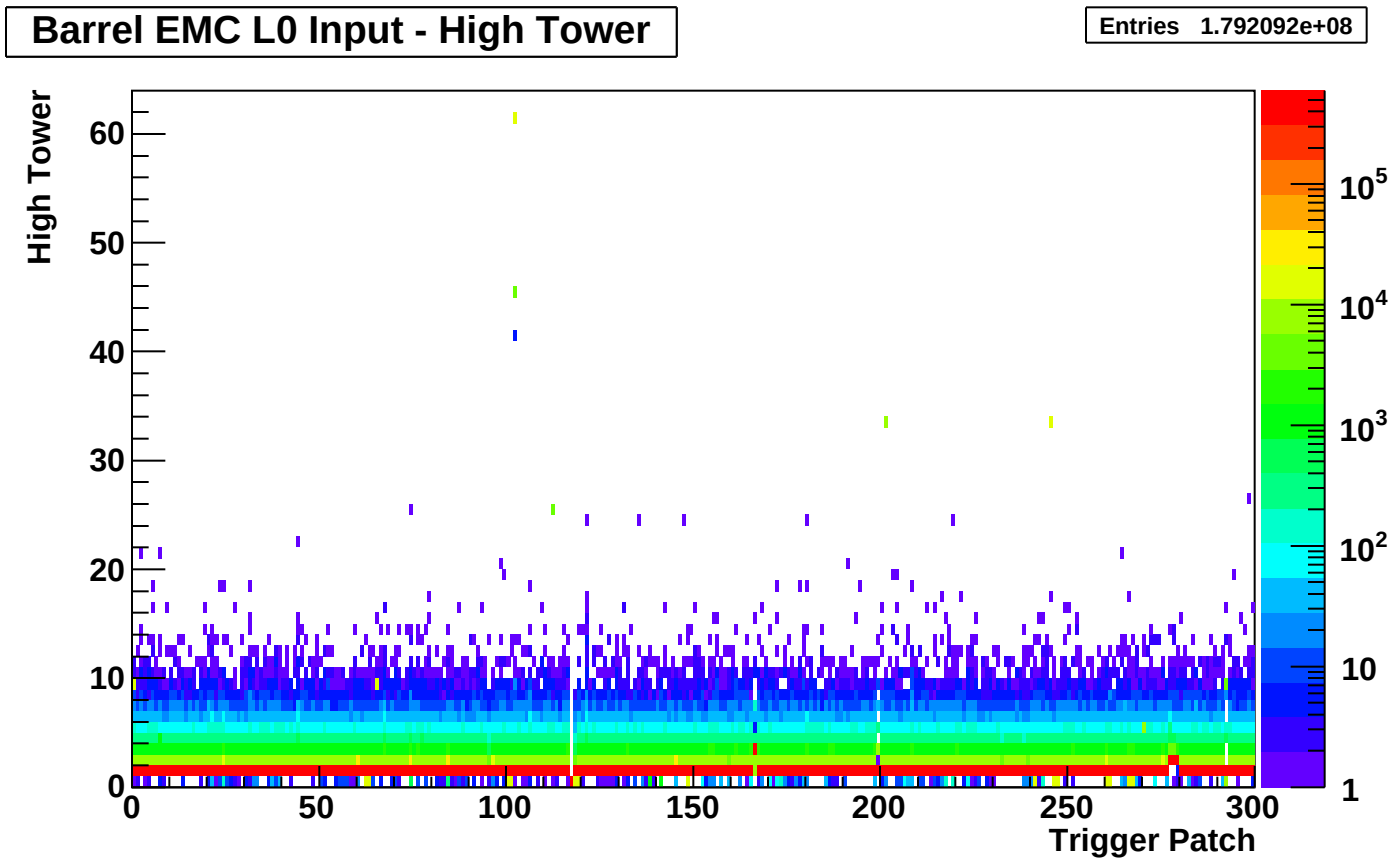
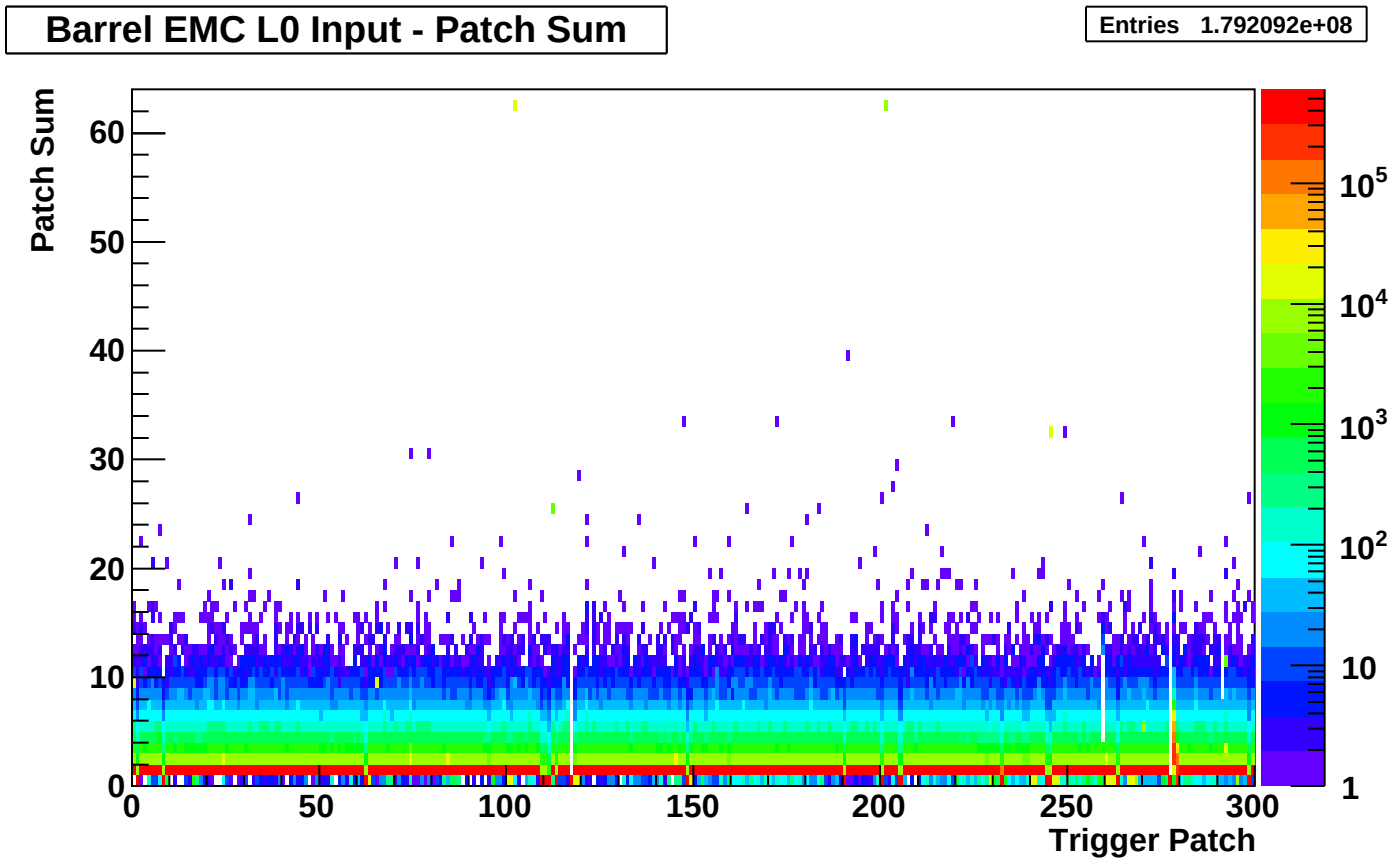
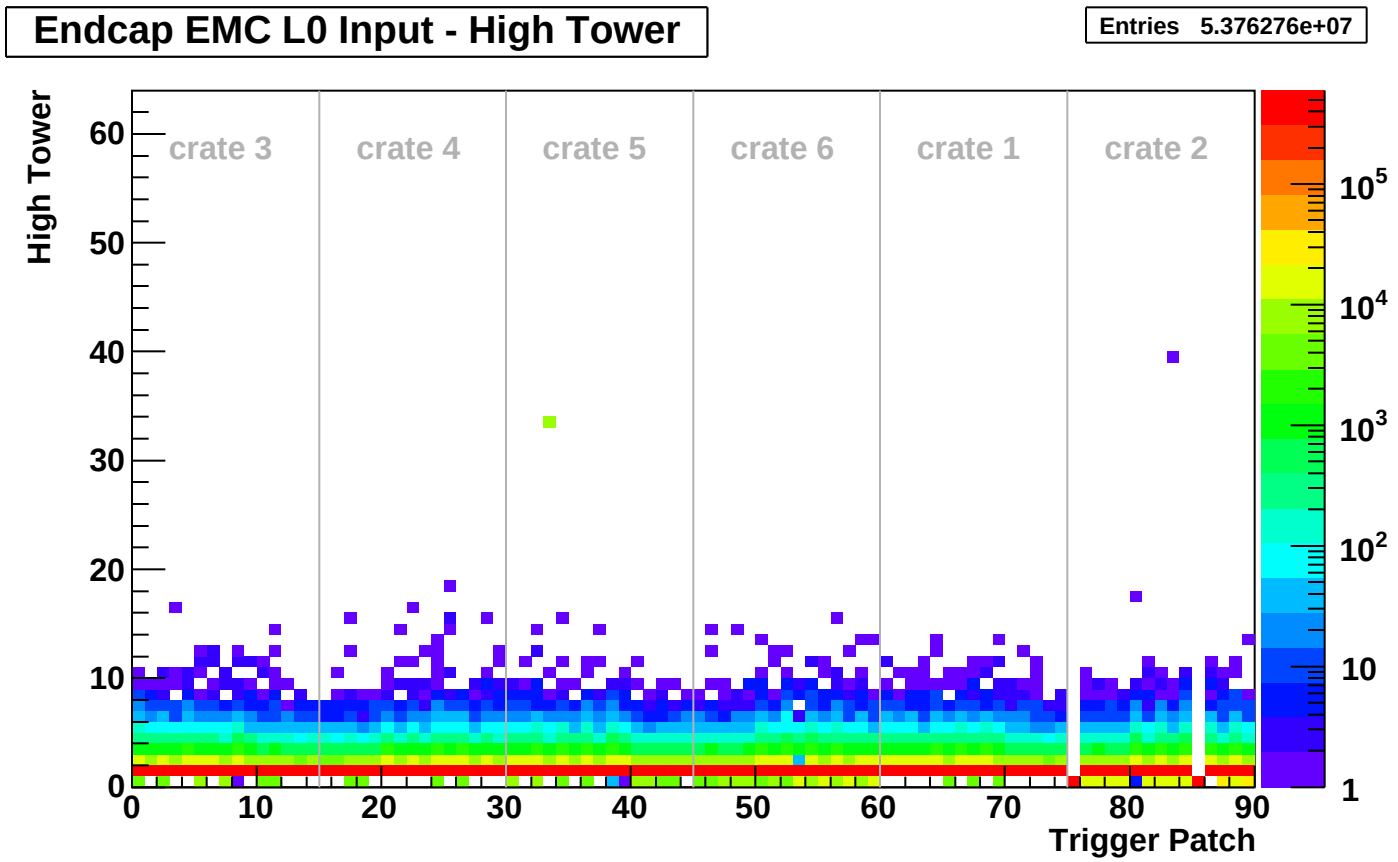
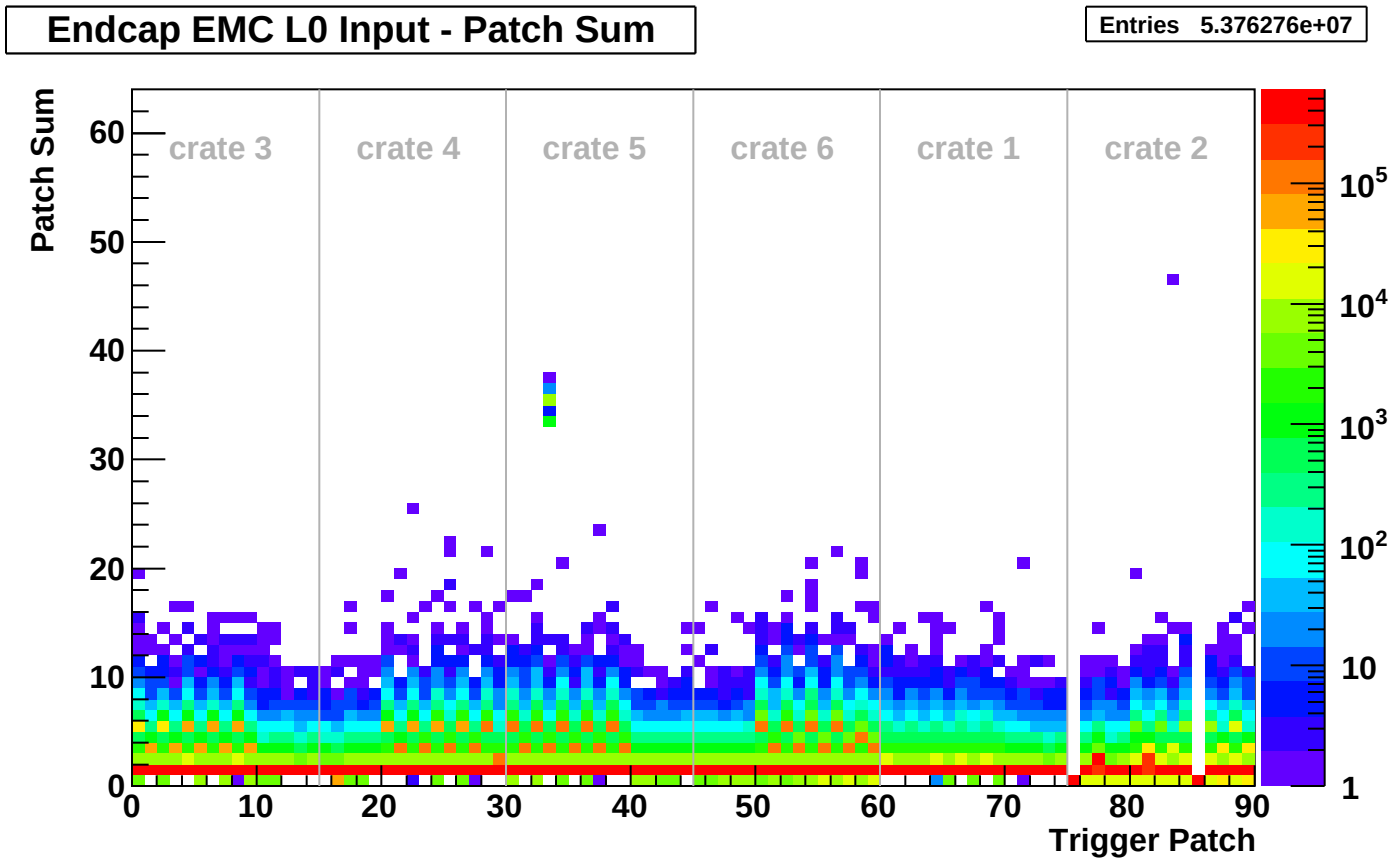
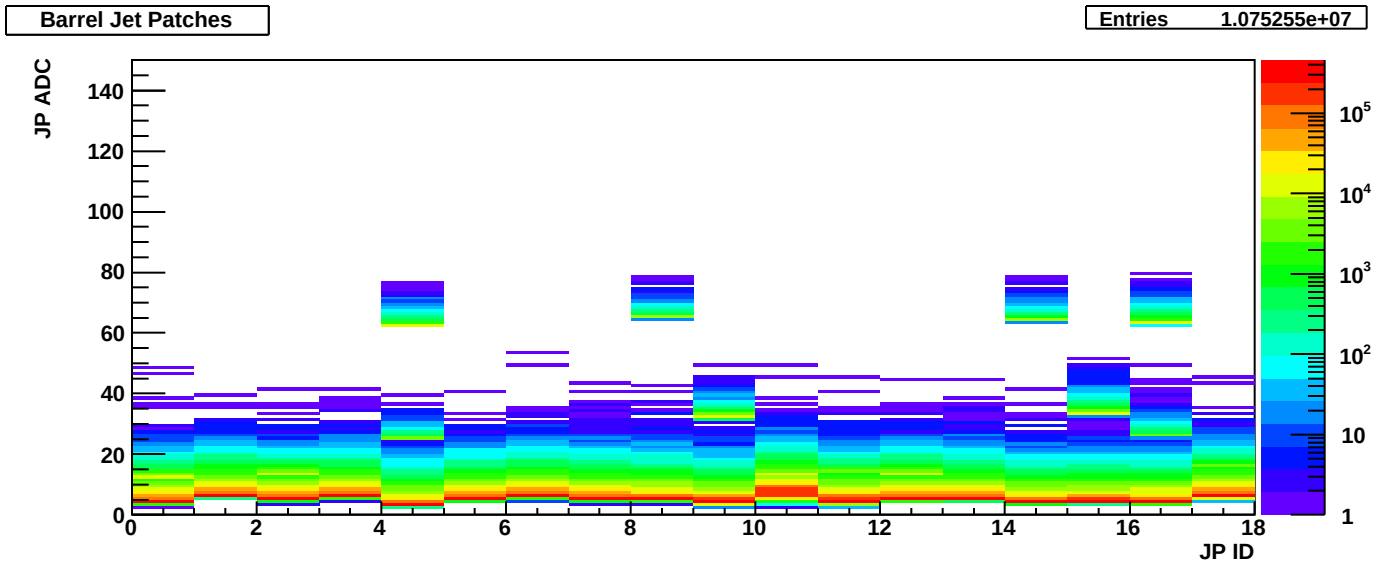
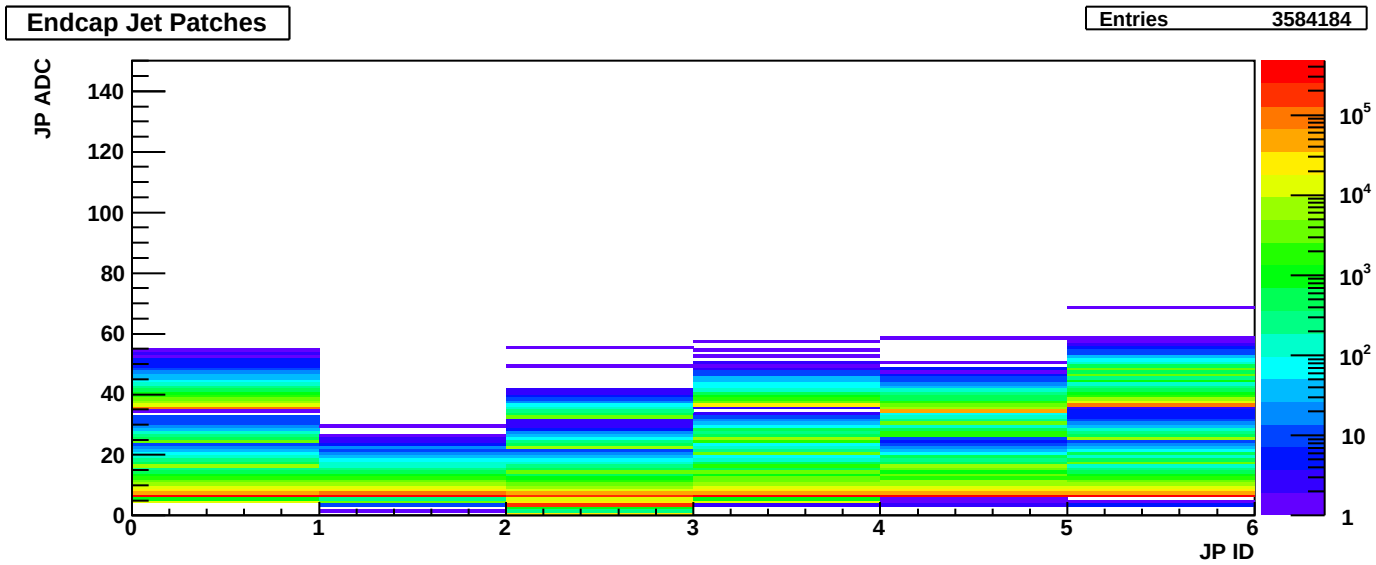

Barrel EMC L0 Input - High Tower
Entries 1.792092e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

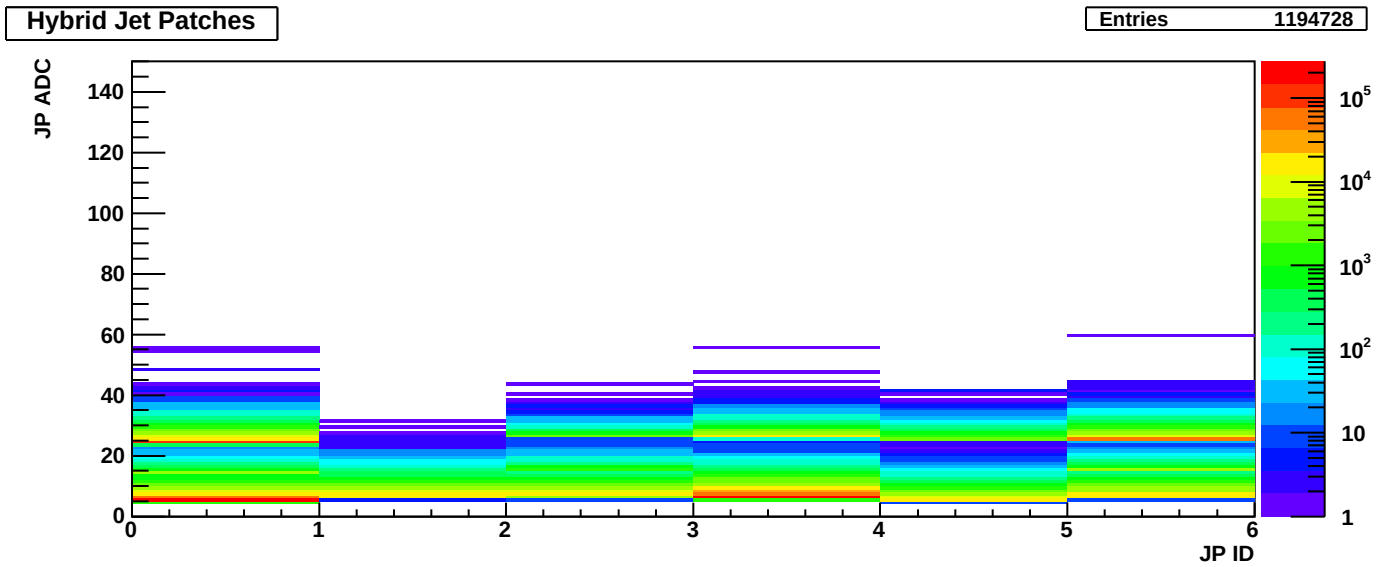

Barrel EMC L0 Input - Patch Sum
Entries 1.792092e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

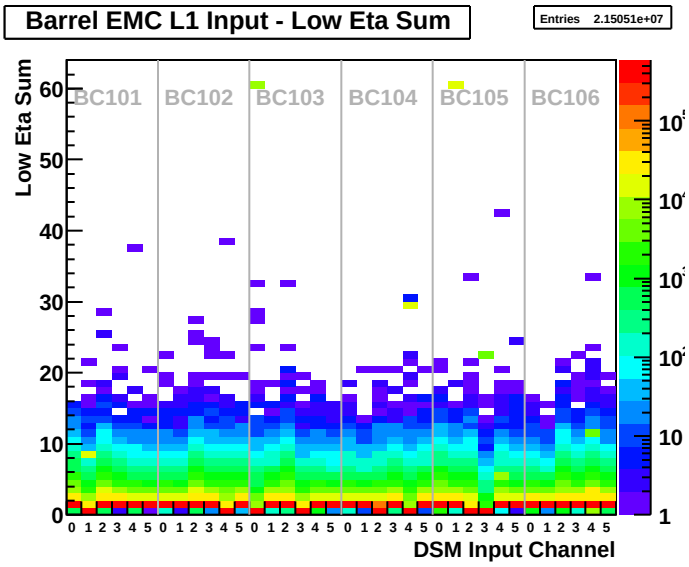

Endcap EMC L0 Input - High Tower
Entries 5.376276e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

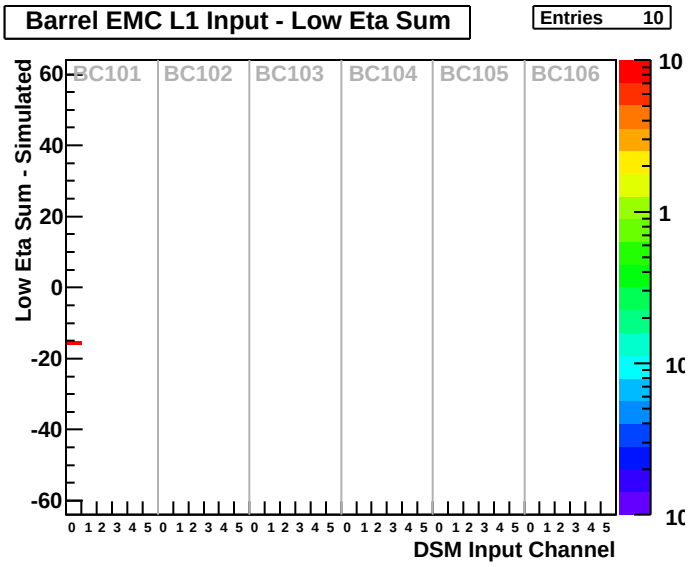

Endcap EMC L0 Input - Patch Sum
Entries 5.376276e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

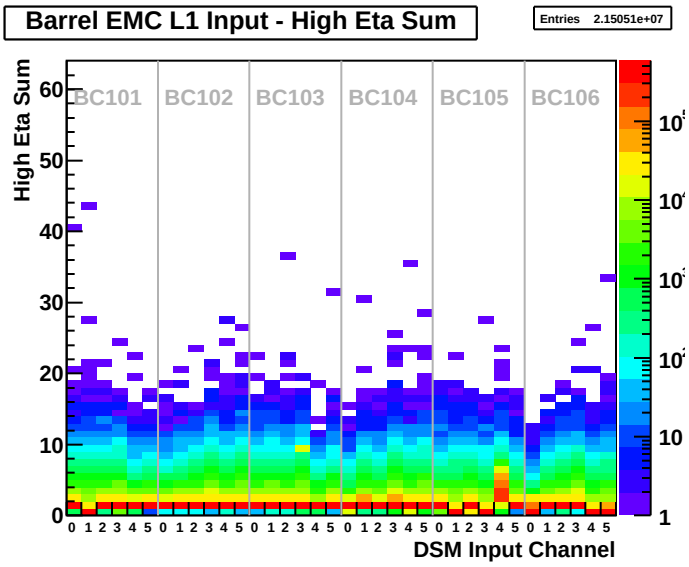

Barrel Jet Patches
Entries 1.075255e+07
JP ADC
JP ID

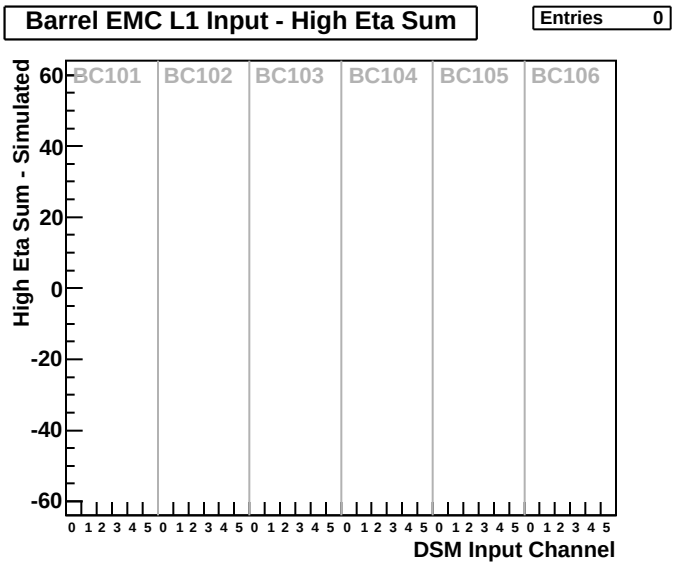

Endcap Jet Patches
Entries 3584184
JP ADC
JP ID

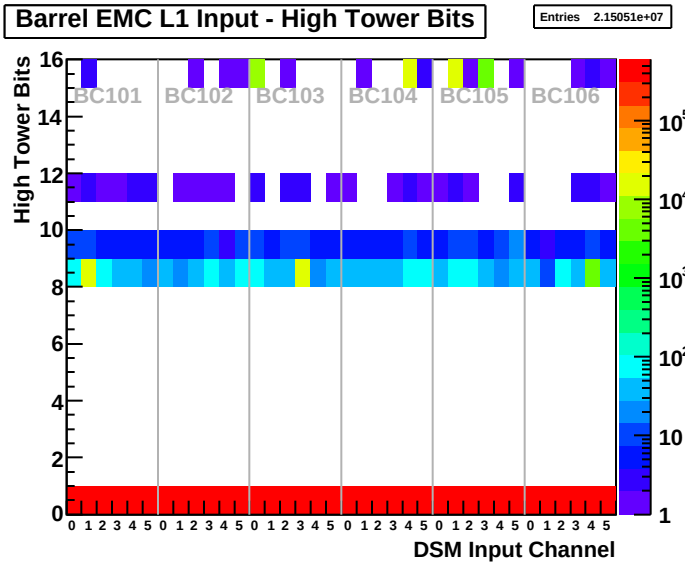

Hybrid Jet Patches
Entries 1194728
JP ADC
JP ID

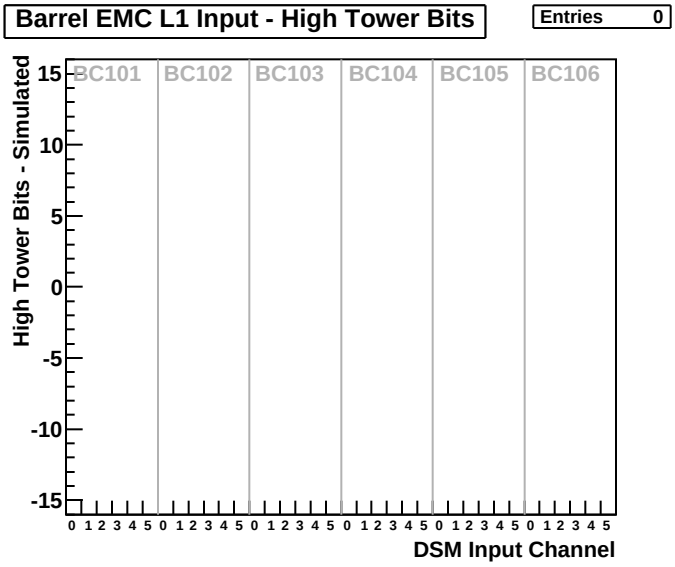

Barrel EMC L1 Input - Low Eta Sum
Entries 2.15051e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

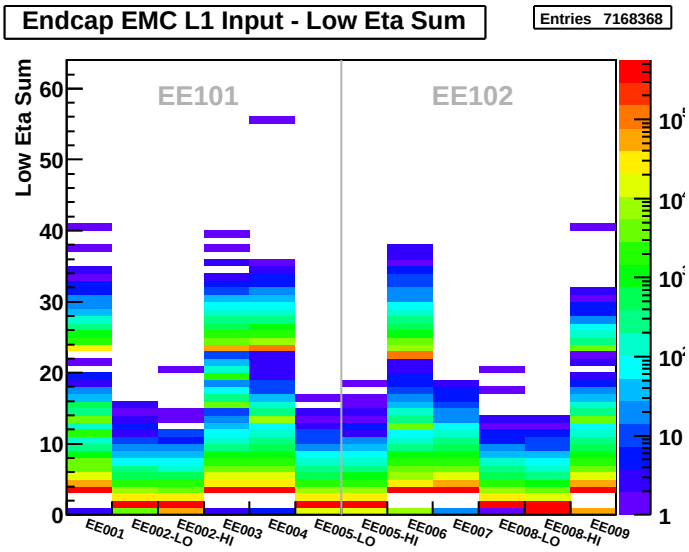

Barrel EMC L1 Input - Low Eta Sum
Entries 10
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

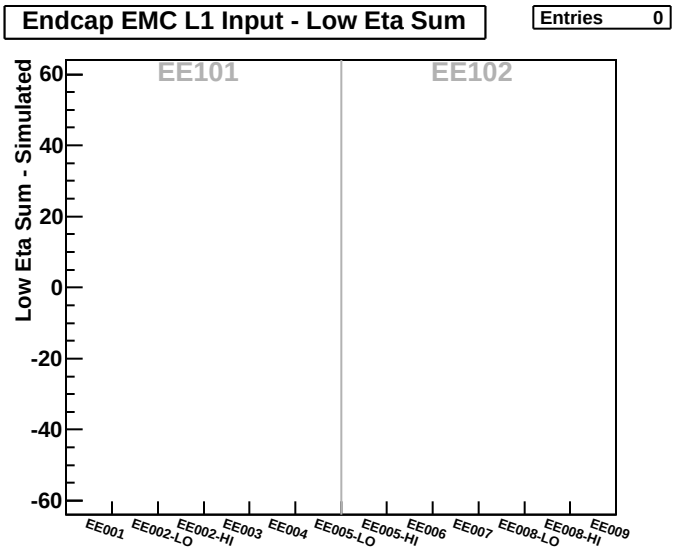

Barrel EMC L1 Input - High Eta Sum
Entries 2.15051e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

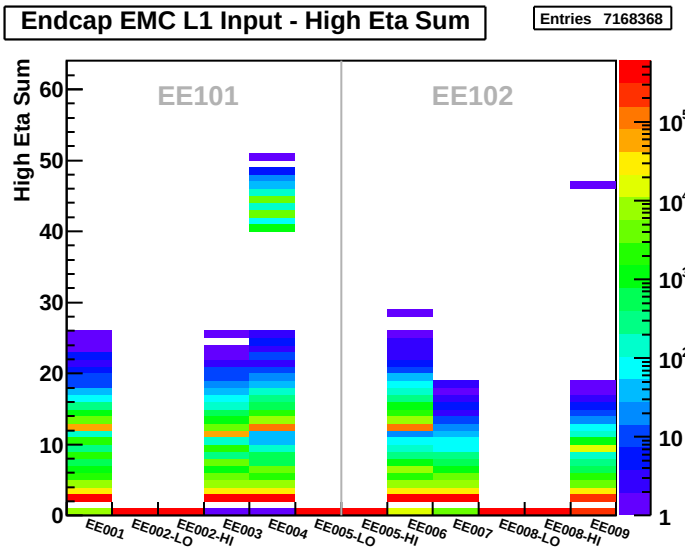

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

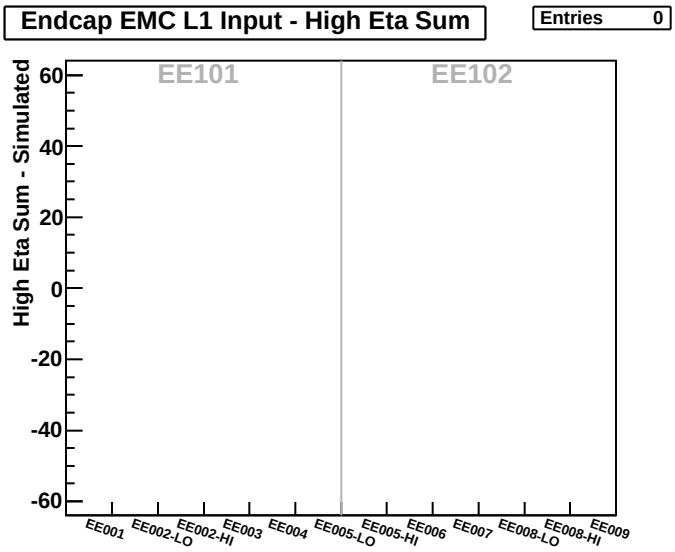

Barrel EMC L1 Input - High Tower Bits
Entries 2.15051e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

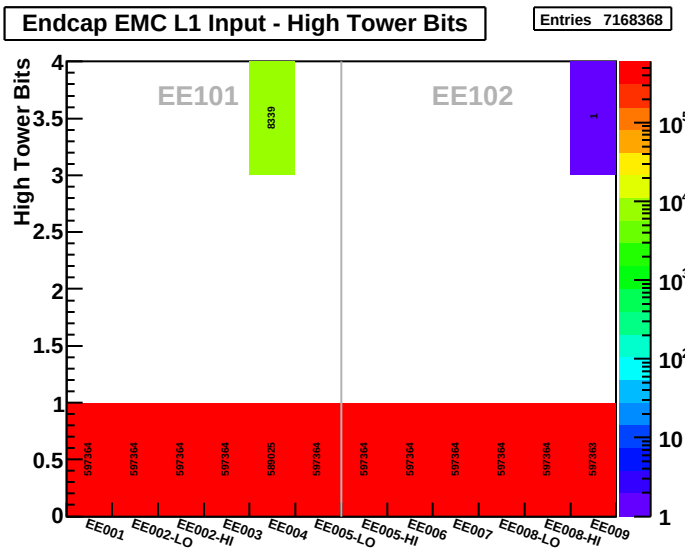

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

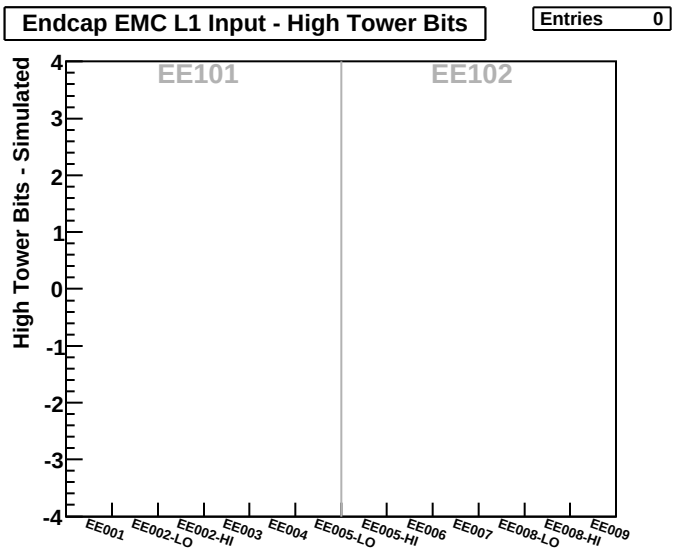

Endcap EMC L1 Input - Low Eta Sum
Entries 7168368
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

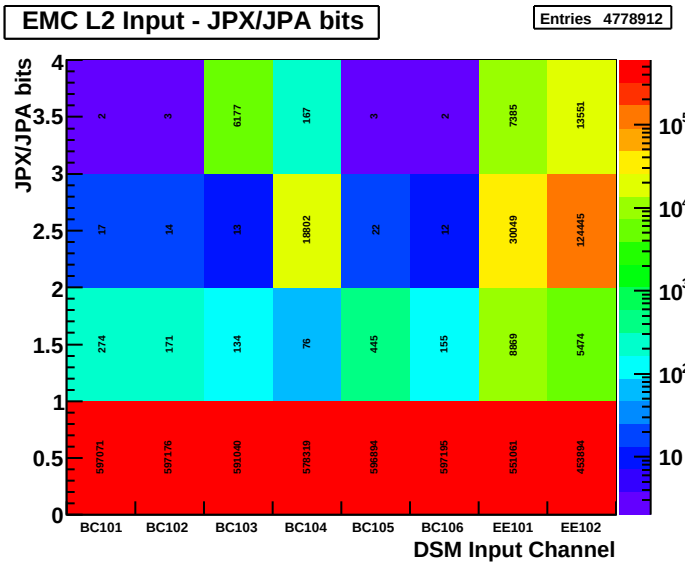

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

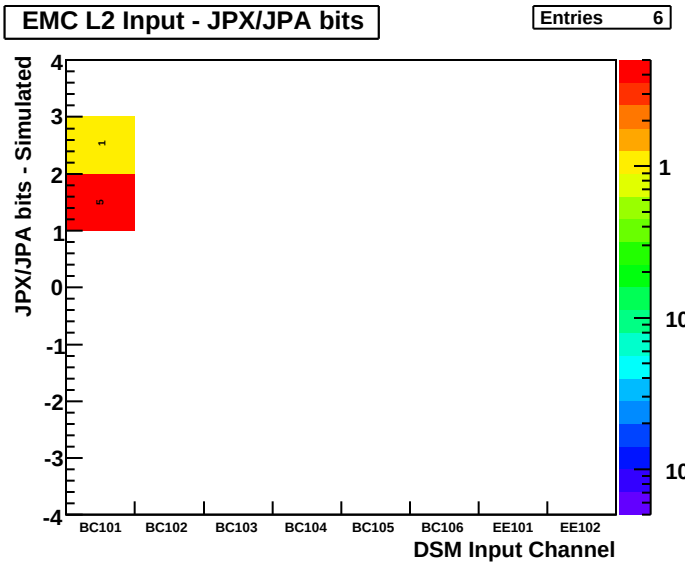

Endcap EMC L1 Input - High Eta Sum
Entries 7168368
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

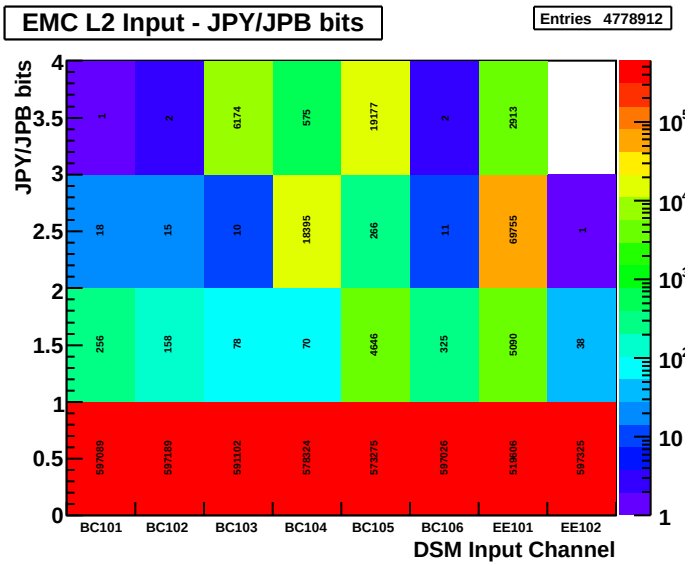

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

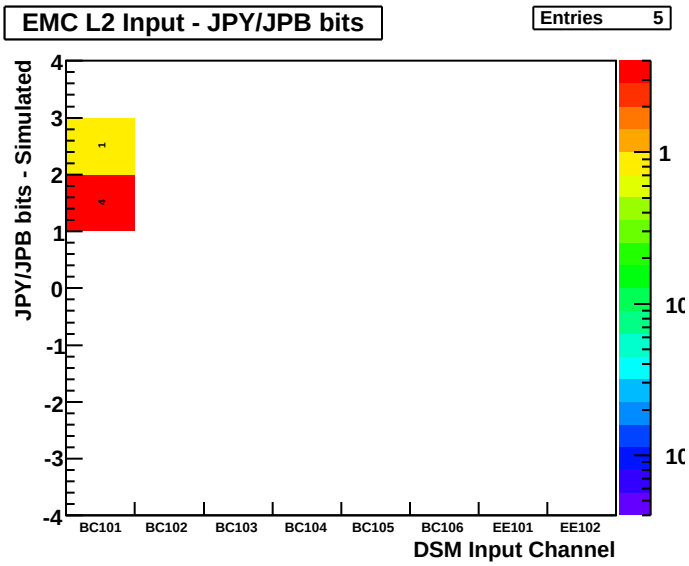

Endcap EMC L1 Input - High Tower Bits
Entries 7168368
High Tower Bits
EE101
EE102
8339
1
597364 597364 597364 597364 589025 597364 597364 597364 597364 597364 597363
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

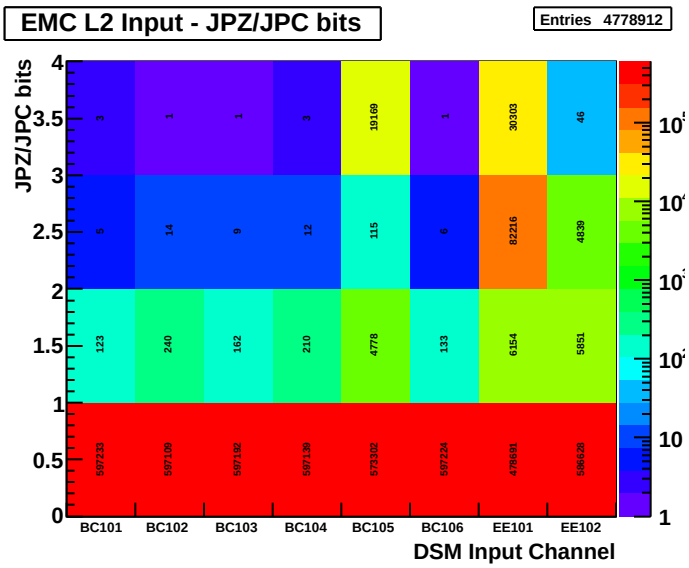

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

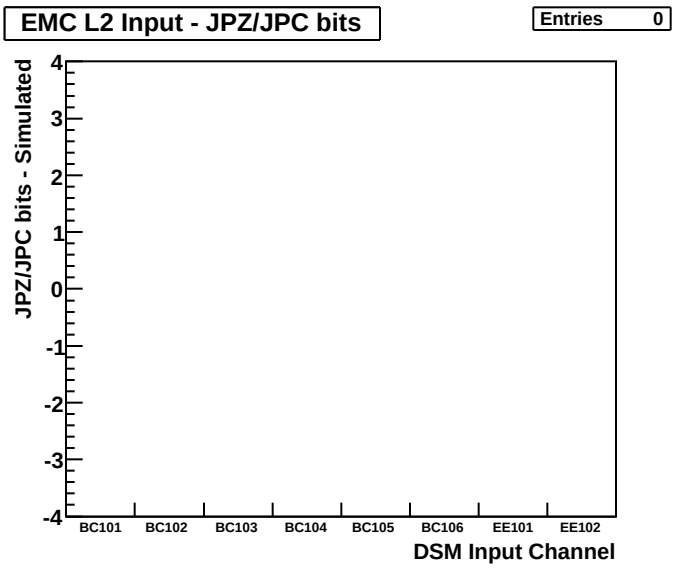

EMC L2 Input - JPX/JPA bits
Entries 4778912
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2 3 6177 167 3 2 7385 13551
17 14 13 18802 22 12 30049 124445
274 171 134 76 445 155 8869 5474
597071 597176 591040 578319 596894 597195 551061 453894

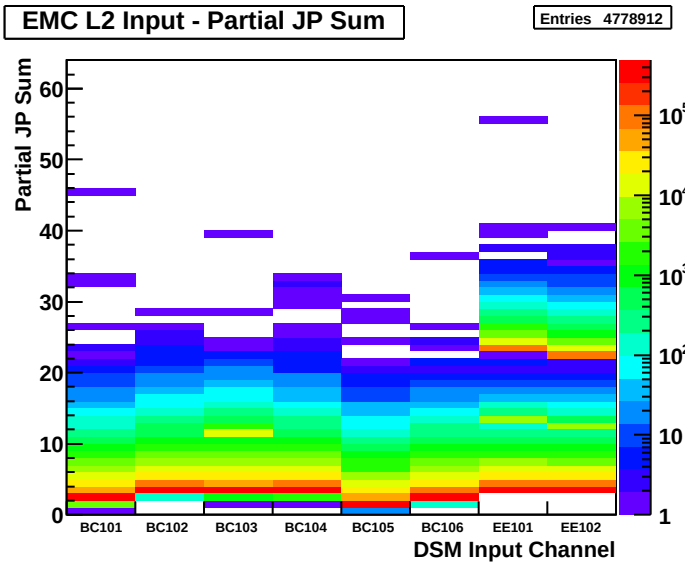

EMC L2 Input - JPX/JPA bits
Entries 6
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1
5

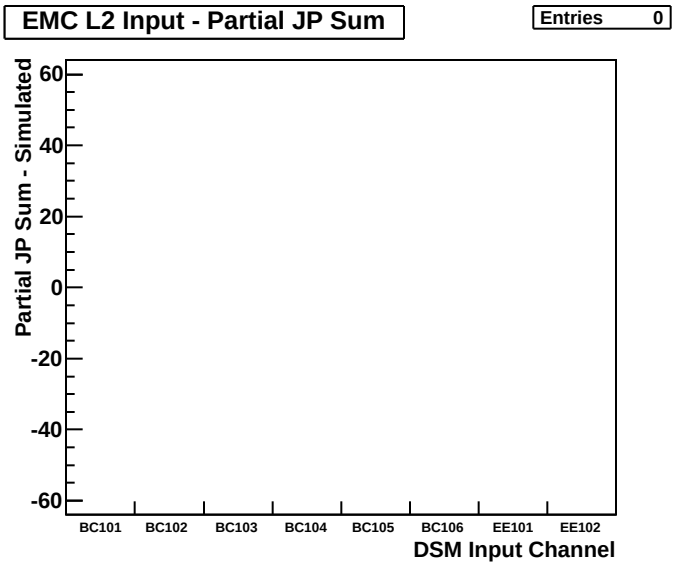

EMC L2 Input - JPY/JPB bits
Entries 4778912
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1 2 6174 575 19177 2 2913
18 15 10 16395 266 11 69755 1
256 158 78 70 4646 325 5090 38
597089 597189 591102 578324 573275 597026 519606 597325

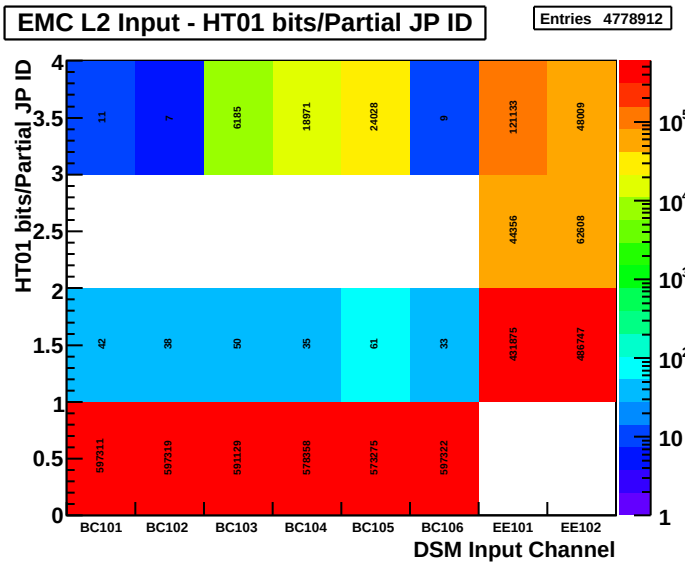

EMC L2 Input - JPY/JPB bits
Entries 5
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1
4

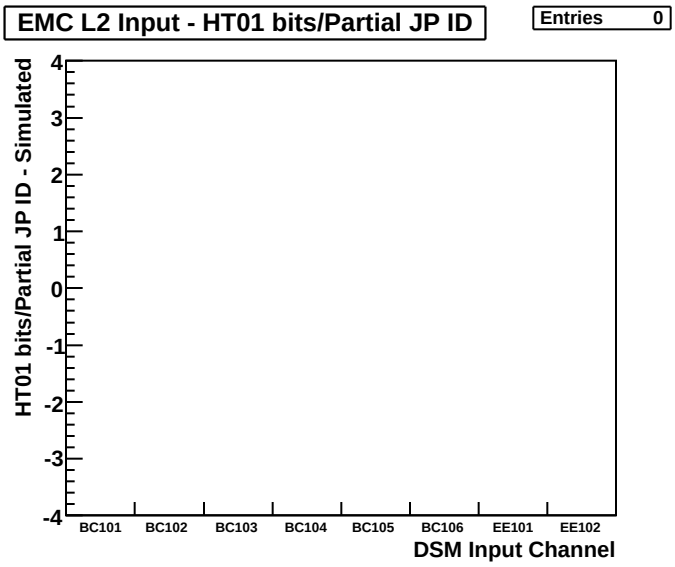

EMC L2 Input - JPZ/JPC bits
Entries 4778912
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
3 1 1 3 19169 1 30303 46
5 14 9 12 115 6 82216 4839
123 240 162 210 4778 133 6154 5851
597233 597109 597192 597139 573302 597224 478691 586628

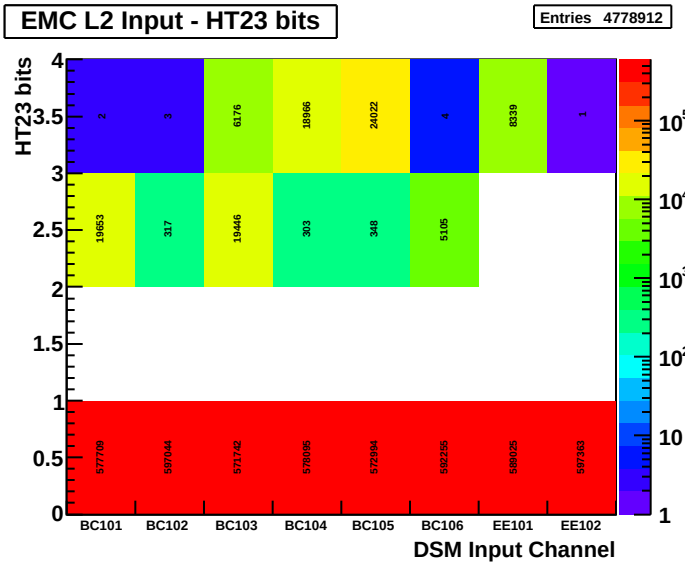

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

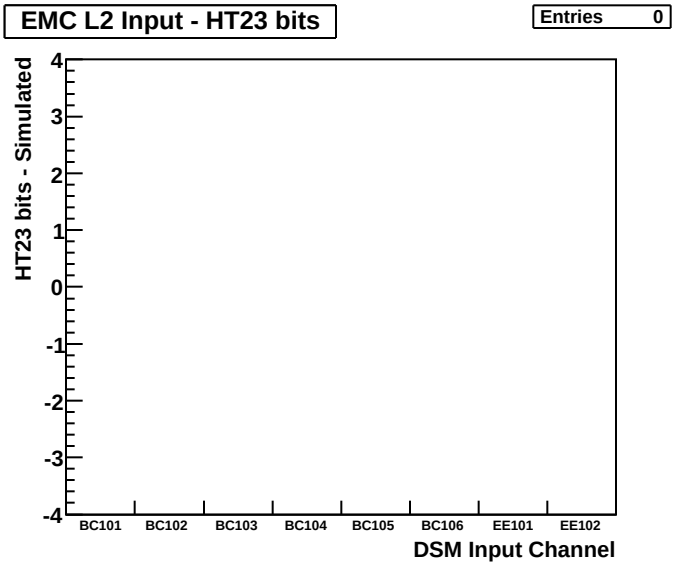

EMC L2 Input - Partial JP Sum
Entries 4778912
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

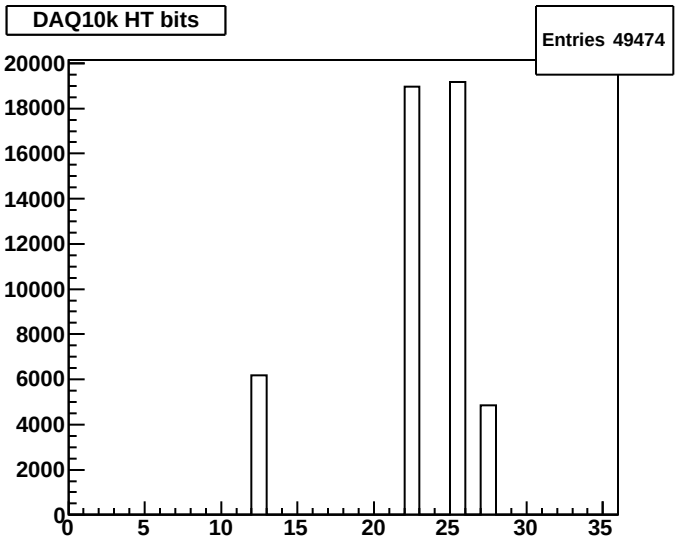

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

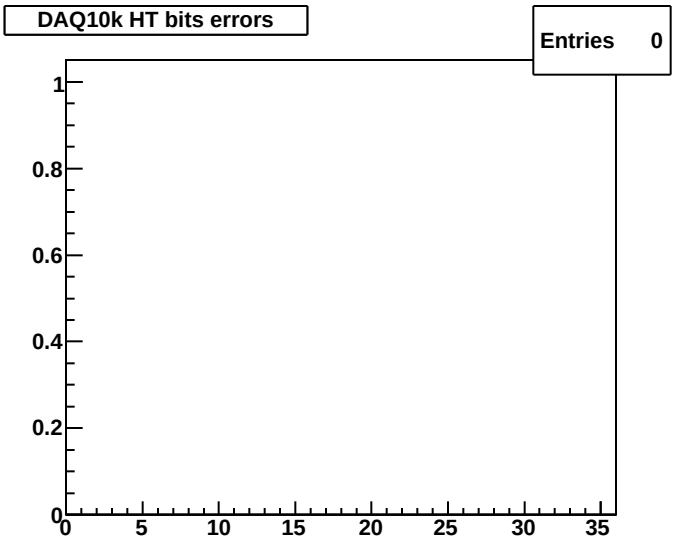

EMC L2 Input - HT01 bits/Partial JP ID
Entries 4778912
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

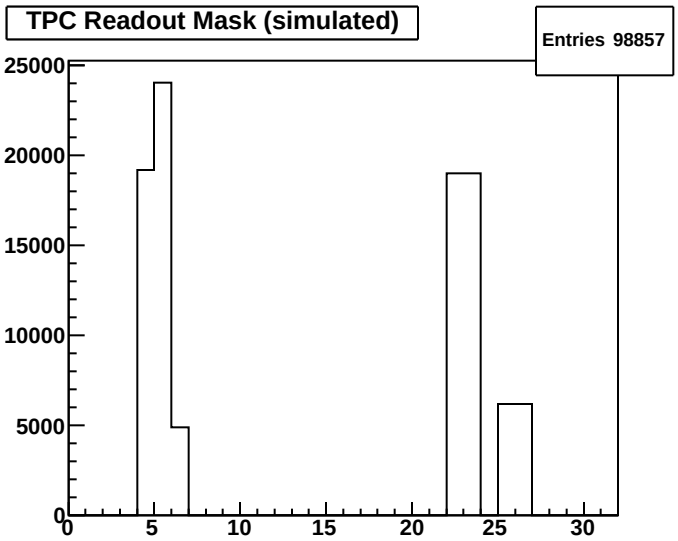

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

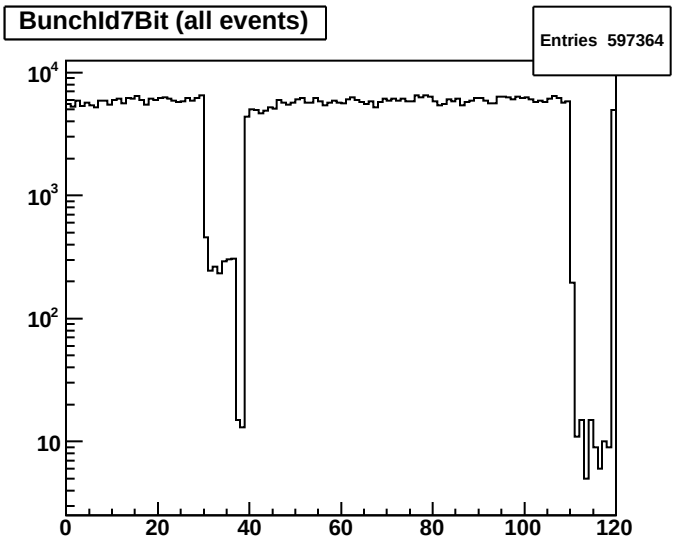

EMC L2 Input - HT23 bits
Entries 4778912
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

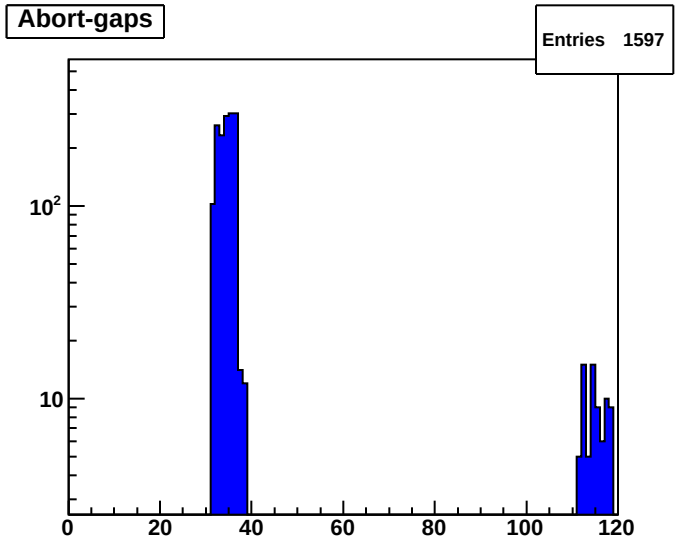

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

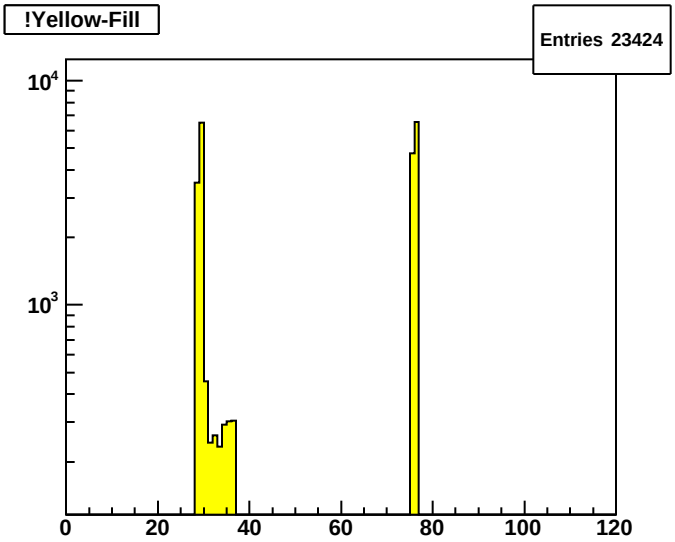

DAQ10k HT bits
Entries 49474
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

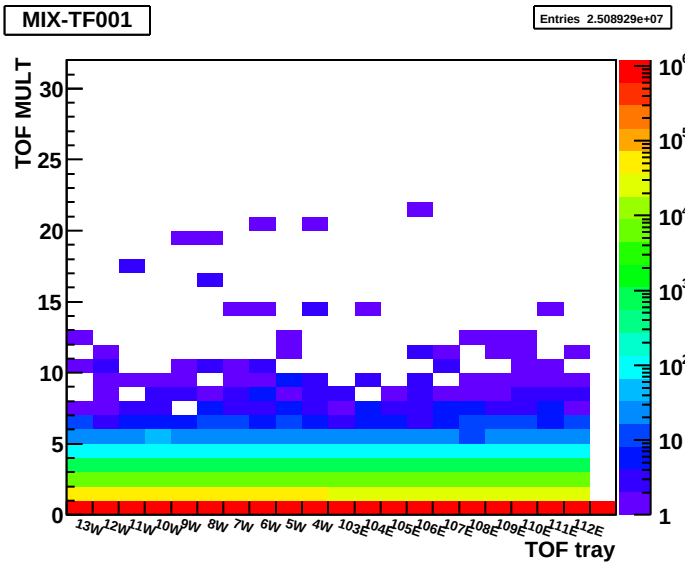

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

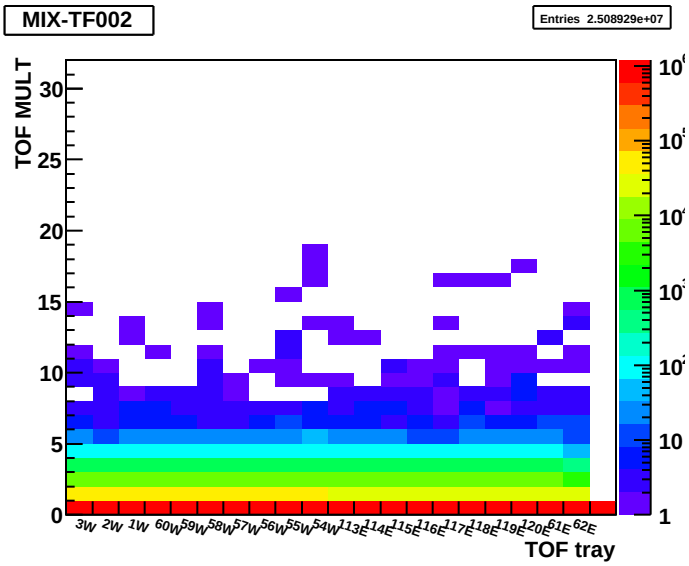

TPC Readout Mask (simulated)
Entries 98857
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

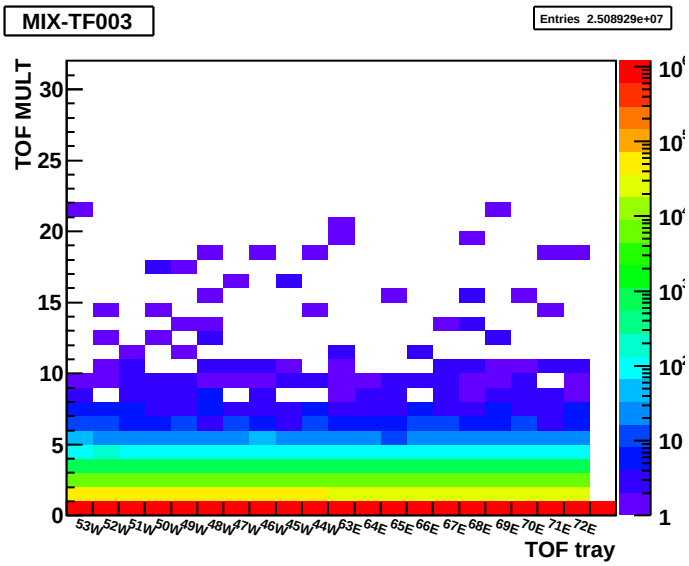

BunchId7Bit (all events)
Entries 597364
10^4
10^3
10^2
10
0 20 40 60 80 100 120

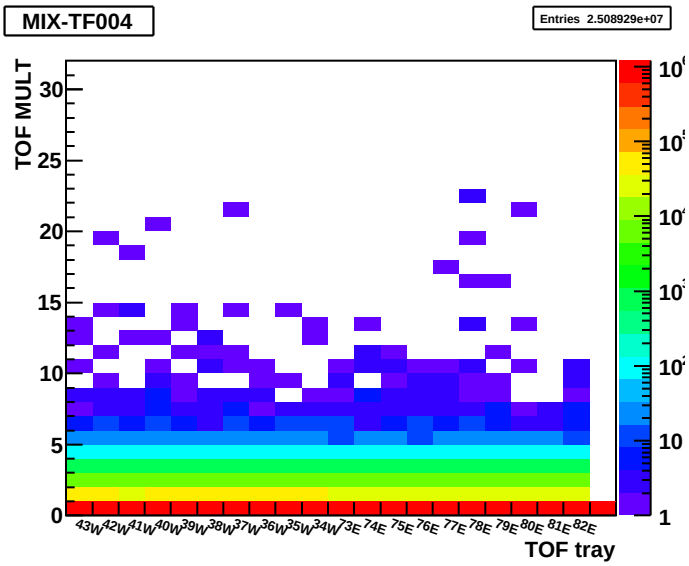

Abort-gaps
Entries 1597
10^2
10
0 20 40 60 80 100 120

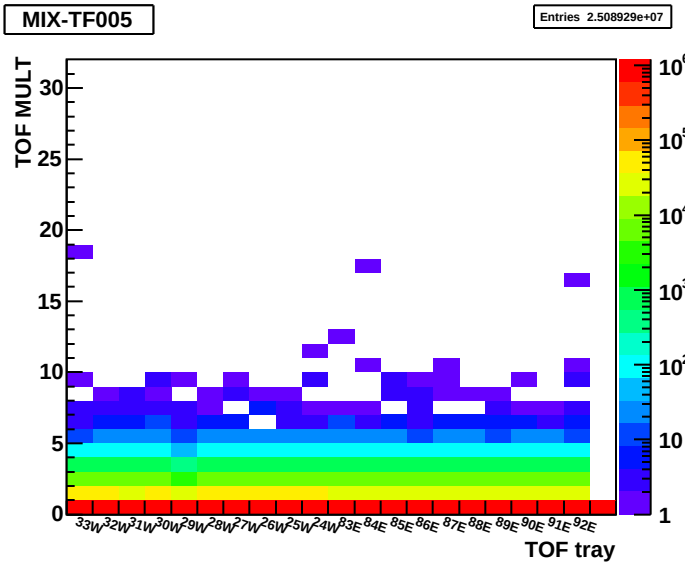

!Yellow-Fill
Entries 23424
10^4
10^3
0 20 40 60 80 100 120

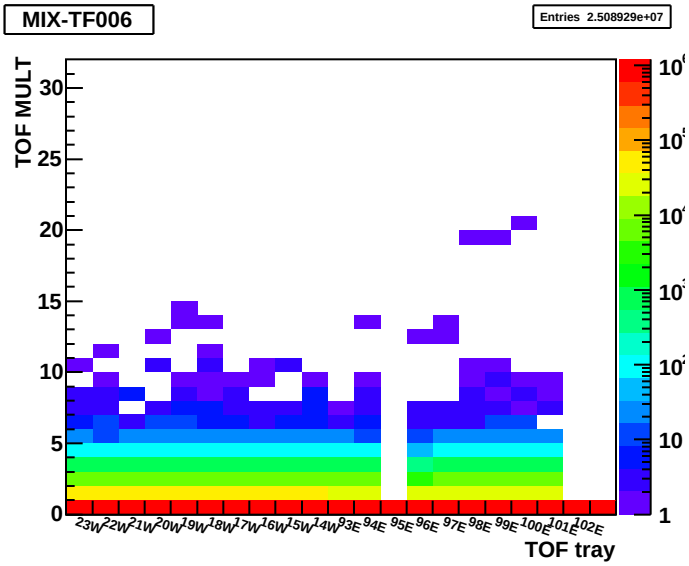

MIX-TF001
Entries 2.508929e+07
TOF MULT
TOF tray

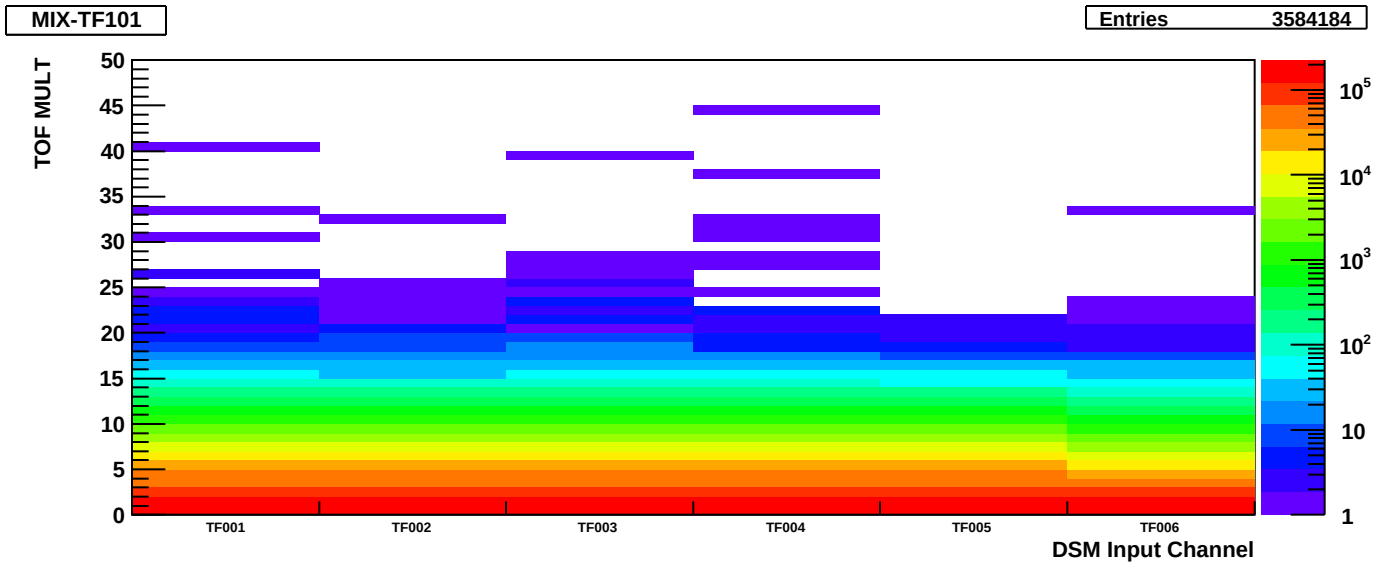

MIX-TF002
Entries 2.508929e+07
TOF MULT
TOF tray

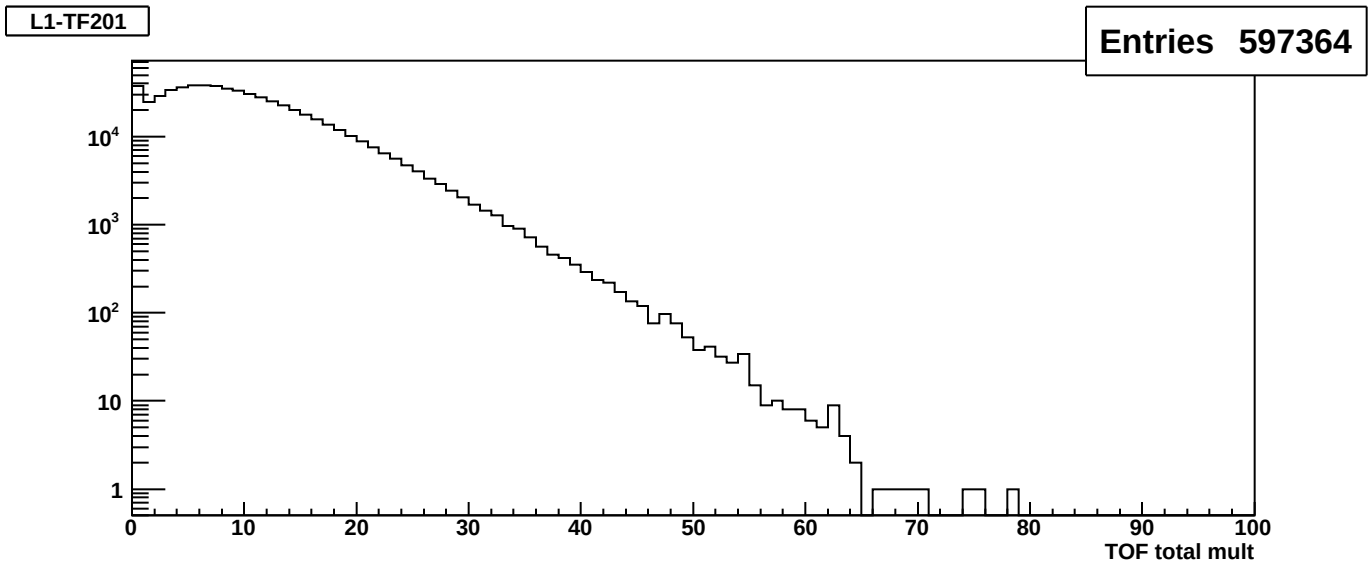

MIX-TF003
Entries 2.508929e+07
TOF MULT
TOF tray

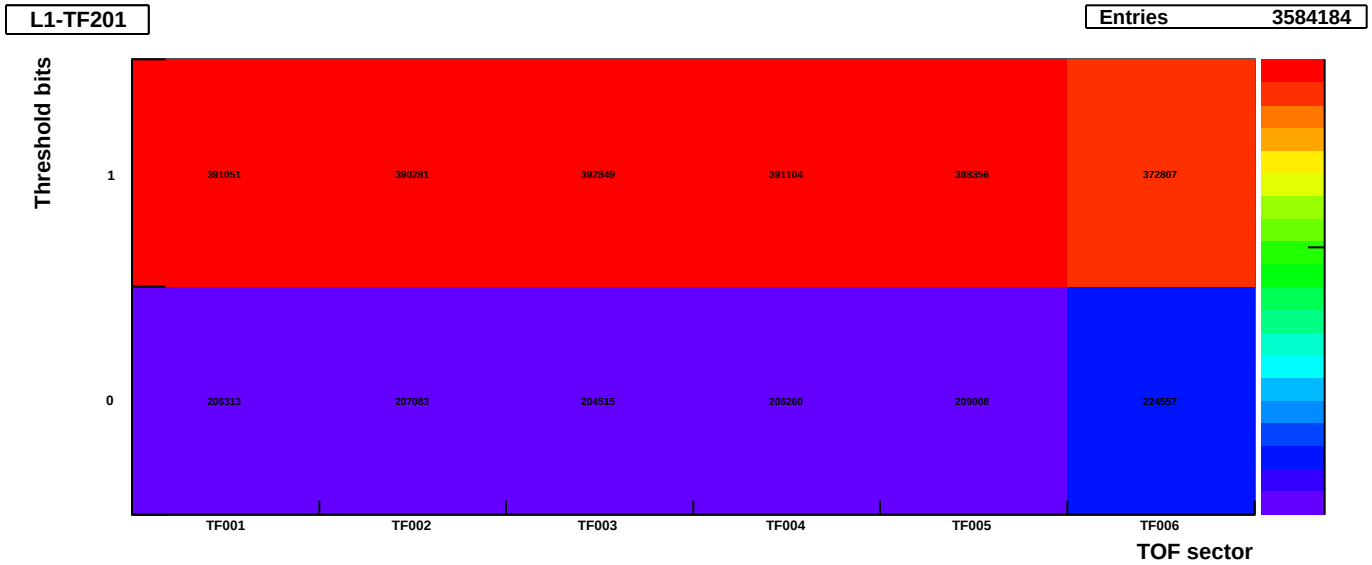

MIX-TF004
Entries 2.508929e+07
TOF MULT
TOF tray

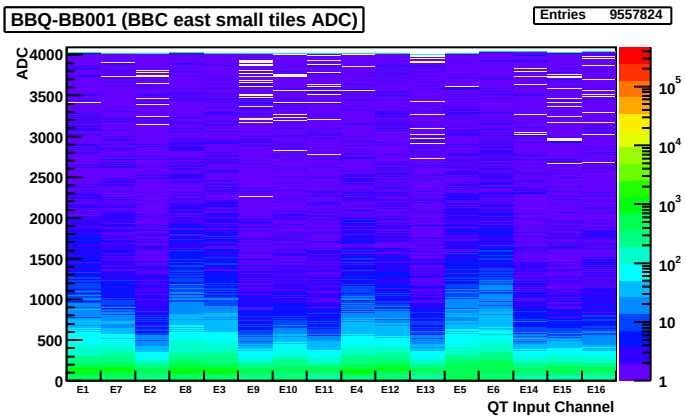

MIX-TF005
Entries 2.508929e+07
TOF MULT
TOF tray

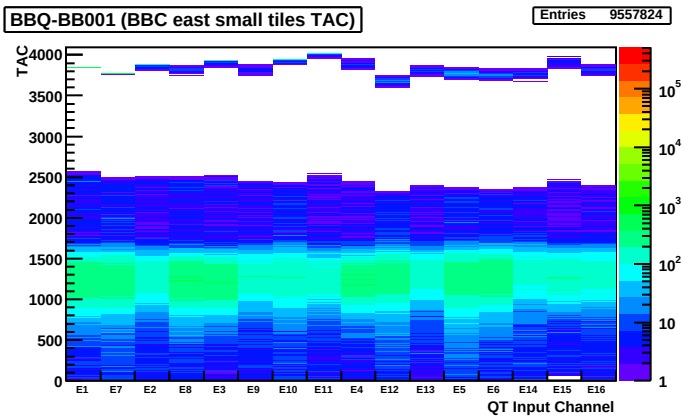

MIX-TF006
Entries 2.508929e+07
TOF MULT
TOF tray

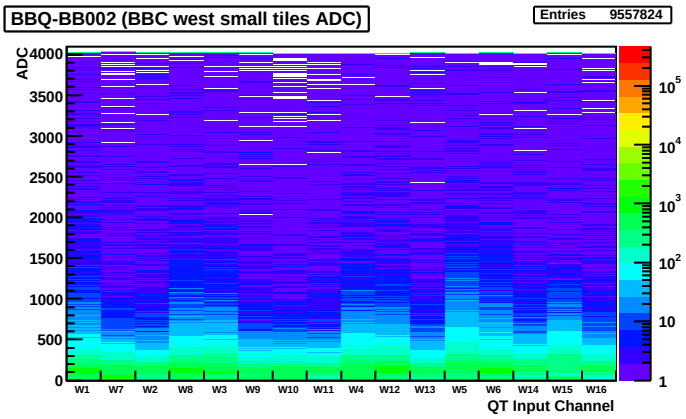

MIX-TF101
Entries 3584184
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

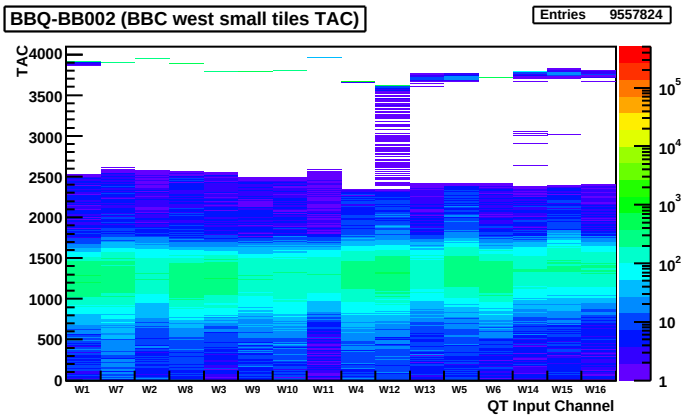

L1-TF201
Entries 597364
TOF total mult

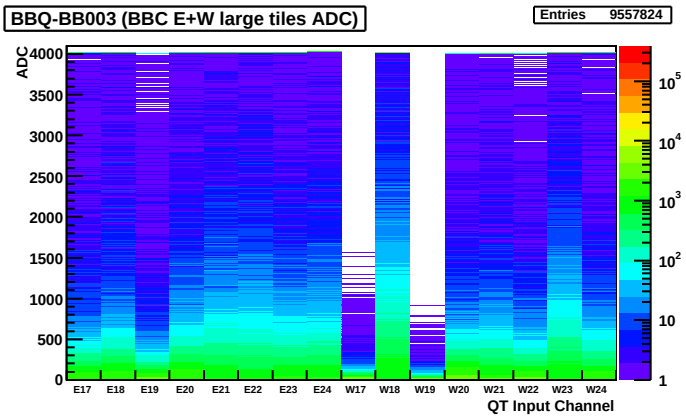

L1-TF201
Entries 3584184
Threshold bits
391051
390281
392849
391104
388356
372807
206313
207083
204515
206260
209008
224557
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

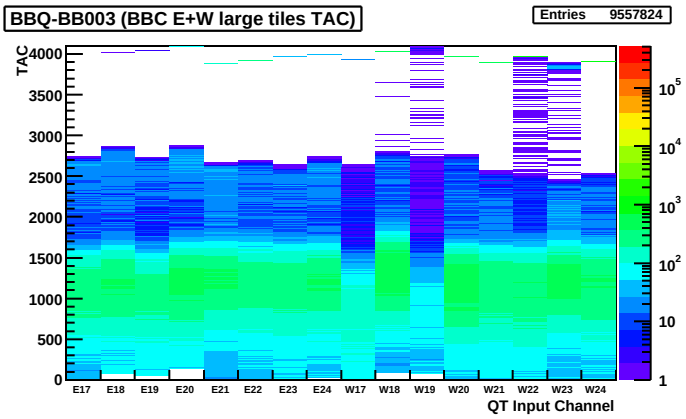

BBQ-BB001 (BBC east small tiles ADC)
Entries 9557824
ADC
QT Input Channel

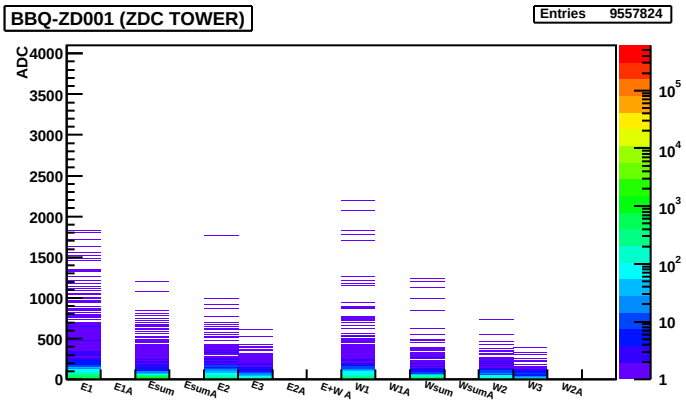

BBQ-BB001 (BBC east small tiles TAC)
Entries 9557824
TAC
QT Input Channel

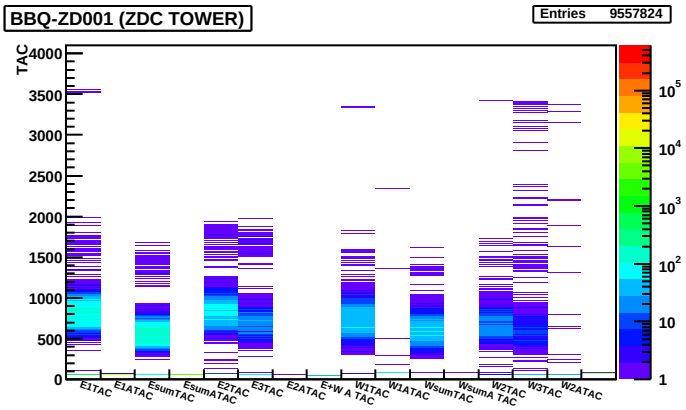

BBQ-BB002 (BBC west small tiles ADC)
Entries 9557824
ADC
QT Input Channel

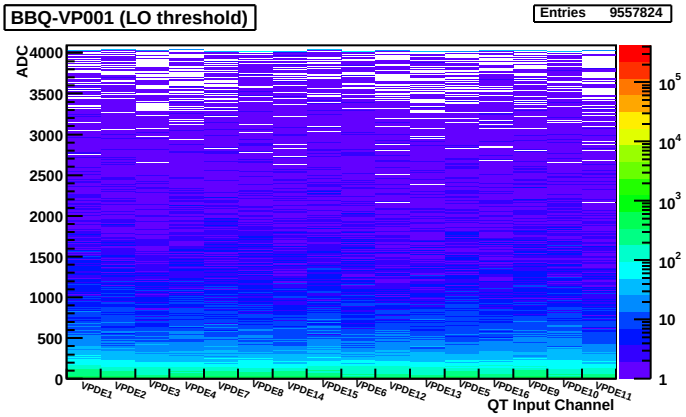

BBQ-BB002 (BBC west small tiles TAC)
Entries 9557824
TAC
QT Input Channel

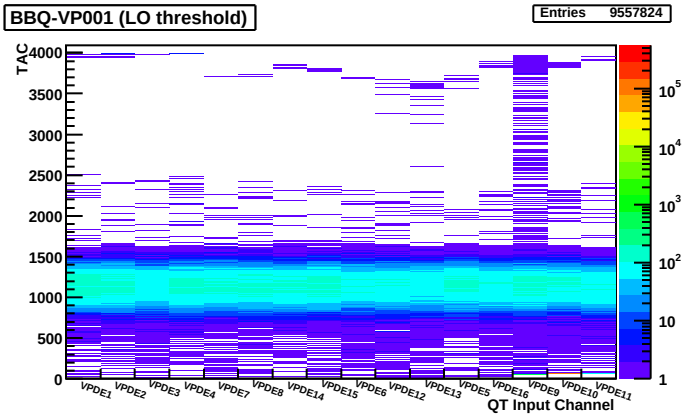

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 9557824
ADC
QT Input Channel

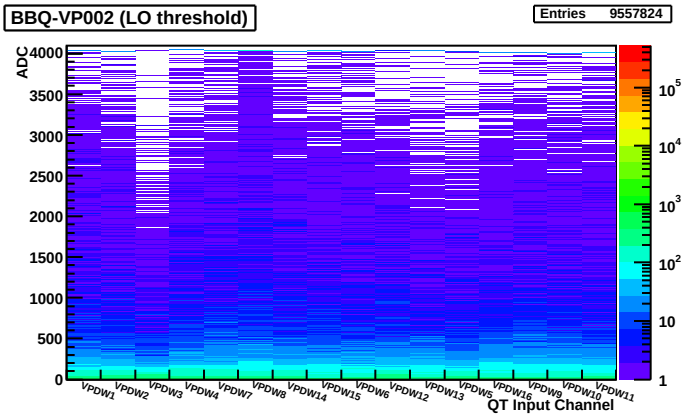

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 9557824
TAC
QT Input Channel

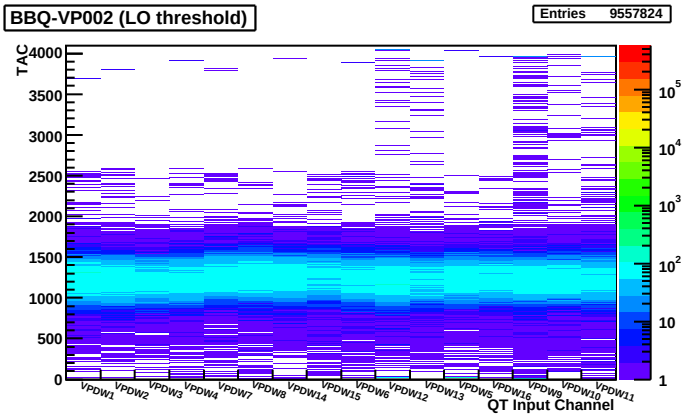

BBQ-ZD001 (ZDC TOWER)
Entries 9557824
ADC

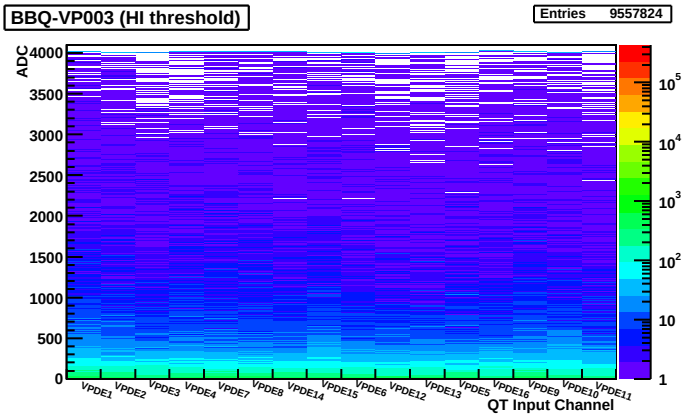

BBQ-ZD001 (ZDC TOWER)
Entries 9557824
TAC

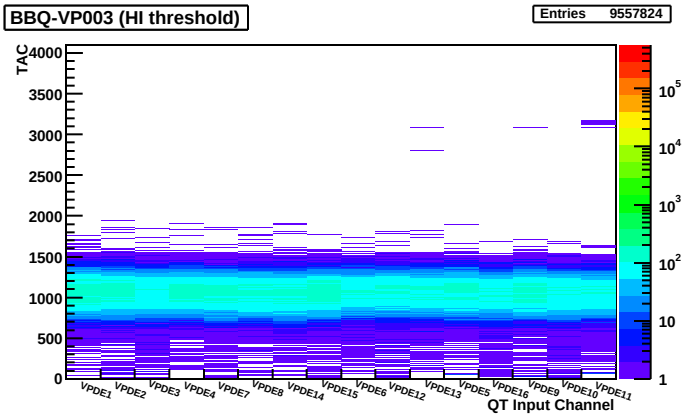

BBQ-VP001 (LO threshold)
Entries 9557824
ADC
QT Input Channel

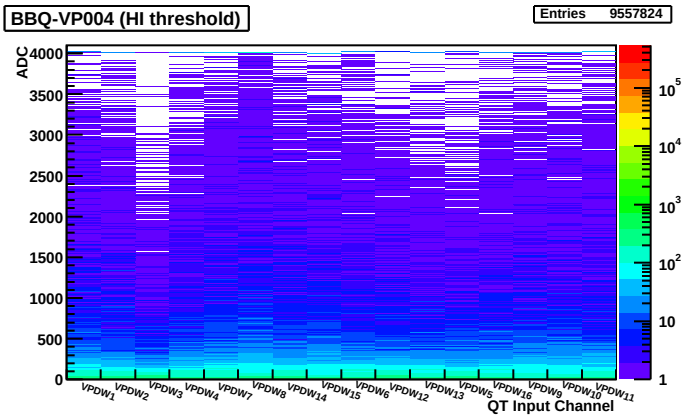

BBQ-VP001 (LO threshold)
Entries 9557824
TAC
QT Input Channel

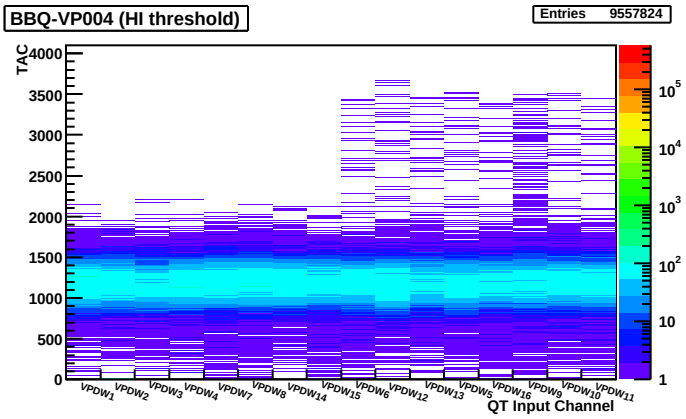

BBQ-VP002 (LO threshold)
Entries 9557824
ADC
QT Input Channel

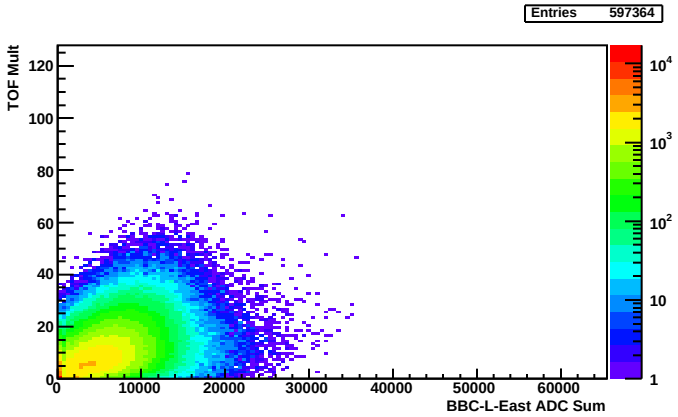

BBQ-VP002 (LO threshold)
Entries 9557824
TAC
QT Input Channel

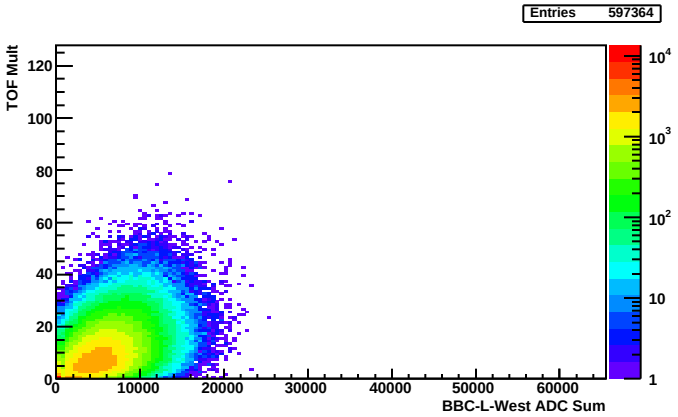

BBQ-VP003 (HI threshold)
Entries 9557824
ADC
QT Input Channel

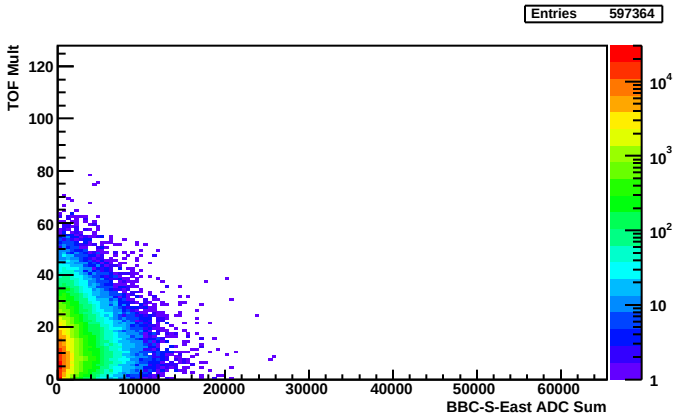

BBQ-VP003 (HI threshold)
Entries 9557824
TAC
QT Input Channel

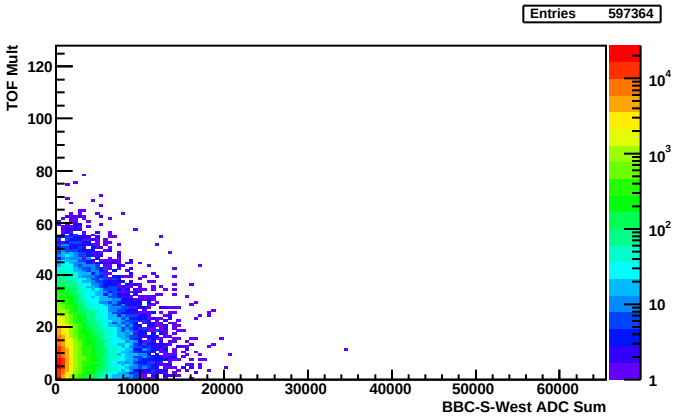

BBQ-VP004 (HI threshold)
Entries 9557824
ADC
QT Input Channel

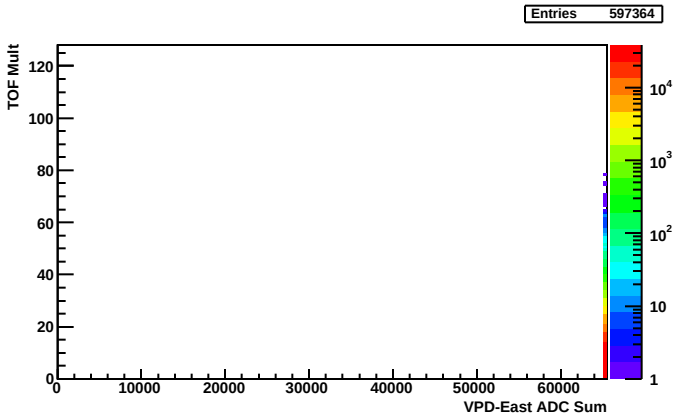

BBQ-VP004 (HI threshold)
Entries 9557824
TAC
QT Input Channel

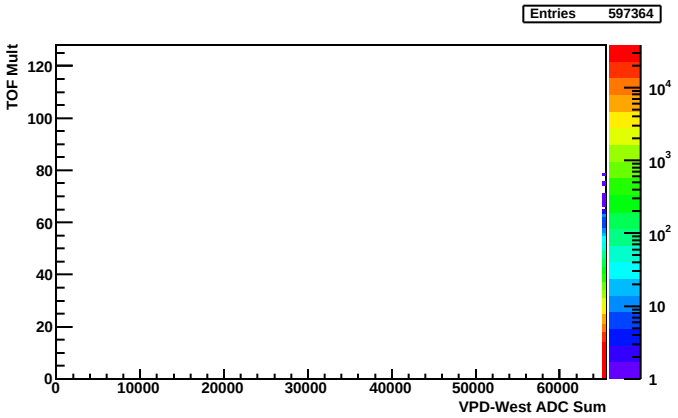

Entries 597364
TOF Mult
BBC-L-East ADC Sum

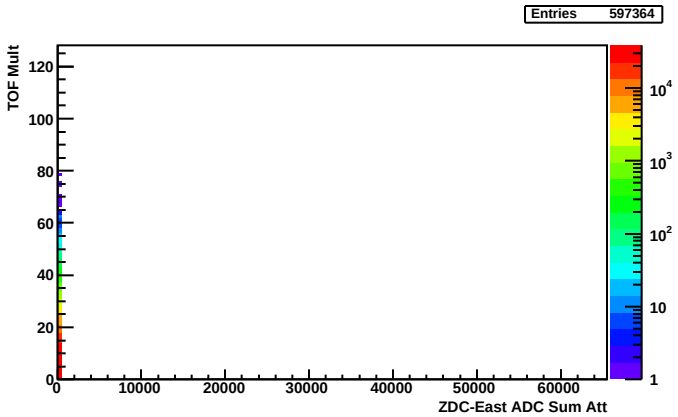

Entries 597364
TOF Mult
BBC-L-West ADC Sum

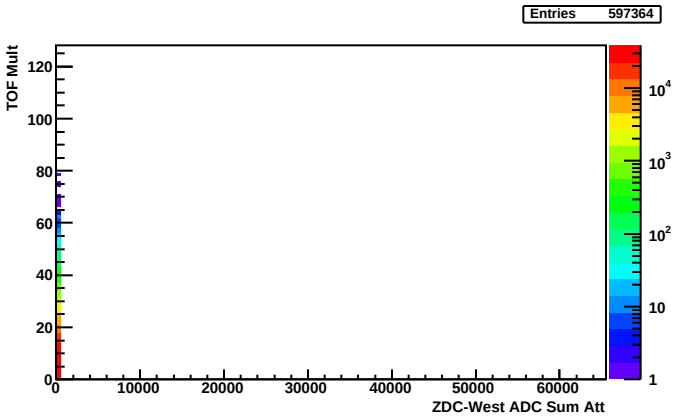

Entries 597364
TOF Mult
BBC-S-East ADC Sum

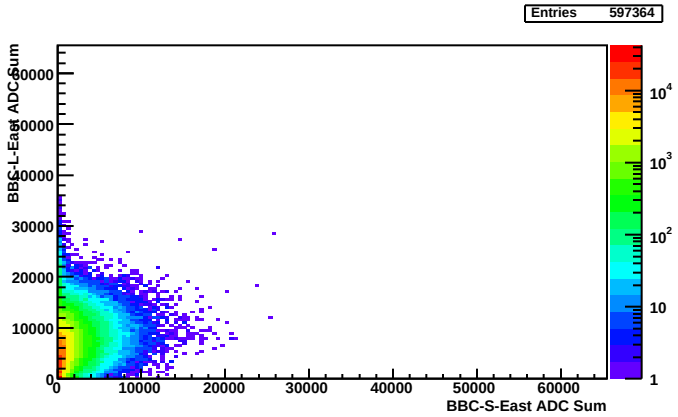

Entries 597364
TOF Mult
BBC-S-West ADC Sum

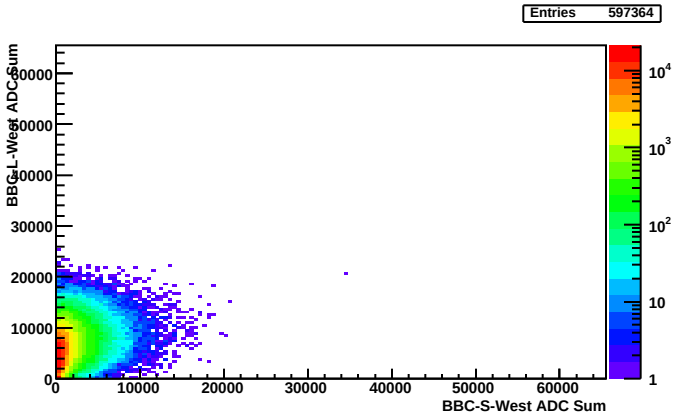

Entries 597364
TOF Mult
VPD-East ADC Sum

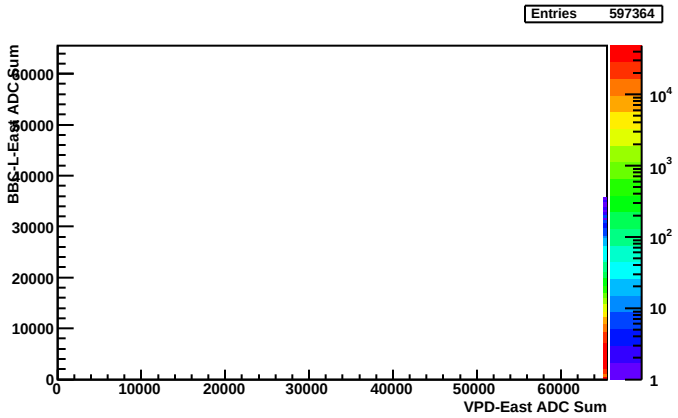

Entries 597364
TOF Mult
VPD-West ADC Sum

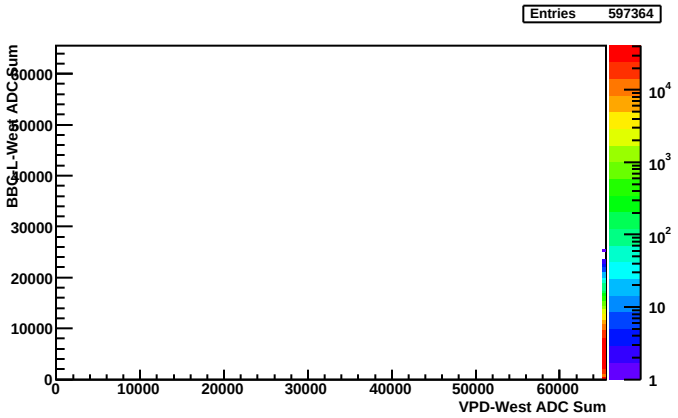

Entries 597364
TOF Mult
ZDC-East ADC Sum Att

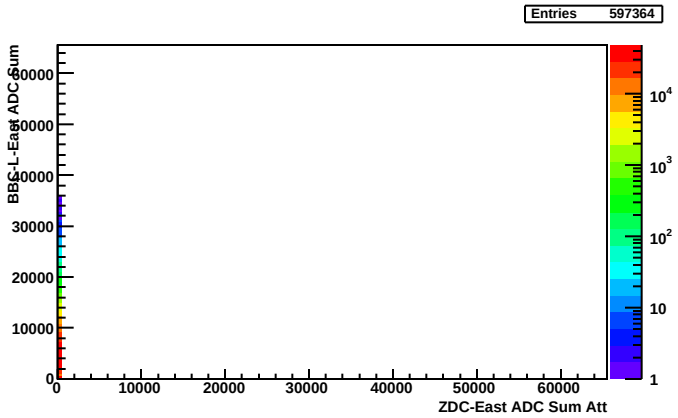

Entries 597364
TOF Mult
ZDC-West ADC Sum Att

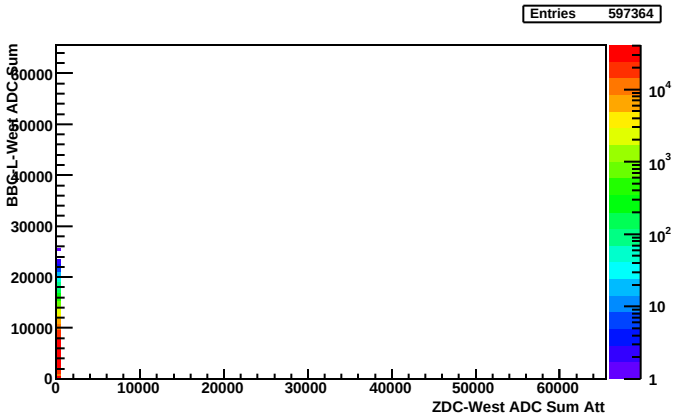

Entries 597364
BBC-L-East ADC Sum
BBC-S-East ADC Sum

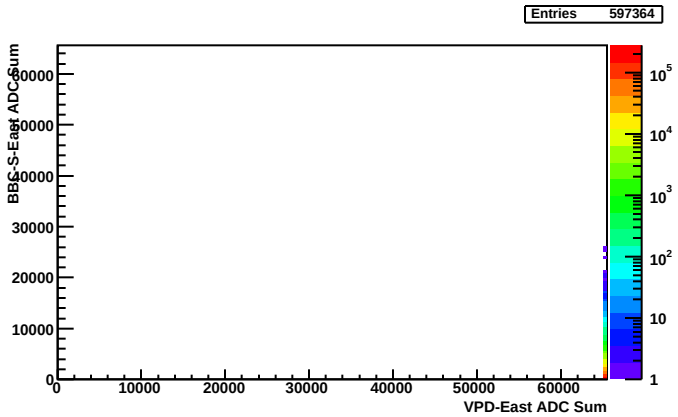

Entries 597364
BBC-L-West ADC Sum
BBC-S-West ADC Sum

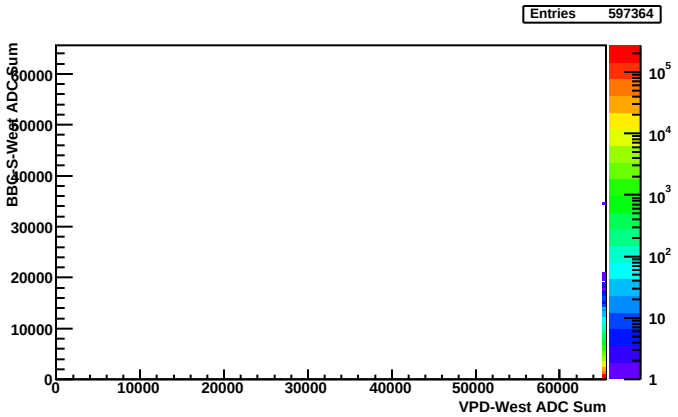

Entries 597364
BBC-L-East ADC Sum
VPD-East ADC Sum

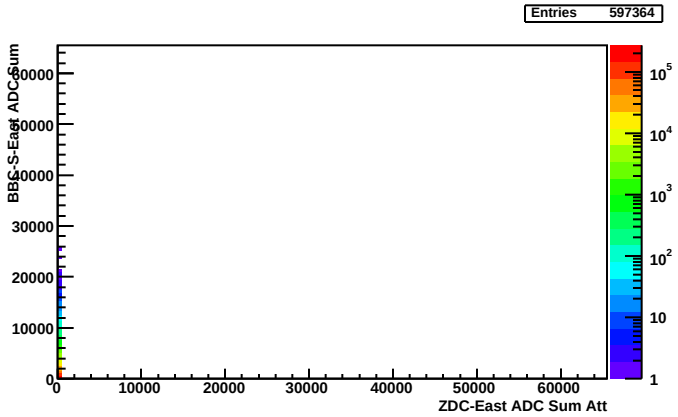

Entries 597364
BBC-L-West ADC Sum
VPD-West ADC Sum

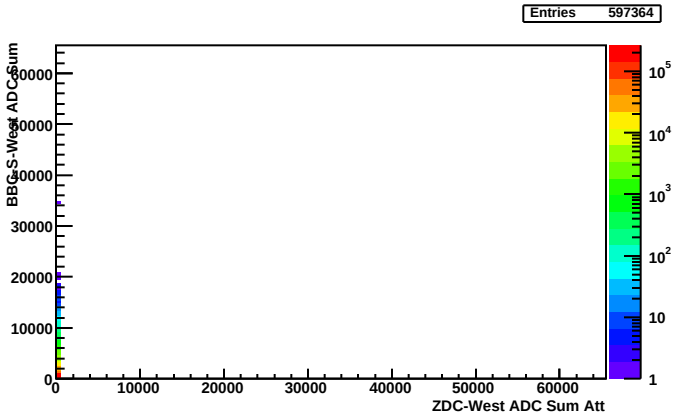

Entries 597364
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

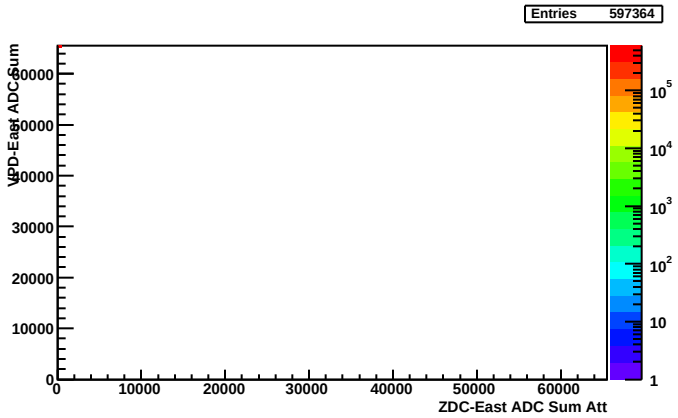

Entries 597364
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

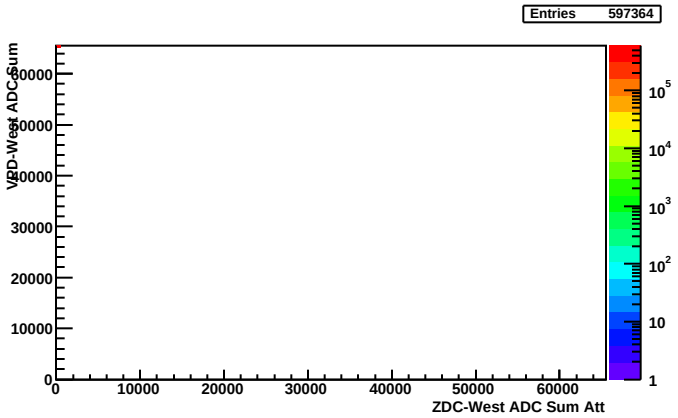

Entries 597364
BBC-S-East ADC Sum
VPD-East ADC Sum

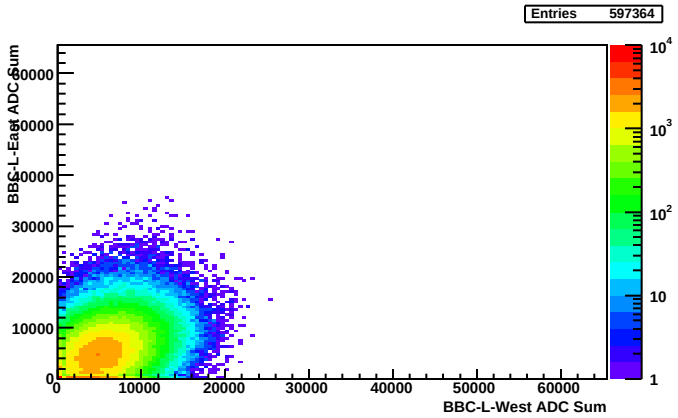

Entries 597364
BBC-S-West ADC Sum
VPD-West ADC Sum

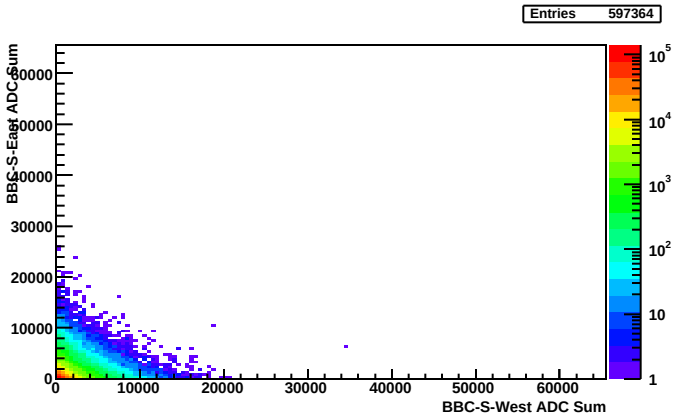

Entries 597364
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

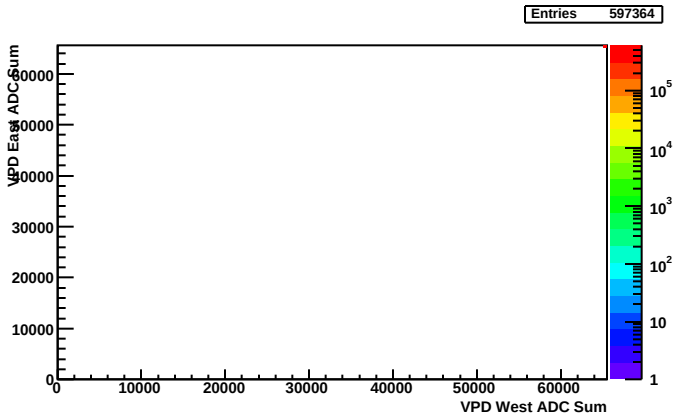

Entries 597364
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

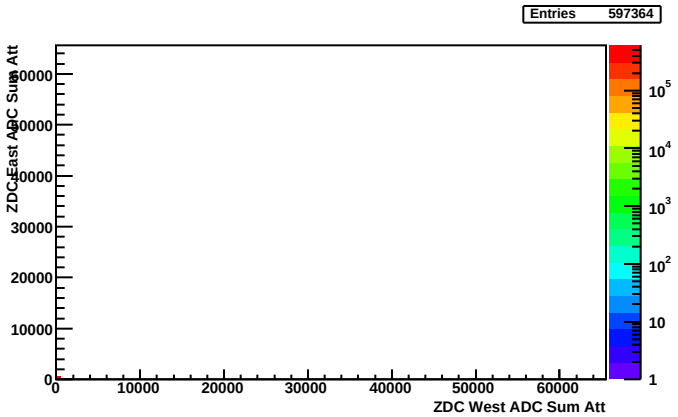

Entries 597364
VPD-East ADC Sum
ZDC-East ADC Sum Att

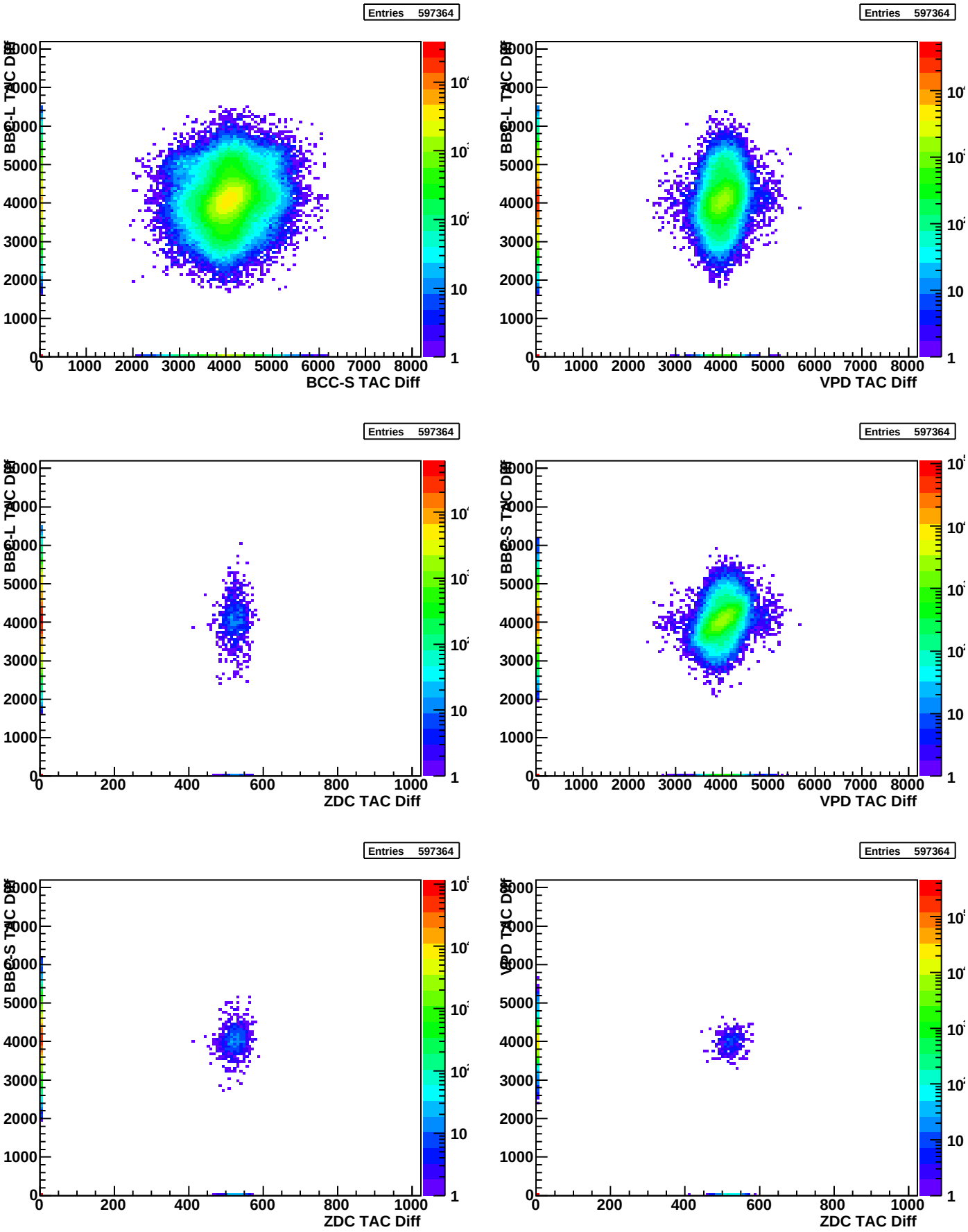

Entries 597364
VPD-West ADC Sum
ZDC-West ADC Sum Att

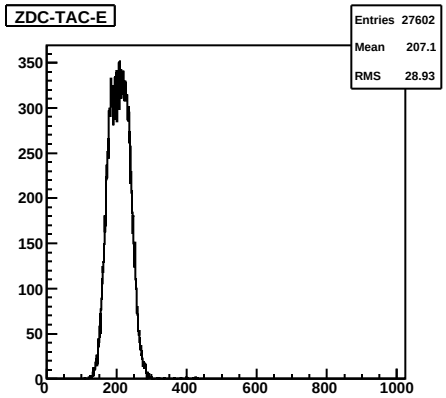

Entries 597364
BBC-L-East ADC Sum
BBC-L-West ADC Sum

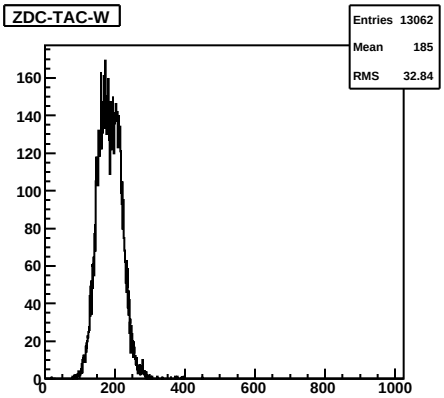

Entries 597364
BBC-S-East ADC Sum
BBC-S-West ADC Sum

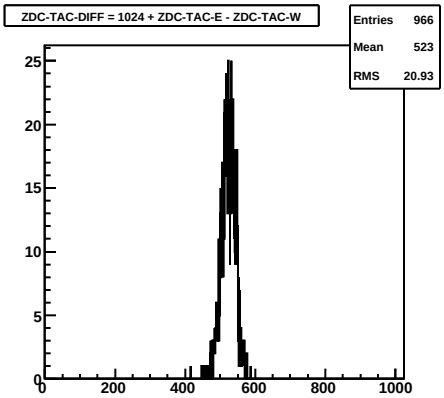

Entries 597364
VPD East ADC Sum
VPD West ADC Sum

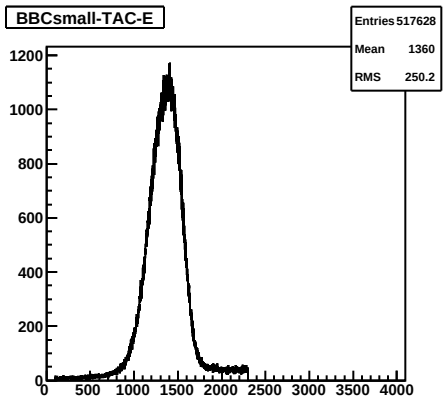

Entries 597364
ZDC East ADC Sum Att
ZDC West ADC Sum Att

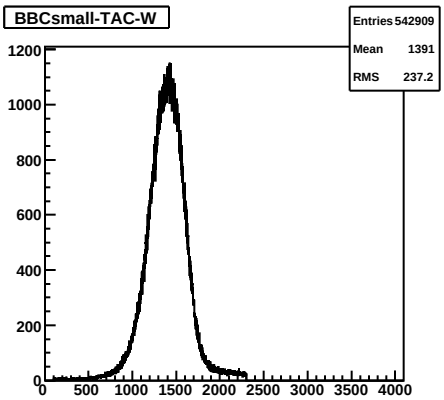

Entries 597364
BBC-L TAC Diff
BCC-S TAC Diff
Entries 597364
BBC-L TAC Diff
VPD TAC Diff
Entries 597364
BBC-L TAC Diff
ZDC TAC Diff
Entries 597364
BBC-S TAC Diff
VPD TAC Diff
Entries 597364
BBC-S TAC Diff
ZDC TAC Diff
Entries 597364
VPD TAC Diff
ZDC TAC Diff

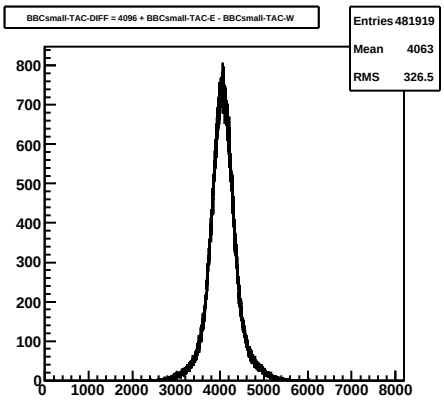

ZDC-TAC-E
Entries 27602
Mean 207.1
RMS 28.93

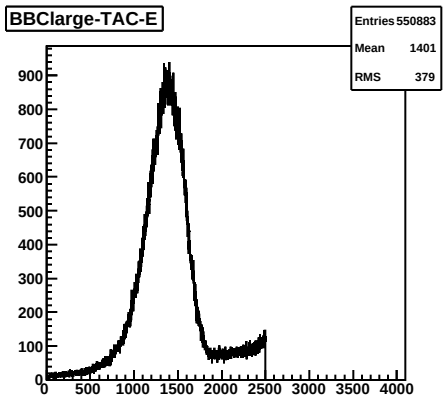

ZDC-TAC-W
Entries 13062
Mean 185
RMS 32.84

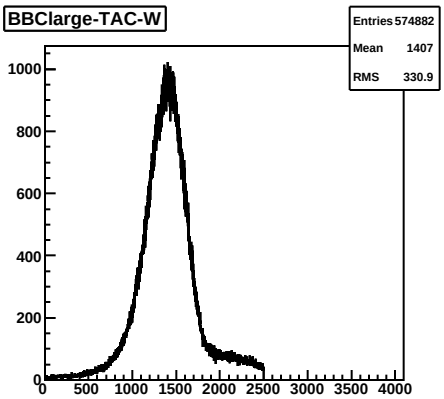

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 966
Mean 523
RMS 20.93

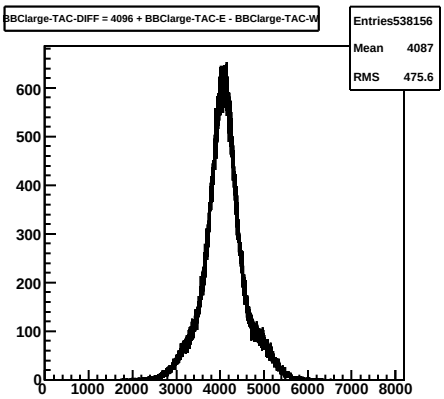

BBCsmall-TAC-E
Entries 517628
Mean 1360
RMS 250.2

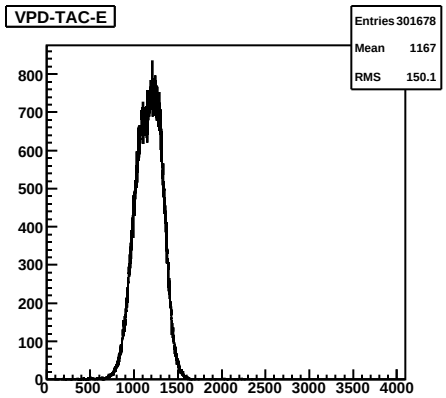

BBCsmall-TAC-W
Entries 542909
Mean 1391
RMS 237.2

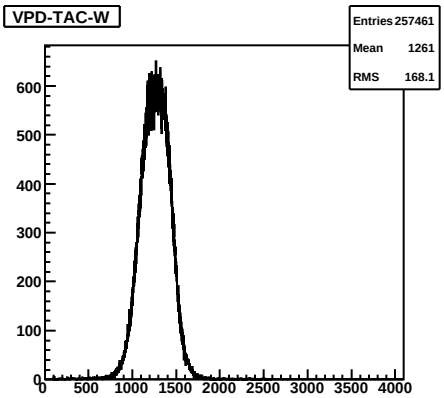

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 481919
Mean 4063
RMS 326.5

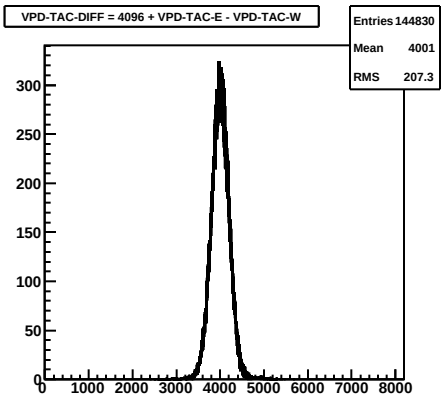

BBClarge-TAC-E
Entries 550883
Mean 1401
RMS 379

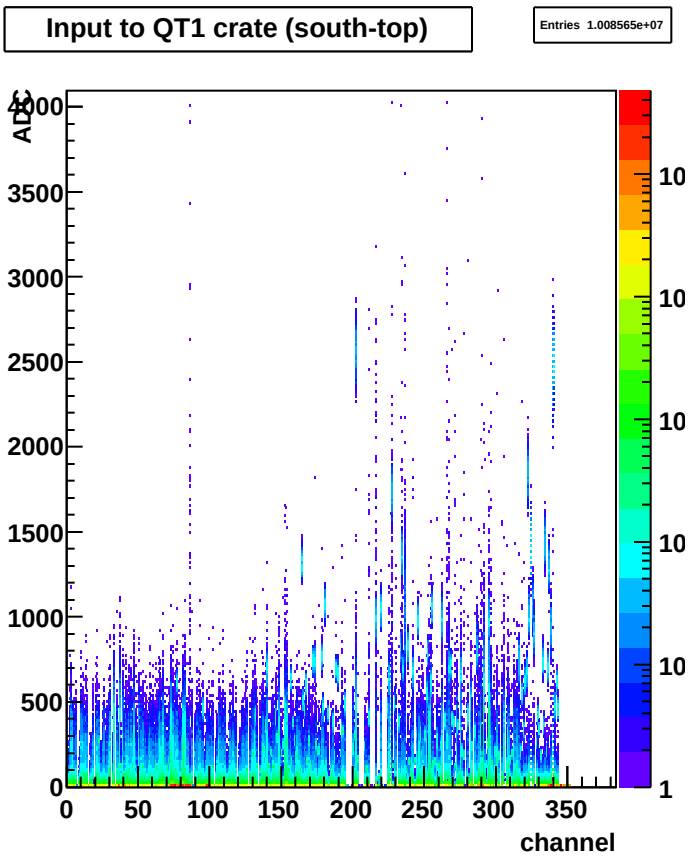

BBClarge-TAC-W
Entries 574882
Mean 1407
RMS 330.9

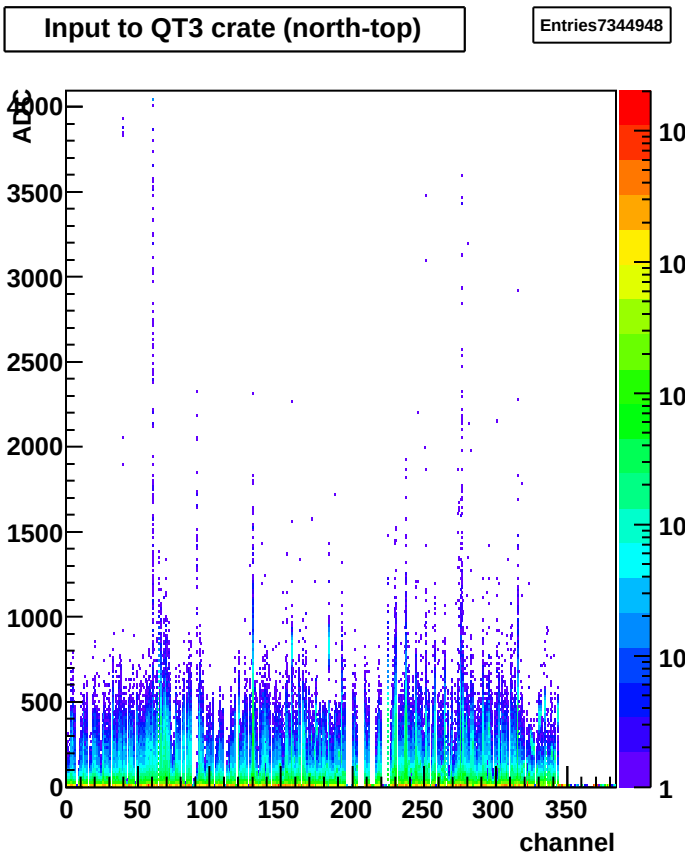

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 538156
Mean 4087
RMS 475.6

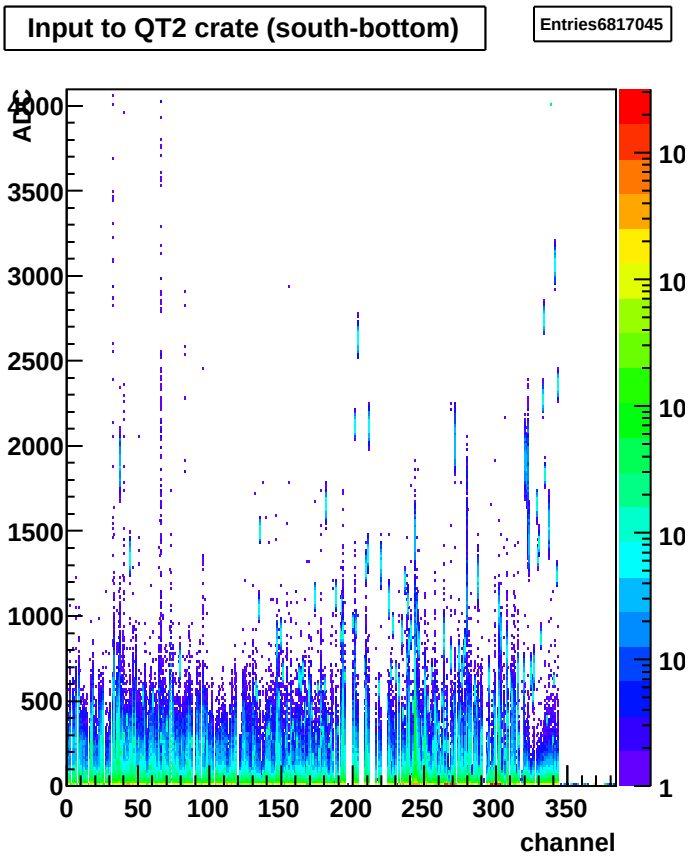

VPD-TAC-E
Entries 301678
Mean 1167
RMS 150.1

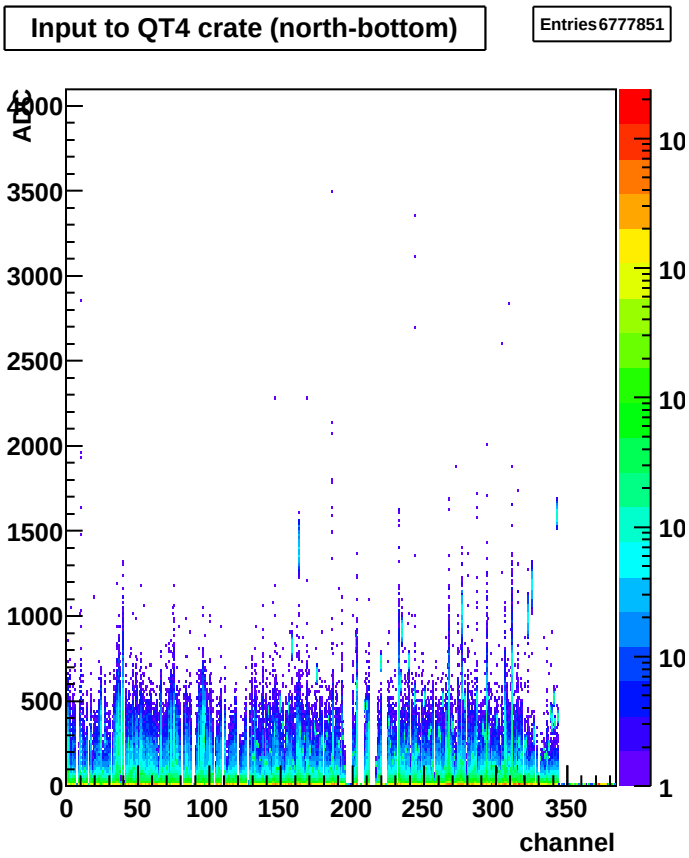

VPD-TAC-W
Entries 257461
Mean 1261
RMS 168.1

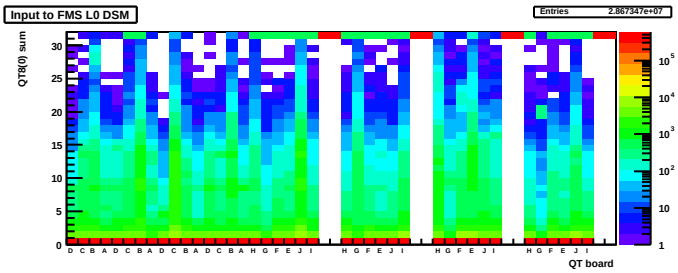

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 144830
Mean 4001
RMS 207.3

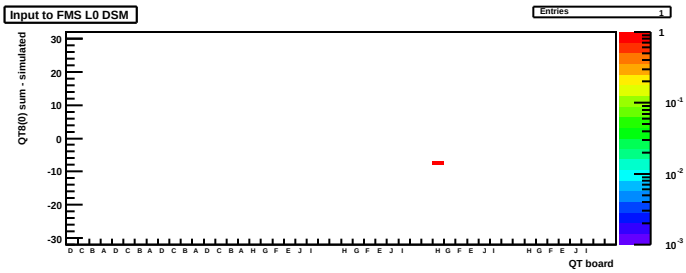

Input to QT1 crate (south-top)
Entries 1.008565e+07
ADC
channel

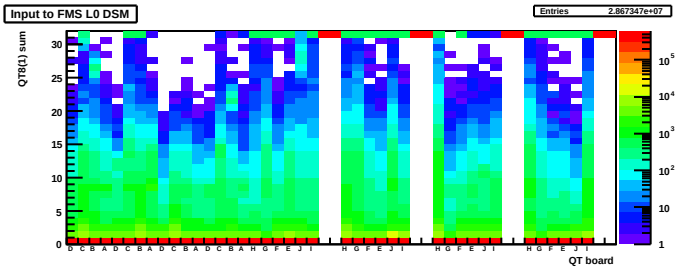

Input to QT3 crate (north-top)
Entries7344948
ADC
channel

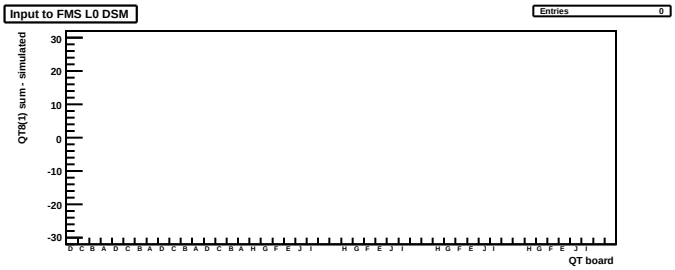

Input to QT2 crate (south-bottom)
Entries6817045
ADC
channel

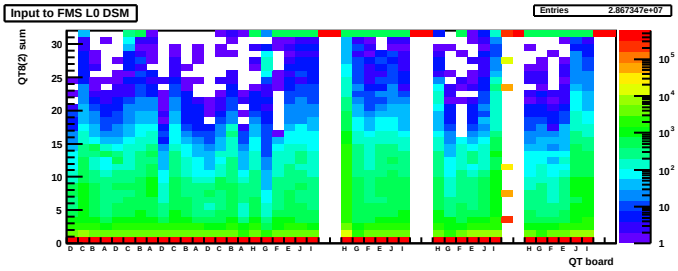

Input to QT4 crate (north-bottom)
Entries6777851
ADC
channel

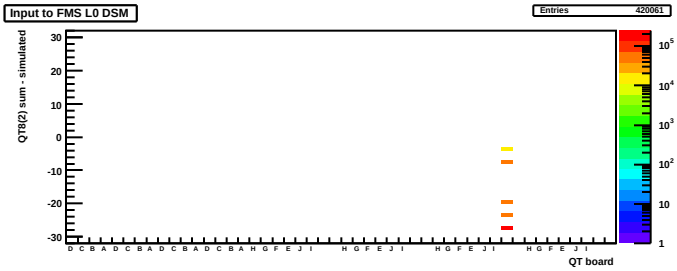

Input to FMS L0 DSM
Entries 2.867347e+07
QT8(0) sum
QT board

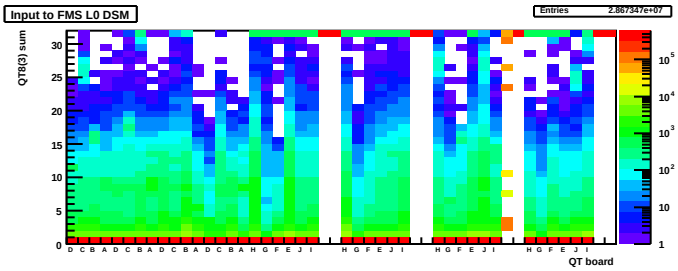

Input to FMS L0 DSM
Entries 1
QT8(0) sum - simulated
QT board

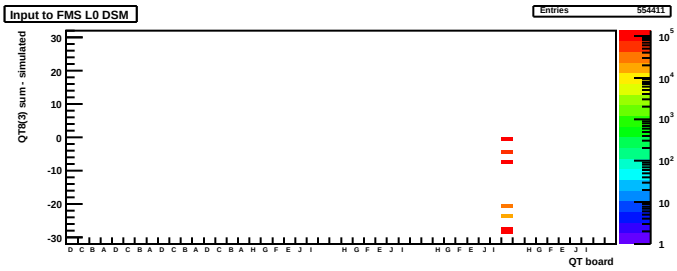

Input to FMS L0 DSM
Entries 2.867347e+07
QT8(1) sum
QT board

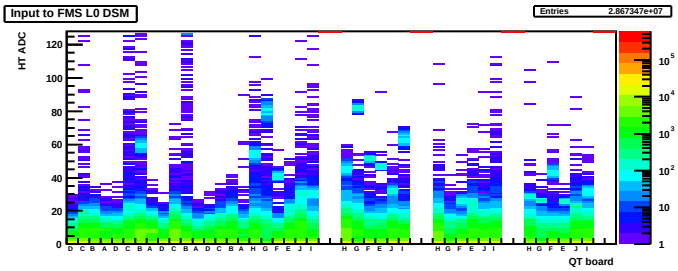

Input to FMS L0 DSM
Entries 0
QT8(1) sum - simulated
QT board

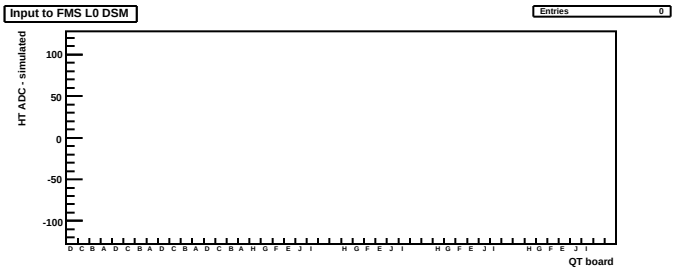

Input to FMS L0 DSM
Entries 2.867347e+07
QT8(2) sum
QT board

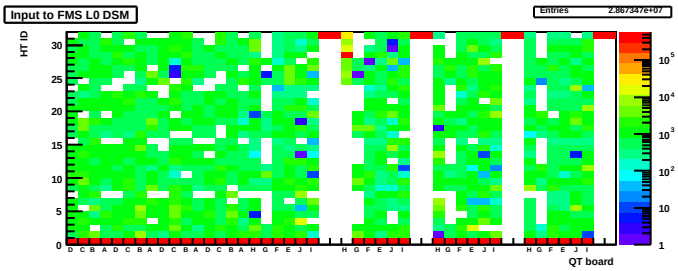

Input to FMS L0 DSM
Entries 420061
QT8(2) sum - simulated
QT board

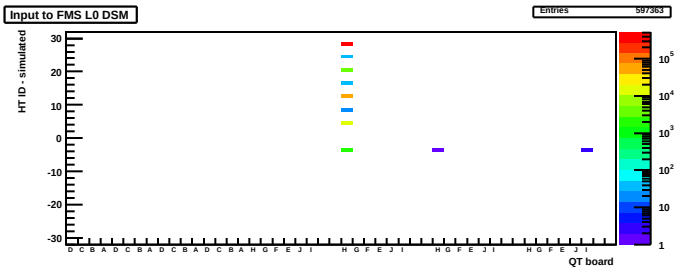

Input to FMS L0 DSM
Entries 2.867347e+07
QT8(3) sum
QT board

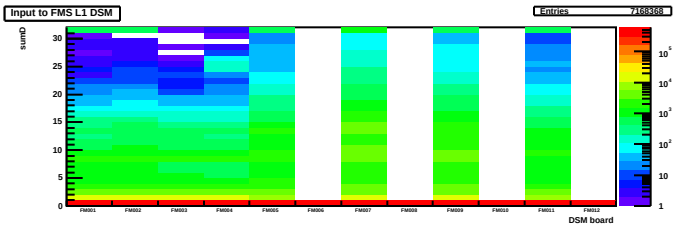

Input to FMS L0 DSM
Entries 554411
QT8(3) sum - simulated
QT board

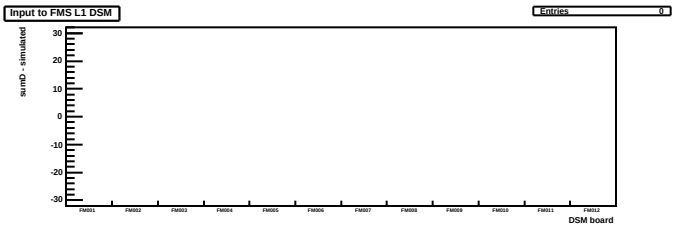

Input to FMS L0 DSM
Entries 2.867347e+07
HT ADC
QT board

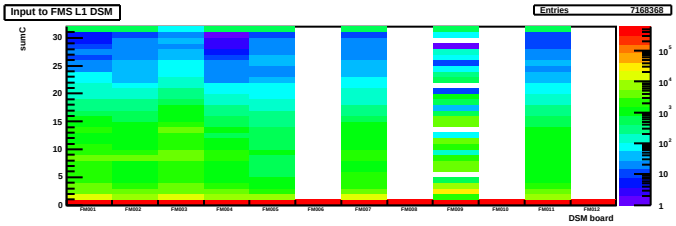

Input to FMS L0 DSM
Entries 0
HT ADC - simulated
QT board

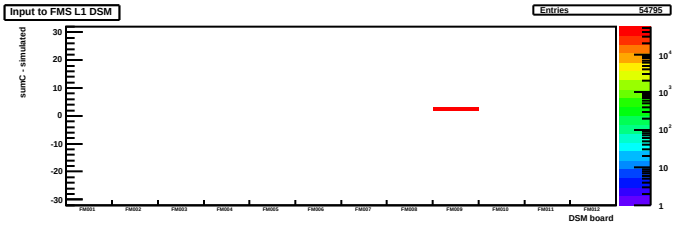

Input to FMS L0 DSM
Entries 2.867347e+07
HT ID
QT board

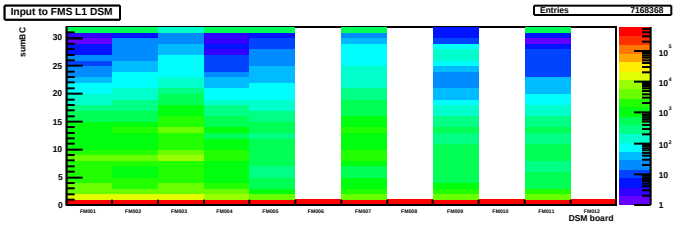

Input to FMS L0 DSM
Entries 597363
HT ID - simulated
QT board

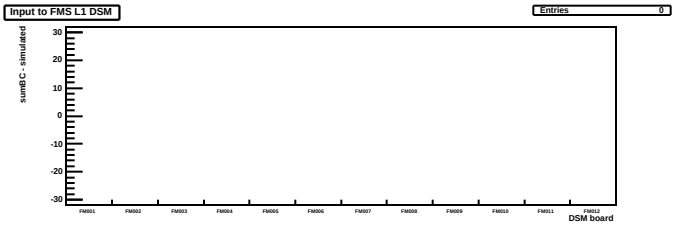

Input to FMS L1 DSM
Entries 7168368
sumD
DSM board

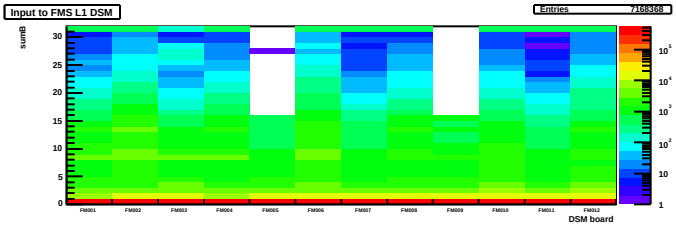

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

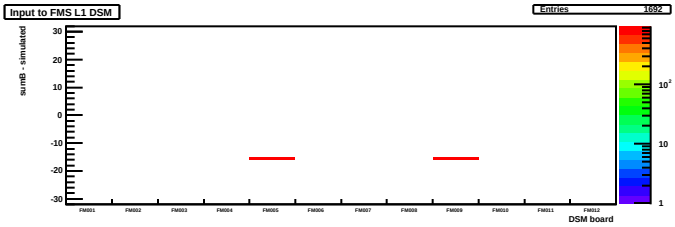

Input to FMS L1 DSM
Entries 7168368
sumC
DSM board

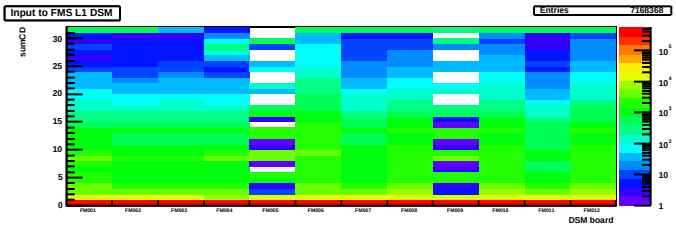

Input to FMS L1 DSM
Entries 54795
sumC - simulated
DSM board

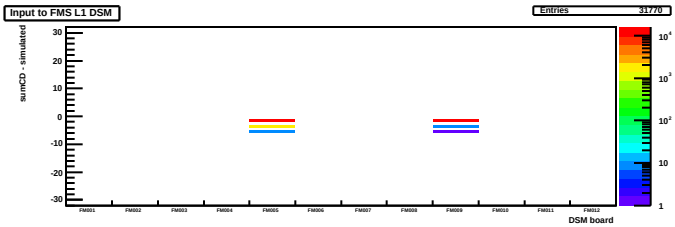

Input to FMS L1 DSM
Entries 7168368
sumBC
DSM board

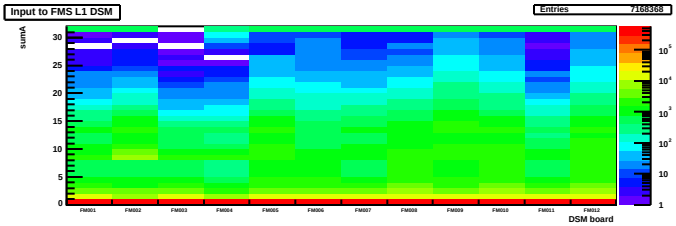

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

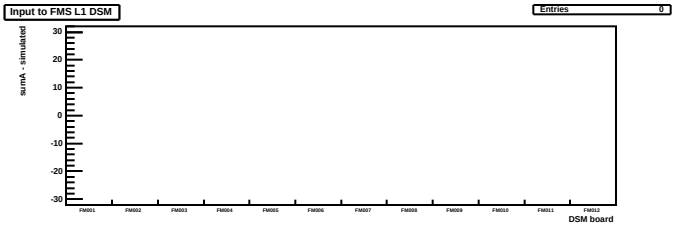

Input to FMS L1 DSM
Entries 7168368
sumB
DSM board

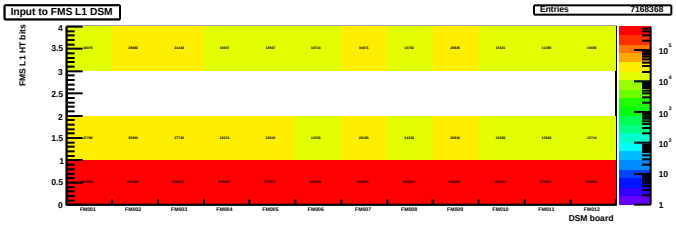

Input to FMS L1 DSM
Entries 1692
sumB - simulated
DSM board

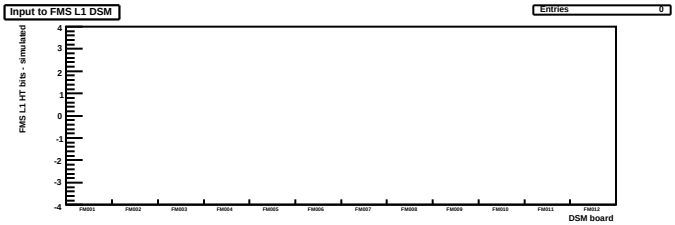

Input to FMS L1 DSM
Entries 7168368
sumCD
DSM board

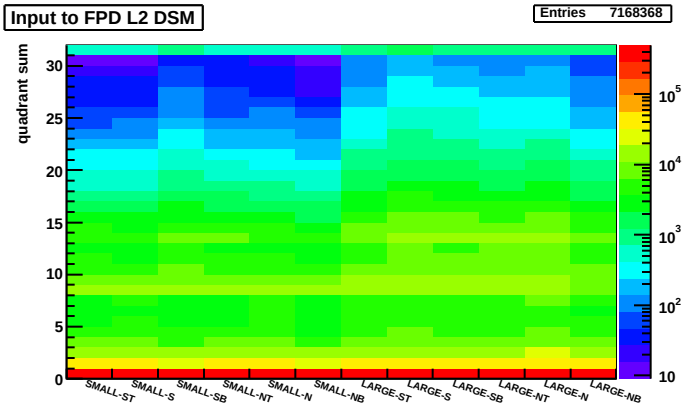

Input to FMS L1 DSM
Entries 31770
sumCD - simulated
DSM board

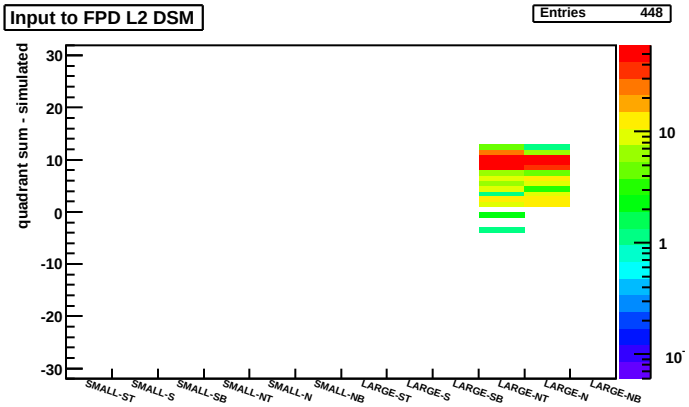

Input to FMS L1 DSM
Entries 7168368
sumA
DSM board

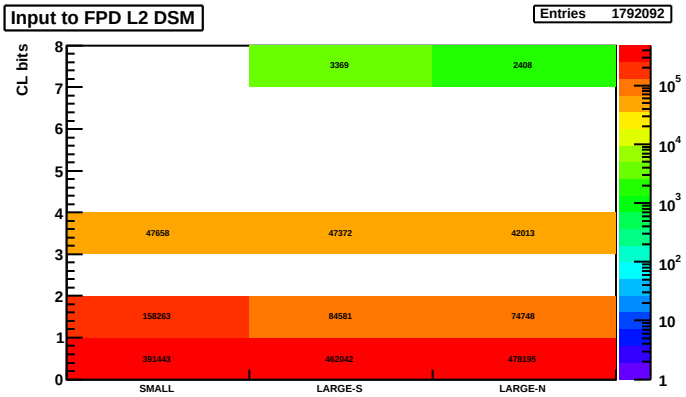

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

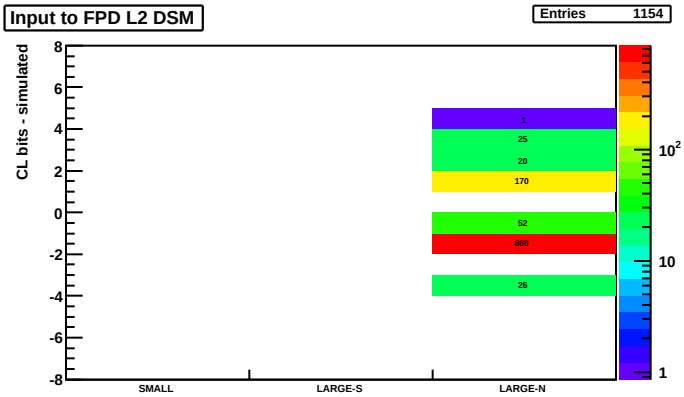

Input to FMS L1 DSM
Entries 7168368
FMS L1 HT bits
DSM board

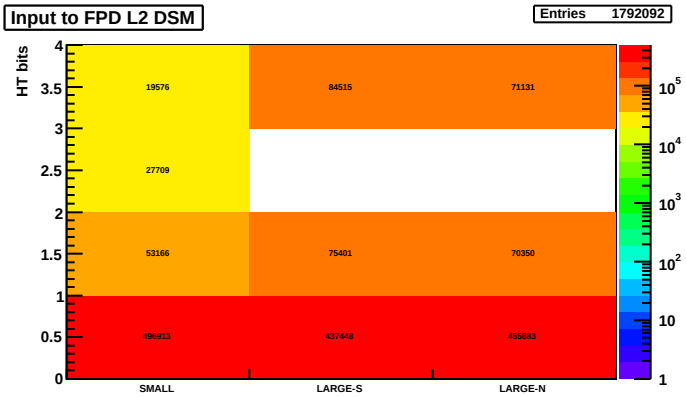

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

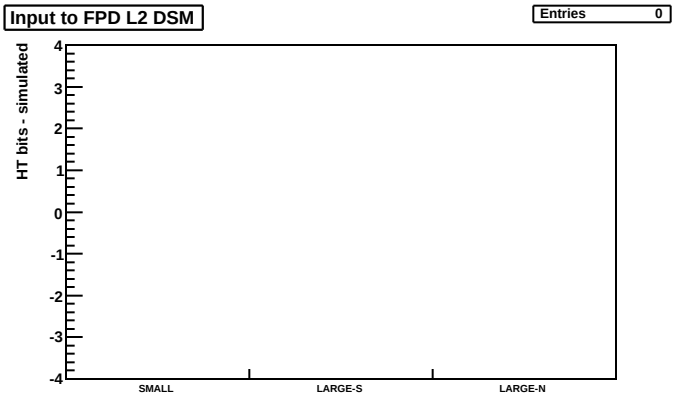

Input to FPD L2 DSM
Entries 7168368
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

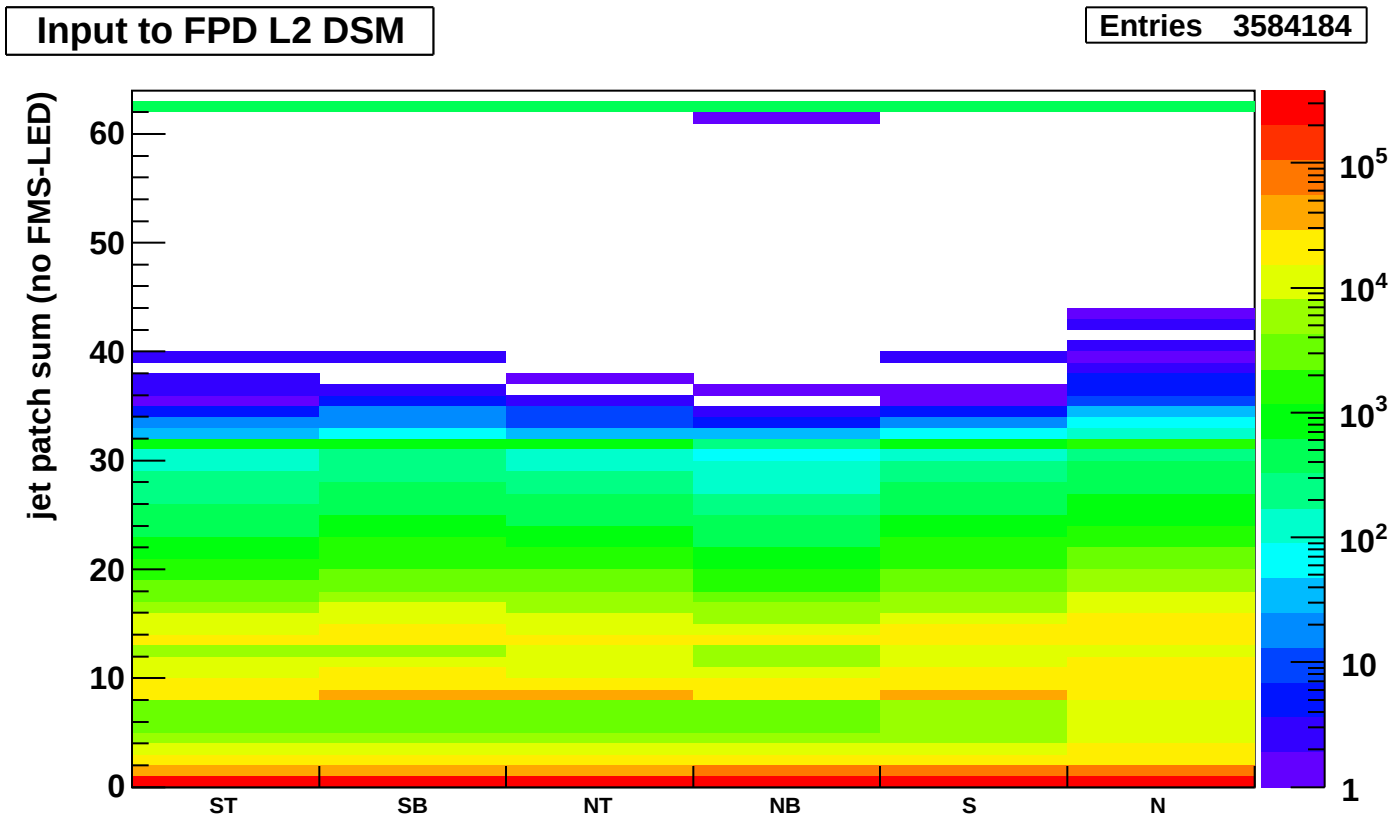

Input to FPD L2 DSM
Entries 448
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

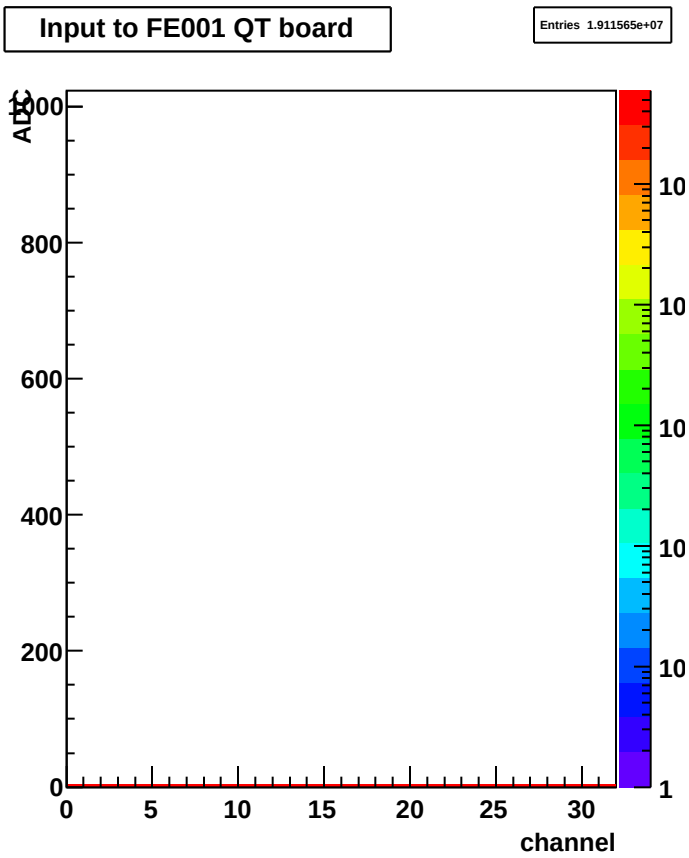

Input to FPD L2 DSM
Entries 1792092
CL bits
3369
2408
47658
47372
42013
158263
84581
74748
391443
462042
478195
SMALL
LARGE-S
LARGE-N

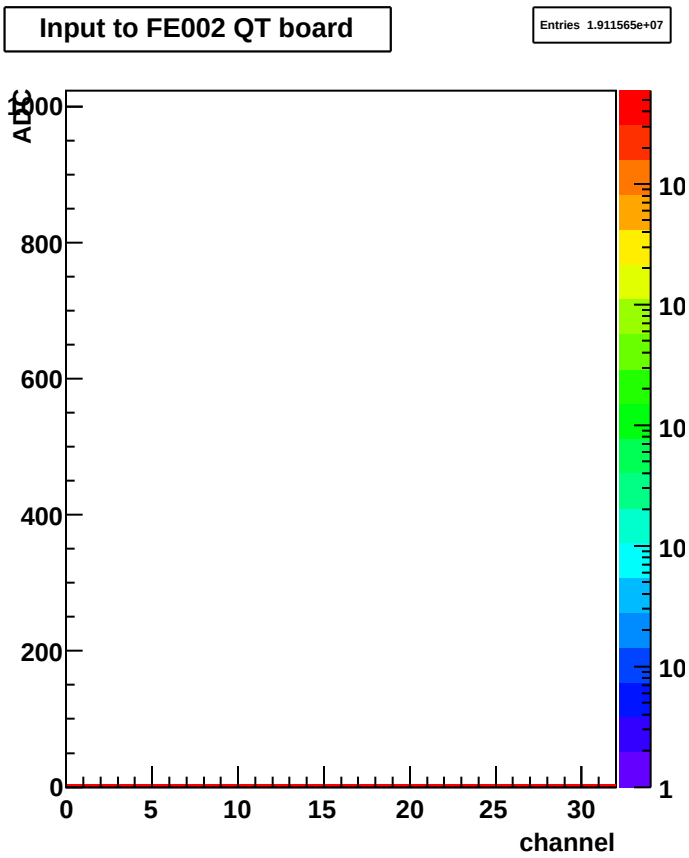

Input to FPD L2 DSM
Entries 1154
CL bits - simulated
1
25
20
170
52
960
26
SMALL
LARGE-S
LARGE-N

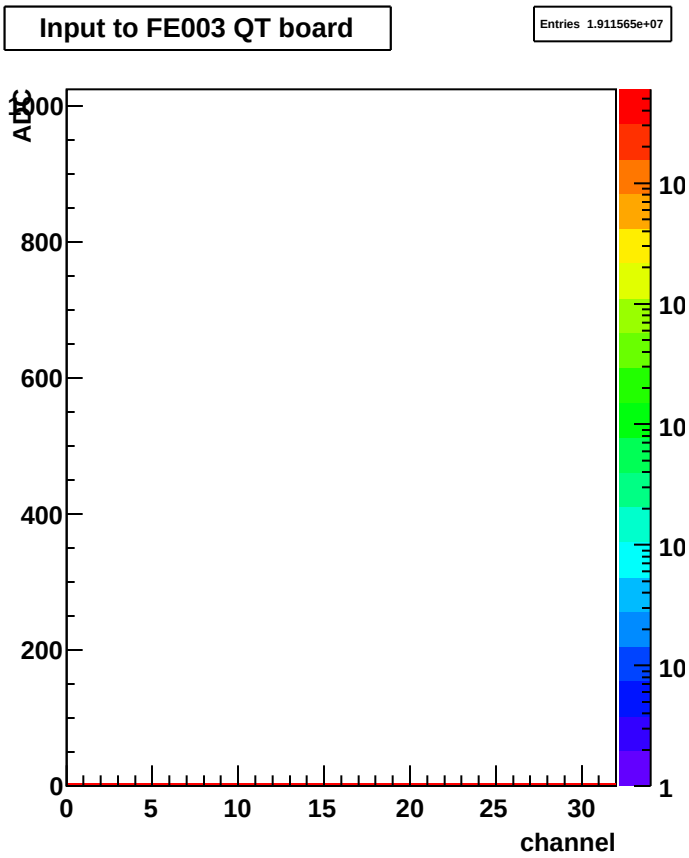

Input to FPD L2 DSM
Entries 1792092
HT bits
19576
84515
71131
27709
53166
75401
70350
496913
437448
455883
SMALL
LARGE-S
LARGE-N

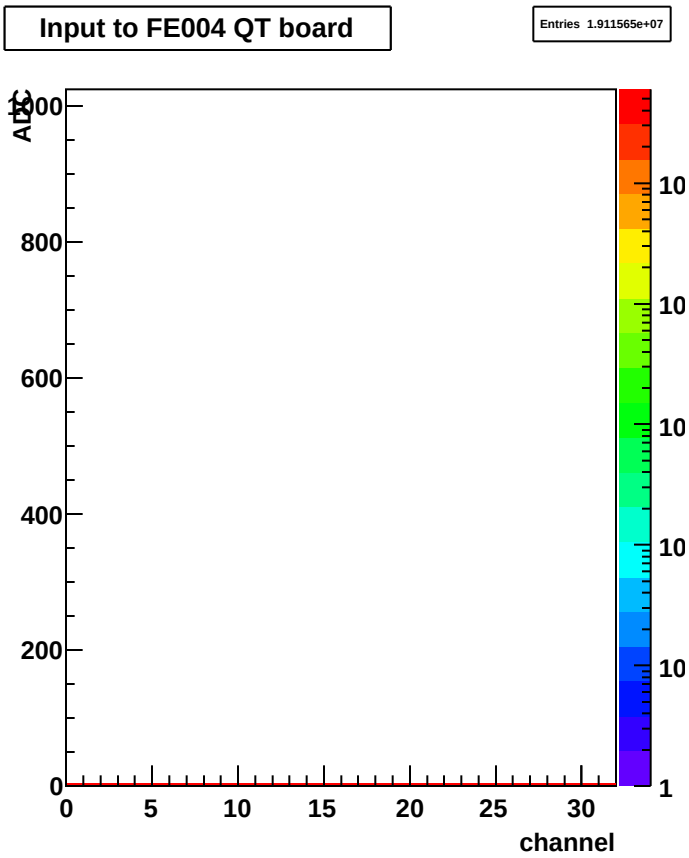

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

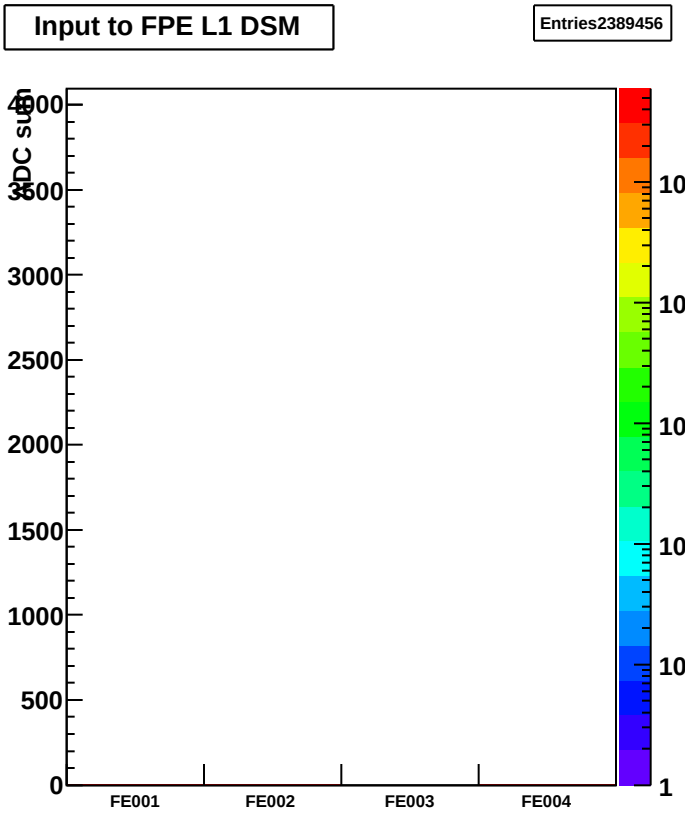

Input to FPD L2 DSM
Entries 3584184
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

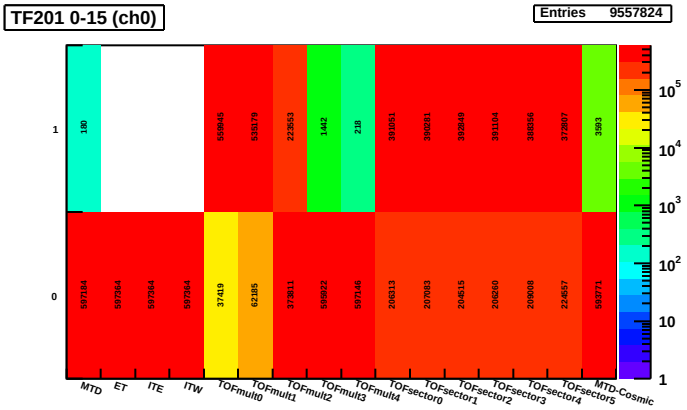

Input to FE001 QT board
Entries 1.911565e+07
ADC
channel

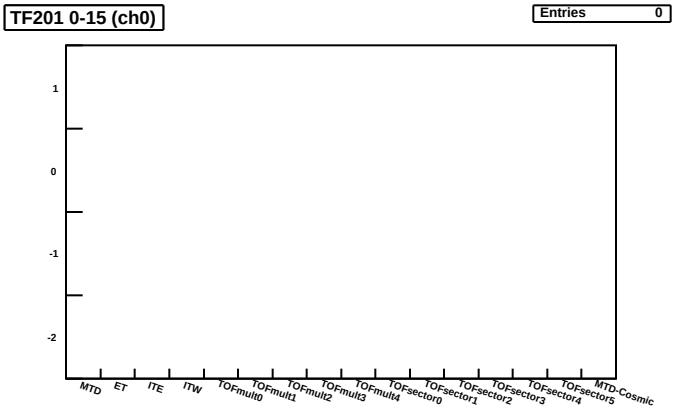

Input to FE002 QT board
Entries 1.911565e+07
ADC
channel

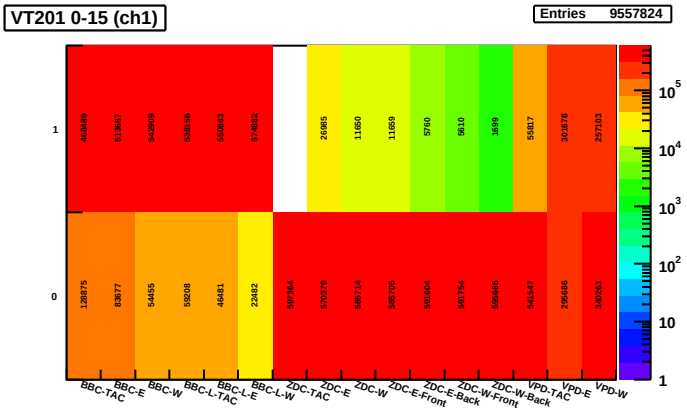

Input to FE003 QT board
Entries 1.911565e+07
ADC
channel

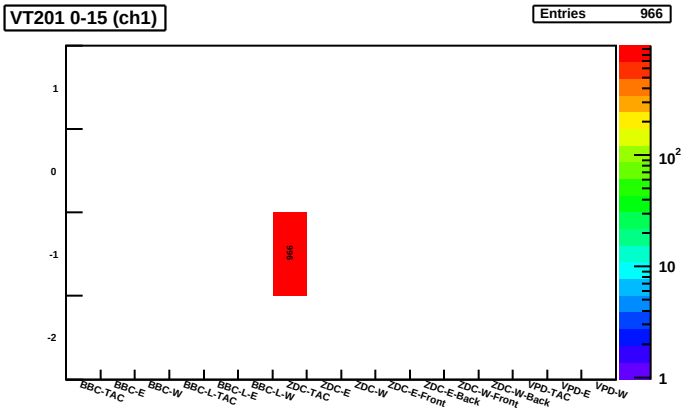

Input to FE004 QT board
Entries 1.911565e+07
ADC
channel


Input to FPE L1 DSM
Entries2389456
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


TF201 0-15 (ch0)
Entries 9557824
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 0
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 9557824
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 966
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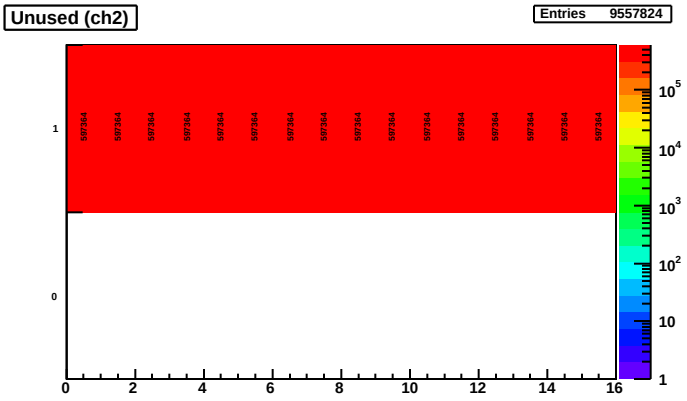
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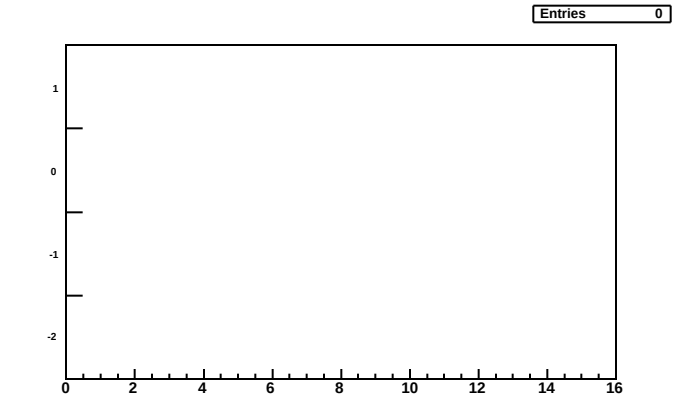
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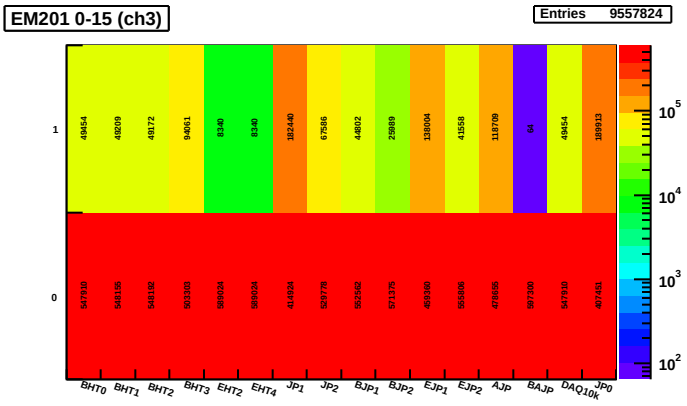
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Entries 9557824
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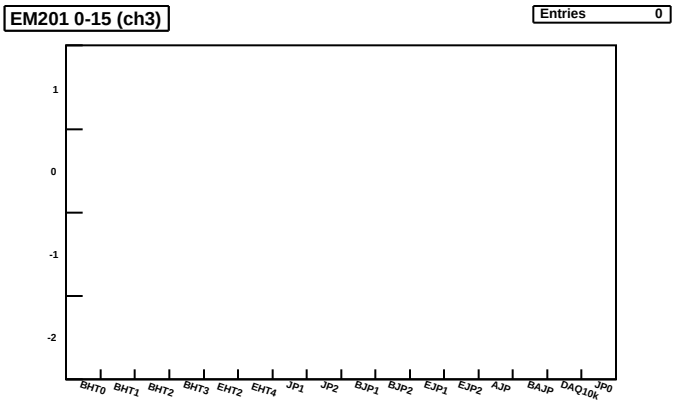
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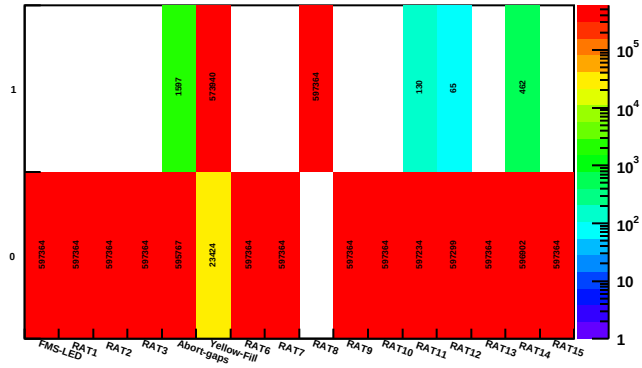
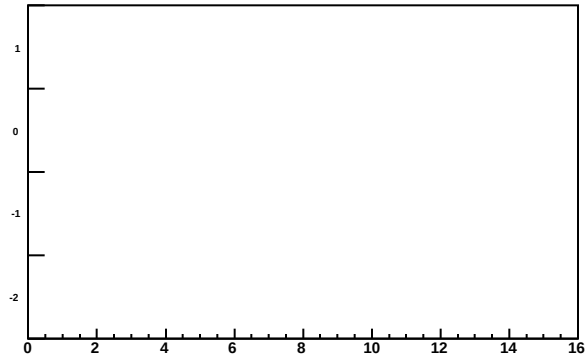
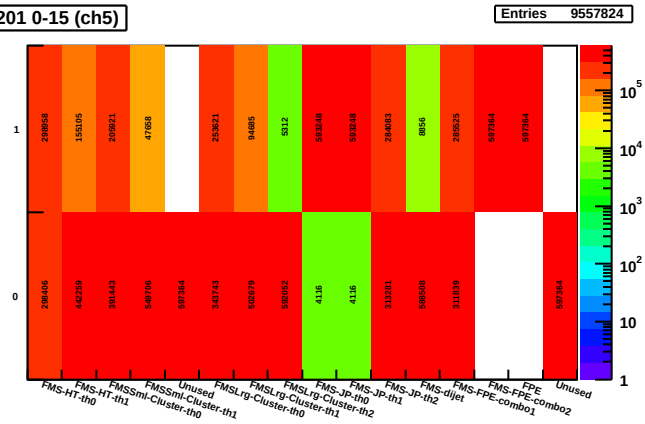
RAT board (ch4)





FP201 0-15 (ch5)



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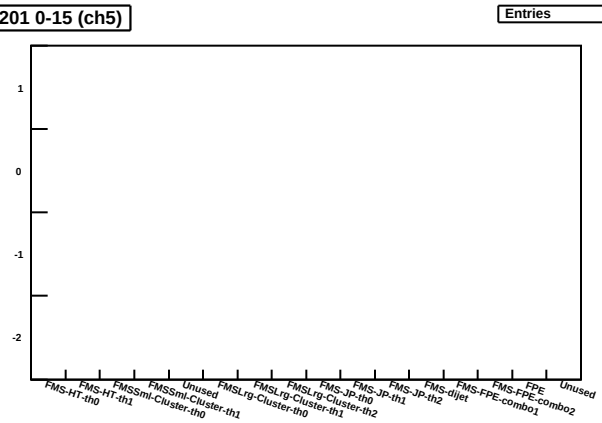
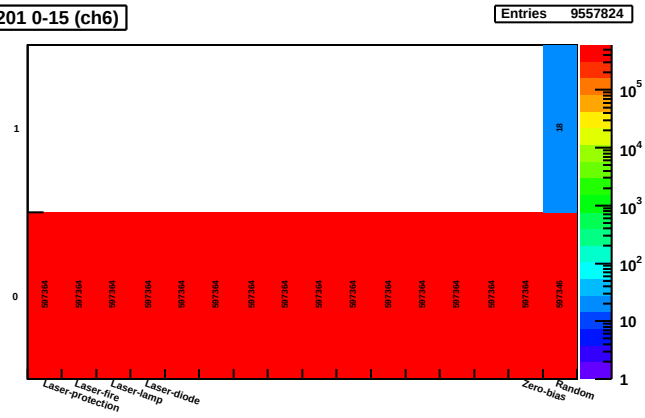
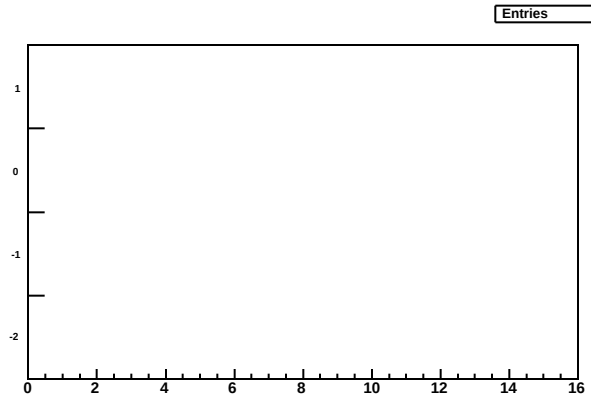
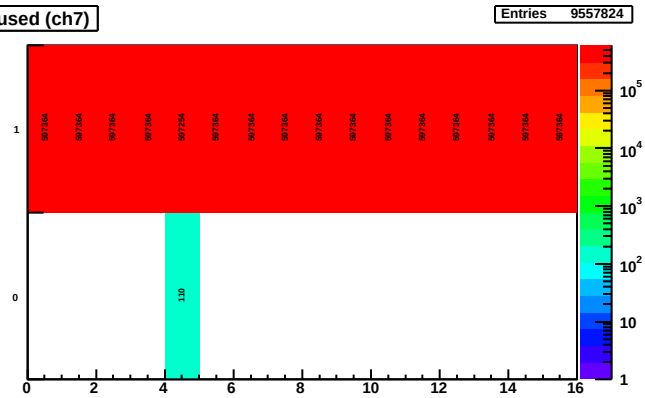
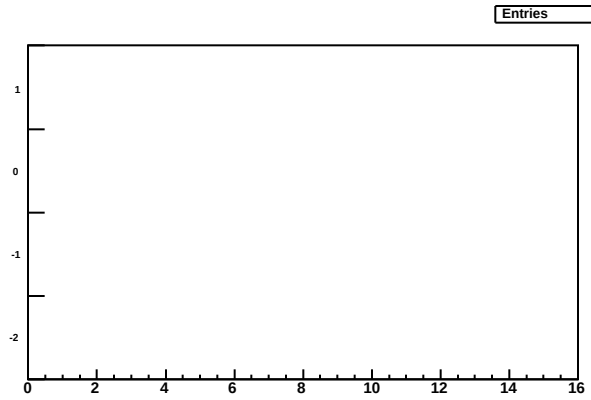


ST201 0-15 (ch6)





Unused (ch7)