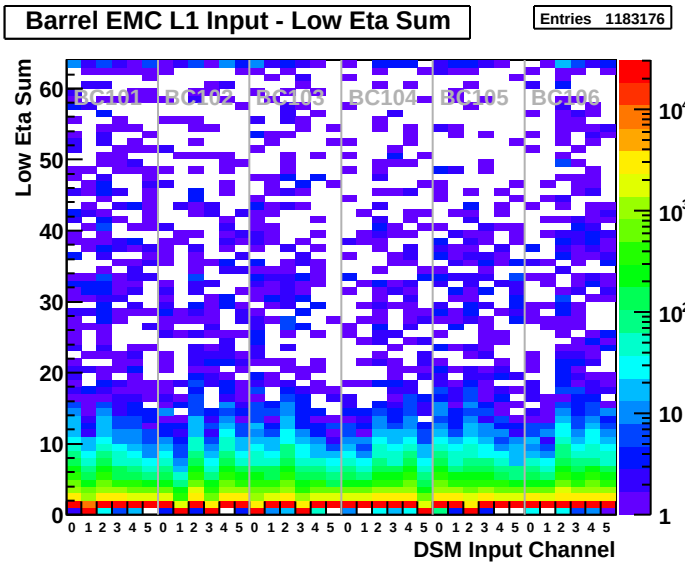
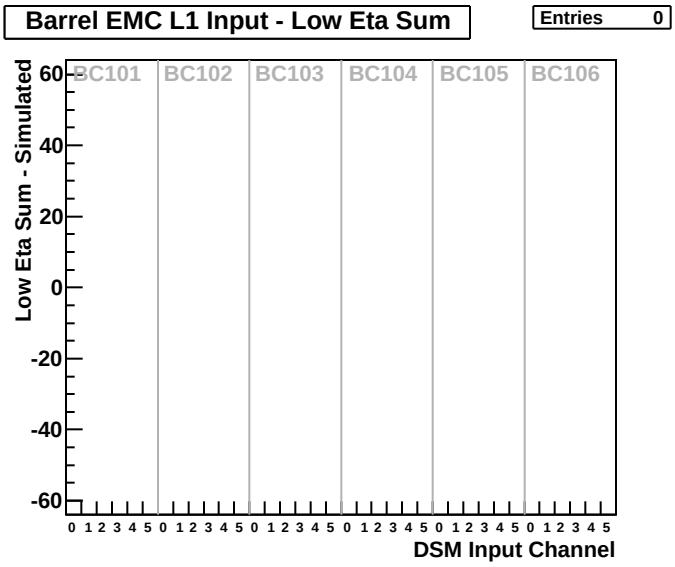
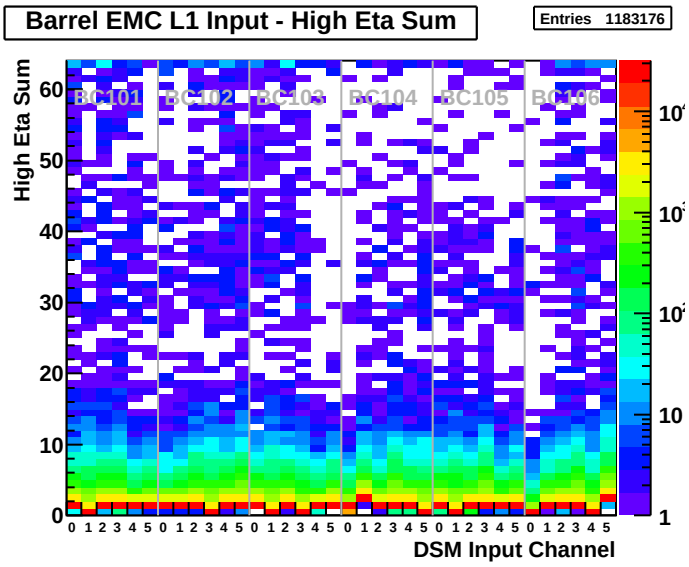
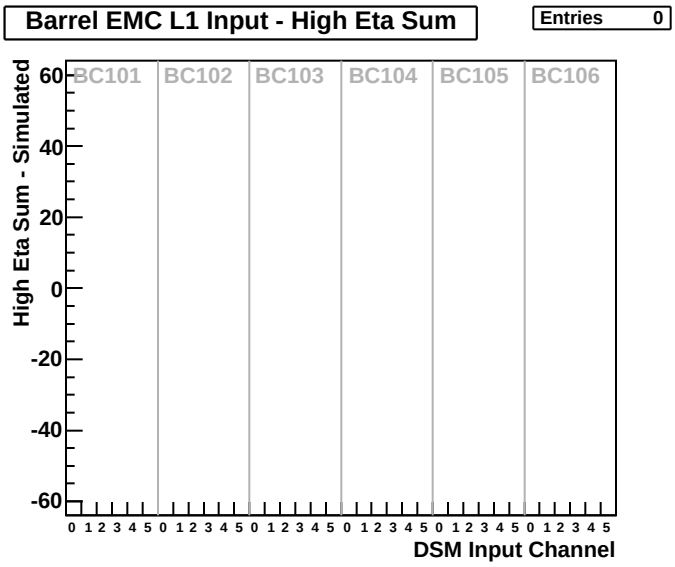
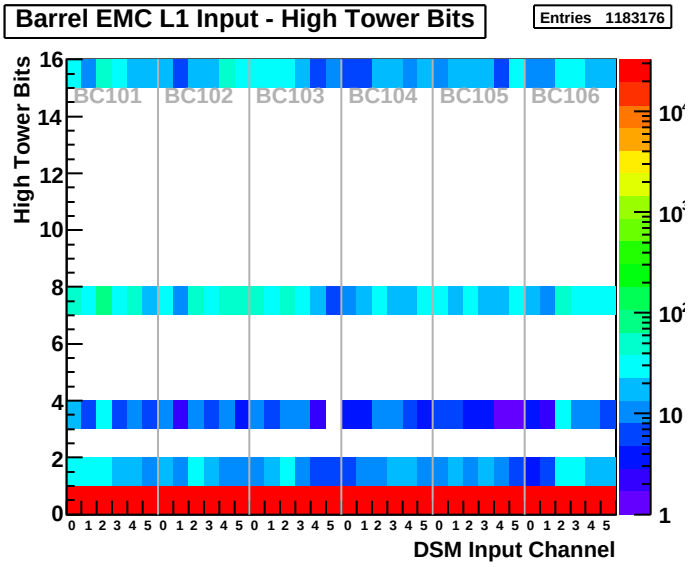
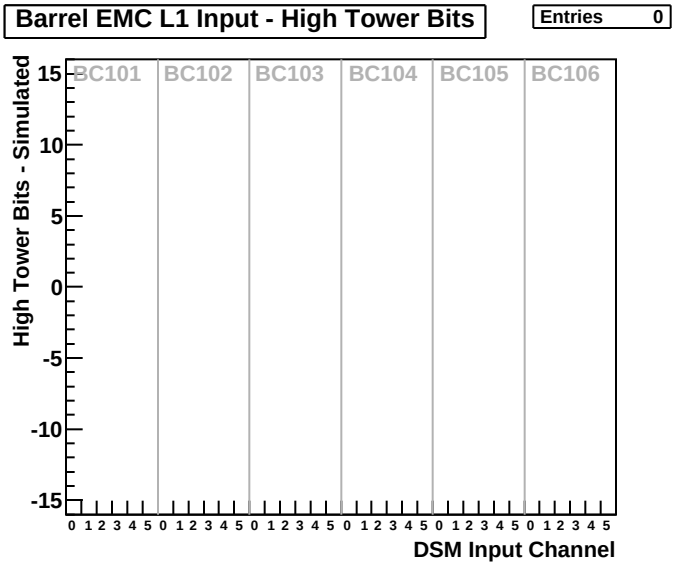

Barrel EMC L1 Input - Low Eta Sum
Entries 1183176
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

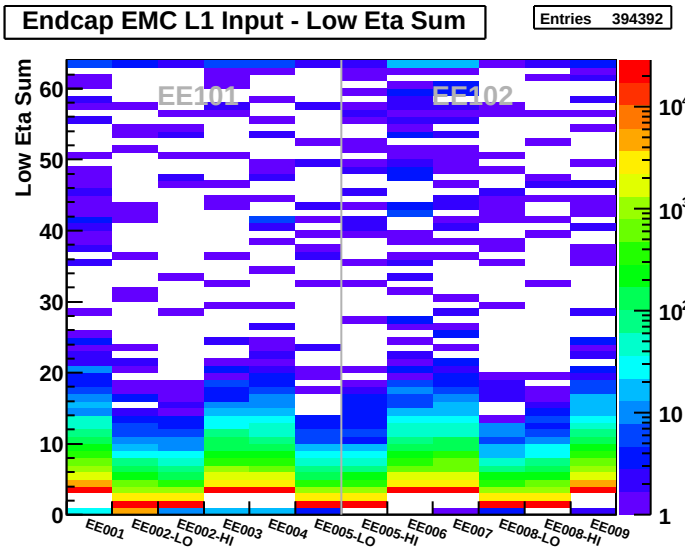

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

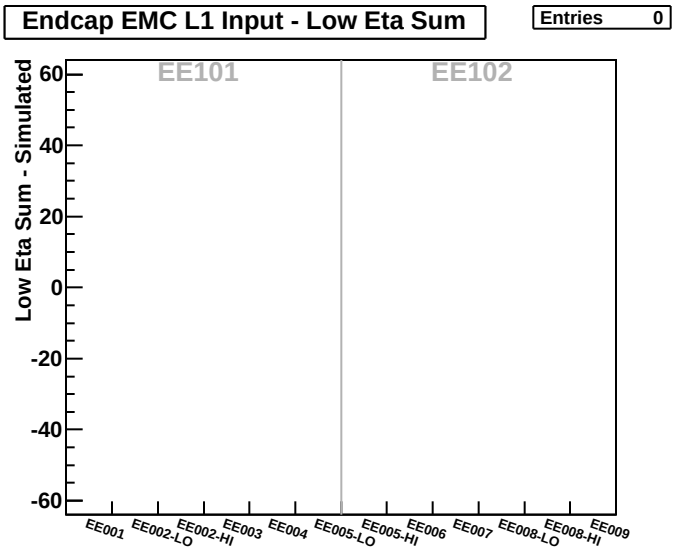

Barrel EMC L1 Input - High Eta Sum
Entries 1183176
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

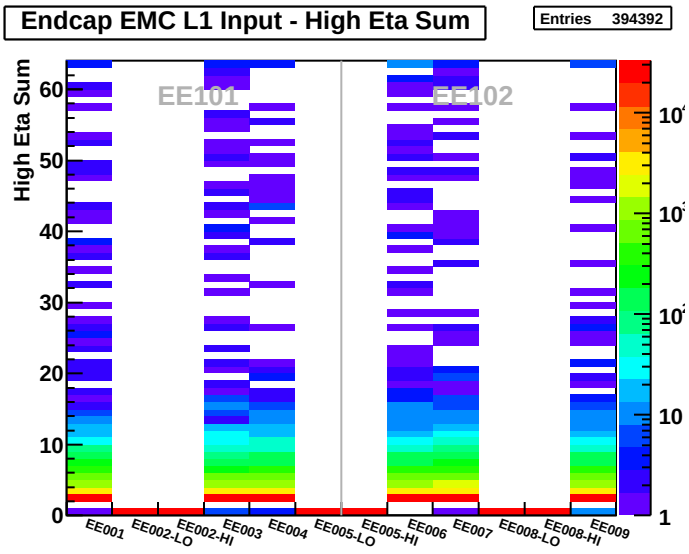

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

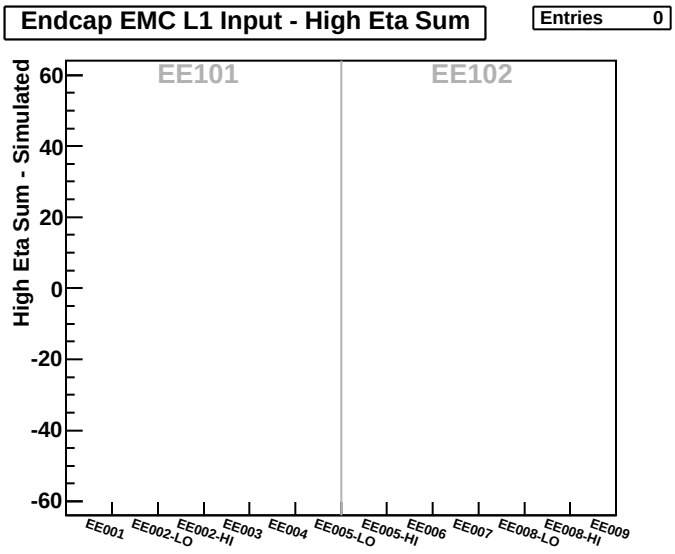

Barrel EMC L1 Input - High Tower Bits
Entries 1183176
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

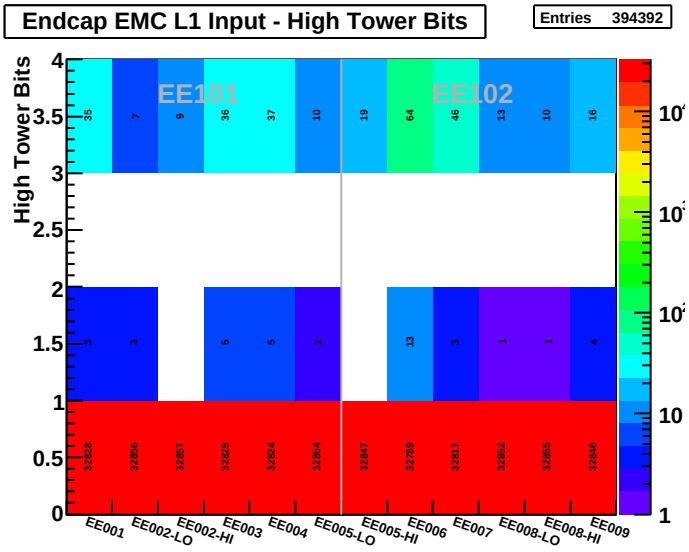

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

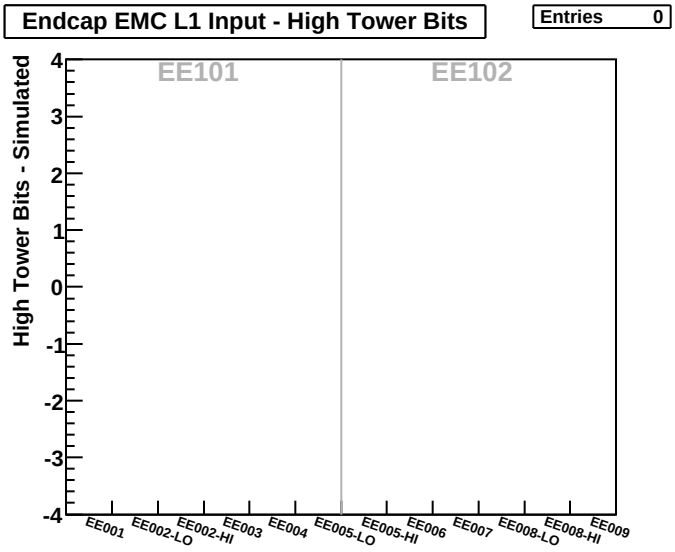

Endcap EMC L1 Input - Low Eta Sum
Entries 394392
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

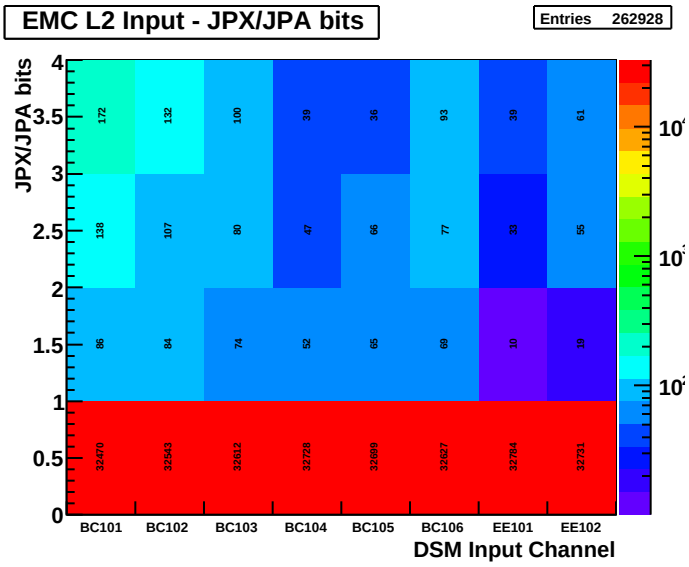

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

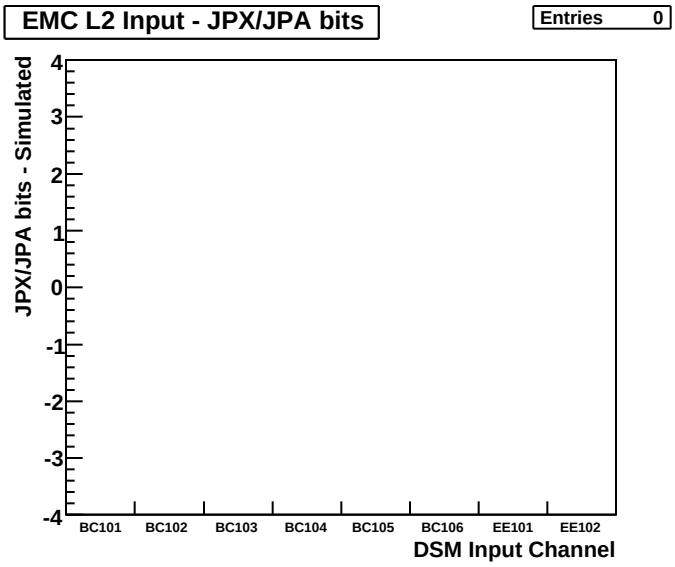

Endcap EMC L1 Input - High Eta Sum
Entries 394392
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

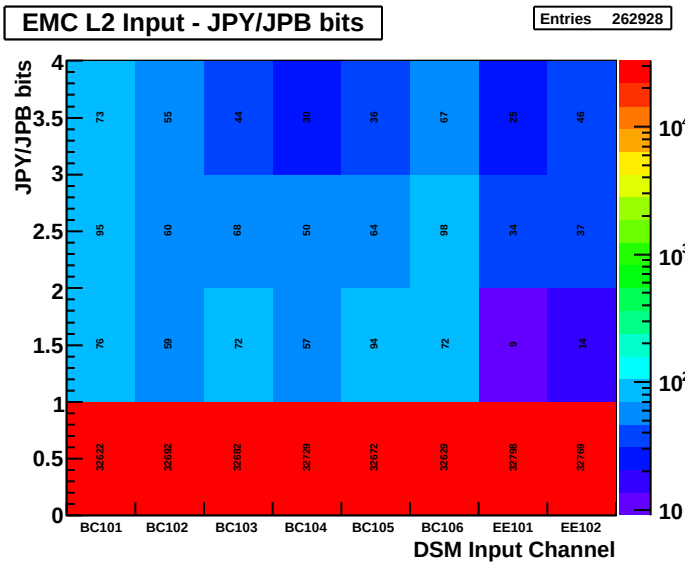

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

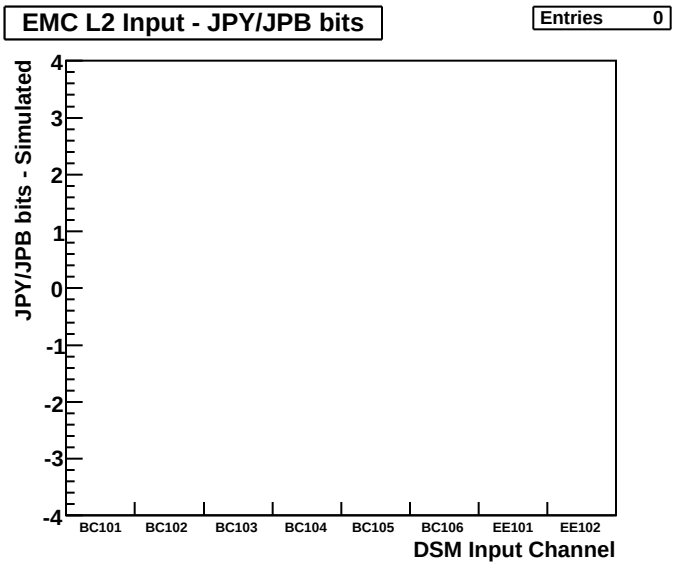

Endcap EMC L1 Input - High Tower Bits
Entries 394392
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

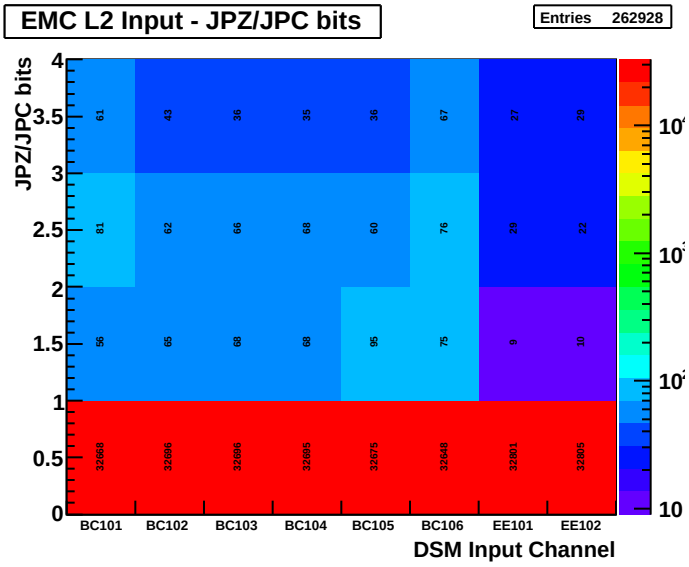

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

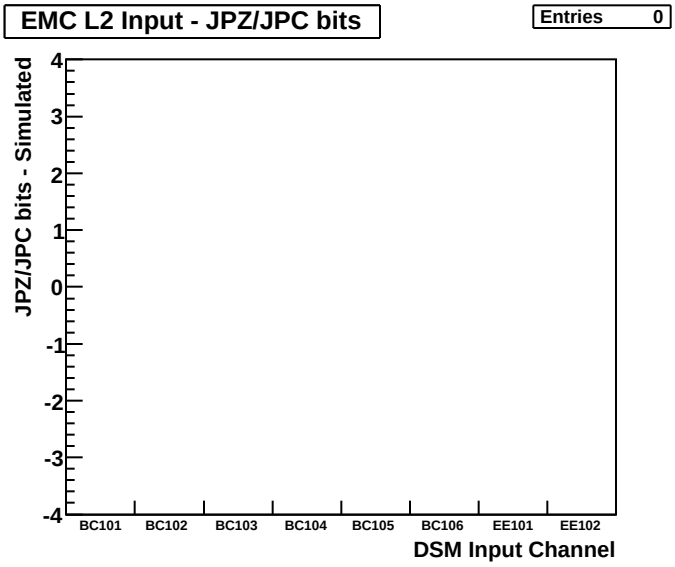

EMC L2 Input - JPX/JPA bits
Entries 262928
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
172 132 100 39 36 93 39 61
138 107 80 47 66 77 33 55
86 84 74 52 65 69 10 19
32470 32543 32612 32728 32699 32627 32784 32731

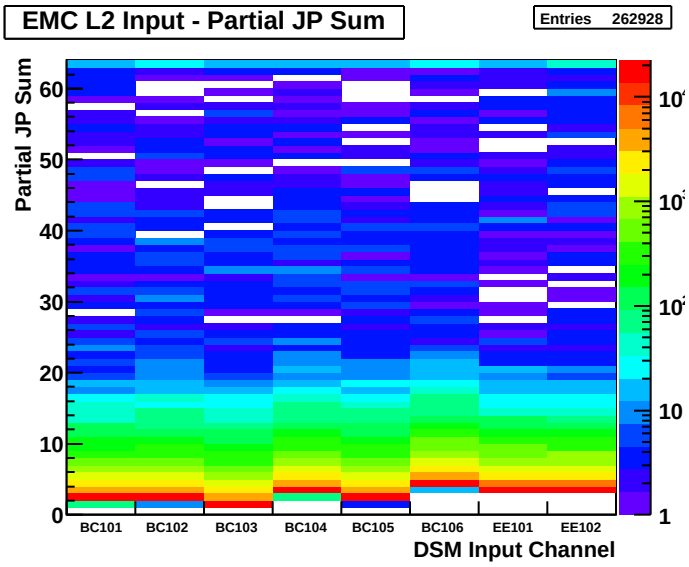

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

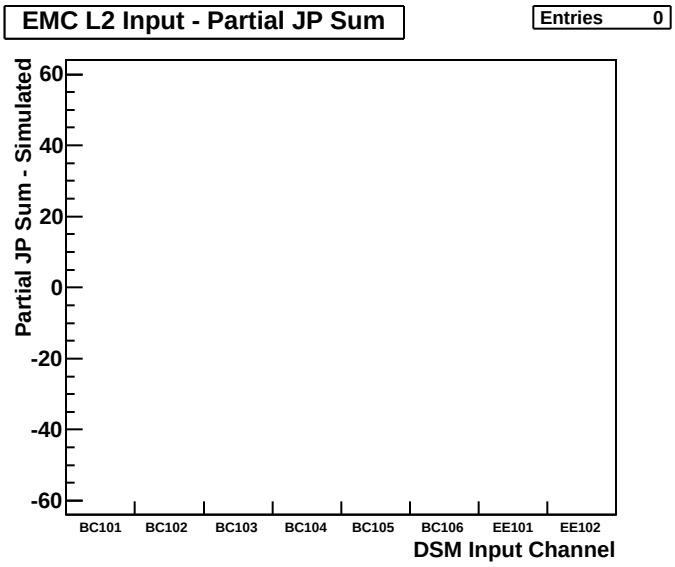

EMC L2 Input - JPY/JPB bits
Entries 262928
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
73 55 44 30 36 67 25 46
95 60 68 50 64 98 34 37
76 59 72 57 94 72 9 14
32622 32692 32682 32729 32672 32629 32798 32769

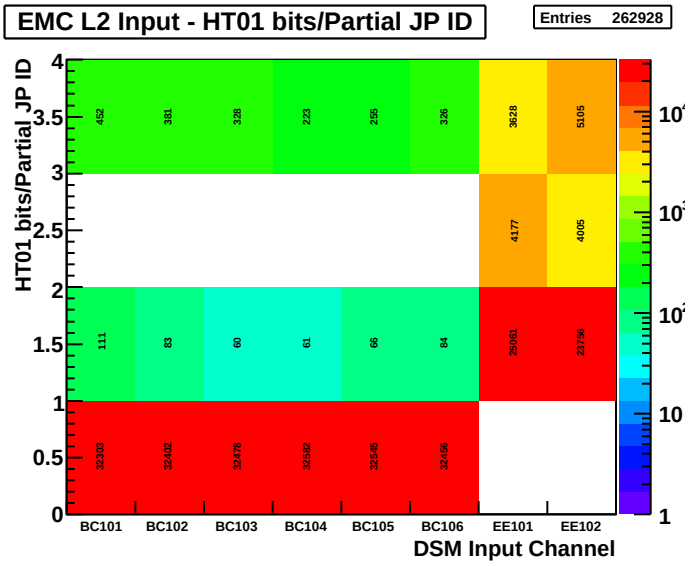

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

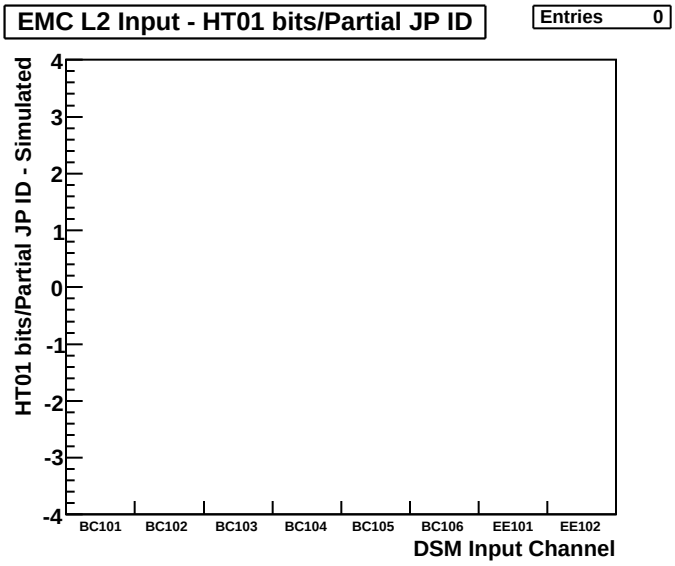

EMC L2 Input - JPZ/JPC bits
Entries 262928
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
61 43 36 35 36 67 27 29
81 62 66 68 60 76 29 22
56 65 68 68 95 75 9 10
32668 32686 32686 32685 32675 32648 32801 32805

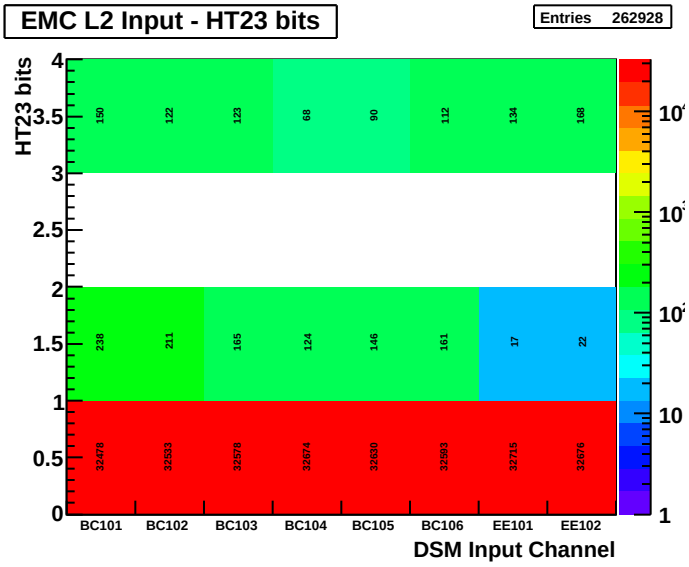

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

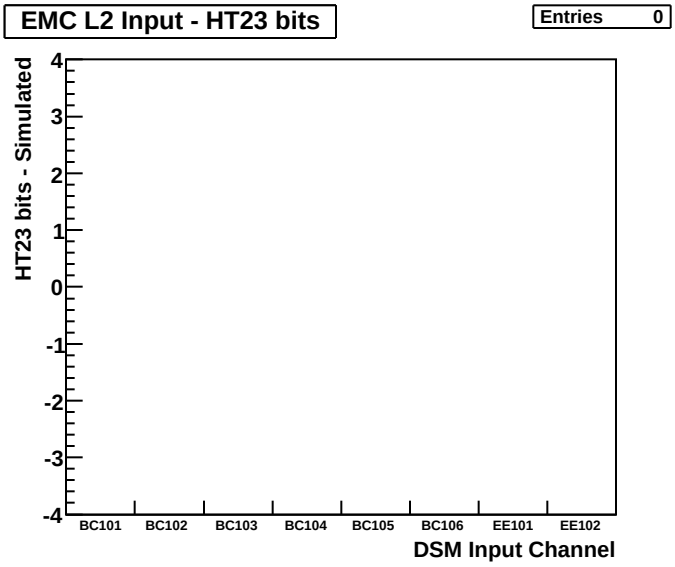

EMC L2 Input - Partial JP Sum
Entries 262928
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

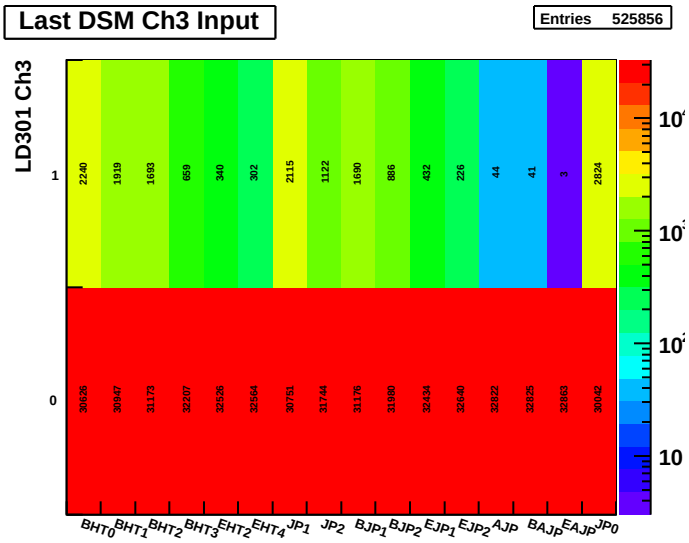

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

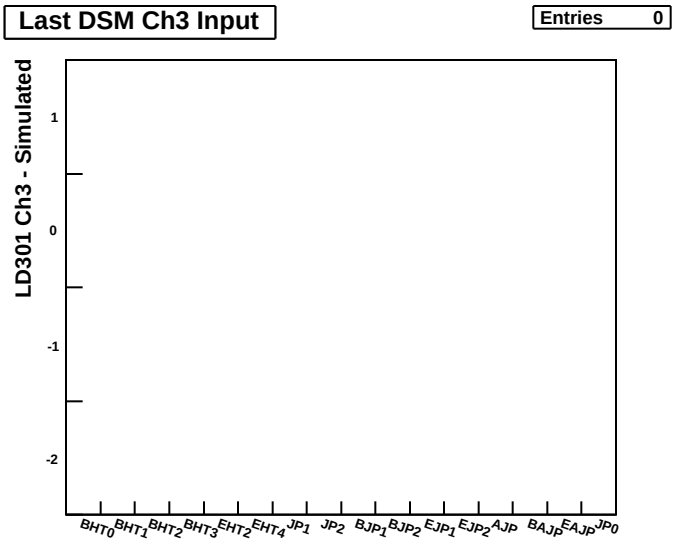

EMC L2 Input - HT01 bits/Partial JP ID
Entries 262928
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

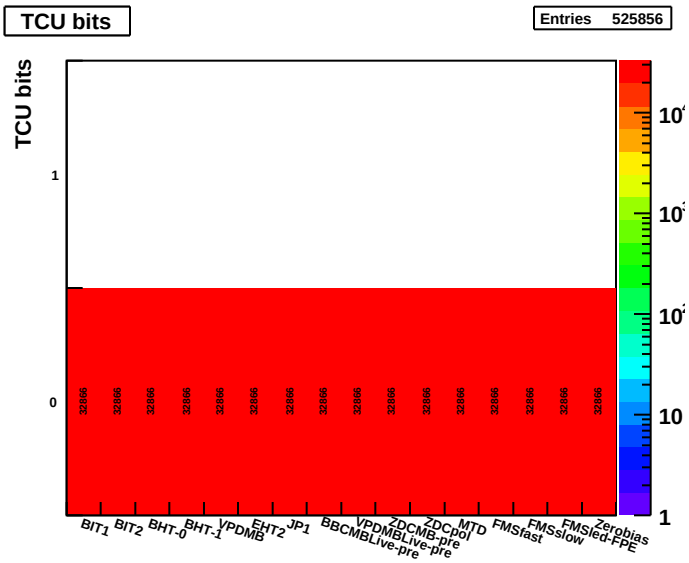

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

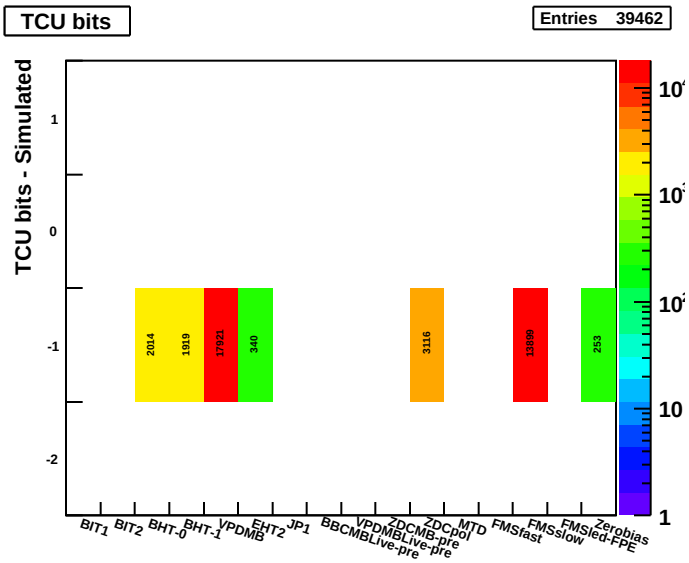

EMC L2 Input - HT23 bits
Entries 262928
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

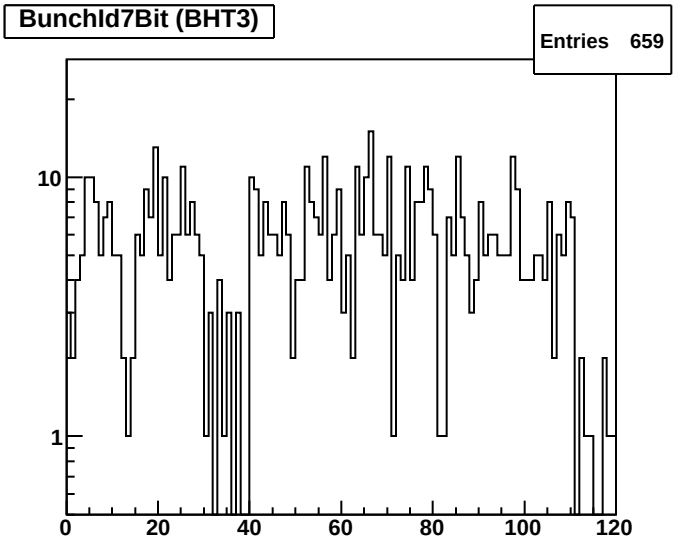

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

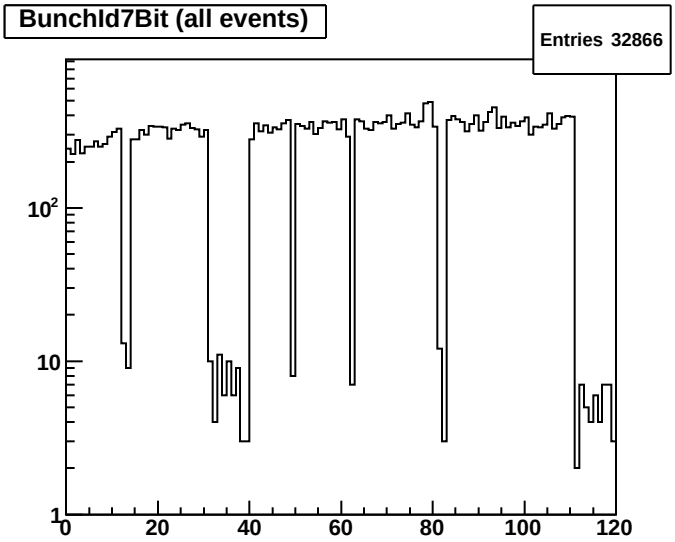

Last DSM Ch3 Input
Entries 525856
LD301 Ch3
2240 1919 1693 659 340 302 2115 1122 1690 886 432 226 44 41 3 2824
30626 30947 31173 32207 32526 32564 30751 31744 31176 31980 32434 32640 32822 32825 32863 30042
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

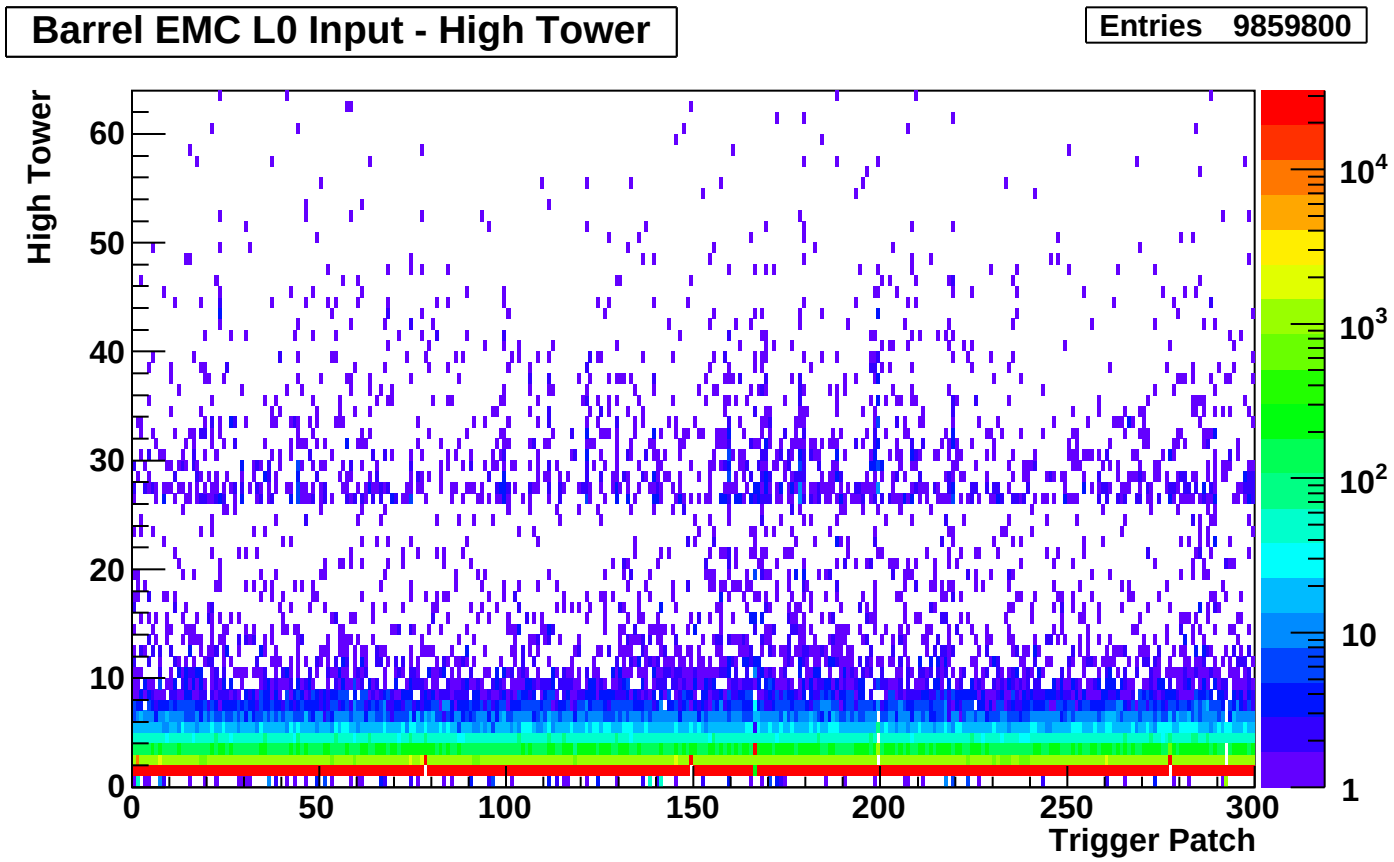

Last DSM Ch3 Input
Entries 0
LD301 Ch3 - Simulated
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

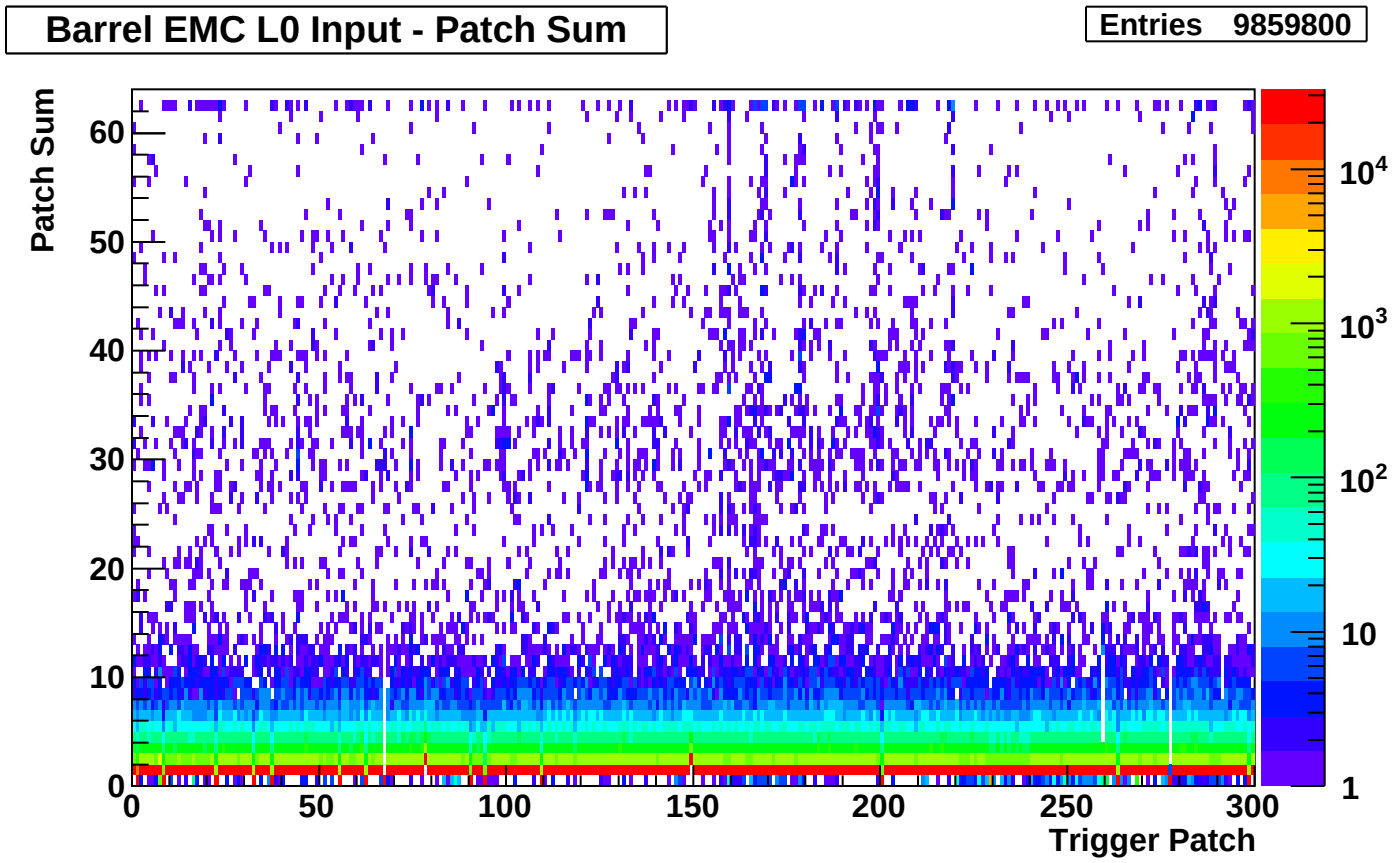

TCU bits
Entries 525856
TCU bits
32866 32866 32866 32866 32866 32866 32866 32866 32866 32866 32866 32866 32866 32866 32866 32866
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

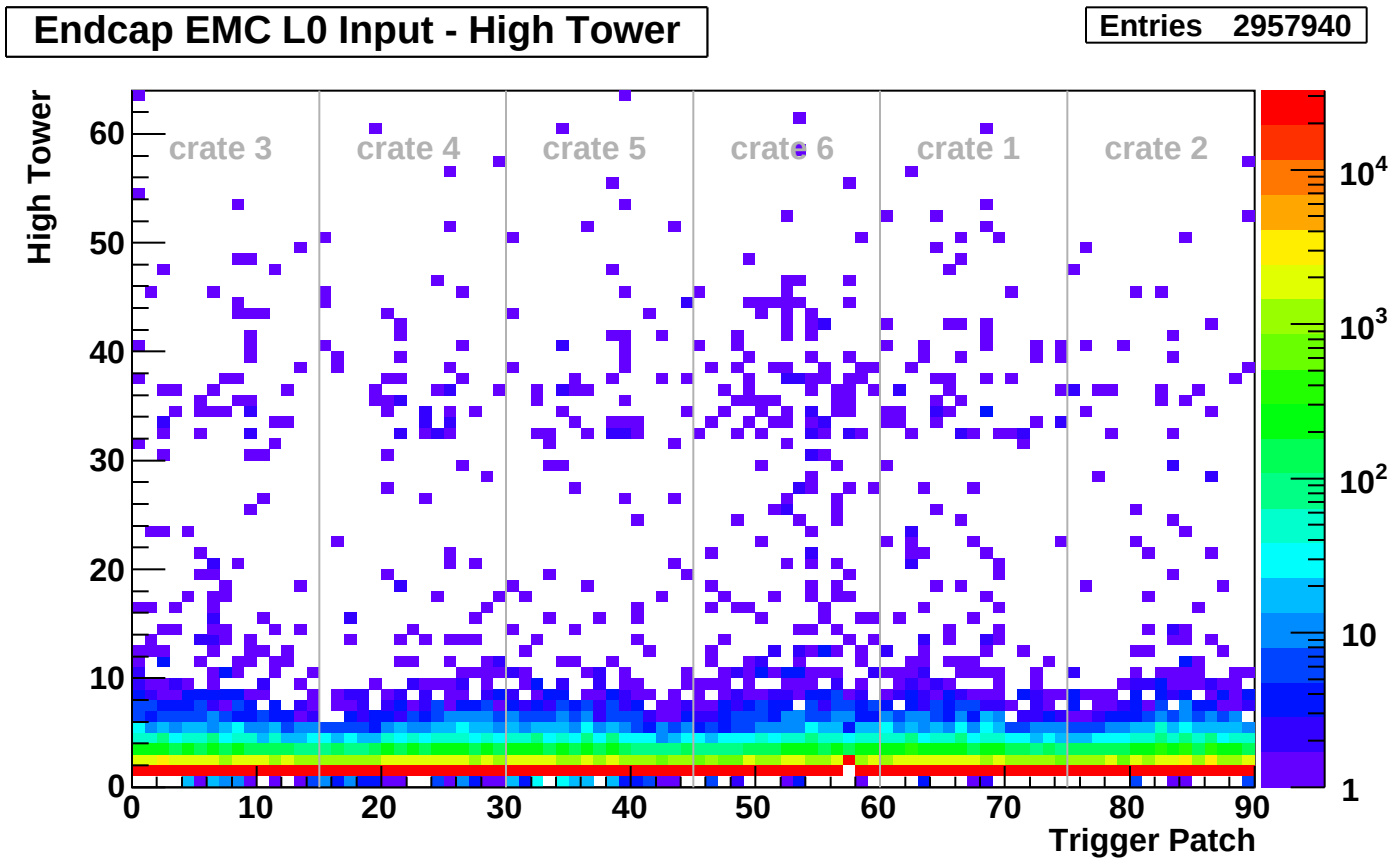

TCU bits
Entries 39462
TCU bits - Simulated
2014 1919 17921 340 3116 13899 253
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

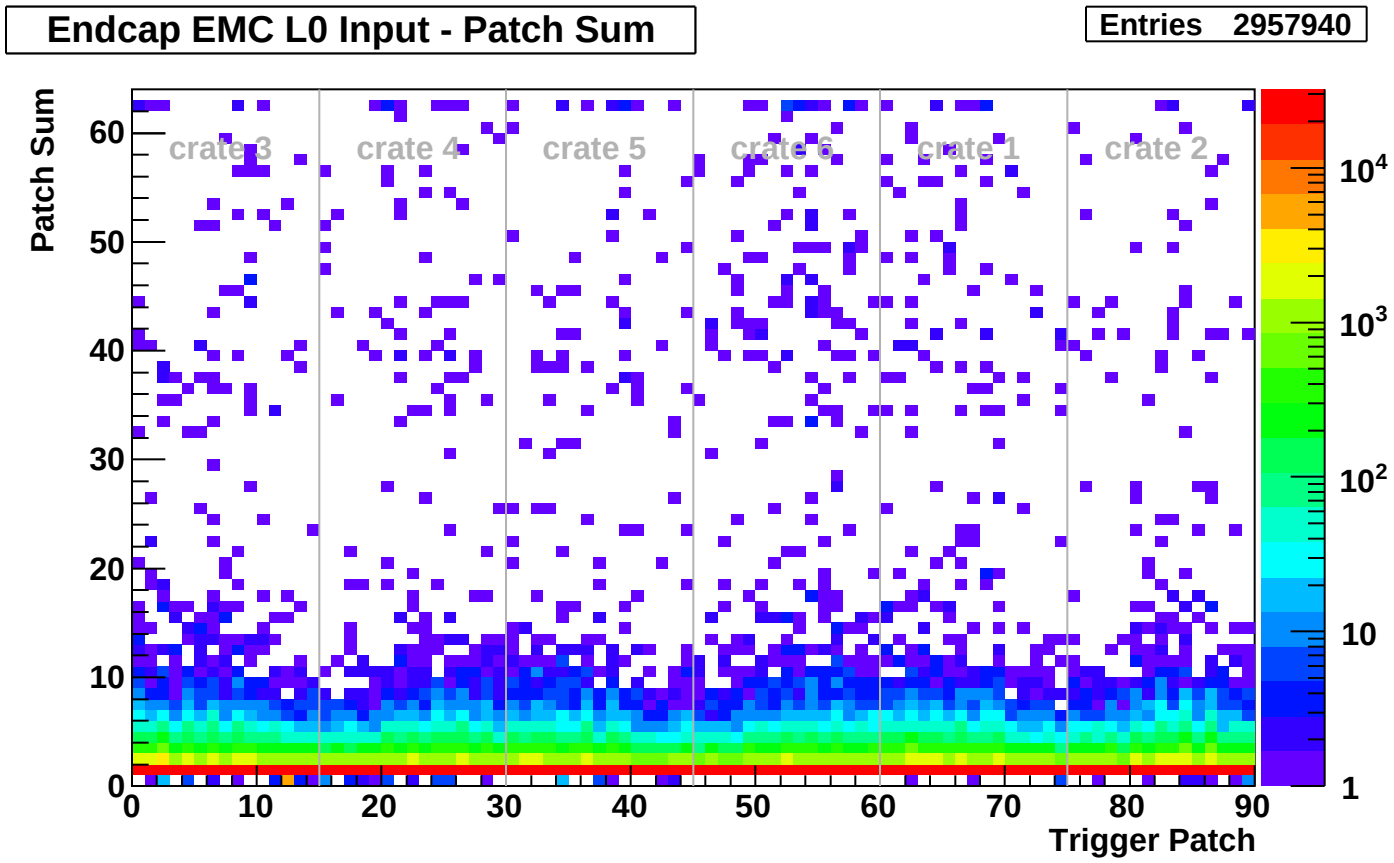

BunchId7Bit (BHT3)
Entries 659

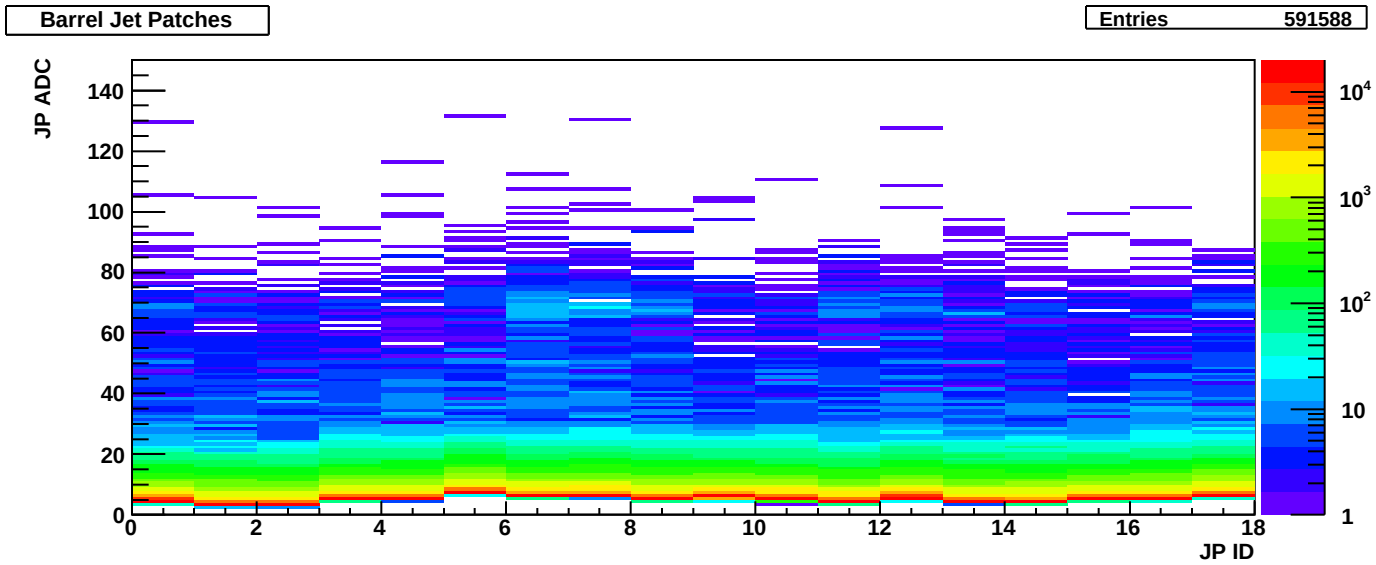

BunchId7Bit (all events)
Entries 32866

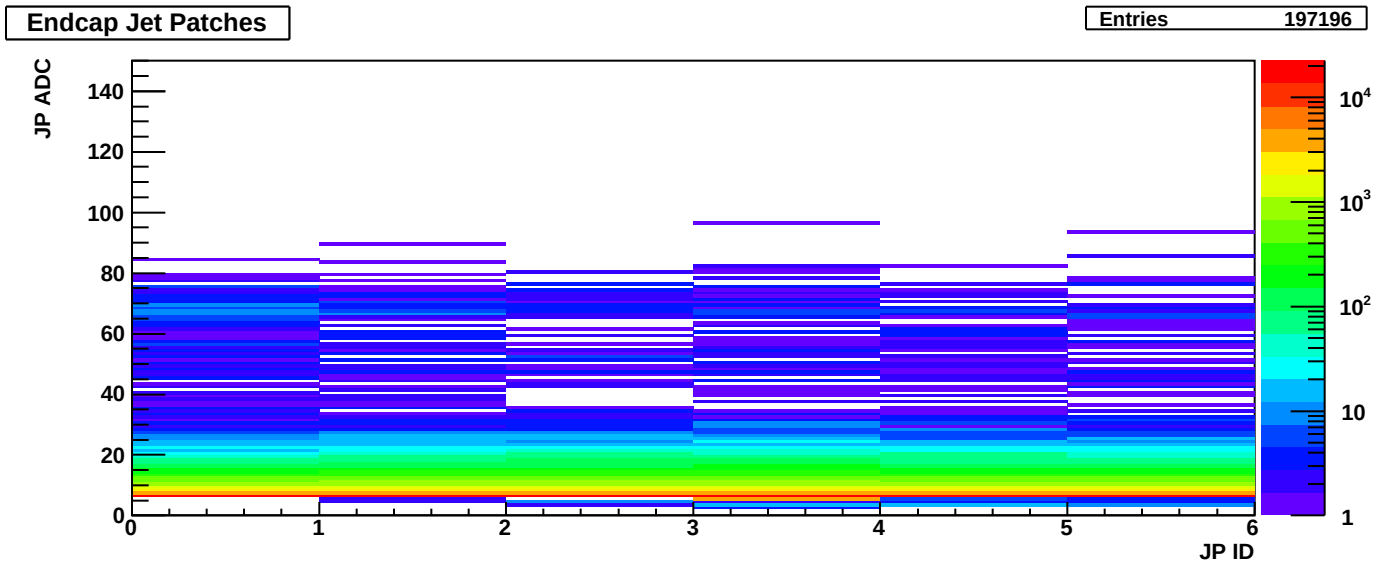

Barrel EMC L0 Input - High Tower
Entries 9859800
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

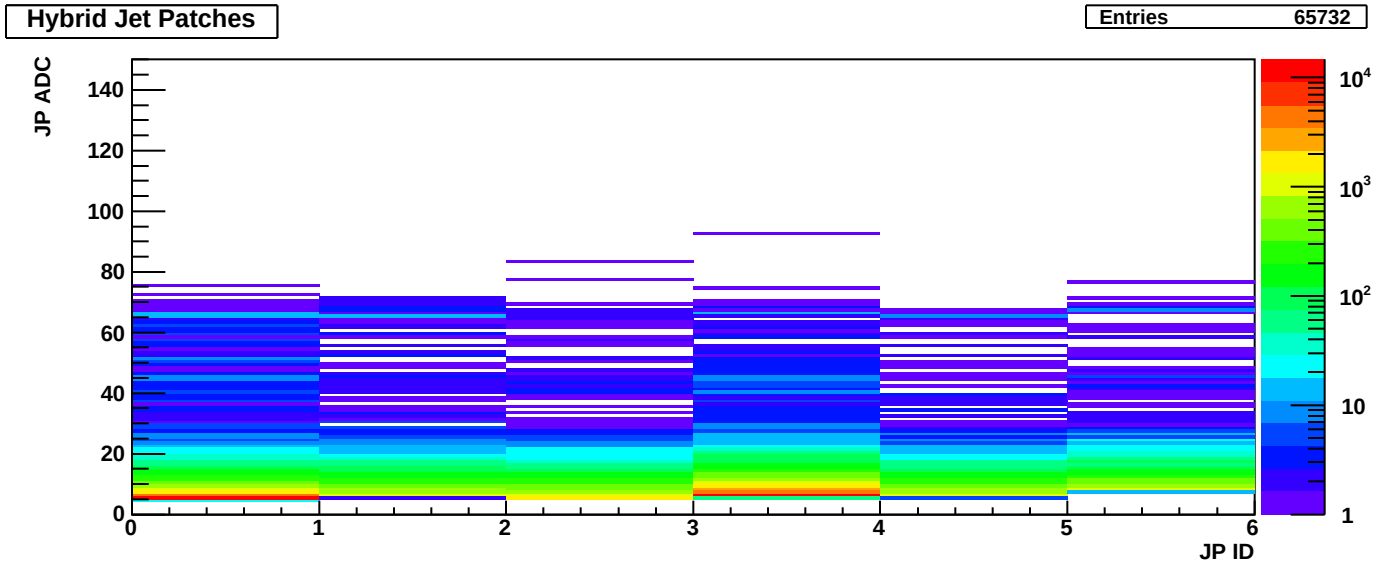

Barrel EMC L0 Input - Patch Sum
Entries 9859800
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

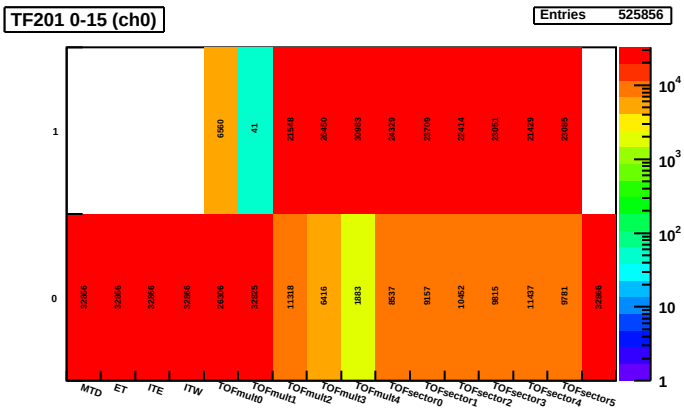

Endcap EMC L0 Input - High Tower
Entries 2957940
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

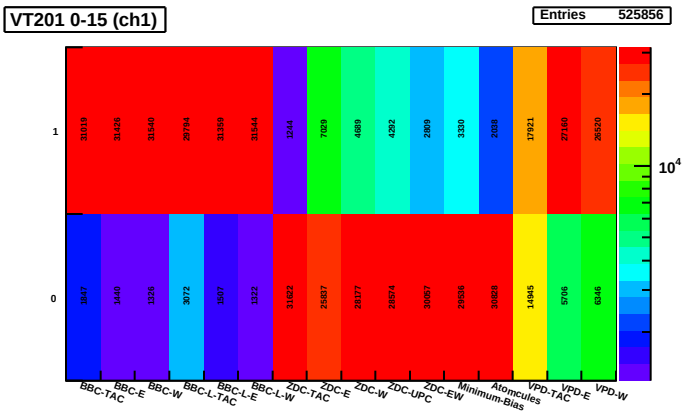

Endcap EMC L0 Input - Patch Sum
Entries 2957940
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

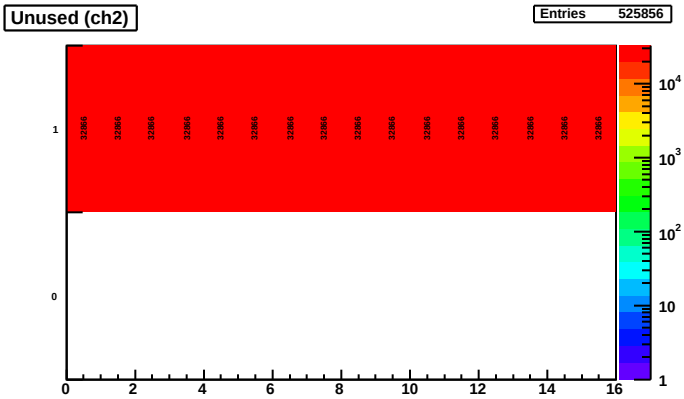

Barrel Jet Patches
Entries 591588
JP ADC
JP ID

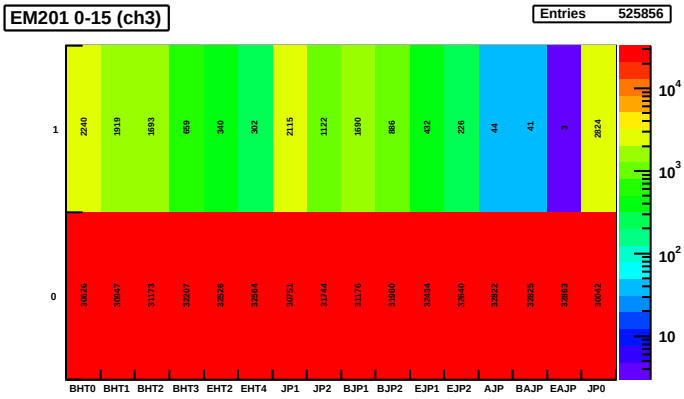

Endcap Jet Patches
Entries 197196
JP ADC
JP ID

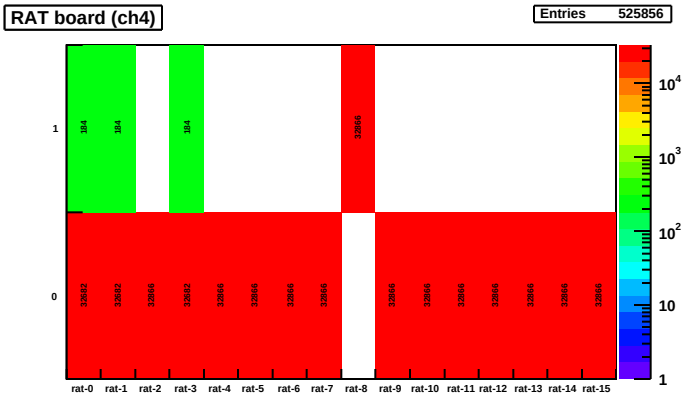

Hybrid Jet Patches
Entries 65732
JP ADC
JP ID

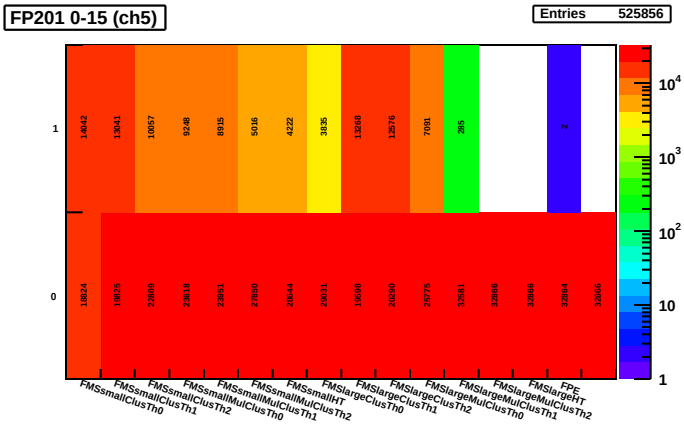

TF201 0-15 (ch0)
Entries 525856
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

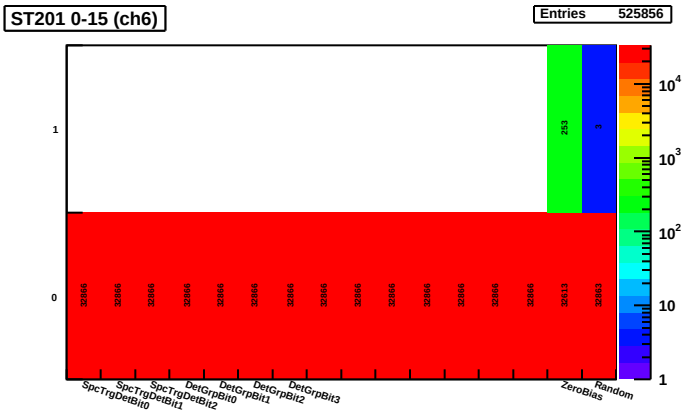

VT201 0-15 (ch1)
Entries 525856
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

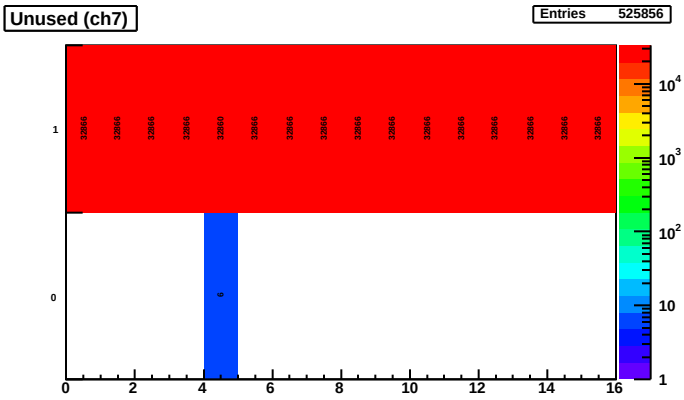

Unused (ch2)
Entries 525856

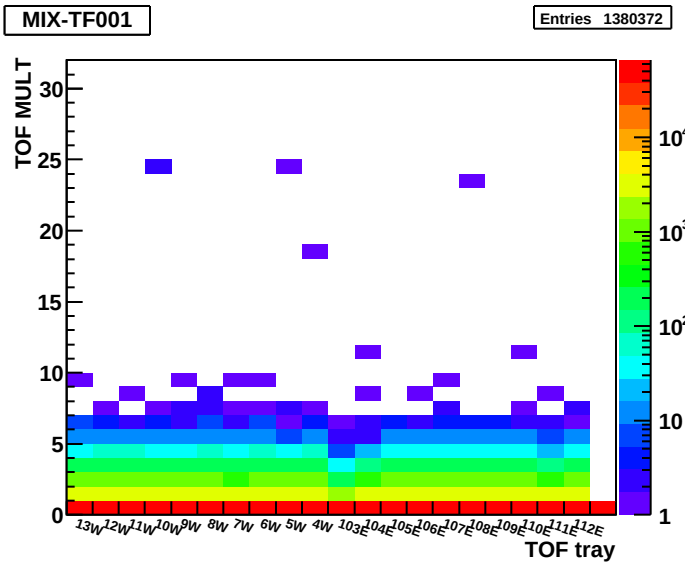

EM201 0-15 (ch3)
Entries 525856
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

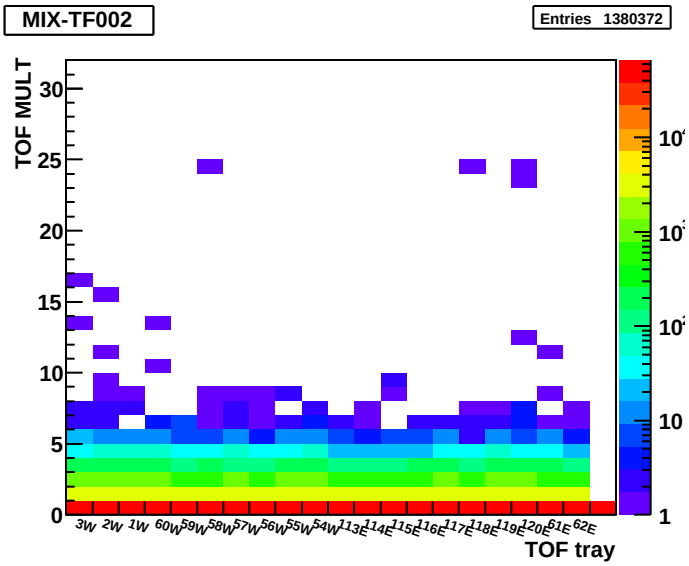

RAT board (ch4)
Entries 525856
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

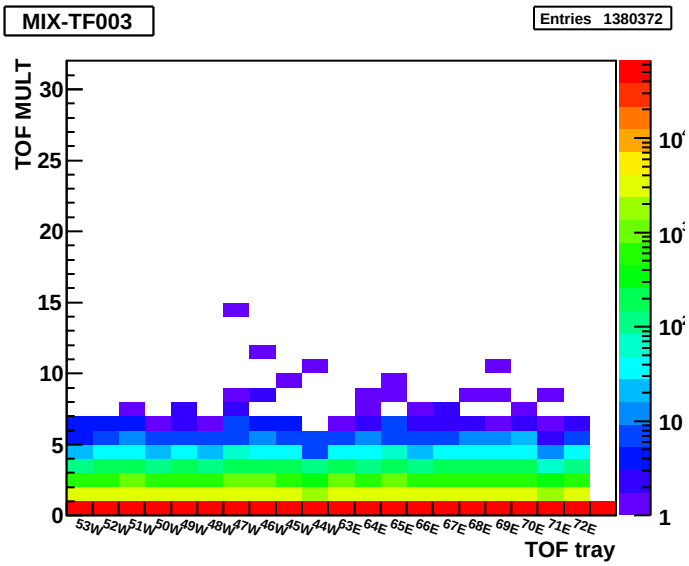

FP201 0-15 (ch5)
Entries 525856
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

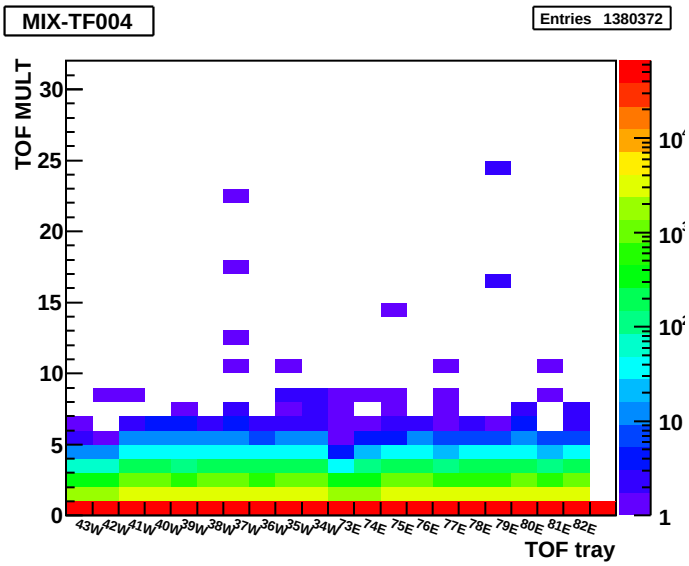

ST201 0-15 (ch6)
Entries 525856
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetCrpBit0 DetCrpBit1 DetCrpBit2 DetCrpBit3 ZeroBias Random

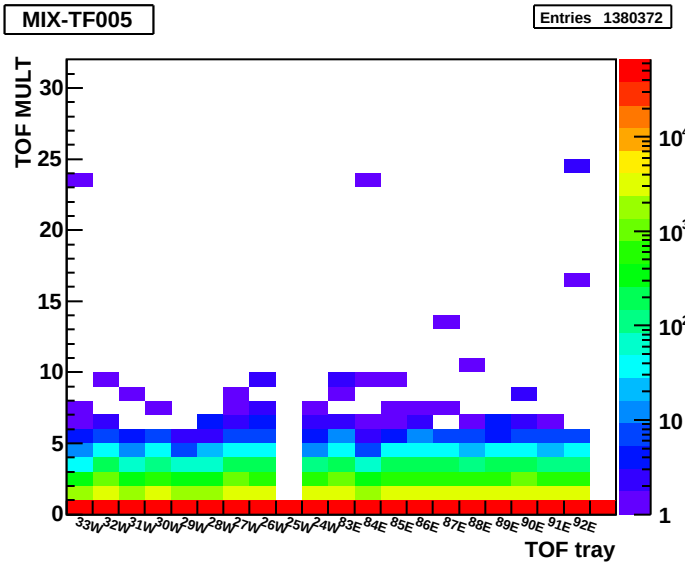

Unused (ch7)
Entries 525856

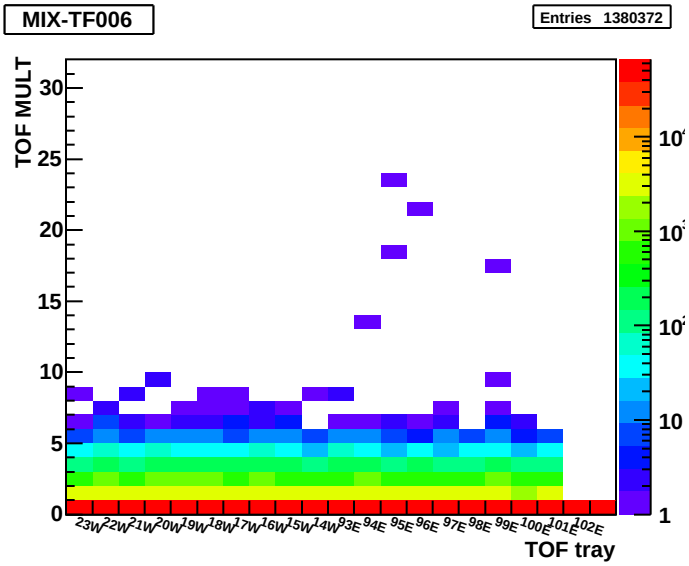

MIX-TF001
Entries 1380372
TOF MULT
TOF tray

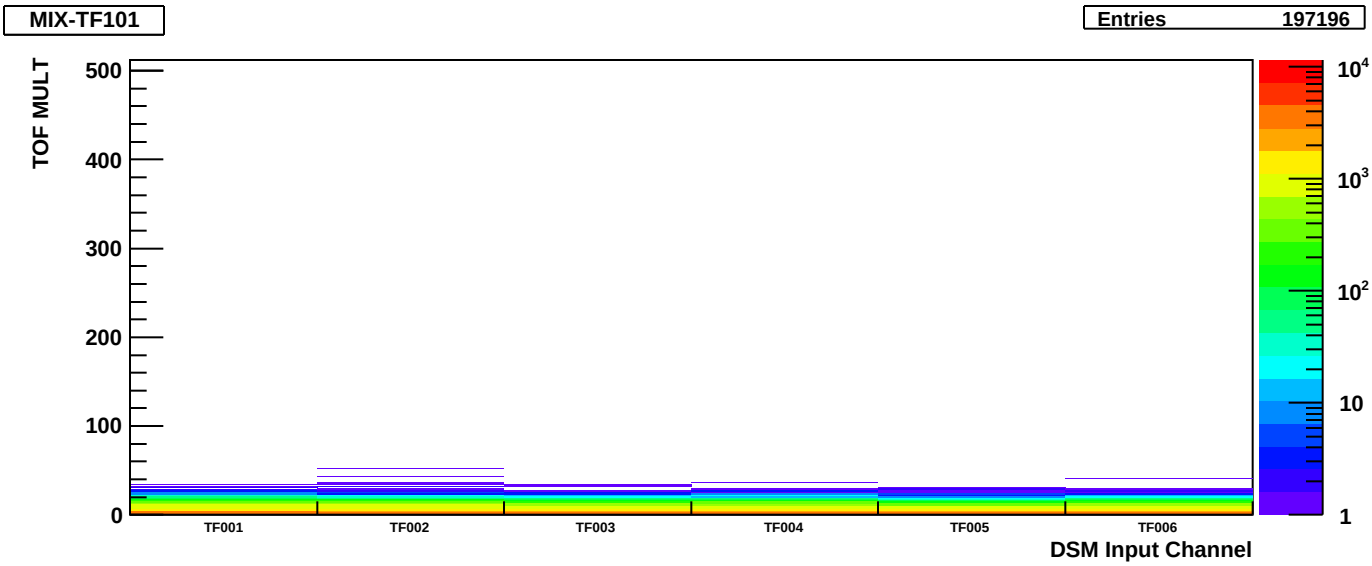

MIX-TF002
Entries 1380372
TOF MULT
TOF tray

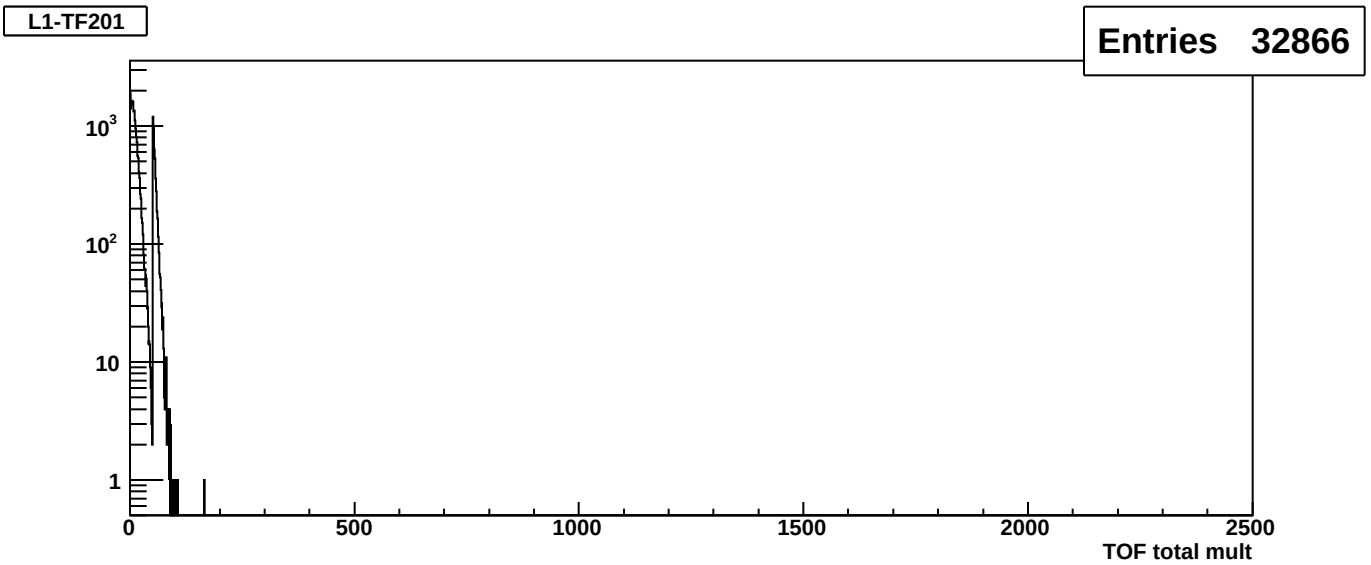

MIX-TF003
Entries 1380372
TOF MULT
TOF tray

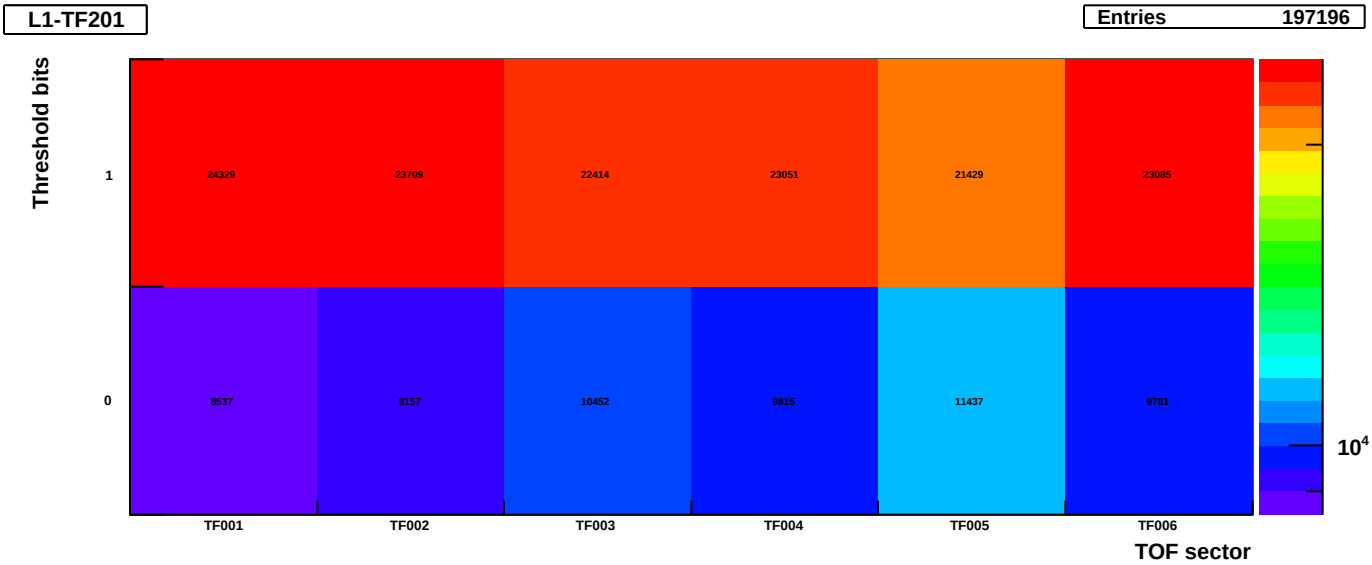

MIX-TF004
Entries 1380372
TOF MULT
TOF tray

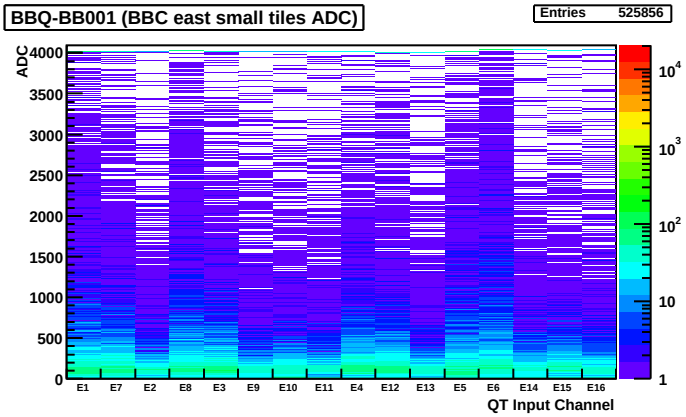

MIX-TF005
Entries 1380372
TOF MULT
TOF tray

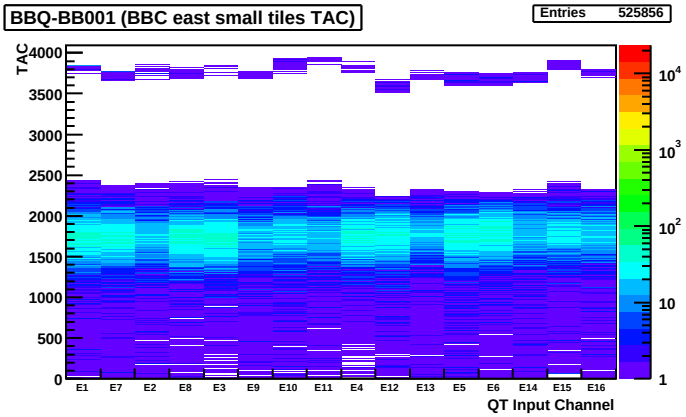

MIX-TF006
Entries 1380372
TOF MULT
TOF tray

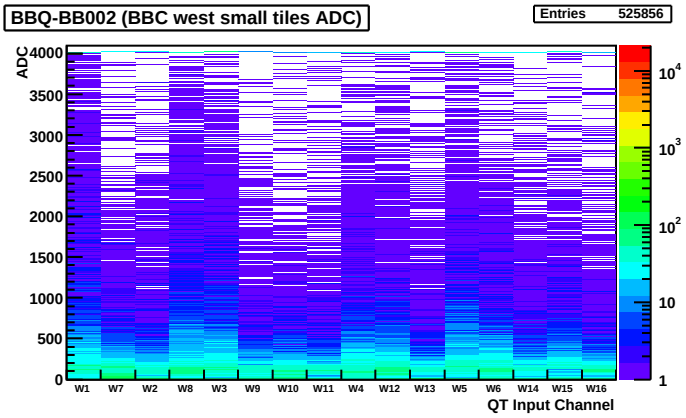

MIX-TF101
Entries 197196
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

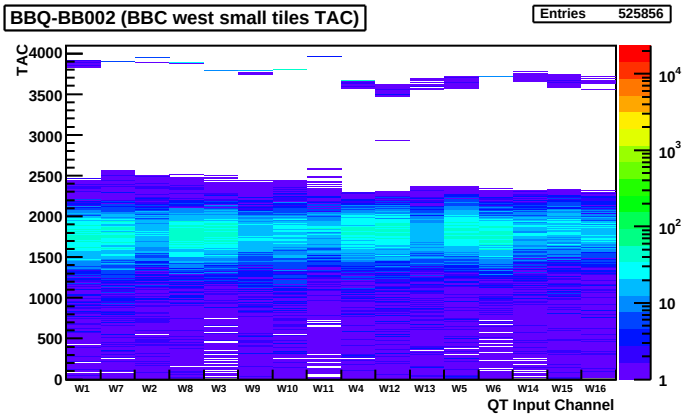

L1-TF201
Entries 32866
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

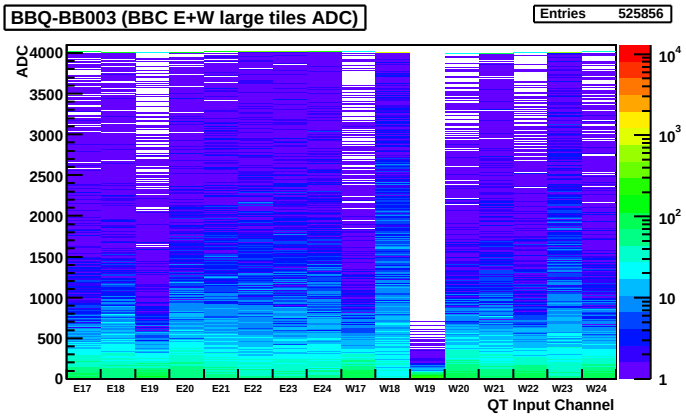

L1-TF201
Entries 197196
Threshold bits
1
0
24329
23709
22414
23051
21429
23085
8537
9157
10452
9815
11437
9781
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

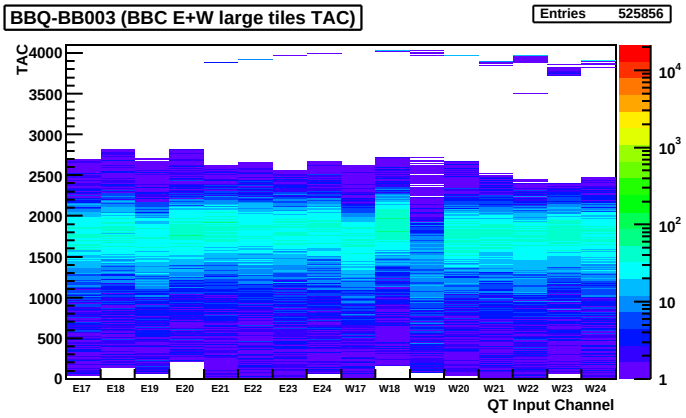

BBQ-BB001 (BBC east small tiles ADC)
Entries 525856
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

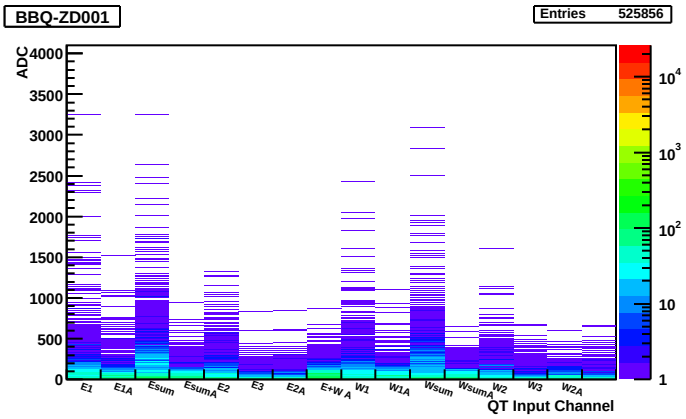

BBQ-BB001 (BBC east small tiles TAC)
Entries 525856
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

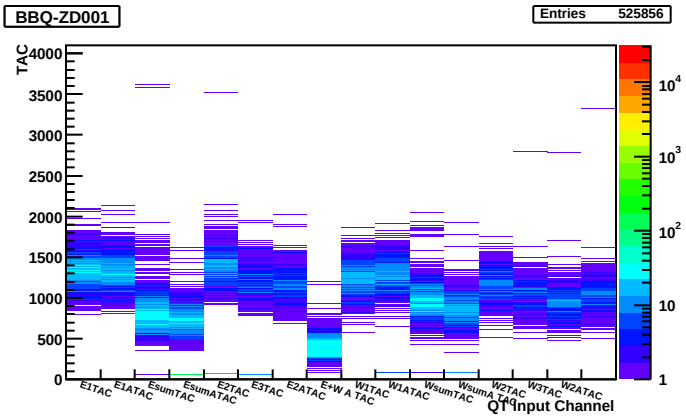

BBQ-BB002 (BBC west small tiles ADC)
Entries 525856
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

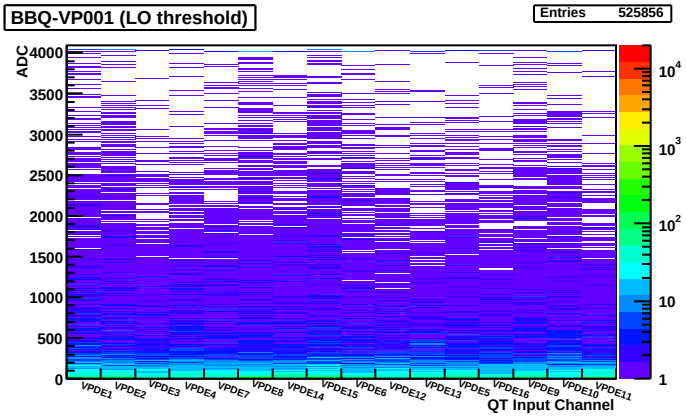

BBQ-BB002 (BBC west small tiles TAC)
Entries 525856
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

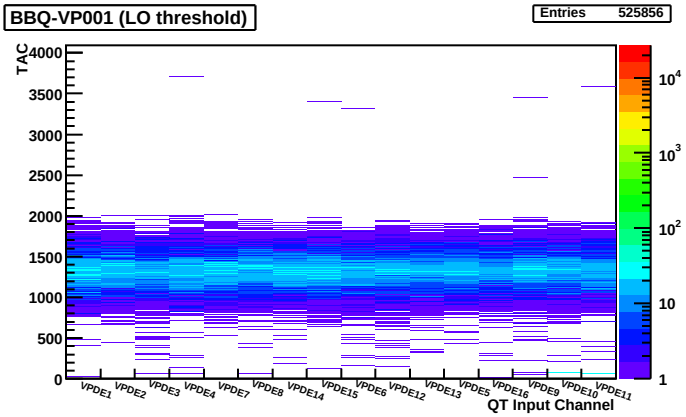

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 525856
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

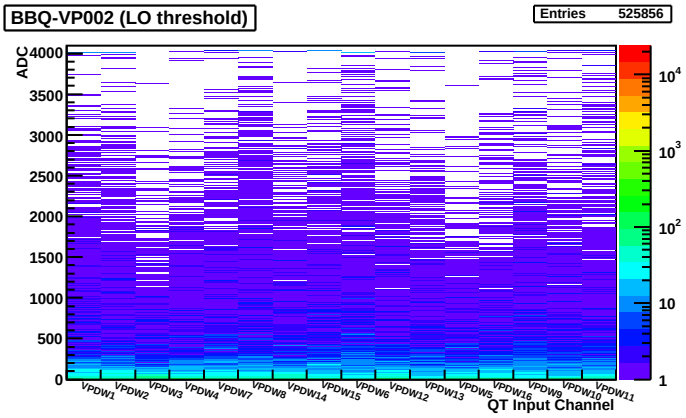

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 525856
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

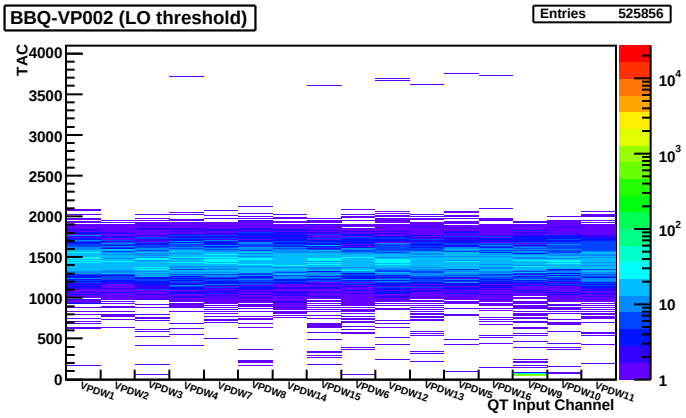

BBQ-ZD001
Entries 525856
ADC
QT Input Channel
E1 E1A Esum EsumA E2 E3 E2A E+W A W1 W1A Wsum WsumA W2 W3 W2A

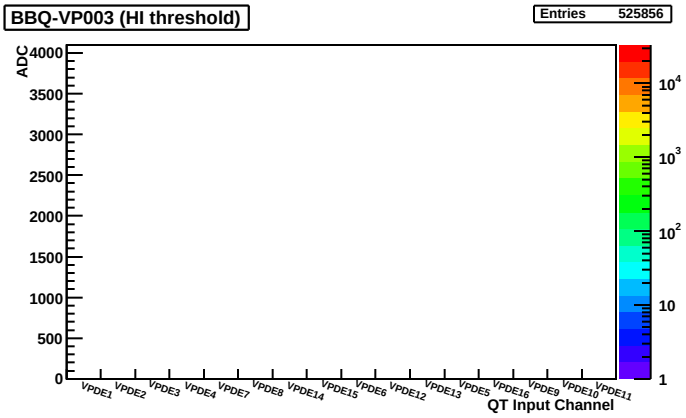

BBQ-ZD001
Entries 525856
TAC
QT Input Channel
E1TAC E1ATAC EsumTAC EsumATAC E2TAC E3TAC E2ATAC E+W A TAC W1TAC W1ATAC WsumTAC WsumA TAC W2TAC W3TAC W2ATAC

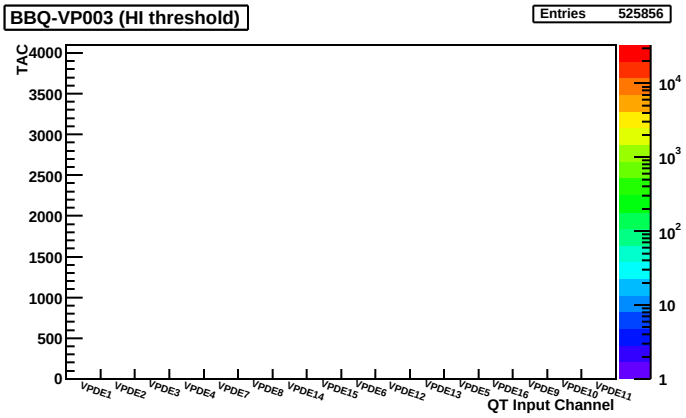

BBQ-VP001 (LO threshold)
Entries 525856
ADC
QT Input Channel

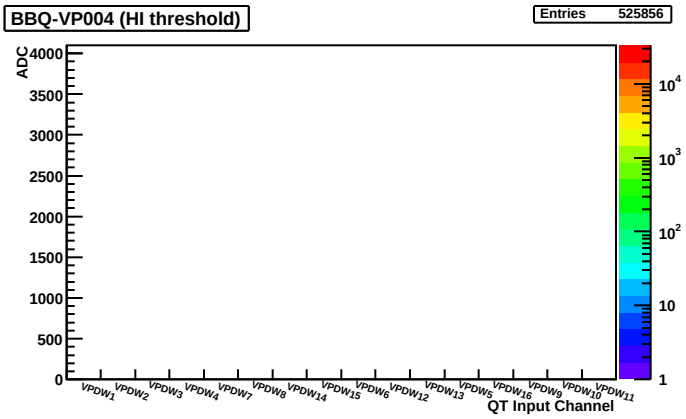

BBQ-VP001 (LO threshold)
Entries 525856
TAC
QT Input Channel

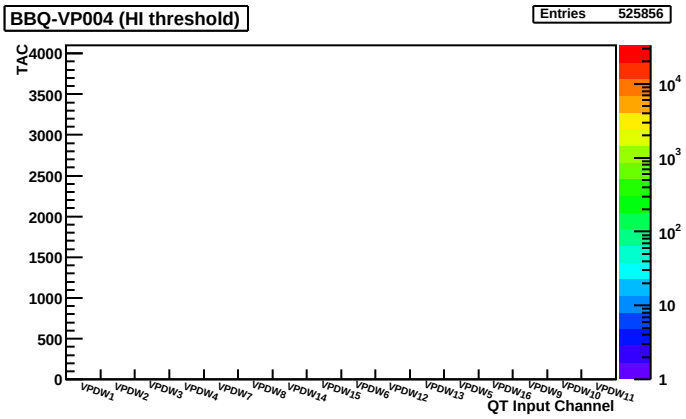

BBQ-VP002 (LO threshold)
Entries 525856
ADC
QT Input Channel

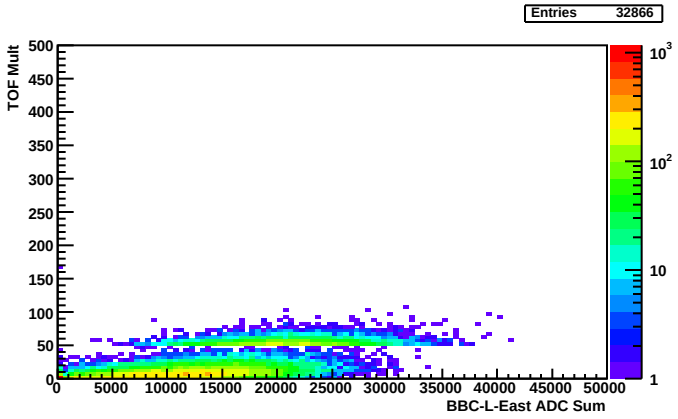

BBQ-VP002 (LO threshold)
Entries 525856
TAC
QT Input Channel

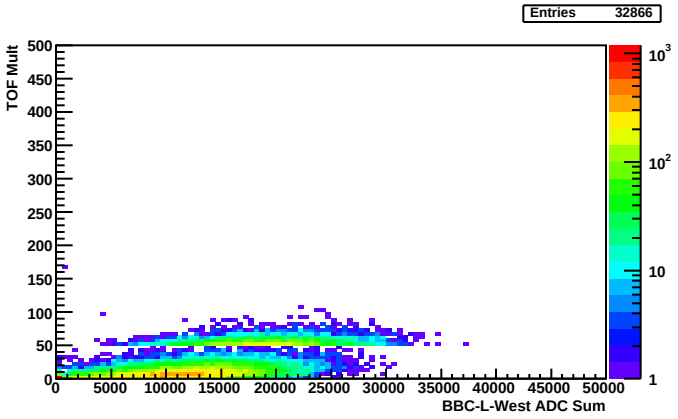

BBQ-VP003 (HI threshold)
Entries 525856
ADC
QT Input Channel

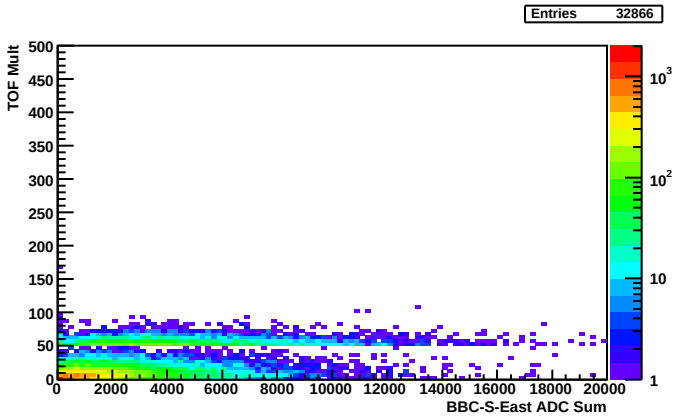

BBQ-VP003 (HI threshold)
Entries 525856
TAC
QT Input Channel

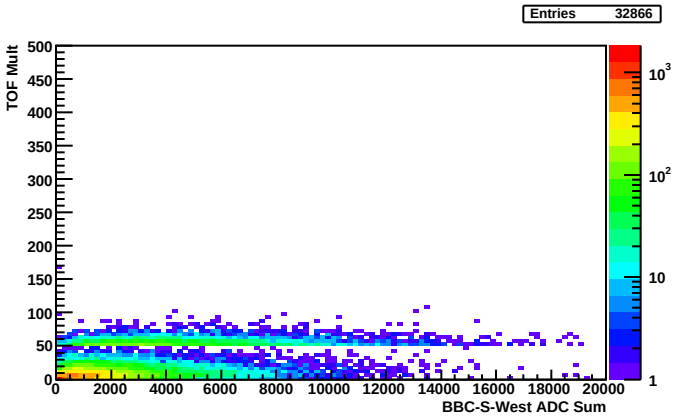

BBQ-VP004 (HI threshold)
Entries 525856
ADC
QT Input Channel

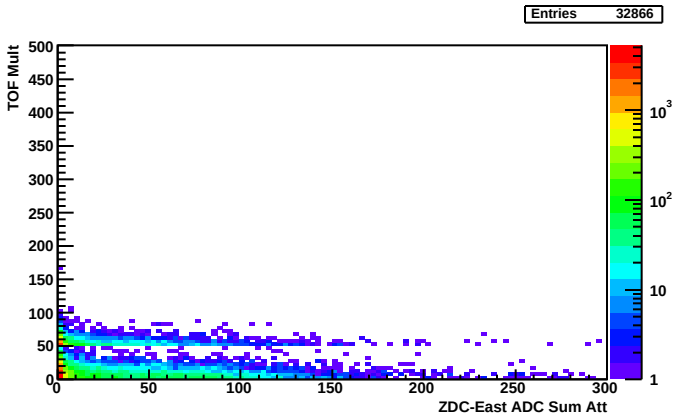

BBQ-VP004 (HI threshold)
Entries 525856
TAC
QT Input Channel

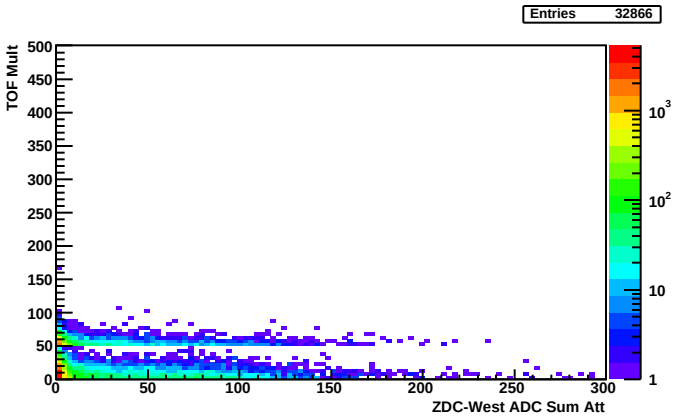

Entries 32866
TOF Mult
BBC-L-East ADC Sum

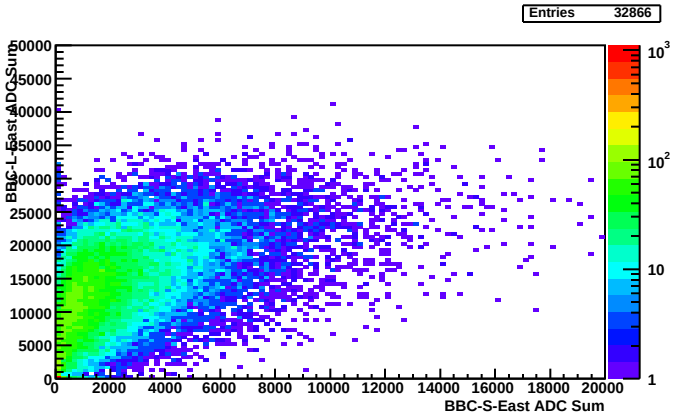

Entries 32866
TOF Mult
BBC-L-West ADC Sum

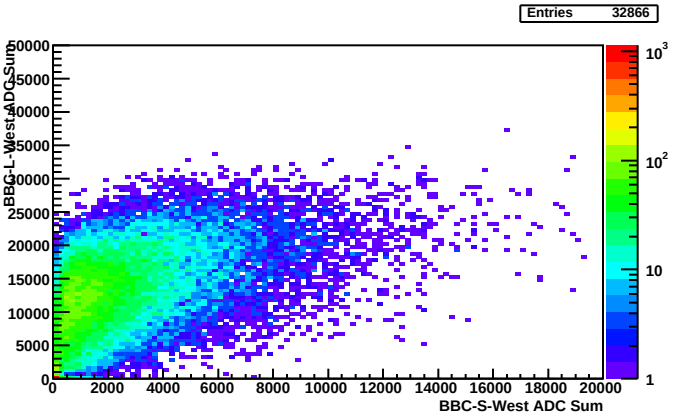

Entries 32866
TOF Mult
BBC-S-East ADC Sum

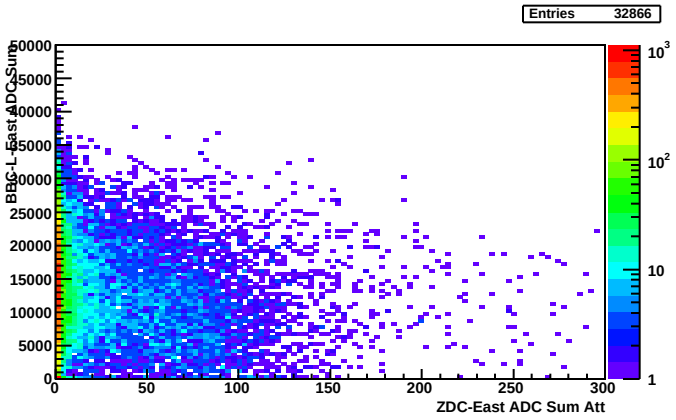

Entries 32866
TOF Mult
BBC-S-West ADC Sum

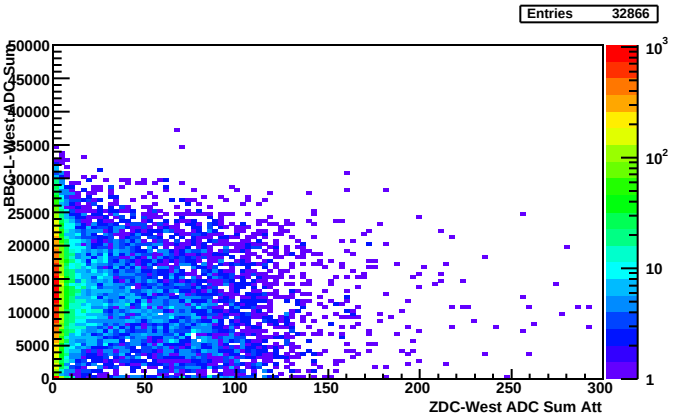

Entries 32866
TOF Mult
ZDC-East ADC Sum Att

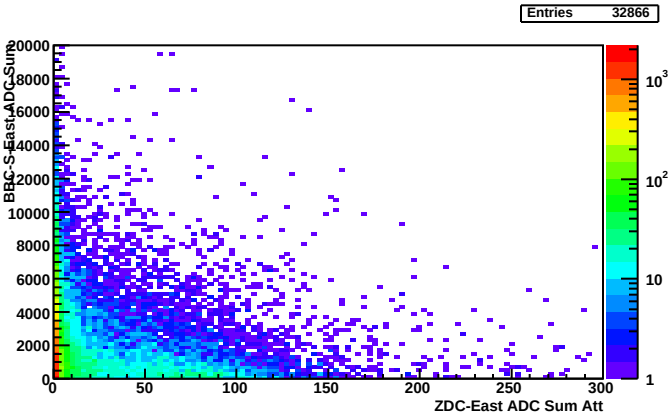

Entries 32866
TOF Mult
ZDC-West ADC Sum Att

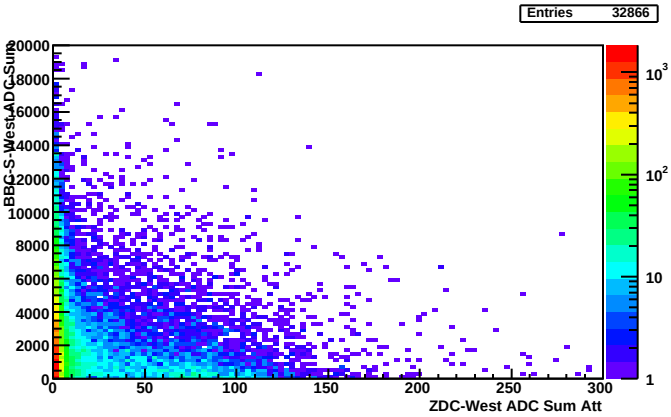

Entries 32866
BBC-L-East ADC Sum
BBC-S-East ADC Sum

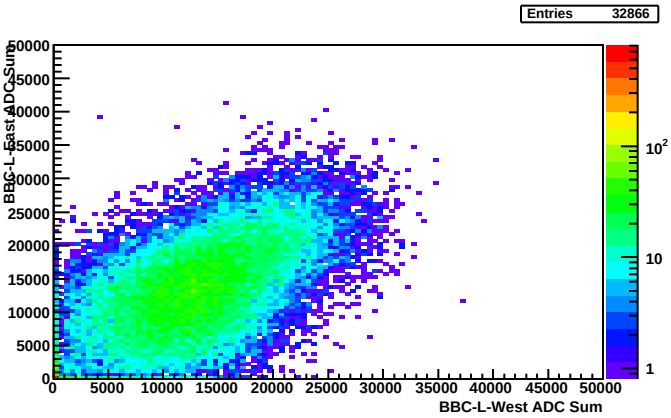

Entries 32866
BBC-L-West ADC Sum
BBC-S-West ADC Sum

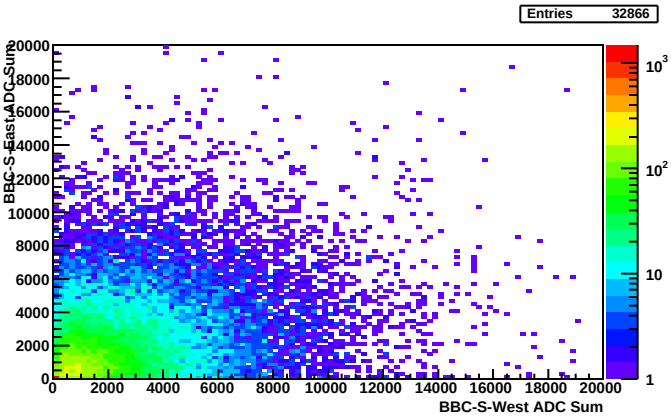

Entries 32866
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

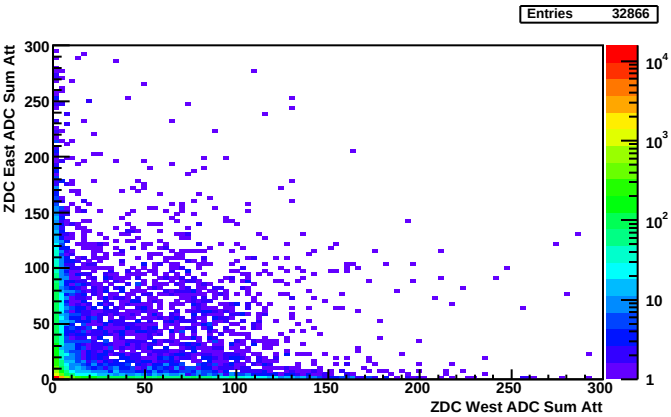

Entries 32866
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

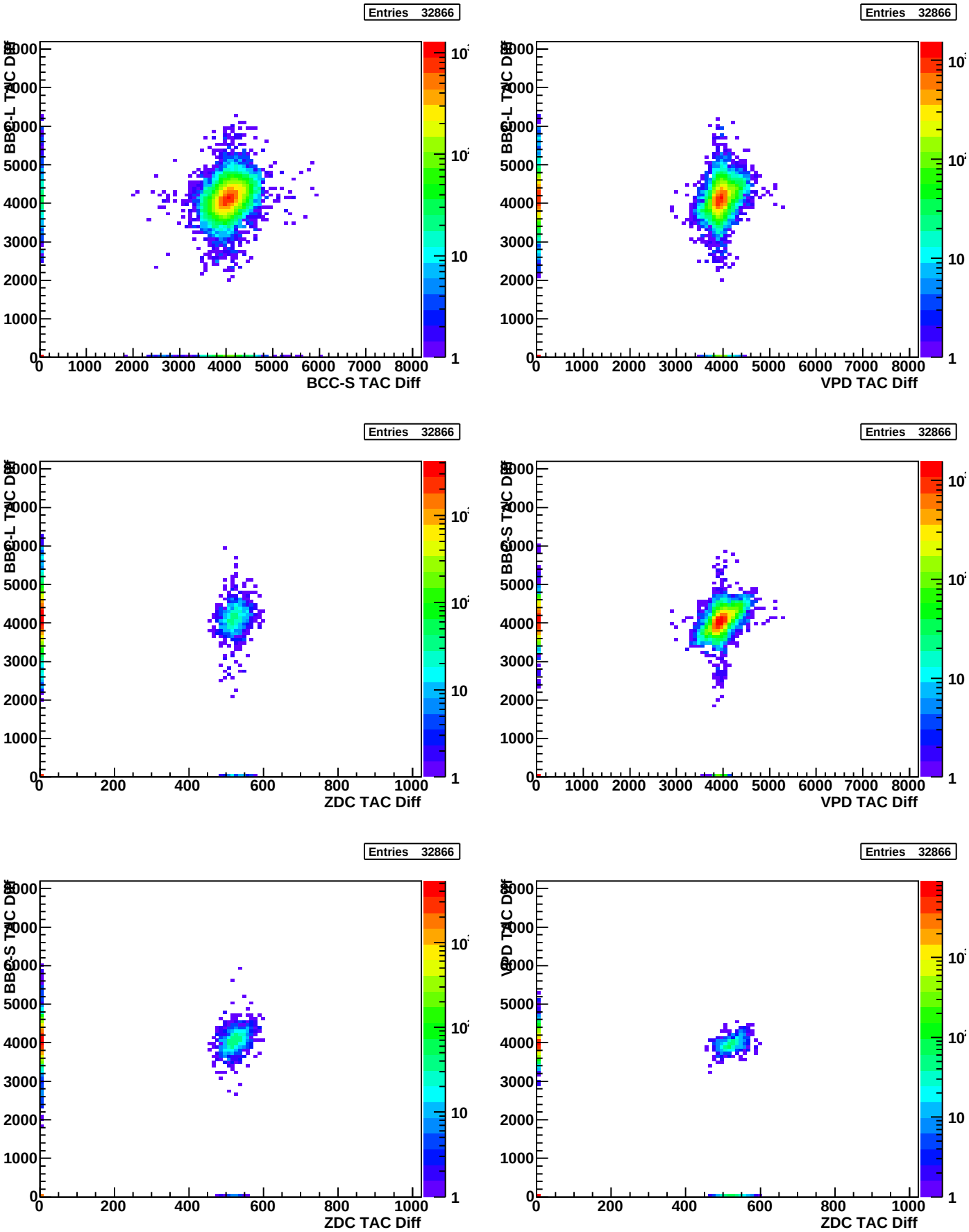

Entries 32866
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

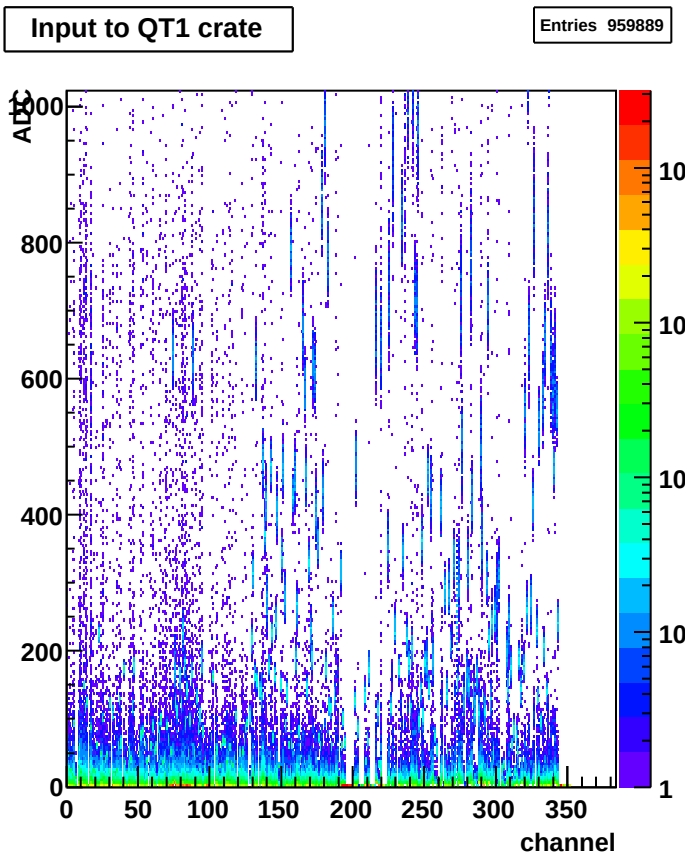

Entries 32866
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

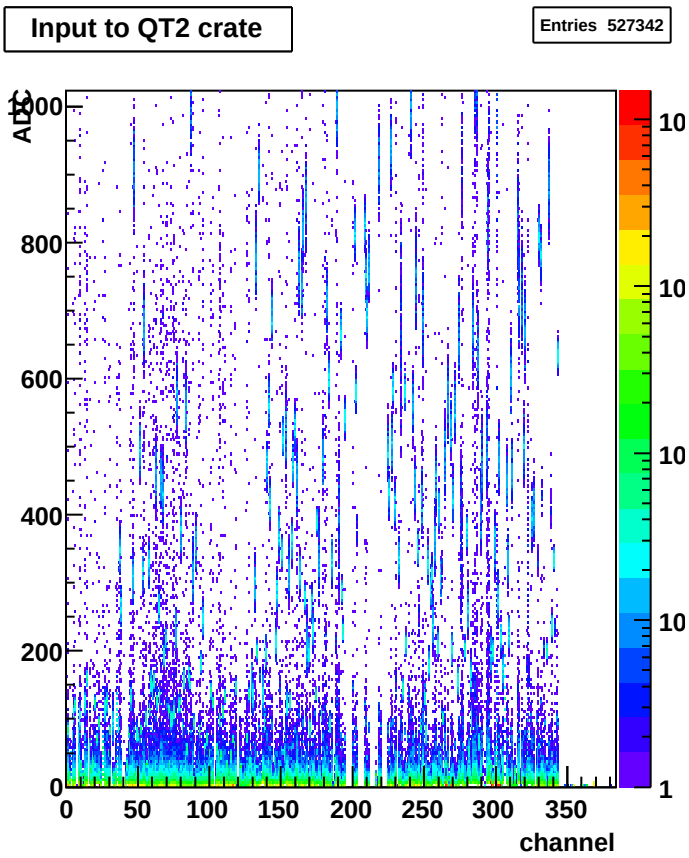

Entries 32866
BBC-L-East ADC Sum
BBC-L-West ADC Sum

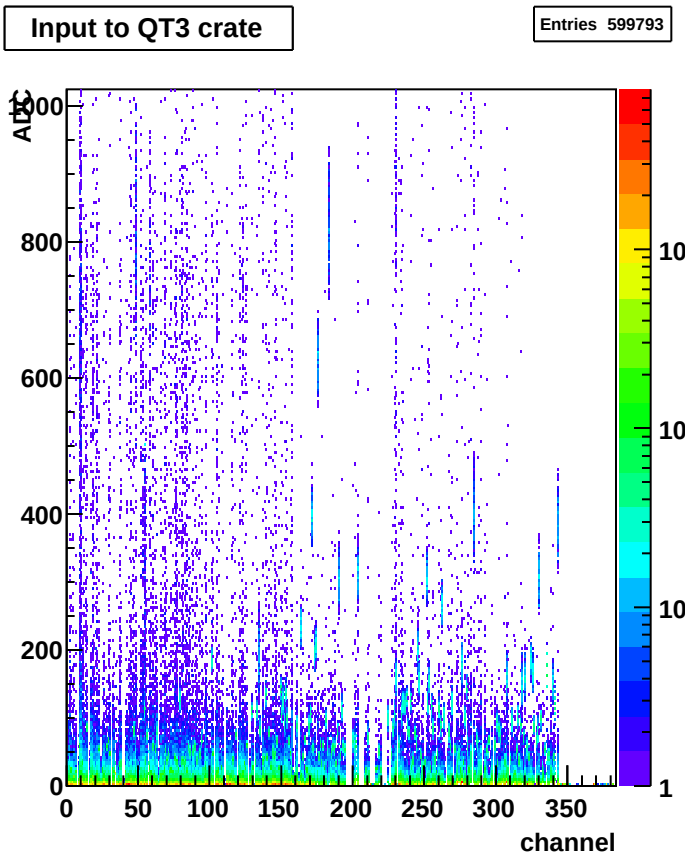

Entries 32866
BBC-S-East ADC Sum
BBC-S-West ADC Sum

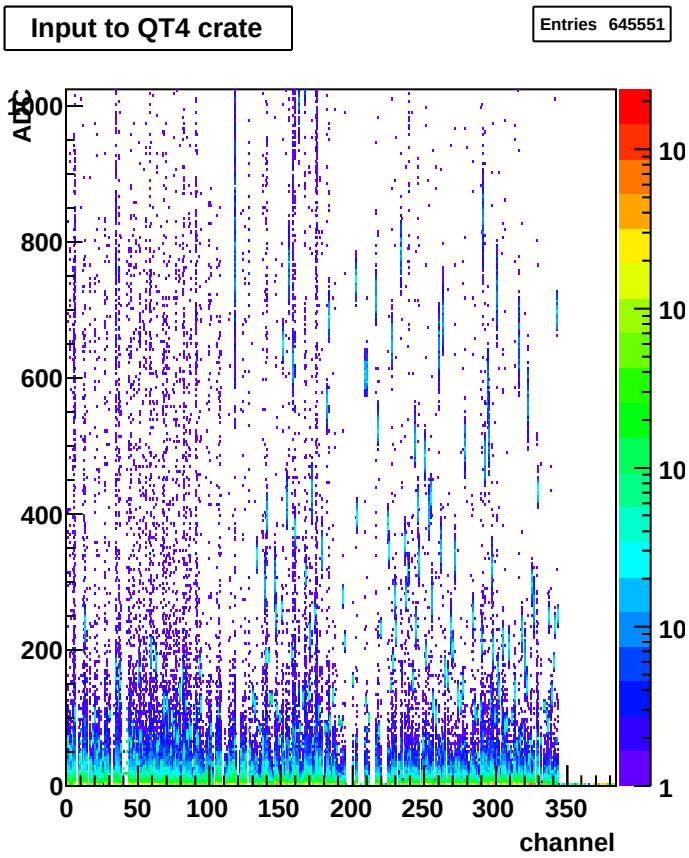

Entries 32866
ZDC East ADC Sum Att
ZDC West ADC Sum Att

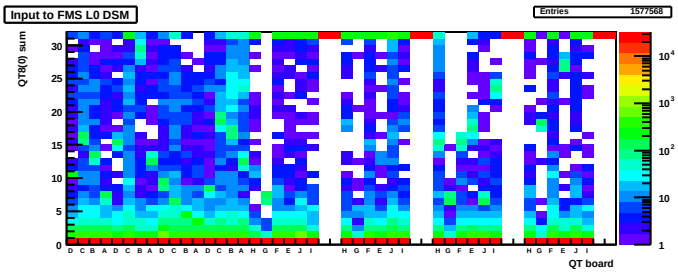

Entries 32866
BBC-L TAC Diff
BCC-S TAC Diff
Entries 32866
BBC-L TAC Diff
VPD TAC Diff
Entries 32866
BBC-L TAC Diff
ZDC TAC Diff
Entries 32866
BBC-S TAC Diff
VPD TAC Diff
Entries 32866
BBC-S TAC Diff
ZDC TAC Diff
Entries 32866
VPD TAC Diff
ZDC TAC Diff

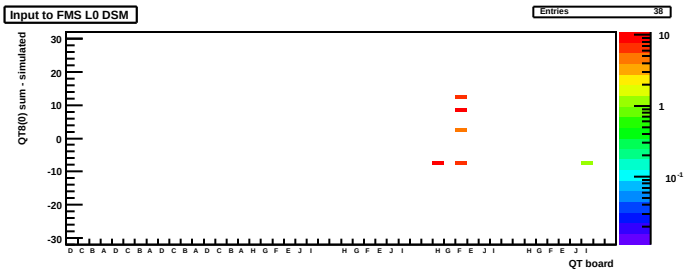

Input to QT1 crate
Entries 959889
ADC
channel

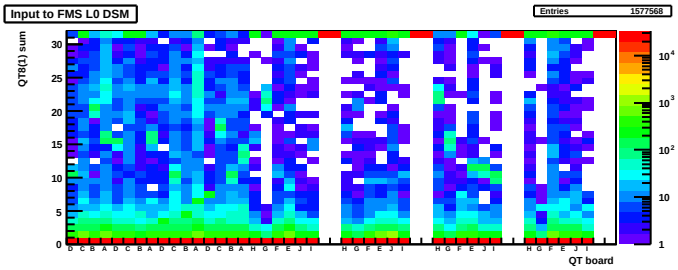

Input to QT2 crate
Entries 527342
ADC
channel

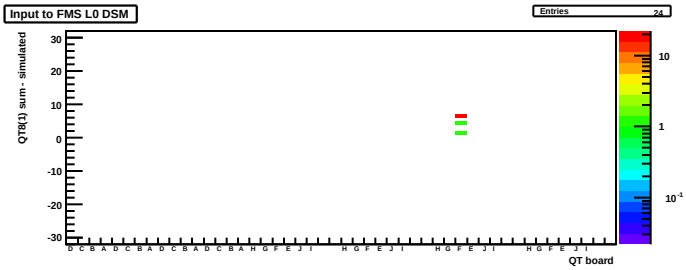

Input to QT3 crate
Entries 599793
ADC
channel

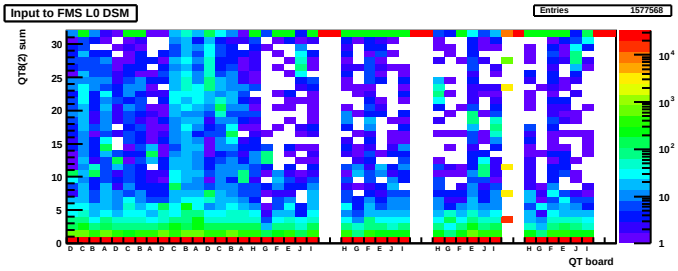

Input to QT4 crate
Entries 645551
ADC
channel

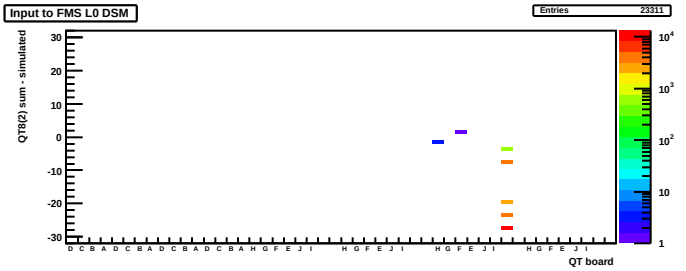

Input to FMS L0 DSM
Entries 1577568
QT8(0) sum
QT board

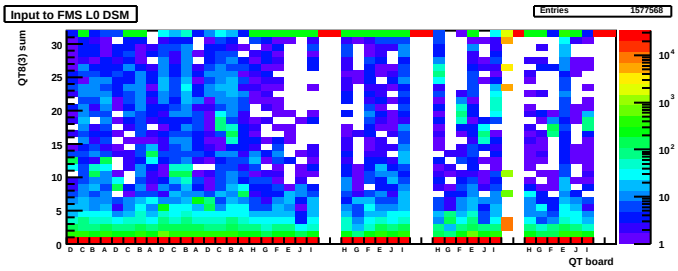

Input to FMS L0 DSM
Entries 38
QT8(0) sum - simulated
QT board

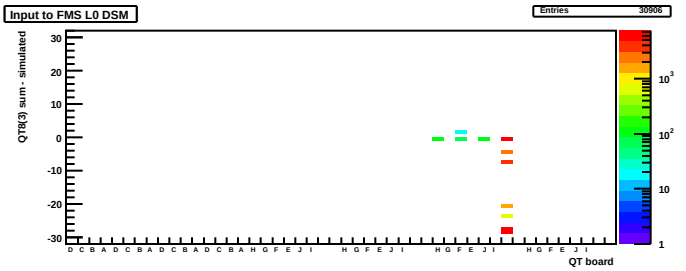

Input to FMS L0 DSM
Entries 1577568
QT8(1) sum
QT board

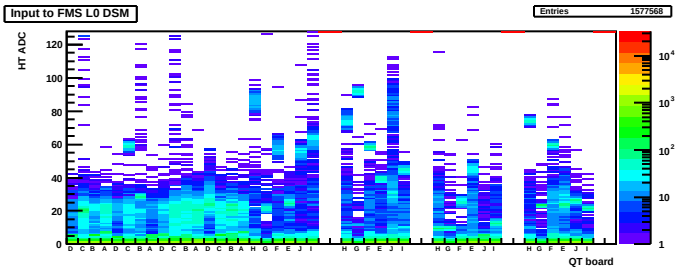

Input to FMS L0 DSM
Entries 24
QT8(1) sum - simulated
QT board

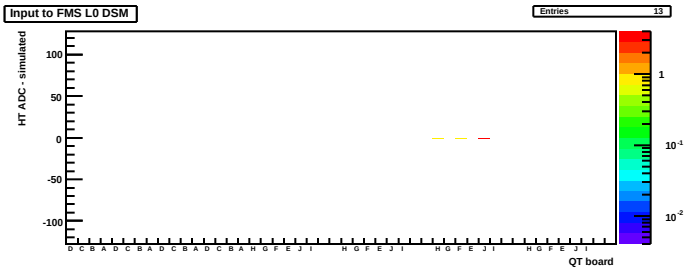

Input to FMS L0 DSM
Entries 1577568
QT8(2) sum
QT board

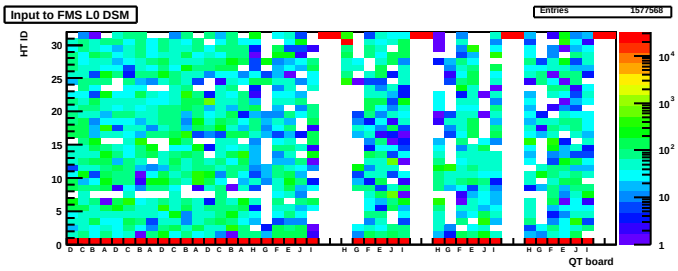

Input to FMS L0 DSM
Entries 23311
QT8(2) sum - simulated
QT board

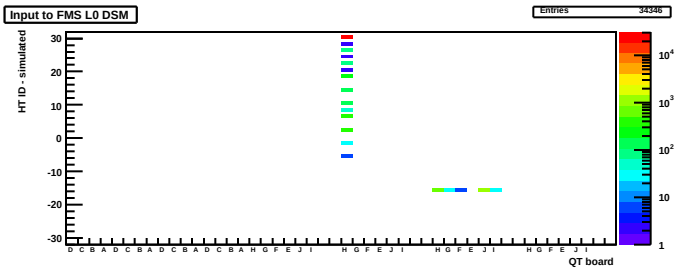

Input to FMS L0 DSM
Entries 1577568
QT8(3) sum
QT board

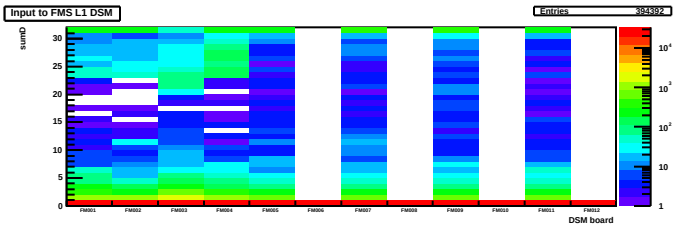

Input to FMS L0 DSM
Entries 30906
QT8(3) sum - simulated
QT board

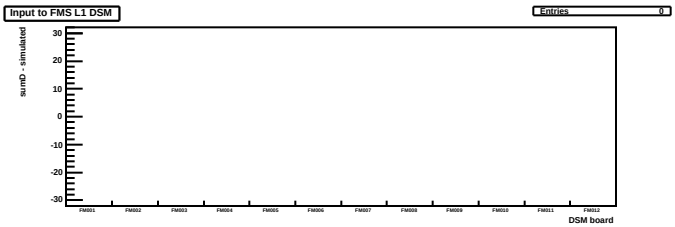

Input to FMS L0 DSM
Entries 1577568
HT ADC
QT board

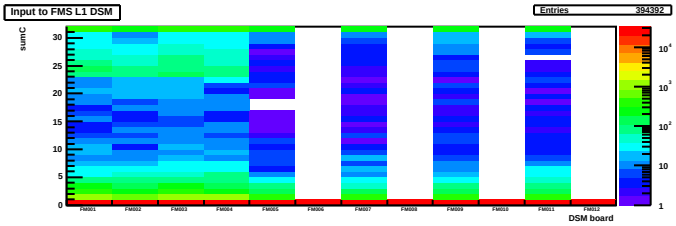

Input to FMS L0 DSM
Entries 13
HT ADC - simulated
QT board

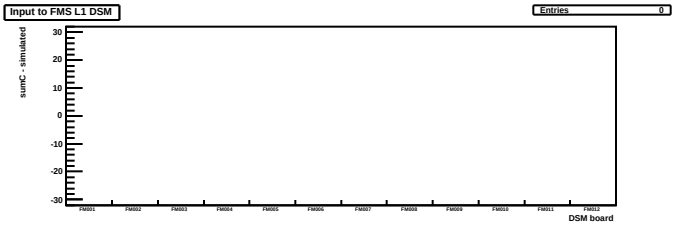

Input to FMS L0 DSM
Entries 1577568
HT ID
QT board

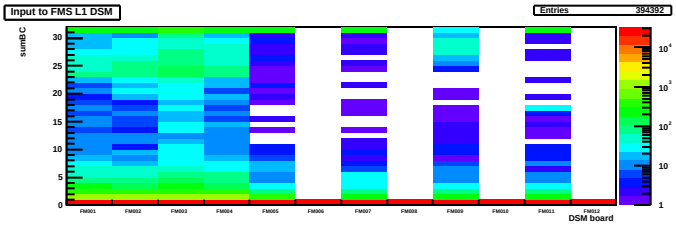

Input to FMS L0 DSM
Entries 34346
HT ID - simulated
QT board

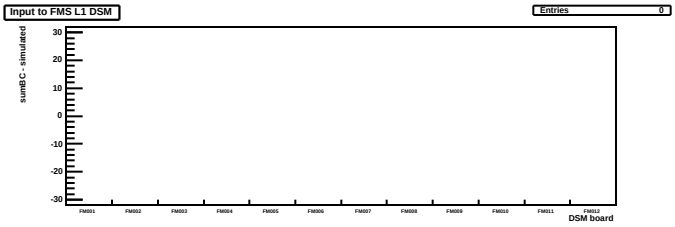

Input to FMS L1 DSM
Entries 394392
sumD
DSM board

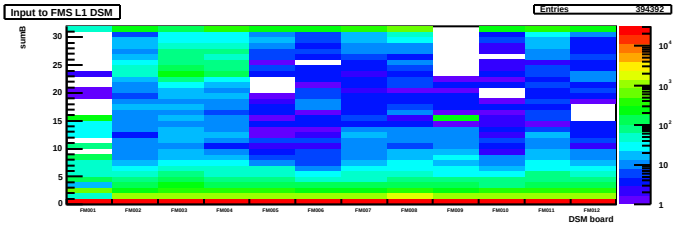

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

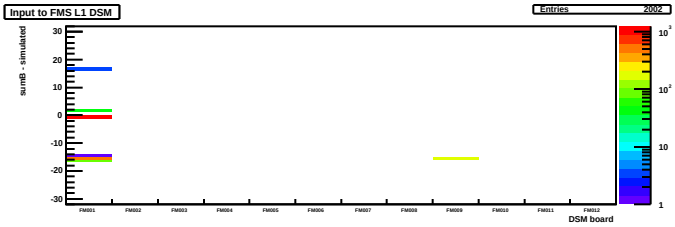

Input to FMS L1 DSM
Entries 394392
sumC
DSM board

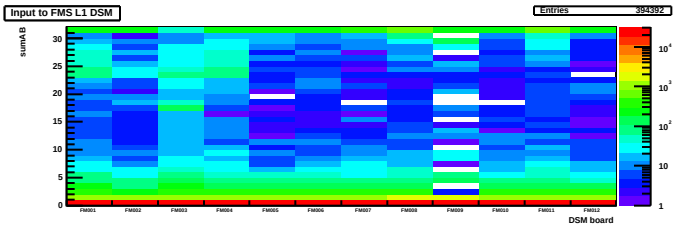

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

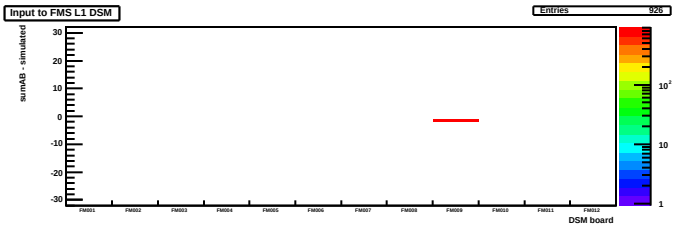

Input to FMS L1 DSM
Entries 394392
sumBC
DSM board

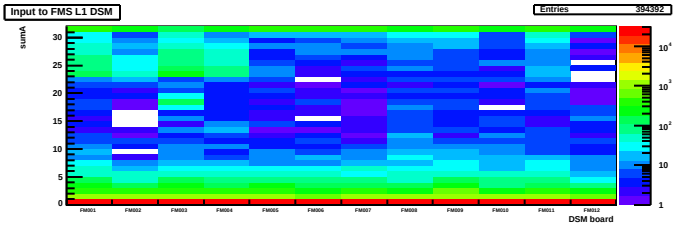

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

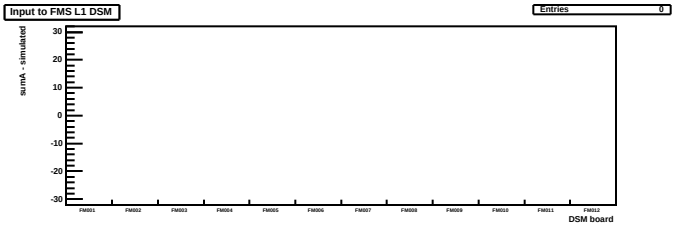

Input to FMS L1 DSM
Entries 394392
sumB
DSM board

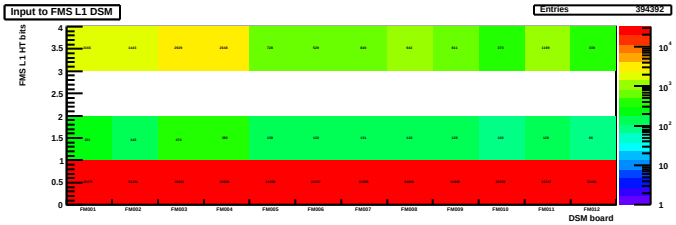

Input to FMS L1 DSM
Entries 2002
sumB - simulated
DSM board

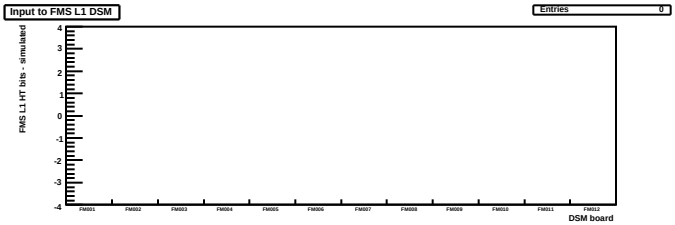

Input to FMS L1 DSM
Entries 394392
sumAB
DSM board

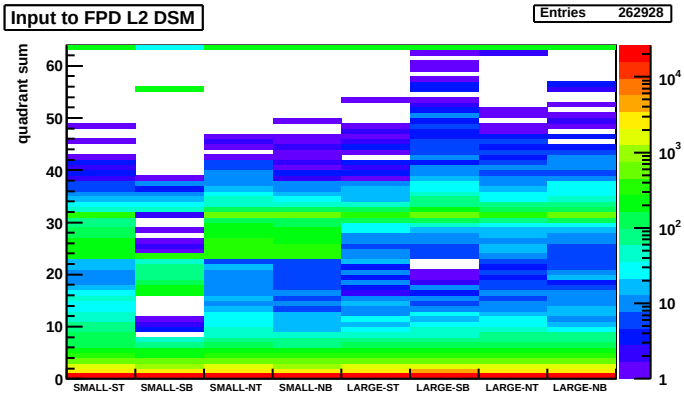

Input to FMS L1 DSM
Entries 926
sumAB - simulated
DSM board

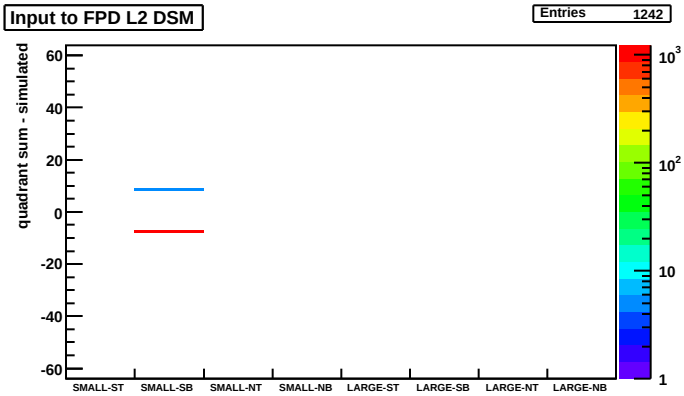

Input to FMS L1 DSM
Entries 394392
sumA
DSM board

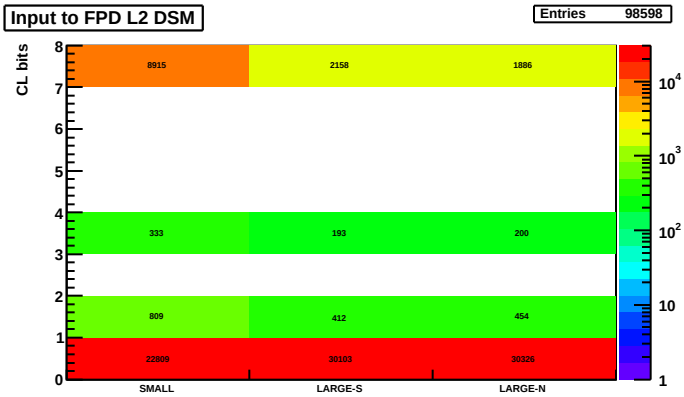

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

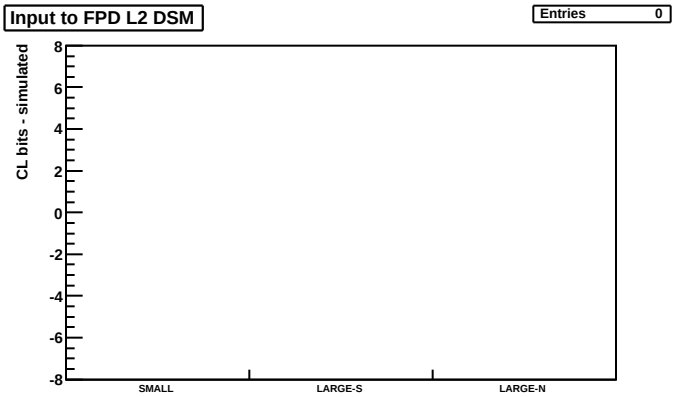

Input to FMS L1 DSM
Entries 394392
FMS L1 HT bits
DSM board

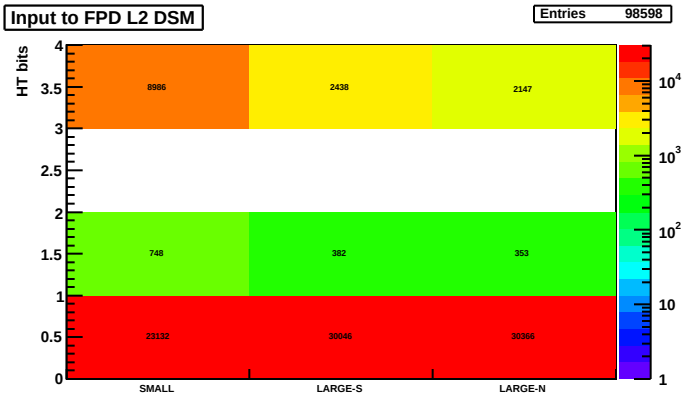

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

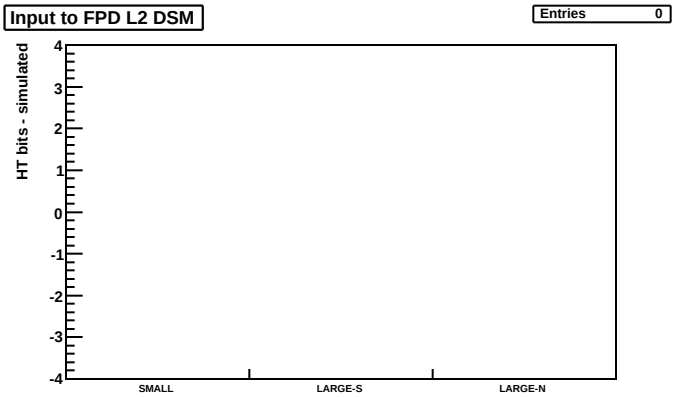

Input to FPD L2 DSM
Entries 262928
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

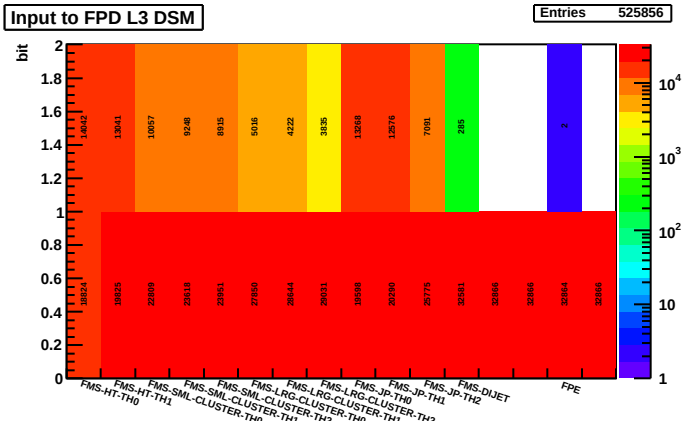

Input to FPD L2 DSM
Entries 1242
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

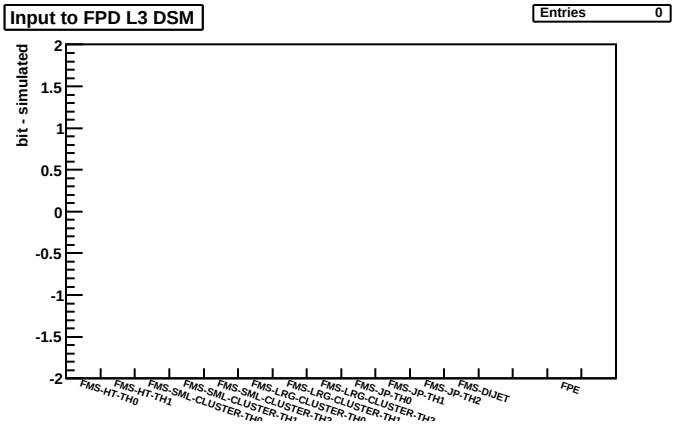

Input to FPD L2 DSM
Entries 98598
CL bits
8915
2158
1886
333
193
200
809
412
454
22809
30103
30326
SMALL
LARGE-S
LARGE-N

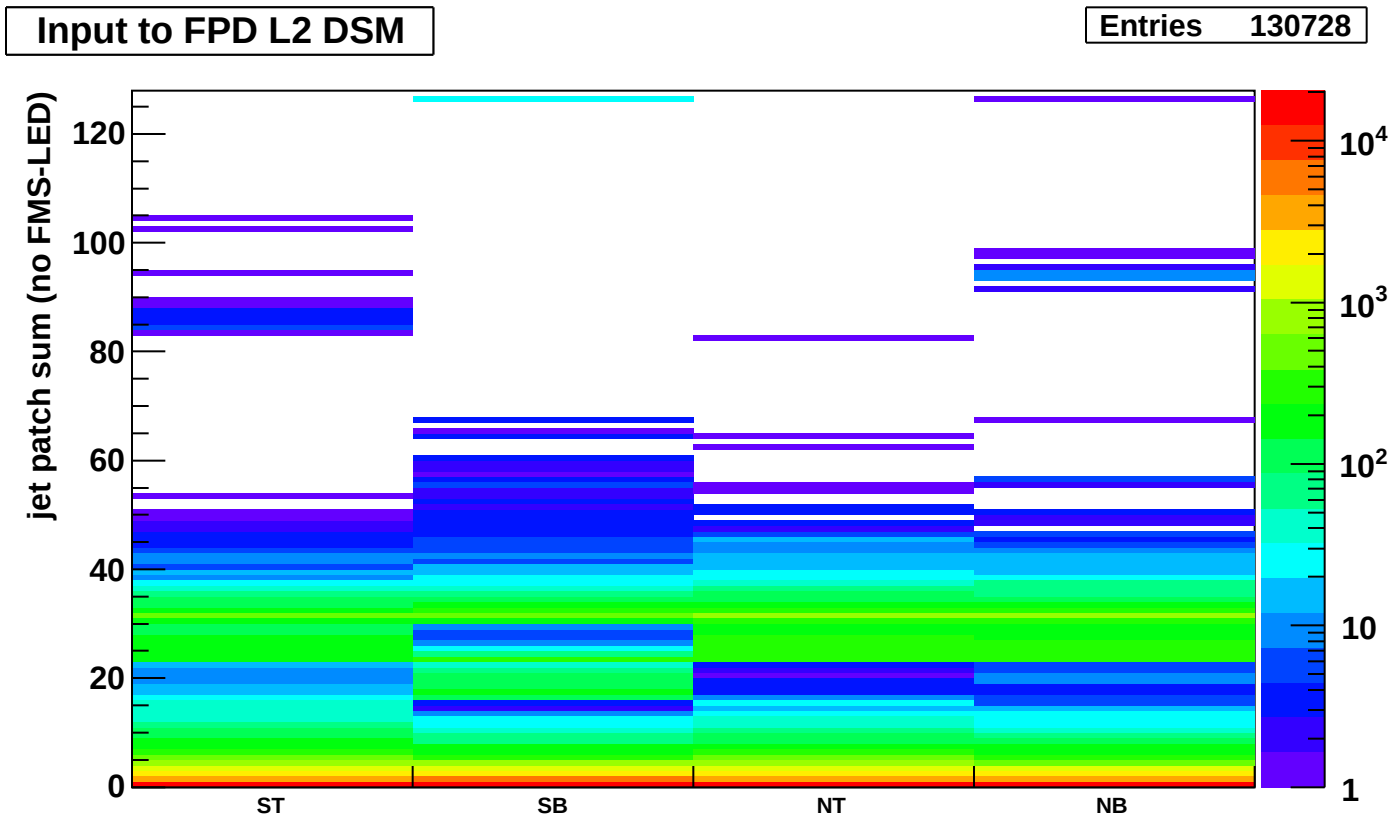

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

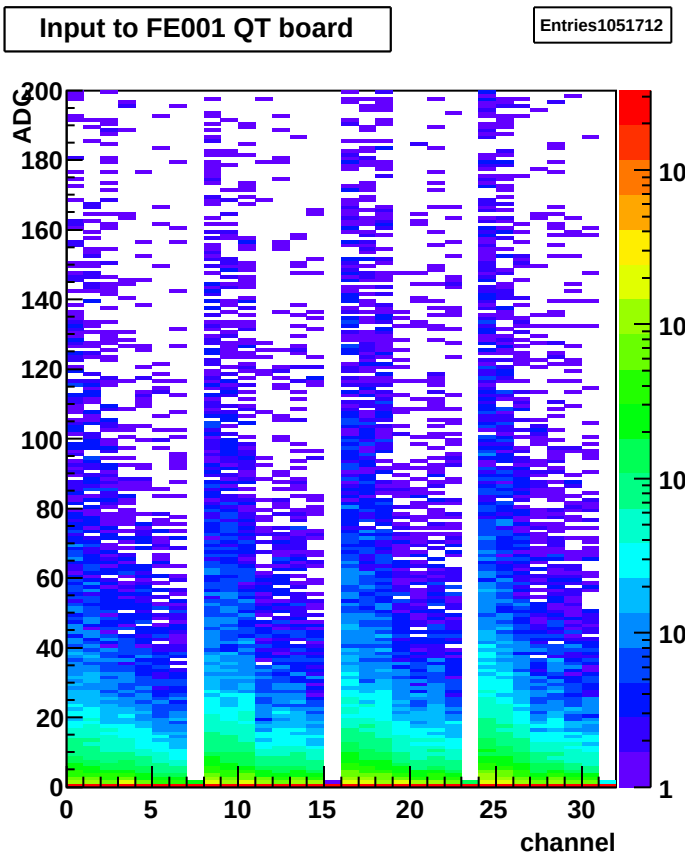

Input to FPD L2 DSM
Entries 98598
HT bits
8986
2438
2147
748
382
353
23132
30046
30366
SMALL
LARGE-S
LARGE-N

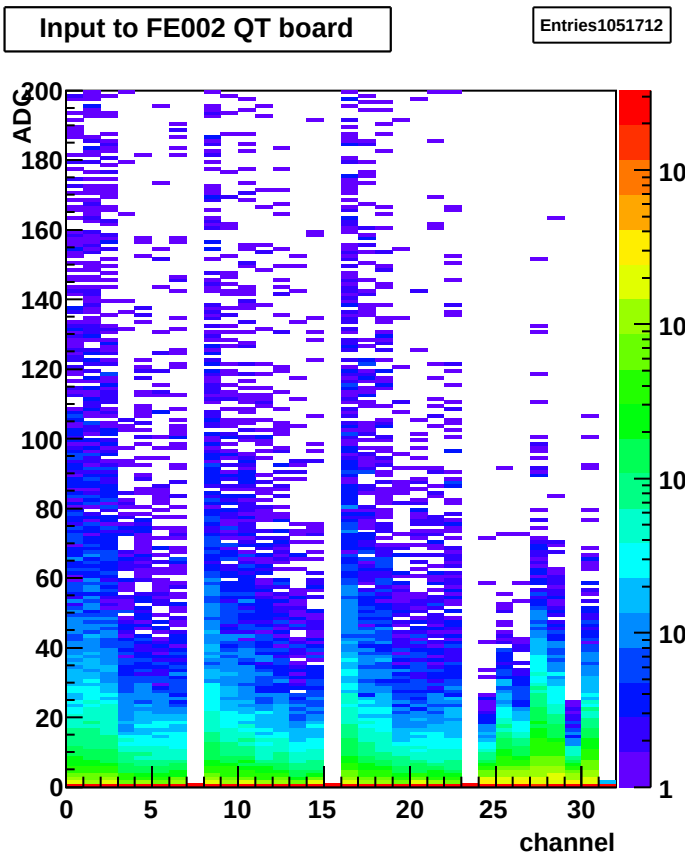

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

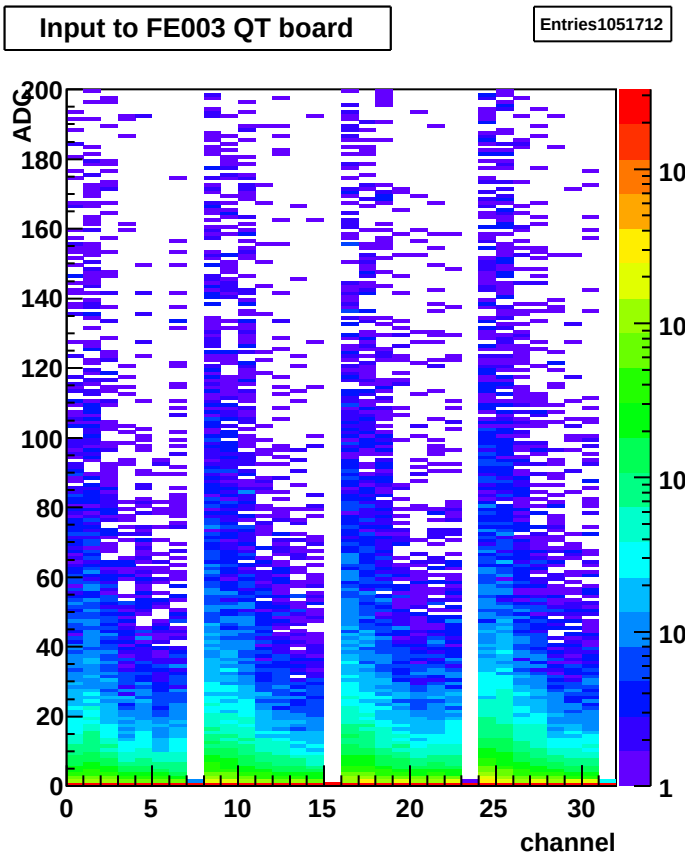

Input to FPD L3 DSM
Entries 525856
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

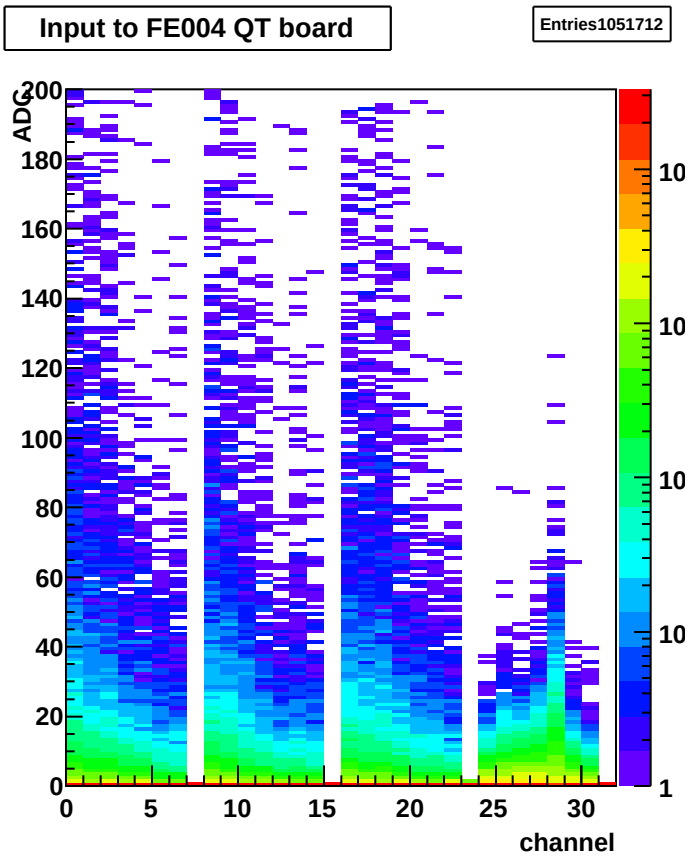

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

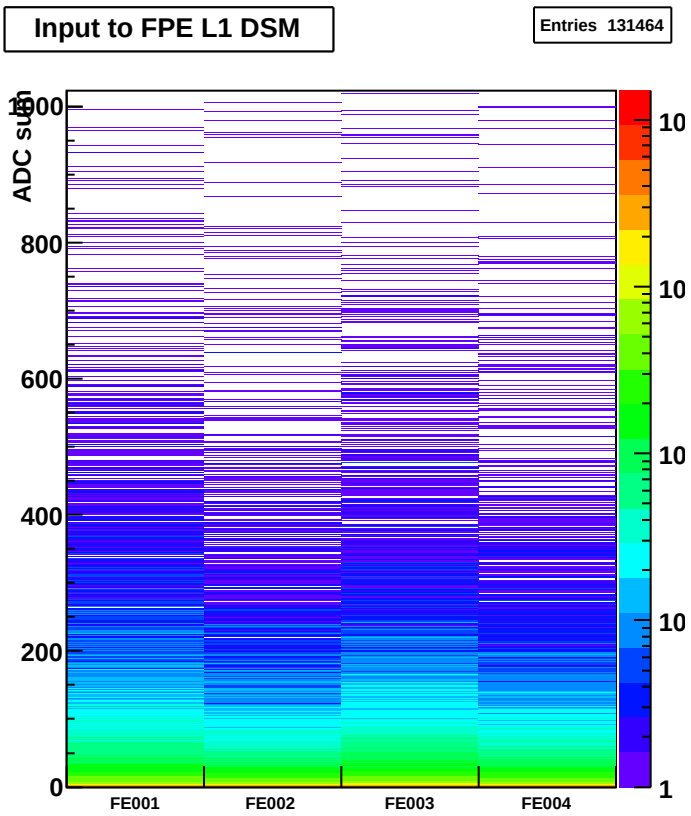

Input to FPD L2 DSM
Entries 130728
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4

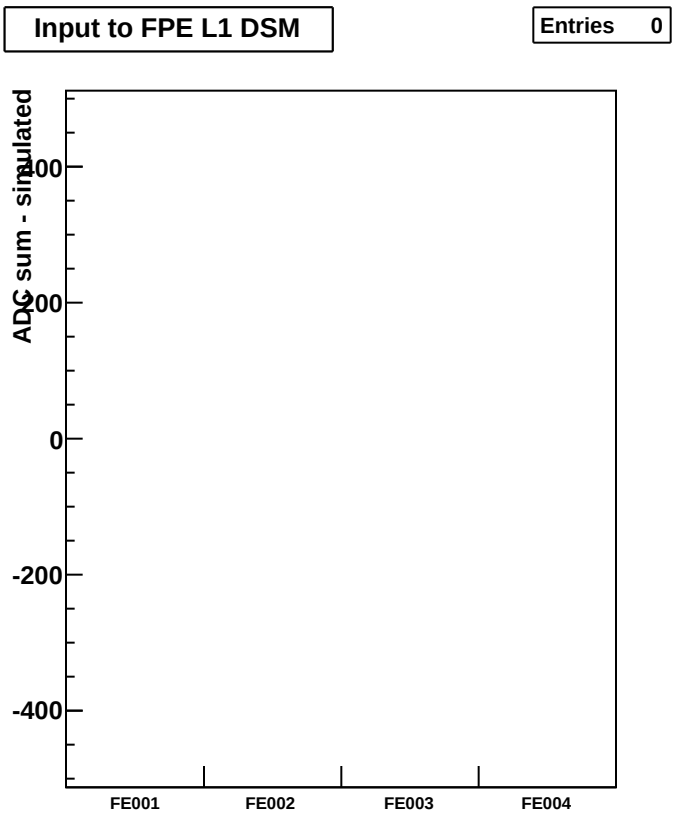

Input to FE001 QT board
Entries1051712
ADC
channel

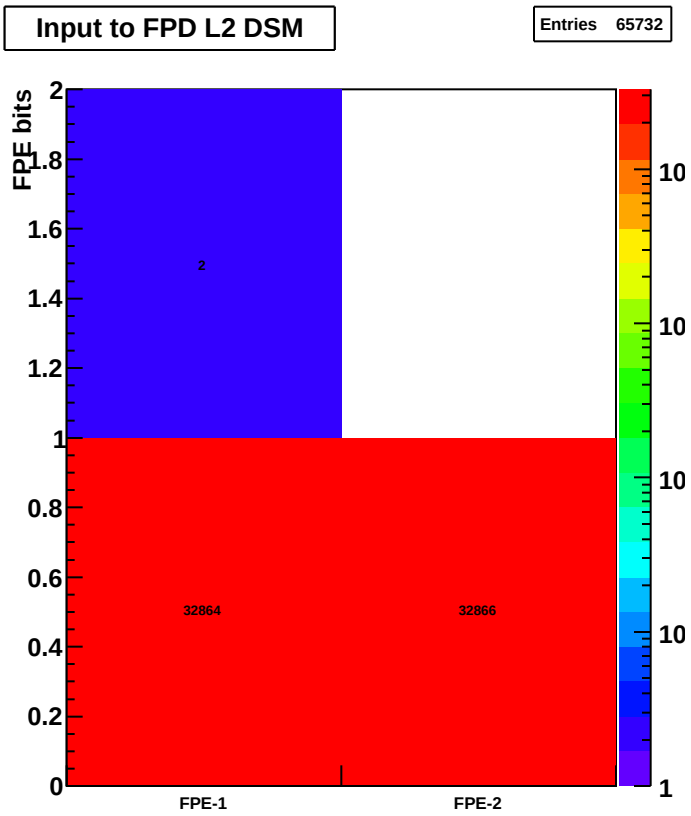

Input to FE002 QT board
Entries1051712
ADC
channel

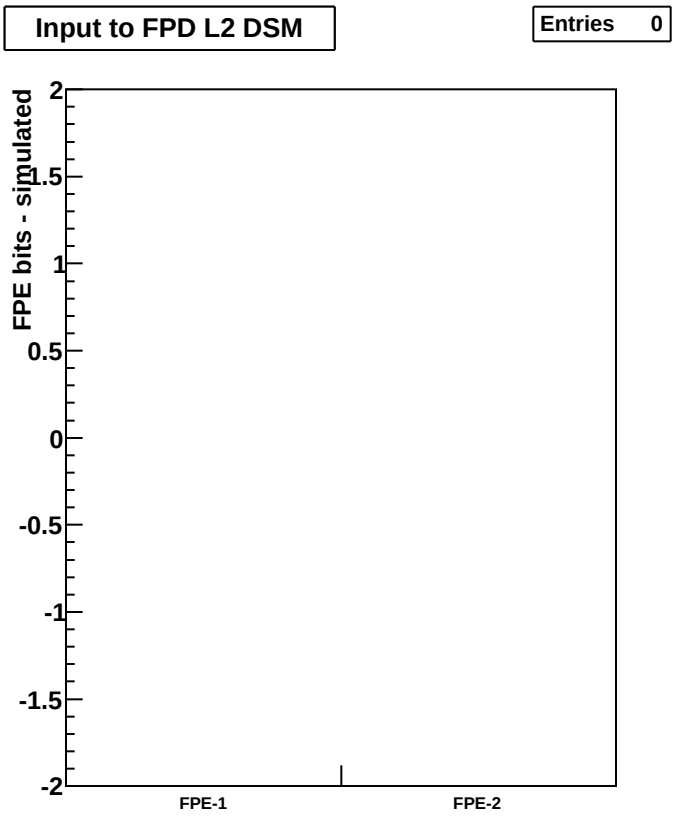

Input to FE003 QT board
Entries1051712
ADC
channel


Input to FE004 QT board
Entries1051712
ADC
channel


Input to FPE L1 DSM
Entries 131464
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
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 65732
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2
32864
32866
FPE-1
FPE-2
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