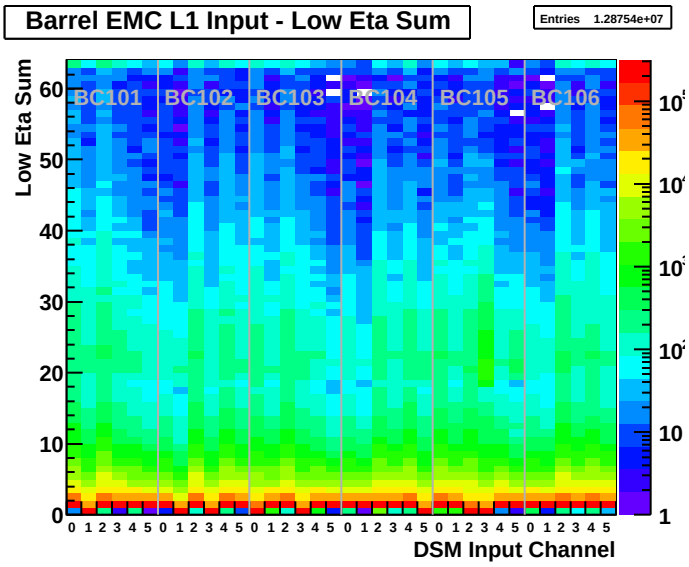
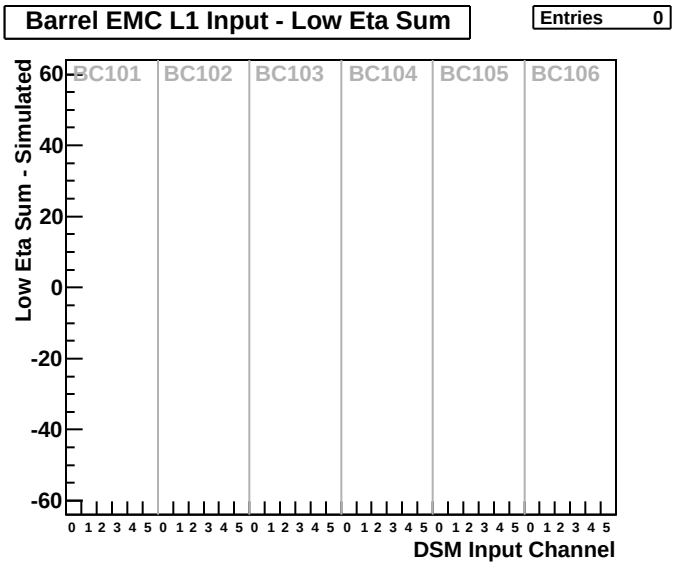
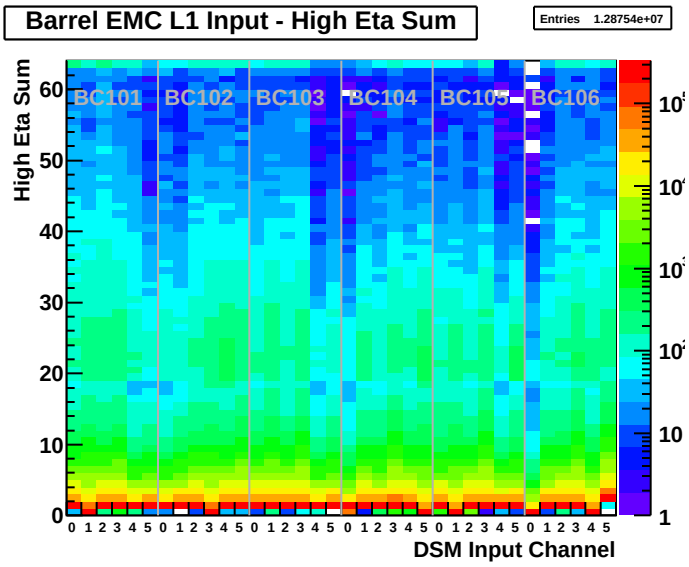
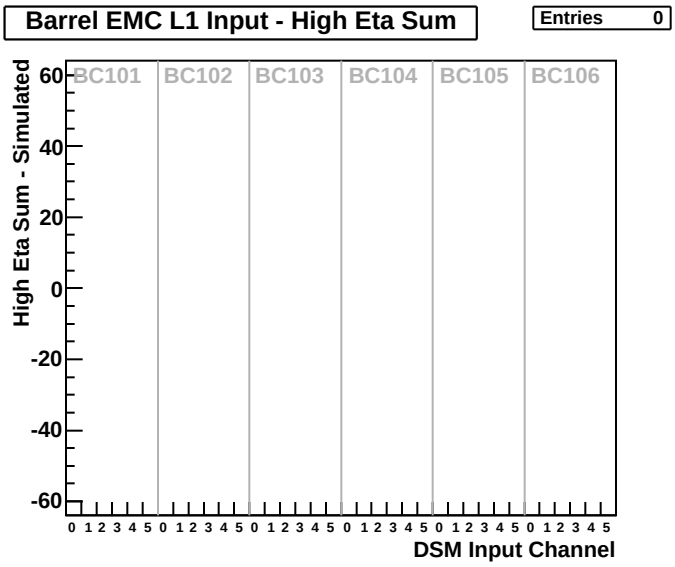
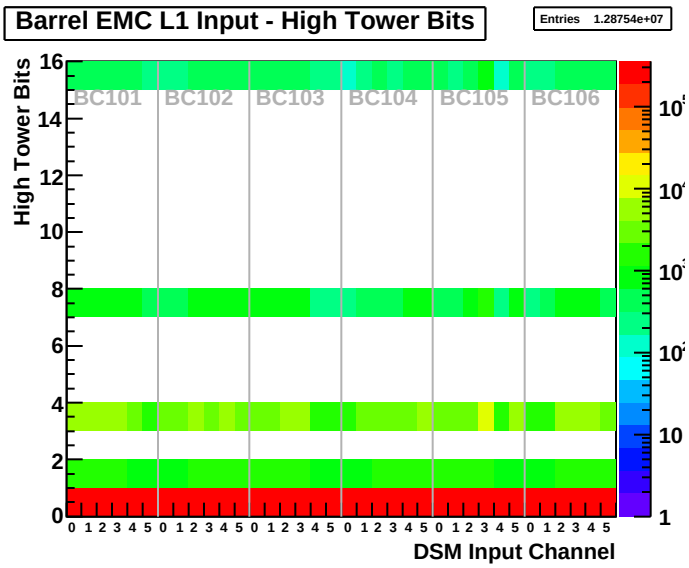
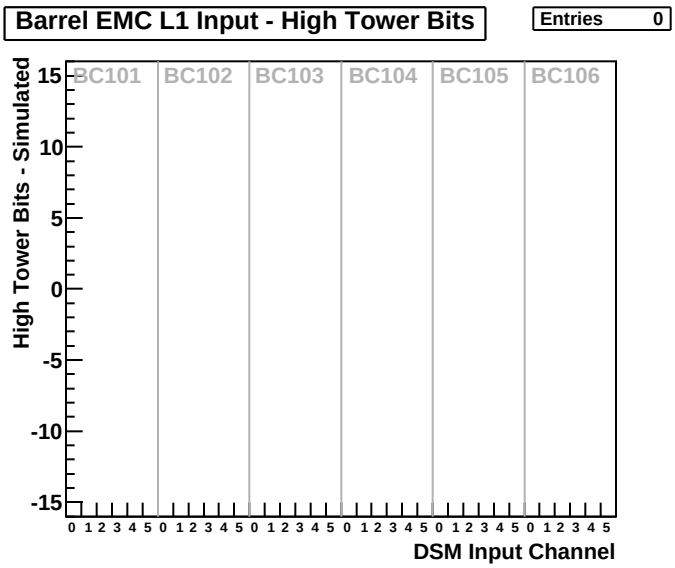

Barrel EMC L1 Input - Low Eta Sum
Entries 1.28754e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

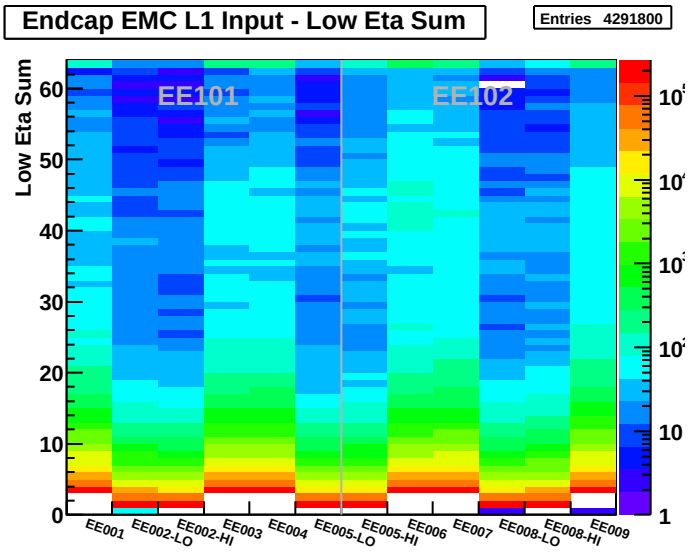

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

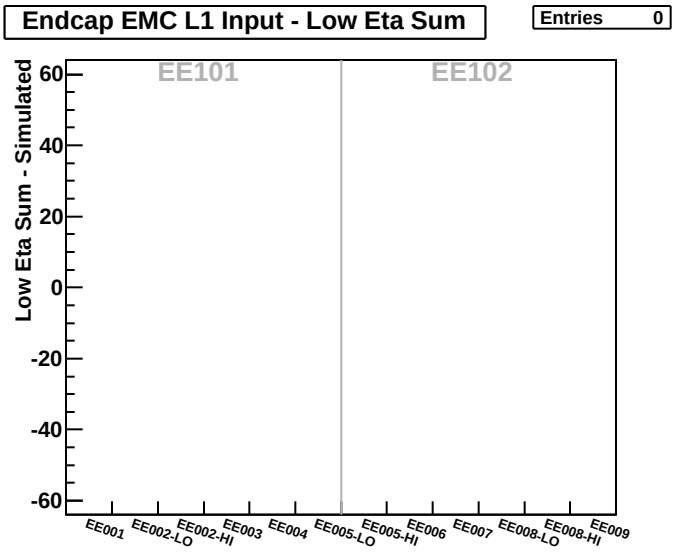

Barrel EMC L1 Input - High Eta Sum
Entries 1.28754e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

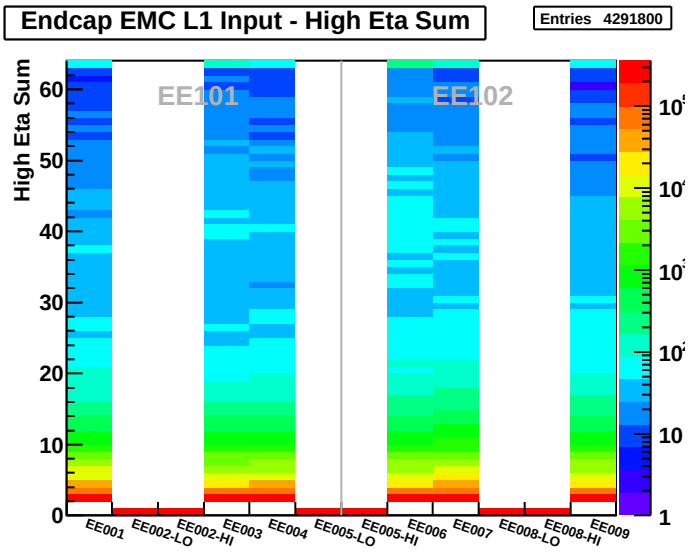

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

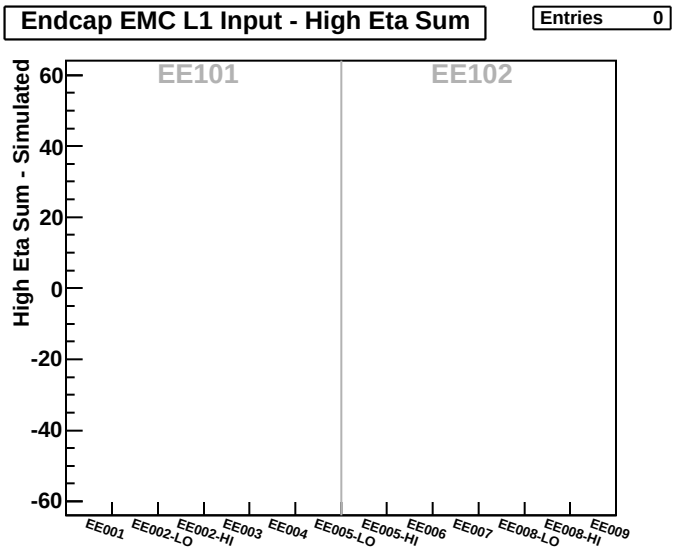

Barrel EMC L1 Input - High Tower Bits
Entries 1.28754e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

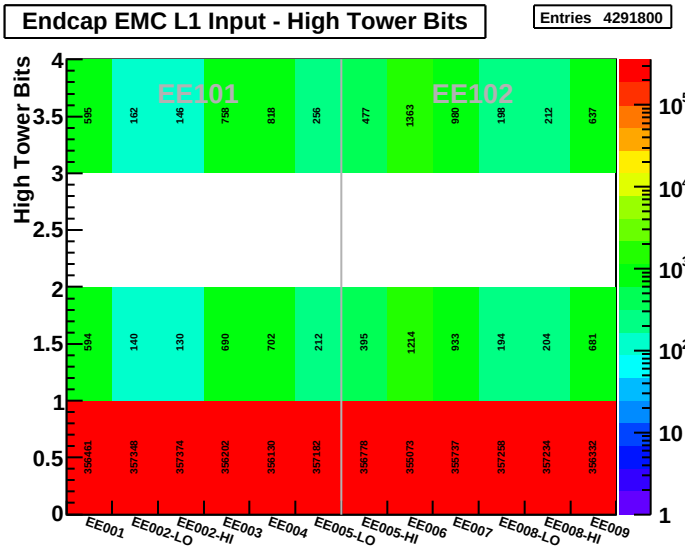

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

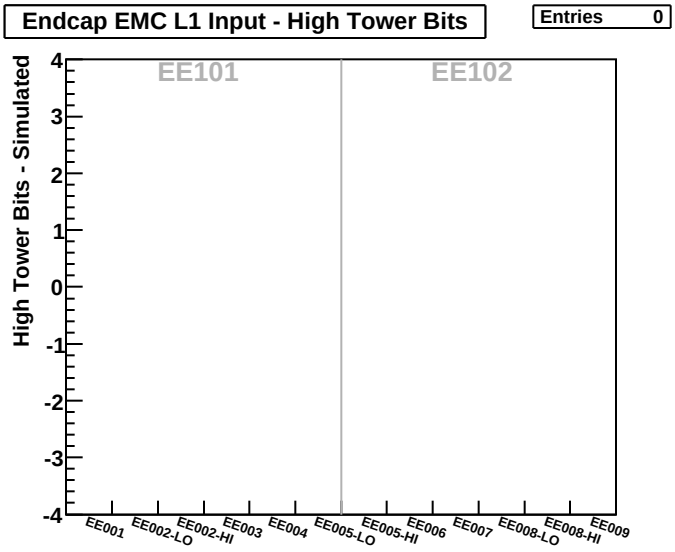

Endcap EMC L1 Input - Low Eta Sum
Entries 4291800
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

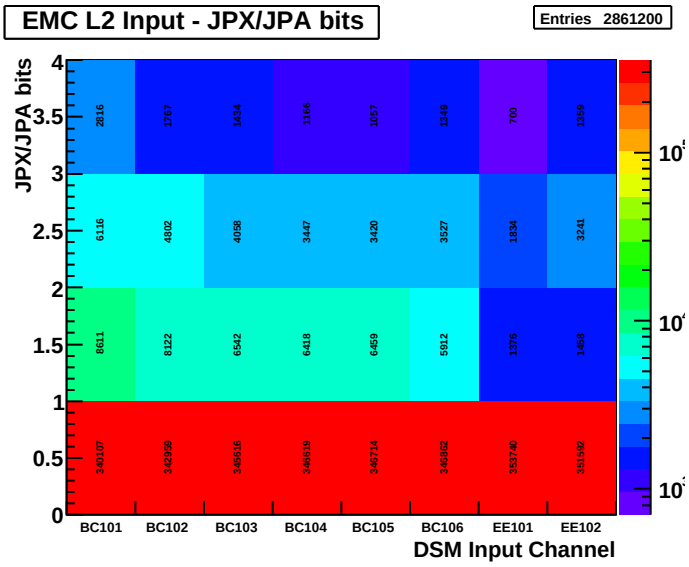

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

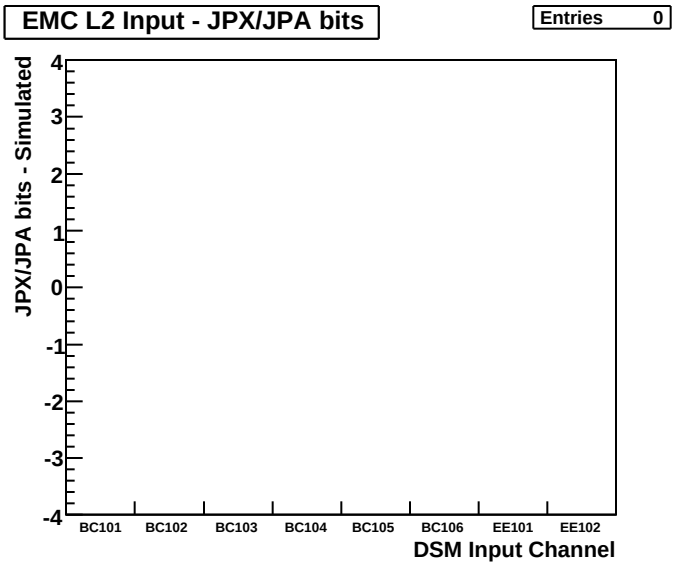

Endcap EMC L1 Input - High Eta Sum
Entries 4291800
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

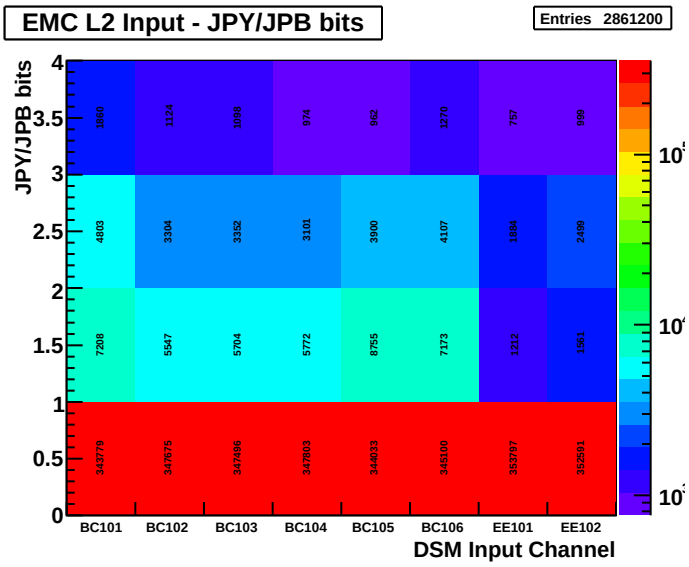

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

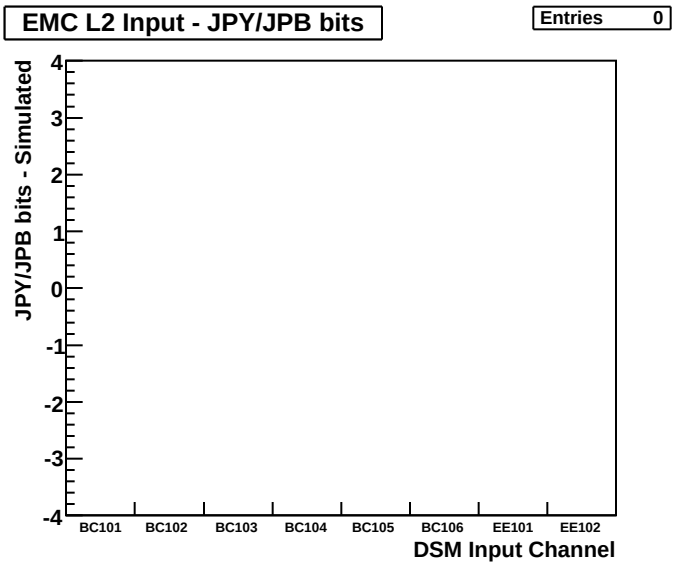

Endcap EMC L1 Input - High Tower Bits
Entries 4291800
High Tower Bits
EE101
EE102
595 162 146 758 818 256 477 1363 980 198 212 637
594 140 130 690 702 212 395 1214 933 194 204 681
356461 357348 357374 356202 356130 357182 356778 355073 355737 357258 357234 356332
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

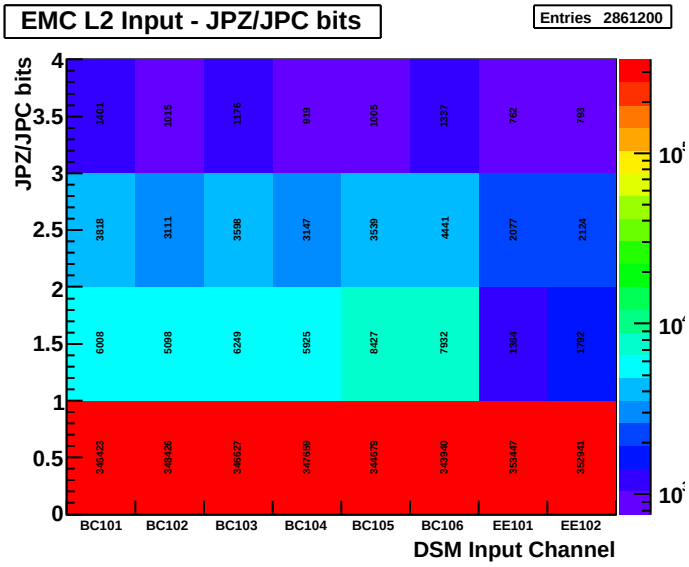

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

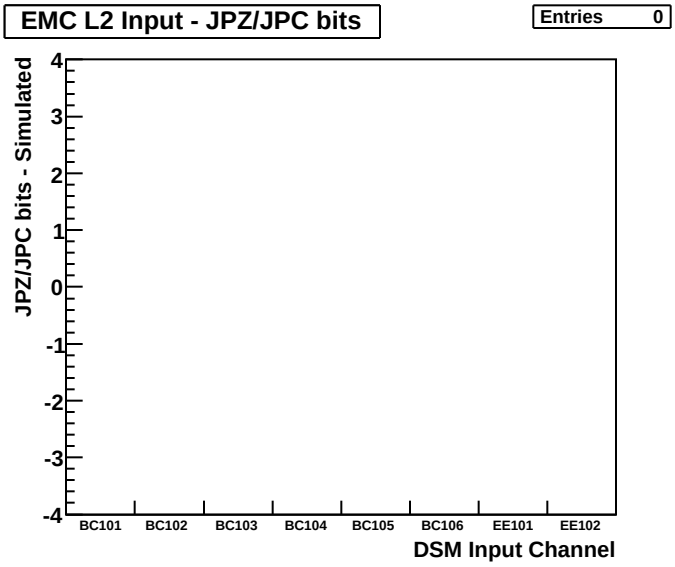

EMC L2 Input - JPX/JPA bits
Entries 2861200
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2816 1767 1434 1166 1057 1349 700 1359
6116 4802 4058 3447 3420 3527 1834 3241
8611 8122 6542 6418 6459 5912 1376 1468
340107 342939 346616 346619 346714 346862 353740 351592

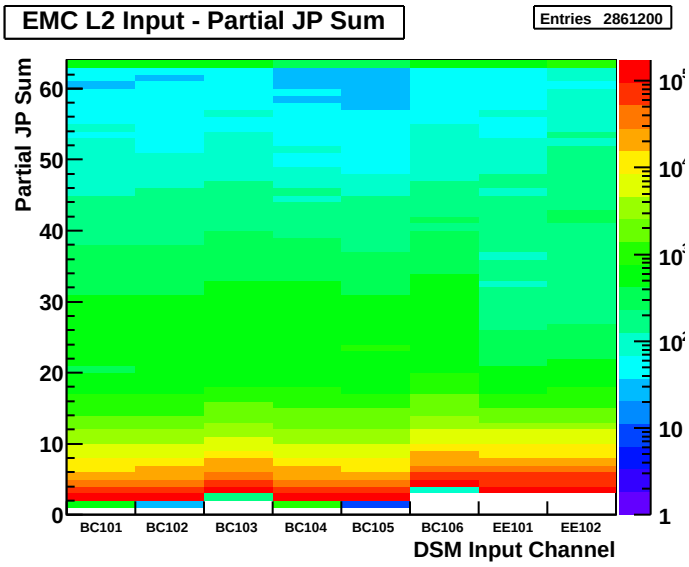

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

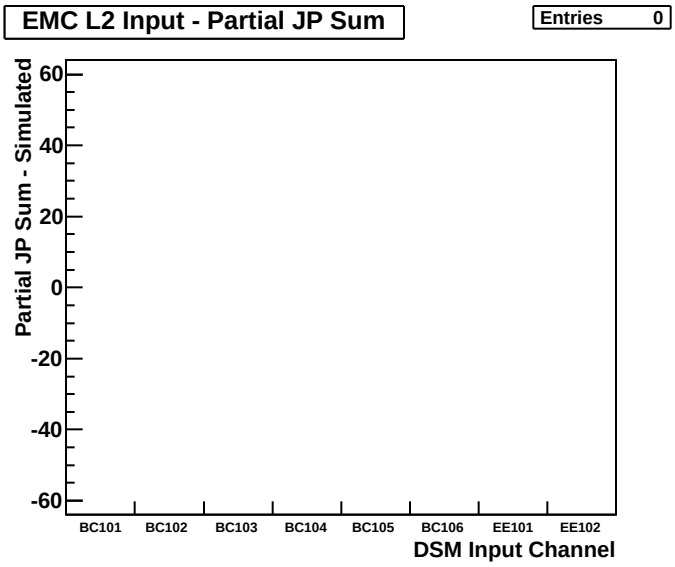

EMC L2 Input - JPY/JPB bits
Entries 2861200
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1860 1124 1098 974 962 1270 757 999
4803 3304 3352 3101 3900 4107 1684 2499
7208 5547 5704 5772 8755 7173 1212 1561
343779 347675 347496 347803 344033 345100 353797 352591

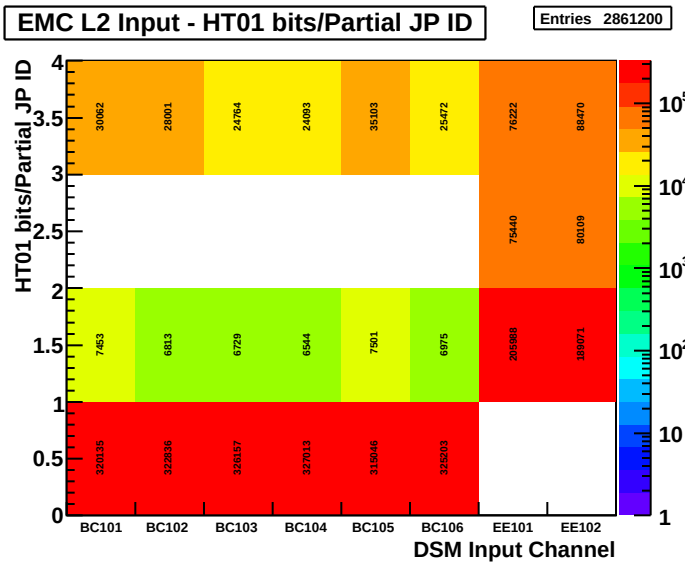

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

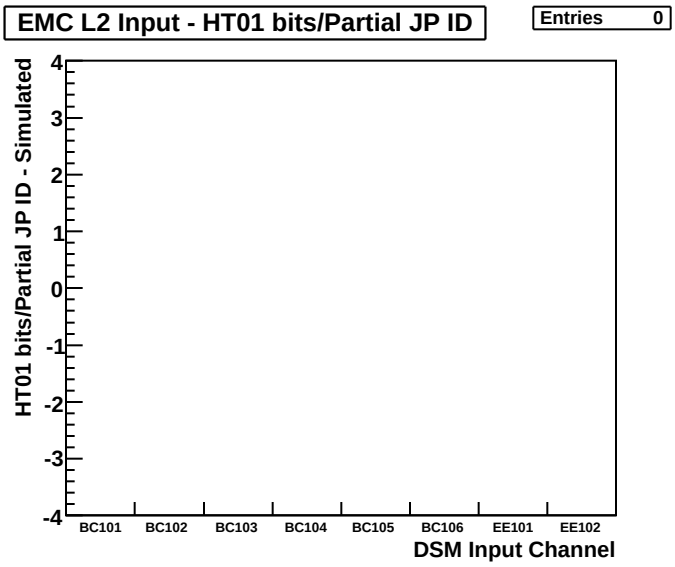

EMC L2 Input - JPZ/JPC bits
Entries 2861200
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1401 1015 1176 919 1005 1337 762 783
3818 3111 3598 3147 3539 4441 2077 2124
6008 5098 6249 5925 8427 7932 1364 1732
346423 348426 346527 347659 344679 343940 353447 352941

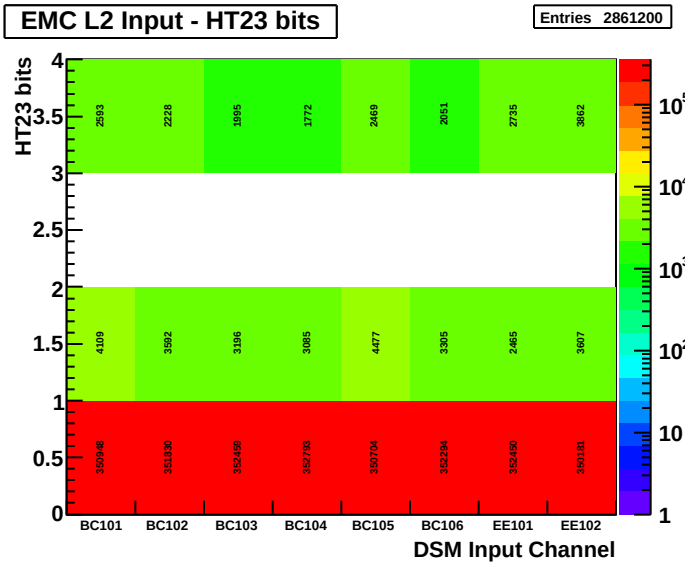

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

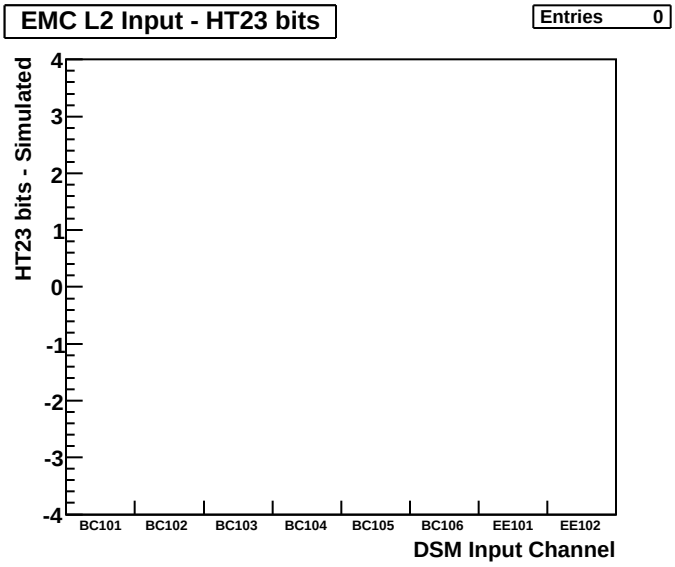

EMC L2 Input - Partial JP Sum
Entries 2861200
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

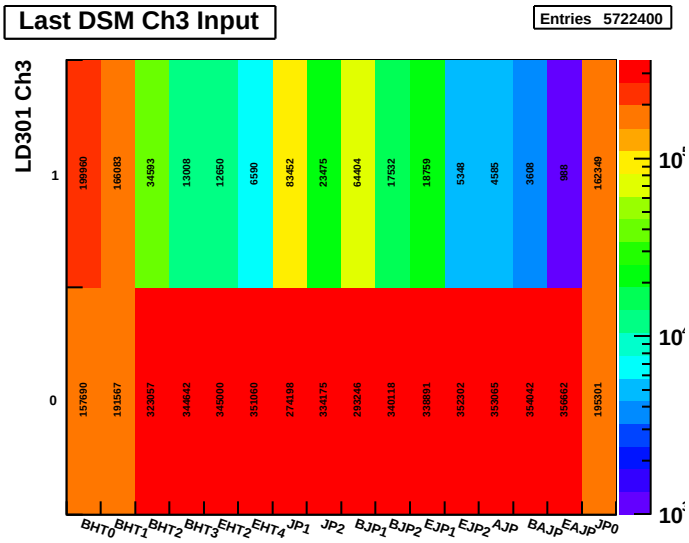

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

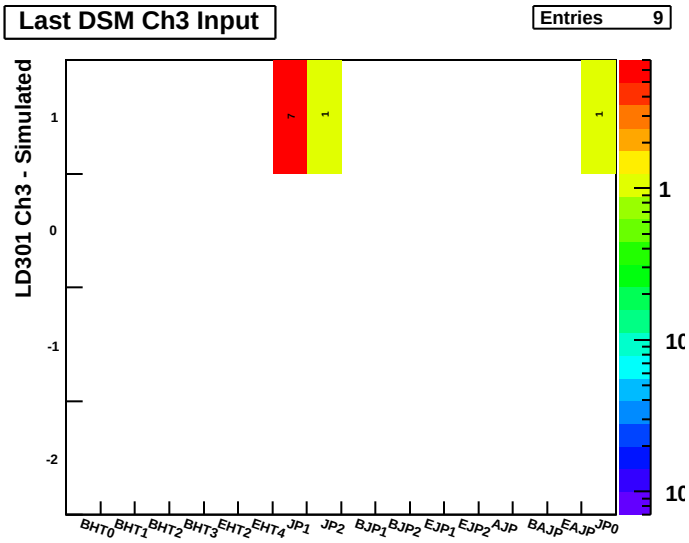

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2861200
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

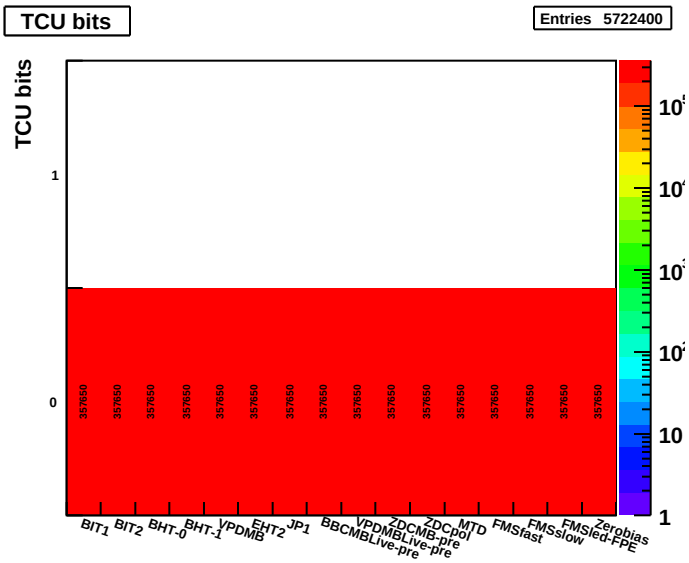

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

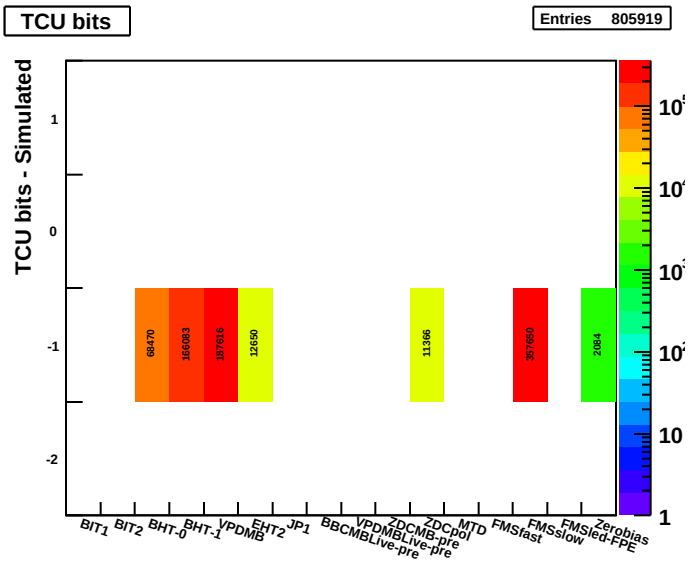

EMC L2 Input - HT23 bits
Entries 2861200
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

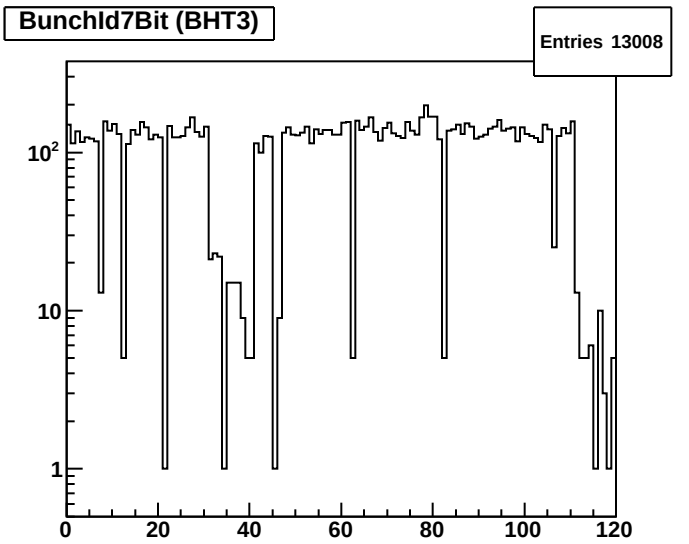

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

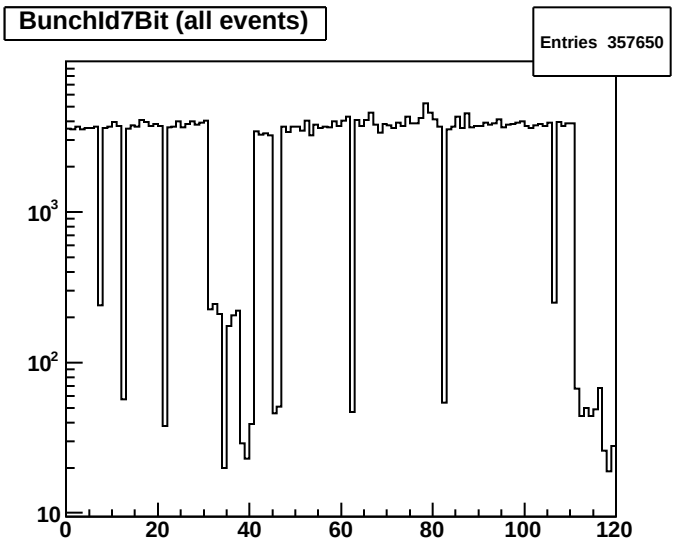

Last DSM Ch3 Input
Entries 5722400
LD301 Ch3
1
0
189960 166083 34593 13008 12650 6590 83452 23475 64404 17532 18759 5348 4585 3608 988 162349
157690 191567 323057 344642 345000 351060 274198 334175 293246 340118 338891 352302 353065 354042 356662 195301
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

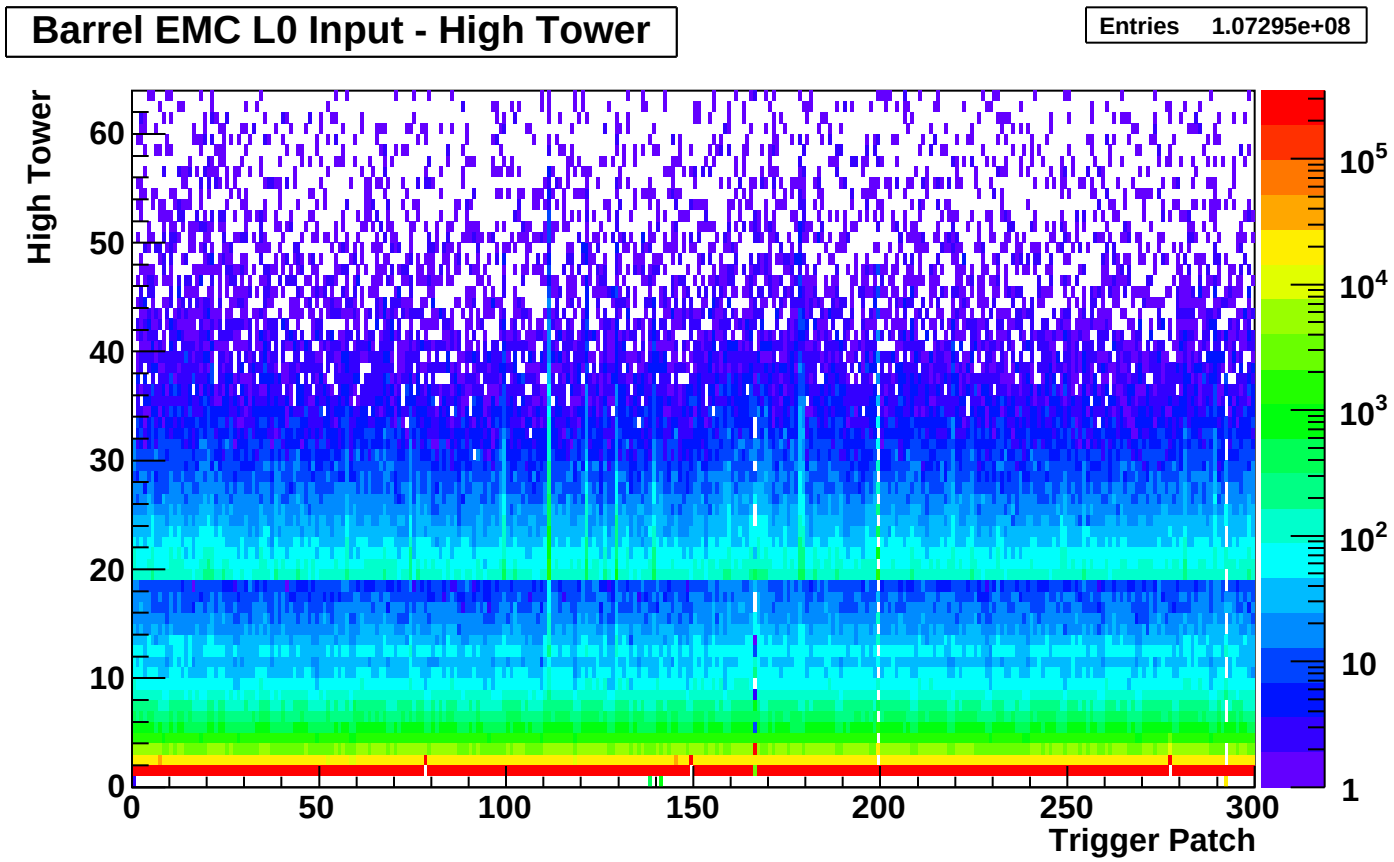

Last DSM Ch3 Input
Entries 9
LD301 Ch3 - Simulated
1
0
-1
-2
7 1 1
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

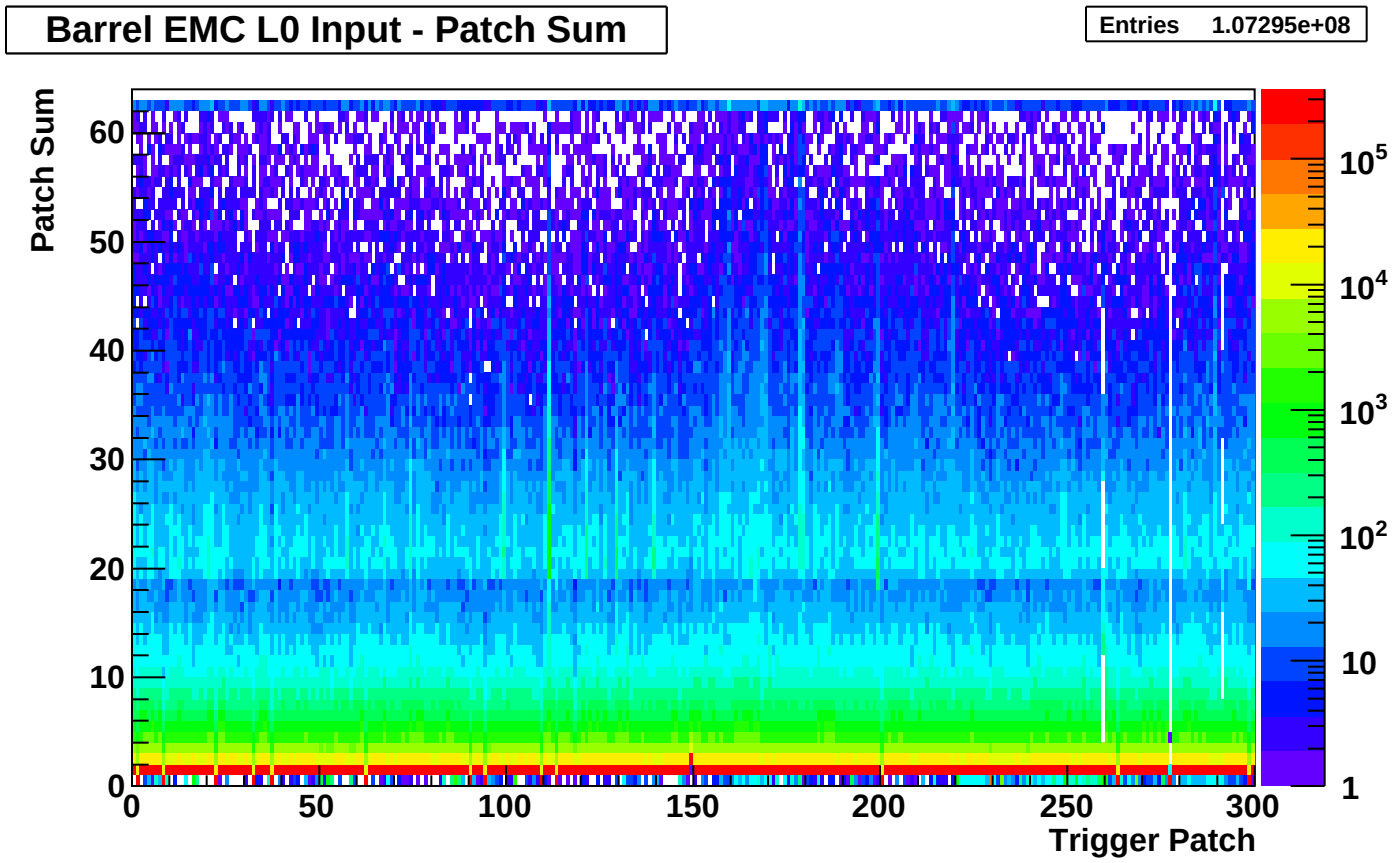

TCU bits
Entries 5722400
TCU bits
1
0
357650 357650 357650 357650 357650 357650 357650 357650 357650 357650 357650 357650 357650 357650 357650 357650
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

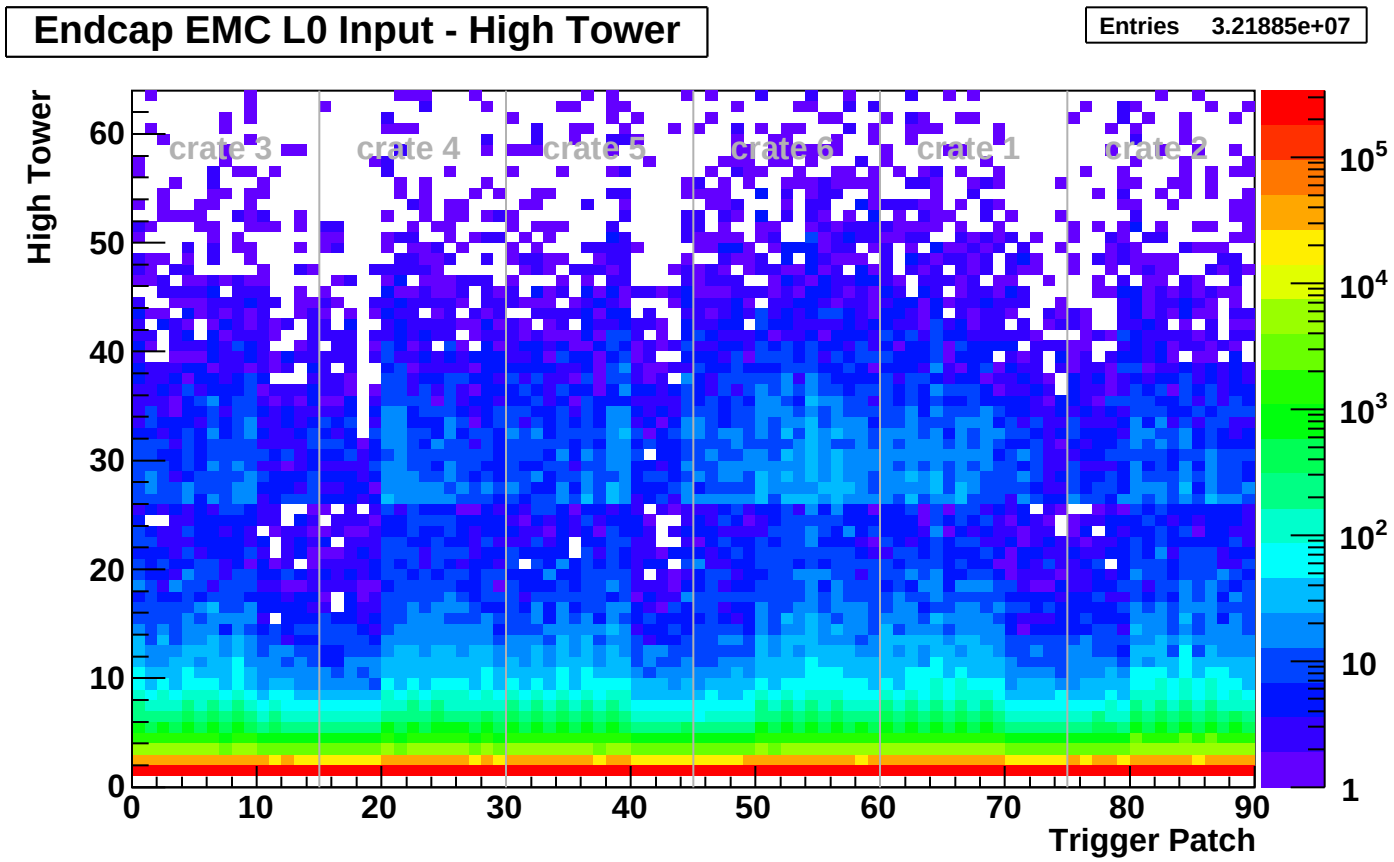

TCU bits
Entries 805919
TCU bits - Simulated
1
0
-1
-2
68470 166083 187616 12650 11366 357650 2084
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

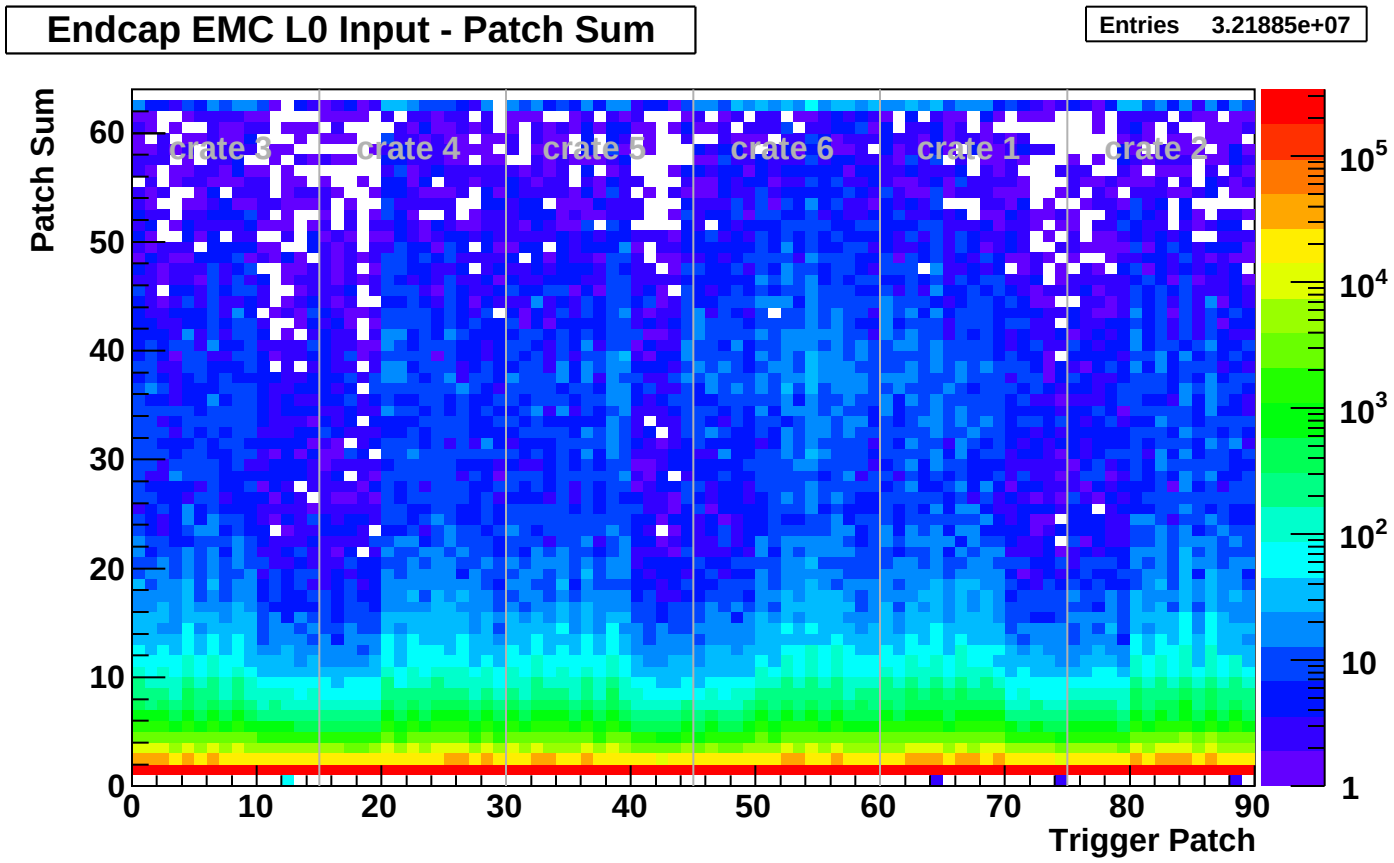

BunchId7Bit (BHT3)
Entries 13008
10²
10
1
0 20 40 60 80 100 120

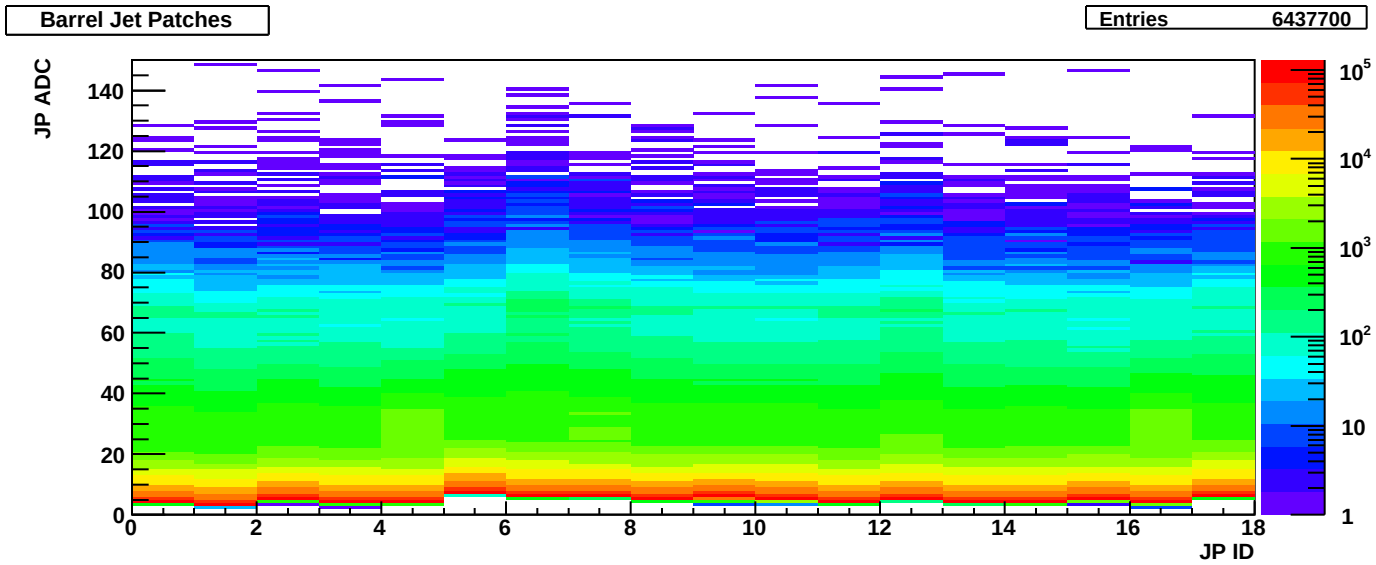

BunchId7Bit (all events)
Entries 357650
10³
10²
10
0 20 40 60 80 100 120

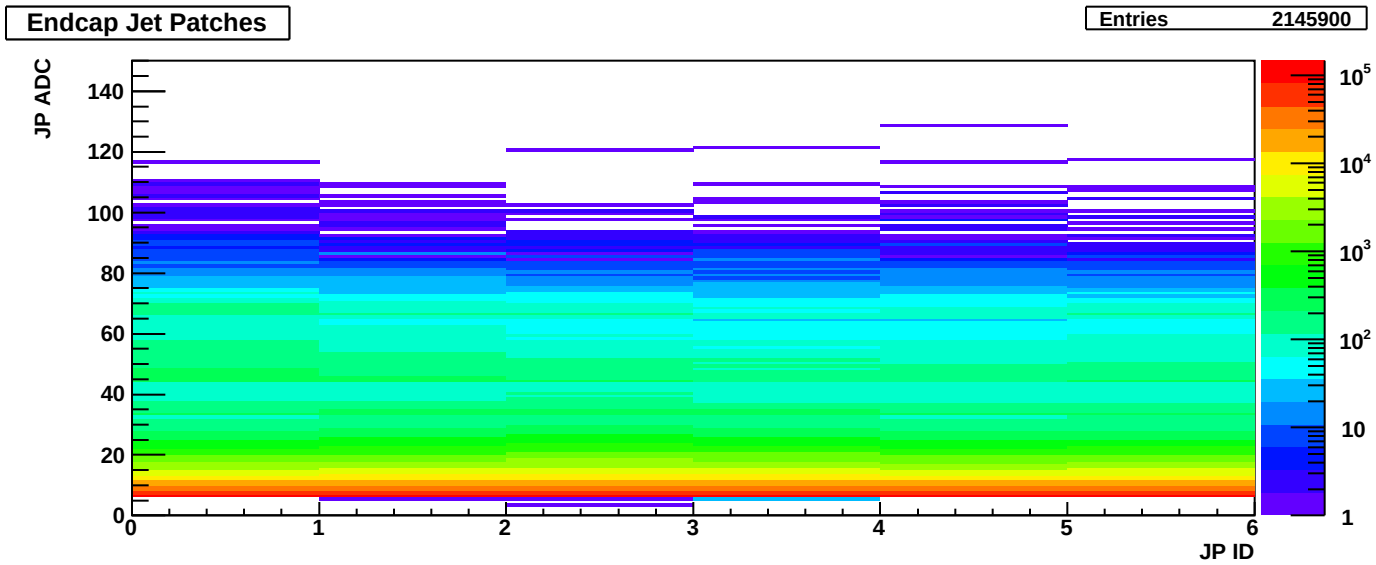

Barrel EMC L0 Input - High Tower
Entries 1.07295e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

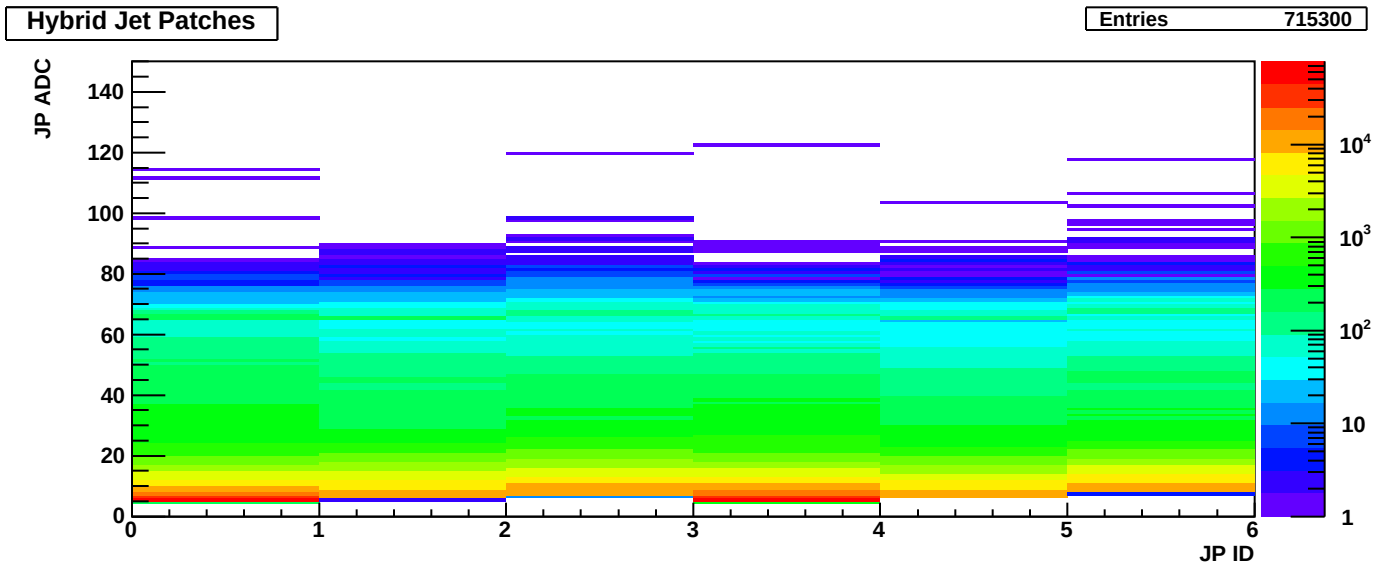

Barrel EMC L0 Input - Patch Sum
Entries 1.07295e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

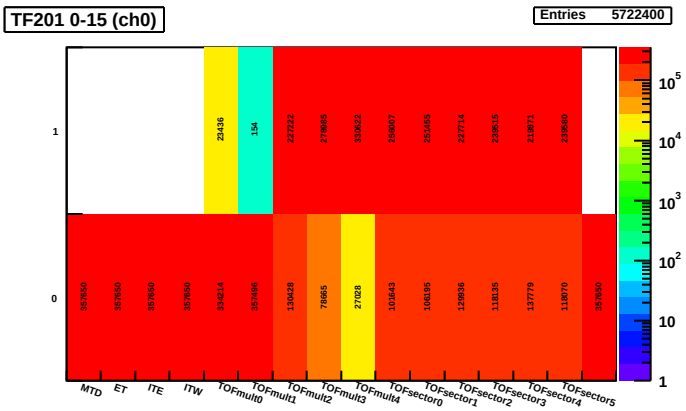

Endcap EMC L0 Input - High Tower
Entries 3.21885e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

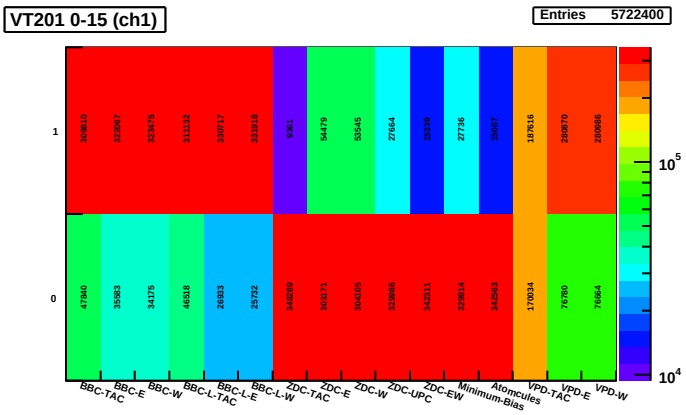

Endcap EMC L0 Input - Patch Sum
Entries 3.21885e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

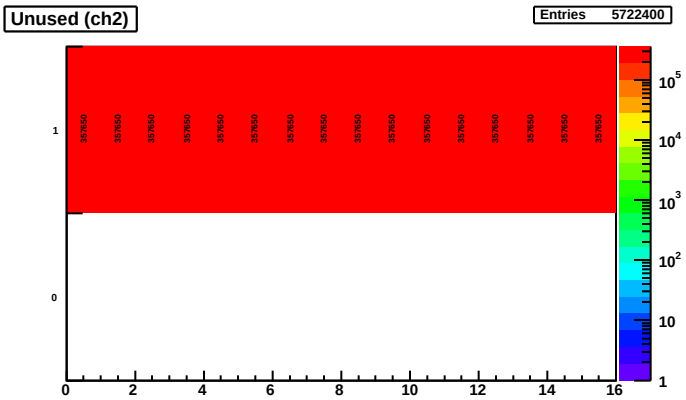

Barrel Jet Patches
Entries 6437700
JP ADC
JP ID

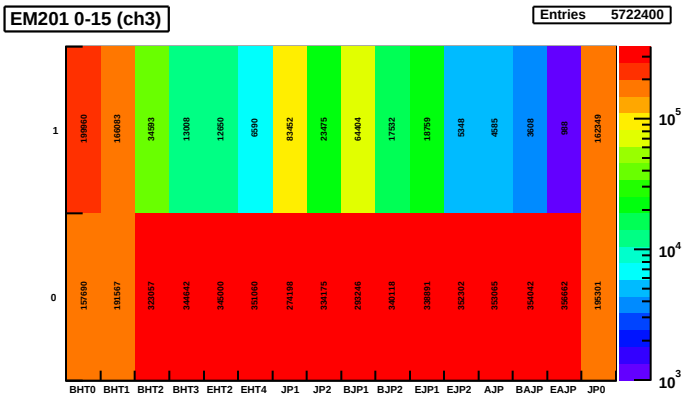

Endcap Jet Patches
Entries 2145900
JP ADC
JP ID

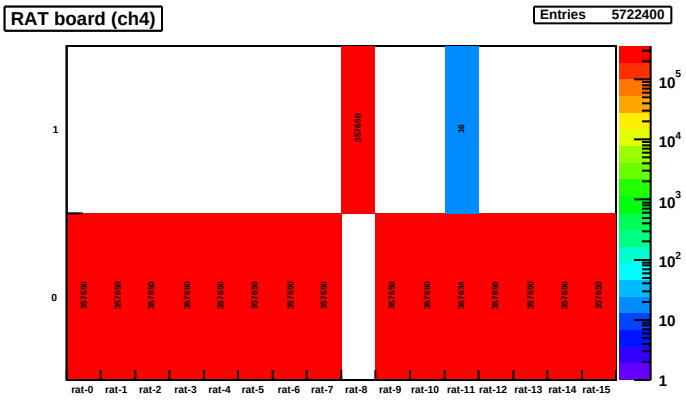

Hybrid Jet Patches
Entries 715300
JP ADC
JP ID

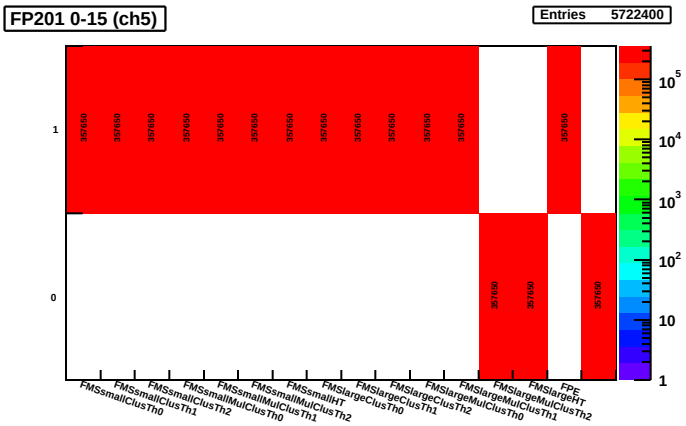

TF201 0-15 (ch0)
Entries 5722400
MTD
ET
ITE
ITW
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5

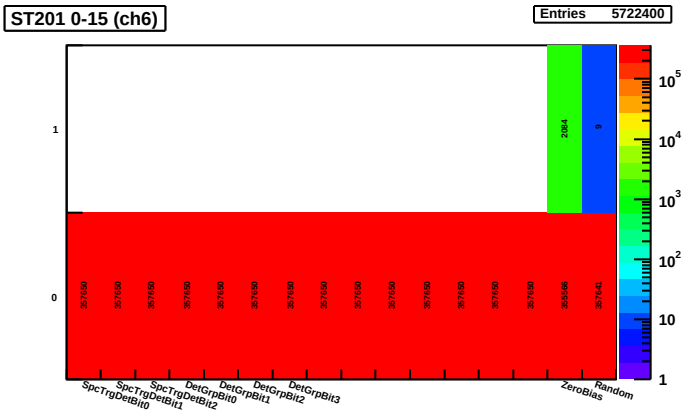

VT201 0-15 (ch1)
Entries 5722400
BBC-TAC
BBC-E
BBC-W
BBC-L-TAC
BBC-L-E
BBC-L-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-UPC
ZDC-EW
Minimum-Bias
Atomcules
VPD-TAC
VPD-E
VPD-W

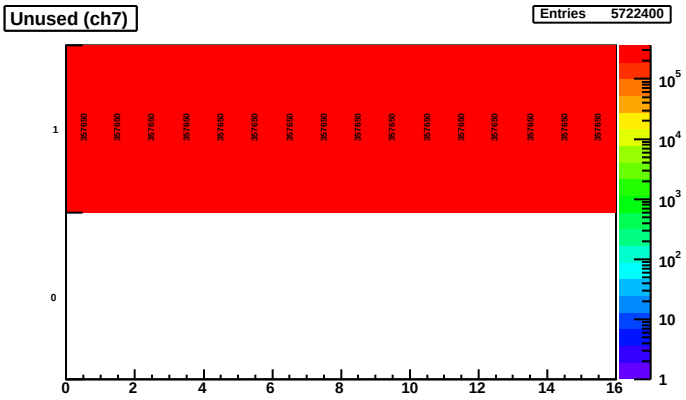

Unused (ch2)
Entries 5722400

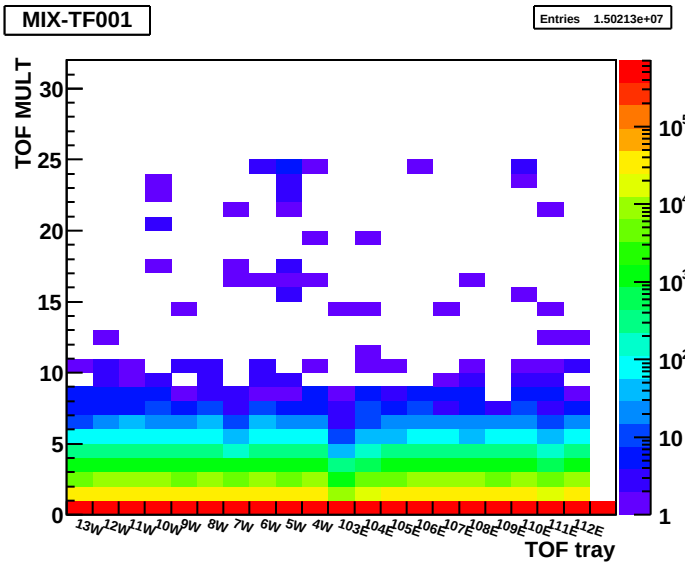

EM201 0-15 (ch3)
Entries 5722400
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
EAJP
JP0

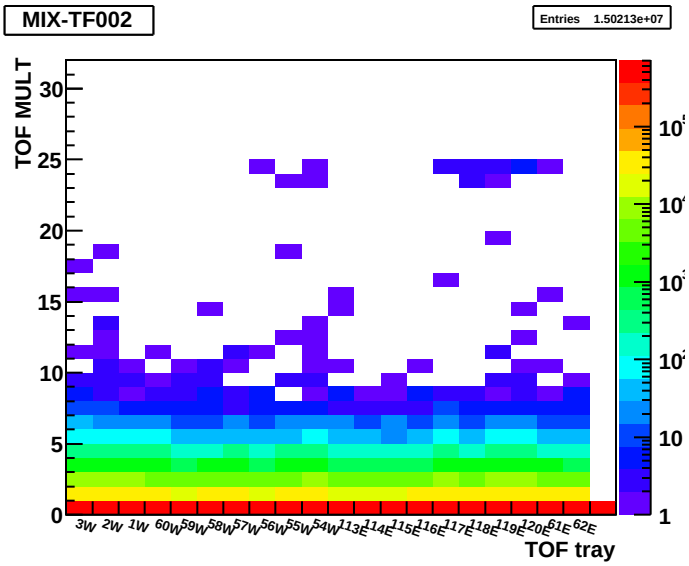

RAT board (ch4)
Entries 5722400
rat-0
rat-1
rat-2
rat-3
rat-4
rat-5
rat-6
rat-7
rat-8
rat-9
rat-10
rat-11
rat-12
rat-13
rat-14
rat-15

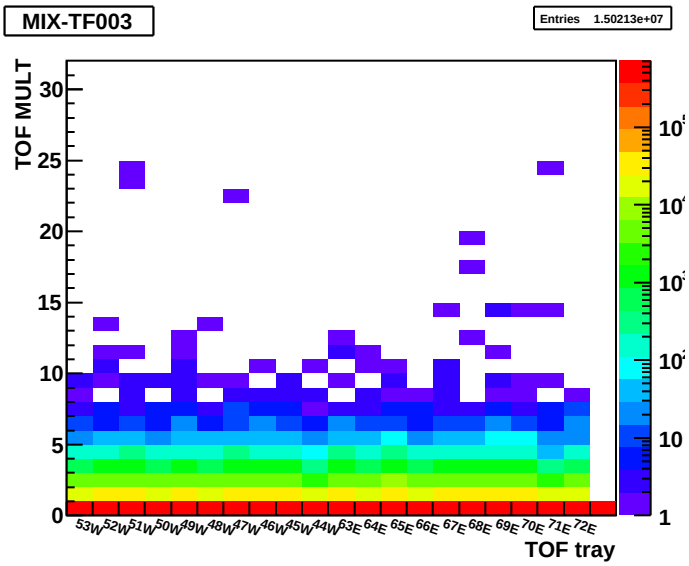

FP201 0-15 (ch5)
Entries 5722400
FMSsmallClusTh0
FMSsmallClusTh1
FMSsmallClusTh2
FMSsmallMulClusTh0
FMSsmallMulClusTh1
FMSsmallMulClusTh2
FMSsmallHT
FMSlargeClusTh0
FMSlargeClusTh1
FMSlargeClusTh2
FMSlargeMulClusTh0
FMSlargeMulClusTh1
FMSlargeMulClusTh2
FMSlargeHT
FPE

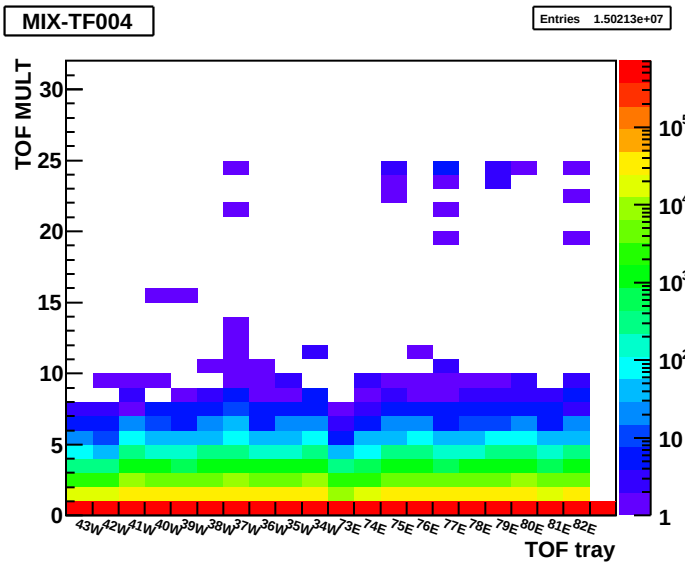

ST201 0-15 (ch6)
Entries 5722400
SpcTrgDetBit0
SpcTrgDetBit1
SpcTrgDetBit2
DetGrpBit0
DetGrpBit1
DetGrpBit2
DetGrpBit3
ZeroBias
Random

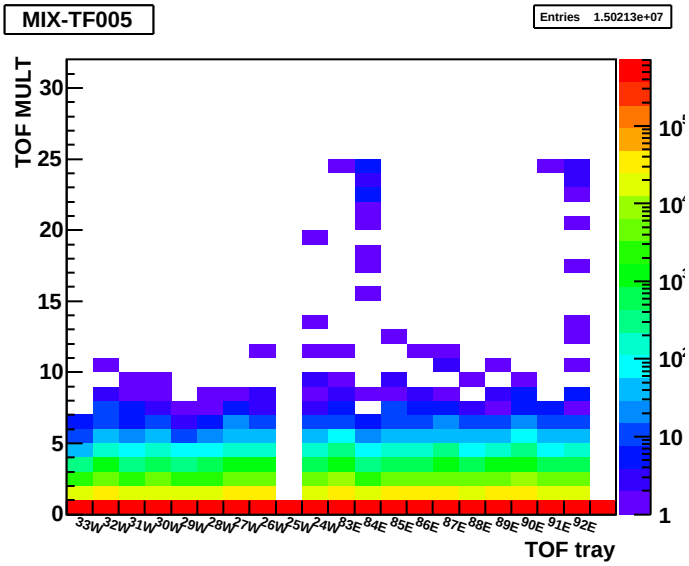

Unused (ch7)
Entries 5722400

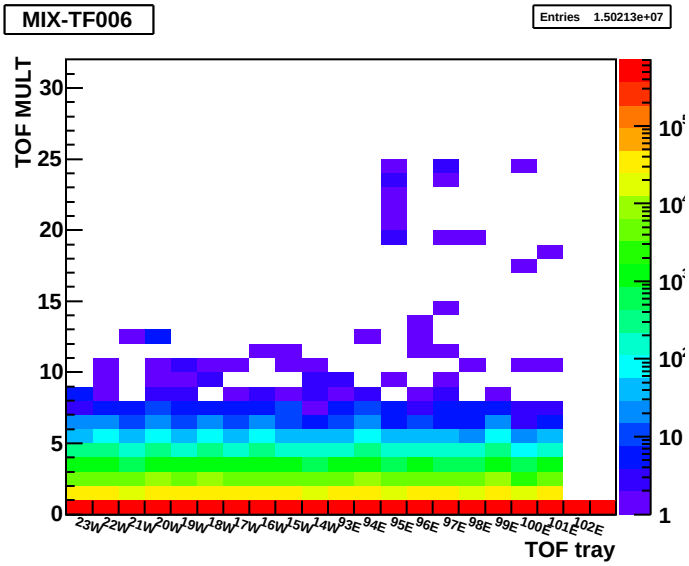

MIX-TF001
Entries 1.50213e+07
TOF MULT
TOF tray

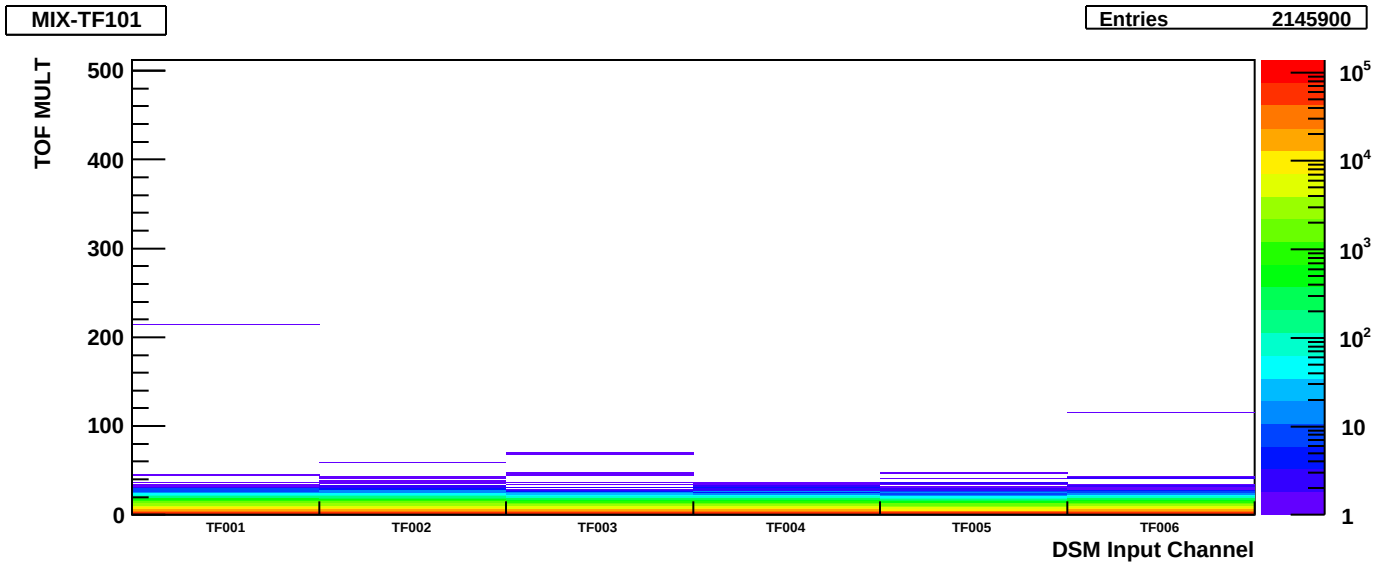

MIX-TF002
Entries 1.50213e+07
TOF MULT
TOF tray

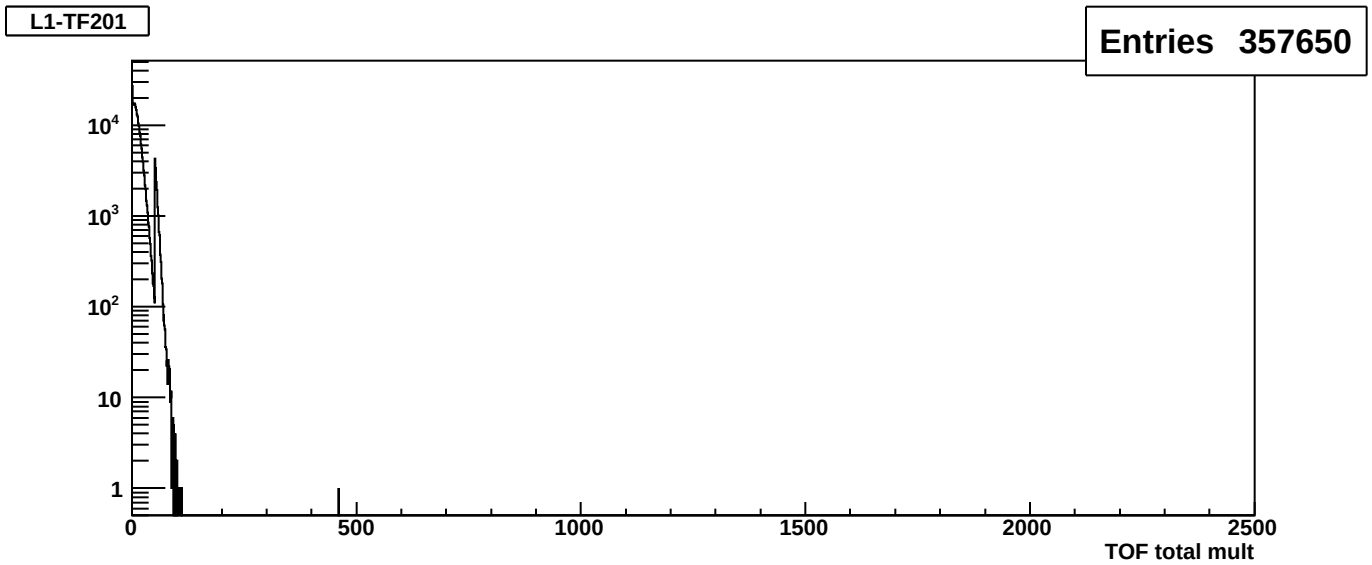

MIX-TF003
Entries 1.50213e+07
TOF MULT
TOF tray

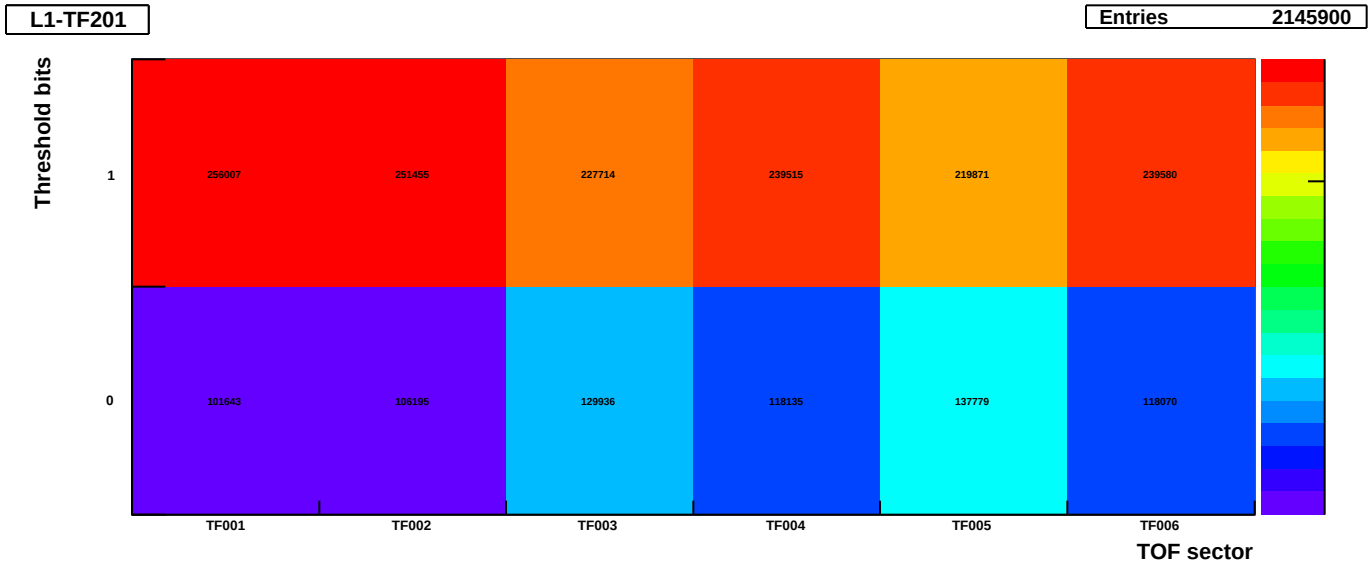

MIX-TF004
Entries 1.50213e+07
TOF MULT
TOF tray

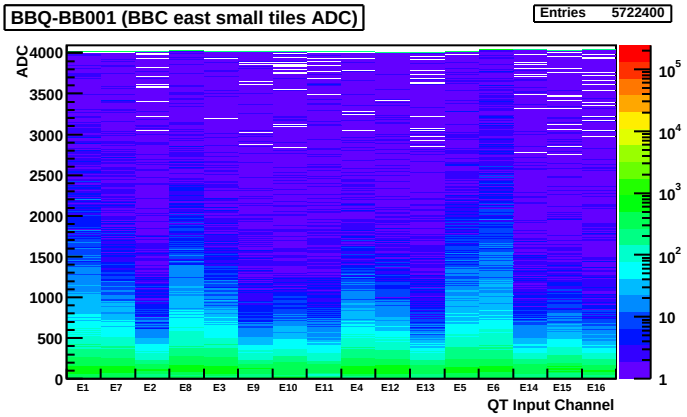

MIX-TF005
Entries 1.50213e+07
TOF MULT
TOF tray

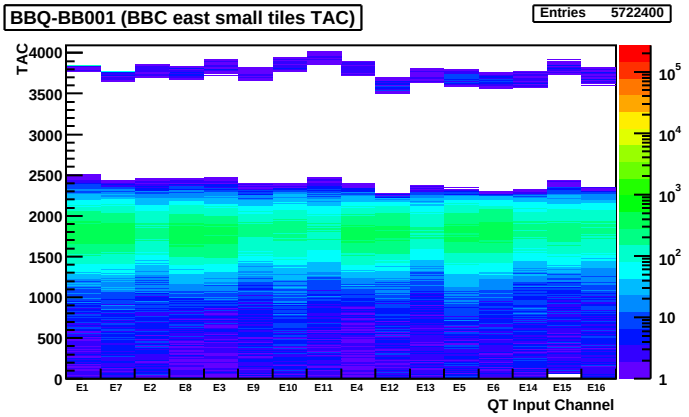

MIX-TF006
Entries 1.50213e+07
TOF MULT
TOF tray

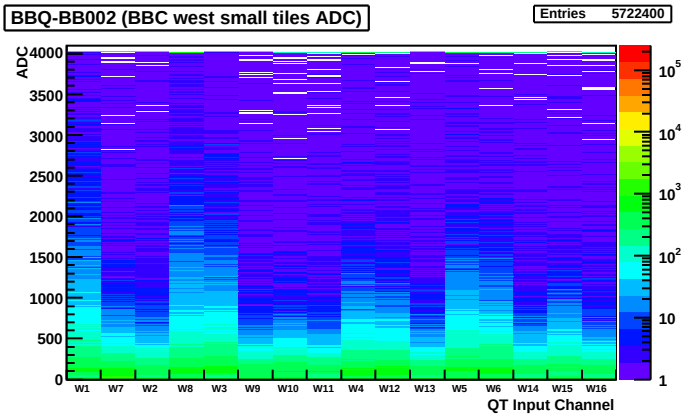

MIX-TF101
Entries 2145900
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

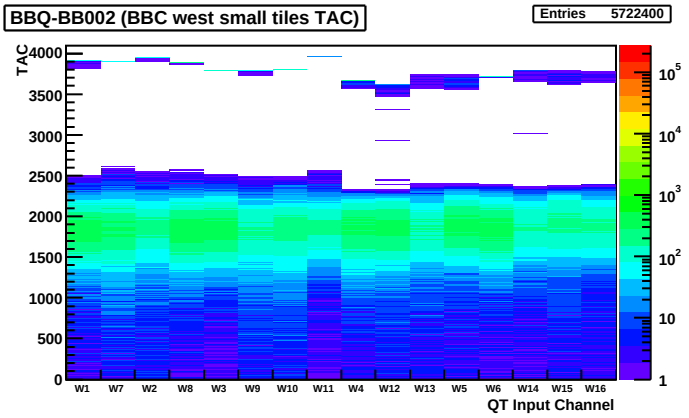

L1-TF201
Entries 357650
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

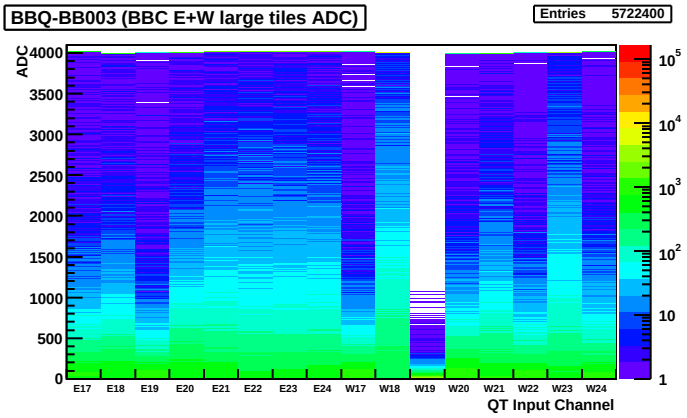

L1-TF201
Entries 2145900
Threshold bits
1
0
256007
251455
227714
239515
219871
239580
101643
106195
129936
118135
137779
118070
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

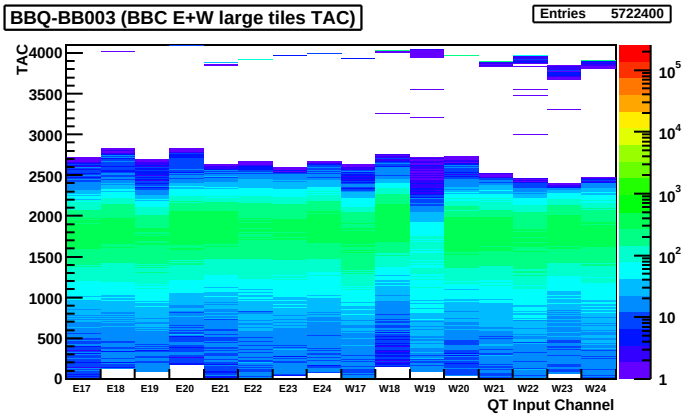

BBQ-BB001 (BBC east small tiles ADC)
Entries 5722400
ADC
QT Input Channel

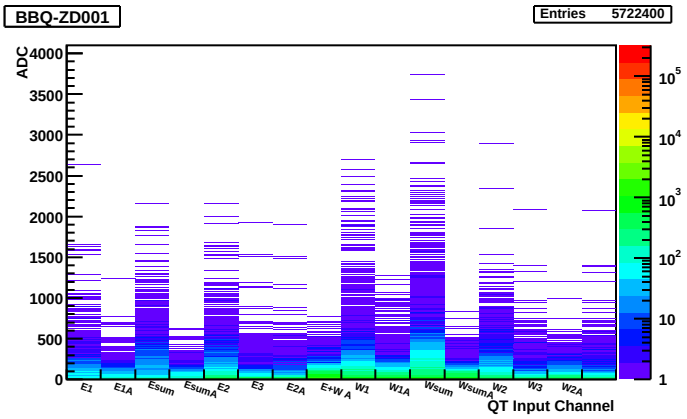

BBQ-BB001 (BBC east small tiles TAC)
Entries 5722400
TAC
QT Input Channel

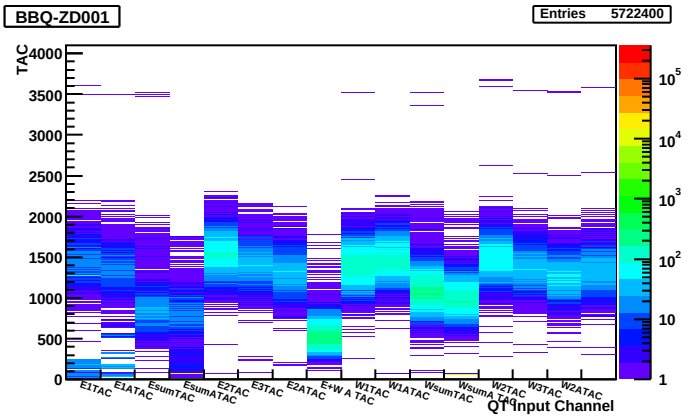

BBQ-BB002 (BBC west small tiles ADC)
Entries 5722400
ADC
QT Input Channel

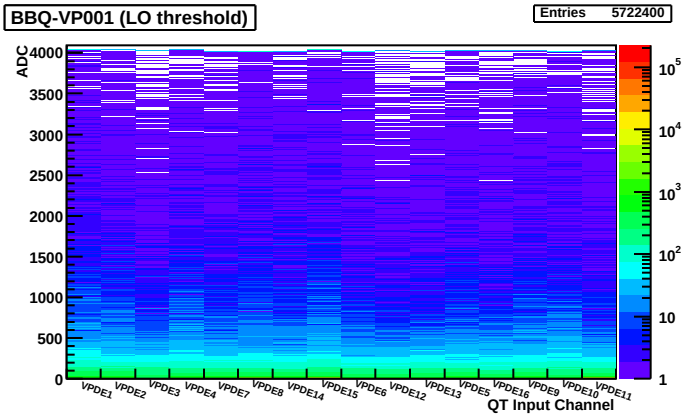

BBQ-BB002 (BBC west small tiles TAC)
Entries 5722400
TAC
QT Input Channel

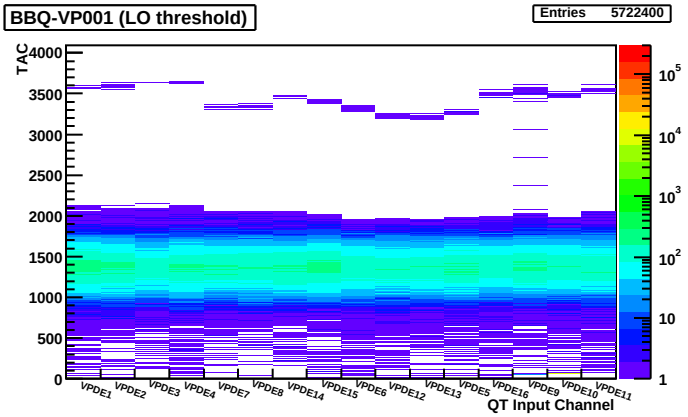

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 5722400
ADC
QT Input Channel

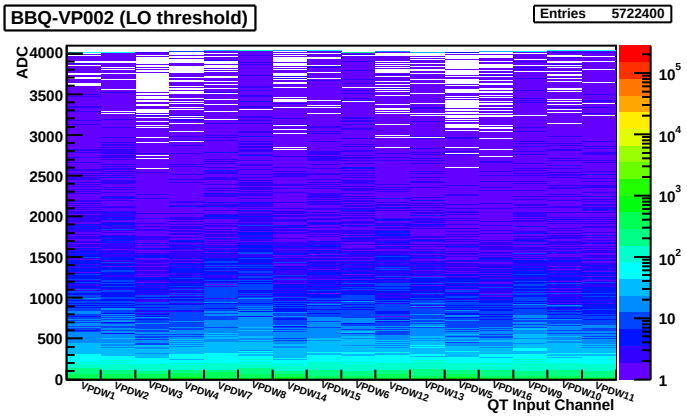

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 5722400
TAC
QT Input Channel

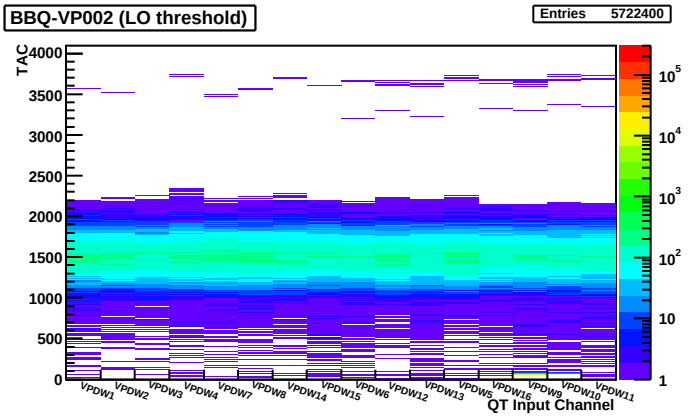

BBQ-ZD001
Entries 5722400
ADC
QT Input Channel

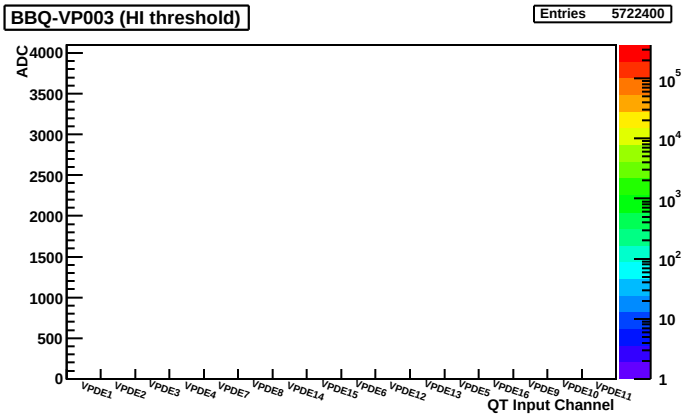

BBQ-ZD001
Entries 5722400
TAC
QT Input Channel

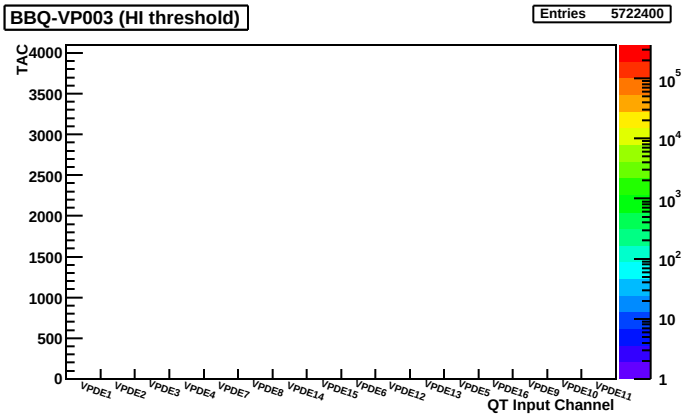

BBQ-VP001 (LO threshold)
Entries 5722400
ADC
QT Input Channel

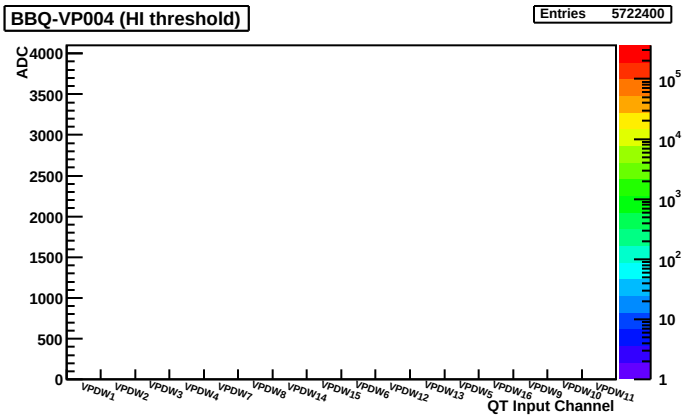

BBQ-VP001 (LO threshold)
Entries 5722400
TAC
QT Input Channel

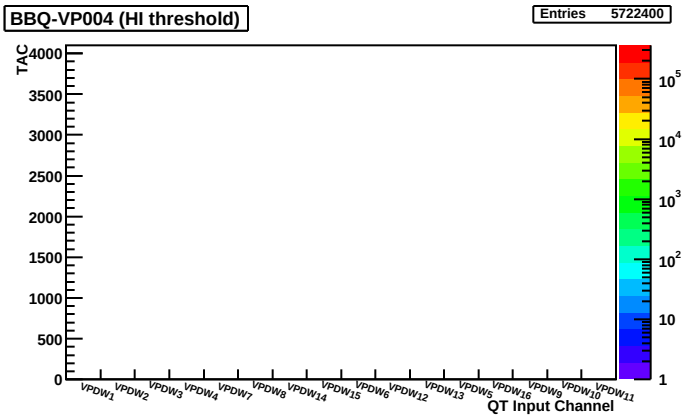

BBQ-VP002 (LO threshold)
Entries 5722400
ADC
QT Input Channel

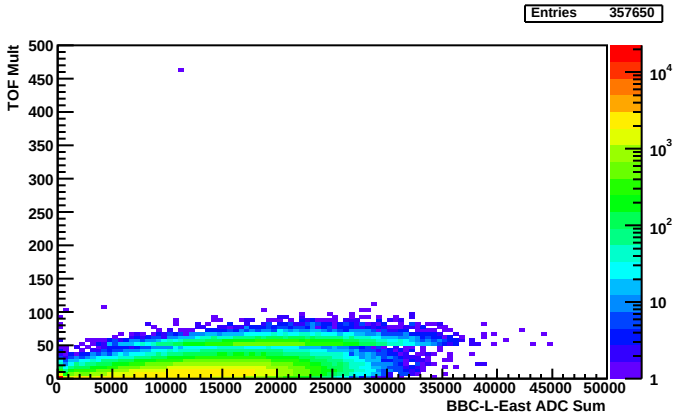

BBQ-VP002 (LO threshold)
Entries 5722400
TAC
QT Input Channel

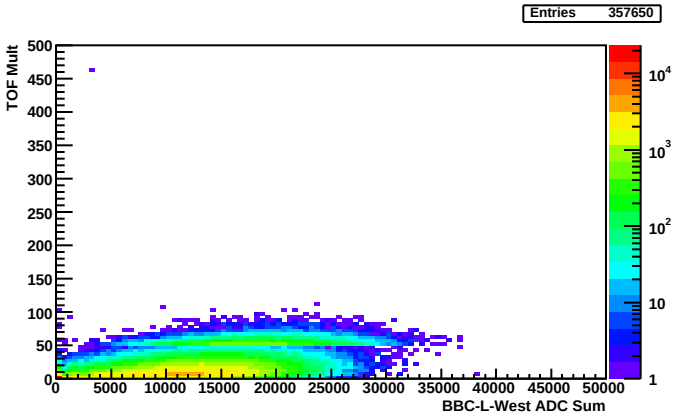

BBQ-VP003 (HI threshold)
Entries 5722400
ADC
QT Input Channel

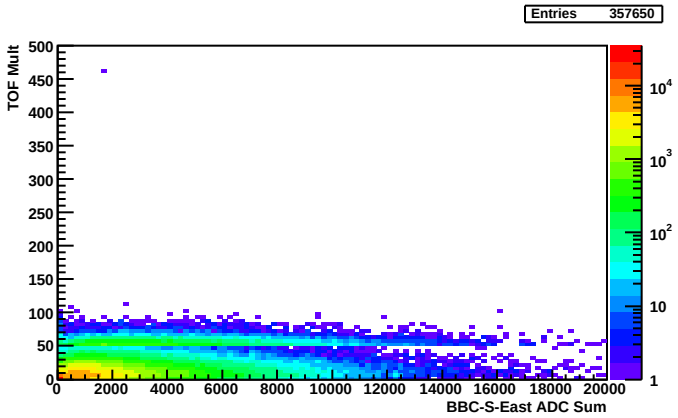

BBQ-VP003 (HI threshold)
Entries 5722400
TAC
QT Input Channel

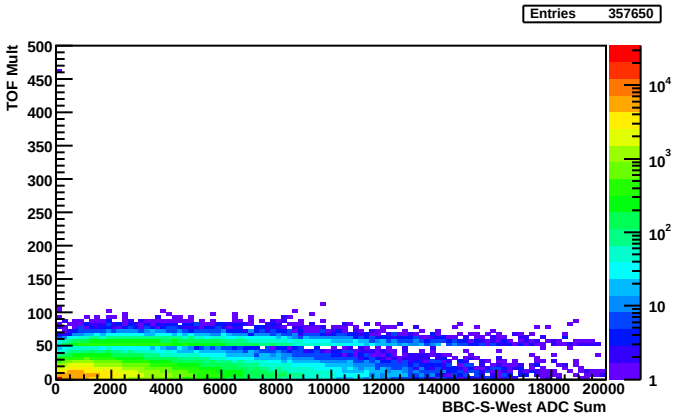

BBQ-VP004 (HI threshold)
Entries 5722400
ADC
QT Input Channel

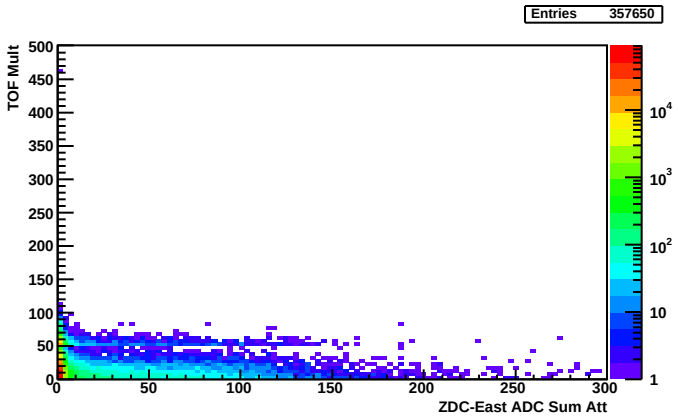

BBQ-VP004 (HI threshold)
Entries 5722400
TAC
QT Input Channel

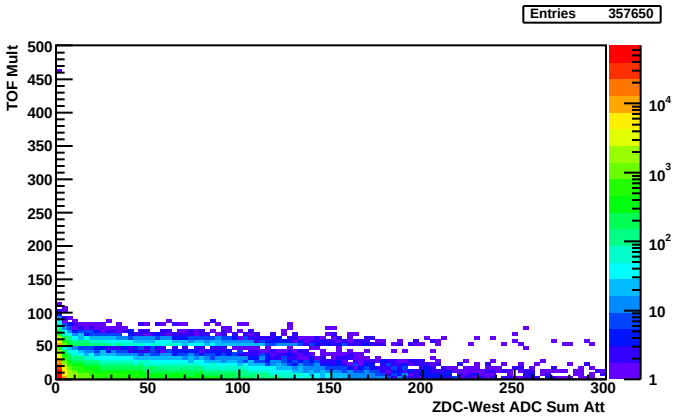

Entries 357650
TOF Mult
BBC-L-East ADC Sum

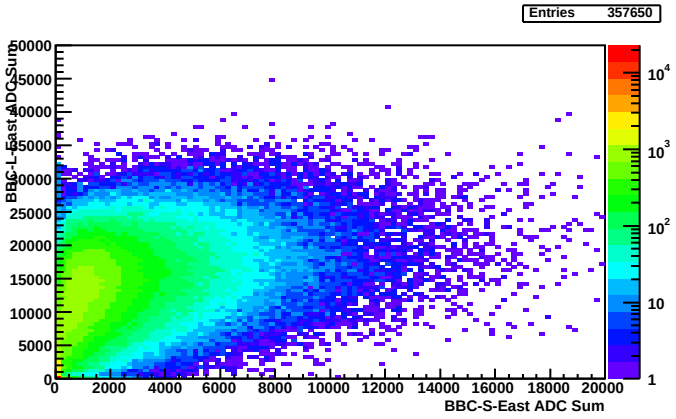

Entries 357650
TOF Mult
BBC-L-West ADC Sum

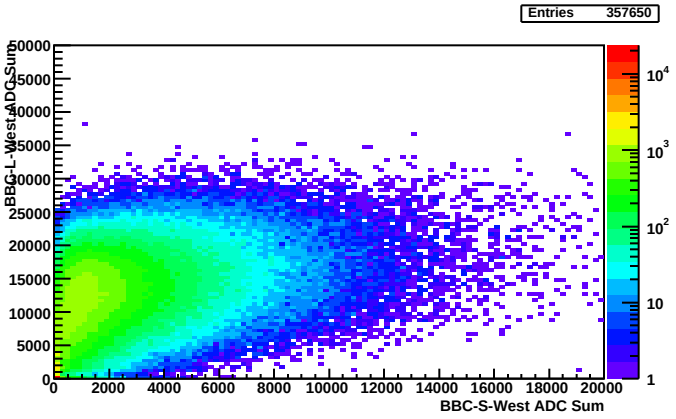

Entries 357650
TOF Mult
BBC-S-East ADC Sum

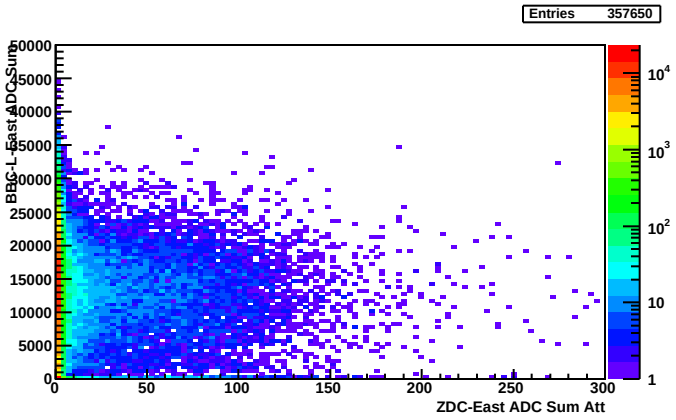

Entries 357650
TOF Mult
BBC-S-West ADC Sum

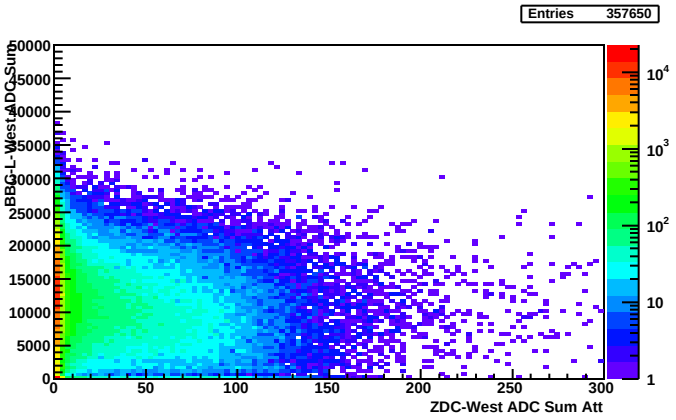

Entries 357650
TOF Mult
ZDC-East ADC Sum Att

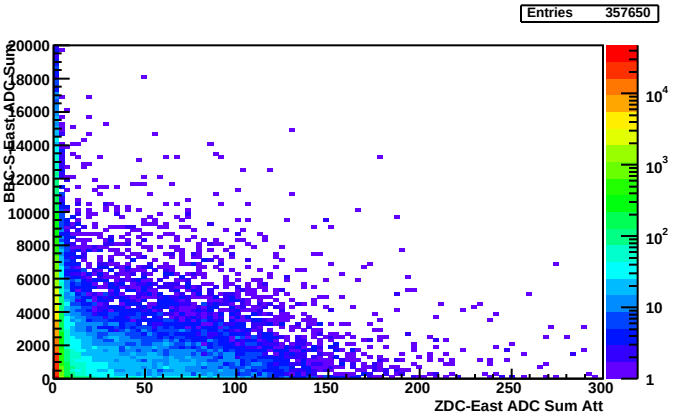

Entries 357650
TOF Mult
ZDC-West ADC Sum Att

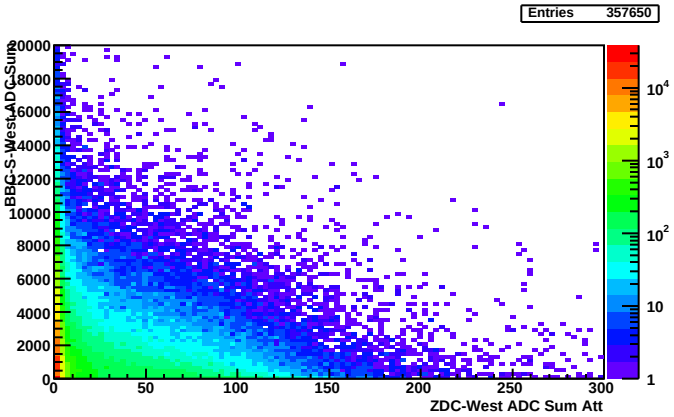

Entries 357650
BBC-L-East ADC Sum
BBC-S-East ADC Sum

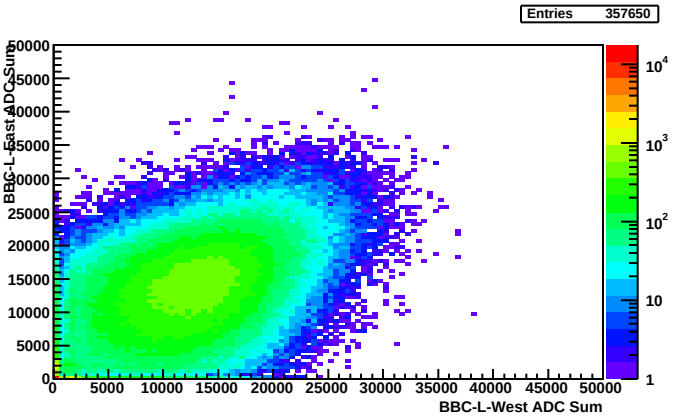

Entries 357650
BBC-L-West ADC Sum
BBC-S-West ADC Sum

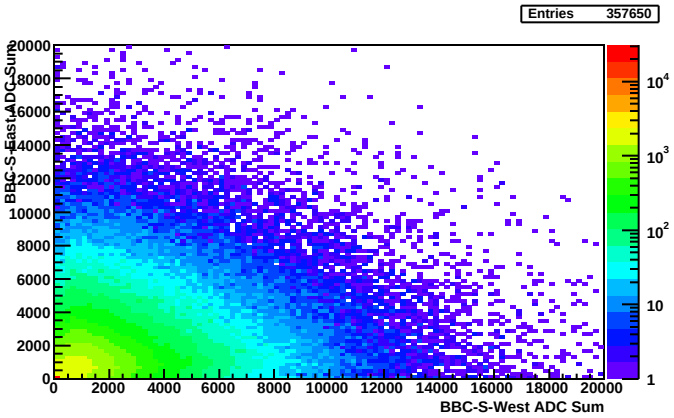

Entries 357650
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

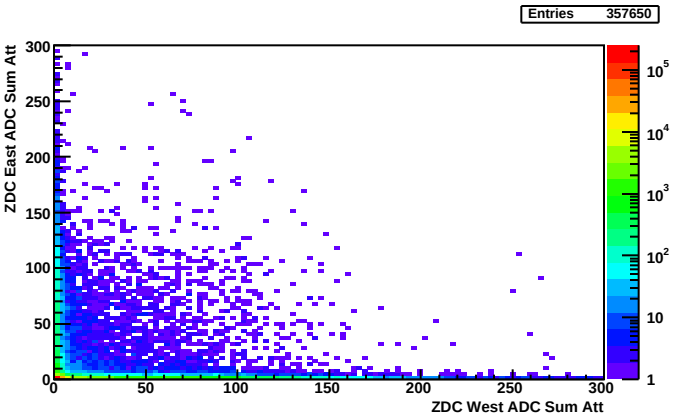

Entries 357650
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

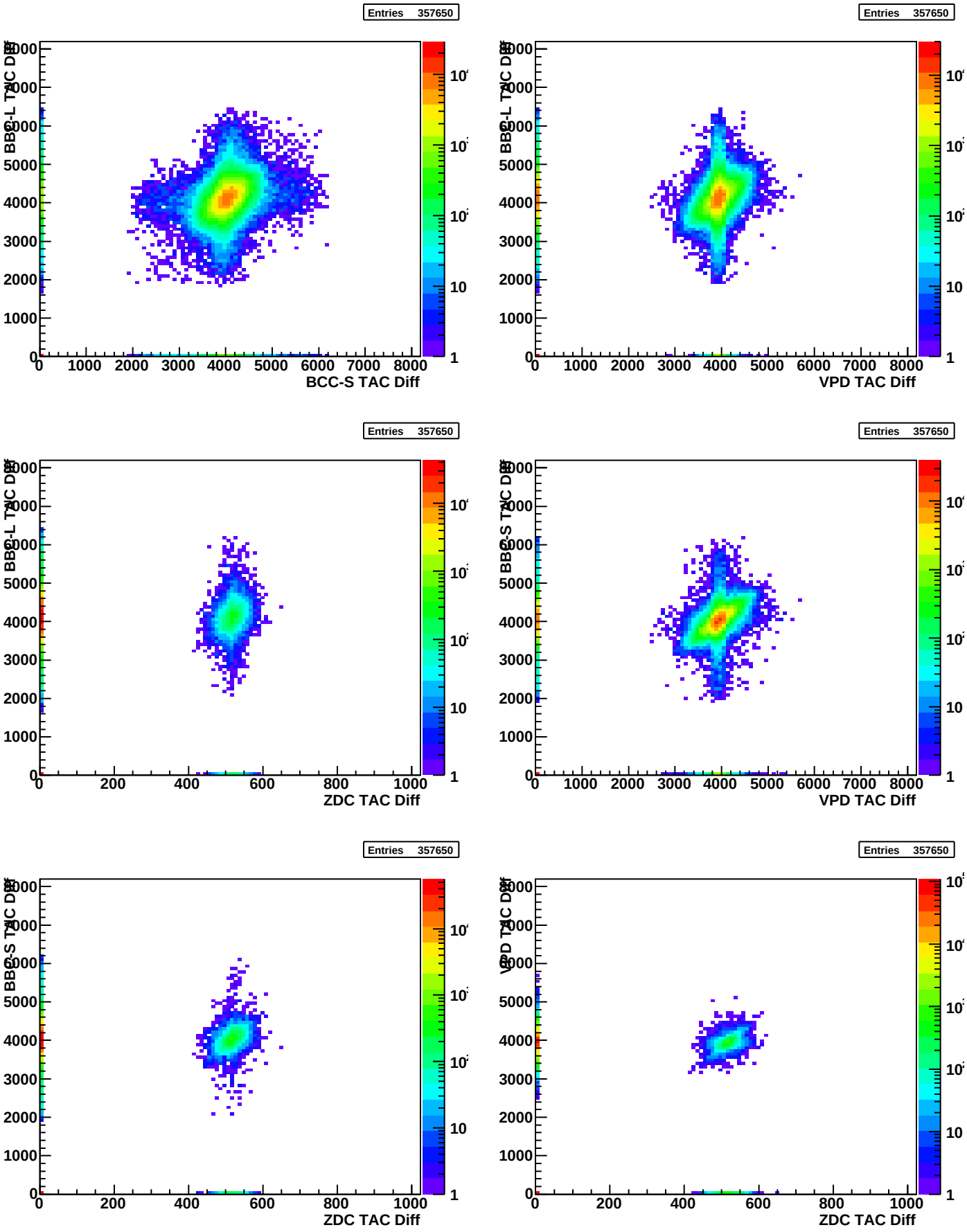

Entries 357650
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

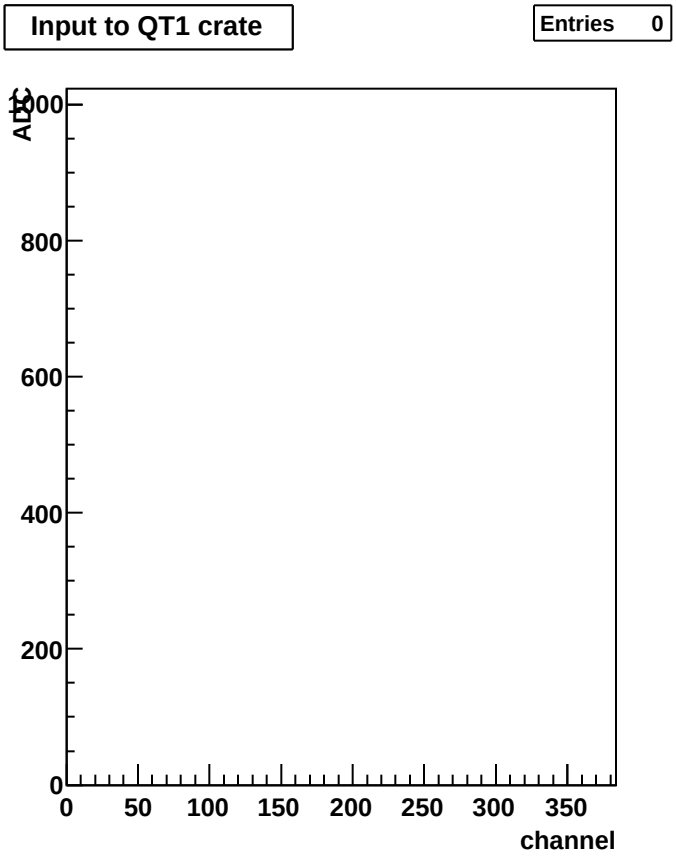

Entries 357650
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

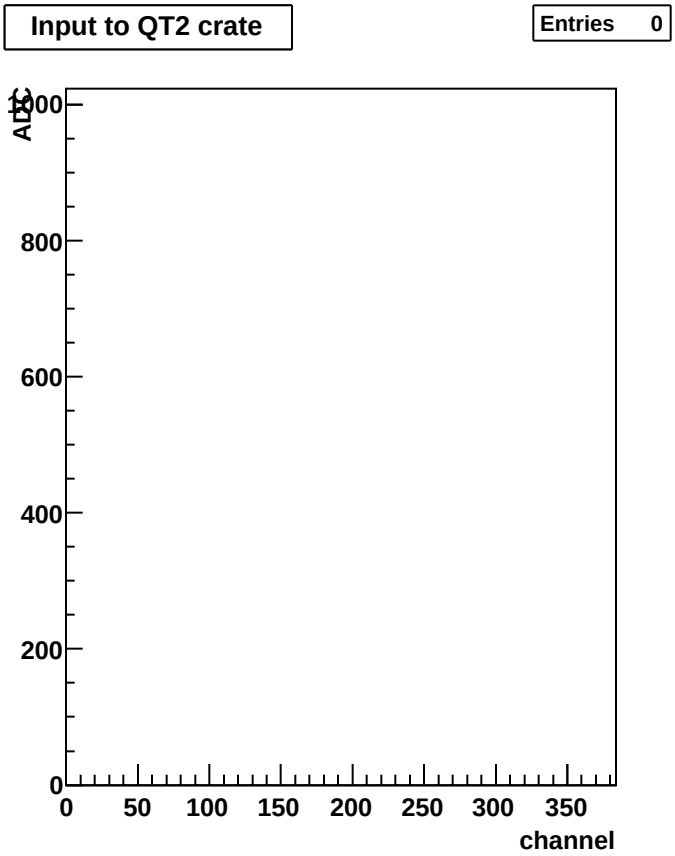

Entries 357650
BBC-L-East ADC Sum
BBC-L-West ADC Sum

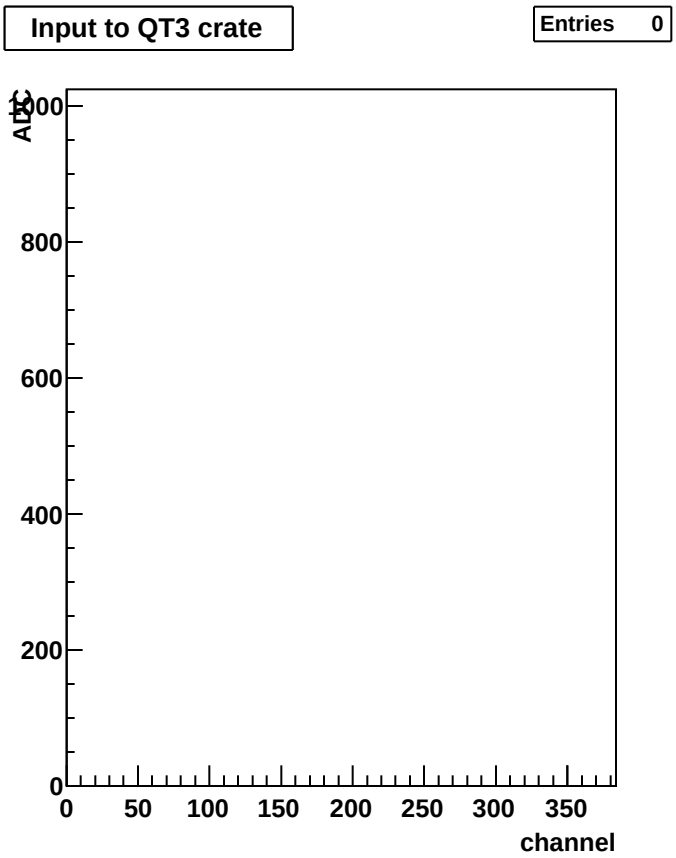

Entries 357650
BBC-S-East ADC Sum
BBC-S-West ADC Sum

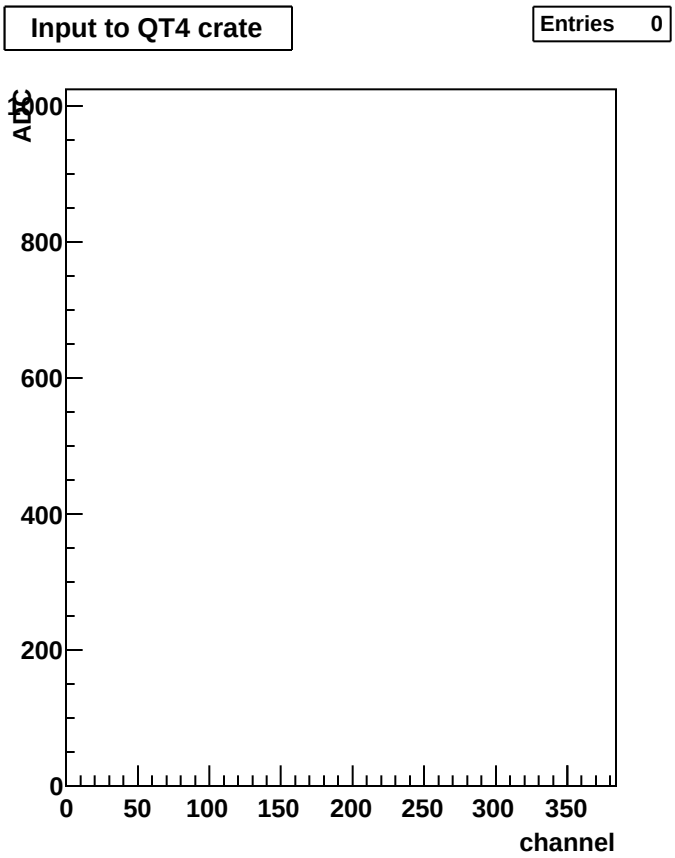

Entries 357650
ZDC East ADC Sum Att
ZDC West ADC Sum Att

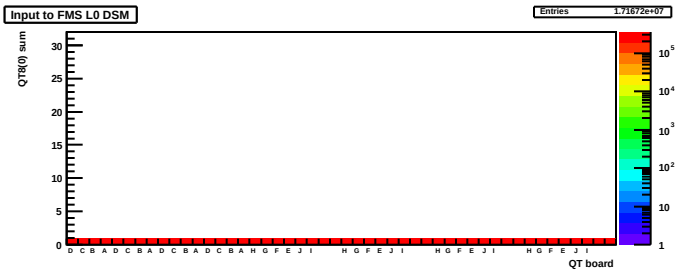

Entries 357650
BBC-L TAC Diff
BCC-S TAC Diff
Entries 357650
BBC-L TAC Diff
VPD TAC Diff
Entries 357650
BBC-L TAC Diff
ZDC TAC Diff
Entries 357650
BBC-S TAC Diff
VPD TAC Diff
Entries 357650
BBC-S TAC Diff
ZDC TAC Diff
Entries 357650
VPD TAC Diff
ZDC TAC Diff

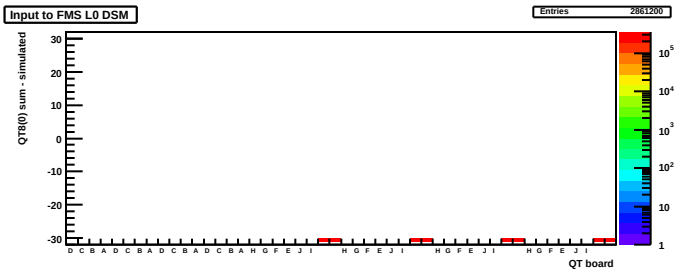

Input to QT1 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

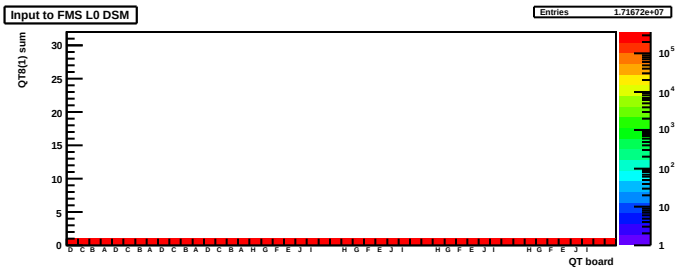

Input to QT2 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

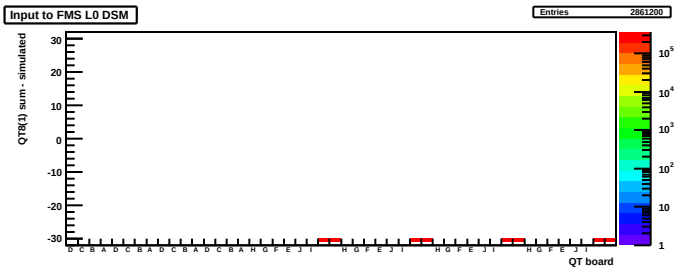

Input to QT3 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

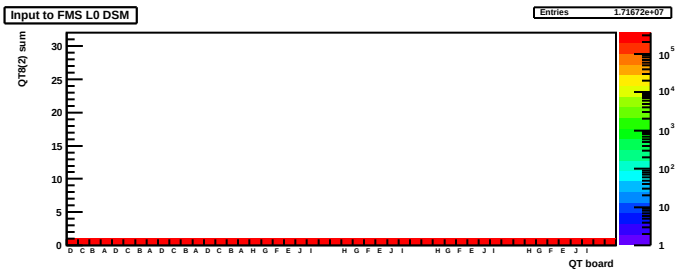

Input to QT4 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

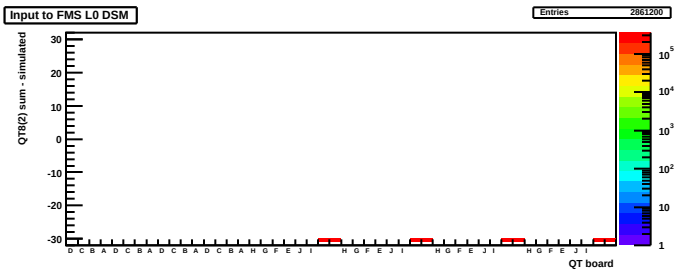

Input to FMS L0 DSM
Entries 1.71672e+07
QT8(0) sum
QT board

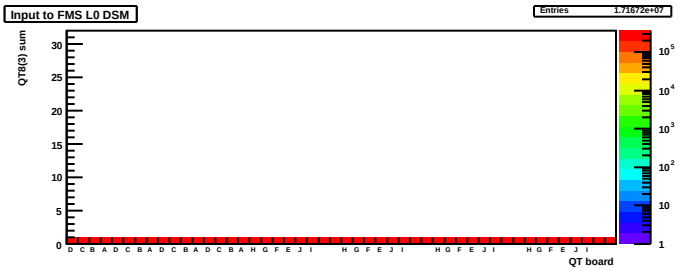

Input to FMS L0 DSM
Entries 2861200
QT8(0) sum - simulated
QT board

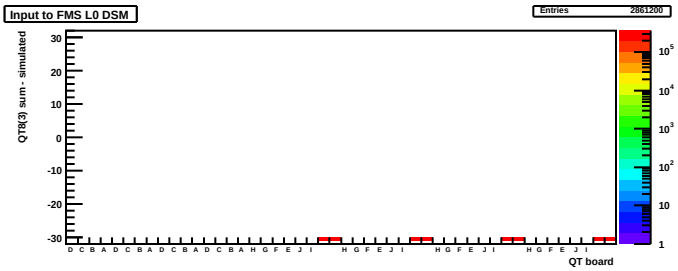

Input to FMS L0 DSM
Entries 1.71672e+07
QT8(1) sum
QT board

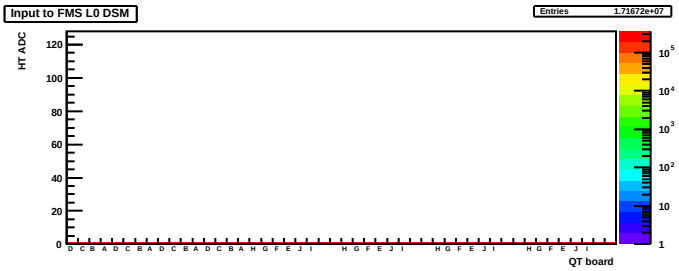

Input to FMS L0 DSM
Entries 2861200
QT8(1) sum - simulated
QT board

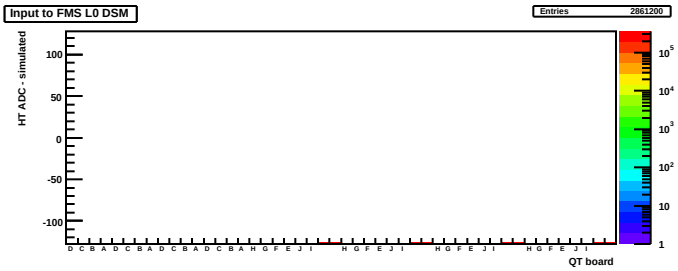

Input to FMS L0 DSM
Entries 1.71672e+07
QT8(2) sum
QT board

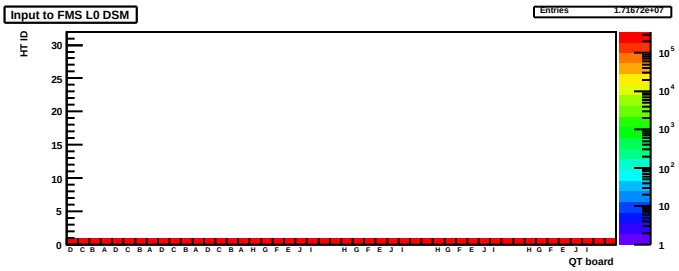

Input to FMS L0 DSM
Entries 2861200
QT8(2) sum - simulated
QT board

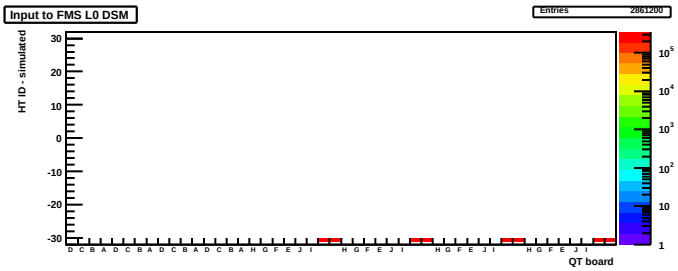

Input to FMS L0 DSM
Entries 1.71672e+07
QT8(3) sum
QT board

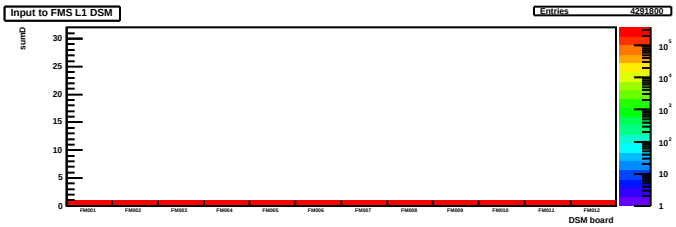

Input to FMS L0 DSM
Entries 2861200
QT8(3) sum - simulated
QT board

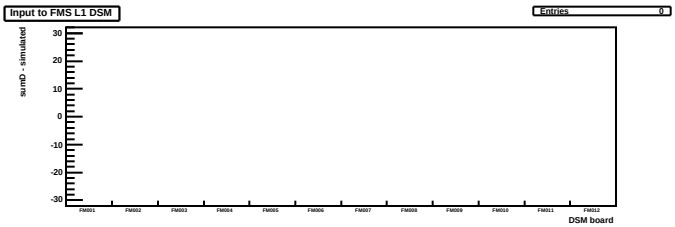

Input to FMS L0 DSM
Entries 1.71672e+07
HT ADC
QT board

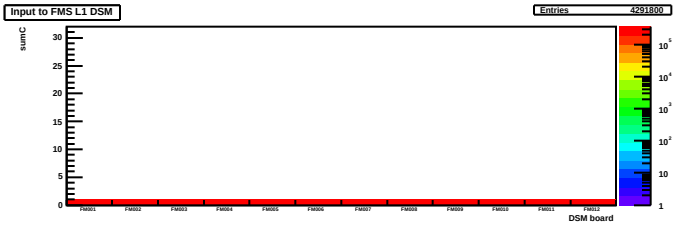

Input to FMS L0 DSM
Entries 2861200
HT ADC - simulated
QT board

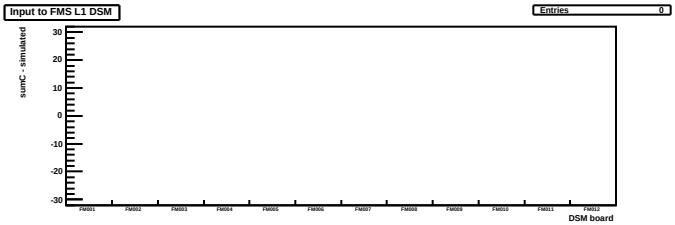

Input to FMS L0 DSM
Entries 1.71672e+07
HT ID
QT board

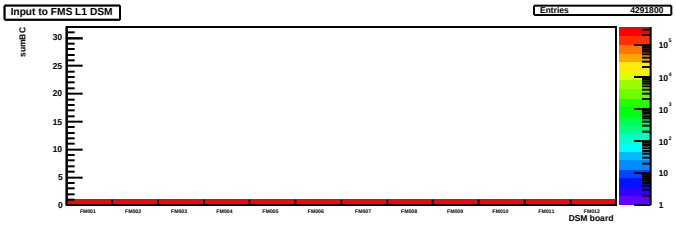

Input to FMS L0 DSM
Entries 2861200
HT ID - simulated
QT board

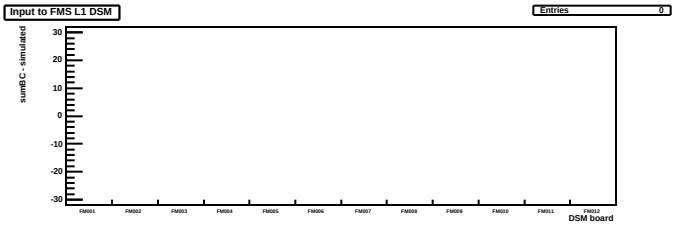

Input to FMS L1 DSM
Entries 4291800
sumD
DSM board

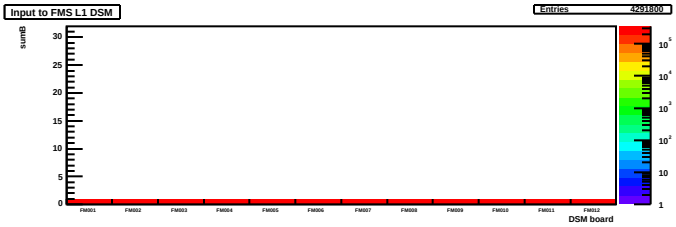

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

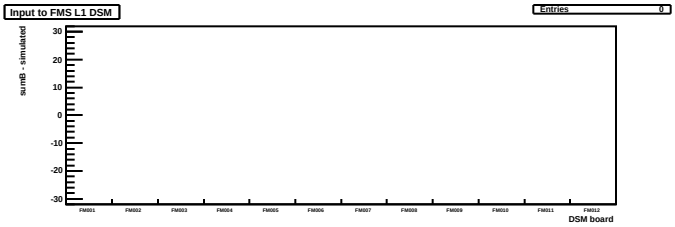

Input to FMS L1 DSM
Entries 4291800
sumC
DSM board

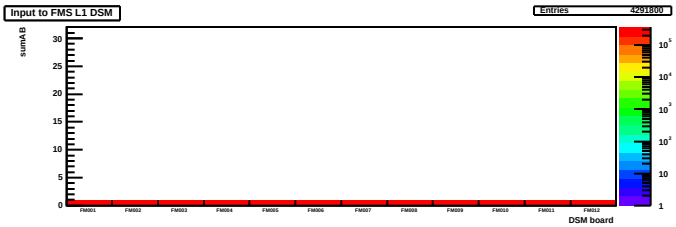

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

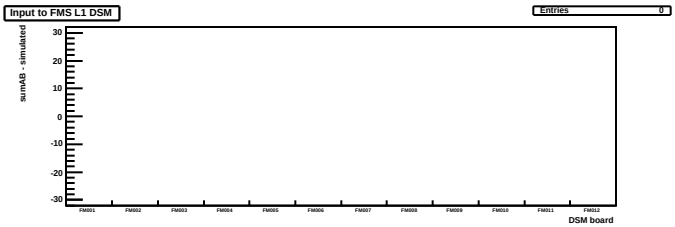

Input to FMS L1 DSM
Entries 4291800
sumBC
DSM board

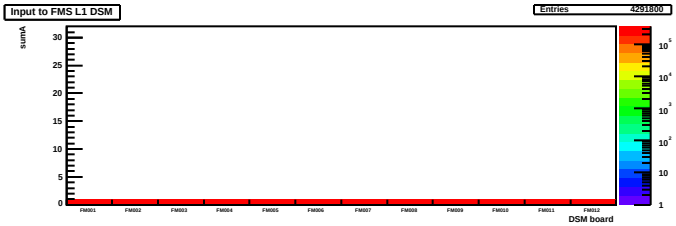

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

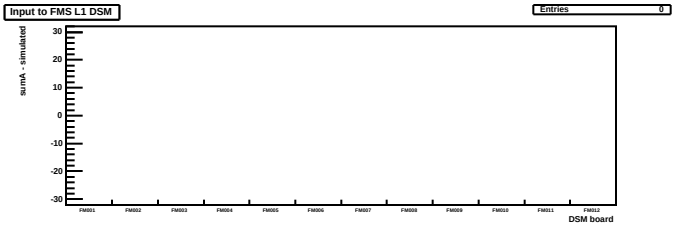

Input to FMS L1 DSM
Entries 4291800
sumB
DSM board

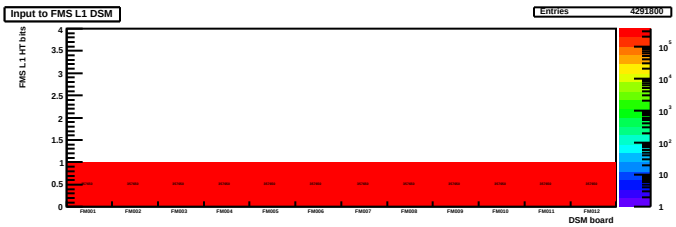

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

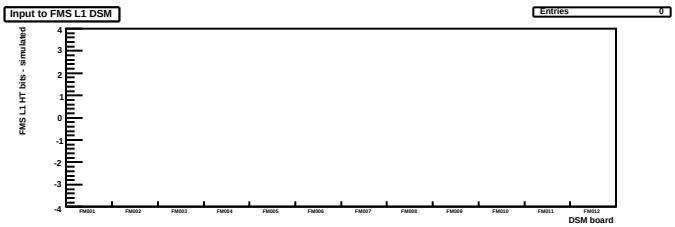

Input to FMS L1 DSM
Entries 4291800
sumAB
DSM board

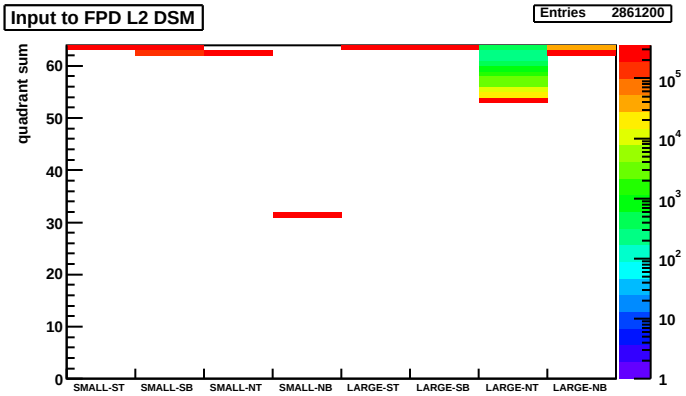

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

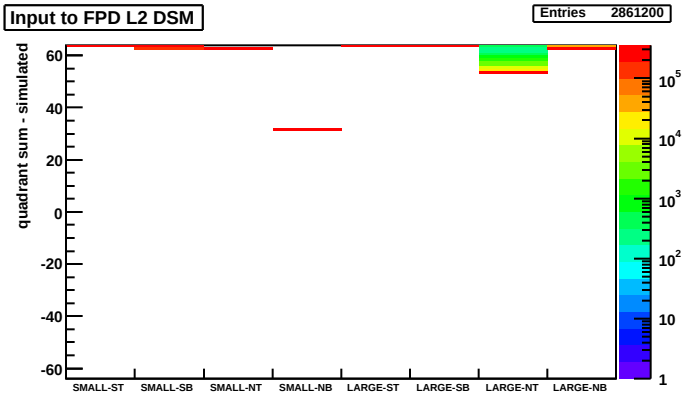

Input to FMS L1 DSM
Entries 4291800
sumA
DSM board

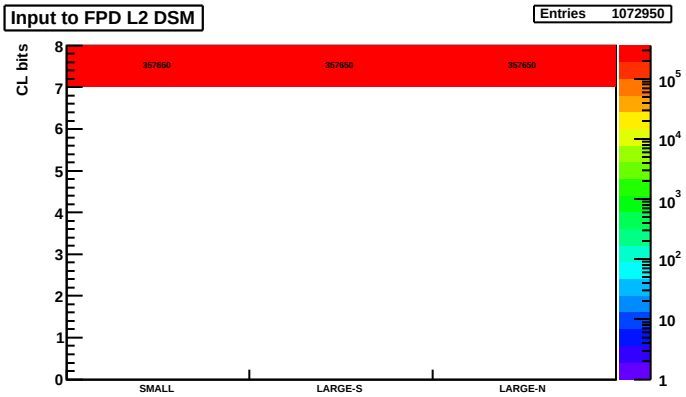

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

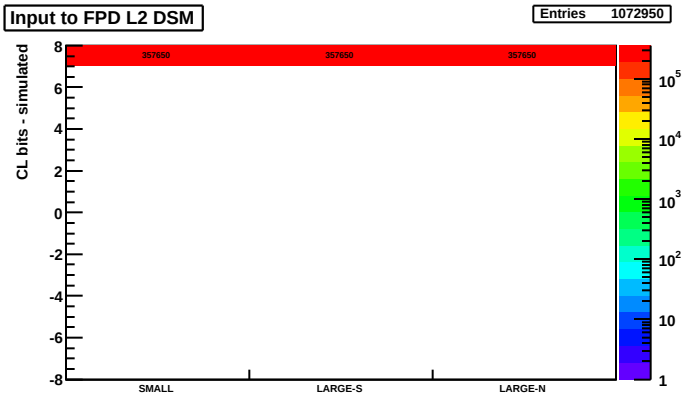

Input to FMS L1 DSM
Entries 4291800
FMS L1 HT bits
DSM board

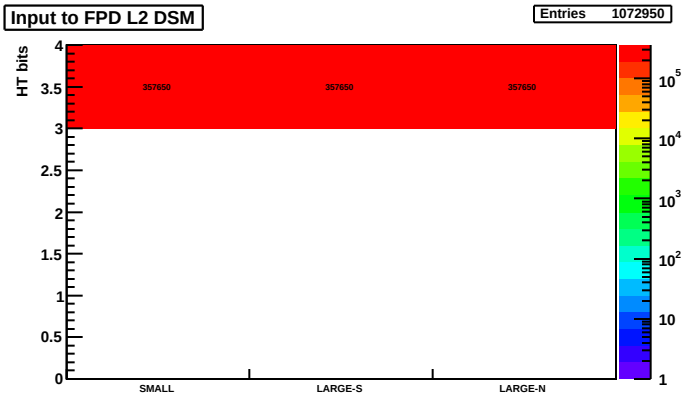

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

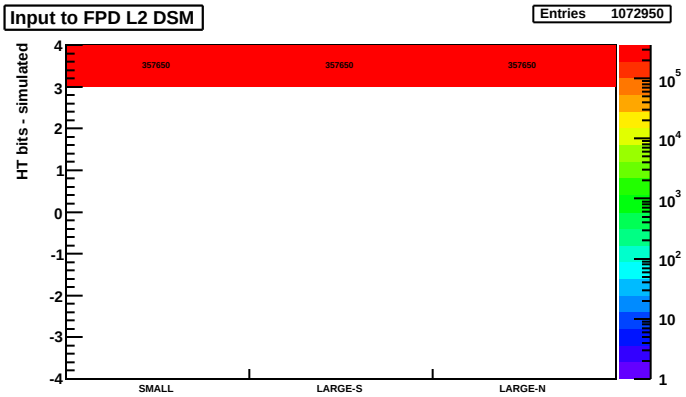

Input to FPD L2 DSM
Entries 2861200
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

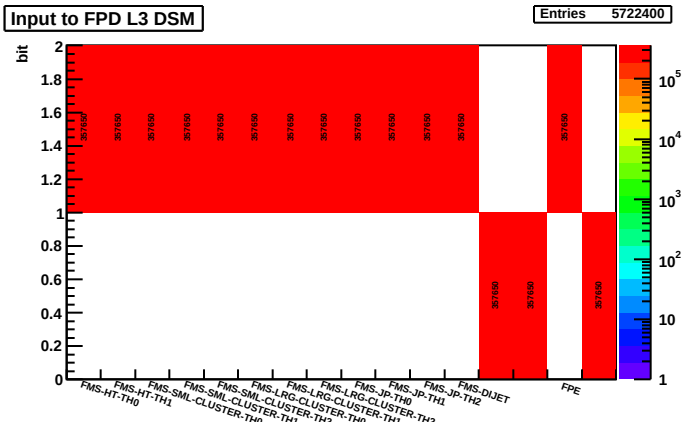

Input to FPD L2 DSM
Entries 2861200
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

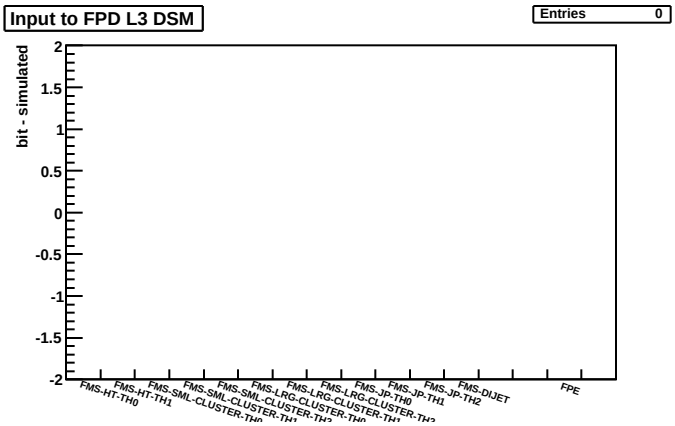

Input to FPD L2 DSM
Entries 1072950
CL bits
357650
SMALL
LARGE-S
LARGE-N

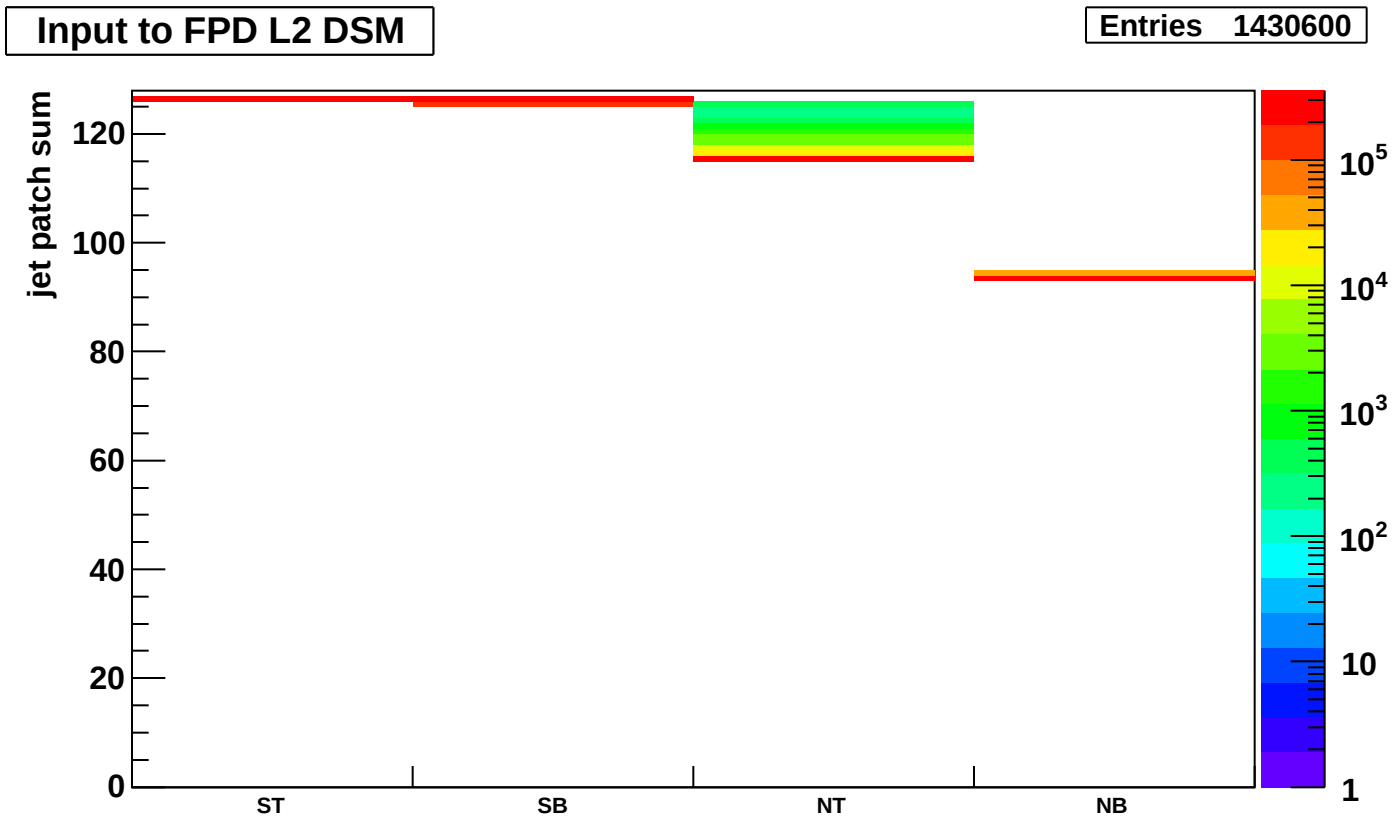

Input to FPD L2 DSM
Entries 1072950
CL bits - simulated
357650
SMALL
LARGE-S
LARGE-N

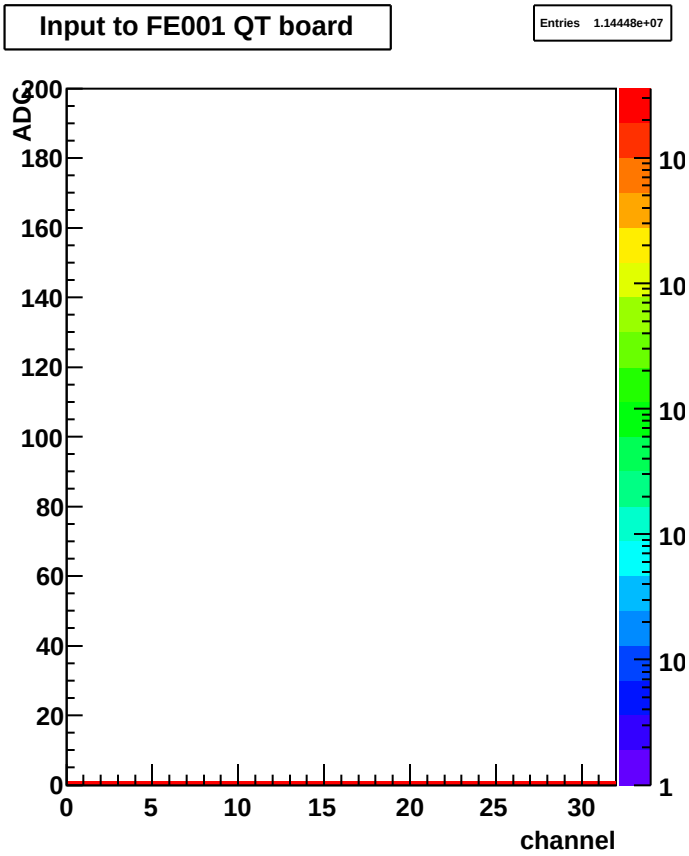

Input to FPD L2 DSM
Entries 1072950
HT bits
357650
SMALL
LARGE-S
LARGE-N

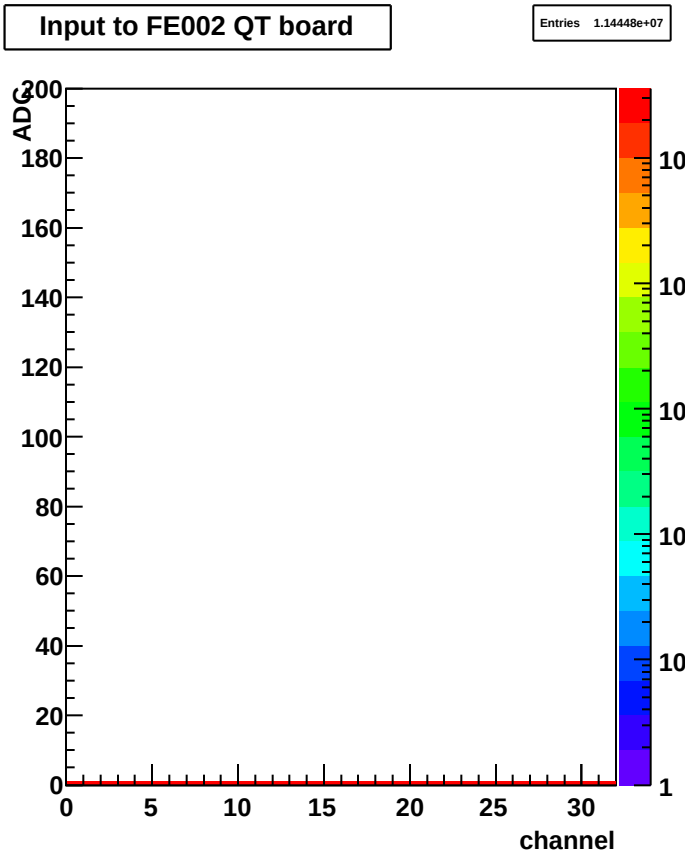

Input to FPD L2 DSM
Entries 1072950
HT bits - simulated
357650
SMALL
LARGE-S
LARGE-N

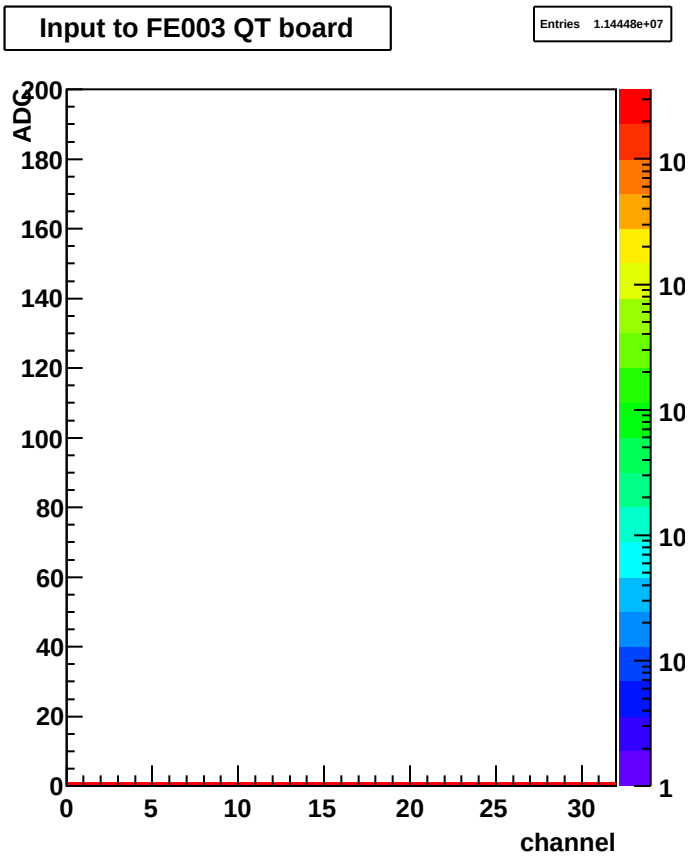

Input to FPD L3 DSM
Entries 5722400
bit
357650
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

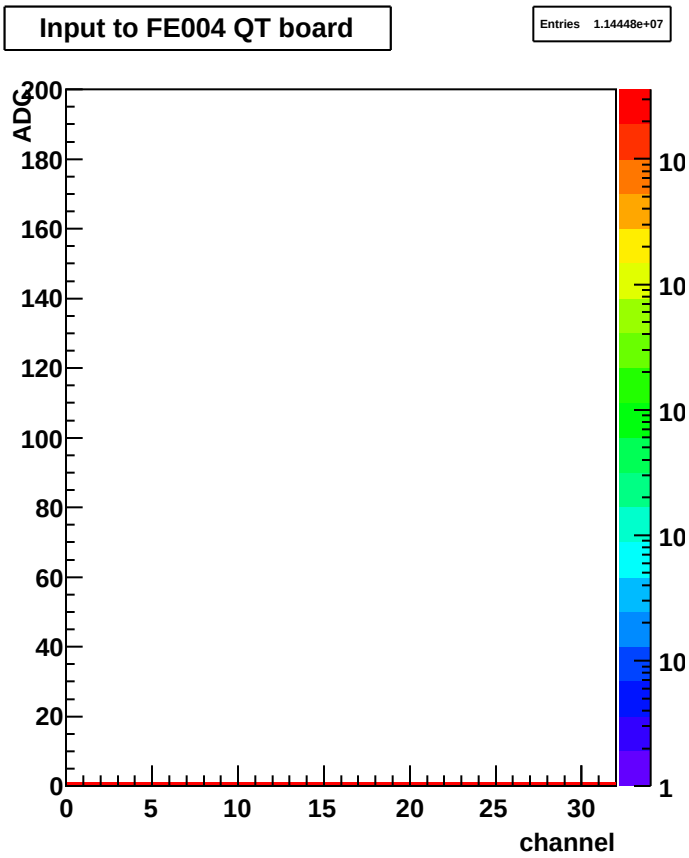

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

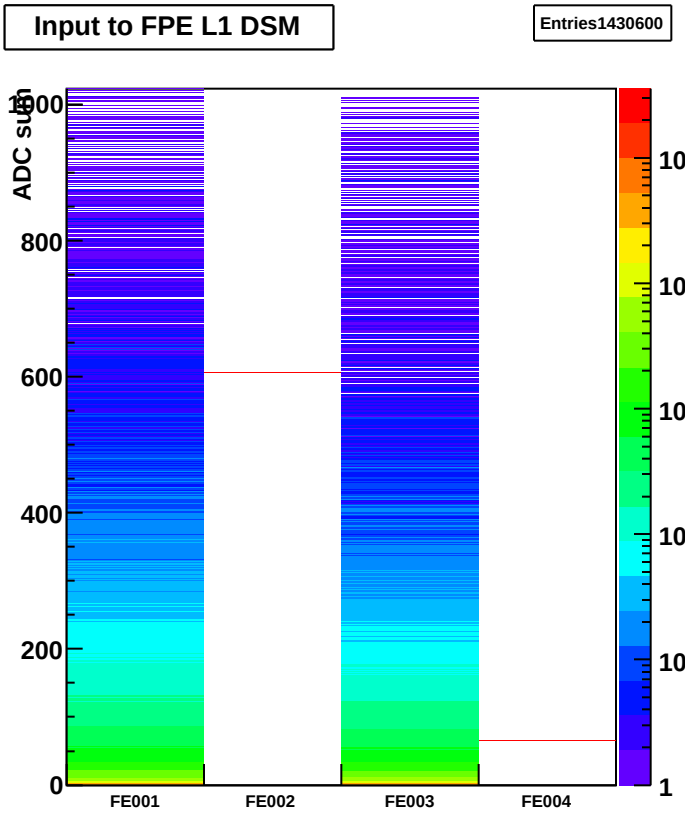

Input to FPD L2 DSM
Entries 1430600
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

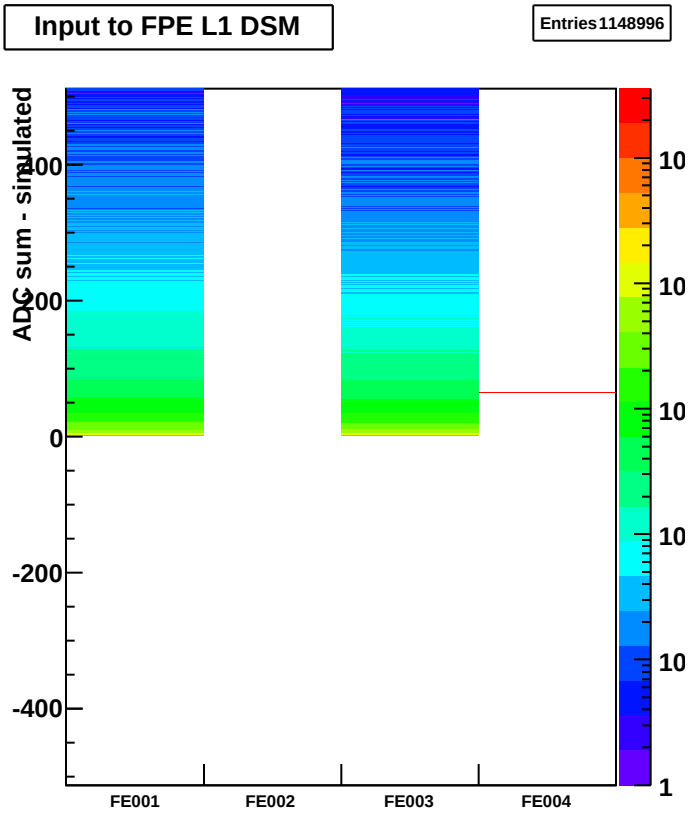

Input to FE001 QT board
Entries 1.14448e+07
ADC
channel

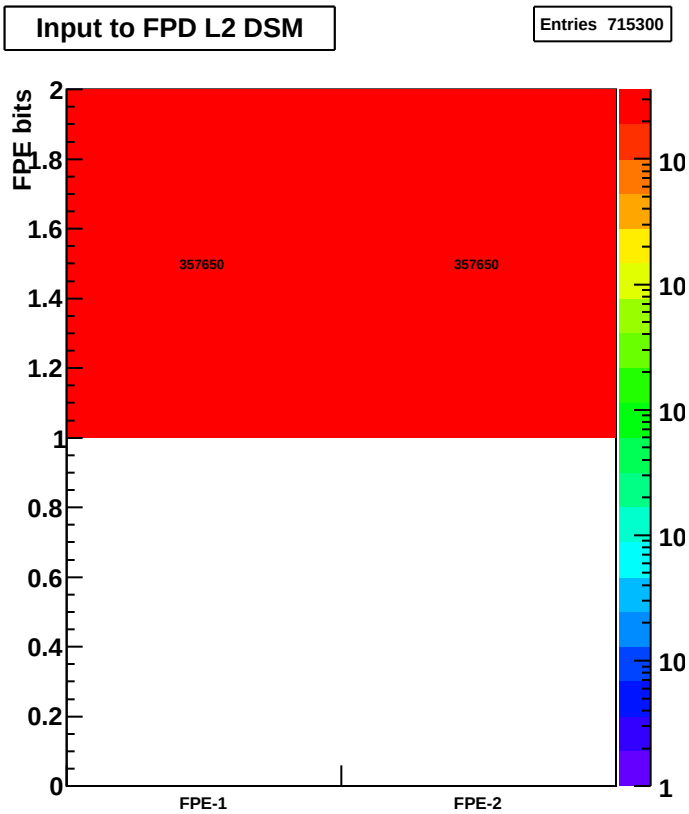

Input to FE002 QT board
Entries 1.14448e+07
ADC
channel

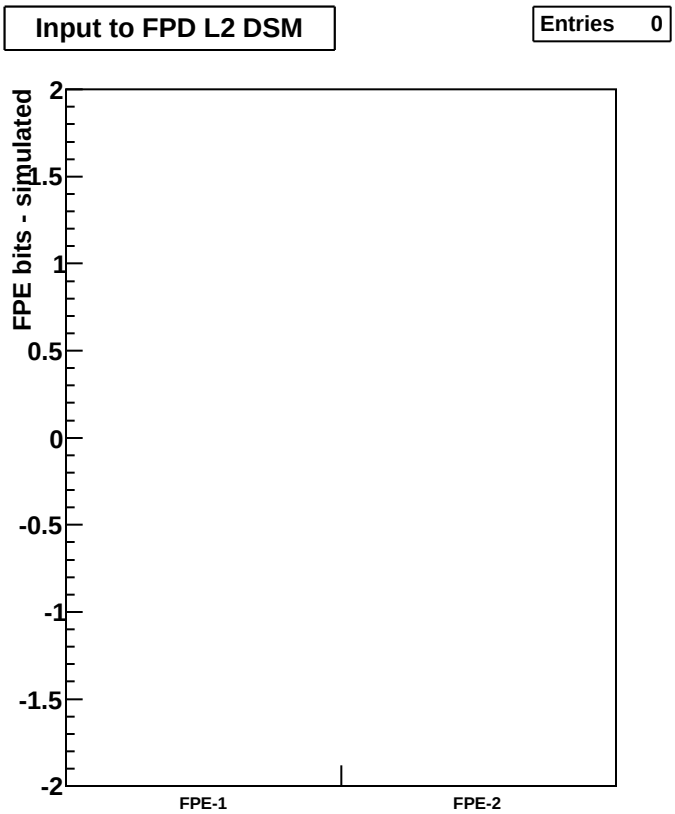

Input to FE003 QT board
Entries 1.14448e+07
ADC
channel


Input to FE004 QT board
Entries 1.14448e+07
ADC
channel


Input to FPE L1 DSM
Entries1430600
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries1148996
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPD L2 DSM
Entries 715300
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
357650
357650
FPE-1
FPE-2
10
10
10
10
10
1


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