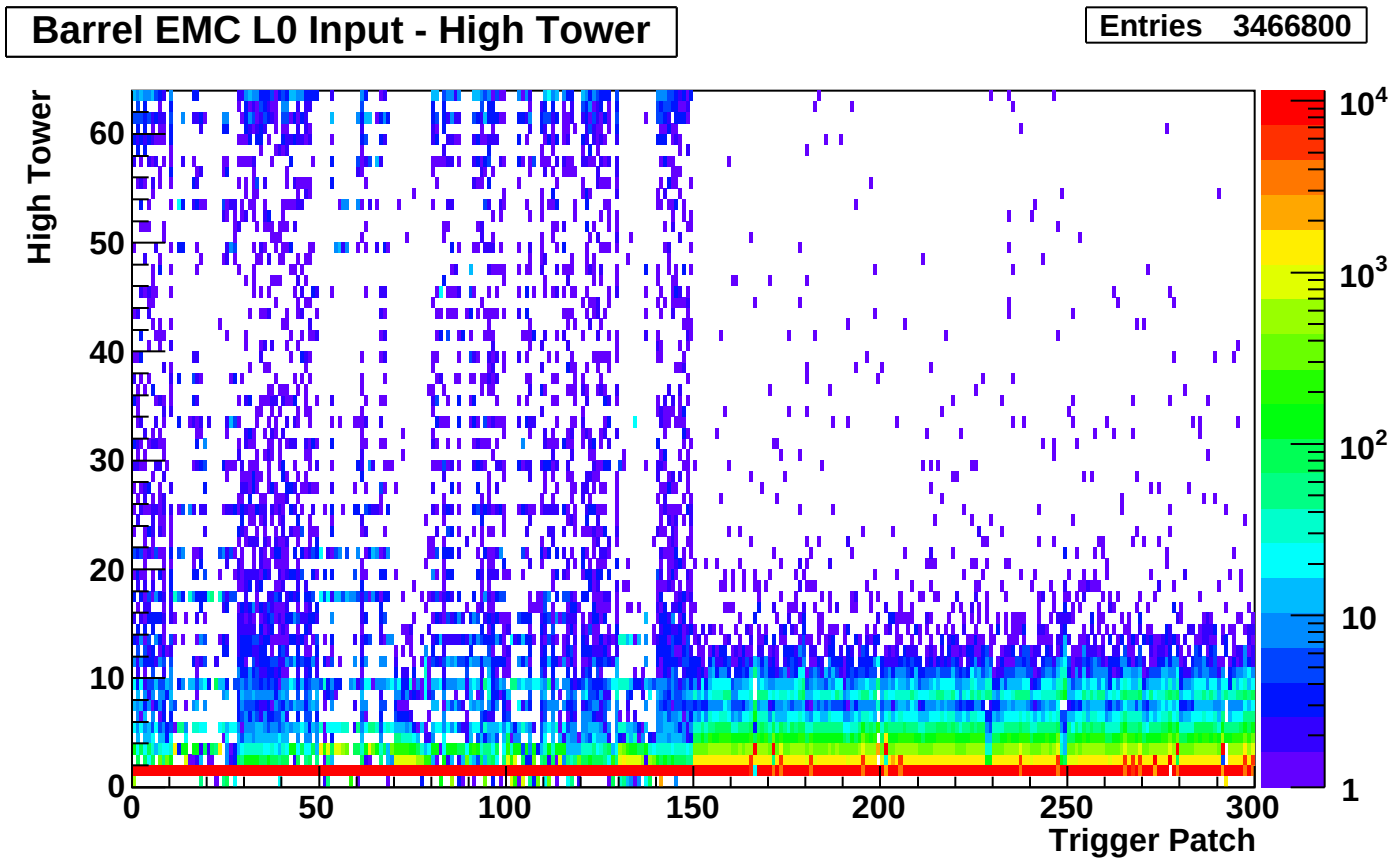
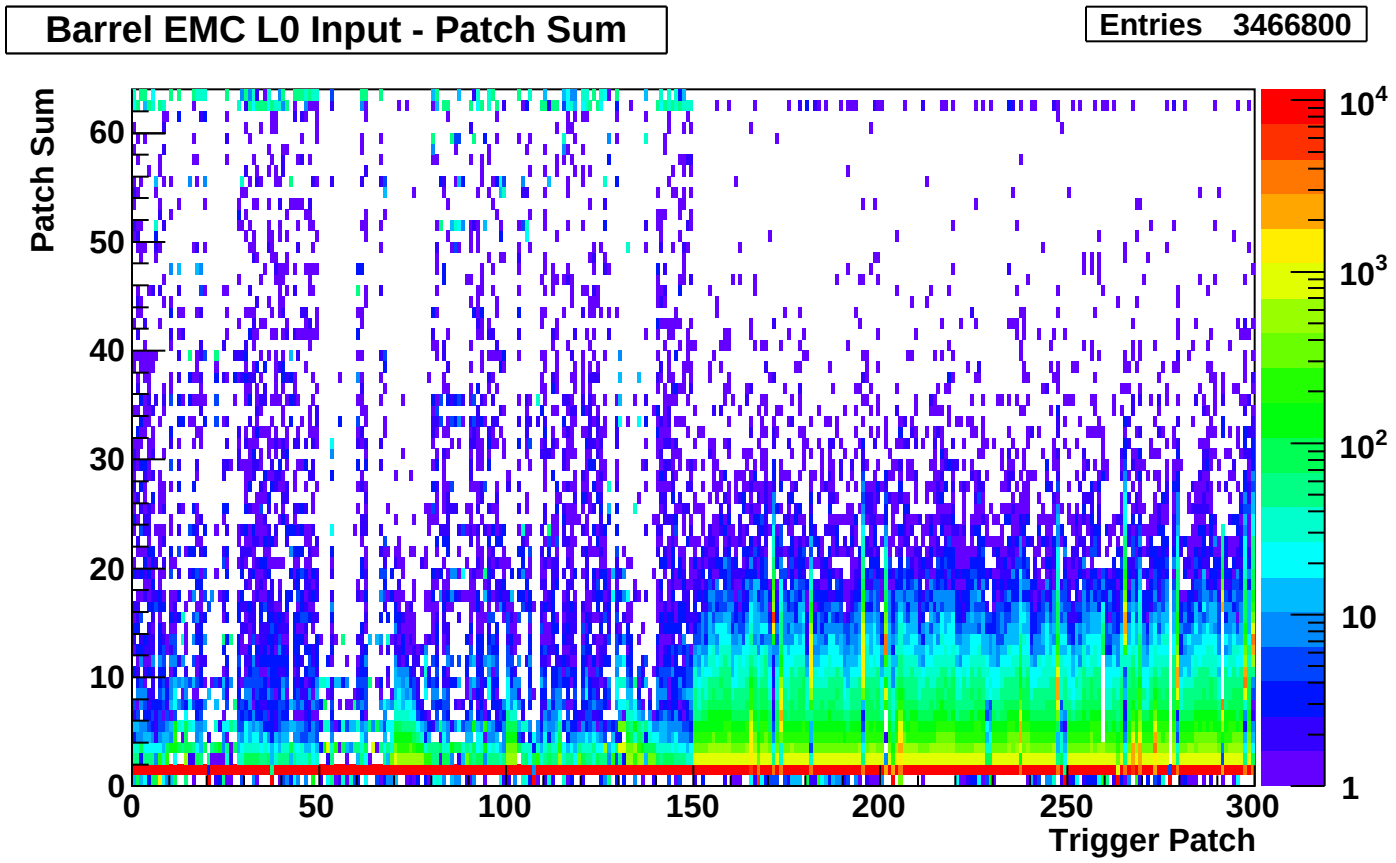
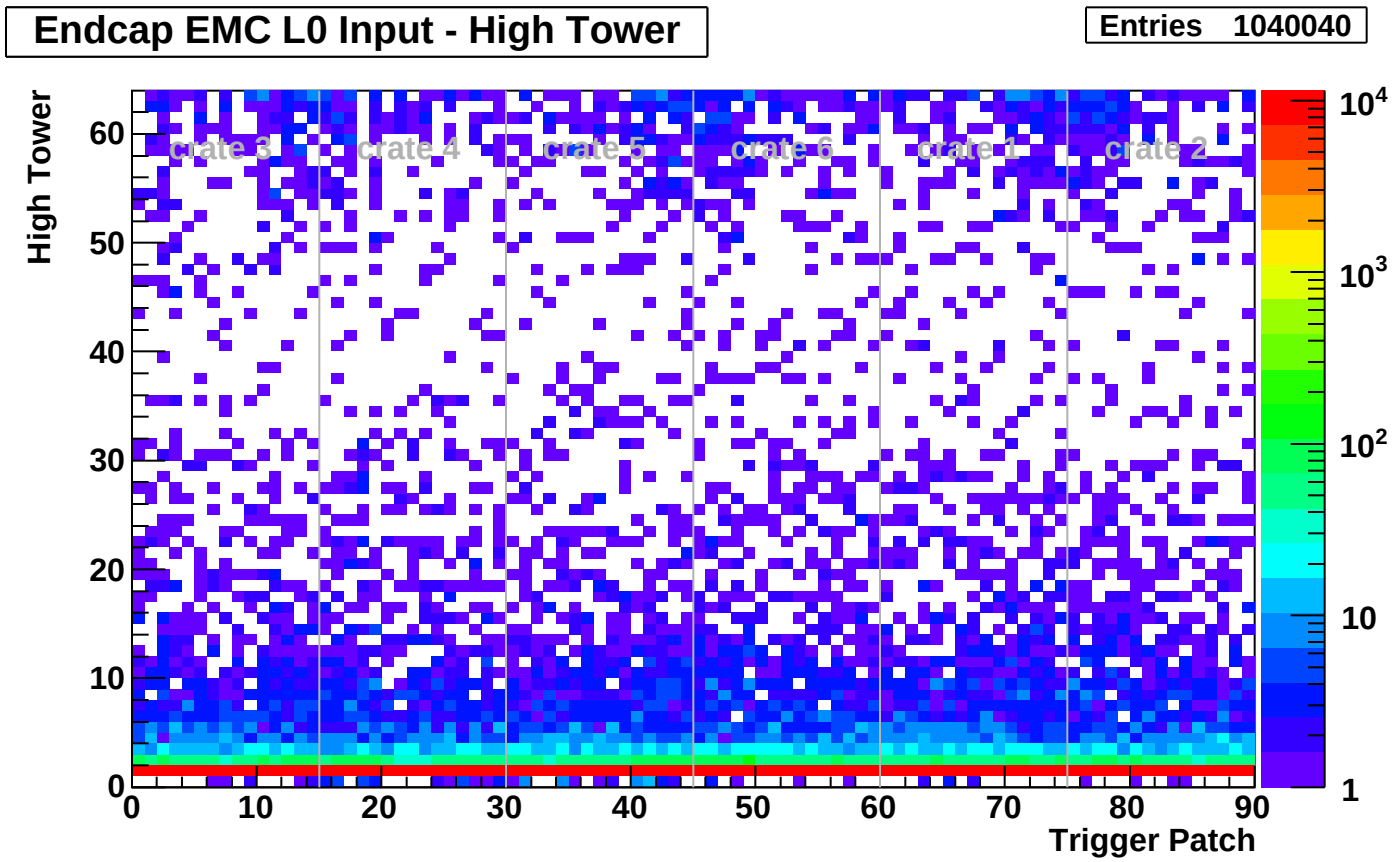
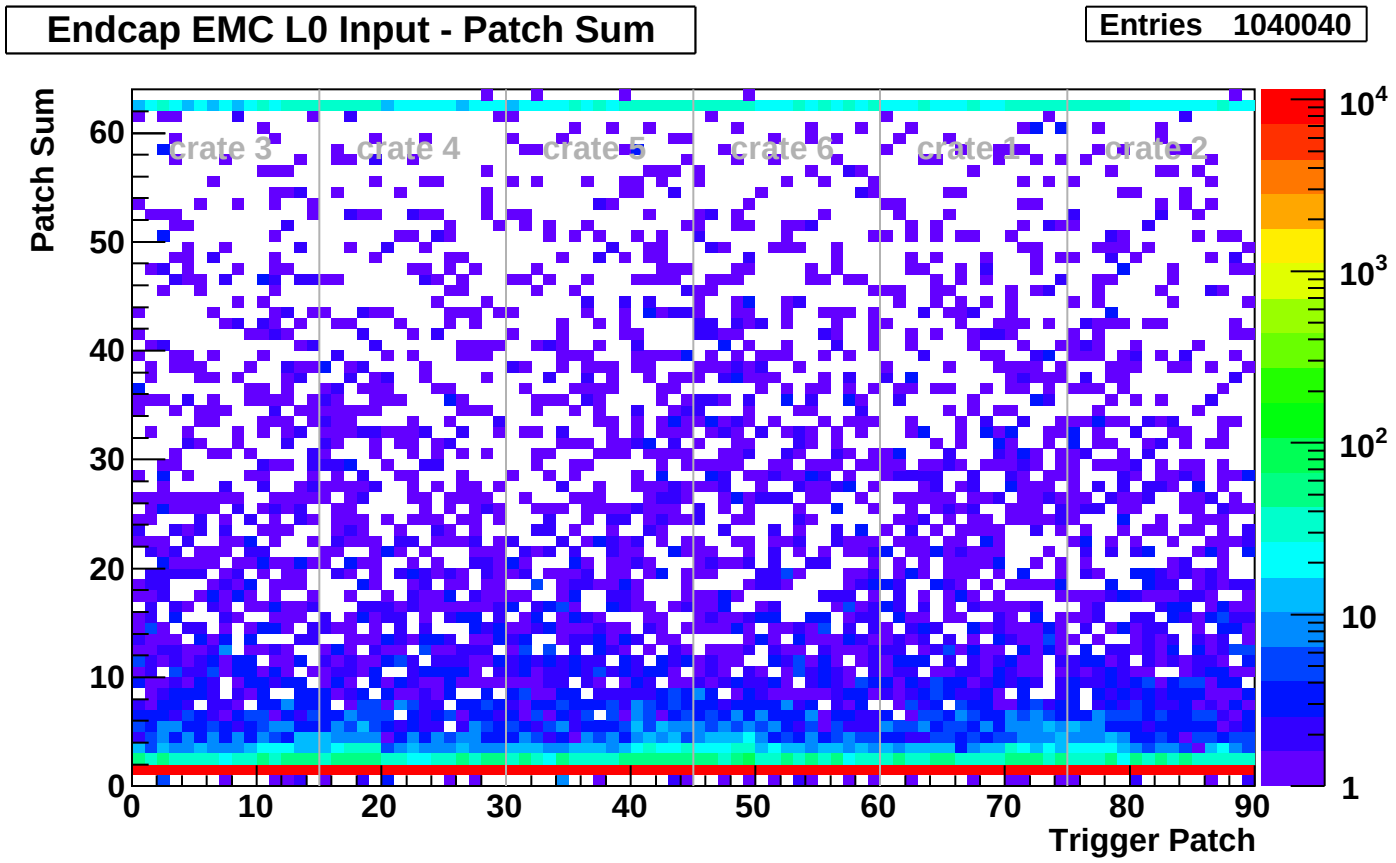
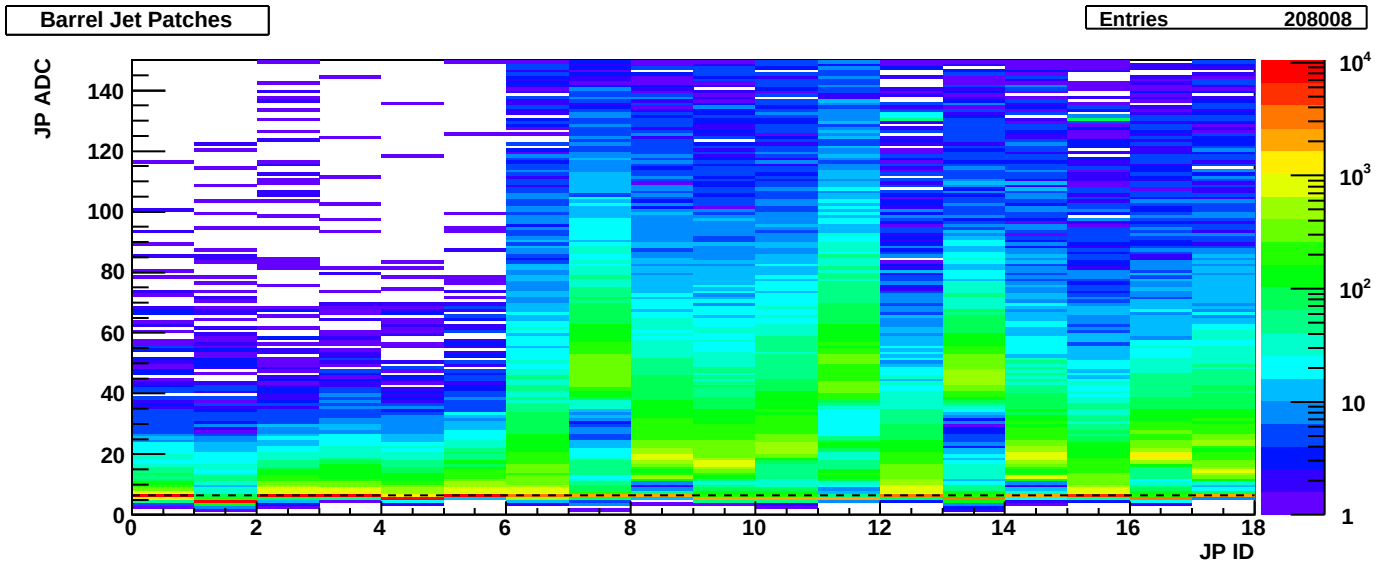
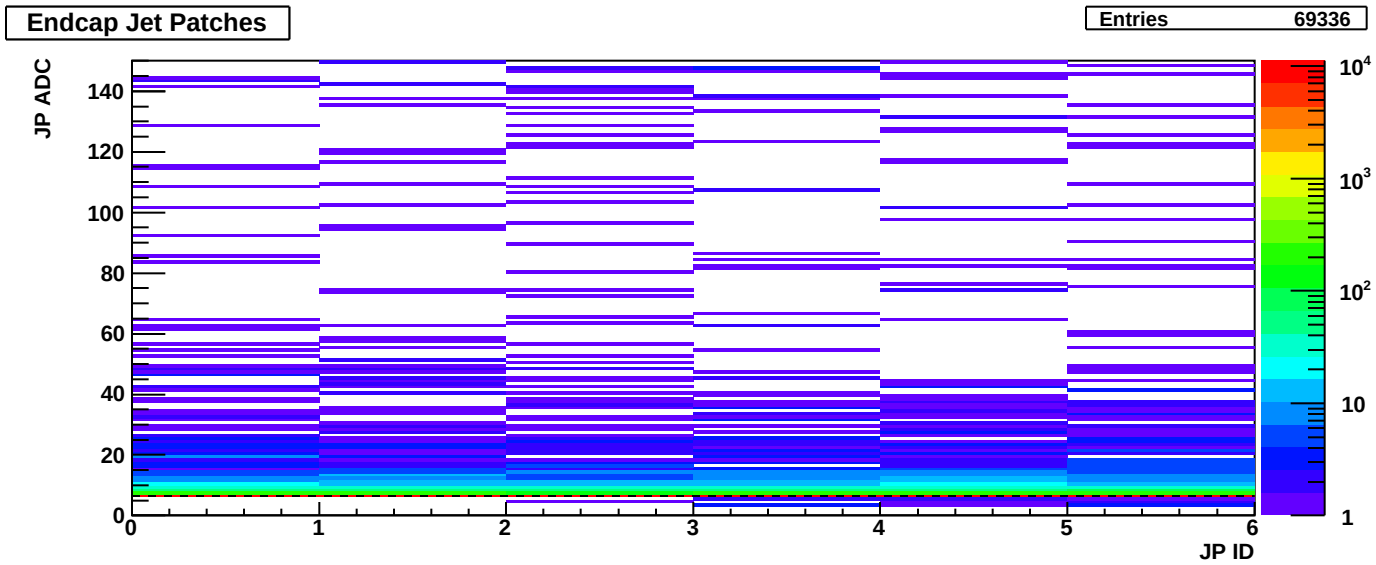

Barrel EMC L0 Input - High Tower
Entries 3466800
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

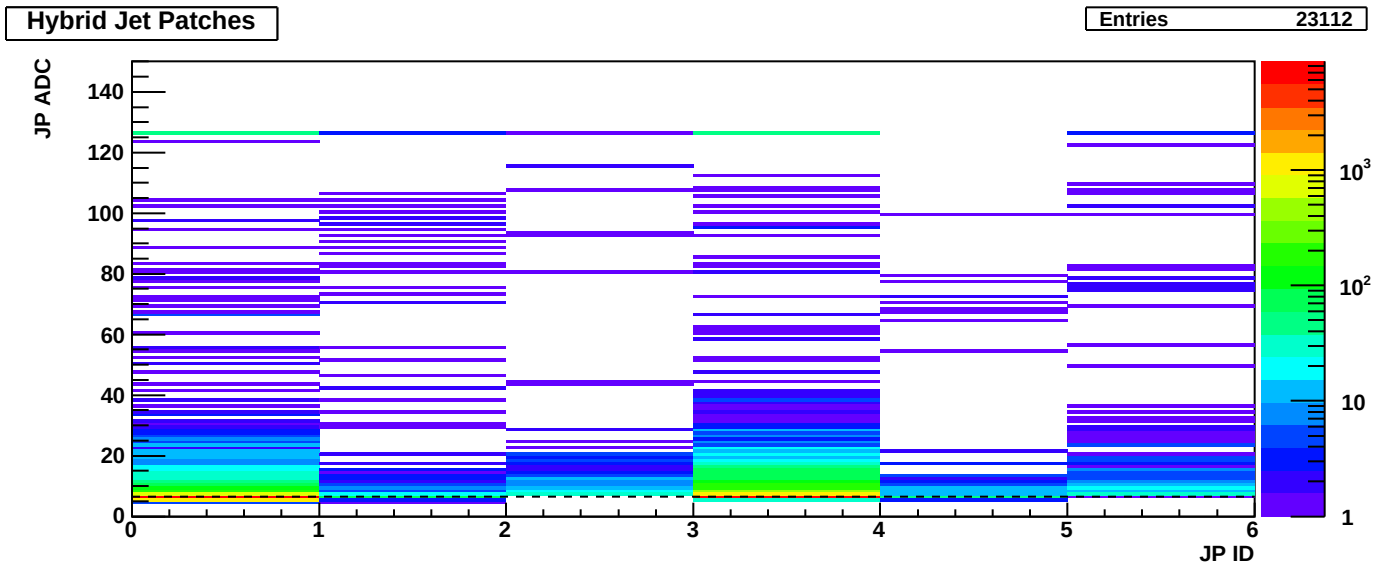

Barrel EMC L0 Input - Patch Sum
Entries 3466800
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

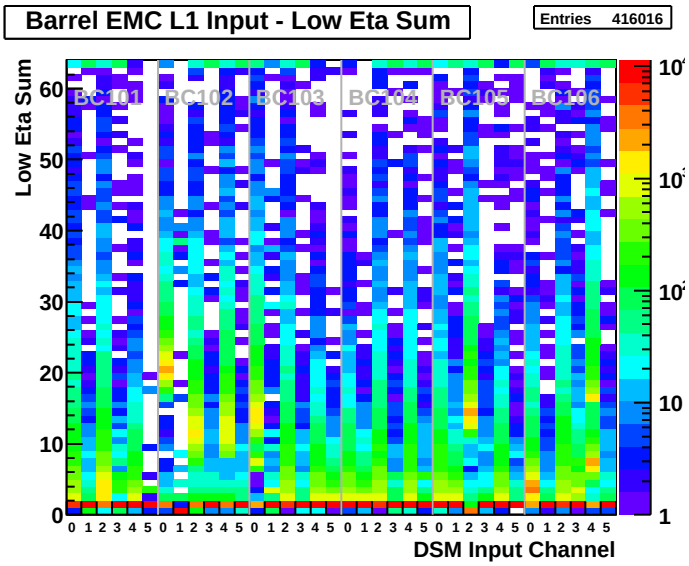

Endcap EMC L0 Input - High Tower
Entries 1040040
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

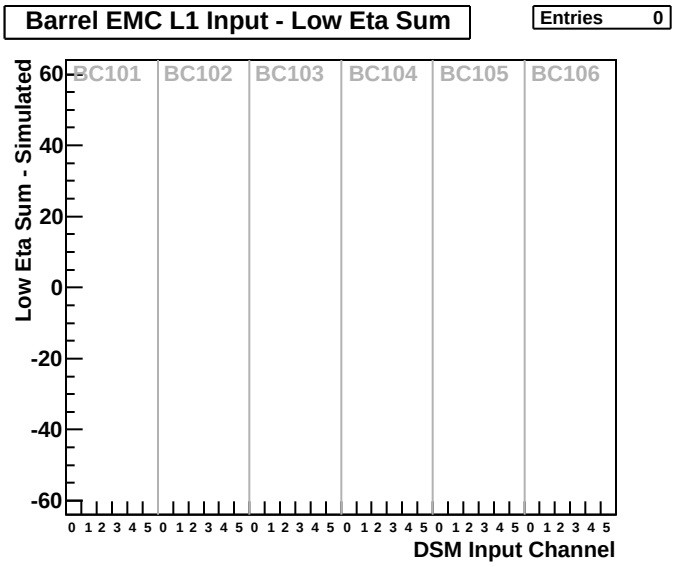

Endcap EMC L0 Input - Patch Sum
Entries 1040040
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

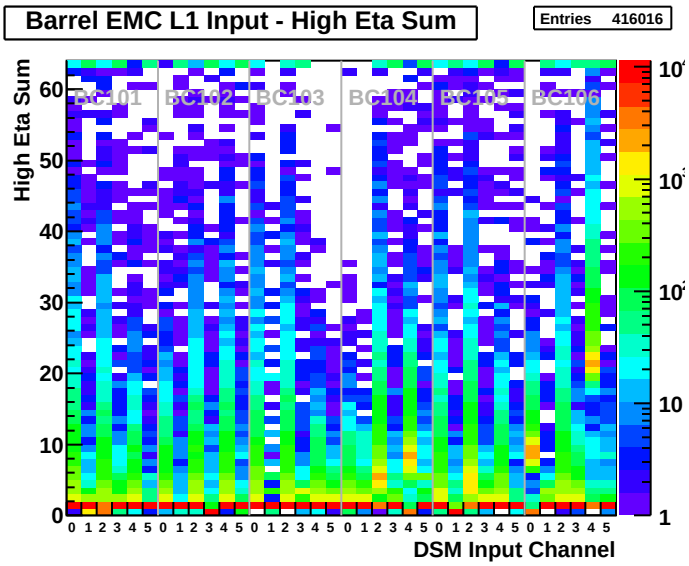

Barrel Jet Patches
Entries 208008
JP ADC
JP ID

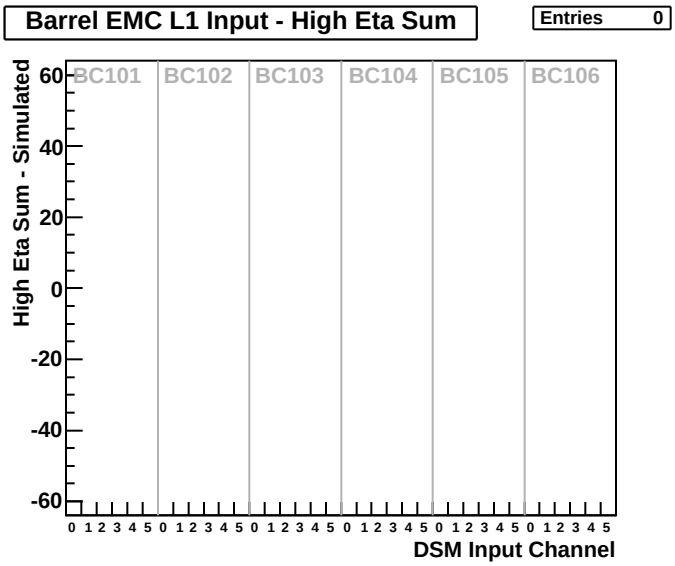

Endcap Jet Patches
Entries 69336
JP ADC
JP ID

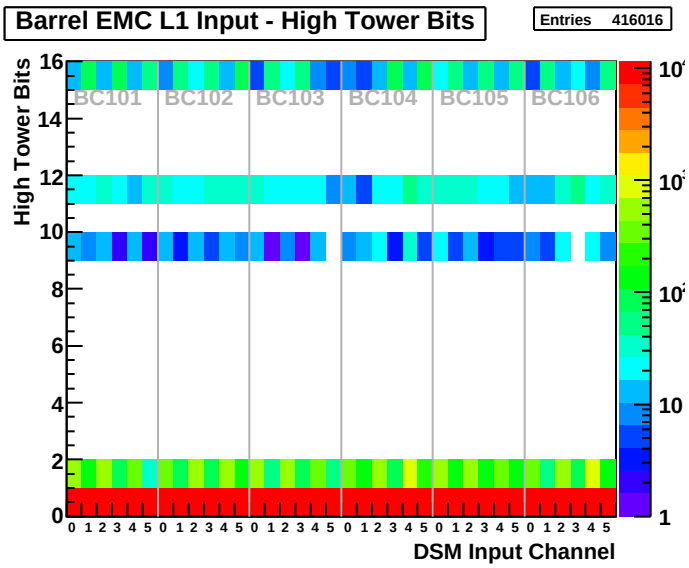

Hybrid Jet Patches
Entries 23112
JP ADC
JP ID

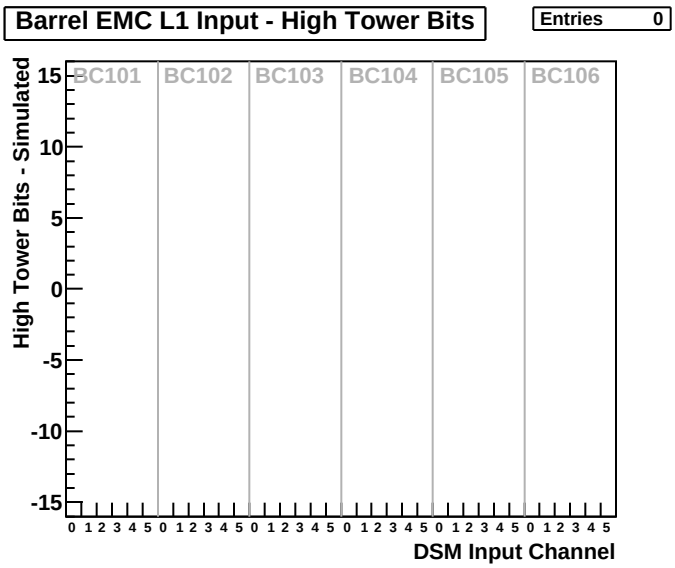

Barrel EMC L1 Input - Low Eta Sum
Entries 416016
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

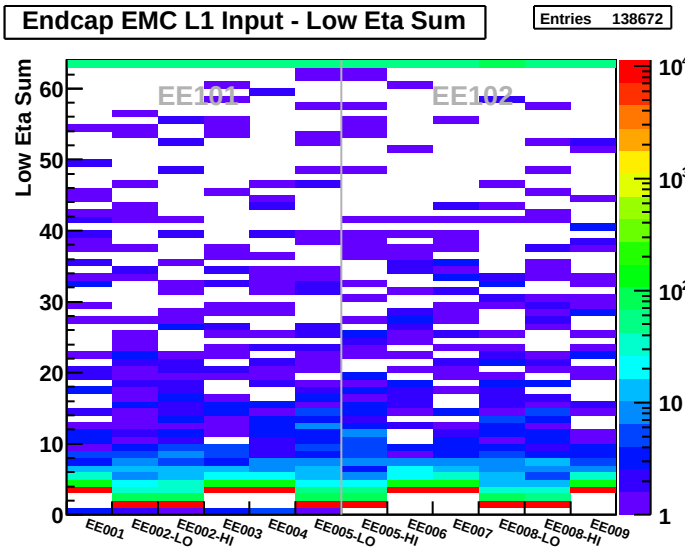

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

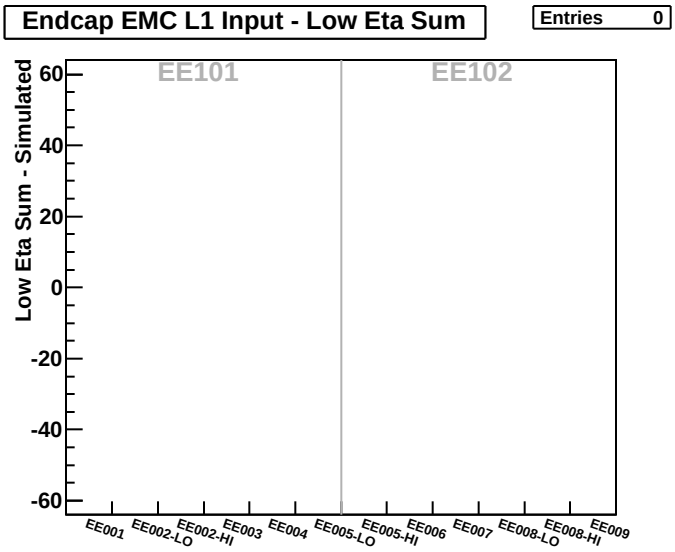

Barrel EMC L1 Input - High Eta Sum
Entries 416016
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

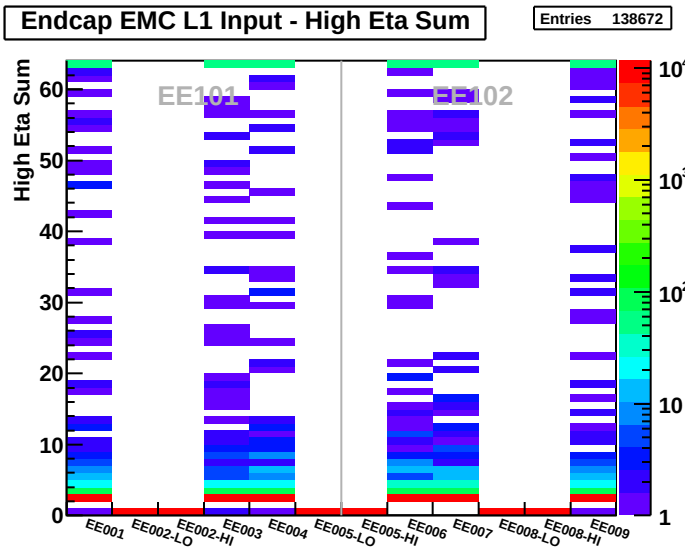

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

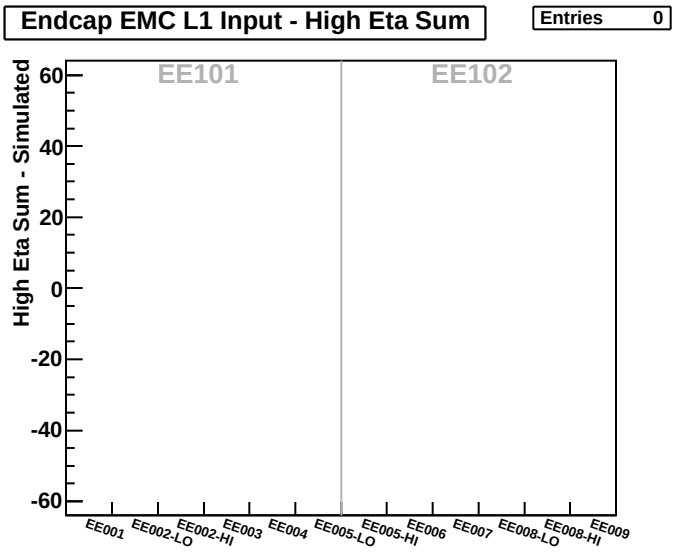

Barrel EMC L1 Input - High Tower Bits
Entries 416016
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

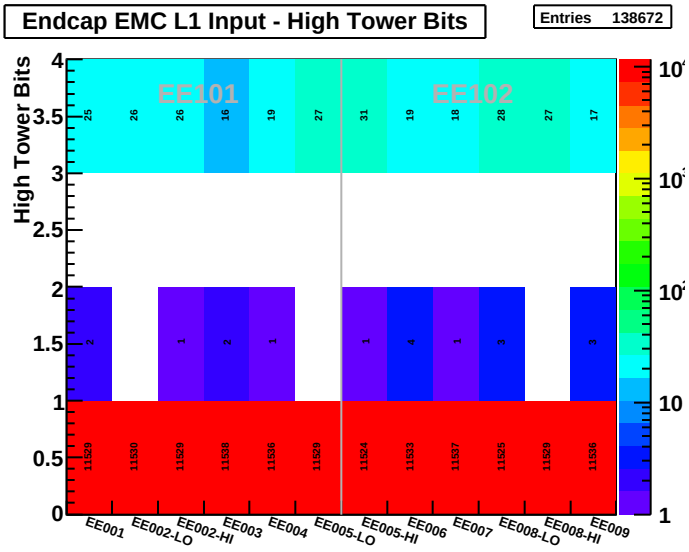

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

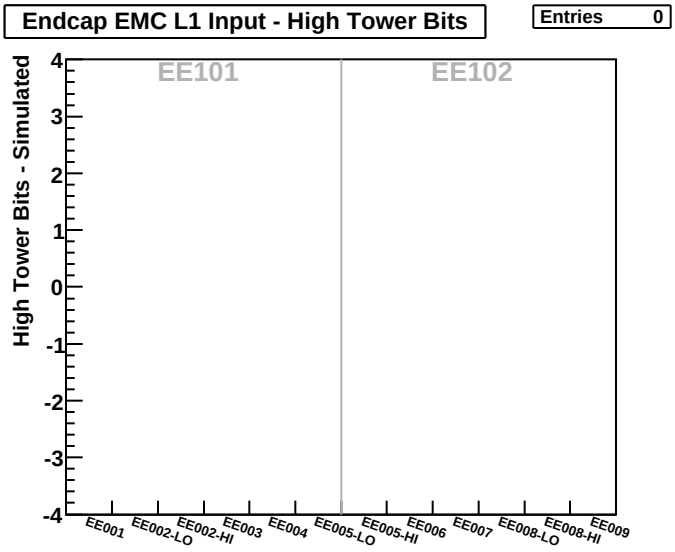

Endcap EMC L1 Input - Low Eta Sum
Entries 138672
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

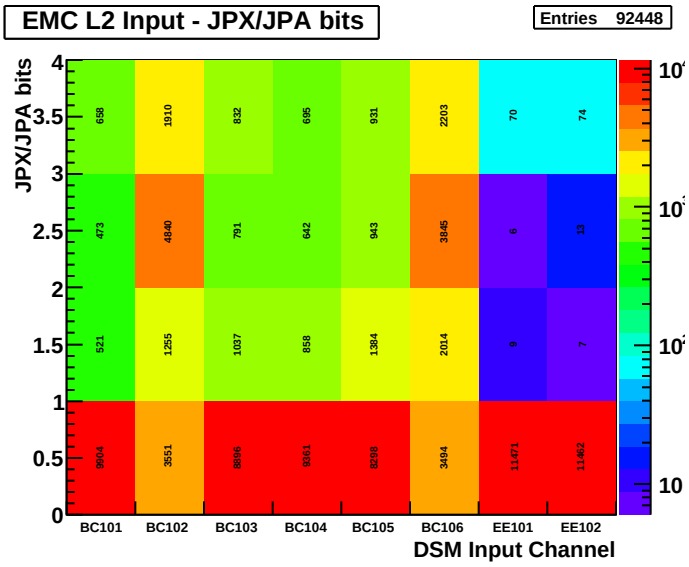

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

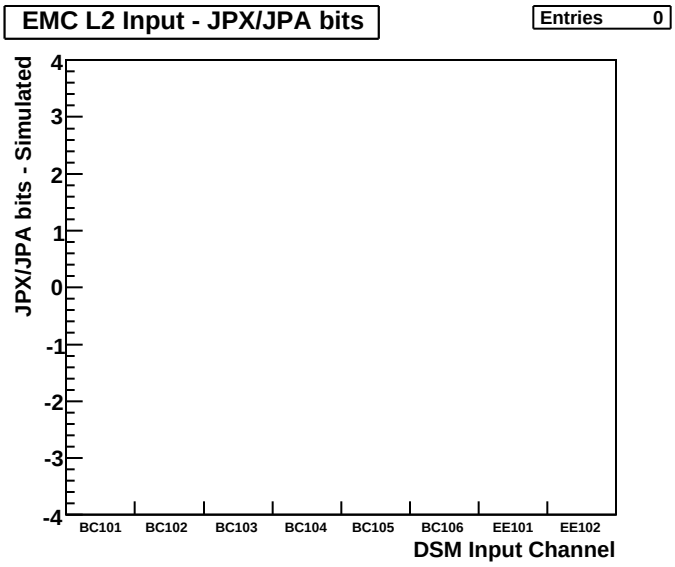

Endcap EMC L1 Input - High Eta Sum
Entries 138672
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

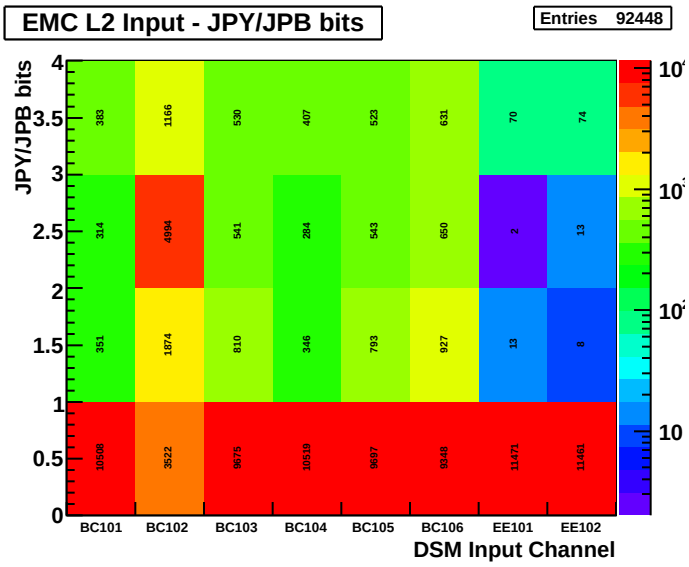

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

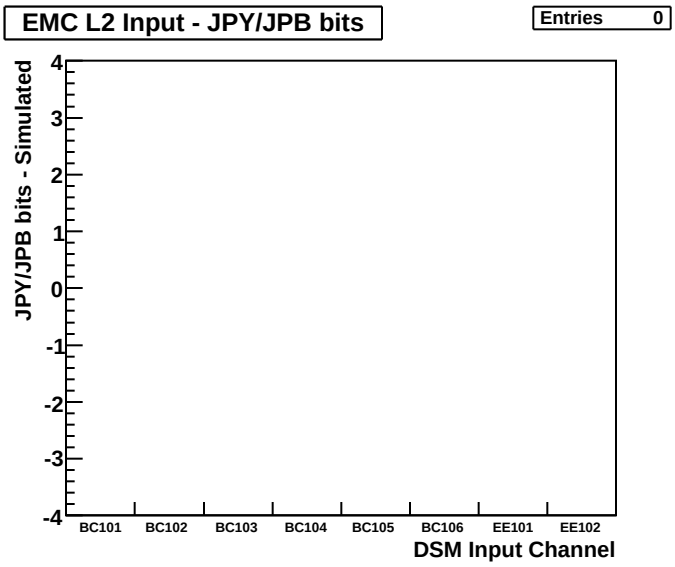

Endcap EMC L1 Input - High Tower Bits
Entries 138672
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

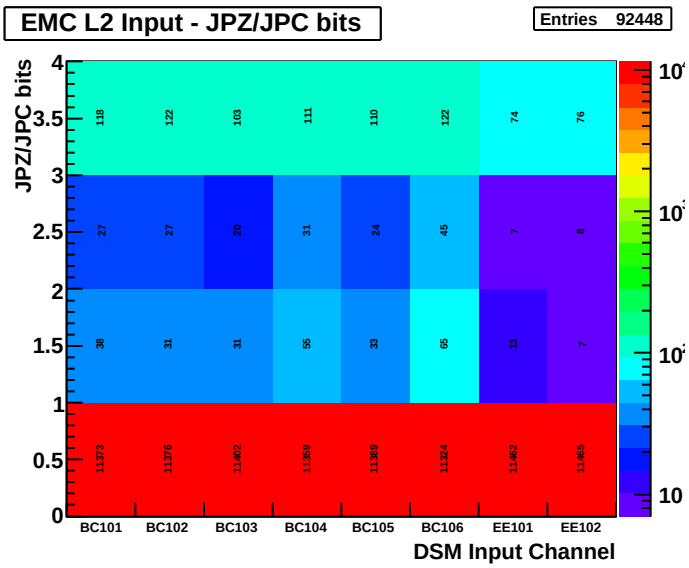

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

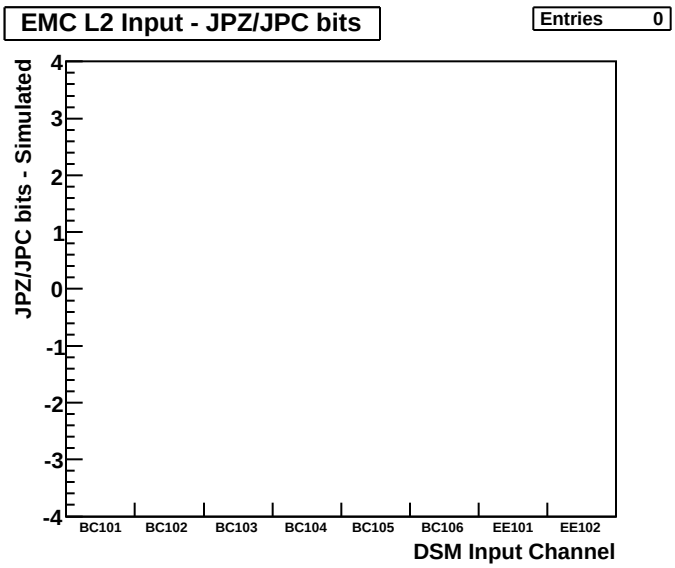

EMC L2 Input - JPX/JPA bits
Entries 92448
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
658 1910 832 695 931 2203 70 74
473 4840 791 642 943 3845 6 13
521 1255 1037 858 1384 2014 9 7
9904 3551 8806 9361 8298 3494 11471 11462

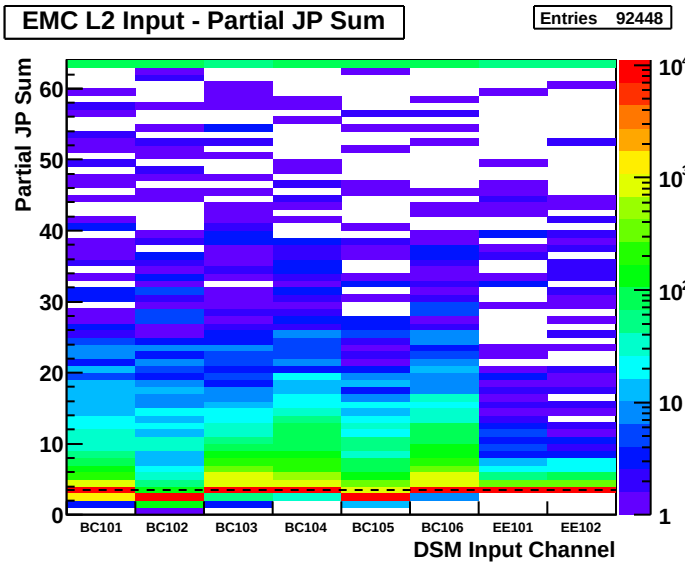

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

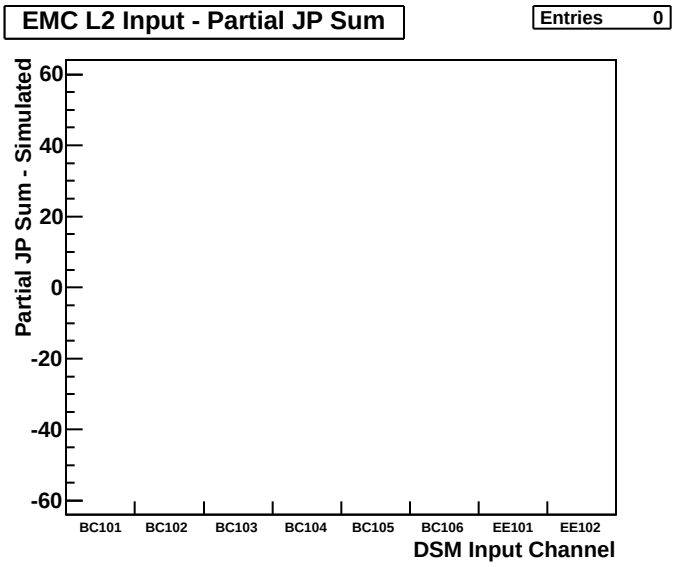

EMC L2 Input - JPY/JPB bits
Entries 92448
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
383 1166 530 407 523 631 70 74
314 4994 541 284 543 650 2 13
351 1874 810 346 793 927 13 8
10508 3522 9675 10519 9697 9348 11471 11461

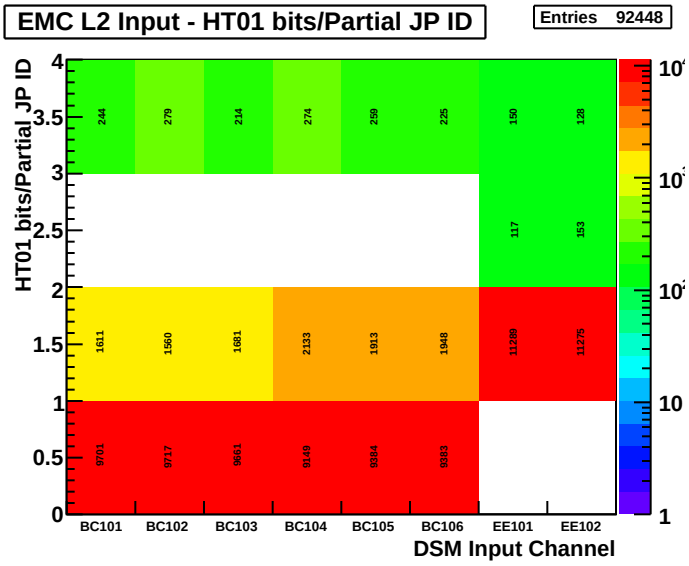

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

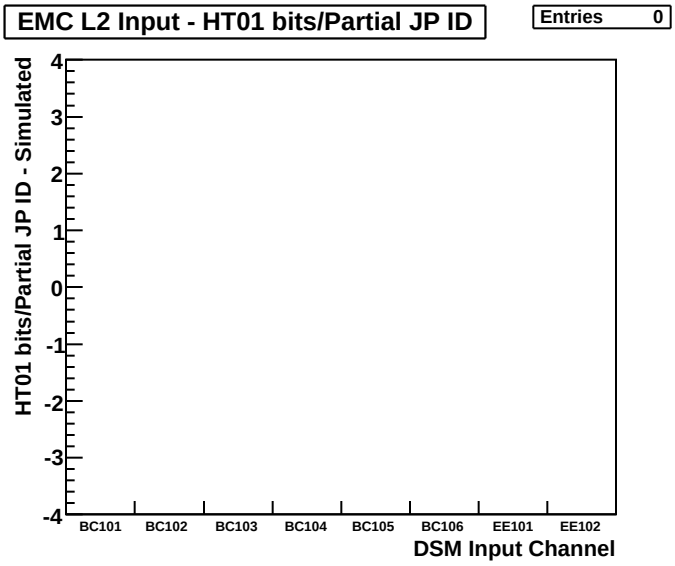

EMC L2 Input - JPZ/JPC bits
Entries 92448
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
118 122 103 111 110 122 74 76
27 27 20 31 24 45 7 8
38 31 31 55 33 65 13 7
11373 11376 11402 11359 11389 11324 11462 11465

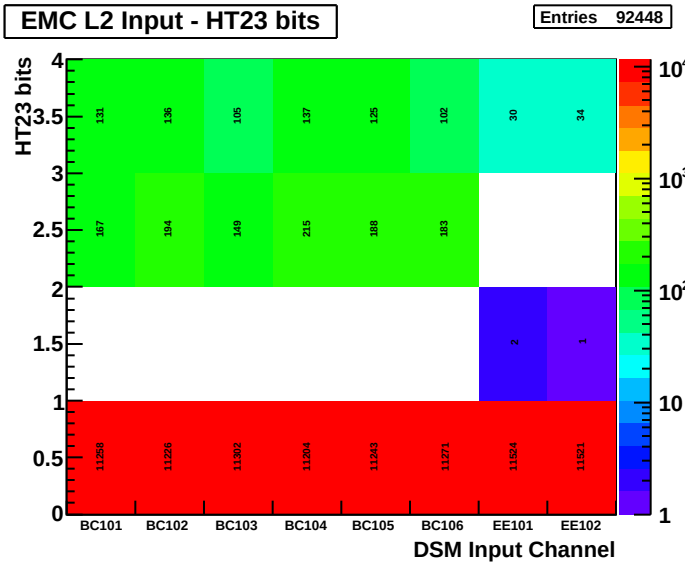

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

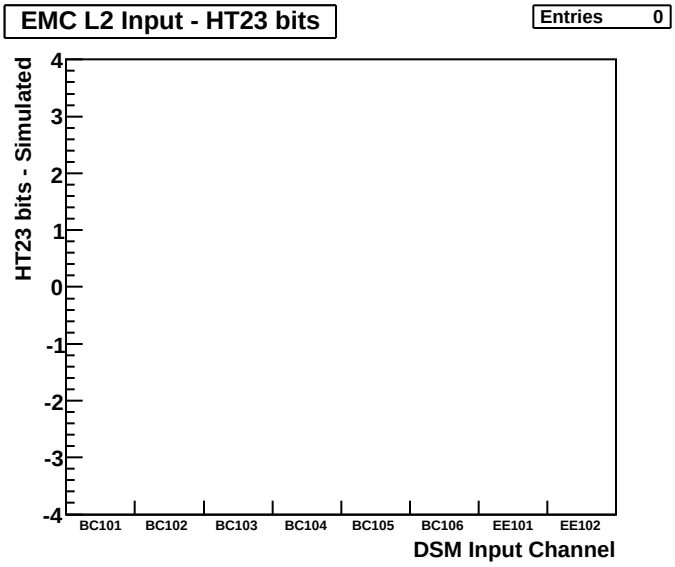

EMC L2 Input - Partial JP Sum
Entries 92448
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

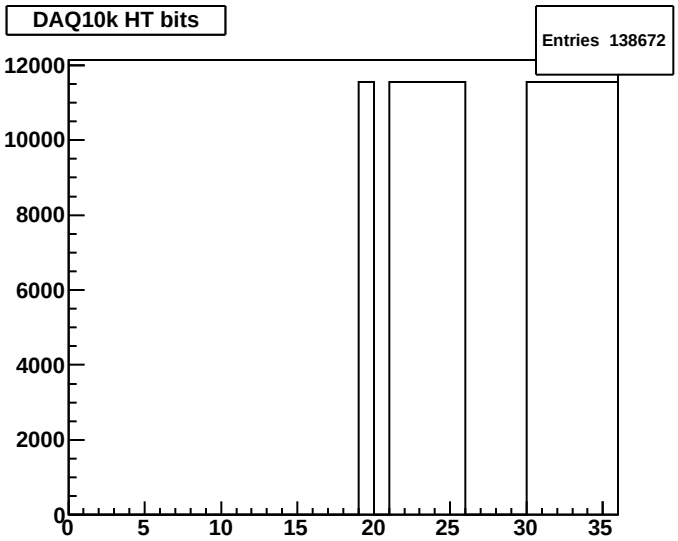

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

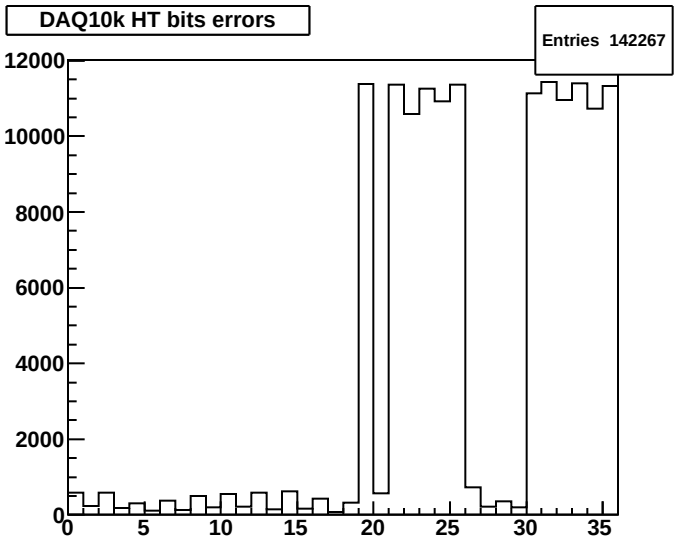

EMC L2 Input - HT01 bits/Partial JP ID
Entries 92448
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

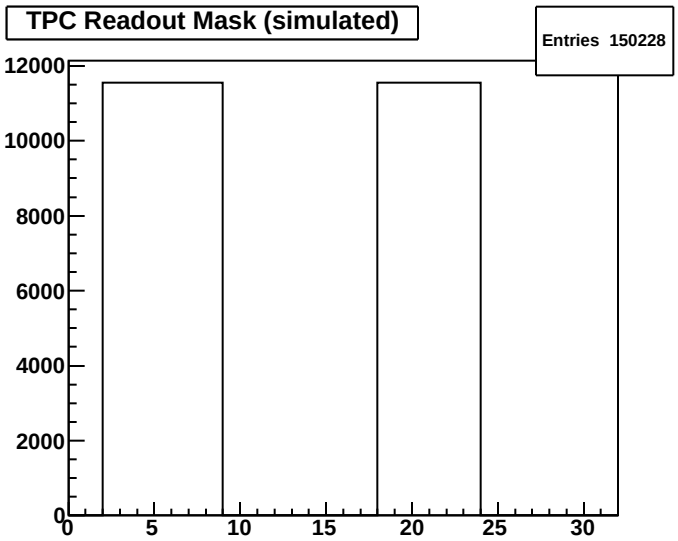

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

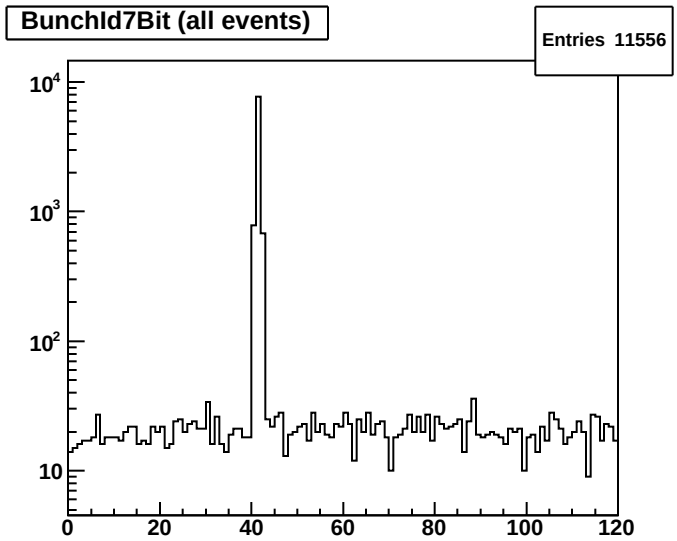

EMC L2 Input - HT23 bits
Entries 92448
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

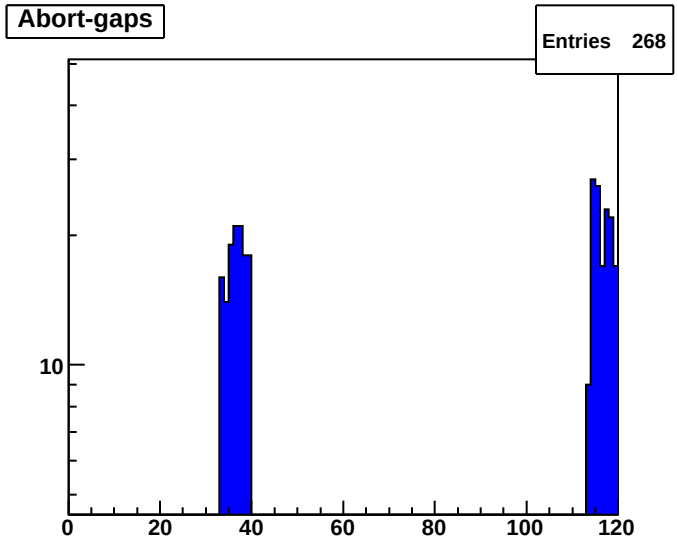

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

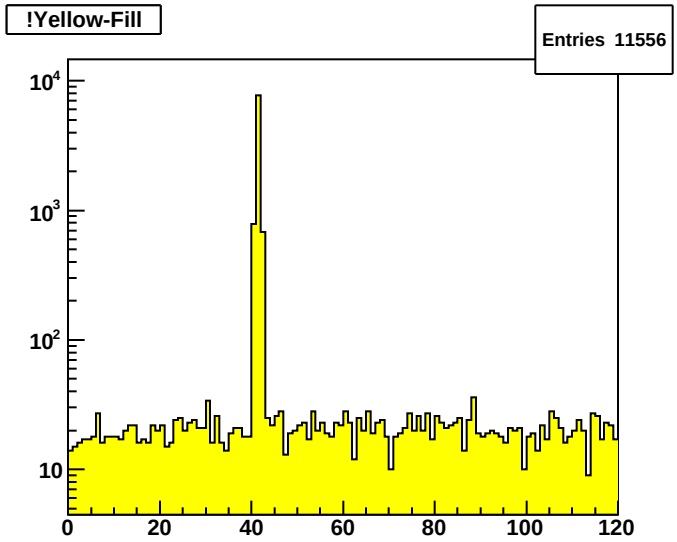

DAQ10k HT bits
Entries 138672
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

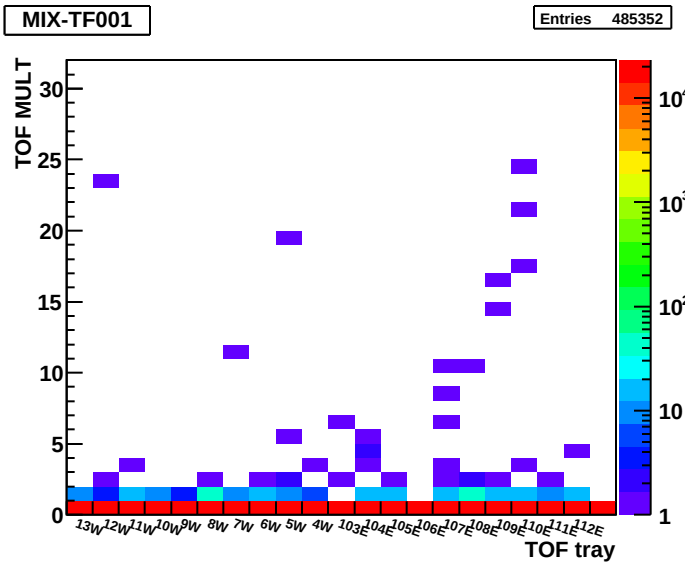

DAQ10k HT bits errors
Entries 142267
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

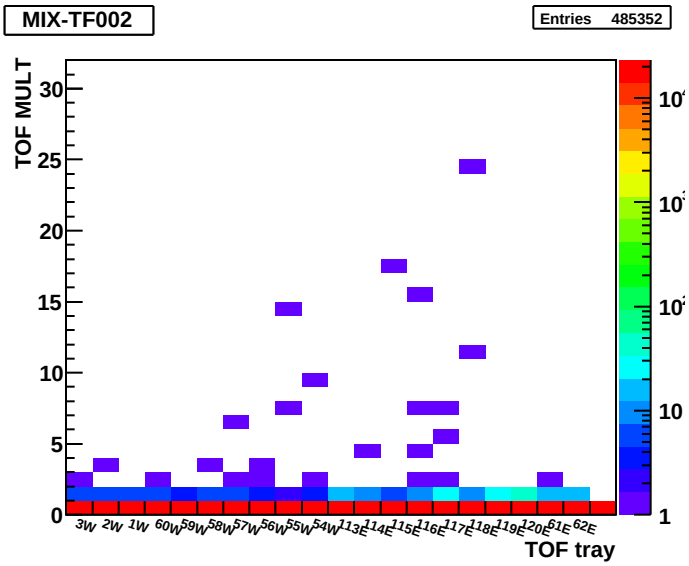

TPC Readout Mask (simulated)
Entries 150228
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30

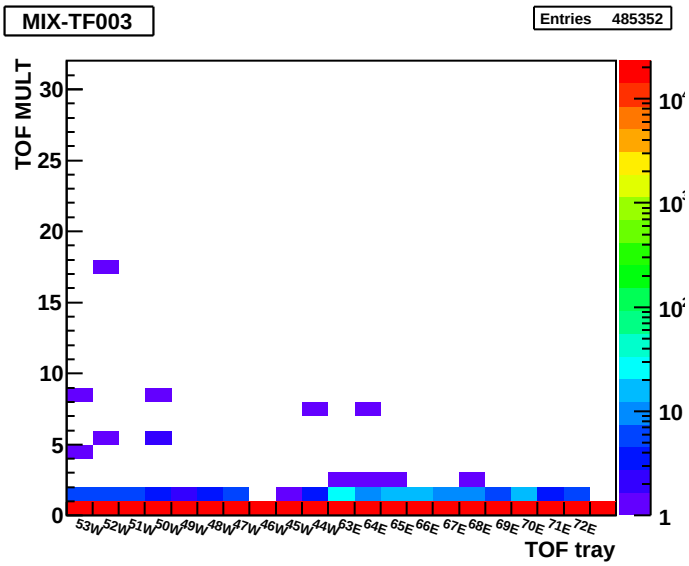

BunchId7Bit (all events)
Entries 11556
10^4
10^3
10^2
10
0 20 40 60 80 100 120

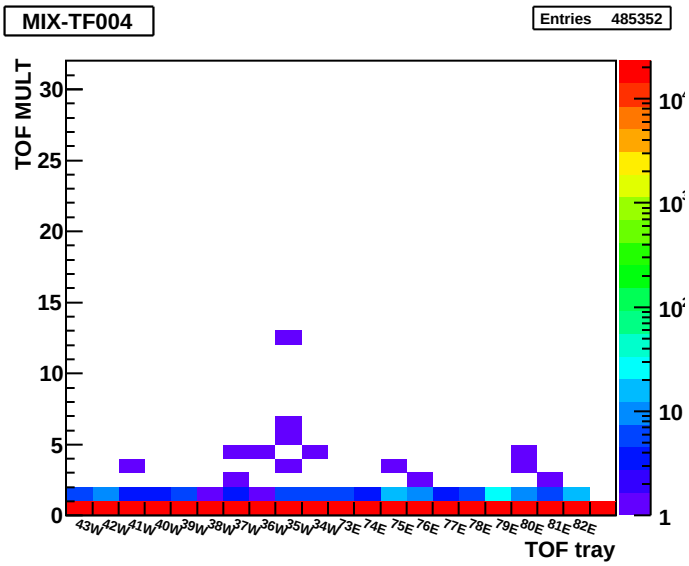

Abort-gaps
Entries 268
10
0 20 40 60 80 100 120

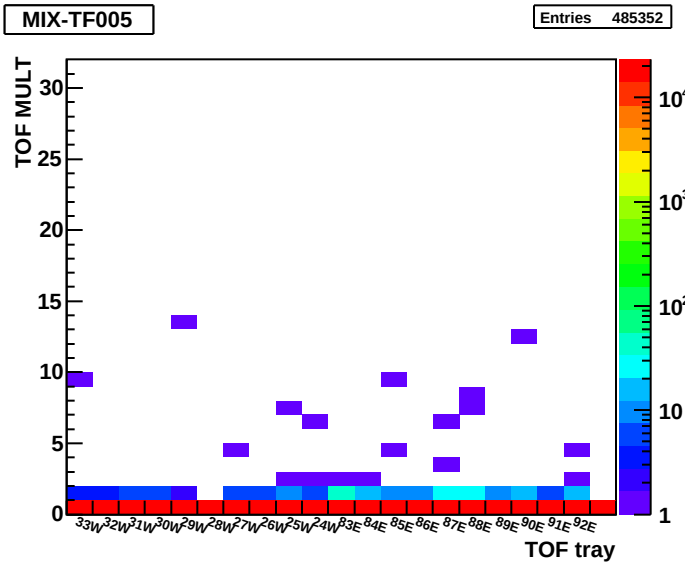

!Yellow-Fill
Entries 11556
10^4
10^3
10^2
10
0 20 40 60 80 100 120

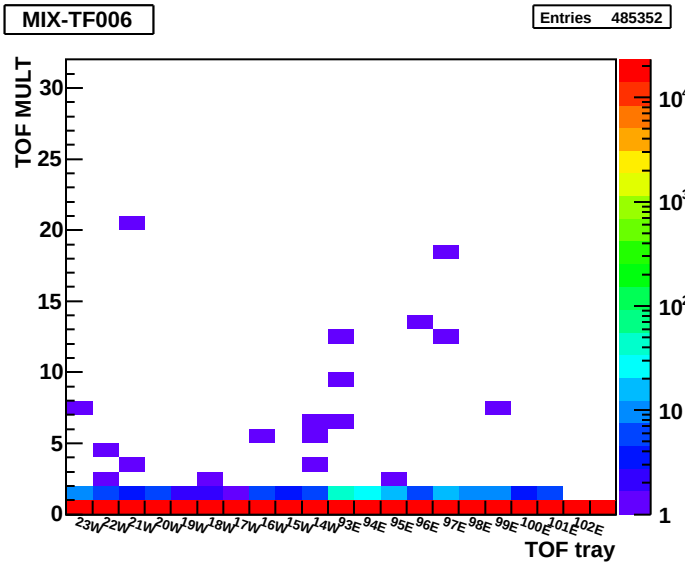

MIX-TF001
Entries 485352
TOF MULT
TOF tray

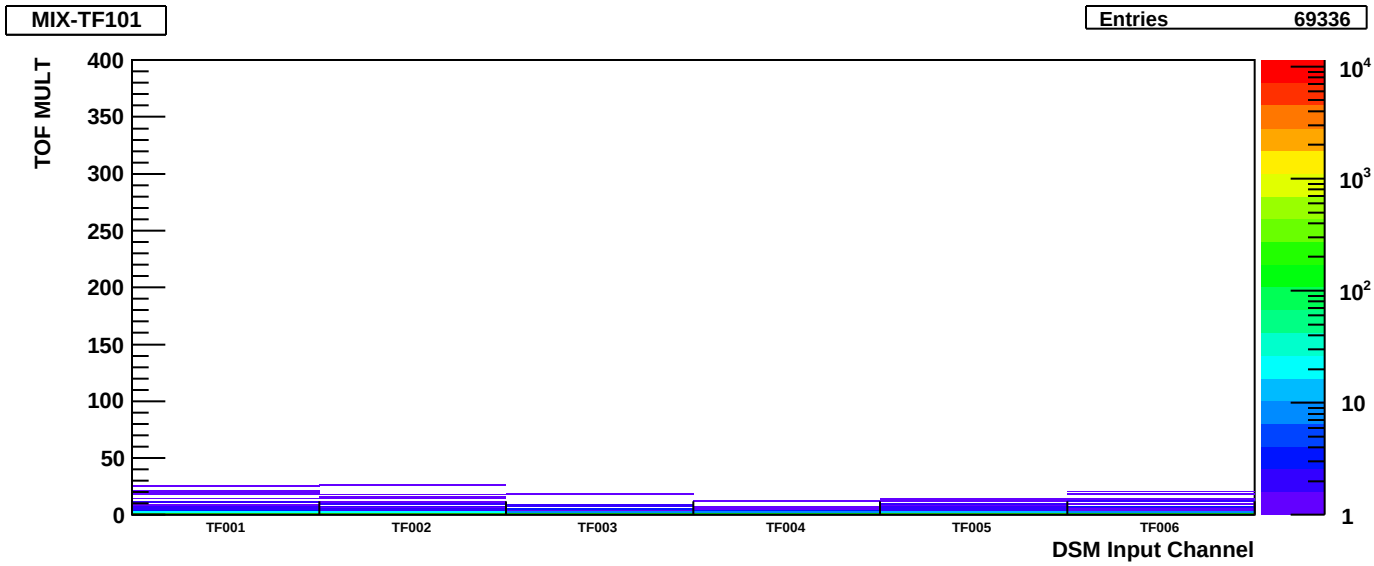

MIX-TF002
Entries 485352
TOF MULT
TOF tray

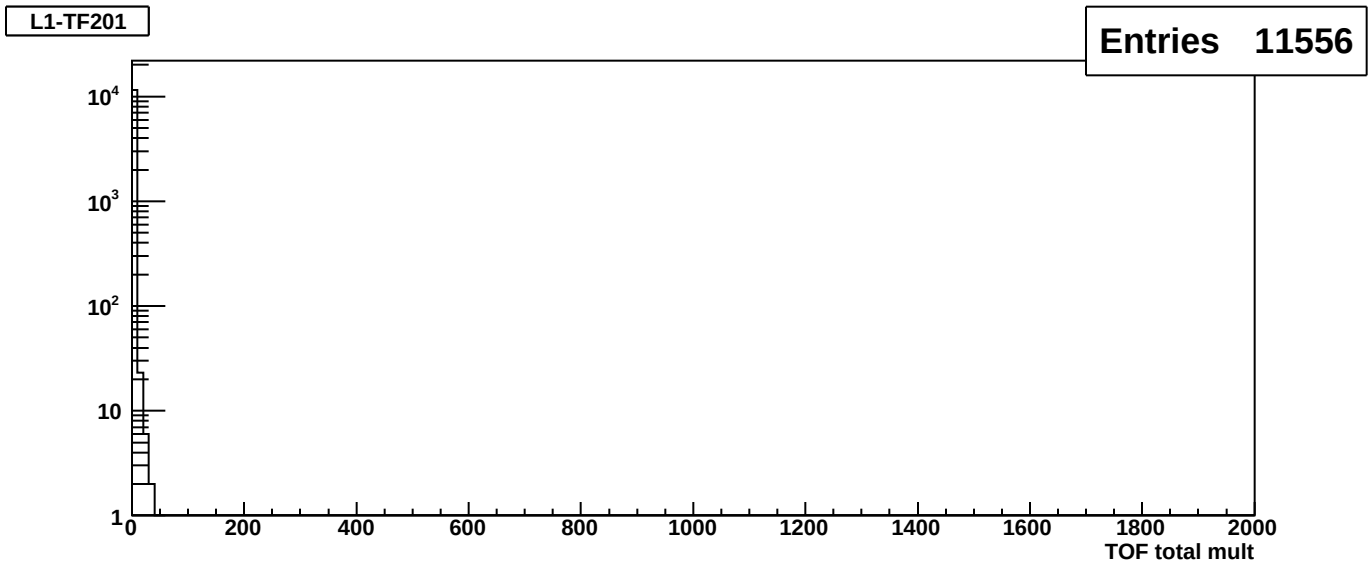

MIX-TF003
Entries 485352
TOF MULT
TOF tray

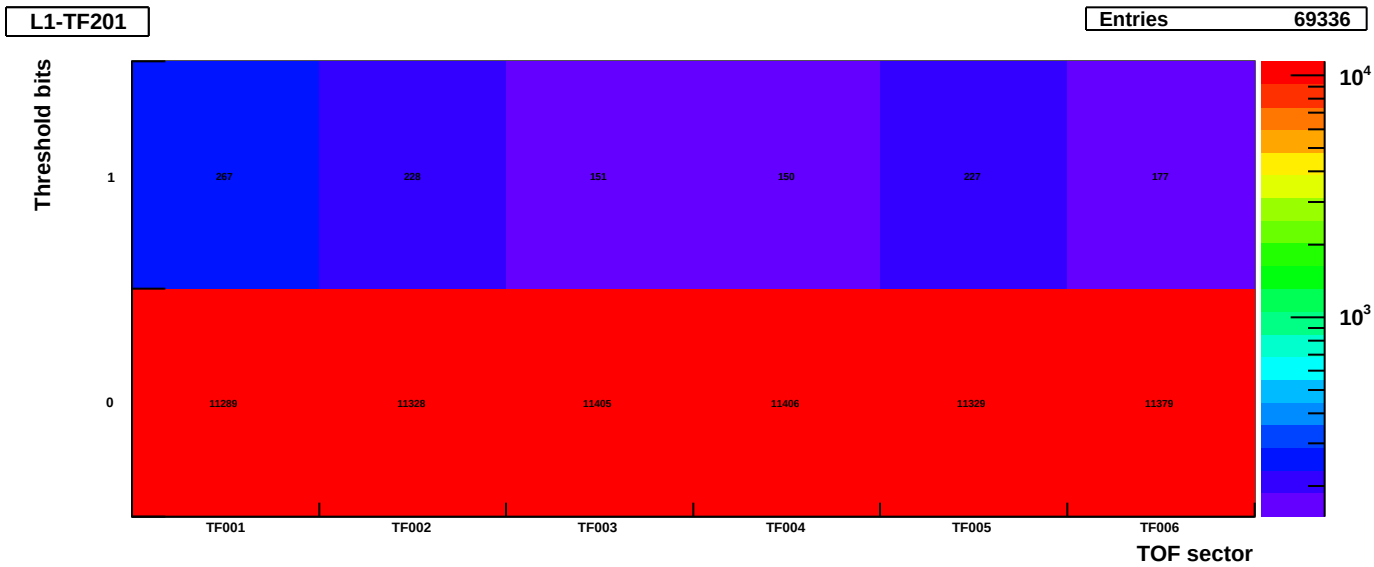

MIX-TF004
Entries 485352
TOF MULT
TOF tray

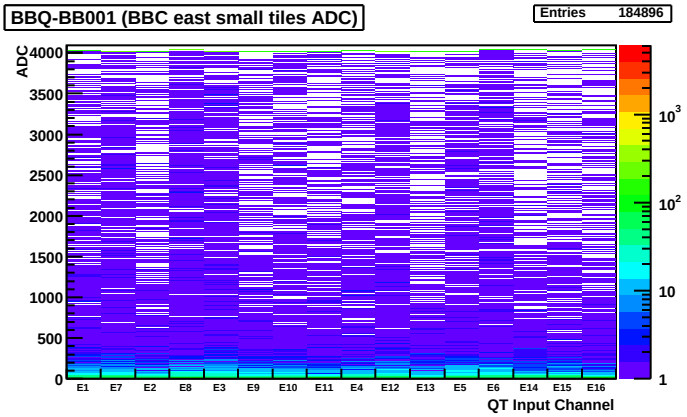

MIX-TF005
Entries 485352
TOF MULT
TOF tray

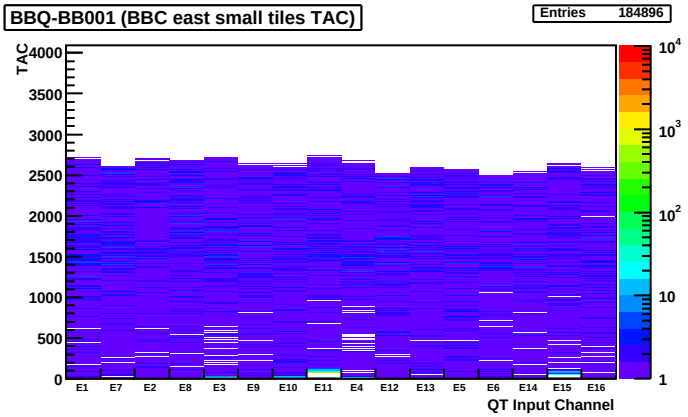

MIX-TF006
Entries 485352
TOF MULT
TOF tray

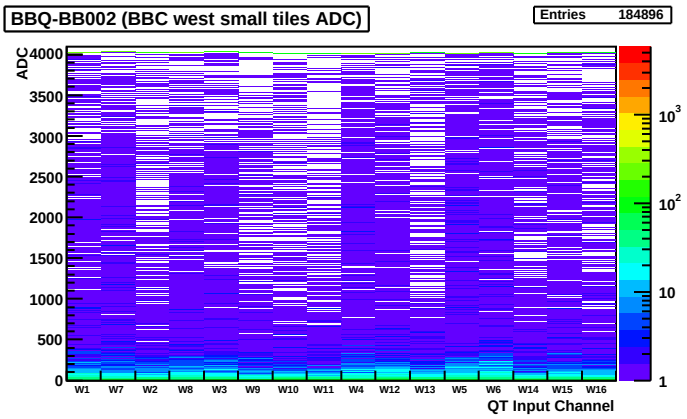

MIX-TF101
Entries 69336
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

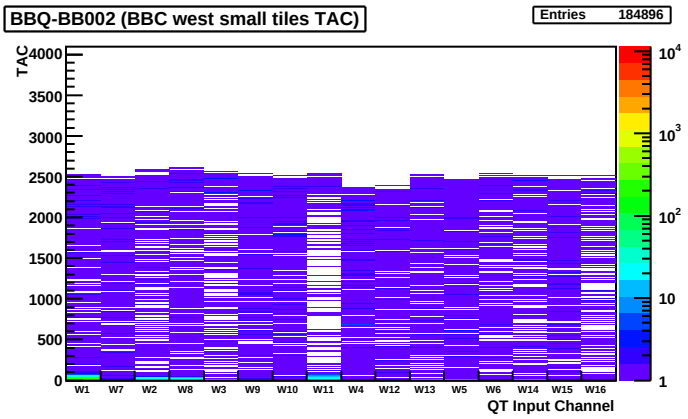

L1-TF201
Entries 11556
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

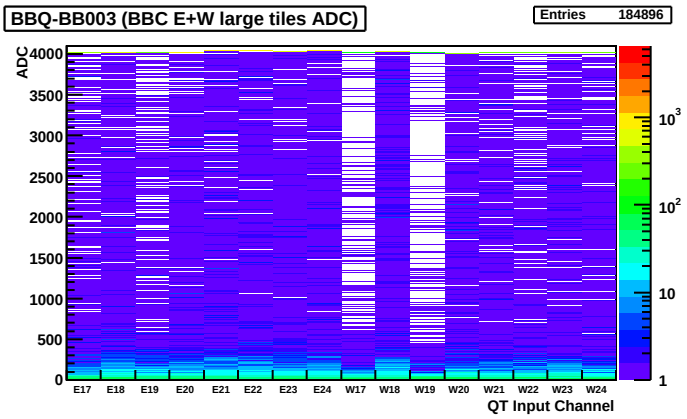

L1-TF201
Entries 69336
Threshold bits
1
0
267
228
151
150
227
177
11289
11328
11405
11406
11329
11379
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

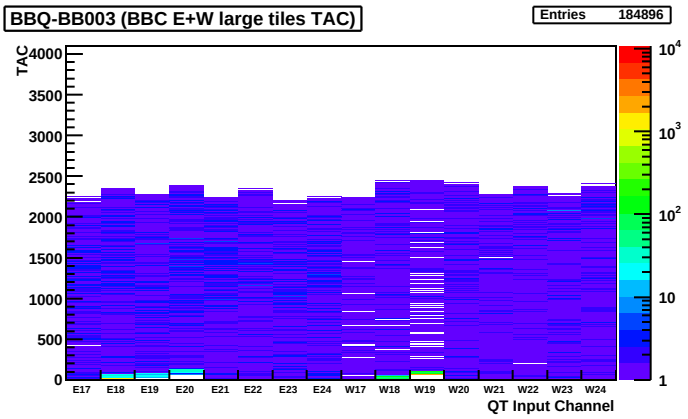

BBQ-BB001 (BBC east small tiles ADC)
Entries 184896
ADC
QT Input Channel

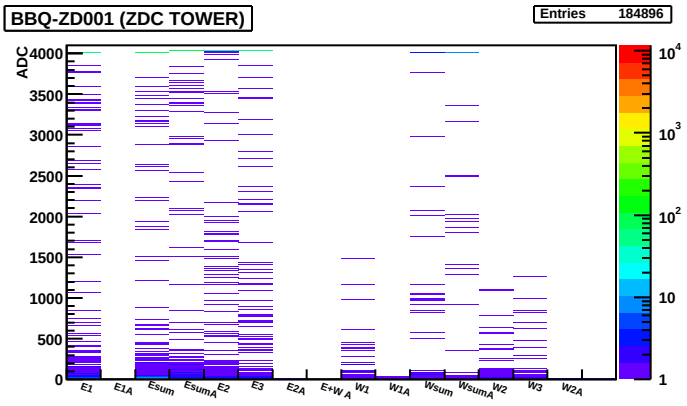

BBQ-BB001 (BBC east small tiles TAC)
Entries 184896
TAC
QT Input Channel

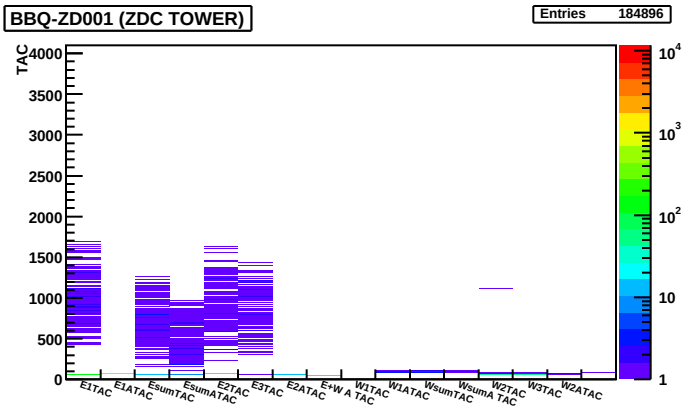

BBQ-BB002 (BBC west small tiles ADC)
Entries 184896
ADC
QT Input Channel

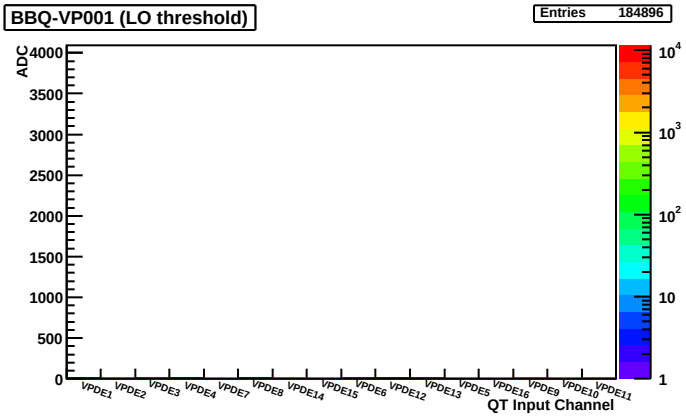

BBQ-BB002 (BBC west small tiles TAC)
Entries 184896
TAC
QT Input Channel

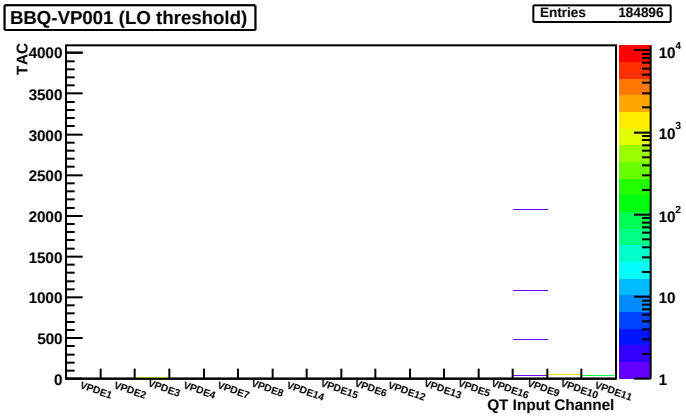

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 184896
ADC
QT Input Channel

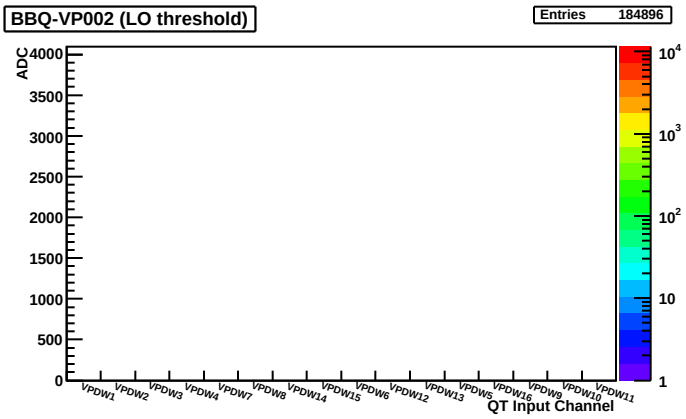

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 184896
TAC
QT Input Channel

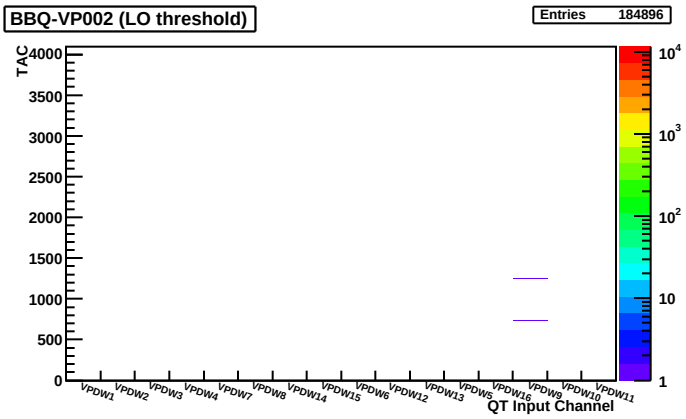

BBQ-ZD001 (ZDC TOWER)
Entries 184896
ADC

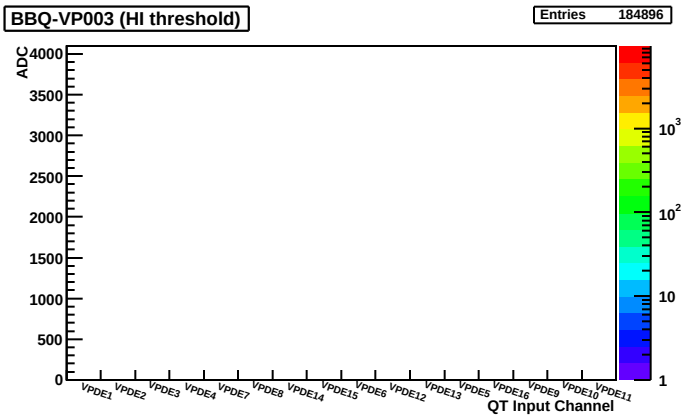

BBQ-ZD001 (ZDC TOWER)
Entries 184896
TAC

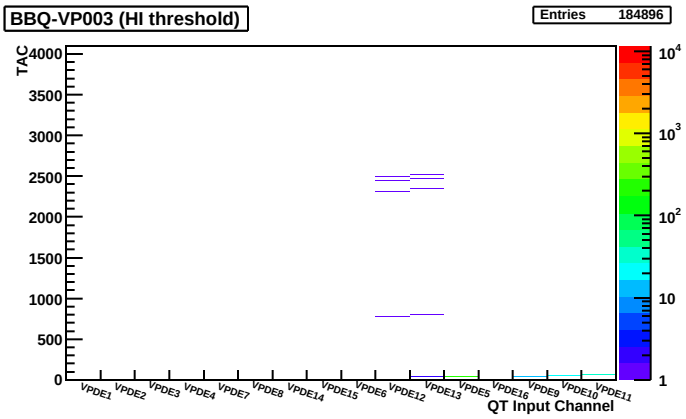

BBQ-VP001 (LO threshold)
Entries 184896
ADC
QT Input Channel

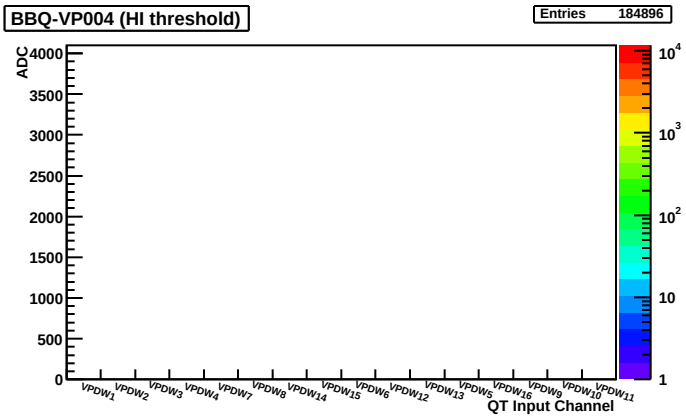

BBQ-VP001 (LO threshold)
Entries 184896
TAC
QT Input Channel

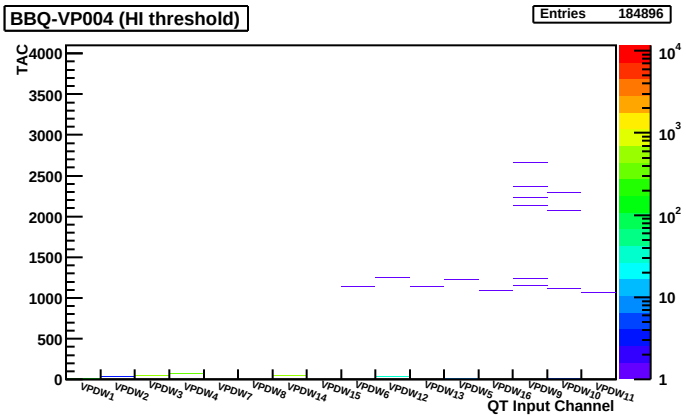

BBQ-VP002 (LO threshold)
Entries 184896
ADC
QT Input Channel

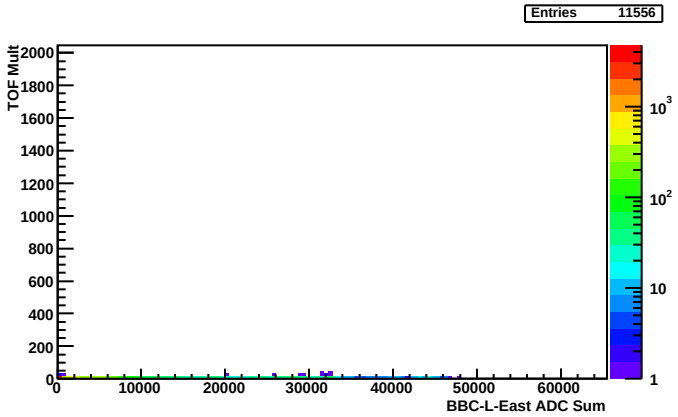

BBQ-VP002 (LO threshold)
Entries 184896
TAC
QT Input Channel

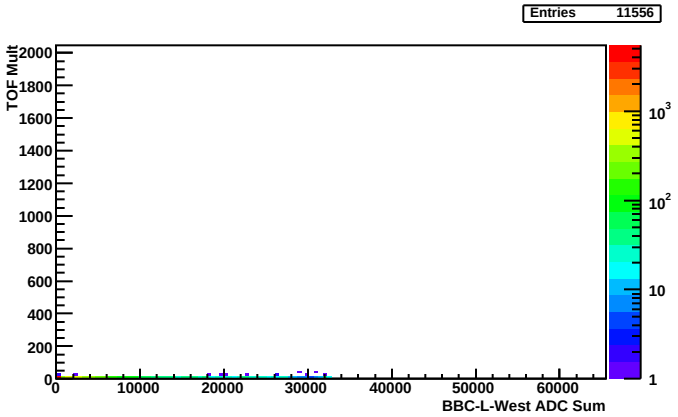

BBQ-VP003 (HI threshold)
Entries 184896
ADC
QT Input Channel

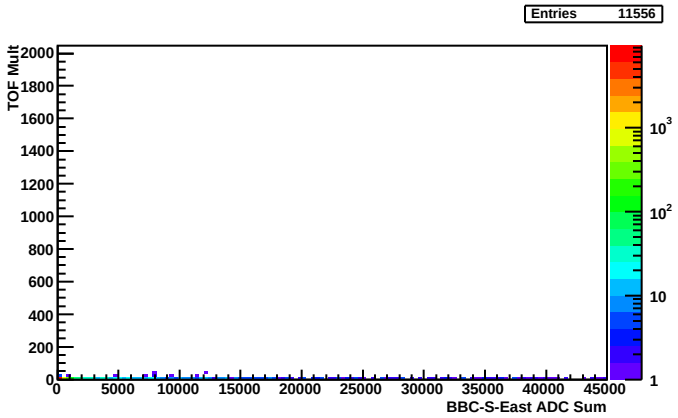

BBQ-VP003 (HI threshold)
Entries 184896
TAC
QT Input Channel

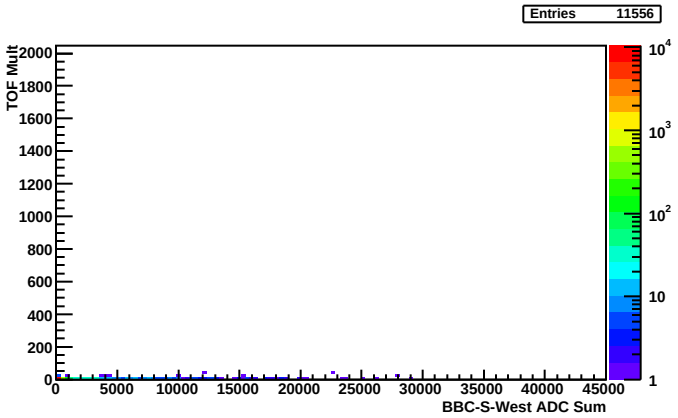

BBQ-VP004 (HI threshold)
Entries 184896
ADC
QT Input Channel

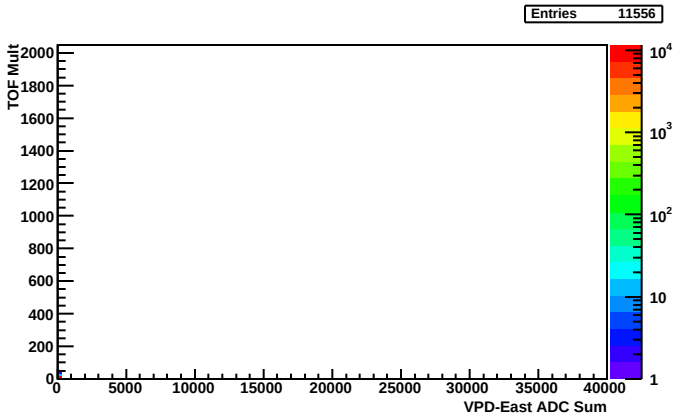

BBQ-VP004 (HI threshold)
Entries 184896
TAC
QT Input Channel

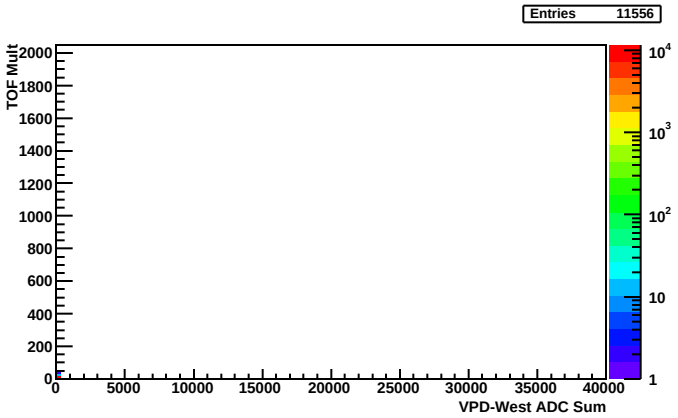

Entries 11556
TOF Mult
BBC-L-East ADC Sum

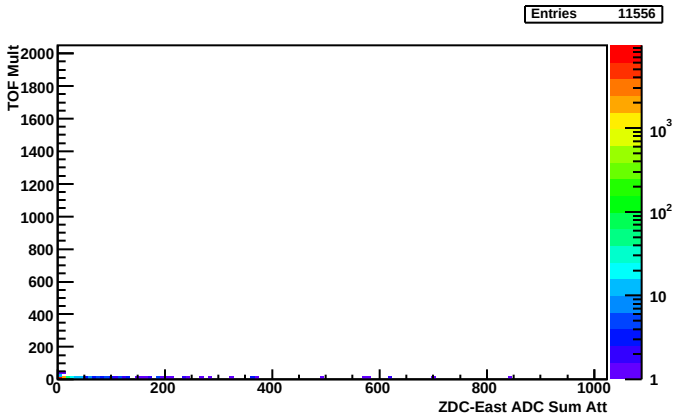

Entries 11556
TOF Mult
BBC-L-West ADC Sum

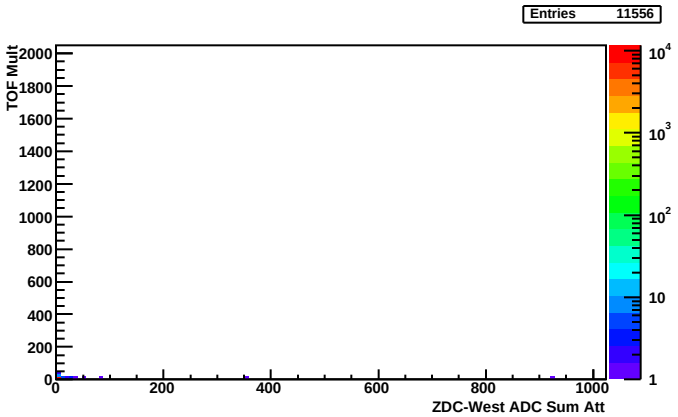

Entries 11556
TOF Mult
BBC-S-East ADC Sum

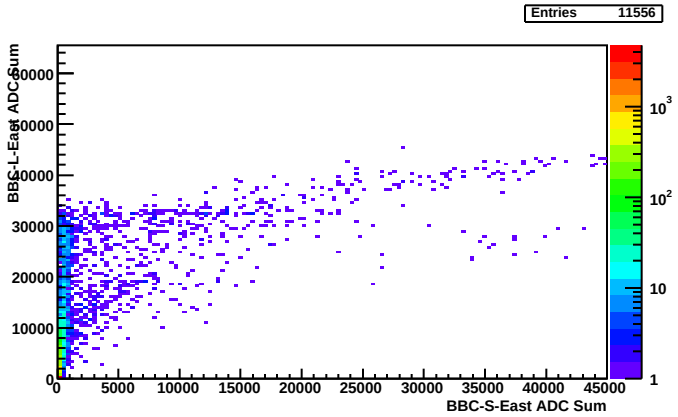

Entries 11556
TOF Mult
BBC-S-West ADC Sum

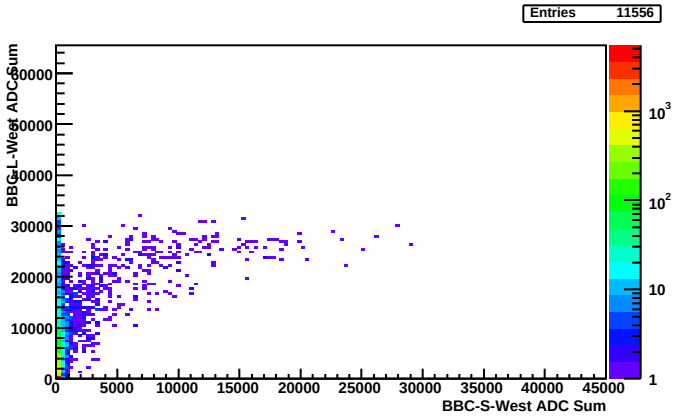

Entries 11556
TOF Mult
VPD-East ADC Sum

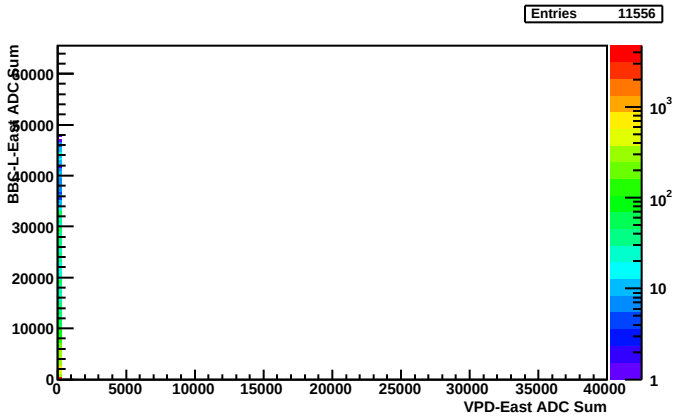

Entries 11556
TOF Mult
VPD-West ADC Sum

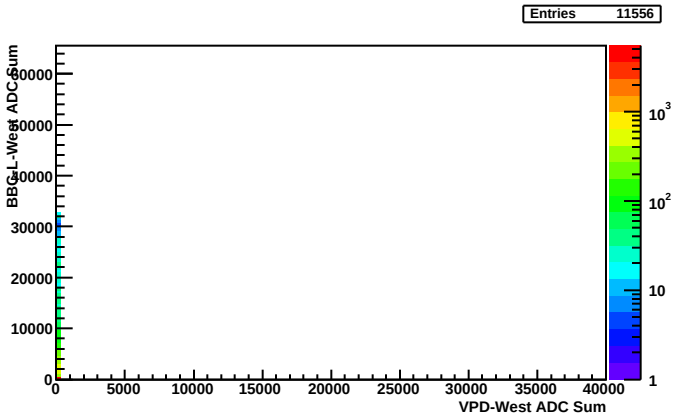

Entries 11556
TOF Mult
ZDC-East ADC Sum Att

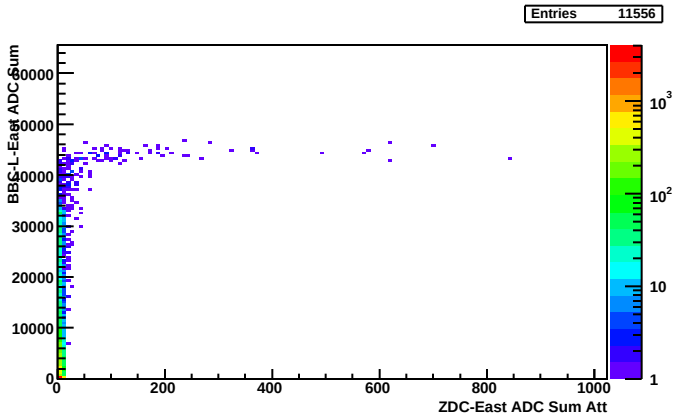

Entries 11556
TOF Mult
ZDC-West ADC Sum Att

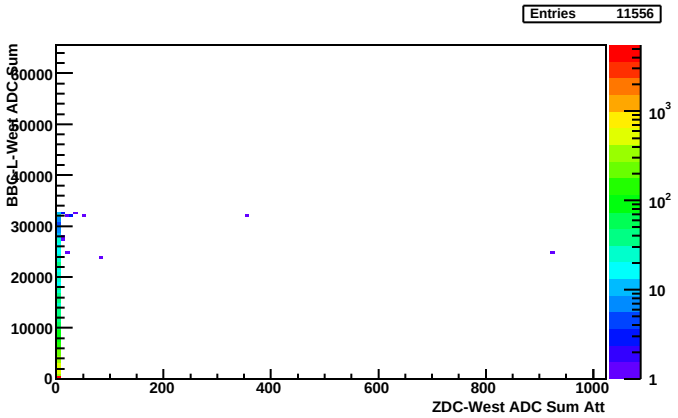

Entries 11556
BBC-L-East ADC Sum
BBC-S-East ADC Sum

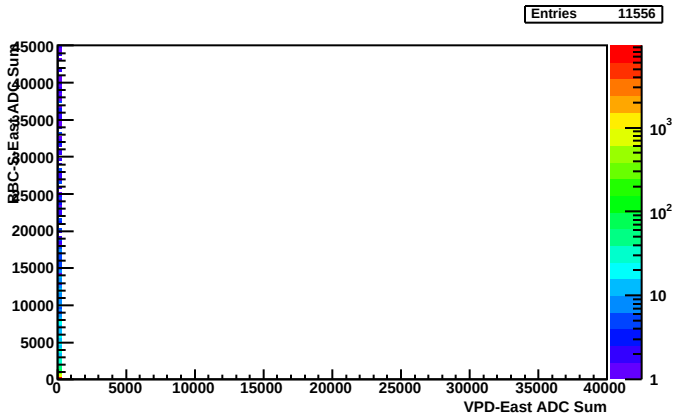

Entries 11556
BBC-L-West ADC Sum
BBC-S-West ADC Sum

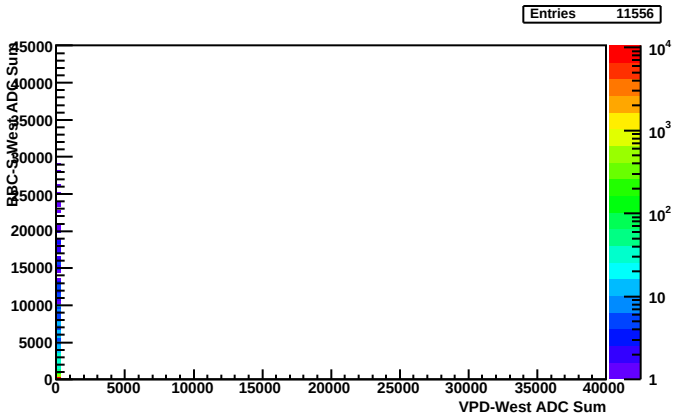

Entries 11556
BBC-L-East ADC Sum
VPD-East ADC Sum

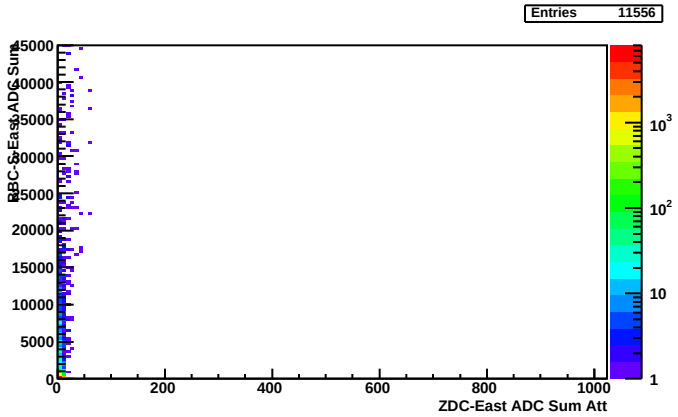

Entries 11556
BBC-L-West ADC Sum
VPD-West ADC Sum

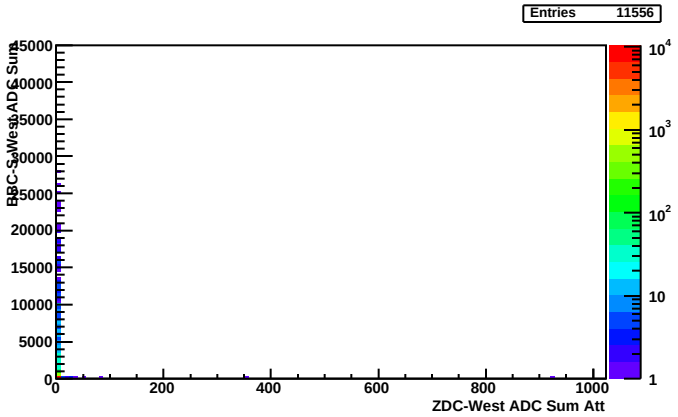

Entries 11556
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

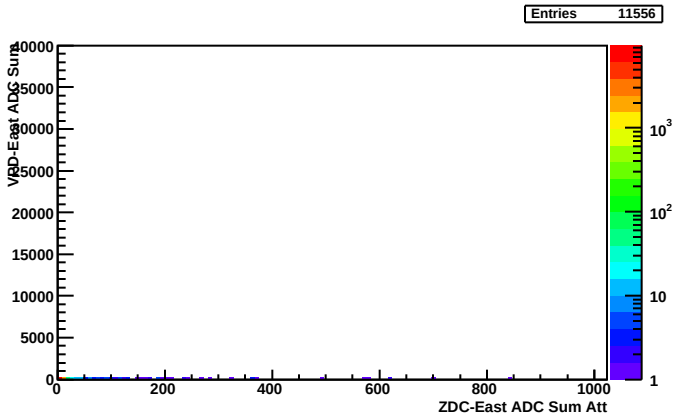

Entries 11556
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

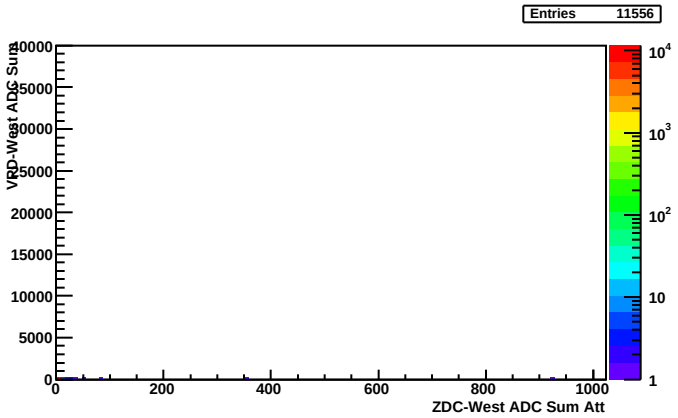

Entries 11556
BBC-S-East ADC Sum
VPD-East ADC Sum

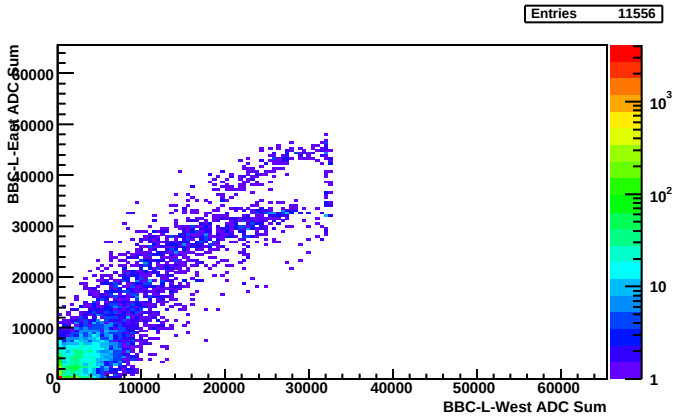

Entries 11556
BBC-S-West ADC Sum
VPD-West ADC Sum

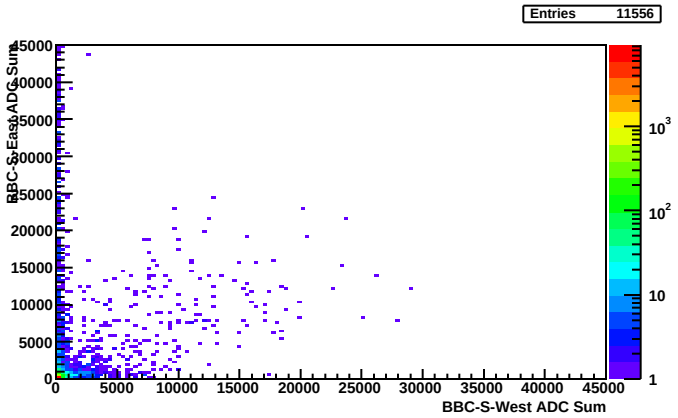

Entries 11556
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

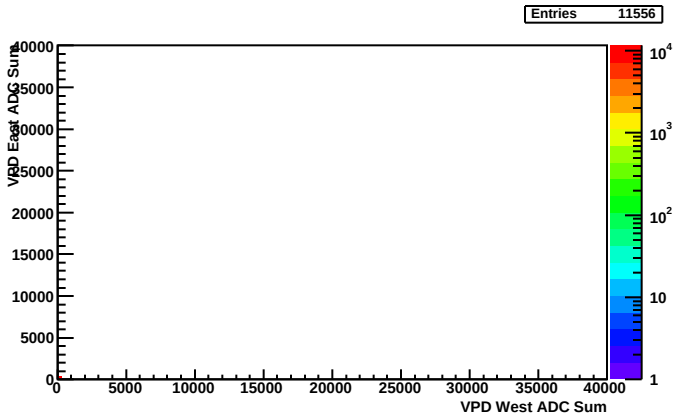

Entries 11556
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

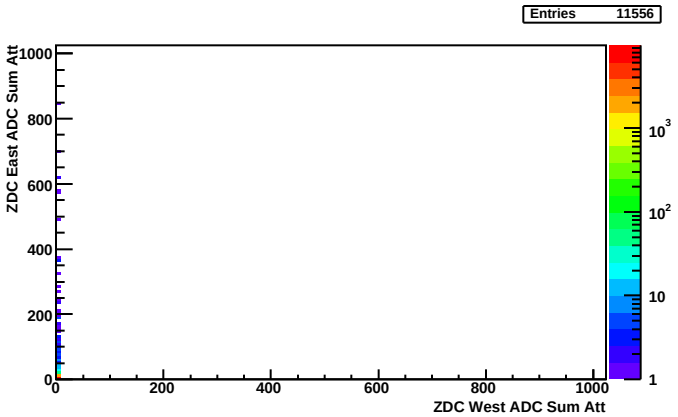

Entries 11556
VPD-East ADC Sum
ZDC-East ADC Sum Att

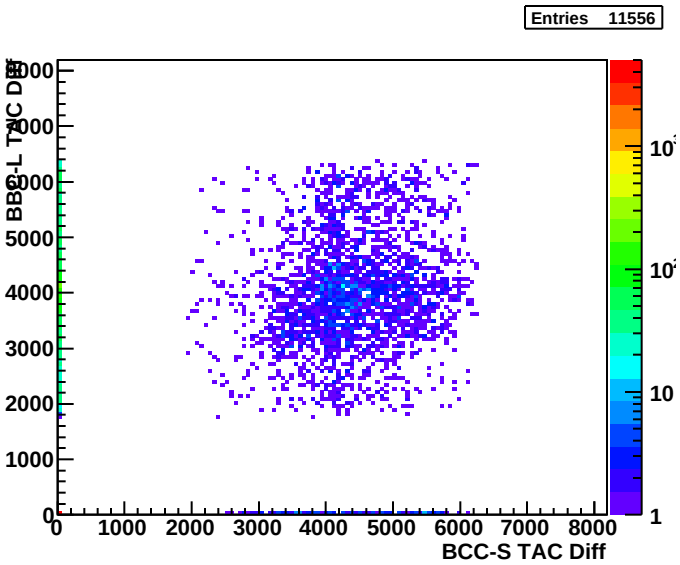

Entries 11556
VPD-West ADC Sum
ZDC-West ADC Sum Att

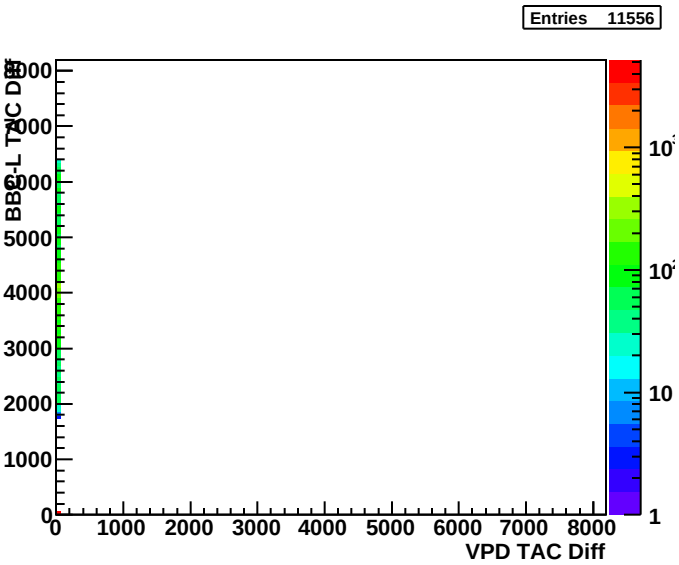

Entries 11556
BBC-L-East ADC Sum
BBC-L-West ADC Sum

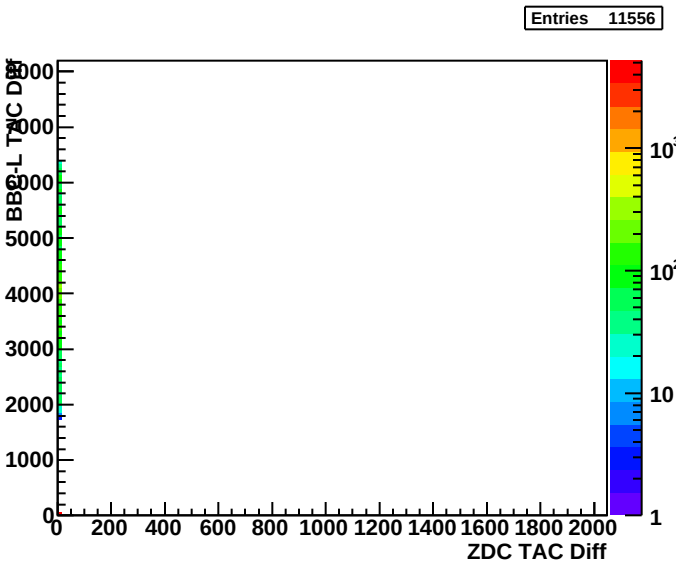

Entries 11556
BBC-S-East ADC Sum
BBC-S-West ADC Sum

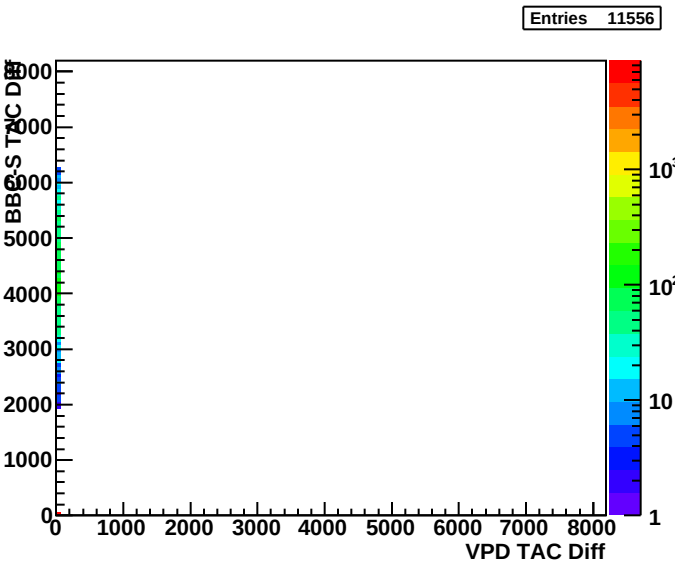

Entries 11556
VPD East ADC Sum
VPD West ADC Sum

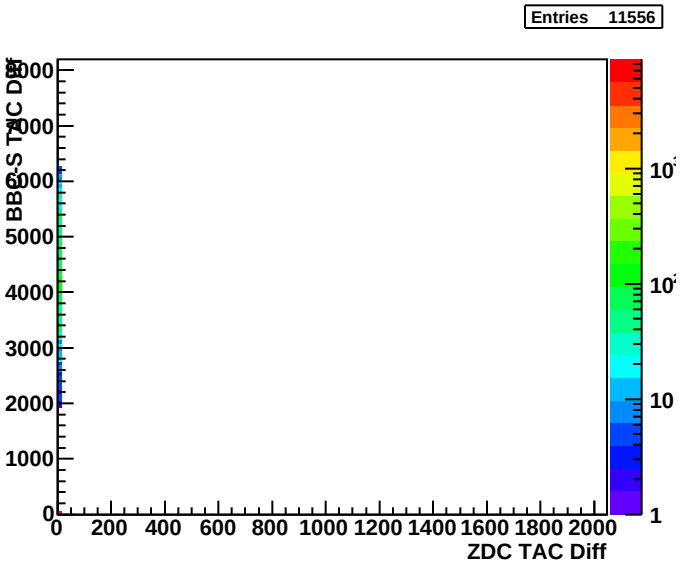

Entries 11556
ZDC East ADC Sum Att
ZDC West ADC Sum Att

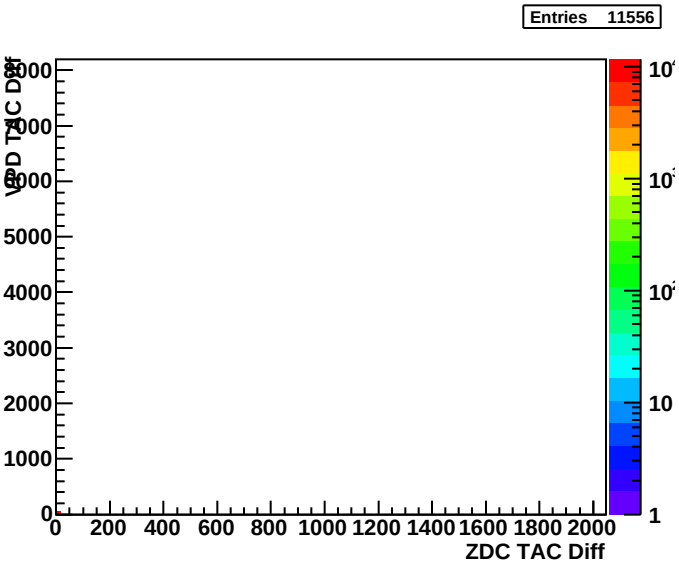

Entries 11556
BBC-L TAC Diff
BCC-S TAC Diff

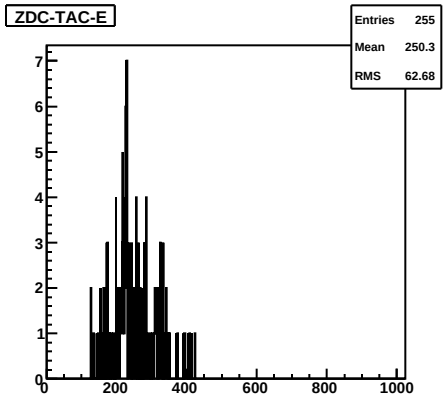

Entries 11556
BBC-L TAC Diff
VPD TAC Diff

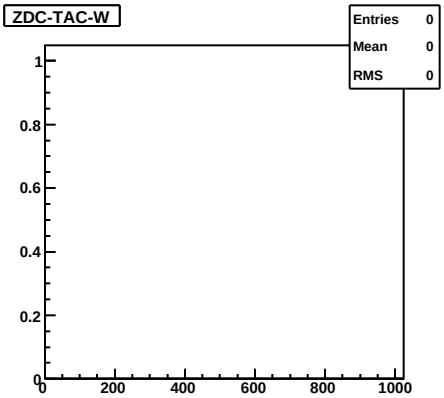

Entries 11556
BBC-L TAC Diff
ZDC TAC Diff

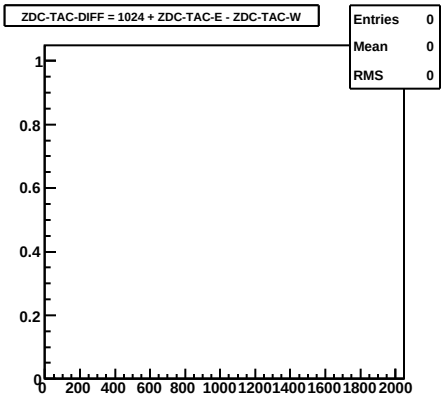

Entries 11556
BBC-S TAC Diff
VPD TAC Diff

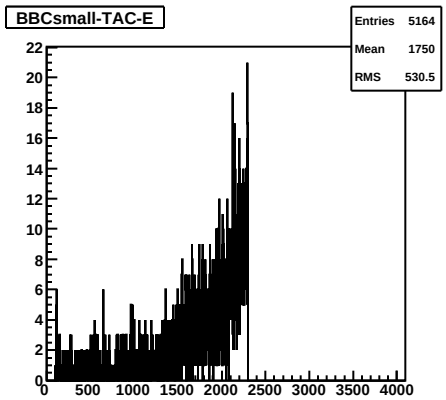

Entries 11556
BBC-S TAC Diff
ZDC TAC Diff

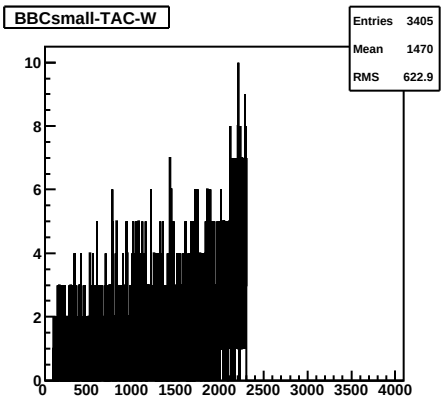

Entries 11556
VPD TAC Diff
ZDC TAC Diff

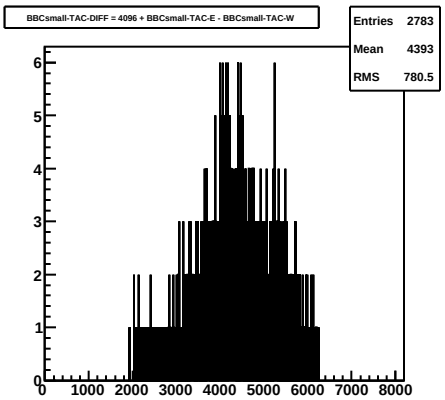

ZDC-TAC-E
Entries 255
Mean 250.3
RMS 62.68

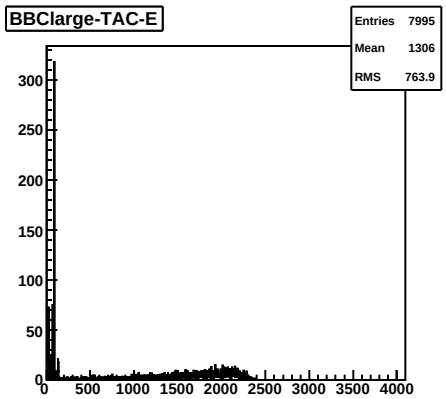

ZDC-TAC-W
Entries 0
Mean 0
RMS 0

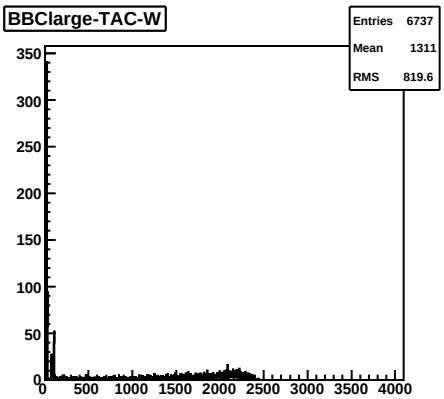

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 0
Mean 0
RMS 0

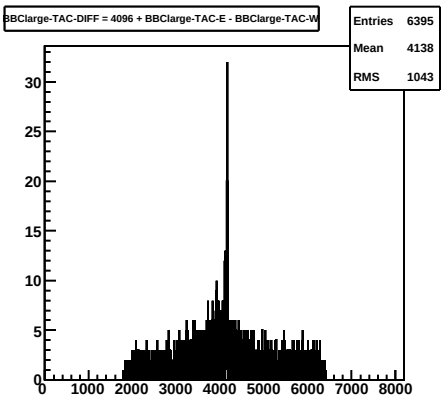

BBCsmall-TAC-E
Entries 5164
Mean 1750
RMS 530.5

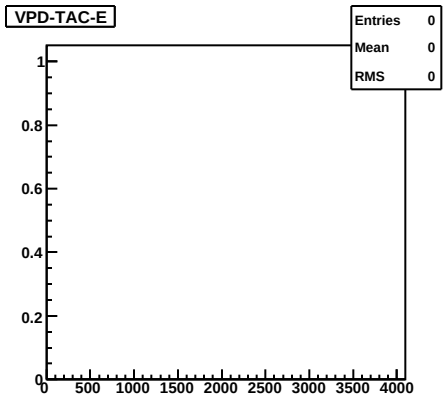

BBCsmall-TAC-W
Entries 3405
Mean 1470
RMS 622.9

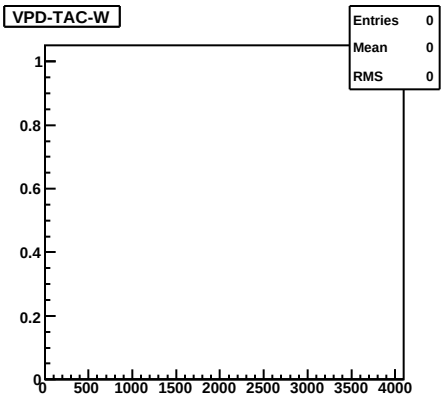

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 2783
Mean 4393
RMS 780.5

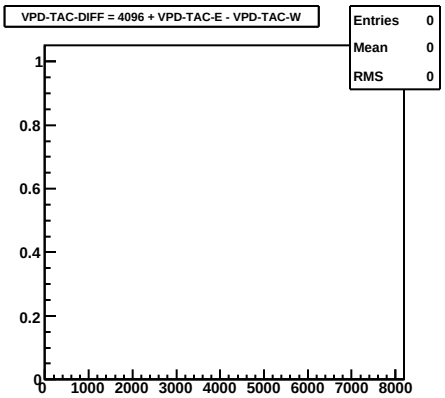

BBClarge-TAC-E
Entries 7995
Mean 1306
RMS 763.9

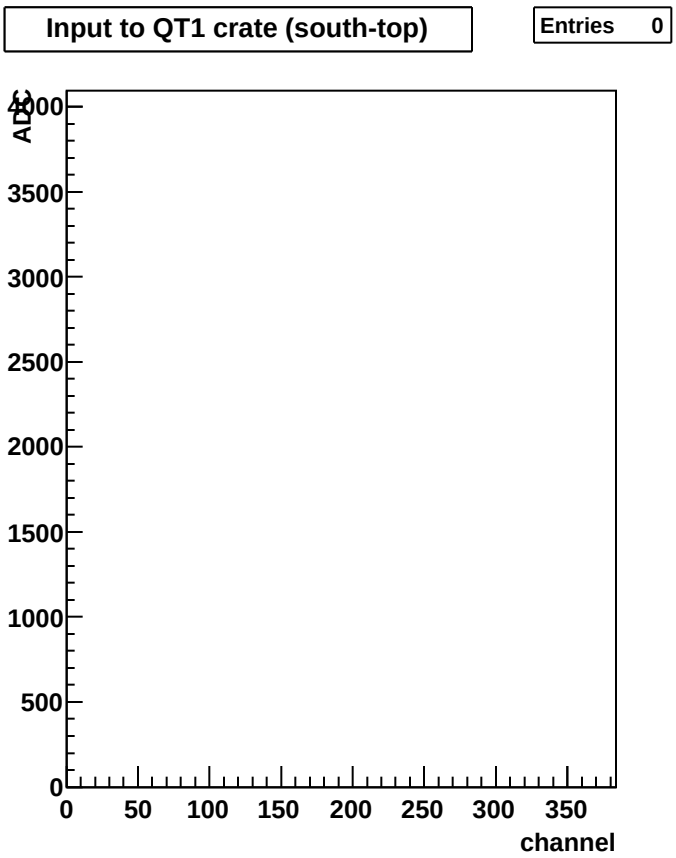

BBClarge-TAC-W
Entries 6737
Mean 1311
RMS 819.6

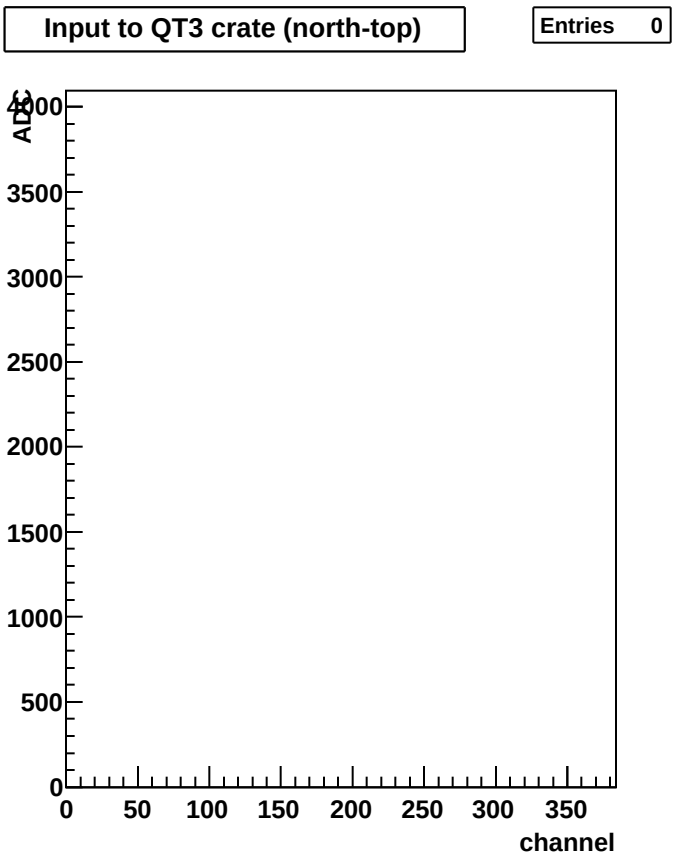

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 6395
Mean 4138
RMS 1043

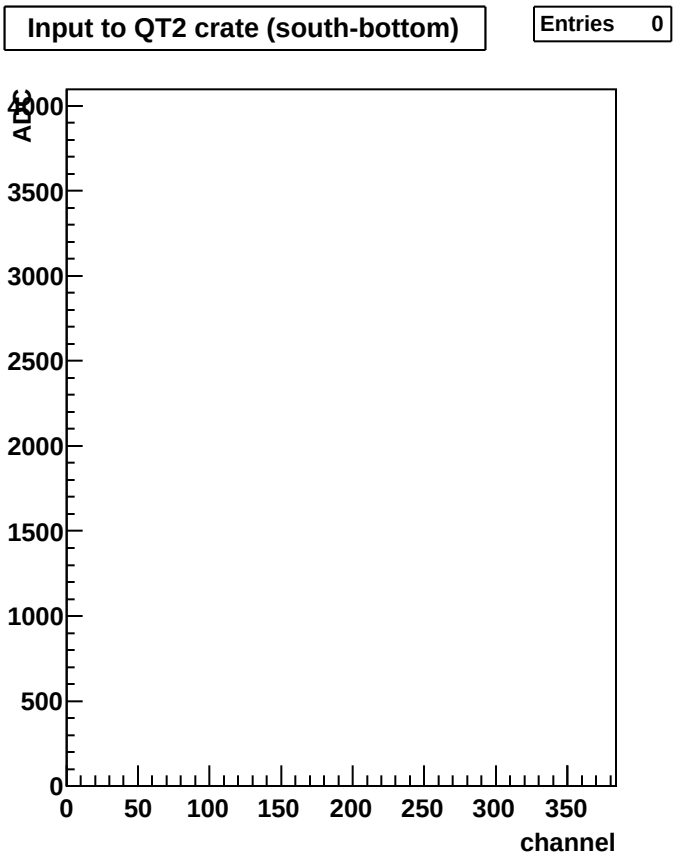

VPD-TAC-E
Entries 0
Mean 0
RMS 0

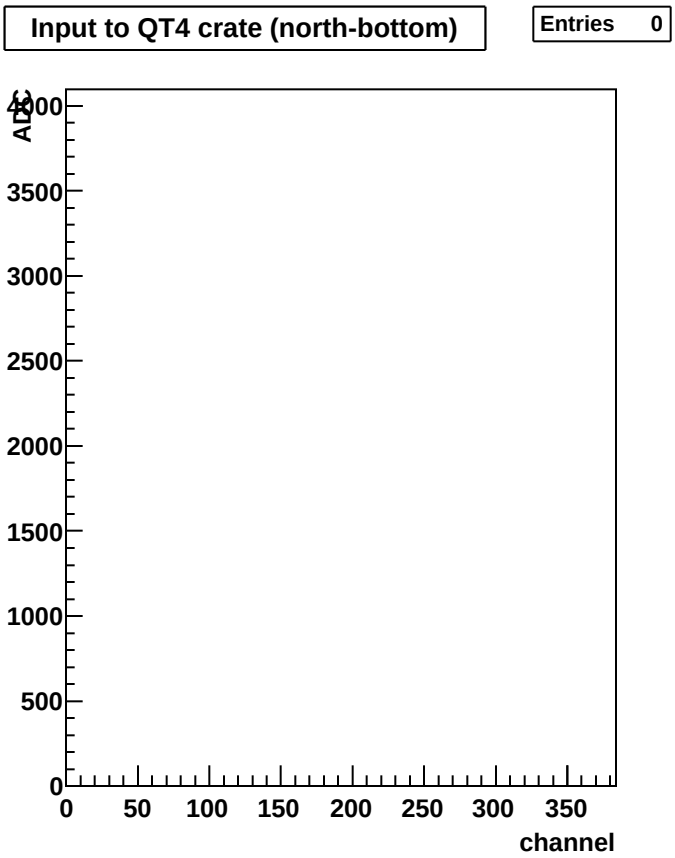

VPD-TAC-W
Entries 0
Mean 0
RMS 0

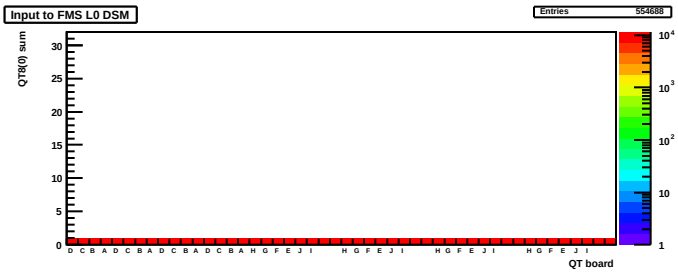

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 0
Mean 0
RMS 0

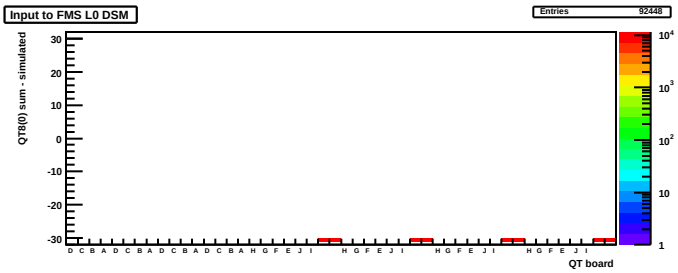

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

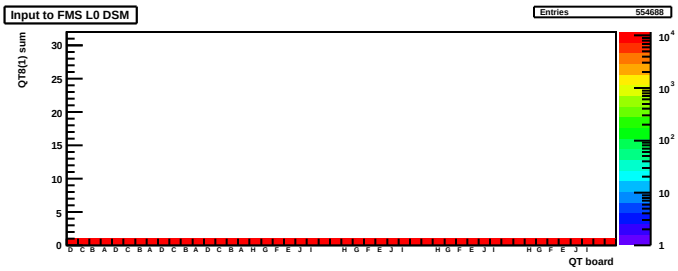

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

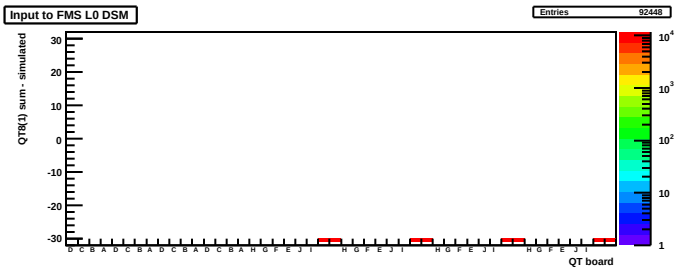

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

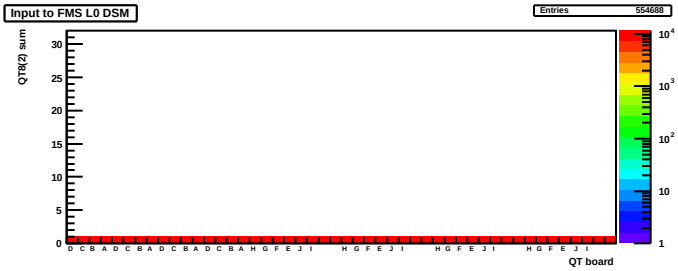

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

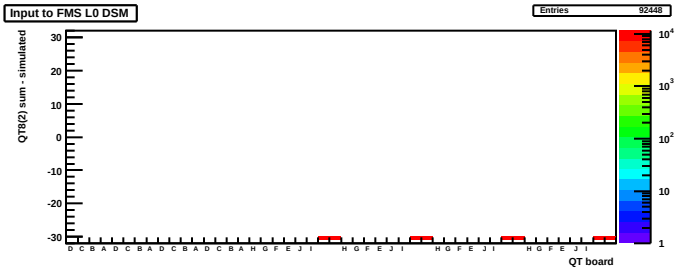

Input to FMS L0 DSM
Entries 554688
QT8(0) sum
QT board

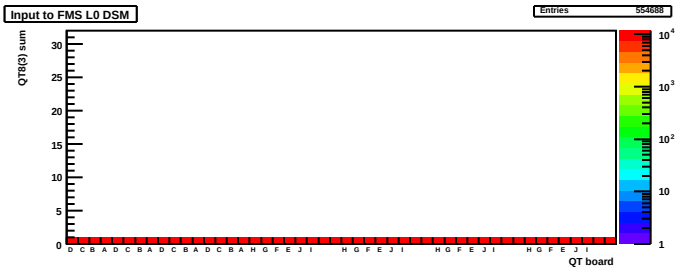

Input to FMS L0 DSM
Entries 92448
QT8(0) sum - simulated
QT board

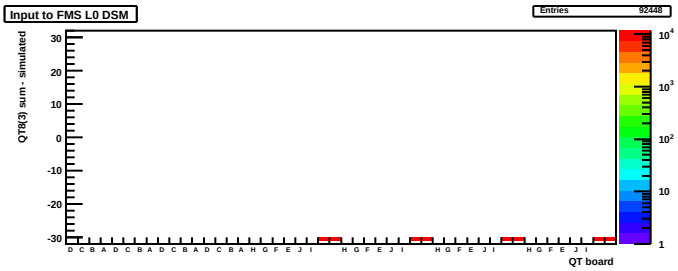

Input to FMS L0 DSM
Entries 554688
QT8(1) sum
QT board

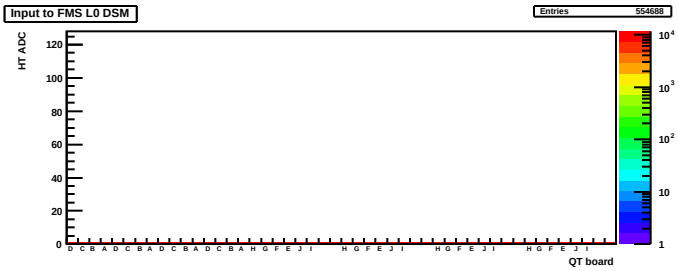

Input to FMS L0 DSM
Entries 92448
QT8(1) sum - simulated
QT board

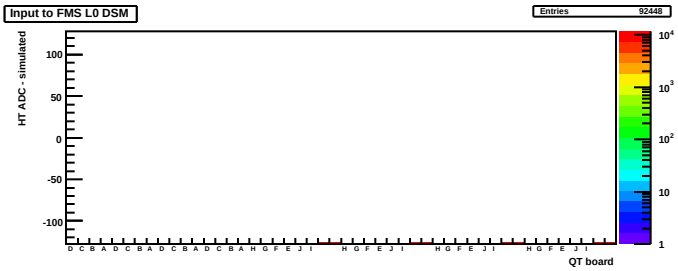

Input to FMS L0 DSM
Entries 554688
QT8(2) sum
QT board

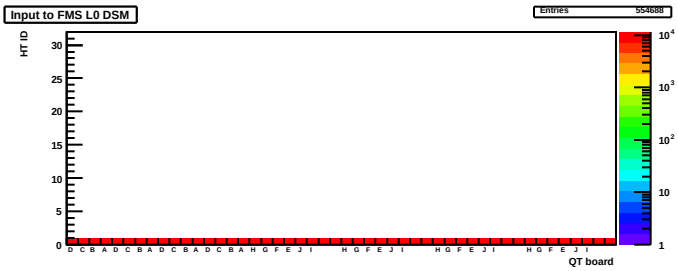

Input to FMS L0 DSM
Entries 92448
QT8(2) sum - simulated
QT board

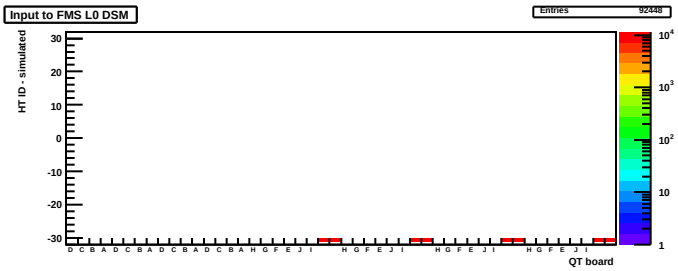

Input to FMS L0 DSM
Entries 554688
QT8(3) sum
QT board

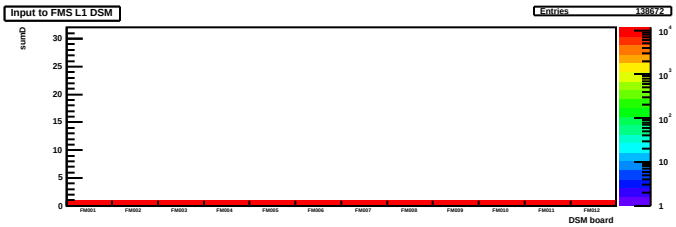

Input to FMS L0 DSM
Entries 92448
QT8(3) sum - simulated
QT board

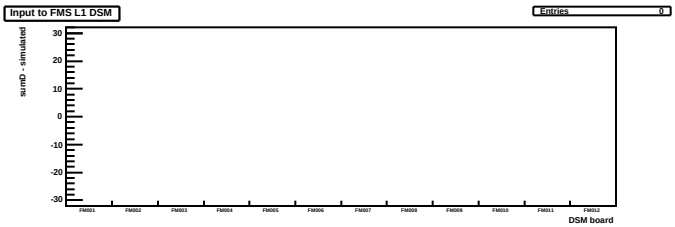

Input to FMS L0 DSM
Entries 554688
HT ADC
QT board

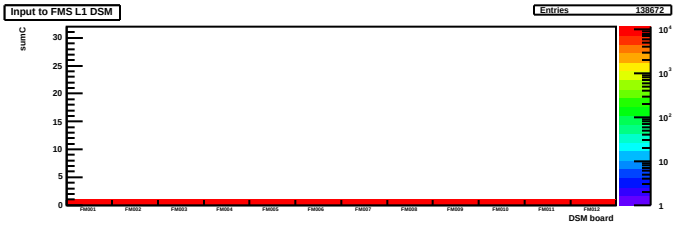

Input to FMS L0 DSM
Entries 92448
HT ADC - simulated
QT board

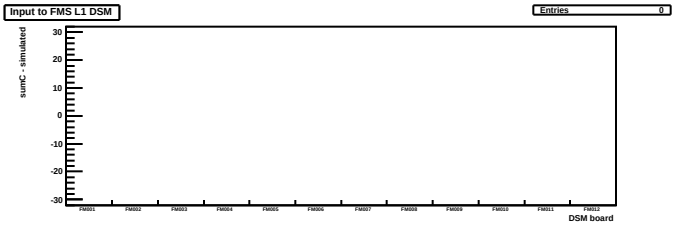

Input to FMS L0 DSM
Entries 554688
HT ID
QT board

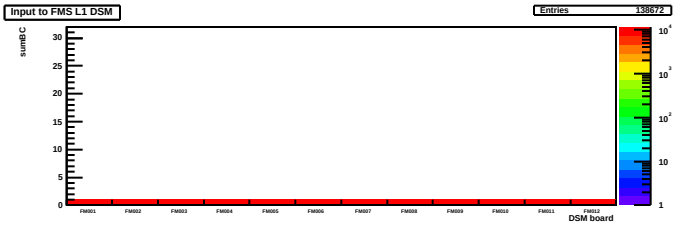

Input to FMS L0 DSM
Entries 92448
HT ID - simulated
QT board

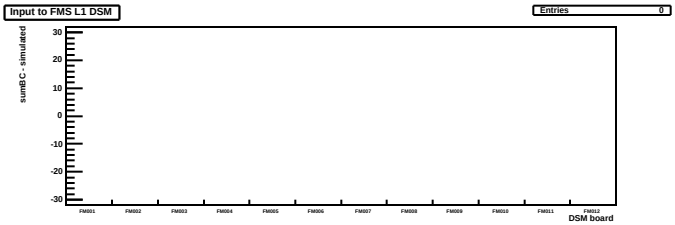

Input to FMS L1 DSM
Entries 138672
sumD
DSM board

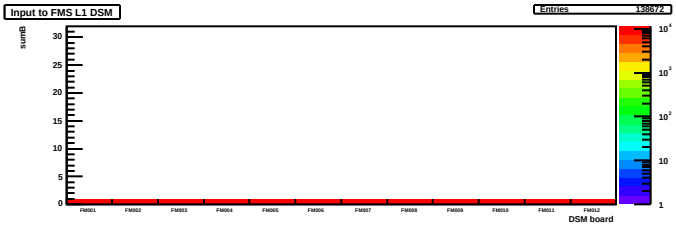

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

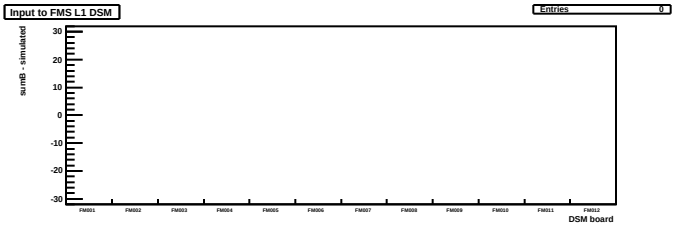

Input to FMS L1 DSM
Entries 138672
sumC
DSM board

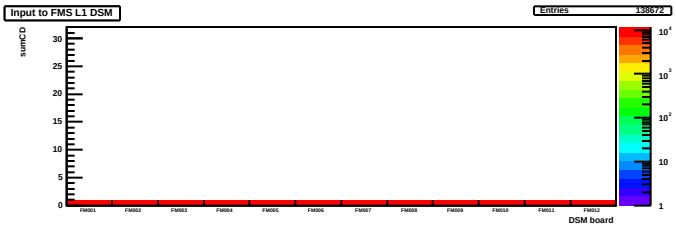

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

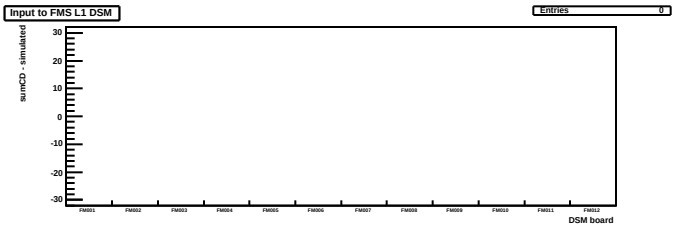

Input to FMS L1 DSM
Entries 138672
sumBC
DSM board

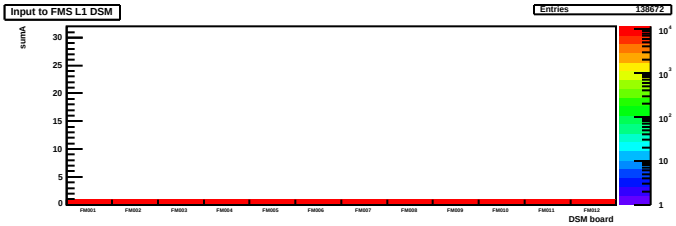

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

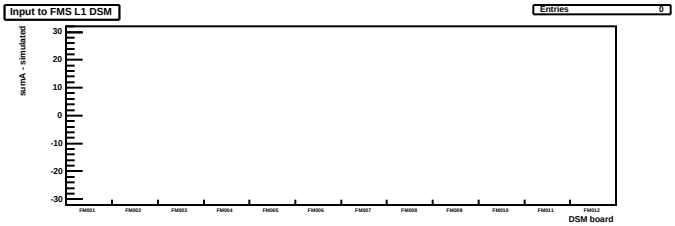

Input to FMS L1 DSM
Entries 138672
sumB
DSM board

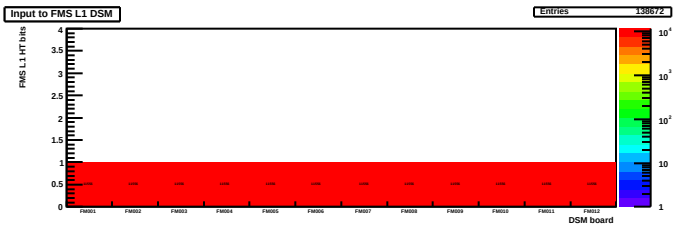

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

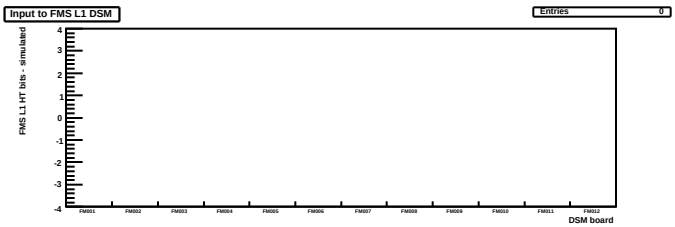

Input to FMS L1 DSM
Entries 138672
sumCD
DSM board

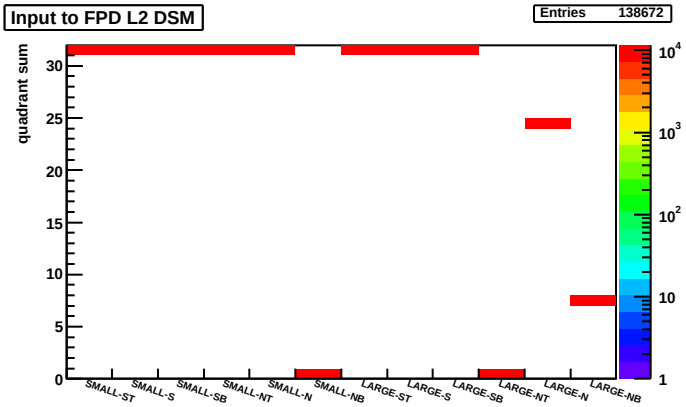

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

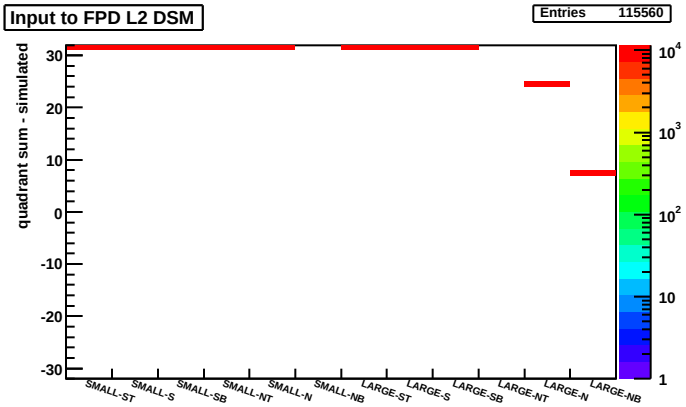

Input to FMS L1 DSM
Entries 138672
sumA
DSM board

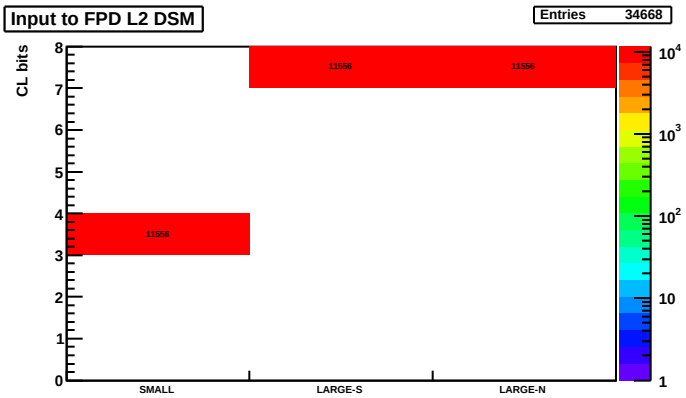

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

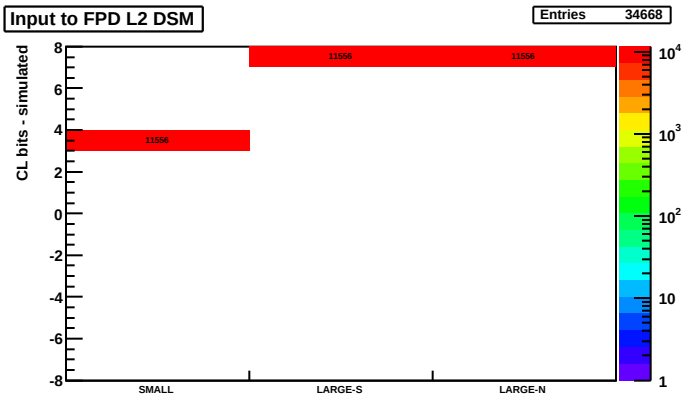

Input to FMS L1 DSM
Entries 138672
FMS L1 HT bits
DSM board

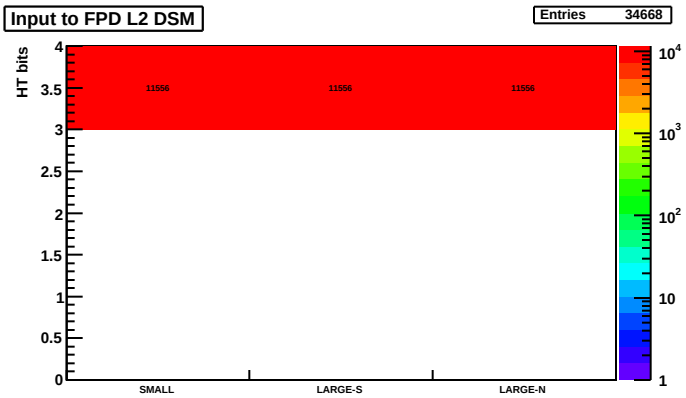

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

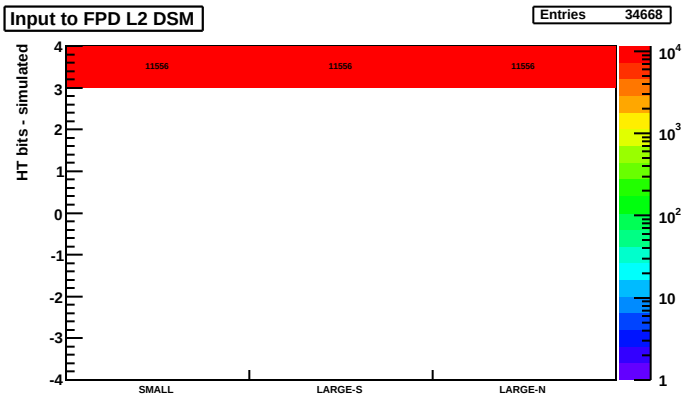

Input to FPD L2 DSM
Entries 138672
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

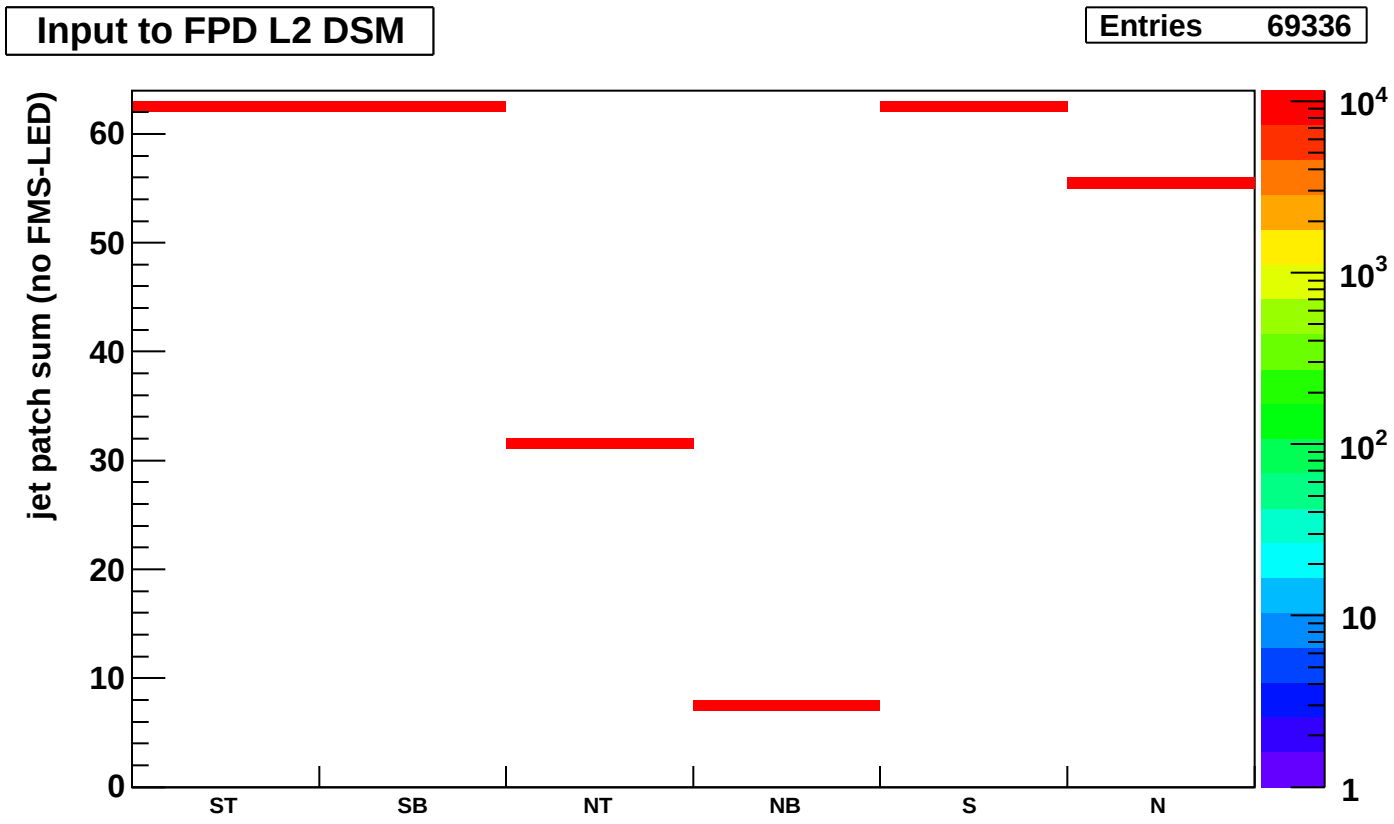

Input to FPD L2 DSM
Entries 115560
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

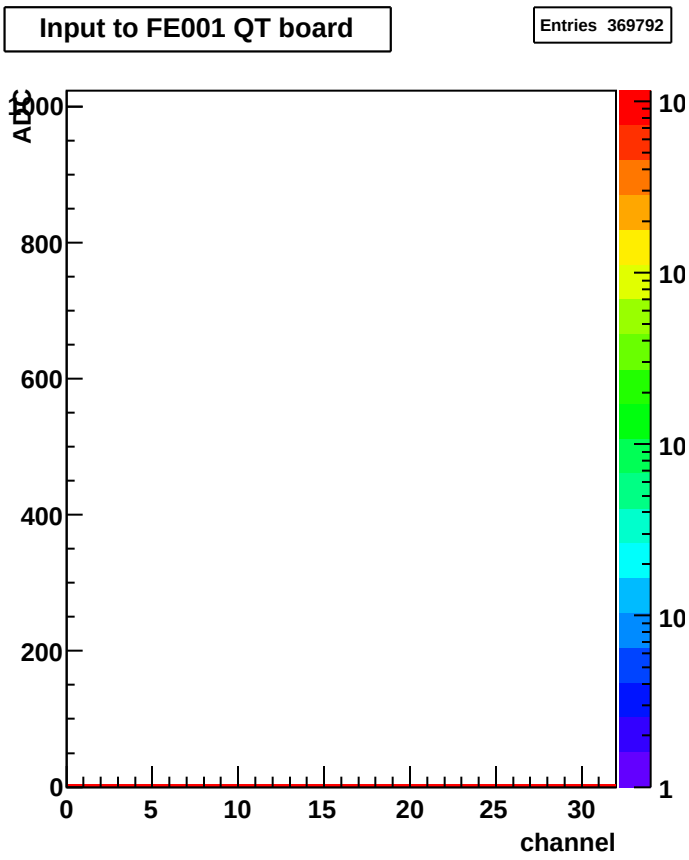

Input to FPD L2 DSM
Entries 34668
CL bits
11556
11556
11556
SMALL
LARGE-S
LARGE-N

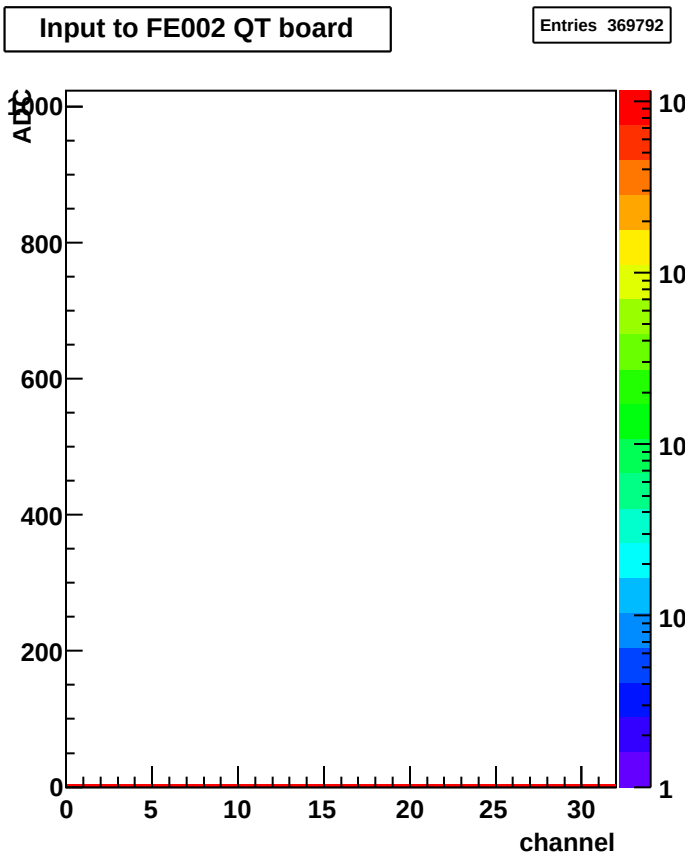

Input to FPD L2 DSM
Entries 34668
CL bits - simulated
11556
11556
11556
SMALL
LARGE-S
LARGE-N

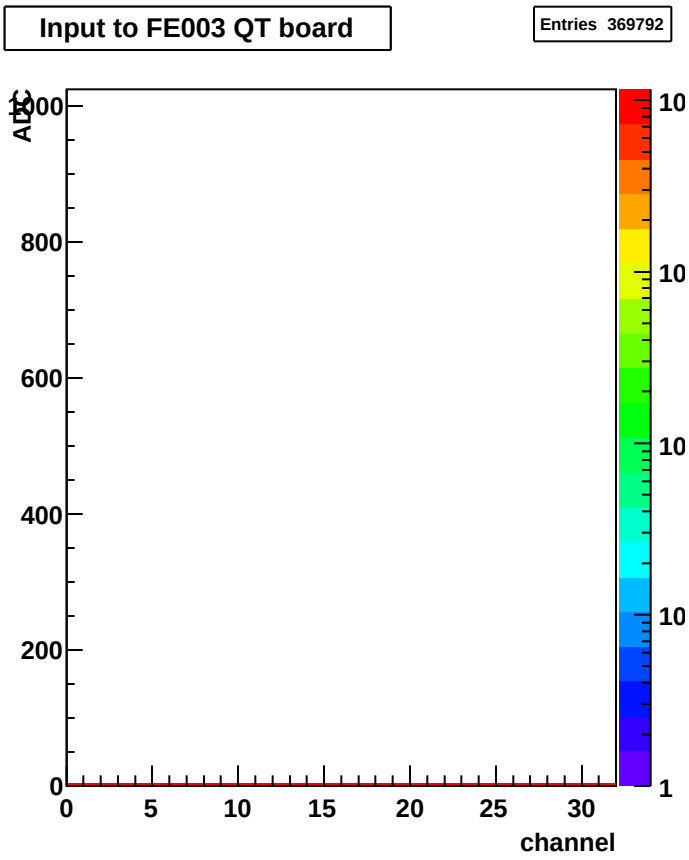

Input to FPD L2 DSM
Entries 34668
HT bits
11556
11556
11556
SMALL
LARGE-S
LARGE-N

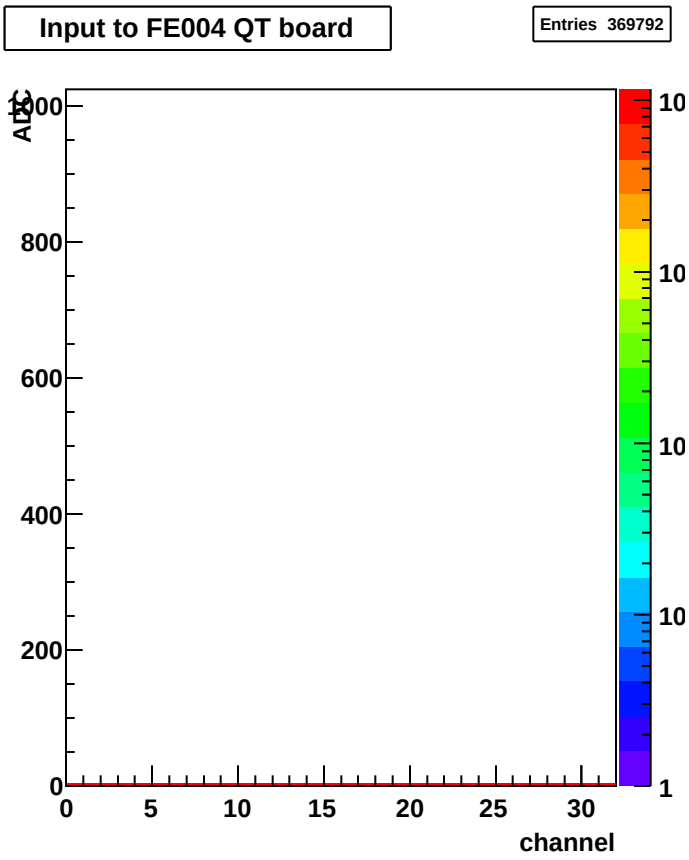

Input to FPD L2 DSM
Entries 34668
HT bits - simulated
11556
11556
11556
SMALL
LARGE-S
LARGE-N

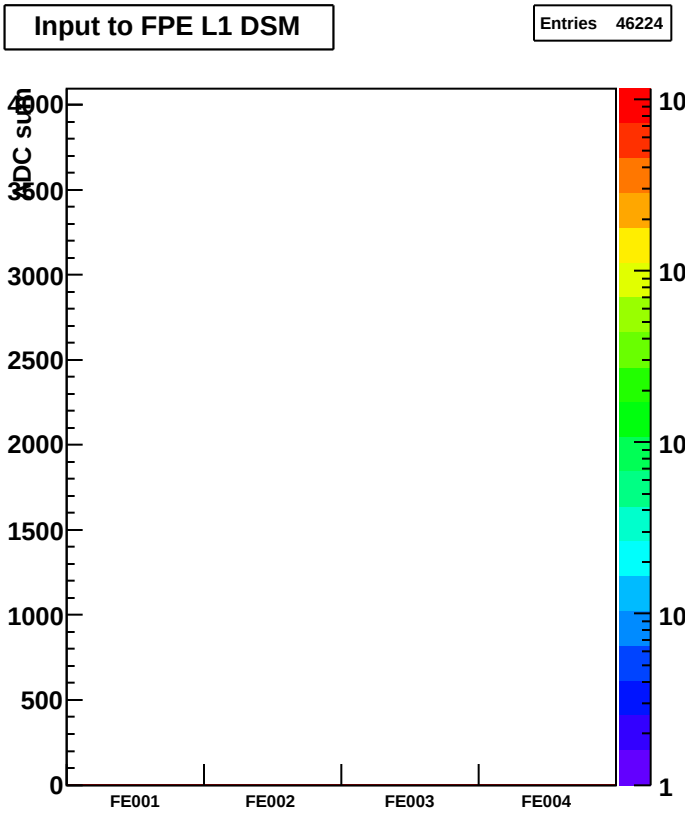

Input to FPD L2 DSM
Entries 69336
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

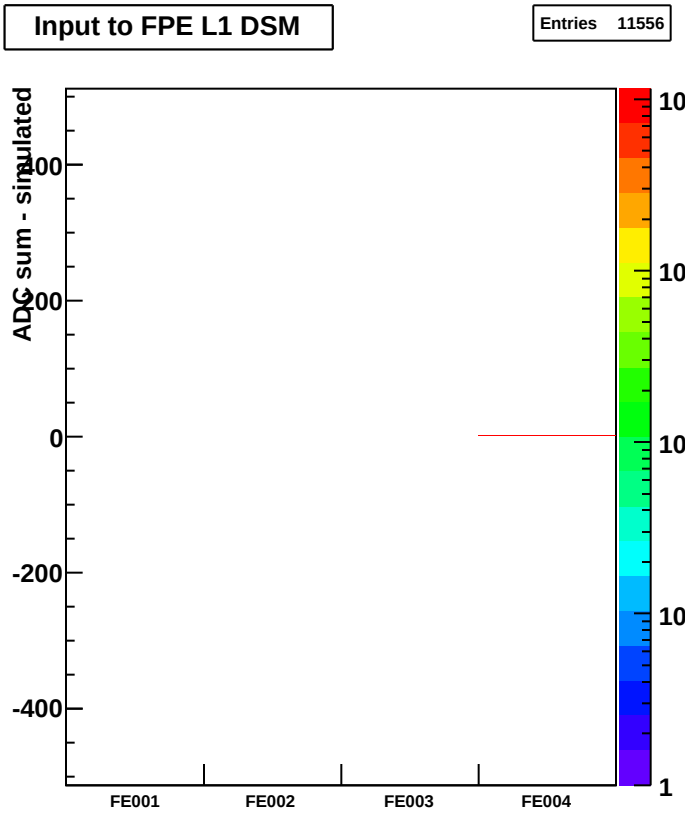

Input to FE001 QT board
Entries 369792
ADC
channel

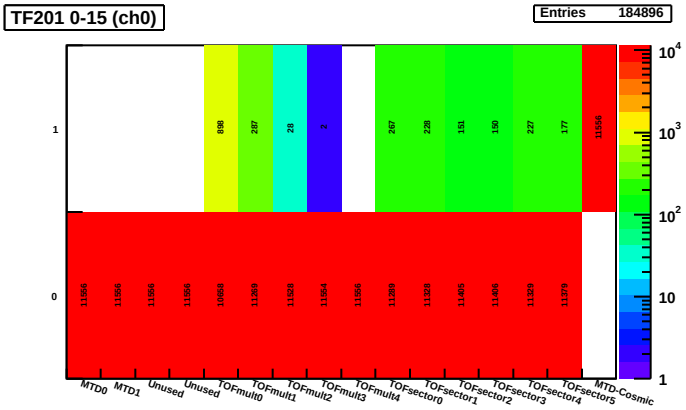

Input to FE002 QT board
Entries 369792
ADC
channel


Input to FE003 QT board
Entries 369792
ADC
channel


Input to FE004 QT board
Entries 369792
ADC
channel


Input to FPE L1 DSM
Entries 46224
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 11556
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1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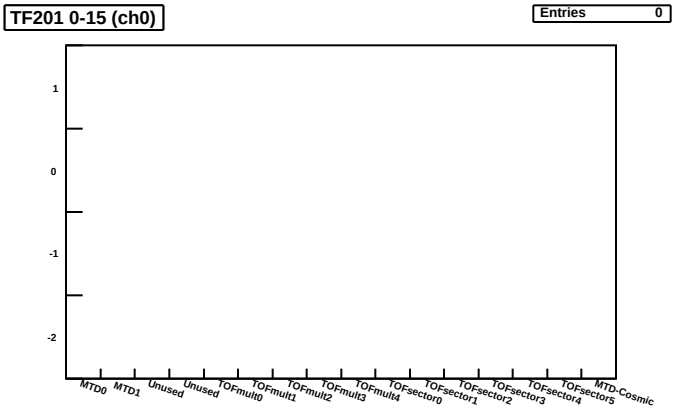
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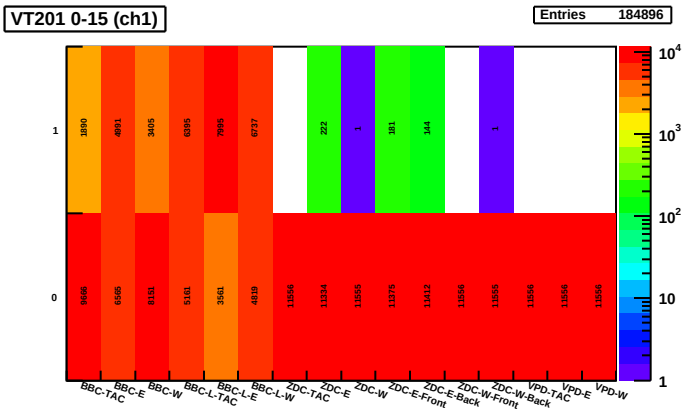
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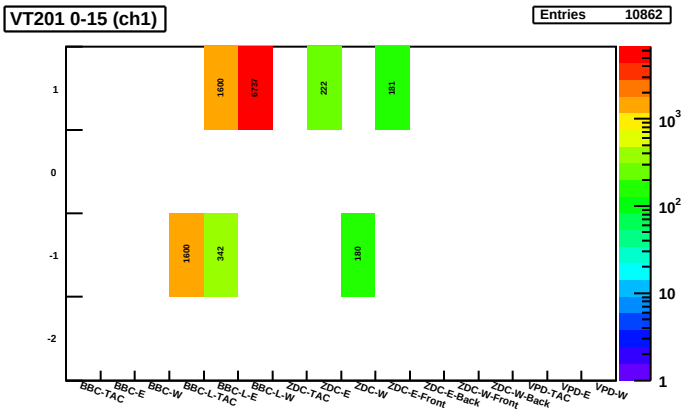
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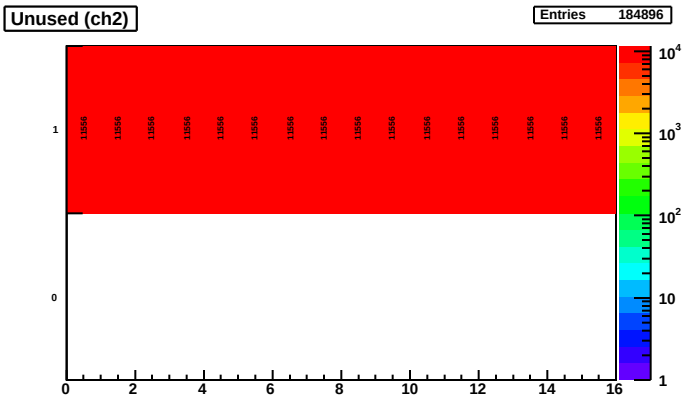
Unused (ch2)
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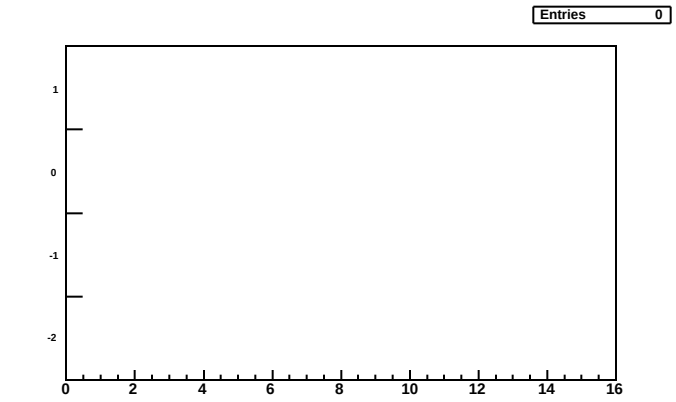
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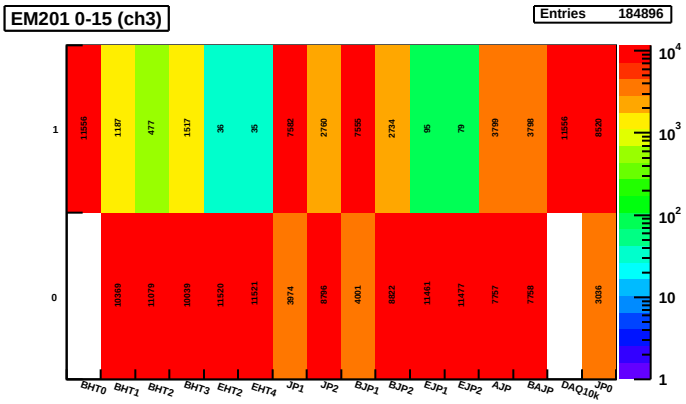
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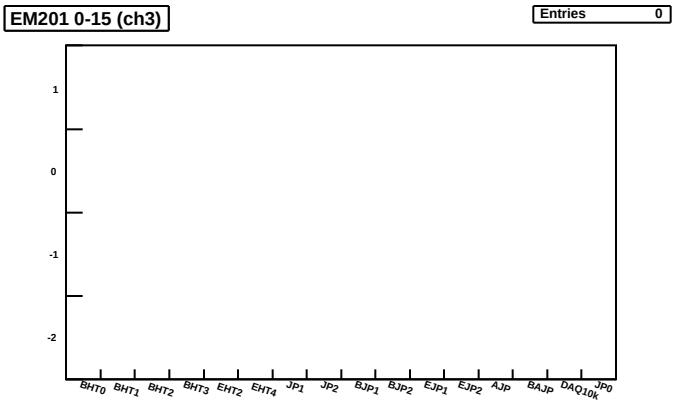
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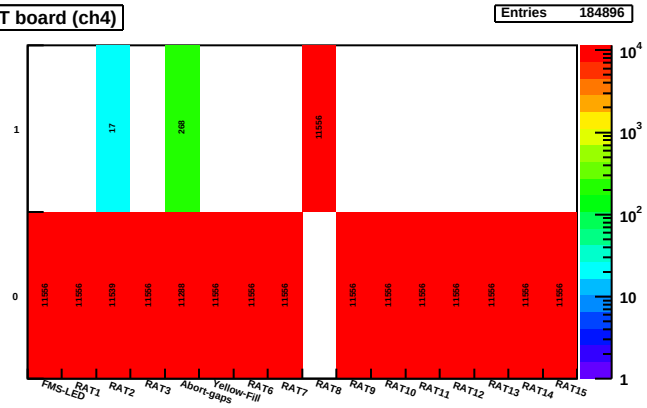
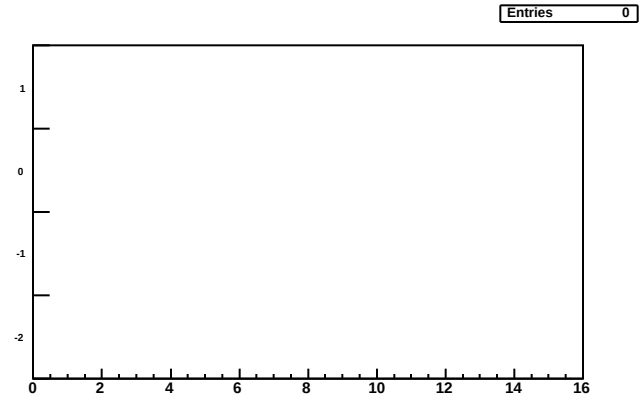
RAT board (ch4)





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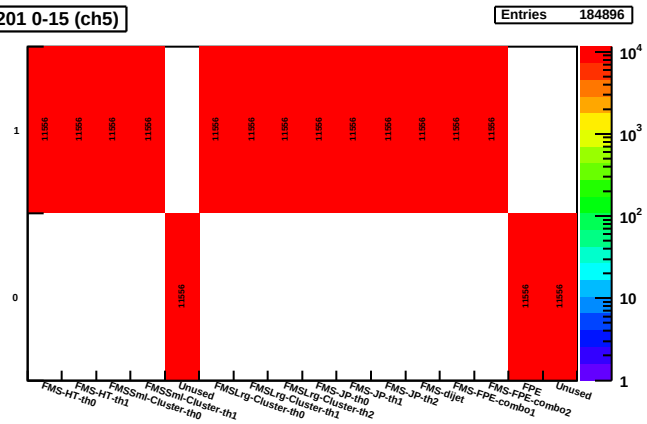

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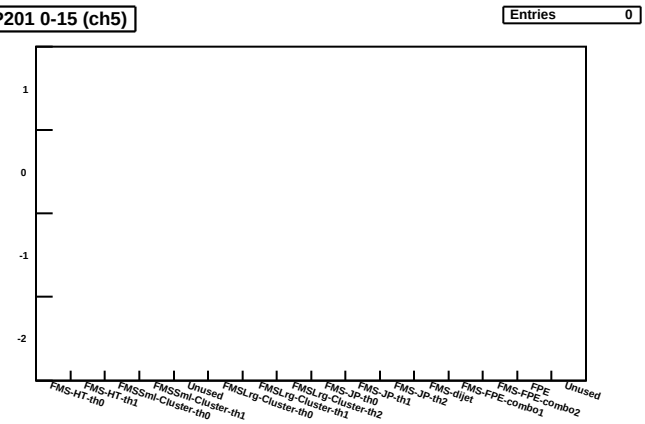
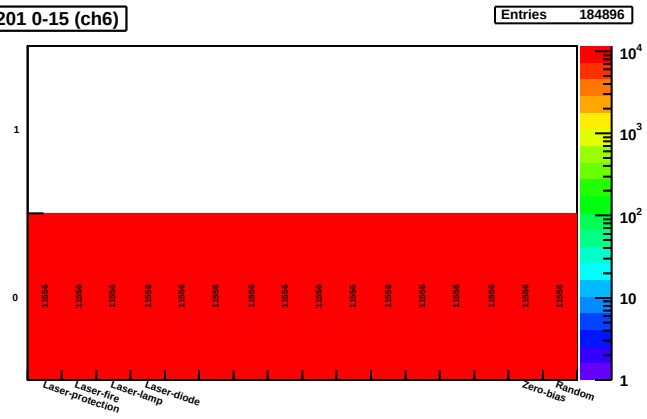
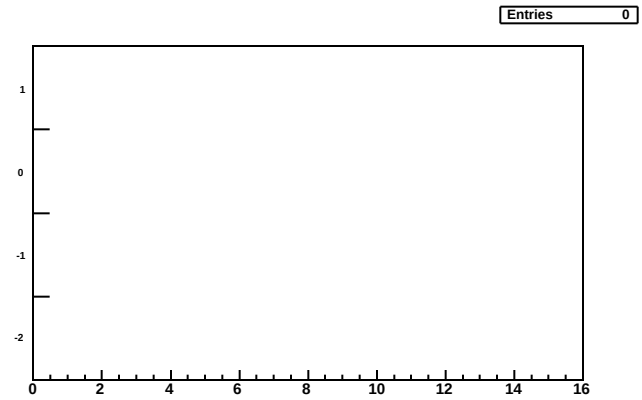
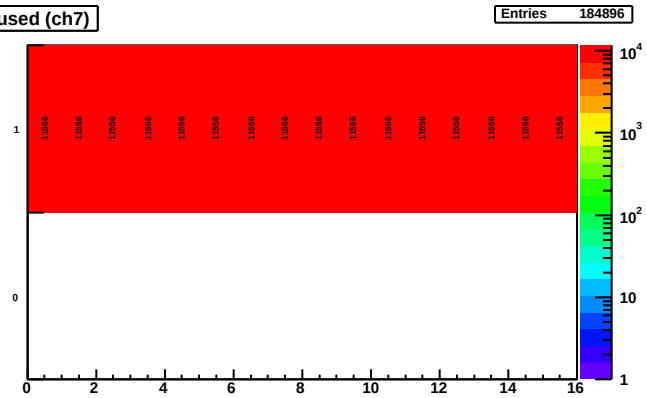
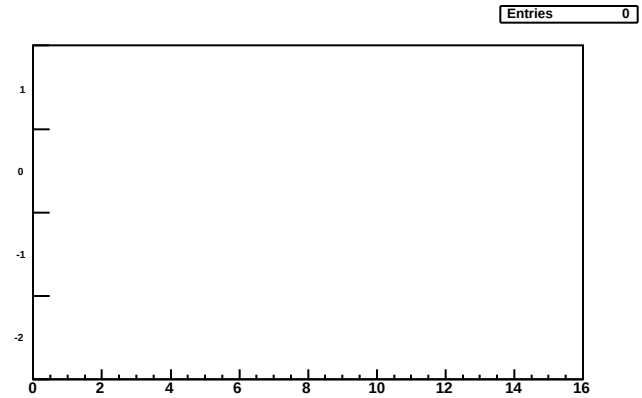


ST201 0-15 (ch6)





Unused (ch7)