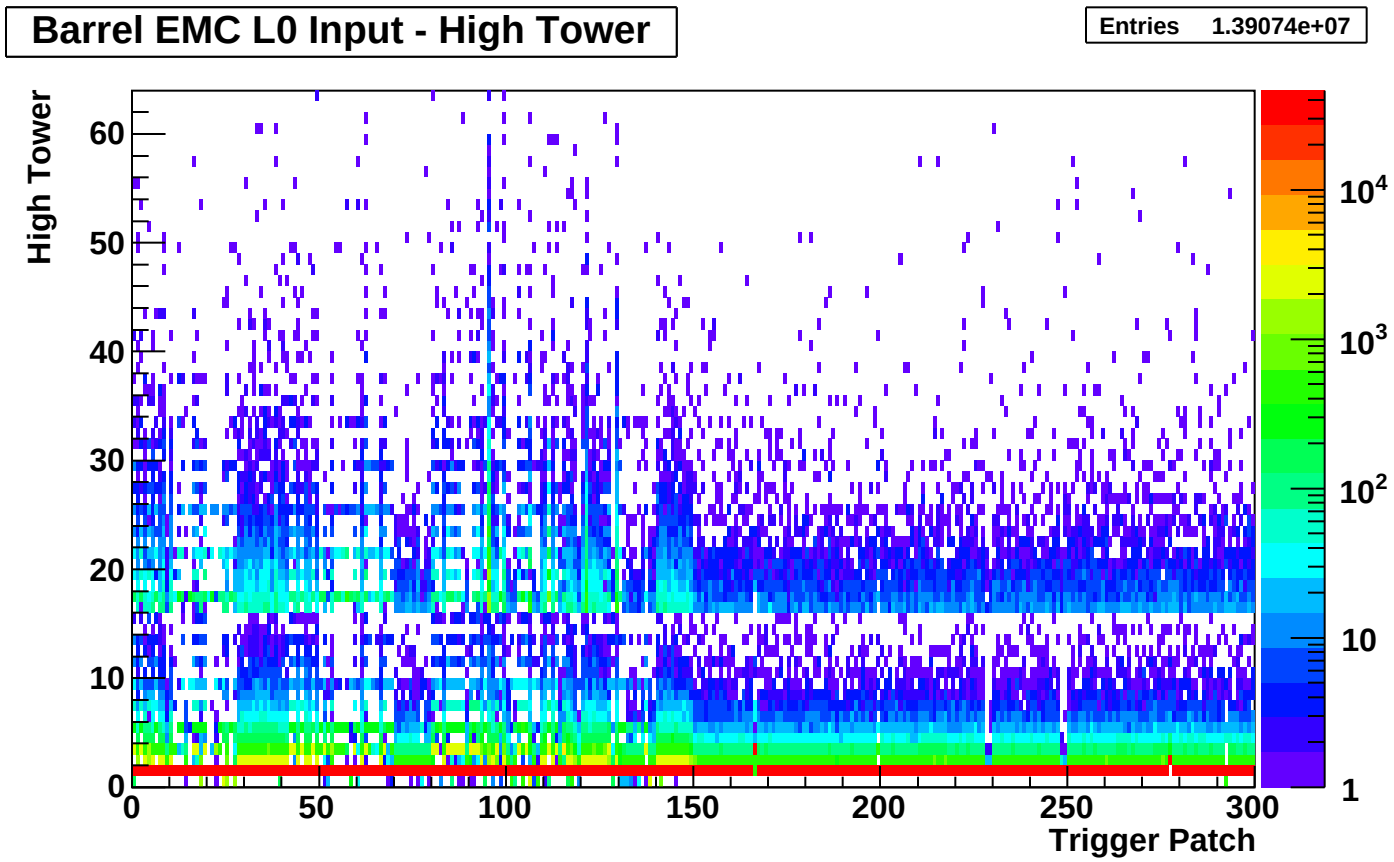
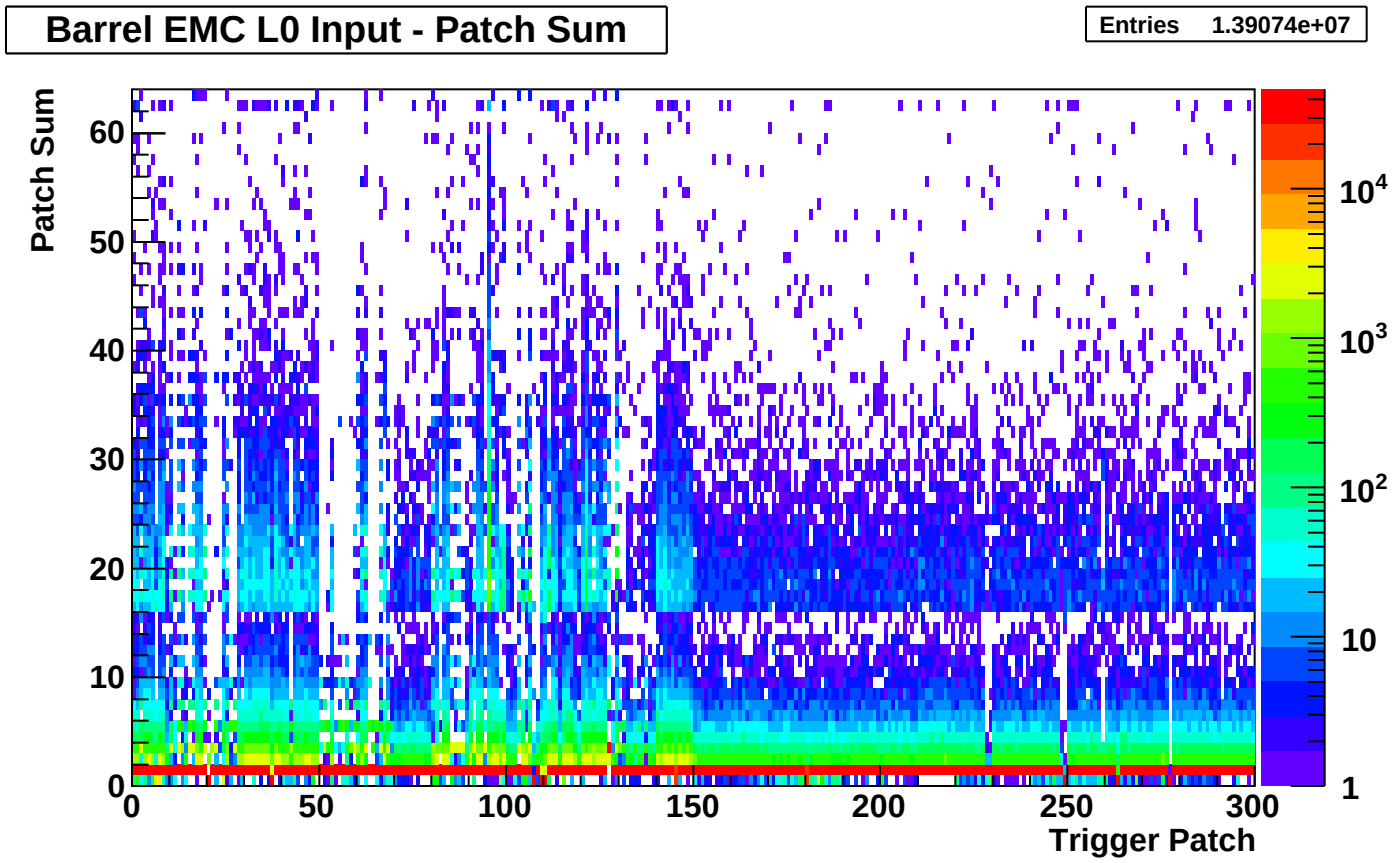
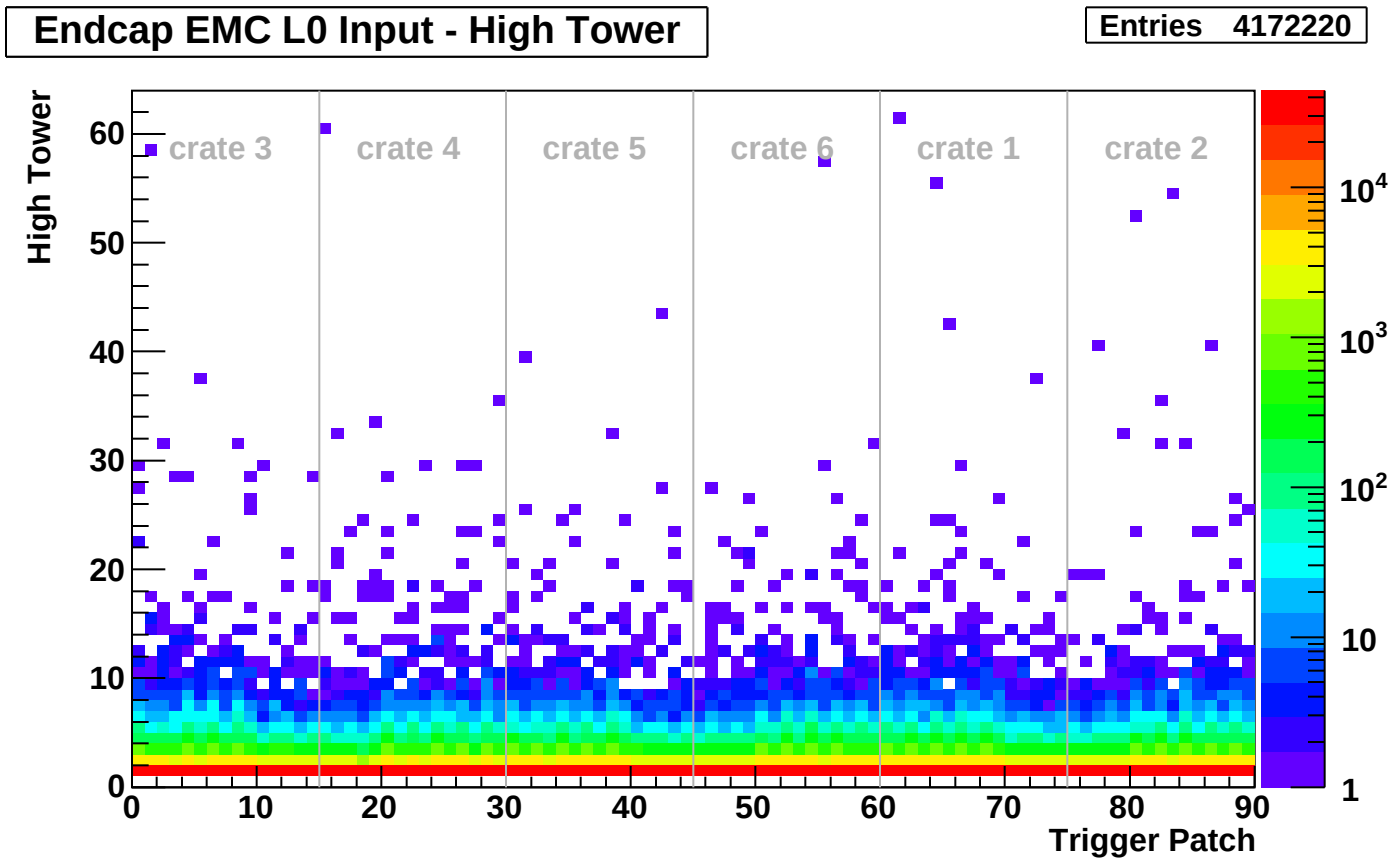
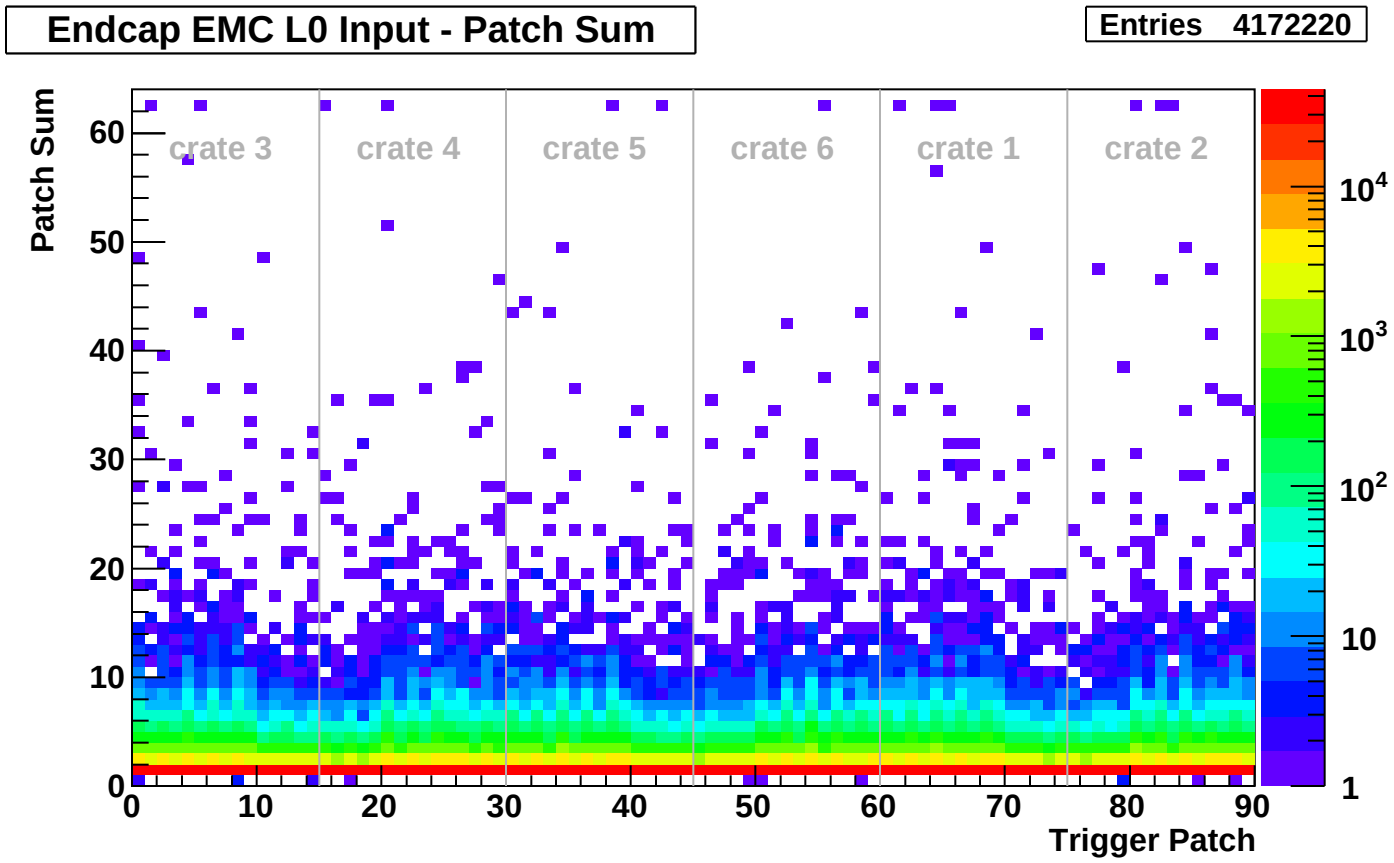
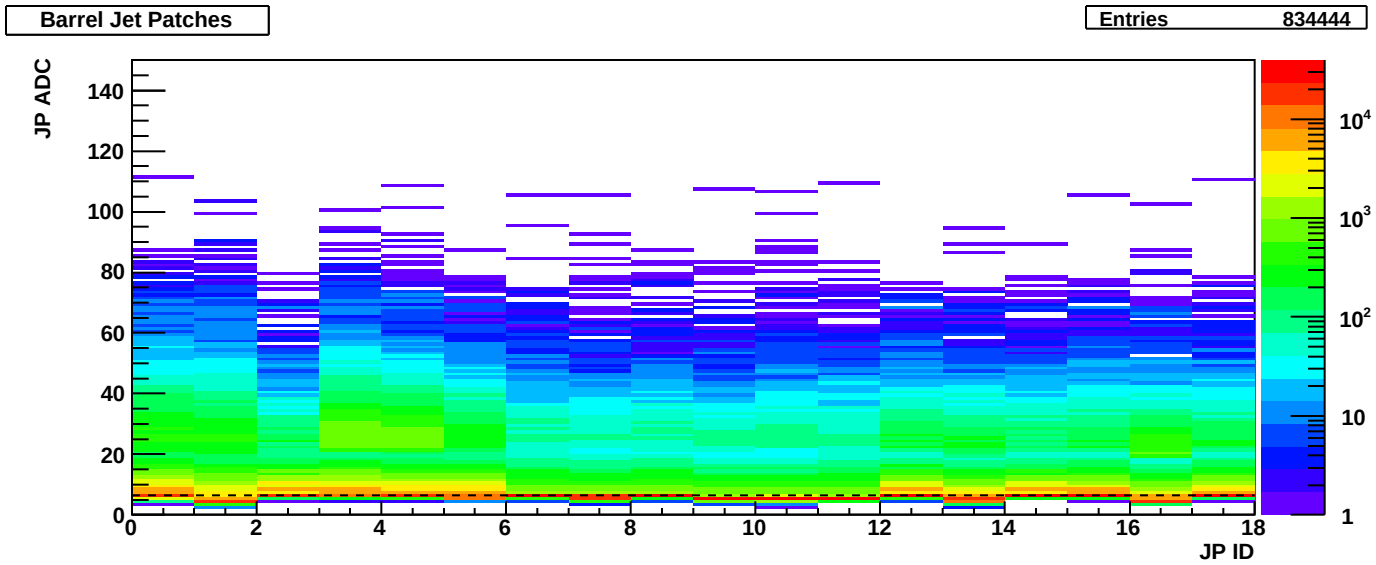
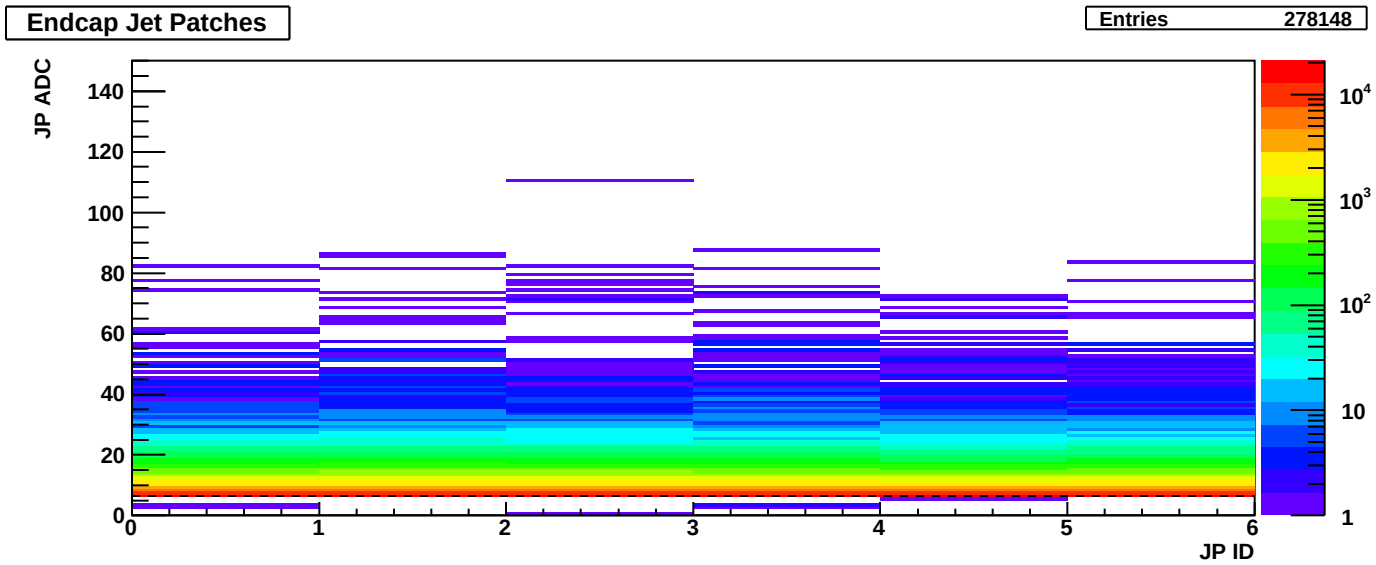

Barrel EMC L0 Input - High Tower
Entries 1.39074e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

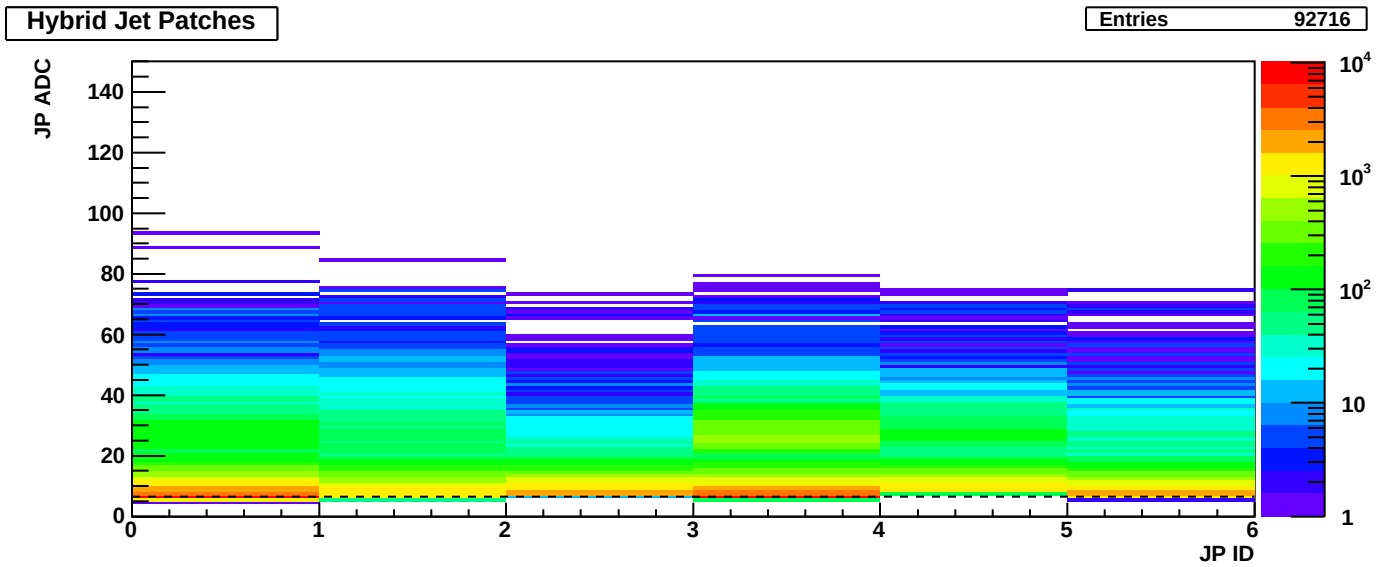

Barrel EMC L0 Input - Patch Sum
Entries 1.39074e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

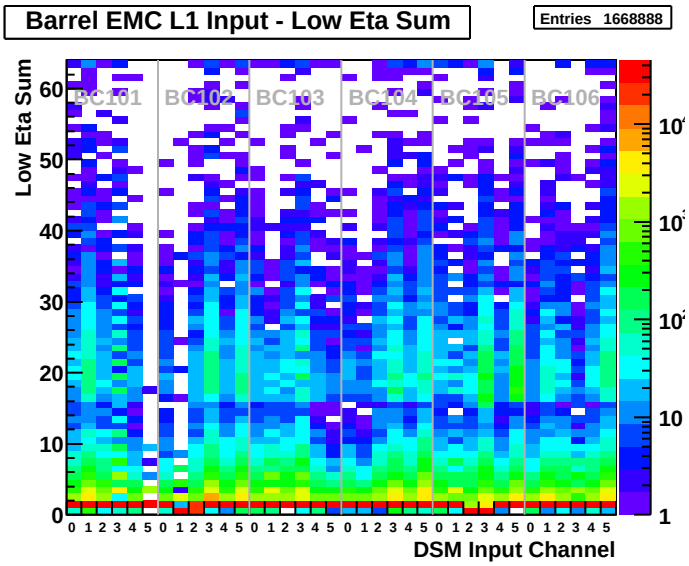

Endcap EMC L0 Input - High Tower
Entries 4172220
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

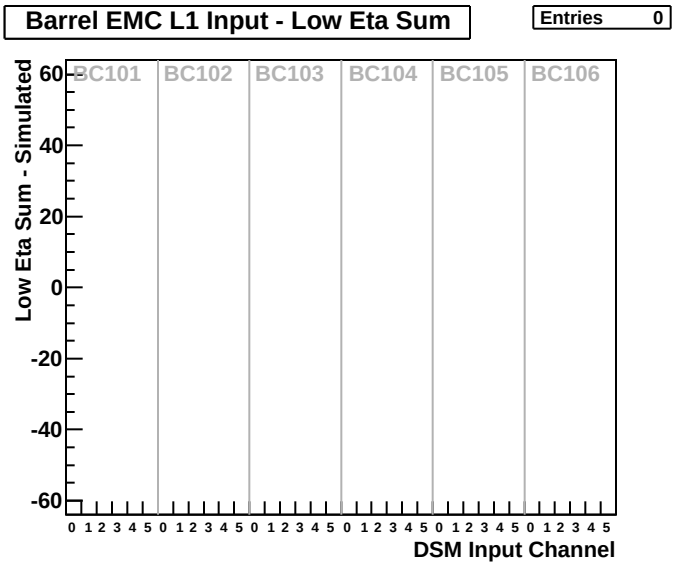

Endcap EMC L0 Input - Patch Sum
Entries 4172220
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

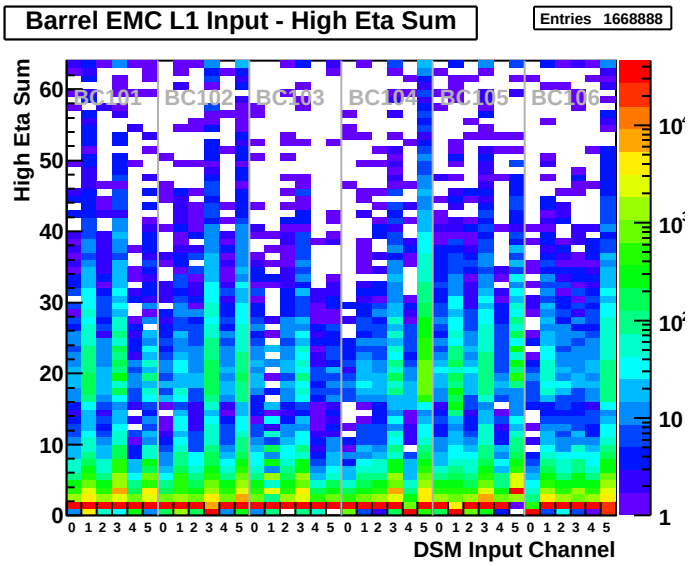

Barrel Jet Patches
Entries 834444
JP ADC
JP ID

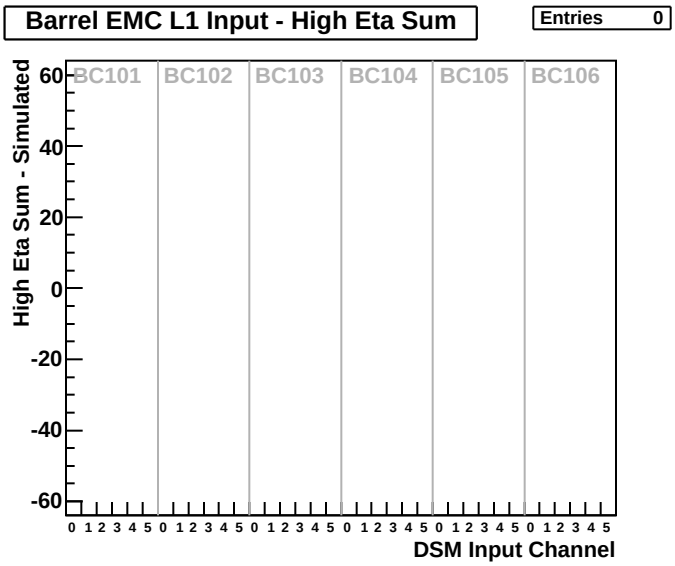

Endcap Jet Patches
Entries 278148
JP ADC
JP ID

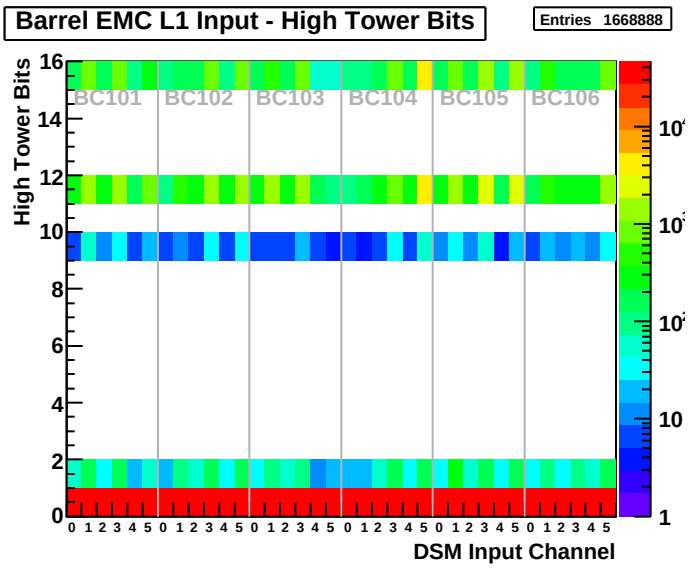

Hybrid Jet Patches
Entries 92716
JP ADC
JP ID

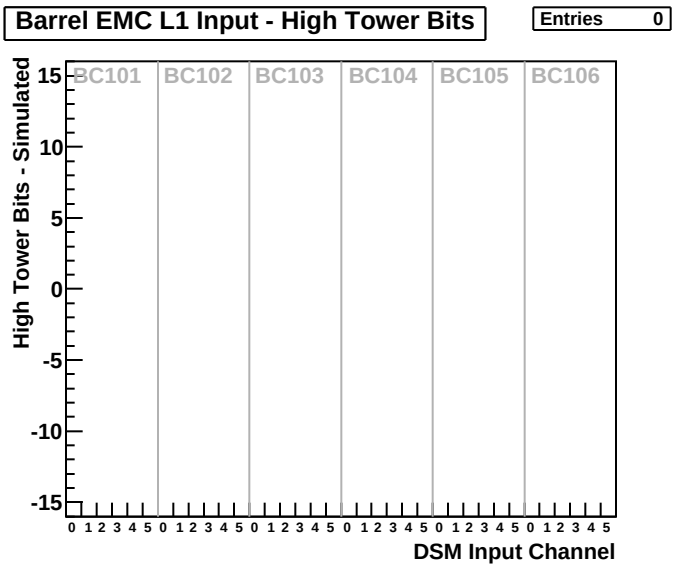

Barrel EMC L1 Input - Low Eta Sum
Entries 1668888
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

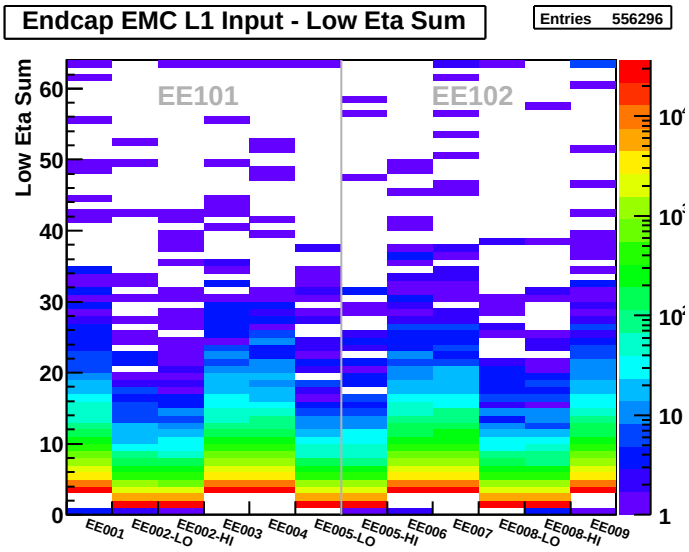

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

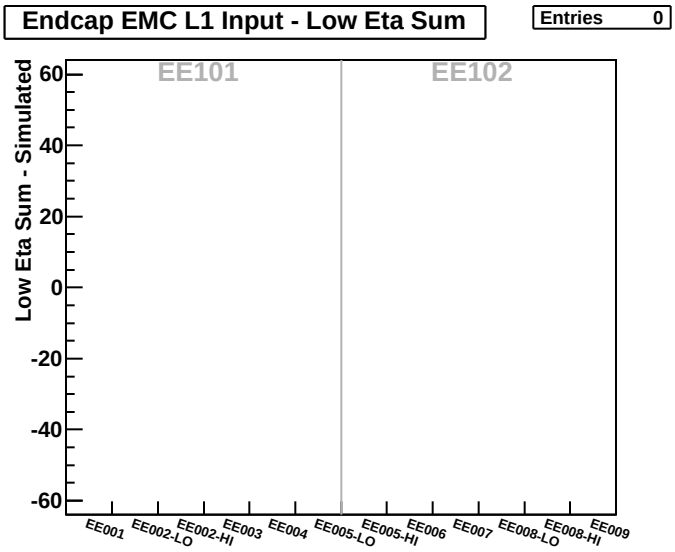

Barrel EMC L1 Input - High Eta Sum
Entries 1668888
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

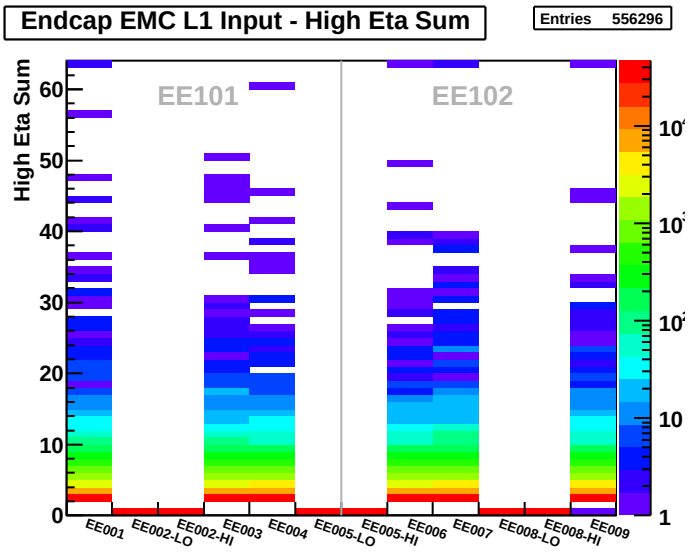

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

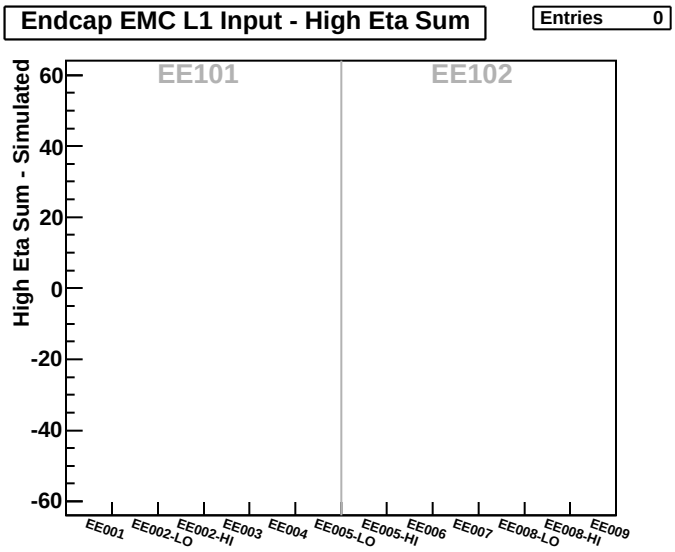

Barrel EMC L1 Input - High Tower Bits
Entries 1668888
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

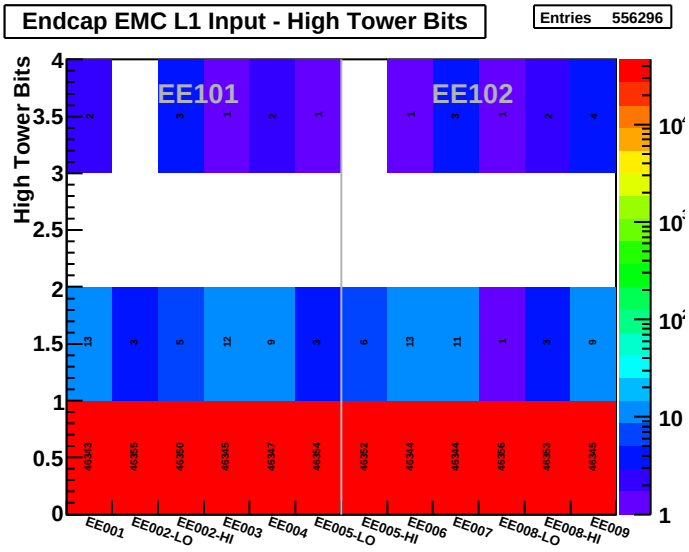

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

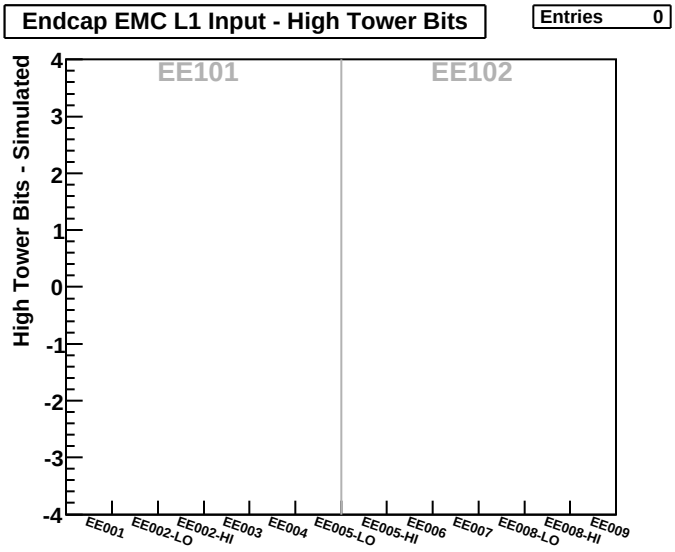

Endcap EMC L1 Input - Low Eta Sum
Entries 556296
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

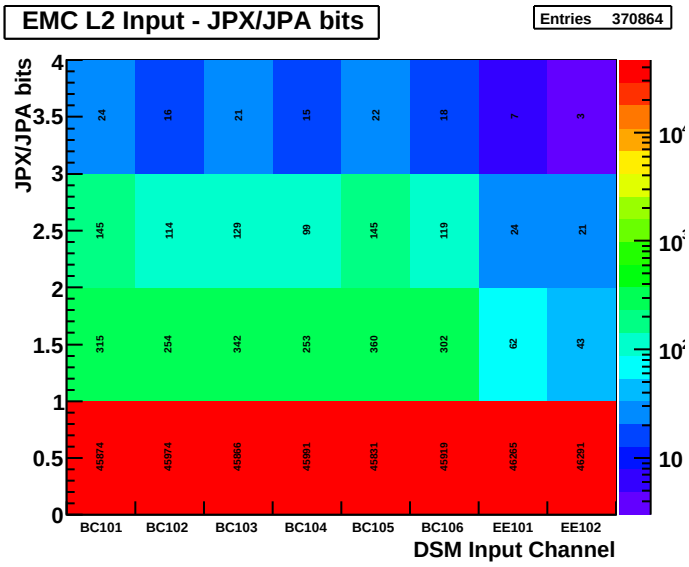

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

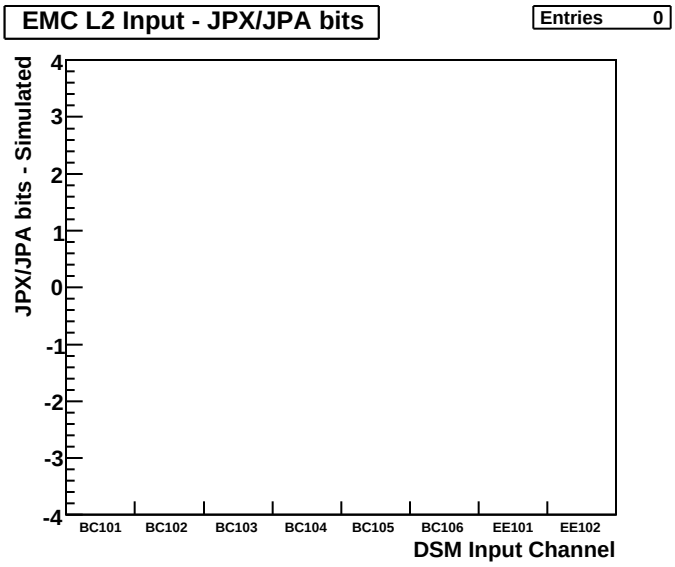

Endcap EMC L1 Input - High Eta Sum
Entries 556296
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

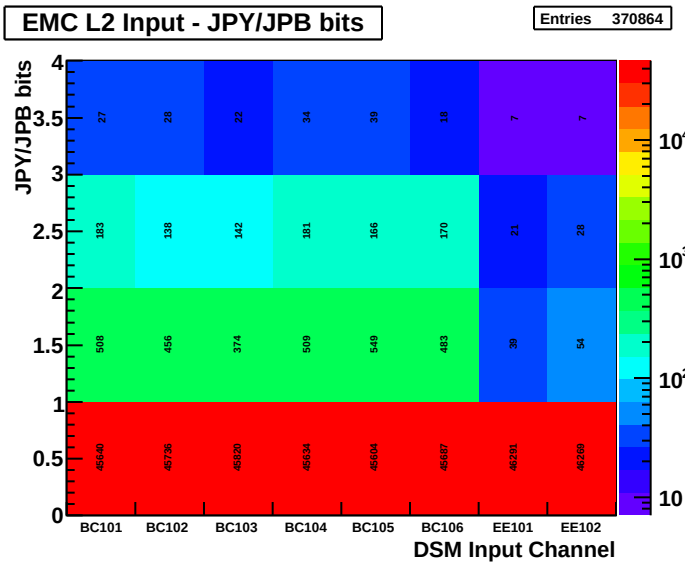

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

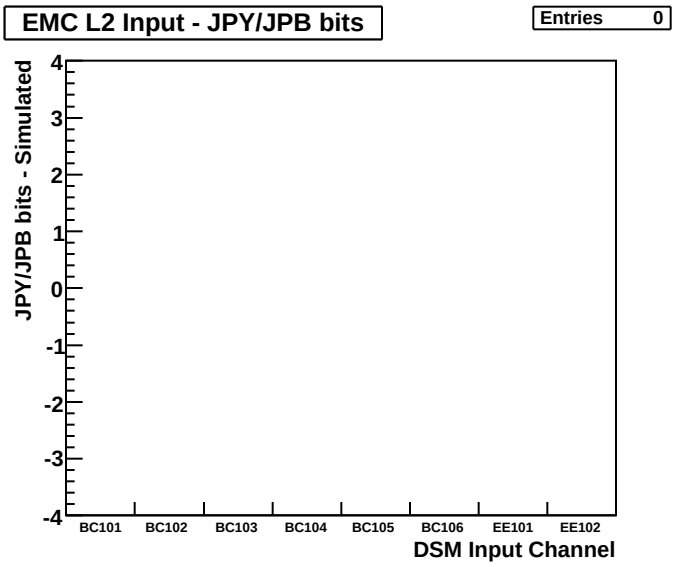

Endcap EMC L1 Input - High Tower Bits
Entries 556296
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

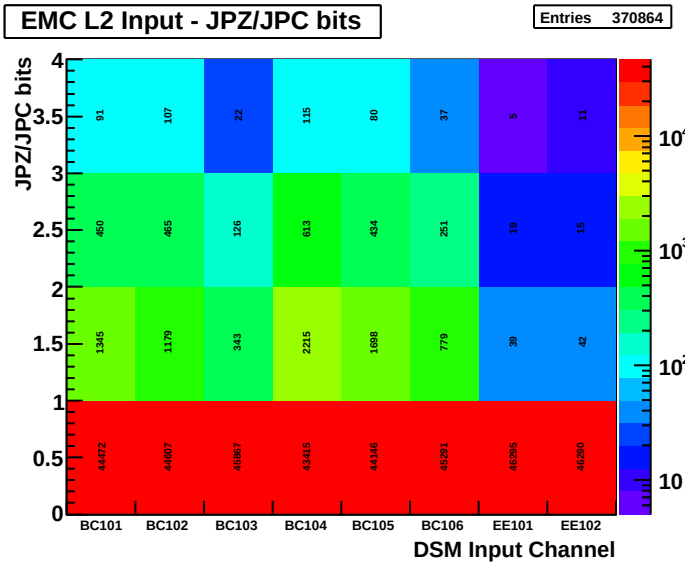

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

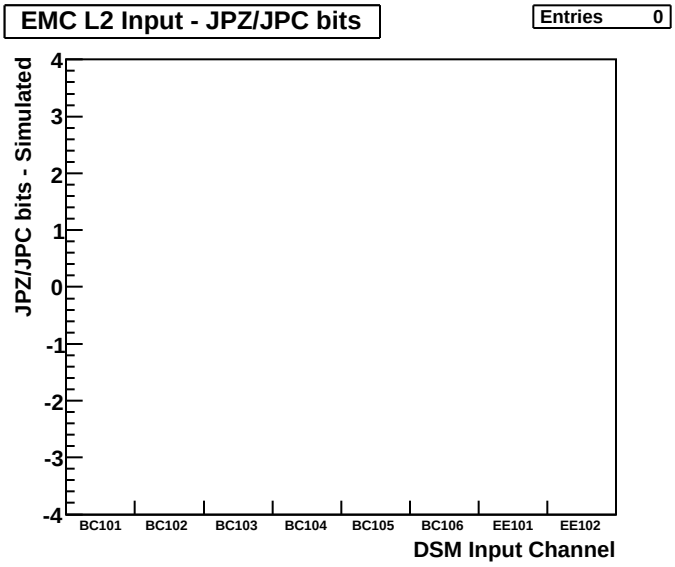

EMC L2 Input - JPX/JPA bits
Entries 370864
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
24 16 21 15 22 18 7 3
145 114 129 99 145 119 24 21
315 254 342 253 360 302 62 43
45874 45974 45866 45991 45931 45919 46265 46291

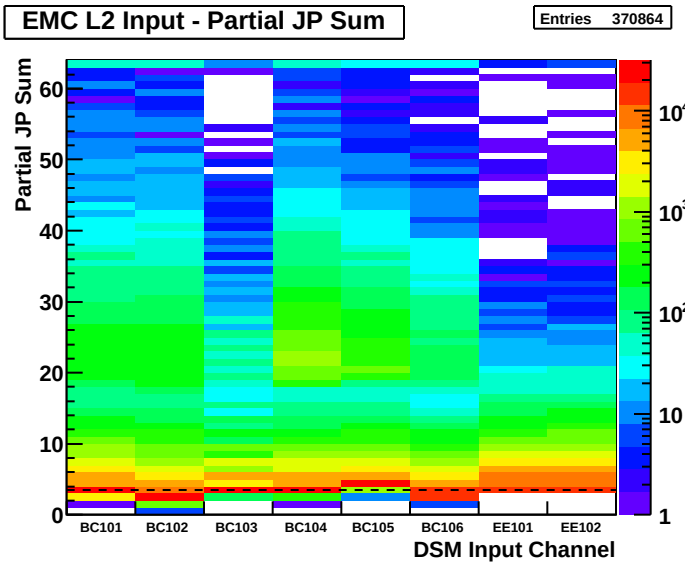

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

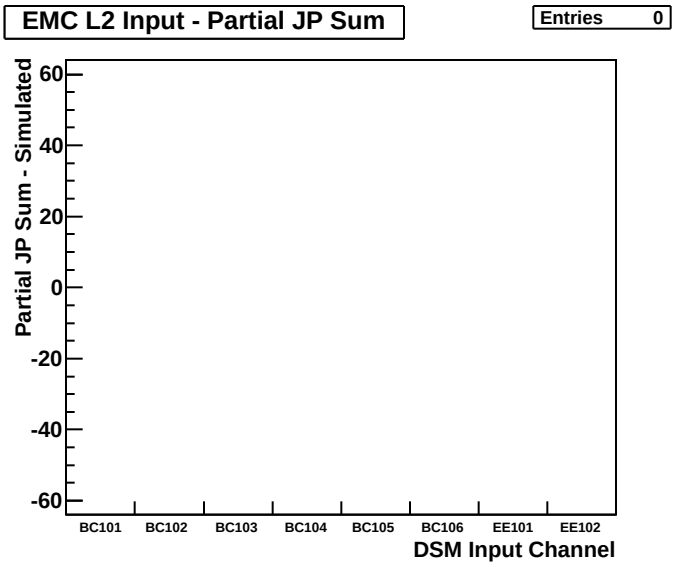

EMC L2 Input - JPY/JPB bits
Entries 370864
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
27 28 22 34 39 18 7 7
183 138 142 181 166 170 21 28
508 456 374 509 549 483 39 54
45640 45736 45820 45634 45504 45687 46291 46269

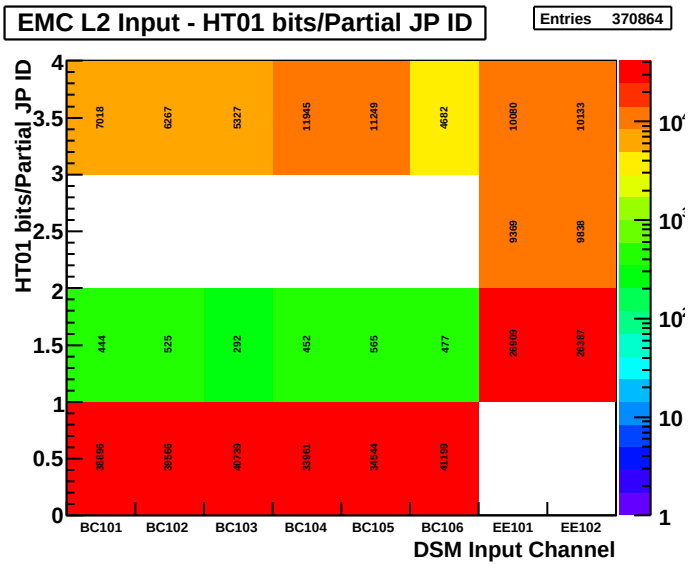

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

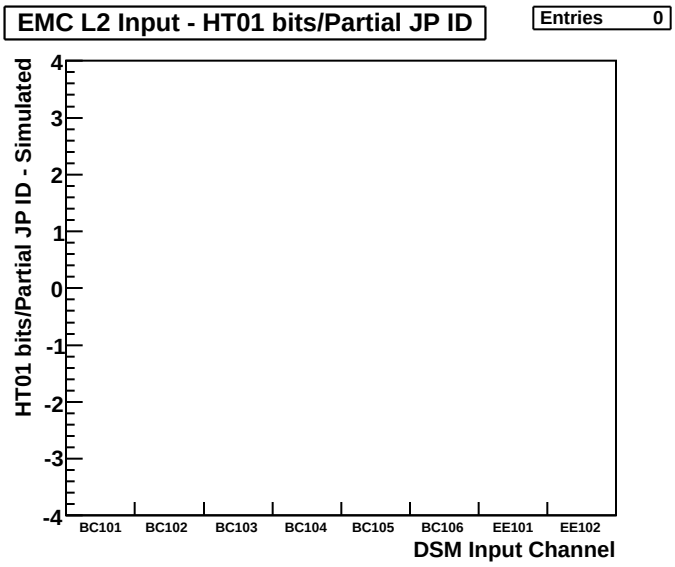

EMC L2 Input - JPZ/JPC bits
Entries 370864
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
91 107 22 115 80 37 5 11
450 465 126 613 434 251 19 15
1345 1179 343 2215 1698 779 39 42
44472 44637 45867 43415 44146 45391 46295 46290

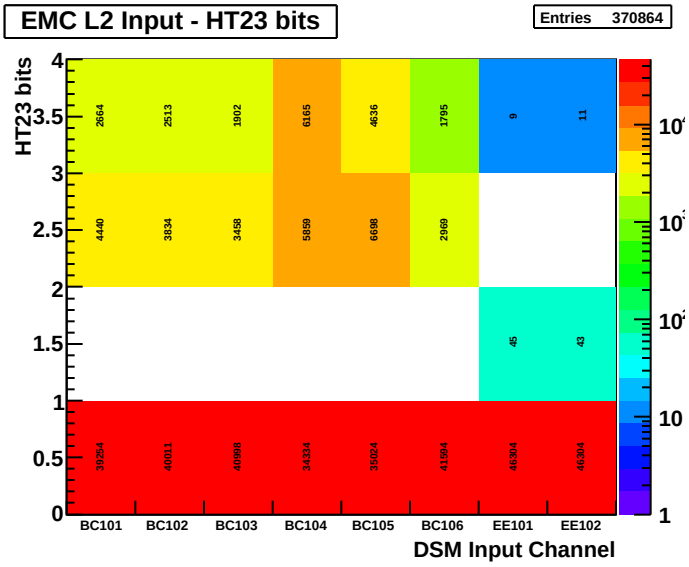

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

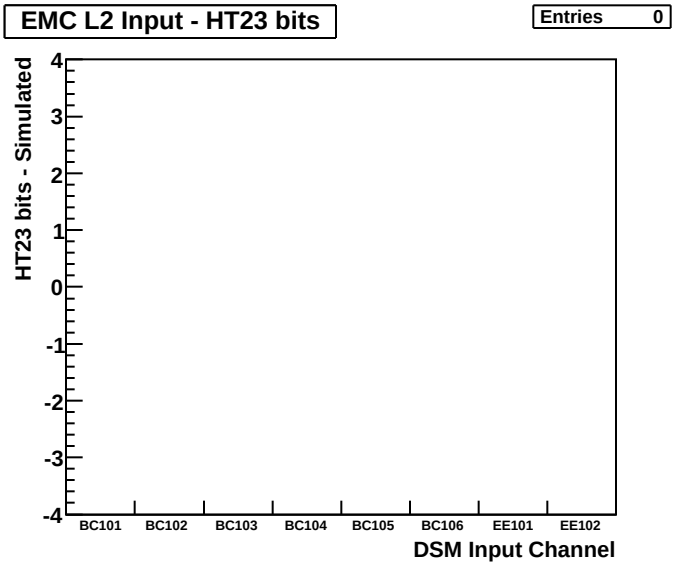

EMC L2 Input - Partial JP Sum
Entries 370864
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

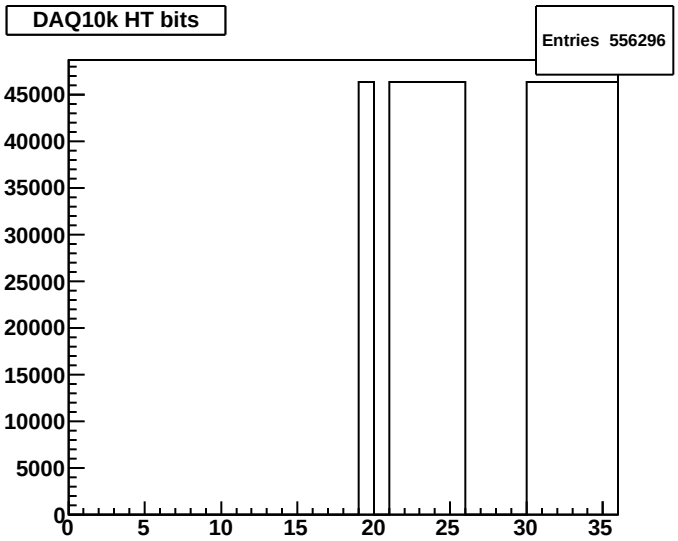

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

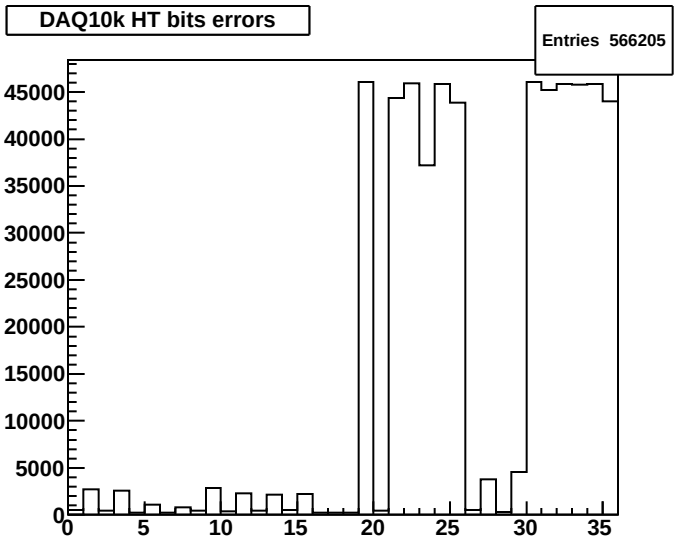

EMC L2 Input - HT01 bits/Partial JP ID
Entries 370864
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

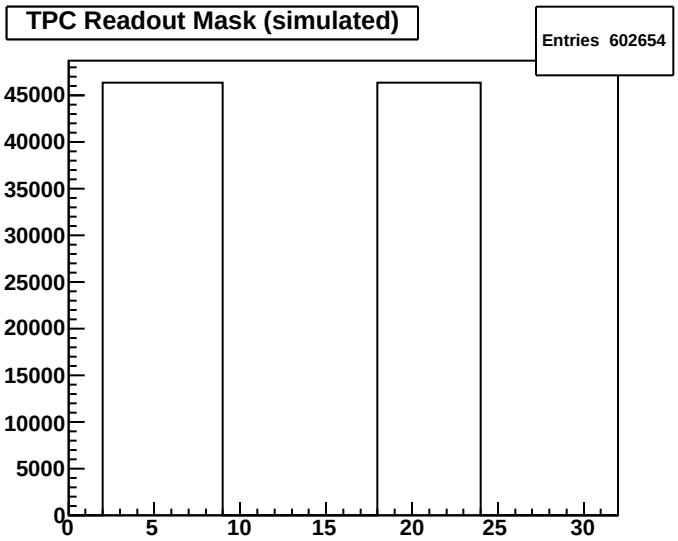

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

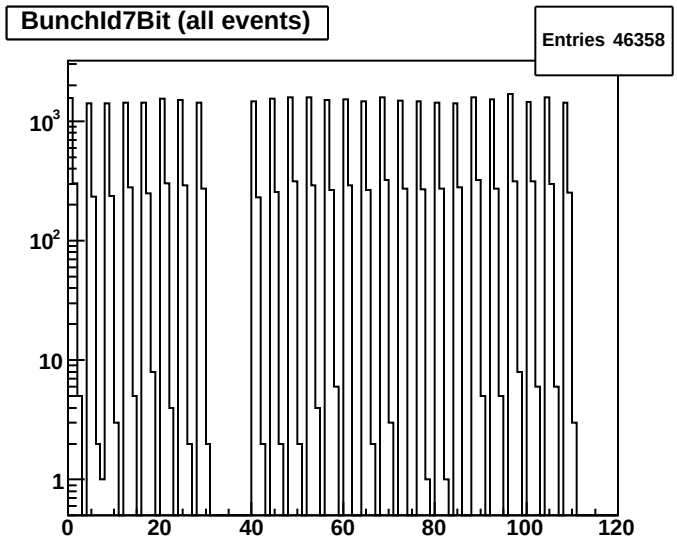

EMC L2 Input - HT23 bits
Entries 370864
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

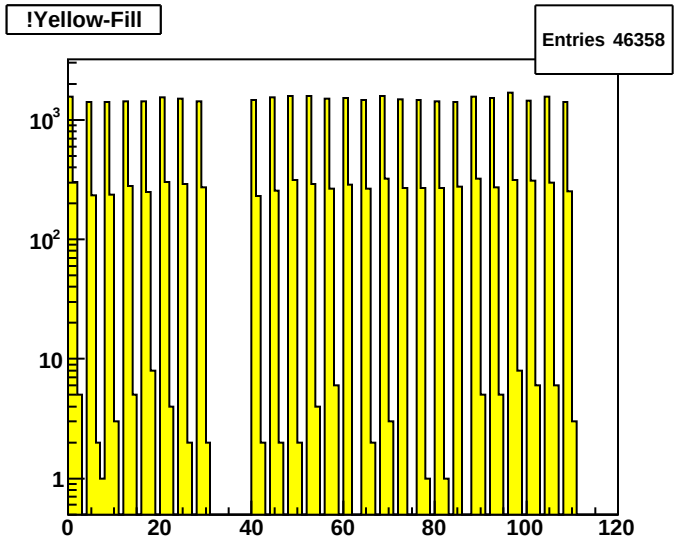

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

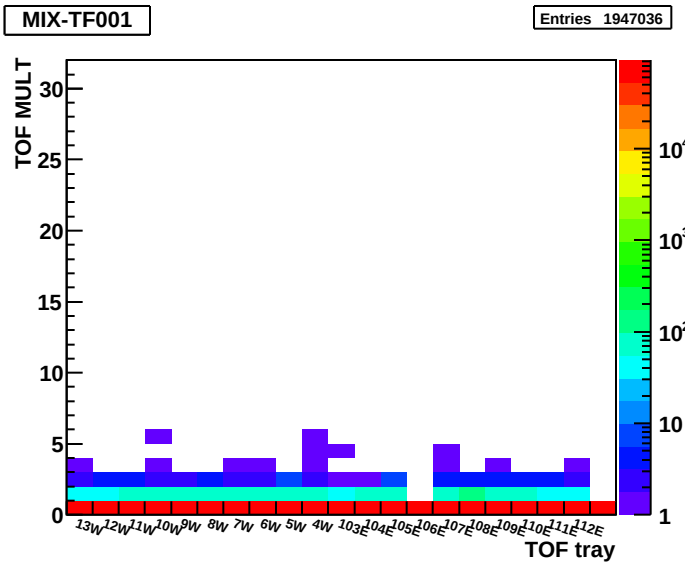

DAQ10k HT bits
Entries 556296
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

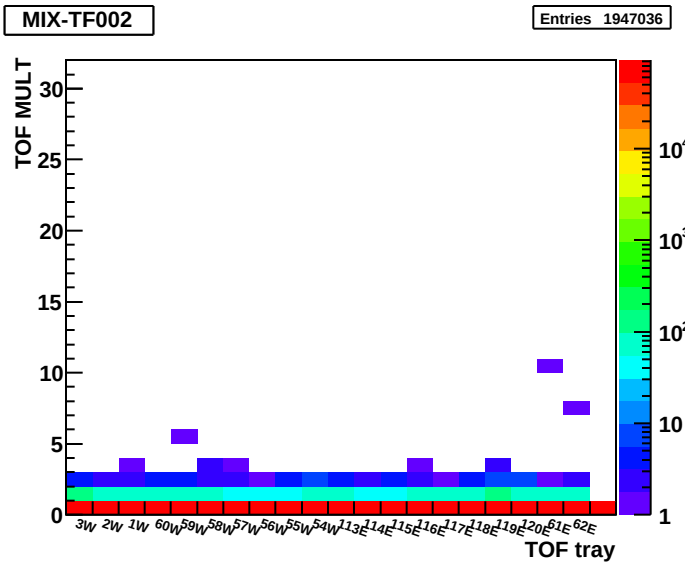

DAQ10k HT bits errors
Entries 566205
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

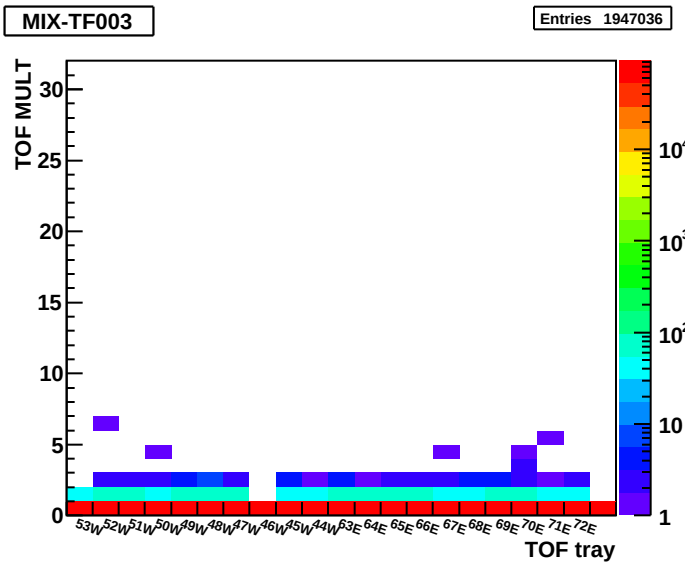

TPC Readout Mask (simulated)
Entries 602654
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

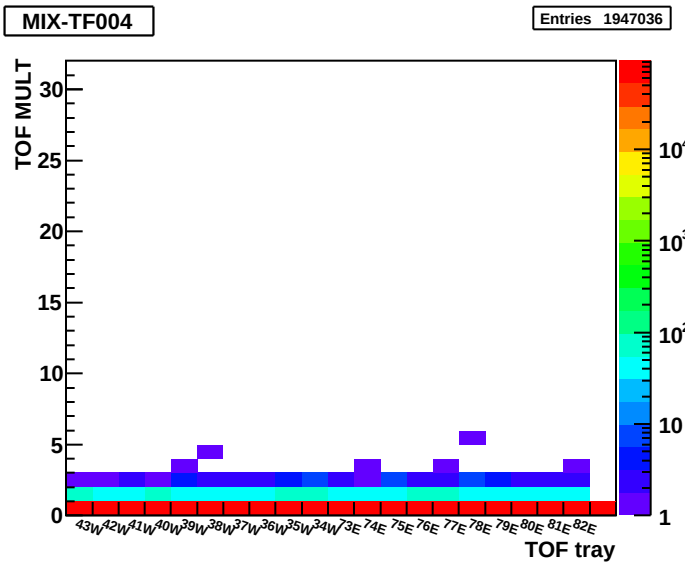

BunchId7Bit (all events)
Entries 46358
10^3
10^2
10
1
0 20 40 60 80 100 120

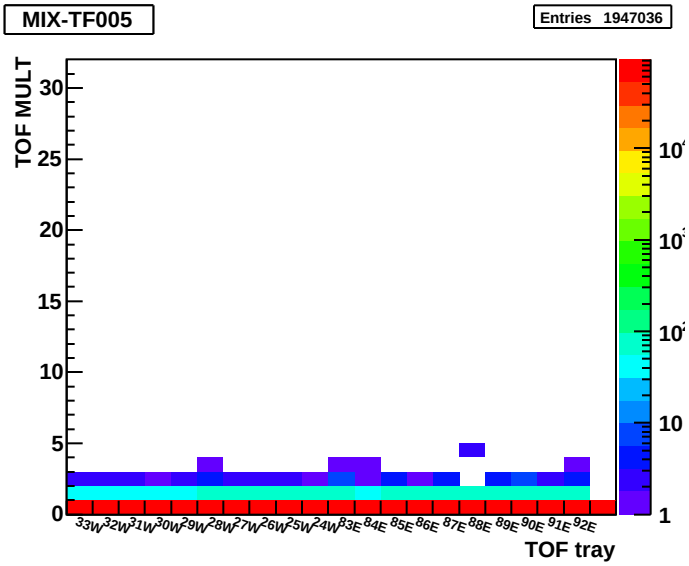

!Yellow-Fill
Entries 46358
10^3
10^2
10
1
0 20 40 60 80 100 120

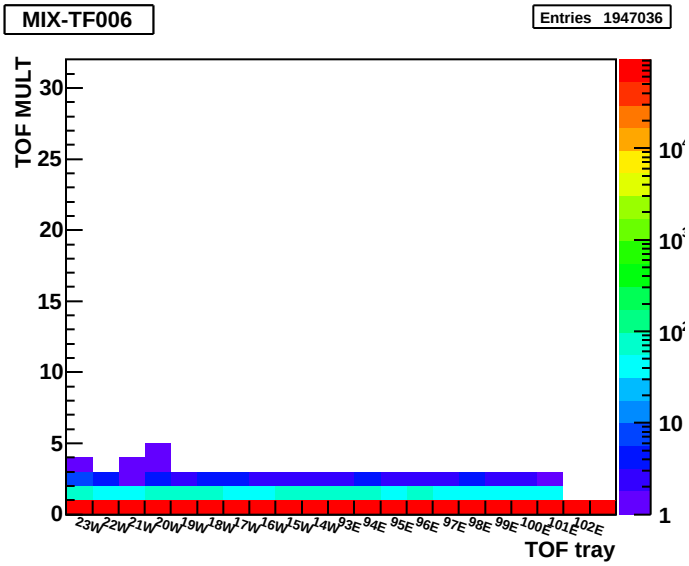

MIX-TF001
Entries 1947036
TOF MULT
TOF tray

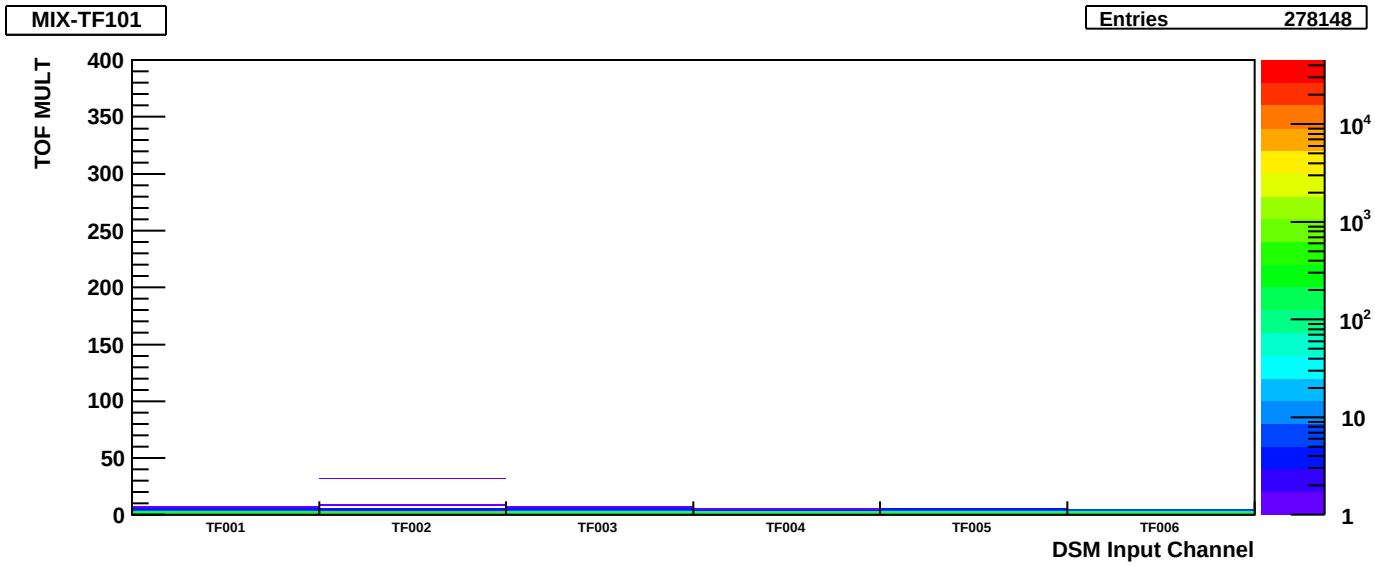

MIX-TF002
Entries 1947036
TOF MULT
TOF tray

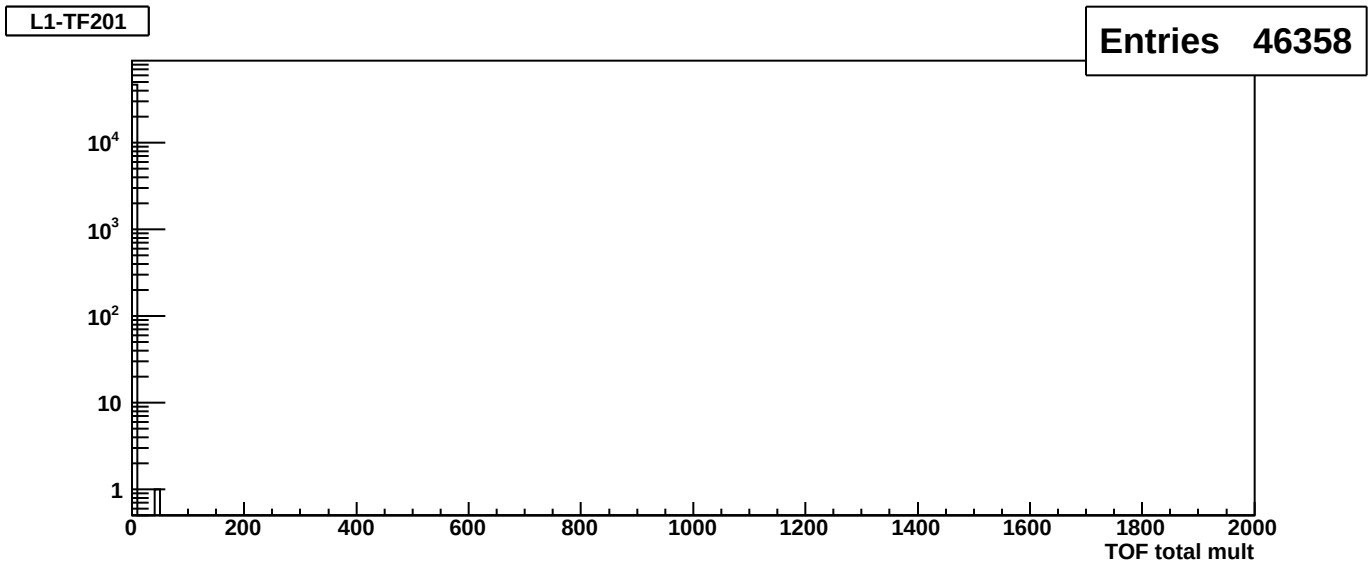

MIX-TF003
Entries 1947036
TOF MULT
TOF tray

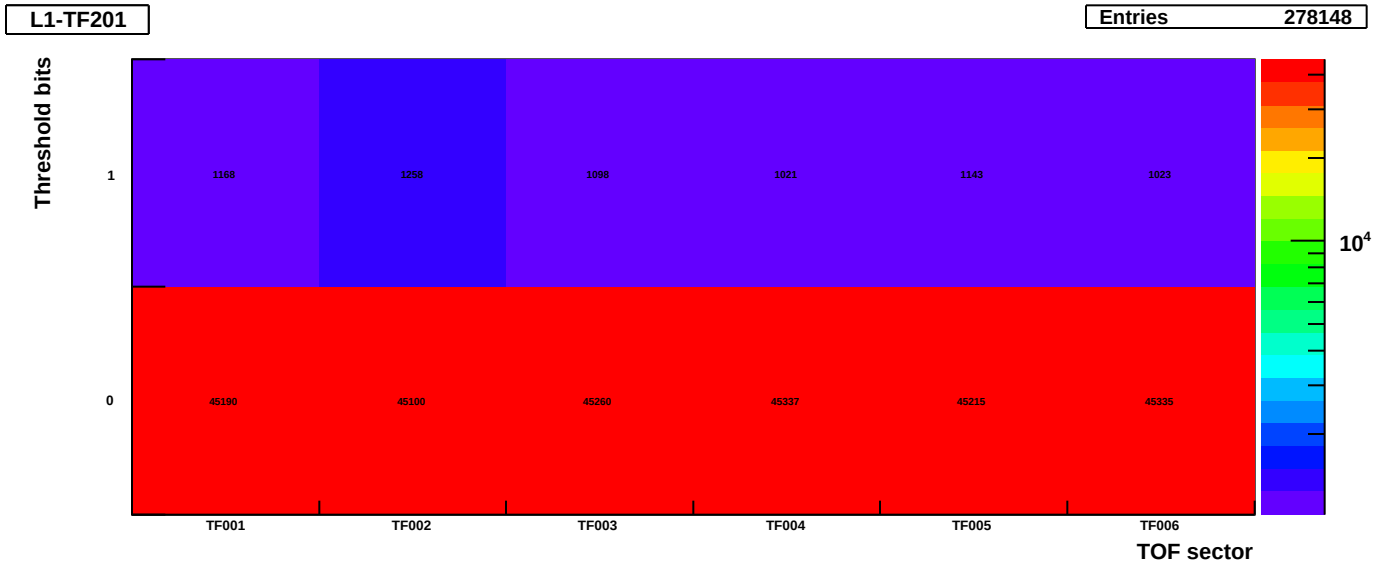

MIX-TF004
Entries 1947036
TOF MULT
TOF tray

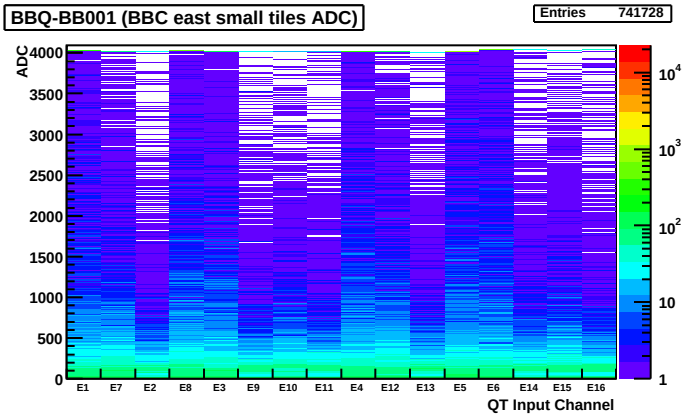

MIX-TF005
Entries 1947036
TOF MULT
TOF tray

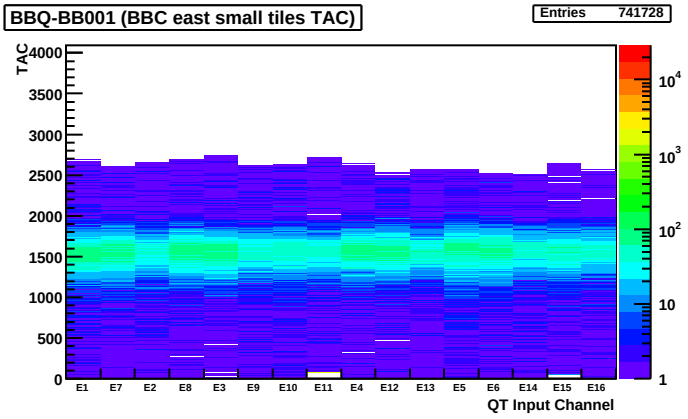

MIX-TF006
Entries 1947036
TOF MULT
TOF tray

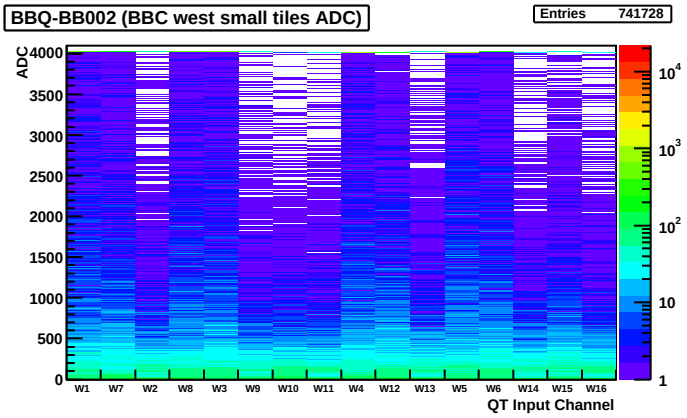

MIX-TF101
Entries 278148
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

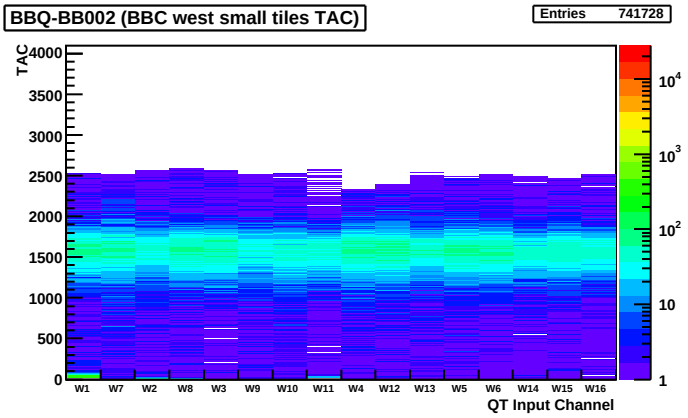

L1-TF201
Entries 46358
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

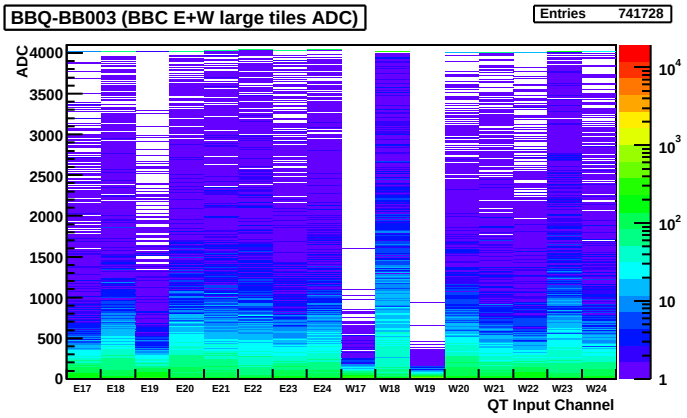

L1-TF201
Entries 278148
Threshold bits
1
0
1168
1258
1098
1021
1143
1023
45190
45100
45260
45337
45215
45335
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

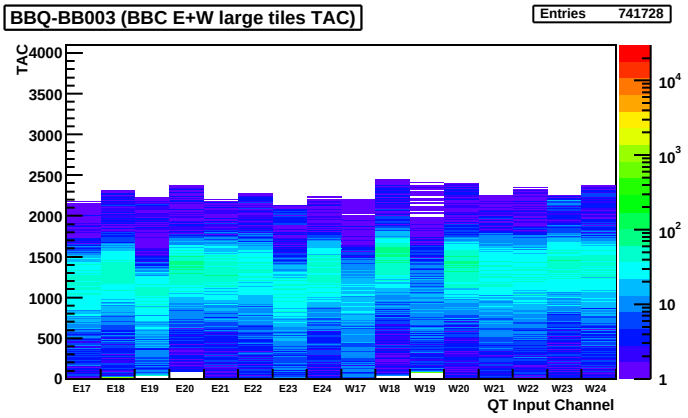

BBQ-BB001 (BBC east small tiles ADC)
Entries 741728
ADC
QT Input Channel

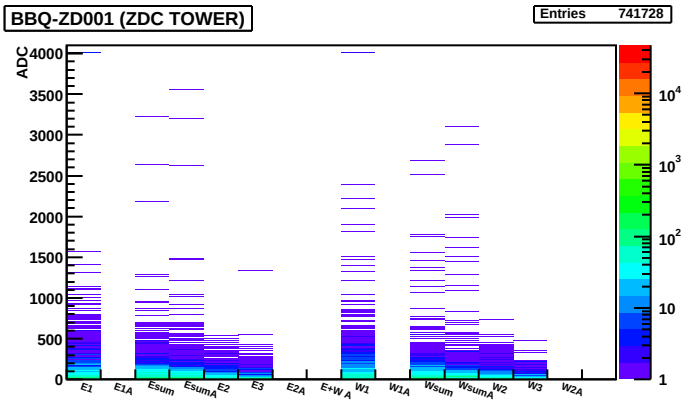

BBQ-BB001 (BBC east small tiles TAC)
Entries 741728
TAC
QT Input Channel

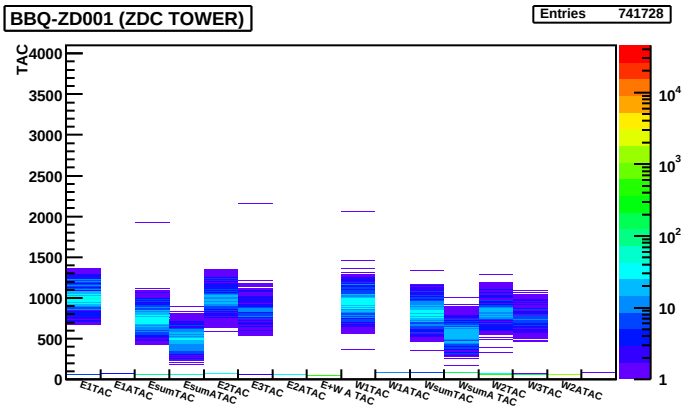

BBQ-BB002 (BBC west small tiles ADC)
Entries 741728
ADC
QT Input Channel

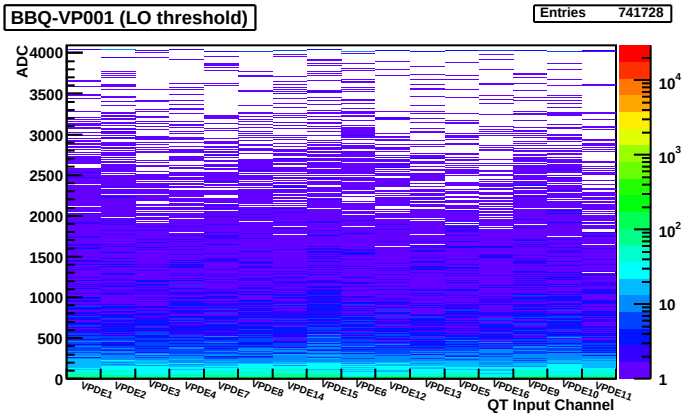

BBQ-BB002 (BBC west small tiles TAC)
Entries 741728
TAC
QT Input Channel

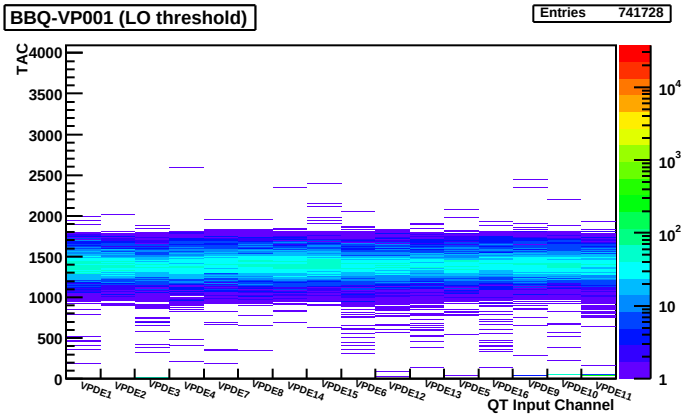

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 741728
ADC
QT Input Channel

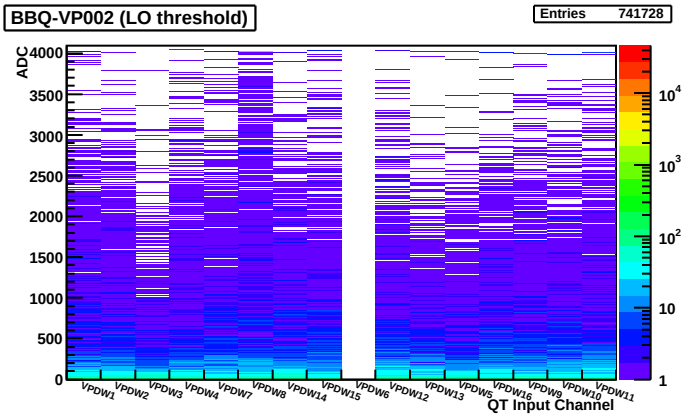

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 741728
TAC
QT Input Channel

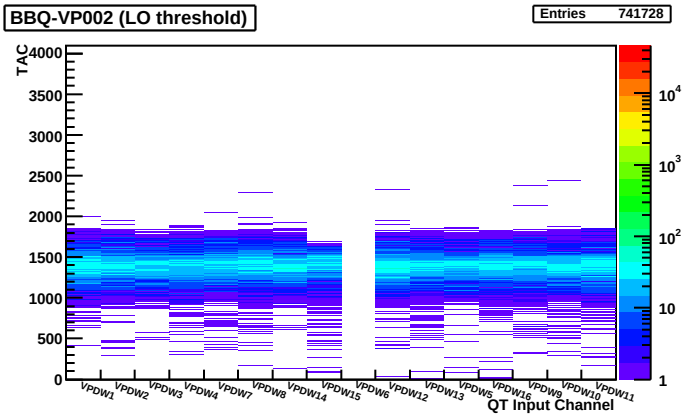

BBQ-ZD001 (ZDC TOWER)
Entries 741728
ADC

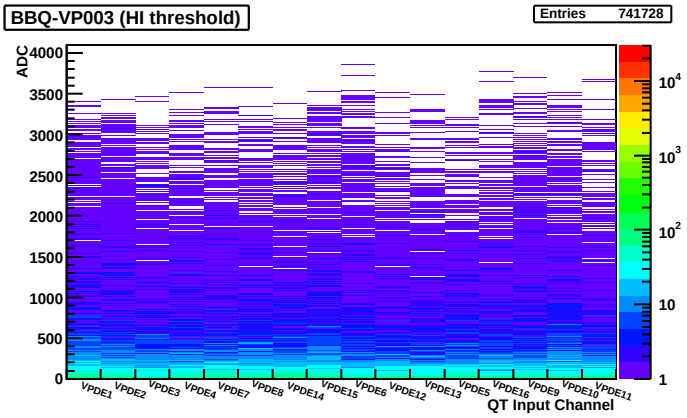

BBQ-ZD001 (ZDC TOWER)
Entries 741728
TAC

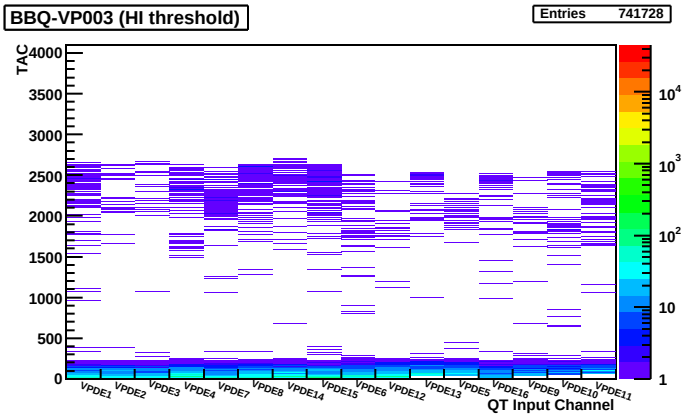

BBQ-VP001 (LO threshold)
Entries 741728
ADC
QT Input Channel

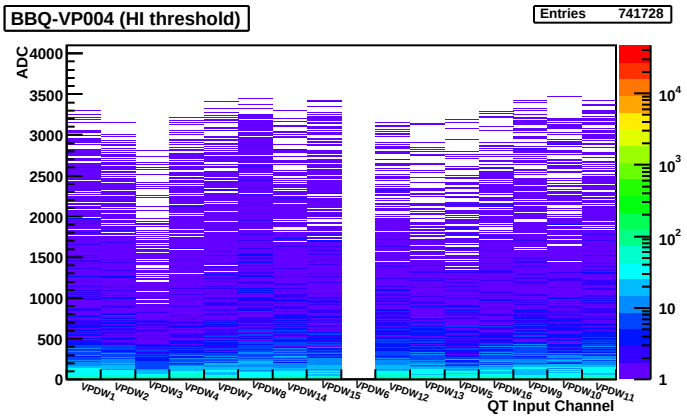

BBQ-VP001 (LO threshold)
Entries 741728
TAC
QT Input Channel

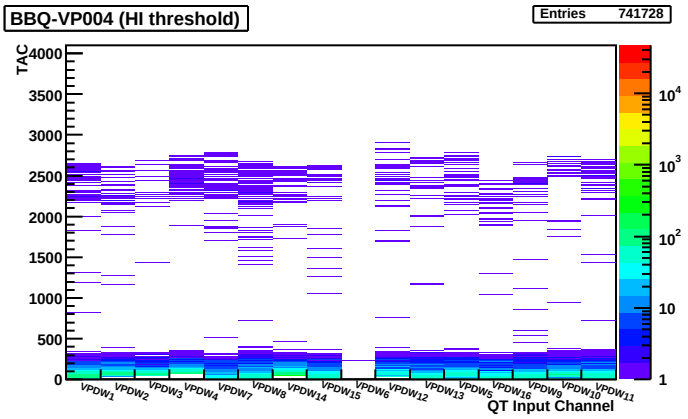

BBQ-VP002 (LO threshold)
Entries 741728
ADC
QT Input Channel

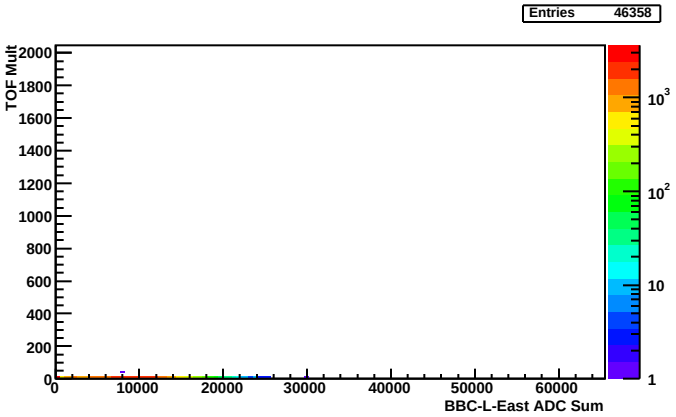

BBQ-VP002 (LO threshold)
Entries 741728
TAC
QT Input Channel

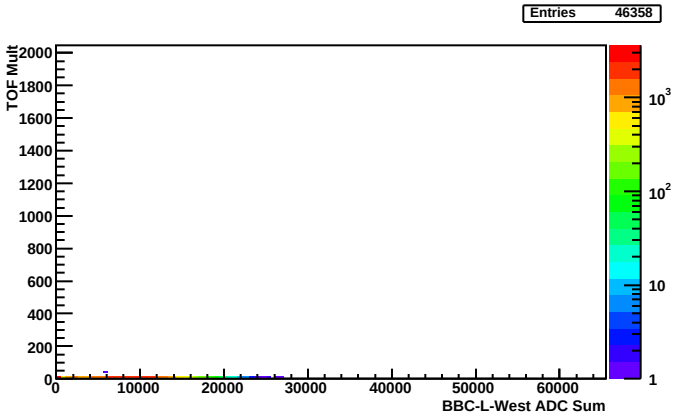

BBQ-VP003 (HI threshold)
Entries 741728
ADC
QT Input Channel

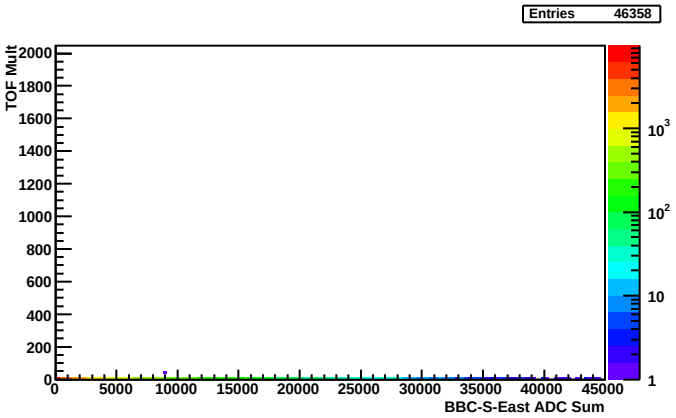

BBQ-VP003 (HI threshold)
Entries 741728
TAC
QT Input Channel

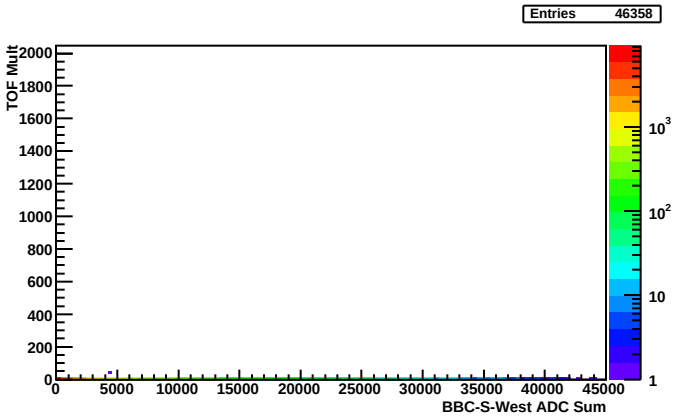

BBQ-VP004 (HI threshold)
Entries 741728
ADC
QT Input Channel

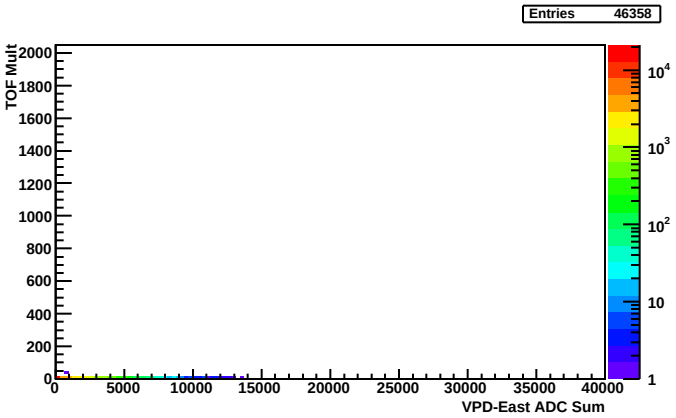

BBQ-VP004 (HI threshold)
Entries 741728
TAC
QT Input Channel

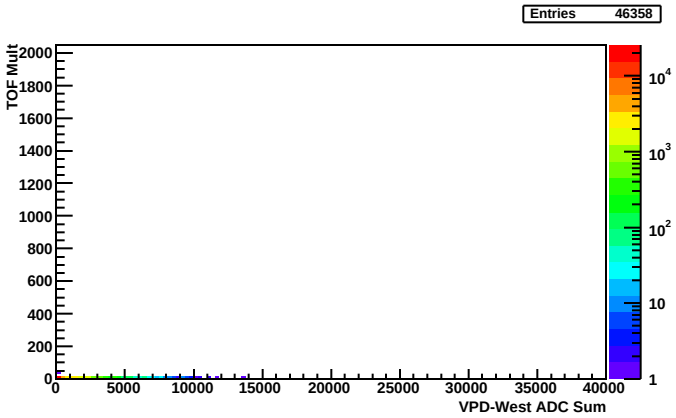

Entries 46358
TOF Mult
BBC-L-East ADC Sum

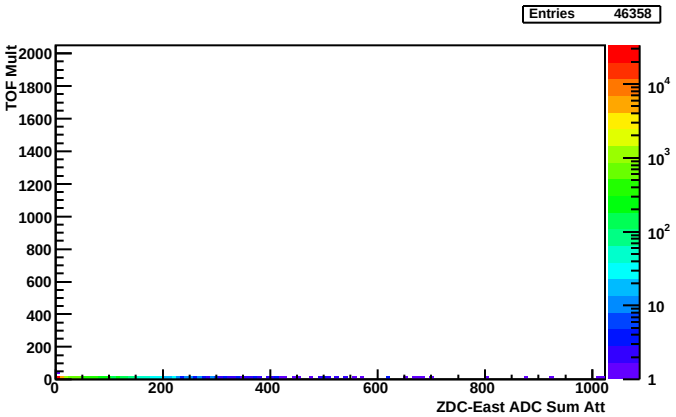

Entries 46358
TOF Mult
BBC-L-West ADC Sum

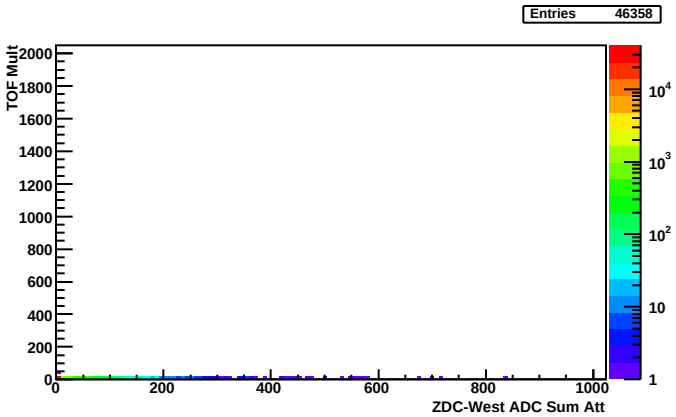

Entries 46358
TOF Mult
BBC-S-East ADC Sum

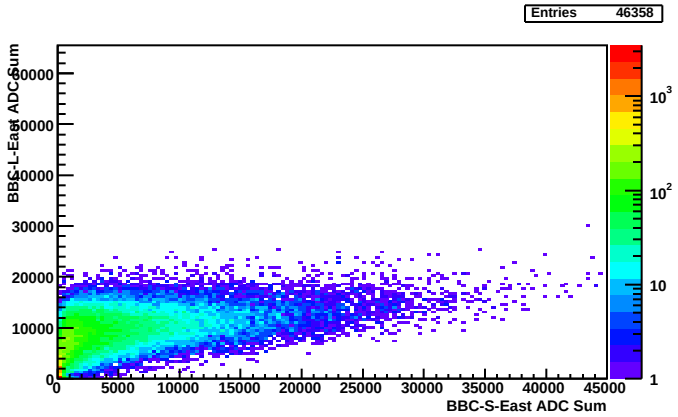

Entries 46358
TOF Mult
BBC-S-West ADC Sum

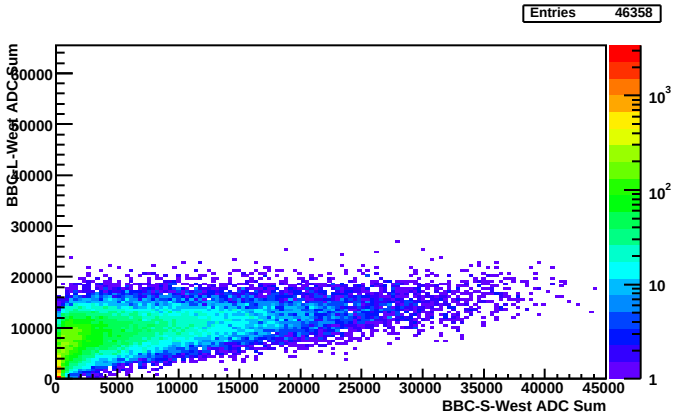

Entries 46358
TOF Mult
VPD-East ADC Sum

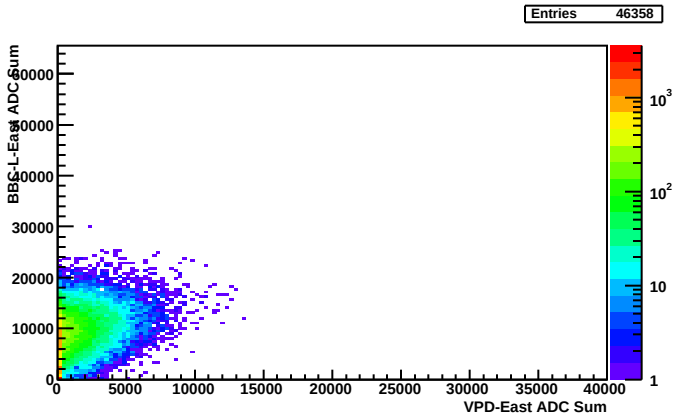

Entries 46358
TOF Mult
VPD-West ADC Sum

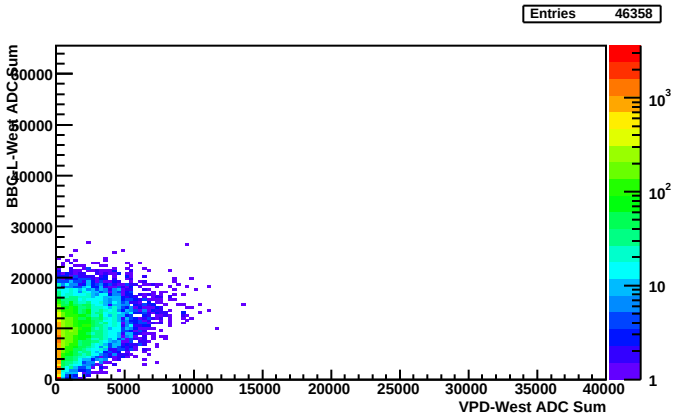

Entries 46358
TOF Mult
ZDC-East ADC Sum Att

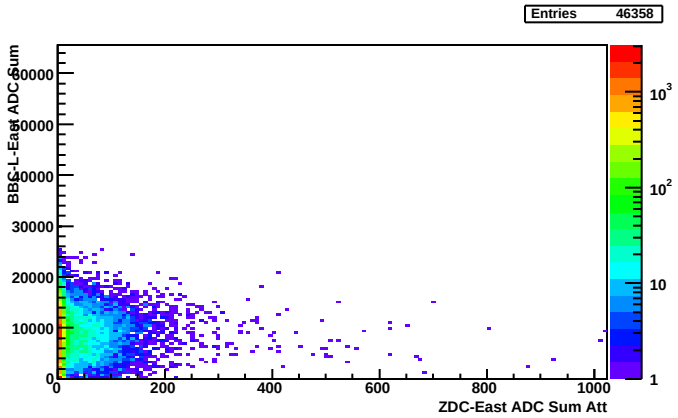

Entries 46358
TOF Mult
ZDC-West ADC Sum Att

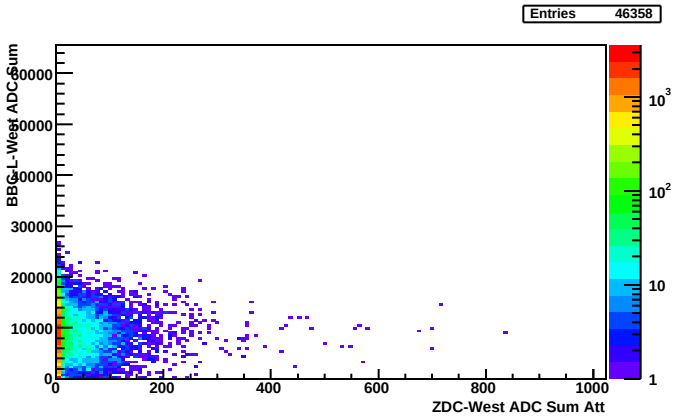

Entries 46358
BBC-L-East ADC Sum
BBC-S-East ADC Sum

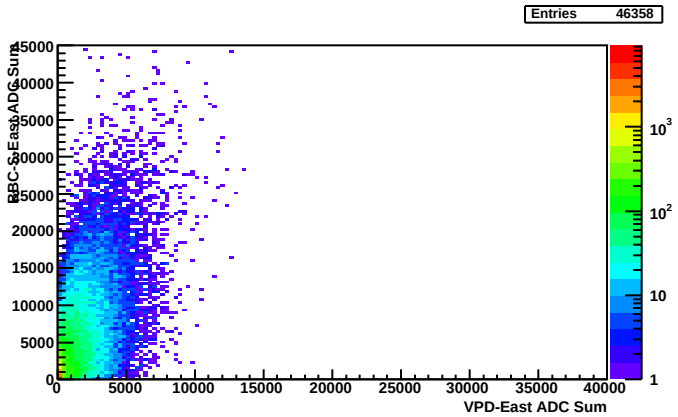

Entries 46358
BBC-L-West ADC Sum
BBC-S-West ADC Sum

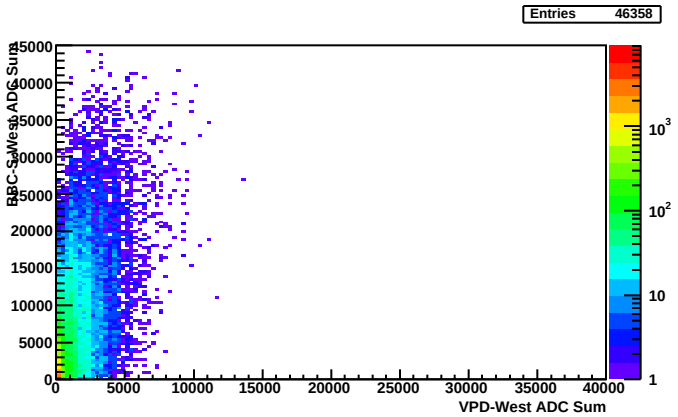

Entries 46358
BBC-L-East ADC Sum
VPD-East ADC Sum

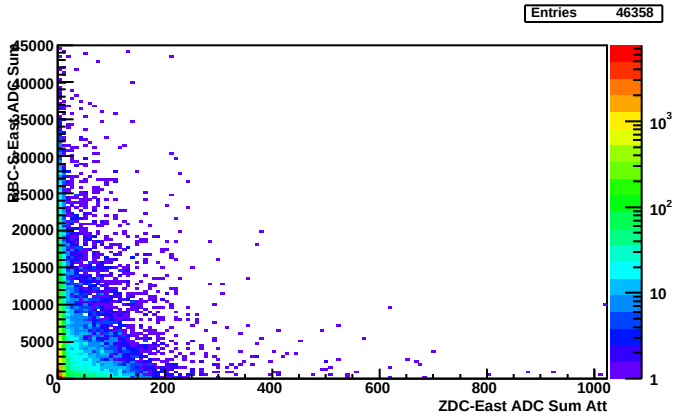

Entries 46358
BBC-L-West ADC Sum
VPD-West ADC Sum

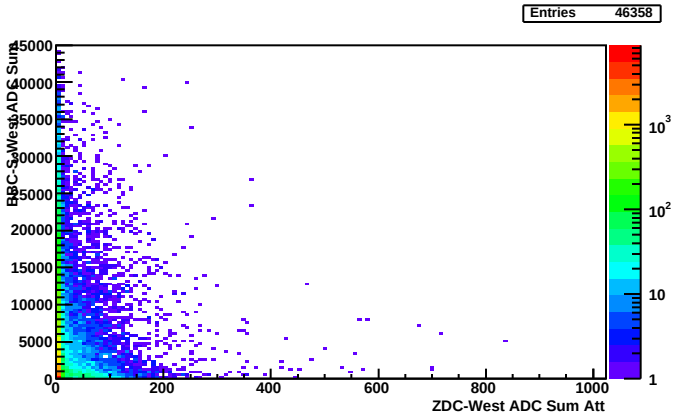

Entries 46358
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

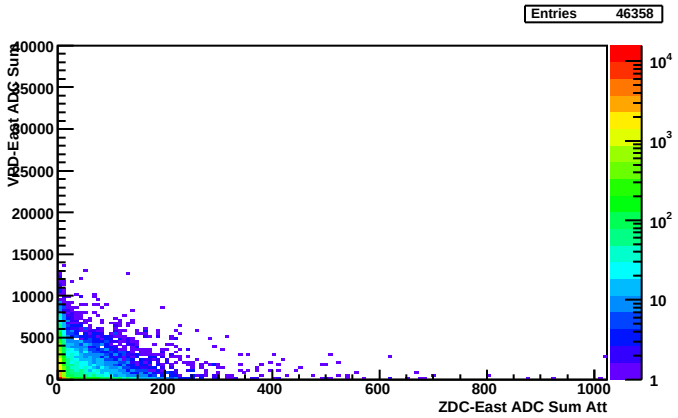

Entries 46358
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

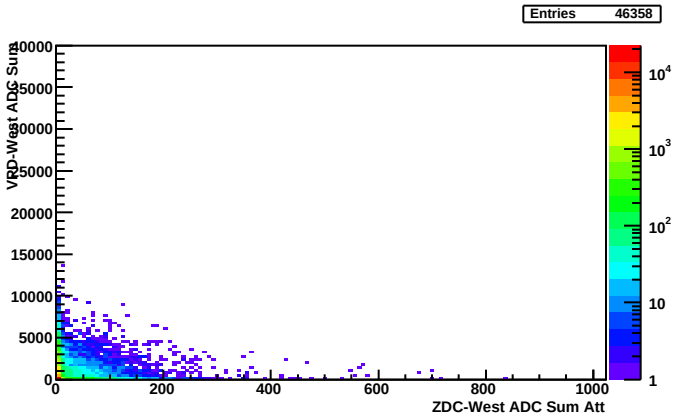

Entries 46358
BBC-S-East ADC Sum
VPD-East ADC Sum

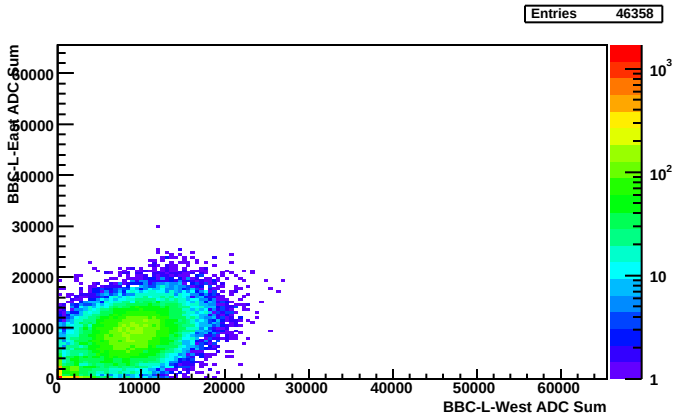

Entries 46358
BBC-S-West ADC Sum
VPD-West ADC Sum

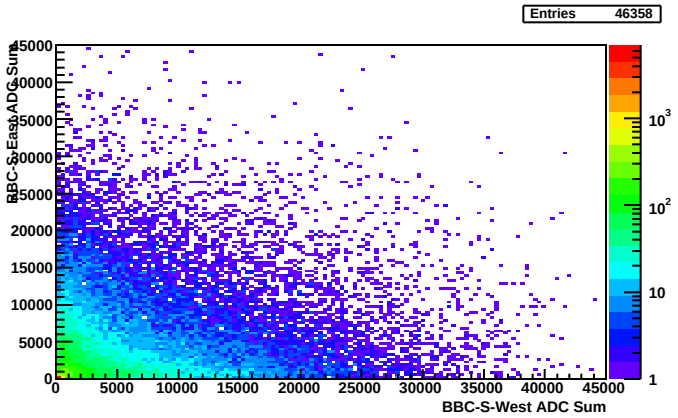

Entries 46358
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

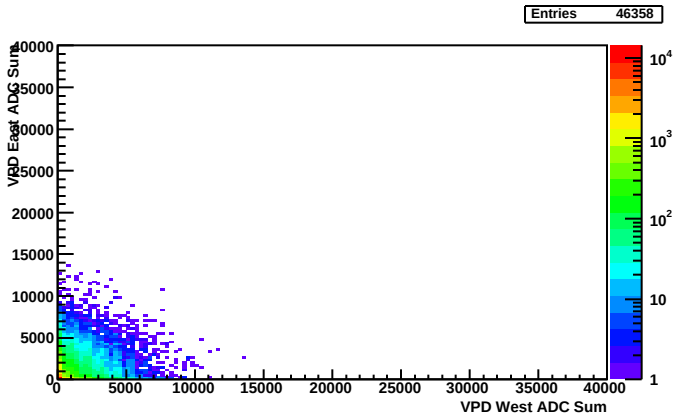

Entries 46358
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

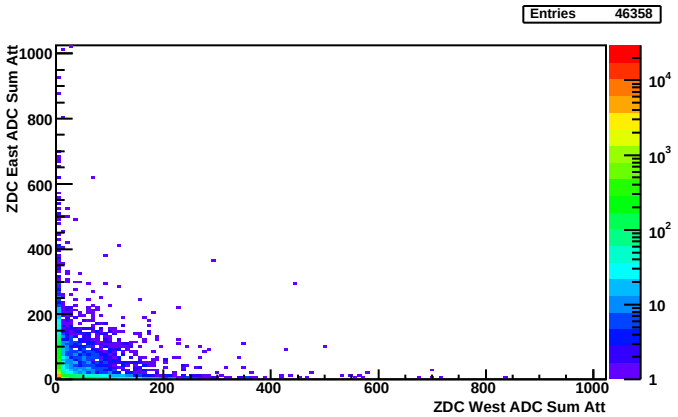

Entries 46358
VPD-East ADC Sum
ZDC-East ADC Sum Att

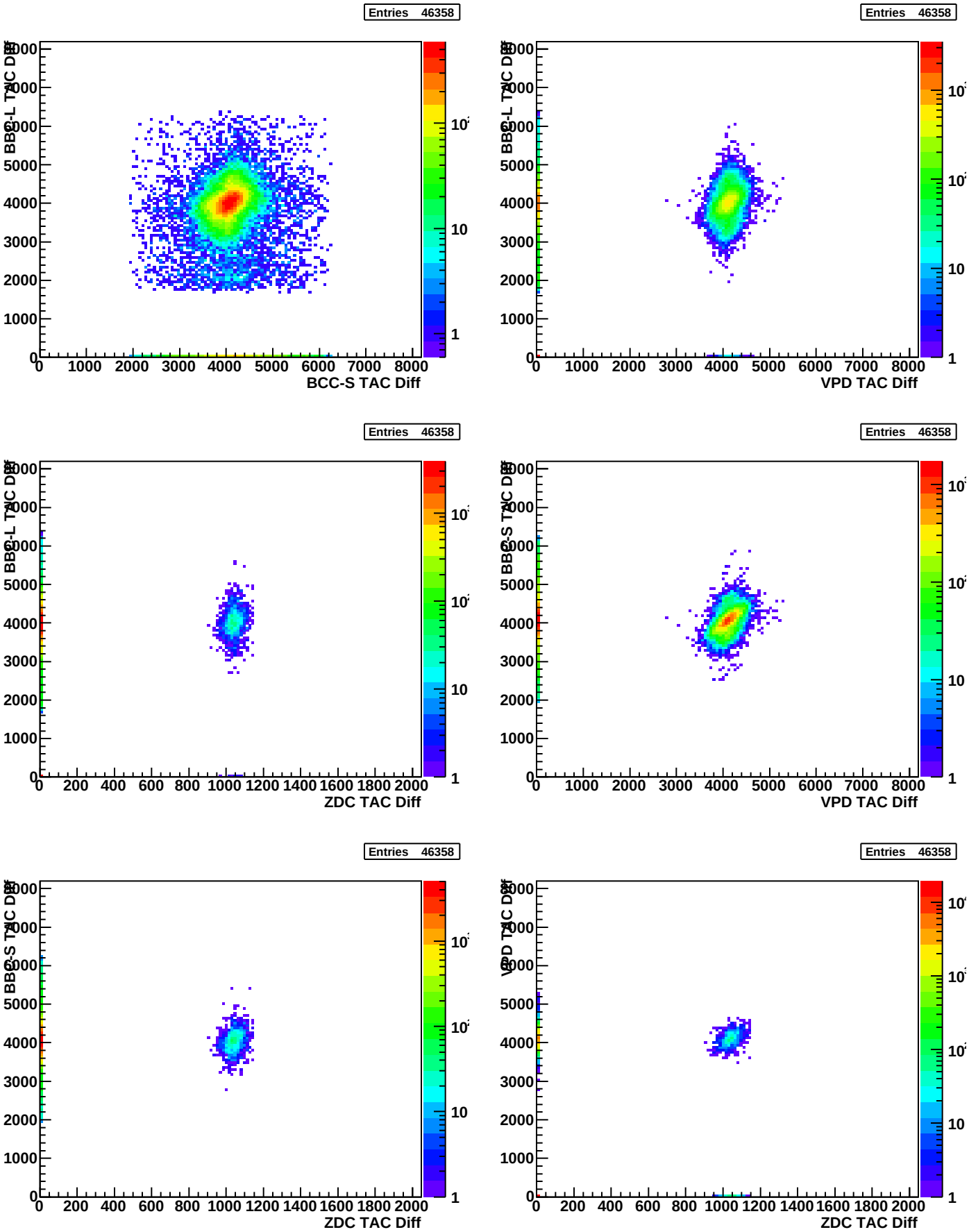

Entries 46358
VPD-West ADC Sum
ZDC-West ADC Sum Att

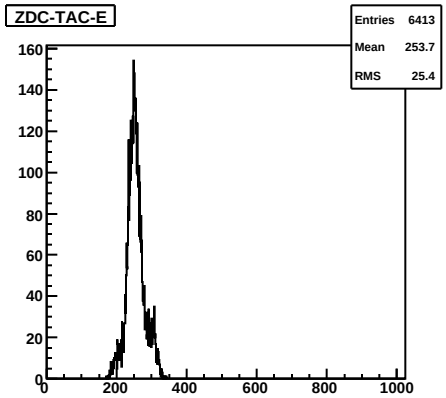

Entries 46358
BBC-L-East ADC Sum
BBC-L-West ADC Sum

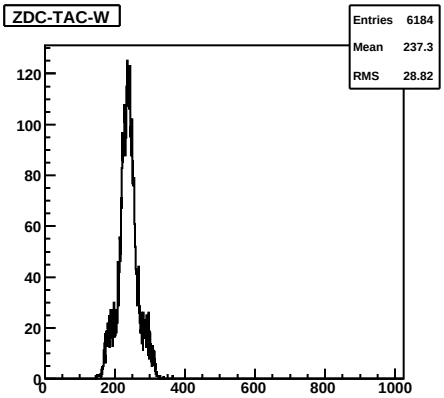

Entries 46358
BBC-S-East ADC Sum
BBC-S-West ADC Sum

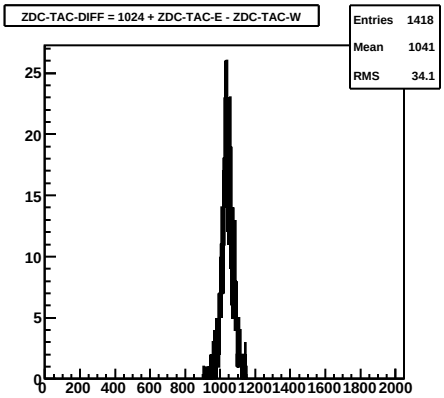

Entries 46358
VPD East ADC Sum
VPD West ADC Sum

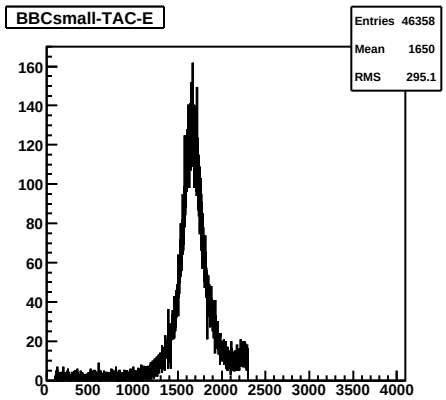

Entries 46358
ZDC East ADC Sum Att
ZDC West ADC Sum Att

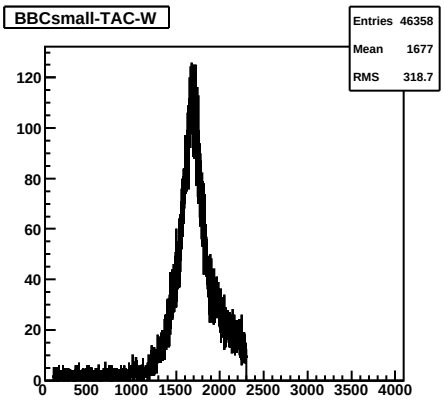

Entries 46358
BBC-L TAC Diff
BCC-S TAC Diff
Entries 46358
BBC-L TAC Diff
VPD TAC Diff
Entries 46358
BBC-L TAC Diff
ZDC TAC Diff
Entries 46358
BBC-S TAC Diff
VPD TAC Diff
Entries 46358
BBC-S TAC Diff
ZDC TAC Diff
Entries 46358
VPD TAC Diff
ZDC TAC Diff

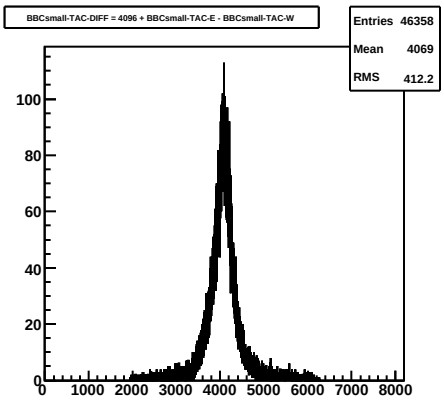

ZDC-TAC-E
Entries 6413
Mean 253.7
RMS 25.4

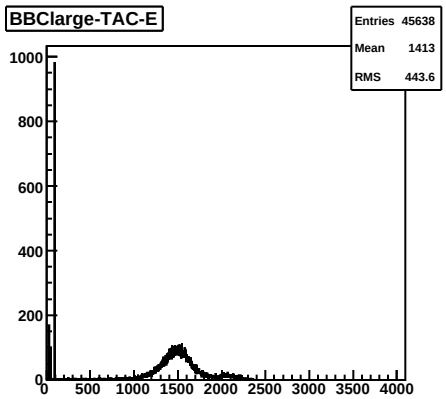

ZDC-TAC-W
Entries 6184
Mean 237.3
RMS 28.82

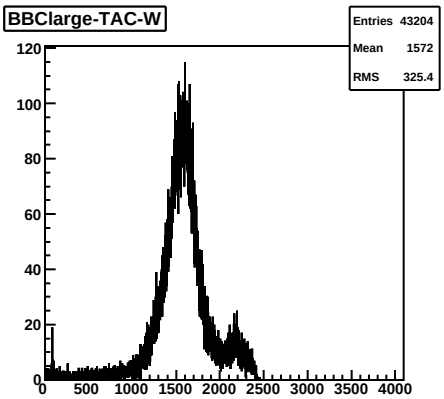

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1418
Mean 1041
RMS 34.1

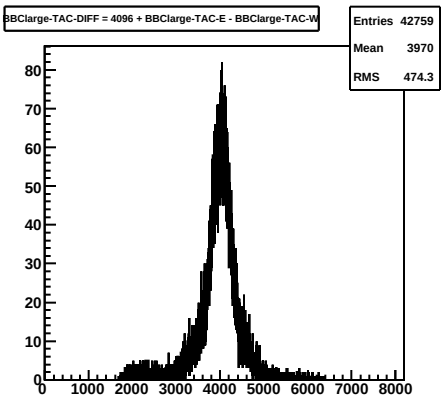

BBCsmall-TAC-E
Entries 46358
Mean 1650
RMS 295.1

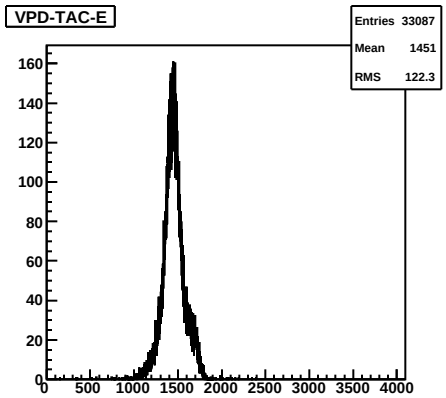

BBCsmall-TAC-W
Entries 46358
Mean 1677
RMS 318.7

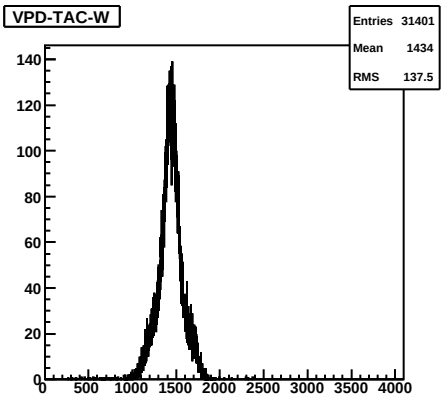

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 46358
Mean 4069
RMS 412.2

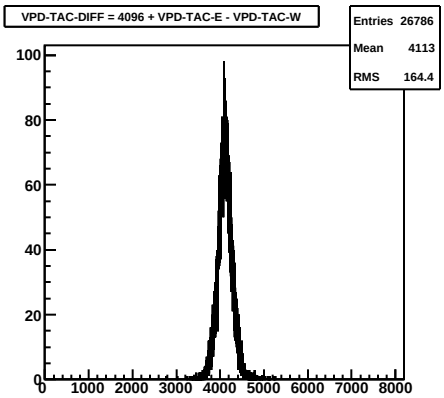

BBClarge-TAC-E
Entries 45638
Mean 1413
RMS 443.6

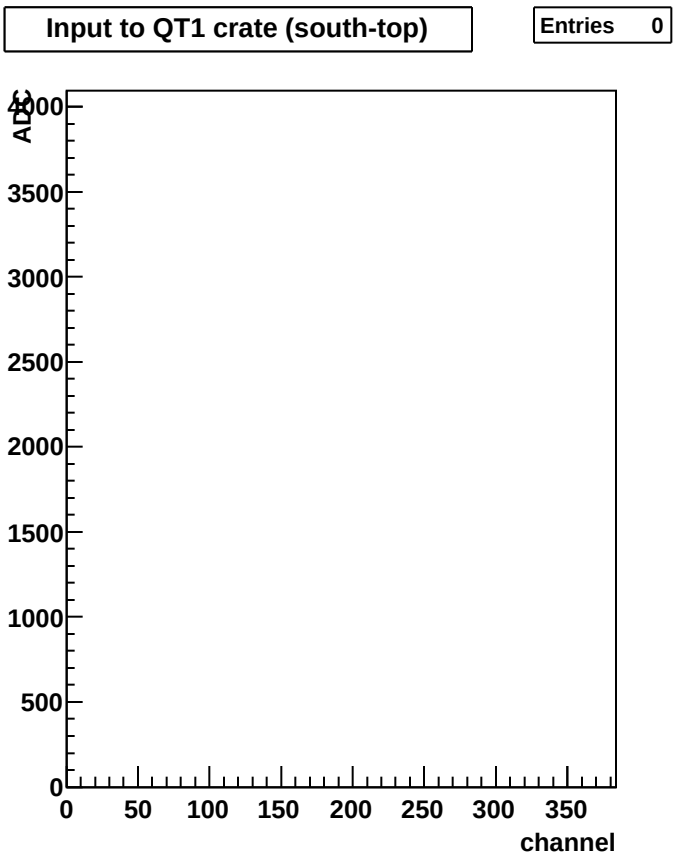

BBClarge-TAC-W
Entries 43204
Mean 1572
RMS 325.4

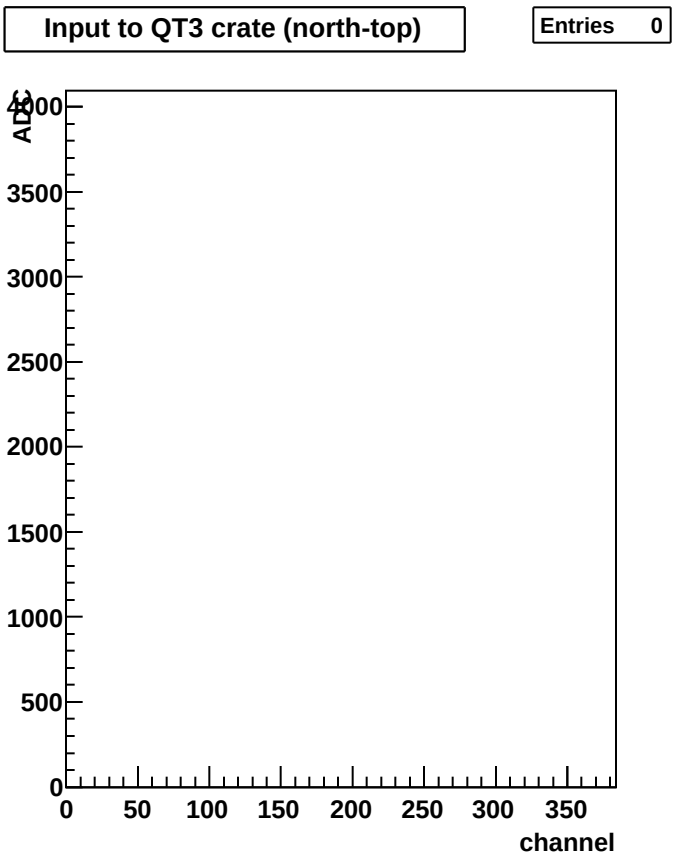

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 42759
Mean 3970
RMS 474.3

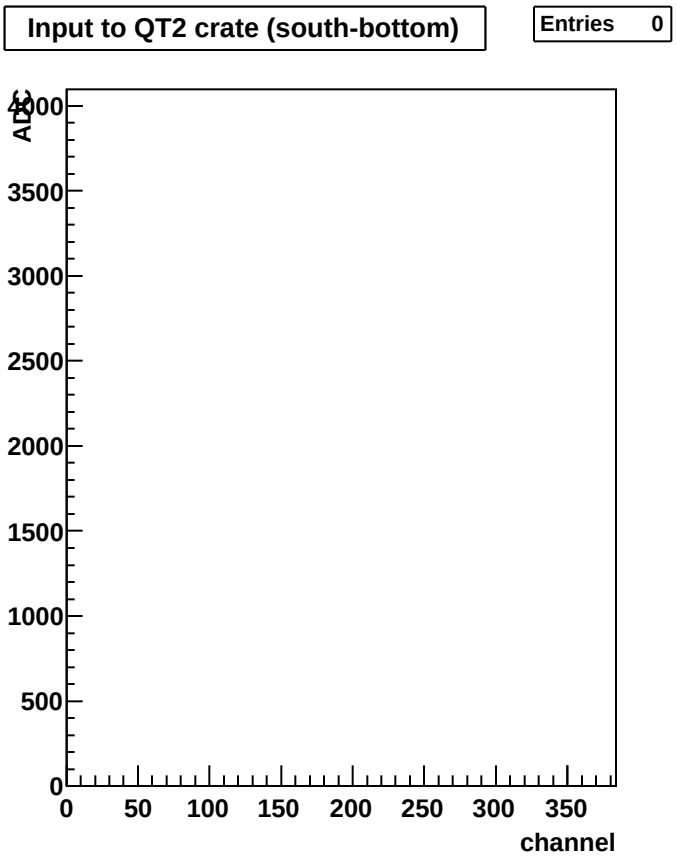

VPD-TAC-E
Entries 33087
Mean 1451
RMS 122.3

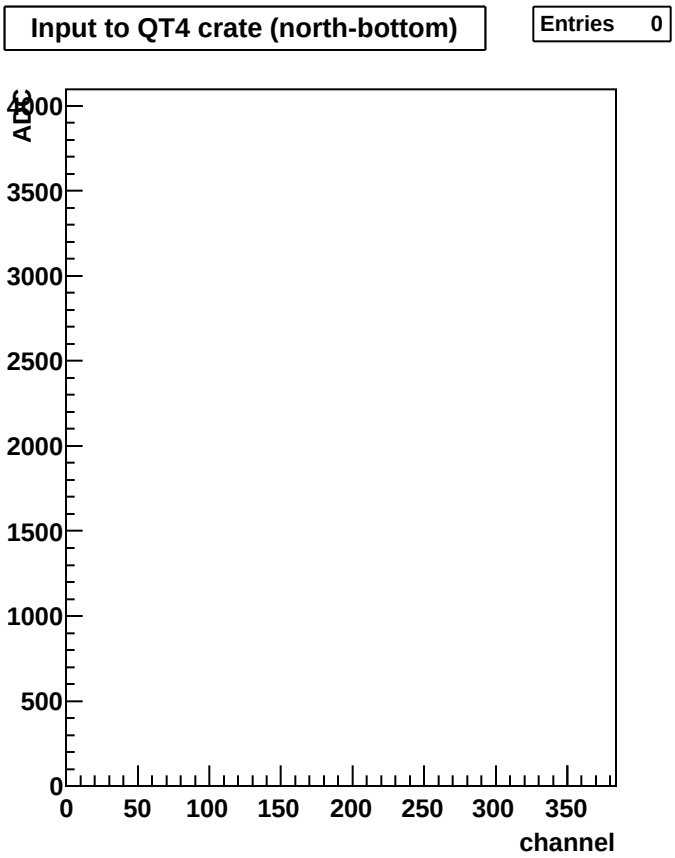

VPD-TAC-W
Entries 31401
Mean 1434
RMS 137.5

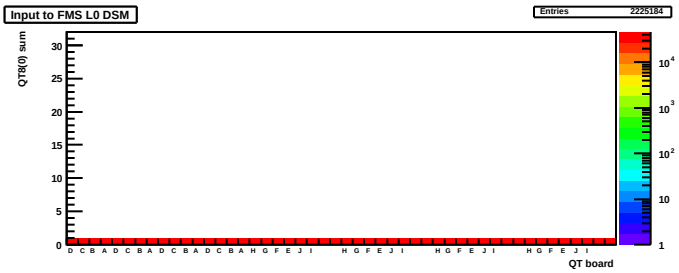

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 26786
Mean 4113
RMS 164.4

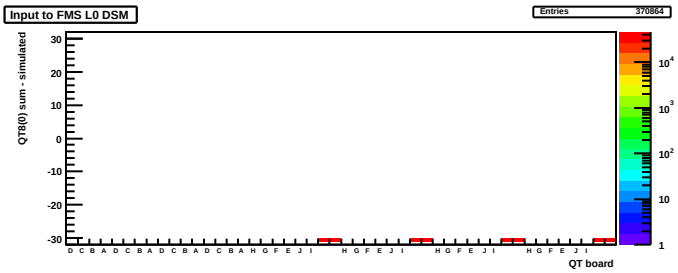

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

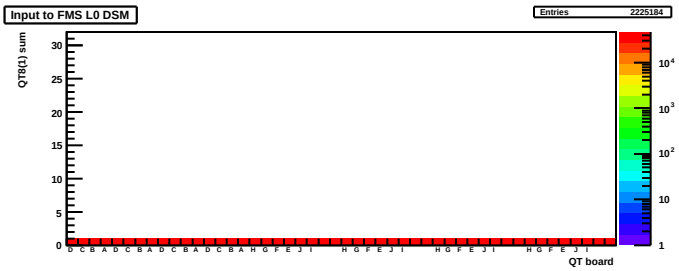

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

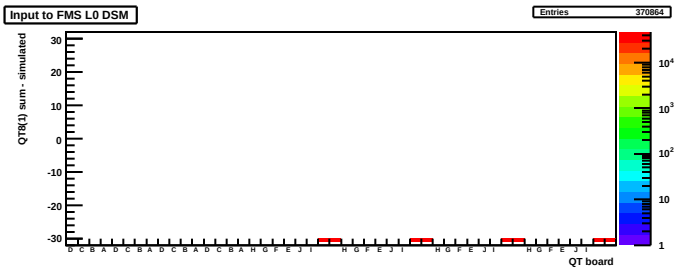

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

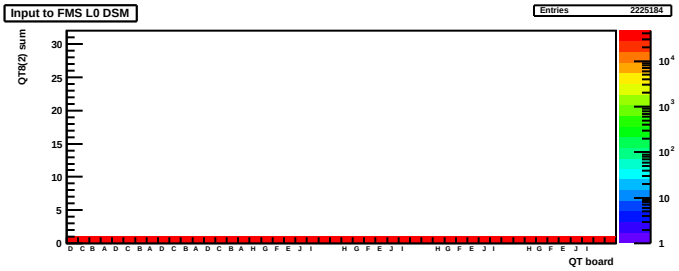

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

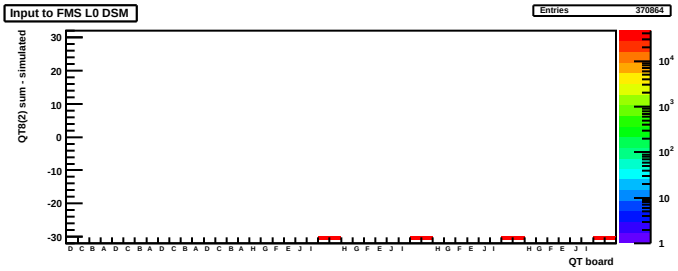

Input to FMS L0 DSM
Entries 2225184
QT8(0) sum
QT board

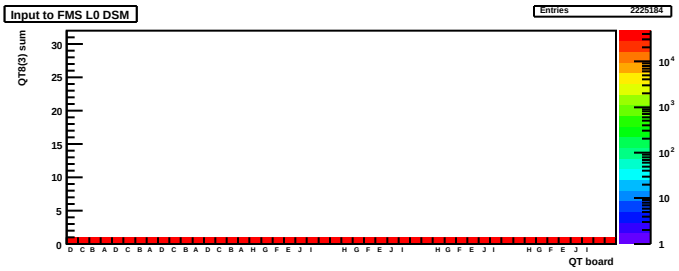

Input to FMS L0 DSM
Entries 370864
QT8(0) sum - simulated
QT board

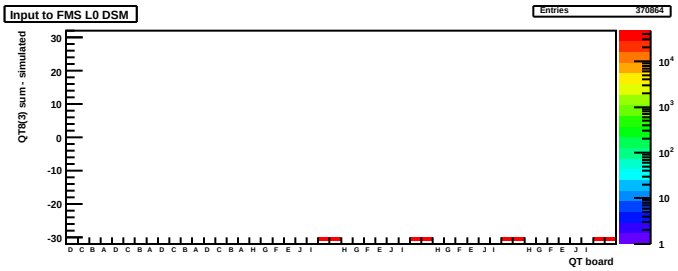

Input to FMS L0 DSM
Entries 2225184
QT8(1) sum
QT board

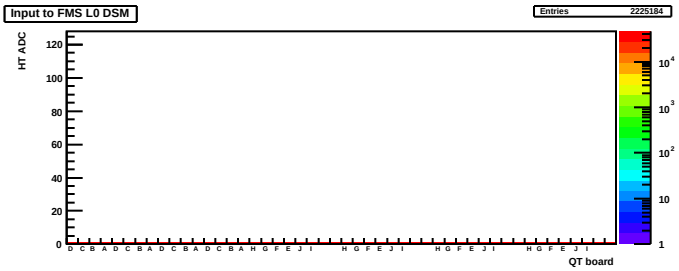

Input to FMS L0 DSM
Entries 370864
QT8(1) sum - simulated
QT board

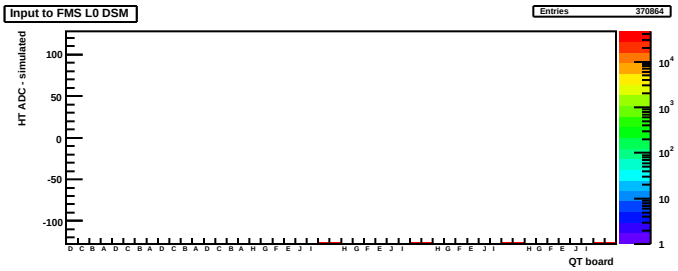

Input to FMS L0 DSM
Entries 2225184
QT8(2) sum
QT board

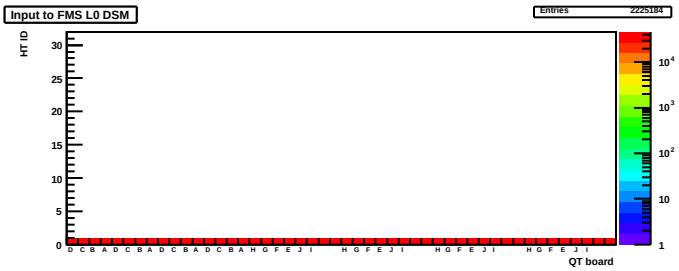

Input to FMS L0 DSM
Entries 370864
QT8(2) sum - simulated
QT board

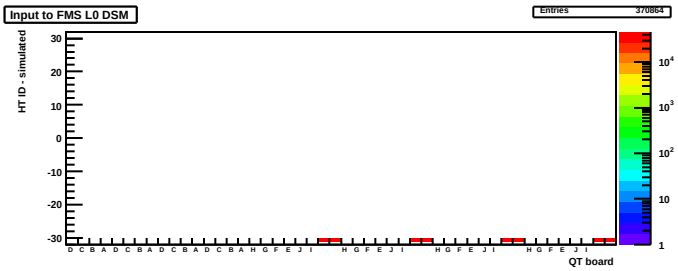

Input to FMS L0 DSM
Entries 2225184
QT8(3) sum
QT board

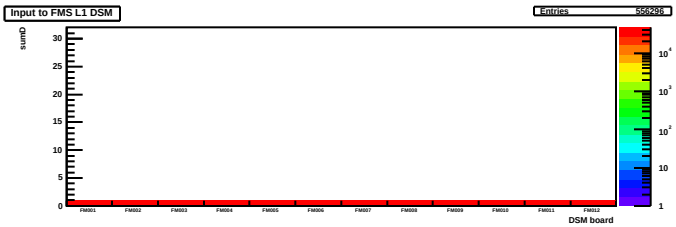

Input to FMS L0 DSM
Entries 370864
QT8(3) sum - simulated
QT board

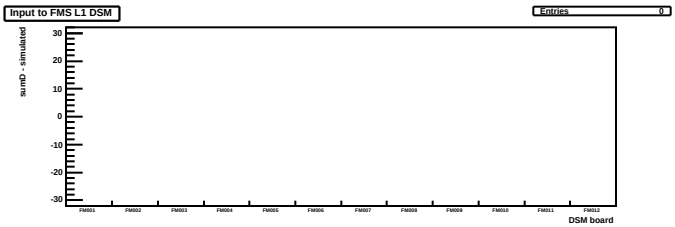

Input to FMS L0 DSM
Entries 2225184
HT ADC
QT board

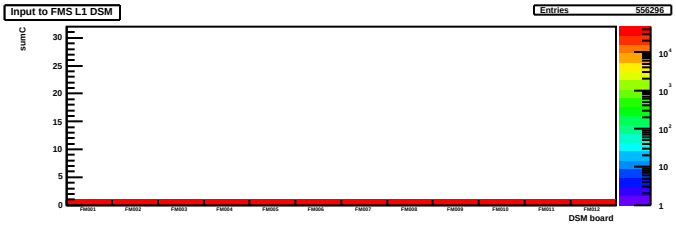

Input to FMS L0 DSM
Entries 370864
HT ADC - simulated
QT board

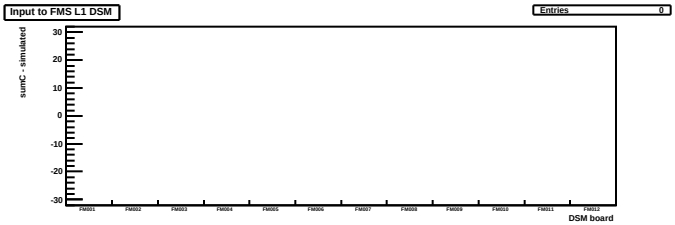

Input to FMS L0 DSM
Entries 2225184
HT ID
QT board

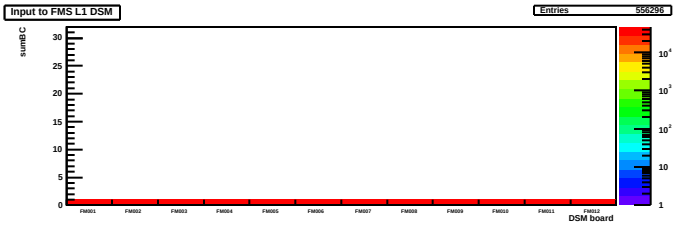

Input to FMS L0 DSM
Entries 370864
HT ID - simulated
QT board

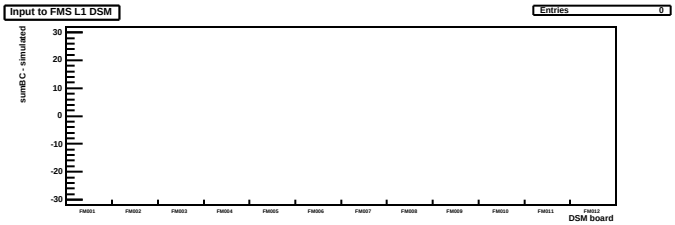

Input to FMS L1 DSM
Entries 556296
sumD
DSM board

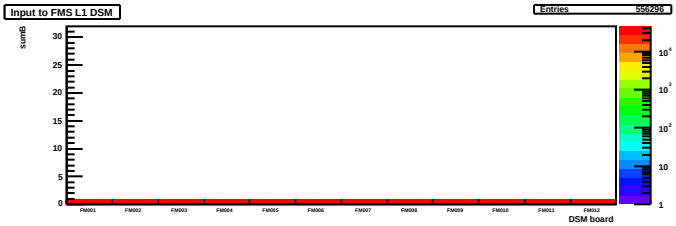

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

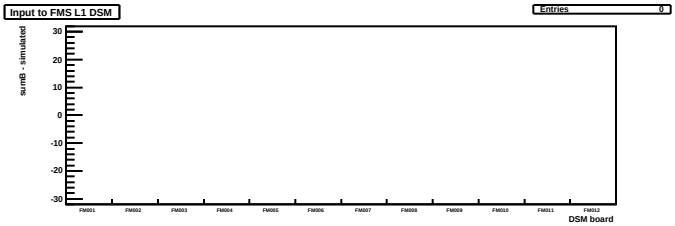

Input to FMS L1 DSM
Entries 556296
sumC
DSM board

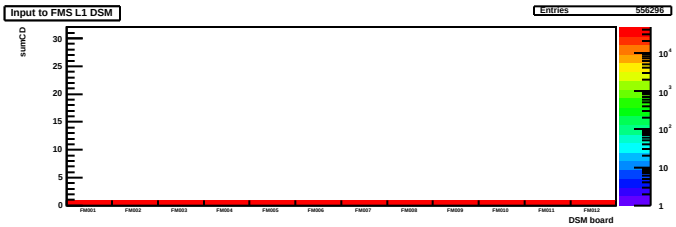

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

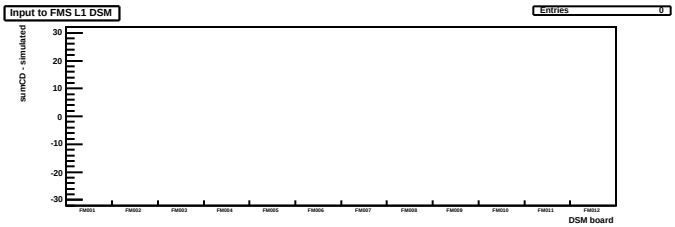

Input to FMS L1 DSM
Entries 556296
sumBC
DSM board

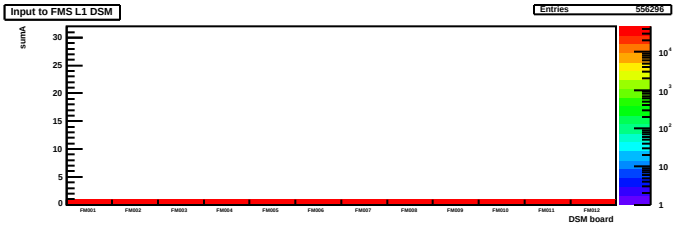

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

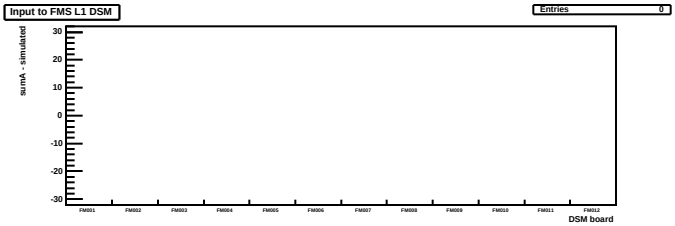

Input to FMS L1 DSM
Entries 556296
sumB
DSM board

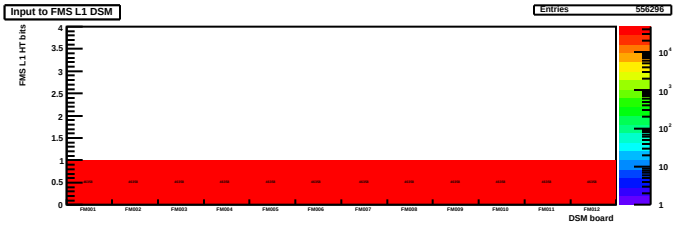

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

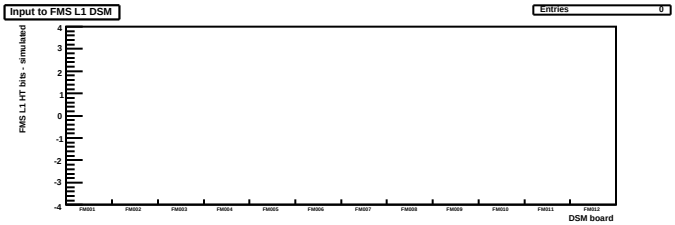

Input to FMS L1 DSM
Entries 556296
sumCD
DSM board

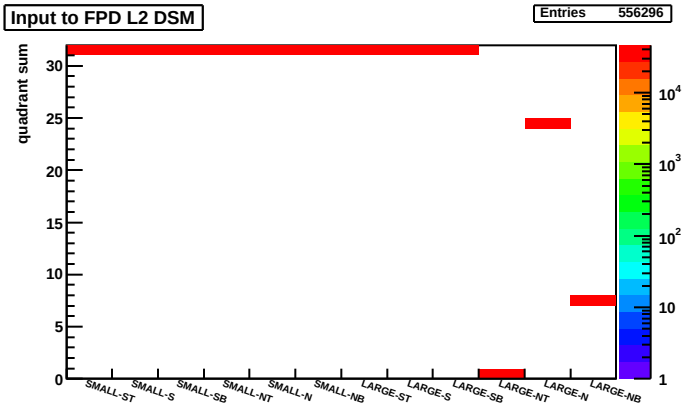

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

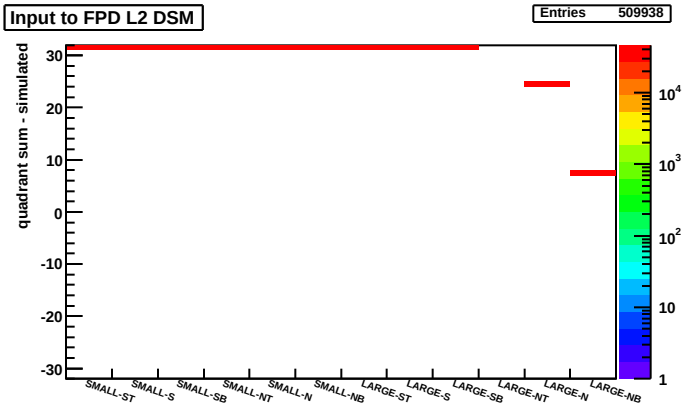

Input to FMS L1 DSM
Entries 556296
sumA
DSM board

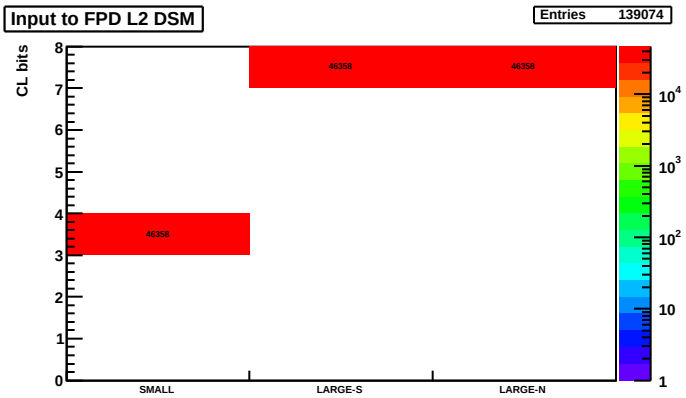

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

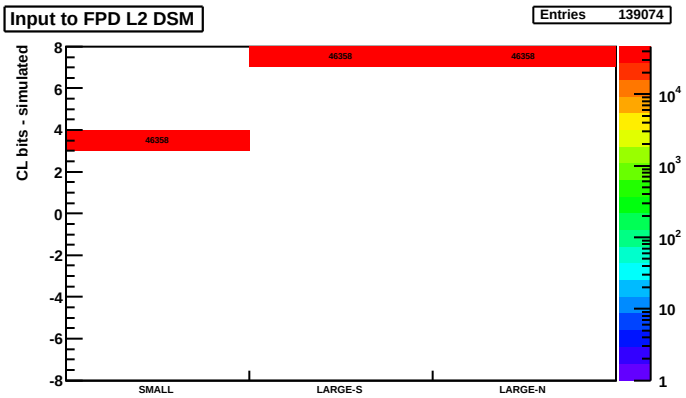

Input to FMS L1 DSM
Entries 556296
FMS L1 HT bits
DSM board

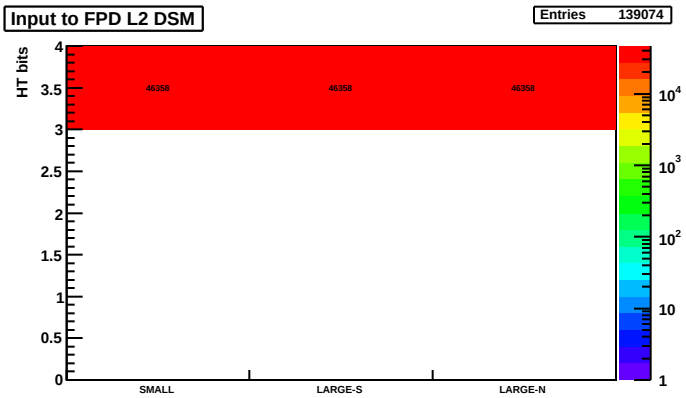

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

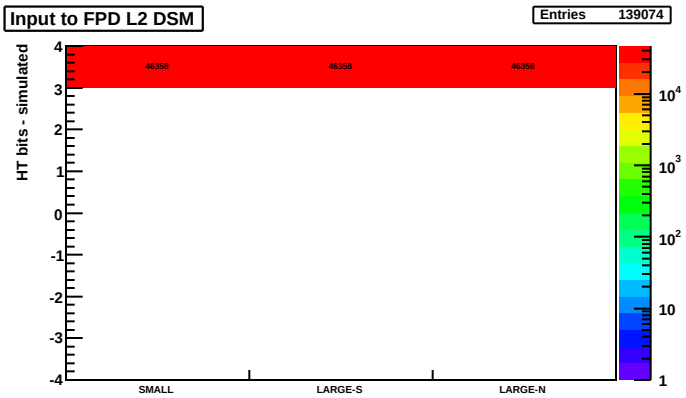

Input to FPD L2 DSM
Entries 556296
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

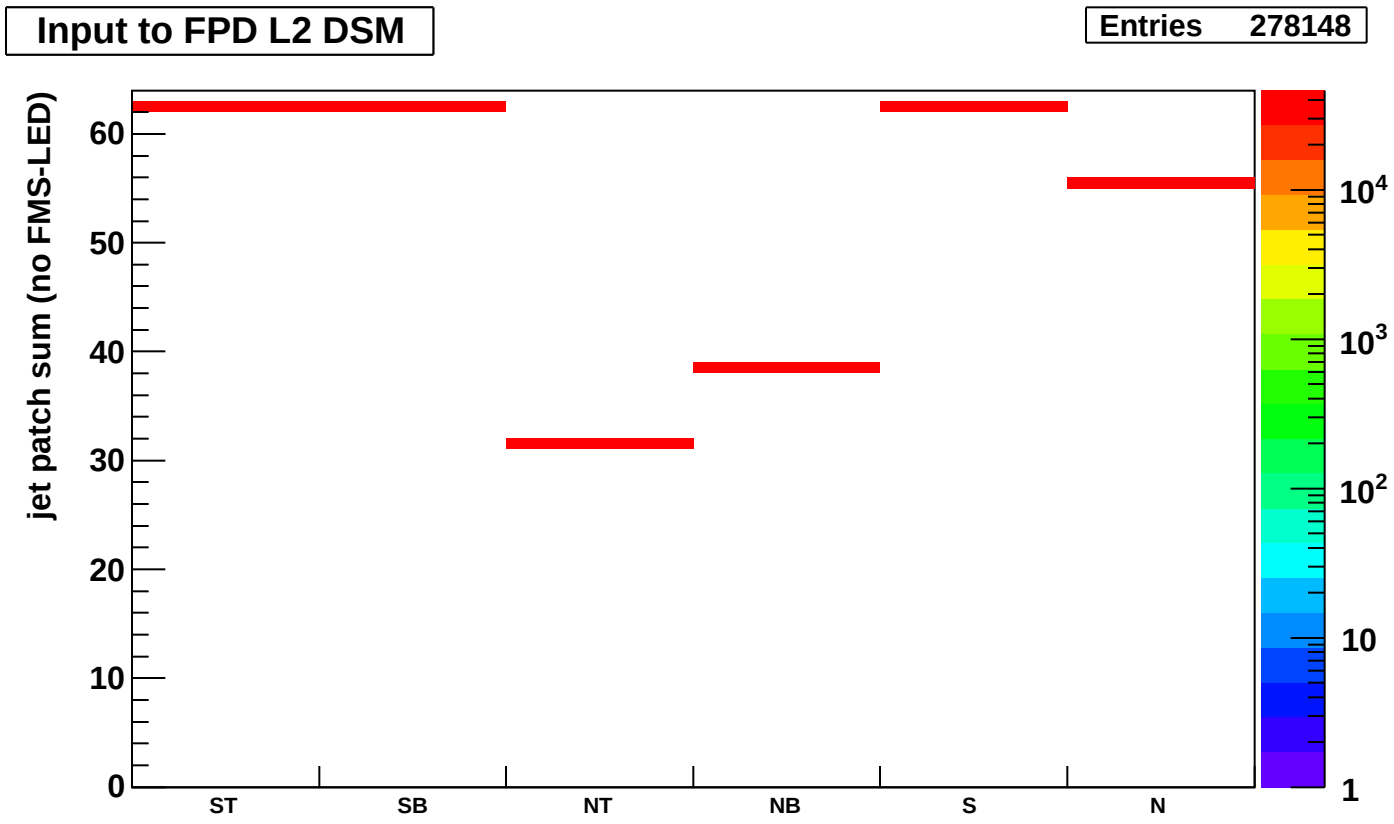

Input to FPD L2 DSM
Entries 509938
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

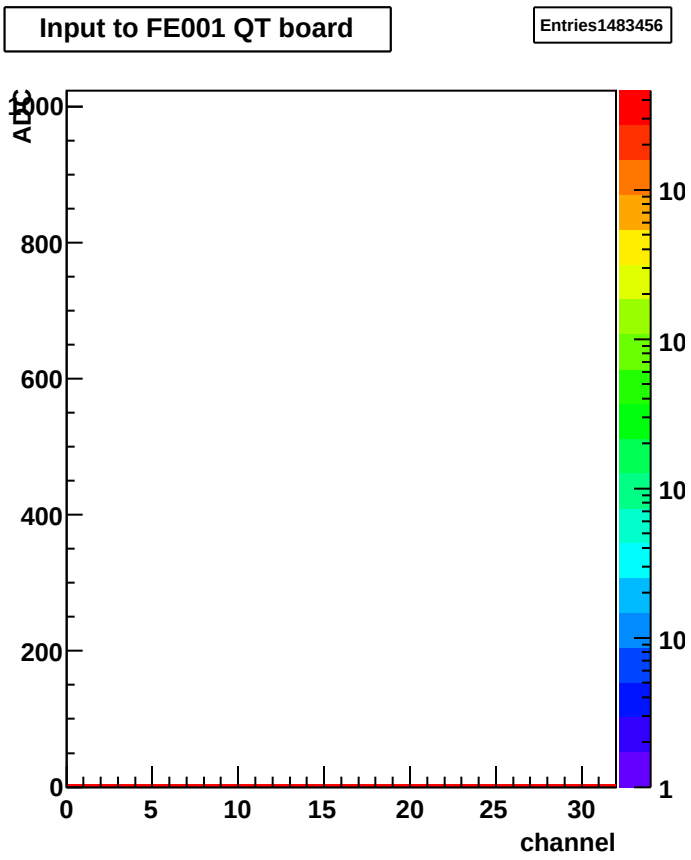

Input to FPD L2 DSM
Entries 139074
CL bits
46358
46358
46358
SMALL
LARGE-S
LARGE-N

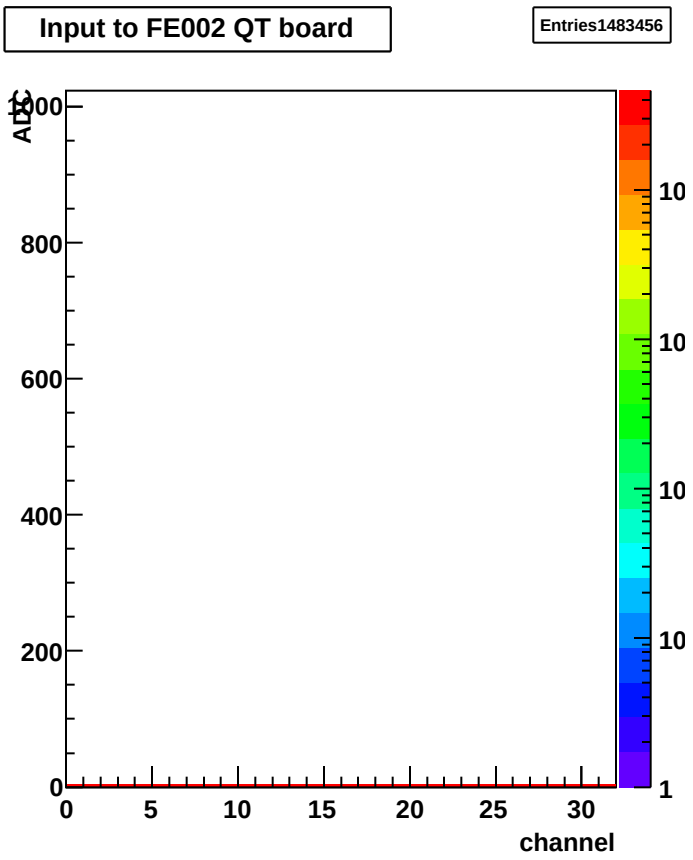

Input to FPD L2 DSM
Entries 139074
CL bits - simulated
46358
46358
46358
SMALL
LARGE-S
LARGE-N

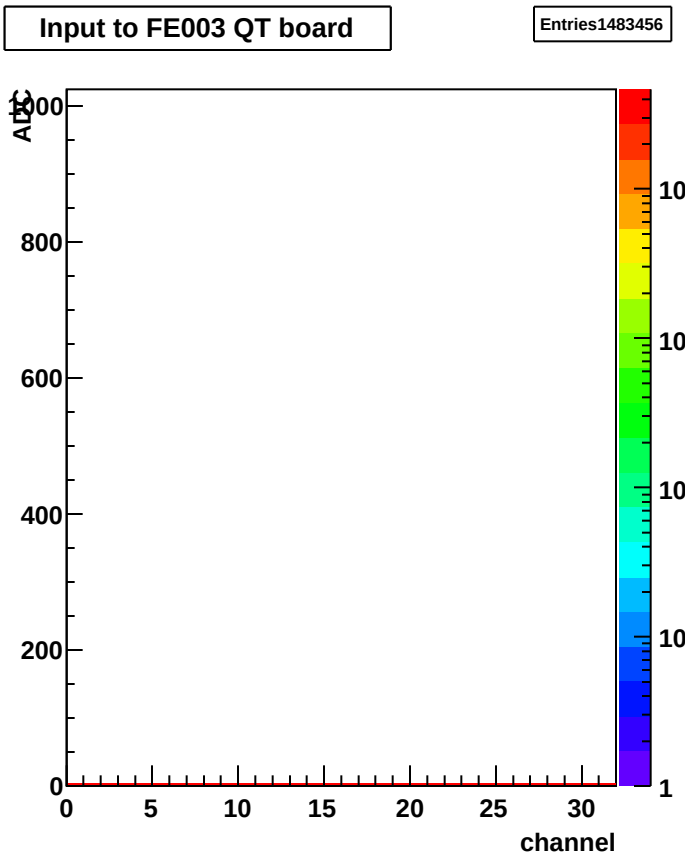

Input to FPD L2 DSM
Entries 139074
HT bits
46358
46358
46358
SMALL
LARGE-S
LARGE-N

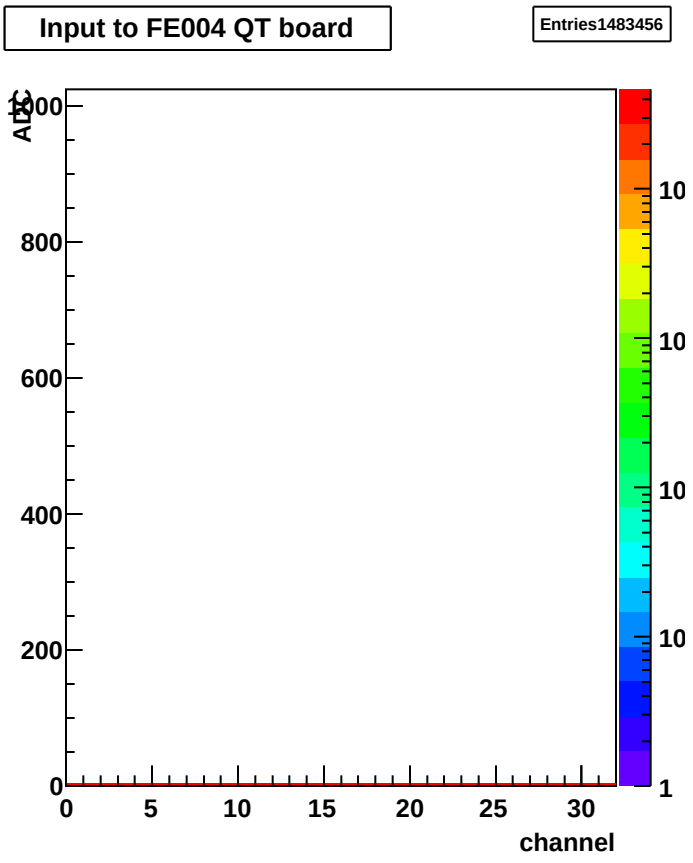

Input to FPD L2 DSM
Entries 139074
HT bits - simulated
46358
46358
46358
SMALL
LARGE-S
LARGE-N

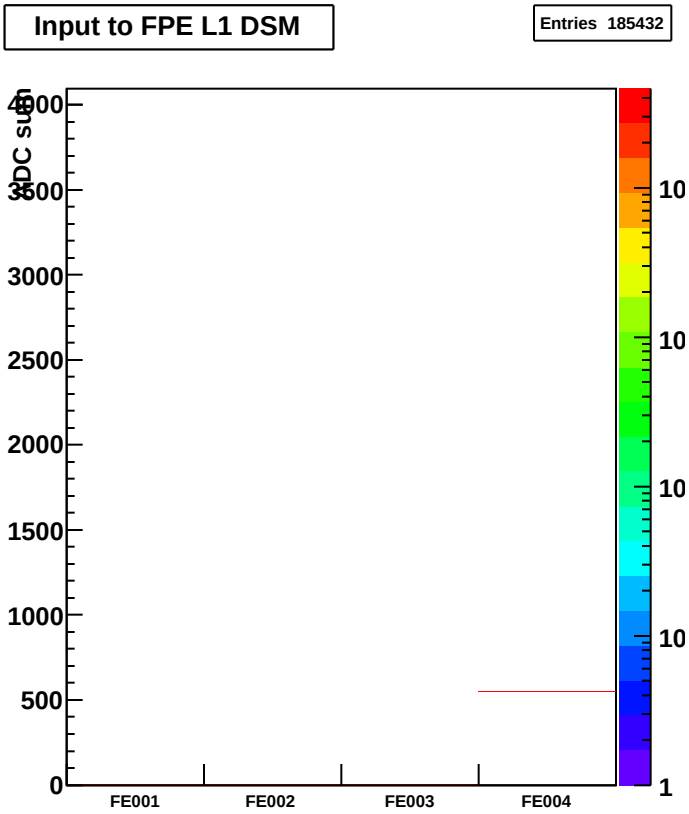

Input to FPD L2 DSM
Entries 278148
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

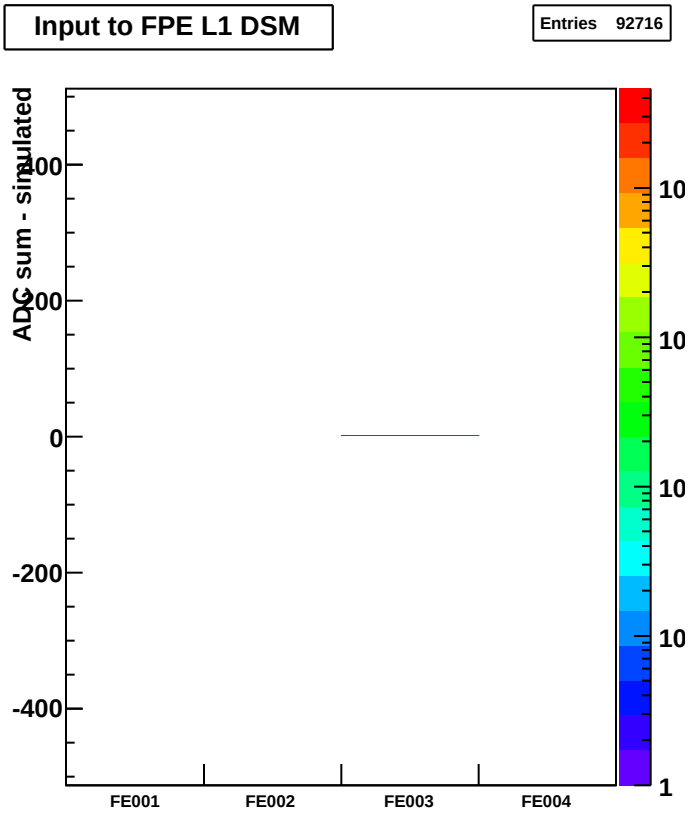

Input to FE001 QT board
Entries1483456
ADC
channel

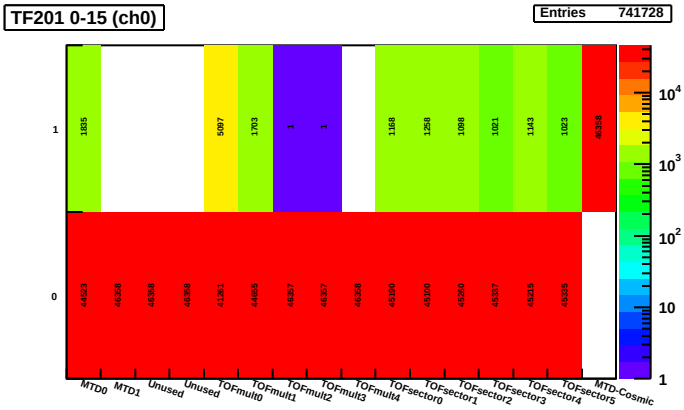

Input to FE002 QT board
Entries1483456
ADC
channel

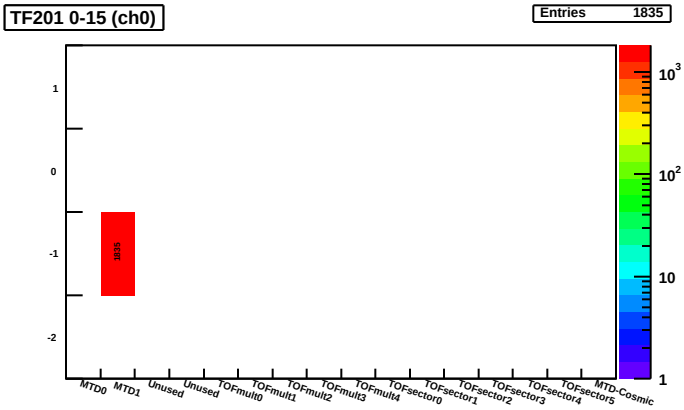

Input to FE003 QT board
Entries1483456
ADC
channel

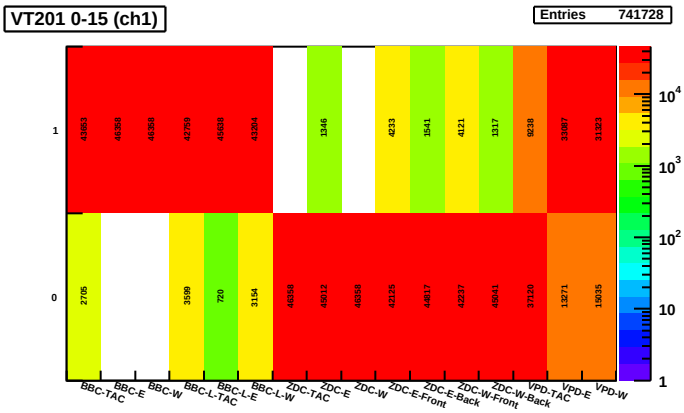

Input to FE004 QT board
Entries1483456
ADC
channel

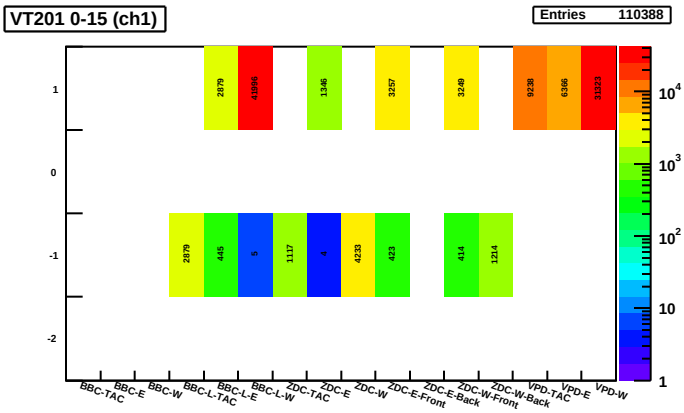

Input to FPE L1 DSM
Entries 185432
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 92716
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 741728
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 1835
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 741728
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 110388
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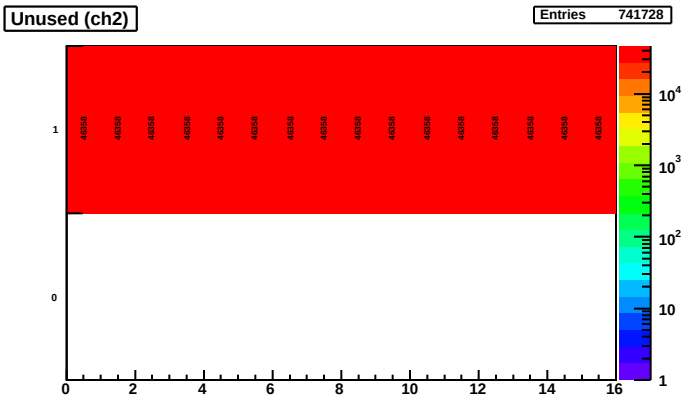
Unused (ch2)
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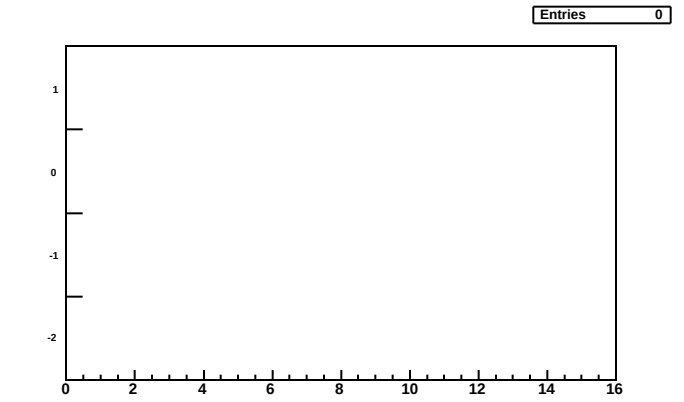
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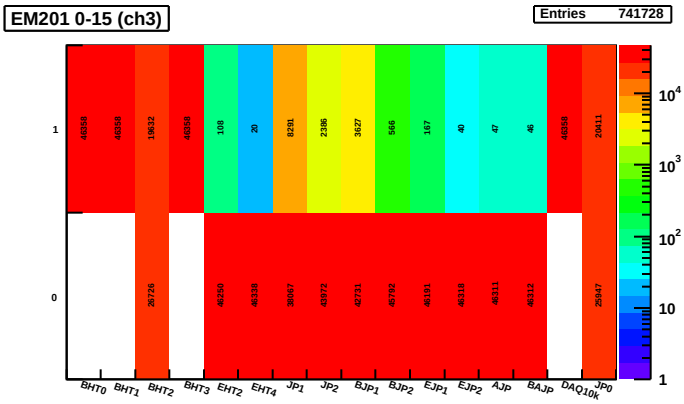
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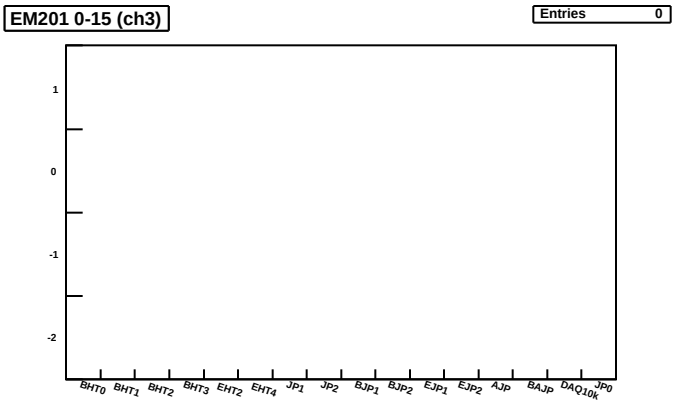
EM201 0-15 (ch3)
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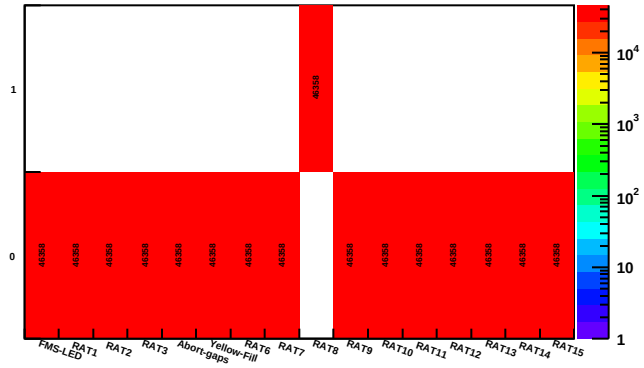
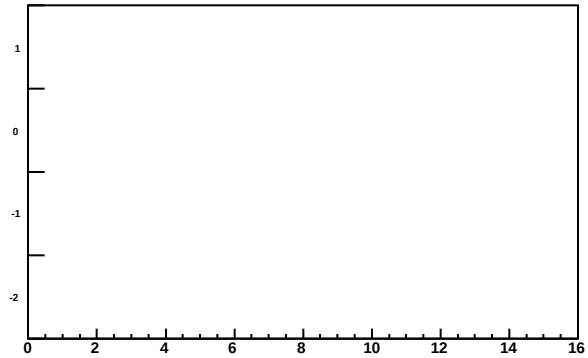
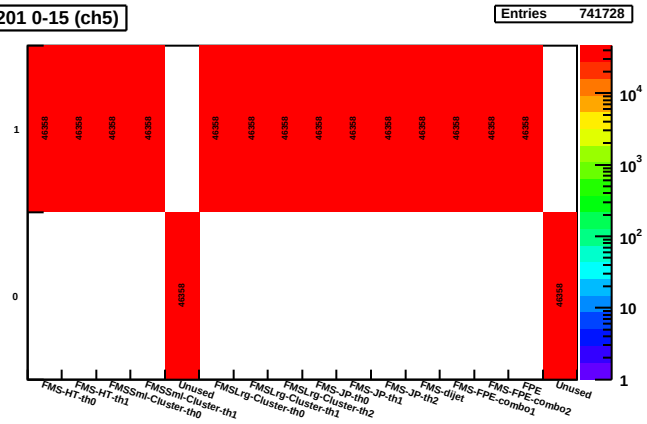
RAT board (ch4)





FP201 0-15 (ch5)



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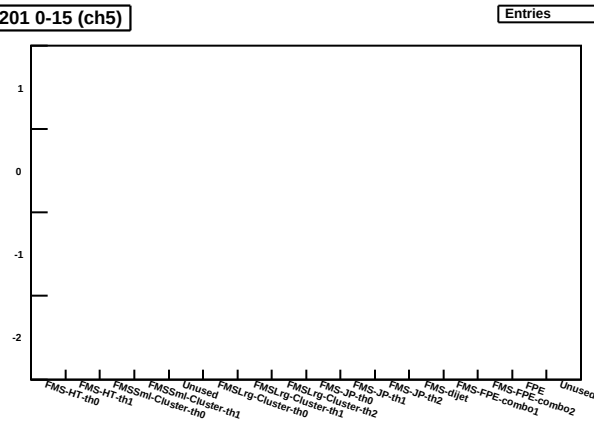
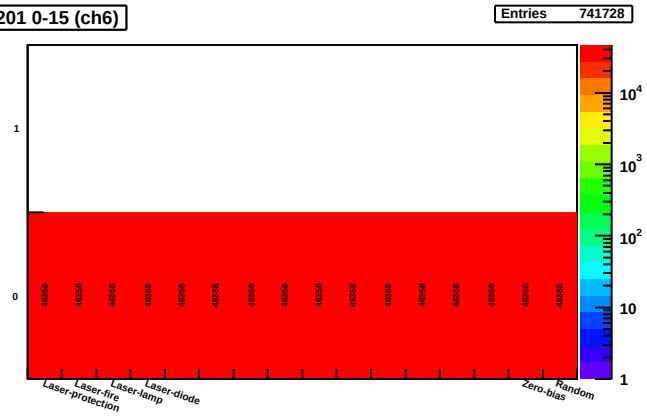
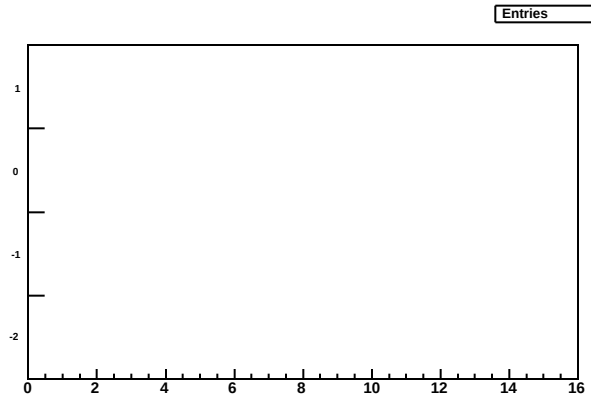
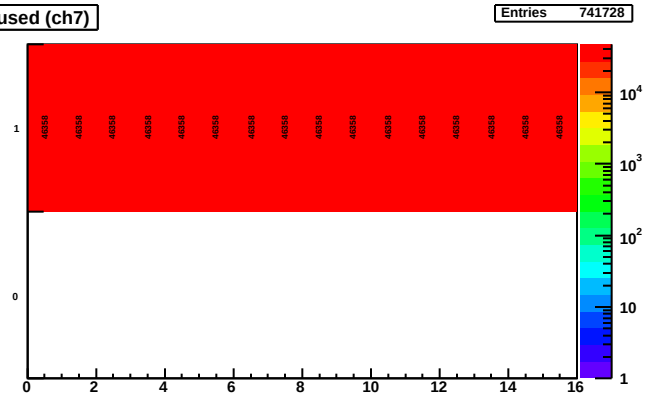
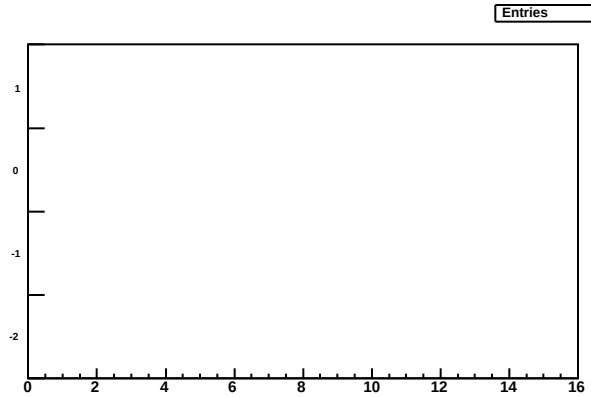


ST201 0-15 (ch6)





Unused (ch7)