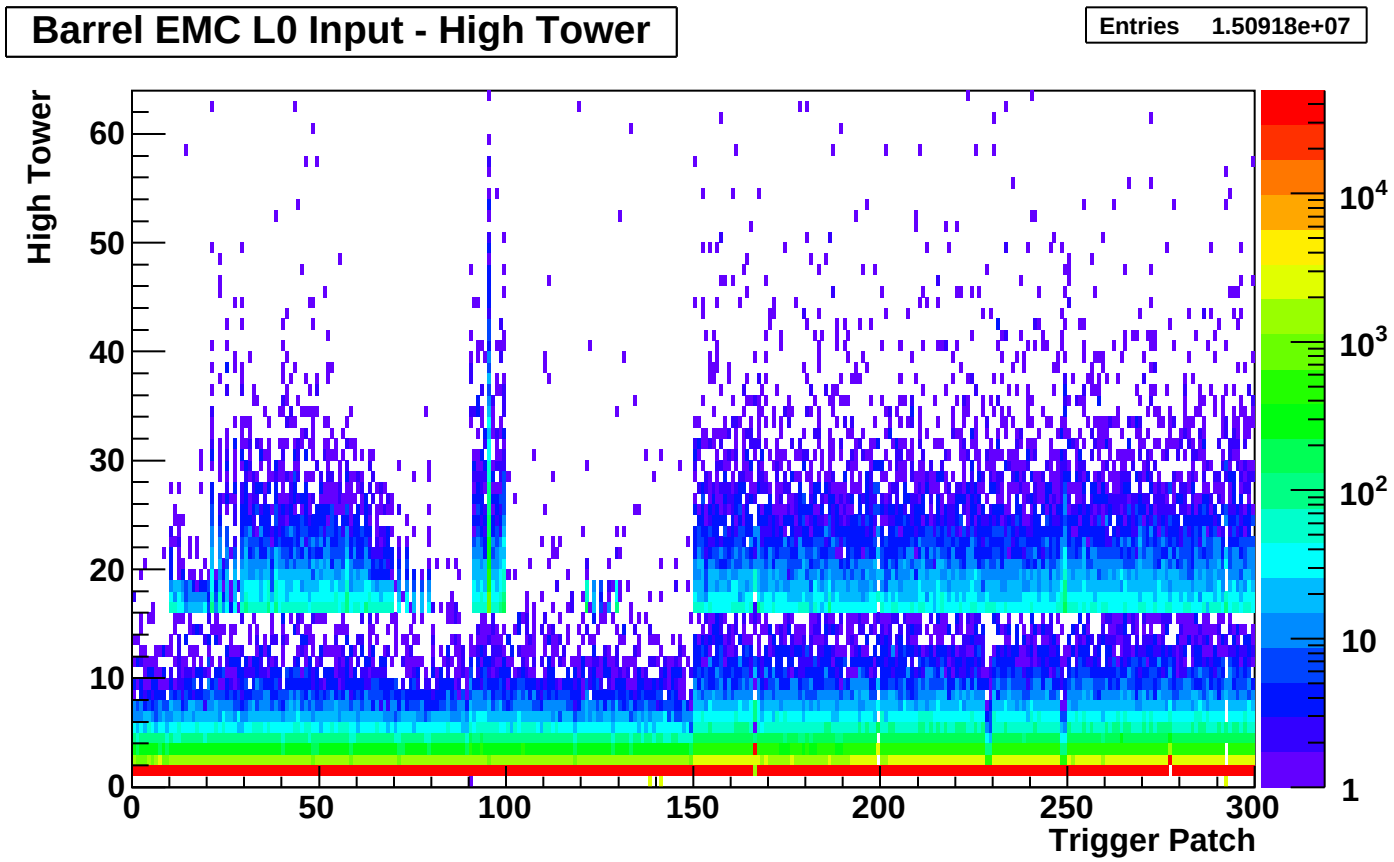
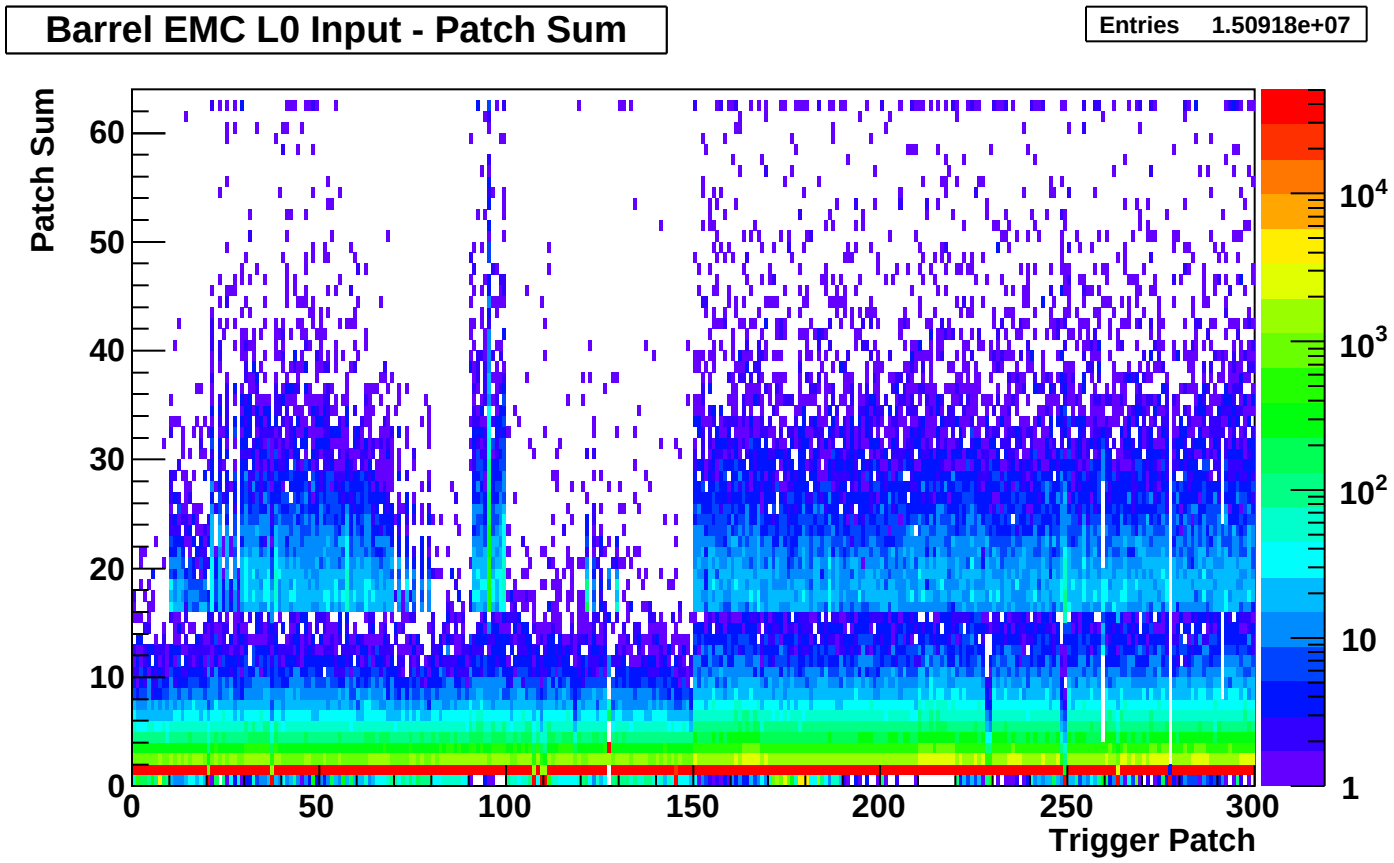
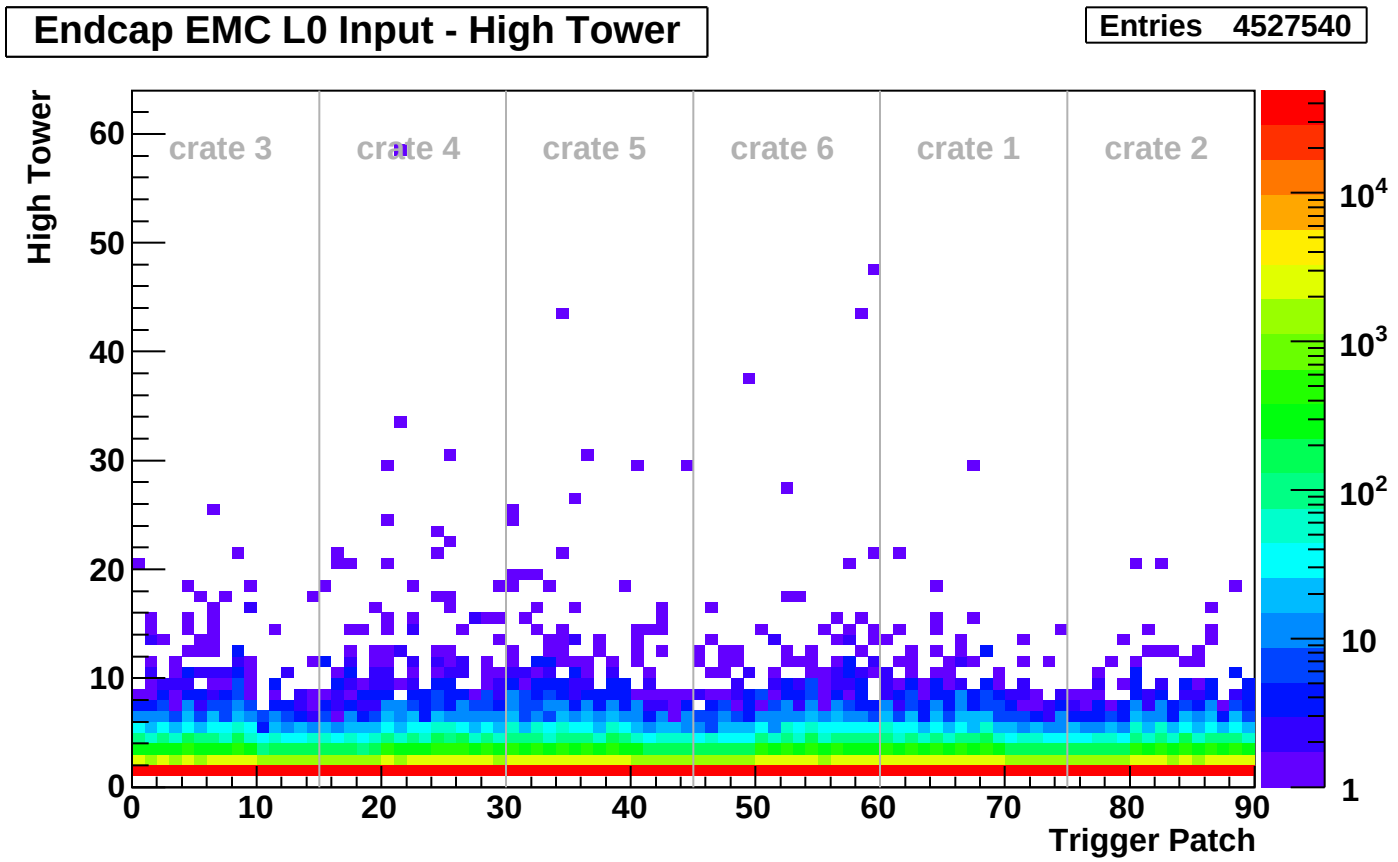
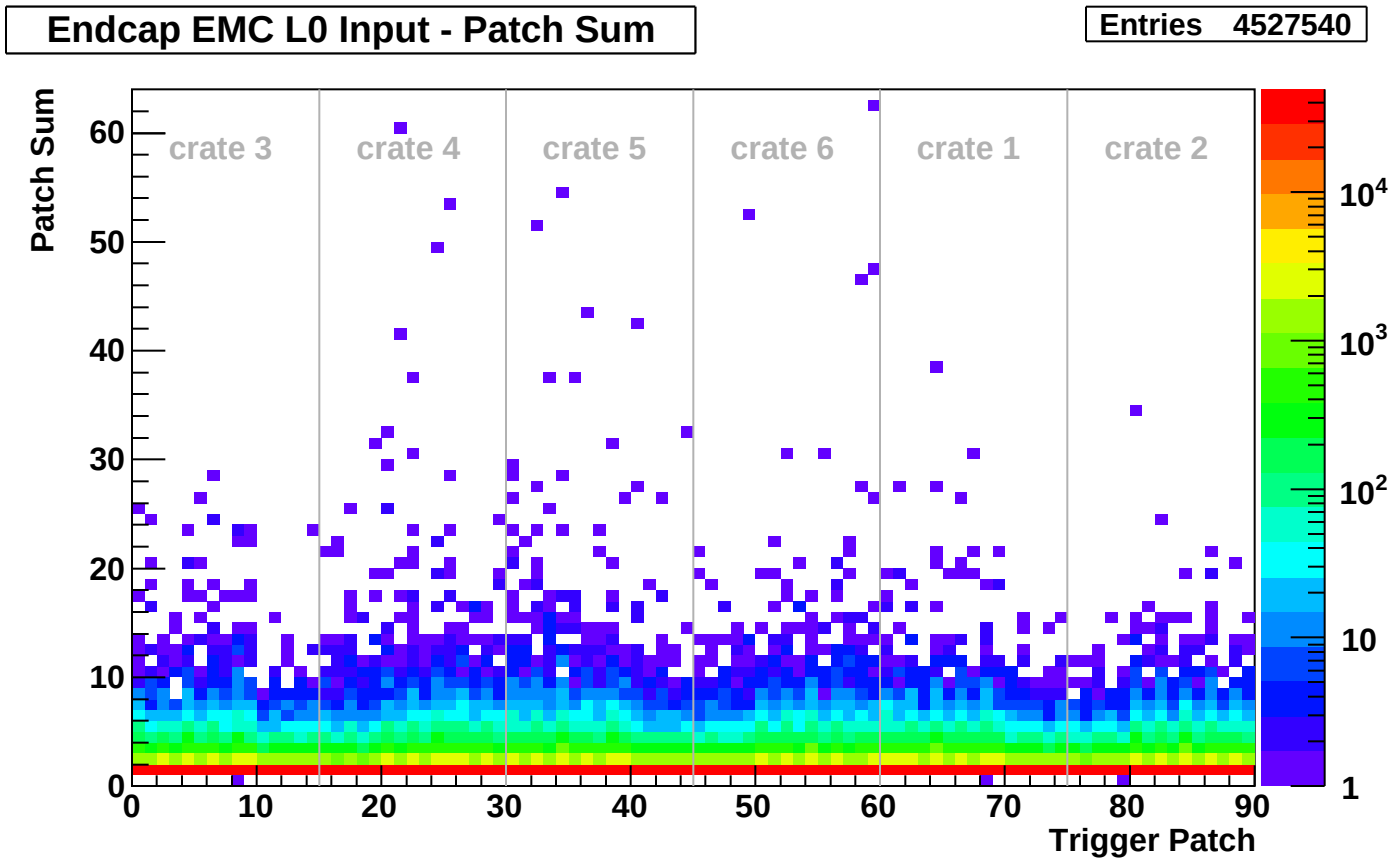
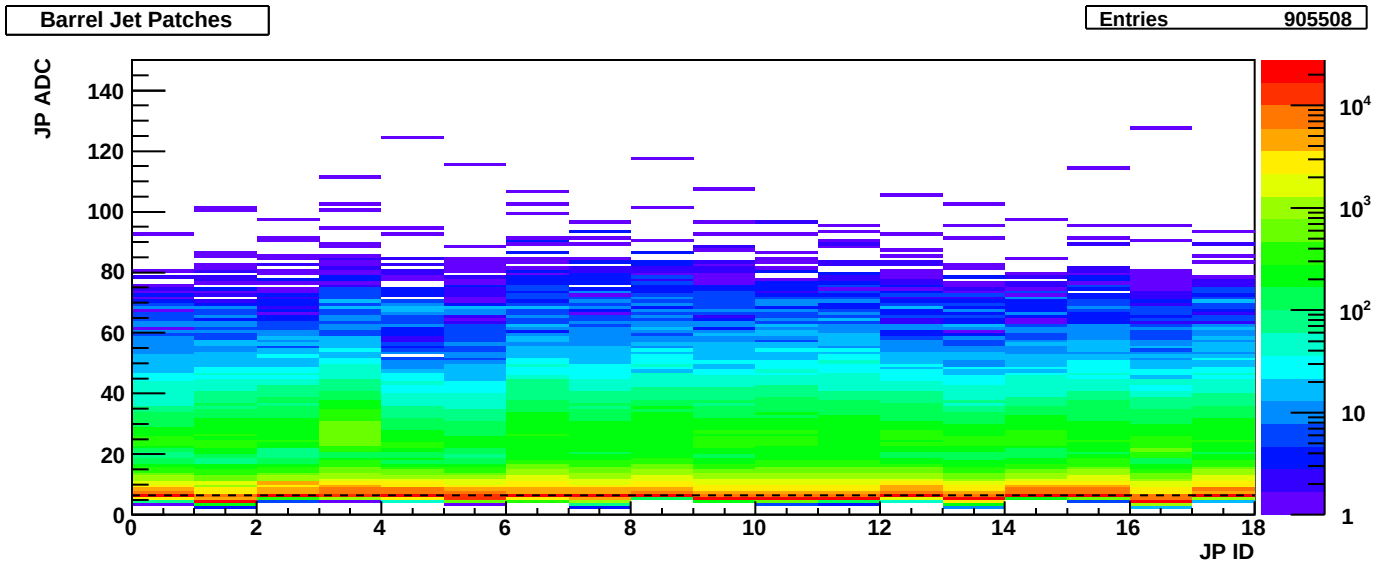
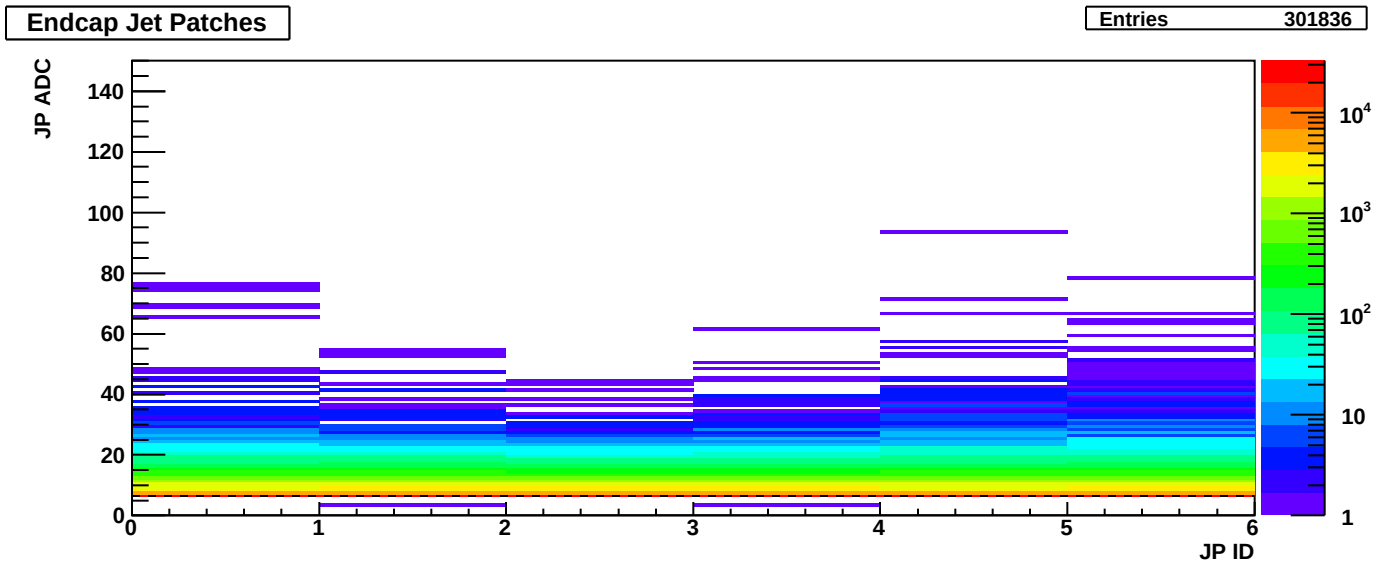

Barrel EMC L0 Input - High Tower
Entries 1.50918e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

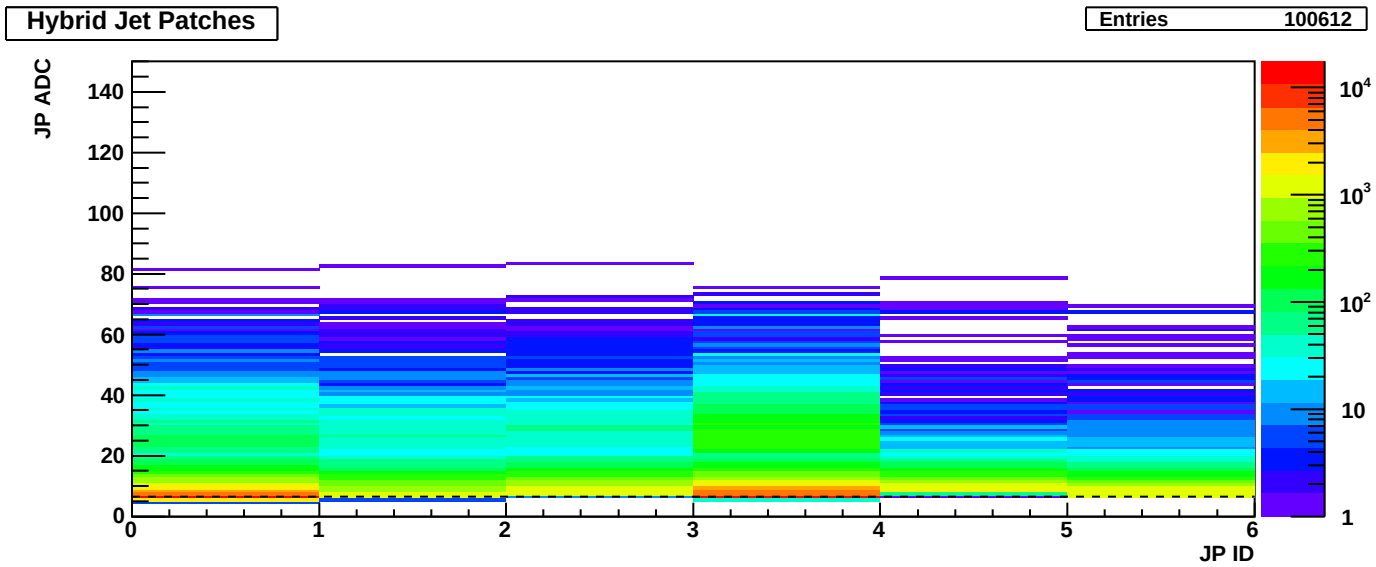

Barrel EMC L0 Input - Patch Sum
Entries 1.50918e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

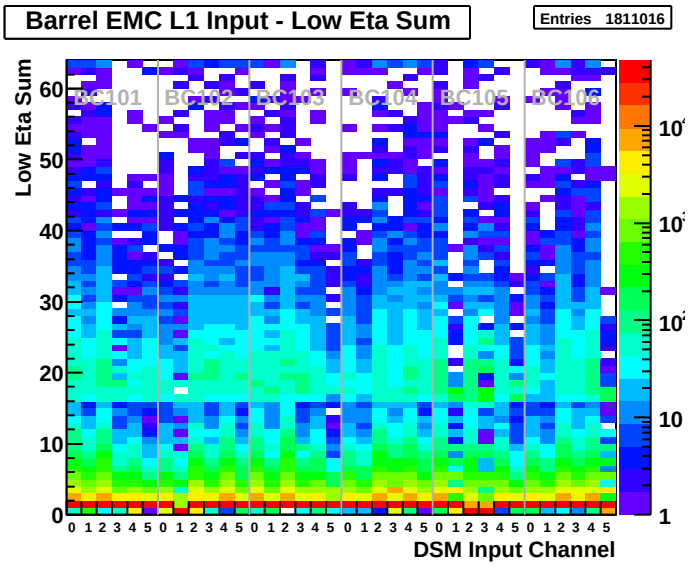

Endcap EMC L0 Input - High Tower
Entries 4527540
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

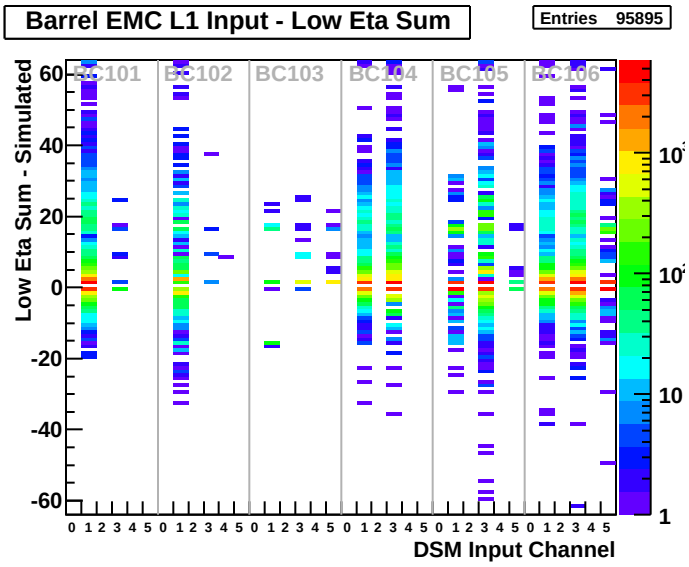

Endcap EMC L0 Input - Patch Sum
Entries 4527540
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

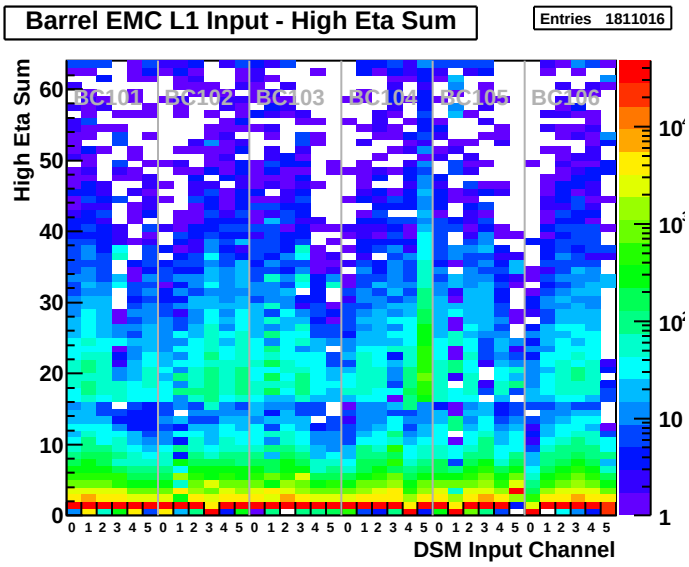

Barrel Jet Patches
Entries 905508
JP ADC
JP ID

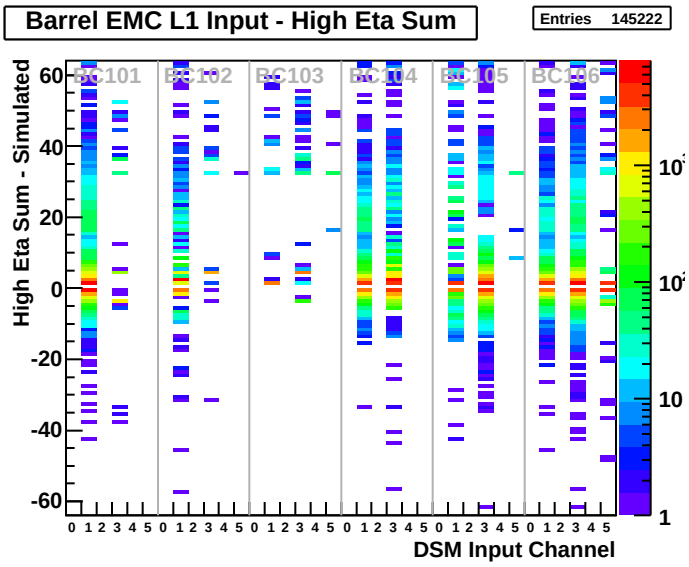

Endcap Jet Patches
Entries 301836
JP ADC
JP ID

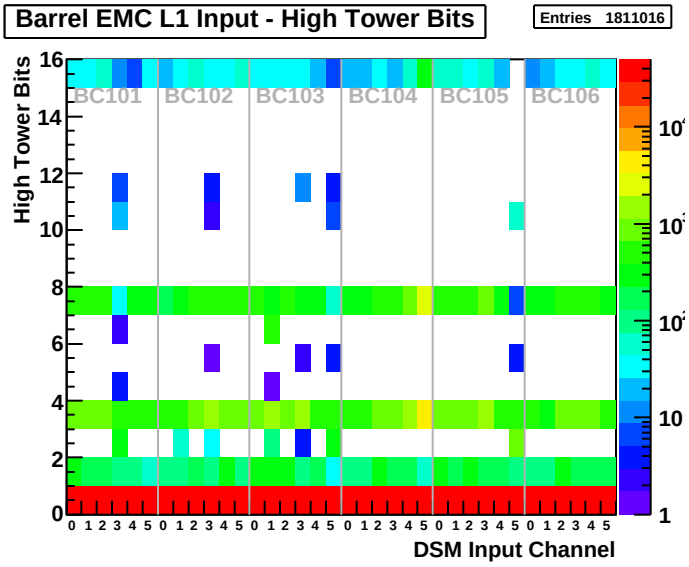

Hybrid Jet Patches
Entries 100612
JP ADC
JP ID

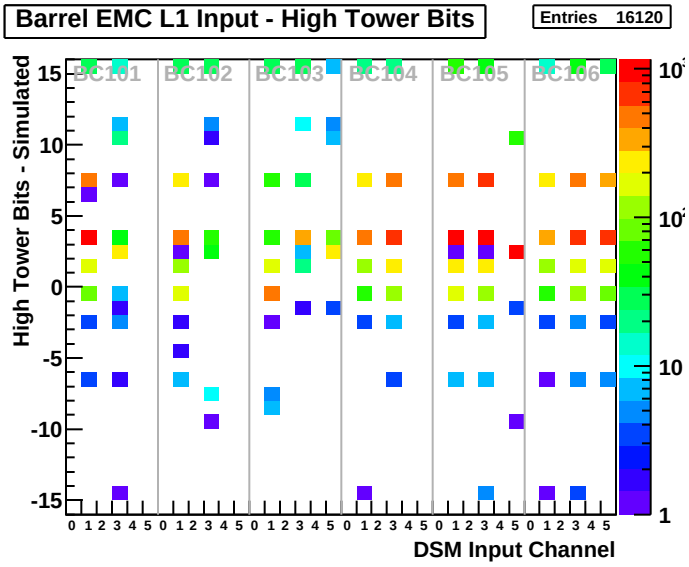

Barrel EMC L1 Input - Low Eta Sum
Entries 1811016
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

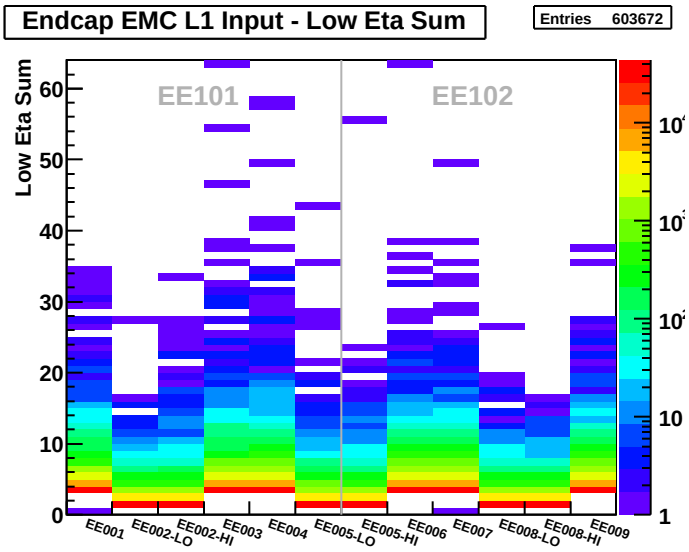

Barrel EMC L1 Input - Low Eta Sum
Entries 95895
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

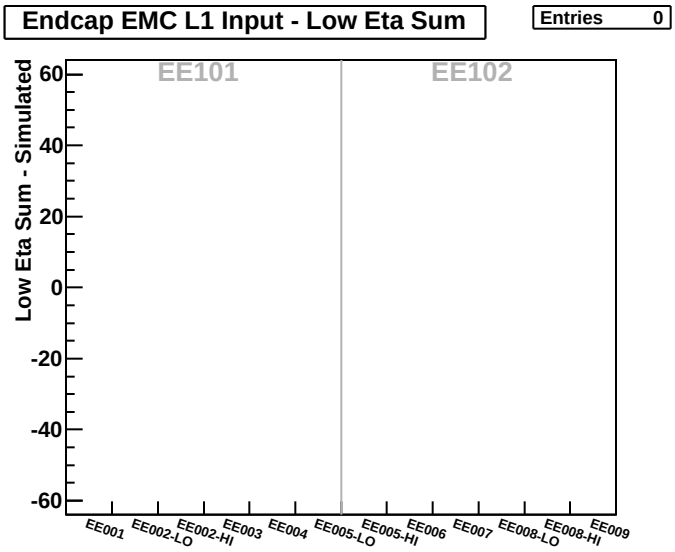

Barrel EMC L1 Input - High Eta Sum
Entries 1811016
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

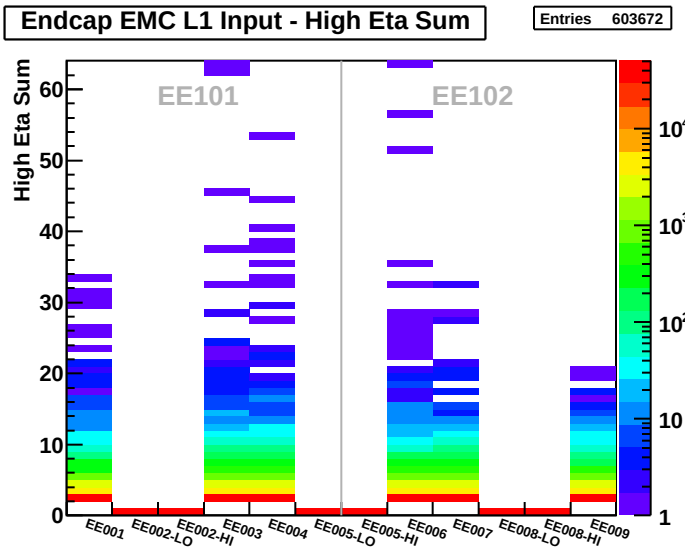

Barrel EMC L1 Input - High Eta Sum
Entries 145222
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

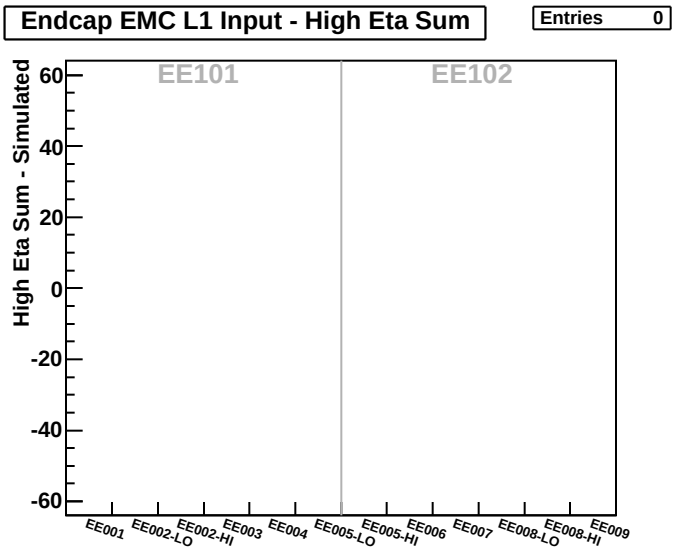

Barrel EMC L1 Input - High Tower Bits
Entries 1811016
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

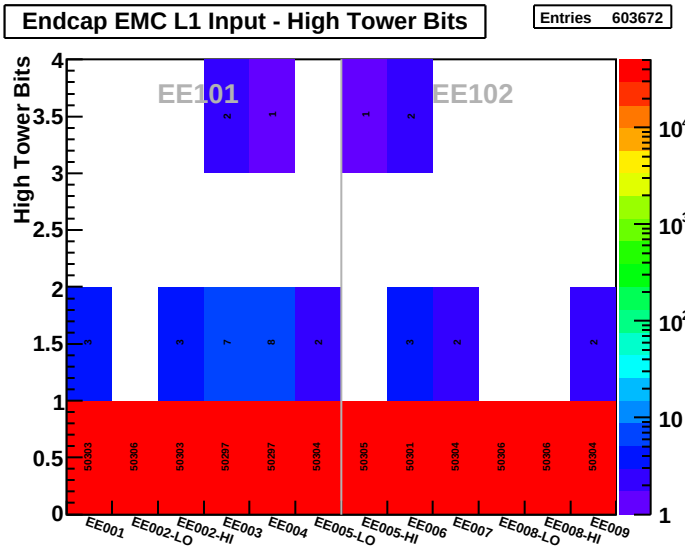

Barrel EMC L1 Input - High Tower Bits
Entries 16120
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

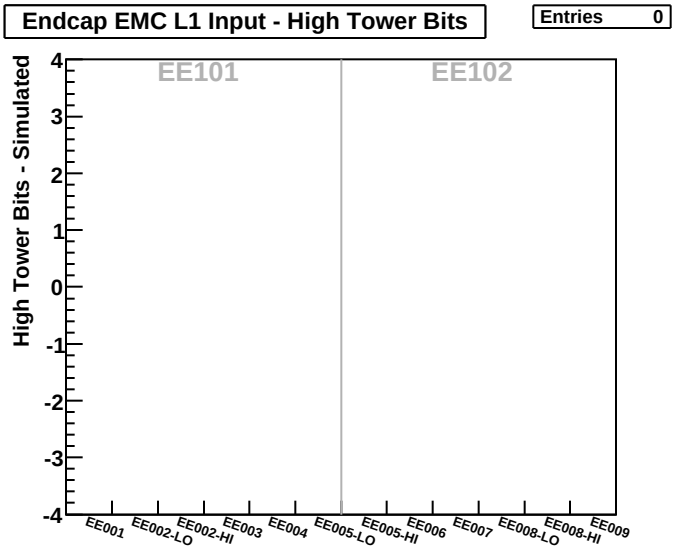

Endcap EMC L1 Input - Low Eta Sum
Entries 603672
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

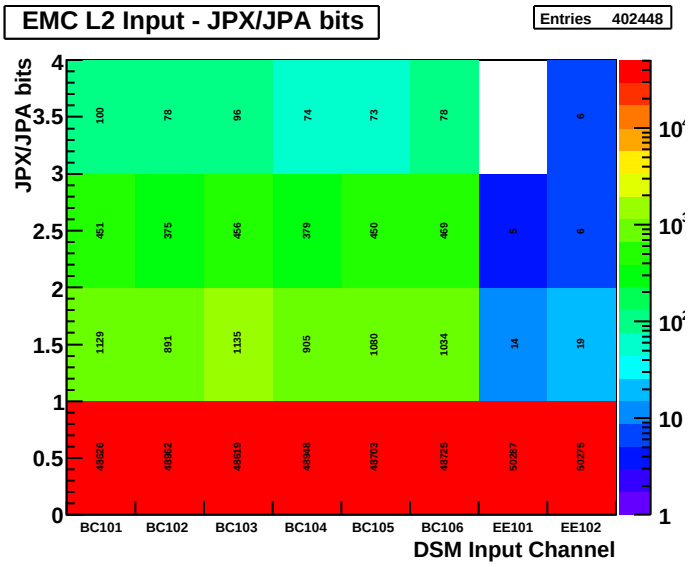

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

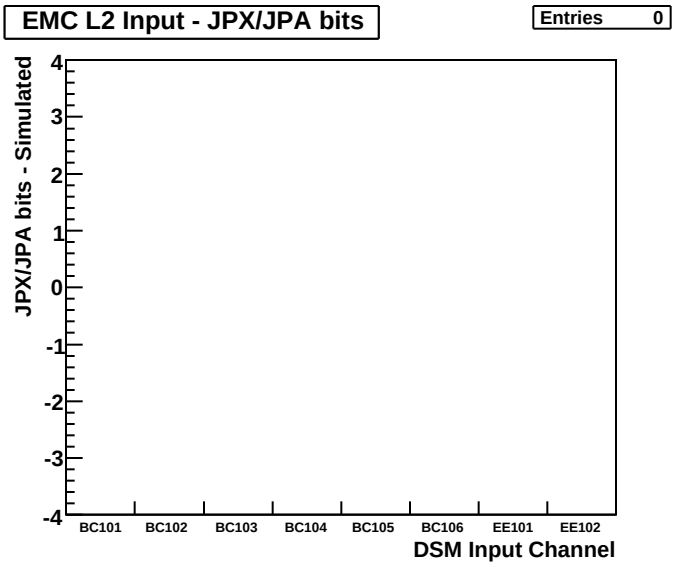

Endcap EMC L1 Input - High Eta Sum
Entries 603672
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

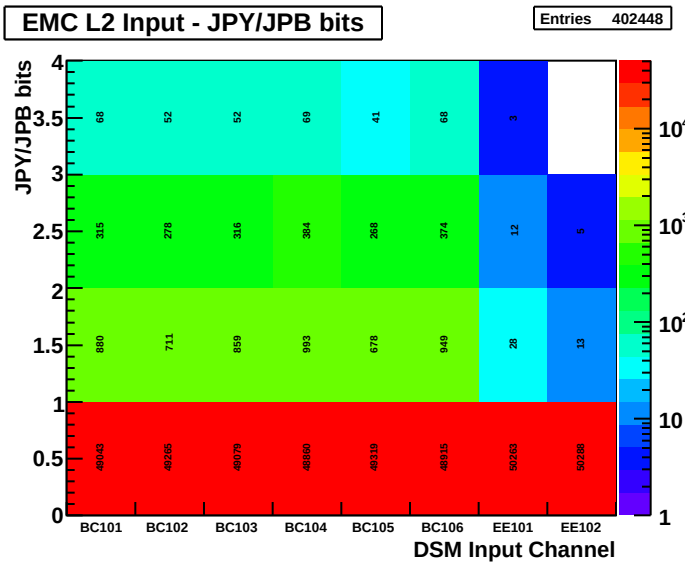

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

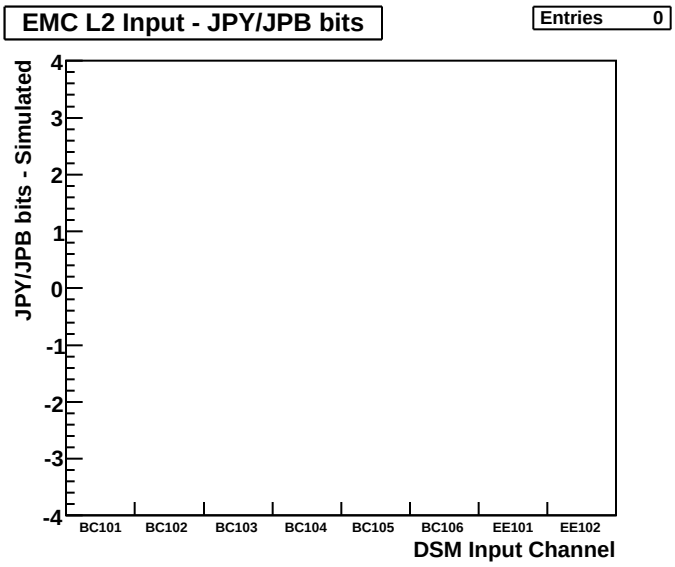

Endcap EMC L1 Input - High Tower Bits
Entries 603672
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

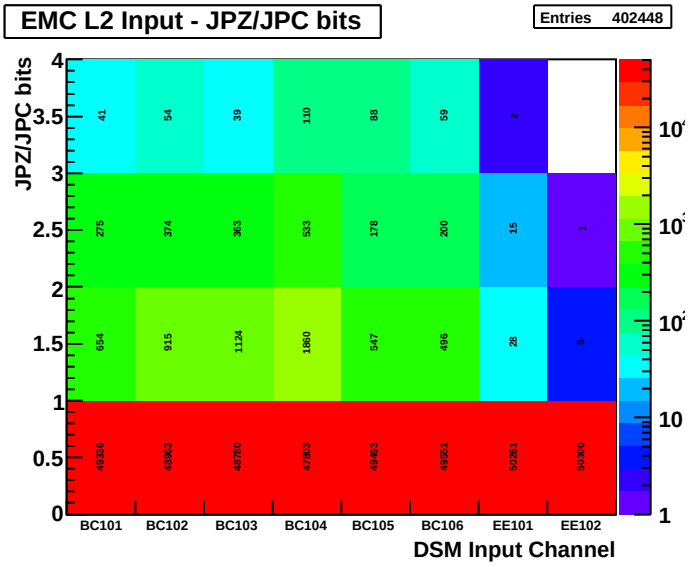

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

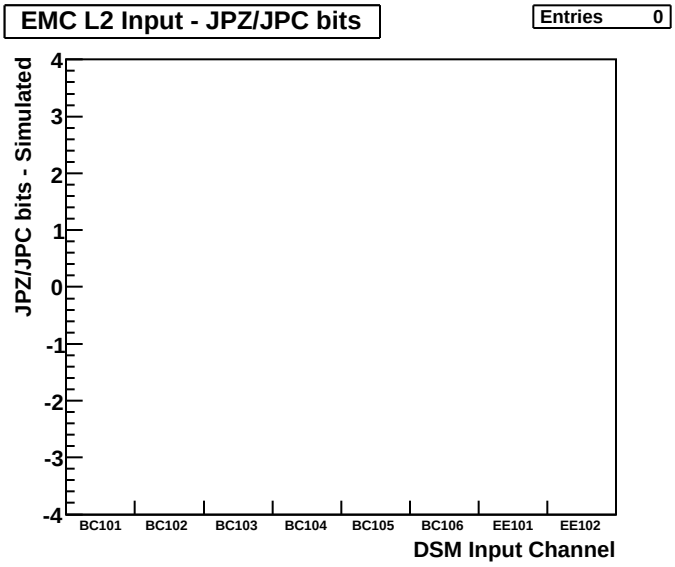

EMC L2 Input - JPX/JPA bits
Entries 402448
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
100 78 96 74 73 78 6
451 375 456 379 450 469 5 6
1129 891 1135 905 1080 1034 14 19
48626 48962 48619 48948 49703 49725 50287 50275

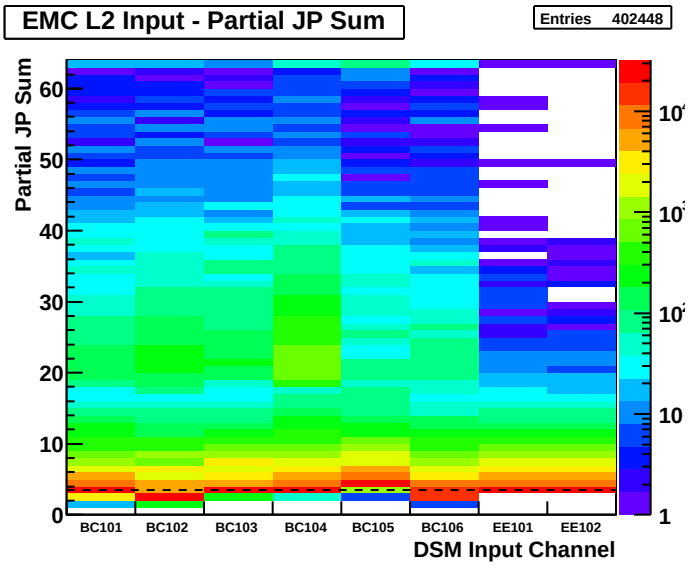

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

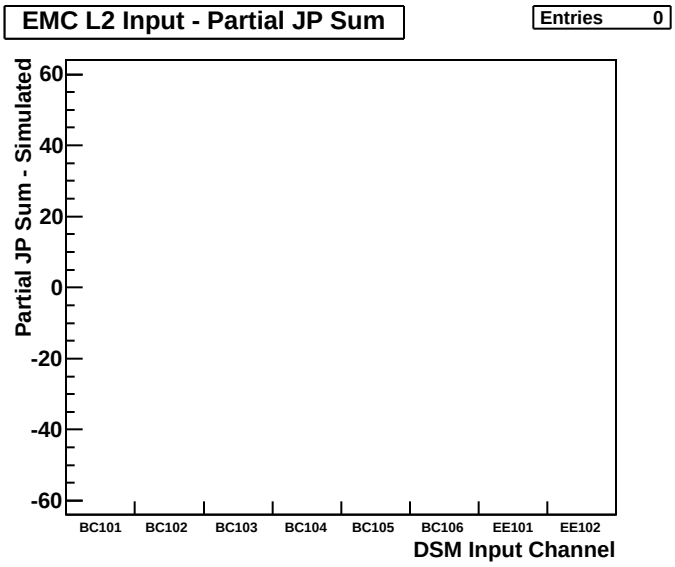

EMC L2 Input - JPY/JPB bits
Entries 402448
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
68 52 52 69 41 68 3
315 278 316 384 268 374 12 5
880 711 859 993 678 949 28 13
49043 49265 49079 48860 49319 48915 50263 50288

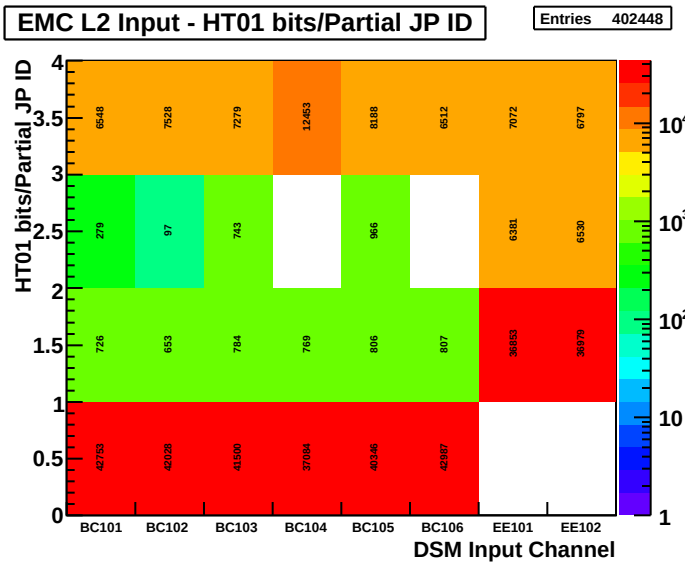

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

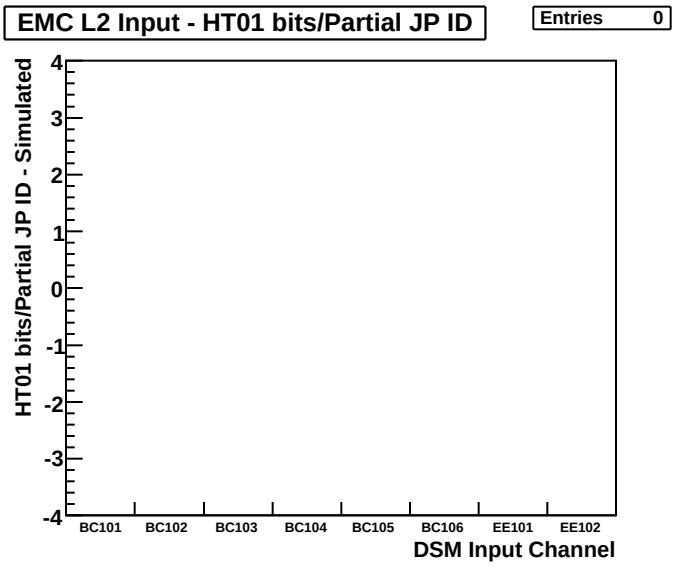

EMC L2 Input - JPZ/JPC bits
Entries 402448
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
41 54 39 110 88 59 2
275 374 363 533 178 200 15 1
654 915 1124 1860 547 496 28 5
49336 49863 49780 47803 49493 49551 50261 50300

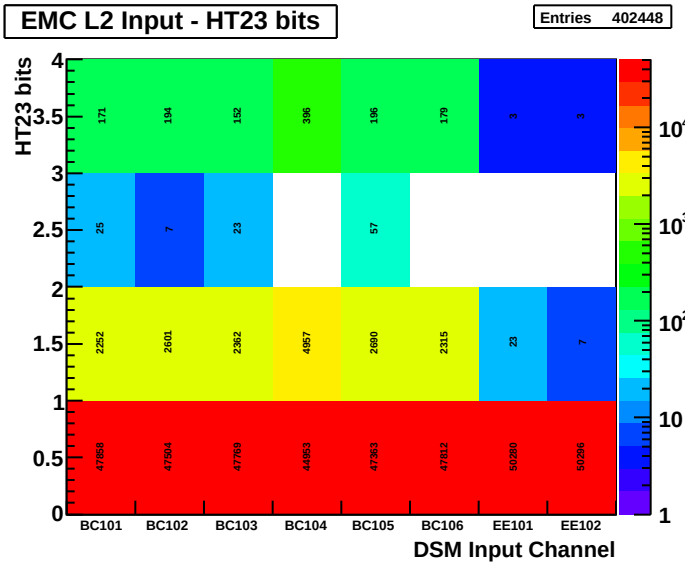

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

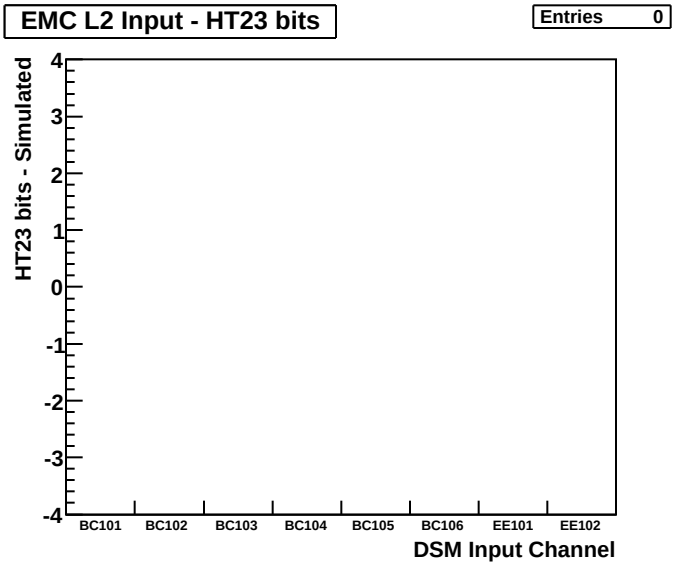

EMC L2 Input - Partial JP Sum
Entries 402448
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

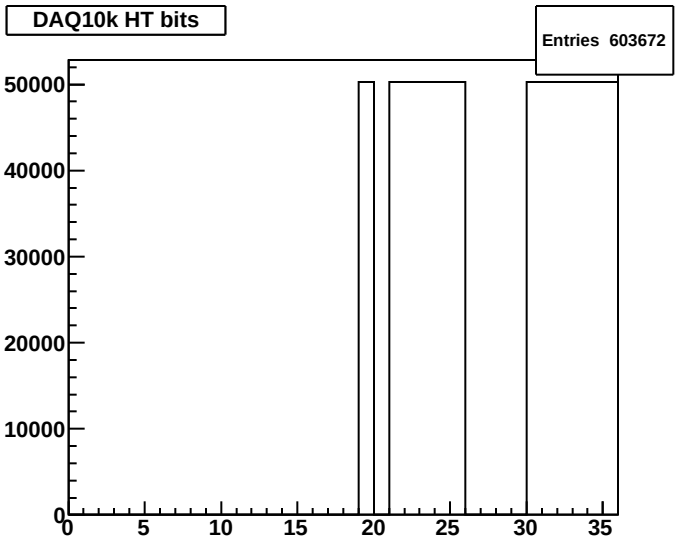

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

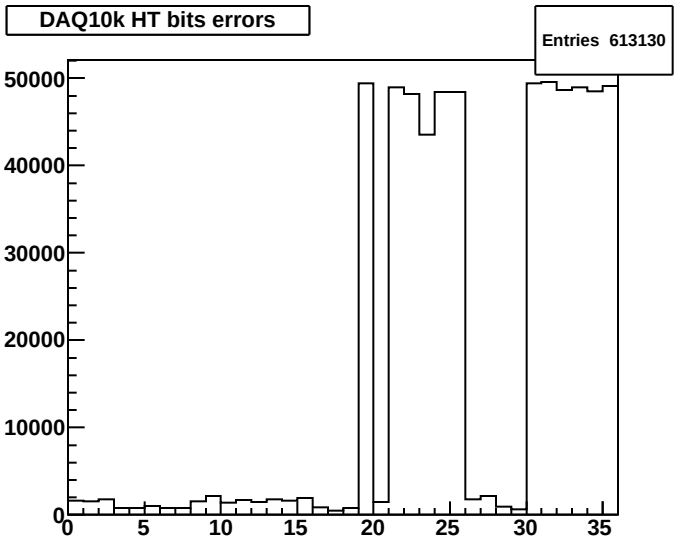

EMC L2 Input - HT01 bits/Partial JP ID
Entries 402448
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

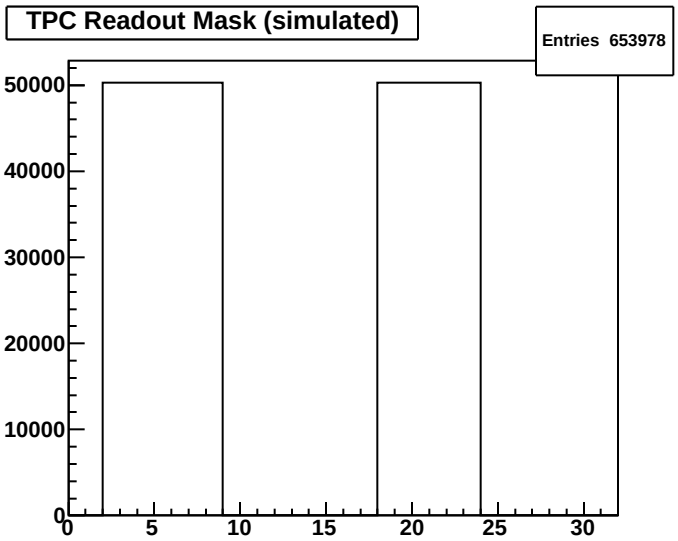

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

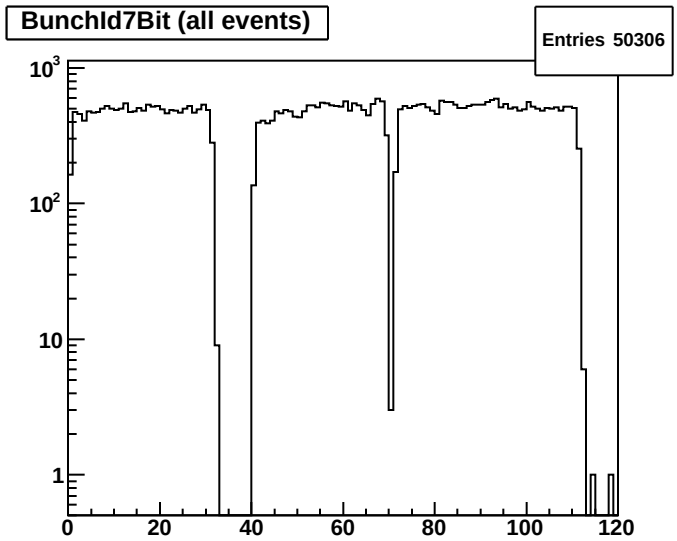

EMC L2 Input - HT23 bits
Entries 402448
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

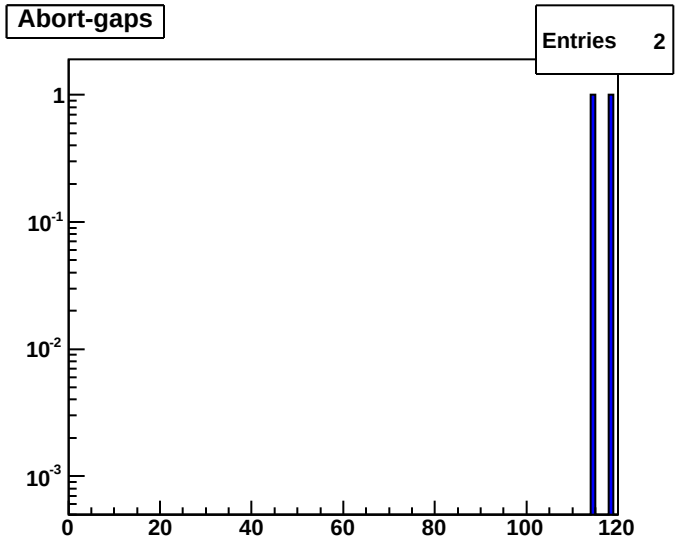

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

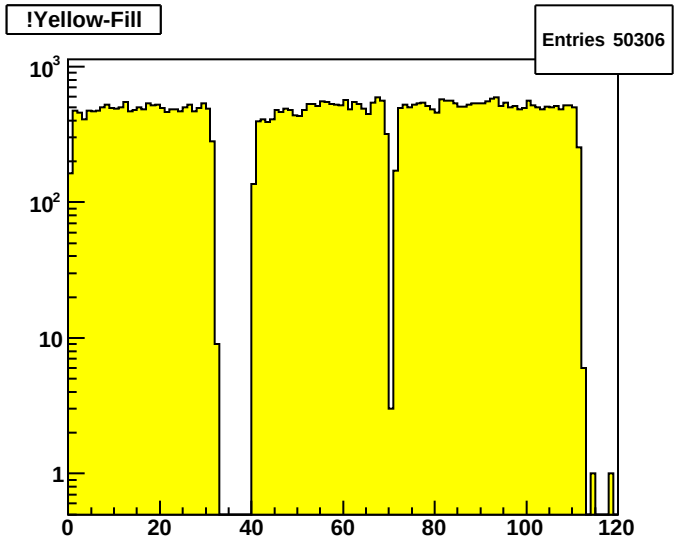

DAQ10k HT bits
Entries 603672
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

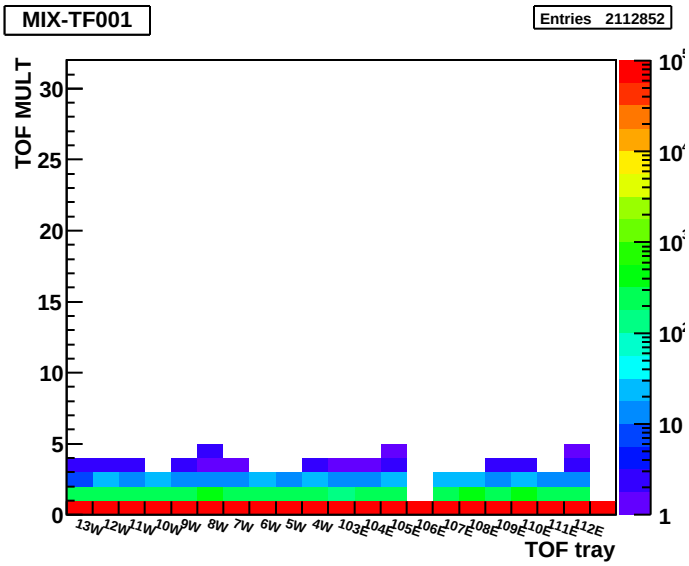

DAQ10k HT bits errors
Entries 613130
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

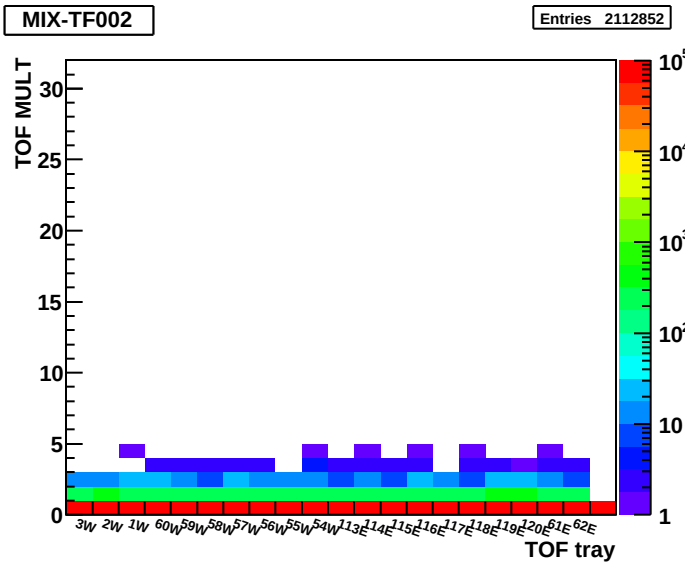

TPC Readout Mask (simulated)
Entries 653978
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

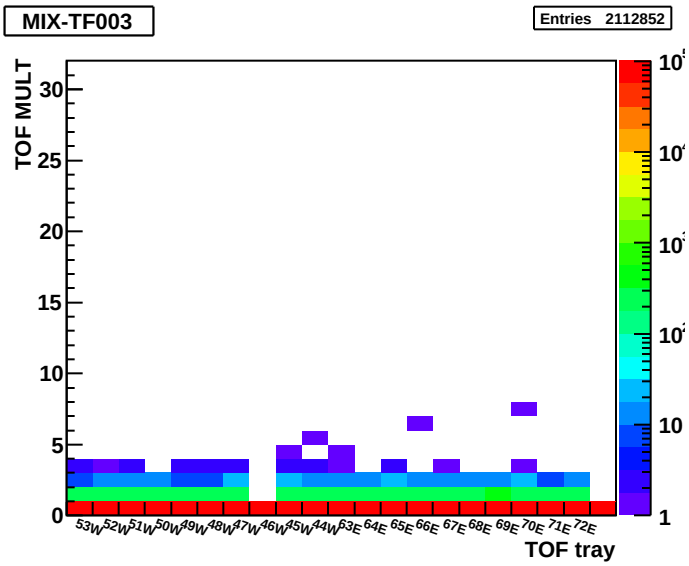

BunchId7Bit (all events)
Entries 50306
10^3
10^2
10
1
0 20 40 60 80 100 120

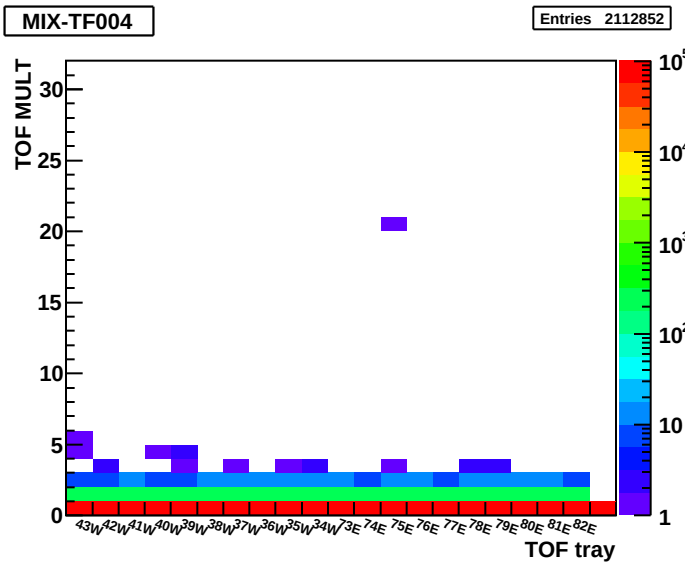

Abort-gaps
Entries 2
1
10^{-1}
10^{-2}
10^{-3}
0 20 40 60 80 100 120

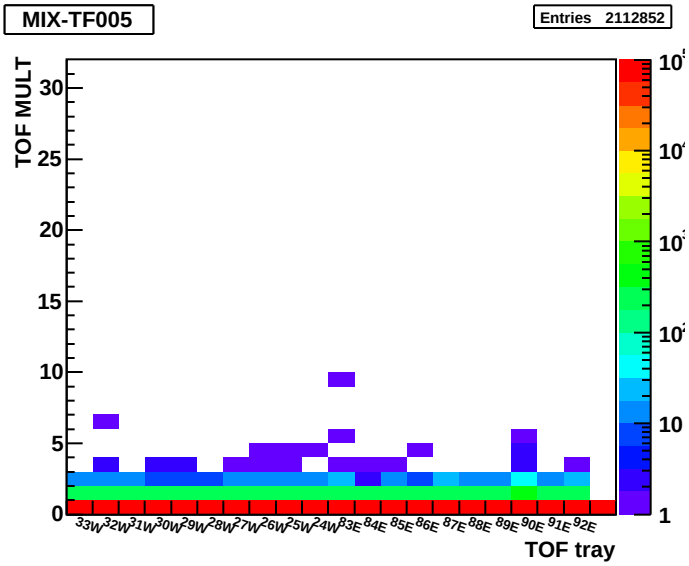

!Yellow-Fill
Entries 50306
10^3
10^2
10
1
0 20 40 60 80 100 120

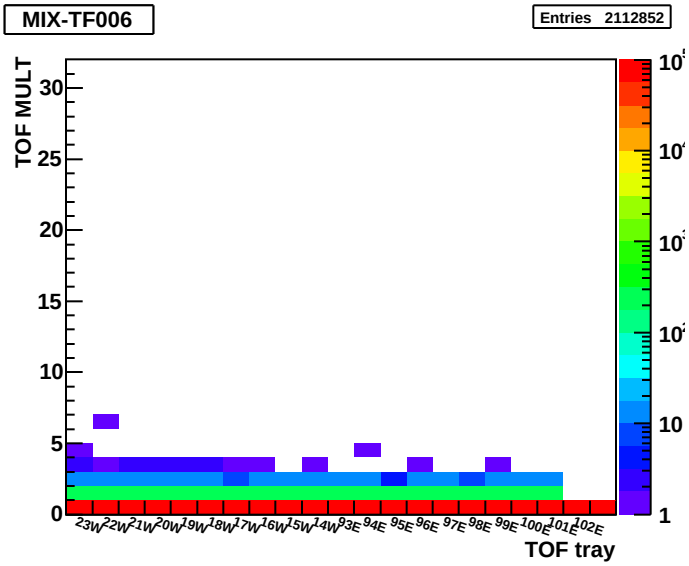

MIX-TF001
Entries 2112852
TOF MULT
TOF tray

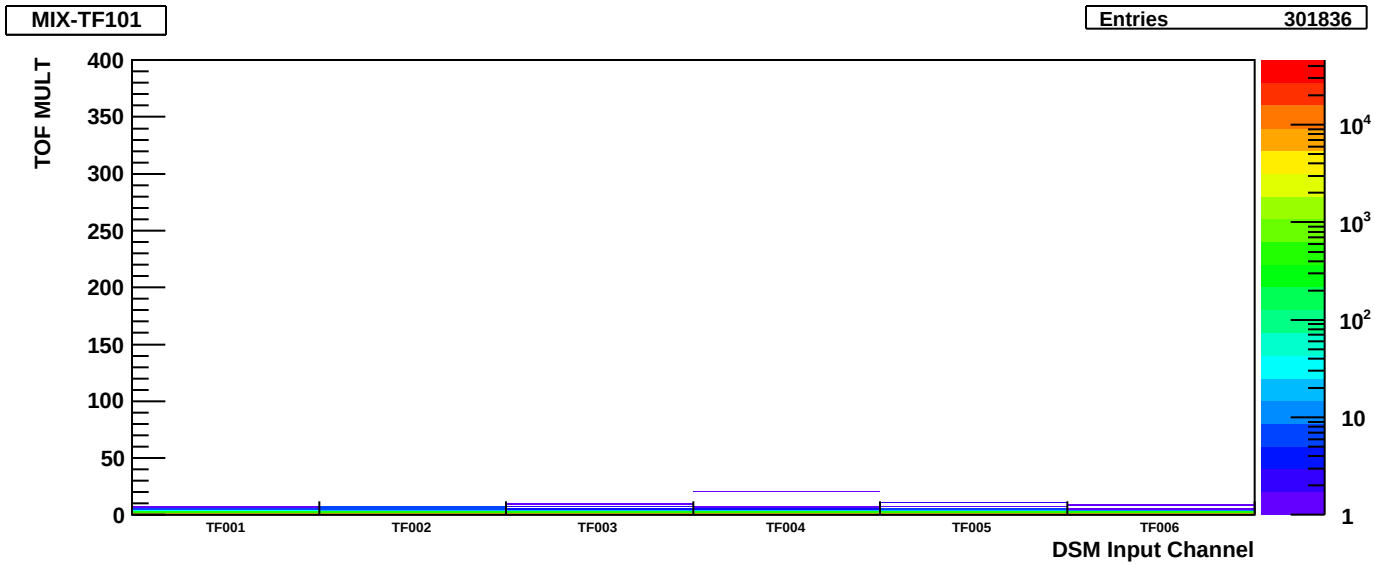

MIX-TF002
Entries 2112852
TOF MULT
TOF tray

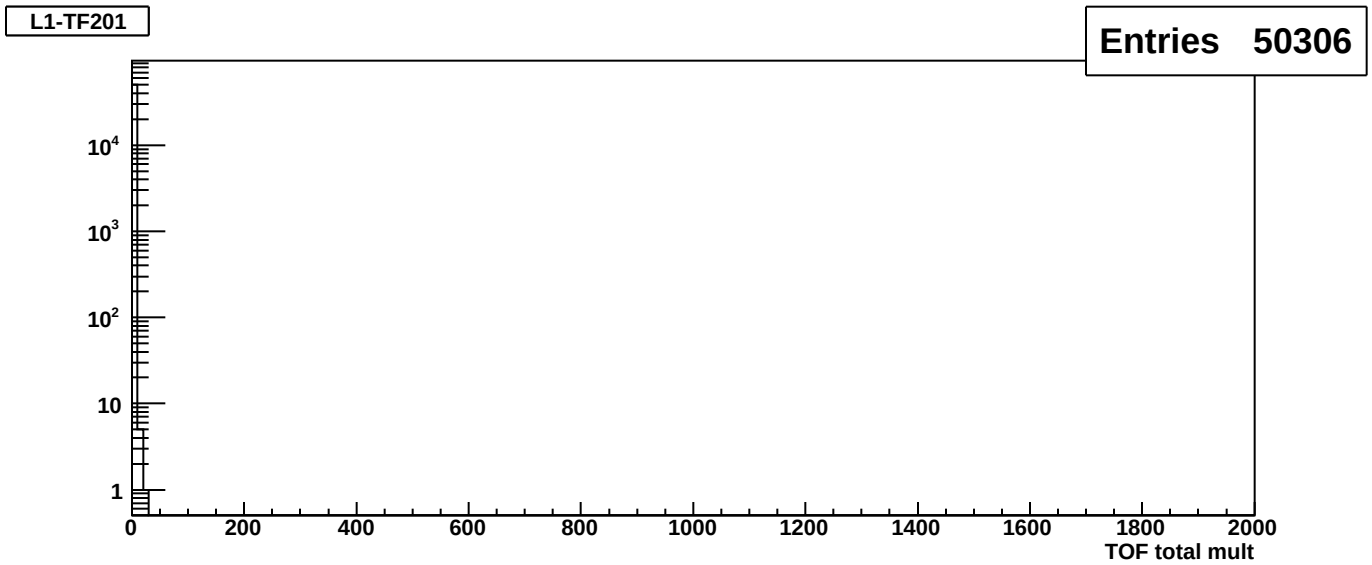

MIX-TF003
Entries 2112852
TOF MULT
TOF tray

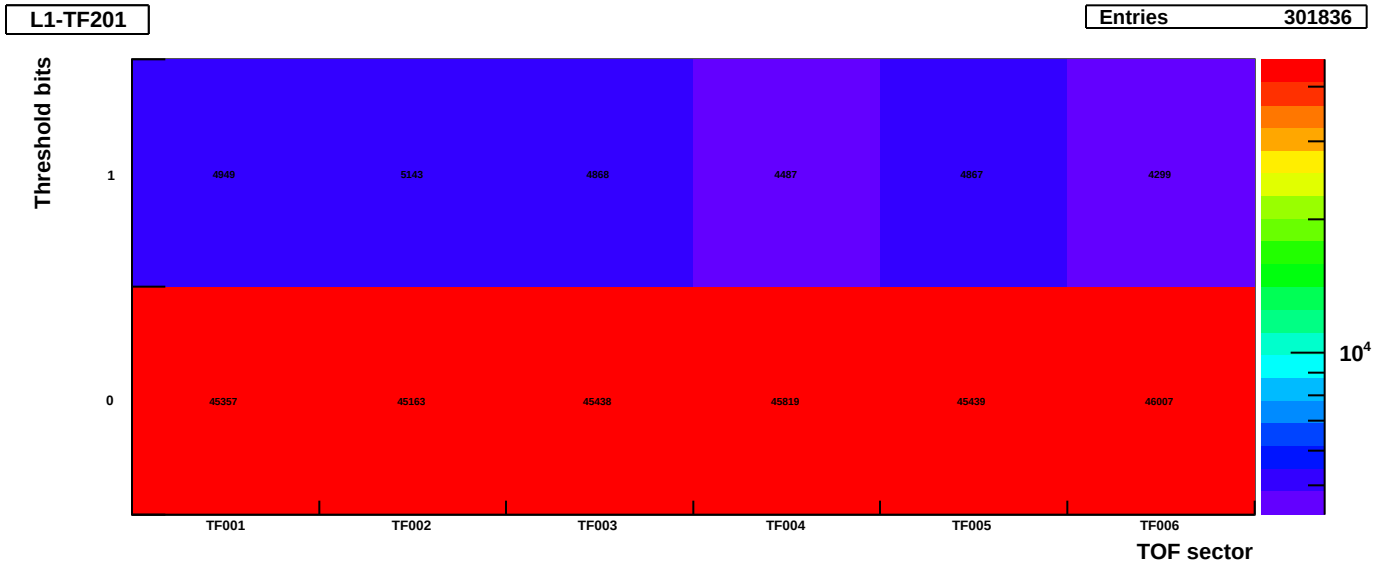

MIX-TF004
Entries 2112852
TOF MULT
TOF tray

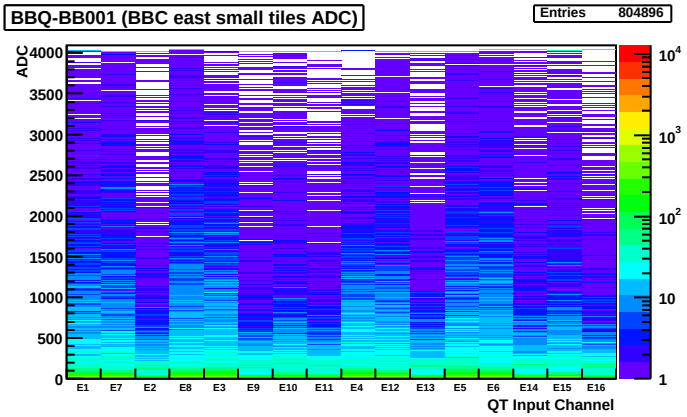

MIX-TF005
Entries 2112852
TOF MULT
TOF tray

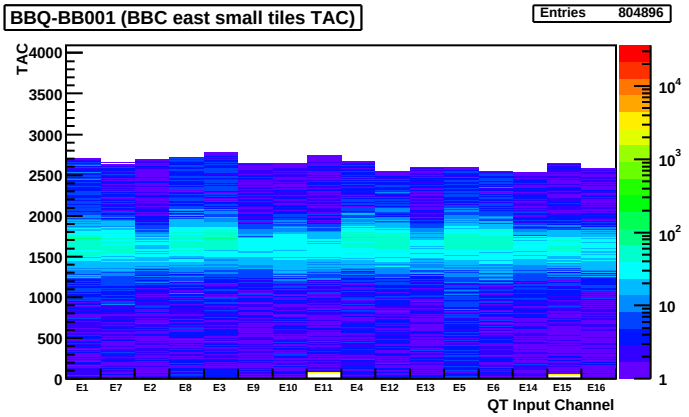

MIX-TF006
Entries 2112852
TOF MULT
TOF tray

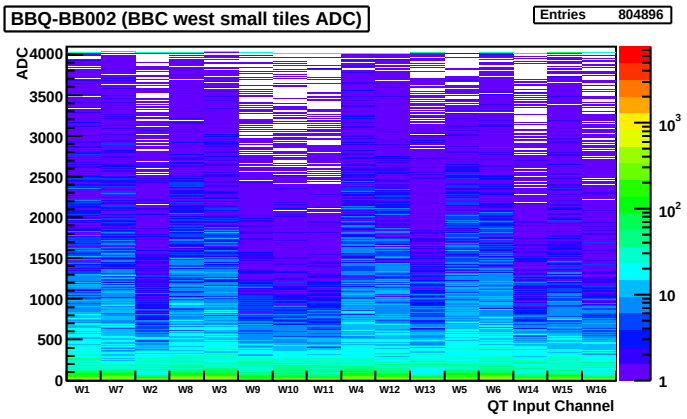

MIX-TF101
Entries 301836
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

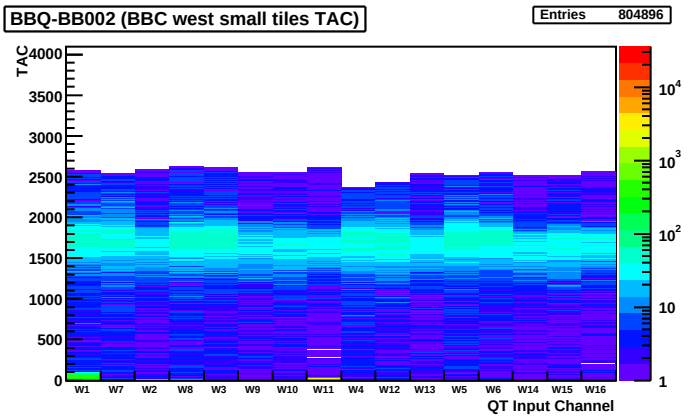

L1-TF201
Entries 50306
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

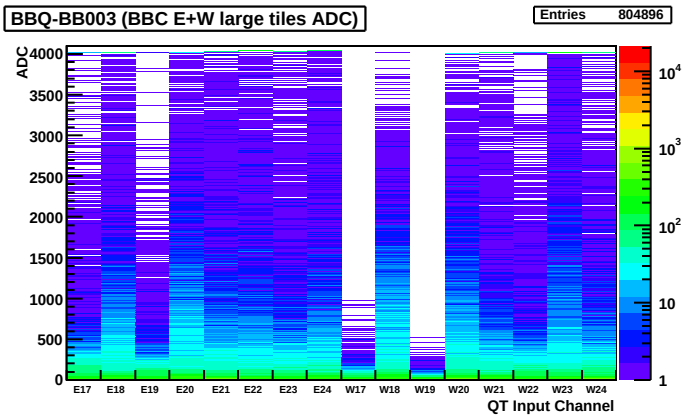

L1-TF201
Entries 301836
Threshold bits
1
0
4949
5143
4868
4487
4867
4299
45357
45163
45438
45819
45439
46007
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

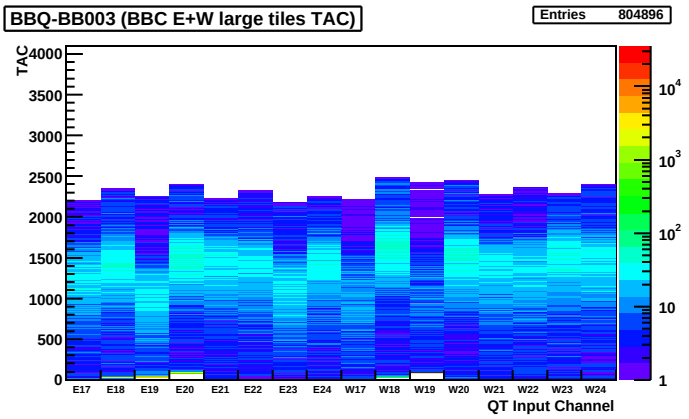

BBQ-BB001 (BBC east small tiles ADC)
Entries 804896
ADC
QT Input Channel

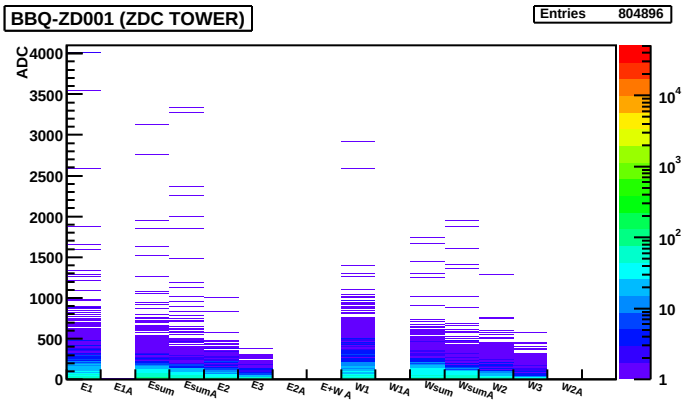

BBQ-BB001 (BBC east small tiles TAC)
Entries 804896
TAC
QT Input Channel

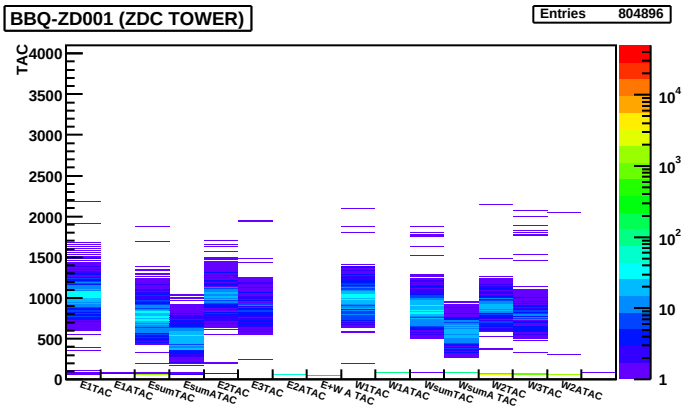

BBQ-BB002 (BBC west small tiles ADC)
Entries 804896
ADC
QT Input Channel

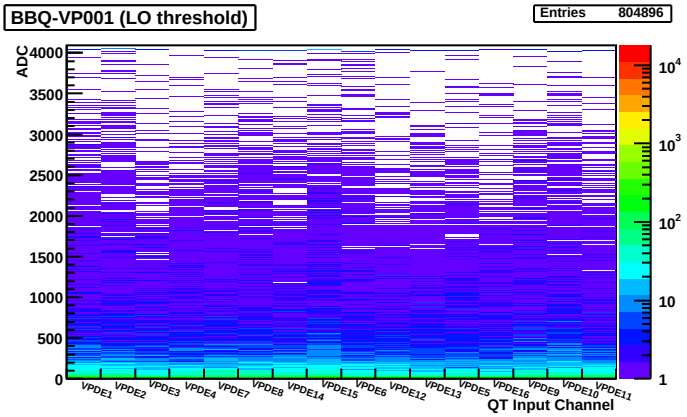

BBQ-BB002 (BBC west small tiles TAC)
Entries 804896
TAC
QT Input Channel

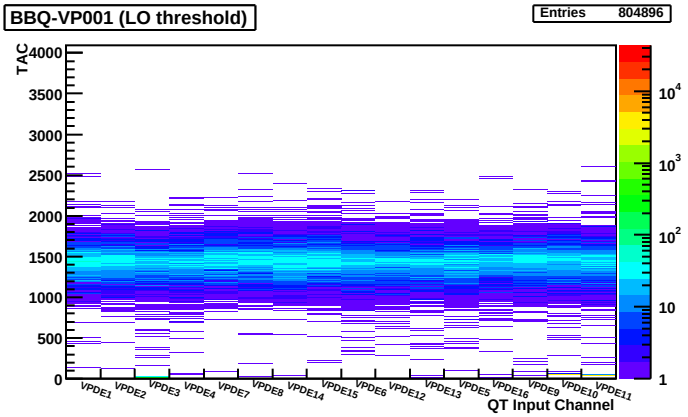

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 804896
ADC
QT Input Channel

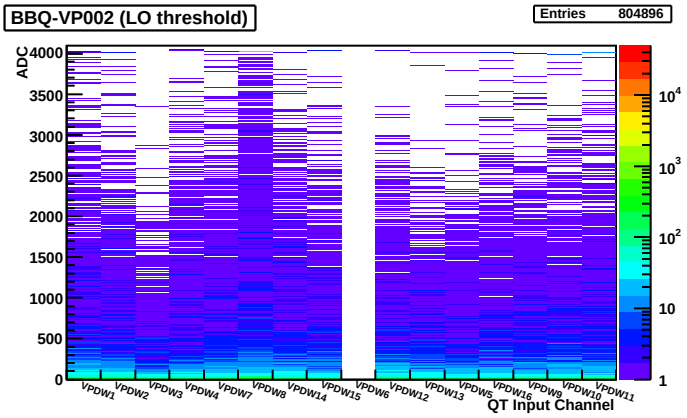

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 804896
TAC
QT Input Channel

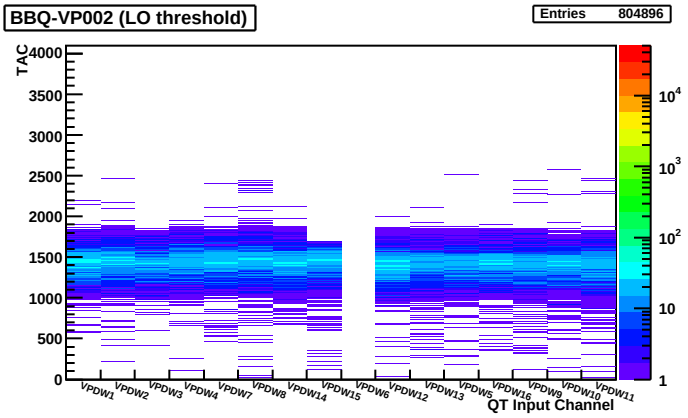

BBQ-ZD001 (ZDC TOWER)
Entries 804896
ADC

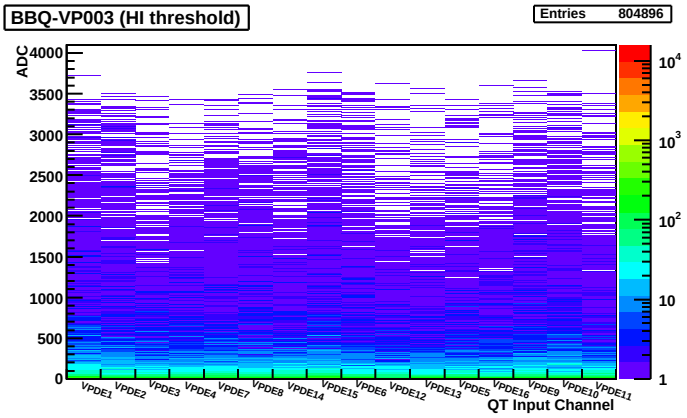

BBQ-ZD001 (ZDC TOWER)
Entries 804896
TAC

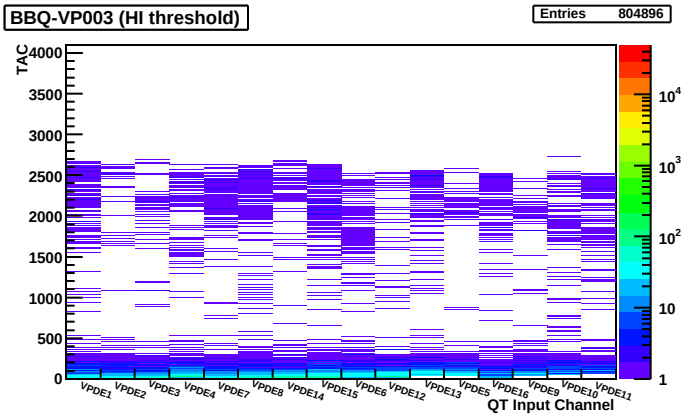

BBQ-VP001 (LO threshold)
Entries 804896
ADC
QT Input Channel

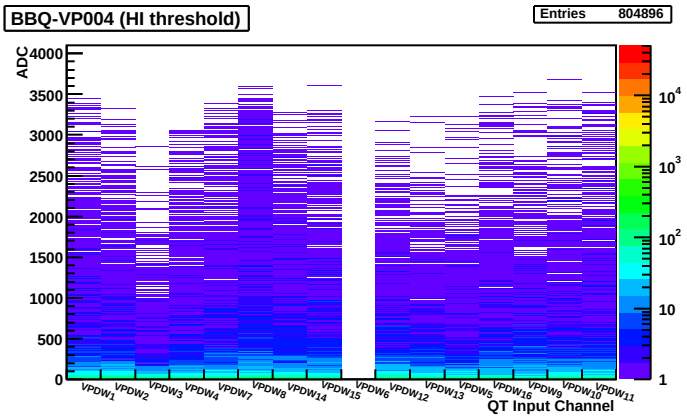

BBQ-VP001 (LO threshold)
Entries 804896
TAC
QT Input Channel

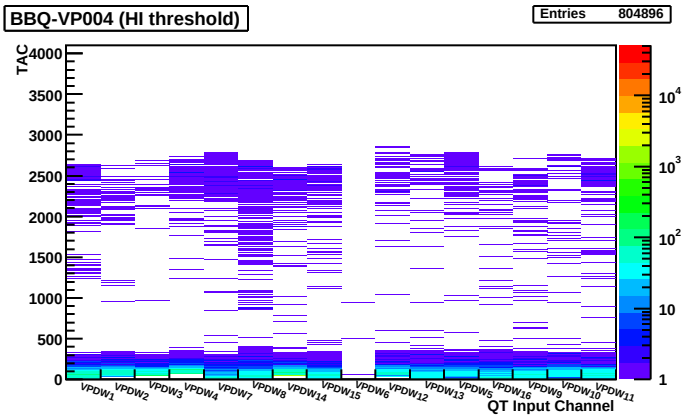

BBQ-VP002 (LO threshold)
Entries 804896
ADC
QT Input Channel

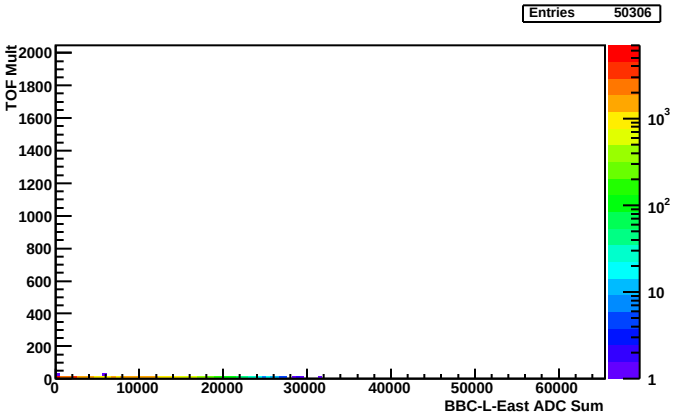

BBQ-VP002 (LO threshold)
Entries 804896
TAC
QT Input Channel

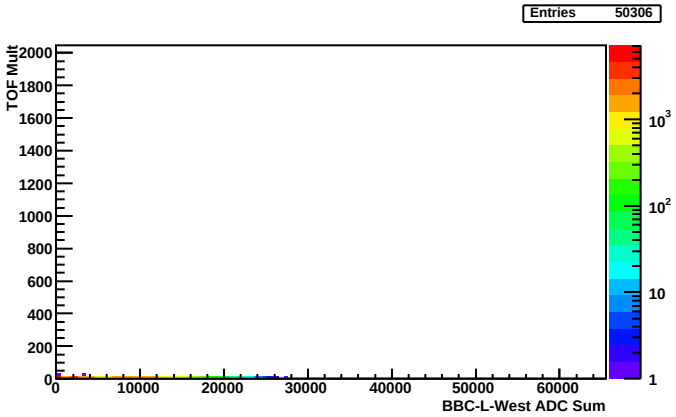

BBQ-VP003 (HI threshold)
Entries 804896
ADC
QT Input Channel

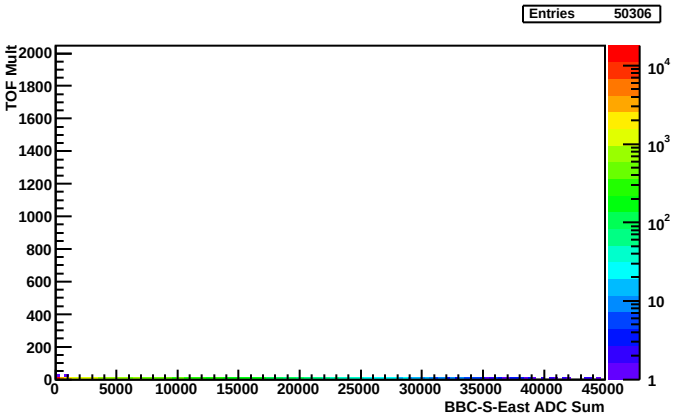

BBQ-VP003 (HI threshold)
Entries 804896
TAC
QT Input Channel

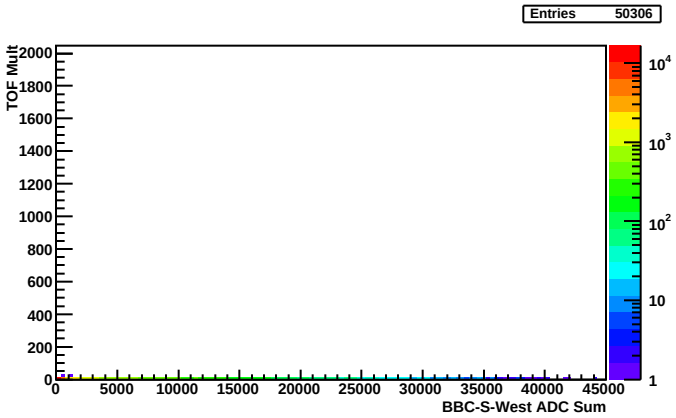

BBQ-VP004 (HI threshold)
Entries 804896
ADC
QT Input Channel

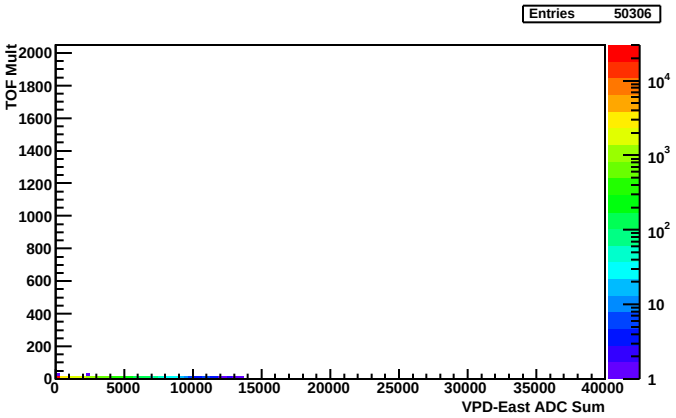

BBQ-VP004 (HI threshold)
Entries 804896
TAC
QT Input Channel

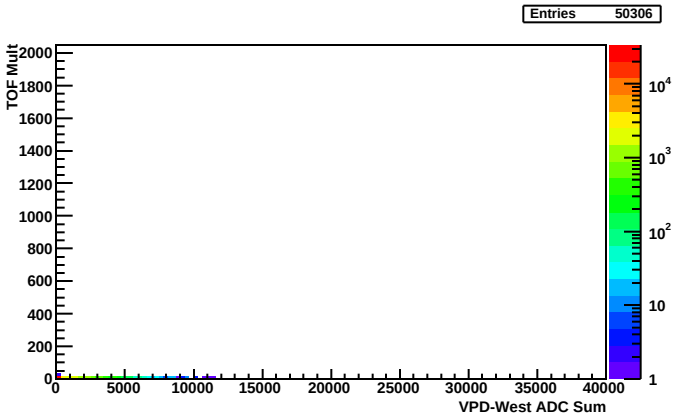

Entries 50306
TOF Mult
BBC-L-East ADC Sum

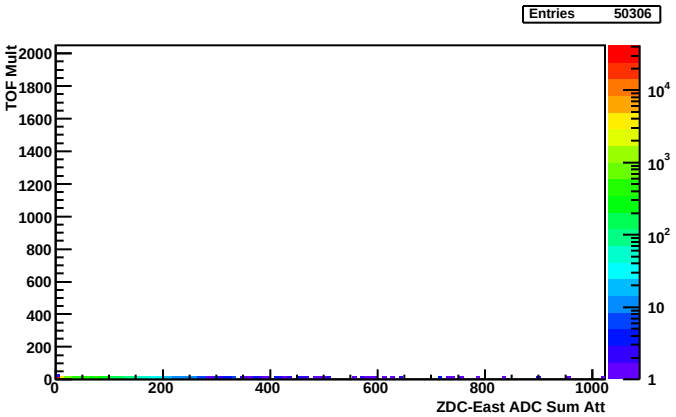

Entries 50306
TOF Mult
BBC-L-West ADC Sum

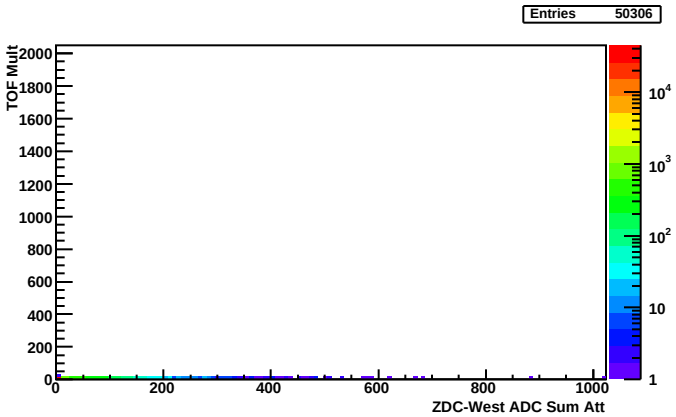

Entries 50306
TOF Mult
BBC-S-East ADC Sum

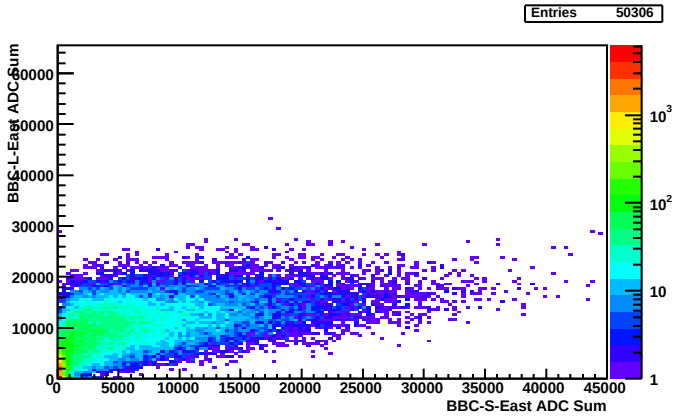

Entries 50306
TOF Mult
BBC-S-West ADC Sum

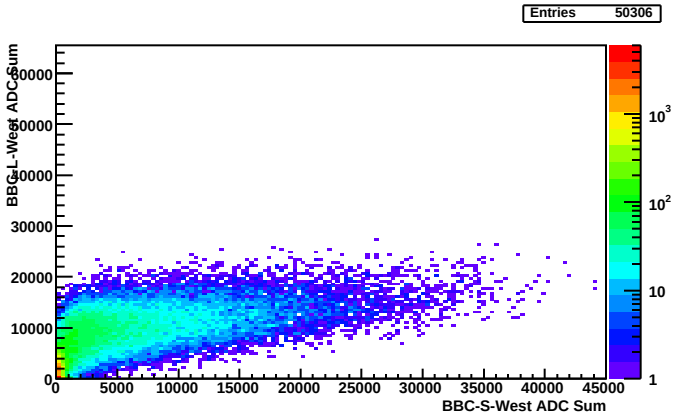

Entries 50306
TOF Mult
VPD-East ADC Sum

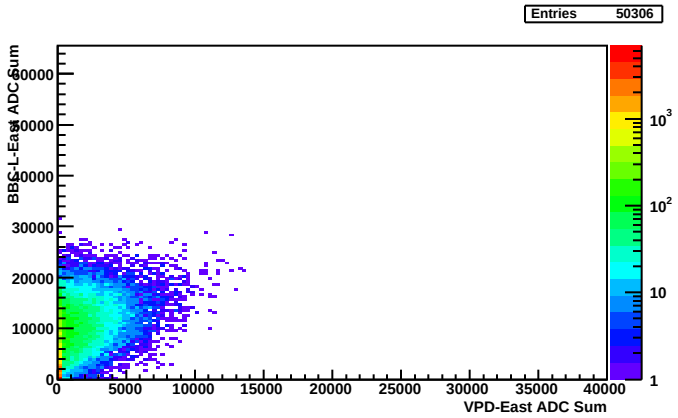

Entries 50306
TOF Mult
VPD-West ADC Sum

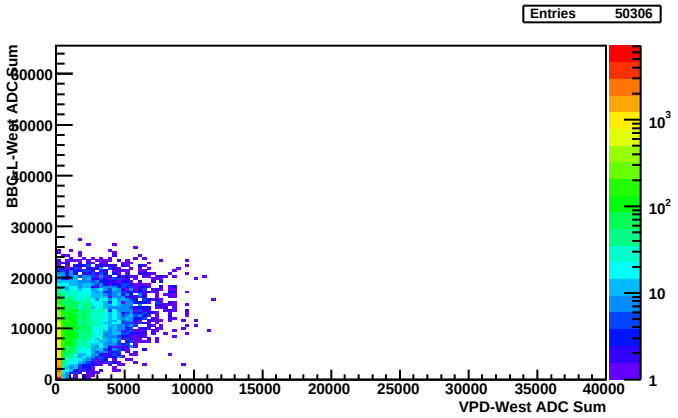

Entries 50306
TOF Mult
ZDC-East ADC Sum Att

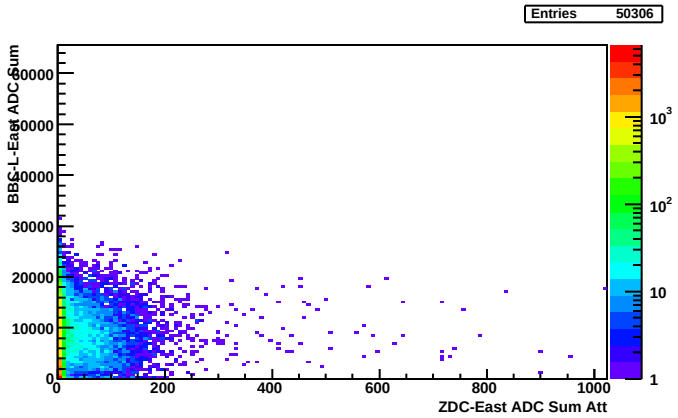

Entries 50306
TOF Mult
ZDC-West ADC Sum Att

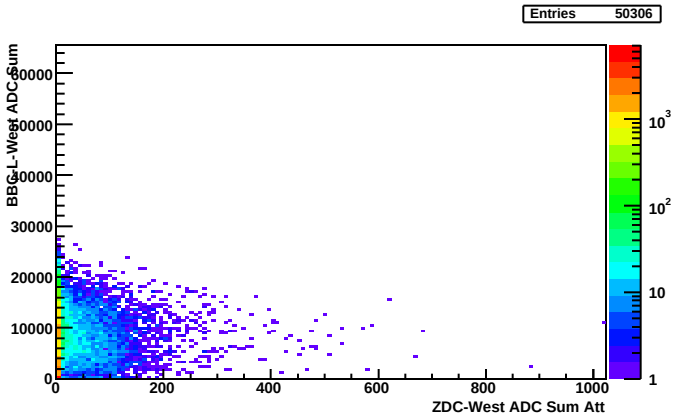

Entries 50306
BBC-L-East ADC Sum
BBC-S-East ADC Sum

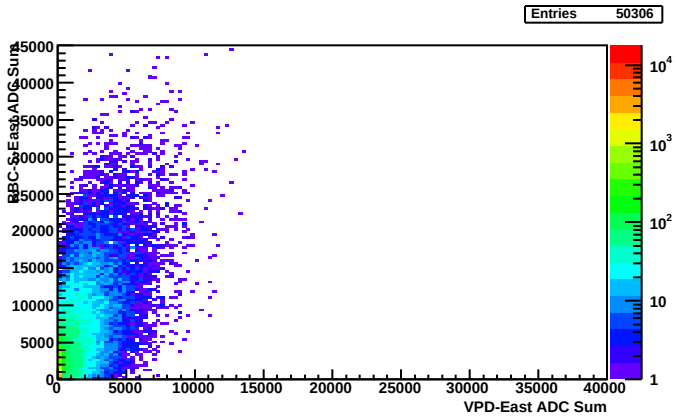

Entries 50306
BBC-L-West ADC Sum
BBC-S-West ADC Sum

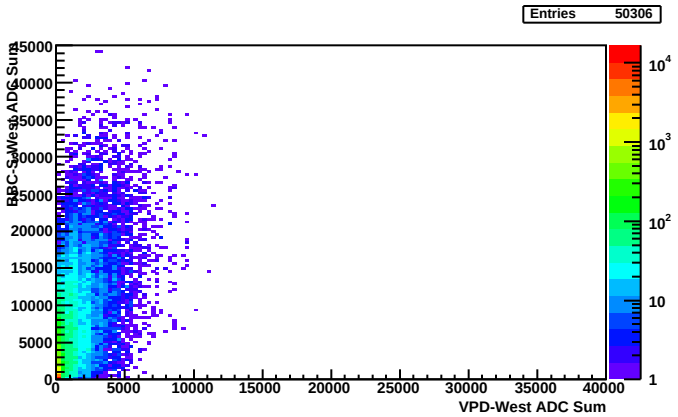

Entries 50306
BBC-L-East ADC Sum
VPD-East ADC Sum

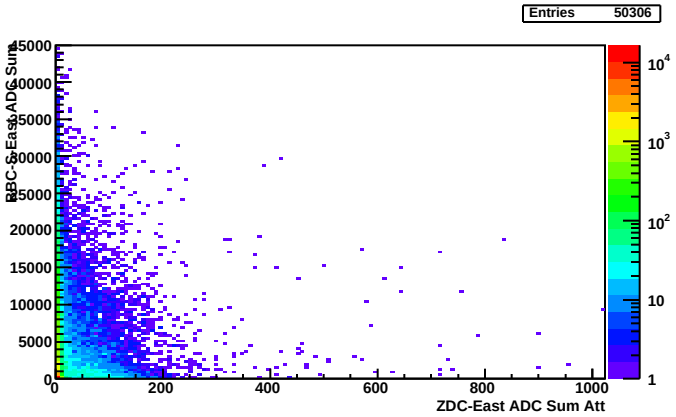

Entries 50306
BBC-L-West ADC Sum
VPD-West ADC Sum

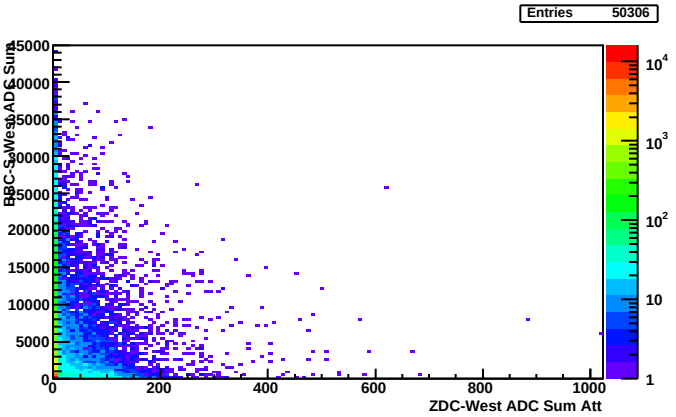

Entries 50306
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

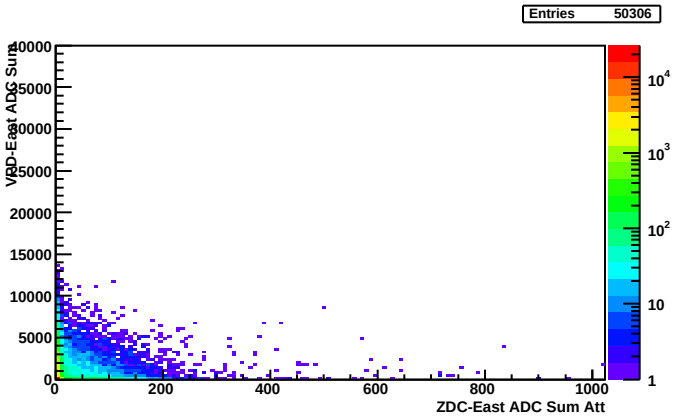

Entries 50306
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

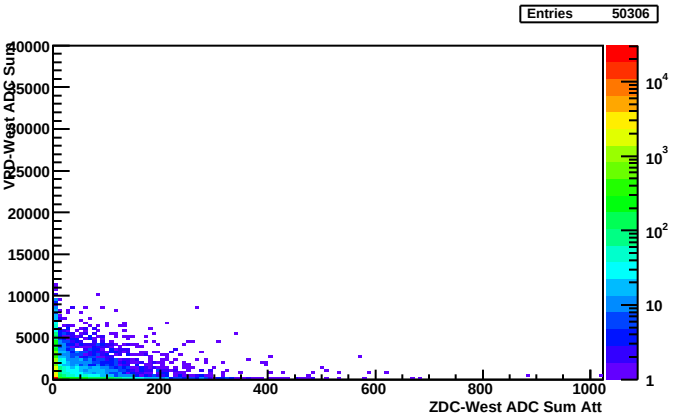

Entries 50306
BBC-S-East ADC Sum
VPD-East ADC Sum

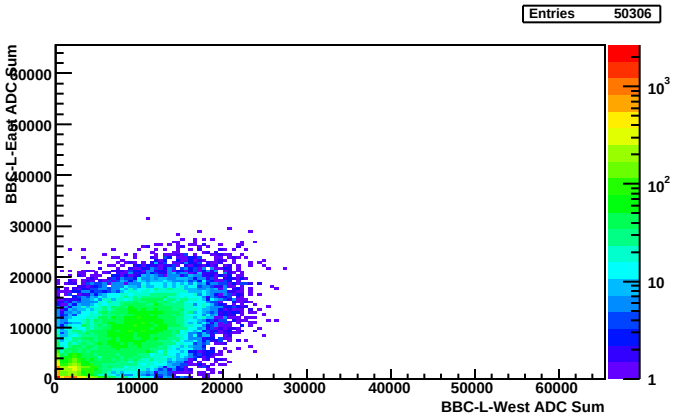

Entries 50306
BBC-S-West ADC Sum
VPD-West ADC Sum

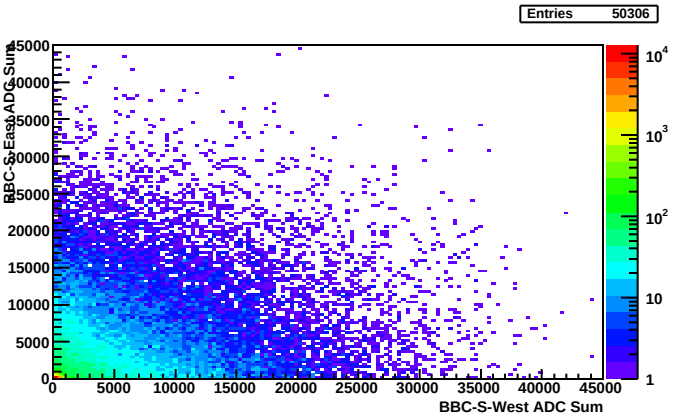

Entries 50306
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

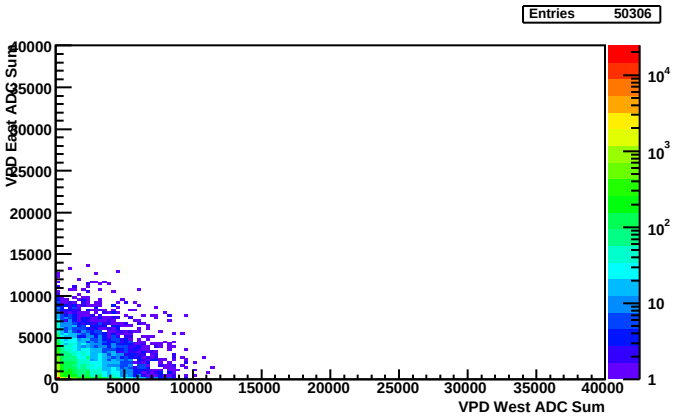

Entries 50306
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

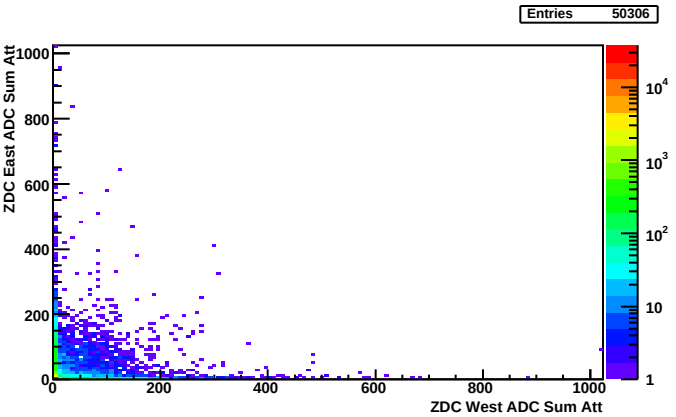

Entries 50306
VPD-East ADC Sum
ZDC-East ADC Sum Att

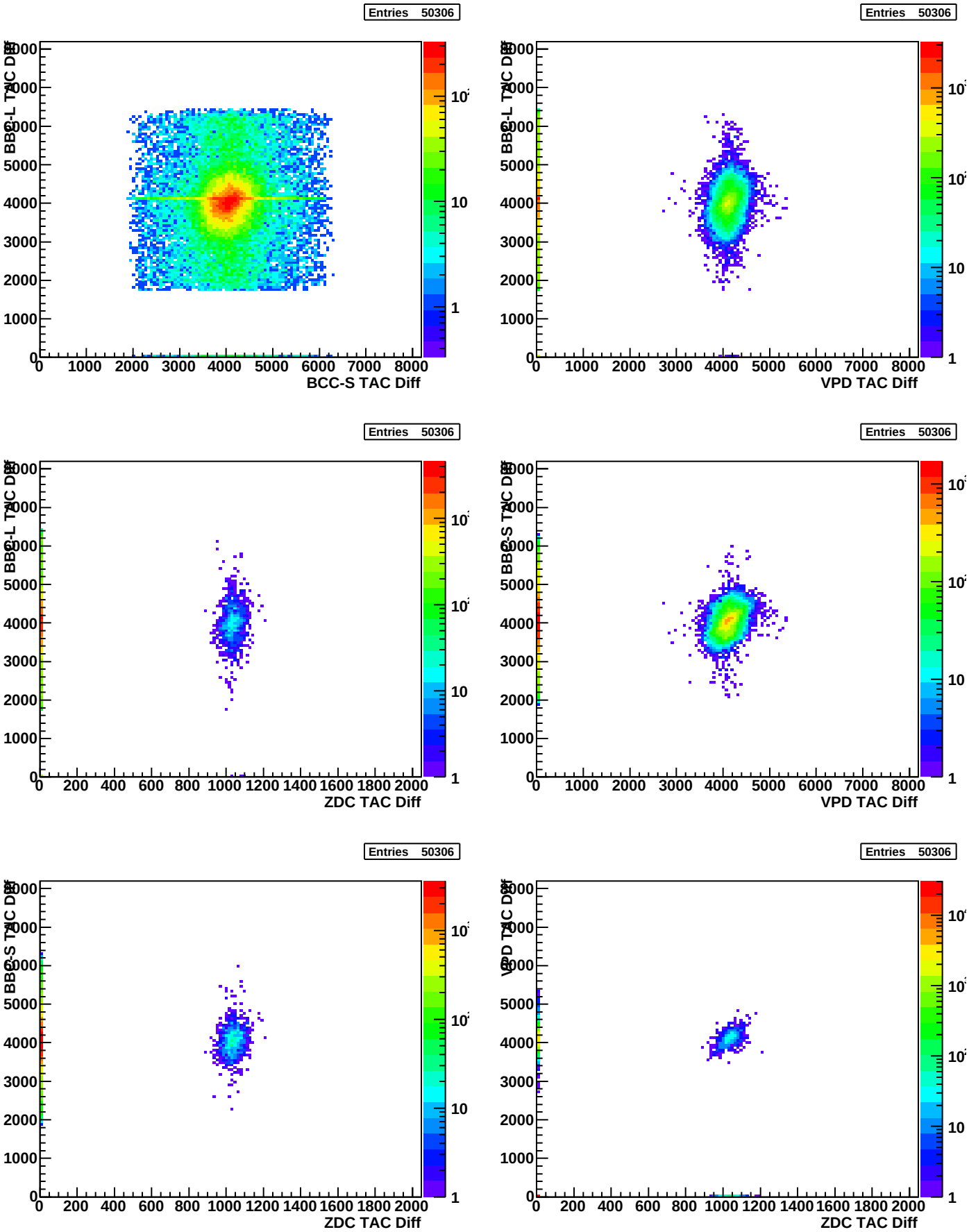

Entries 50306
VPD-West ADC Sum
ZDC-West ADC Sum Att

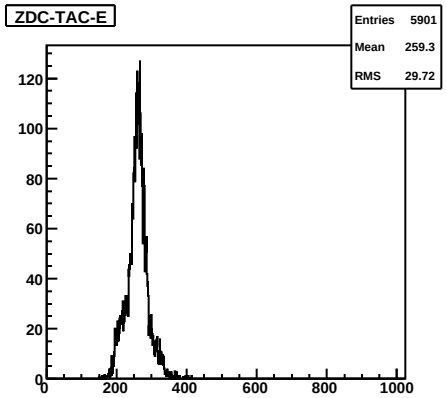

Entries 50306
BBC-L-East ADC Sum
BBC-L-West ADC Sum

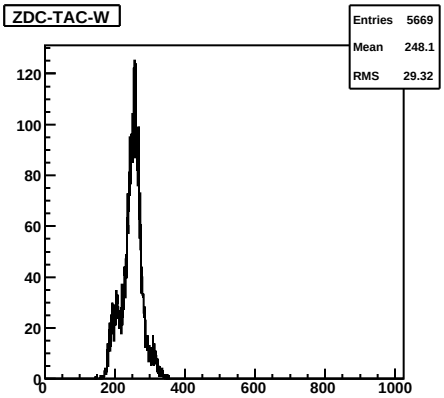

Entries 50306
BBC-S-East ADC Sum
BBC-S-West ADC Sum

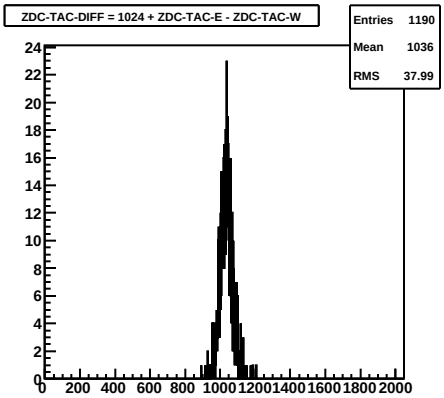

Entries 50306
VPD East ADC Sum
VPD West ADC Sum

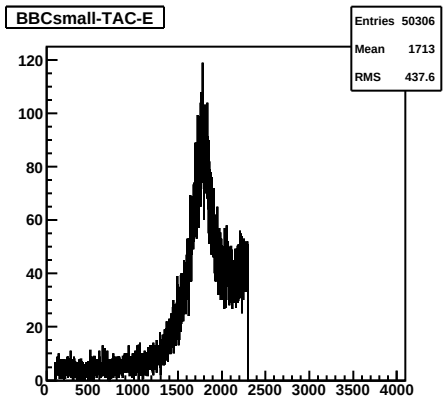

Entries 50306
ZDC East ADC Sum Att
ZDC West ADC Sum Att

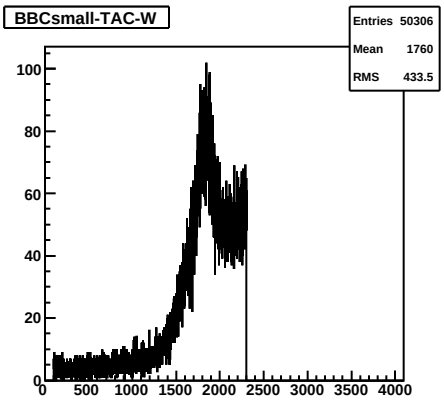

Entries 50306
BBC-L TAC Diff
BCC-S TAC Diff
Entries 50306
BBC-L TAC Diff
VPD TAC Diff
Entries 50306
BBC-L TAC Diff
ZDC TAC Diff
Entries 50306
BBC-S TAC Diff
VPD TAC Diff
Entries 50306
BBC-S TAC Diff
ZDC TAC Diff
Entries 50306
VPD TAC Diff
ZDC TAC Diff

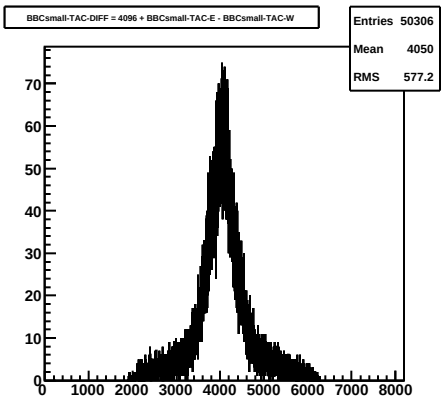

ZDC-TAC-E
Entries 5901
Mean 259.3
RMS 29.72

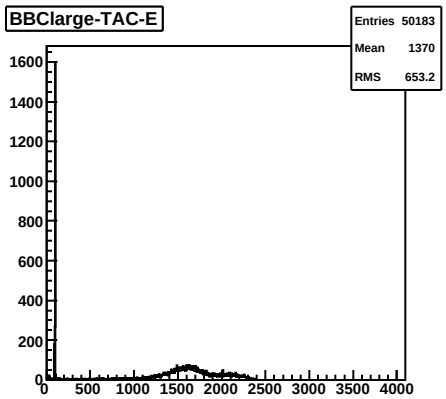

ZDC-TAC-W
Entries 5669
Mean 248.1
RMS 29.32

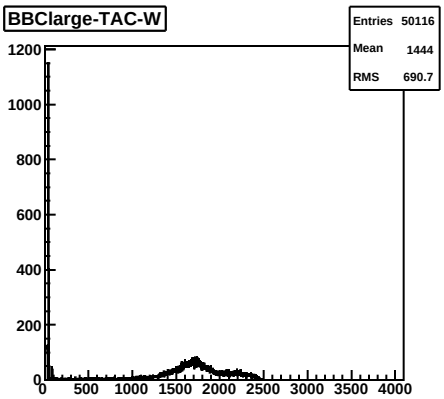

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1190
Mean 1036
RMS 37.99

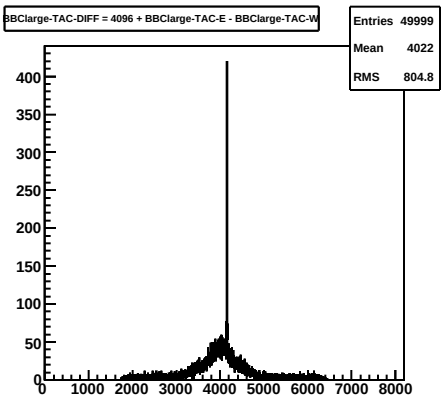

BBCsmall-TAC-E
Entries 50306
Mean 1713
RMS 437.6

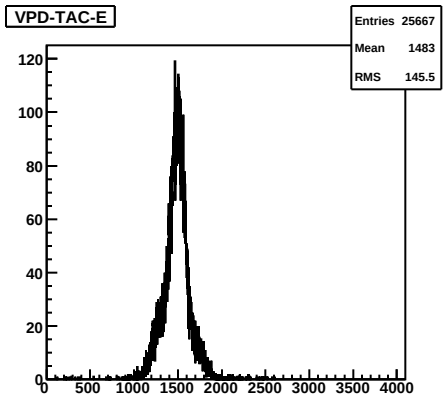

BBCsmall-TAC-W
Entries 50306
Mean 1760
RMS 433.5

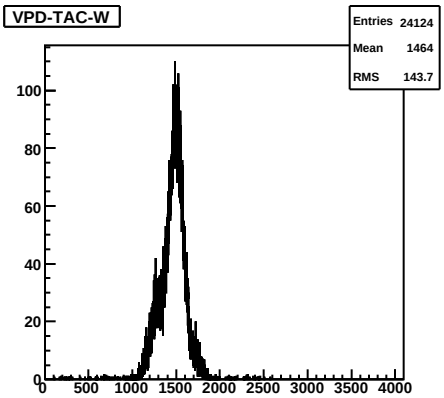

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 50306
Mean 4050
RMS 577.2

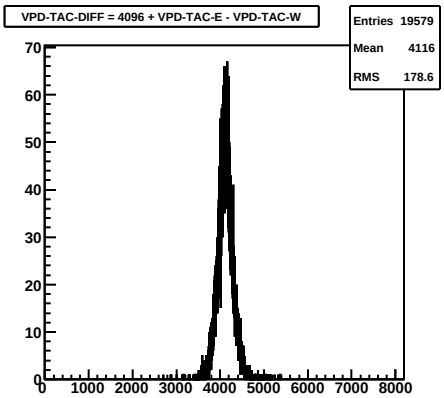

BBClarge-TAC-E
Entries 50183
Mean 1370
RMS 653.2

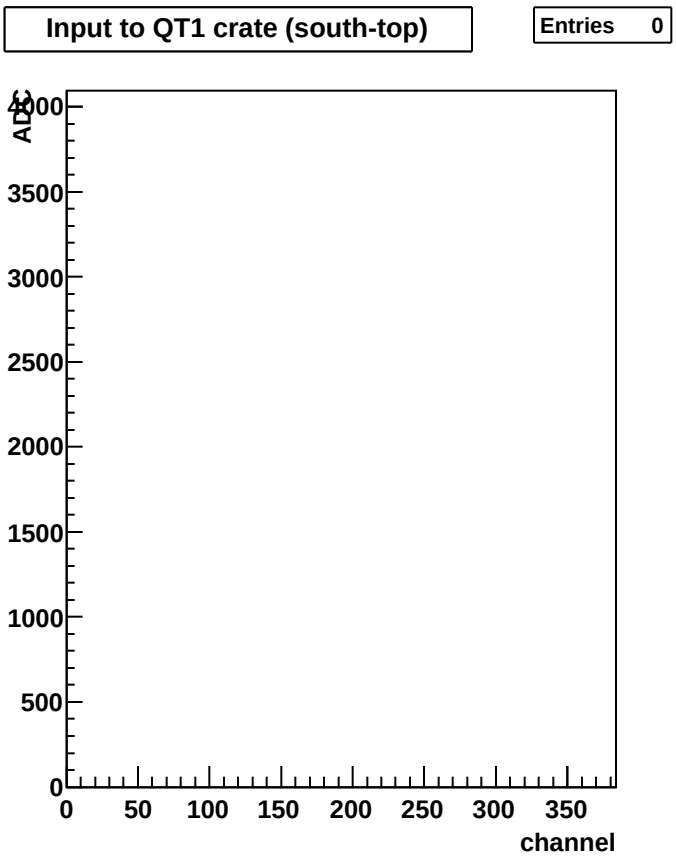

BBClarge-TAC-W
Entries 50116
Mean 1444
RMS 690.7

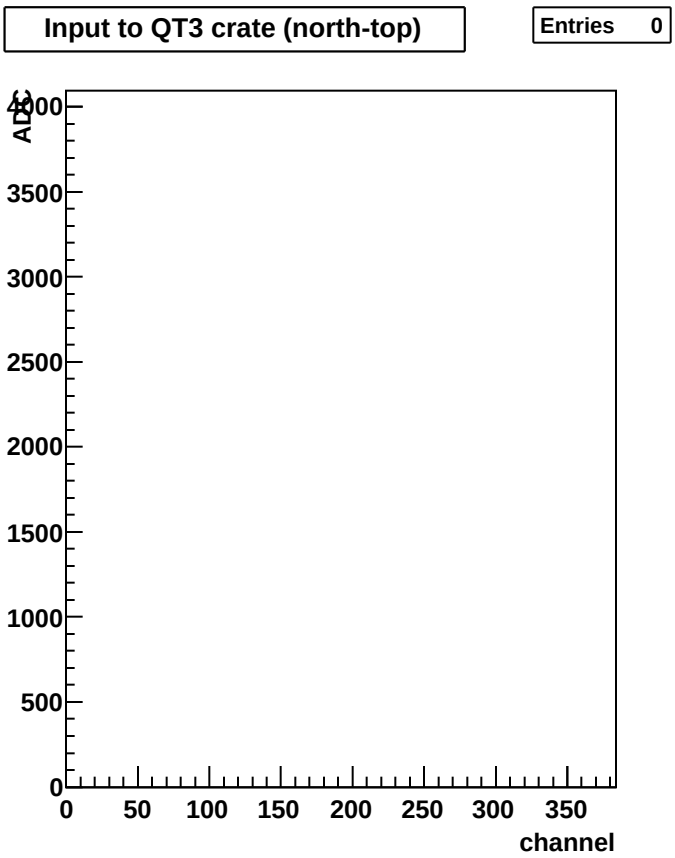

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 49999
Mean 4022
RMS 804.8

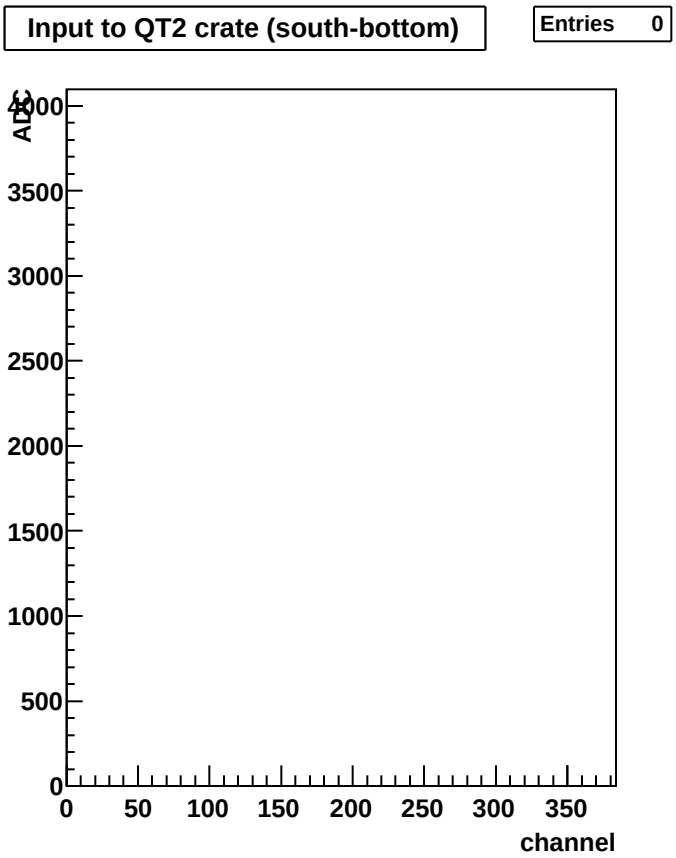

VPD-TAC-E
Entries 25667
Mean 1483
RMS 145.5

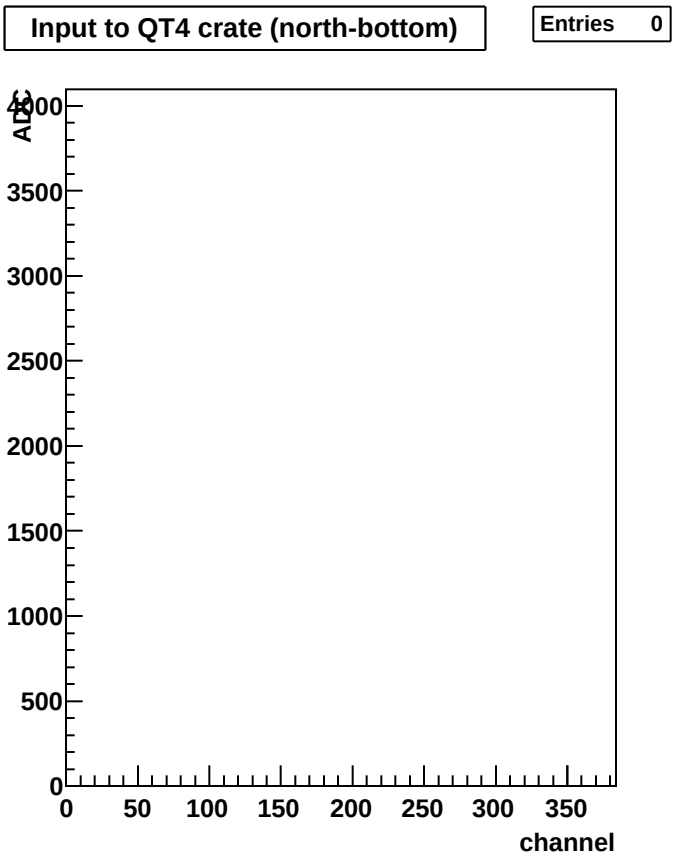

VPD-TAC-W
Entries 24124
Mean 1464
RMS 143.7

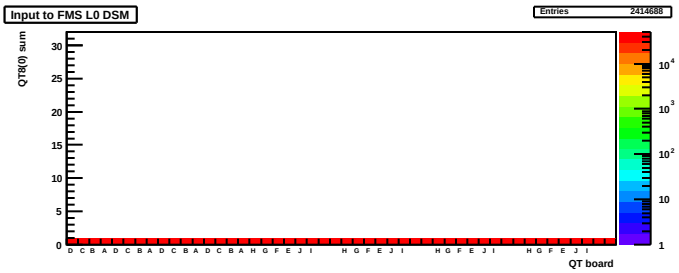

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 19579
Mean 4116
RMS 178.6

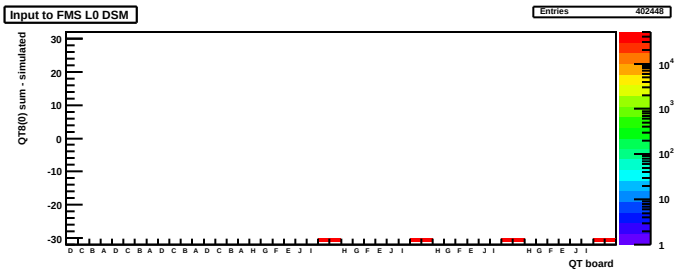

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

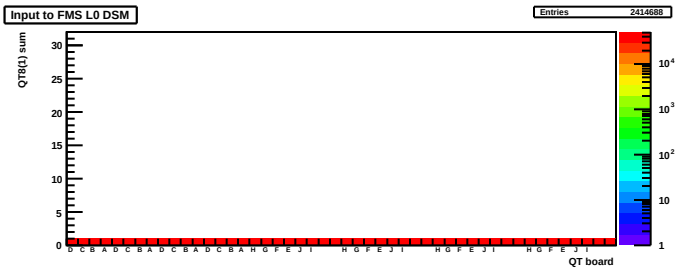

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

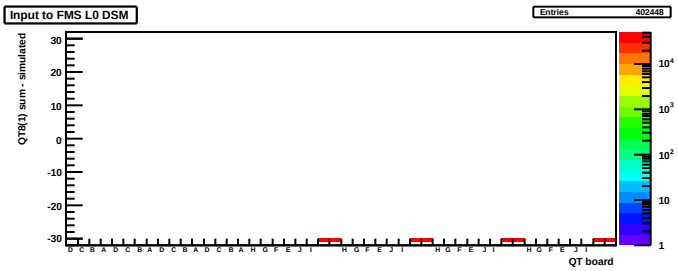

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

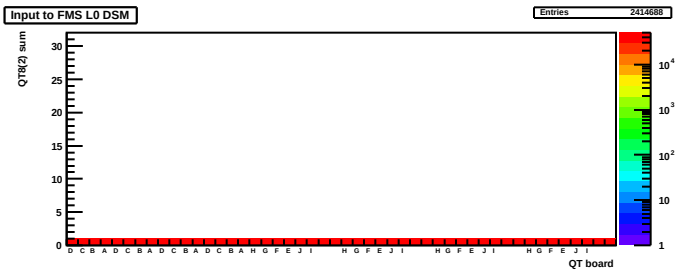

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

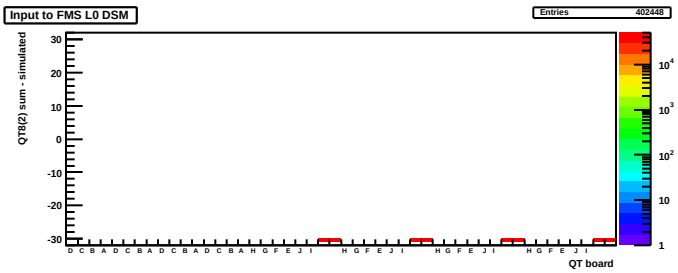

Input to FMS L0 DSM
Entries 2414688
QT8(0) sum
QT board

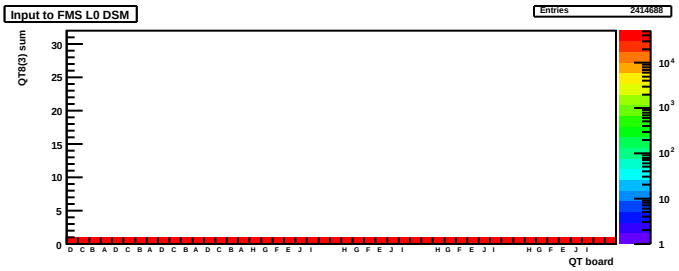

Input to FMS L0 DSM
Entries 402448
QT8(0) sum - simulated
QT board

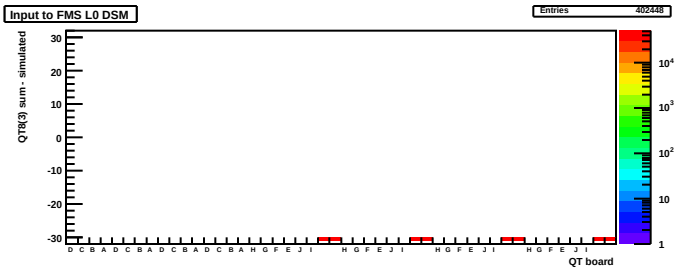

Input to FMS L0 DSM
Entries 2414688
QT8(1) sum
QT board

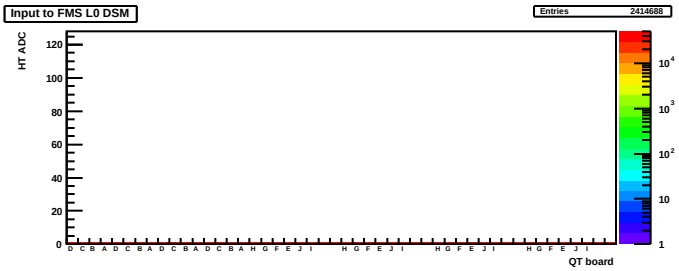

Input to FMS L0 DSM
Entries 402448
QT8(1) sum - simulated
QT board

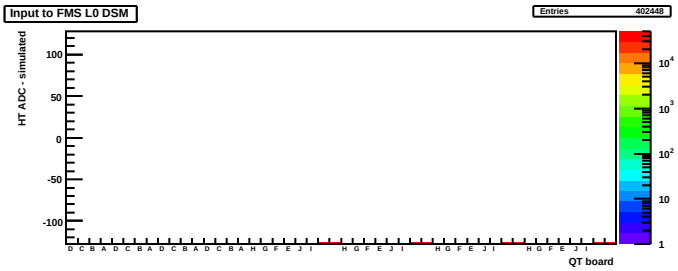

Input to FMS L0 DSM
Entries 2414688
QT8(2) sum
QT board

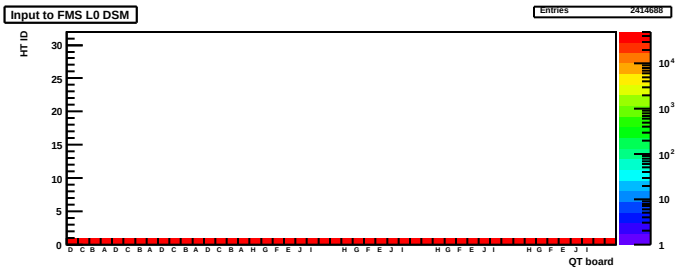

Input to FMS L0 DSM
Entries 402448
QT8(2) sum - simulated
QT board

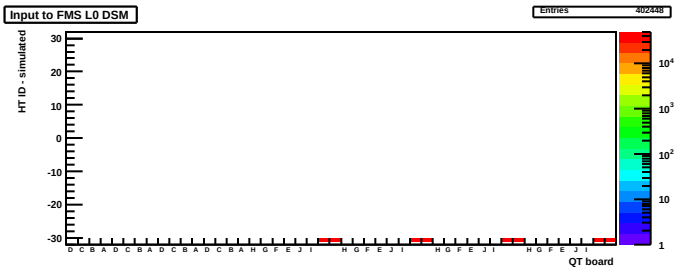

Input to FMS L0 DSM
Entries 2414688
QT8(3) sum
QT board

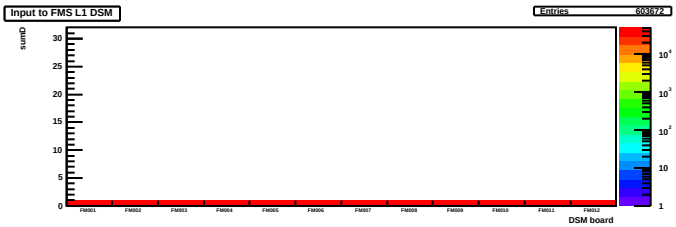

Input to FMS L0 DSM
Entries 402448
QT8(3) sum - simulated
QT board

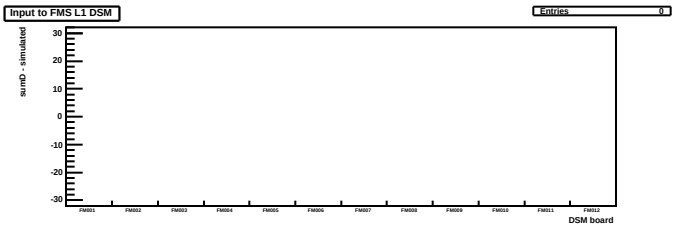

Input to FMS L0 DSM
Entries 2414688
HT ADC
QT board

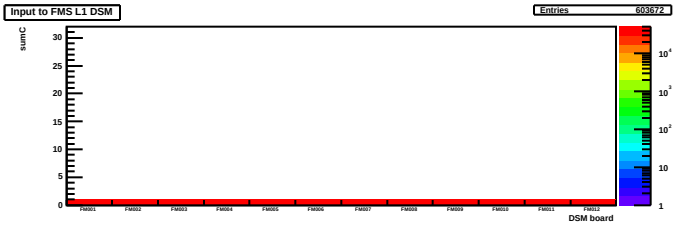

Input to FMS L0 DSM
Entries 402448
HT ADC - simulated
QT board

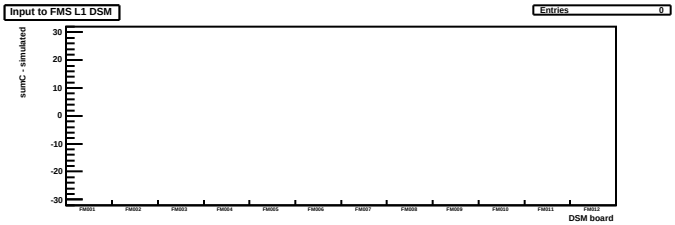

Input to FMS L0 DSM
Entries 2414688
HT ID
QT board

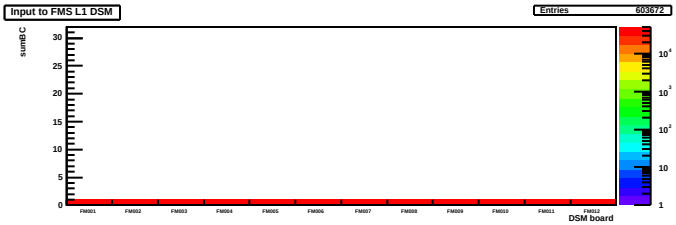

Input to FMS L0 DSM
Entries 402448
HT ID - simulated
QT board

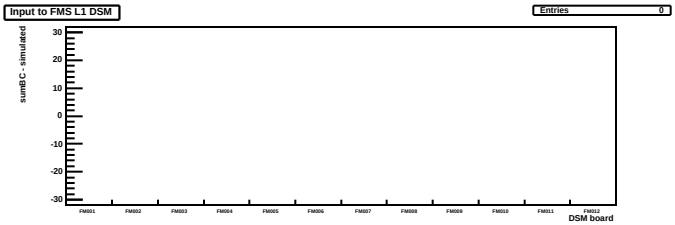

Input to FMS L1 DSM
Entries 603672
sumD
DSM board

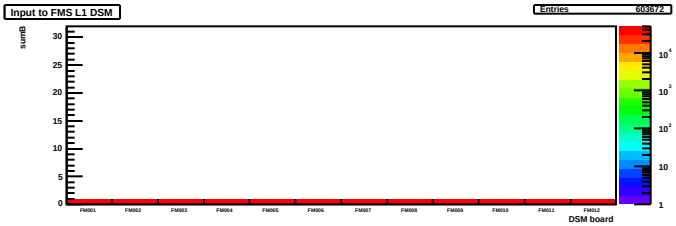

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

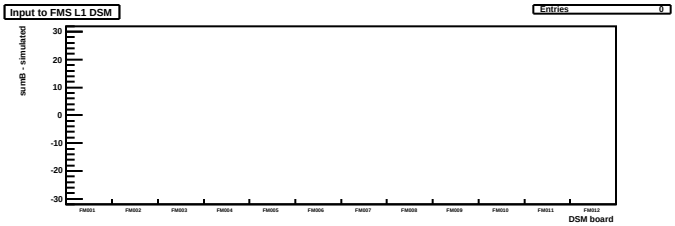

Input to FMS L1 DSM
Entries 603672
sumC
DSM board

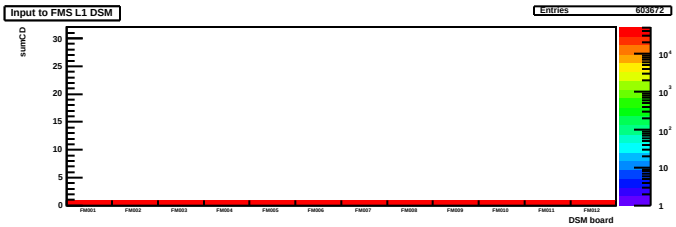

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

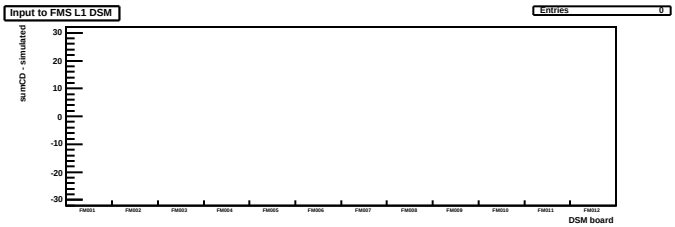

Input to FMS L1 DSM
Entries 603672
sumBC
DSM board

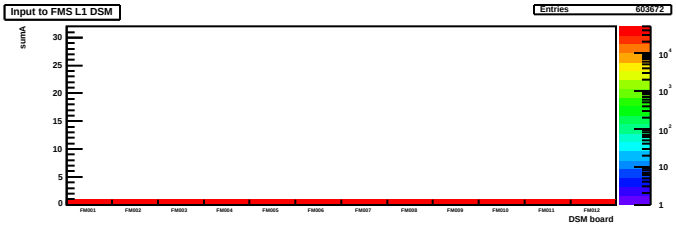

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

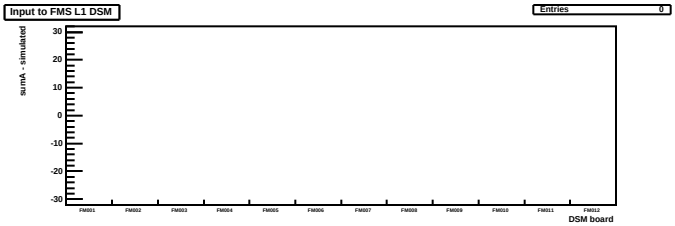

Input to FMS L1 DSM
Entries 603672
sumB
DSM board

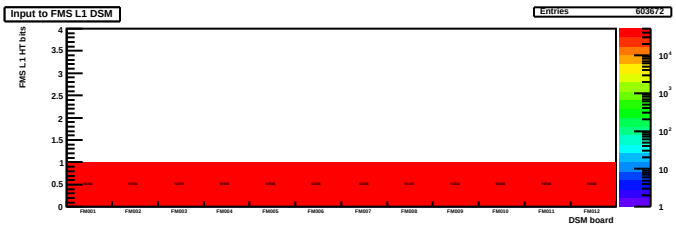

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

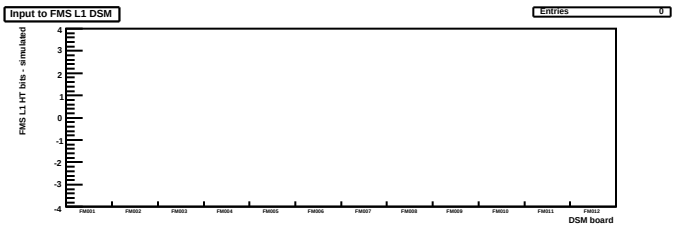

Input to FMS L1 DSM
Entries 603672
sumCD
DSM board

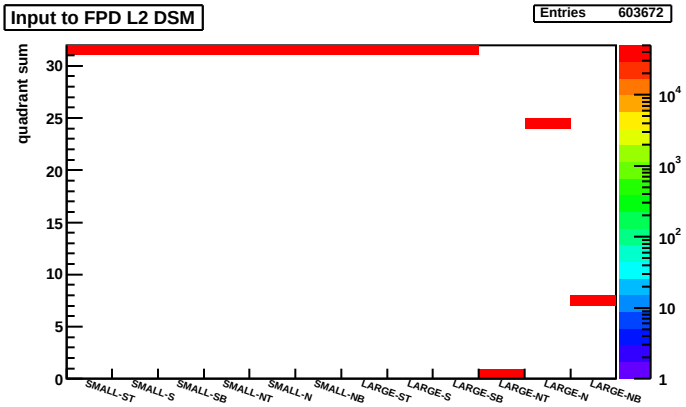

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

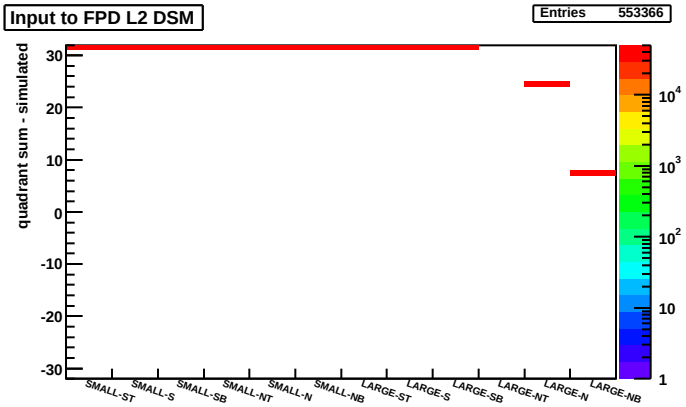

Input to FMS L1 DSM
Entries 603672
sumA
DSM board

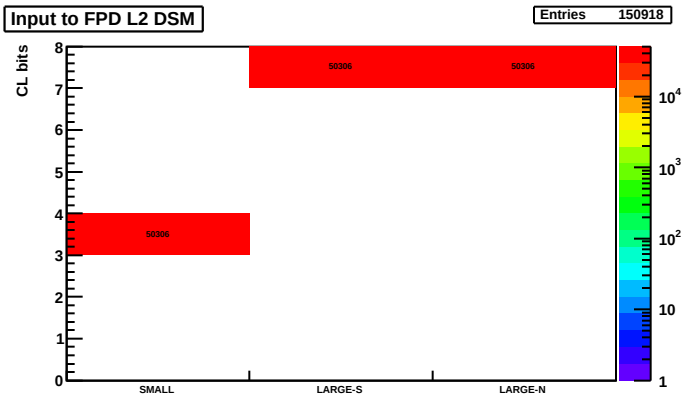

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

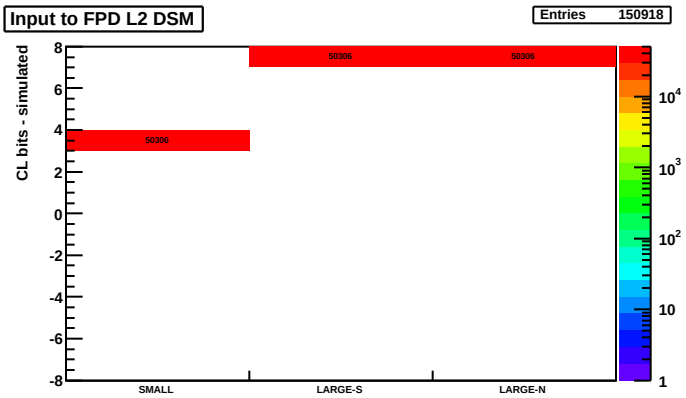

Input to FMS L1 DSM
Entries 603672
FMS L1 HT bits
DSM board

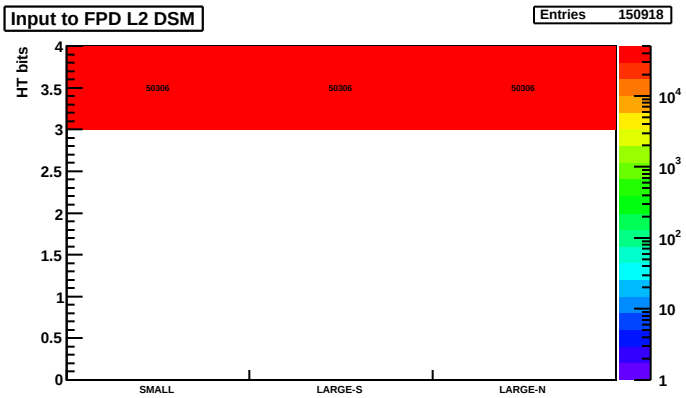

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

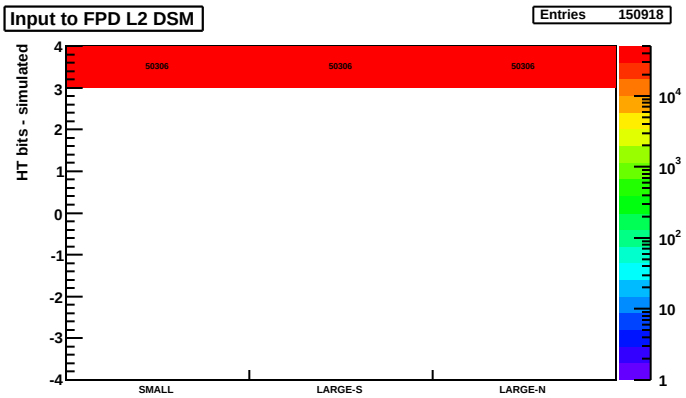

Input to FPD L2 DSM
Entries 603672
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

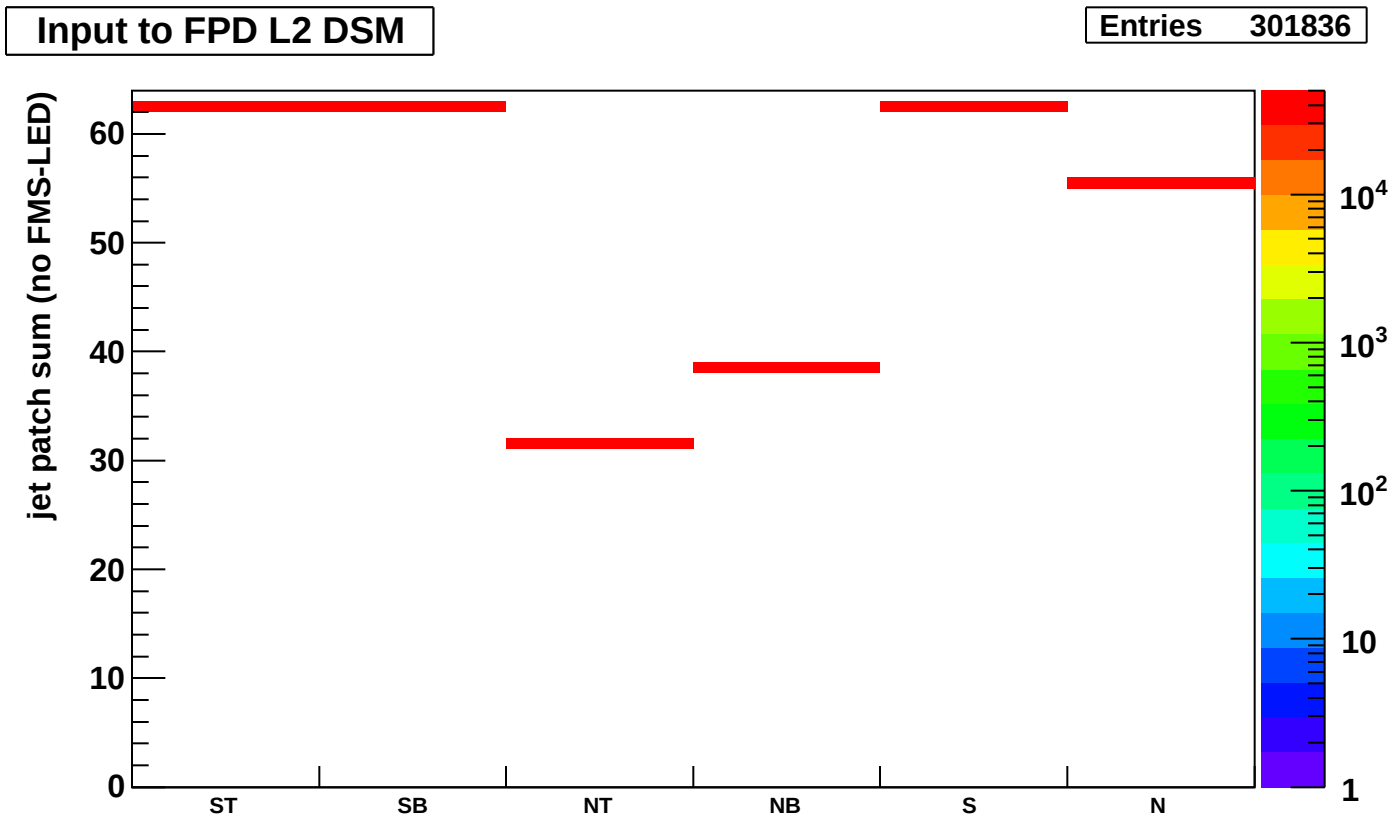

Input to FPD L2 DSM
Entries 553366
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

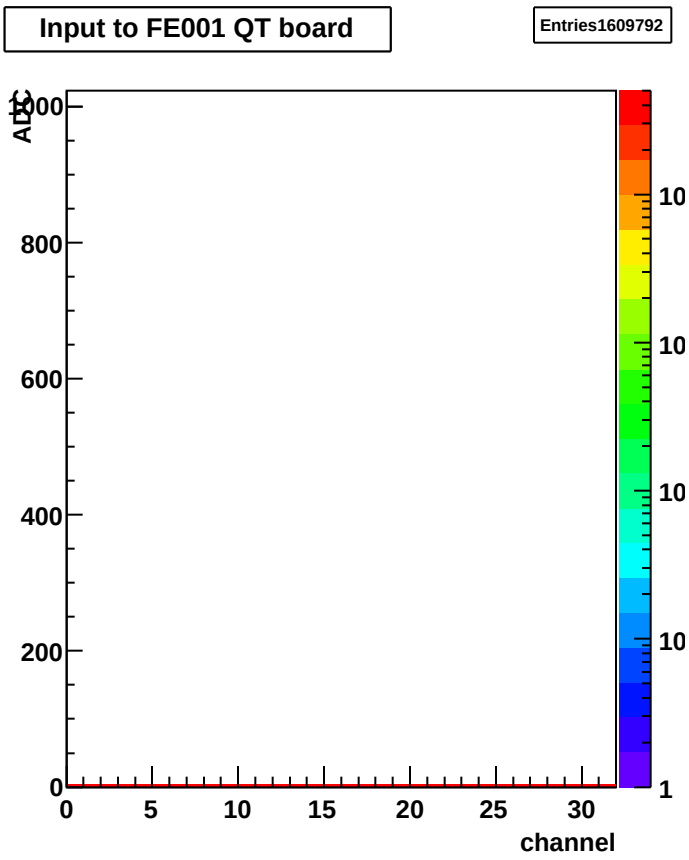

Input to FPD L2 DSM
Entries 150918
CL bits
50306
50306
50306
SMALL
LARGE-S
LARGE-N

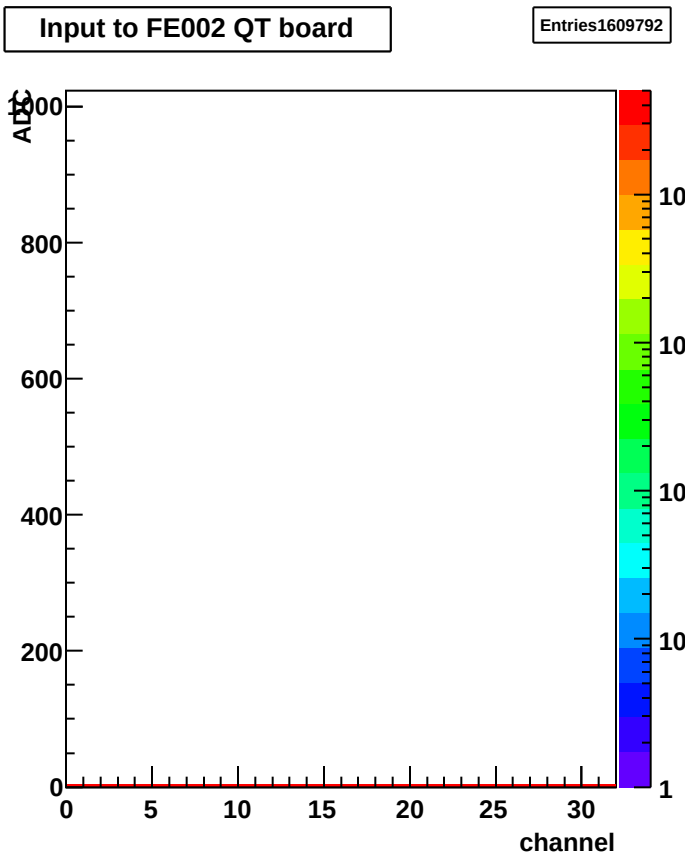

Input to FPD L2 DSM
Entries 150918
CL bits - simulated
50306
50306
50306
SMALL
LARGE-S
LARGE-N

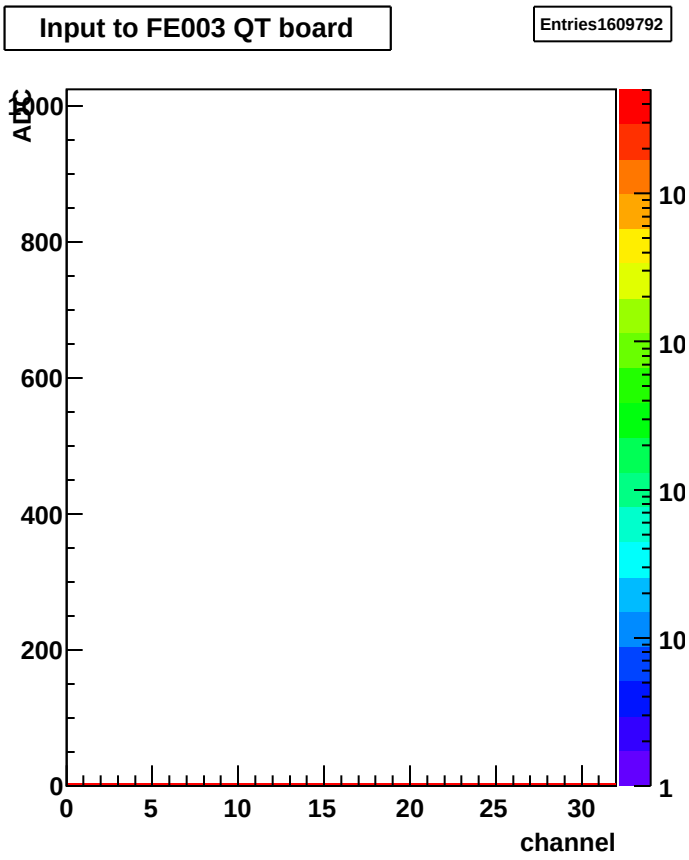

Input to FPD L2 DSM
Entries 150918
HT bits
50306
50306
50306
SMALL
LARGE-S
LARGE-N

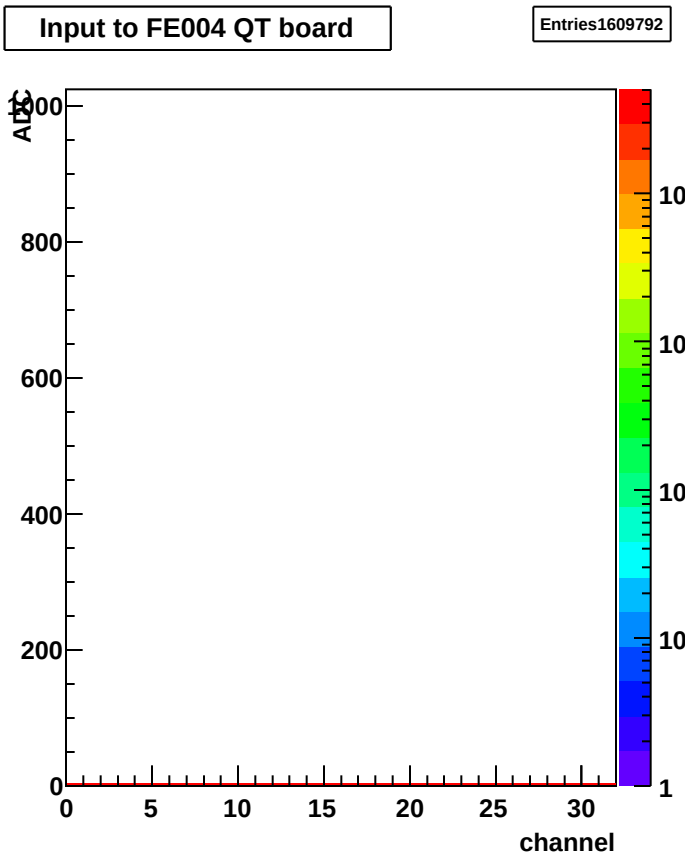

Input to FPD L2 DSM
Entries 150918
HT bits - simulated
50306
50306
50306
SMALL
LARGE-S
LARGE-N

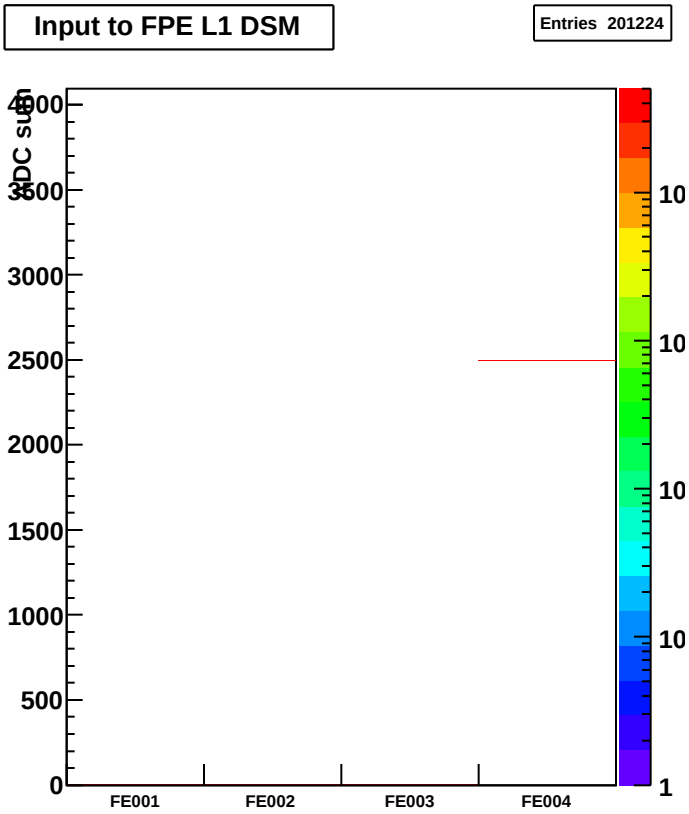

Input to FPD L2 DSM
Entries 301836
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

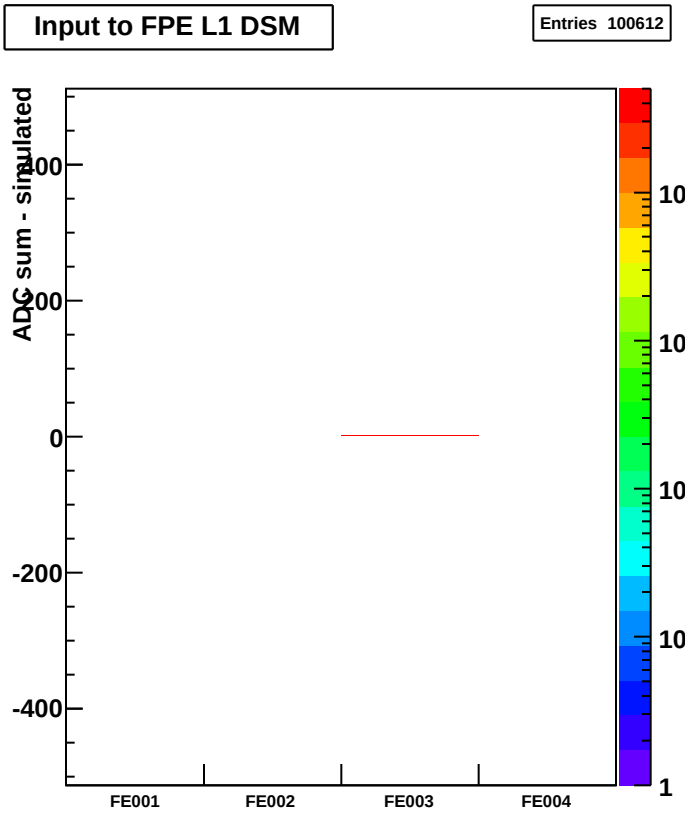

Input to FE001 QT board
Entries1609792
ADC
channel

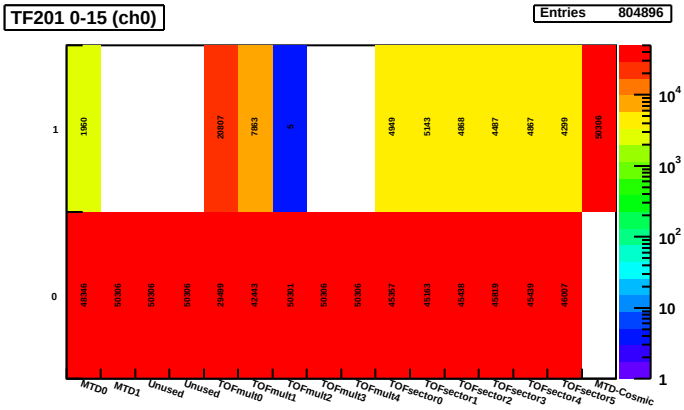

Input to FE002 QT board
Entries1609792
ADC
channel

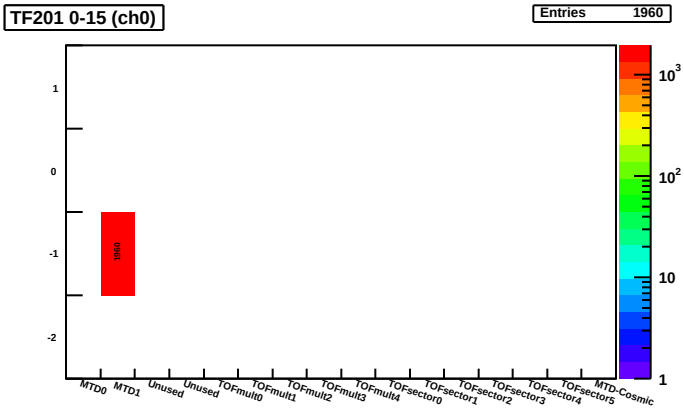

Input to FE003 QT board
Entries1609792
ADC
channel

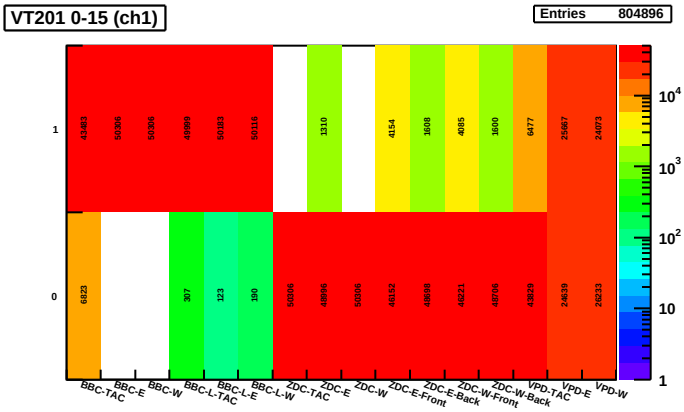

Input to FE004 QT board
Entries1609792
ADC
channel


Input to FPE L1 DSM
Entries 201224
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 100612
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 804896
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 1960
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic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Entries 804896
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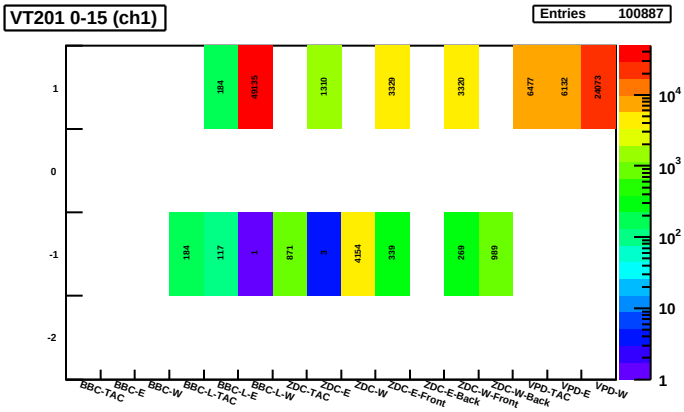
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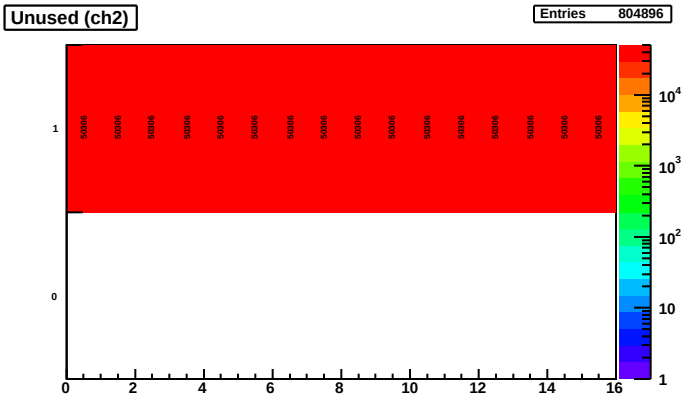
Unused (ch2)
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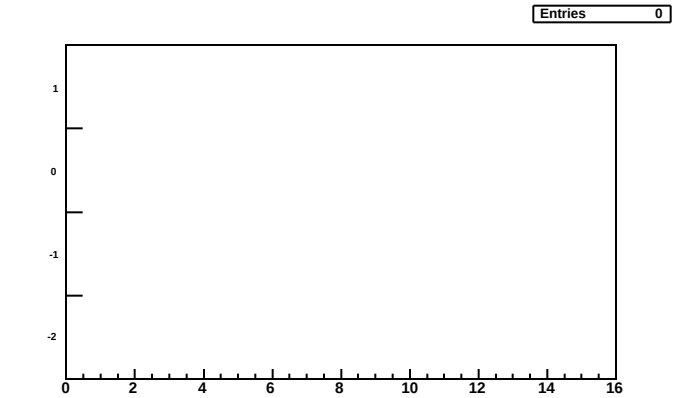
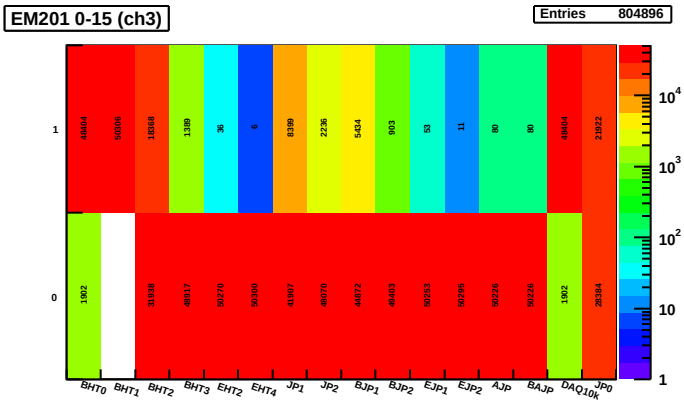

Entries 0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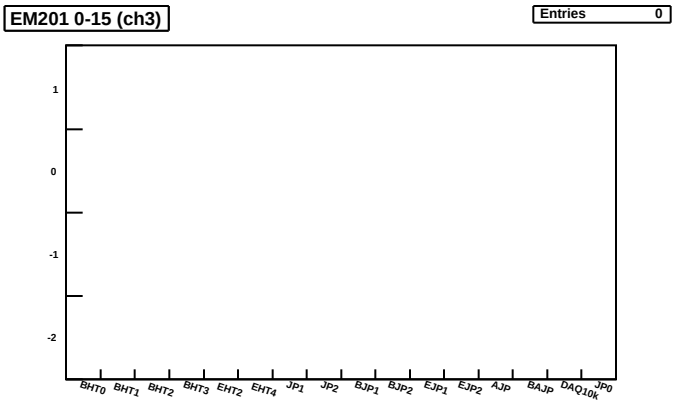
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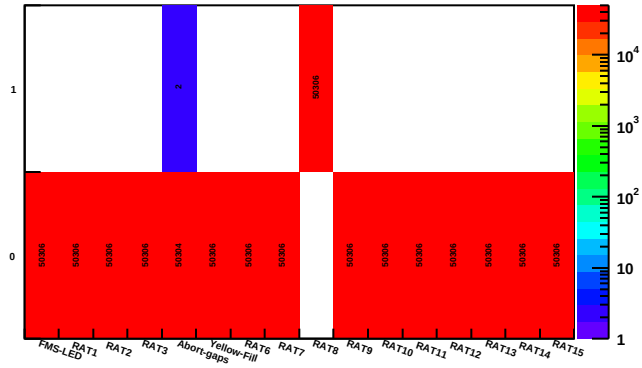
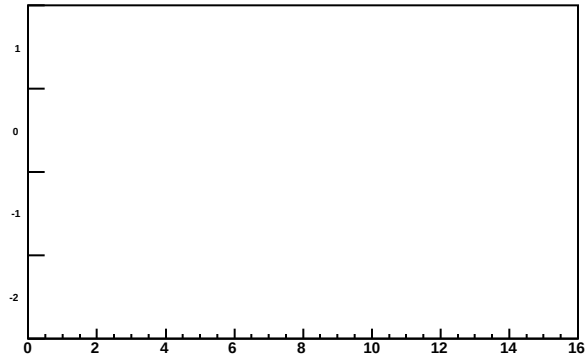
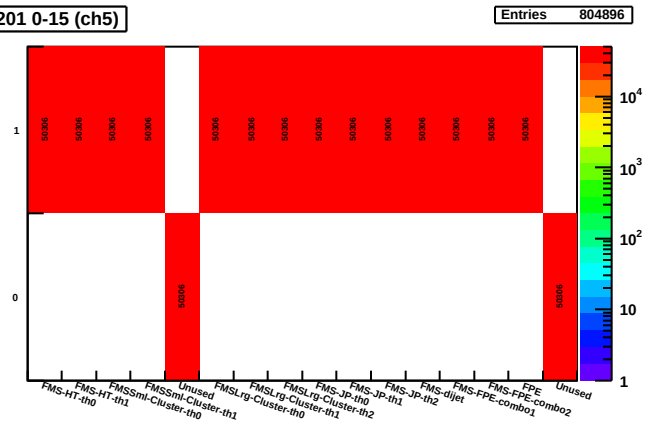
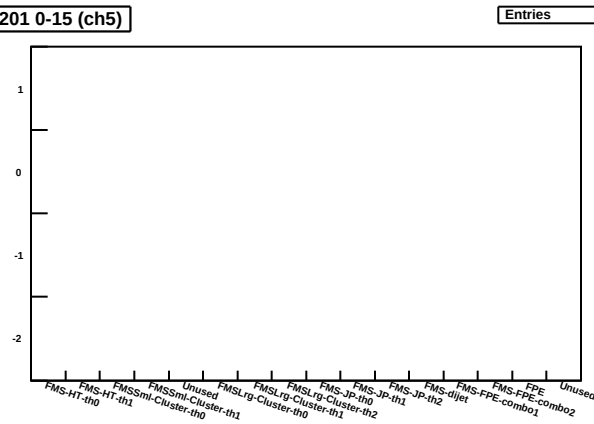
RAT board (ch4)



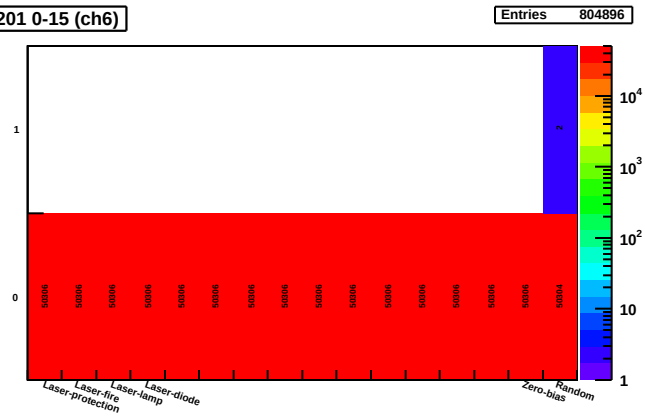


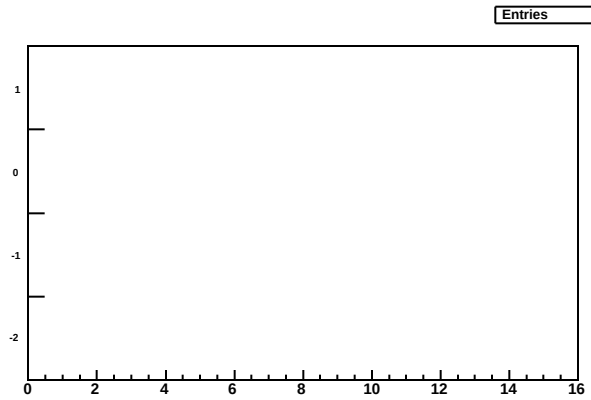
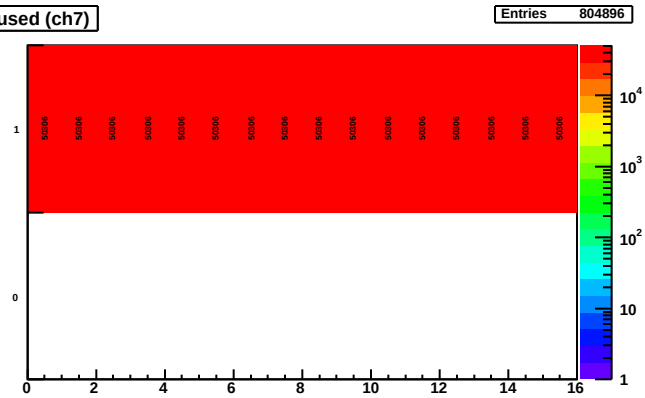
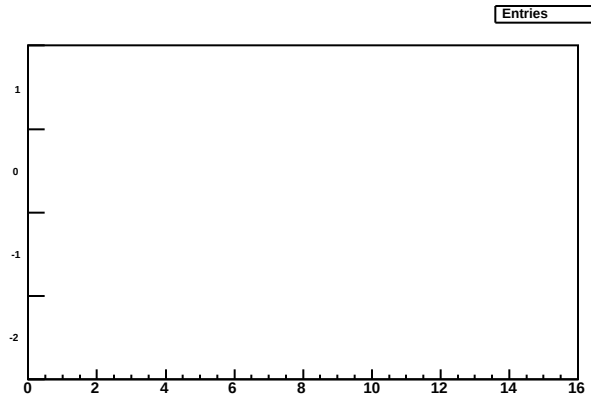
FP201 0-15 (ch5)





ST201 0-15 (ch6)





Unused (ch7)