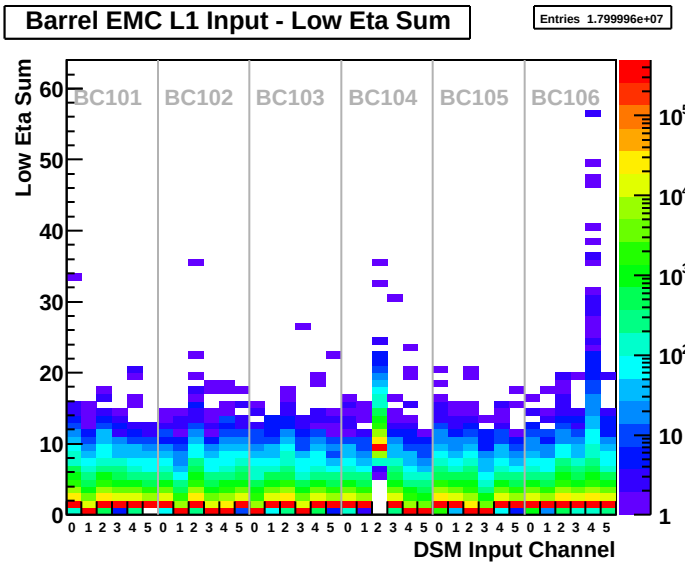
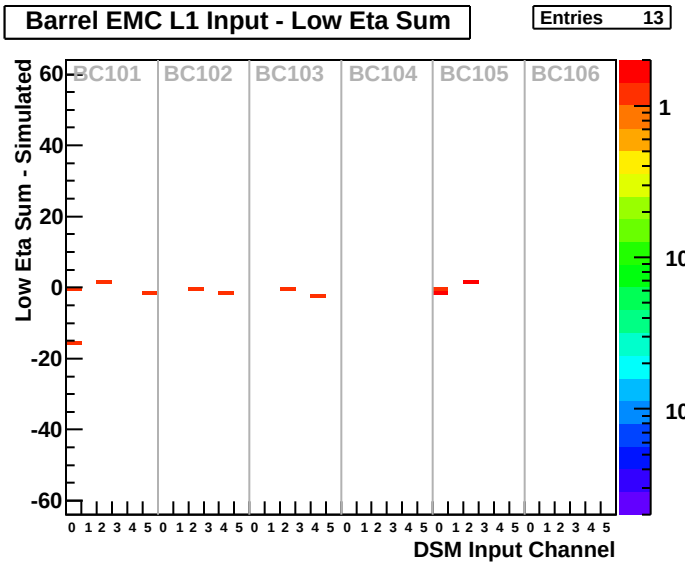
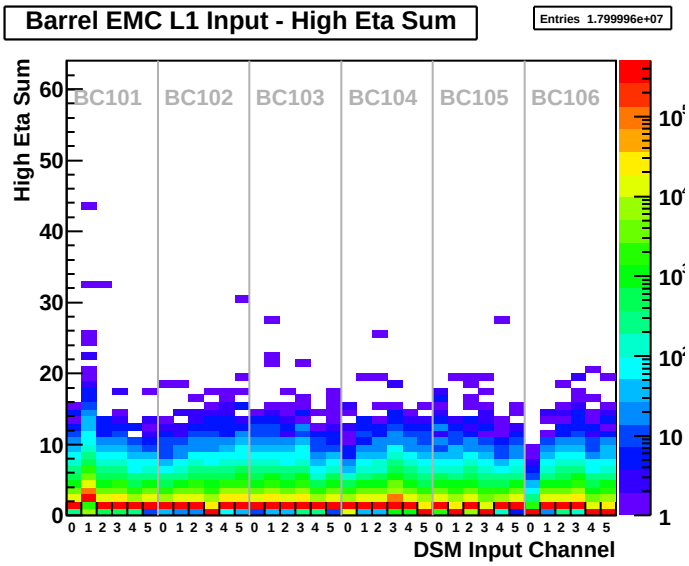
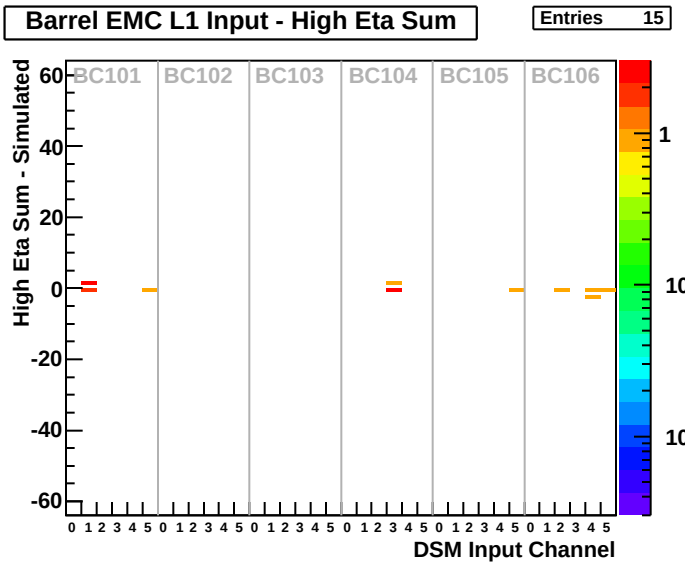
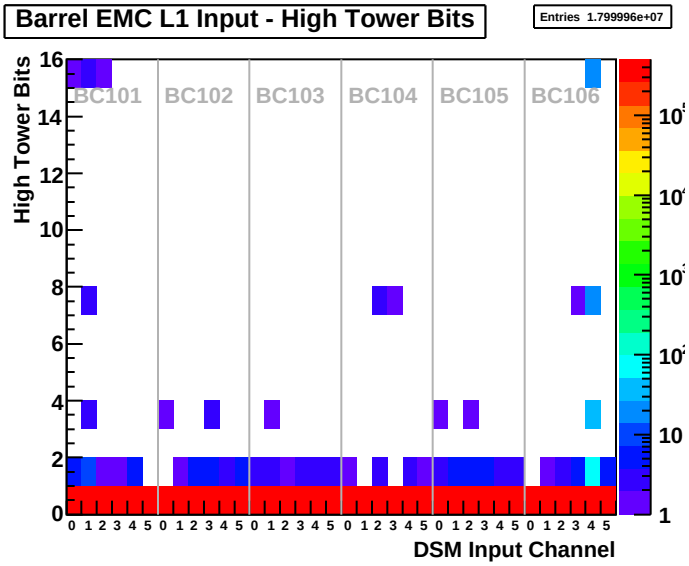
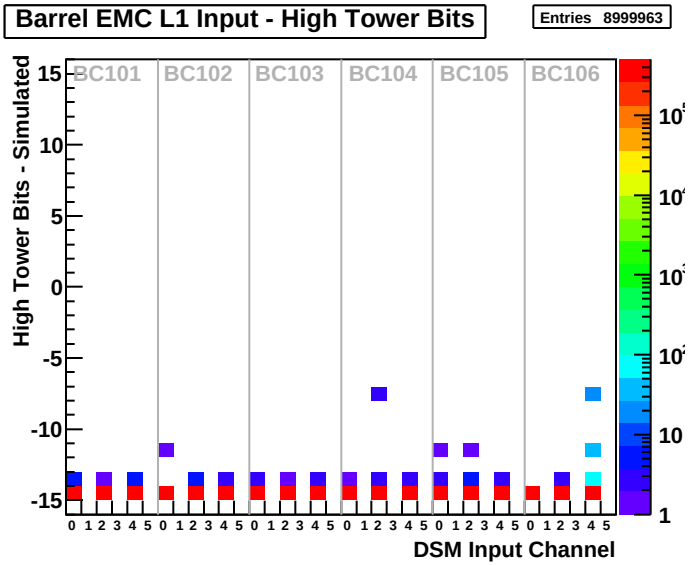

Barrel EMC L1 Input - Low Eta Sum
Entries 1.799996e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

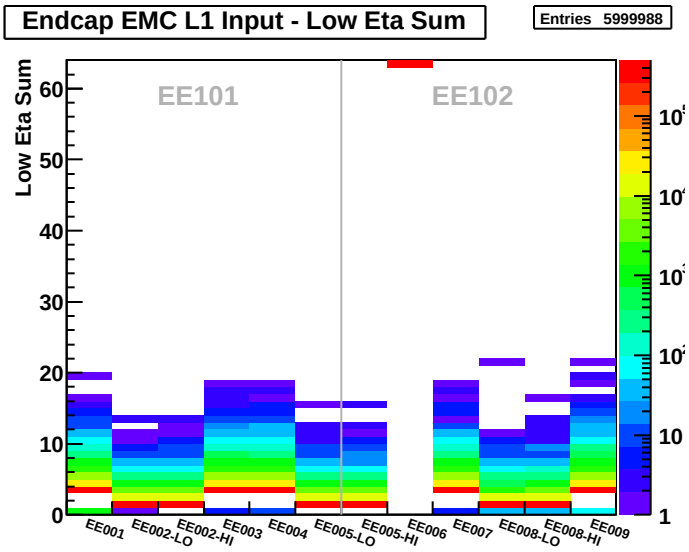

Barrel EMC L1 Input - Low Eta Sum
Entries 13
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

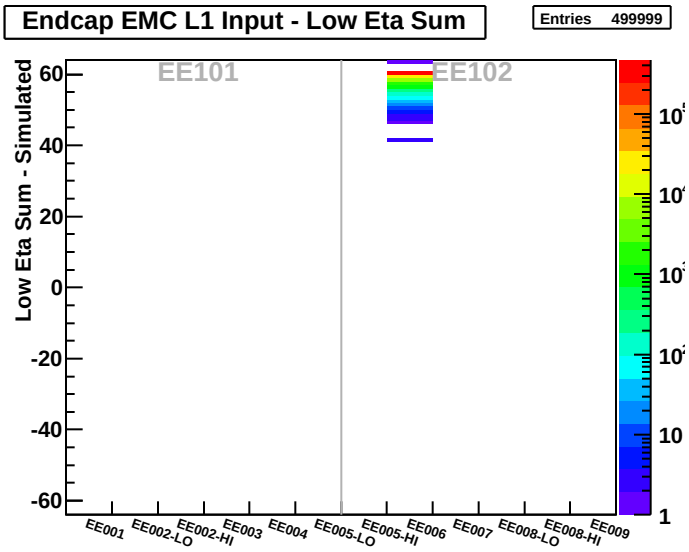

Barrel EMC L1 Input - High Eta Sum
Entries 1.799996e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

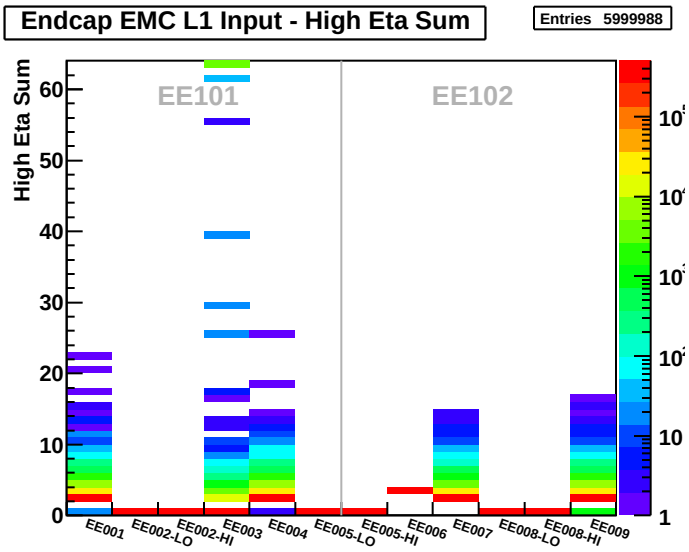

Barrel EMC L1 Input - High Eta Sum
Entries 15
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

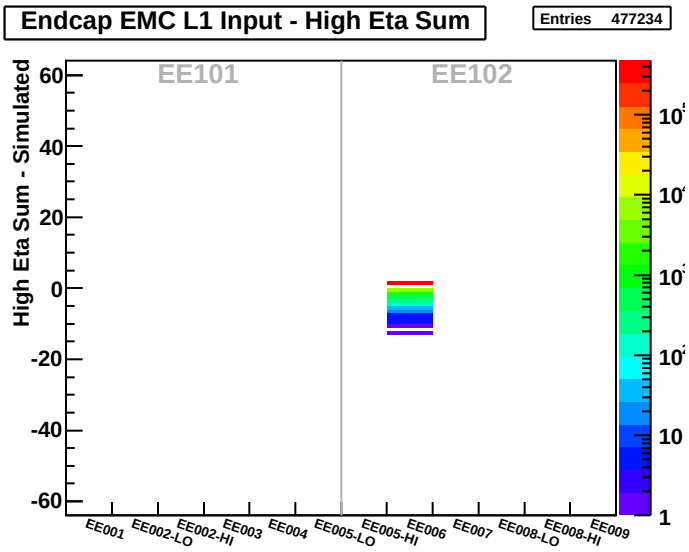

Barrel EMC L1 Input - High Tower Bits
Entries 1.799996e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

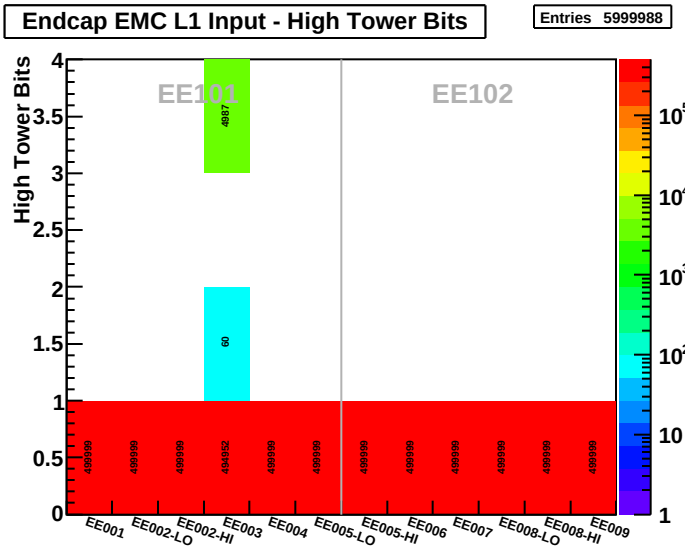

Barrel EMC L1 Input - High Tower Bits
Entries 8999963
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

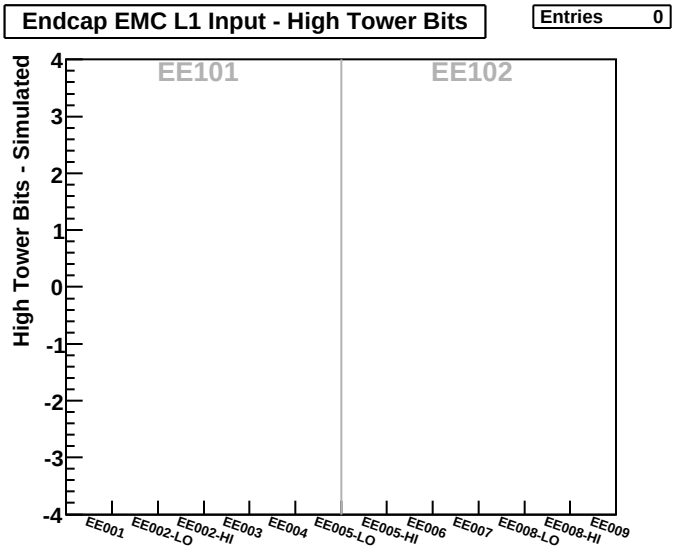

Endcap EMC L1 Input - Low Eta Sum
Entries 5999988
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

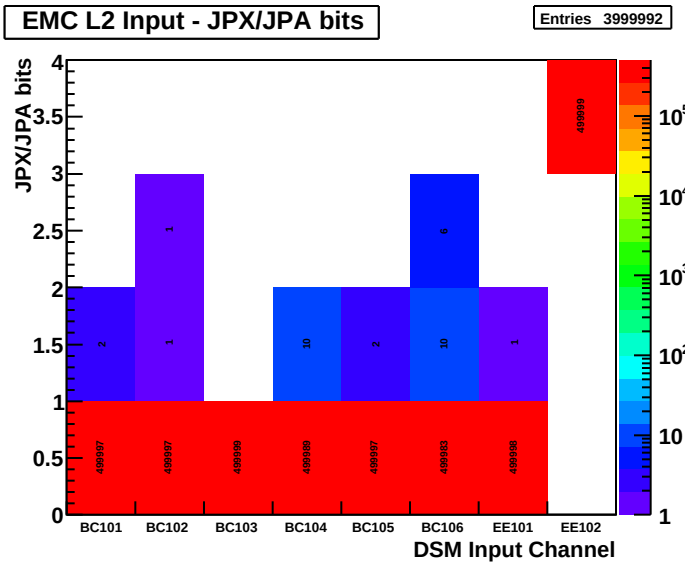

Endcap EMC L1 Input - Low Eta Sum
Entries 499999
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

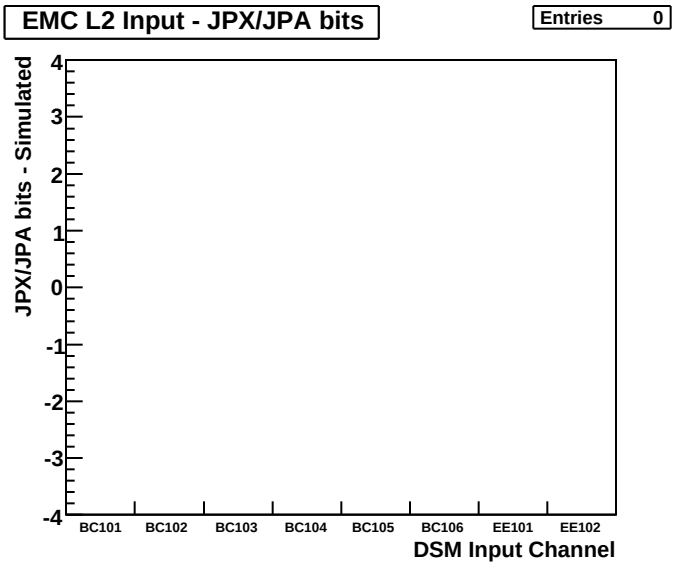

Endcap EMC L1 Input - High Eta Sum
Entries 5999988
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

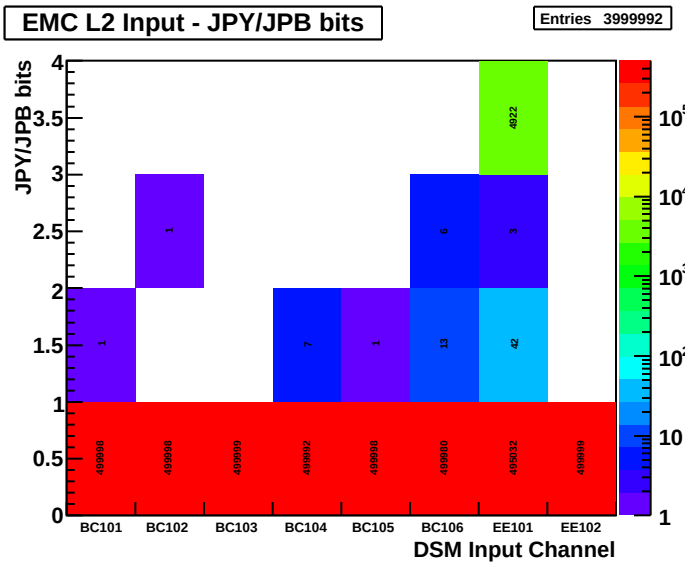

Endcap EMC L1 Input - High Eta Sum
Entries 477234
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

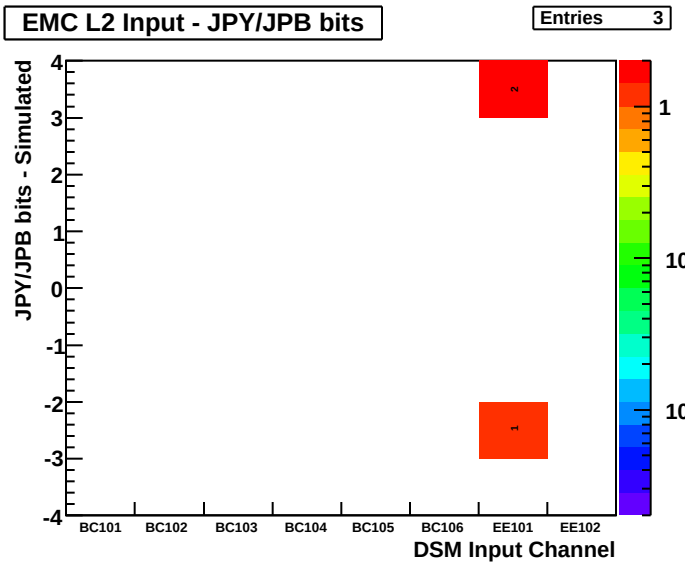

Endcap EMC L1 Input - High Tower Bits
Entries 5999988
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

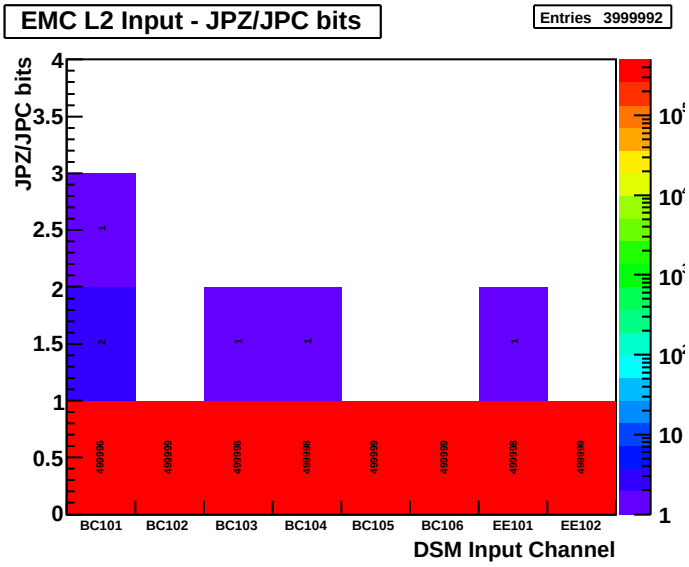

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

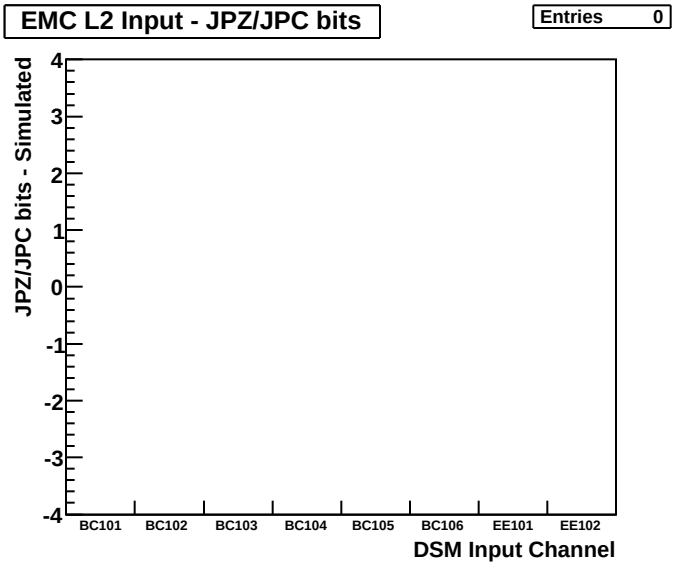

EMC L2 Input - JPX/JPA bits
Entries 3999992
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

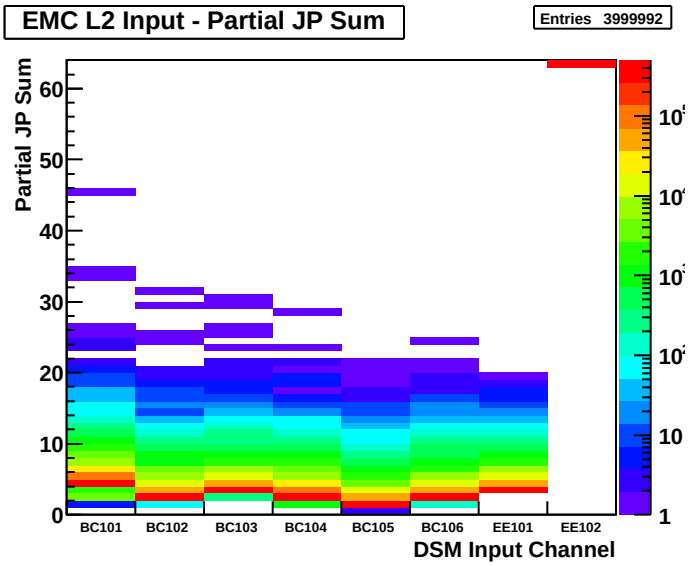

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

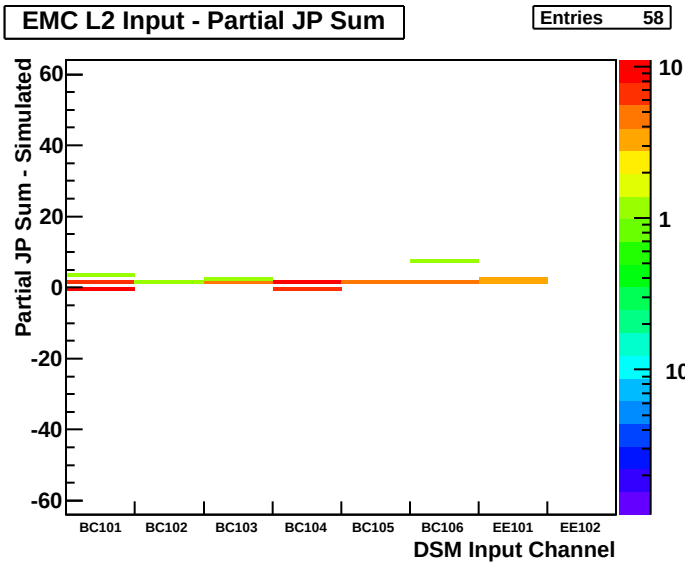

EMC L2 Input - JPY/JPB bits
Entries 3999992
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

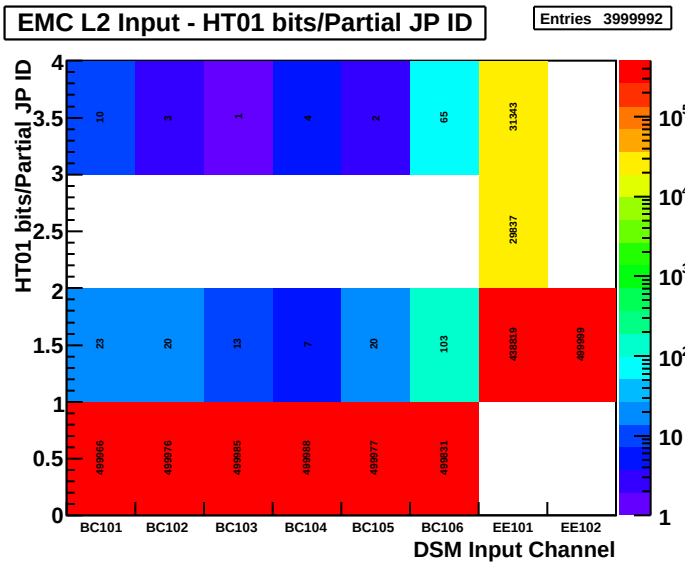

EMC L2 Input - JPY/JPB bits
Entries 3
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

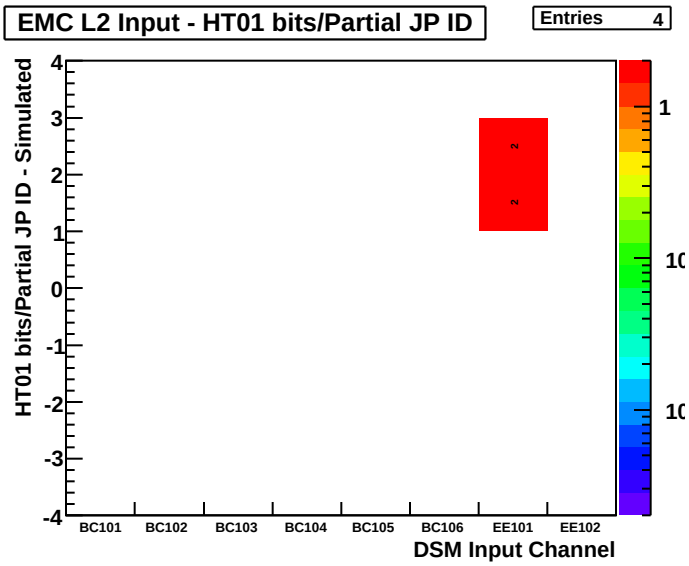

EMC L2 Input - JPZ/JPC bits
Entries 3999992
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

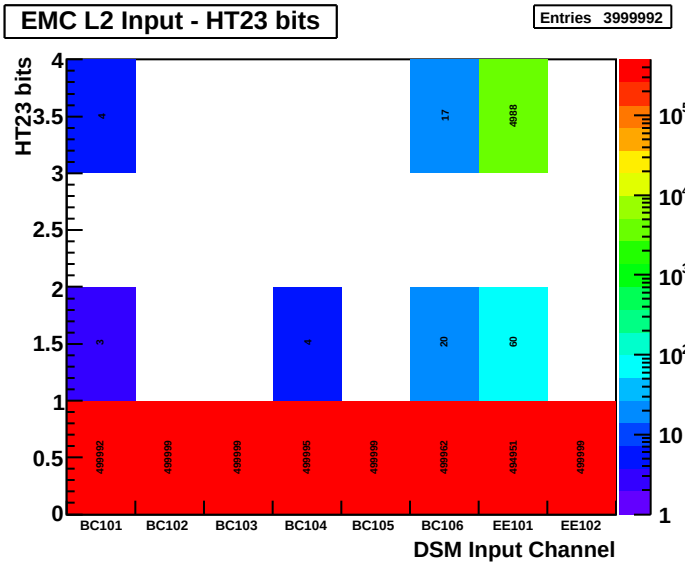

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

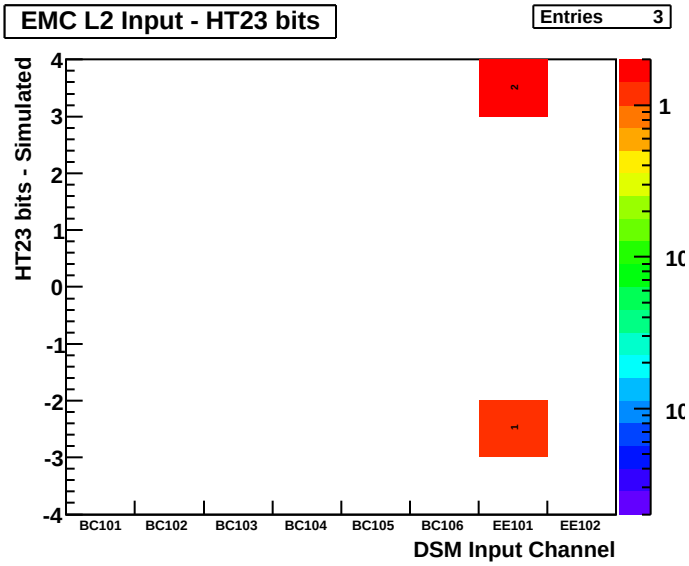

EMC L2 Input - Partial JP Sum
Entries 3999992
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

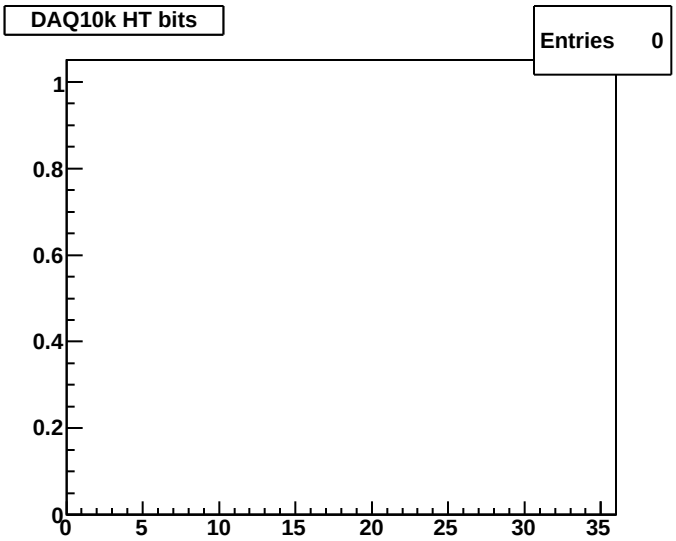

EMC L2 Input - Partial JP Sum
Entries 58
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

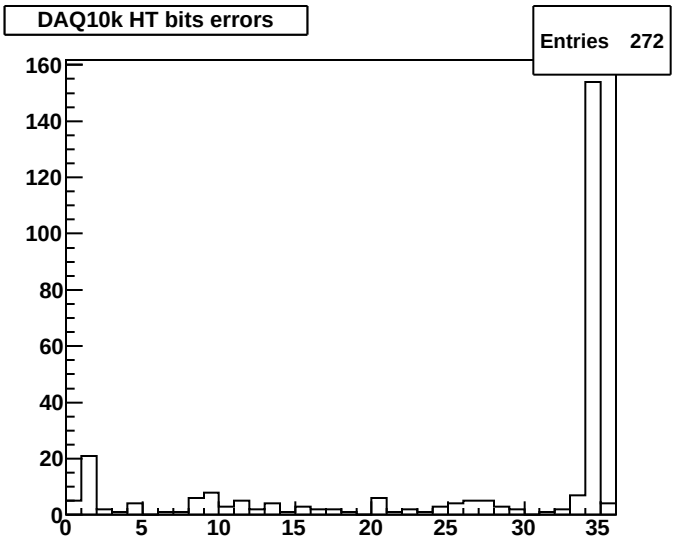

EMC L2 Input - HT01 bits/Partial JP ID
Entries 3999992
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

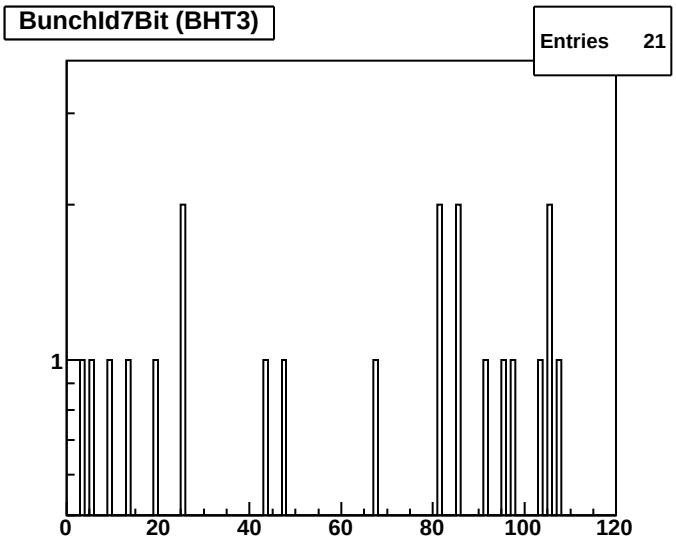

EMC L2 Input - HT01 bits/Partial JP ID
Entries 4
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

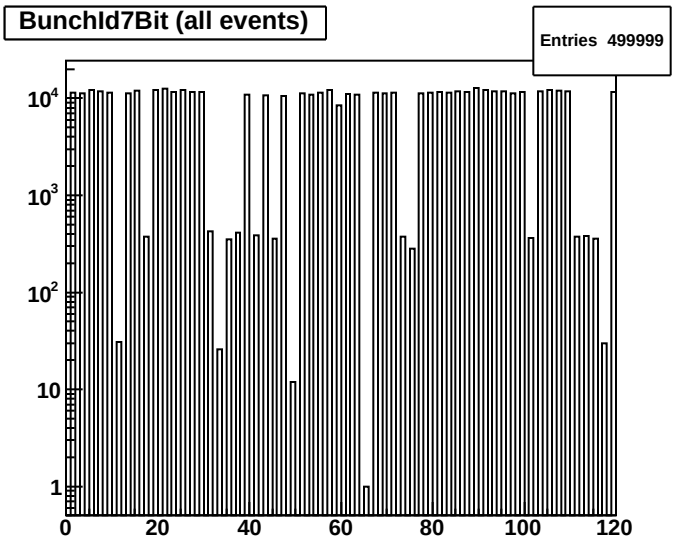

EMC L2 Input - HT23 bits
Entries 3999992
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

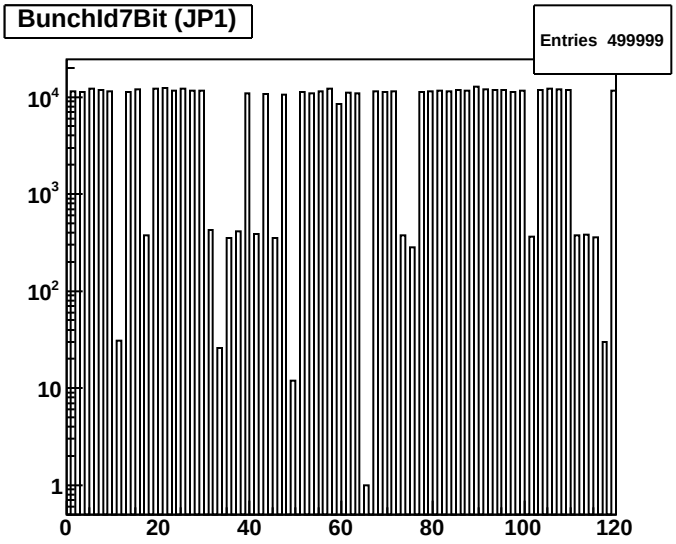

EMC L2 Input - HT23 bits
Entries 3
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

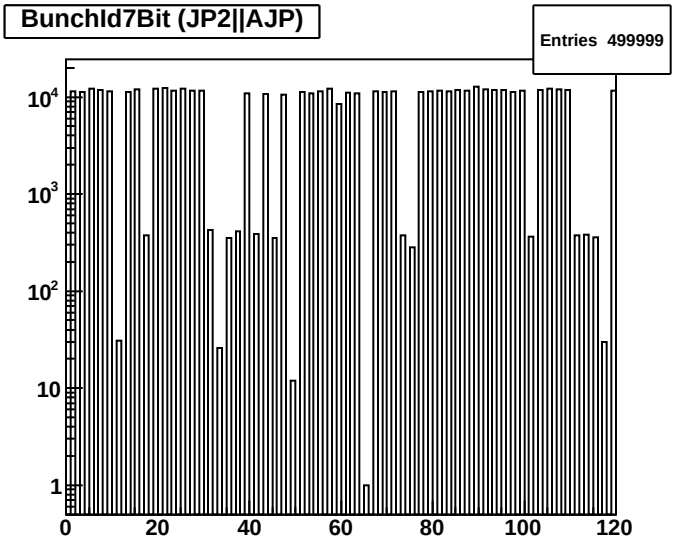

DAQ10k HT bits
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

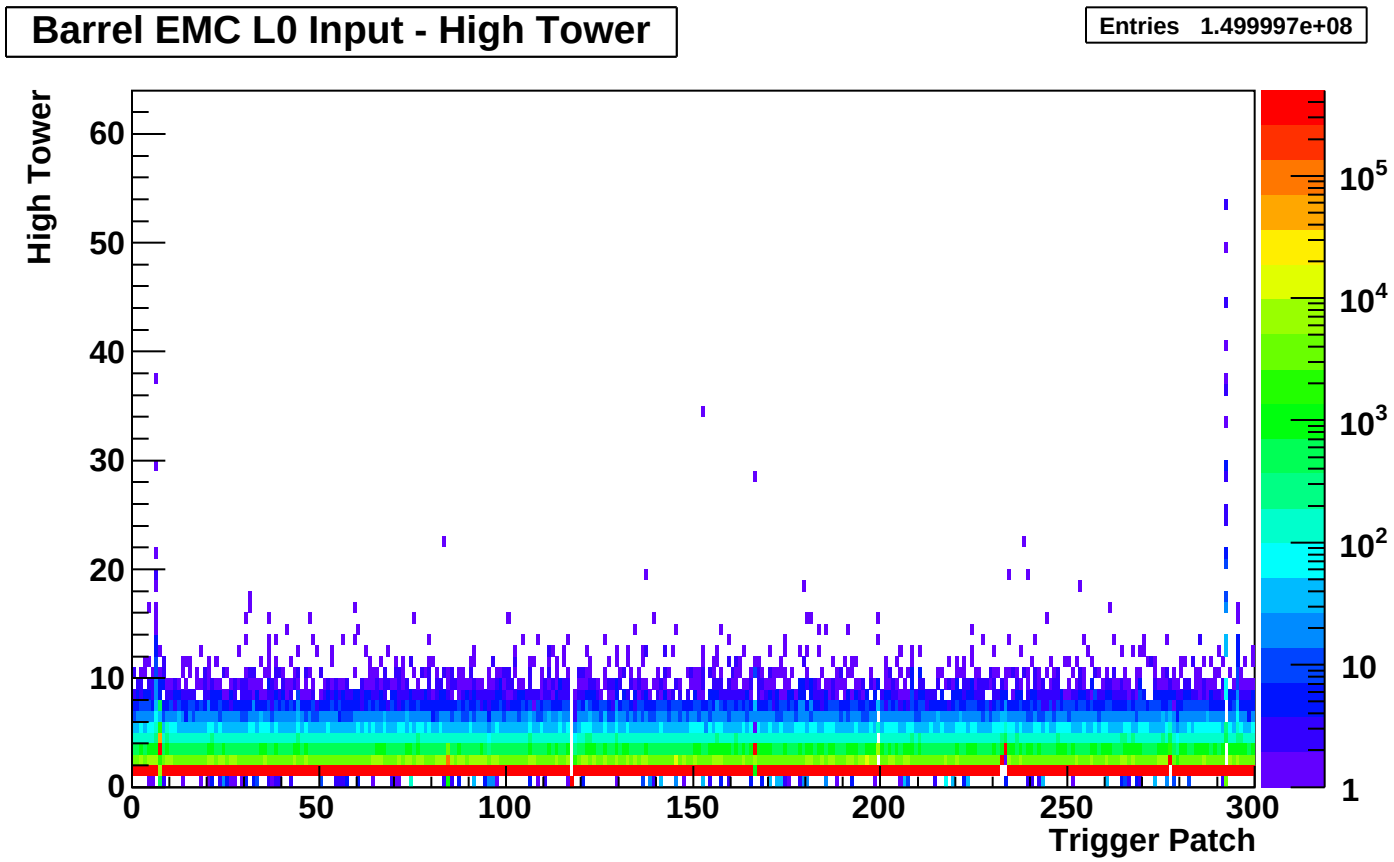

DAQ10k HT bits errors
Entries 272
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

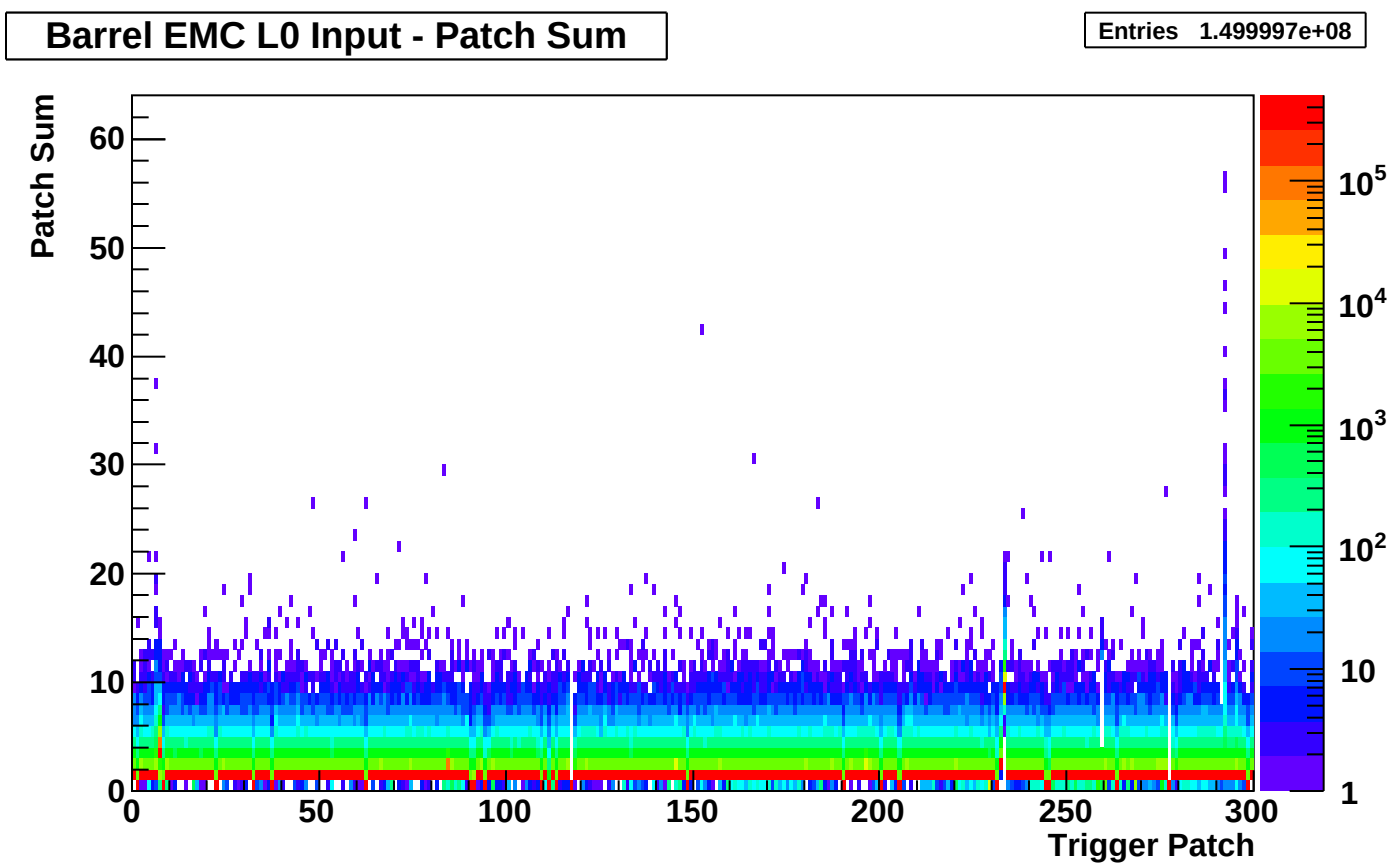

BunchId7Bit (BHT3)
Entries 21
1
0 20 40 60 80 100 120

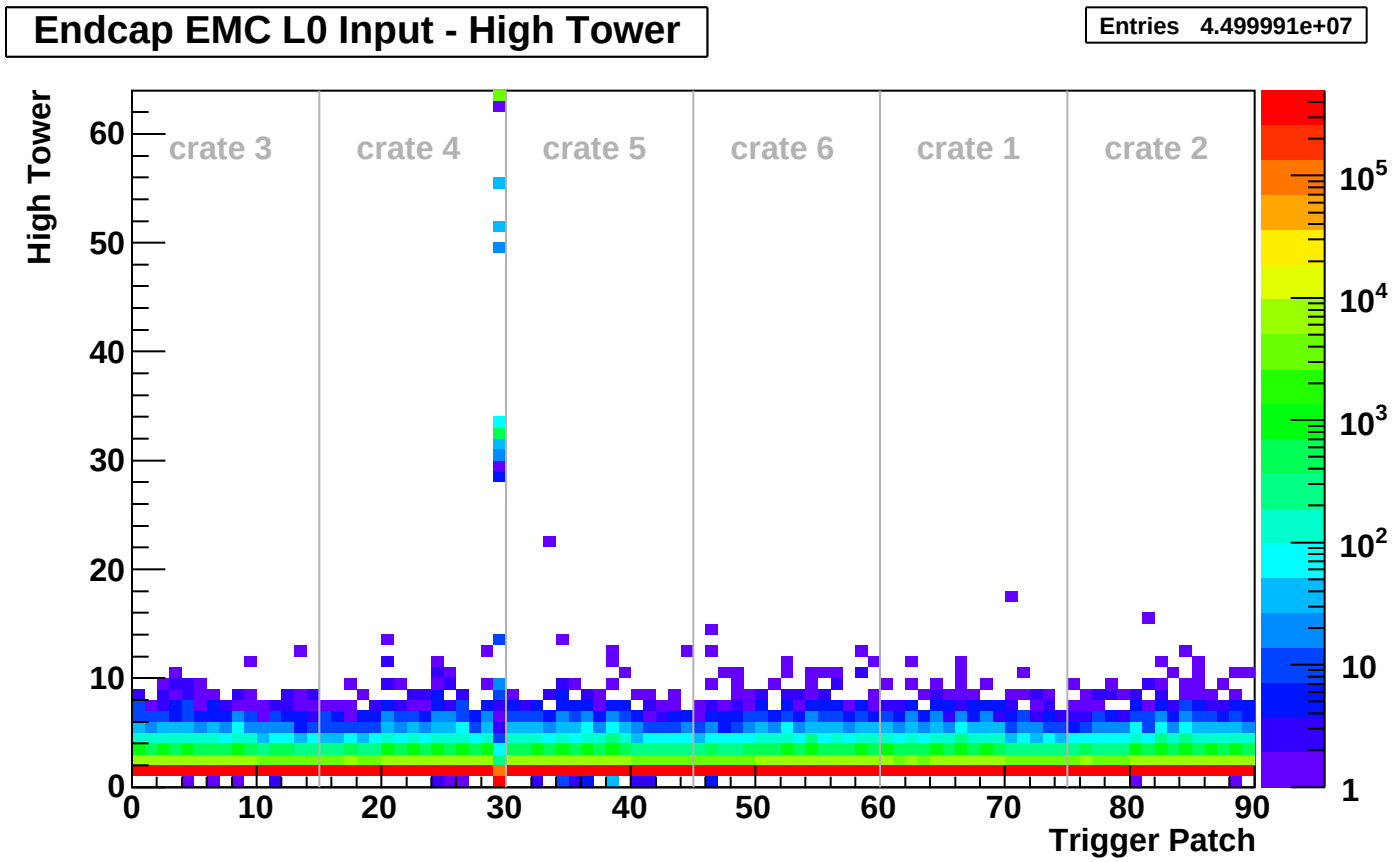

BunchId7Bit (all events)
Entries 499999
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

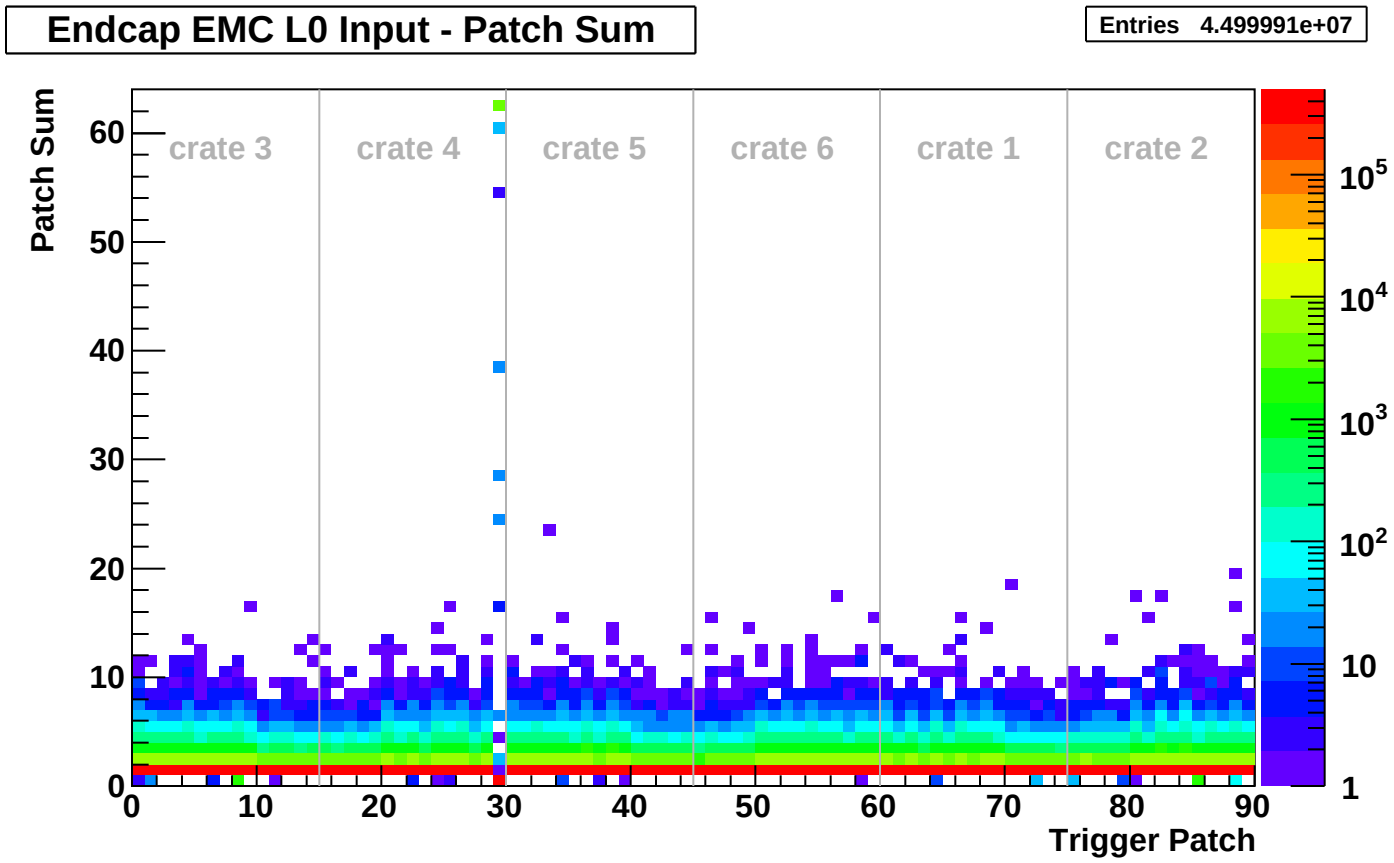

BunchId7Bit (JP1)
Entries 499999
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

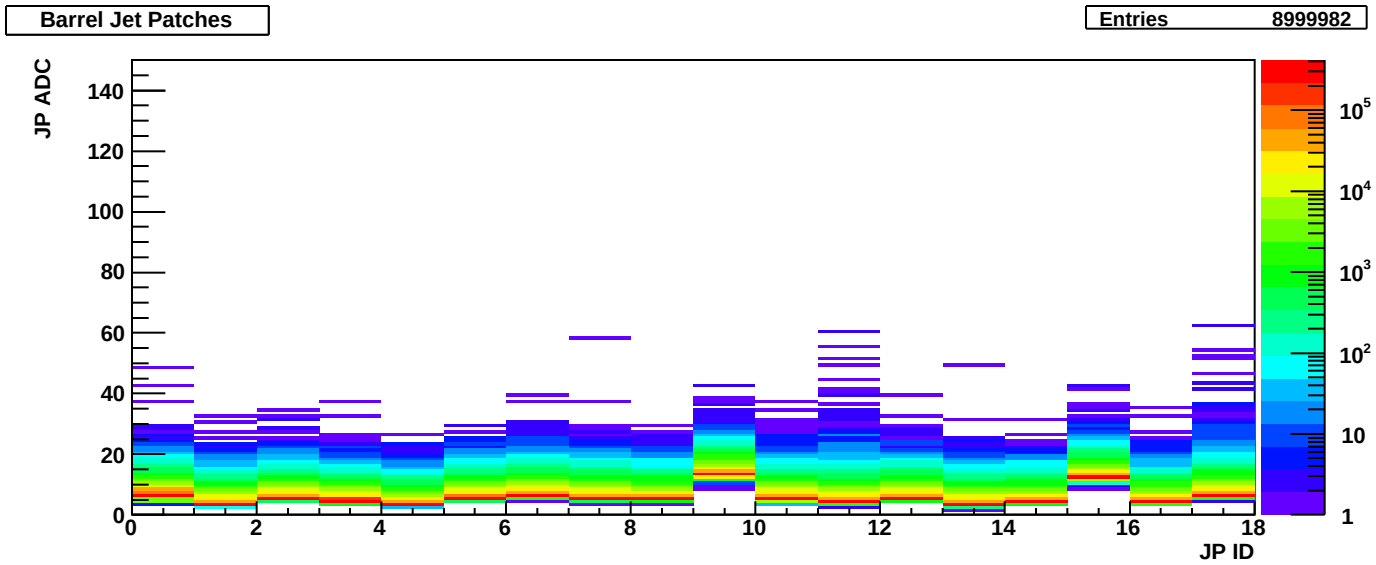

BunchId7Bit (JP2||AJP)
Entries 499999
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

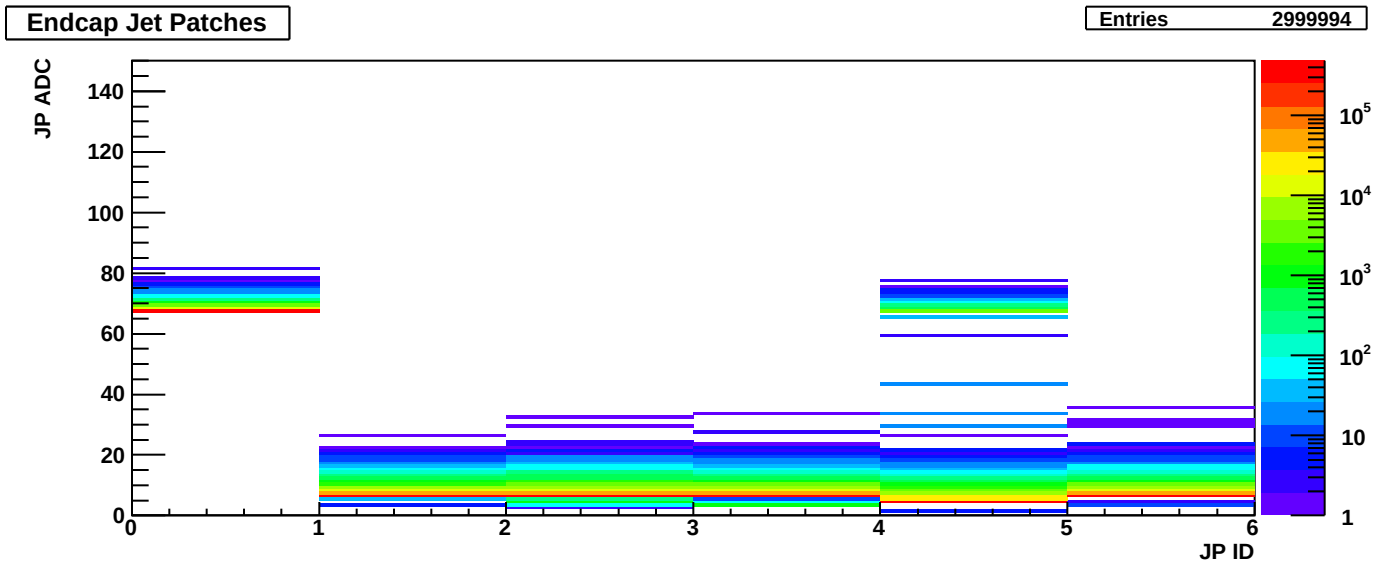

Barrel EMC L0 Input - High Tower
Entries 1.499997e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

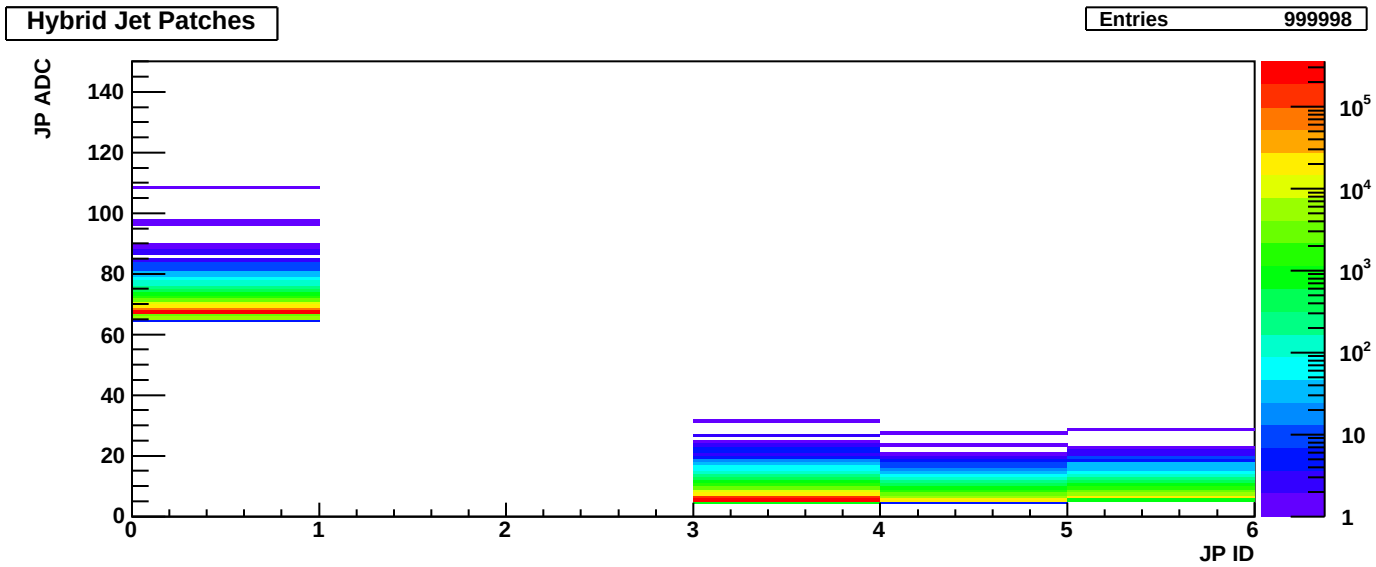

Barrel EMC L0 Input - Patch Sum
Entries 1.499997e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

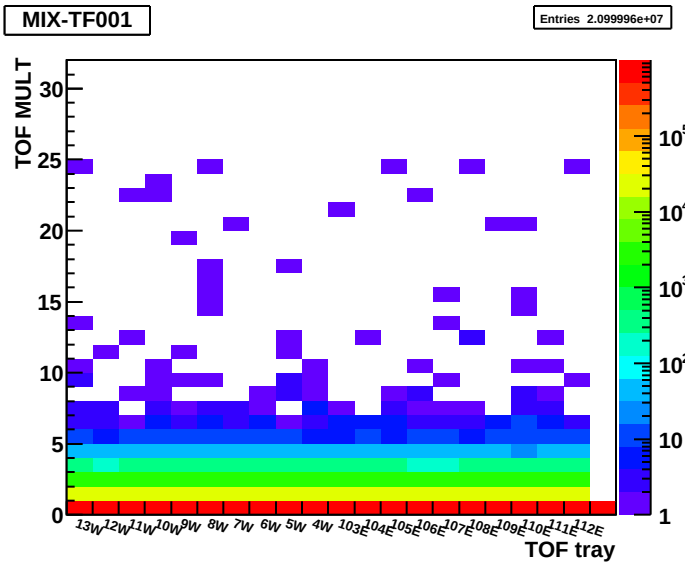

Endcap EMC L0 Input - High Tower
Entries 4.499991e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

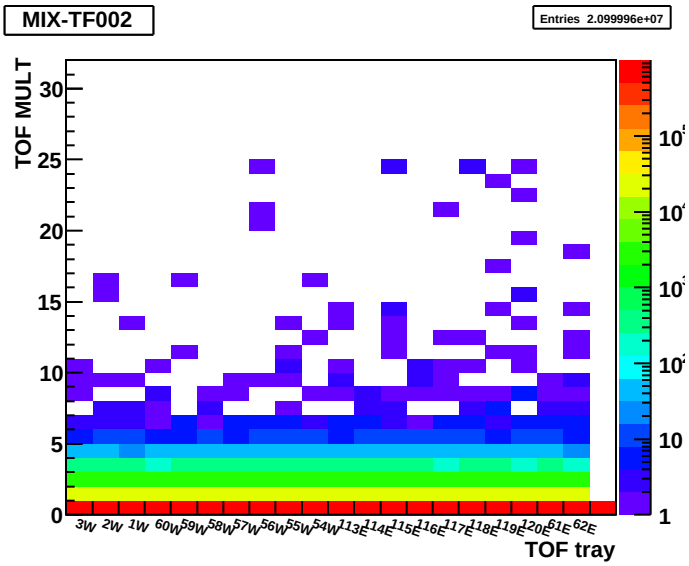

Endcap EMC L0 Input - Patch Sum
Entries 4.499991e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

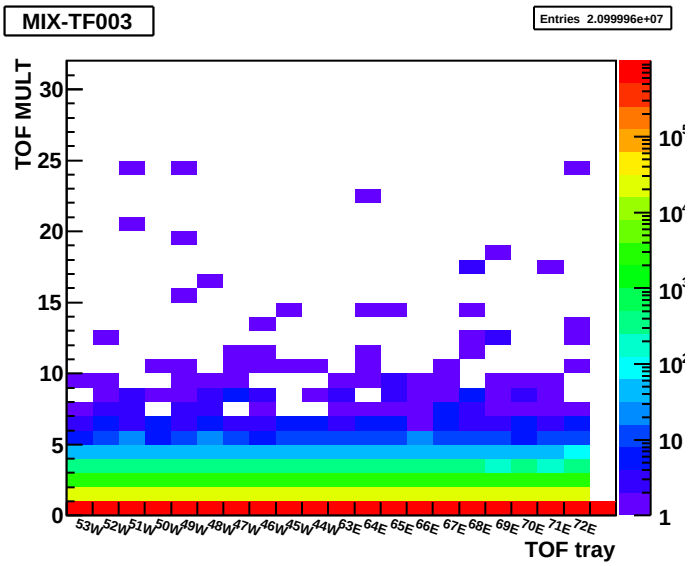

Barrel Jet Patches
Entries 8999982
JP ADC
JP ID

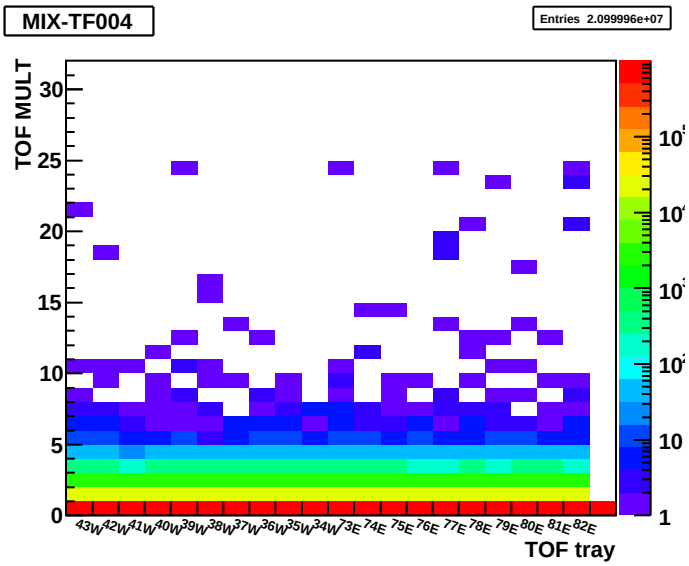

Endcap Jet Patches
Entries 2999994
JP ADC
JP ID

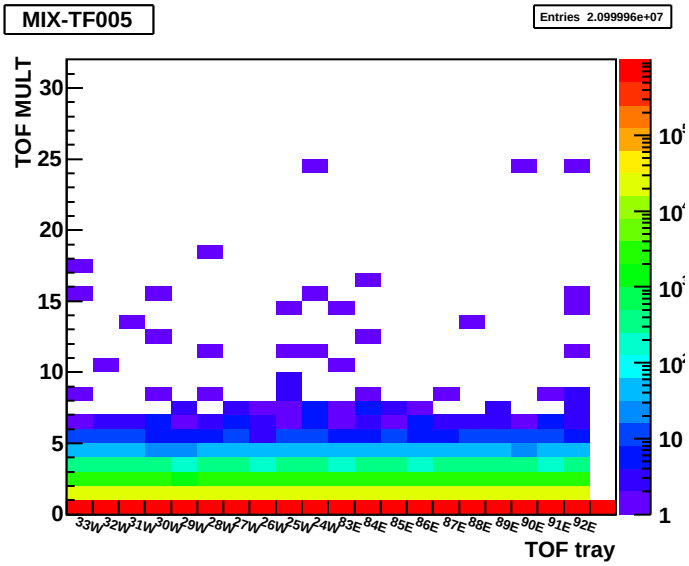

Hybrid Jet Patches
Entries 999998
JP ADC
JP ID

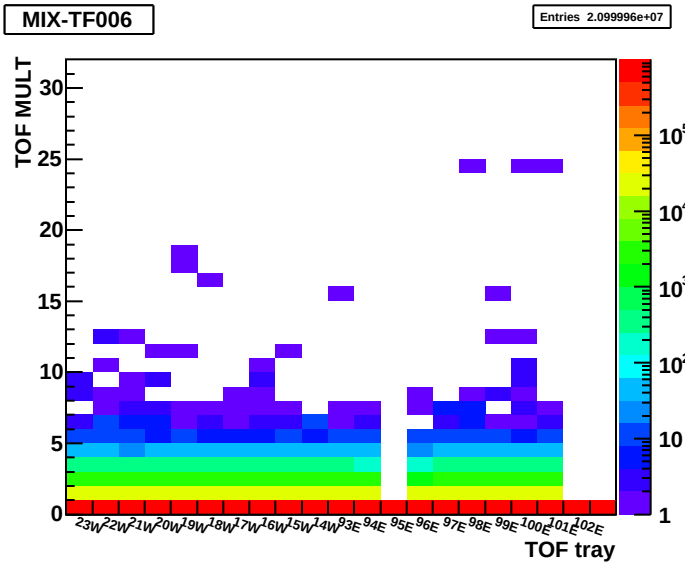

MIX-TF001
Entries 2.099996e+07
TOF MULT
TOF tray

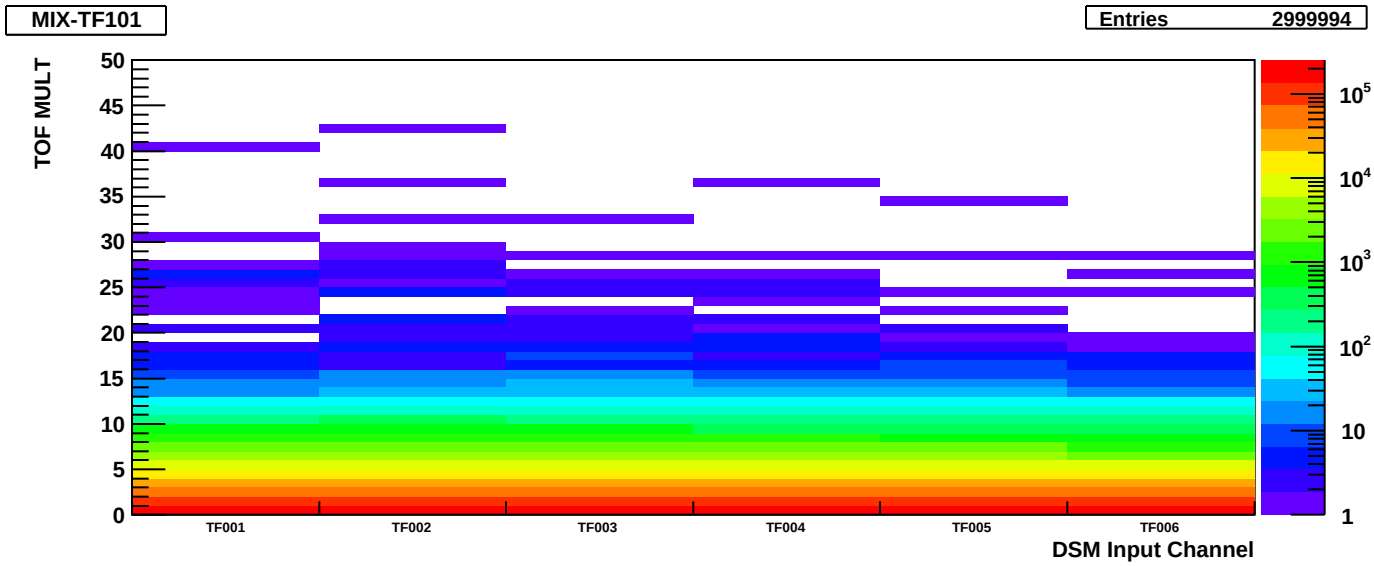

MIX-TF002
Entries 2.099996e+07
TOF MULT
TOF tray

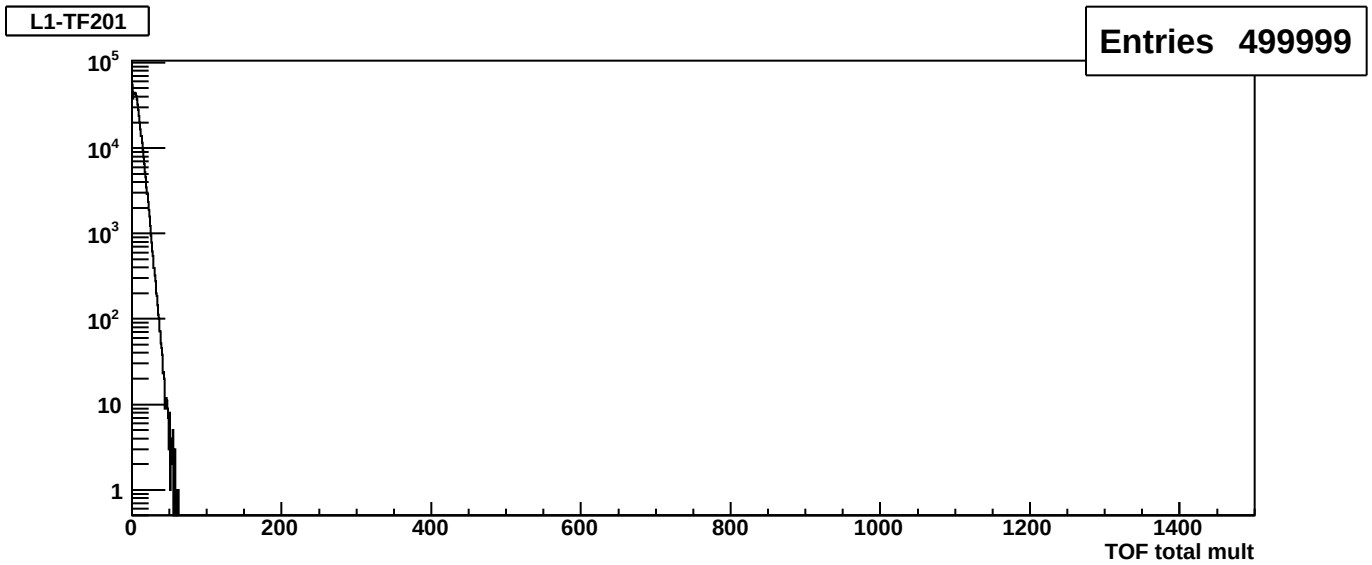

MIX-TF003
Entries 2.099996e+07
TOF MULT
TOF tray

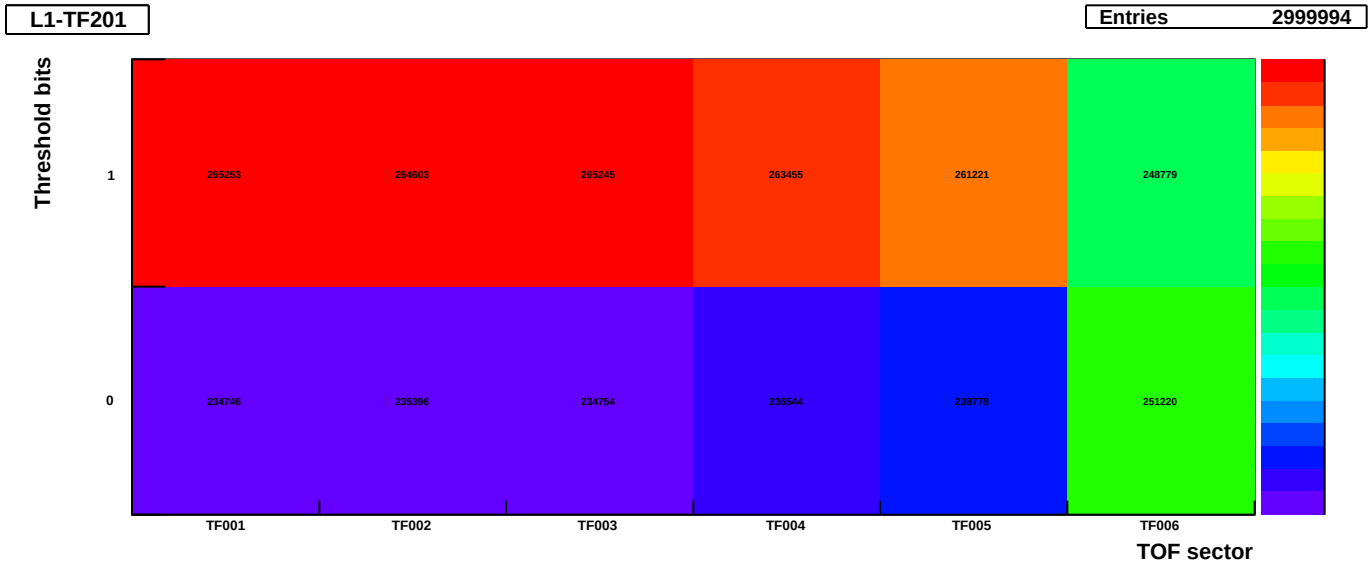

MIX-TF004
Entries 2.099996e+07
TOF MULT
TOF tray

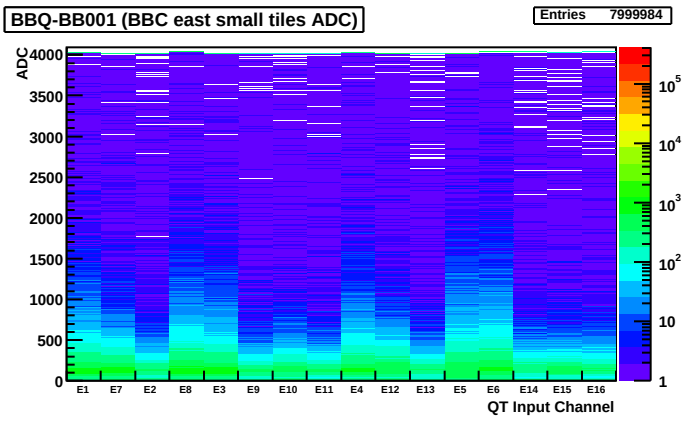

MIX-TF005
Entries 2.099996e+07
TOF MULT
TOF tray

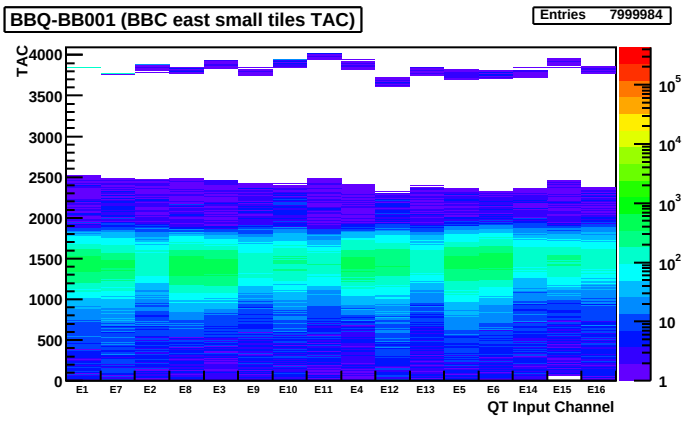

MIX-TF006
Entries 2.099996e+07
TOF MULT
TOF tray

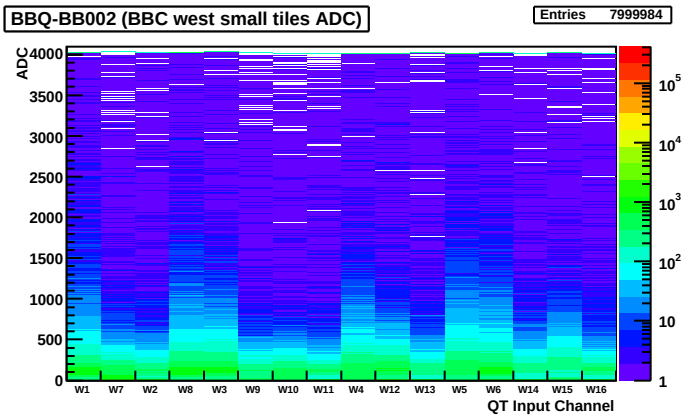

MIX-TF101
Entries 2999994
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

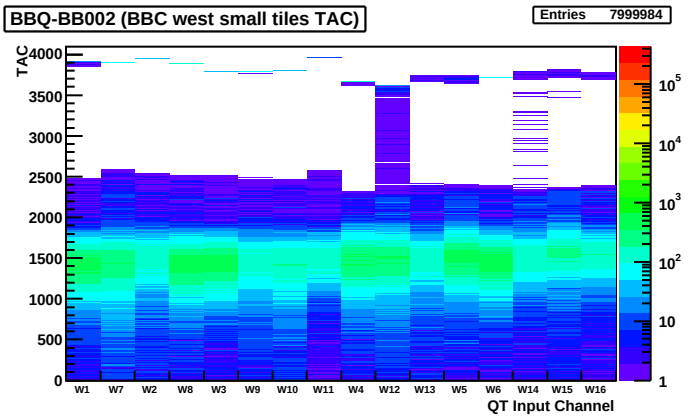

L1-TF201
Entries 499999
TOF total mult

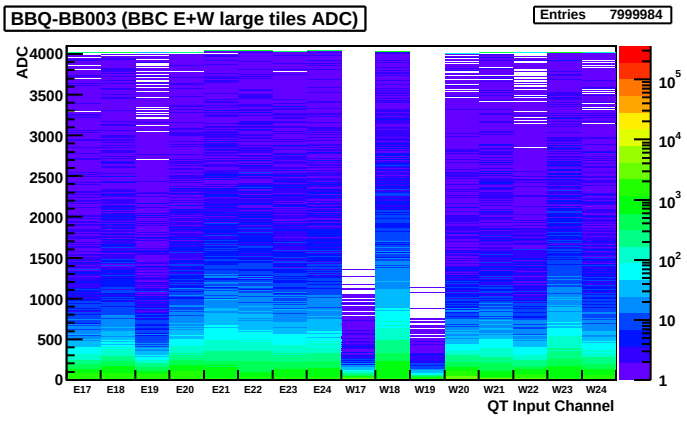

L1-TF201
Entries 2999994
Threshold bits
265253
264603
265245
263455
261221
248779
234746
235396
234754
236544
238778
251220
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

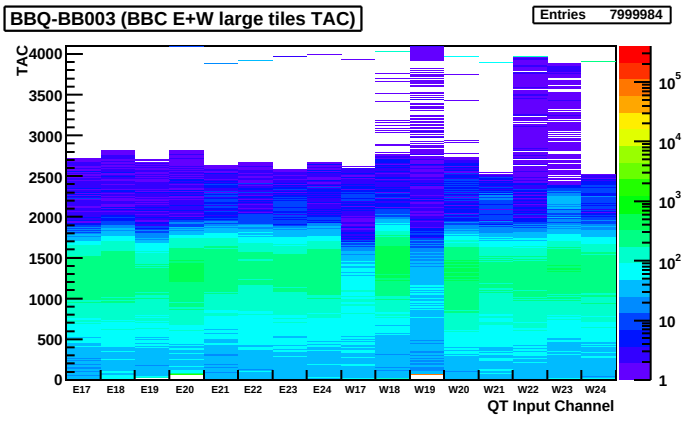

BBQ-BB001 (BBC east small tiles ADC)
Entries 7999984
ADC
QT Input Channel

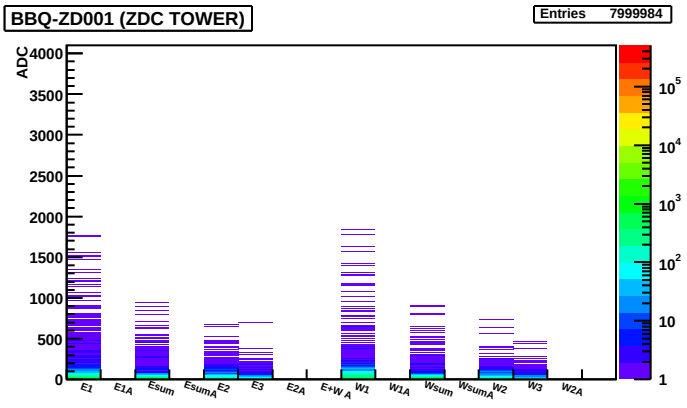

BBQ-BB001 (BBC east small tiles TAC)
Entries 7999984
TAC
QT Input Channel

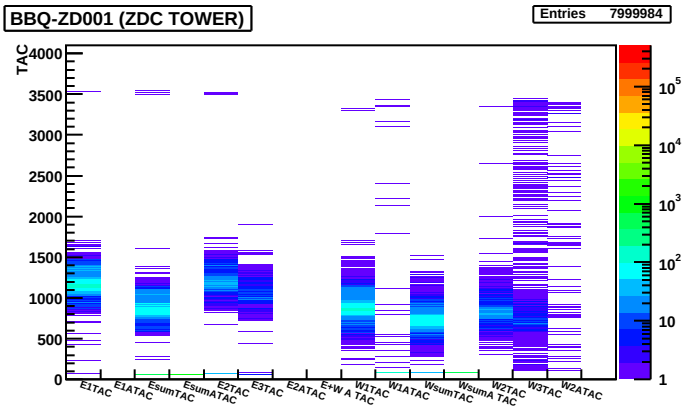

BBQ-BB002 (BBC west small tiles ADC)
Entries 7999984
ADC
QT Input Channel

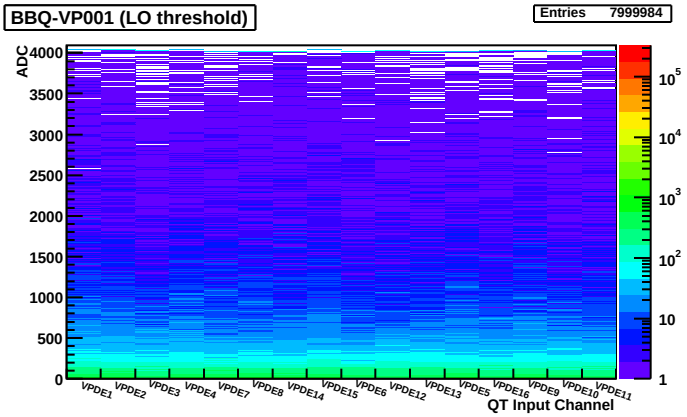

BBQ-BB002 (BBC west small tiles TAC)
Entries 7999984
TAC
QT Input Channel

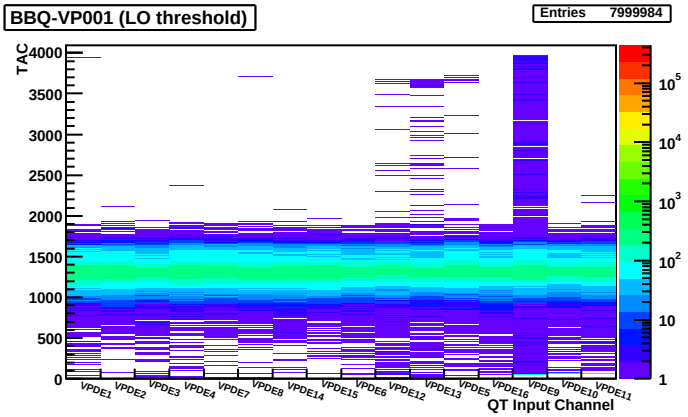

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 7999984
ADC
QT Input Channel

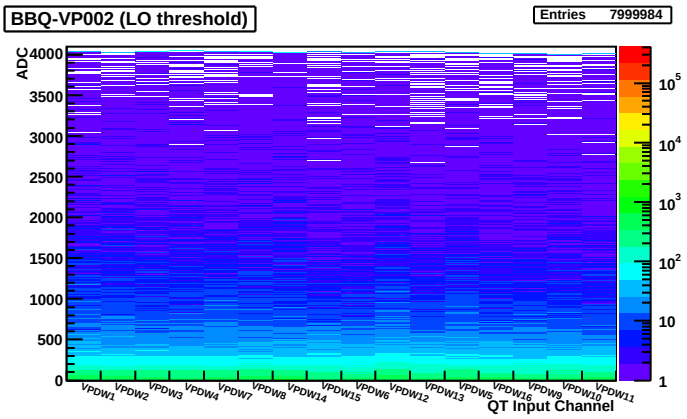

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 7999984
TAC
QT Input Channel

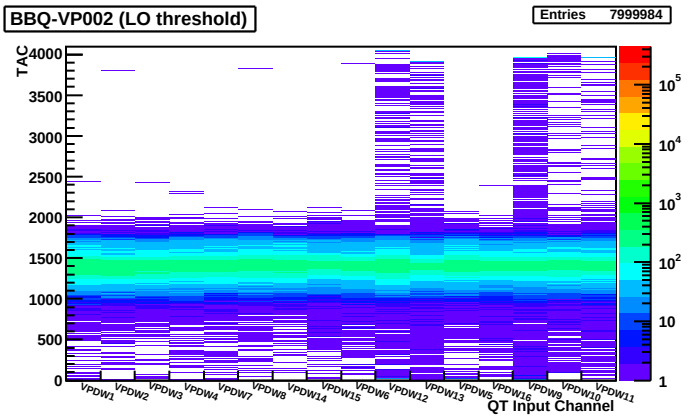

BBQ-ZD001 (ZDC TOWER)
Entries 7999984
ADC

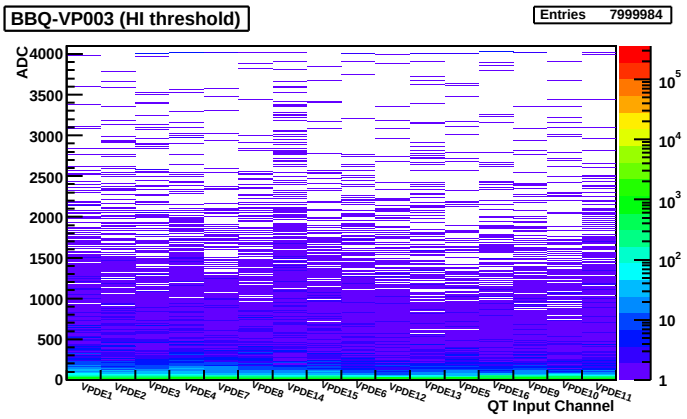

BBQ-ZD001 (ZDC TOWER)
Entries 7999984
TAC

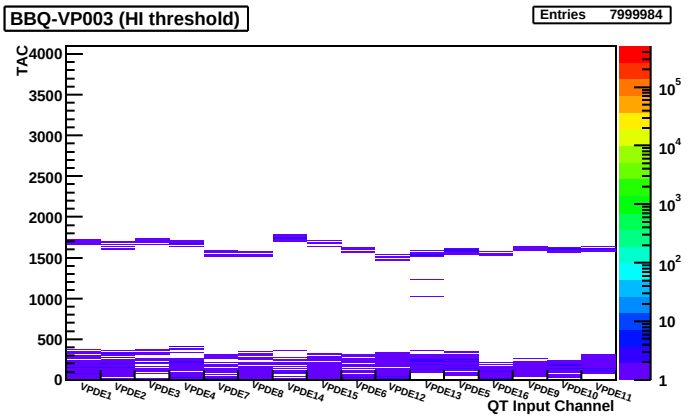

BBQ-VP001 (LO threshold)
Entries 7999984
ADC
QT Input Channel

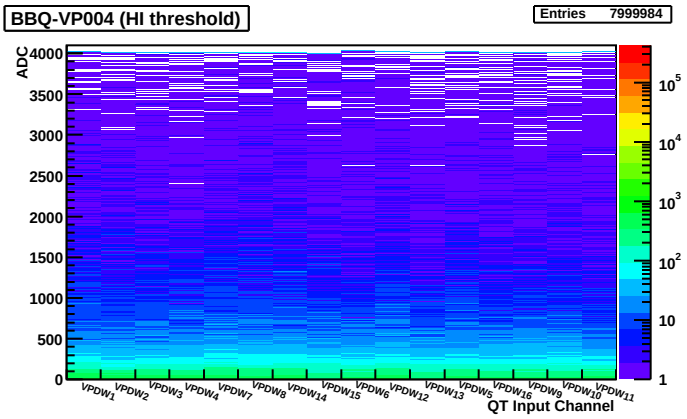

BBQ-VP001 (LO threshold)
Entries 7999984
TAC
QT Input Channel

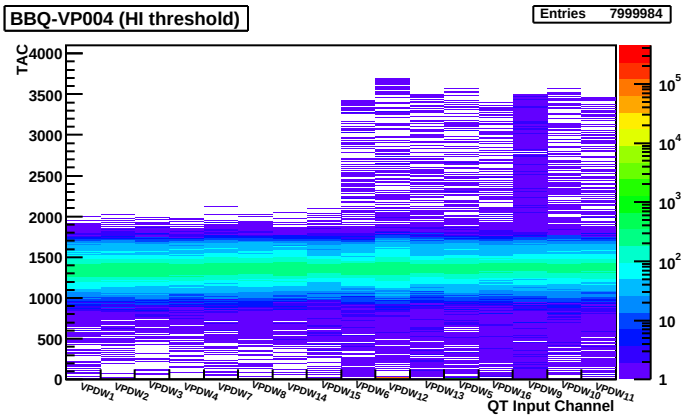

BBQ-VP002 (LO threshold)
Entries 7999984
ADC
QT Input Channel

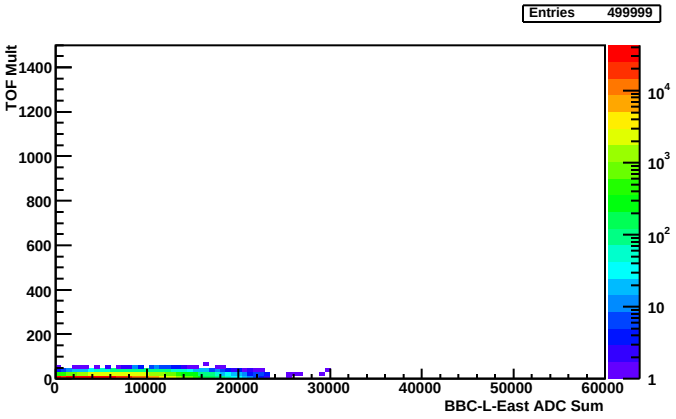

BBQ-VP002 (LO threshold)
Entries 7999984
TAC
QT Input Channel

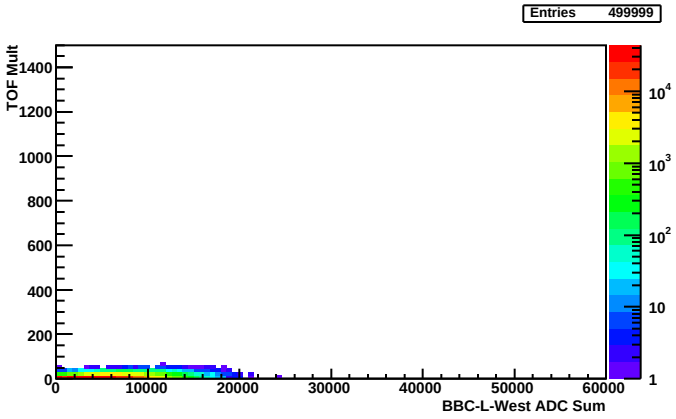

BBQ-VP003 (HI threshold)
Entries 7999984
ADC
QT Input Channel

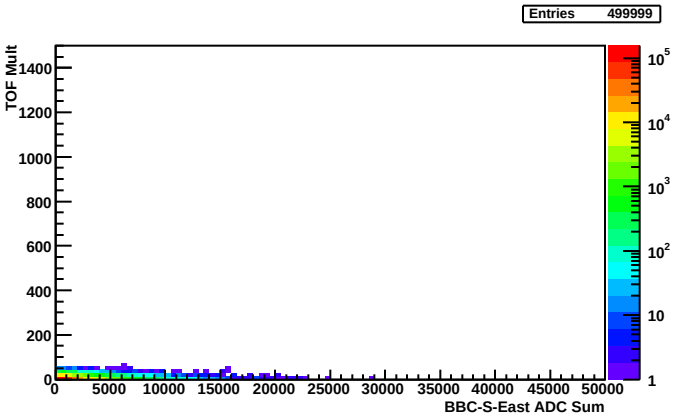

BBQ-VP003 (HI threshold)
Entries 7999984
TAC
QT Input Channel

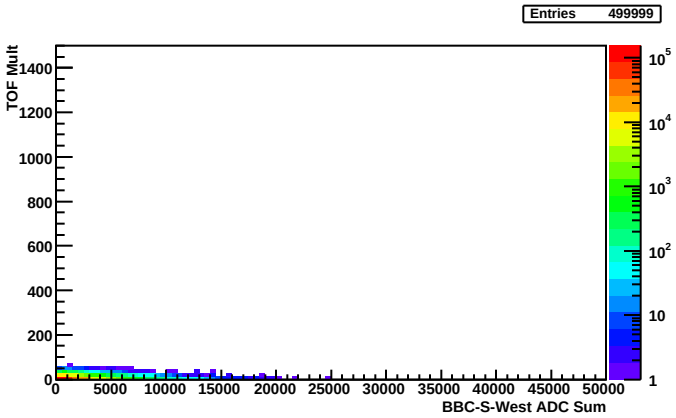

BBQ-VP004 (HI threshold)
Entries 7999984
ADC
QT Input Channel

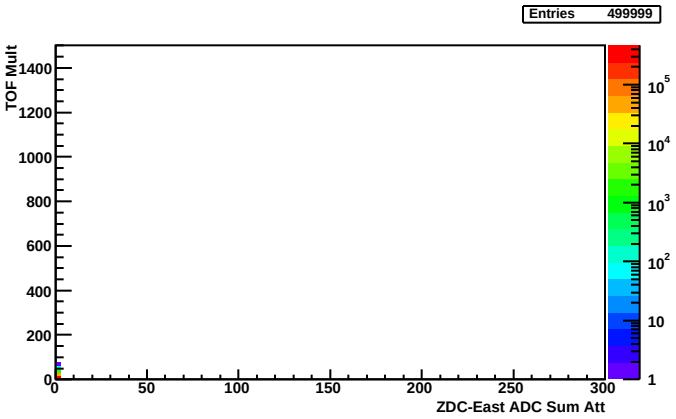

BBQ-VP004 (HI threshold)
Entries 7999984
TAC
QT Input Channel

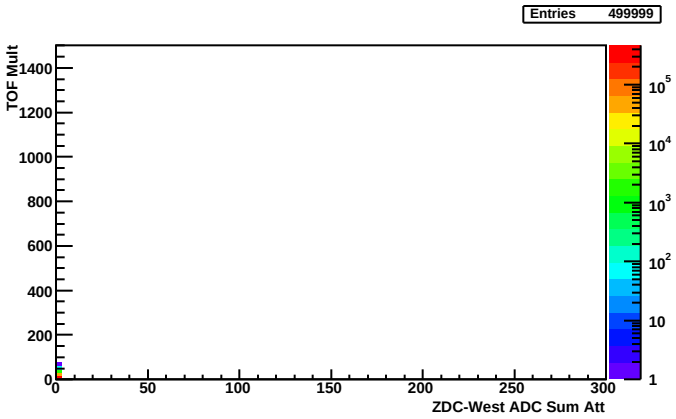

Entries 499999
TOF Mult
BBC-L-East ADC Sum

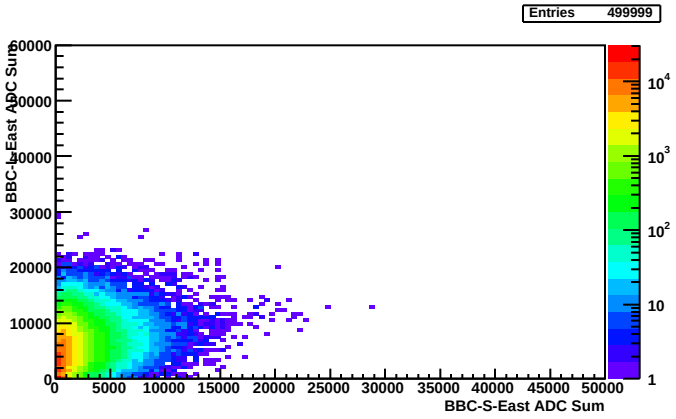

Entries 499999
TOF Mult
BBC-L-West ADC Sum

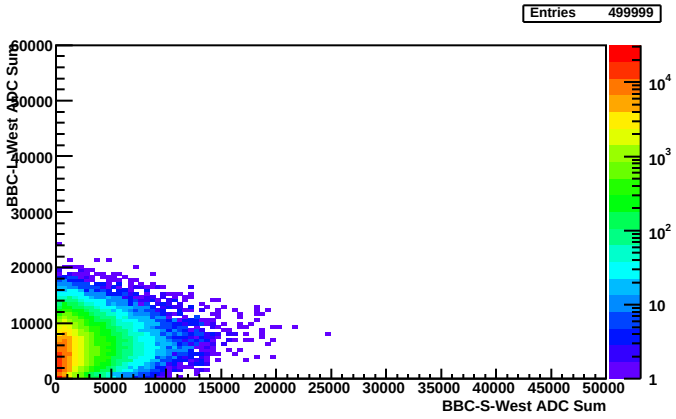

Entries 499999
TOF Mult
BBC-S-East ADC Sum

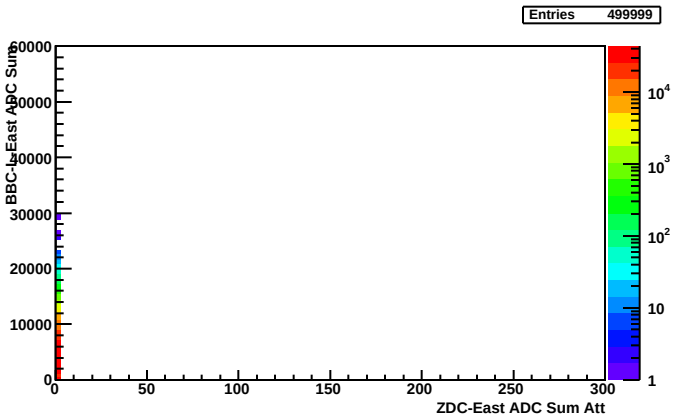

Entries 499999
TOF Mult
BBC-S-West ADC Sum

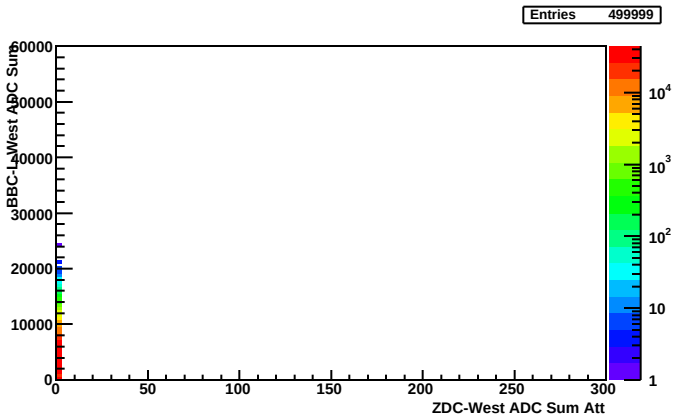

Entries 499999
TOF Mult
ZDC-East ADC Sum Att

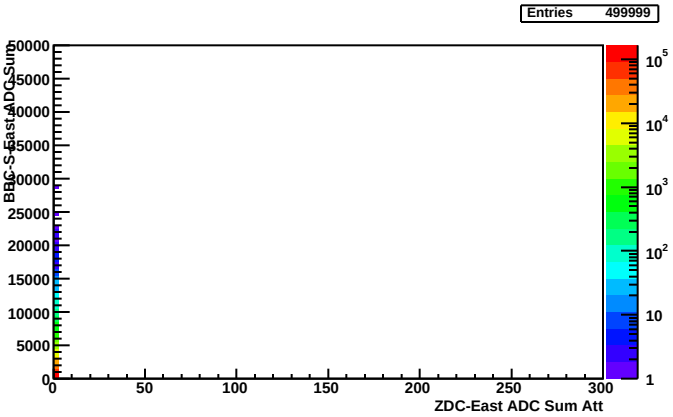

Entries 499999
TOF Mult
ZDC-West ADC Sum Att

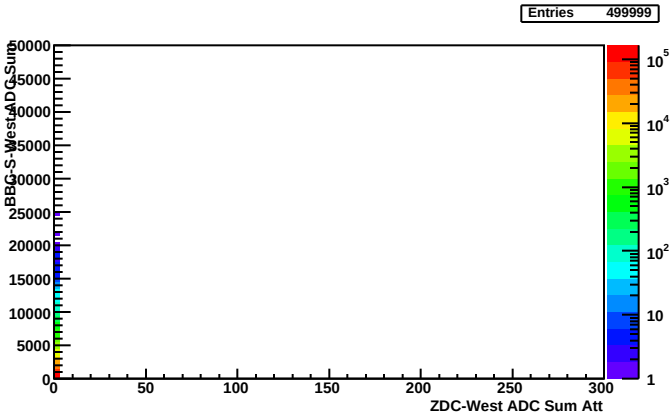

Entries 499999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

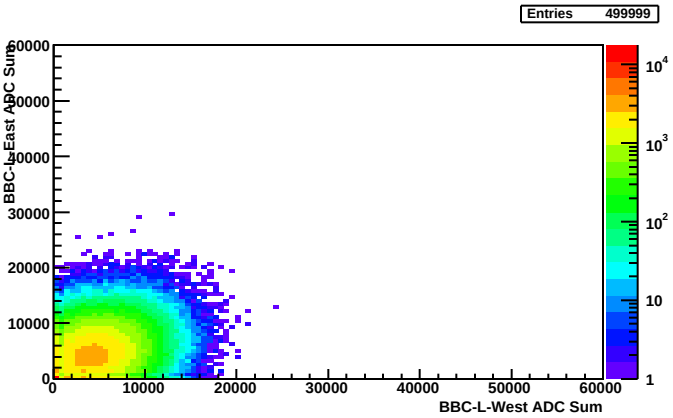

Entries 499999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

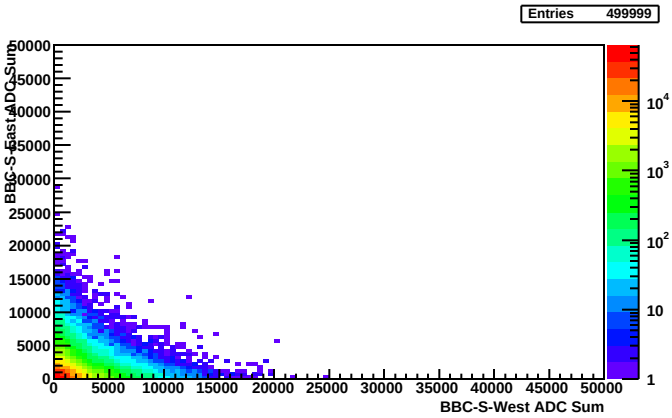

Entries 499999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

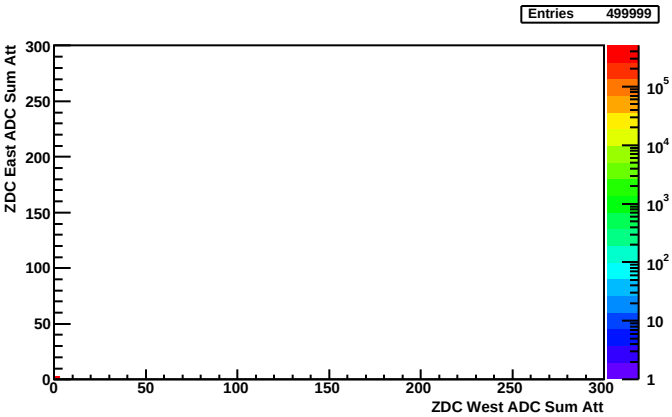

Entries 499999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

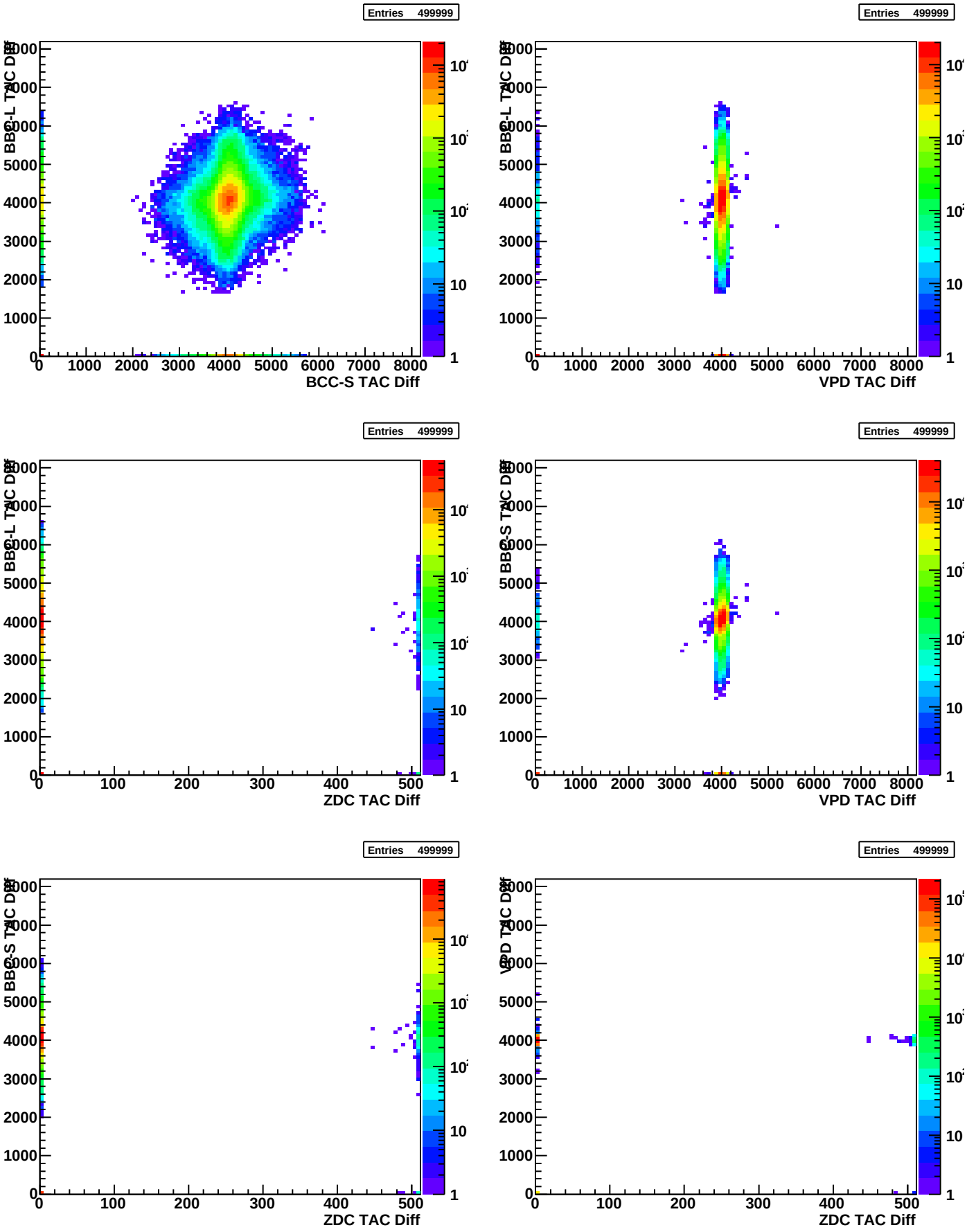

Entries 499999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

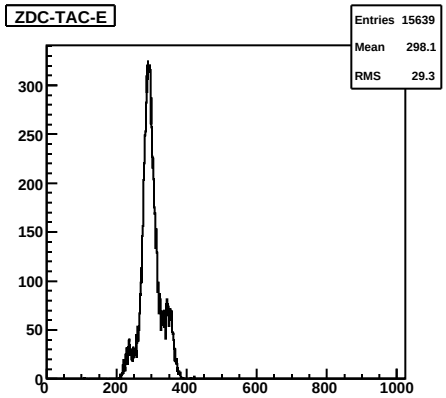

Entries 499999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

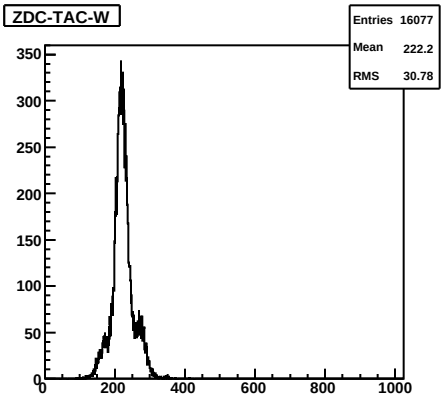

Entries 499999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

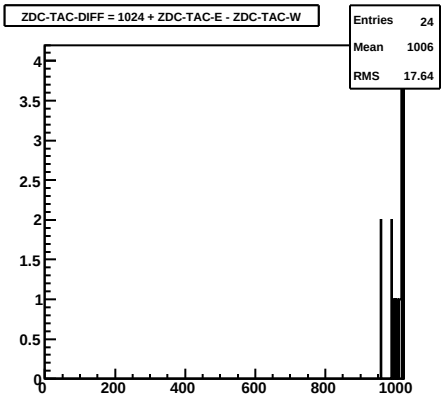

Entries 499999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

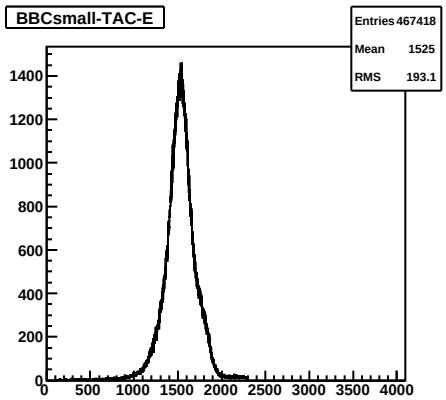

Entries 499999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

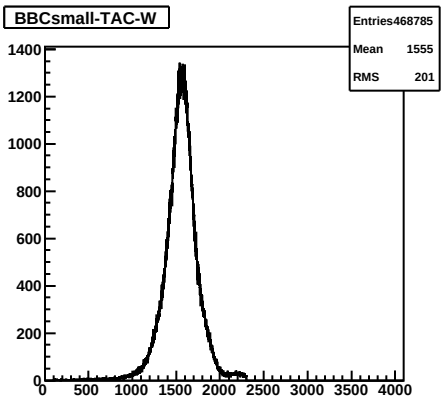

Entries 499999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 499999
BBC-L TAC Diff
VPD TAC Diff
Entries 499999
BBC-L TAC Diff
ZDC TAC Diff
Entries 499999
BBC-S TAC Diff
VPD TAC Diff
Entries 499999
BBC-S TAC Diff
ZDC TAC Diff
Entries 499999
VPD TAC Diff
ZDC TAC Diff

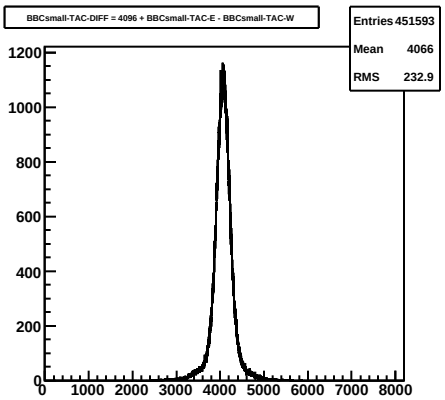

ZDC-TAC-E
Entries 15639
Mean 298.1
RMS 29.3

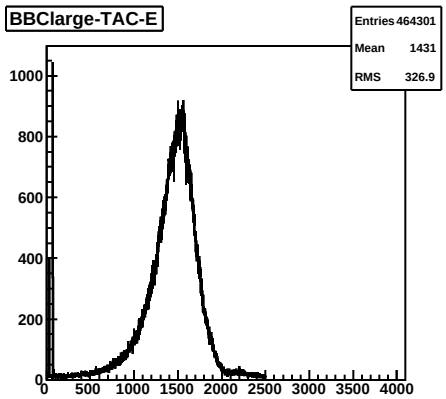

ZDC-TAC-W
Entries 16077
Mean 222.2
RMS 30.78

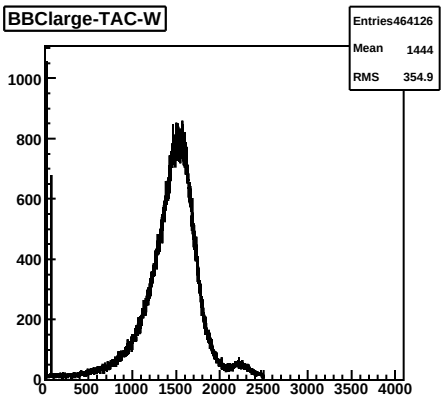

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 24
Mean 1006
RMS 17.64

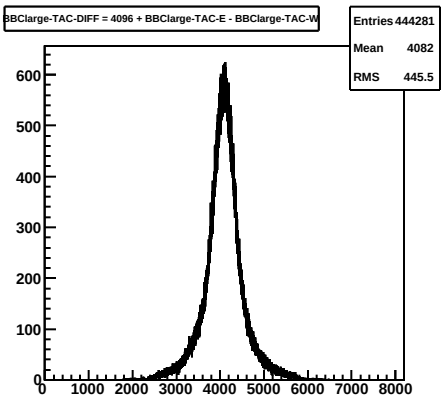

BBCsmall-TAC-E
Entries 467418
Mean 1525
RMS 193.1

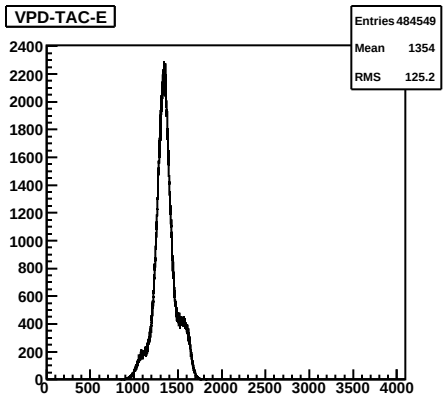

BBCsmall-TAC-W
Entries 468785
Mean 1555
RMS 201

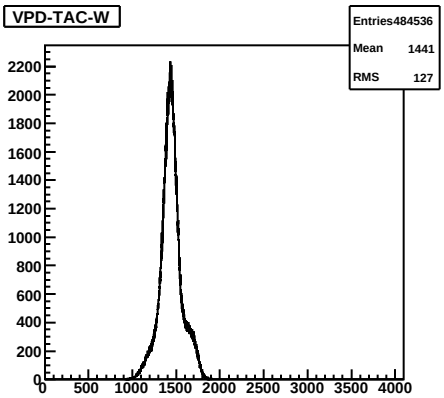

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 451593
Mean 4066
RMS 232.9

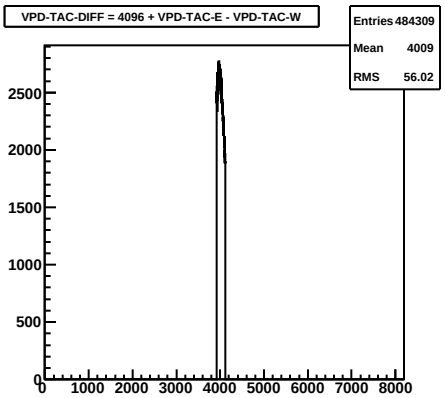

BBClarge-TAC-E
Entries 464301
Mean 1431
RMS 326.9

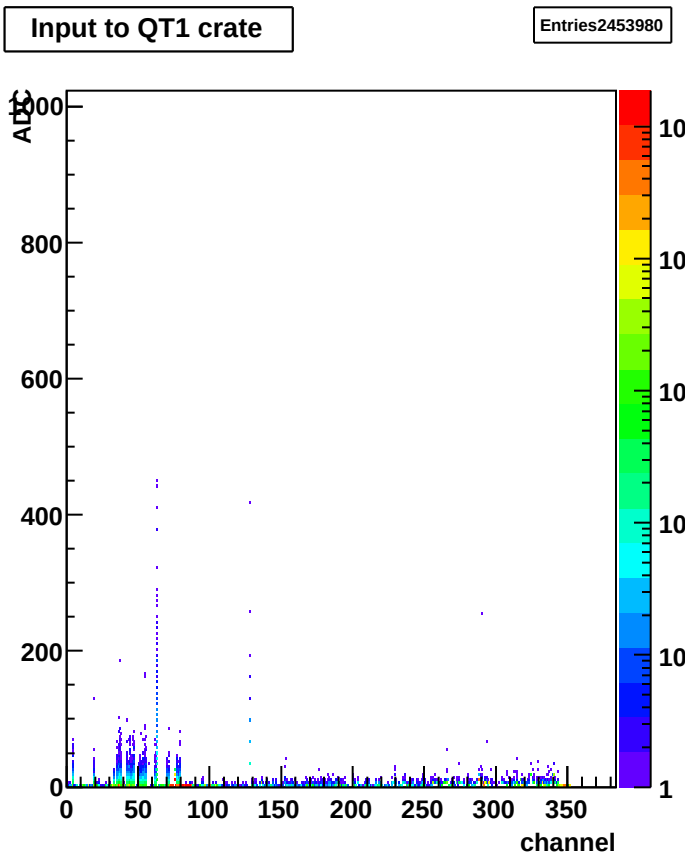

BBClarge-TAC-W
Entries 464126
Mean 1444
RMS 354.9

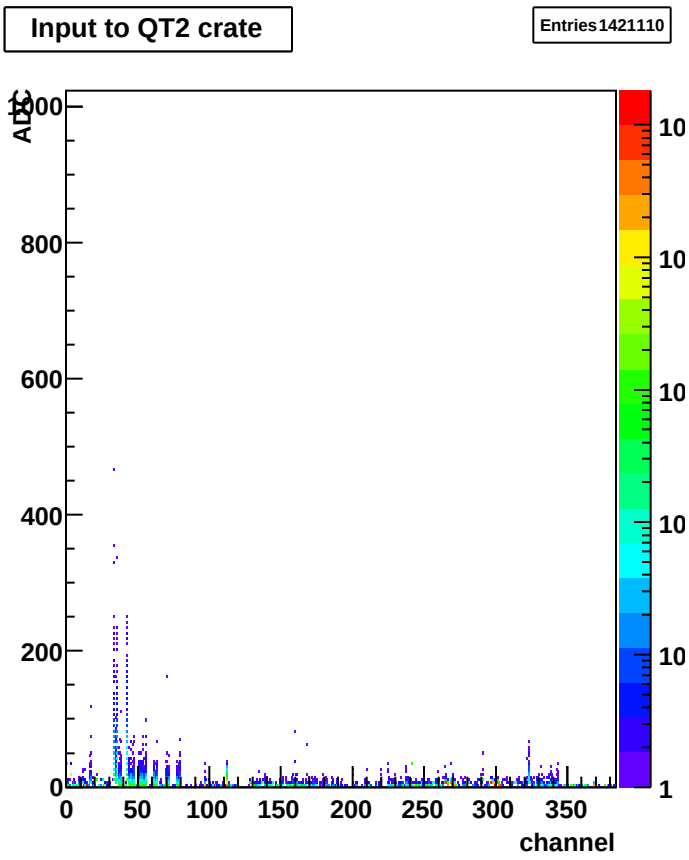

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 444281
Mean 4082
RMS 445.5

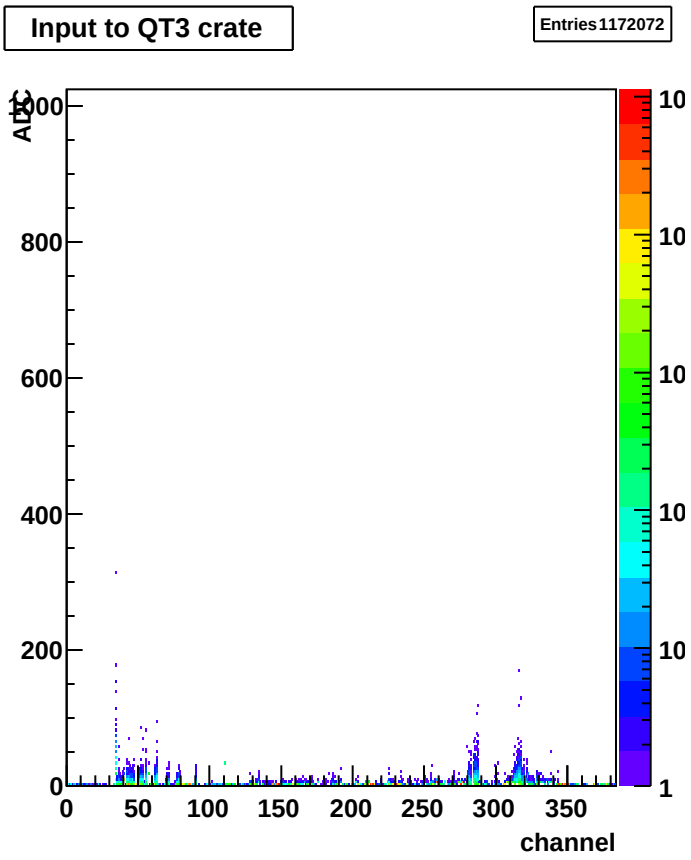

VPD-TAC-E
Entries 484549
Mean 1354
RMS 125.2

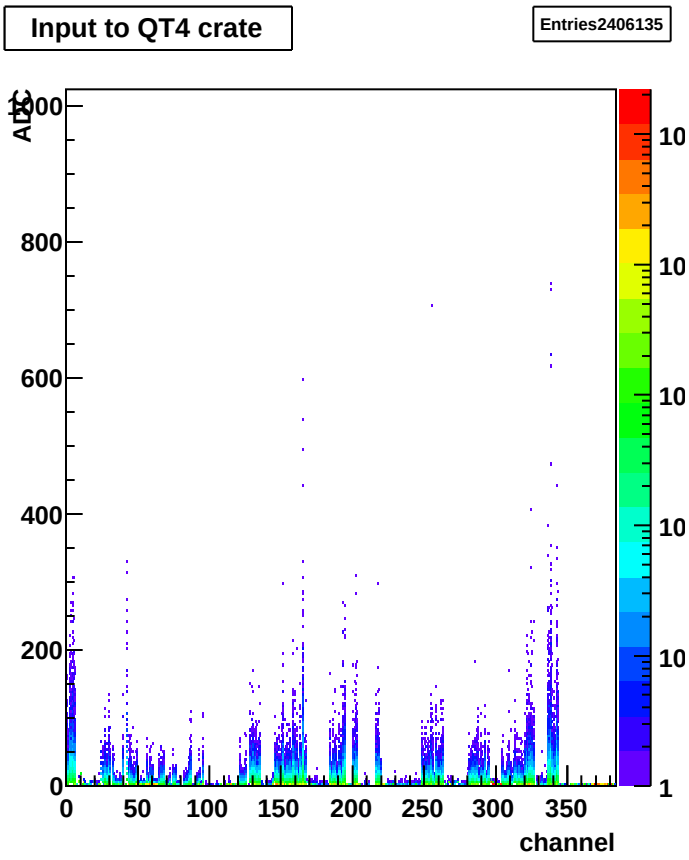

VPD-TAC-W
Entries 484536
Mean 1441
RMS 127

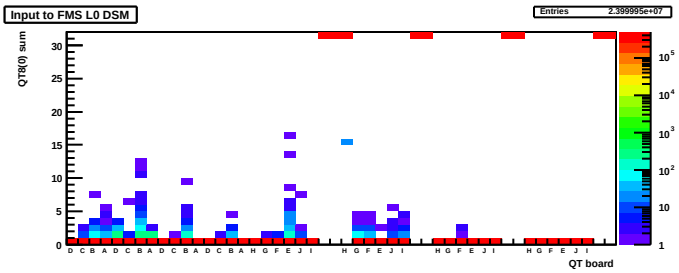

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 484309
Mean 4009
RMS 56.02

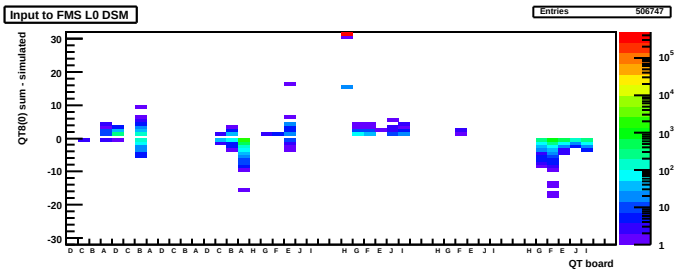

Input to QT1 crate
Entries2453980
ADC
channel

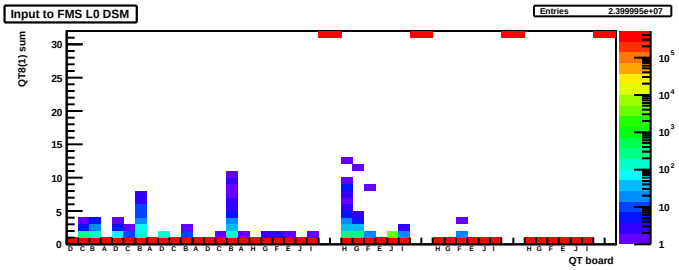

Input to QT2 crate
Entries1421110
ADC
channel

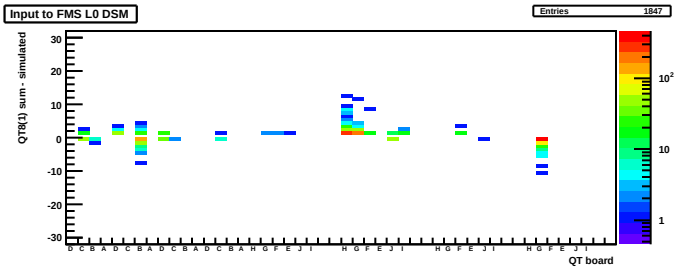

Input to QT3 crate
Entries1172072
ADC
channel

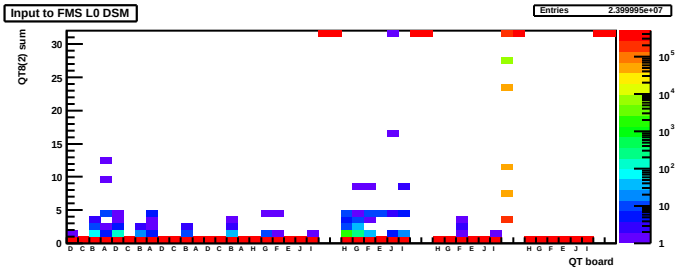

Input to QT4 crate
Entries2406135
ADC
channel

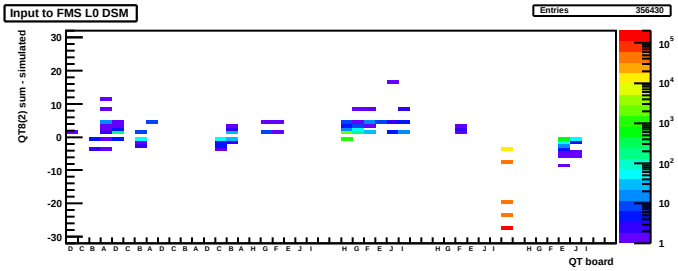

Input to FMS L0 DSM
Entries 2.399995e+07
QT8(0) sum
QT board

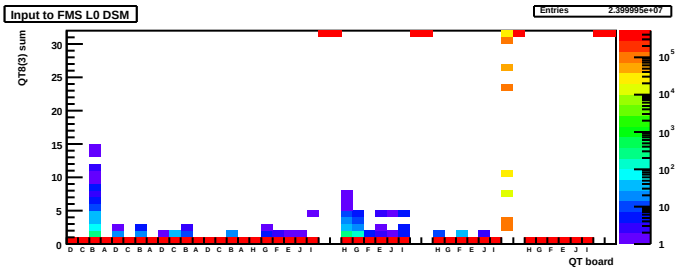

Input to FMS L0 DSM
Entries 506747
QT8(0) sum - simulated
QT board

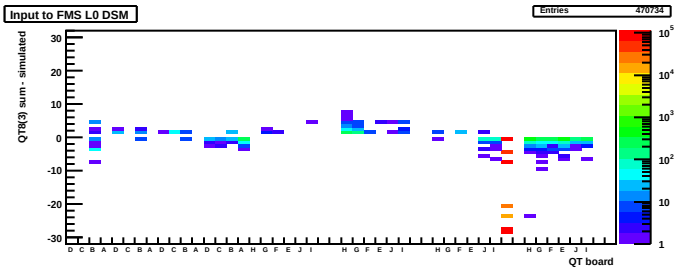

Input to FMS L0 DSM
Entries 2.399995e+07
QT8(1) sum
QT board

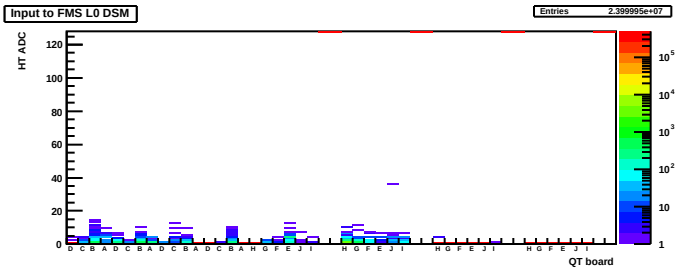

Input to FMS L0 DSM
Entries 1847
QT8(1) sum - simulated
QT board

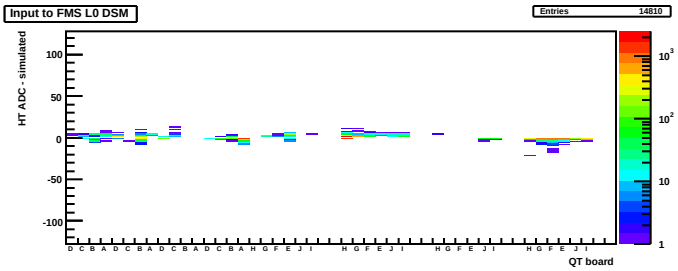

Input to FMS L0 DSM
Entries 2.399995e+07
QT8(2) sum
QT board

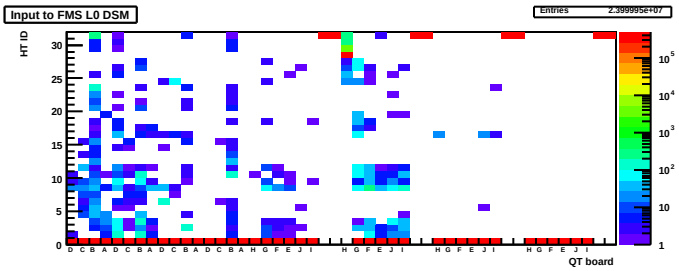

Input to FMS L0 DSM
Entries 356430
QT8(2) sum - simulated
QT board

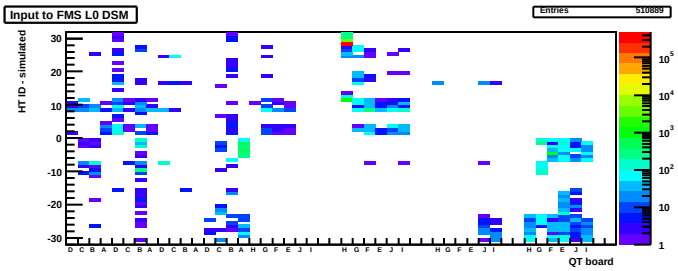

Input to FMS L0 DSM
Entries 2.399995e+07
QT8(3) sum
QT board

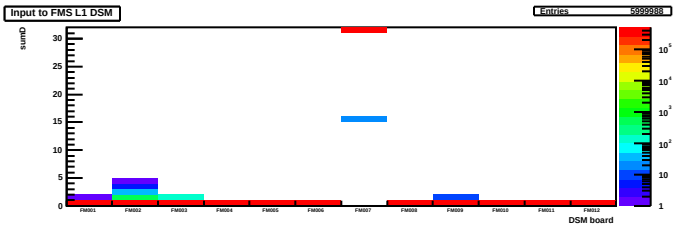

Input to FMS L0 DSM
Entries 470734
QT8(3) sum - simulated
QT board

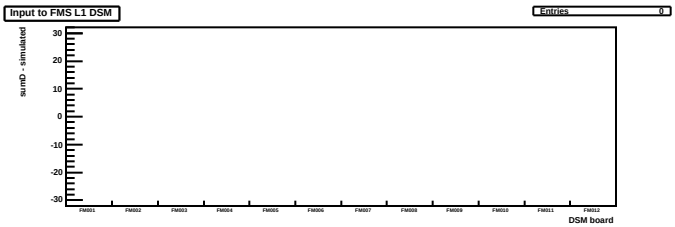

Input to FMS L0 DSM
Entries 2.399995e+07
HT ADC
QT board

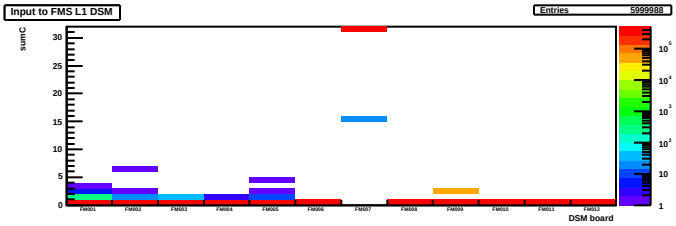

Input to FMS L0 DSM
Entries 14810
HT ADC - simulated
QT board

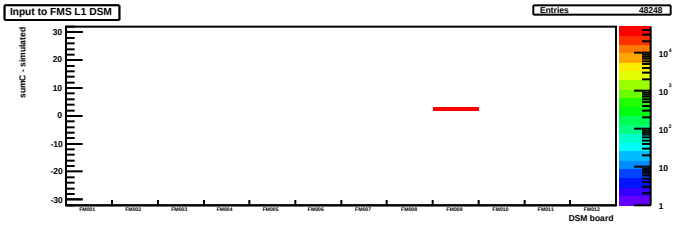

Input to FMS L0 DSM
Entries 2.399995e+07
HT ID
QT board

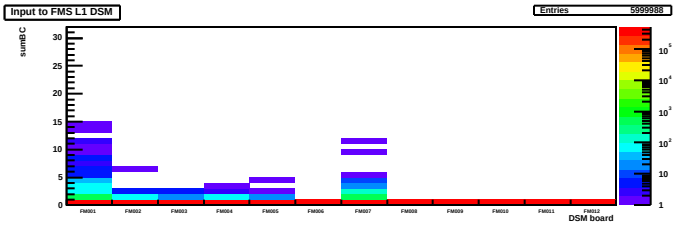

Input to FMS L0 DSM
Entries 510889
HT ID - simulated
QT board

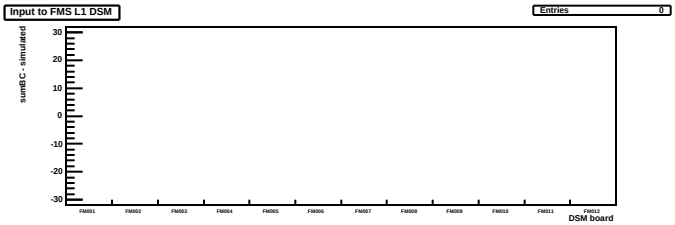

Input to FMS L1 DSM
Entries 5999988
sumD
DSM board

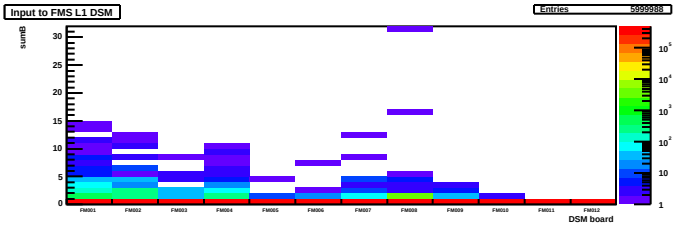

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

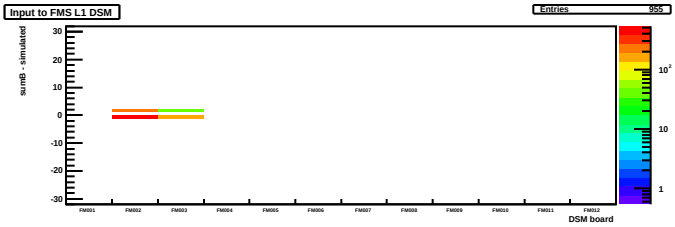

Input to FMS L1 DSM
Entries 5999988
sumC
DSM board

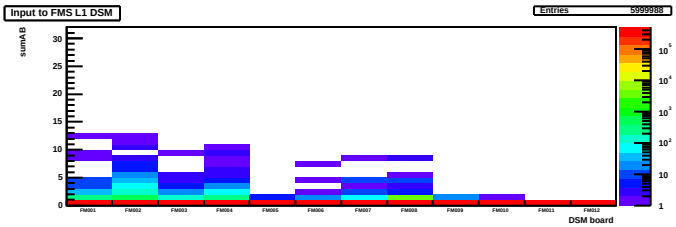

Input to FMS L1 DSM
Entries 48248
sumC - simulated
DSM board

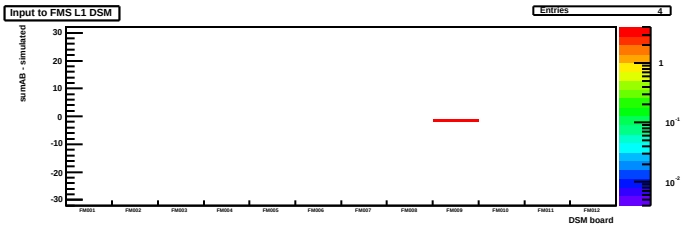

Input to FMS L1 DSM
Entries 5999988
sumBC
DSM board

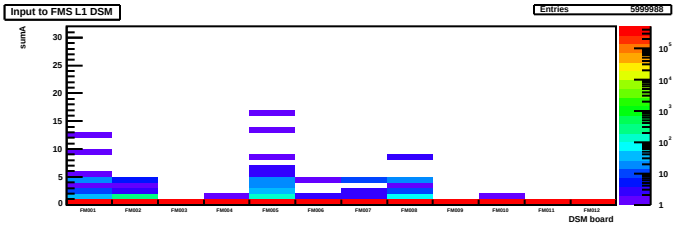

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

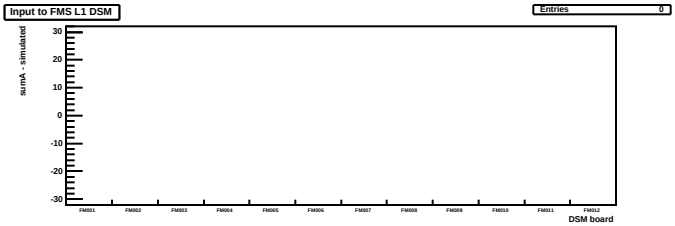

Input to FMS L1 DSM
Entries 5999988
sumB
DSM board

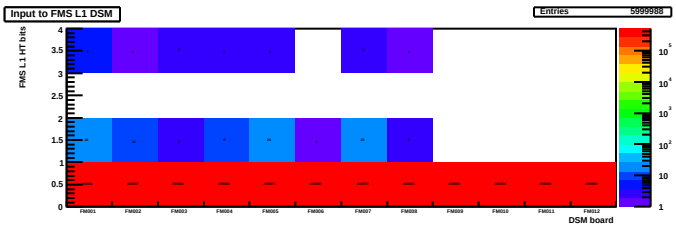

Input to FMS L1 DSM
Entries 955
sumB - simulated
DSM board

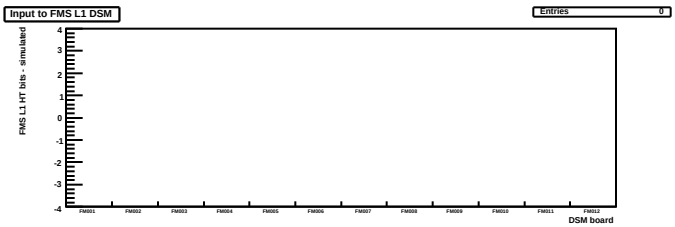

Input to FMS L1 DSM
Entries 5999988
sumAB
DSM board

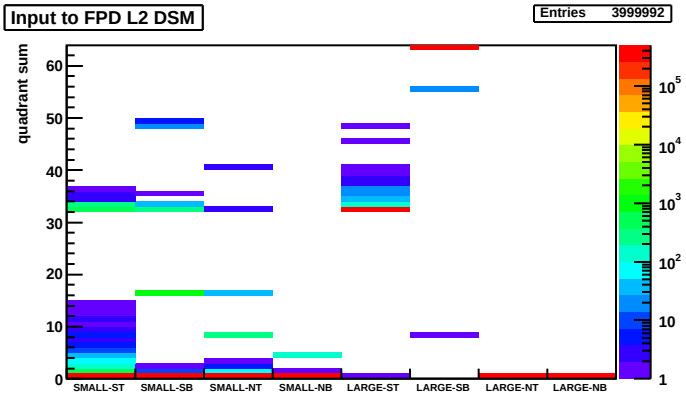

Input to FMS L1 DSM
Entries 4
sumAB - simulated
DSM board

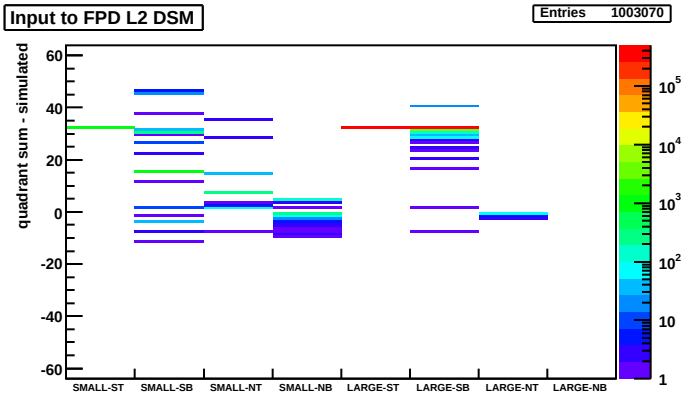

Input to FMS L1 DSM
Entries 5999988
sumA
DSM board

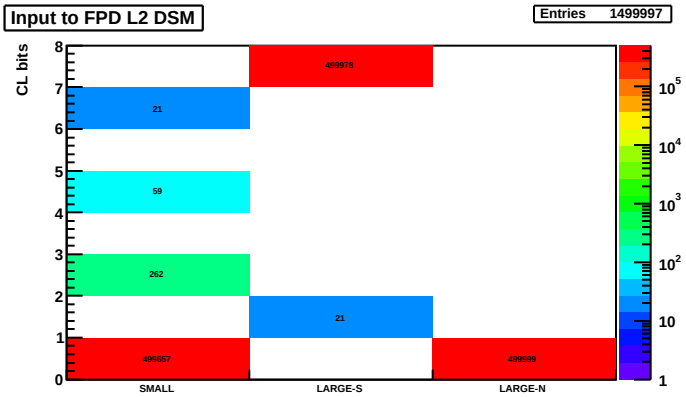

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

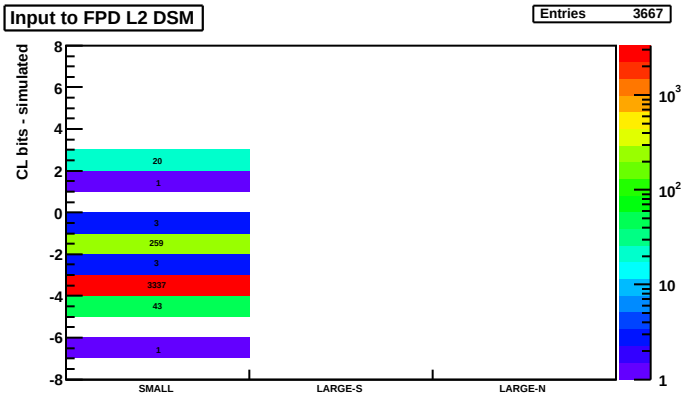

Input to FMS L1 DSM
Entries 5999988
FMS L1 HT bits
DSM board

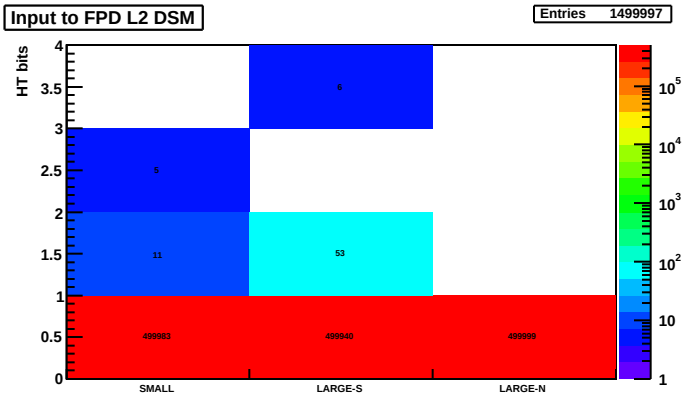

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

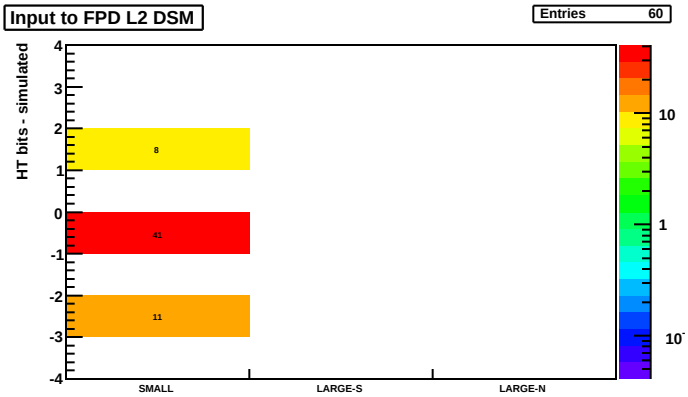

Input to FPD L2 DSM
Entries 3999992
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

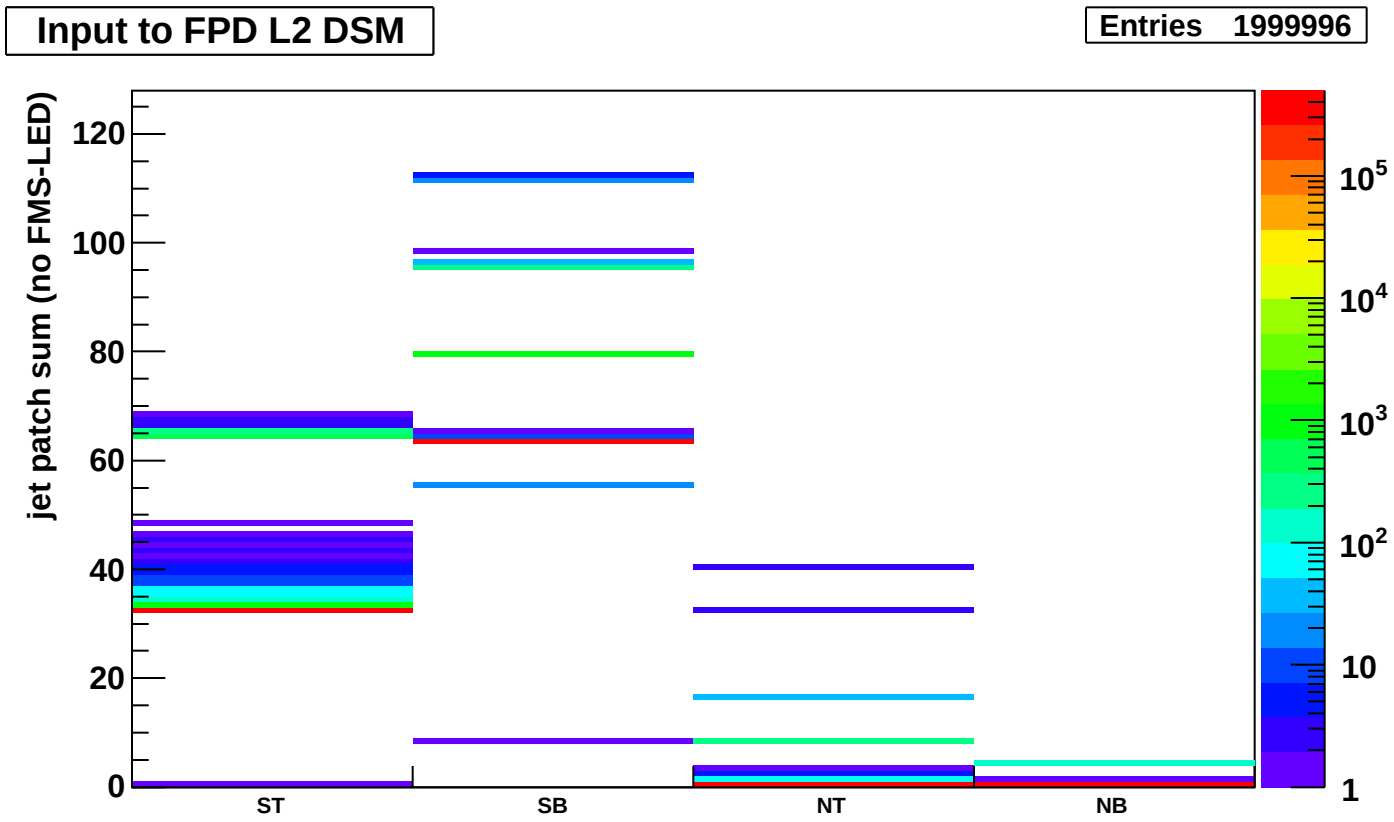

Input to FPD L2 DSM
Entries 1003070
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

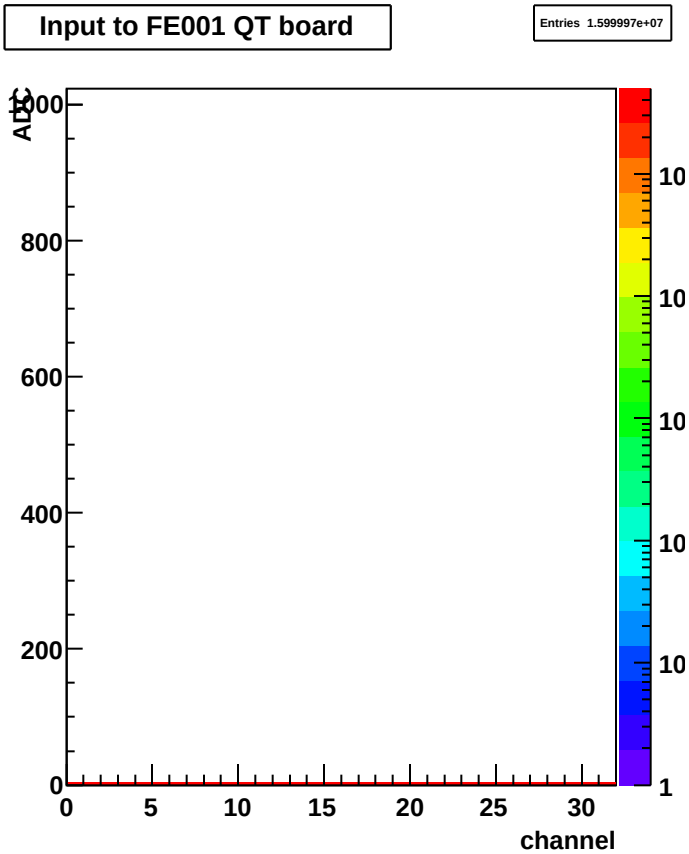

Input to FPD L2 DSM
Entries 1499997
CL bits
499978
21
59
262
21
499657
499999
SMALL
LARGE-S
LARGE-N

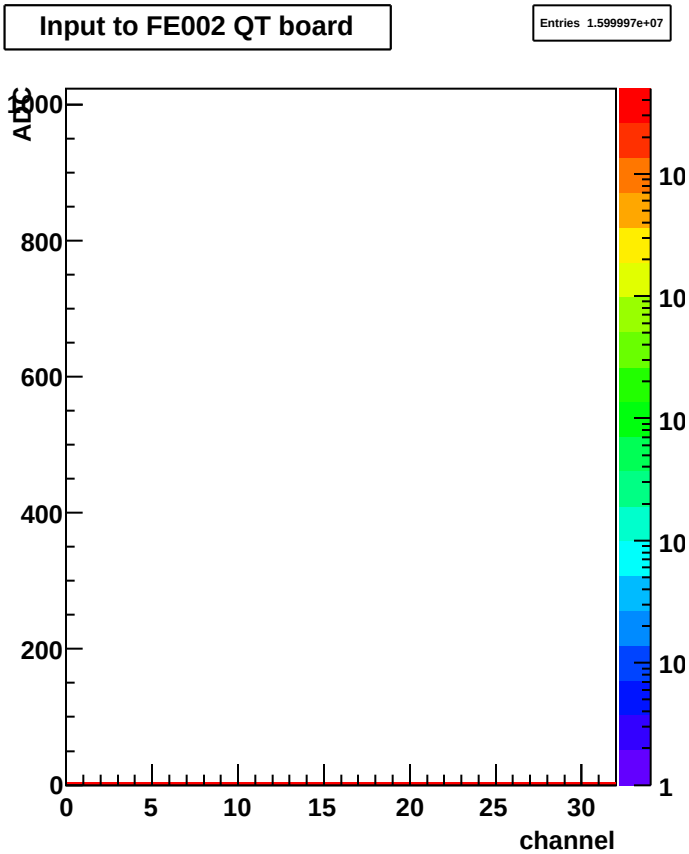

Input to FPD L2 DSM
Entries 3667
CL bits - simulated
20
1
3
259
3
3337
43
1
SMALL
LARGE-S
LARGE-N

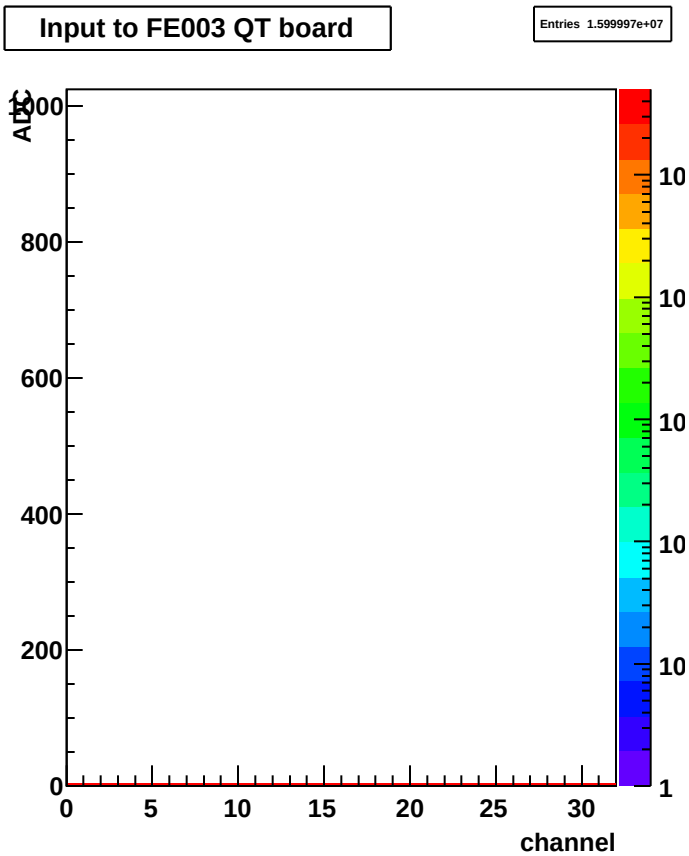

Input to FPD L2 DSM
Entries 1499997
HT bits
6
5
11
53
499983
499940
499999
SMALL
LARGE-S
LARGE-N

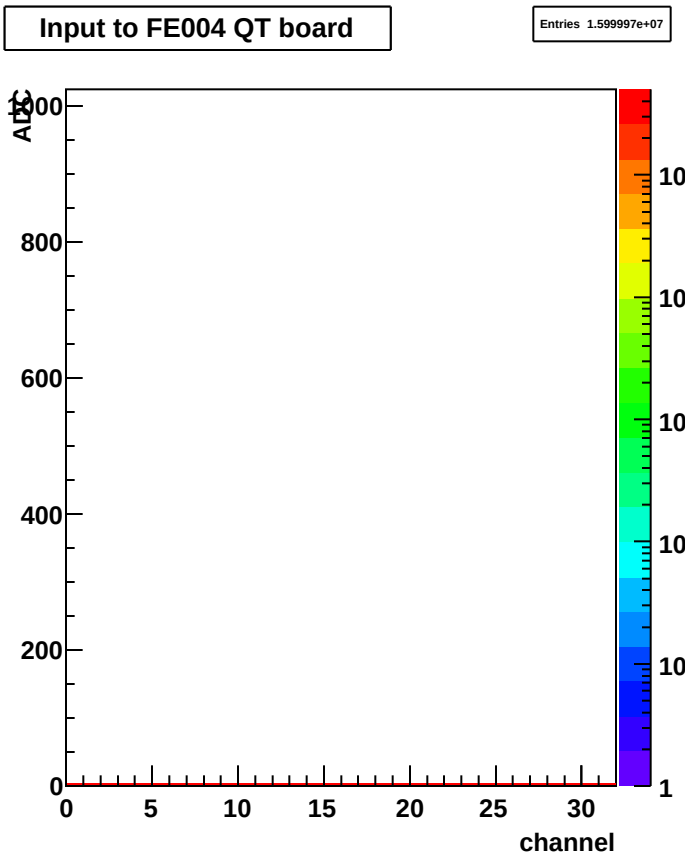

Input to FPD L2 DSM
Entries 60
HT bits - simulated
8
41
11
SMALL
LARGE-S
LARGE-N

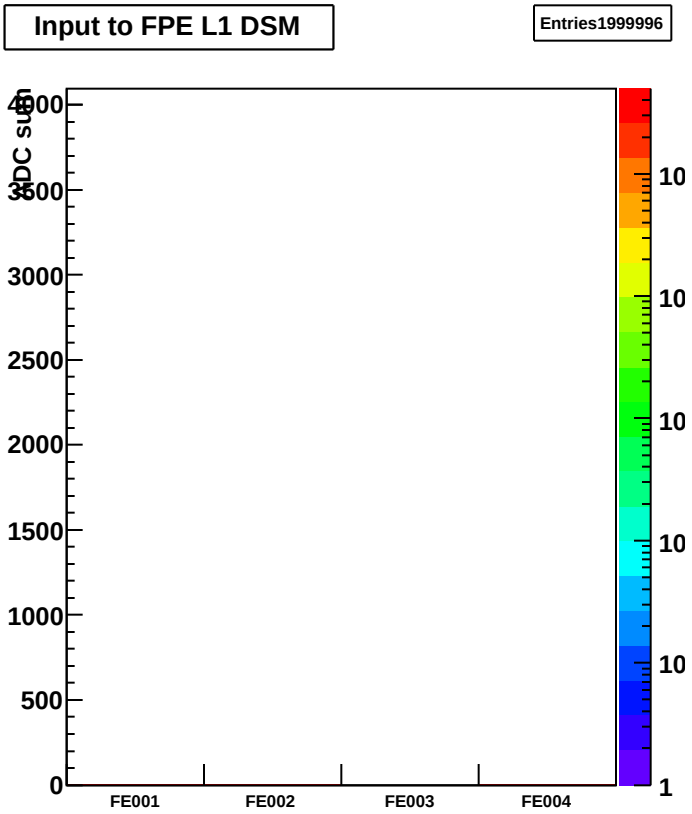

Input to FPD L2 DSM
Entries 1999996
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

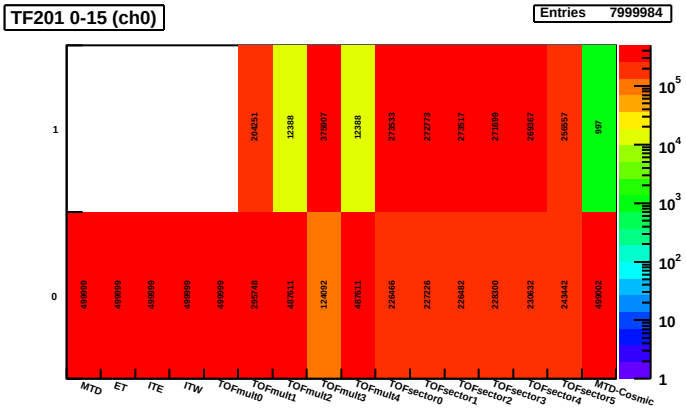

Input to FE001 QT board
Entries 1.599997e+07
ADC
channel

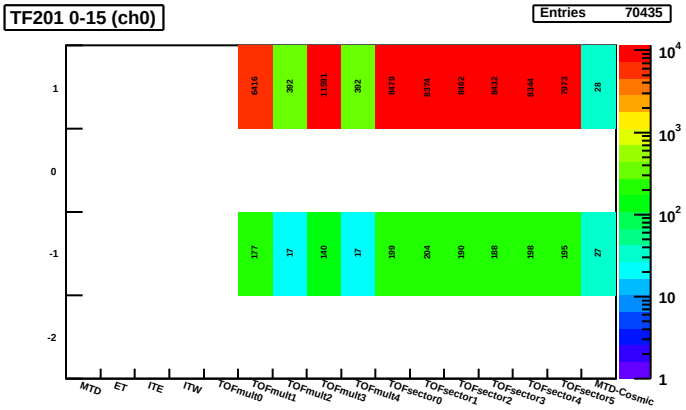

Input to FE002 QT board
Entries 1.599997e+07
ADC
channel

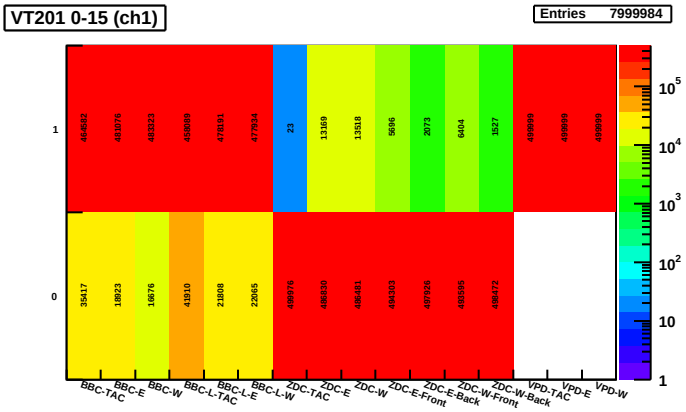

Input to FE003 QT board
Entries 1.599997e+07
ADC
channel

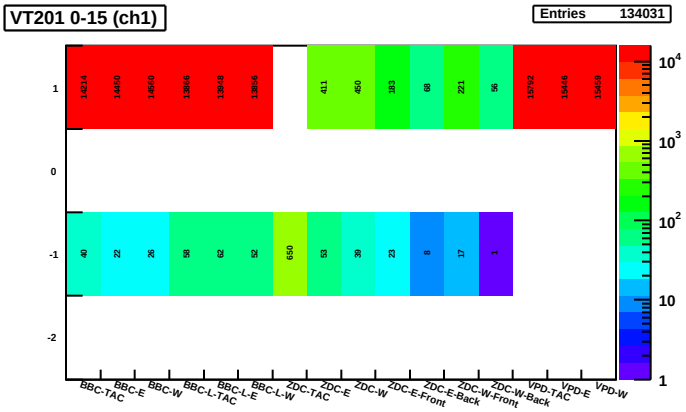

Input to FE004 QT board
Entries 1.599997e+07
ADC
channel

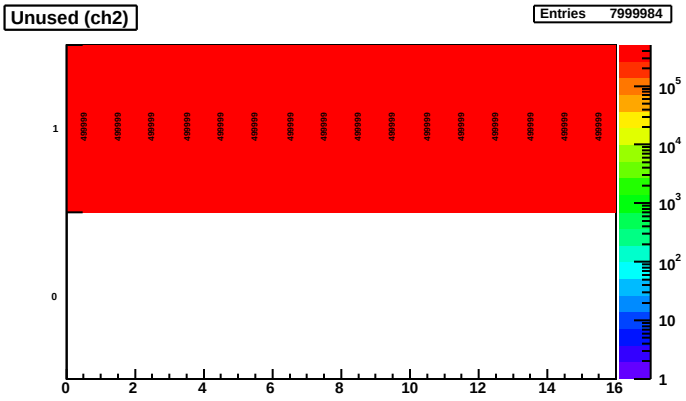

Input to FPE L1 DSM
Entries1999996
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

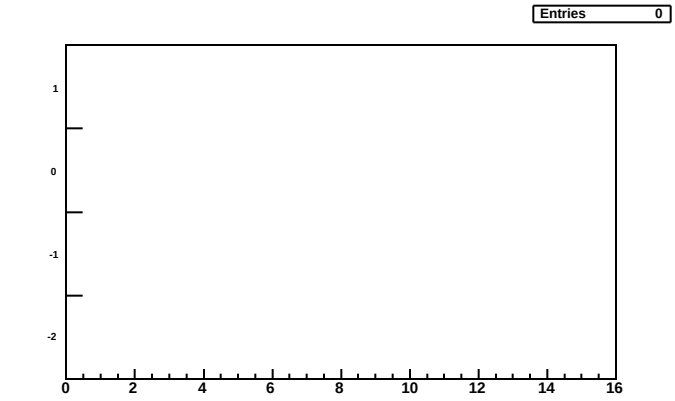

TF201 0-15 (ch0)
Entries 7999984
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

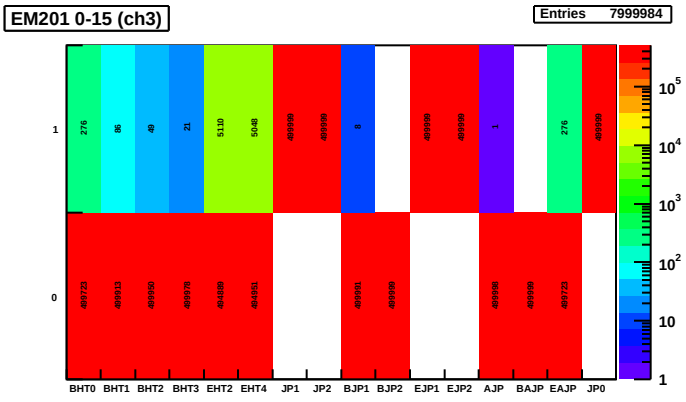

TF201 0-15 (ch0)
Entries 70435
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

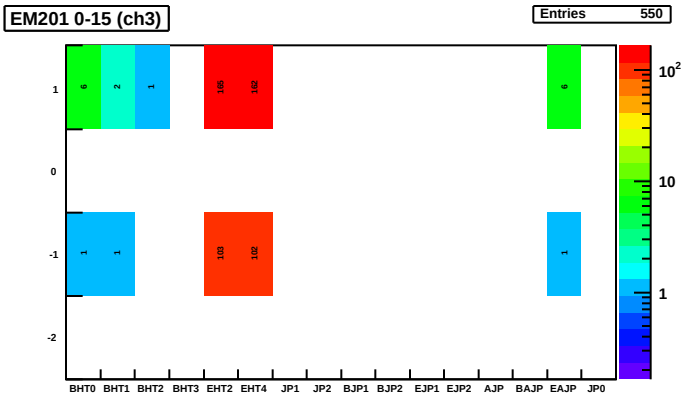

VT201 0-15 (ch1)
Entries 7999984
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 134031
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

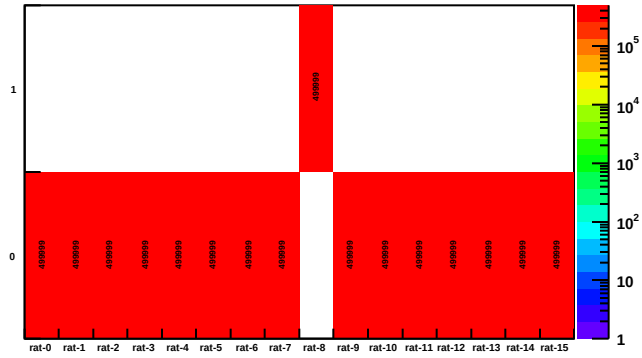

Unused (ch2)
Entries 7999984

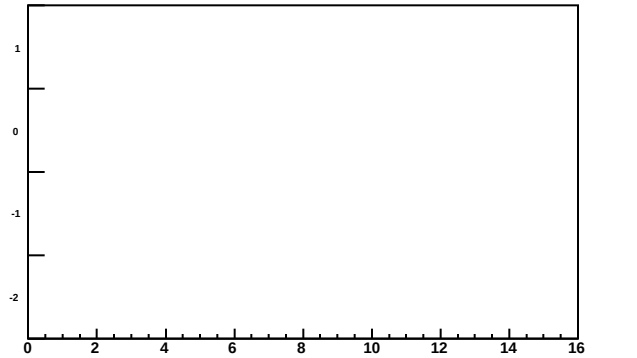

Entries 0


EM201 0-15 (ch3)
Entries 7999984
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

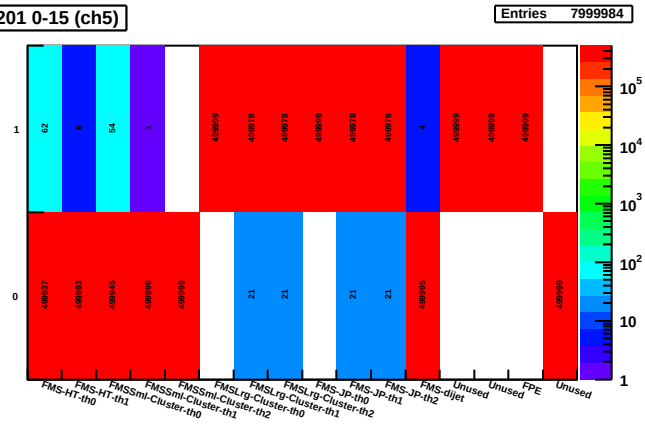

EM201 0-15 (ch3)
Entries 550
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

RAT board (ch4)

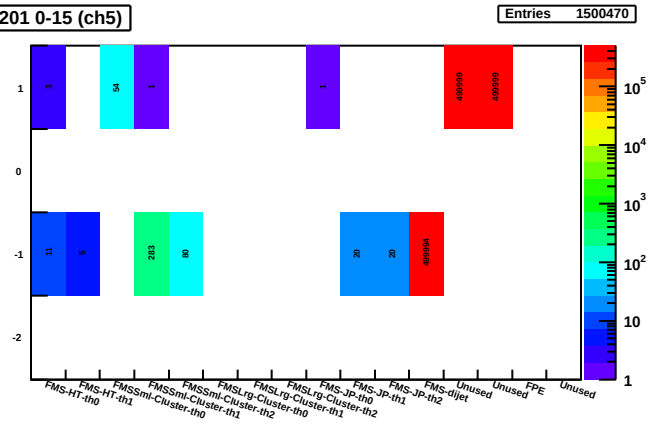




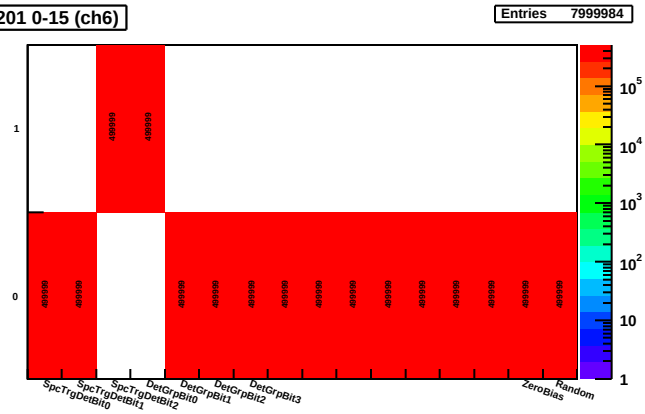
FP201 0-15 (ch5)

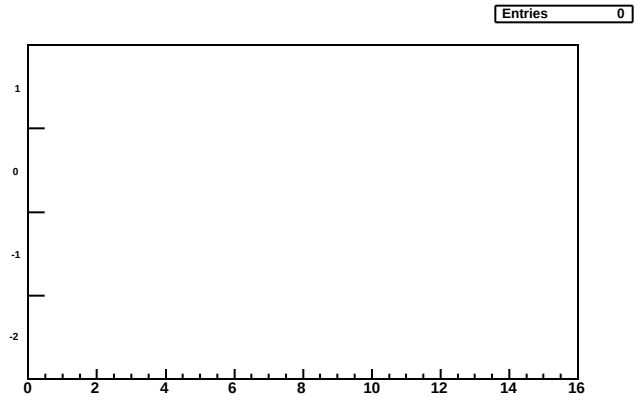
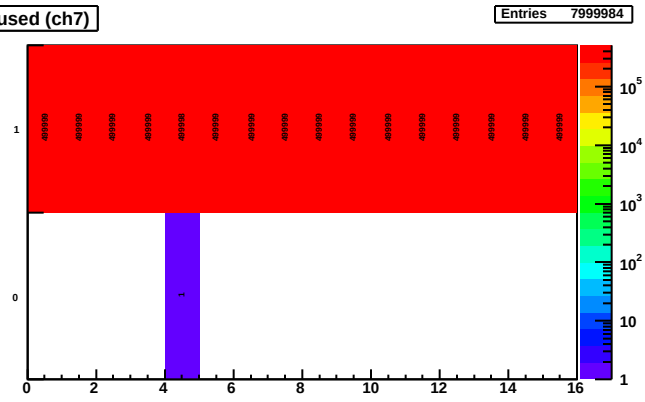
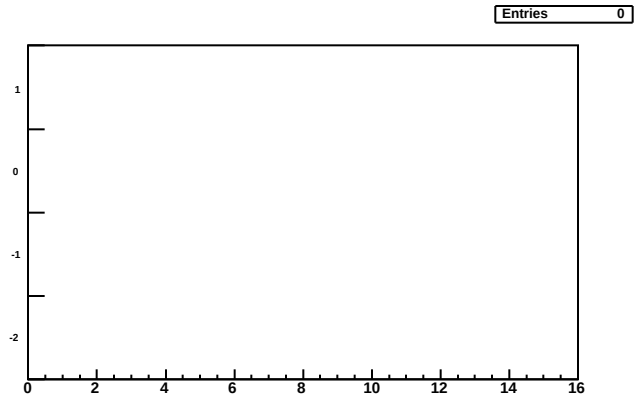


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)