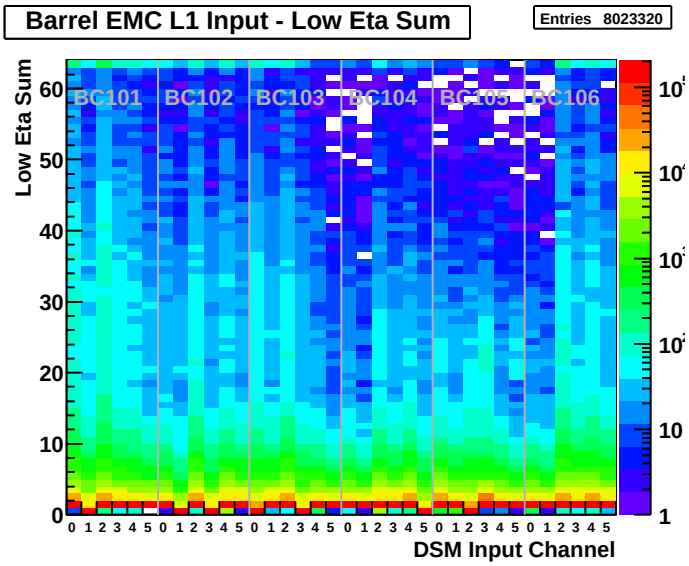
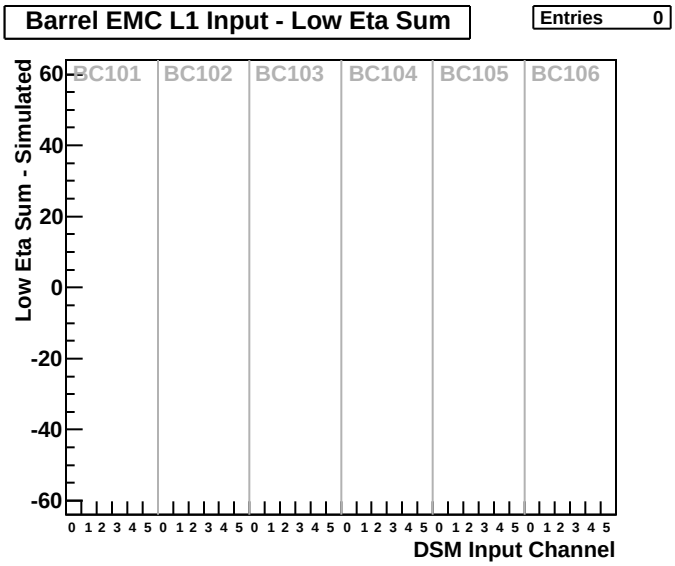
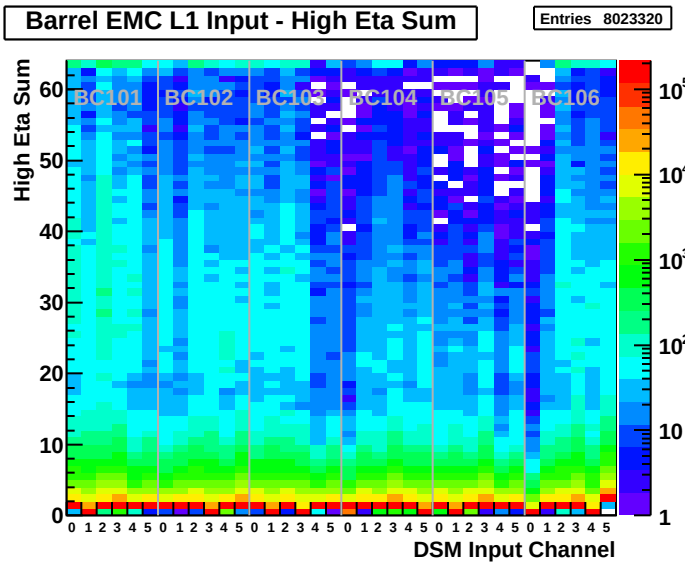
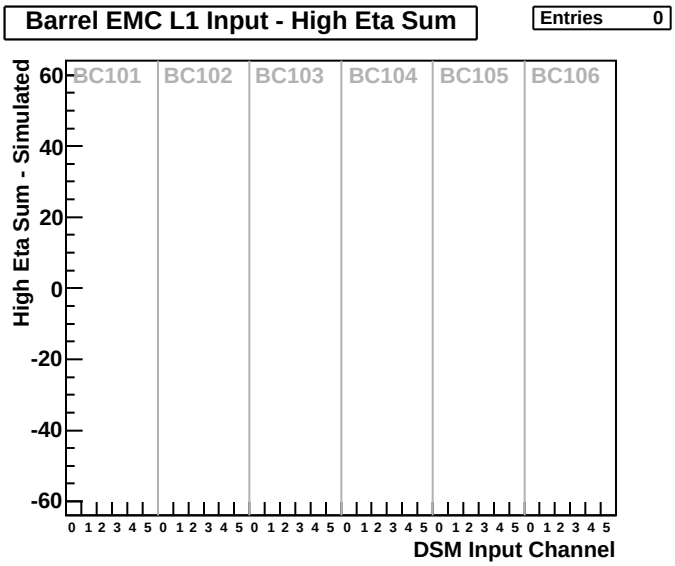
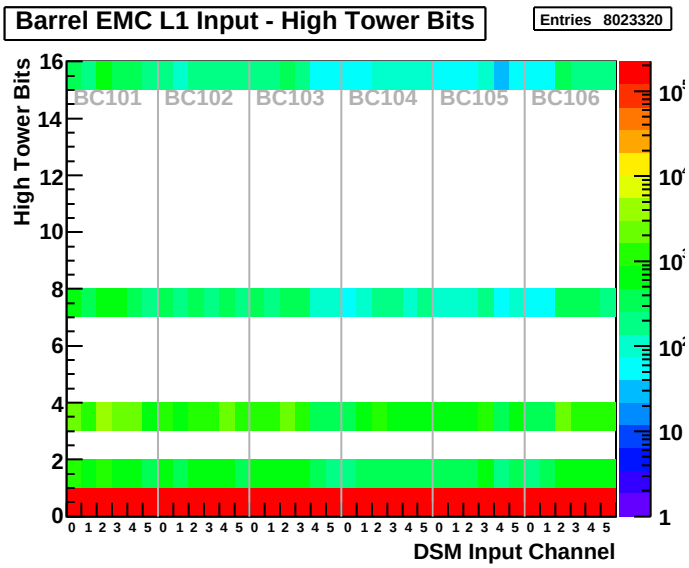
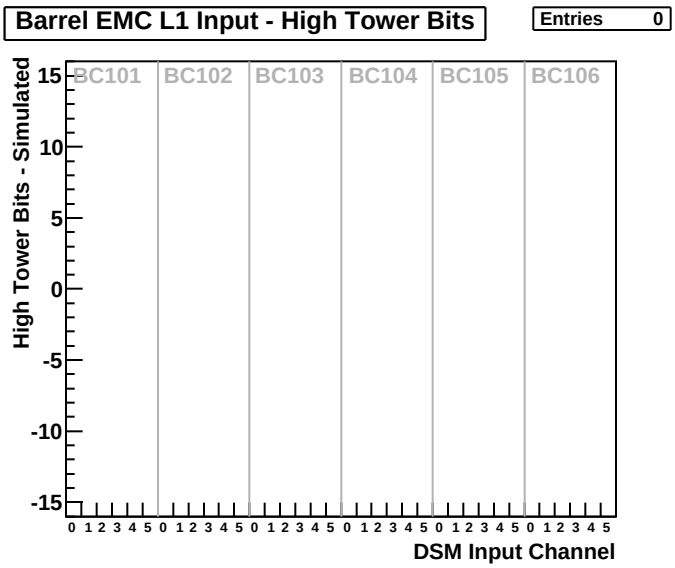

Barrel EMC L1 Input - Low Eta Sum
Entries 8023320
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

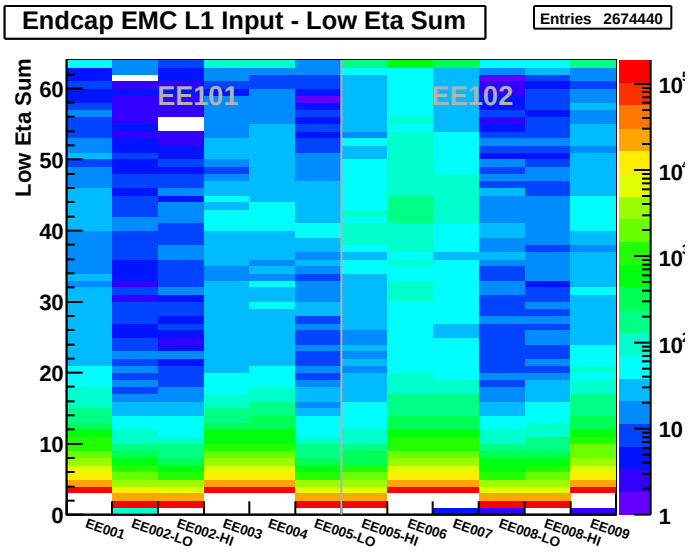

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

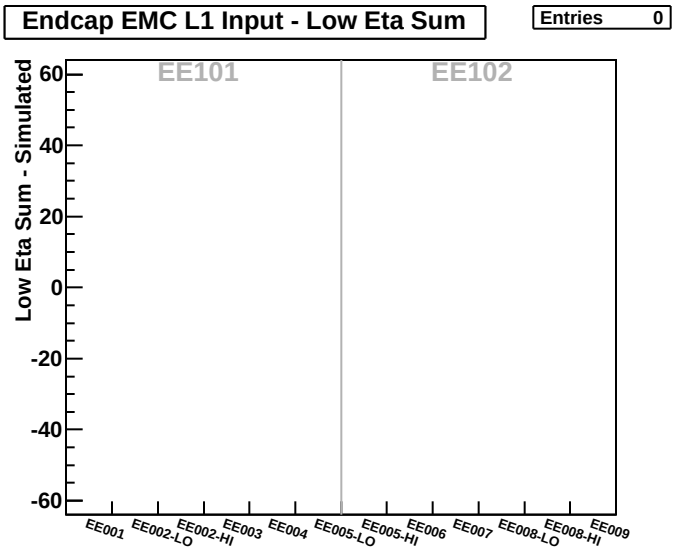

Barrel EMC L1 Input - High Eta Sum
Entries 8023320
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

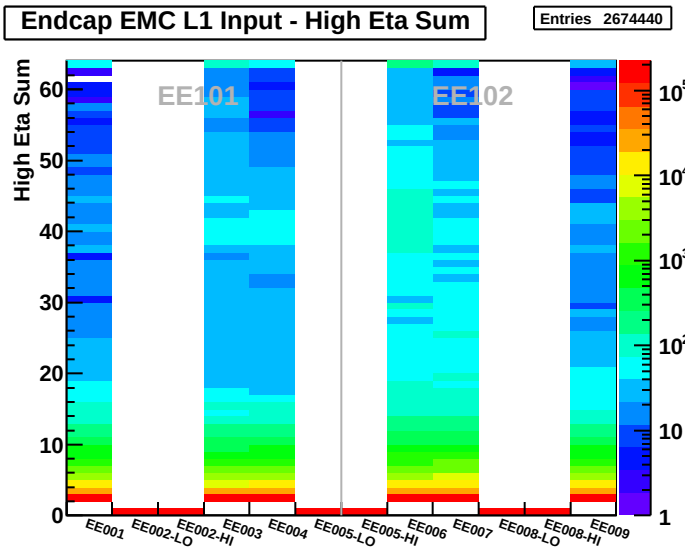

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

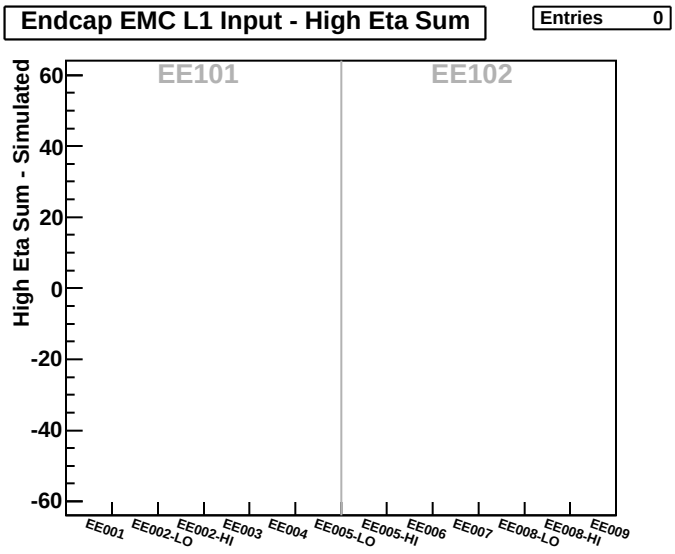

Barrel EMC L1 Input - High Tower Bits
Entries 8023320
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

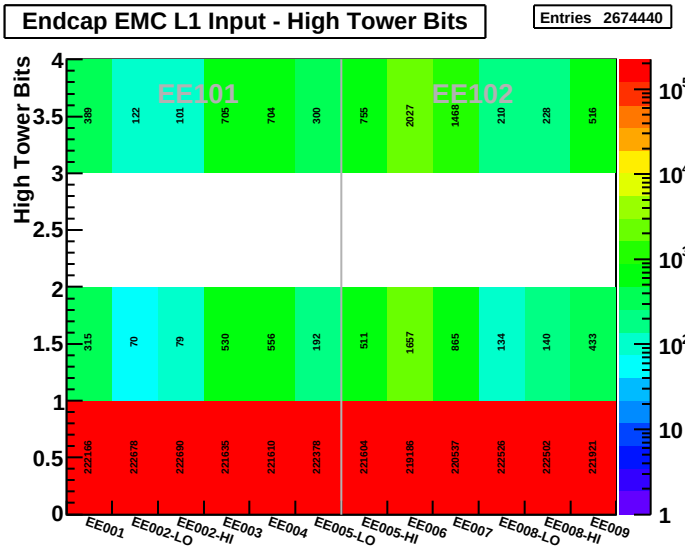

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

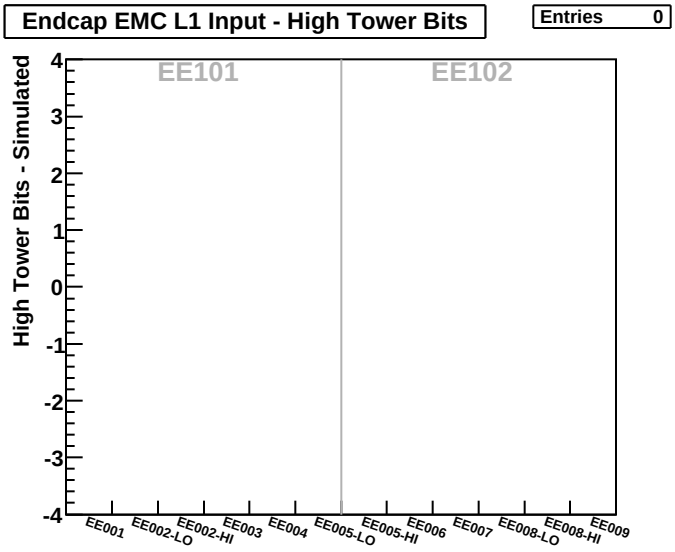

Endcap EMC L1 Input - Low Eta Sum
Entries 2674440
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

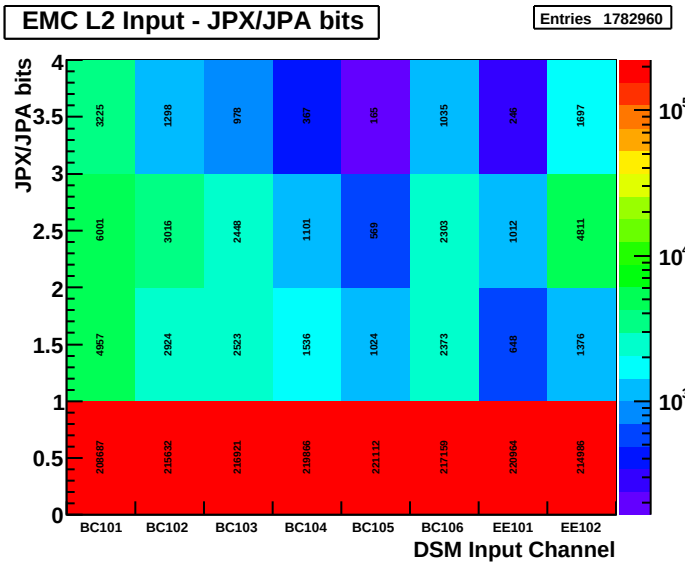

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

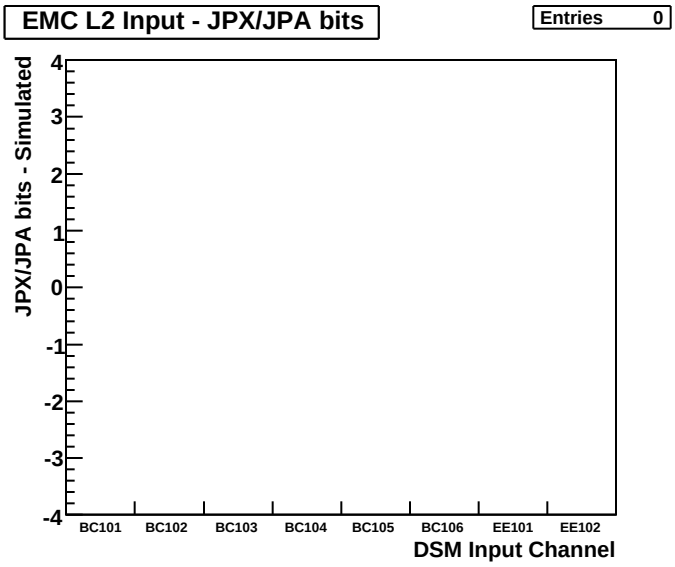

Endcap EMC L1 Input - High Eta Sum
Entries 2674440
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

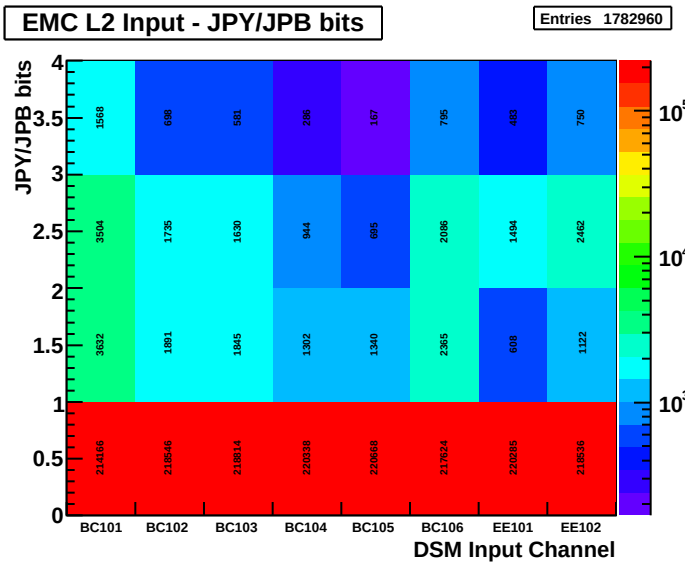

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

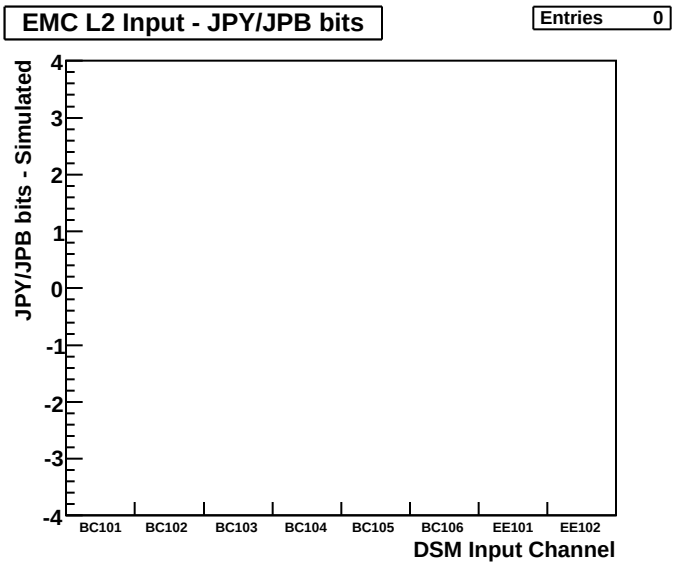

Endcap EMC L1 Input - High Tower Bits
Entries 2674440
High Tower Bits
EE101
EE102
389 122 101 705 704 300 755 2027 1468 210 228 516
315 70 79 530 556 192 511 1667 865 134 140 433
222166 222678 222690 221635 221610 222378 221604 219186 220537 222526 222502 221921
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

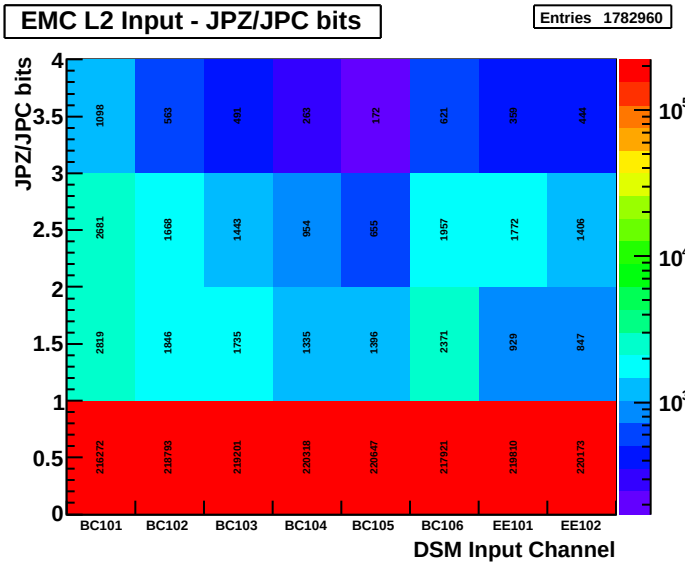

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

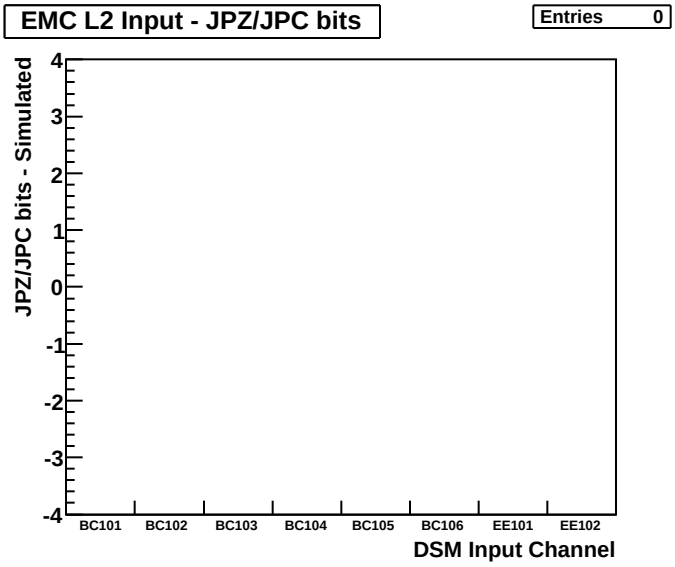

EMC L2 Input - JPX/JPA bits
Entries 1782960
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
3225 1298 978 367 165 1035 246 1697
6001 3016 2448 1101 569 2303 1012 4811
4957 2924 2523 1536 1024 2373 648 1376
208687 215632 215921 219866 221112 217159 220964 214986

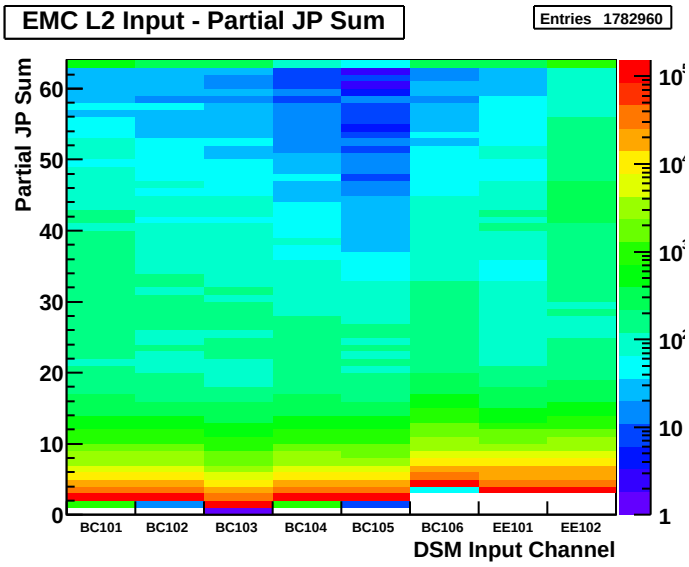

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

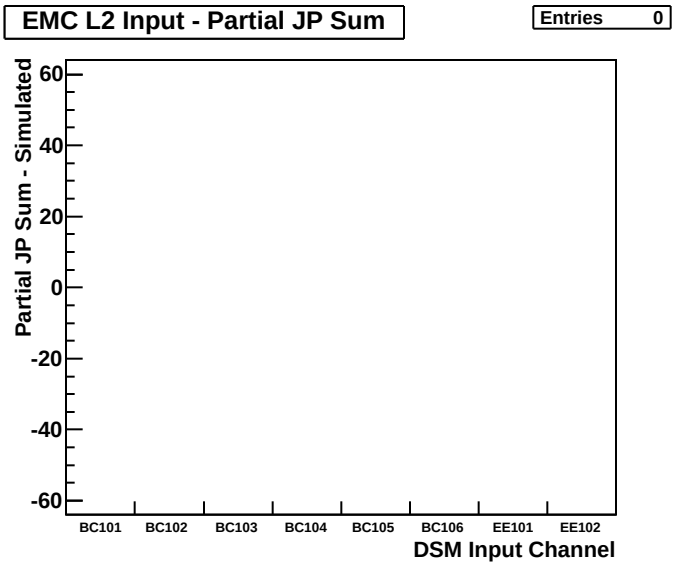

EMC L2 Input - JPY/JPB bits
Entries 1782960
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1568 698 581 286 167 795 483 750
3504 1735 1630 944 695 2086 1494 2462
3632 1891 1845 1302 1340 2365 608 1122
214166 218546 218814 220338 220668 217624 220285 218536

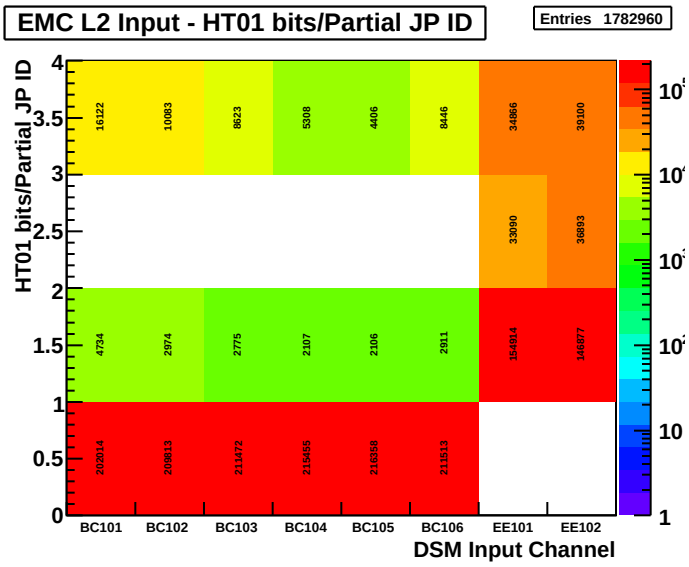

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

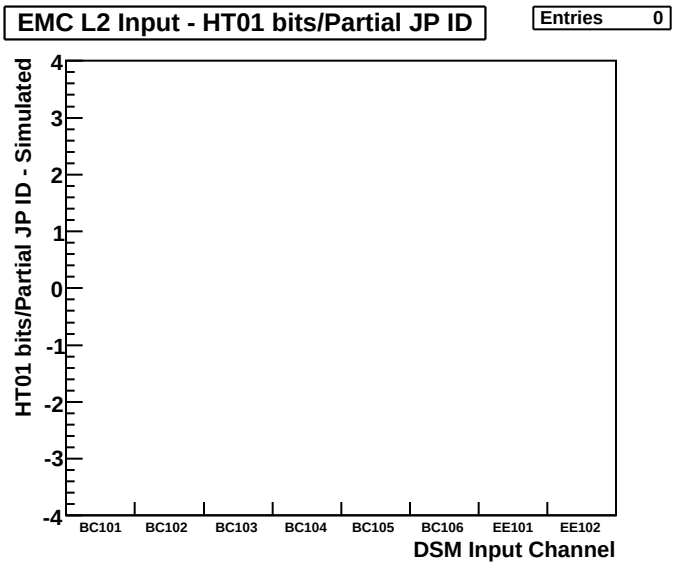

EMC L2 Input - JPZ/JPC bits
Entries 1782960
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1098 563 401 263 172 621 359 444
2681 1668 1443 954 655 1957 1772 1406
2819 1846 1735 1335 1396 2371 929 847
216272 218793 219201 220318 220647 217921 219810 220173

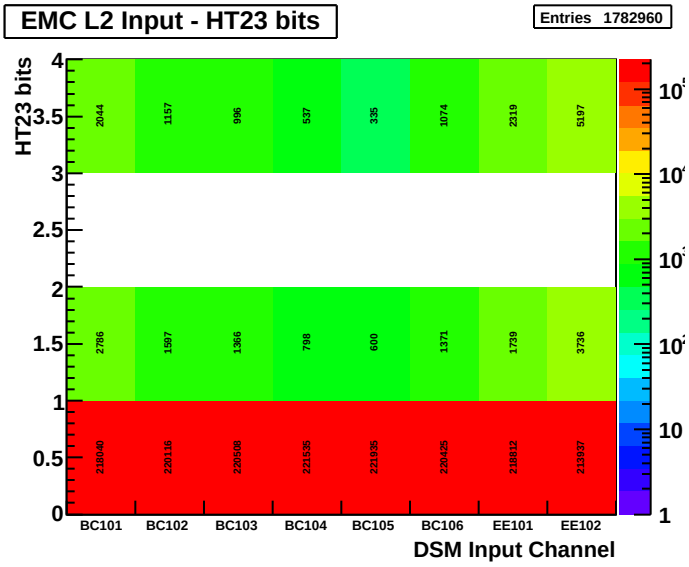

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

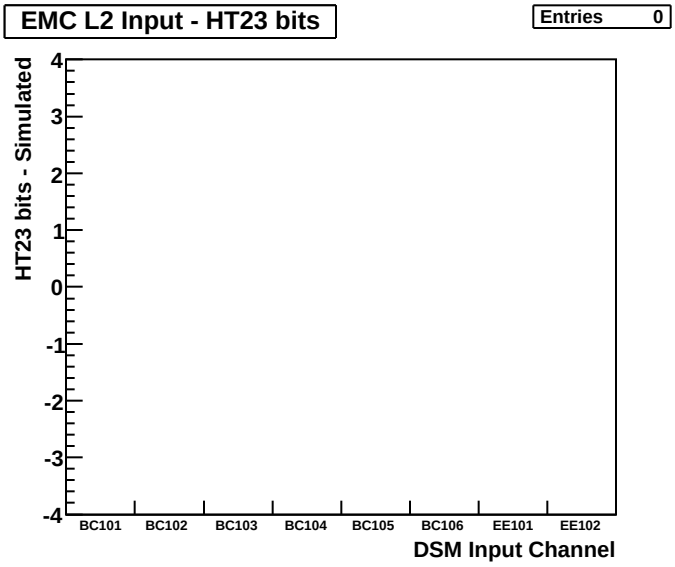

EMC L2 Input - Partial JP Sum
Entries 1782960
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

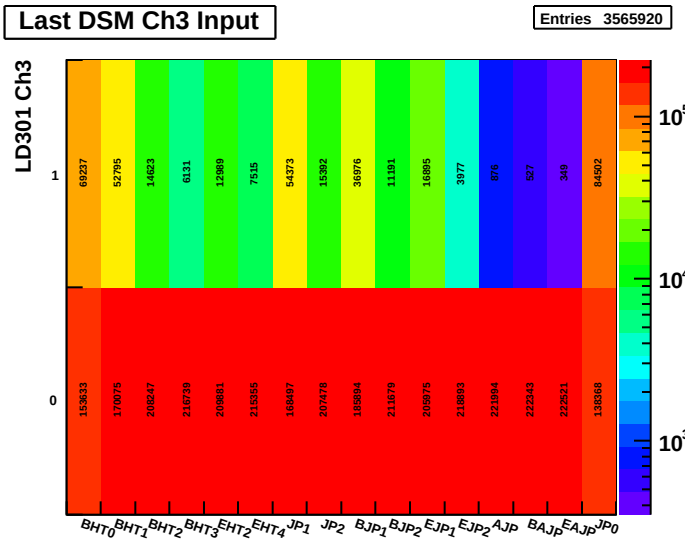

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

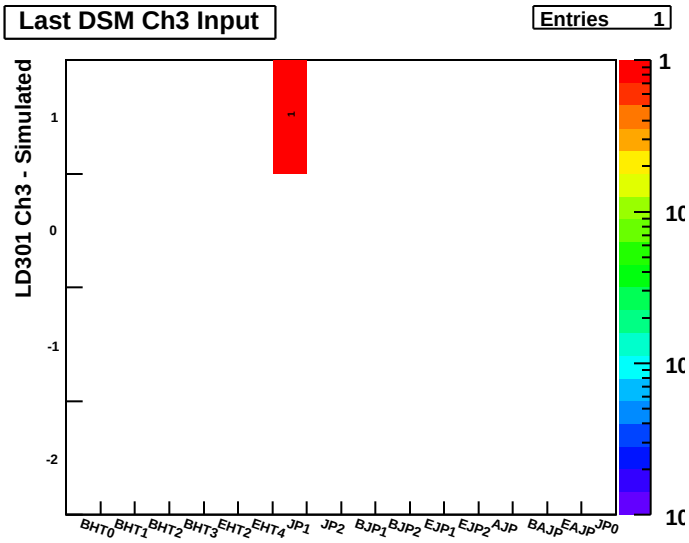

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1782960
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

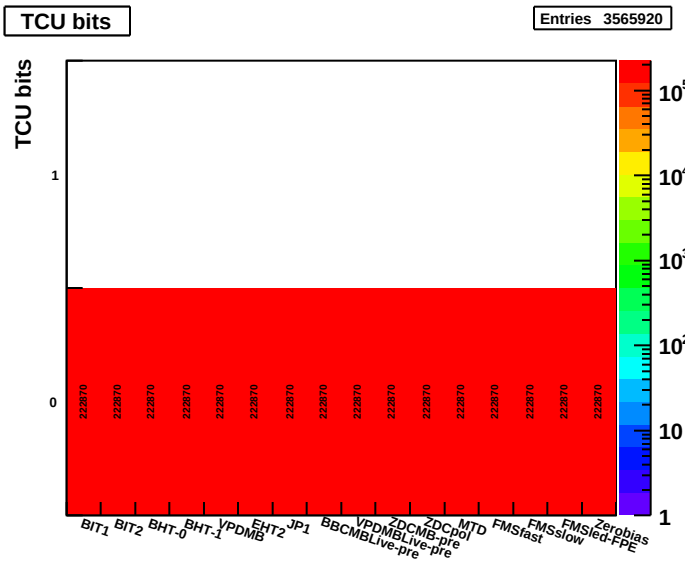

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

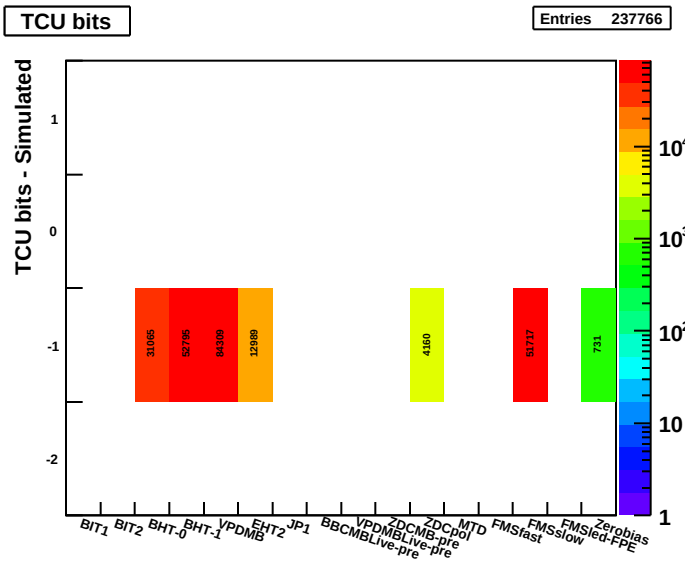

EMC L2 Input - HT23 bits
Entries 1782960
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

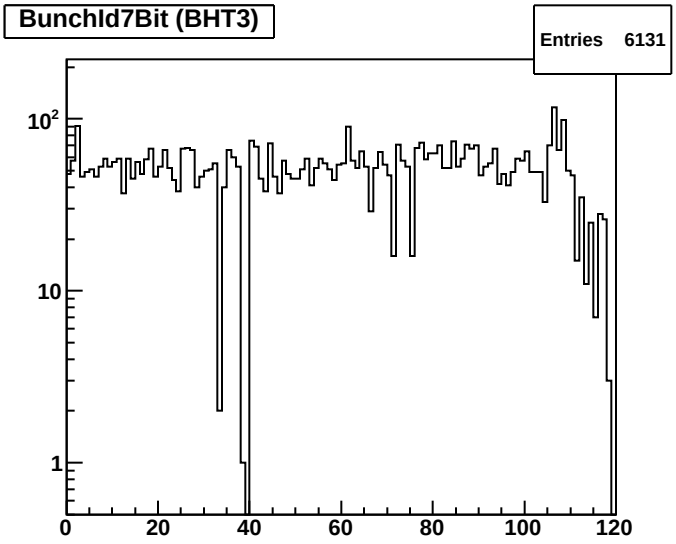

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

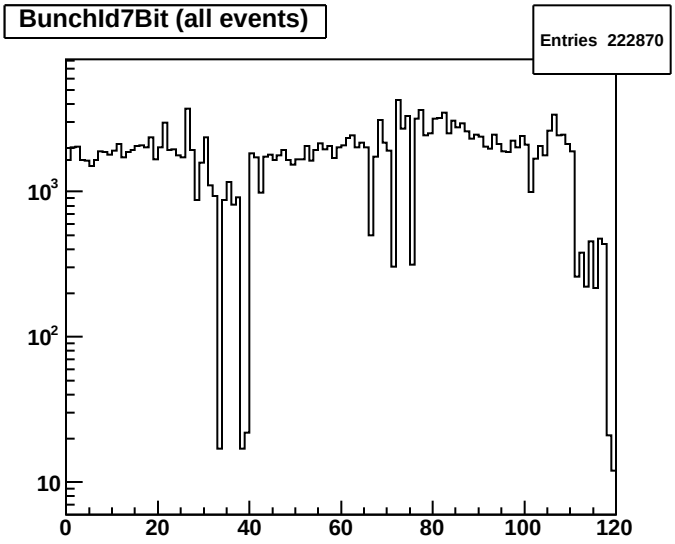

Last DSM Ch3 Input
Entries 3565920
LD301 Ch3
1
0
69237 52795 14623 6131 12989 7515 54373 15392 36976 11191 16895 3977 676 527 349 84502
153633 170075 208247 216739 209881 215355 168497 207478 185894 211679 205975 218893 221994 222343 222521 138368
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

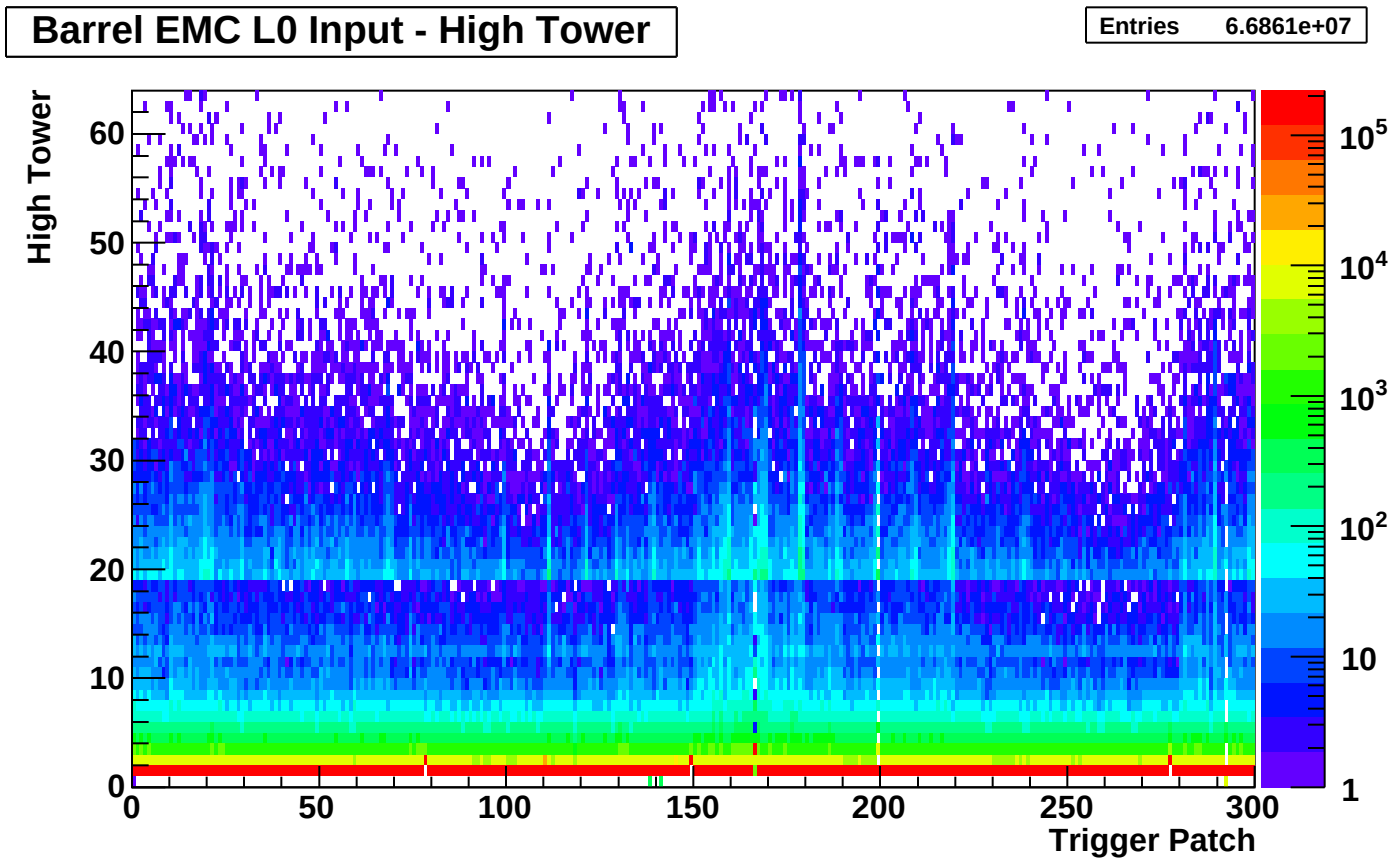

Last DSM Ch3 Input
Entries 1
LD301 Ch3 - Simulated
1
0
-1
-2
1
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

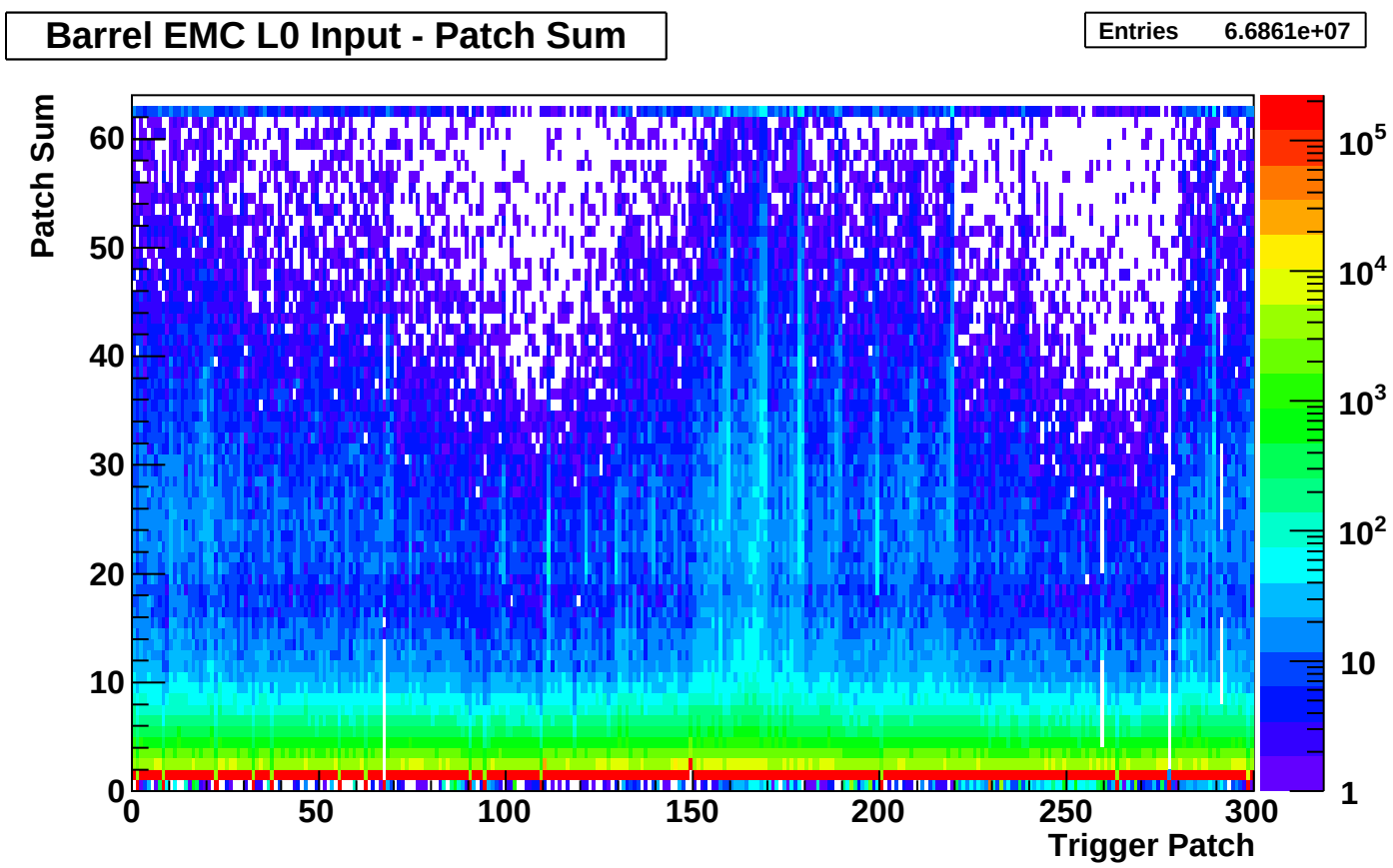

TCU bits
Entries 3565920
TCU bits
1
0
222870
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

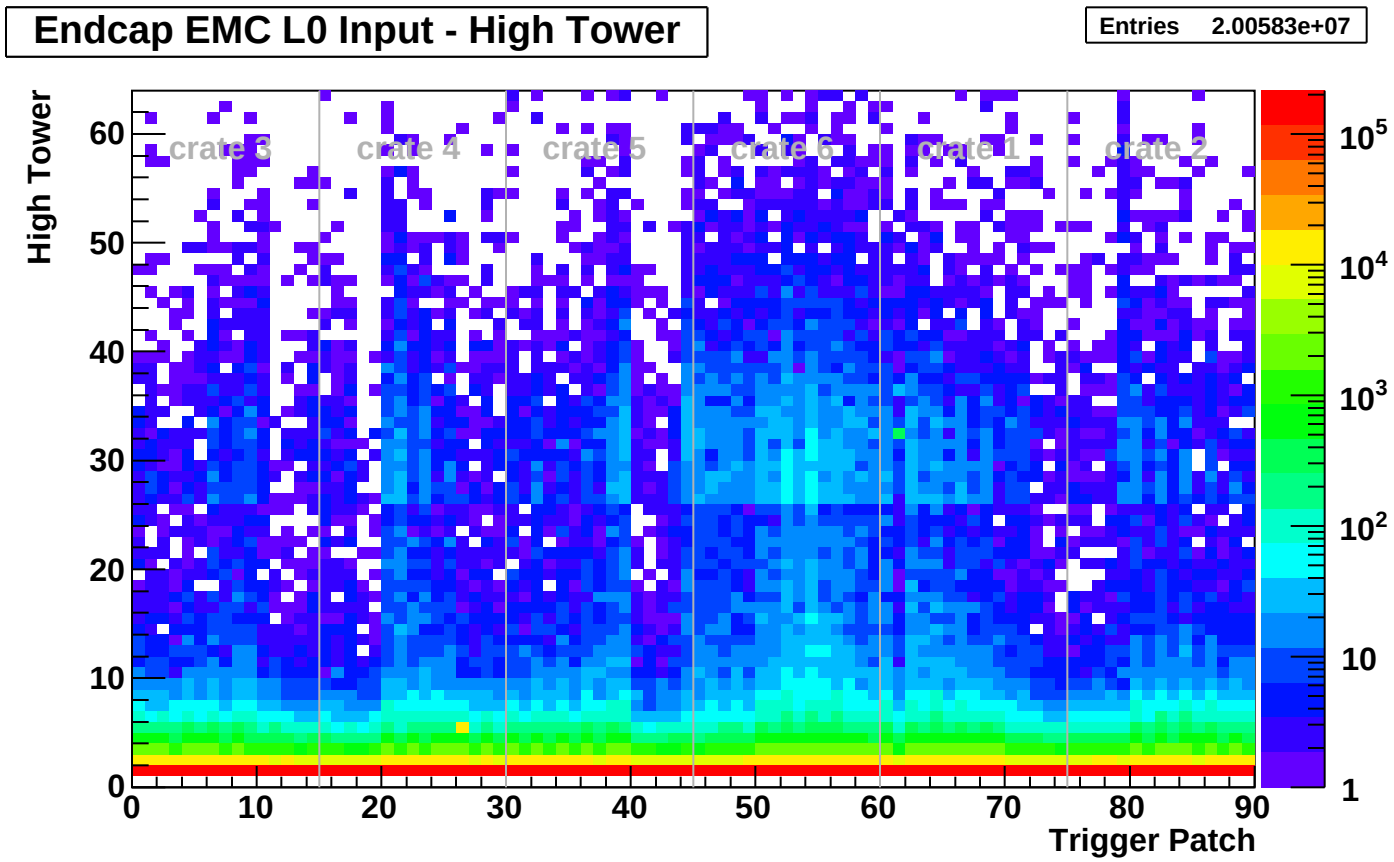

TCU bits
Entries 237766
TCU bits - Simulated
1
0
-1
-2
31065 52795 84309 12989 4160 51717 731
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

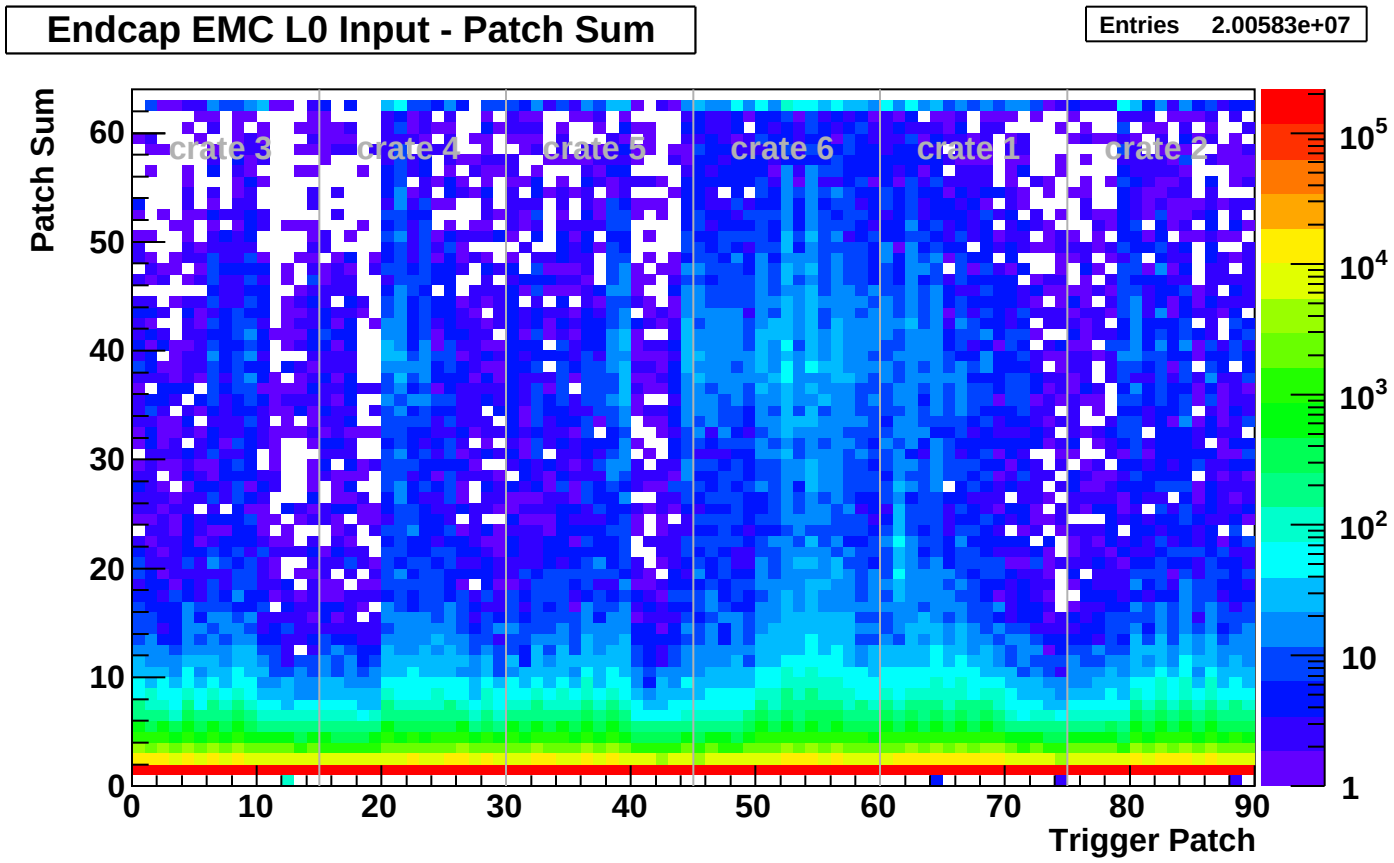

BunchId7Bit (BHT3)
Entries 6131
10²
10
1
0 20 40 60 80 100 120

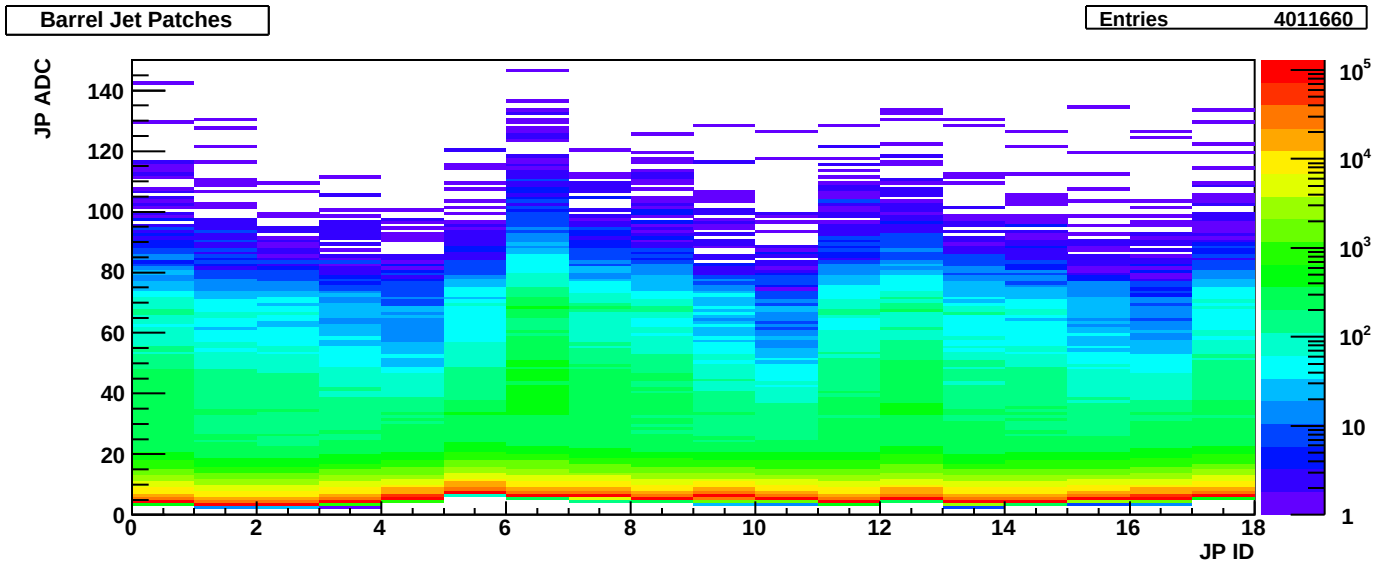

BunchId7Bit (all events)
Entries 222870
10³
10²
10
0 20 40 60 80 100 120

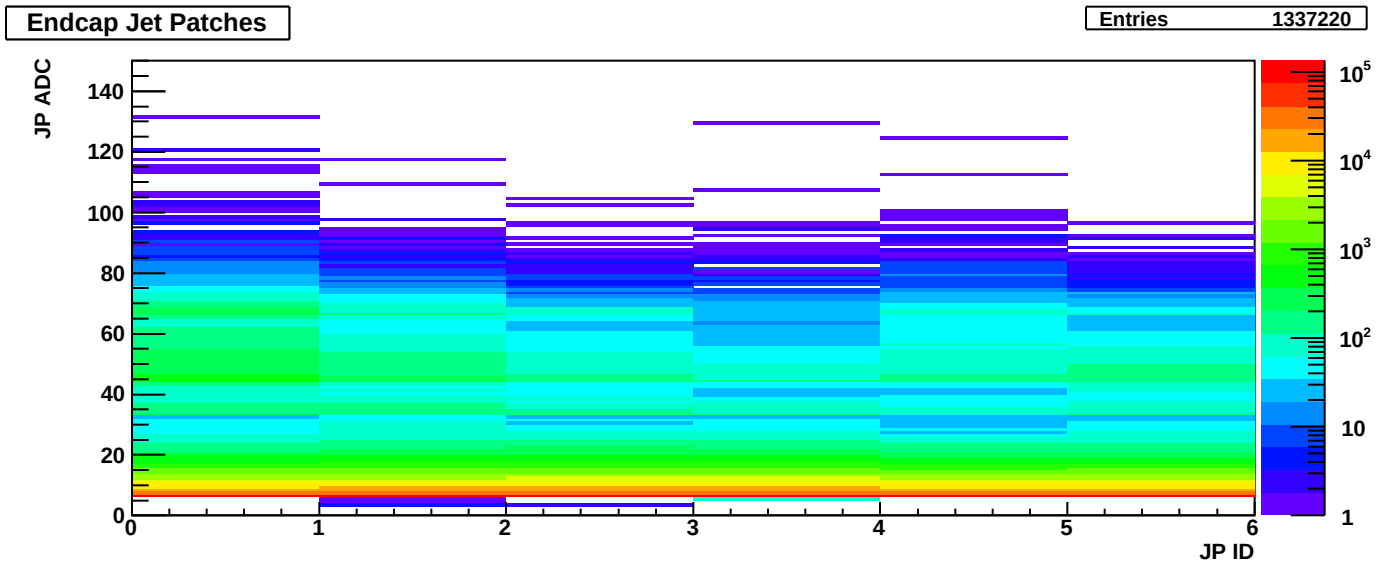

Barrel EMC L0 Input - High Tower
Entries 6.6861e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

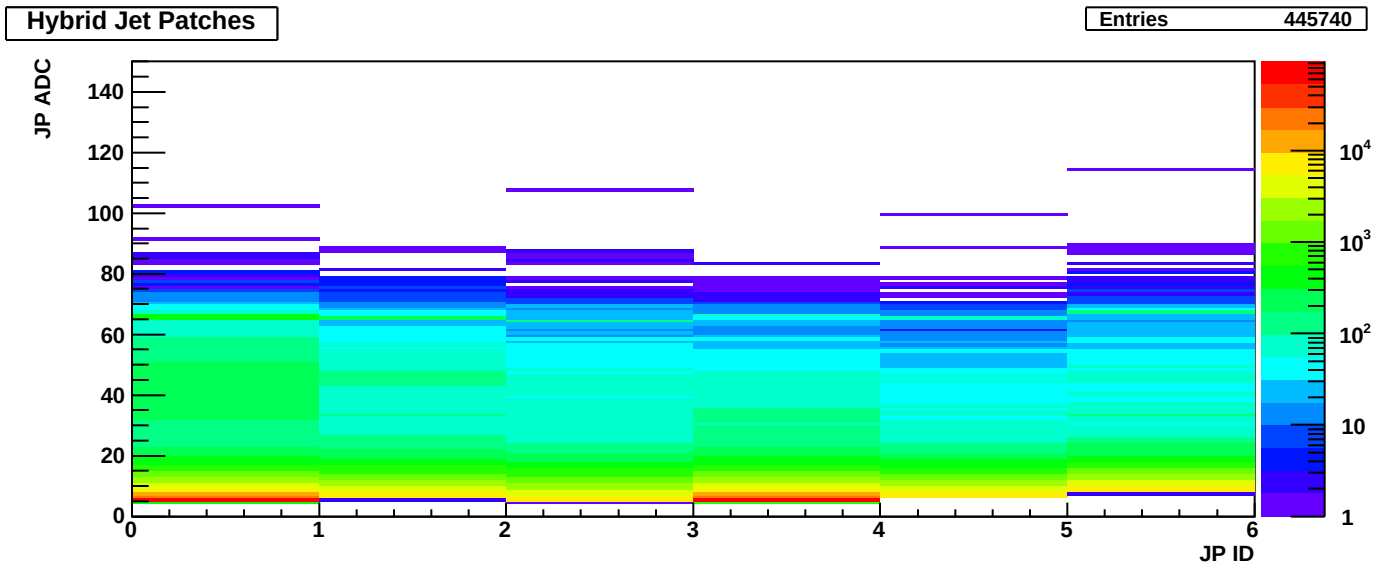

Barrel EMC L0 Input - Patch Sum
Entries 6.6861e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

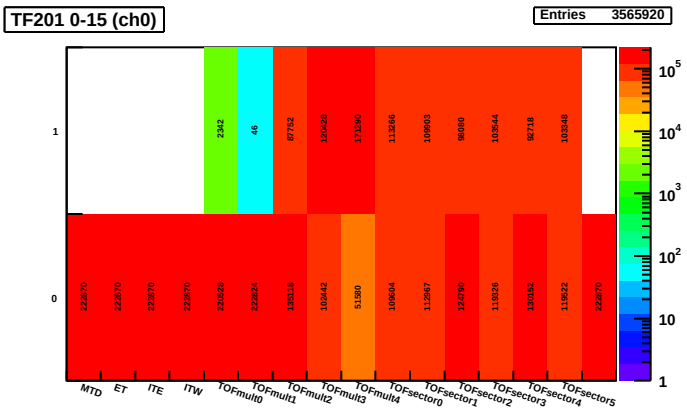

Endcap EMC L0 Input - High Tower
Entries 2.00583e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

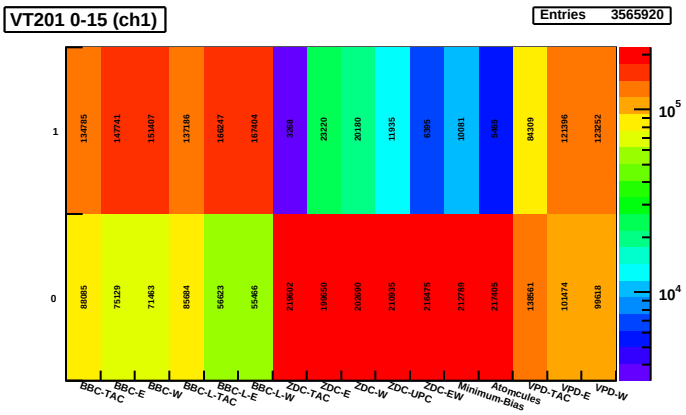

Endcap EMC L0 Input - Patch Sum
Entries 2.00583e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

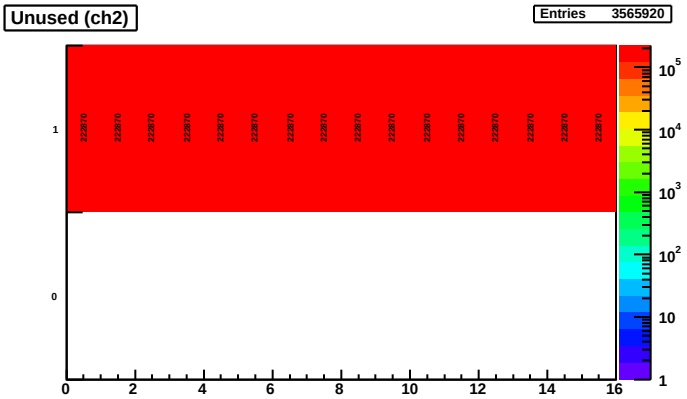

Barrel Jet Patches
Entries 4011660
JP ADC
JP ID

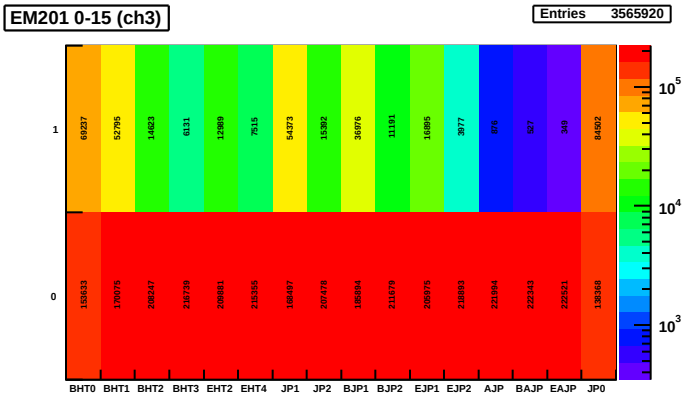

Endcap Jet Patches
Entries 1337220
JP ADC
JP ID

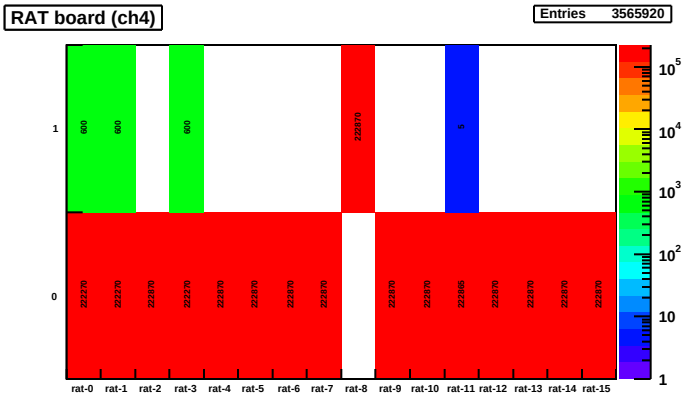

Hybrid Jet Patches
Entries 445740
JP ADC
JP ID

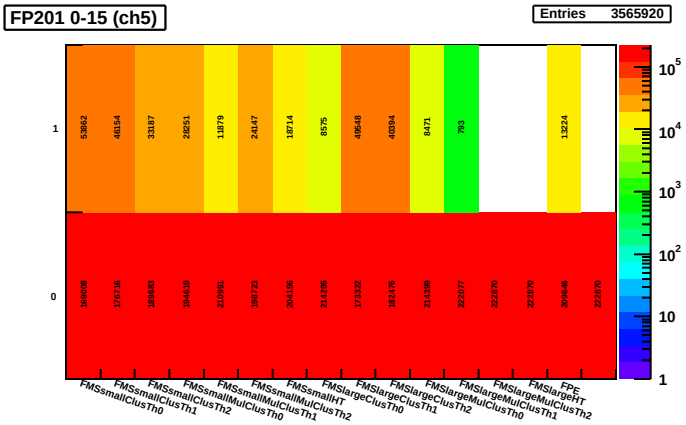

TF201 0-15 (ch0)
Entries 3565920
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

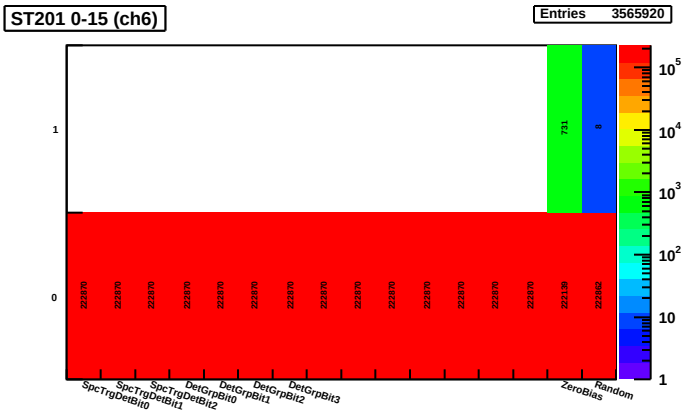

VT201 0-15 (ch1)
Entries 3565920
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

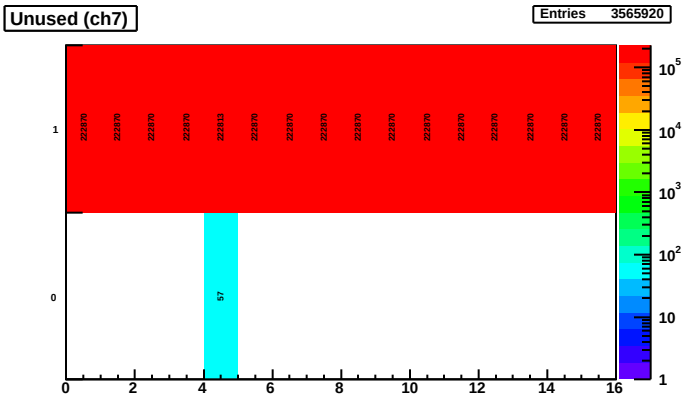

Unused (ch2)
Entries 3565920

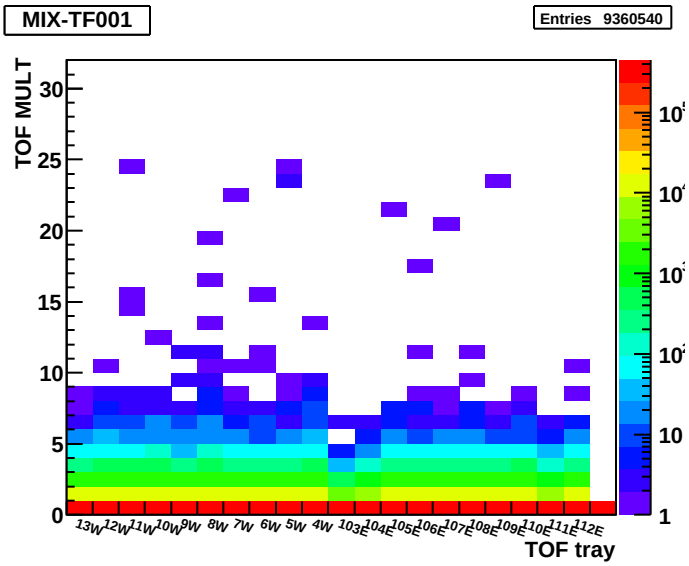

EM201 0-15 (ch3)
Entries 3565920
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

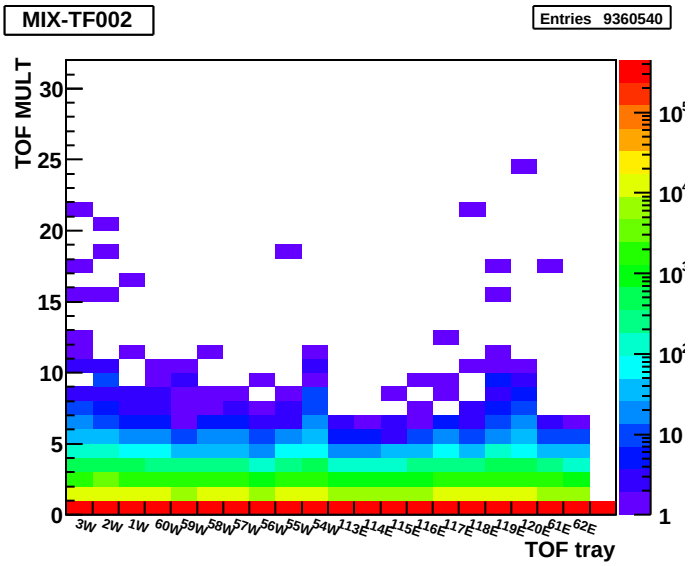

RAT board (ch4)
Entries 3565920
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

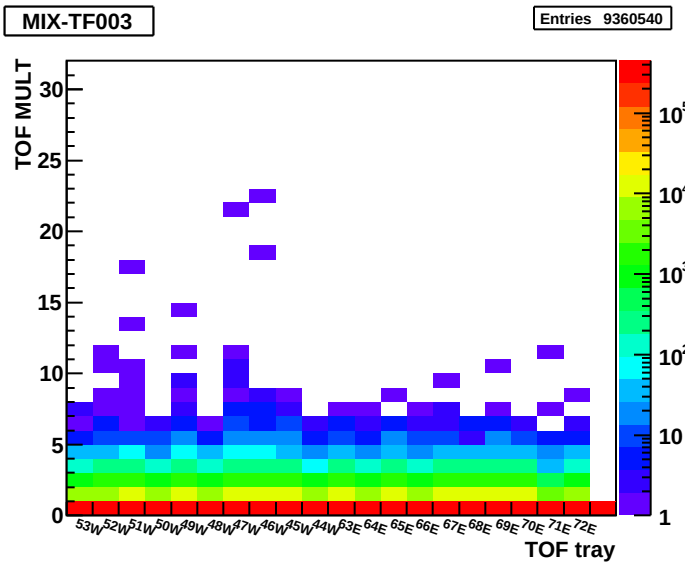

FP201 0-15 (ch5)
Entries 3565920
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

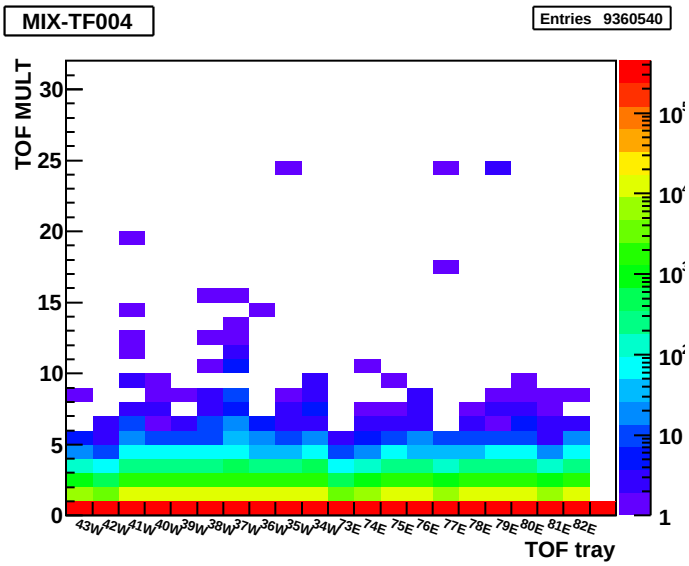

ST201 0-15 (ch6)
Entries 3565920
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetCrpBit0 DetCrpBit1 DetCrpBit2 DetCrpBit3 ZeroBias Random

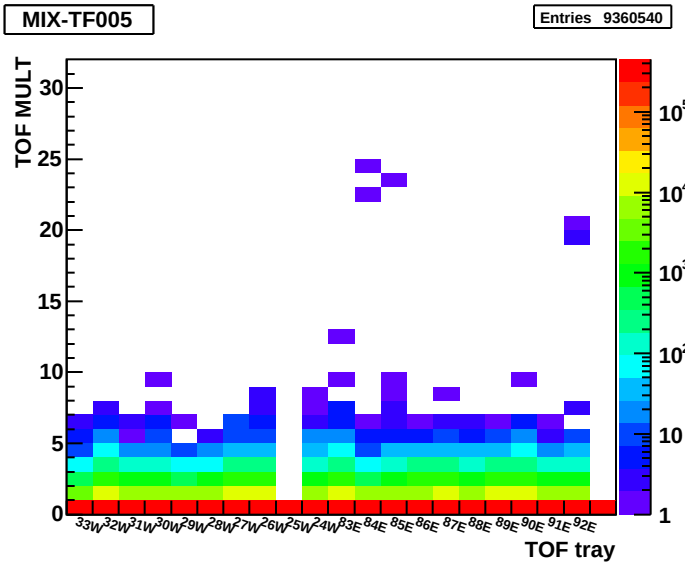

Unused (ch7)
Entries 3565920

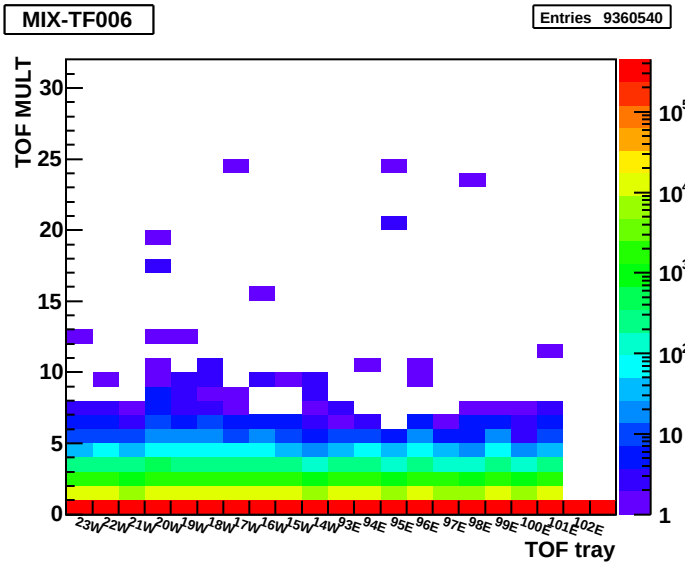

MIX-TF001
Entries 9360540
TOF MULT
TOF tray

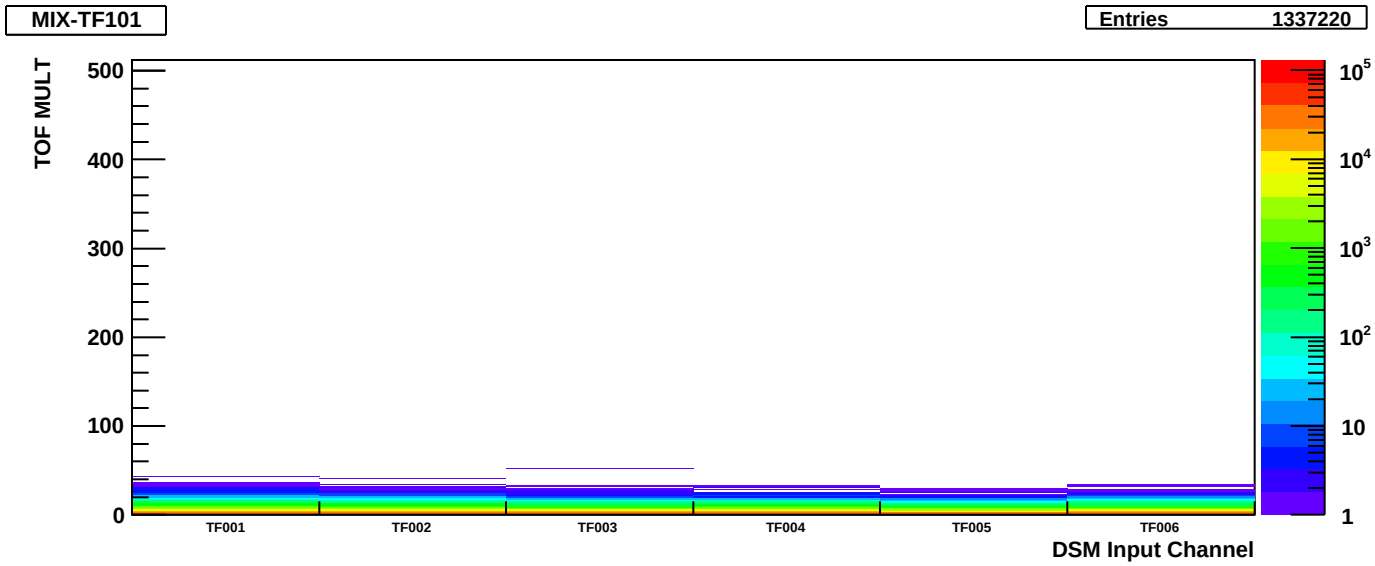

MIX-TF002
Entries 9360540
TOF MULT
TOF tray

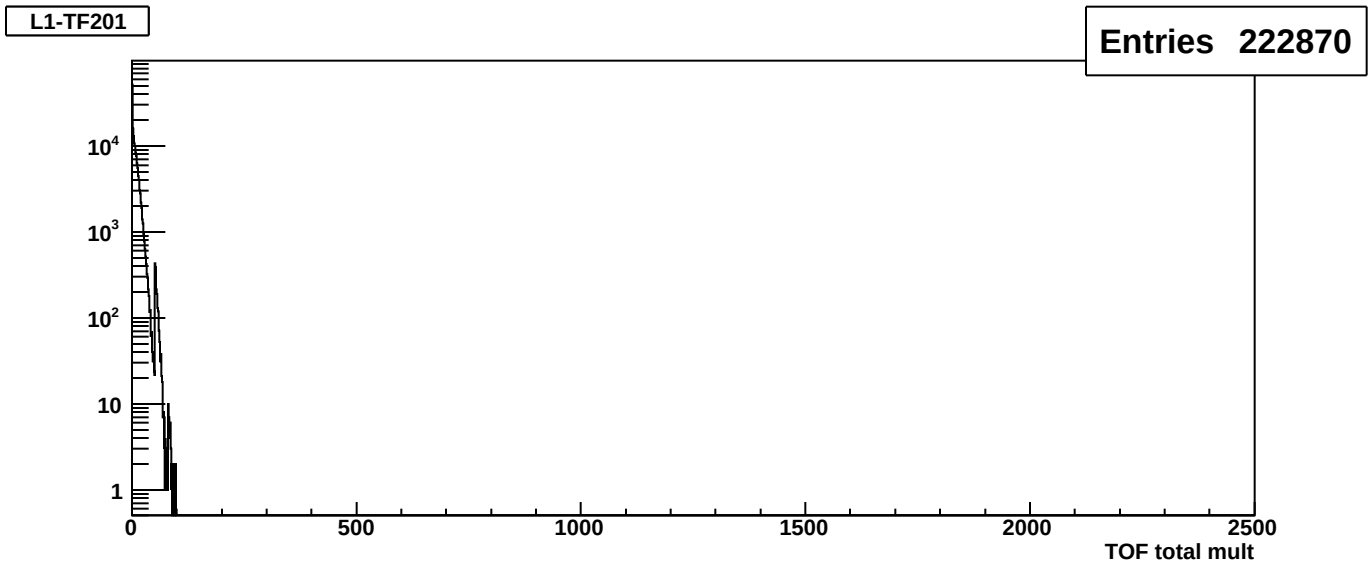

MIX-TF003
Entries 9360540
TOF MULT
TOF tray

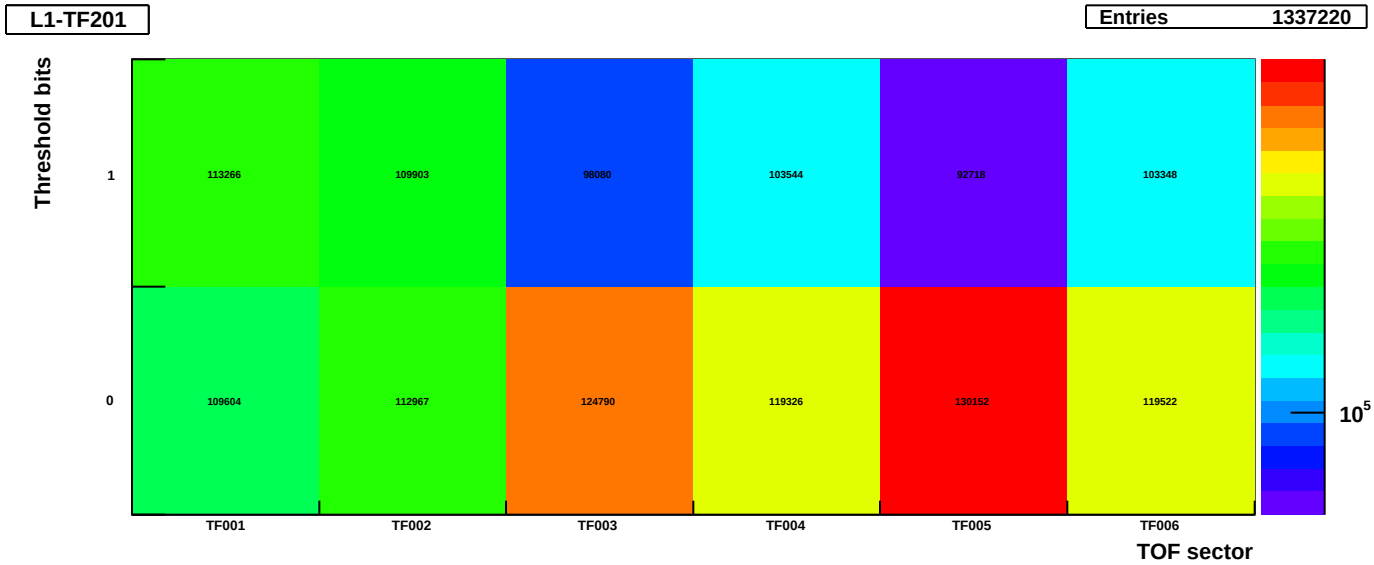

MIX-TF004
Entries 9360540
TOF MULT
TOF tray

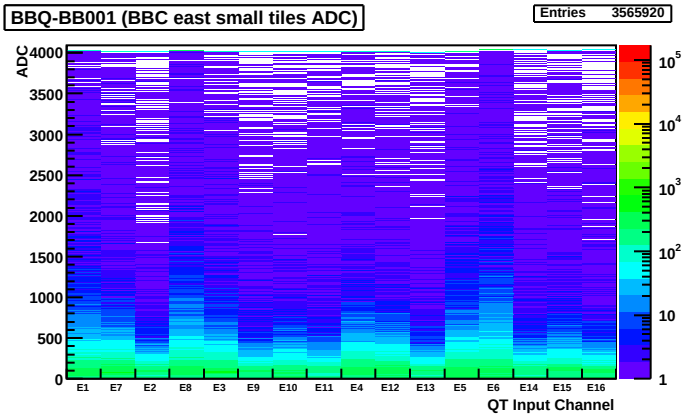

MIX-TF005
Entries 9360540
TOF MULT
TOF tray

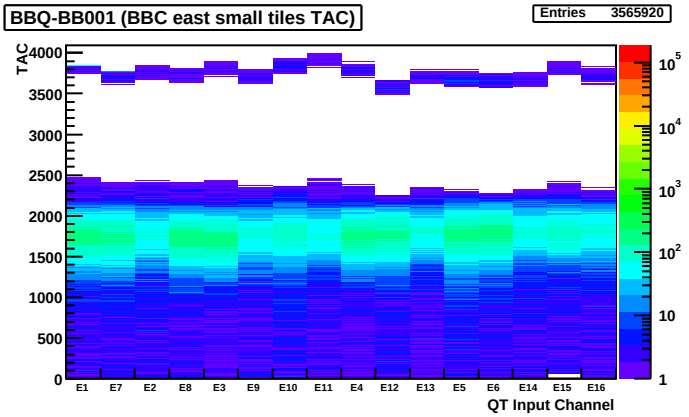

MIX-TF006
Entries 9360540
TOF MULT
TOF tray

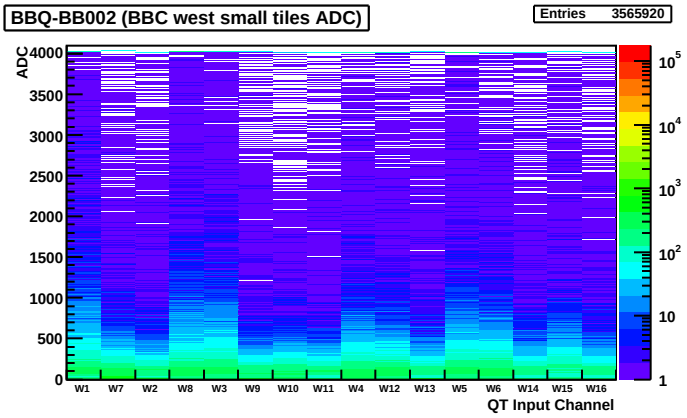

MIX-TF101
Entries 1337220
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

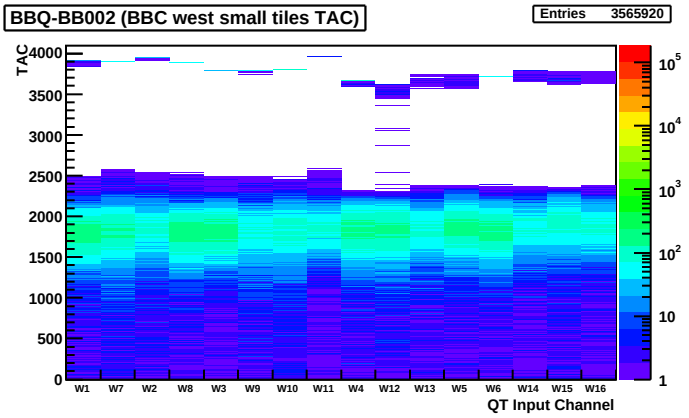

L1-TF201
Entries 222870
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

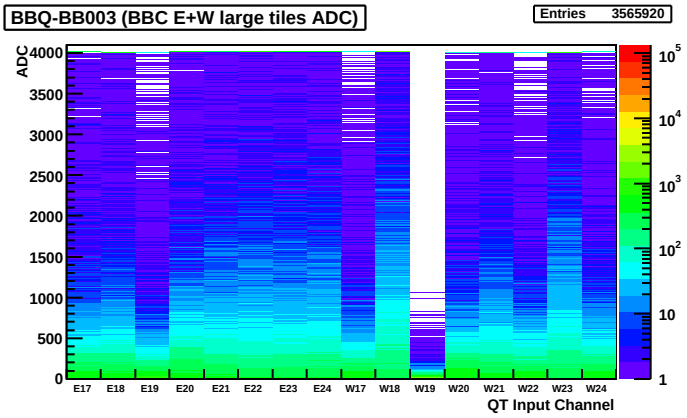

L1-TF201
Entries 1337220
Threshold bits
1
0
113266
109903
98080
103544
92718
103348
109604
112967
124790
119326
130152
119522
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

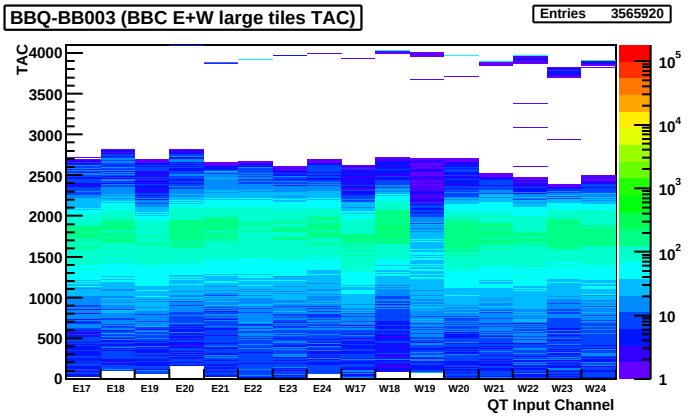

BBQ-BB001 (BBC east small tiles ADC)
Entries 3565920
ADC
QT Input Channel

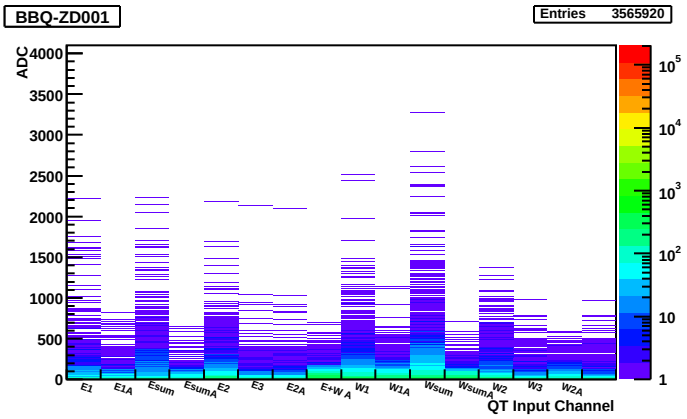

BBQ-BB001 (BBC east small tiles TAC)
Entries 3565920
TAC
QT Input Channel

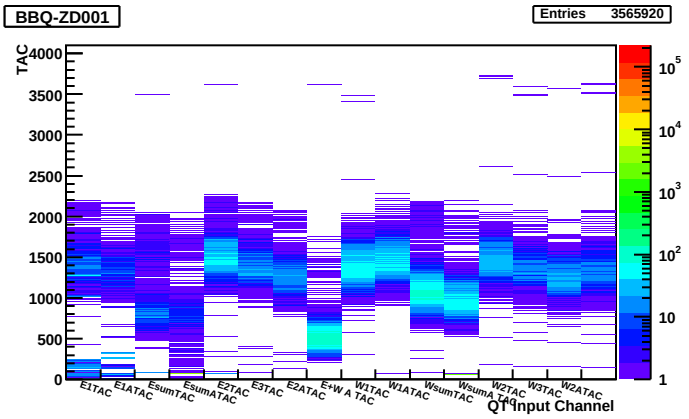

BBQ-BB002 (BBC west small tiles ADC)
Entries 3565920
ADC
QT Input Channel

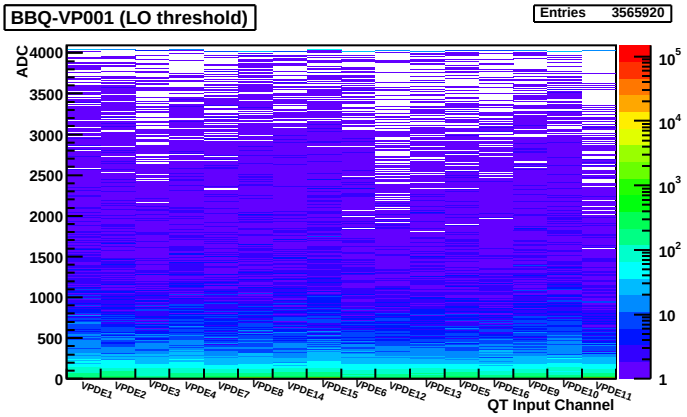

BBQ-BB002 (BBC west small tiles TAC)
Entries 3565920
TAC
QT Input Channel

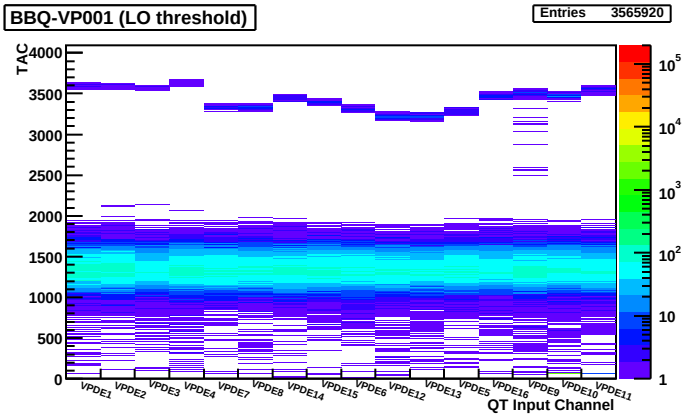

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 3565920
ADC
QT Input Channel

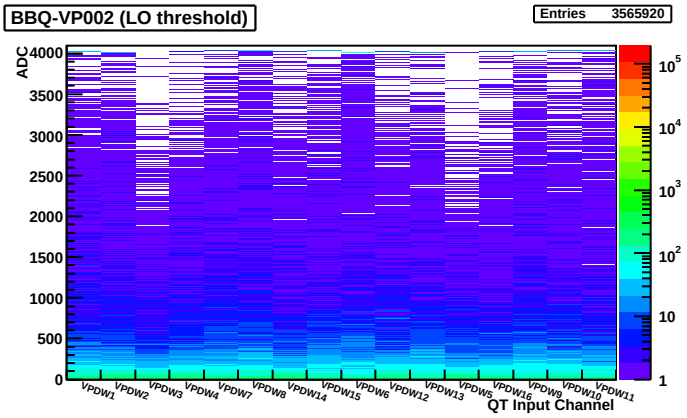

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 3565920
TAC
QT Input Channel

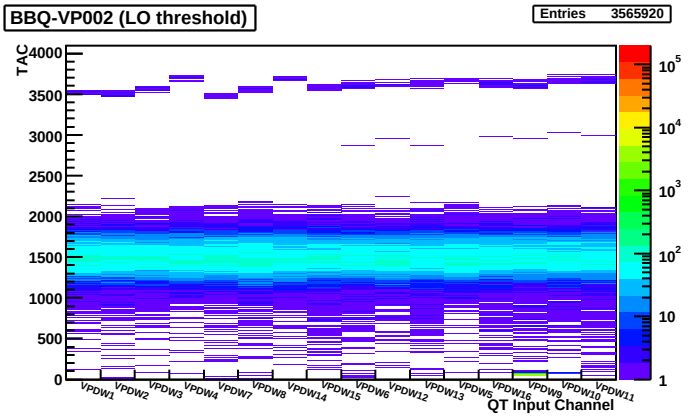

BBQ-ZD001
Entries 3565920
ADC
QT Input Channel

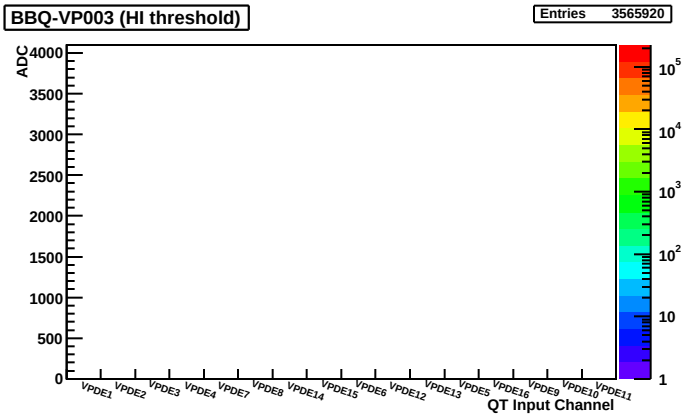

BBQ-ZD001
Entries 3565920
TAC
QT Input Channel

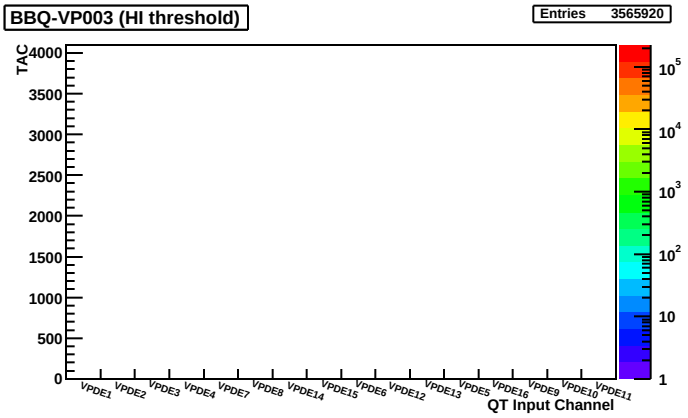

BBQ-VP001 (LO threshold)
Entries 3565920
ADC
QT Input Channel

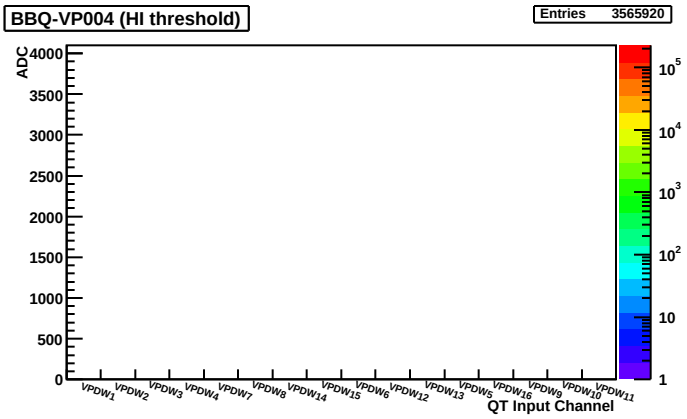

BBQ-VP001 (LO threshold)
Entries 3565920
TAC
QT Input Channel

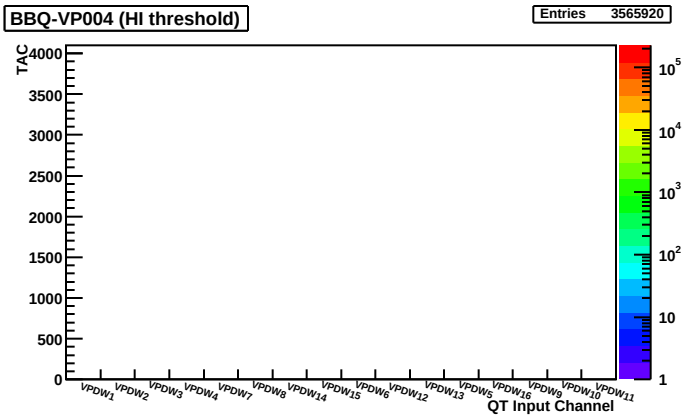

BBQ-VP002 (LO threshold)
Entries 3565920
ADC
QT Input Channel

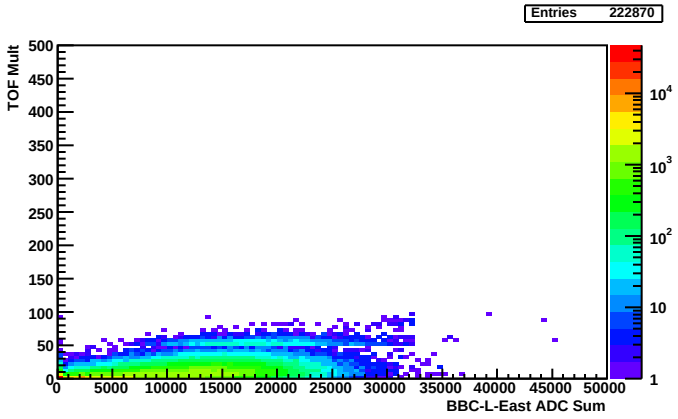

BBQ-VP002 (LO threshold)
Entries 3565920
TAC
QT Input Channel

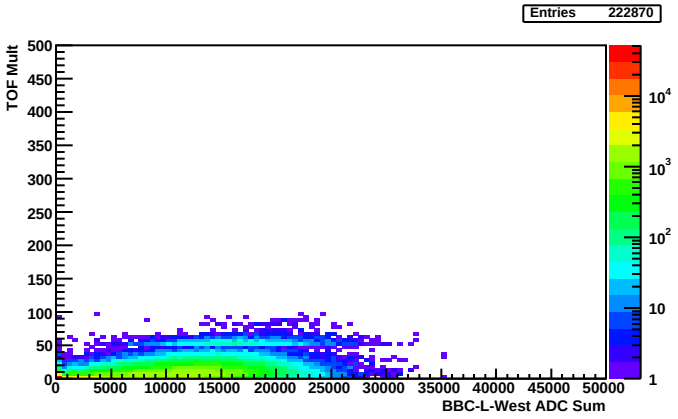

BBQ-VP003 (HI threshold)
Entries 3565920
ADC
QT Input Channel

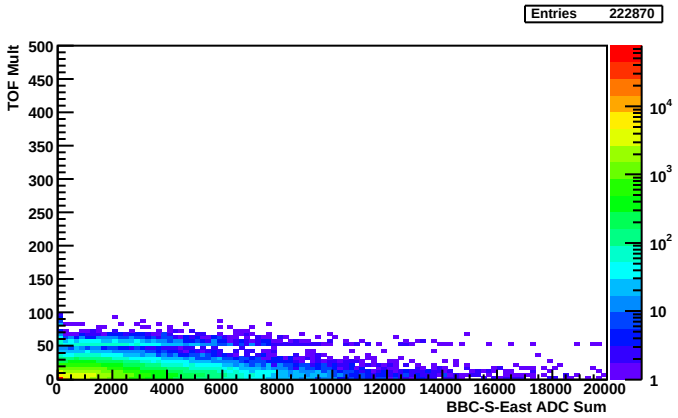

BBQ-VP003 (HI threshold)
Entries 3565920
TAC
QT Input Channel

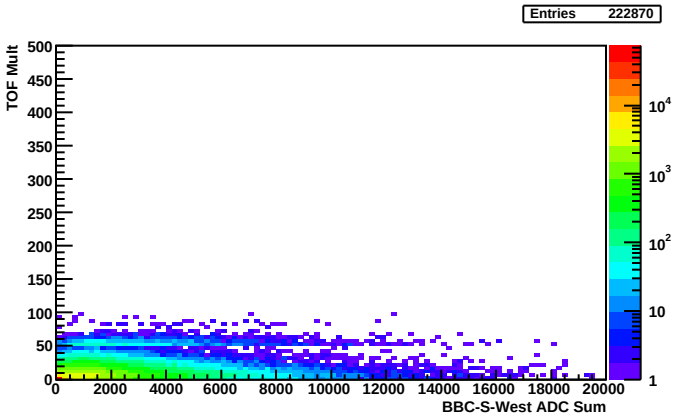

BBQ-VP004 (HI threshold)
Entries 3565920
ADC
QT Input Channel

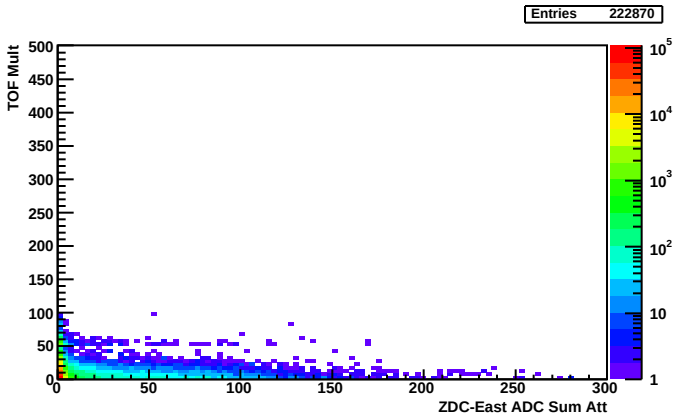

BBQ-VP004 (HI threshold)
Entries 3565920
TAC
QT Input Channel

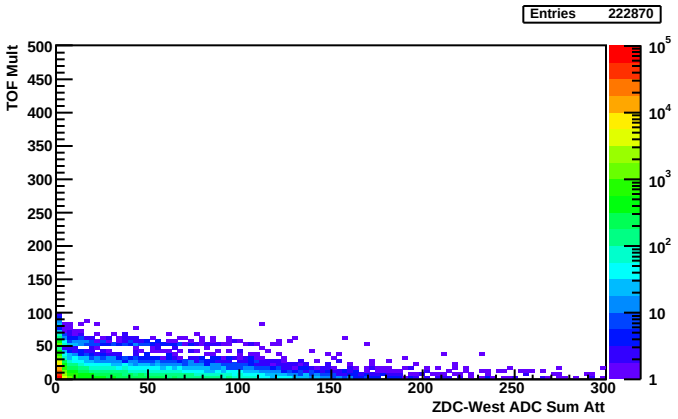

Entries 222870
TOF Mult
BBC-L-East ADC Sum

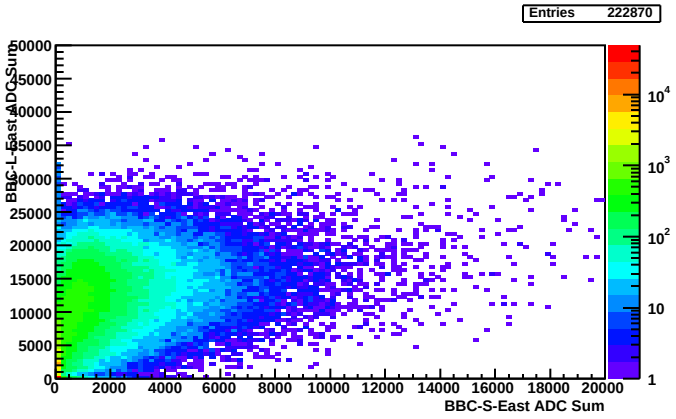

Entries 222870
TOF Mult
BBC-L-West ADC Sum

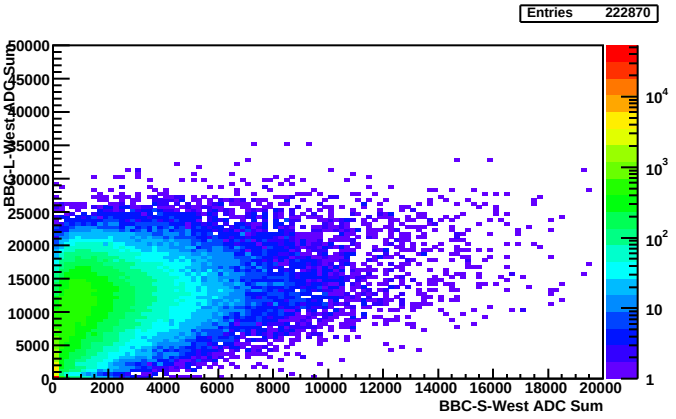

Entries 222870
TOF Mult
BBC-S-East ADC Sum

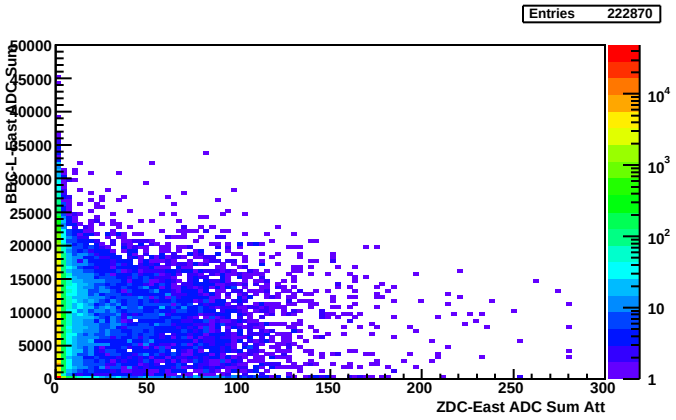

Entries 222870
TOF Mult
BBC-S-West ADC Sum

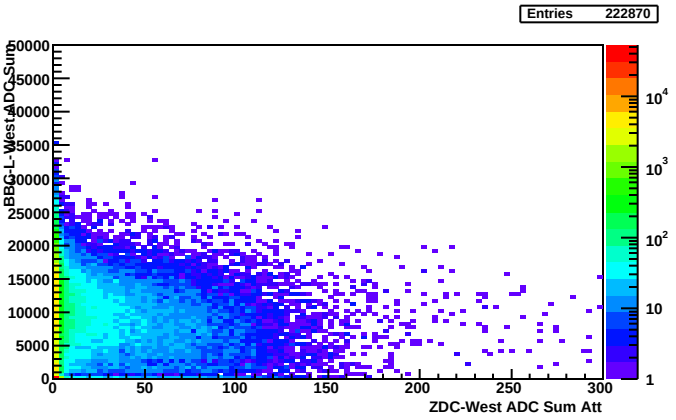

Entries 222870
TOF Mult
ZDC-East ADC Sum Att

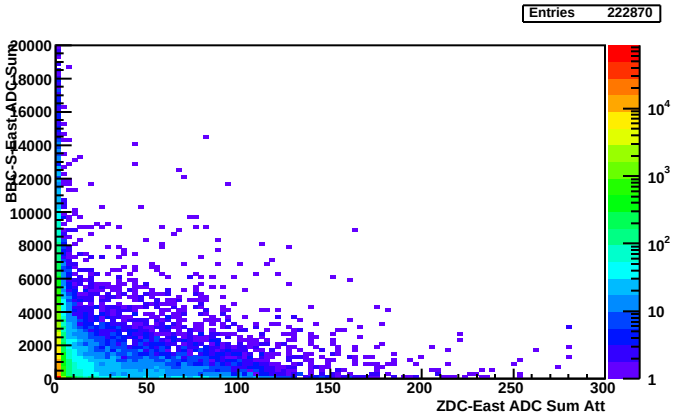

Entries 222870
TOF Mult
ZDC-West ADC Sum Att

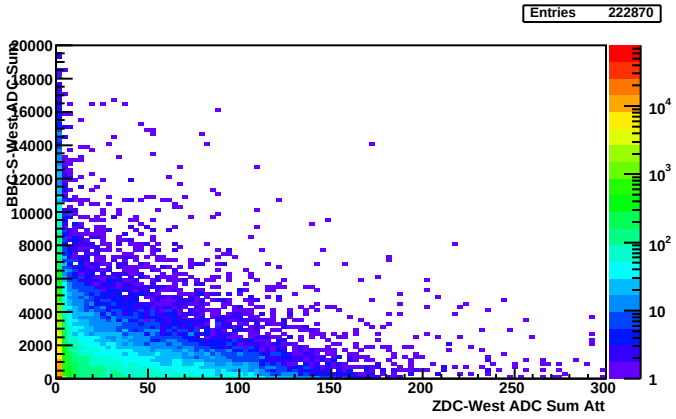

Entries 222870
BBC-L-East ADC Sum
BBC-S-East ADC Sum

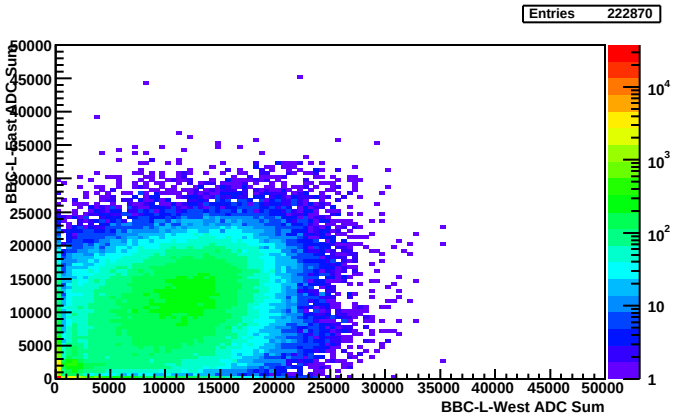

Entries 222870
BBC-L-West ADC Sum
BBC-S-West ADC Sum

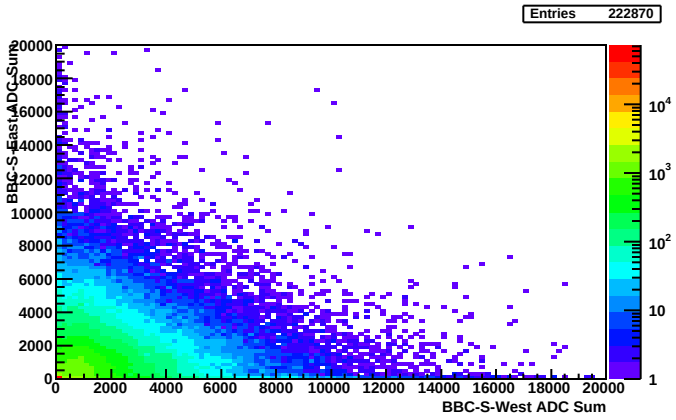

Entries 222870
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

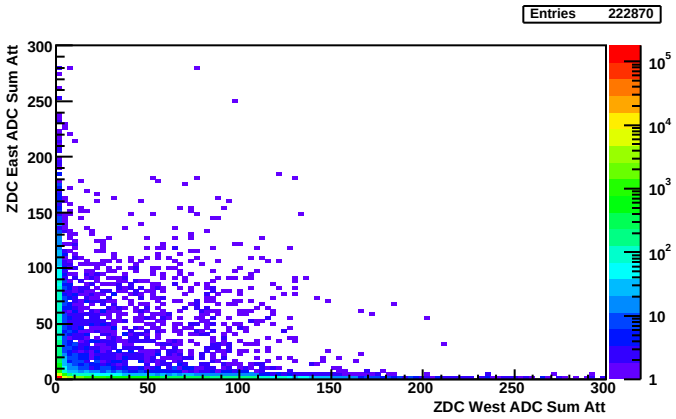

Entries 222870
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

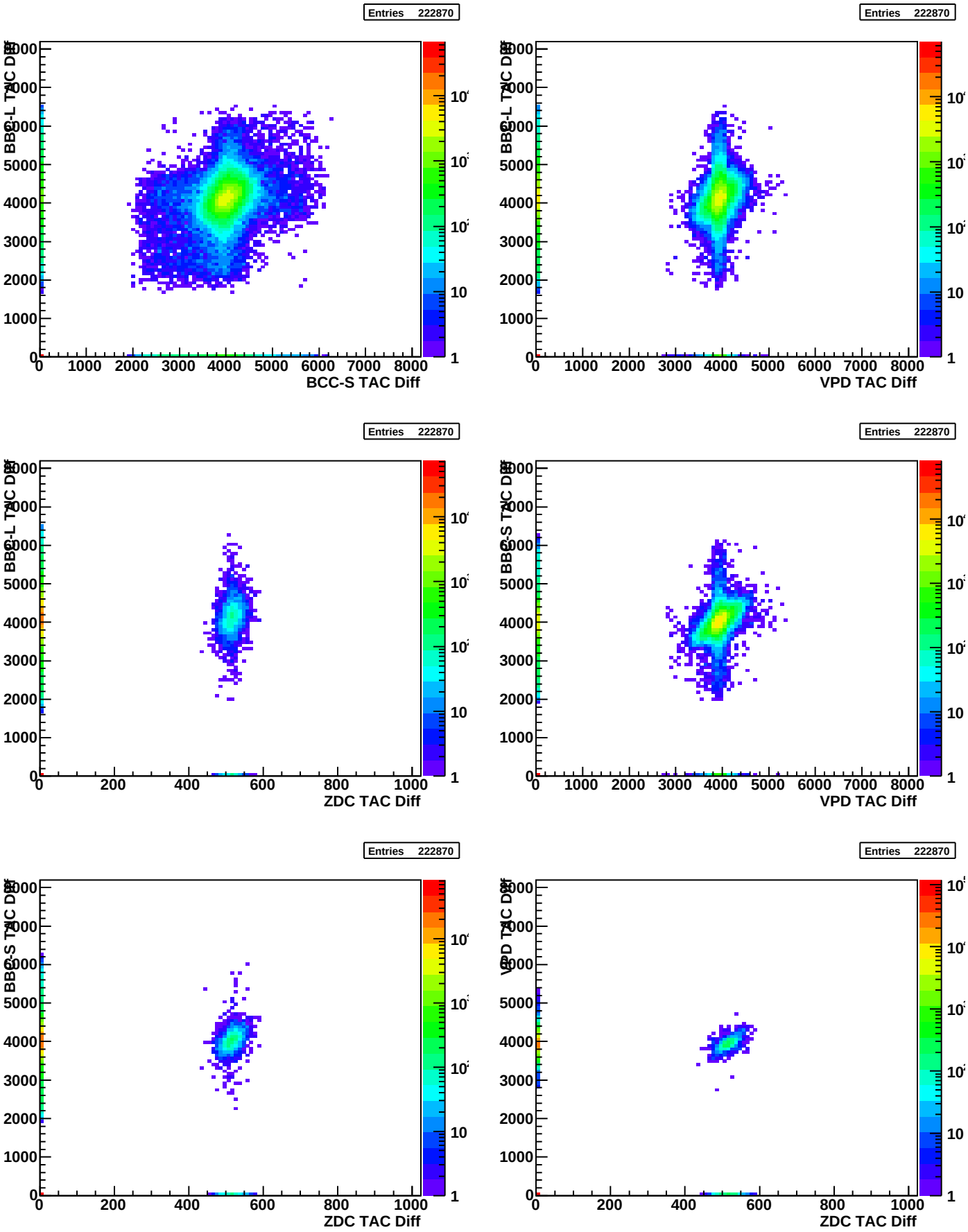

Entries 222870
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

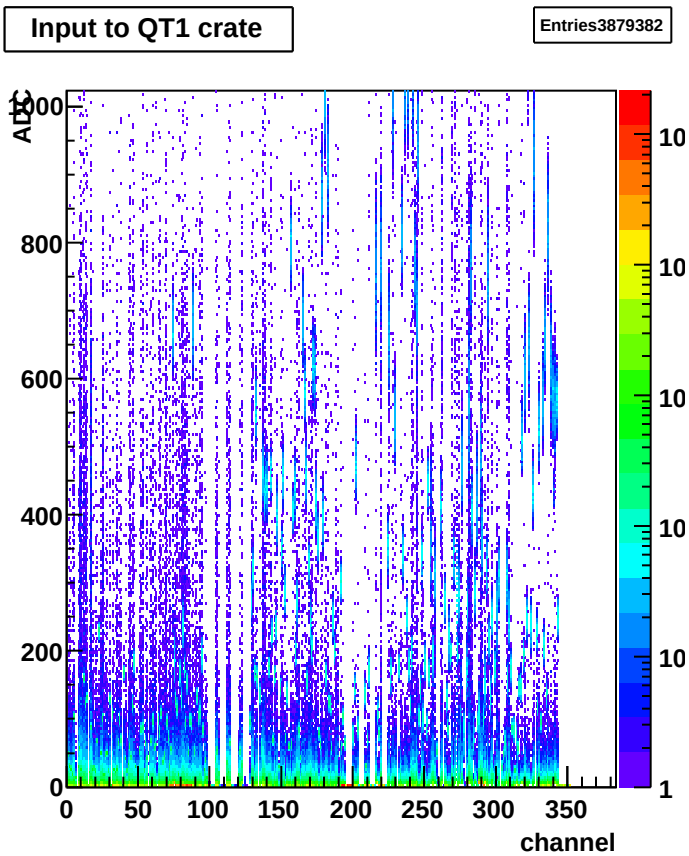

Entries 222870
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

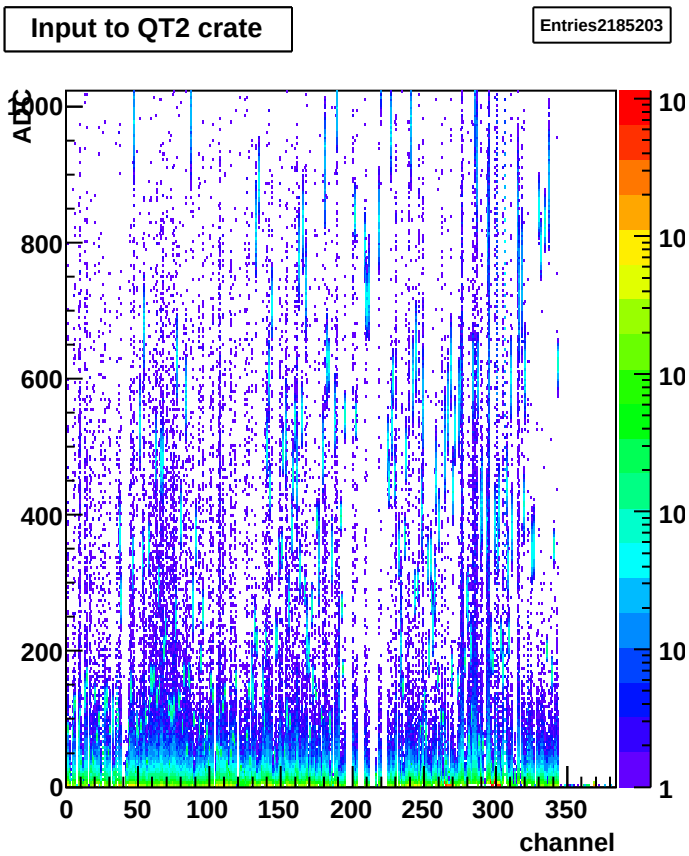

Entries 222870
BBC-L-East ADC Sum
BBC-L-West ADC Sum

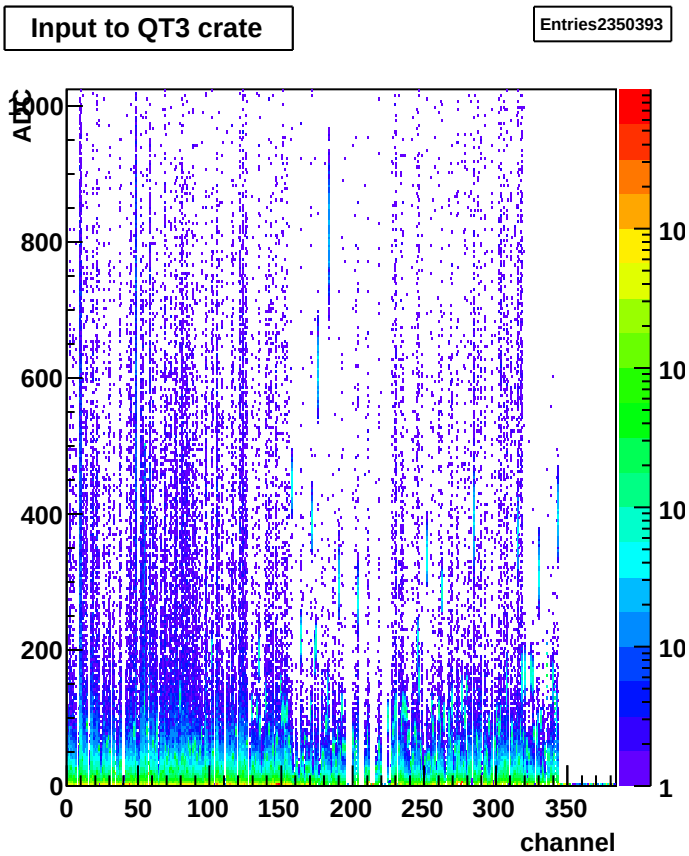

Entries 222870
BBC-S-East ADC Sum
BBC-S-West ADC Sum

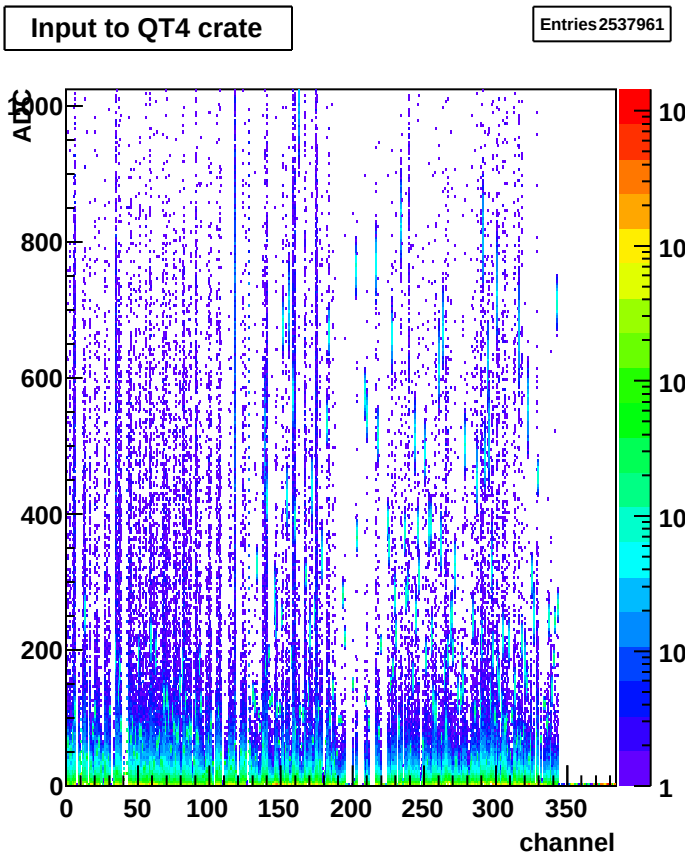

Entries 222870
ZDC East ADC Sum Att
ZDC West ADC Sum Att

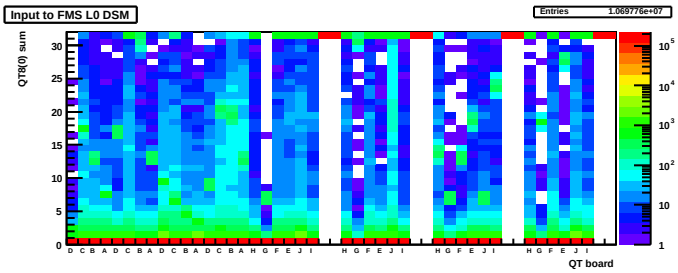

Entries 222870
BBC-L TAC Diff
BCC-S TAC Diff
Entries 222870
BBC-L TAC Diff
VPD TAC Diff
Entries 222870
BBC-L TAC Diff
ZDC TAC Diff
Entries 222870
BBC-S TAC Diff
VPD TAC Diff
Entries 222870
BBC-S TAC Diff
ZDC TAC Diff
Entries 222870
VPD TAC Diff
ZDC TAC Diff

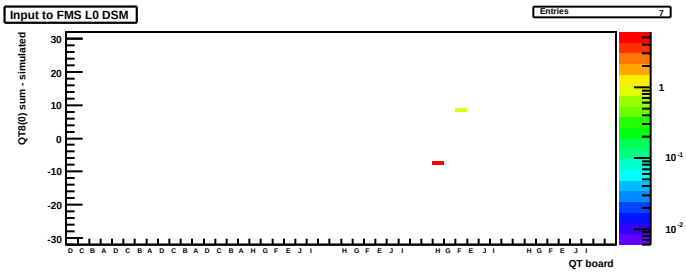

Input to QT1 crate
Entries3879382
ADC
channel

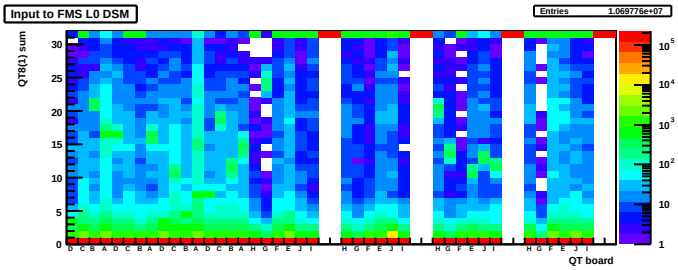

Input to QT2 crate
Entries2185203
ADC
channel

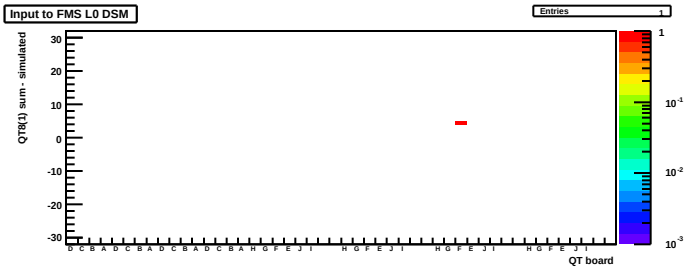

Input to QT3 crate
Entries2350393
ADC
channel

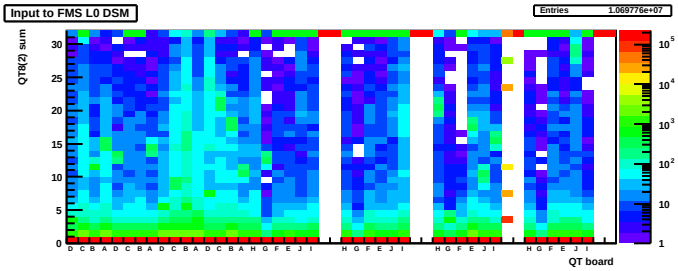

Input to QT4 crate
Entries2537961
ADC
channel

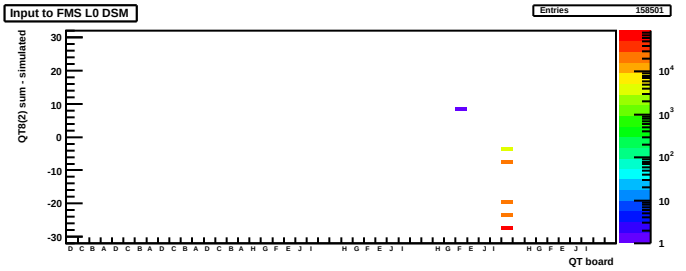

Input to FMS L0 DSM
Entries 1.069776e+07
QT8(0) sum
QT board

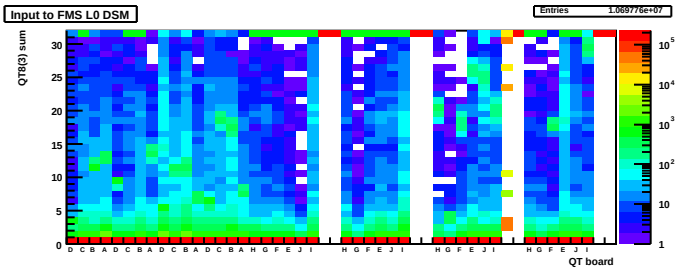

Input to FMS L0 DSM
Entries 7
QT8(0) sum - simulated
QT board

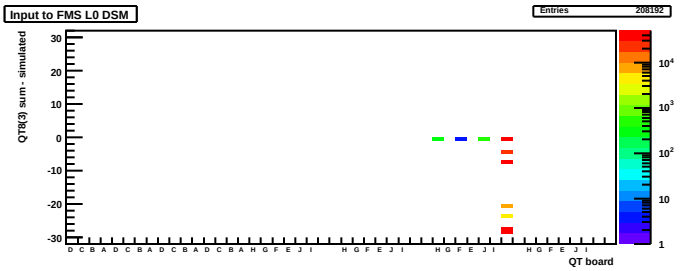

Input to FMS L0 DSM
Entries 1.069776e+07
QT8(1) sum
QT board

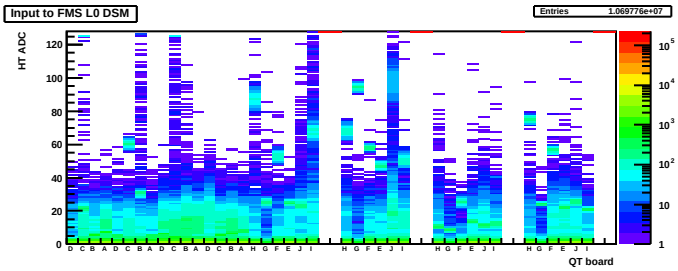

Input to FMS L0 DSM
Entries 1
QT8(1) sum - simulated
QT board

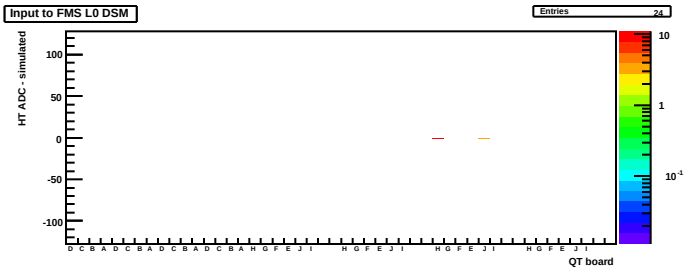

Input to FMS L0 DSM
Entries 1.069776e+07
QT8(2) sum
QT board

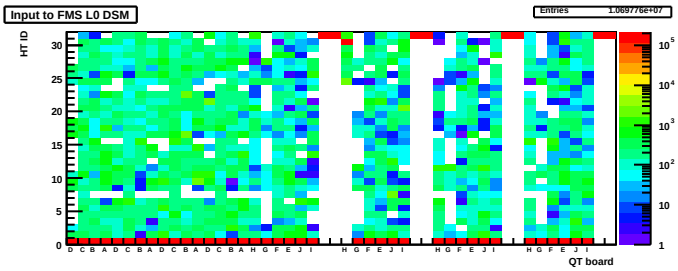

Input to FMS L0 DSM
Entries 158501
QT8(2) sum - simulated
QT board

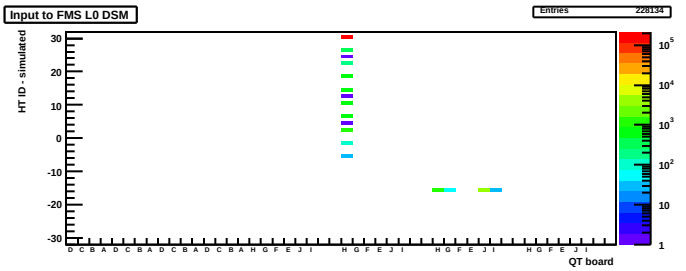

Input to FMS L0 DSM
Entries 1.069776e+07
QT8(3) sum
QT board

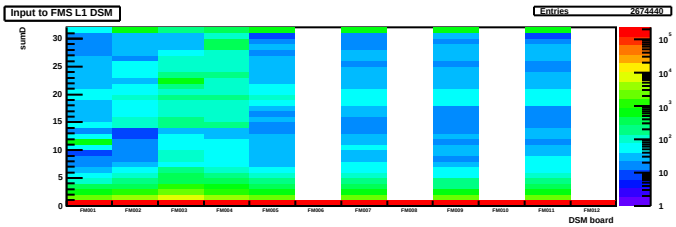

Input to FMS L0 DSM
Entries 208192
QT8(3) sum - simulated
QT board

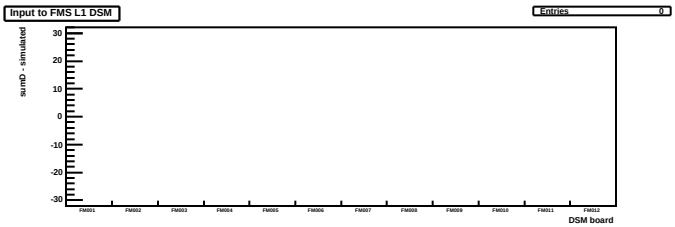

Input to FMS L0 DSM
Entries 1.069776e+07
HT ADC
QT board

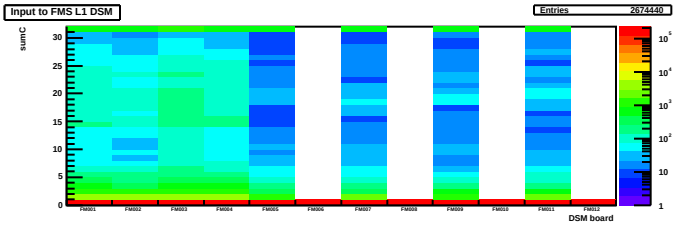

Input to FMS L0 DSM
Entries 24
HT ADC - simulated
QT board

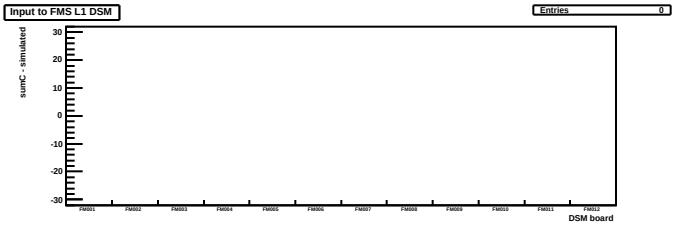

Input to FMS L0 DSM
Entries 1.069776e+07
HT ID
QT board

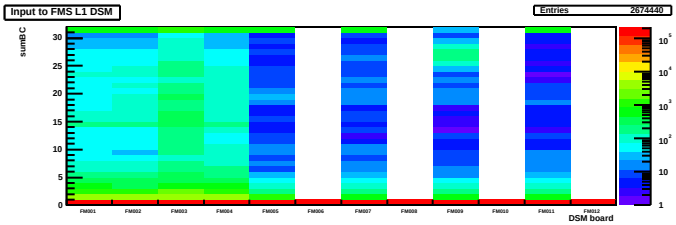

Input to FMS L0 DSM
Entries 228134
HT ID - simulated
QT board

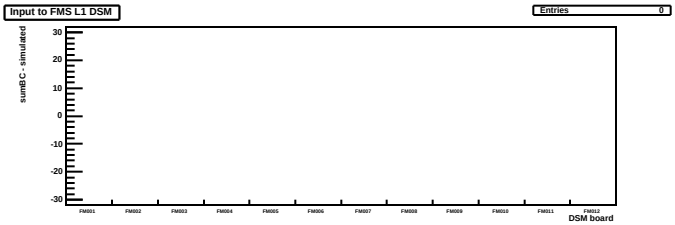

Input to FMS L1 DSM
Entries 2674440
sumD
DSM board

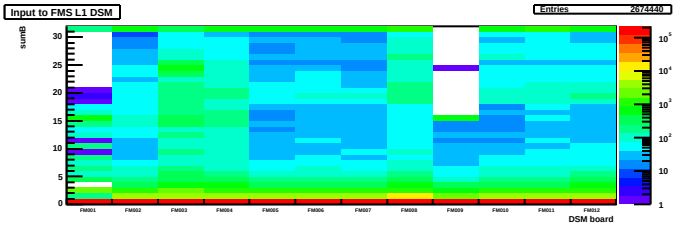

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

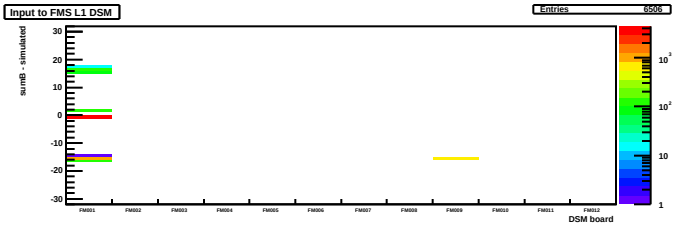

Input to FMS L1 DSM
Entries 2674440
sumC
DSM board

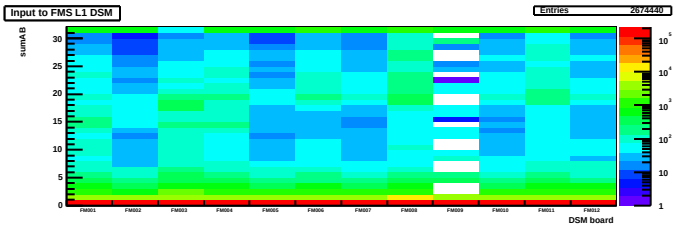

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

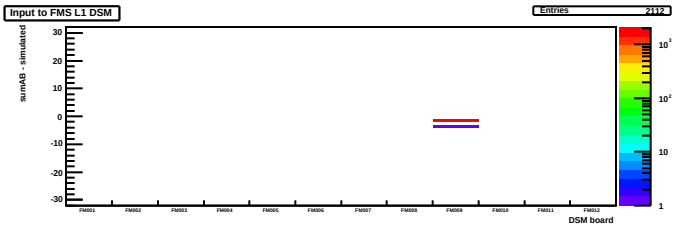

Input to FMS L1 DSM
Entries 2674440
sumBC
DSM board

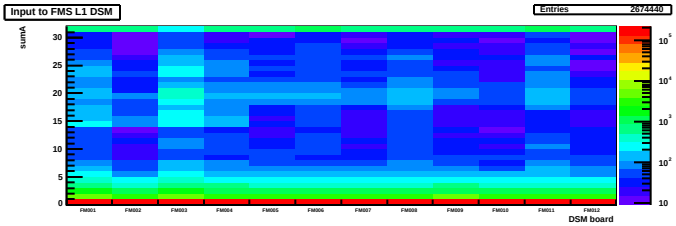

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

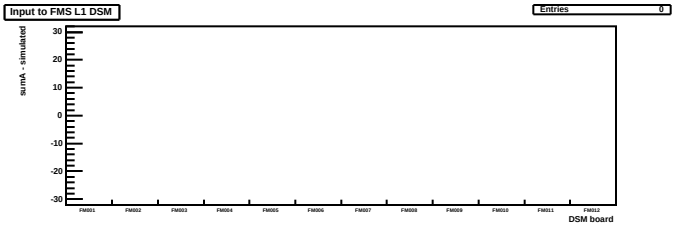

Input to FMS L1 DSM
Entries 2674440
sumB
DSM board

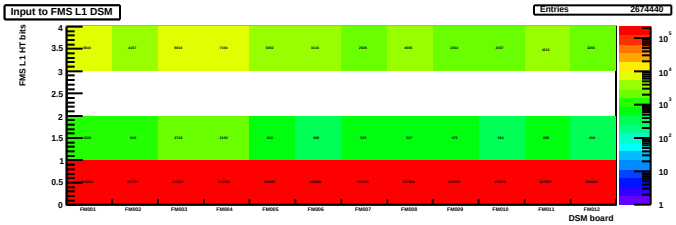

Input to FMS L1 DSM
Entries 6506
sumB - simulated
DSM board

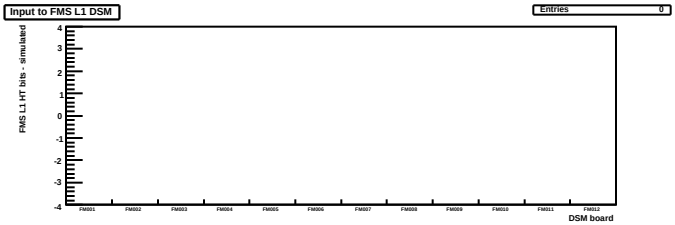

Input to FMS L1 DSM
Entries 2674440
sumAB
DSM board

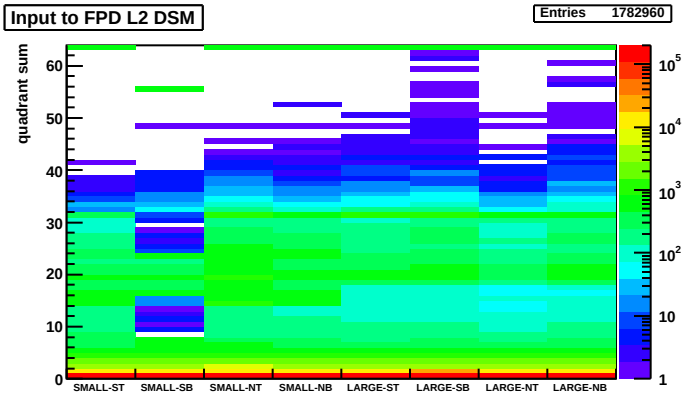

Input to FMS L1 DSM
Entries 2112
sumAB - simulated
DSM board

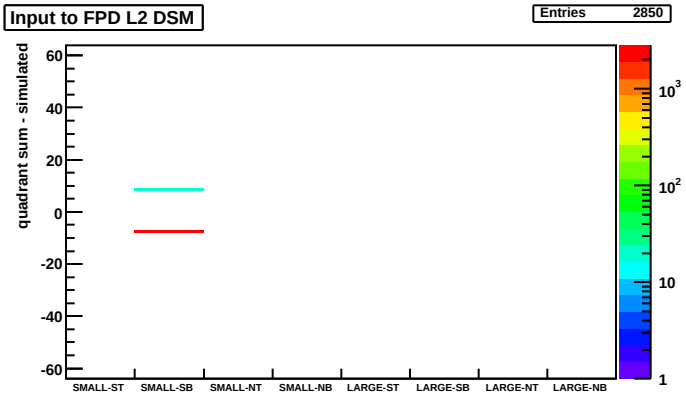

Input to FMS L1 DSM
Entries 2674440
sumA
DSM board

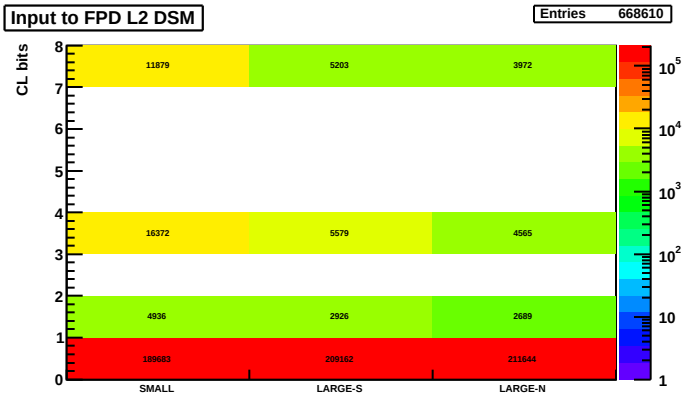

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

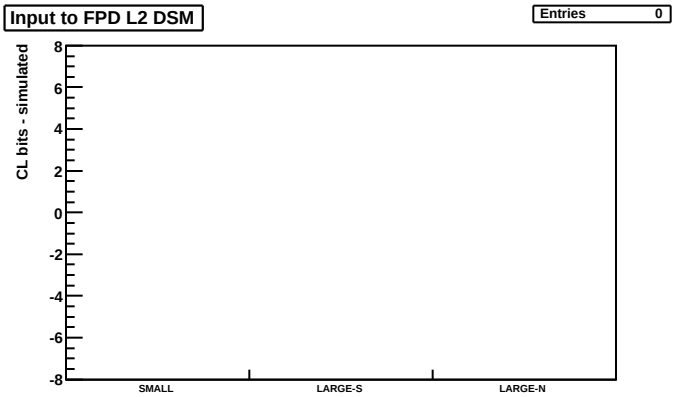

Input to FMS L1 DSM
Entries 2674440
FMS L1 HT bits
DSM board

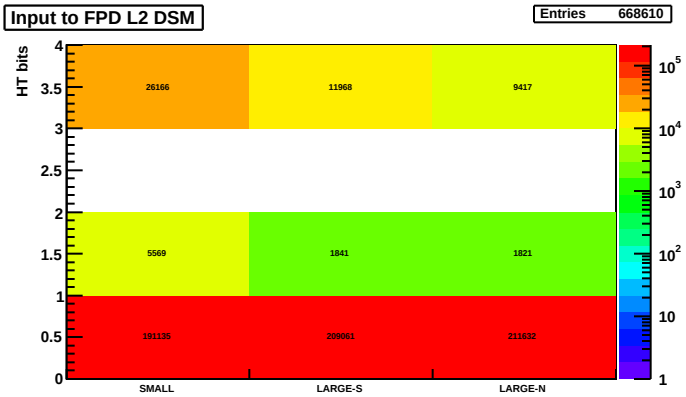

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

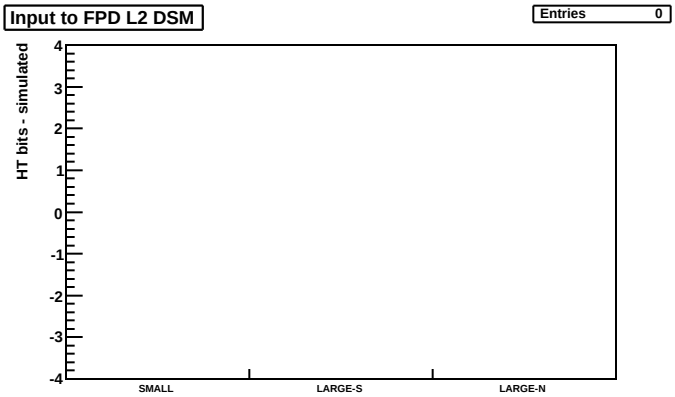

Input to FPD L2 DSM
Entries 1782960
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

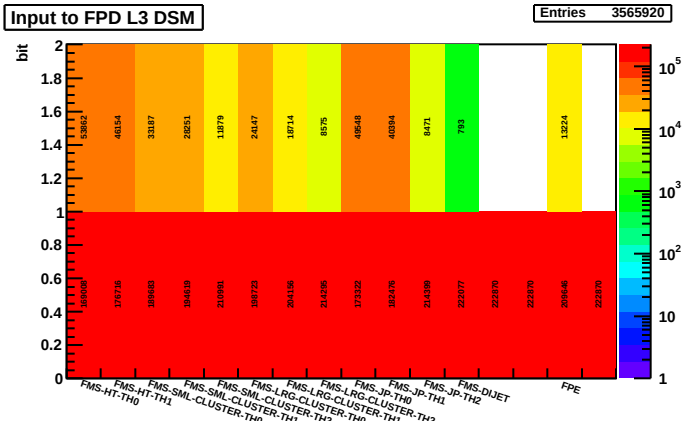

Input to FPD L2 DSM
Entries 2850
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

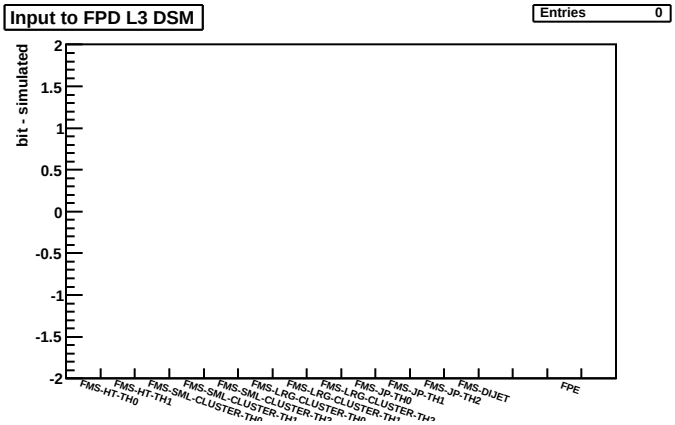

Input to FPD L2 DSM
Entries 668610
CL bits
11879
5203
3972
16372
5579
4565
4936
2926
2689
189683
209162
211644
SMALL
LARGE-S
LARGE-N

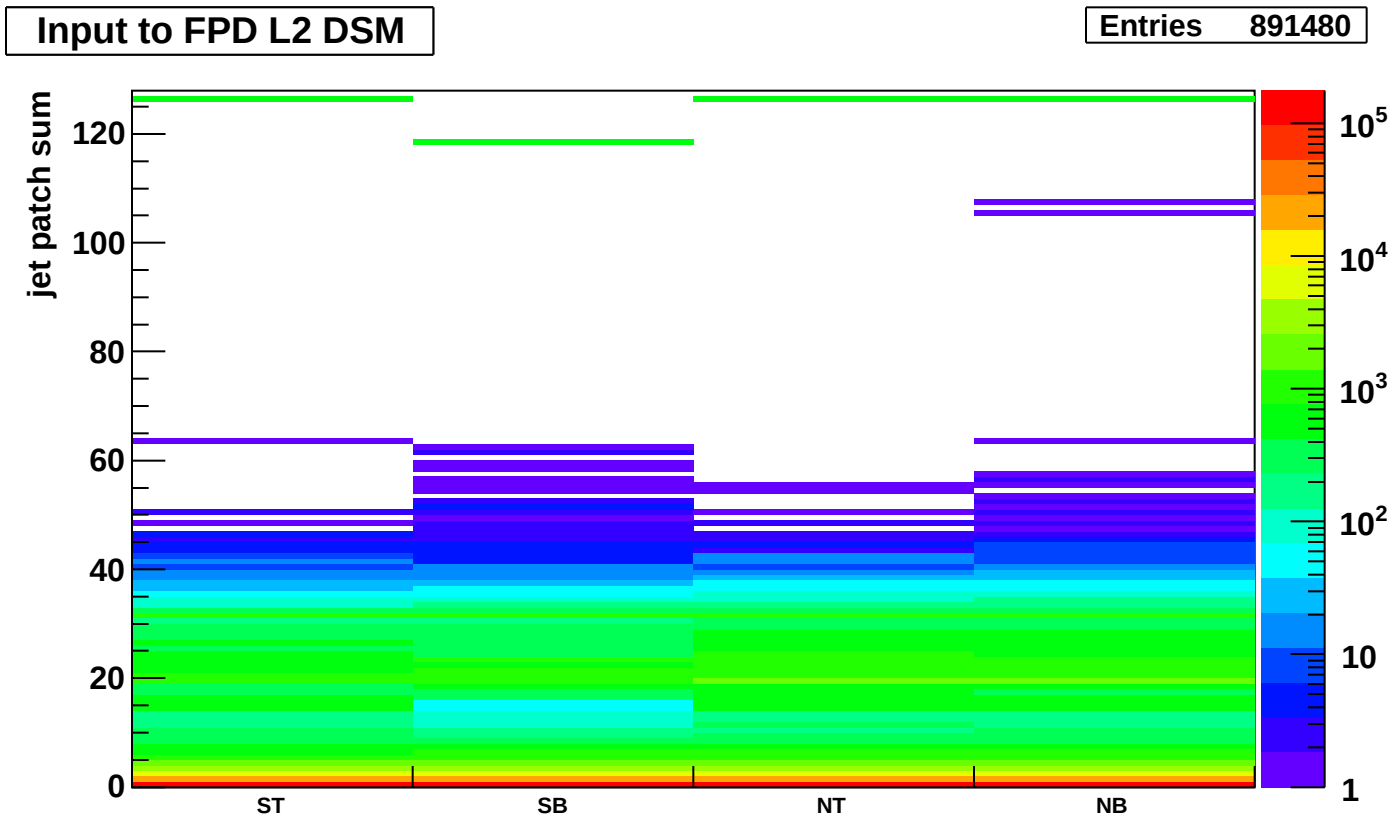

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

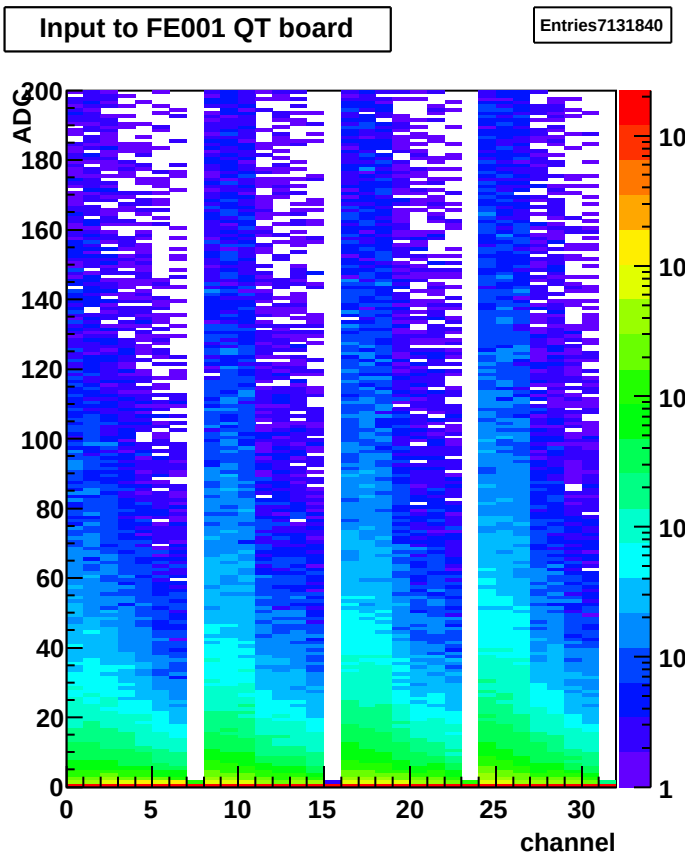

Input to FPD L2 DSM
Entries 668610
HT bits
26166
11968
9417
5569
1841
1821
191135
209061
211632
SMALL
LARGE-S
LARGE-N

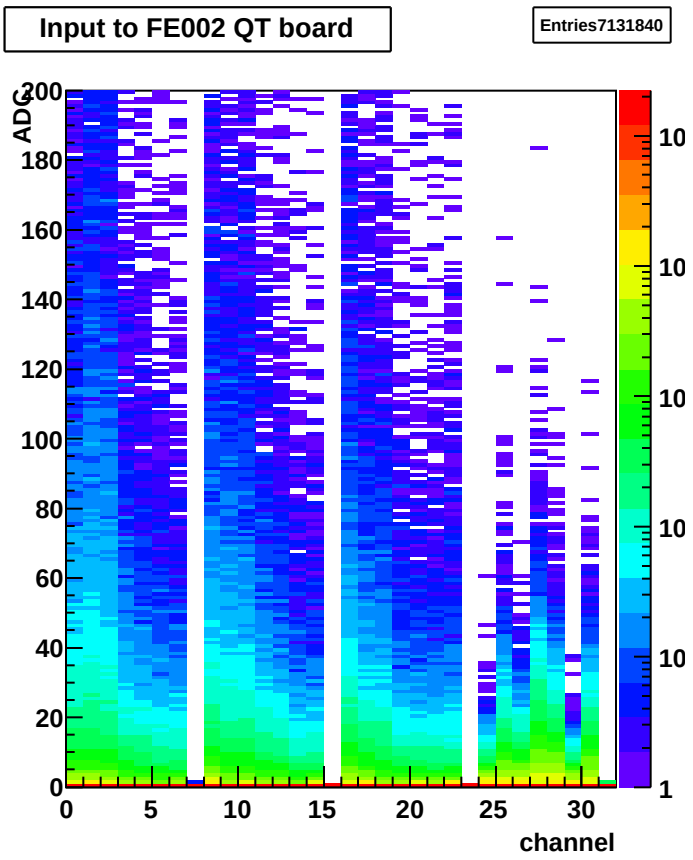

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

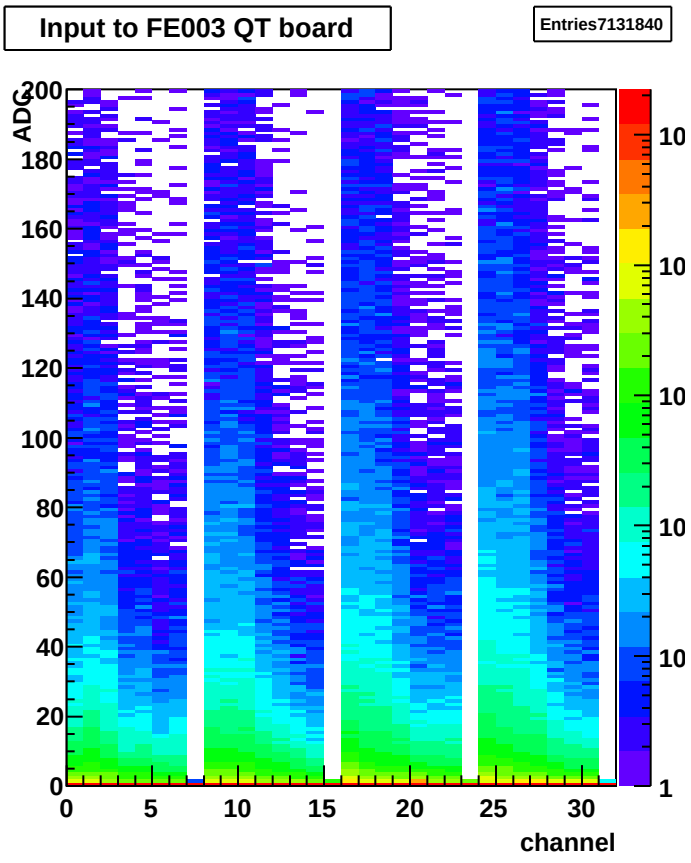

Input to FPD L3 DSM
Entries 3565920
bit
53802
46154
33187
28251
11879
24147
18714
8575
49548
40394
8471
793
13224
189683
176716
189683
194619
210991
198723
204156
214285
173322
182476
214399
222077
222870
222870
209646
222870
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

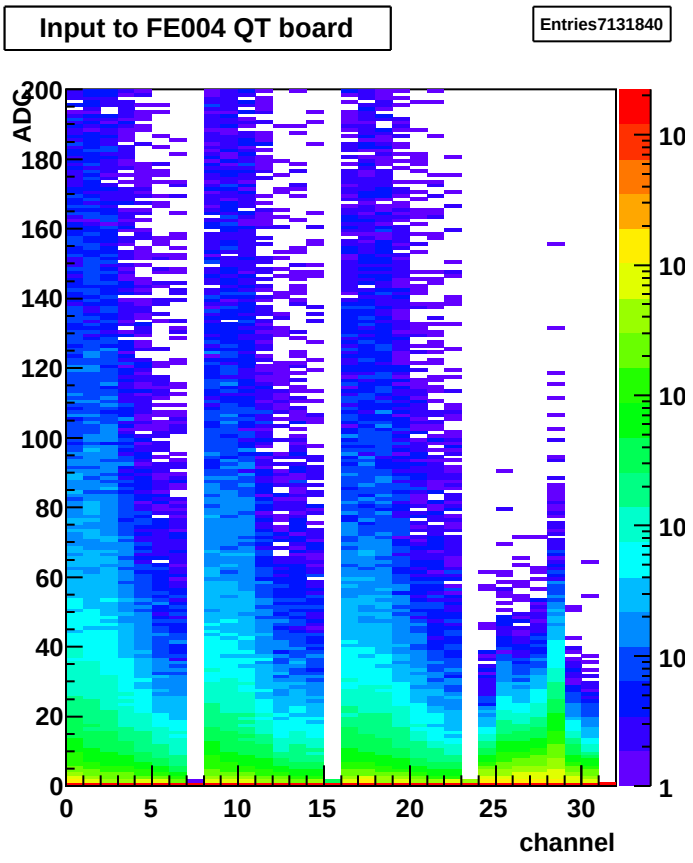

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

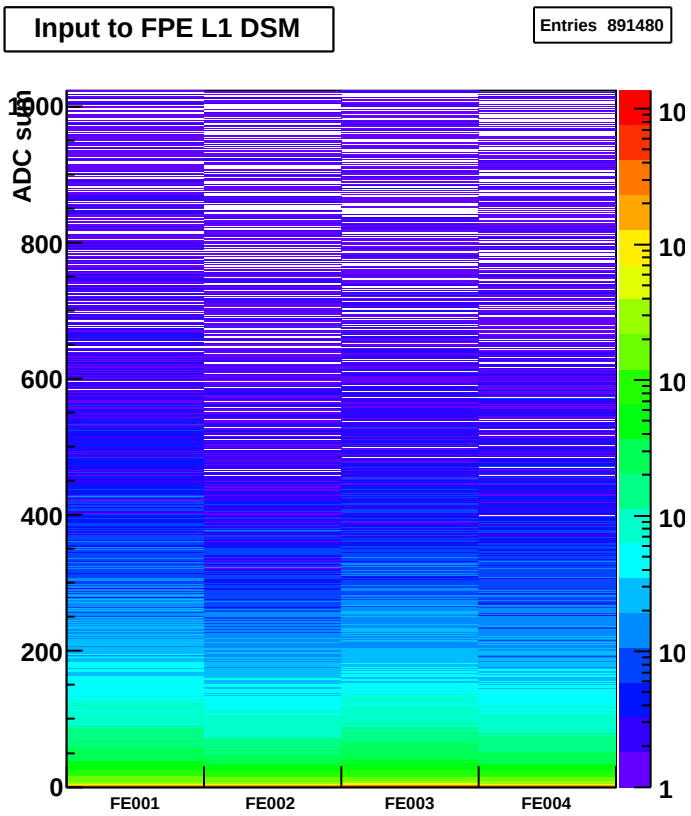

Input to FPD L2 DSM
Entries 891480
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

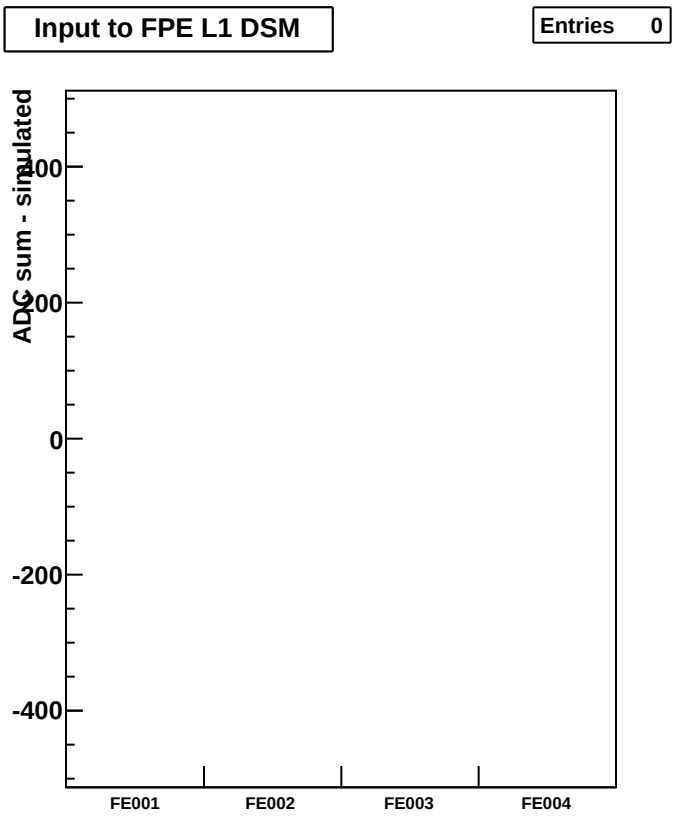

Input to FE001 QT board
Entries7131840
ADC
channel

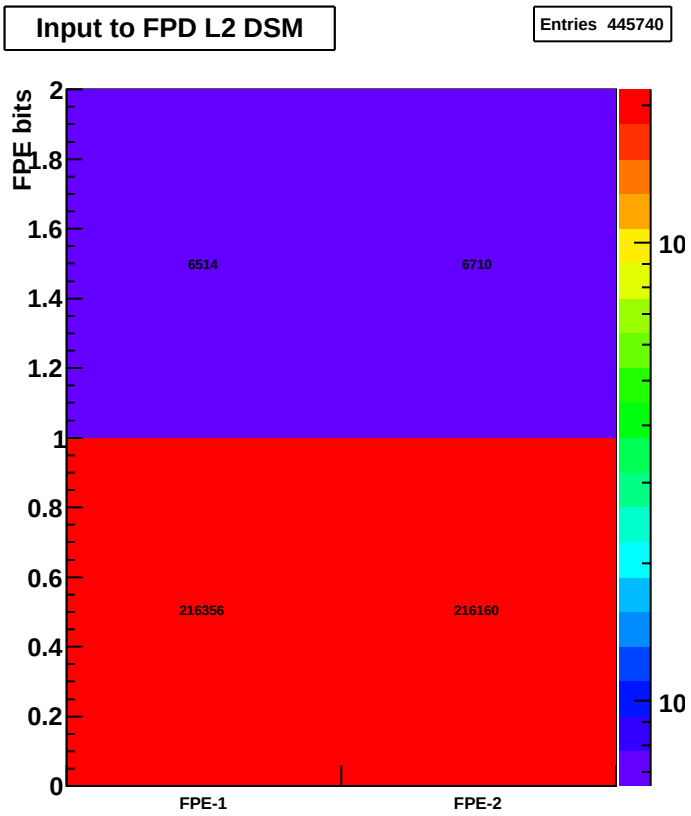

Input to FE002 QT board
Entries7131840
ADC
channel

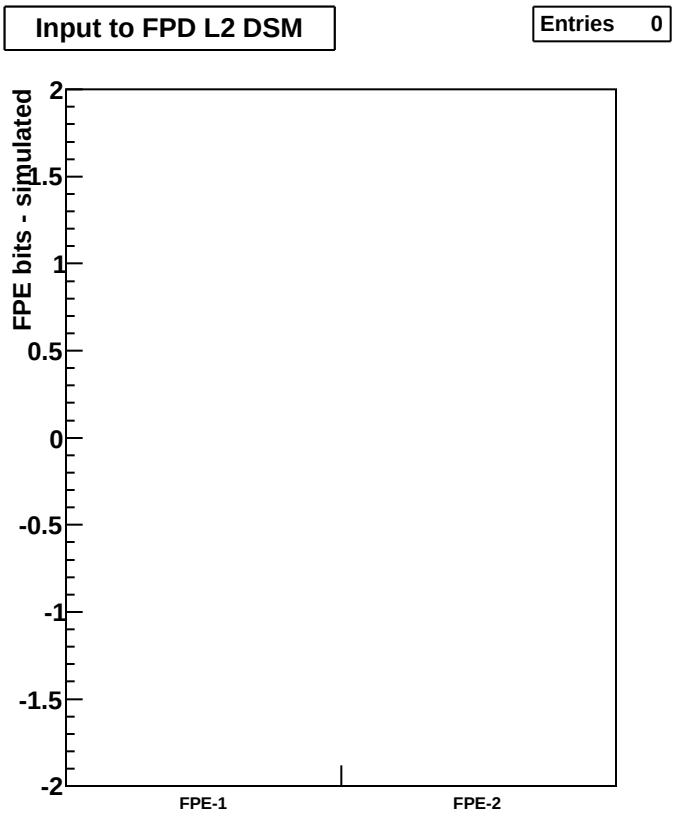

Input to FE003 QT board
Entries7131840
ADC
channel


Input to FE004 QT board
Entries7131840
ADC
channel


Input to FPE L1 DSM
Entries 891480
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


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


Input to FPD L2 DSM
Entries 445740
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
6514
6710
216356
216160
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