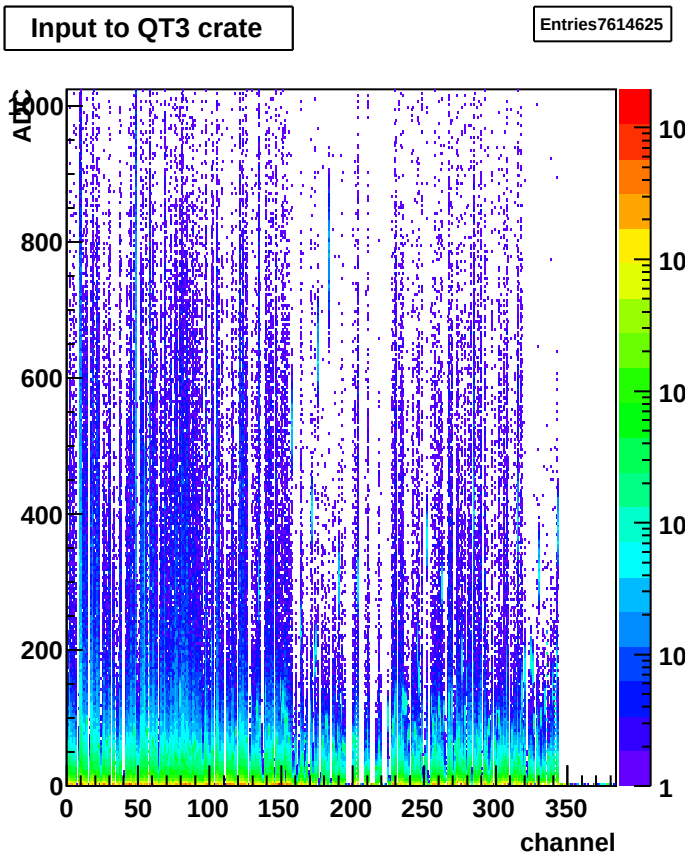

Entries 455235
BBC-S-East ADC Sum
BBC-S-West ADC Sum

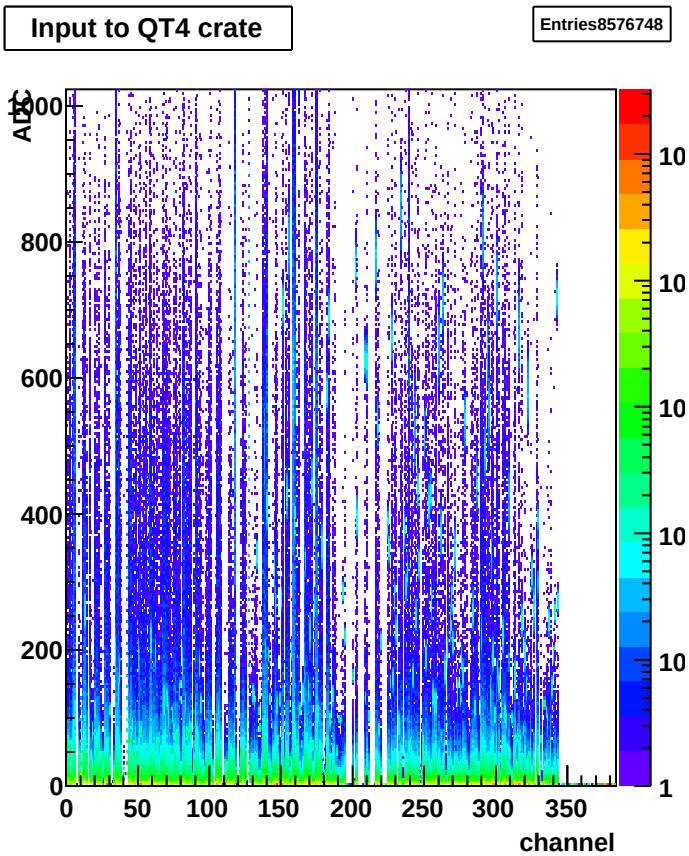

Entries 455235
ZDC East ADC Sum Att
ZDC West ADC Sum Att

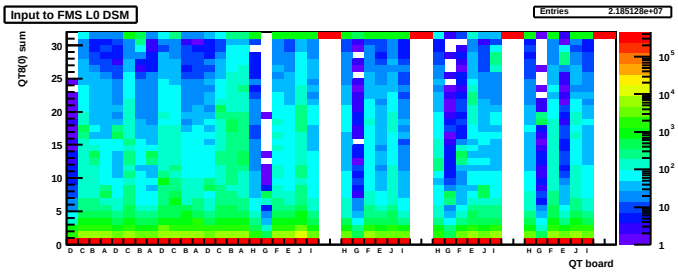

Entries 455235
BBC-L TAC Diff
BCC-S TAC Diff
Entries 455235
BBC-L TAC Diff
VPD TAC Diff
Entries 455235
BBC-L TAC Diff
ZDC TAC Diff
Entries 455235
BBC-S TAC Diff
VPD TAC Diff
Entries 455235
BBC-S TAC Diff
ZDC TAC Diff
Entries 455235
VPD TAC Diff
ZDC TAC Diff

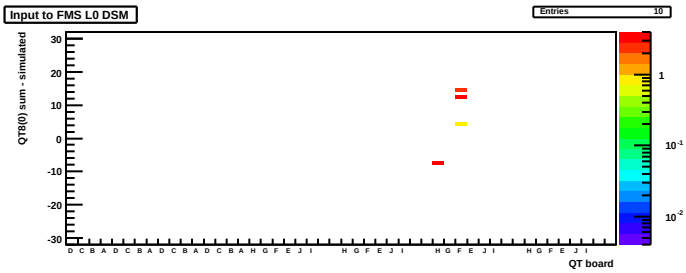

Input to QT1 crate
Entries 1.170634e+07
ADC
channel

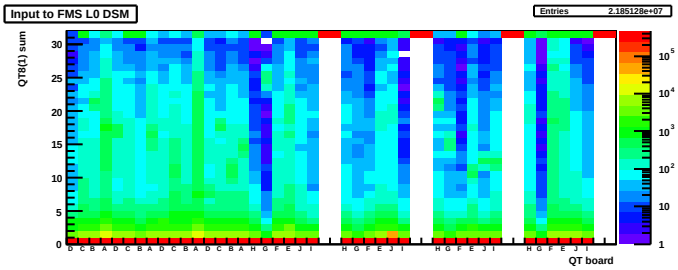

Input to QT2 crate
Entries6606092
ADC
channel

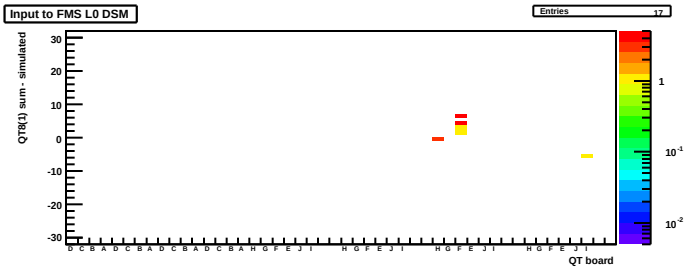

Input to QT3 crate
Entries7614625
ADC
channel

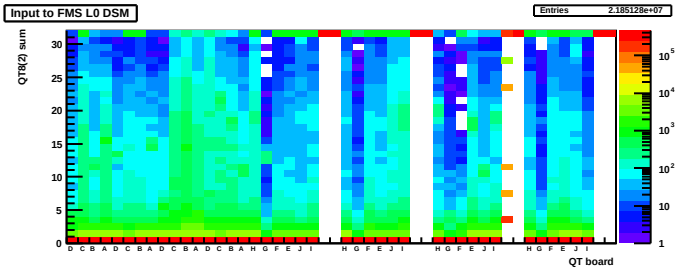

Input to QT4 crate
Entries8576748
ADC
channel

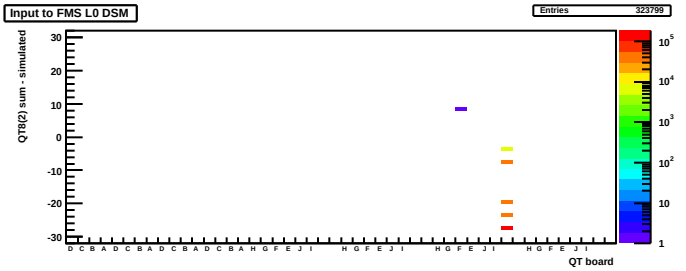

Input to FMS L0 DSM
Entries 2.185128e+07
QT8(0) sum
QT board

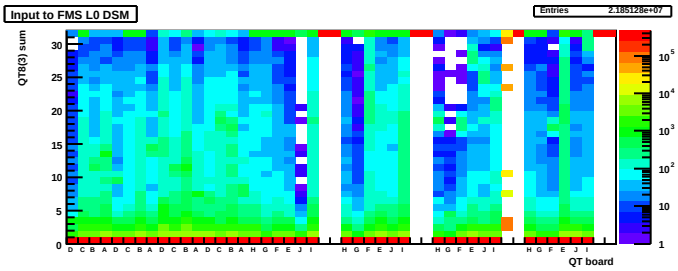

Input to FMS L0 DSM
Entries 10
QT8(0) sum - simulated
QT board

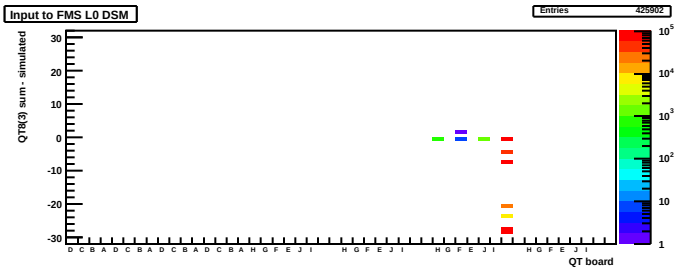

Input to FMS L0 DSM
Entries 2.185128e+07
QT8(1) sum
QT board

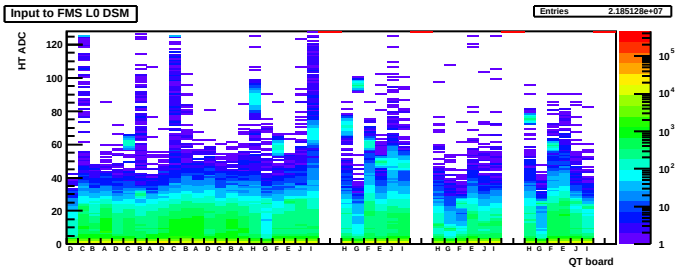

Input to FMS L0 DSM
Entries 17
QT8(1) sum - simulated
QT board

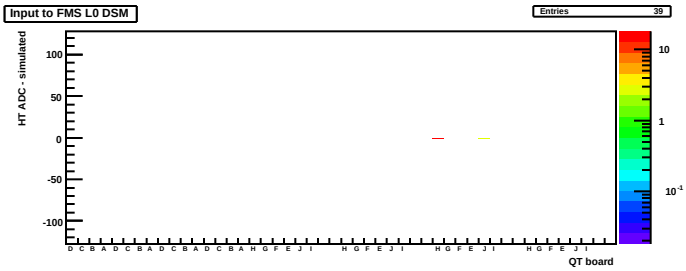

Input to FMS L0 DSM
Entries 2.185128e+07
QT8(2) sum
QT board

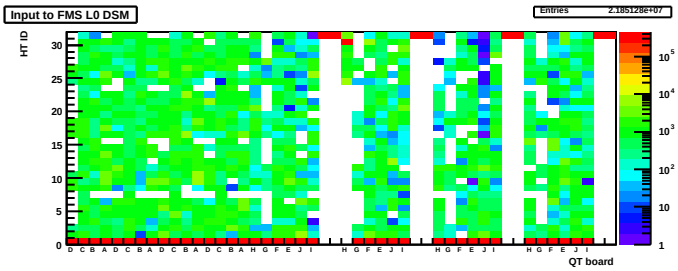

Input to FMS L0 DSM
Entries 323799
QT8(2) sum - simulated
QT board

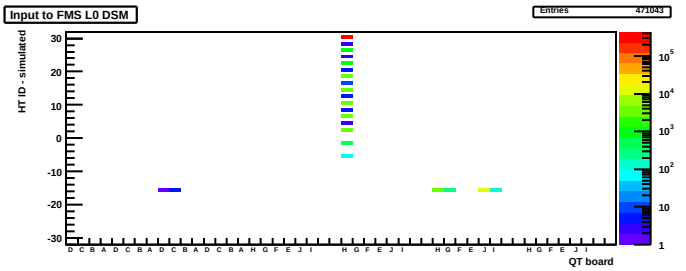

Input to FMS L0 DSM
Entries 2.185128e+07
QT8(3) sum
QT board

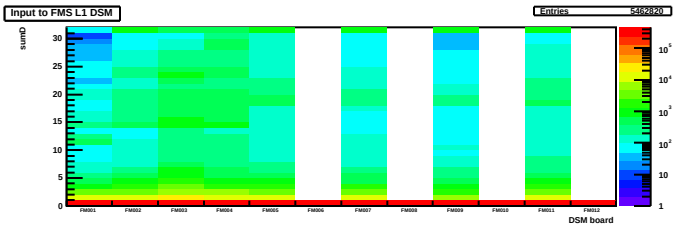

Input to FMS L0 DSM
Entries 425902
QT8(3) sum - simulated
QT board

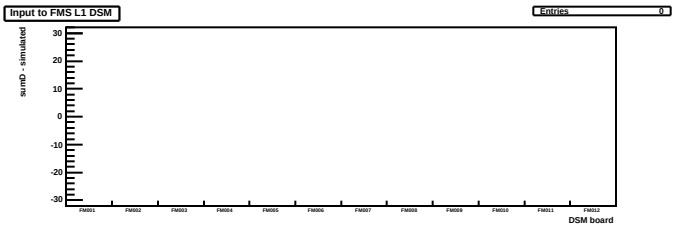

Input to FMS L0 DSM
Entries 2.185128e+07
HT ADC
QT board

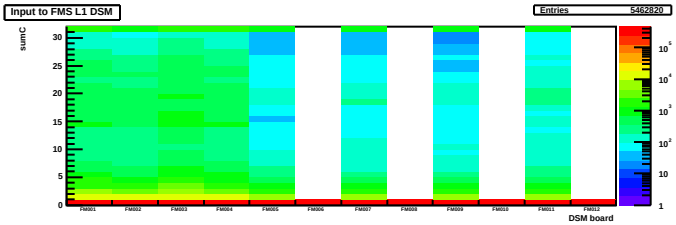

Input to FMS L0 DSM
Entries 39
HT ADC - simulated
QT board

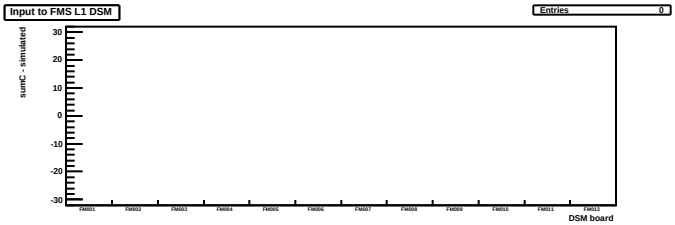

Input to FMS L0 DSM
Entries 2.185128e+07
HT ID
QT board

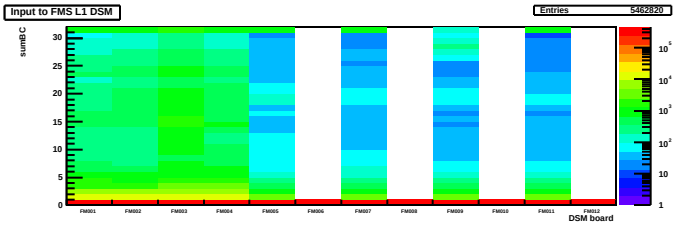

Input to FMS L0 DSM
Entries 471043
HT ID - simulated
QT board

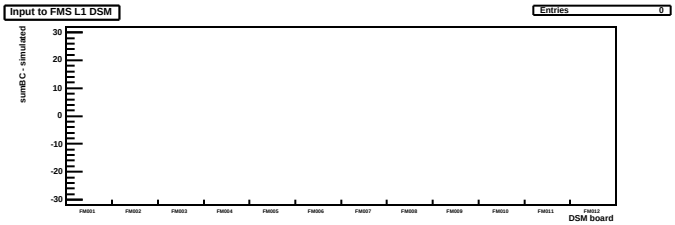

Input to FMS L1 DSM
Entries 5462820
sumD
DSM board

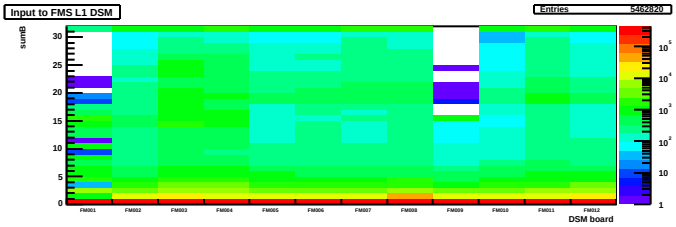

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

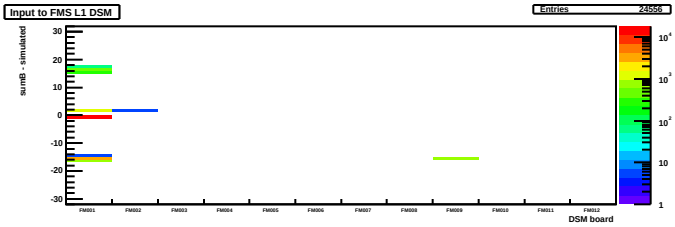

Input to FMS L1 DSM
Entries 5462820
sumC
DSM board

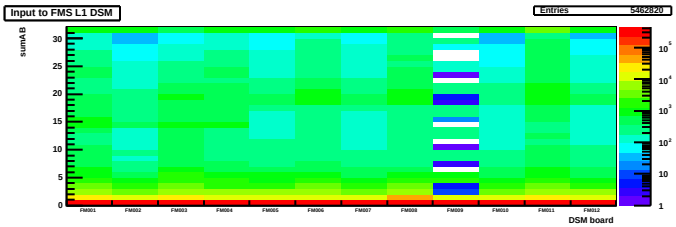

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

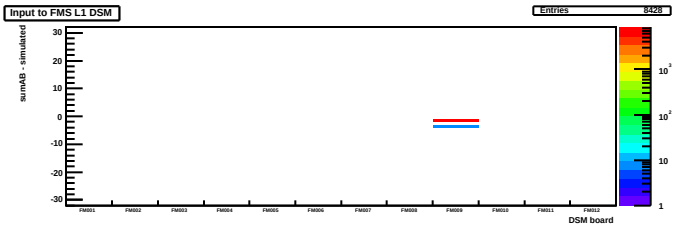

Input to FMS L1 DSM
Entries 5462820
sumBC
DSM board

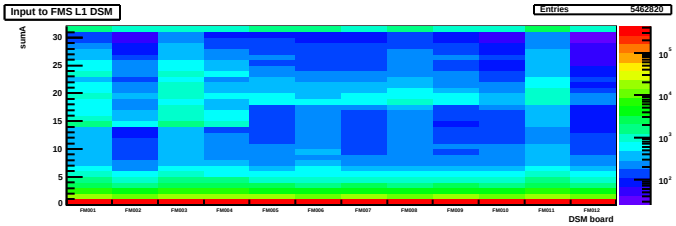

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

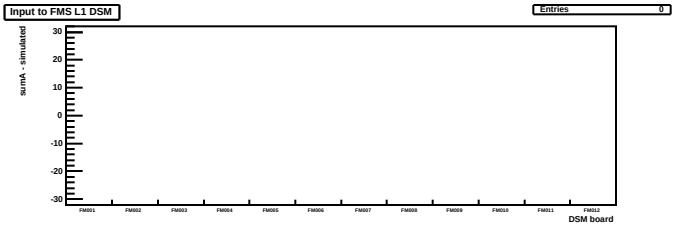

Input to FMS L1 DSM
Entries 5462820
sumB
DSM board

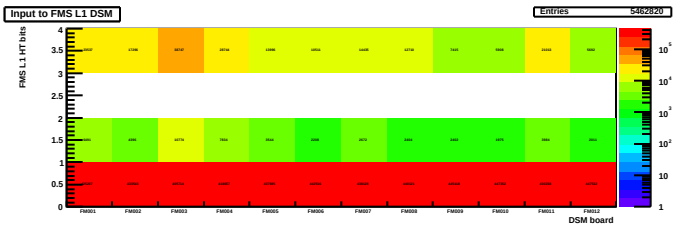

Input to FMS L1 DSM
Entries 24556
sumB - simulated
DSM board

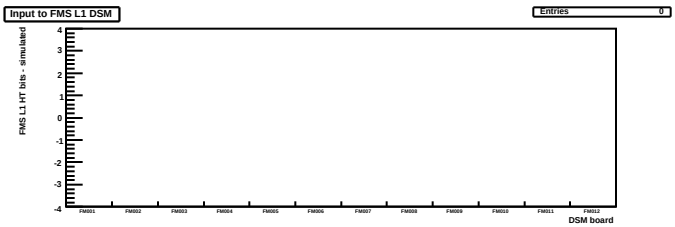

Input to FMS L1 DSM
Entries 5462820
sumAB
DSM board

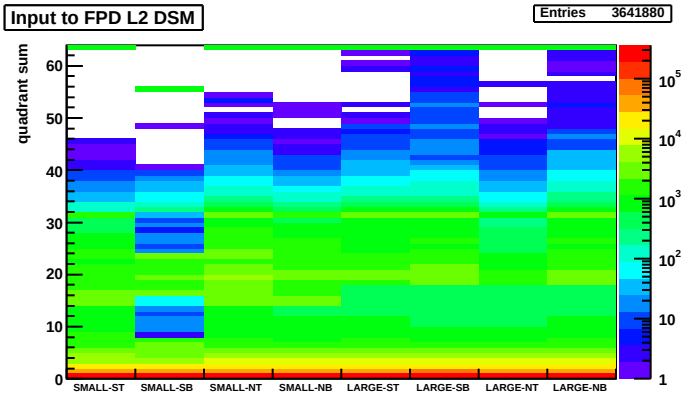

Input to FMS L1 DSM
Entries 8428
sumAB - simulated
DSM board

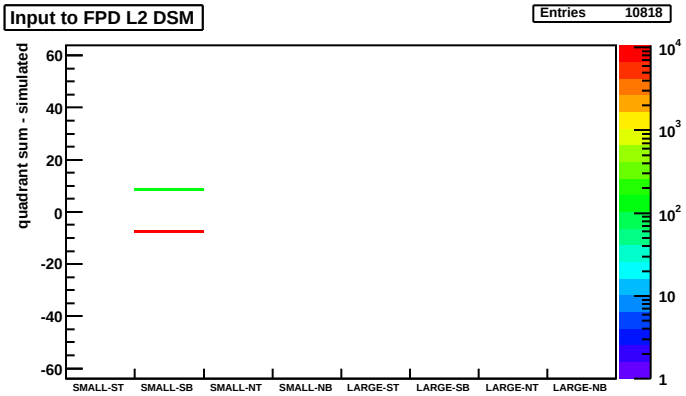

Input to FMS L1 DSM
Entries 5462820
sumA
DSM board

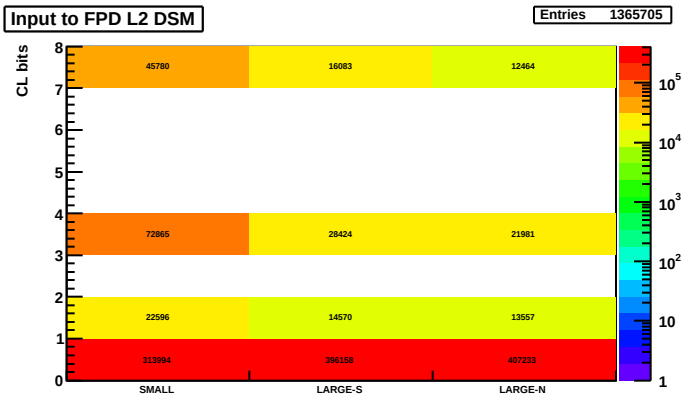

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

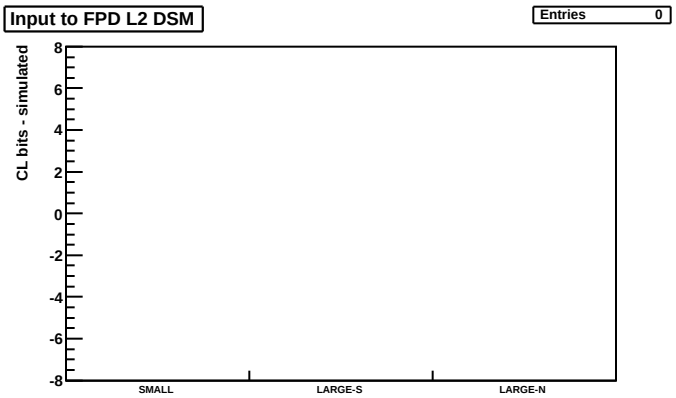

Input to FMS L1 DSM
Entries 5462820
FMS L1 HT bits
DSM board

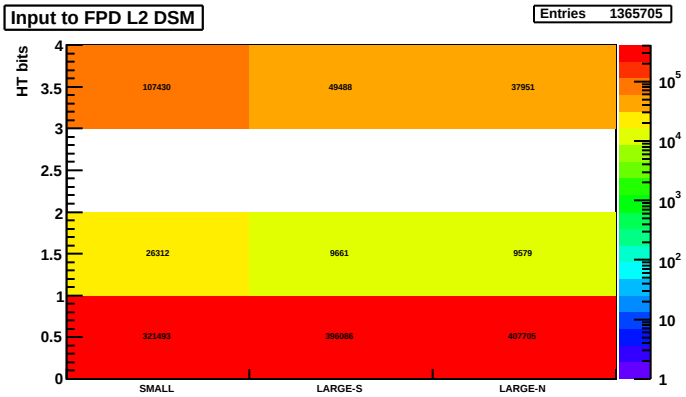

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

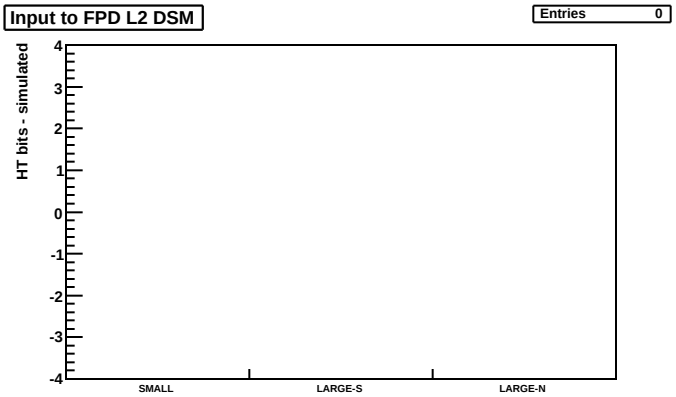

Input to FPD L2 DSM
Entries 3641880
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

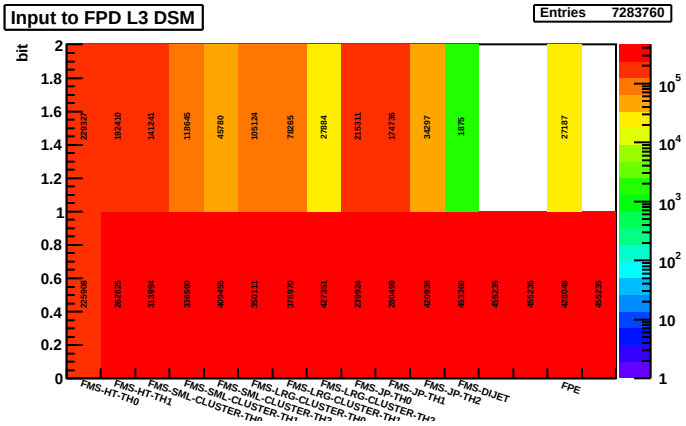

Input to FPD L2 DSM
Entries 10818
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

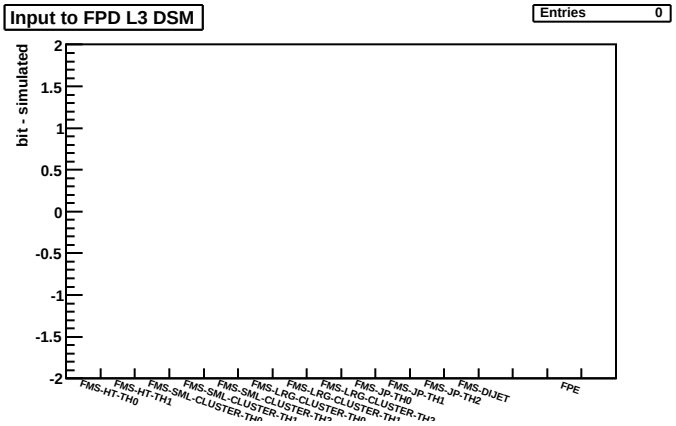

Input to FPD L2 DSM
Entries 1365705
CL bits
45780
16083
12464
72865
28424
21981
22596
14570
13557
313994
396158
407233
SMALL
LARGE-S
LARGE-N

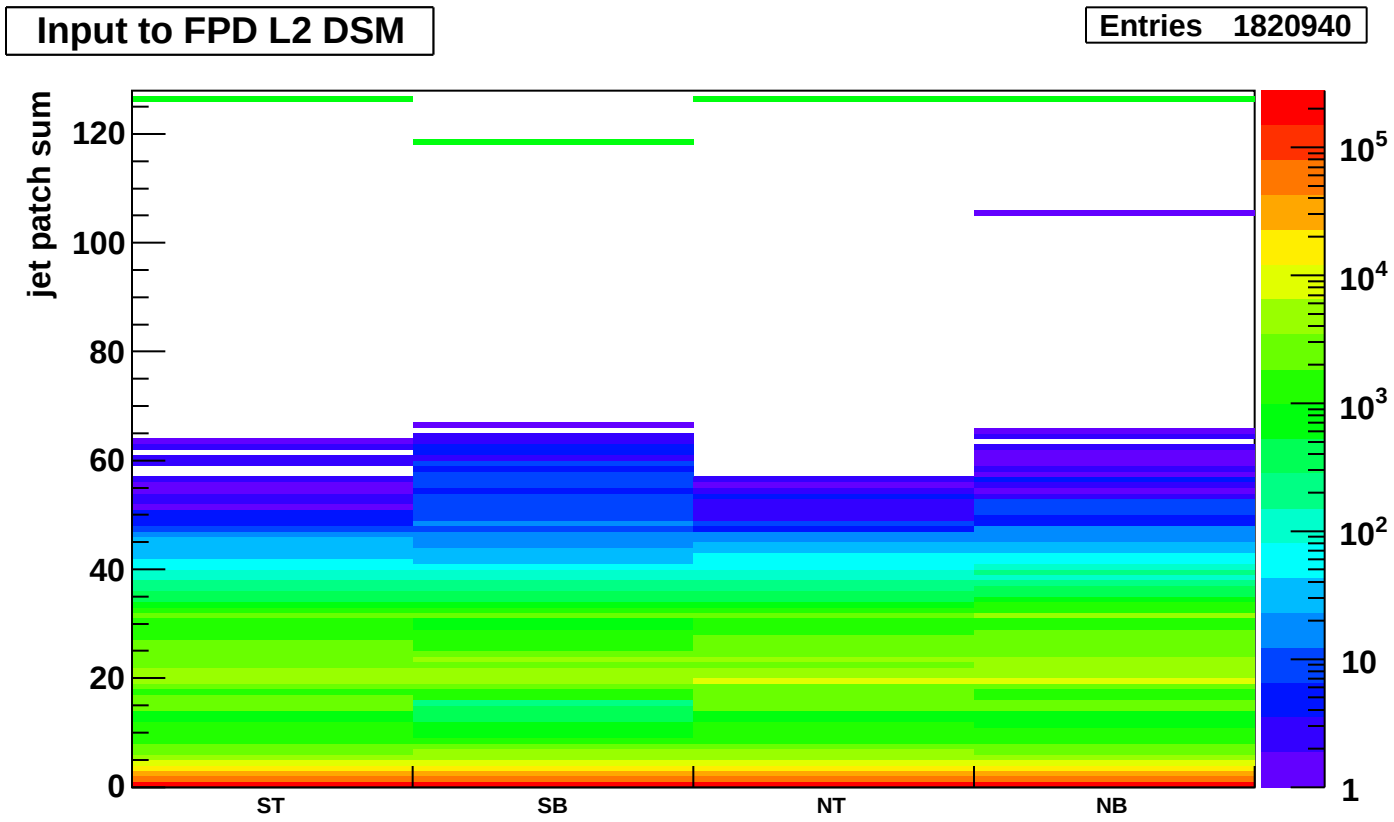

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

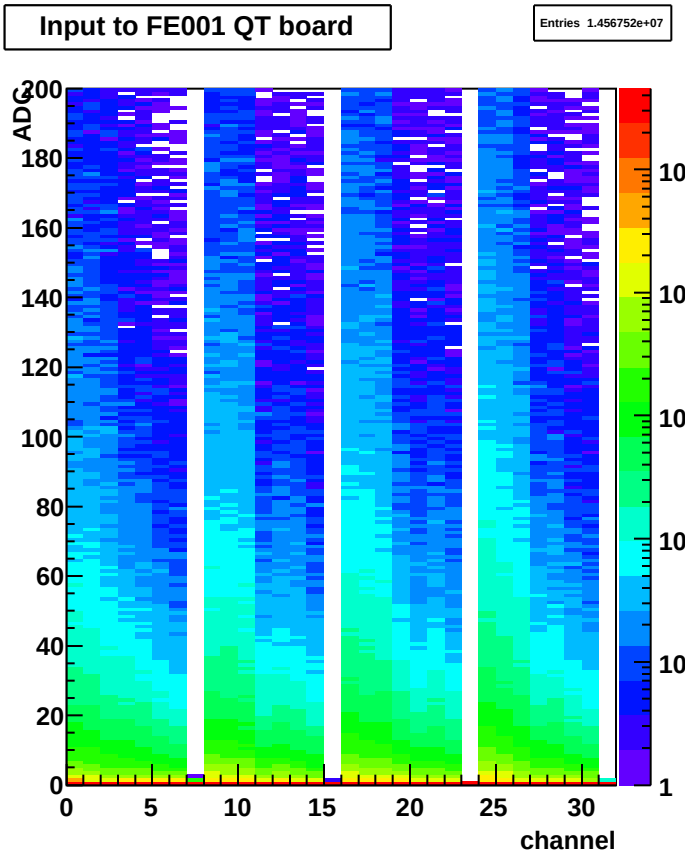

Input to FPD L2 DSM
Entries 1365705
HT bits
107430
49488
37951
26312
9661
9579
321493
396086
407705
SMALL
LARGE-S
LARGE-N

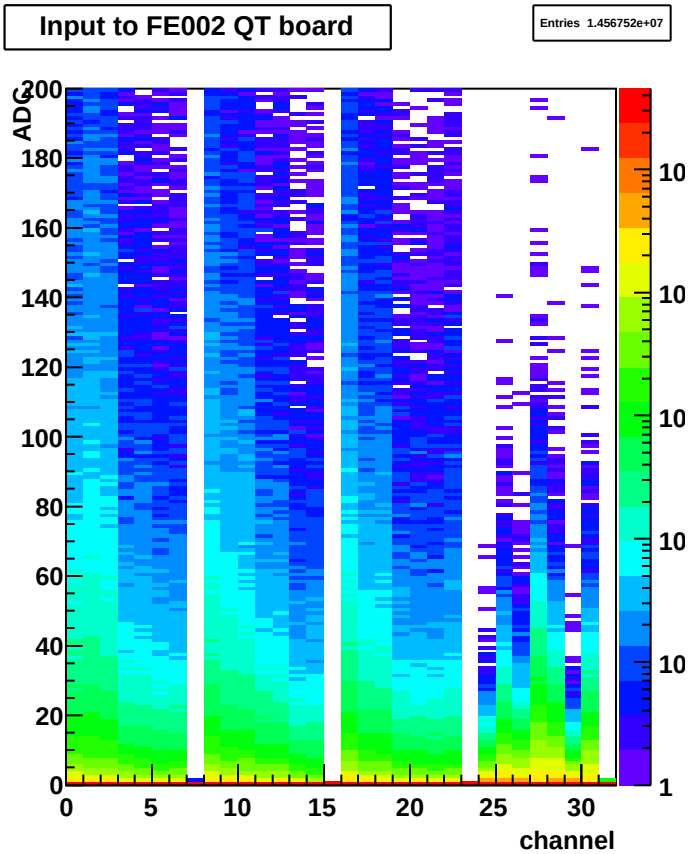

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

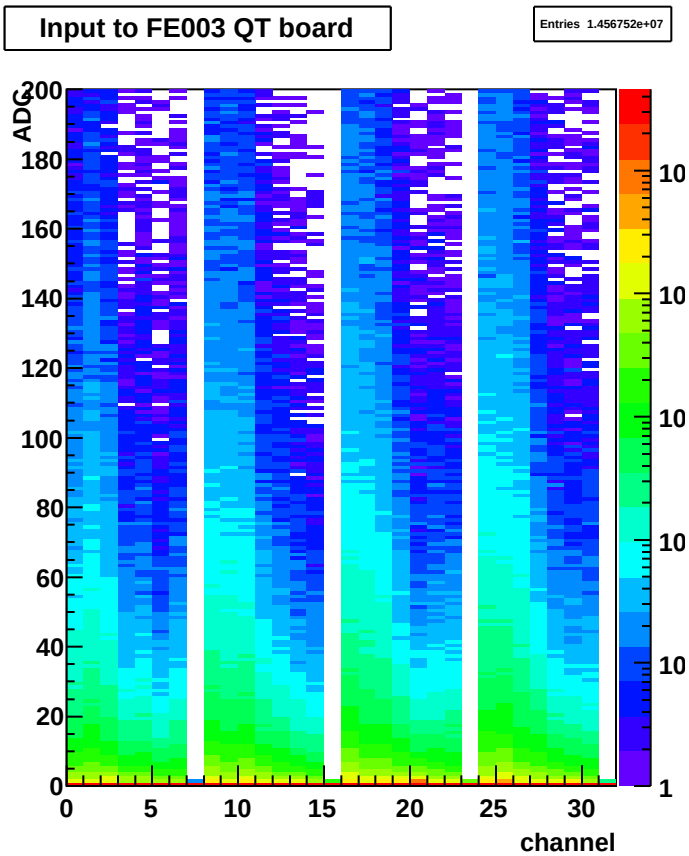

Input to FPD L3 DSM
Entries 7283760
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

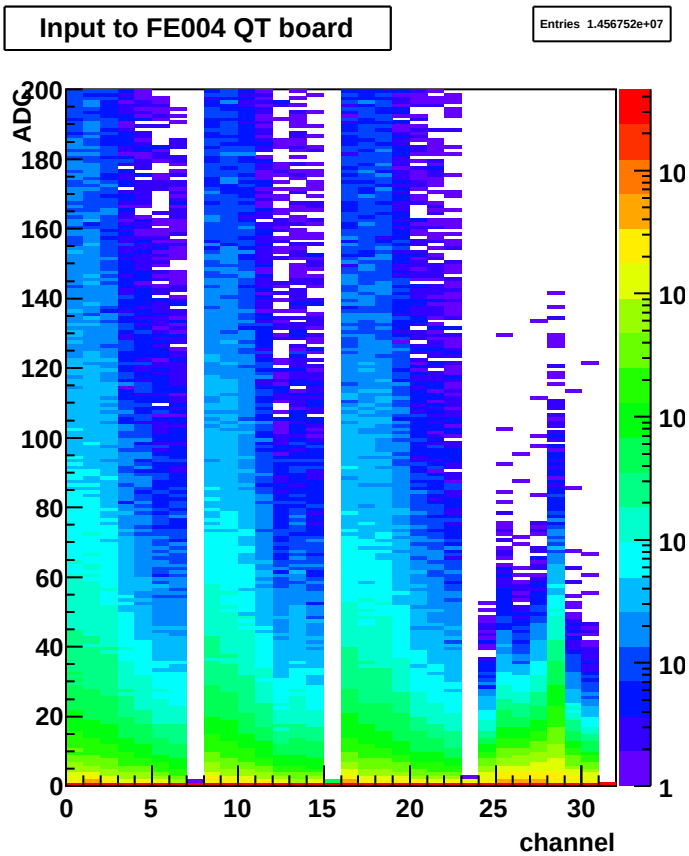

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

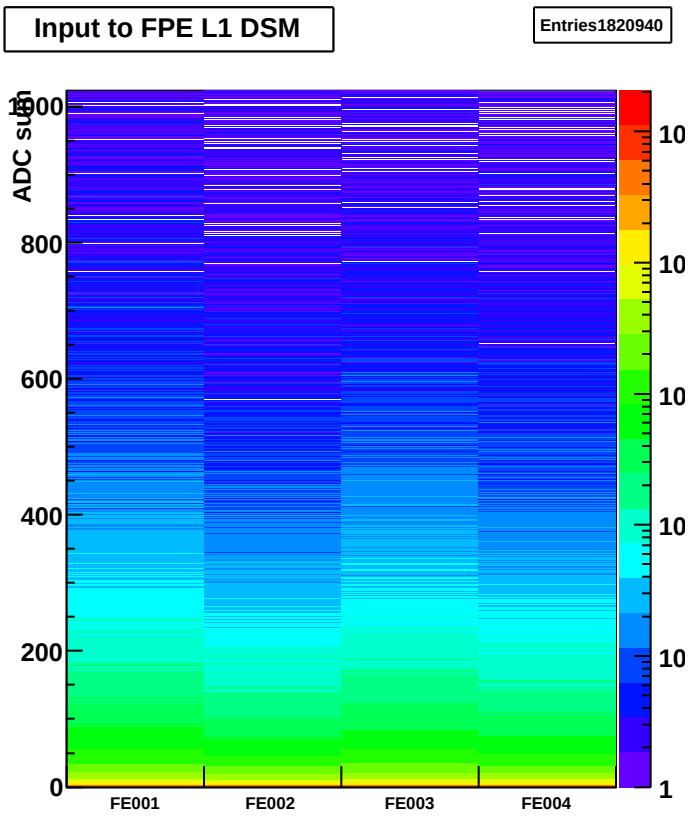

Input to FPD L2 DSM
Entries 1820940
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

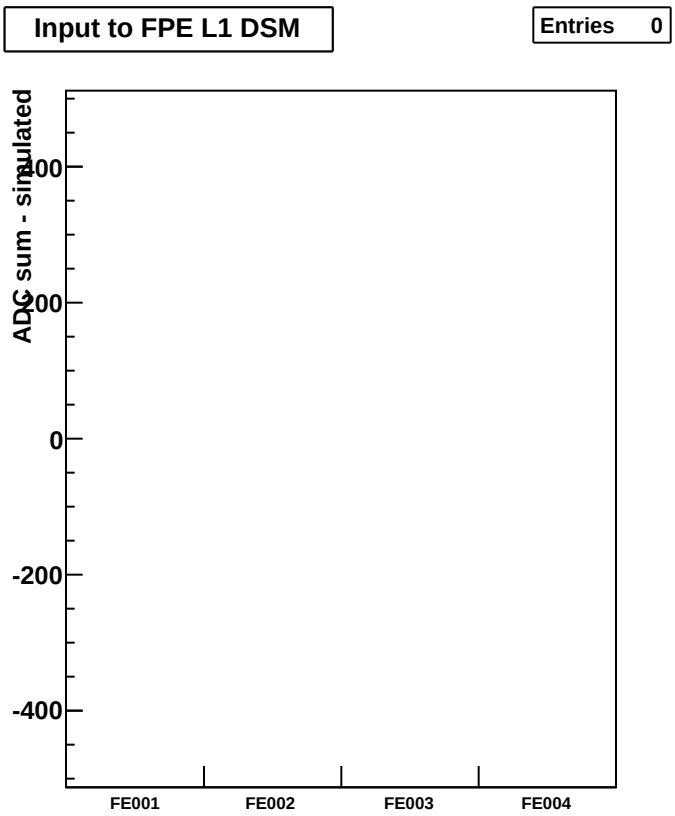

Input to FE001 QT board
Entries 1.456752e+07
ADC
channel

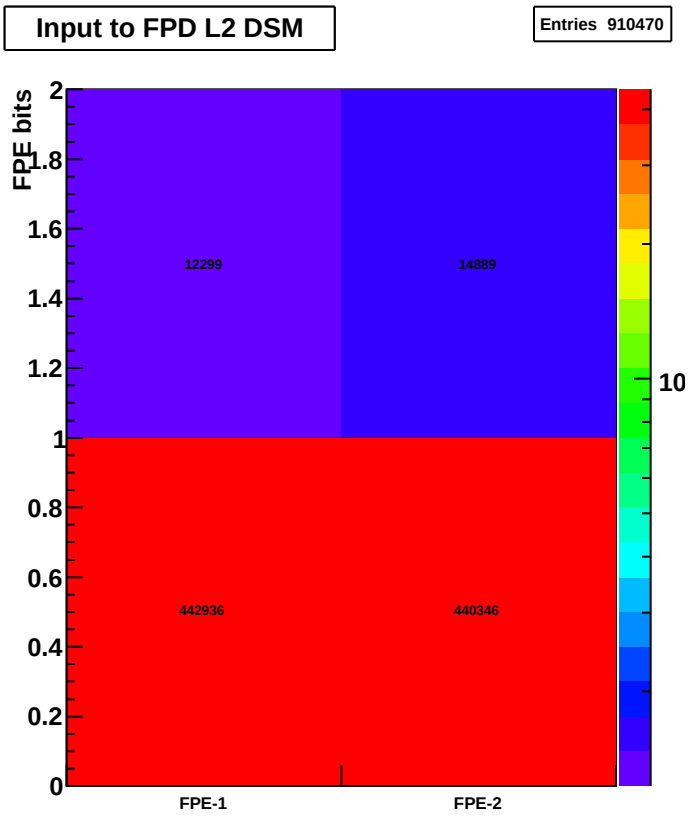

Input to FE002 QT board
Entries 1.456752e+07
ADC
channel

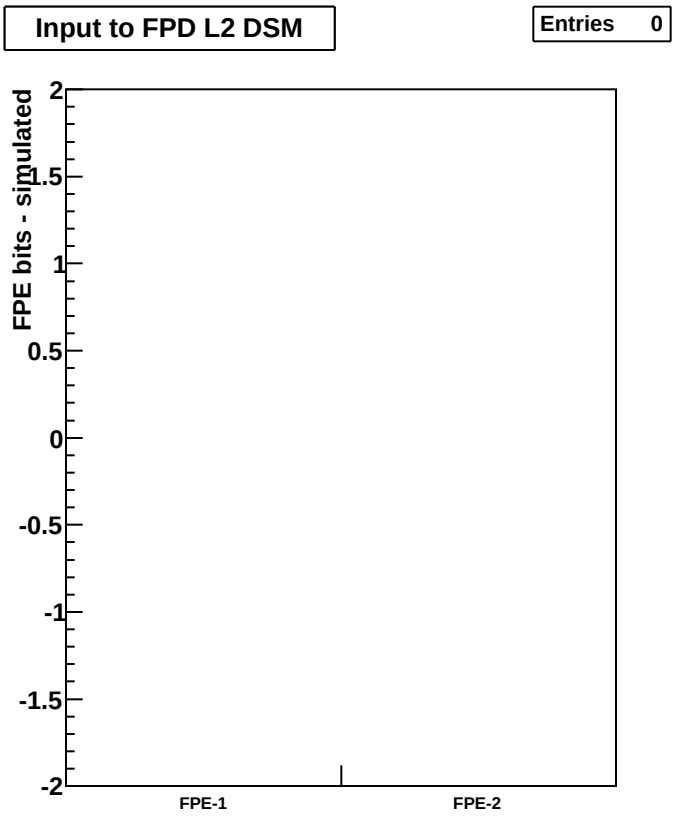

Input to FE003 QT board
Entries 1.456752e+07
ADC
channel


Input to FE004 QT board
Entries 1.456752e+07
ADC
channel


Input to FPE L1 DSM
Entries1820940
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
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 910470
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
12299
14889
442936
440346
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