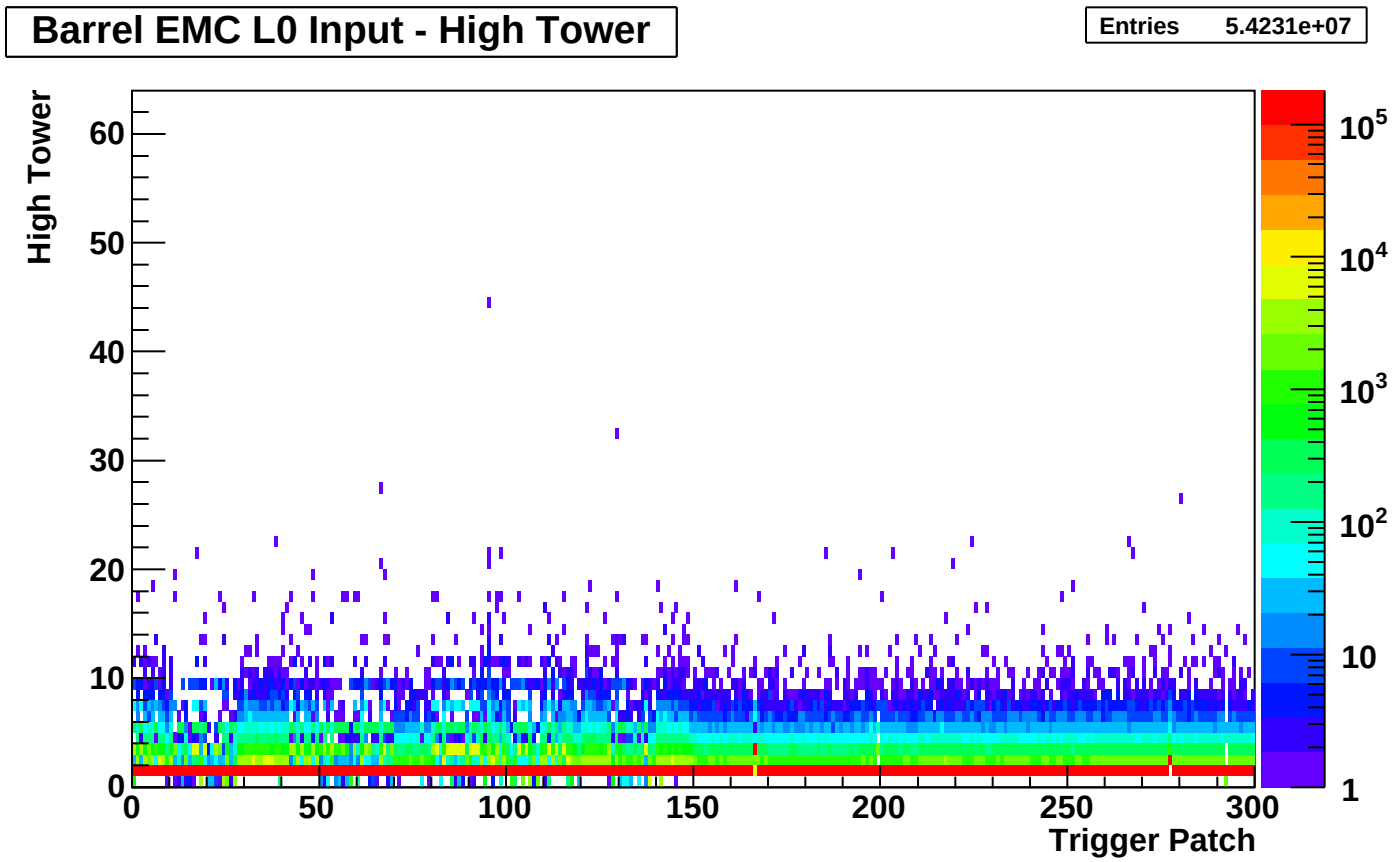
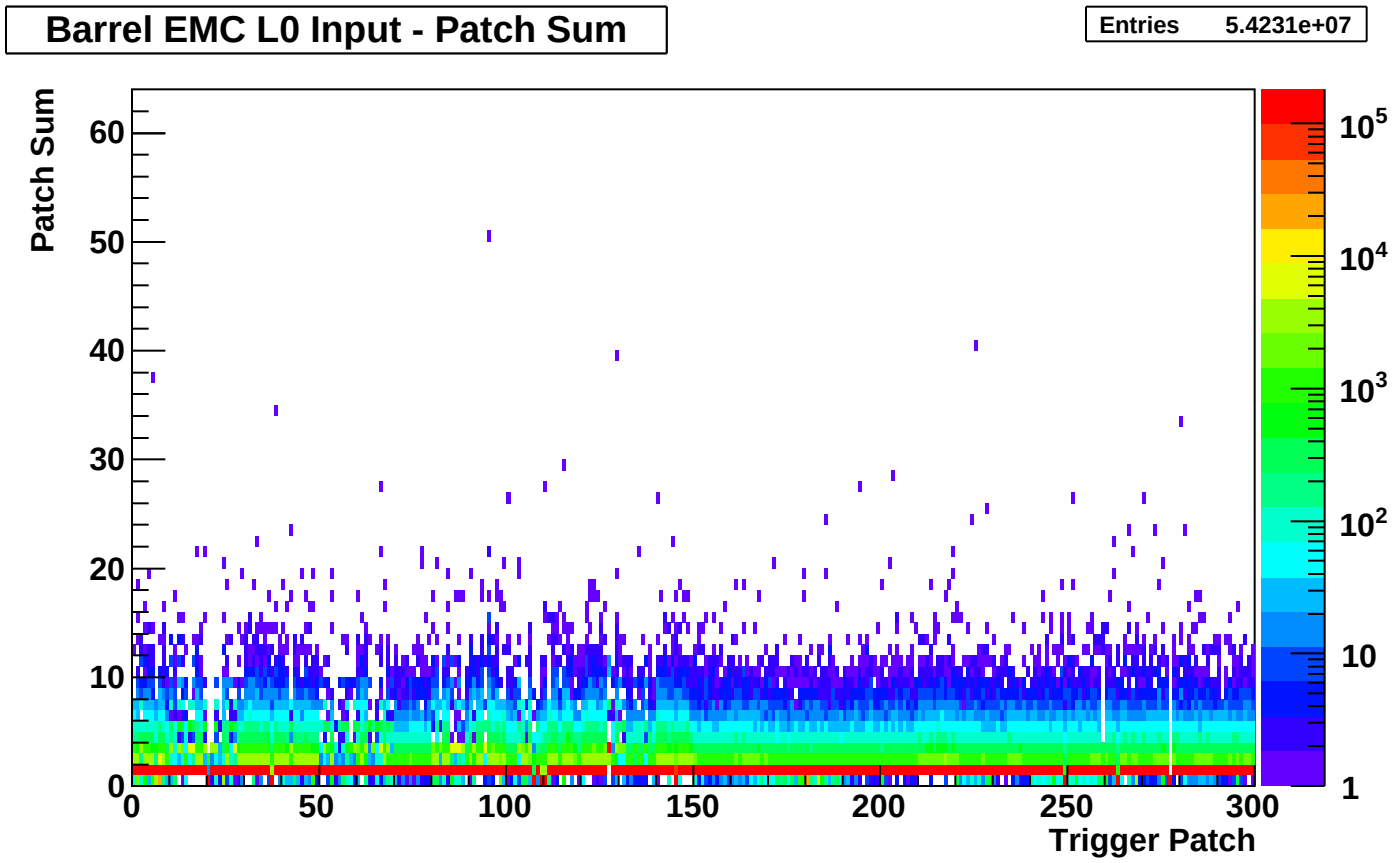
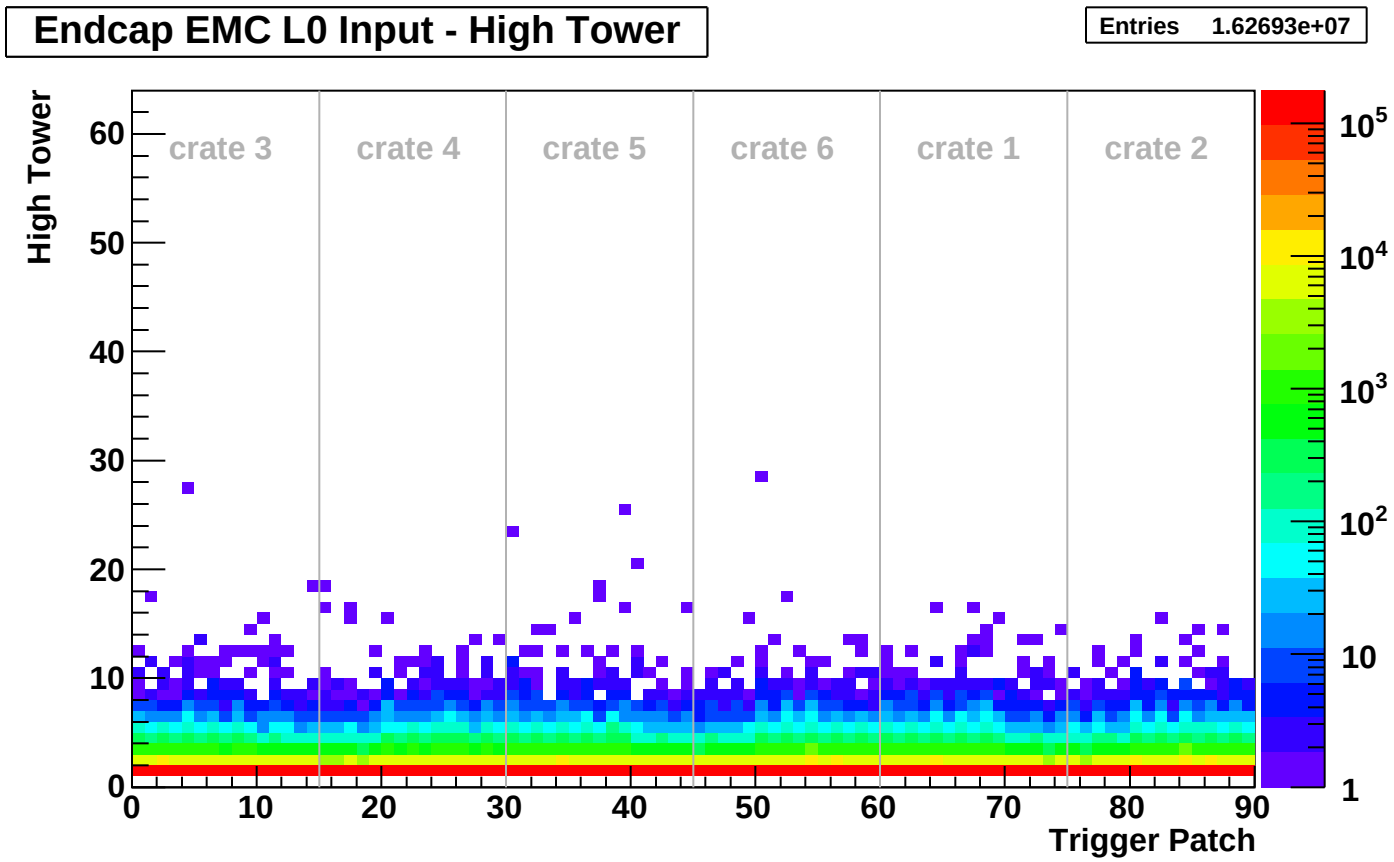
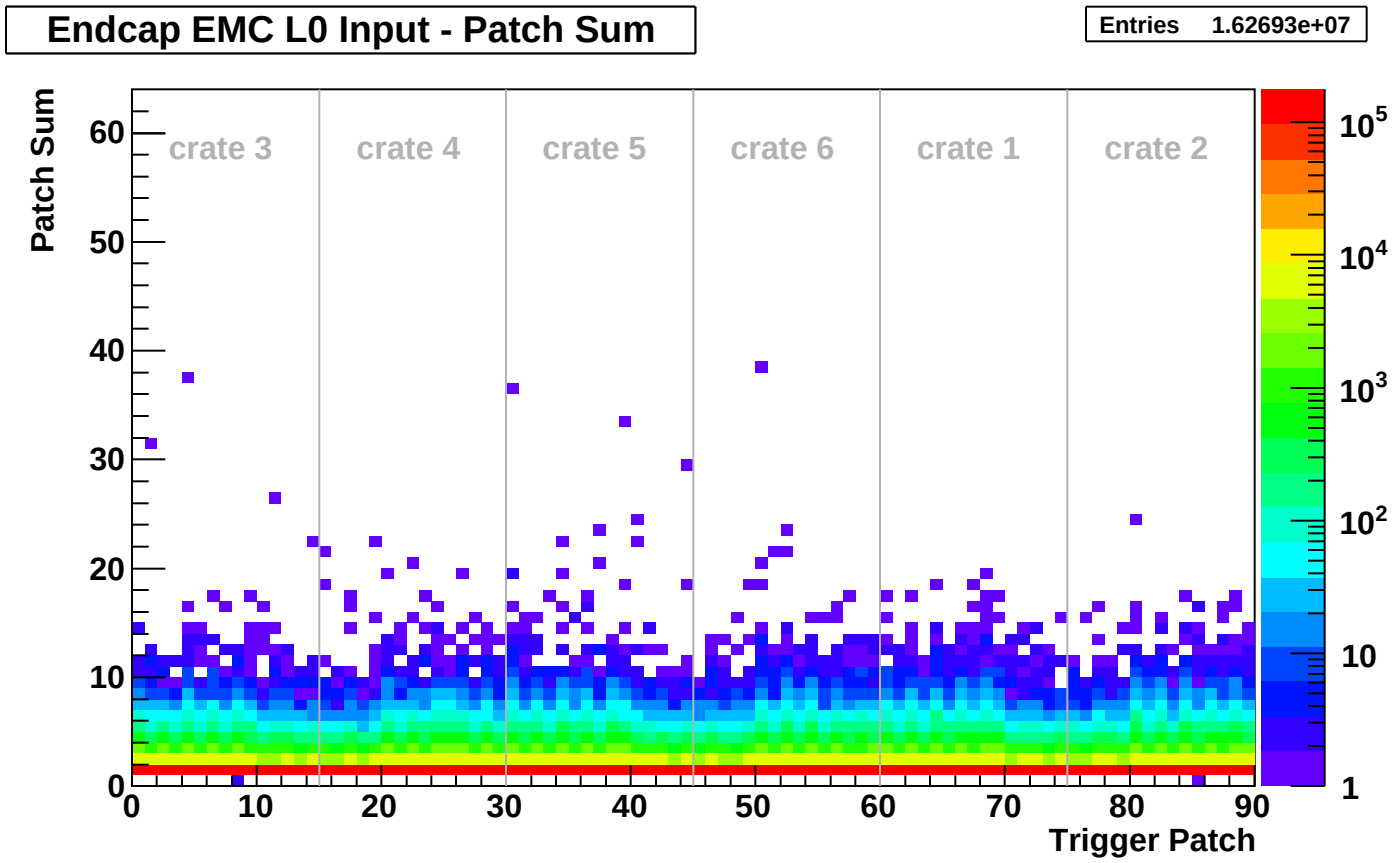
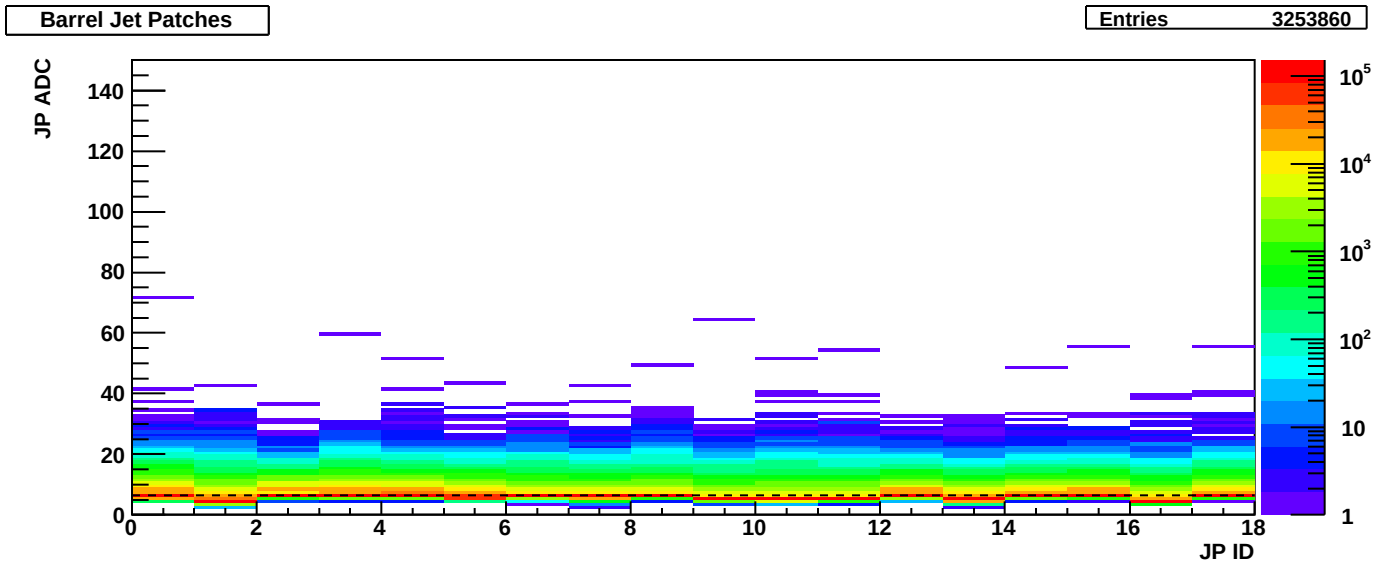
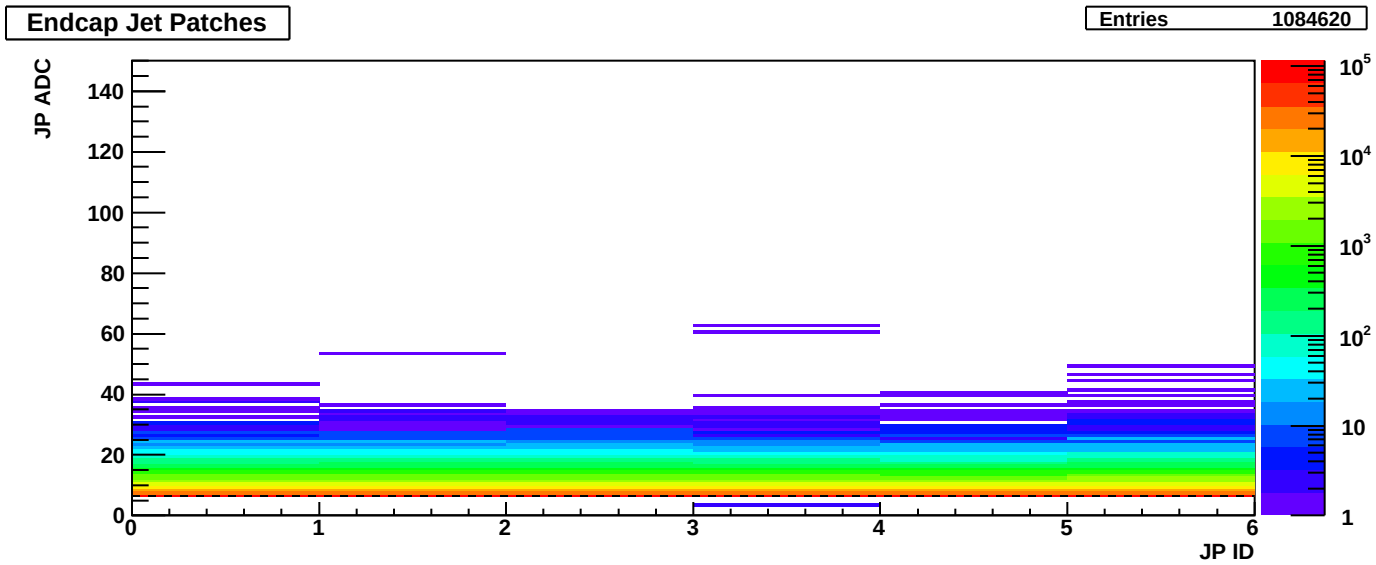

Barrel EMC L0 Input - High Tower
Entries 5.4231e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

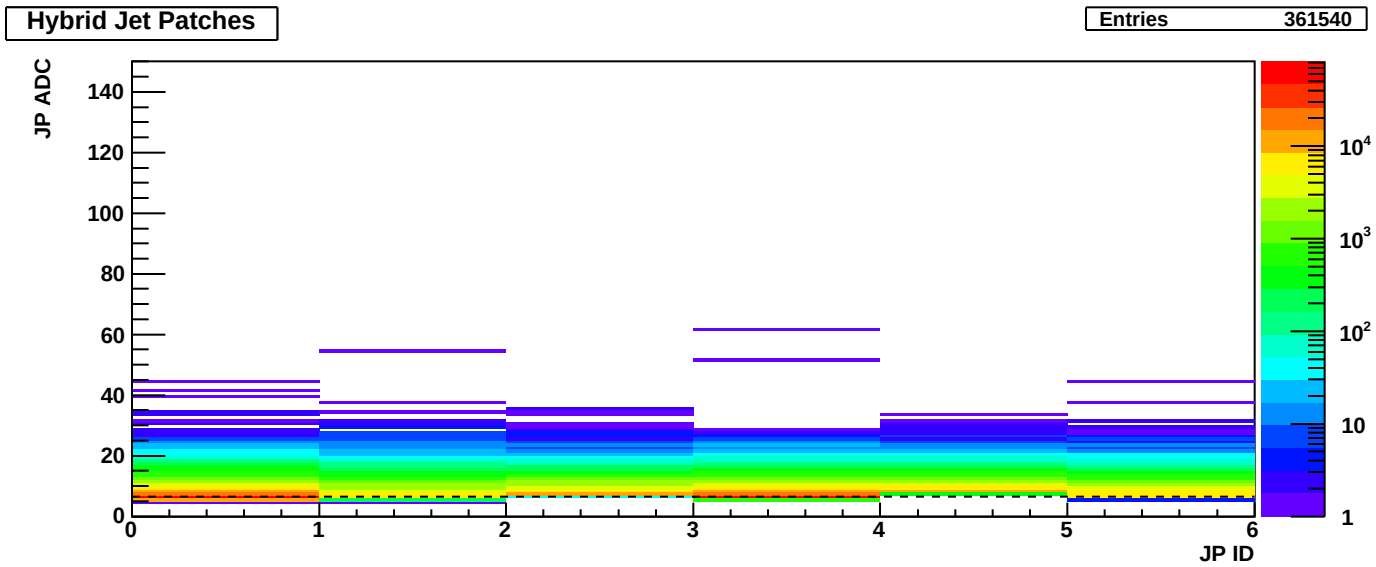

Barrel EMC L0 Input - Patch Sum
Entries 5.4231e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

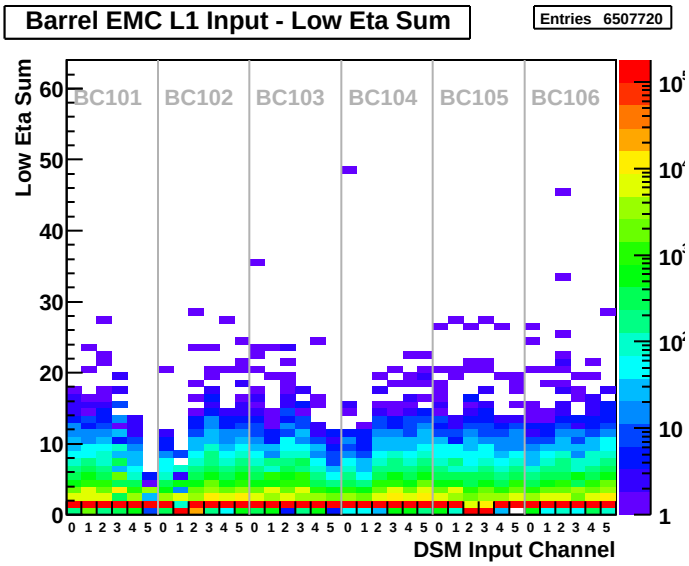

Endcap EMC L0 Input - High Tower
Entries 1.62693e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

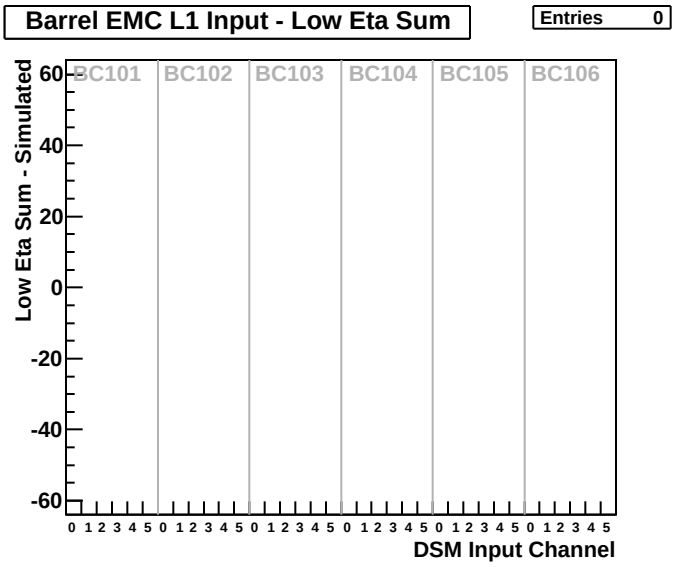

Endcap EMC L0 Input - Patch Sum
Entries 1.62693e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

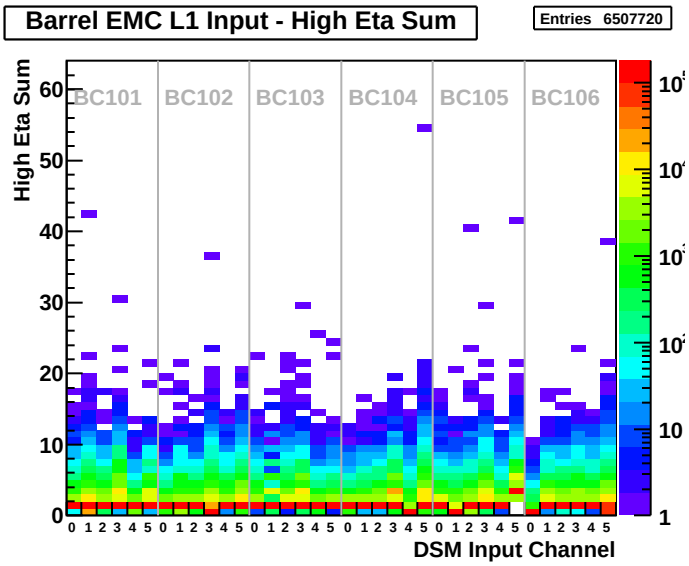

Barrel Jet Patches
Entries 3253860
JP ADC
JP ID

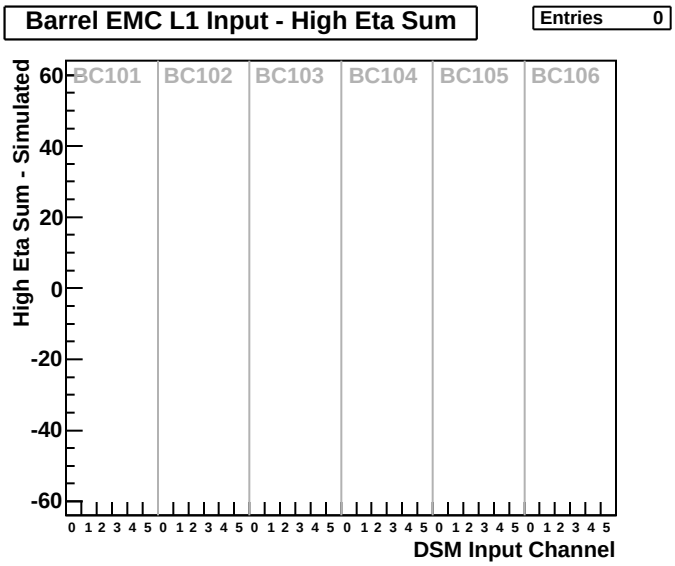

Endcap Jet Patches
Entries 1084620
JP ADC
JP ID

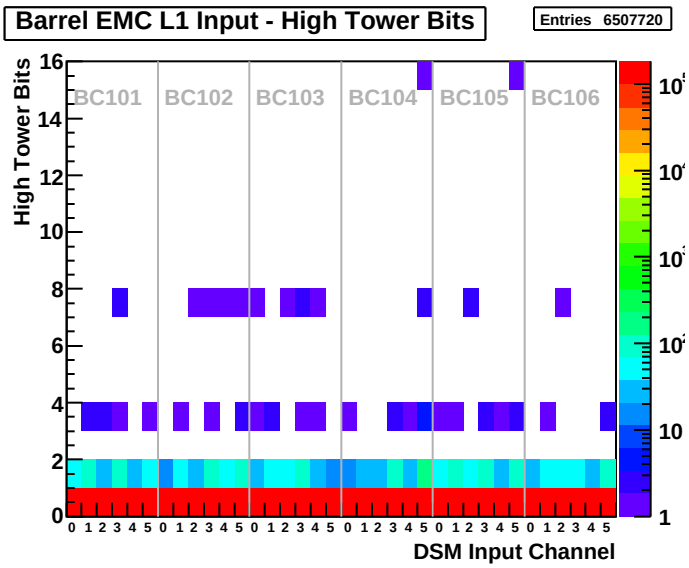

Hybrid Jet Patches
Entries 361540
JP ADC
JP ID

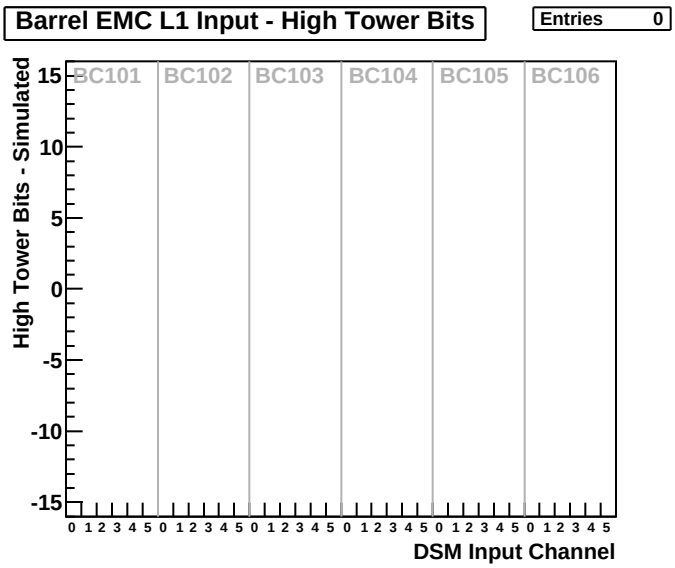

Barrel EMC L1 Input - Low Eta Sum
Entries 6507720
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

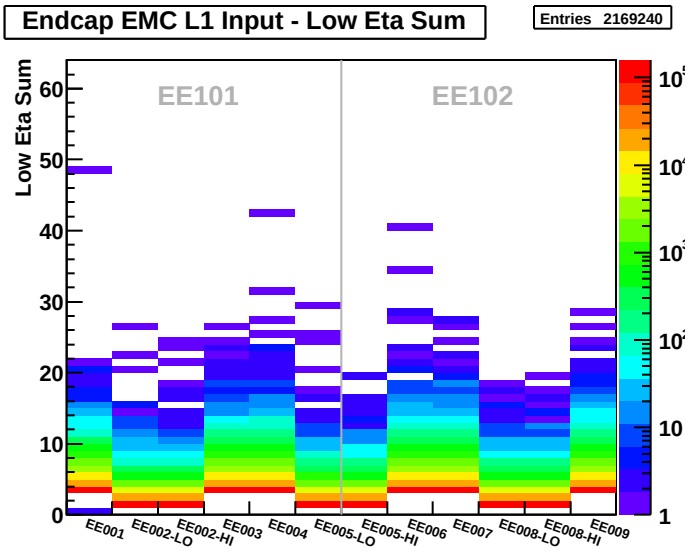

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

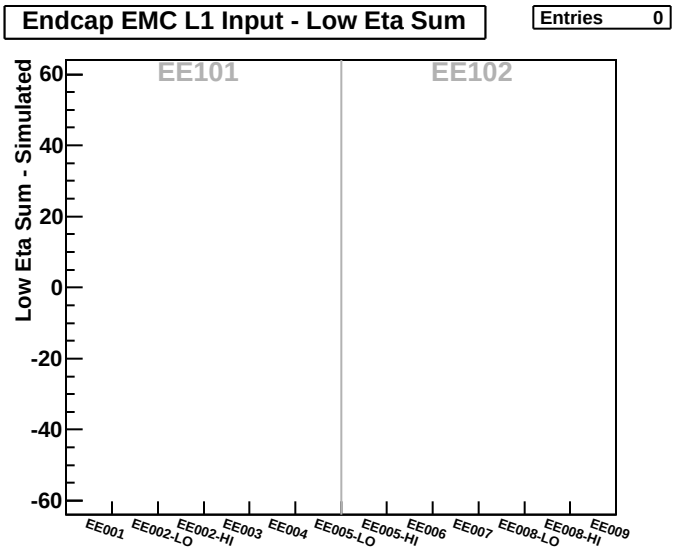

Barrel EMC L1 Input - High Eta Sum
Entries 6507720
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

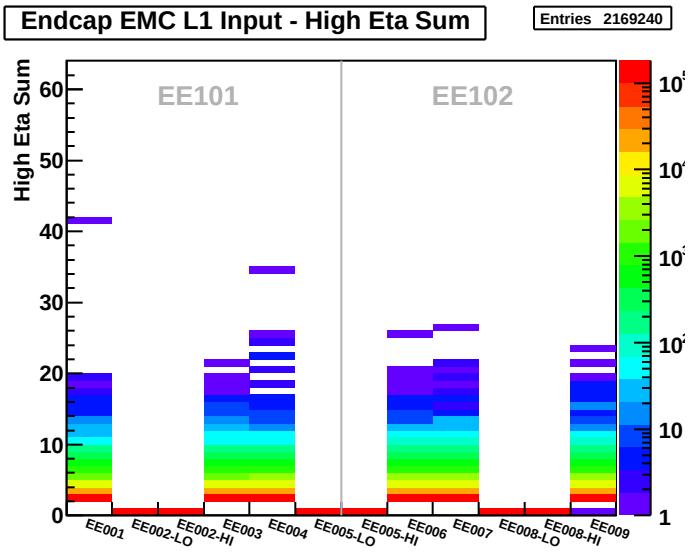

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

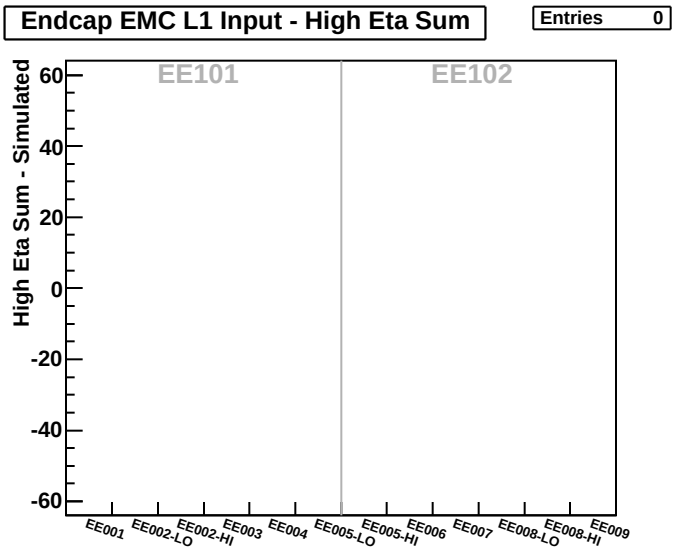

Barrel EMC L1 Input - High Tower Bits
Entries 6507720
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

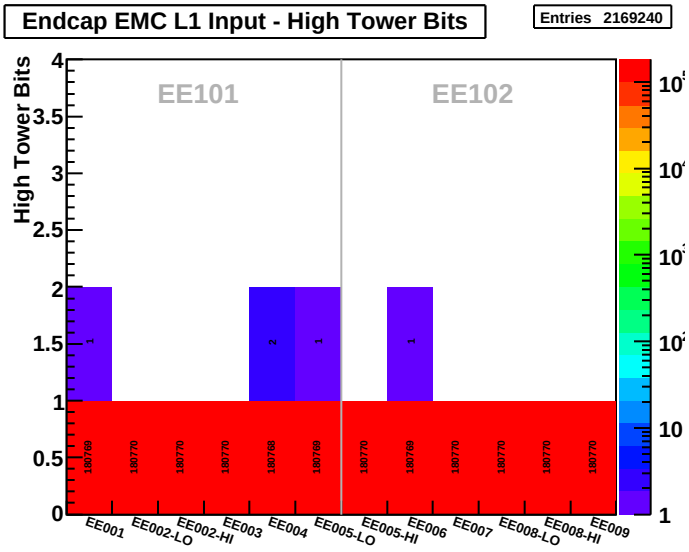

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

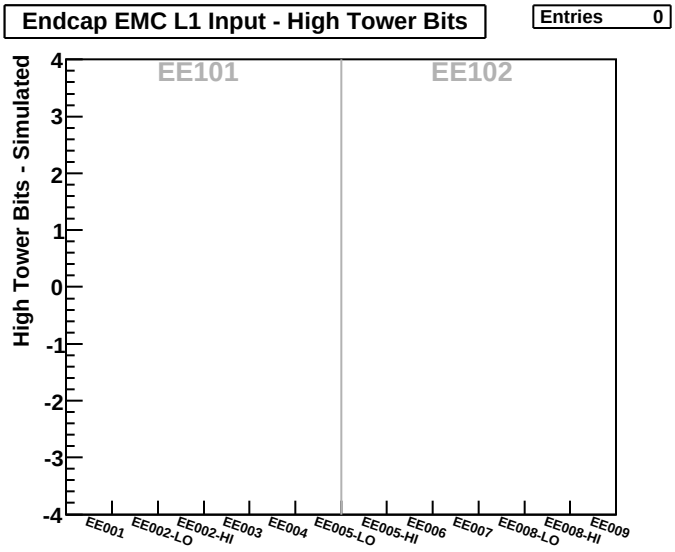

Endcap EMC L1 Input - Low Eta Sum
Entries 2169240
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

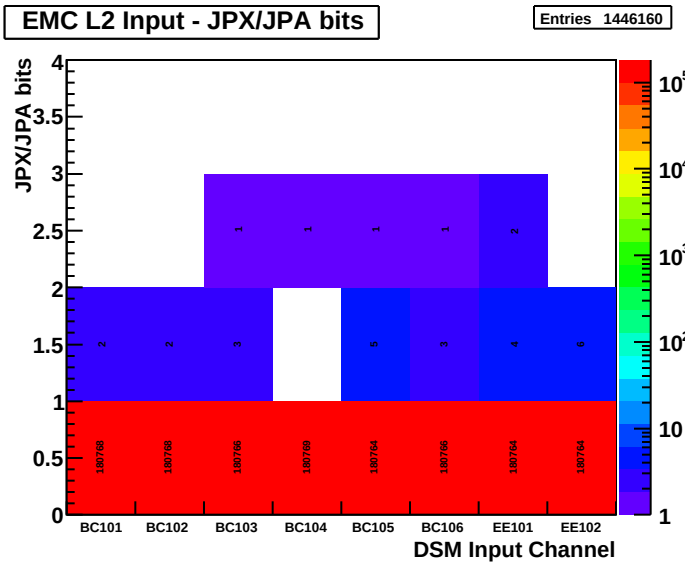

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

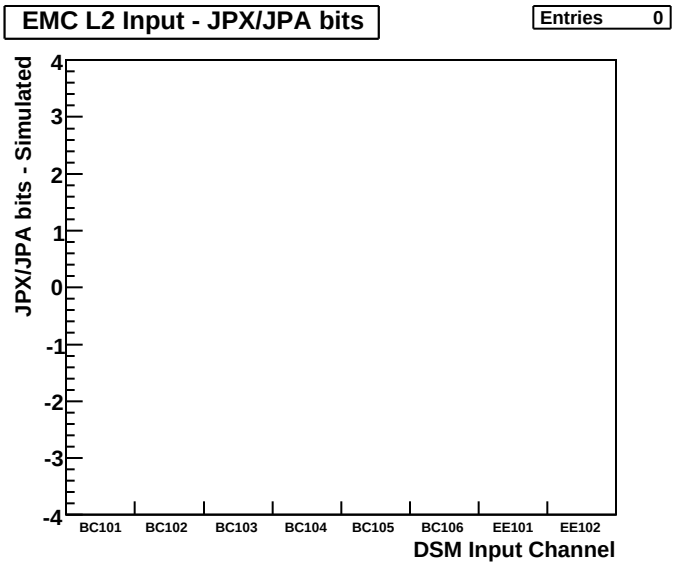

Endcap EMC L1 Input - High Eta Sum
Entries 2169240
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

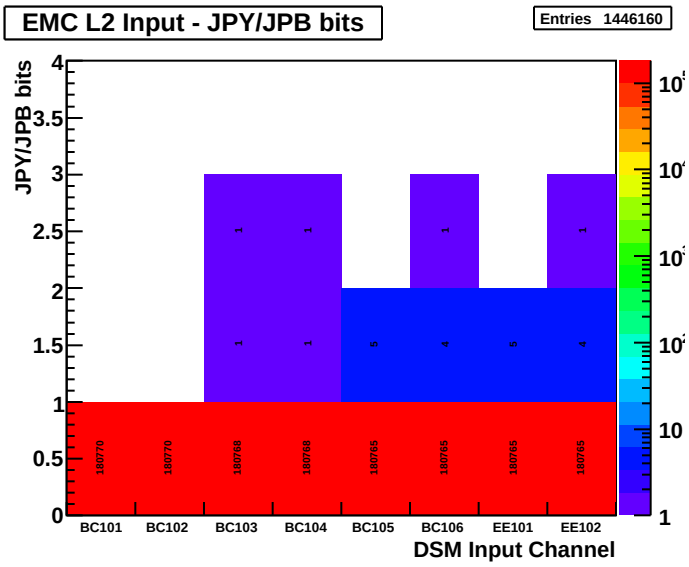

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

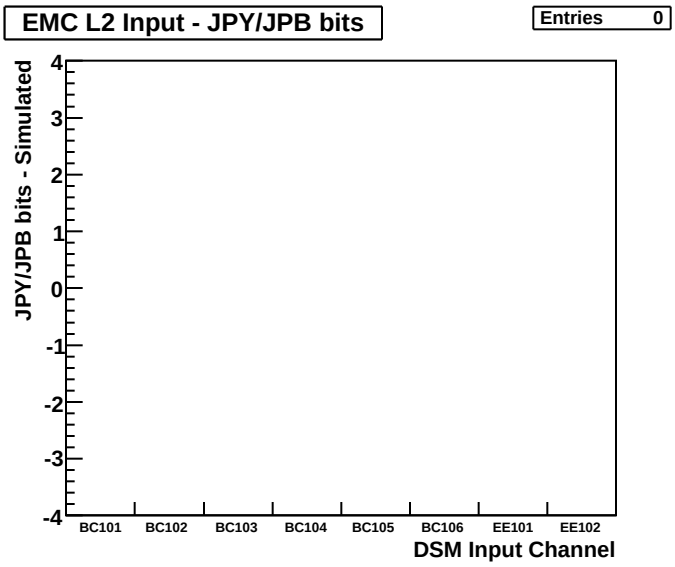

Endcap EMC L1 Input - High Tower Bits
Entries 2169240
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

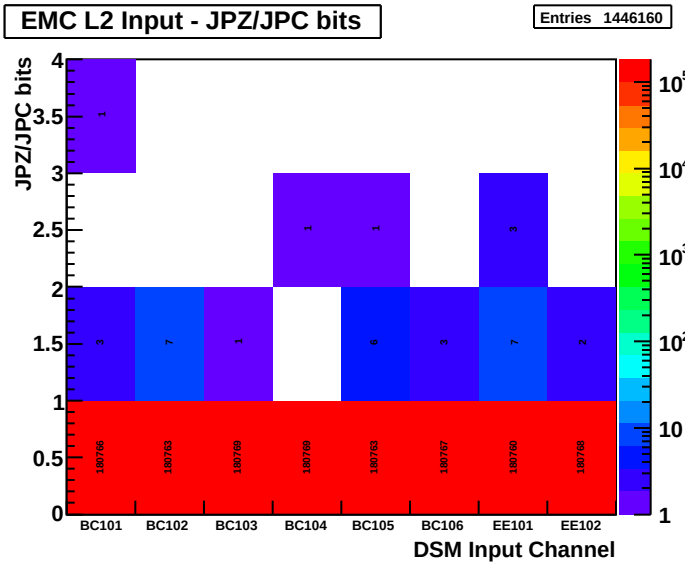

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

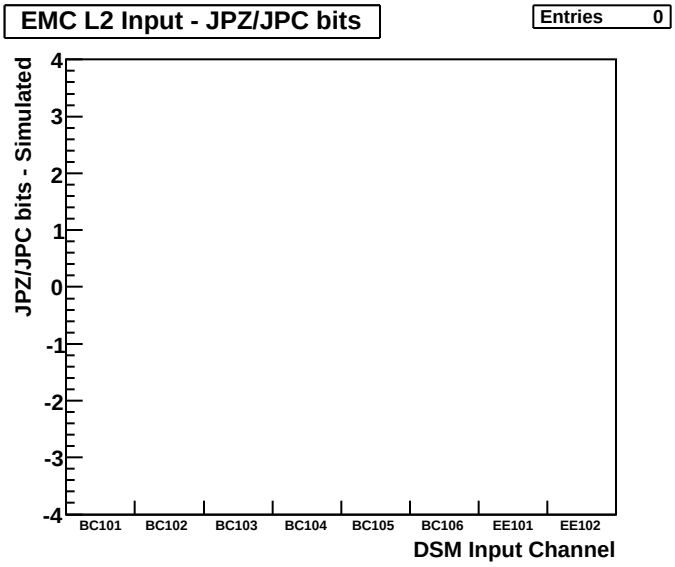

EMC L2 Input - JPX/JPA bits
Entries 1446160
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

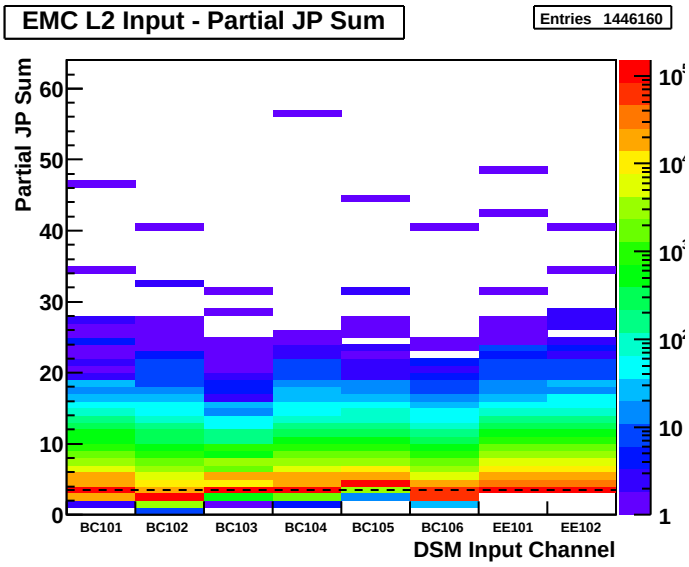

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

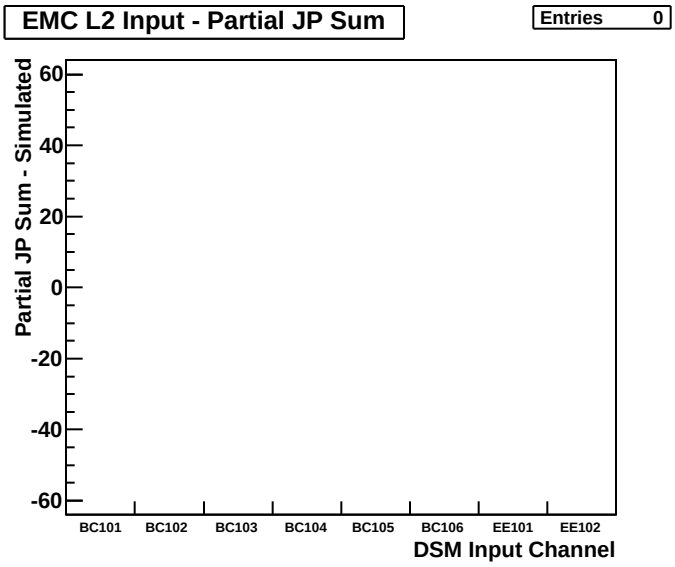

EMC L2 Input - JPY/JPB bits
Entries 1446160
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

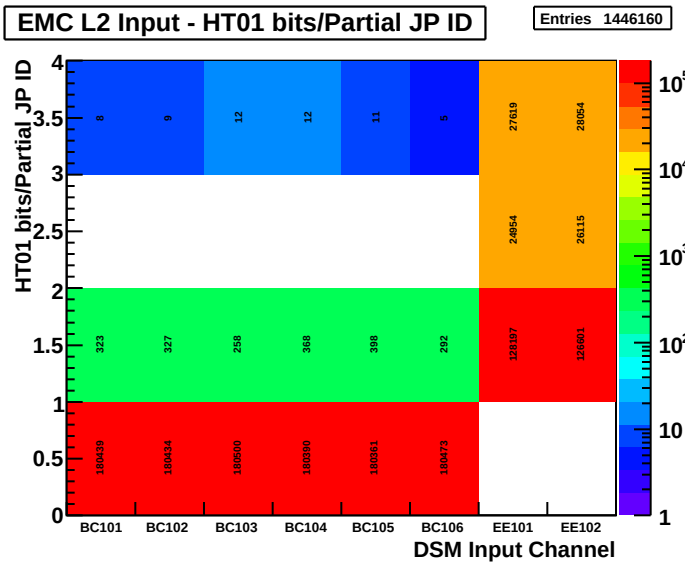

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

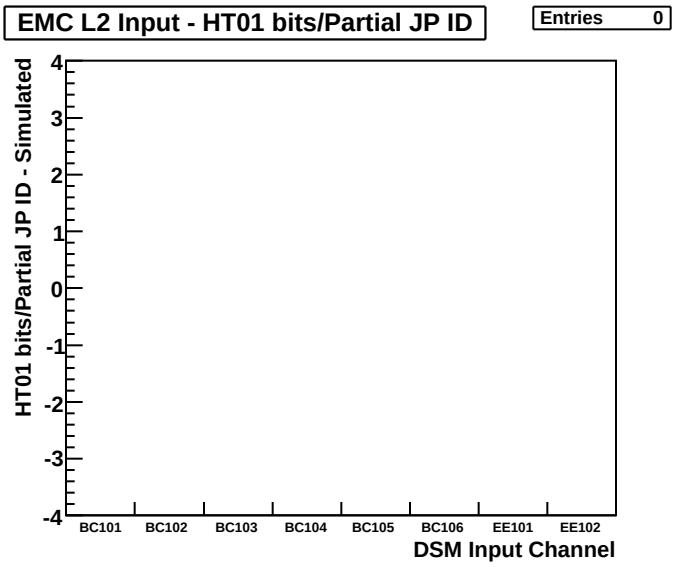

EMC L2 Input - JPZ/JPC bits
Entries 1446160
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

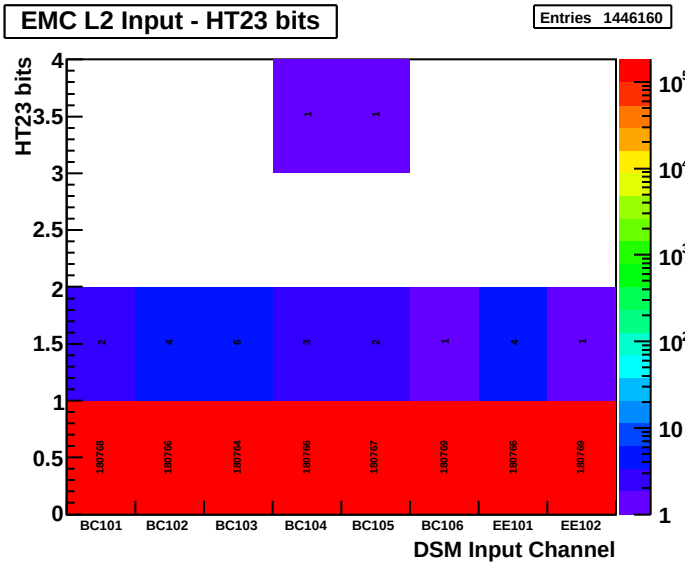

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

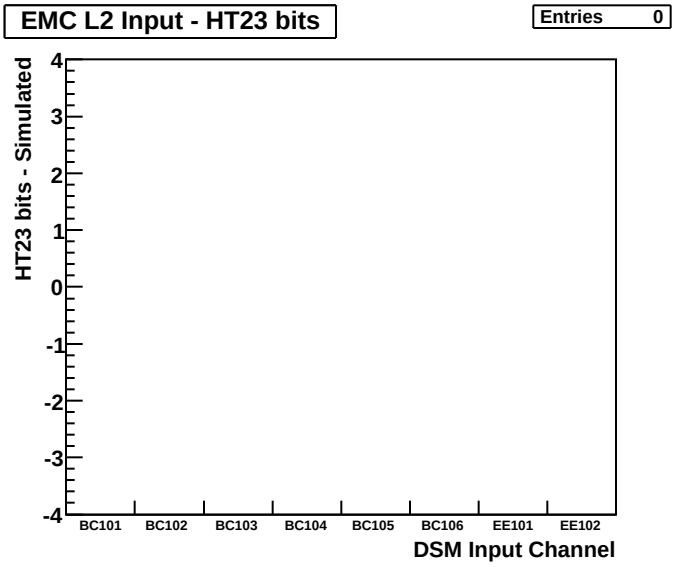

EMC L2 Input - Partial JP Sum
Entries 1446160
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

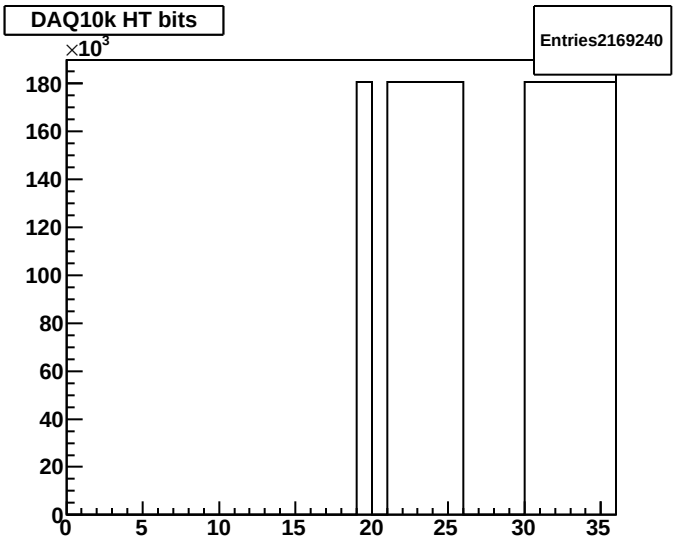

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

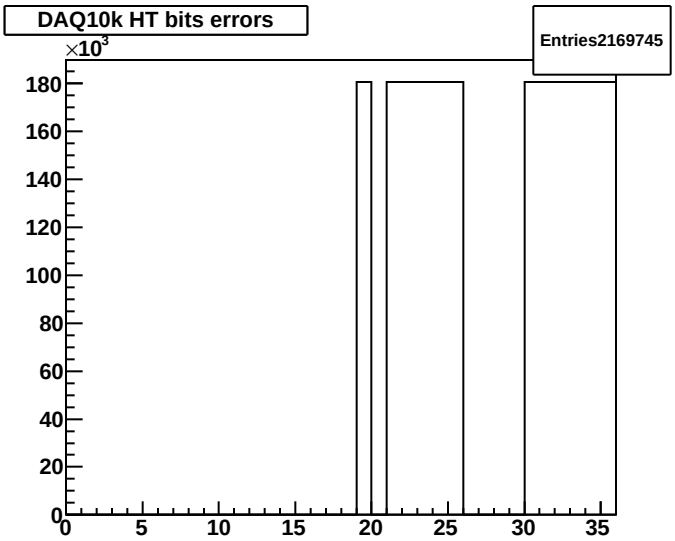

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1446160
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

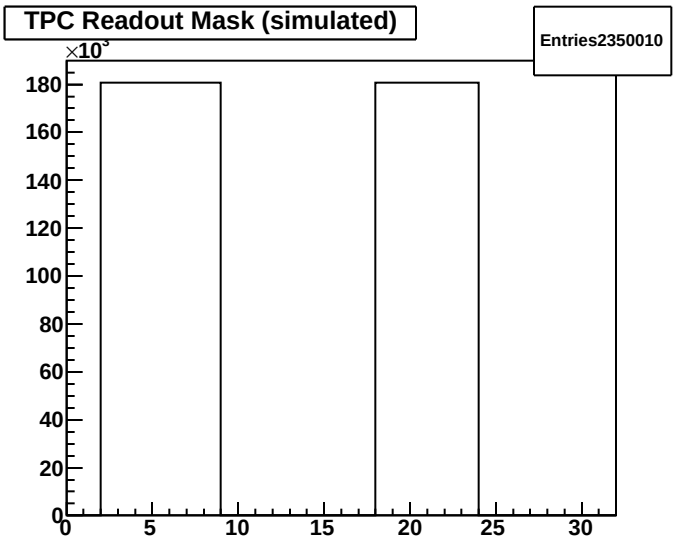

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

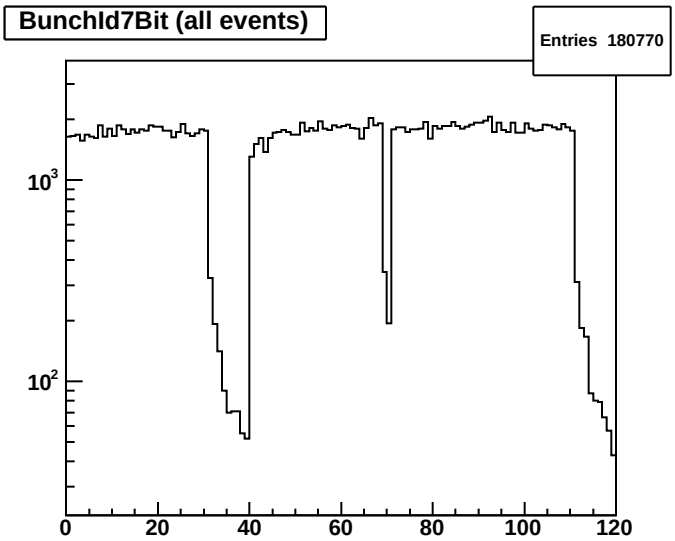

EMC L2 Input - HT23 bits
Entries 1446160
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

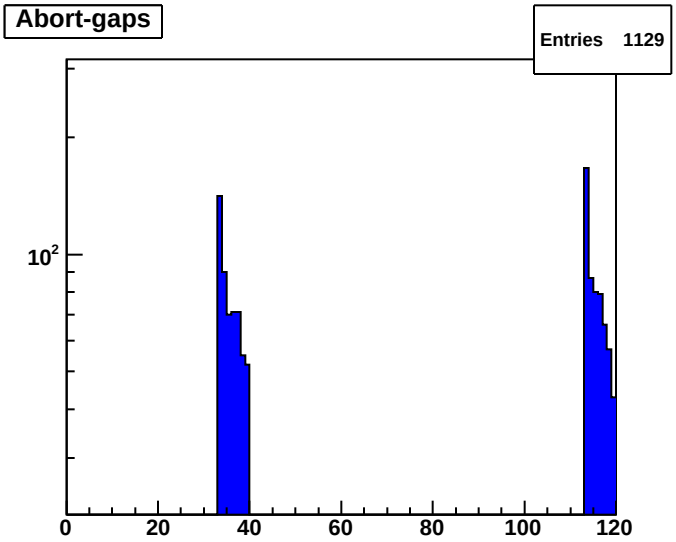

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

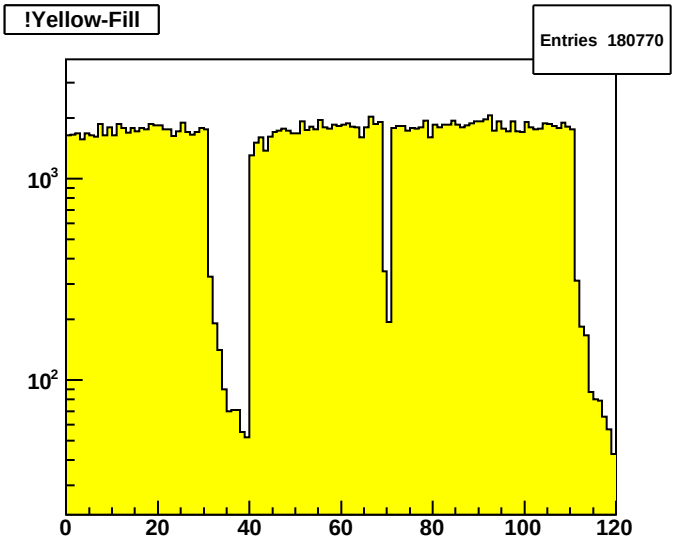

DAQ10k HT bits
Entries2169240
×10^3
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

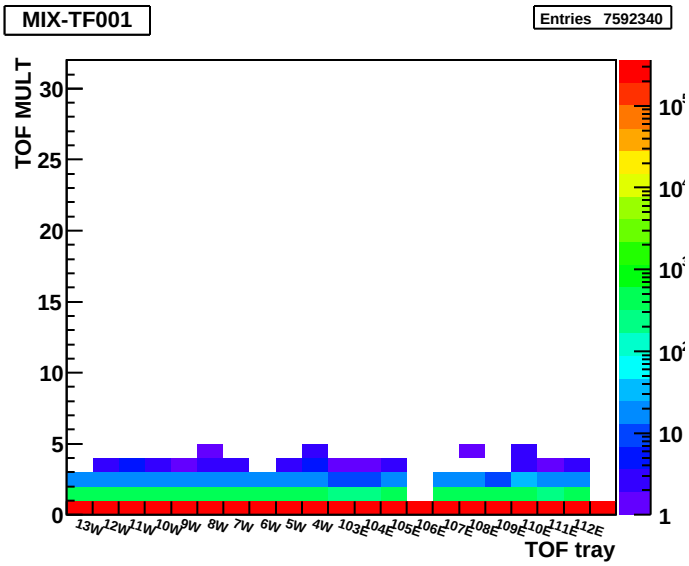

DAQ10k HT bits errors
Entries2169745
×10^3
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

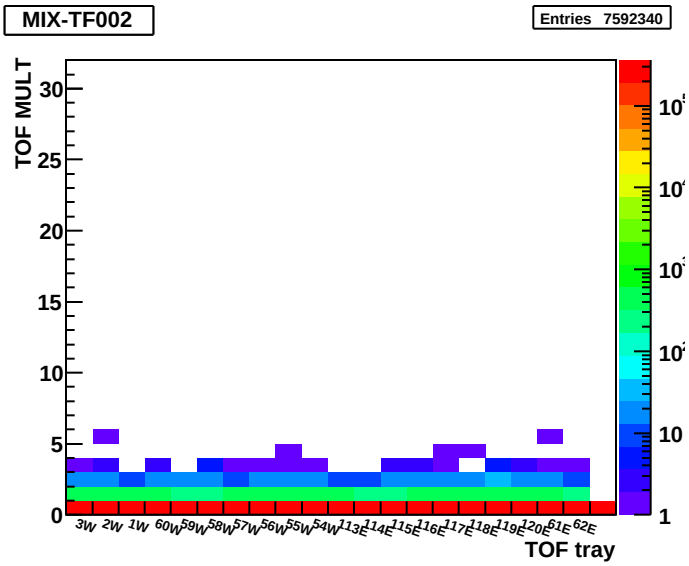

TPC Readout Mask (simulated)
Entries2350010
×10^3
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30

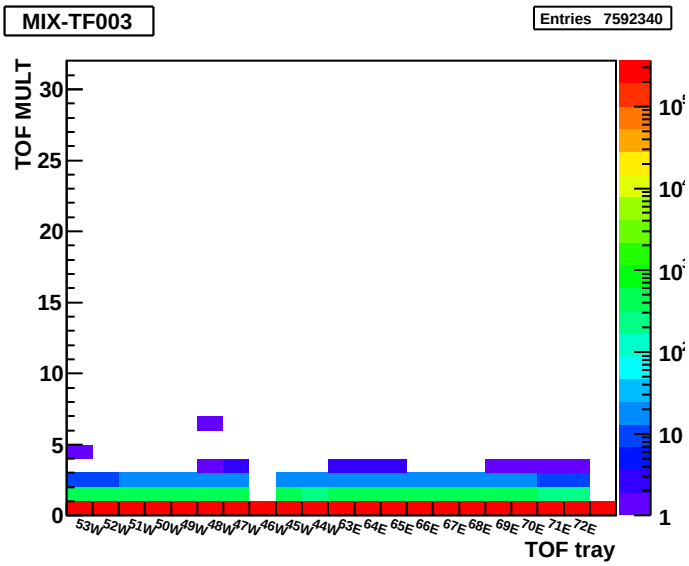

BunchId7Bit (all events)
Entries 180770
10^3
10^2
0 20 40 60 80 100 120

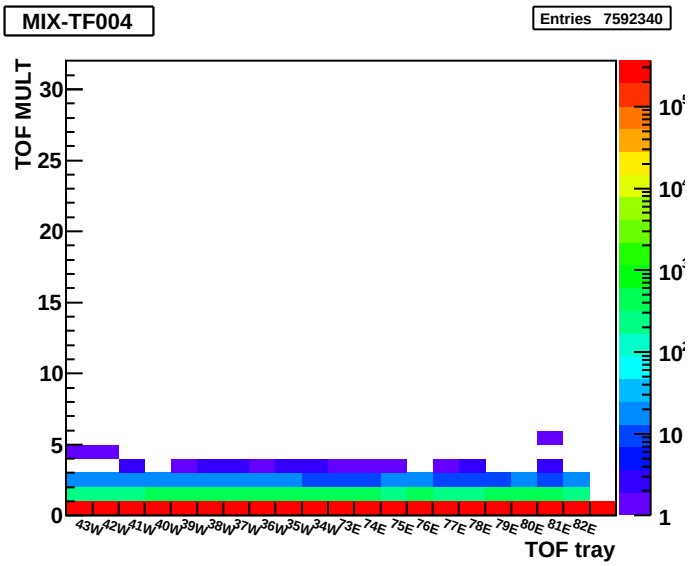

Abort-gaps
Entries 1129
10^2
0 20 40 60 80 100 120

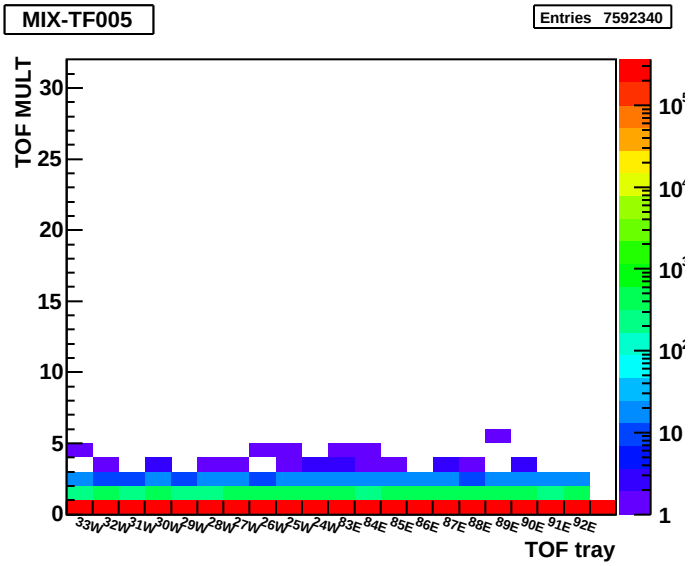

!Yellow-Fill
Entries 180770
10^3
10^2
0 20 40 60 80 100 120

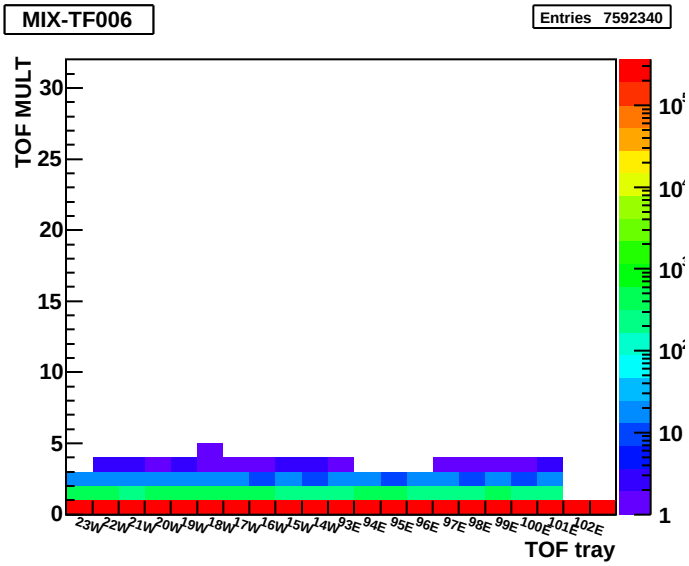

MIX-TF001
Entries 7592340
TOF MULT
TOF tray

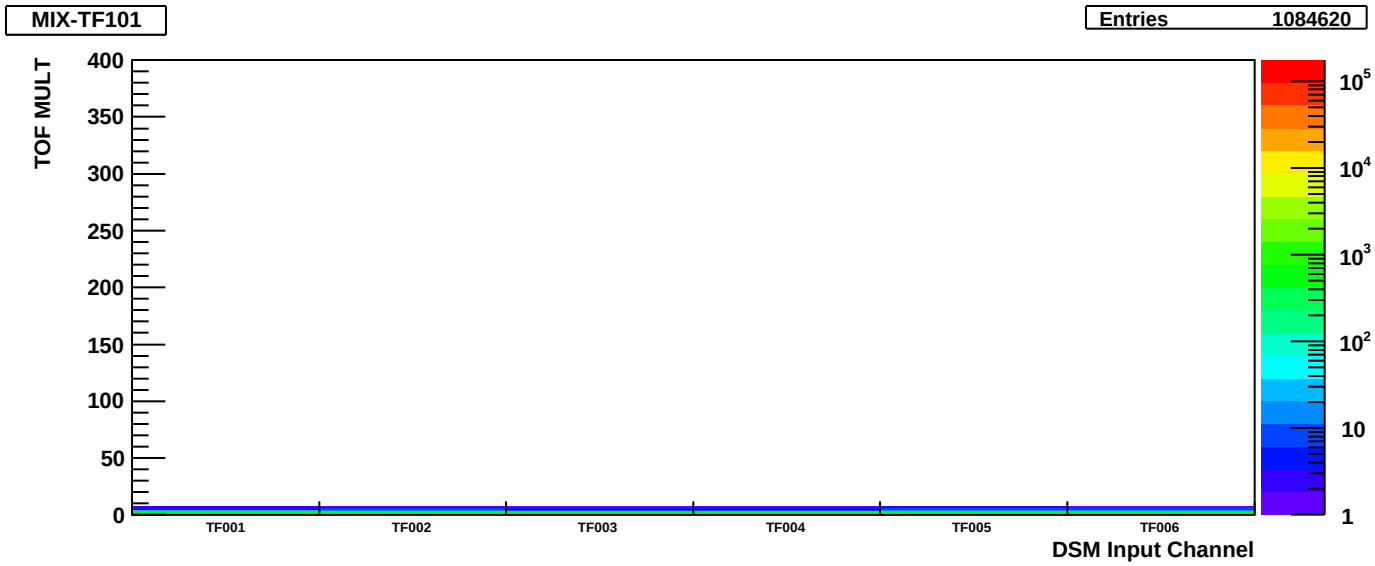

MIX-TF002
Entries 7592340
TOF MULT
TOF tray

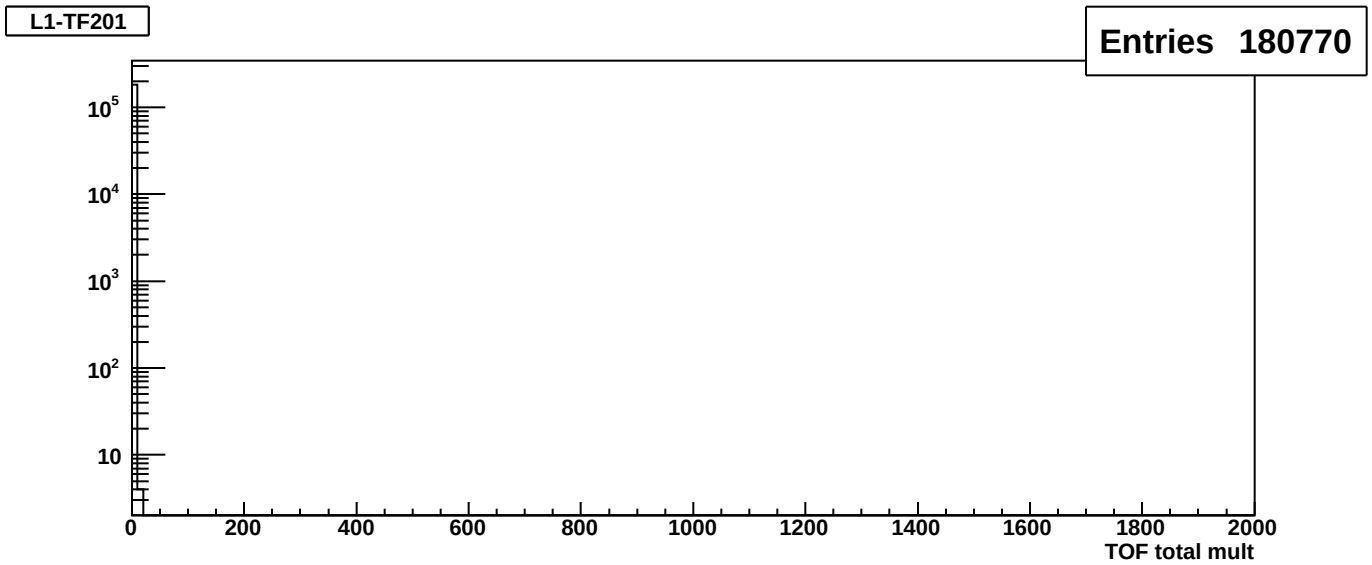

MIX-TF003
Entries 7592340
TOF MULT
TOF tray

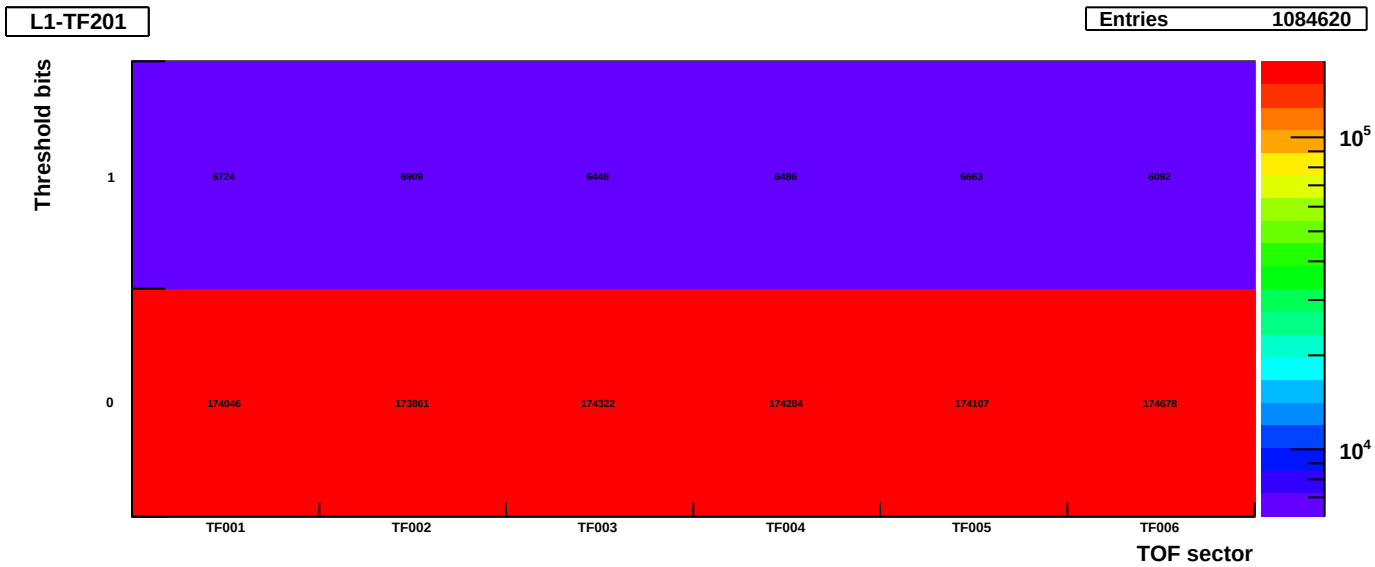

MIX-TF004
Entries 7592340
TOF MULT
TOF tray

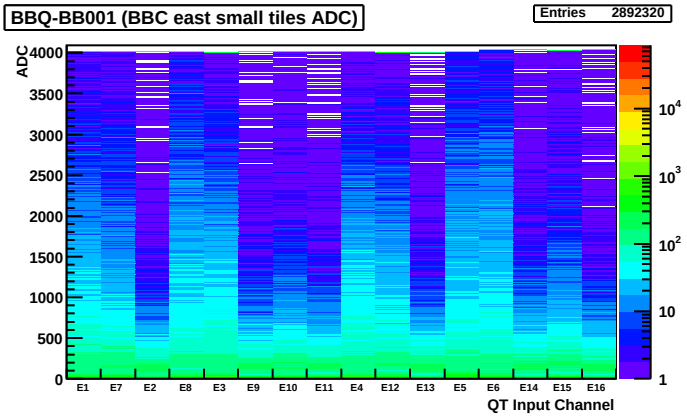

MIX-TF005
Entries 7592340
TOF MULT
TOF tray

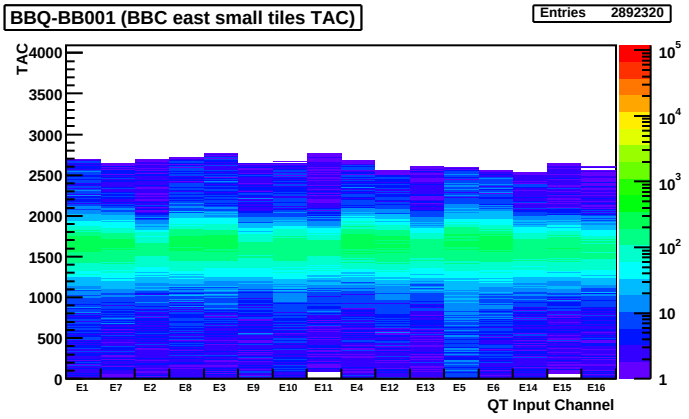

MIX-TF006
Entries 7592340
TOF MULT
TOF tray

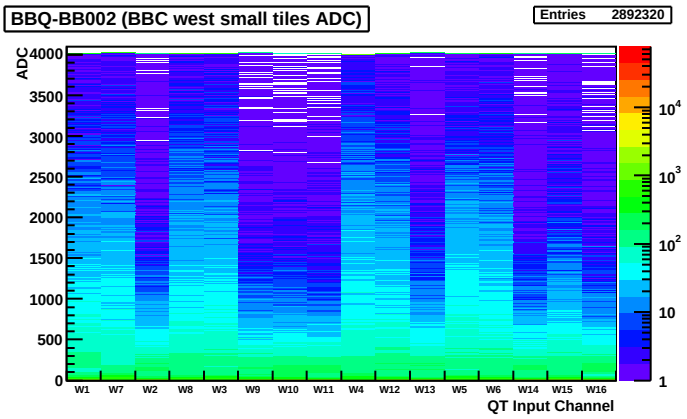

MIX-TF101
Entries 1084620
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

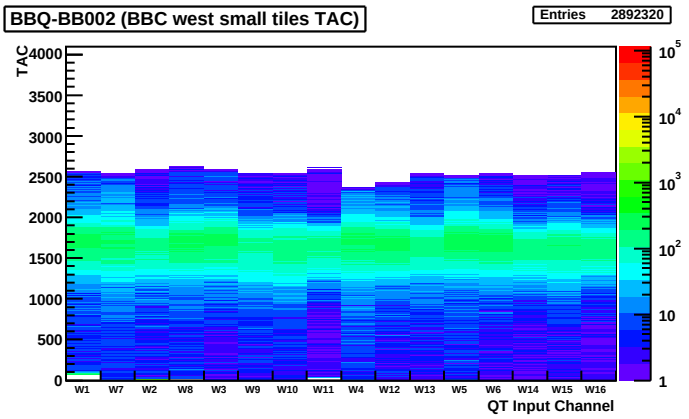

L1-TF201
Entries 180770
10^5
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

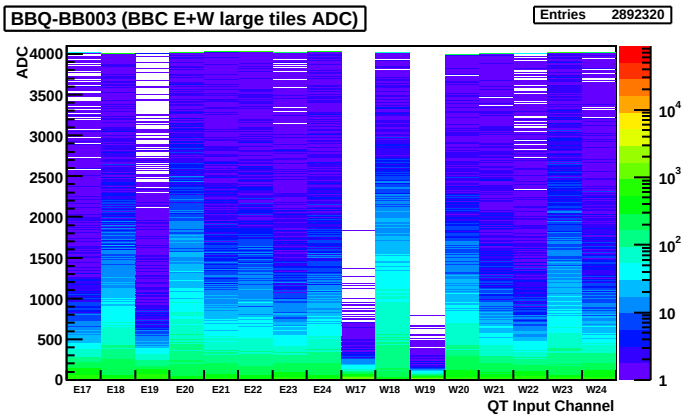

L1-TF201
Entries 1084620
Threshold bits
1
0
6724
6909
6448
6486
6663
6092
174046
173861
174322
174284
174107
174678
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4

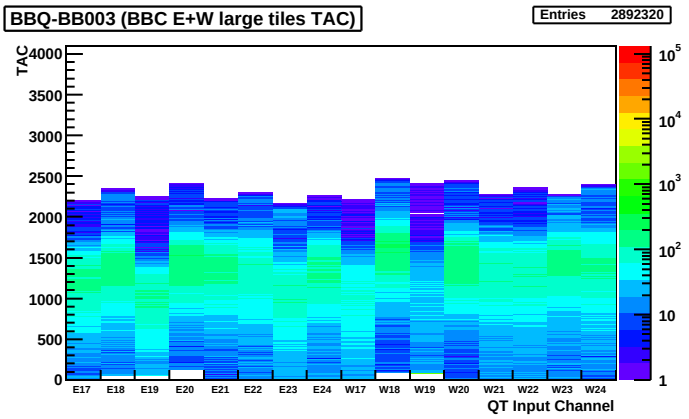

BBQ-BB001 (BBC east small tiles ADC)
Entries 2892320
ADC
QT Input Channel

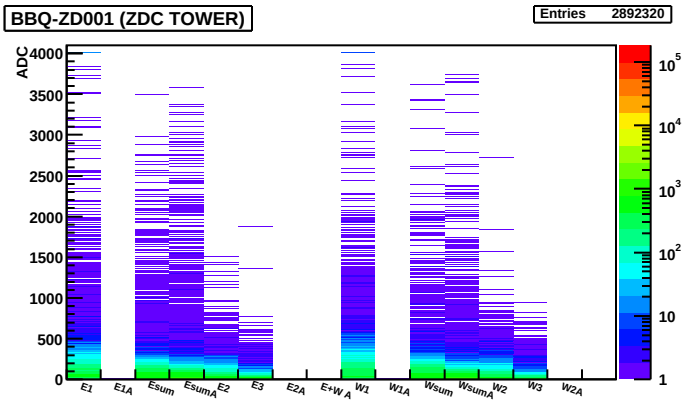

BBQ-BB001 (BBC east small tiles TAC)
Entries 2892320
TAC
QT Input Channel

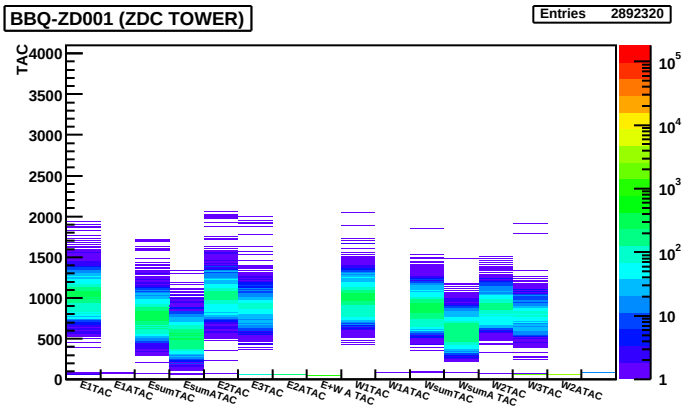

BBQ-BB002 (BBC west small tiles ADC)
Entries 2892320
ADC
QT Input Channel

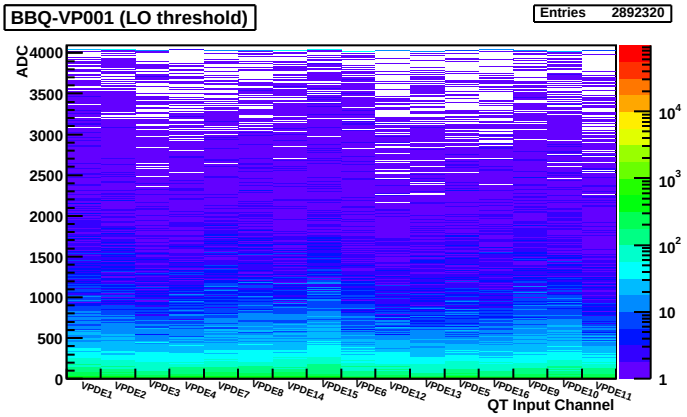

BBQ-BB002 (BBC west small tiles TAC)
Entries 2892320
TAC
QT Input Channel

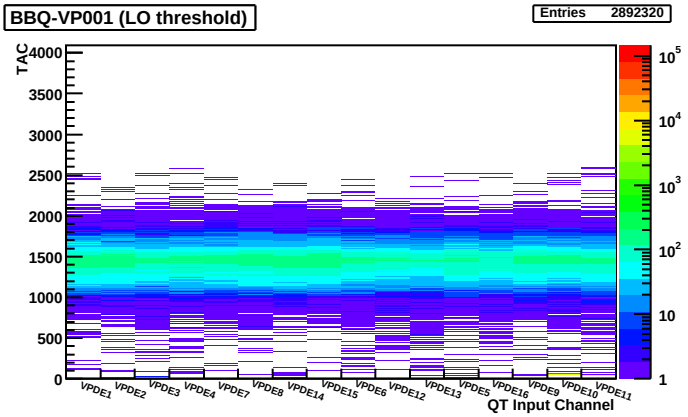

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2892320
ADC
QT Input Channel

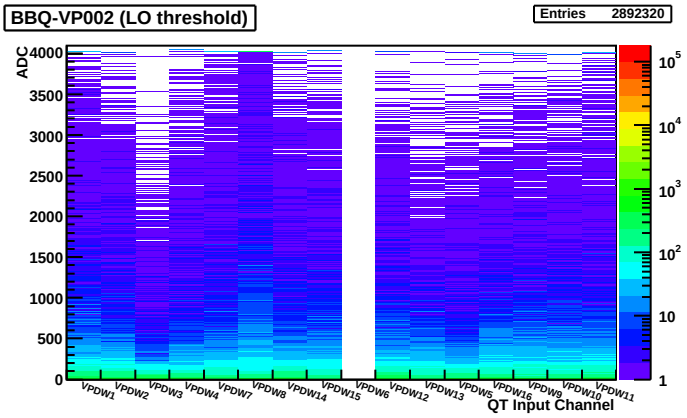

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2892320
TAC
QT Input Channel

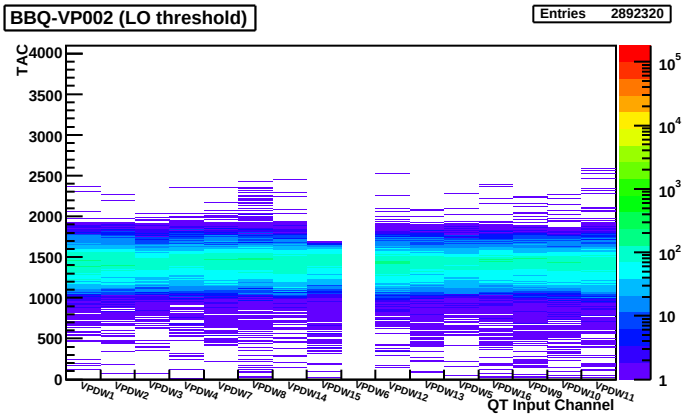

BBQ-ZD001 (ZDC TOWER)
Entries 2892320
ADC

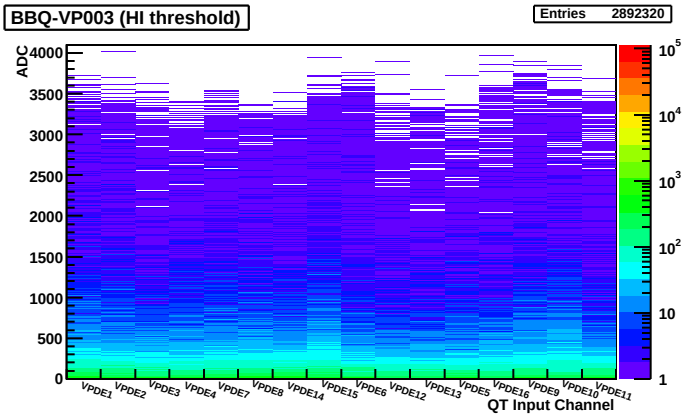

BBQ-ZD001 (ZDC TOWER)
Entries 2892320
TAC

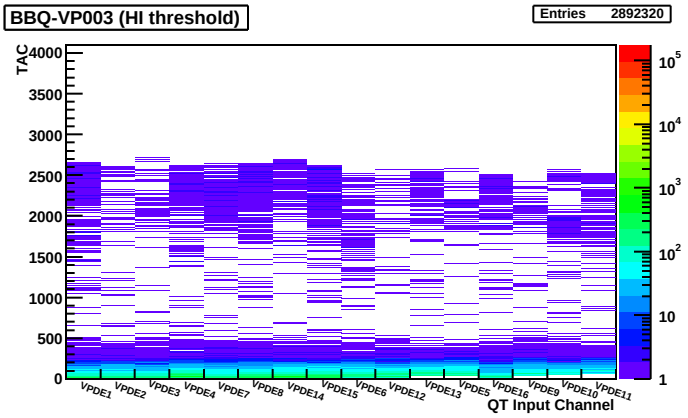

BBQ-VP001 (LO threshold)
Entries 2892320
ADC
QT Input Channel

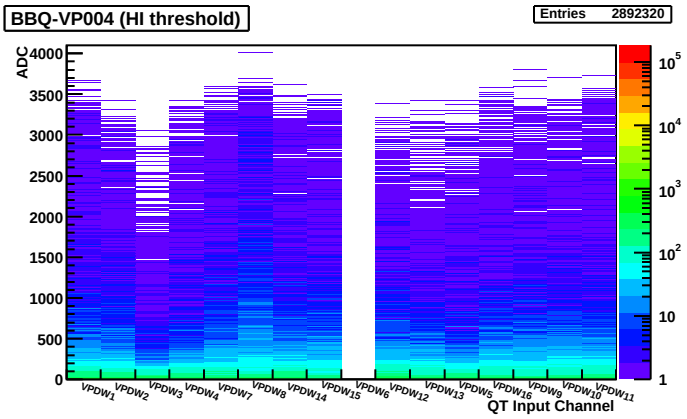

BBQ-VP001 (LO threshold)
Entries 2892320
TAC
QT Input Channel

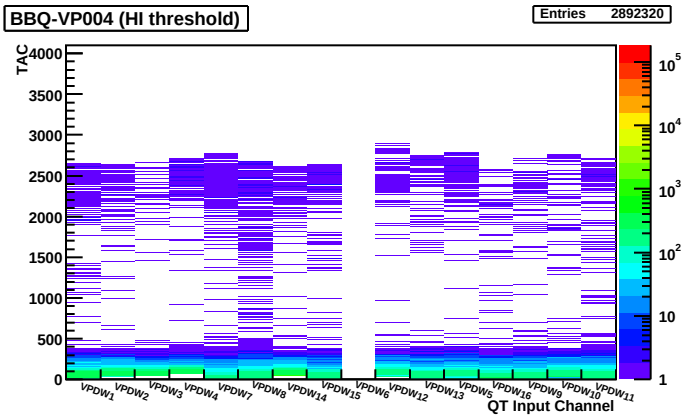

BBQ-VP002 (LO threshold)
Entries 2892320
ADC
QT Input Channel

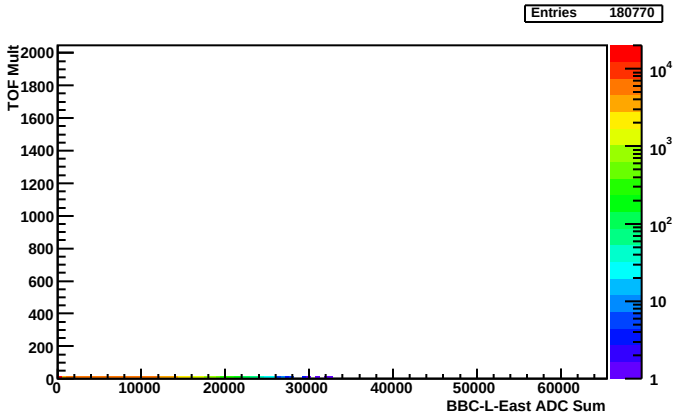

BBQ-VP002 (LO threshold)
Entries 2892320
TAC
QT Input Channel

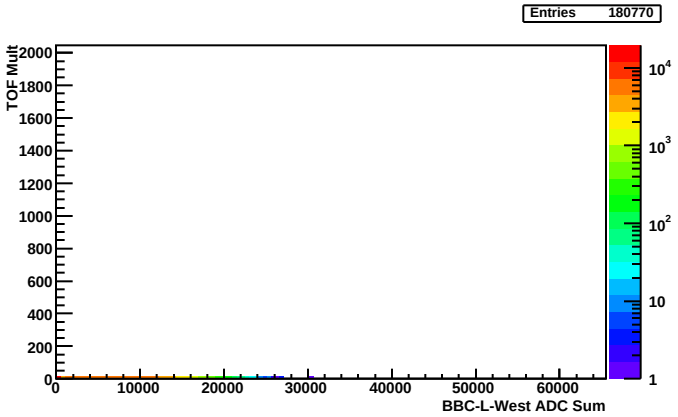

BBQ-VP003 (HI threshold)
Entries 2892320
ADC
QT Input Channel

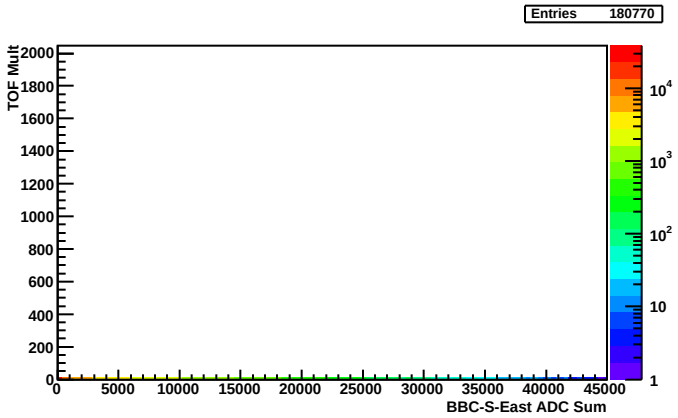

BBQ-VP003 (HI threshold)
Entries 2892320
TAC
QT Input Channel

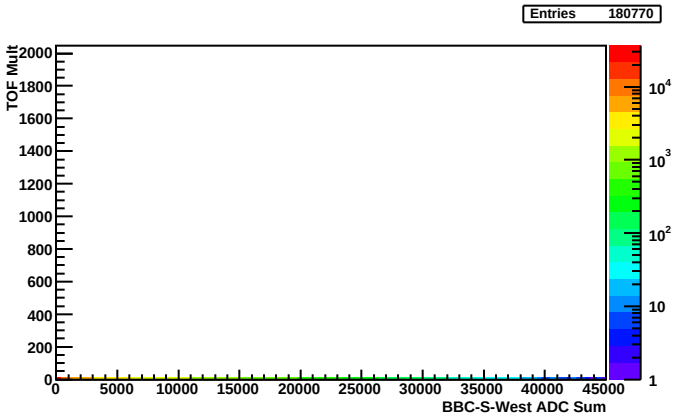

BBQ-VP004 (HI threshold)
Entries 2892320
ADC
QT Input Channel

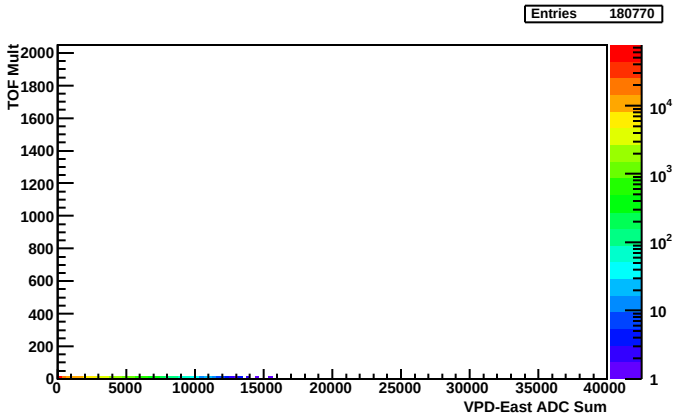

BBQ-VP004 (HI threshold)
Entries 2892320
TAC
QT Input Channel

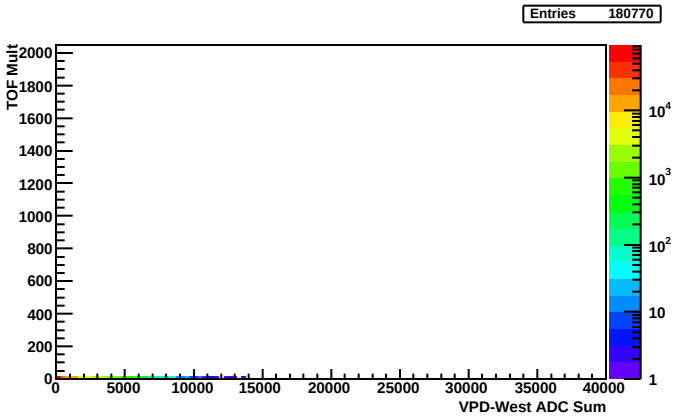

Entries 180770
TOF Mult
BBC-L-East ADC Sum

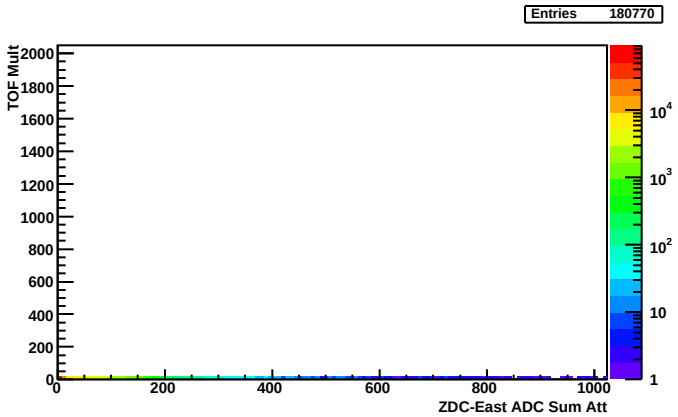

Entries 180770
TOF Mult
BBC-L-West ADC Sum

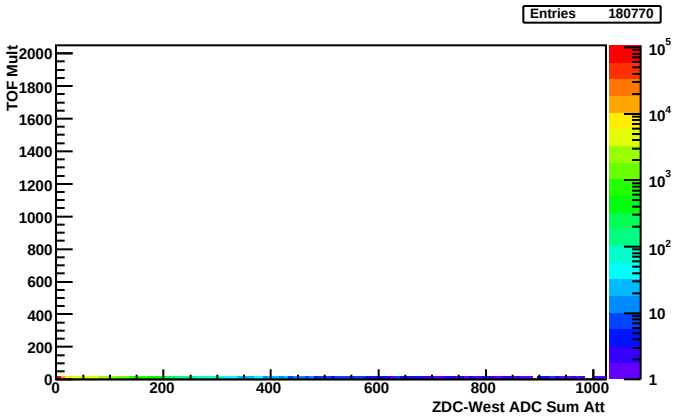

Entries 180770
TOF Mult
BBC-S-East ADC Sum

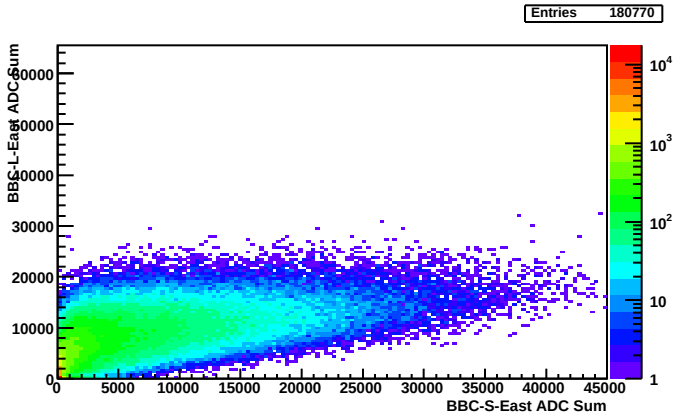

Entries 180770
TOF Mult
BBC-S-West ADC Sum

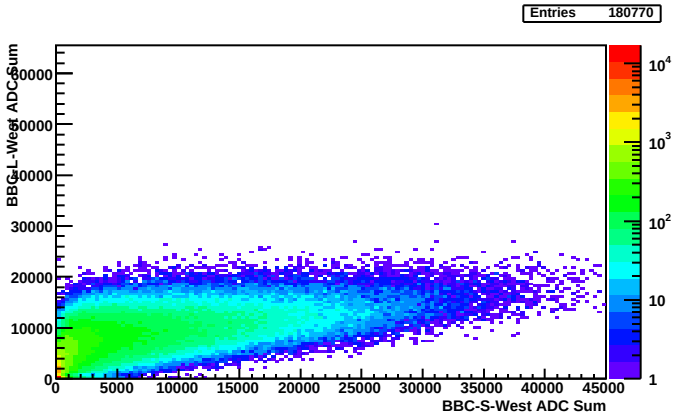

Entries 180770
TOF Mult
VPD-East ADC Sum

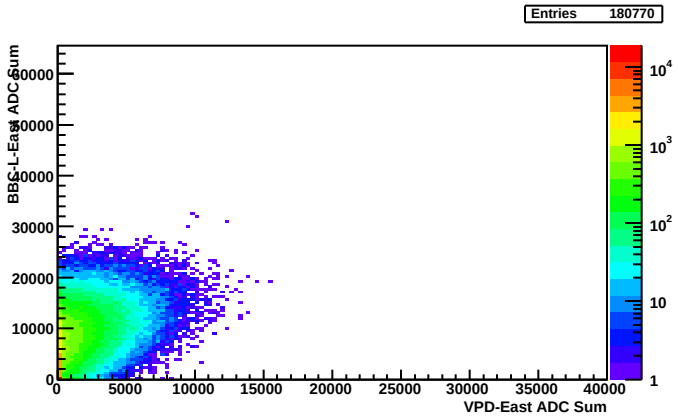

Entries 180770
TOF Mult
VPD-West ADC Sum

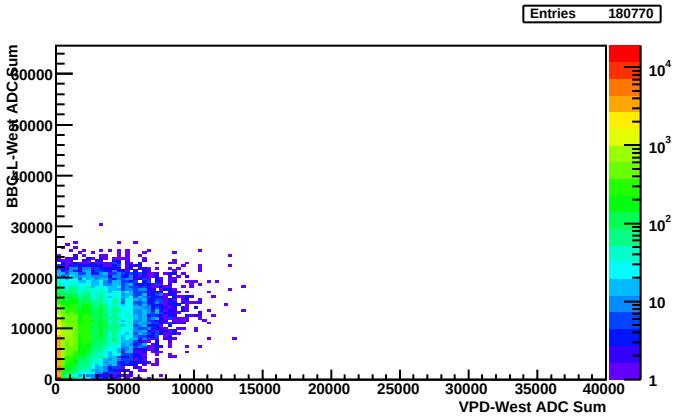

Entries 180770
TOF Mult
ZDC-East ADC Sum Att

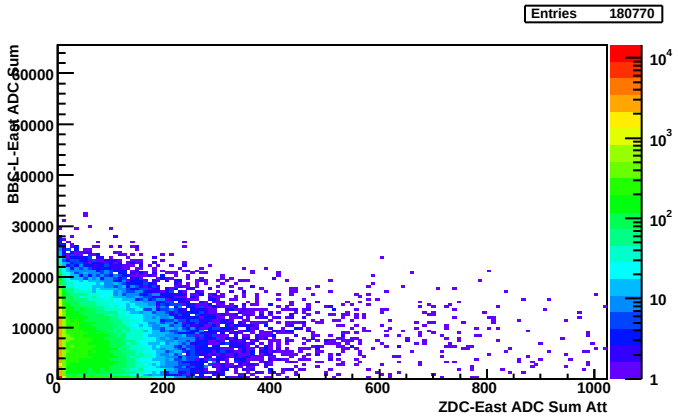

Entries 180770
TOF Mult
ZDC-West ADC Sum Att

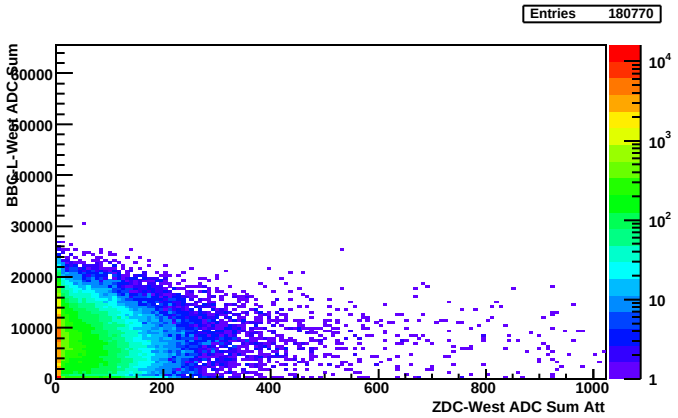

Entries 180770
BBC-L-East ADC Sum
BBC-S-East ADC Sum

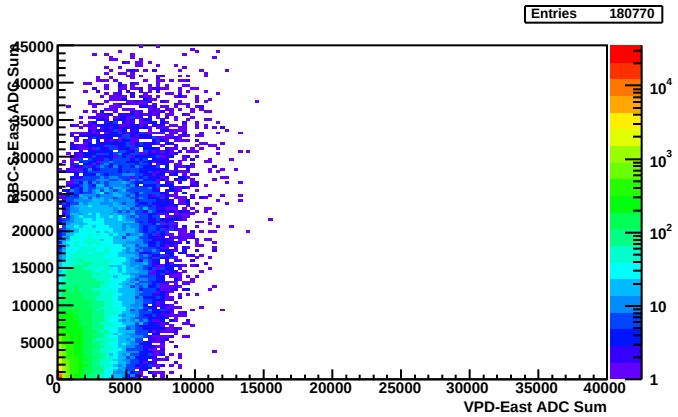

Entries 180770
BBC-L-West ADC Sum
BBC-S-West ADC Sum

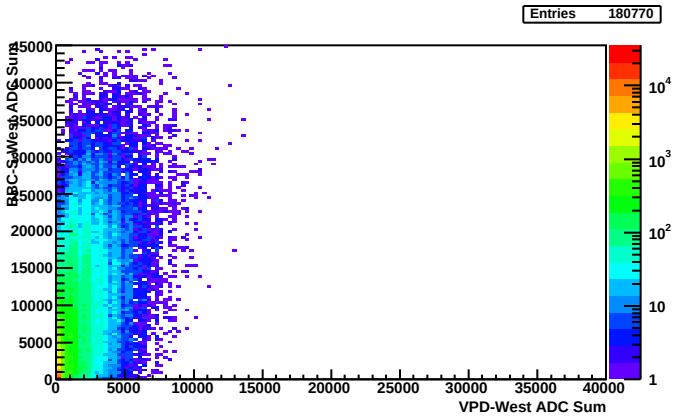

Entries 180770
BBC-L-East ADC Sum
VPD-East ADC Sum

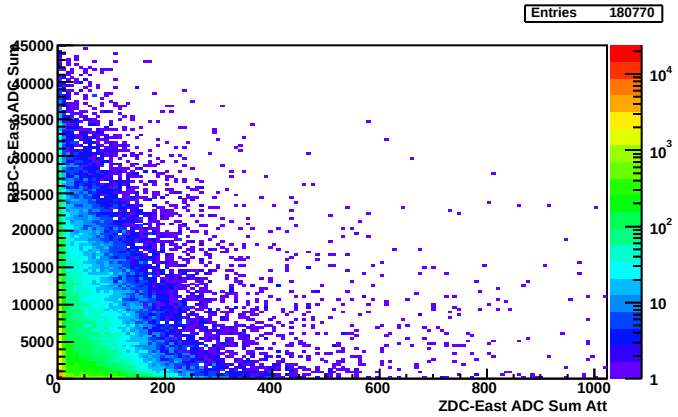

Entries 180770
BBC-L-West ADC Sum
VPD-West ADC Sum

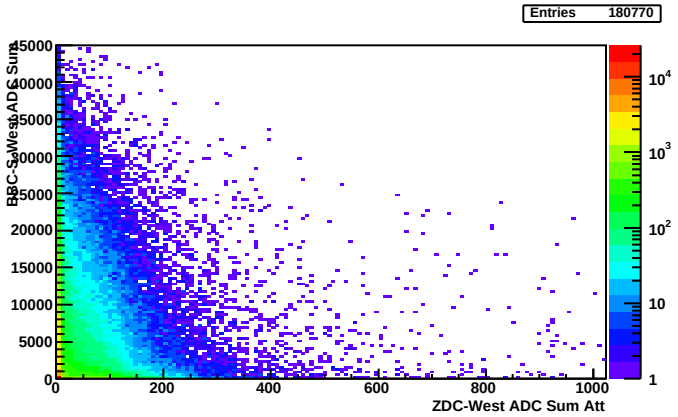

Entries 180770
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

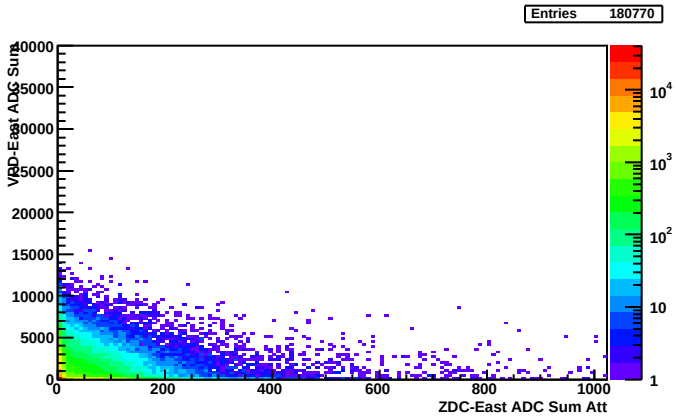

Entries 180770
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

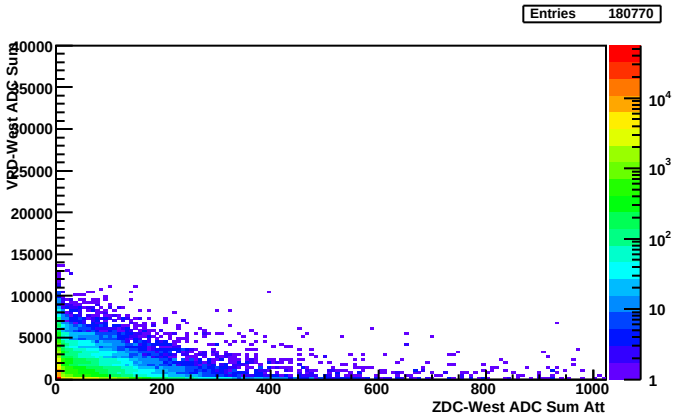

Entries 180770
BBC-S-East ADC Sum
VPD-East ADC Sum

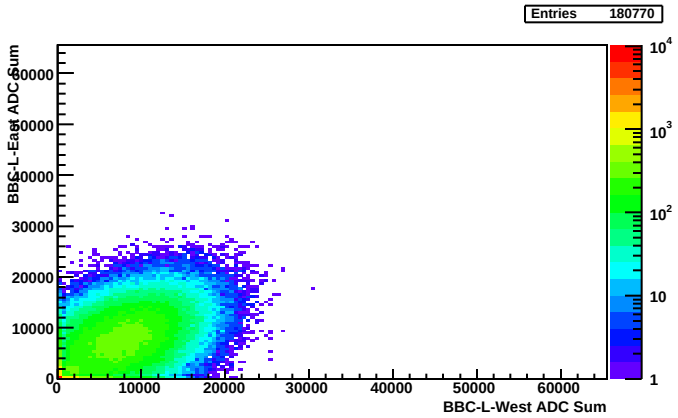

Entries 180770
BBC-S-West ADC Sum
VPD-West ADC Sum

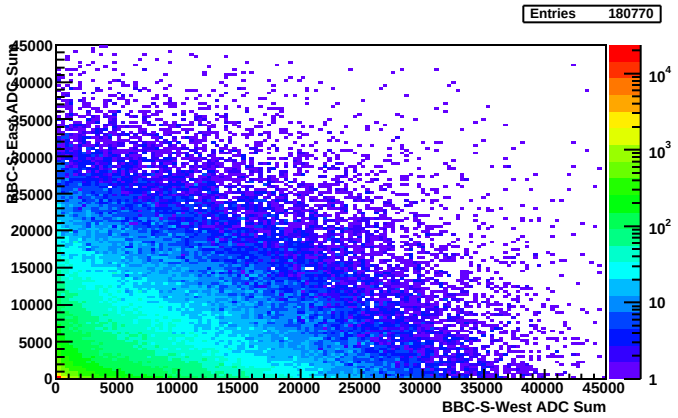

Entries 180770
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

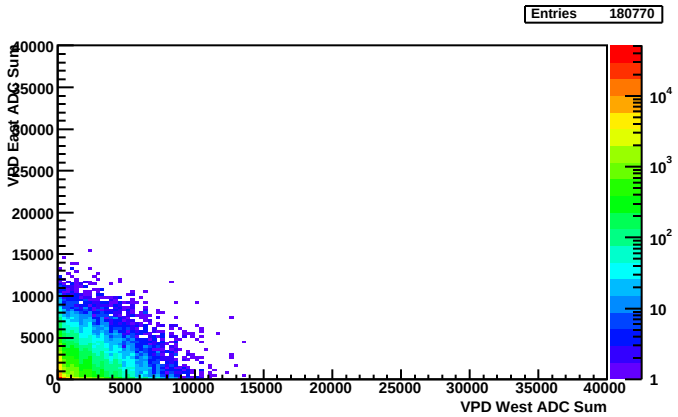

Entries 180770
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

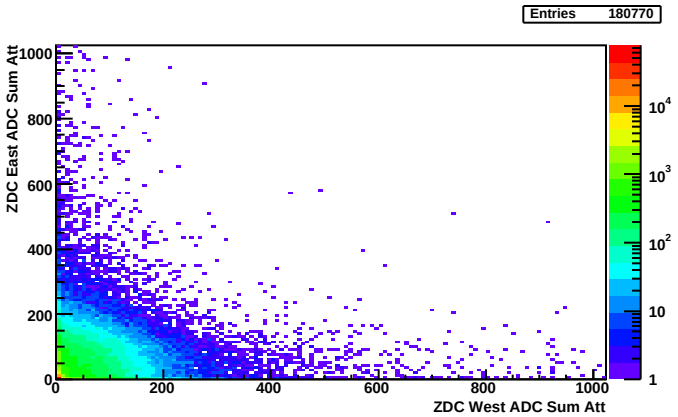

Entries 180770
VPD-East ADC Sum
ZDC-East ADC Sum Att

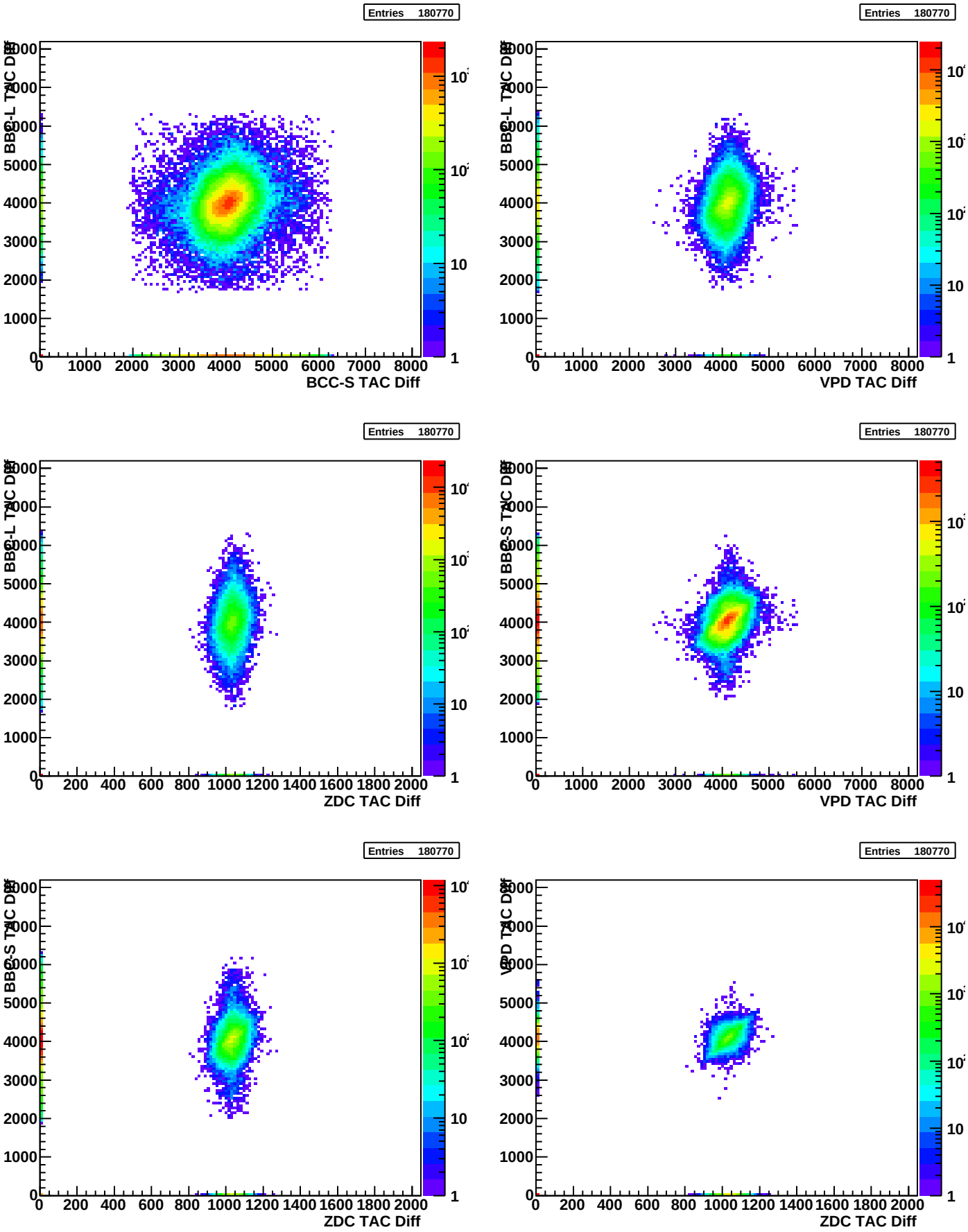

Entries 180770
VPD-West ADC Sum
ZDC-West ADC Sum Att

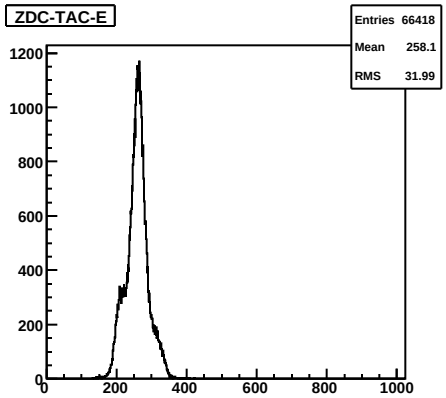

Entries 180770
BBC-L-East ADC Sum
BBC-L-West ADC Sum

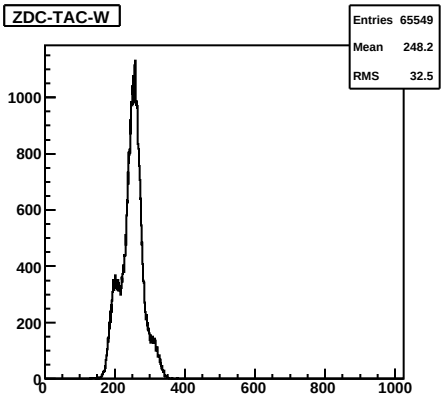

Entries 180770
BBC-S-East ADC Sum
BBC-S-West ADC Sum

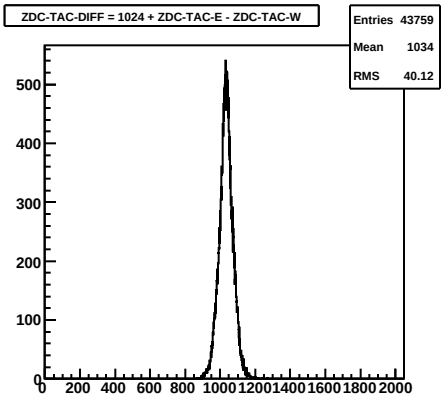

Entries 180770
VPD East ADC Sum
VPD West ADC Sum

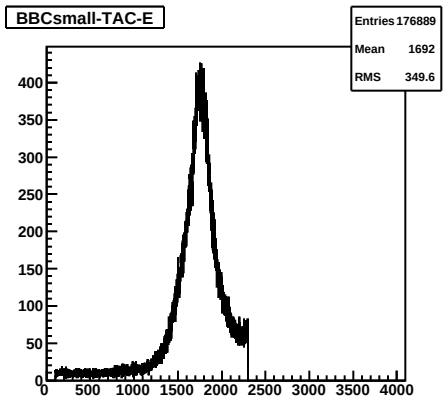

Entries 180770
ZDC East ADC Sum Att
ZDC West ADC Sum Att

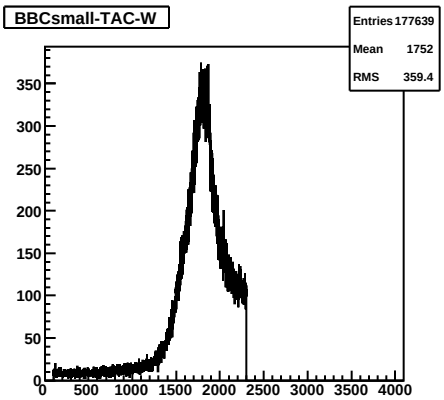

Entries 180770
BBC-L TAC Diff
BCC-S TAC Diff
Entries 180770
BBC-L TAC Diff
VPD TAC Diff
Entries 180770
BBC-L TAC Diff
ZDC TAC Diff
Entries 180770
BBC-S TAC Diff
VPD TAC Diff
Entries 180770
BBC-S TAC Diff
ZDC TAC Diff
Entries 180770
VPD TAC Diff
ZDC TAC Diff

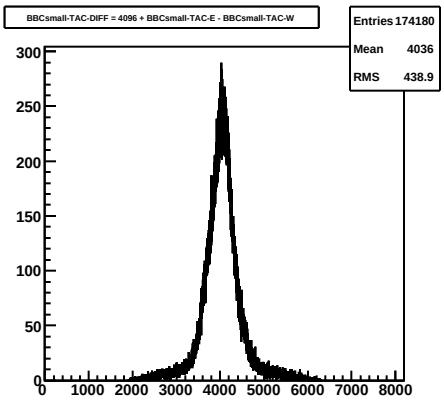

ZDC-TAC-E
Entries 66418
Mean 258.1
RMS 31.99

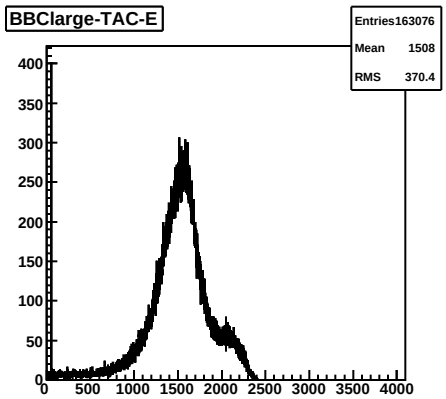

ZDC-TAC-W
Entries 65549
Mean 248.2
RMS 32.5

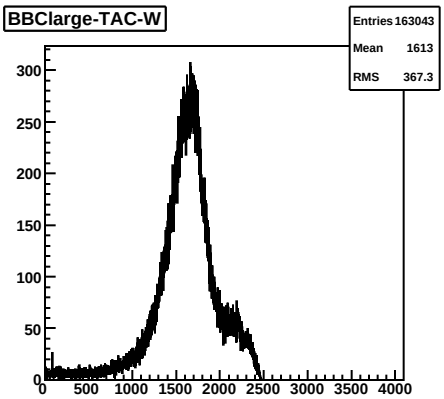

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 43759
Mean 1034
RMS 40.12

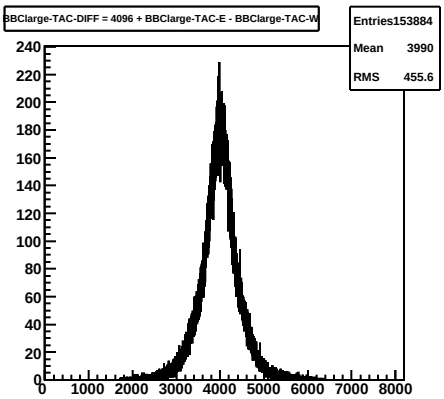

BBCsmall-TAC-E
Entries 176889
Mean 1692
RMS 349.6

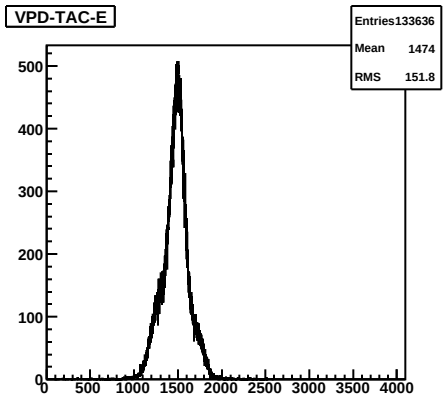

BBCsmall-TAC-W
Entries 177639
Mean 1752
RMS 359.4

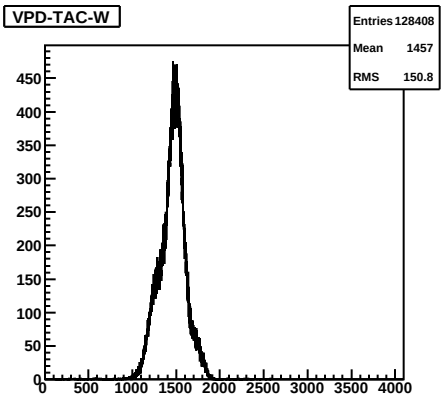

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 174180
Mean 4036
RMS 438.9

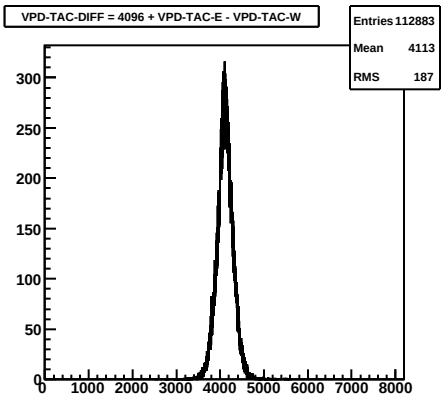

BBClarge-TAC-E
Entries 163076
Mean 1508
RMS 370.4

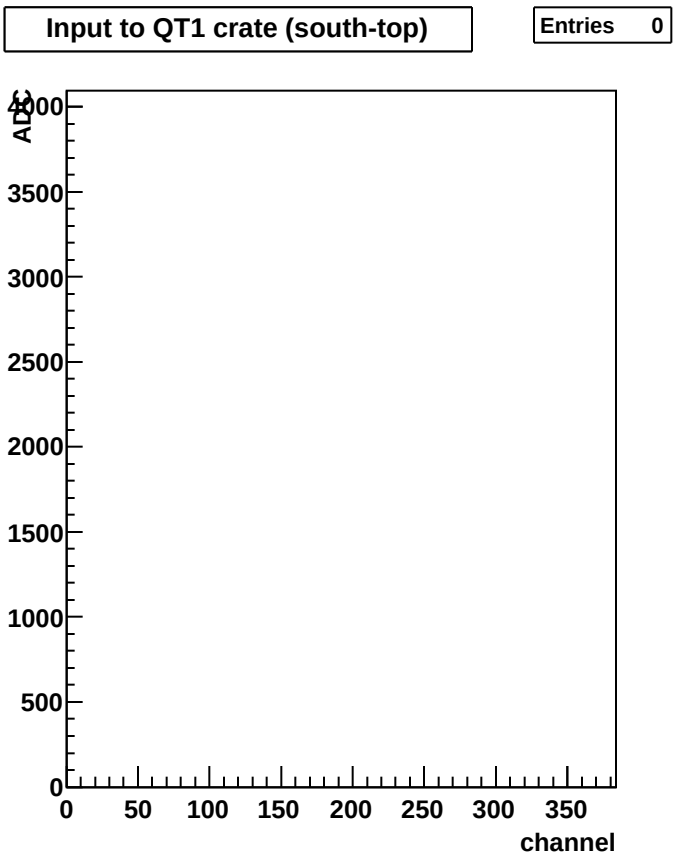

BBClarge-TAC-W
Entries 163043
Mean 1613
RMS 367.3

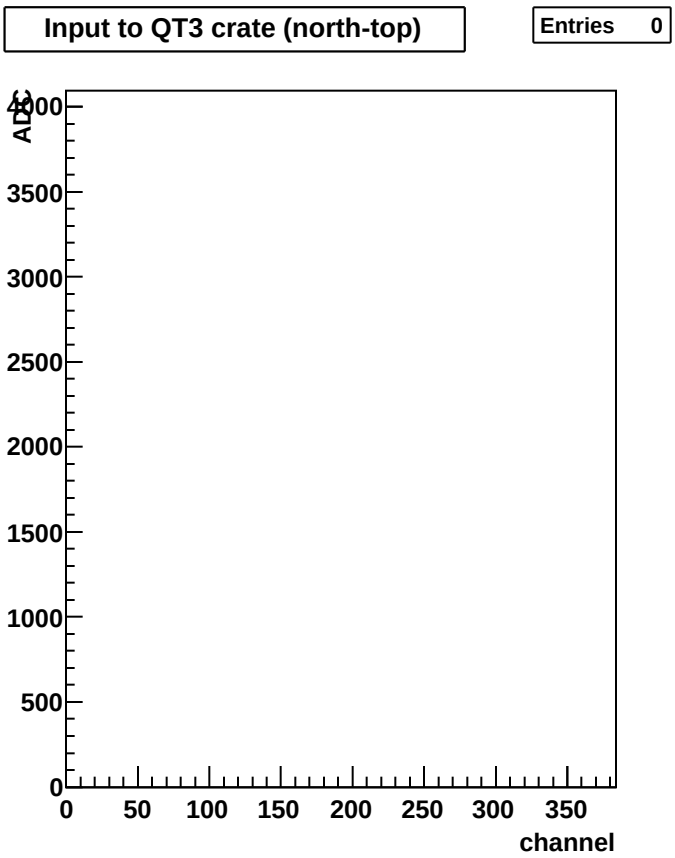

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 153884
Mean 3990
RMS 455.6

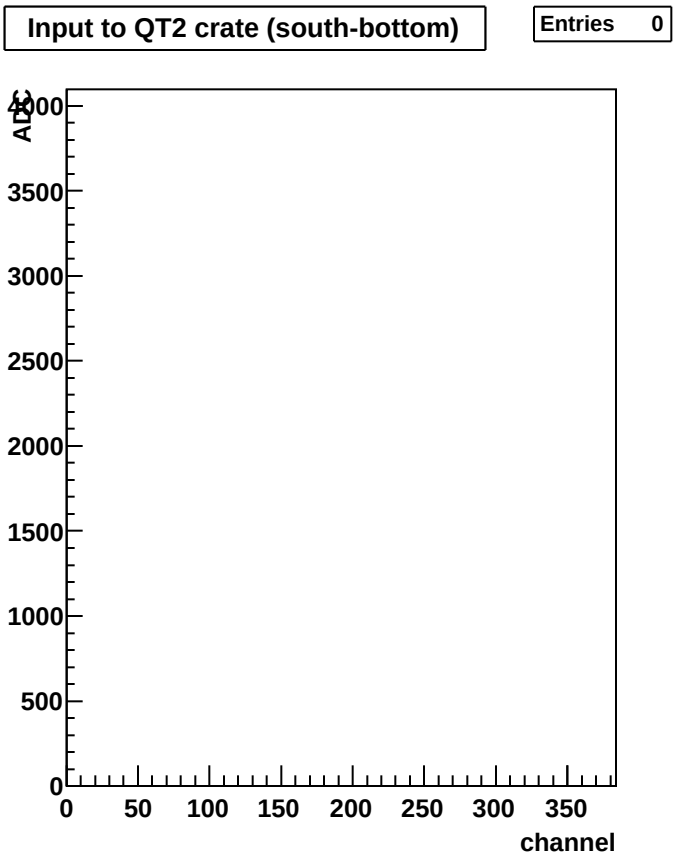

VPD-TAC-E
Entries 133636
Mean 1474
RMS 151.8

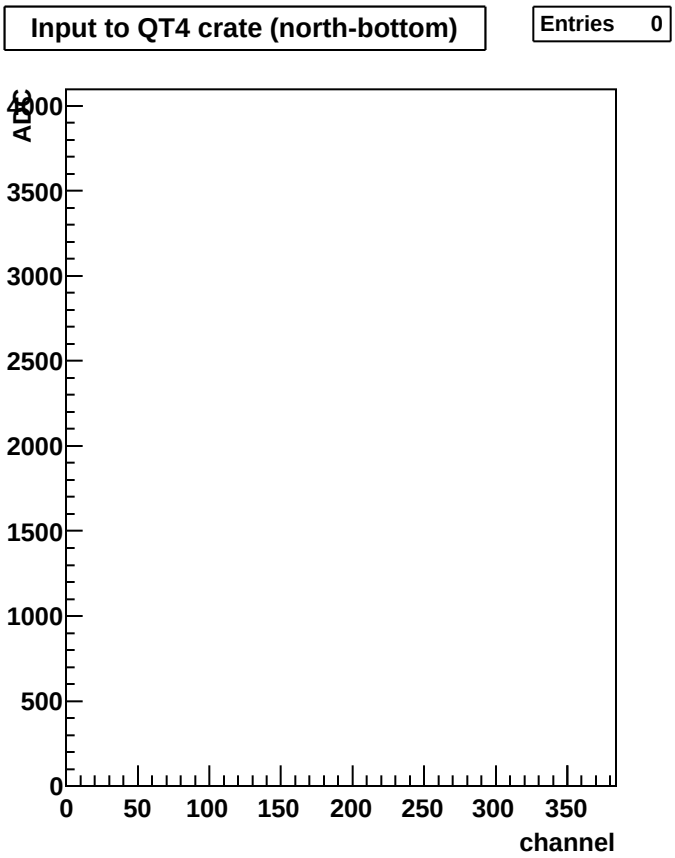

VPD-TAC-W
Entries 128408
Mean 1457
RMS 150.8

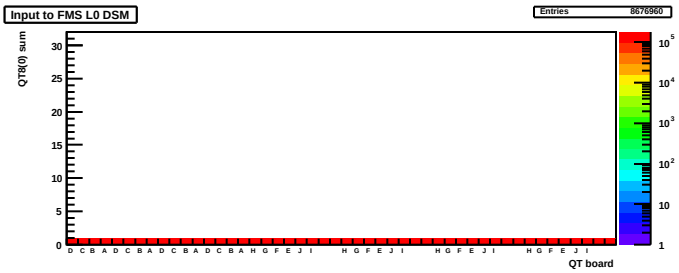

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 112883
Mean 4113
RMS 187

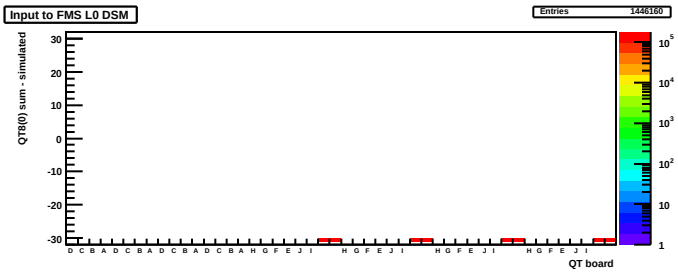

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

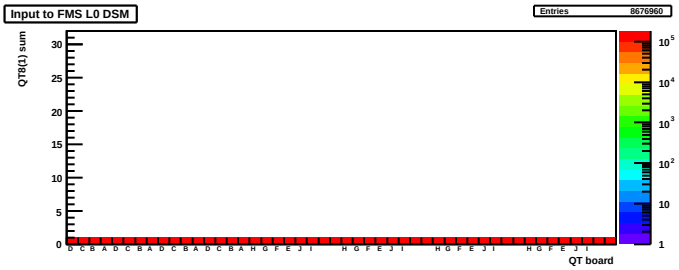

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

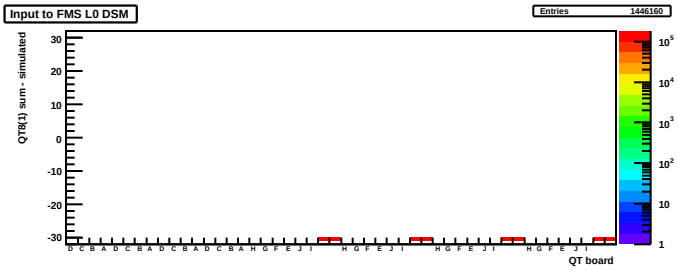

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

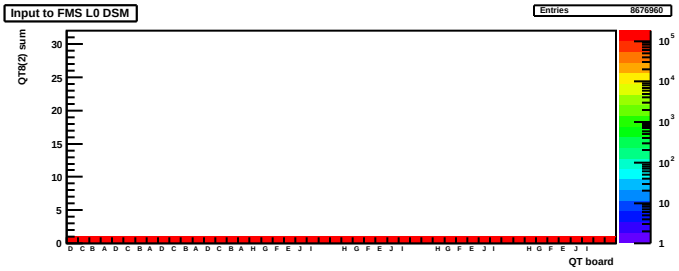

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

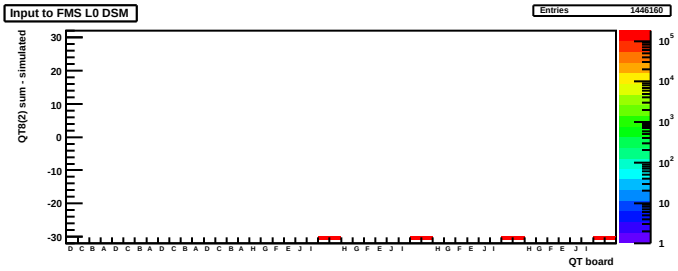

Input to FMS L0 DSM
Entries 8676960
QT8(0) sum
QT board

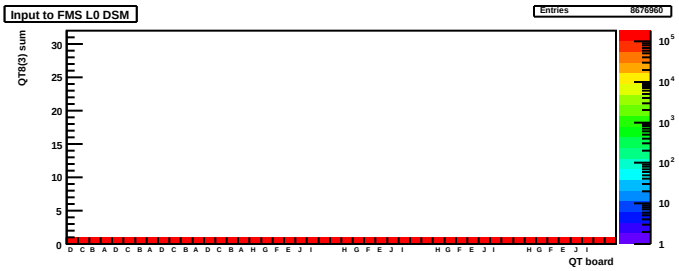

Input to FMS L0 DSM
Entries 1446160
QT8(0) sum - simulated
QT board

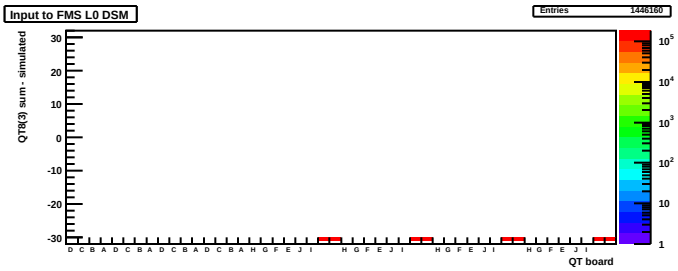

Input to FMS L0 DSM
Entries 8676960
QT8(1) sum
QT board

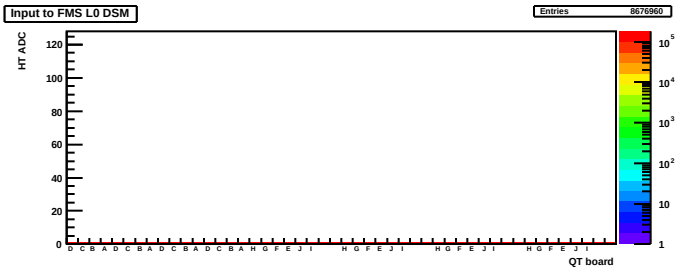

Input to FMS L0 DSM
Entries 1446160
QT8(1) sum - simulated
QT board

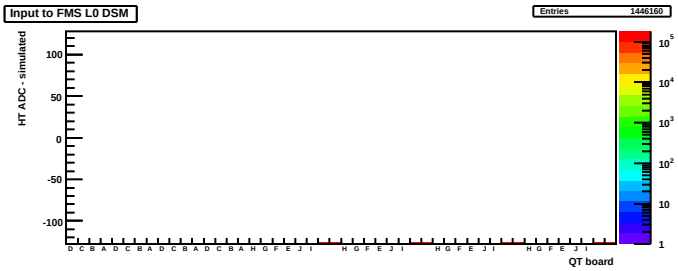

Input to FMS L0 DSM
Entries 8676960
QT8(2) sum
QT board

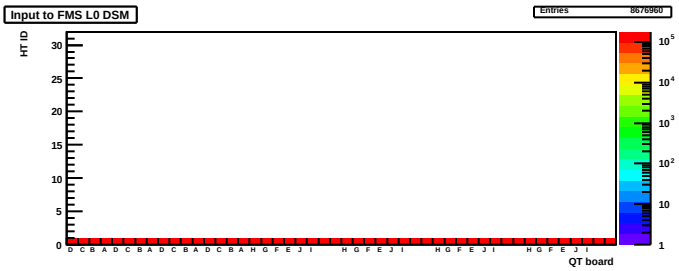

Input to FMS L0 DSM
Entries 1446160
QT8(2) sum - simulated
QT board

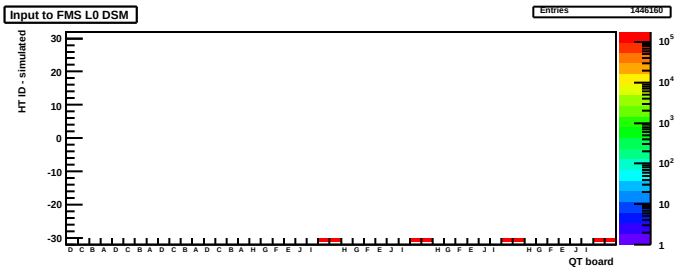

Input to FMS L0 DSM
Entries 8676960
QT8(3) sum
QT board

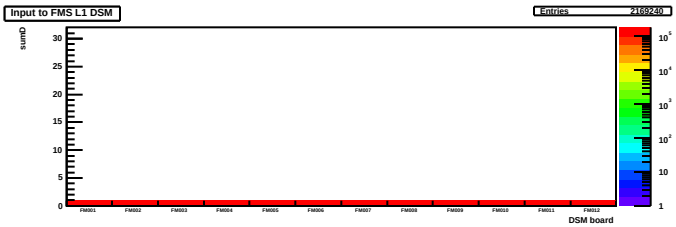

Input to FMS L0 DSM
Entries 1446160
QT8(3) sum - simulated
QT board

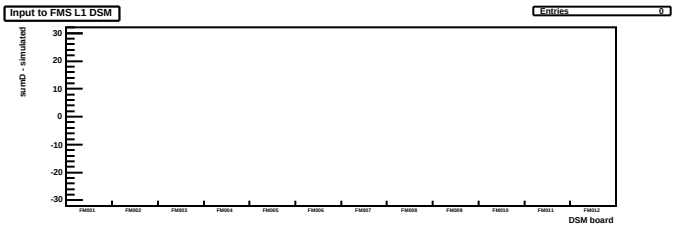

Input to FMS L0 DSM
Entries 8676960
HT ADC
QT board

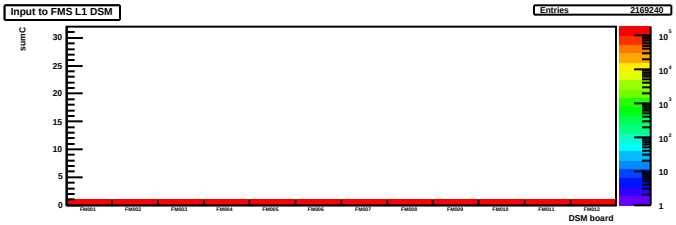

Input to FMS L0 DSM
Entries 1446160
HT ADC - simulated
QT board

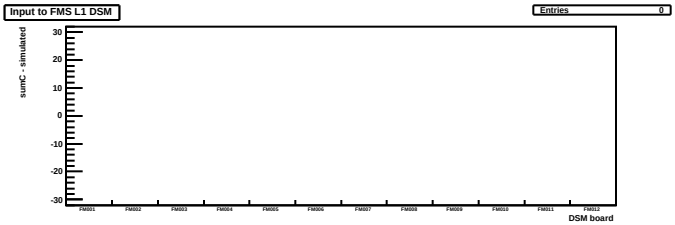

Input to FMS L0 DSM
Entries 8676960
HT ID
QT board

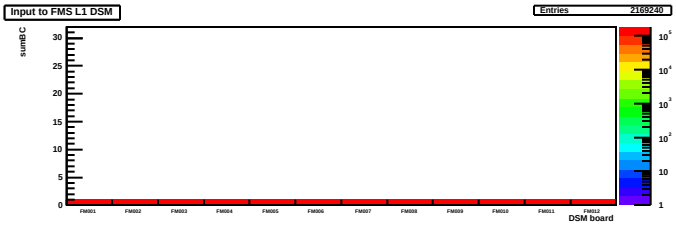

Input to FMS L0 DSM
Entries 1446160
HT ID - simulated
QT board

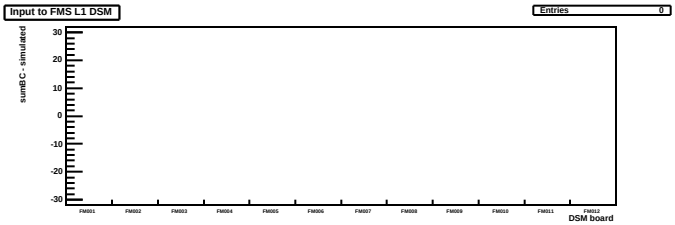

Input to FMS L1 DSM
Entries 2169240
sumD
DSM board

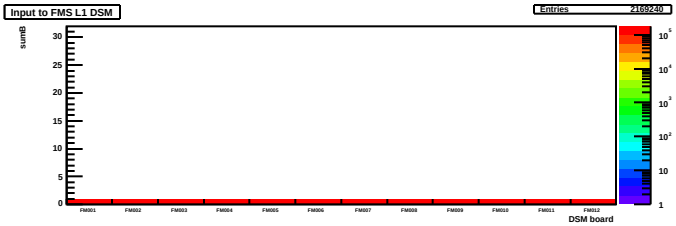

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

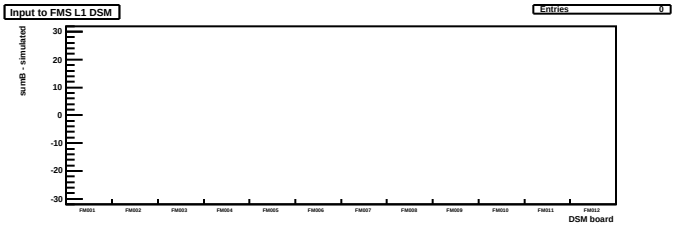

Input to FMS L1 DSM
Entries 2169240
sumC
DSM board

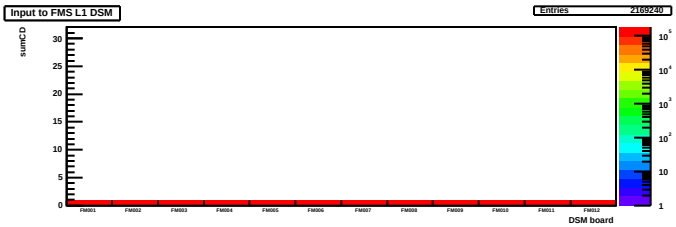

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

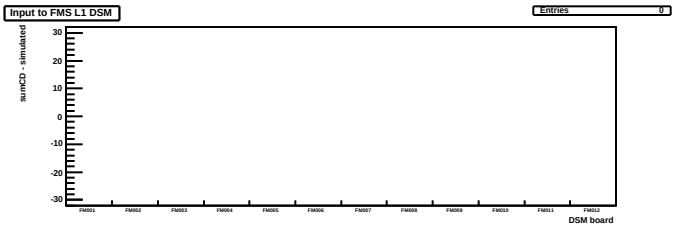

Input to FMS L1 DSM
Entries 2169240
sumBC
DSM board

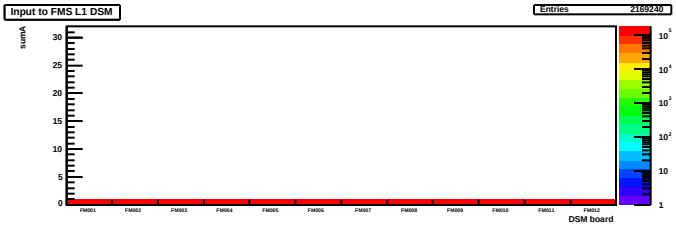

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

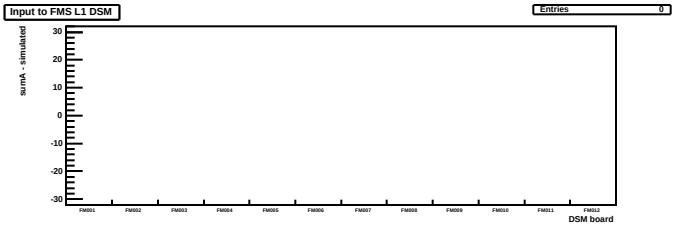

Input to FMS L1 DSM
Entries 2169240
sumB
DSM board

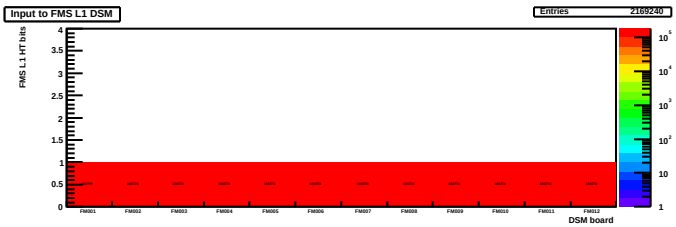

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

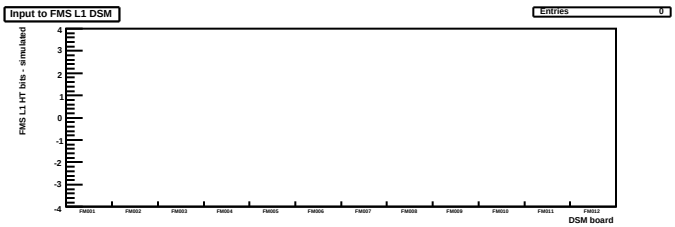

Input to FMS L1 DSM
Entries 2169240
sumCD
DSM board

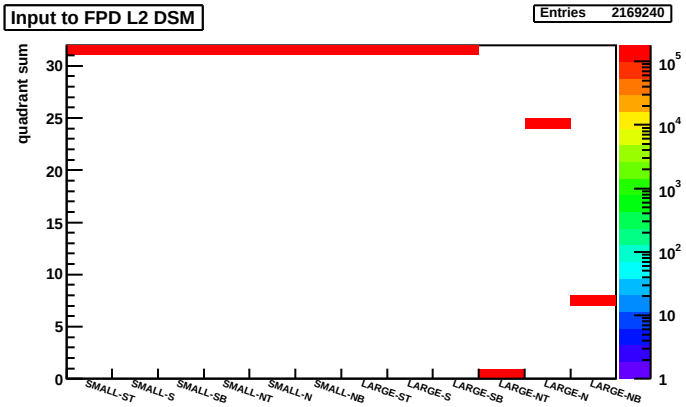

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

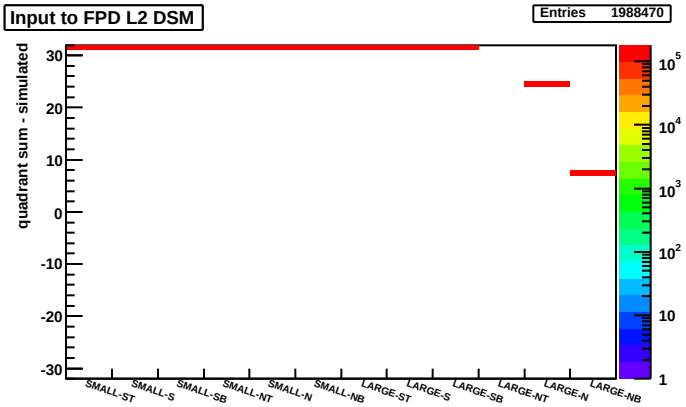

Input to FMS L1 DSM
Entries 2169240
sumA
DSM board

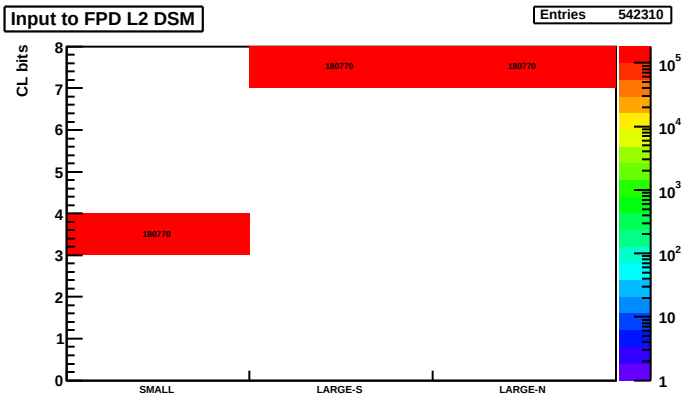

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

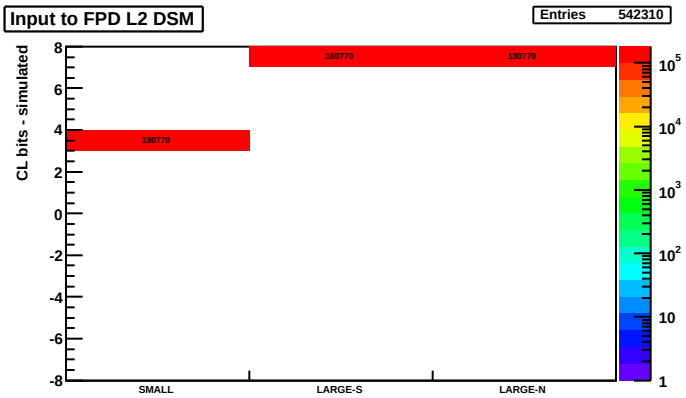

Input to FMS L1 DSM
Entries 2169240
FMS L1 HT bits
DSM board

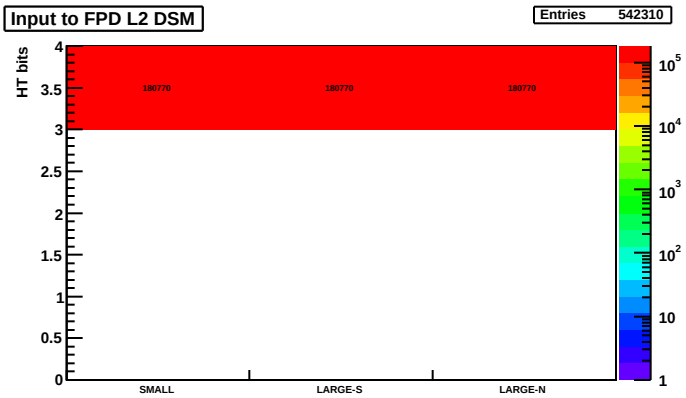

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

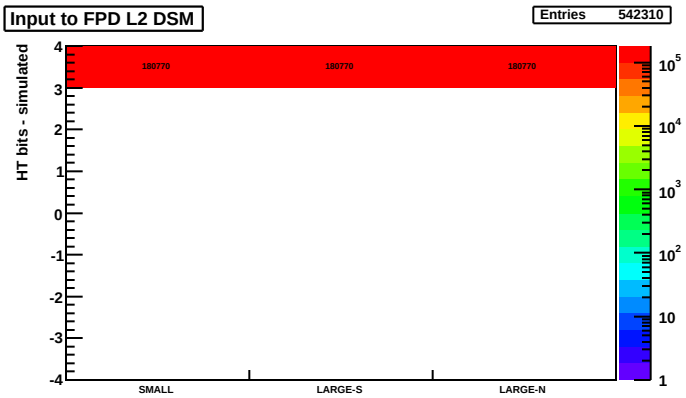

Input to FPD L2 DSM
Entries 2169240
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

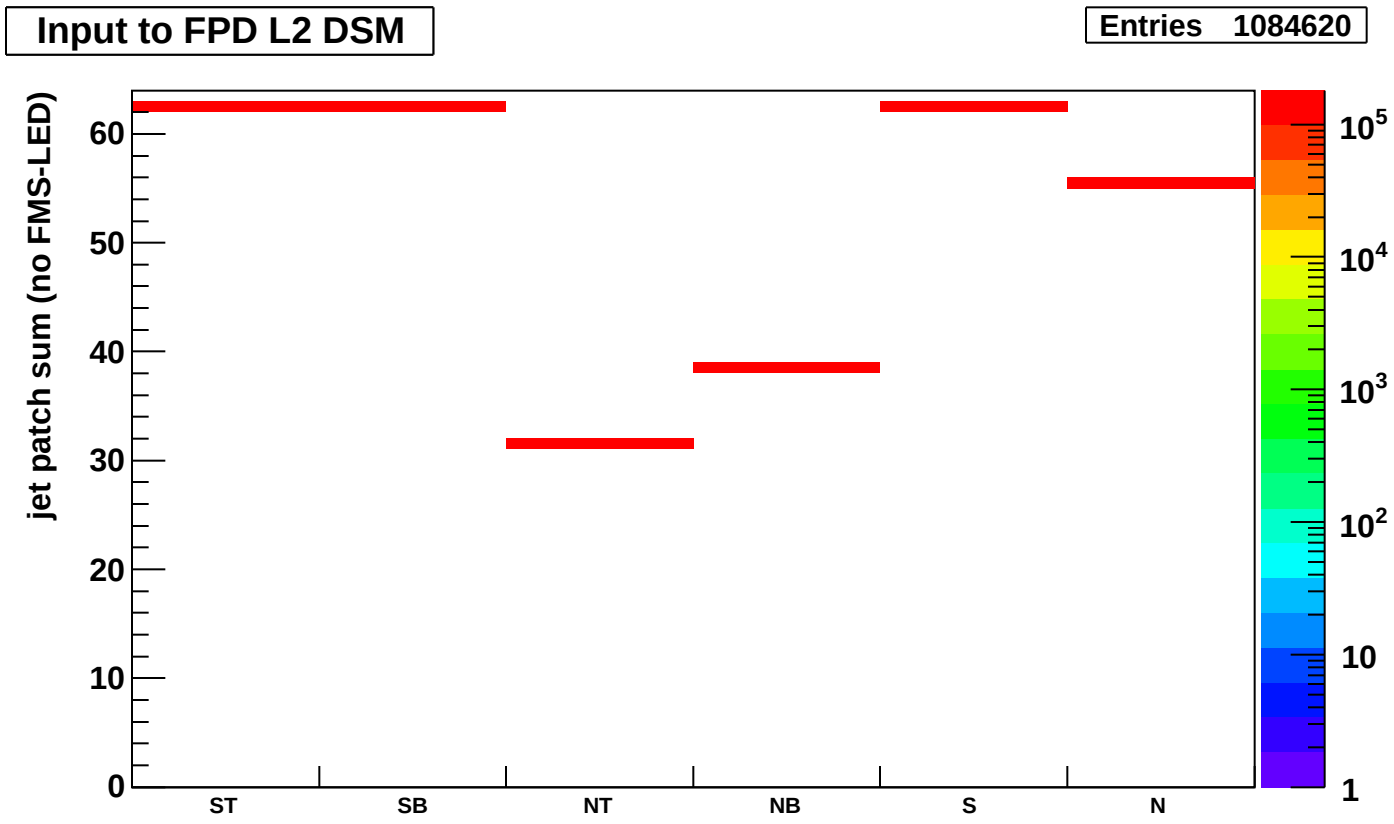

Input to FPD L2 DSM
Entries 1988470
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

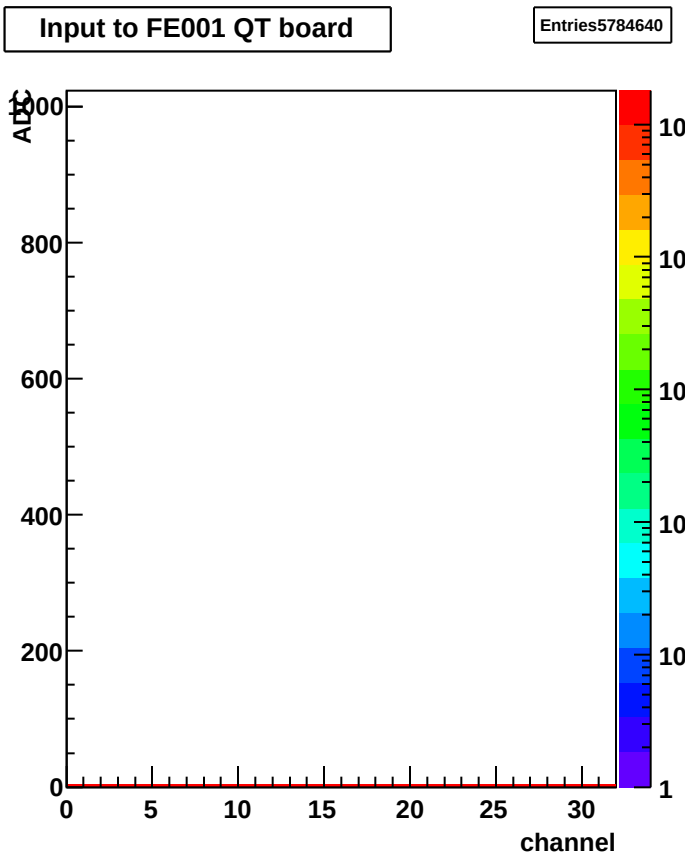

Input to FPD L2 DSM
Entries 542310
CL bits
180770
180770
180770
SMALL
LARGE-S
LARGE-N

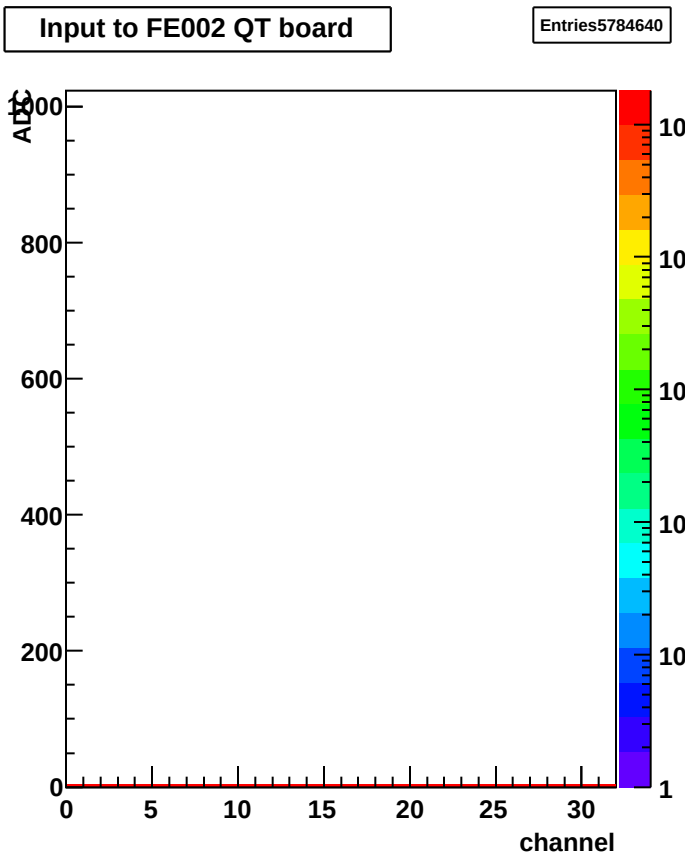

Input to FPD L2 DSM
Entries 542310
CL bits - simulated
180770
180770
180770
SMALL
LARGE-S
LARGE-N

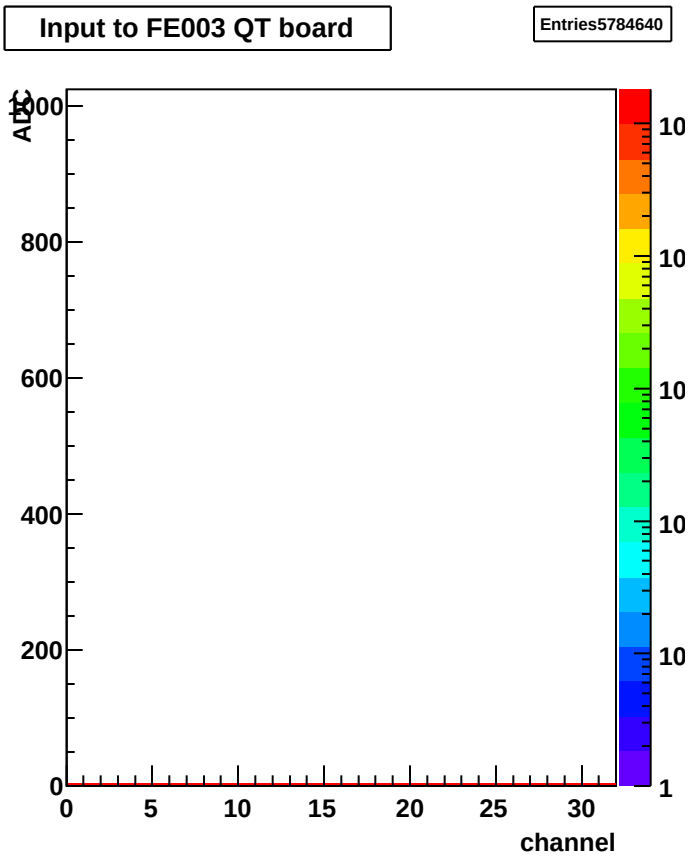

Input to FPD L2 DSM
Entries 542310
HT bits
180770
180770
180770
SMALL
LARGE-S
LARGE-N

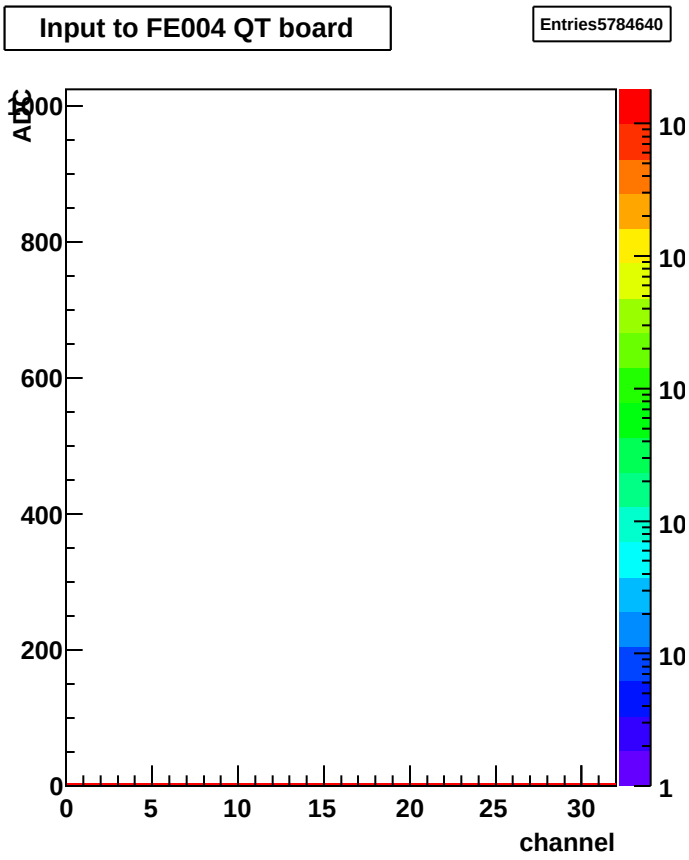

Input to FPD L2 DSM
Entries 542310
HT bits - simulated
180770
180770
180770
SMALL
LARGE-S
LARGE-N

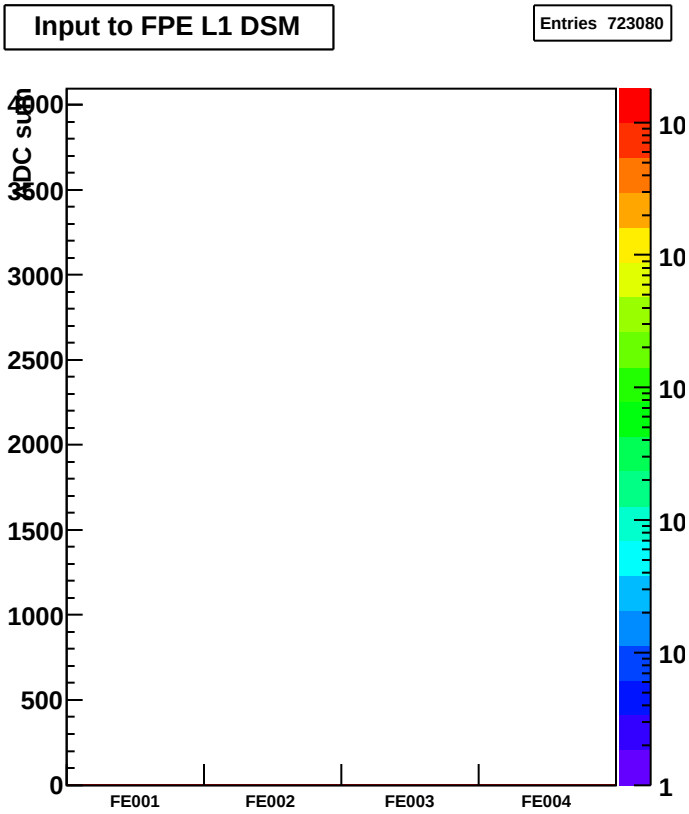

Input to FPD L2 DSM
Entries 1084620
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

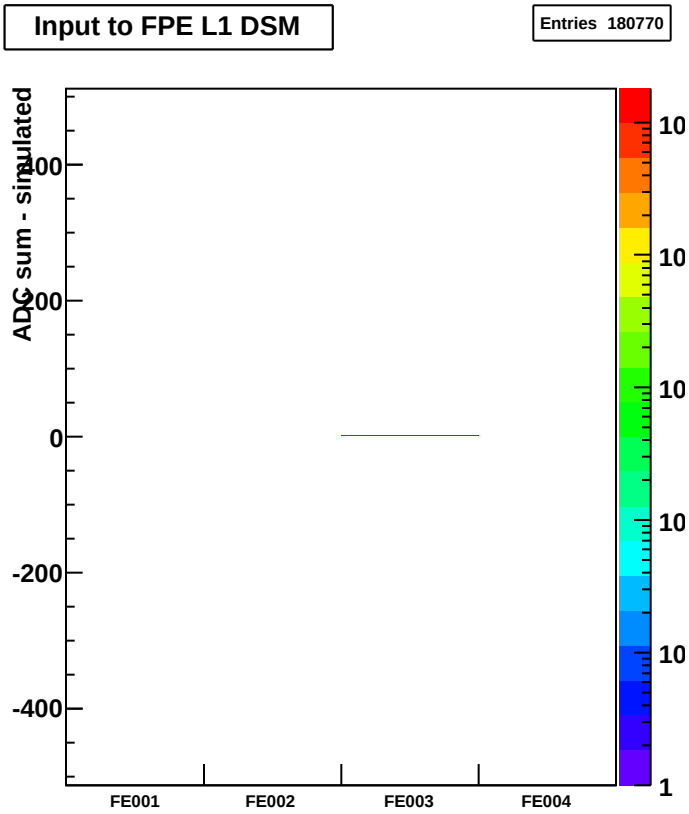

Input to FE001 QT board
Entries5784640
ADC
channel

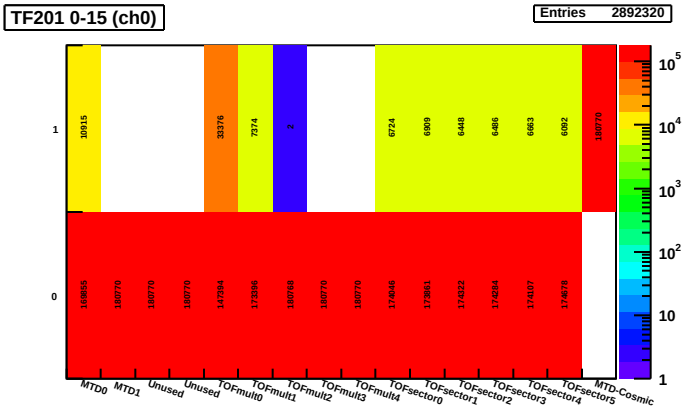

Input to FE002 QT board
Entries5784640
ADC
channel

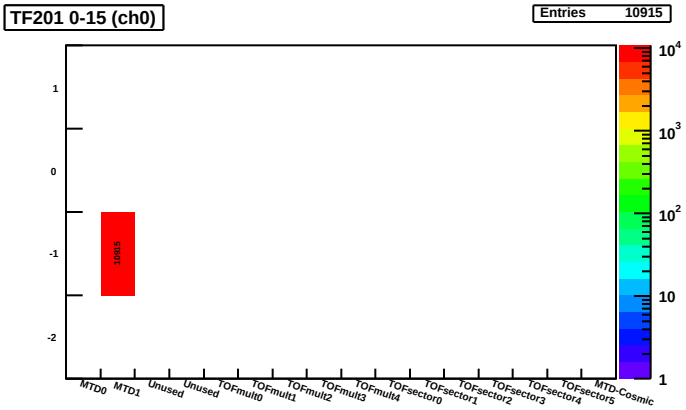

Input to FE003 QT board
Entries5784640
ADC
channel

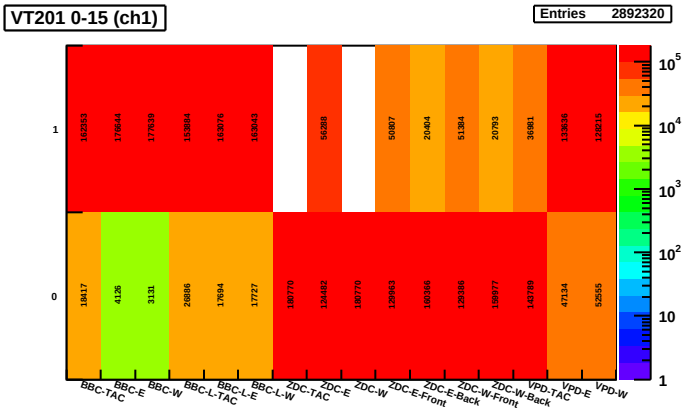

Input to FE004 QT board
Entries5784640
ADC
channel

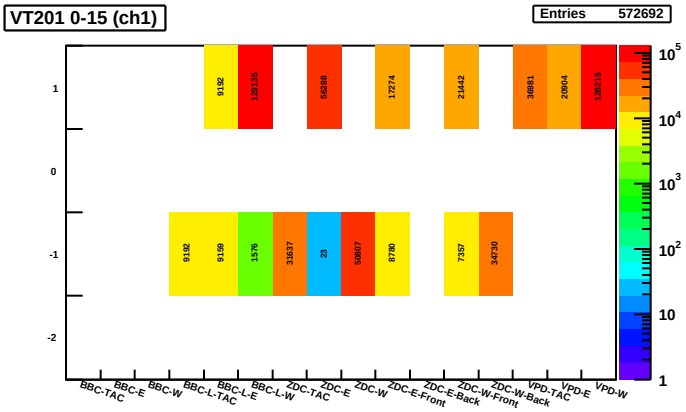

Input to FPE L1 DSM
Entries 723080
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 180770
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1


TF201 0-15 (ch0)
Entries 2892320
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 10915
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 2892320
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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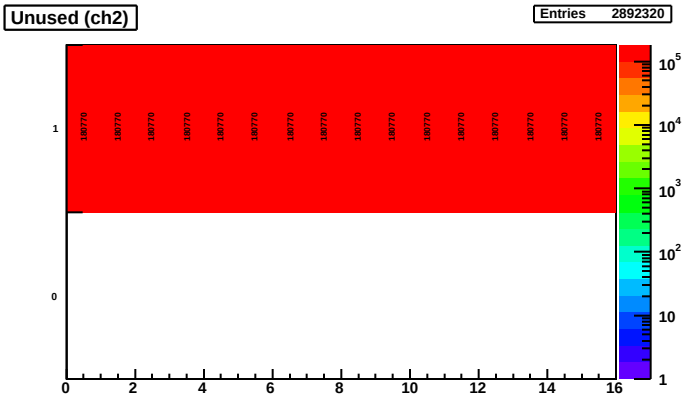
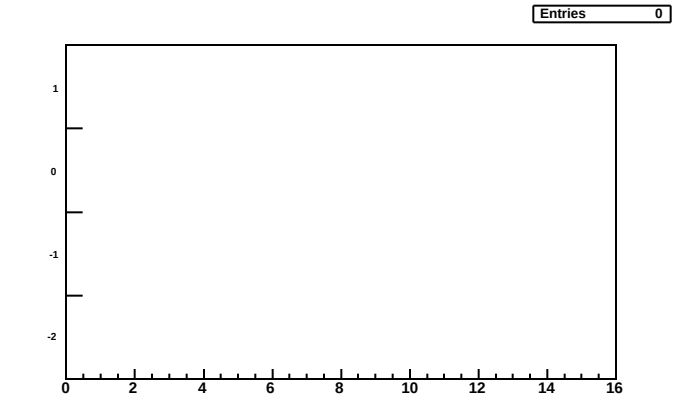
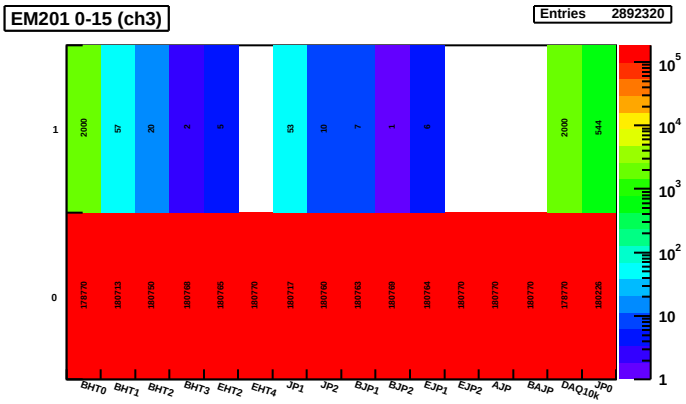
Entries 572692
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


Unused (ch2)
Entries 2892320


Entries 0


EM201 0-15 (ch3)
Entries 2892320
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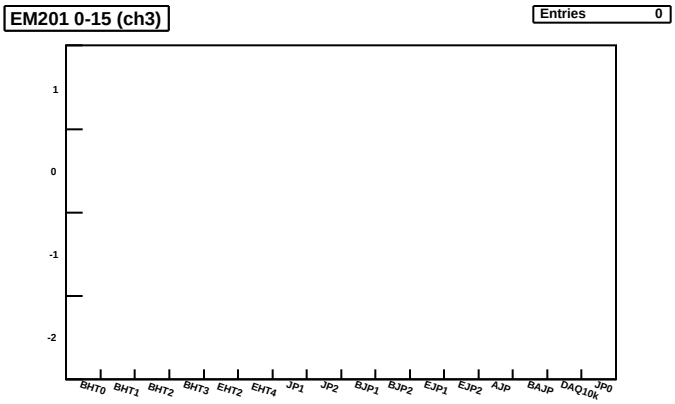
EM201 0-15 (ch3)
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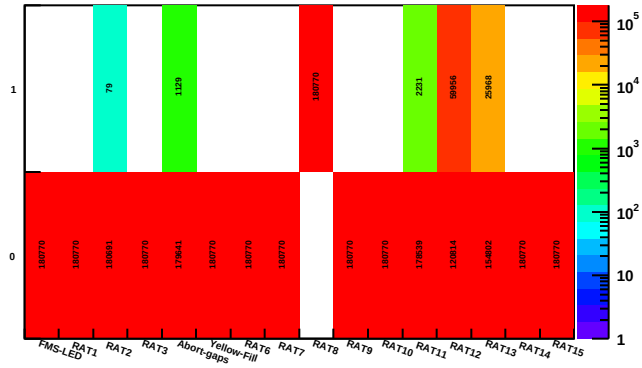
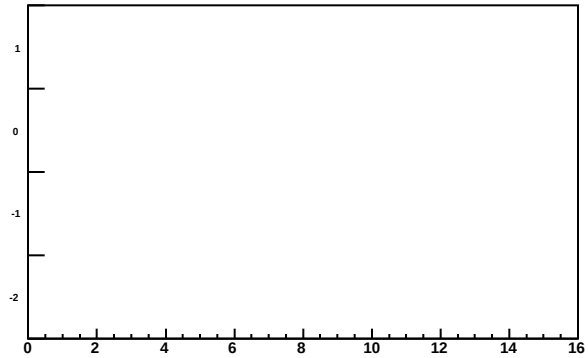
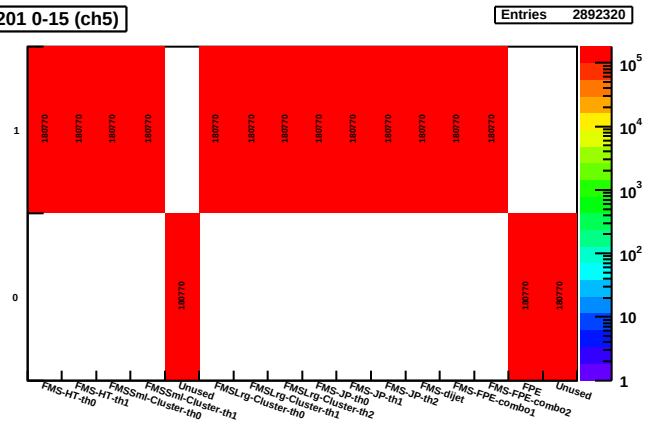
RAT board (ch4)





FP201 0-15 (ch5)



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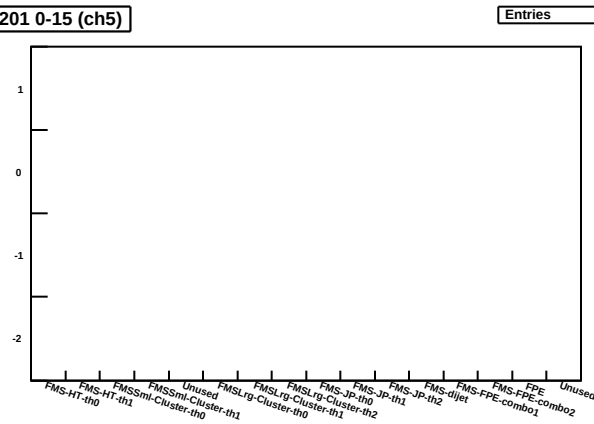
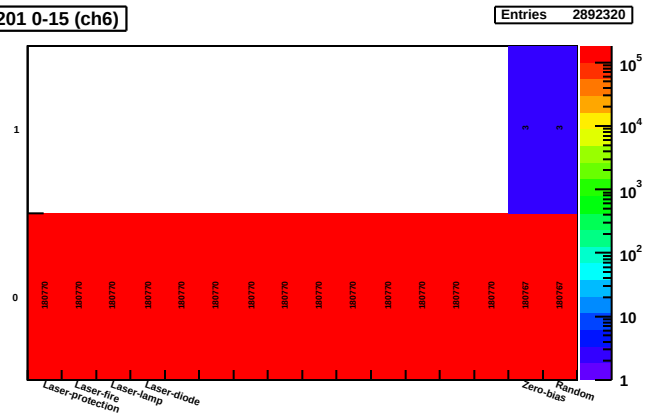
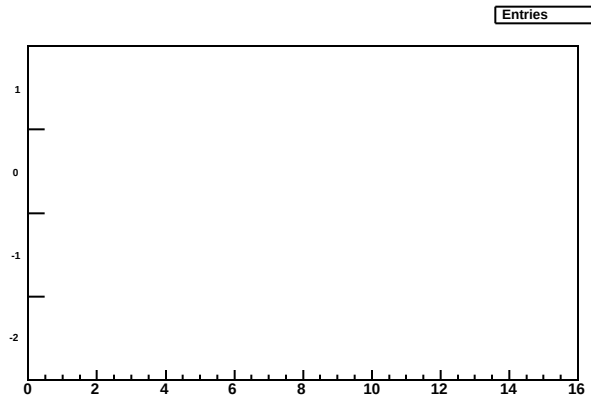
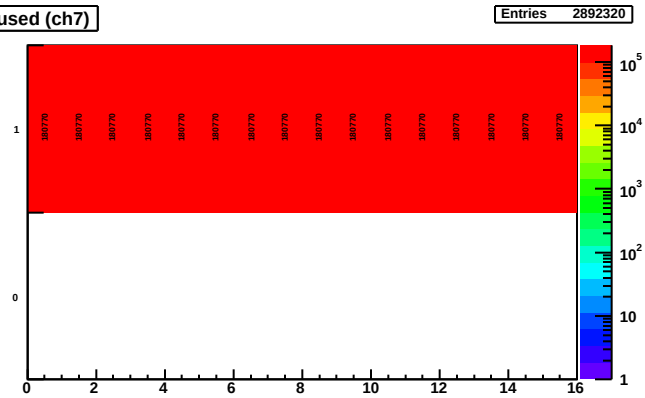
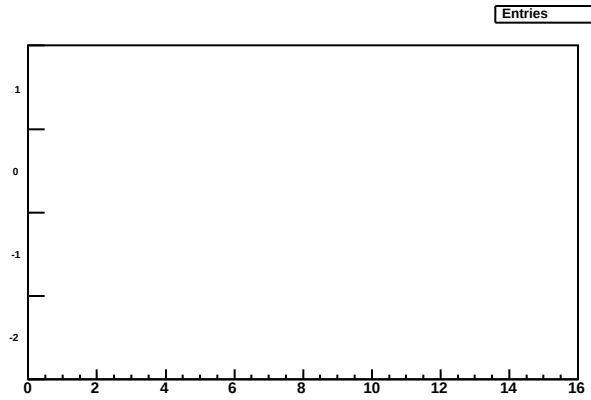


ST201 0-15 (ch6)





Unused (ch7)