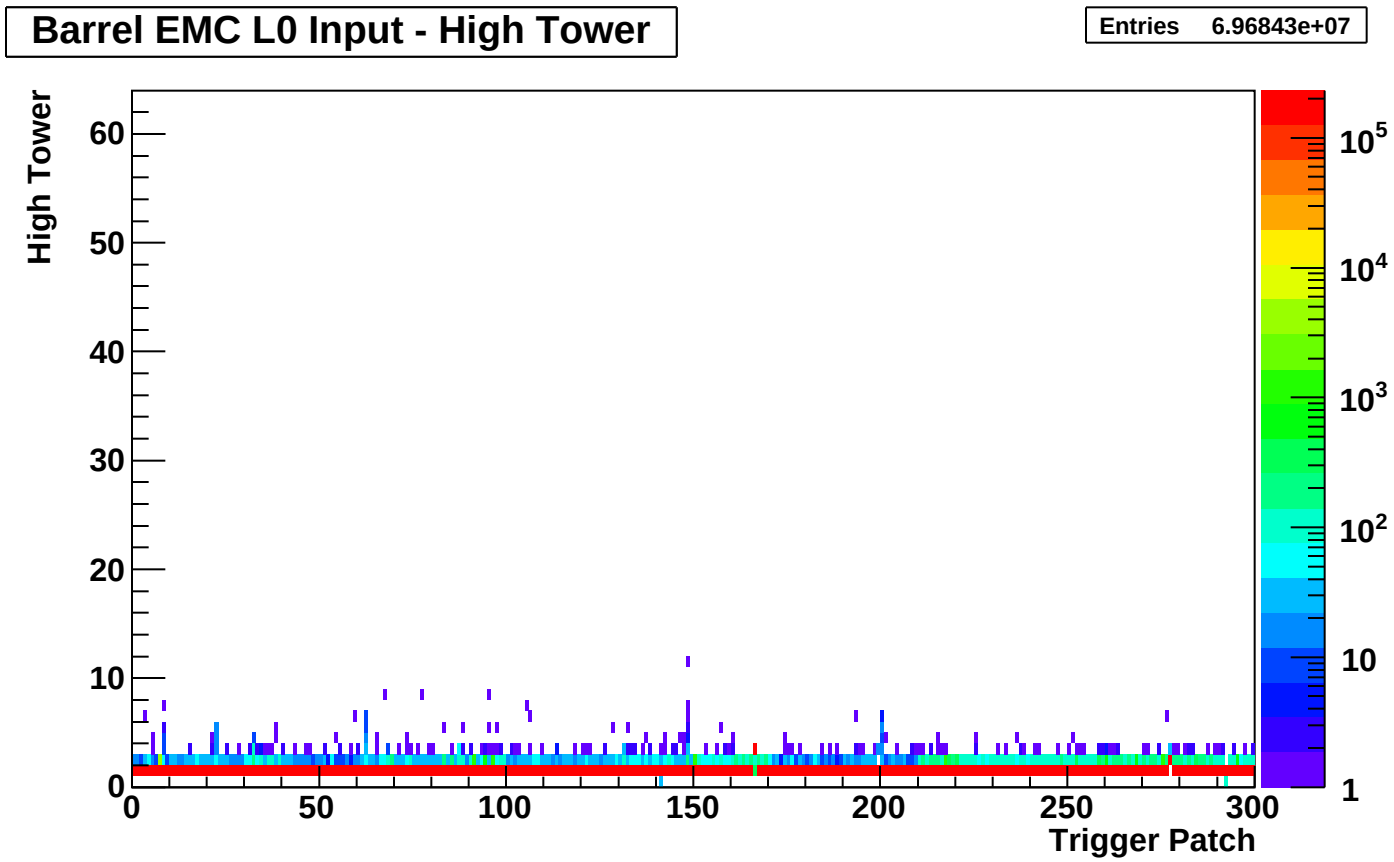
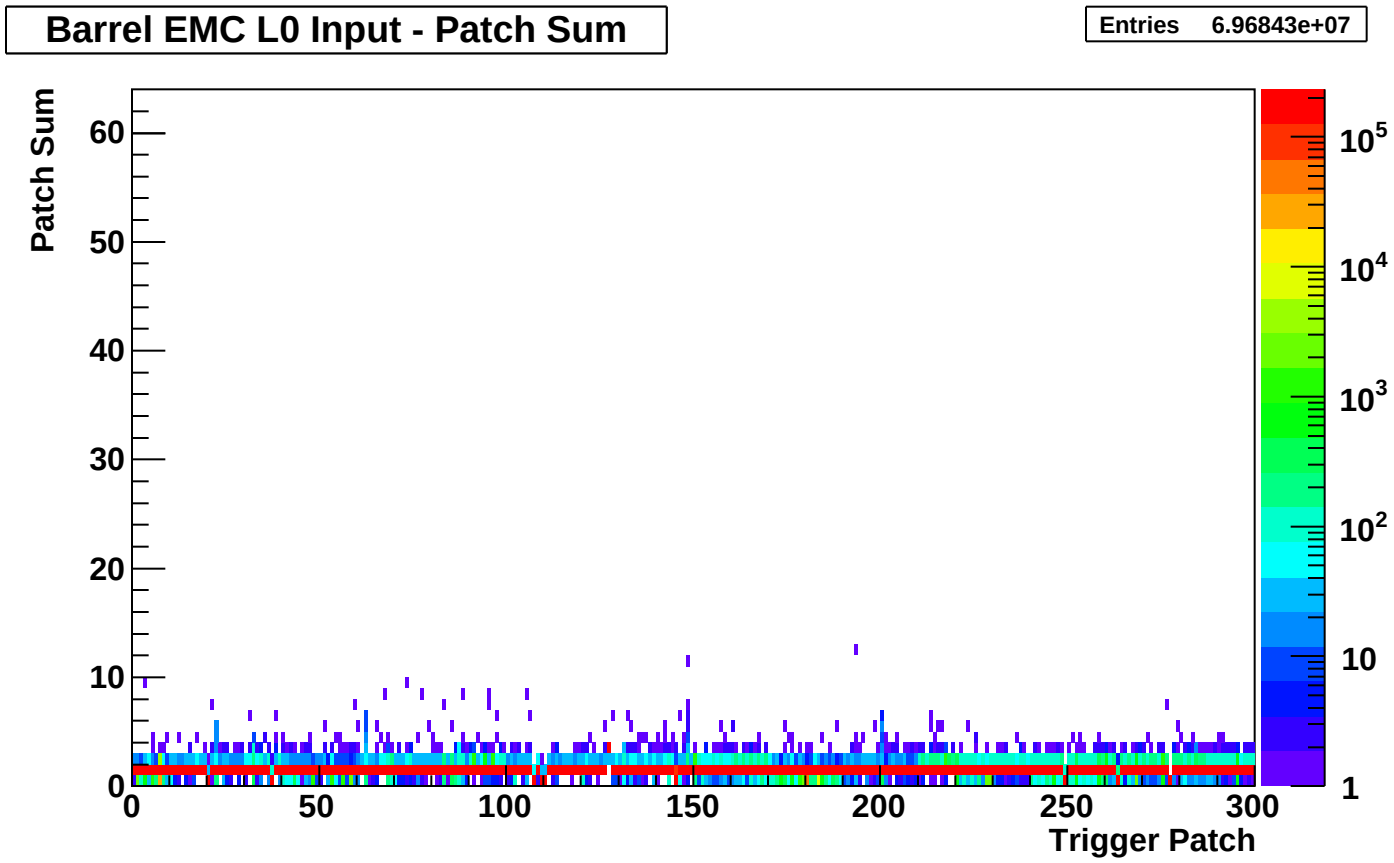
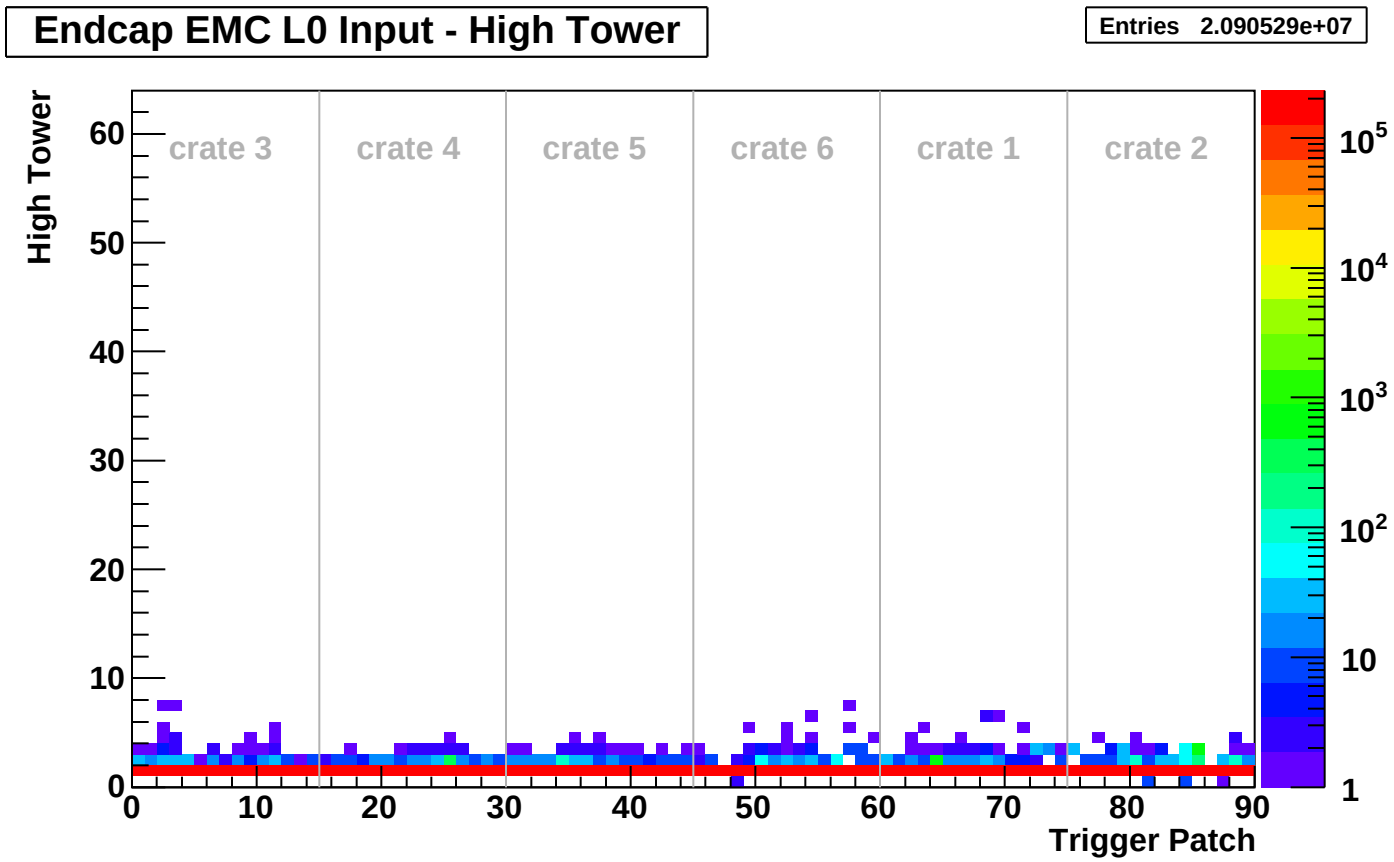
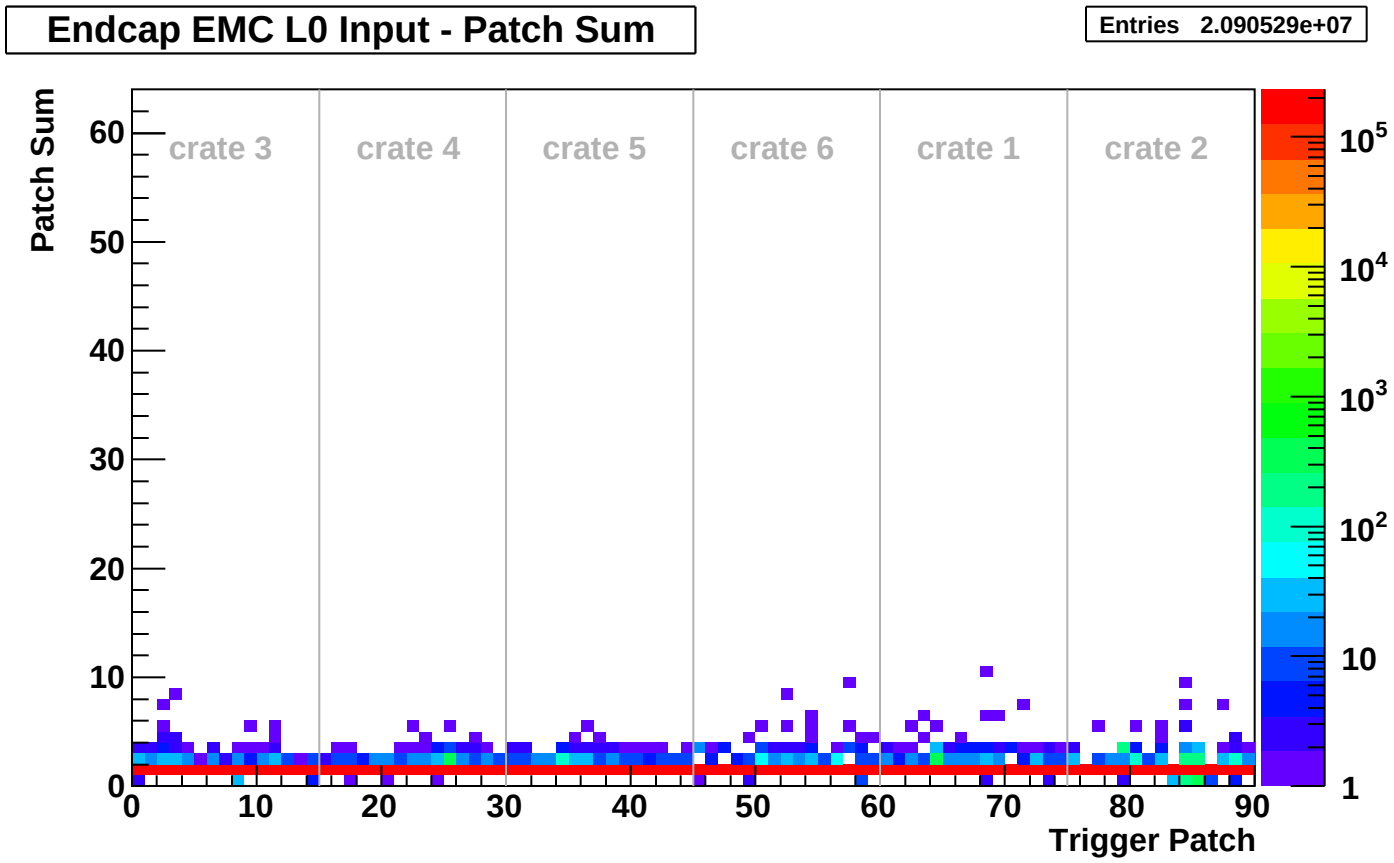
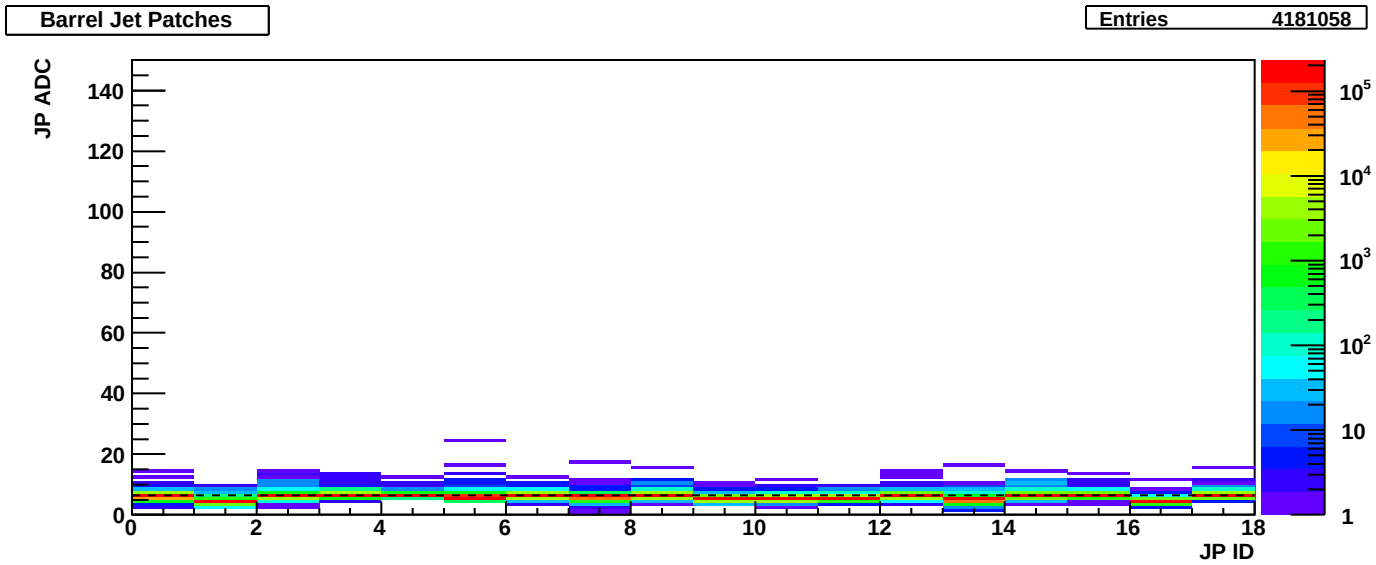
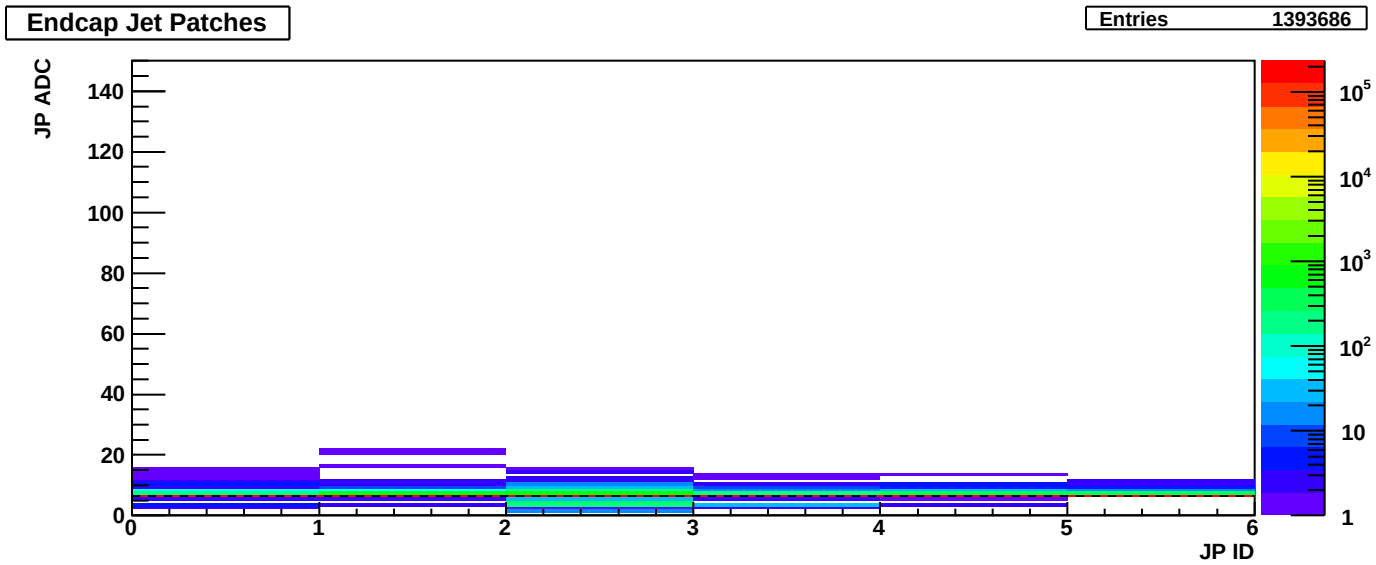

Barrel EMC L0 Input - High Tower
Entries 6.96843e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

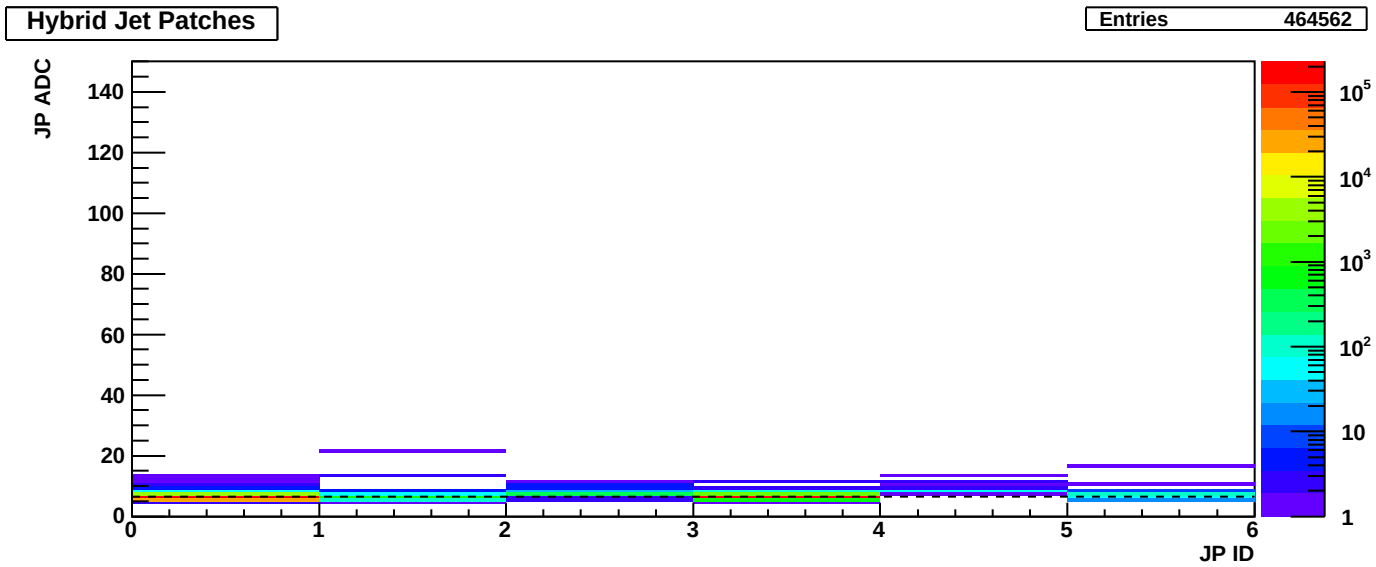

Barrel EMC L0 Input - Patch Sum
Entries 6.96843e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

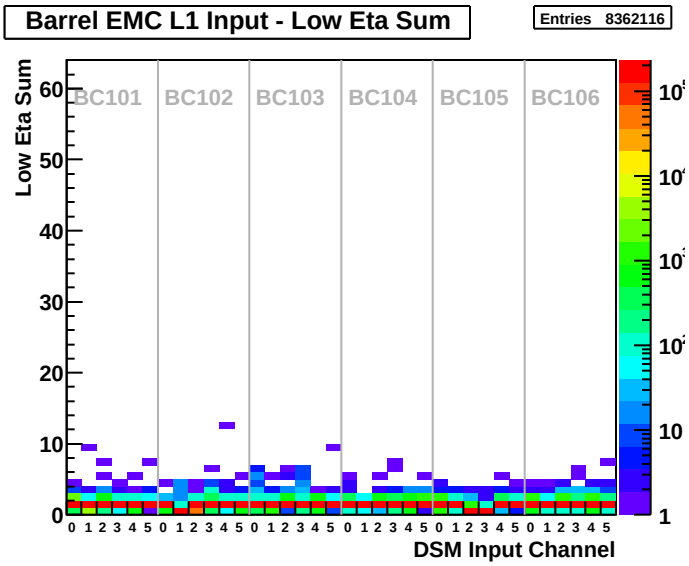

Endcap EMC L0 Input - High Tower
Entries 2.090529e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

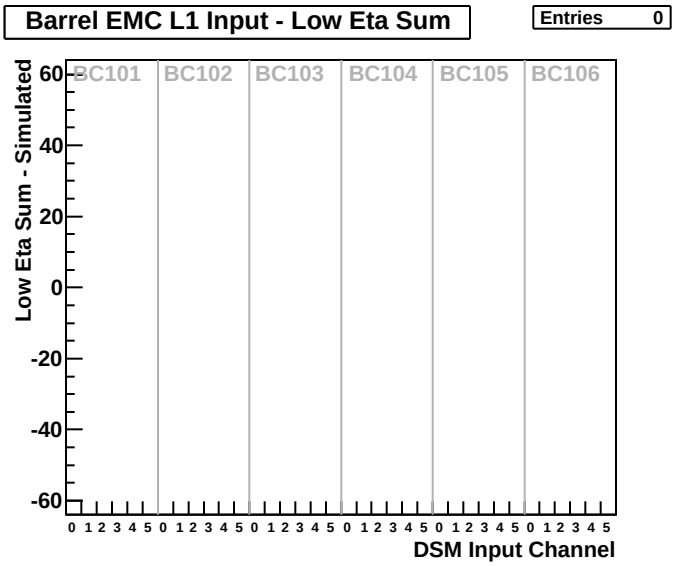

Endcap EMC L0 Input - Patch Sum
Entries 2.090529e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

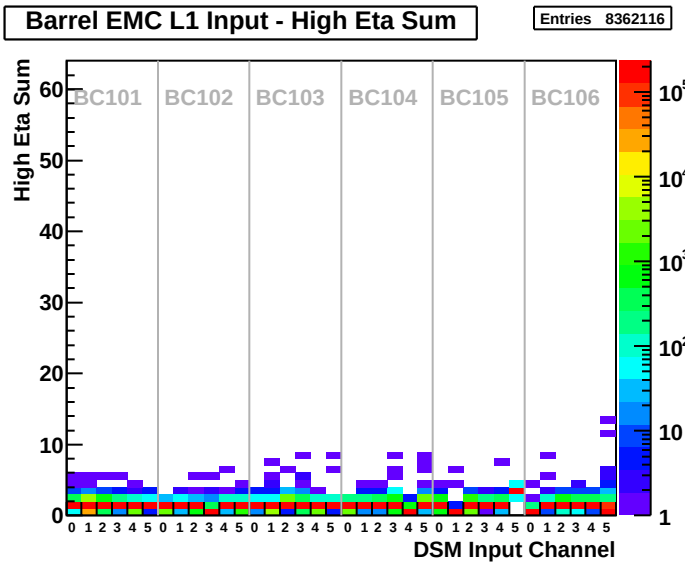

Barrel Jet Patches
Entries 4181058
JP ADC
JP ID

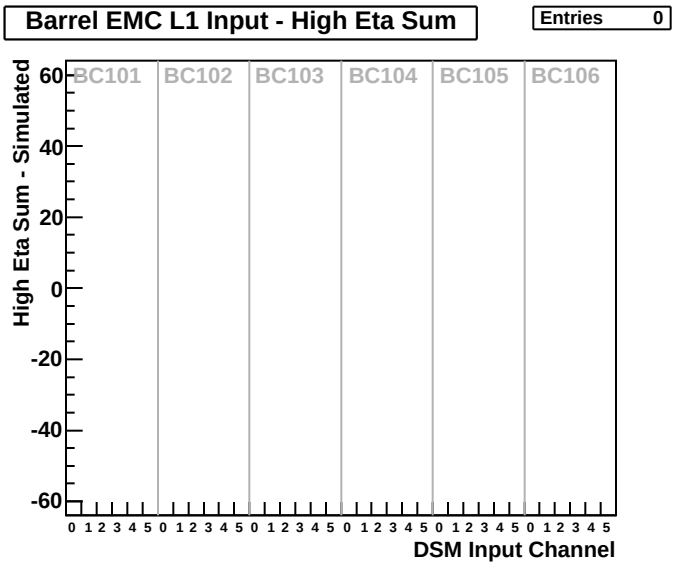

Endcap Jet Patches
Entries 1393686
JP ADC
JP ID

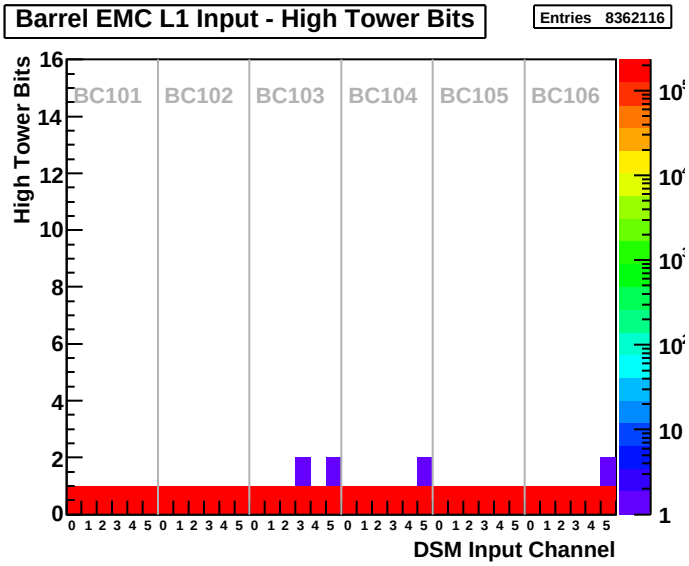

Hybrid Jet Patches
Entries 464562
JP ADC
JP ID

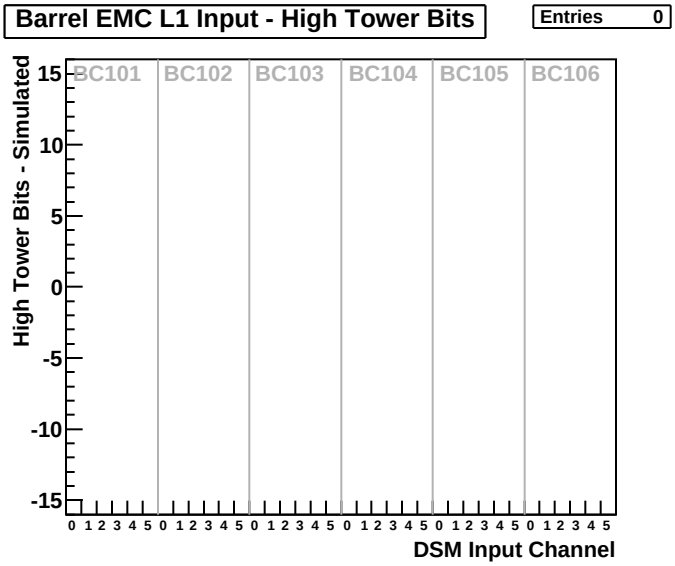

Barrel EMC L1 Input - Low Eta Sum
Entries 8362116
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

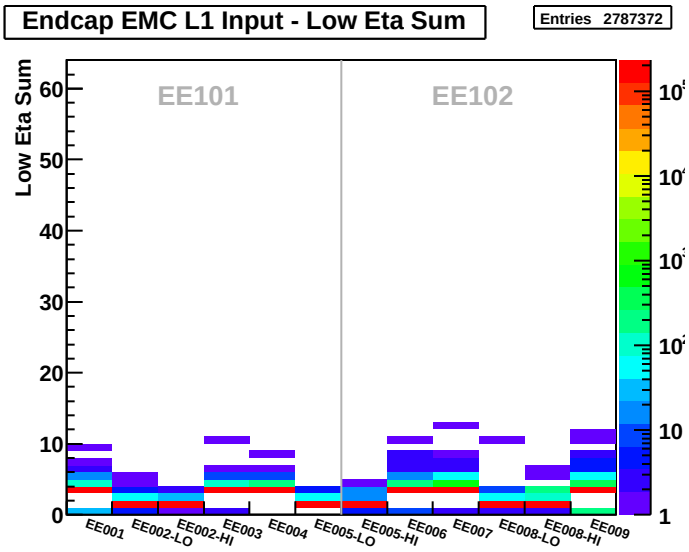

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

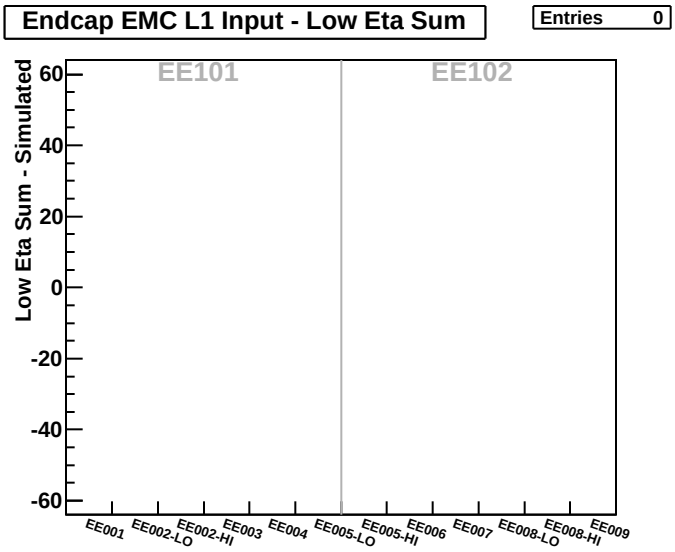

Barrel EMC L1 Input - High Eta Sum
Entries 8362116
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

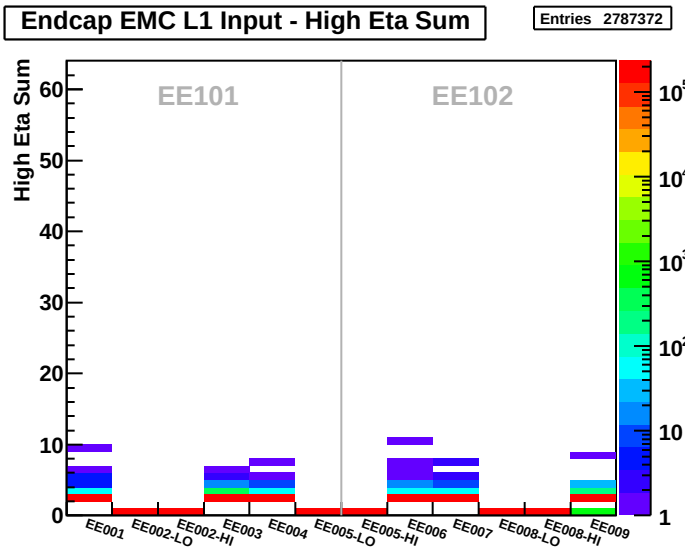

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

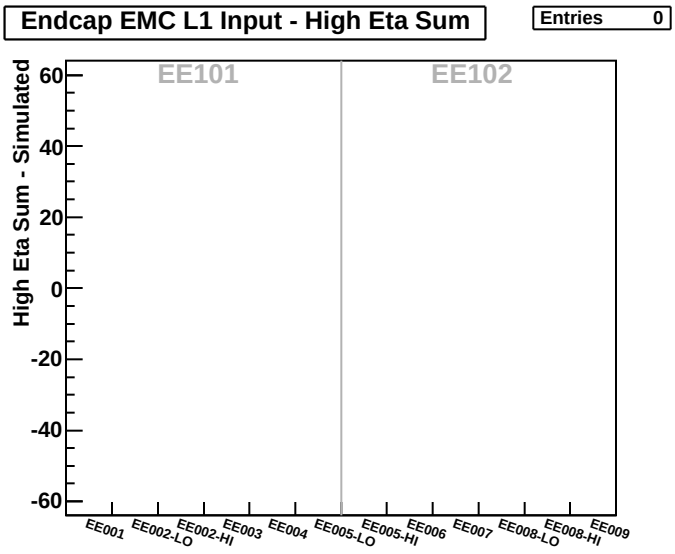

Barrel EMC L1 Input - High Tower Bits
Entries 8362116
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

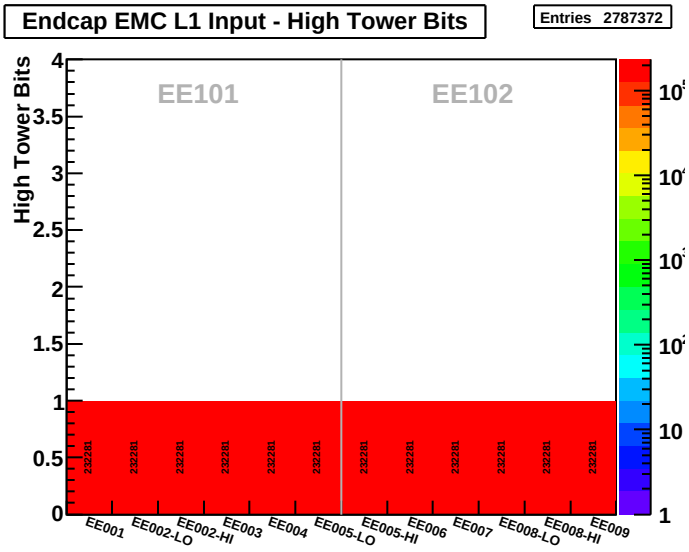

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

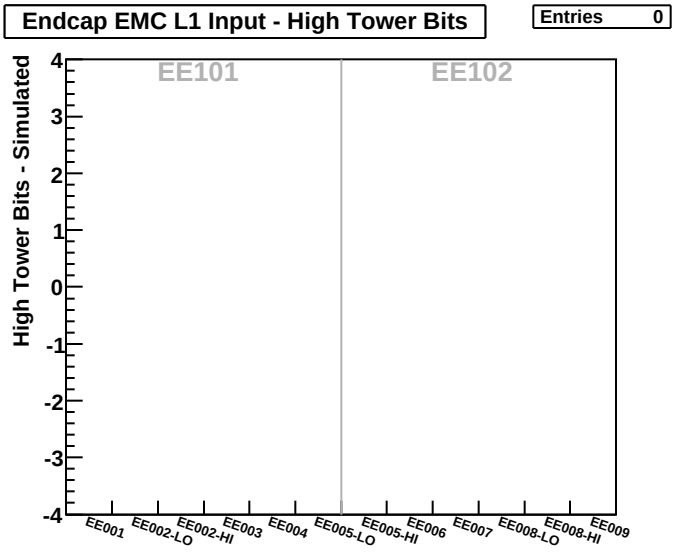

Endcap EMC L1 Input - Low Eta Sum
Entries 2787372
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

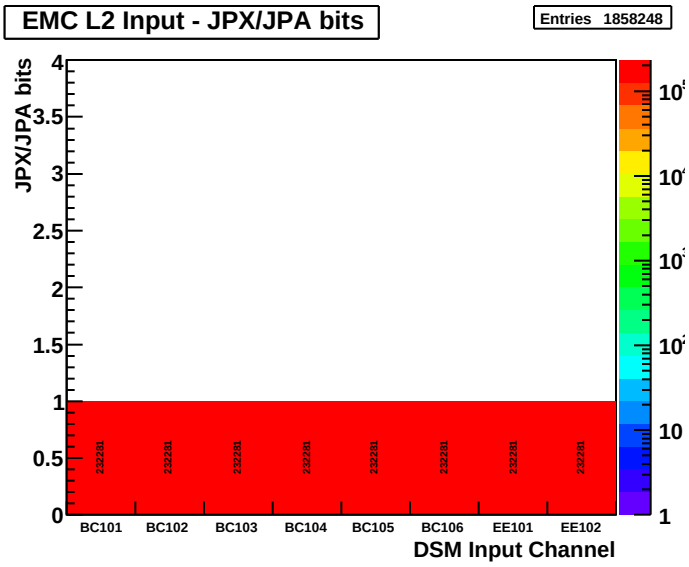

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

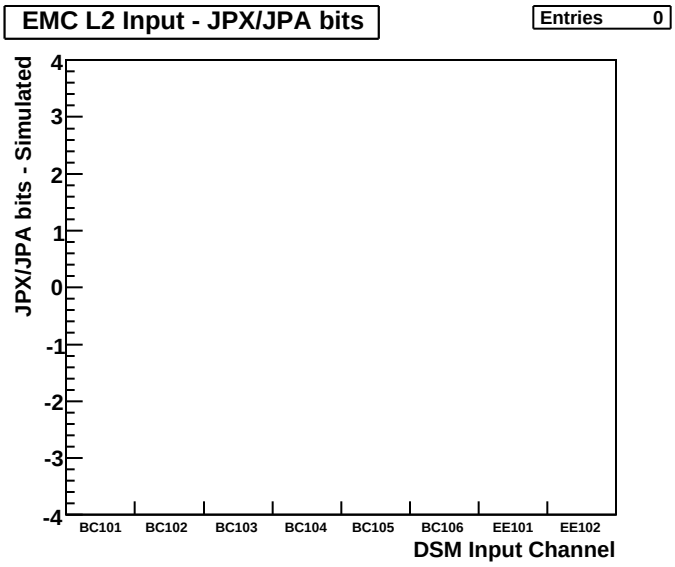

Endcap EMC L1 Input - High Eta Sum
Entries 2787372
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

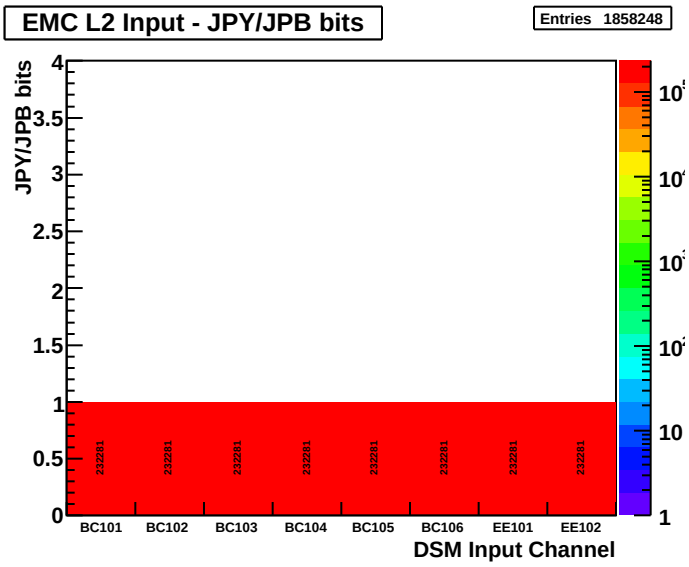

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

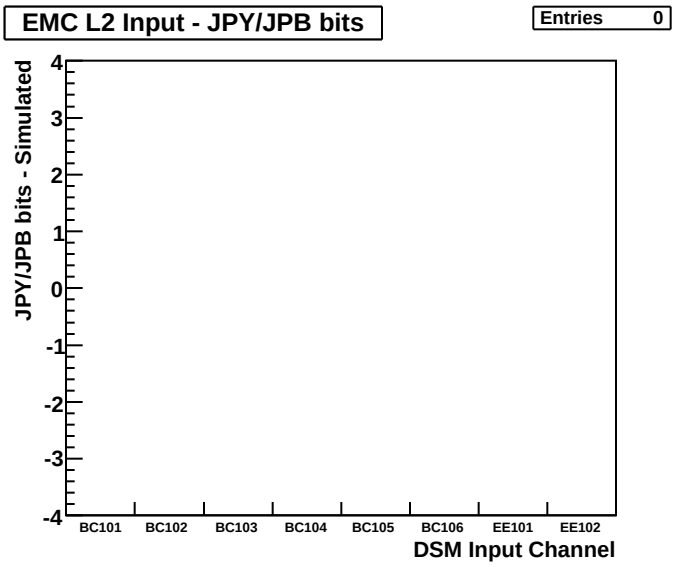

Endcap EMC L1 Input - High Tower Bits
Entries 2787372
High Tower Bits
EE101
EE102
232281
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

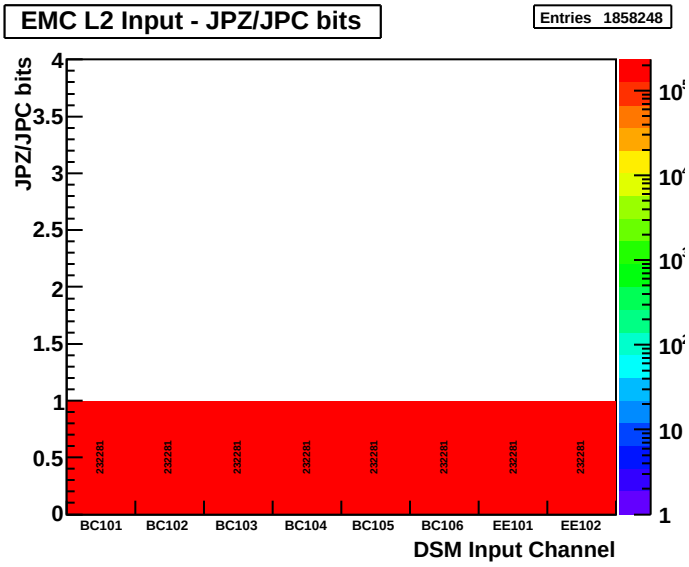

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

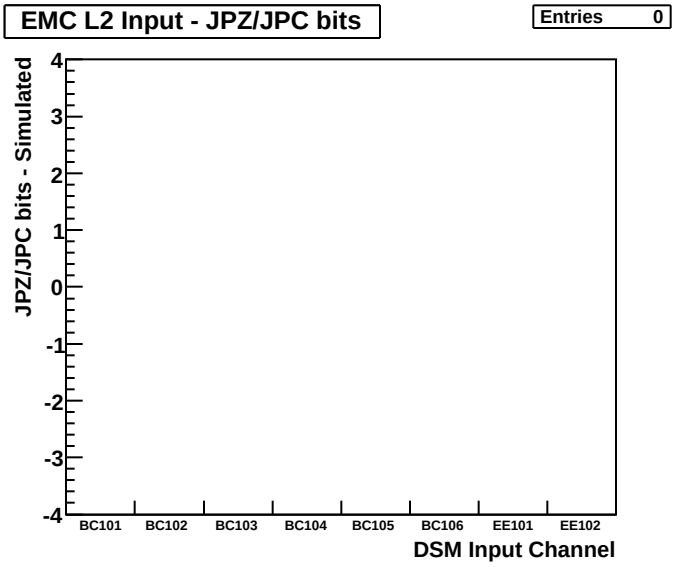

EMC L2 Input - JPX/JPA bits
Entries 1858248
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
232281

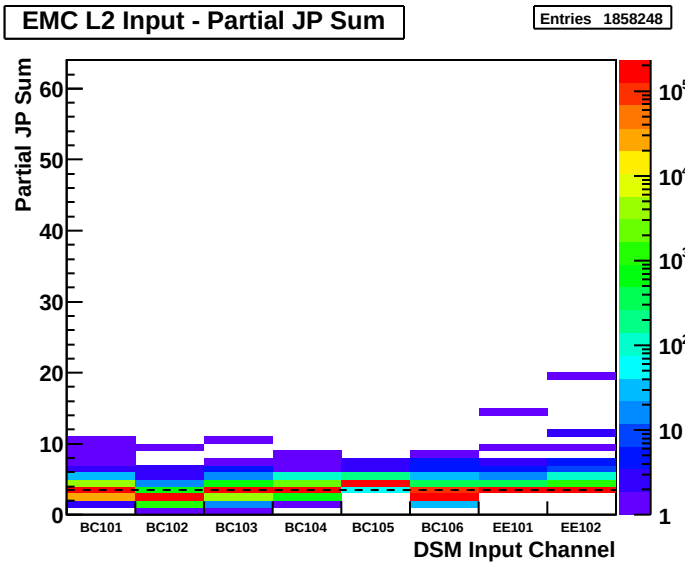

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

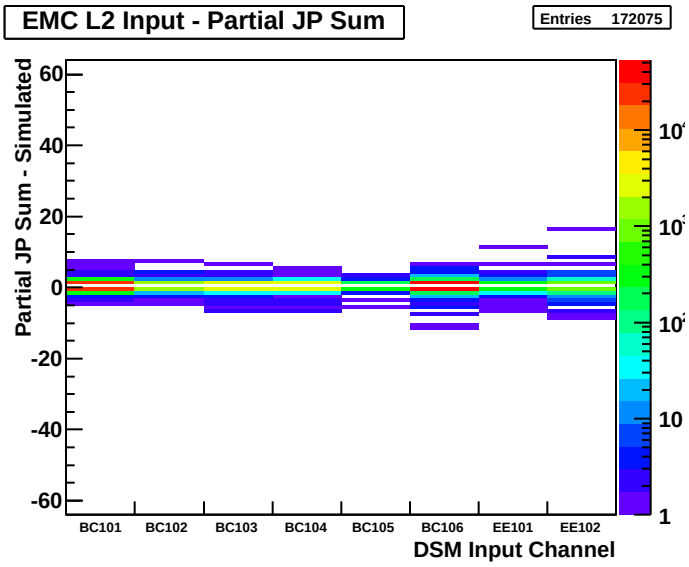

EMC L2 Input - JPY/JPB bits
Entries 1858248
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
232281

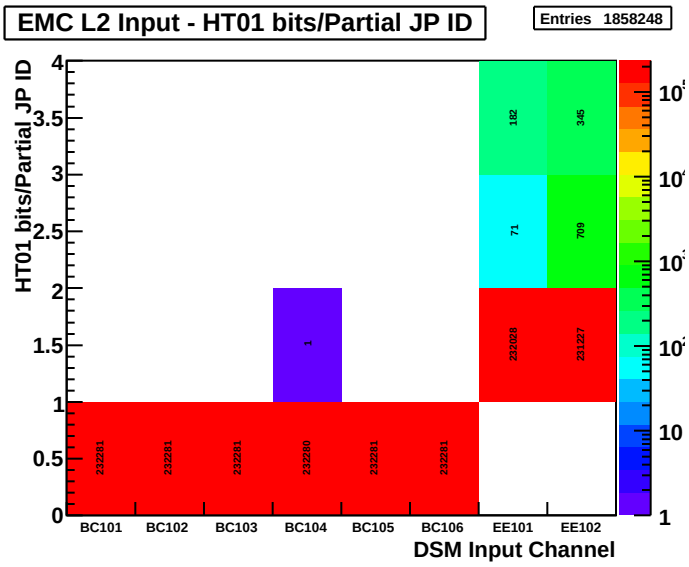

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

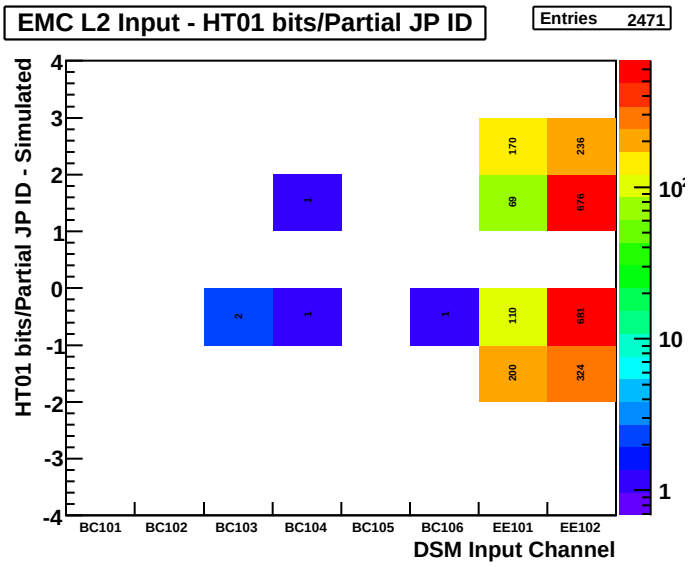

EMC L2 Input - JPZ/JPC bits
Entries 1858248
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
232281

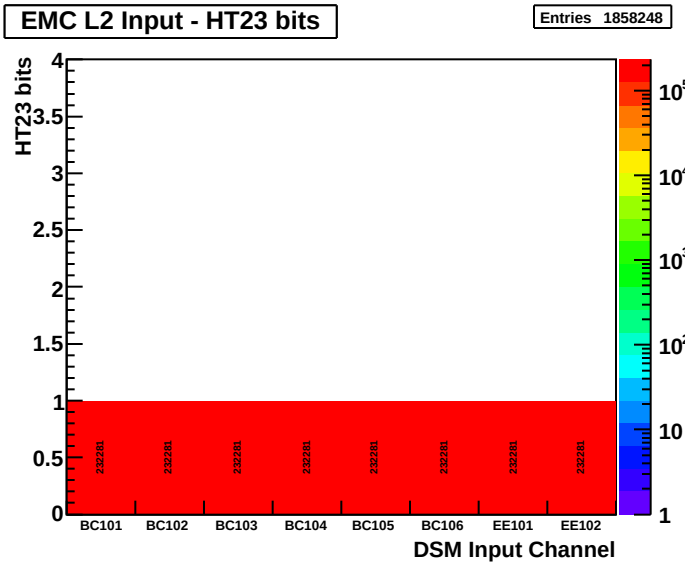

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

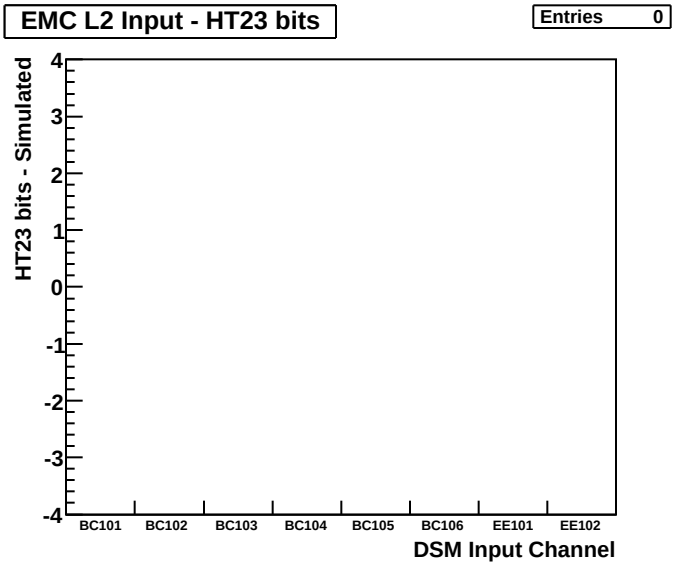

EMC L2 Input - Partial JP Sum
Entries 1858248
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

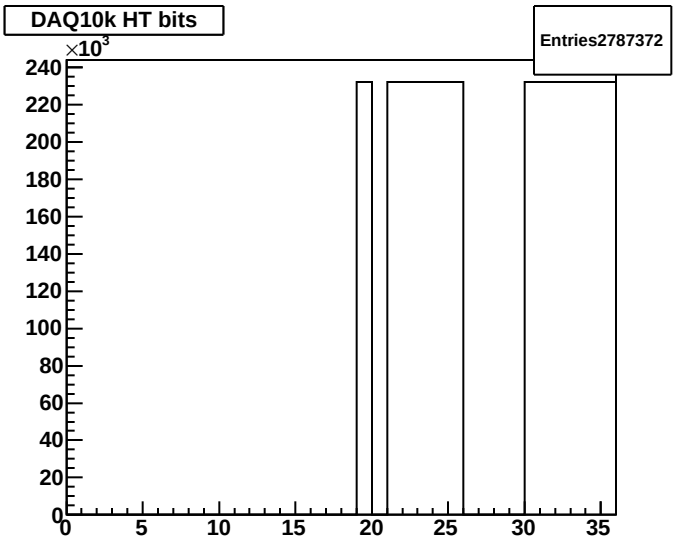

EMC L2 Input - Partial JP Sum
Entries 172075
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

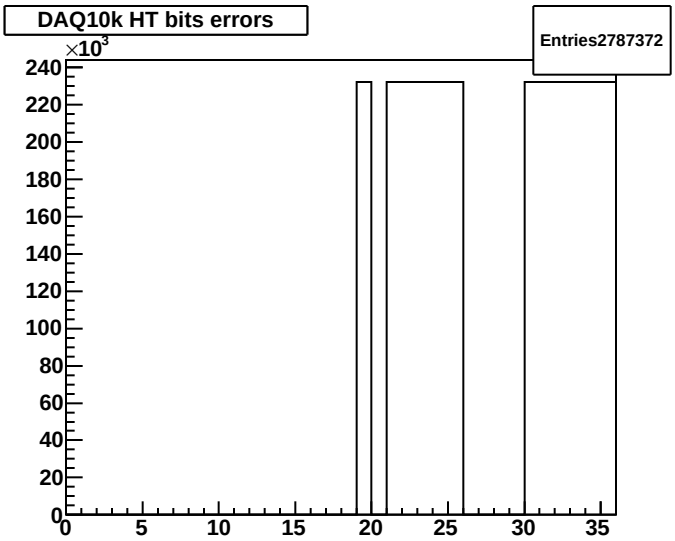

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1858248
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

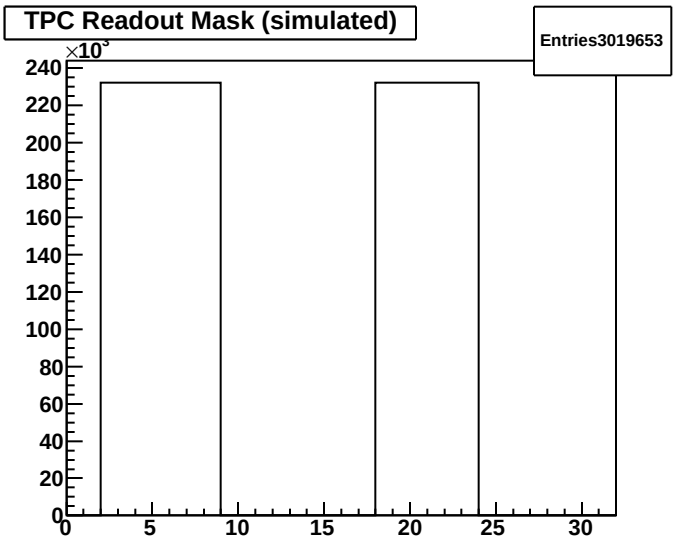

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2471
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

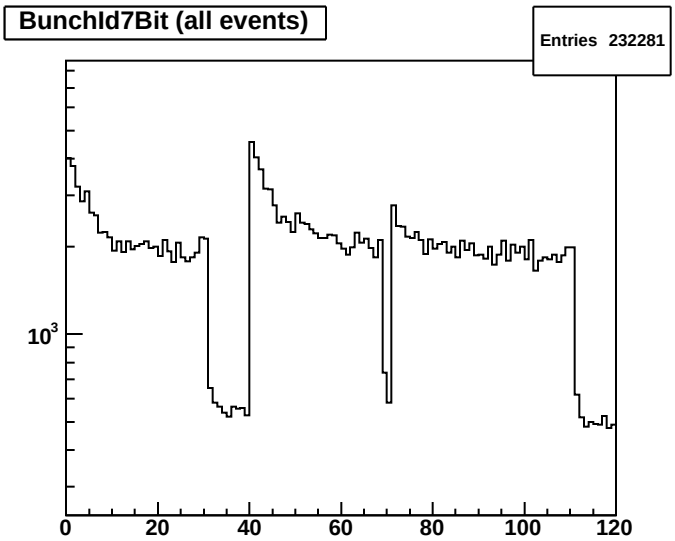

EMC L2 Input - HT23 bits
Entries 1858248
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

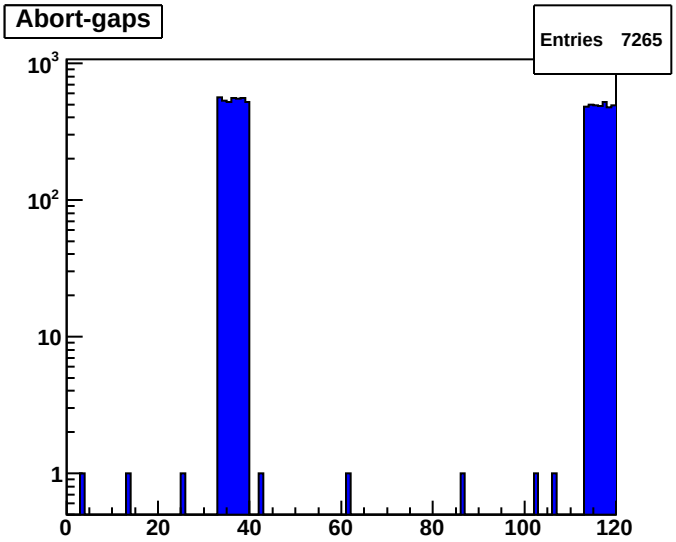

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

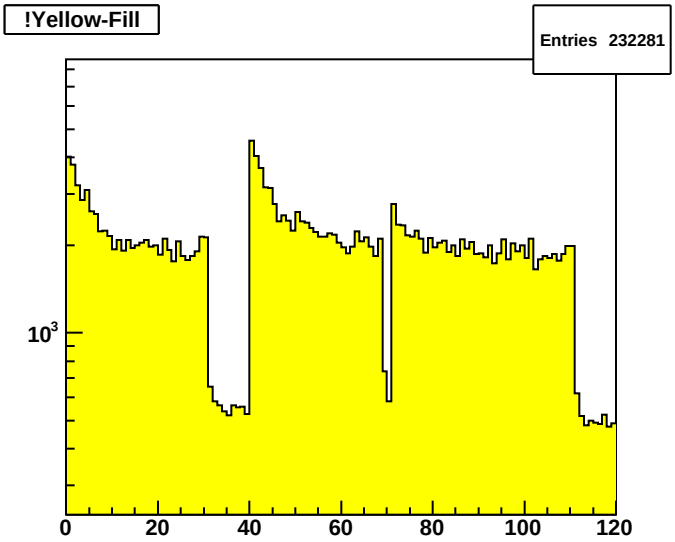

DAQ10k HT bits
Entries2787372
×10^3
240
220
200
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

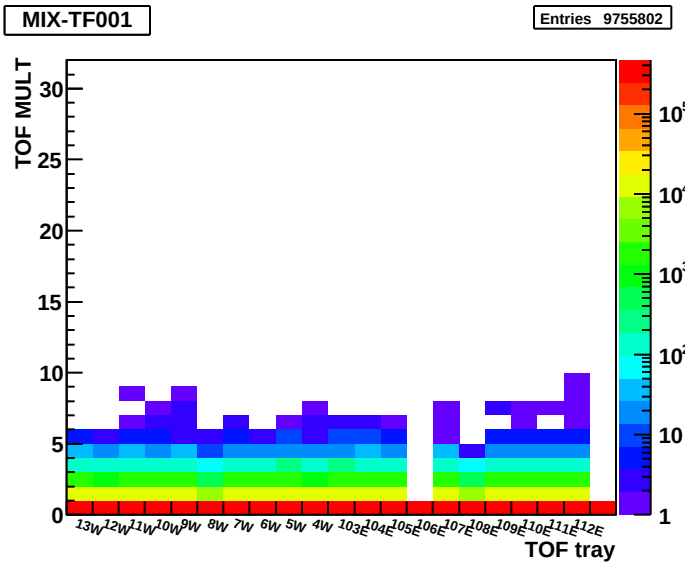

DAQ10k HT bits errors
Entries2787372
×10^3
240
220
200
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

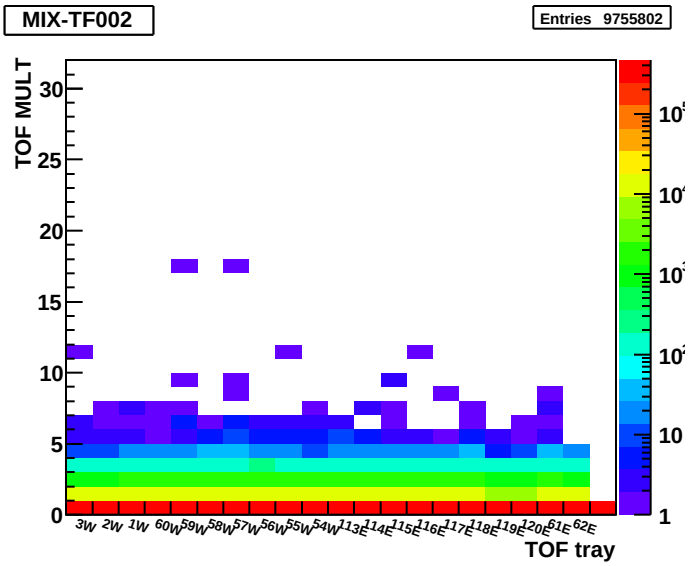

TPC Readout Mask (simulated)
Entries3019653
×10^3
240
220
200
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30

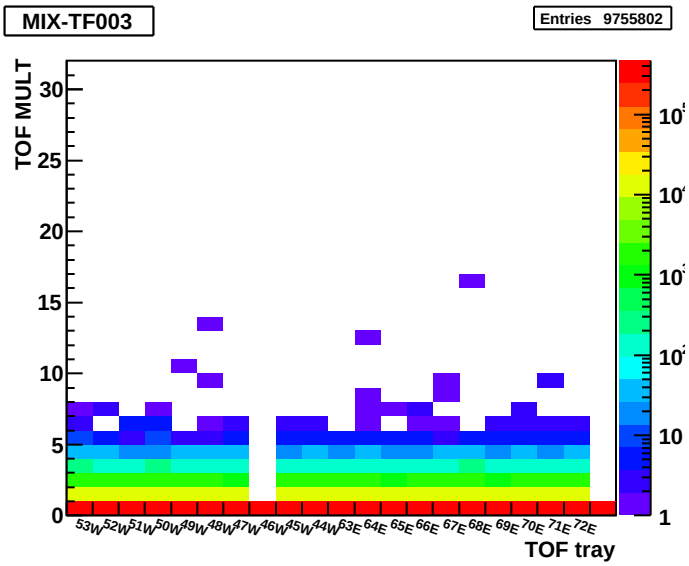

BunchId7Bit (all events)
Entries 232281
10^3
0 20 40 60 80 100 120

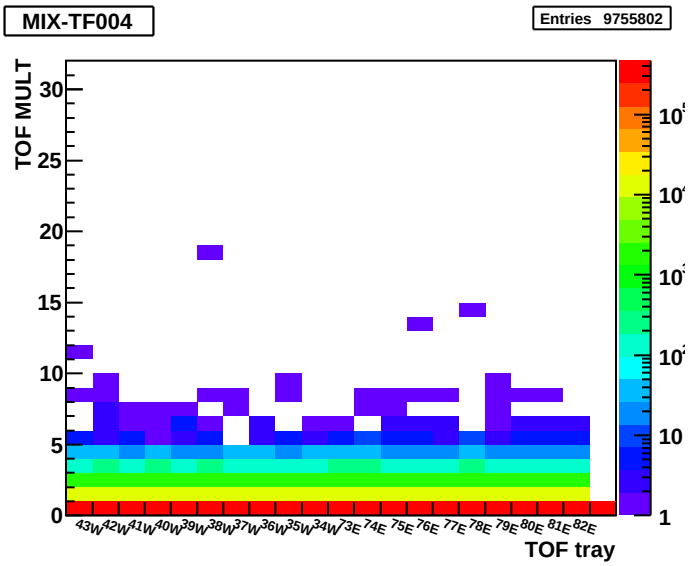

Abort-gaps
Entries 7265
10^3
10^2
10
1
0 20 40 60 80 100 120

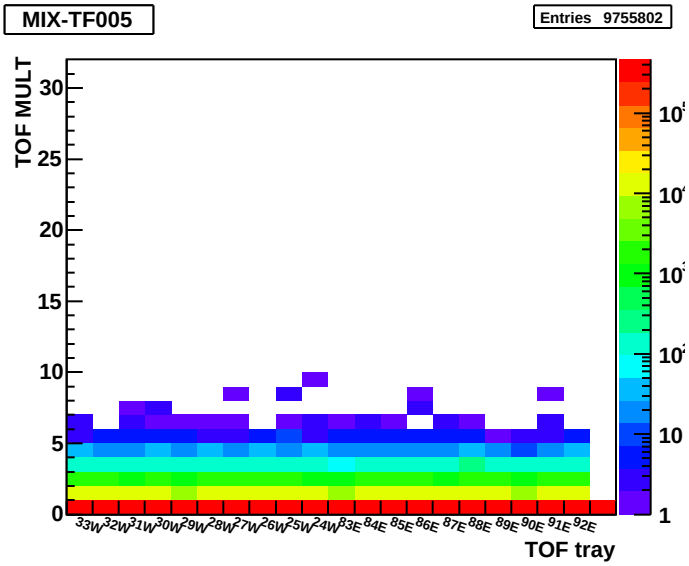

!Yellow-Fill
Entries 232281
10^3
0 20 40 60 80 100 120

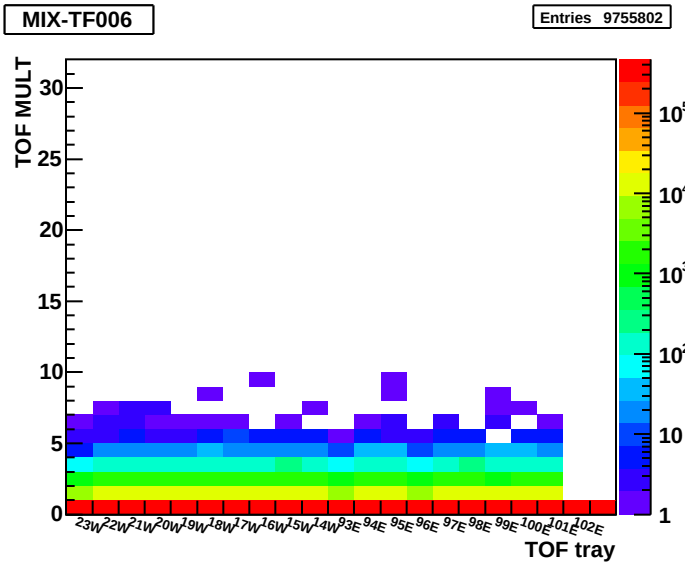

MIX-TF001
Entries 9755802
TOF MULT
TOF tray

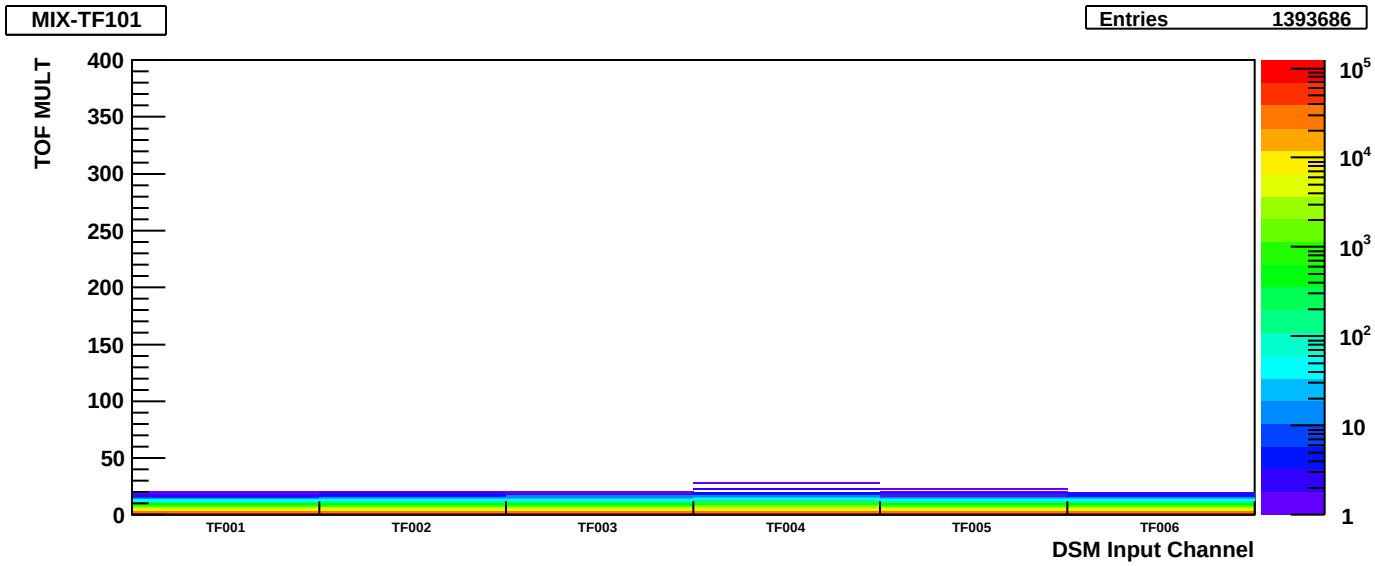

MIX-TF002
Entries 9755802
TOF MULT
TOF tray

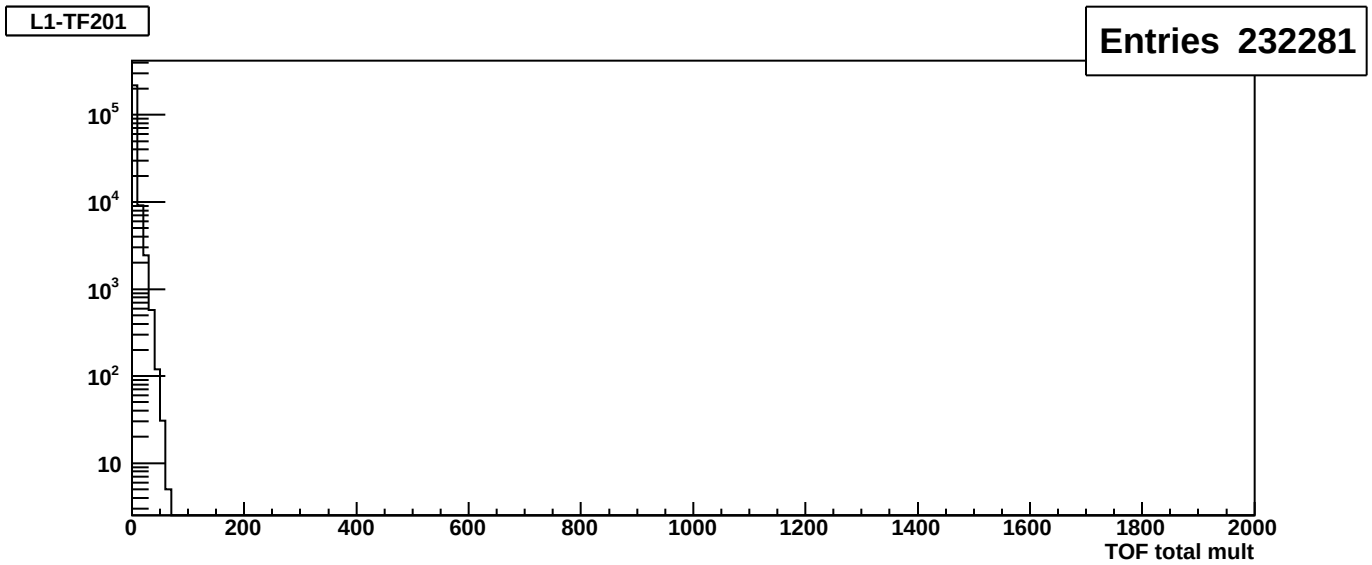

MIX-TF003
Entries 9755802
TOF MULT
TOF tray

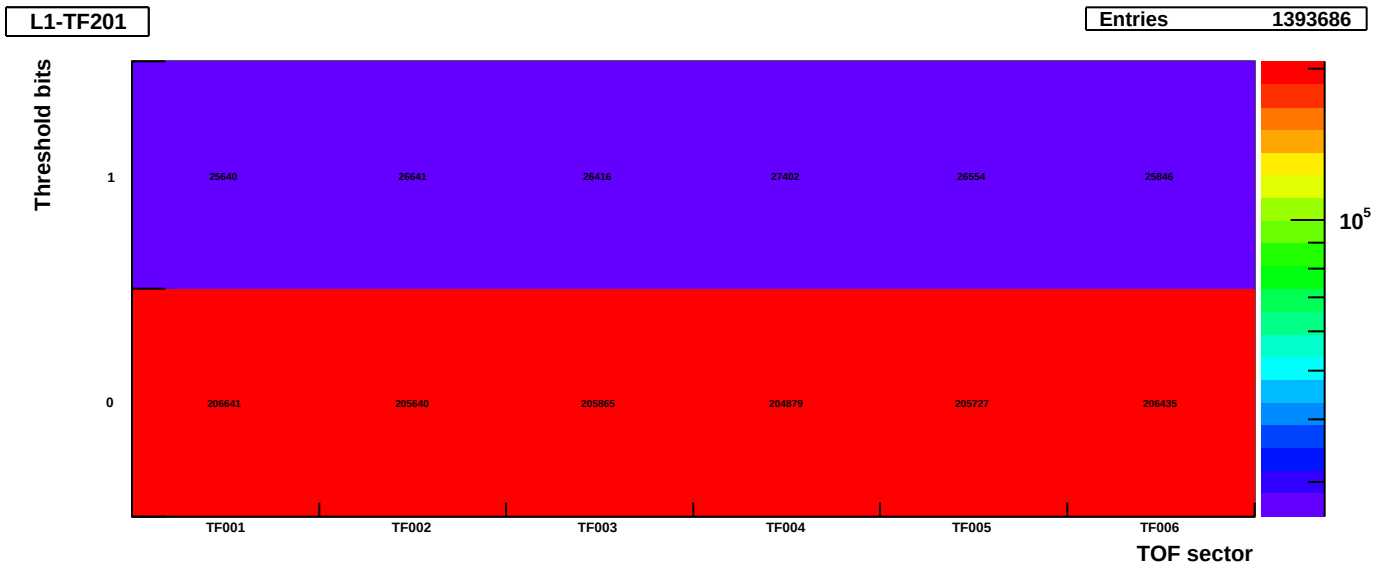

MIX-TF004
Entries 9755802
TOF MULT
TOF tray

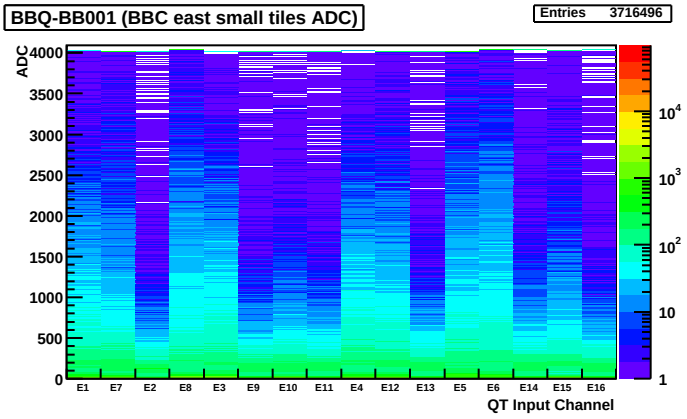

MIX-TF005
Entries 9755802
TOF MULT
TOF tray

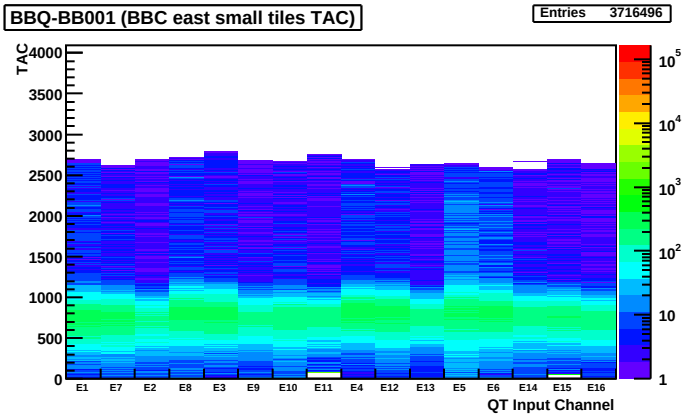

MIX-TF006
Entries 9755802
TOF MULT
TOF tray

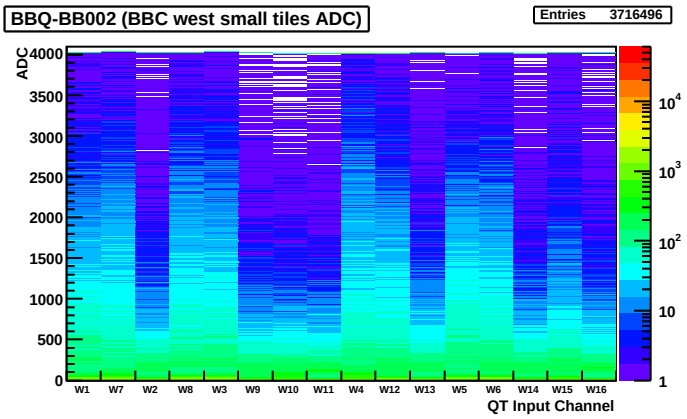

MIX-TF101
Entries 1393686
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

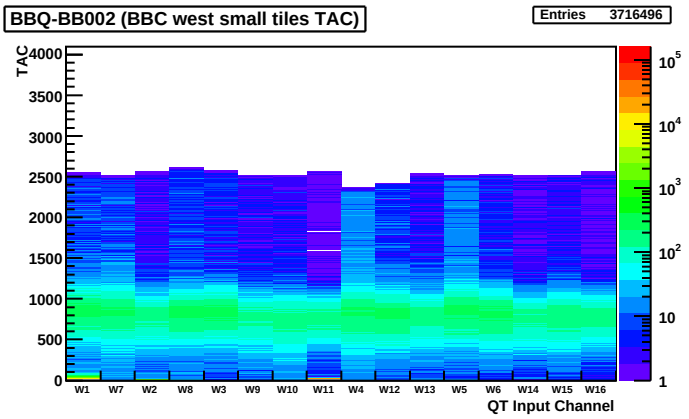

L1-TF201
Entries 232281
10^5
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

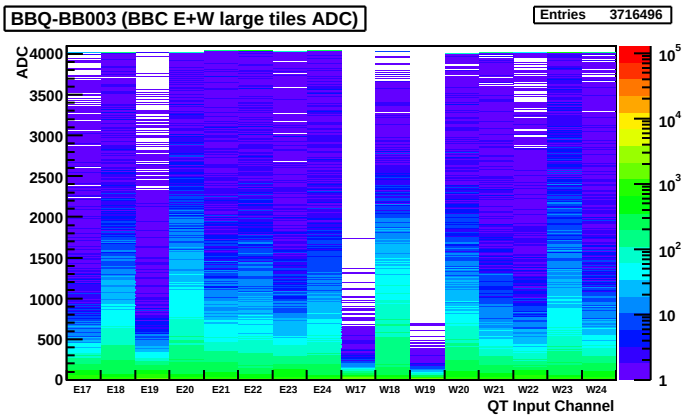

L1-TF201
Entries 1393686
Threshold bits
1
0
25640
26641
26416
27402
26554
25846
206641
205640
205865
204879
205727
206435
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

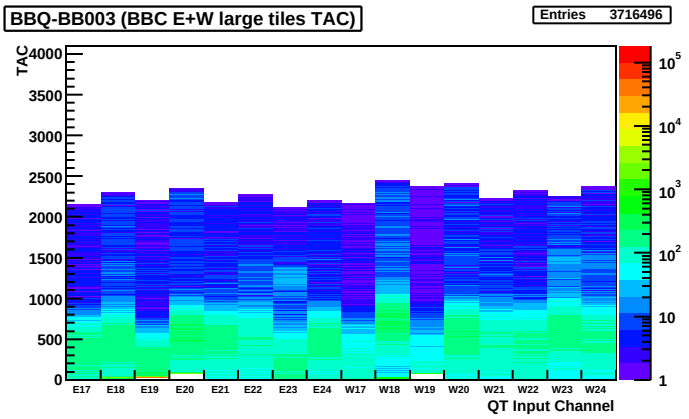

BBQ-BB001 (BBC east small tiles ADC)
Entries 3716496
ADC
QT Input Channel

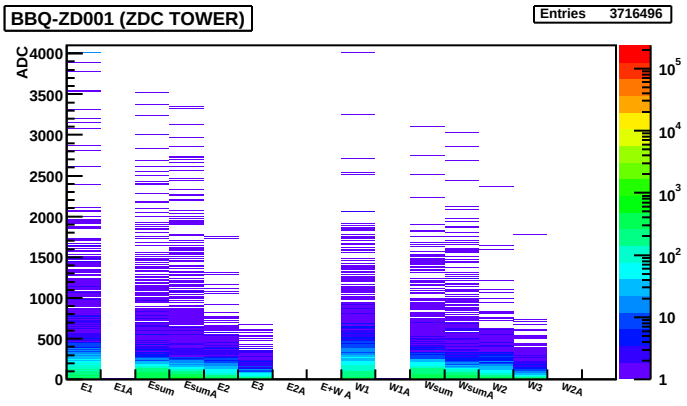

BBQ-BB001 (BBC east small tiles TAC)
Entries 3716496
TAC
QT Input Channel

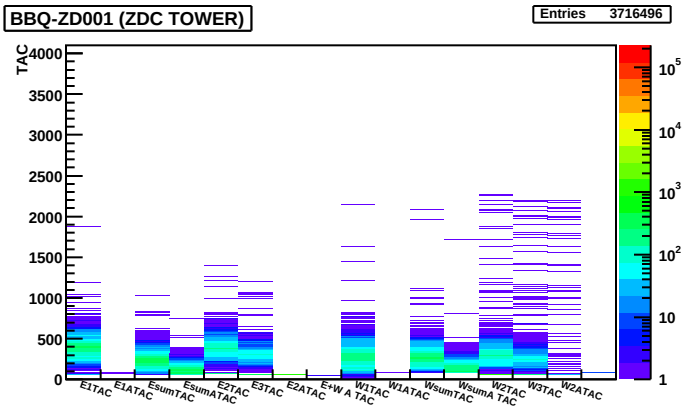

BBQ-BB002 (BBC west small tiles ADC)
Entries 3716496
ADC
QT Input Channel

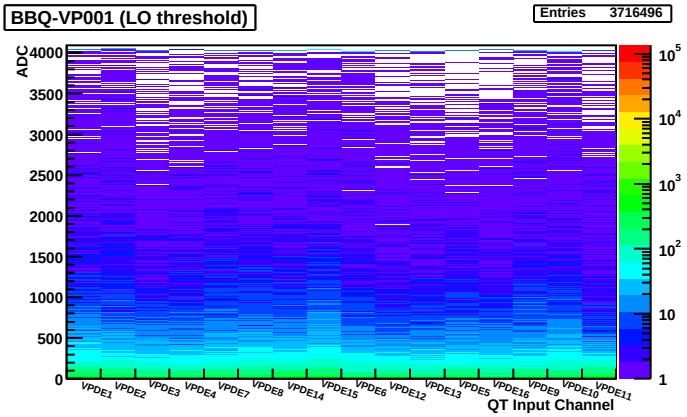

BBQ-BB002 (BBC west small tiles TAC)
Entries 3716496
TAC
QT Input Channel

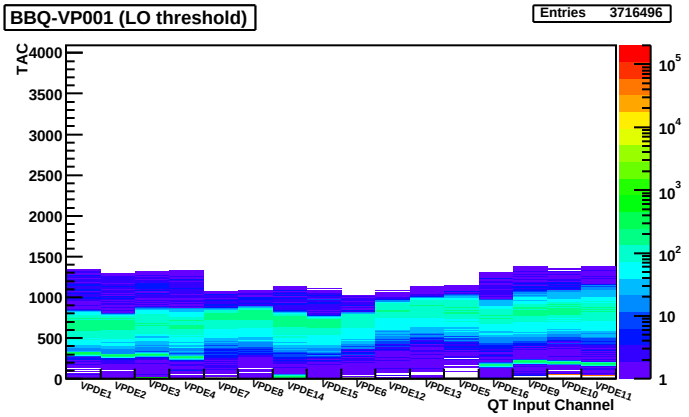

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 3716496
ADC
QT Input Channel

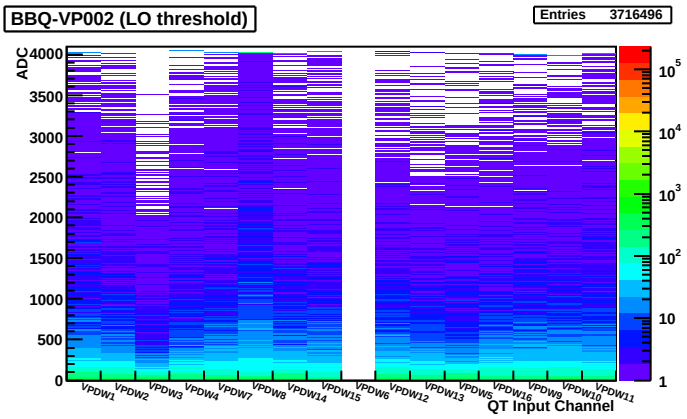

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 3716496
TAC
QT Input Channel

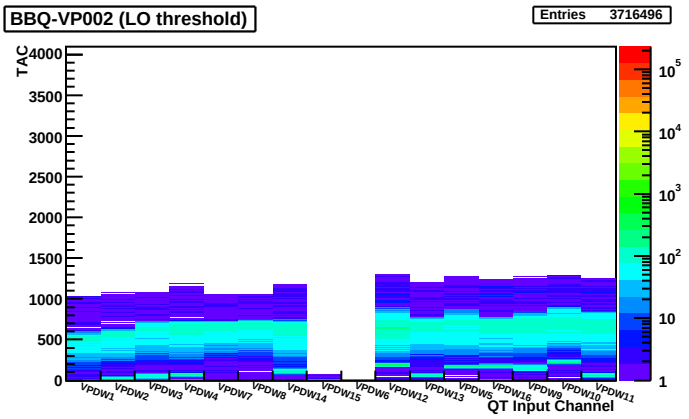

BBQ-ZD001 (ZDC TOWER)
Entries 3716496
ADC

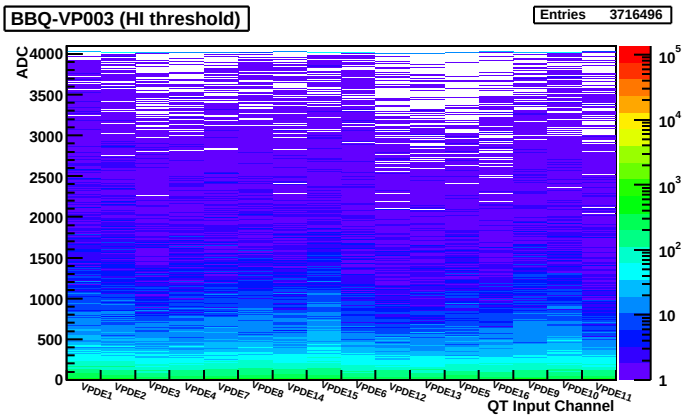

BBQ-ZD001 (ZDC TOWER)
Entries 3716496
TAC

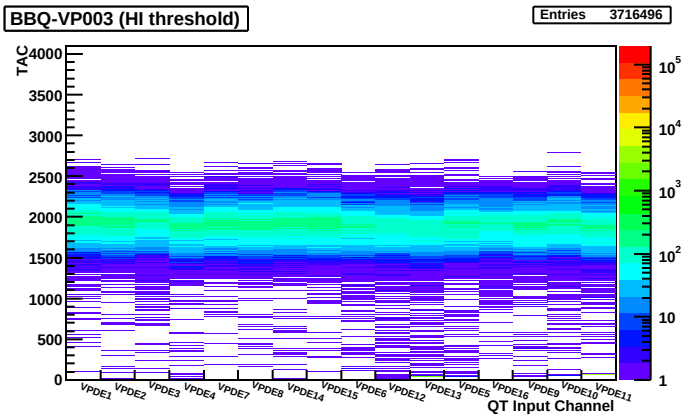

BBQ-VP001 (LO threshold)
Entries 3716496
ADC
QT Input Channel

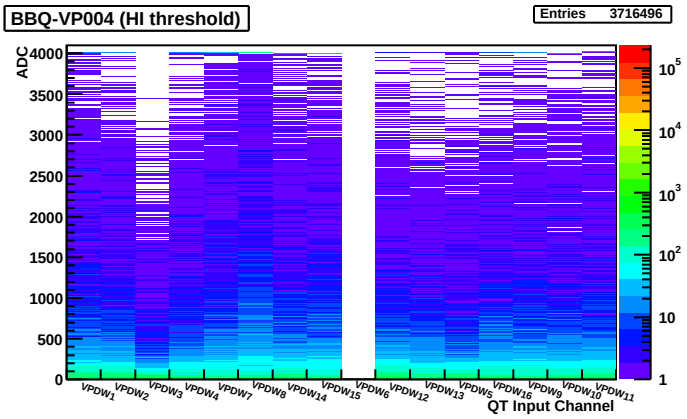

BBQ-VP001 (LO threshold)
Entries 3716496
TAC
QT Input Channel

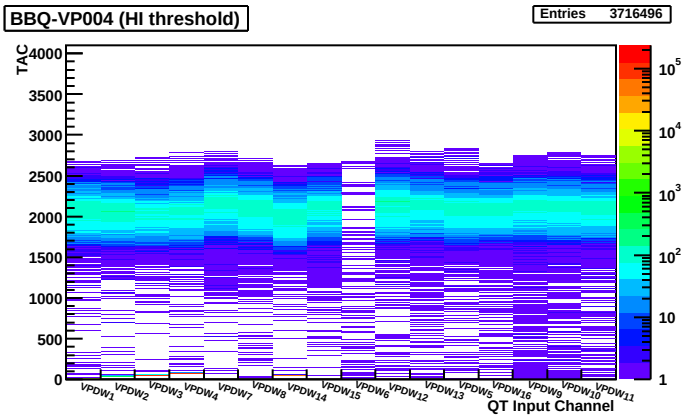

BBQ-VP002 (LO threshold)
Entries 3716496
ADC
QT Input Channel

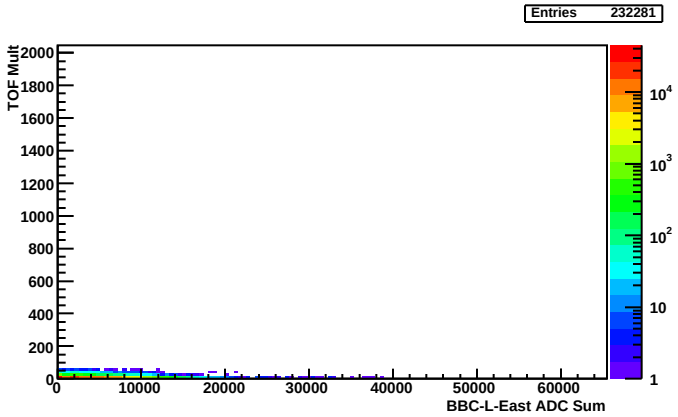

BBQ-VP002 (LO threshold)
Entries 3716496
TAC
QT Input Channel

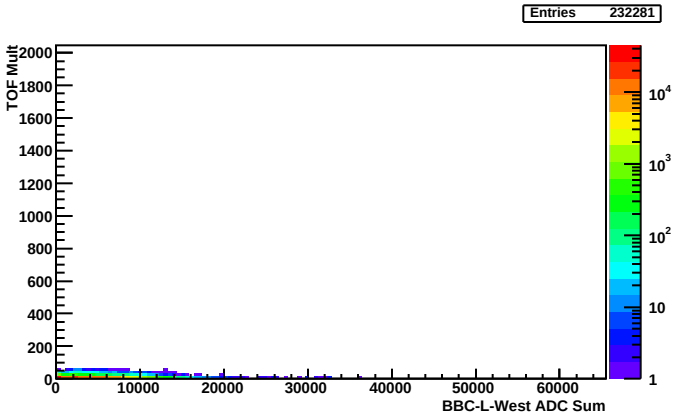

BBQ-VP003 (HI threshold)
Entries 3716496
ADC
QT Input Channel

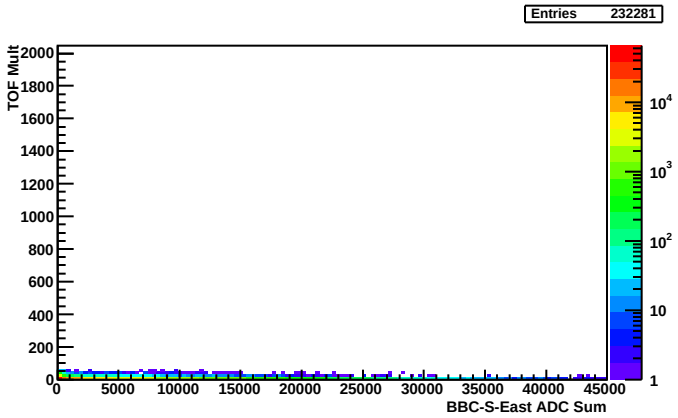

BBQ-VP003 (HI threshold)
Entries 3716496
TAC
QT Input Channel

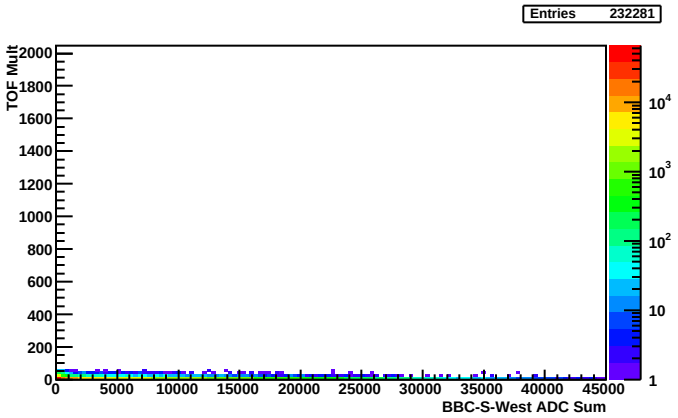

BBQ-VP004 (HI threshold)
Entries 3716496
ADC
QT Input Channel

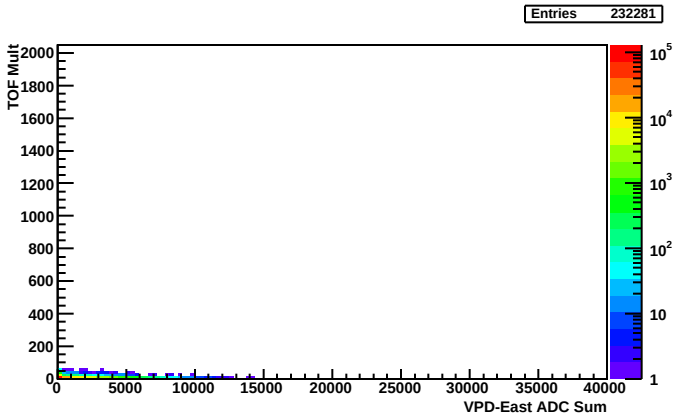

BBQ-VP004 (HI threshold)
Entries 3716496
TAC
QT Input Channel

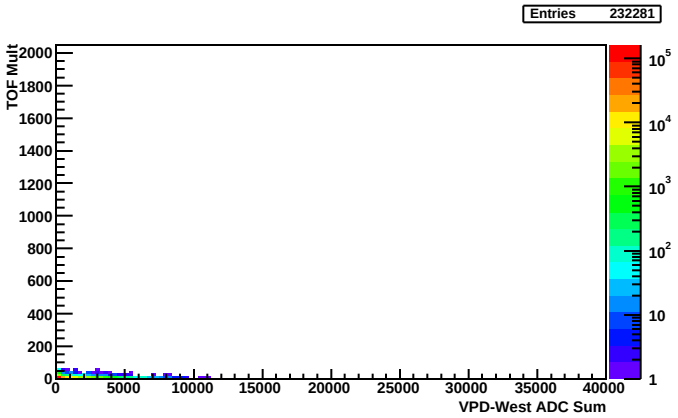

Entries 232281
TOF Mult
BBC-L-East ADC Sum

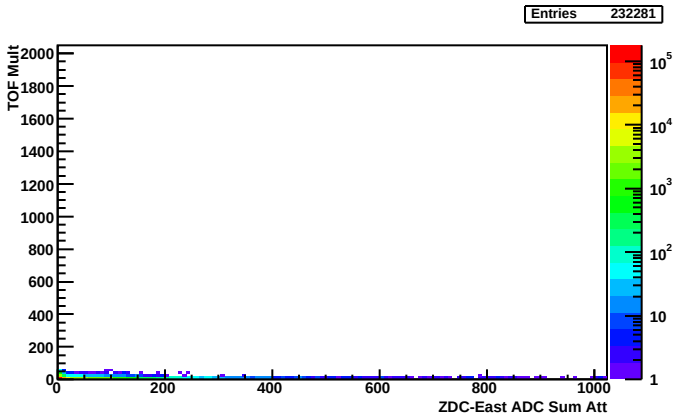

Entries 232281
TOF Mult
BBC-L-West ADC Sum

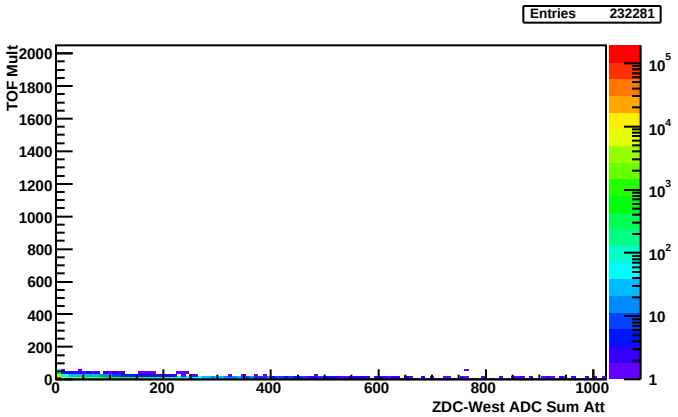

Entries 232281
TOF Mult
BBC-S-East ADC Sum

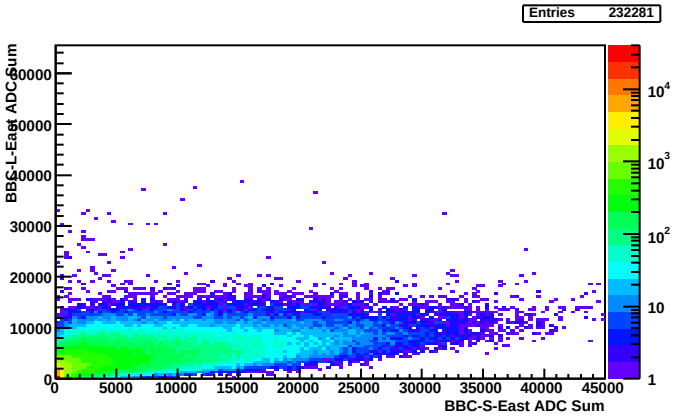

Entries 232281
TOF Mult
BBC-S-West ADC Sum

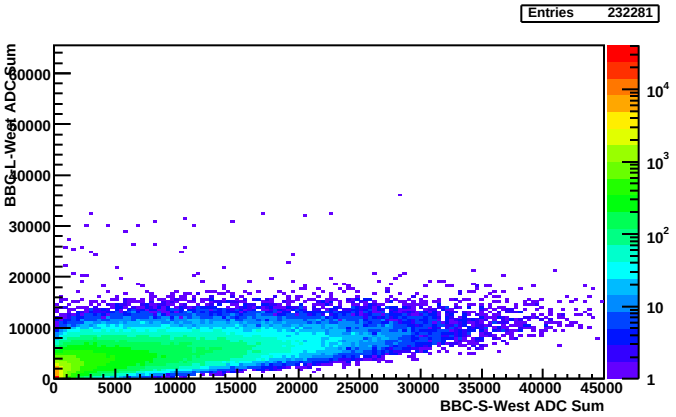

Entries 232281
TOF Mult
VPD-East ADC Sum

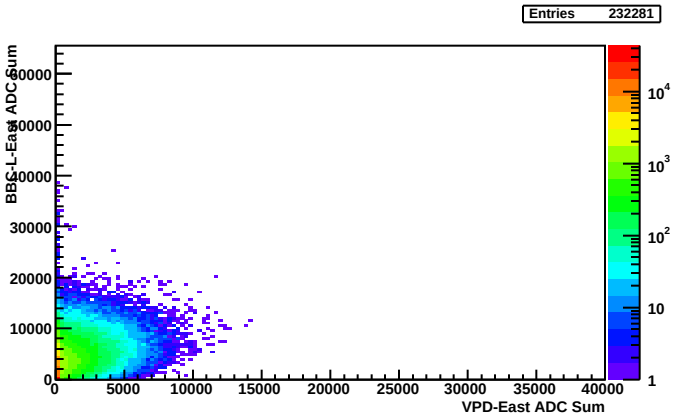

Entries 232281
TOF Mult
VPD-West ADC Sum

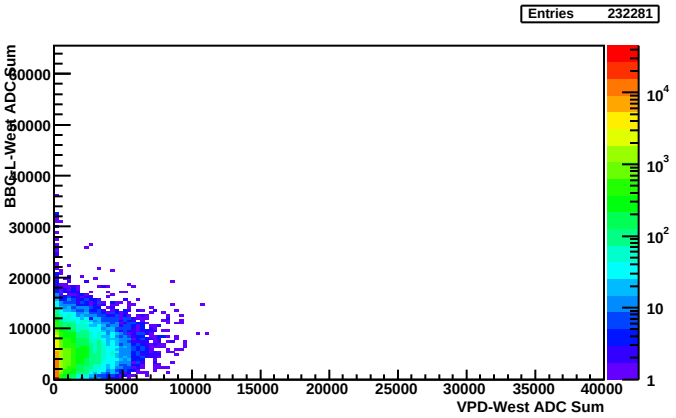

Entries 232281
TOF Mult
ZDC-East ADC Sum Att

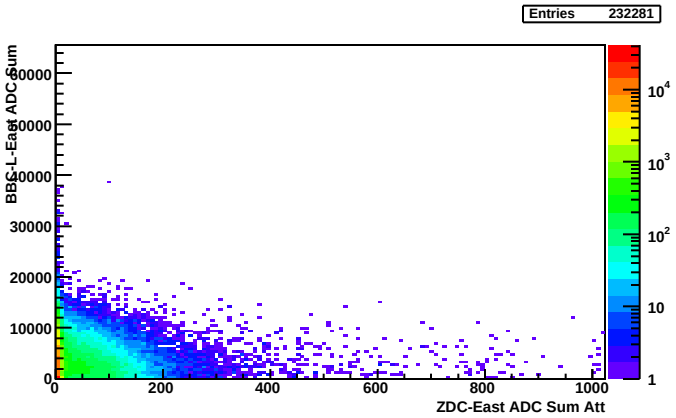

Entries 232281
TOF Mult
ZDC-West ADC Sum Att

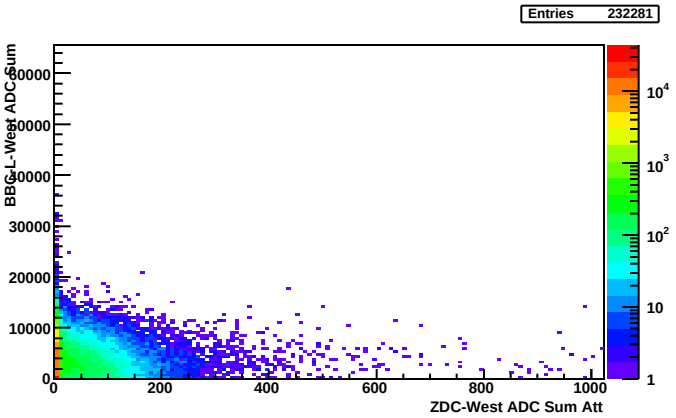

Entries 232281
BBC-L-East ADC Sum
BBC-S-East ADC Sum

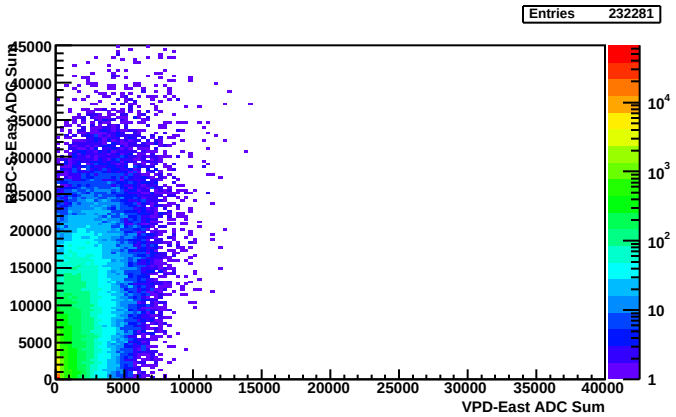

Entries 232281
BBC-L-West ADC Sum
BBC-S-West ADC Sum

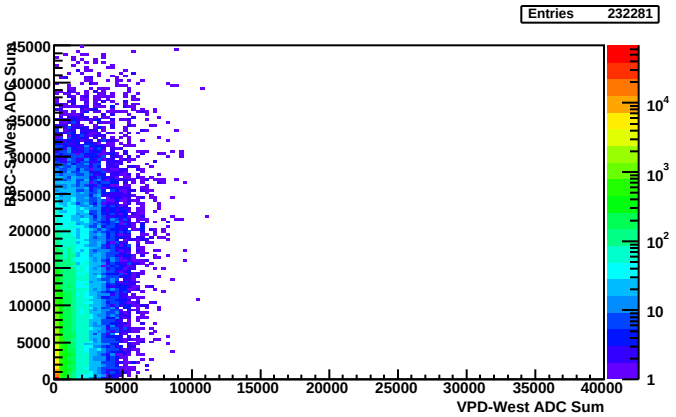

Entries 232281
BBC-L-East ADC Sum
VPD-East ADC Sum

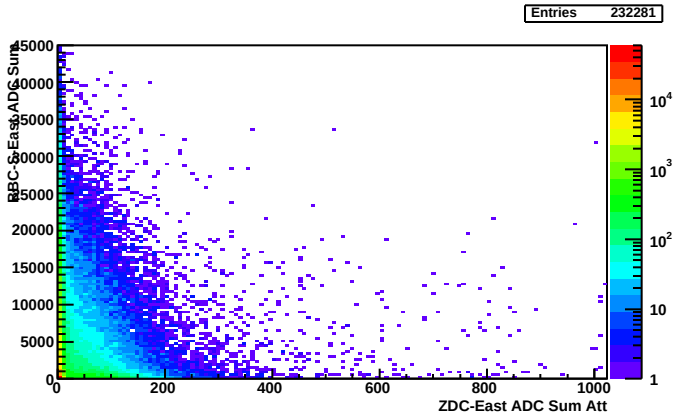

Entries 232281
BBC-L-West ADC Sum
VPD-West ADC Sum

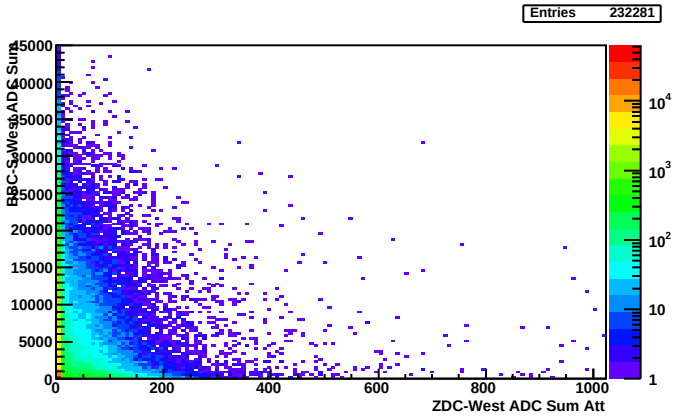

Entries 232281
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

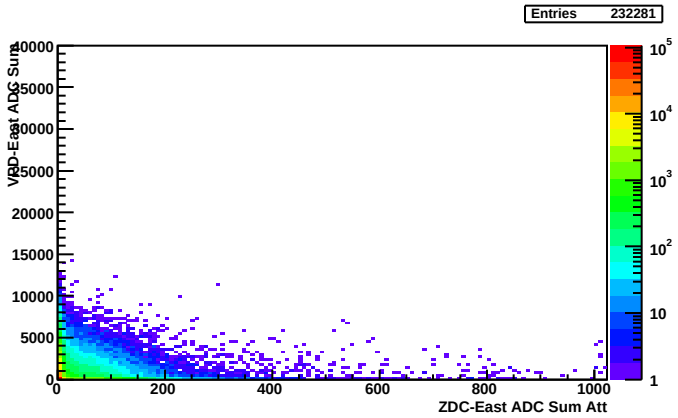

Entries 232281
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

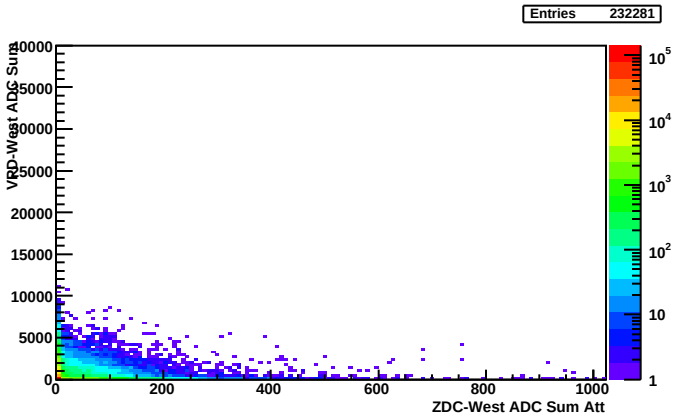

Entries 232281
BBC-S-East ADC Sum
VPD-East ADC Sum

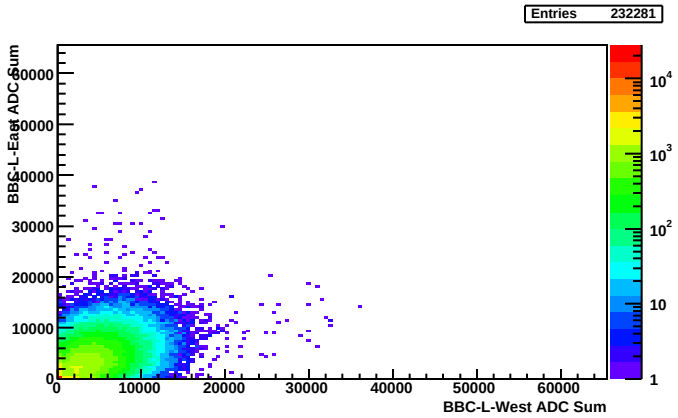

Entries 232281
BBC-S-West ADC Sum
VPD-West ADC Sum

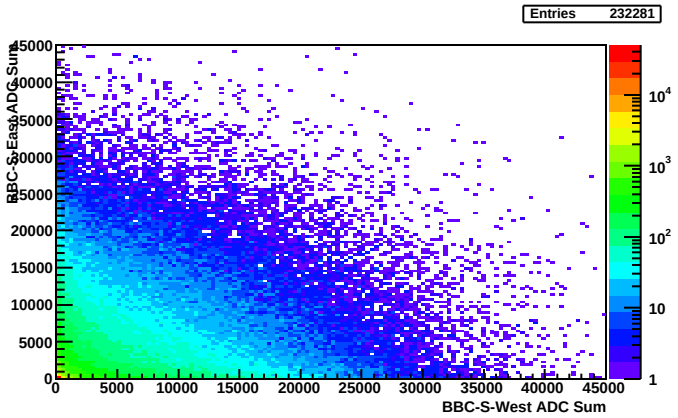

Entries 232281
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

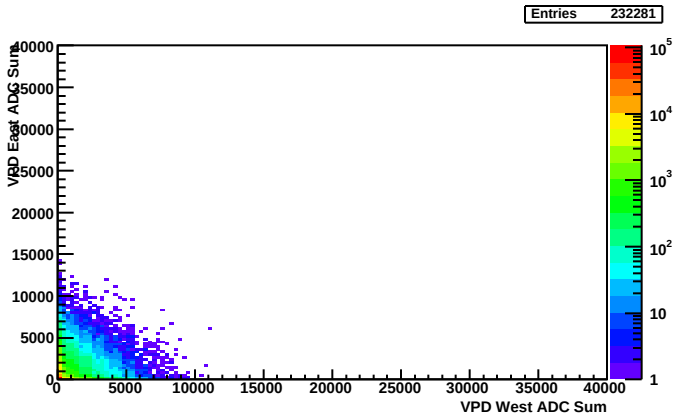

Entries 232281
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

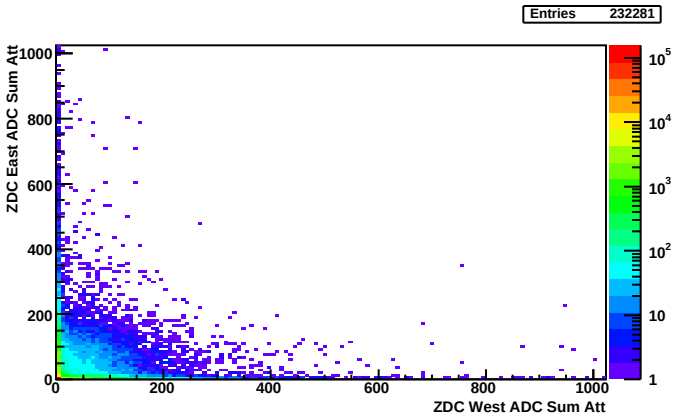

Entries 232281
VPD-East ADC Sum
ZDC-East ADC Sum Att

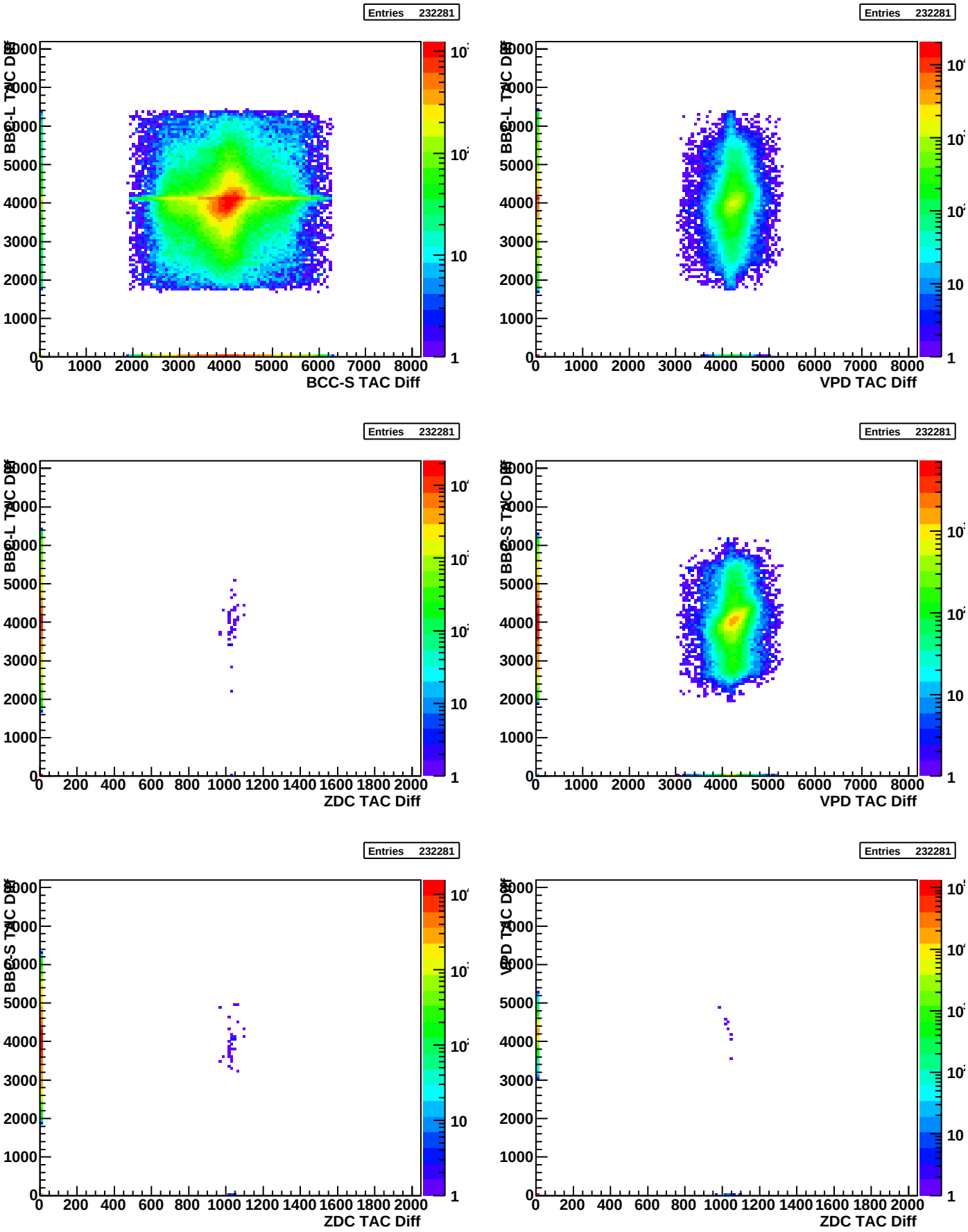

Entries 232281
VPD-West ADC Sum
ZDC-West ADC Sum Att

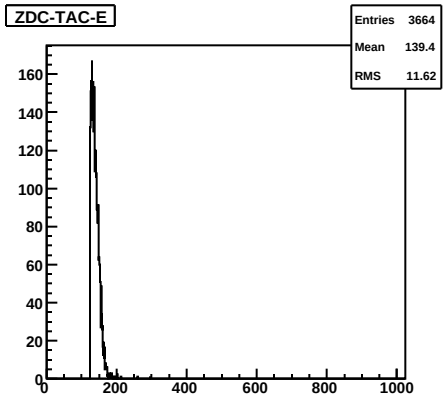

Entries 232281
BBC-L-East ADC Sum
BBC-L-West ADC Sum

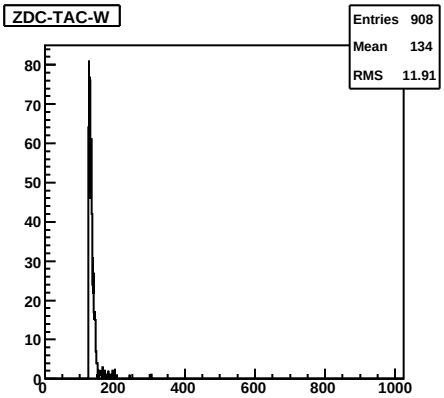

Entries 232281
BBC-S-East ADC Sum
BBC-S-West ADC Sum

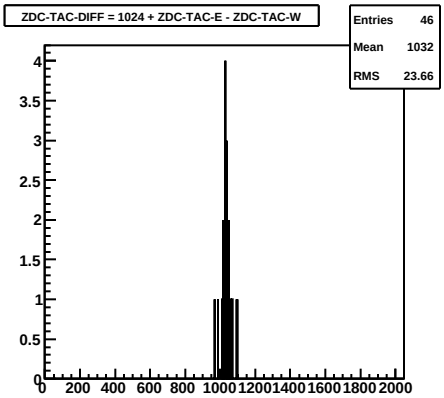

Entries 232281
VPD East ADC Sum
VPD West ADC Sum

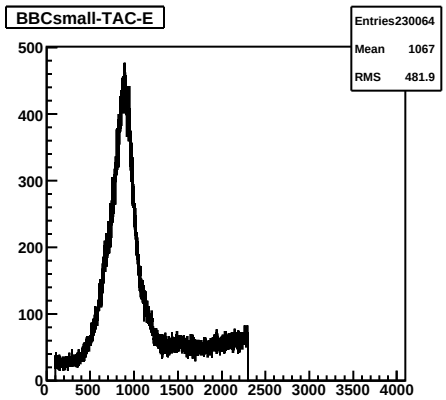

Entries 232281
ZDC East ADC Sum Att
ZDC West ADC Sum Att

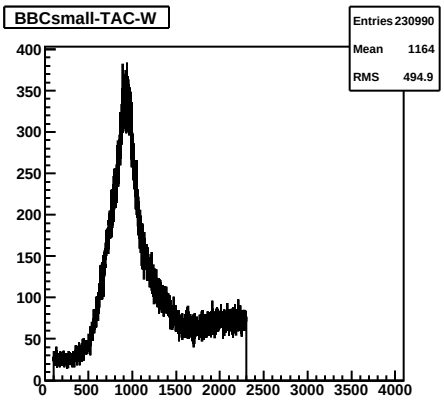

Entries 232281
BBC-L TAC Diff
BCC-S TAC Diff
Entries 232281
BBC-L TAC Diff
VPD TAC Diff
Entries 232281
BBC-L TAC Diff
ZDC TAC Diff
Entries 232281
BBC-S TAC Diff
VPD TAC Diff
Entries 232281
BBC-S TAC Diff
ZDC TAC Diff
Entries 232281
VPD TAC Diff
ZDC TAC Diff

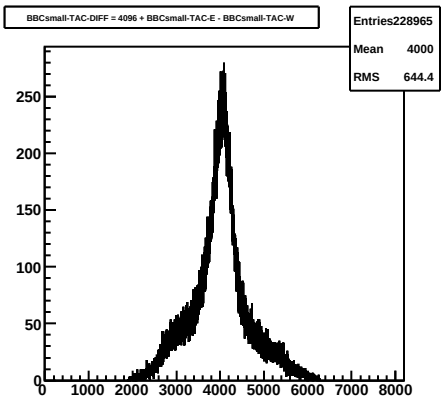

ZDC-TAC-E
Entries 3664
Mean 139.4
RMS 11.62

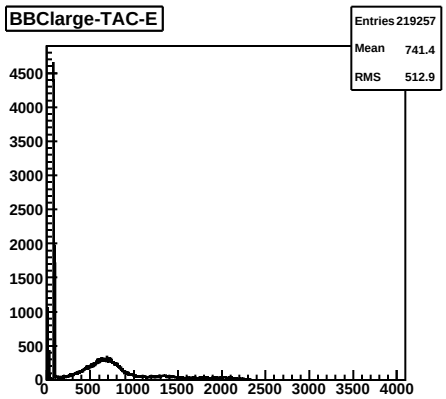

ZDC-TAC-W
Entries 908
Mean 134
RMS 11.91

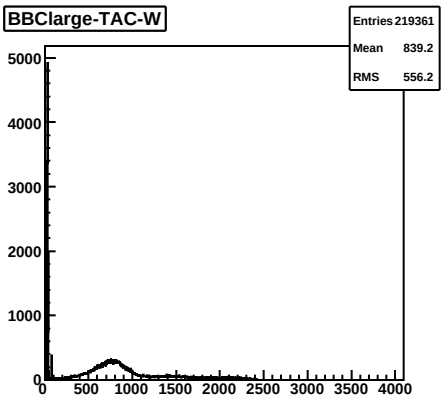

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 46
Mean 1032
RMS 23.66

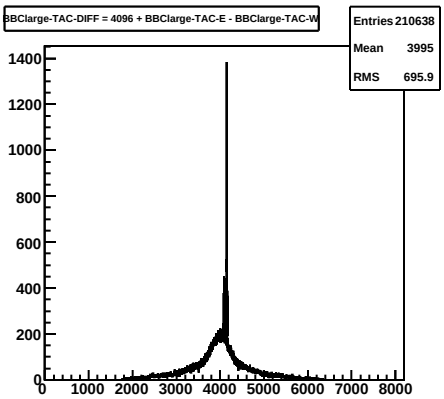

BBCsmall-TAC-E
Entries 230064
Mean 1067
RMS 481.9

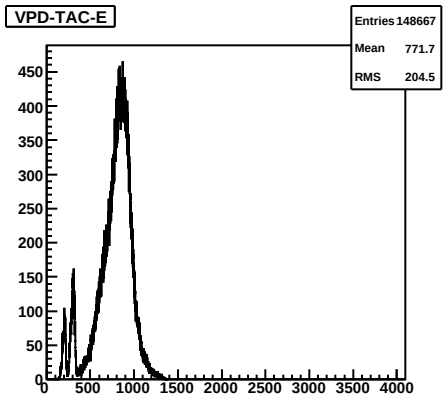

BBCsmall-TAC-W
Entries 230990
Mean 1164
RMS 494.9

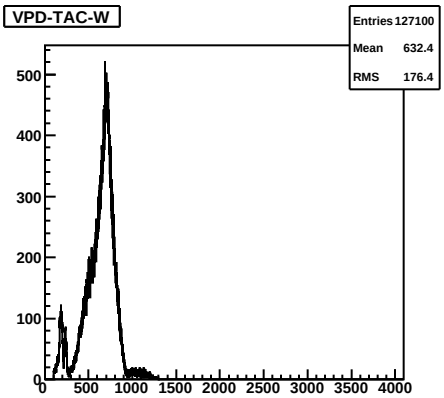

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 228965
Mean 4000
RMS 644.4

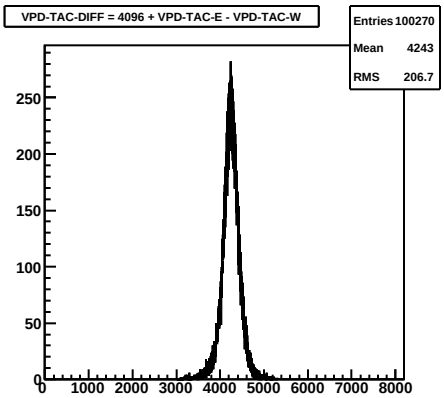

BBClarge-TAC-E
Entries 219257
Mean 741.4
RMS 512.9

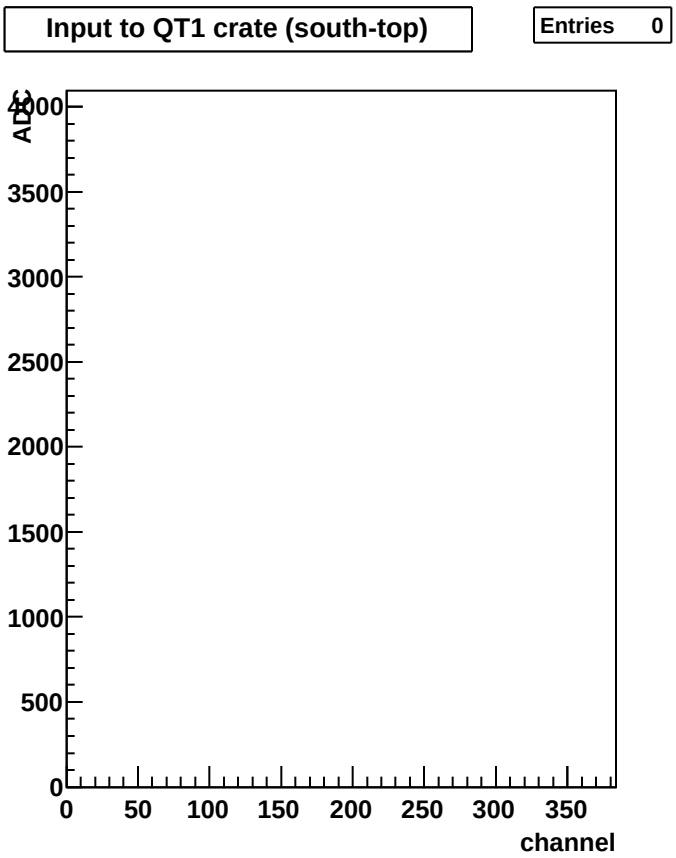

BBClarge-TAC-W
Entries 219361
Mean 839.2
RMS 556.2

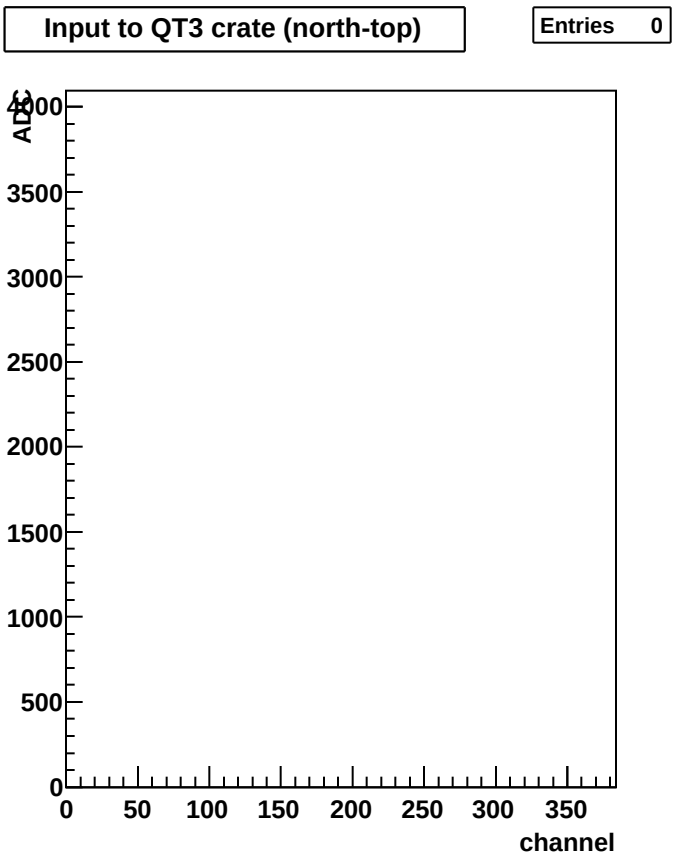

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 210638
Mean 3995
RMS 695.9

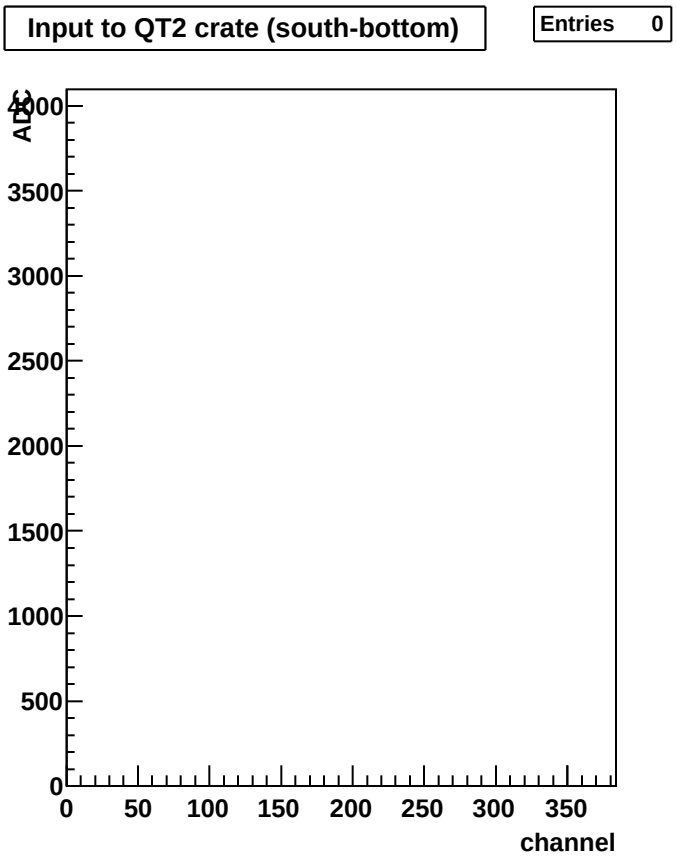

VPD-TAC-E
Entries 148667
Mean 771.7
RMS 204.5

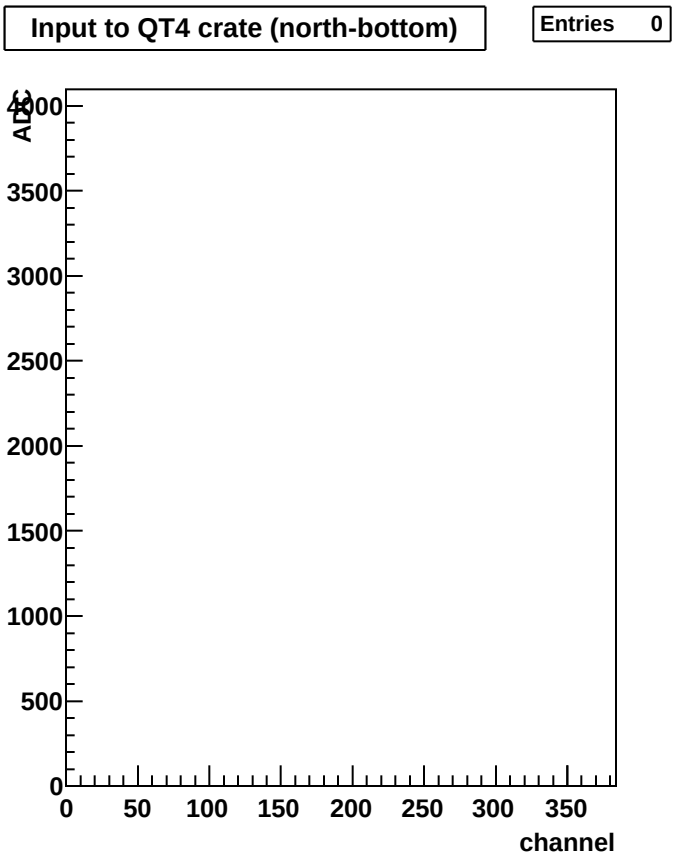

VPD-TAC-W
Entries 127100
Mean 632.4
RMS 176.4

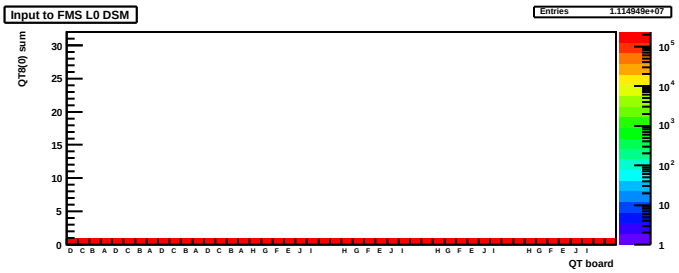

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 100270
Mean 4243
RMS 206.7

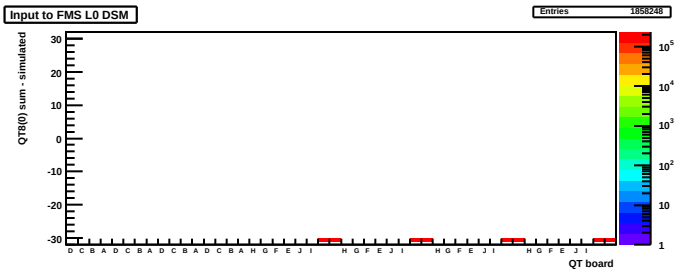

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

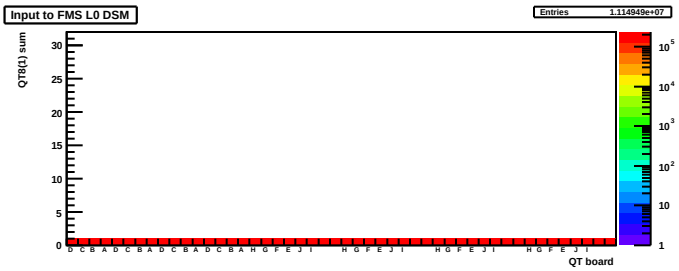

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

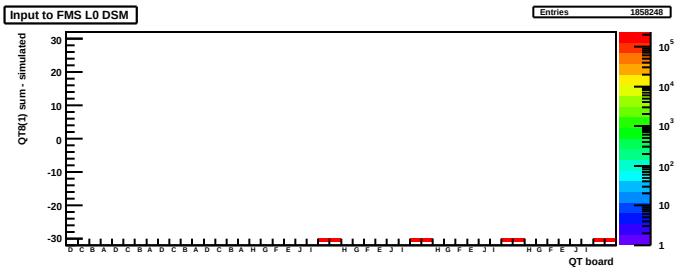

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

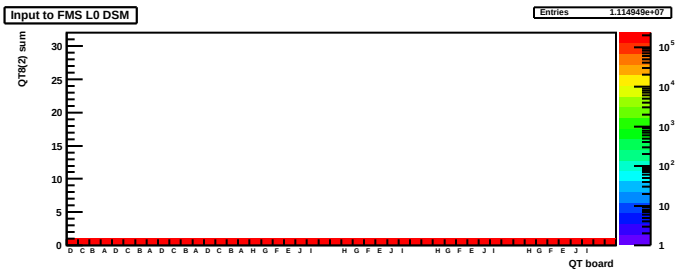

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

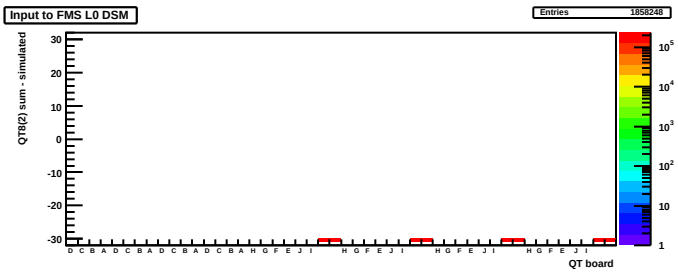

Input to FMS L0 DSM
Entries 1.114949e+07
QT8(0) sum
QT board

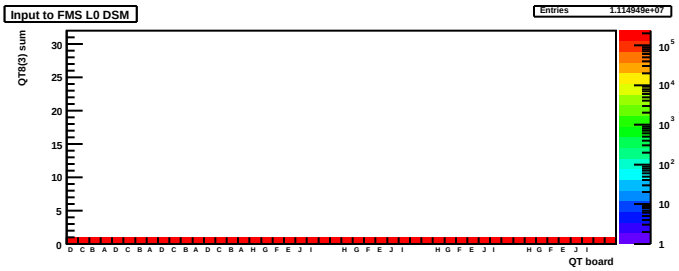

Input to FMS L0 DSM
Entries 1858248
QT8(0) sum - simulated
QT board

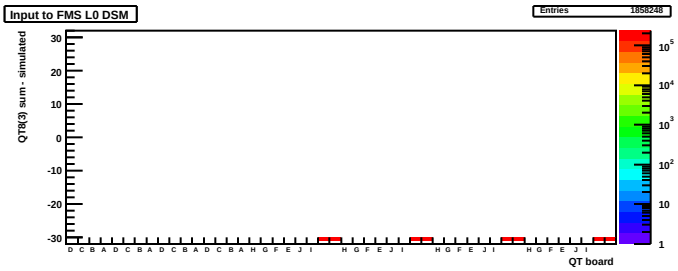

Input to FMS L0 DSM
Entries 1.114949e+07
QT8(1) sum
QT board

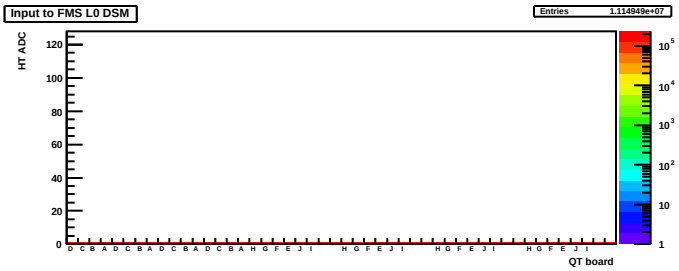

Input to FMS L0 DSM
Entries 1858248
QT8(1) sum - simulated
QT board

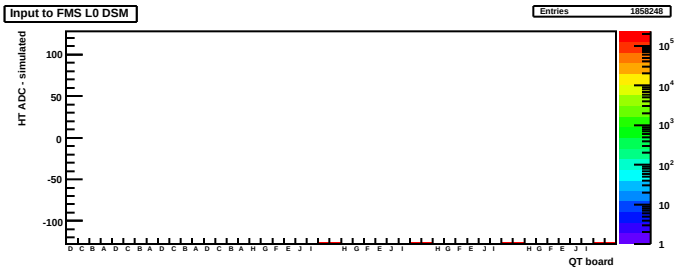

Input to FMS L0 DSM
Entries 1.114949e+07
QT8(2) sum
QT board

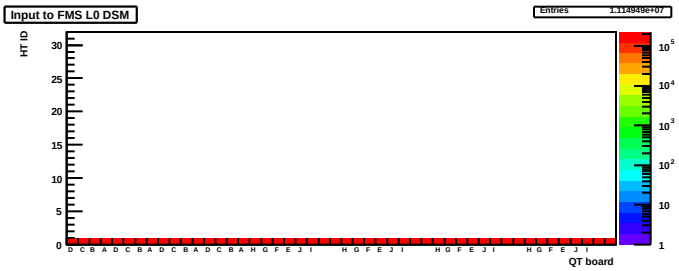

Input to FMS L0 DSM
Entries 1858248
QT8(2) sum - simulated
QT board

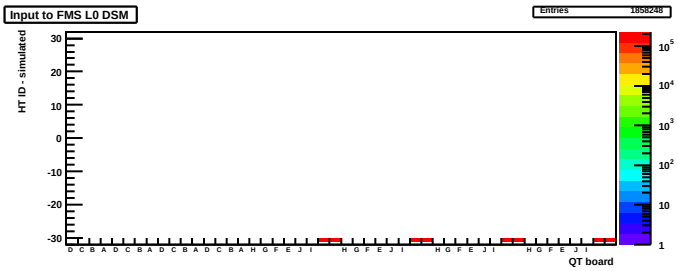

Input to FMS L0 DSM
Entries 1.114949e+07
QT8(3) sum
QT board

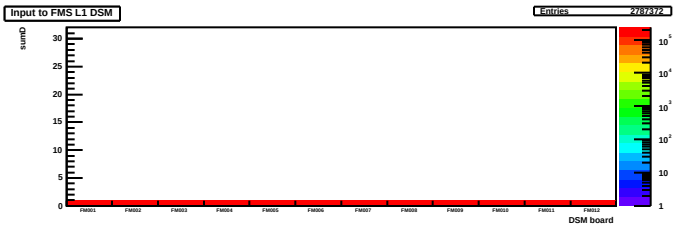

Input to FMS L0 DSM
Entries 1858248
QT8(3) sum - simulated
QT board

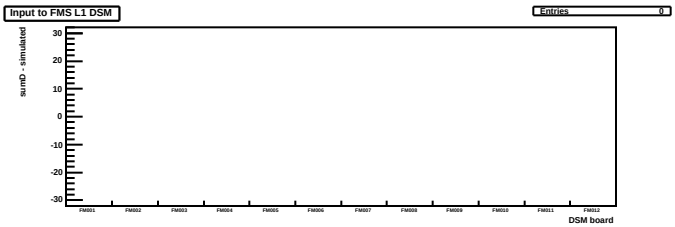

Input to FMS L0 DSM
Entries 1.114949e+07
HT ADC
QT board

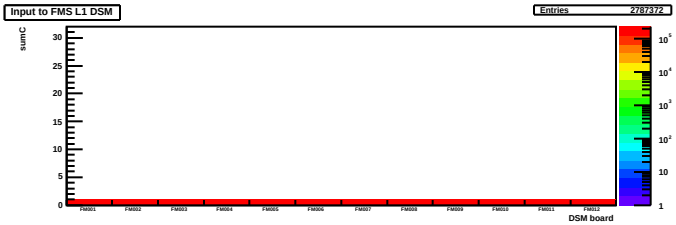

Input to FMS L0 DSM
Entries 1858248
HT ADC - simulated
QT board

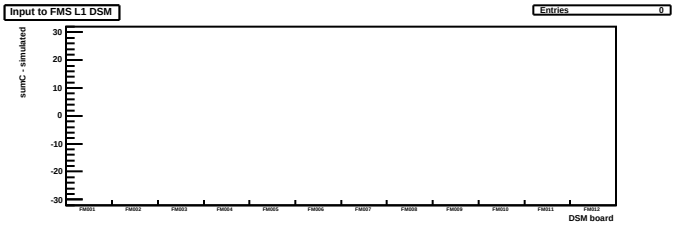

Input to FMS L0 DSM
Entries 1.114949e+07
HT ID
QT board

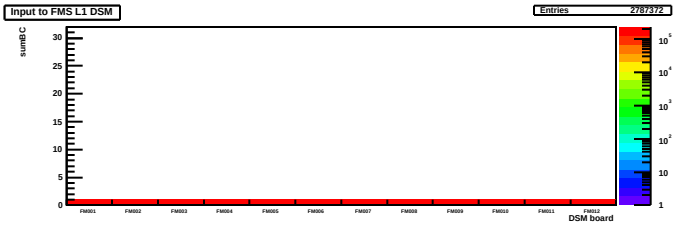

Input to FMS L0 DSM
Entries 1858248
HT ID - simulated
QT board

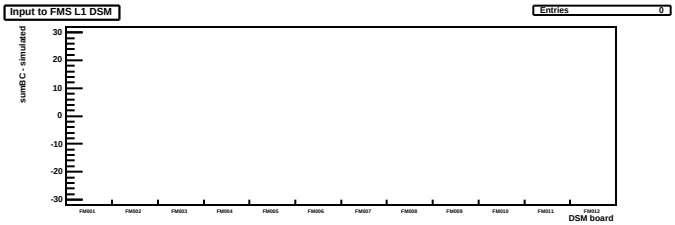

Input to FMS L1 DSM
Entries 2787372
sumD
DSM board

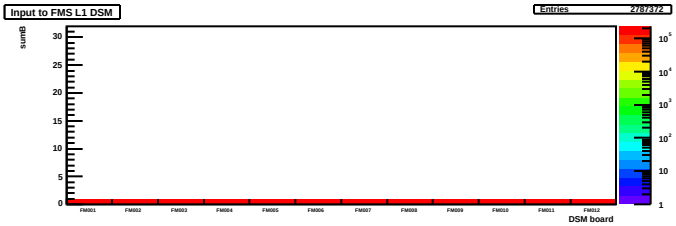

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

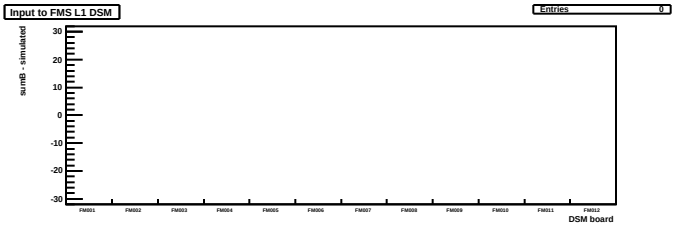

Input to FMS L1 DSM
Entries 2787372
sumC
DSM board

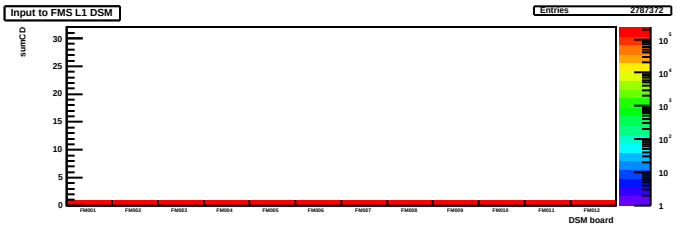

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

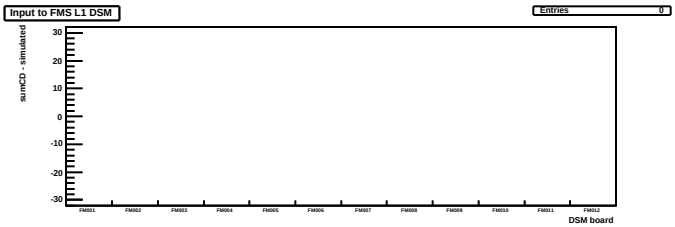

Input to FMS L1 DSM
Entries 2787372
sumBC
DSM board

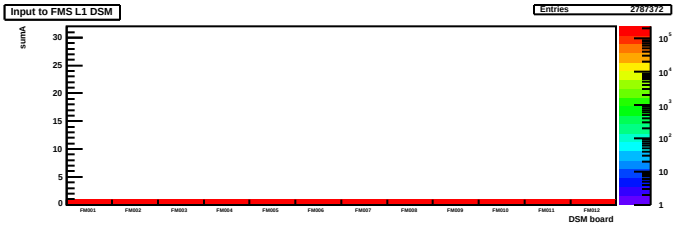

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

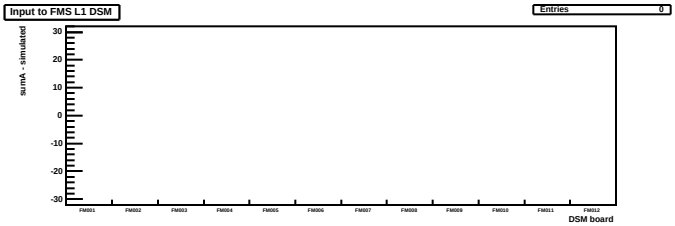

Input to FMS L1 DSM
Entries 2787372
sumB
DSM board

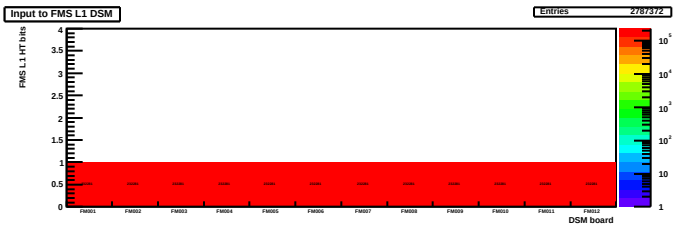

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

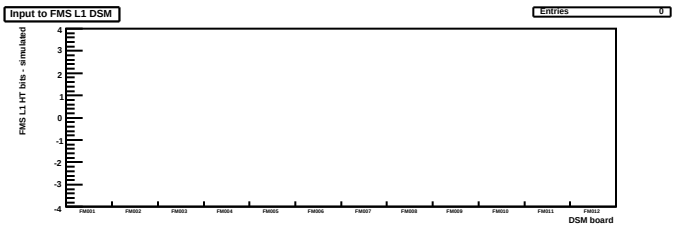

Input to FMS L1 DSM
Entries 2787372
sumCD
DSM board

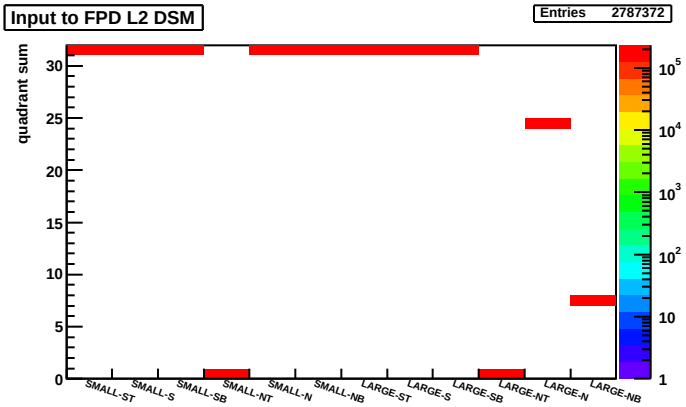

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

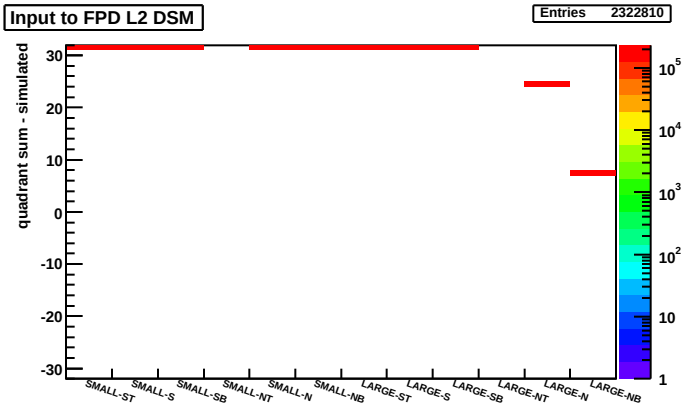

Input to FMS L1 DSM
Entries 2787372
sumA
DSM board

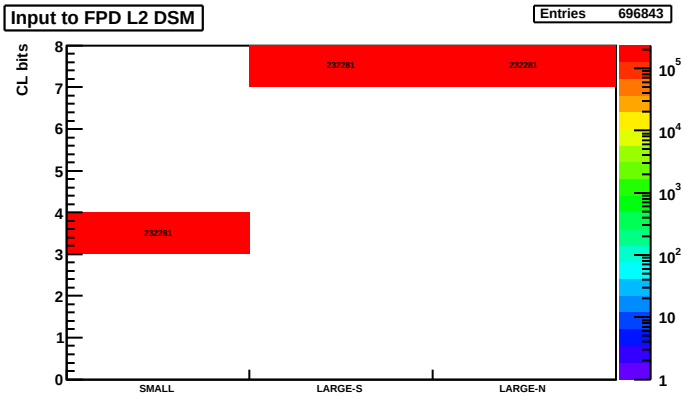

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

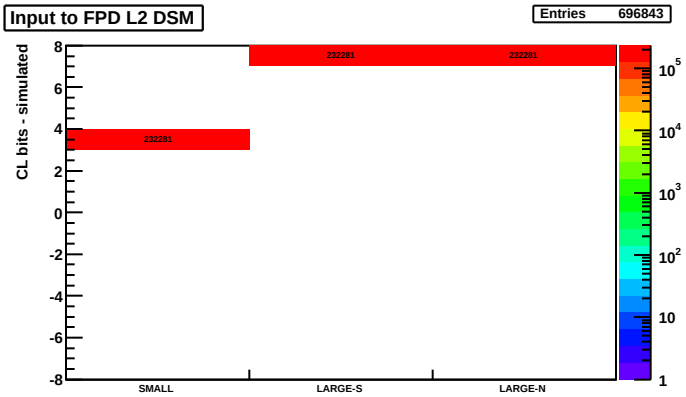

Input to FMS L1 DSM
Entries 2787372
FMS L1 HT bits
DSM board

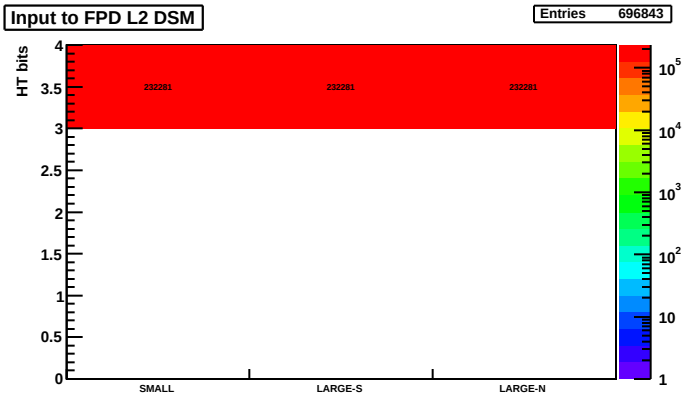

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

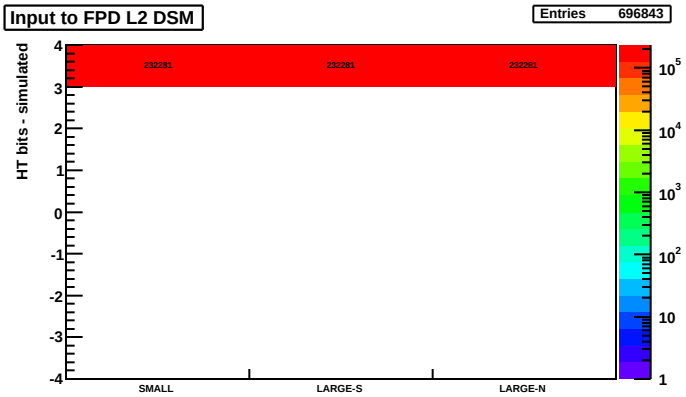

Input to FPD L2 DSM
Entries 2787372
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

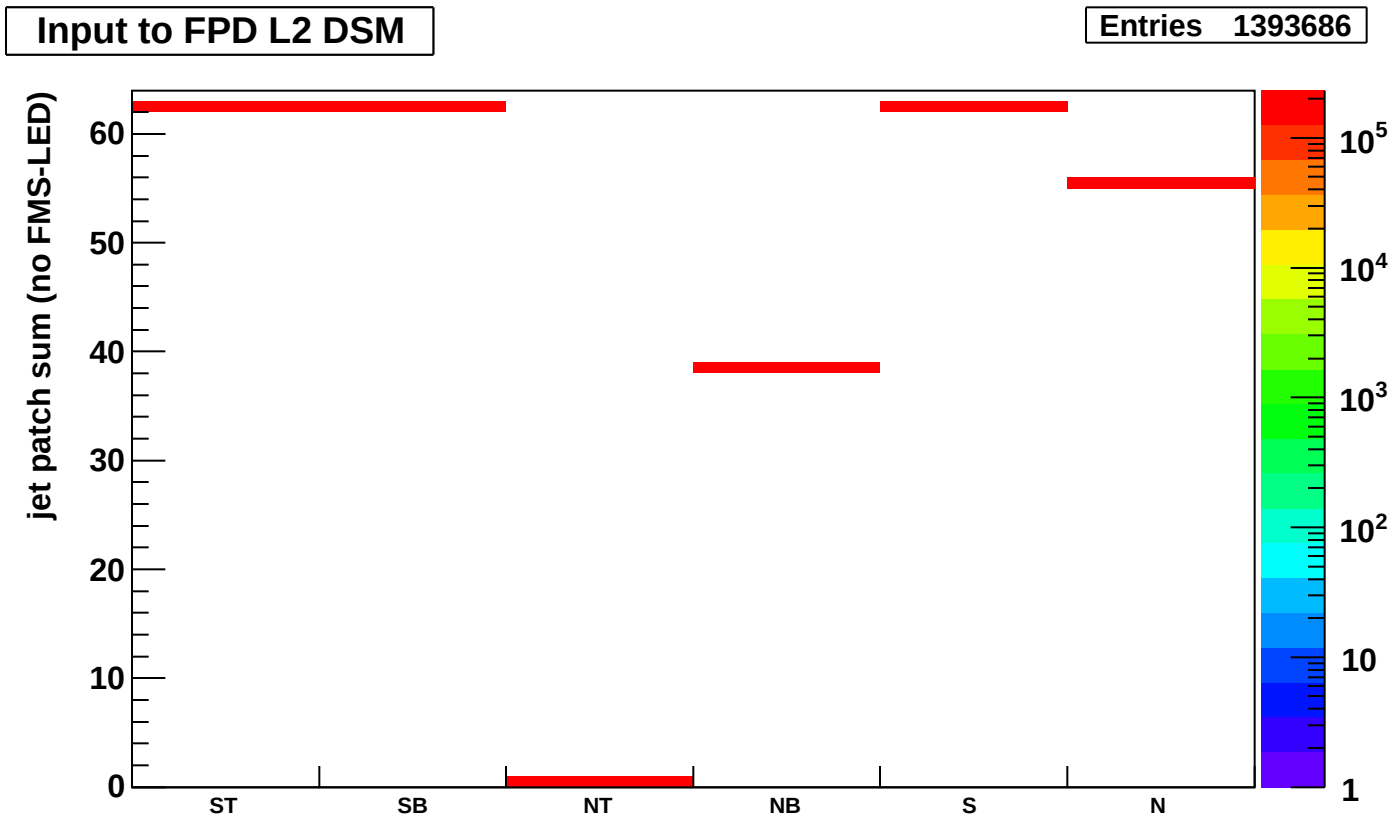

Input to FPD L2 DSM
Entries 2322810
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

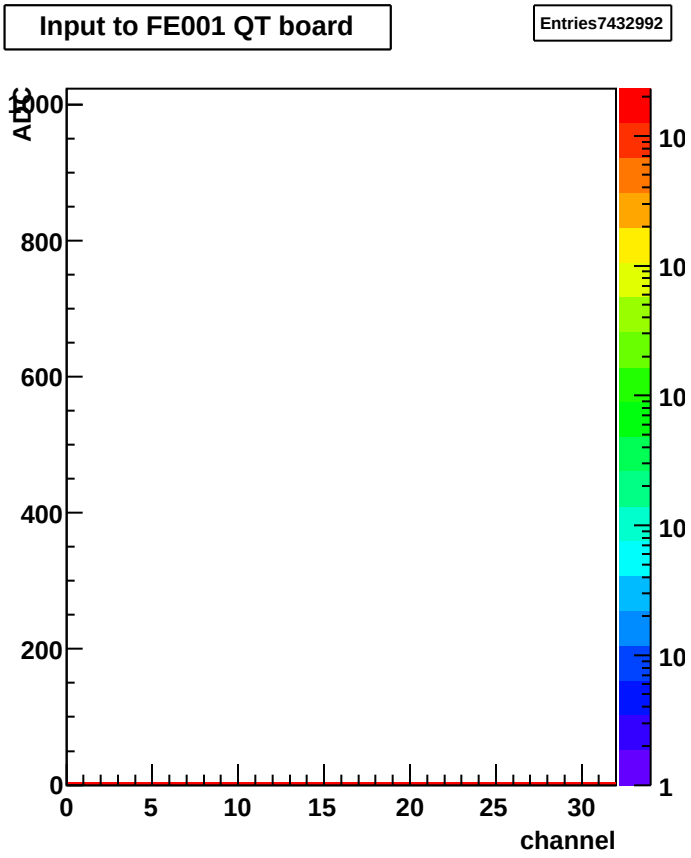

Input to FPD L2 DSM
Entries 696843
CL bits
232281
232281
232281
SMALL
LARGE-S
LARGE-N

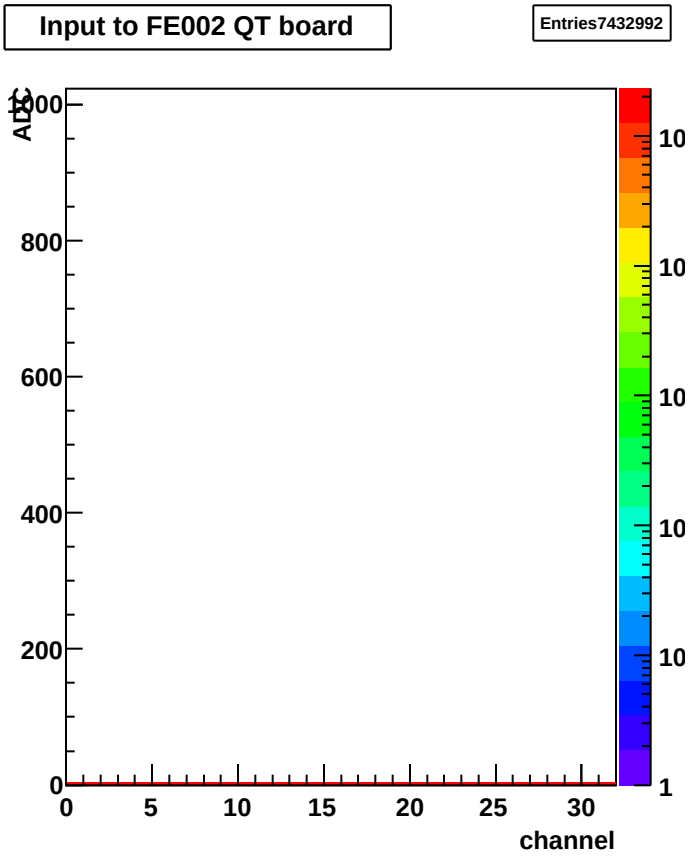

Input to FPD L2 DSM
Entries 696843
CL bits - simulated
232281
232281
232281
SMALL
LARGE-S
LARGE-N

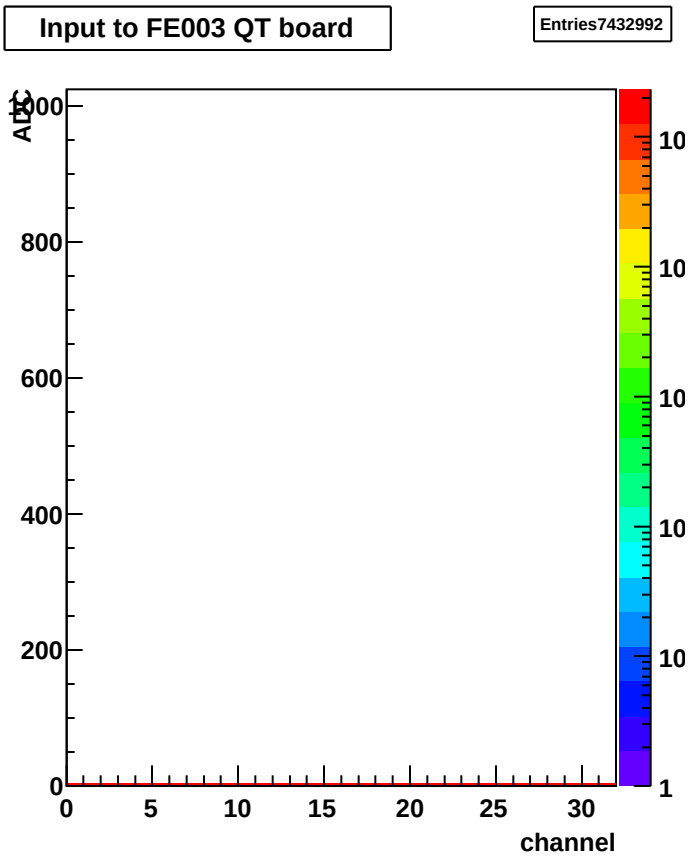

Input to FPD L2 DSM
Entries 696843
HT bits
232281
232281
232281
SMALL
LARGE-S
LARGE-N

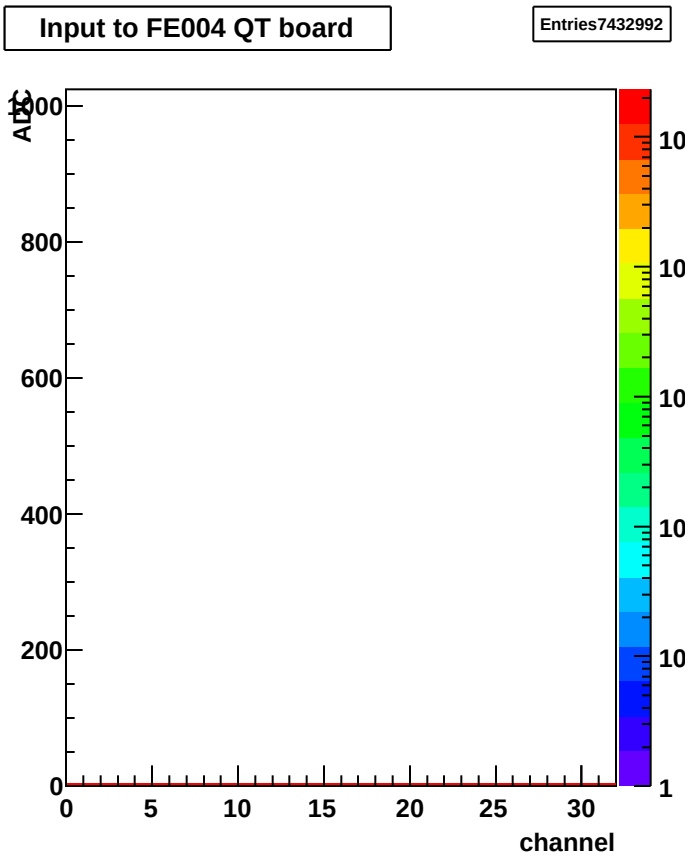

Input to FPD L2 DSM
Entries 696843
HT bits - simulated
232281
232281
232281
SMALL
LARGE-S
LARGE-N

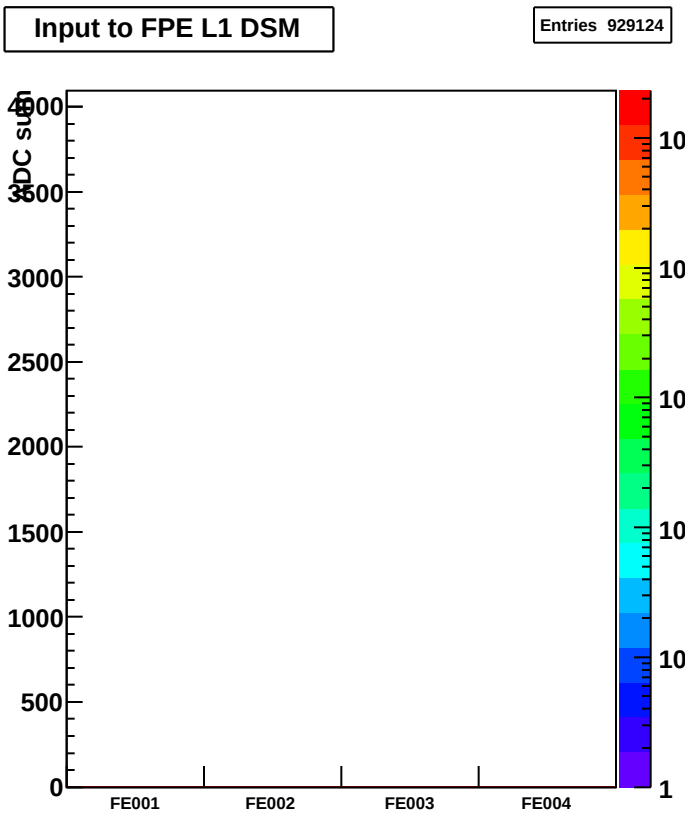

Input to FPD L2 DSM
Entries 1393686
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

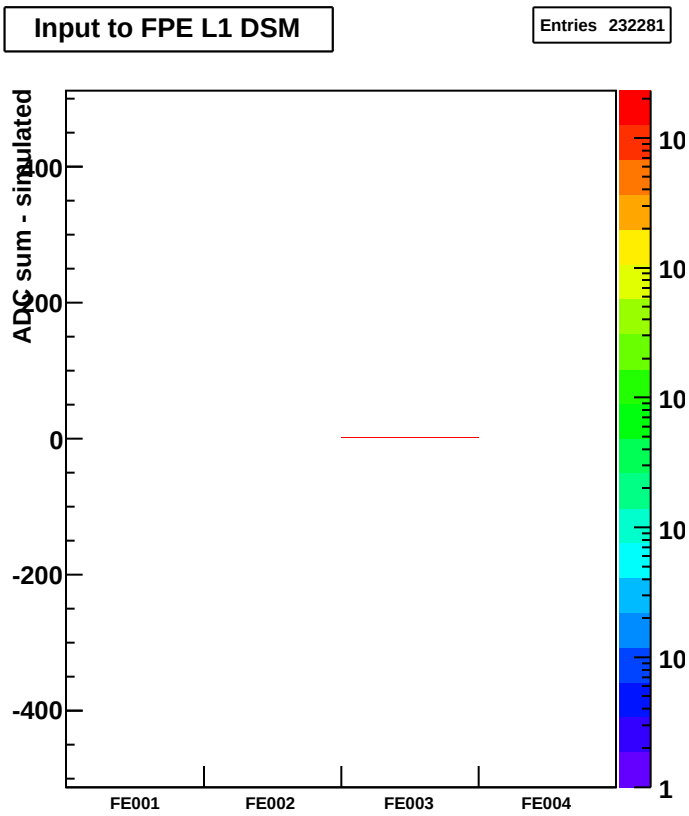

Input to FE001 QT board
Entries7432992
ADC
channel

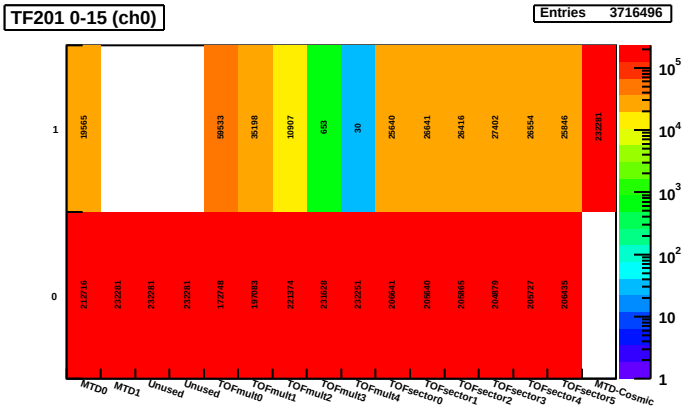

Input to FE002 QT board
Entries7432992
ADC
channel

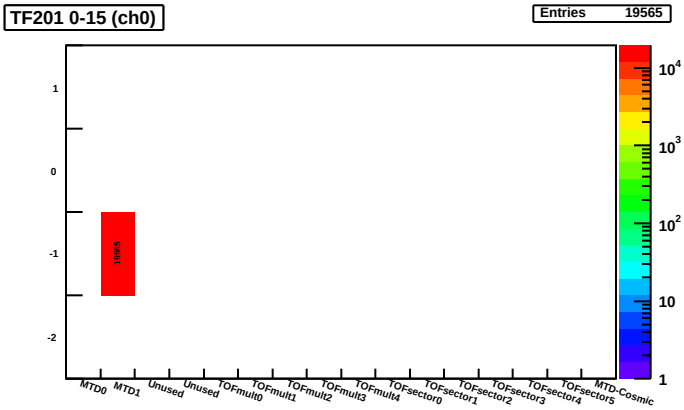

Input to FE003 QT board
Entries7432992
ADC
channel

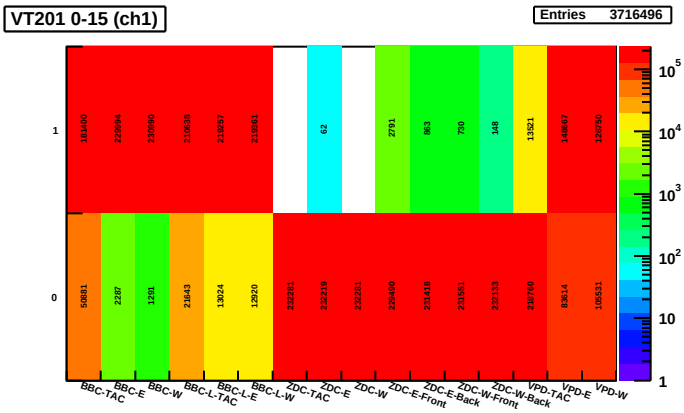

Input to FE004 QT board
Entries7432992
ADC
channel

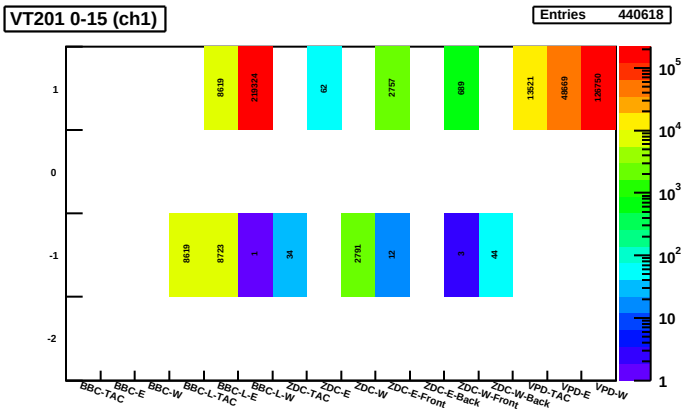

Input to FPE L1 DSM
Entries 929124
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

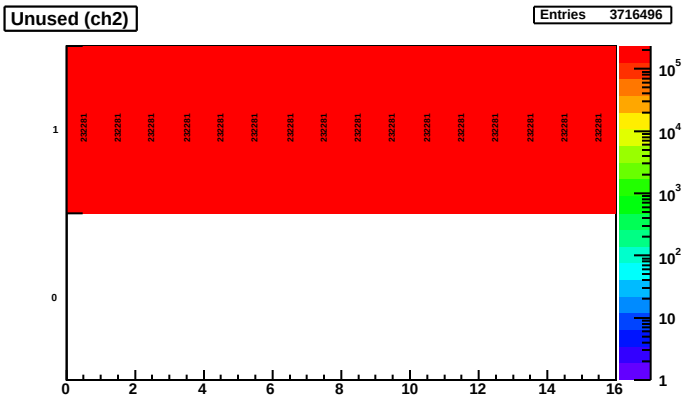

Input to FPE L1 DSM
Entries 232281
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

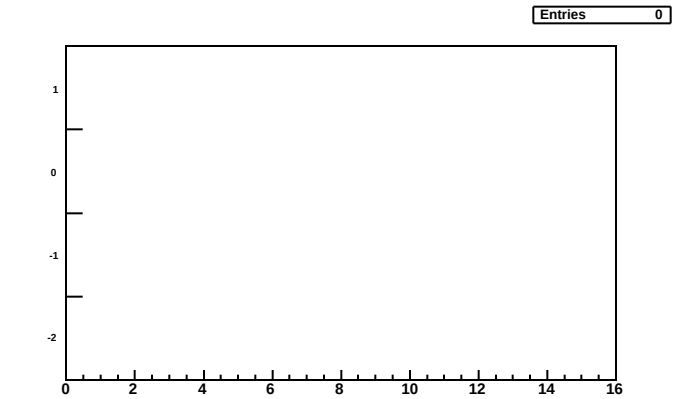

TF201 0-15 (ch0)
Entries 3716496
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

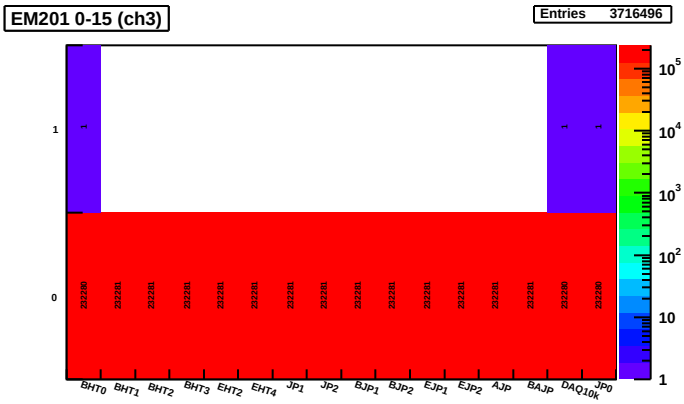

TF201 0-15 (ch0)
Entries 19565
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 3716496
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 440618
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 3716496


Entries 0


EM201 0-15 (ch3)
Entries 3716496
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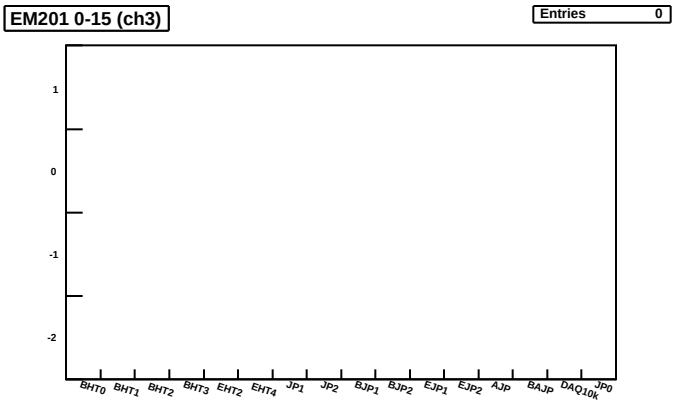
EM201 0-15 (ch3)
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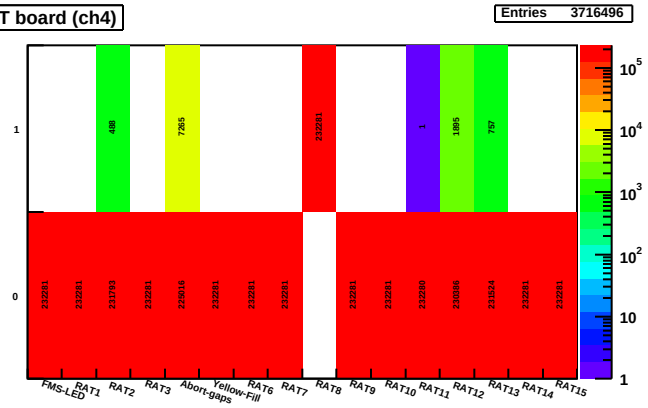
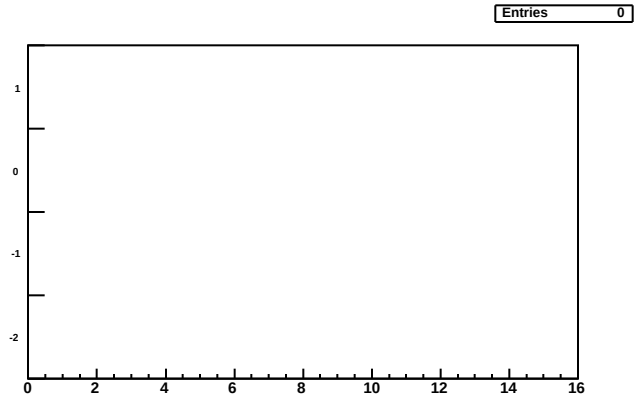
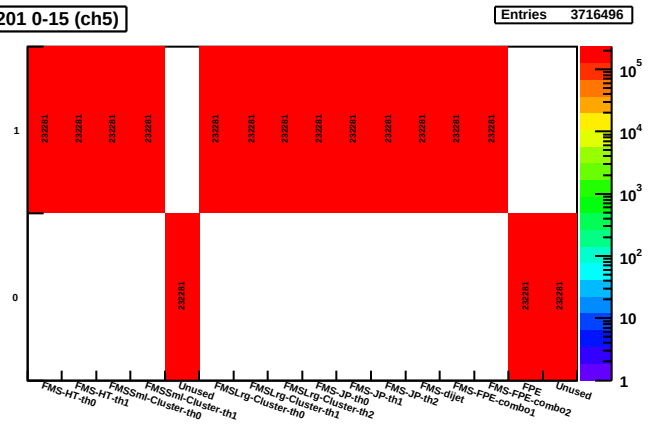
RAT board (ch4)





FP201 0-15 (ch5)



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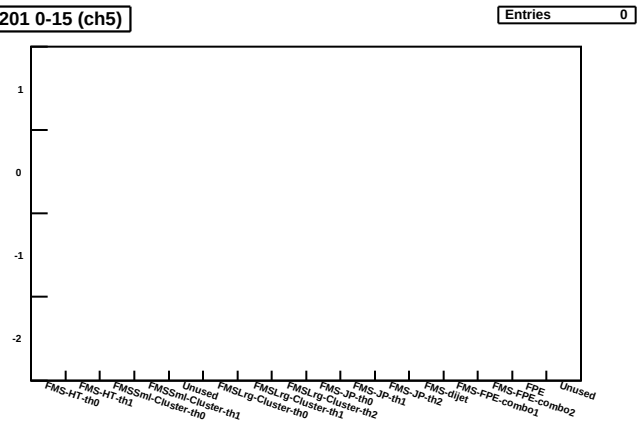
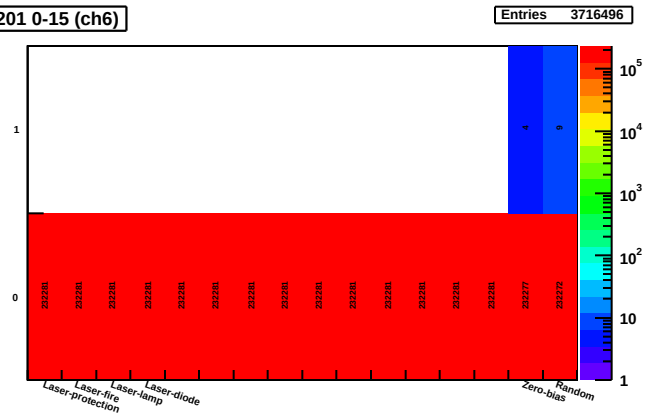
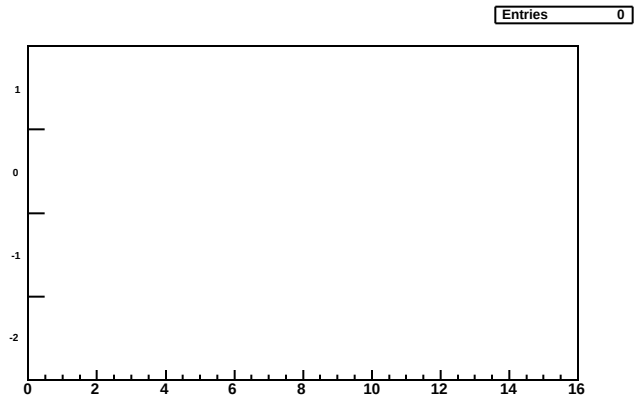
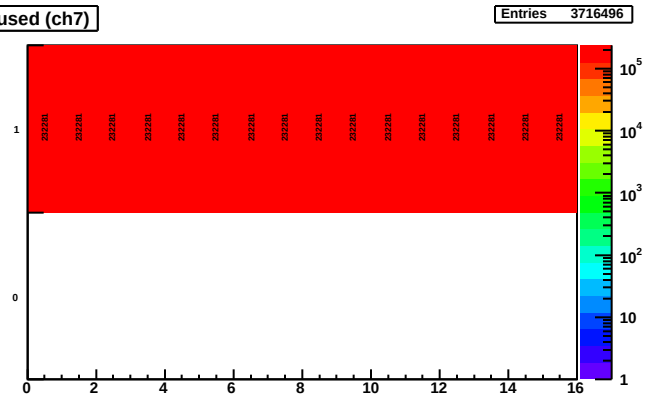
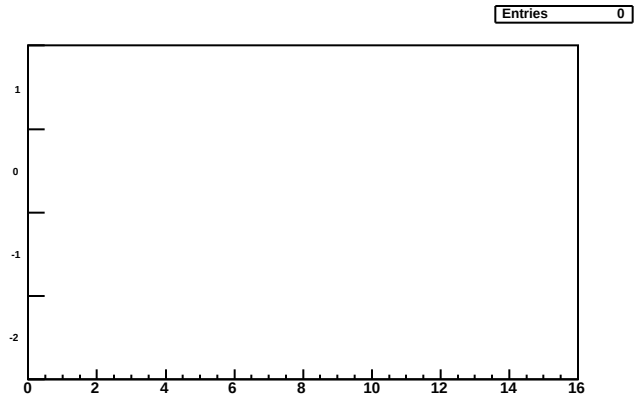


ST201 0-15 (ch6)





Unused (ch7)