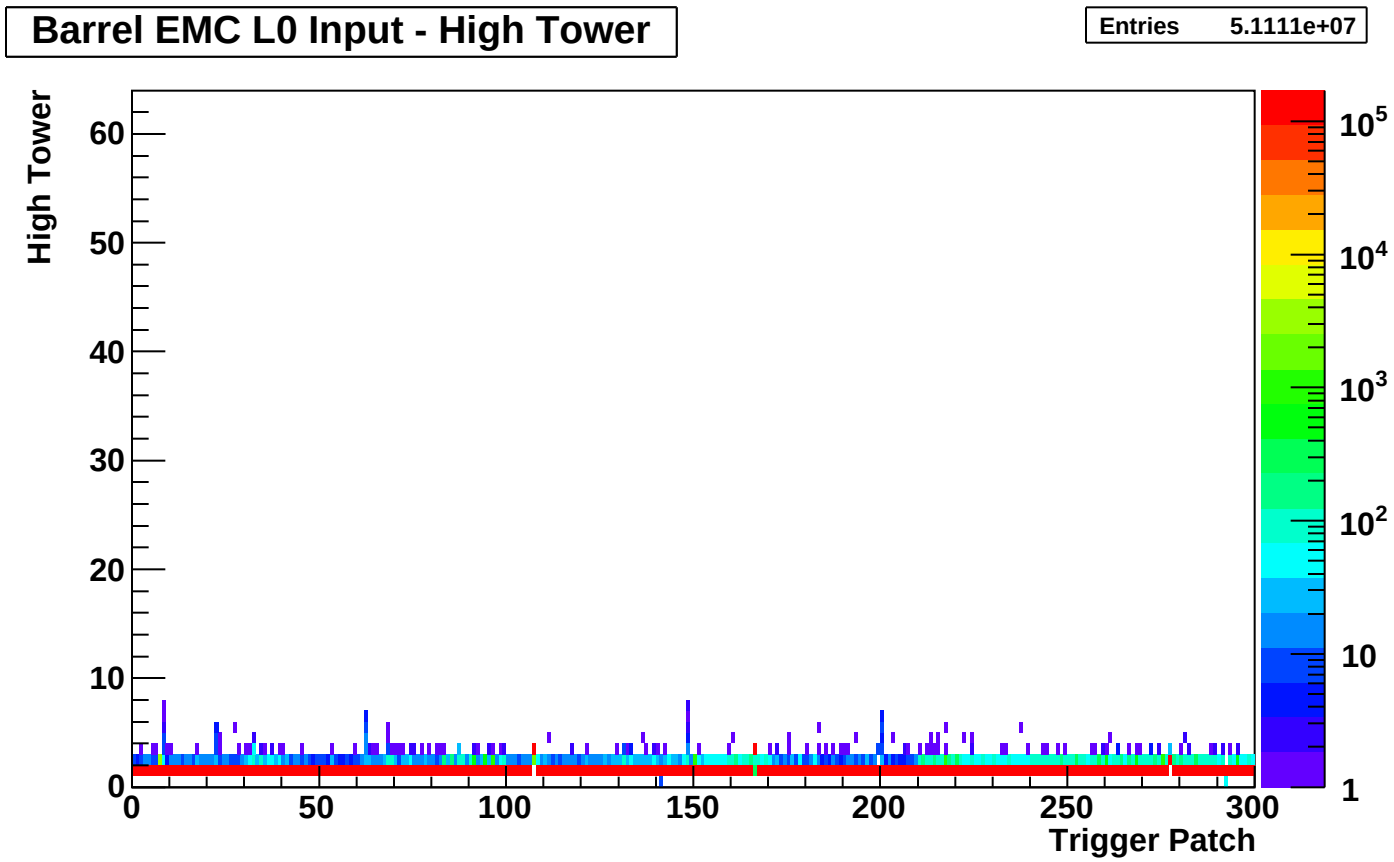
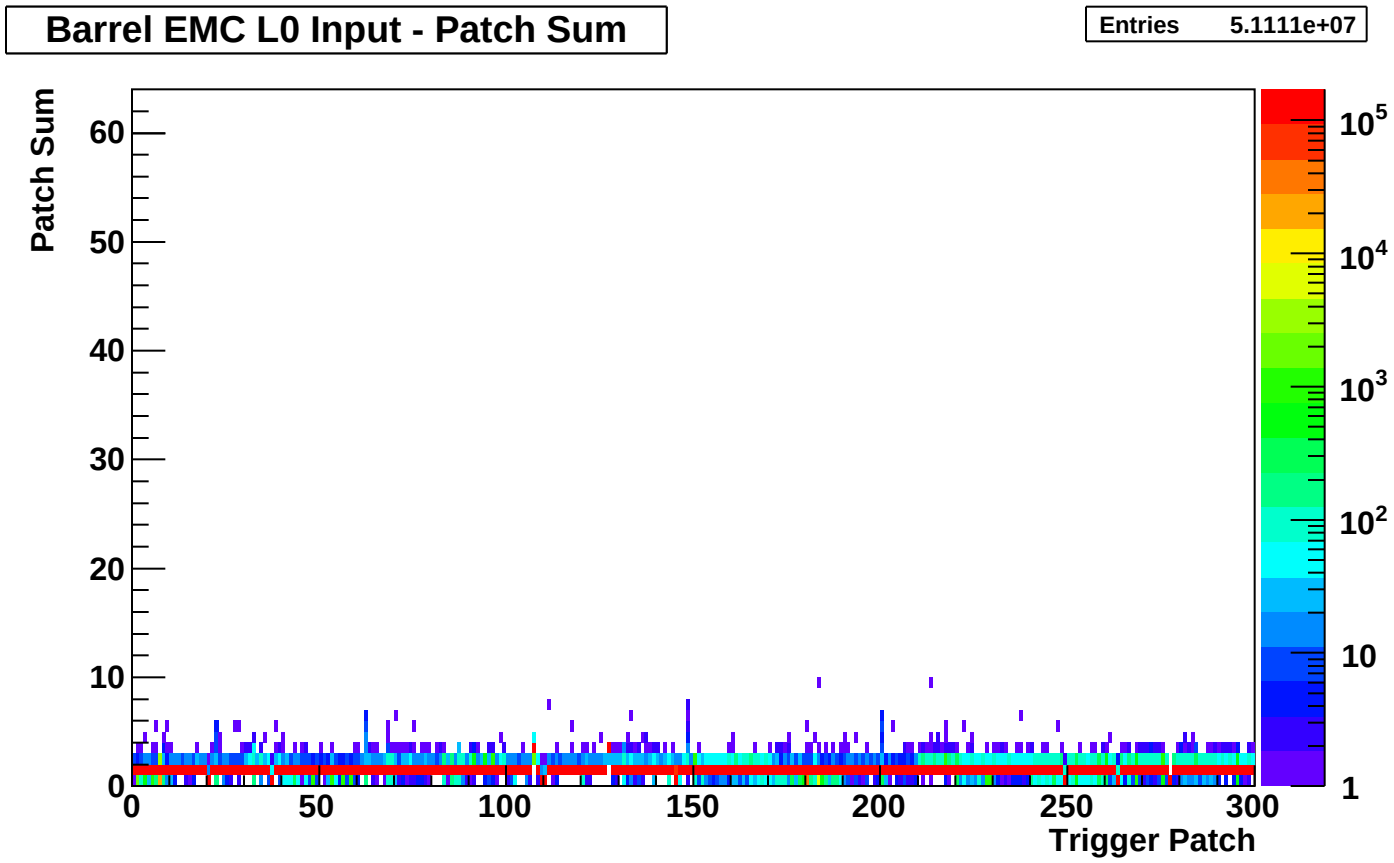
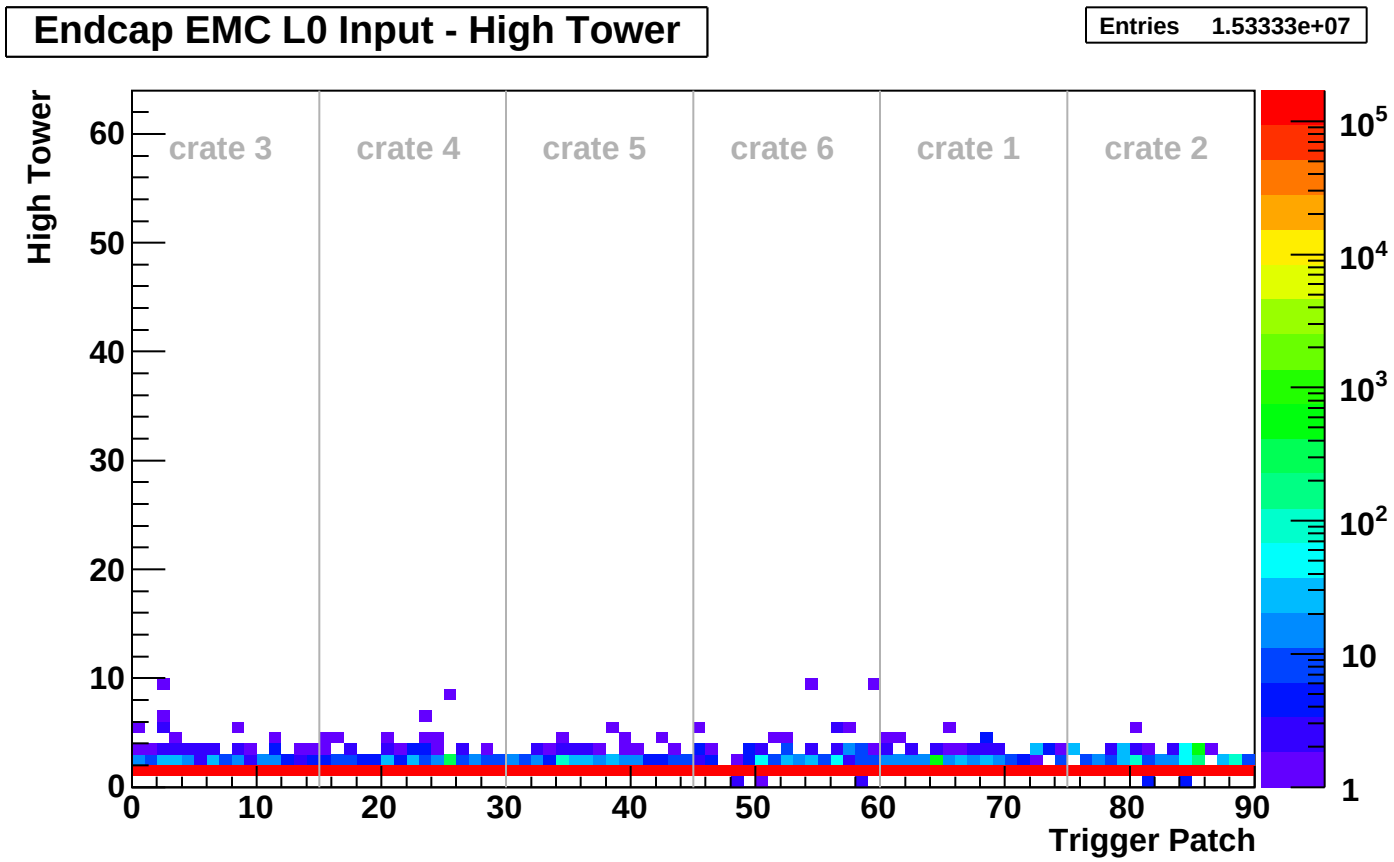
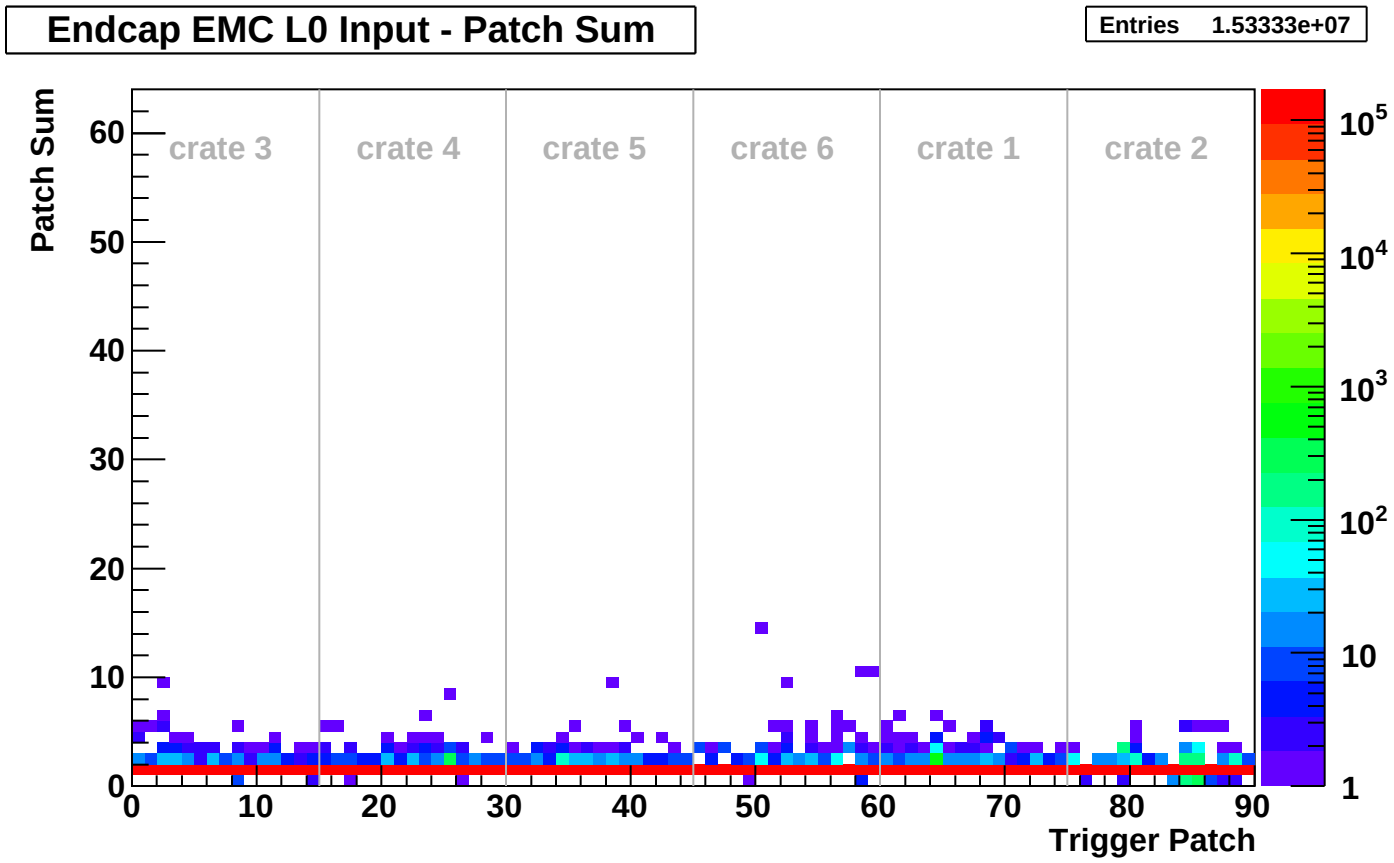
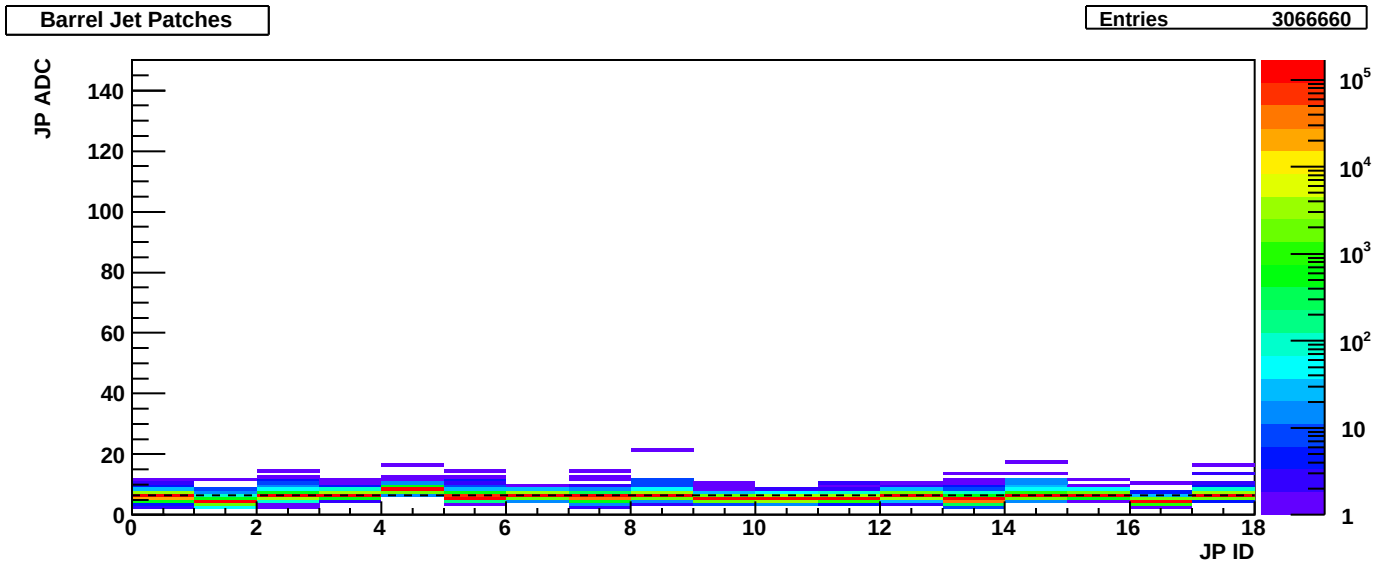
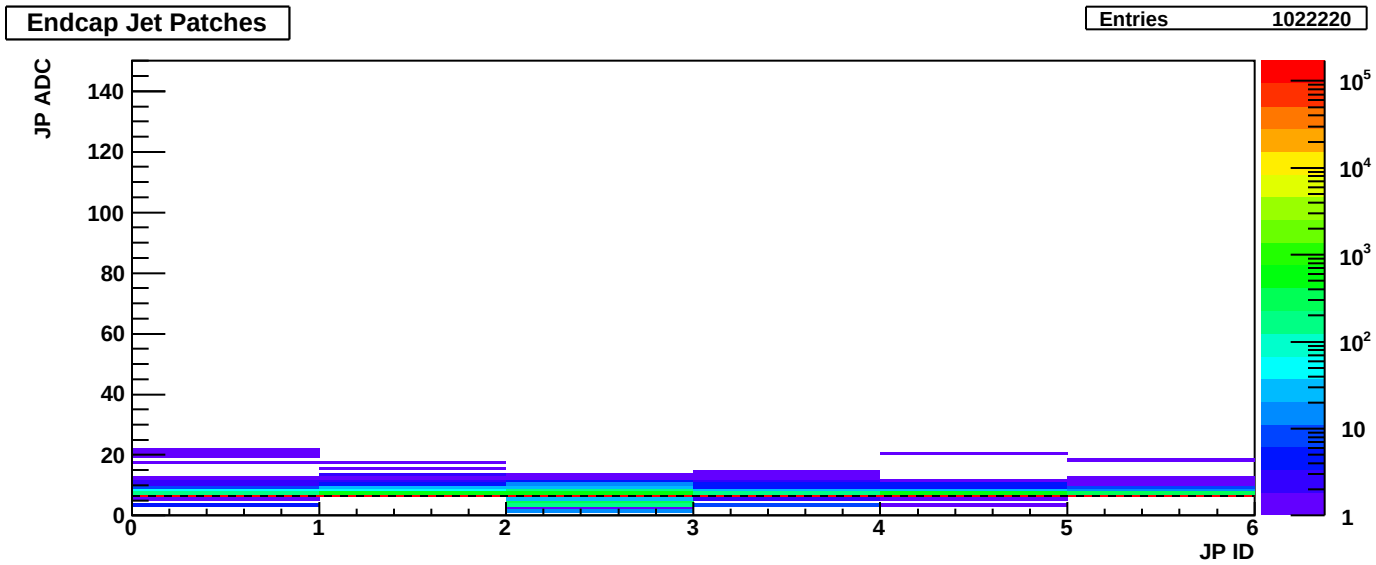

Barrel EMC L0 Input - High Tower
Entries 5.1111e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

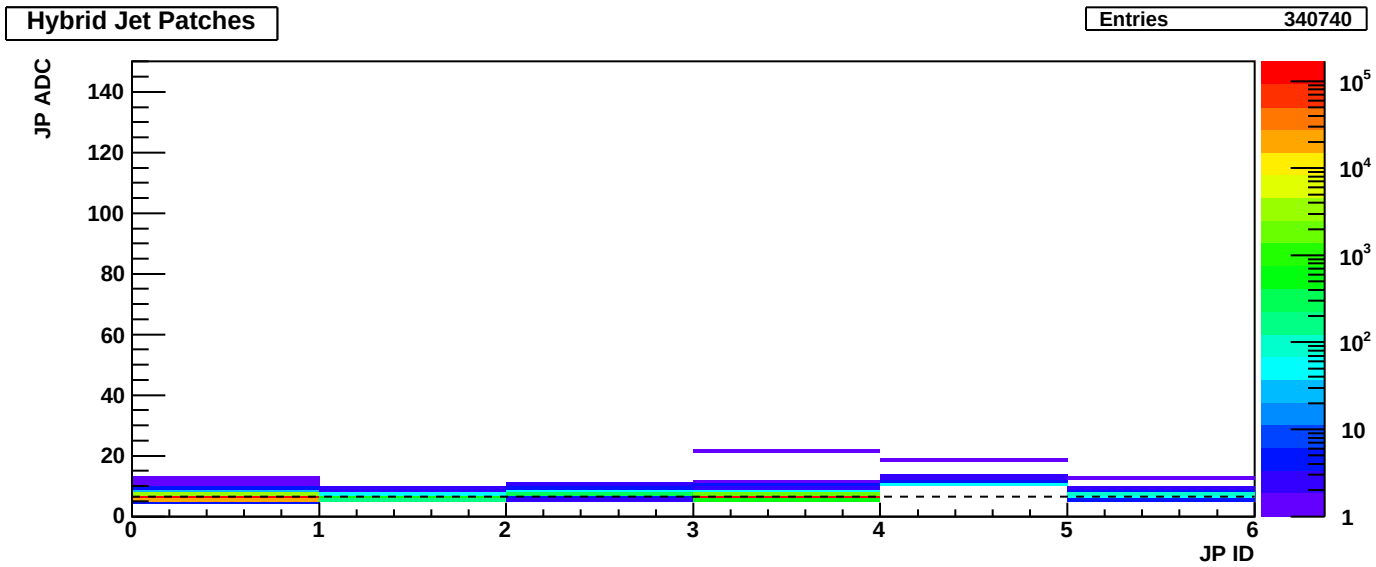

Barrel EMC L0 Input - Patch Sum
Entries 5.1111e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

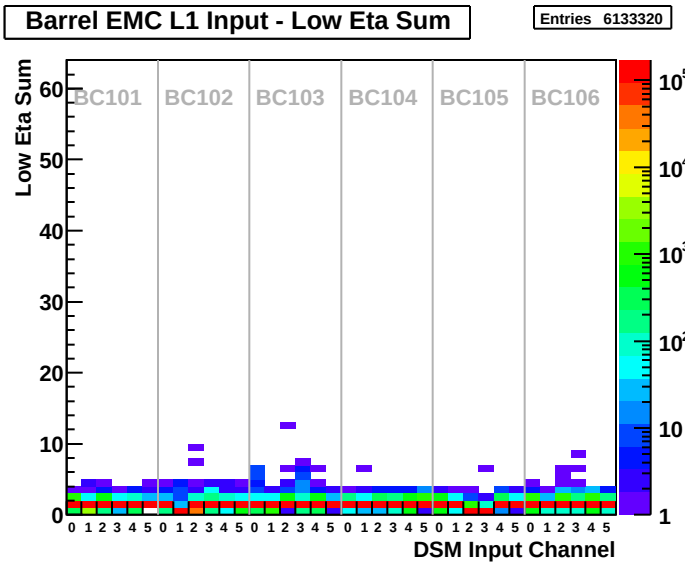

Endcap EMC L0 Input - High Tower
Entries 1.53333e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

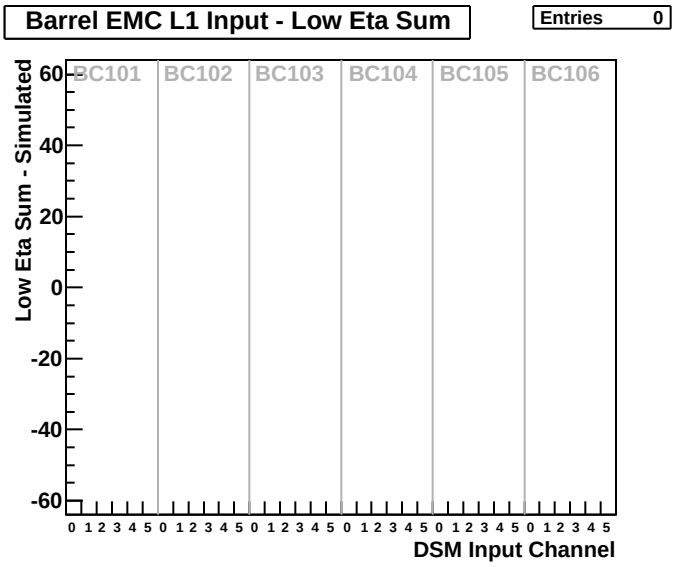

Endcap EMC L0 Input - Patch Sum
Entries 1.53333e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

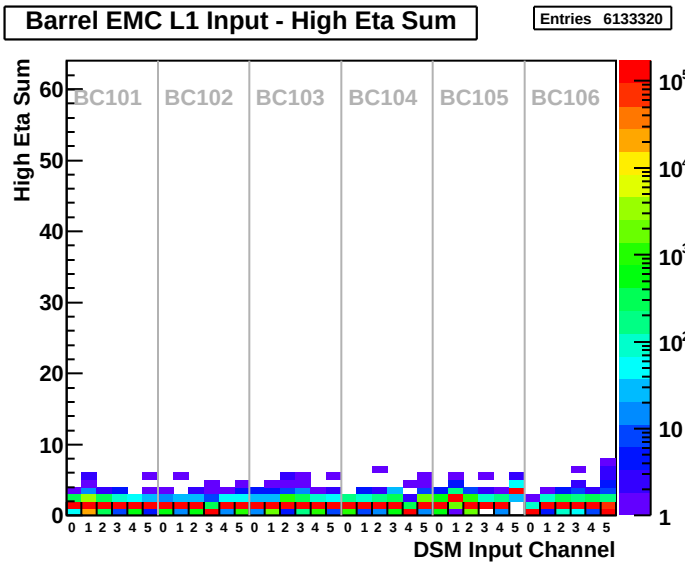

Barrel Jet Patches
Entries 3066660
JP ADC
JP ID

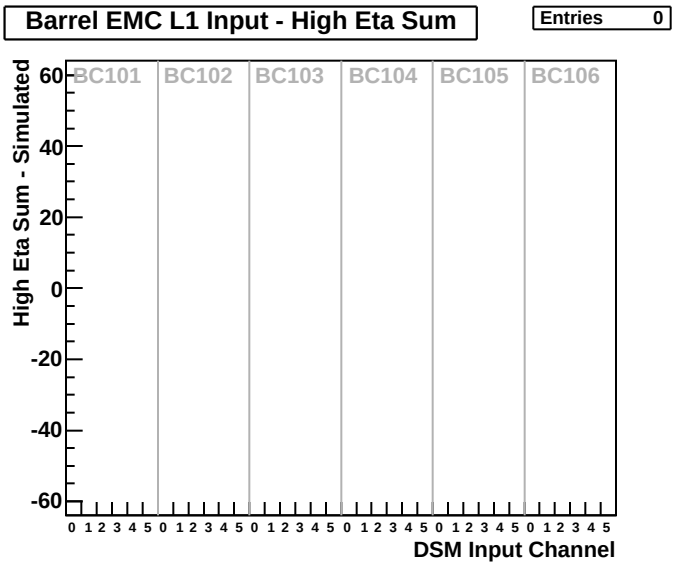

Endcap Jet Patches
Entries 1022220
JP ADC
JP ID

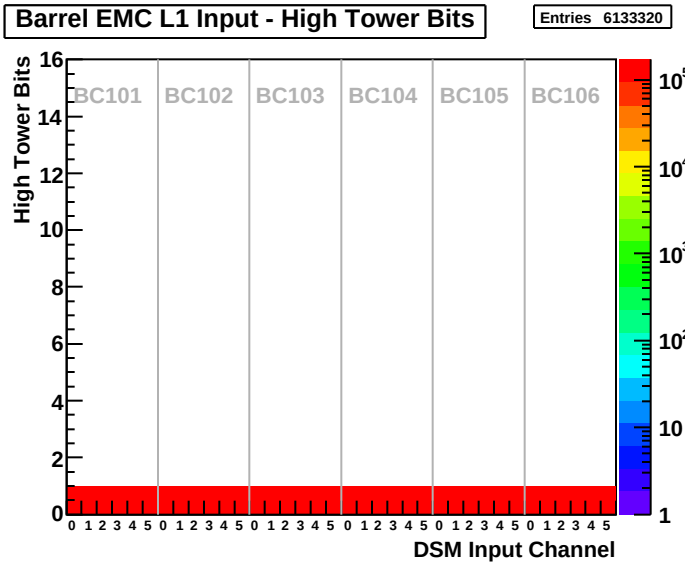

Hybrid Jet Patches
Entries 340740
JP ADC
JP ID

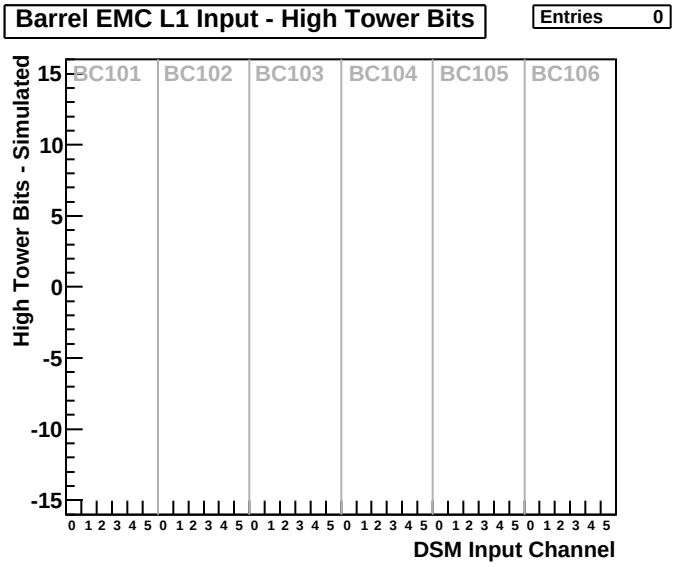

Barrel EMC L1 Input - Low Eta Sum
Entries 6133320
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

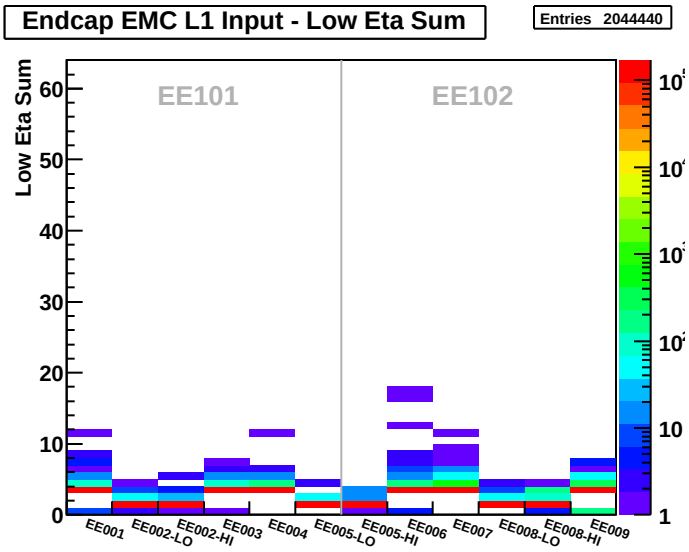

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

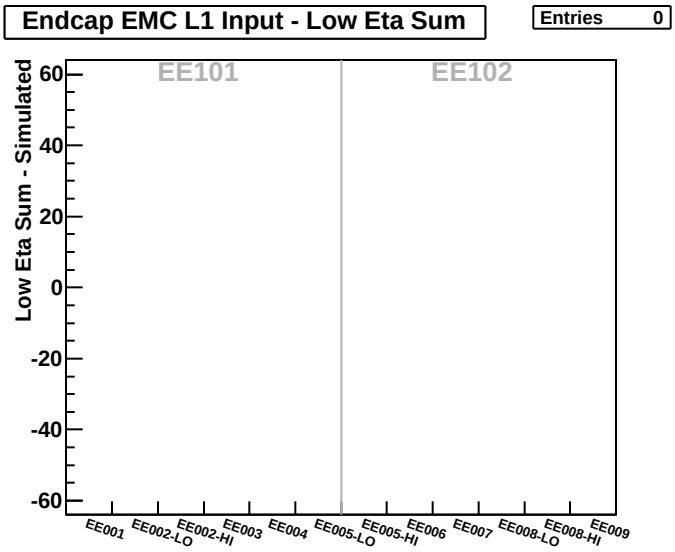

Barrel EMC L1 Input - High Eta Sum
Entries 6133320
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

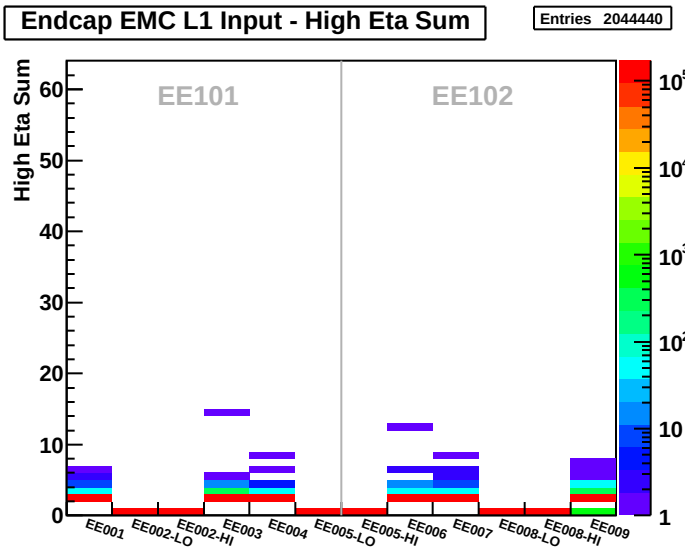

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

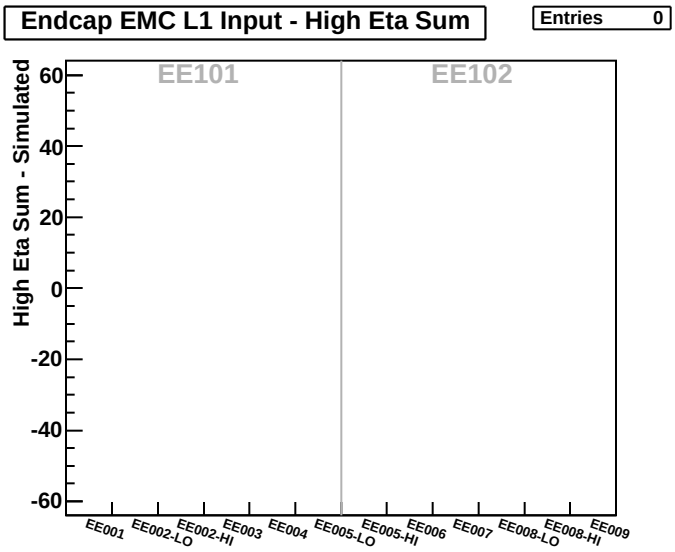

Barrel EMC L1 Input - High Tower Bits
Entries 6133320
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

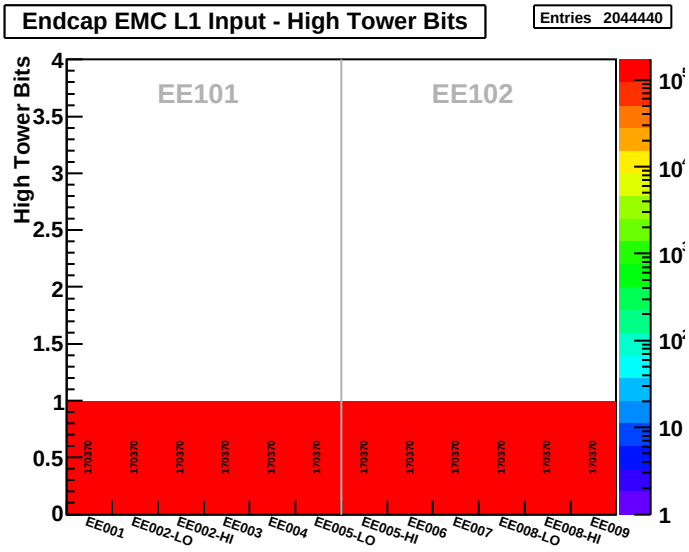

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

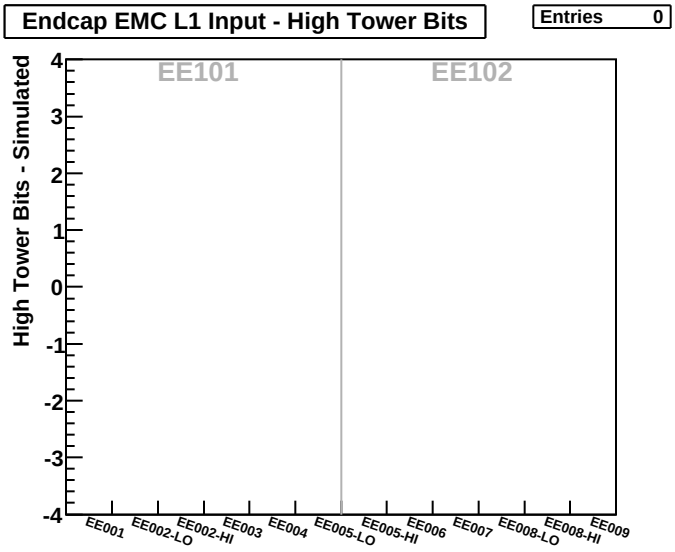

Endcap EMC L1 Input - Low Eta Sum
Entries 2044440
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

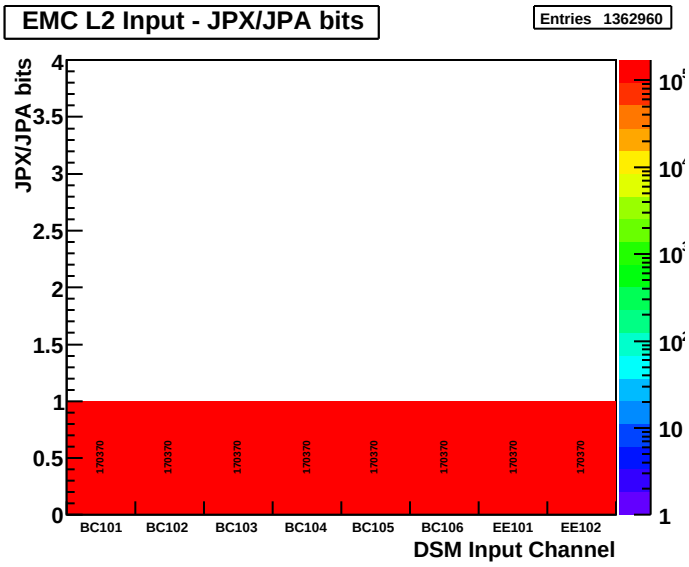

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

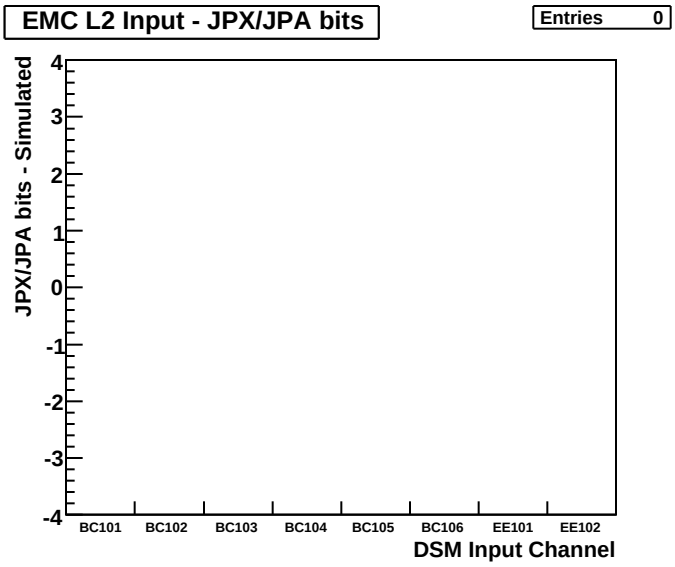

Endcap EMC L1 Input - High Eta Sum
Entries 2044440
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

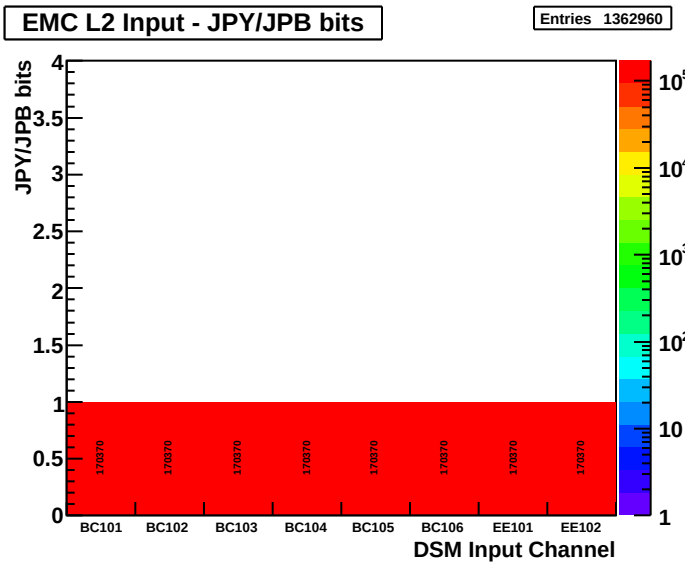

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

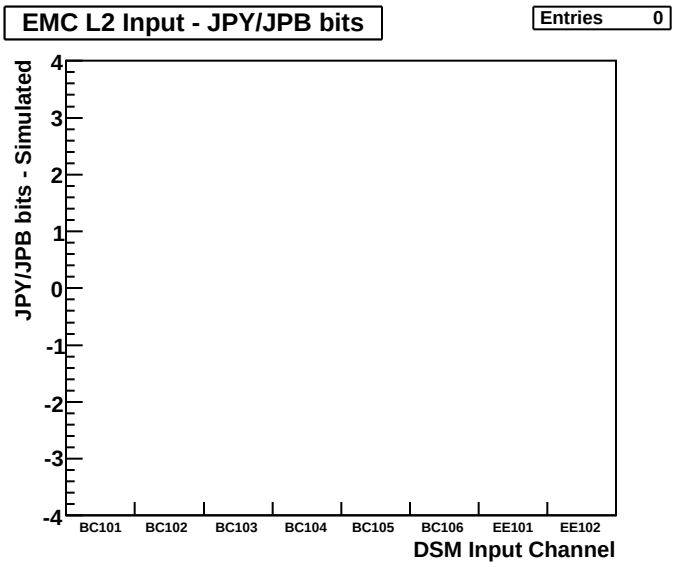

Endcap EMC L1 Input - High Tower Bits
Entries 2044440
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

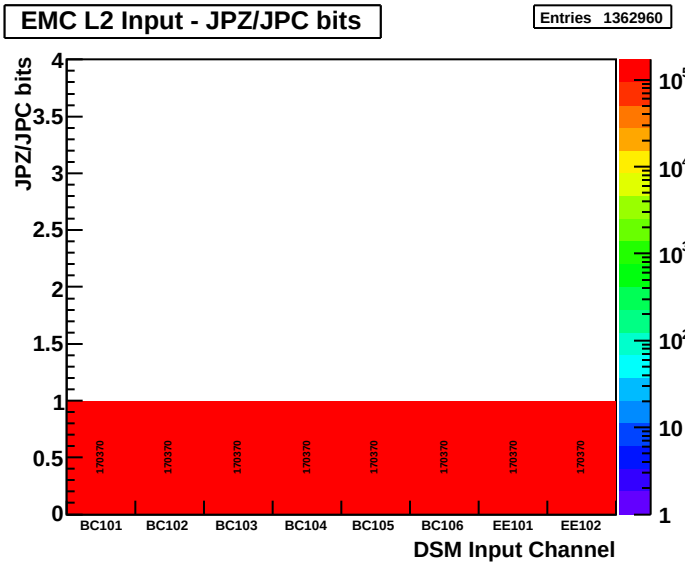

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

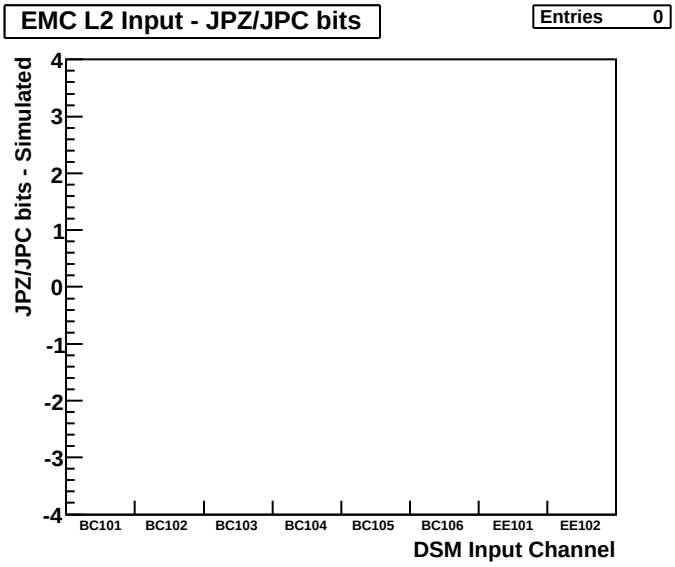

EMC L2 Input - JPX/JPA bits
Entries 1362960
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
170370

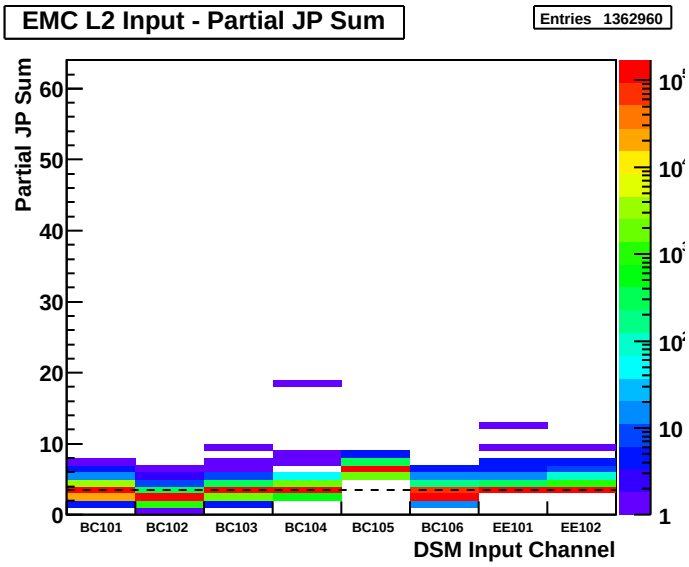

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

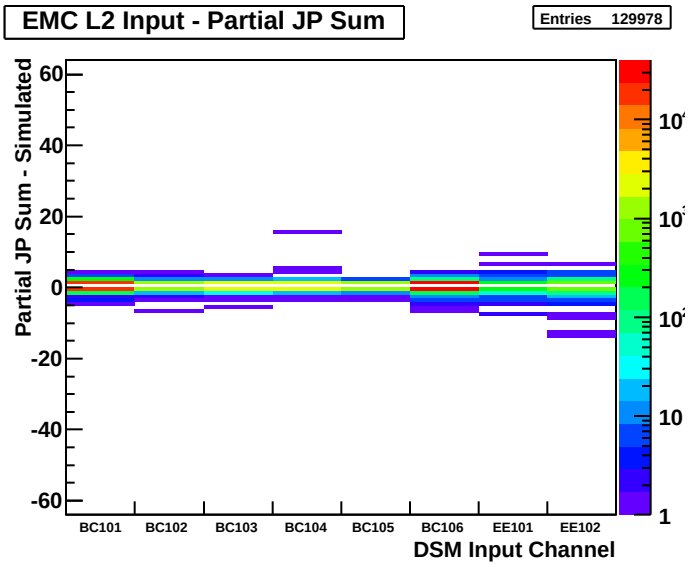

EMC L2 Input - JPY/JPB bits
Entries 1362960
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
170370

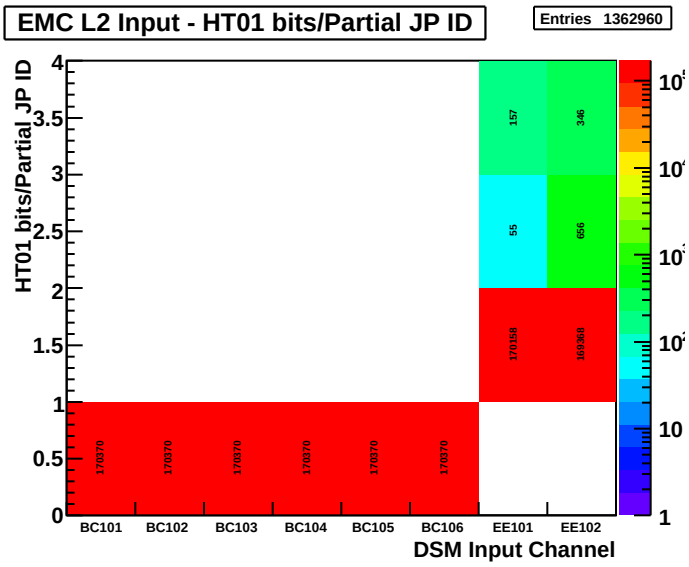

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

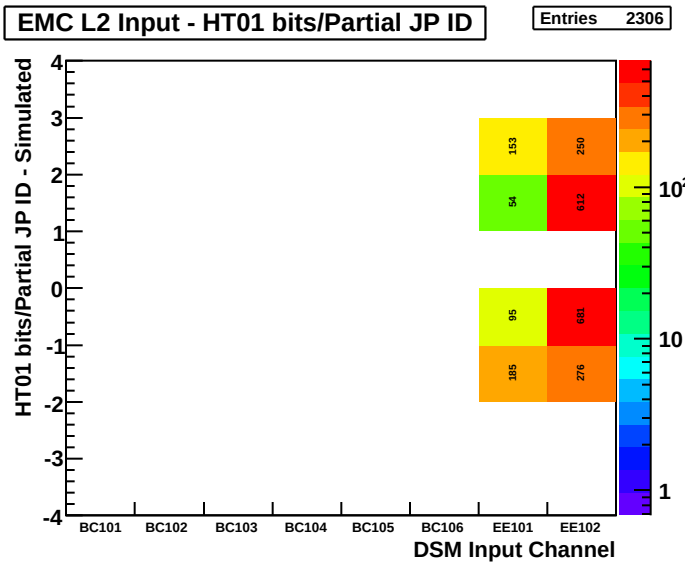

EMC L2 Input - JPZ/JPC bits
Entries 1362960
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
170370

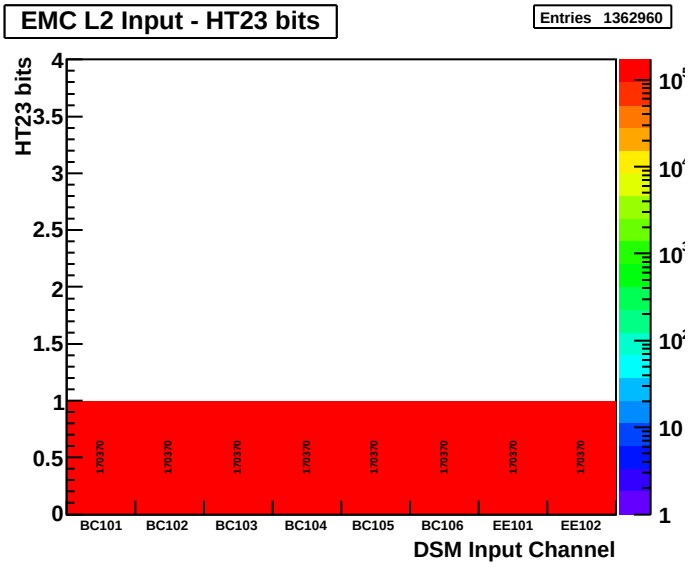

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

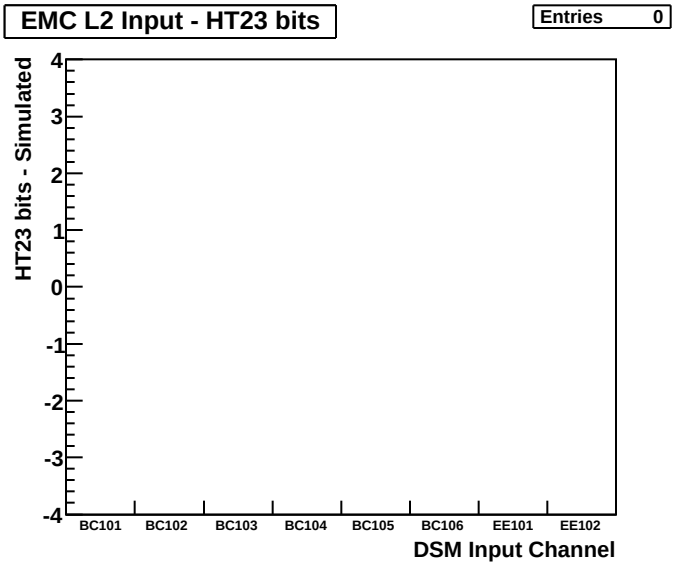

EMC L2 Input - Partial JP Sum
Entries 1362960
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

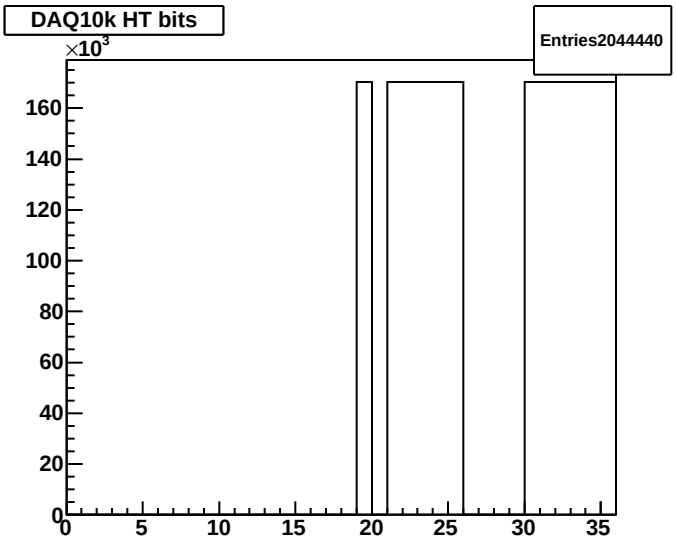

EMC L2 Input - Partial JP Sum
Entries 129978
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

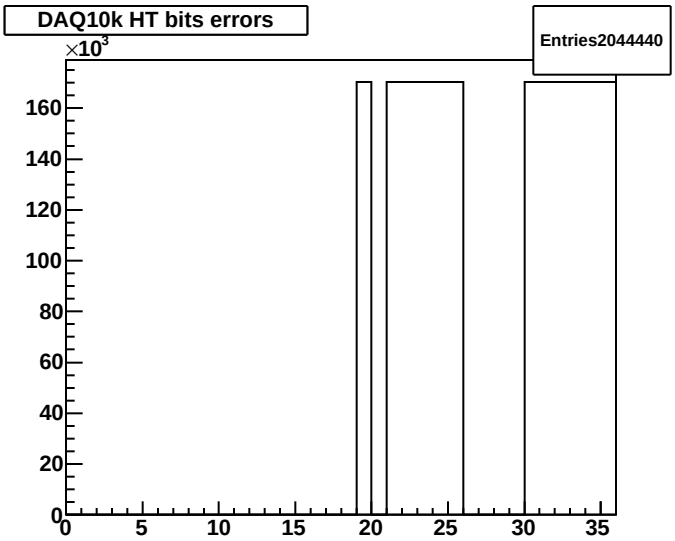

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1362960
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

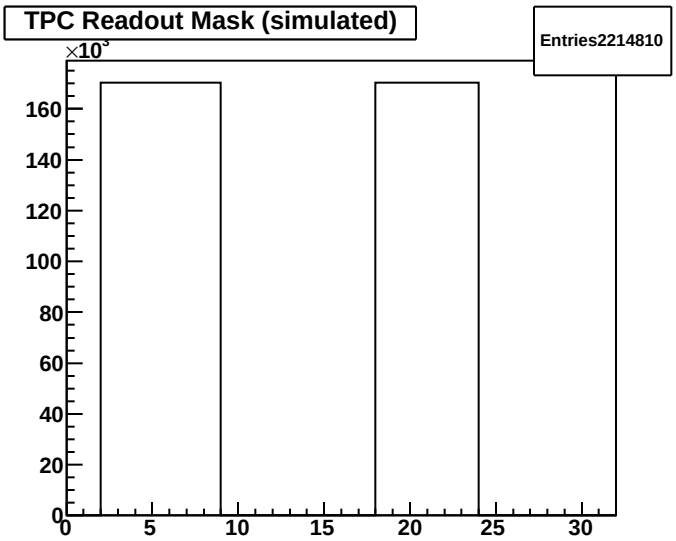

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2306
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

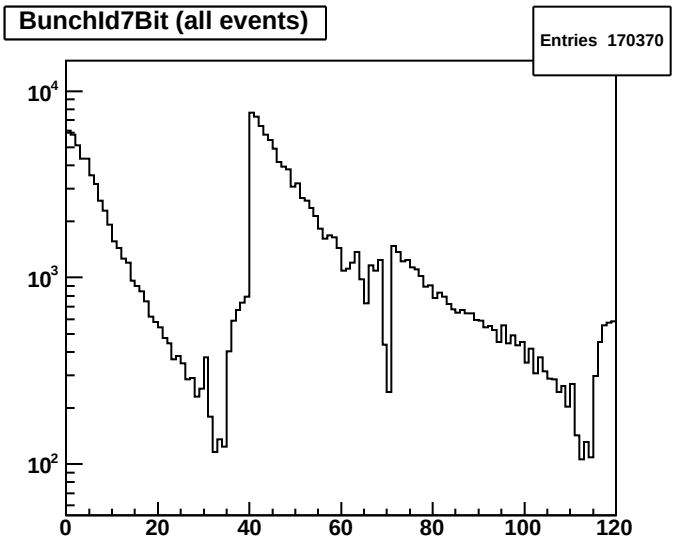

EMC L2 Input - HT23 bits
Entries 1362960
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

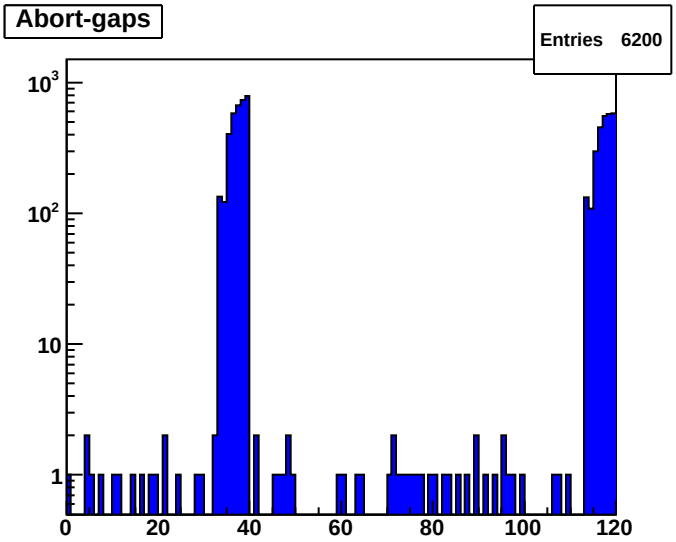

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102


DAQ10k HT bits
Entries2044440
×10^3
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

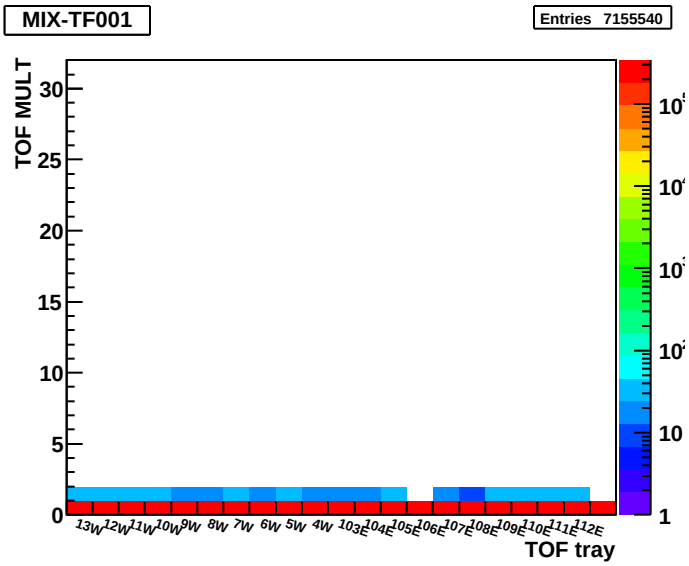

DAQ10k HT bits errors
Entries2044440
×10^3
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

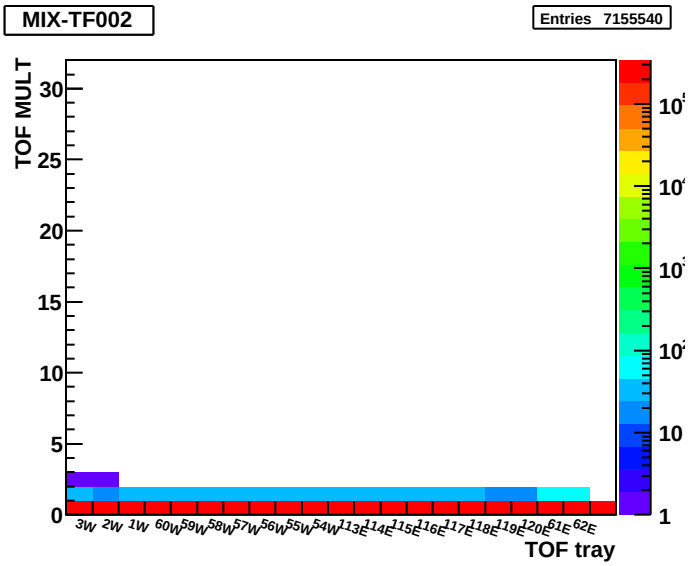

TPC Readout Mask (simulated)
Entries2214810
×10^3
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30

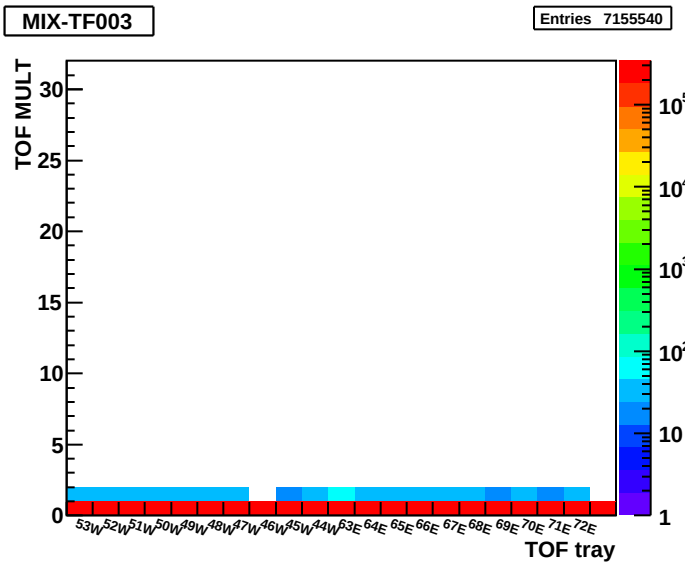

BunchId7Bit (all events)
Entries 170370
10^4
10^3
10^2
0 20 40 60 80 100 120

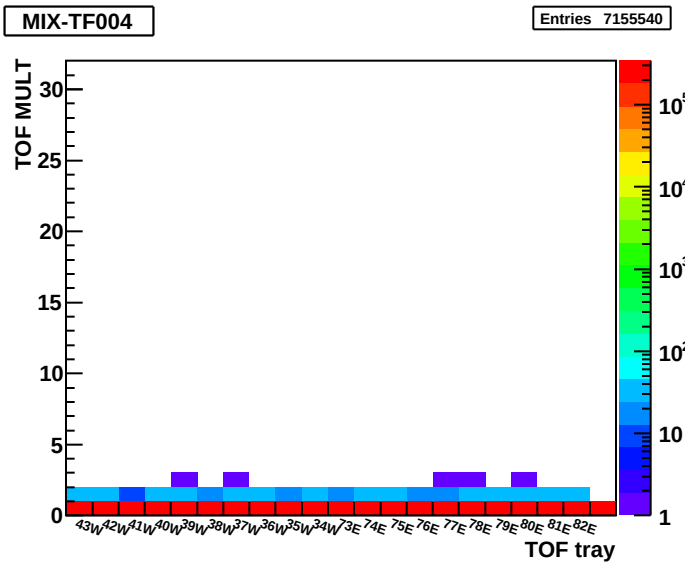

Abort-gaps
Entries 6200
10^3
10^2
10
1
0 20 40 60 80 100 120

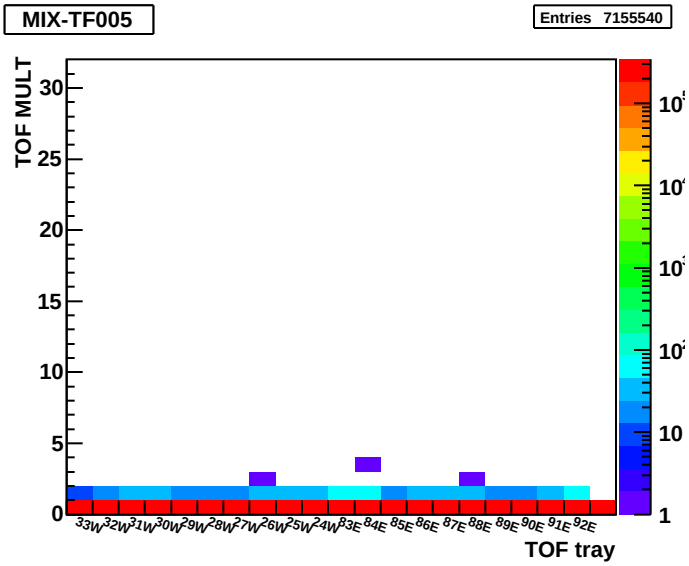
!Yellow-Fill
Entries 170370
10^4
10^3
10^2
0 20 40 60 80 100 120

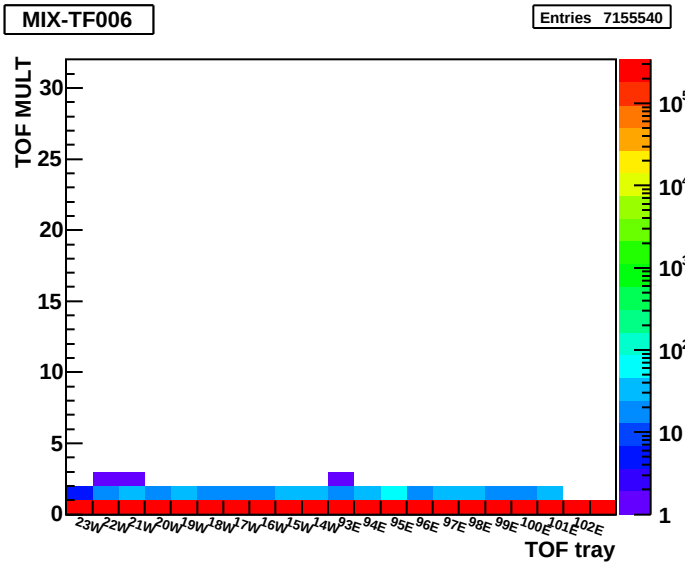

MIX-TF001
Entries 7155540
TOF MULT
TOF tray

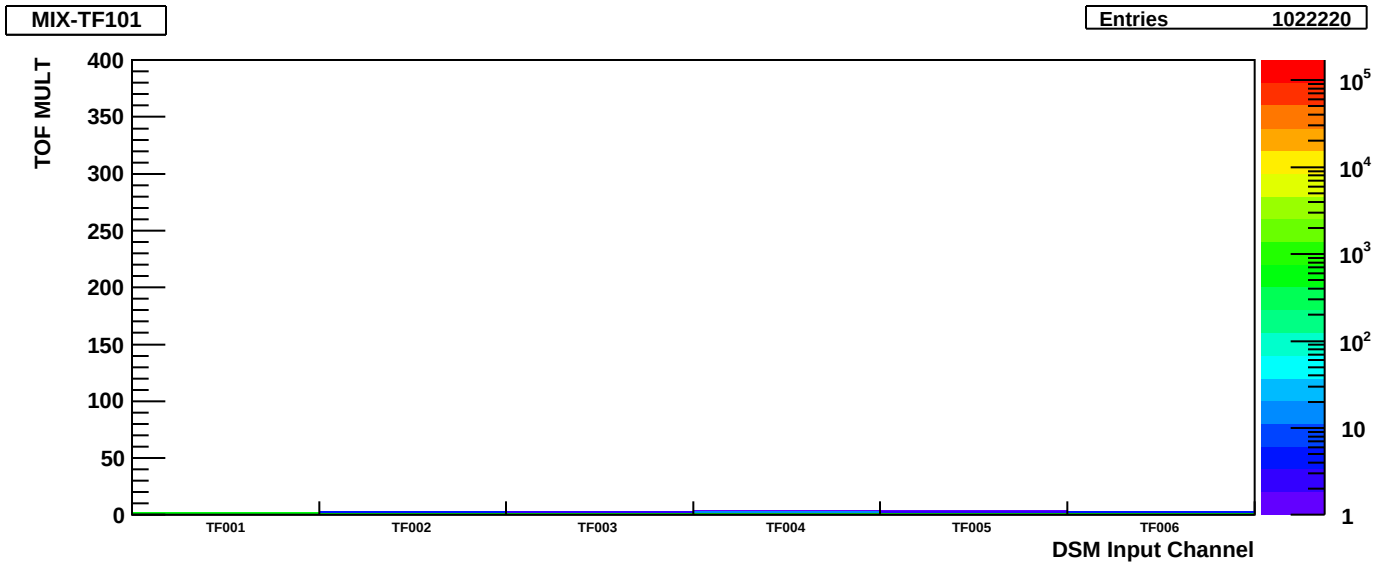

MIX-TF002
Entries 7155540
TOF MULT
TOF tray

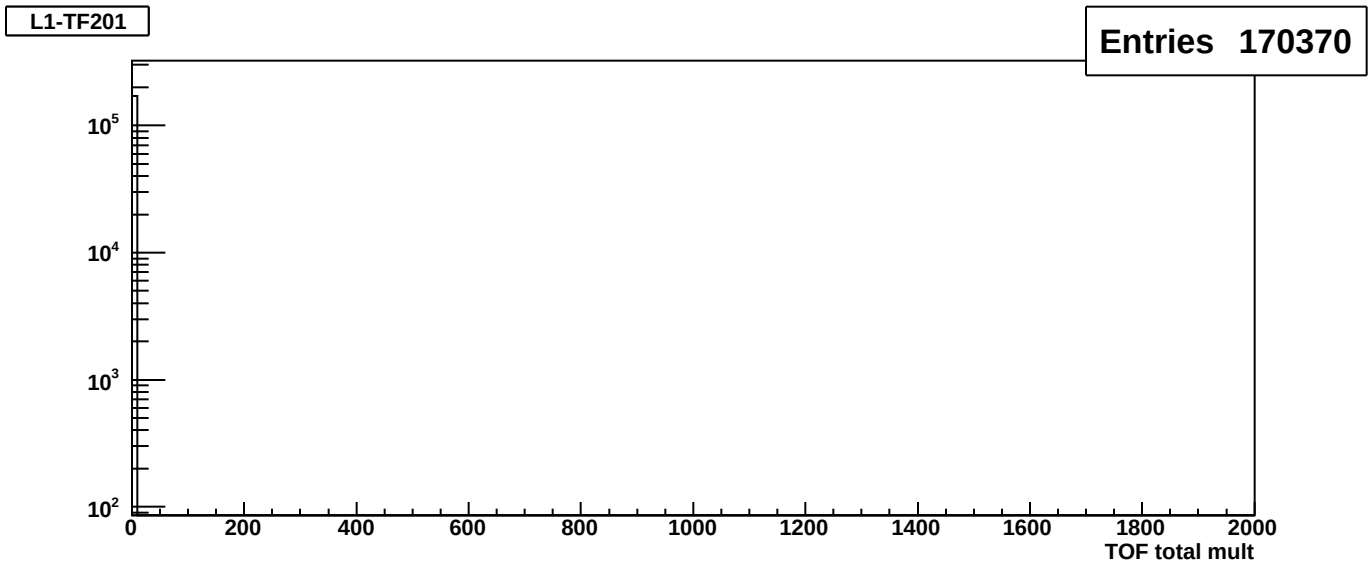

MIX-TF003
Entries 7155540
TOF MULT
TOF tray

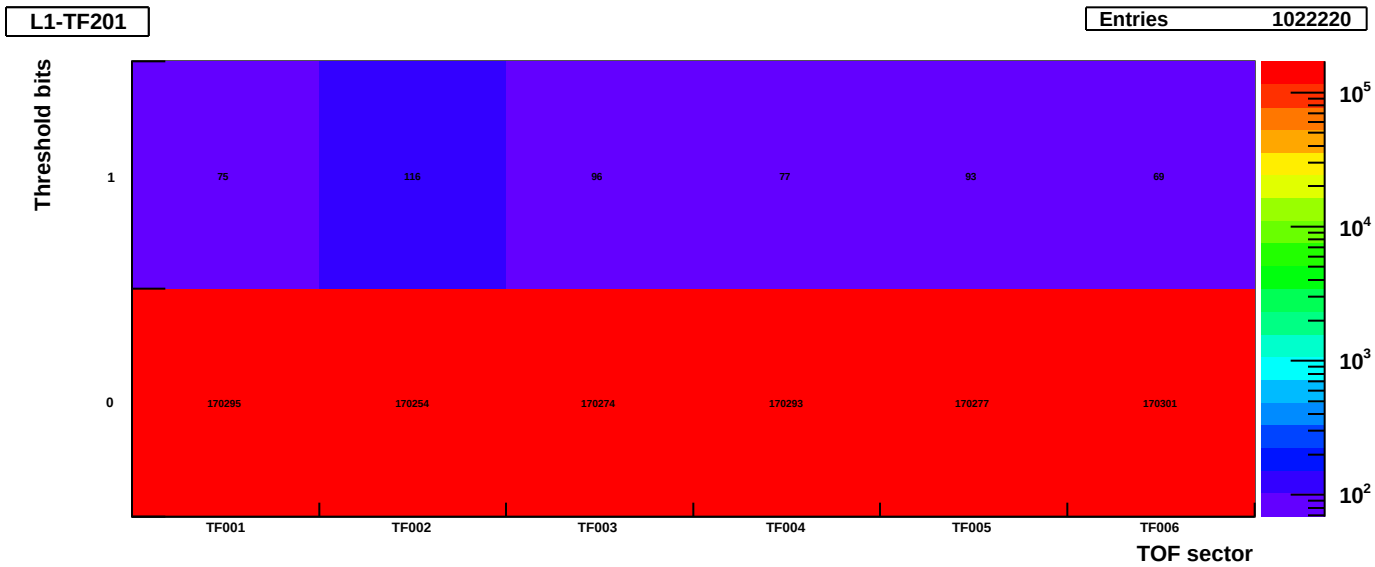

MIX-TF004
Entries 7155540
TOF MULT
TOF tray

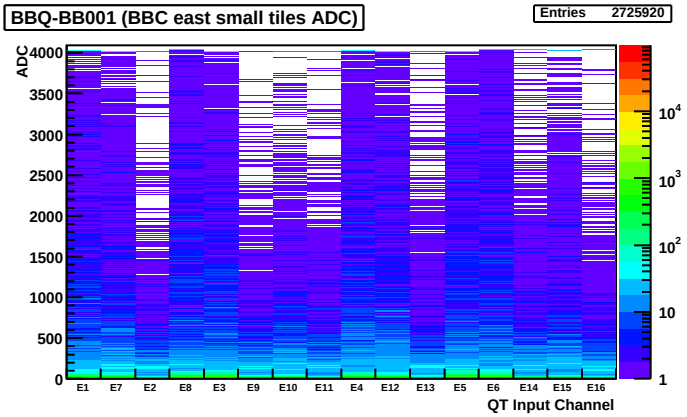

MIX-TF005
Entries 7155540
TOF MULT
TOF tray

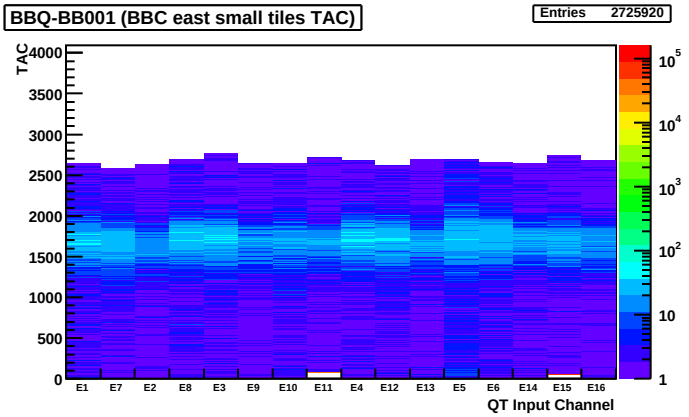

MIX-TF006
Entries 7155540
TOF MULT
TOF tray

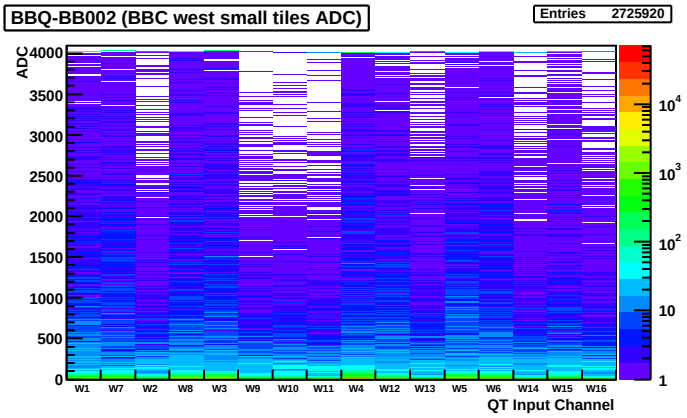

MIX-TF101
Entries 1022220
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

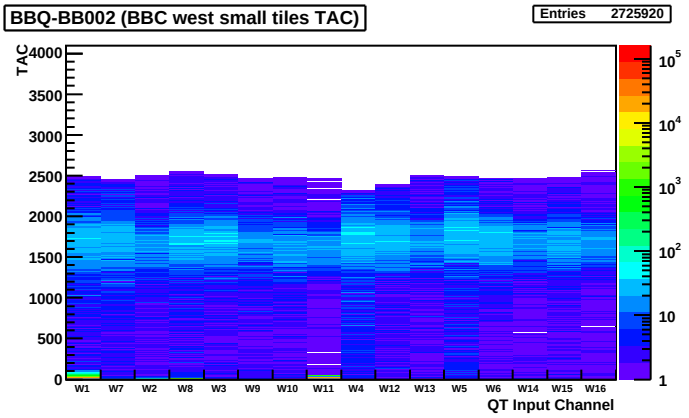

L1-TF201
Entries 170370
10^5
10^4
10^3
10^2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

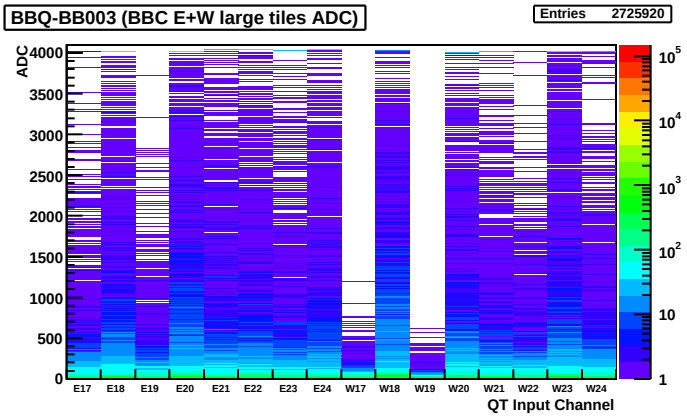

L1-TF201
Entries 1022220
Threshold bits
1
0
75
116
96
77
93
69
170295
170254
170274
170293
170277
170301
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4
10^3
10^2

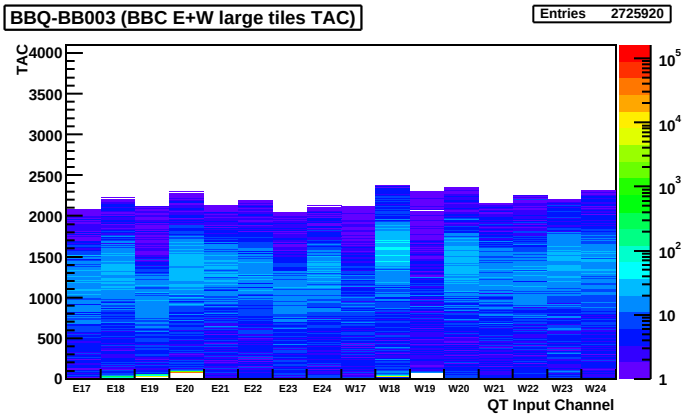

BBQ-BB001 (BBC east small tiles ADC)
Entries 2725920
ADC
QT Input Channel

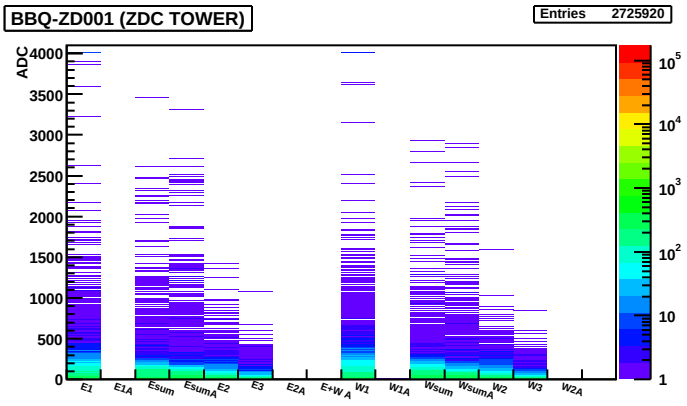

BBQ-BB001 (BBC east small tiles TAC)
Entries 2725920
TAC
QT Input Channel

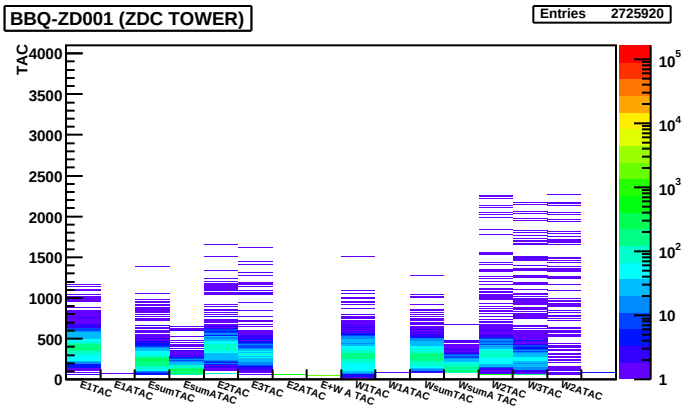

BBQ-BB002 (BBC west small tiles ADC)
Entries 2725920
ADC
QT Input Channel

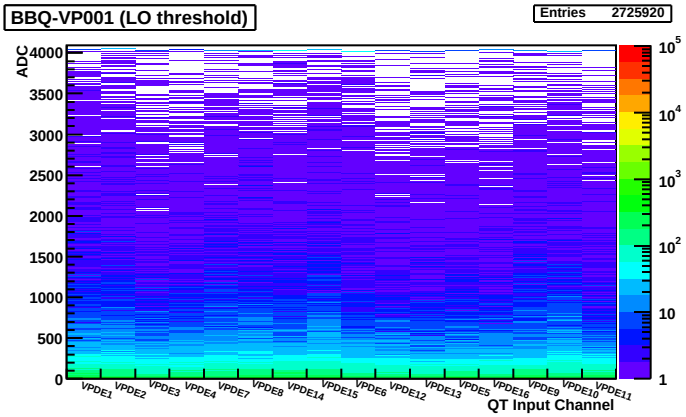

BBQ-BB002 (BBC west small tiles TAC)
Entries 2725920
TAC
QT Input Channel

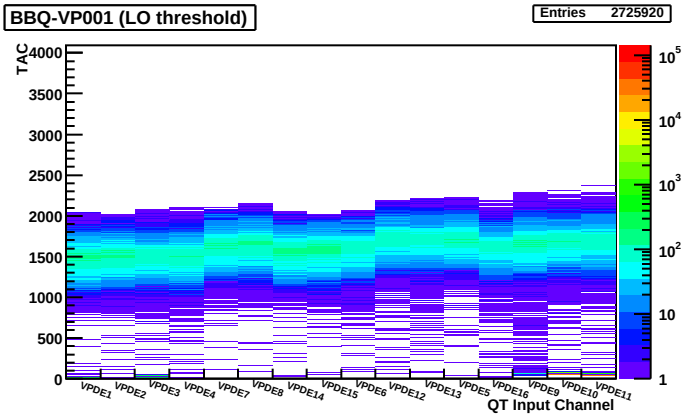

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2725920
ADC
QT Input Channel

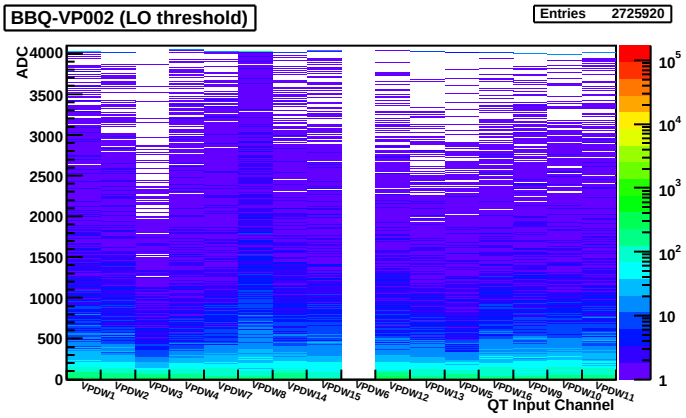

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2725920
TAC
QT Input Channel

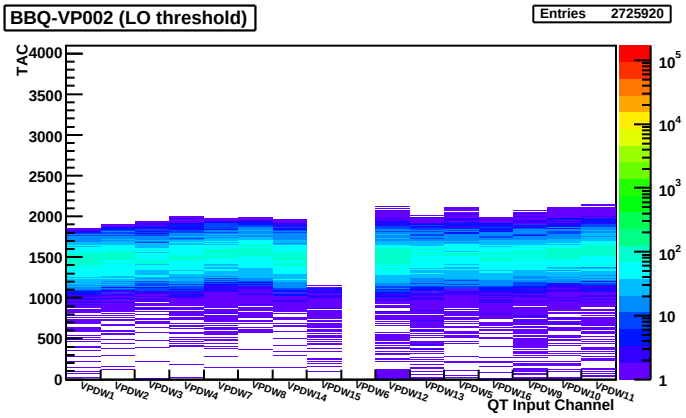

BBQ-ZD001 (ZDC TOWER)
Entries 2725920
ADC

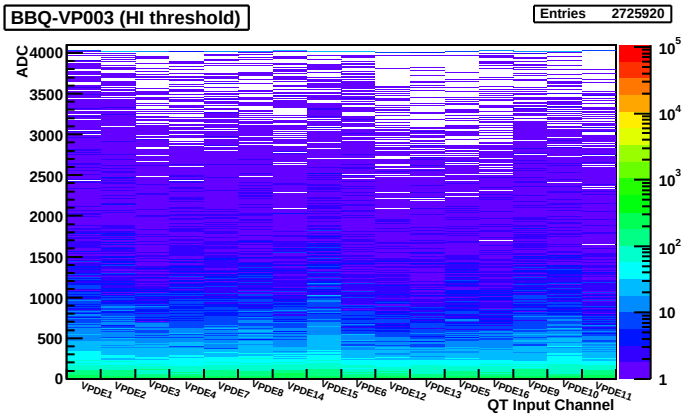

BBQ-ZD001 (ZDC TOWER)
Entries 2725920
TAC

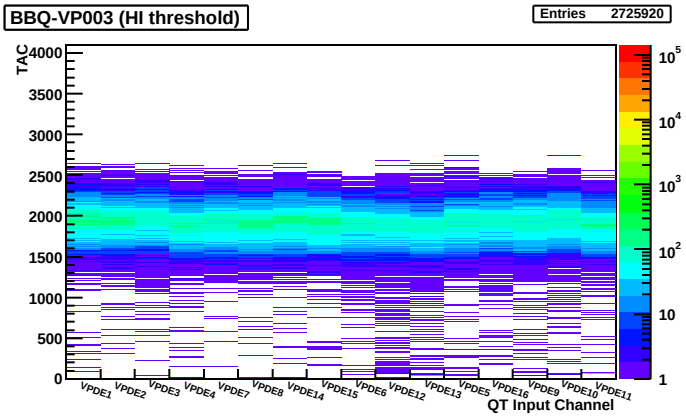

BBQ-VP001 (LO threshold)
Entries 2725920
ADC
QT Input Channel

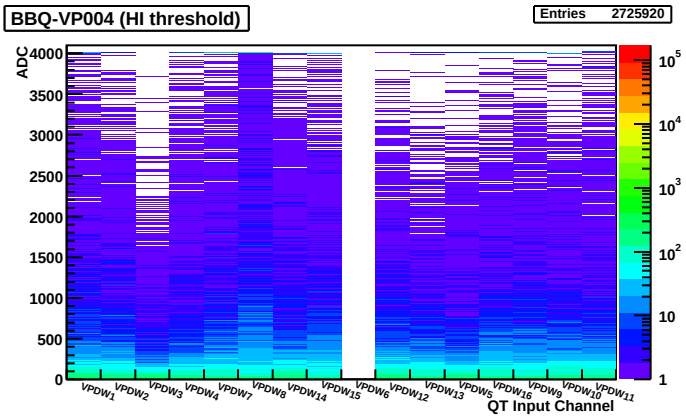

BBQ-VP001 (LO threshold)
Entries 2725920
TAC
QT Input Channel

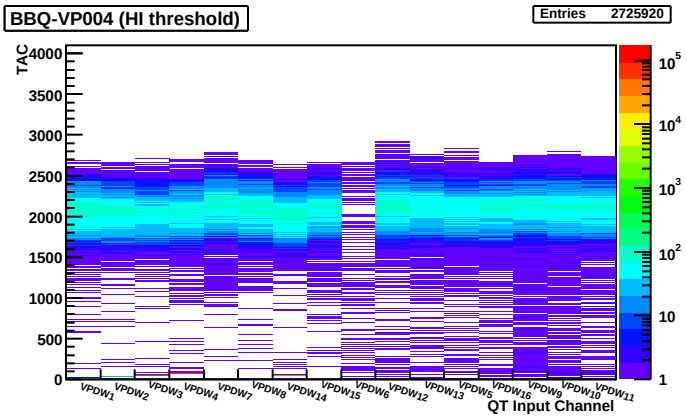

BBQ-VP002 (LO threshold)
Entries 2725920
ADC
QT Input Channel

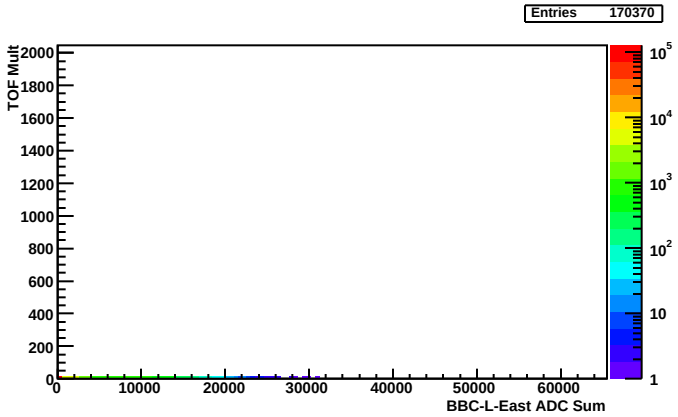

BBQ-VP002 (LO threshold)
Entries 2725920
TAC
QT Input Channel

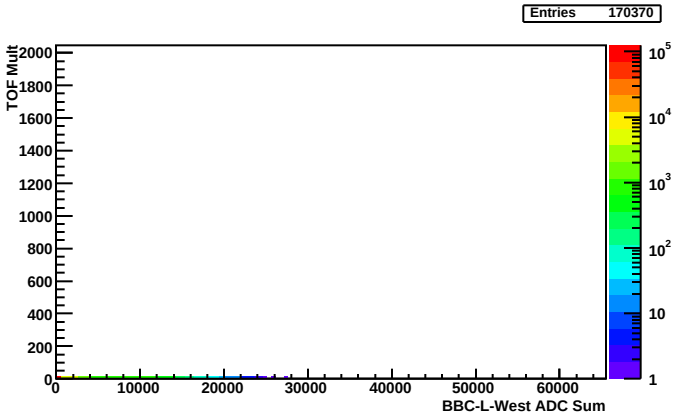

BBQ-VP003 (HI threshold)
Entries 2725920
ADC
QT Input Channel

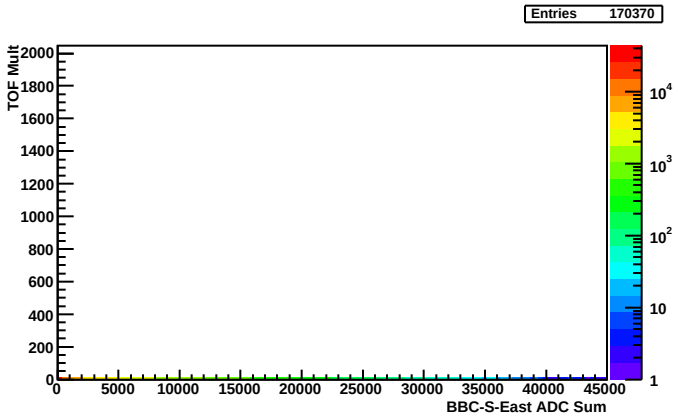

BBQ-VP003 (HI threshold)
Entries 2725920
TAC
QT Input Channel

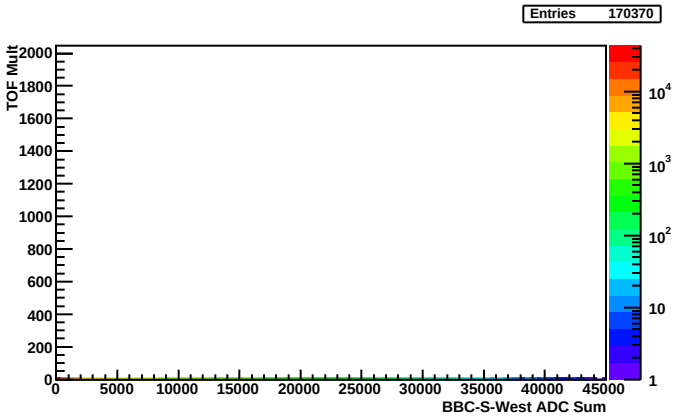

BBQ-VP004 (HI threshold)
Entries 2725920
ADC
QT Input Channel

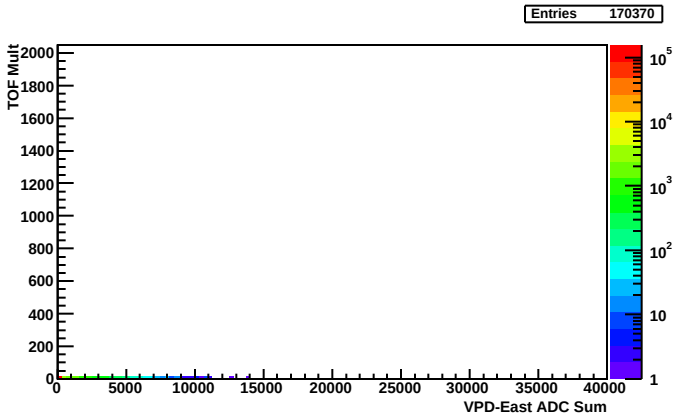

BBQ-VP004 (HI threshold)
Entries 2725920
TAC
QT Input Channel

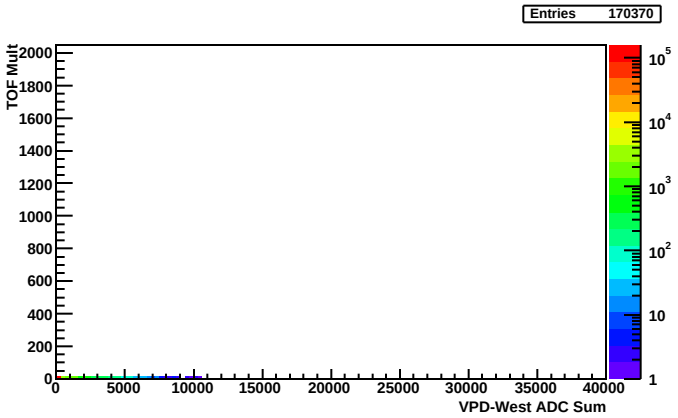

Entries 170370
TOF Mult
BBC-L-East ADC Sum

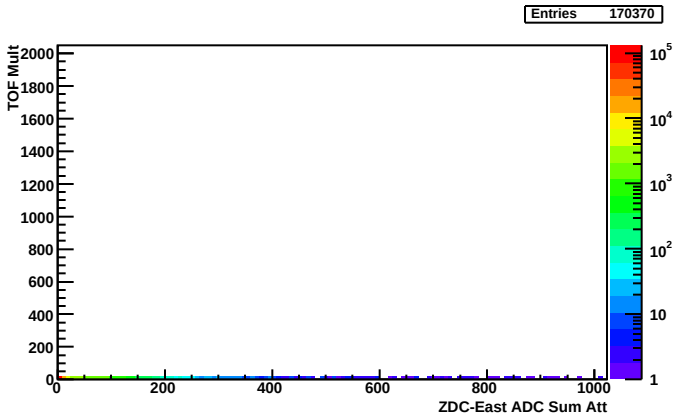

Entries 170370
TOF Mult
BBC-L-West ADC Sum

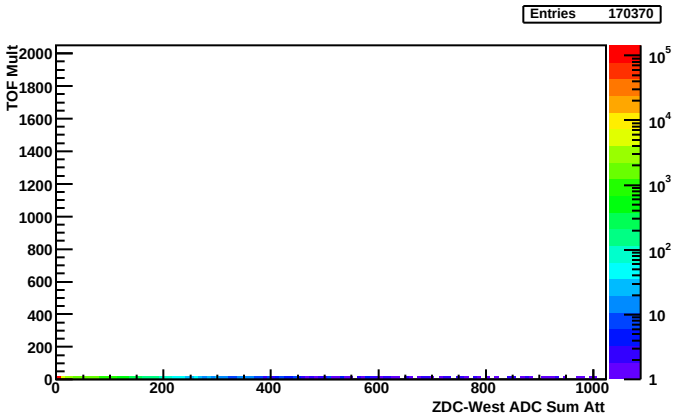

Entries 170370
TOF Mult
BBC-S-East ADC Sum

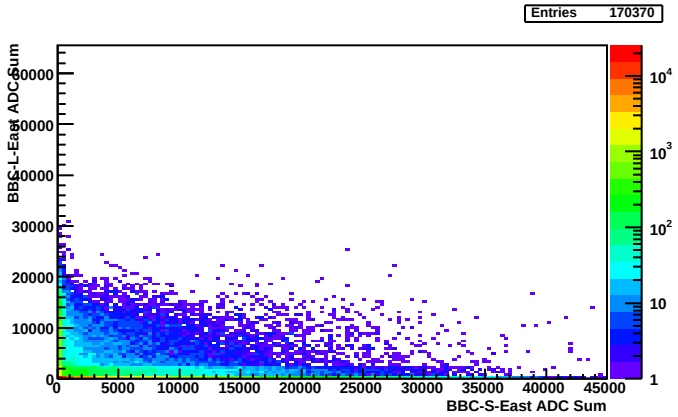

Entries 170370
TOF Mult
BBC-S-West ADC Sum

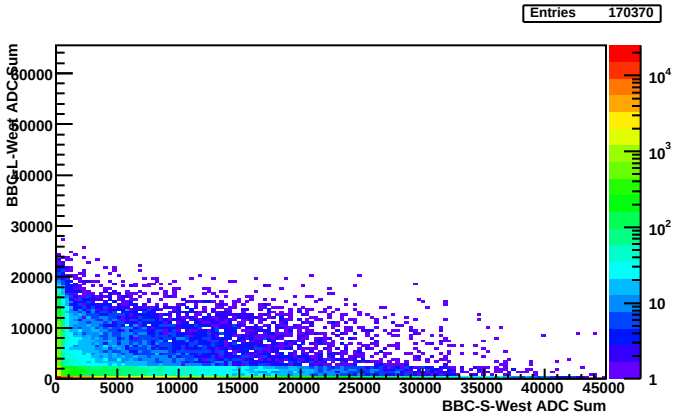

Entries 170370
TOF Mult
VPD-East ADC Sum

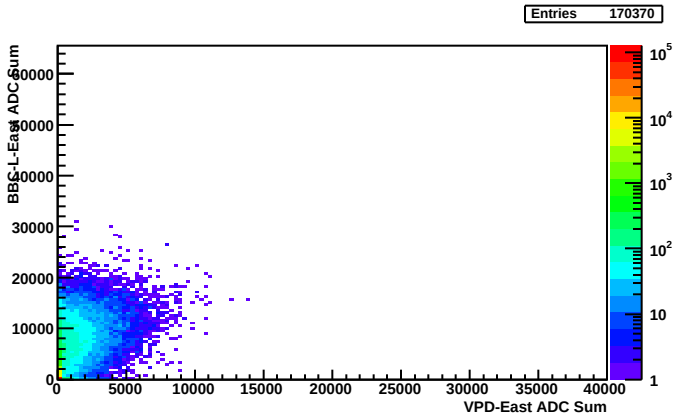

Entries 170370
TOF Mult
VPD-West ADC Sum

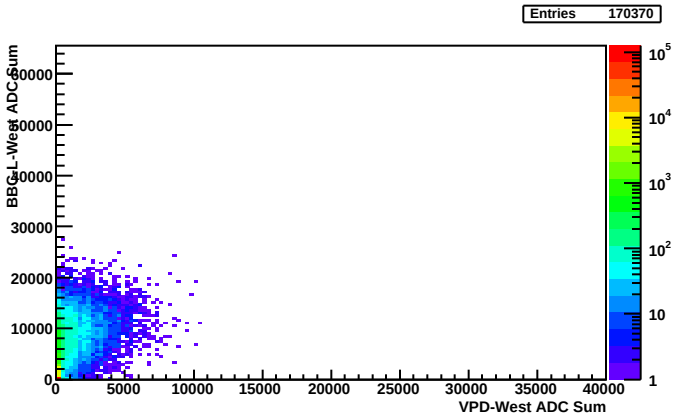

Entries 170370
TOF Mult
ZDC-East ADC Sum Att

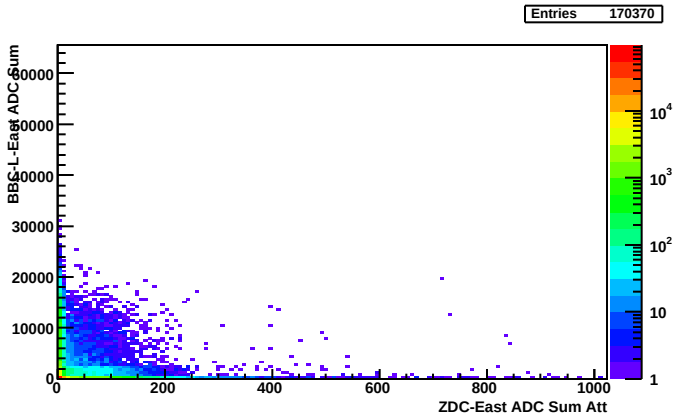

Entries 170370
TOF Mult
ZDC-West ADC Sum Att

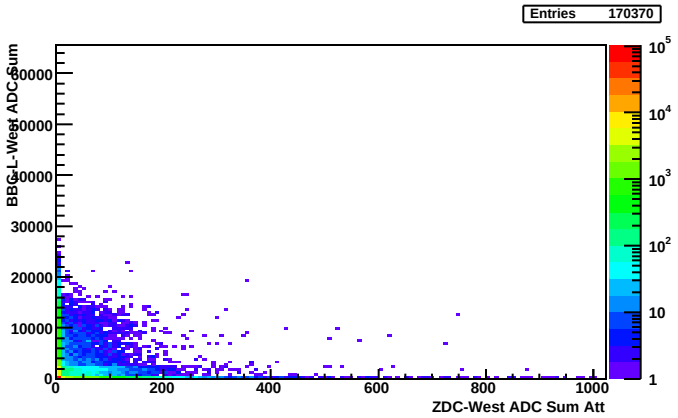

Entries 170370
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 170370
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 170370
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 170370
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 170370
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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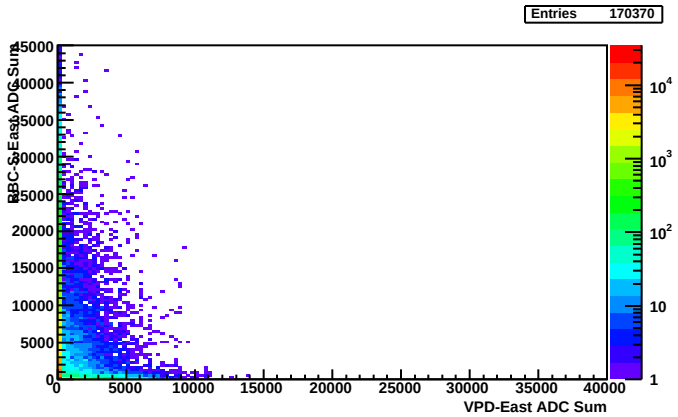
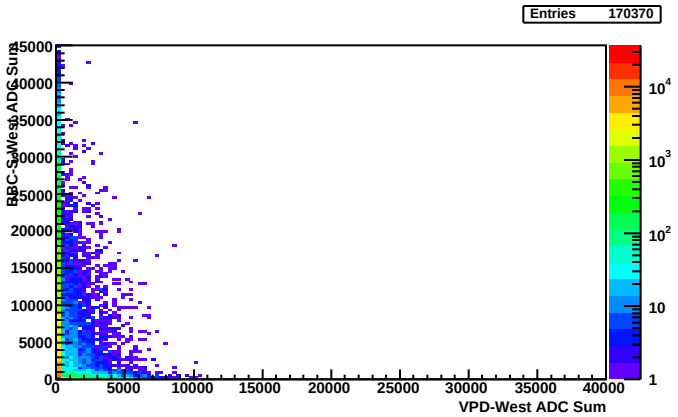
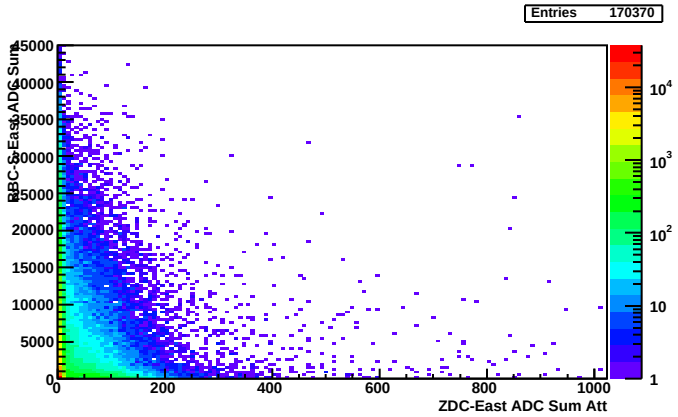
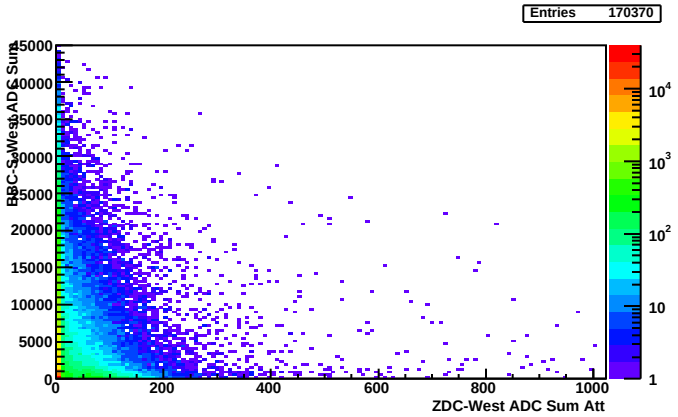
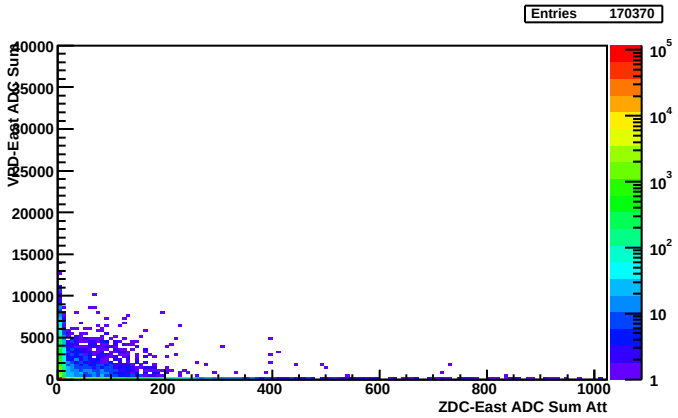
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

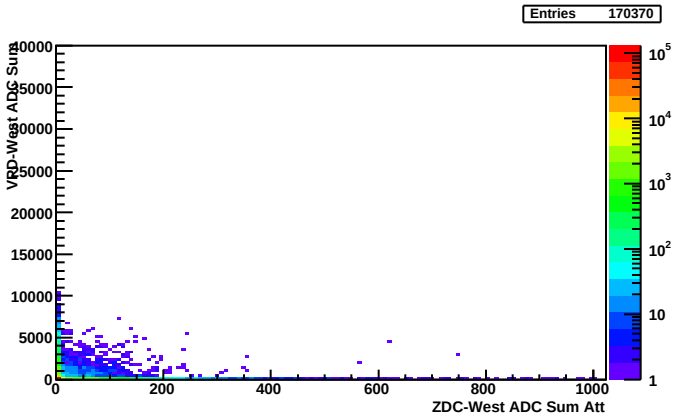

Entries 170370
BBC-S-East ADC Sum
VPD-East ADC Sum

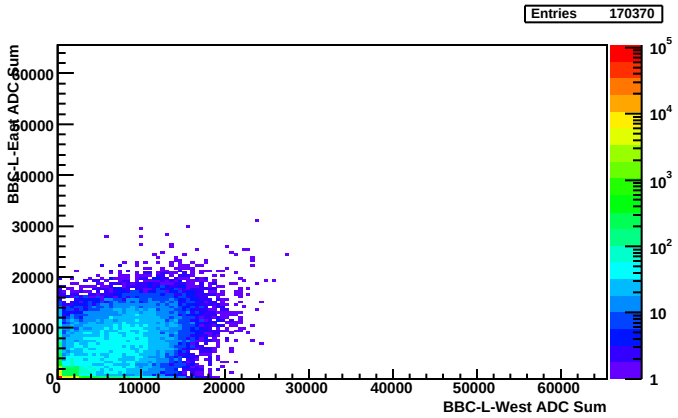

Entries 170370
BBC-S-West ADC Sum
VPD-West ADC Sum

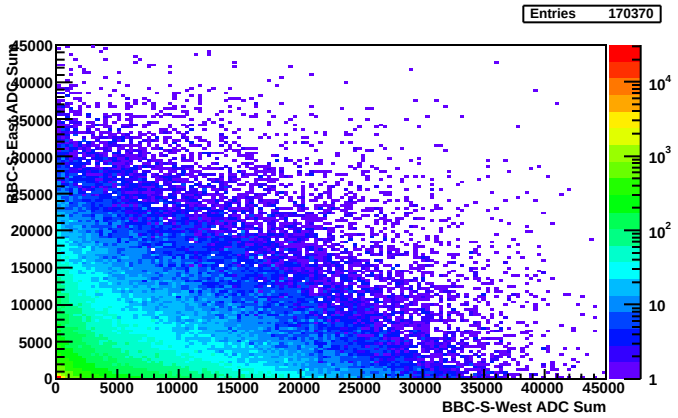

Entries 170370
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

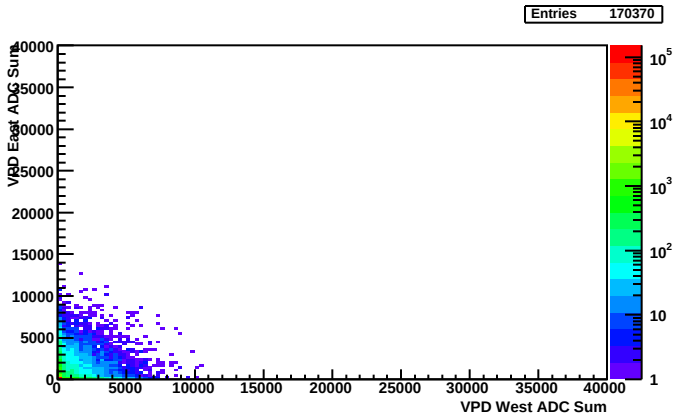

Entries 170370
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

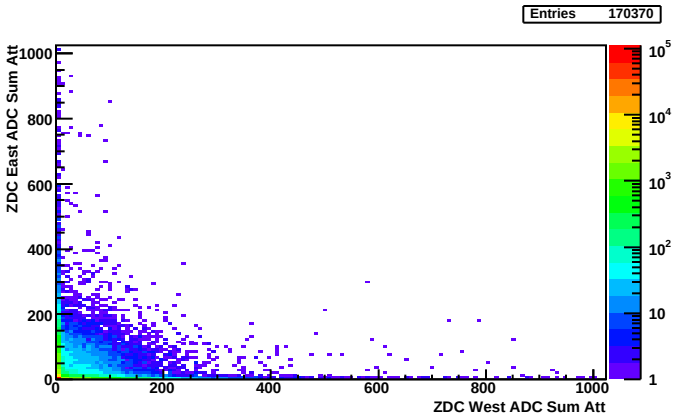

Entries 170370
VPD-East ADC Sum
ZDC-East ADC Sum Att

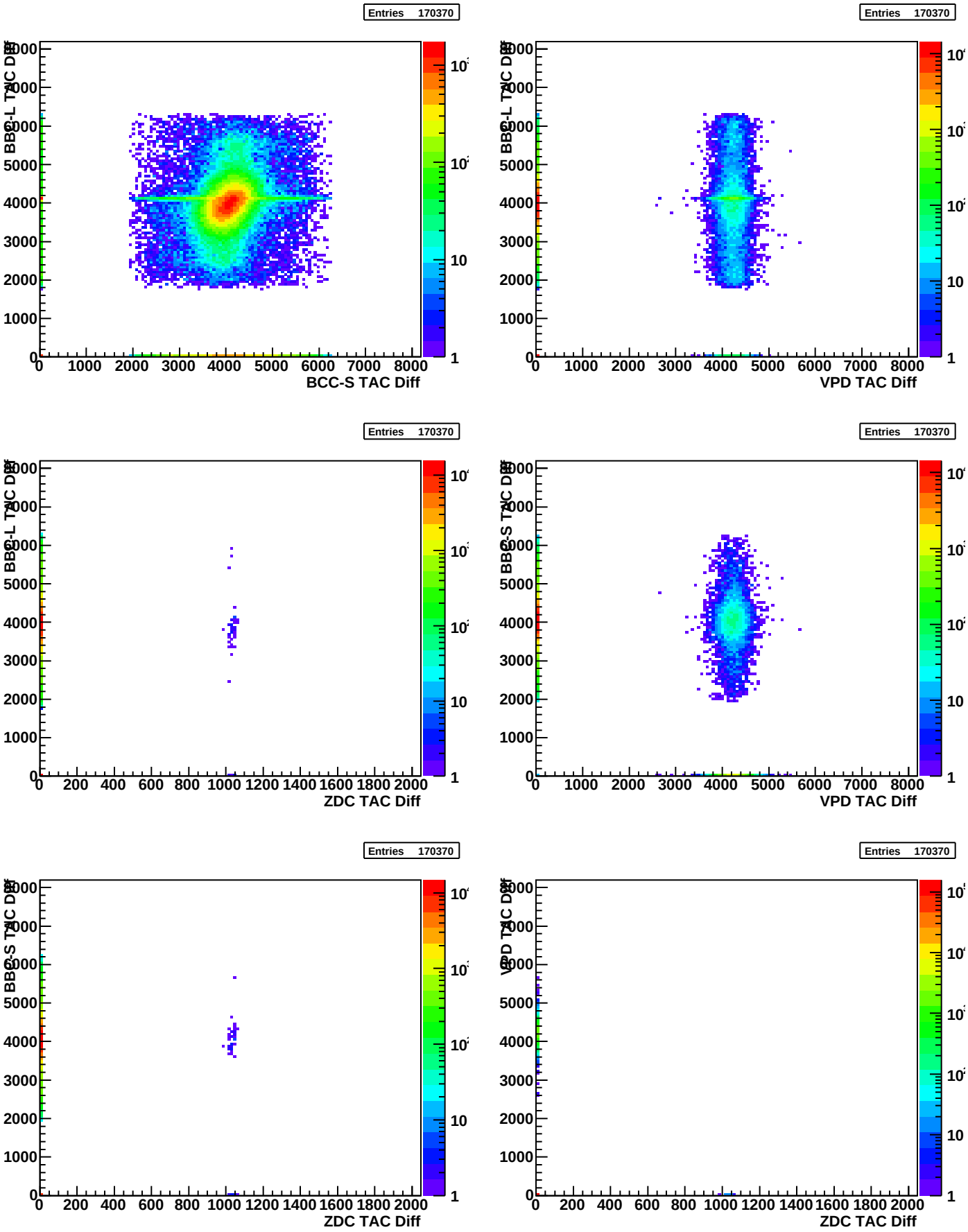

Entries 170370
VPD-West ADC Sum
ZDC-West ADC Sum Att

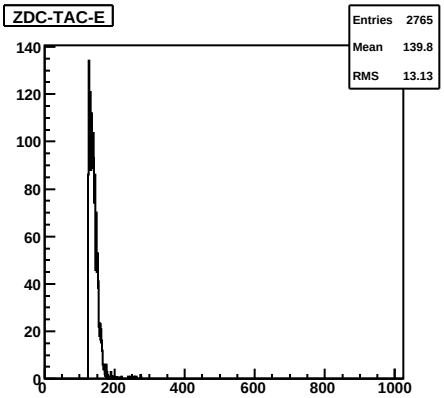

Entries 170370
BBC-L-East ADC Sum
BBC-L-West ADC Sum

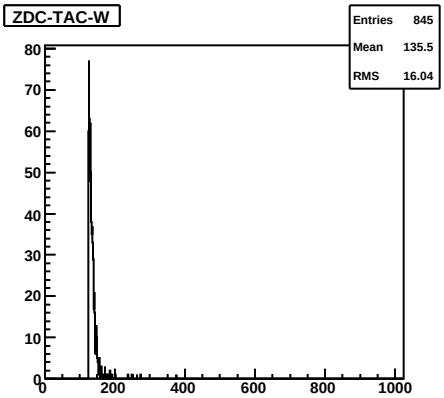

Entries 170370
BBC-S-East ADC Sum
BBC-S-West ADC Sum

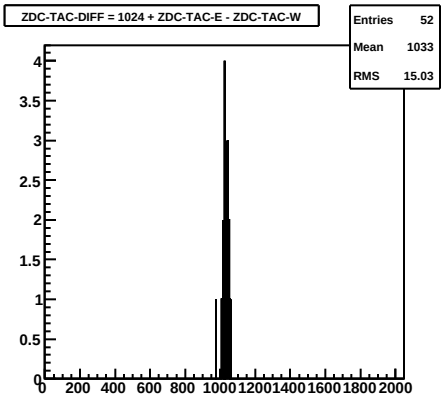

Entries 170370
VPD East ADC Sum
VPD West ADC Sum

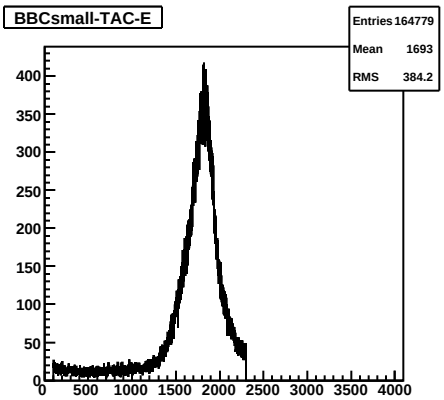

Entries 170370
ZDC East ADC Sum Att
ZDC West ADC Sum Att

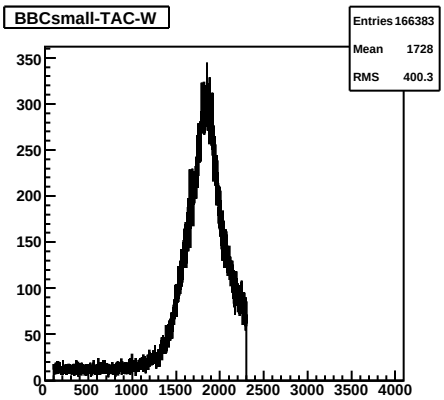

Entries 170370
BBC-L TAC Diff
BCC-S TAC Diff
Entries 170370
BBC-L TAC Diff
VPD TAC Diff
Entries 170370
BBC-L TAC Diff
ZDC TAC Diff
Entries 170370
BBC-S TAC Diff
VPD TAC Diff
Entries 170370
BBC-S TAC Diff
ZDC TAC Diff
Entries 170370
VPD TAC Diff
ZDC TAC Diff

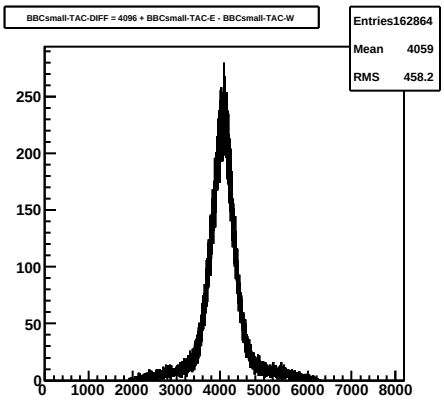

ZDC-TAC-E
Entries 2765
Mean 139.8
RMS 13.13

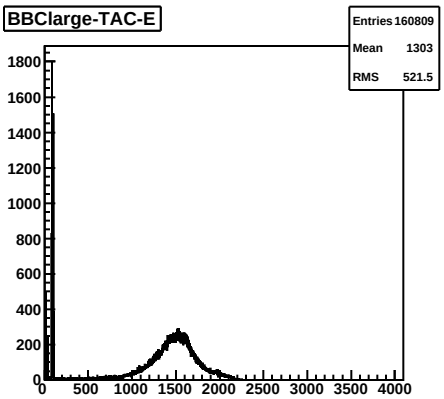

ZDC-TAC-W
Entries 845
Mean 135.5
RMS 16.04

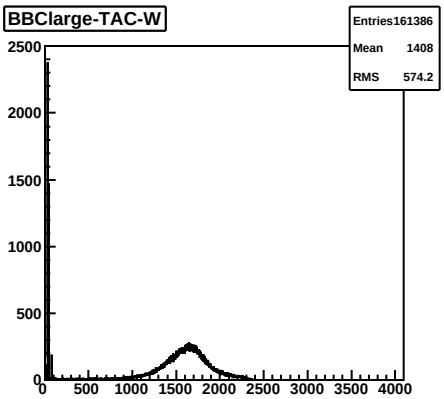

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 52
Mean 1033
RMS 15.03

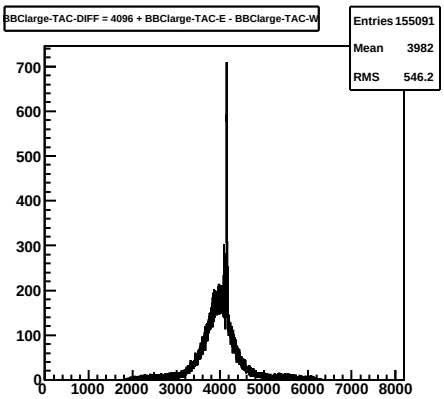

BBCsmall-TAC-E
Entries 164779
Mean 1693
RMS 384.2

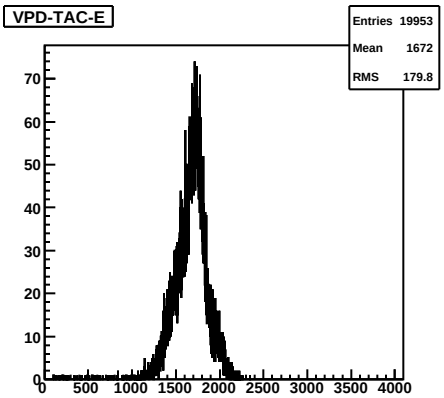

BBCsmall-TAC-W
Entries 166383
Mean 1728
RMS 400.3

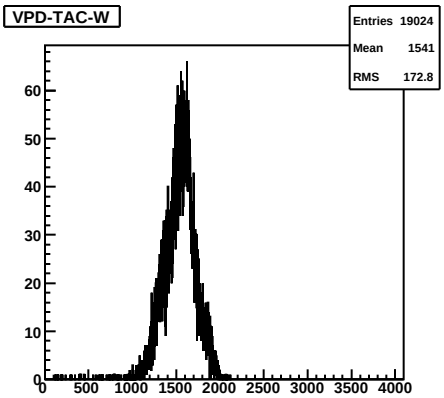

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 162864
Mean 4059
RMS 458.2

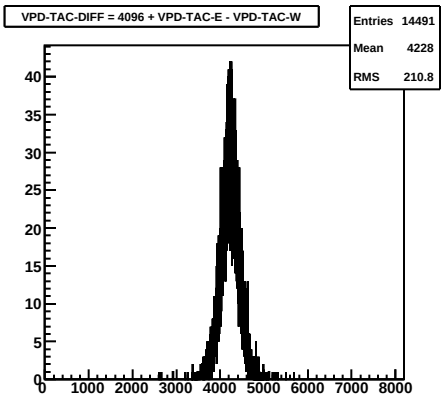

BBClarge-TAC-E
Entries 160809
Mean 1303
RMS 521.5

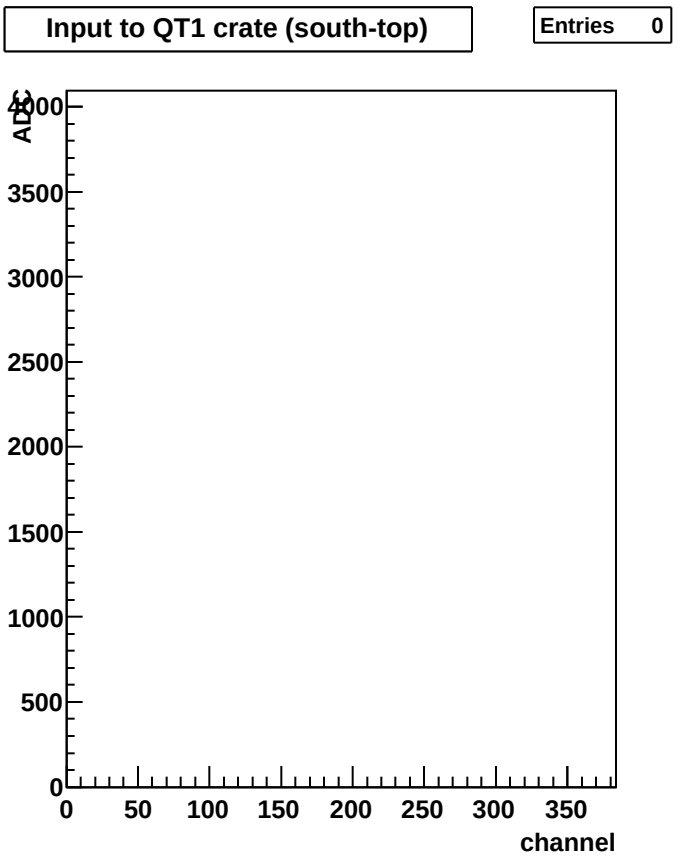

BBClarge-TAC-W
Entries 161386
Mean 1408
RMS 574.2

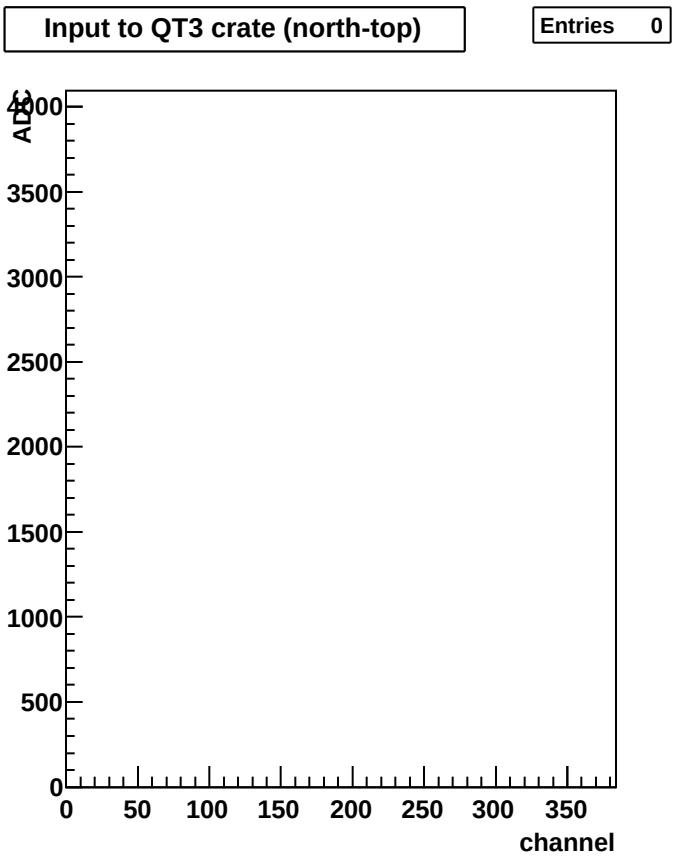

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 155091
Mean 3982
RMS 546.2

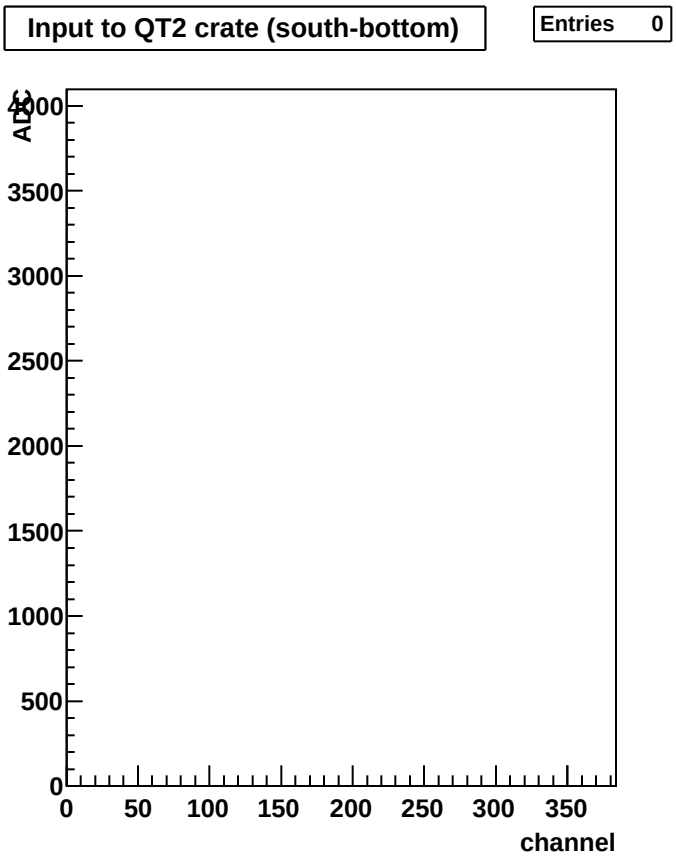

VPD-TAC-E
Entries 19953
Mean 1672
RMS 179.8

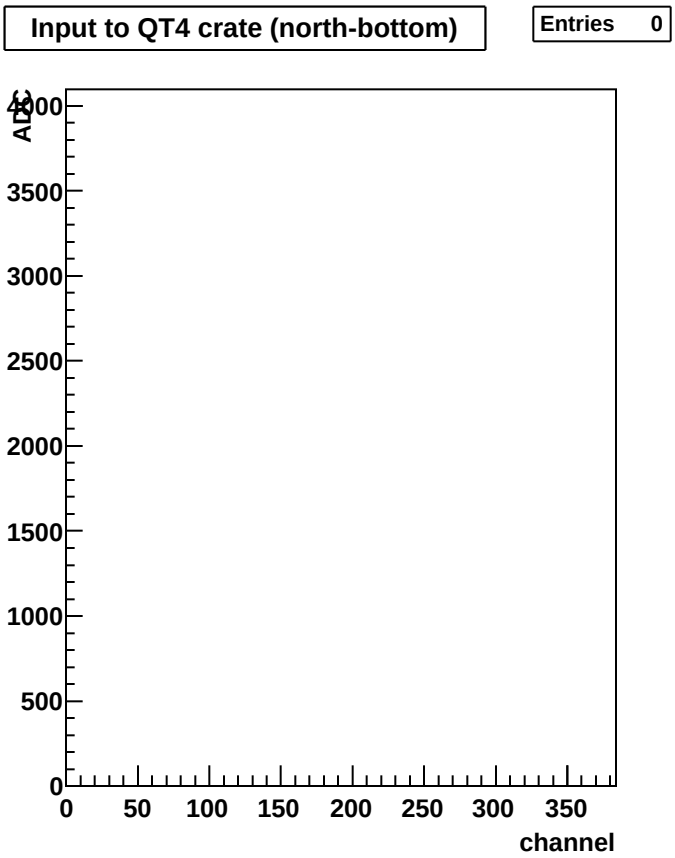

VPD-TAC-W
Entries 19024
Mean 1541
RMS 172.8

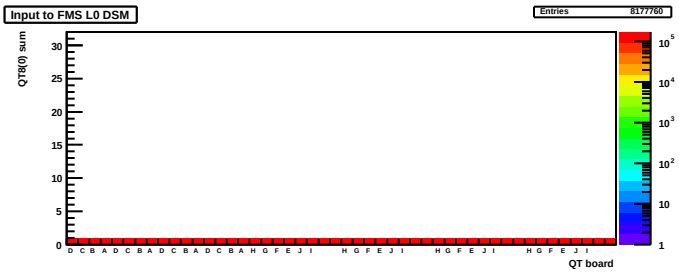

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 14491
Mean 4228
RMS 210.8

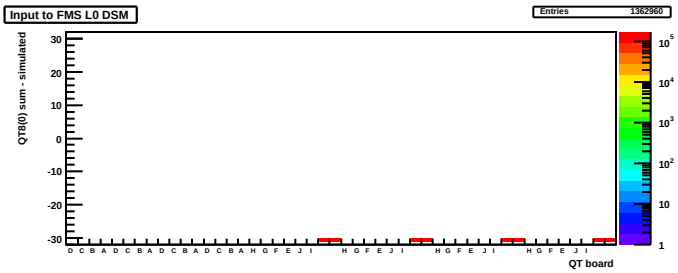

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

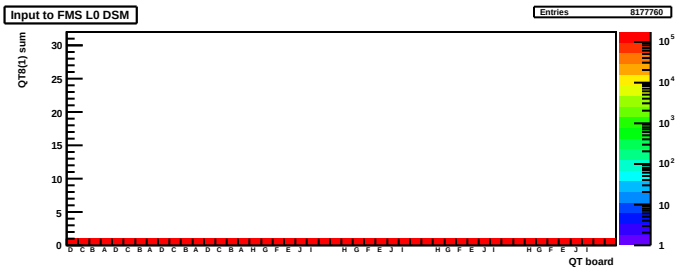

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

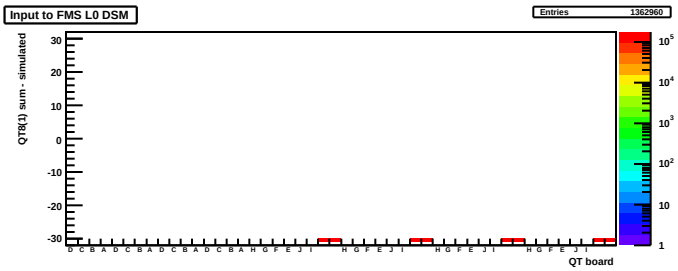

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

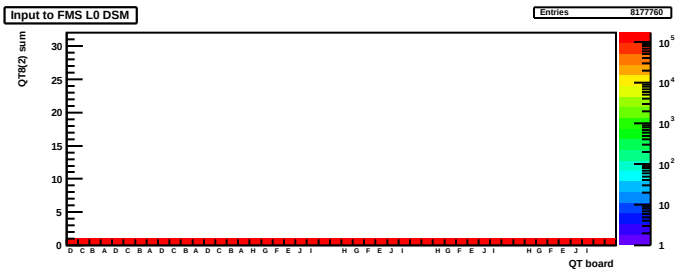

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

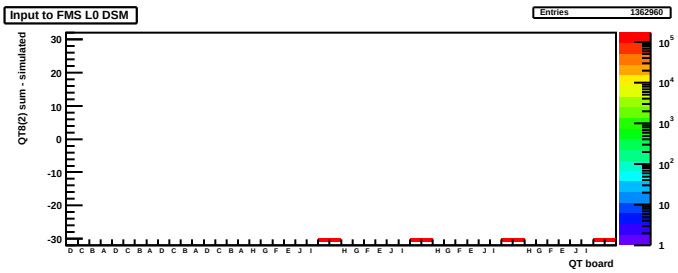

Input to FMS L0 DSM
Entries 8177760
QT8(0) sum
QT board

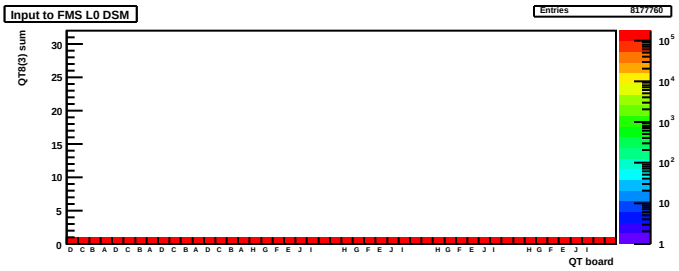

Input to FMS L0 DSM
Entries 1362960
QT8(0) sum - simulated
QT board

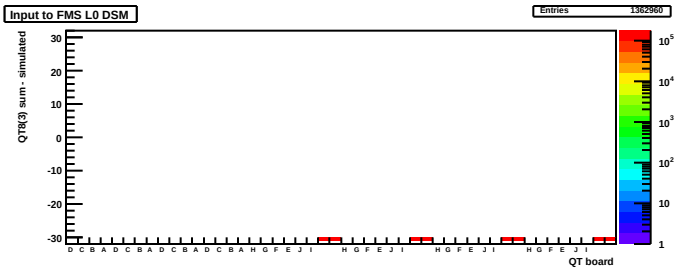

Input to FMS L0 DSM
Entries 8177760
QT8(1) sum
QT board

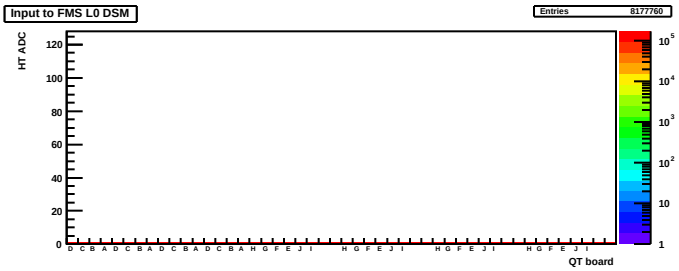

Input to FMS L0 DSM
Entries 1362960
QT8(1) sum - simulated
QT board

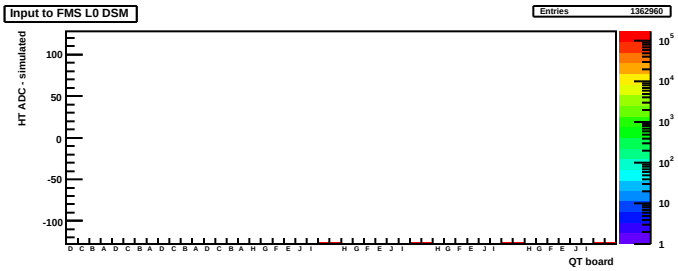

Input to FMS L0 DSM
Entries 8177760
QT8(2) sum
QT board

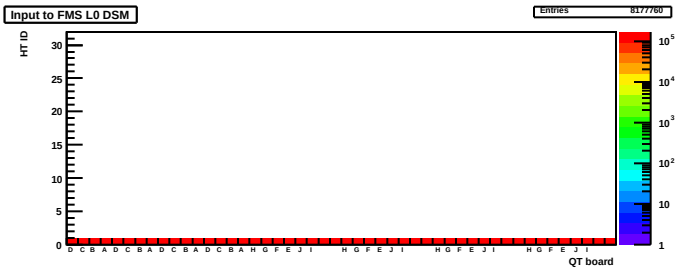

Input to FMS L0 DSM
Entries 1362960
QT8(2) sum - simulated
QT board

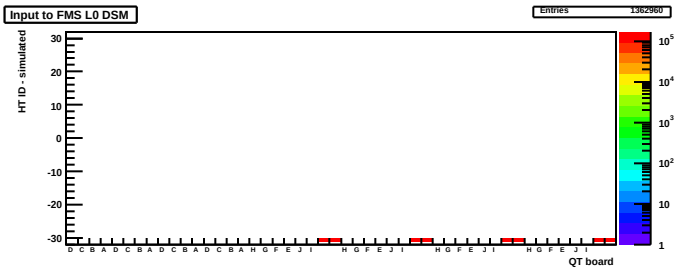

Input to FMS L0 DSM
Entries 8177760
QT8(3) sum
QT board

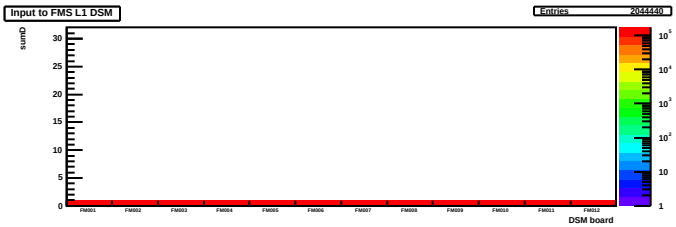

Input to FMS L0 DSM
Entries 1362960
QT8(3) sum - simulated
QT board

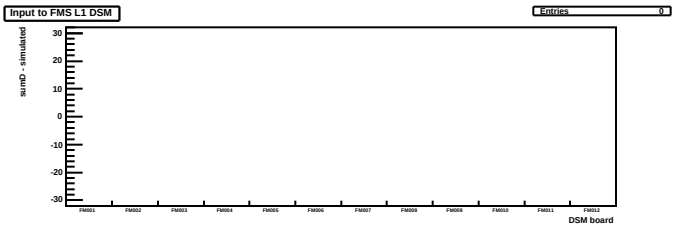

Input to FMS L0 DSM
Entries 8177760
HT ADC
QT board

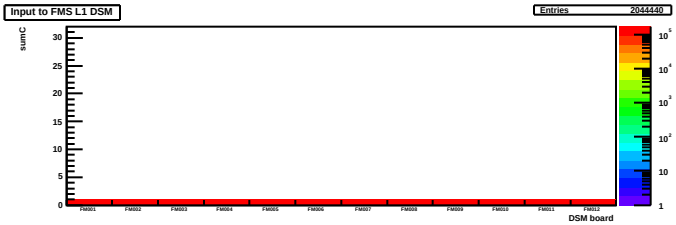

Input to FMS L0 DSM
Entries 1362960
HT ADC - simulated
QT board

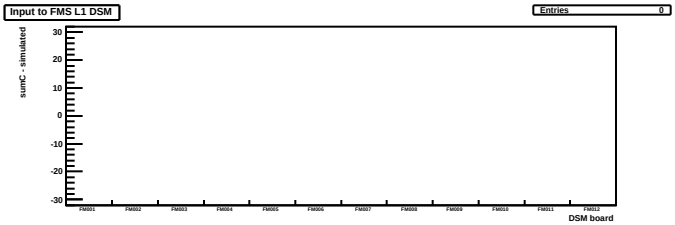

Input to FMS L0 DSM
Entries 8177760
HT ID
QT board

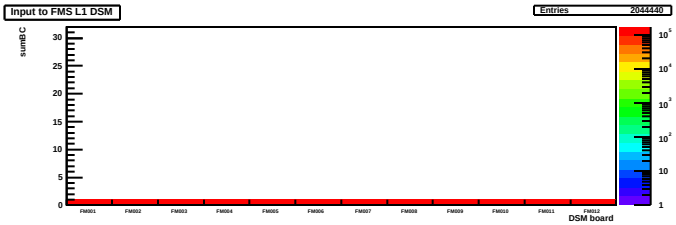

Input to FMS L0 DSM
Entries 1362960
HT ID - simulated
QT board

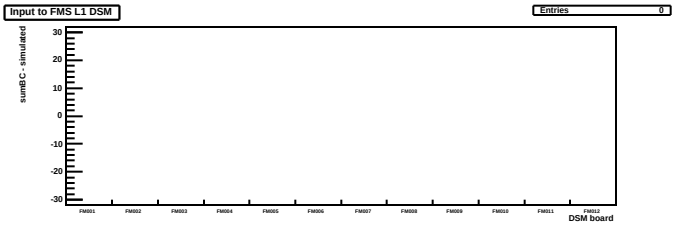

Input to FMS L1 DSM
Entries 2044440
sumD
DSM board

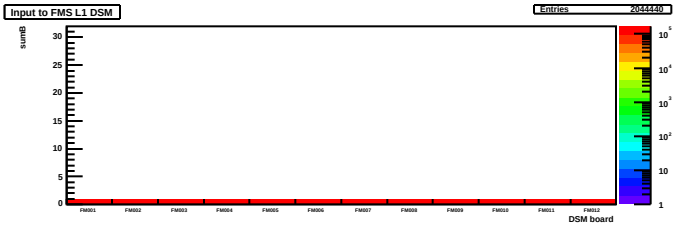

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

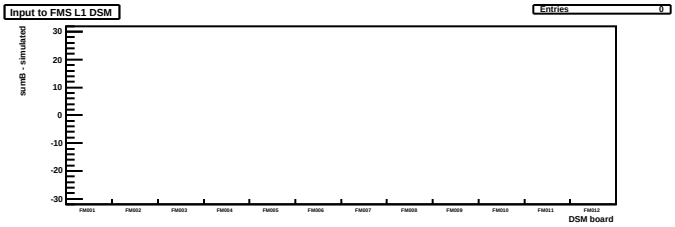

Input to FMS L1 DSM
Entries 2044440
sumC
DSM board

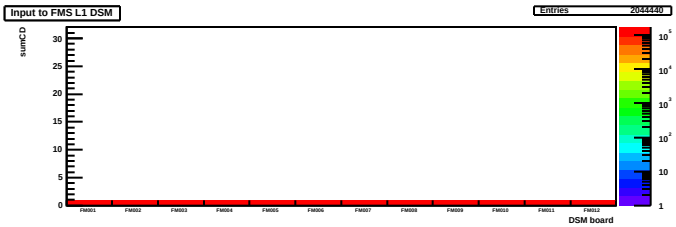

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

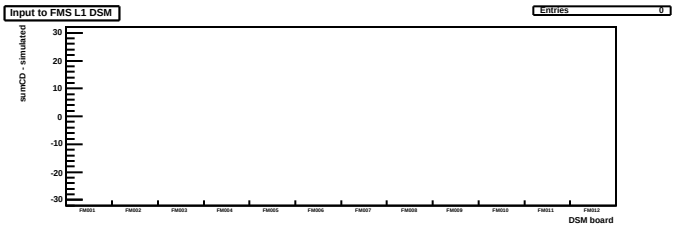

Input to FMS L1 DSM
Entries 2044440
sumBC
DSM board

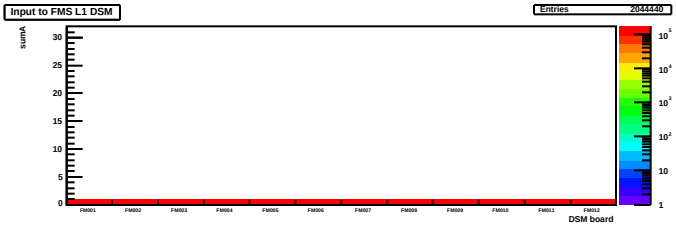

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

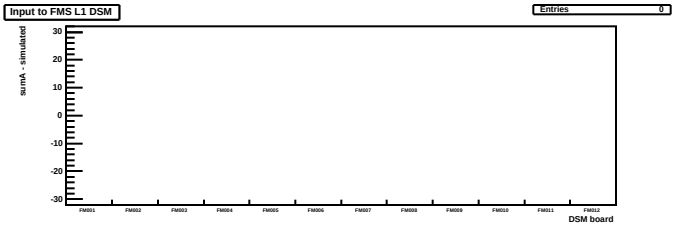

Input to FMS L1 DSM
Entries 2044440
sumB
DSM board

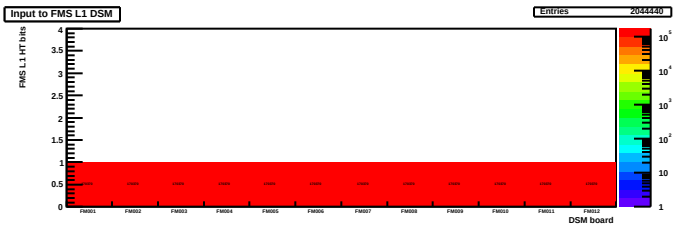

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

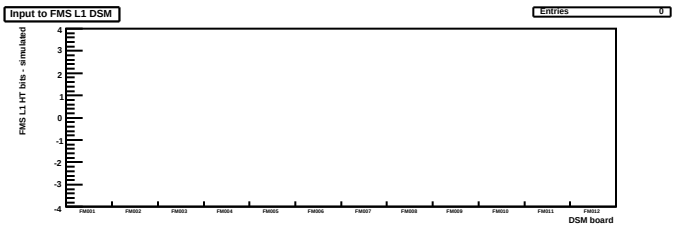

Input to FMS L1 DSM
Entries 2044440
sumCD
DSM board

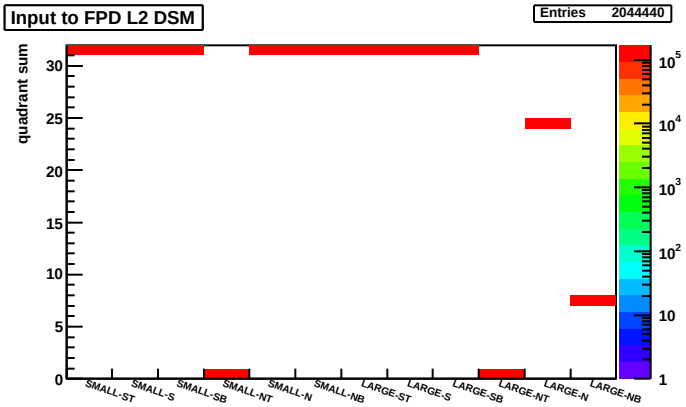

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

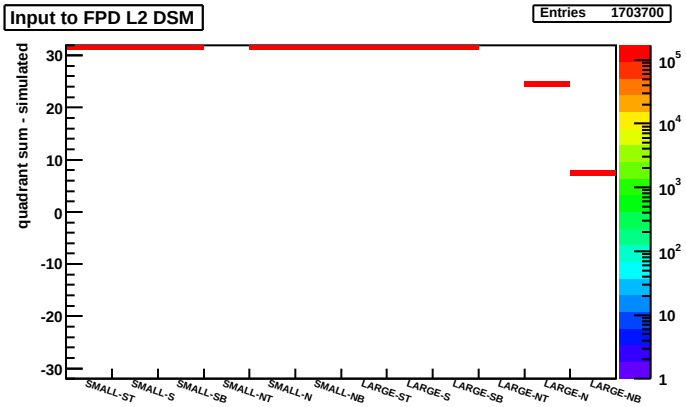

Input to FMS L1 DSM
Entries 2044440
sumA
DSM board

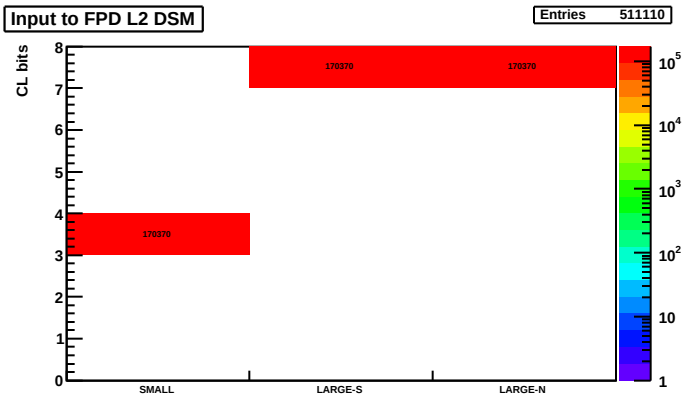

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

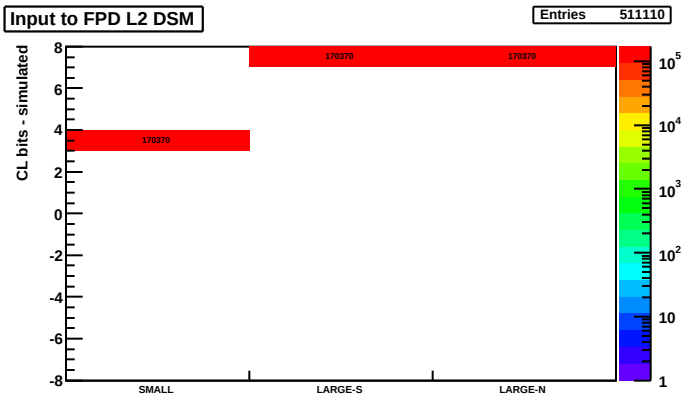

Input to FMS L1 DSM
Entries 2044440
FMS L1 HT bits
DSM board

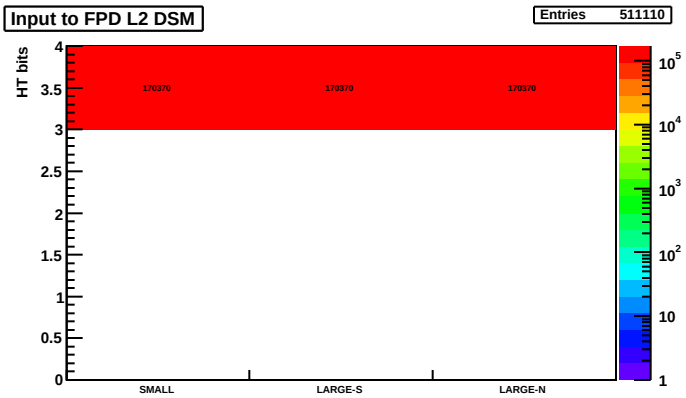

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

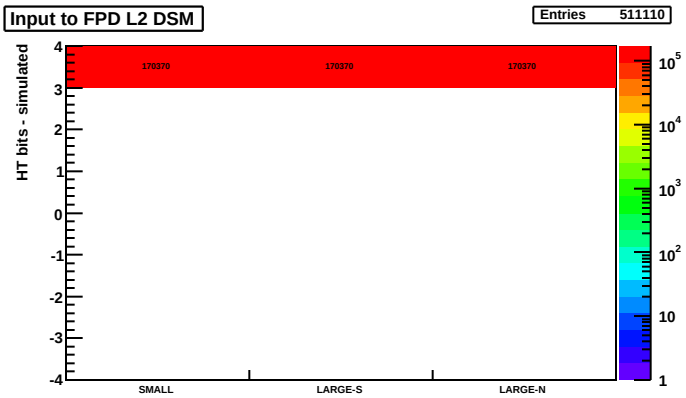

Input to FPD L2 DSM
Entries 2044440
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

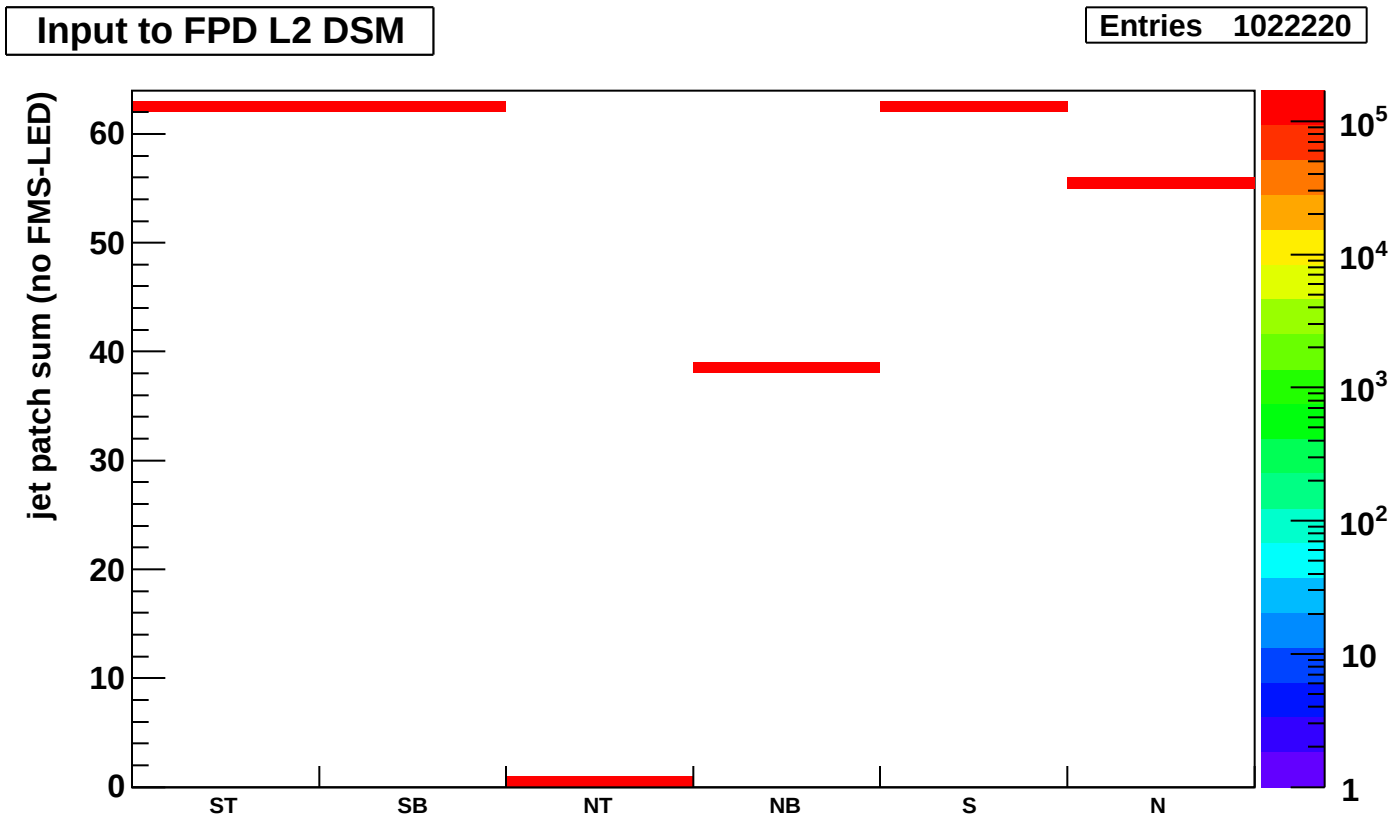

Input to FPD L2 DSM
Entries 1703700
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

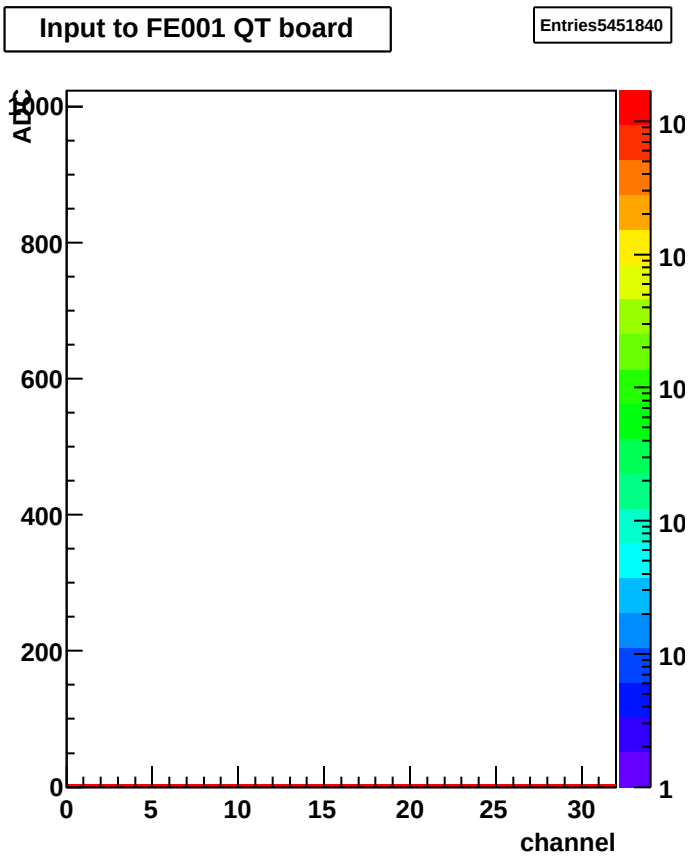

Input to FPD L2 DSM
Entries 511110
CL bits
170370
170370
170370
SMALL
LARGE-S
LARGE-N

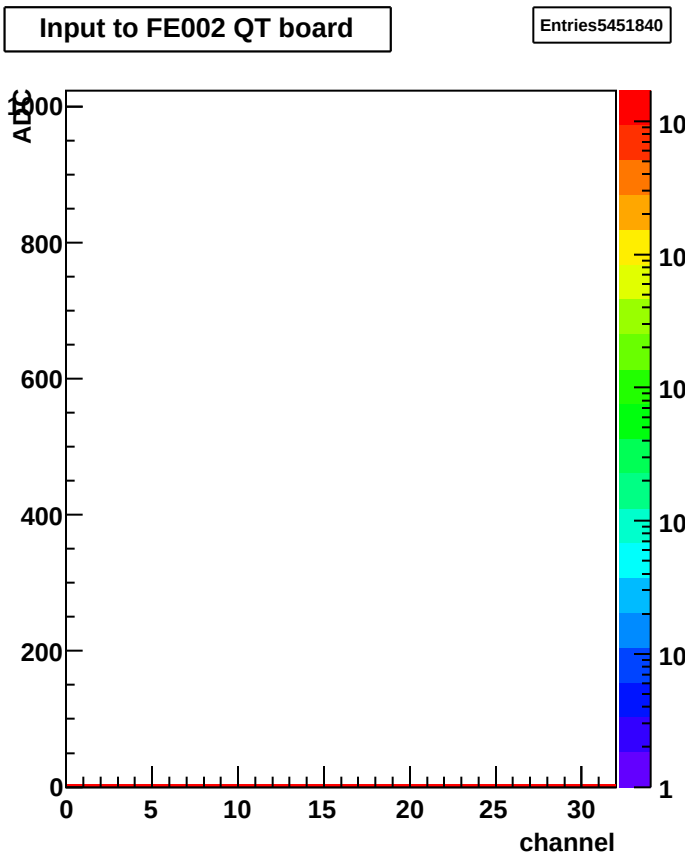

Input to FPD L2 DSM
Entries 511110
CL bits - simulated
170370
170370
170370
SMALL
LARGE-S
LARGE-N

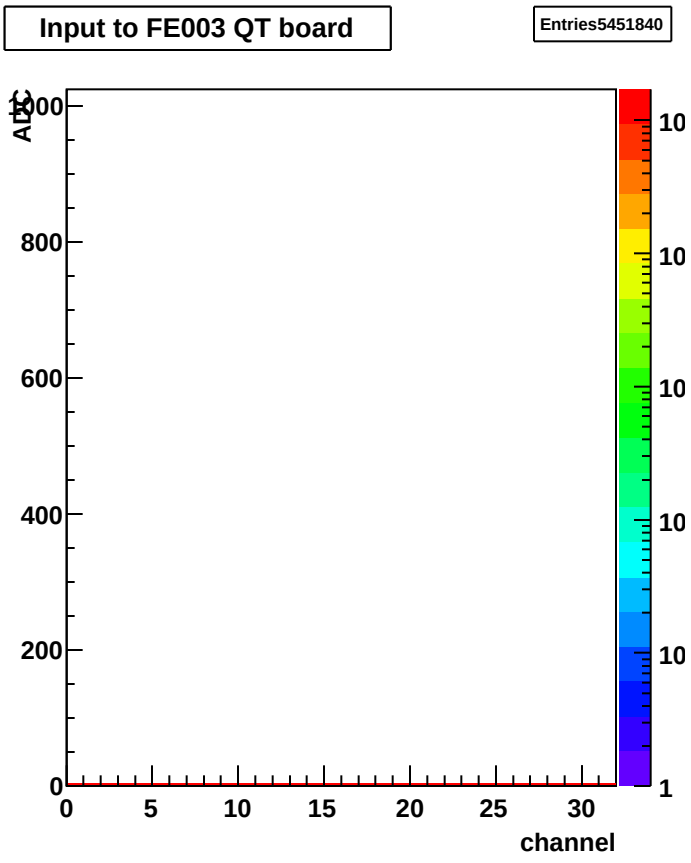

Input to FPD L2 DSM
Entries 511110
HT bits
170370
170370
170370
SMALL
LARGE-S
LARGE-N

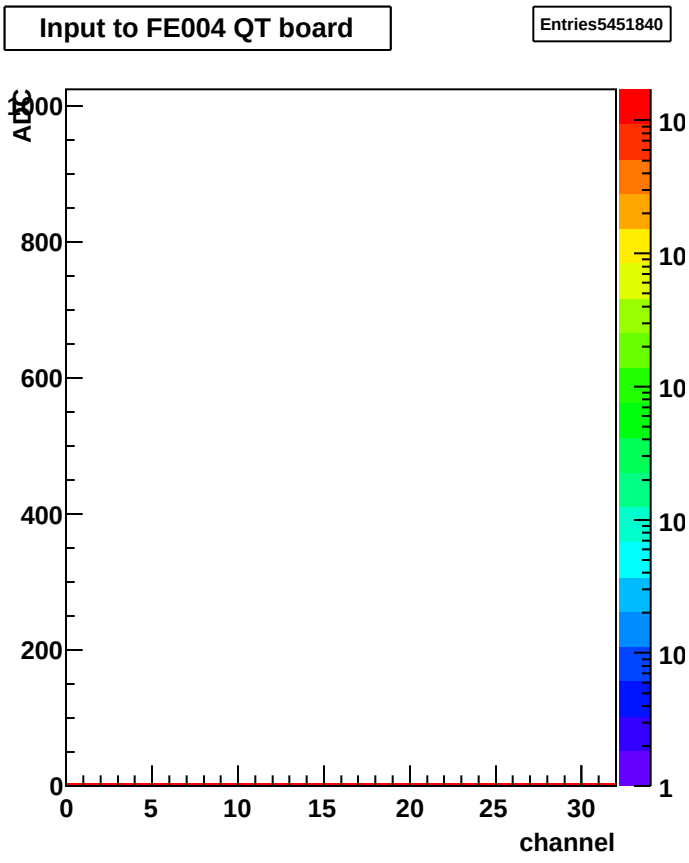

Input to FPD L2 DSM
Entries 511110
HT bits - simulated
170370
170370
170370
SMALL
LARGE-S
LARGE-N

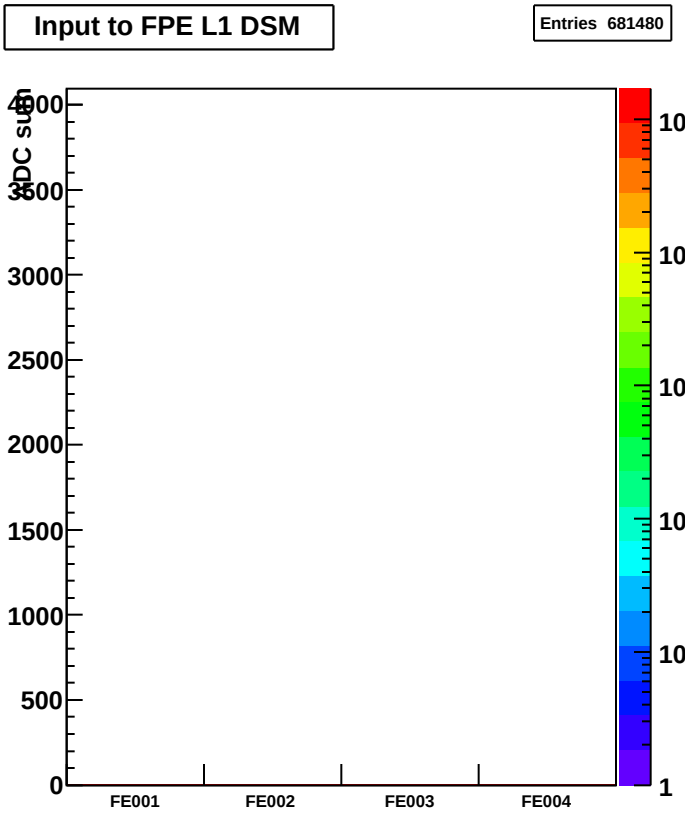

Input to FPD L2 DSM
Entries 1022220
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

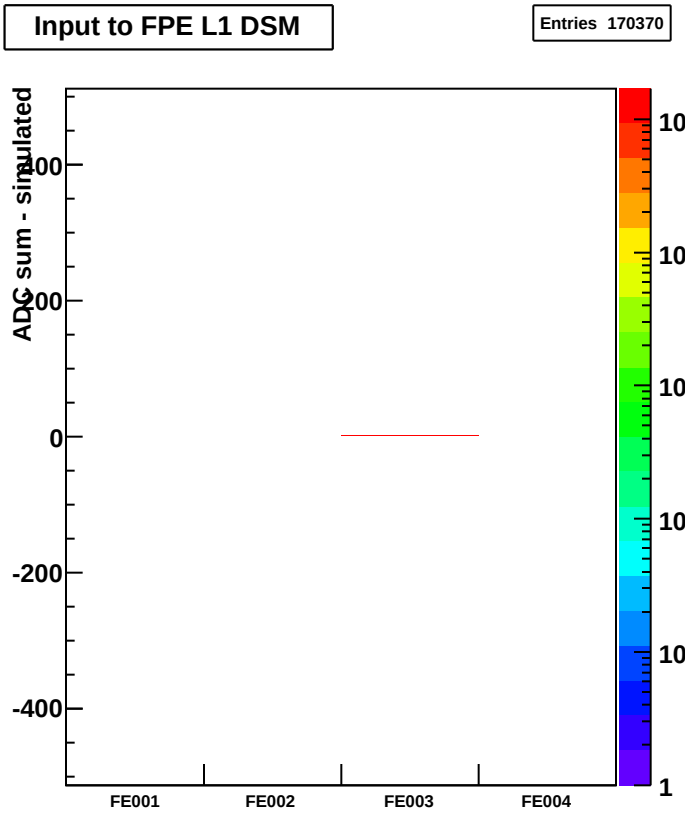

Input to FE001 QT board
Entries5451840
ADC
channel

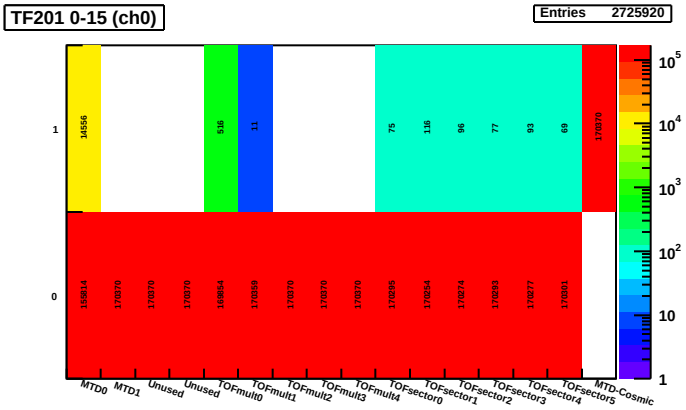

Input to FE002 QT board
Entries5451840
ADC
channel

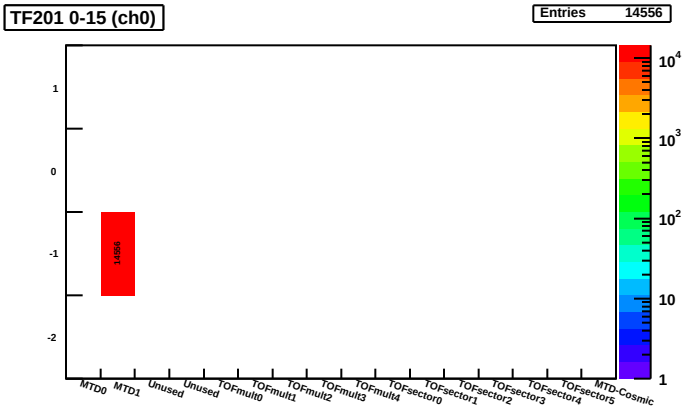

Input to FE003 QT board
Entries5451840
ADC
channel

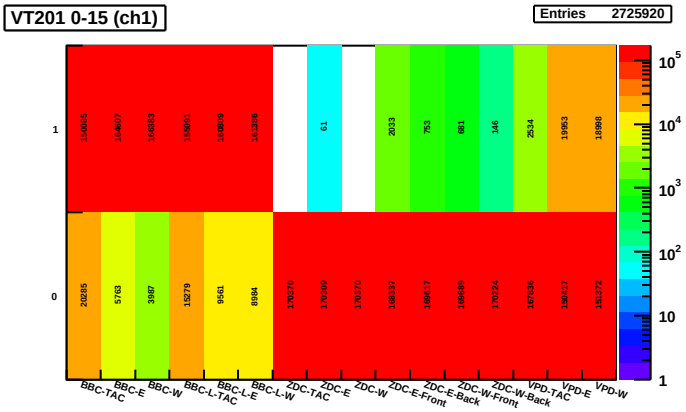

Input to FE004 QT board
Entries5451840
ADC
channel

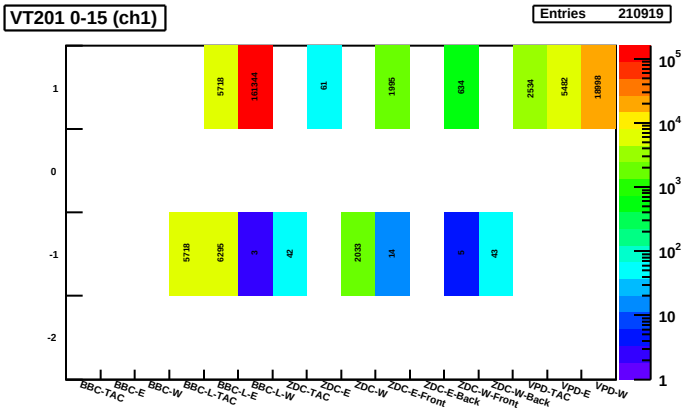

Input to FPE L1 DSM
Entries 681480
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

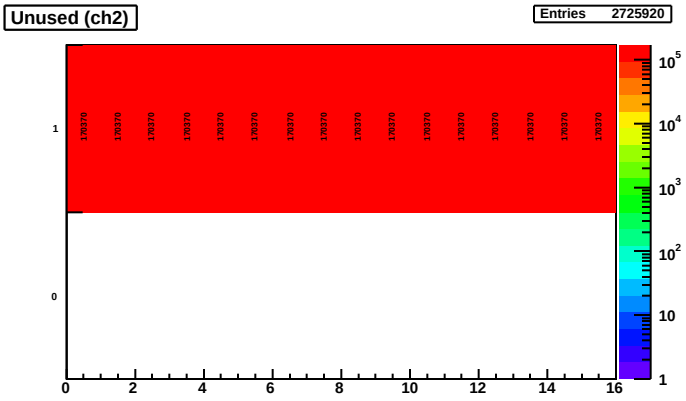

Input to FPE L1 DSM
Entries 170370
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1


TF201 0-15 (ch0)
Entries 2725920
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 14556
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 2725920
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 210919
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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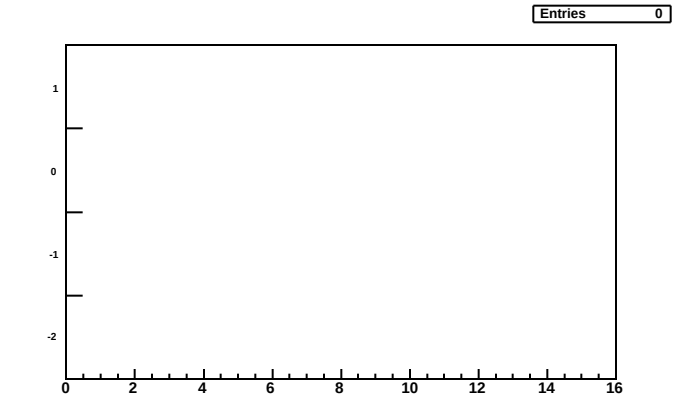
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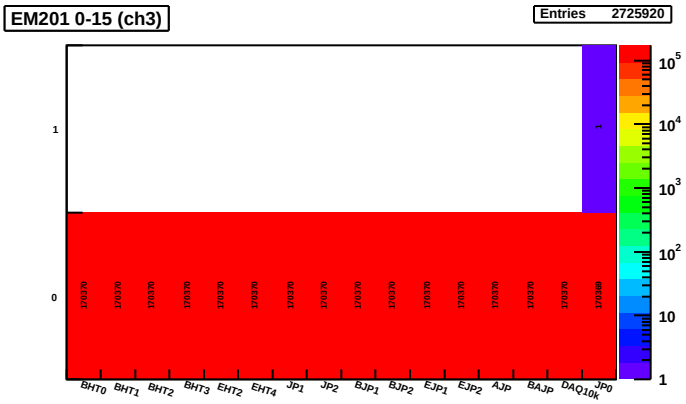
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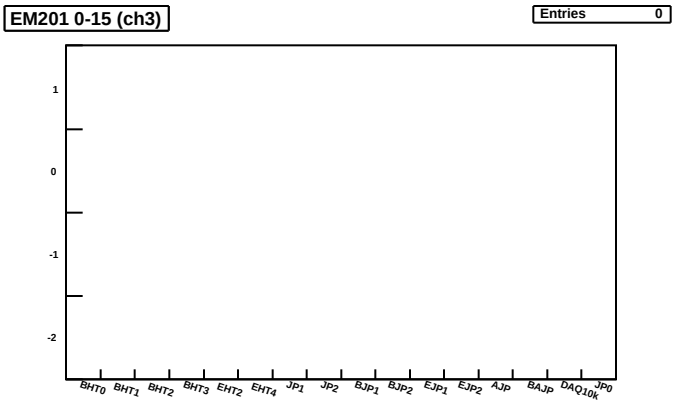
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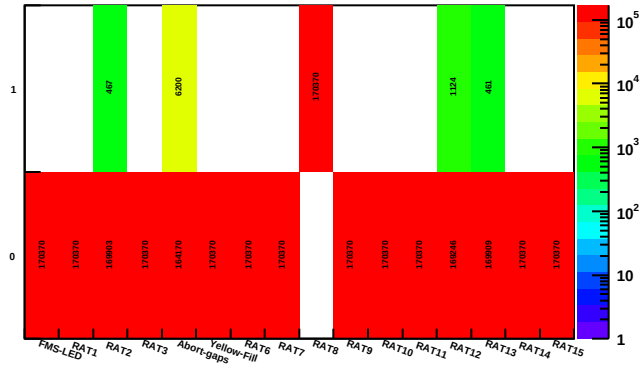
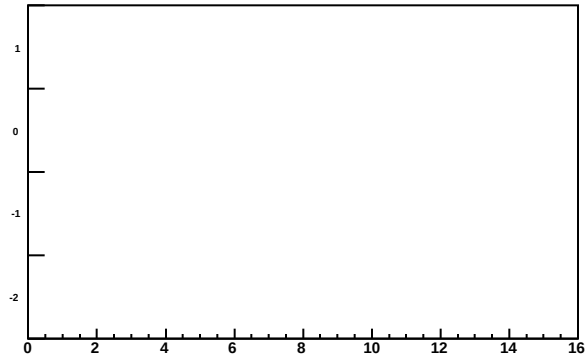
RAT board (ch4)





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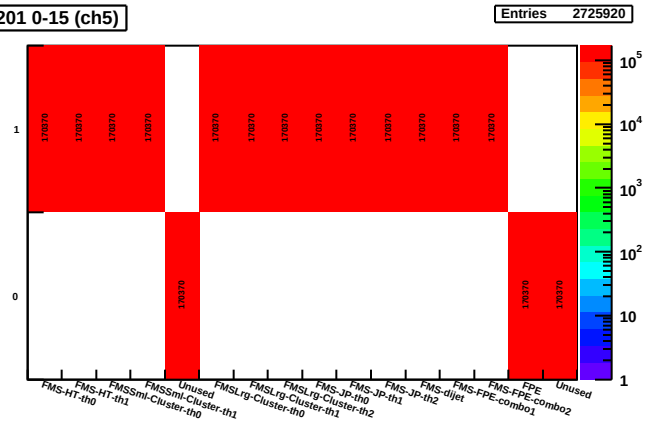

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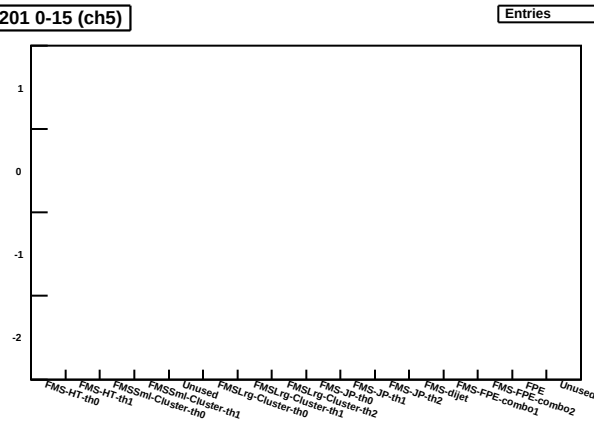
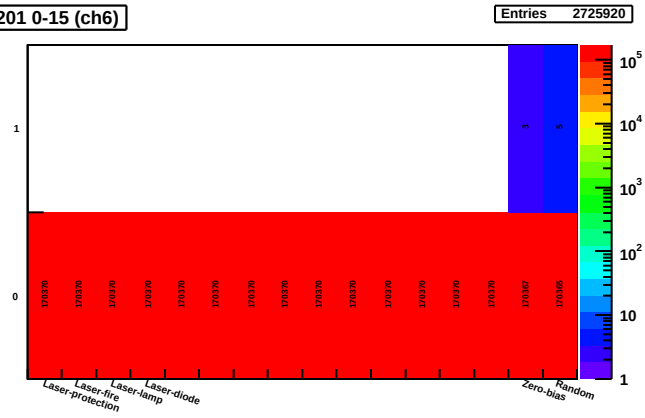
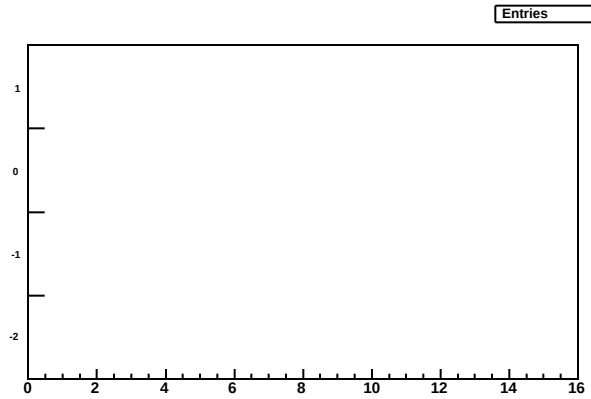
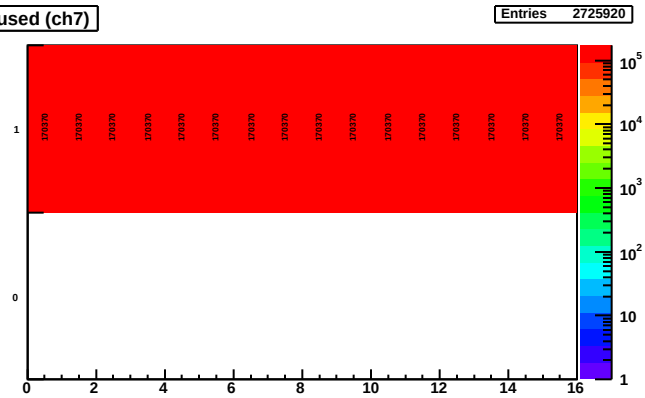
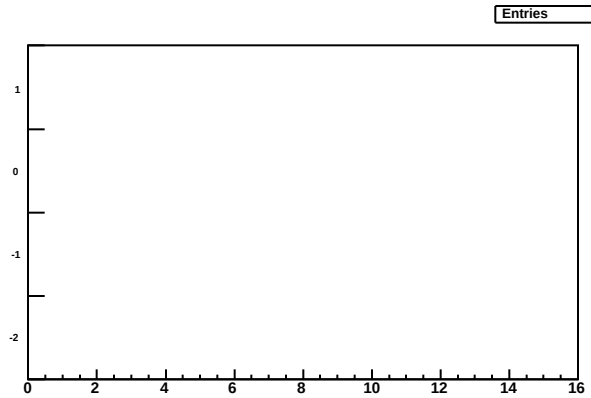


ST201 0-15 (ch6)





Unused (ch7)