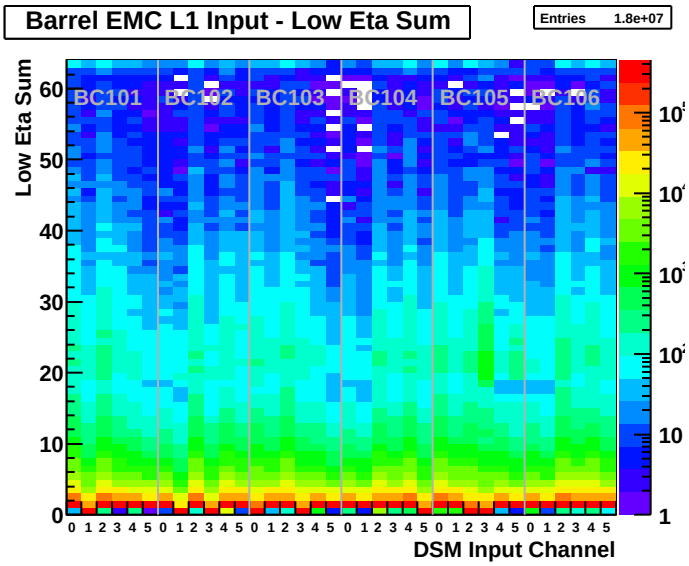
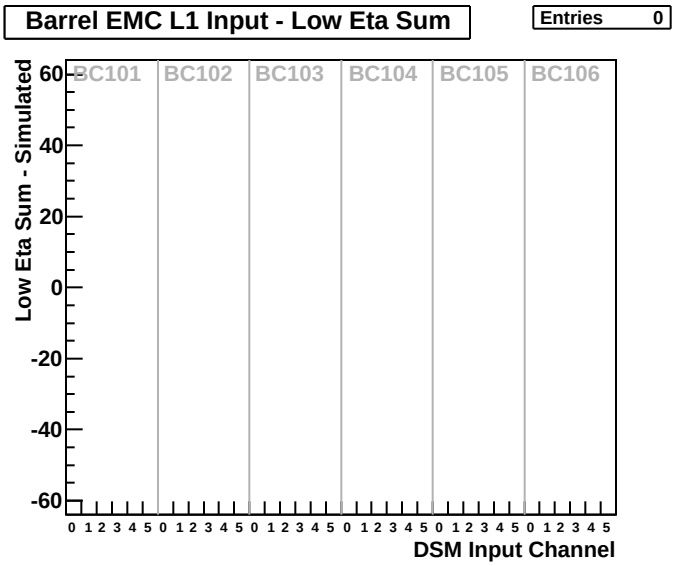
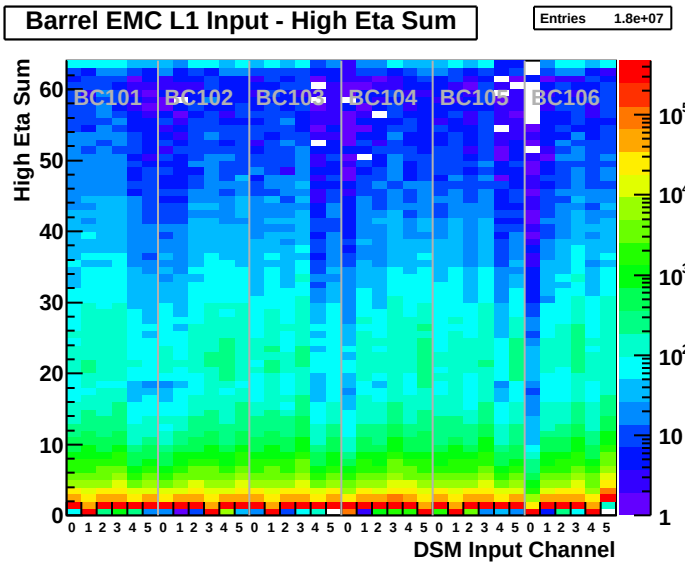
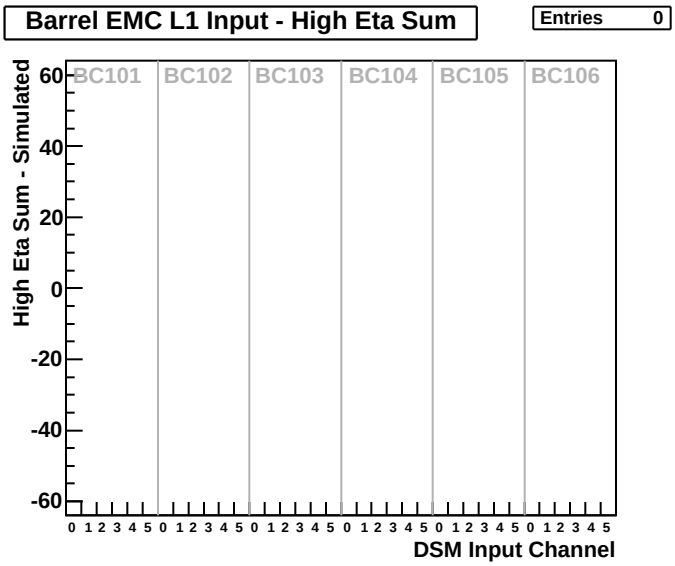
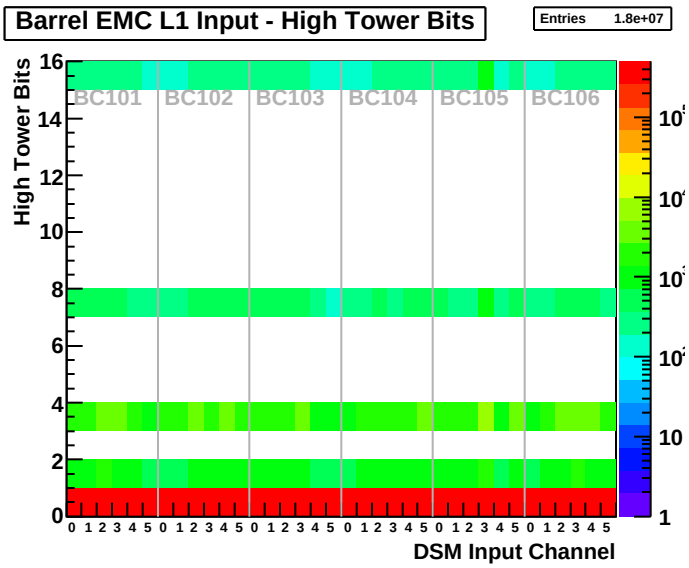
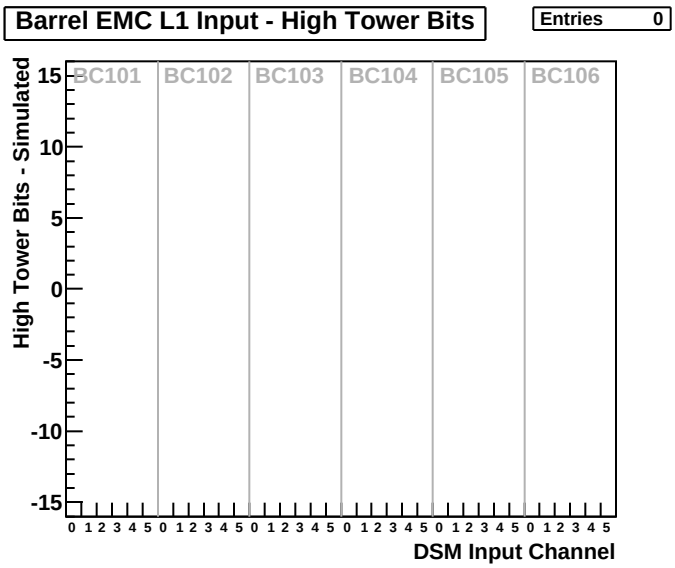

Barrel EMC L1 Input - Low Eta Sum
Entries 1.8e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

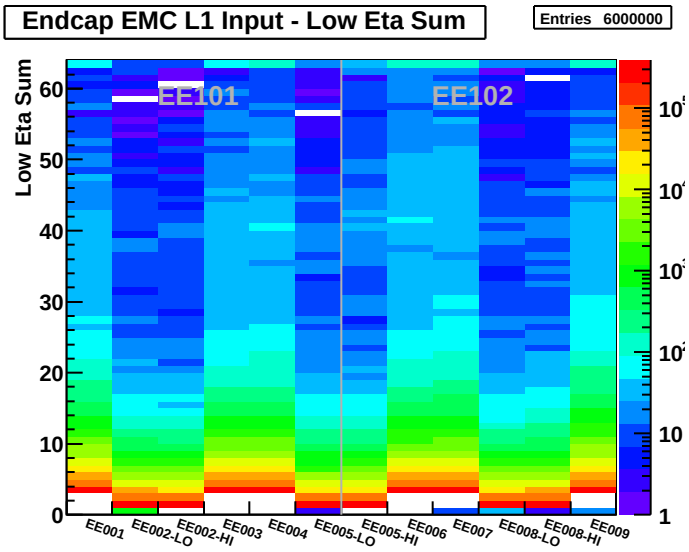

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

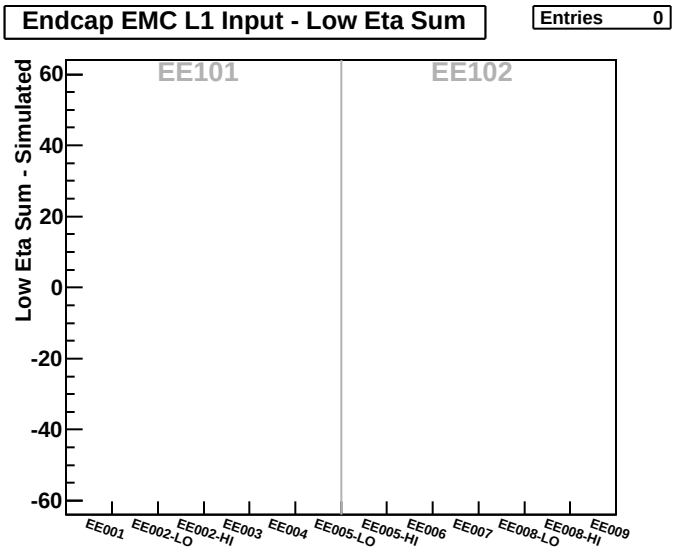

Barrel EMC L1 Input - High Eta Sum
Entries 1.8e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

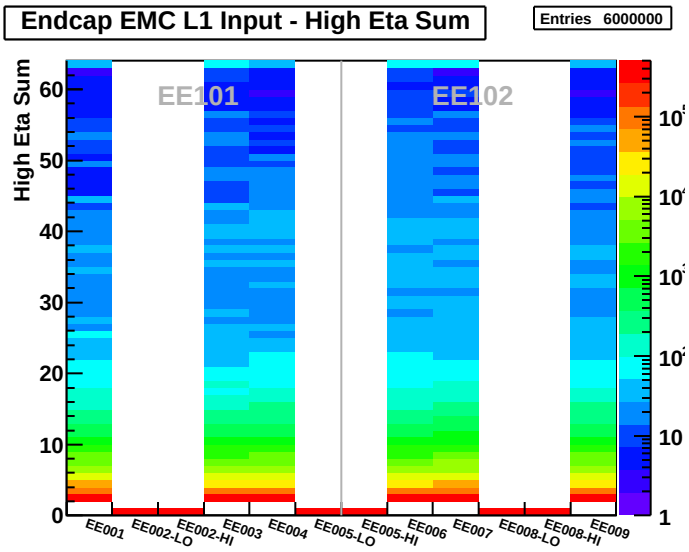

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

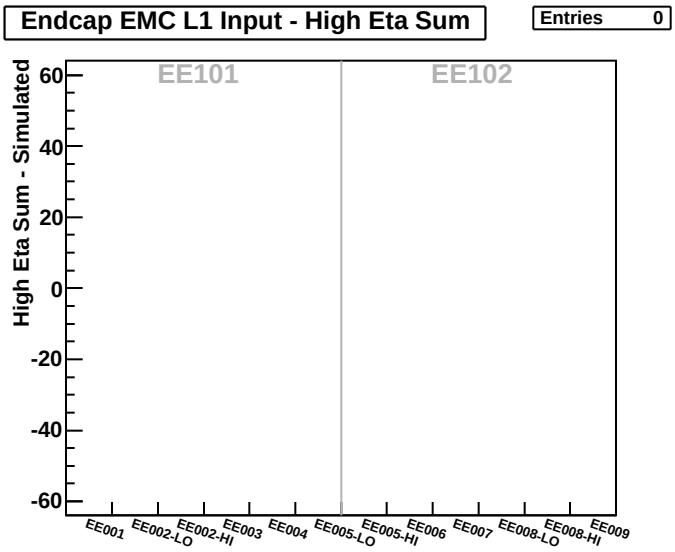

Barrel EMC L1 Input - High Tower Bits
Entries 1.8e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

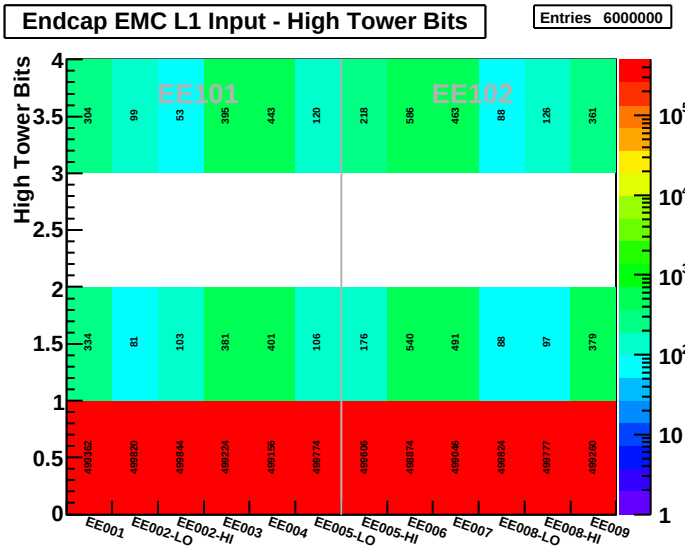

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

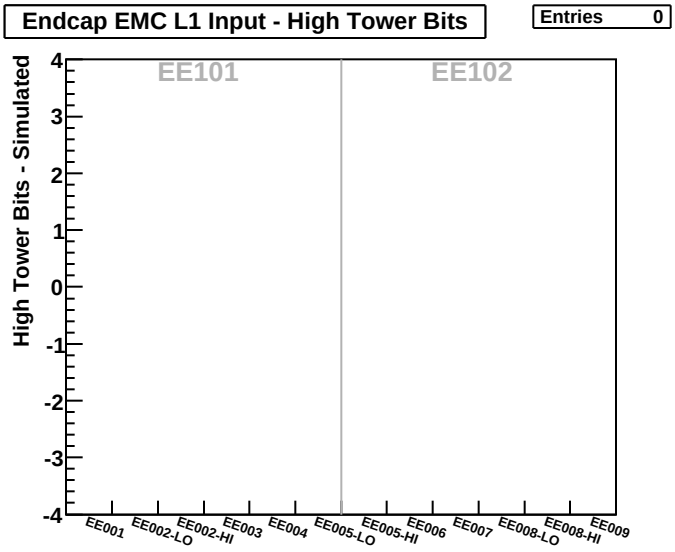

Endcap EMC L1 Input - Low Eta Sum
Entries 6000000
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

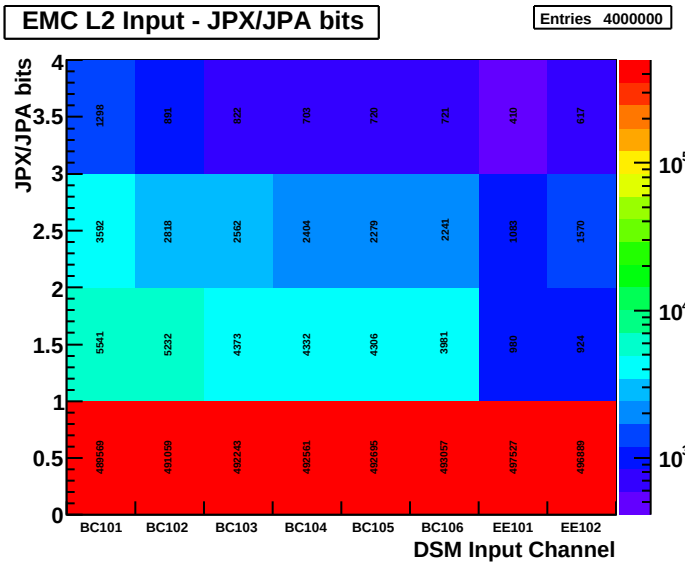

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

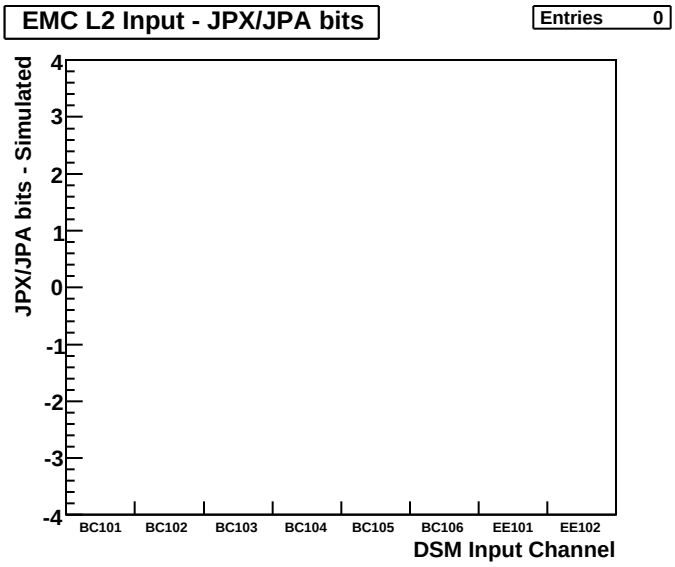

Endcap EMC L1 Input - High Eta Sum
Entries 6000000
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

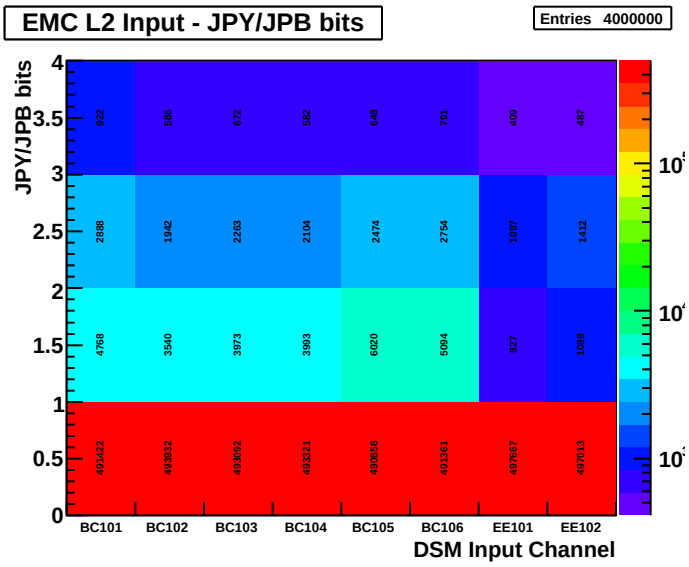

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

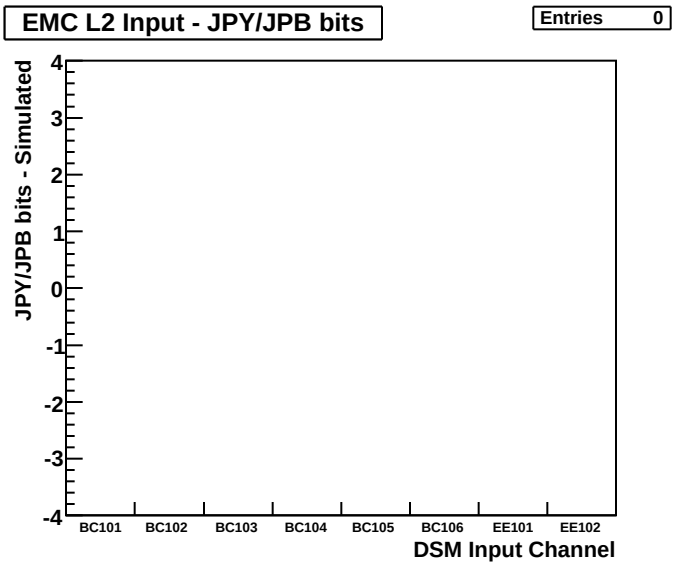

Endcap EMC L1 Input - High Tower Bits
Entries 6000000
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

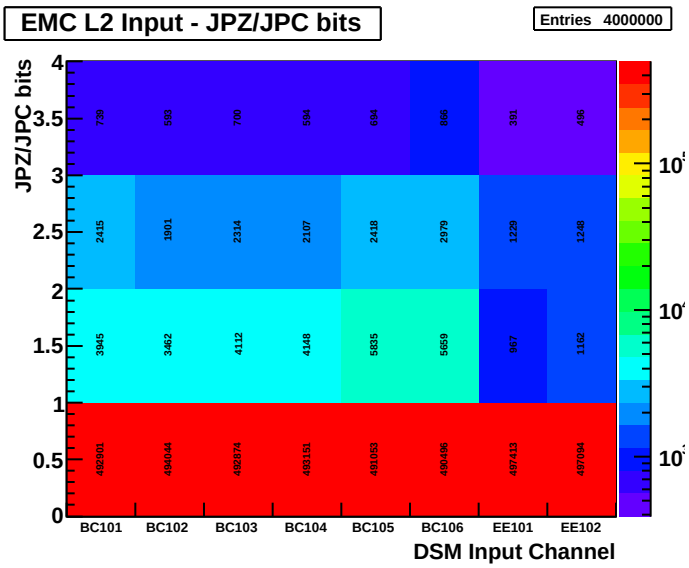

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

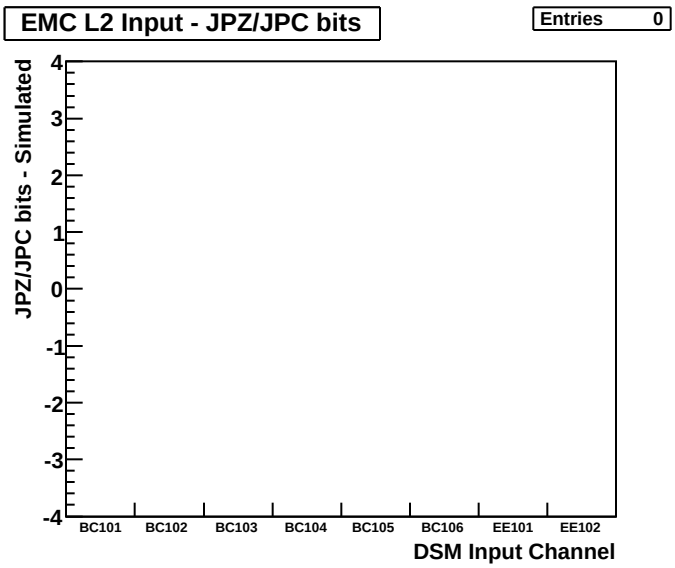

EMC L2 Input - JPX/JPA bits
Entries 4000000
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1298 891 822 703 720 721 410 617
3592 2818 2562 2404 2279 2241 1083 1570
5541 5232 4373 4332 4306 3981 980 924
489569 491059 492243 492561 492695 493057 497527 496889

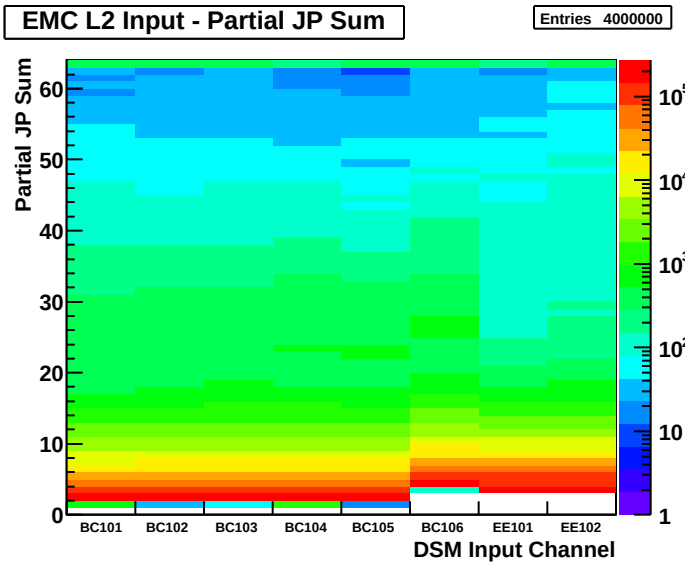

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

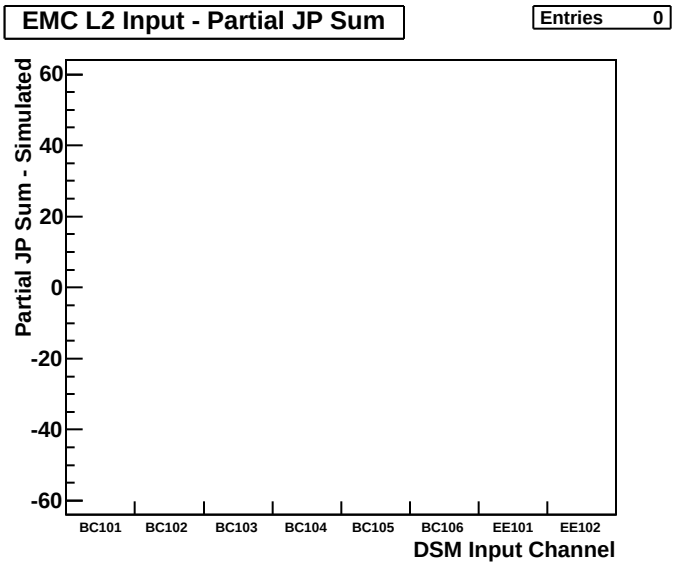

EMC L2 Input - JPY/JPB bits
Entries 4000000
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
922 586 672 582 648 701 409 487
2888 1942 2263 2104 2474 2754 1097 1412
4768 3540 3973 3993 6020 5094 827 1038
491422 493332 493092 493321 490858 491361 497667 497013

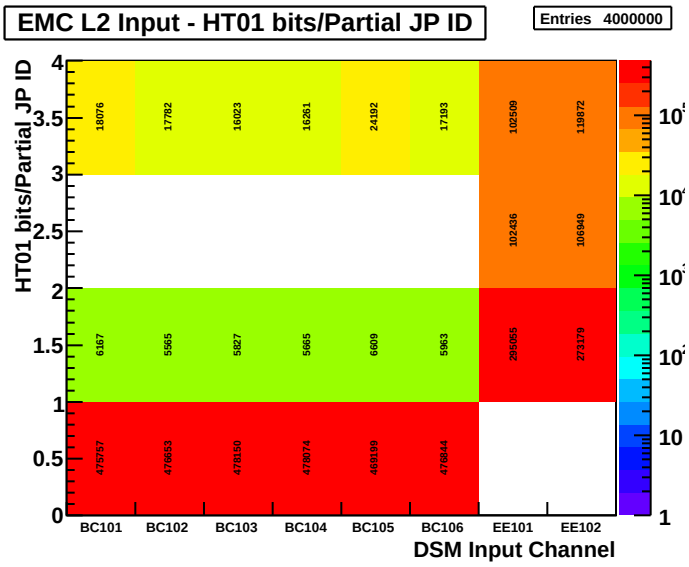

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

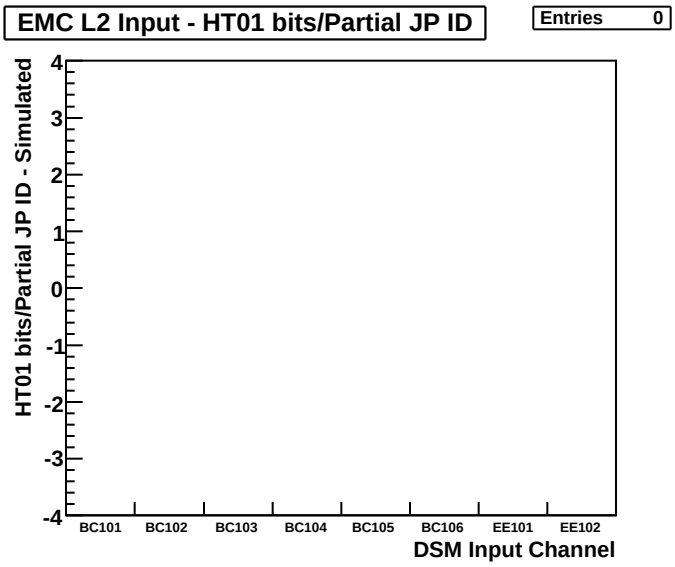

EMC L2 Input - JPZ/JPC bits
Entries 4000000
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
739 583 700 594 694 866 391 496
2415 1901 2314 2107 2418 2979 1229 1248
3945 3462 4112 4148 5835 5659 967 1162
492901 494044 492874 493151 491053 490496 497413 497094

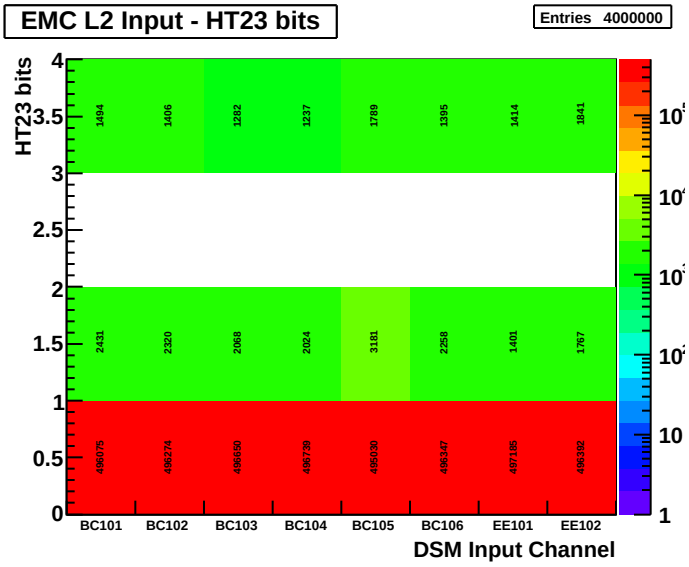

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

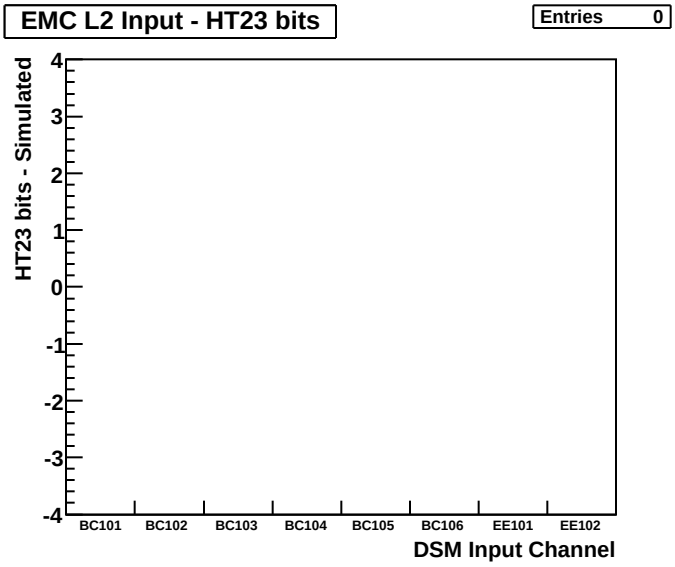

EMC L2 Input - Partial JP Sum
Entries 4000000
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

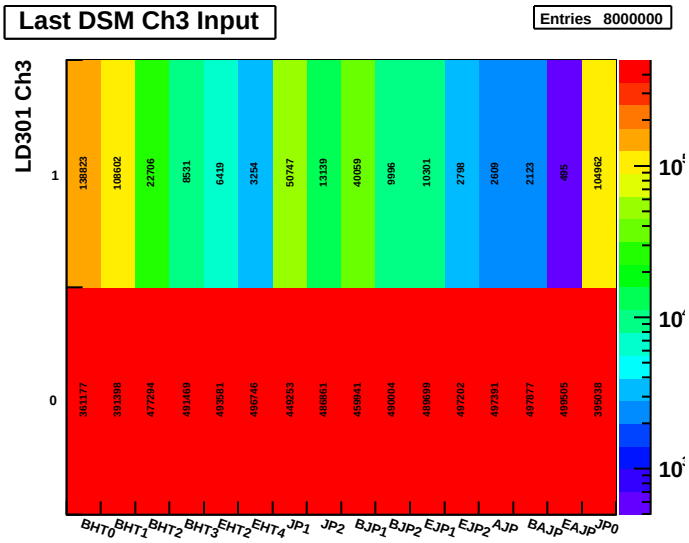

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

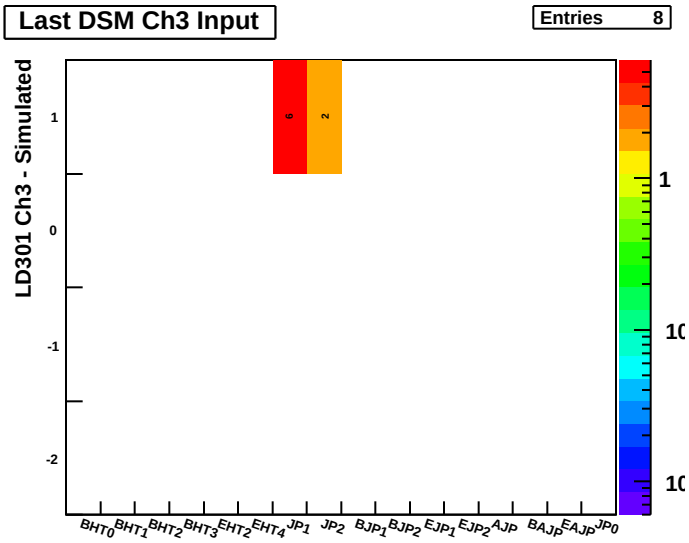

EMC L2 Input - HT01 bits/Partial JP ID
Entries 4000000
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

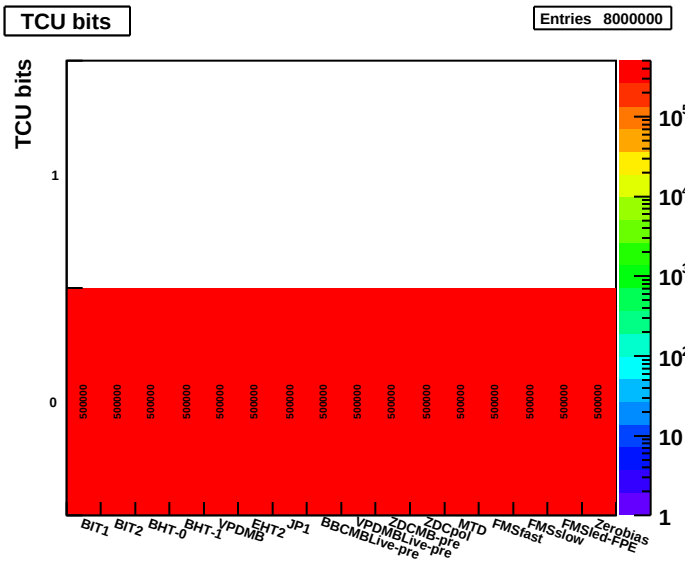

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

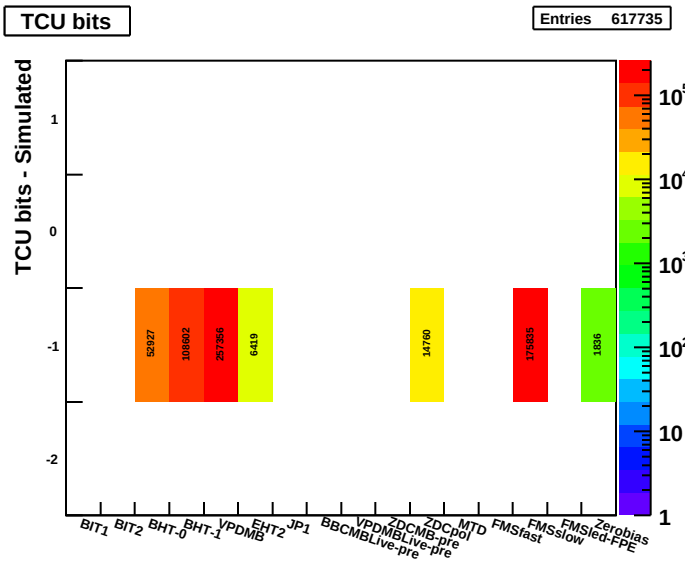

EMC L2 Input - HT23 bits
Entries 4000000
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

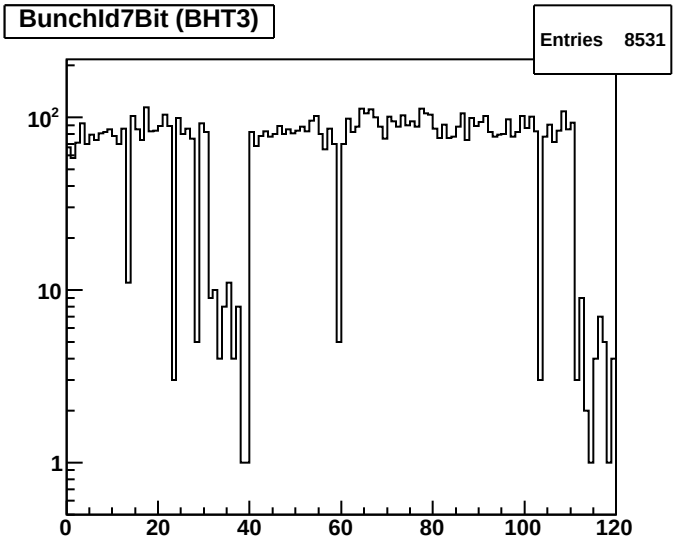

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

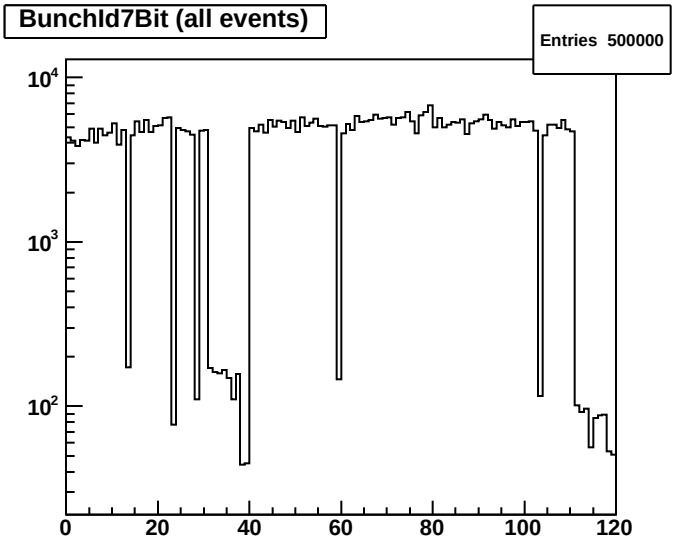

Last DSM Ch3 Input
Entries 8000000
LD301 Ch3
1
0
138823 108602 22706 8531 6419 3254 50747 13139 40059 9996 10301 2798 2609 2123 495 104962
361177 391398 477294 491469 493581 496746 449253 486861 459941 490004 489699 497202 497391 497877 499505 395038
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

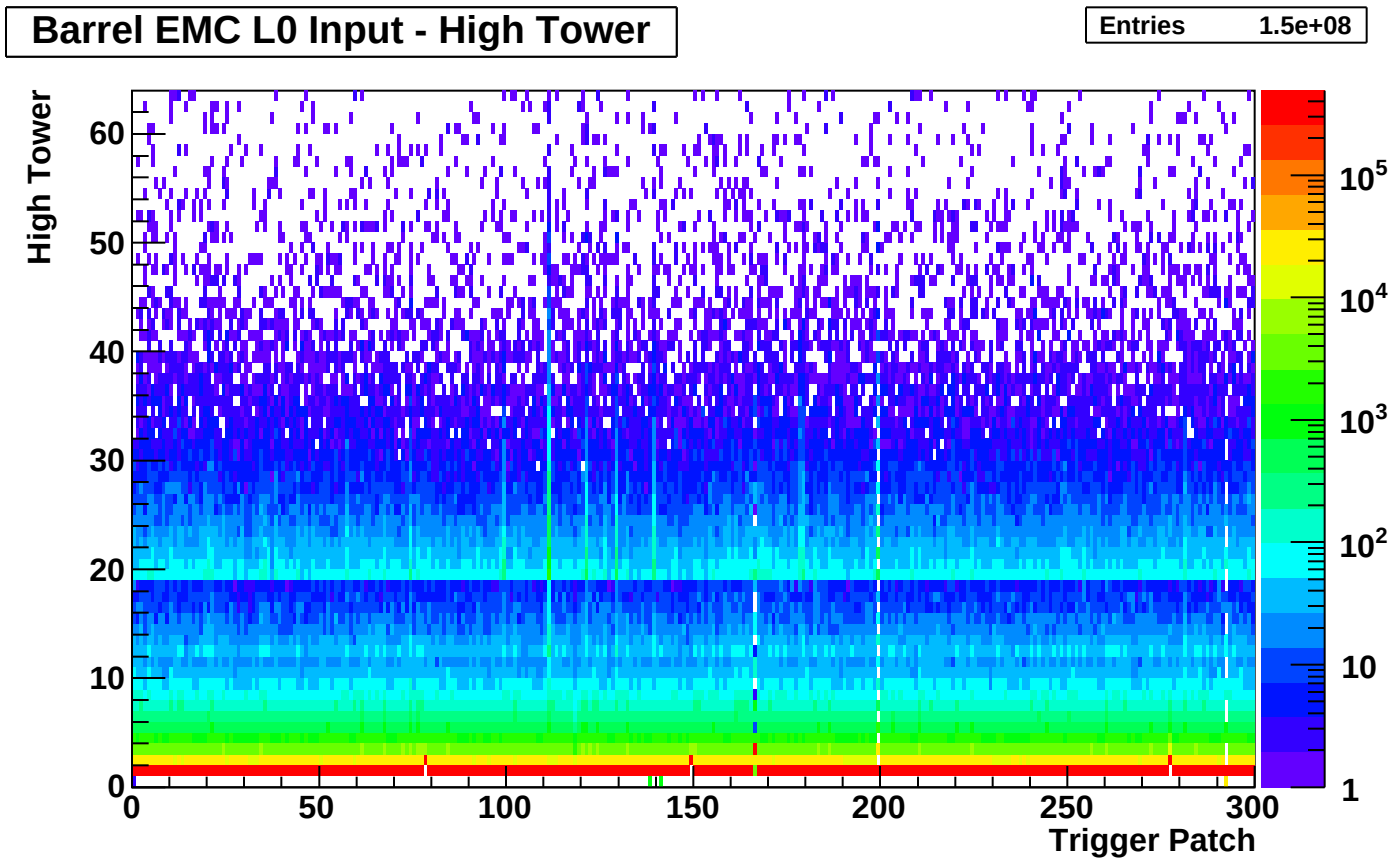

Last DSM Ch3 Input
Entries 8
LD301 Ch3 - Simulated
1
0
-1
-2
6 2
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

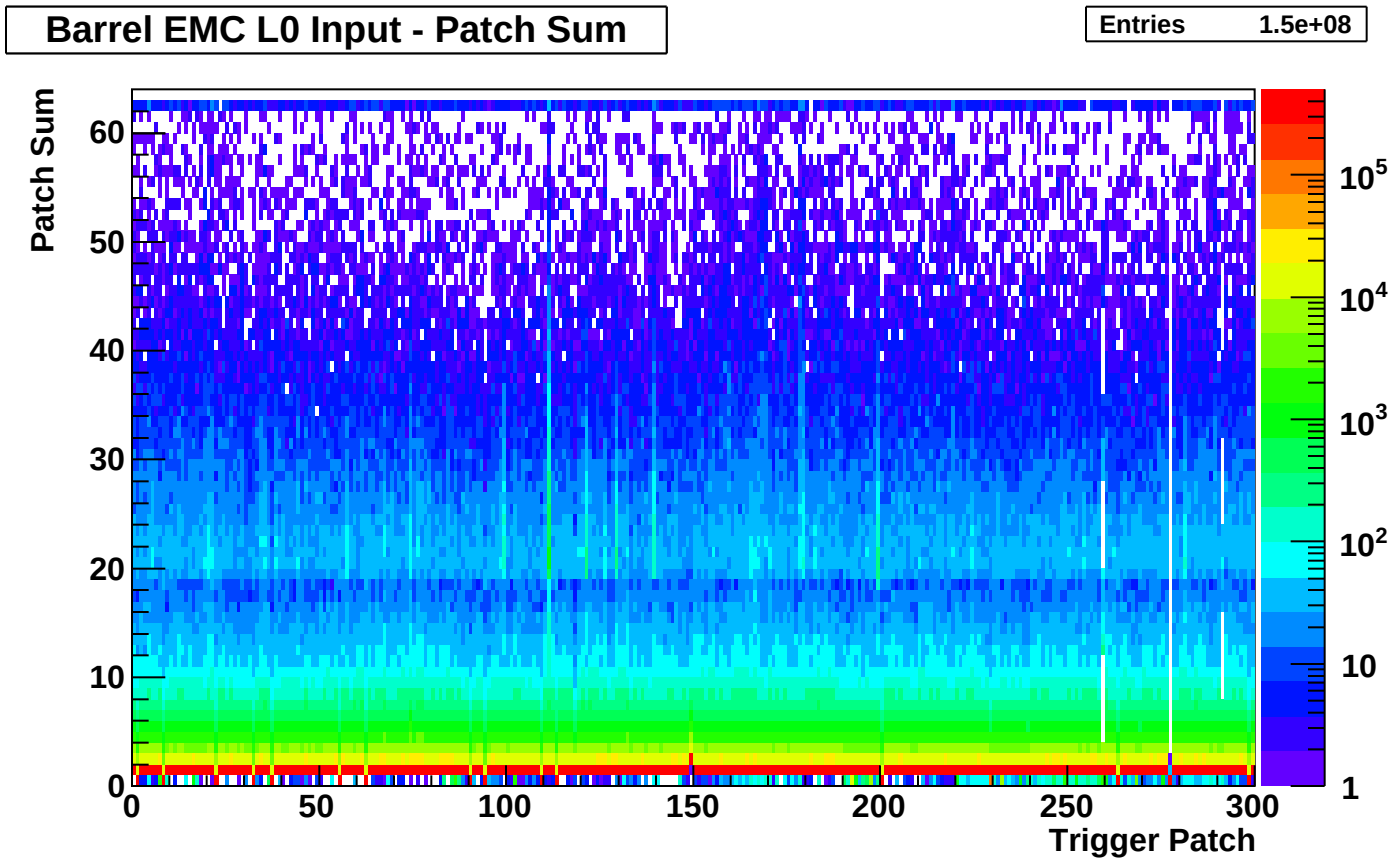

TCU bits
Entries 8000000
TCU bits
1
0
500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

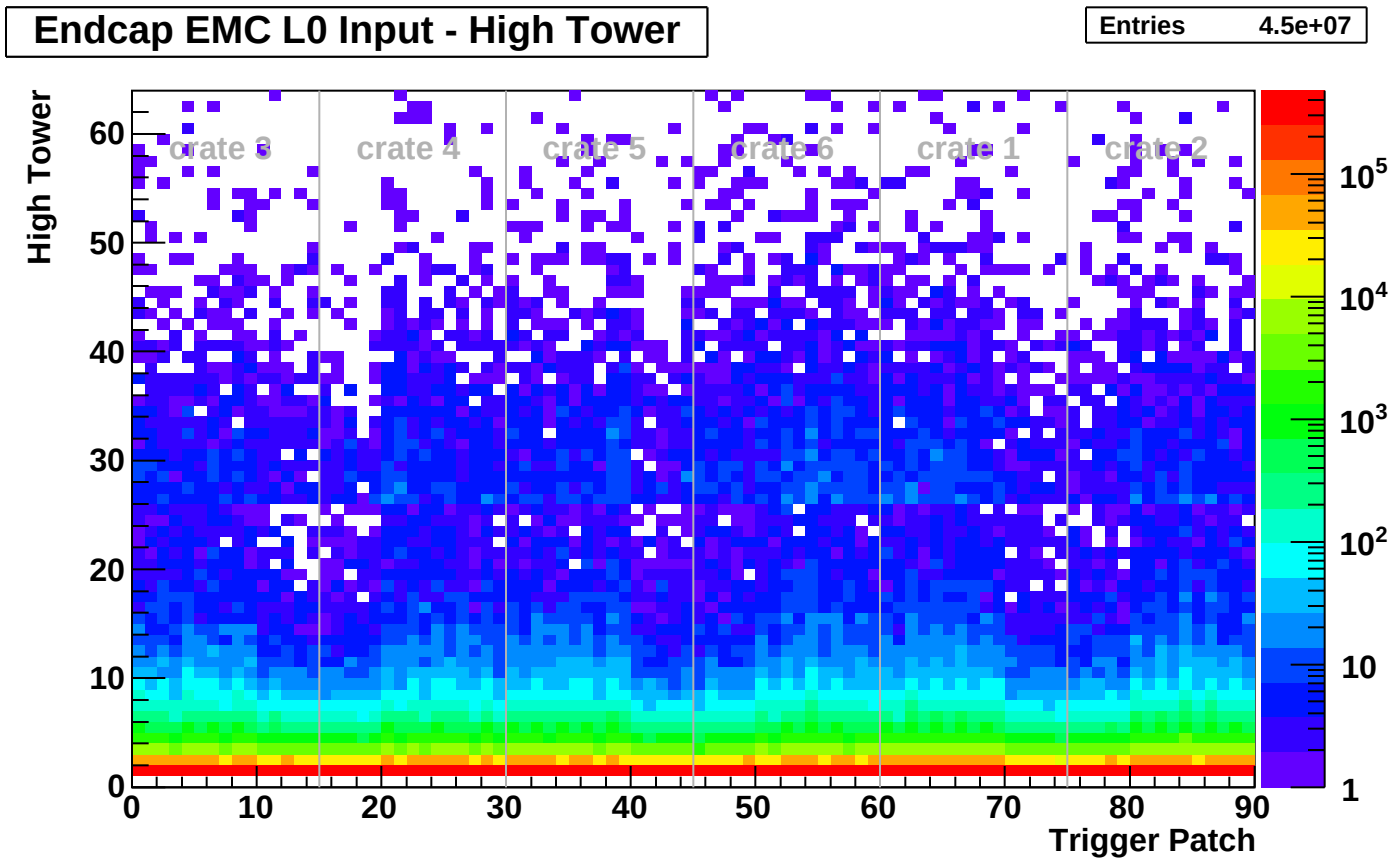

TCU bits
Entries 617735
TCU bits - Simulated
1
0
-1
-2
52927 108602 257356 6419 14760 175835 1836
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

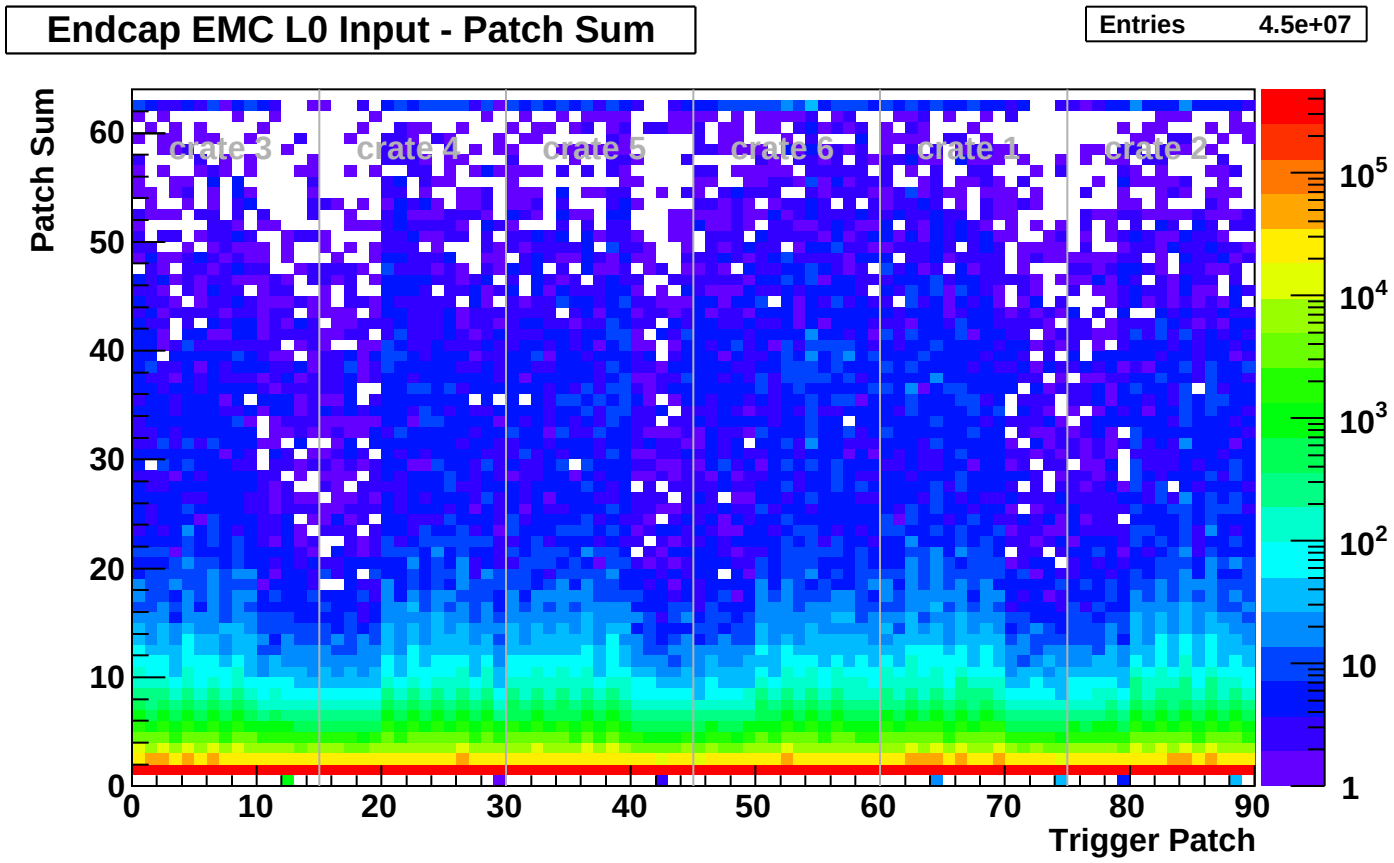

BunchId7Bit (BHT3)
Entries 8531
10^2
10
1
0 20 40 60 80 100 120

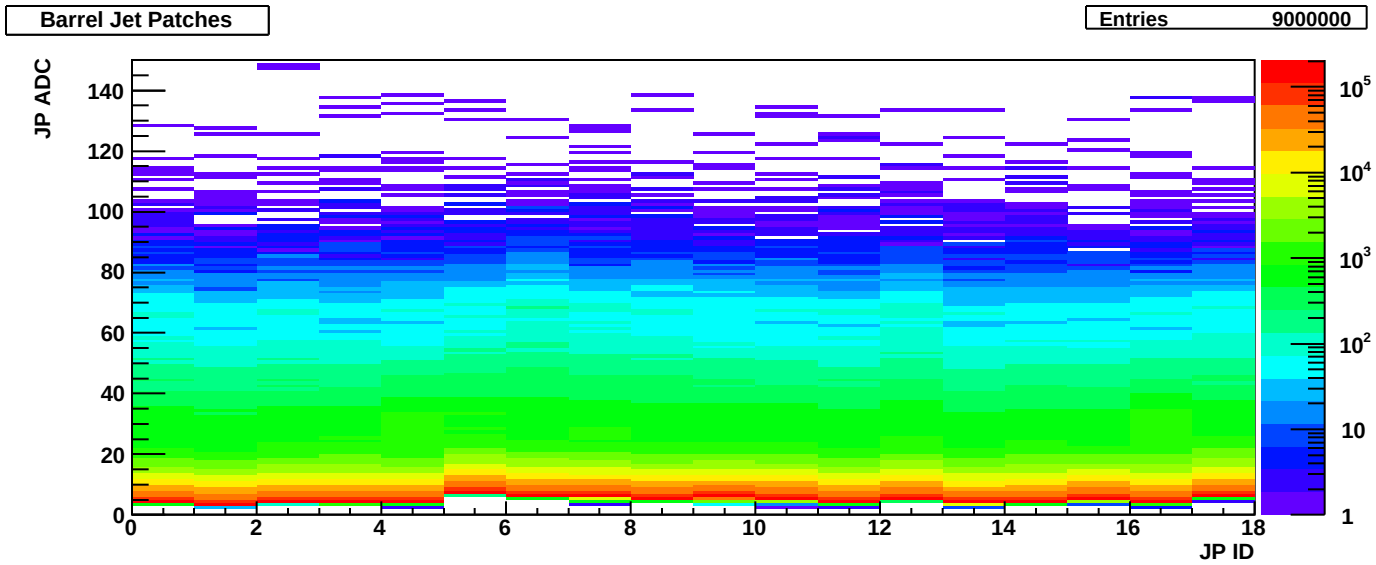

BunchId7Bit (all events)
Entries 500000
10^4
10^3
10^2
0 20 40 60 80 100 120

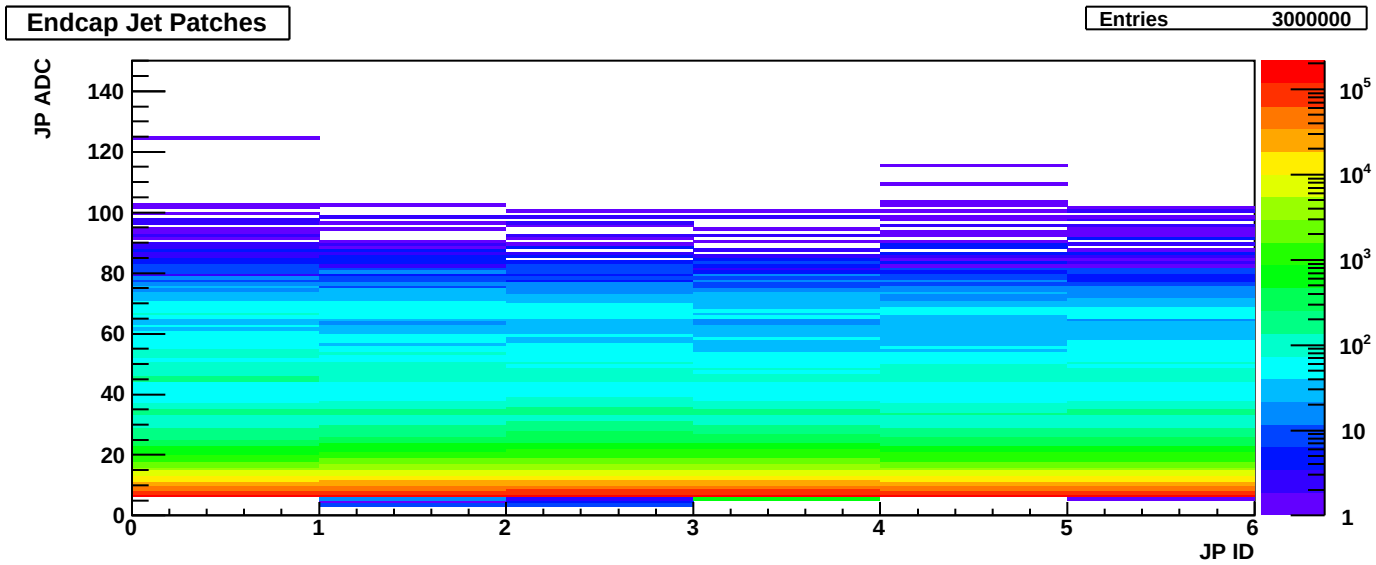

Barrel EMC L0 Input - High Tower
Entries 1.5e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

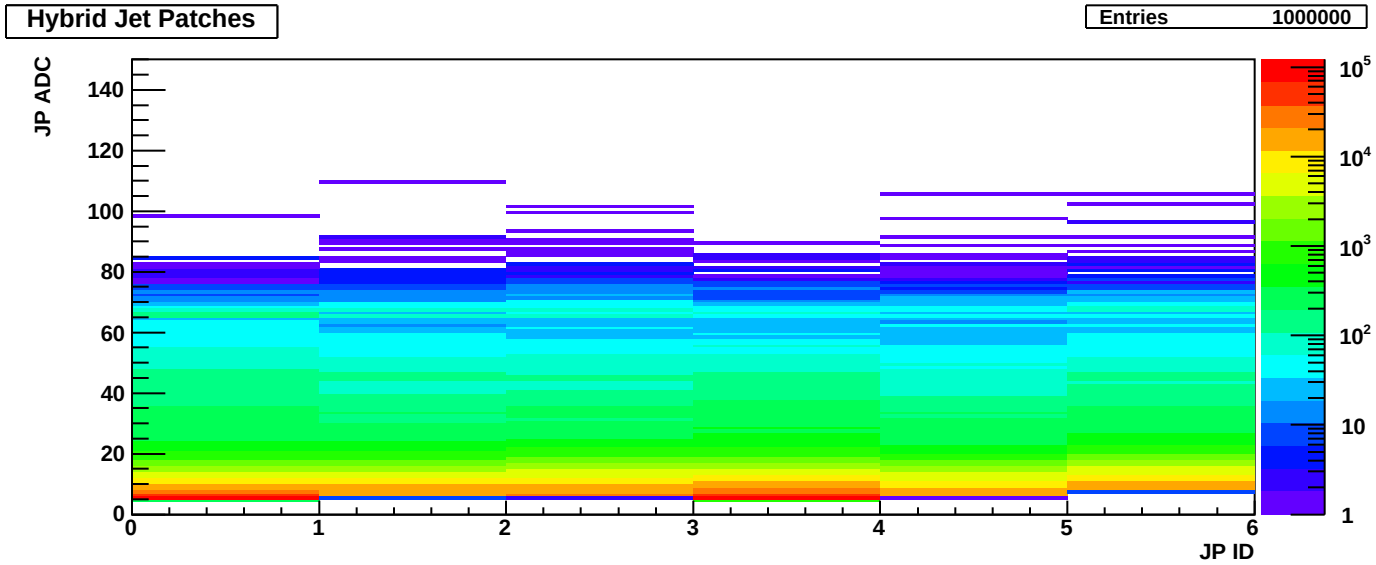

Barrel EMC L0 Input - Patch Sum
Entries 1.5e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

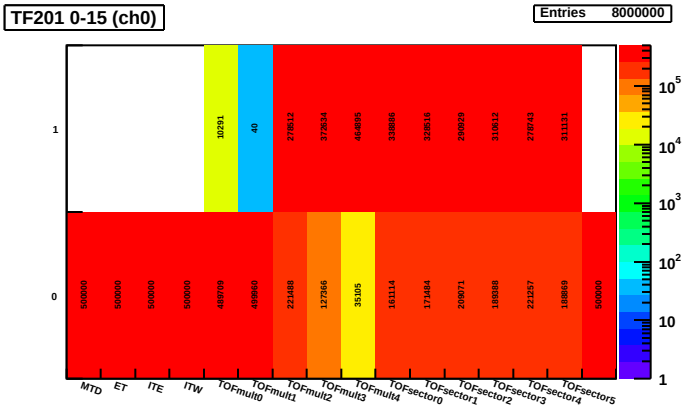

Endcap EMC L0 Input - High Tower
Entries 4.5e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

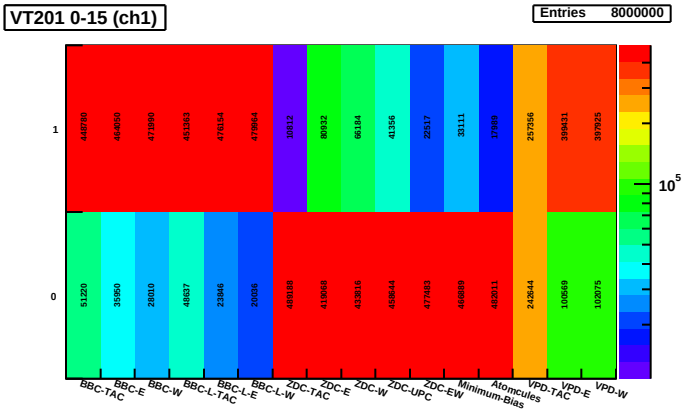

Endcap EMC L0 Input - Patch Sum
Entries 4.5e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

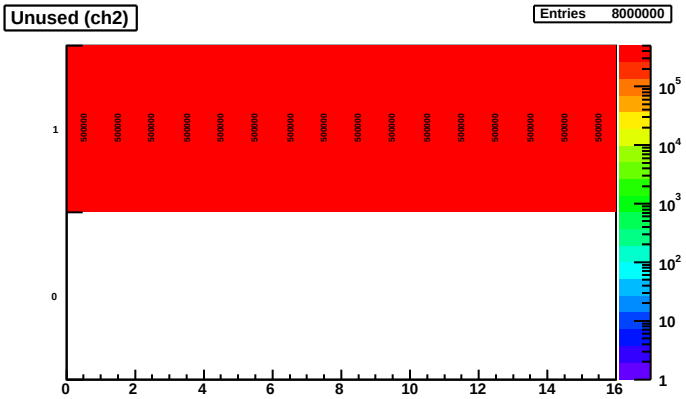

Barrel Jet Patches
Entries 9000000
JP ADC
JP ID

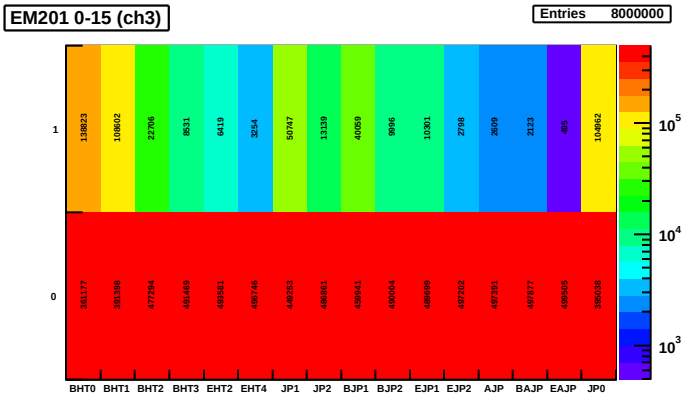

Endcap Jet Patches
Entries 3000000
JP ADC
JP ID

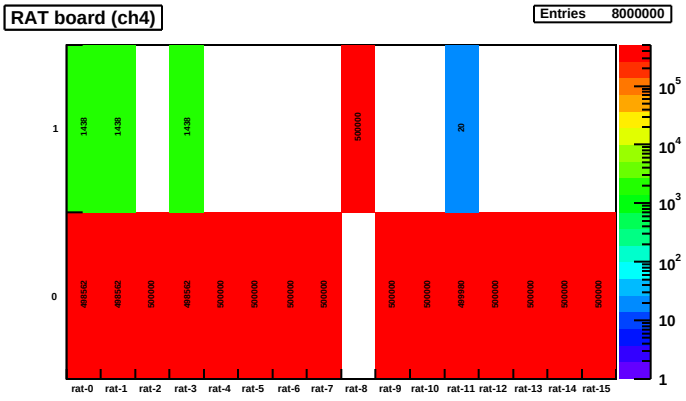

Hybrid Jet Patches
Entries 1000000
JP ADC
JP ID

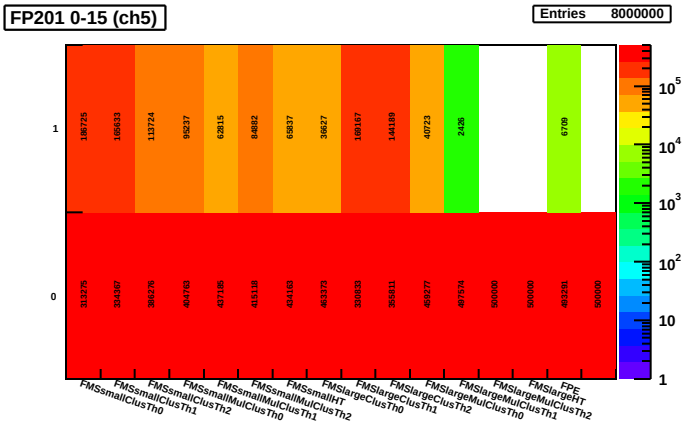

TF201 0-15 (ch0)
Entries 8000000
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

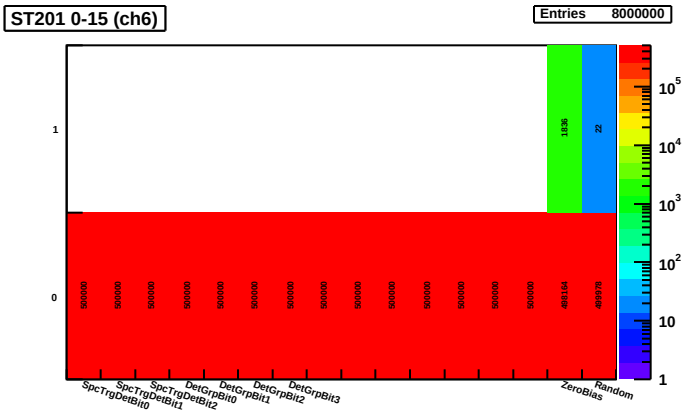

VT201 0-15 (ch1)
Entries 8000000
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

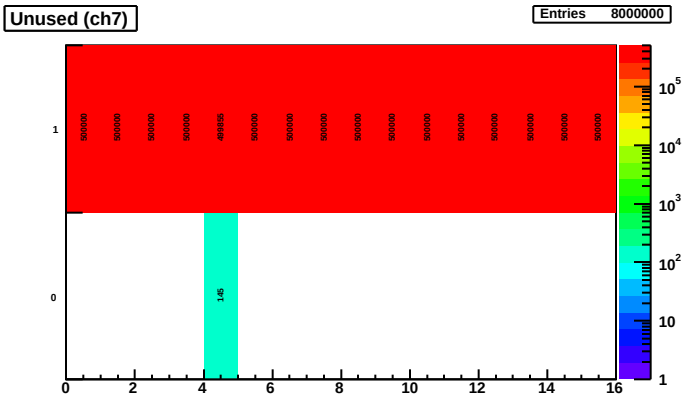

Unused (ch2)
Entries 8000000

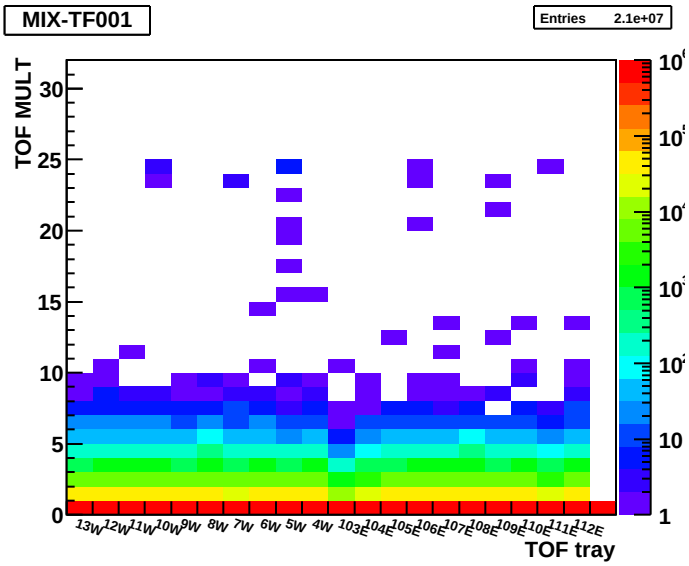

EM201 0-15 (ch3)
Entries 8000000
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

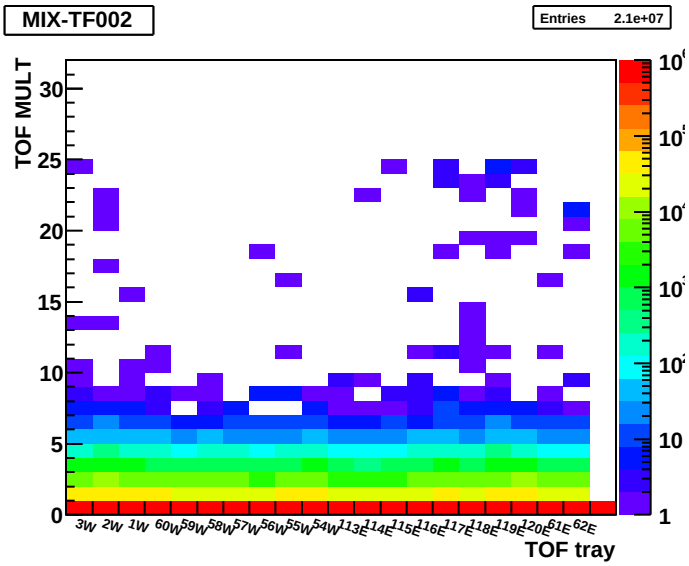

RAT board (ch4)
Entries 8000000
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

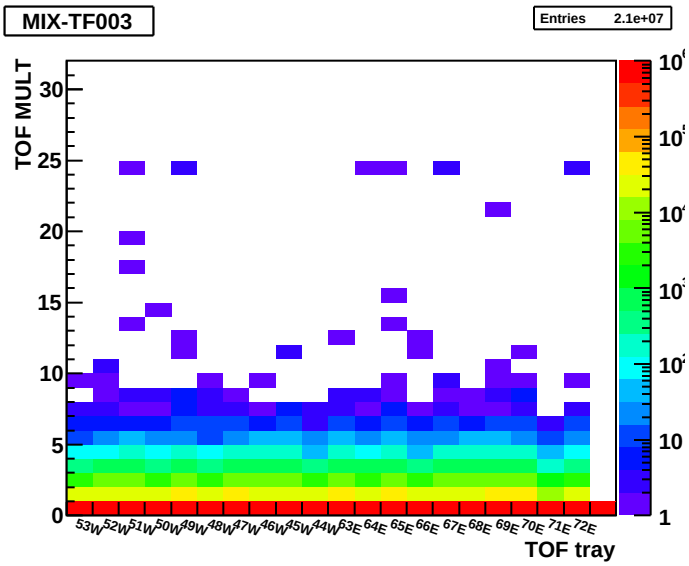

FP201 0-15 (ch5)
Entries 8000000
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

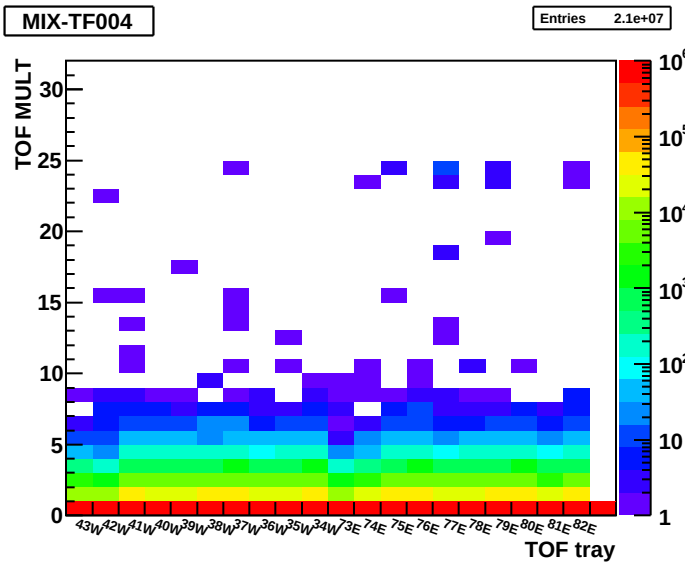

ST201 0-15 (ch6)
Entries 8000000
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetGrpBit0 DetGrpBit1 DetGrpBit2 DetGrpBit3 ZeroBias Random

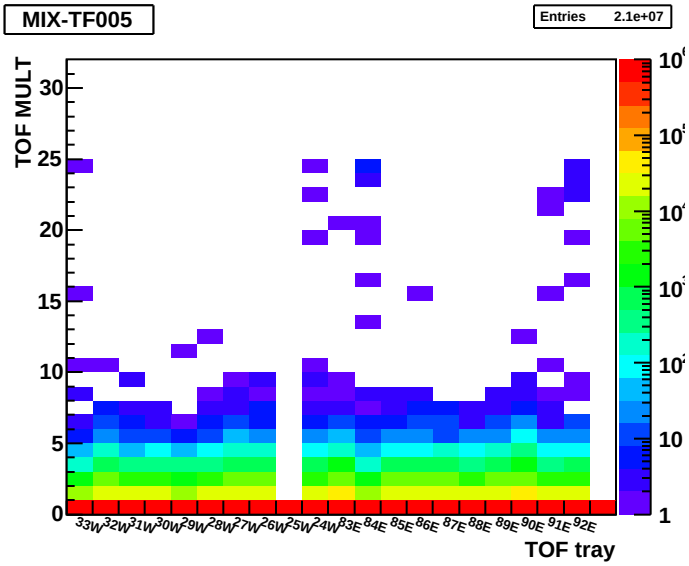

Unused (ch7)
Entries 8000000

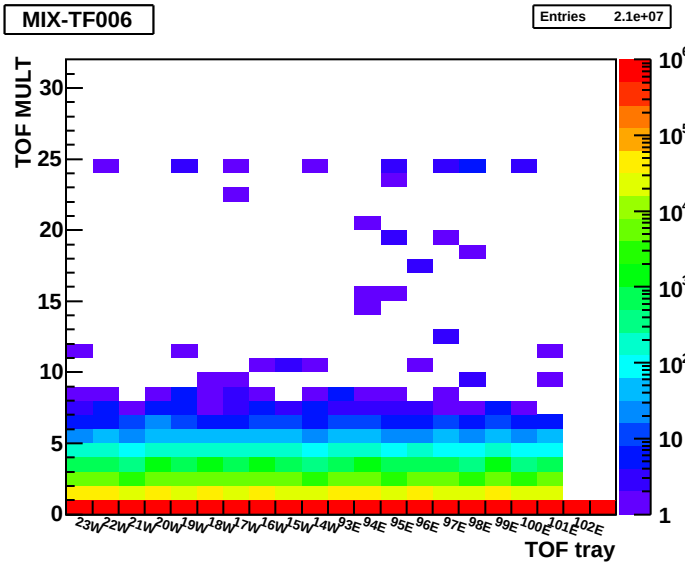

MIX-TF001
Entries 2.1e+07
TOF MULT
TOF tray

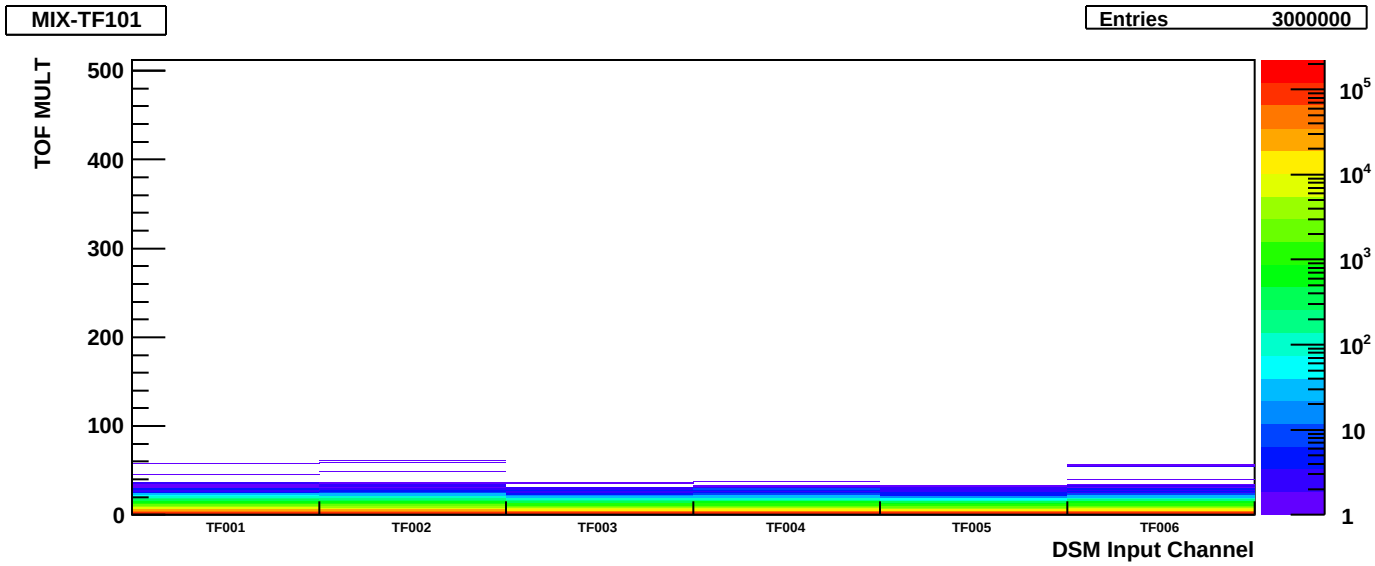

MIX-TF002
Entries 2.1e+07
TOF MULT
TOF tray

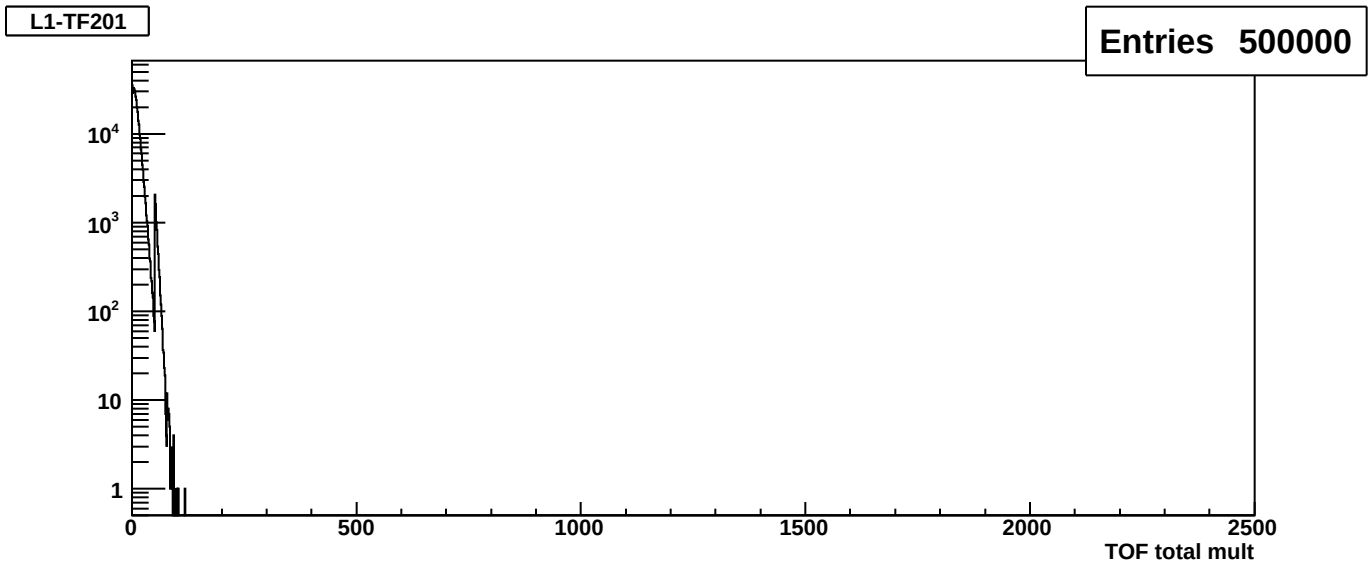

MIX-TF003
Entries 2.1e+07
TOF MULT
TOF tray

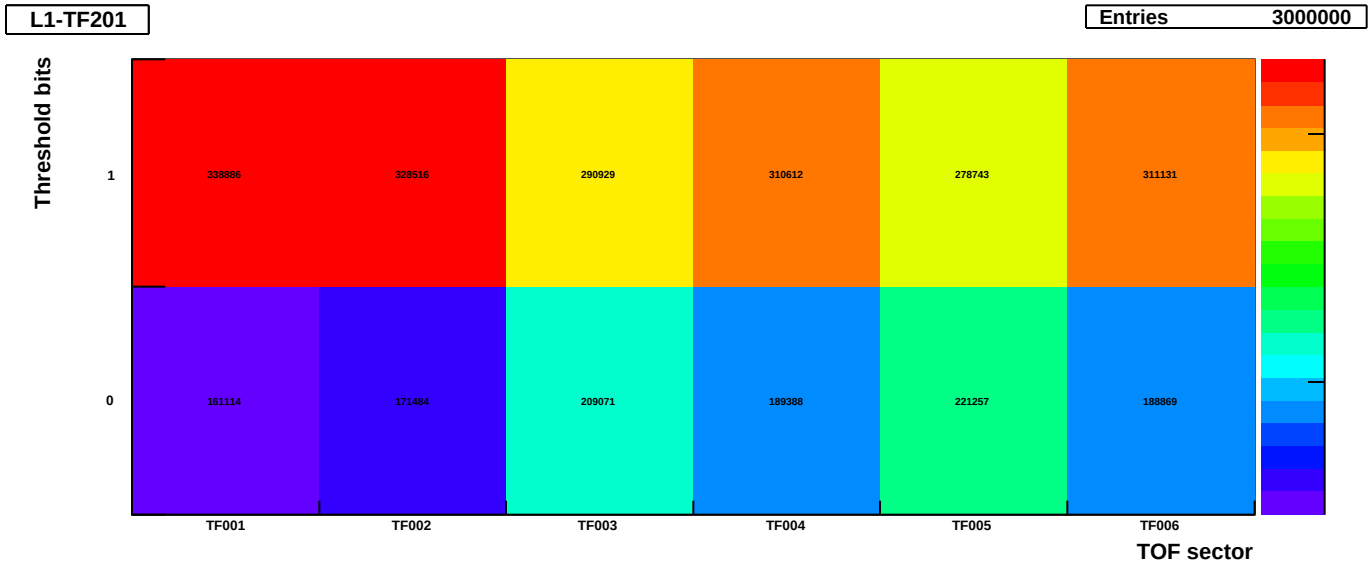

MIX-TF004
Entries 2.1e+07
TOF MULT
TOF tray

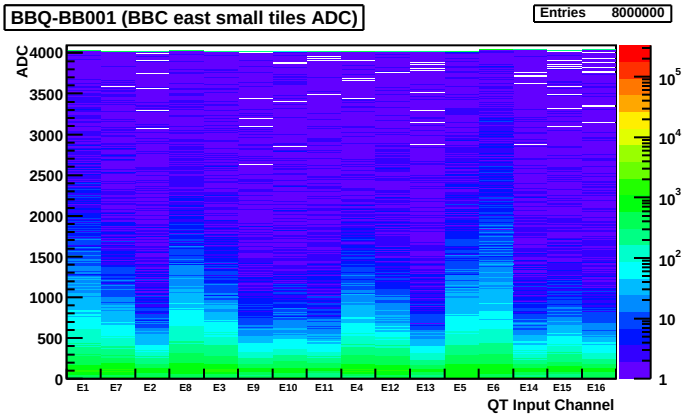

MIX-TF005
Entries 2.1e+07
TOF MULT
TOF tray

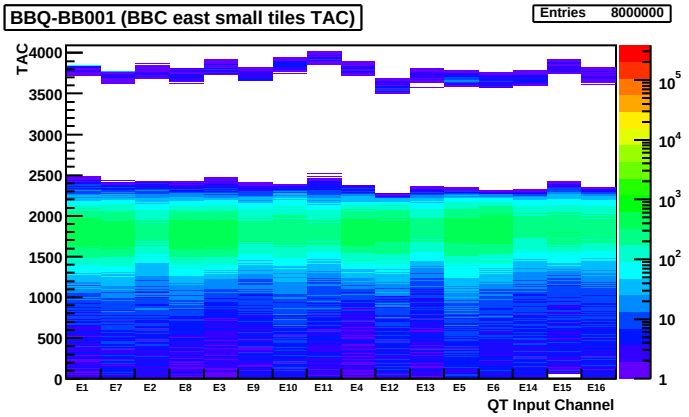

MIX-TF006
Entries 2.1e+07
TOF MULT
TOF tray

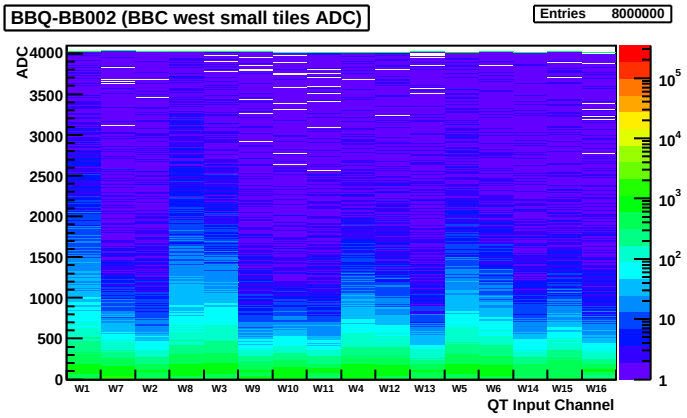

MIX-TF101
Entries 3000000
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

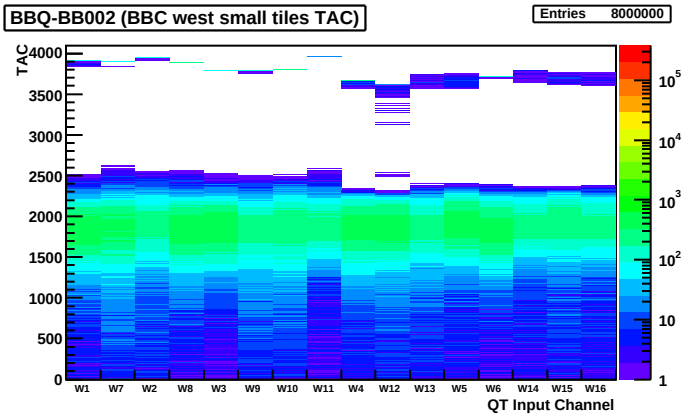

L1-TF201
Entries 500000
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

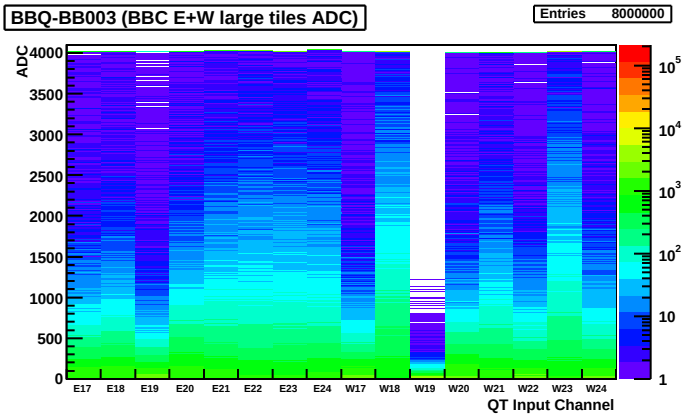

L1-TF201
Entries 3000000
Threshold bits
1
0
338886
328516
290929
310612
278743
311131
161114
171484
209071
189388
221257
188869
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

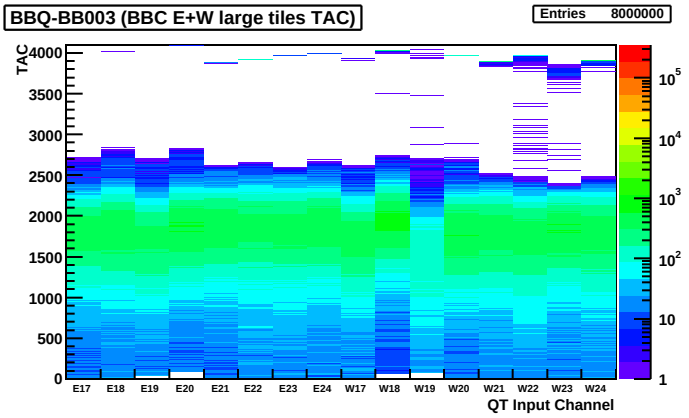

BBQ-BB001 (BBC east small tiles ADC)
Entries 8000000
ADC
QT Input Channel

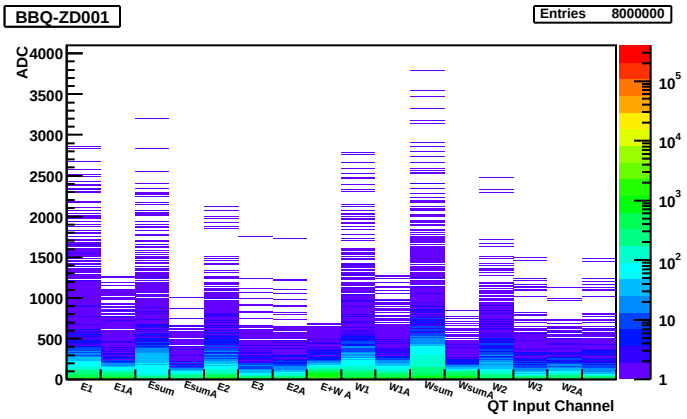

BBQ-BB001 (BBC east small tiles TAC)
Entries 8000000
TAC
QT Input Channel

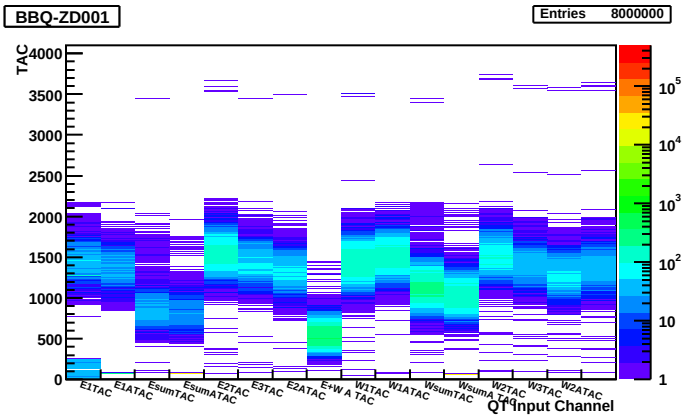

BBQ-BB002 (BBC west small tiles ADC)
Entries 8000000
ADC
QT Input Channel

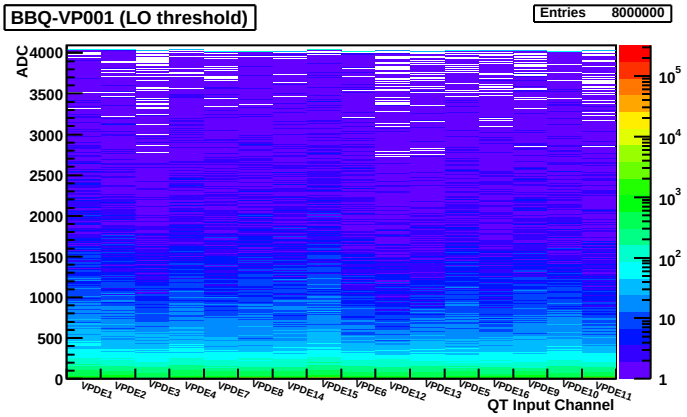

BBQ-BB002 (BBC west small tiles TAC)
Entries 8000000
TAC
QT Input Channel

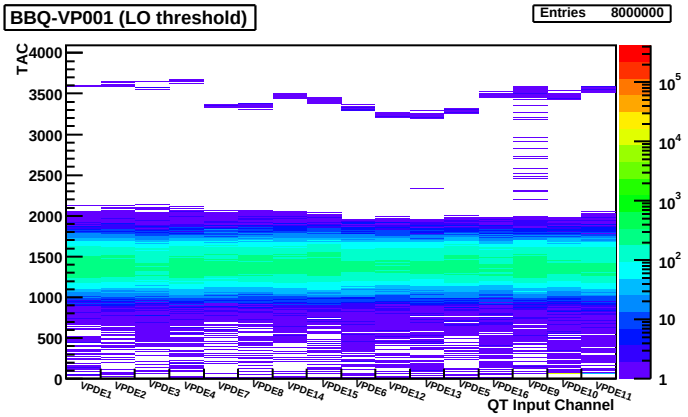

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 8000000
ADC
QT Input Channel

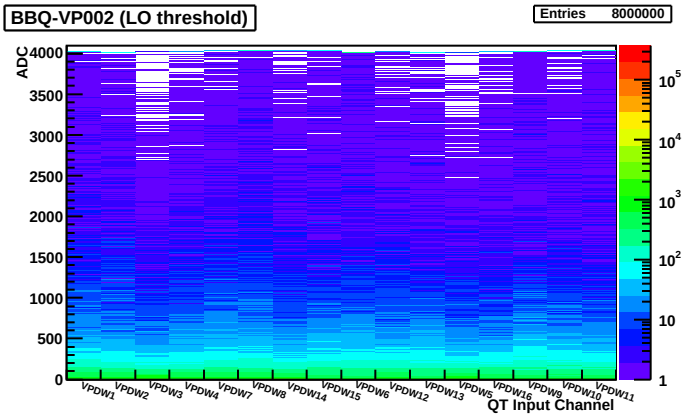

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 8000000
TAC
QT Input Channel

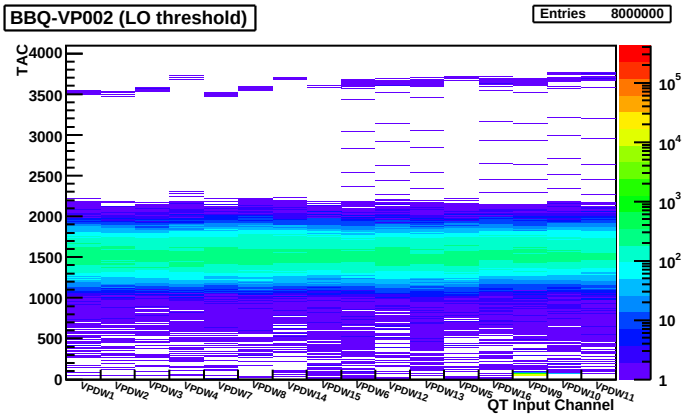

BBQ-ZD001
Entries 8000000
ADC
QT Input Channel

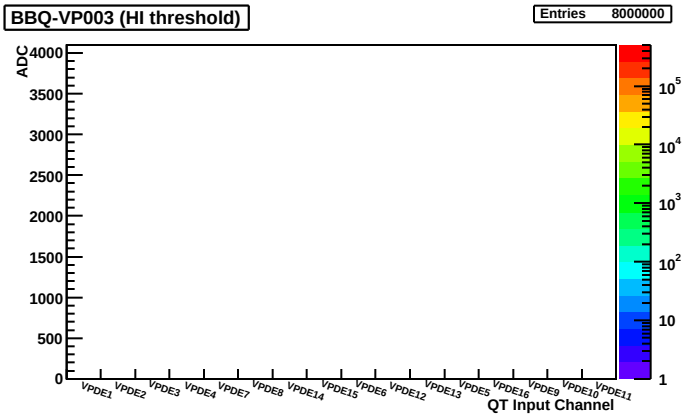

BBQ-ZD001
Entries 8000000
TAC
QT Input Channel

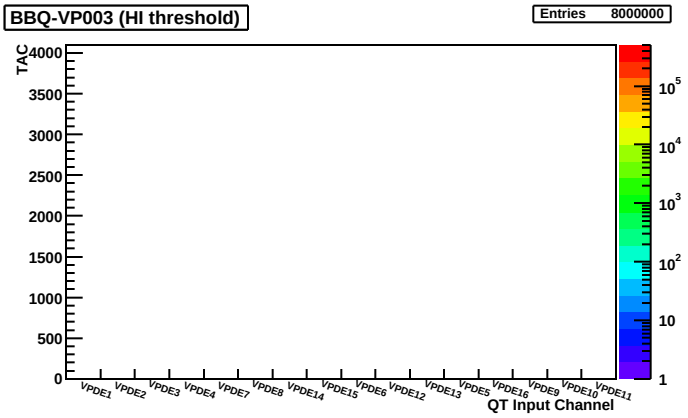

BBQ-VP001 (LO threshold)
Entries 8000000
ADC
QT Input Channel

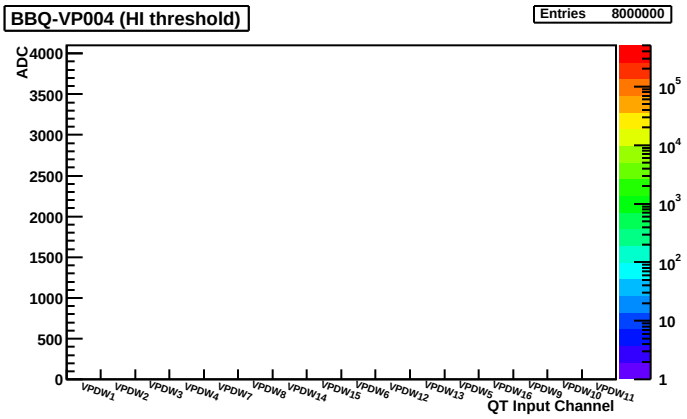

BBQ-VP001 (LO threshold)
Entries 8000000
TAC
QT Input Channel

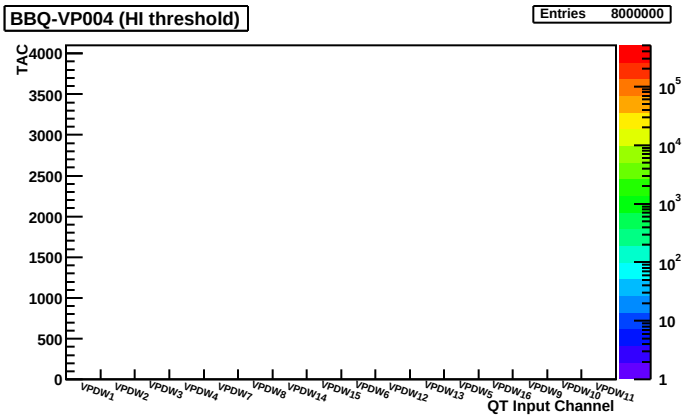

BBQ-VP002 (LO threshold)
Entries 8000000
ADC
QT Input Channel

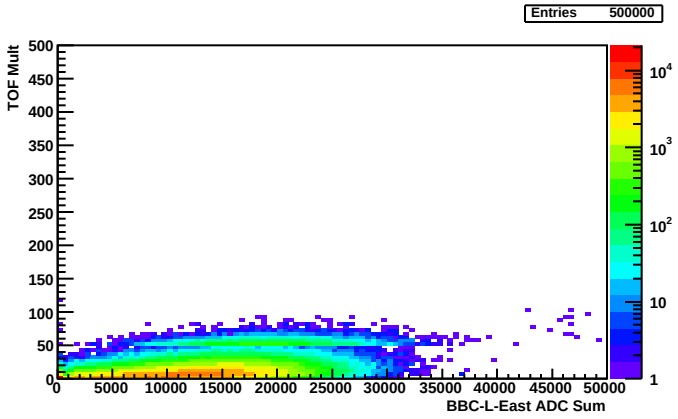

BBQ-VP002 (LO threshold)
Entries 8000000
TAC
QT Input Channel

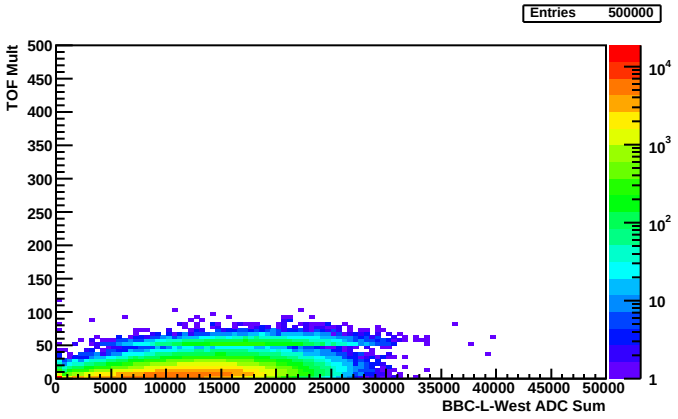

BBQ-VP003 (HI threshold)
Entries 8000000
ADC
QT Input Channel

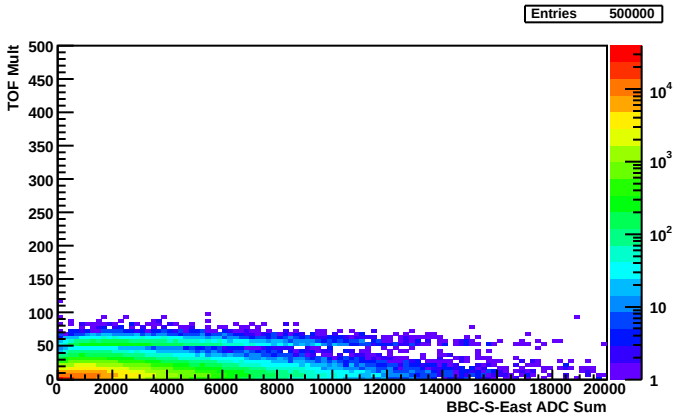

BBQ-VP003 (HI threshold)
Entries 8000000
TAC
QT Input Channel

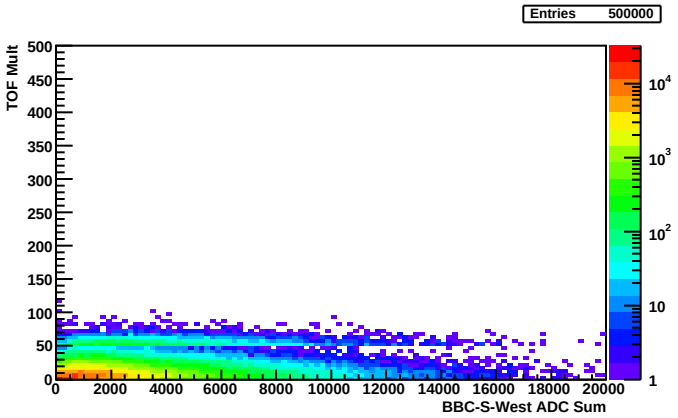

BBQ-VP004 (HI threshold)
Entries 8000000
ADC
QT Input Channel

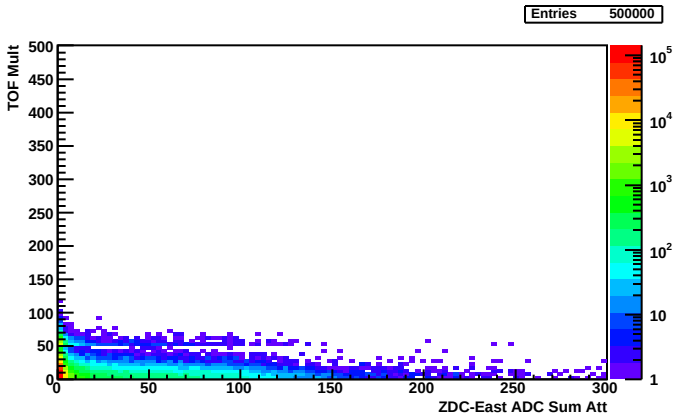

BBQ-VP004 (HI threshold)
Entries 8000000
TAC
QT Input Channel

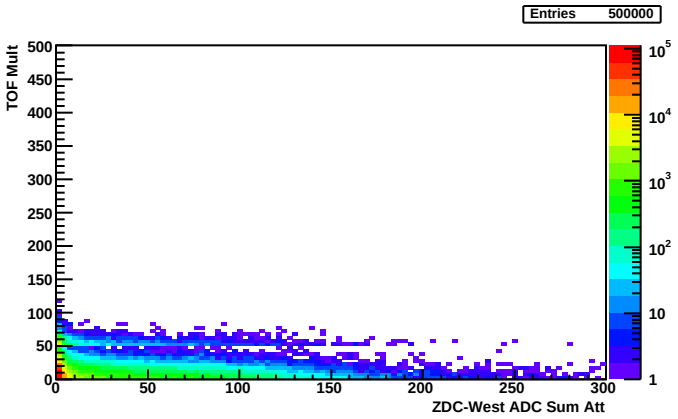

Entries 500000
TOF Mult
BBC-L-East ADC Sum

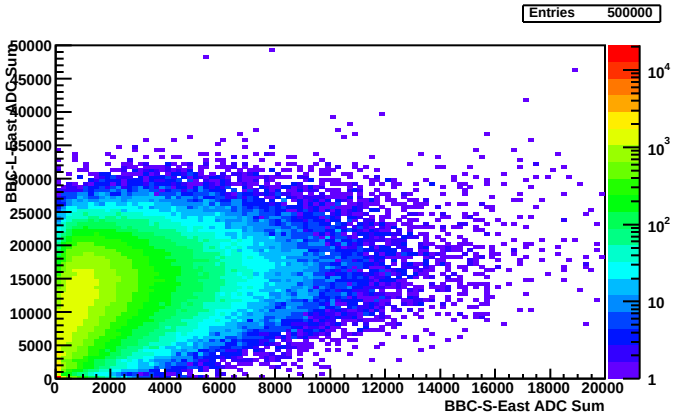

Entries 500000
TOF Mult
BBC-L-West ADC Sum

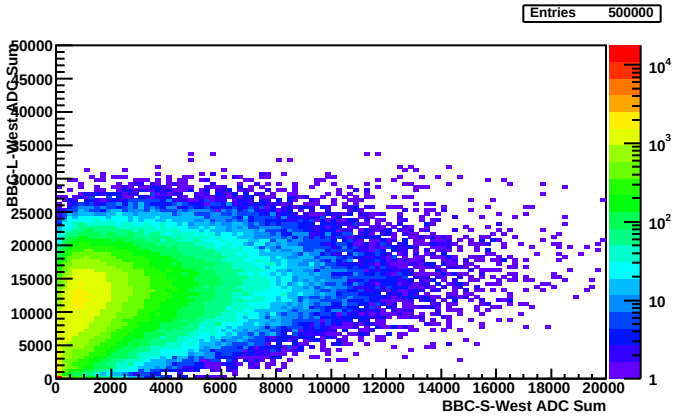

Entries 500000
TOF Mult
BBC-S-East ADC Sum

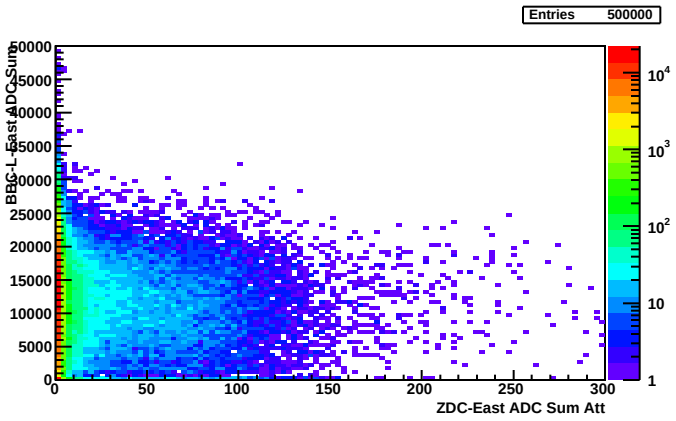

Entries 500000
TOF Mult
BBC-S-West ADC Sum

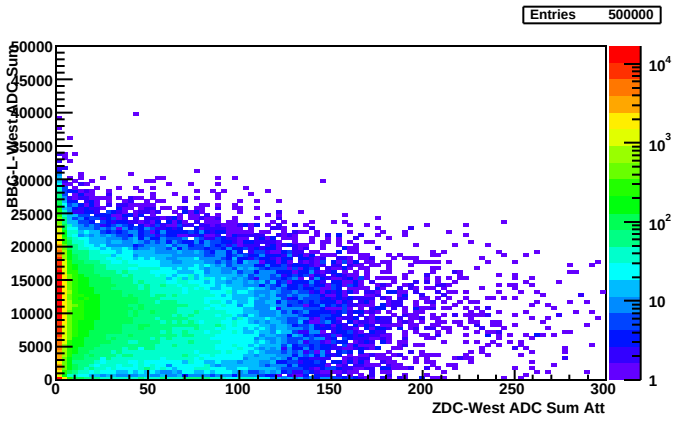

Entries 500000
TOF Mult
ZDC-East ADC Sum Att

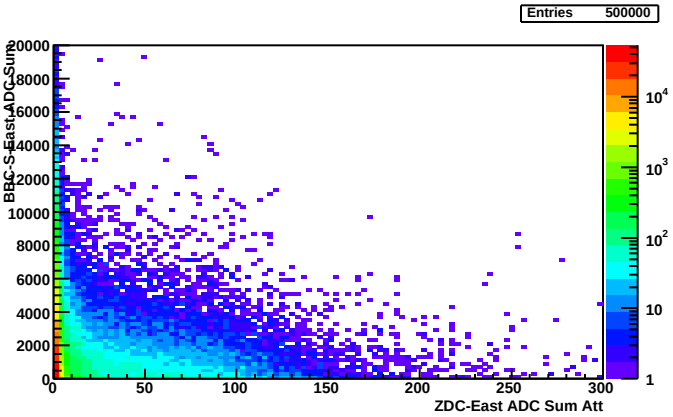

Entries 500000
TOF Mult
ZDC-West ADC Sum Att

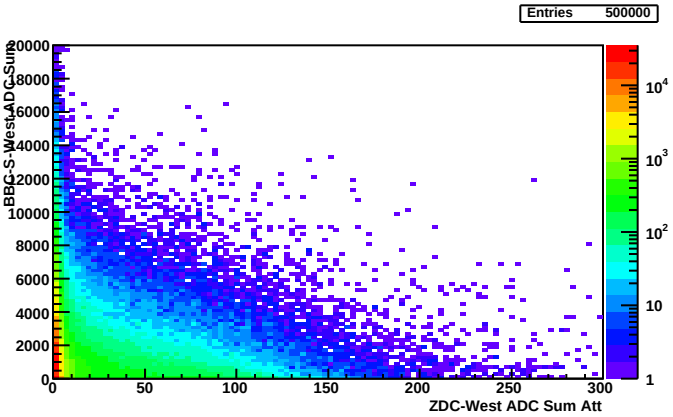

Entries 500000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

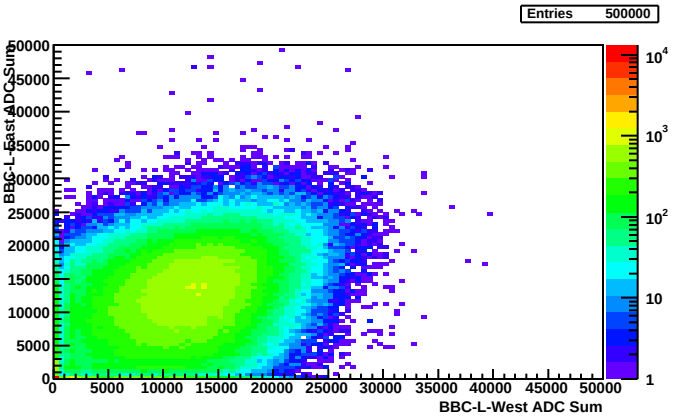

Entries 500000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

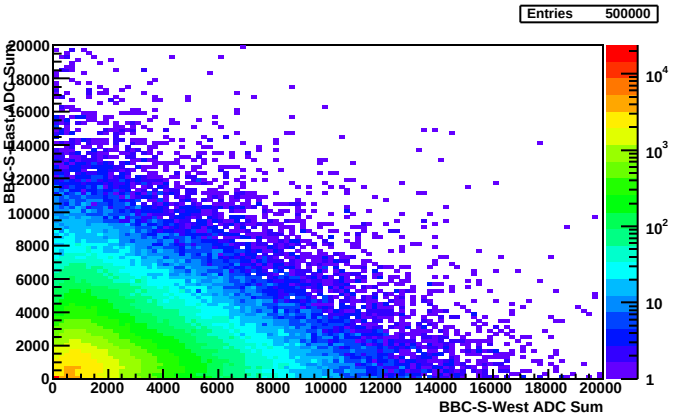

Entries 500000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

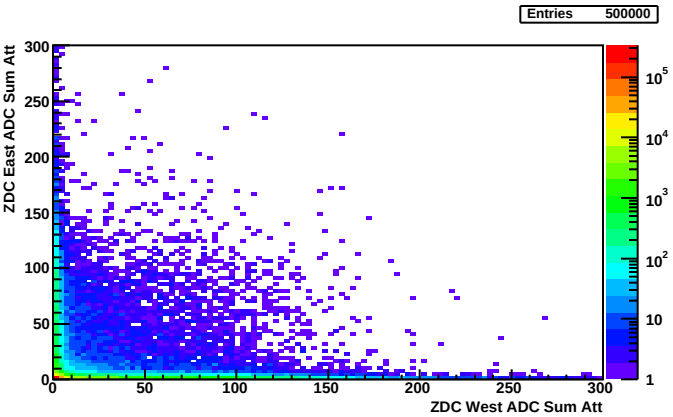

Entries 500000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

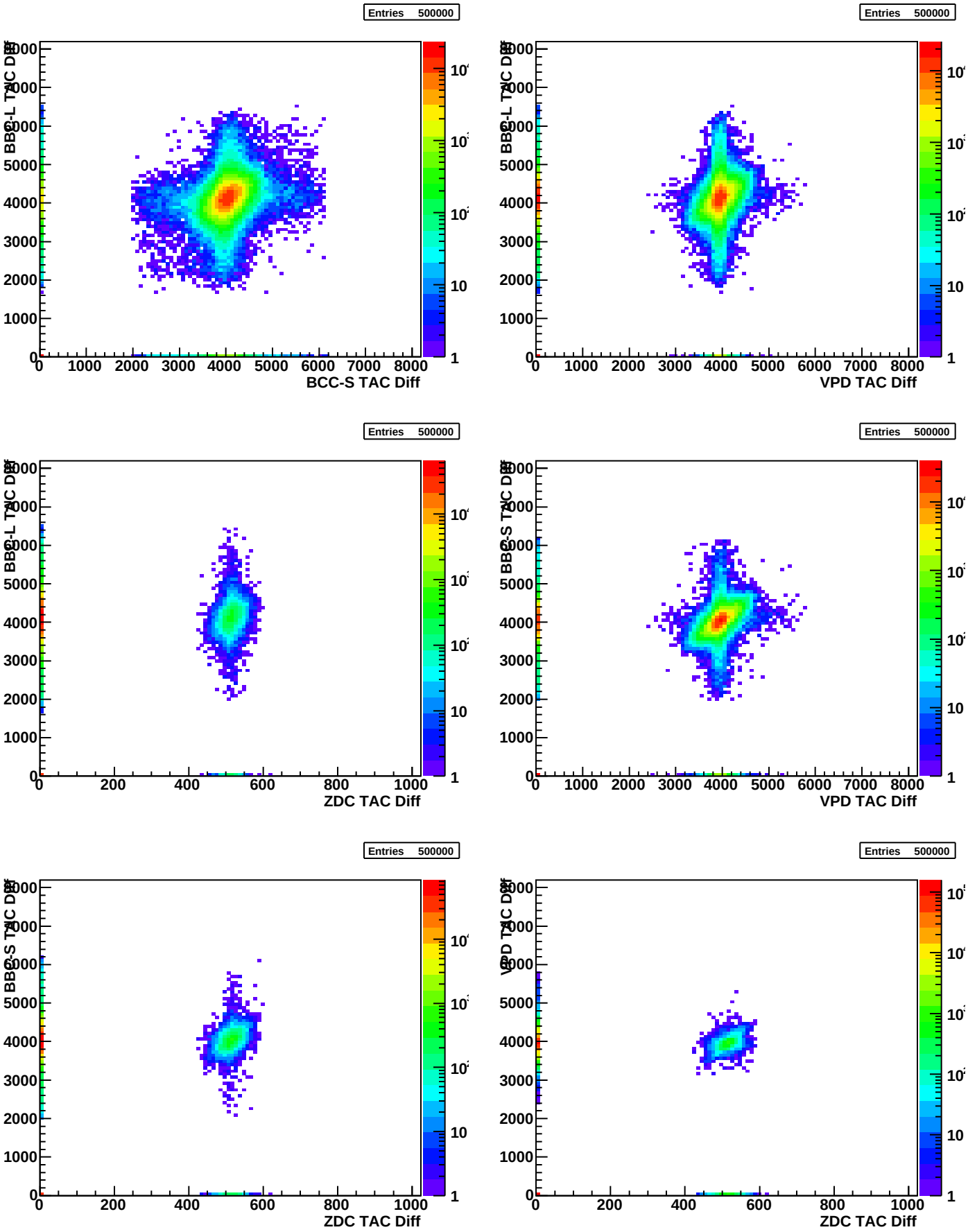

Entries 500000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

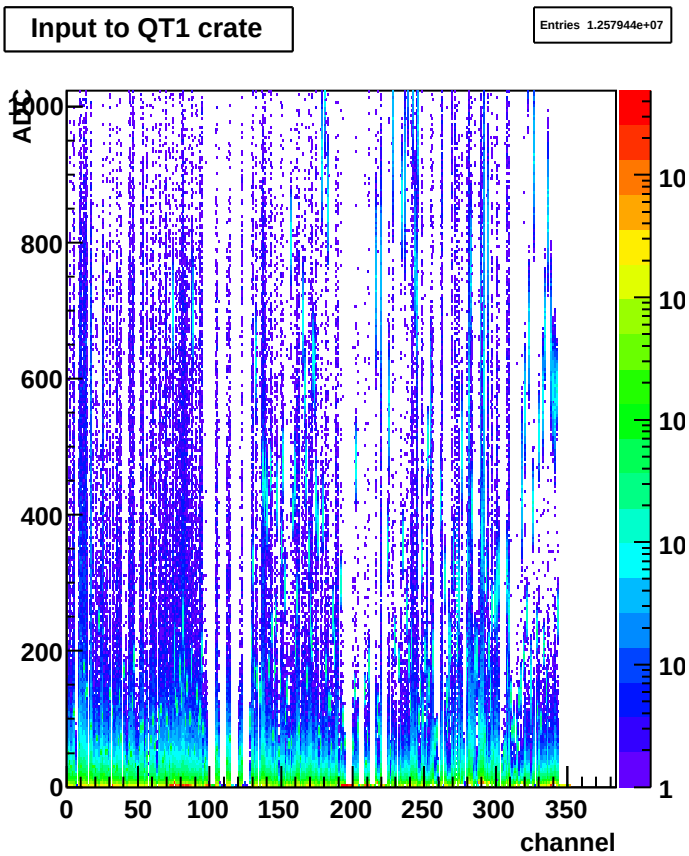

Entries 500000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

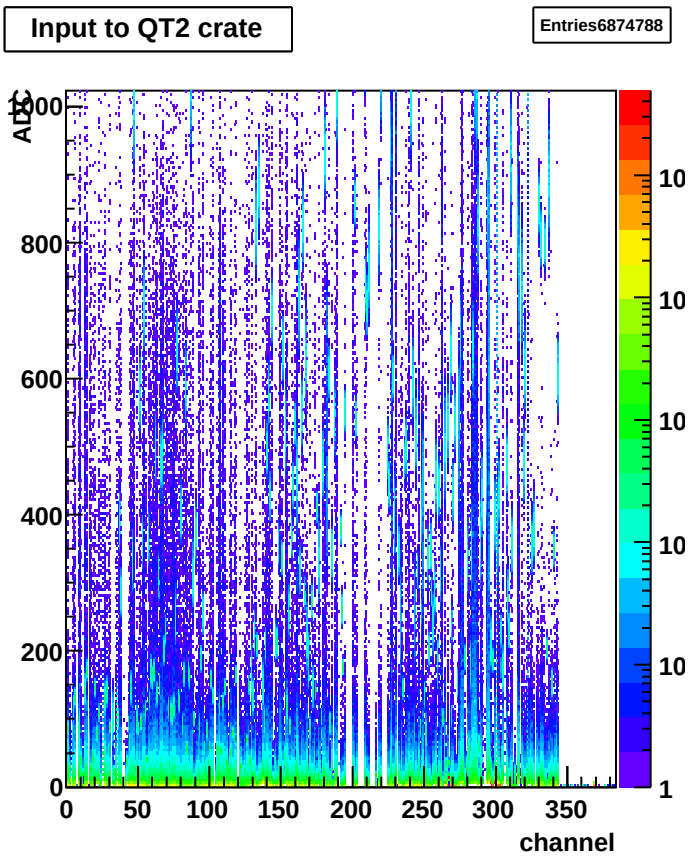

Entries 500000
BBC-L-East ADC Sum
BBC-L-West ADC Sum

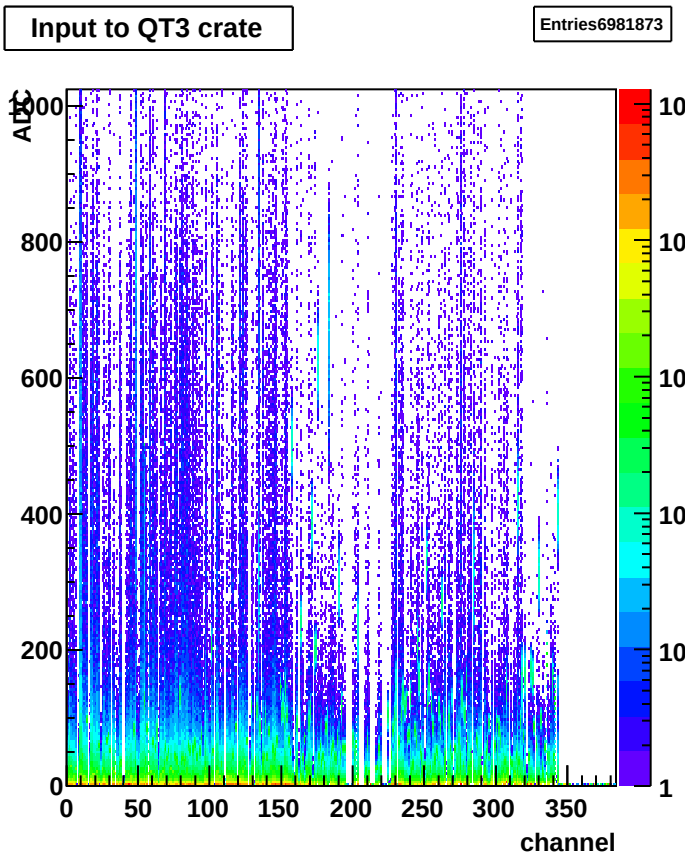

Entries 500000
BBC-S-East ADC Sum
BBC-S-West ADC Sum

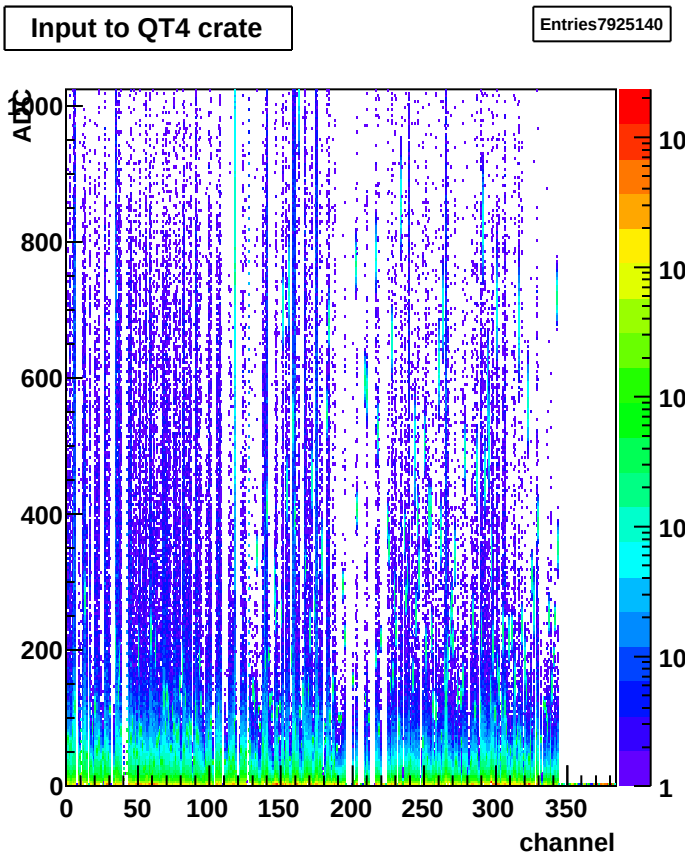

Entries 500000
ZDC East ADC Sum Att
ZDC West ADC Sum Att

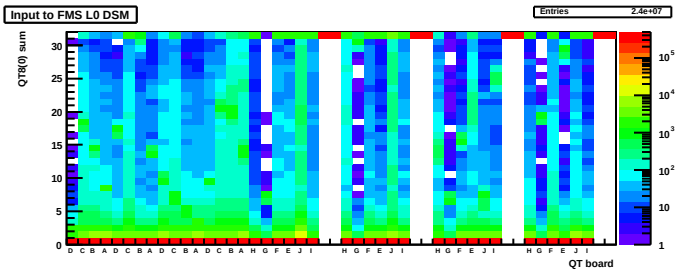

Entries 500000
BBC-L TAC Diff
BCC-S TAC Diff
Entries 500000
BBC-L TAC Diff
VPD TAC Diff
Entries 500000
BBC-L TAC Diff
ZDC TAC Diff
Entries 500000
BBC-S TAC Diff
VPD TAC Diff
Entries 500000
BBC-S TAC Diff
ZDC TAC Diff
Entries 500000
VPD TAC Diff
ZDC TAC Diff

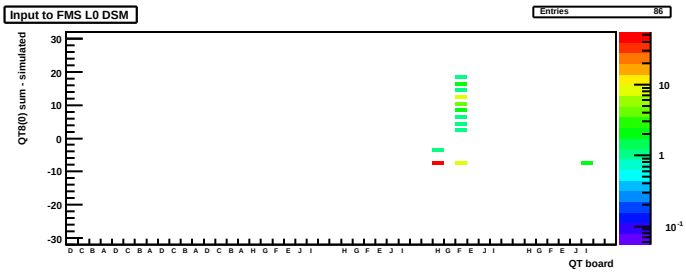

Input to QT1 crate
Entries 1.257944e+07
ADC
channel

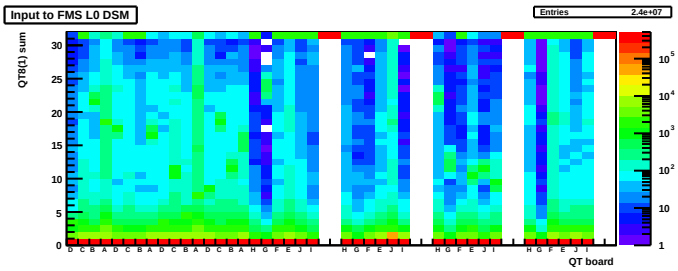

Input to QT2 crate
Entries6874788
ADC
channel

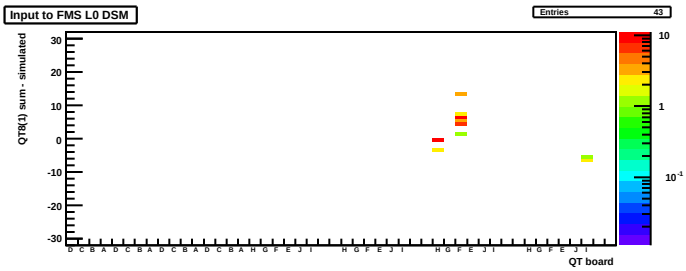

Input to QT3 crate
Entries6981873
ADC
channel

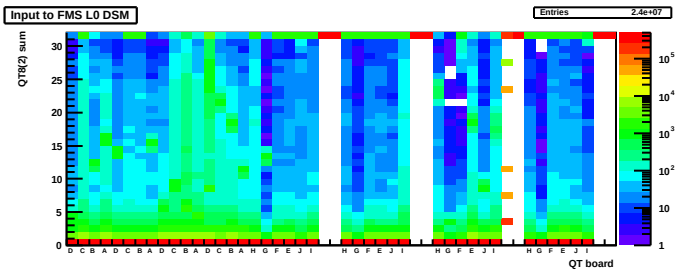

Input to QT4 crate
Entries7925140
ADC
channel

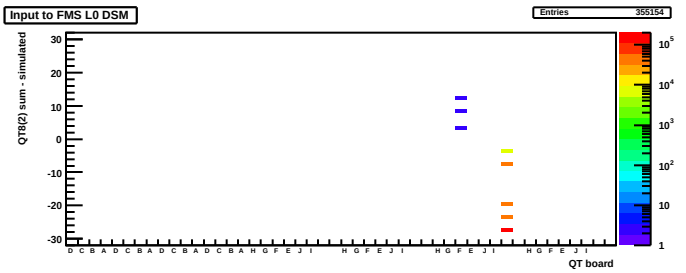

Input to FMS L0 DSM
Entries 2.4e+07
QT8(0) sum
QT board

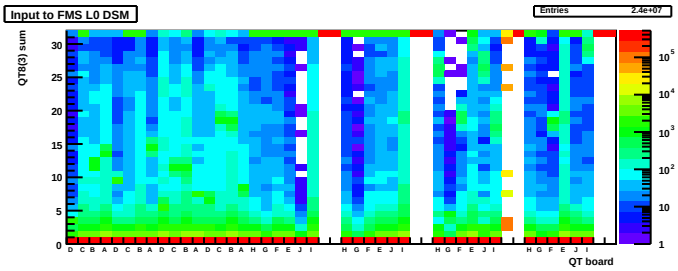

Input to FMS L0 DSM
Entries 86
QT8(0) sum - simulated
QT board

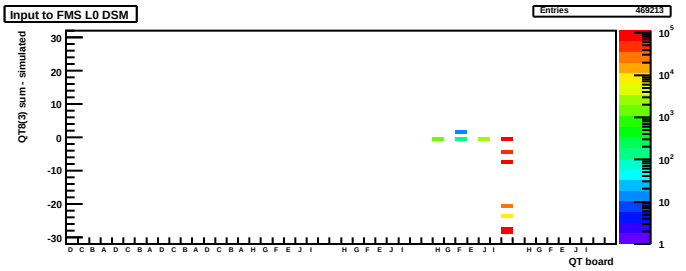

Input to FMS L0 DSM
Entries 2.4e+07
QT8(1) sum
QT board

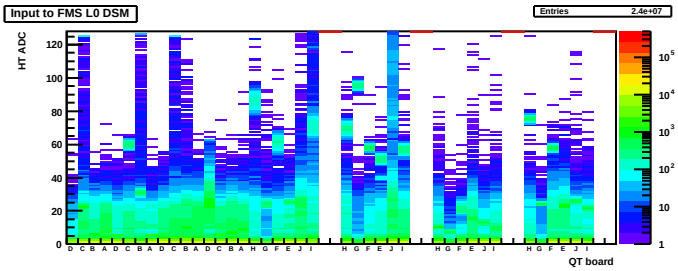

Input to FMS L0 DSM
Entries 43
QT8(1) sum - simulated
QT board

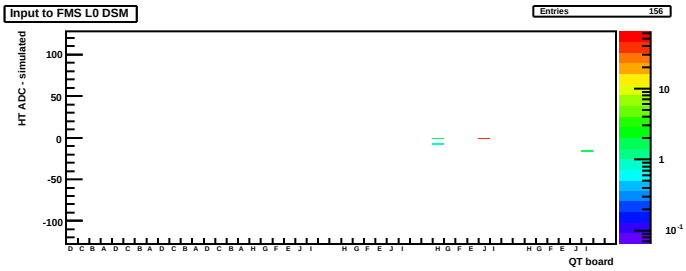

Input to FMS L0 DSM
Entries 2.4e+07
QT8(2) sum
QT board

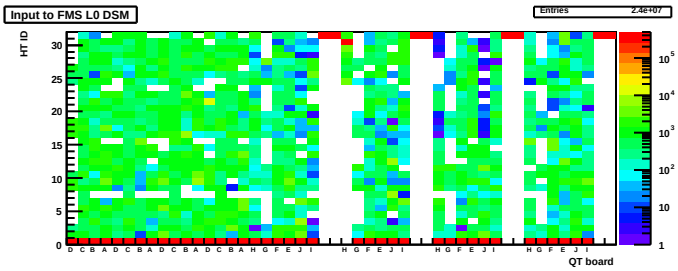

Input to FMS L0 DSM
Entries 355154
QT8(2) sum - simulated
QT board

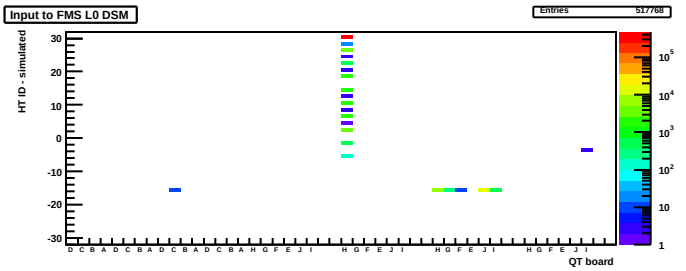

Input to FMS L0 DSM
Entries 2.4e+07
QT8(3) sum
QT board

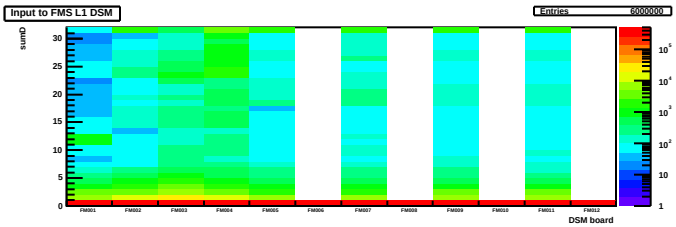

Input to FMS L0 DSM
Entries 469213
QT8(3) sum - simulated
QT board

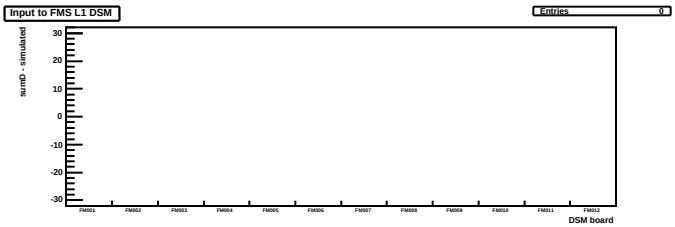

Input to FMS L0 DSM
Entries 2.4e+07
HT ADC
QT board

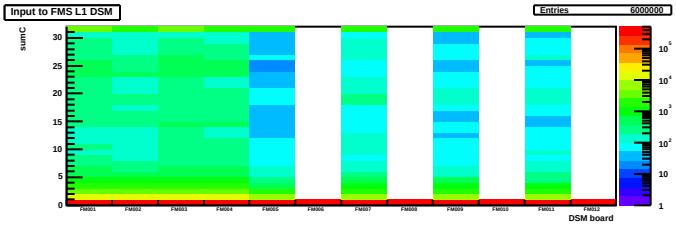

Input to FMS L0 DSM
Entries 156
HT ADC - simulated
QT board

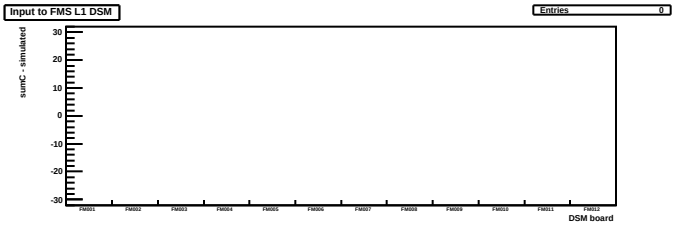

Input to FMS L0 DSM
Entries 2.4e+07
HT ID
QT board

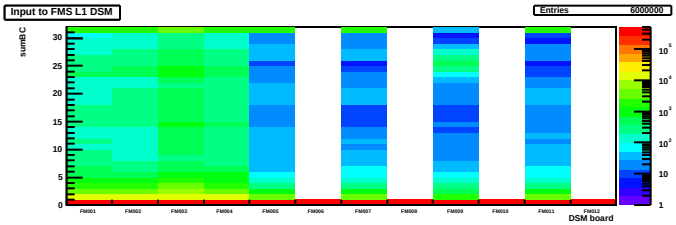

Input to FMS L0 DSM
Entries 517768
HT ID - simulated
QT board

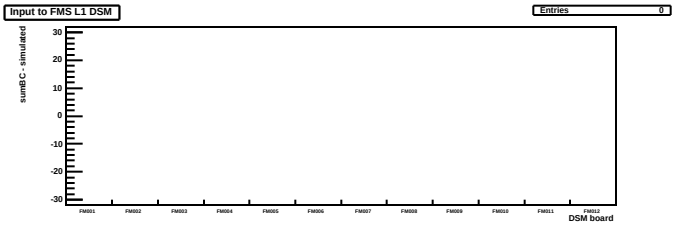

Input to FMS L1 DSM
Entries 6000000
sumD
DSM board

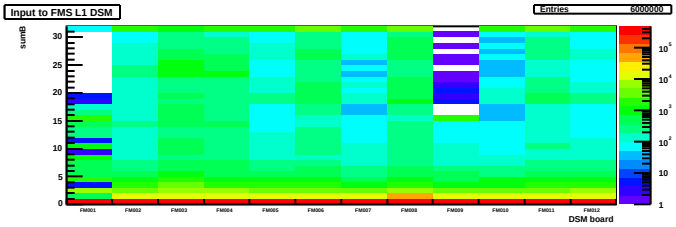

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

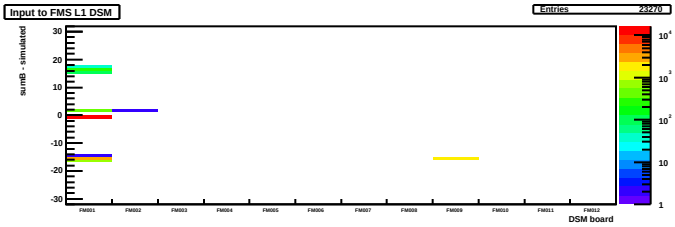

Input to FMS L1 DSM
Entries 6000000
sumC
DSM board

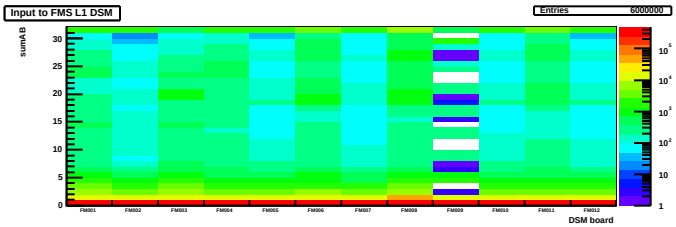

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

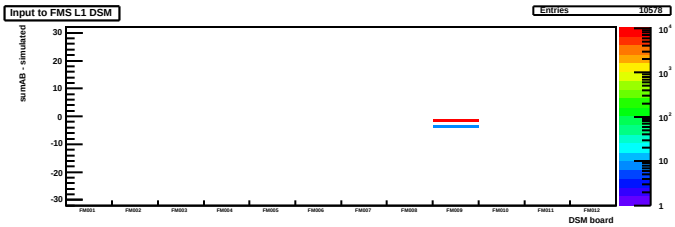

Input to FMS L1 DSM
Entries 6000000
sumBC
DSM board

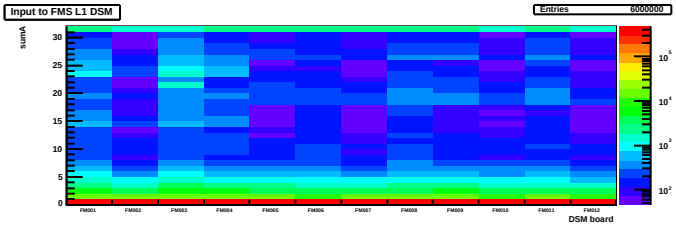

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

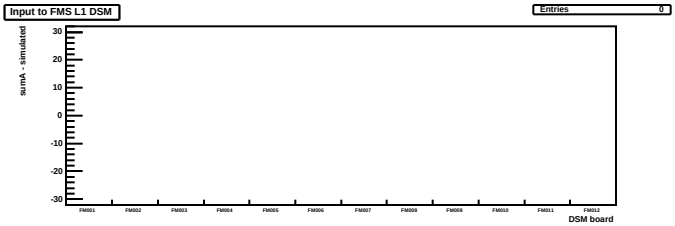

Input to FMS L1 DSM
Entries 6000000
sumB
DSM board

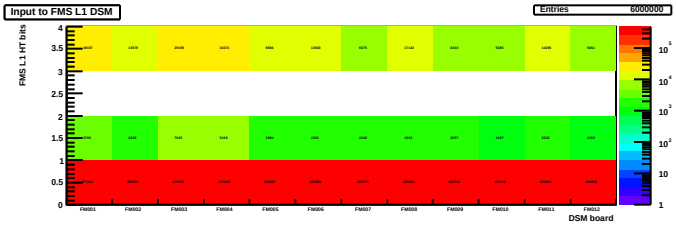

Input to FMS L1 DSM
Entries 23270
sumB - simulated
DSM board

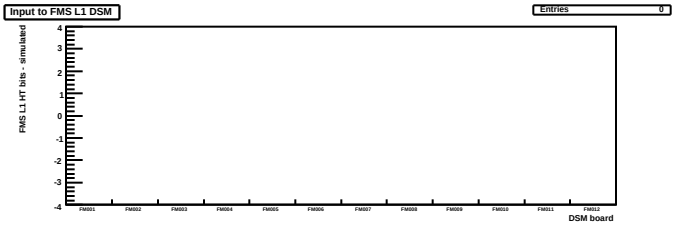

Input to FMS L1 DSM
Entries 6000000
sumAB
DSM board

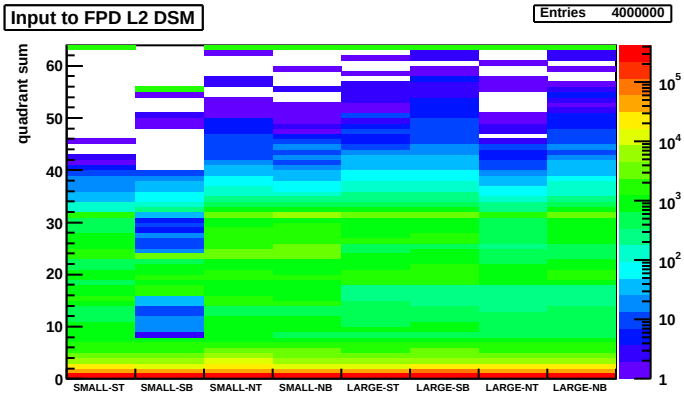

Input to FMS L1 DSM
Entries 10578
sumAB - simulated
DSM board

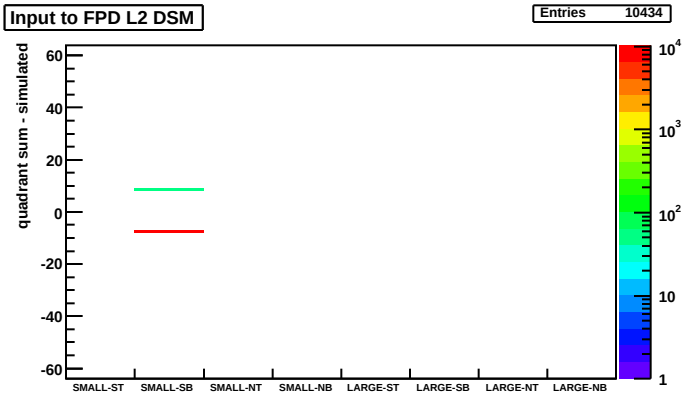

Input to FMS L1 DSM
Entries 6000000
sumA
DSM board

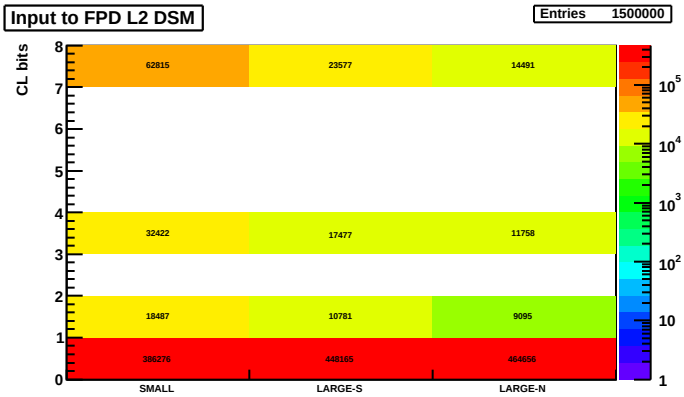

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

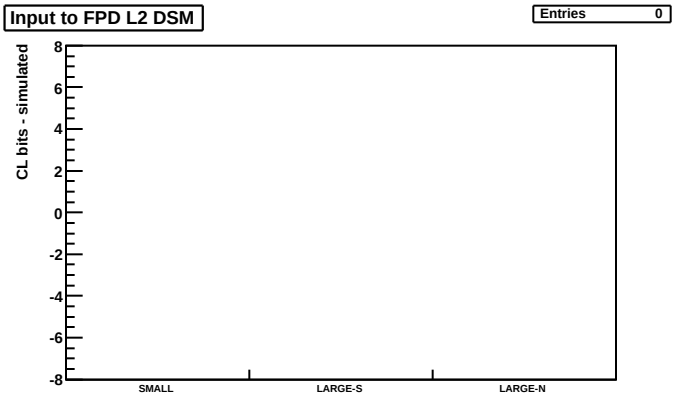

Input to FMS L1 DSM
Entries 6000000
FMS L1 HT bits
DSM board

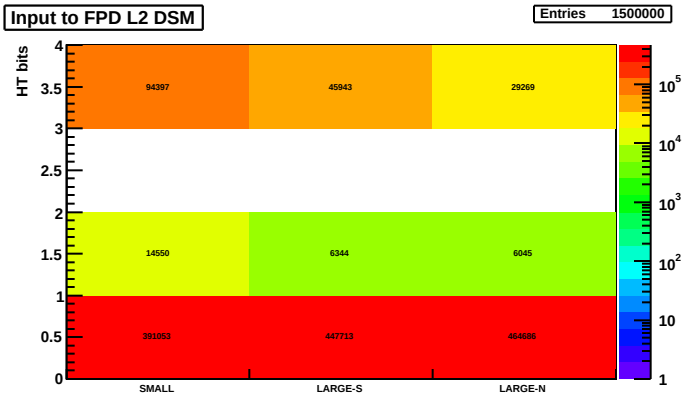

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

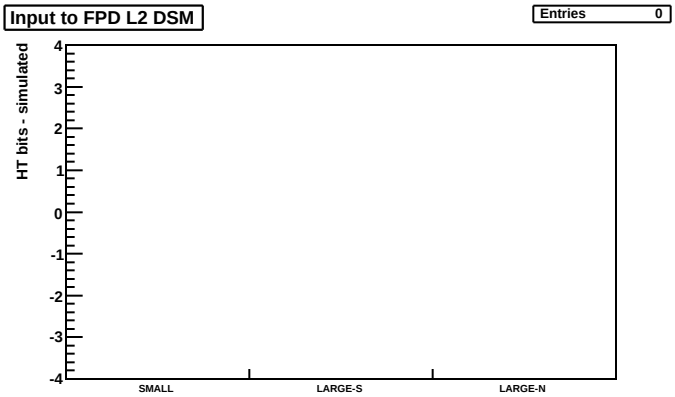

Input to FPD L2 DSM
Entries 4000000
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

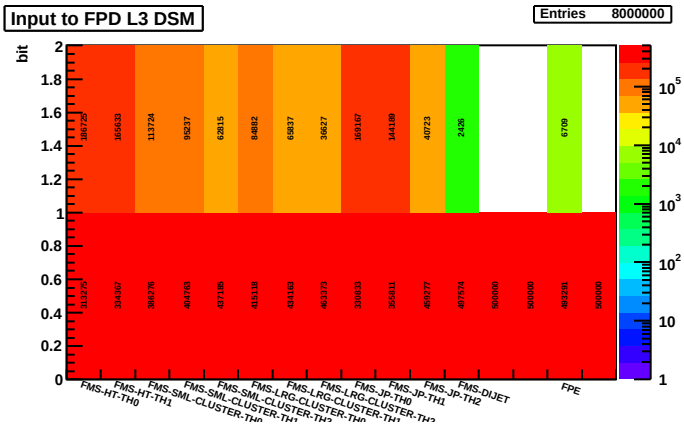

Input to FPD L2 DSM
Entries 10434
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

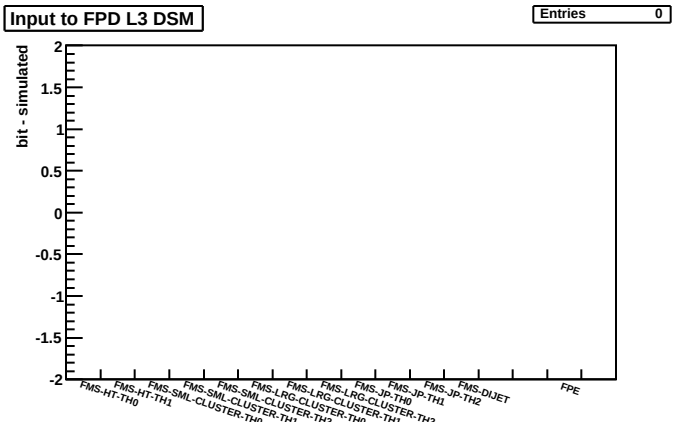

Input to FPD L2 DSM
Entries 1500000
CL bits
62815
23577
14491
32422
17477
11758
18487
10781
9095
386276
448165
464656
SMALL
LARGE-S
LARGE-N

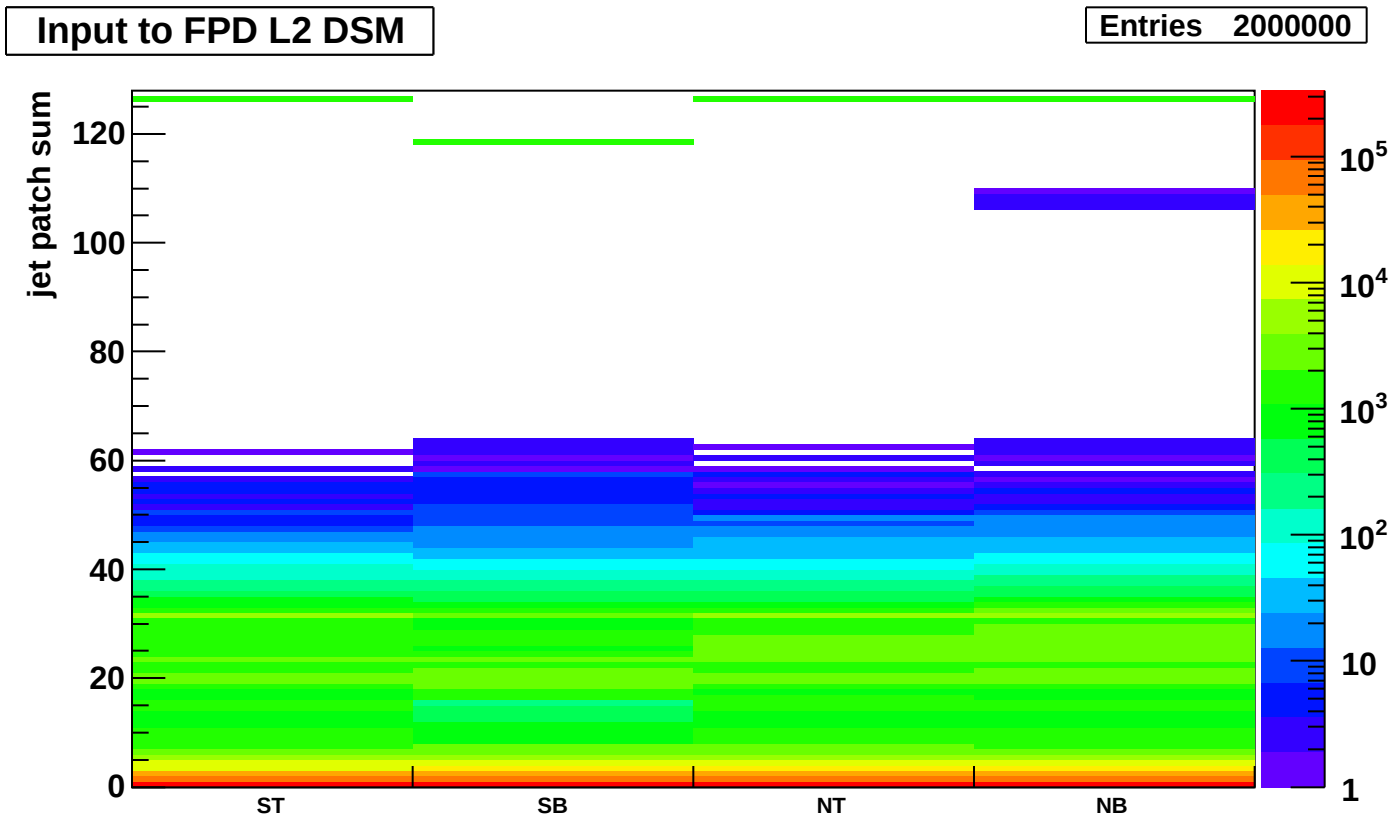

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

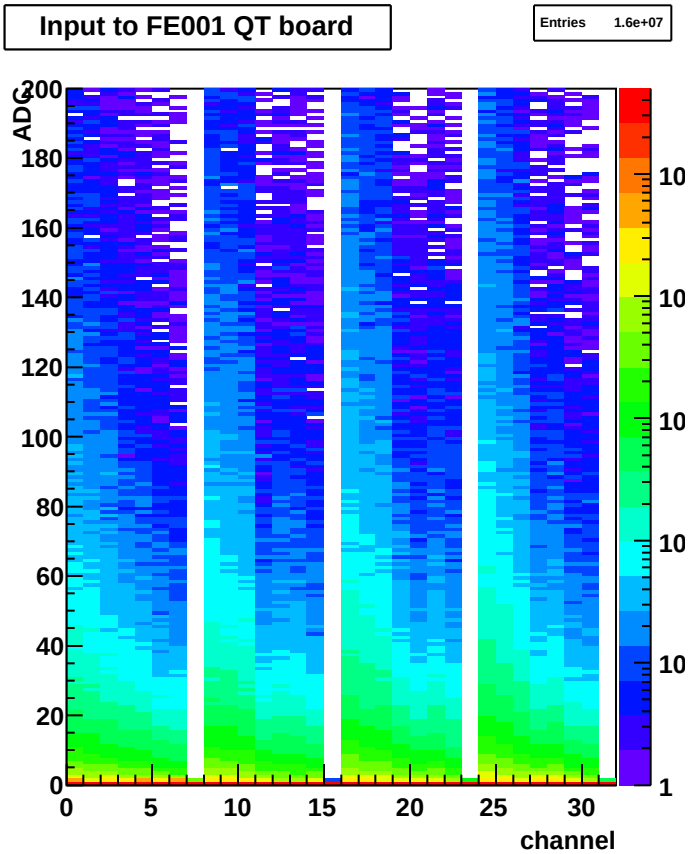

Input to FPD L2 DSM
Entries 1500000
HT bits
94397
45943
29269
14550
6344
6045
391053
447713
464686
SMALL
LARGE-S
LARGE-N

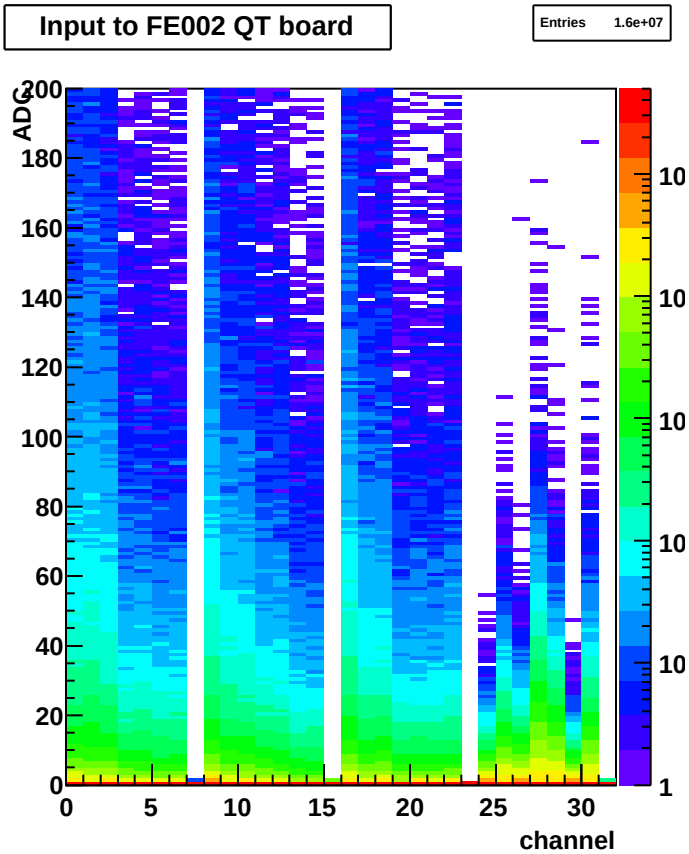

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

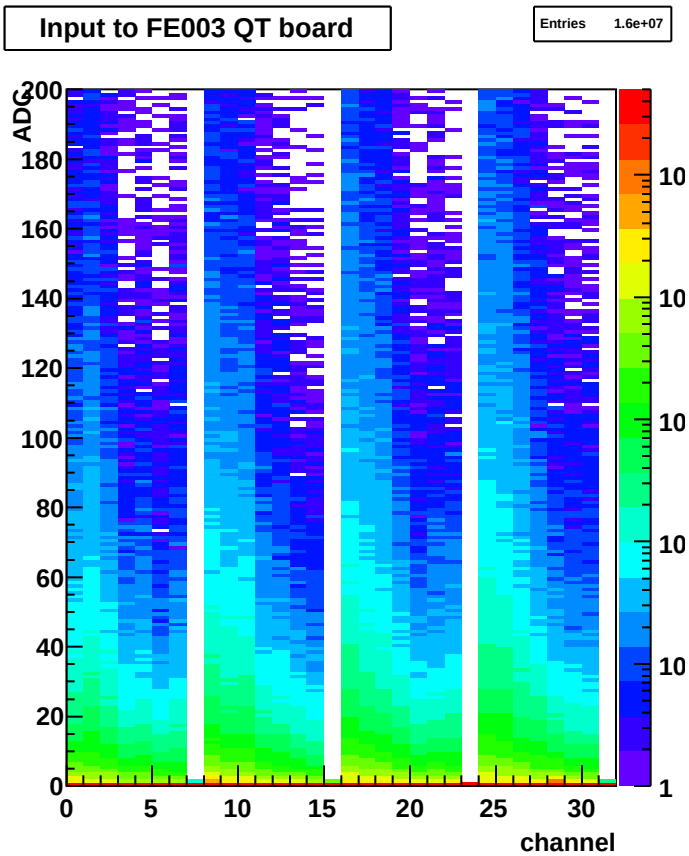

Input to FPD L3 DSM
Entries 8000000
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

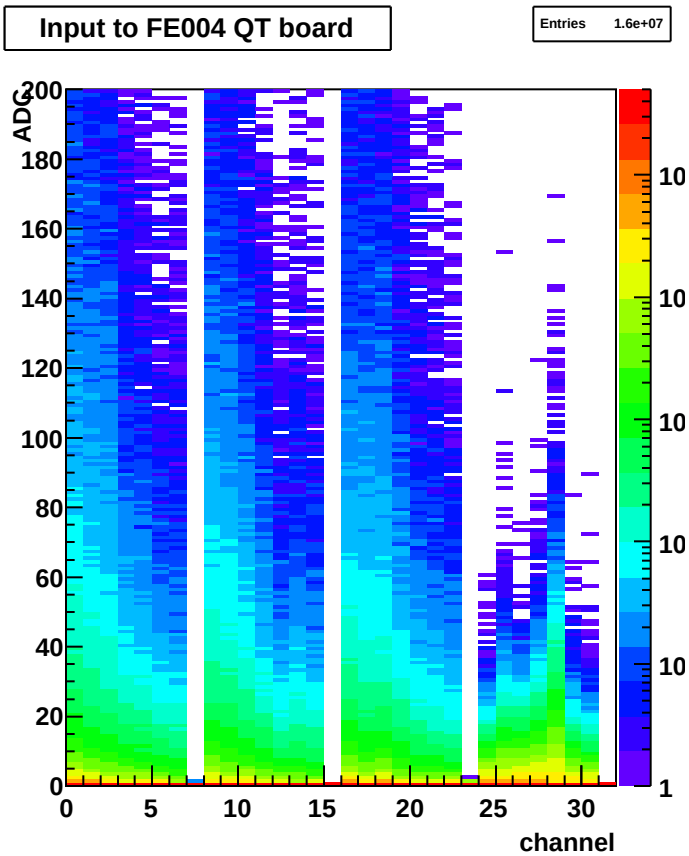

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

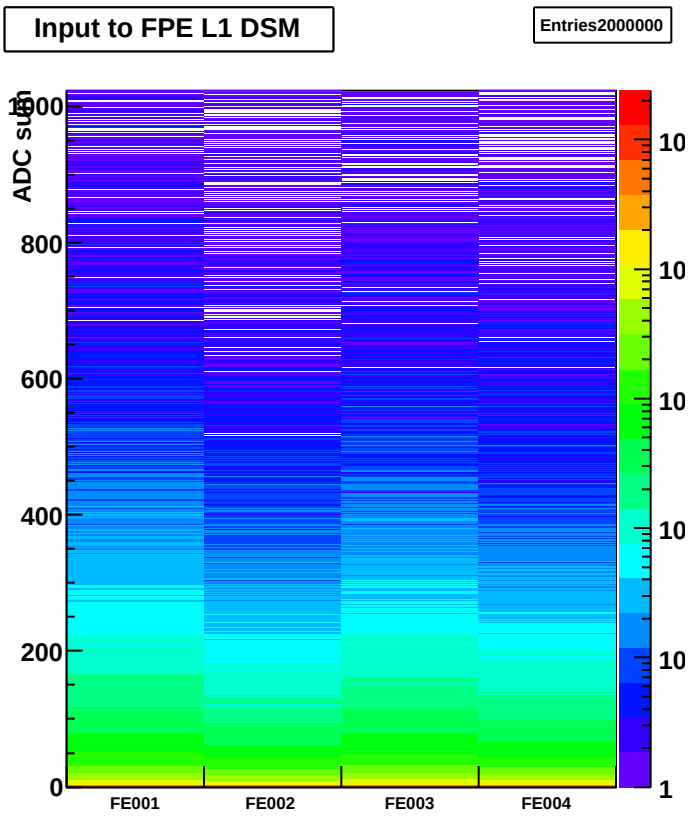

Input to FPD L2 DSM
Entries 2000000
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

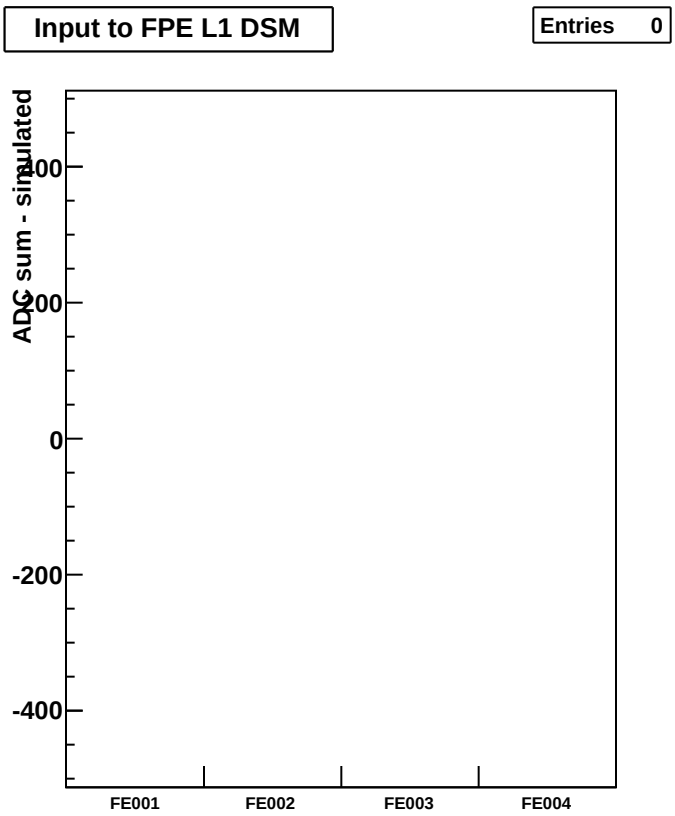

Input to FE001 QT board
Entries 1.6e+07
ADC
channel

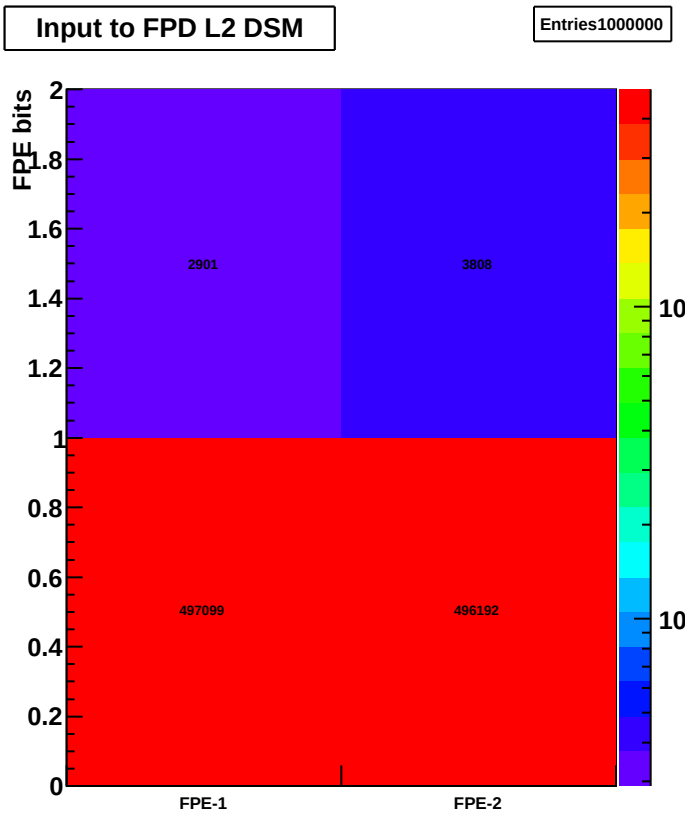

Input to FE002 QT board
Entries 1.6e+07
ADC
channel

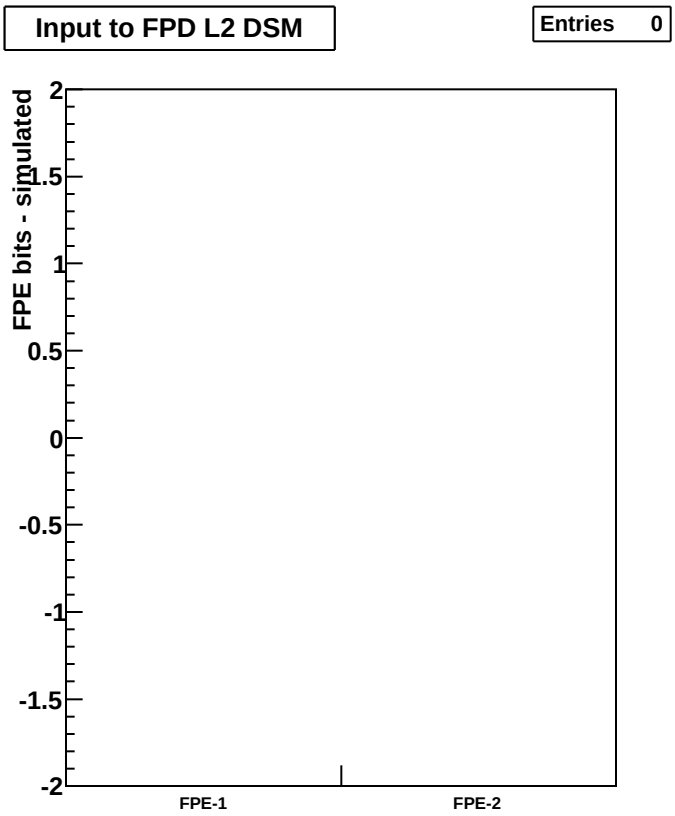

Input to FE003 QT board
Entries 1.6e+07
ADC
channel


Input to FE004 QT board
Entries 1.6e+07
ADC
channel


Input to FPE L1 DSM
Entries2000000
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
Entries1000000
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2901
3808
497099
496192
FPE-1
FPE-2
10
10


Input to FPD L2 DSM
Entries 0
FPE bits - simulated
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
FPE-1
FPE-2