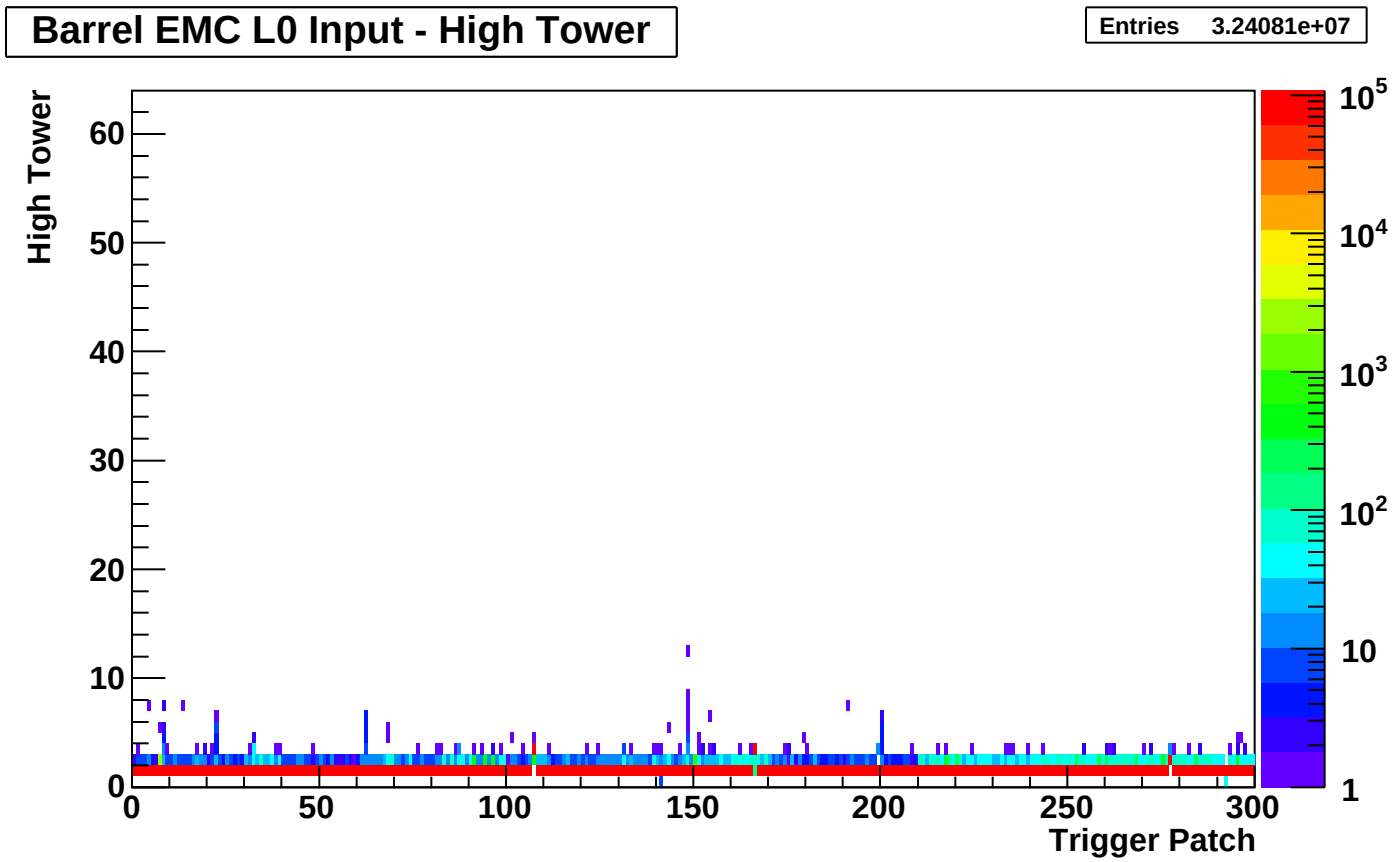
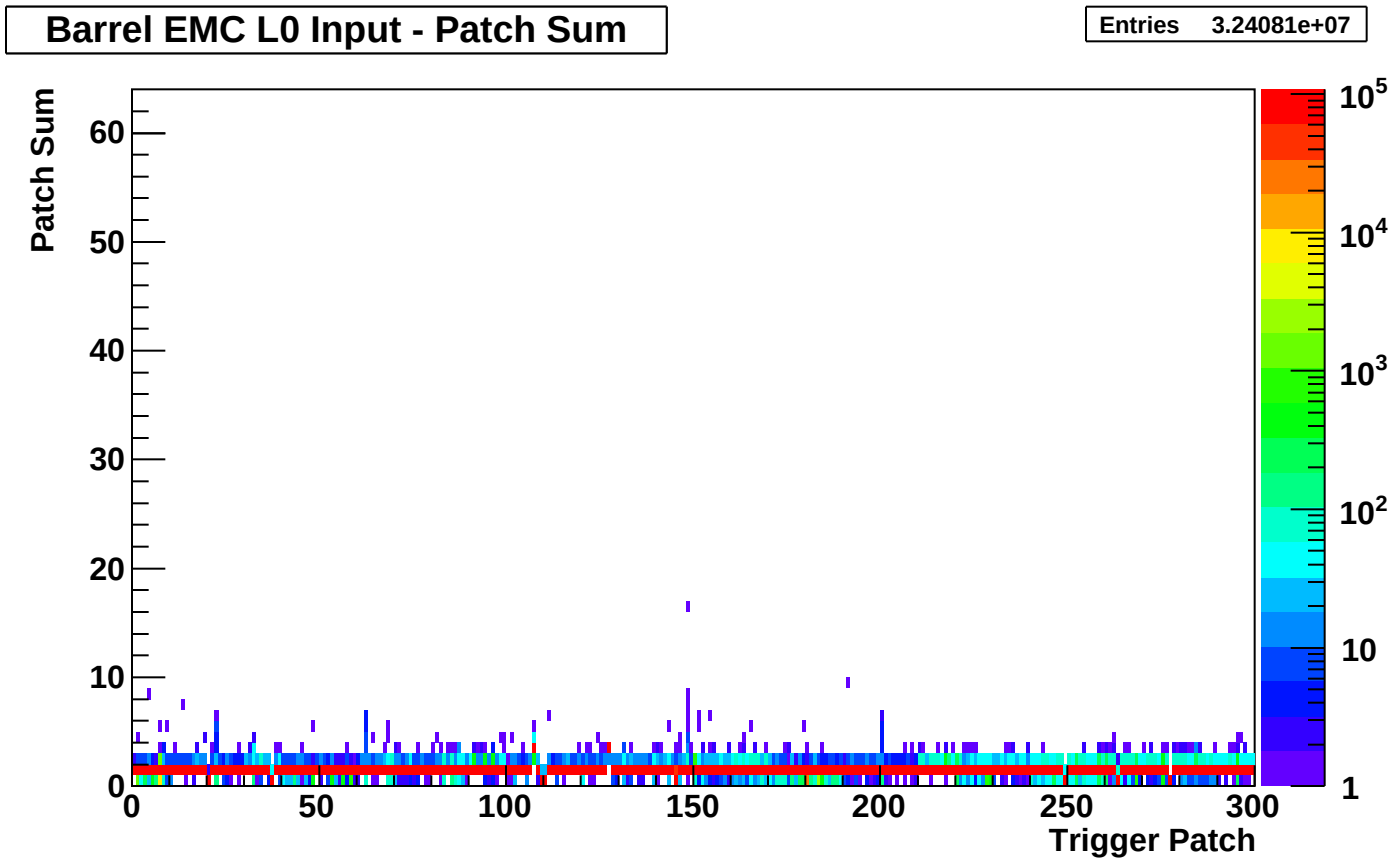
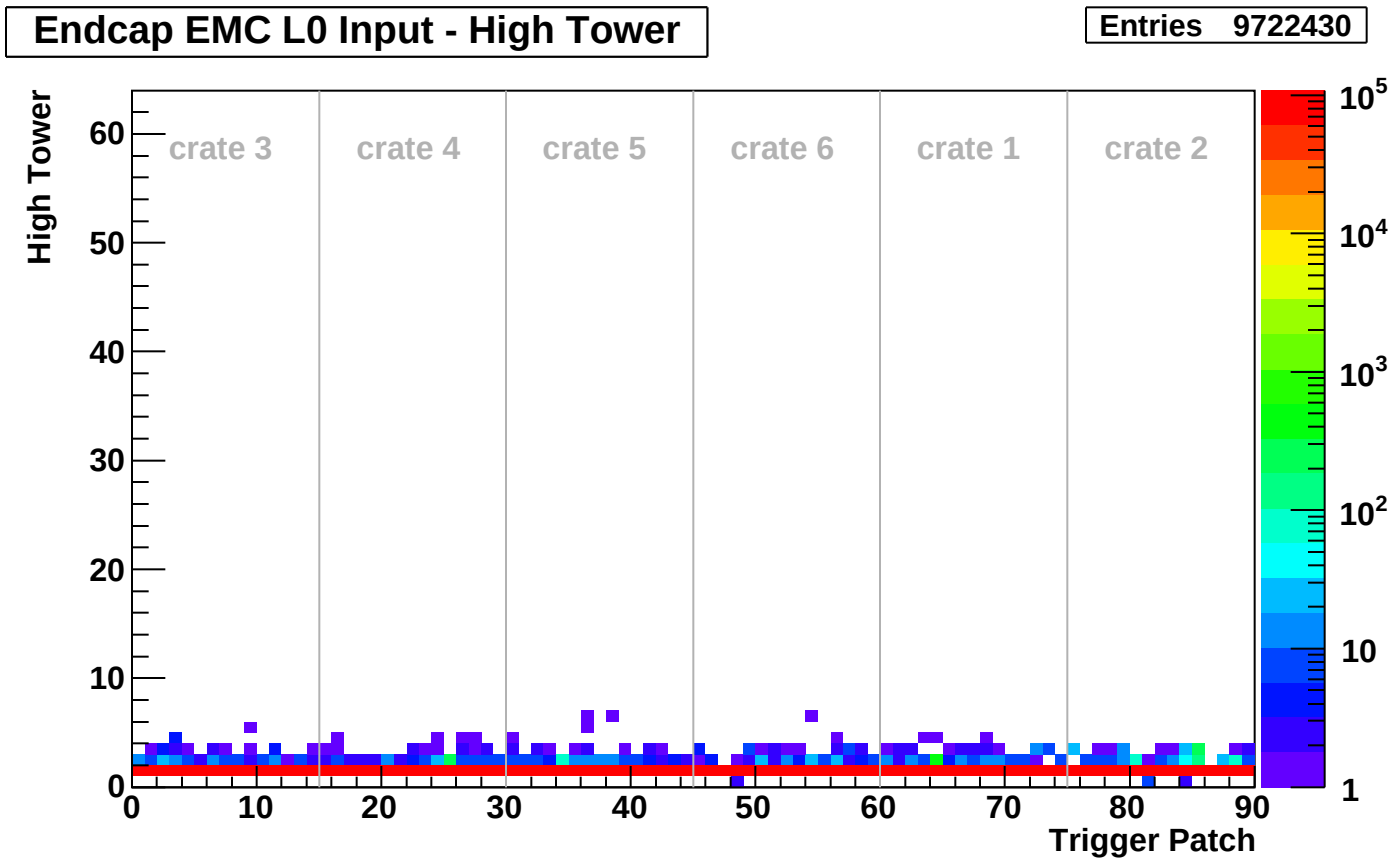
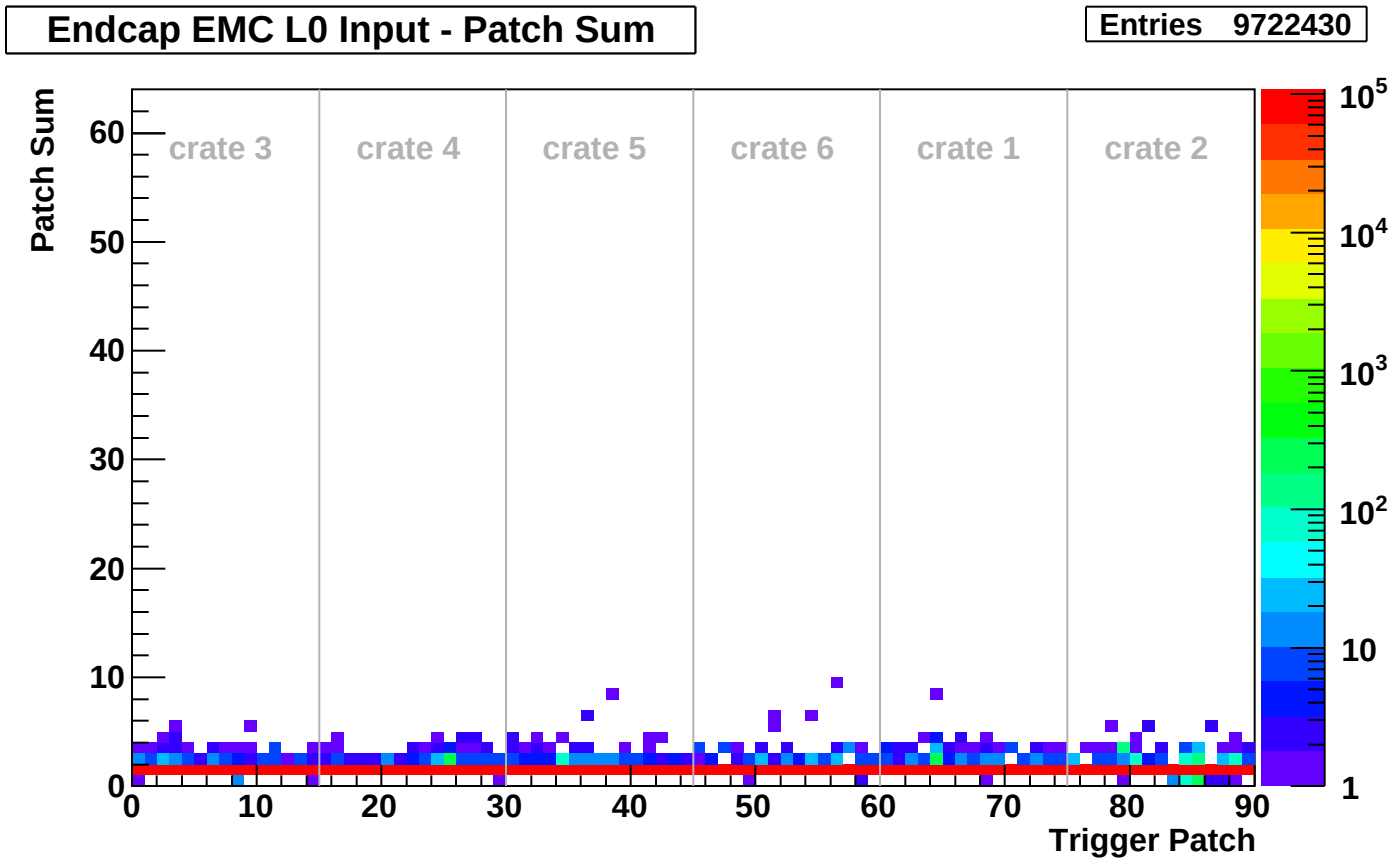
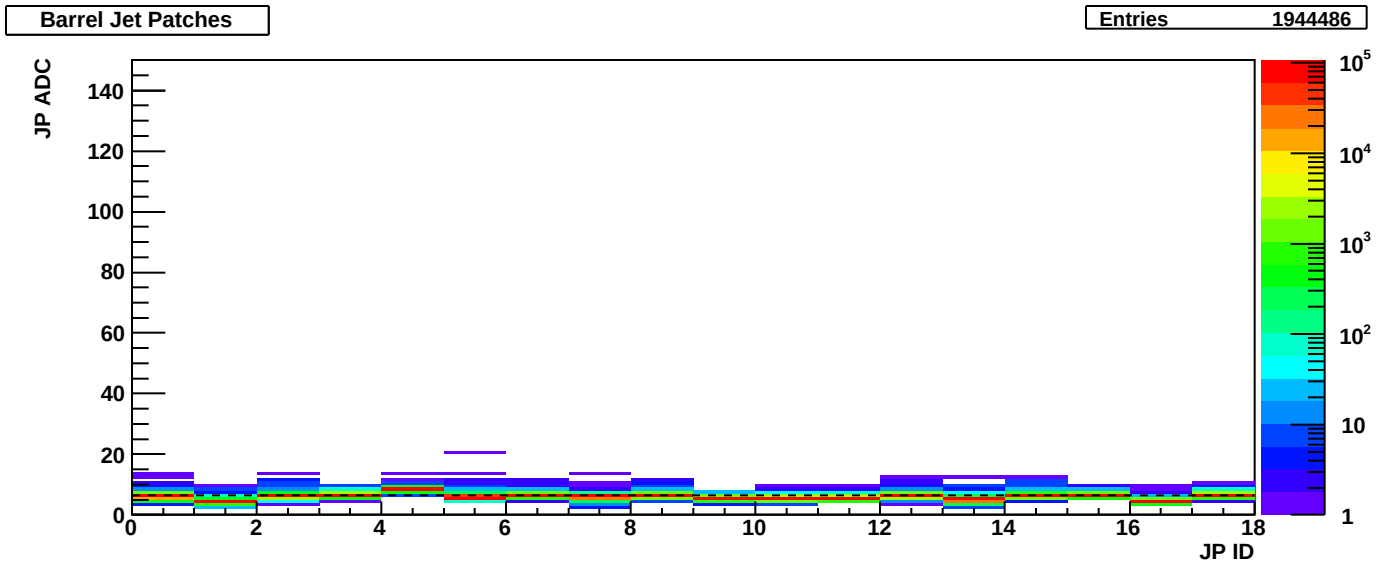
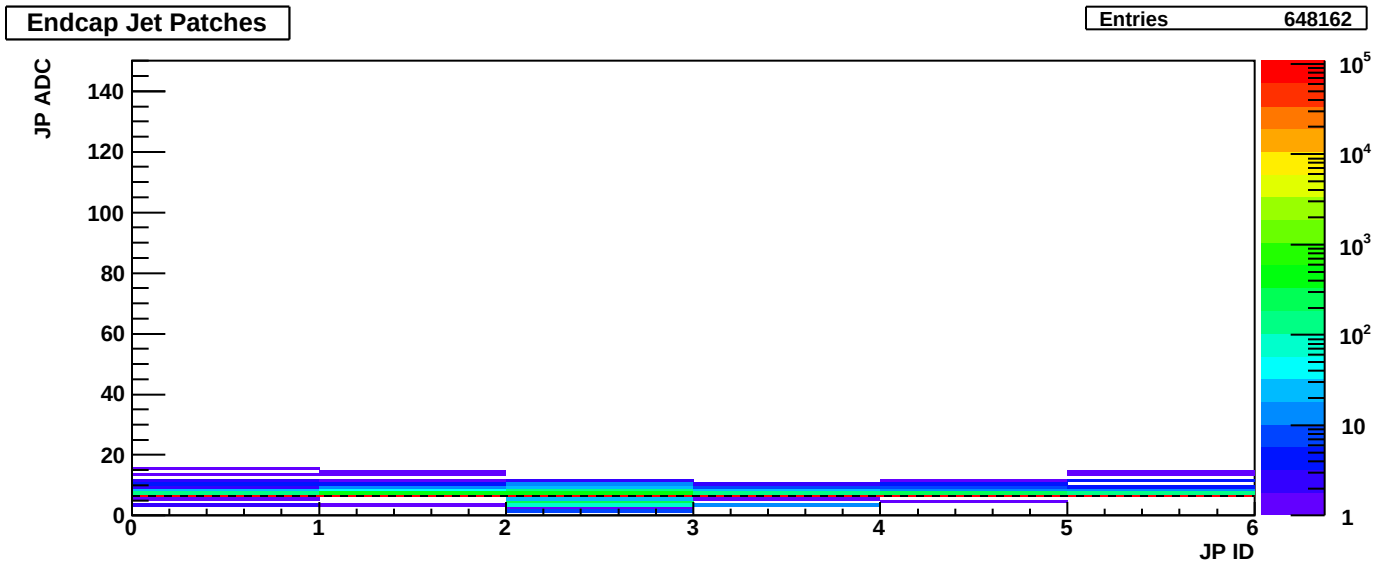

Barrel EMC L0 Input - High Tower
Entries 3.24081e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

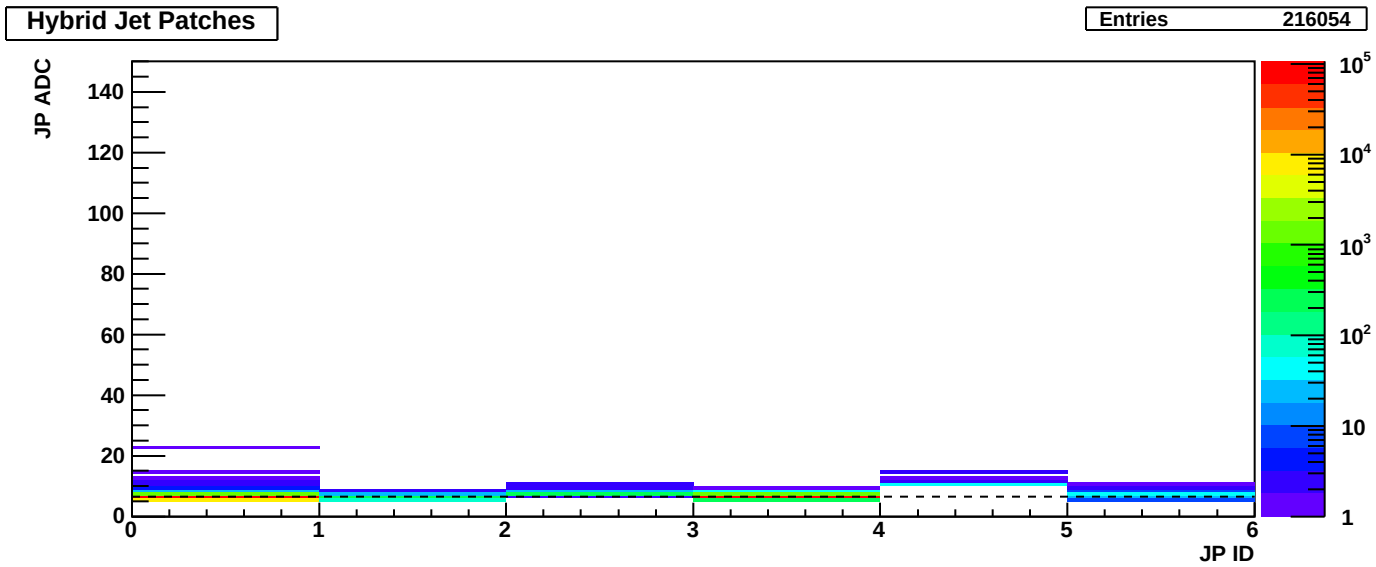

Barrel EMC L0 Input - Patch Sum
Entries 3.24081e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

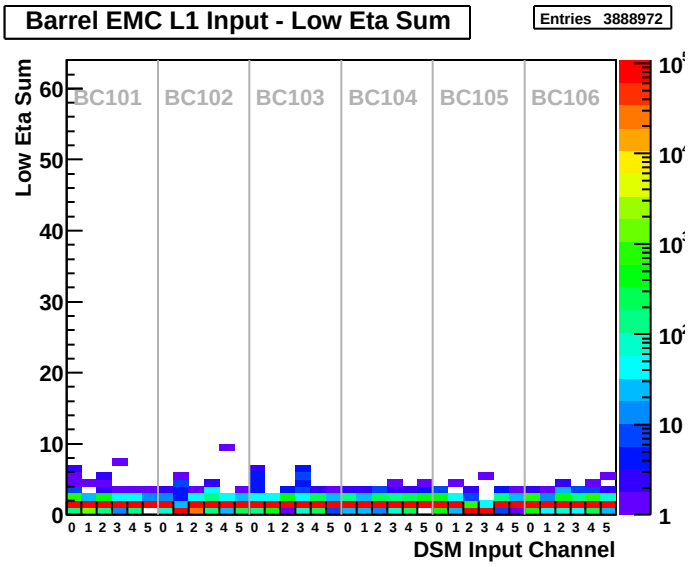

Endcap EMC L0 Input - High Tower
Entries 9722430
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

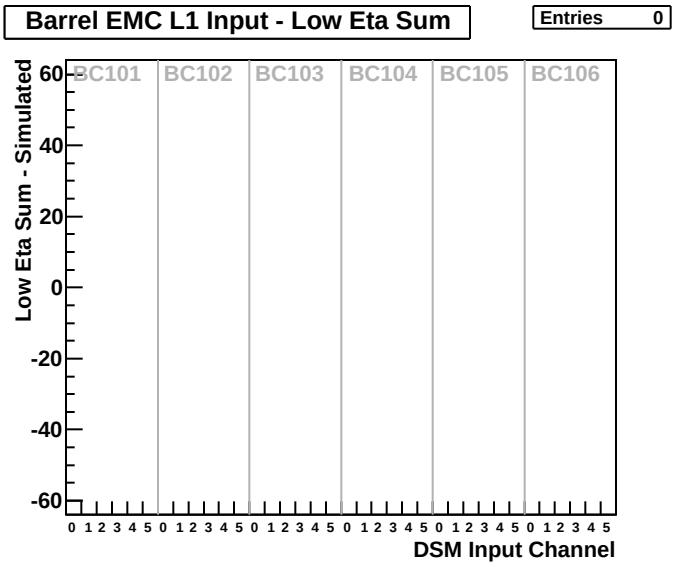

Endcap EMC L0 Input - Patch Sum
Entries 9722430
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

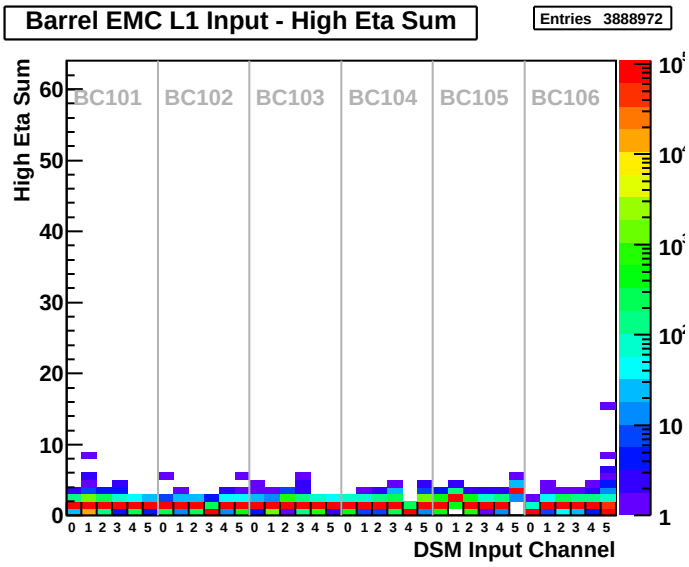

Barrel Jet Patches
Entries 1944486
JP ADC
JP ID

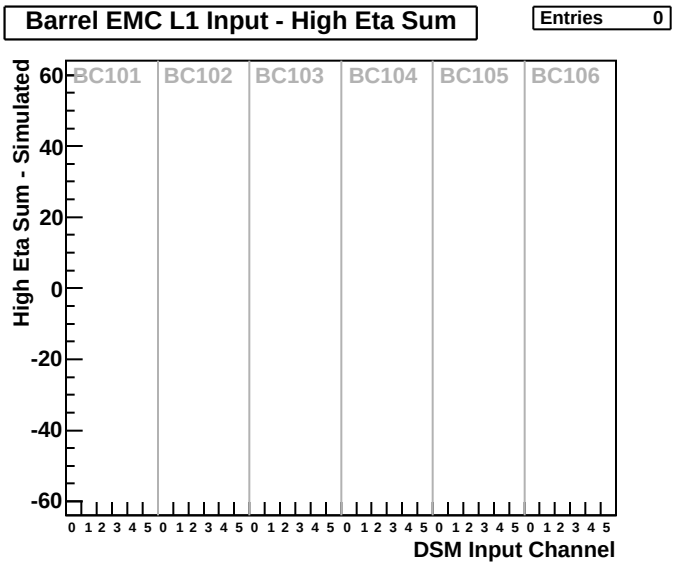

Endcap Jet Patches
Entries 648162
JP ADC
JP ID

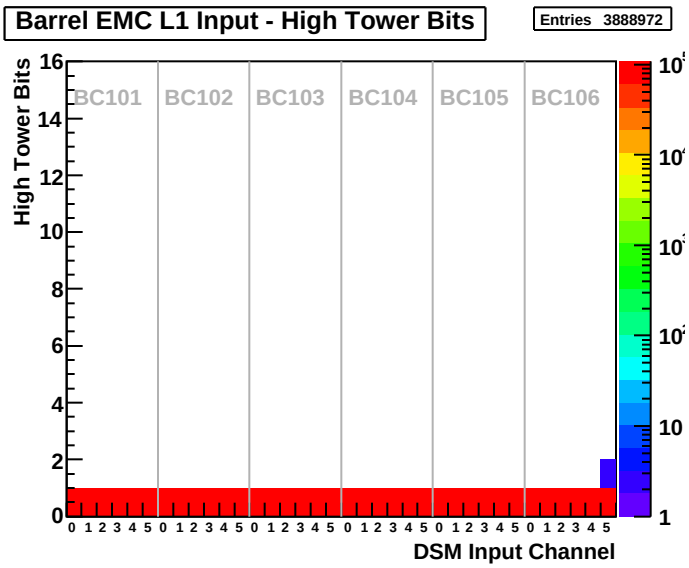

Hybrid Jet Patches
Entries 216054
JP ADC
JP ID

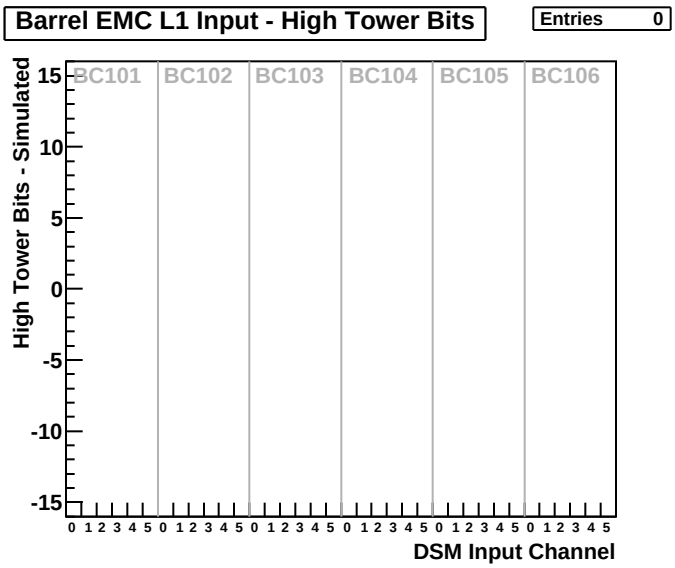

Barrel EMC L1 Input - Low Eta Sum
Entries 3888972
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

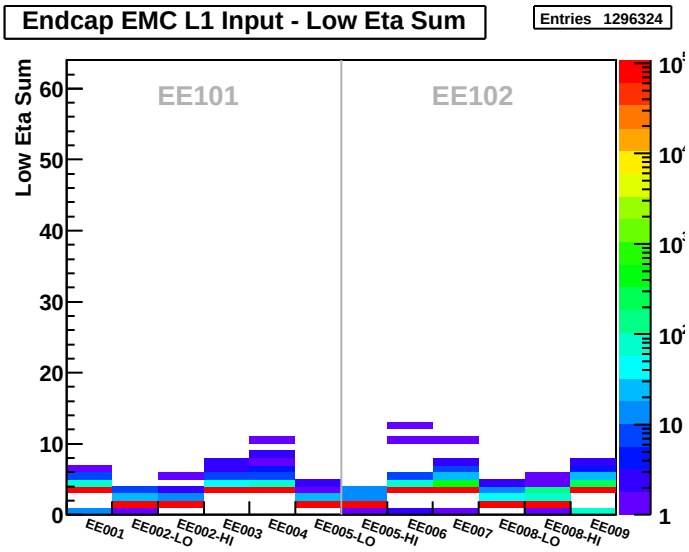

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

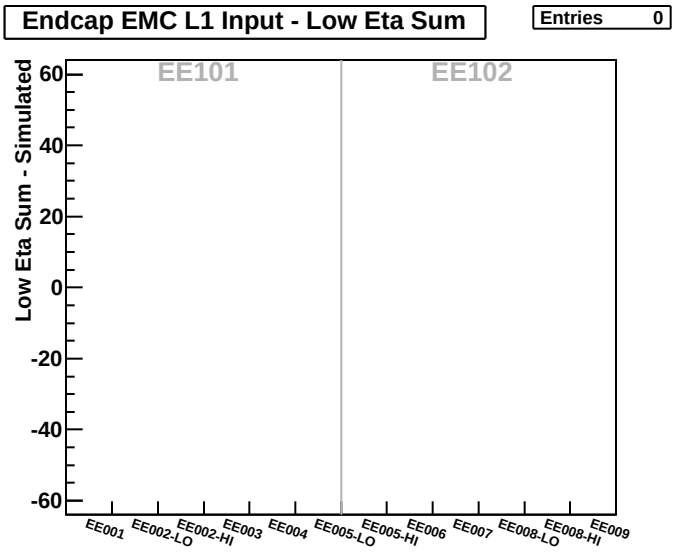

Barrel EMC L1 Input - High Eta Sum
Entries 3888972
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

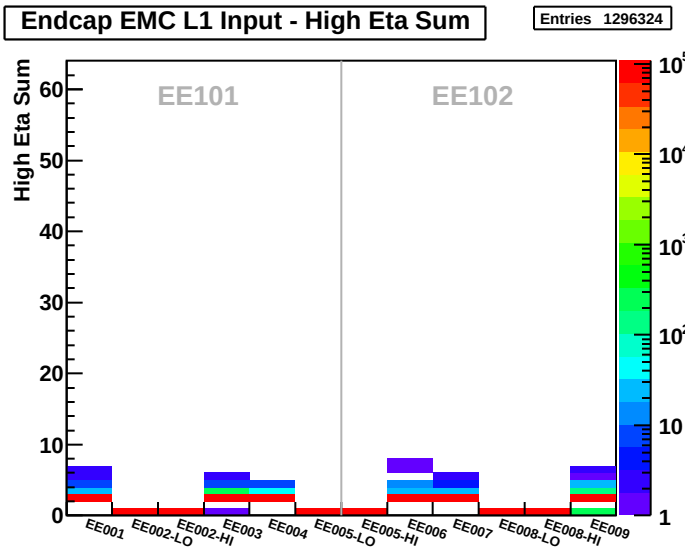

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

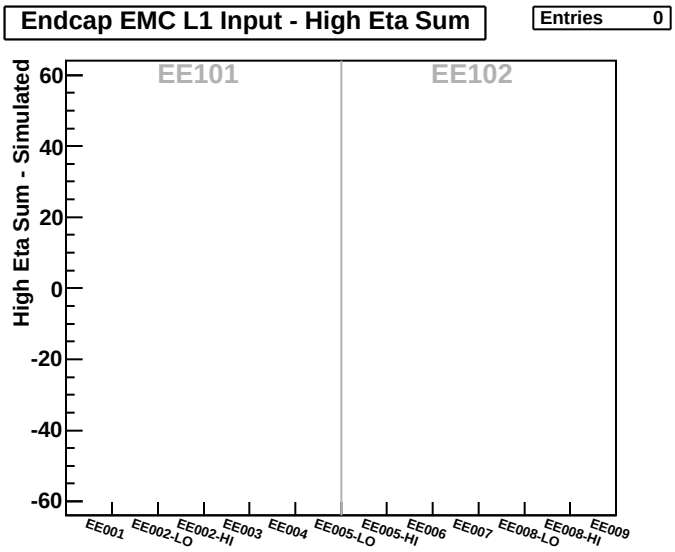

Barrel EMC L1 Input - High Tower Bits
Entries 3888972
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

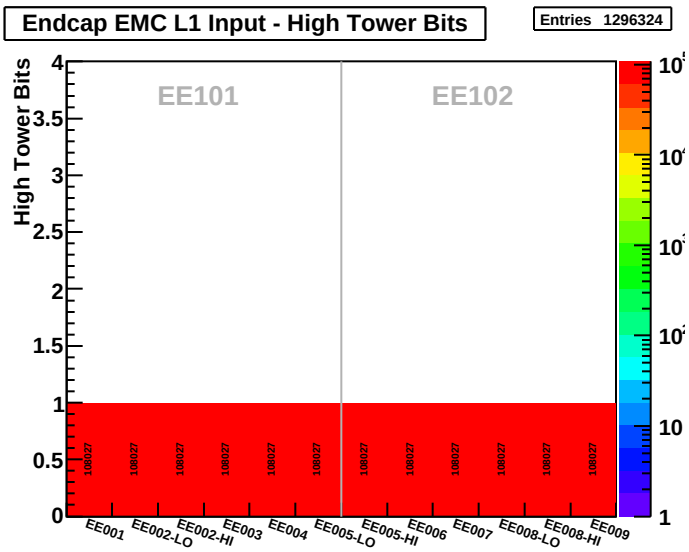

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

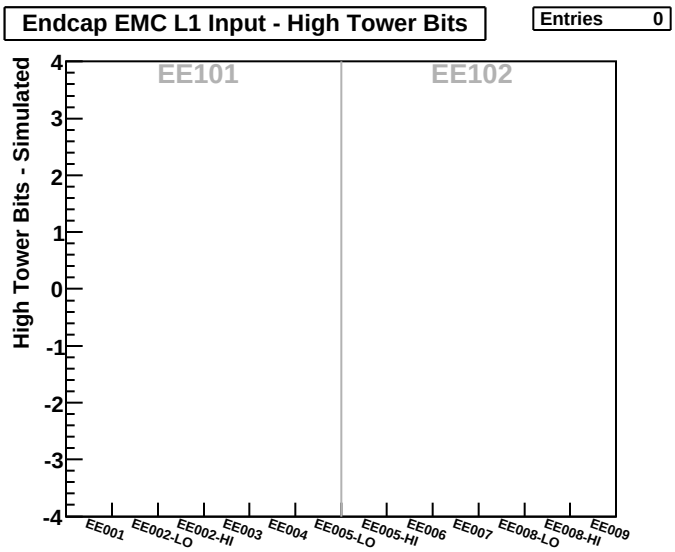

Endcap EMC L1 Input - Low Eta Sum
Entries 1296324
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

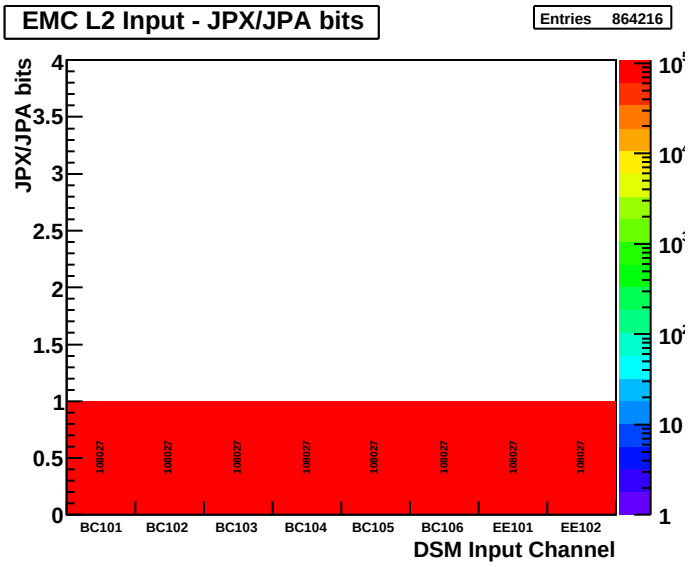

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

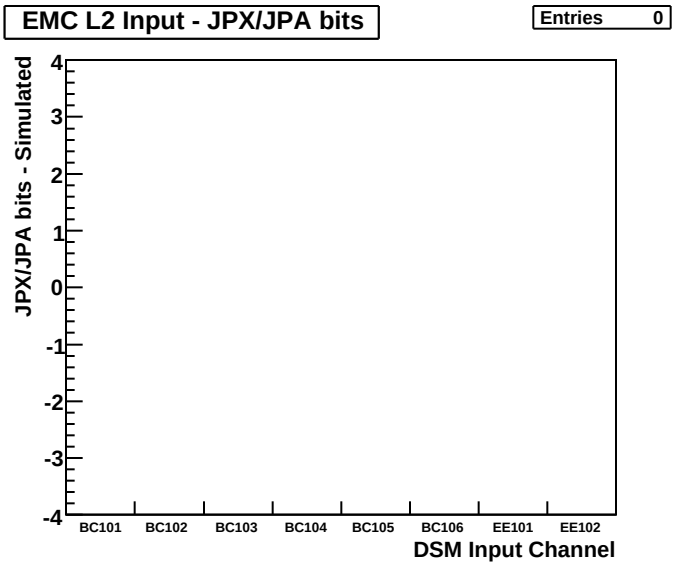

Endcap EMC L1 Input - High Eta Sum
Entries 1296324
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

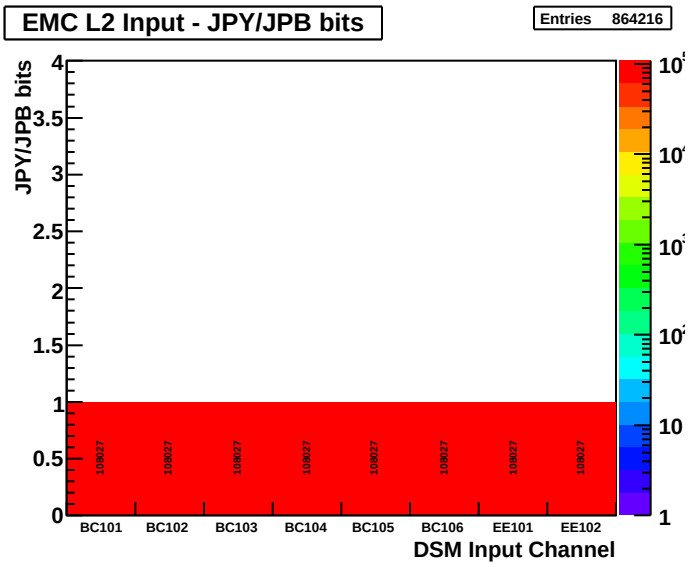

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

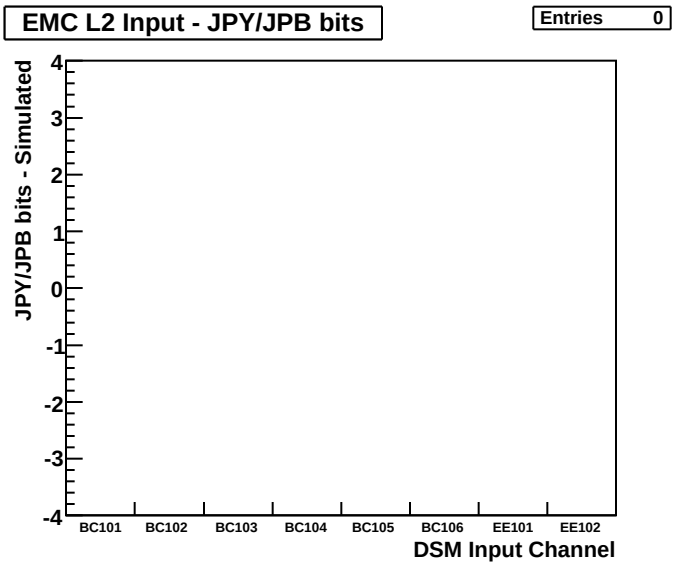

Endcap EMC L1 Input - High Tower Bits
Entries 1296324
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

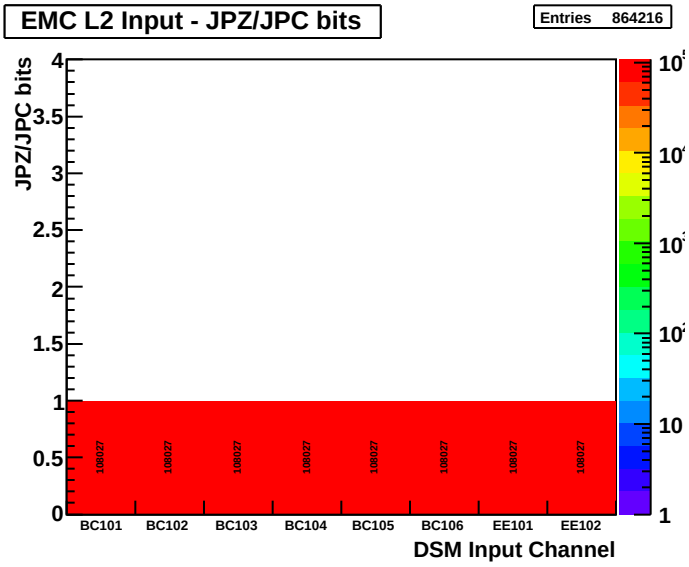

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

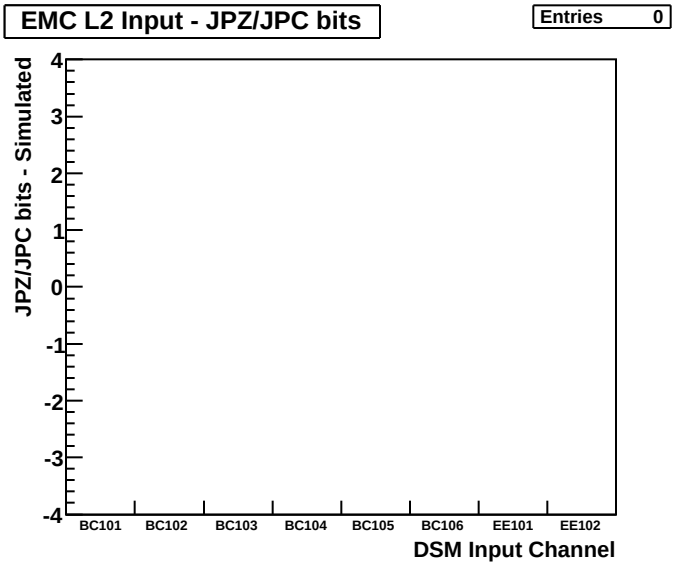

EMC L2 Input - JPX/JPA bits
Entries 864216
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
108027

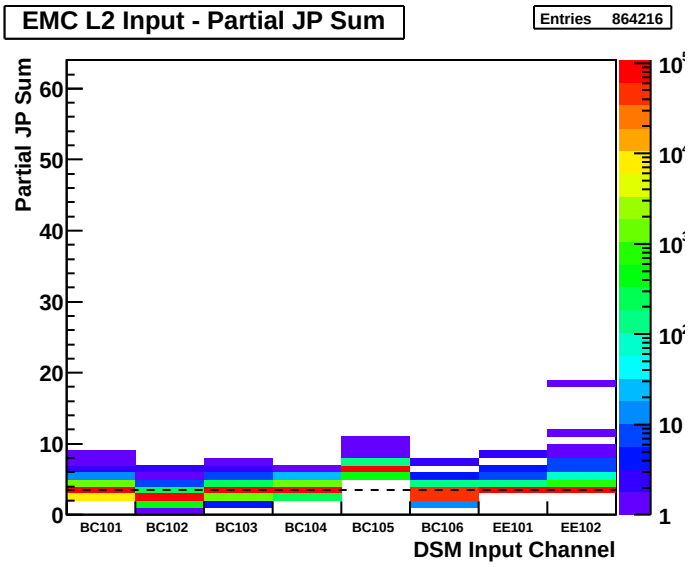

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

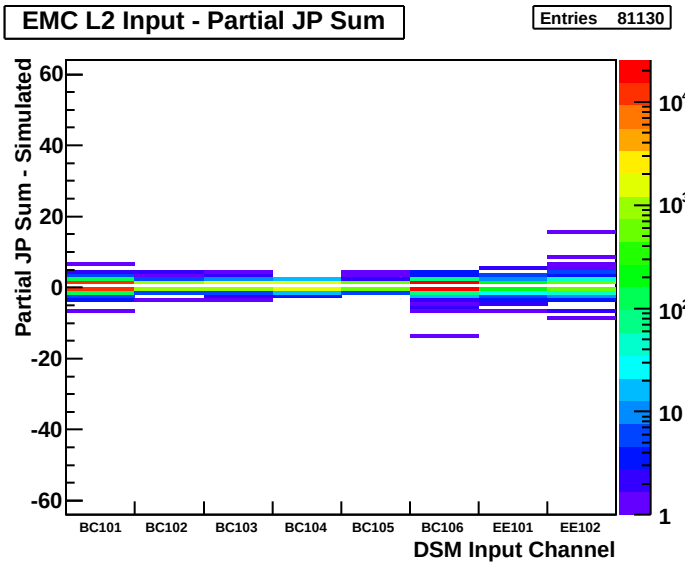

EMC L2 Input - JPY/JPB bits
Entries 864216
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
108027

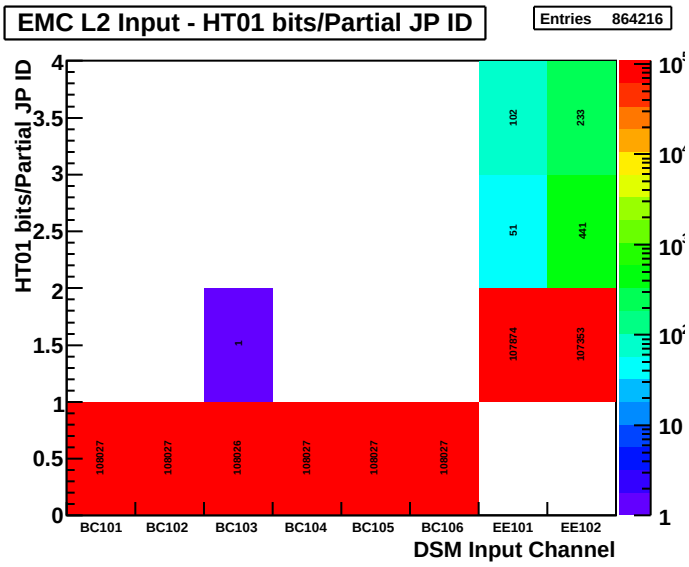

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

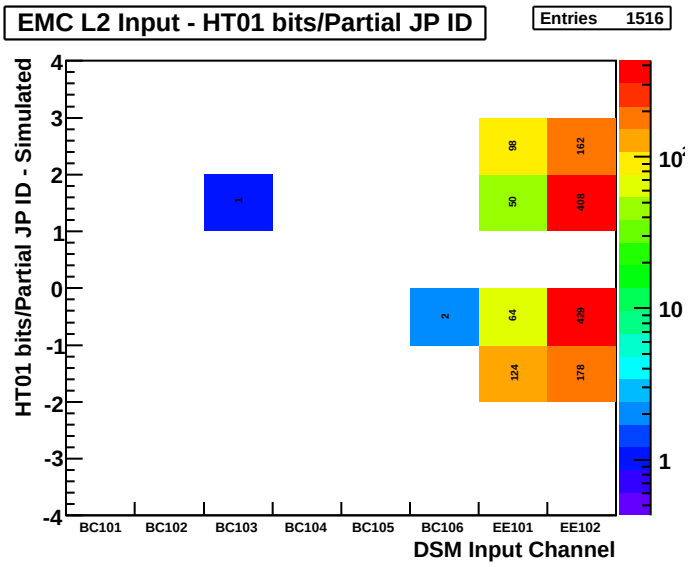

EMC L2 Input - JPZ/JPC bits
Entries 864216
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
108027

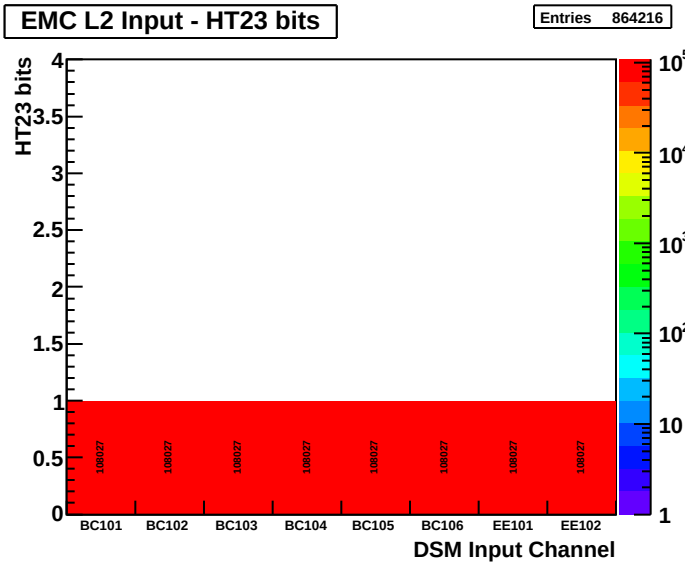

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

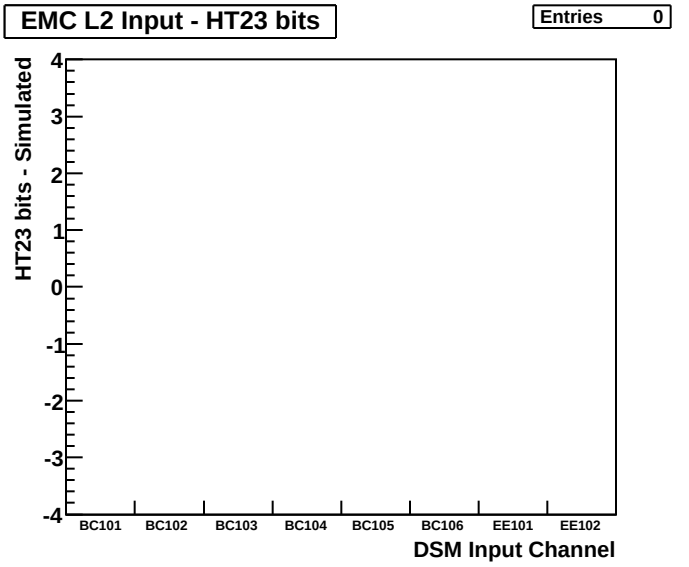

EMC L2 Input - Partial JP Sum
Entries 864216
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

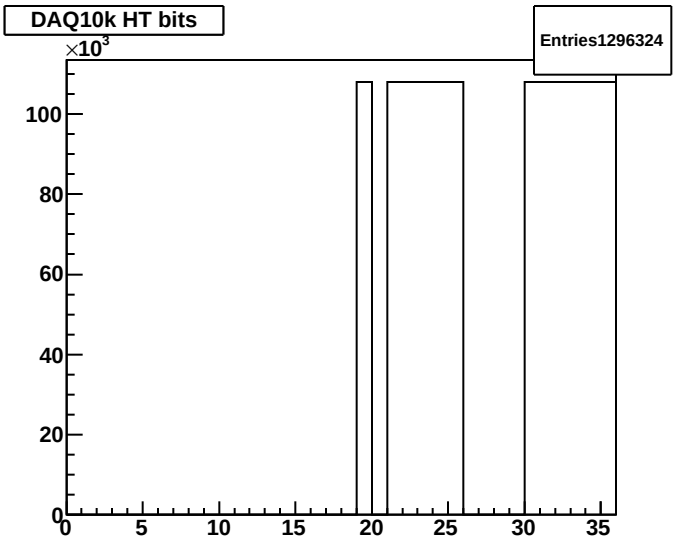

EMC L2 Input - Partial JP Sum
Entries 81130
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

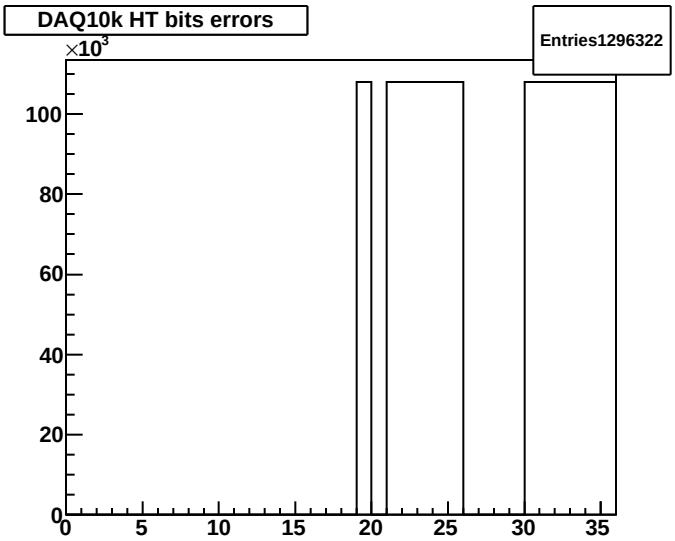

EMC L2 Input - HT01 bits/Partial JP ID
Entries 864216
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

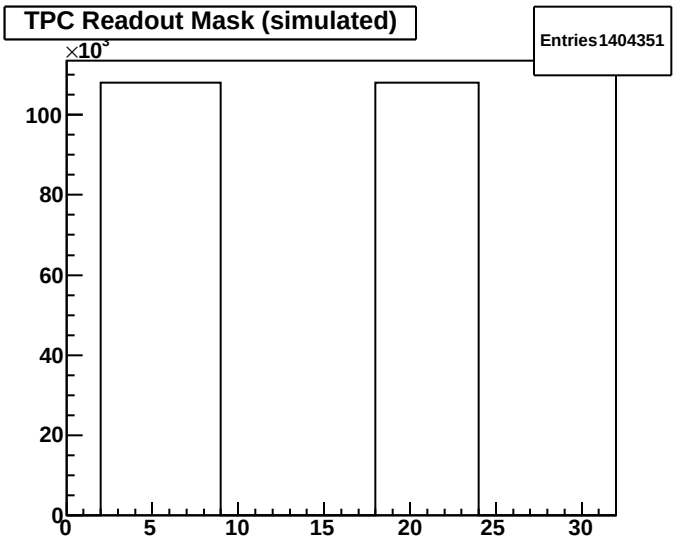

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1516
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

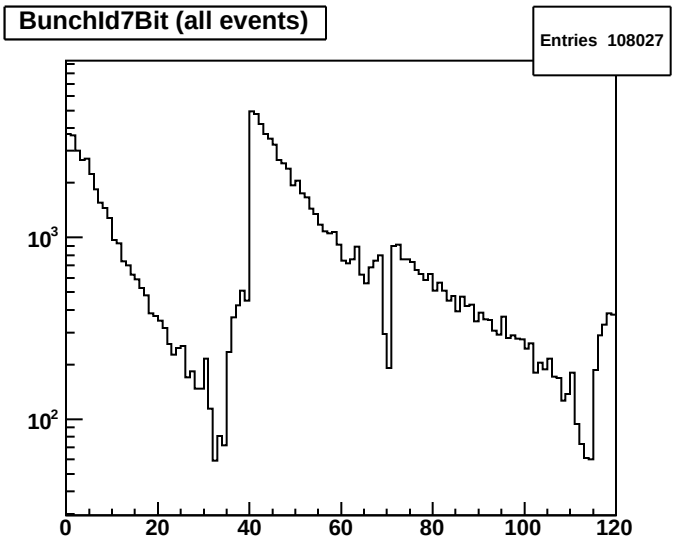

EMC L2 Input - HT23 bits
Entries 864216
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

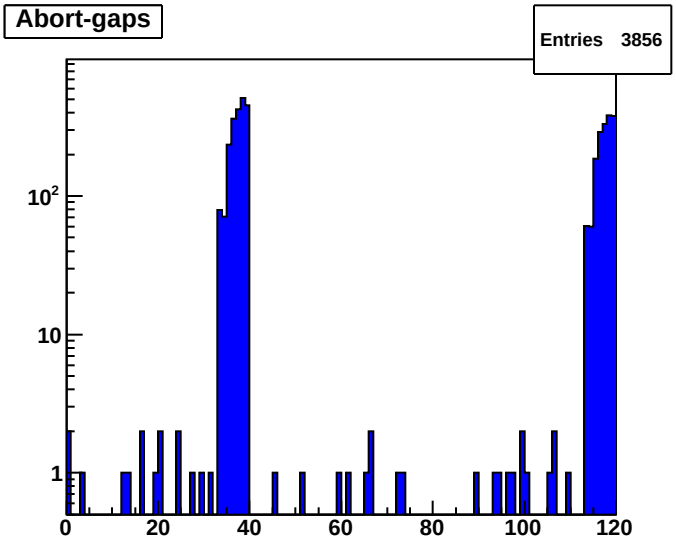

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102


DAQ10k HT bits
Entries1296324
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30 35

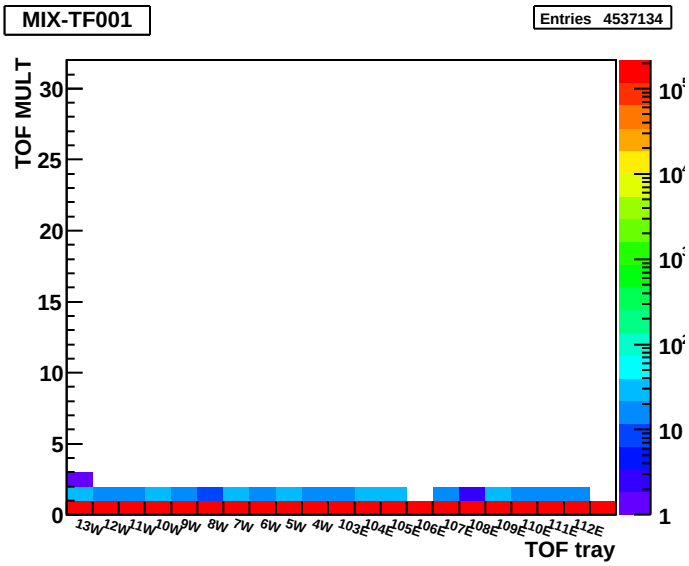

DAQ10k HT bits errors
Entries1296322
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30 35

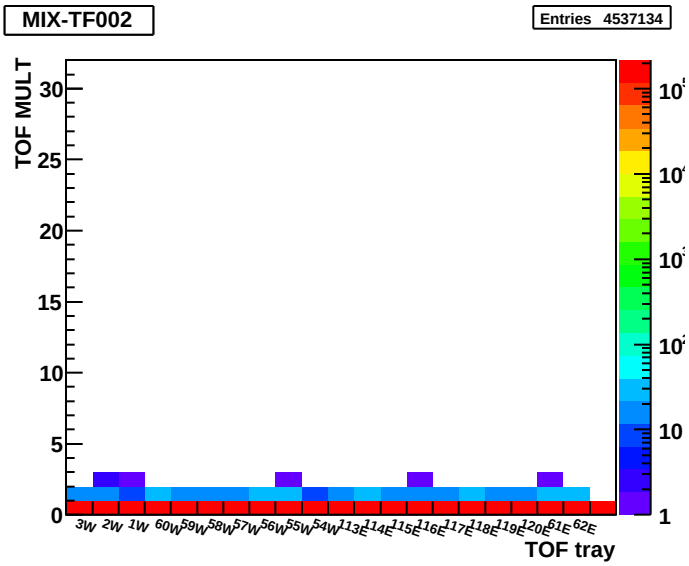

TPC Readout Mask (simulated)
Entries1404351
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30

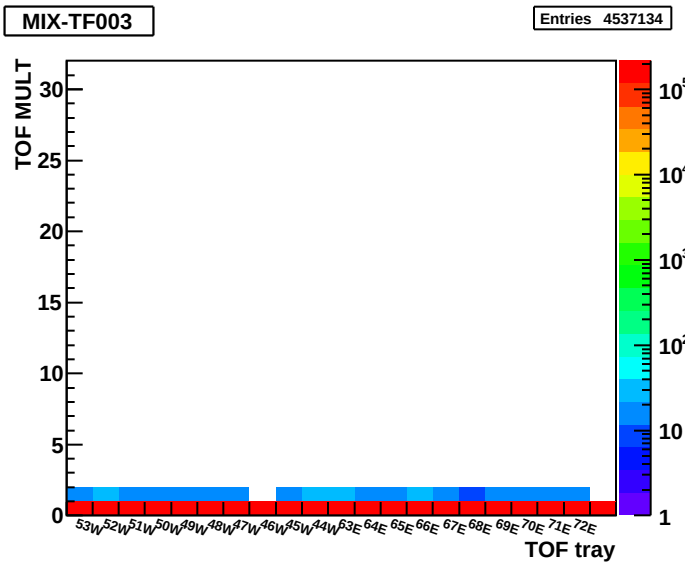

BunchId7Bit (all events)
Entries 108027
10^3
10^2
0 20 40 60 80 100 120

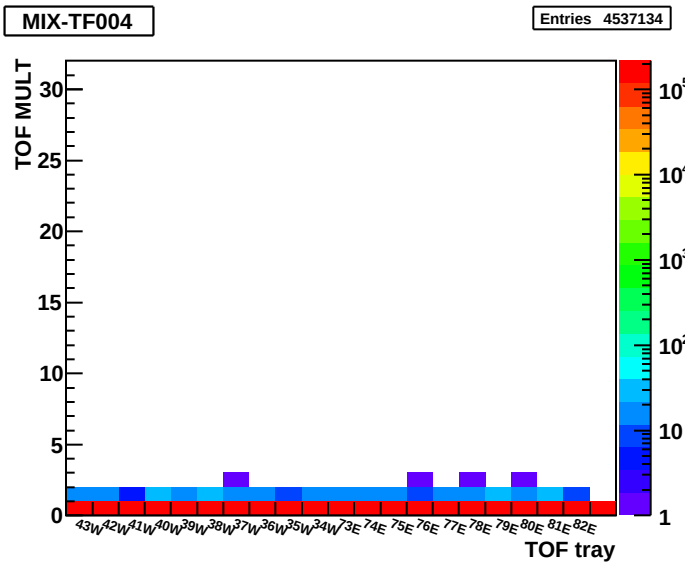

Abort-gaps
Entries 3856
10^2
10
1
0 20 40 60 80 100 120

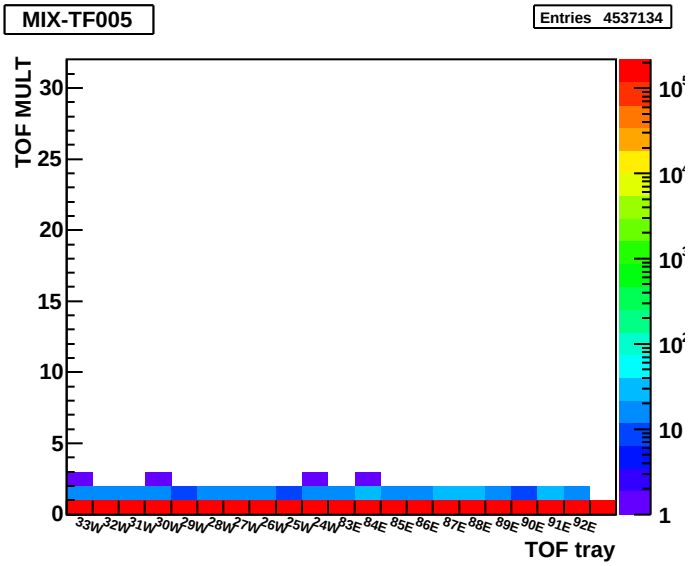
!Yellow-Fill
Entries 108027
10^3
10^2
0 20 40 60 80 100 120

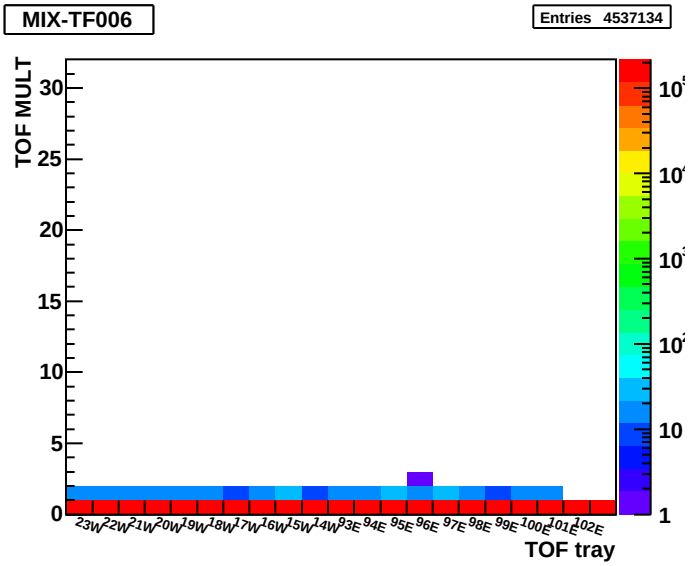

MIX-TF001
Entries 4537134
TOF MULT
TOF tray

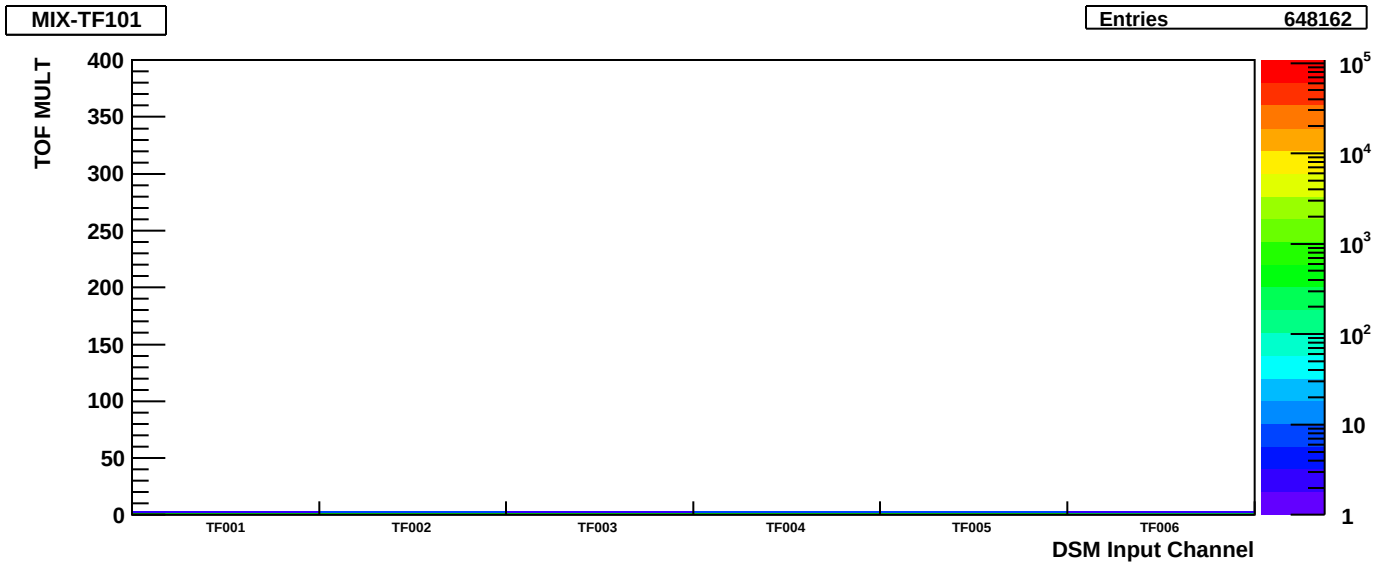

MIX-TF002
Entries 4537134
TOF MULT
TOF tray

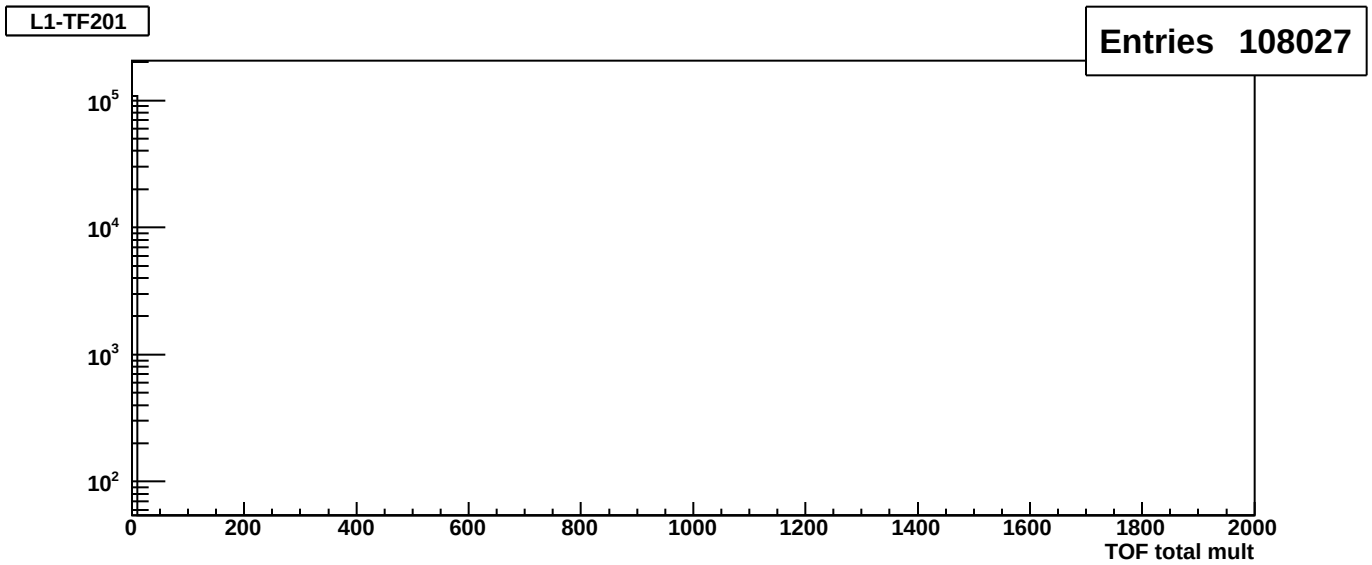

MIX-TF003
Entries 4537134
TOF MULT
TOF tray

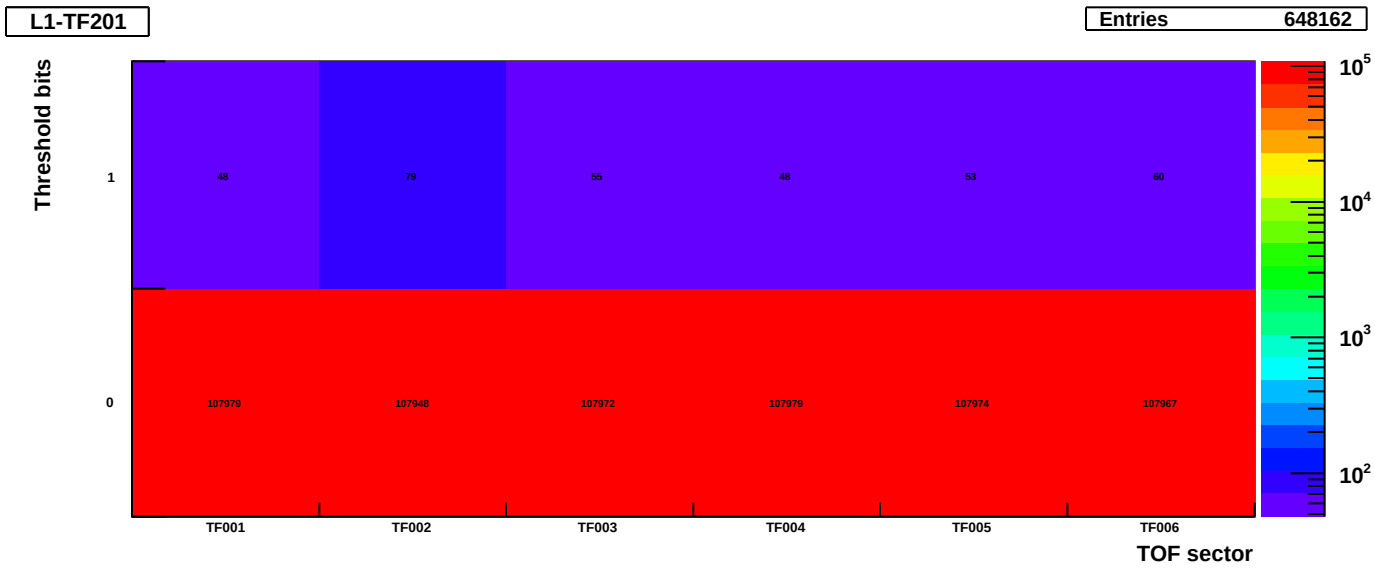

MIX-TF004
Entries 4537134
TOF MULT
TOF tray

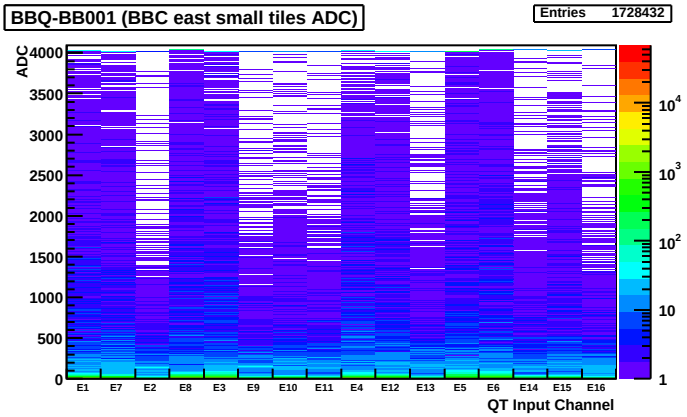

MIX-TF005
Entries 4537134
TOF MULT
TOF tray

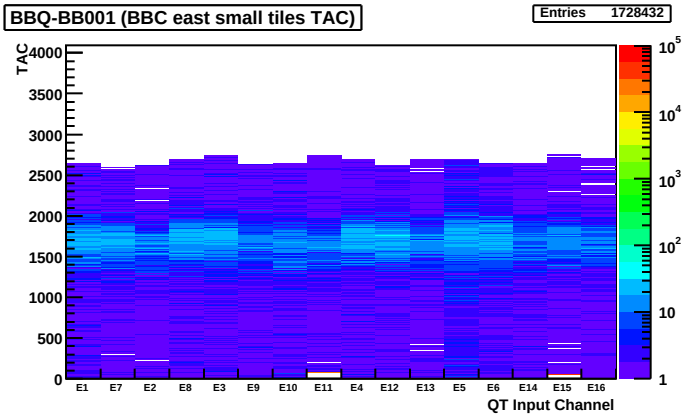

MIX-TF006
Entries 4537134
TOF MULT
TOF tray

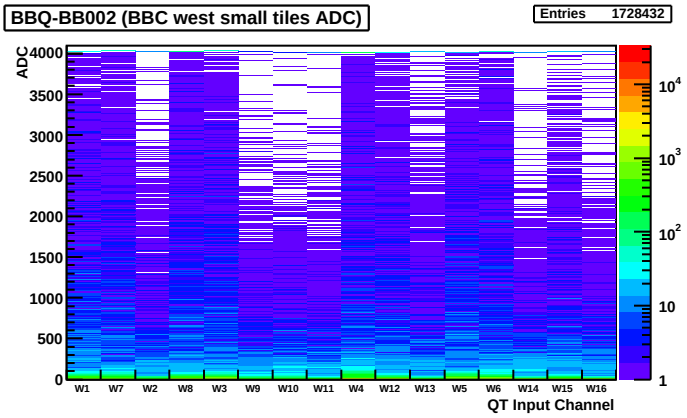

MIX-TF101
Entries 648162
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

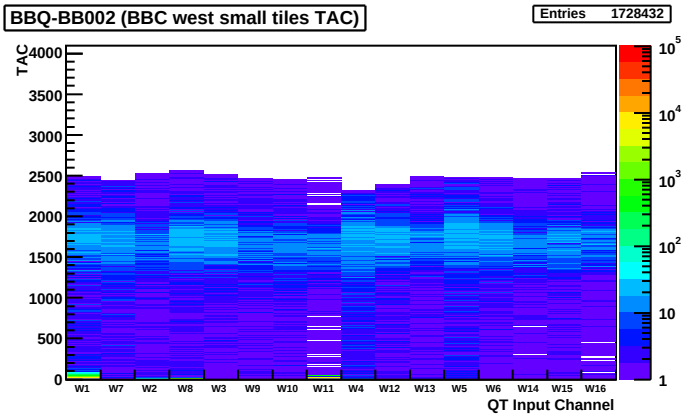

L1-TF201
Entries 108027
10^5
10^4
10^3
10^2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

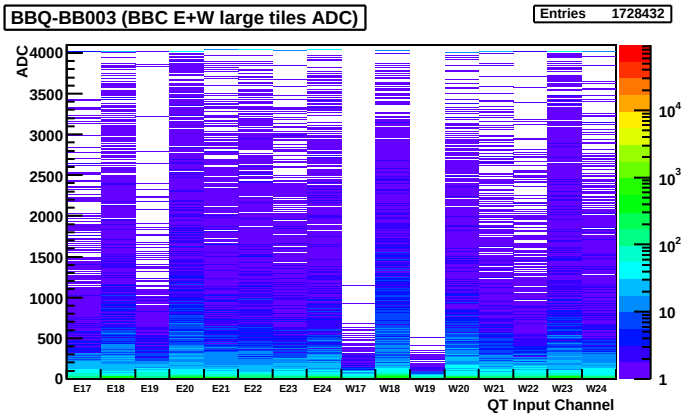

L1-TF201
Entries 648162
Threshold bits
1
0
48
79
55
48
53
60
107979
107948
107972
107979
107974
107967
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4
10^3
10^2

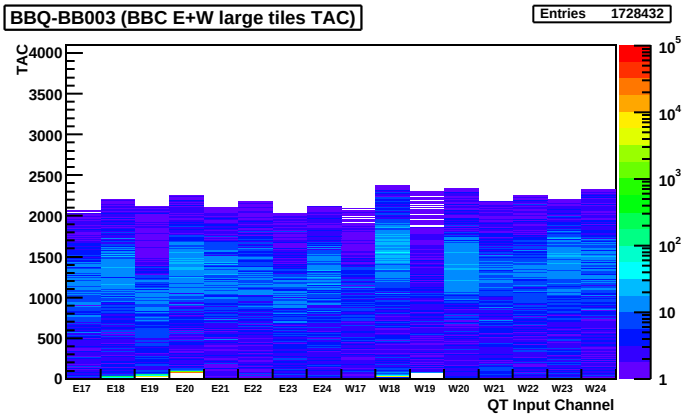

BBQ-BB001 (BBC east small tiles ADC)
Entries 1728432
ADC
QT Input Channel

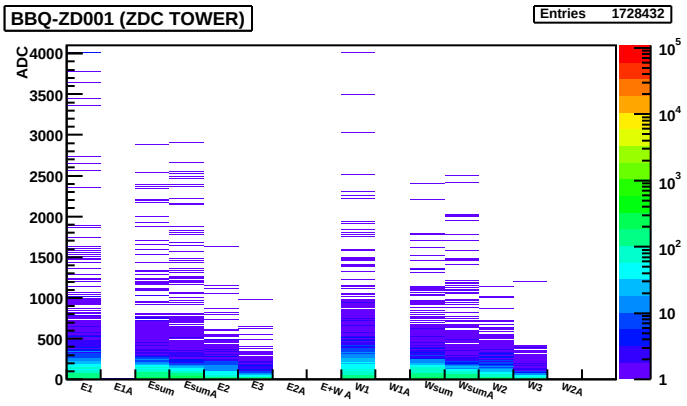

BBQ-BB001 (BBC east small tiles TAC)
Entries 1728432
TAC
QT Input Channel

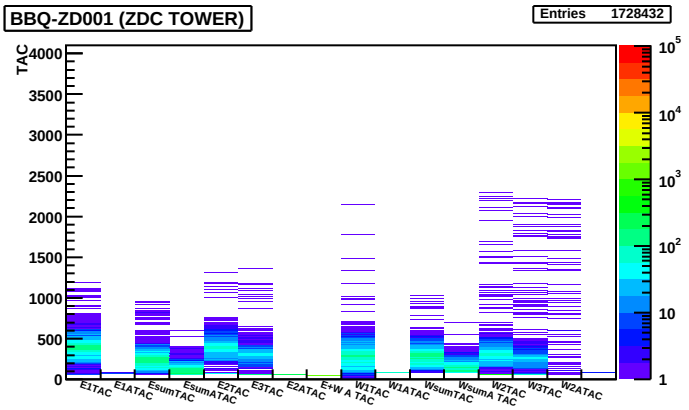

BBQ-BB002 (BBC west small tiles ADC)
Entries 1728432
ADC
QT Input Channel

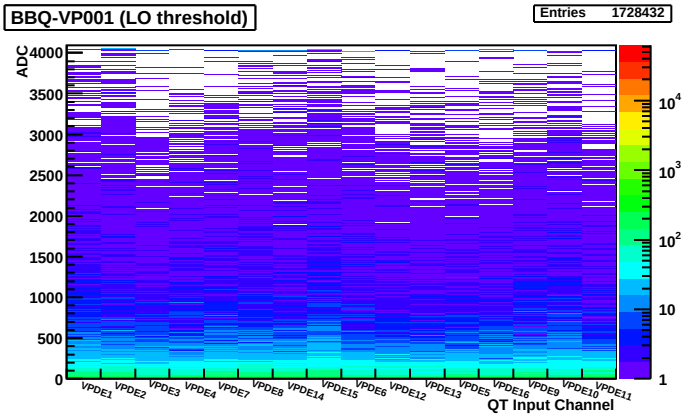

BBQ-BB002 (BBC west small tiles TAC)
Entries 1728432
TAC
QT Input Channel

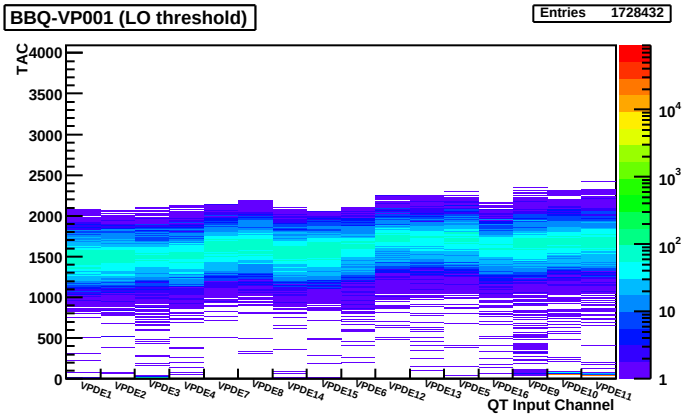

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1728432
ADC
QT Input Channel

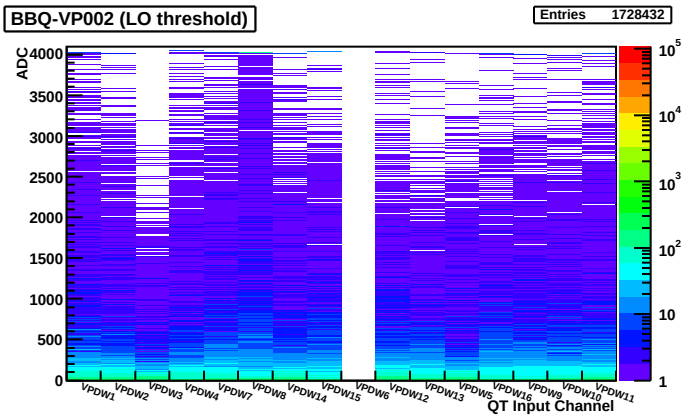

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1728432
TAC
QT Input Channel

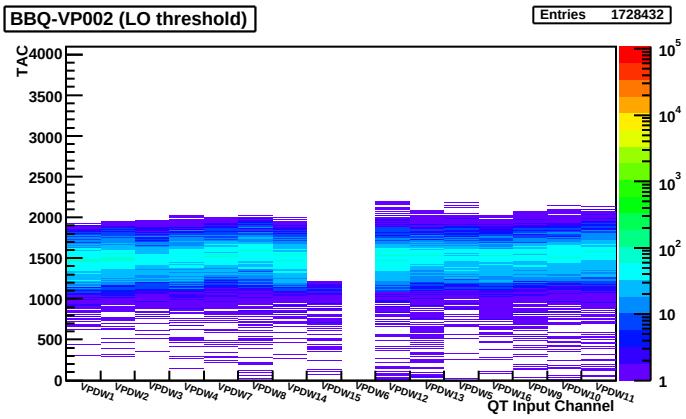

BBQ-ZD001 (ZDC TOWER)
Entries 1728432
ADC

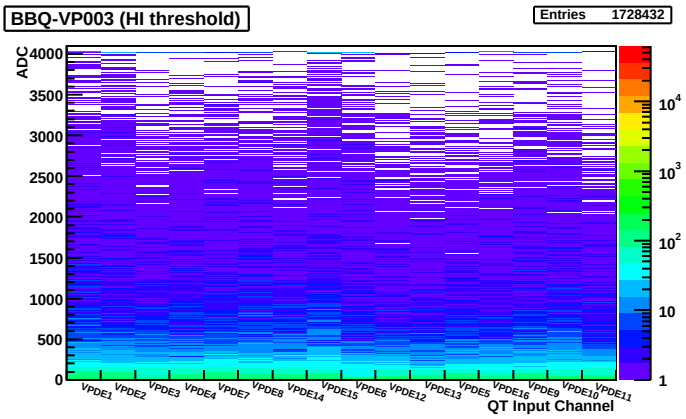

BBQ-ZD001 (ZDC TOWER)
Entries 1728432
TAC

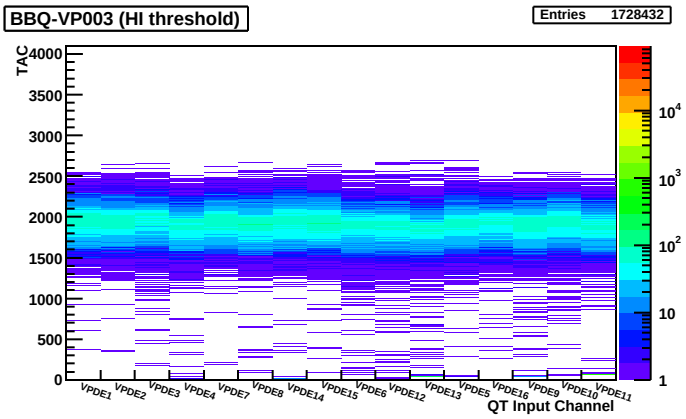

BBQ-VP001 (LO threshold)
Entries 1728432
ADC
QT Input Channel

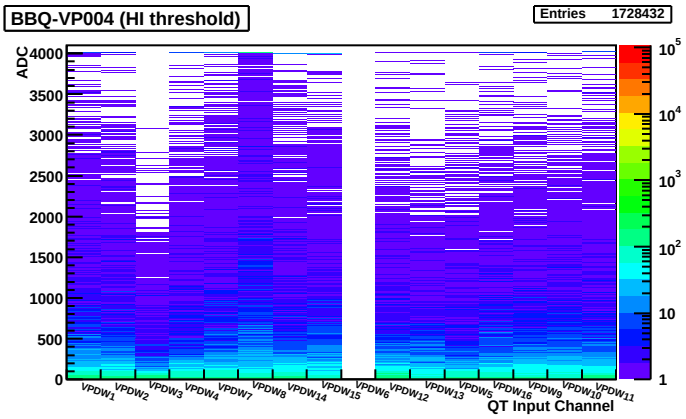

BBQ-VP001 (LO threshold)
Entries 1728432
TAC
QT Input Channel

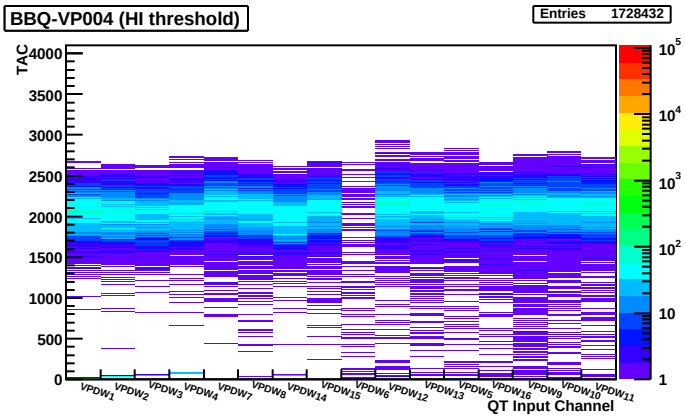

BBQ-VP002 (LO threshold)
Entries 1728432
ADC
QT Input Channel

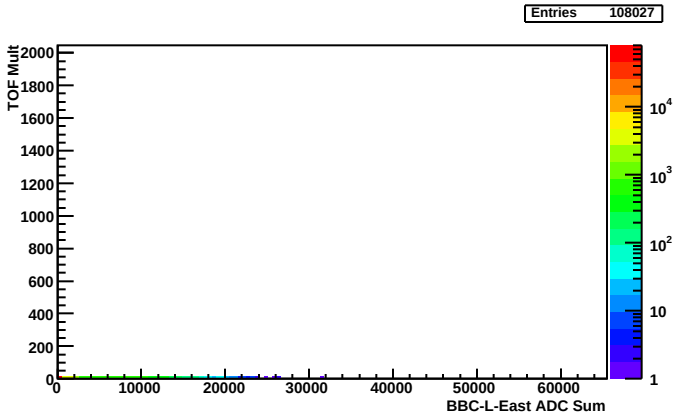

BBQ-VP002 (LO threshold)
Entries 1728432
TAC
QT Input Channel

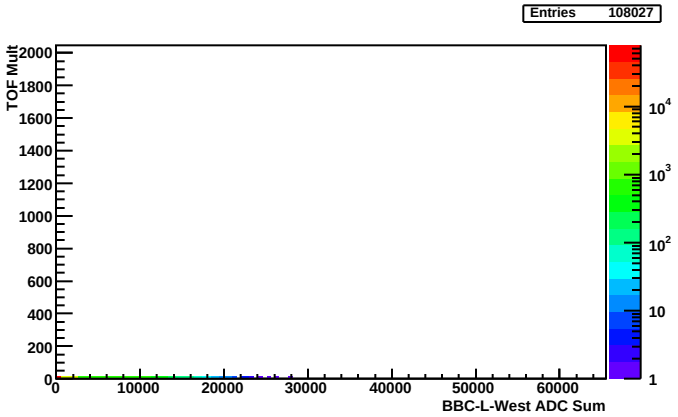

BBQ-VP003 (HI threshold)
Entries 1728432
ADC
QT Input Channel

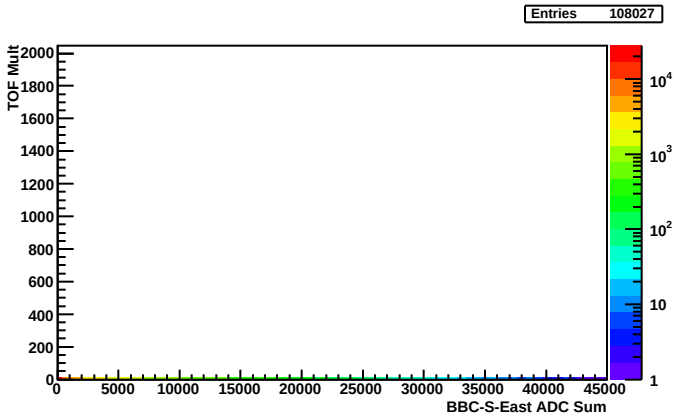

BBQ-VP003 (HI threshold)
Entries 1728432
TAC
QT Input Channel

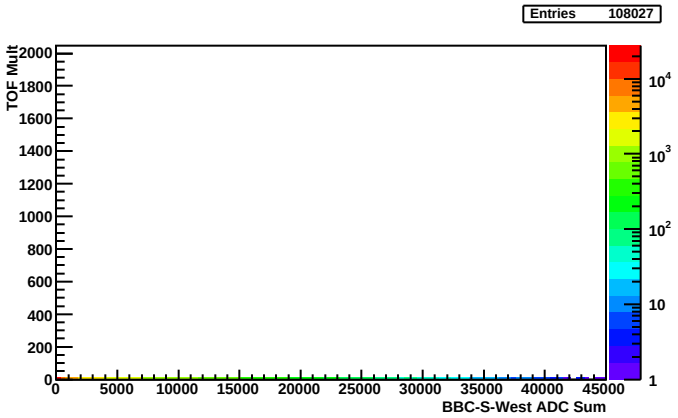

BBQ-VP004 (HI threshold)
Entries 1728432
ADC
QT Input Channel

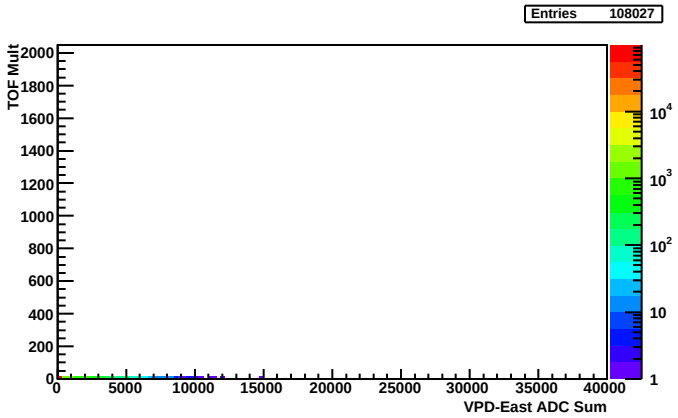

BBQ-VP004 (HI threshold)
Entries 1728432
TAC
QT Input Channel

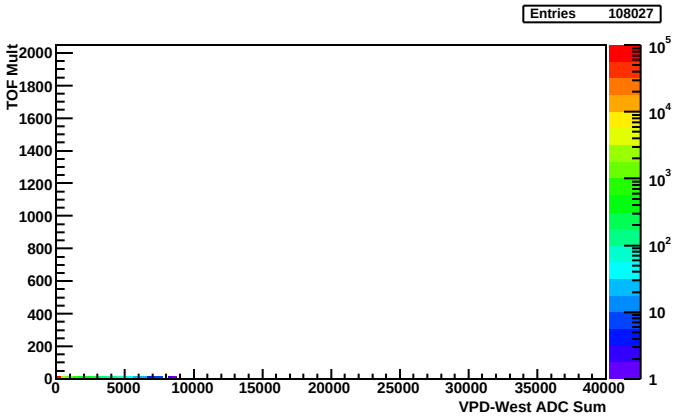

Entries 108027
TOF Mult
BBC-L-East ADC Sum

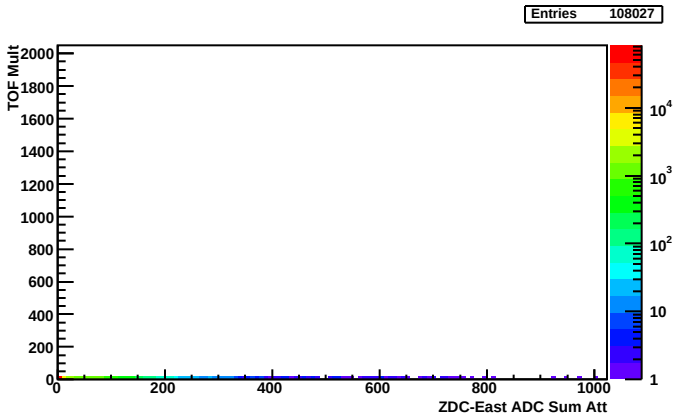

Entries 108027
TOF Mult
BBC-L-West ADC Sum

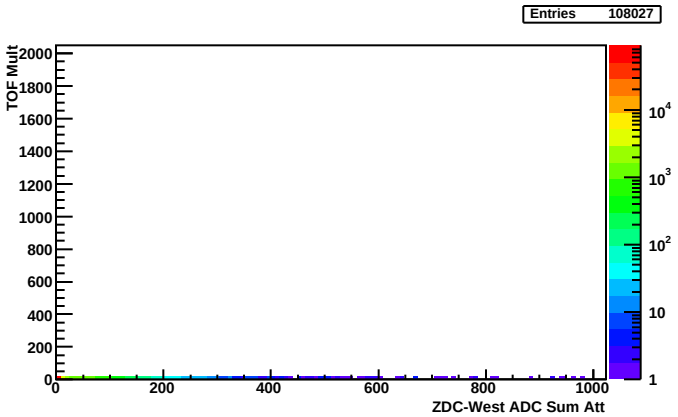

Entries 108027
TOF Mult
BBC-S-East ADC Sum

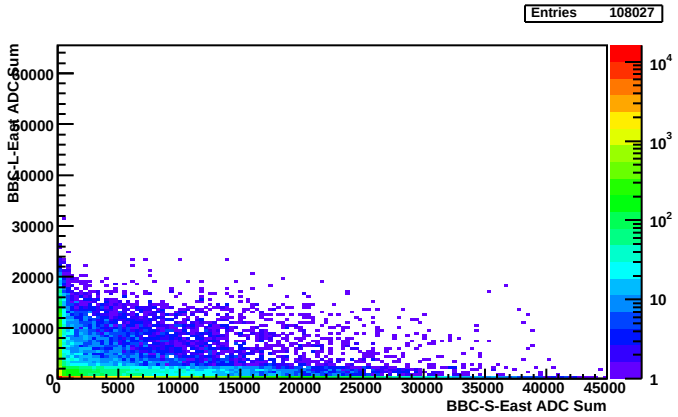

Entries 108027
TOF Mult
BBC-S-West ADC Sum

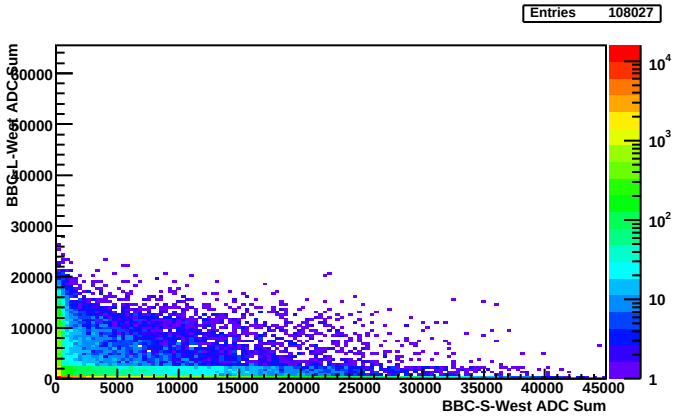

Entries 108027
TOF Mult
VPD-East ADC Sum

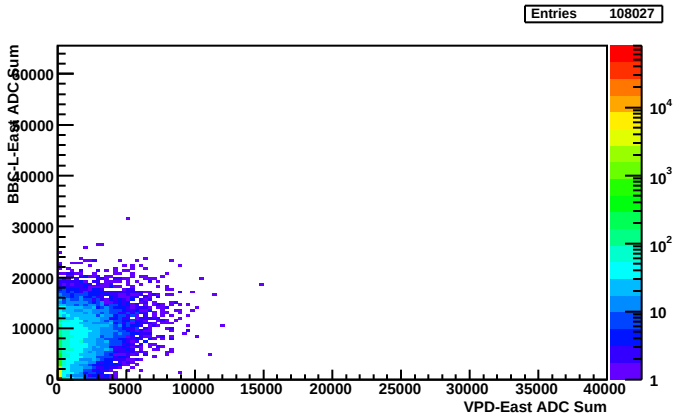

Entries 108027
TOF Mult
VPD-West ADC Sum

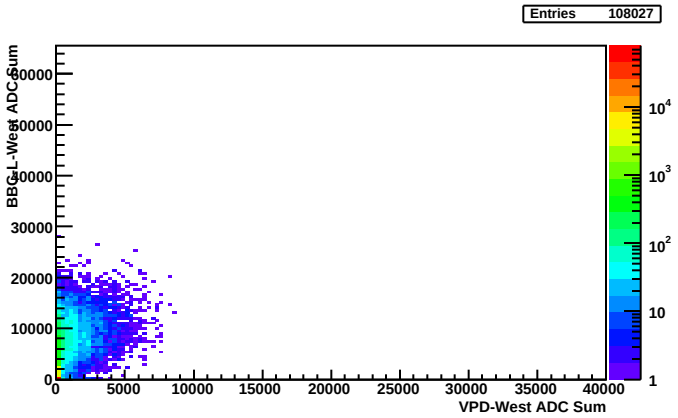

Entries 108027
TOF Mult
ZDC-East ADC Sum Att

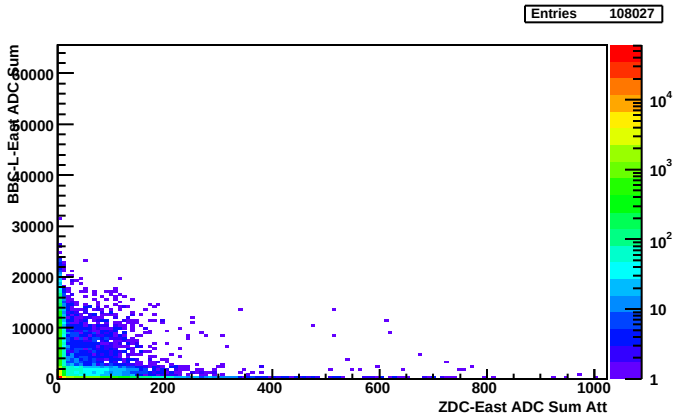

Entries 108027
TOF Mult
ZDC-West ADC Sum Att

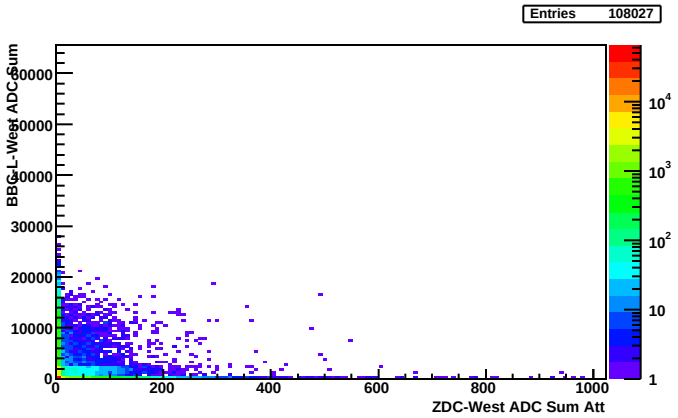

Entries 108027
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 108027
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 108027
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 108027
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 108027
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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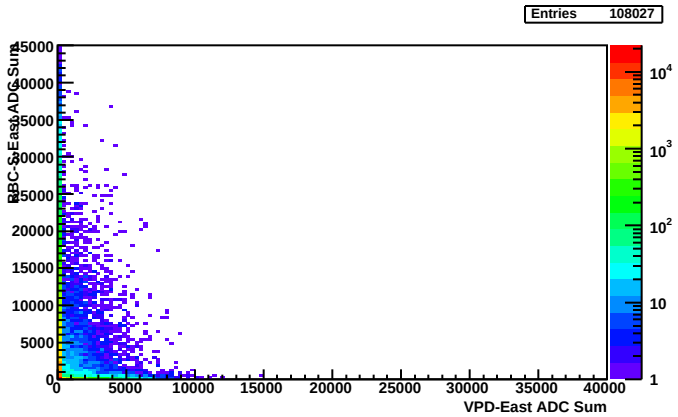
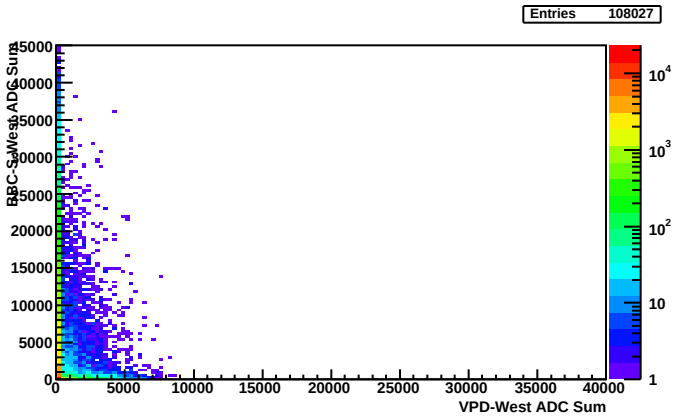
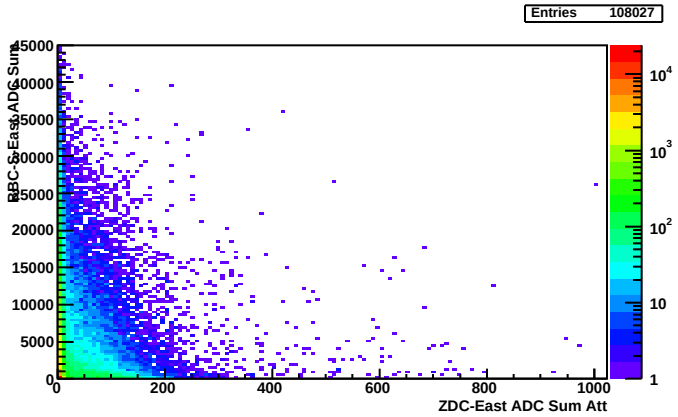
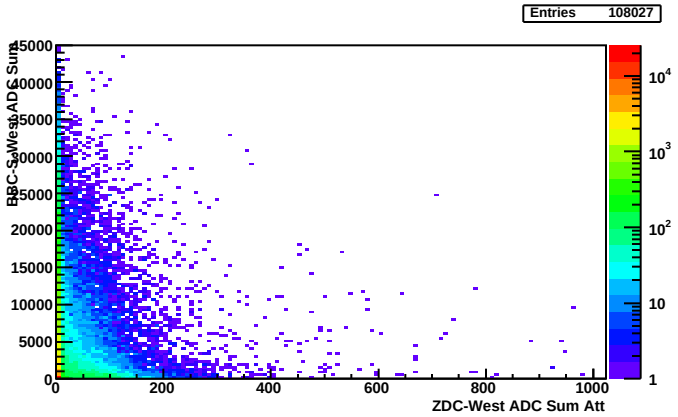
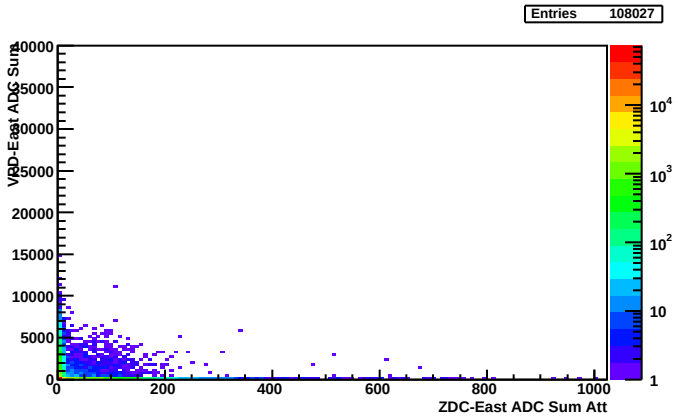
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

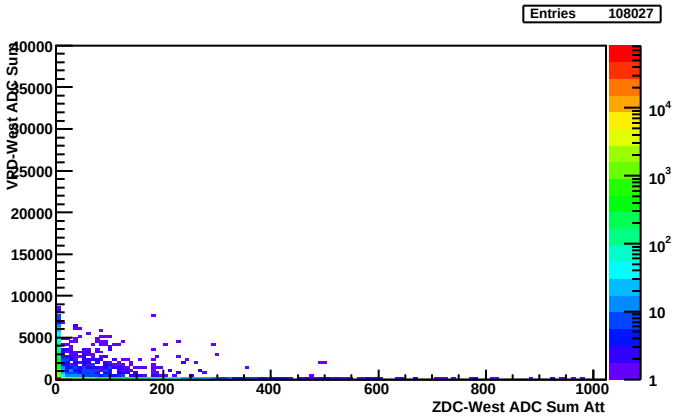

Entries 108027
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 108027
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 108027
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 108027
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 108027
VPD-East ADC Sum
ZDC-East ADC Sum Att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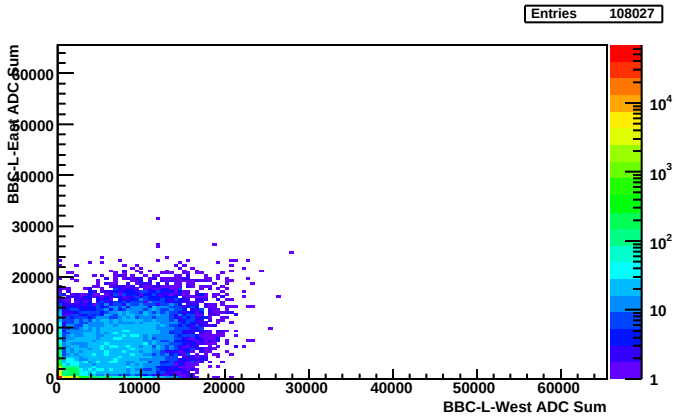
VPD-West ADC Sum
ZDC-West ADC Sum Att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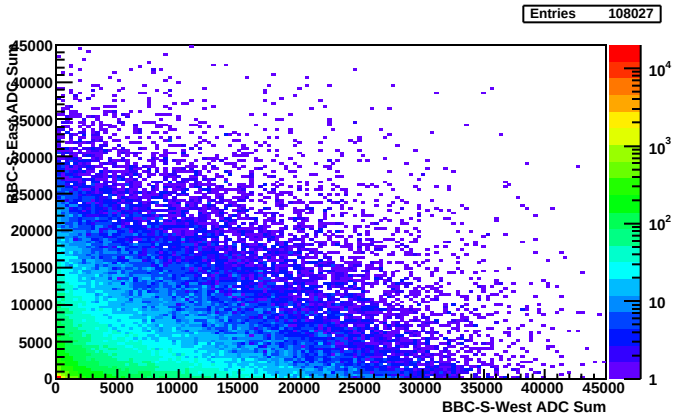
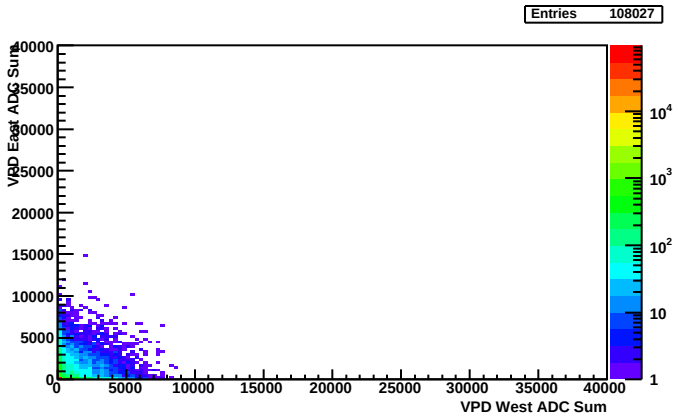
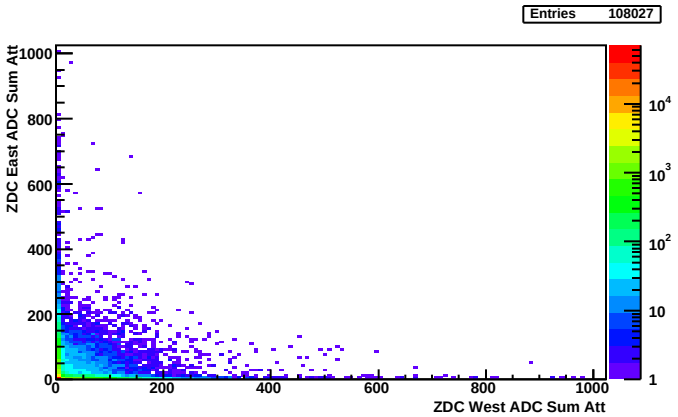
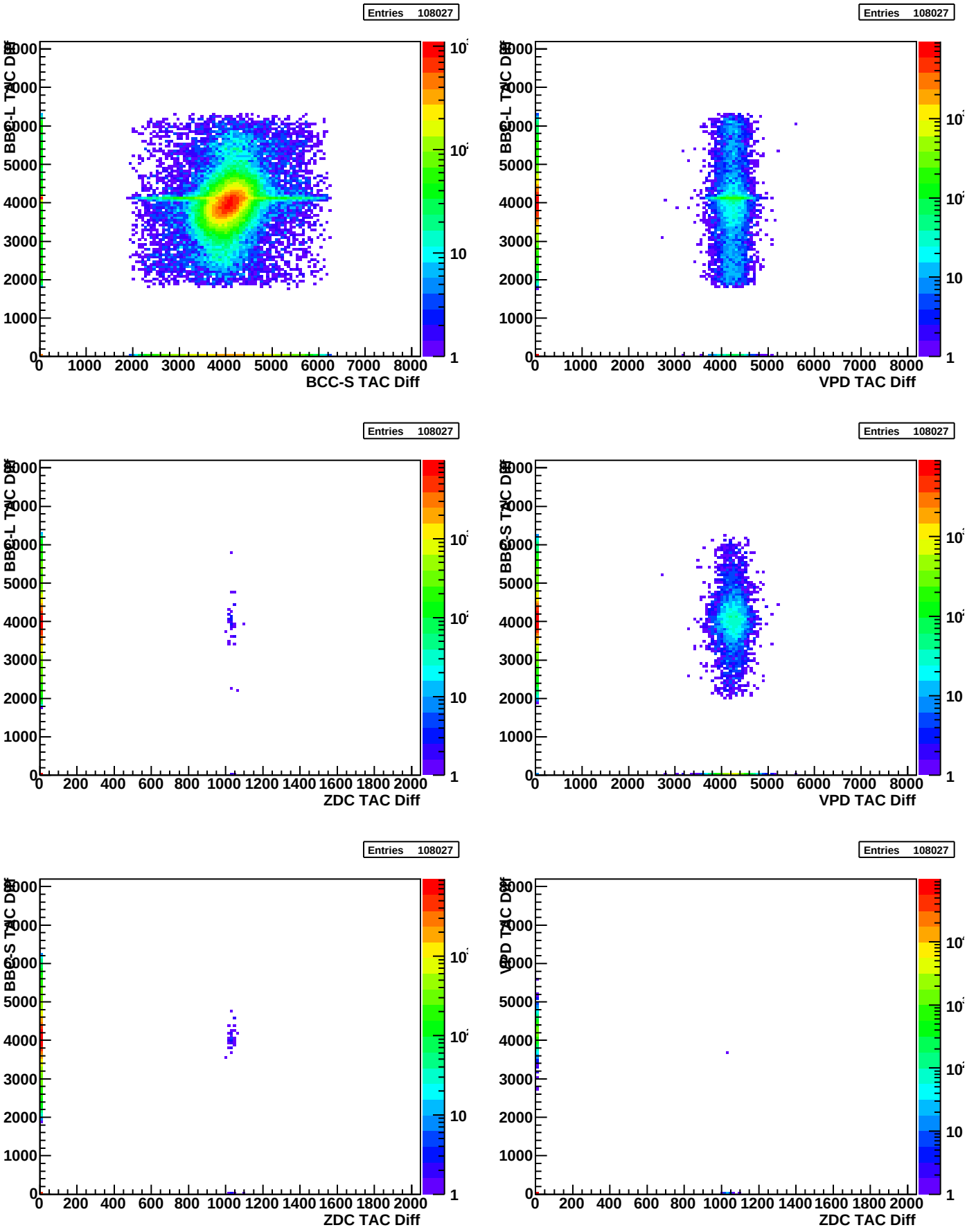
BBC-L-East ADC Sum
BBC-L-West ADC Sum


Entries 108027
BBC-S-East ADC Sum
BBC-S-West ADC Sum


Entries 108027
VPD East ADC Sum
VPD West ADC Sum


Entries 108027
ZDC East ADC Sum Att
ZDC West ADC Sum Att


Entries 108027
BBC-L TAC Diff
BCC-S TAC Diff
Entries 108027
BBC-L TAC Diff
VPD TAC Diff
Entries 108027
BBC-L TAC Diff
ZDC TAC Diff
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VPD TAC Diff
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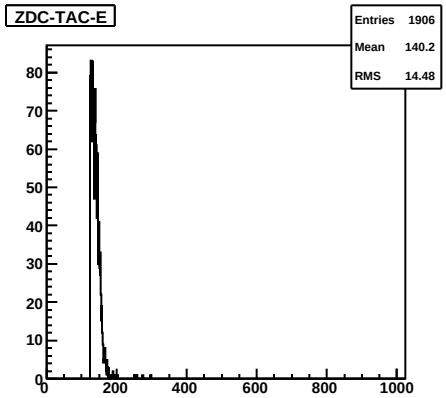
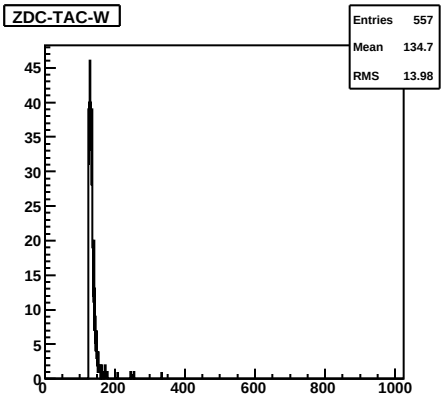
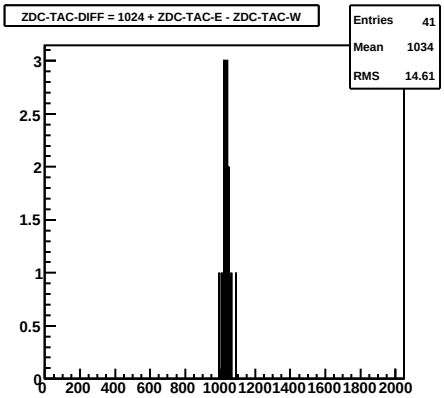
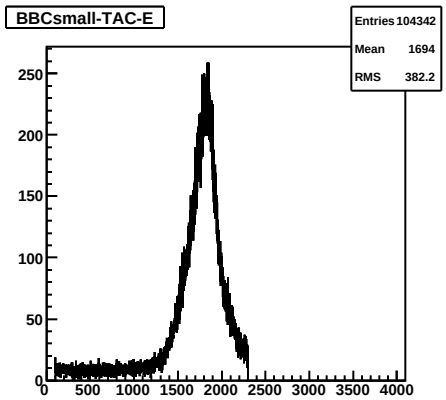
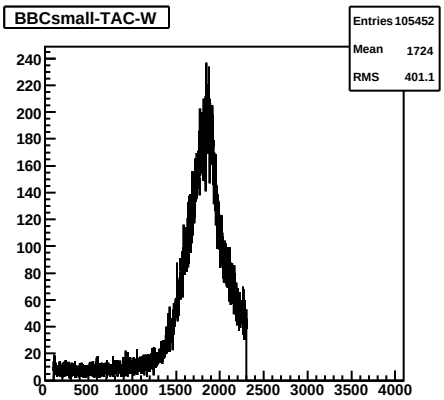
ZDC TAC Diff
Entries 108027
VPD TAC Diff
ZDC TAC Diff

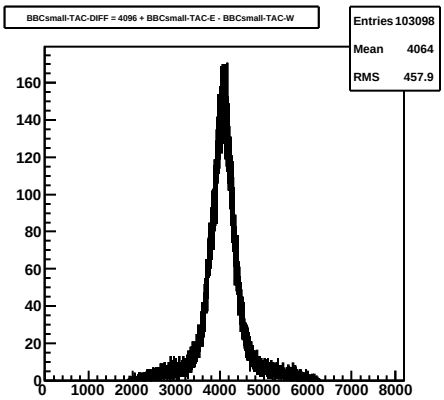

ZDC-TAC-E
Entries 1906
Mean 140.2
RMS 14.48

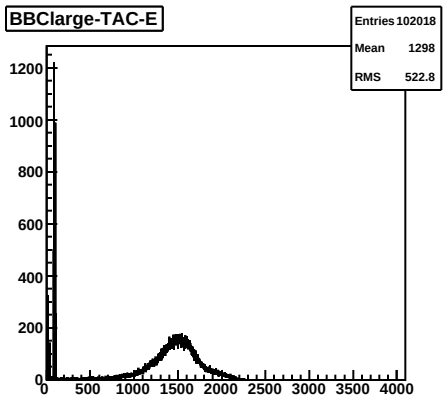

ZDC-TAC-W
Entries 557
Mean 134.7
RMS 13.98

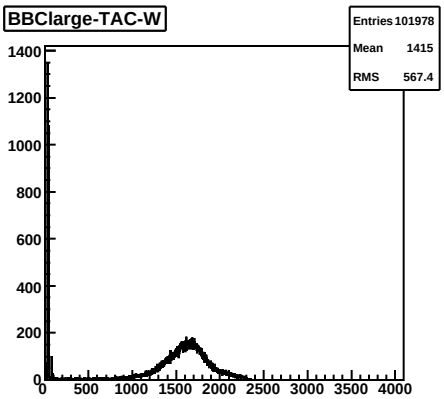

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 41
Mean 1034
RMS 14.61

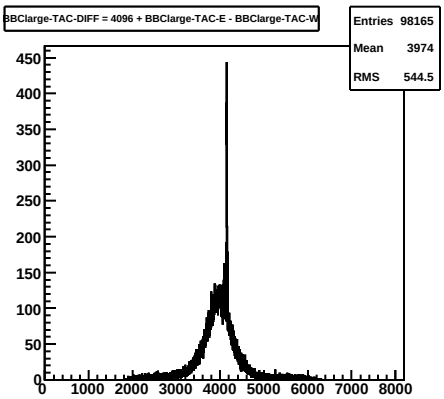

BBCsmall-TAC-E
Entries 104342
Mean 1694
RMS 382.2

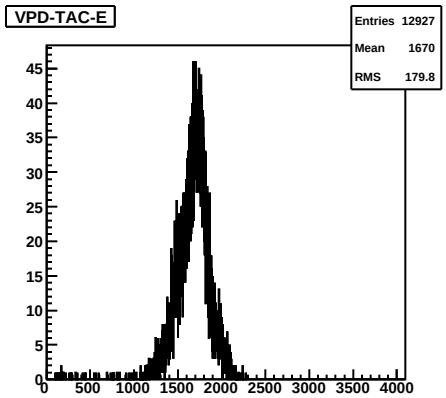

BBCsmall-TAC-W
Entries 105452
Mean 1724
RMS 401.1

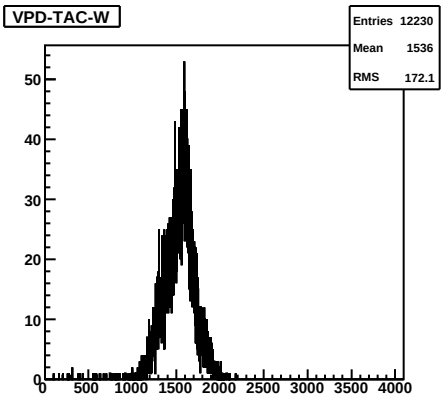

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 103098
Mean 4064
RMS 457.9

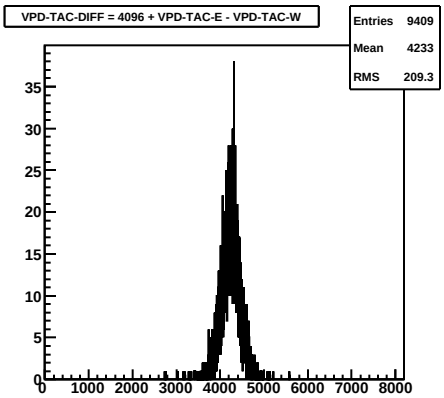

BBClarge-TAC-E
Entries 102018
Mean 1298
RMS 522.8

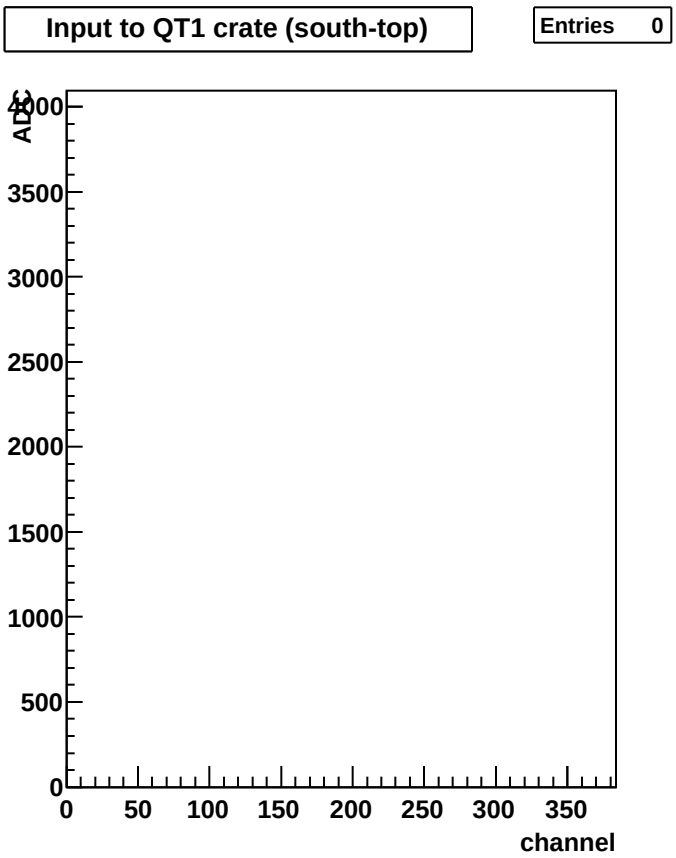

BBClarge-TAC-W
Entries 101978
Mean 1415
RMS 567.4

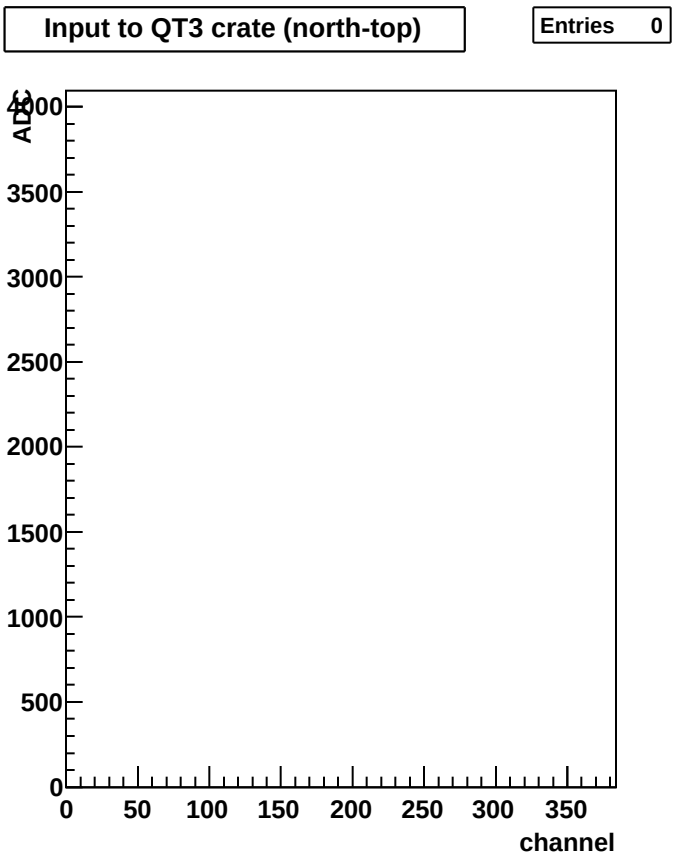

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 98165
Mean 3974
RMS 544.5

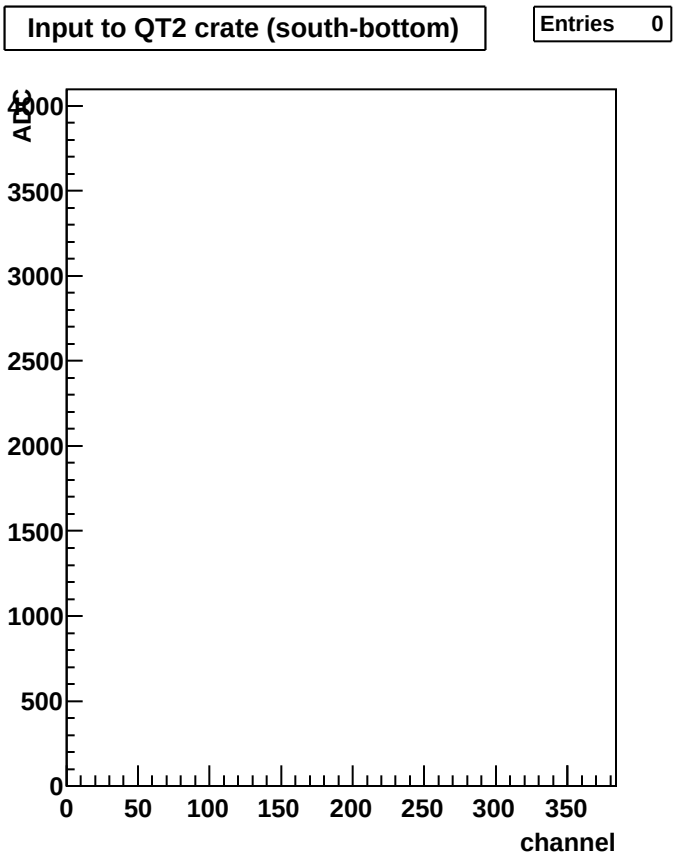

VPD-TAC-E
Entries 12927
Mean 1670
RMS 179.8

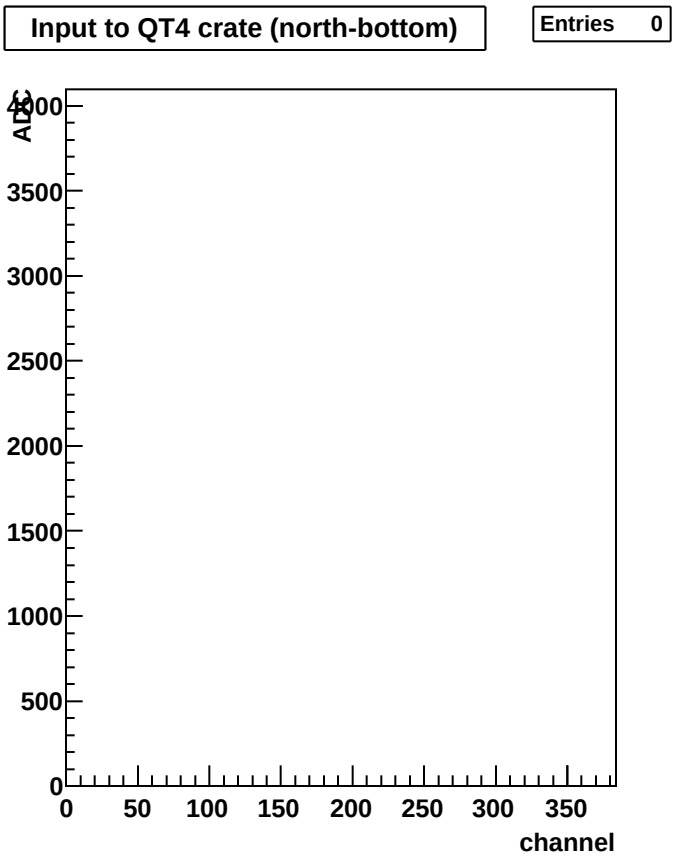

VPD-TAC-W
Entries 12230
Mean 1536
RMS 172.1

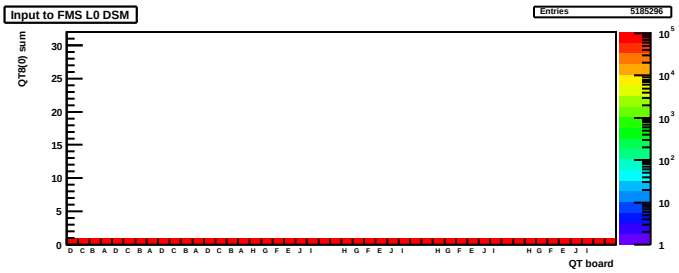

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 9409
Mean 4233
RMS 209.3

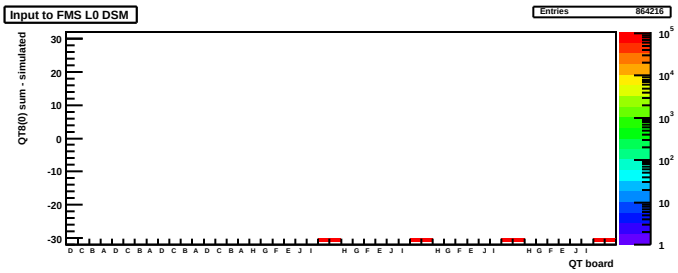

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

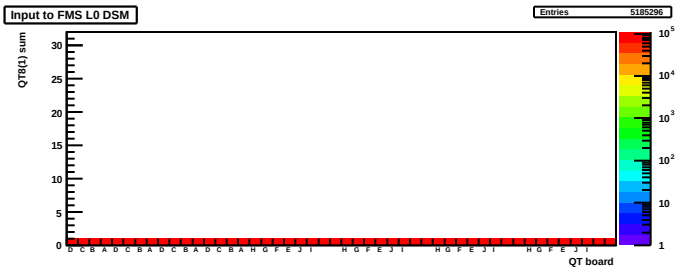

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

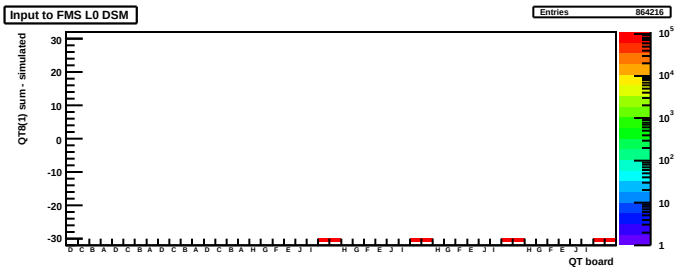

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

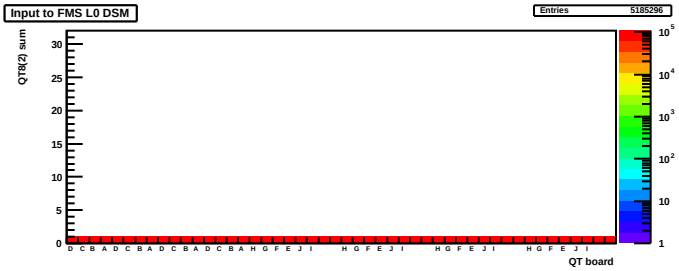

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

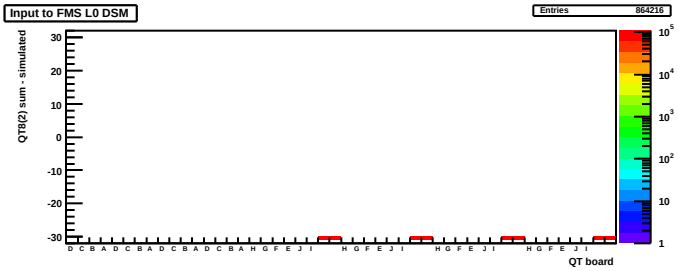

Input to FMS L0 DSM
Entries 5185296
QT8(0) sum
QT board

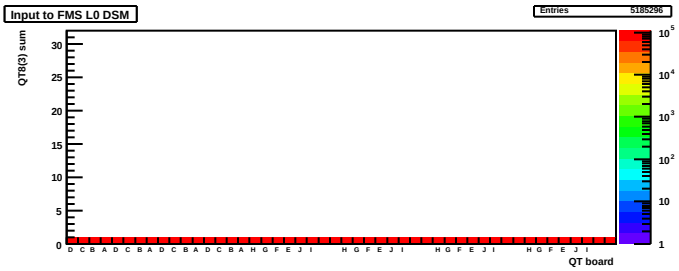

Input to FMS L0 DSM
Entries 864216
QT8(0) sum - simulated
QT board

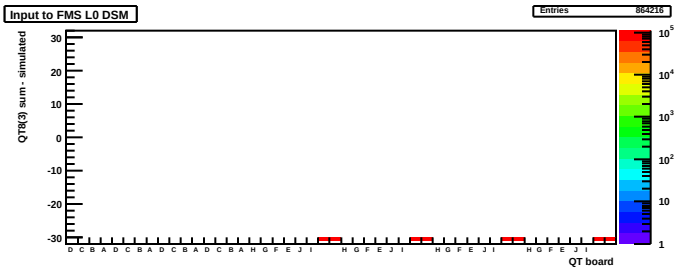

Input to FMS L0 DSM
Entries 5185296
QT8(1) sum
QT board

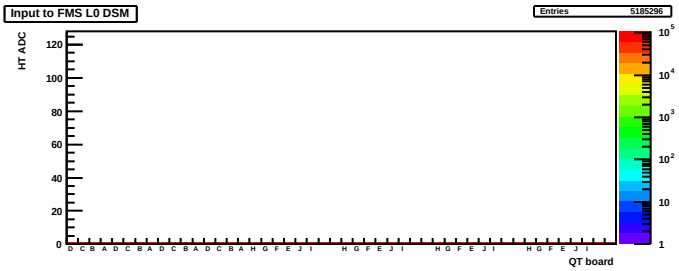

Input to FMS L0 DSM
Entries 864216
QT8(1) sum - simulated
QT board

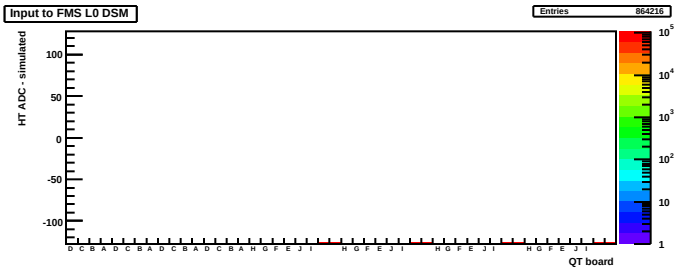

Input to FMS L0 DSM
Entries 5185296
QT8(2) sum
QT board

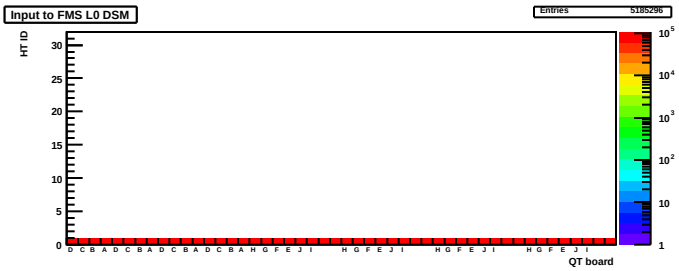

Input to FMS L0 DSM
Entries 864216
QT8(2) sum - simulated
QT board

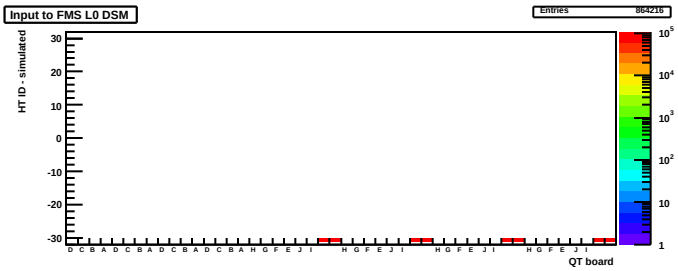

Input to FMS L0 DSM
Entries 5185296
QT8(3) sum
QT board

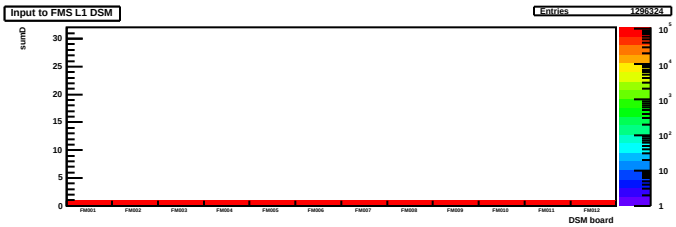

Input to FMS L0 DSM
Entries 864216
QT8(3) sum - simulated
QT board

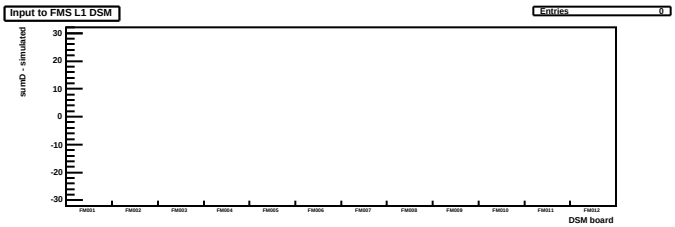

Input to FMS L0 DSM
Entries 5185296
HT ADC
QT board

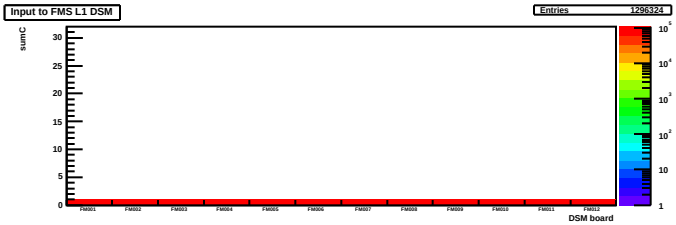

Input to FMS L0 DSM
Entries 864216
HT ADC - simulated
QT board

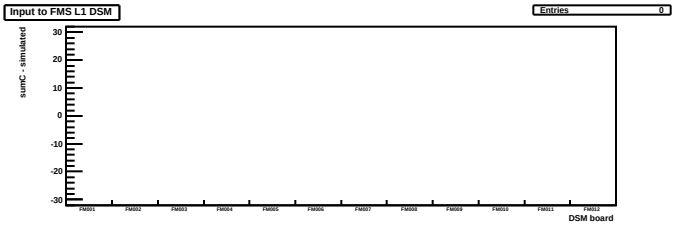

Input to FMS L0 DSM
Entries 5185296
HT ID
QT board

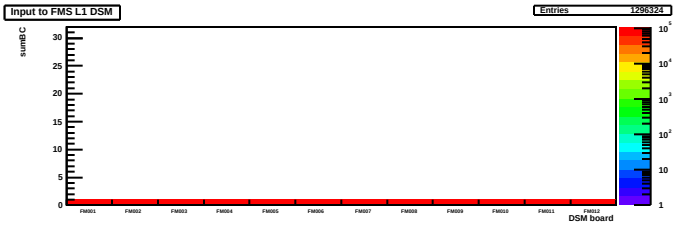

Input to FMS L0 DSM
Entries 864216
HT ID - simulated
QT board

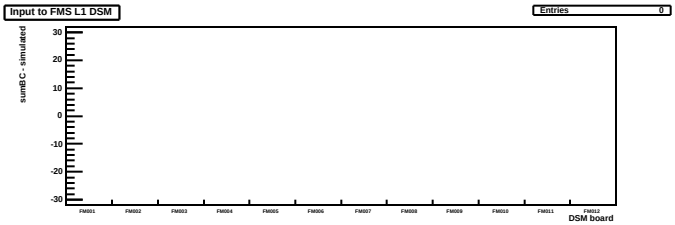

Input to FMS L1 DSM
Entries 1296324
sumD
DSM board

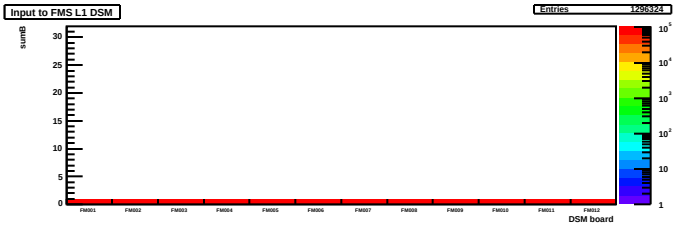

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

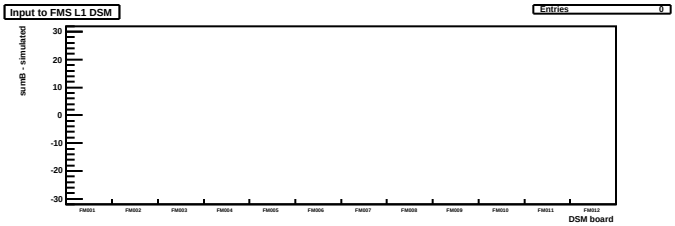

Input to FMS L1 DSM
Entries 1296324
sumC
DSM board

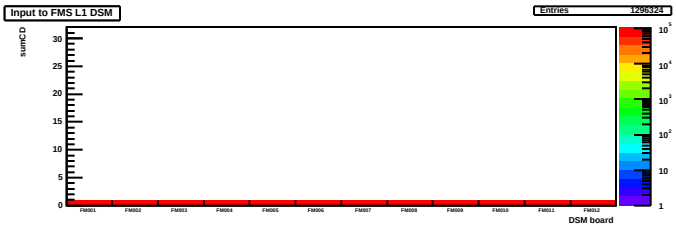

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

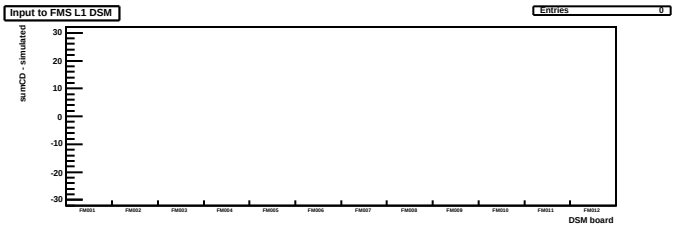

Input to FMS L1 DSM
Entries 1296324
sumBC
DSM board

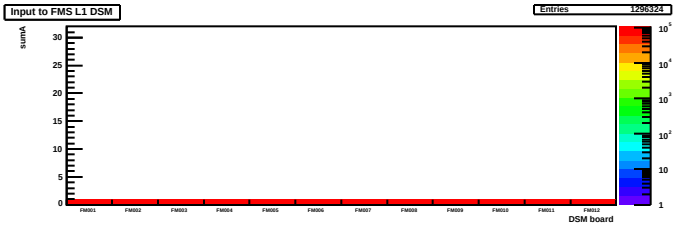

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

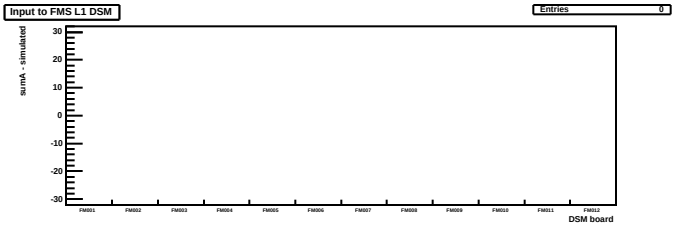

Input to FMS L1 DSM
Entries 1296324
sumB
DSM board

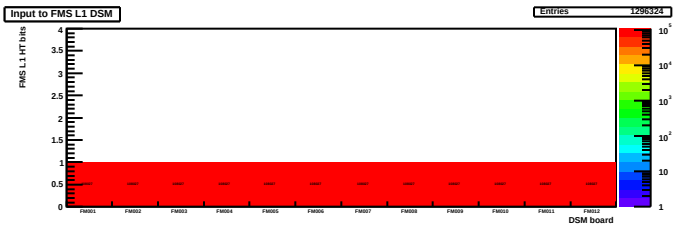

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

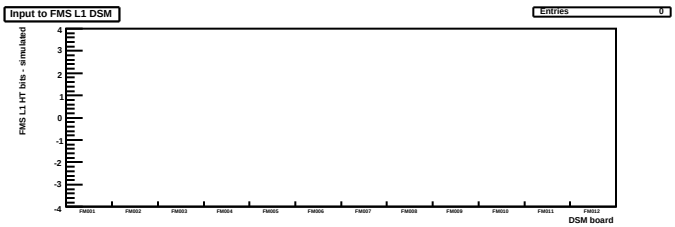

Input to FMS L1 DSM
Entries 1296324
sumCD
DSM board

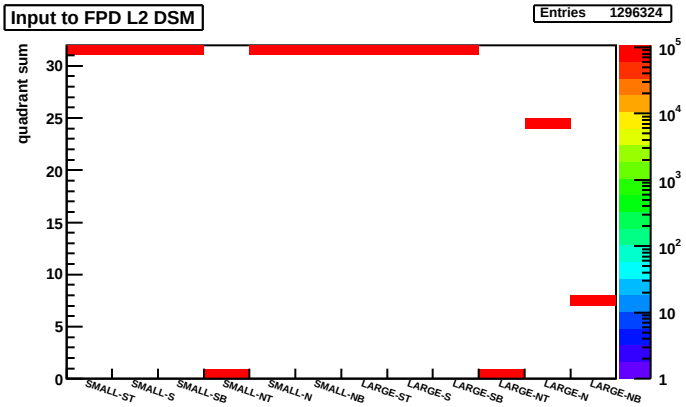

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

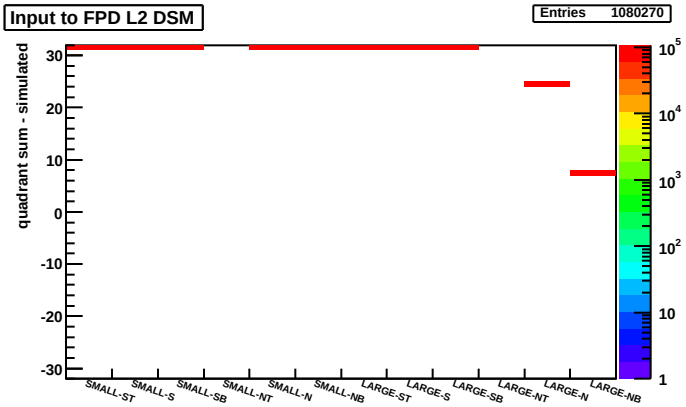

Input to FMS L1 DSM
Entries 1296324
sumA
DSM board

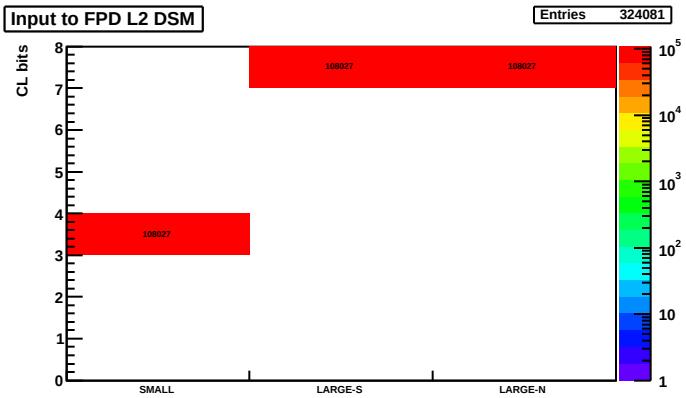

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

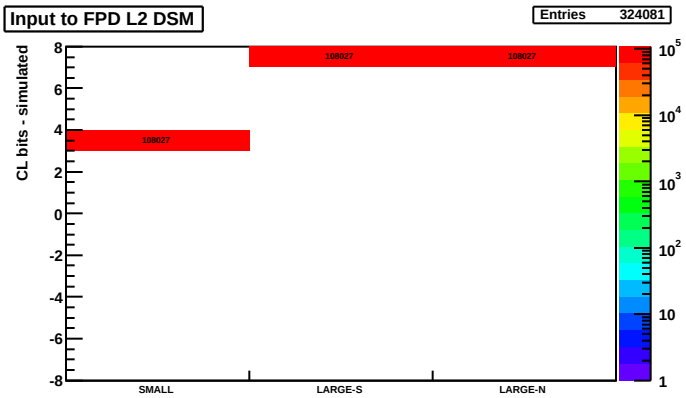

Input to FMS L1 DSM
Entries 1296324
FMS L1 HT bits
DSM board

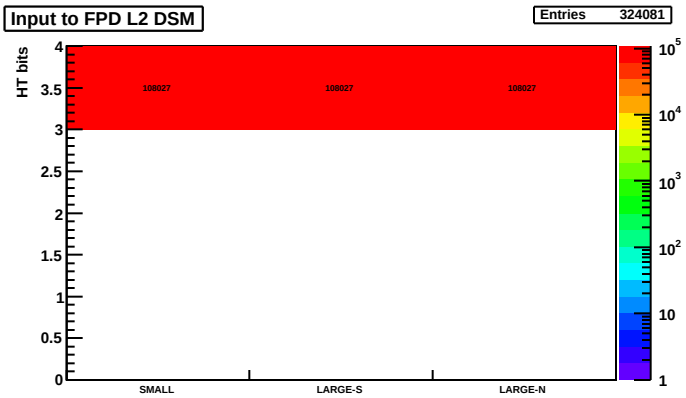

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

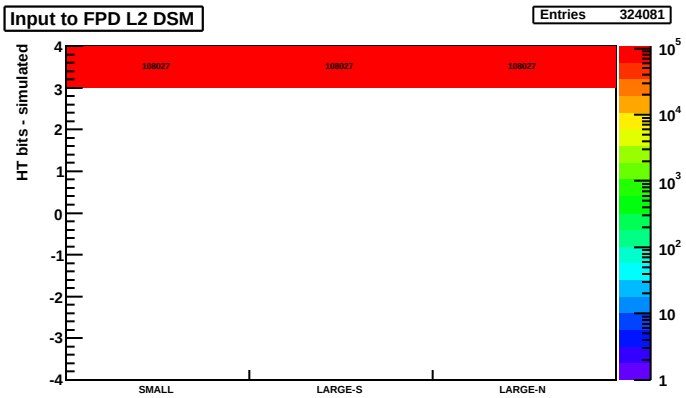

Input to FPD L2 DSM
Entries 1296324
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

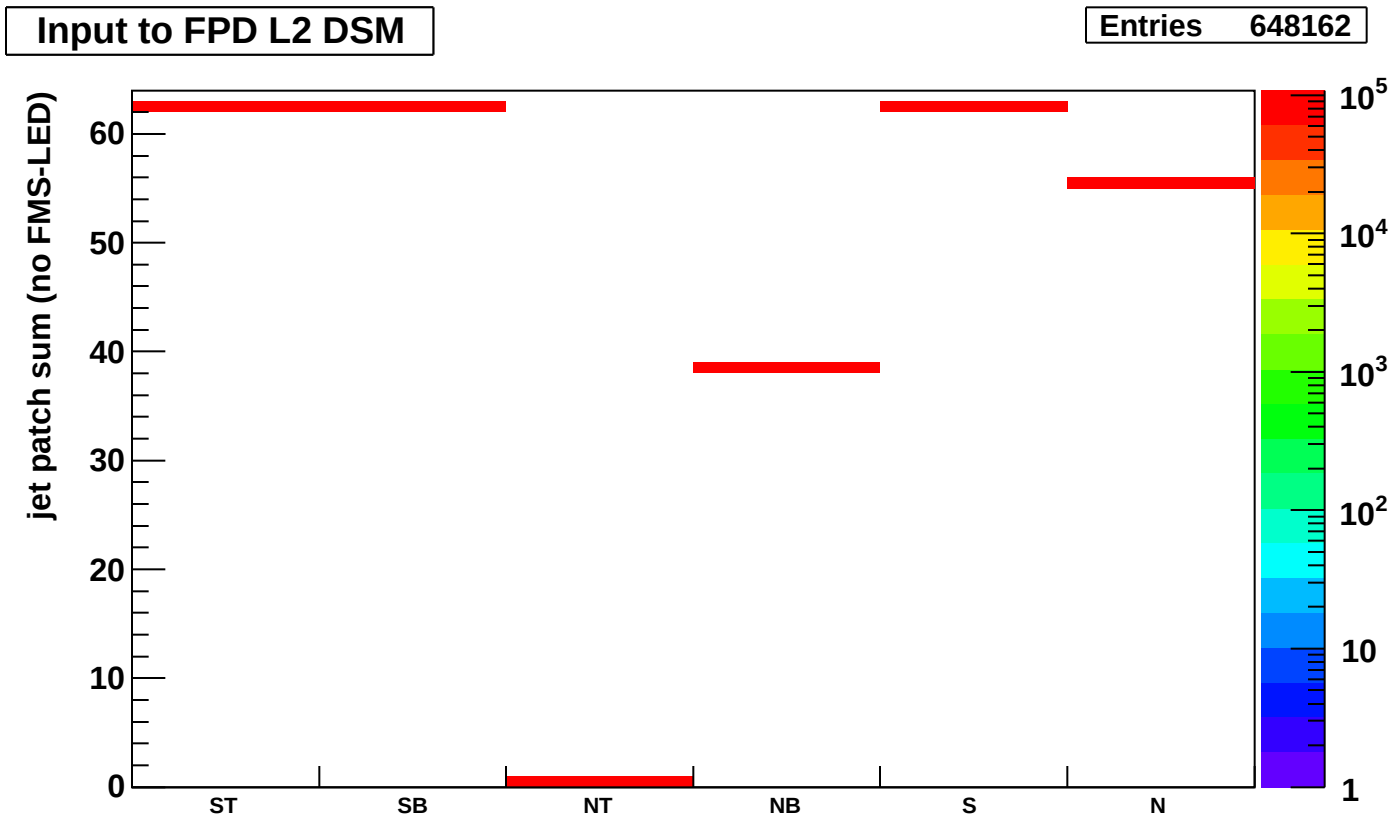

Input to FPD L2 DSM
Entries 1080270
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

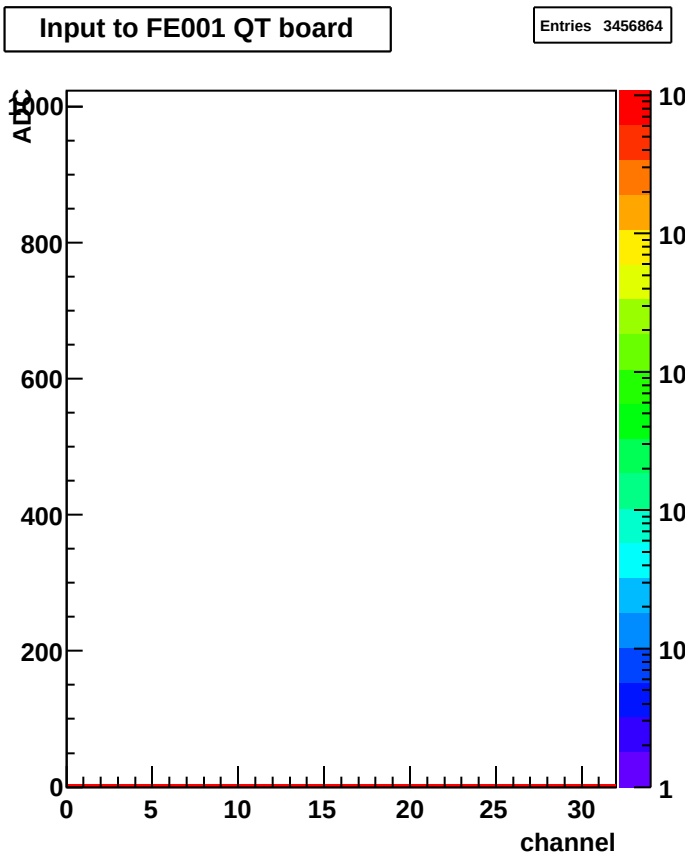

Input to FPD L2 DSM
Entries 324081
CL bits
108027
108027
108027
SMALL
LARGE-S
LARGE-N

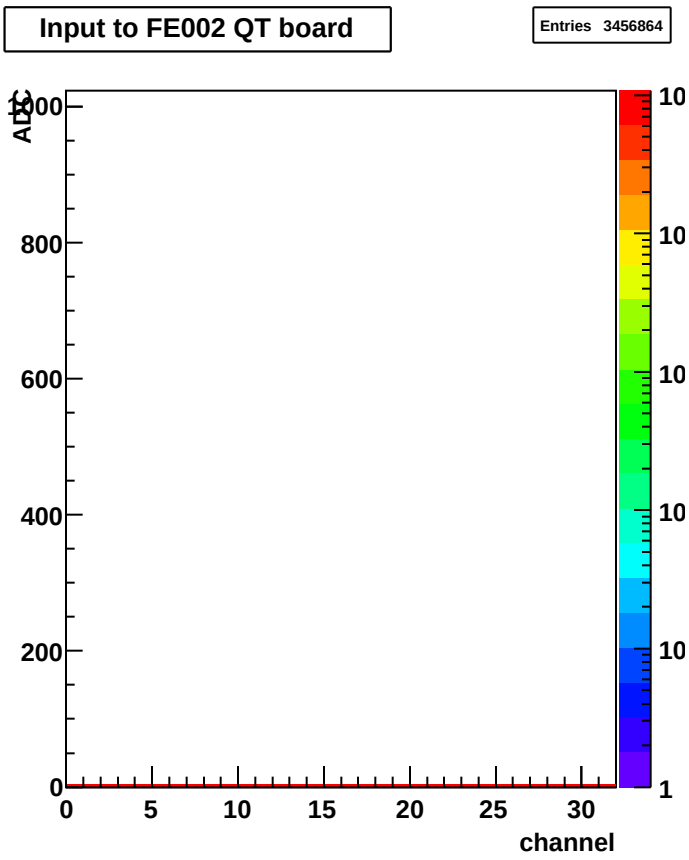

Input to FPD L2 DSM
Entries 324081
CL bits - simulated
108027
108027
108027
SMALL
LARGE-S
LARGE-N

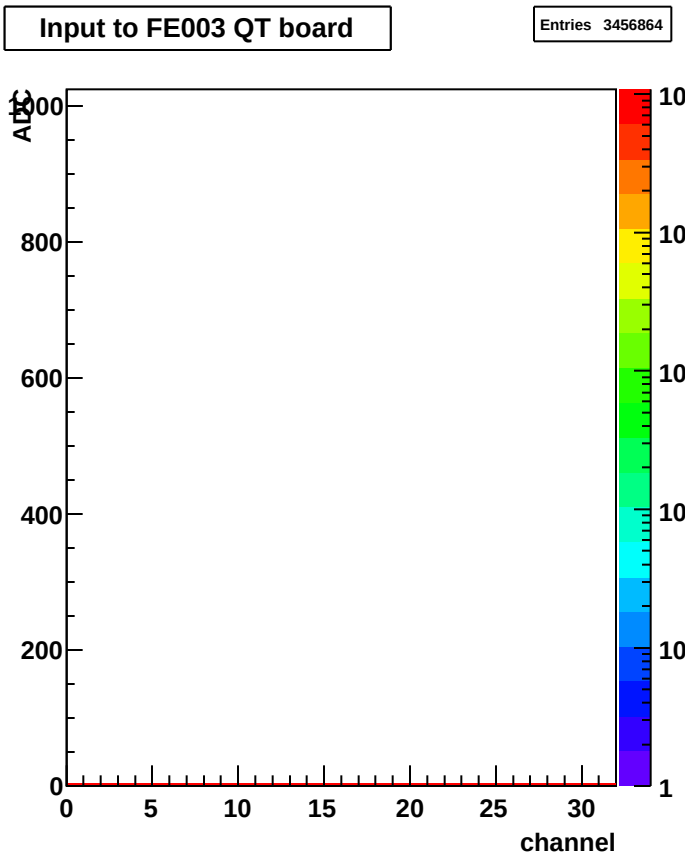

Input to FPD L2 DSM
Entries 324081
HT bits
108027
108027
108027
SMALL
LARGE-S
LARGE-N

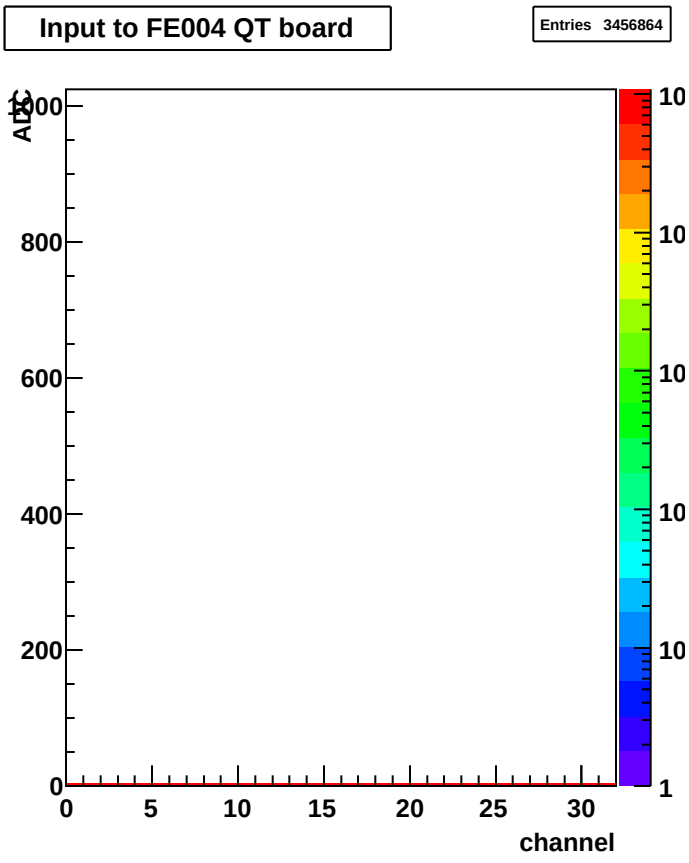

Input to FPD L2 DSM
Entries 324081
HT bits - simulated
108027
108027
108027
SMALL
LARGE-S
LARGE-N

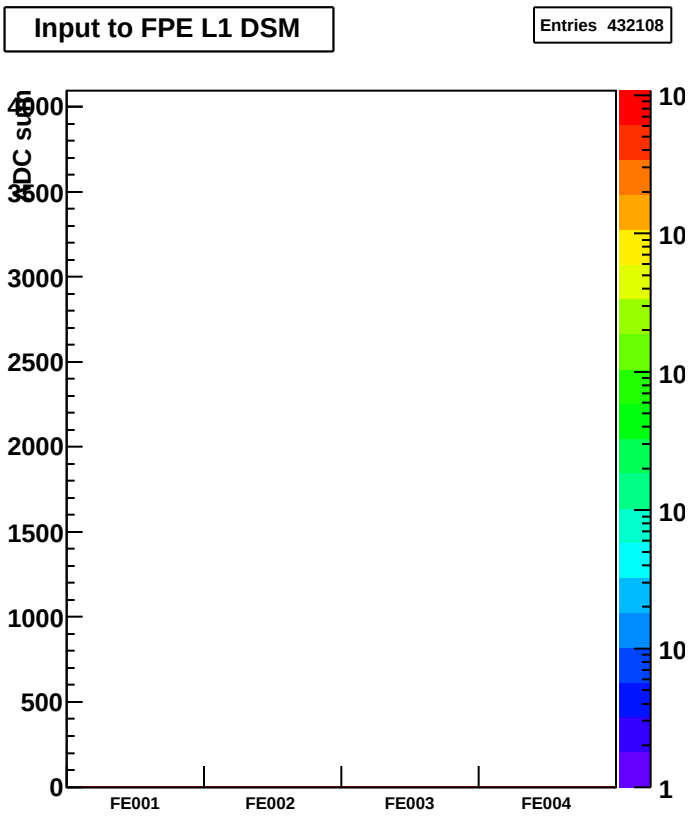

Input to FPD L2 DSM
Entries 648162
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

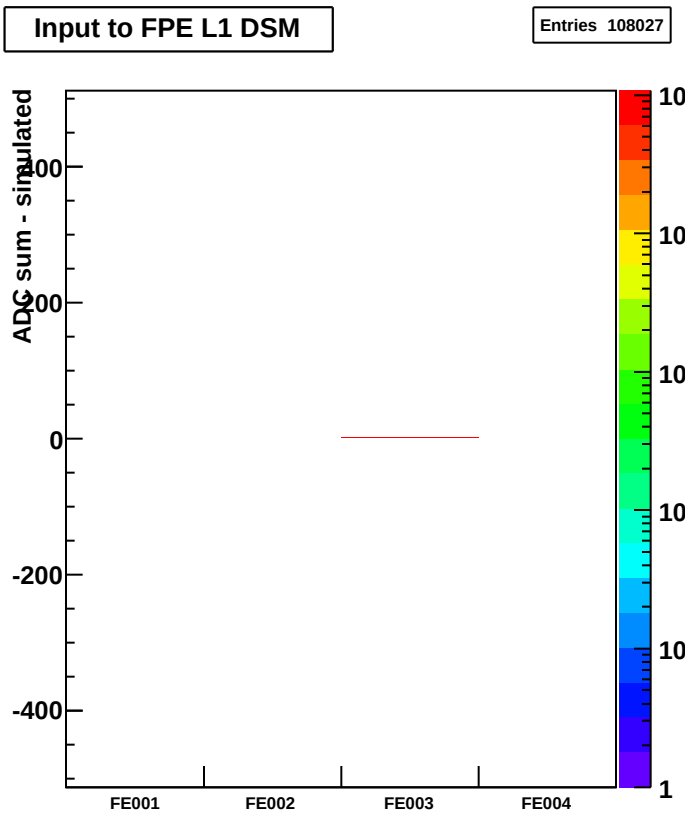

Input to FE001 QT board
Entries 3456864
ADC
channel

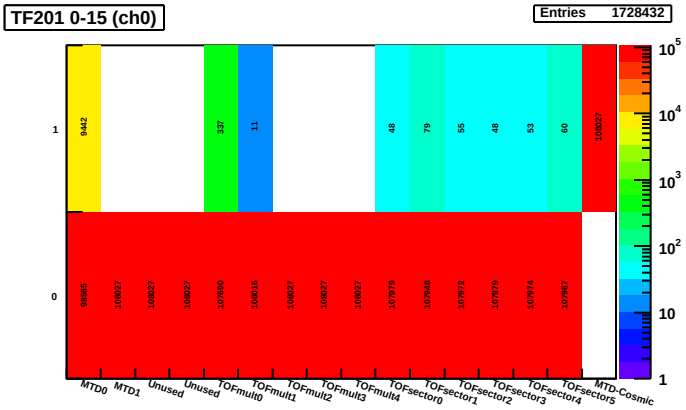

Input to FE002 QT board
Entries 3456864
ADC
channel

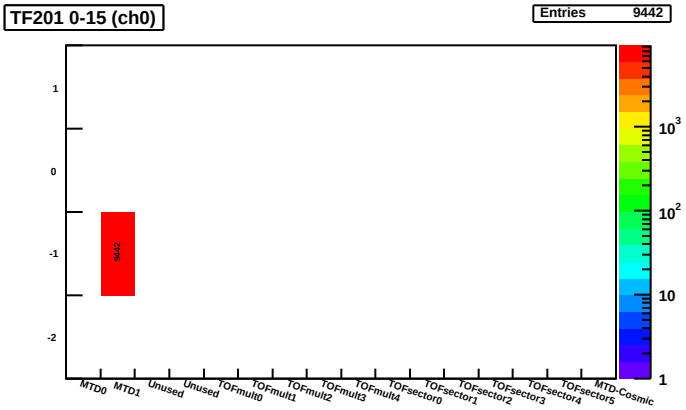

Input to FE003 QT board
Entries 3456864
ADC
channel

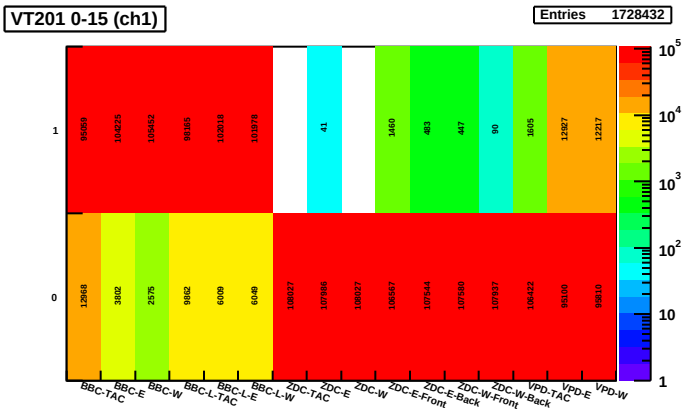

Input to FE004 QT board
Entries 3456864
ADC
channel

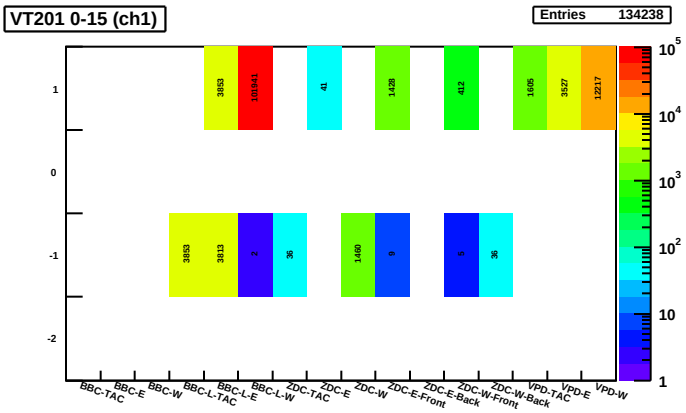

Input to FPE L1 DSM
Entries 432108
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

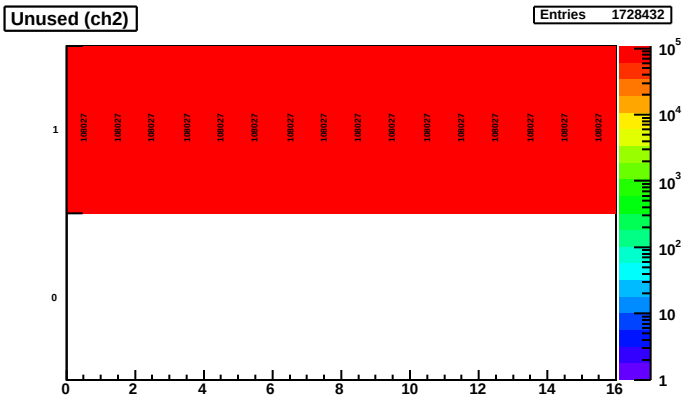

Input to FPE L1 DSM
Entries 108027
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

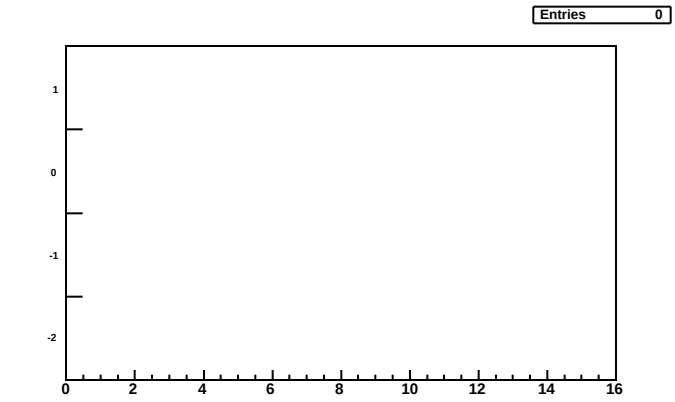

TF201 0-15 (ch0)
Entries 1728432
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

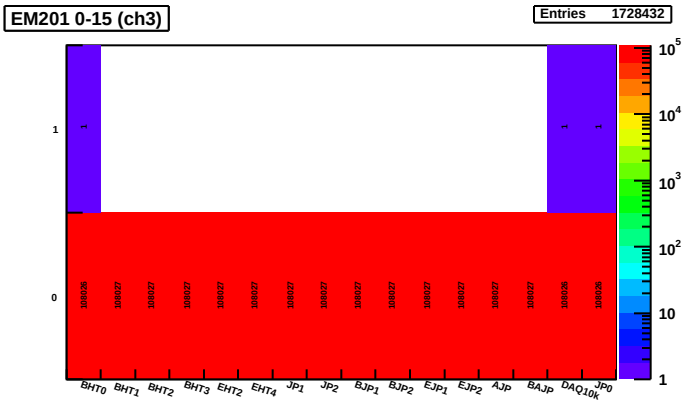

TF201 0-15 (ch0)
Entries 9442
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 1728432
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 134238
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 1728432


Entries 0


EM201 0-15 (ch3)
Entries 1728432
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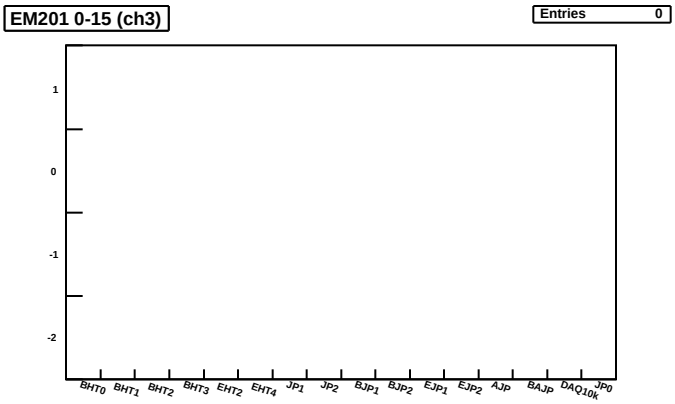
EM201 0-15 (ch3)
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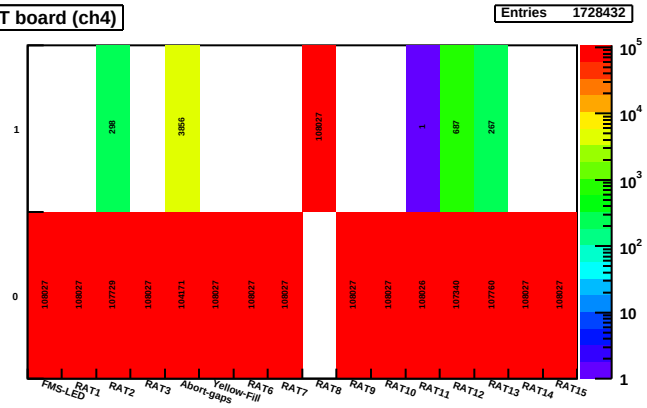
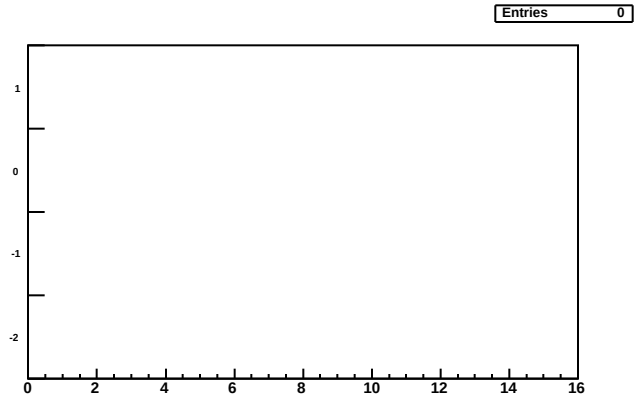
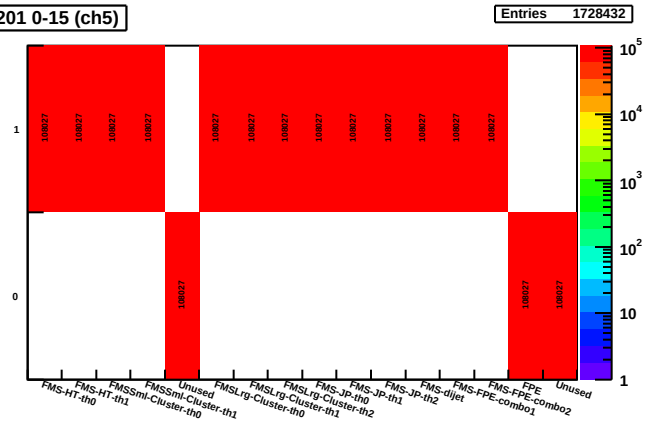
RAT board (ch4)

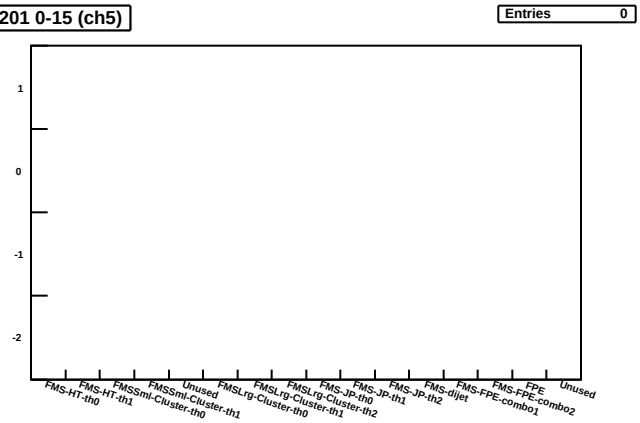




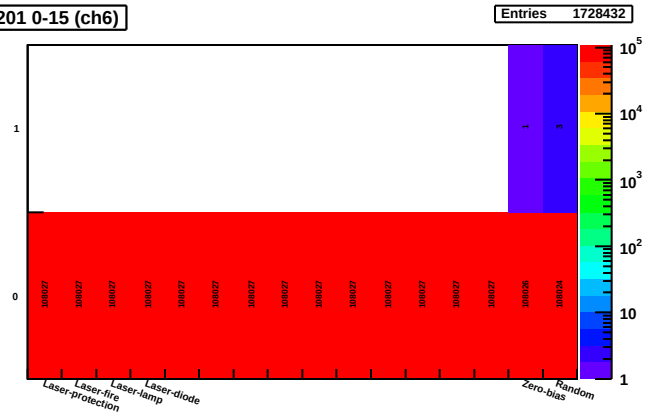
FP201 0-15 (ch5)

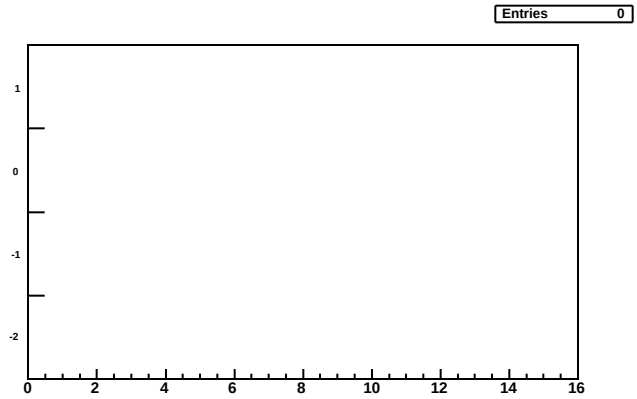
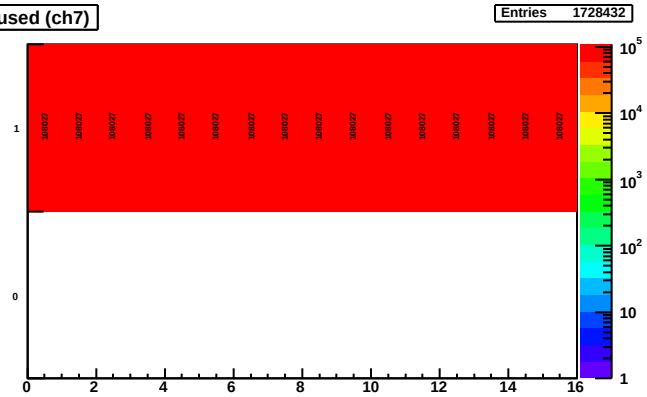
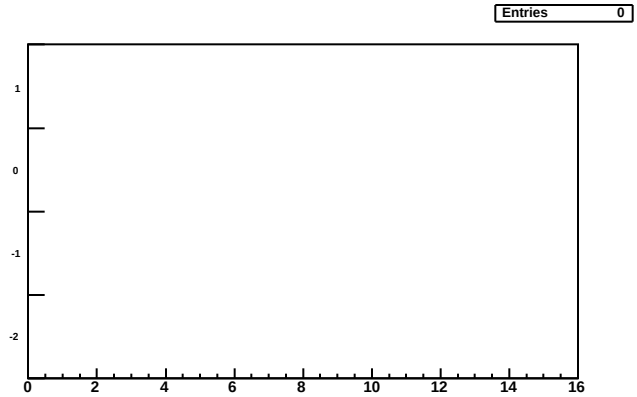


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)