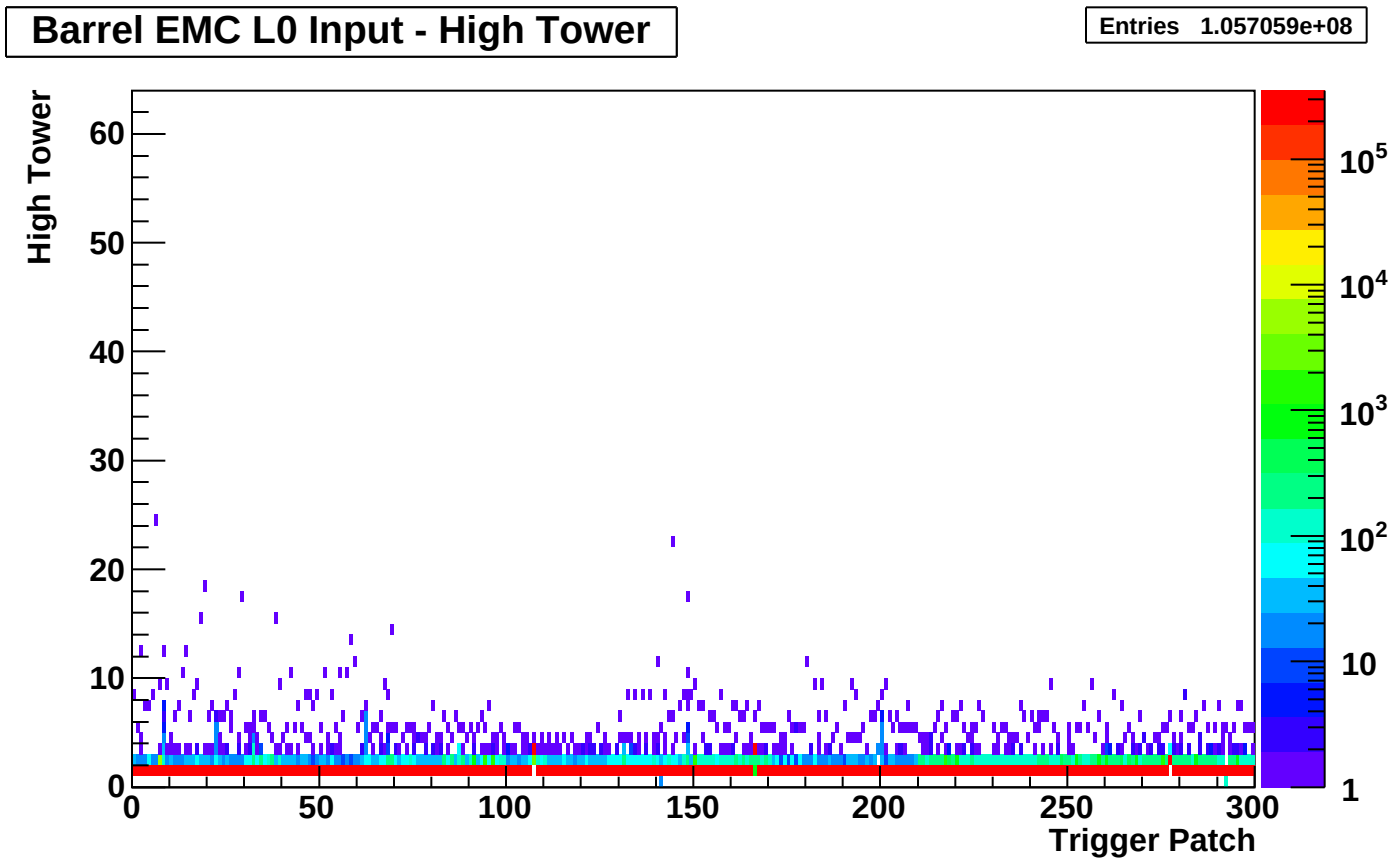
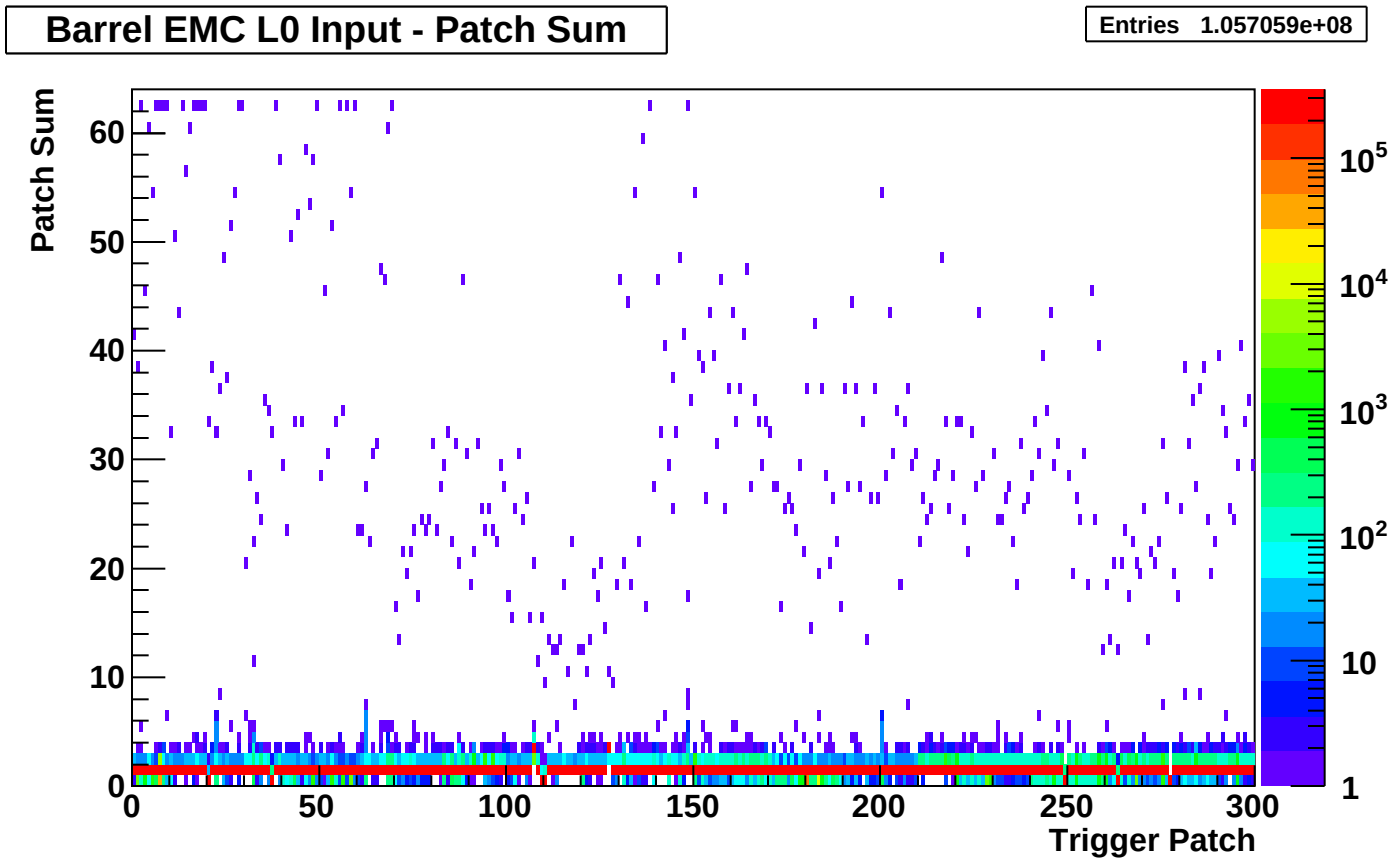
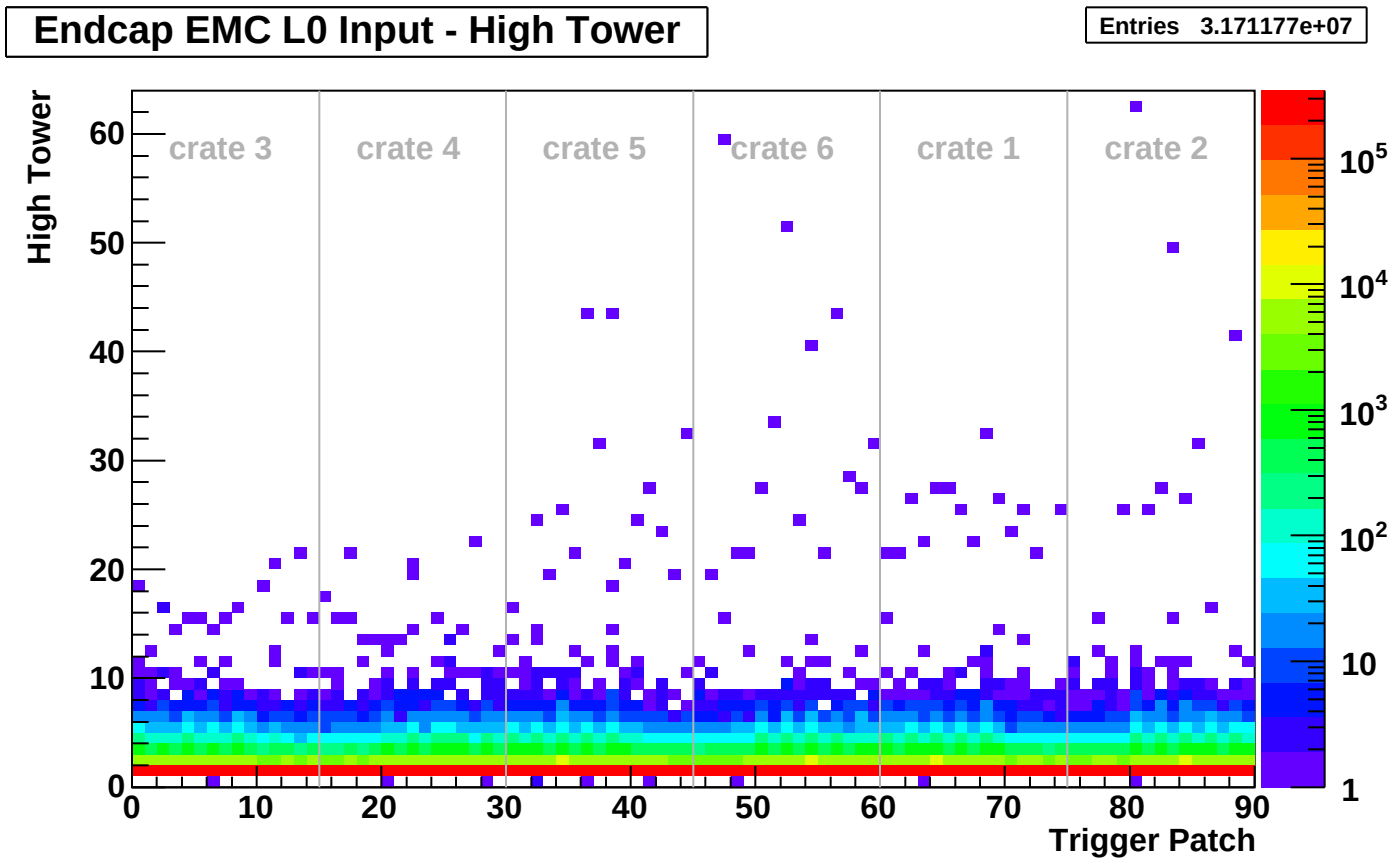
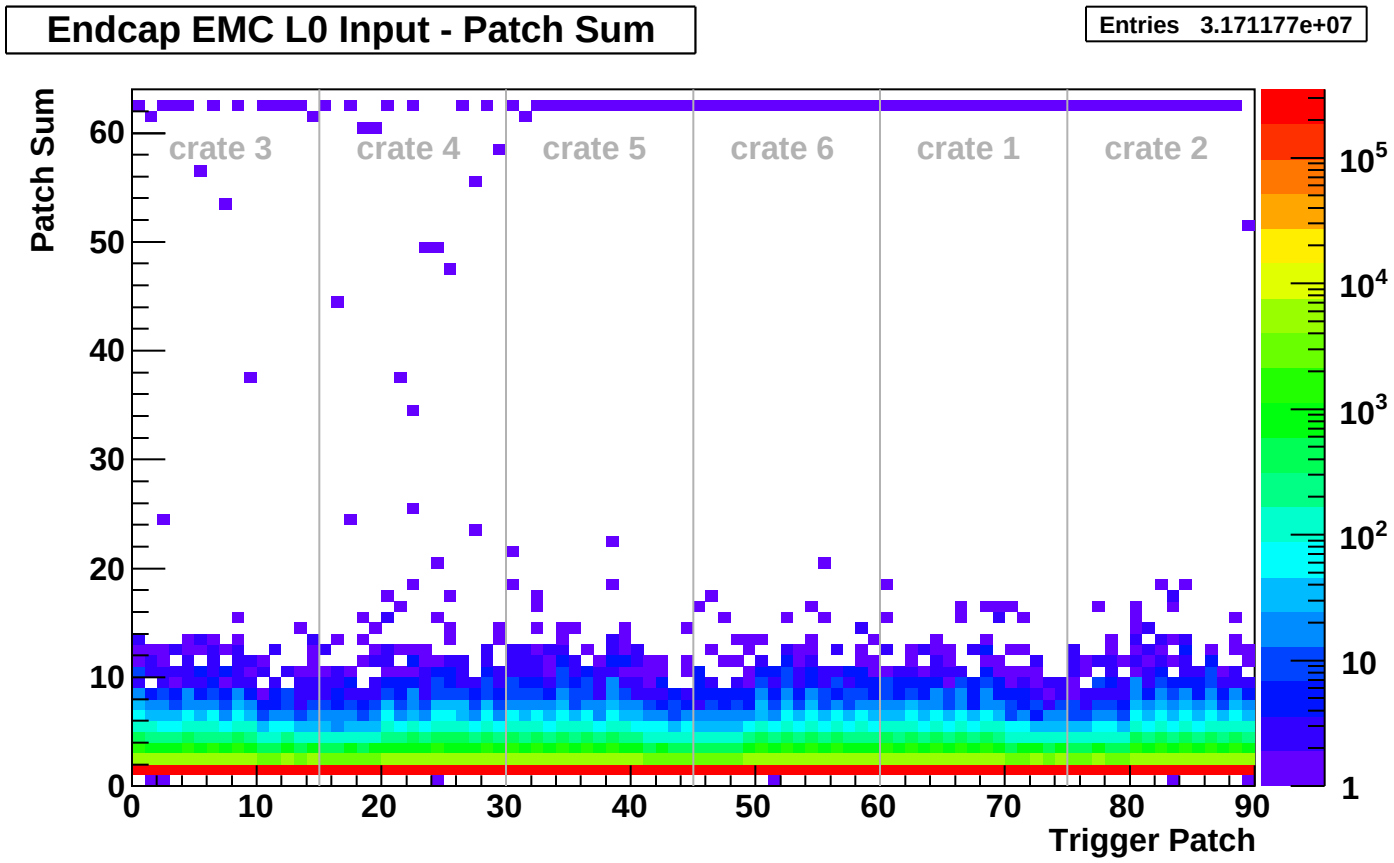
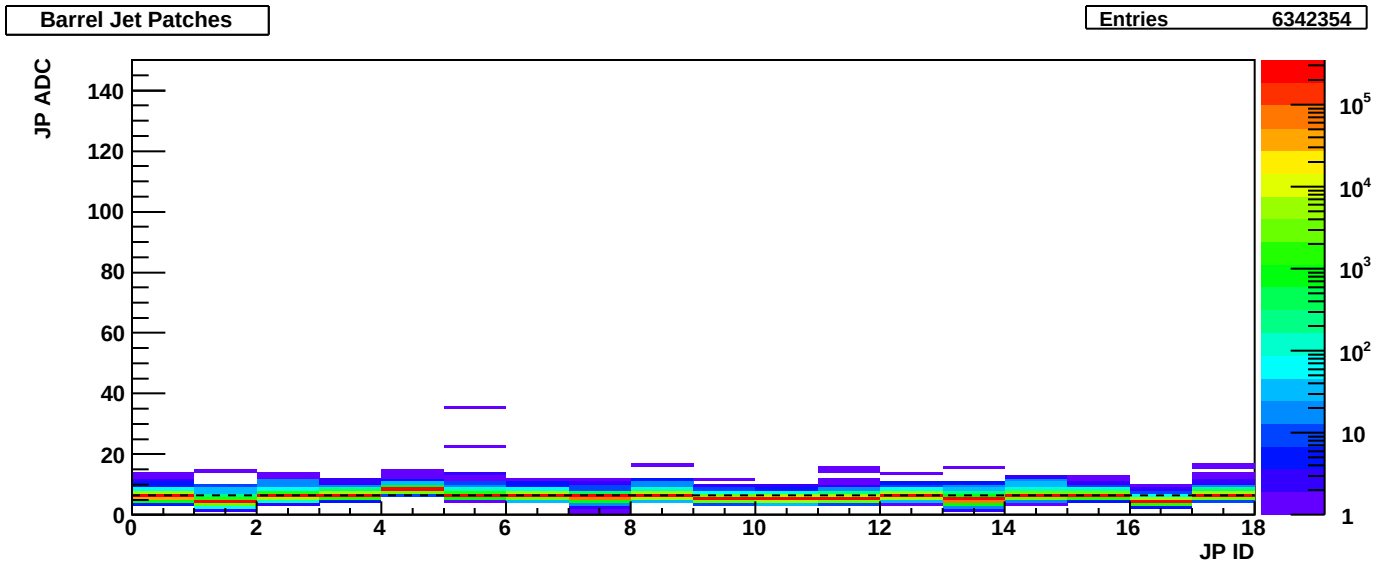
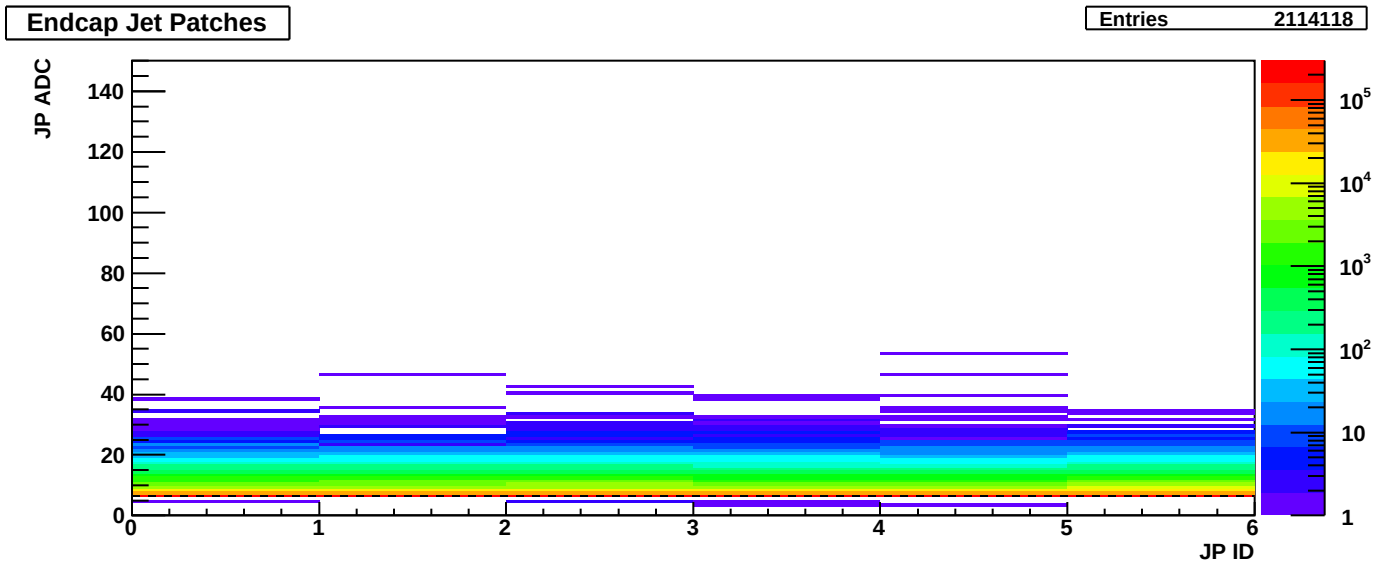

Barrel EMC L0 Input - High Tower
Entries 1.057059e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

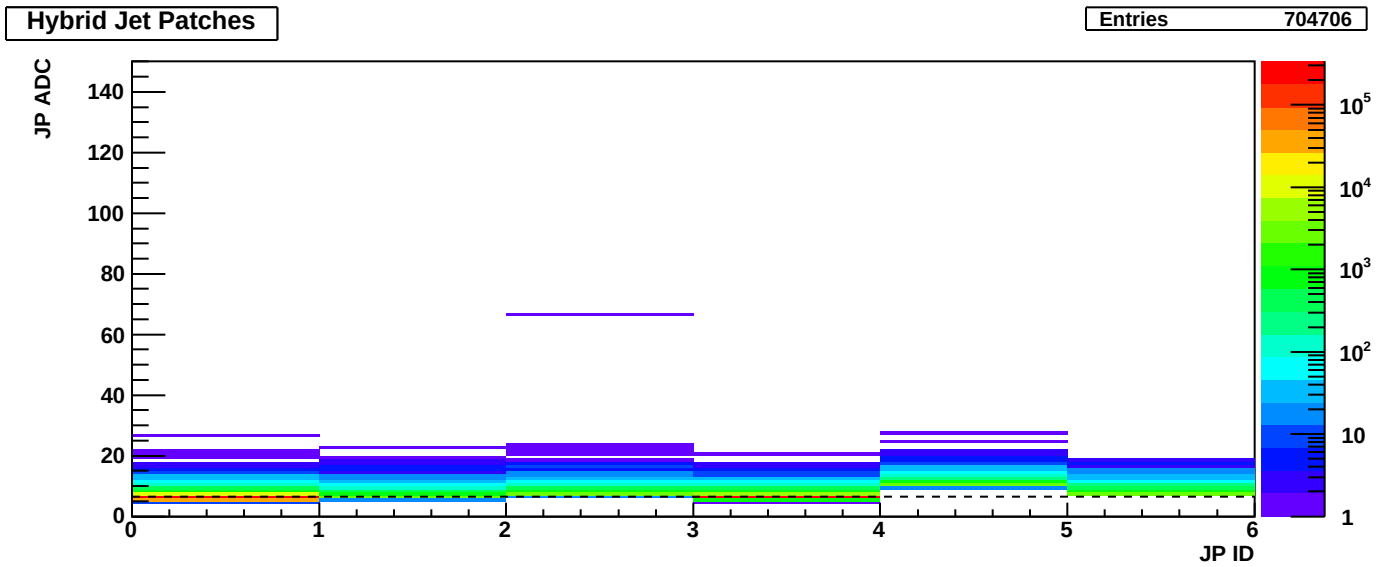

Barrel EMC L0 Input - Patch Sum
Entries 1.057059e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

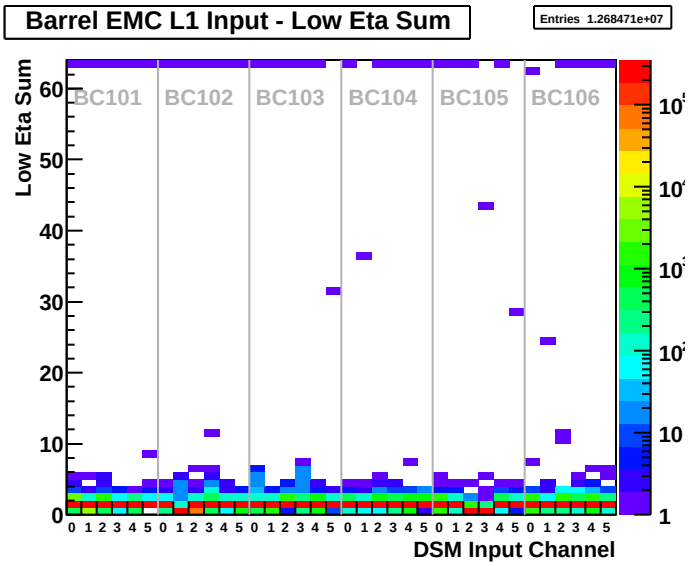

Endcap EMC L0 Input - High Tower
Entries 3.171177e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

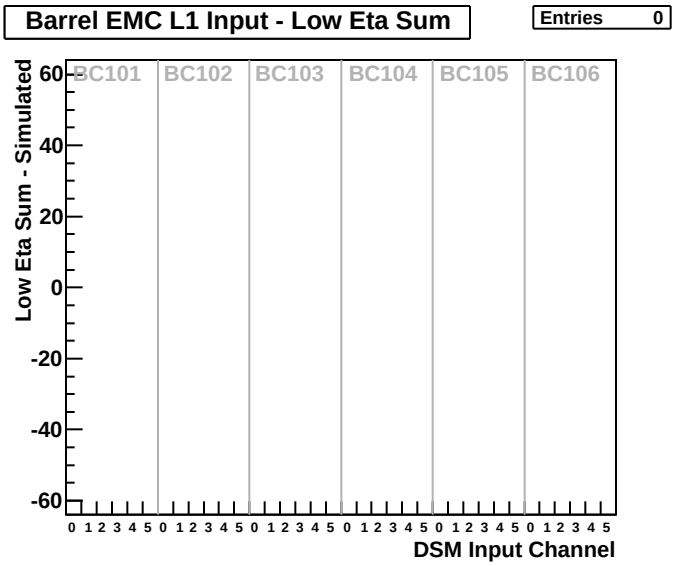

Endcap EMC L0 Input - Patch Sum
Entries 3.171177e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

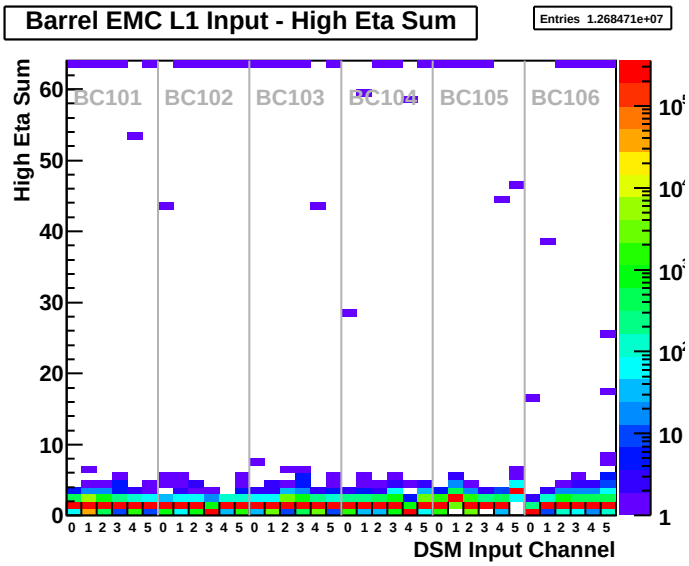

Barrel Jet Patches
Entries 6342354
JP ADC
JP ID

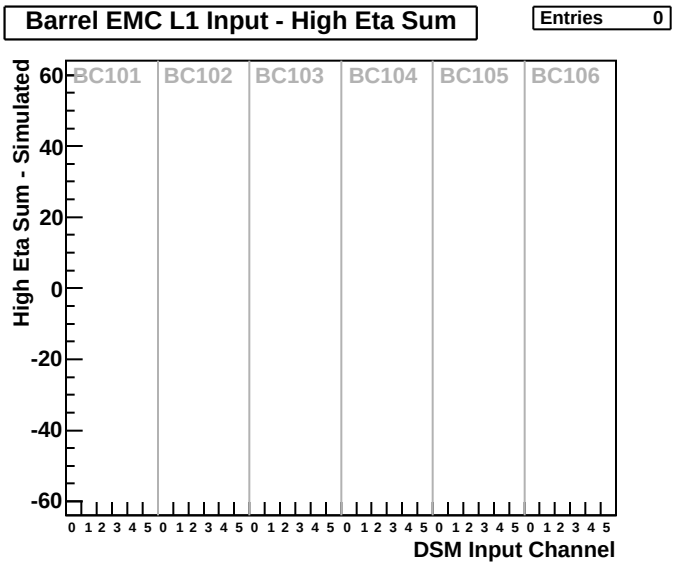

Endcap Jet Patches
Entries 2114118
JP ADC
JP ID

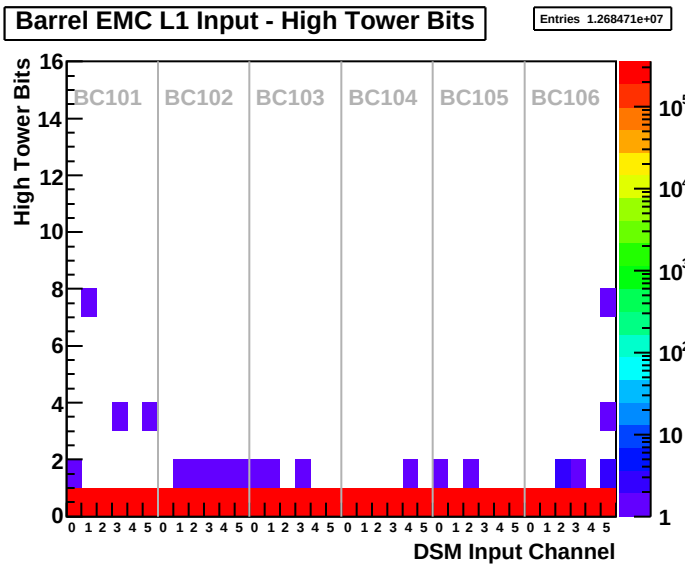

Hybrid Jet Patches
Entries 704706
JP ADC
JP ID

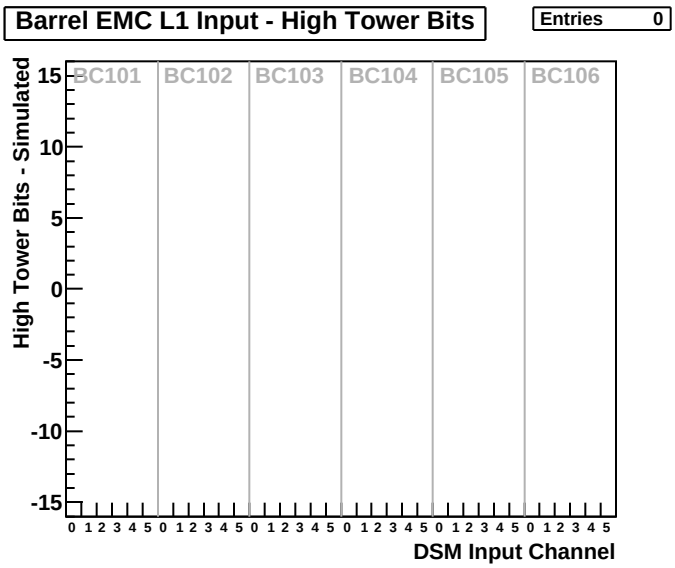

Barrel EMC L1 Input - Low Eta Sum
Entries 1.268471e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

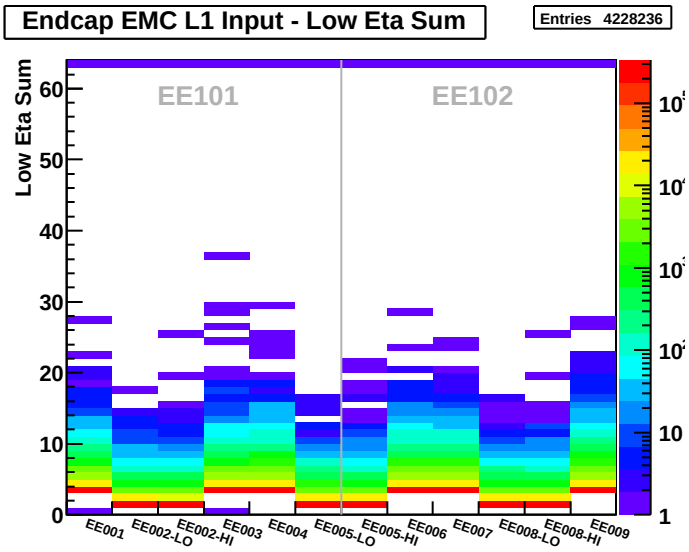

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

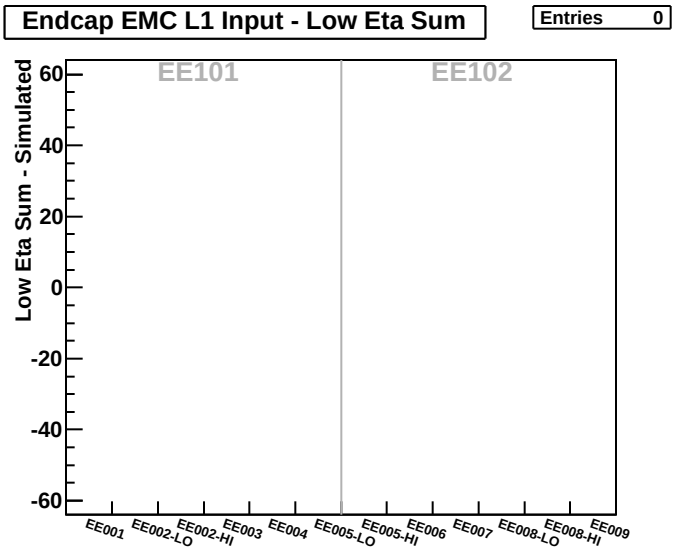

Barrel EMC L1 Input - High Eta Sum
Entries 1.268471e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

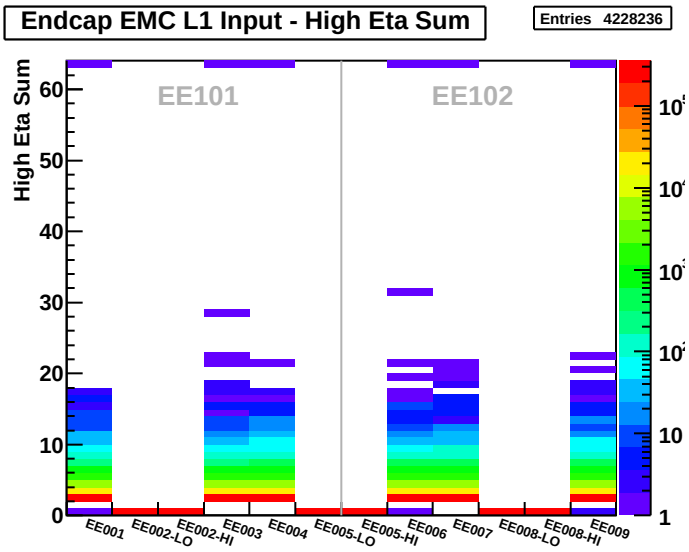

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

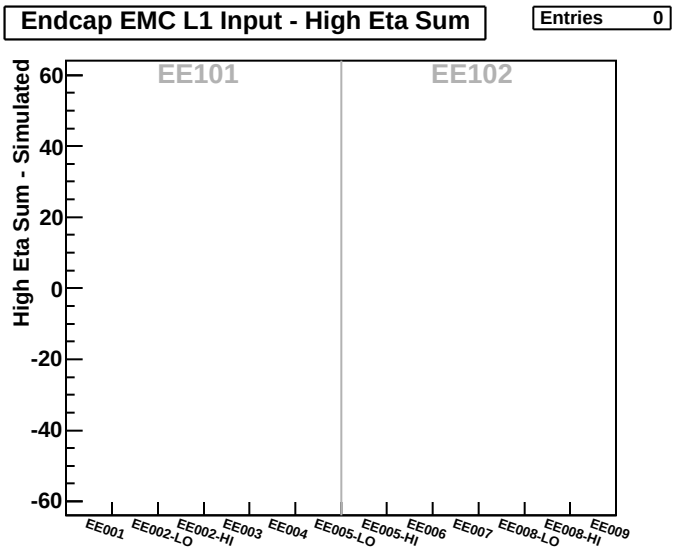

Barrel EMC L1 Input - High Tower Bits
Entries 1.268471e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

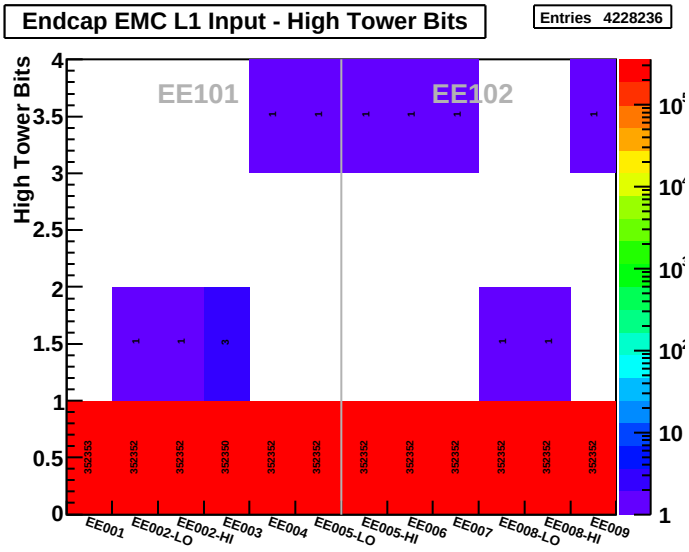

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

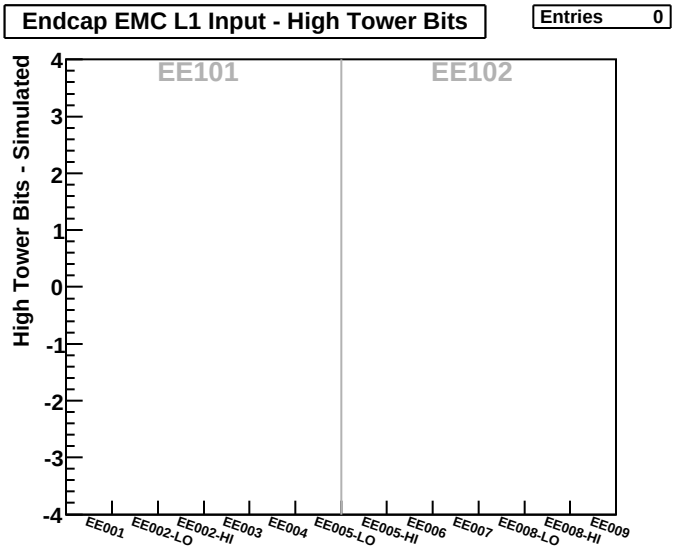

Endcap EMC L1 Input - Low Eta Sum
Entries 4228236
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

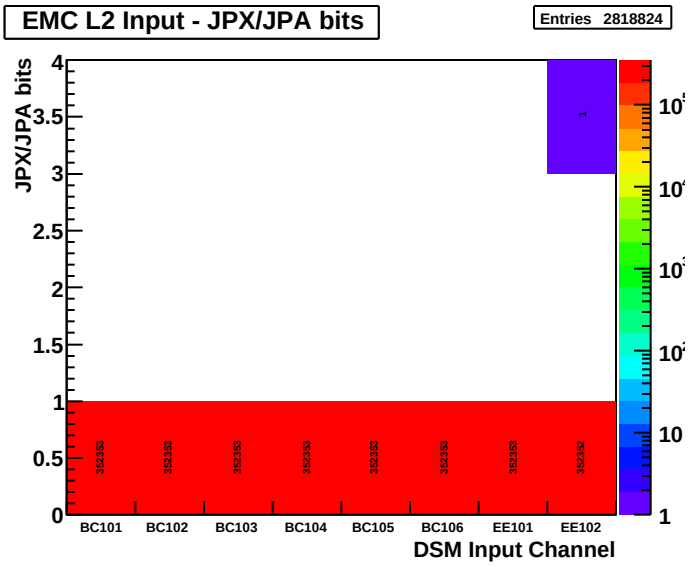

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

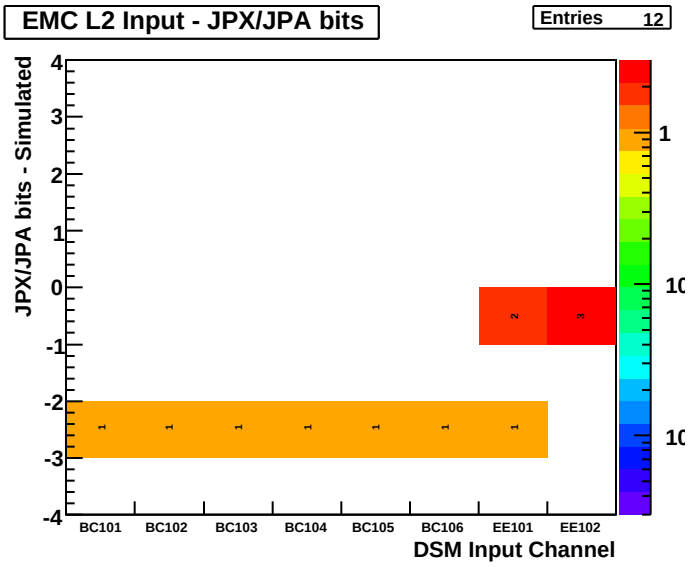

Endcap EMC L1 Input - High Eta Sum
Entries 4228236
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

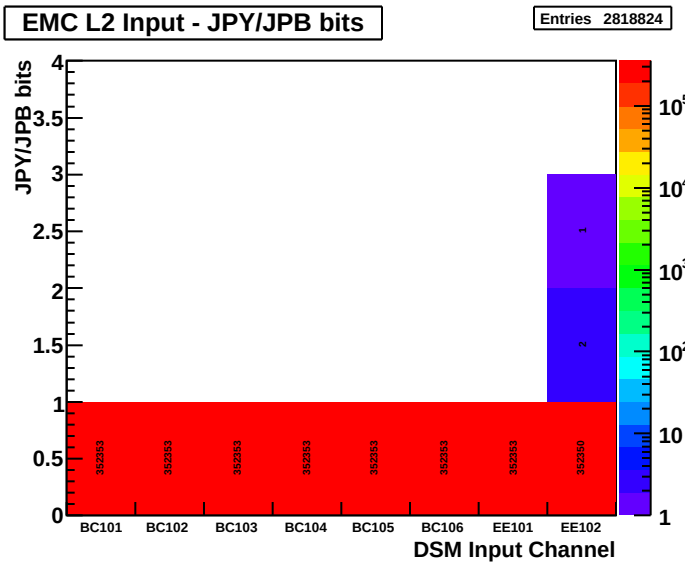

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

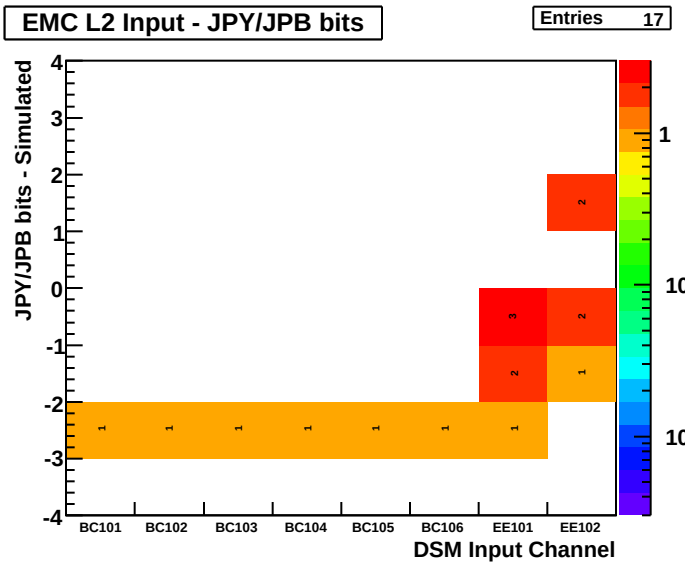

Endcap EMC L1 Input - High Tower Bits
Entries 4228236
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

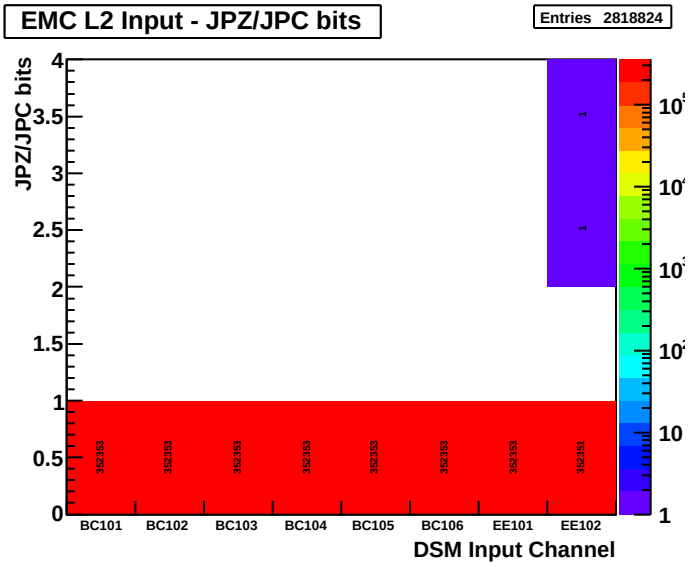

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

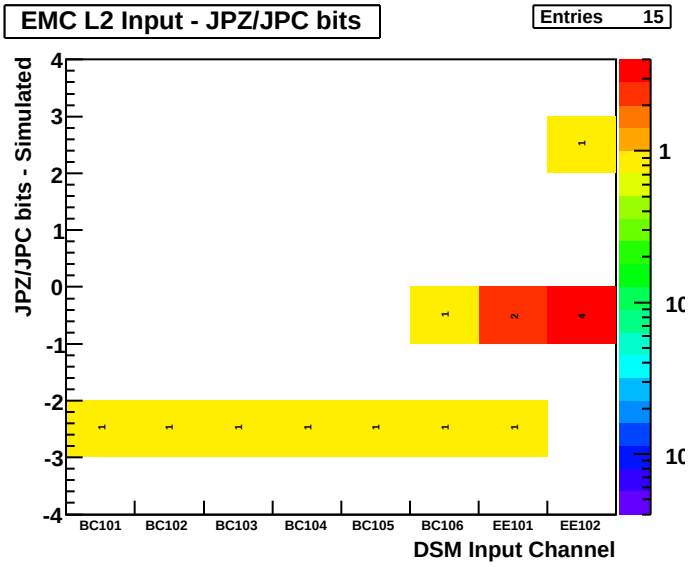

EMC L2 Input - JPX/JPA bits
Entries 2818824
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

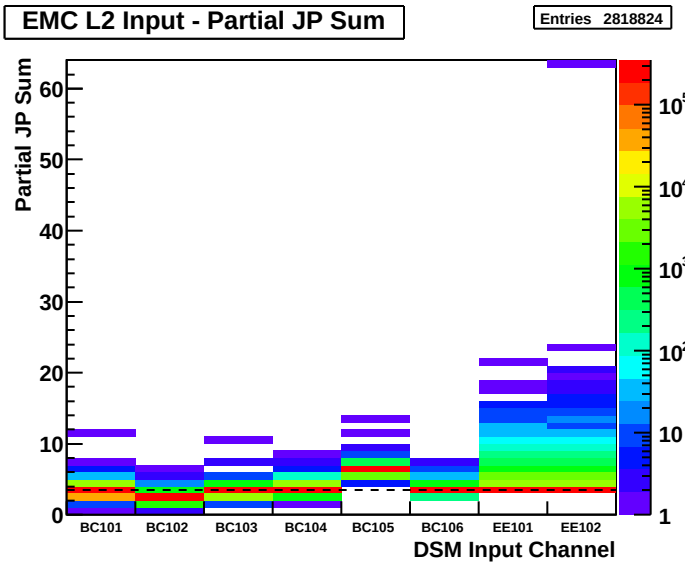

EMC L2 Input - JPX/JPA bits
Entries 12
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

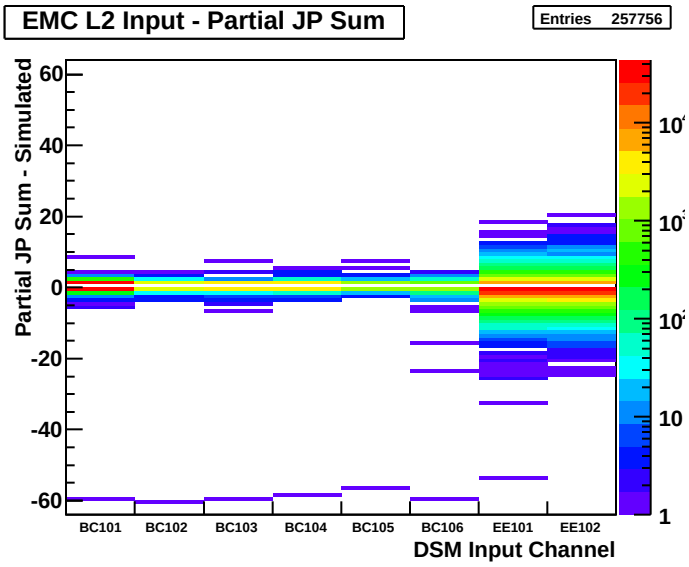

EMC L2 Input - JPY/JPB bits
Entries 2818824
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

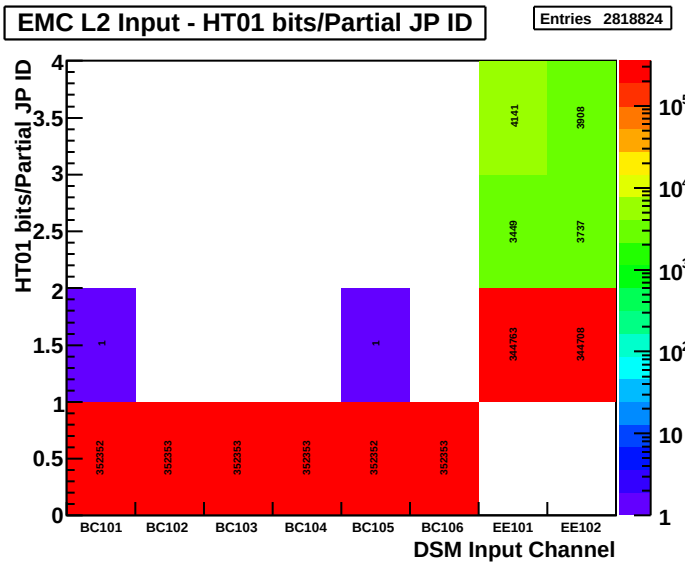

EMC L2 Input - JPY/JPB bits
Entries 17
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

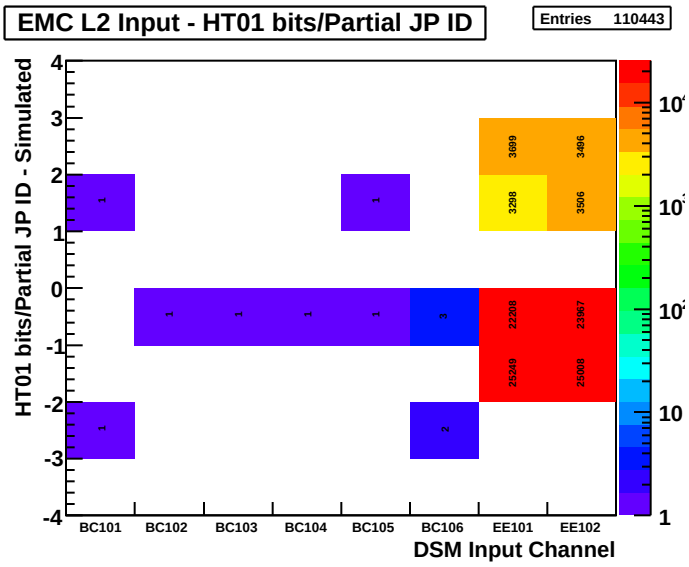

EMC L2 Input - JPZ/JPC bits
Entries 2818824
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

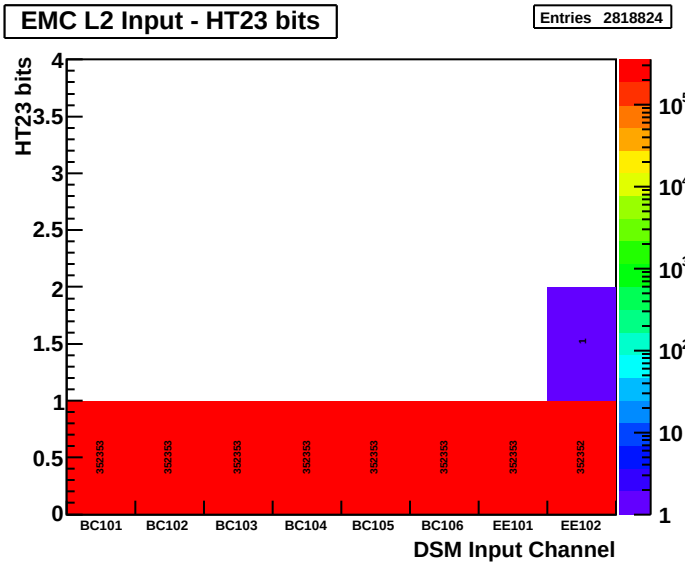

EMC L2 Input - JPZ/JPC bits
Entries 15
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

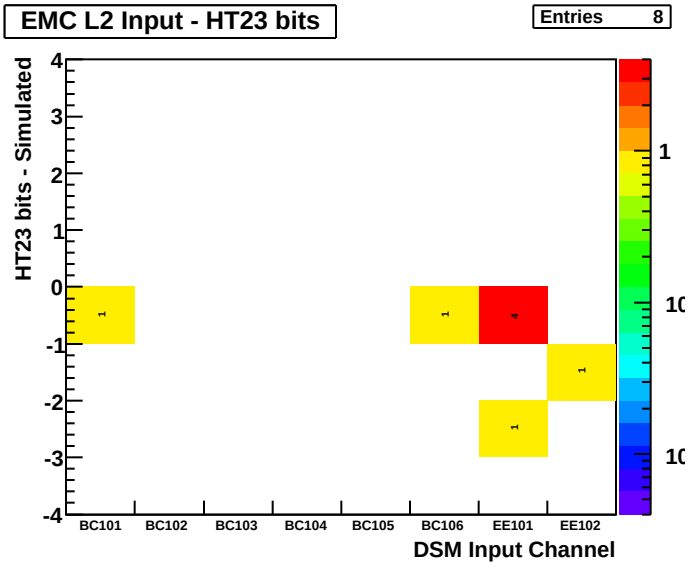

EMC L2 Input - Partial JP Sum
Entries 2818824
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

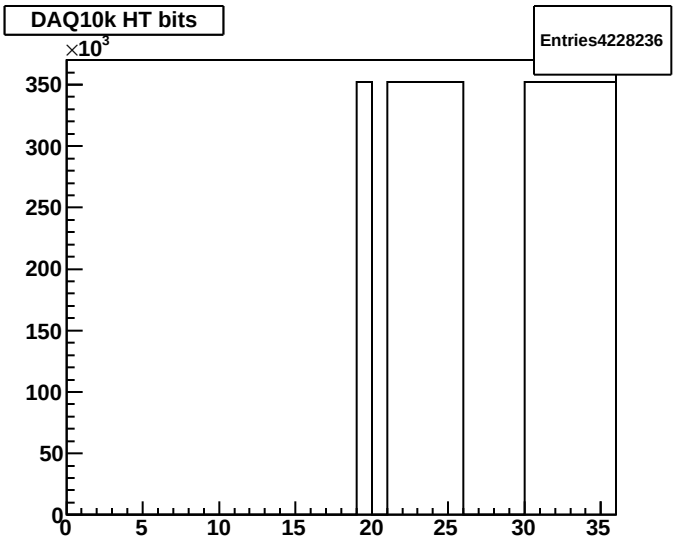

EMC L2 Input - Partial JP Sum
Entries 257756
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

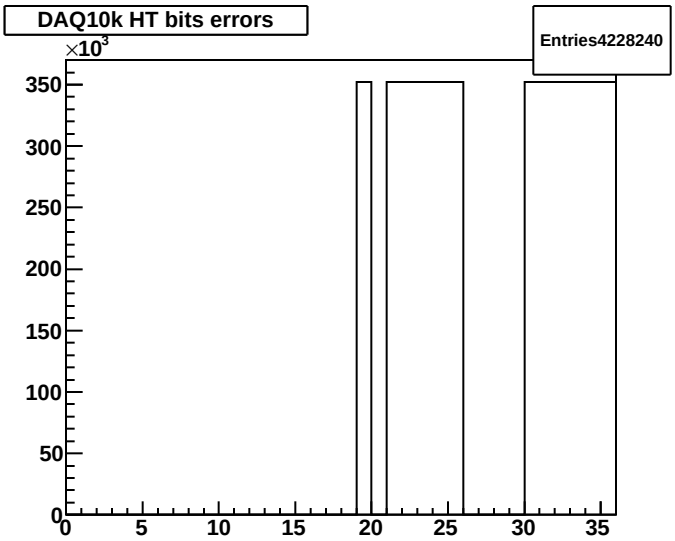

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2818824
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

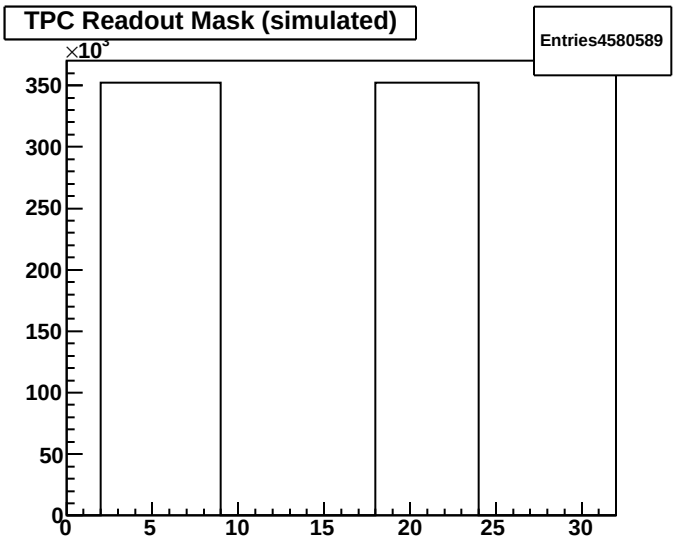

EMC L2 Input - HT01 bits/Partial JP ID
Entries 110443
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

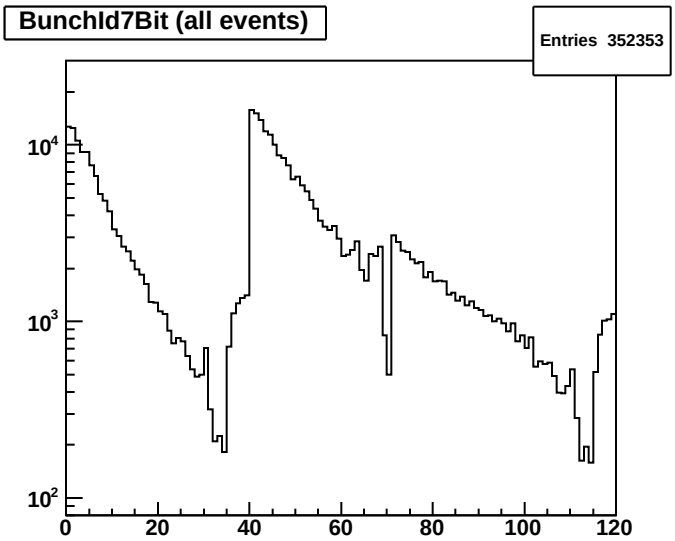

EMC L2 Input - HT23 bits
Entries 2818824
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

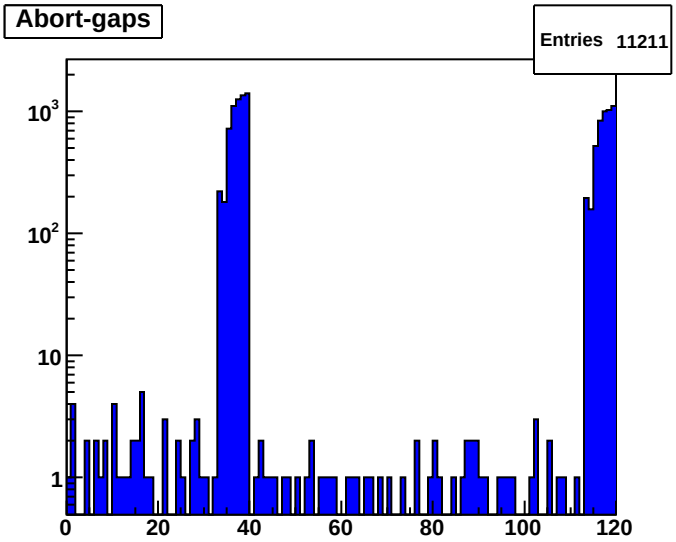

EMC L2 Input - HT23 bits
Entries 8
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102


DAQ10k HT bits
Entries4228236
×10^3
350
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

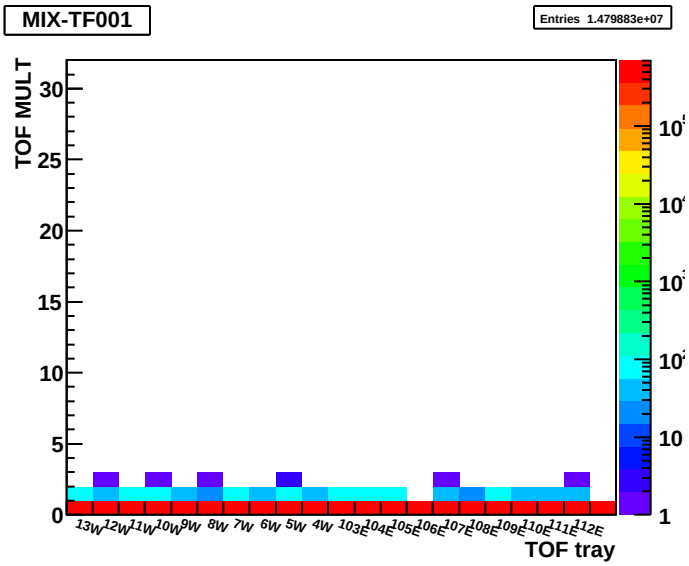

DAQ10k HT bits errors
Entries4228240
×10^3
350
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

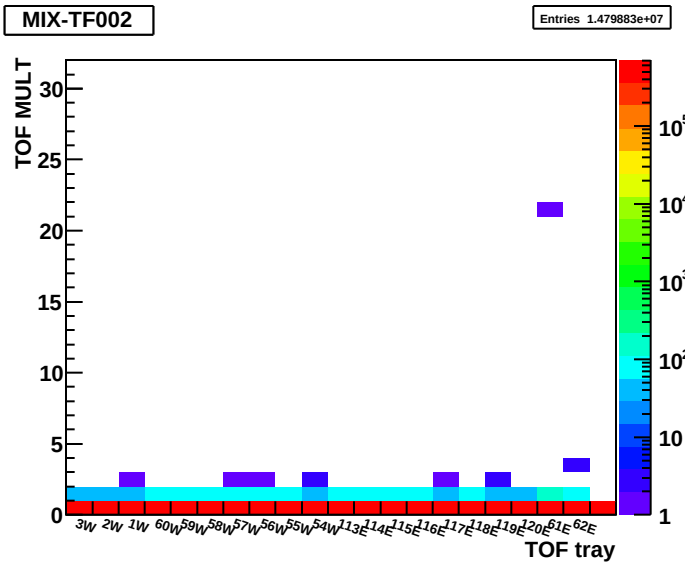

TPC Readout Mask (simulated)
Entries4580589
×10^3
350
300
250
200
150
100
50
0
0 5 10 15 20 25 30

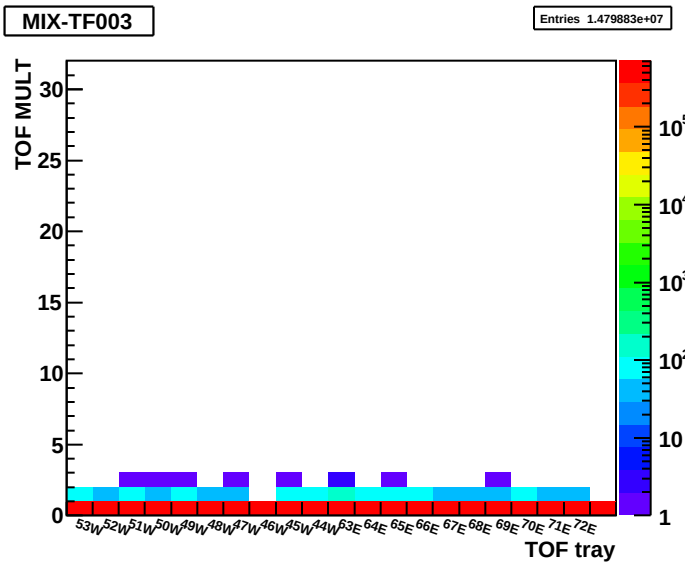

BunchId7Bit (all events)
Entries 352353
10^4
10^3
10^2
0 20 40 60 80 100 120

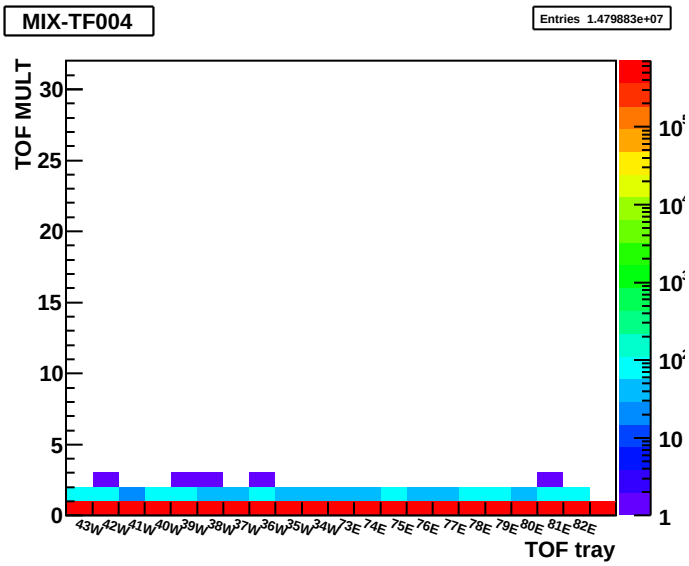

Abort-gaps
Entries 11211
10^3
10^2
10
1
0 20 40 60 80 100 120

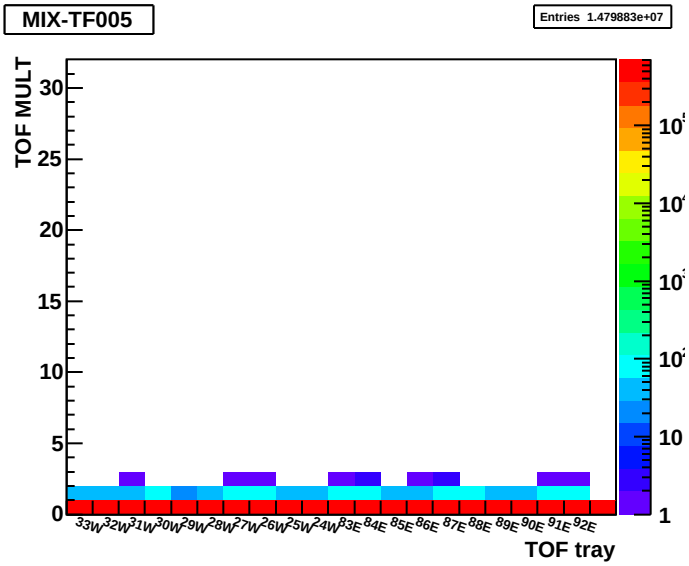
!Yellow-Fill
Entries 352353
10^4
10^3
10^2
0 20 40 60 80 100 120

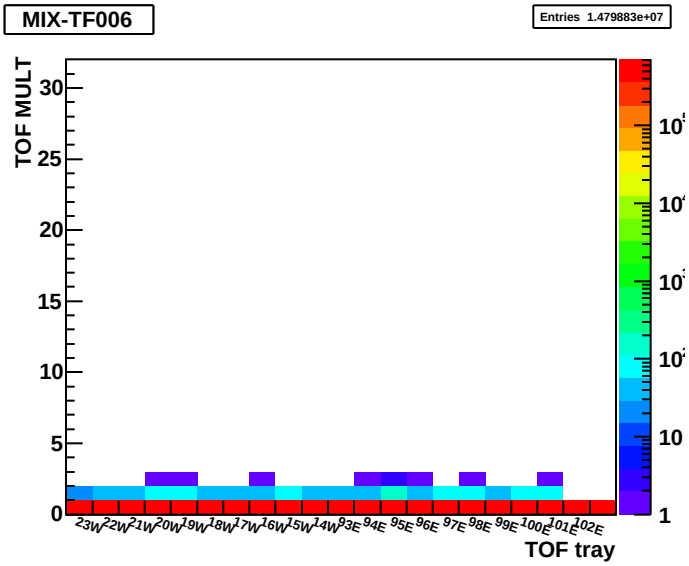

MIX-TF001
Entries 1.479883e+07
TOF MULT
TOF tray

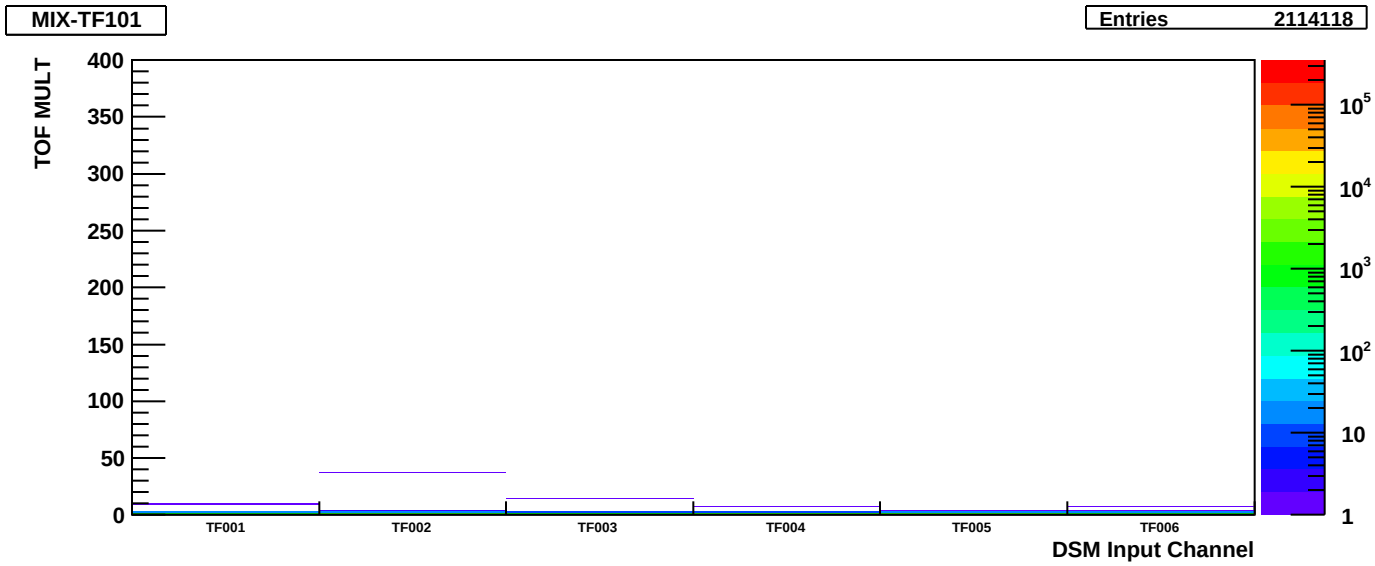

MIX-TF002
Entries 1.479883e+07
TOF MULT
TOF tray

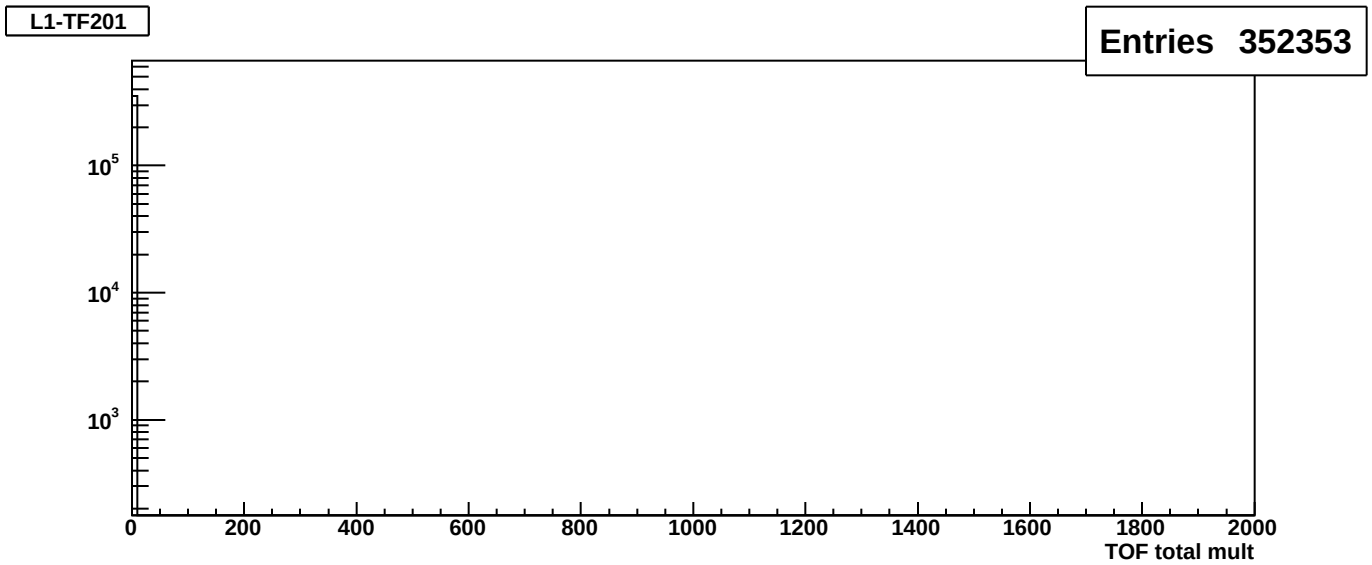

MIX-TF003
Entries 1.479883e+07
TOF MULT
TOF tray

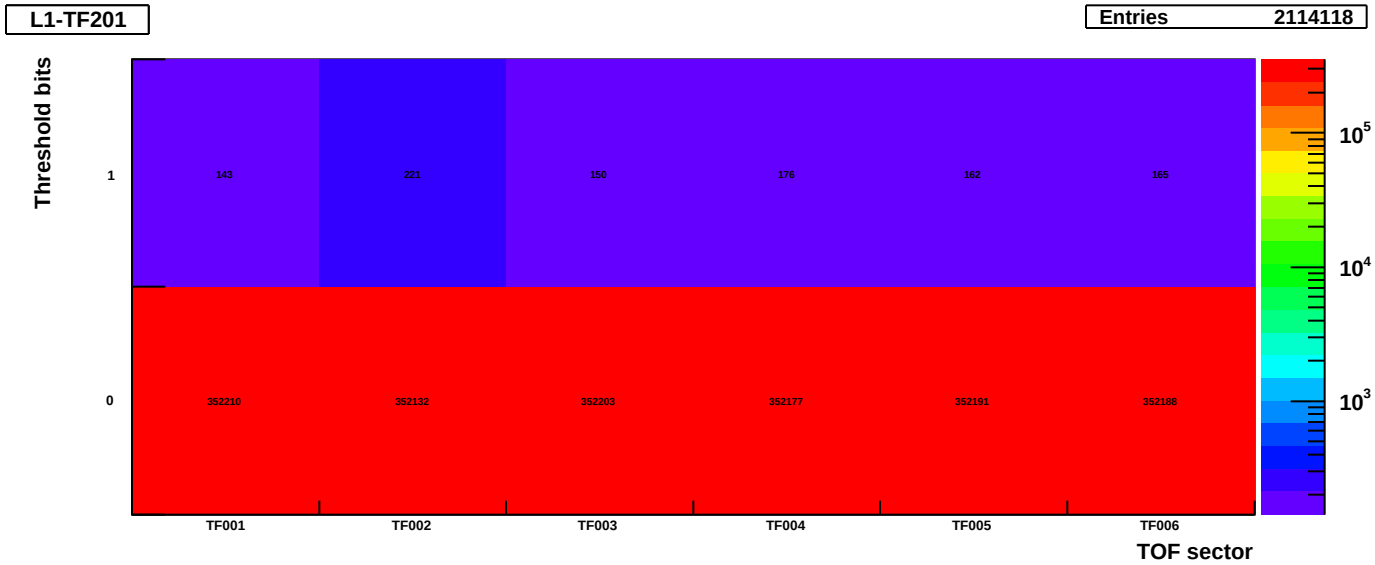

MIX-TF004
Entries 1.479883e+07
TOF MULT
TOF tray

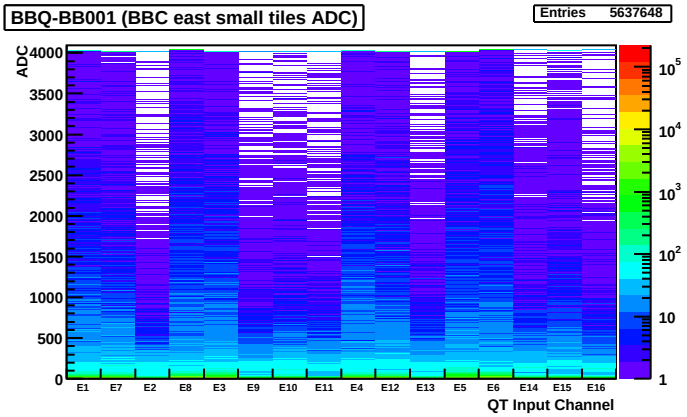

MIX-TF005
Entries 1.479883e+07
TOF MULT
TOF tray

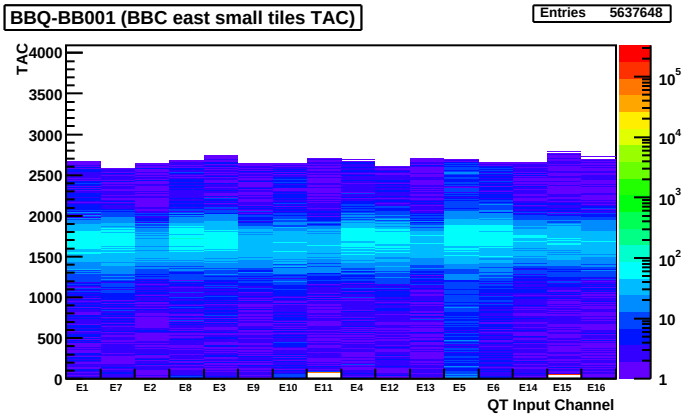

MIX-TF006
Entries 1.479883e+07
TOF MULT
TOF tray

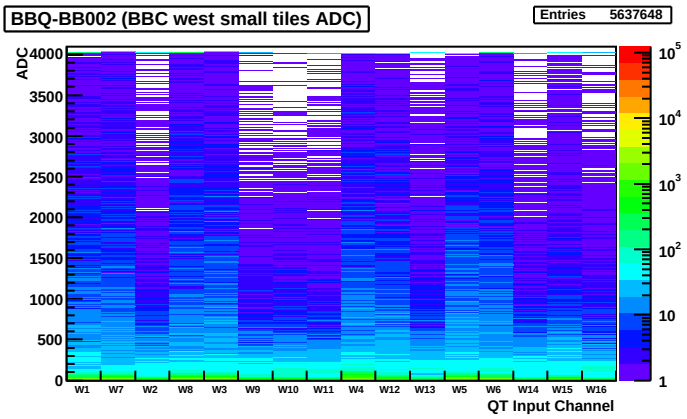

MIX-TF101
Entries 2114118
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

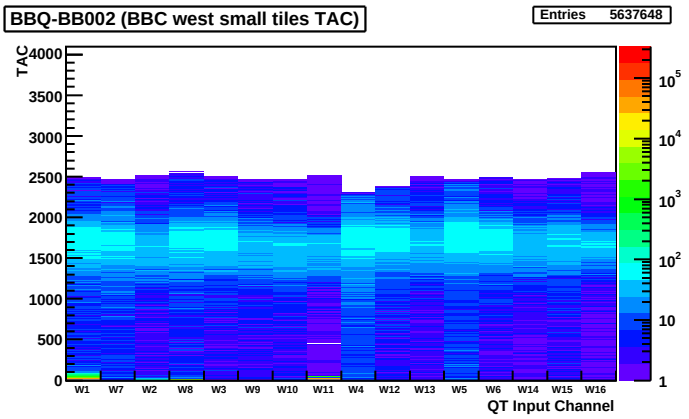

L1-TF201
Entries 352353
10^5
10^4
10^3
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

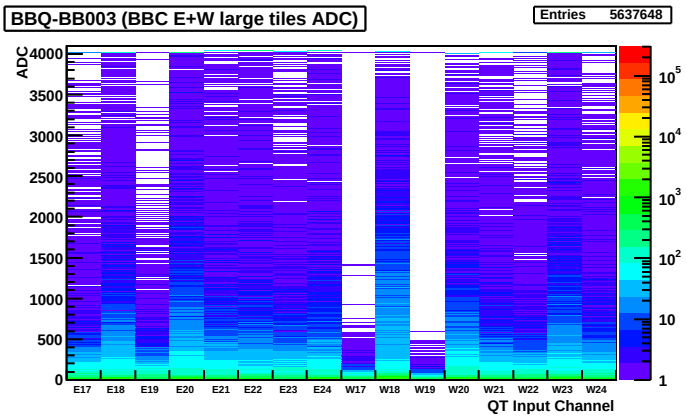

L1-TF201
Entries 2114118
Threshold bits
1
0
143
221
150
176
162
165
352210
352132
352203
352177
352191
352188
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4
10^3

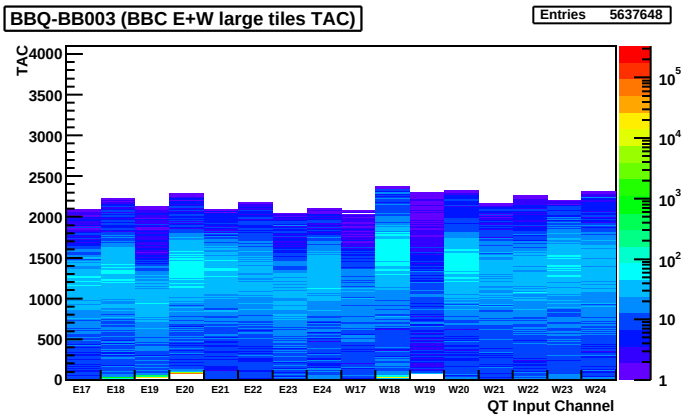

BBQ-BB001 (BBC east small tiles ADC)
Entries 5637648
ADC
QT Input Channel

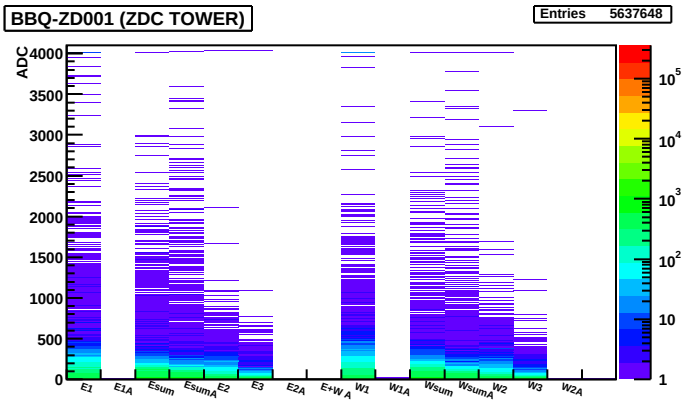

BBQ-BB001 (BBC east small tiles TAC)
Entries 5637648
TAC
QT Input Channel

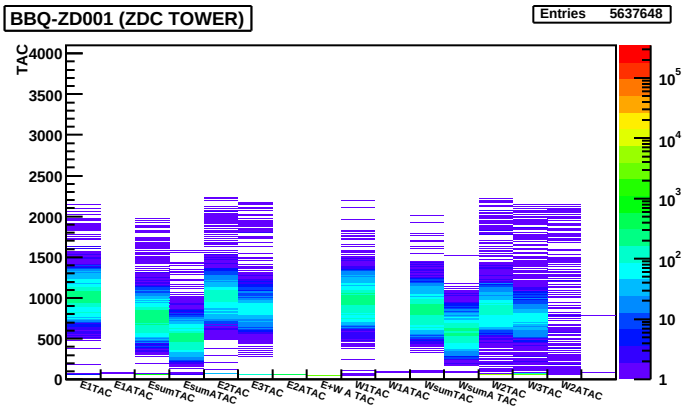

BBQ-BB002 (BBC west small tiles ADC)
Entries 5637648
ADC
QT Input Channel

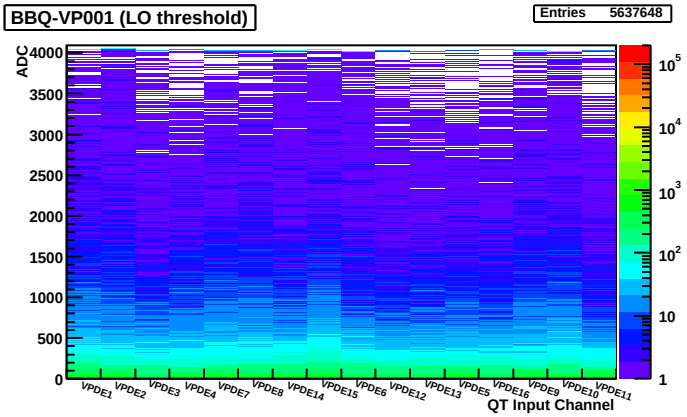

BBQ-BB002 (BBC west small tiles TAC)
Entries 5637648
TAC
QT Input Channel

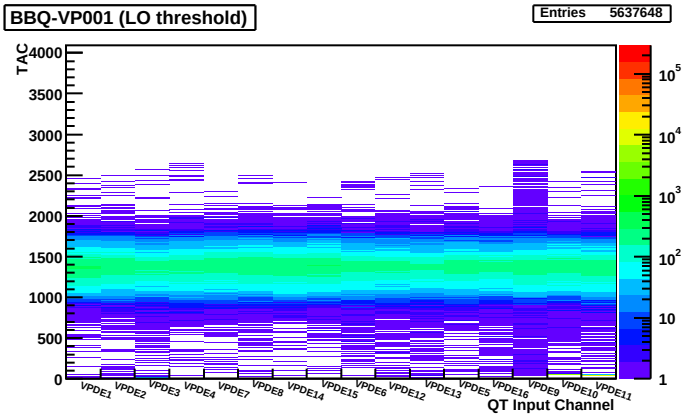

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 5637648
ADC
QT Input Channel

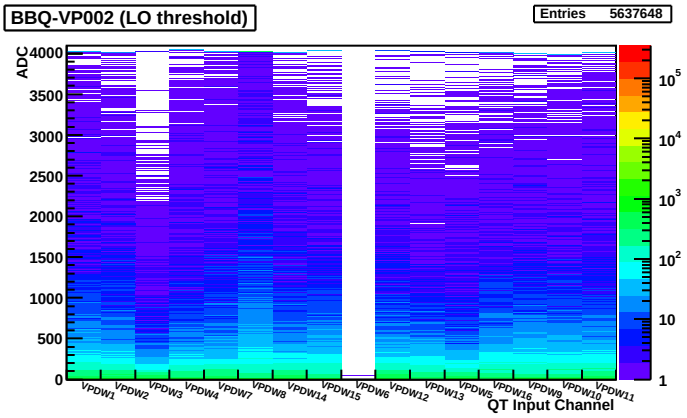

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 5637648
TAC
QT Input Channel

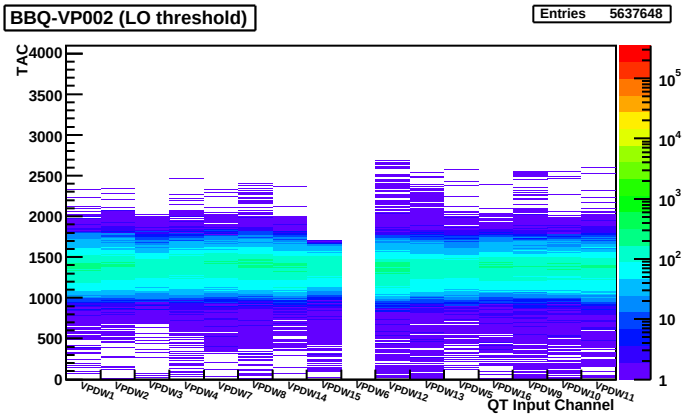

BBQ-ZD001 (ZDC TOWER)
Entries 5637648
ADC

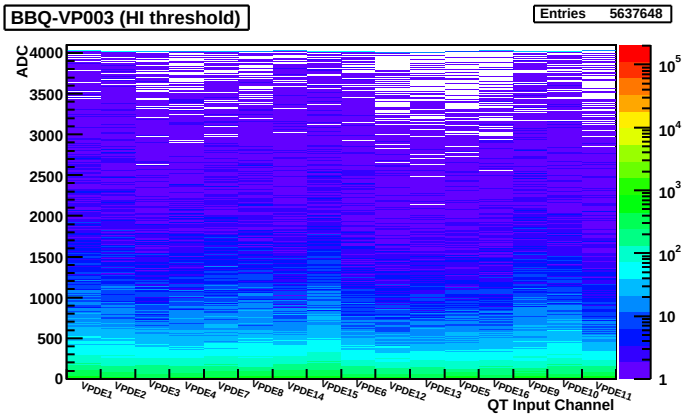

BBQ-ZD001 (ZDC TOWER)
Entries 5637648
TAC

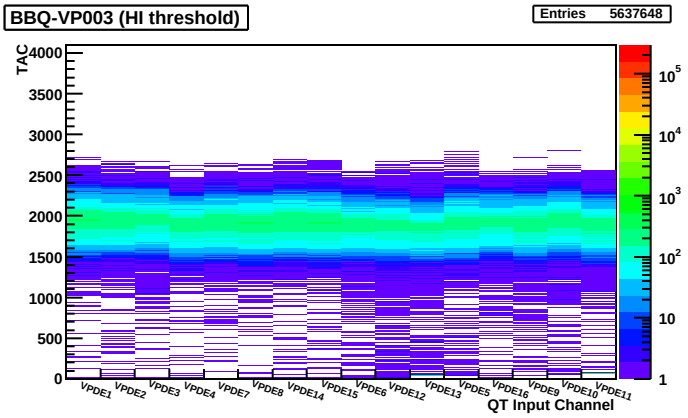

BBQ-VP001 (LO threshold)
Entries 5637648
ADC
QT Input Channel

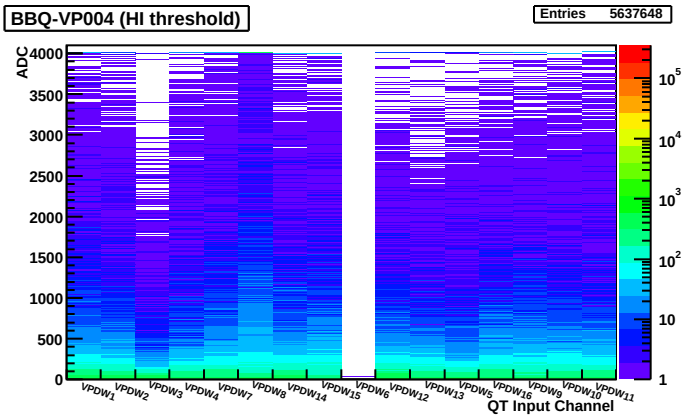

BBQ-VP001 (LO threshold)
Entries 5637648
TAC
QT Input Channel

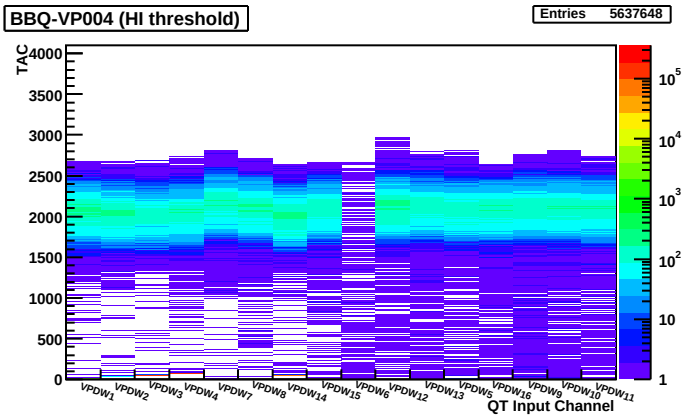

BBQ-VP002 (LO threshold)
Entries 5637648
ADC
QT Input Channel

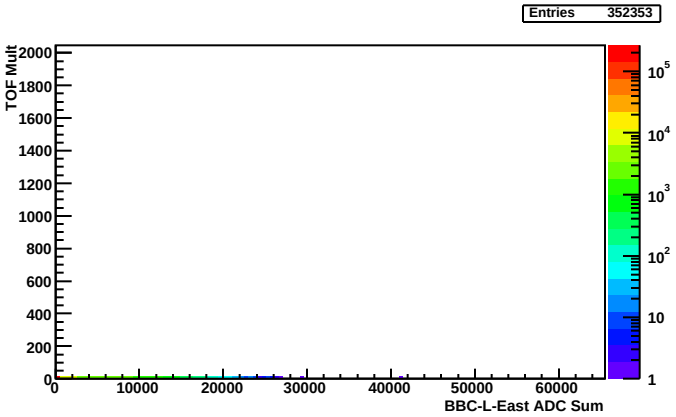

BBQ-VP002 (LO threshold)
Entries 5637648
TAC
QT Input Channel

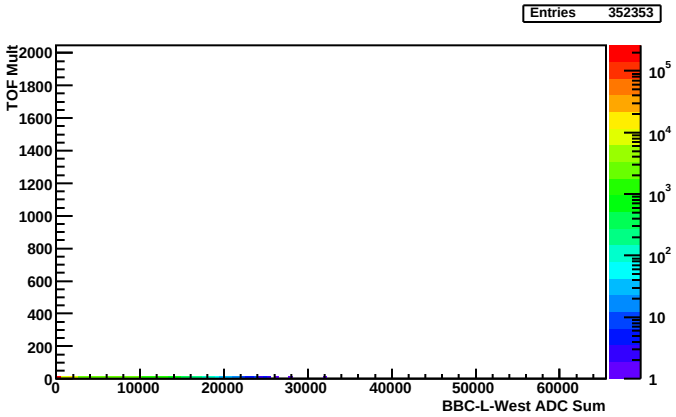

BBQ-VP003 (HI threshold)
Entries 5637648
ADC
QT Input Channel

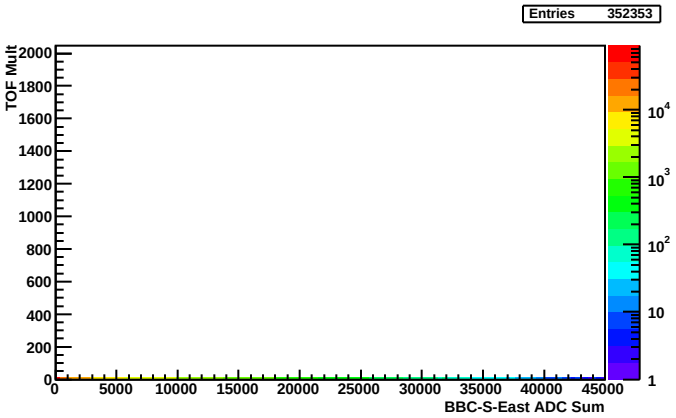

BBQ-VP003 (HI threshold)
Entries 5637648
TAC
QT Input Channel

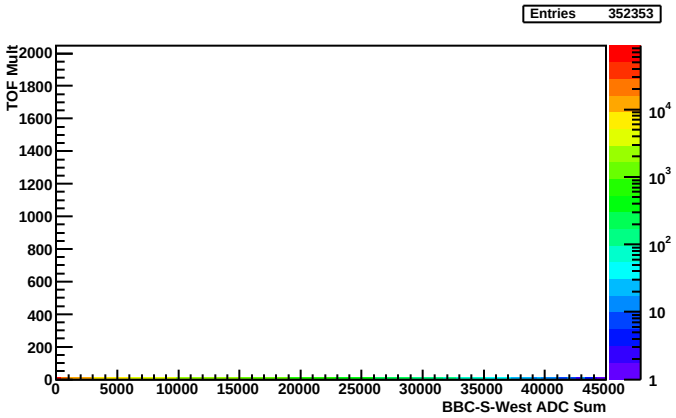

BBQ-VP004 (HI threshold)
Entries 5637648
ADC
QT Input Channel

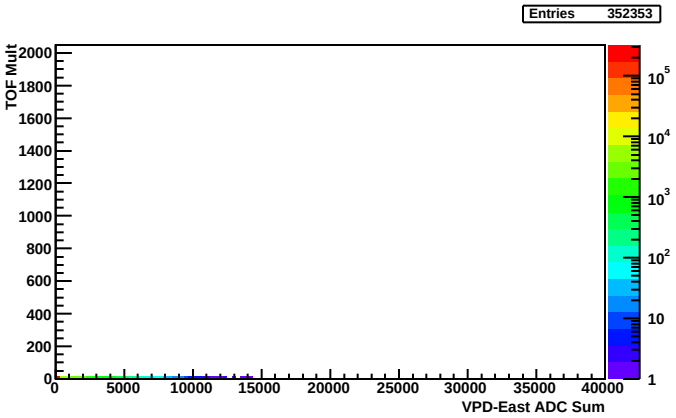

BBQ-VP004 (HI threshold)
Entries 5637648
TAC
QT Input Channel

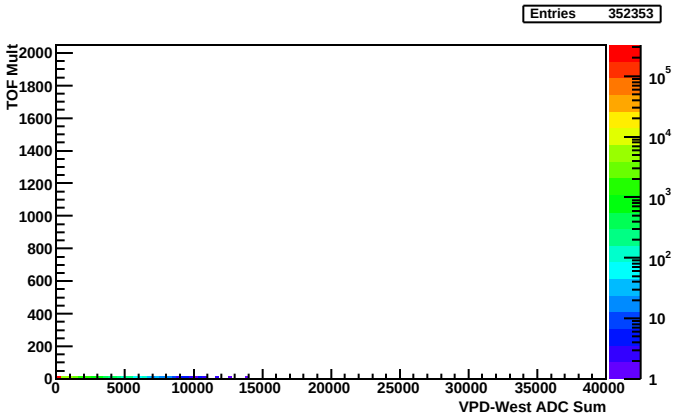

Entries 352353
TOF Mult
BBC-L-East ADC Sum

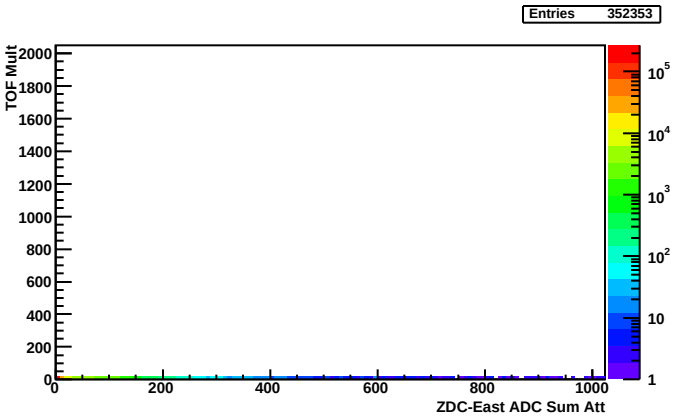

Entries 352353
TOF Mult
BBC-L-West ADC Sum

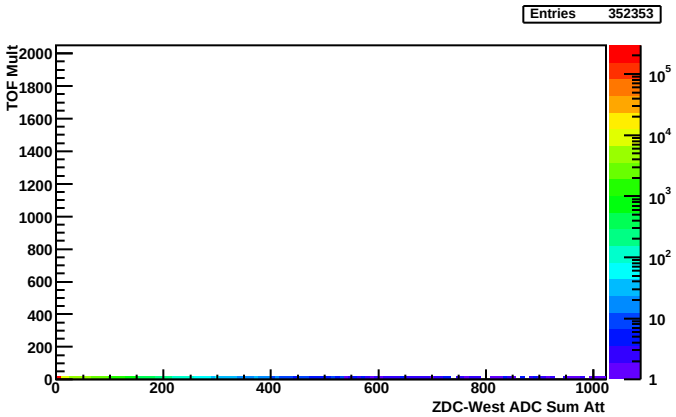

Entries 352353
TOF Mult
BBC-S-East ADC Sum

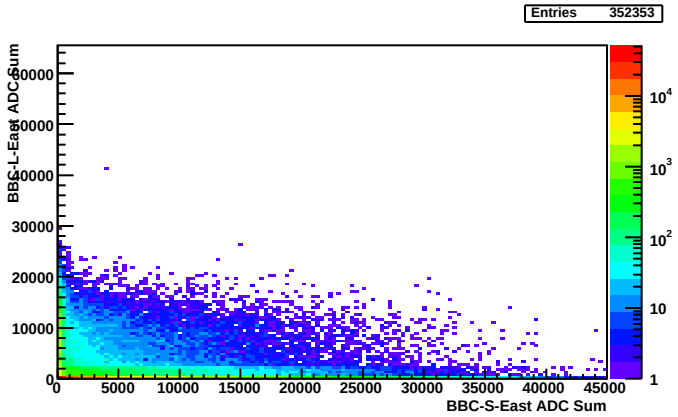

Entries 352353
TOF Mult
BBC-S-West ADC Sum

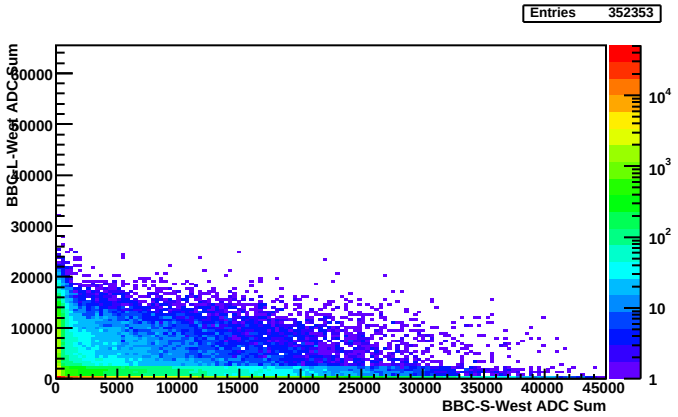

Entries 352353
TOF Mult
VPD-East ADC Sum

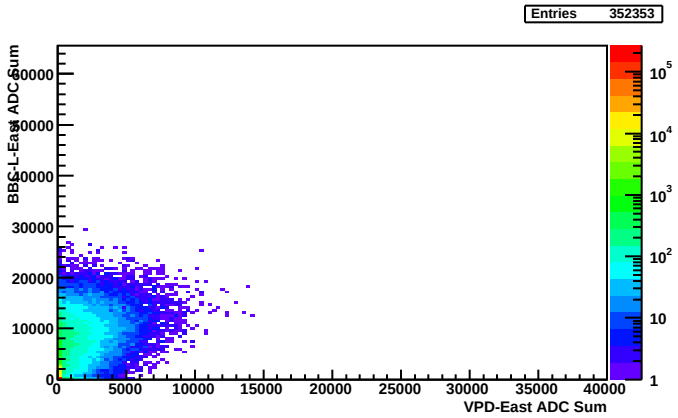

Entries 352353
TOF Mult
VPD-West ADC Sum

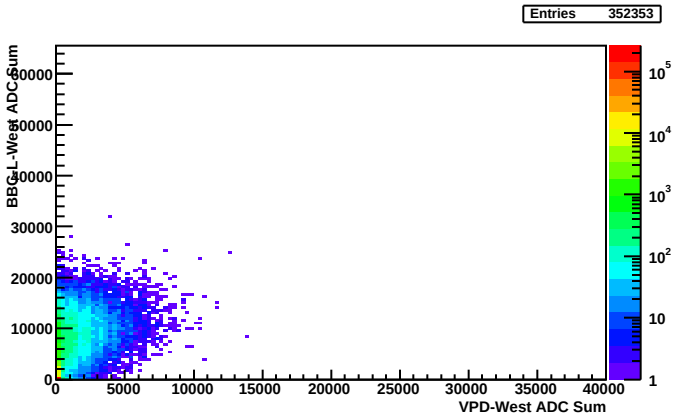

Entries 352353
TOF Mult
ZDC-East ADC Sum Att


Entries 352353
TOF Mult
ZDC-West ADC Sum Att


Entries 352353
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 352353
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 352353
BBC-L-East ADC Sum
VPD-East ADC Sum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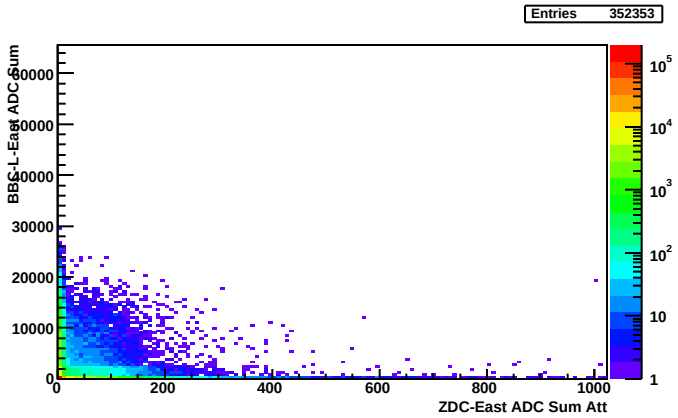
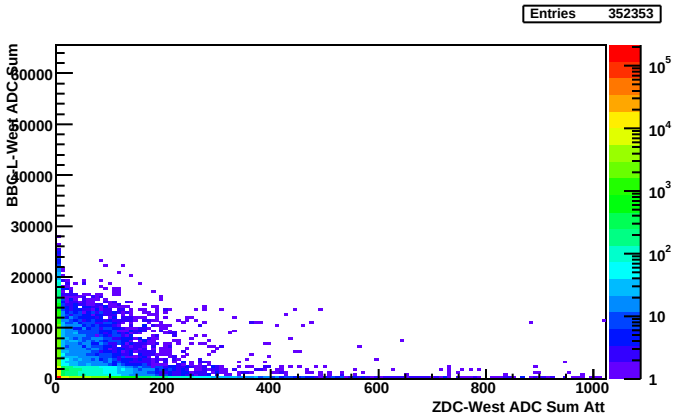
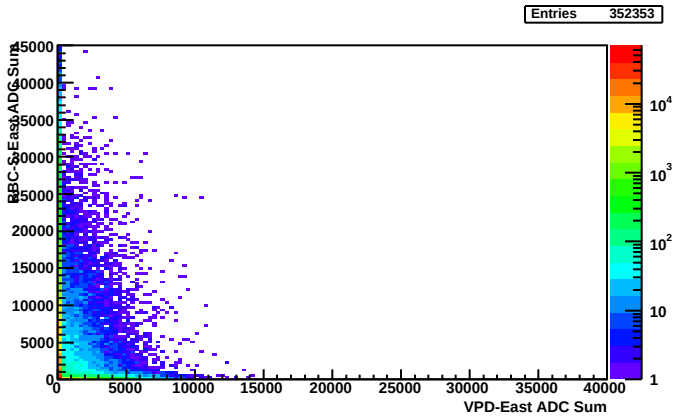
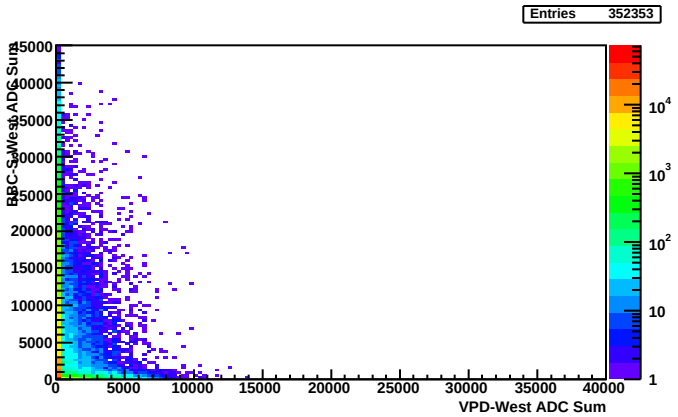
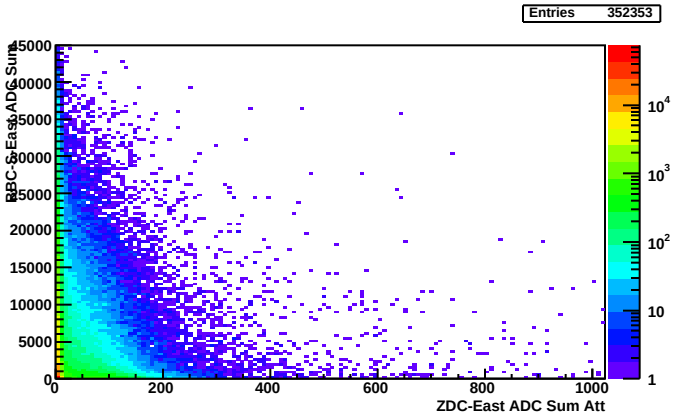
BBC-L-West ADC Sum
VPD-West ADC Sum

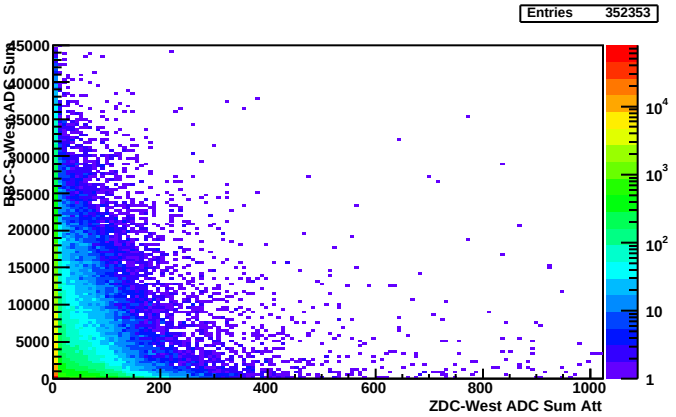

Entries 352353
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

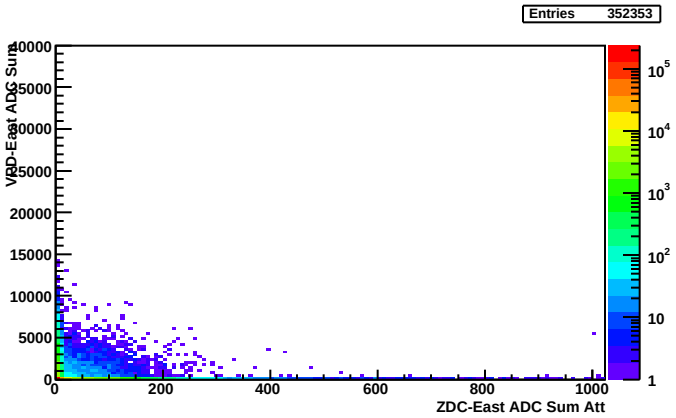

Entries 352353
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

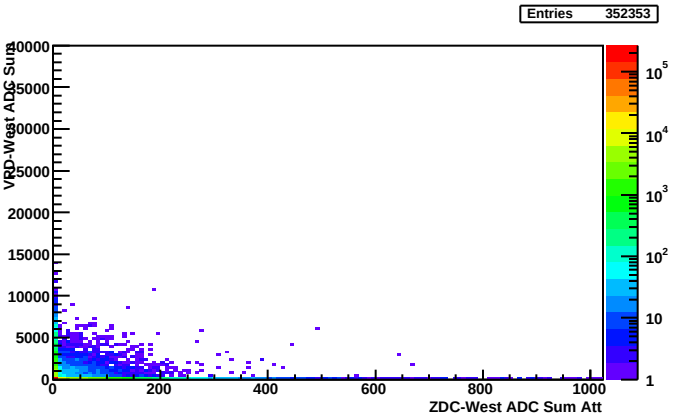

Entries 352353
BBC-S-East ADC Sum
VPD-East ADC Sum

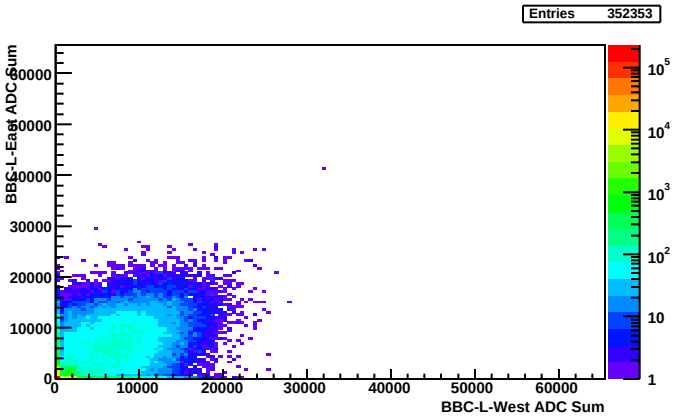

Entries 352353
BBC-S-West ADC Sum
VPD-West ADC Sum

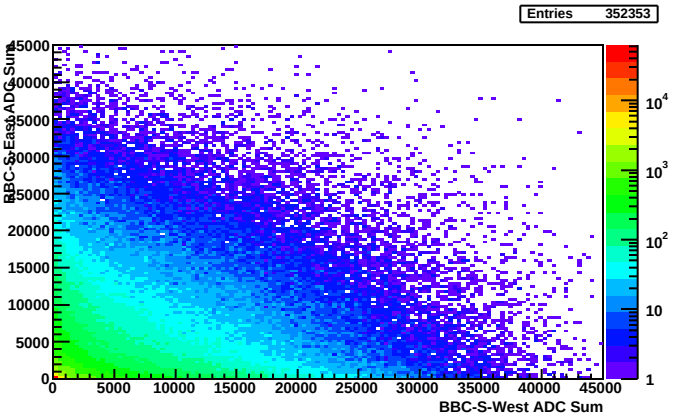

Entries 352353
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

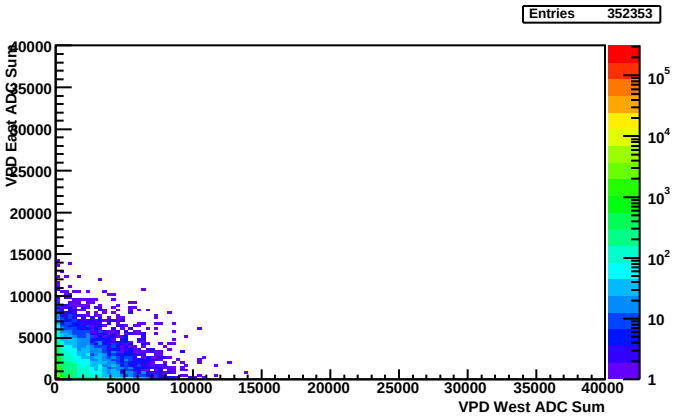

Entries 352353
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

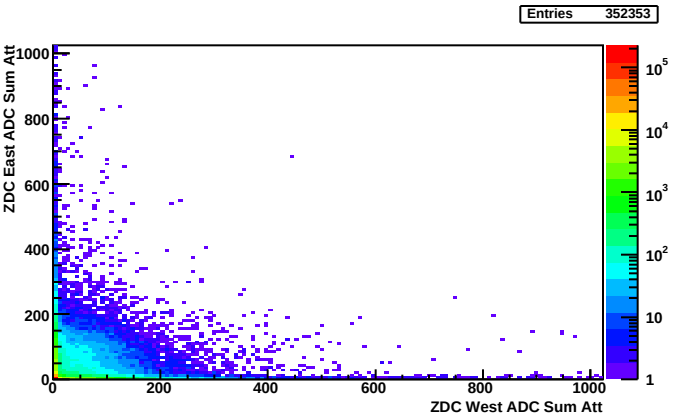

Entries 352353
VPD-East ADC Sum
ZDC-East ADC Sum Att

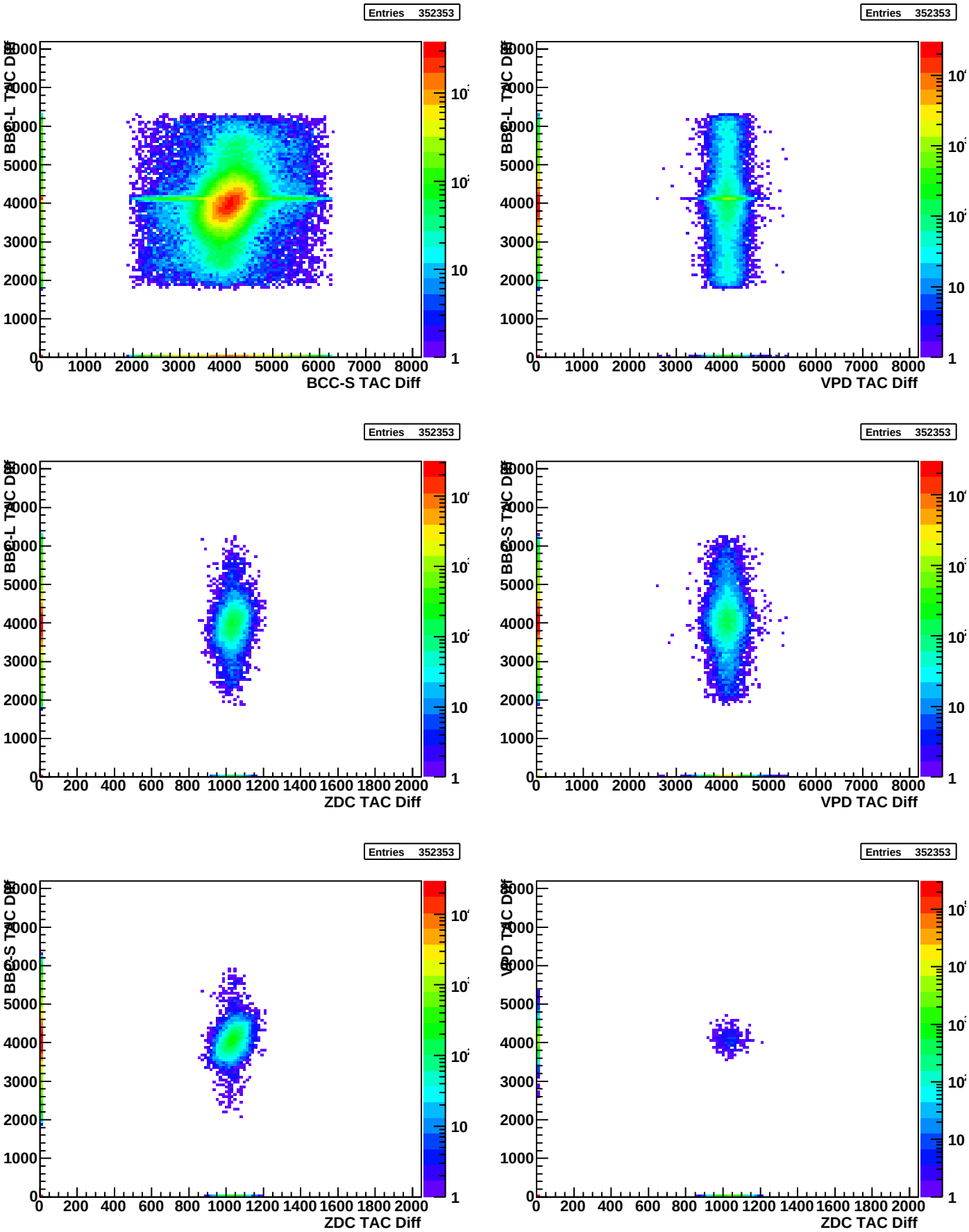

Entries 352353
VPD-West ADC Sum
ZDC-West ADC Sum Att

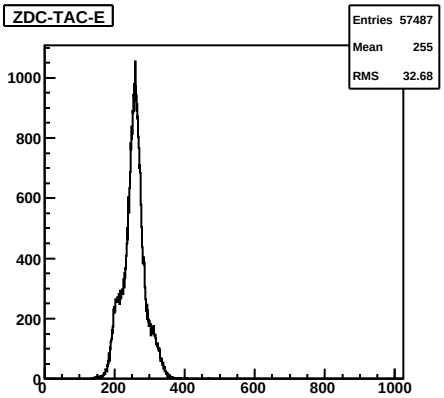

Entries 352353
BBC-L-East ADC Sum
BBC-L-West ADC Sum

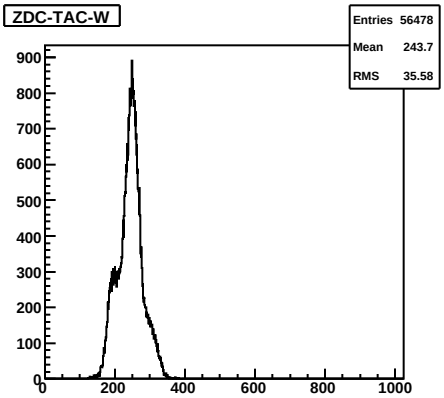

Entries 352353
BBC-S-East ADC Sum
BBC-S-West ADC Sum

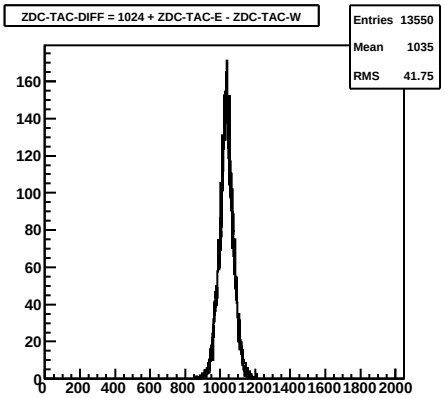

Entries 352353
VPD East ADC Sum
VPD West ADC Sum

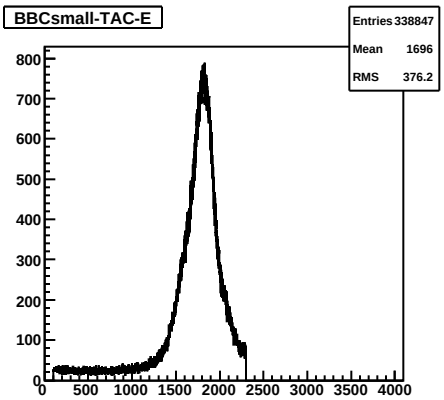

Entries 352353
ZDC East ADC Sum Att
ZDC West ADC Sum Att

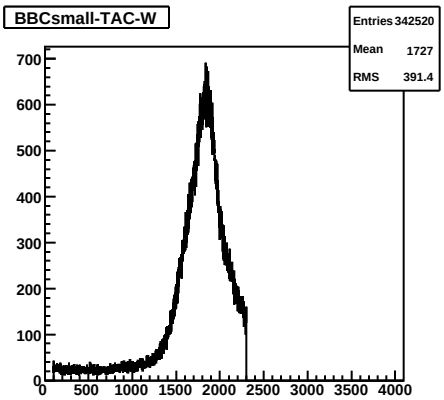

Entries 352353
BBC-L TAC Diff
BCC-S TAC Diff
Entries 352353
BBC-L TAC Diff
VPD TAC Diff
Entries 352353
BBC-L TAC Diff
ZDC TAC Diff
Entries 352353
BBC-S TAC Diff
VPD TAC Diff
Entries 352353
BBC-S TAC Diff
ZDC TAC Diff
Entries 352353
VPD TAC Diff
ZDC TAC Diff

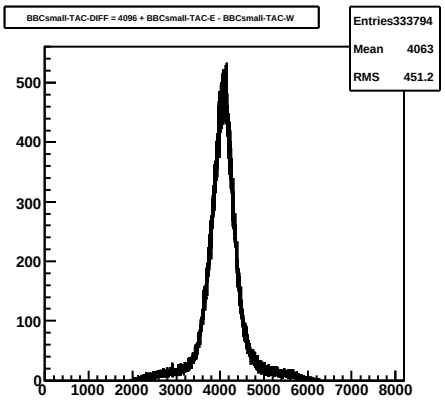

ZDC-TAC-E
Entries 57487
Mean 255
RMS 32.68

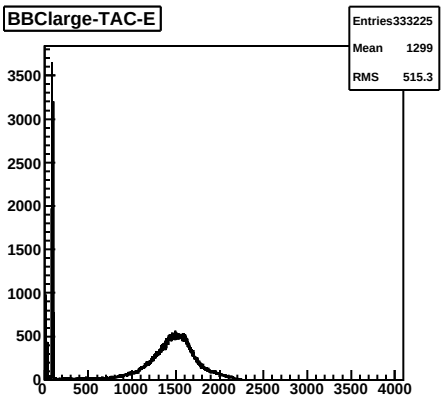

ZDC-TAC-W
Entries 56478
Mean 243.7
RMS 35.58

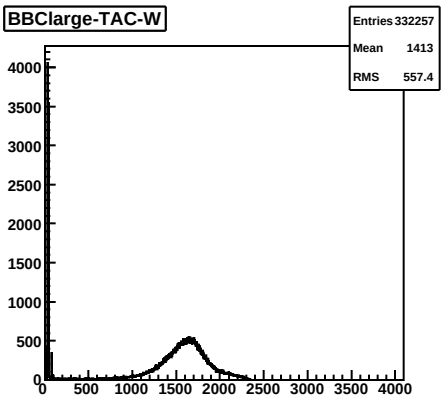

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 13550
Mean 1035
RMS 41.75

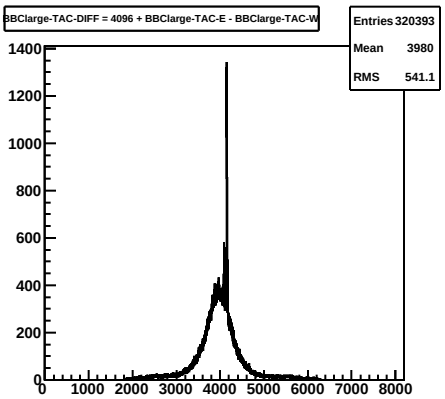

BBCsmall-TAC-E
Entries 338847
Mean 1696
RMS 376.2

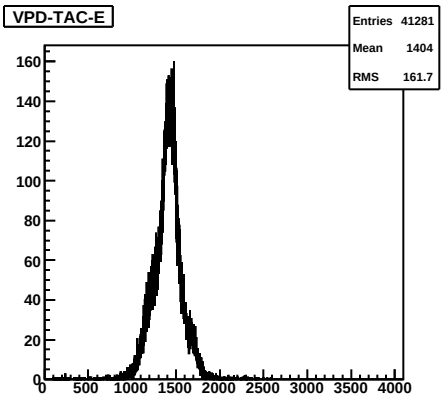

BBCsmall-TAC-W
Entries 342520
Mean 1727
RMS 391.4

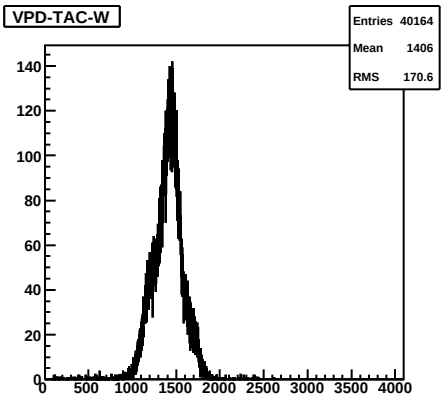

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 333794
Mean 4063
RMS 451.2

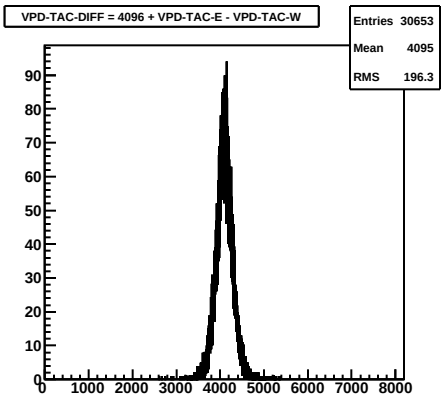

BBClarge-TAC-E
Entries 333225
Mean 1299
RMS 515.3

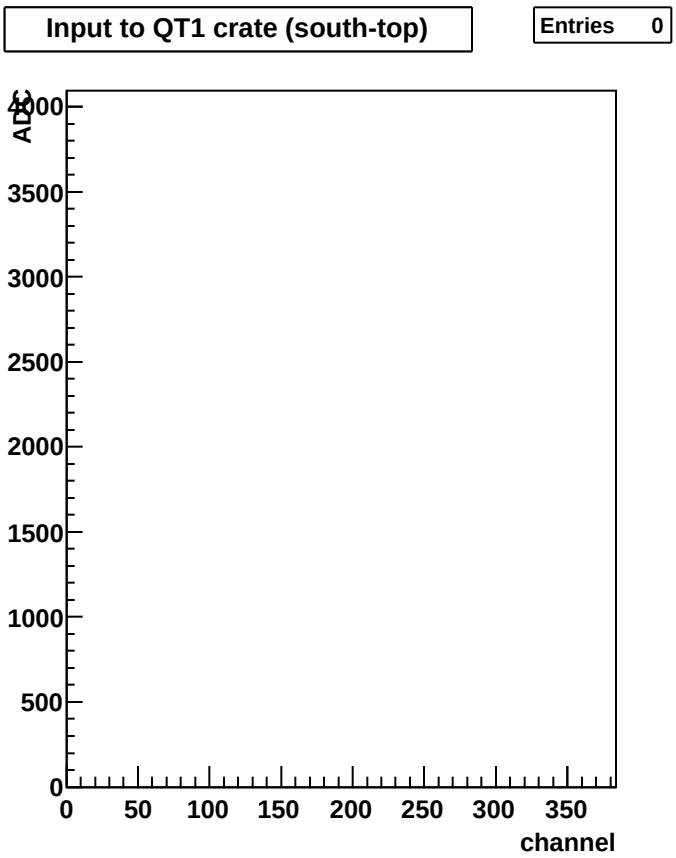

BBClarge-TAC-W
Entries 332257
Mean 1413
RMS 557.4

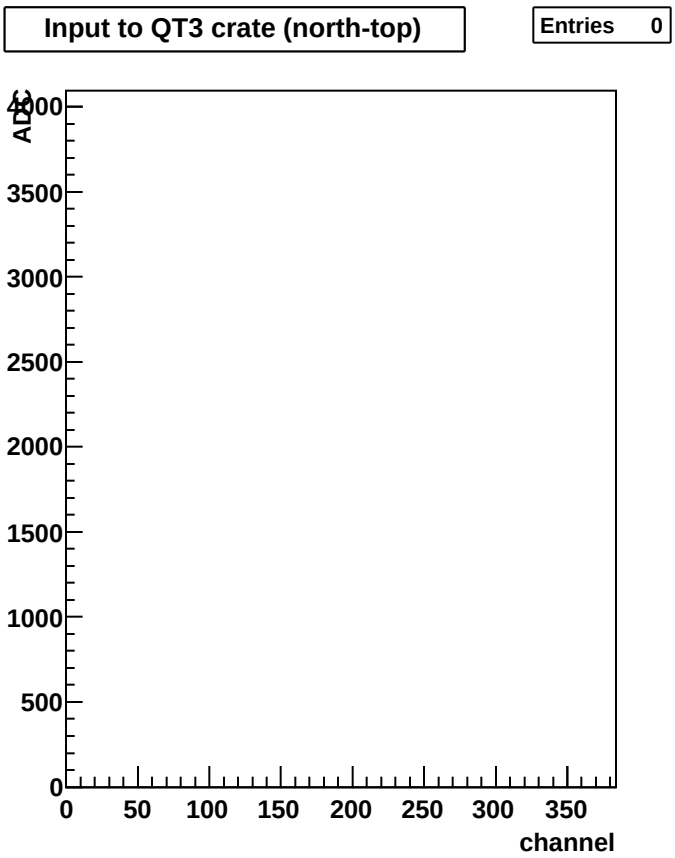

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 320393
Mean 3980
RMS 541.1

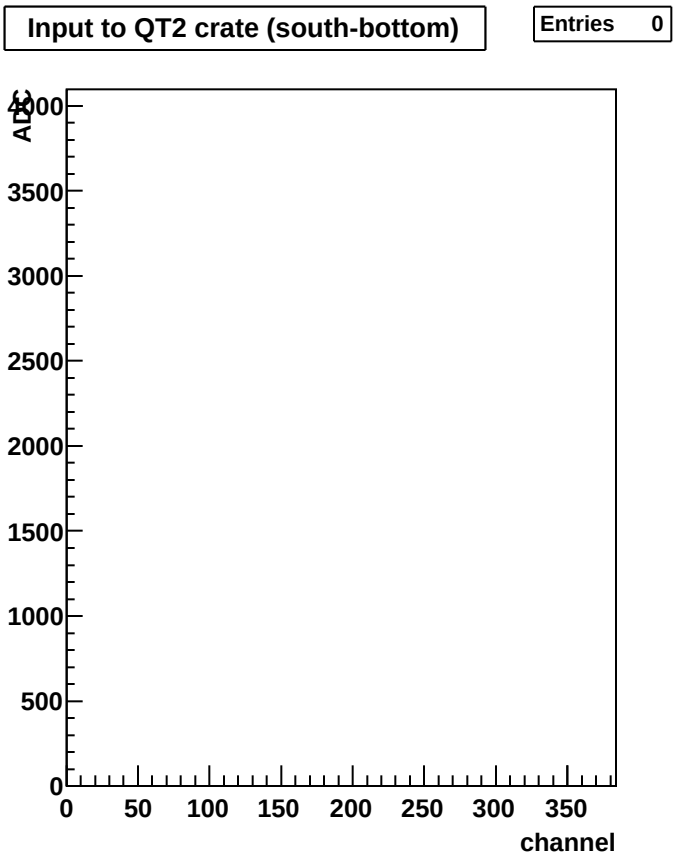

VPD-TAC-E
Entries 41281
Mean 1404
RMS 161.7

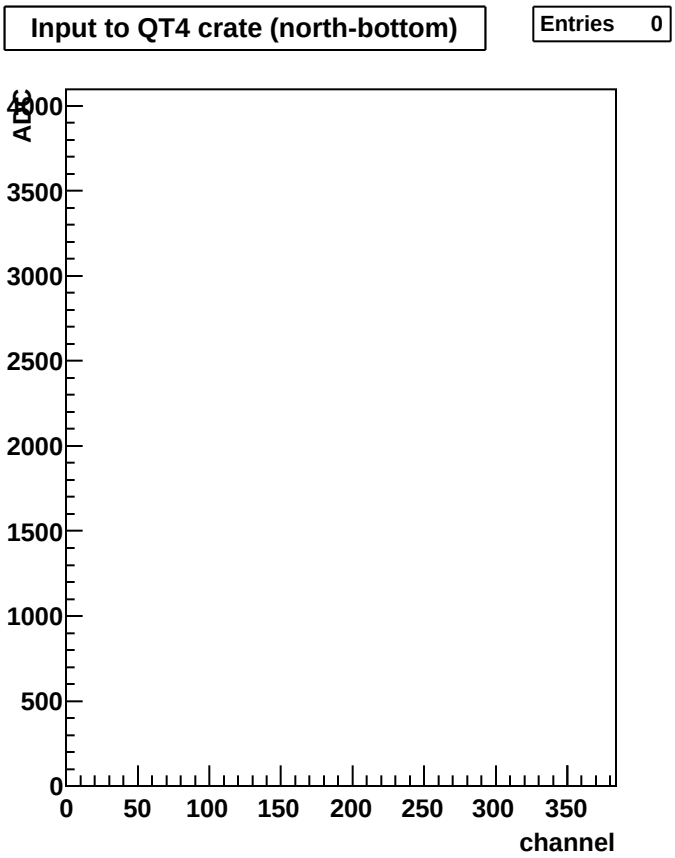

VPD-TAC-W
Entries 40164
Mean 1406
RMS 170.6

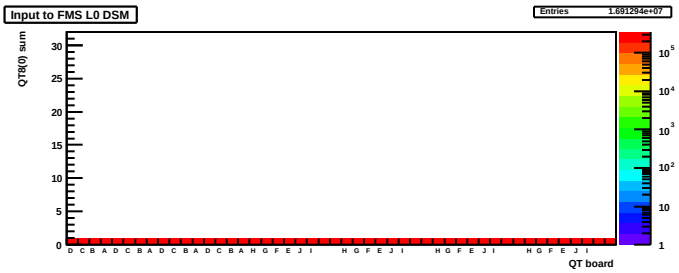

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 30653
Mean 4095
RMS 196.3

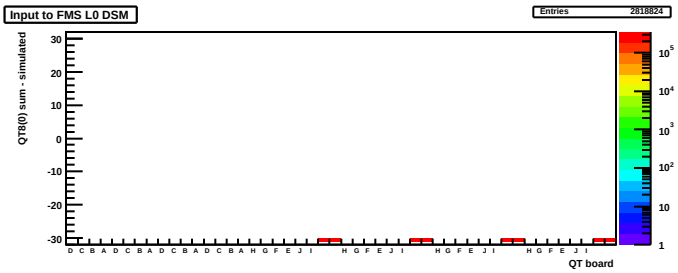

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

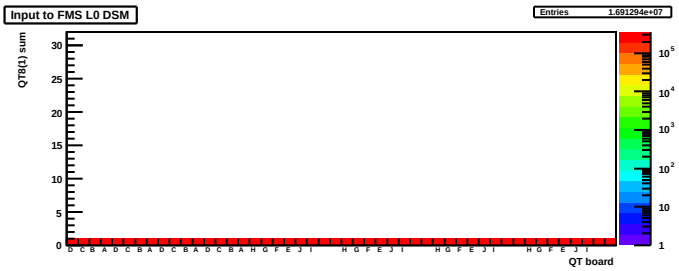

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

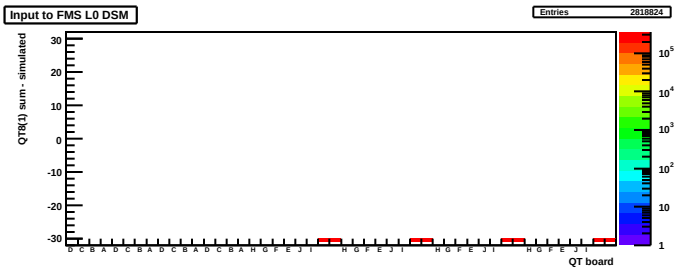

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

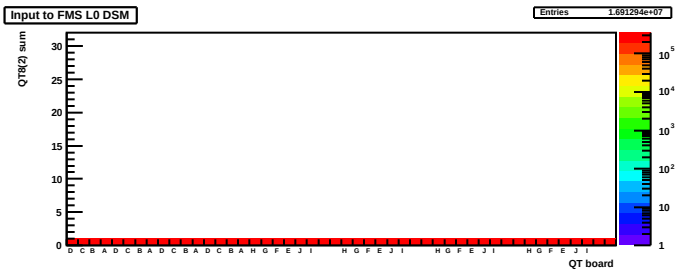

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

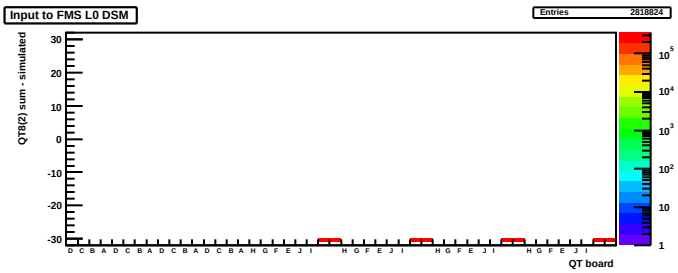

Input to FMS L0 DSM
Entries 1.691294e+07
QT8(0) sum
QT board

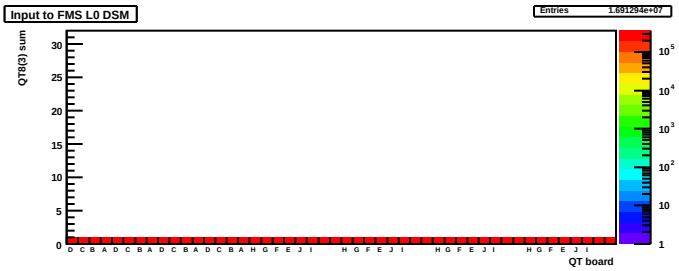

Input to FMS L0 DSM
Entries 2818824
QT8(0) sum - simulated
QT board

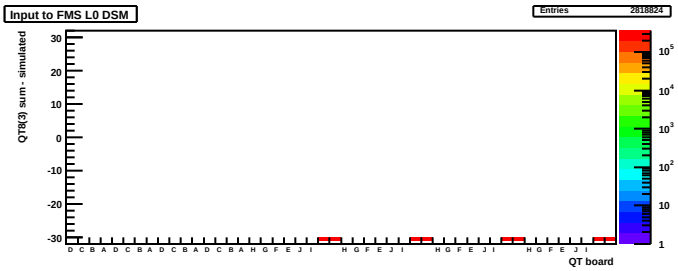

Input to FMS L0 DSM
Entries 1.691294e+07
QT8(1) sum
QT board

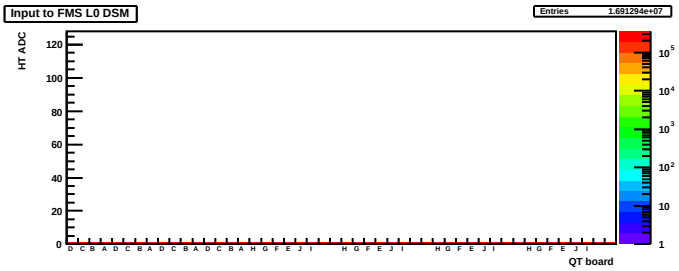

Input to FMS L0 DSM
Entries 2818824
QT8(1) sum - simulated
QT board

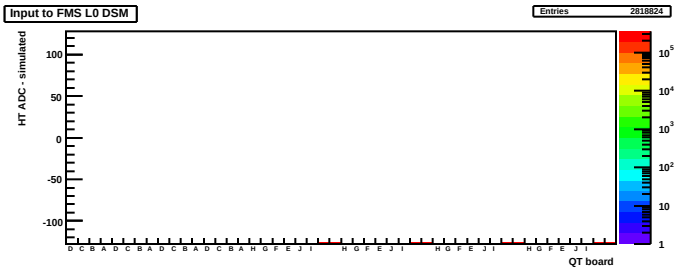

Input to FMS L0 DSM
Entries 1.691294e+07
QT8(2) sum
QT board

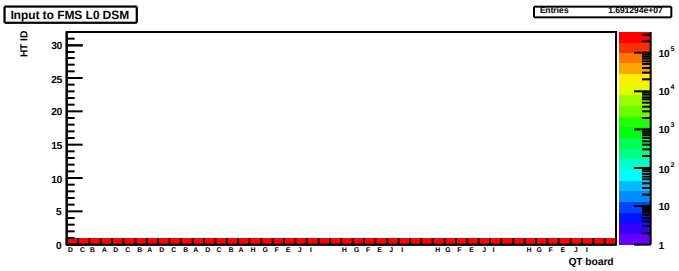

Input to FMS L0 DSM
Entries 2818824
QT8(2) sum - simulated
QT board

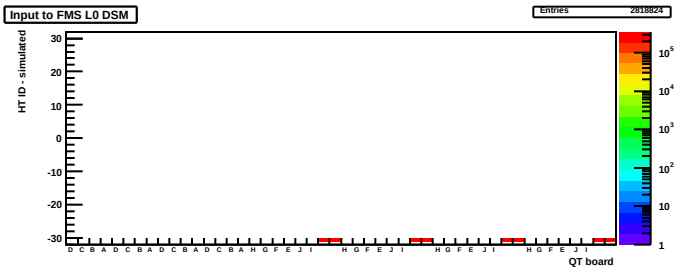

Input to FMS L0 DSM
Entries 1.691294e+07
QT8(3) sum
QT board

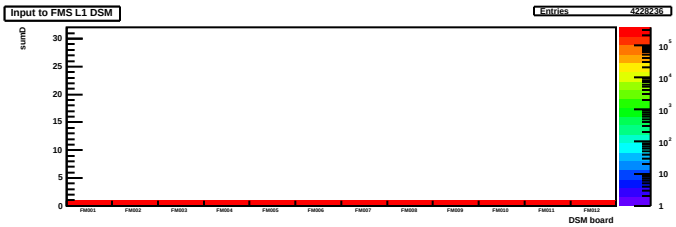

Input to FMS L0 DSM
Entries 2818824
QT8(3) sum - simulated
QT board

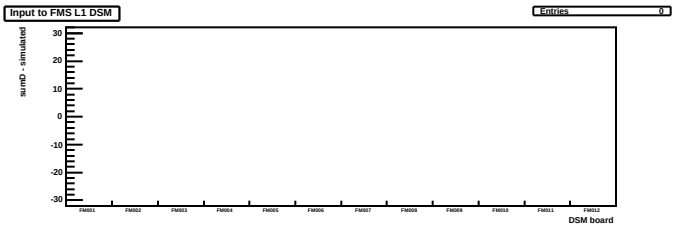

Input to FMS L0 DSM
Entries 1.691294e+07
HT ADC
QT board

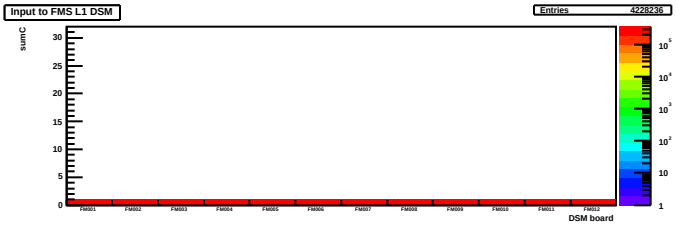

Input to FMS L0 DSM
Entries 2818824
HT ADC - simulated
QT board

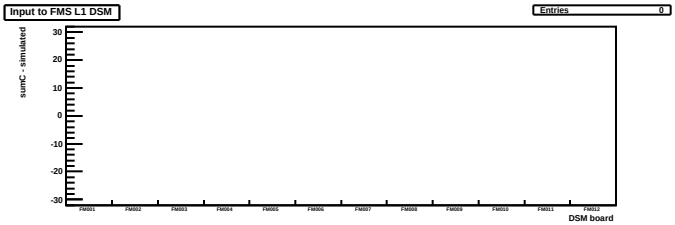

Input to FMS L0 DSM
Entries 1.691294e+07
HT ID
QT board

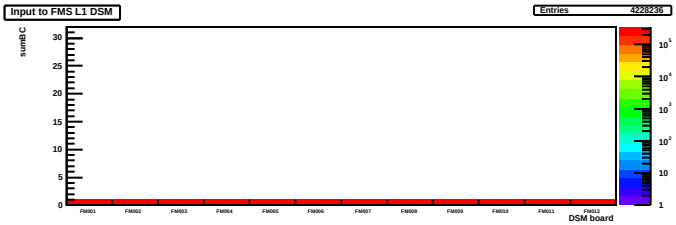

Input to FMS L0 DSM
Entries 2818824
HT ID - simulated
QT board

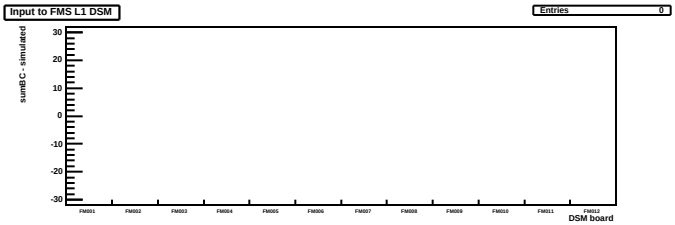

Input to FMS L1 DSM
Entries 4228236
sumD
DSM board

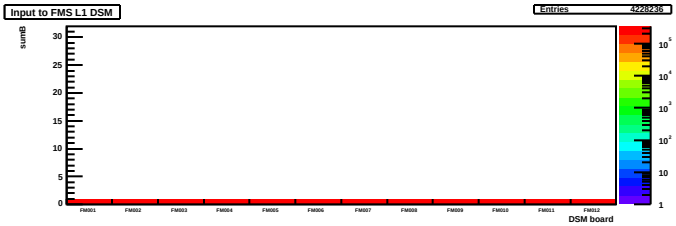

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

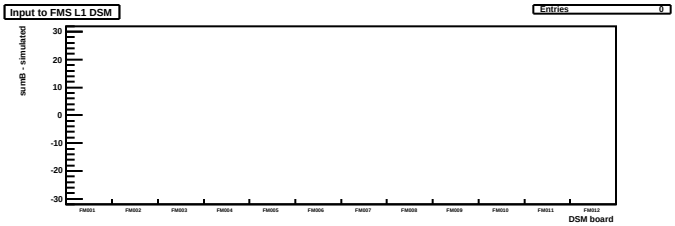

Input to FMS L1 DSM
Entries 4228236
sumC
DSM board

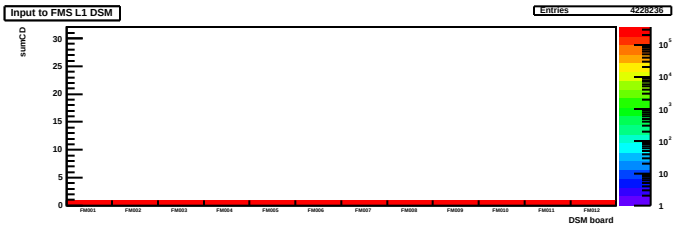

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

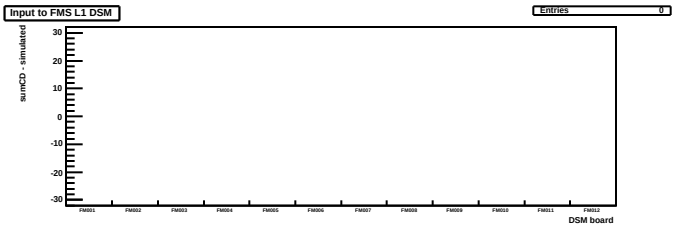

Input to FMS L1 DSM
Entries 4228236
sumBC
DSM board

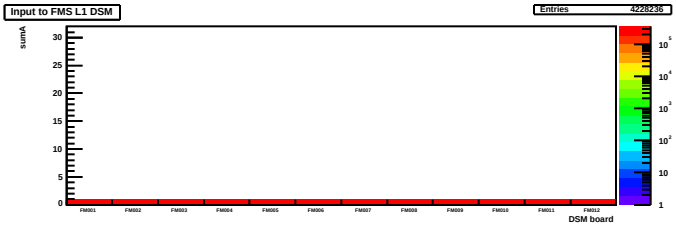

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

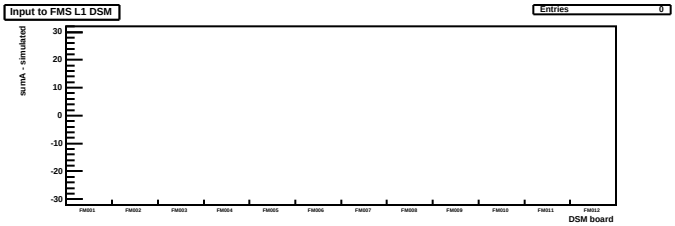

Input to FMS L1 DSM
Entries 4228236
sumB
DSM board

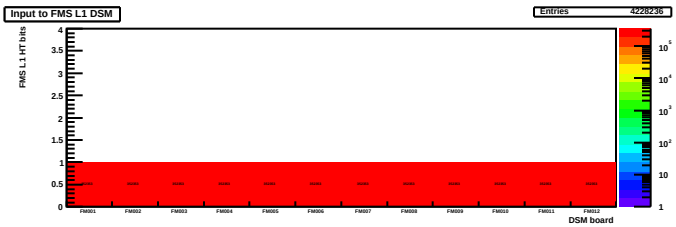

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

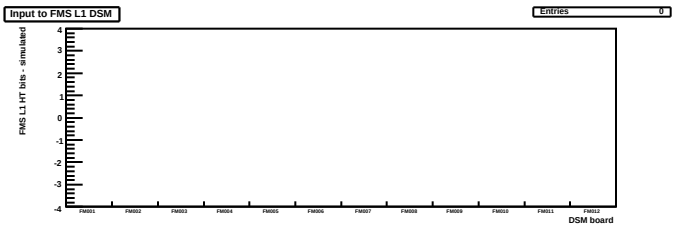

Input to FMS L1 DSM
Entries 4228236
sumCD
DSM board

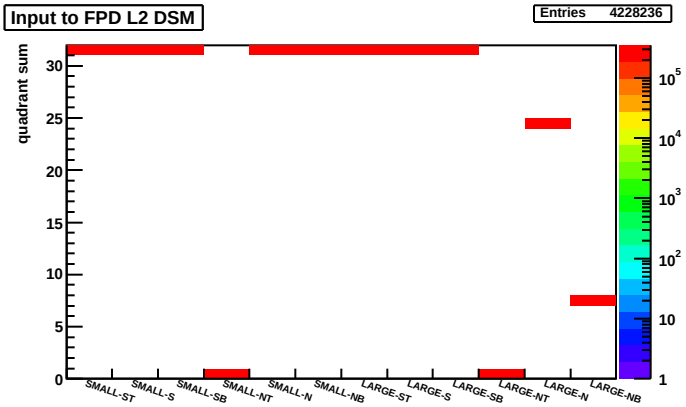

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

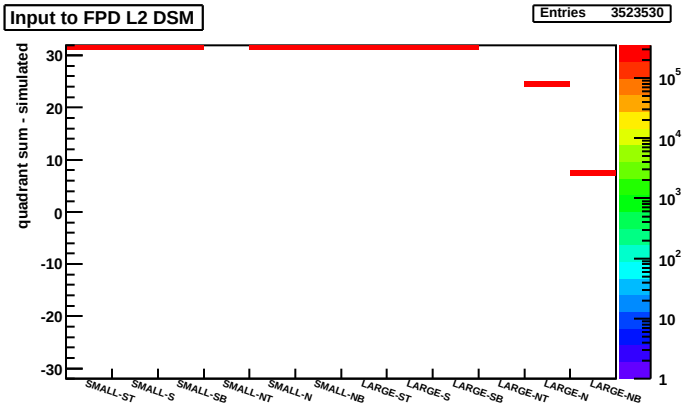

Input to FMS L1 DSM
Entries 4228236
sumA
DSM board

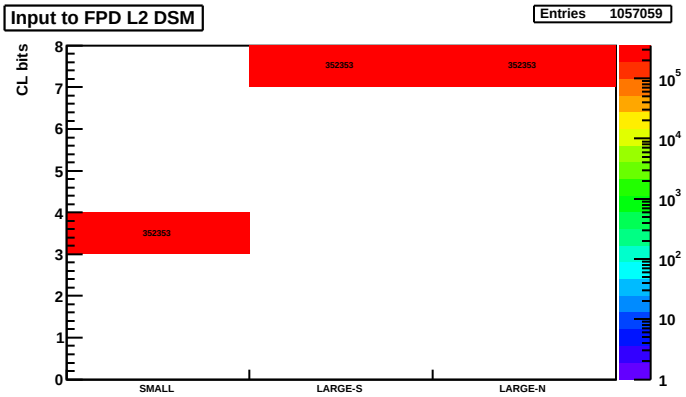

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

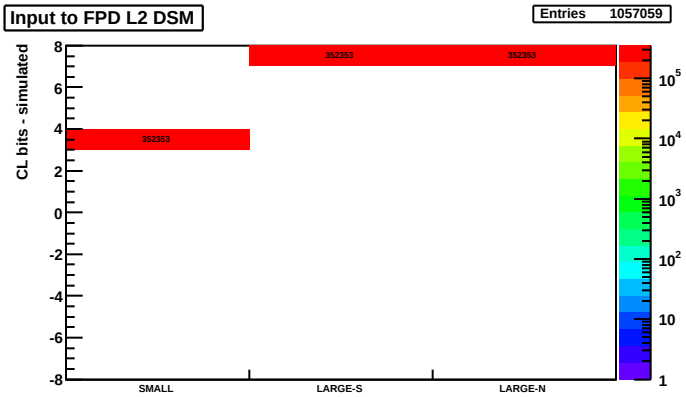

Input to FMS L1 DSM
Entries 4228236
FMS L1 HT bits
DSM board

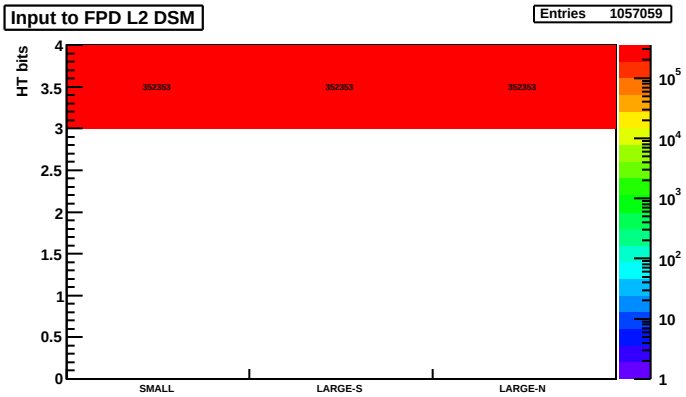

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

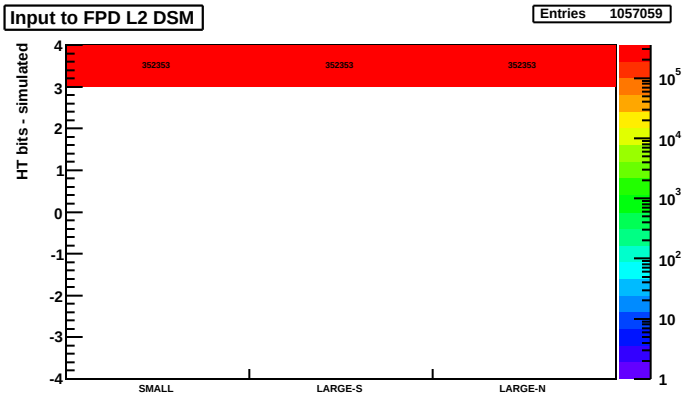

Input to FPD L2 DSM
Entries 4228236
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

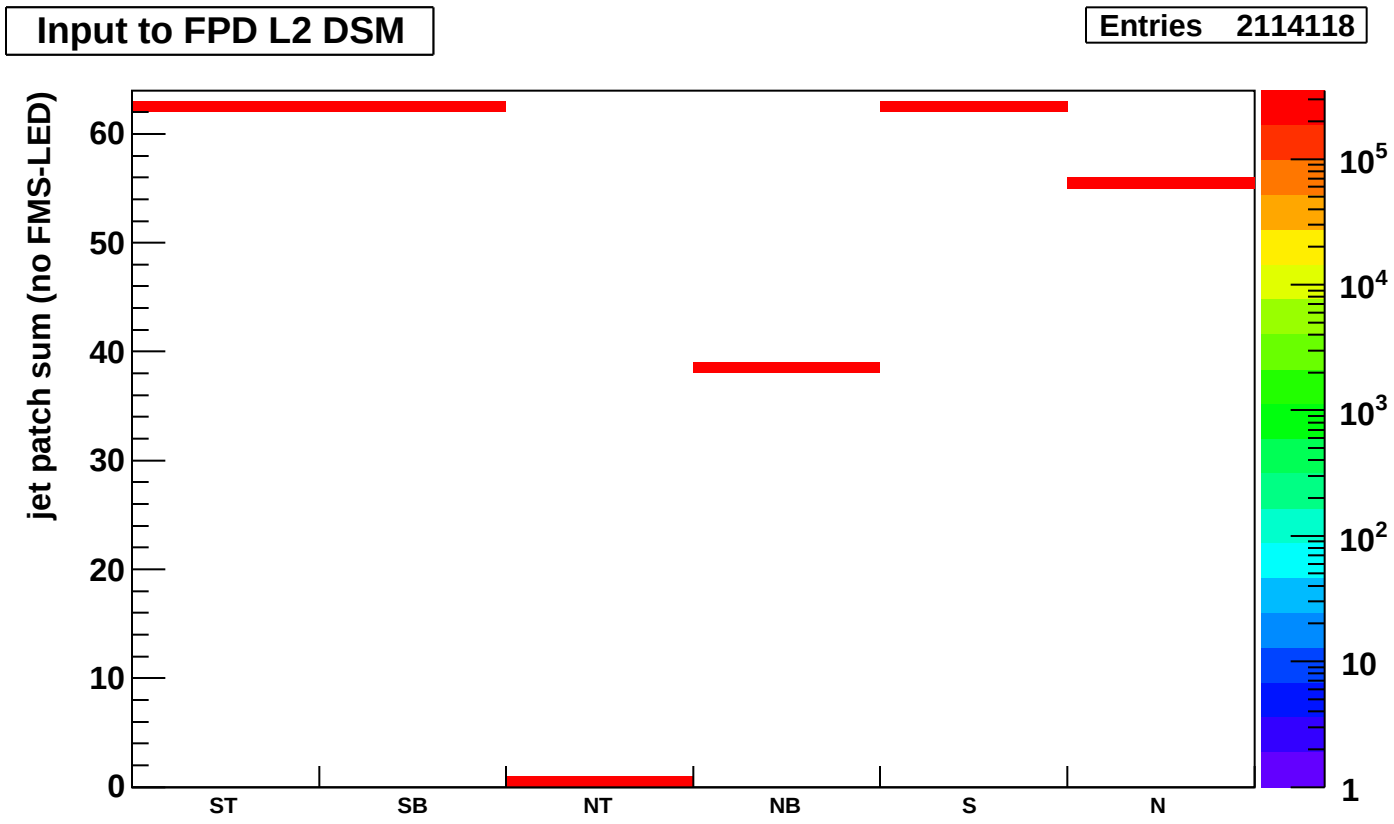

Input to FPD L2 DSM
Entries 3523530
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

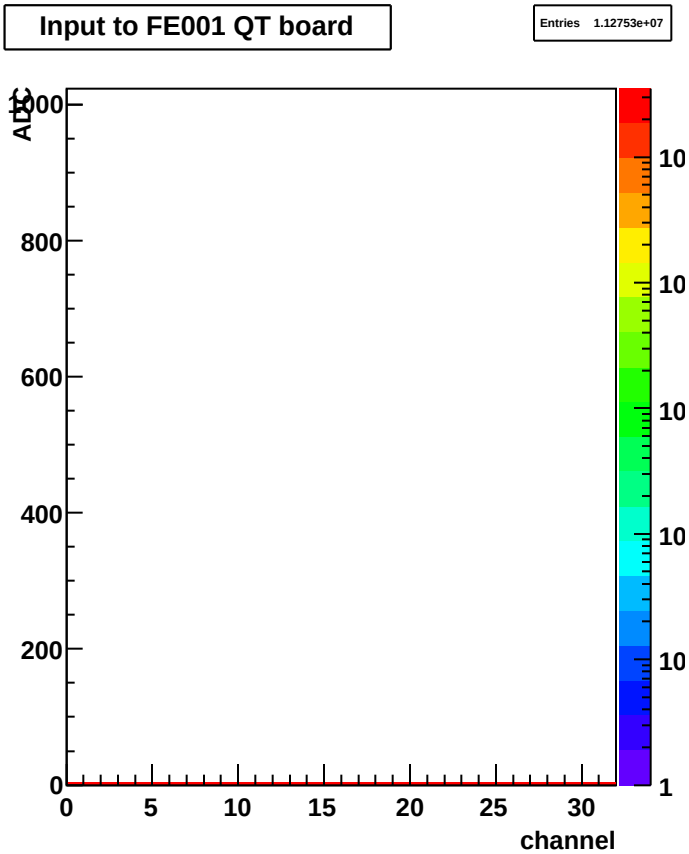

Input to FPD L2 DSM
Entries 1057059
CL bits
352353
352353
352353
SMALL
LARGE-S
LARGE-N

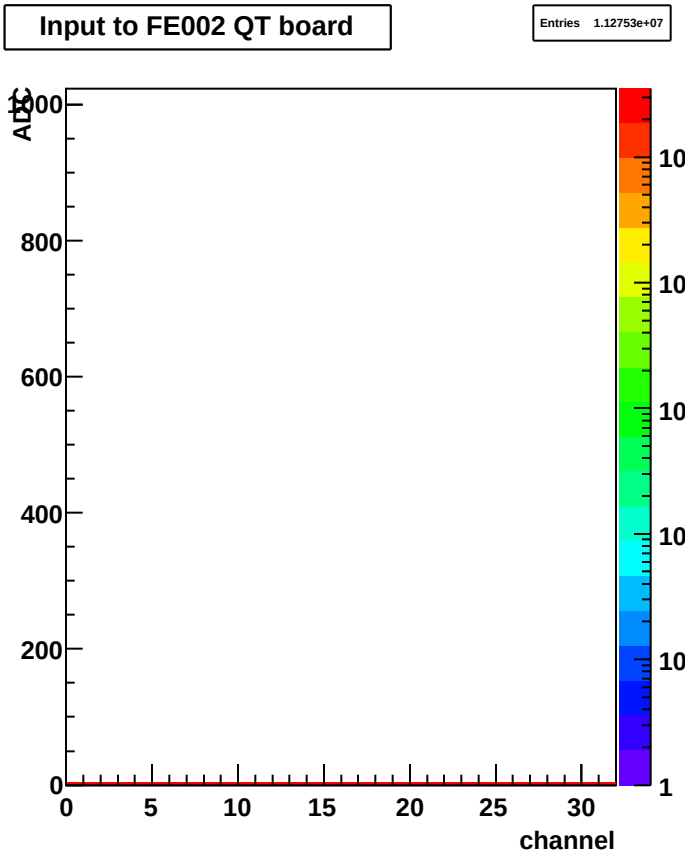

Input to FPD L2 DSM
Entries 1057059
CL bits - simulated
352353
352353
352353
SMALL
LARGE-S
LARGE-N

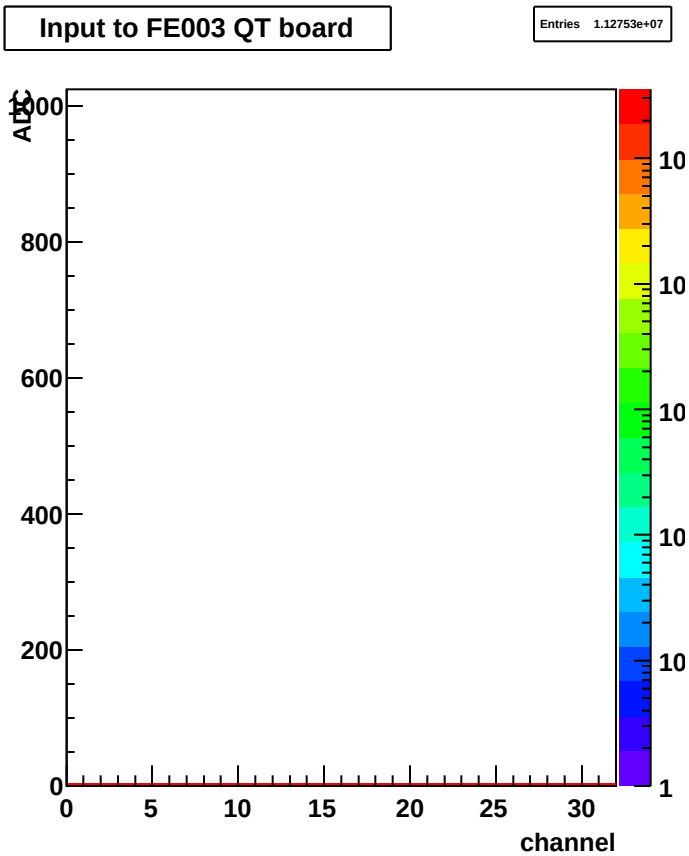

Input to FPD L2 DSM
Entries 1057059
HT bits
352353
352353
352353
SMALL
LARGE-S
LARGE-N

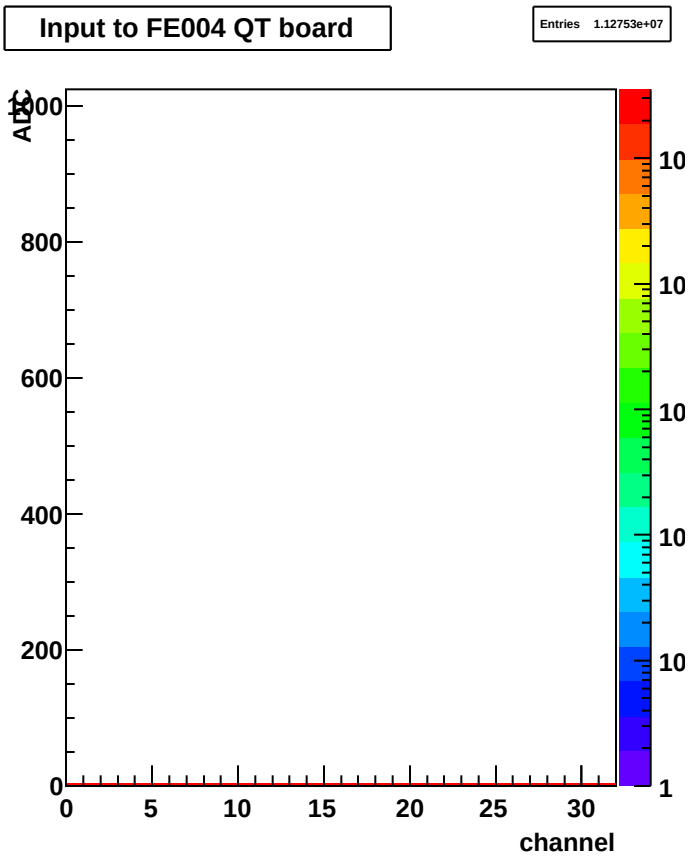

Input to FPD L2 DSM
Entries 1057059
HT bits - simulated
352353
352353
352353
SMALL
LARGE-S
LARGE-N

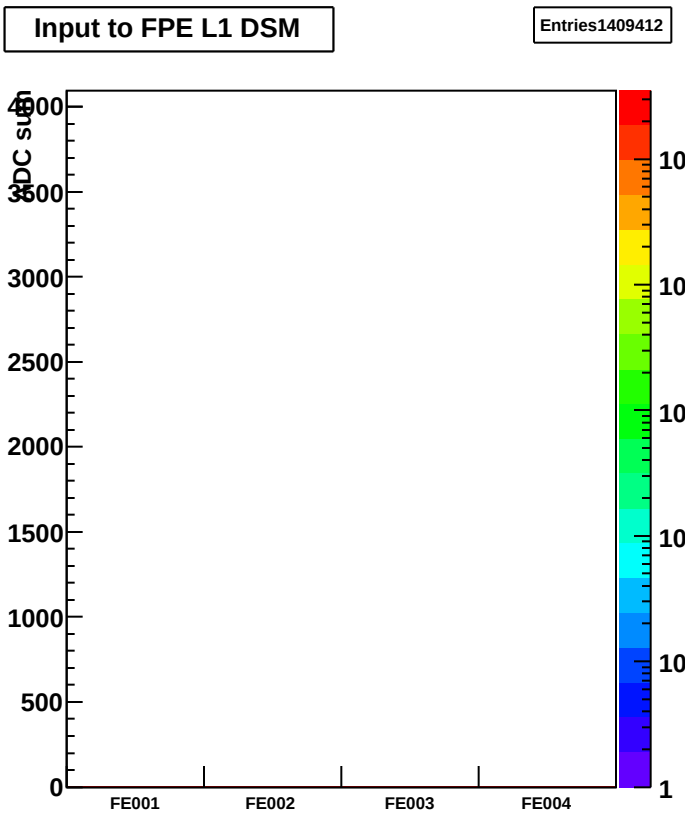

Input to FPD L2 DSM
Entries 2114118
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

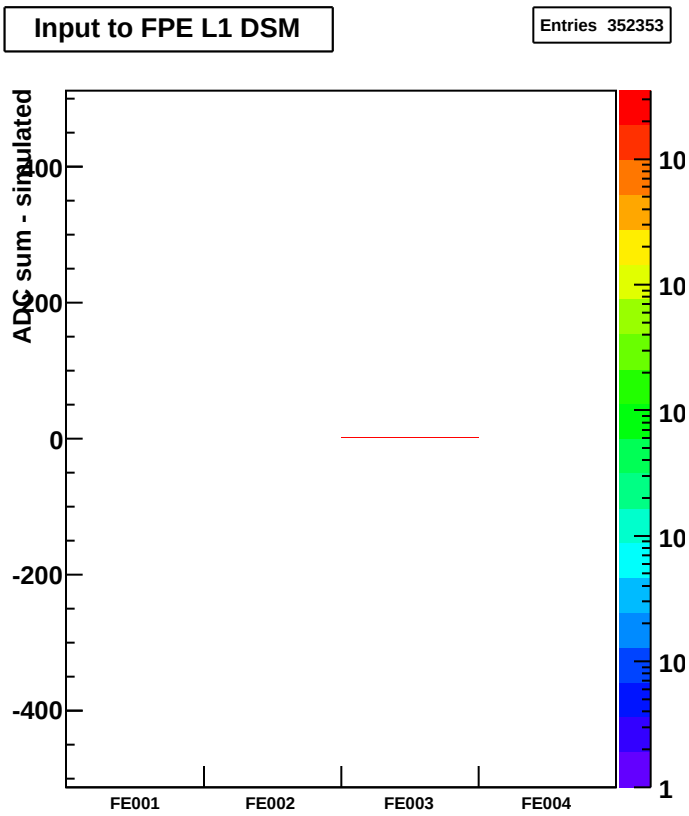

Input to FE001 QT board
Entries 1.12753e+07
ADC
channel

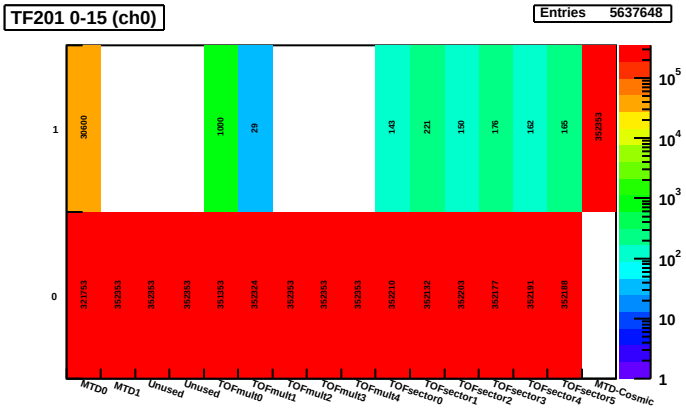

Input to FE002 QT board
Entries 1.12753e+07
ADC
channel

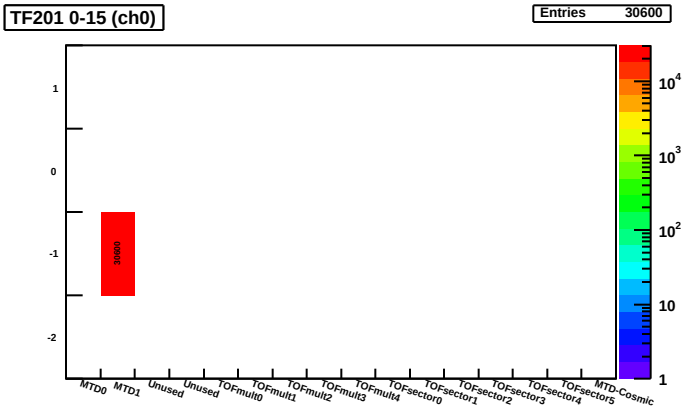

Input to FE003 QT board
Entries 1.12753e+07
ADC
channel

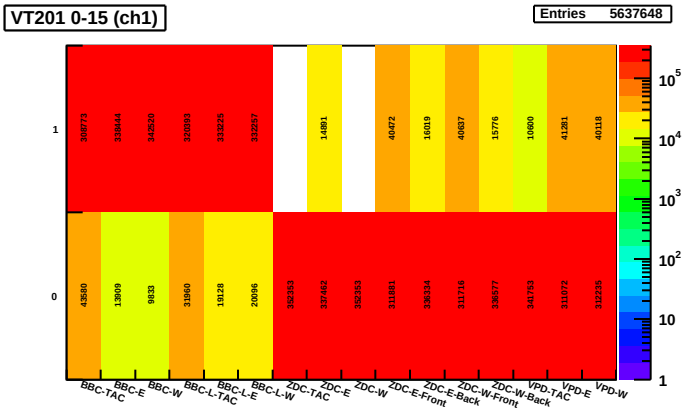

Input to FE004 QT board
Entries 1.12753e+07
ADC
channel

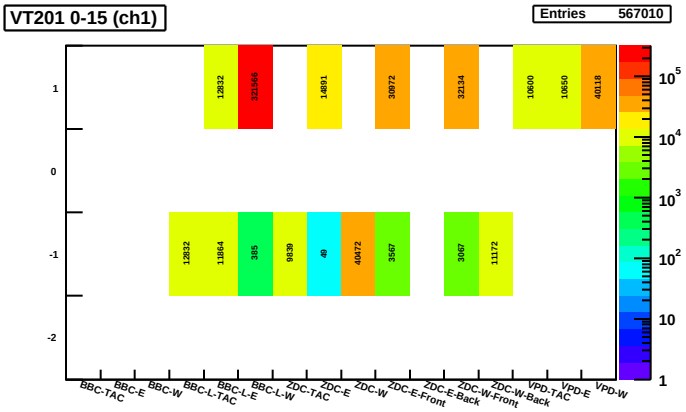

Input to FPE L1 DSM
Entries1409412
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 352353
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1


TF201 0-15 (ch0)
Entries 5637648
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 30600
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 5637648
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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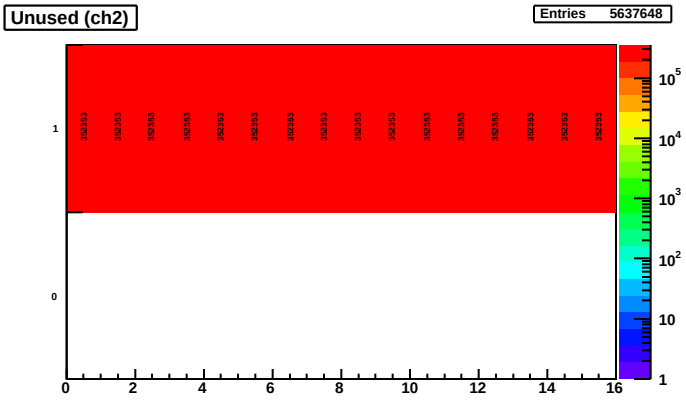
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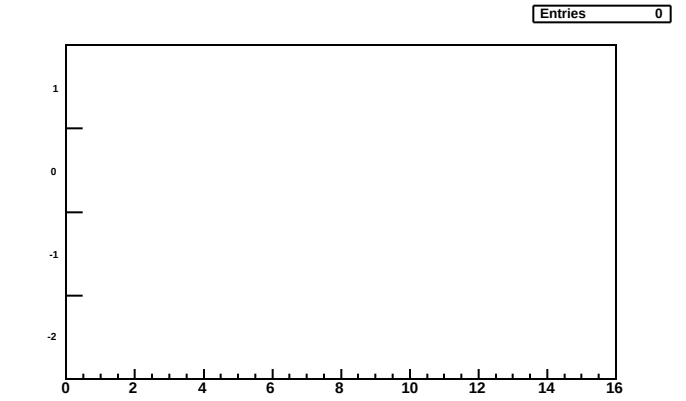
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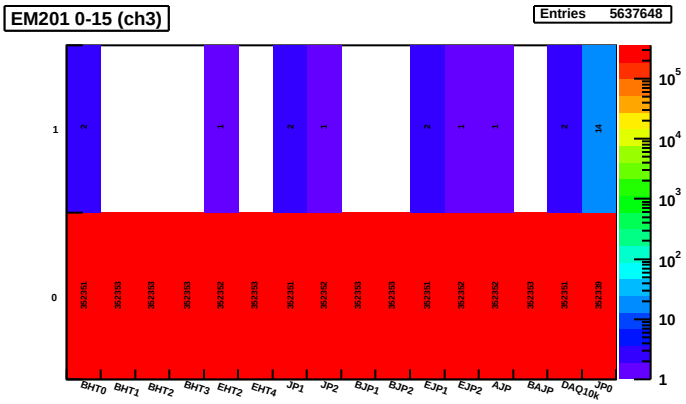
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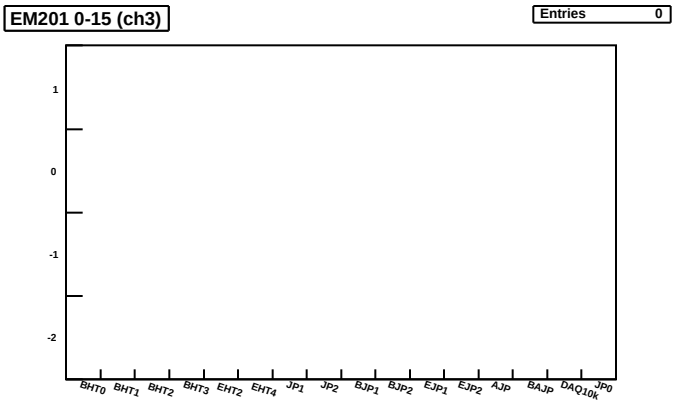
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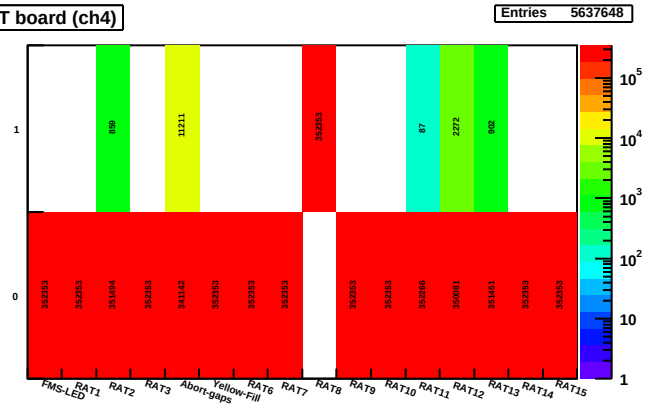
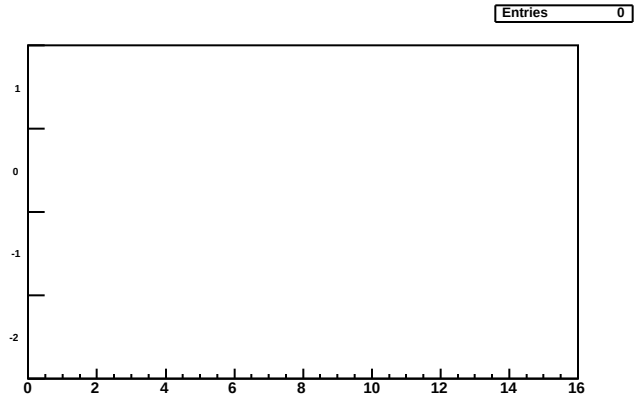
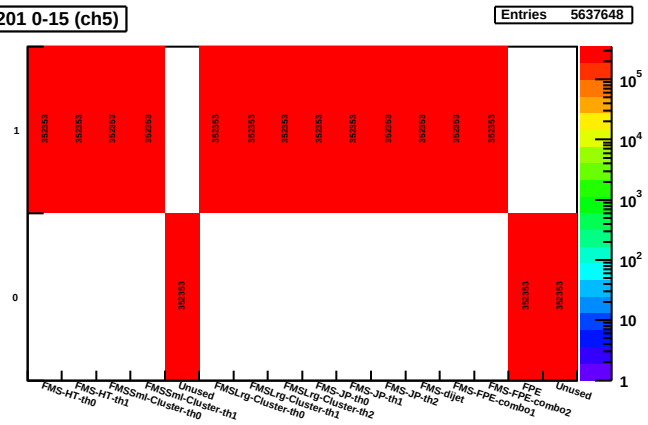
RAT board (ch4)





FP201 0-15 (ch5)



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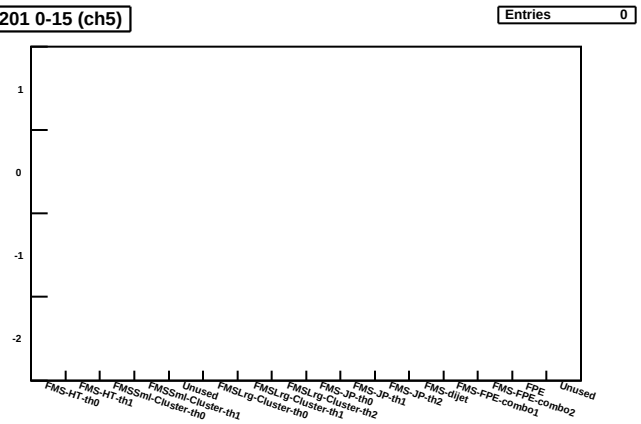
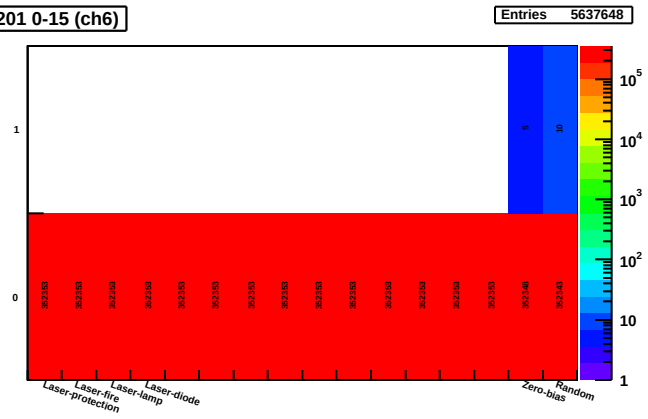
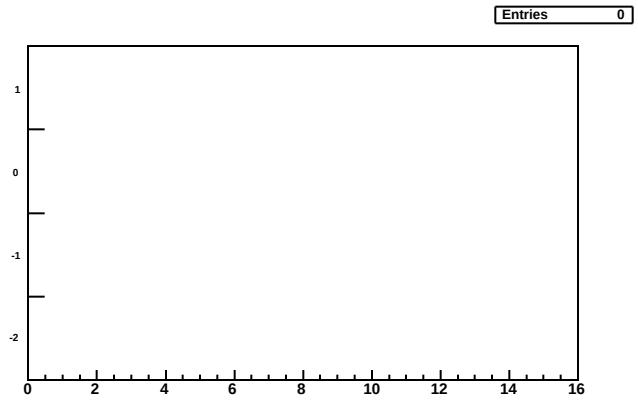
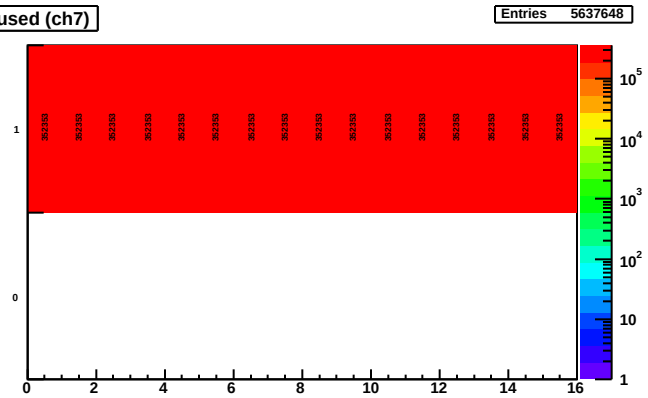
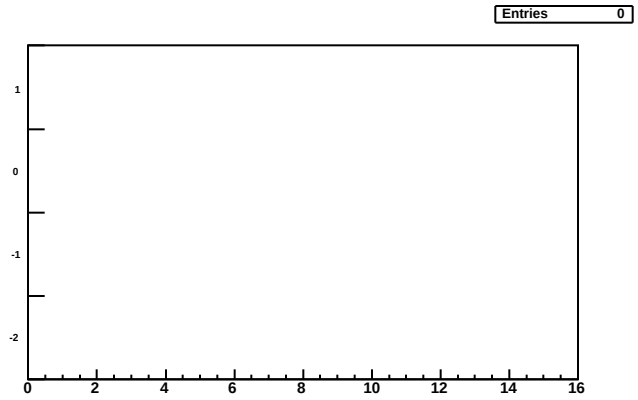


ST201 0-15 (ch6)





Unused (ch7)