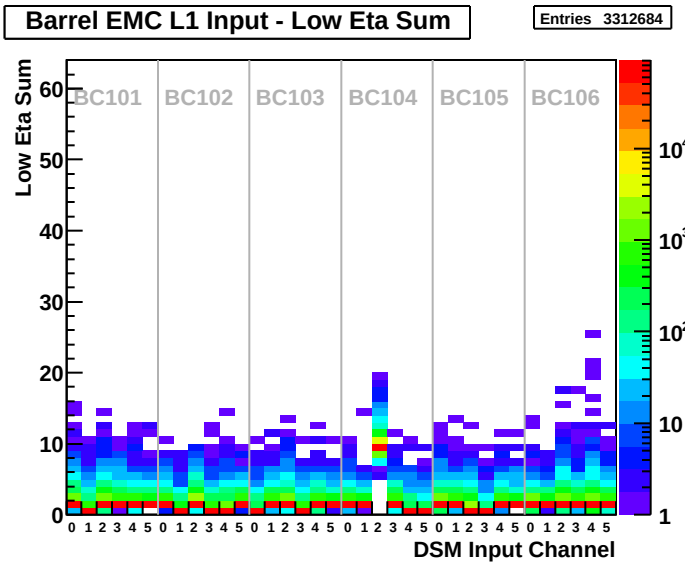
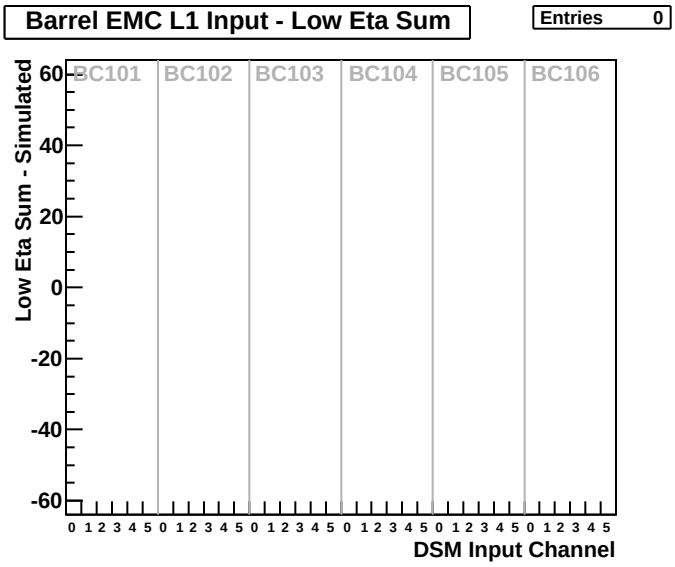
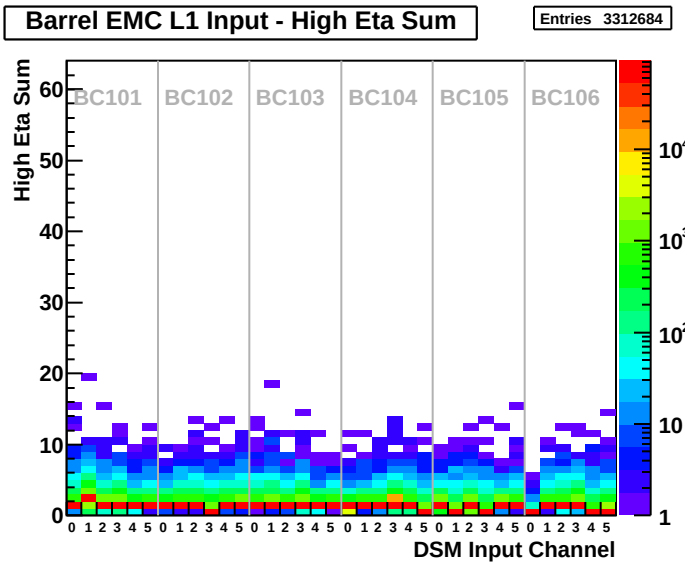
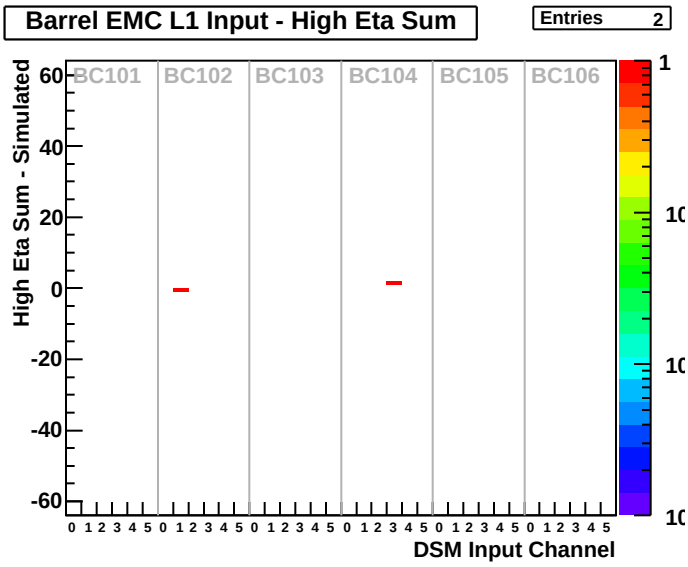
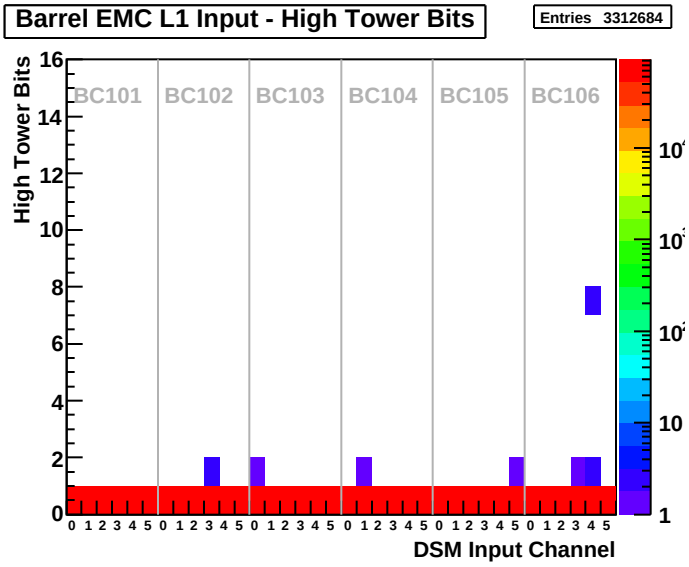
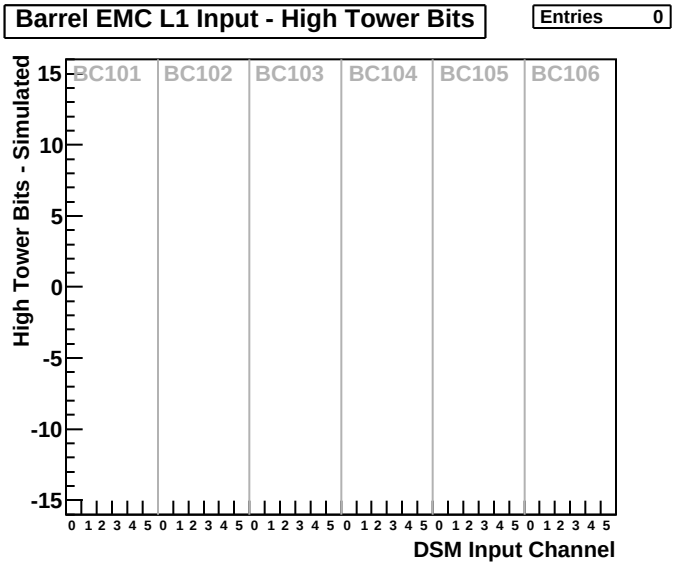

Barrel EMC L1 Input - Low Eta Sum
Entries 3312684
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

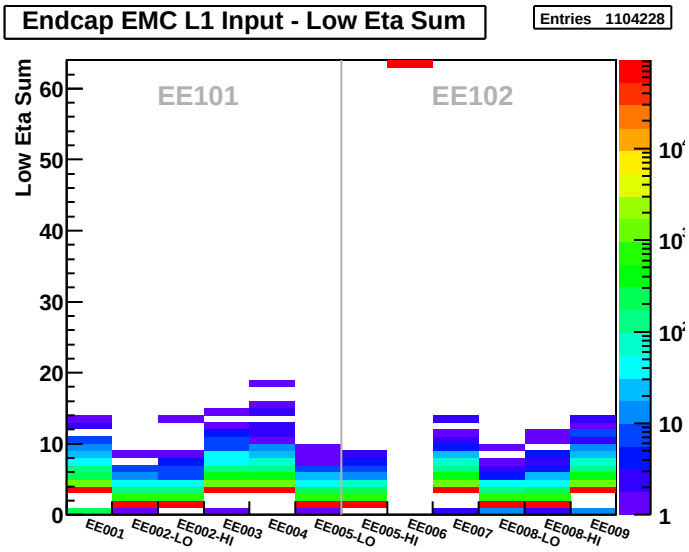

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

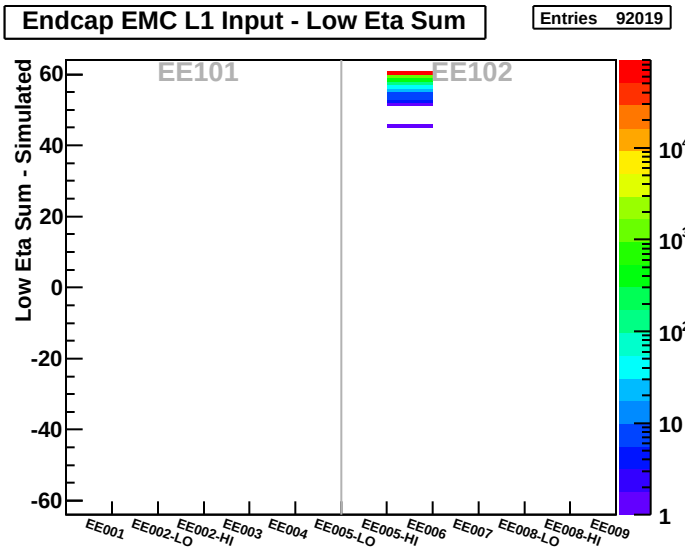

Barrel EMC L1 Input - High Eta Sum
Entries 3312684
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

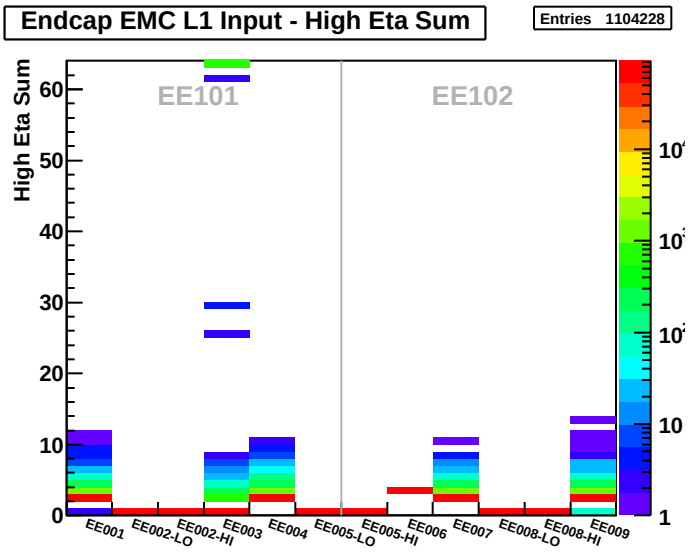

Barrel EMC L1 Input - High Eta Sum
Entries 2
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

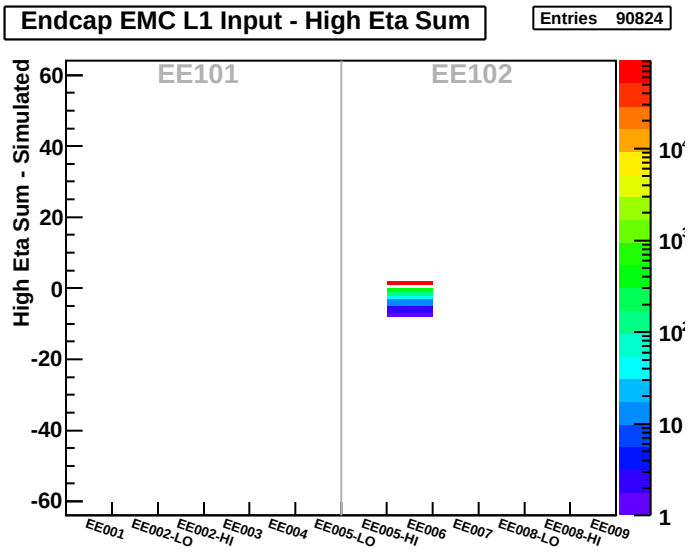

Barrel EMC L1 Input - High Tower Bits
Entries 3312684
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

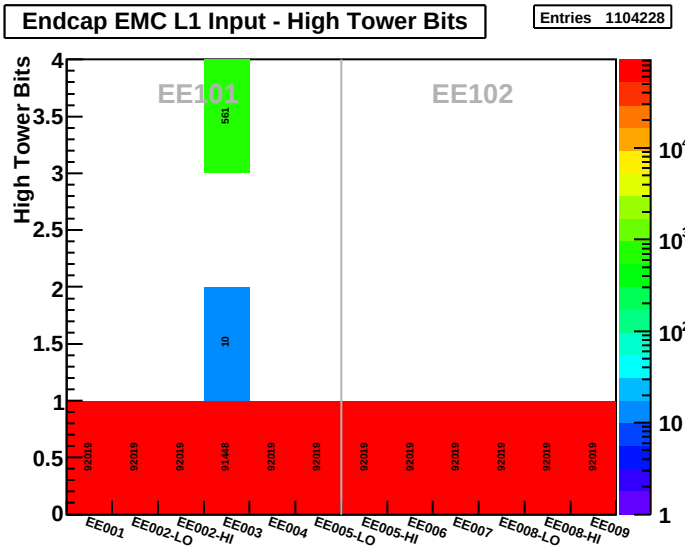

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

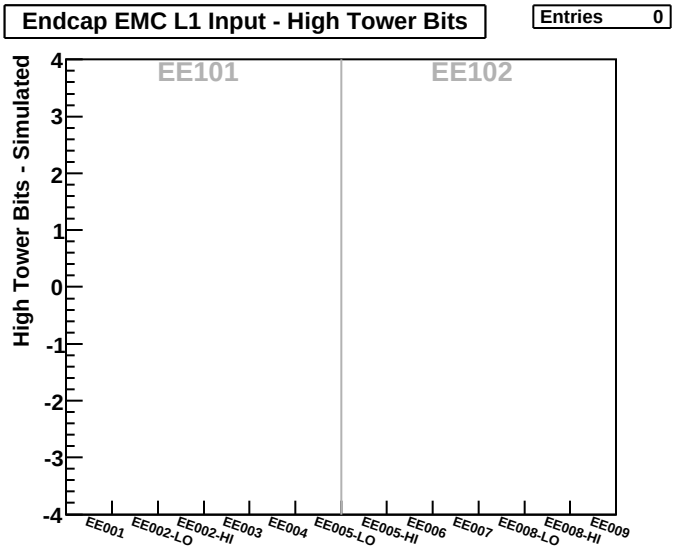

Endcap EMC L1 Input - Low Eta Sum
Entries 1104228
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

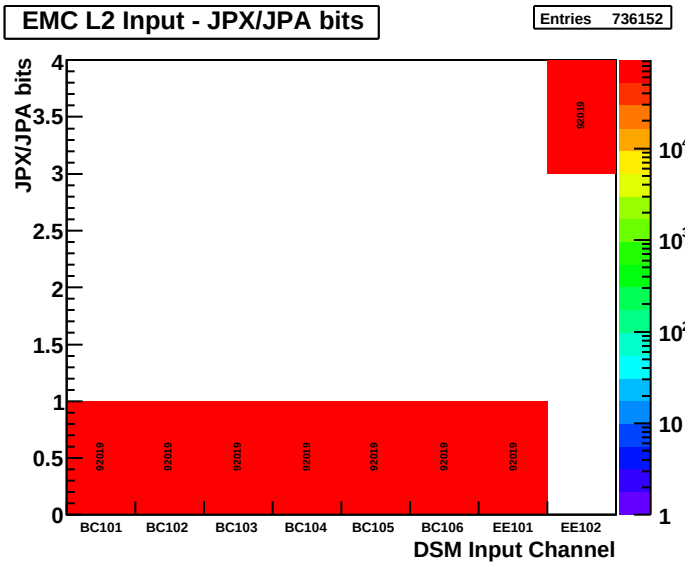

Endcap EMC L1 Input - Low Eta Sum
Entries 92019
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

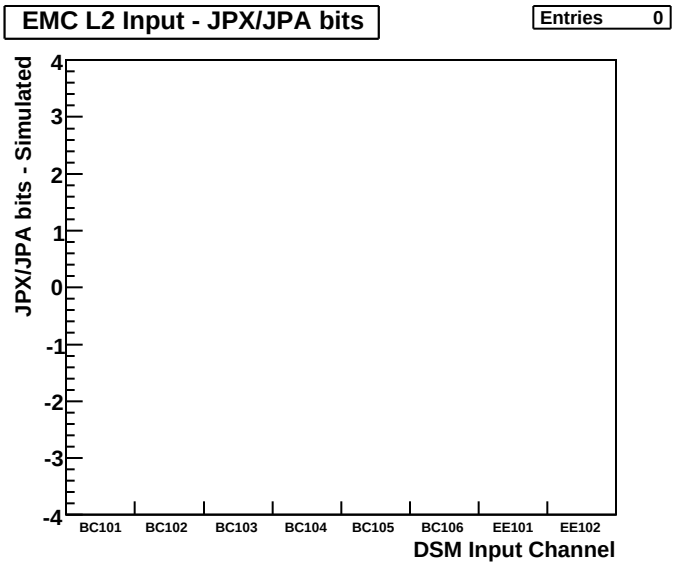

Endcap EMC L1 Input - High Eta Sum
Entries 1104228
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

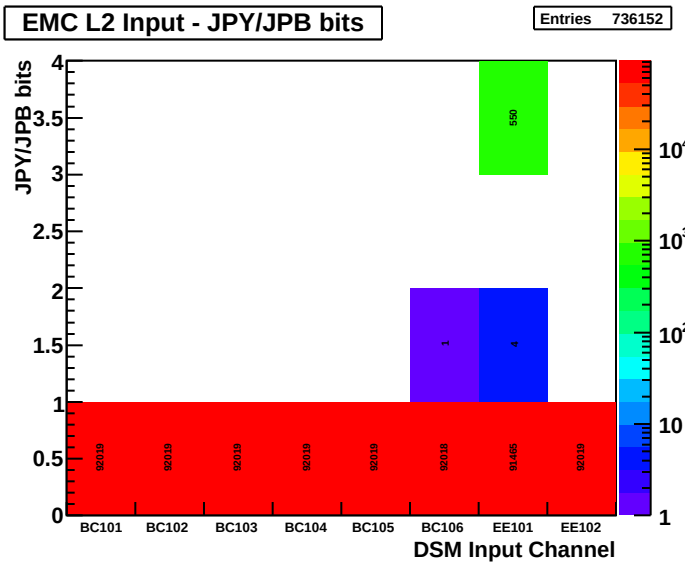

Endcap EMC L1 Input - High Eta Sum
Entries 90824
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

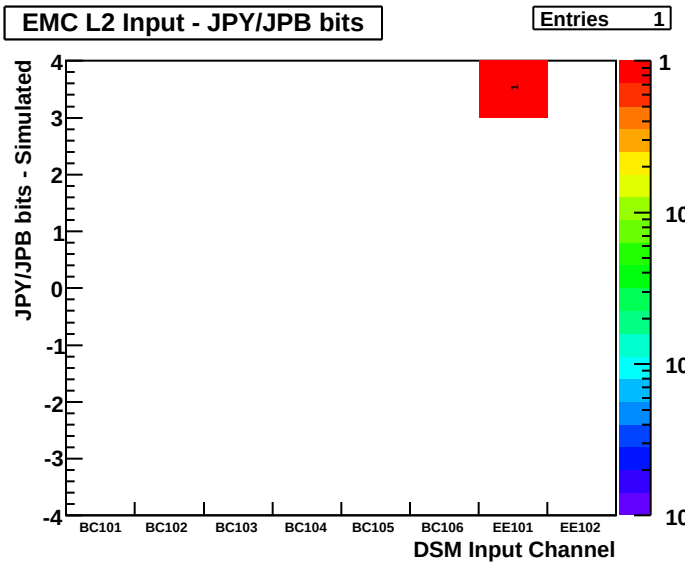

Endcap EMC L1 Input - High Tower Bits
Entries 1104228
High Tower Bits
EE101
EE102
561
10
92019 92019 92019 91448 92019 92019 92019 92019 92019 92019 92019 92019
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

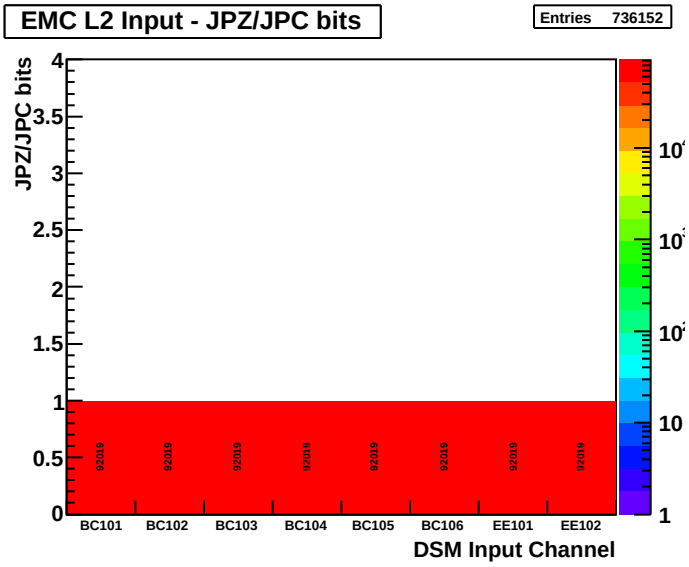

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

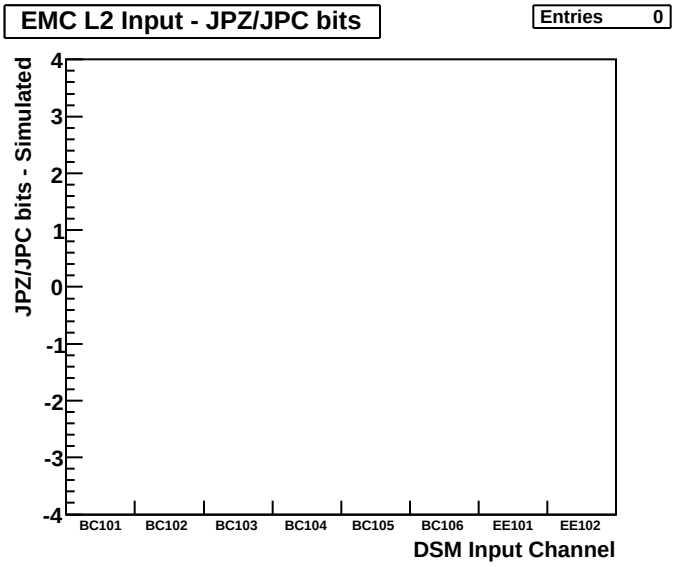

EMC L2 Input - JPX/JPA bits
Entries 736152
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

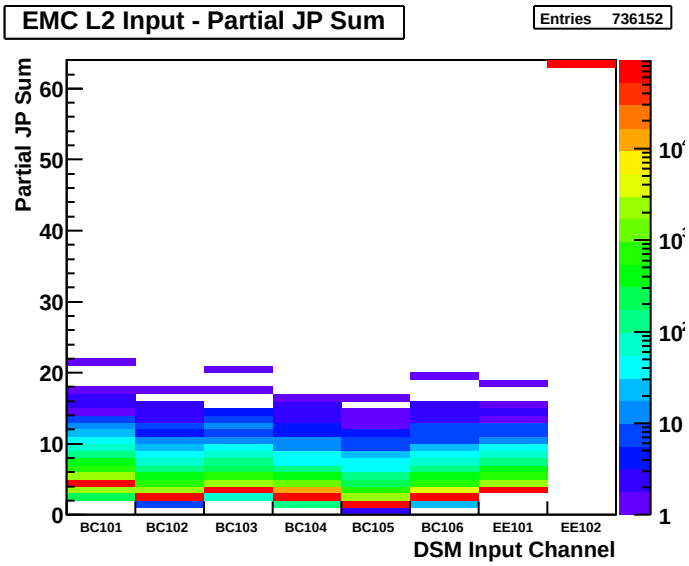

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

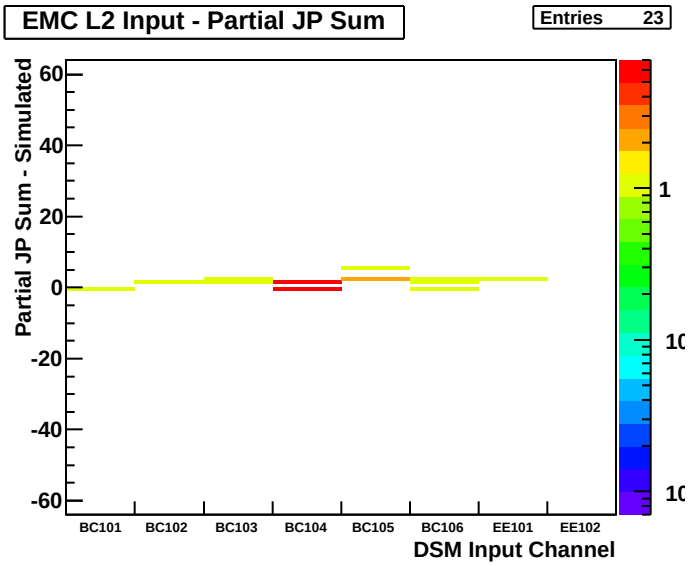

EMC L2 Input - JPY/JPB bits
Entries 736152
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

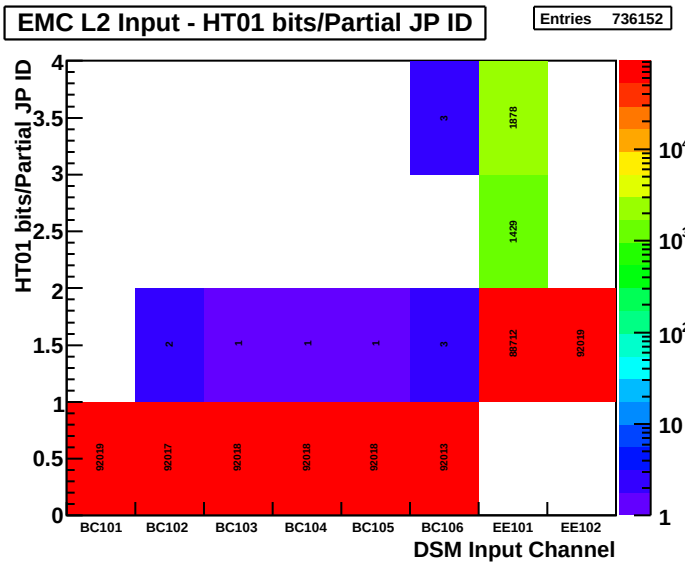

EMC L2 Input - JPY/JPB bits
Entries 1
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

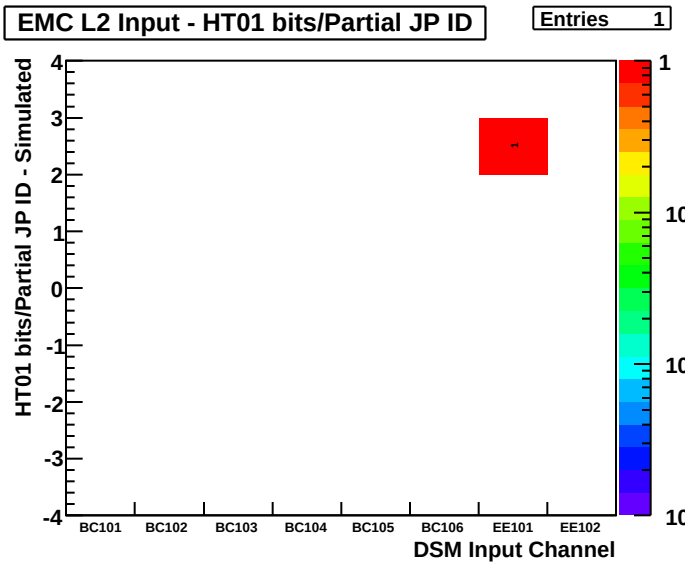

EMC L2 Input - JPZ/JPC bits
Entries 736152
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

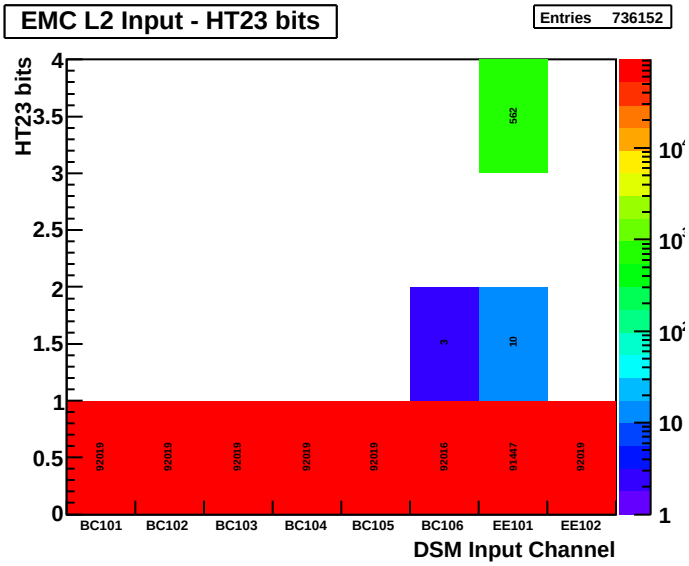

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

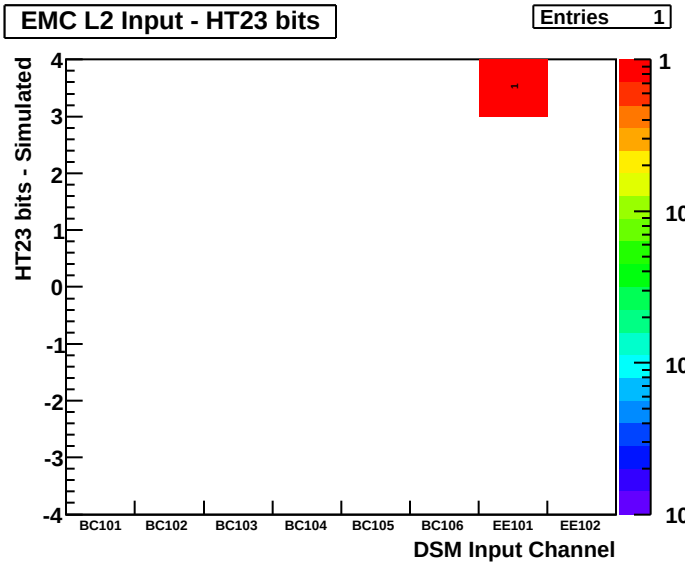

EMC L2 Input - Partial JP Sum
Entries 736152
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

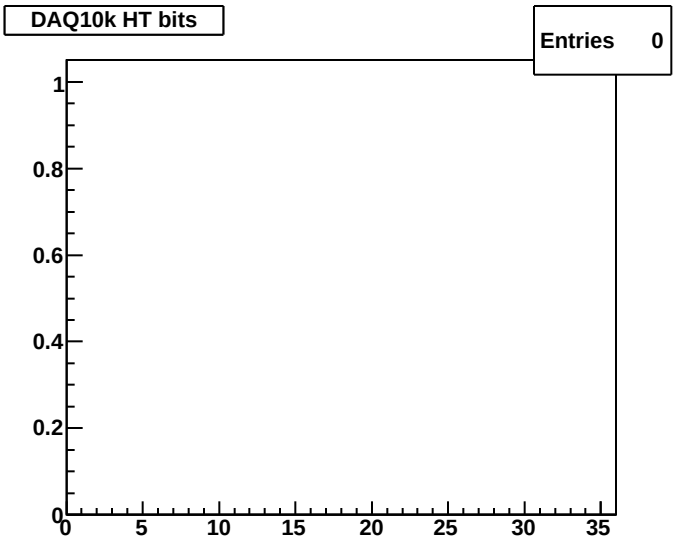

EMC L2 Input - Partial JP Sum
Entries 23
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

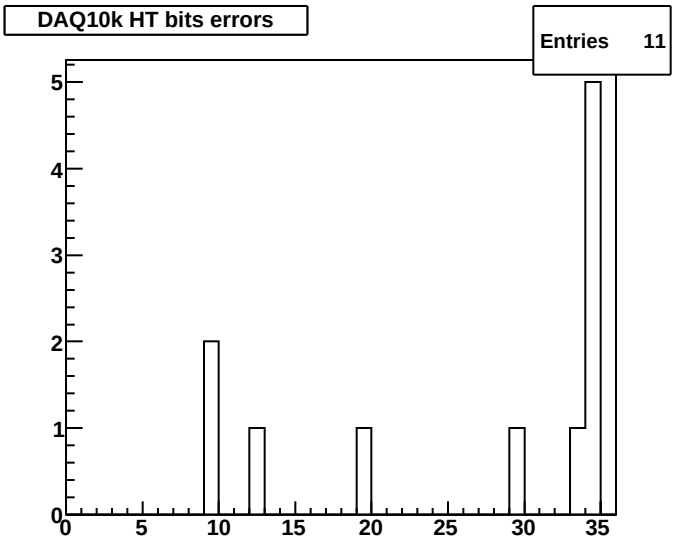

EMC L2 Input - HT01 bits/Partial JP ID
Entries 736152
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

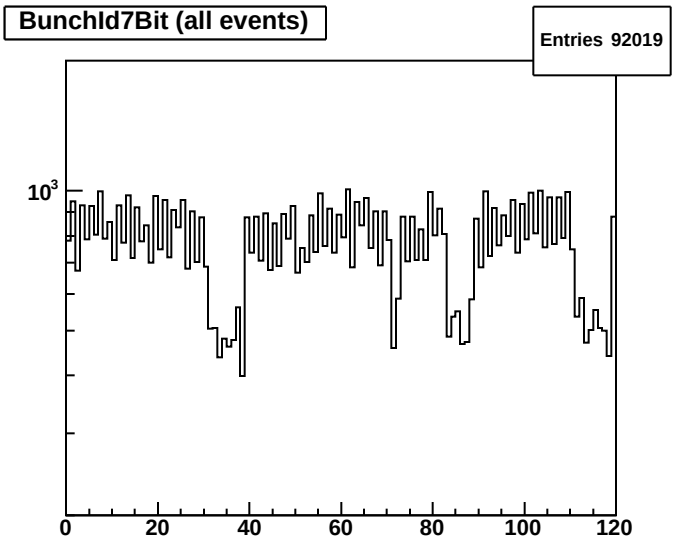

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

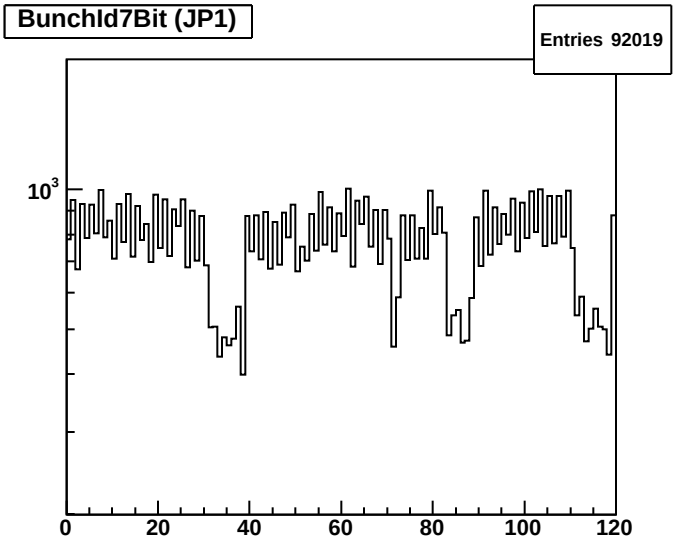

EMC L2 Input - HT23 bits
Entries 736152
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

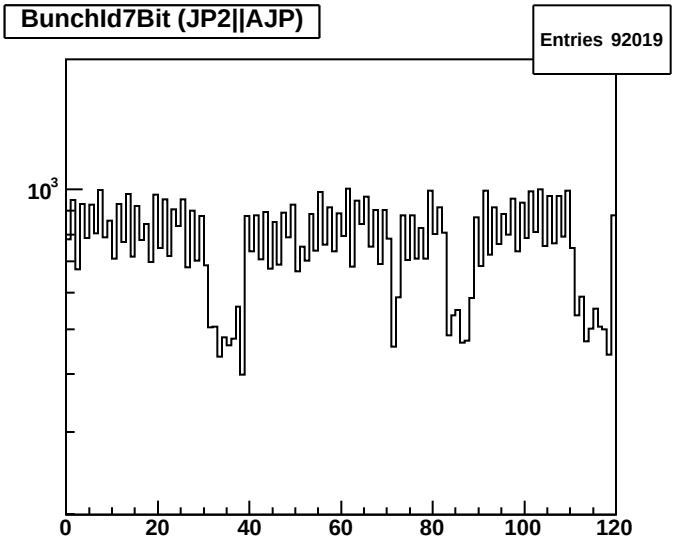

EMC L2 Input - HT23 bits
Entries 1
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

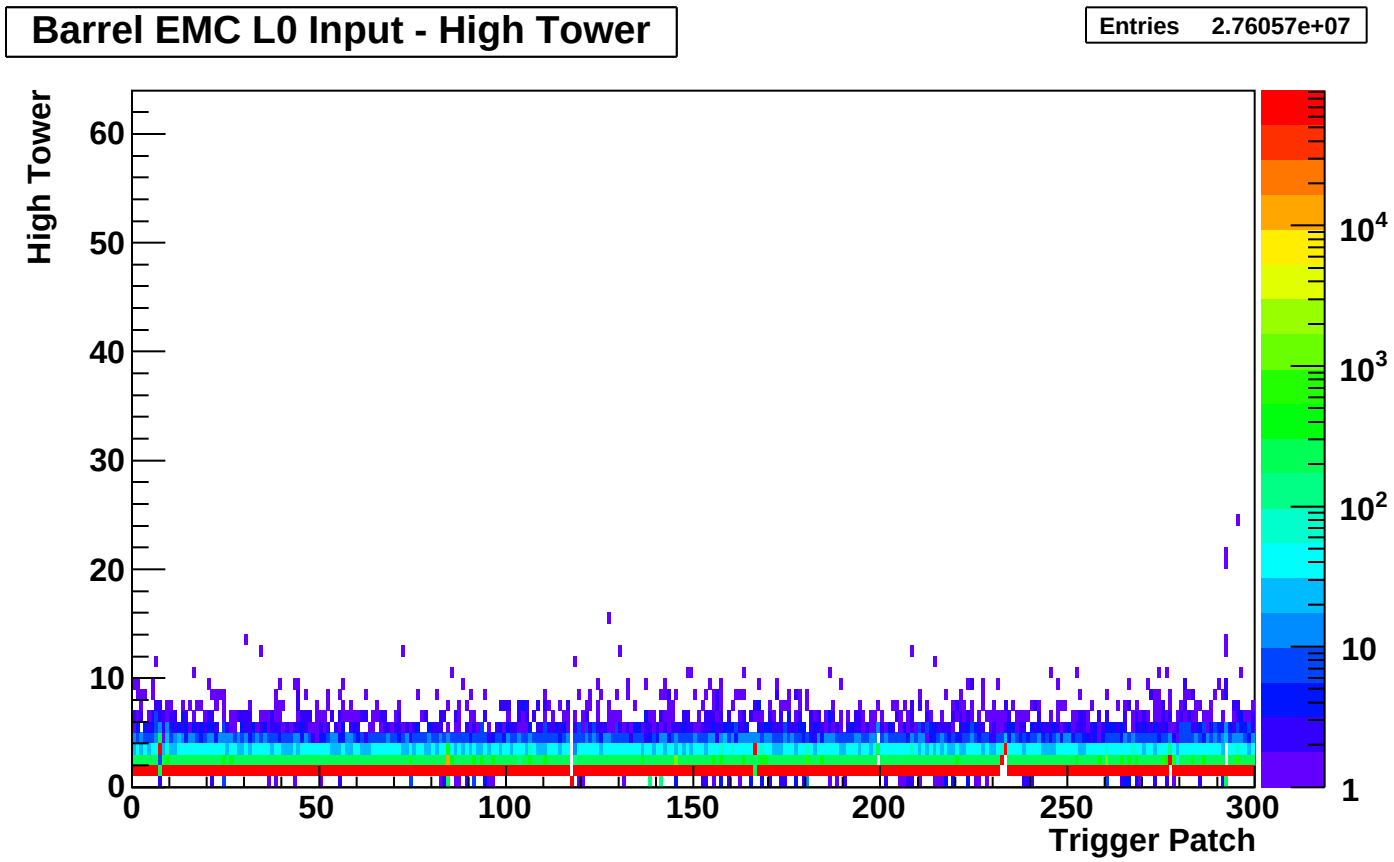

DAQ10k HT bits
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

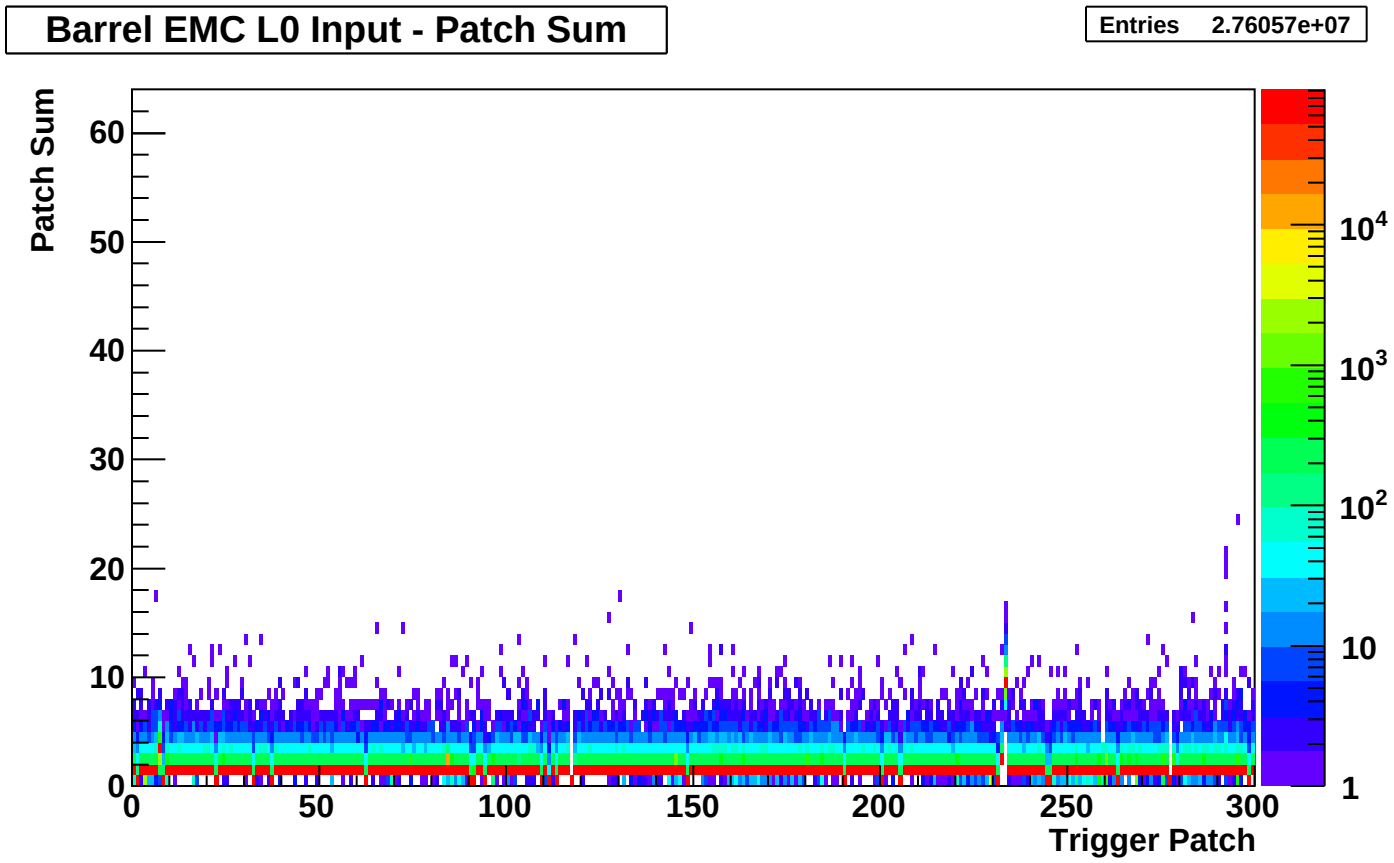

DAQ10k HT bits errors
Entries 11
5
4
3
2
1
0
0 5 10 15 20 25 30 35

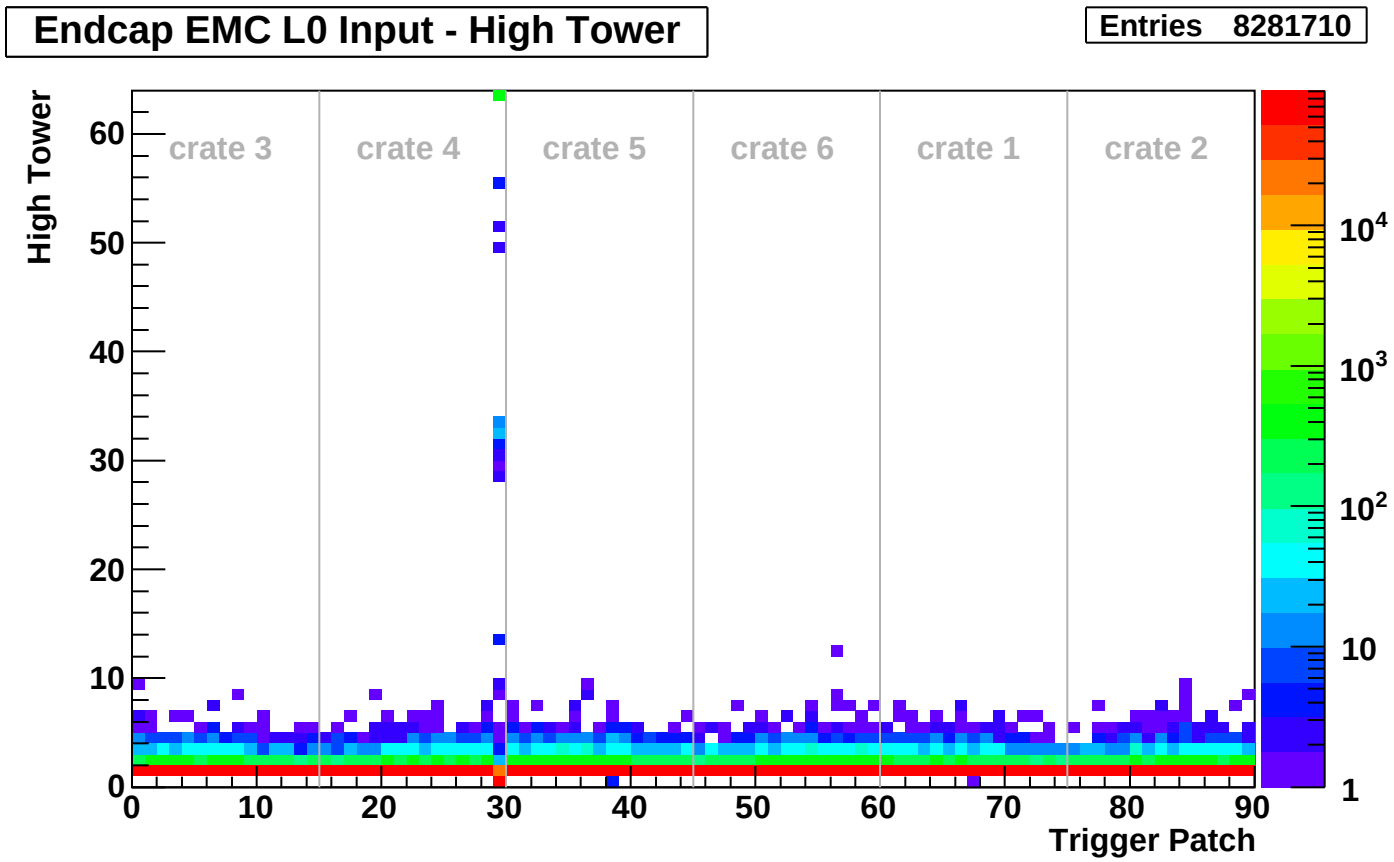

BunchId7Bit (all events)
Entries 92019
10^3
0 20 40 60 80 100 120

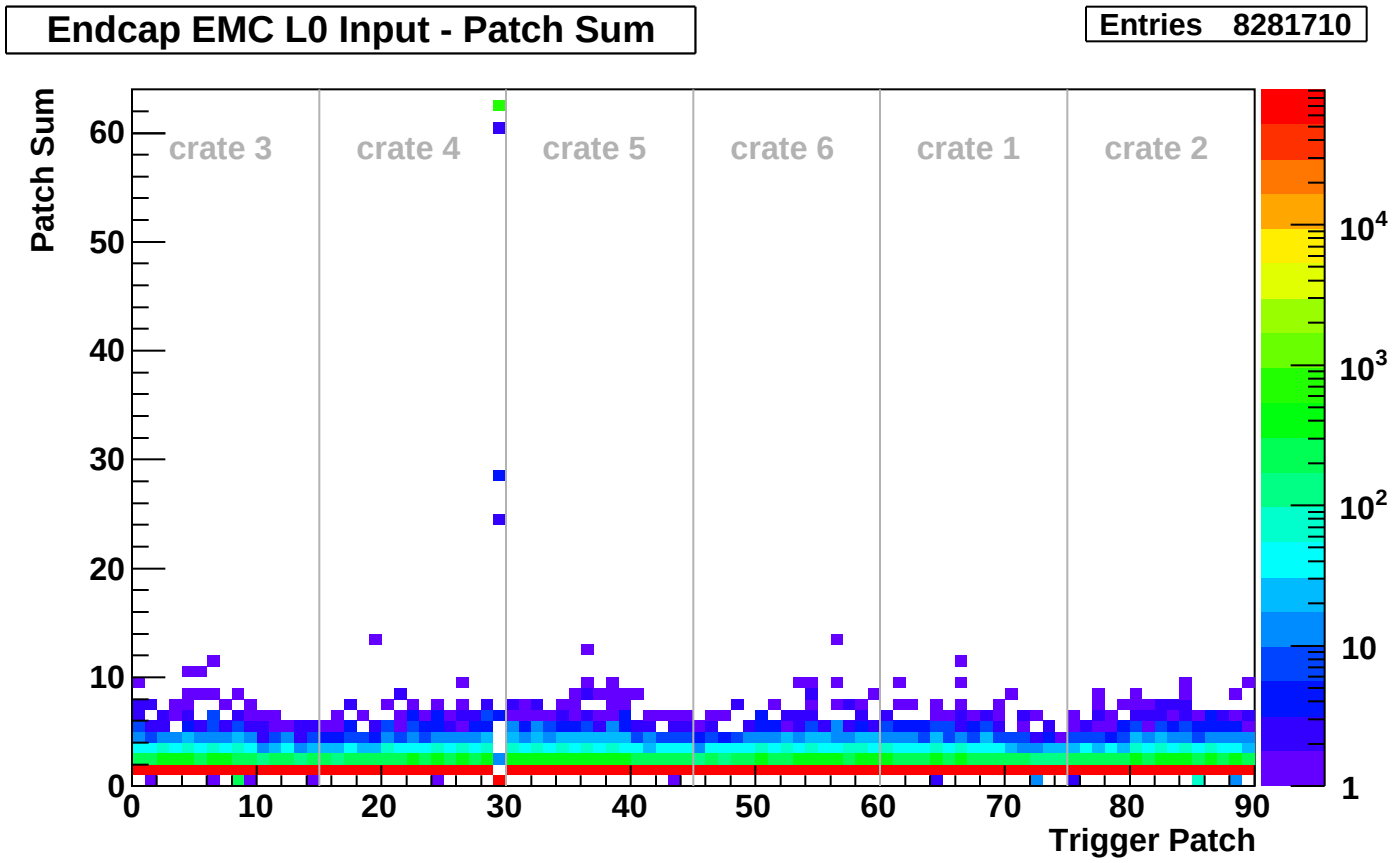

BunchId7Bit (JP1)
Entries 92019
10^3
0 20 40 60 80 100 120

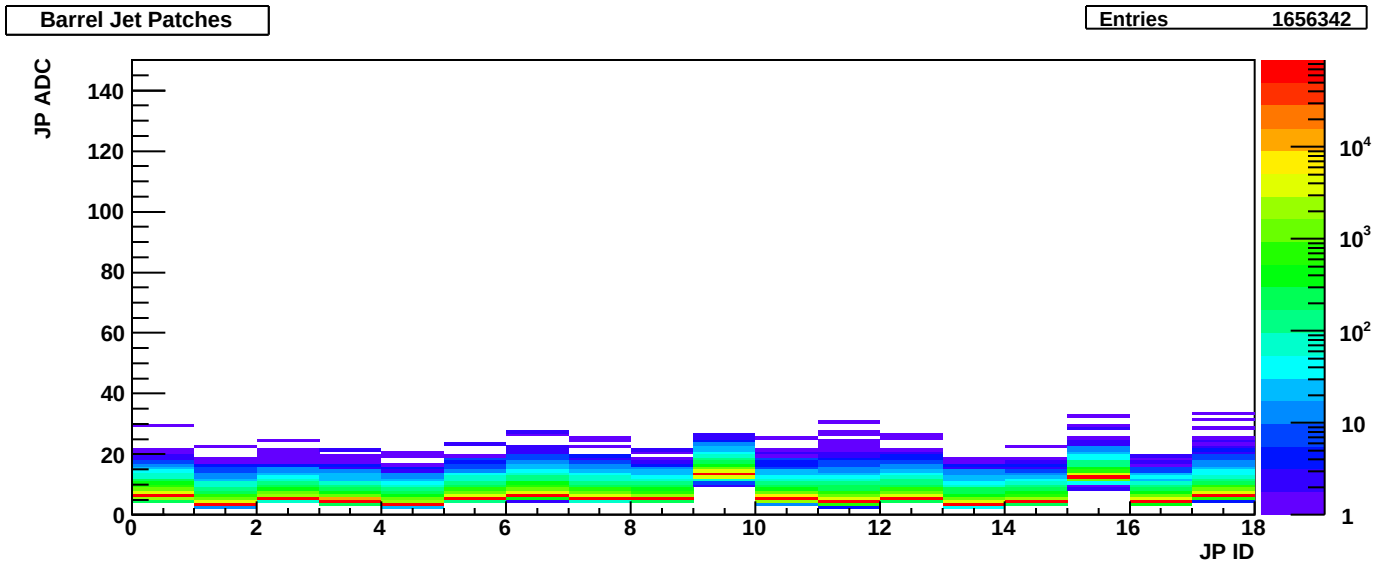

BunchId7Bit (JP2||AJP)
Entries 92019
10^3
0 20 40 60 80 100 120

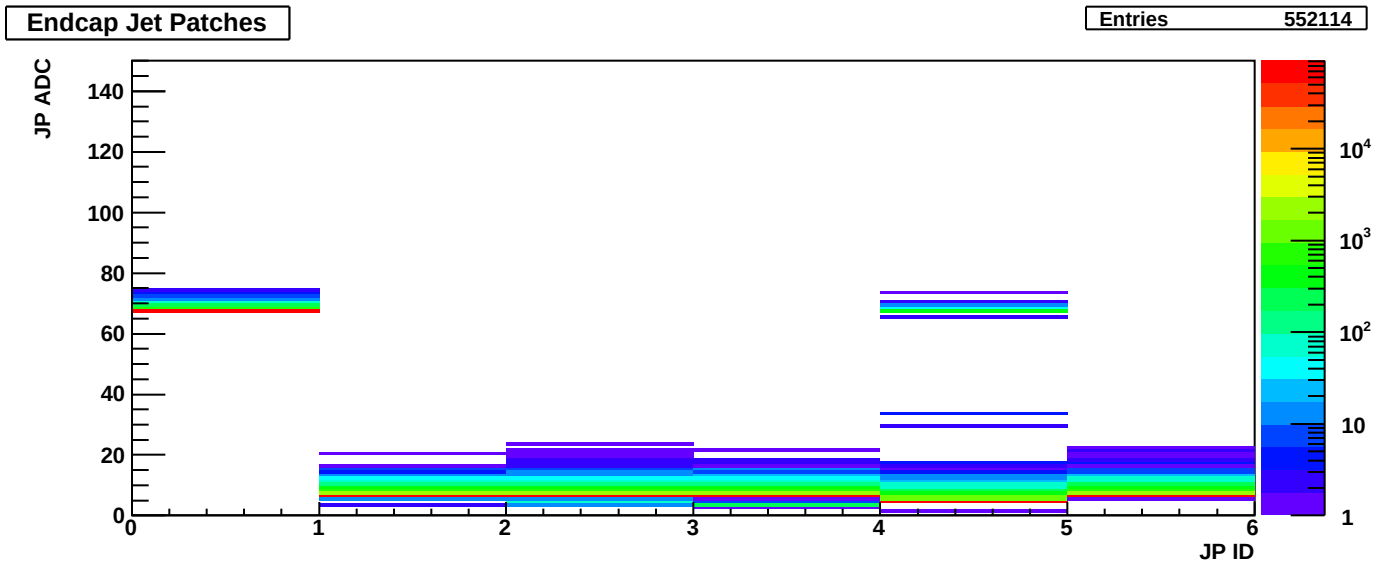

Barrel EMC L0 Input - High Tower
Entries 2.76057e+07
High Tower
0
10
20
30
40
50
60
0
50
100
150
200
250
300
Trigger Patch
1
10
10^2
10^3
10^4

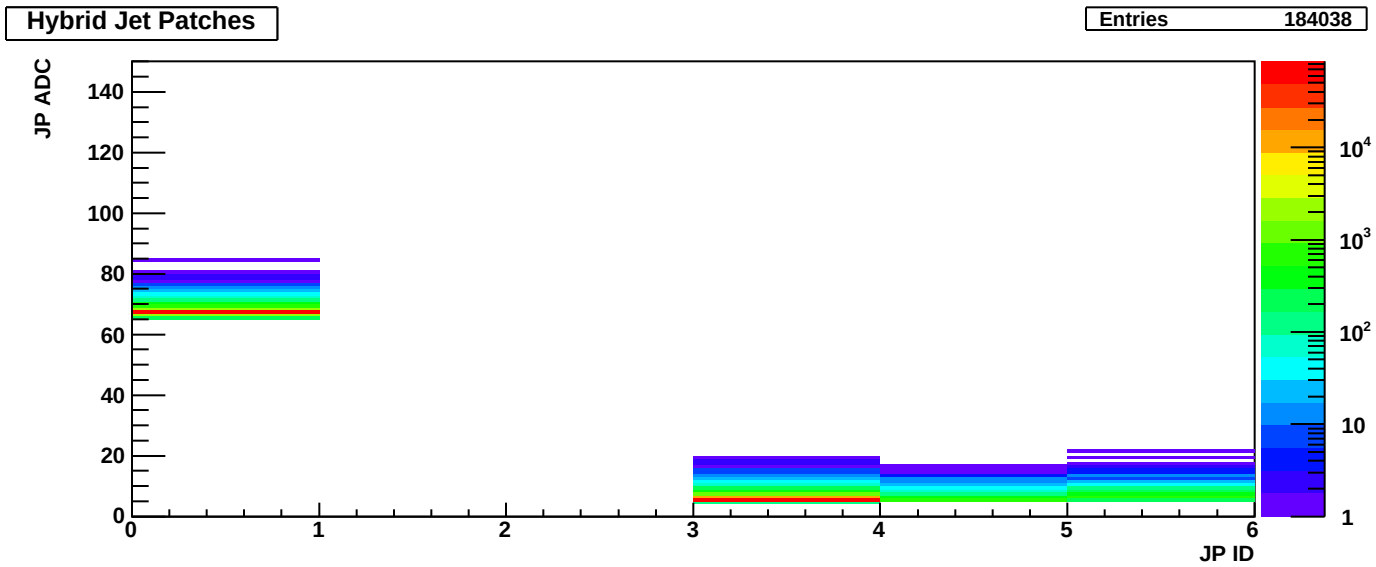

Barrel EMC L0 Input - Patch Sum
Entries 2.76057e+07
Patch Sum
0
10
20
30
40
50
60
0
50
100
150
200
250
300
Trigger Patch
1
10
10^2
10^3
10^4

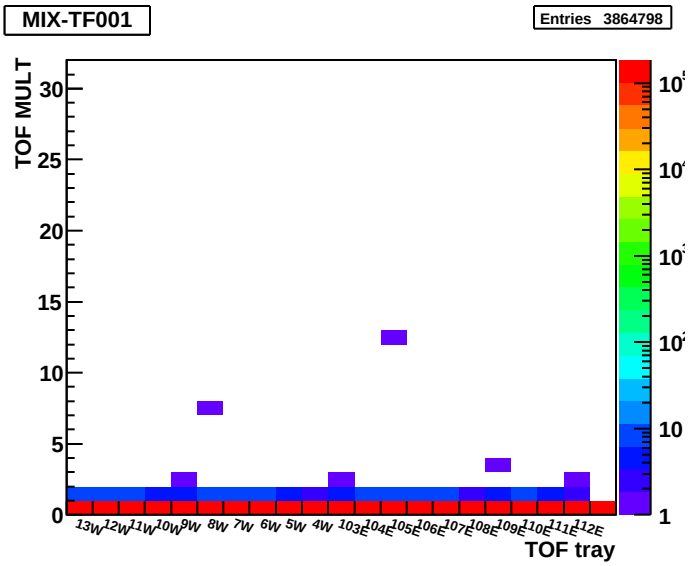

Endcap EMC L0 Input - High Tower
Entries 8281710
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

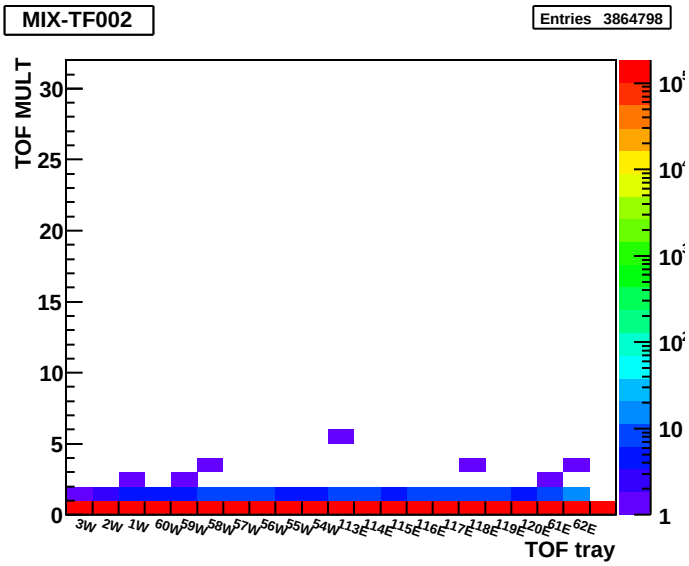

Endcap EMC L0 Input - Patch Sum
Entries 8281710
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

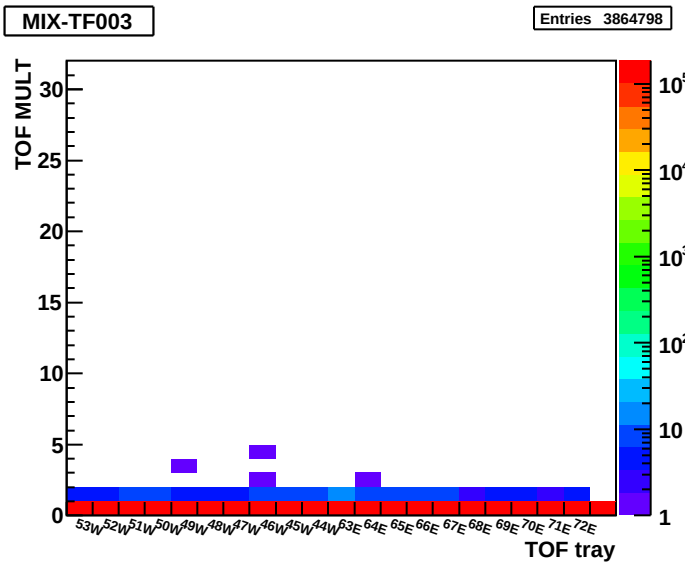

Barrel Jet Patches
Entries 1656342
JP ADC
JP ID

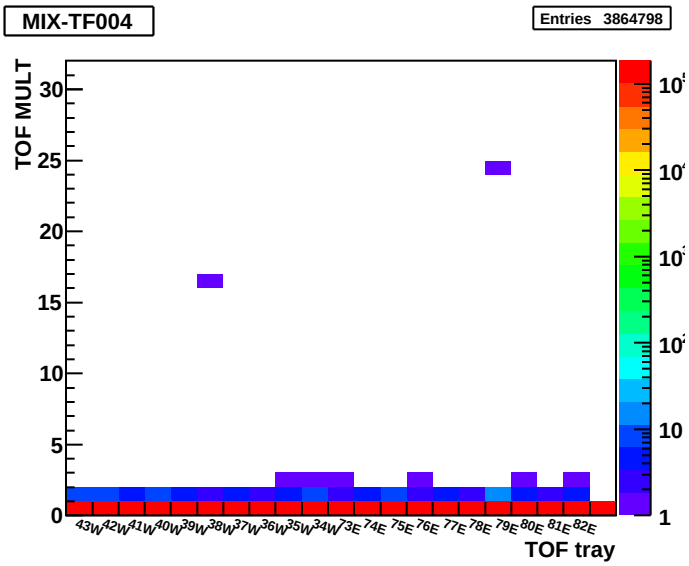

Endcap Jet Patches
Entries 552114
JP ADC
JP ID

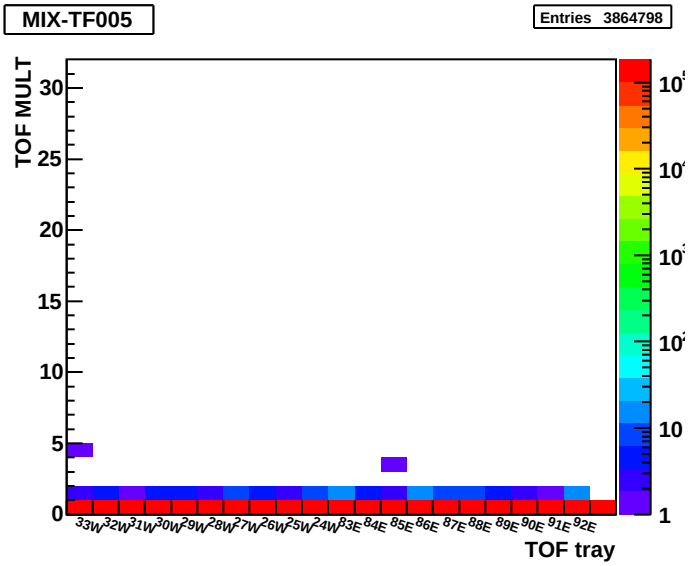

Hybrid Jet Patches
Entries 184038
JP ADC
JP ID

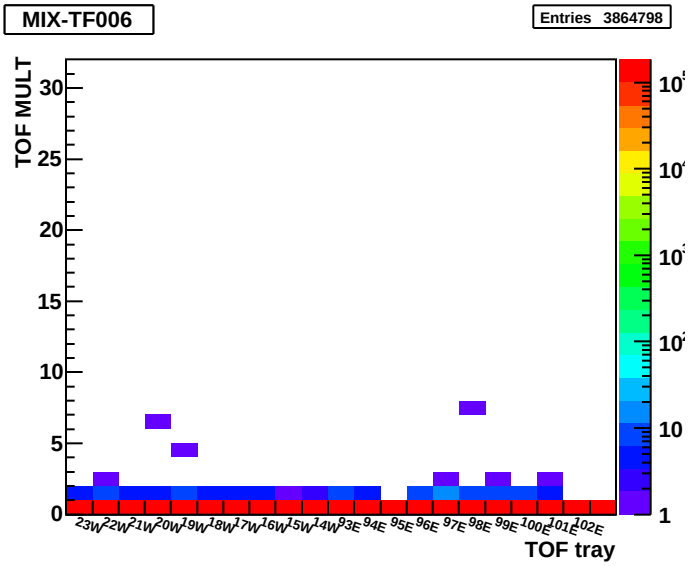

MIX-TF001
Entries 3864798
TOF MULT
TOF tray

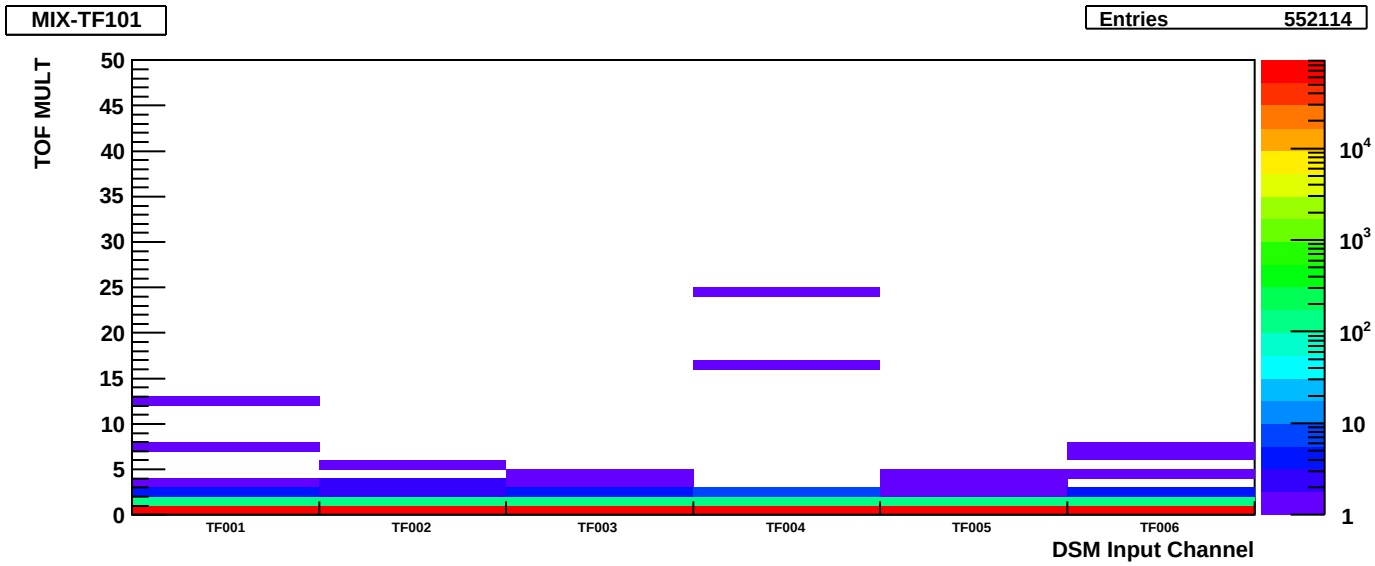

MIX-TF002
Entries 3864798
TOF MULT
TOF tray

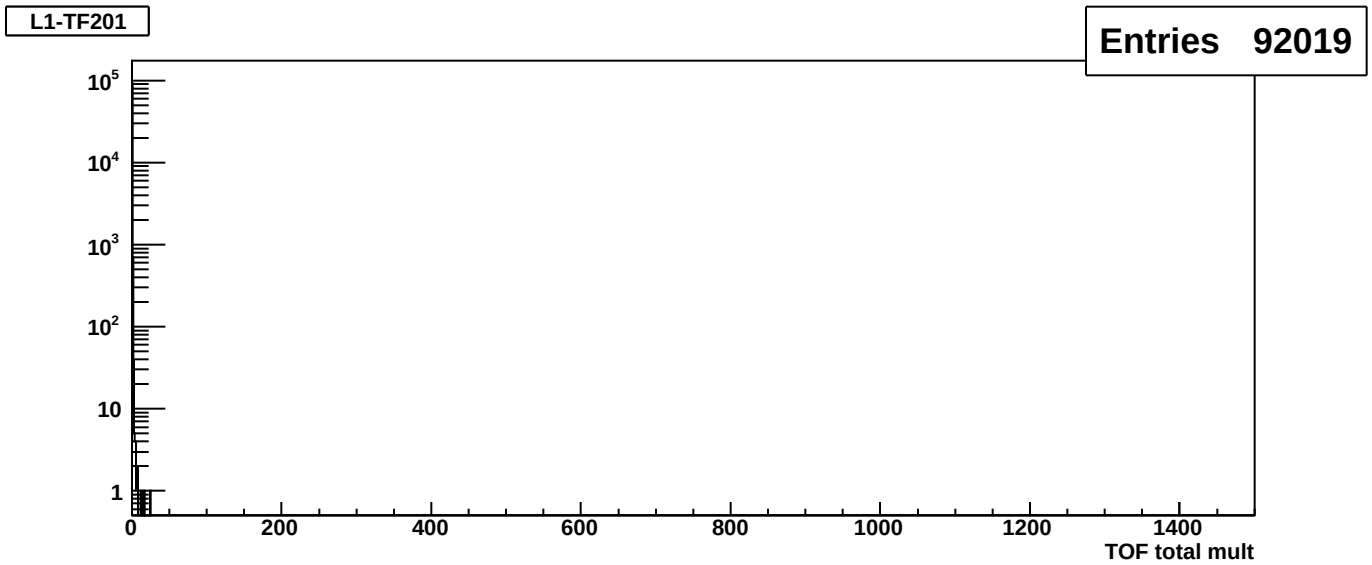

MIX-TF003
Entries 3864798
TOF MULT
TOF tray

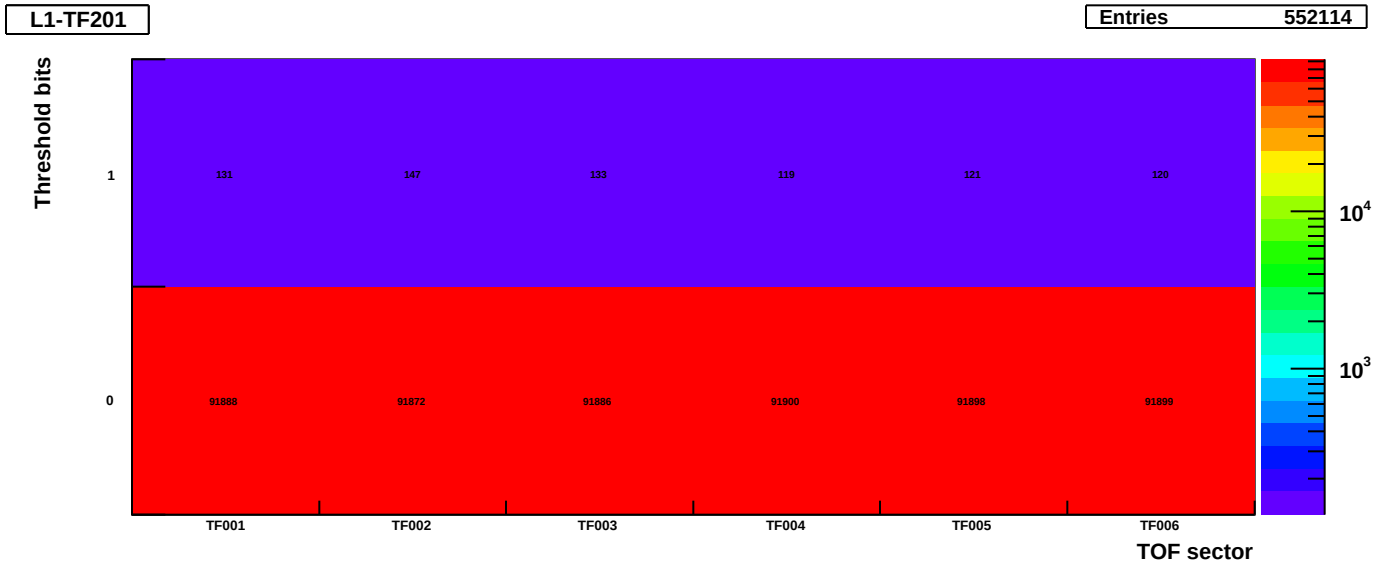

MIX-TF004
Entries 3864798
TOF MULT
TOF tray

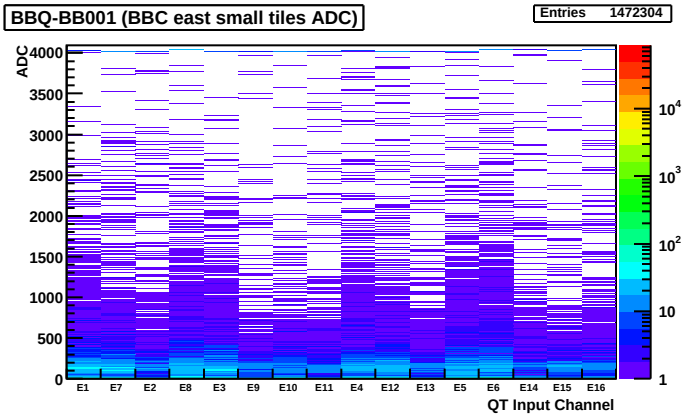

MIX-TF005
Entries 3864798
TOF MULT
TOF tray

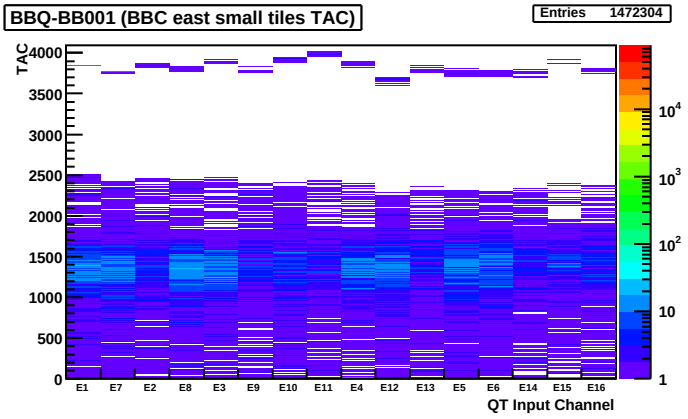

MIX-TF006
Entries 3864798
TOF MULT
TOF tray

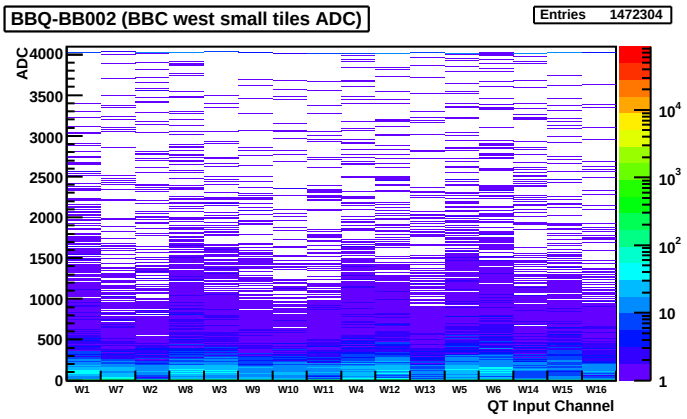

MIX-TF101
Entries 552114
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

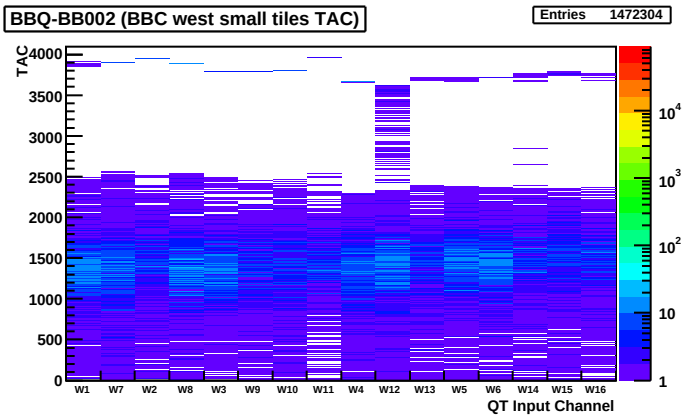

L1-TF201
Entries 92019
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
TOF total mult

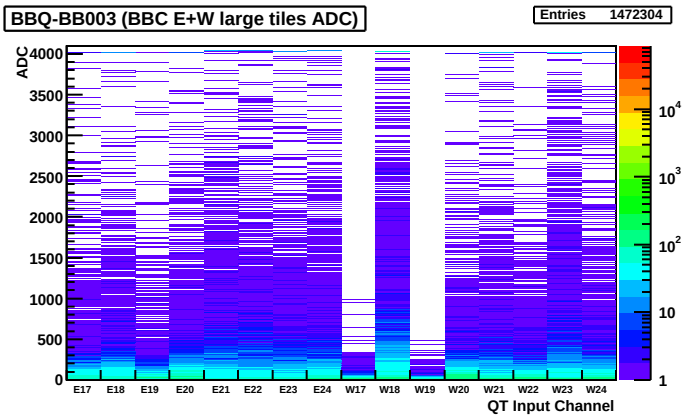

L1-TF201
Entries 552114
Threshold bits
1
0
131
147
133
119
121
120
91888
91872
91886
91900
91898
91899
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

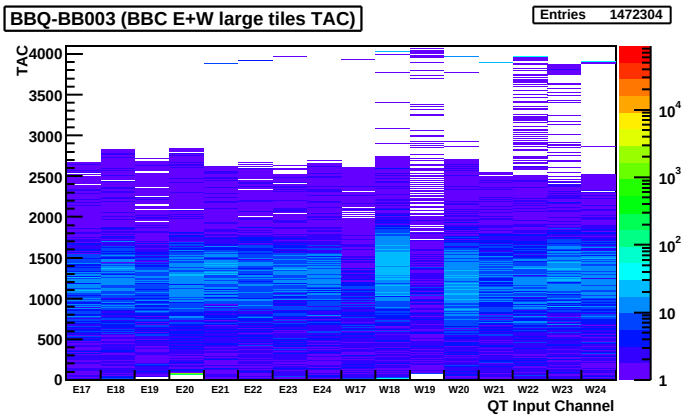

BBQ-BB001 (BBC east small tiles ADC)
Entries 1472304
ADC
QT Input Channel

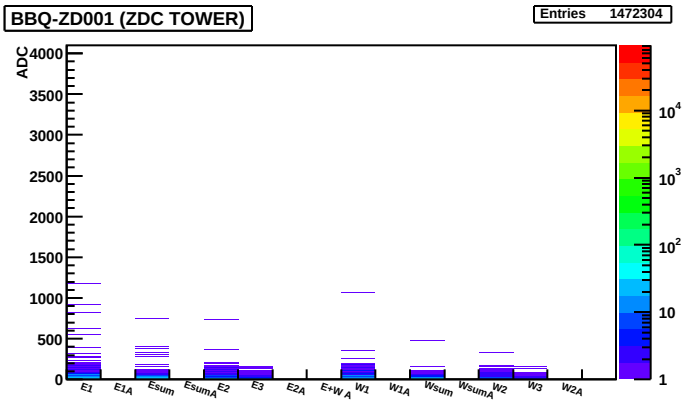

BBQ-BB001 (BBC east small tiles TAC)
Entries 1472304
TAC
QT Input Channel

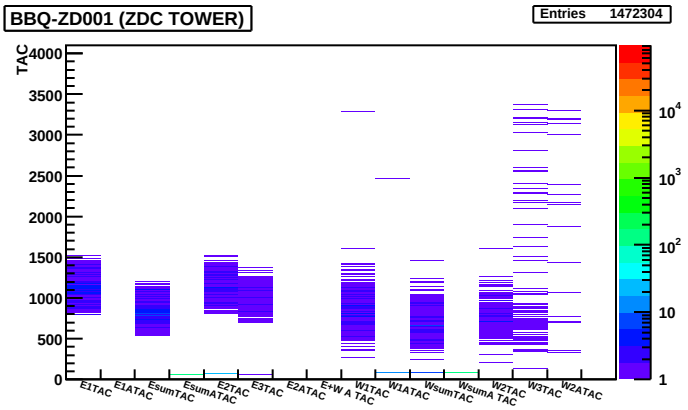

BBQ-BB002 (BBC west small tiles ADC)
Entries 1472304
ADC
QT Input Channel

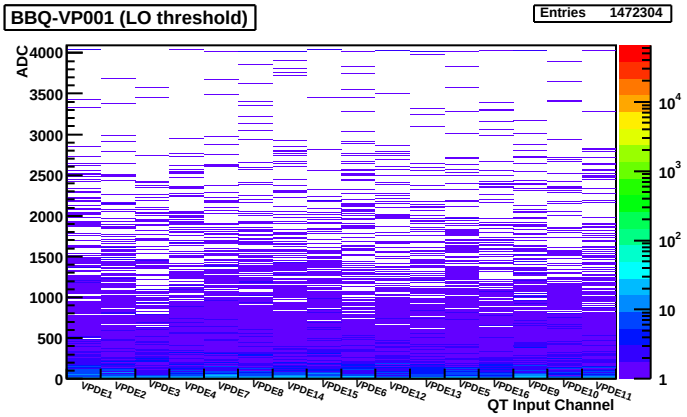

BBQ-BB002 (BBC west small tiles TAC)
Entries 1472304
TAC
QT Input Channel

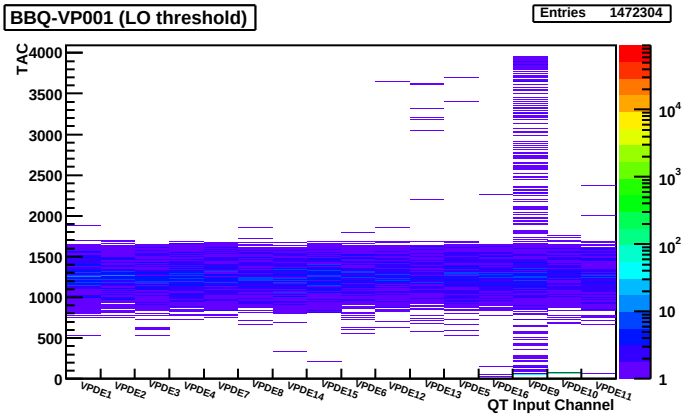

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1472304
ADC
QT Input Channel

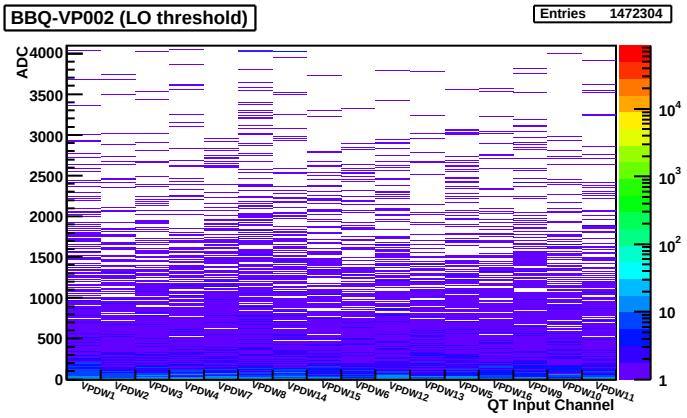

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1472304
TAC
QT Input Channel

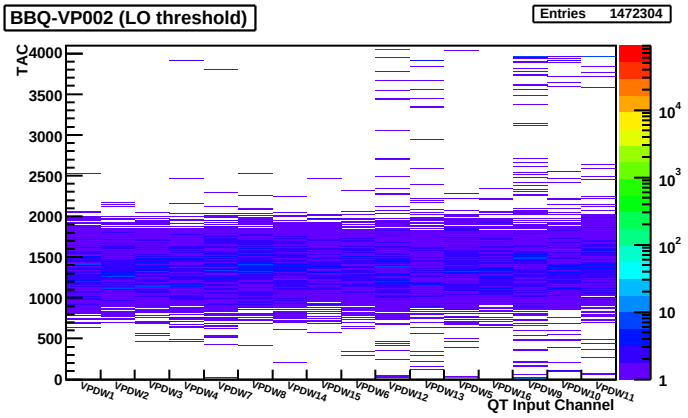

BBQ-ZD001 (ZDC TOWER)
Entries 1472304
ADC

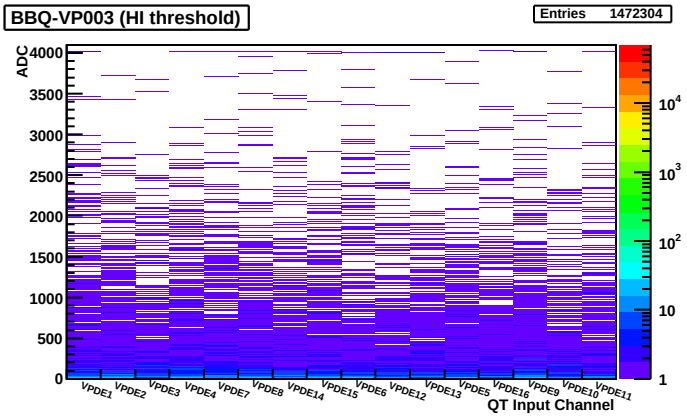

BBQ-ZD001 (ZDC TOWER)
Entries 1472304
TAC

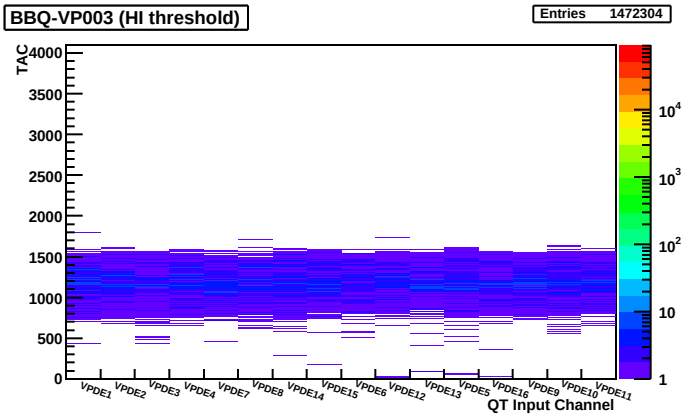

BBQ-VP001 (LO threshold)
Entries 1472304
ADC
QT Input Channel

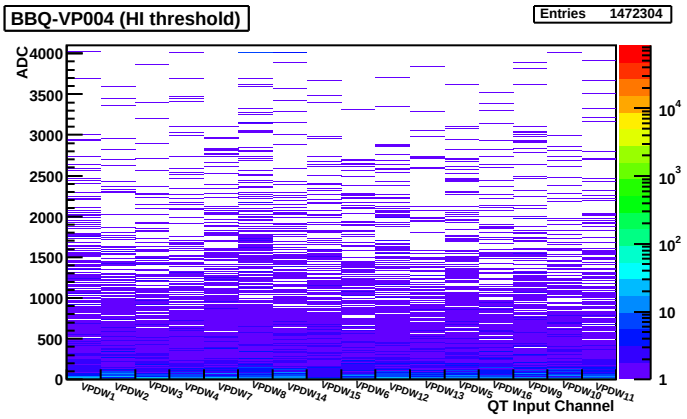

BBQ-VP001 (LO threshold)
Entries 1472304
TAC
QT Input Channel

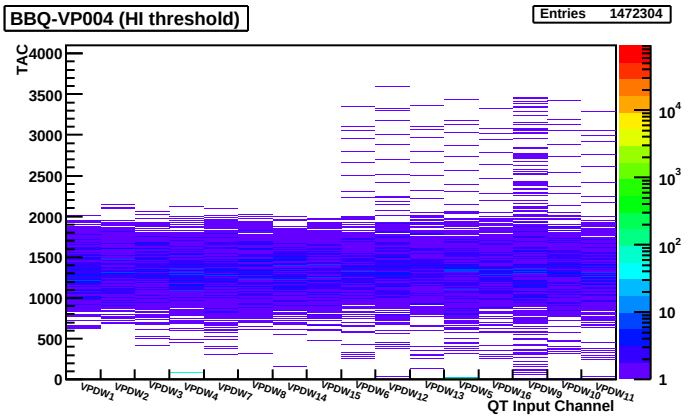

BBQ-VP002 (LO threshold)
Entries 1472304
ADC
QT Input Channel

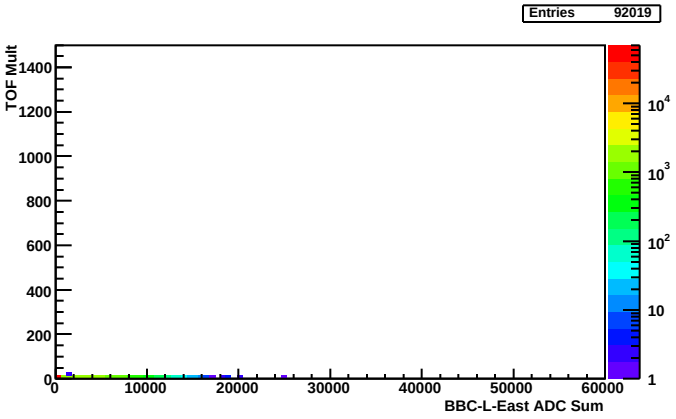

BBQ-VP002 (LO threshold)
Entries 1472304
TAC
QT Input Channel

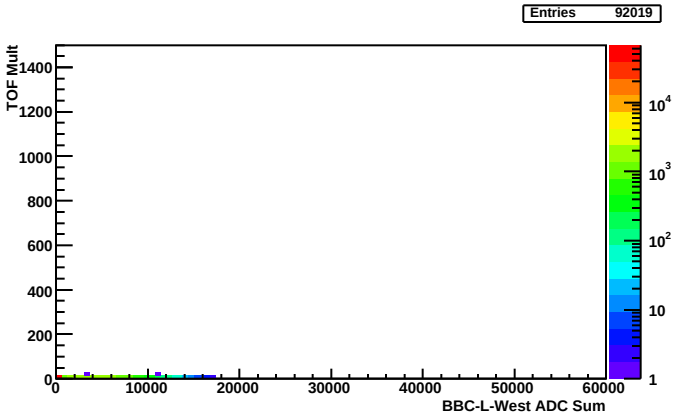

BBQ-VP003 (HI threshold)
Entries 1472304
ADC
QT Input Channel

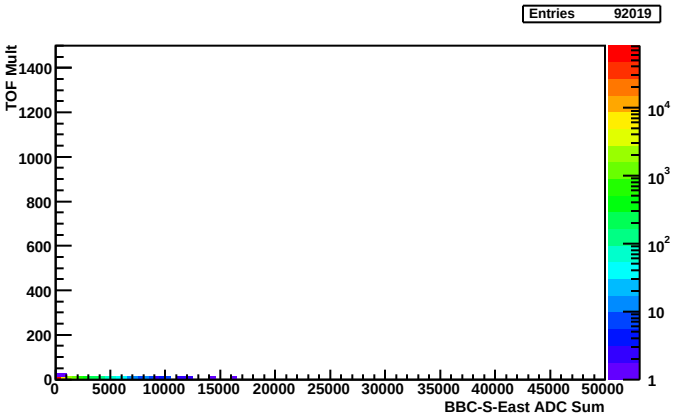

BBQ-VP003 (HI threshold)
Entries 1472304
TAC
QT Input Channel

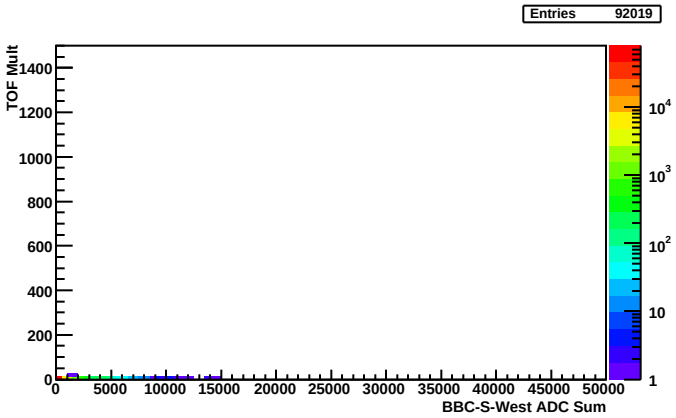

BBQ-VP004 (HI threshold)
Entries 1472304
ADC
QT Input Channel

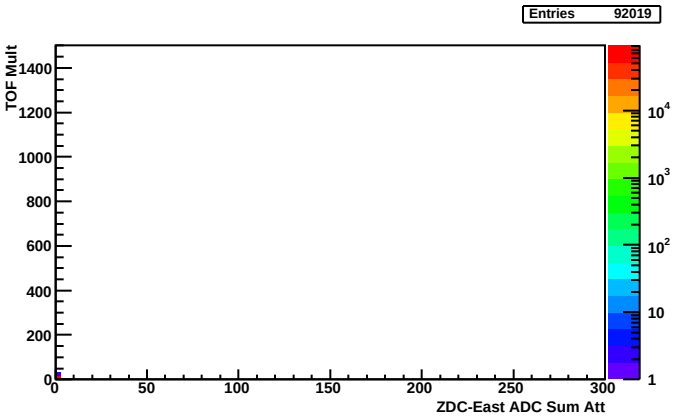

BBQ-VP004 (HI threshold)
Entries 1472304
TAC
QT Input Channel

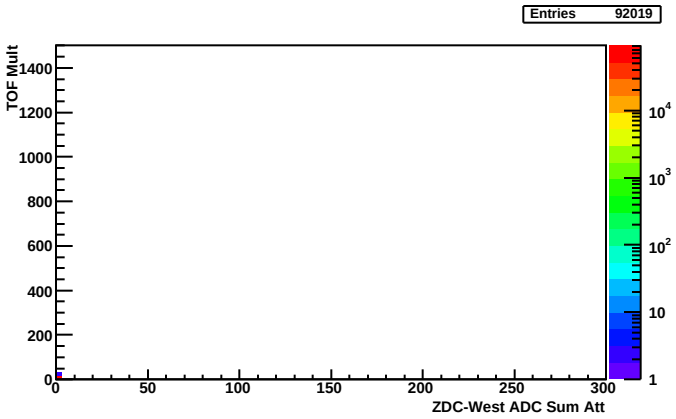

Entries 92019
TOF Mult
BBC-L-East ADC Sum

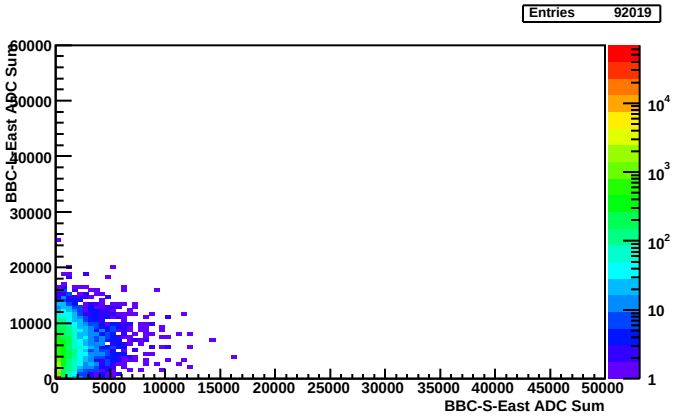

Entries 92019
TOF Mult
BBC-L-West ADC Sum

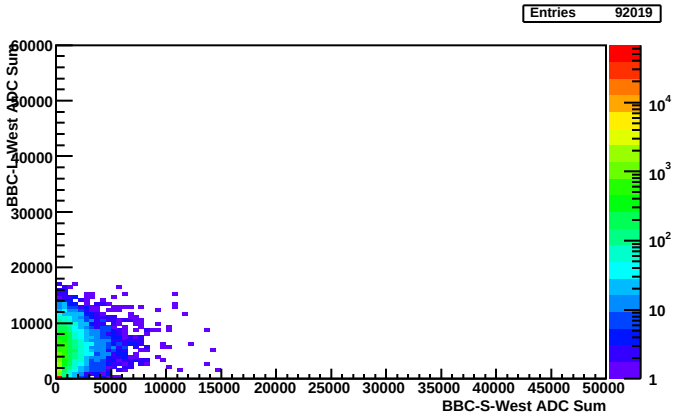

Entries 92019
TOF Mult
BBC-S-East ADC Sum

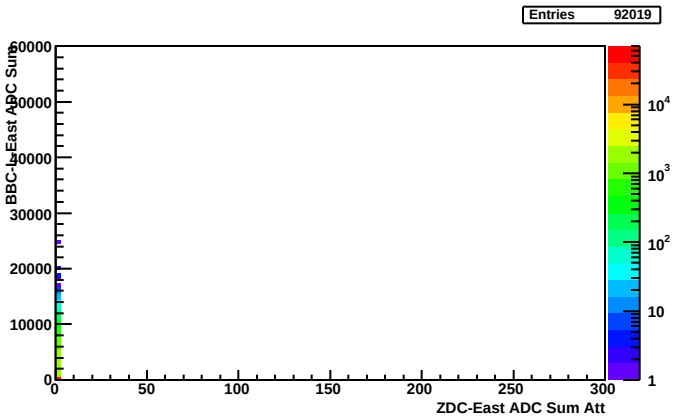

Entries 92019
TOF Mult
BBC-S-West ADC Sum

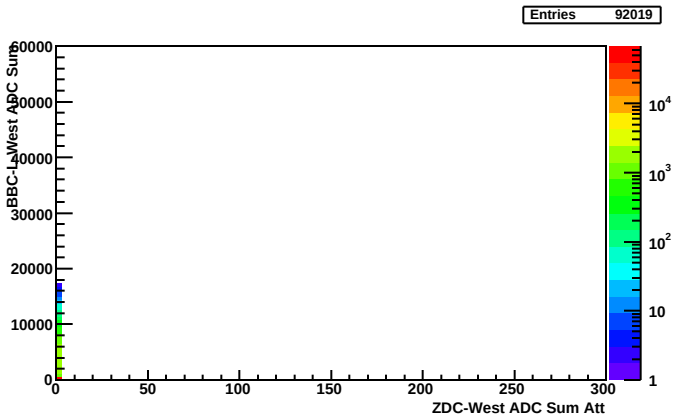

Entries 92019
TOF Mult
ZDC-East ADC Sum Att

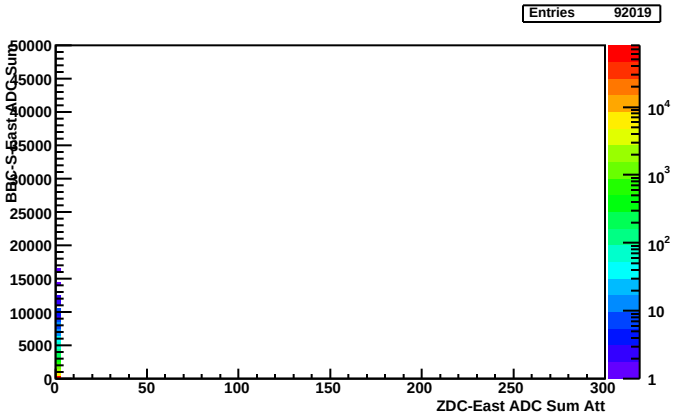

Entries 92019
TOF Mult
ZDC-West ADC Sum Att

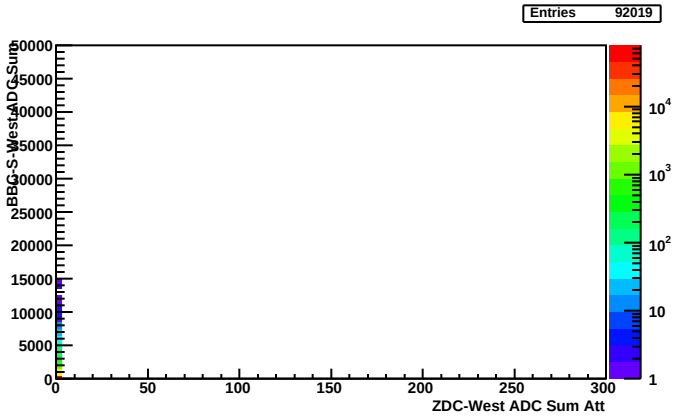

Entries 92019
BBC-L-East ADC Sum
BBC-S-East ADC Sum

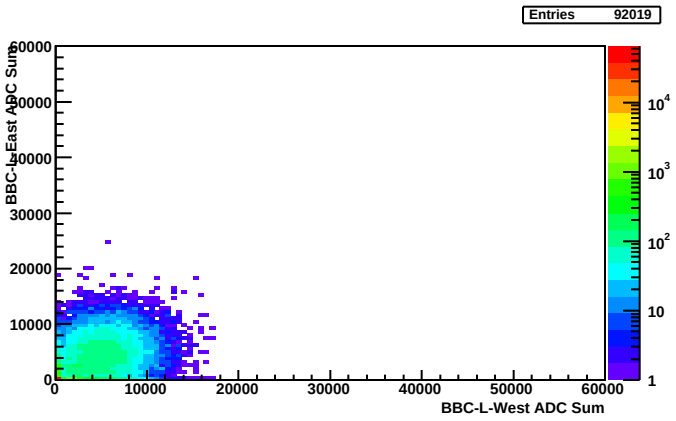

Entries 92019
BBC-L-West ADC Sum
BBC-S-West ADC Sum

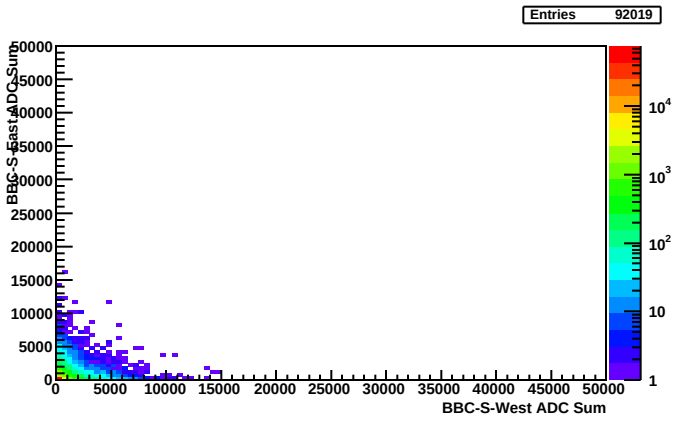

Entries 92019
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

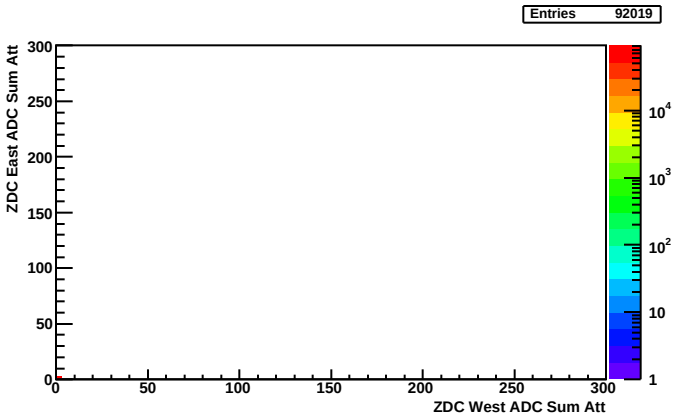

Entries 92019
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

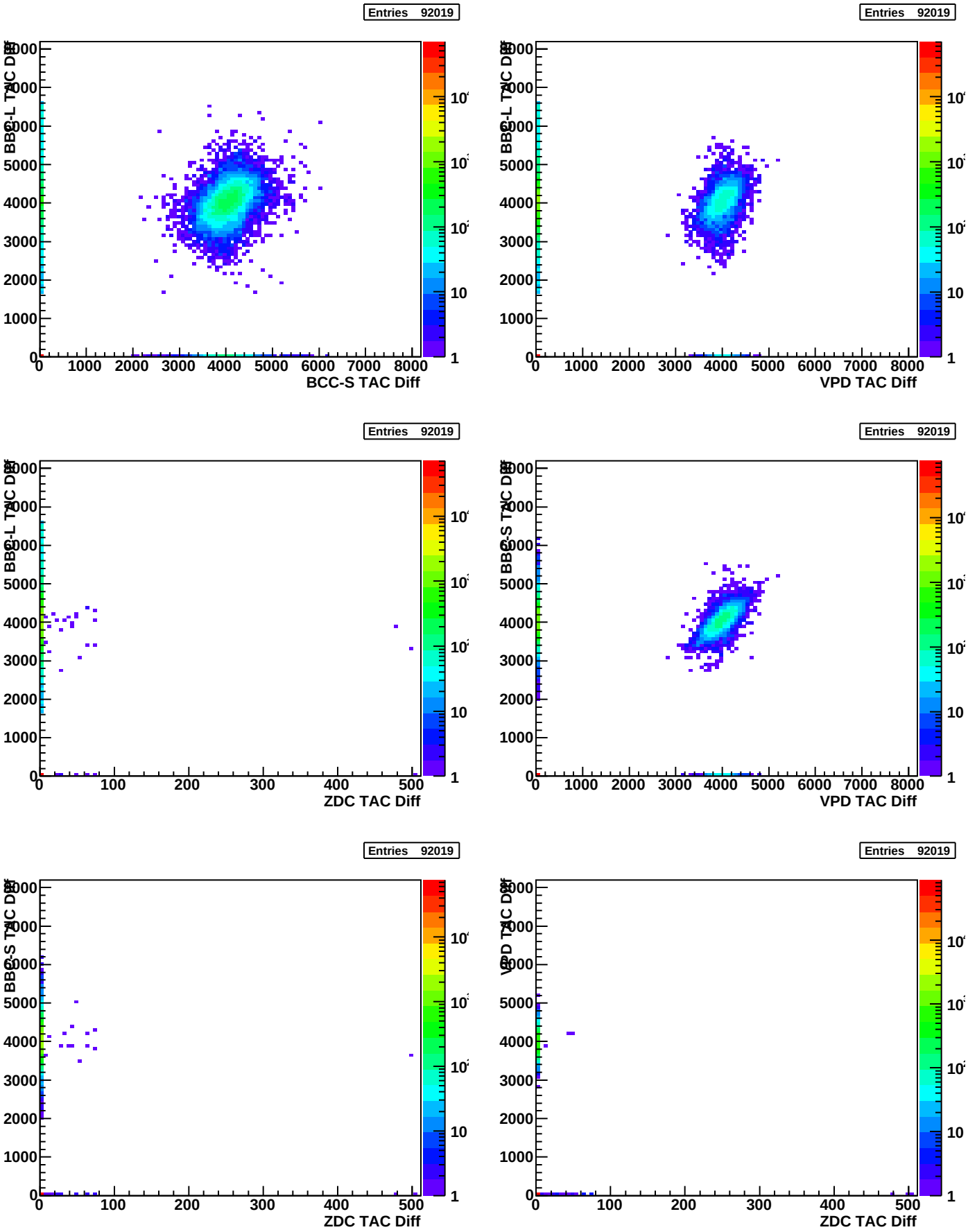

Entries 92019
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

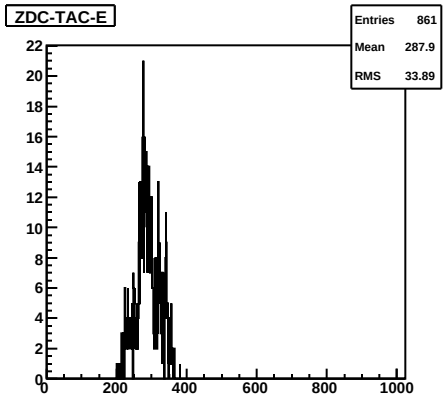

Entries 92019
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

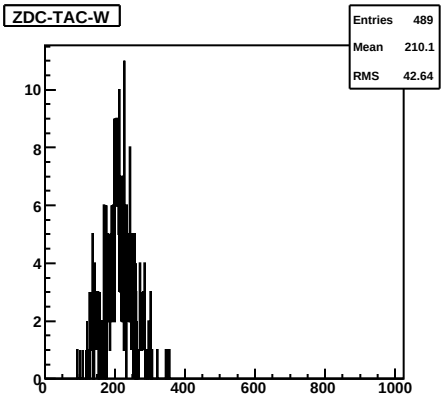

Entries 92019
BBC-L-East ADC Sum
BBC-L-West ADC Sum

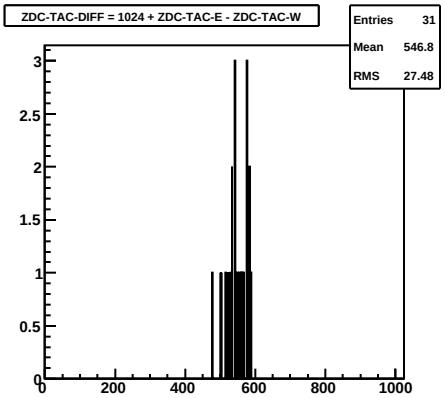

Entries 92019
BBC-S-East ADC Sum
BBC-S-West ADC Sum

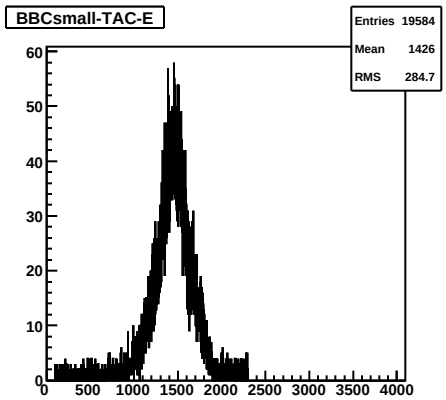

Entries 92019
ZDC East ADC Sum Att
ZDC West ADC Sum Att

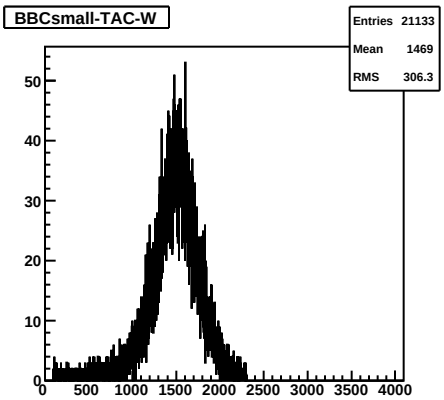

Entries 92019
BBC-L TAC Diff
BCC-S TAC Diff
Entries 92019
BBC-L TAC Diff
VPD TAC Diff
Entries 92019
BBC-L TAC Diff
ZDC TAC Diff
Entries 92019
BBC-S TAC Diff
VPD TAC Diff
Entries 92019
BBC-S TAC Diff
ZDC TAC Diff
Entries 92019
VPD TAC Diff
ZDC TAC Diff

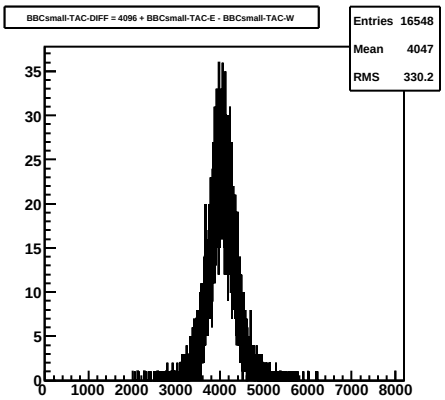

ZDC-TAC-E
Entries 861
Mean 287.9
RMS 33.89

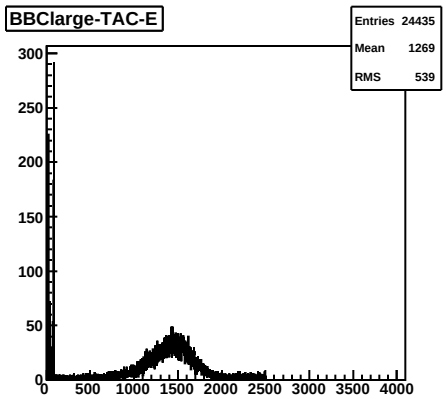

ZDC-TAC-W
Entries 489
Mean 210.1
RMS 42.64

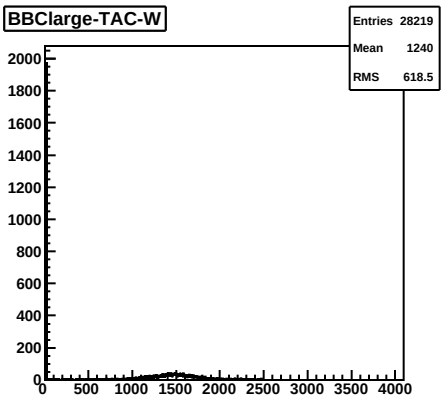

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 31
Mean 546.8
RMS 27.48

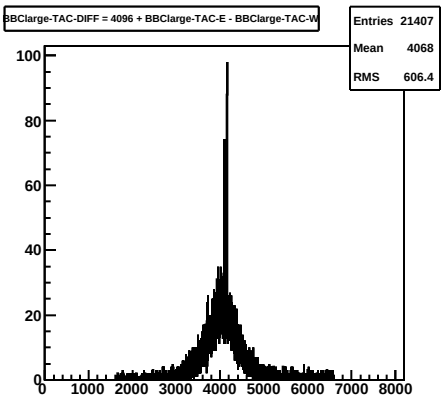

BBCsmall-TAC-E
Entries 19584
Mean 1426
RMS 284.7

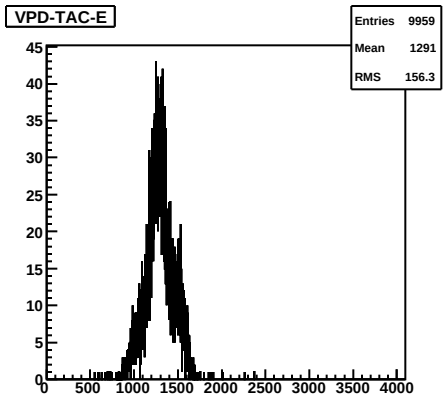

BBCsmall-TAC-W
Entries 21133
Mean 1469
RMS 306.3

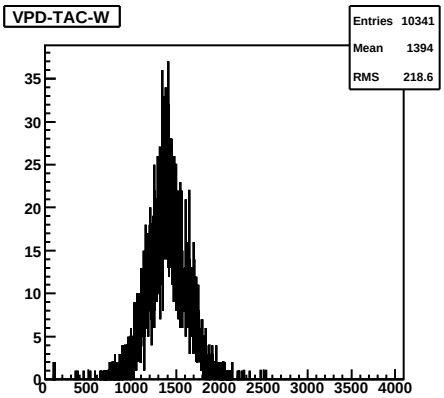

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 16548
Mean 4047
RMS 330.2

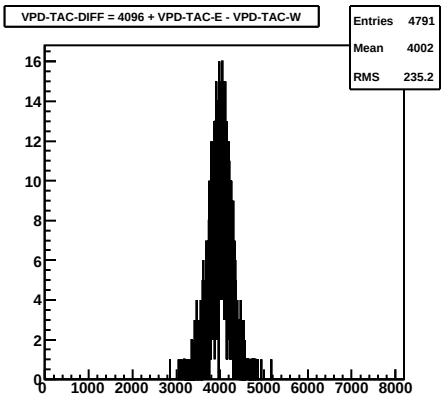

BBClarge-TAC-E
Entries 24435
Mean 1269
RMS 539

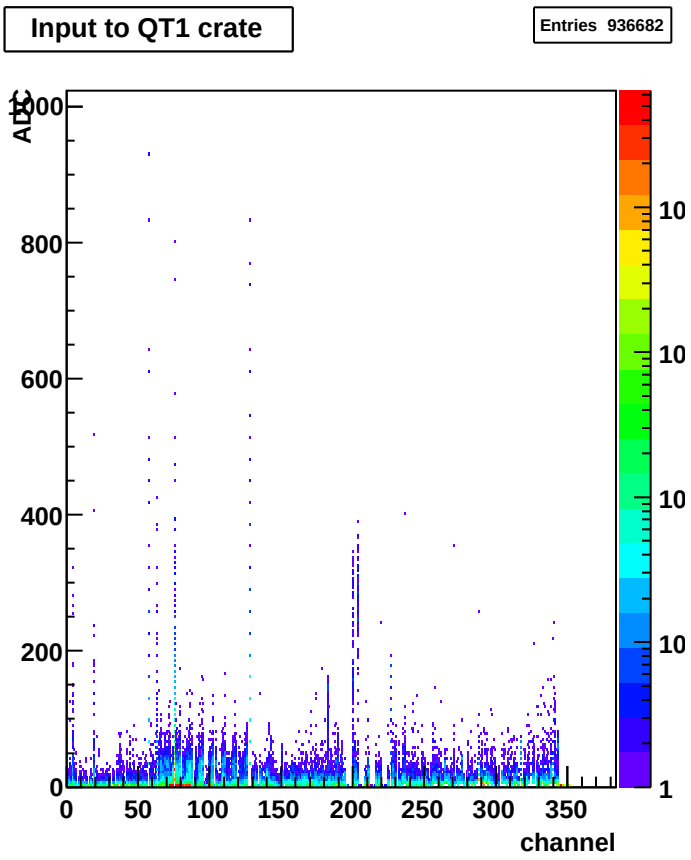

BBClarge-TAC-W
Entries 28219
Mean 1240
RMS 618.5

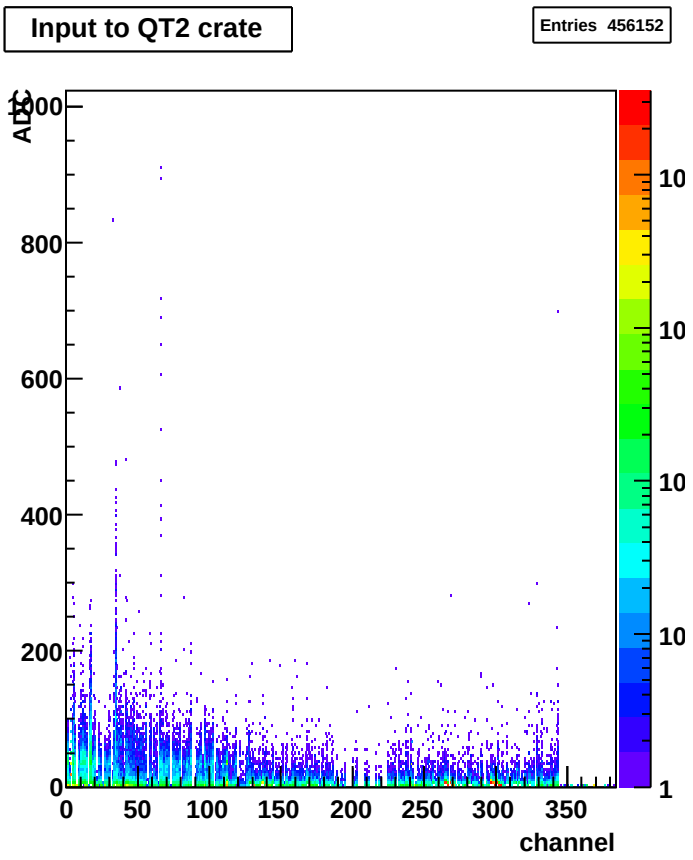

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 21407
Mean 4068
RMS 606.4

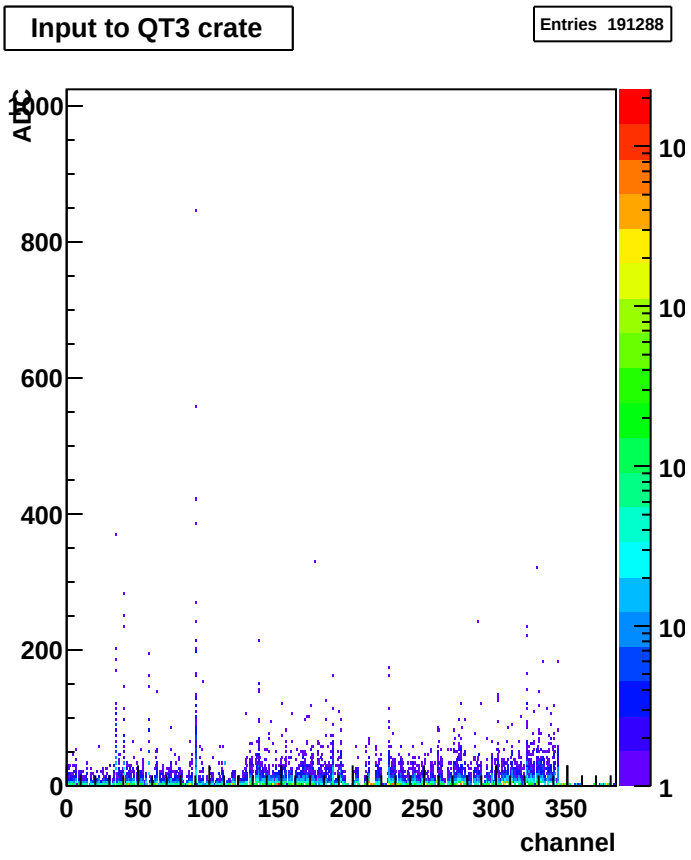

VPD-TAC-E
Entries 9959
Mean 1291
RMS 156.3

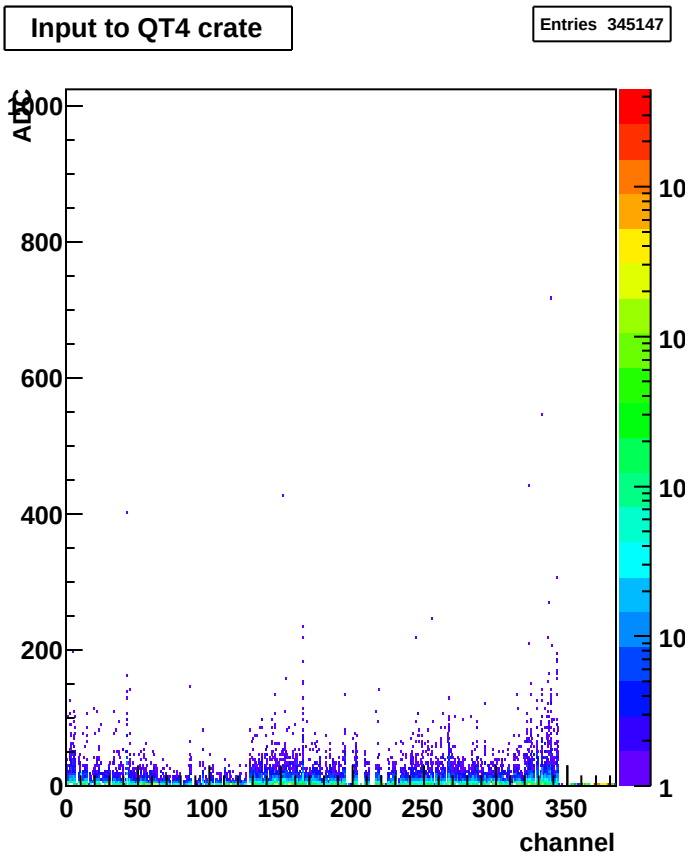

VPD-TAC-W
Entries 10341
Mean 1394
RMS 218.6

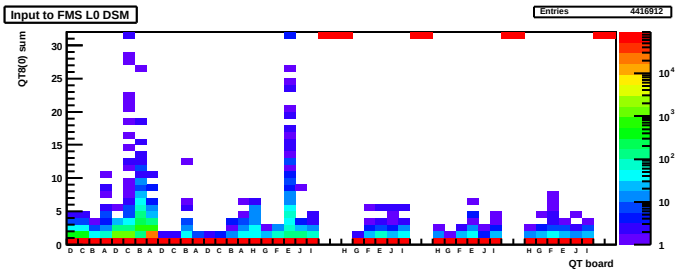

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 4791
Mean 4002
RMS 235.2

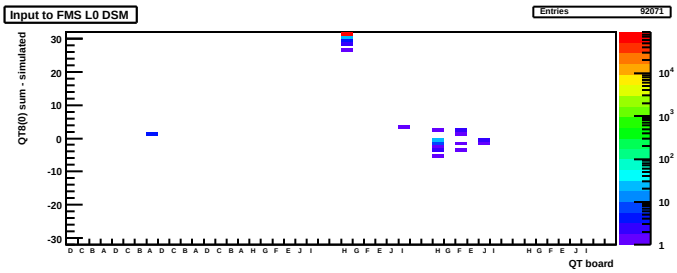

Input to QT1 crate
Entries 936682
ADC
channel

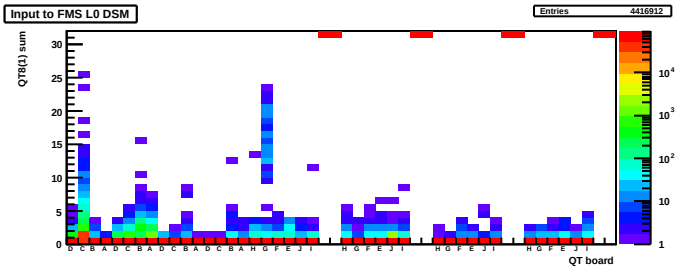

Input to QT2 crate
Entries 456152
ADC
channel

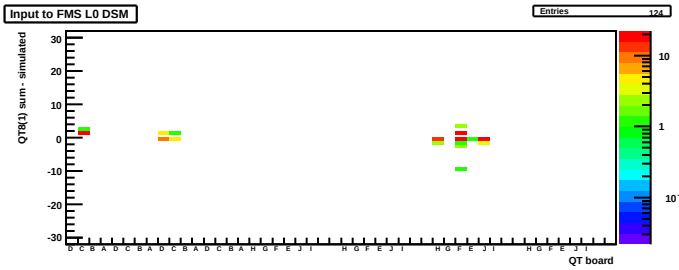

Input to QT3 crate
Entries 191288
ADC
channel

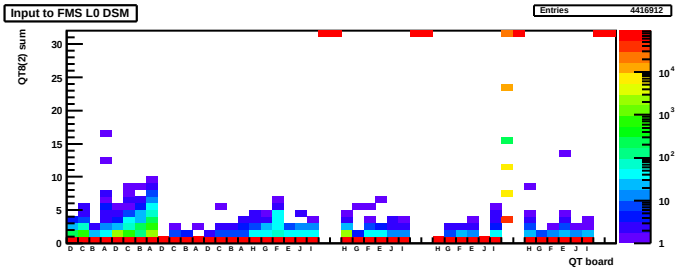

Input to QT4 crate
Entries 345147
ADC
channel

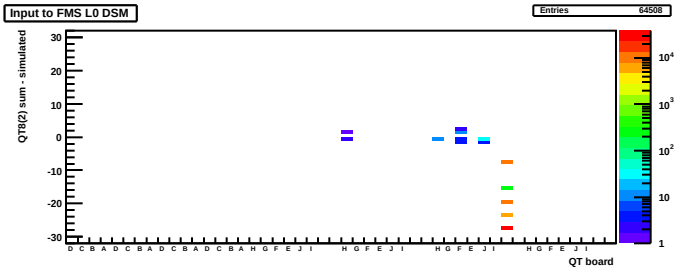

Input to FMS L0 DSM
Entries 4416912
QT8(0) sum
QT board

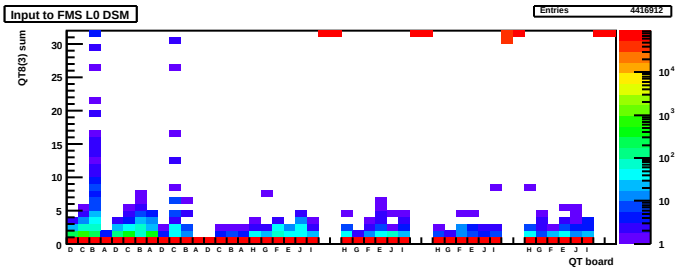

Input to FMS L0 DSM
Entries 92071
QT8(0) sum - simulated
QT board

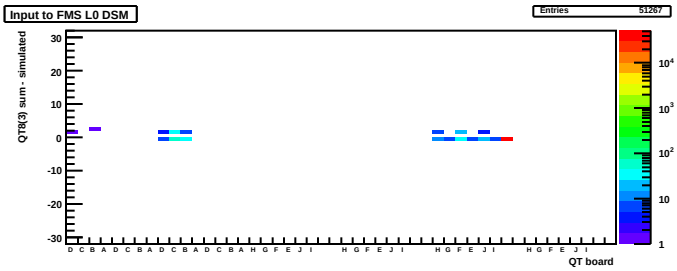

Input to FMS L0 DSM
Entries 4416912
QT8(1) sum
QT board

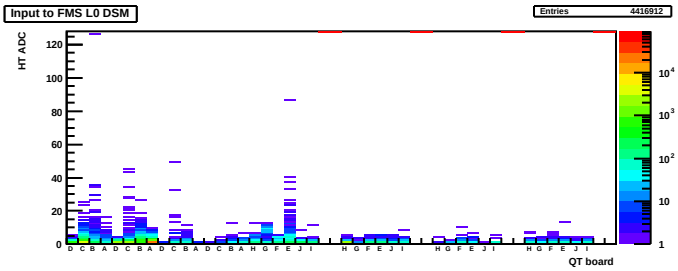

Input to FMS L0 DSM
Entries 124
QT8(1) sum - simulated
QT board

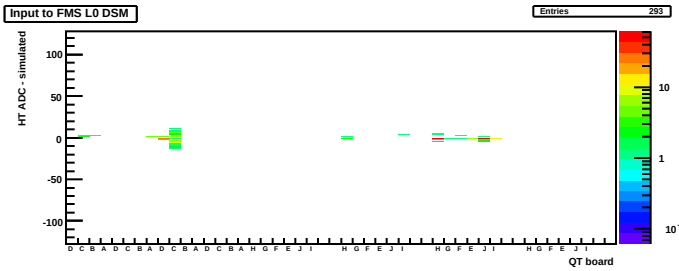

Input to FMS L0 DSM
Entries 4416912
QT8(2) sum
QT board

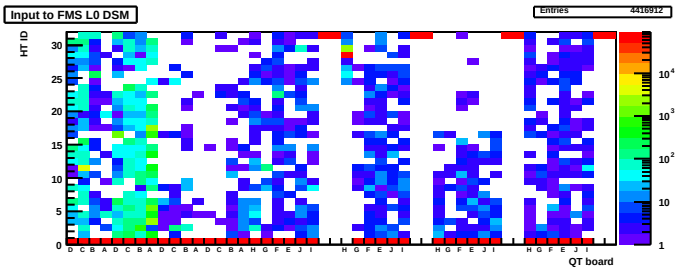

Input to FMS L0 DSM
Entries 64508
QT8(2) sum - simulated
QT board

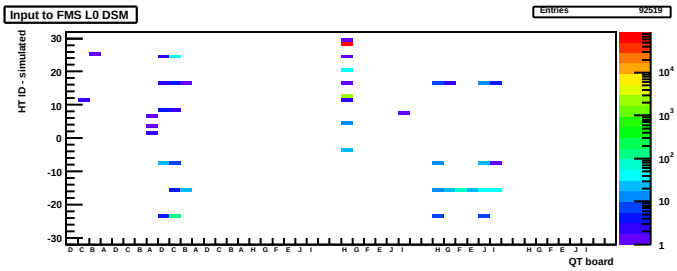

Input to FMS L0 DSM
Entries 4416912
QT8(3) sum
QT board

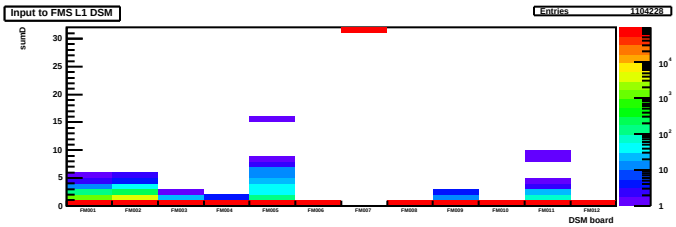

Input to FMS L0 DSM
Entries 51287
QT8(3) sum - simulated
QT board

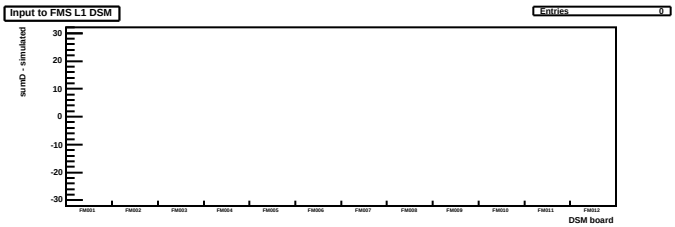

Input to FMS L0 DSM
Entries 4416912
HT ADC
QT board

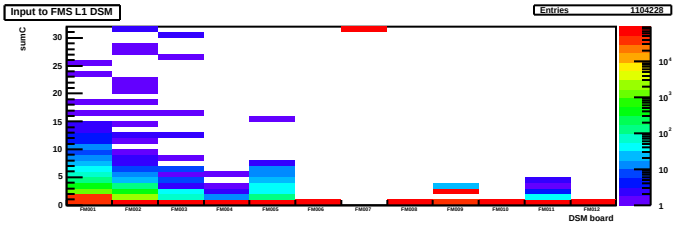

Input to FMS L0 DSM
Entries 293
HT ADC - simulated
QT board

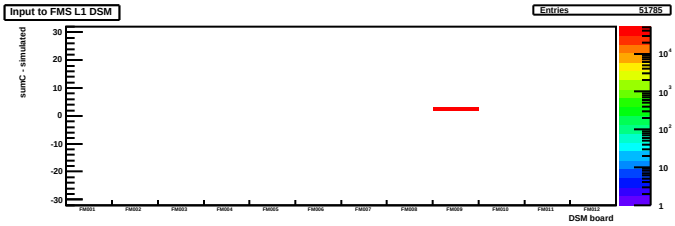

Input to FMS L0 DSM
Entries 4416912
HT ID
QT board

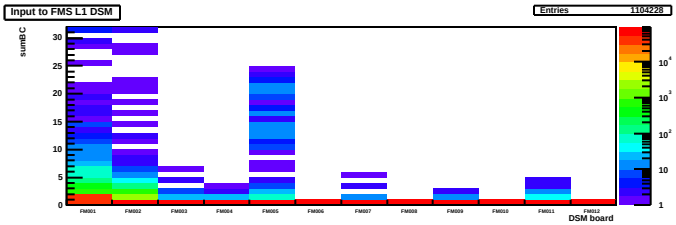

Input to FMS L0 DSM
Entries 92519
HT ID - simulated
QT board

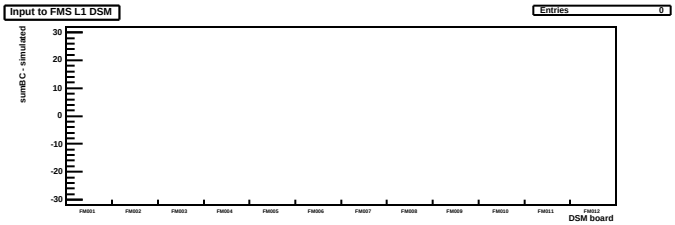

Input to FMS L1 DSM
Entries 1104228
sumD
DSM board

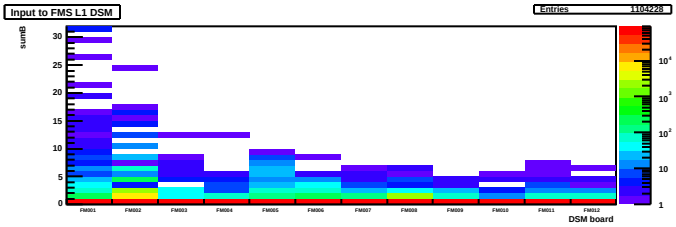

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

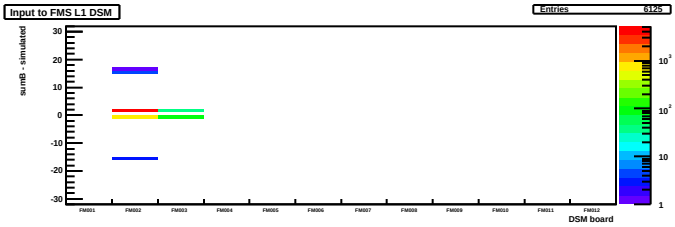

Input to FMS L1 DSM
Entries 1104228
sumC
DSM board

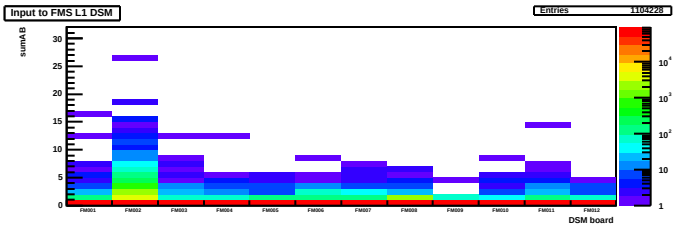

Input to FMS L1 DSM
Entries 51785
sumC - simulated
DSM board

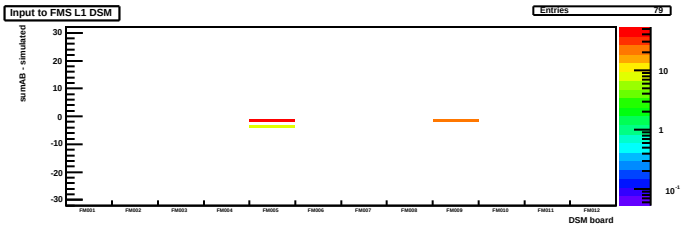

Input to FMS L1 DSM
Entries 1104228
sumBC
DSM board

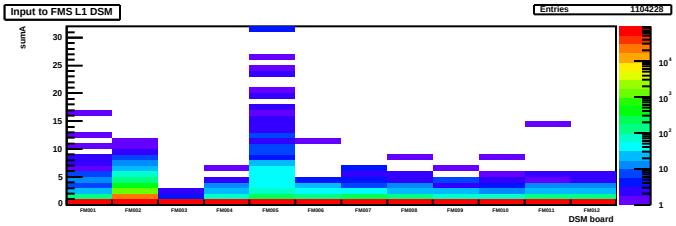

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

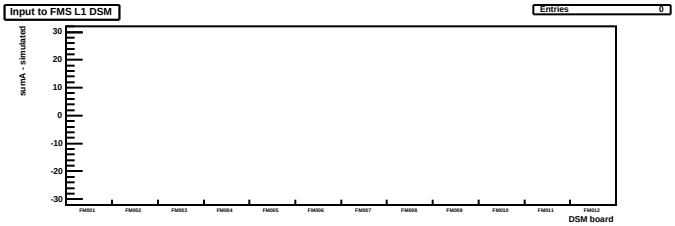

Input to FMS L1 DSM
Entries 1104228
sumB
DSM board

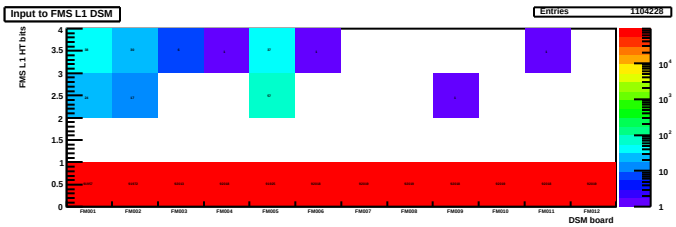

Input to FMS L1 DSM
Entries 6125
sumB - simulated
DSM board

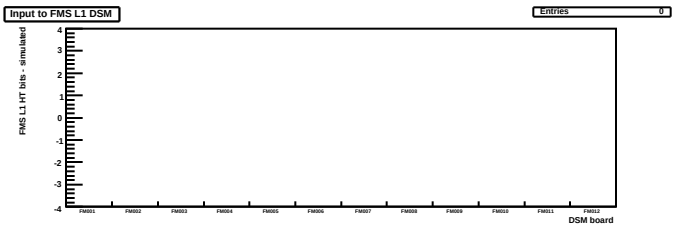

Input to FMS L1 DSM
Entries 1104228
sumAB
DSM board

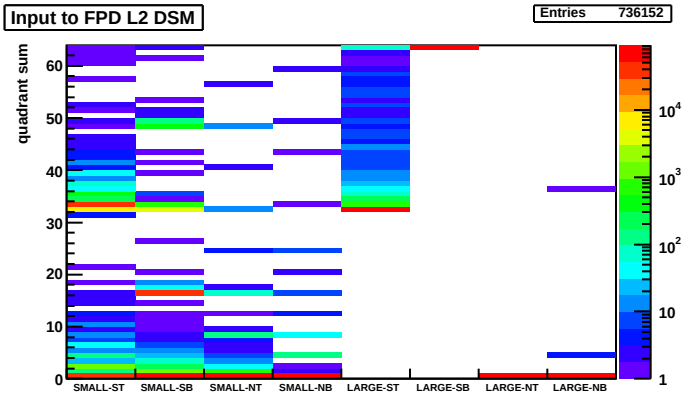

Input to FMS L1 DSM
Entries 79
sumAB - simulated
DSM board

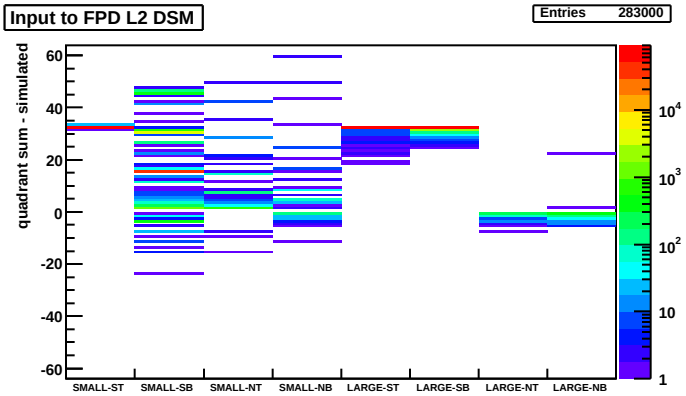

Input to FMS L1 DSM
Entries 1104228
sumA
DSM board

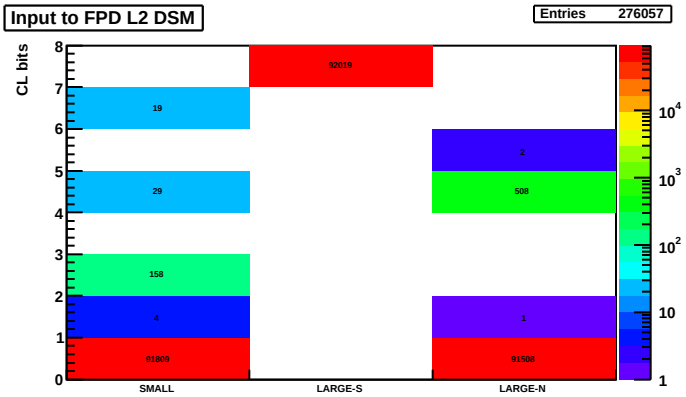

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

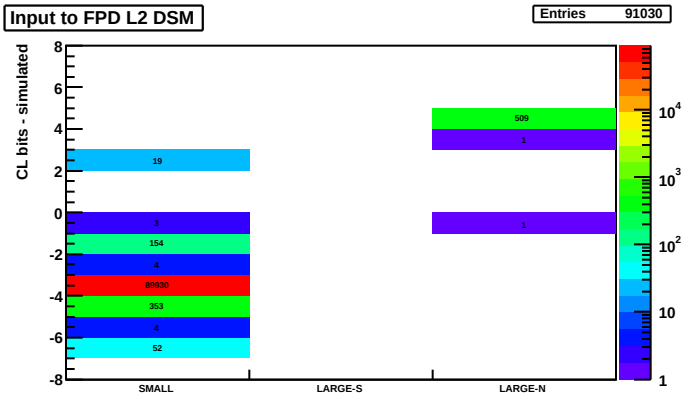

Input to FMS L1 DSM
Entries 1104228
FMS L1 HT bits
DSM board

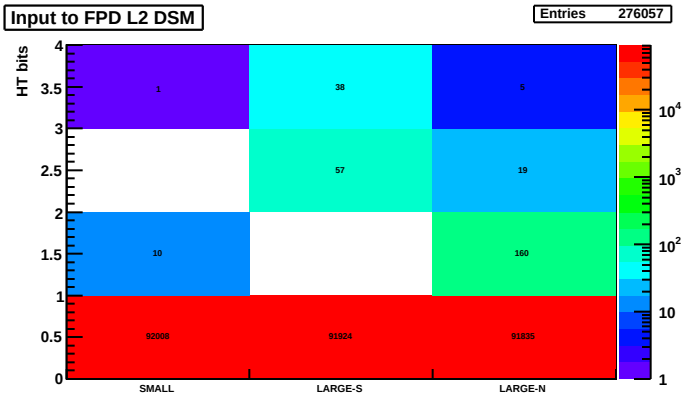

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

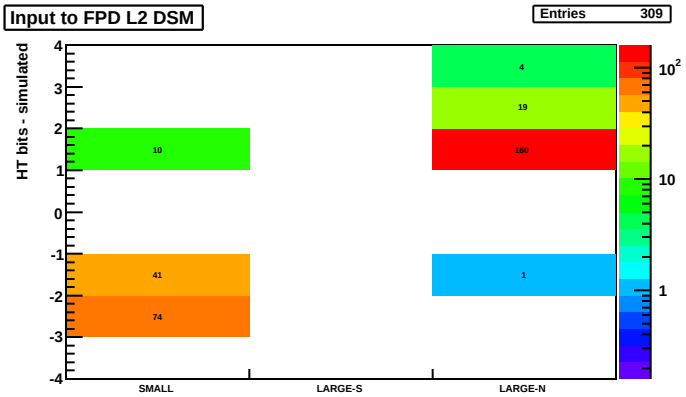

Input to FPD L2 DSM
Entries 736152
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

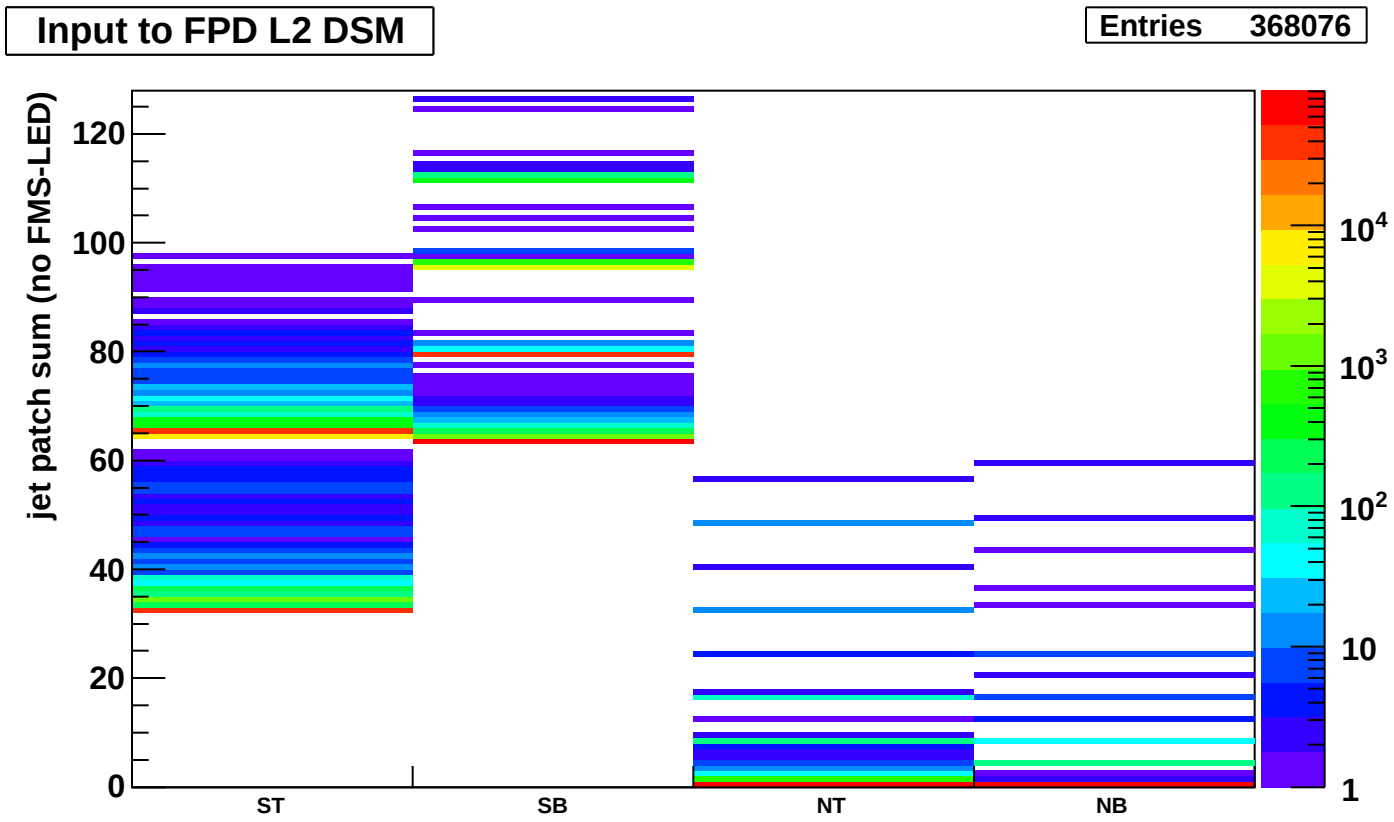

Input to FPD L2 DSM
Entries 283000
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

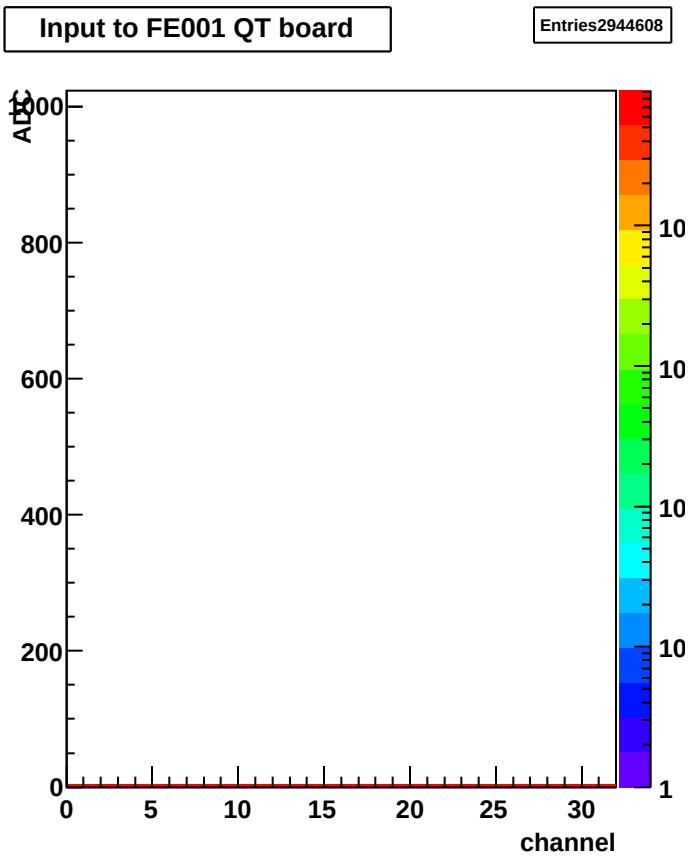

Input to FPD L2 DSM
Entries 276057
CL bits
SMALL
LARGE-S
LARGE-N

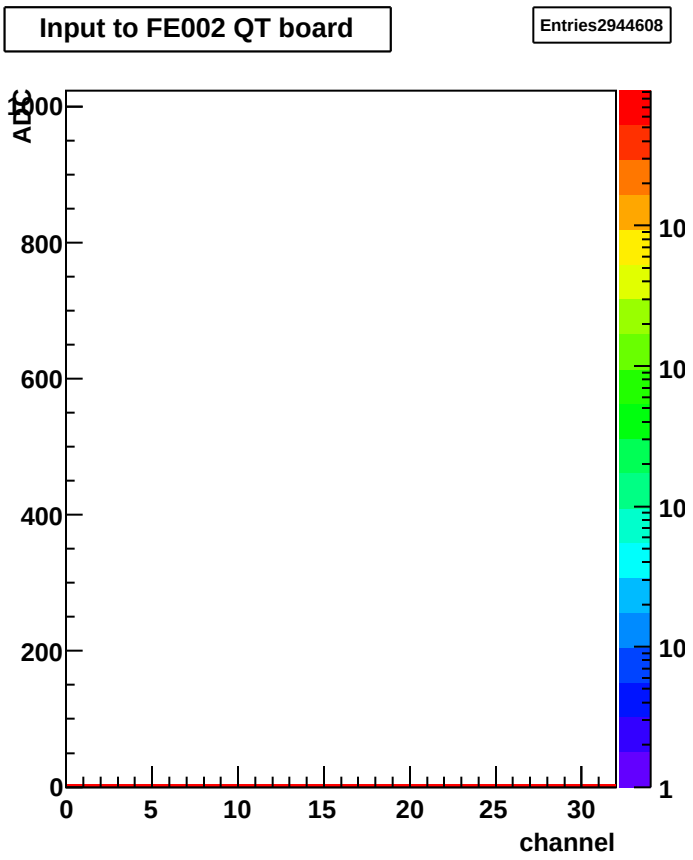

Input to FPD L2 DSM
Entries 91030
CL bits - simulated
SMALL
LARGE-S
LARGE-N

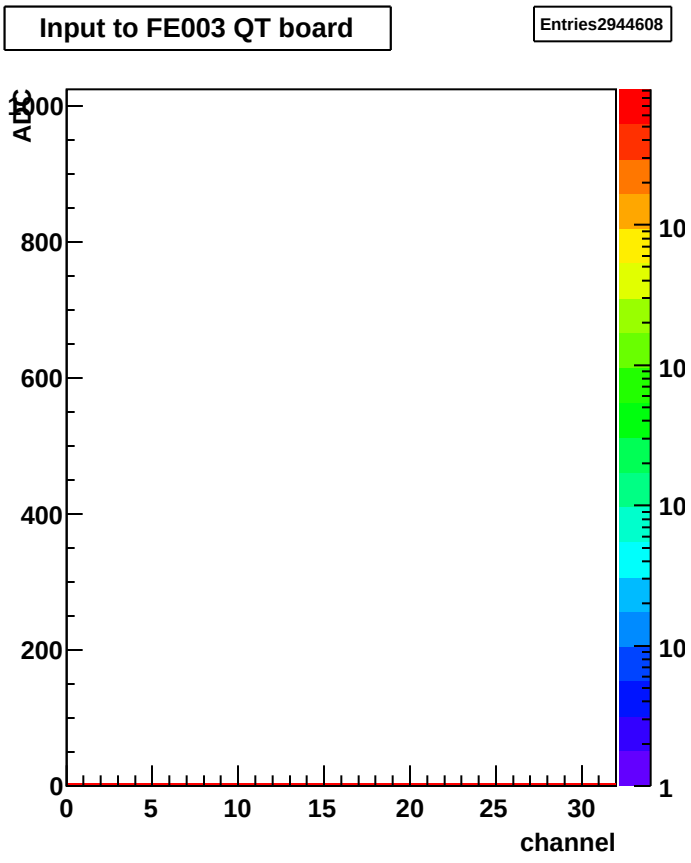

Input to FPD L2 DSM
Entries 276057
HT bits
SMALL
LARGE-S
LARGE-N

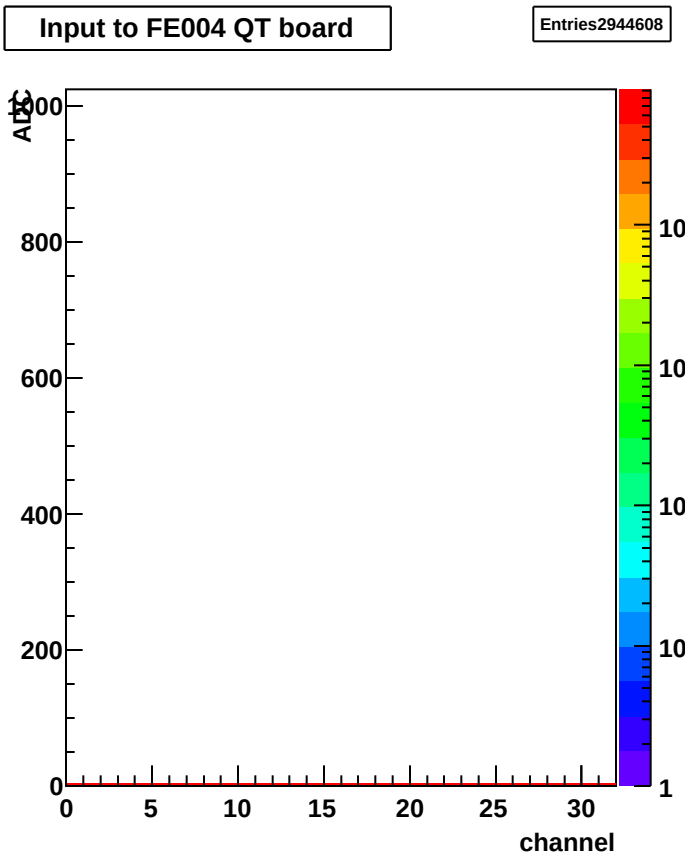

Input to FPD L2 DSM
Entries 309
HT bits - simulated
SMALL
LARGE-S
LARGE-N

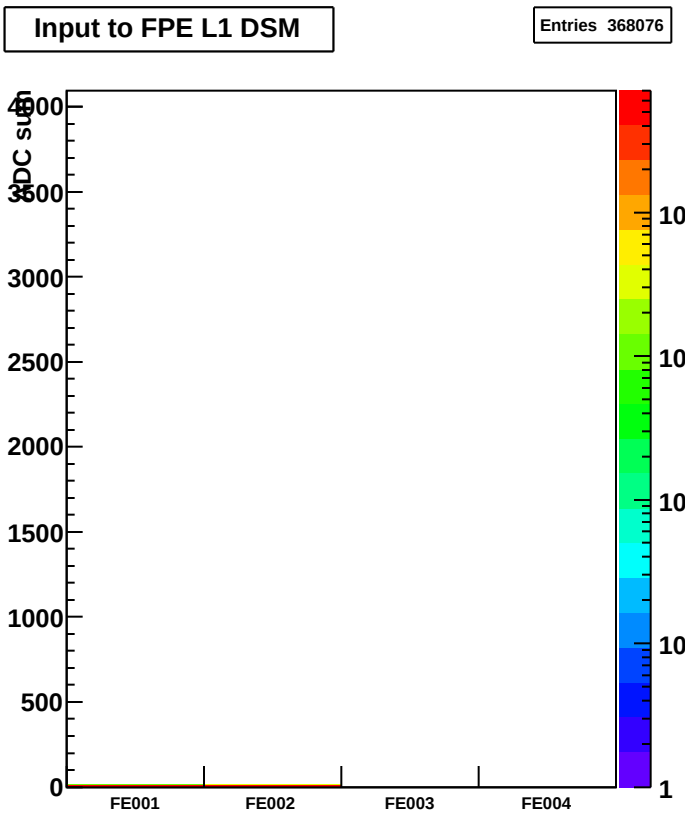

Input to FPD L2 DSM
Entries 368076
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4

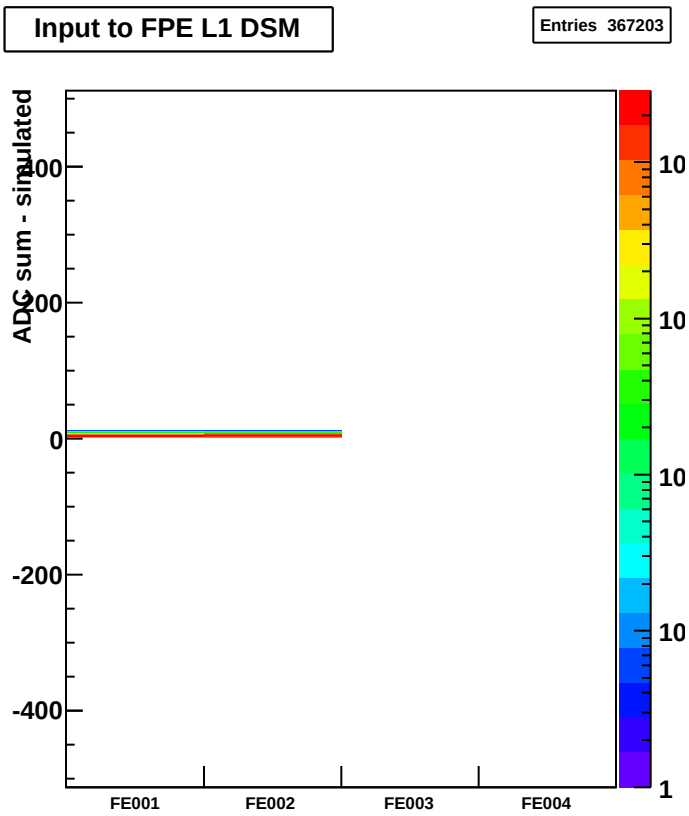

Input to FE001 QT board
Entries2944608
ADC
channel

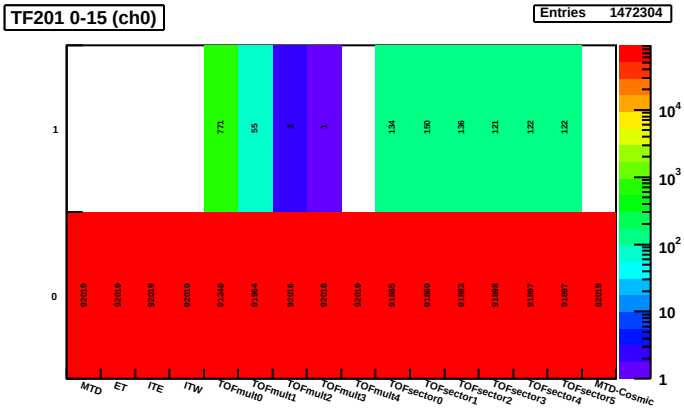

Input to FE002 QT board
Entries2944608
ADC
channel

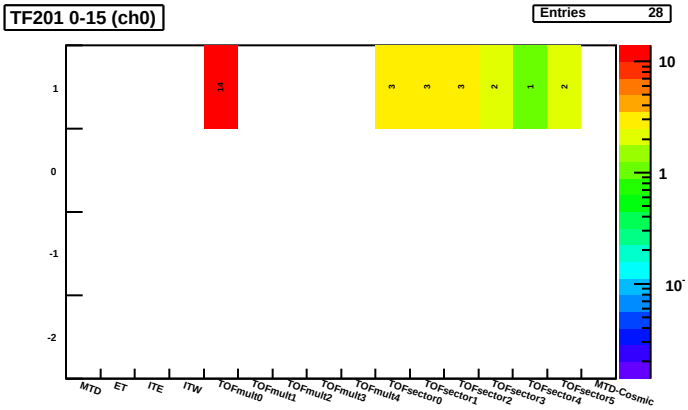

Input to FE003 QT board
Entries2944608
ADC
channel

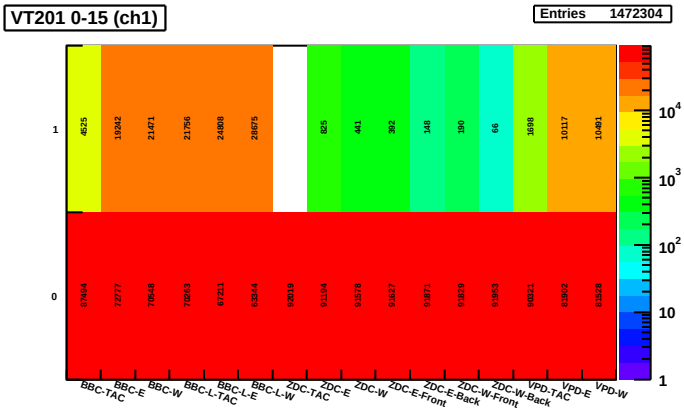

Input to FE004 QT board
Entries2944608
ADC
channel

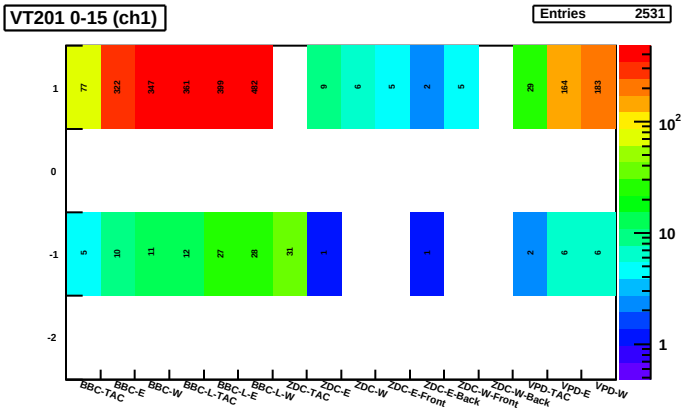

Input to FPE L1 DSM
Entries 368076
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

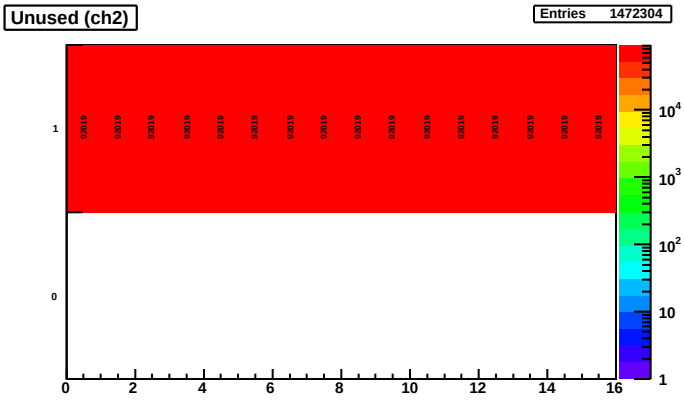

Input to FPE L1 DSM
Entries 367203
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

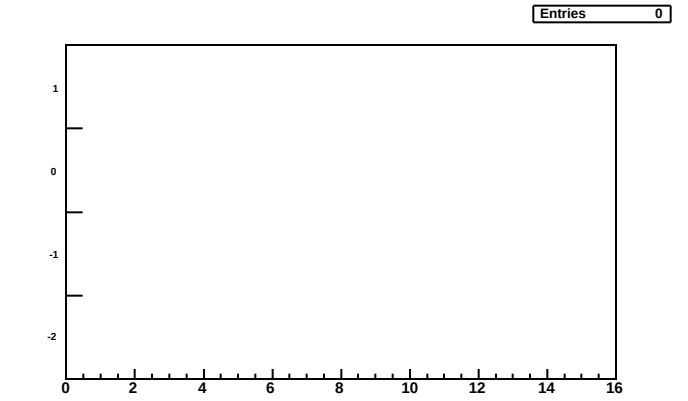

TF201 0-15 (ch0)
Entries 1472304
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

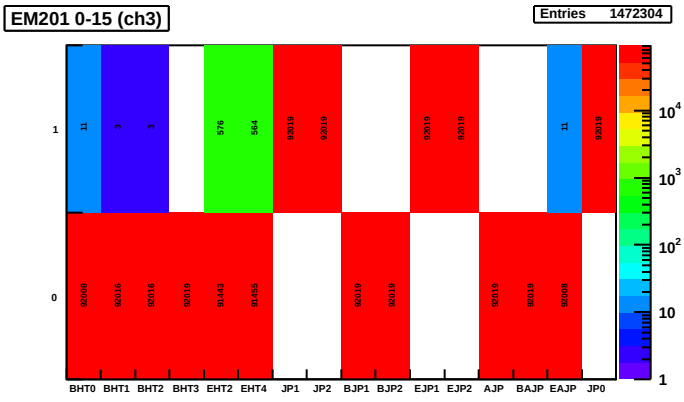

TF201 0-15 (ch0)
Entries 28
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

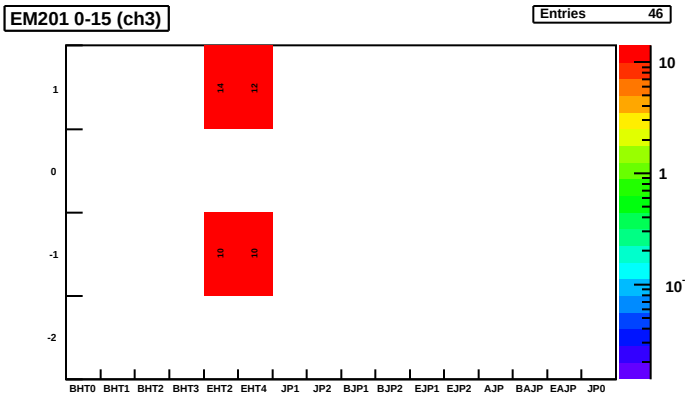

VT201 0-15 (ch1)
Entries 1472304
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 2531
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

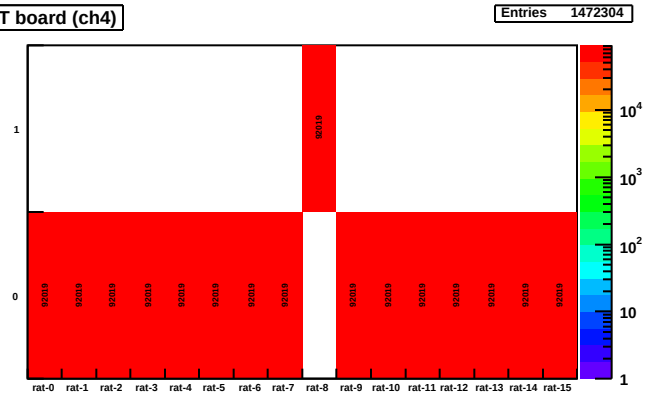

Unused (ch2)
Entries 1472304

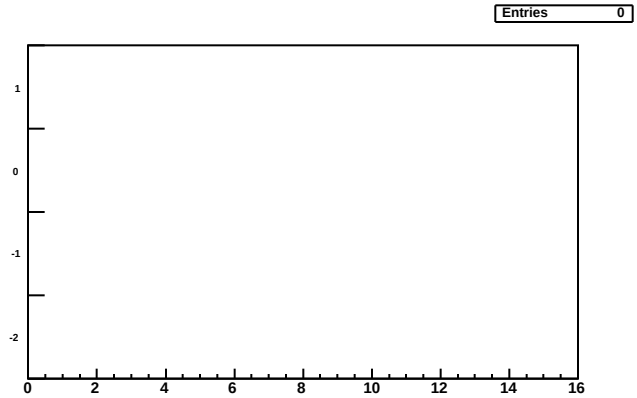

Entries 0


EM201 0-15 (ch3)
Entries 1472304
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

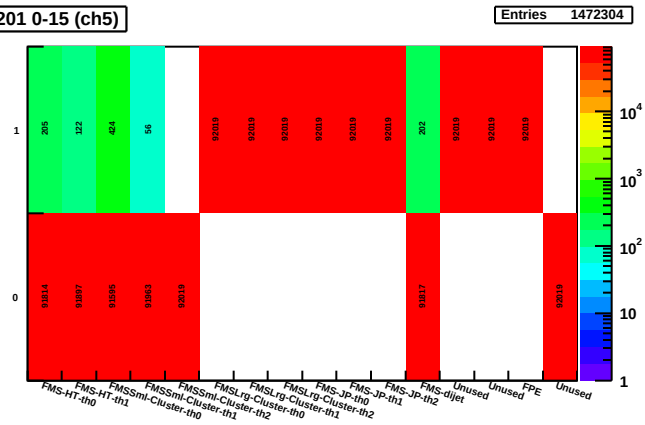

EM201 0-15 (ch3)
Entries 46
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

RAT board (ch4)

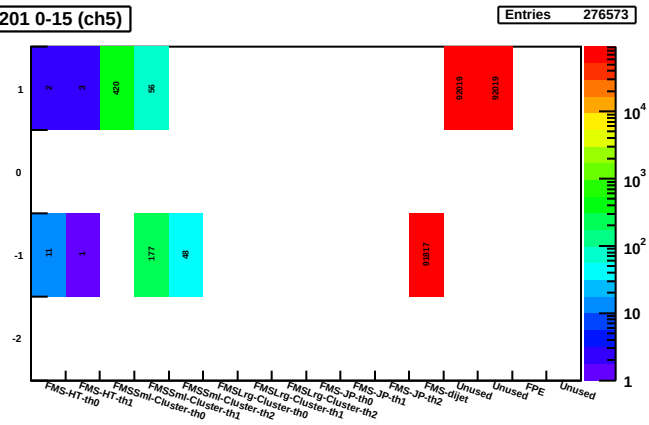




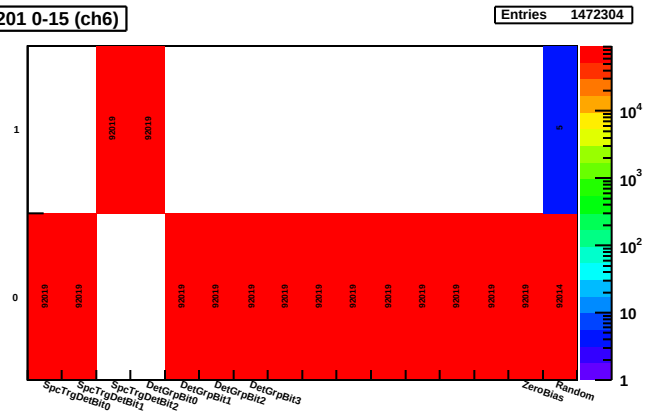
FP201 0-15 (ch5)

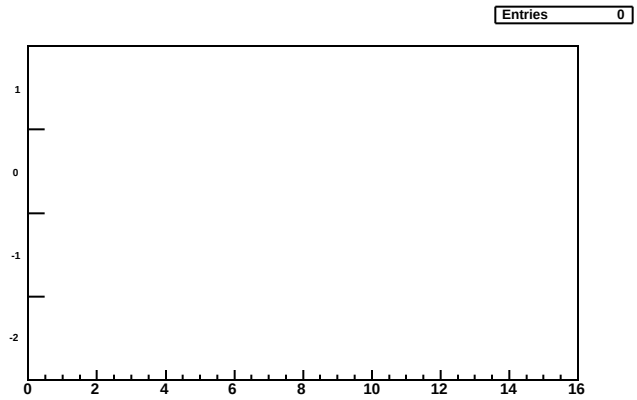
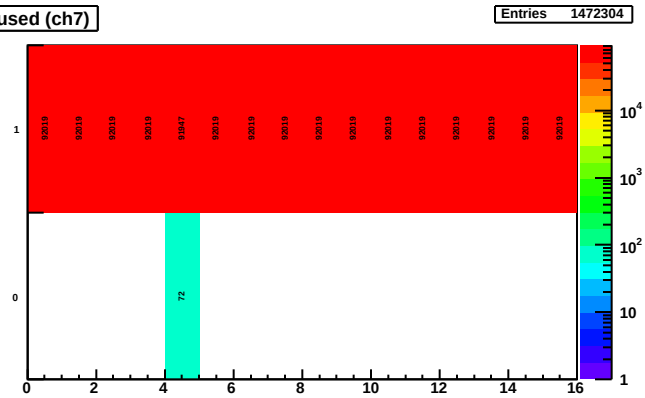
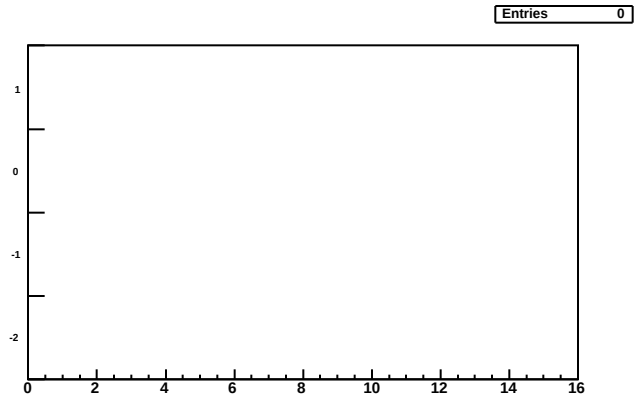


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)