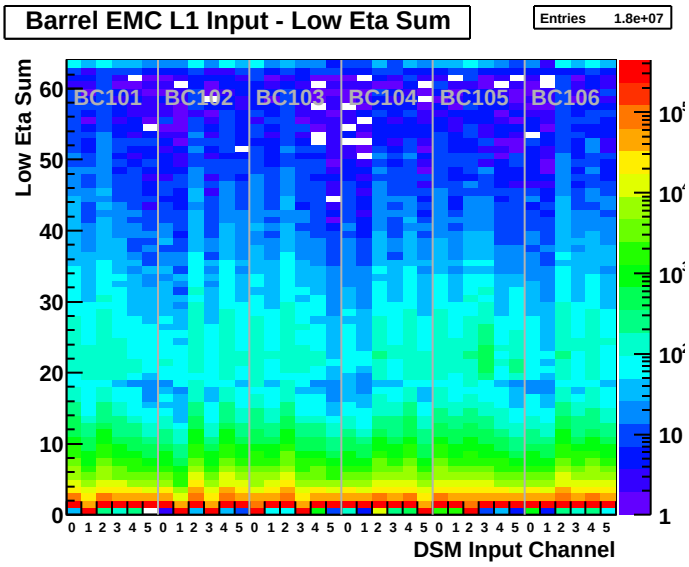
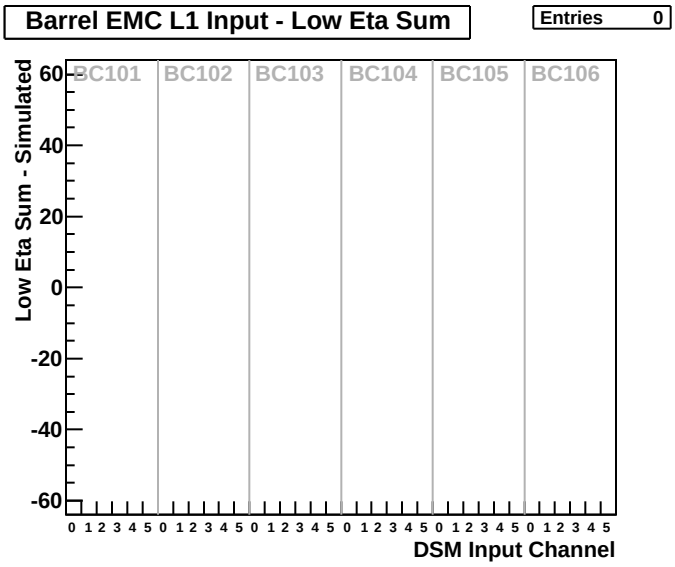
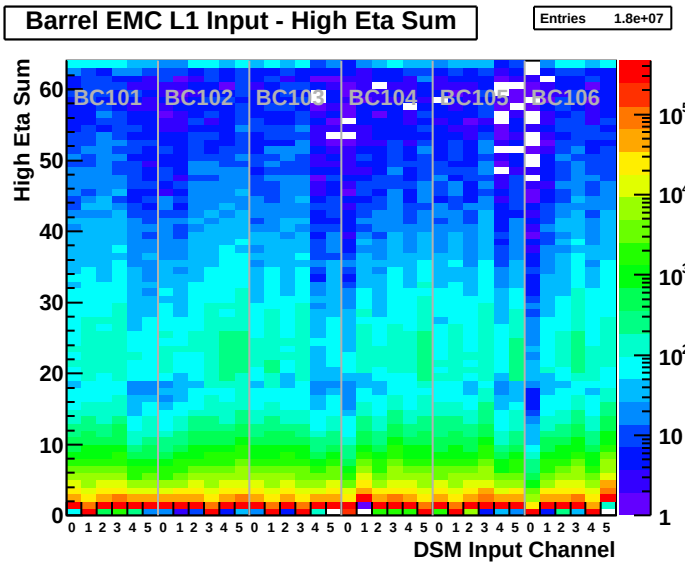
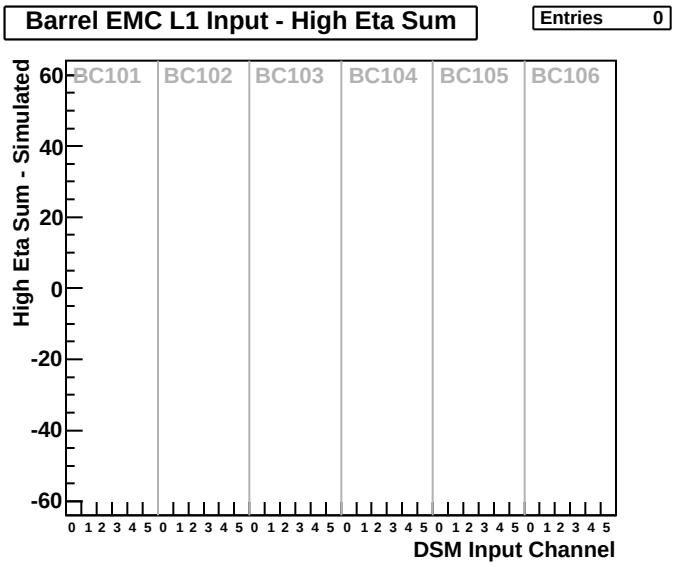
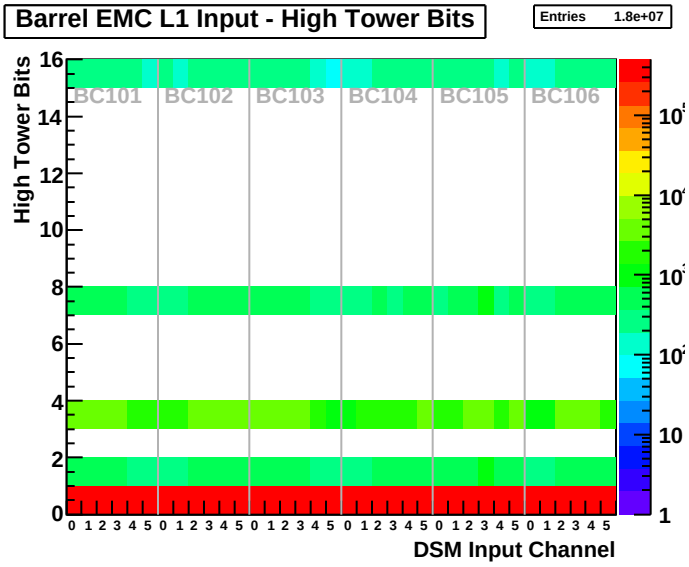
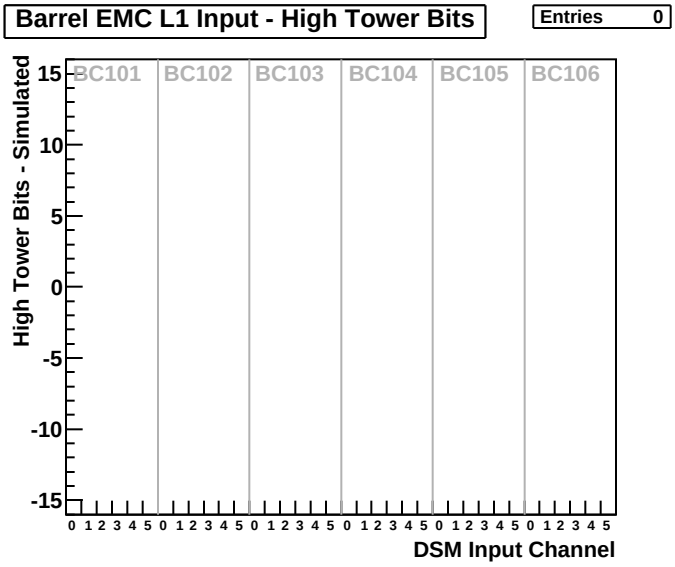

Barrel EMC L1 Input - Low Eta Sum
Entries 1.8e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

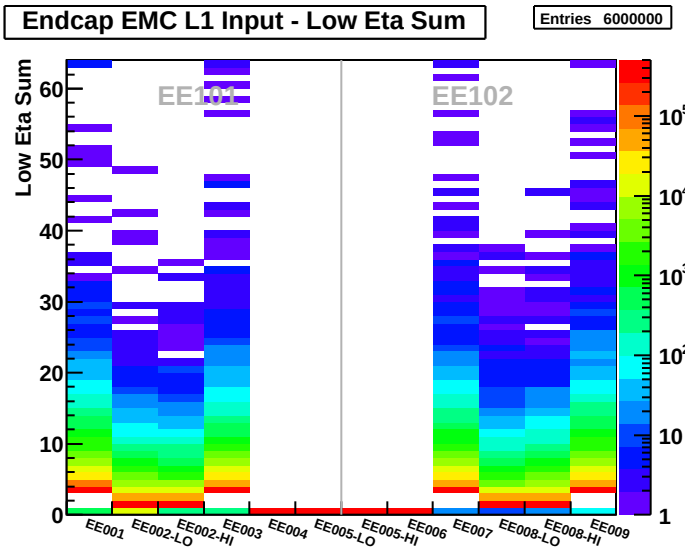

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

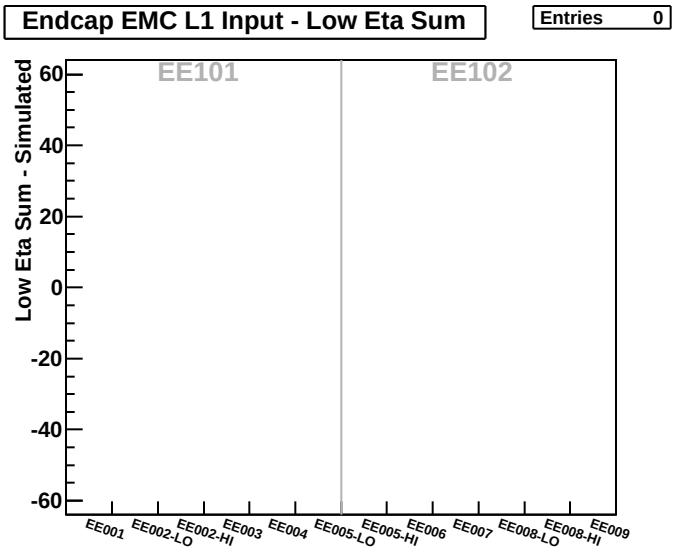

Barrel EMC L1 Input - High Eta Sum
Entries 1.8e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

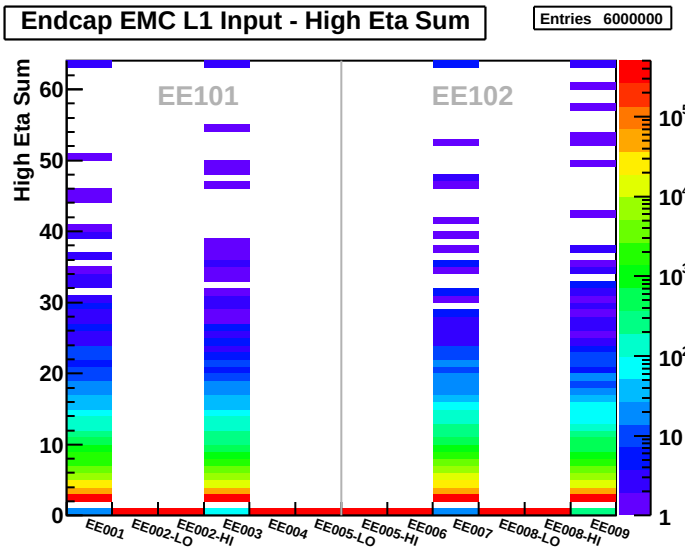

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

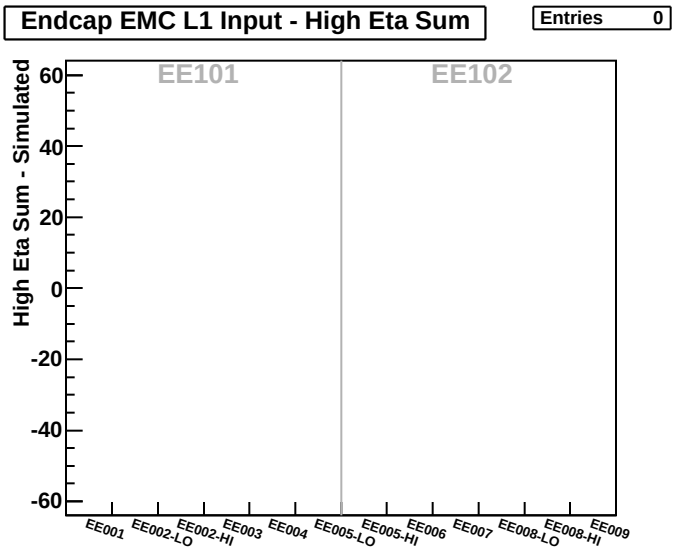

Barrel EMC L1 Input - High Tower Bits
Entries 1.8e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

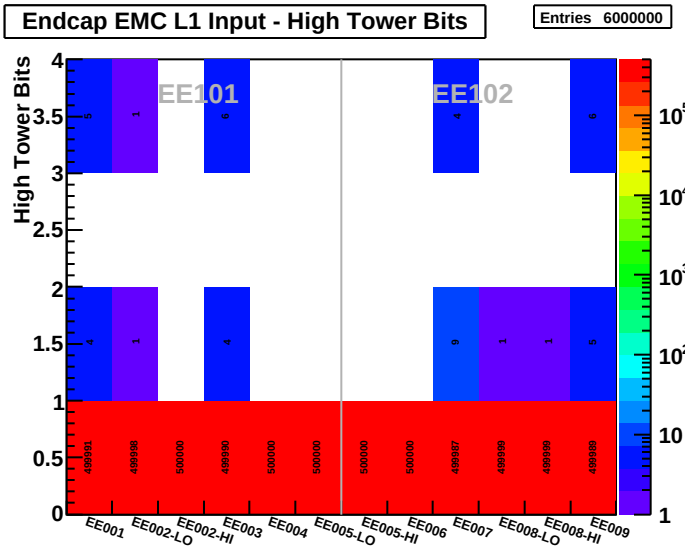

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

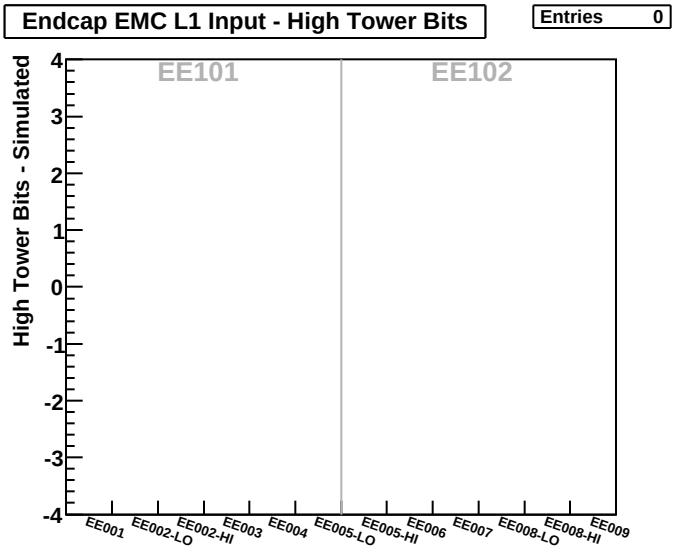

Endcap EMC L1 Input - Low Eta Sum
Entries 6000000
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

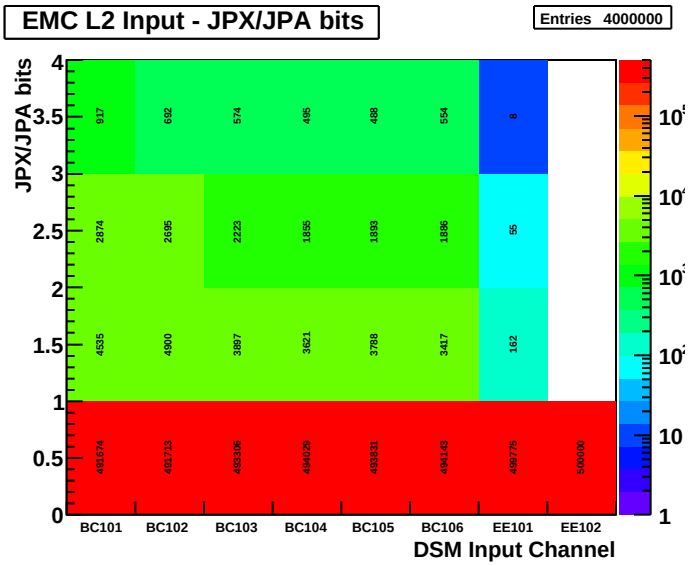

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

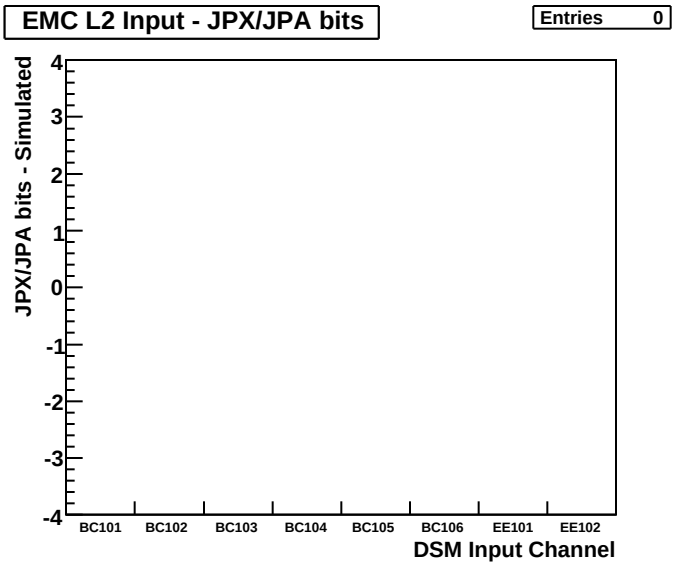

Endcap EMC L1 Input - High Eta Sum
Entries 6000000
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

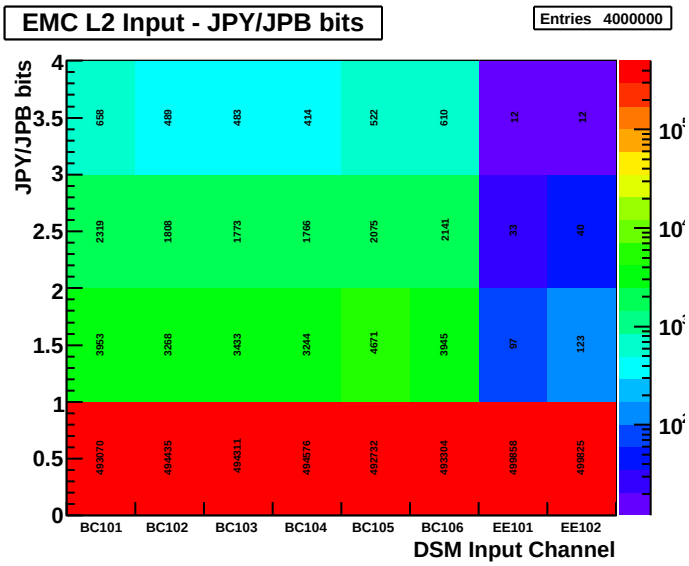

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

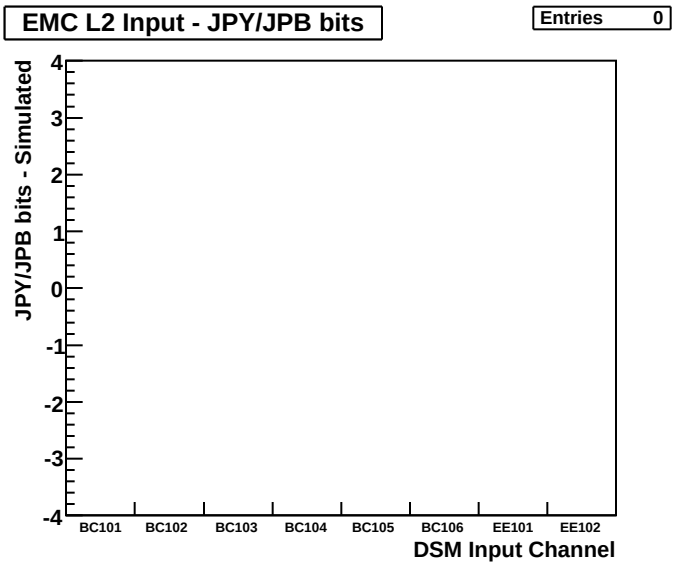

Endcap EMC L1 Input - High Tower Bits
Entries 6000000
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

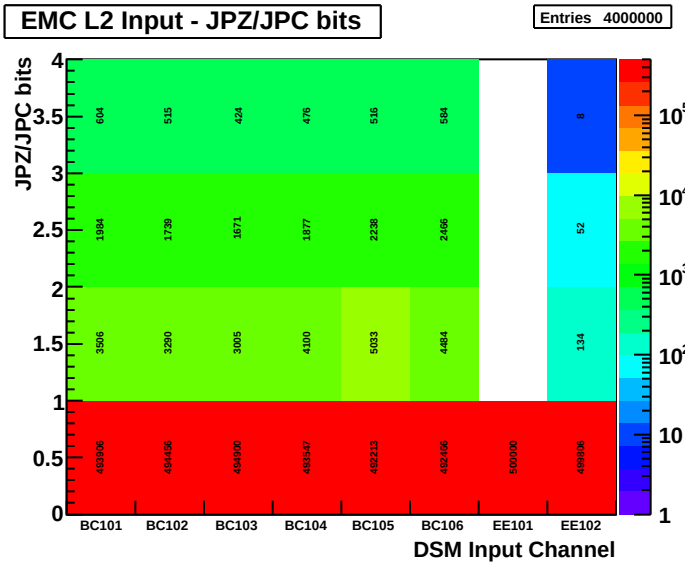

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

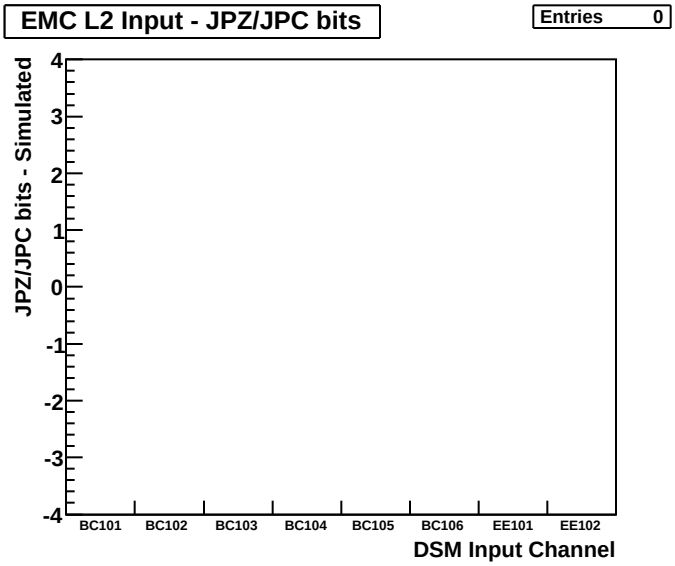

EMC L2 Input - JPX/JPA bits
Entries 4000000
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
917 692 574 495 488 554 8
2874 2695 2223 1855 1893 1886 55
4535 4900 3897 3621 3788 3417 162
491674 491713 493306 494029 493831 494143 499775 500000

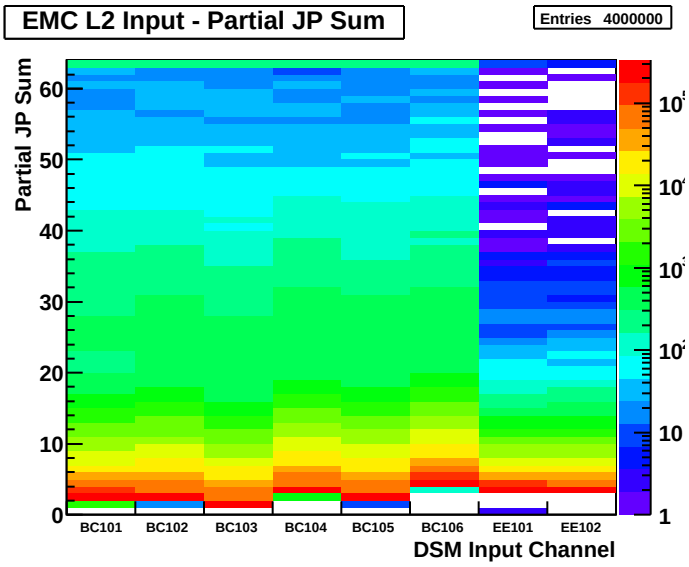

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

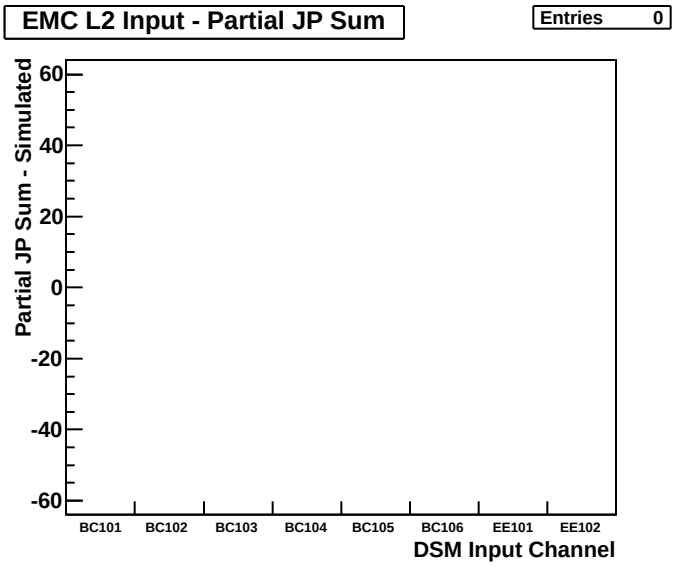

EMC L2 Input - JPY/JPB bits
Entries 4000000
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
658 489 483 414 522 610 12 12
2319 1808 1773 1766 2075 2141 33 40
3853 3358 3433 3244 4671 3945 97 123
493070 494435 494311 494576 492732 493304 499858 499825

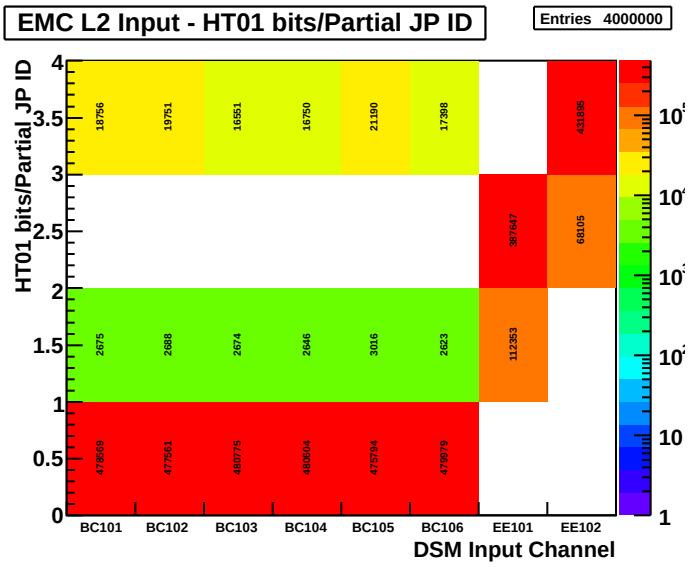

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

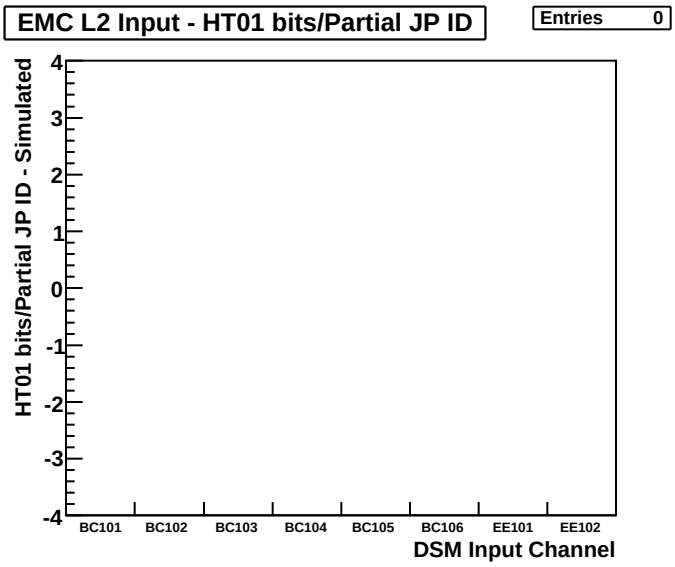

EMC L2 Input - JPZ/JPC bits
Entries 4000000
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
604 515 424 476 516 584 8
1984 1739 1671 1877 2238 2466 52
3506 3290 3005 4100 5033 4484 134
493906 494456 494000 493547 492213 492466 500000 499806

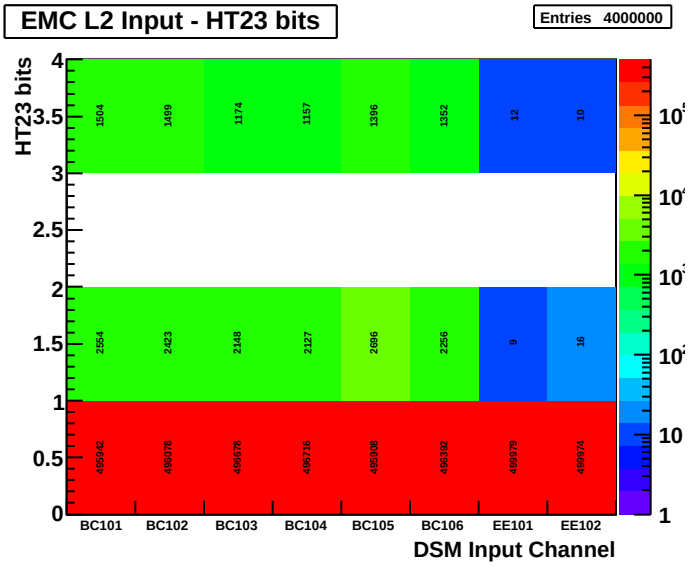

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

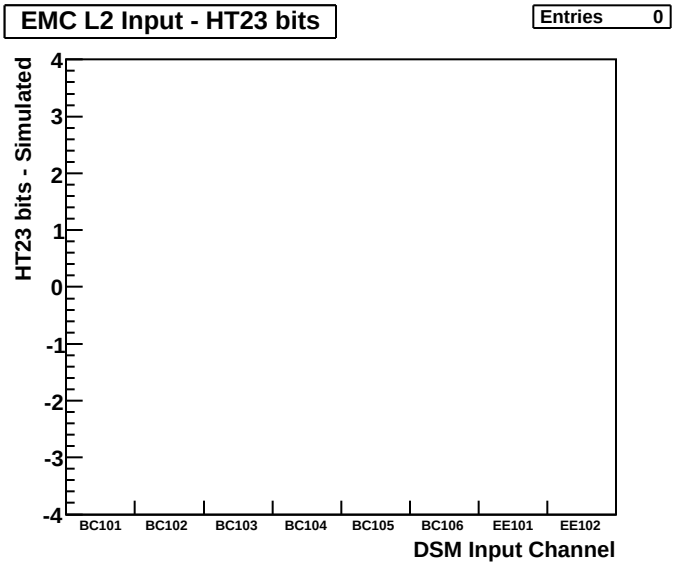

EMC L2 Input - Partial JP Sum
Entries 4000000
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

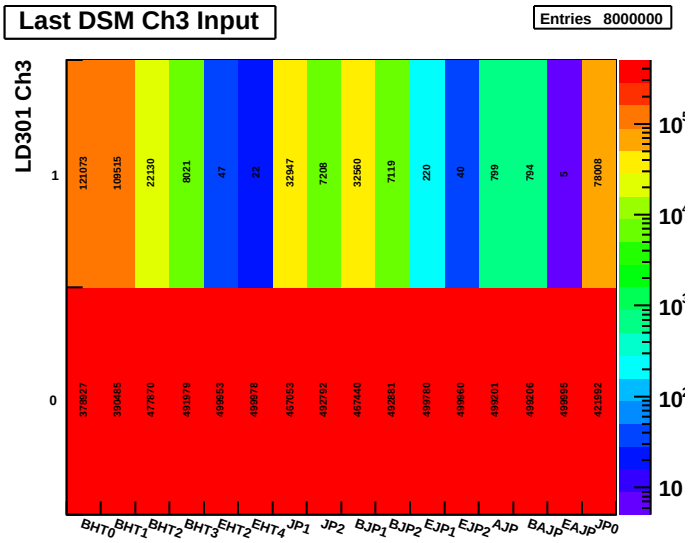

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

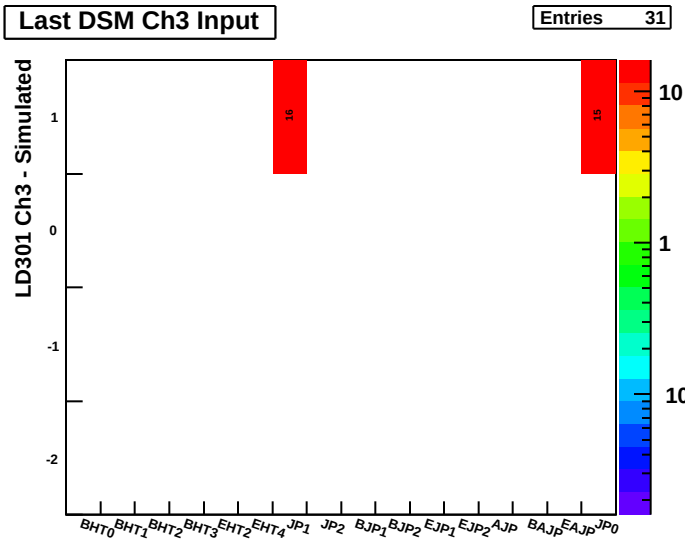

EMC L2 Input - HT01 bits/Partial JP ID
Entries 4000000
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

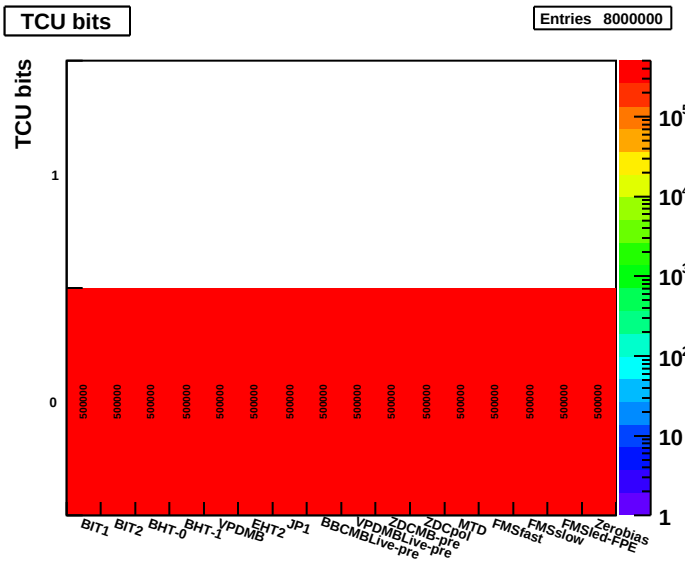

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

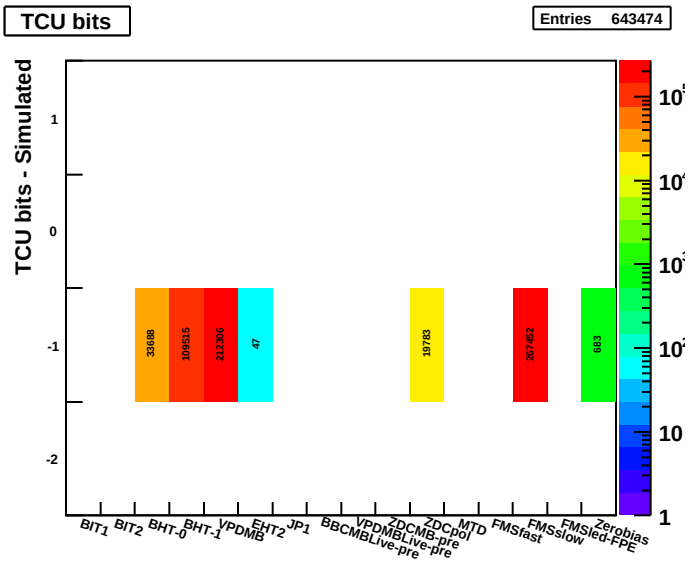

EMC L2 Input - HT23 bits
Entries 4000000
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

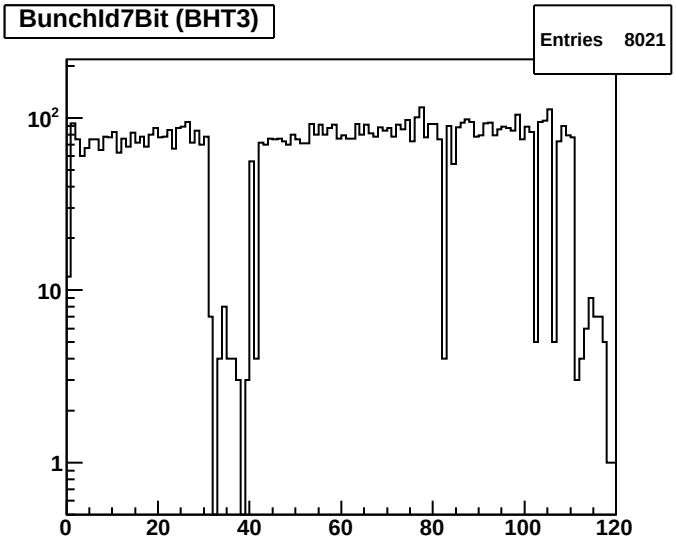

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

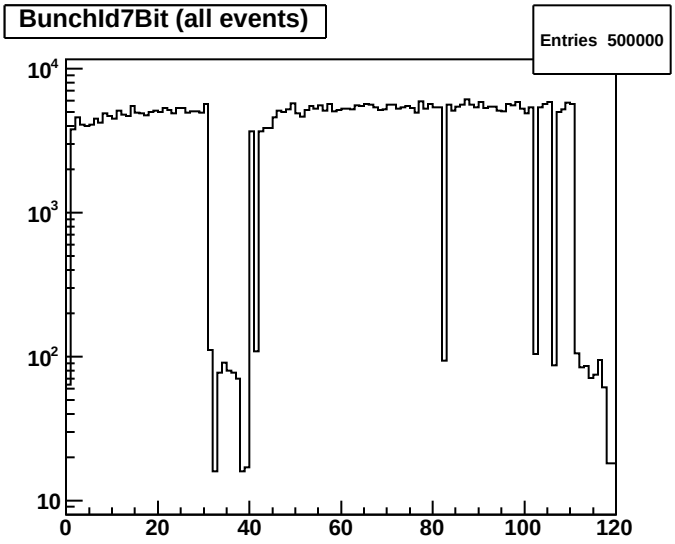

Last DSM Ch3 Input
Entries 8000000
LD301 Ch3
1
0
121073 109515 22130 8021 47 22 32947 7208 32560 7119 220 40 799 794 5 78008
378327 390485 477870 491979 499953 499978 467053 492792 467440 492881 499780 499960 499201 498206 499995 421992
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

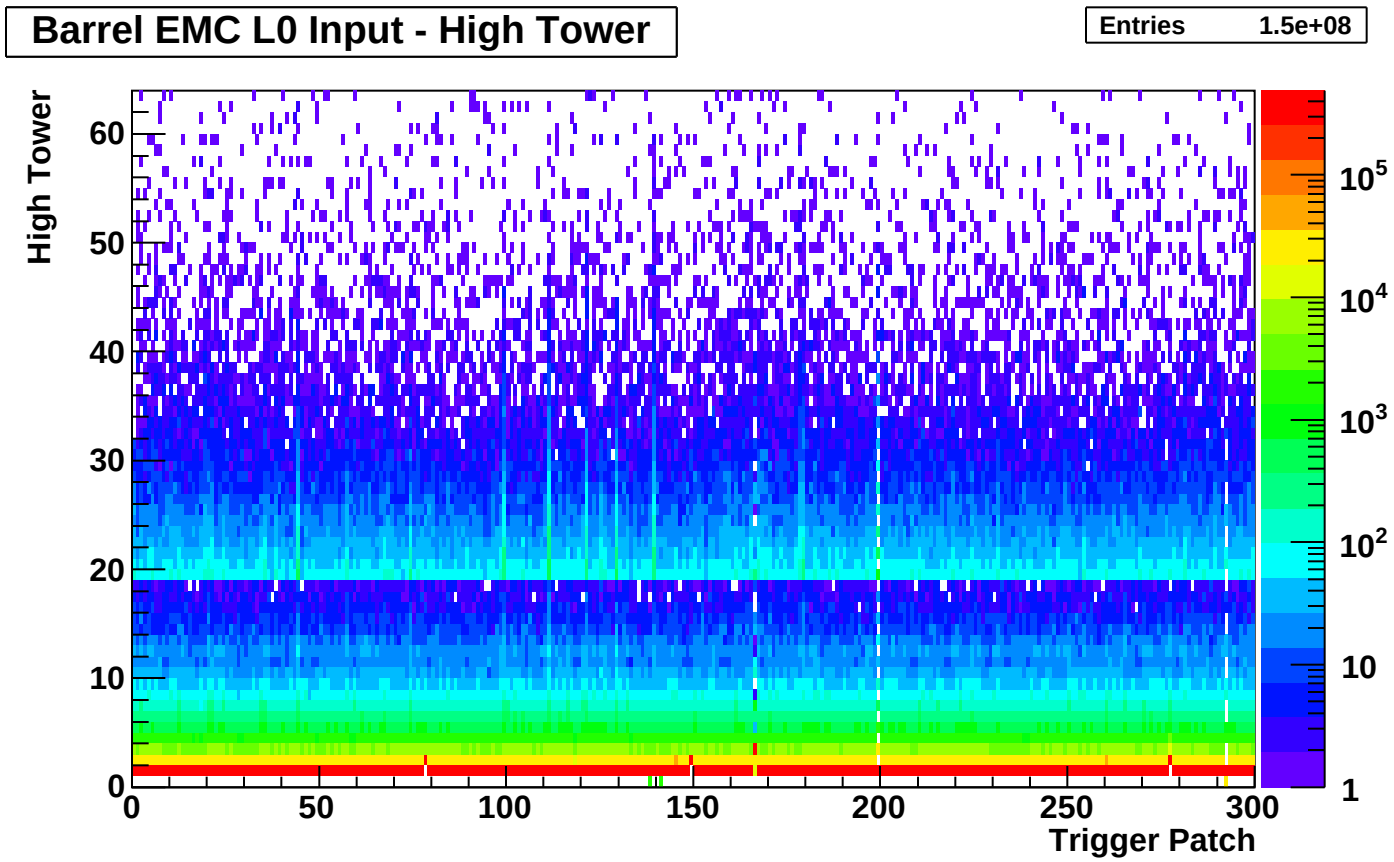

Last DSM Ch3 Input
Entries 31
LD301 Ch3 - Simulated
1
0
-1
-2
16
15
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

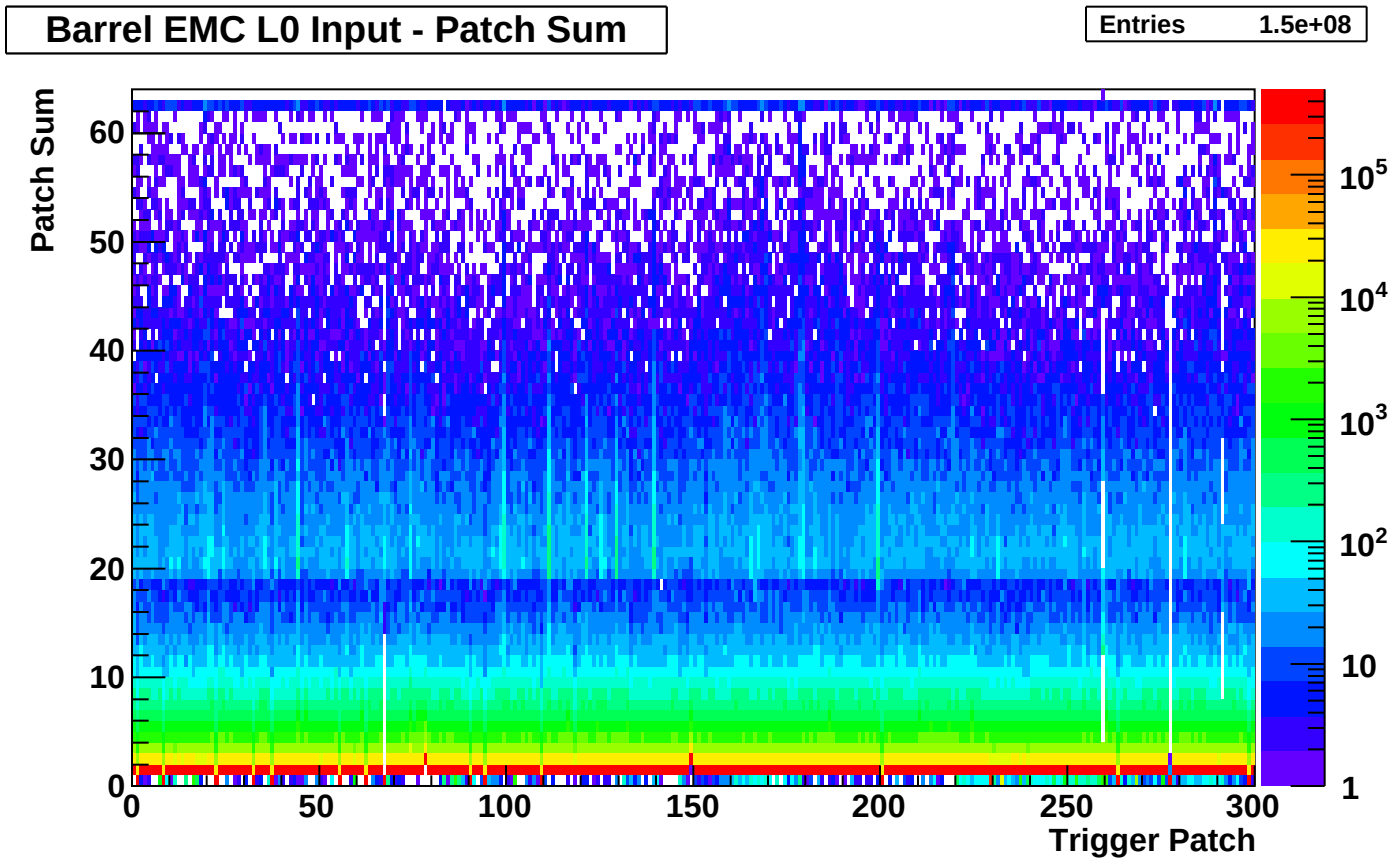

TCU bits
Entries 8000000
TCU bits
1
0
500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000 500000
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

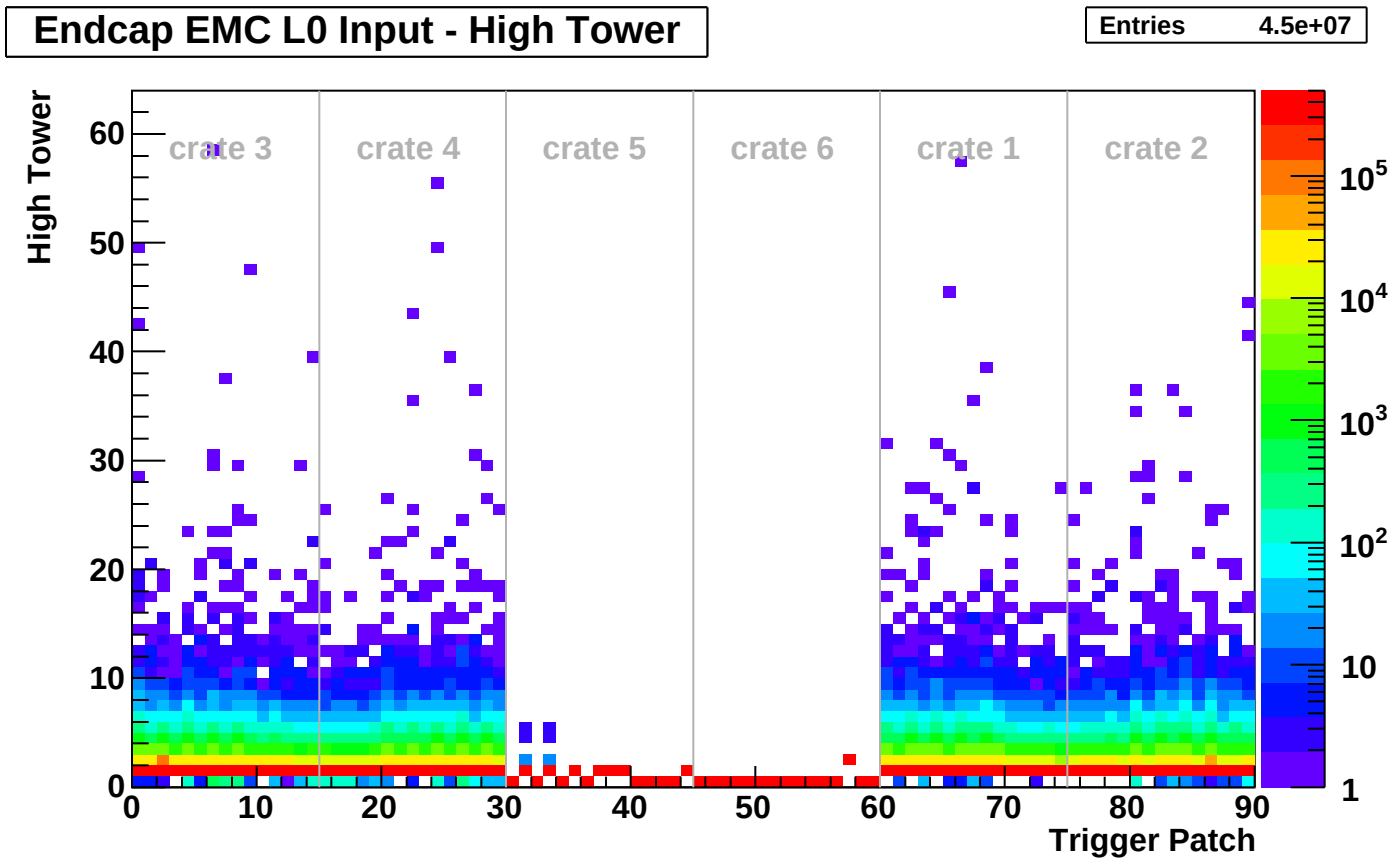

TCU bits
Entries 643474
TCU bits - Simulated
1
0
-1
-2
33688 109515 212306 47 19783 267452 683
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

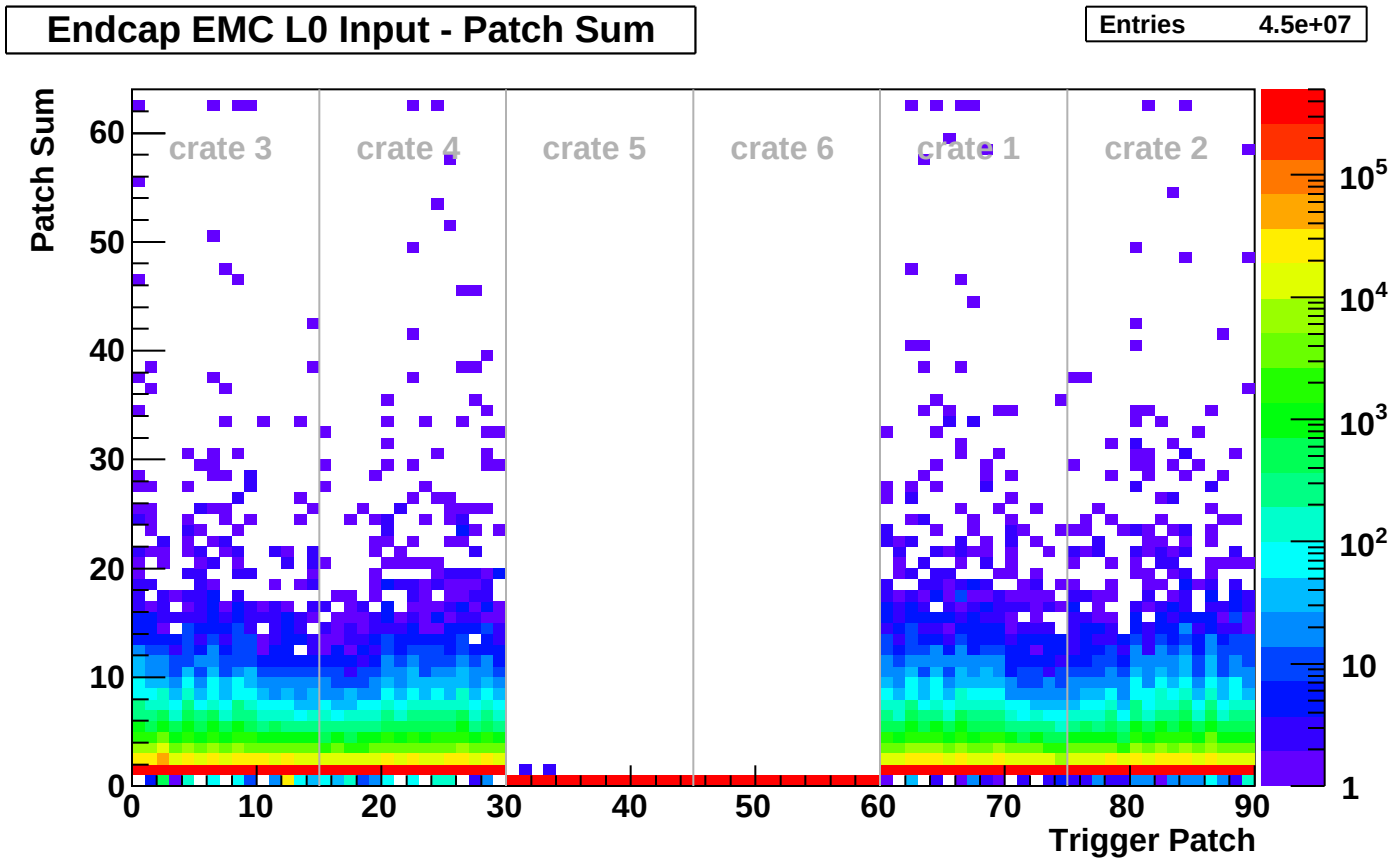

BunchId7Bit (BHT3)
Entries 8021
10²
10
1
0 20 40 60 80 100 120

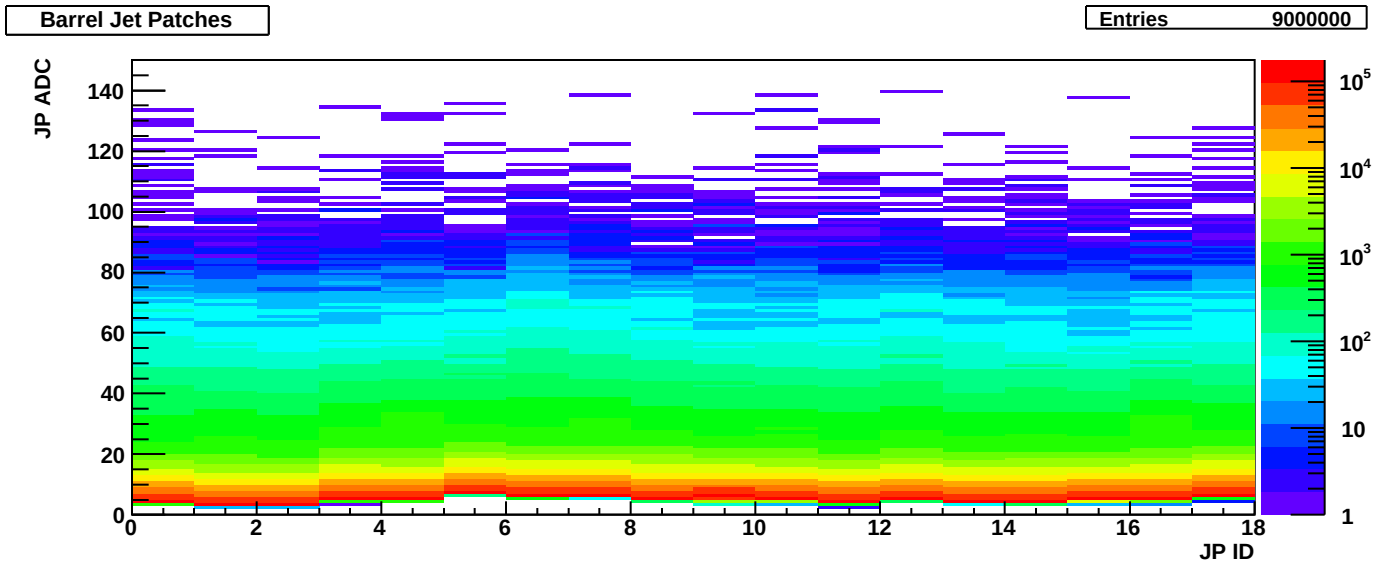

BunchId7Bit (all events)
Entries 500000
10⁴
10³
10²
10
0 20 40 60 80 100 120

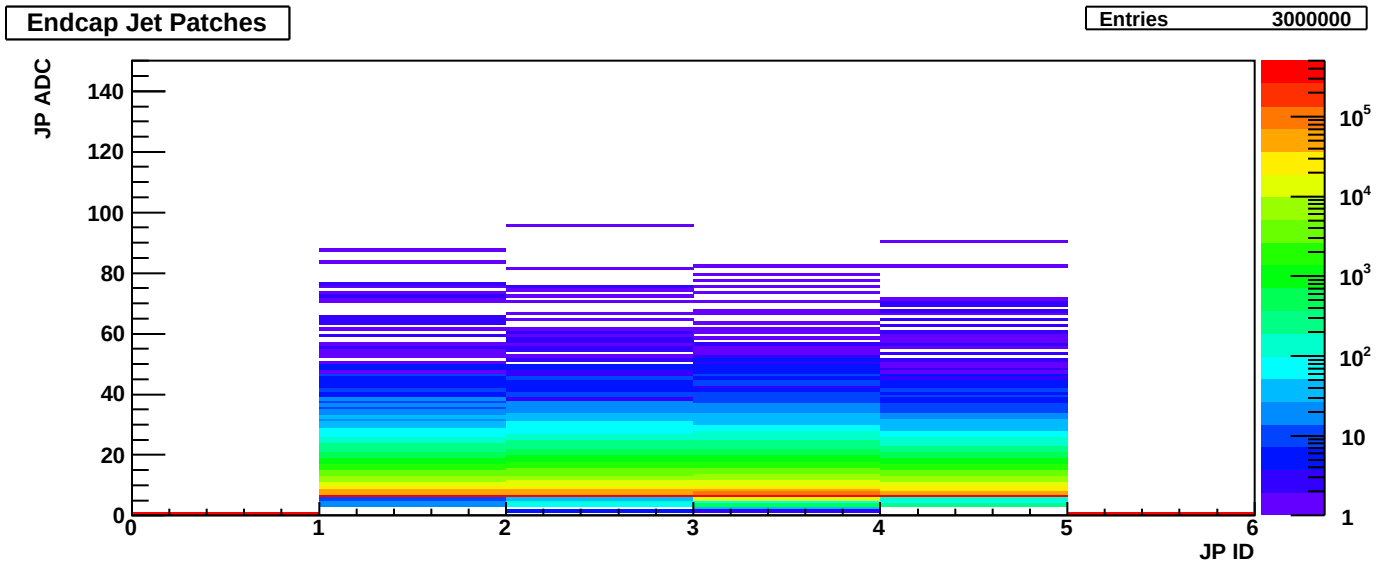

Barrel EMC L0 Input - High Tower
Entries 1.5e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

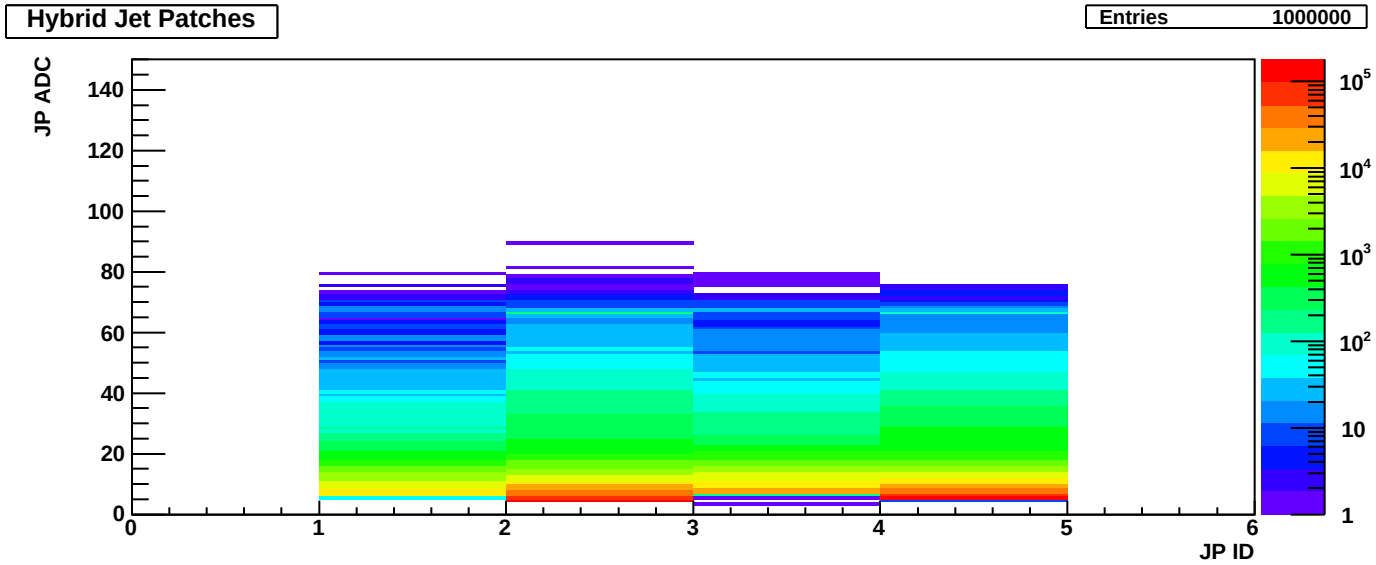

Barrel EMC L0 Input - Patch Sum
Entries 1.5e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

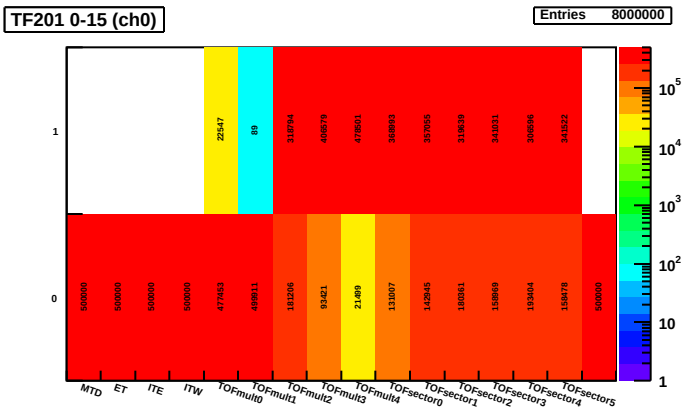

Endcap EMC L0 Input - High Tower
Entries 4.5e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

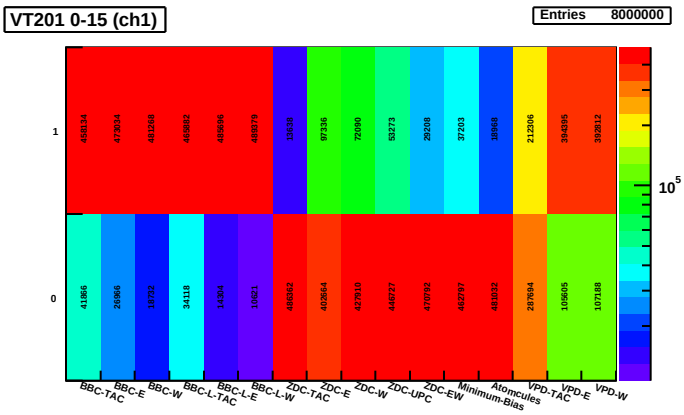

Endcap EMC L0 Input - Patch Sum
Entries 4.5e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

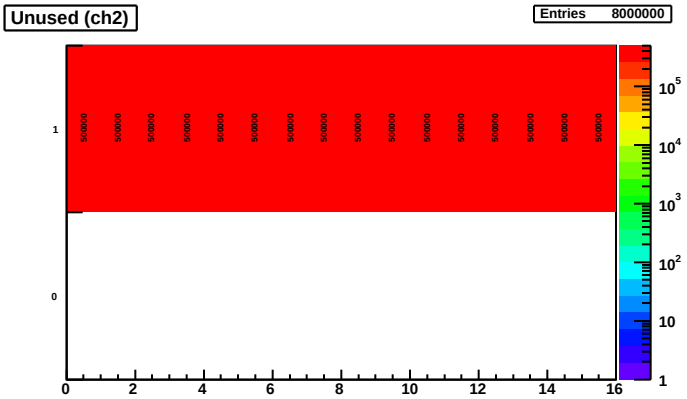

Barrel Jet Patches
Entries 9000000
JP ADC
JP ID

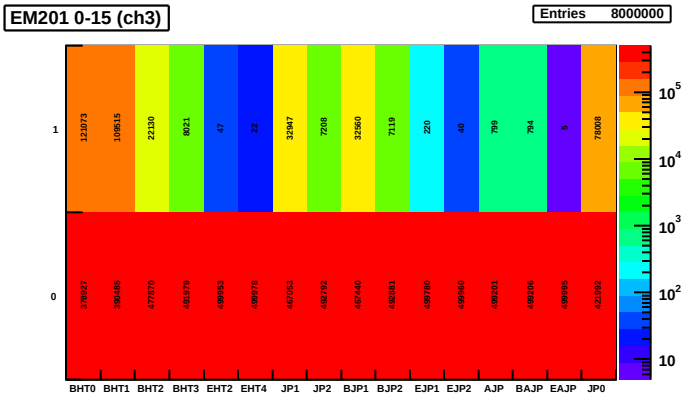

Endcap Jet Patches
Entries 3000000
JP ADC
JP ID

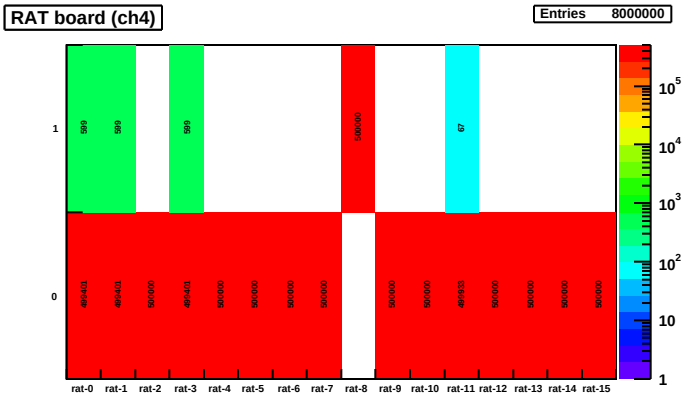

Hybrid Jet Patches
Entries 1000000
JP ADC
JP ID

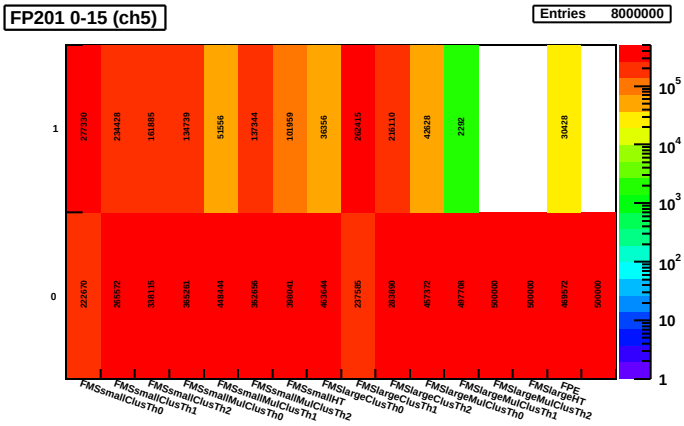

TF201 0-15 (ch0)
Entries 8000000
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

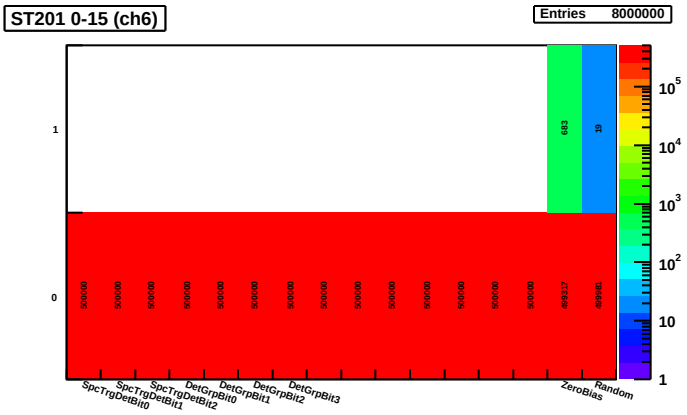

VT201 0-15 (ch1)
Entries 8000000
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

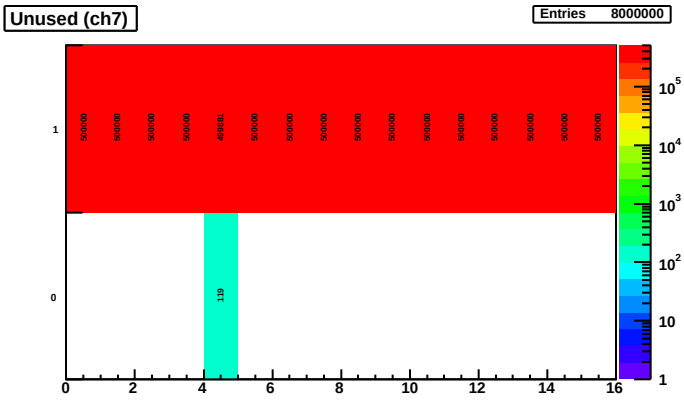

Unused (ch2)
Entries 8000000

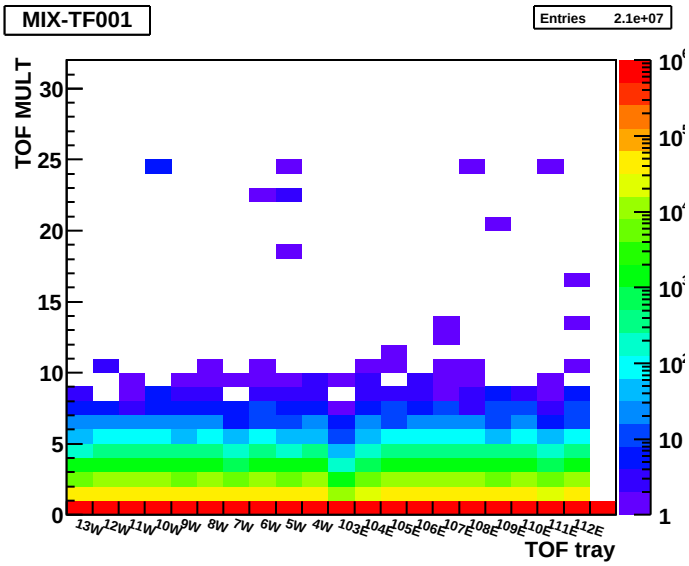

EM201 0-15 (ch3)
Entries 8000000
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

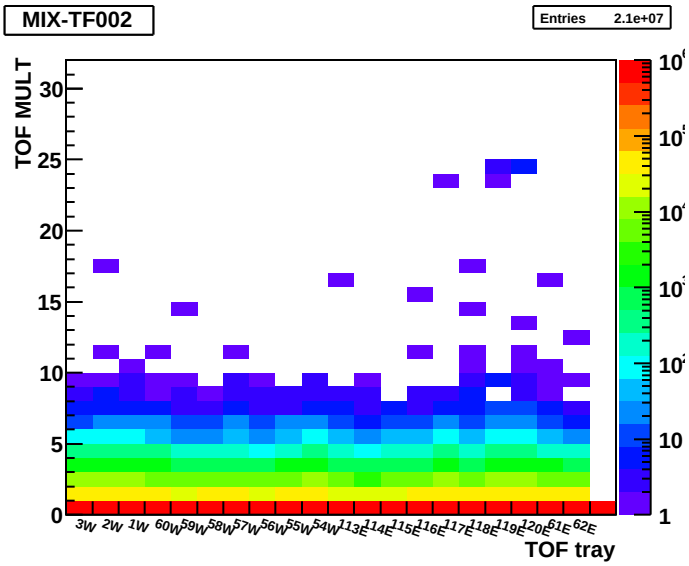

RAT board (ch4)
Entries 8000000
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

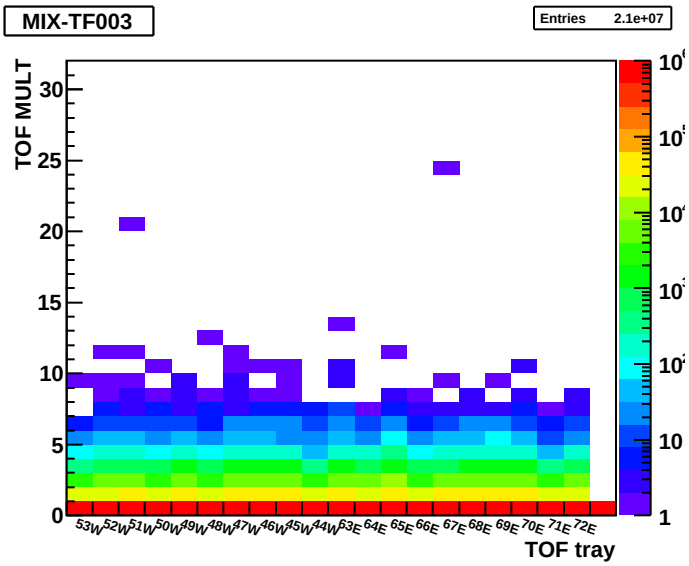

FP201 0-15 (ch5)
Entries 8000000
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

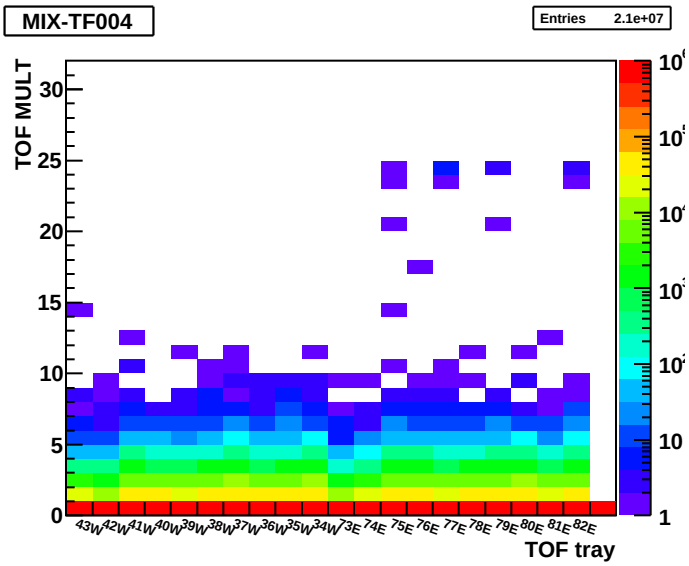

ST201 0-15 (ch6)
Entries 8000000
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetGrpBit0 DetGrpBit1 DetGrpBit2 DetGrpBit3 ZeroBias Random

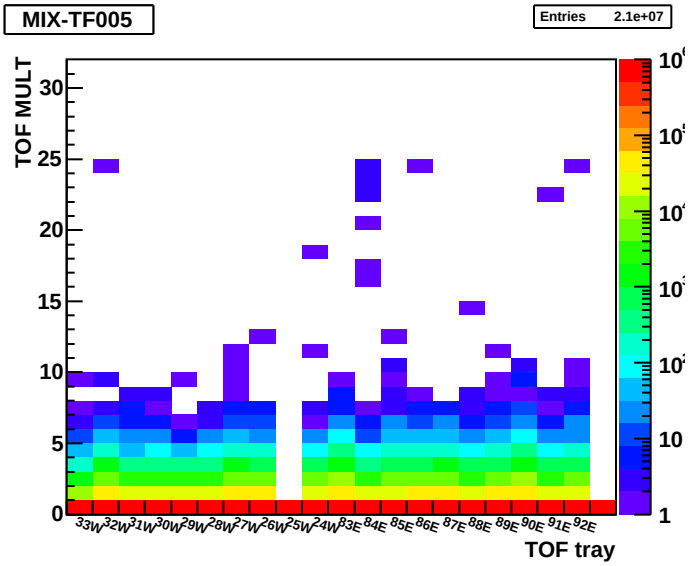

Unused (ch7)
Entries 8000000

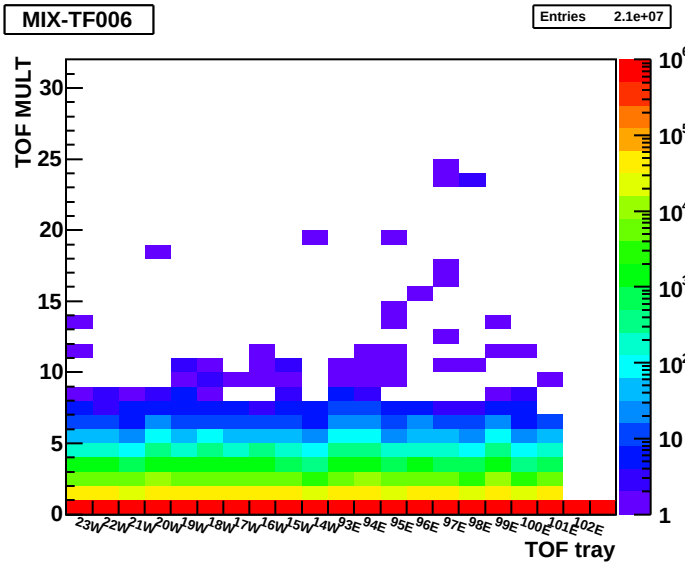

MIX-TF001
Entries 2.1e+07
TOF MULT
TOF tray

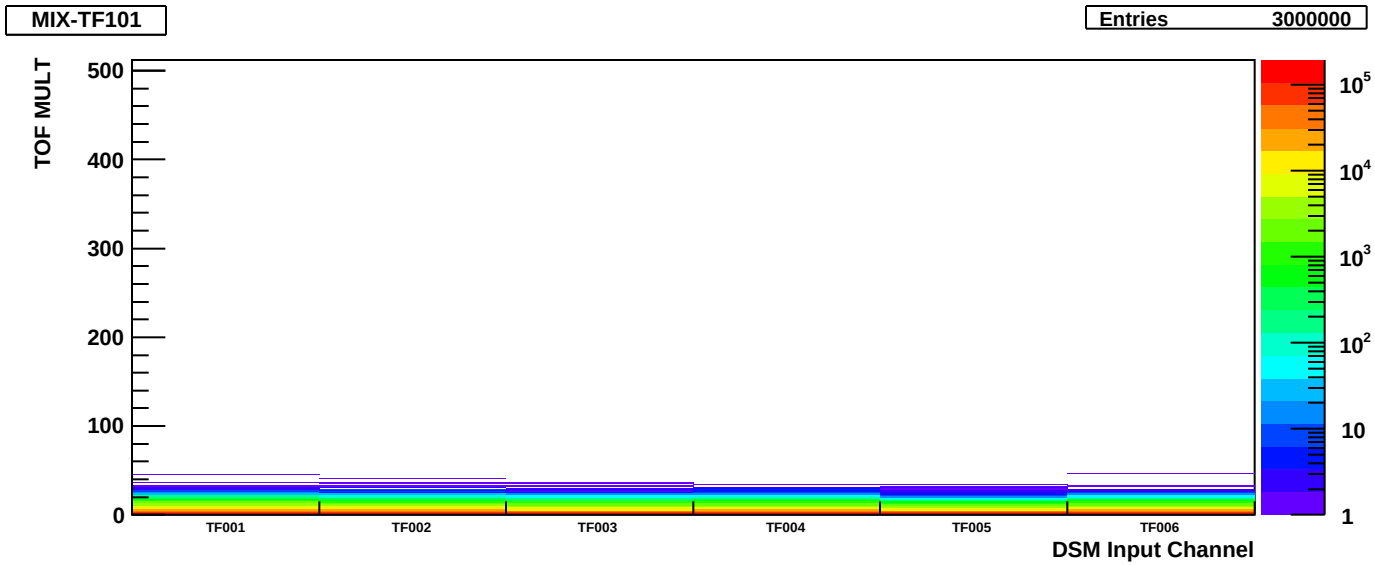

MIX-TF002
Entries 2.1e+07
TOF MULT
TOF tray

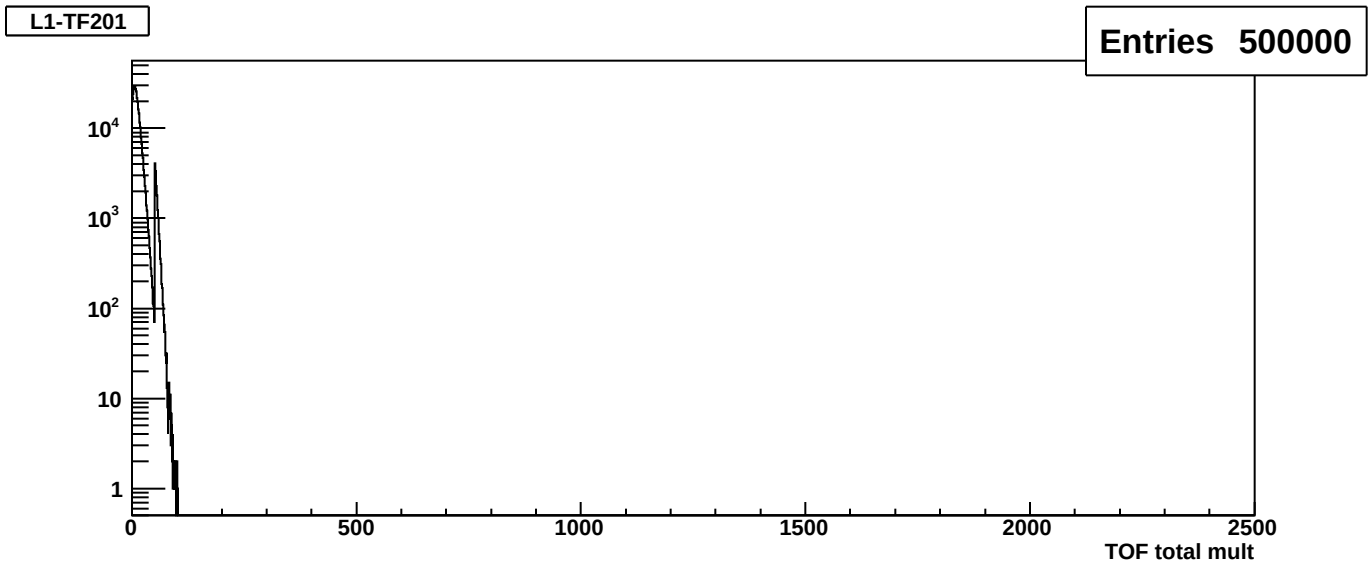

MIX-TF003
Entries 2.1e+07
TOF MULT
TOF tray

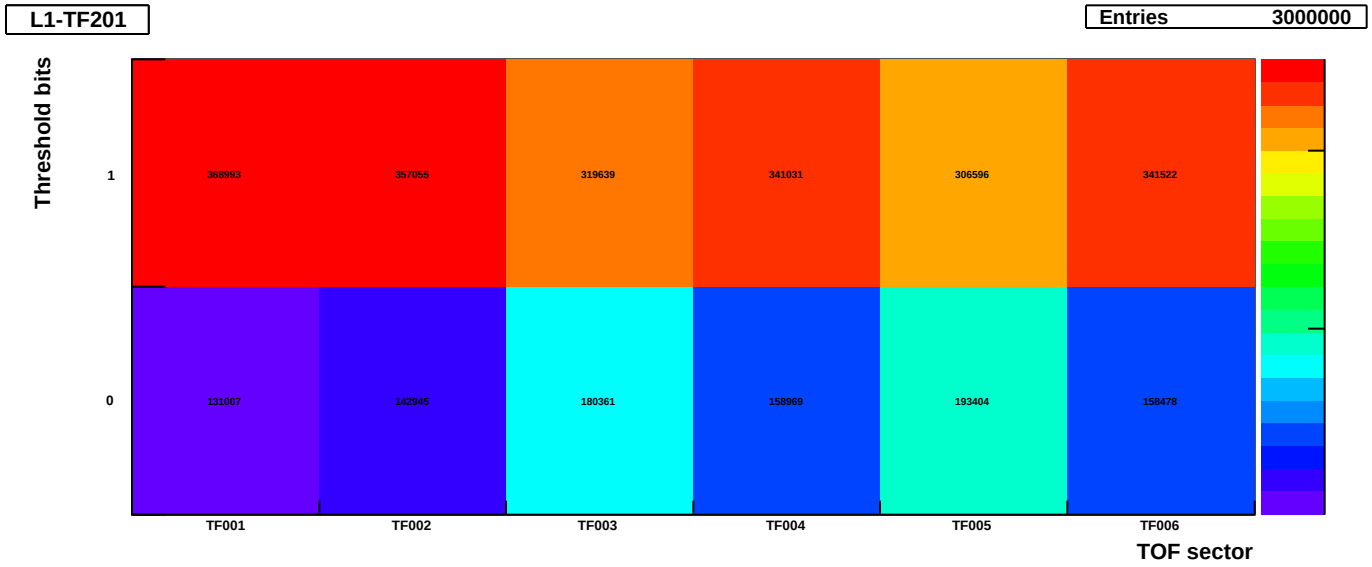

MIX-TF004
Entries 2.1e+07
TOF MULT
TOF tray

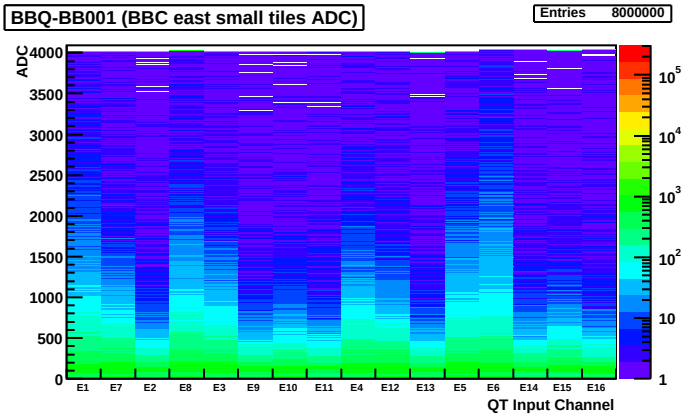

MIX-TF005
Entries 2.1e+07
TOF MULT
TOF tray

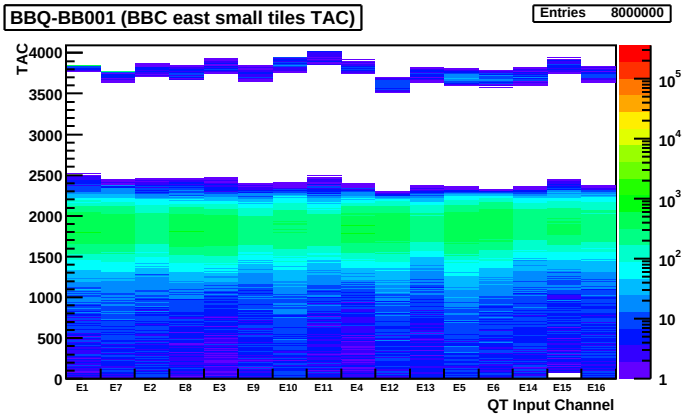

MIX-TF006
Entries 2.1e+07
TOF MULT
TOF tray

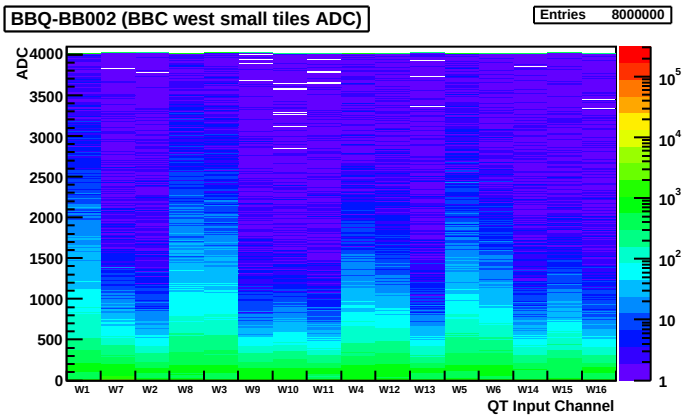

MIX-TF101
Entries 3000000
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

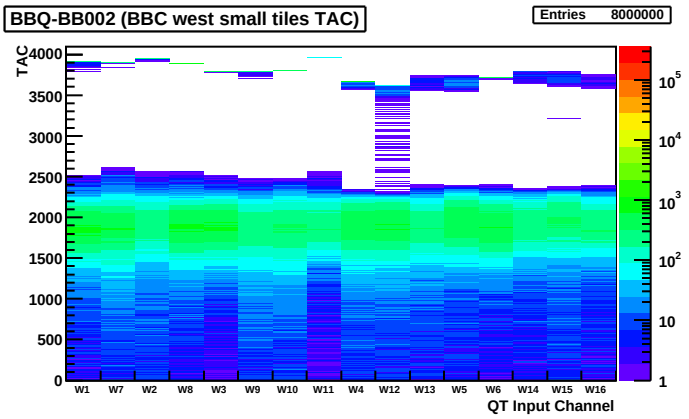

L1-TF201
Entries 500000
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

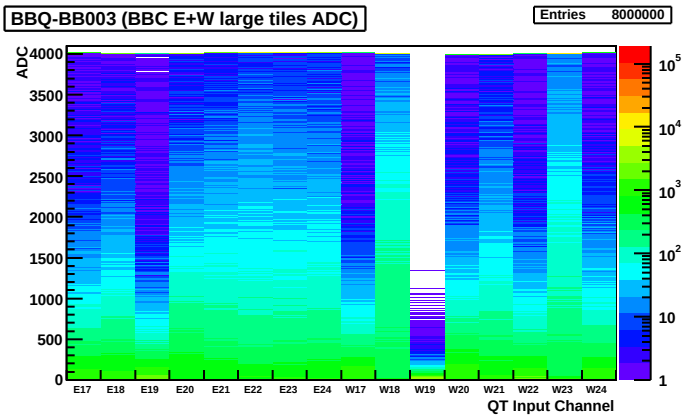

L1-TF201
Entries 3000000
Threshold bits
1
0
368993
357055
319639
341031
306596
341522
131007
142945
180361
158969
193404
158478
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

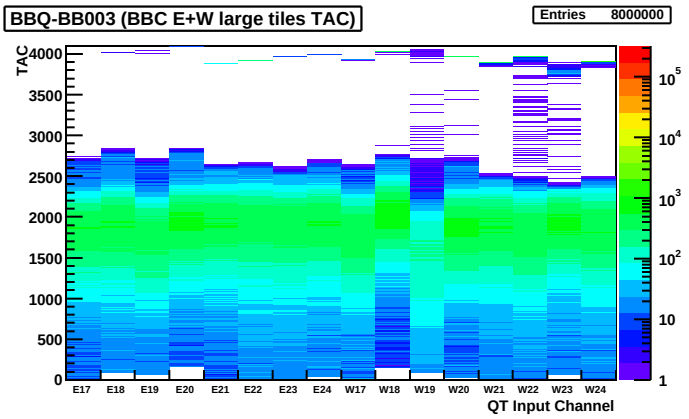

BBQ-BB001 (BBC east small tiles ADC)
Entries 8000000
ADC
QT Input Channel

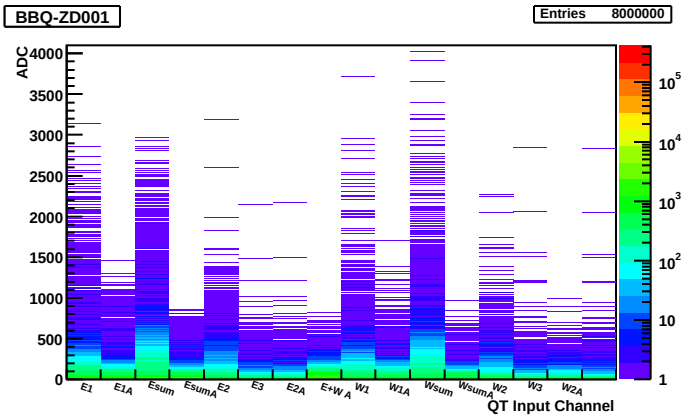

BBQ-BB001 (BBC east small tiles TAC)
Entries 8000000
TAC
QT Input Channel

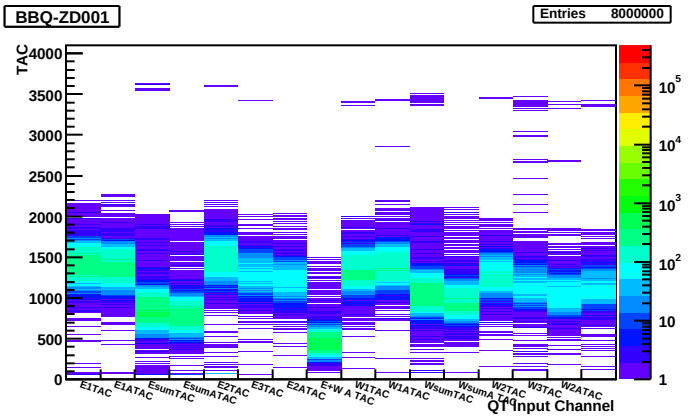

BBQ-BB002 (BBC west small tiles ADC)
Entries 8000000
ADC
QT Input Channel

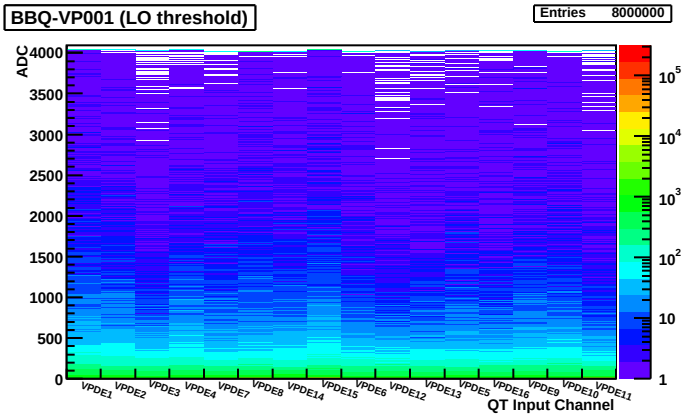

BBQ-BB002 (BBC west small tiles TAC)
Entries 8000000
TAC
QT Input Channel

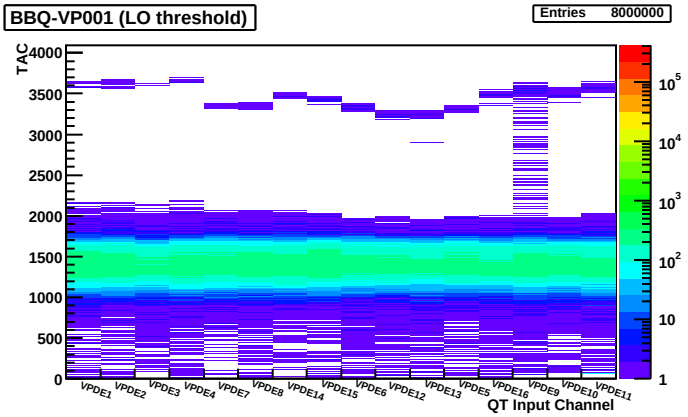

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 8000000
ADC
QT Input Channel

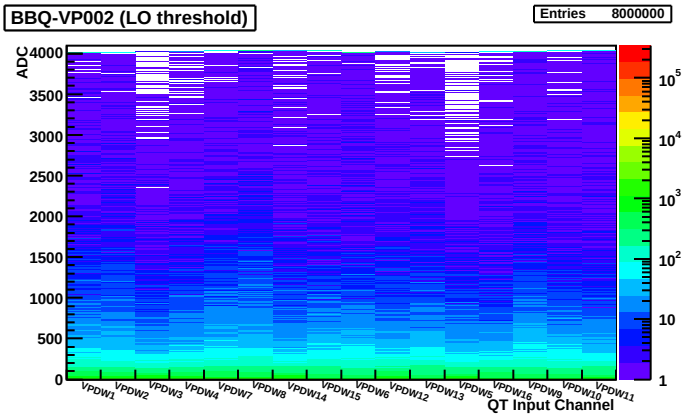

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 8000000
TAC
QT Input Channel

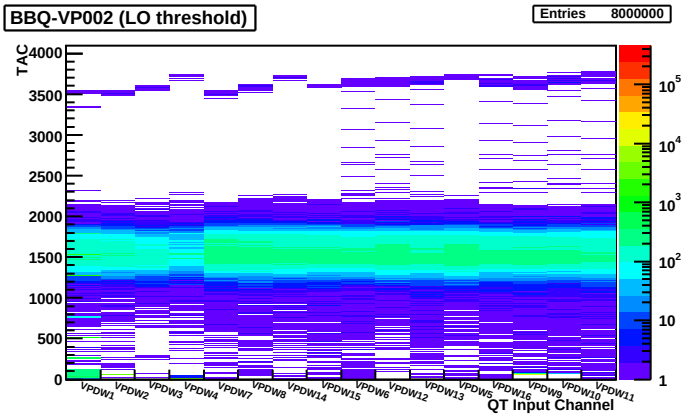

BBQ-ZD001
Entries 8000000
ADC
QT Input Channel

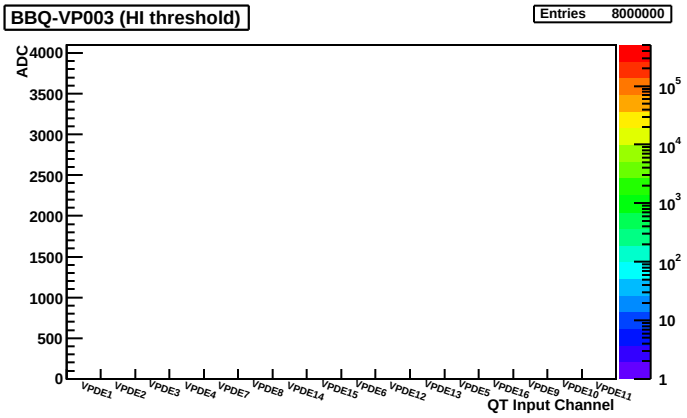

BBQ-ZD001
Entries 8000000
TAC
QT Input Channel

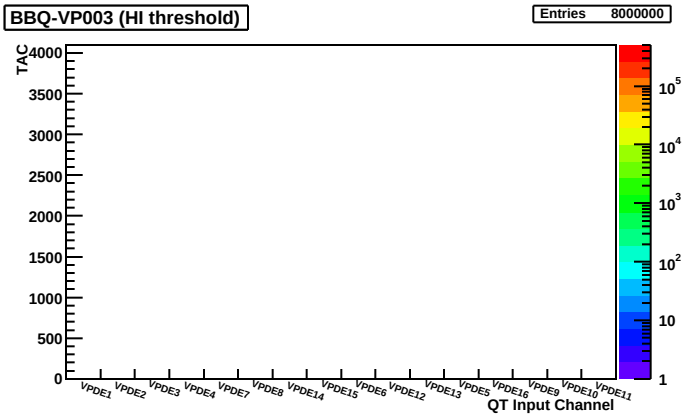

BBQ-VP001 (LO threshold)
Entries 8000000
ADC
QT Input Channel

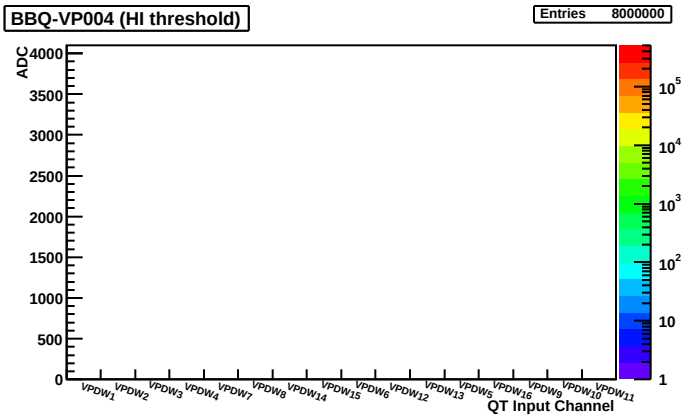

BBQ-VP001 (LO threshold)
Entries 8000000
TAC
QT Input Channel

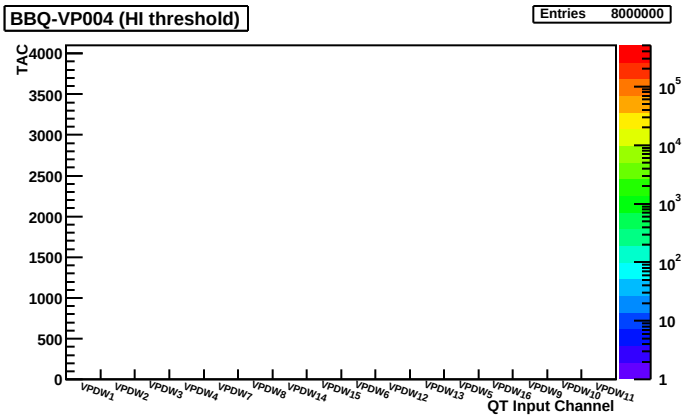

BBQ-VP002 (LO threshold)
Entries 8000000
ADC
QT Input Channel

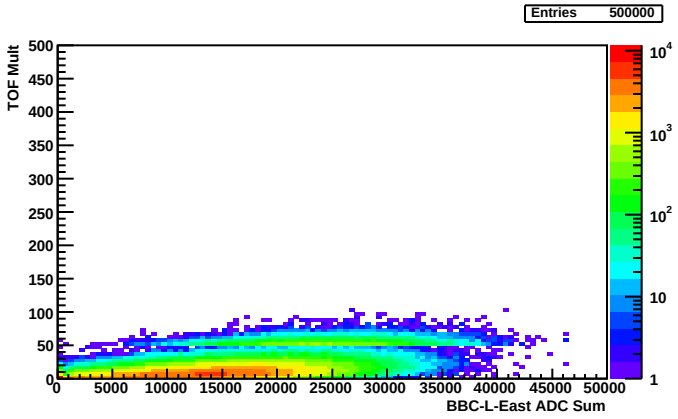

BBQ-VP002 (LO threshold)
Entries 8000000
TAC
QT Input Channel

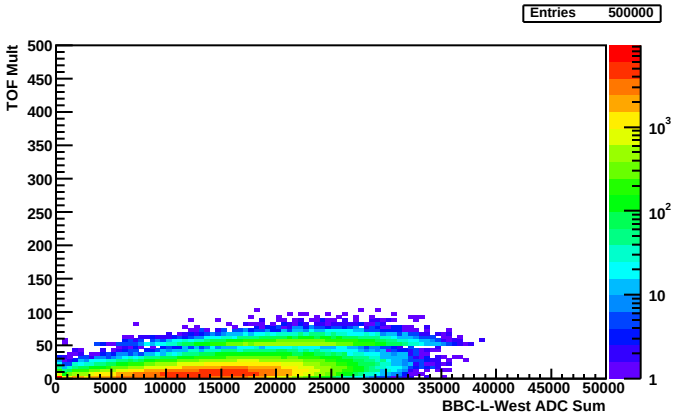

BBQ-VP003 (HI threshold)
Entries 8000000
ADC
QT Input Channel

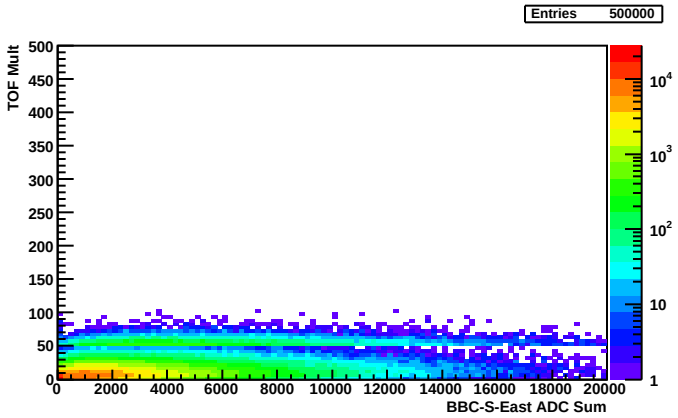

BBQ-VP003 (HI threshold)
Entries 8000000
TAC
QT Input Channel

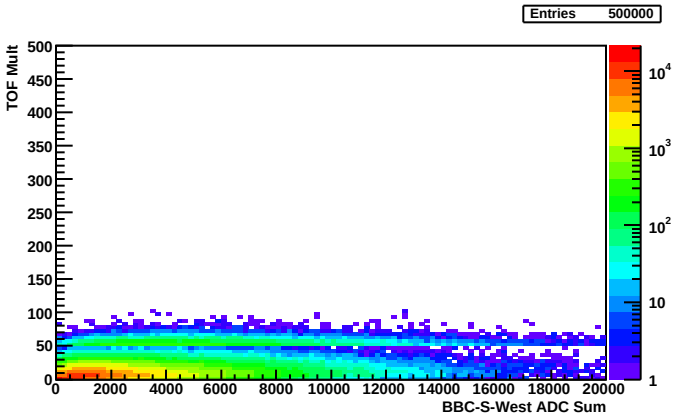

BBQ-VP004 (HI threshold)
Entries 8000000
ADC
QT Input Channel

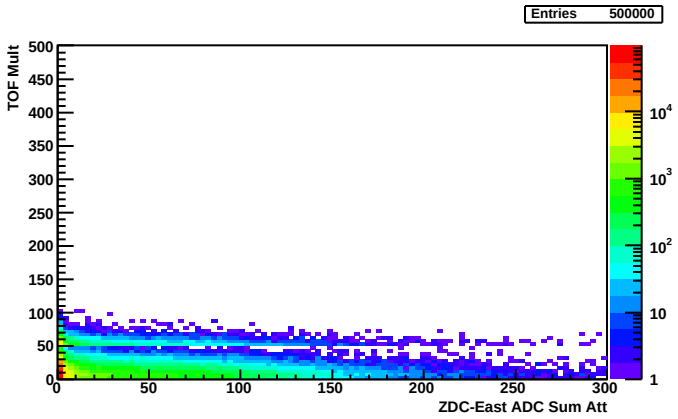

BBQ-VP004 (HI threshold)
Entries 8000000
TAC
QT Input Channel

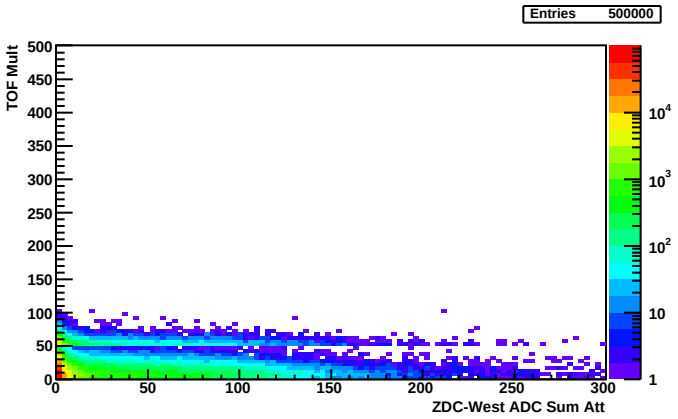

Entries 500000
TOF Mult
BBC-L-East ADC Sum

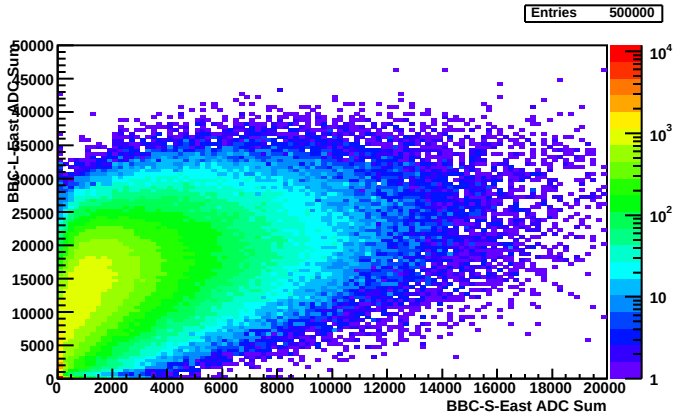

Entries 500000
TOF Mult
BBC-L-West ADC Sum

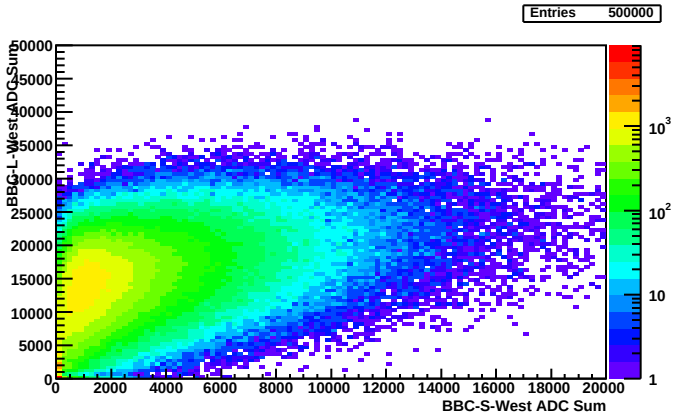

Entries 500000
TOF Mult
BBC-S-East ADC Sum

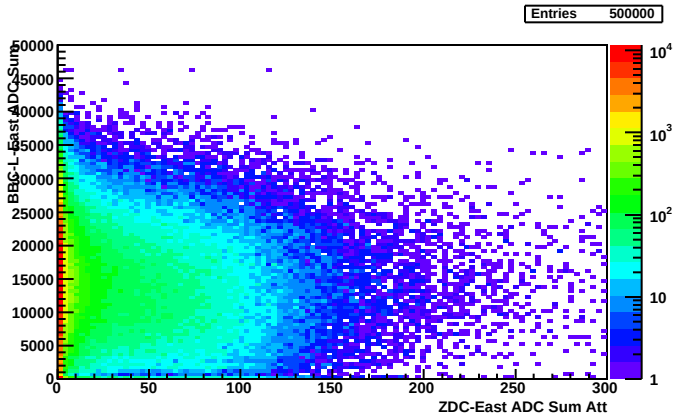

Entries 500000
TOF Mult
BBC-S-West ADC Sum

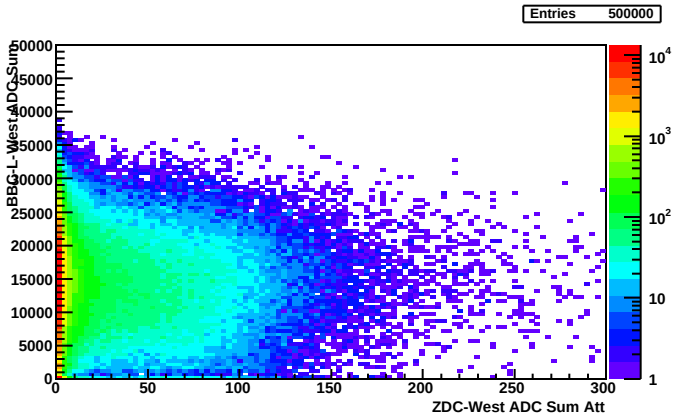

Entries 500000
TOF Mult
ZDC-East ADC Sum Att

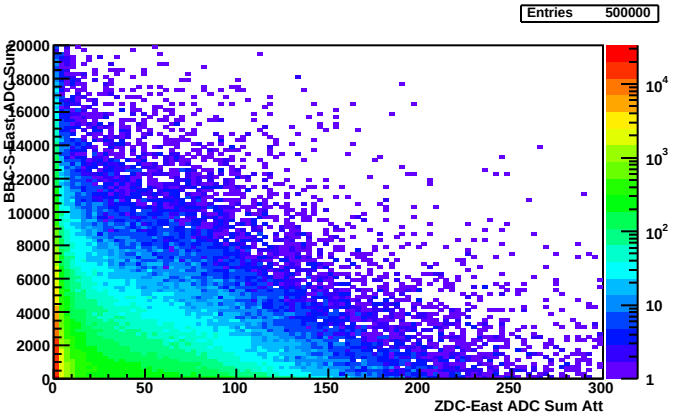

Entries 500000
TOF Mult
ZDC-West ADC Sum Att

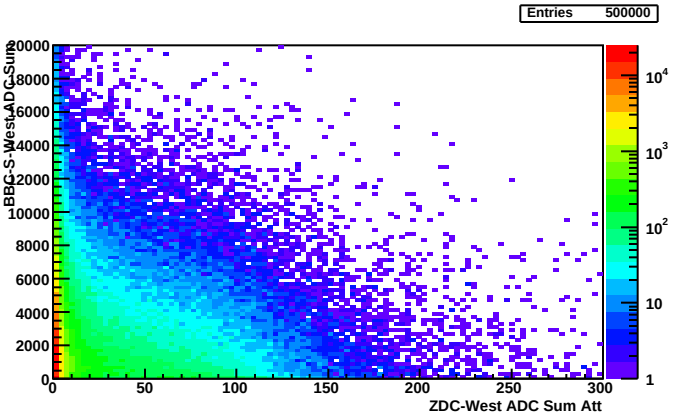

Entries 500000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

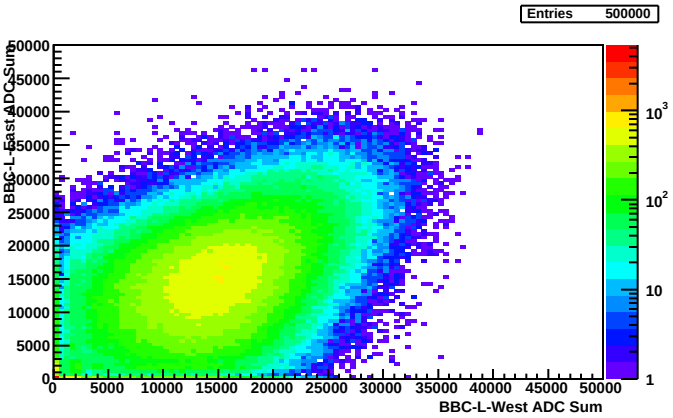

Entries 500000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

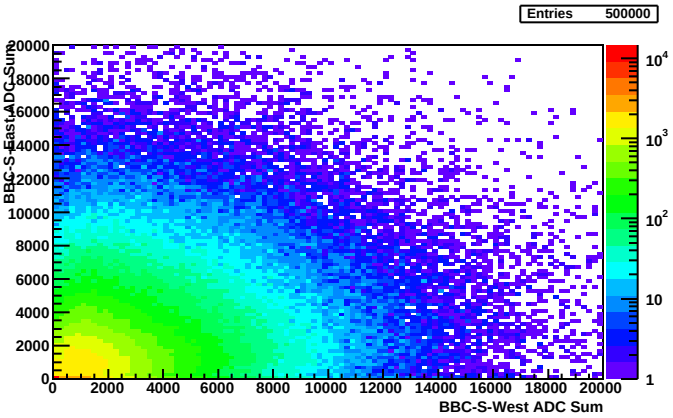

Entries 500000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

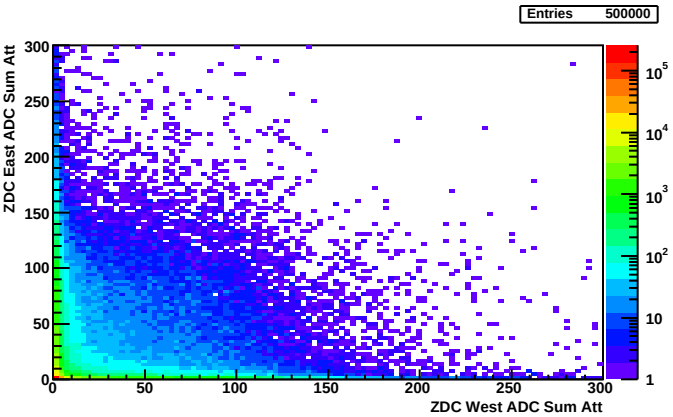

Entries 500000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

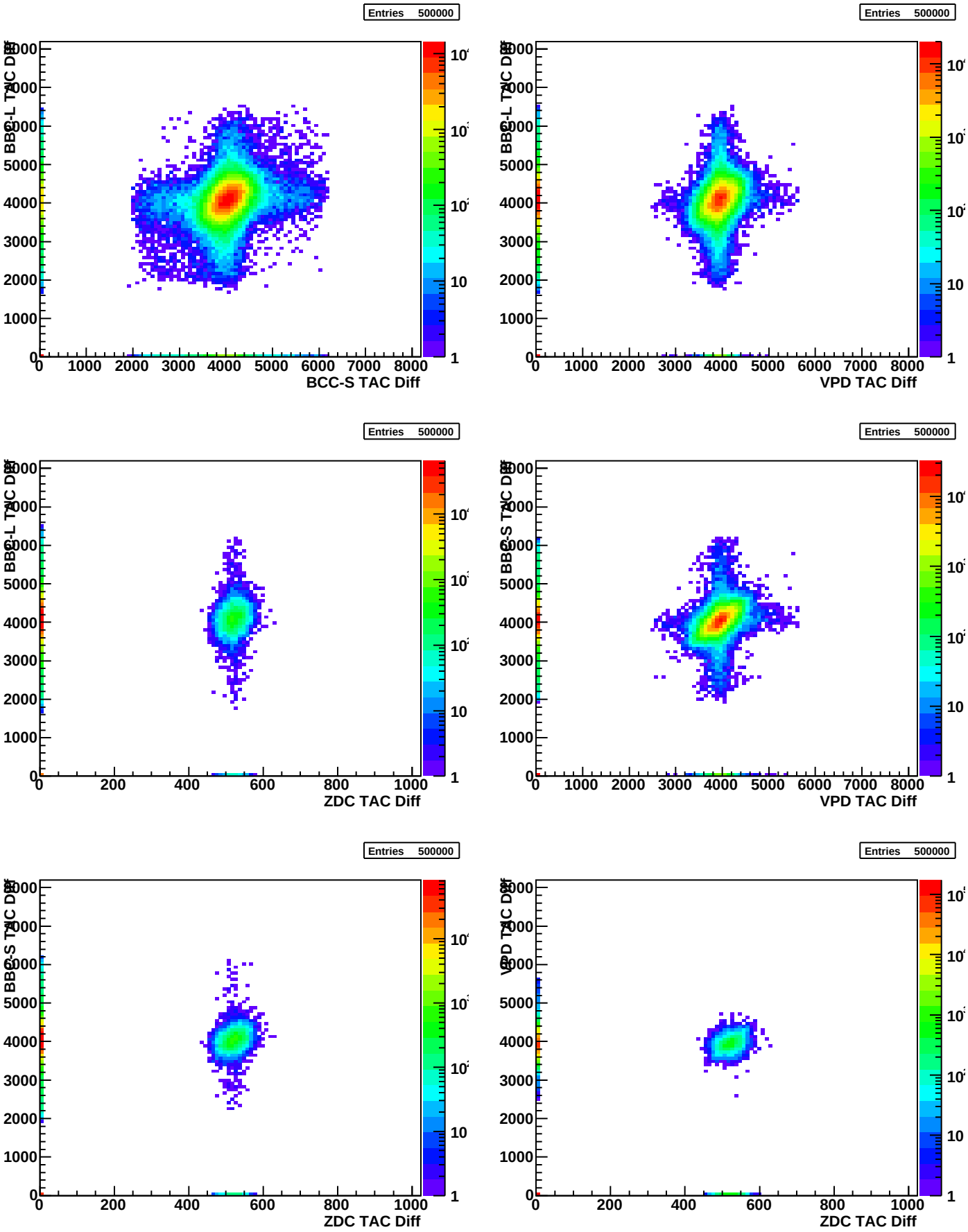

Entries 500000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

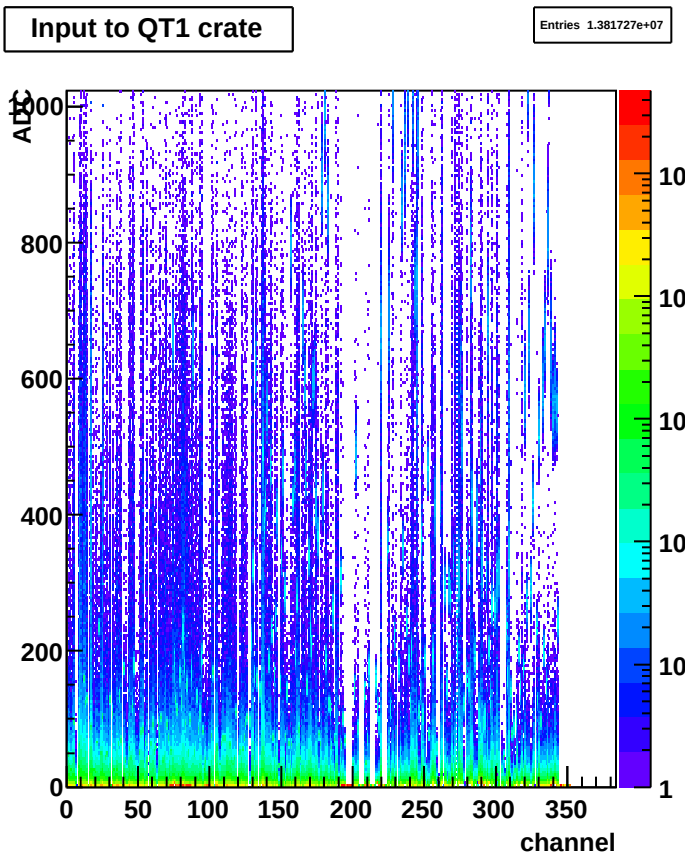

Entries 500000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

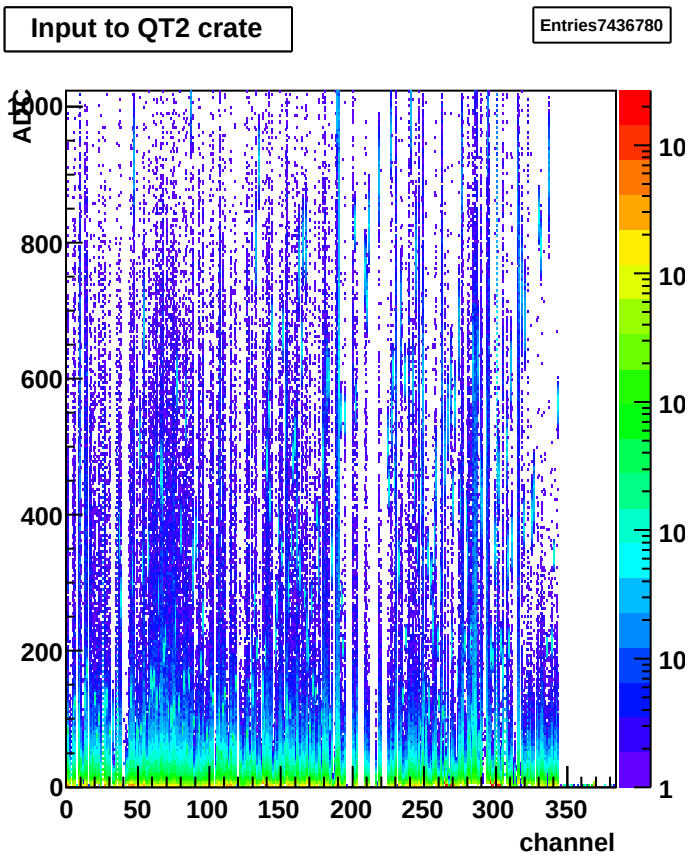

Entries 500000
BBC-L-East ADC Sum
BBC-L-West ADC Sum

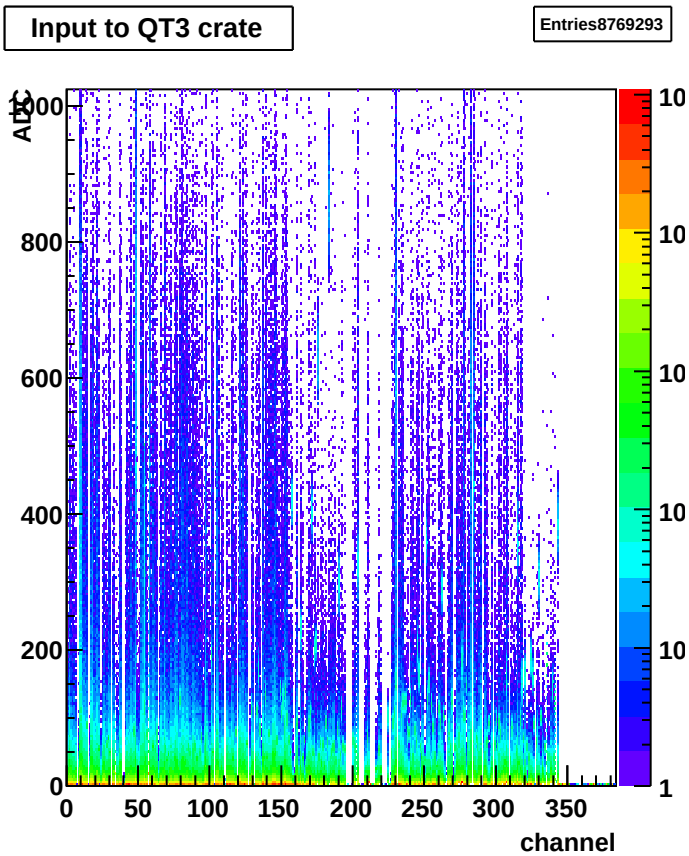

Entries 500000
BBC-S-East ADC Sum
BBC-S-West ADC Sum

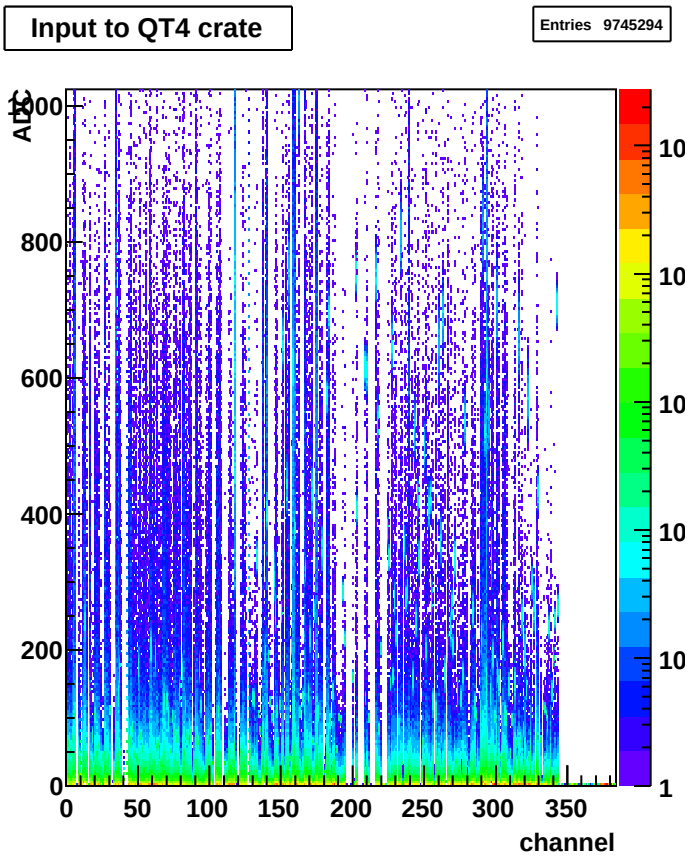

Entries 500000
ZDC East ADC Sum Att
ZDC West ADC Sum Att

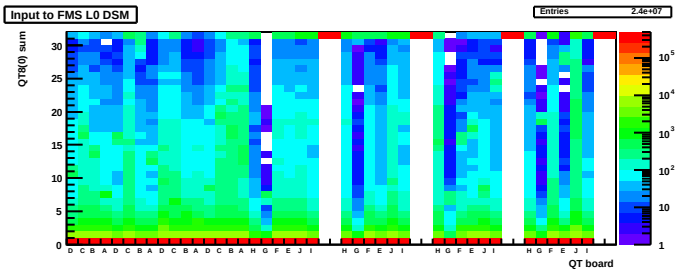

Entries 500000
BBC-L TAC Diff
BCC-S TAC Diff
Entries 500000
BBC-L TAC Diff
VPD TAC Diff
Entries 500000
BBC-L TAC Diff
ZDC TAC Diff
Entries 500000
BBC-S TAC Diff
VPD TAC Diff
Entries 500000
BBC-S TAC Diff
ZDC TAC Diff
Entries 500000
VPD TAC Diff
ZDC TAC Diff

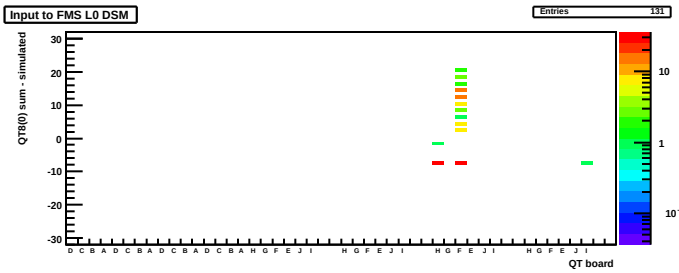

Input to QT1 crate
Entries 1.381727e+07
ADC
channel

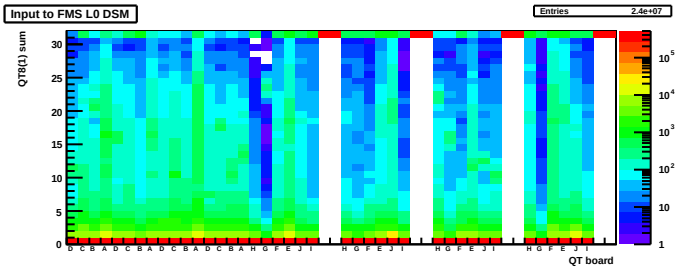

Input to QT2 crate
Entries7436780
ADC
channel

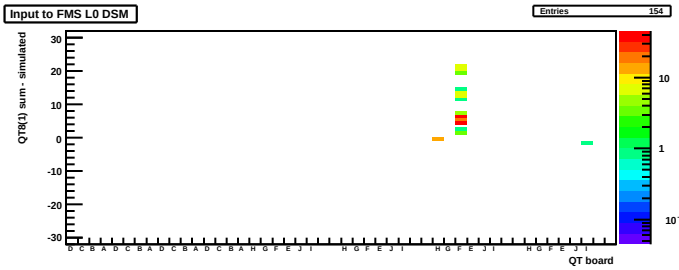

Input to QT3 crate
Entries8769293
ADC
channel

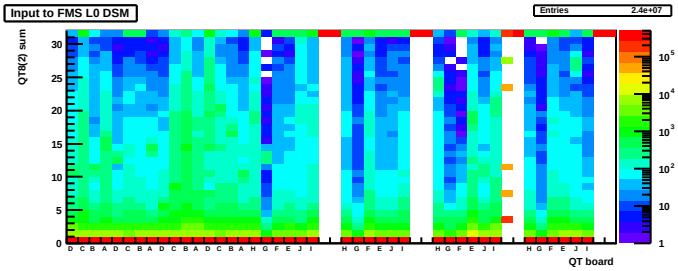

Input to QT4 crate
Entries 9745294
ADC
channel

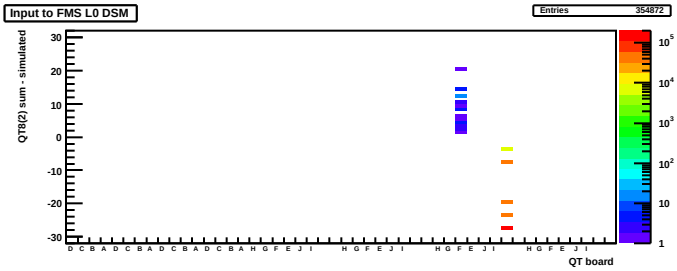

Input to FMS L0 DSM
Entries 2.4e+07
QT8(0) sum
QT board

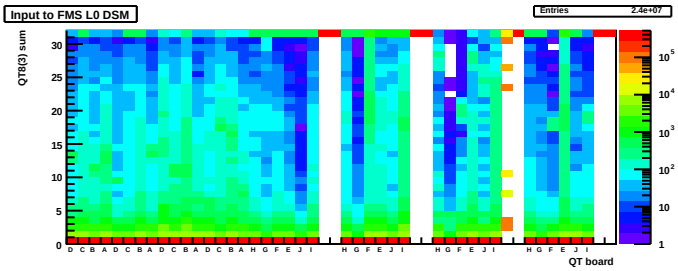

Input to FMS L0 DSM
Entries 131
QT8(0) sum - simulated
QT board

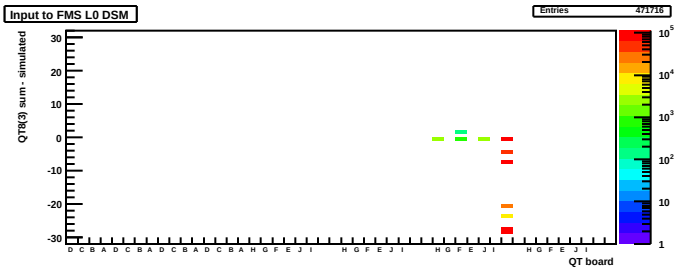

Input to FMS L0 DSM
Entries 2.4e+07
QT8(1) sum
QT board

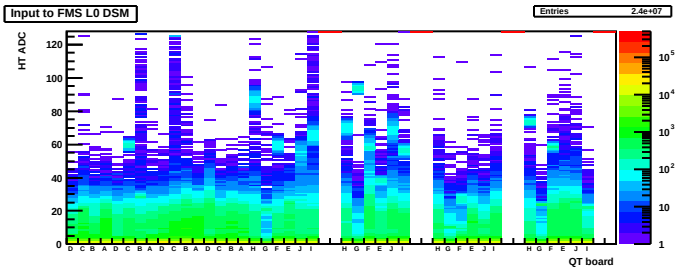

Input to FMS L0 DSM
Entries 154
QT8(1) sum - simulated
QT board

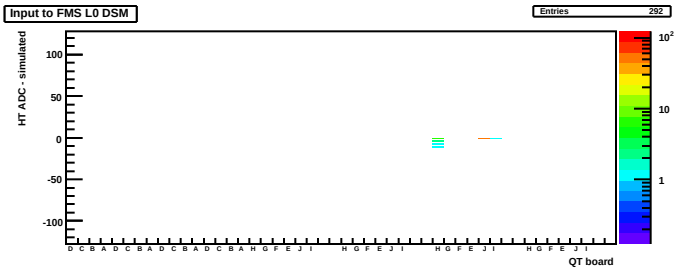

Input to FMS L0 DSM
Entries 2.4e+07
QT8(2) sum
QT board

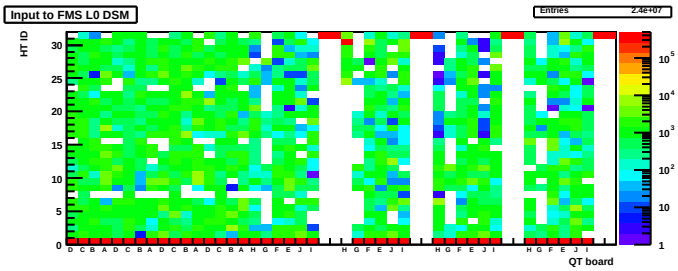

Input to FMS L0 DSM
Entries 354872
QT8(2) sum - simulated
QT board

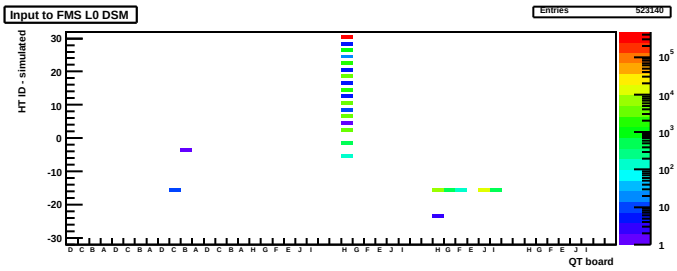

Input to FMS L0 DSM
Entries 2.4e+07
QT8(3) sum
QT board

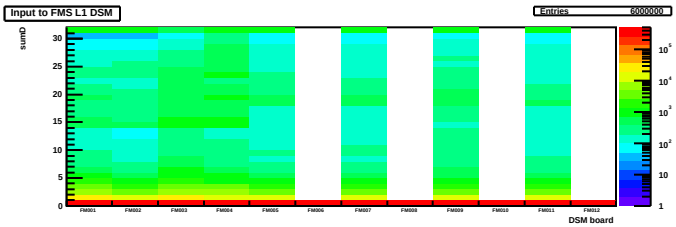

Input to FMS L0 DSM
Entries 471716
QT8(3) sum - simulated
QT board

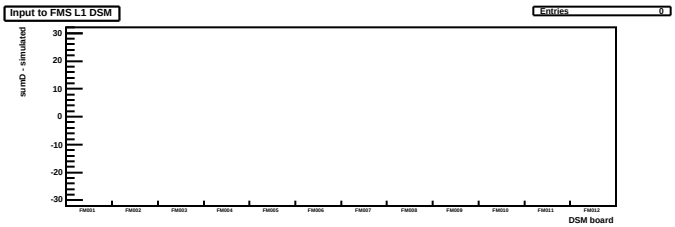

Input to FMS L0 DSM
Entries 2.4e+07
HT ADC
QT board

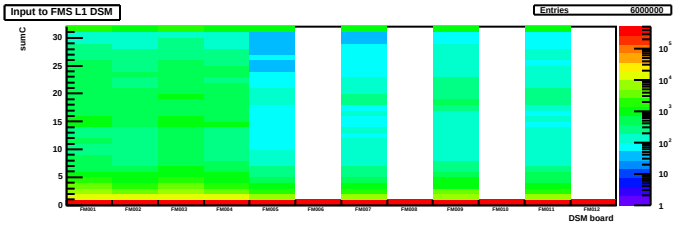

Input to FMS L0 DSM
Entries 292
HT ADC - simulated
QT board

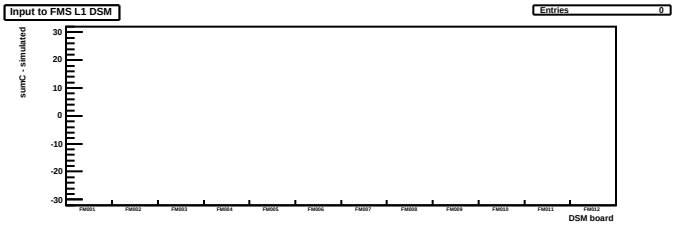

Input to FMS L0 DSM
Entries 2.4e+07
HT ID
QT board

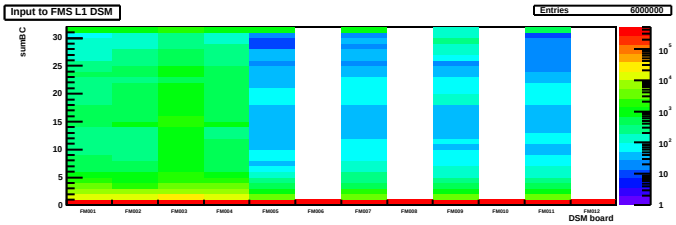

Input to FMS L0 DSM
Entries 523140
HT ID - simulated
QT board

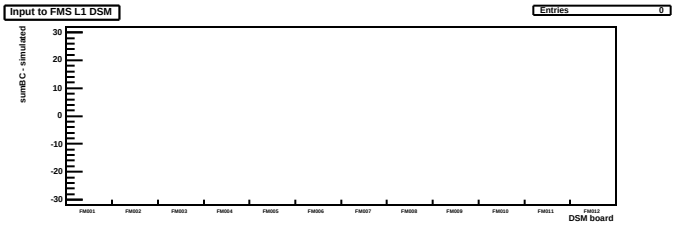

Input to FMS L1 DSM
Entries 6000000
sumD
DSM board

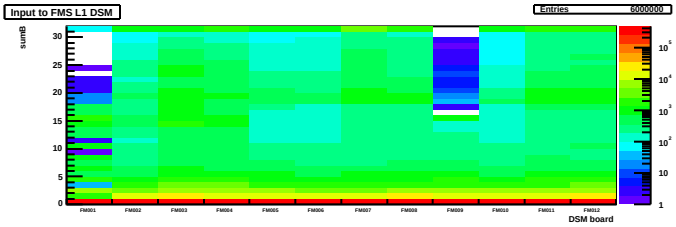

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

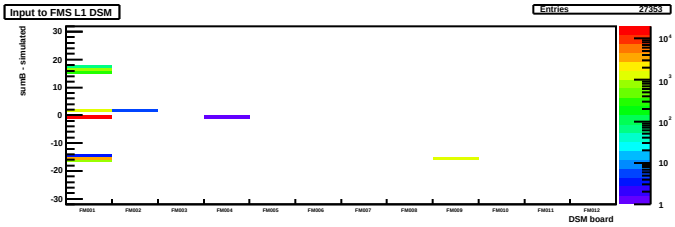

Input to FMS L1 DSM
Entries 6000000
sumC
DSM board

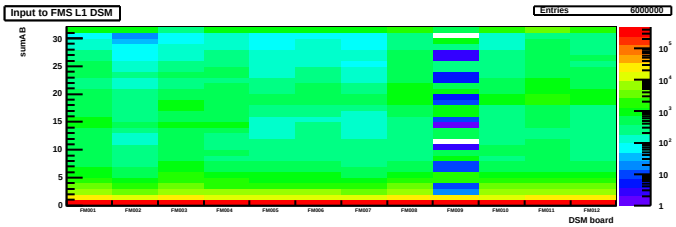

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

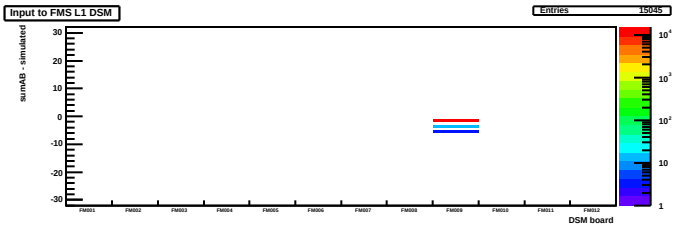

Input to FMS L1 DSM
Entries 6000000
sumBC
DSM board

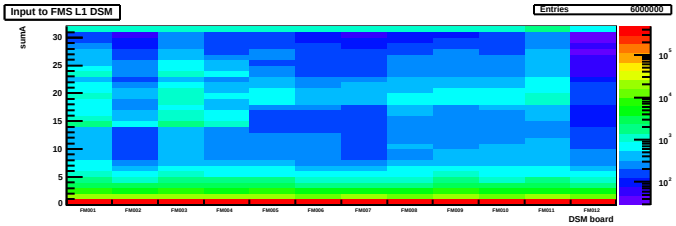

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

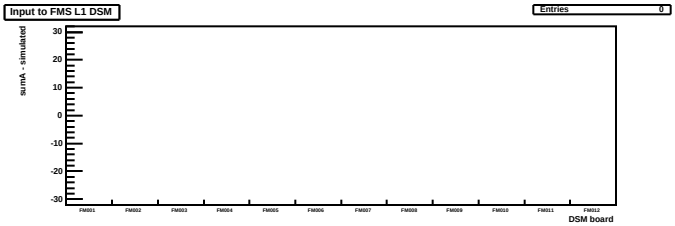

Input to FMS L1 DSM
Entries 6000000
sumB
DSM board

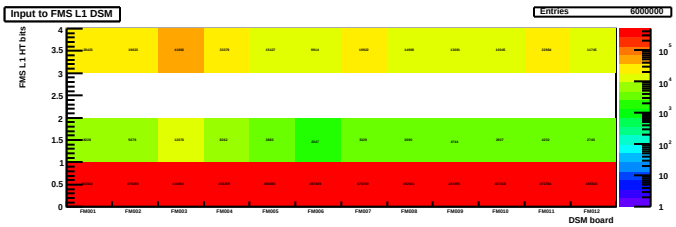

Input to FMS L1 DSM
Entries 27353
sumB - simulated
DSM board

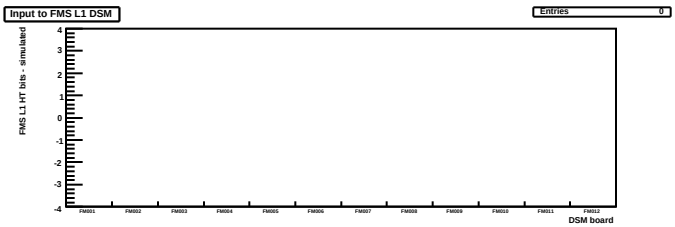

Input to FMS L1 DSM
Entries 6000000
sumAB
DSM board

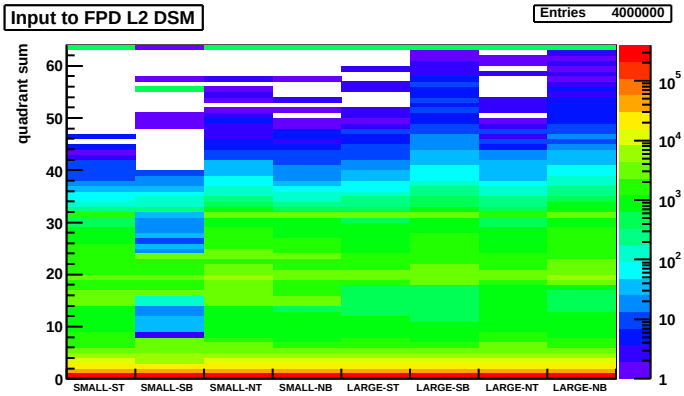

Input to FMS L1 DSM
Entries 15045
sumAB - simulated
DSM board

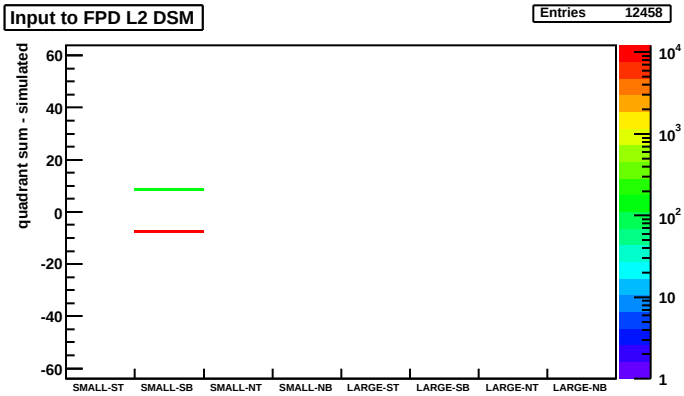

Input to FMS L1 DSM
Entries 6000000
sumA
DSM board

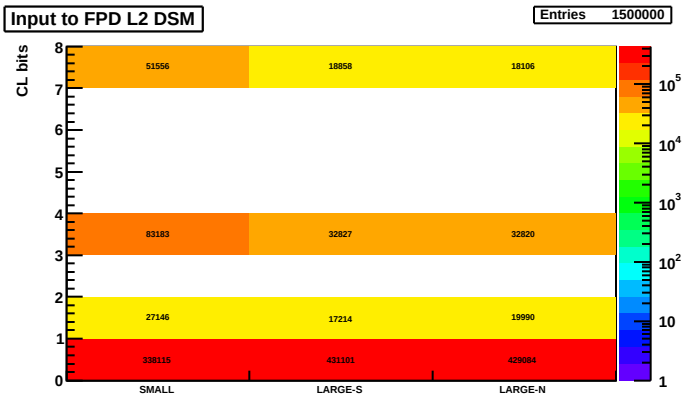

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

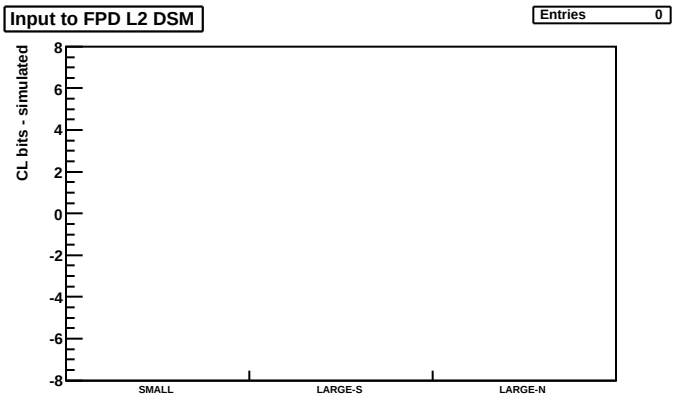

Input to FMS L1 DSM
Entries 6000000
FMS L1 HT bits
DSM board

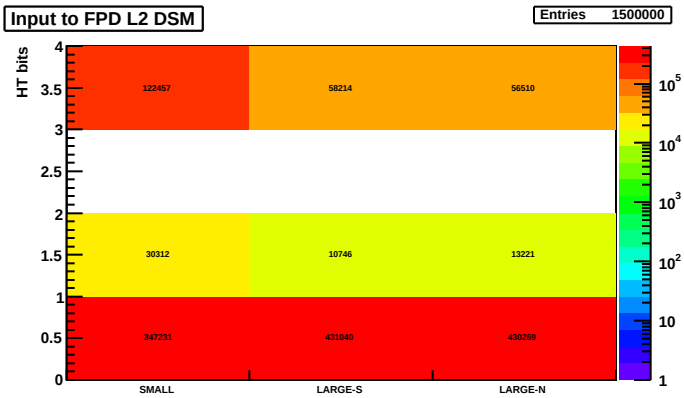

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

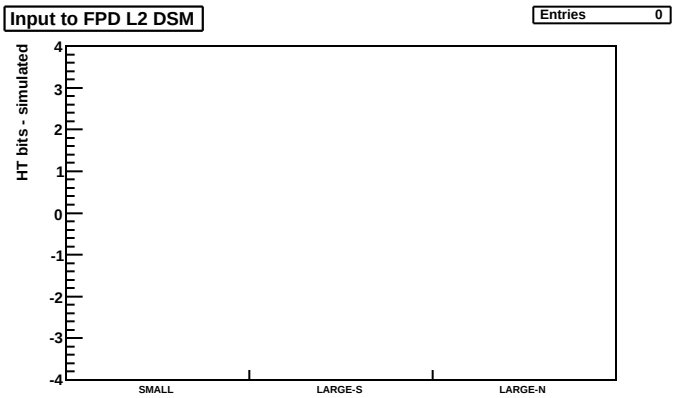

Input to FPD L2 DSM
Entries 4000000
quadrant sum
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

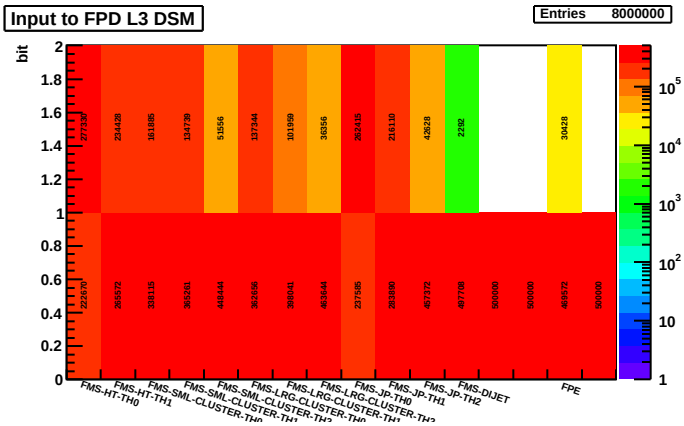

Input to FPD L2 DSM
Entries 12458
quadrant sum - simulated
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

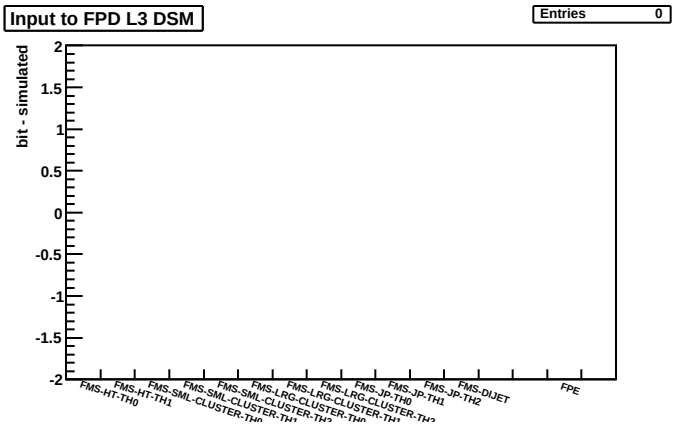

Input to FPD L2 DSM
Entries 1500000
CL bits
51556 18858 18106
83183 32827 32820
27146 17214 19990
338115 431101 429084
SMALL LARGE-S LARGE-N

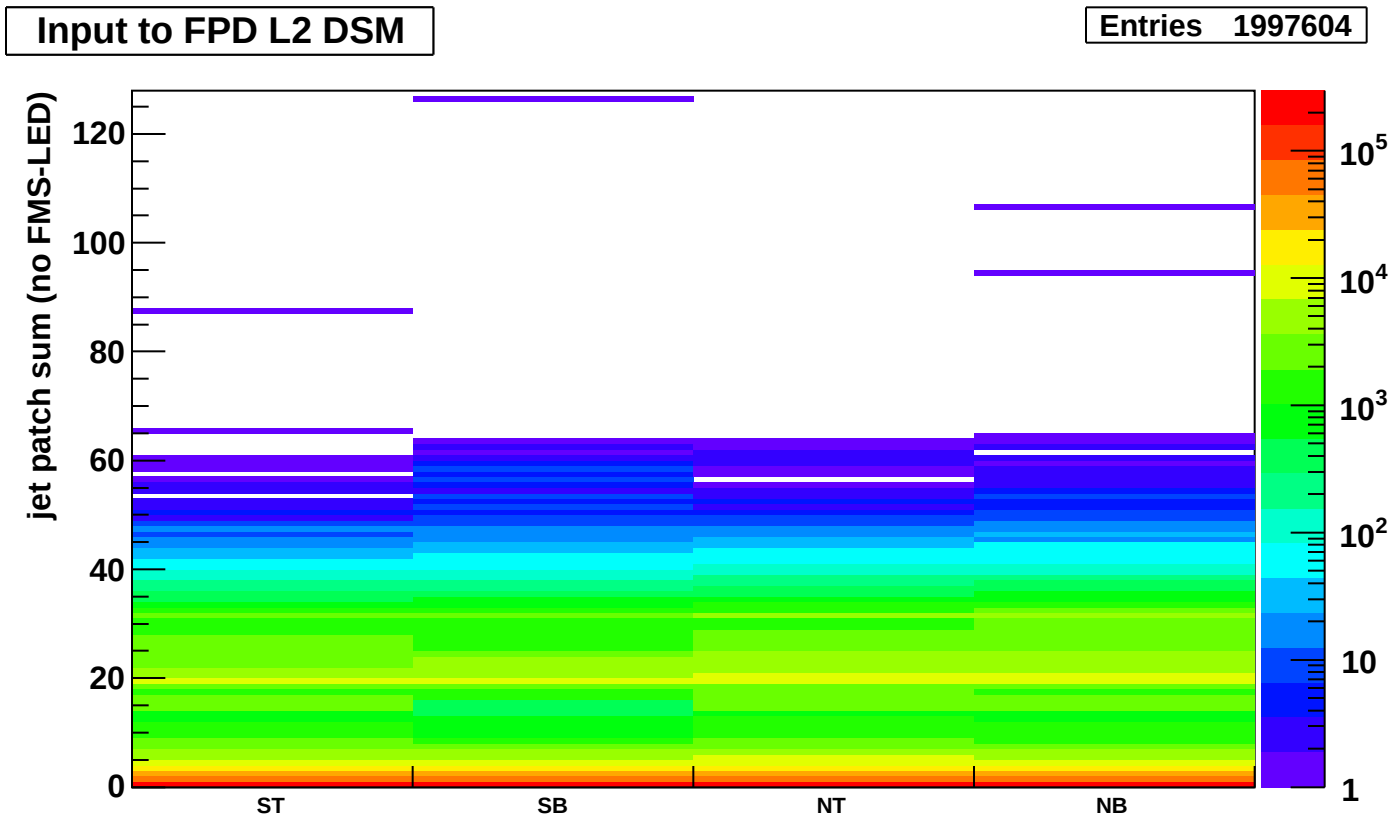

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL LARGE-S LARGE-N

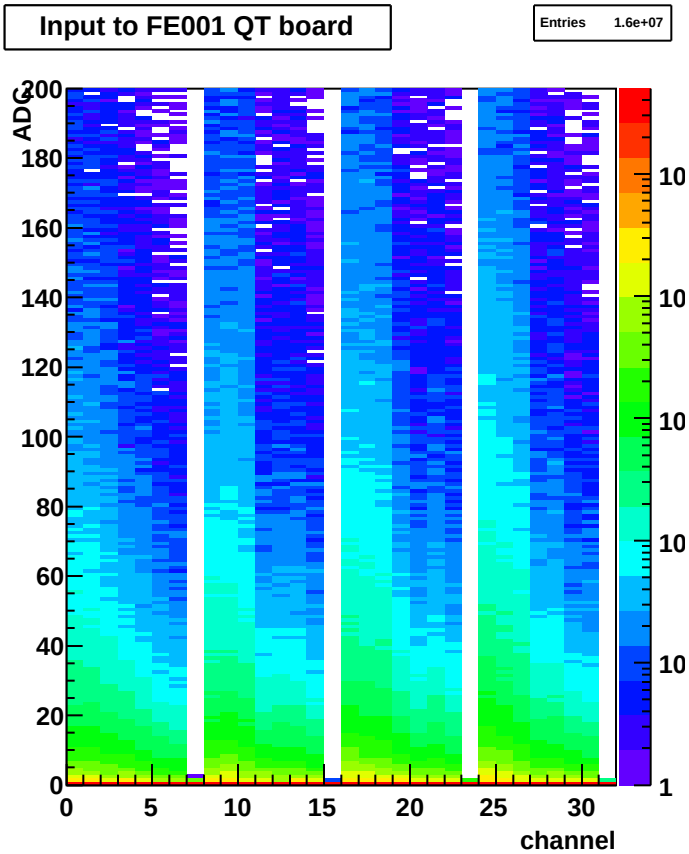

Input to FPD L2 DSM
Entries 1500000
HT bits
122457 58214 56510
30312 10746 13221
347231 431040 430269
SMALL LARGE-S LARGE-N

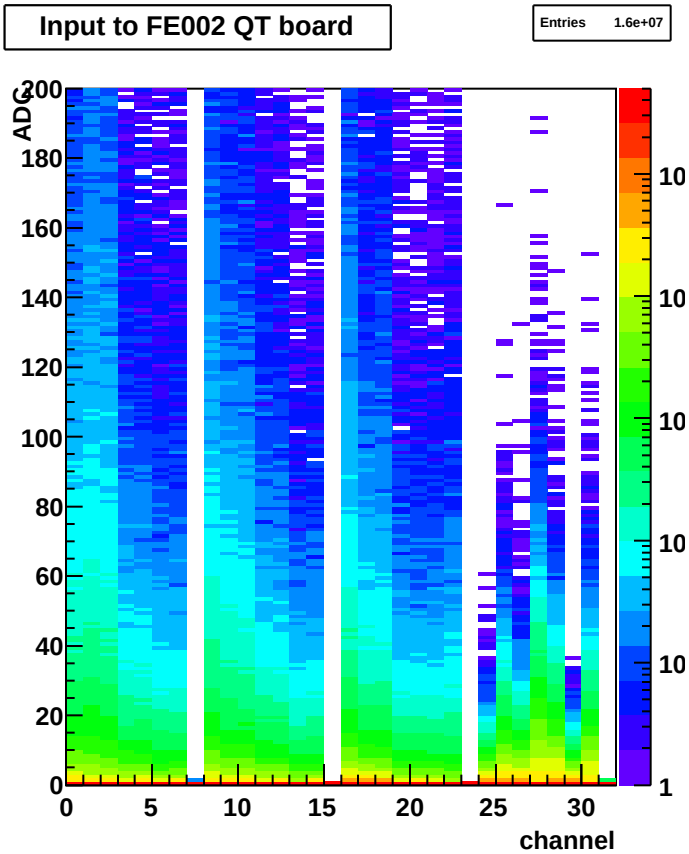

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL LARGE-S LARGE-N

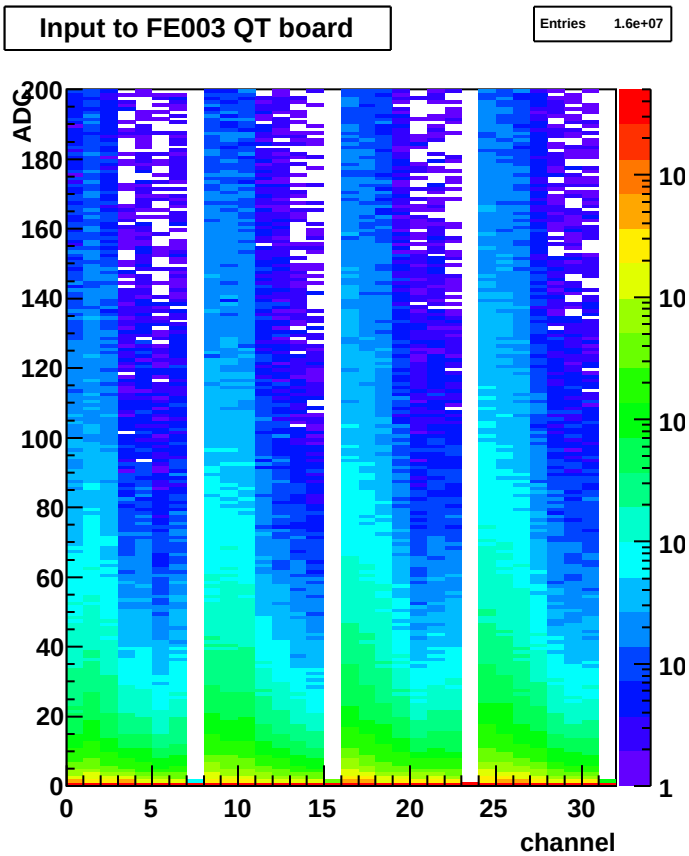

Input to FPD L3 DSM
Entries 8000000
bit
277337 234428 161685 134739 51556 137344 101999 36356 262415 216110 42628 2282 30428
222670 265572 338115 365261 448444 362656 398041 463644 237585 283890 457372 497708 500000 500000 469572 500000
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

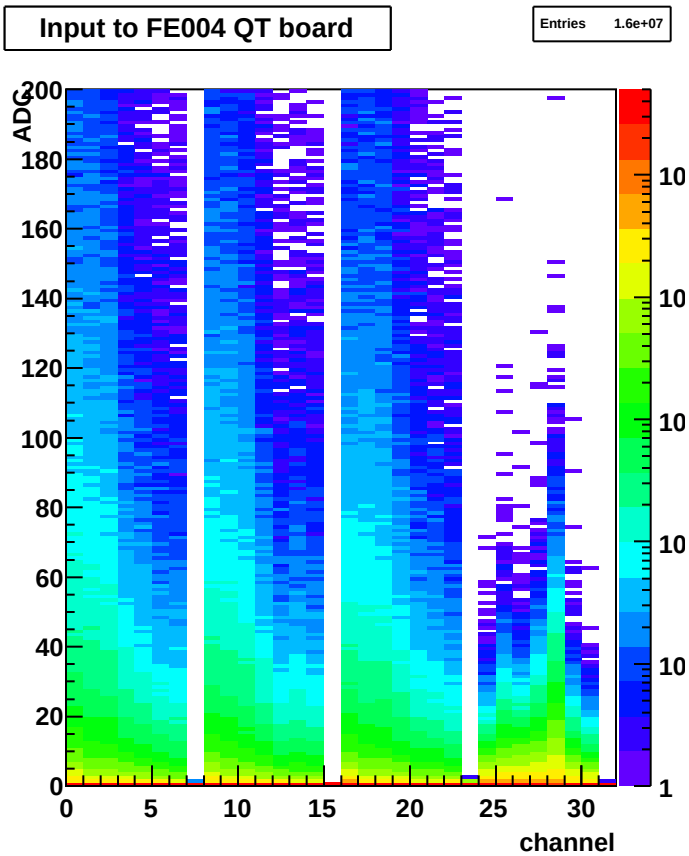

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

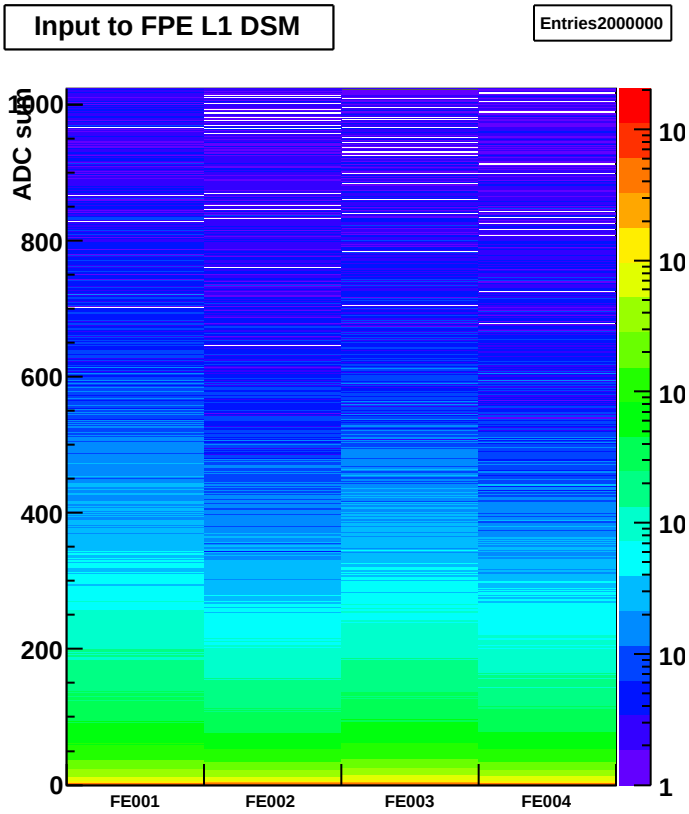

Input to FPD L2 DSM
Entries 1997604
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

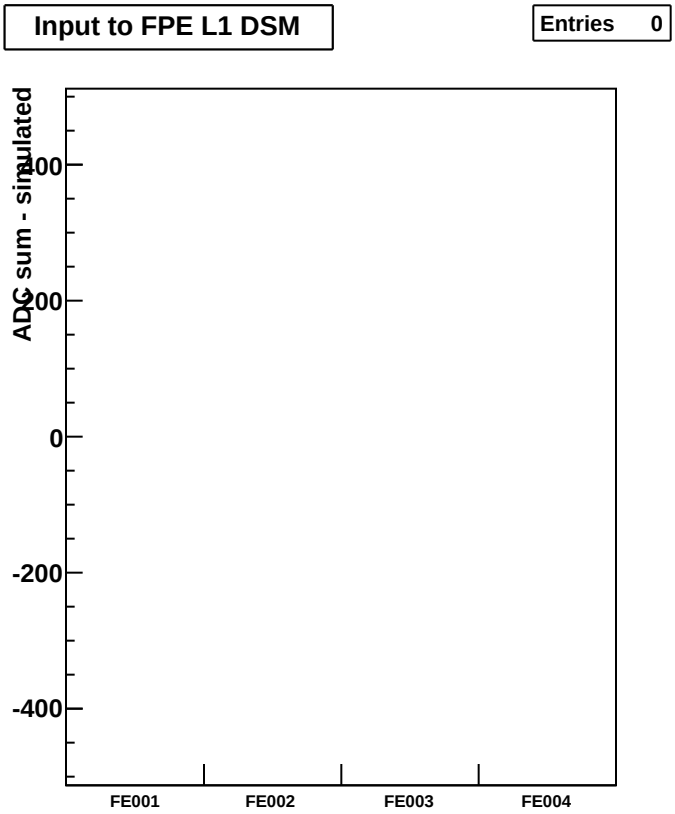

Input to FE001 QT board
Entries 1.6e+07
ADC
channel

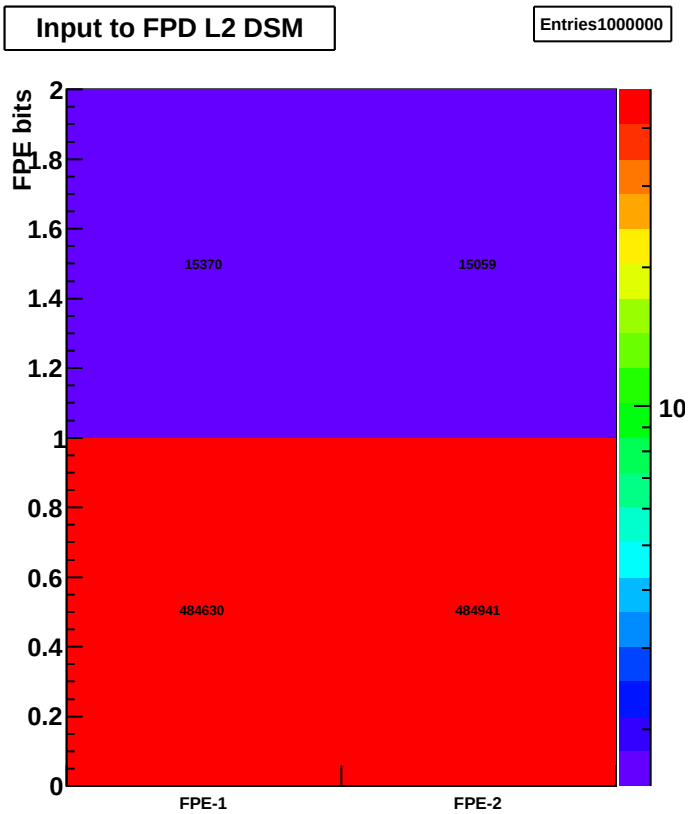

Input to FE002 QT board
Entries 1.6e+07
ADC
channel

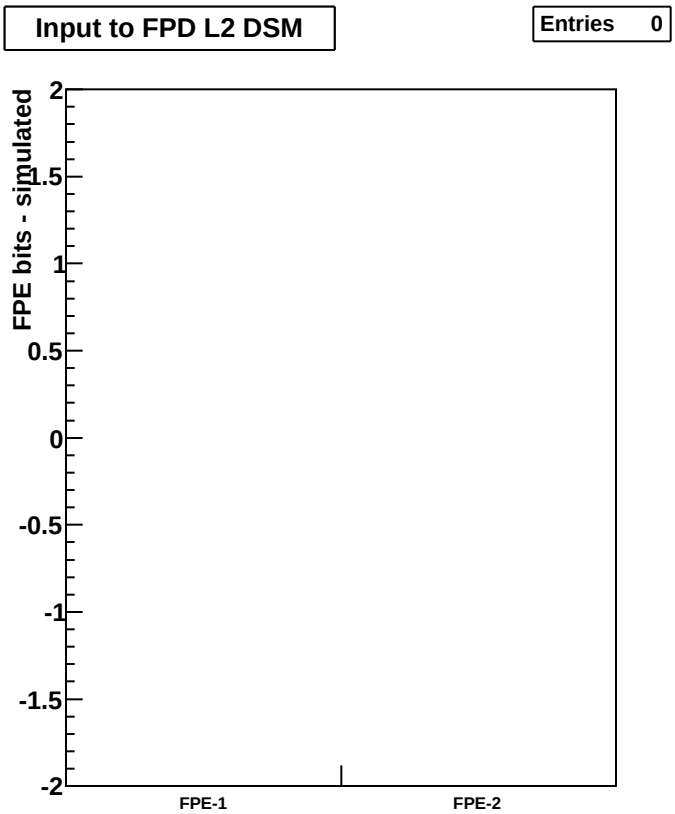

Input to FE003 QT board
Entries 1.6e+07
ADC
channel


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
15370
15059
484630
484941
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