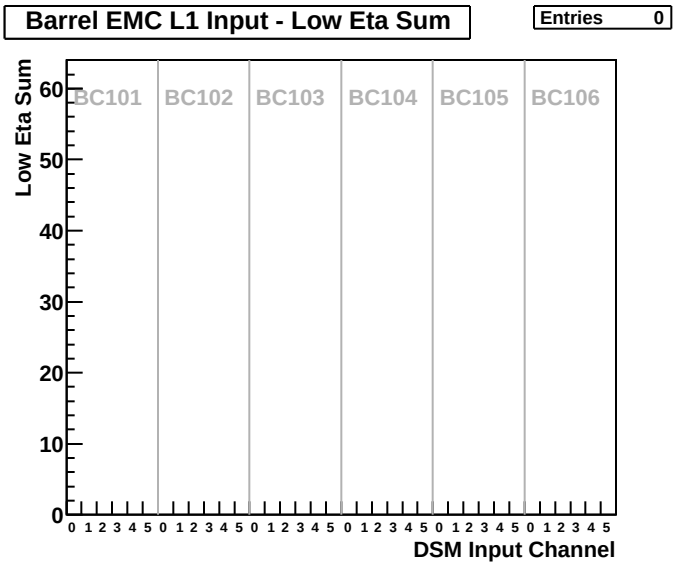
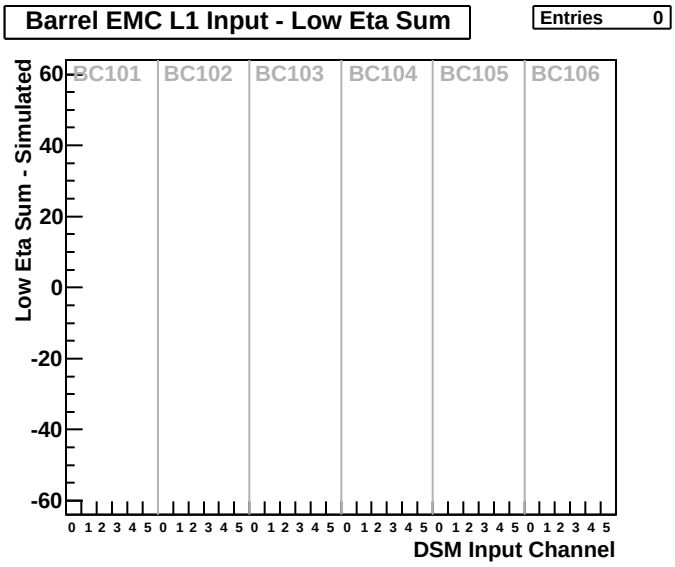
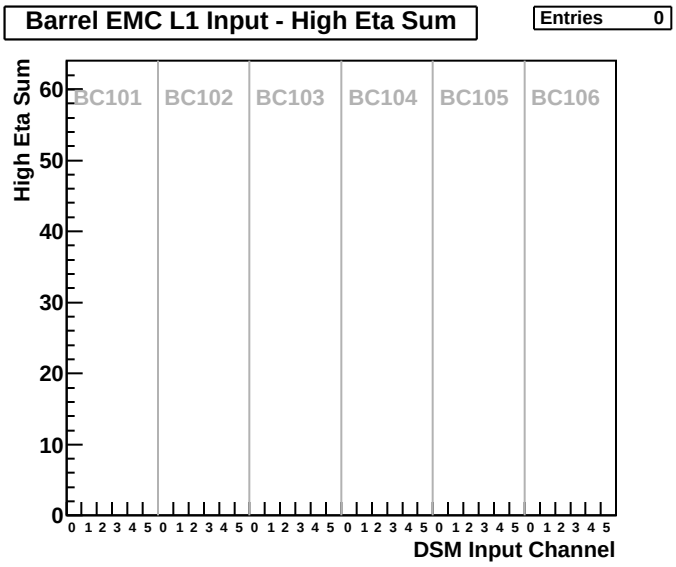
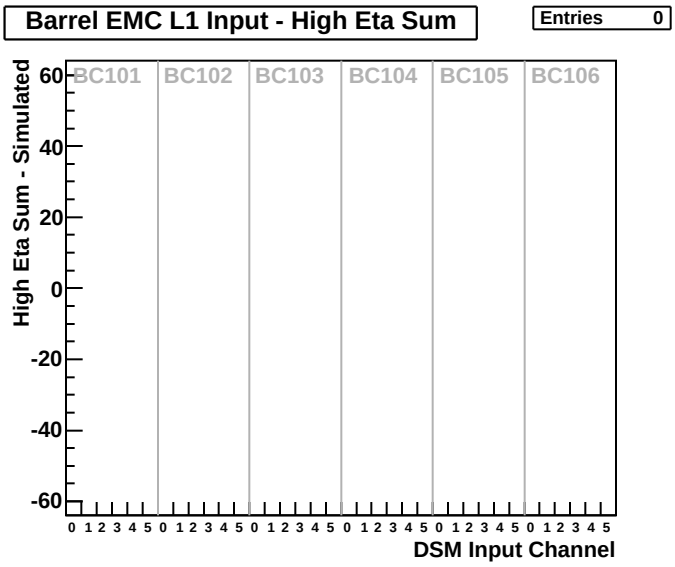
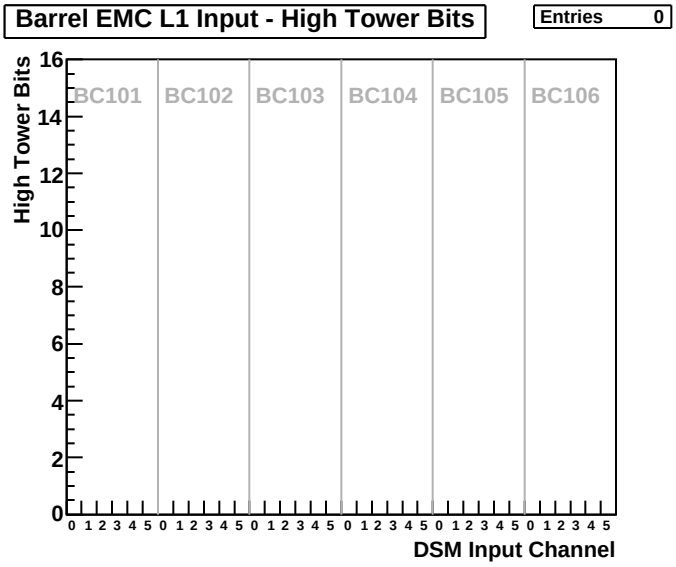
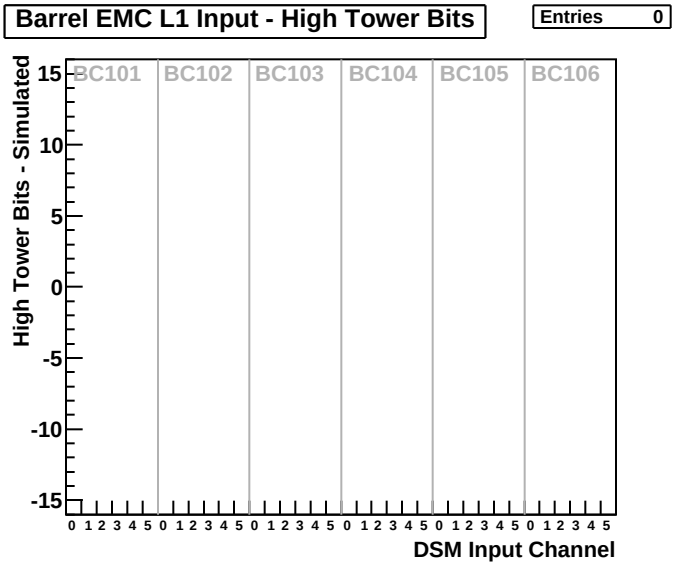

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

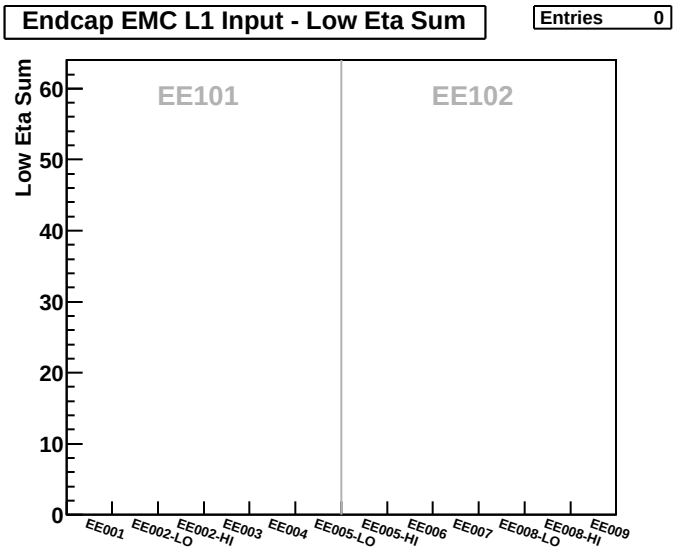

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

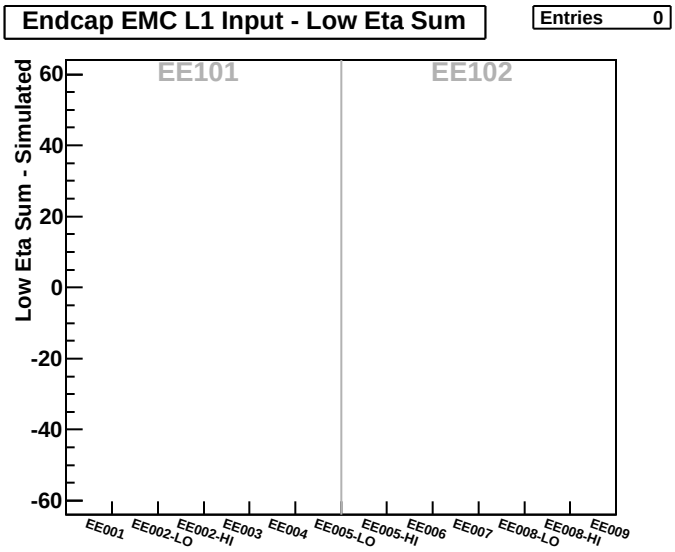

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

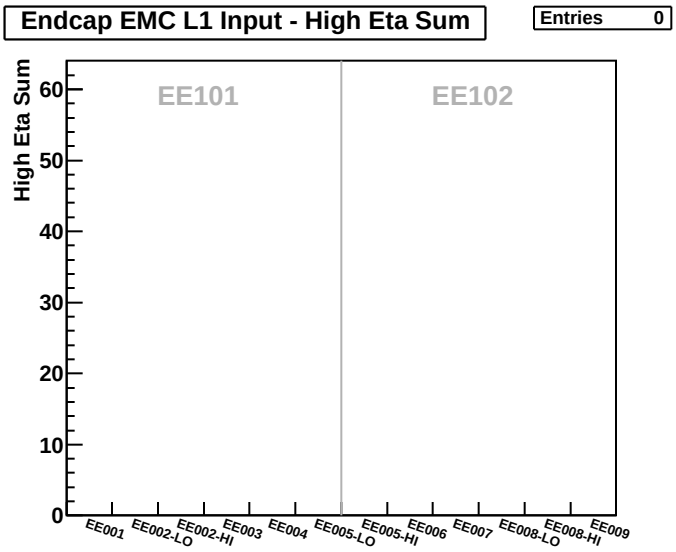

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

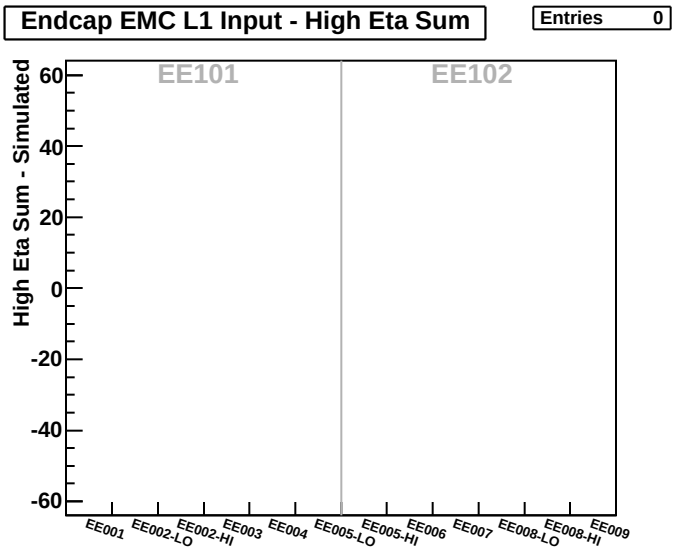

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

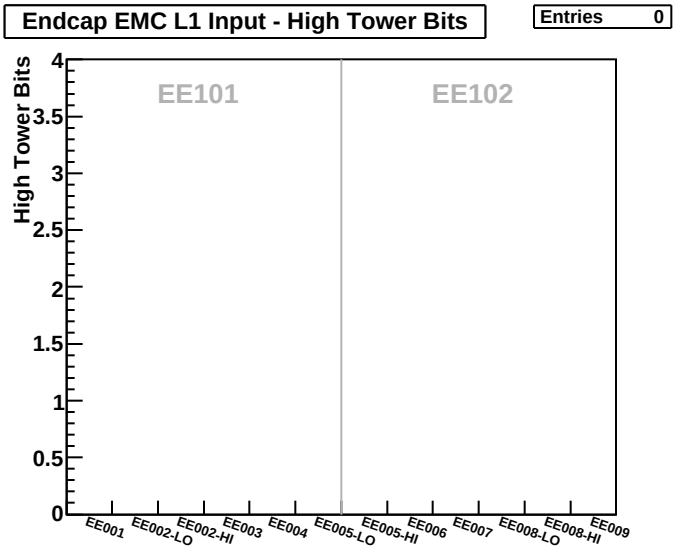

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

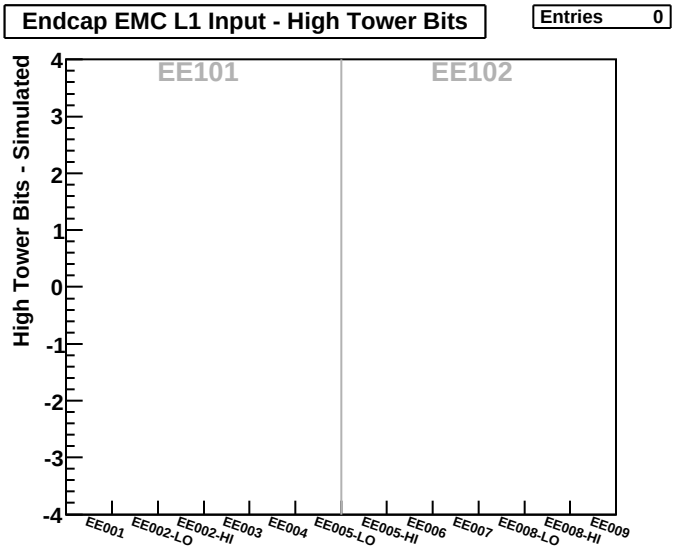

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum
EE101
EE102
0
10
20
30
40
50
60
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

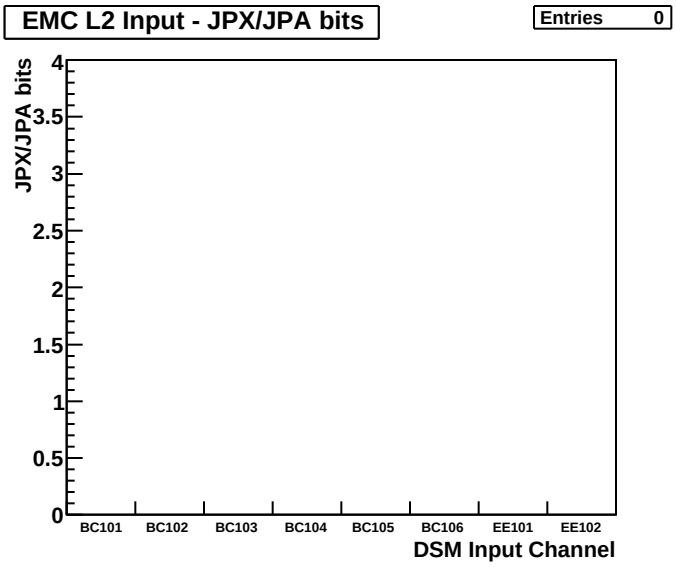

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
60
40
20
0
-20
-40
-60
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

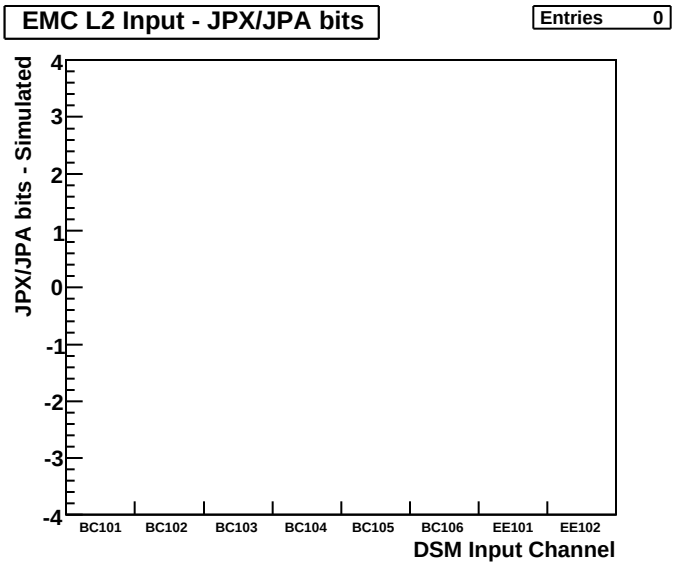

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum
EE101
EE102
0
10
20
30
40
50
60
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

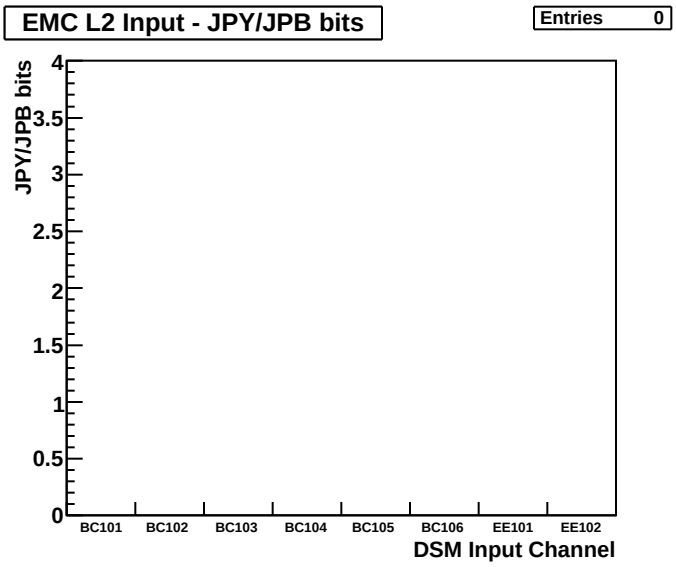

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
60
40
20
0
-20
-40
-60
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

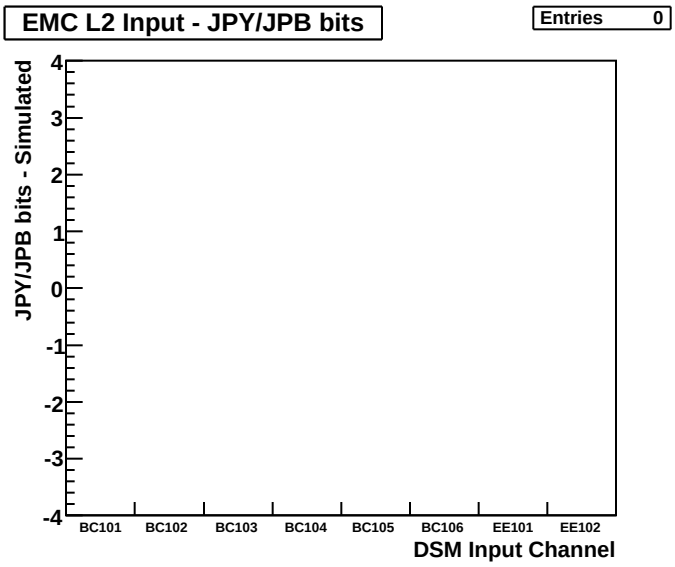

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits
EE101
EE102
0
0.5
1
1.5
2
2.5
3
3.5
4
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

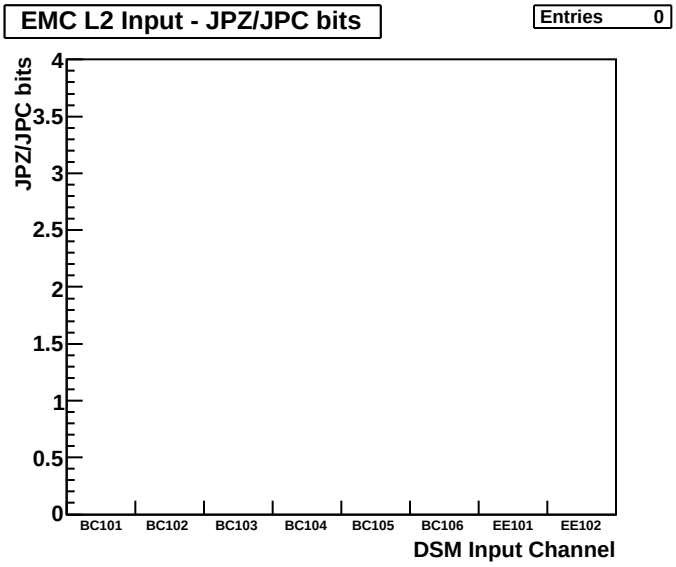

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
4
3
2
1
0
-1
-2
-3
-4
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

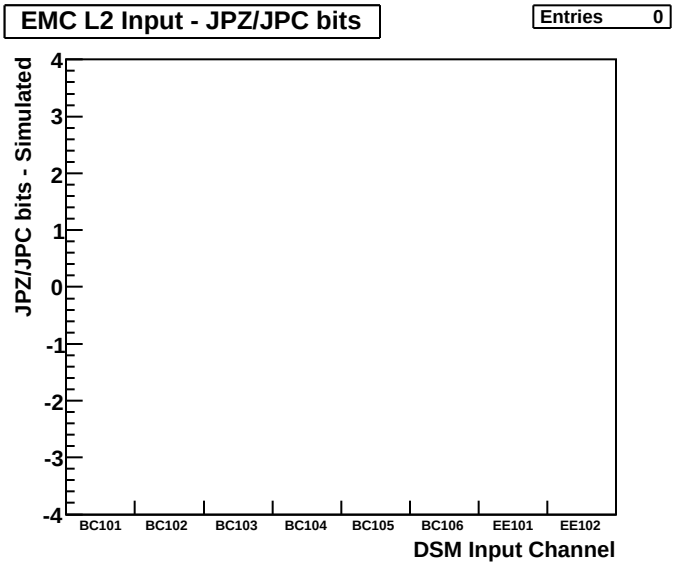

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits
4
3.5
3
2.5
2
1.5
1
0.5
0
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

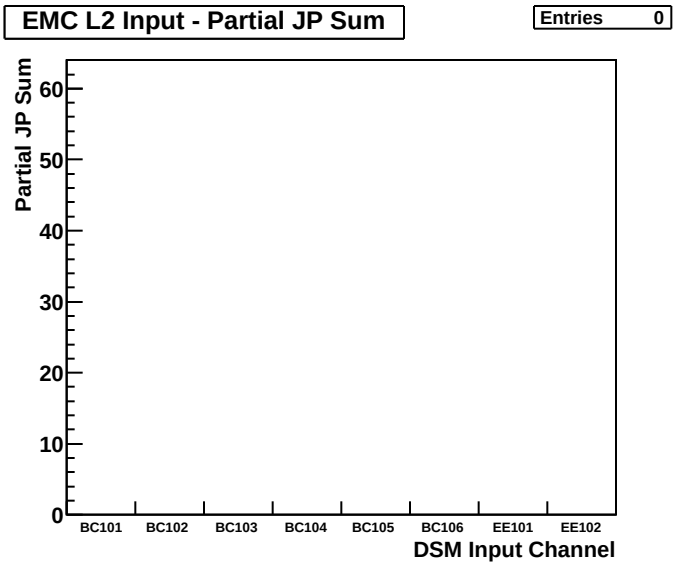

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
4
3
2
1
0
-1
-2
-3
-4
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

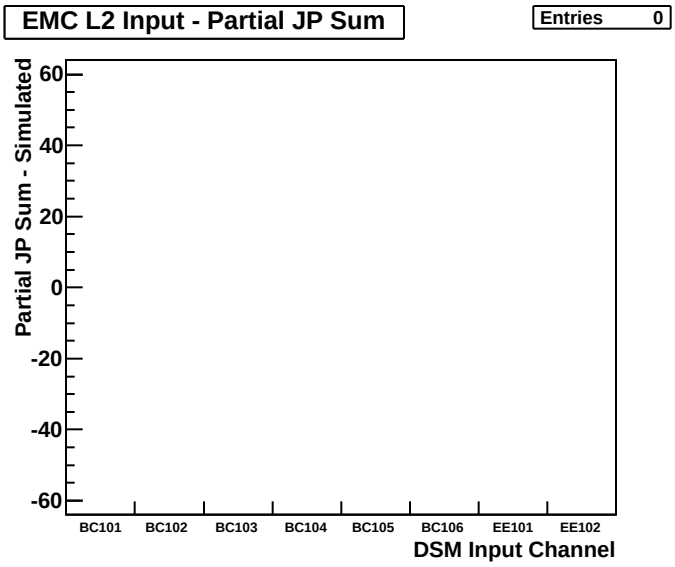

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits
4
3.5
3
2.5
2
1.5
1
0.5
0
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

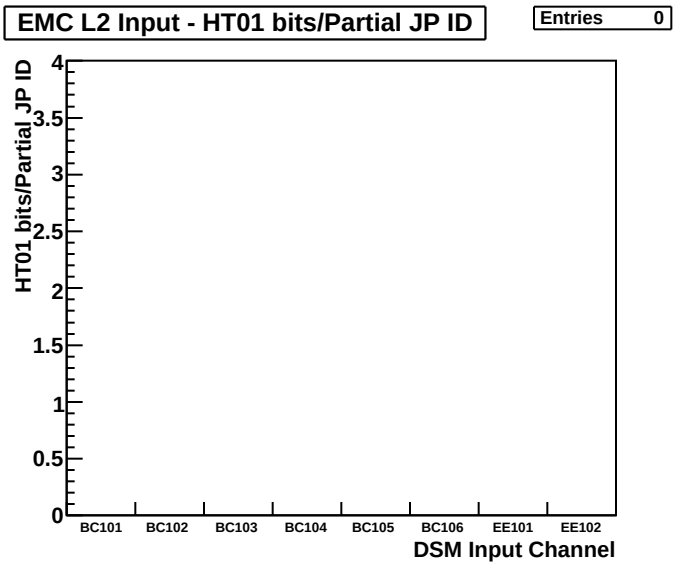

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
4
3
2
1
0
-1
-2
-3
-4
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

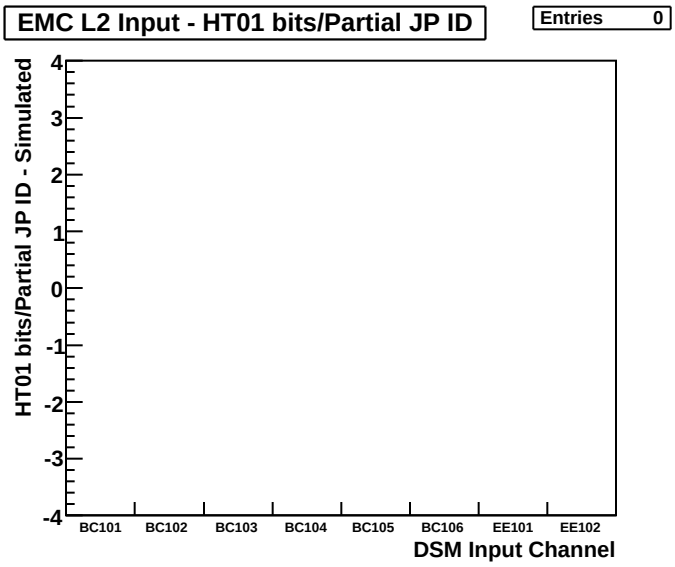

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits
4
3.5
3
2.5
2
1.5
1
0.5
0
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

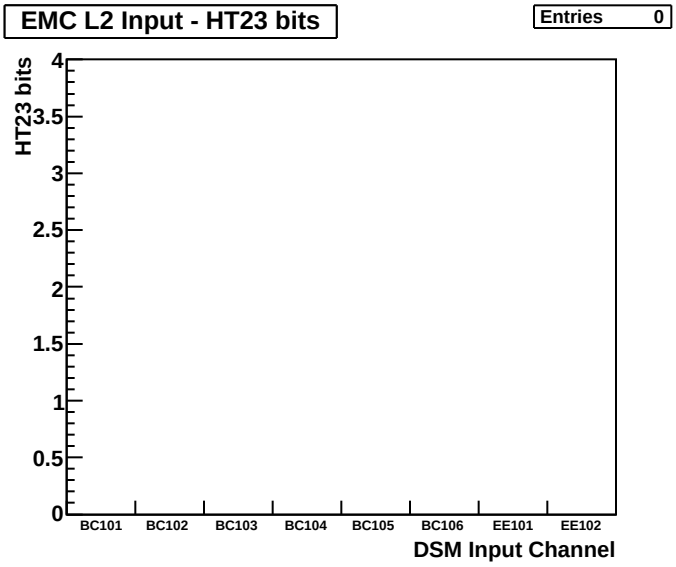

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
4
3
2
1
0
-1
-2
-3
-4
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

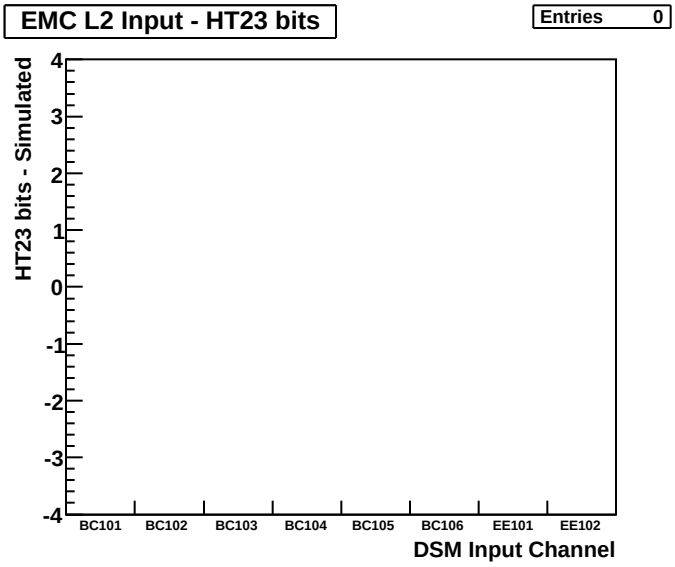

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum
60
50
40
30
20
10
0
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

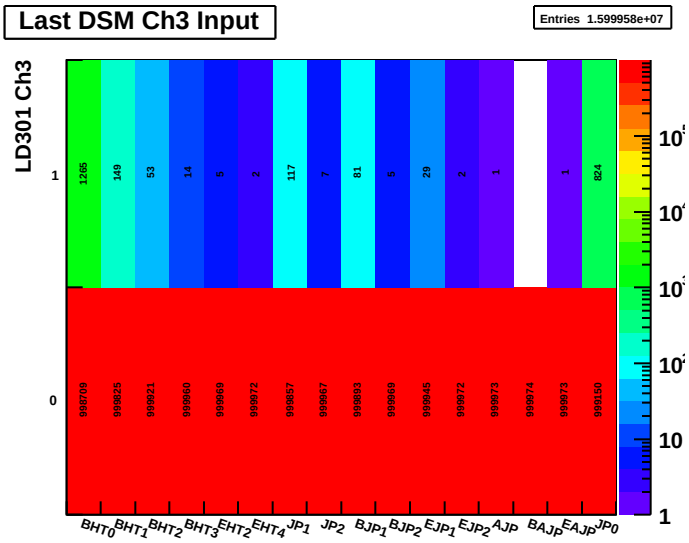

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
60
40
20
0
-20
-40
-60
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

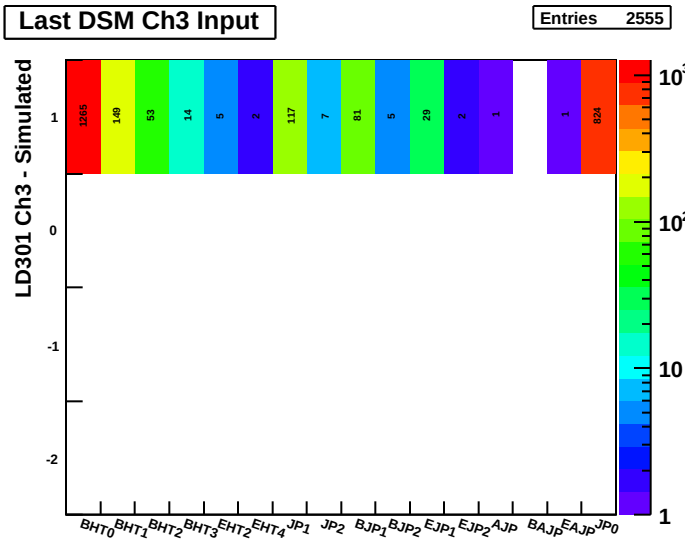

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID
4
3.5
3
2.5
2
1.5
1
0.5
0
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

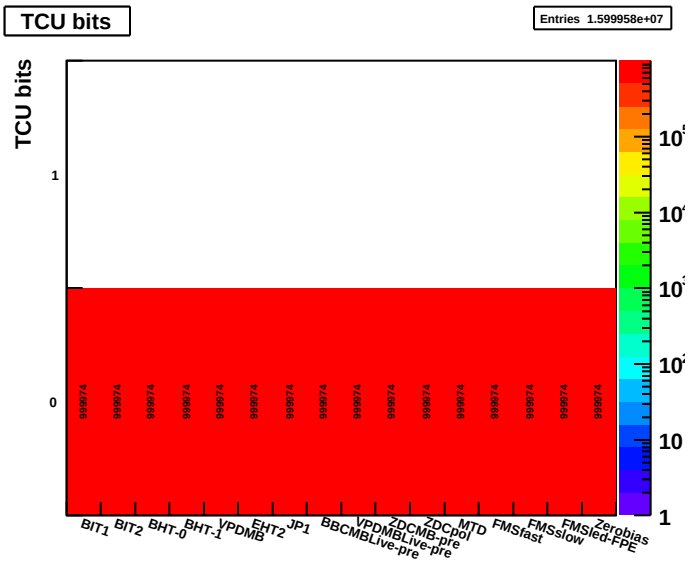

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
4
3
2
1
0
-1
-2
-3
-4
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

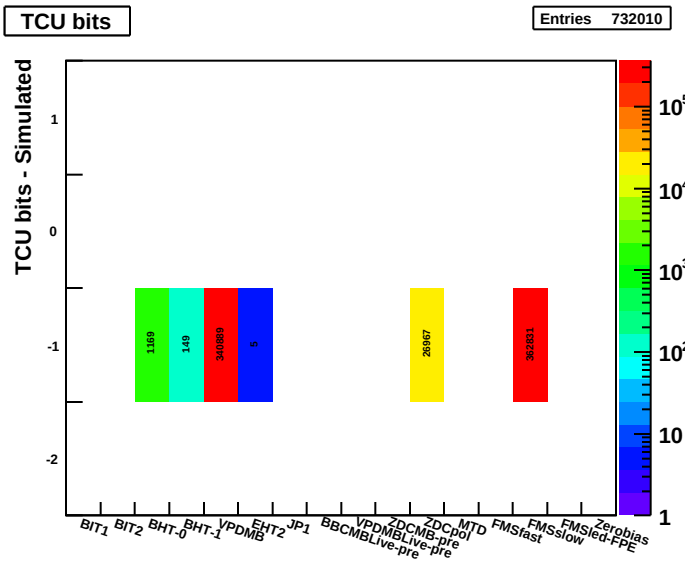

EMC L2 Input - HT23 bits
Entries 0
HT23 bits
4
3.5
3
2.5
2
1.5
1
0.5
0
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

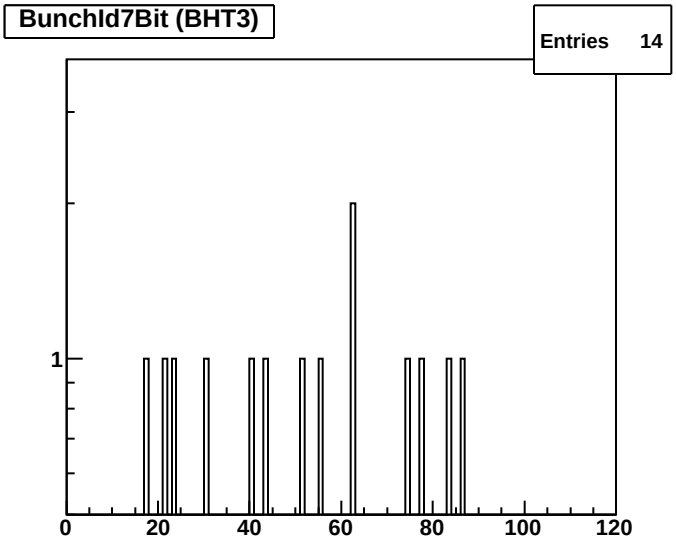

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
4
3
2
1
0
-1
-2
-3
-4
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

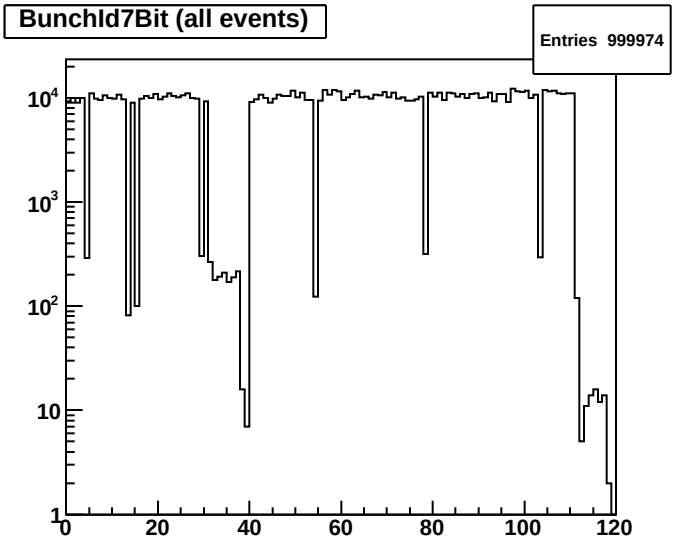

Last DSM Ch3 Input
Entries 1.599958e+07
LD301 Ch3
1265 149 53 14 5 2 117 7 81 5 29 2 1 1 824
998709 999825 999921 999960 999969 999972 999857 999967 999893 999969 999945 999972 999973 999974 999973 999150
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

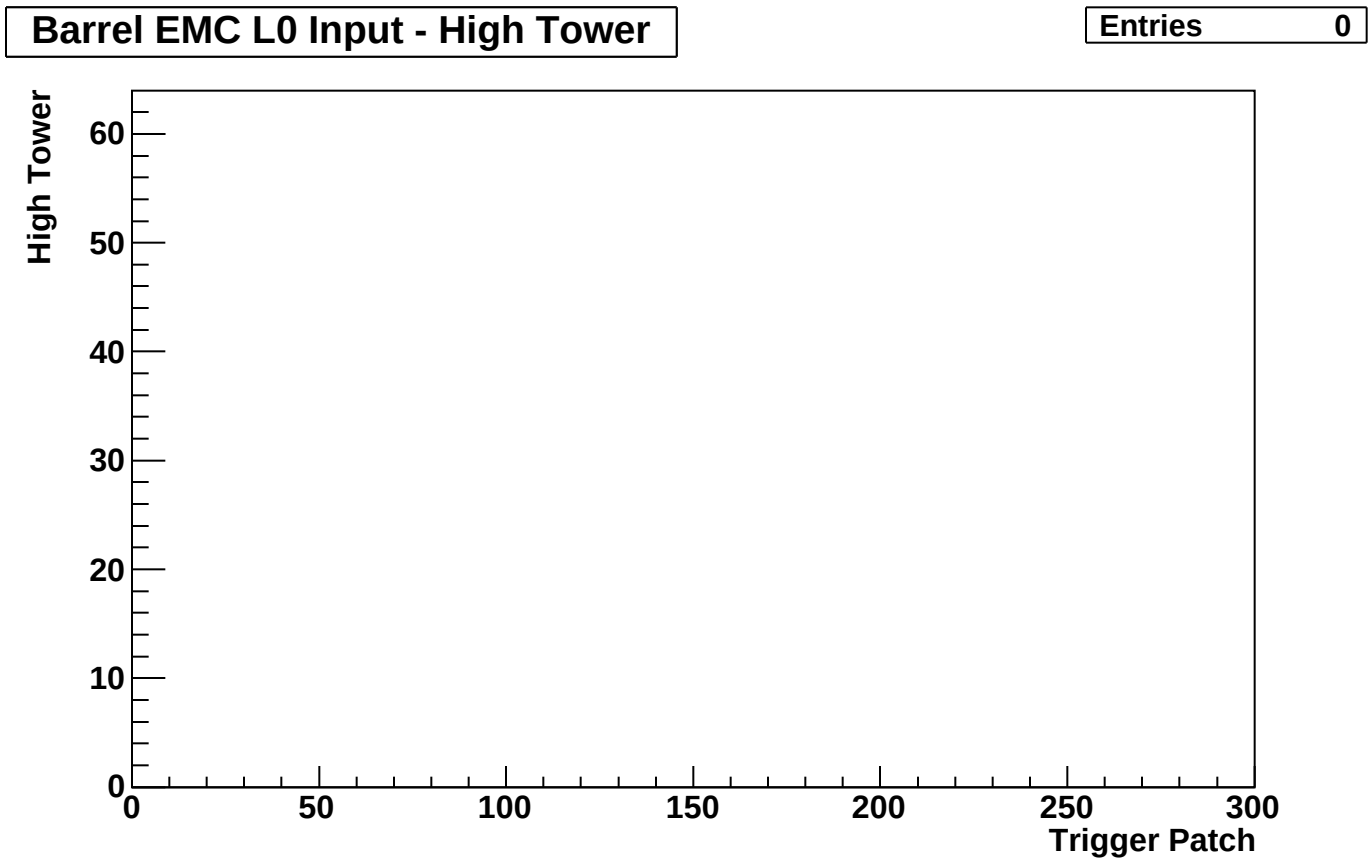

Last DSM Ch3 Input
Entries 2555
LD301 Ch3 - Simulated
1265 149 53 14 5 2 117 7 81 5 29 2 1 1 824
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

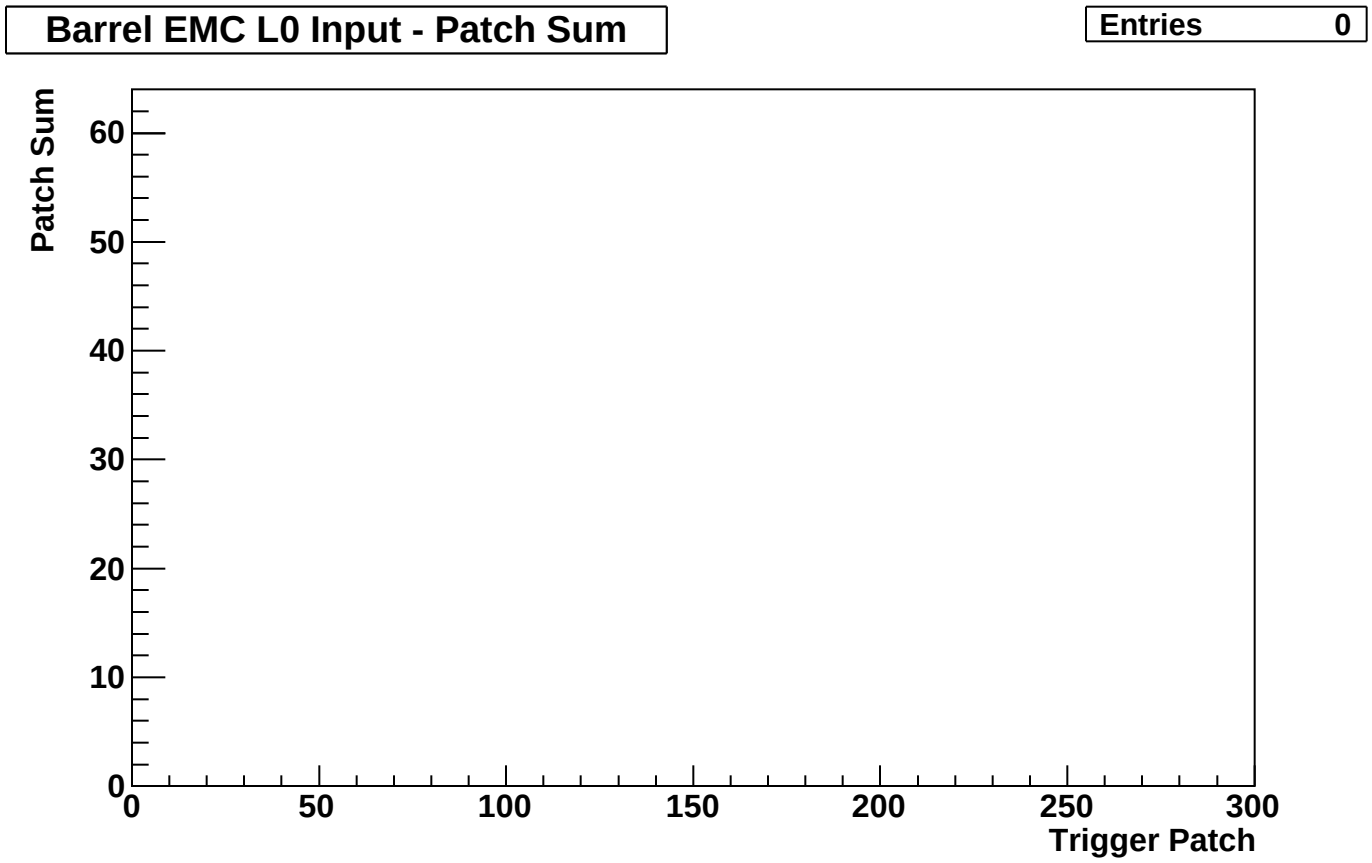

TCU bits
Entries 1.599958e+07
TCU bits
999974
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

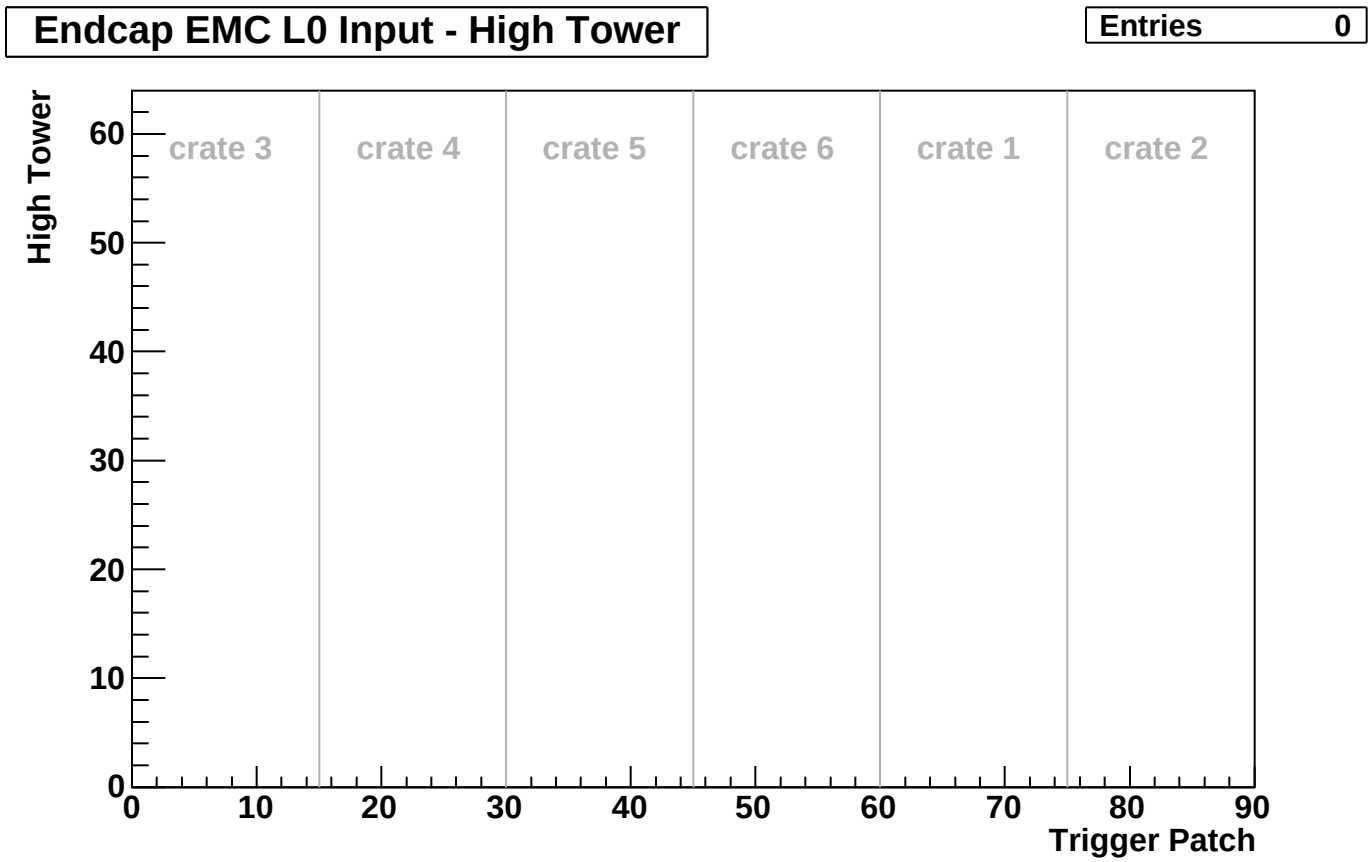

TCU bits
Entries 732010
TCU bits - Simulated
1169 149 340889 5 26967 362831
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

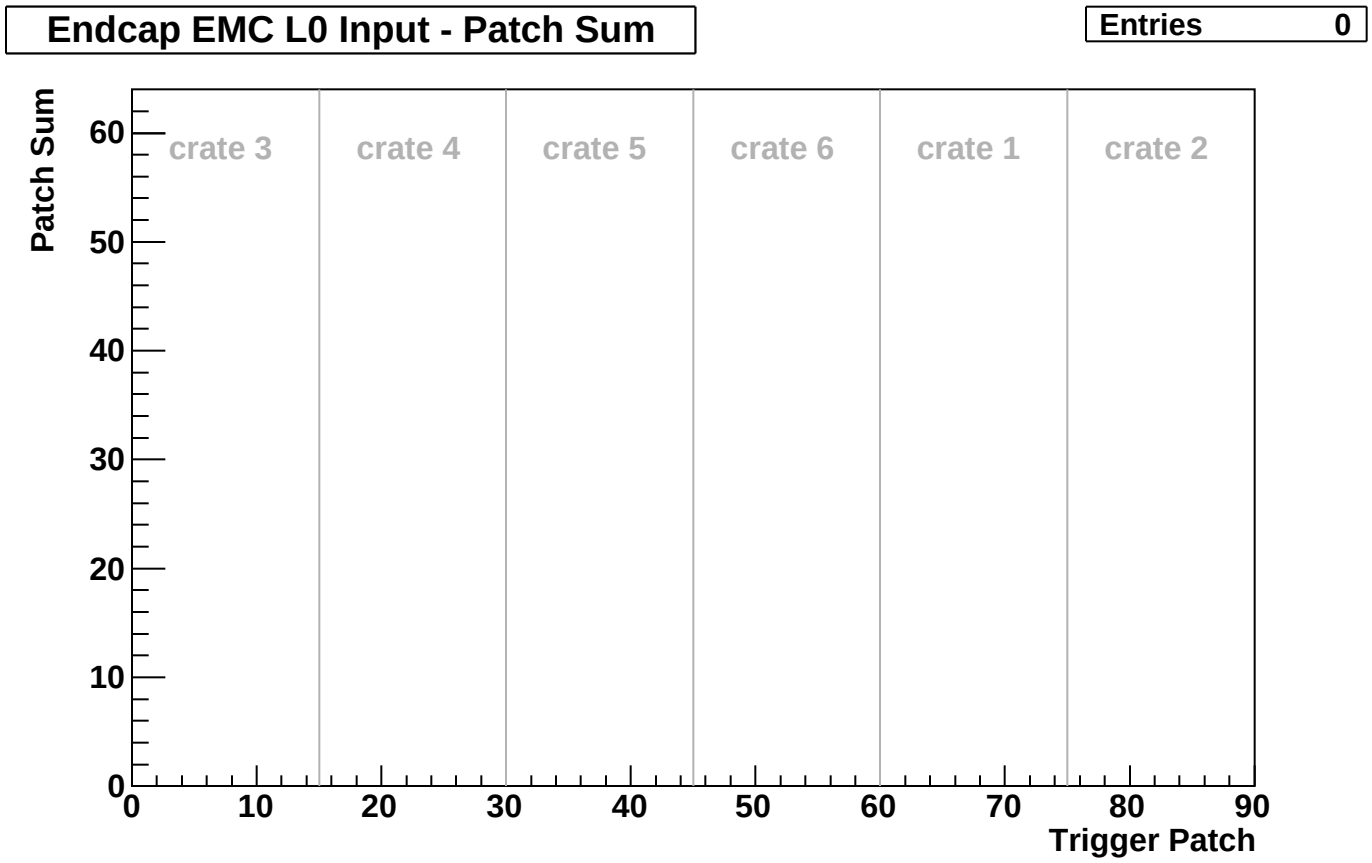

BunchId7Bit (BHT3)
Entries 14

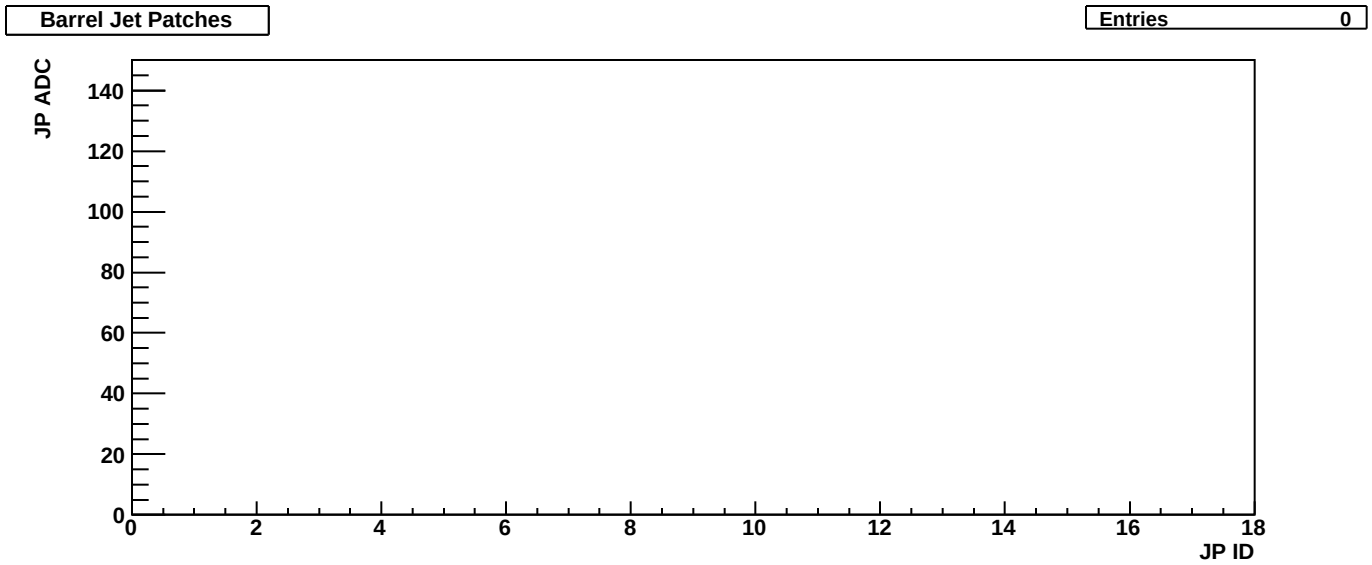

BunchId7Bit (all events)
Entries 999974

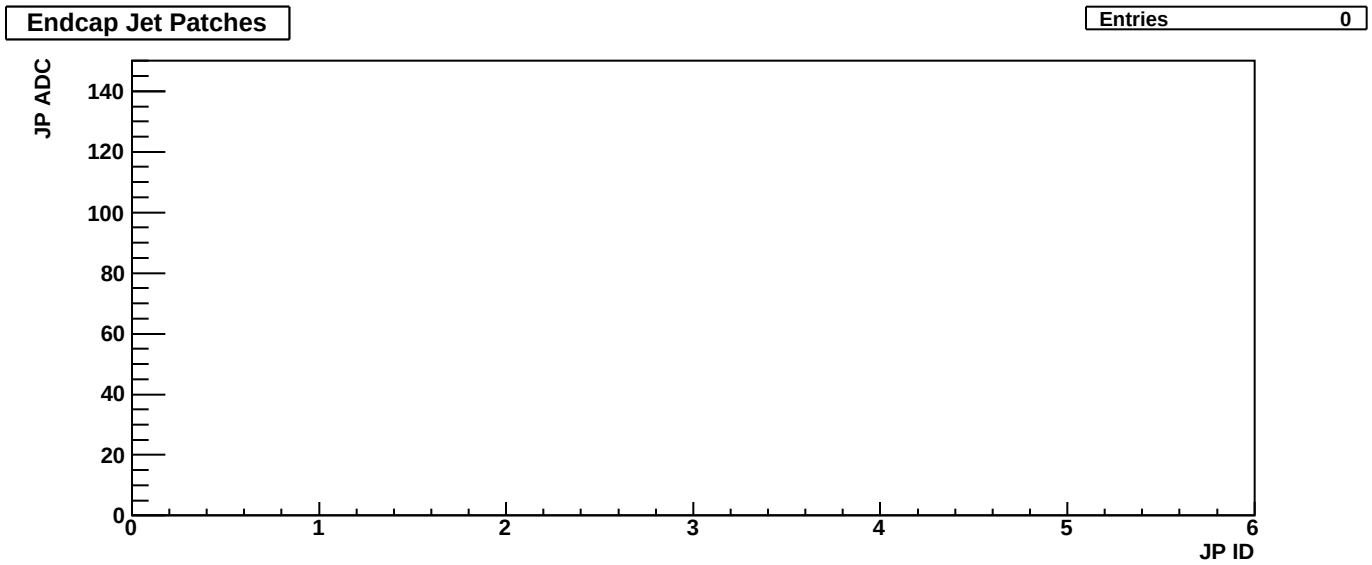

Barrel EMC L0 Input - High Tower
Entries 0
High Tower
0
10
20
30
40
50
60
0
50
100
150
200
250
300
Trigger Patch

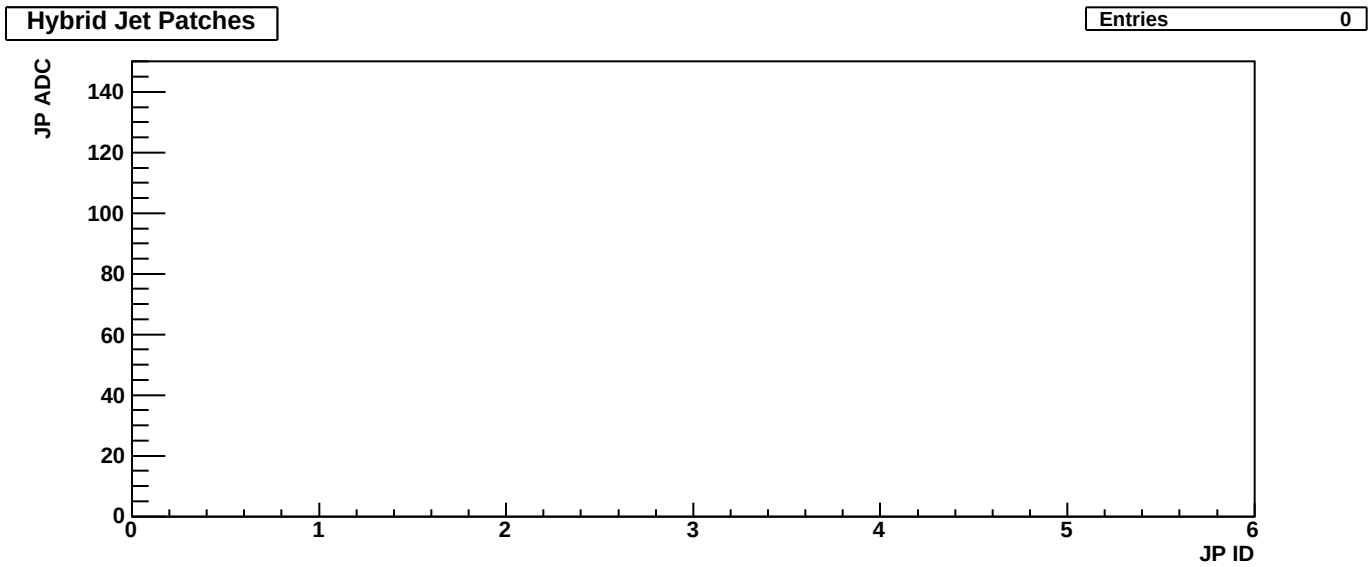

Barrel EMC L0 Input - Patch Sum
Entries 0
Patch Sum
0
10
20
30
40
50
60
0
50
100
150
200
250
300
Trigger Patch

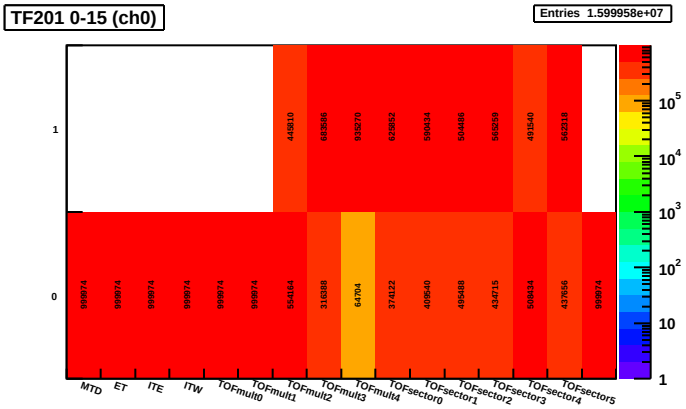

Endcap EMC L0 Input - High Tower
Entries 0
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
0
10
20
30
40
50
60
70
80
90
Trigger Patch

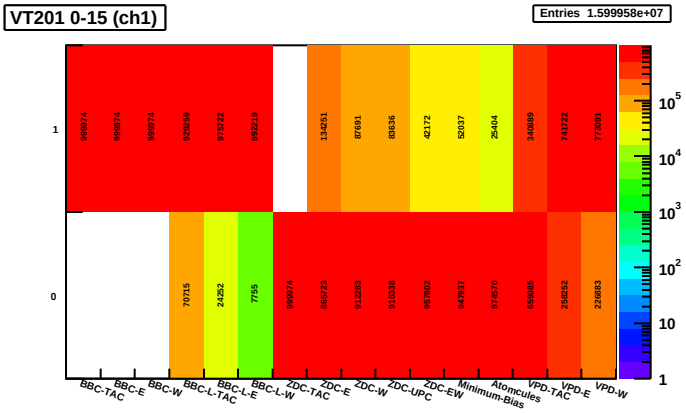

Endcap EMC L0 Input - Patch Sum
Entries 0
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
0
10
20
30
40
50
60
70
80
90
Trigger Patch

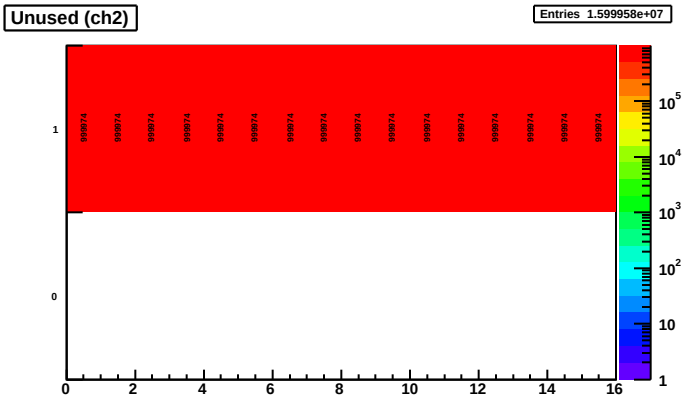

Barrel Jet Patches
Entries 0
JP ADC
0
20
40
60
80
100
120
140
0
2
4
6
8
10
12
14
16
18
JP ID

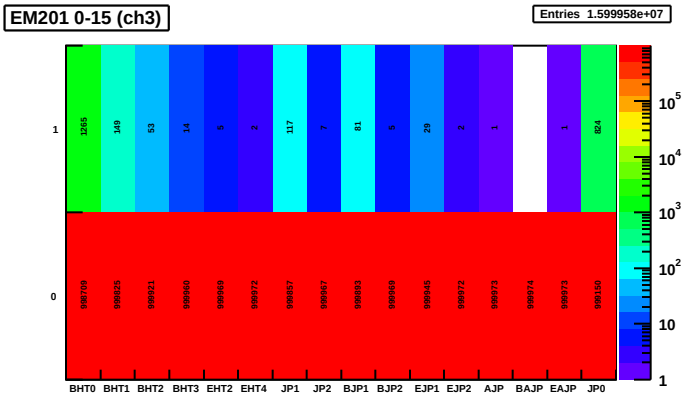

Endcap Jet Patches
Entries 0
JP ADC
0
20
40
60
80
100
120
140
0
1
2
3
4
5
6
JP ID

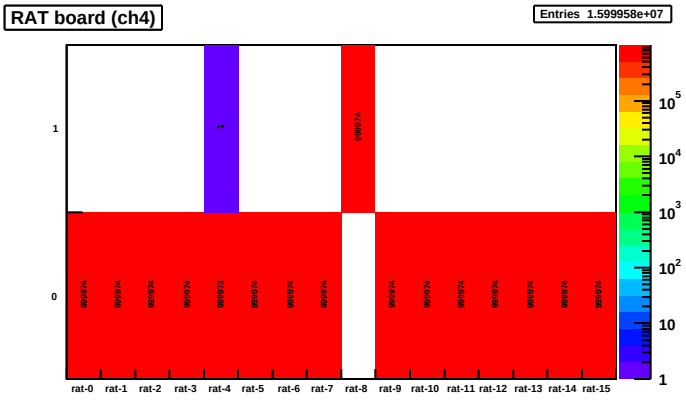

Hybrid Jet Patches
Entries 0
JP ADC
0
20
40
60
80
100
120
140
0
1
2
3
4
5
6
JP ID

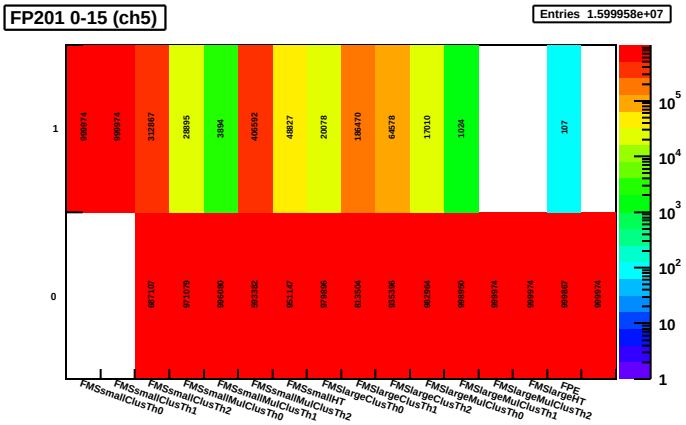

TF201 0-15 (ch0)
Entries 1.599958e+07
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

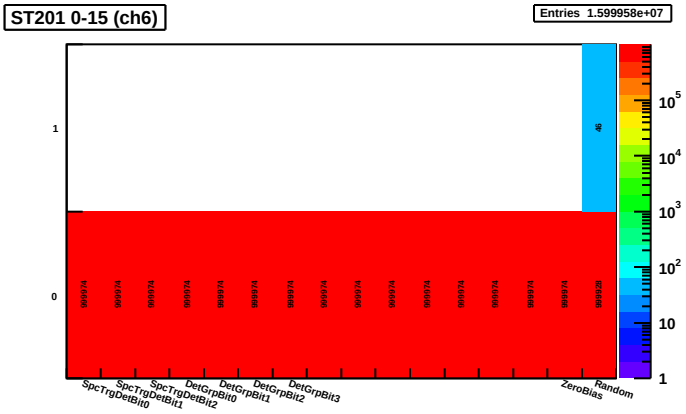

VT201 0-15 (ch1)
Entries 1.599958e+07
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

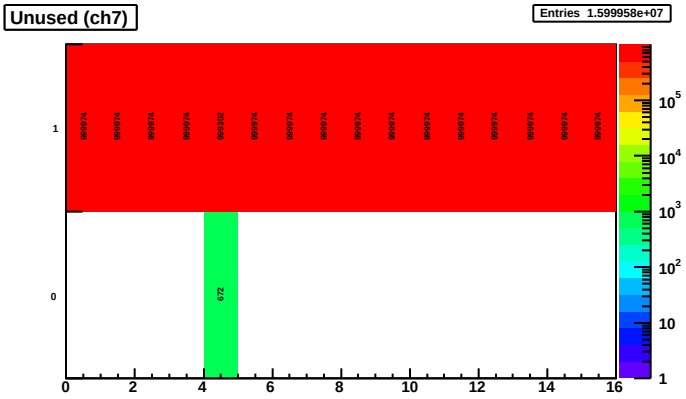

Unused (ch2)
Entries 1.599958e+07

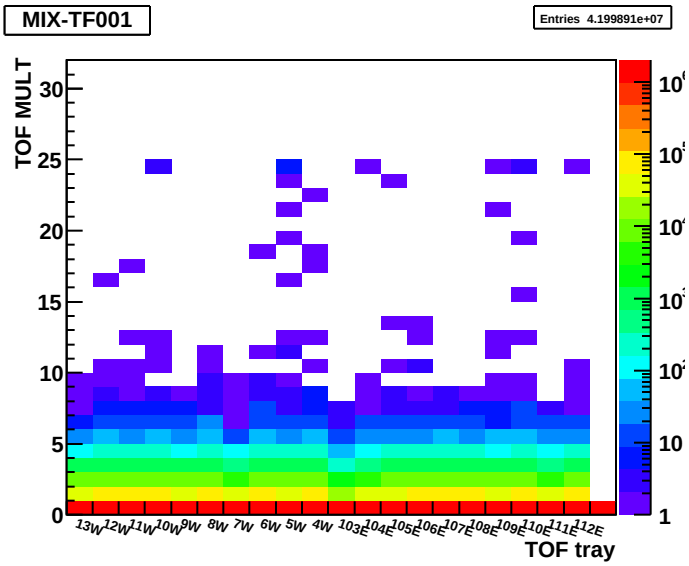

EM201 0-15 (ch3)
Entries 1.599958e+07
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

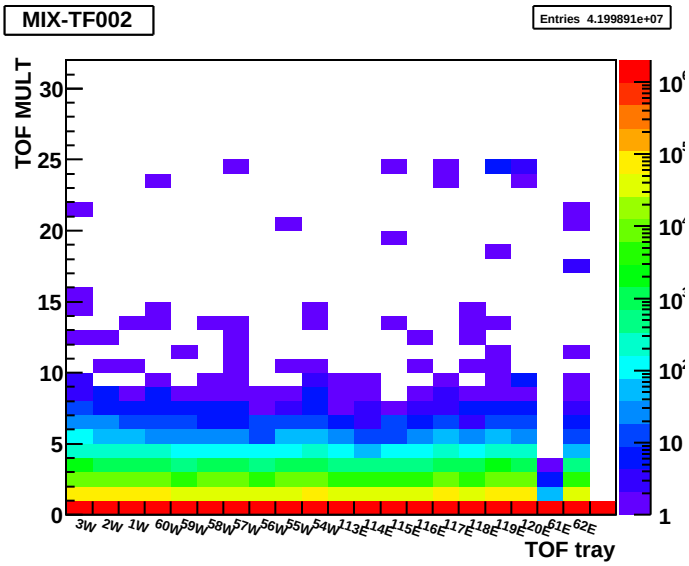

RAT board (ch4)
Entries 1.599958e+07
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

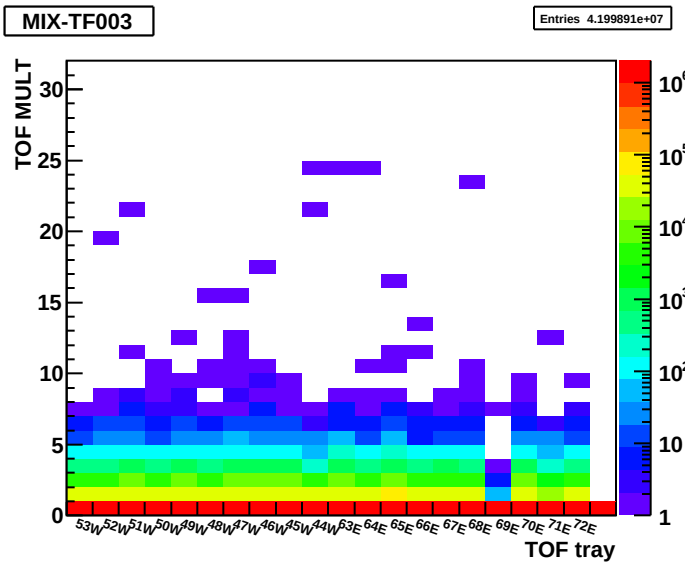

FP201 0-15 (ch5)
Entries 1.599958e+07
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

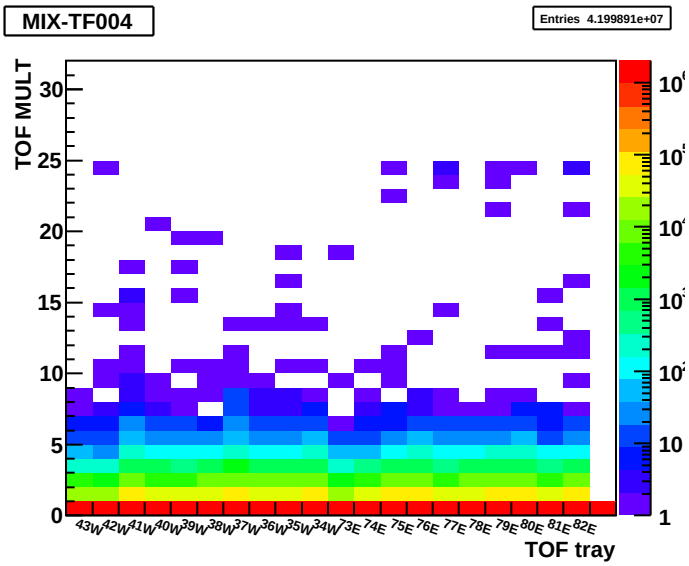

ST201 0-15 (ch6)
Entries 1.599958e+07
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetCrpBit0 DetCrpBit1 DetCrpBit2 DetCrpBit3 ZeroBias Random

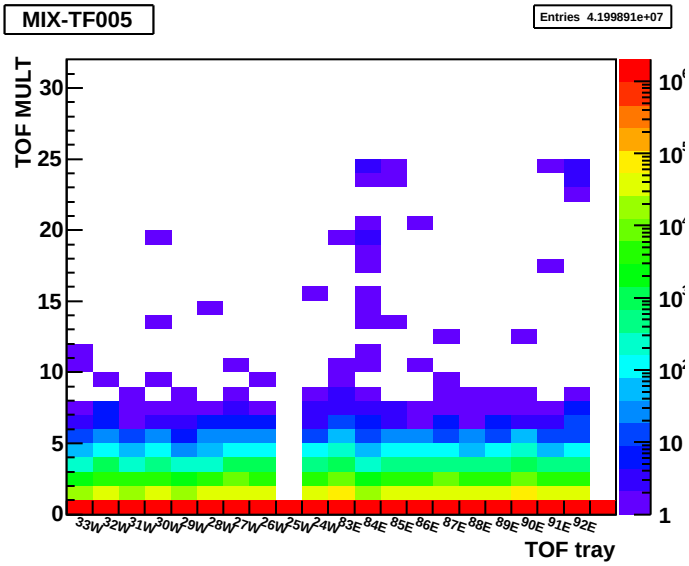

Unused (ch7)
Entries 1.599958e+07

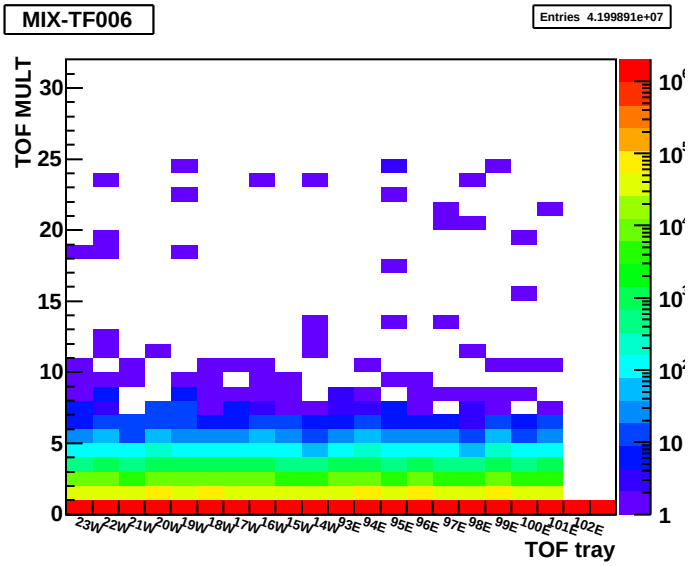

MIX-TF001
Entries 4.199891e+07
TOF MULT
TOF tray

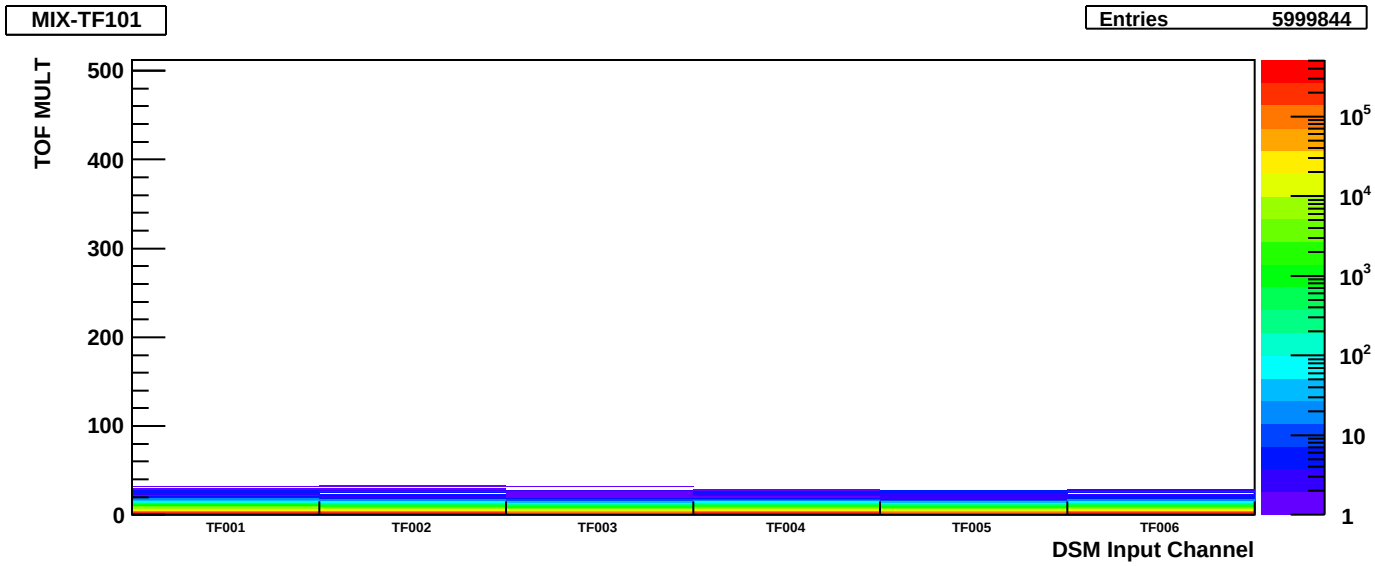

MIX-TF002
Entries 4.199891e+07
TOF MULT
TOF tray

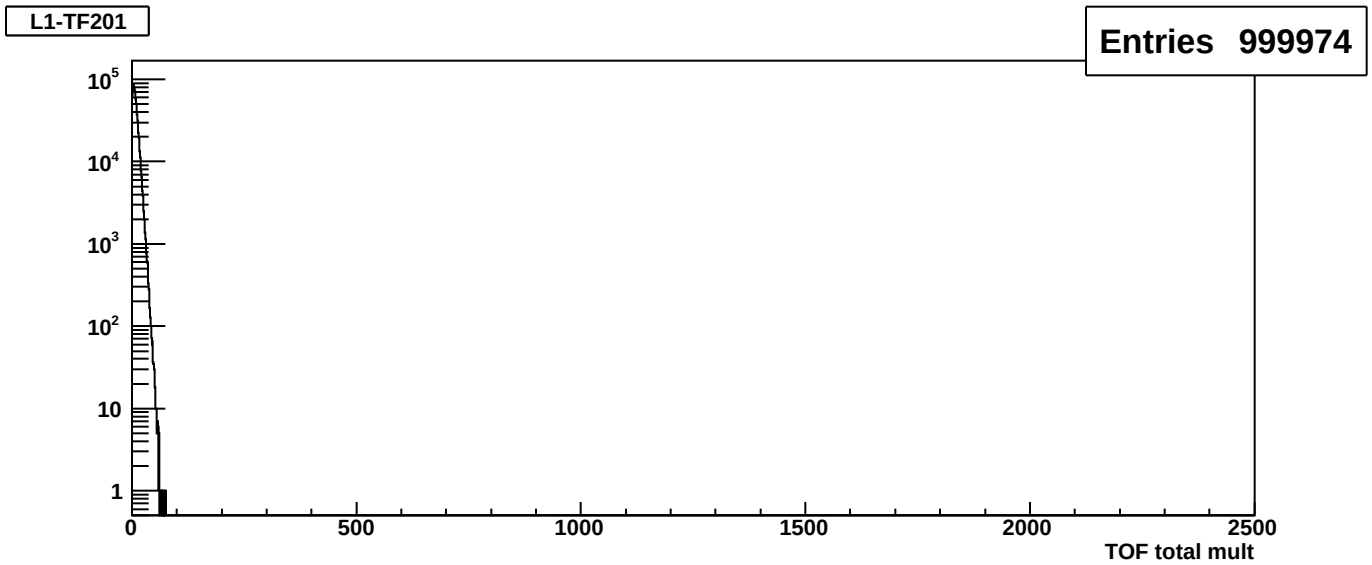

MIX-TF003
Entries 4.199891e+07
TOF MULT
TOF tray

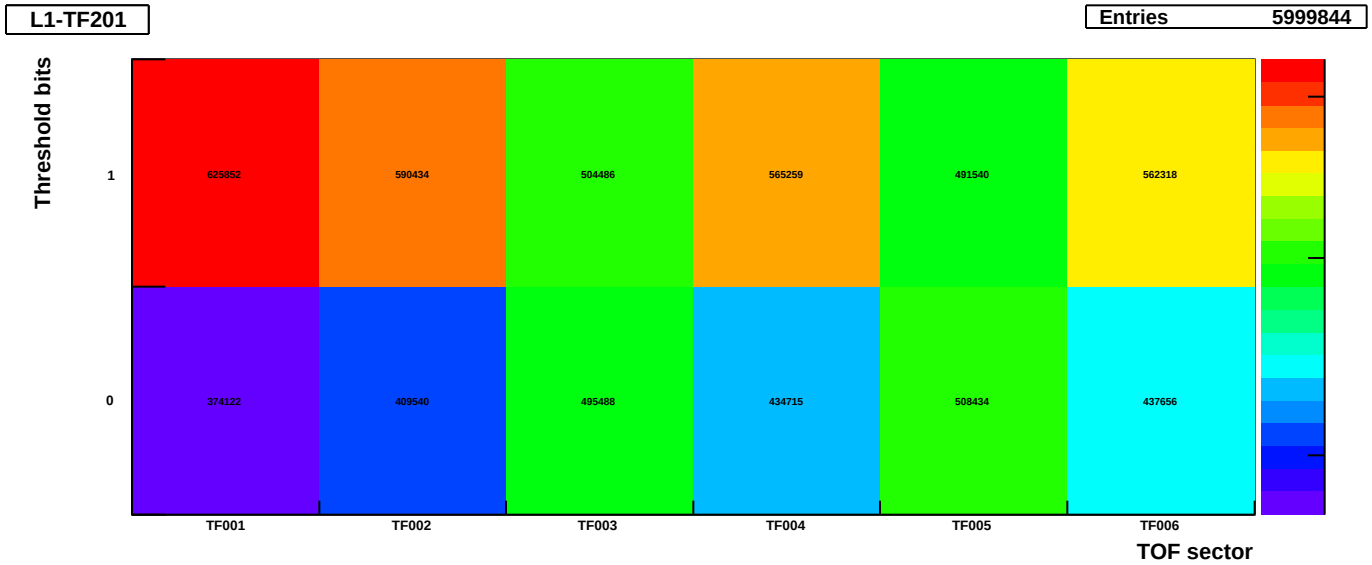

MIX-TF004
Entries 4.199891e+07
TOF MULT
TOF tray

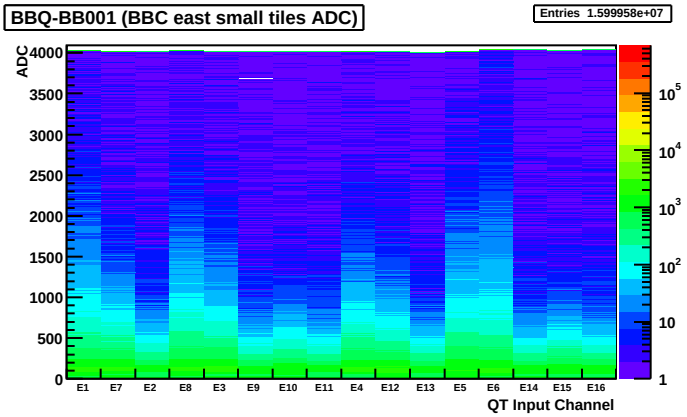

MIX-TF005
Entries 4.199891e+07
TOF MULT
TOF tray

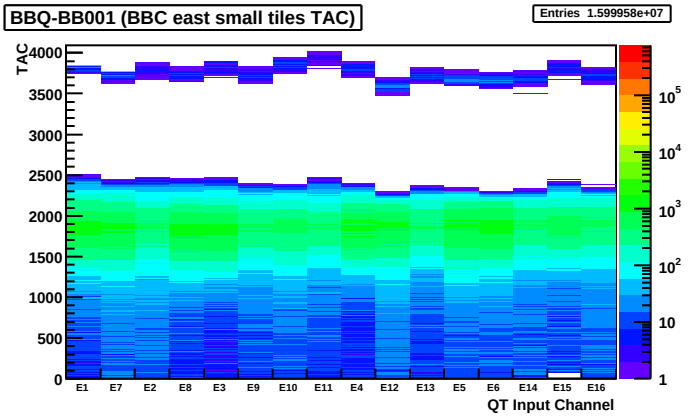

MIX-TF006
Entries 4.199891e+07
TOF MULT
TOF tray

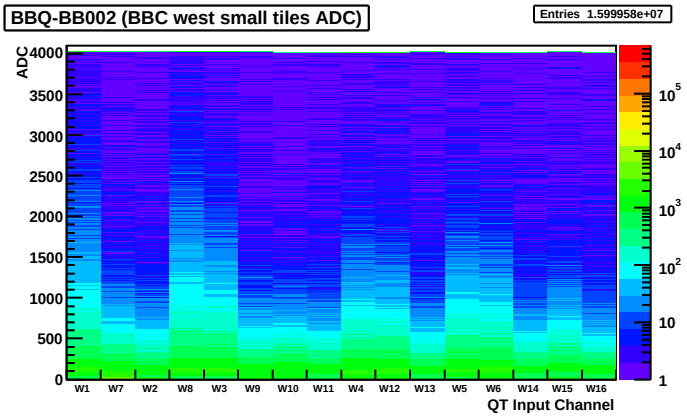

MIX-TF101
Entries 5999844
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

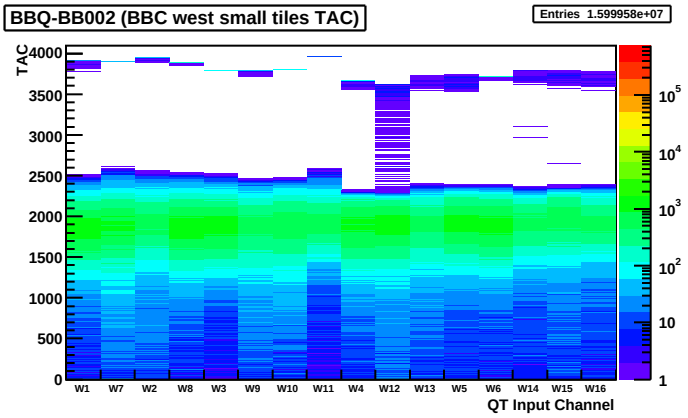

L1-TF201
Entries 999974
10^5
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

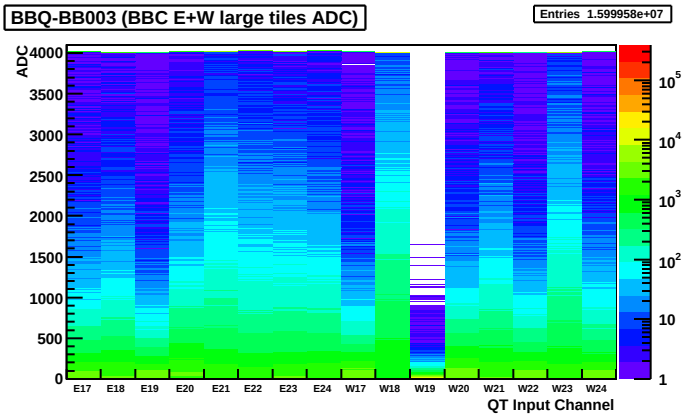

L1-TF201
Entries 5999844
Threshold bits
1
0
625852
590434
504486
565259
491540
562318
374122
409540
495488
434715
508434
437656
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

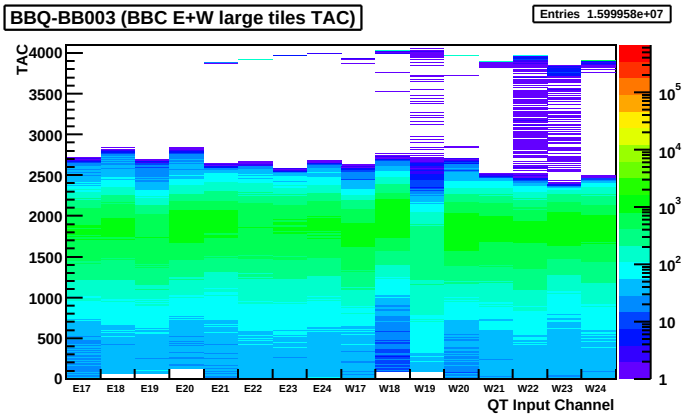

BBQ-BB001 (BBC east small tiles ADC)
Entries 1.599958e+07
ADC
QT Input Channel

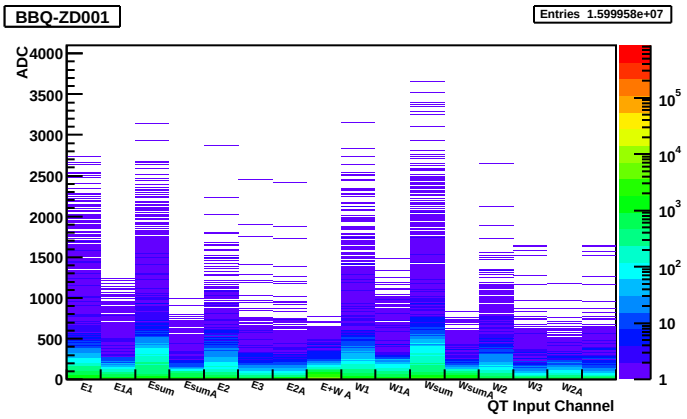

BBQ-BB001 (BBC east small tiles TAC)
Entries 1.599958e+07
TAC
QT Input Channel

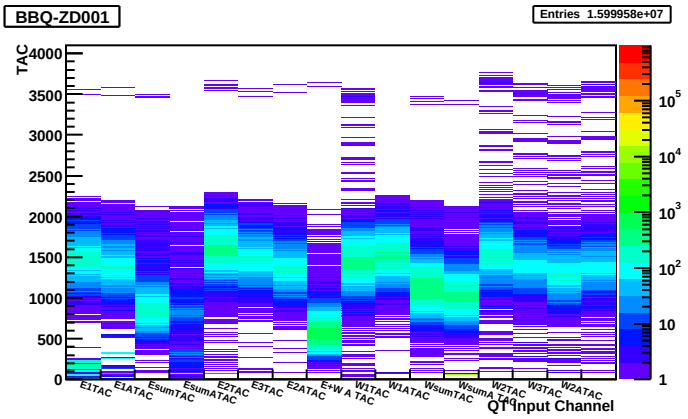

BBQ-BB002 (BBC west small tiles ADC)
Entries 1.599958e+07
ADC
QT Input Channel

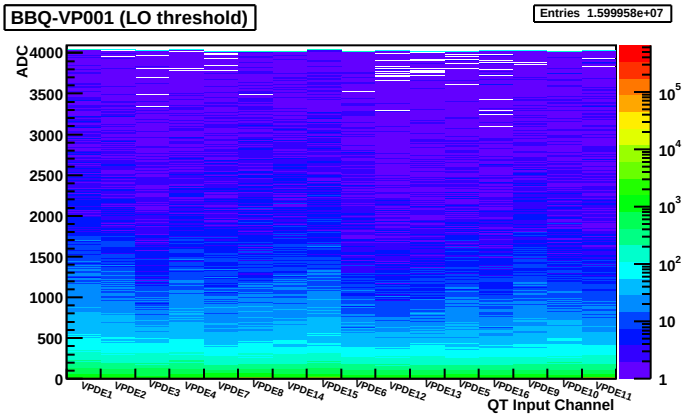

BBQ-BB002 (BBC west small tiles TAC)
Entries 1.599958e+07
TAC
QT Input Channel

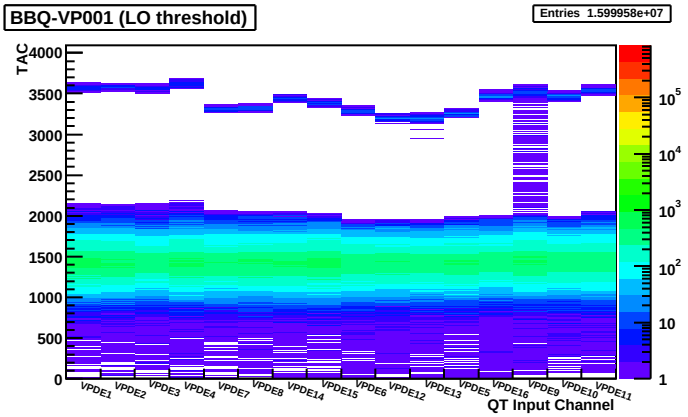

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1.599958e+07
ADC
QT Input Channel

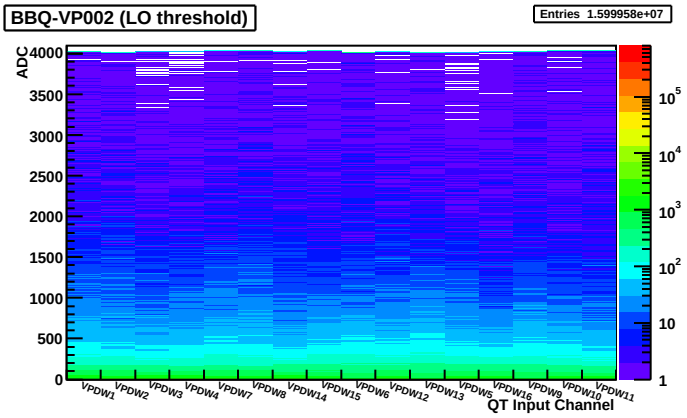

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1.599958e+07
TAC
QT Input Channel

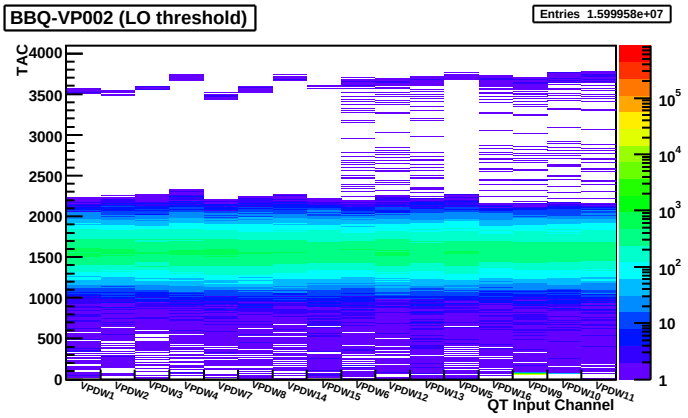

BBQ-ZD001
Entries 1.599958e+07
ADC
QT Input Channel

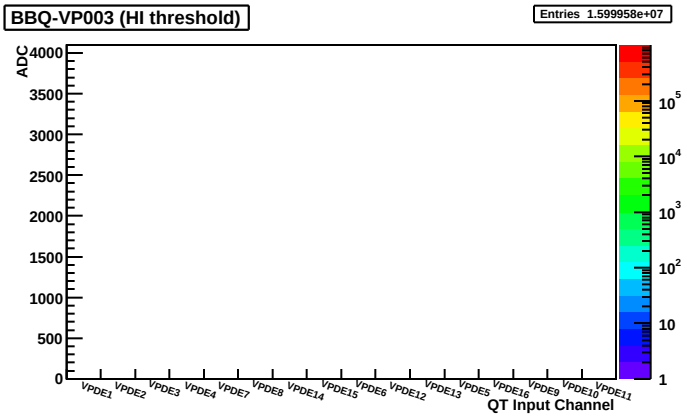

BBQ-ZD001
Entries 1.599958e+07
TAC
QT Input Channel

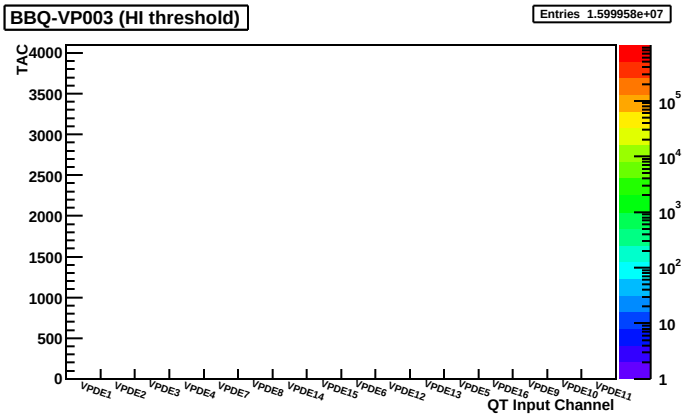

BBQ-VP001 (LO threshold)
Entries 1.599958e+07
ADC
QT Input Channel

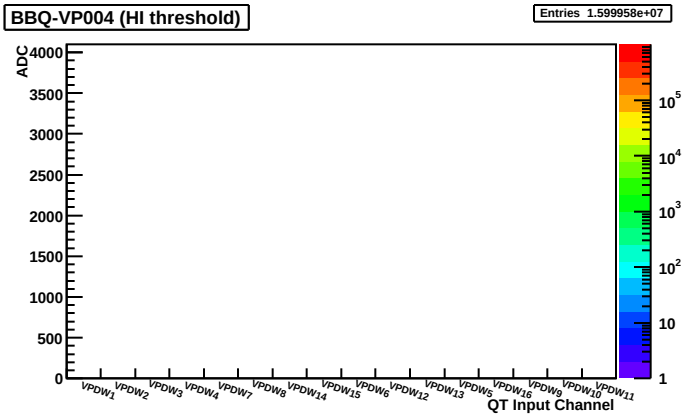

BBQ-VP001 (LO threshold)
Entries 1.599958e+07
TAC
QT Input Channel

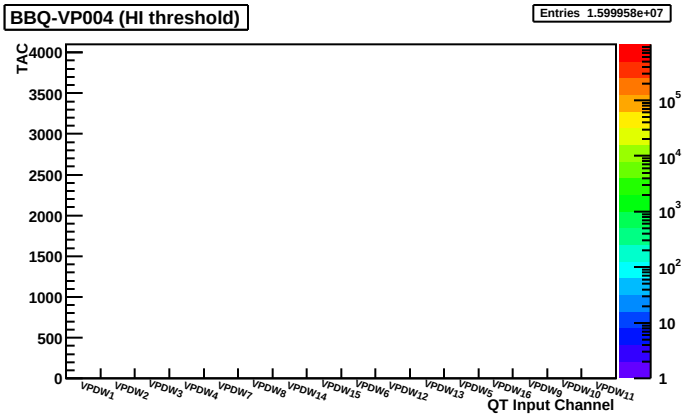

BBQ-VP002 (LO threshold)
Entries 1.599958e+07
ADC
QT Input Channel

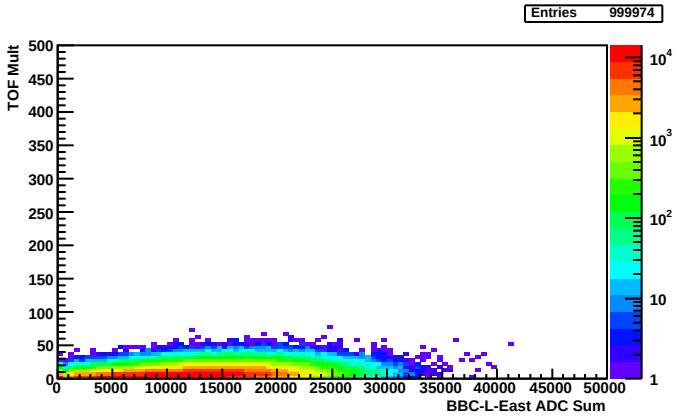

BBQ-VP002 (LO threshold)
Entries 1.599958e+07
TAC
QT Input Channel

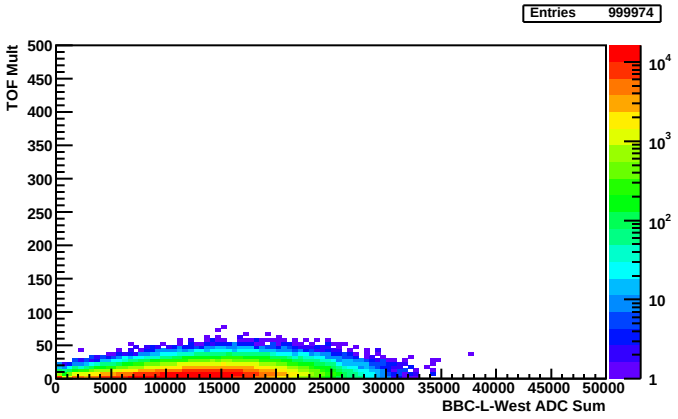

BBQ-VP003 (HI threshold)
Entries 1.599958e+07
ADC
QT Input Channel

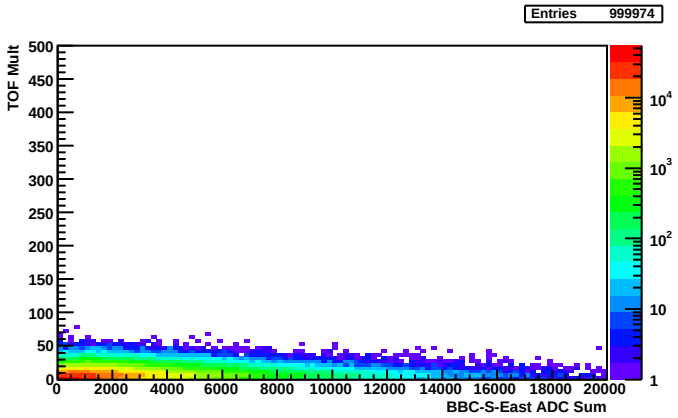

BBQ-VP003 (HI threshold)
Entries 1.599958e+07
TAC
QT Input Channel

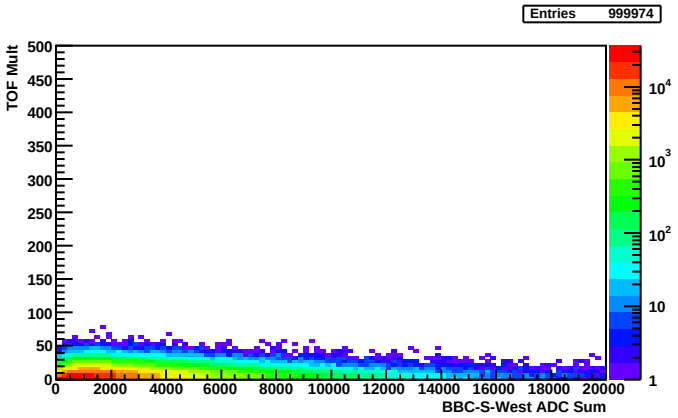

BBQ-VP004 (HI threshold)
Entries 1.599958e+07
ADC
QT Input Channel

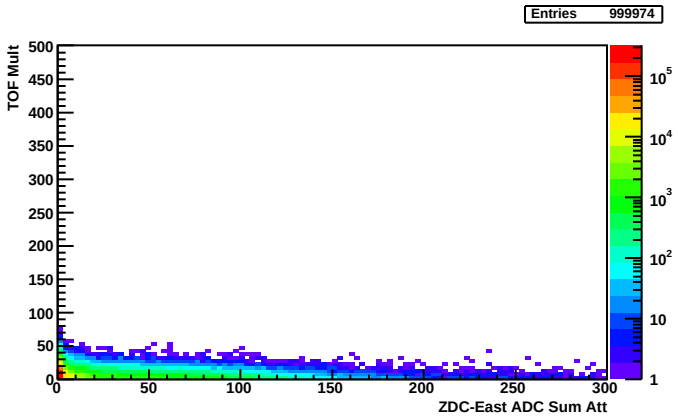

BBQ-VP004 (HI threshold)
Entries 1.599958e+07
TAC
QT Input Channel

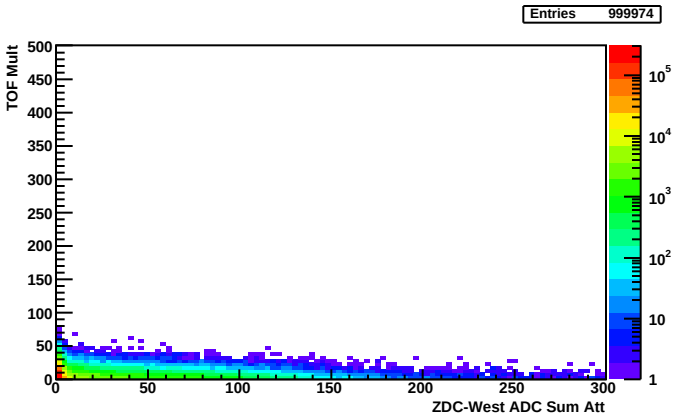

Entries 999974
TOF Mult
BBC-L-East ADC Sum

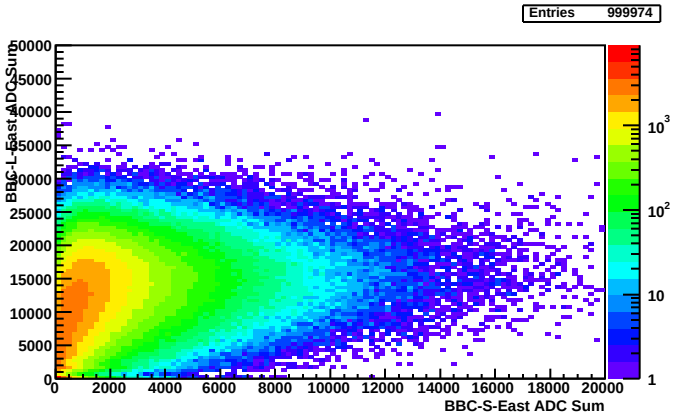

Entries 999974
TOF Mult
BBC-L-West ADC Sum

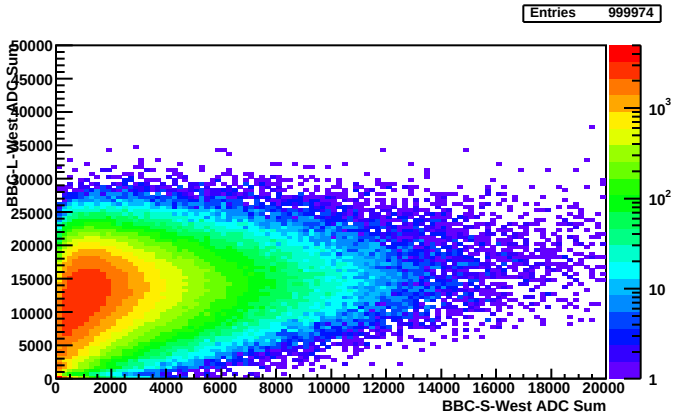

Entries 999974
TOF Mult
BBC-S-East ADC Sum


Entries 999974
TOF Mult
BBC-S-West ADC Sum


Entries 999974
TOF Mult
ZDC-East ADC Sum Att


Entries 999974
TOF Mult
ZDC-West ADC Sum Att


Entries 999974
BBC-L-East ADC Sum
BBC-S-East ADC Sum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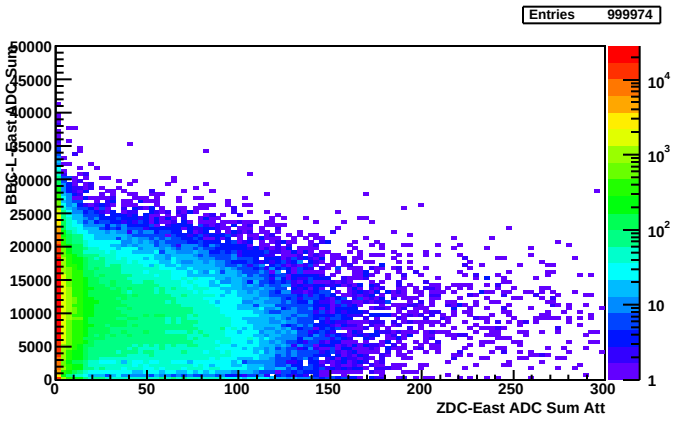
BBC-L-West ADC Sum
BBC-S-West ADC Sum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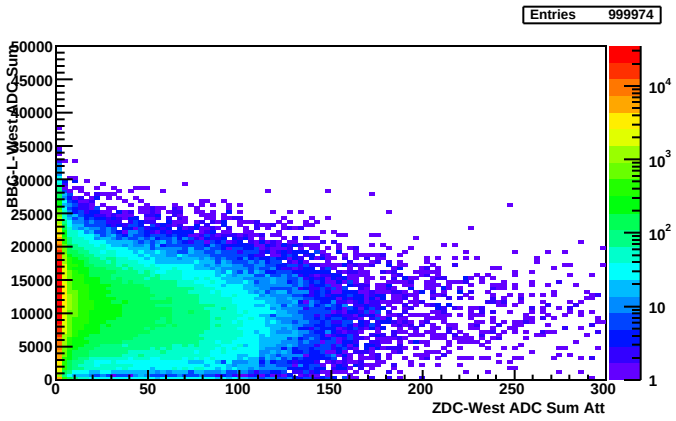
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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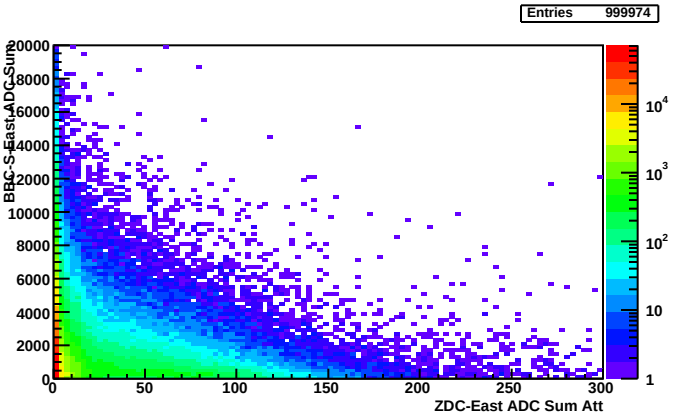
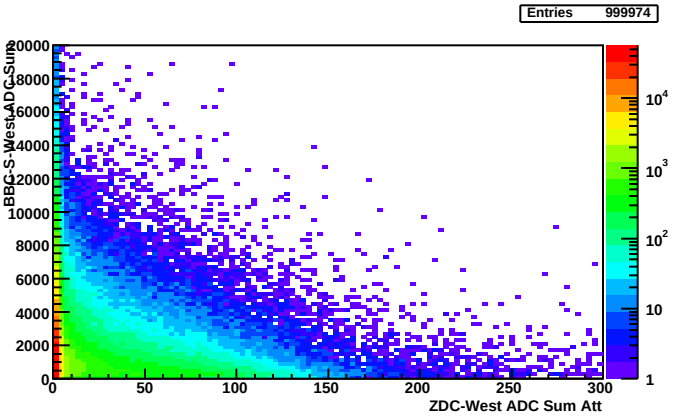
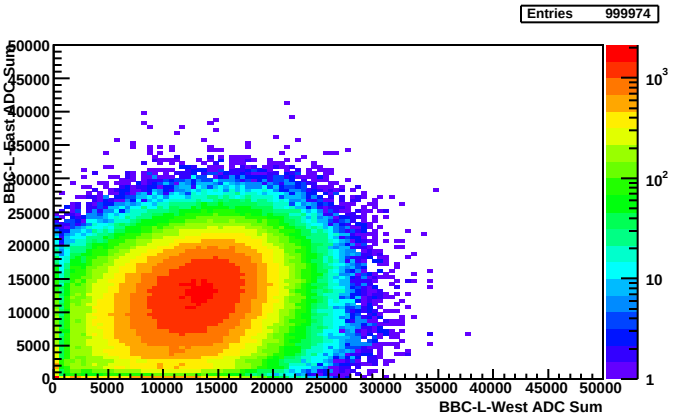
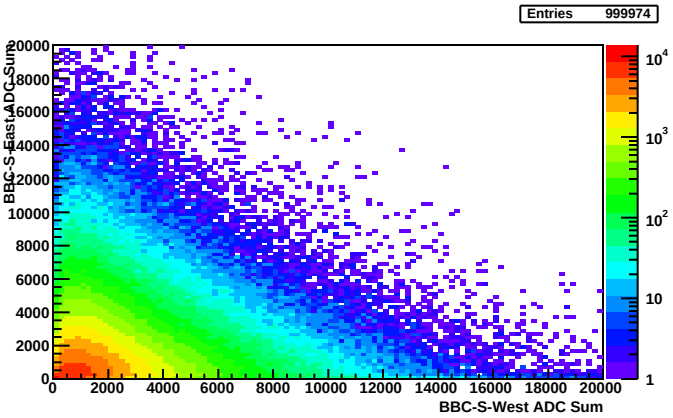
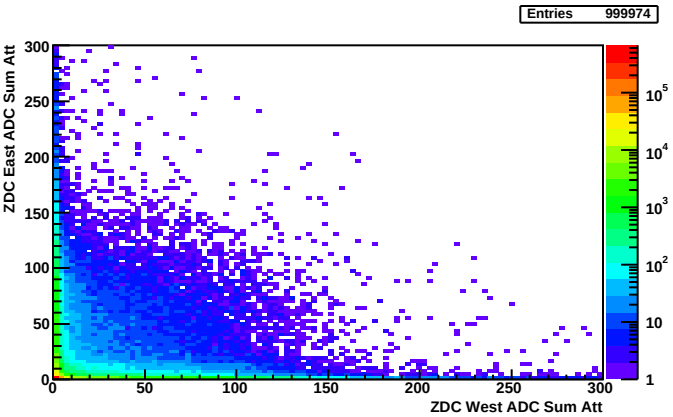
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

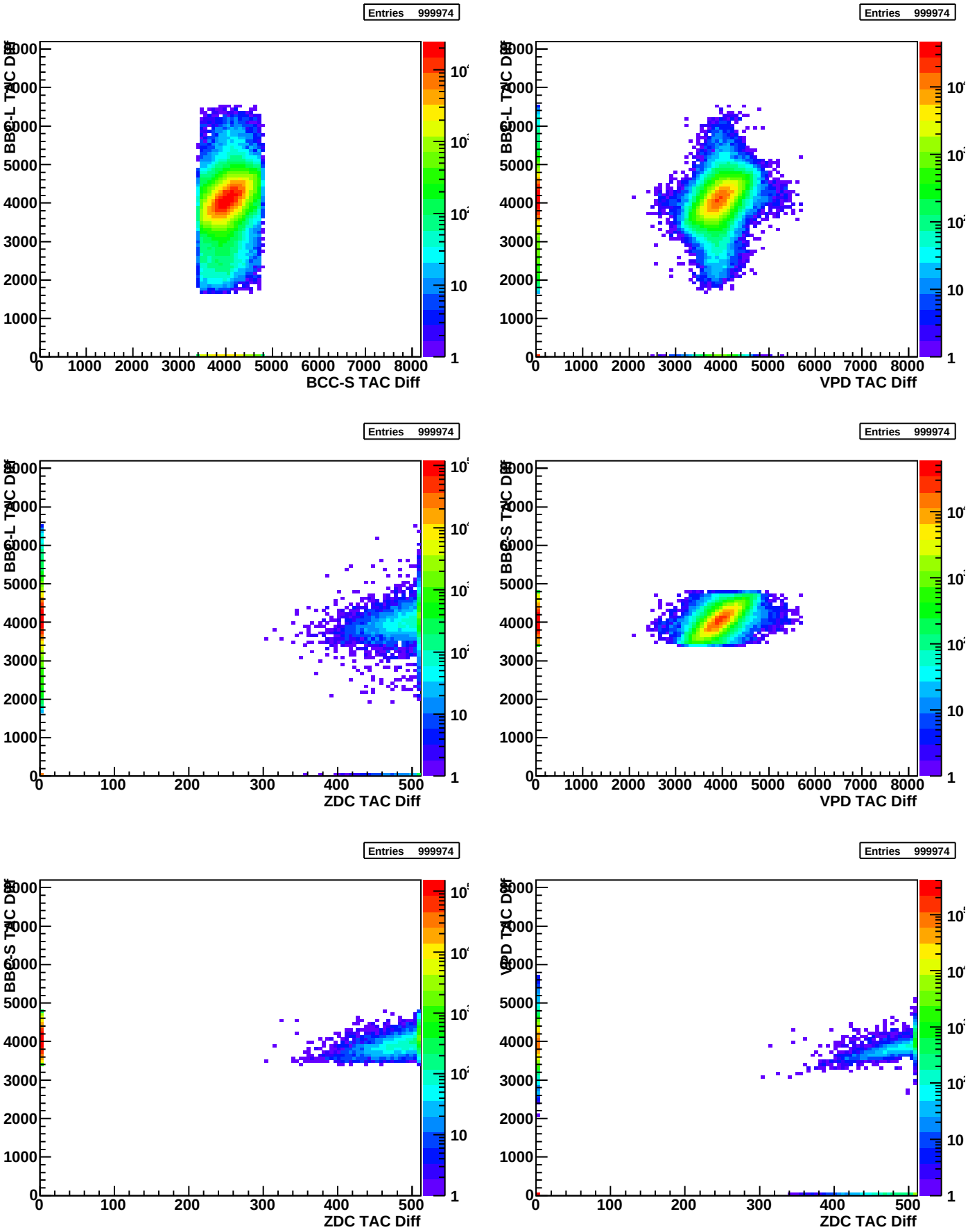

Entries 999974
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

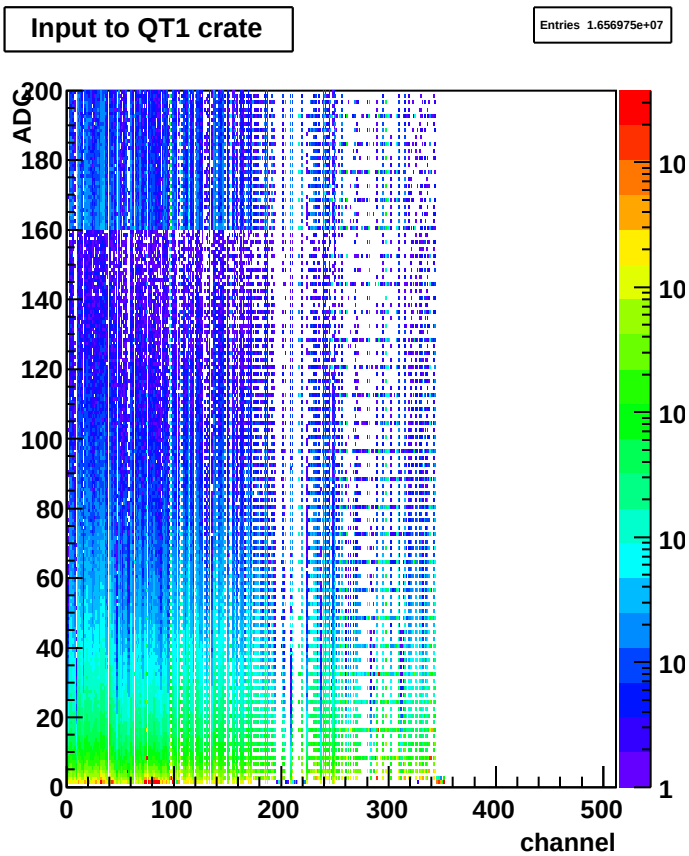

Entries 999974
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

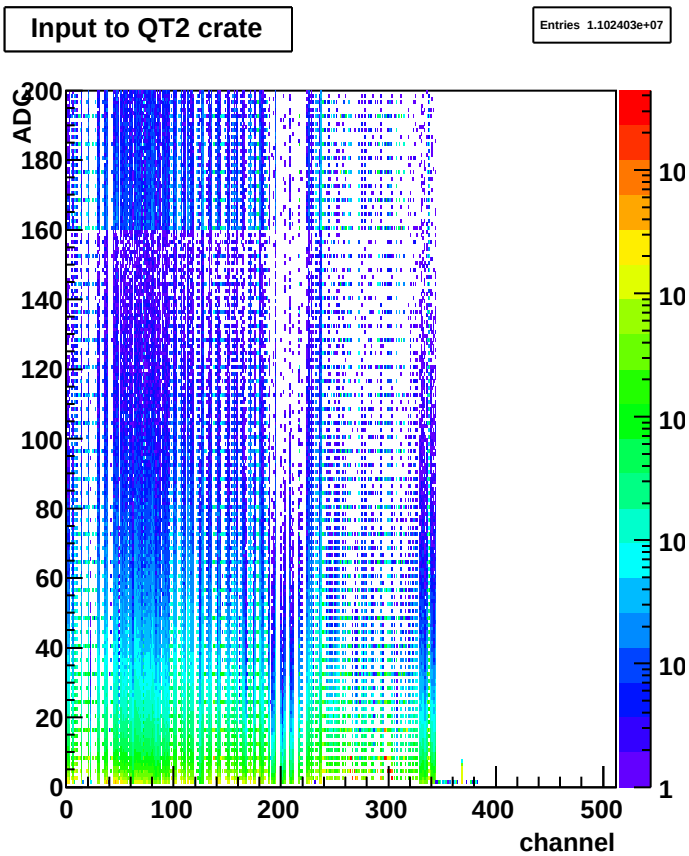

Entries 999974
BBC-L-East ADC Sum
BBC-L-West ADC Sum

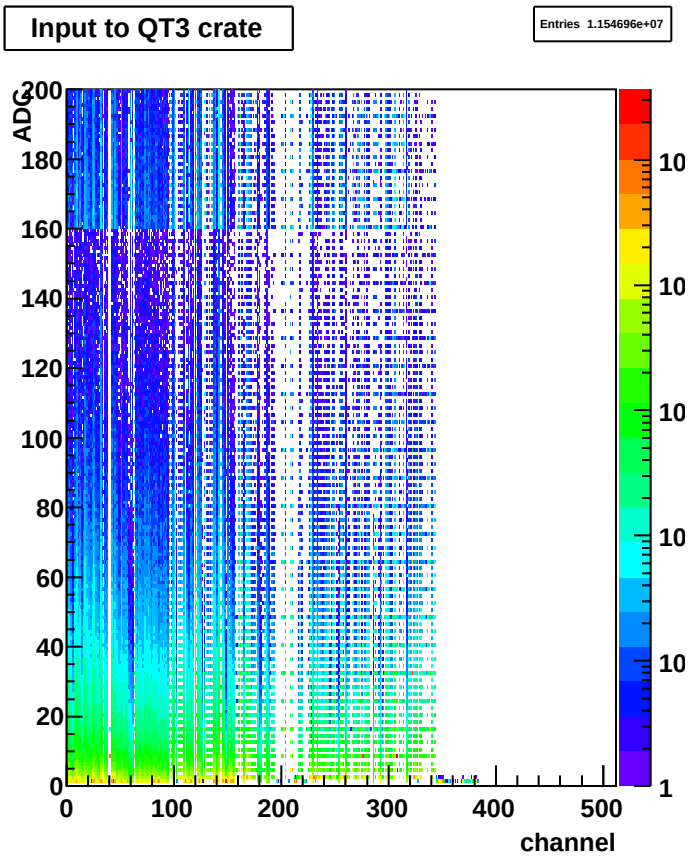

Entries 999974
BBC-S-East ADC Sum
BBC-S-West ADC Sum

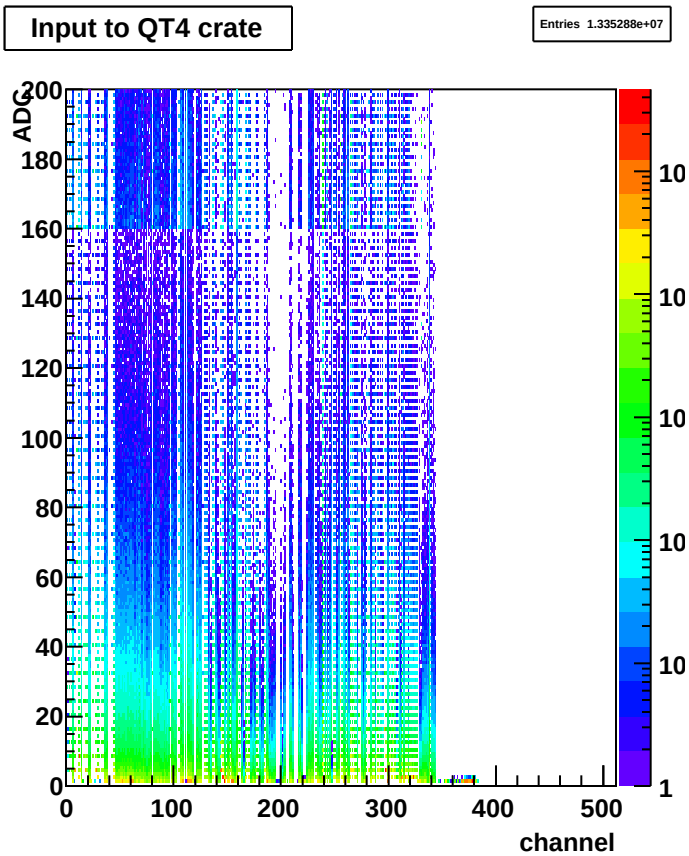

Entries 999974
ZDC East ADC Sum Att
ZDC West ADC Sum Att

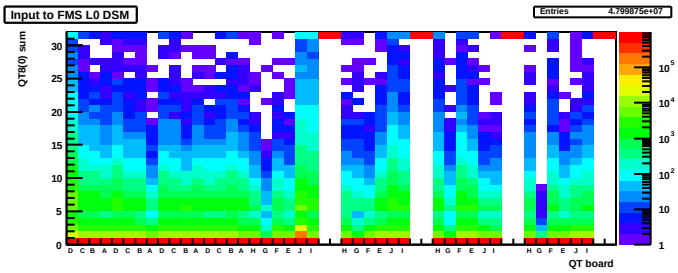

Entries 999974
BBC-L TAC Diff
BCC-S TAC Diff
Entries 999974
BBC-L TAC Diff
VPD TAC Diff
Entries 999974
BBC-L TAC Diff
ZDC TAC Diff
Entries 999974
BBC-S TAC Diff
VPD TAC Diff
Entries 999974
BBC-S TAC Diff
ZDC TAC Diff
Entries 999974
VPD TAC Diff
ZDC TAC Diff

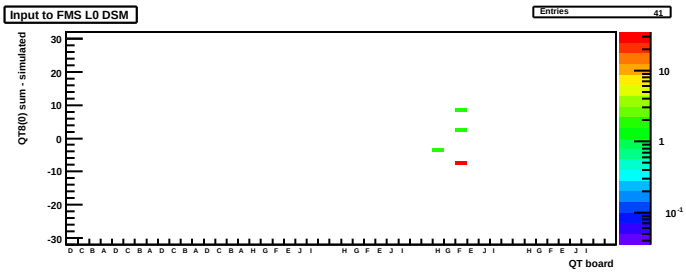

Input to QT1 crate
Entries 1.656975e+07
ADC
channel

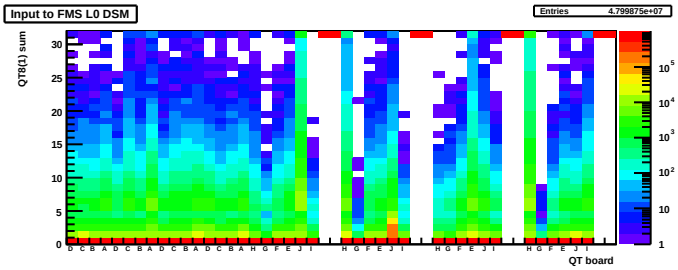

Input to QT2 crate
Entries 1.102403e+07
ADC
channel

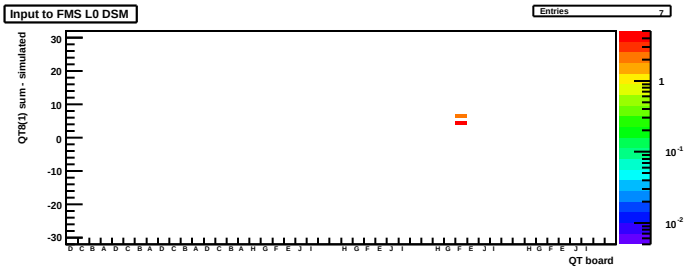

Input to QT3 crate
Entries 1.154696e+07
ADC
channel

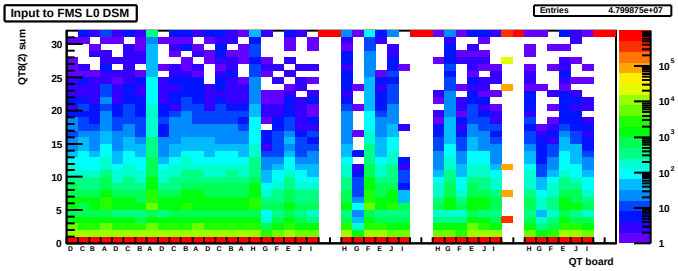

Input to QT4 crate
Entries 1.335288e+07
ADC
channel

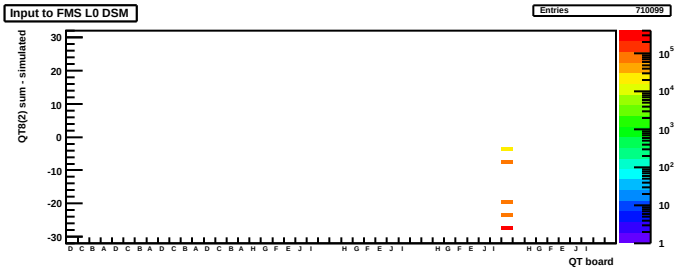

Input to FMS L0 DSM
Entries 4.799875e+07
QT8(0) sum
QT board

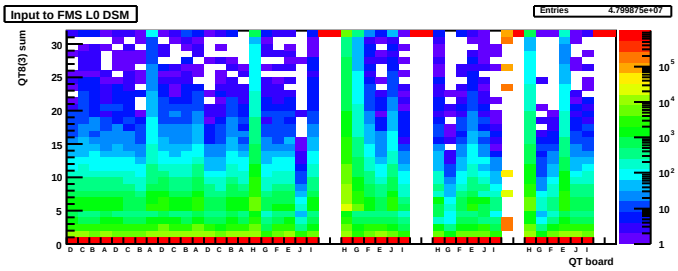

Input to FMS L0 DSM
Entries 41
QT8(0) sum - simulated
QT board

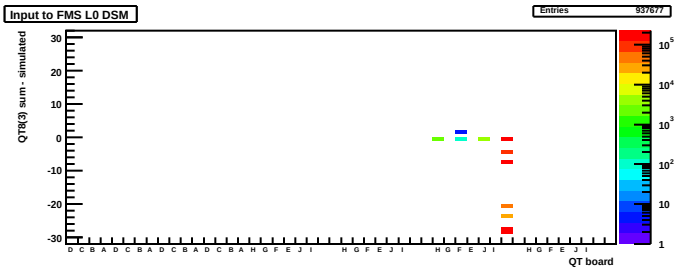

Input to FMS L0 DSM
Entries 4.799875e+07
QT8(1) sum
QT board

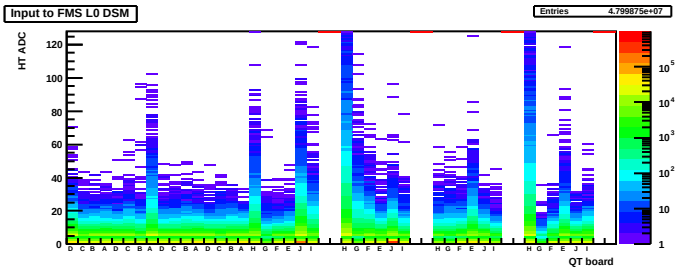

Input to FMS L0 DSM
Entries 7
QT8(1) sum - simulated
QT board

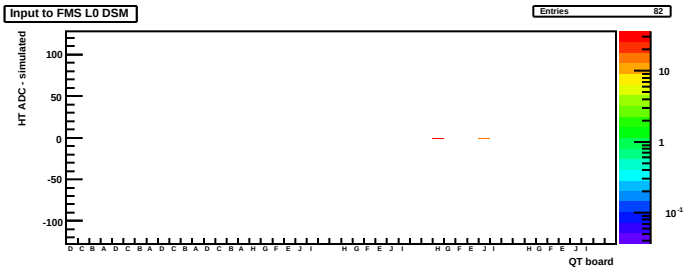

Input to FMS L0 DSM
Entries 4.799875e+07
QT8(2) sum
QT board

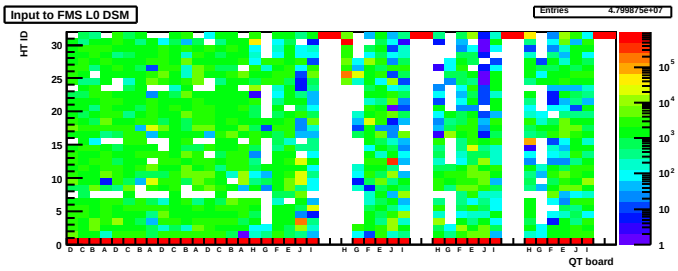

Input to FMS L0 DSM
Entries 710099
QT8(2) sum - simulated
QT board

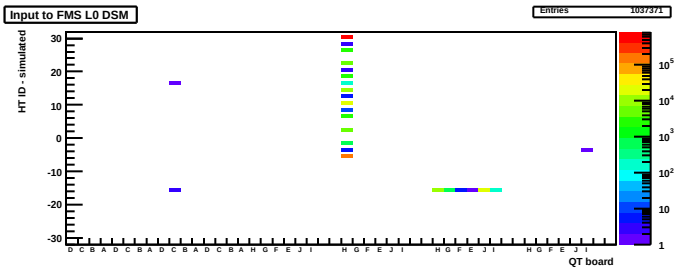

Input to FMS L0 DSM
Entries 4.799875e+07
QT8(3) sum
QT board

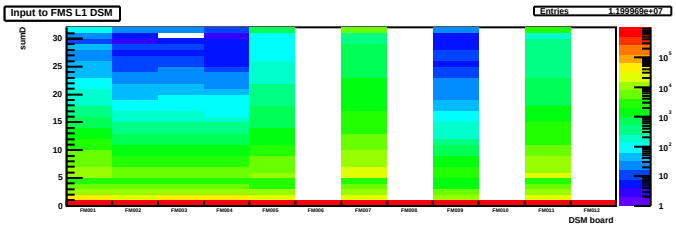

Input to FMS L0 DSM
Entries 937677
QT8(3) sum - simulated
QT board

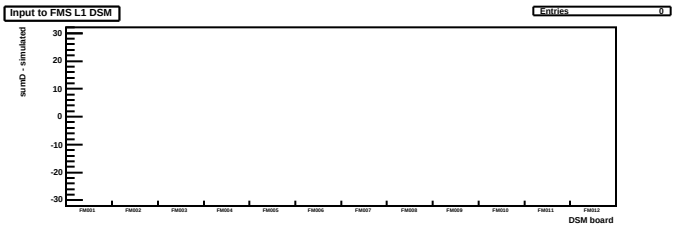

Input to FMS L0 DSM
Entries 4.799875e+07
HT ADC
QT board

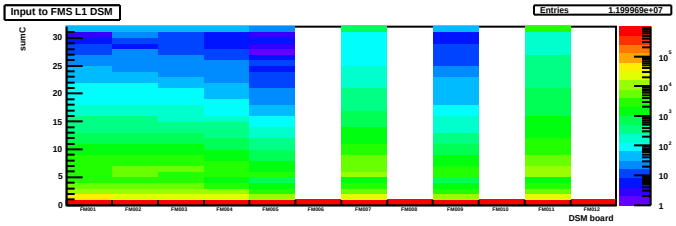

Input to FMS L0 DSM
Entries 82
HT ADC - simulated
QT board

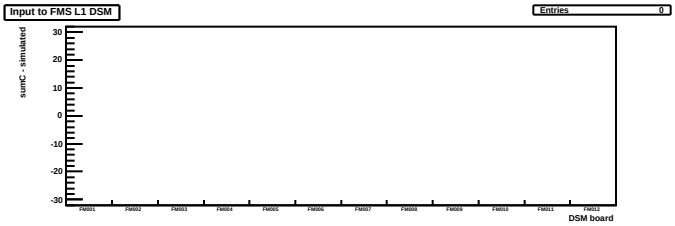

Input to FMS L0 DSM
Entries 4.799875e+07
HT ID
QT board

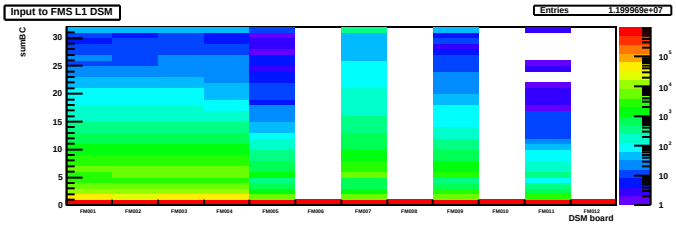

Input to FMS L0 DSM
Entries 1037371
HT ID - simulated
QT board

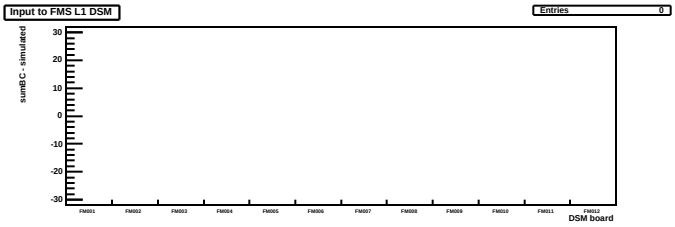

Input to FMS L1 DSM
Entries 1.199969e+07
sumD
DSM board

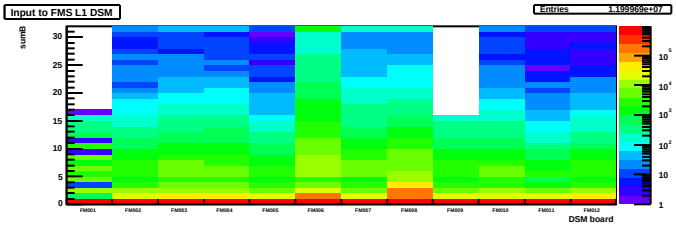

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

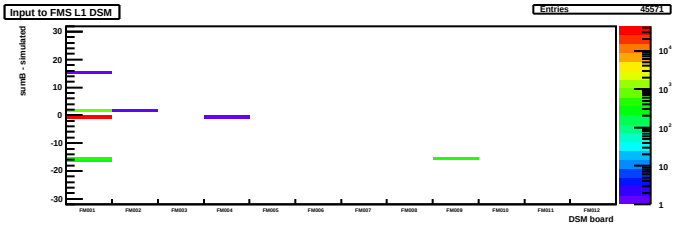

Input to FMS L1 DSM
Entries 1.199969e+07
sumC
DSM board

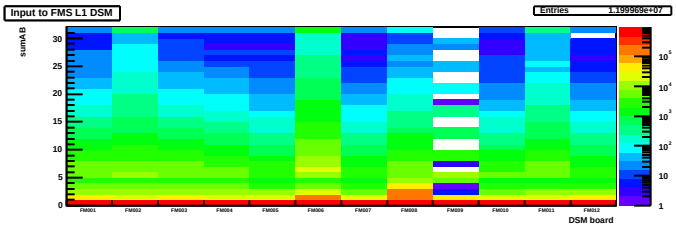

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

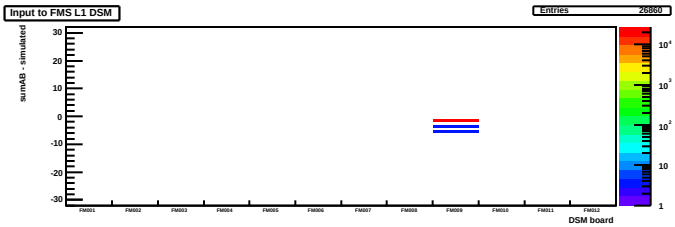

Input to FMS L1 DSM
Entries 1.199969e+07
sumBC
DSM board

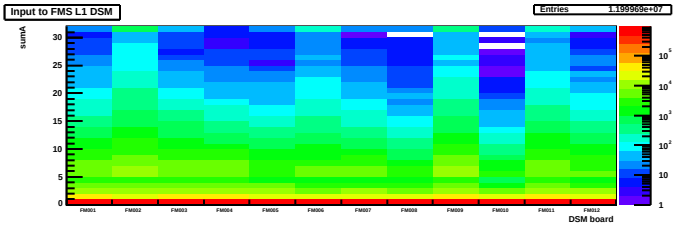

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

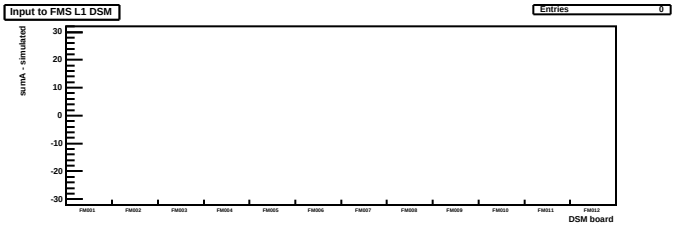

Input to FMS L1 DSM
Entries 1.199969e+07
sumB
DSM board

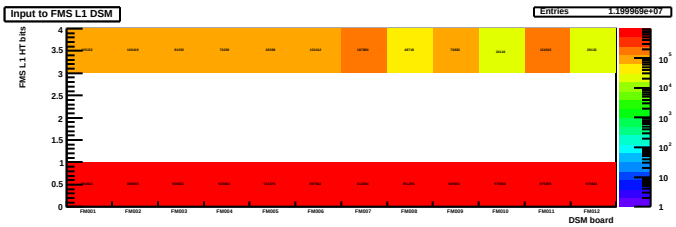

Input to FMS L1 DSM
Entries 45571
sumB - simulated
DSM board

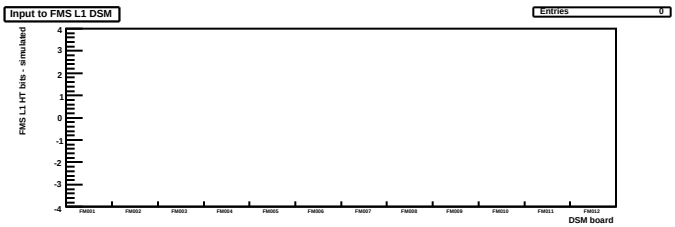

Input to FMS L1 DSM
Entries 1.199969e+07
sumAB
DSM board

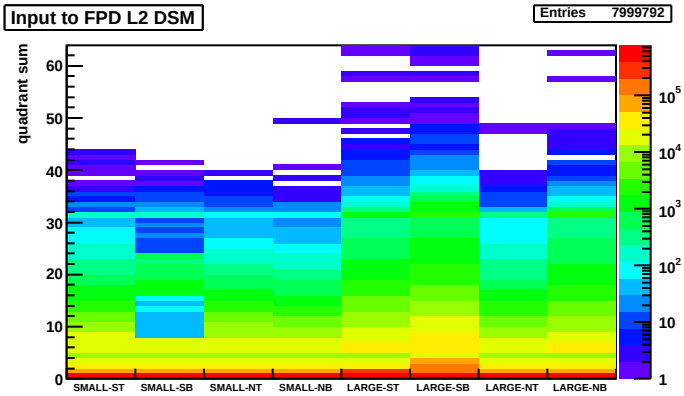

Input to FMS L1 DSM
Entries 26860
sumAB - simulated
DSM board

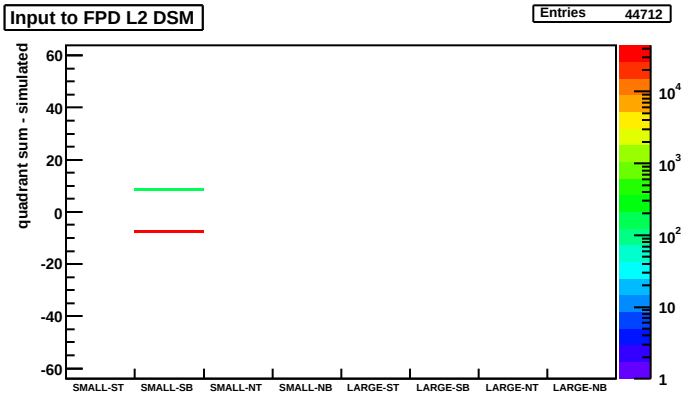

Input to FMS L1 DSM
Entries 1.199969e+07
sumA
DSM board

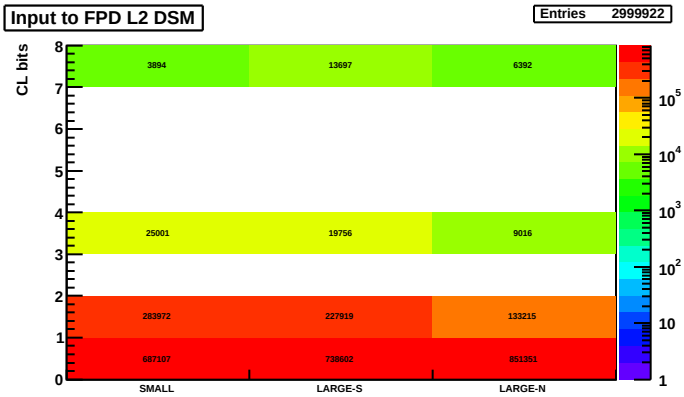

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

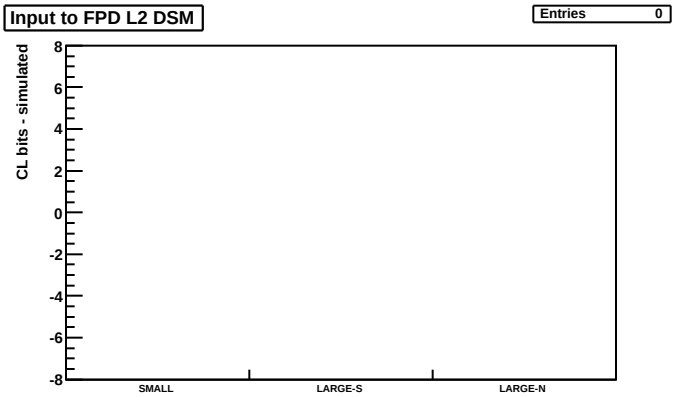

Input to FMS L1 DSM
Entries 1.199969e+07
FMS L1 HT bits
DSM board

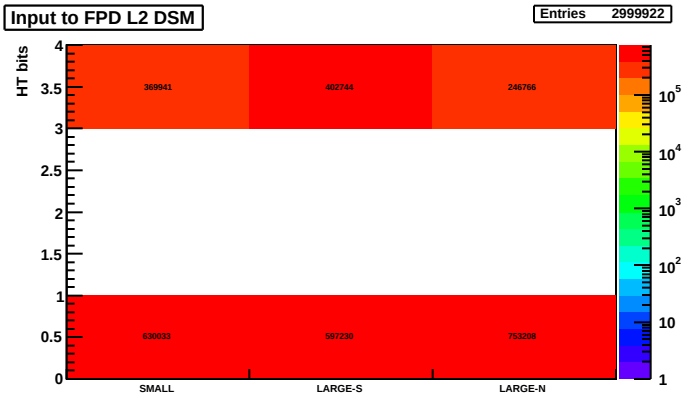

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

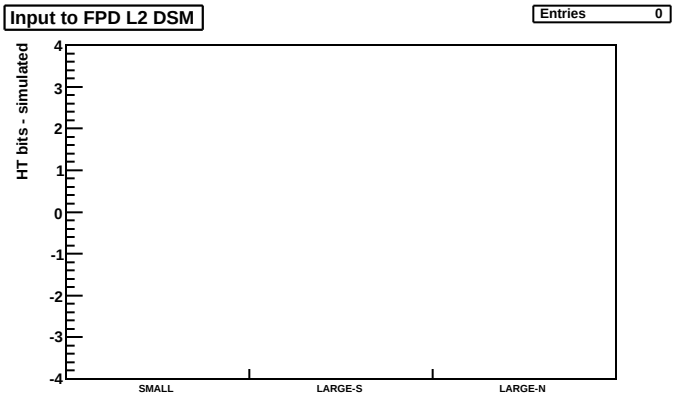

Input to FPD L2 DSM
Entries 7999792
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

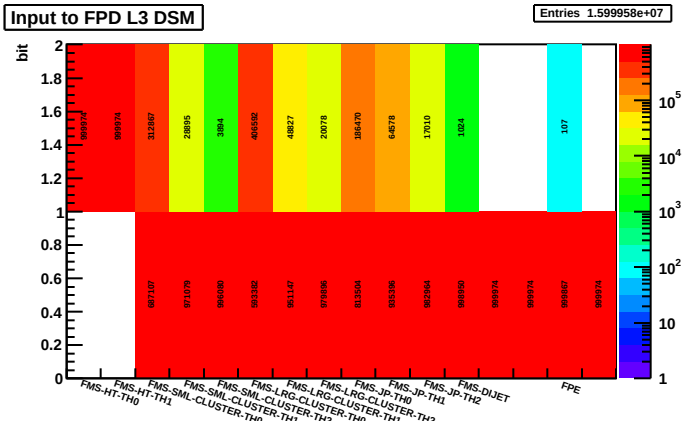

Input to FPD L2 DSM
Entries 44712
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

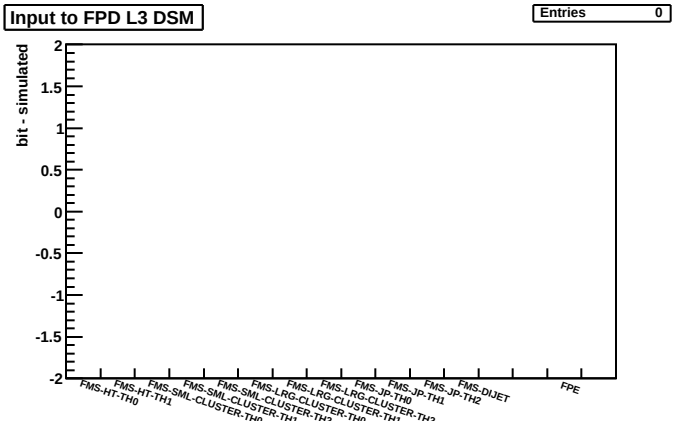

Input to FPD L2 DSM
Entries 2999922
CL bits
3894
13697
6392
25001
19756
9016
283972
227919
133215
687107
738602
851351
SMALL
LARGE-S
LARGE-N

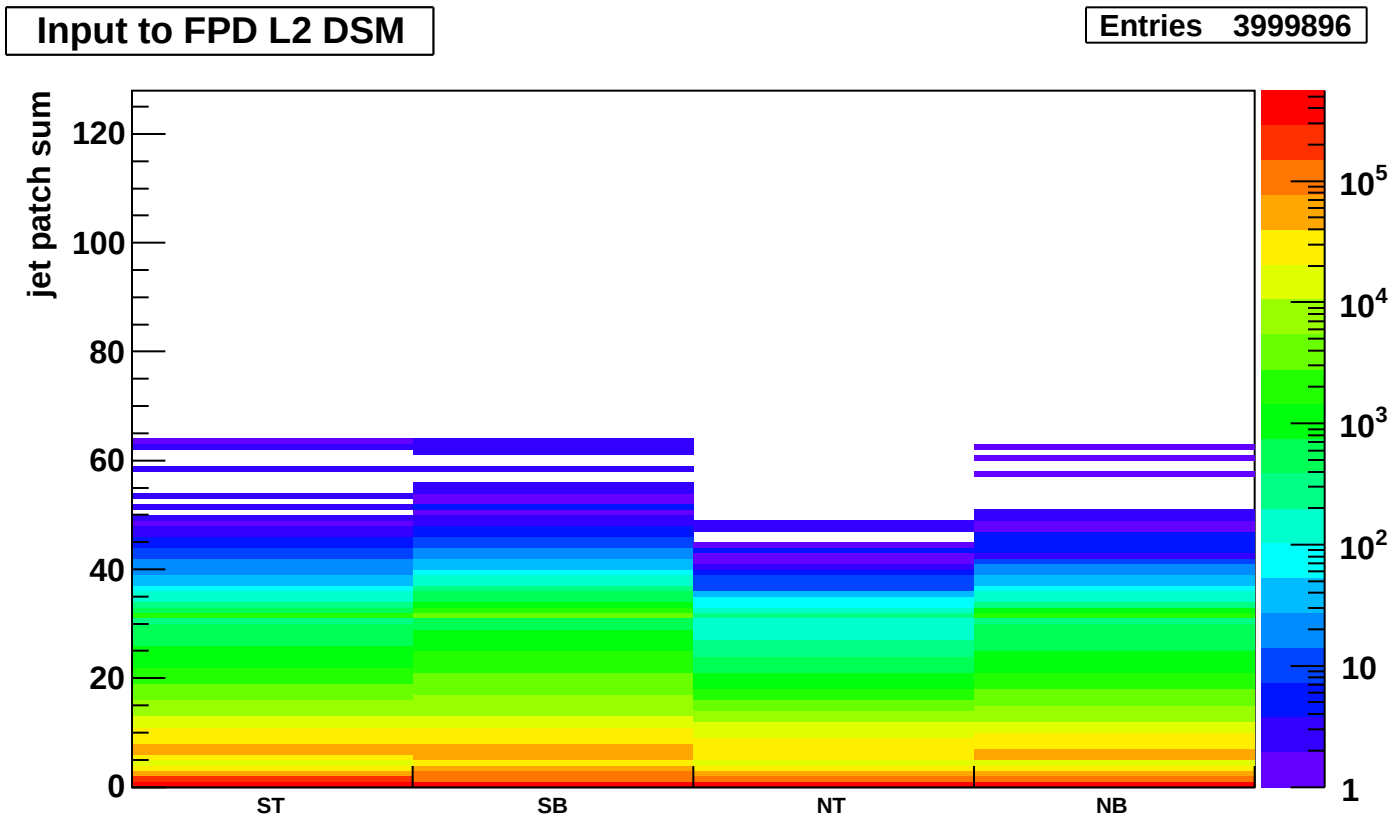

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

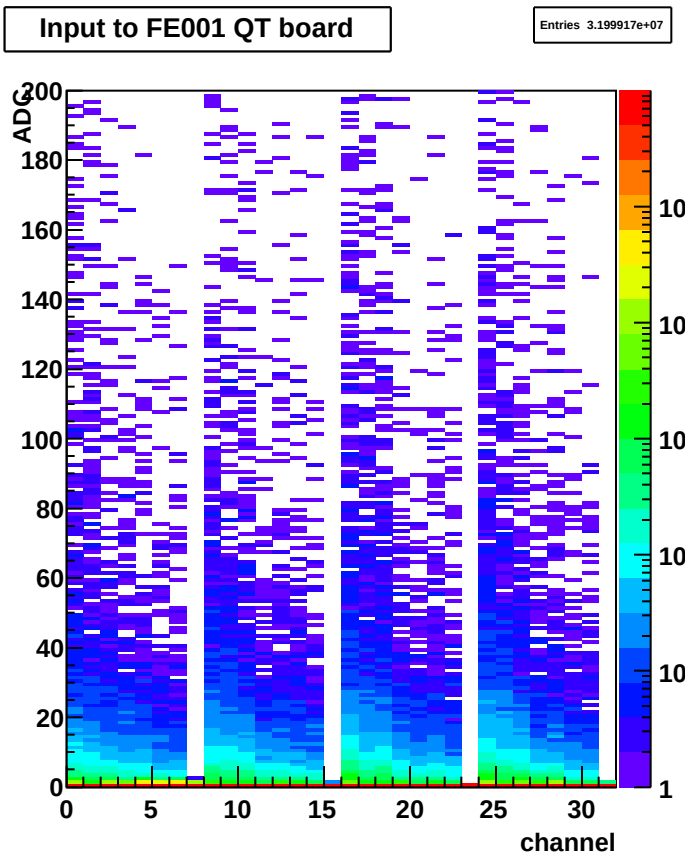

Input to FPD L2 DSM
Entries 2999922
HT bits
369941
402744
246766
630033
597230
753208
SMALL
LARGE-S
LARGE-N

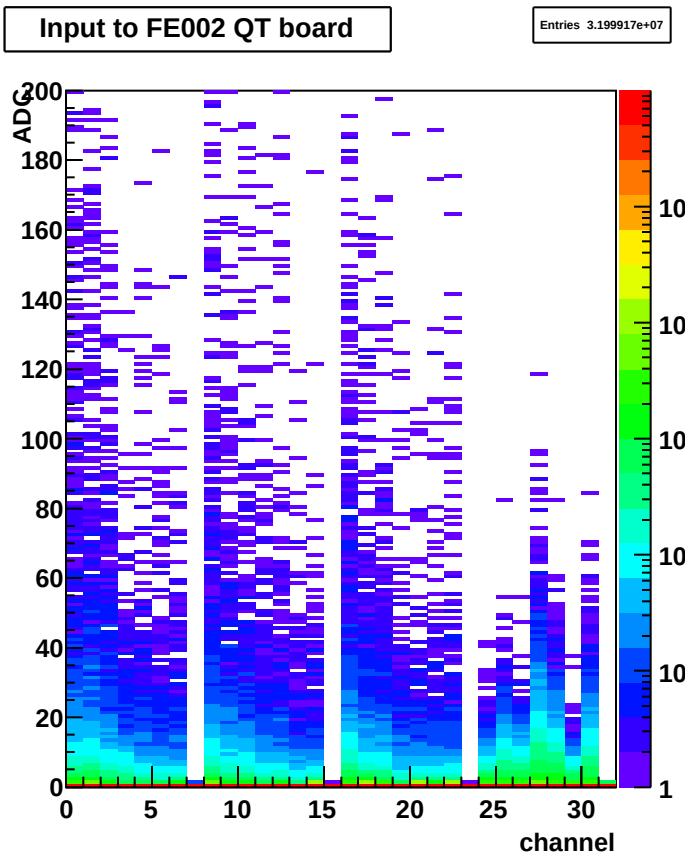

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

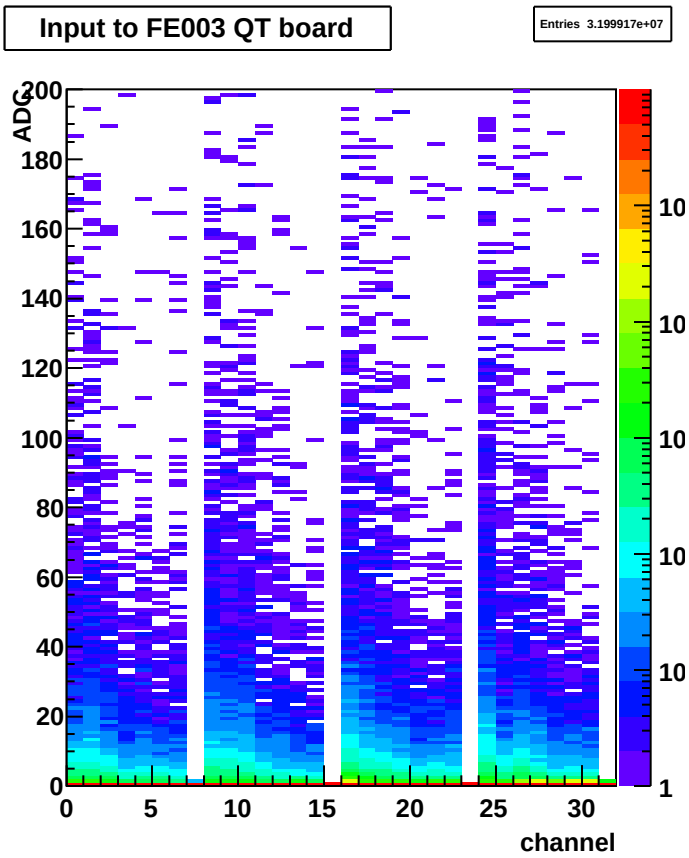

Input to FPD L3 DSM
Entries 1.599958e+07
bit
999974
999974
312867
28895
3984
406592
48827
20078
186470
64578
17010
1024
107
687107
971079
996090
993382
951147
979985
813504
935396
982964
989930
999974
999974
999967
999974
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

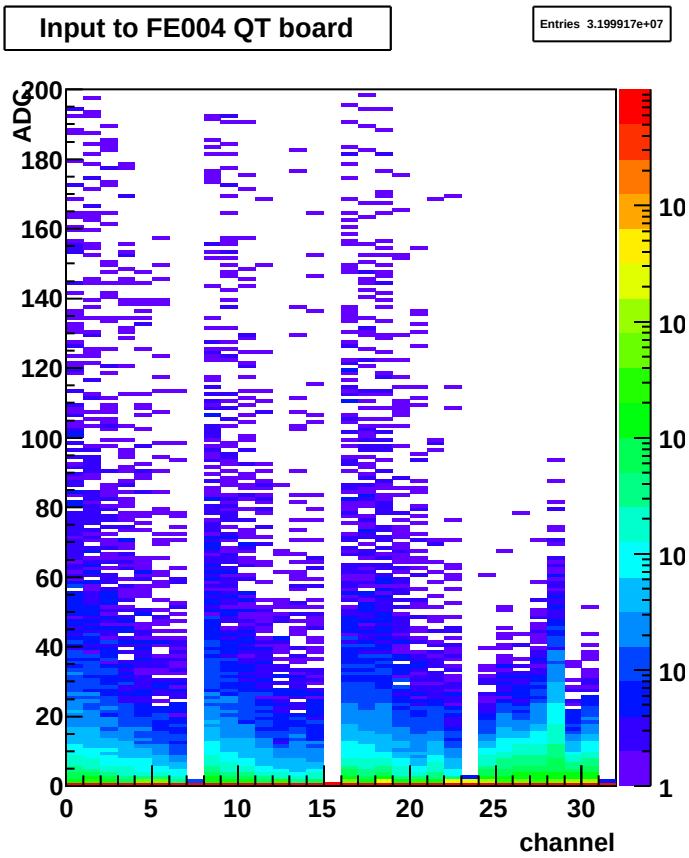

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

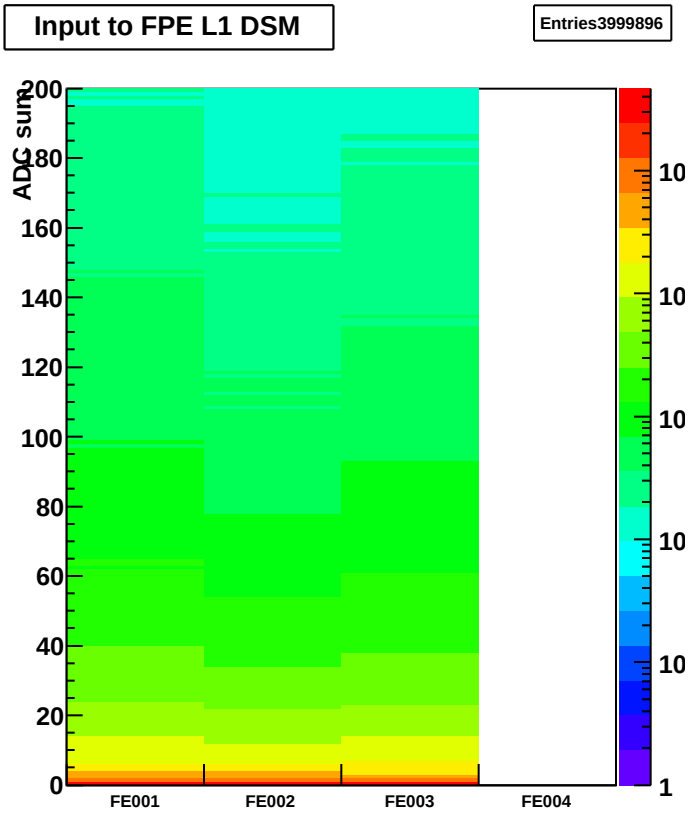

Input to FPD L2 DSM
Entries 3999896
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

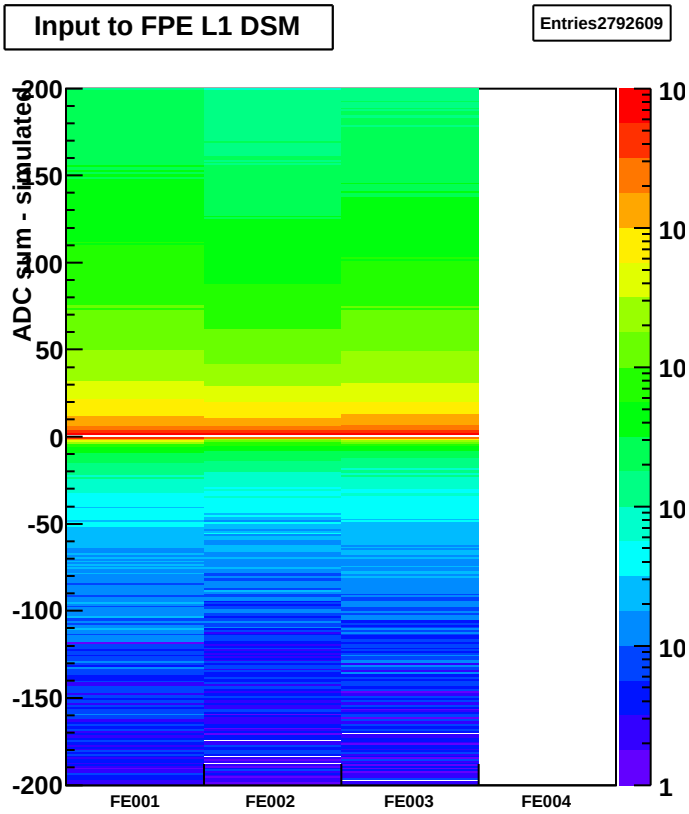

Input to FE001 QT board
Entries 3.199917e+07
ADC
channel

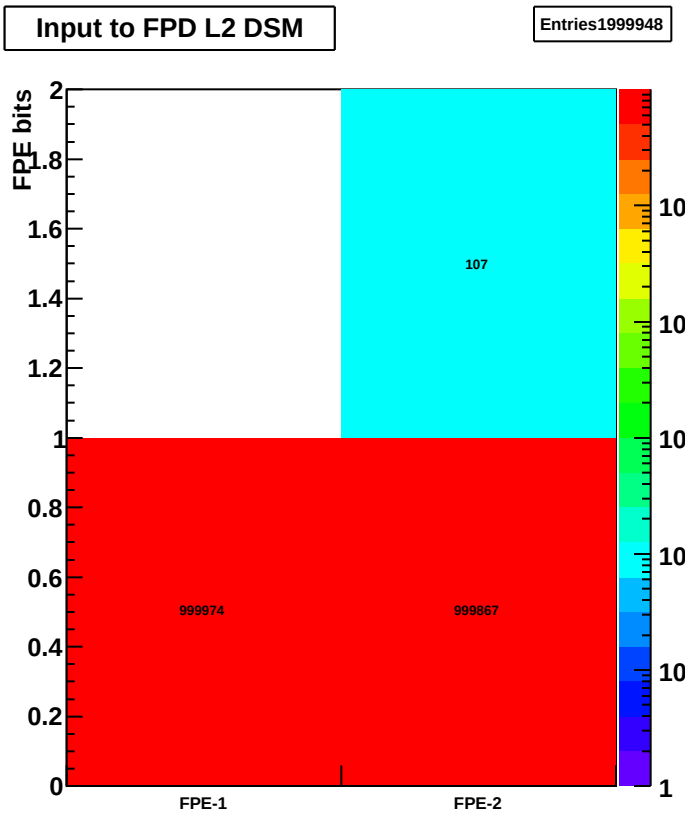

Input to FE002 QT board
Entries 3.199917e+07
ADC
channel

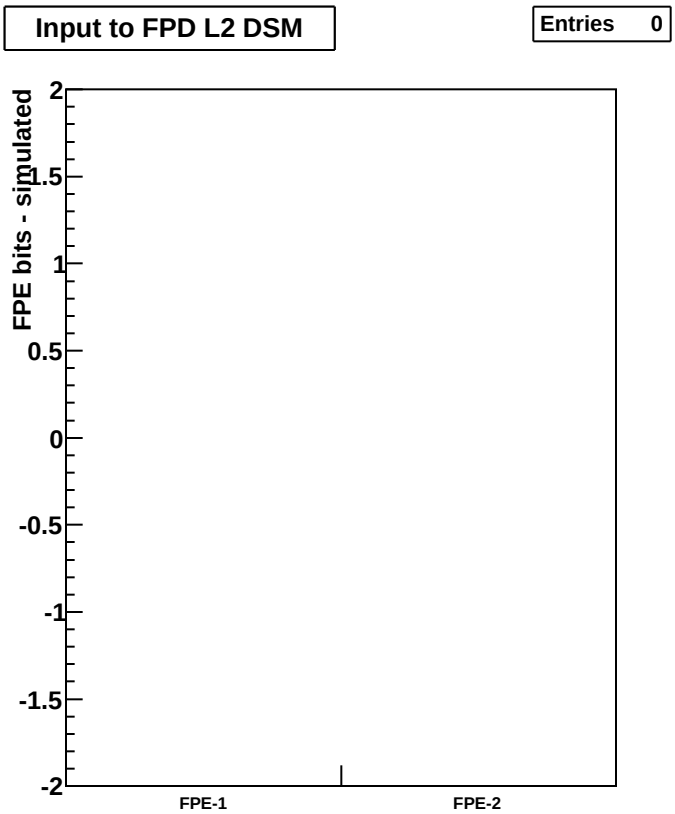

Input to FE003 QT board
Entries 3.199917e+07
ADC
channel


Input to FE004 QT board
Entries 3.199917e+07
ADC
channel


Input to FPE L1 DSM
Entries3999896
ADC sum
FE001
FE002
FE003
FE004


Input to FPE L1 DSM
Entries2792609
ADC sum - simulated
FE001
FE002
FE003
FE004


Input to FPD L2 DSM
Entries1999948
FPE bits
107
999974
999867
FPE-1
FPE-2


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