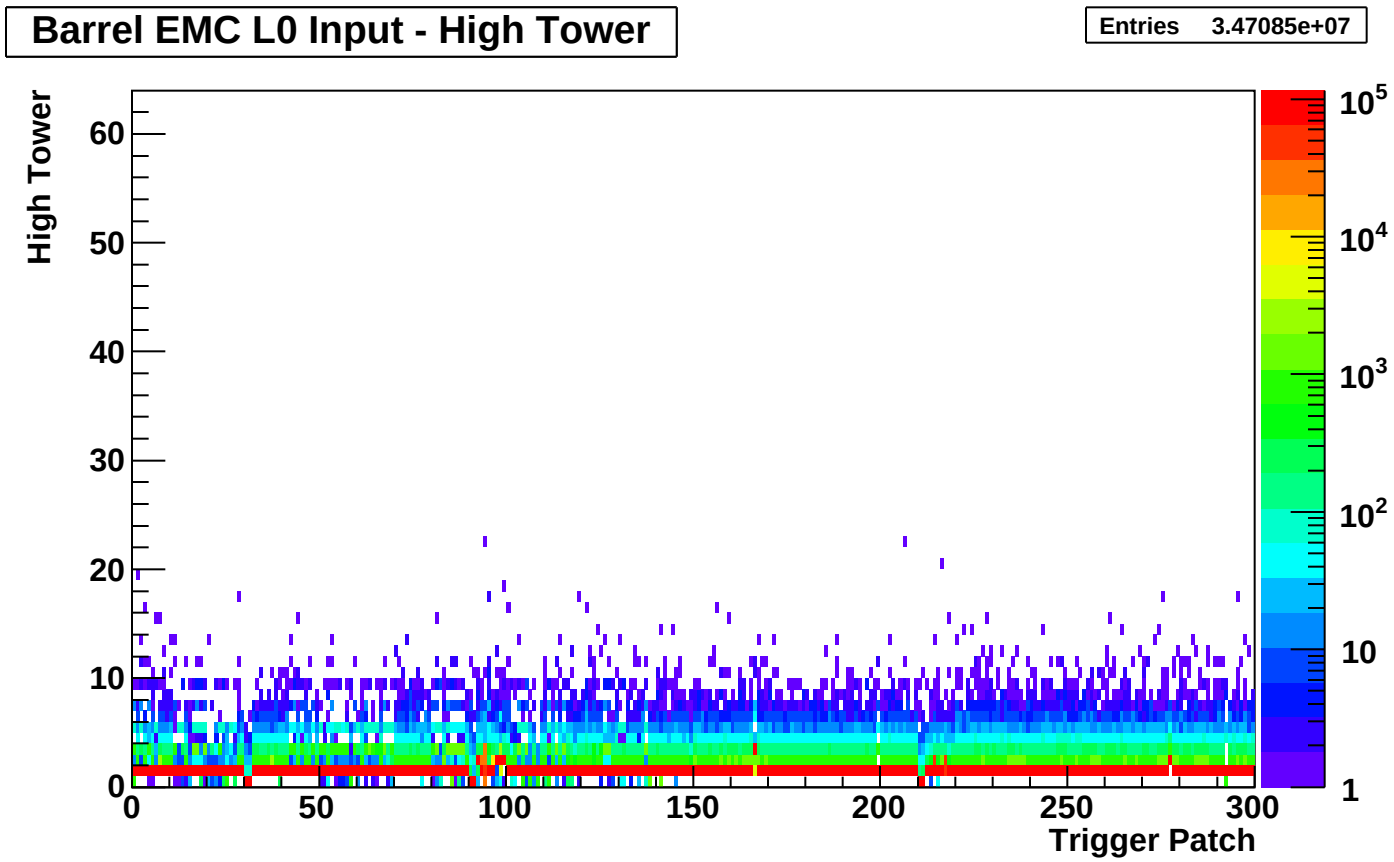
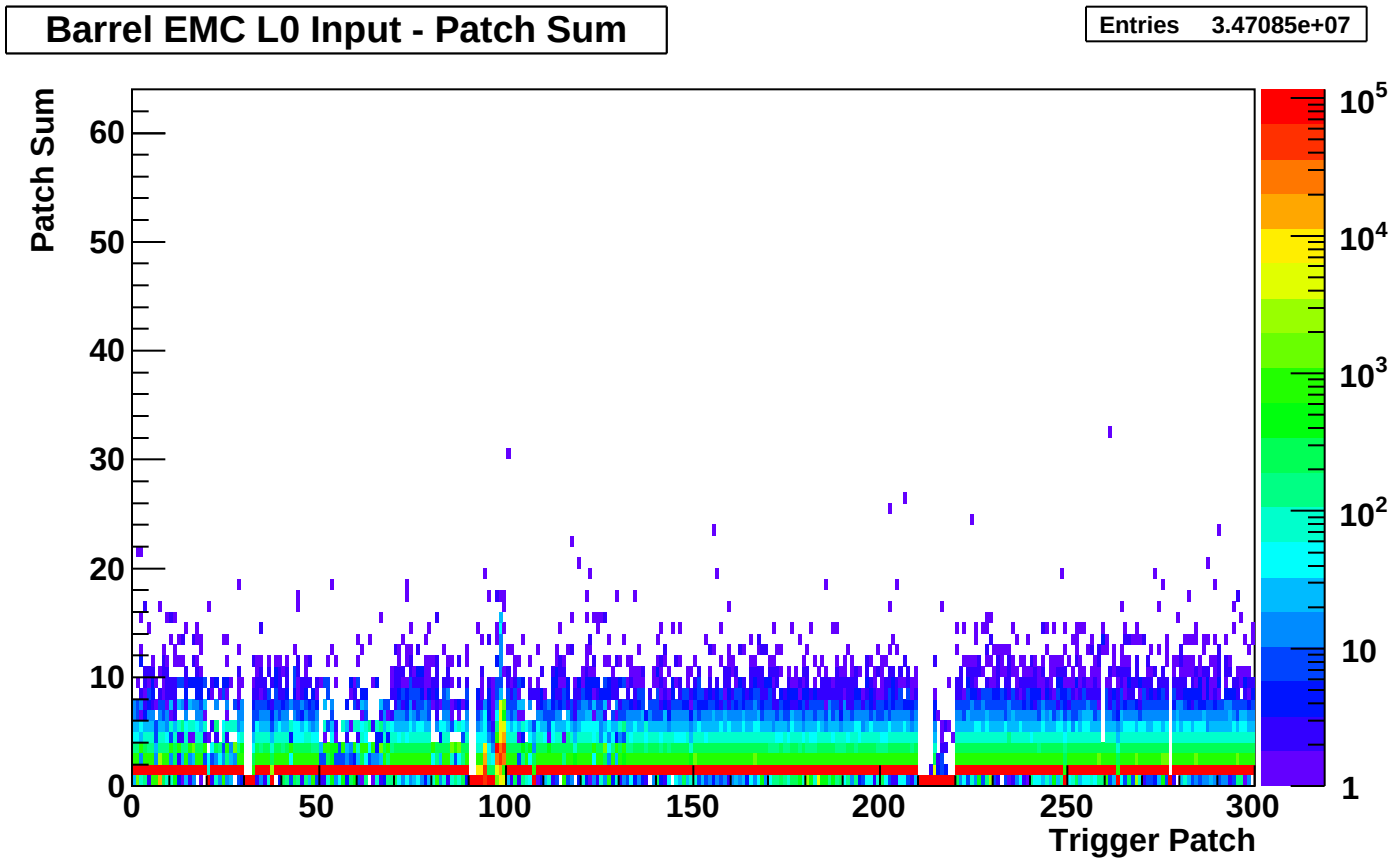
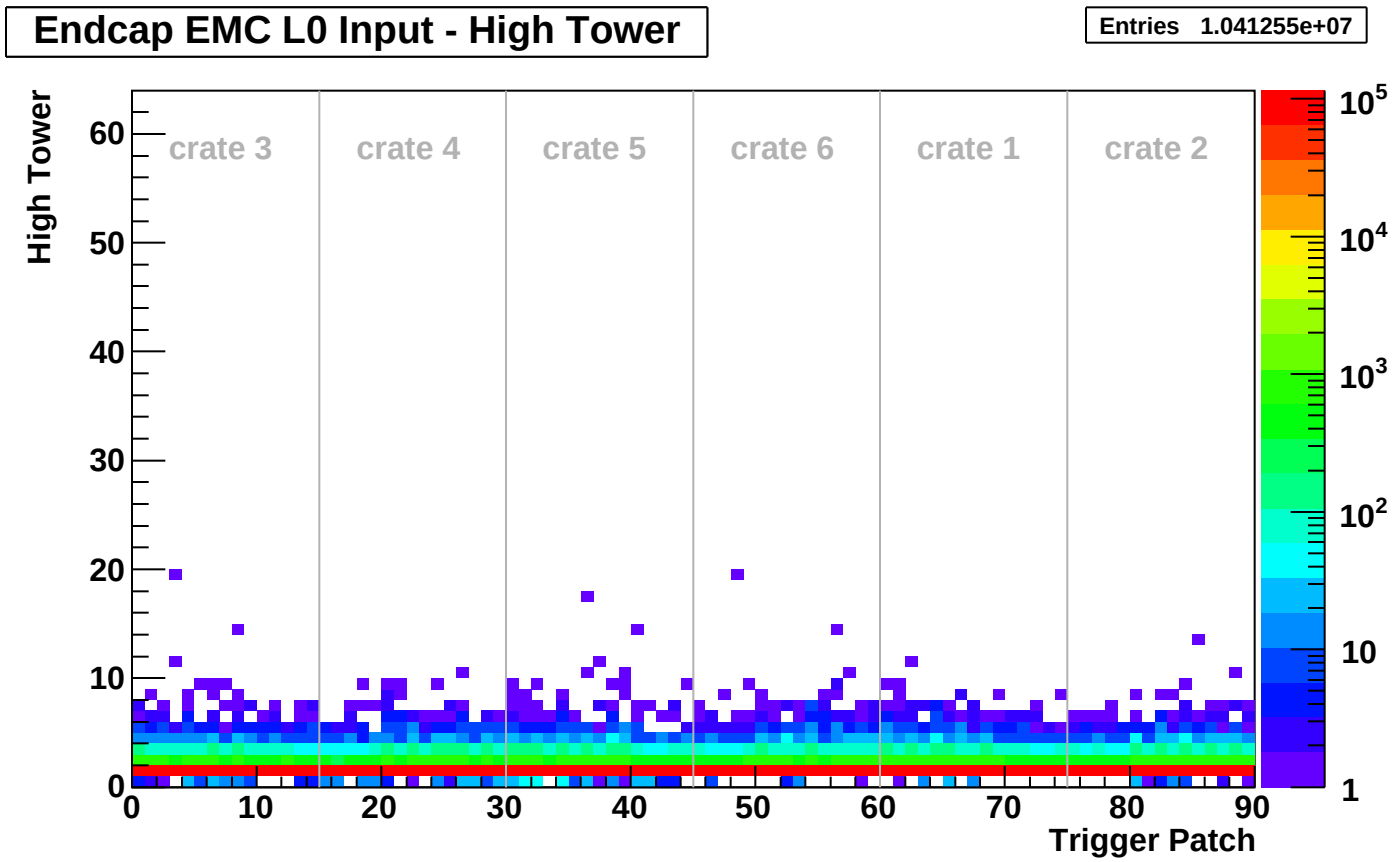
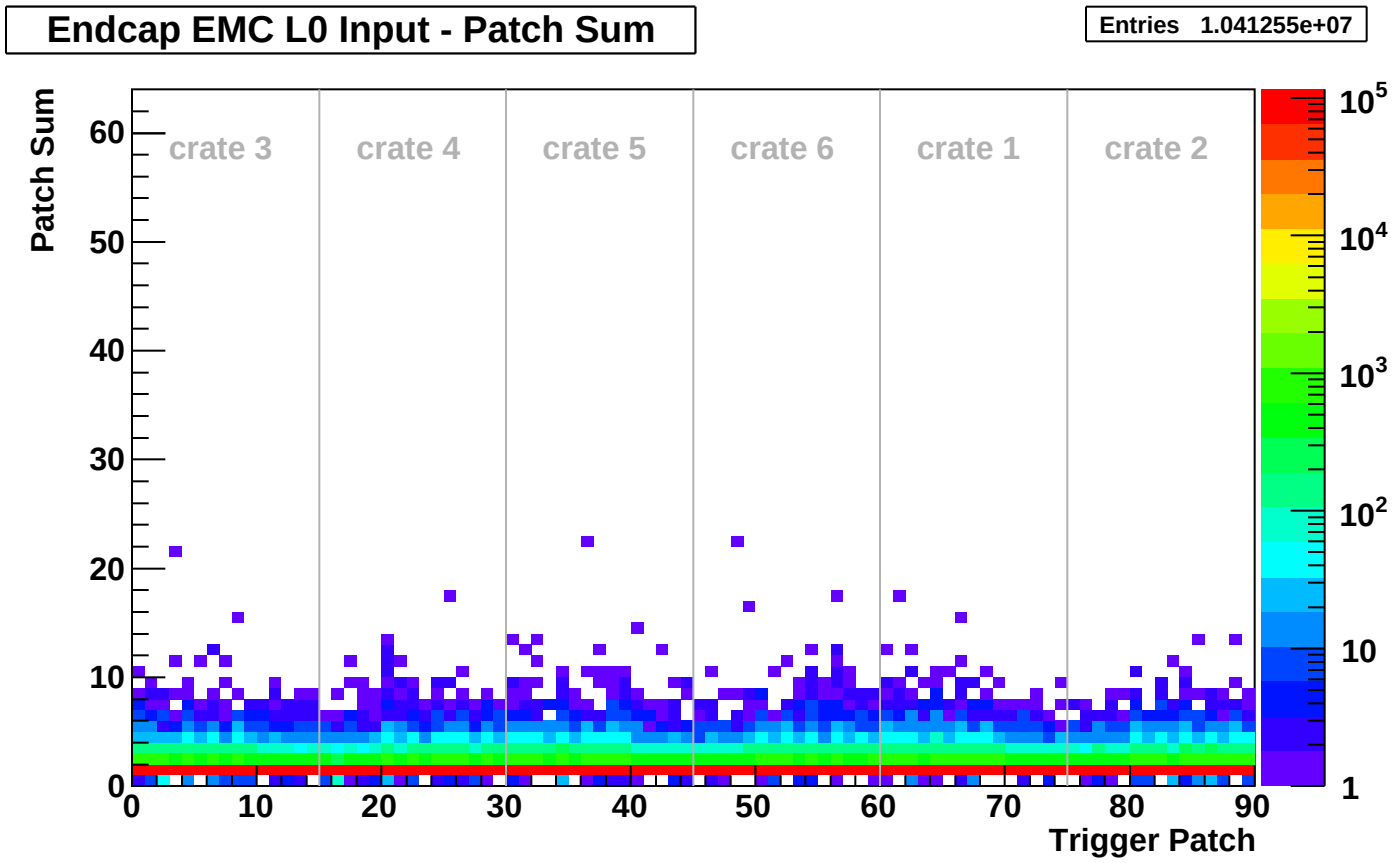
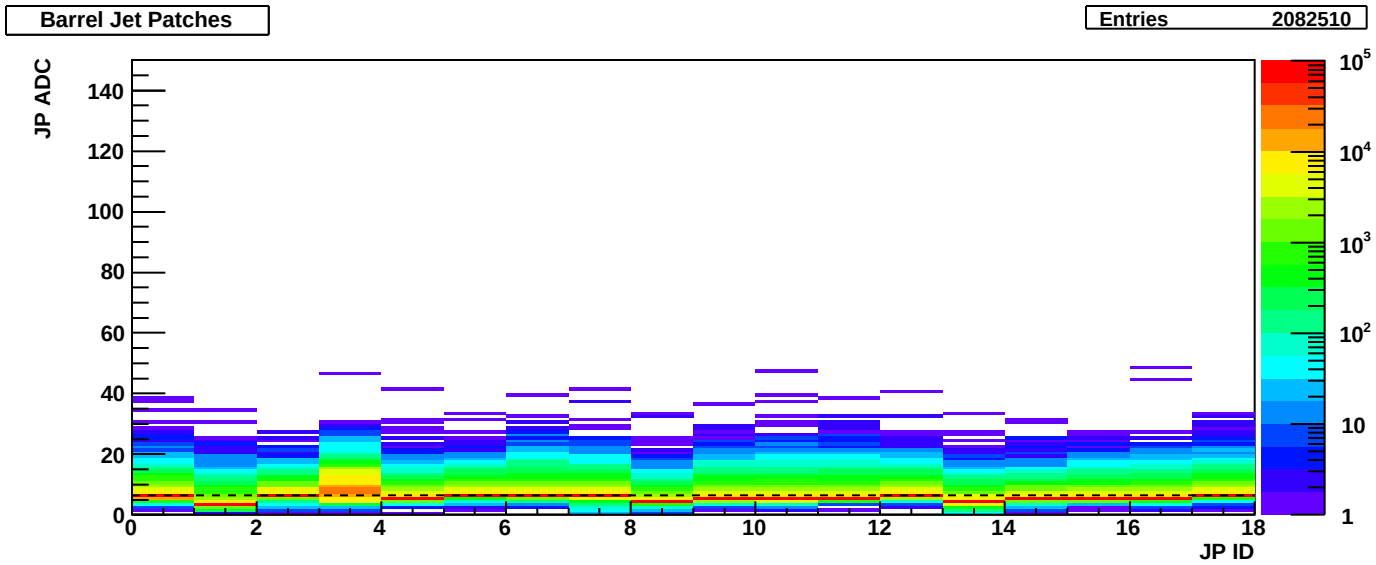
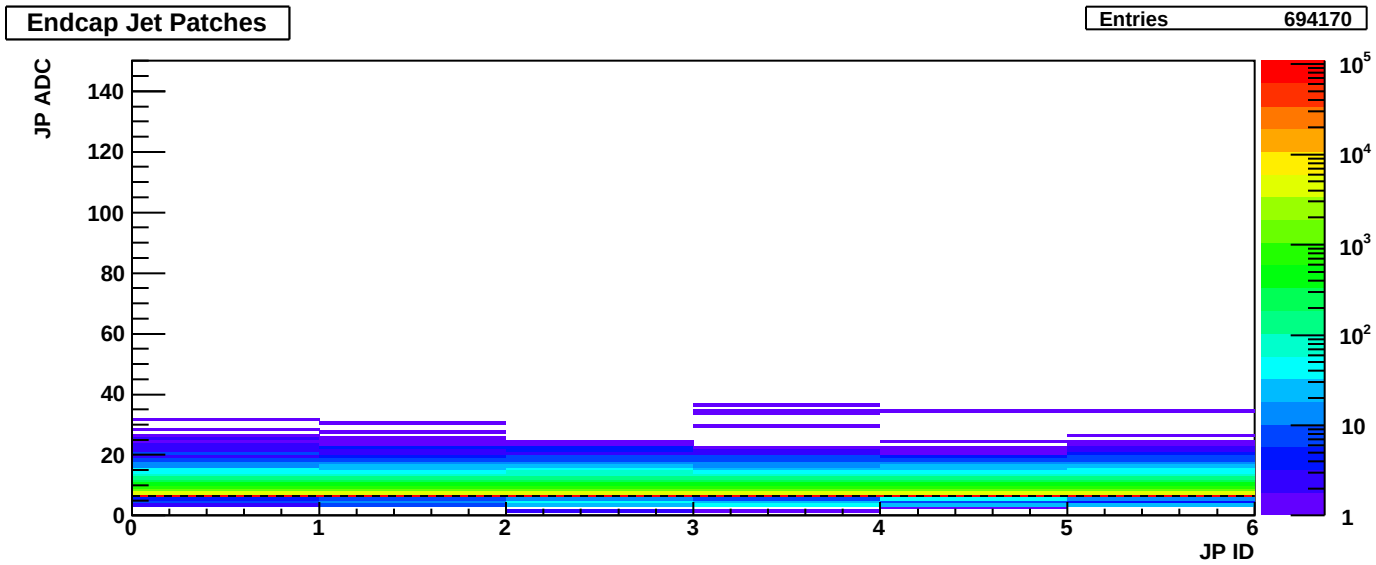

Barrel EMC L0 Input - High Tower
Entries 3.47085e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

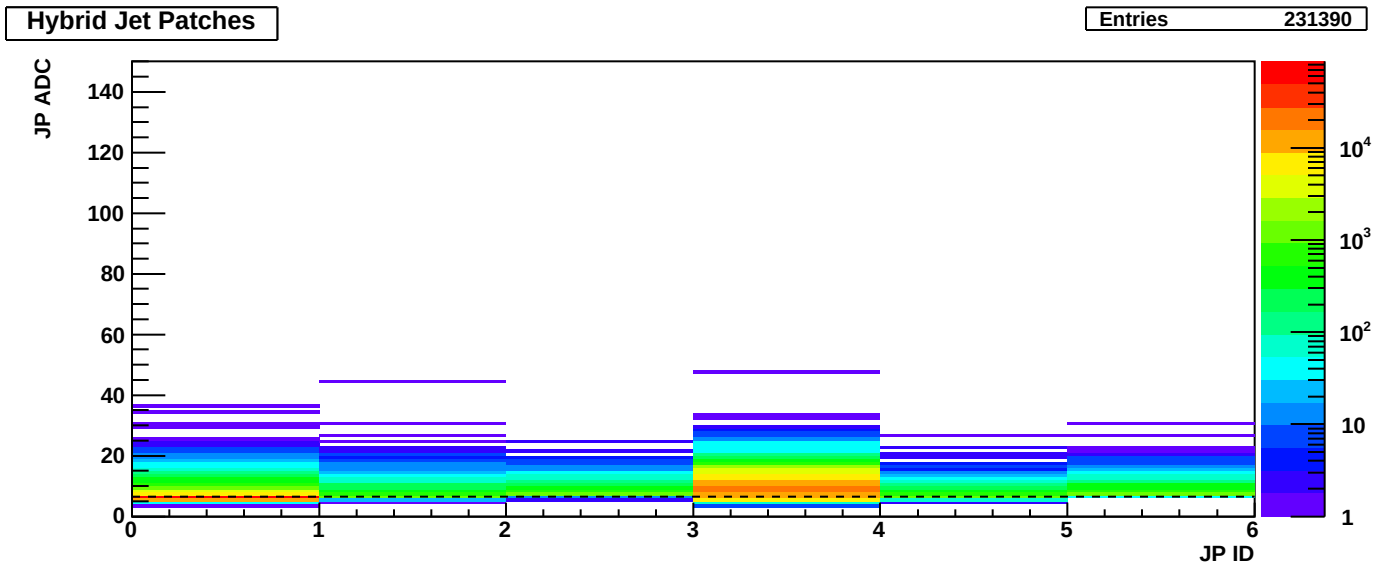

Barrel EMC L0 Input - Patch Sum
Entries 3.47085e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

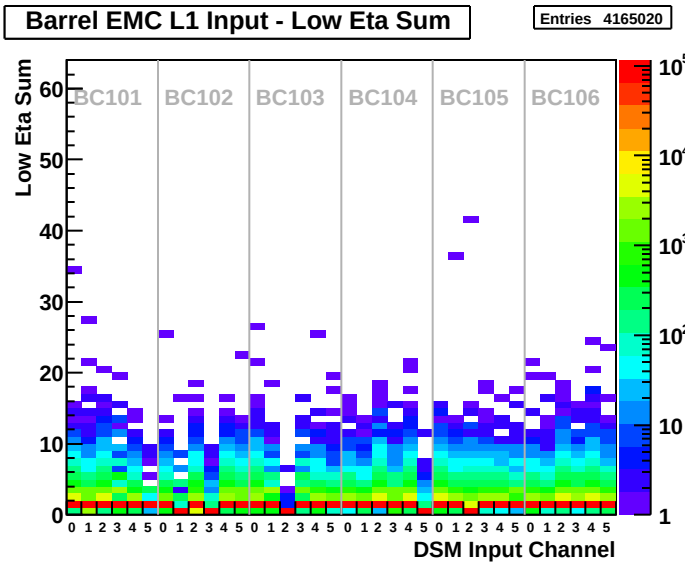

Endcap EMC L0 Input - High Tower
Entries 1.041255e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

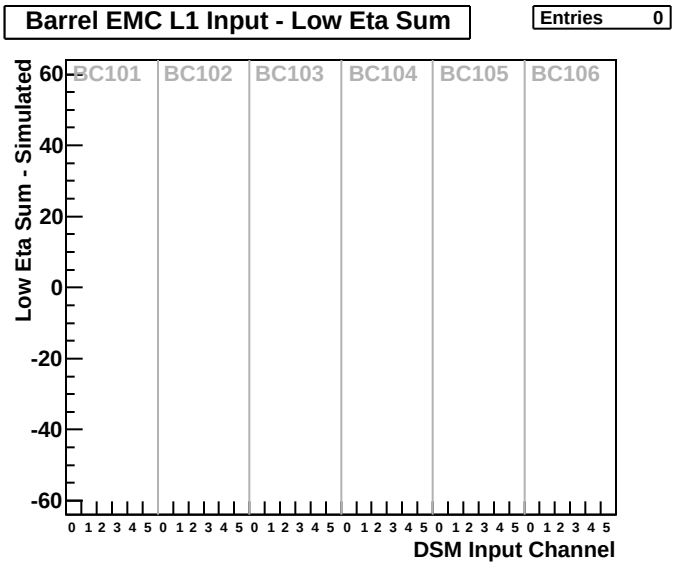

Endcap EMC L0 Input - Patch Sum
Entries 1.041255e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

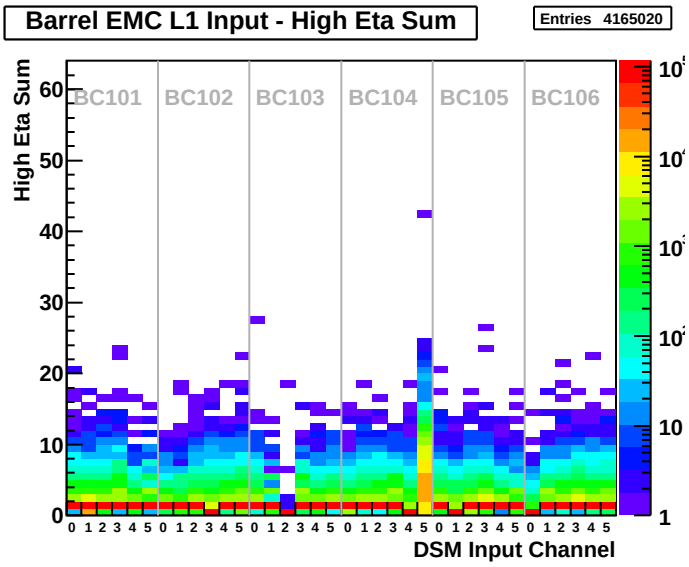

Barrel Jet Patches
Entries 2082510
JP ADC
JP ID

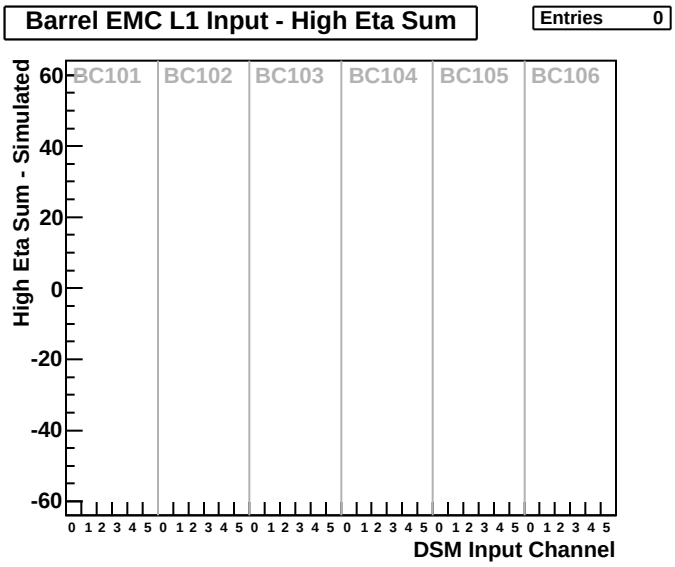

Endcap Jet Patches
Entries 694170
JP ADC
JP ID

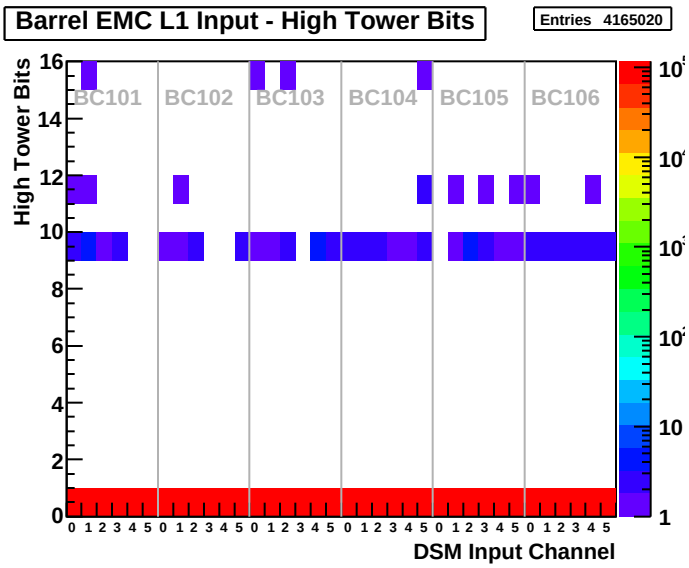

Hybrid Jet Patches
Entries 231390
JP ADC
JP ID

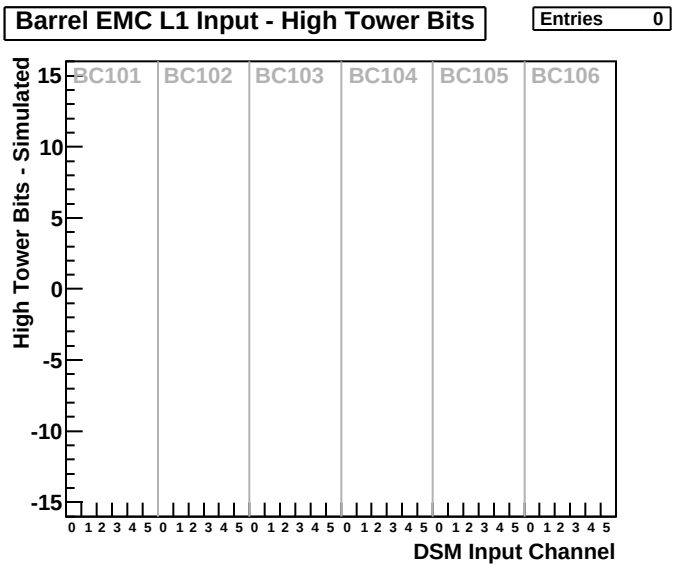

Barrel EMC L1 Input - Low Eta Sum
Entries 4165020
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

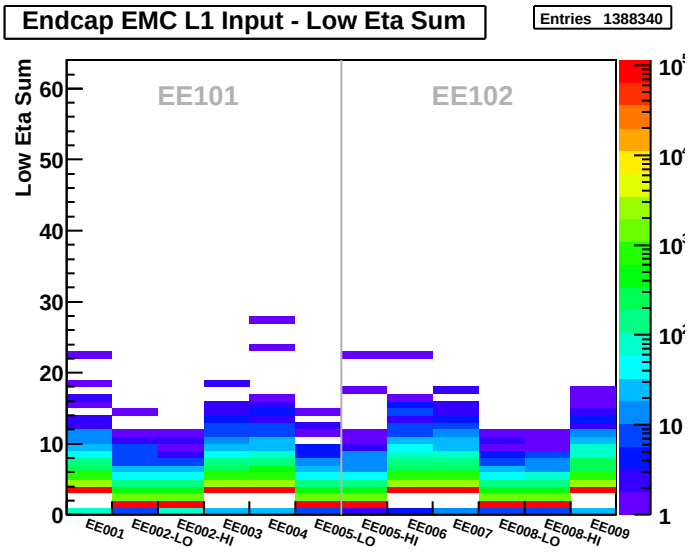

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

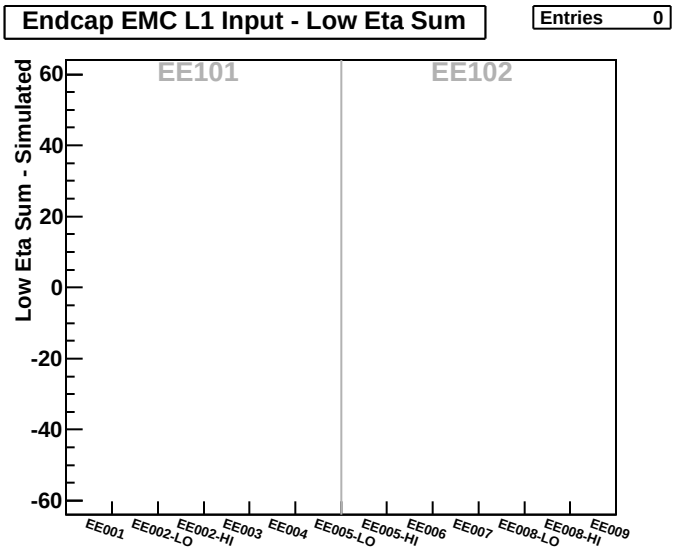

Barrel EMC L1 Input - High Eta Sum
Entries 4165020
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

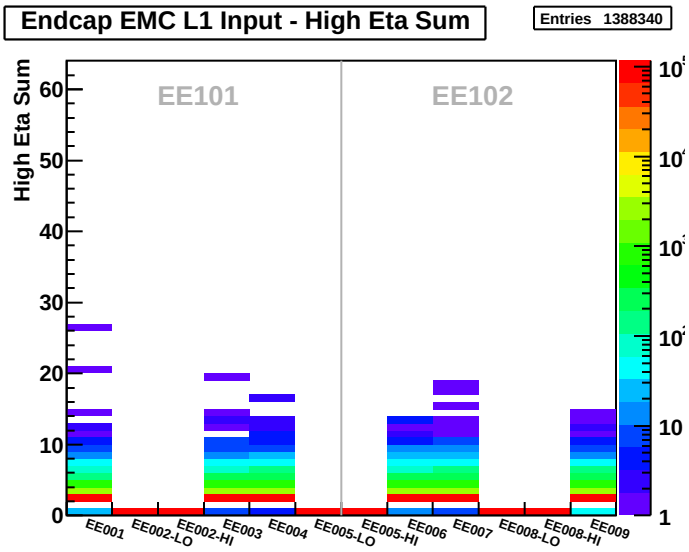

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

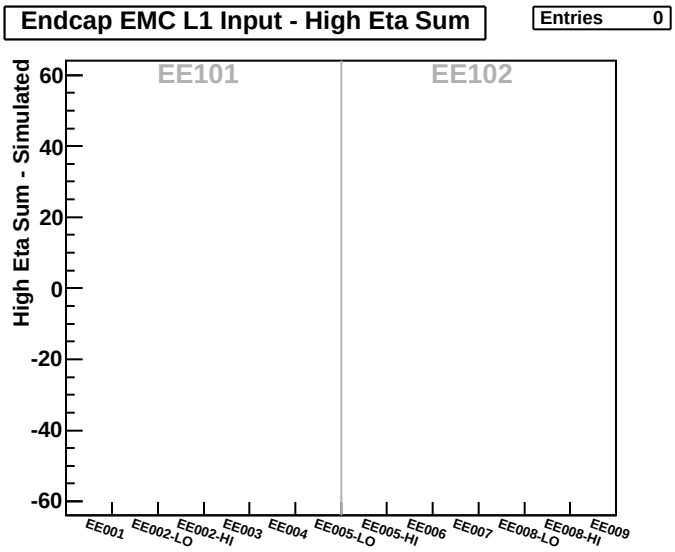

Barrel EMC L1 Input - High Tower Bits
Entries 4165020
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

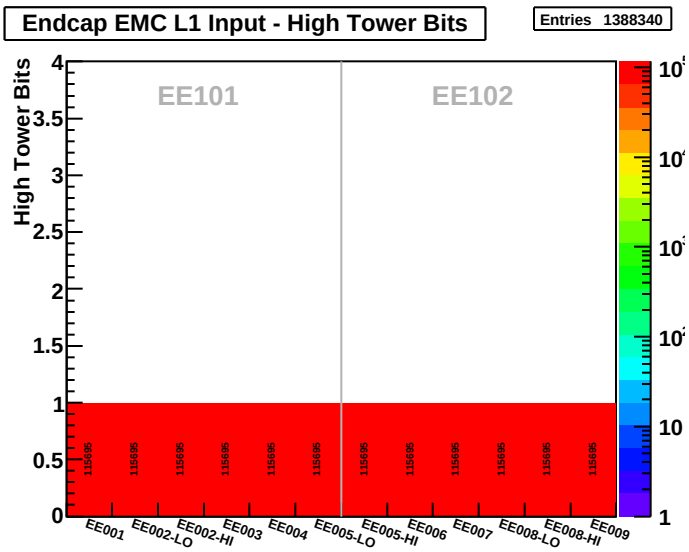

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

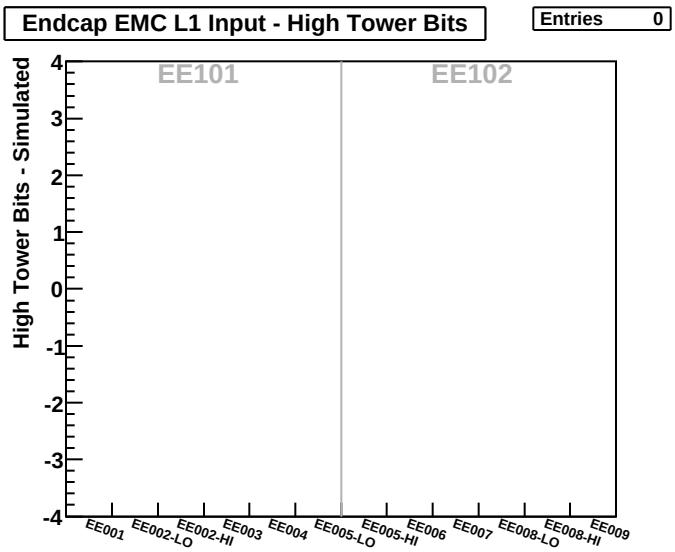

Endcap EMC L1 Input - Low Eta Sum
Entries 1388340
Low Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

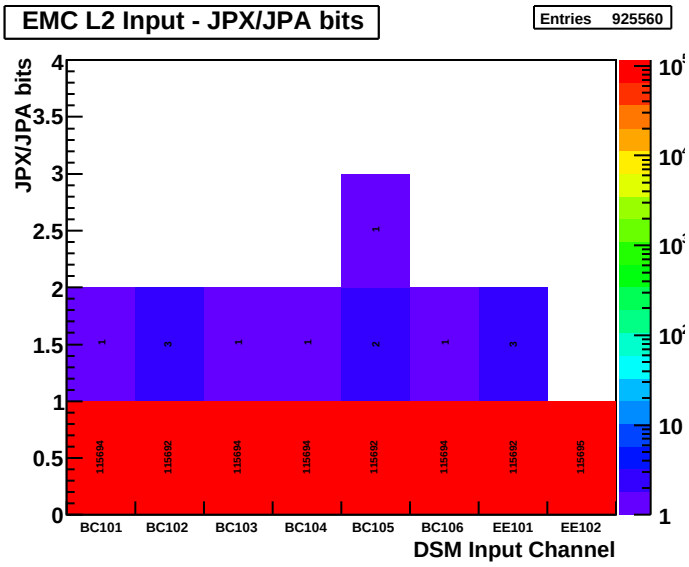

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

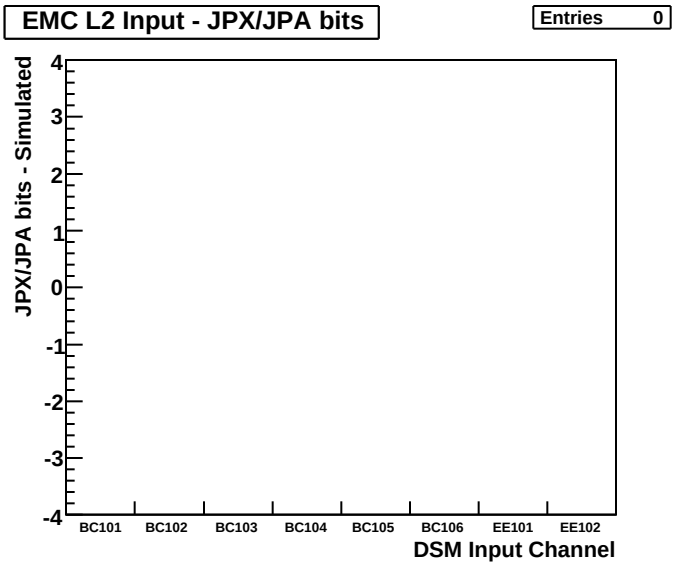

Endcap EMC L1 Input - High Eta Sum
Entries 1388340
High Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

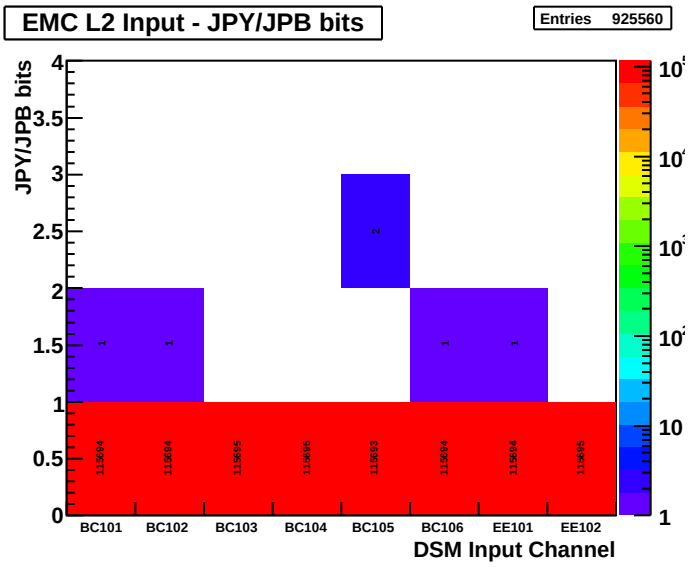

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

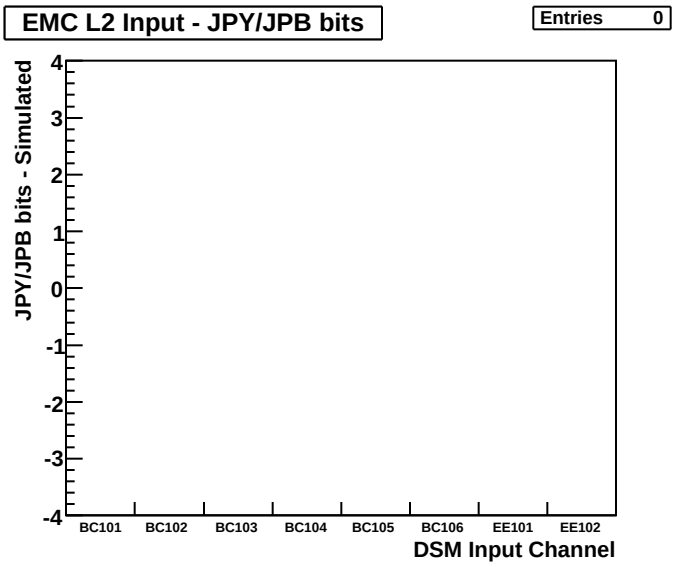

Endcap EMC L1 Input - High Tower Bits
Entries 1388340
High Tower Bits
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

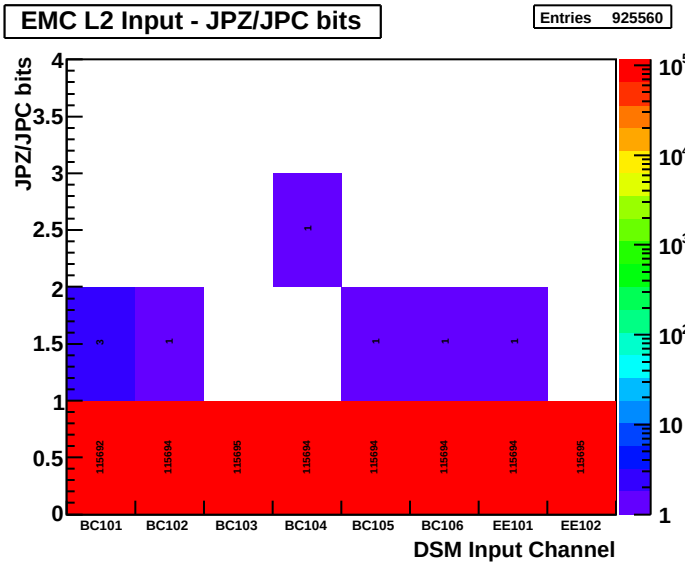

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

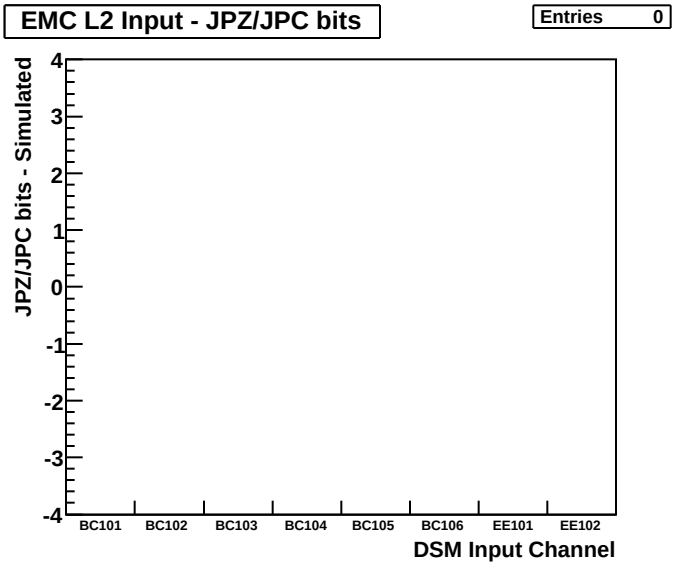

EMC L2 Input - JPX/JPA bits
Entries 925560
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

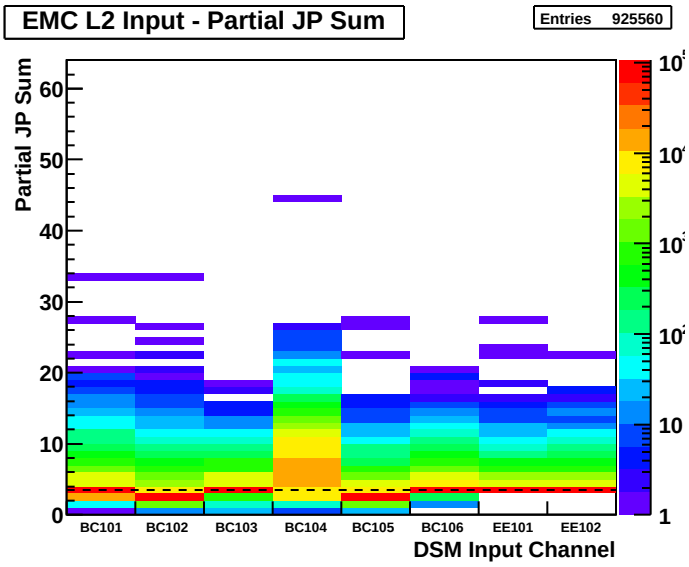

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

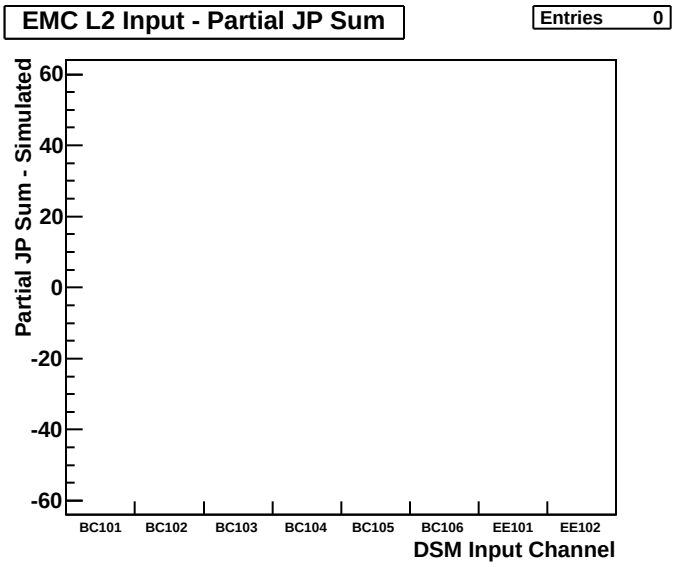

EMC L2 Input - JPY/JPB bits
Entries 925560
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

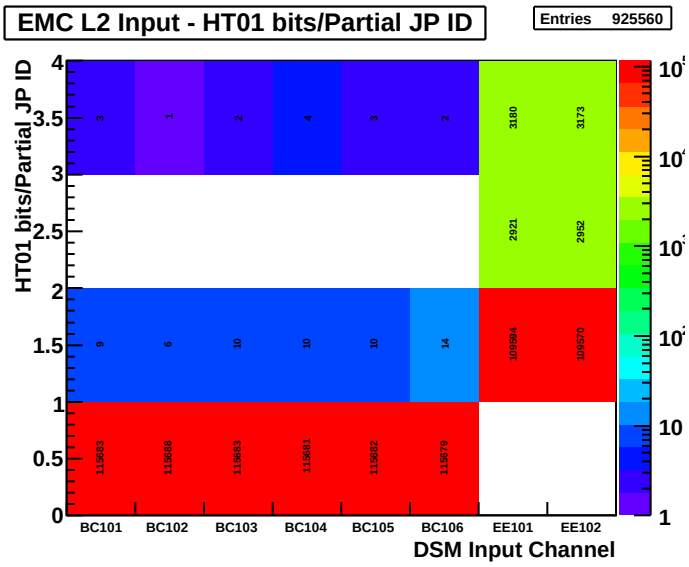

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

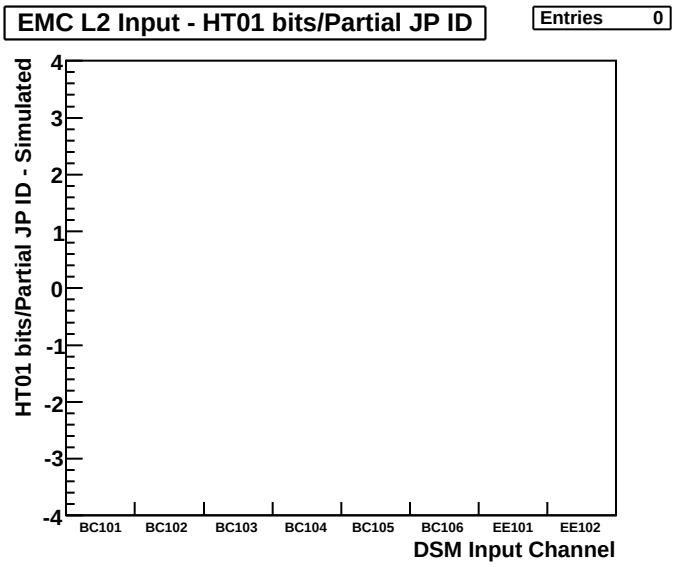

EMC L2 Input - JPZ/JPC bits
Entries 925560
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

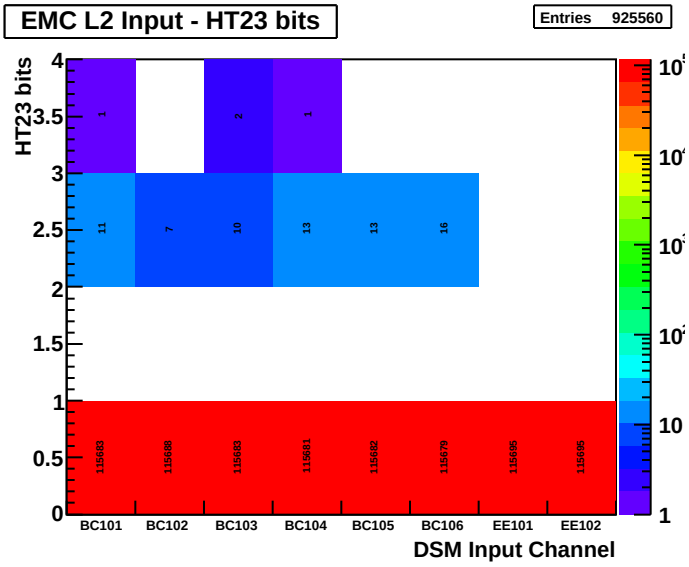

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

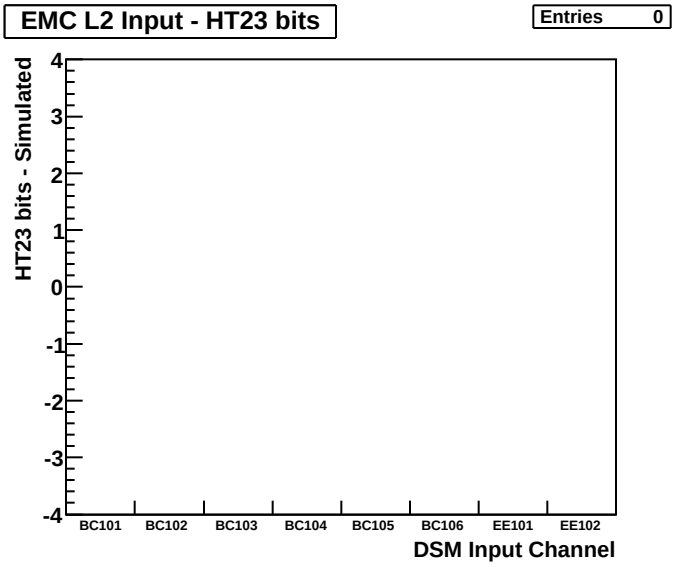

EMC L2 Input - Partial JP Sum
Entries 925560
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

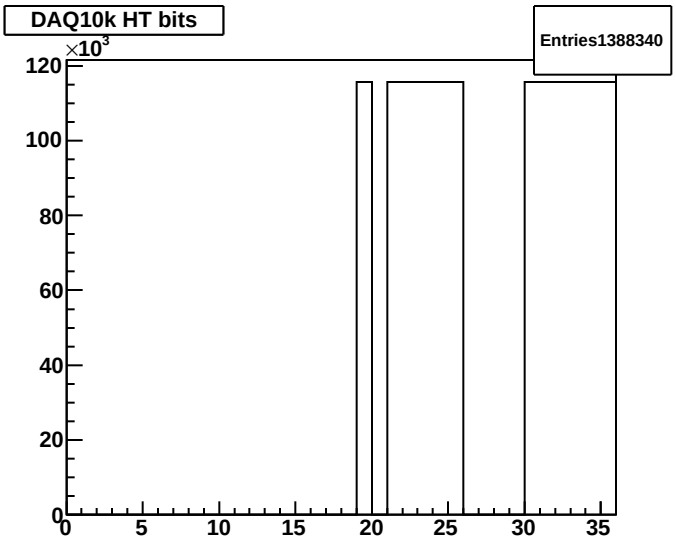

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

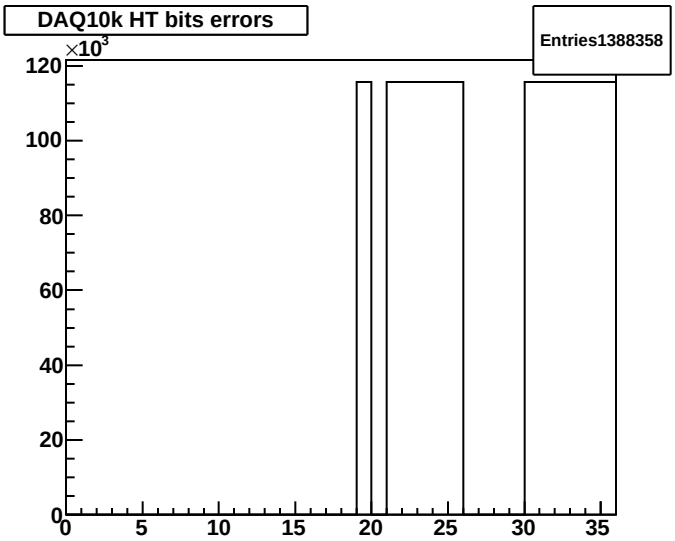

EMC L2 Input - HT01 bits/Partial JP ID
Entries 925560
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

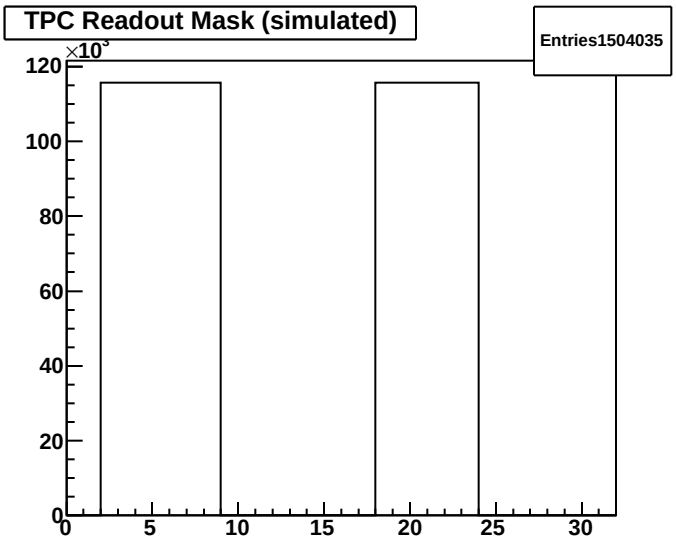

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

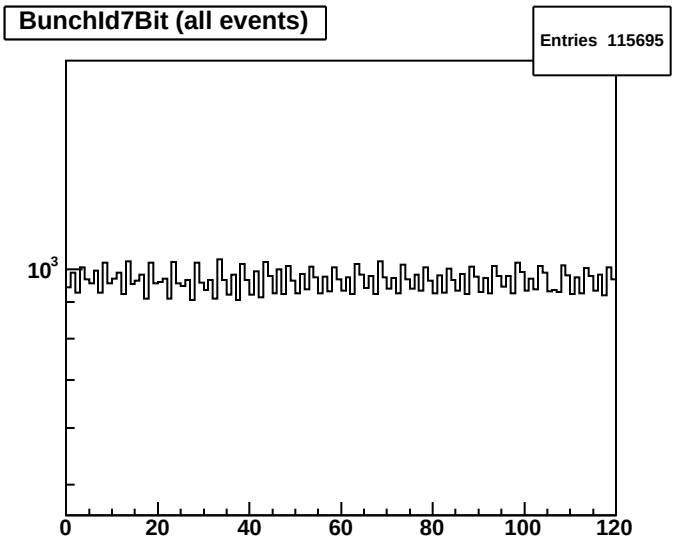

EMC L2 Input - HT23 bits
Entries 925560
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

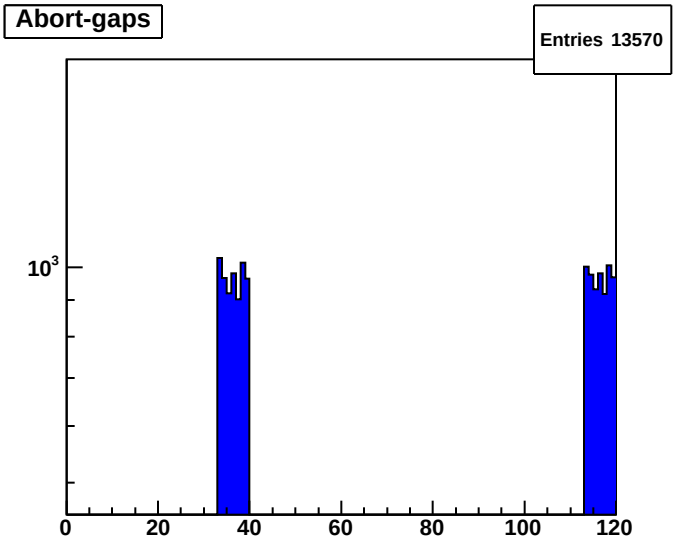

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

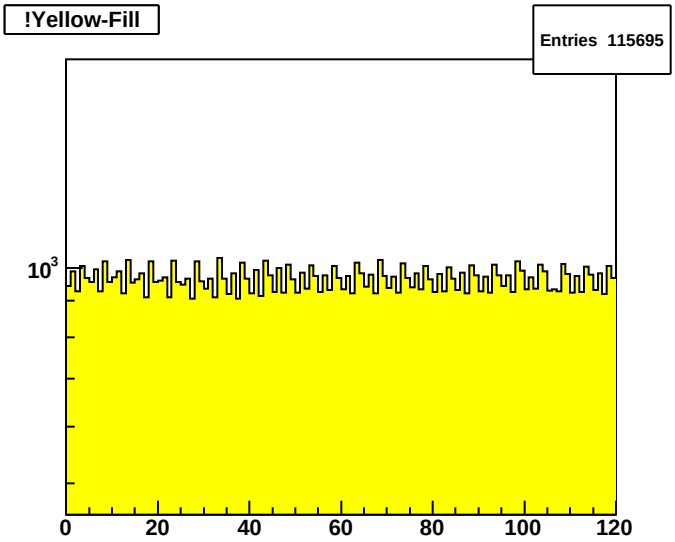

DAQ10k HT bits
Entries1388340
×10^3
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

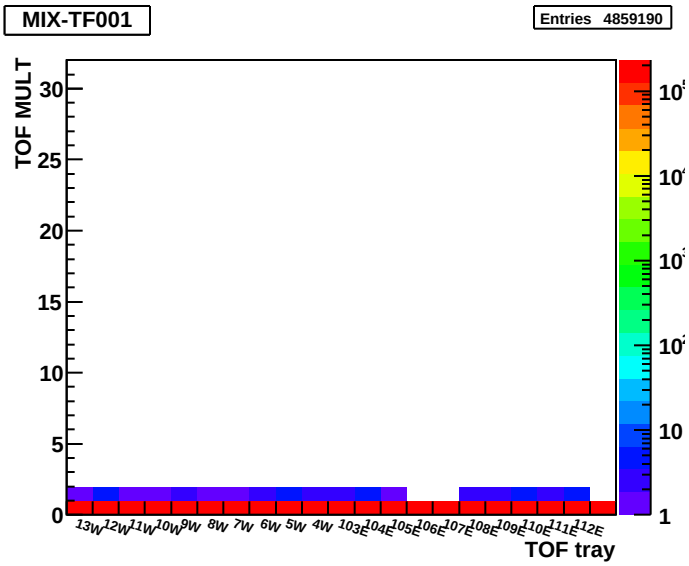

DAQ10k HT bits errors
Entries1388358
×10^3
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

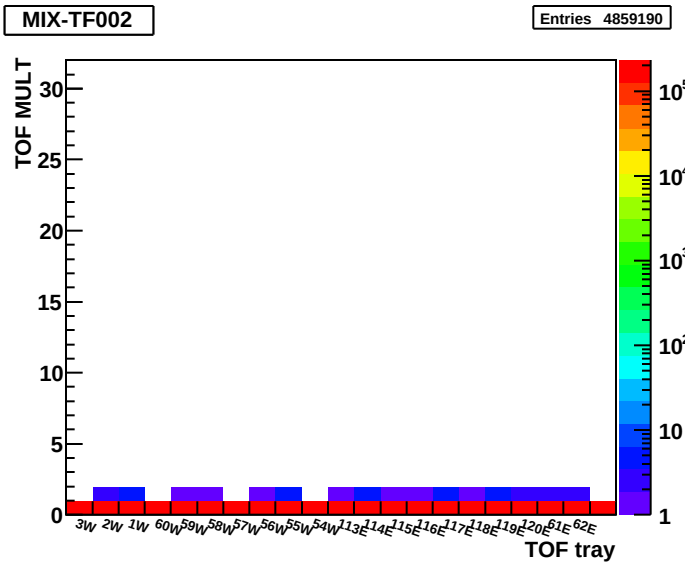

TPC Readout Mask (simulated)
Entries1504035
×10^3
120
100
80
60
40
20
0
0 5 10 15 20 25 30

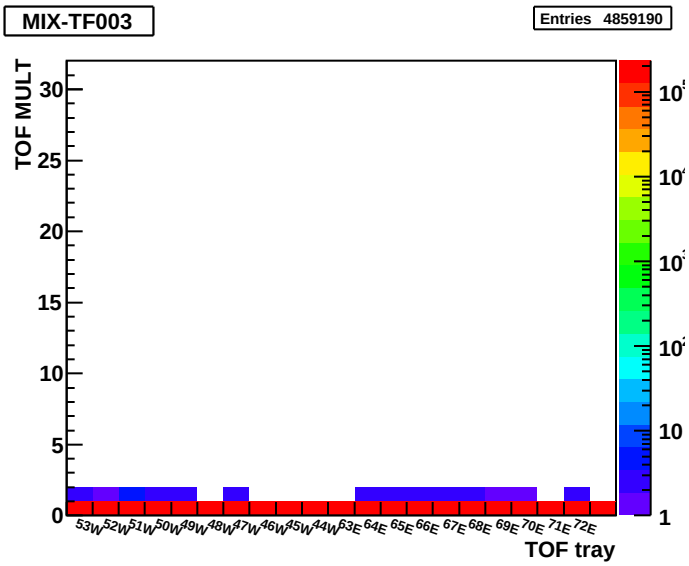

BunchId7Bit (all events)
Entries 115695
10^3
0 20 40 60 80 100 120

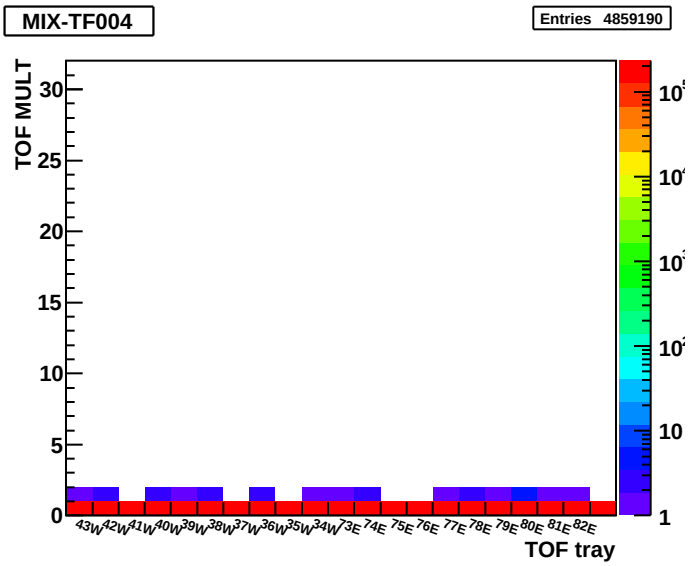

Abort-gaps
Entries 13570
10^3
0 20 40 60 80 100 120

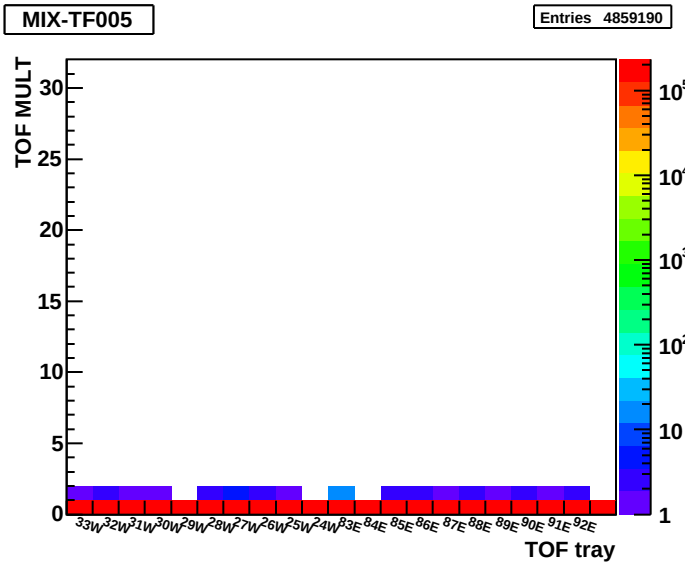

!Yellow-Fill
Entries 115695
10^3
0 20 40 60 80 100 120

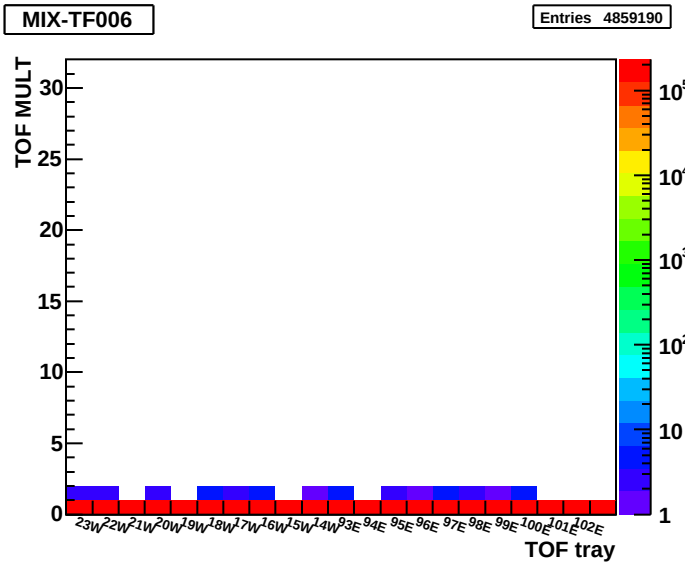

MIX-TF001
Entries 4859190
TOF MULT
TOF tray

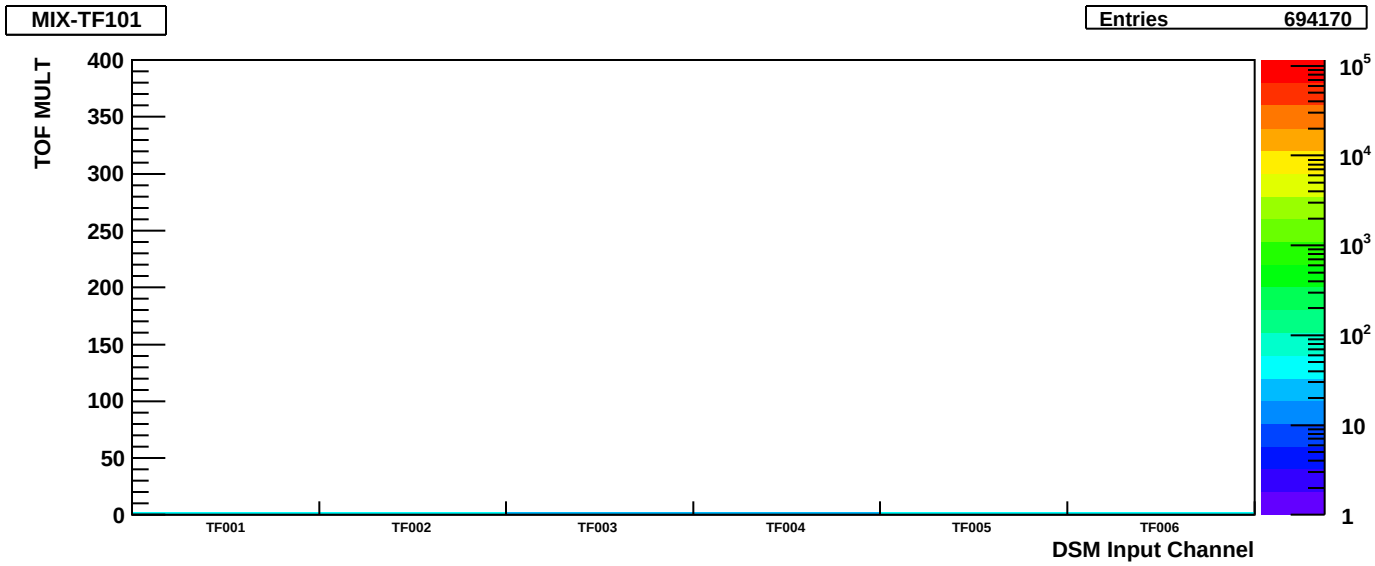

MIX-TF002
Entries 4859190
TOF MULT
TOF tray

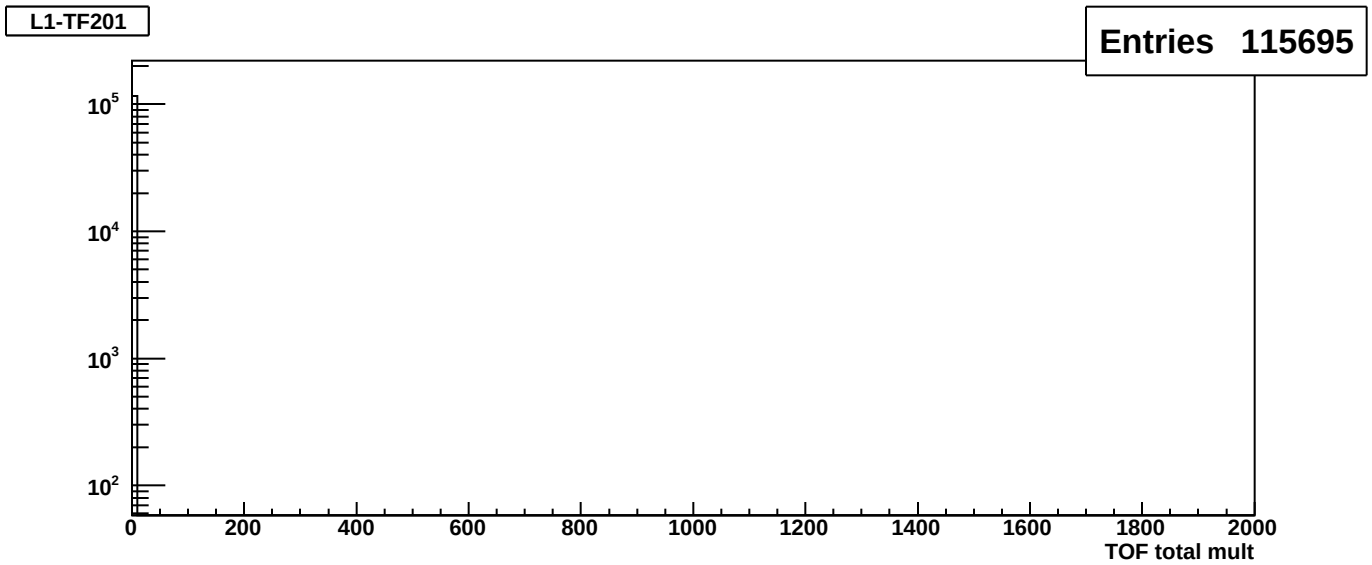

MIX-TF003
Entries 4859190
TOF MULT
TOF tray

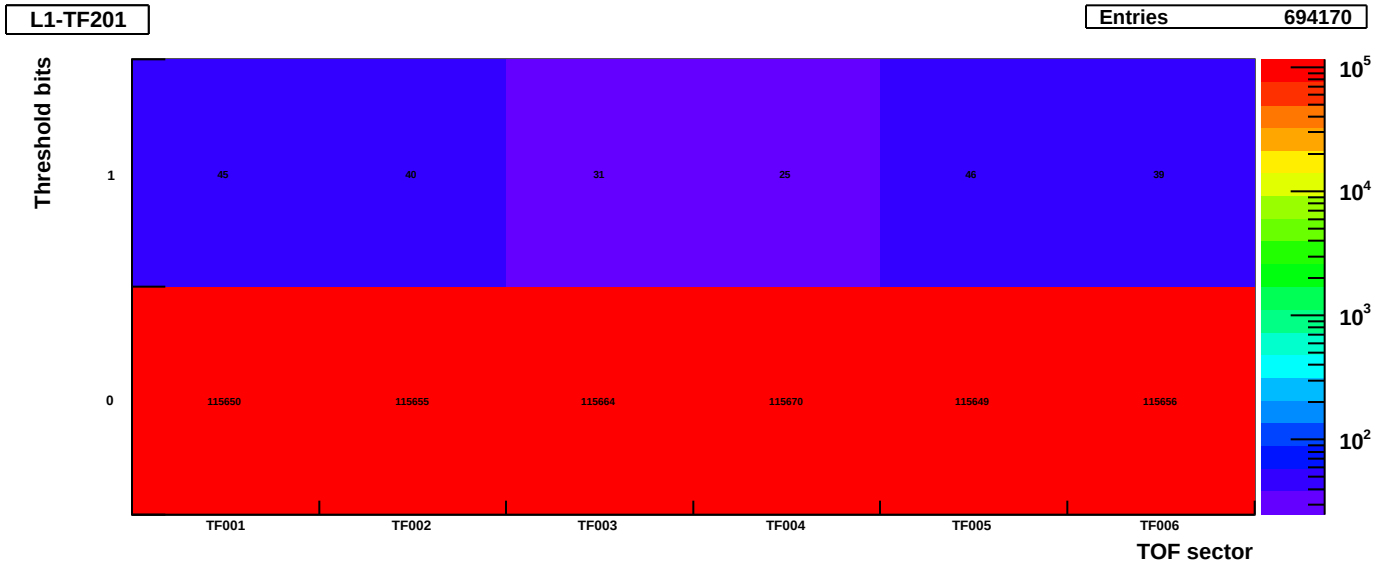

MIX-TF004
Entries 4859190
TOF MULT
TOF tray

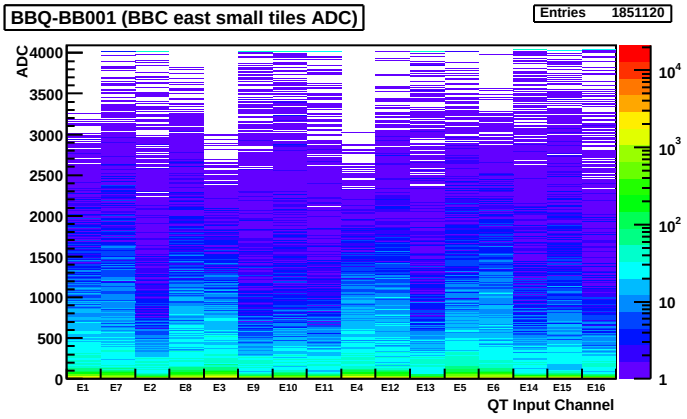

MIX-TF005
Entries 4859190
TOF MULT
TOF tray

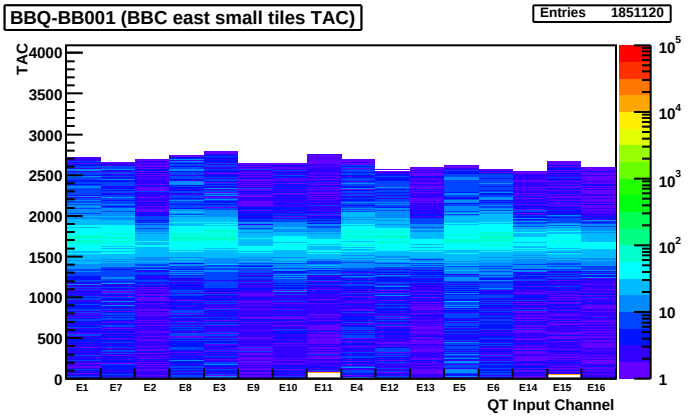

MIX-TF006
Entries 4859190
TOF MULT
TOF tray

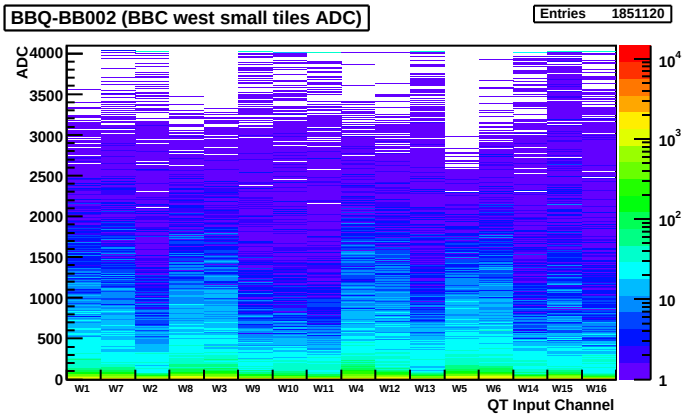

MIX-TF101
Entries 694170
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

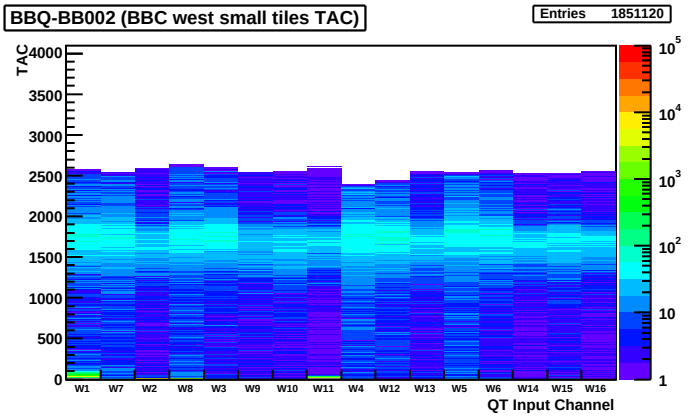

L1-TF201
Entries 115695
10^5
10^4
10^3
10^2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

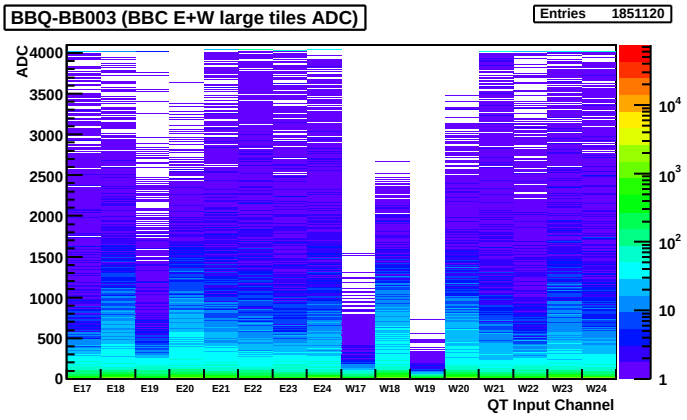

L1-TF201
Entries 694170
Threshold bits
1
0
45
40
31
25
46
39
115650
115655
115664
115670
115649
115656
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4
10^3
10^2

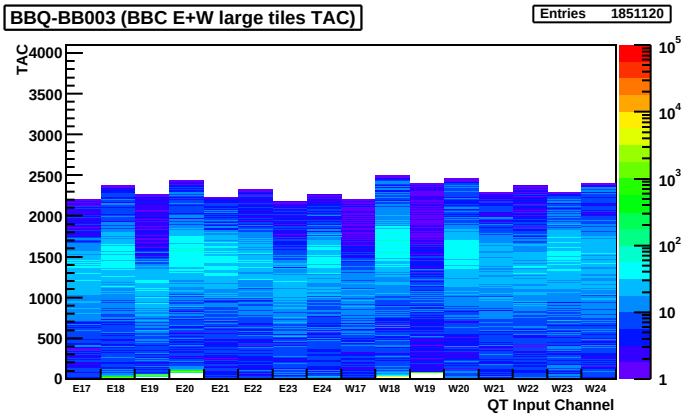

BBQ-BB001 (BBC east small tiles ADC)
Entries 1851120
ADC
QT Input Channel

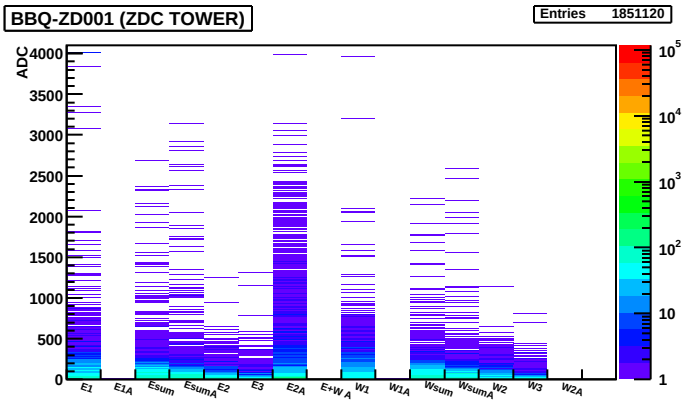

BBQ-BB001 (BBC east small tiles TAC)
Entries 1851120
TAC
QT Input Channel

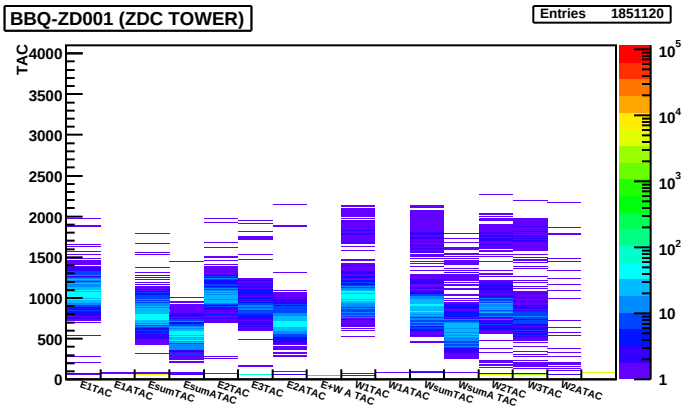

BBQ-BB002 (BBC west small tiles ADC)
Entries 1851120
ADC
QT Input Channel

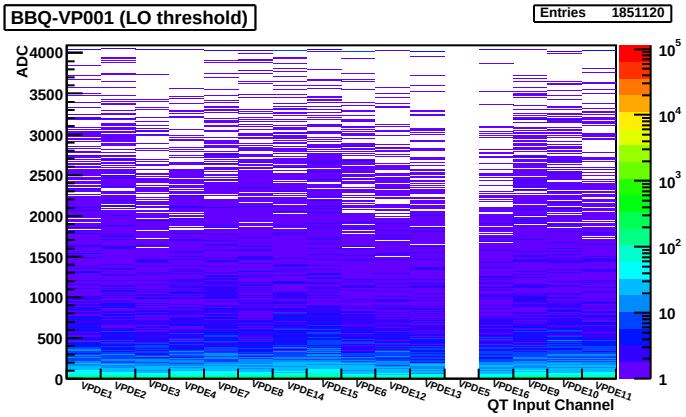

BBQ-BB002 (BBC west small tiles TAC)
Entries 1851120
TAC
QT Input Channel

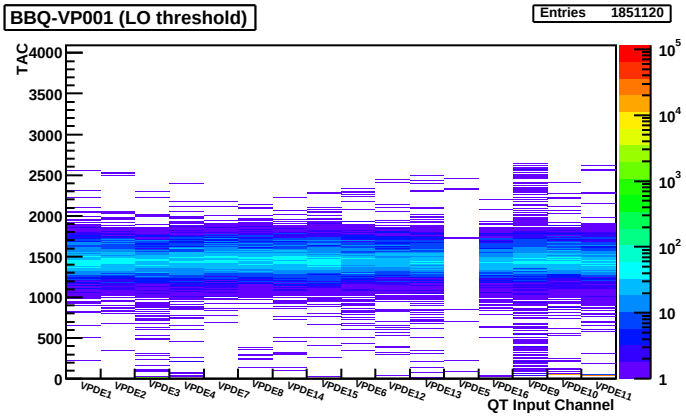

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1851120
ADC
QT Input Channel

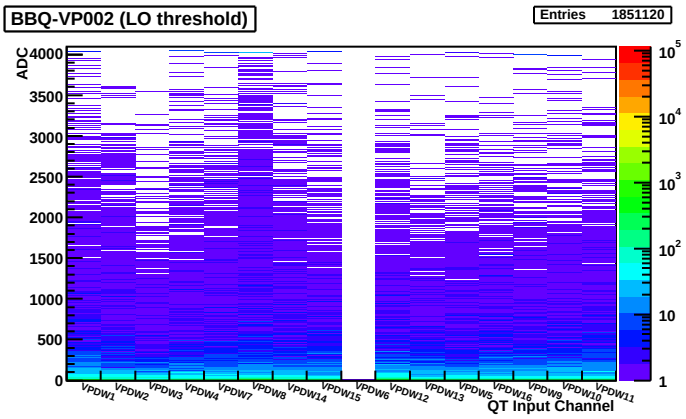

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1851120
TAC
QT Input Channel

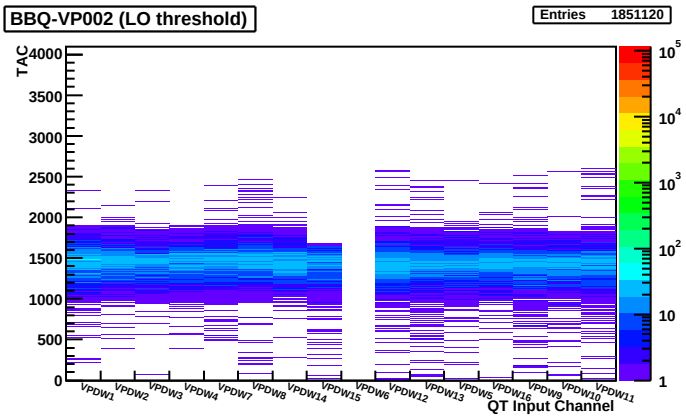

BBQ-ZD001 (ZDC TOWER)
Entries 1851120
ADC

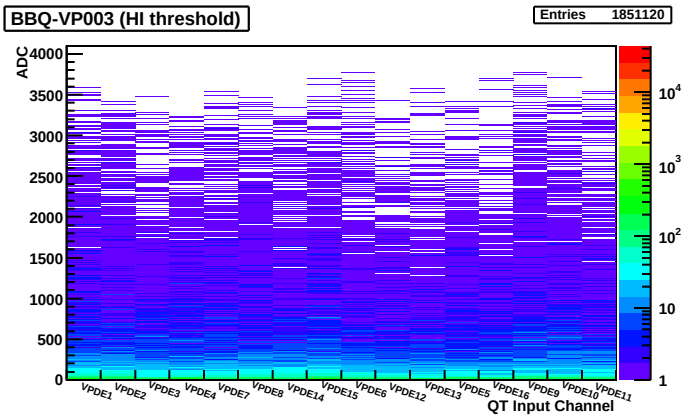

BBQ-ZD001 (ZDC TOWER)
Entries 1851120
TAC

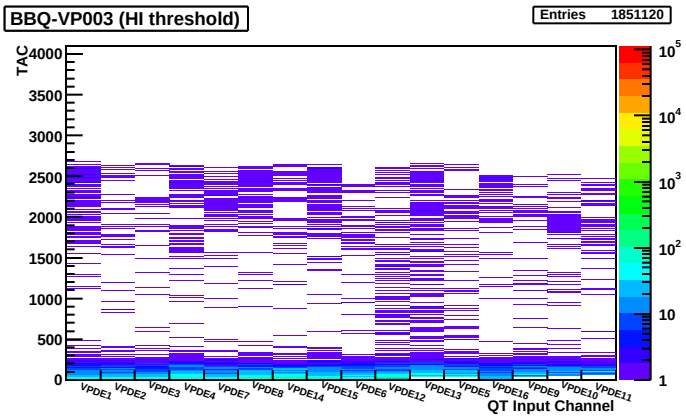

BBQ-VP001 (LO threshold)
Entries 1851120
ADC
QT Input Channel

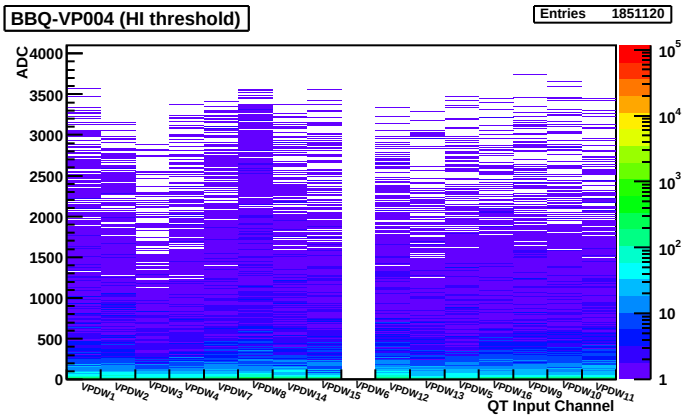

BBQ-VP001 (LO threshold)
Entries 1851120
TAC
QT Input Channel

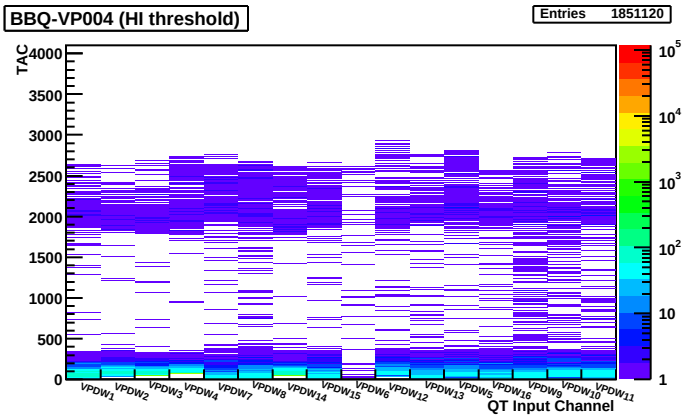

BBQ-VP002 (LO threshold)
Entries 1851120
ADC
QT Input Channel

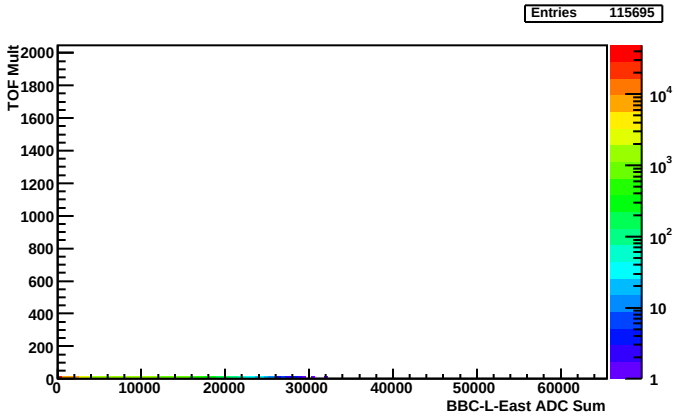

BBQ-VP002 (LO threshold)
Entries 1851120
TAC
QT Input Channel

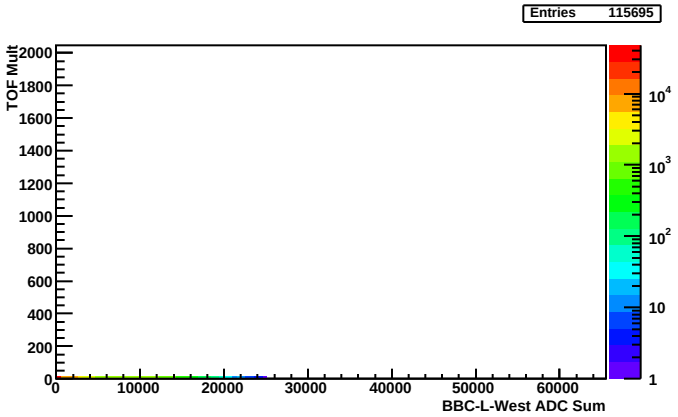

BBQ-VP003 (HI threshold)
Entries 1851120
ADC
QT Input Channel

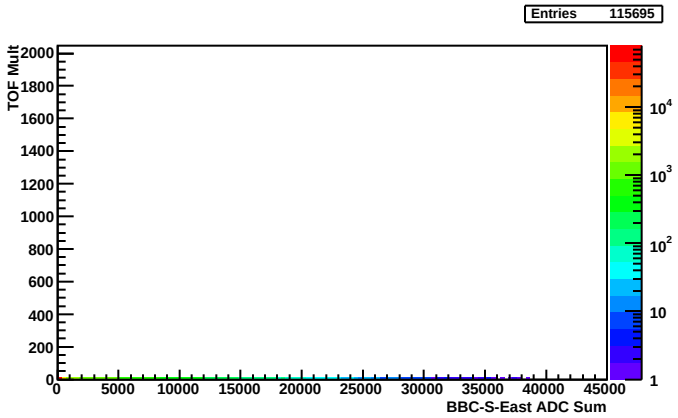

BBQ-VP003 (HI threshold)
Entries 1851120
TAC
QT Input Channel

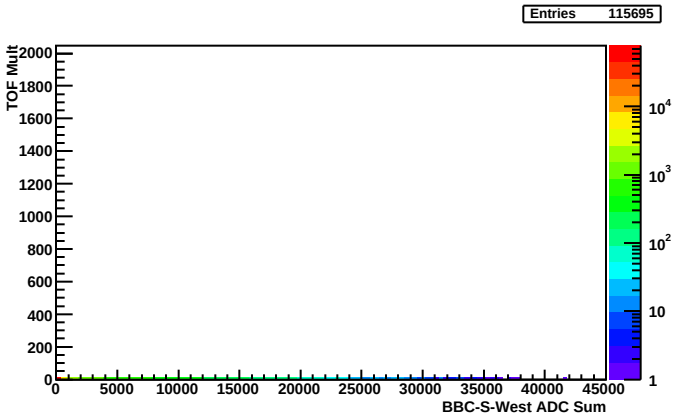

BBQ-VP004 (HI threshold)
Entries 1851120
ADC
QT Input Channel

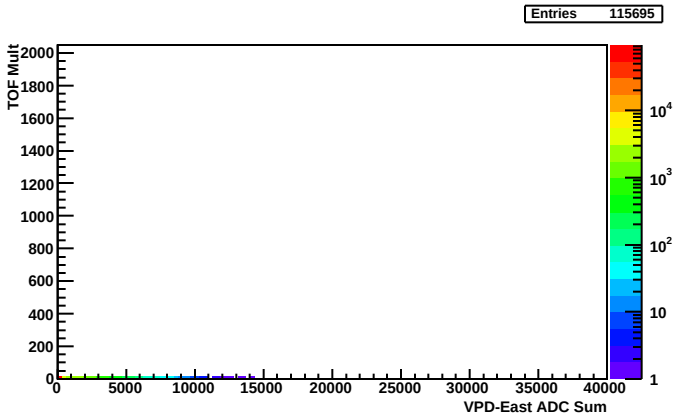

BBQ-VP004 (HI threshold)
Entries 1851120
TAC
QT Input Channel

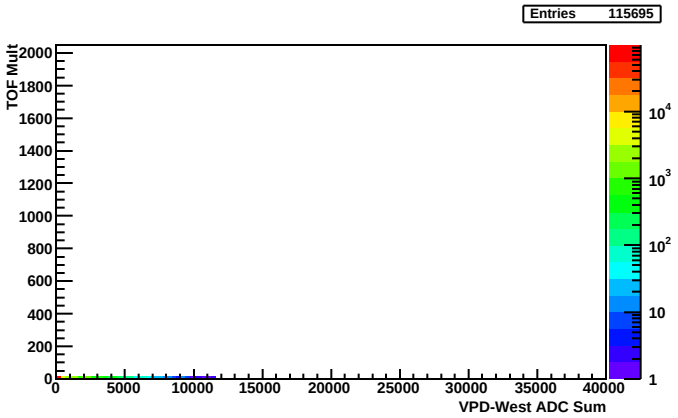

Entries 115695
TOF Mult
BBC-L-East ADC Sum

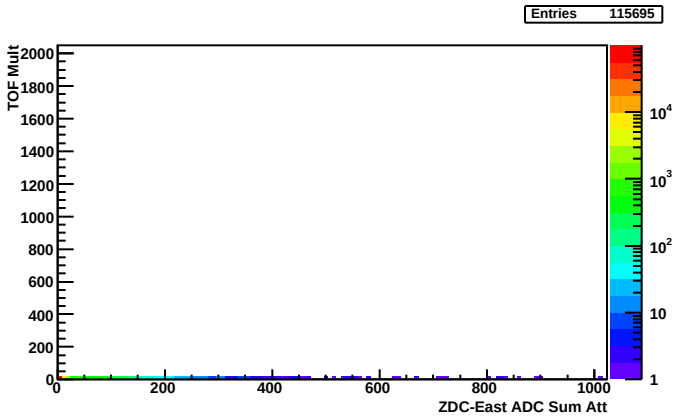

Entries 115695
TOF Mult
BBC-L-West ADC Sum

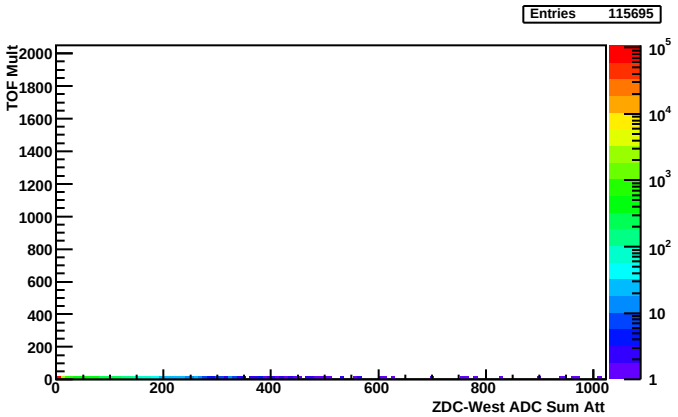

Entries 115695
TOF Mult
BBC-S-East ADC Sum

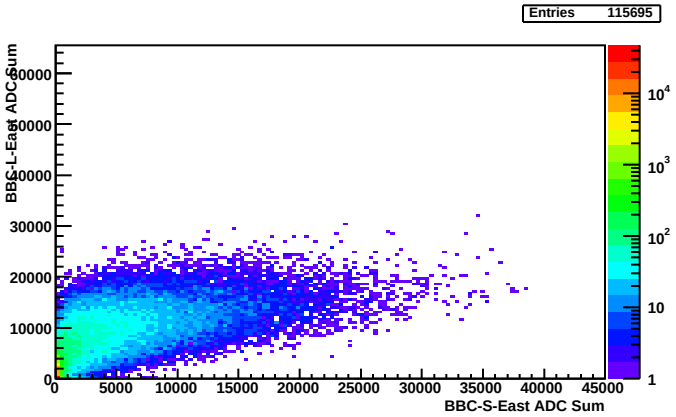

Entries 115695
TOF Mult
BBC-S-West ADC Sum

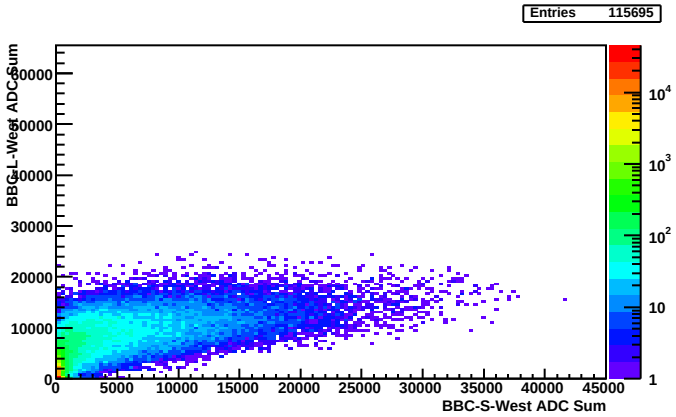

Entries 115695
TOF Mult
VPD-East ADC Sum

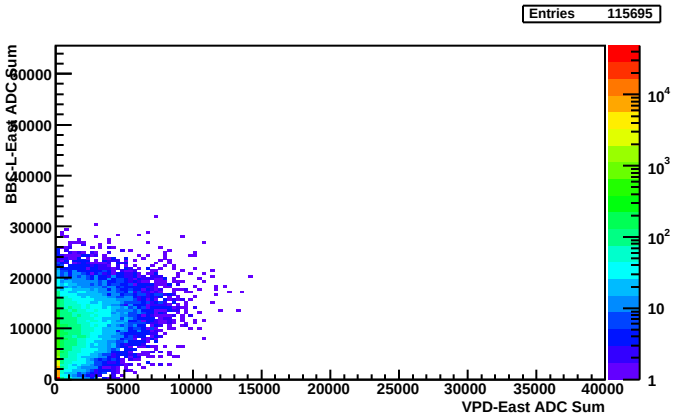

Entries 115695
TOF Mult
VPD-West ADC Sum

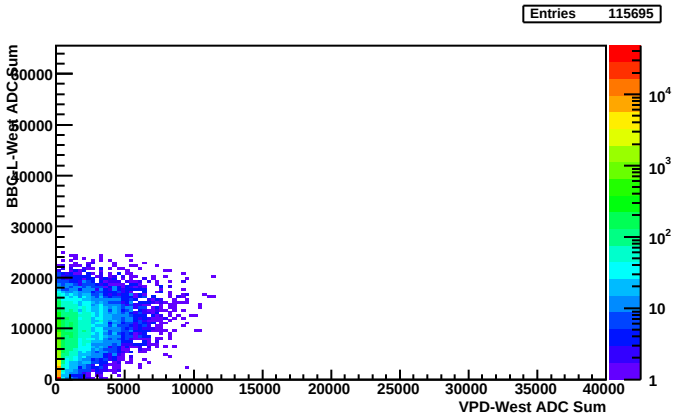

Entries 115695
TOF Mult
ZDC-East ADC Sum Att

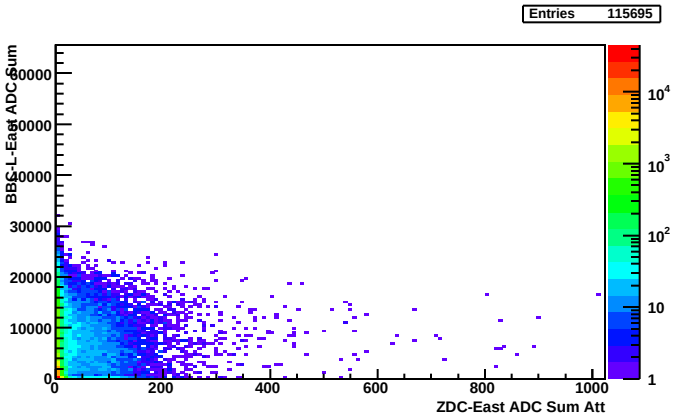

Entries 115695
TOF Mult
ZDC-West ADC Sum Att

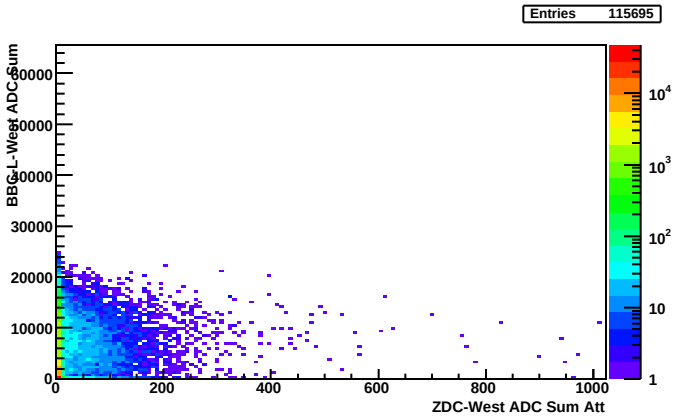

Entries 115695
BBC-L-East ADC Sum
BBC-S-East ADC Sum

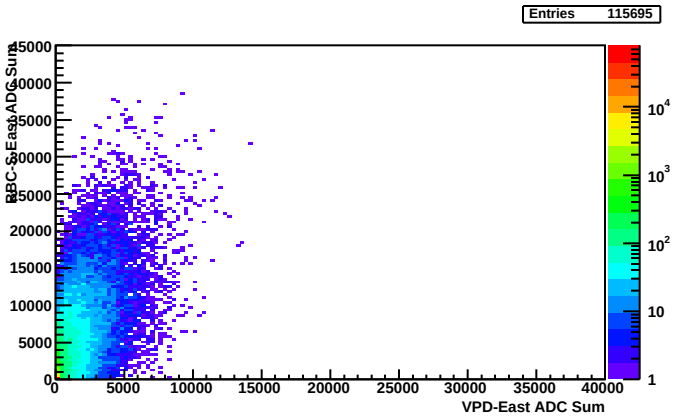

Entries 115695
BBC-L-West ADC Sum
BBC-S-West ADC Sum

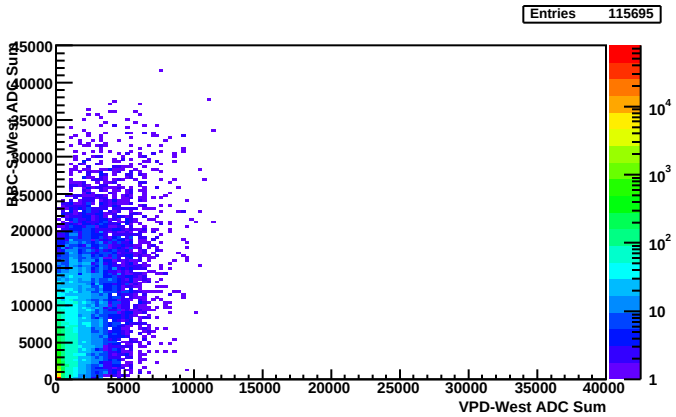

Entries 115695
BBC-L-East ADC Sum
VPD-East ADC Sum

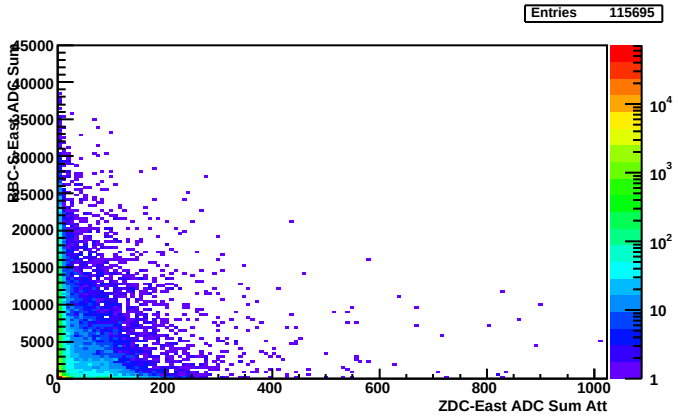

Entries 115695
BBC-L-West ADC Sum
VPD-West ADC Sum

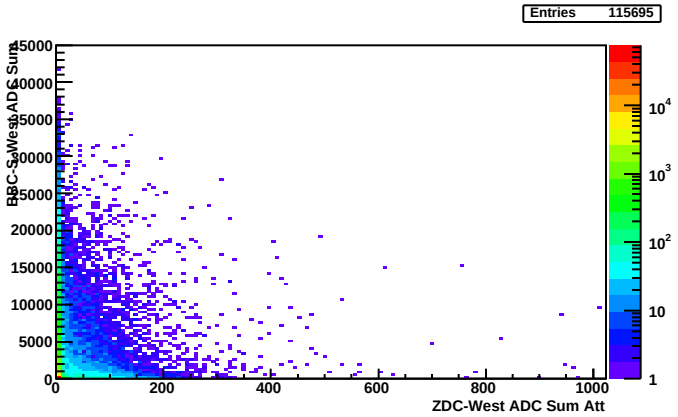

Entries 115695
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

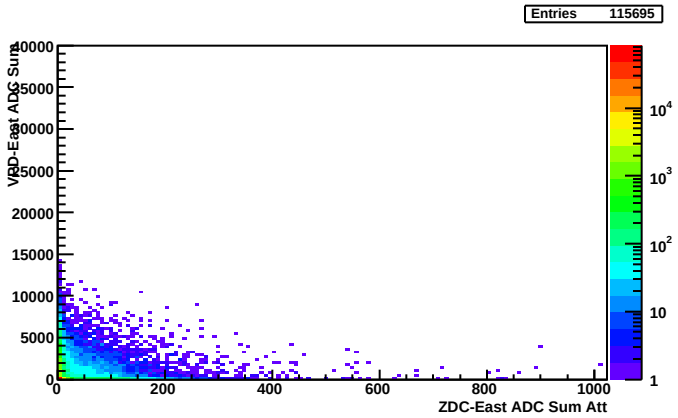

Entries 115695
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

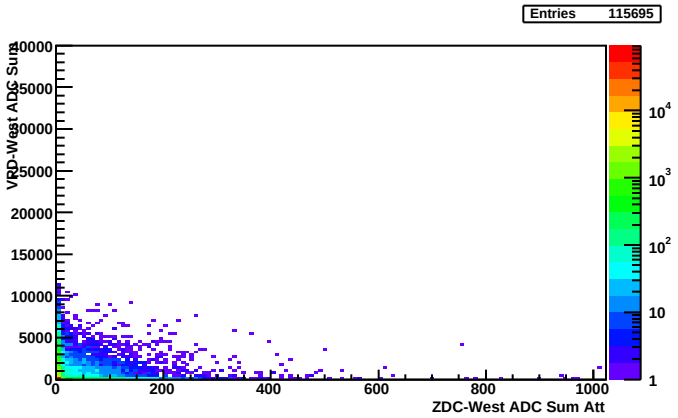

Entries 115695
BBC-S-East ADC Sum
VPD-East ADC Sum

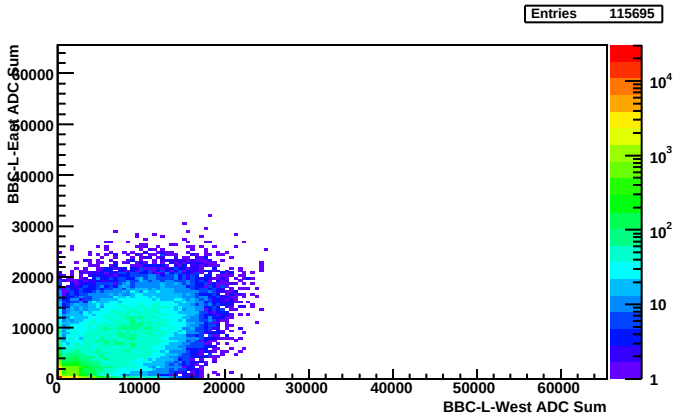

Entries 115695
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 115695
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 115695
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 115695
VPD-East ADC Sum
ZDC-East ADC Sum Att


Entries 115695
VPD-West ADC Sum
ZDC-West ADC Sum Att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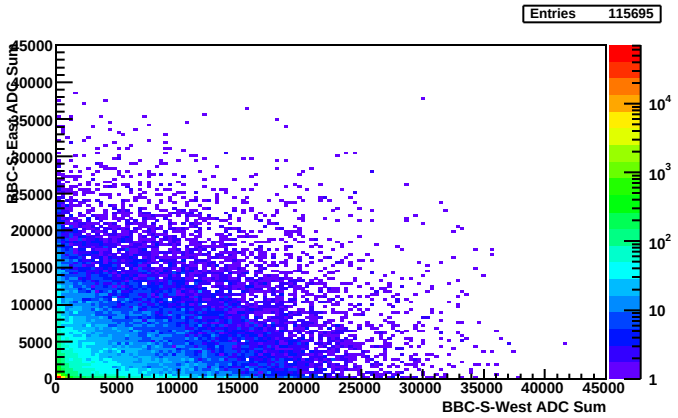
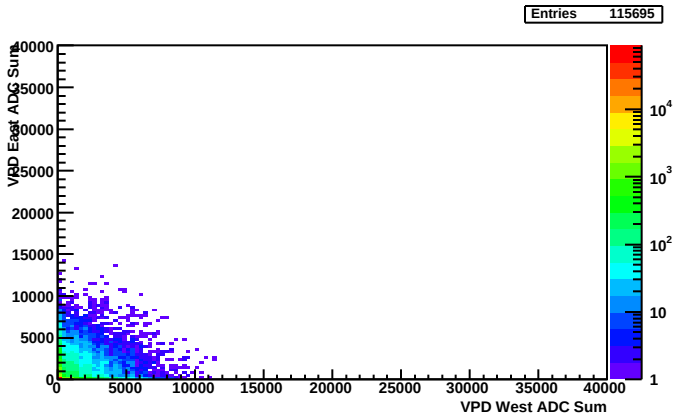
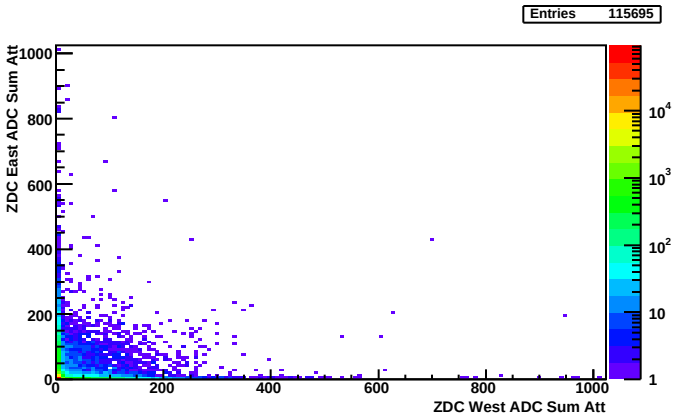
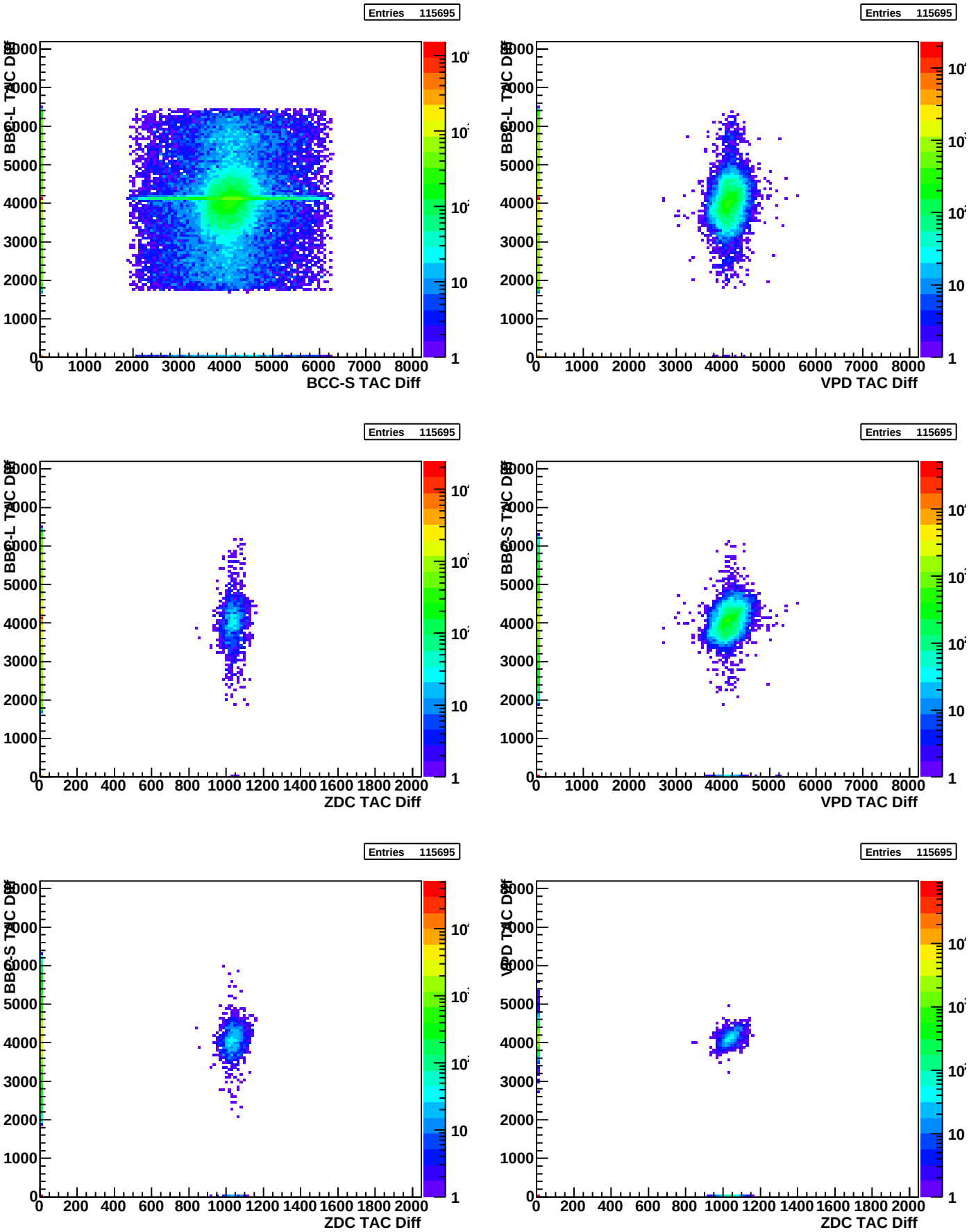
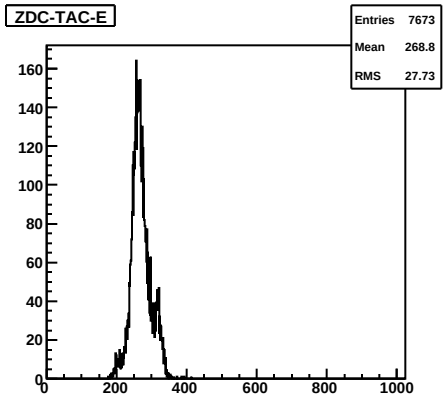
BBC-L-East ADC Sum
BBC-L-West ADC Sum

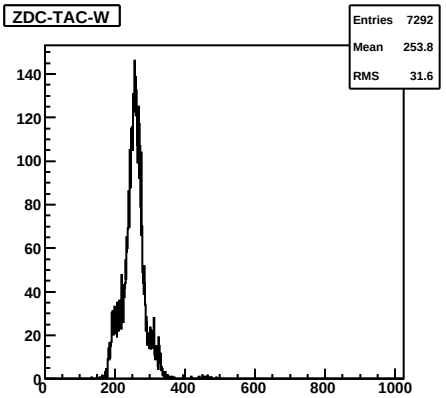

Entries 115695
BBC-S-East ADC Sum
BBC-S-West ADC Sum

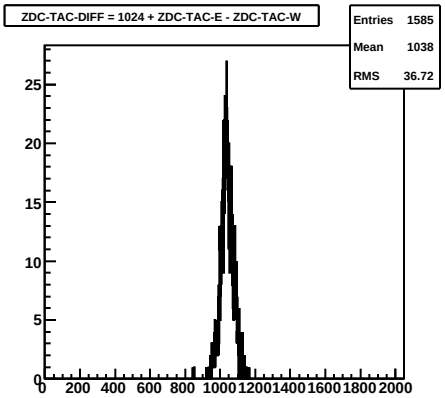

Entries 115695
VPD East ADC Sum
VPD West ADC Sum

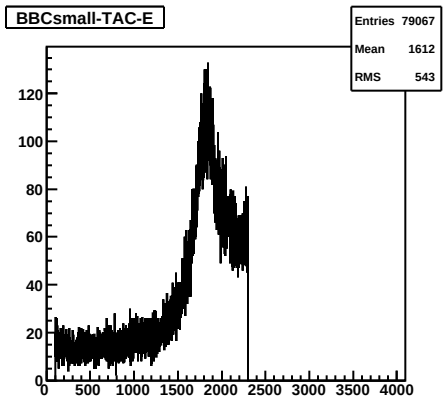

Entries 115695
ZDC East ADC Sum Att
ZDC West ADC Sum Att

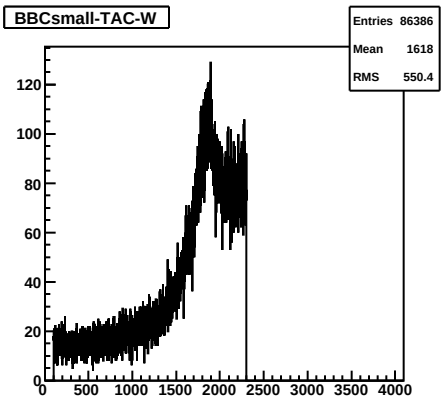

Entries 115695
BBC-L TAC Diff
BCC-S TAC Diff
Entries 115695
BBC-L TAC Diff
VPD TAC Diff
Entries 115695
BBC-L TAC Diff
ZDC TAC Diff
Entries 115695
BBC-S TAC Diff
VPD TAC Diff
Entries 115695
BBC-S TAC Diff
ZDC TAC Diff
Entries 115695
VPD TAC Diff
ZDC TAC Diff

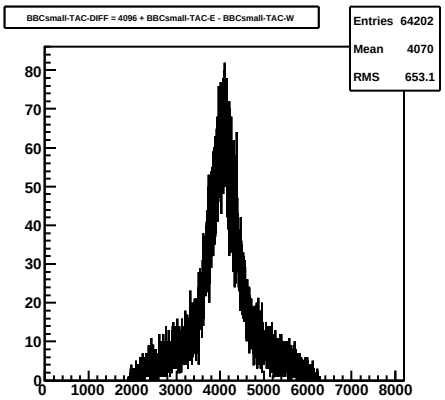

ZDC-TAC-E
Entries 7673
Mean 268.8
RMS 27.73

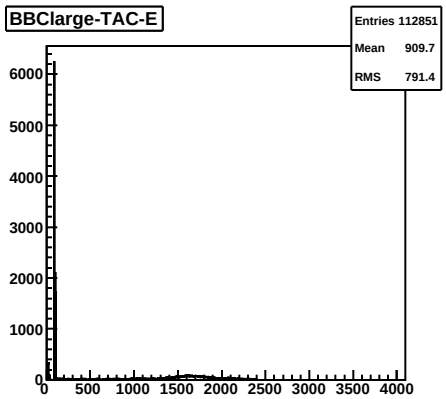

ZDC-TAC-W
Entries 7292
Mean 253.8
RMS 31.6

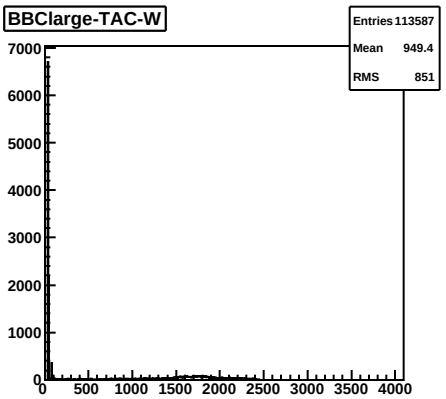

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1585
Mean 1038
RMS 36.72

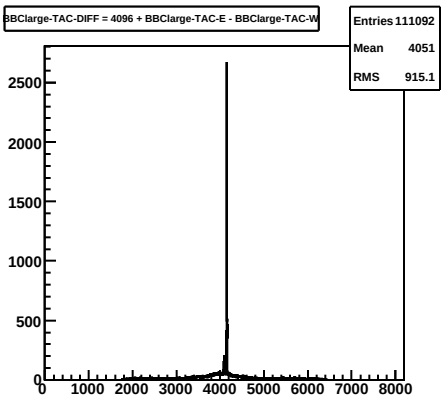

BBCsmall-TAC-E
Entries 79067
Mean 1612
RMS 543

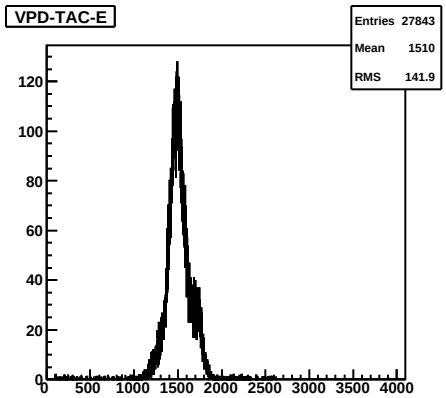

BBCsmall-TAC-W
Entries 86386
Mean 1618
RMS 550.4

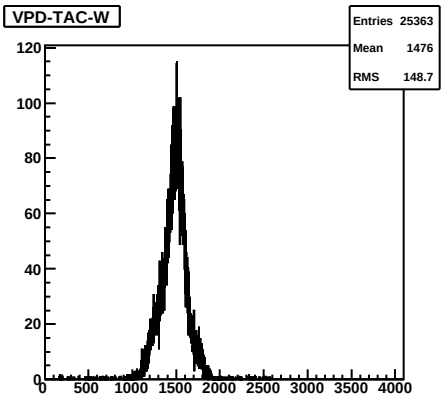

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 64202
Mean 4070
RMS 653.1

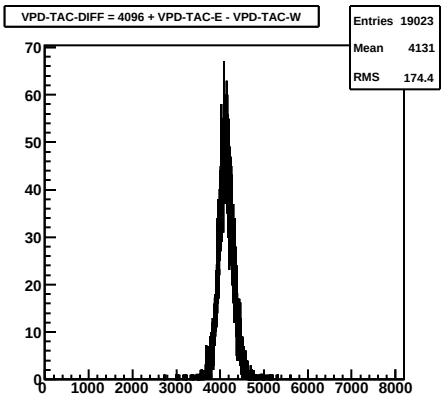

BBClarge-TAC-E
Entries 112851
Mean 909.7
RMS 791.4

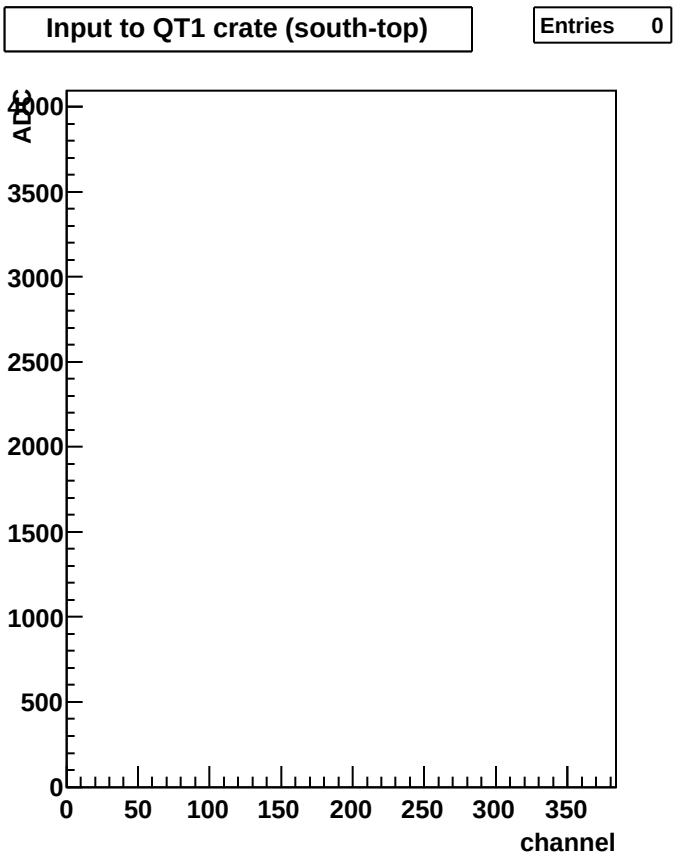

BBClarge-TAC-W
Entries 113587
Mean 949.4
RMS 851

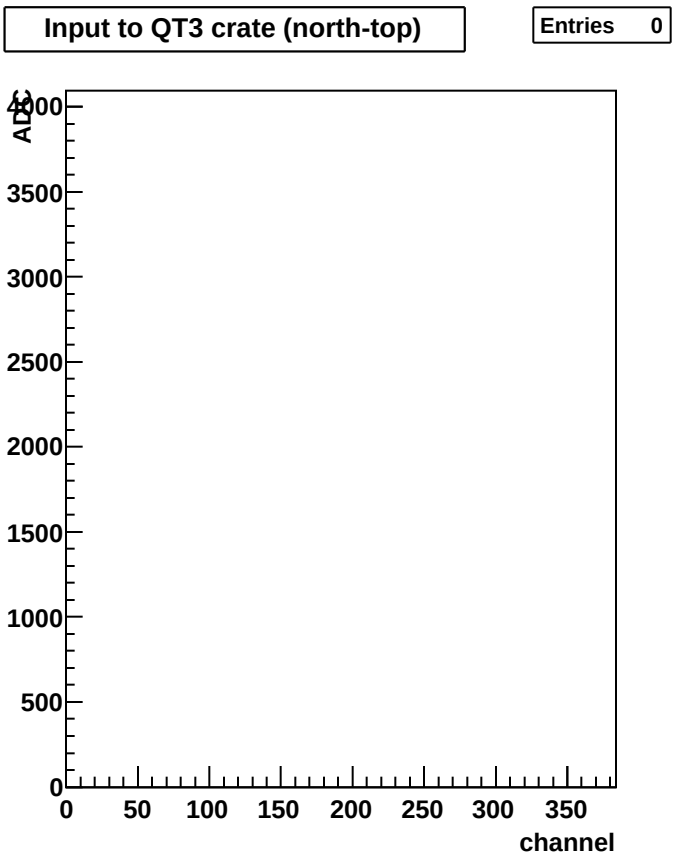

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 111092
Mean 4051
RMS 915.1

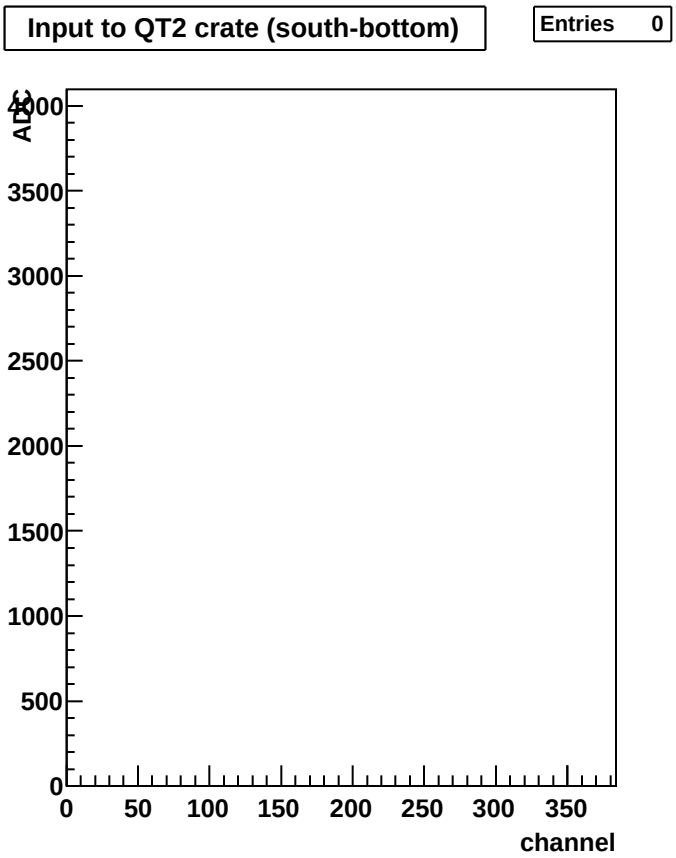

VPD-TAC-E
Entries 27843
Mean 1510
RMS 141.9

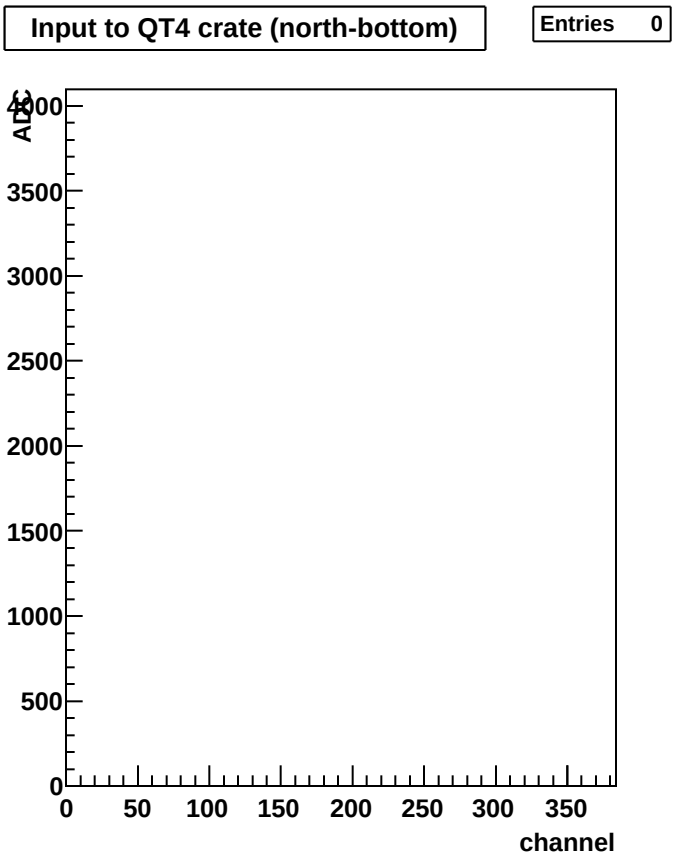

VPD-TAC-W
Entries 25363
Mean 1476
RMS 148.7

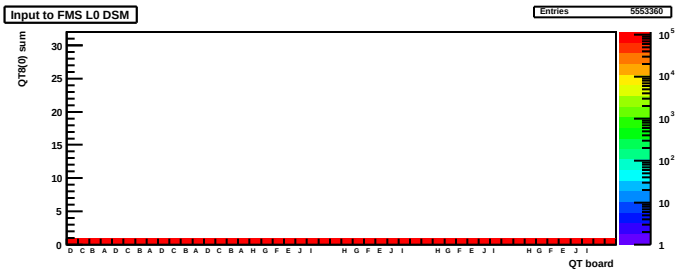

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 19023
Mean 4131
RMS 174.4

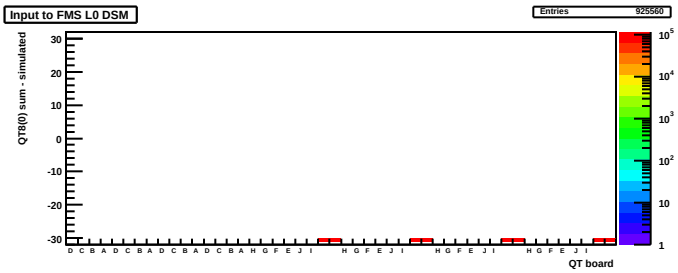

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

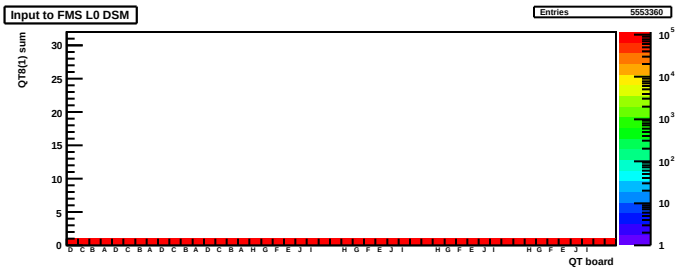

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

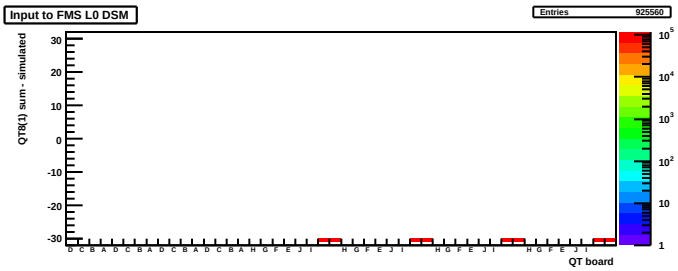

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

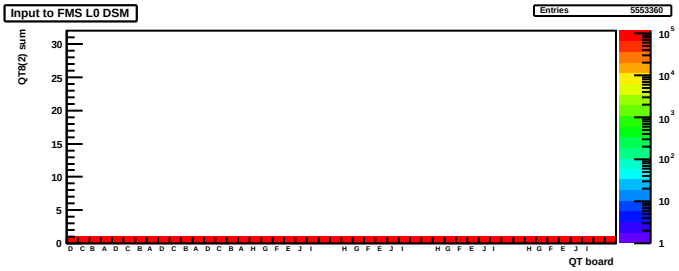

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

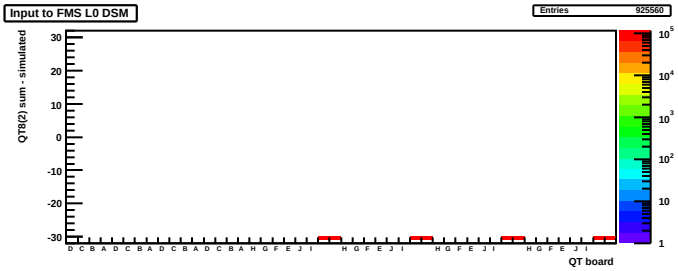

Input to FMS L0 DSM
Entries 5553360
QT8(0) sum
QT board

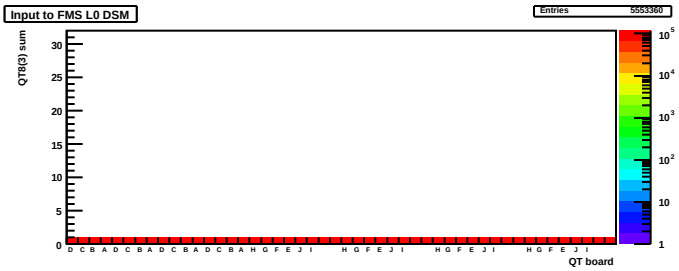

Input to FMS L0 DSM
Entries 925560
QT8(0) sum - simulated
QT board

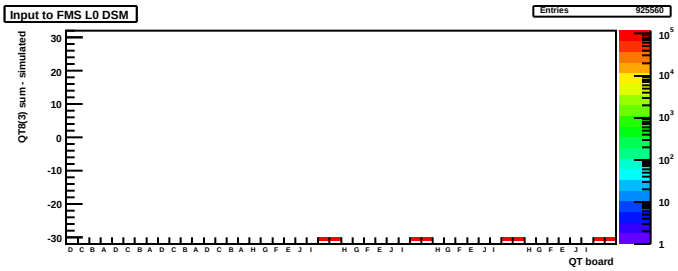

Input to FMS L0 DSM
Entries 5553360
QT8(1) sum
QT board

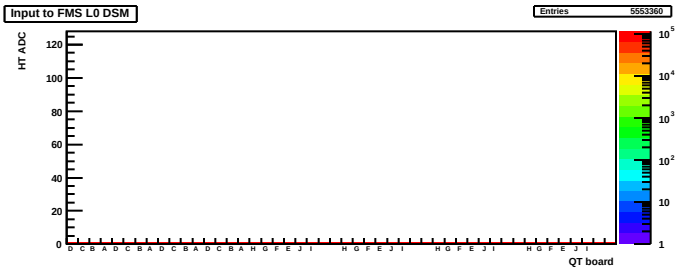

Input to FMS L0 DSM
Entries 925560
QT8(1) sum - simulated
QT board

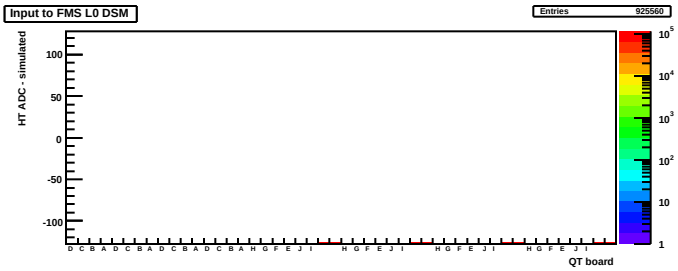

Input to FMS L0 DSM
Entries 5553360
QT8(2) sum
QT board

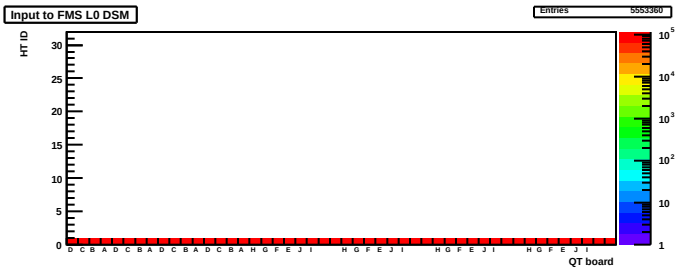

Input to FMS L0 DSM
Entries 925560
QT8(2) sum - simulated
QT board

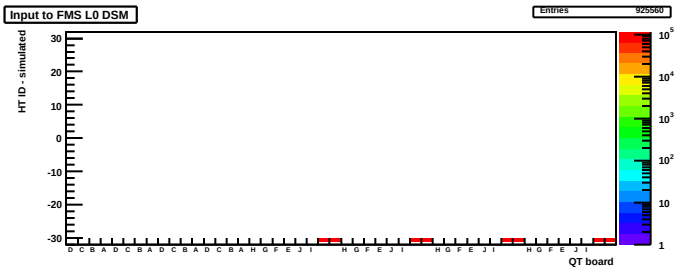

Input to FMS L0 DSM
Entries 5553360
QT8(3) sum
QT board

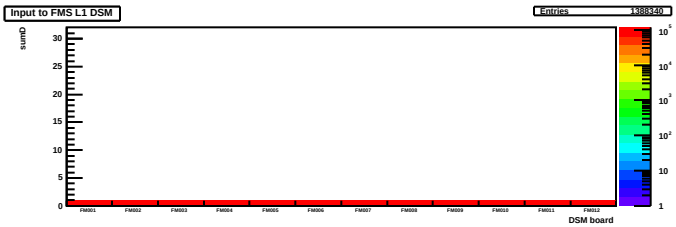

Input to FMS L0 DSM
Entries 925560
QT8(3) sum - simulated
QT board

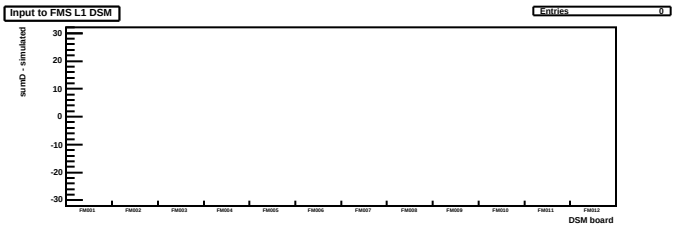

Input to FMS L0 DSM
Entries 5553360
HT ADC
QT board

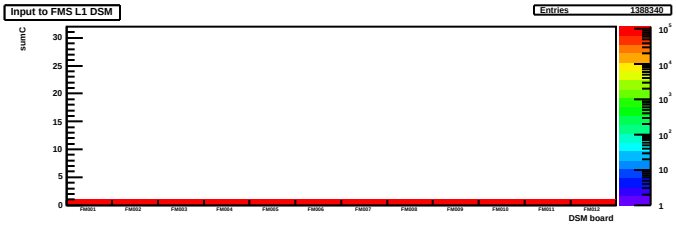

Input to FMS L0 DSM
Entries 925560
HT ADC - simulated
QT board

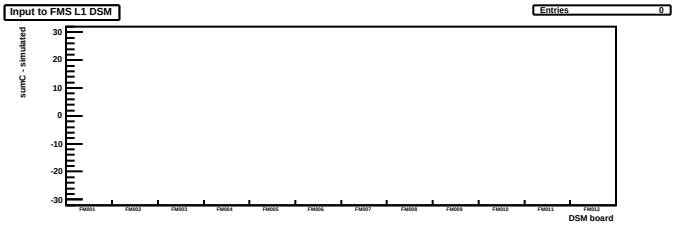

Input to FMS L0 DSM
Entries 5553360
HT ID
QT board

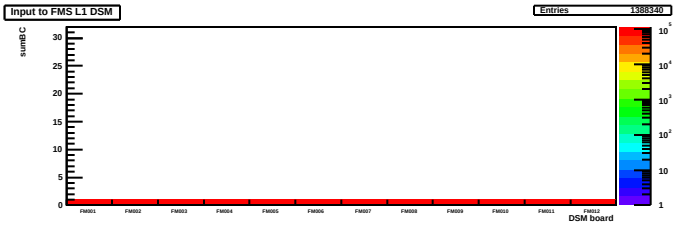

Input to FMS L0 DSM
Entries 925560
HT ID - simulated
QT board

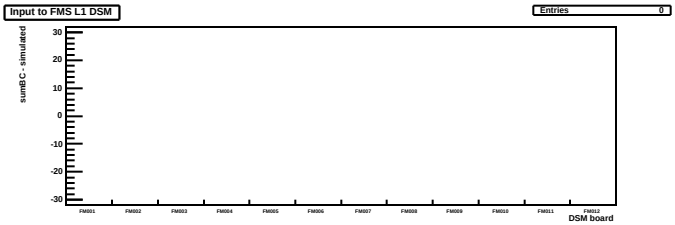

Input to FMS L1 DSM
Entries 1388340
sumD
DSM board

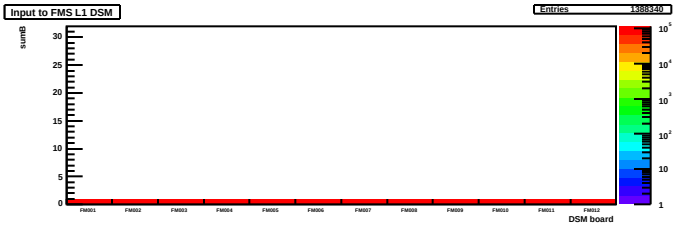

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

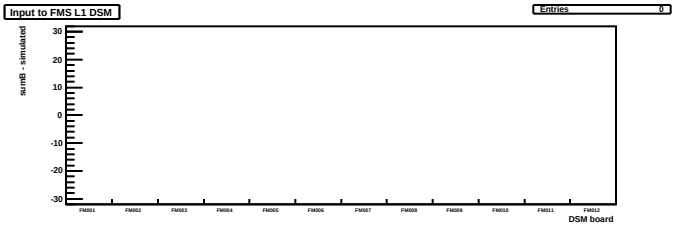

Input to FMS L1 DSM
Entries 1388340
sumC
DSM board

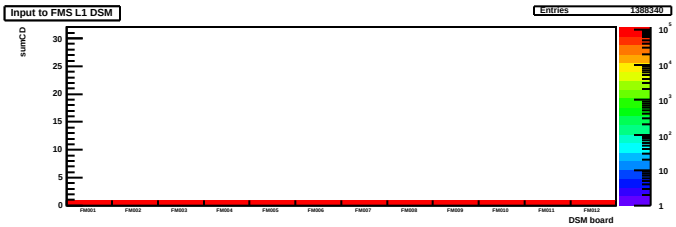

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

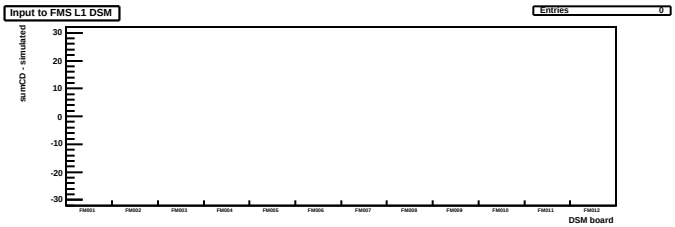

Input to FMS L1 DSM
Entries 1388340
sumBC
DSM board

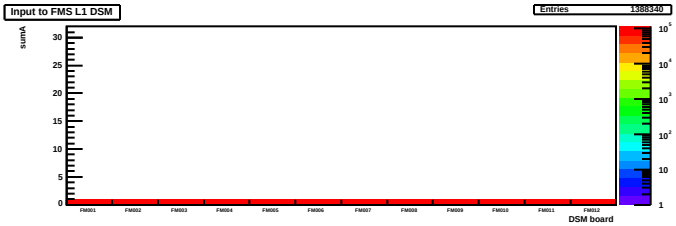

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

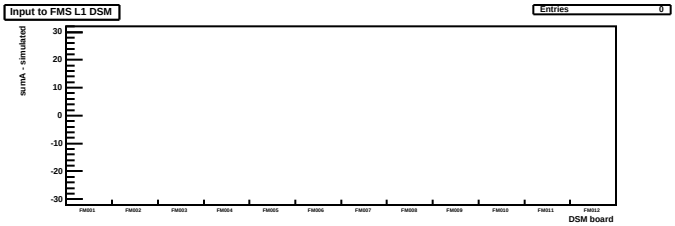

Input to FMS L1 DSM
Entries 1388340
sumB
DSM board

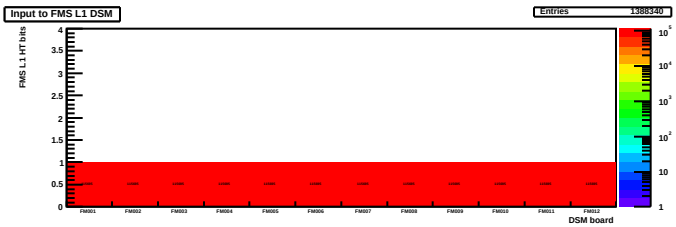

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

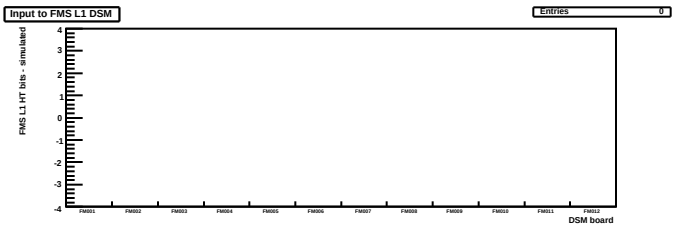

Input to FMS L1 DSM
Entries 1388340
sumCD
DSM board

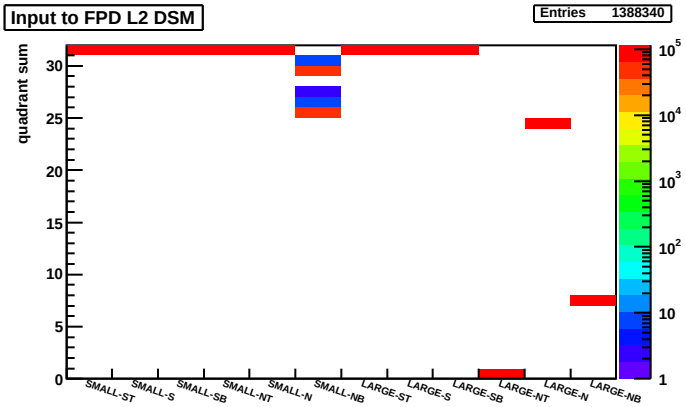

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

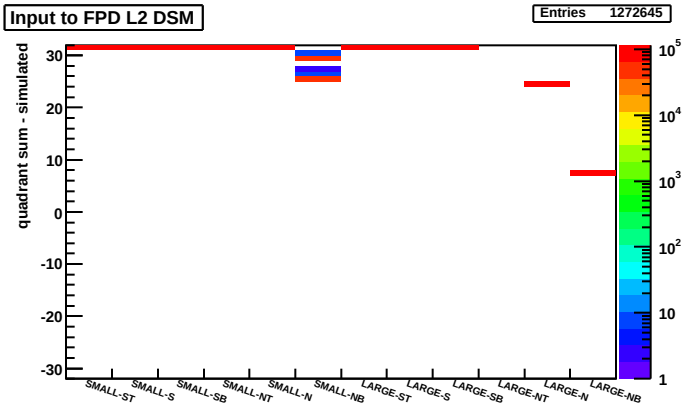

Input to FMS L1 DSM
Entries 1388340
sumA
DSM board

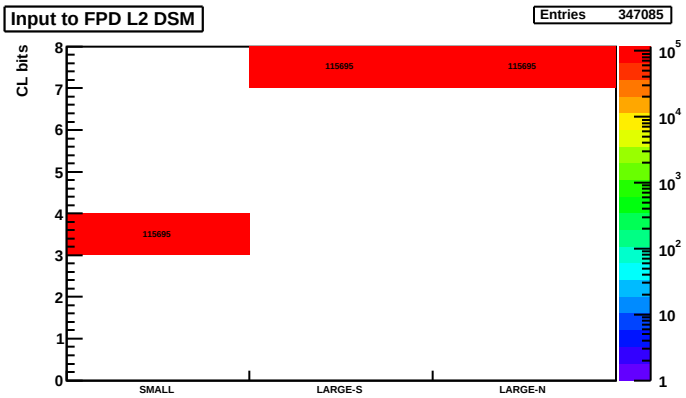

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

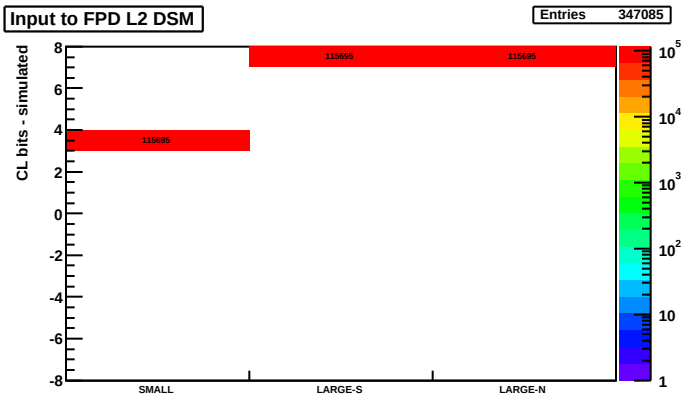

Input to FMS L1 DSM
Entries 1388340
FMS L1 HT bits
DSM board

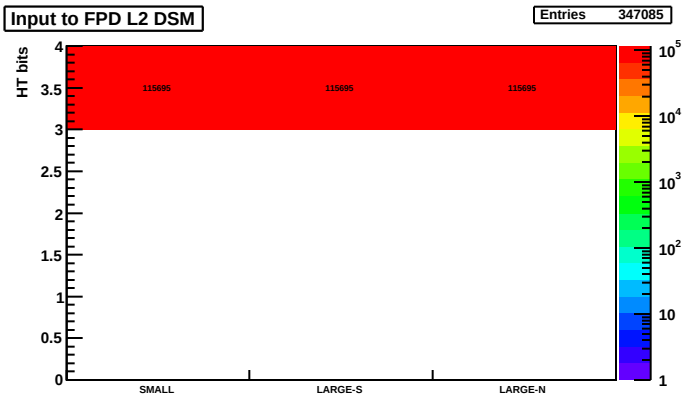

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

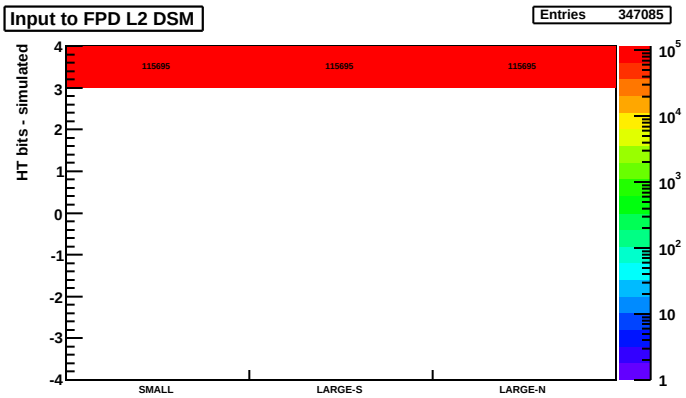

Input to FPD L2 DSM
Entries 1388340
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

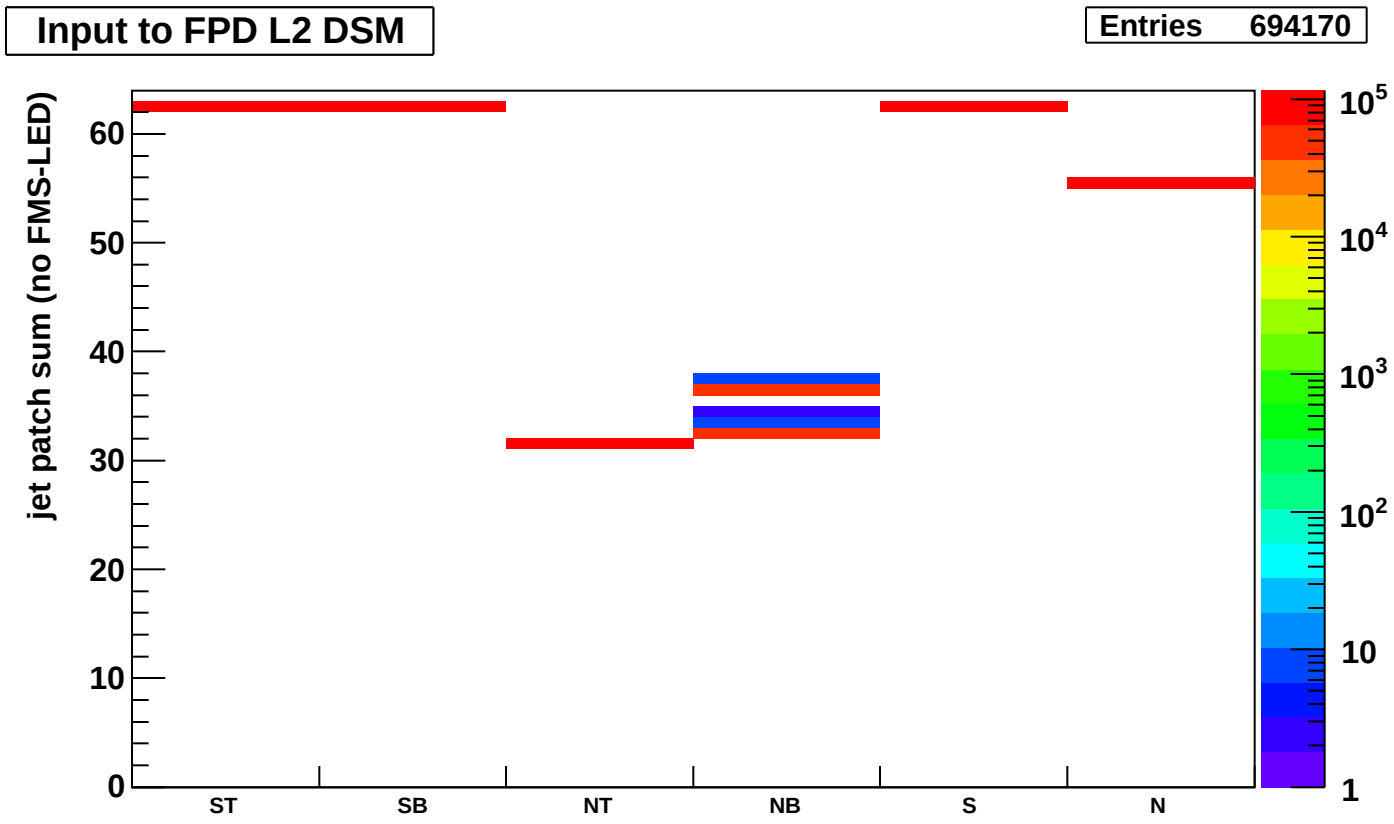

Input to FPD L2 DSM
Entries 1272645
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

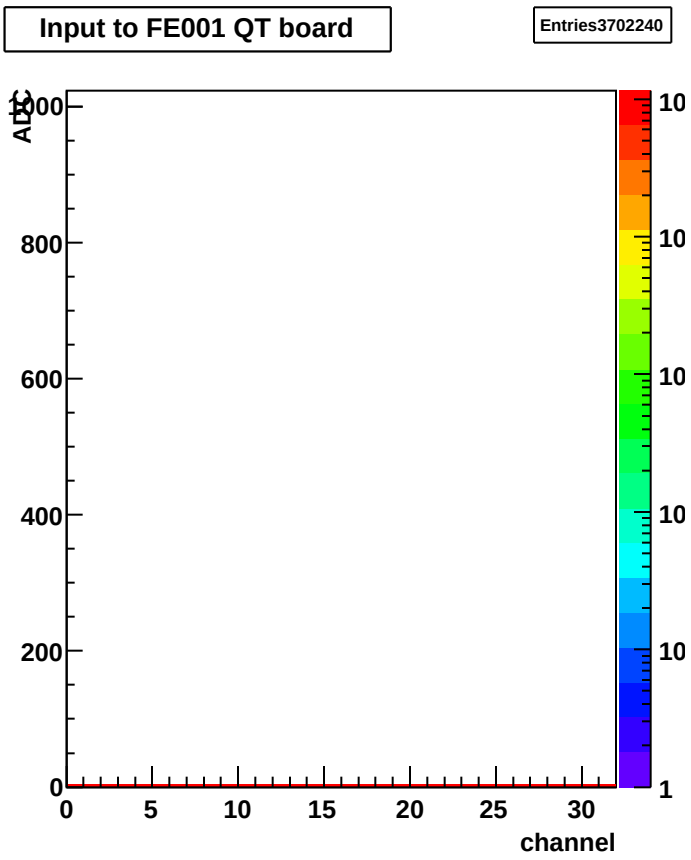

Input to FPD L2 DSM
Entries 347085
CL bits
115695
115695
115695
SMALL
LARGE-S
LARGE-N

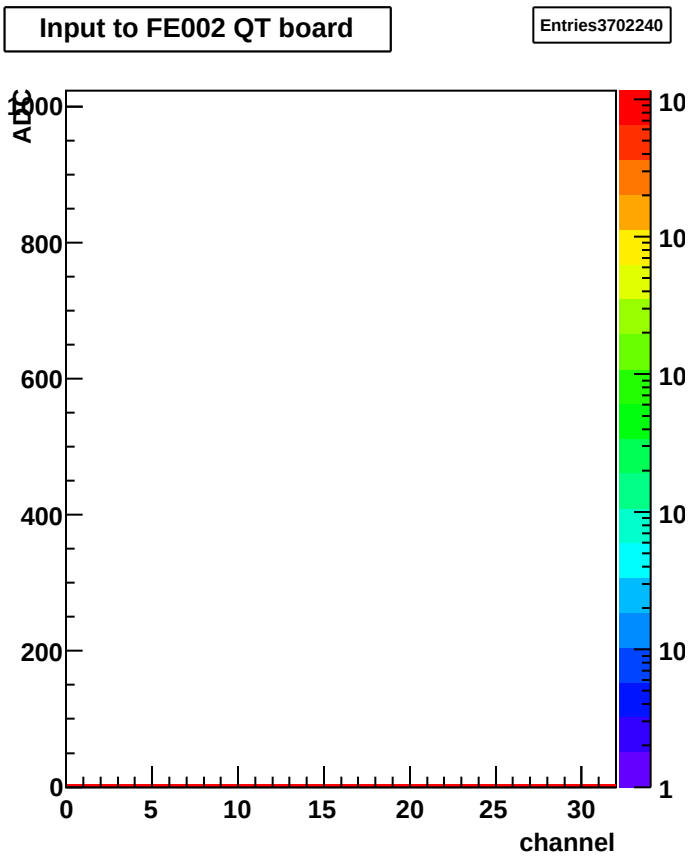

Input to FPD L2 DSM
Entries 347085
CL bits - simulated
115695
115695
115695
SMALL
LARGE-S
LARGE-N

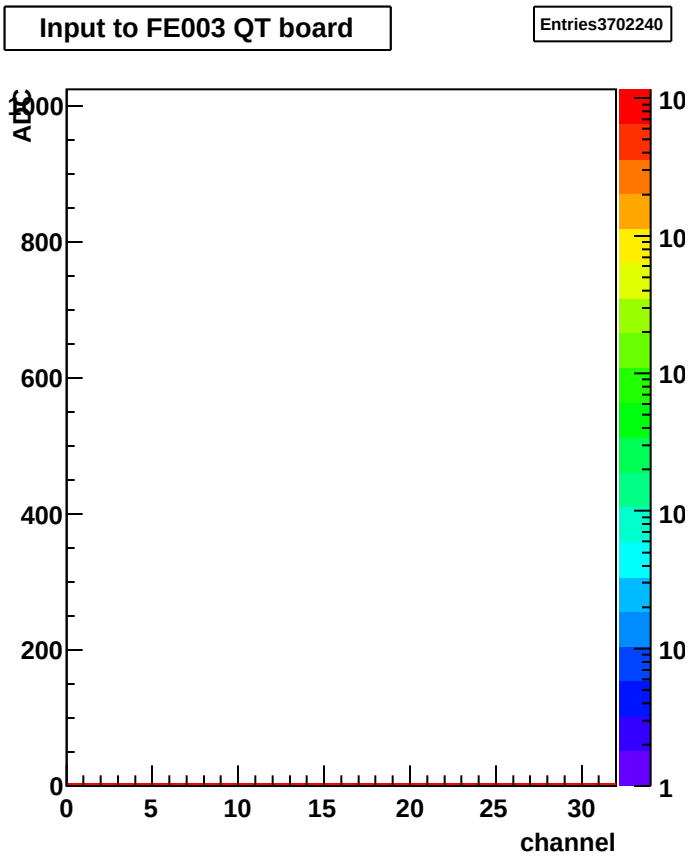

Input to FPD L2 DSM
Entries 347085
HT bits
115695
115695
115695
SMALL
LARGE-S
LARGE-N

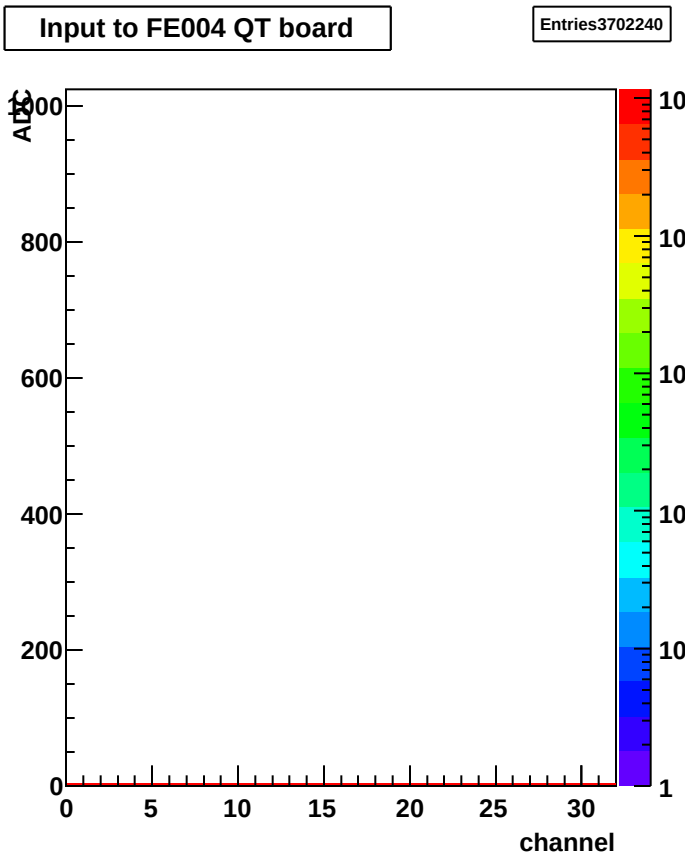

Input to FPD L2 DSM
Entries 347085
HT bits - simulated
115695
115695
115695
SMALL
LARGE-S
LARGE-N

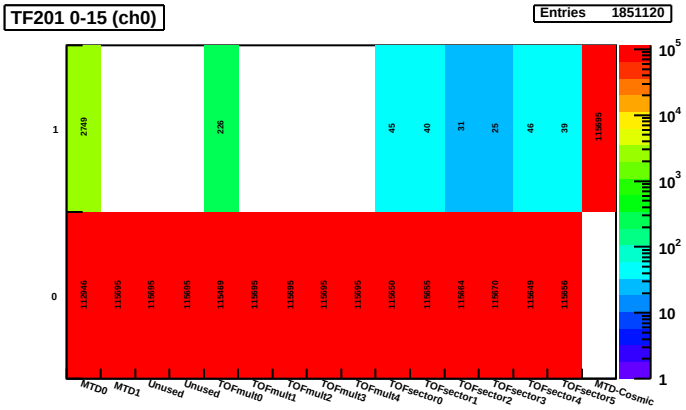

Input to FPD L2 DSM
Entries 694170
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

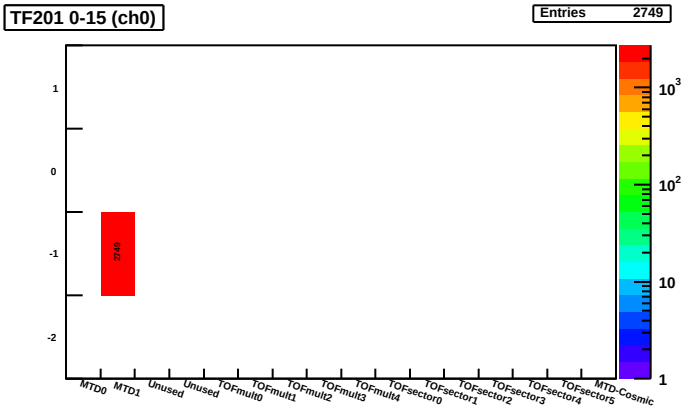

Input to FE001 QT board
Entries3702240
ADC
channel

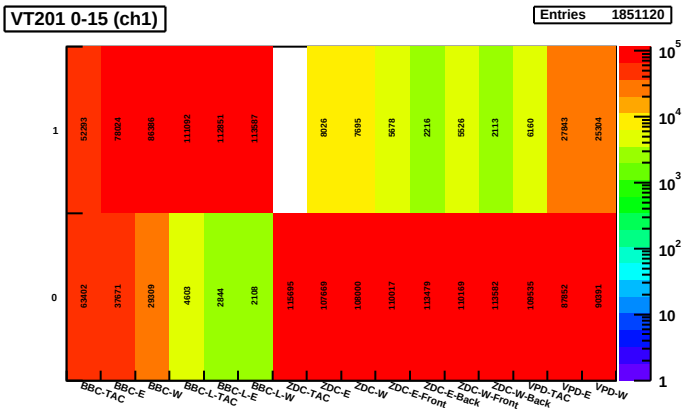

Input to FE002 QT board
Entries3702240
ADC
channel

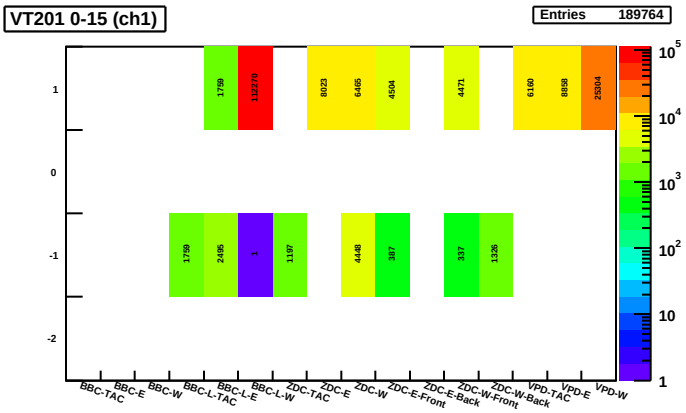

Input to FE003 QT board
Entries3702240
ADC
channel

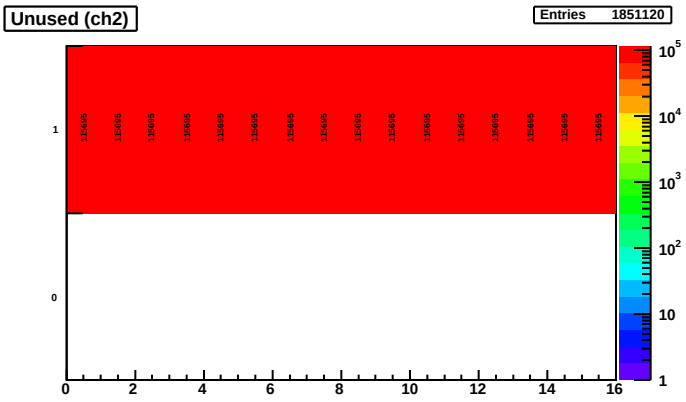

Input to FE004 QT board
Entries3702240
ADC
channel


TF201 0-15 (ch0)
Entries 1851120
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 2749
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 1851120
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 189764
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W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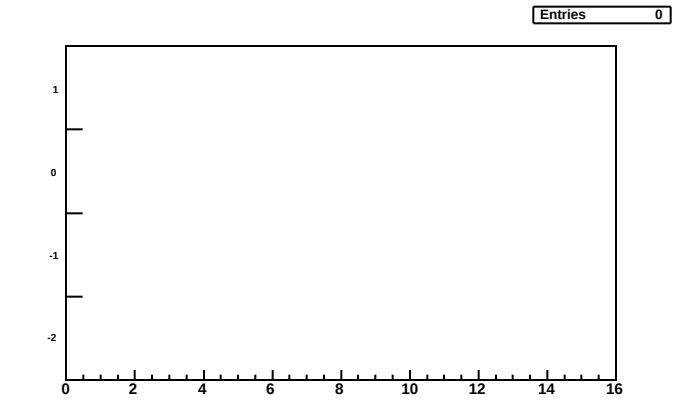
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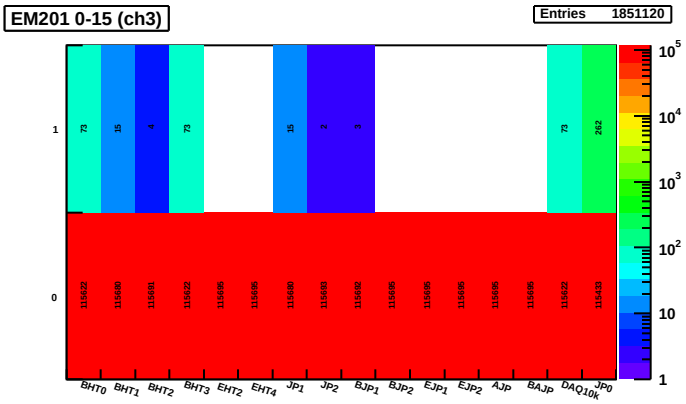
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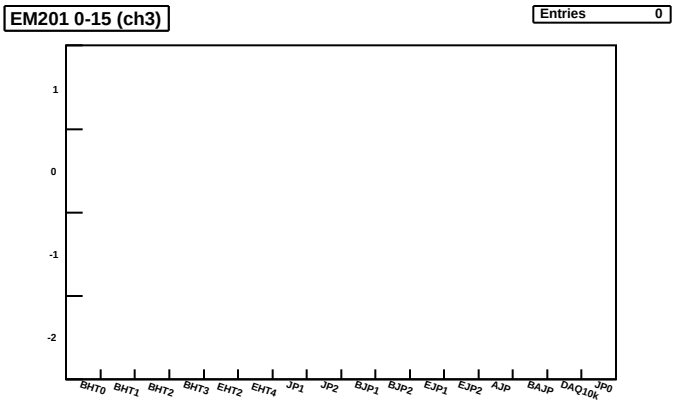
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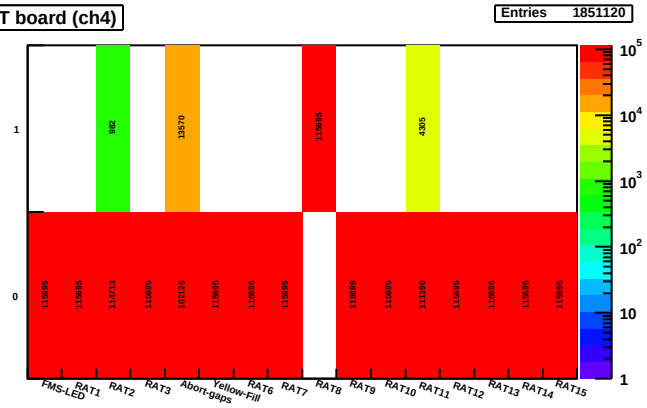
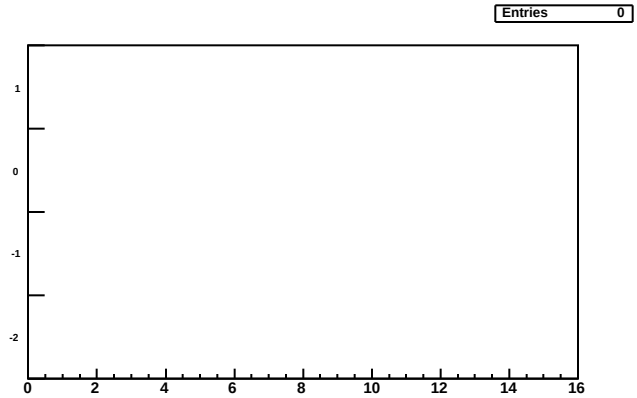
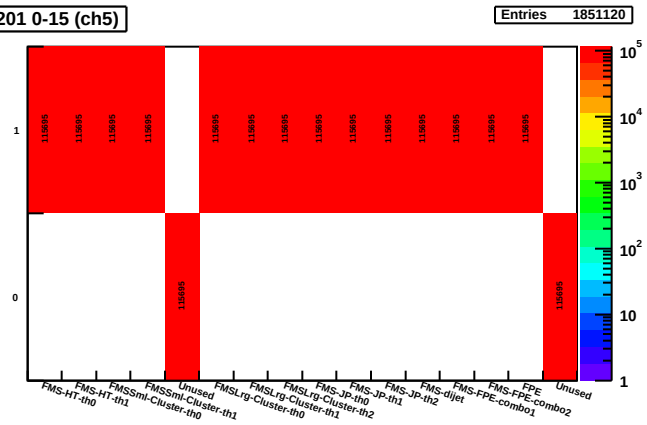
RAT board (ch4)





FP201 0-15 (ch5)



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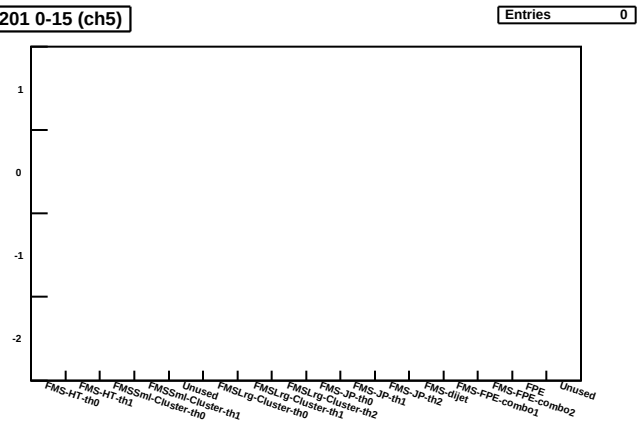
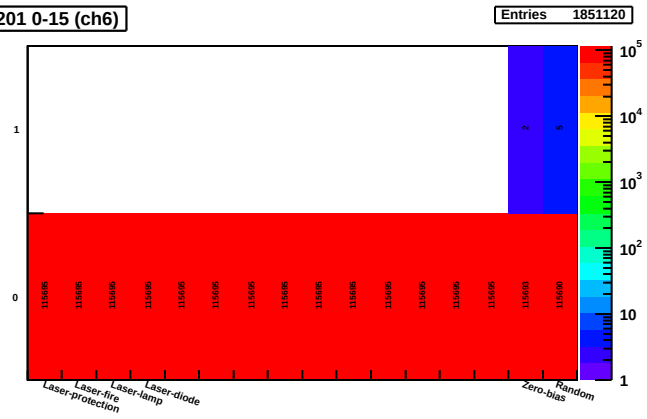
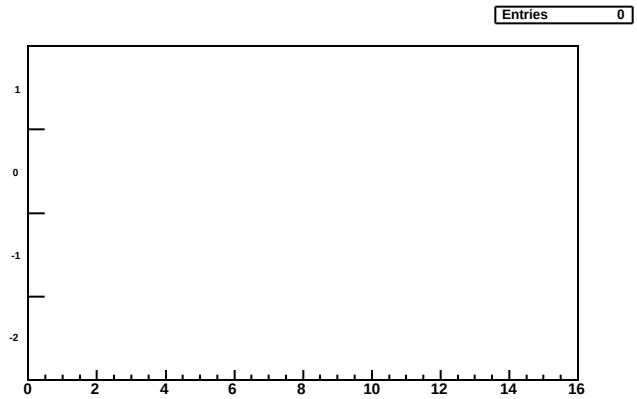
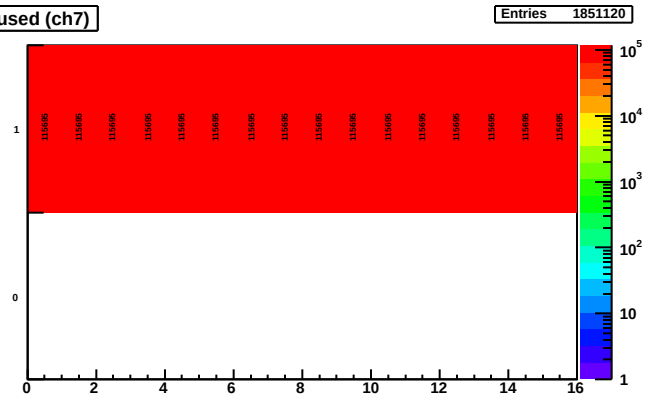
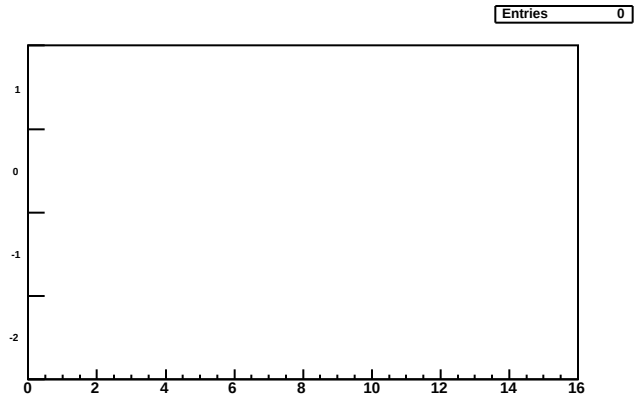


ST201 0-15 (ch6)





Unused (ch7)