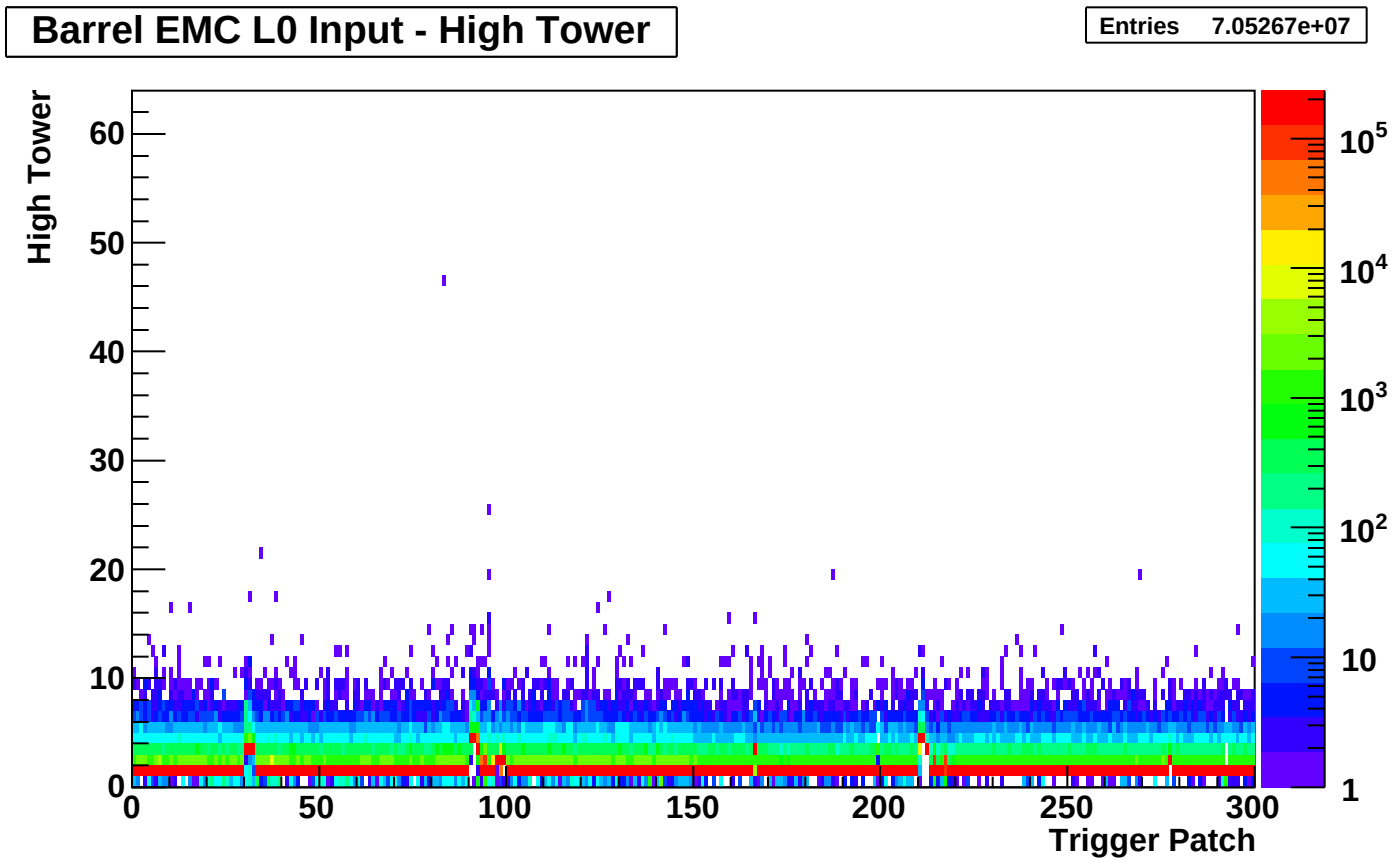
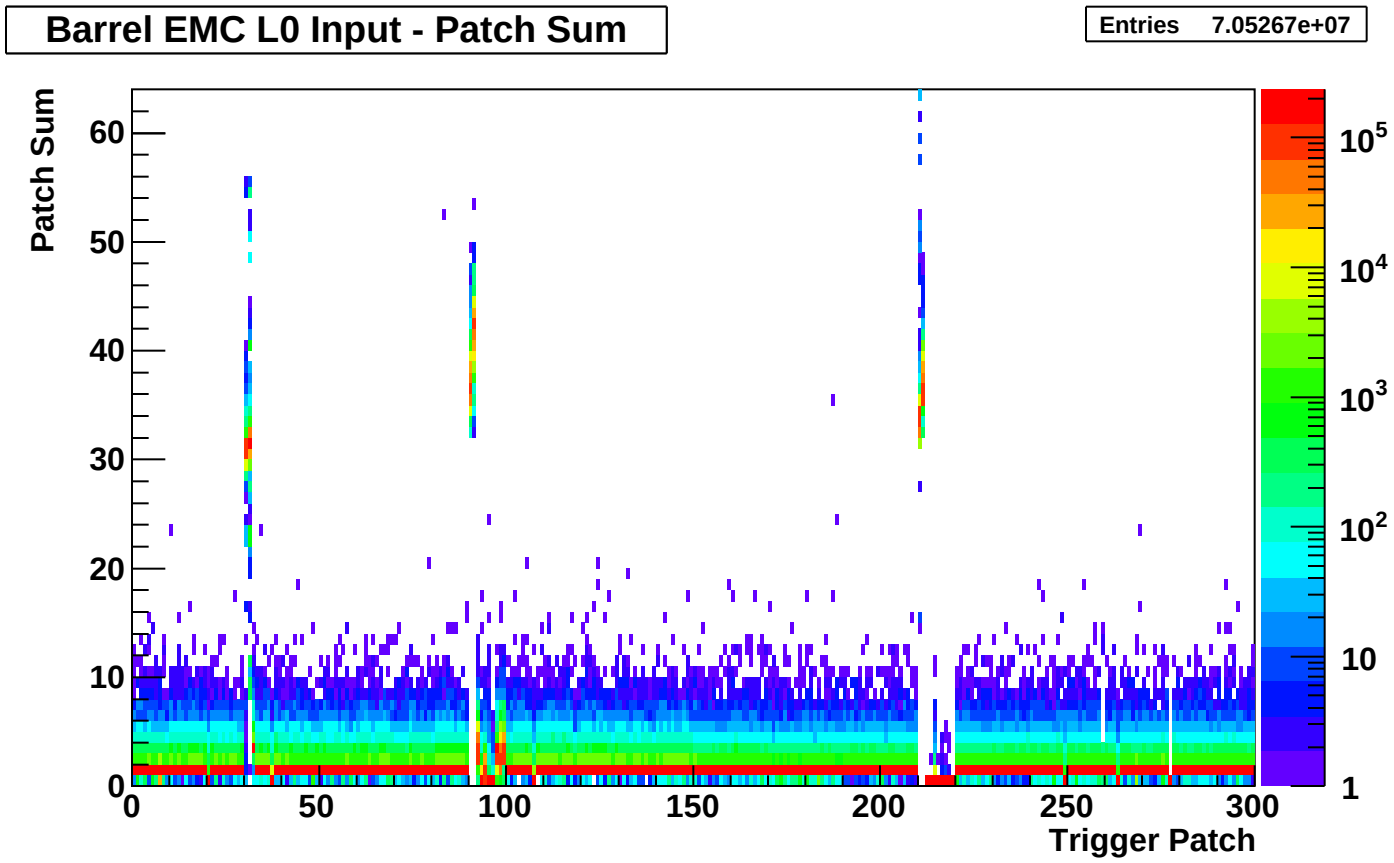
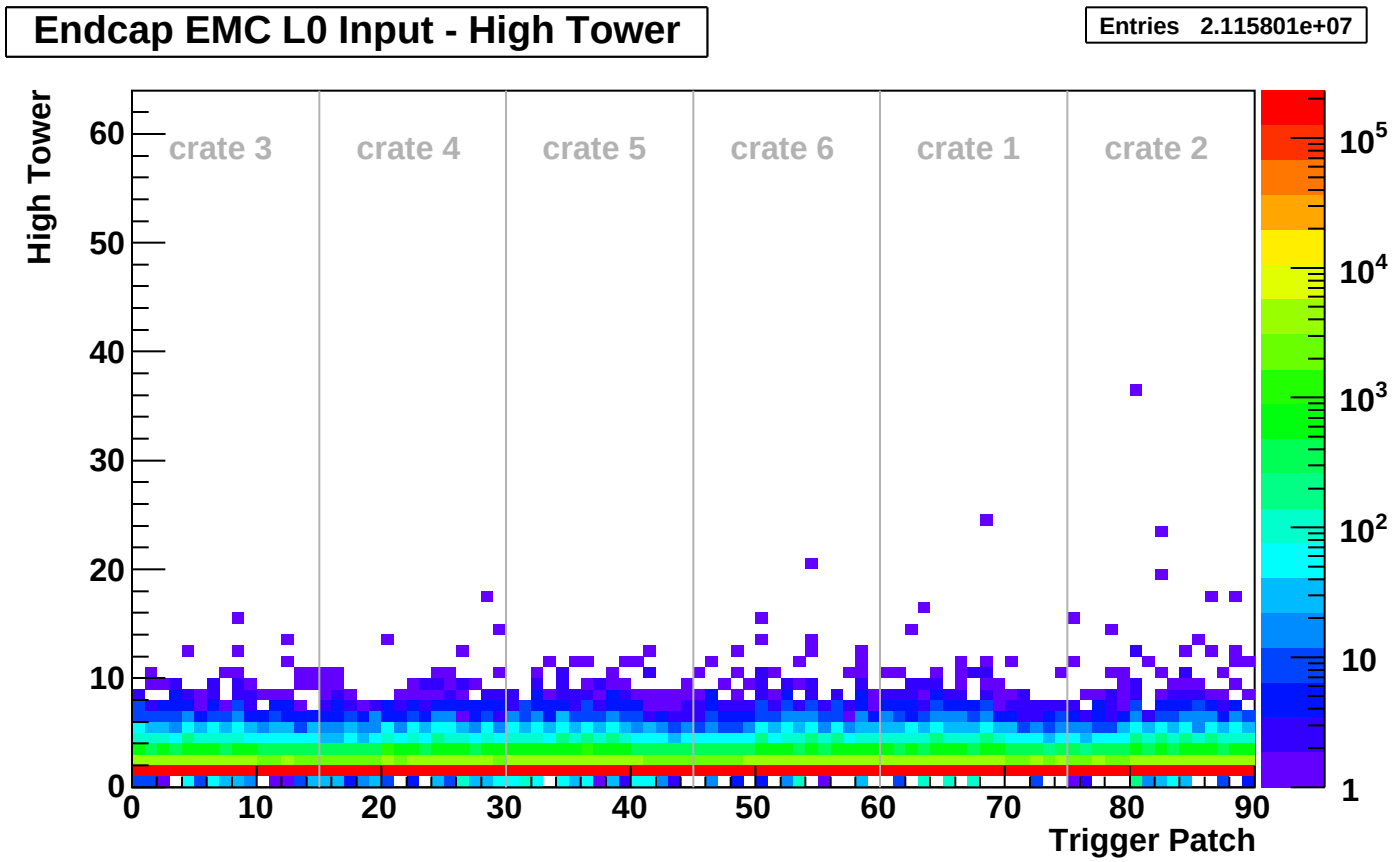
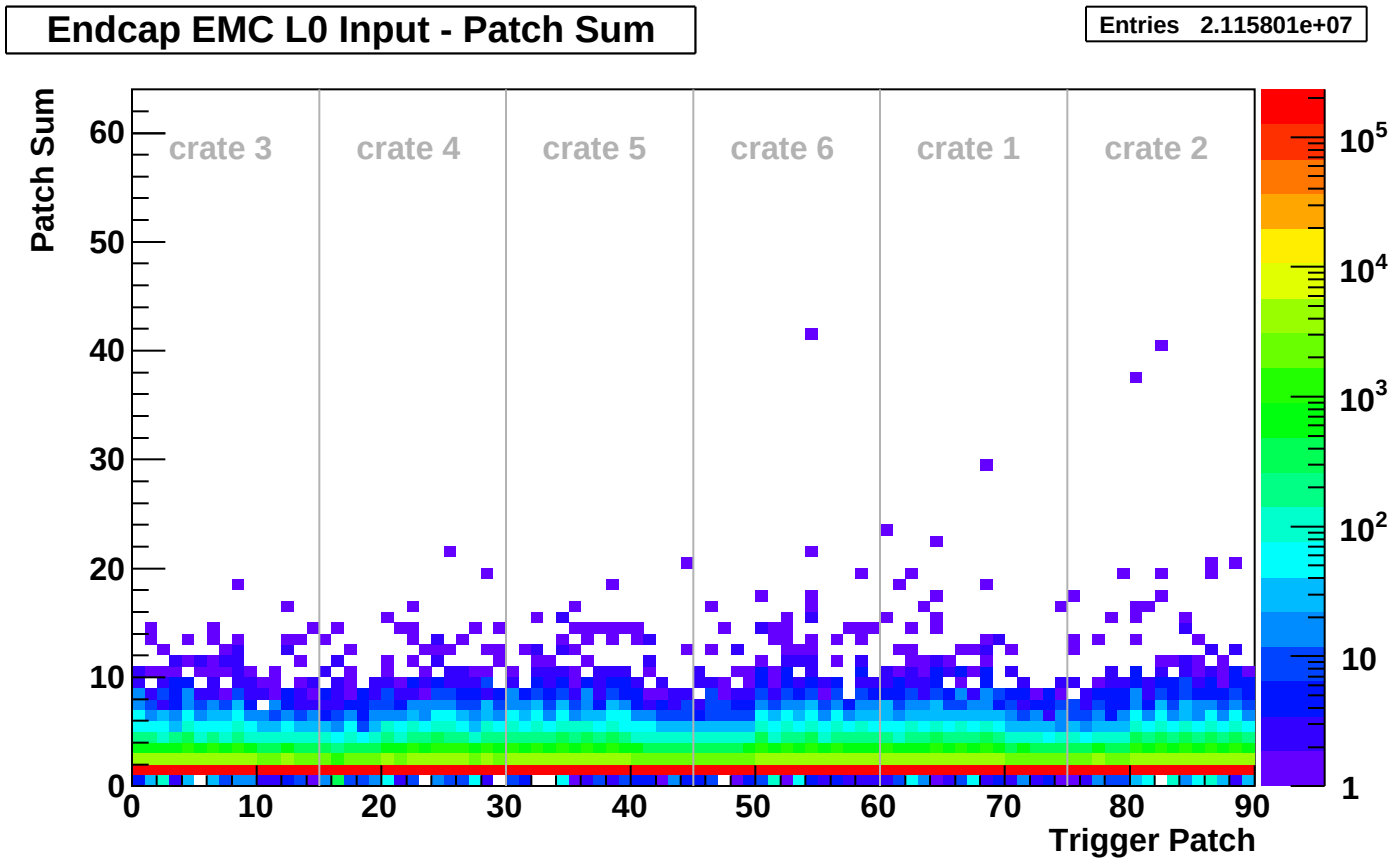
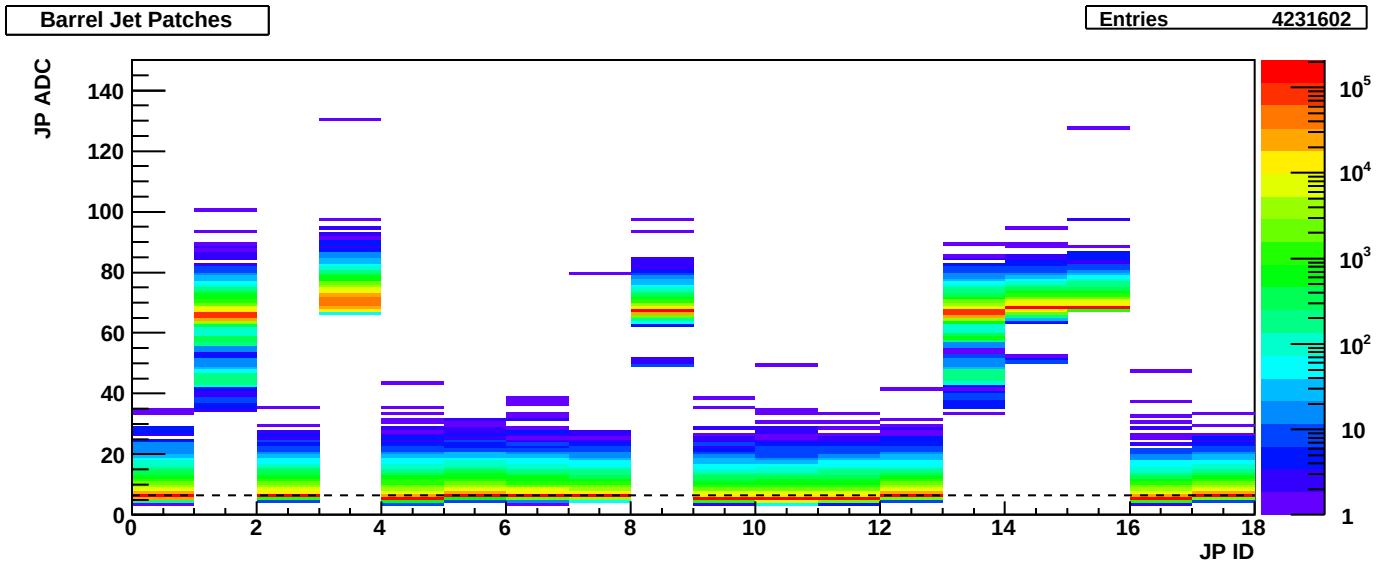
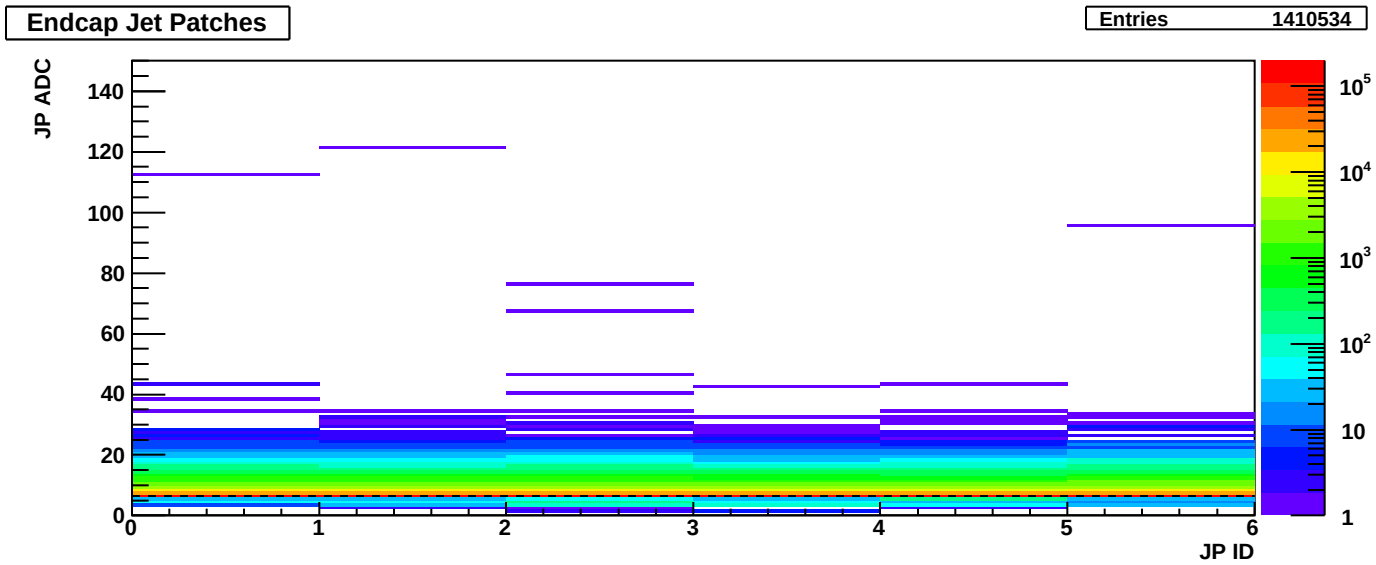

Barrel EMC L0 Input - High Tower
Entries 7.05267e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

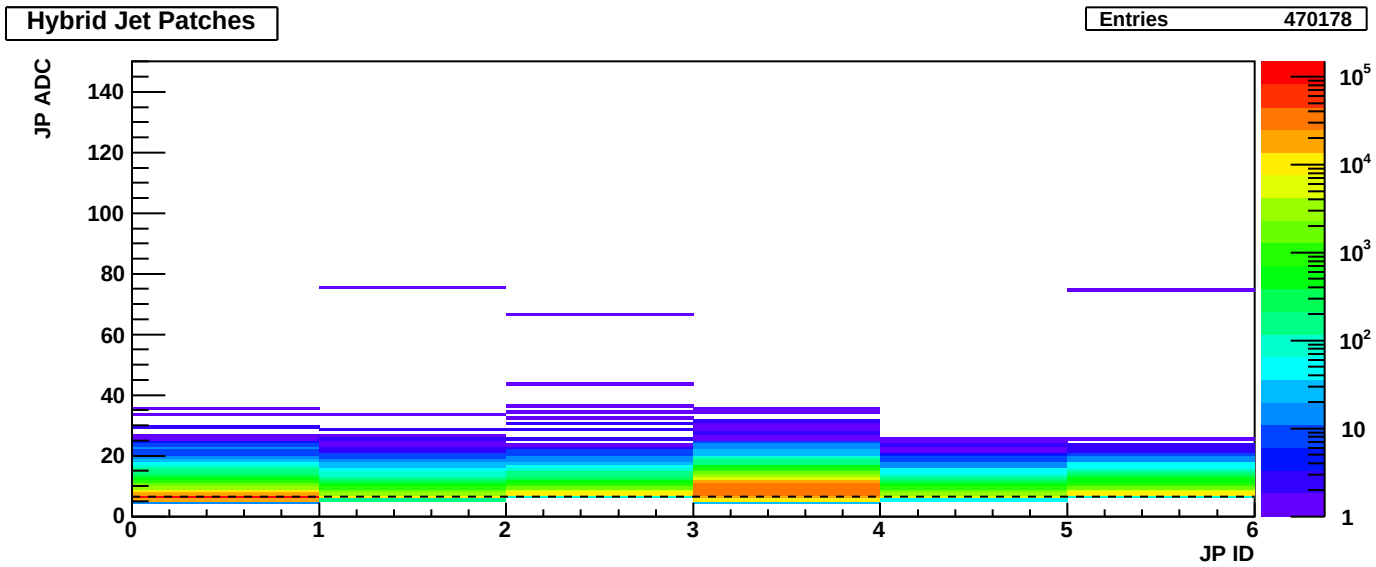

Barrel EMC L0 Input - Patch Sum
Entries 7.05267e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

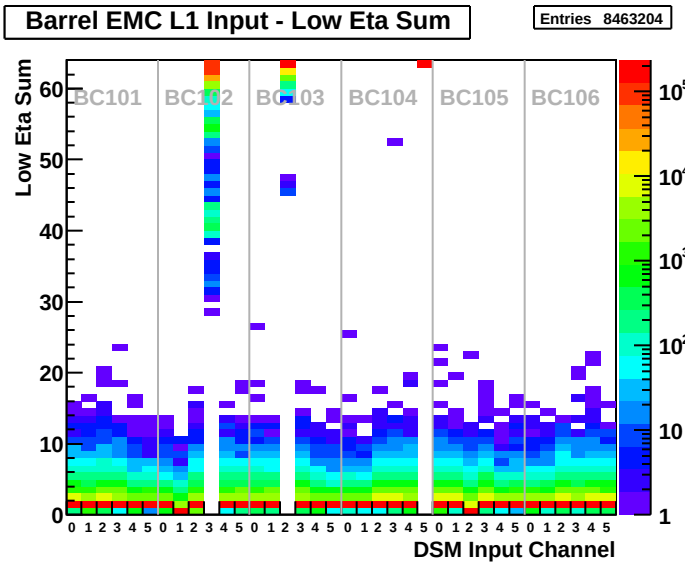

Endcap EMC L0 Input - High Tower
Entries 2.115801e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

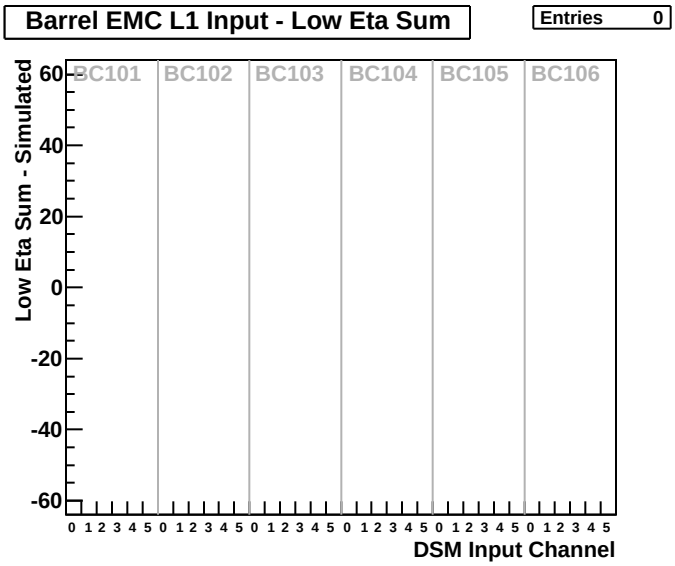

Endcap EMC L0 Input - Patch Sum
Entries 2.115801e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

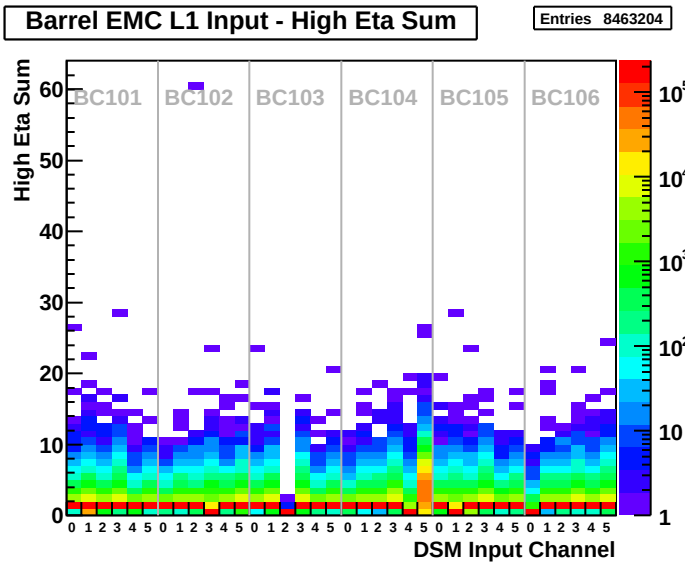

Barrel Jet Patches
Entries 4231602
JP ADC
JP ID

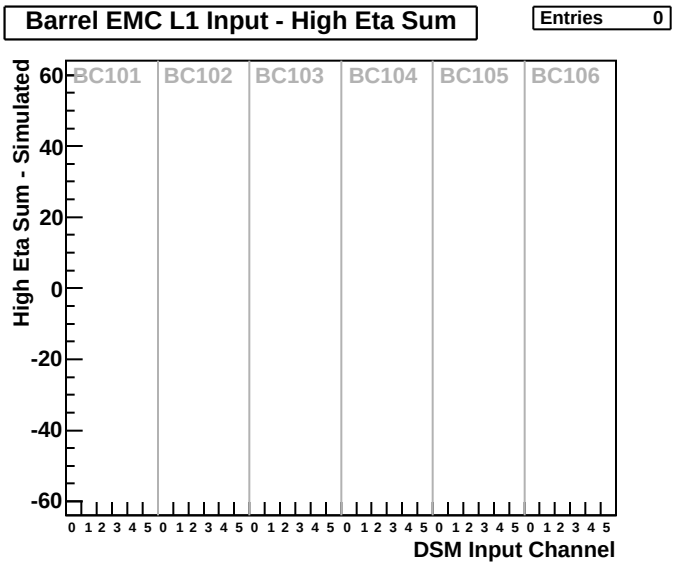

Endcap Jet Patches
Entries 1410534
JP ADC
JP ID

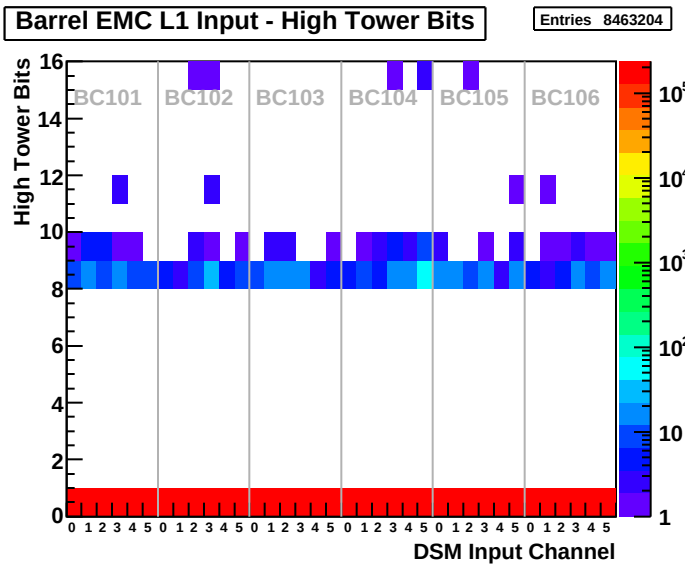

Hybrid Jet Patches
Entries 470178
JP ADC
JP ID

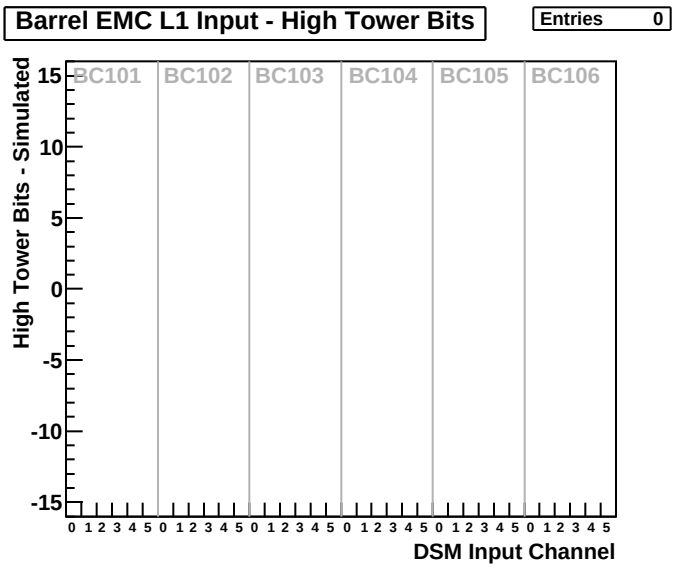

Barrel EMC L1 Input - Low Eta Sum
Entries 8463204
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

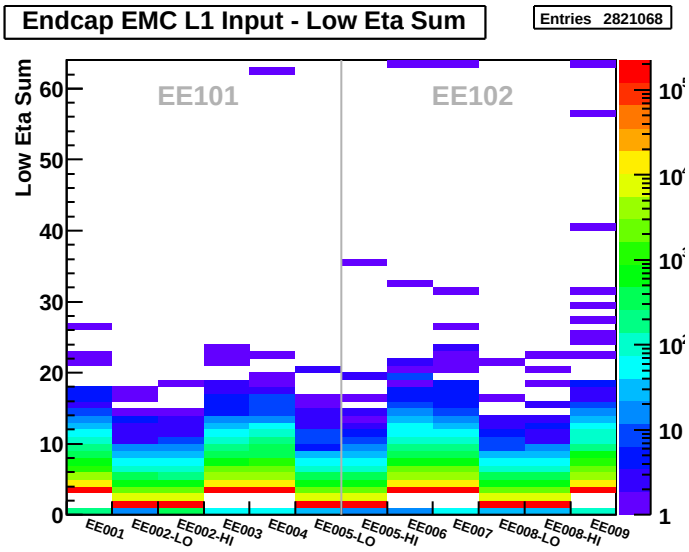

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

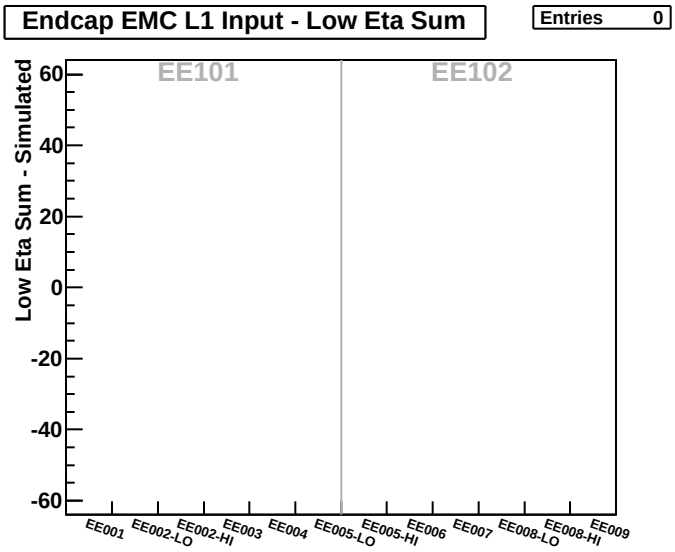

Barrel EMC L1 Input - High Eta Sum
Entries 8463204
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

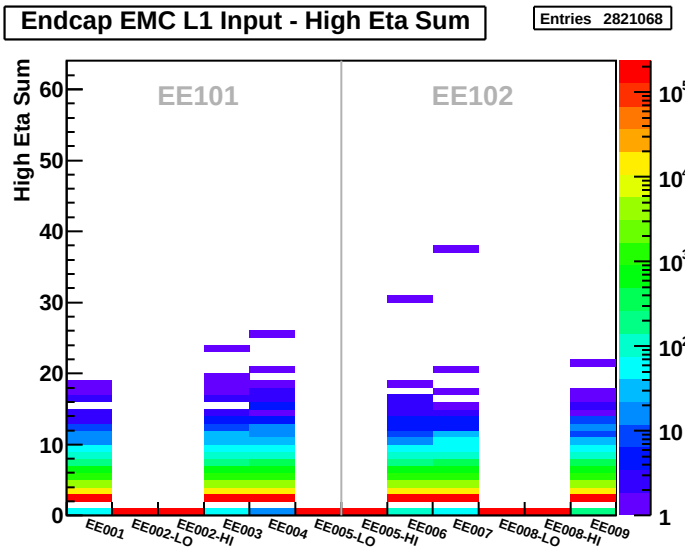

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

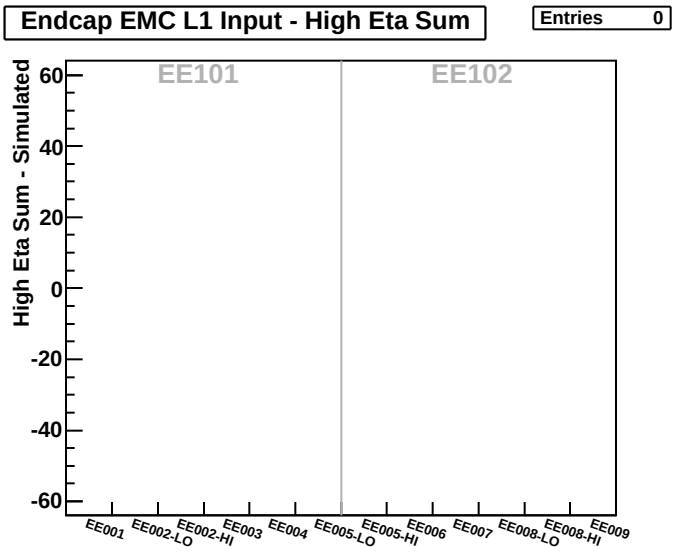

Barrel EMC L1 Input - High Tower Bits
Entries 8463204
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

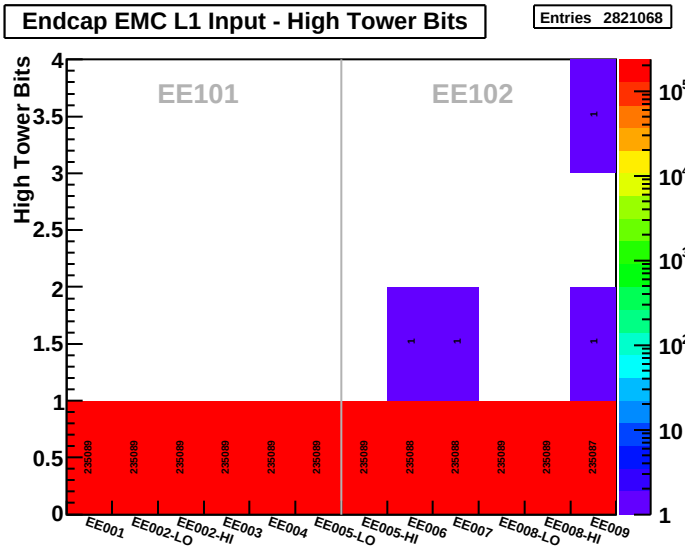

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

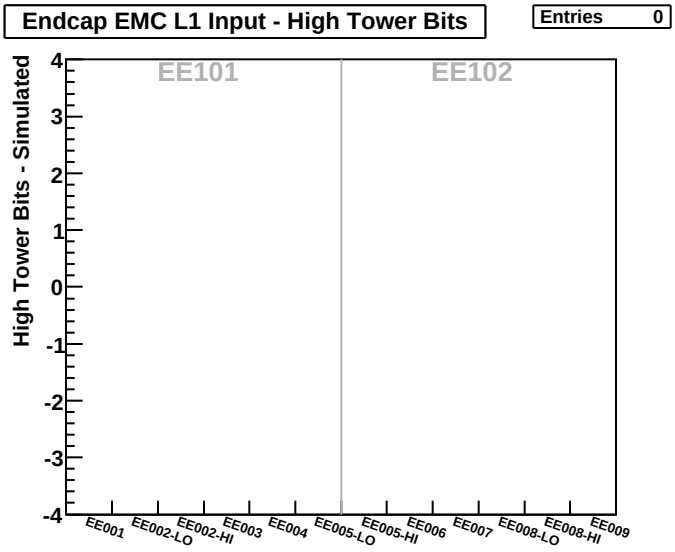

Endcap EMC L1 Input - Low Eta Sum
Entries 2821068
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

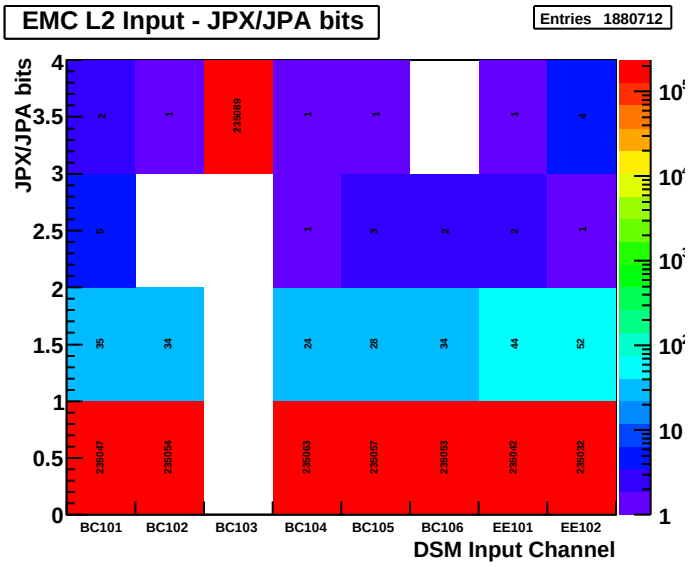

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

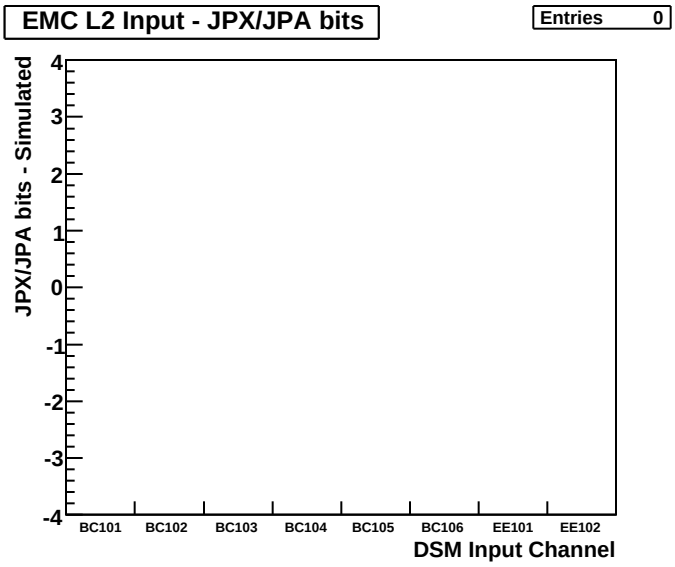

Endcap EMC L1 Input - High Eta Sum
Entries 2821068
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

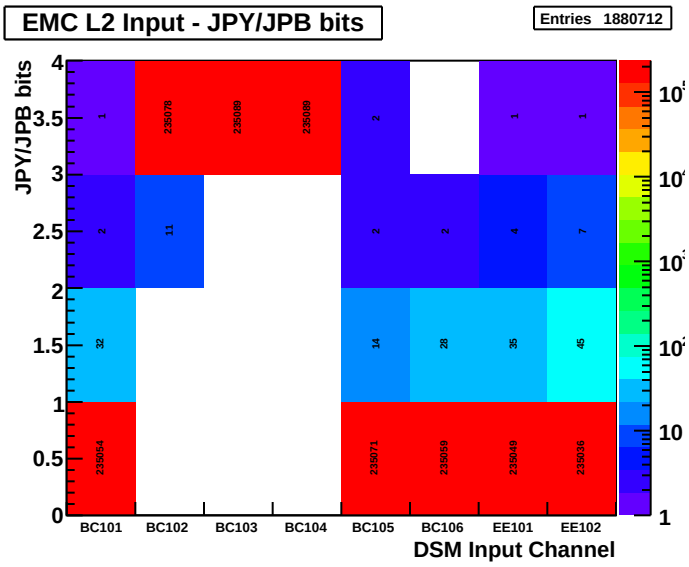

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

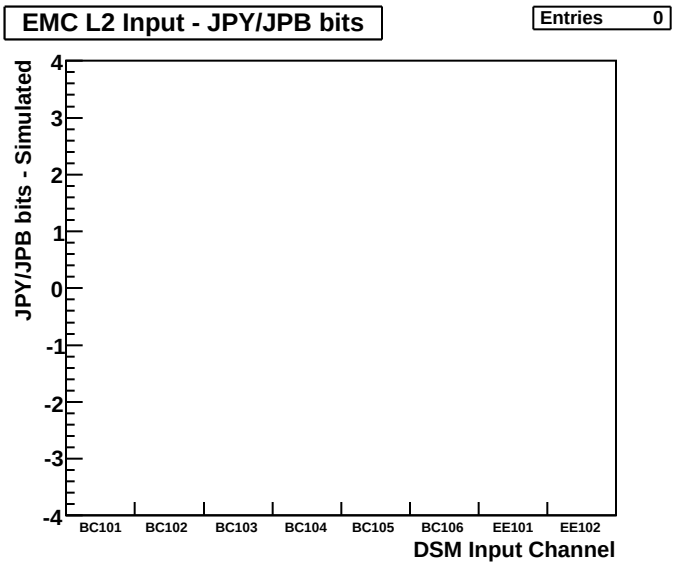

Endcap EMC L1 Input - High Tower Bits
Entries 2821068
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

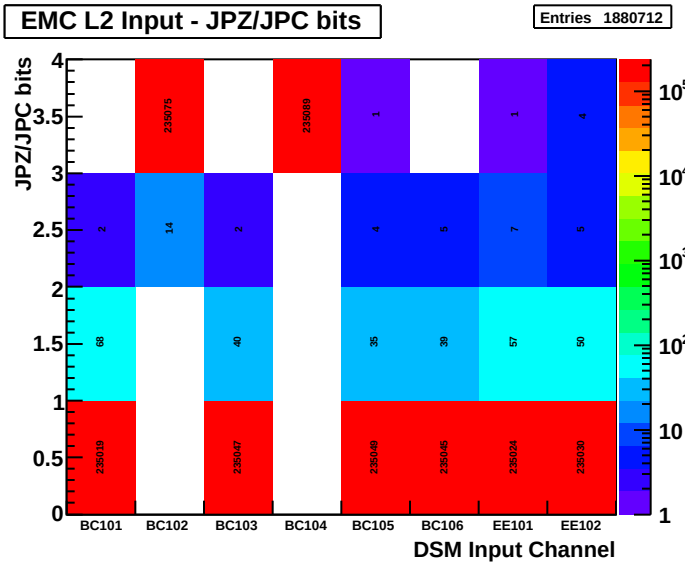

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

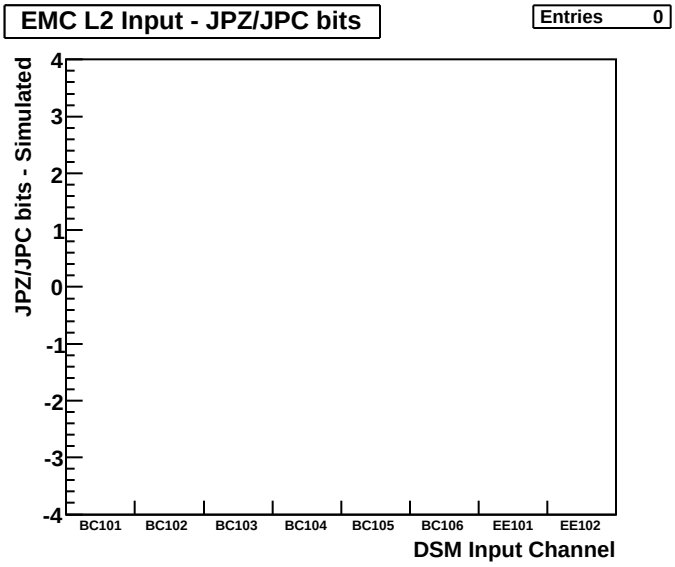

EMC L2 Input - JPX/JPA bits
Entries 1880712
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

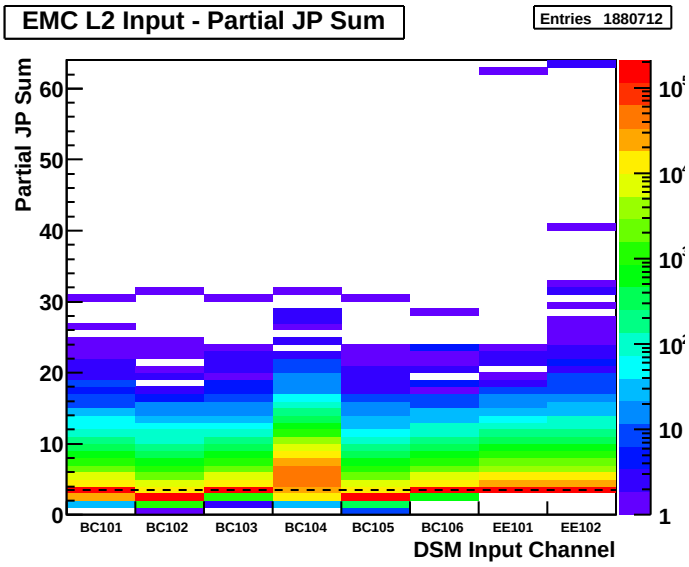

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

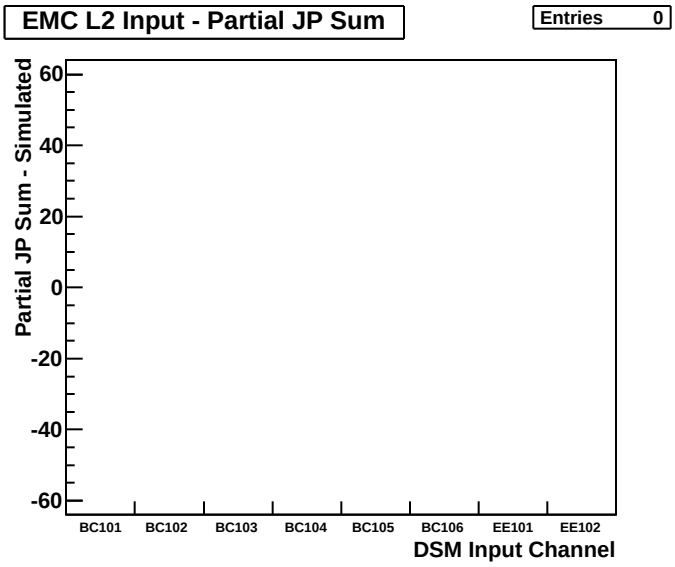

EMC L2 Input - JPY/JPB bits
Entries 1880712
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

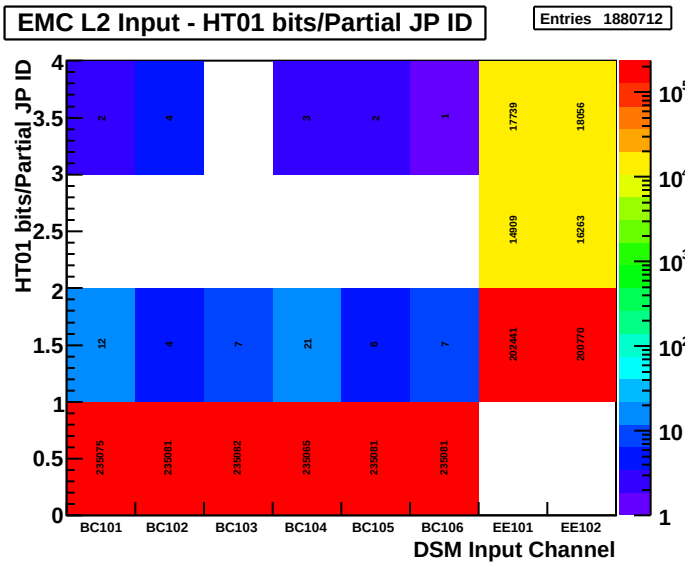

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

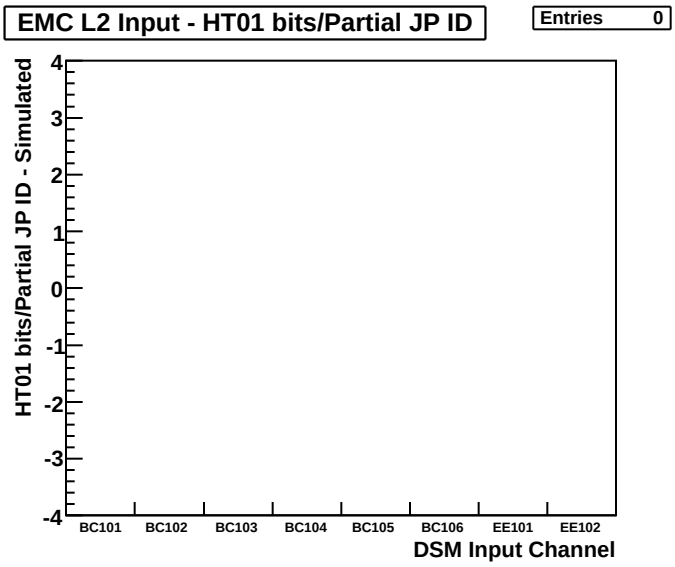

EMC L2 Input - JPZ/JPC bits
Entries 1880712
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

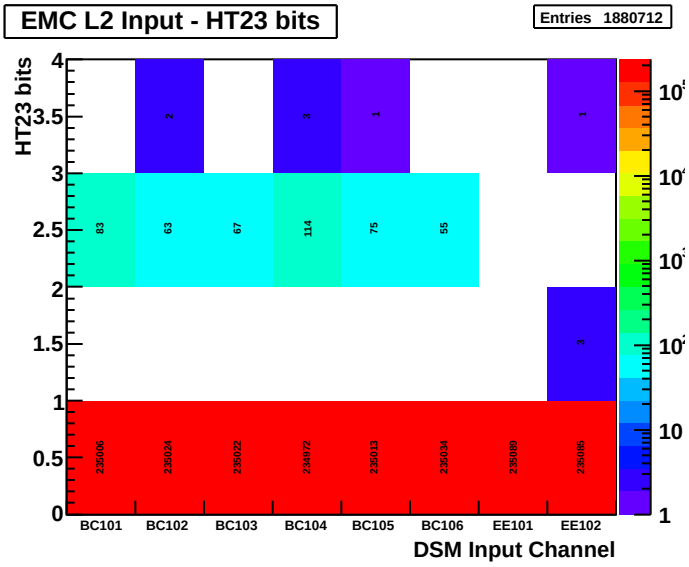

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

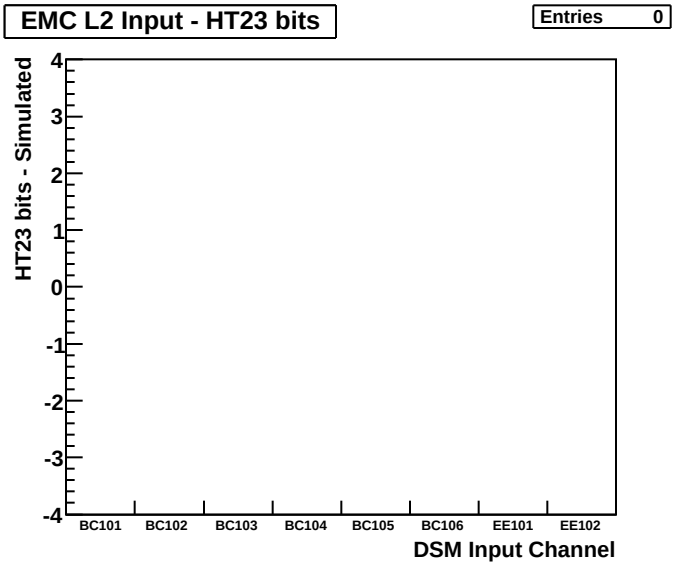

EMC L2 Input - Partial JP Sum
Entries 1880712
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

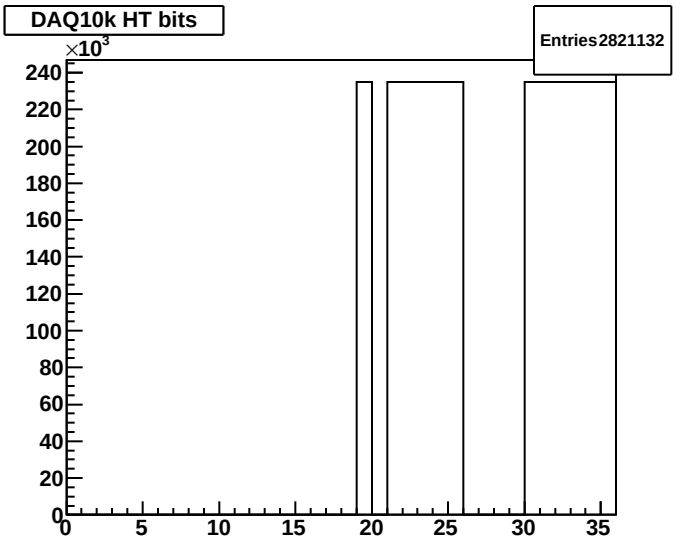

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

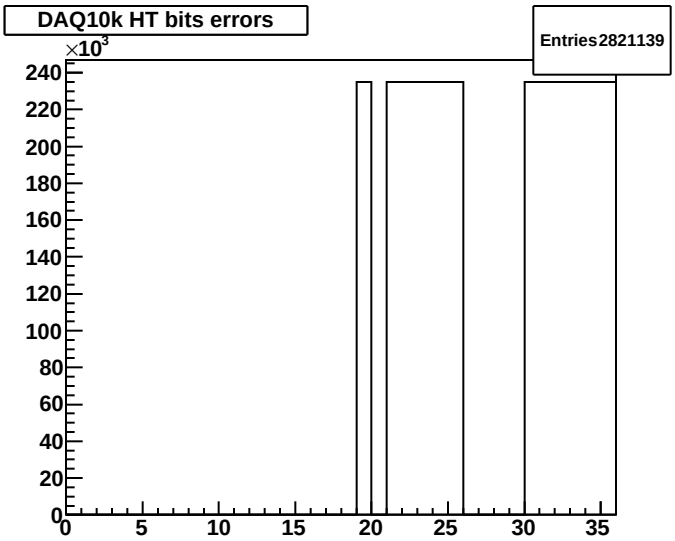

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1880712
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

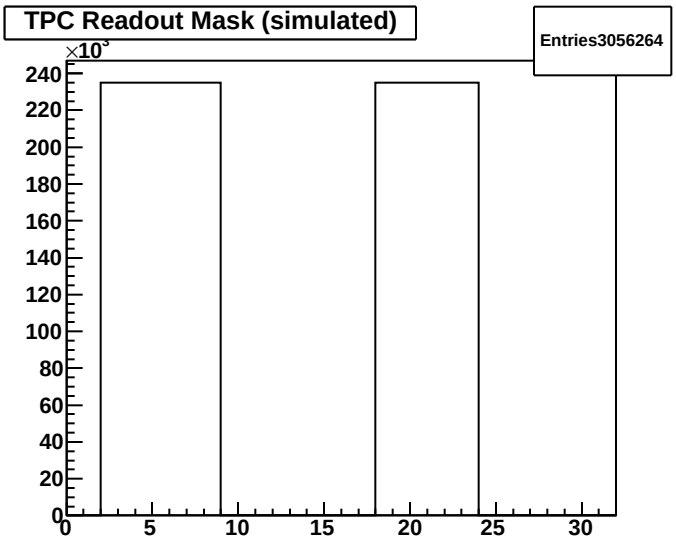

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

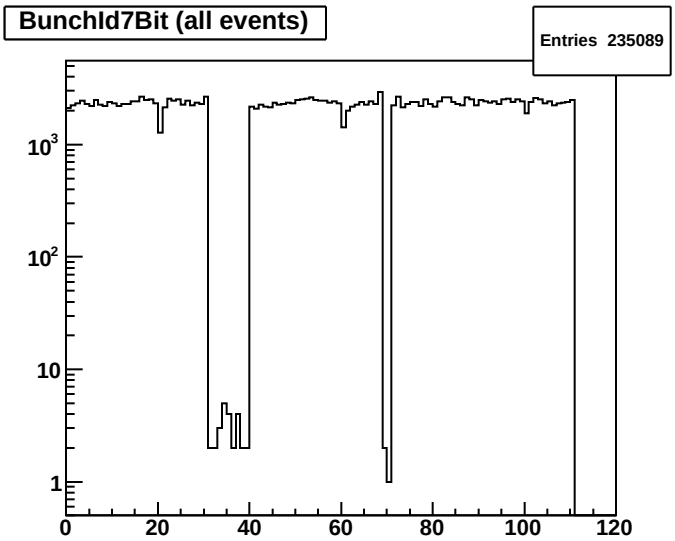

EMC L2 Input - HT23 bits
Entries 1880712
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

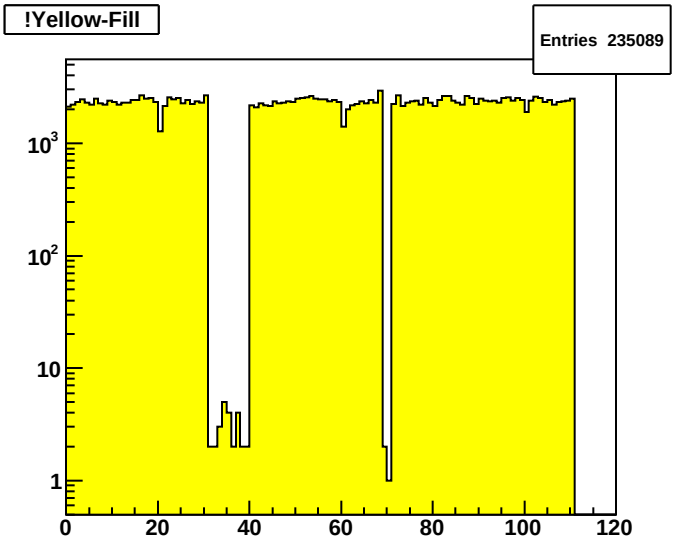

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

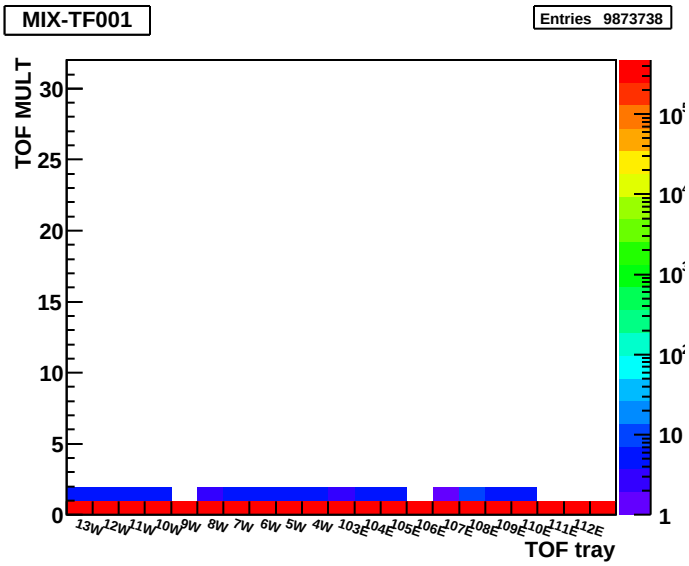

DAQ10k HT bits
Entries 2821132
×10^3
240
220
200
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

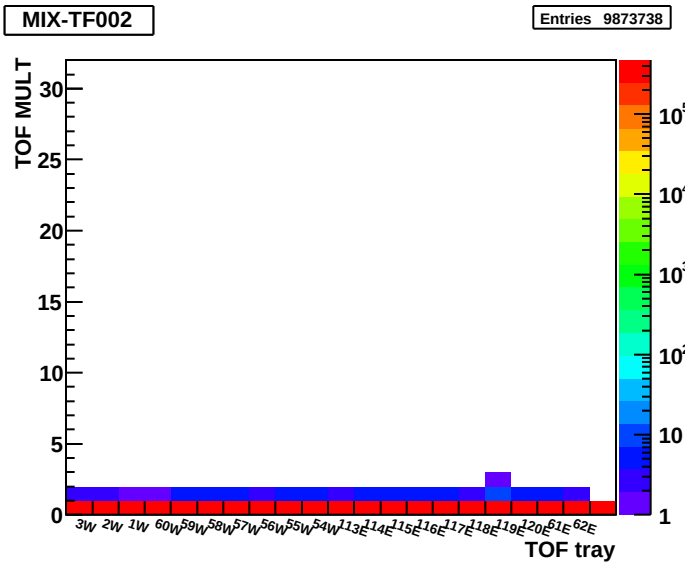

DAQ10k HT bits errors
Entries 2821139
×10^3
240
220
200
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

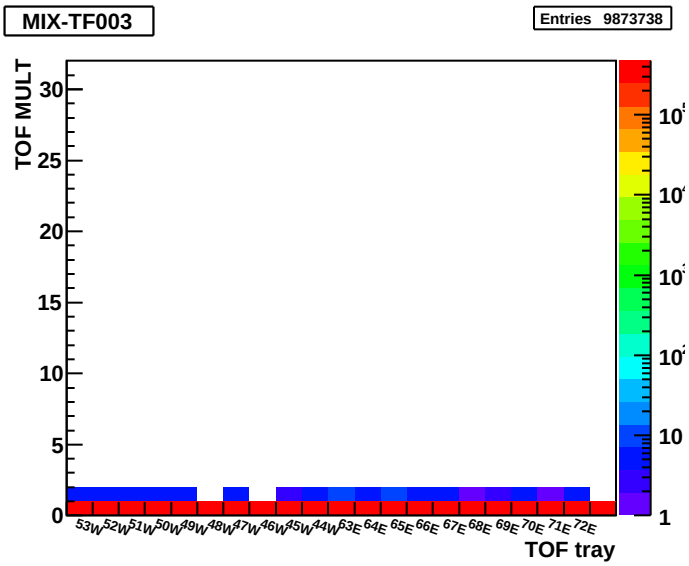

TPC Readout Mask (simulated)
Entries 3056264
×10^3
240
220
200
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30

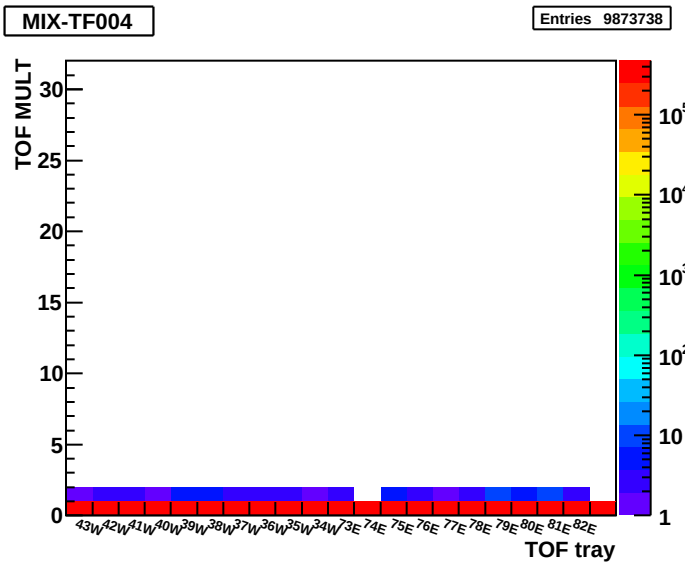

BunchId7Bit (all events)
Entries 235089
10^3
10^2
10
1
0 20 40 60 80 100 120

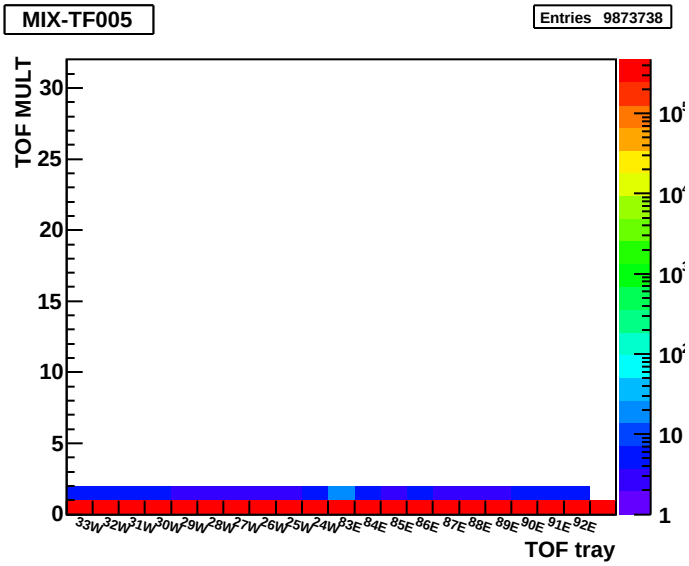

!Yellow-Fill
Entries 235089
10^3
10^2
10
1
0 20 40 60 80 100 120

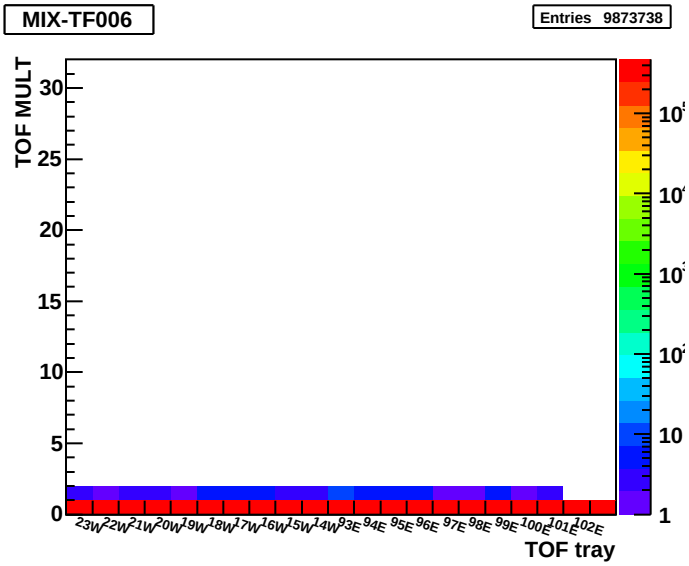

MIX-TF001
Entries 9873738
TOF MULT
TOF tray

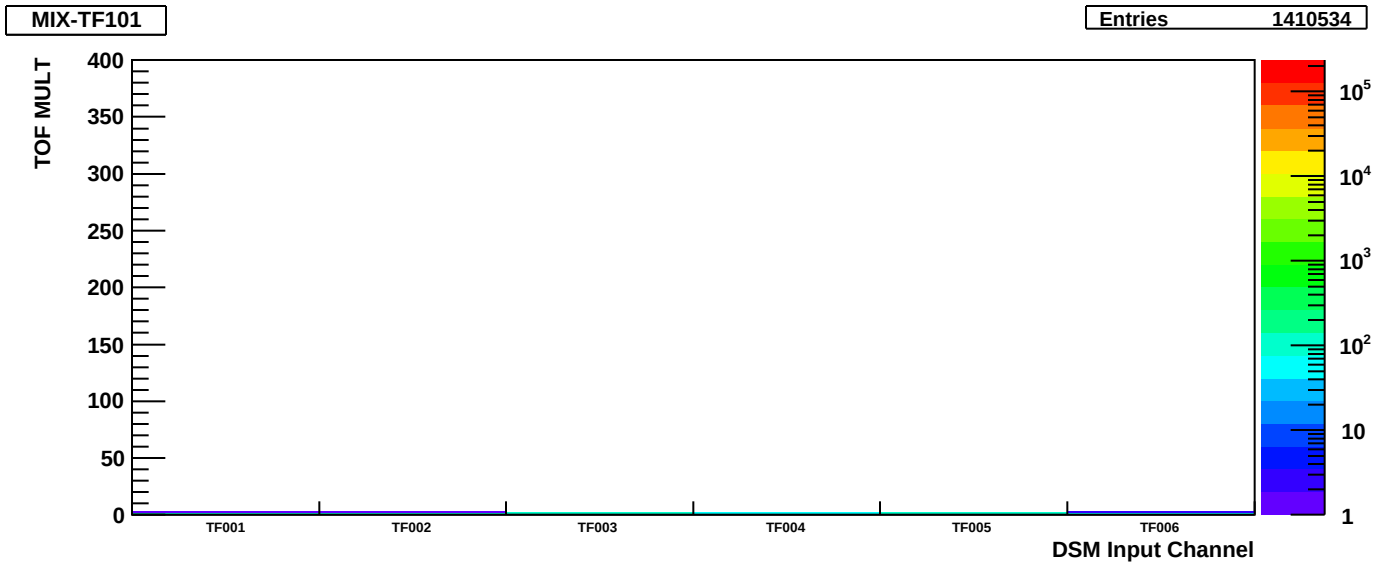

MIX-TF002
Entries 9873738
TOF MULT
TOF tray

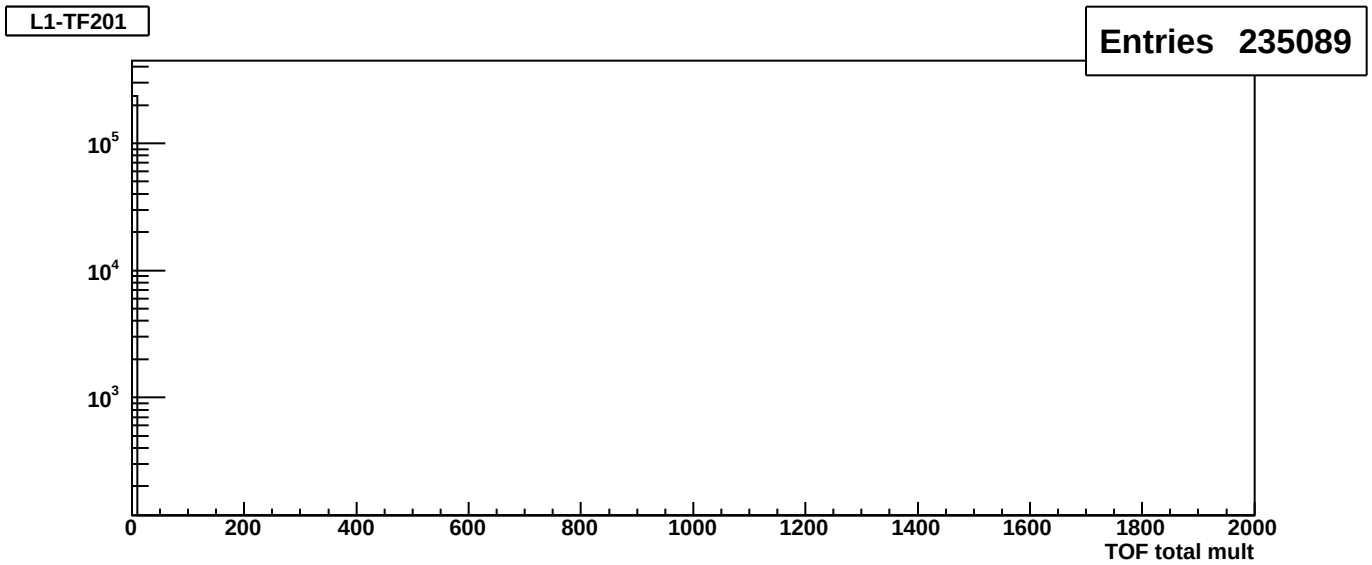

MIX-TF003
Entries 9873738
TOF MULT
TOF tray

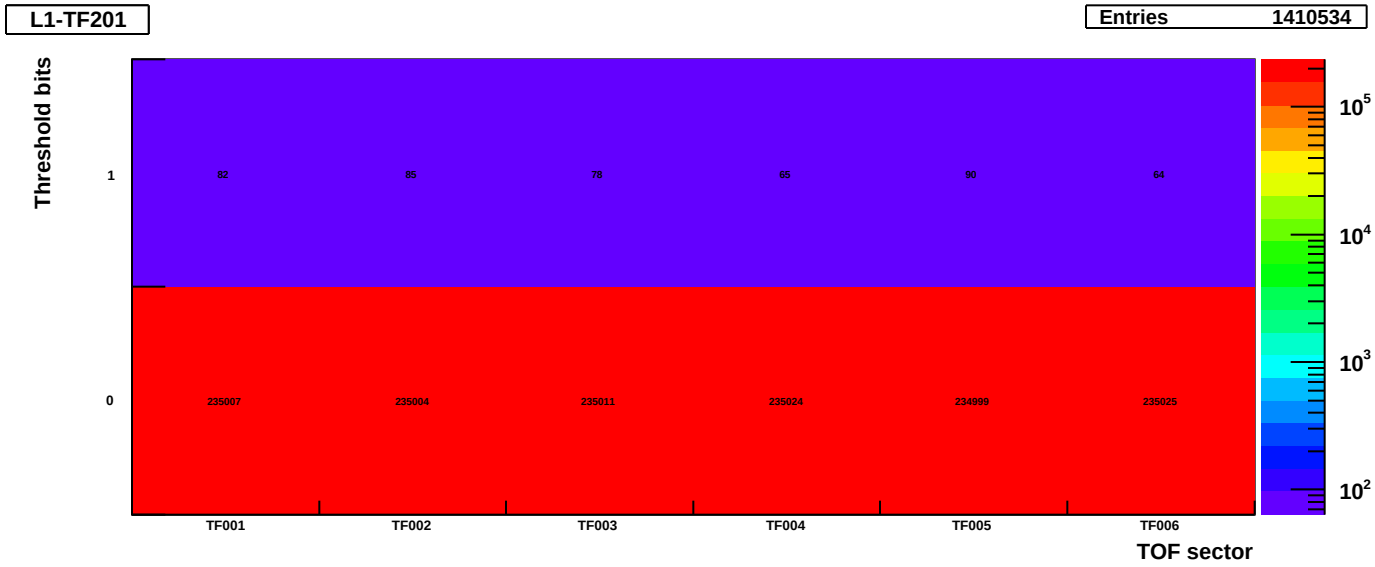

MIX-TF004
Entries 9873738
TOF MULT
TOF tray

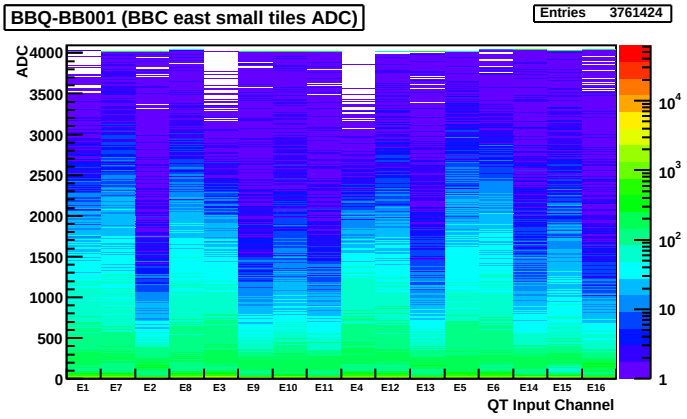

MIX-TF005
Entries 9873738
TOF MULT
TOF tray

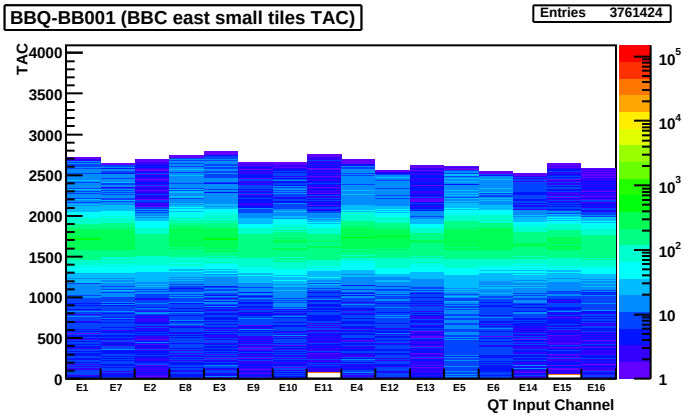

MIX-TF006
Entries 9873738
TOF MULT
TOF tray

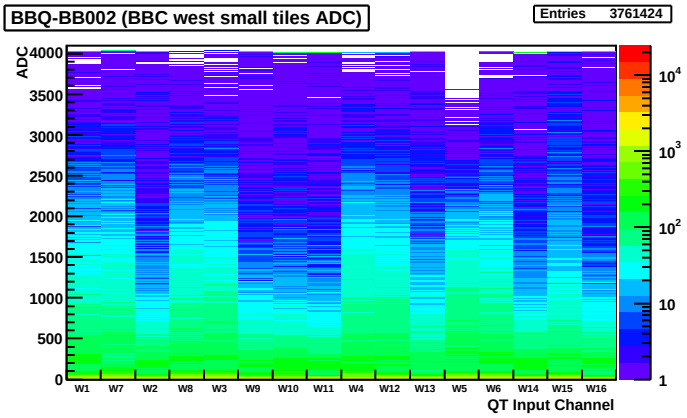

MIX-TF101
Entries 1410534
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

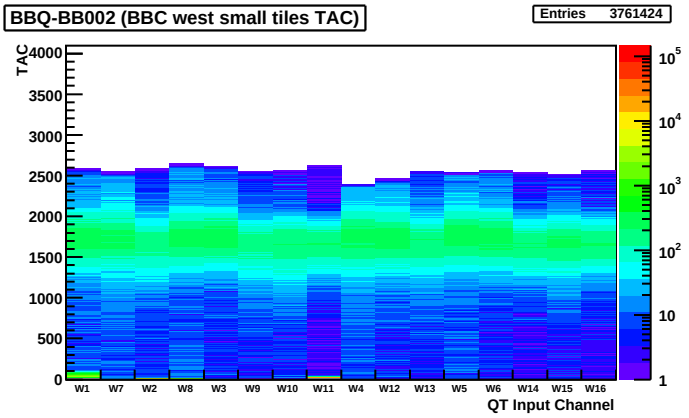

L1-TF201
Entries 235089
10^5
10^4
10^3
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

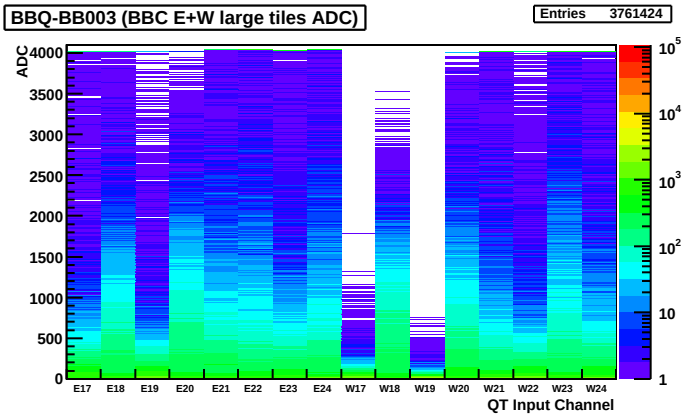

L1-TF201
Entries 1410534
Threshold bits
1
0
82
85
78
65
90
64
235007
235004
235011
235024
234999
235025
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4
10^3
10^2

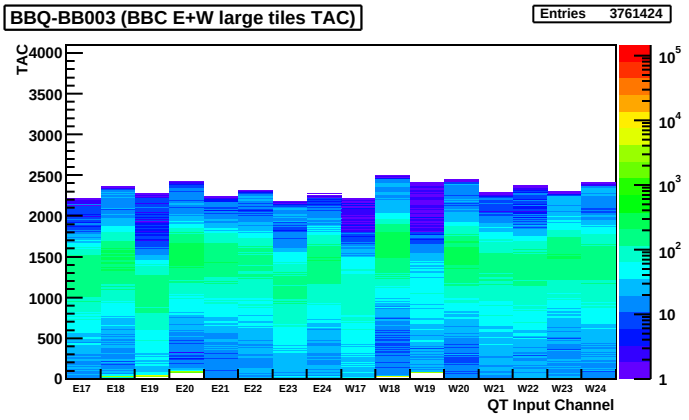

BBQ-BB001 (BBC east small tiles ADC)
Entries 3761424
ADC
QT Input Channel

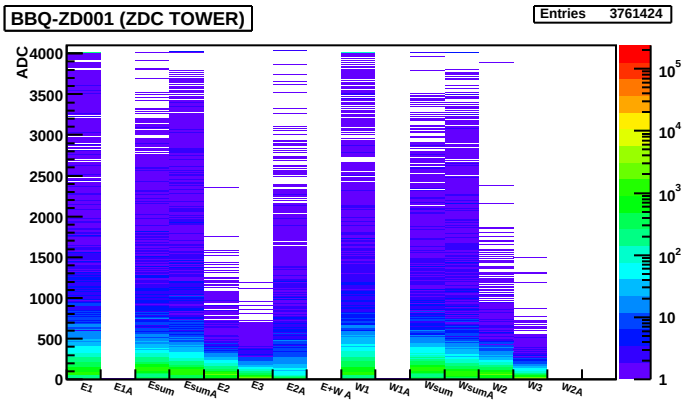

BBQ-BB001 (BBC east small tiles TAC)
Entries 3761424
TAC
QT Input Channel

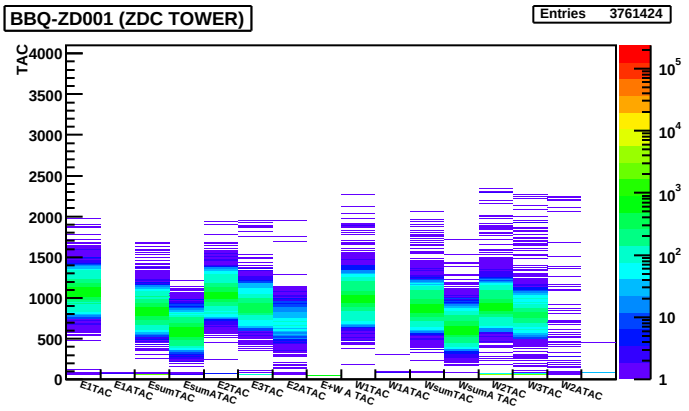

BBQ-BB002 (BBC west small tiles ADC)
Entries 3761424
ADC
QT Input Channel

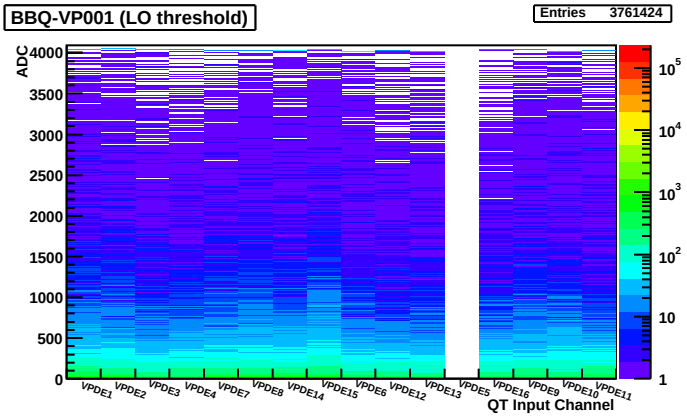

BBQ-BB002 (BBC west small tiles TAC)
Entries 3761424
TAC
QT Input Channel

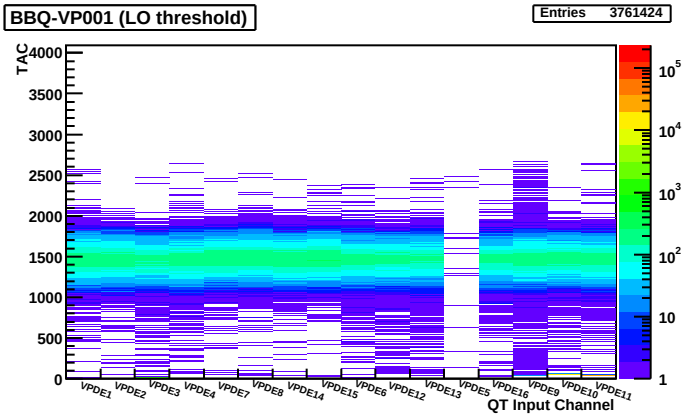

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 3761424
ADC
QT Input Channel

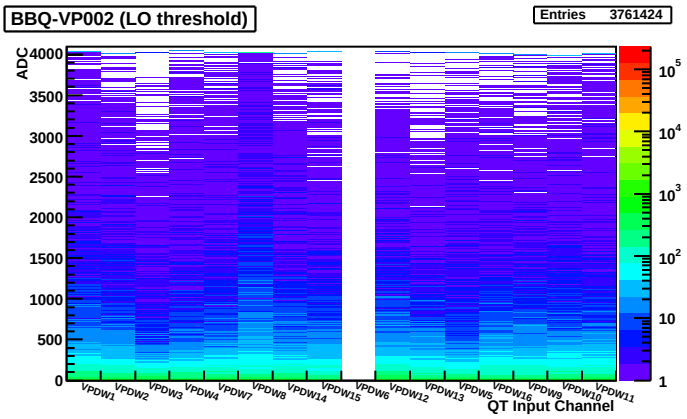

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 3761424
TAC
QT Input Channel

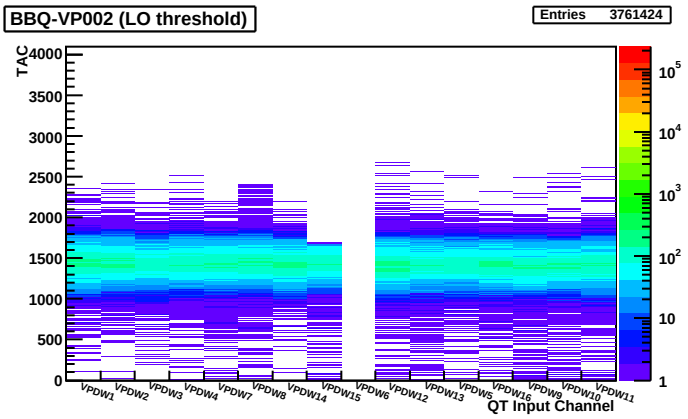

BBQ-ZD001 (ZDC TOWER)
Entries 3761424
ADC

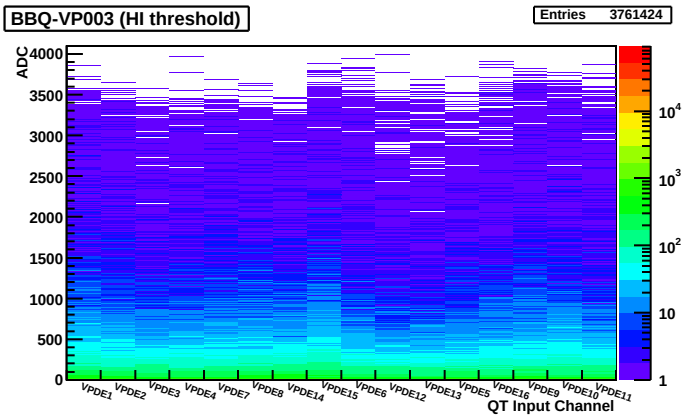

BBQ-ZD001 (ZDC TOWER)
Entries 3761424
TAC

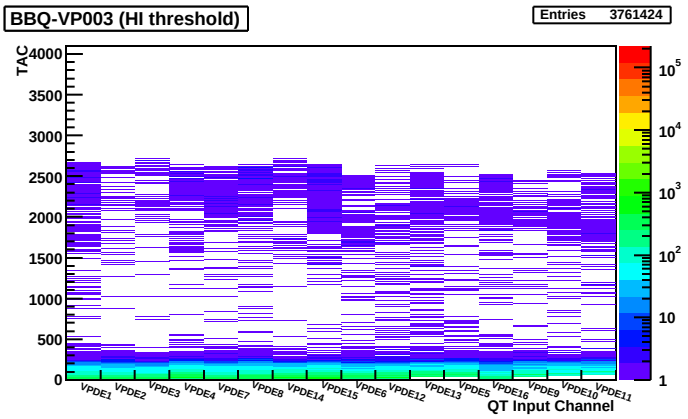

BBQ-VP001 (LO threshold)
Entries 3761424
ADC
QT Input Channel

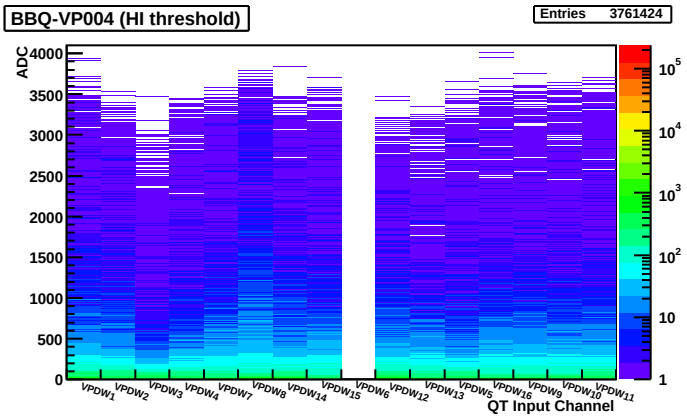

BBQ-VP001 (LO threshold)
Entries 3761424
TAC
QT Input Channel

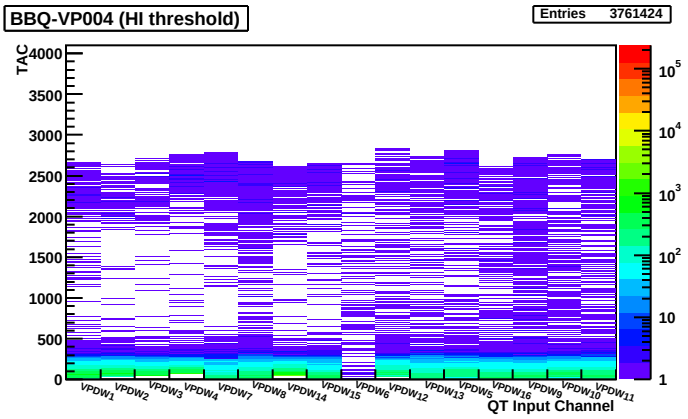

BBQ-VP002 (LO threshold)
Entries 3761424
ADC
QT Input Channel

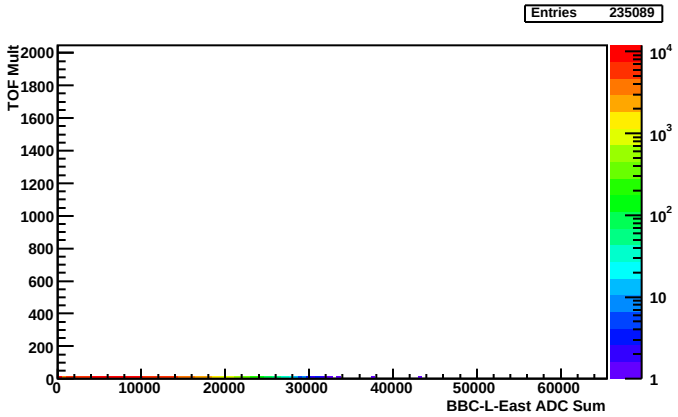

BBQ-VP002 (LO threshold)
Entries 3761424
TAC
QT Input Channel

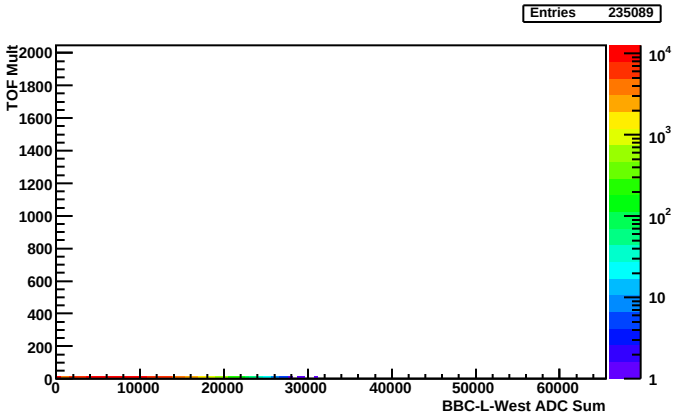

BBQ-VP003 (HI threshold)
Entries 3761424
ADC
QT Input Channel

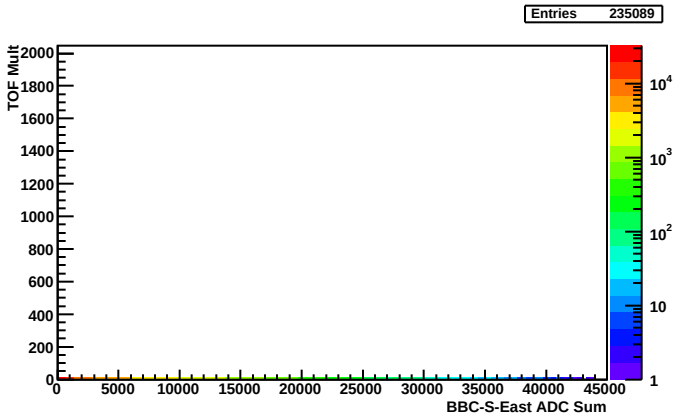

BBQ-VP003 (HI threshold)
Entries 3761424
TAC
QT Input Channel

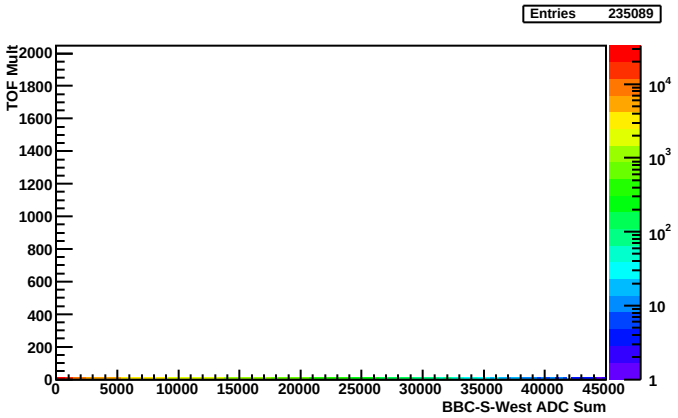

BBQ-VP004 (HI threshold)
Entries 3761424
ADC
QT Input Channel

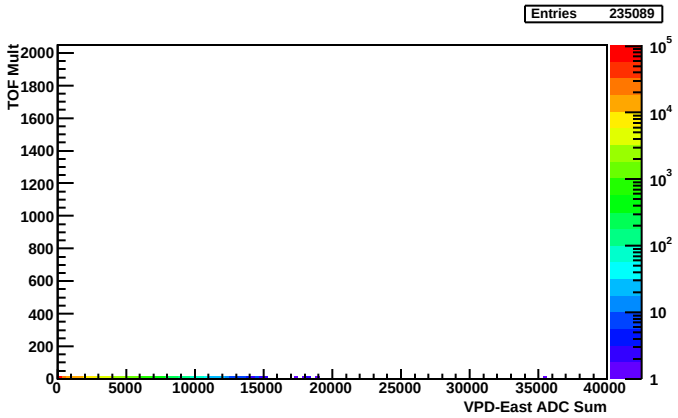

BBQ-VP004 (HI threshold)
Entries 3761424
TAC
QT Input Channel

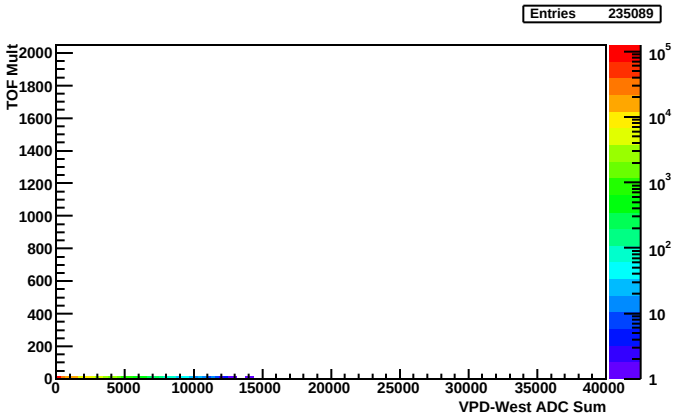

Entries 235089
TOF Mult
BBC-L-East ADC Sum

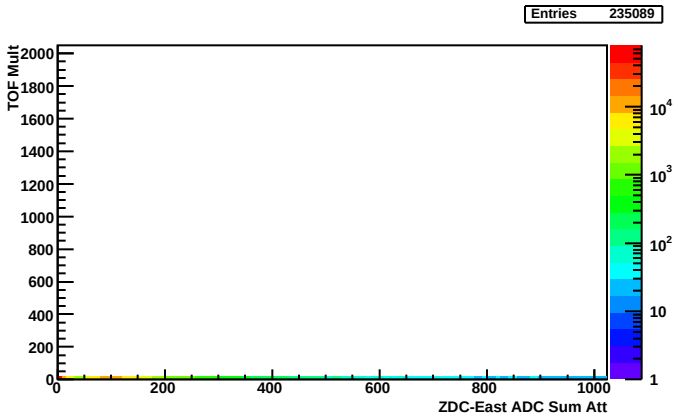

Entries 235089
TOF Mult
BBC-L-West ADC Sum

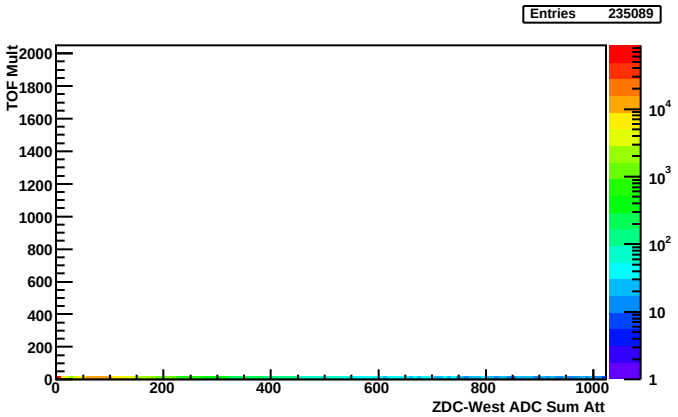

Entries 235089
TOF Mult
BBC-S-East ADC Sum

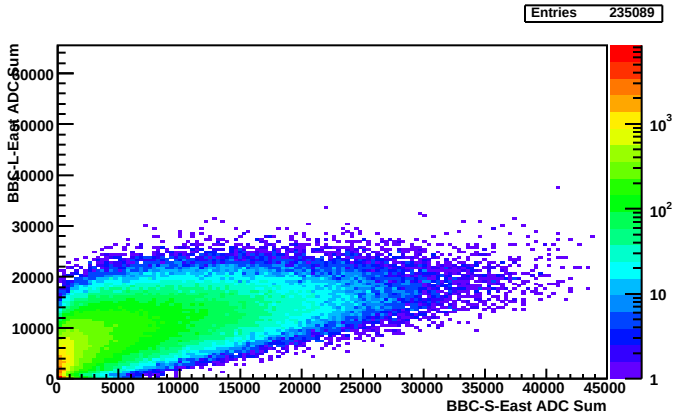

Entries 235089
TOF Mult
BBC-S-West ADC Sum

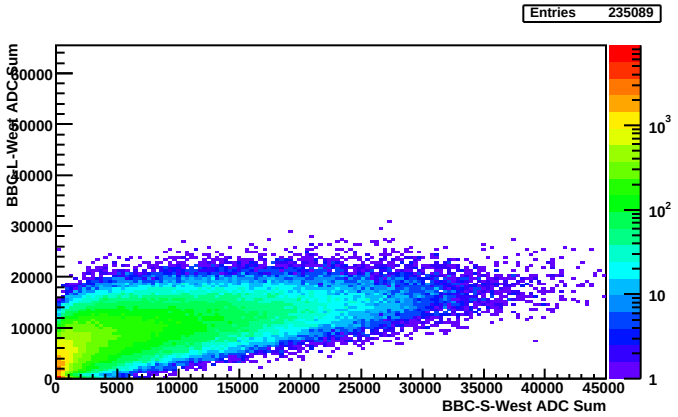

Entries 235089
TOF Mult
VPD-East ADC Sum

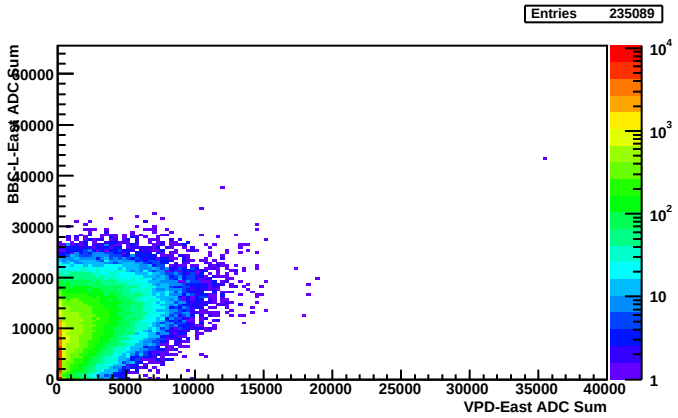

Entries 235089
TOF Mult
VPD-West ADC Sum

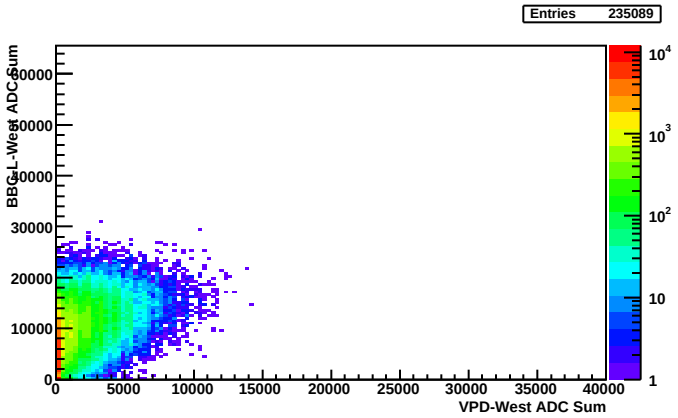

Entries 235089
TOF Mult
ZDC-East ADC Sum Att

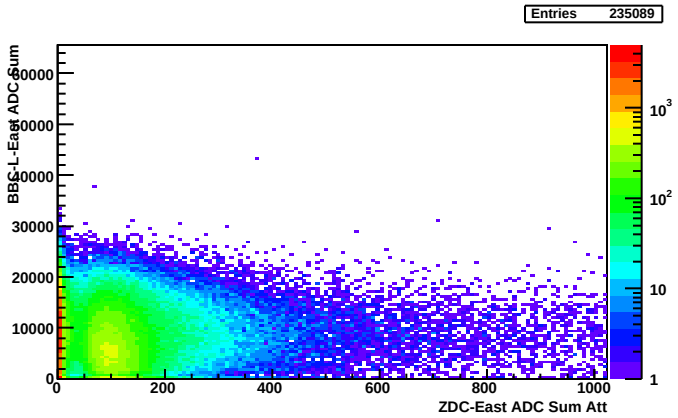

Entries 235089
TOF Mult
ZDC-West ADC Sum Att

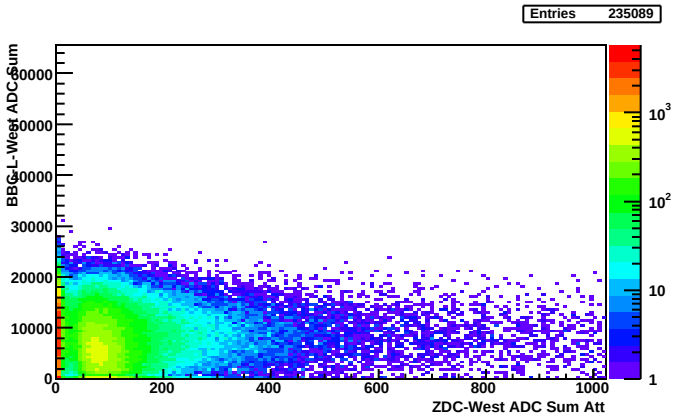

Entries 235089
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 235089
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 235089
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 235089
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 235089
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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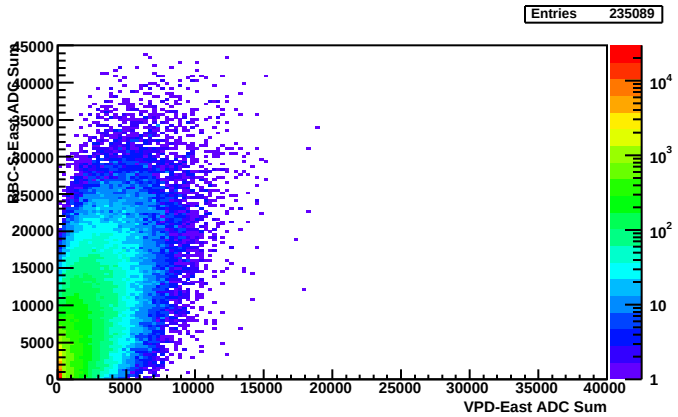
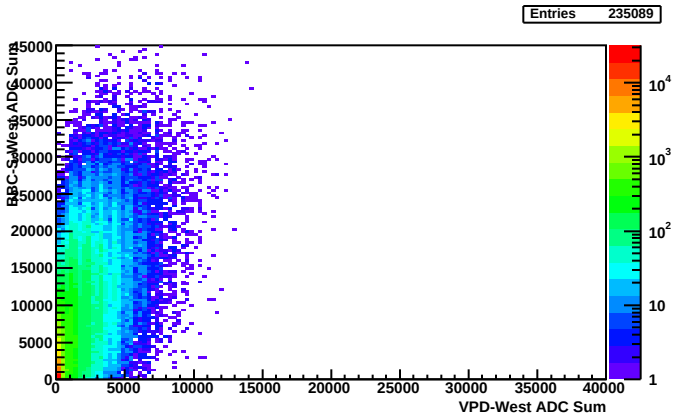
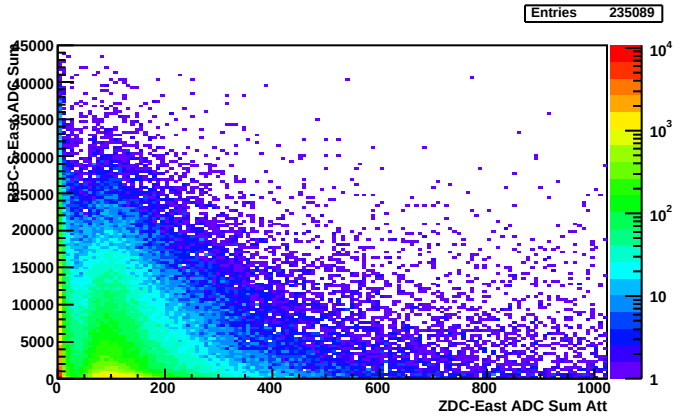
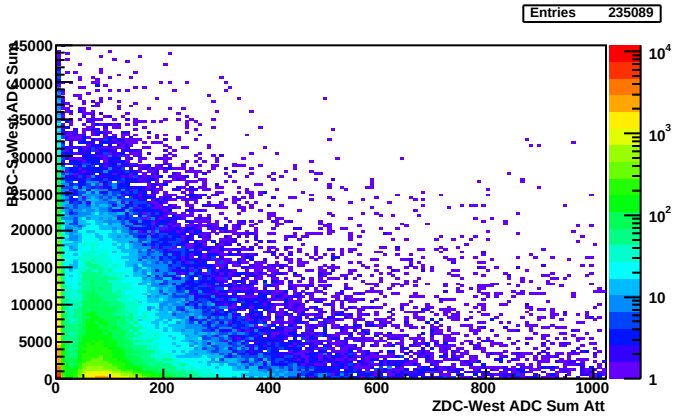
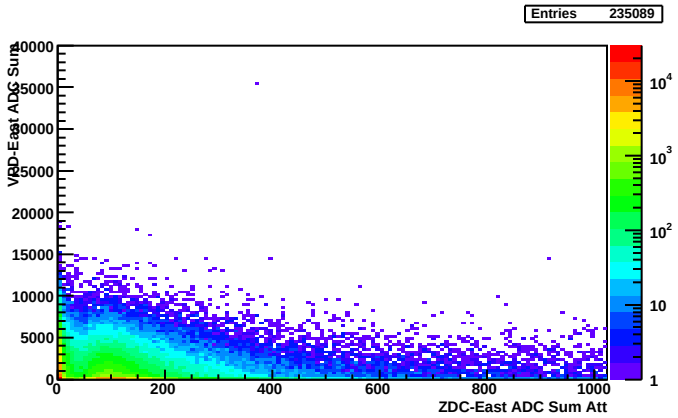
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

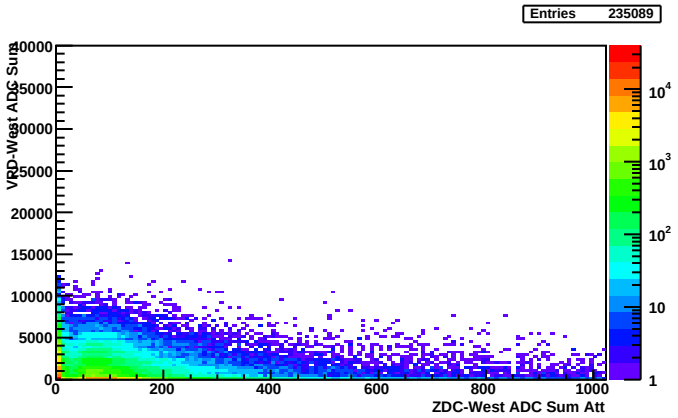

Entries 235089
BBC-S-East ADC Sum
VPD-East ADC Sum

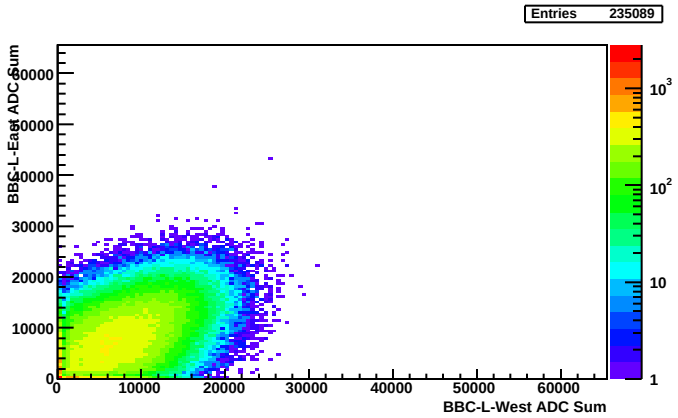

Entries 235089
BBC-S-West ADC Sum
VPD-West ADC Sum

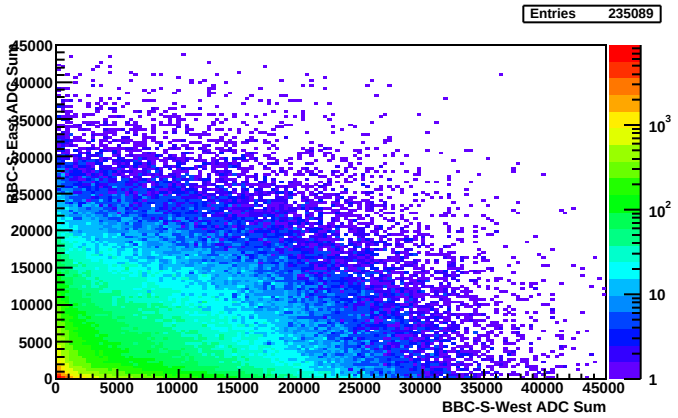

Entries 235089
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

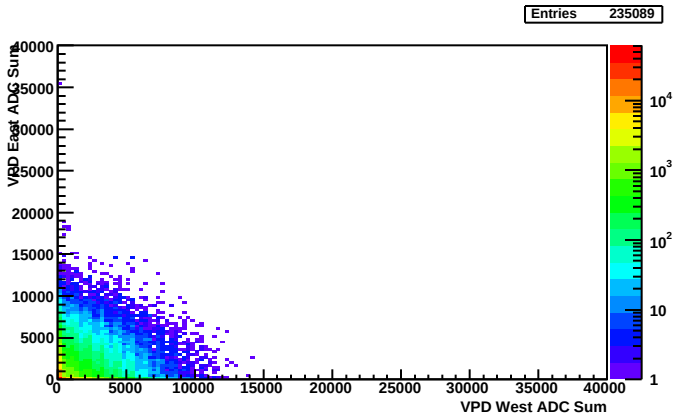

Entries 235089
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

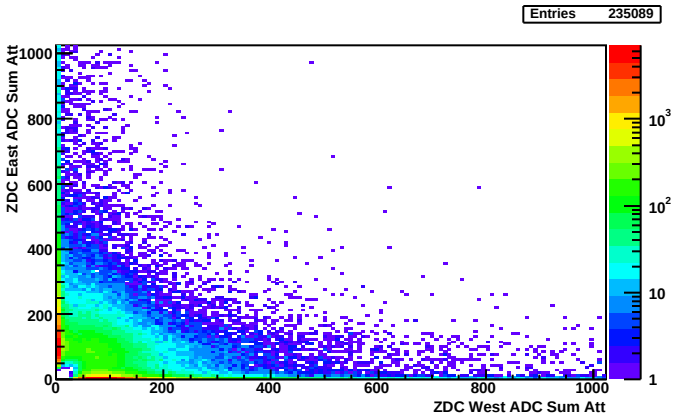

Entries 235089
VPD-East ADC Sum
ZDC-East ADC Sum Att

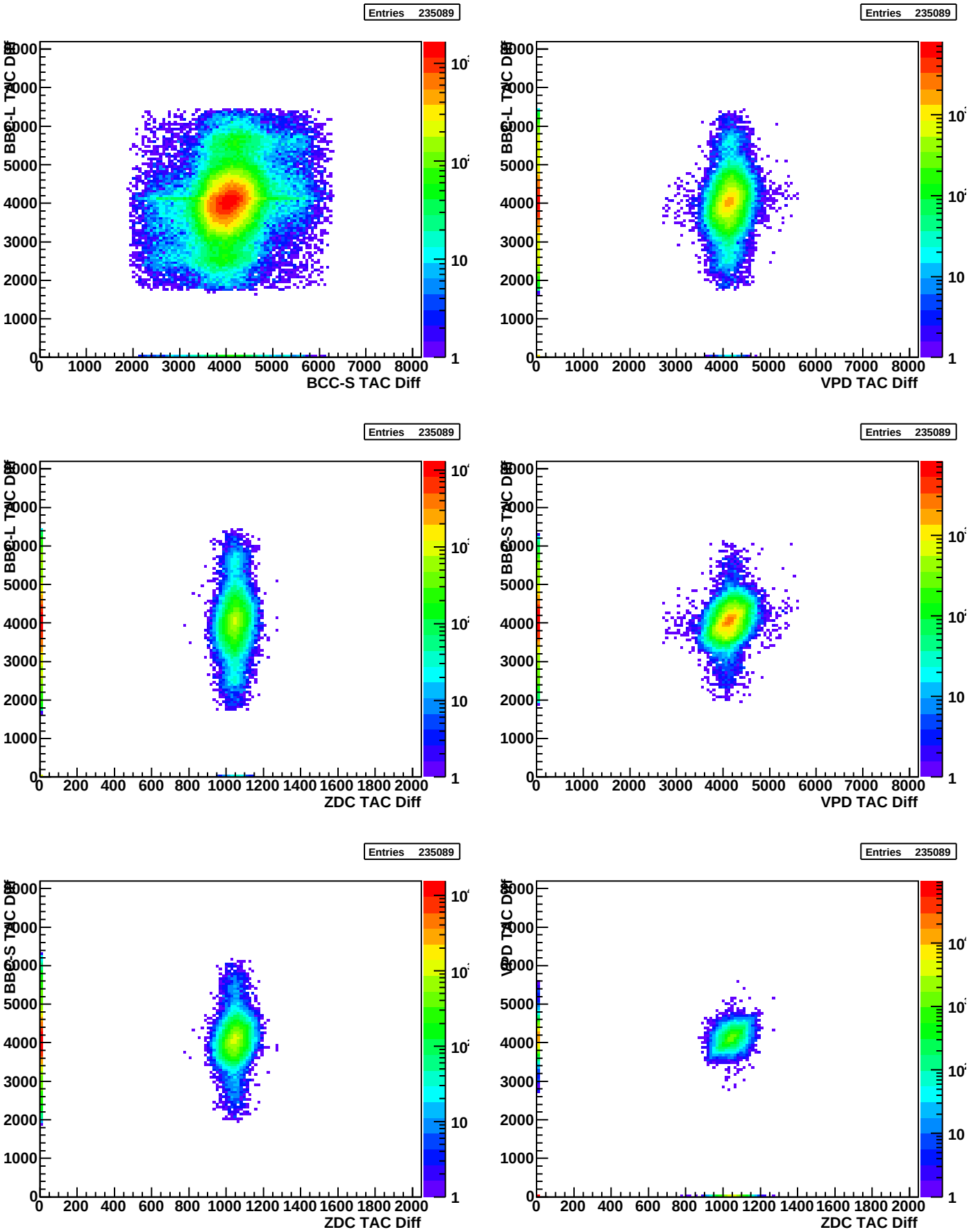

Entries 235089
VPD-West ADC Sum
ZDC-West ADC Sum Att

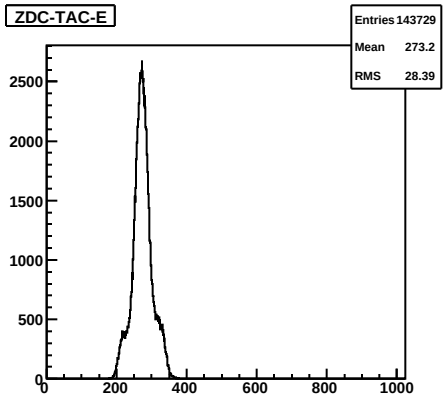

Entries 235089
BBC-L-East ADC Sum
BBC-L-West ADC Sum

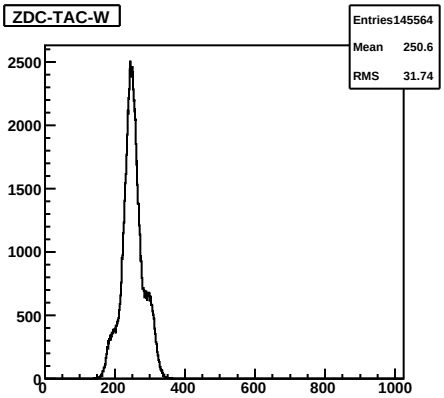

Entries 235089
BBC-S-East ADC Sum
BBC-S-West ADC Sum

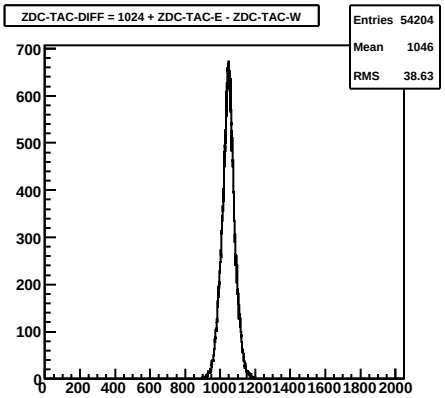

Entries 235089
VPD East ADC Sum
VPD West ADC Sum

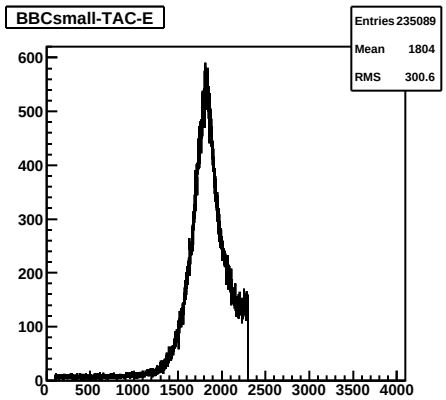

Entries 235089
ZDC East ADC Sum Att
ZDC West ADC Sum Att

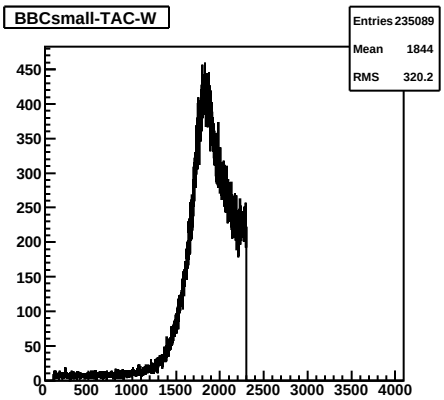

Entries 235089
BBC-L TAC Diff
BCC-S TAC Diff
Entries 235089
BBC-L TAC Diff
VPD TAC Diff
Entries 235089
BBC-L TAC Diff
ZDC TAC Diff
Entries 235089
BBC-S TAC Diff
VPD TAC Diff
Entries 235089
BBC-S TAC Diff
ZDC TAC Diff
Entries 235089
VPD TAC Diff
ZDC TAC Diff

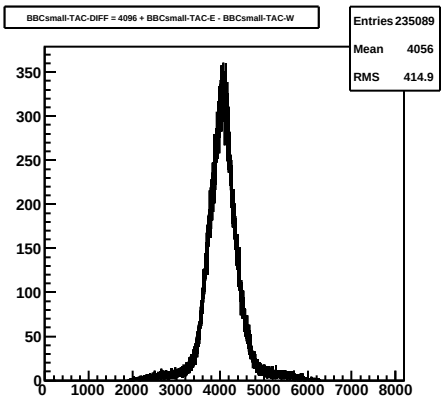

ZDC-TAC-E
Entries 143729
Mean 273.2
RMS 28.39

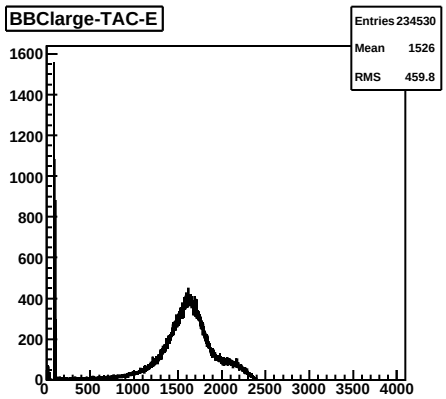

ZDC-TAC-W
Entries 145564
Mean 250.6
RMS 31.74

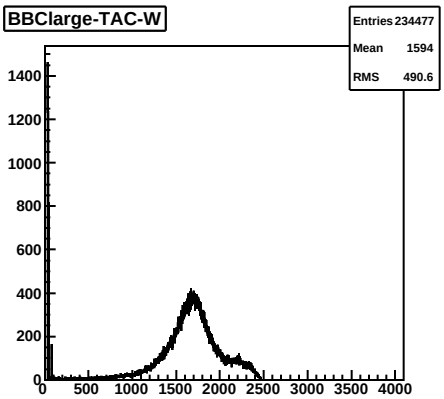

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 54204
Mean 1046
RMS 38.63

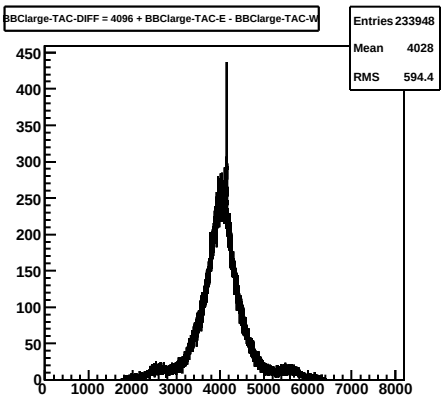

BBCsmall-TAC-E
Entries 235089
Mean 1804
RMS 300.6

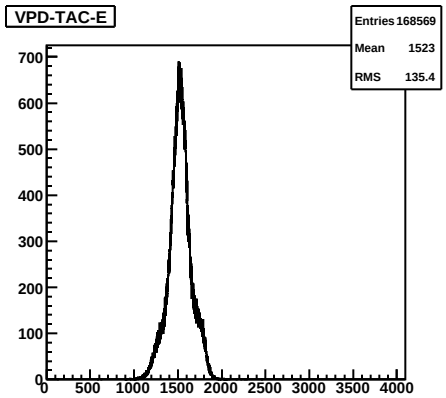

BBCsmall-TAC-W
Entries 235089
Mean 1844
RMS 320.2

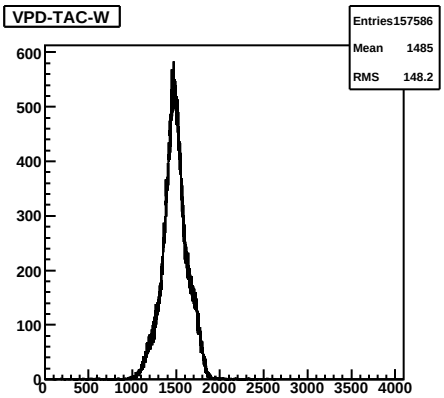

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 235089
Mean 4056
RMS 414.9

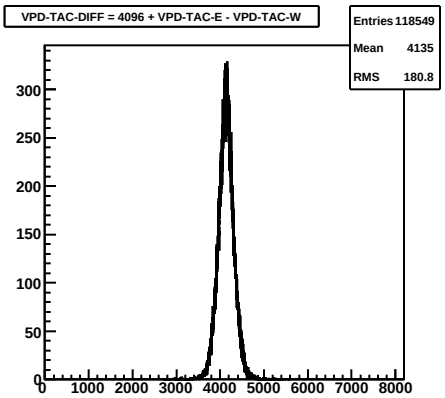

BBClarge-TAC-E
Entries 234530
Mean 1526
RMS 459.8

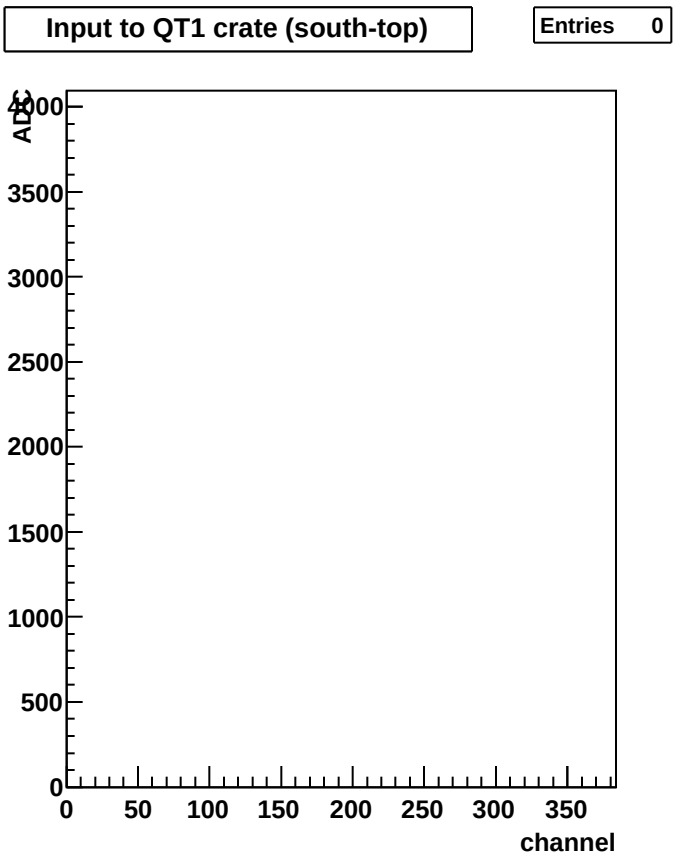

BBClarge-TAC-W
Entries 234477
Mean 1594
RMS 490.6

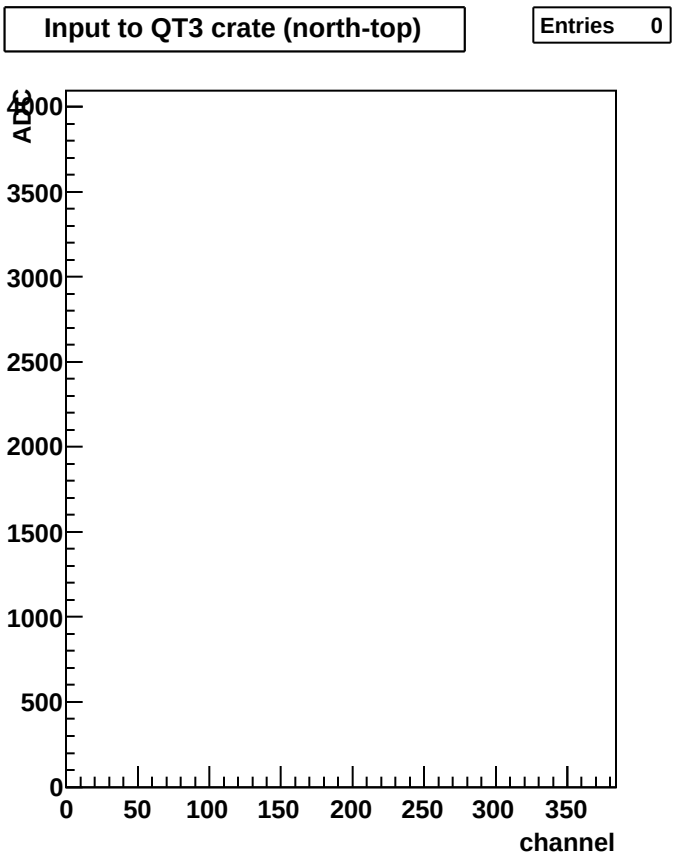

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 233948
Mean 4028
RMS 594.4

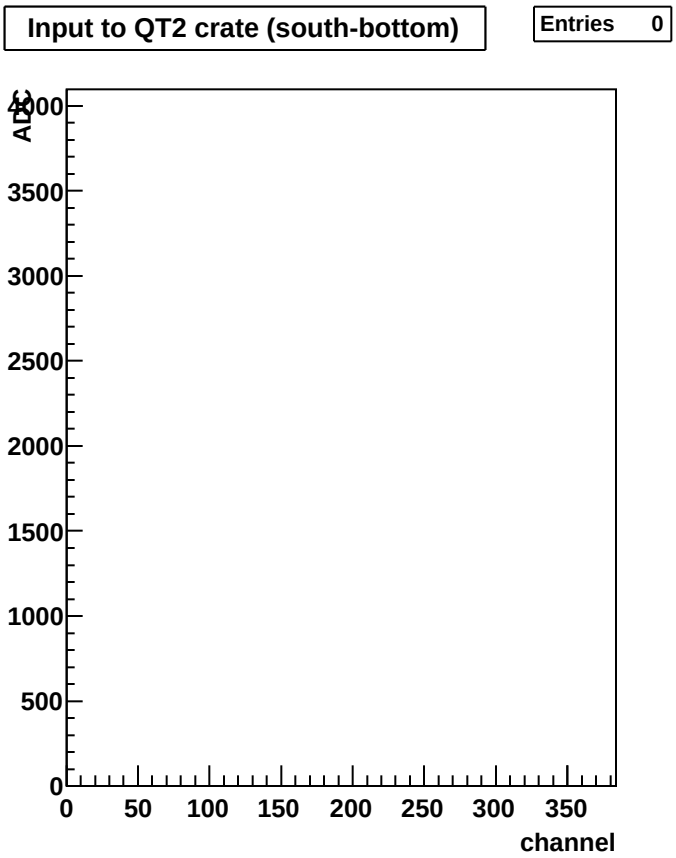

VPD-TAC-E
Entries 168569
Mean 1523
RMS 135.4

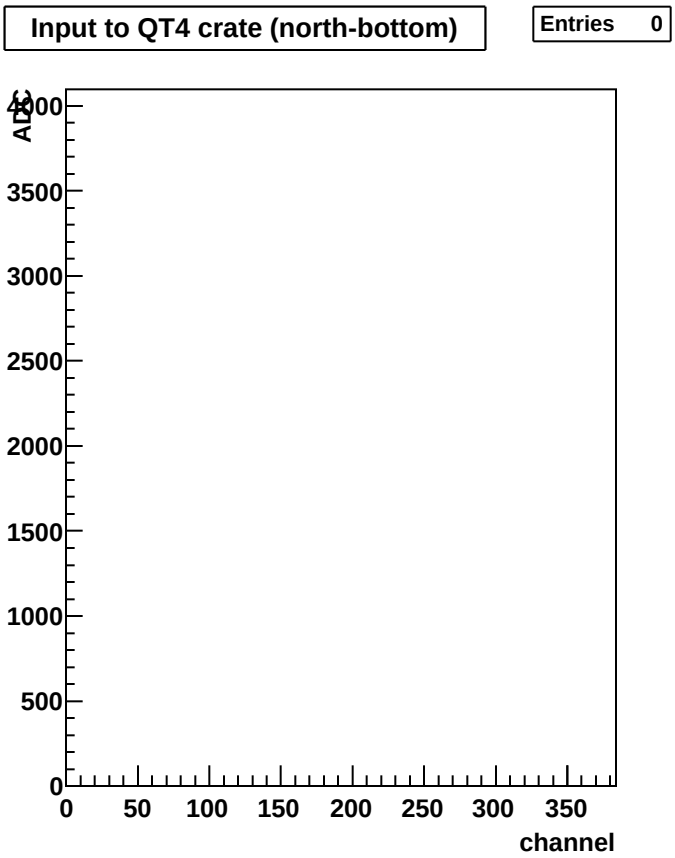

VPD-TAC-W
Entries 157586
Mean 1485
RMS 148.2

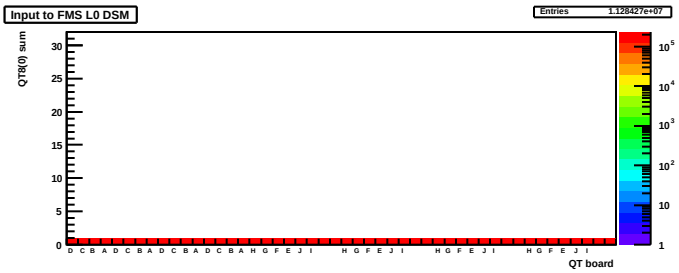

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 118549
Mean 4135
RMS 180.8

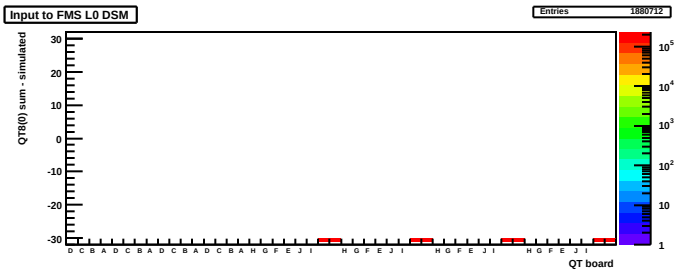

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

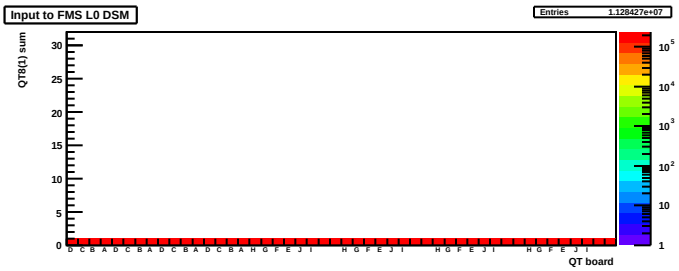

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

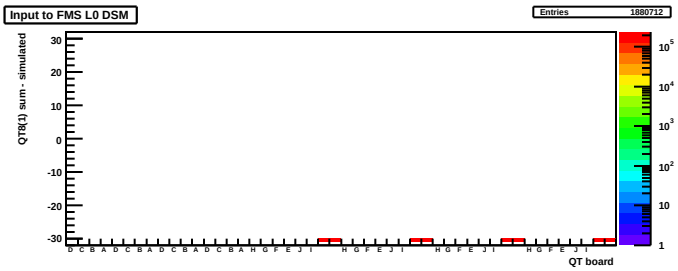

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

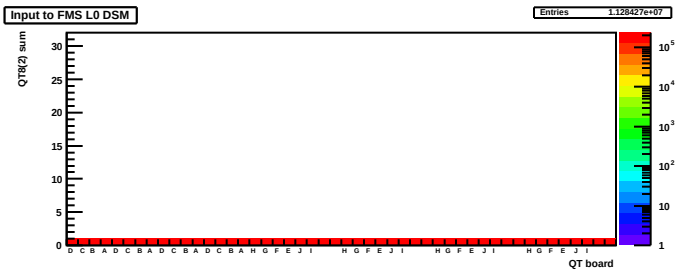

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

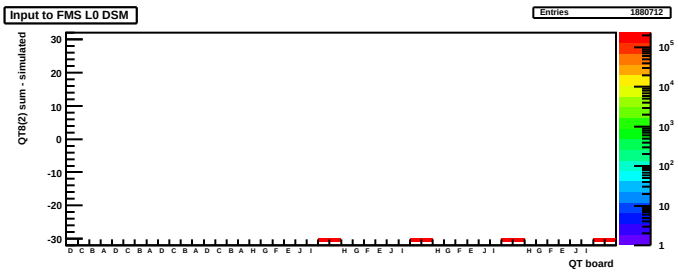

Input to FMS L0 DSM
Entries 1.128427e+07
QT8(0) sum
QT board

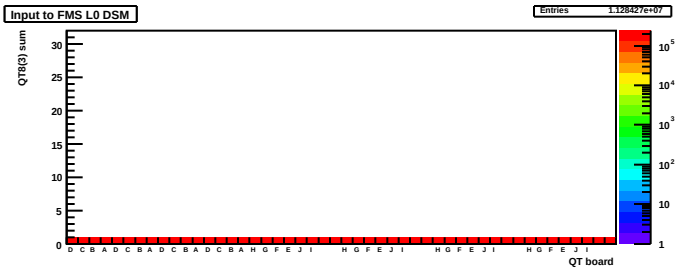

Input to FMS L0 DSM
Entries 1880712
QT8(0) sum - simulated
QT board

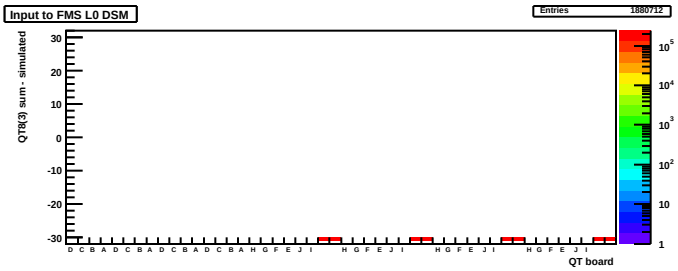

Input to FMS L0 DSM
Entries 1.128427e+07
QT8(1) sum
QT board

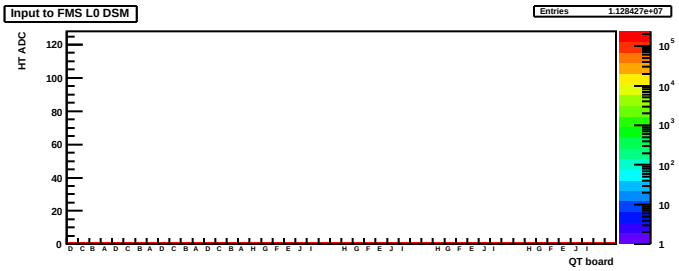

Input to FMS L0 DSM
Entries 1880712
QT8(1) sum - simulated
QT board

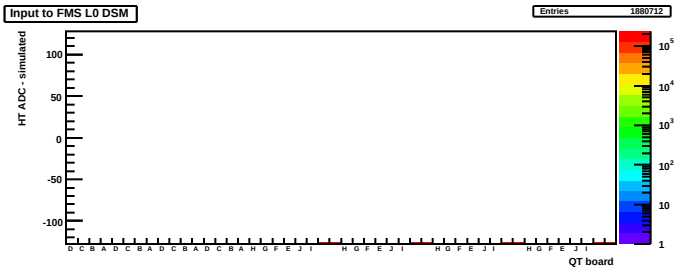

Input to FMS L0 DSM
Entries 1.128427e+07
QT8(2) sum
QT board

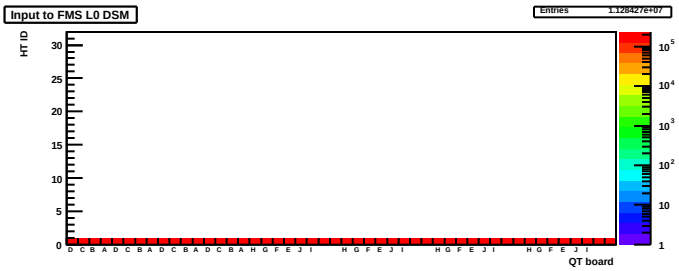

Input to FMS L0 DSM
Entries 1880712
QT8(2) sum - simulated
QT board

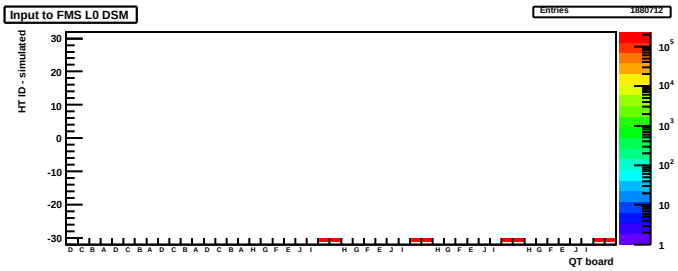

Input to FMS L0 DSM
Entries 1.128427e+07
QT8(3) sum
QT board

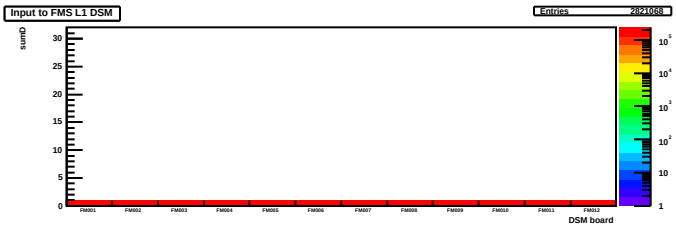

Input to FMS L0 DSM
Entries 1880712
QT8(3) sum - simulated
QT board

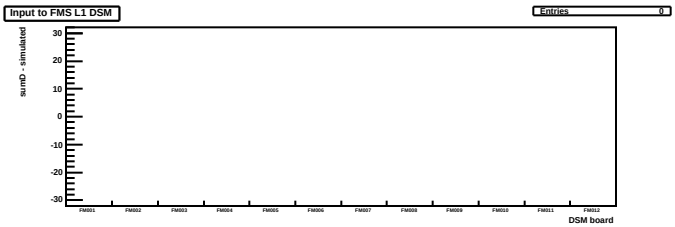

Input to FMS L0 DSM
Entries 1.128427e+07
HT ADC
QT board

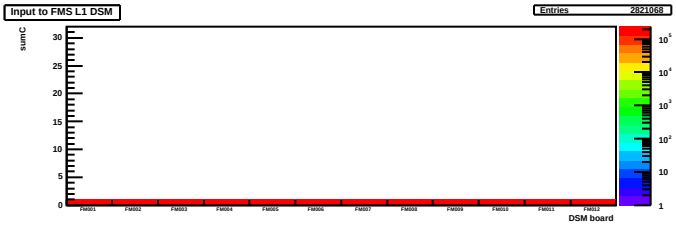

Input to FMS L0 DSM
Entries 1880712
HT ADC - simulated
QT board

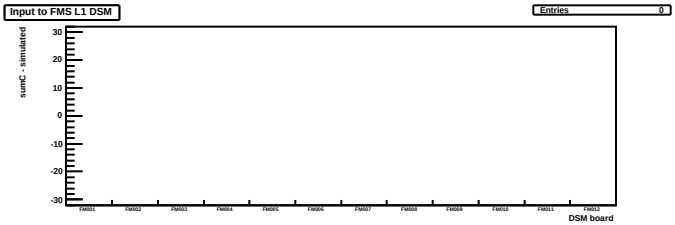

Input to FMS L0 DSM
Entries 1.128427e+07
HT ID
QT board

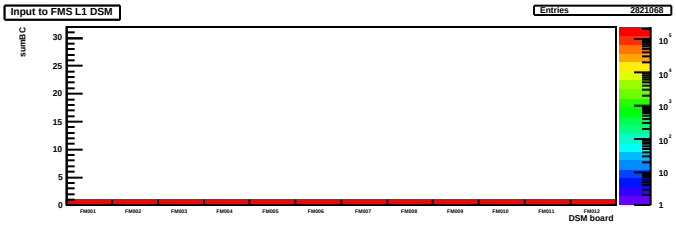

Input to FMS L0 DSM
Entries 1880712
HT ID - simulated
QT board

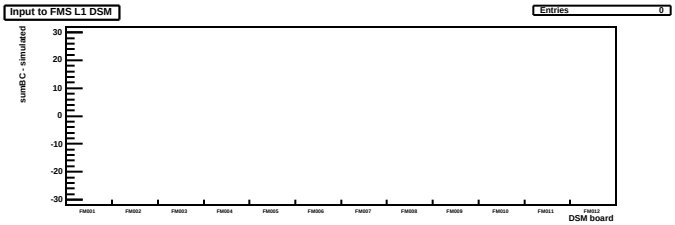

Input to FMS L1 DSM
Entries 2821068
sumD
DSM board

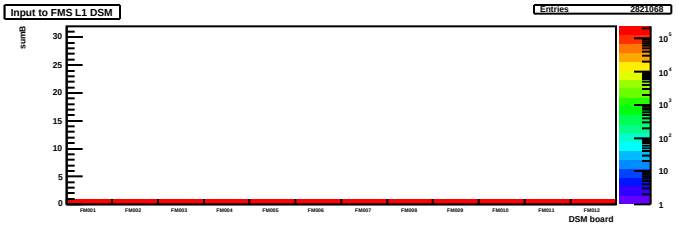

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

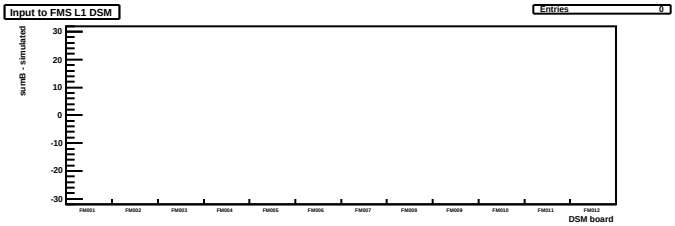

Input to FMS L1 DSM
Entries 2821068
sumC
DSM board

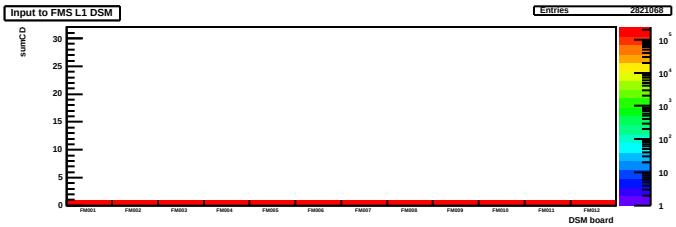

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

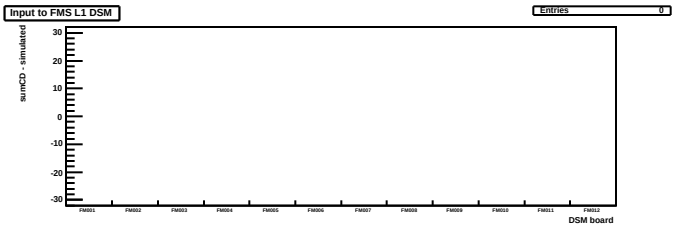

Input to FMS L1 DSM
Entries 2821068
sumBC
DSM board

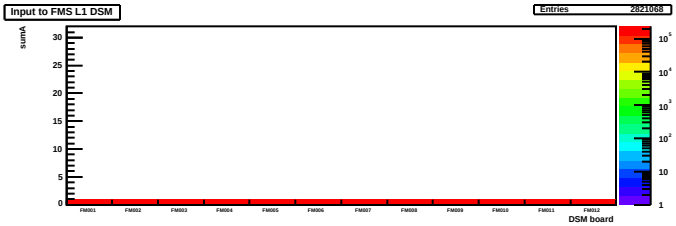

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

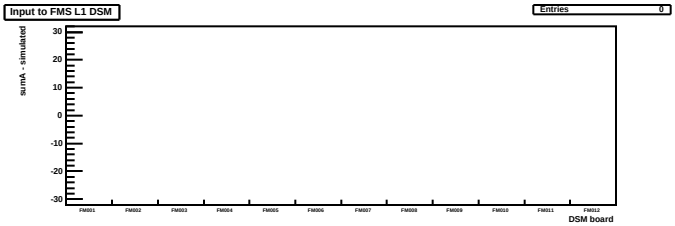

Input to FMS L1 DSM
Entries 2821068
sumB
DSM board

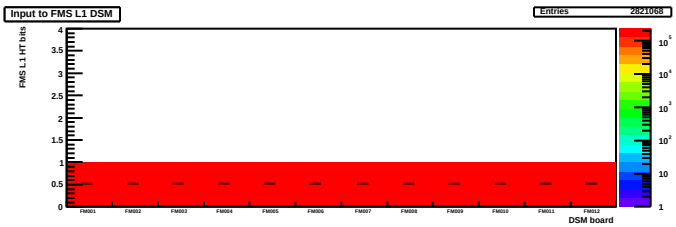

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

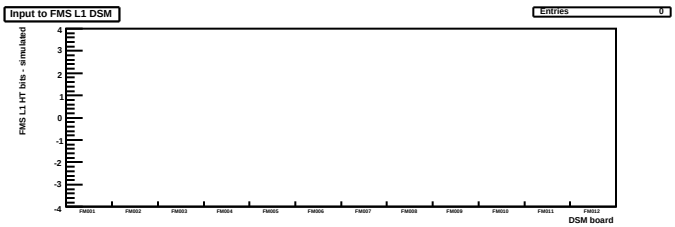

Input to FMS L1 DSM
Entries 2821068
sumCD
DSM board

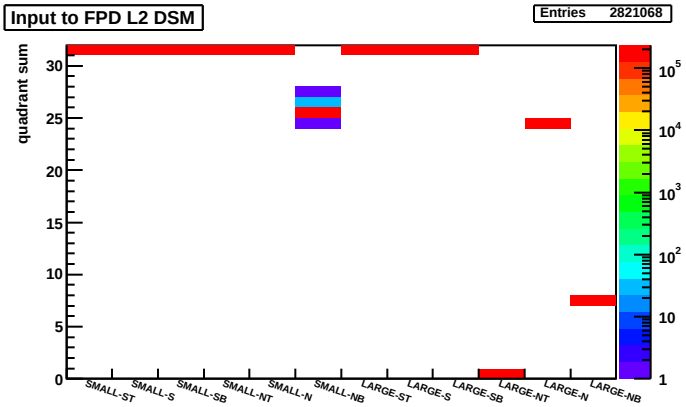

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

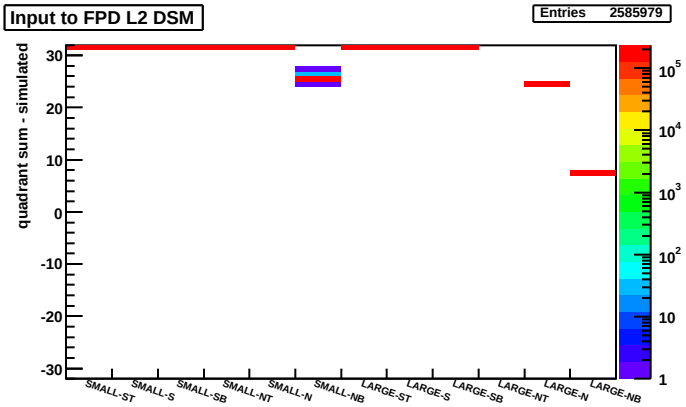

Input to FMS L1 DSM
Entries 2821068
sumA
DSM board

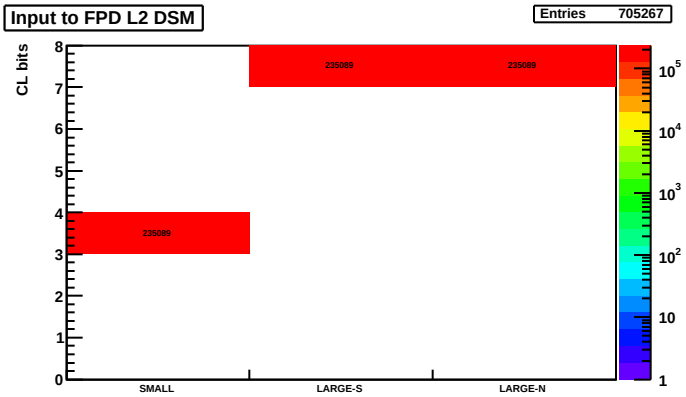

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

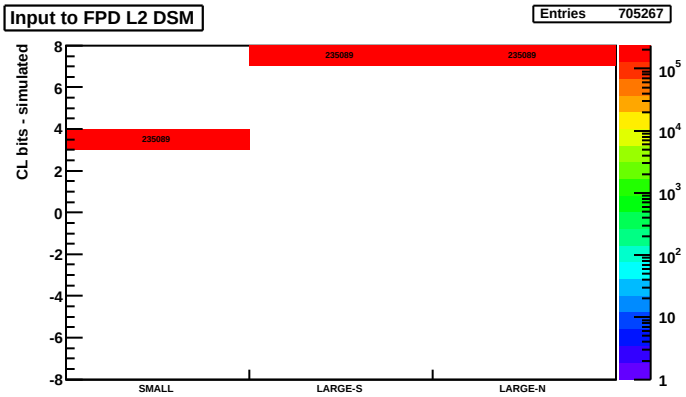

Input to FMS L1 DSM
Entries 2821068
FMS L1 HT bits
DSM board

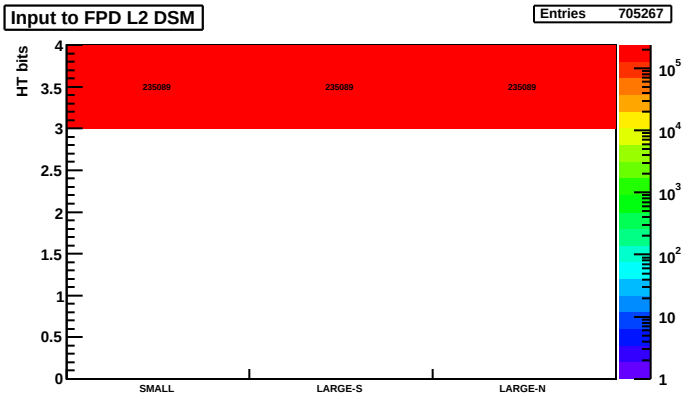

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

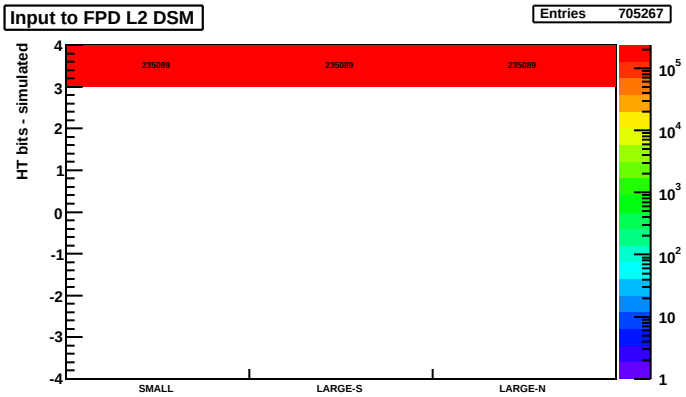

Input to FPD L2 DSM
Entries 2821068
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

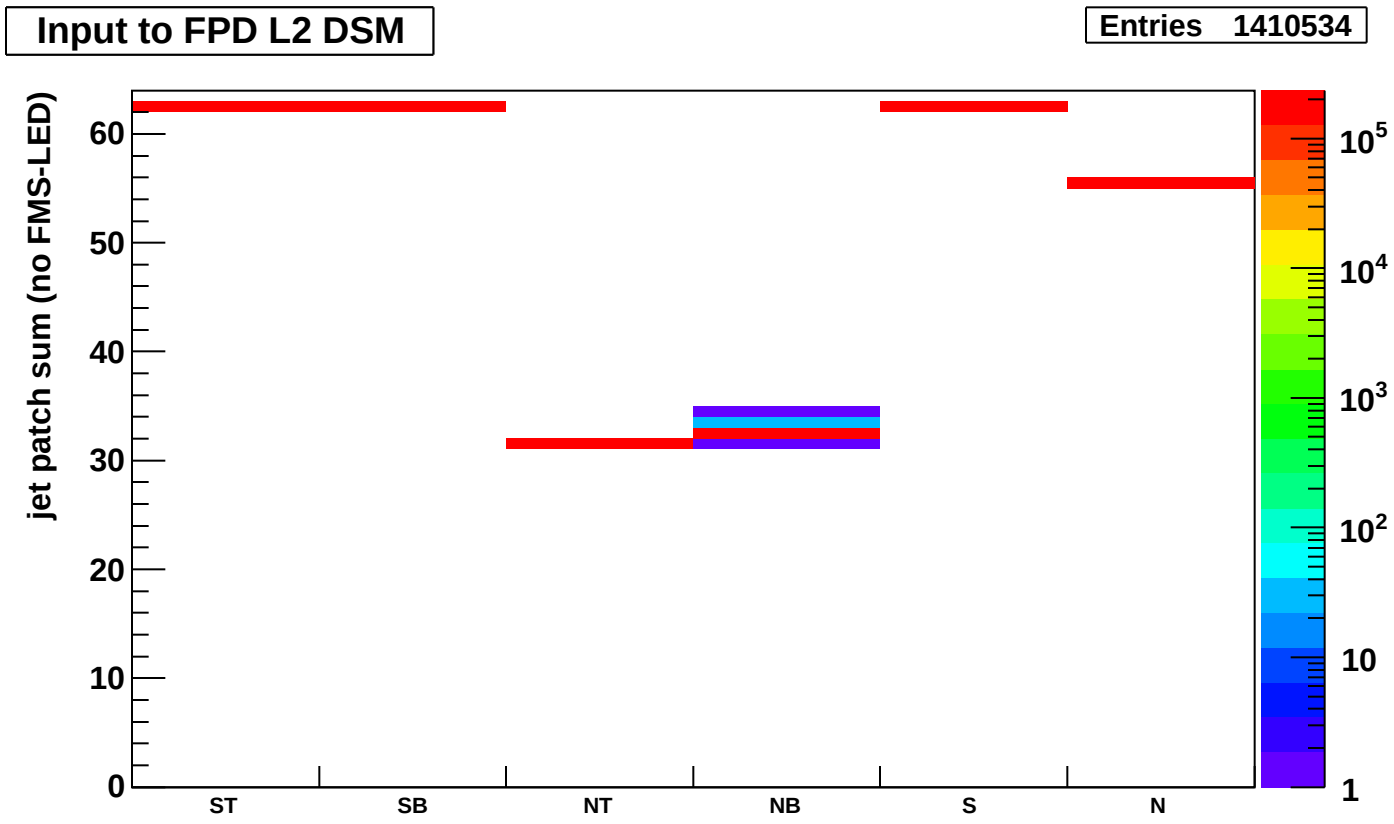

Input to FPD L2 DSM
Entries 2585979
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

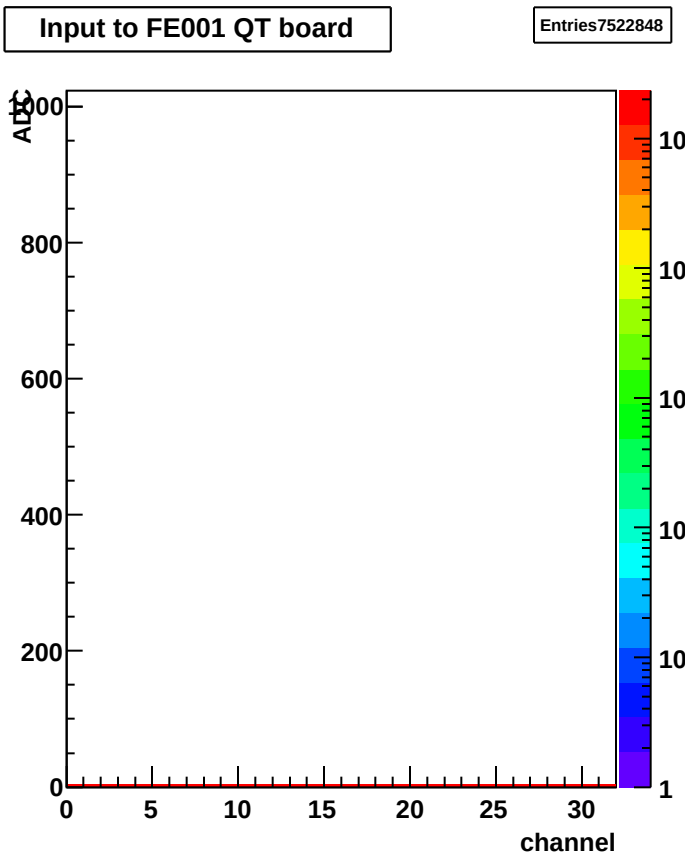

Input to FPD L2 DSM
Entries 705267
CL bits
235089
235089
235089
SMALL
LARGE-S
LARGE-N

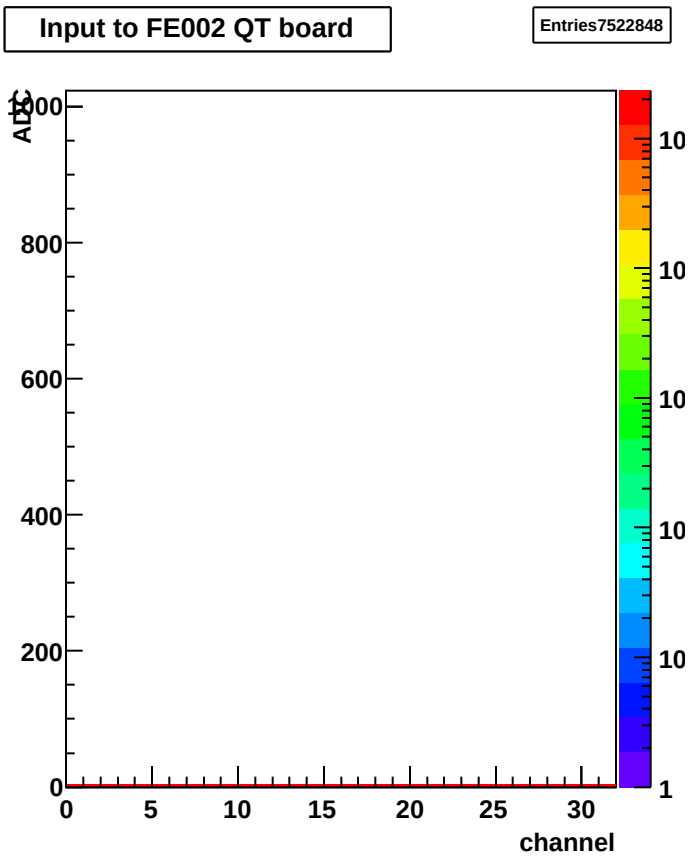

Input to FPD L2 DSM
Entries 705267
CL bits - simulated
235089
235089
235089
SMALL
LARGE-S
LARGE-N

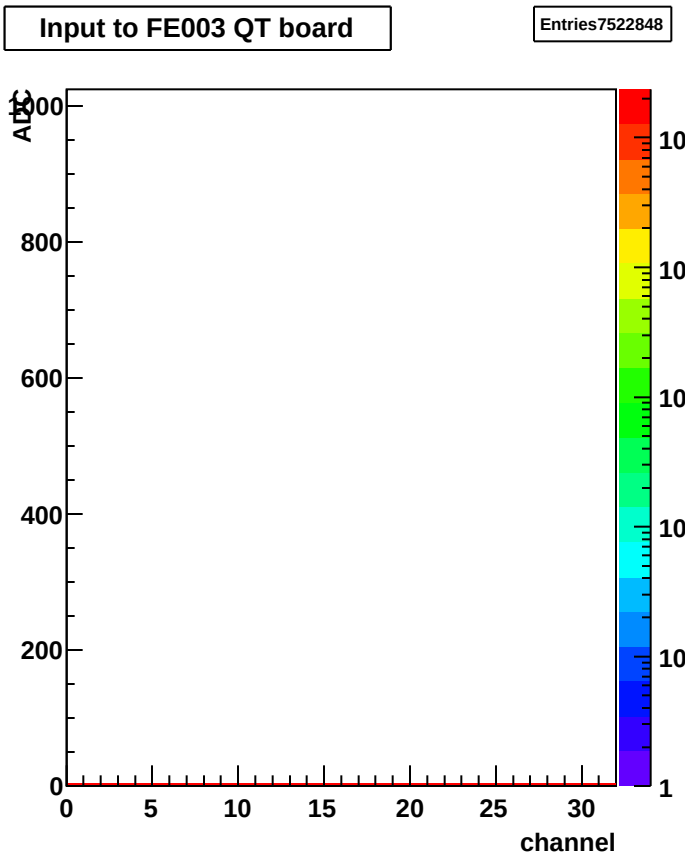

Input to FPD L2 DSM
Entries 705267
HT bits
235089
235089
235089
SMALL
LARGE-S
LARGE-N

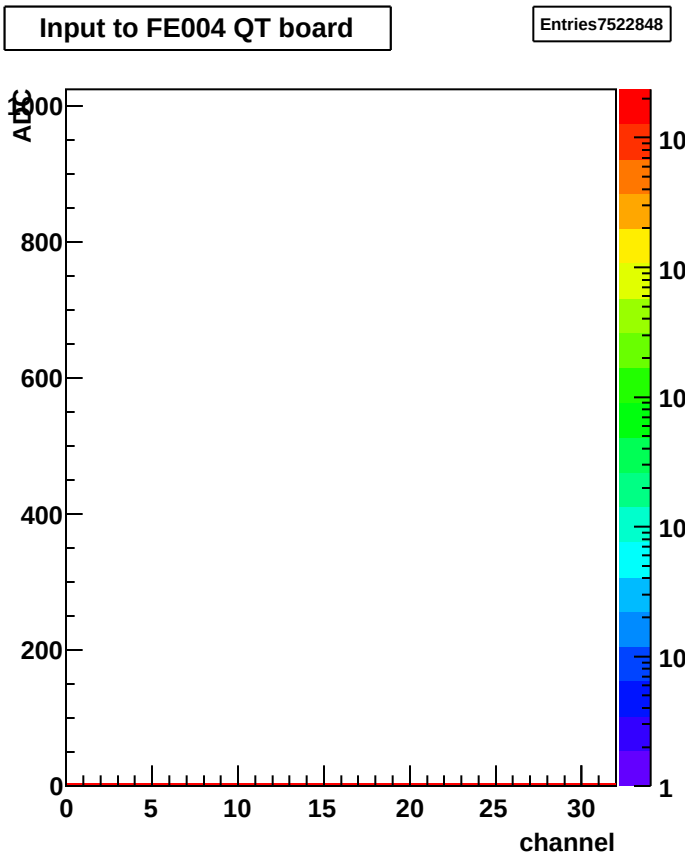

Input to FPD L2 DSM
Entries 705267
HT bits - simulated
235089
235089
235089
SMALL
LARGE-S
LARGE-N

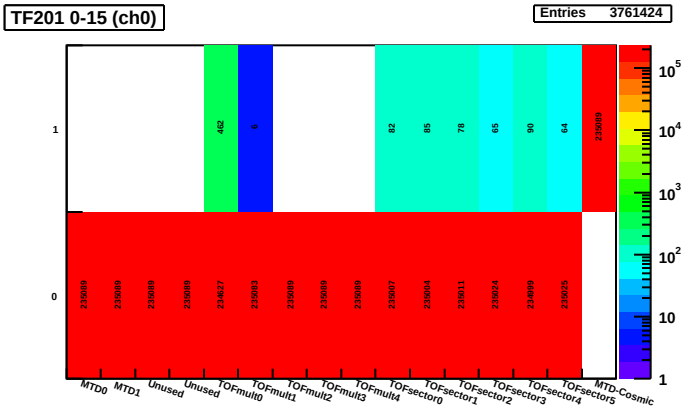

Input to FPD L2 DSM
Entries 1410534
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

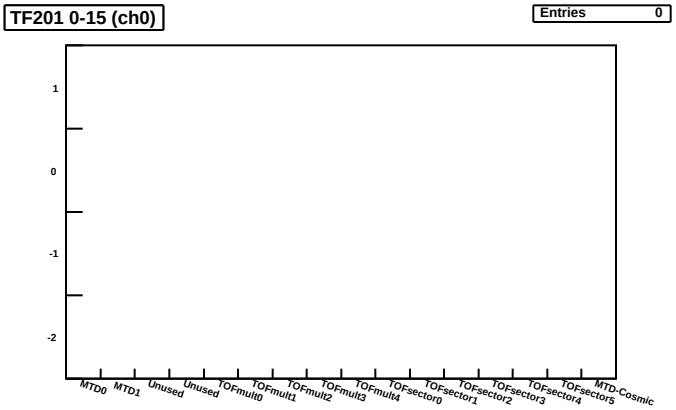

Input to FE001 QT board
Entries7522848
ADC
channel

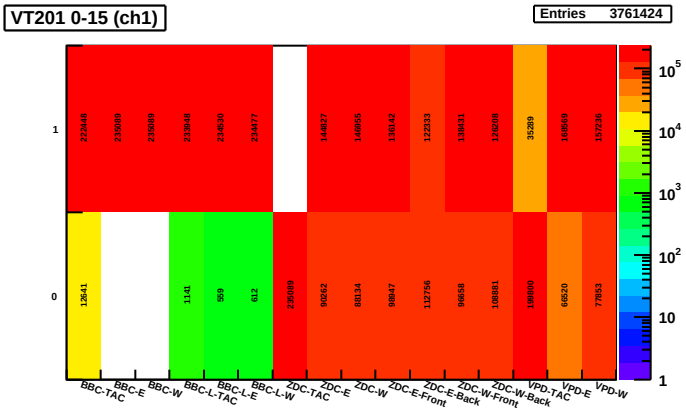

Input to FE002 QT board
Entries7522848
ADC
channel

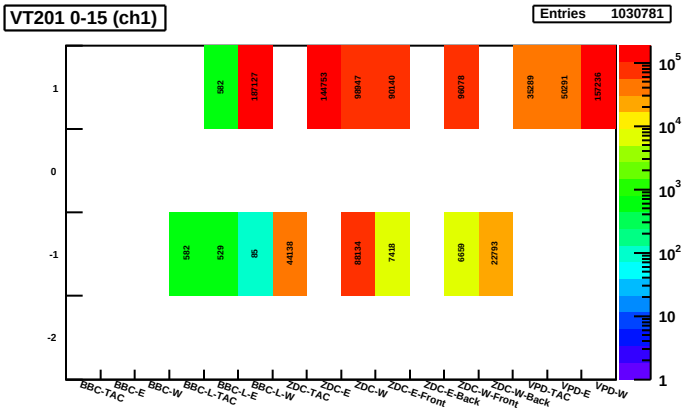

Input to FE003 QT board
Entries7522848
ADC
channel

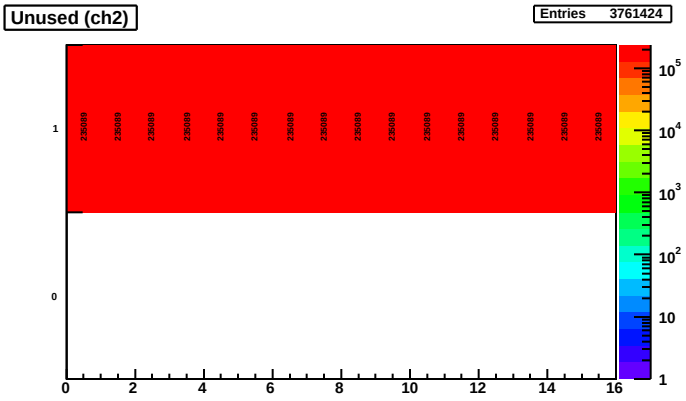

Input to FE004 QT board
Entries7522848
ADC
channel

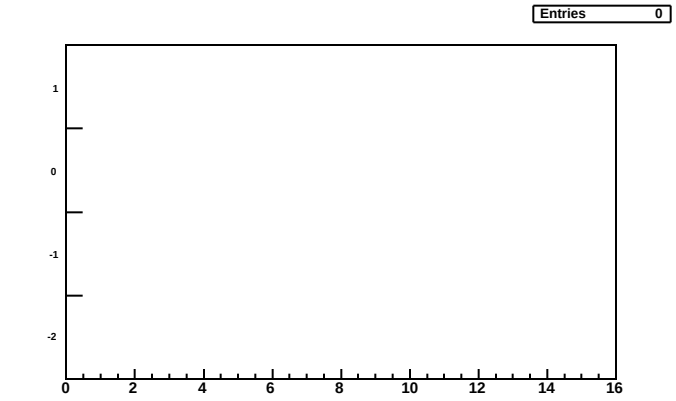

TF201 0-15 (ch0)
Entries 3761424
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


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


VT201 0-15 (ch1)
Entries 3761424
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 1030781
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 3761424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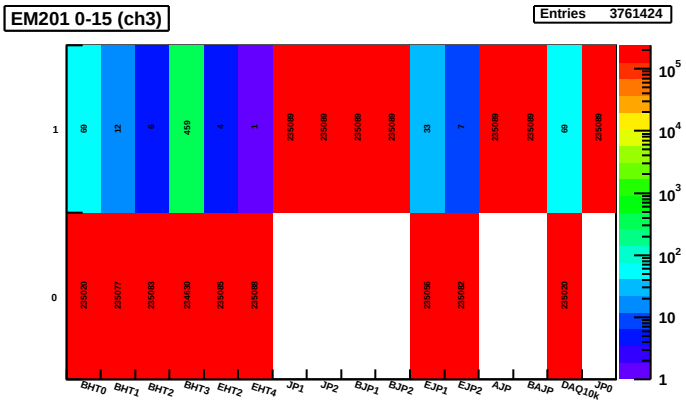
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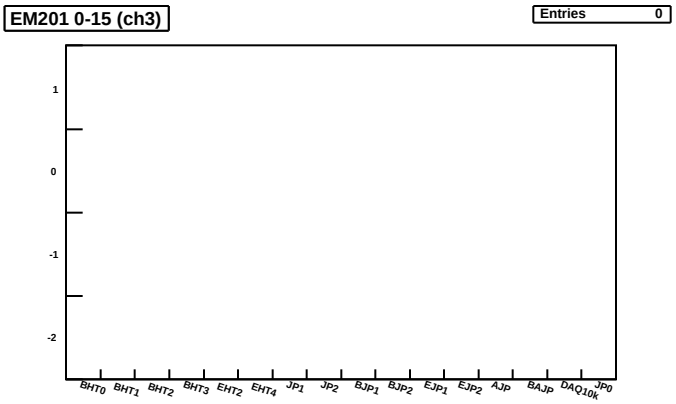
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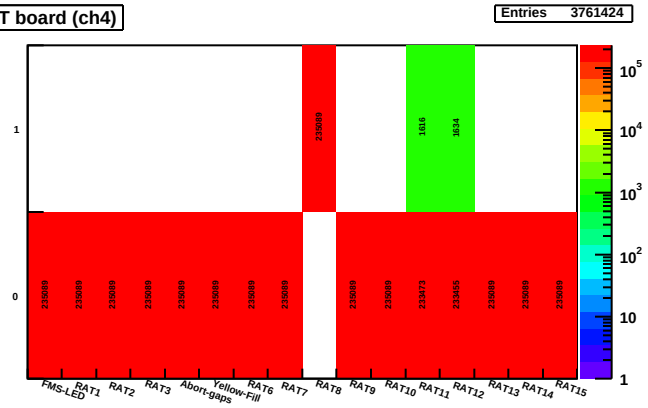
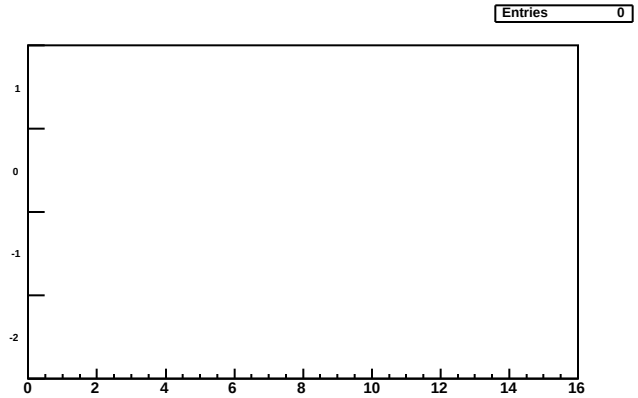
RAT board (ch4)





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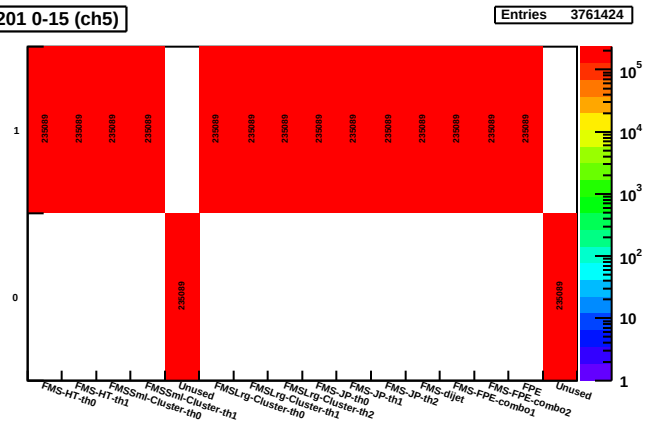

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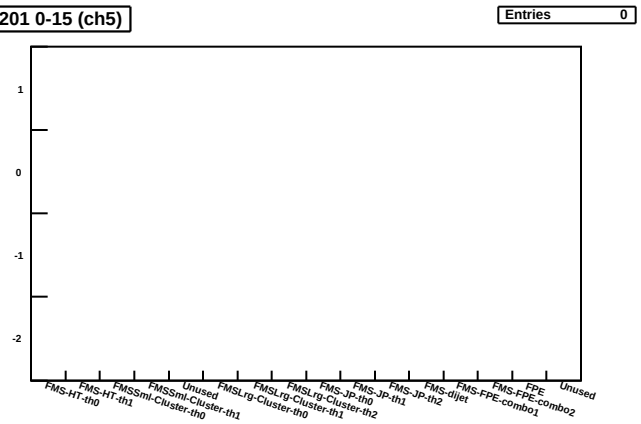

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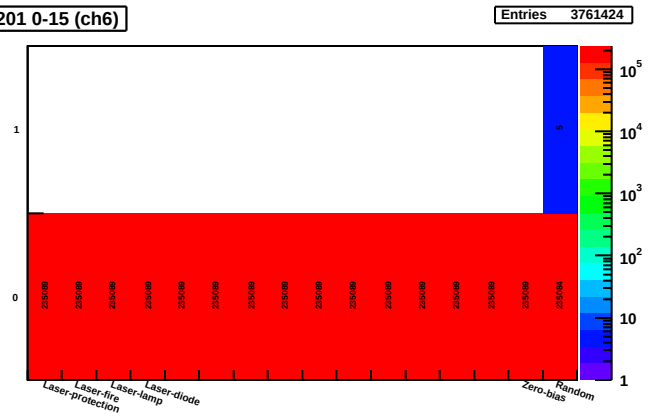

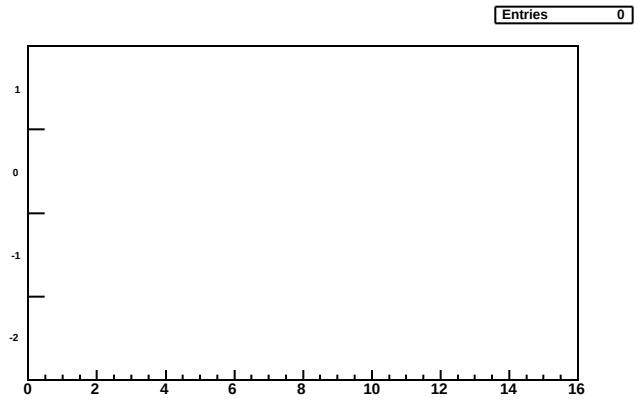
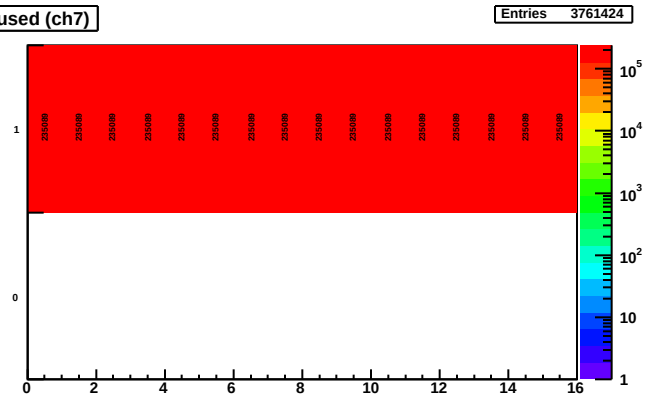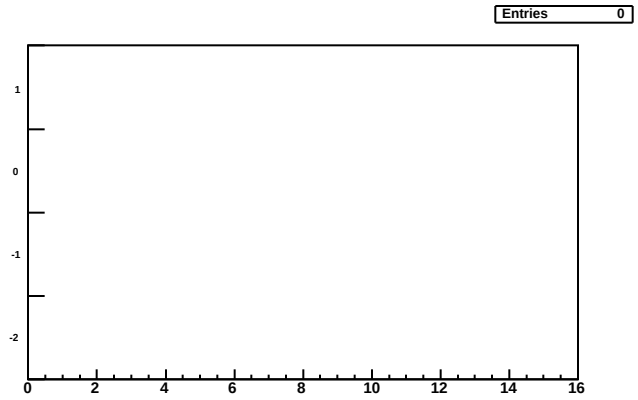
Unused (ch7)