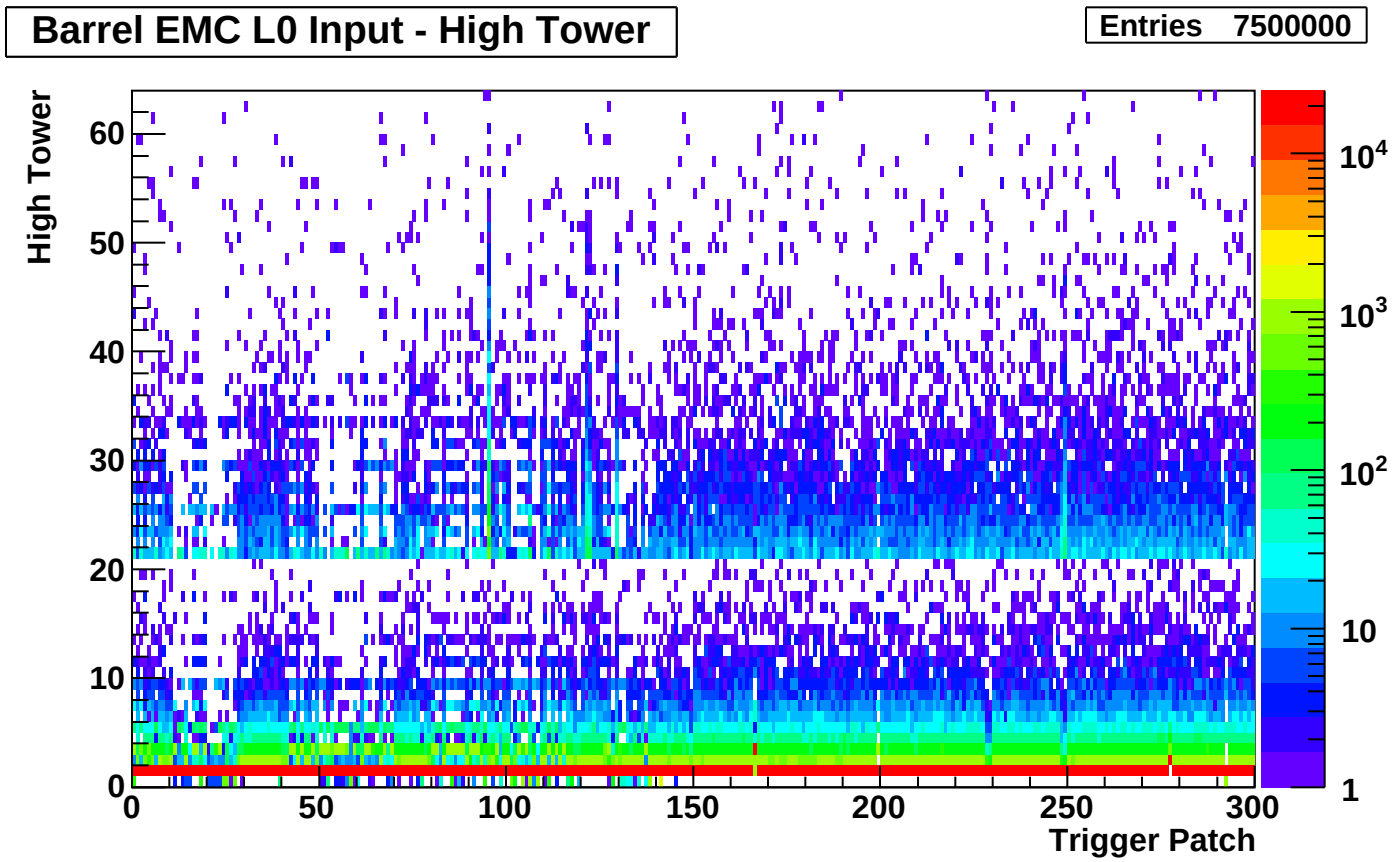
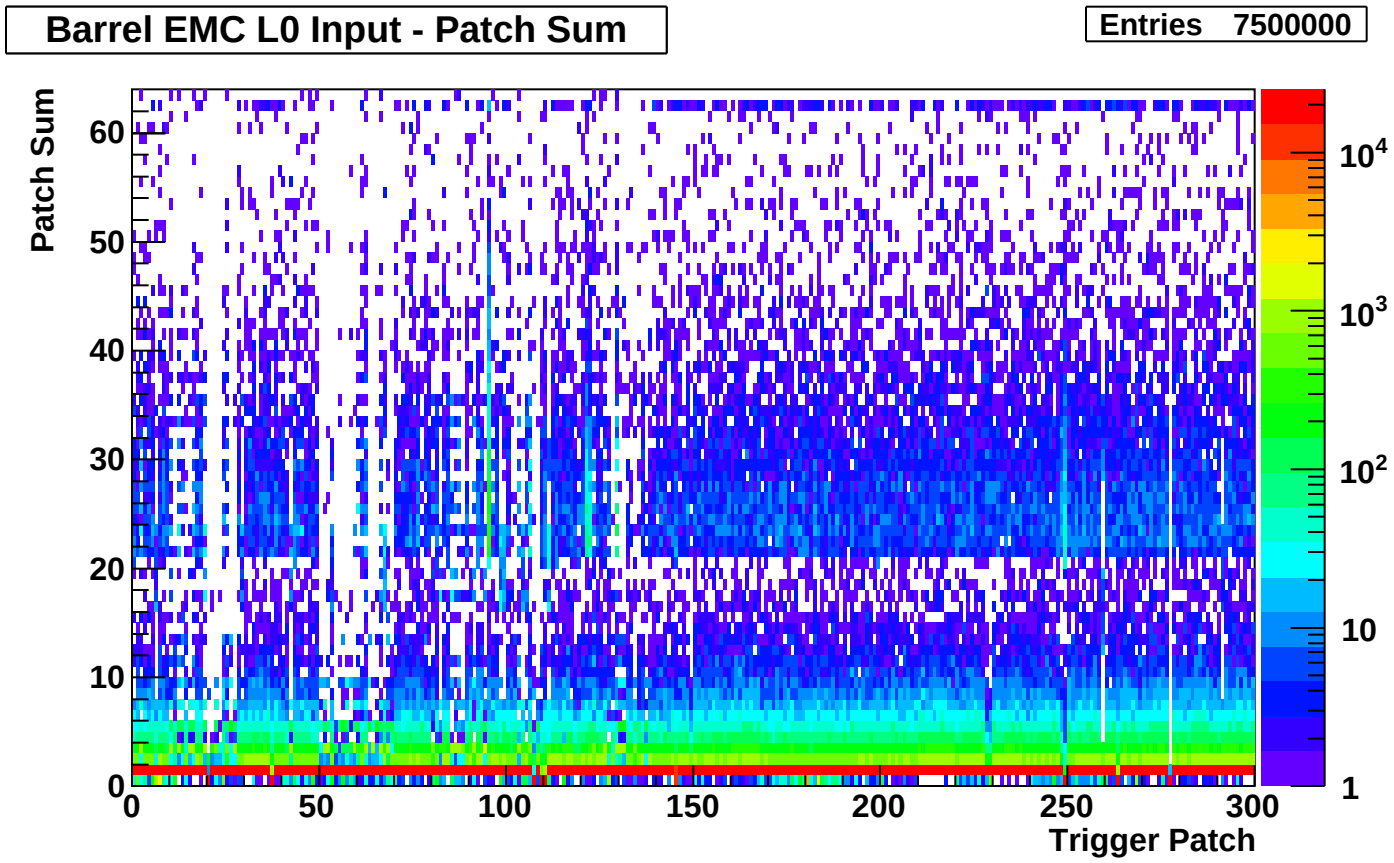
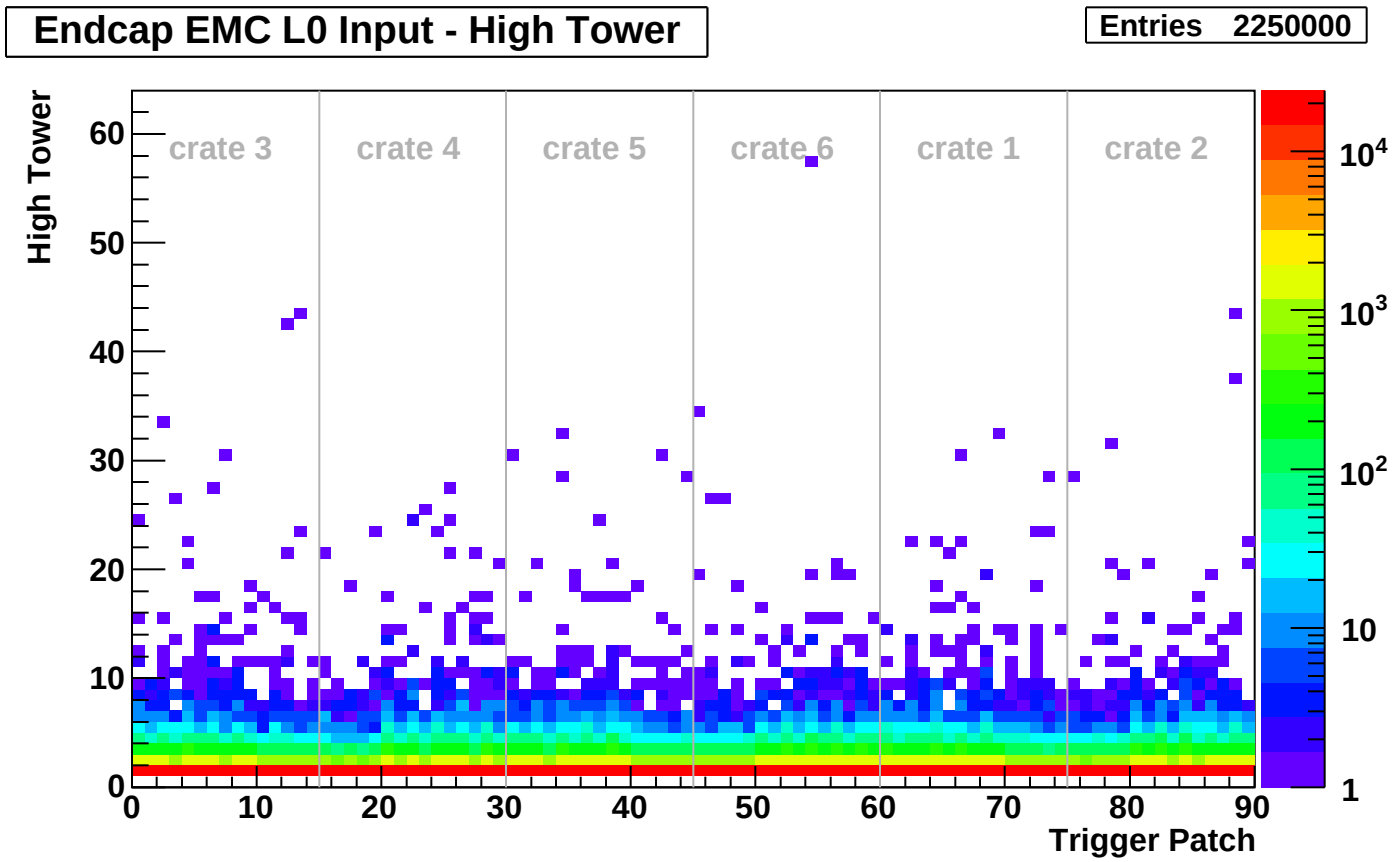
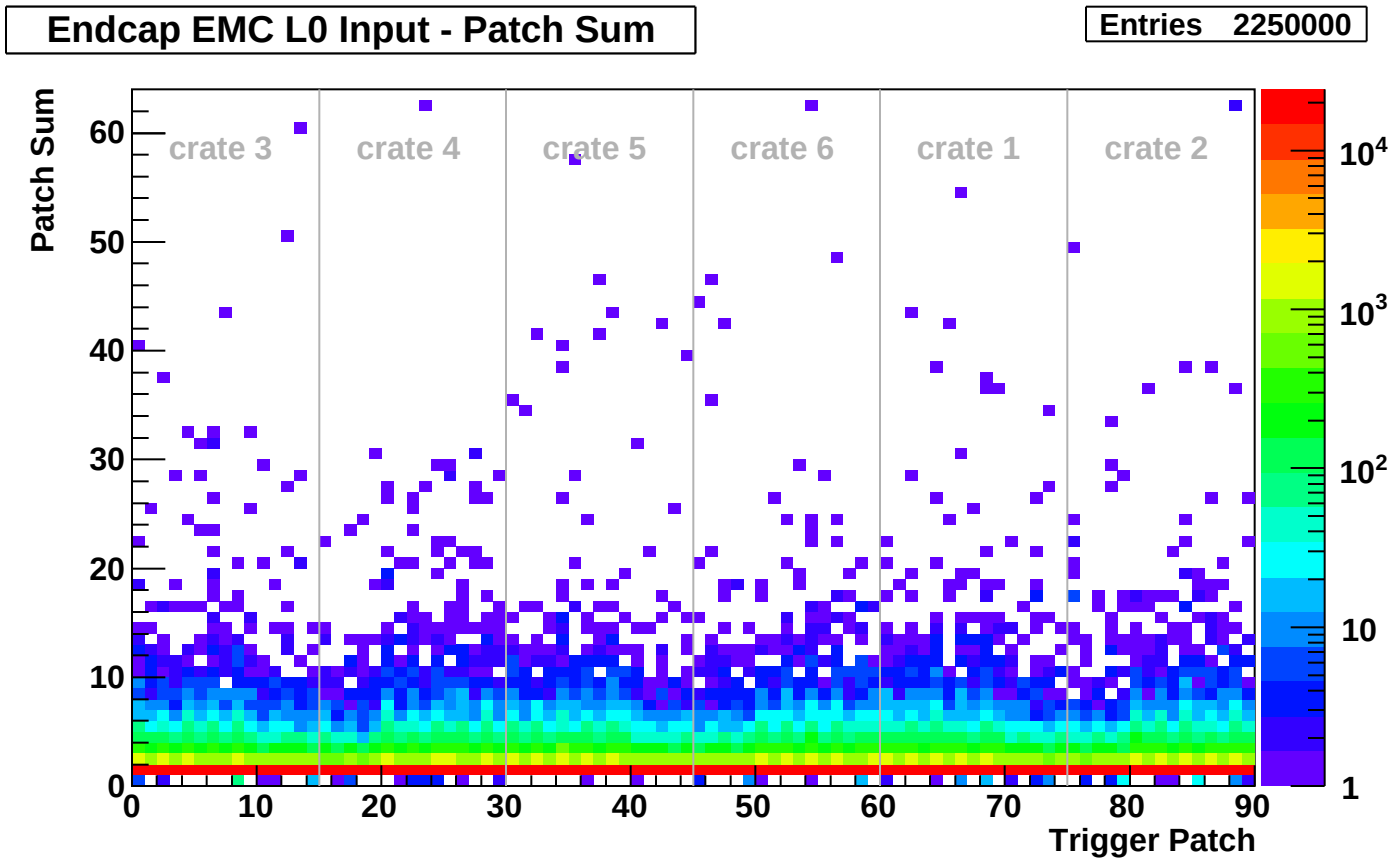
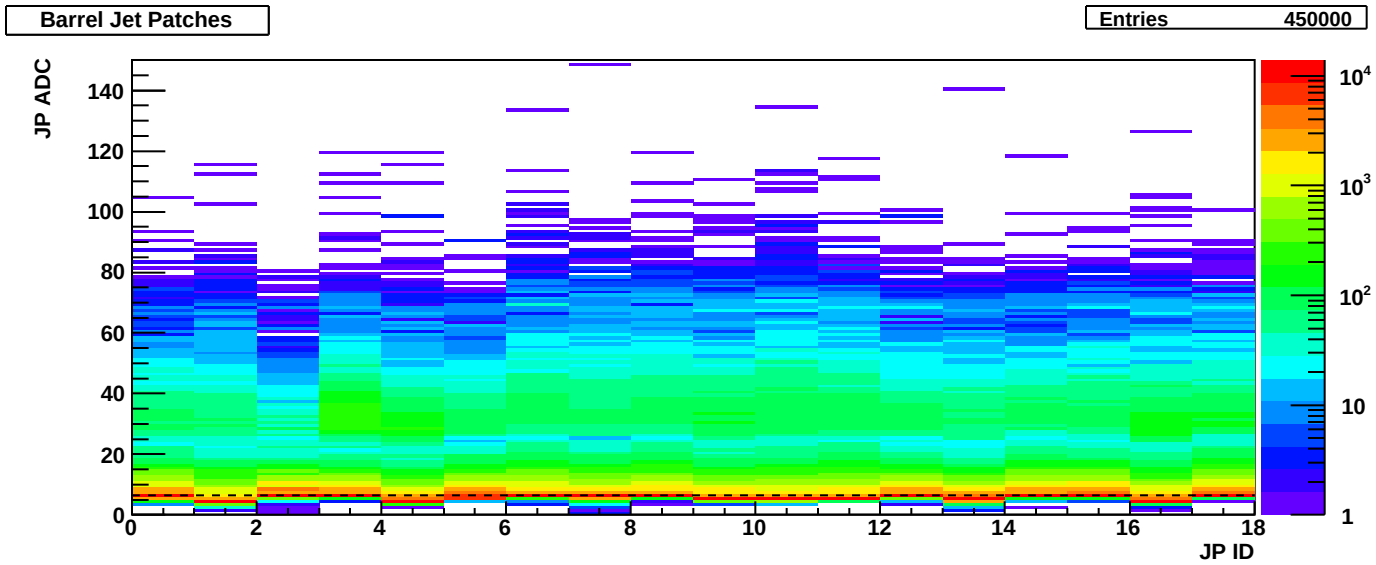
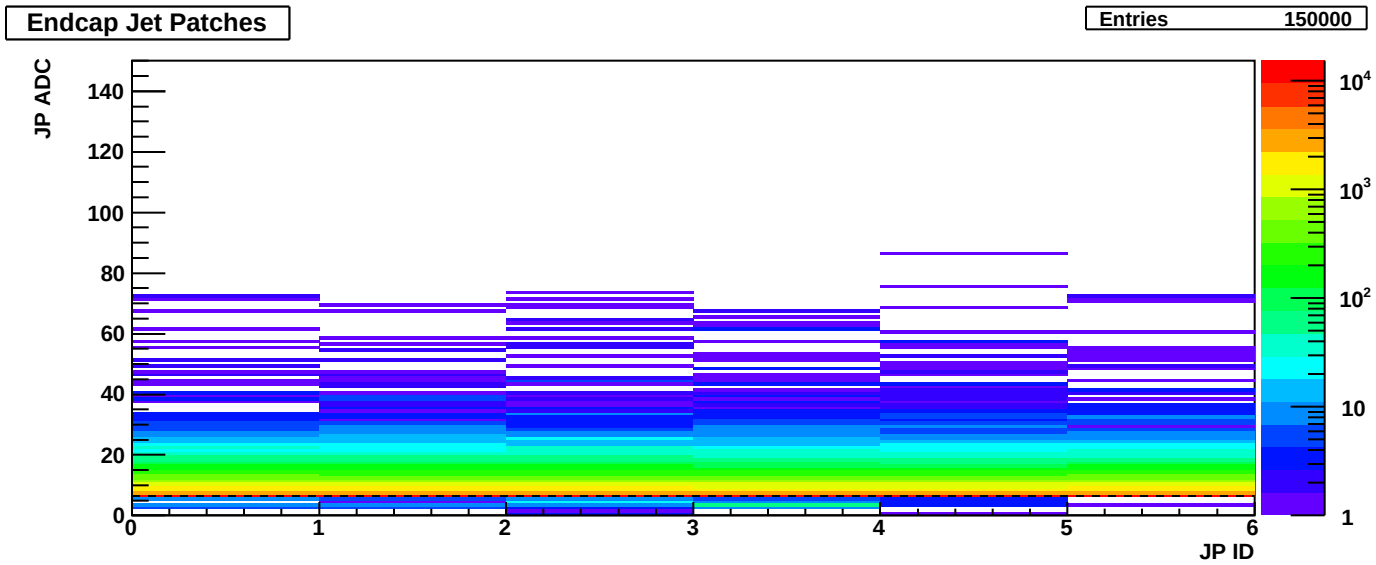

Barrel EMC L0 Input - High Tower
Entries 7500000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

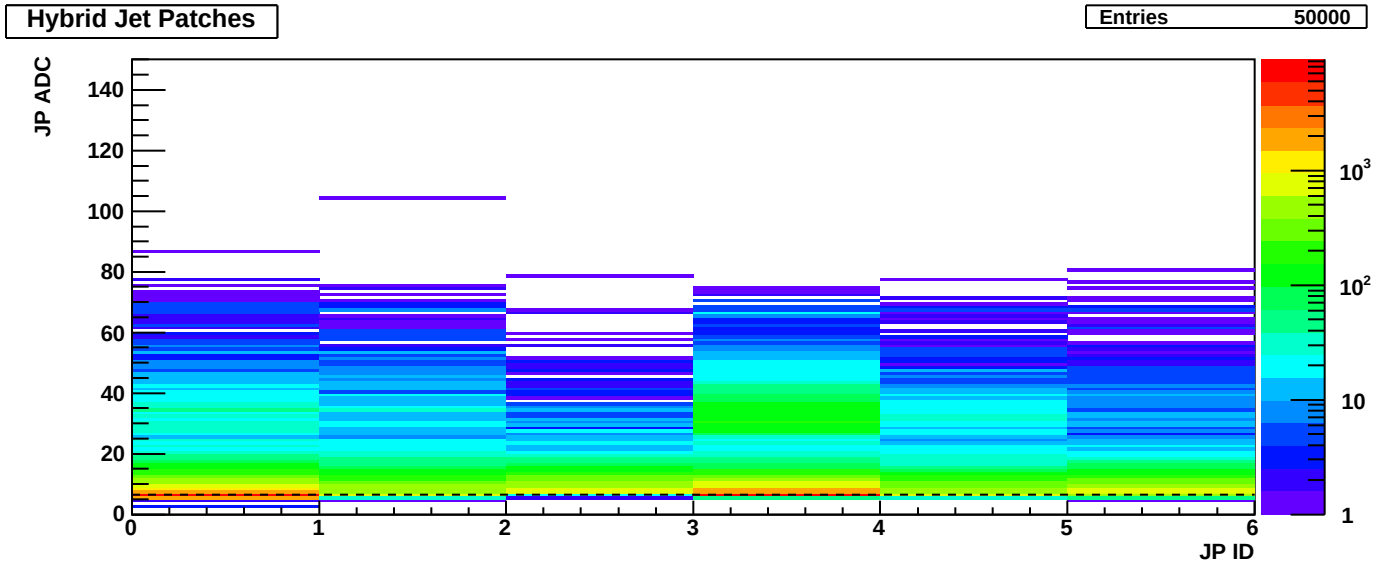

Barrel EMC L0 Input - Patch Sum
Entries 7500000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

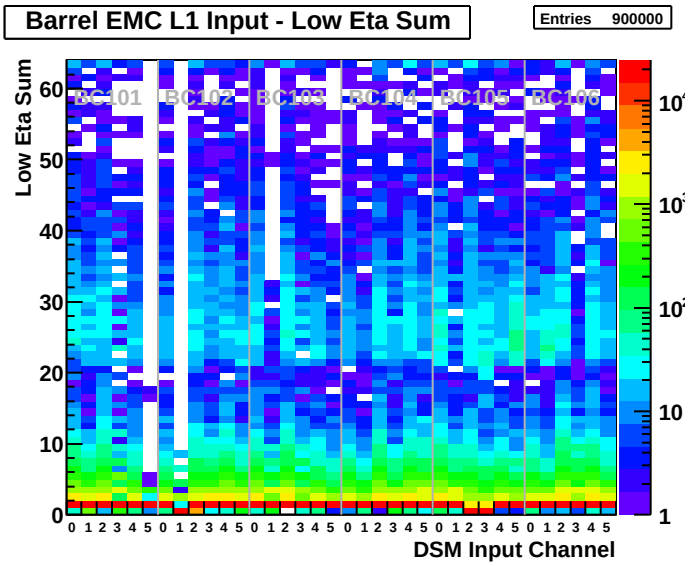

Endcap EMC L0 Input - High Tower
Entries 2250000
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

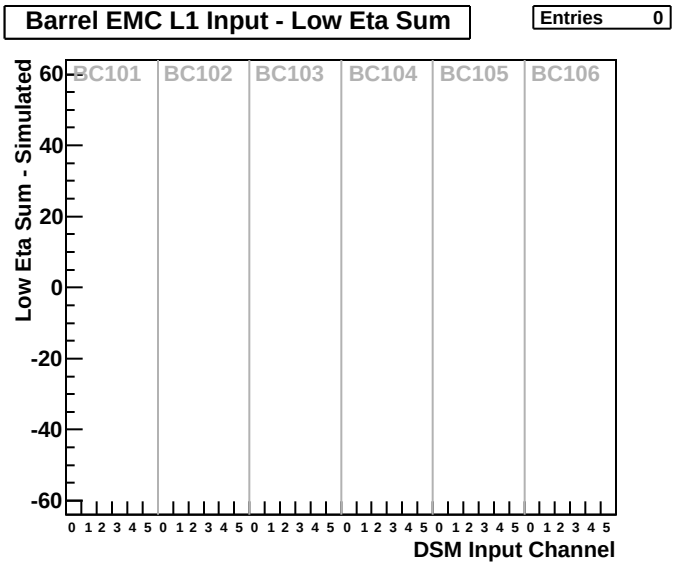

Endcap EMC L0 Input - Patch Sum
Entries 2250000
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

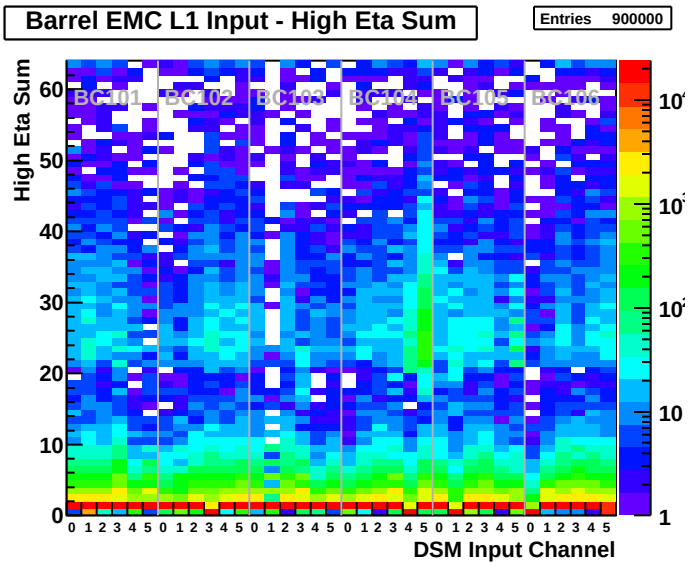

Barrel Jet Patches
Entries 450000
JP ADC
JP ID

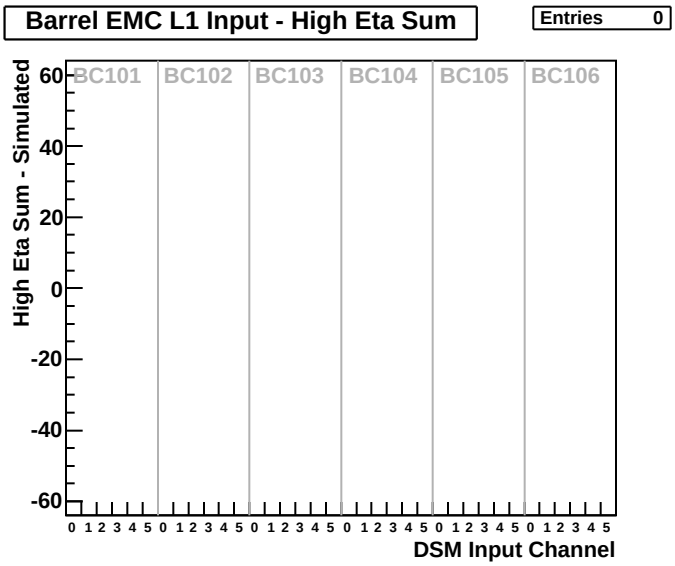

Endcap Jet Patches
Entries 150000
JP ADC
JP ID

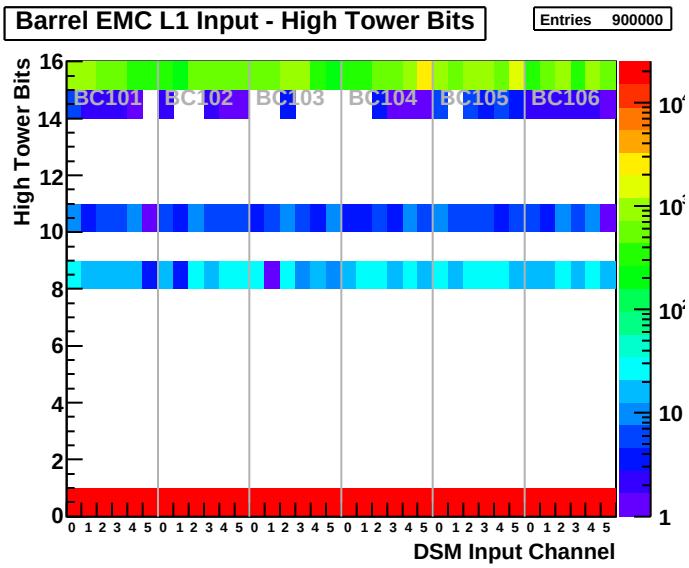

Hybrid Jet Patches
Entries 50000
JP ADC
JP ID

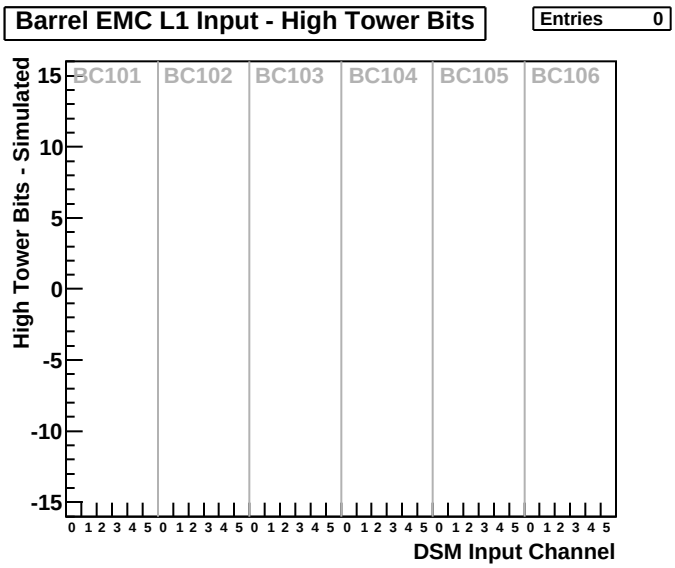

Barrel EMC L1 Input - Low Eta Sum
Entries 900000
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

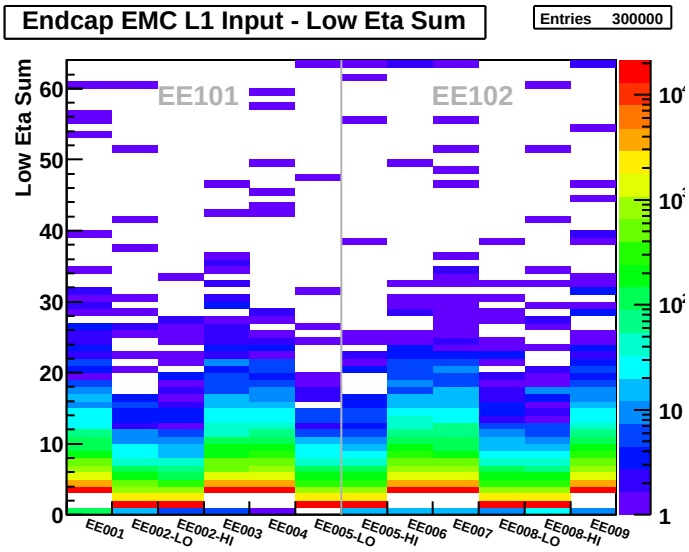

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

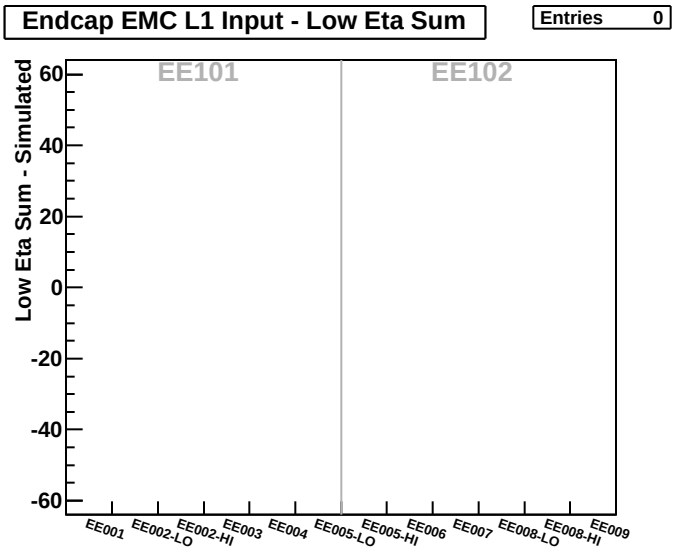

Barrel EMC L1 Input - High Eta Sum
Entries 900000
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

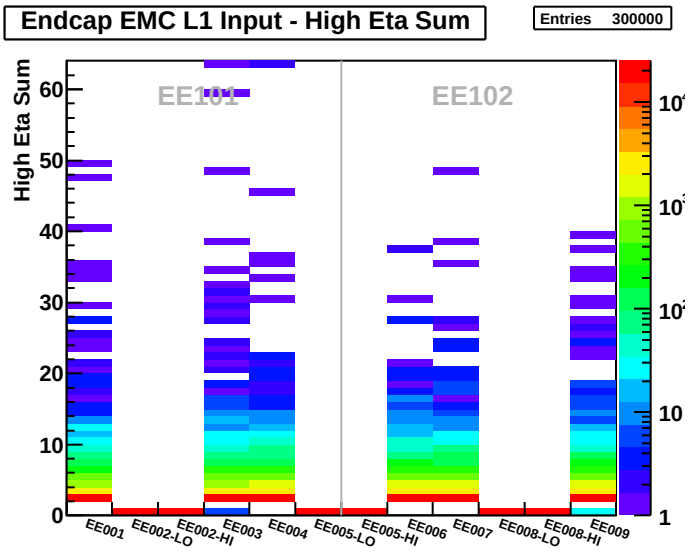

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

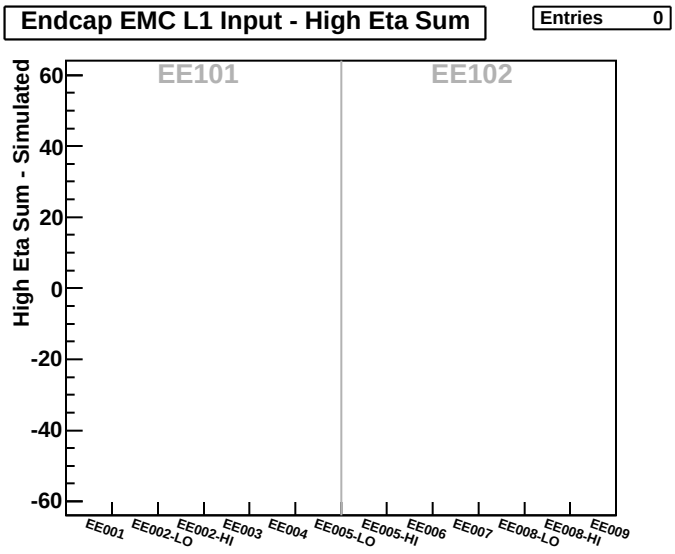

Barrel EMC L1 Input - High Tower Bits
Entries 900000
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

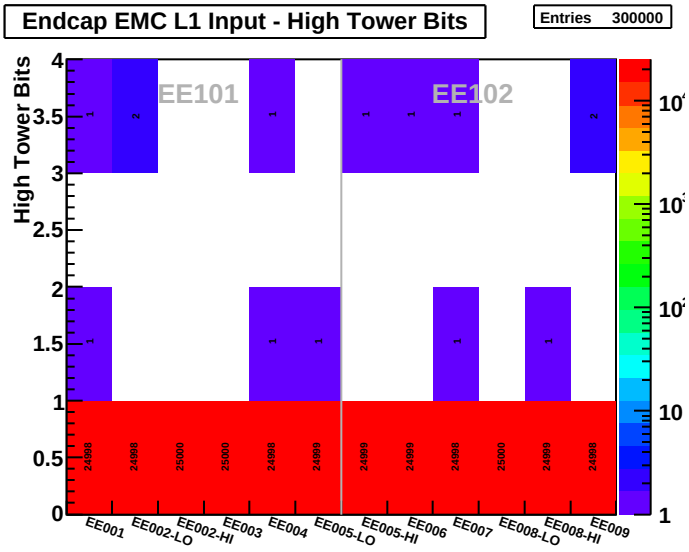

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

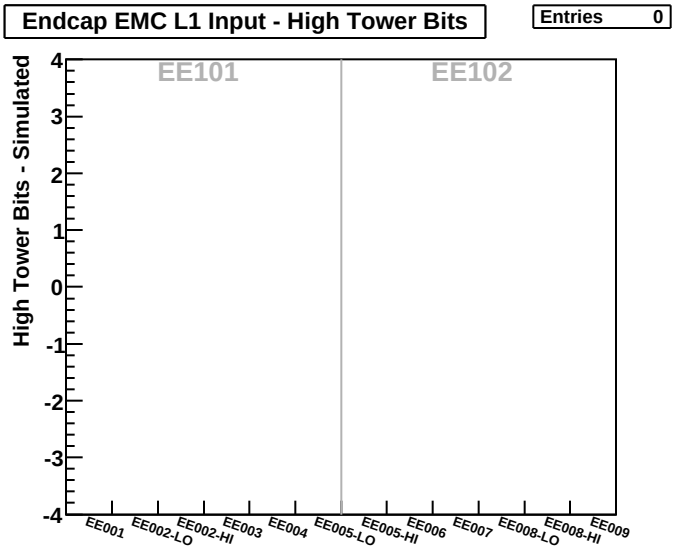

Endcap EMC L1 Input - Low Eta Sum
Entries 300000
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

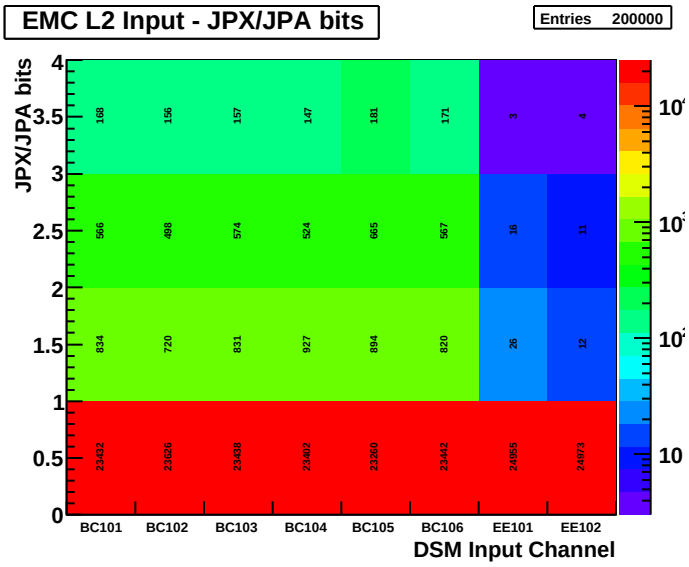

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

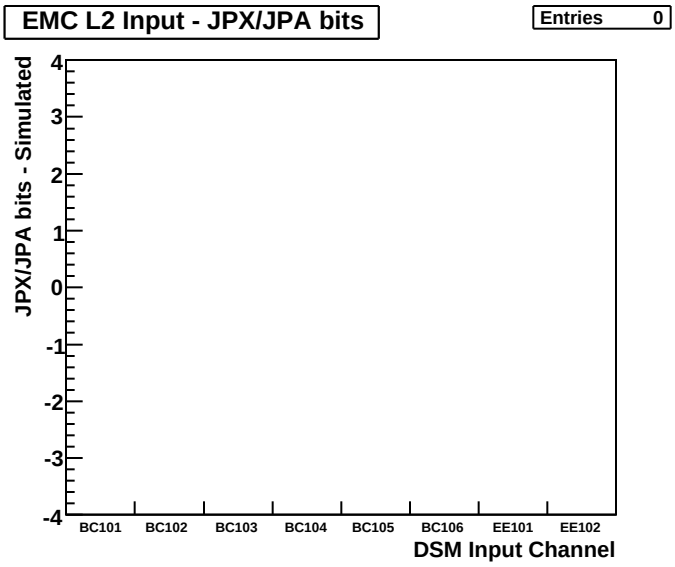

Endcap EMC L1 Input - High Eta Sum
Entries 300000
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

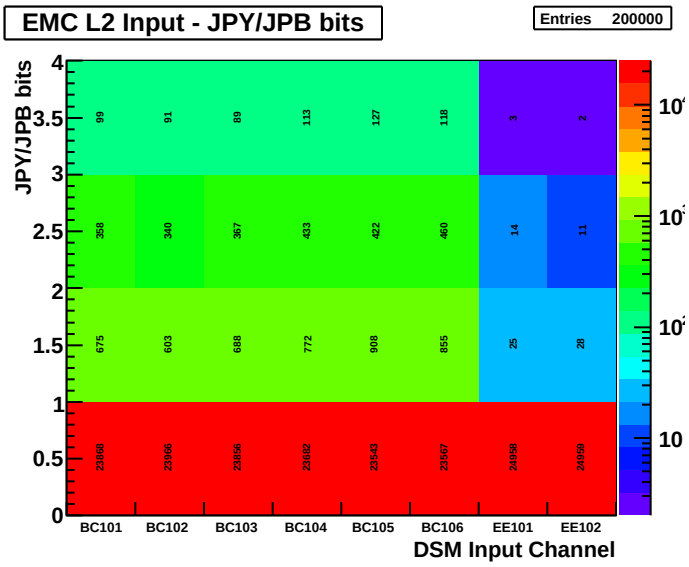

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

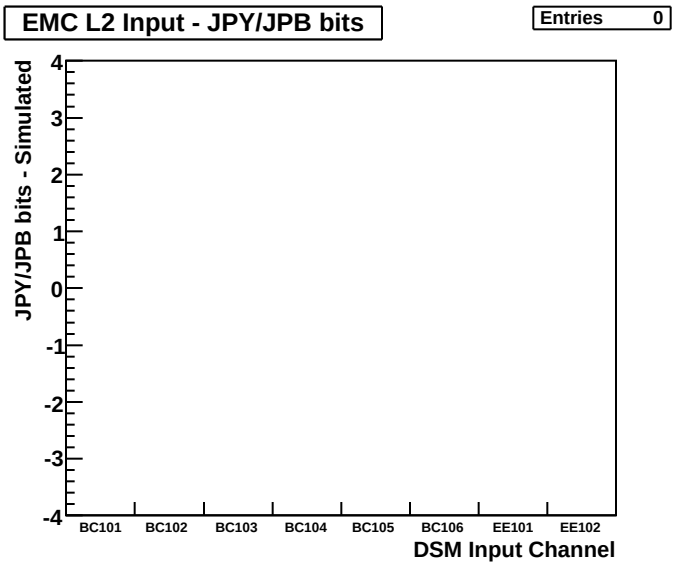

Endcap EMC L1 Input - High Tower Bits
Entries 300000
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

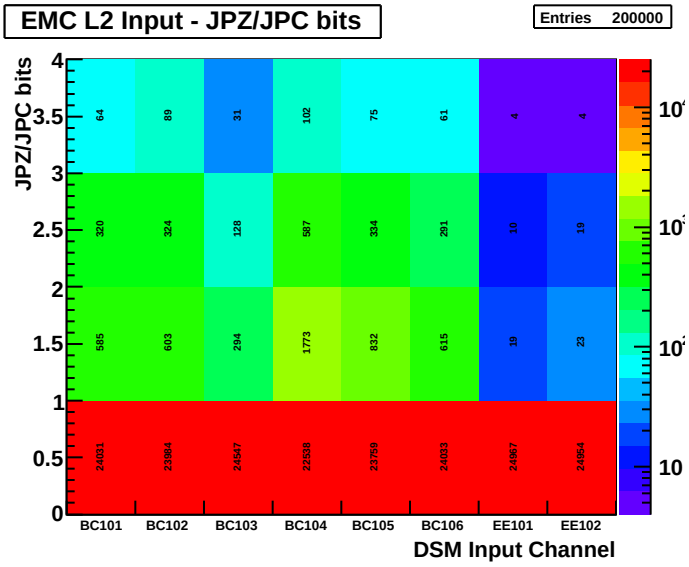

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

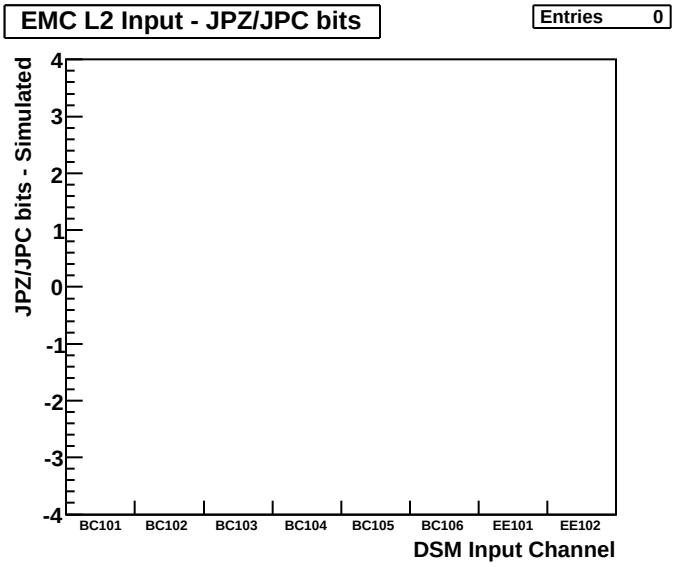

EMC L2 Input - JPX/JPA bits
Entries 200000
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
168 156 157 147 181 171 3 4
566 498 574 524 665 567 16 11
834 720 831 927 894 820 26 12
23432 23626 23438 23402 23260 23442 24955 24973

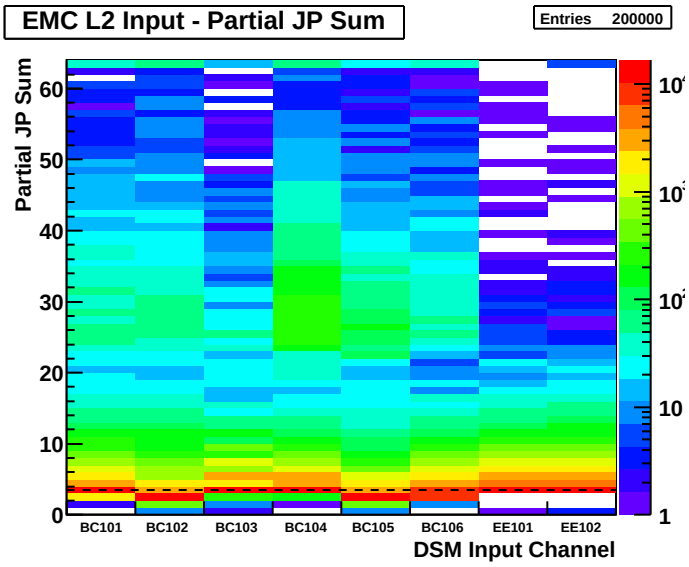

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

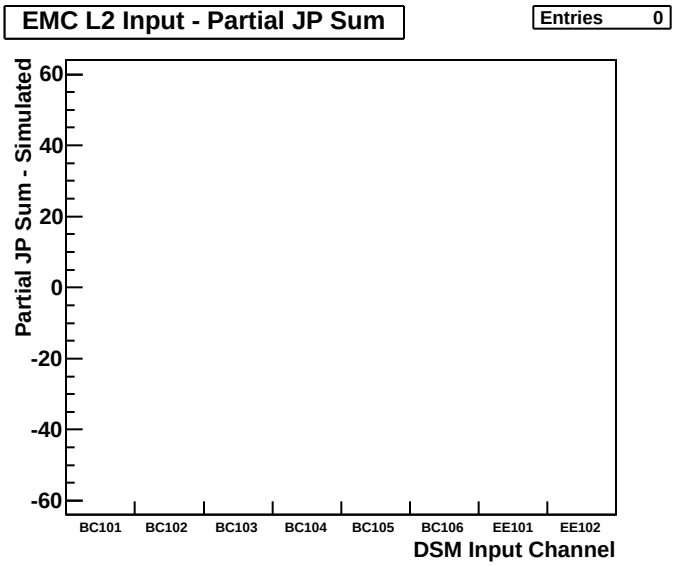

EMC L2 Input - JPY/JPB bits
Entries 200000
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
99 91 89 113 127 118 3 2
358 340 367 433 422 460 14 11
675 603 688 772 908 855 25 28
23868 23966 23856 23682 23543 23567 24958 24959

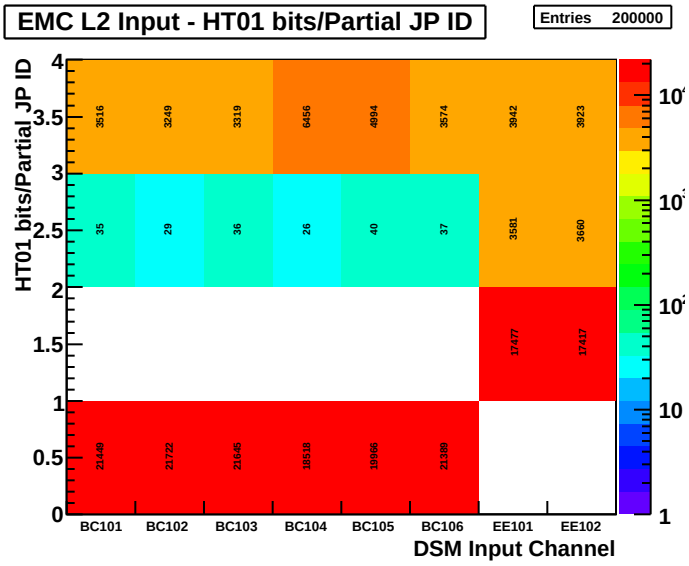

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

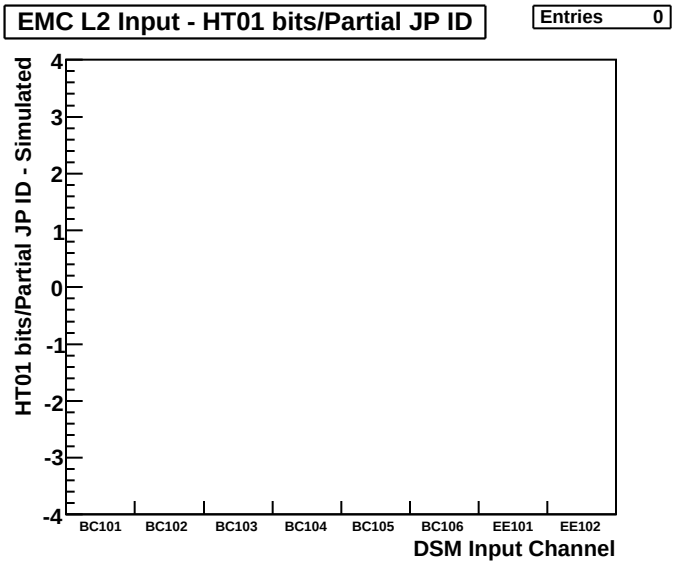

EMC L2 Input - JPZ/JPC bits
Entries 200000
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
64 89 31 102 75 61 4 4
320 324 128 587 334 291 10 19
585 603 294 1773 832 615 19 23
24031 23934 24547 22538 23759 24033 24967 24954

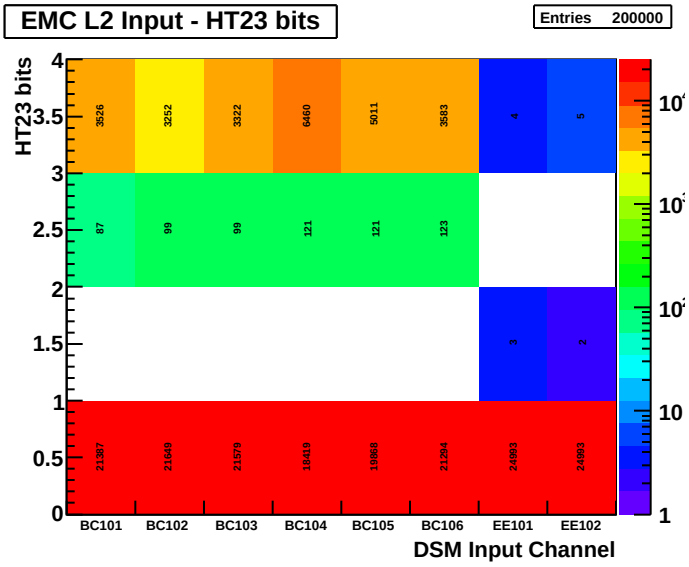

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

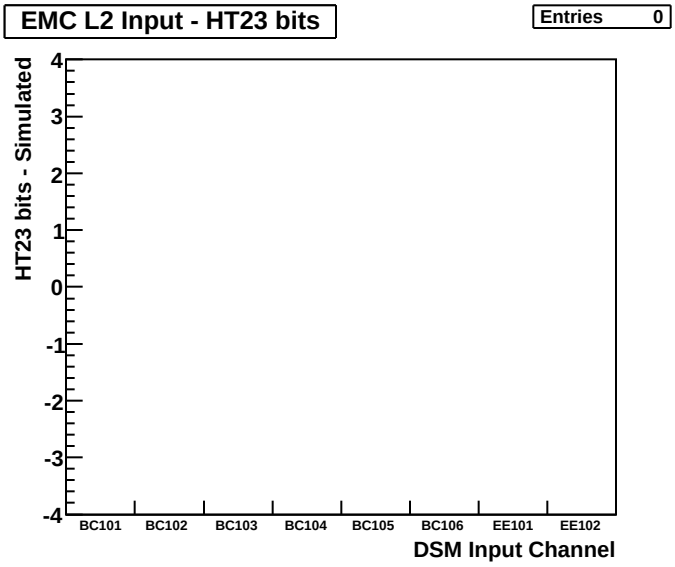

EMC L2 Input - Partial JP Sum
Entries 200000
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

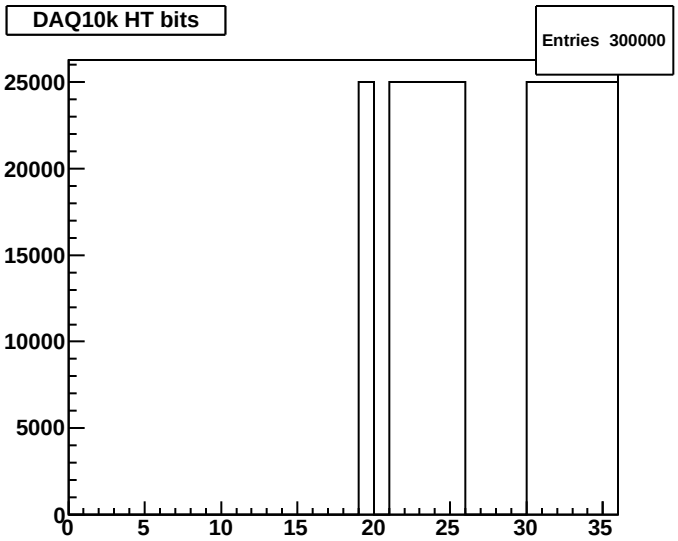

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

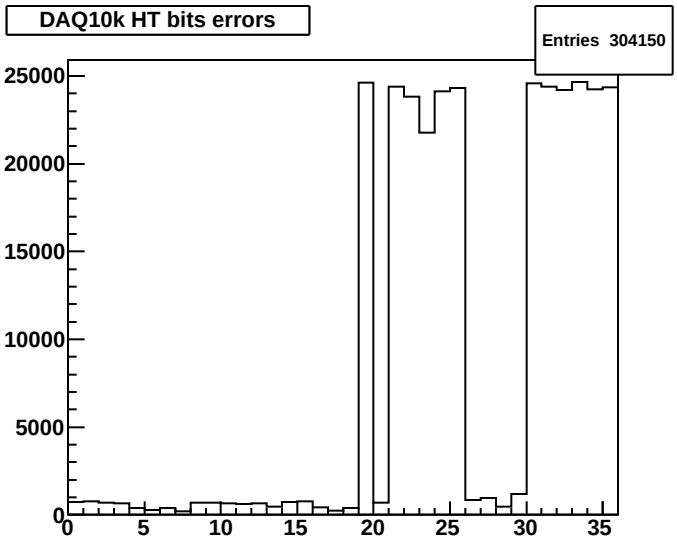

EMC L2 Input - HT01 bits/Partial JP ID
Entries 200000
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

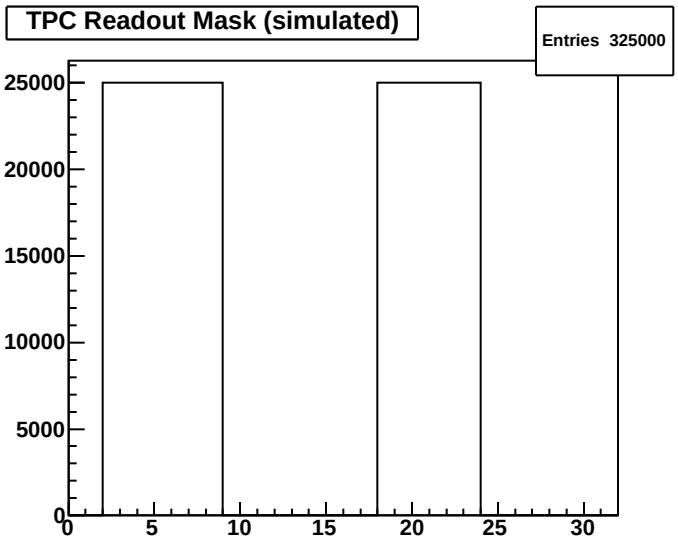

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

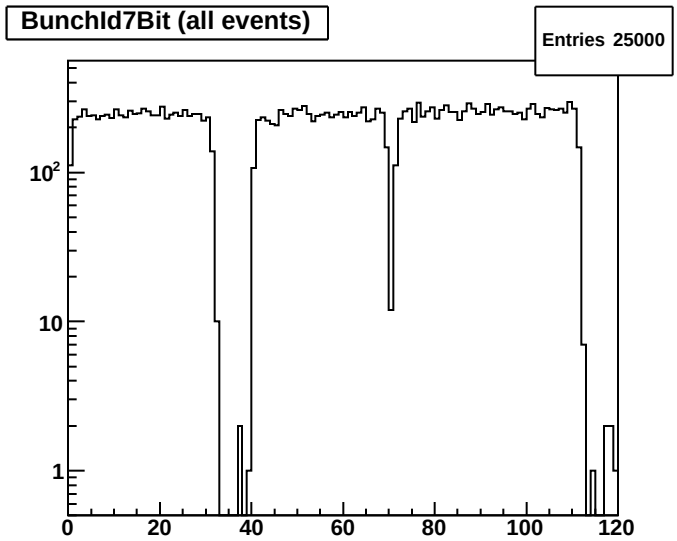

EMC L2 Input - HT23 bits
Entries 200000
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

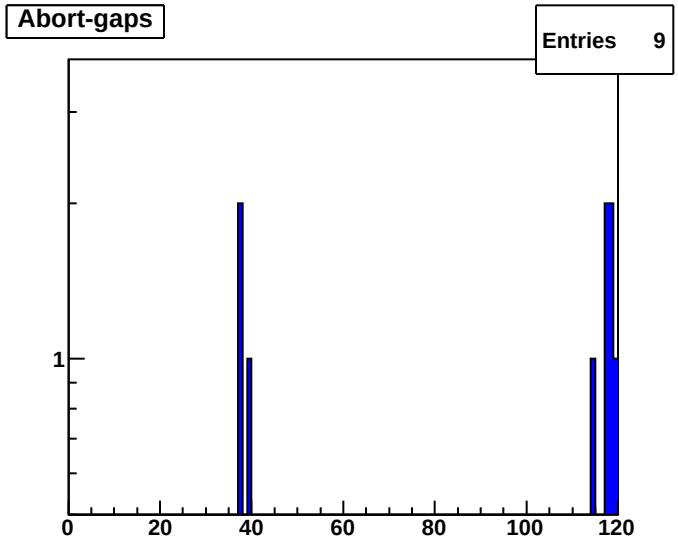

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

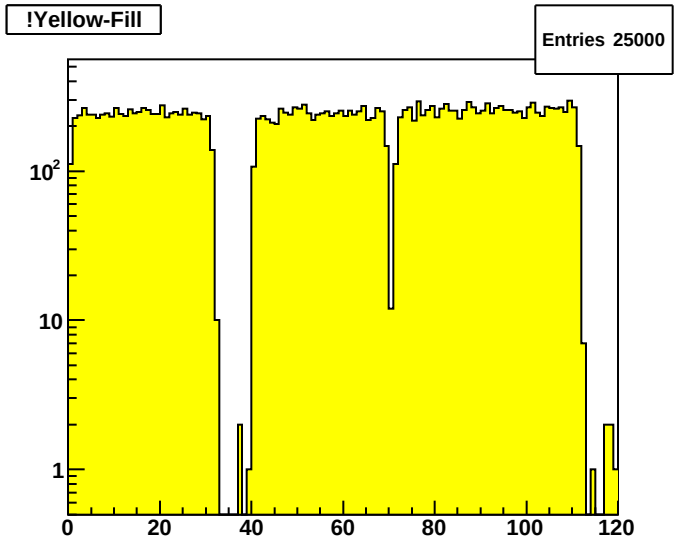

DAQ10k HT bits
Entries 300000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

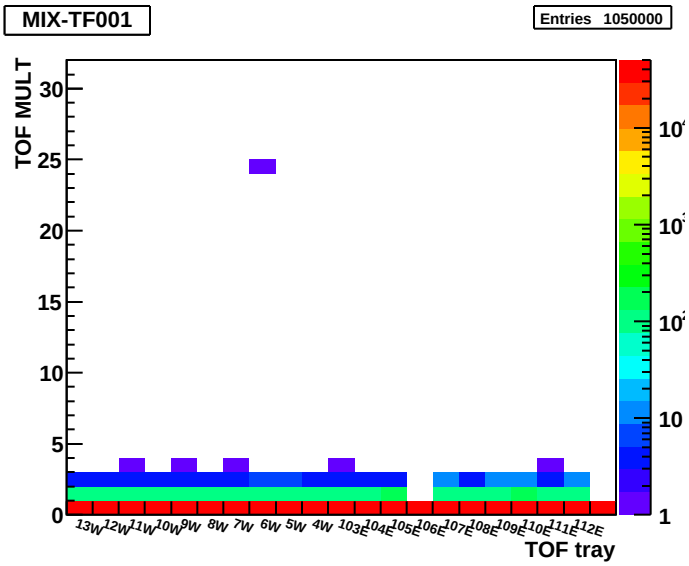

DAQ10k HT bits errors
Entries 304150
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

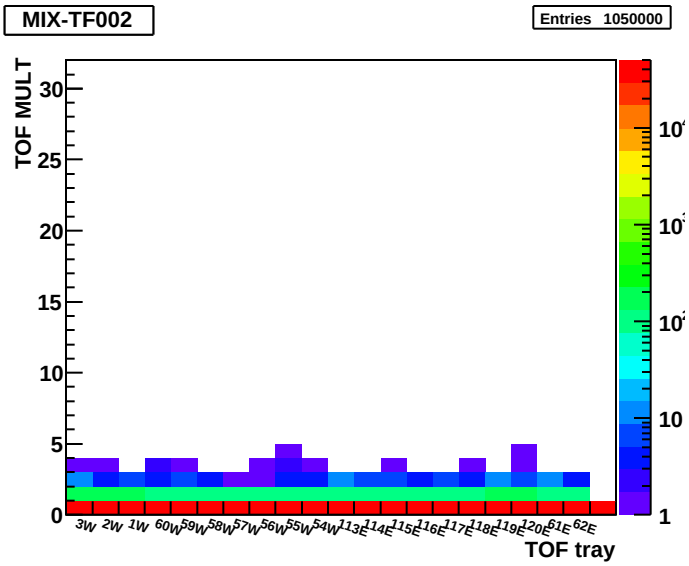

TPC Readout Mask (simulated)
Entries 325000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

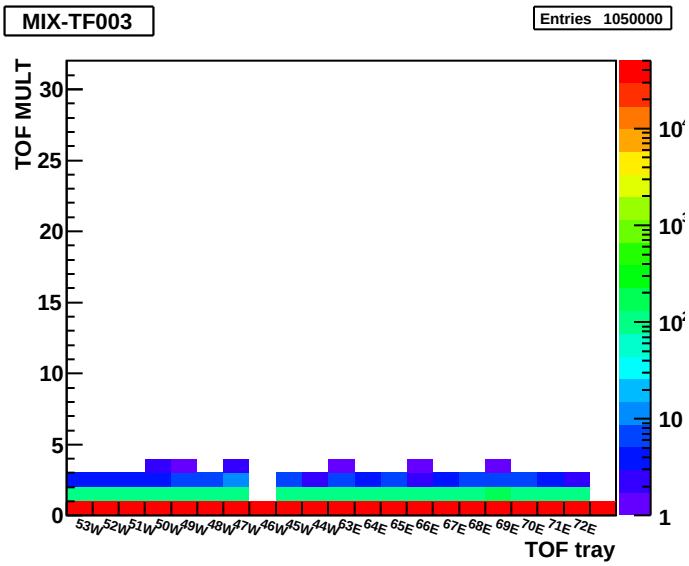

BunchId7Bit (all events)
Entries 25000
10^2
10
1
0 20 40 60 80 100 120

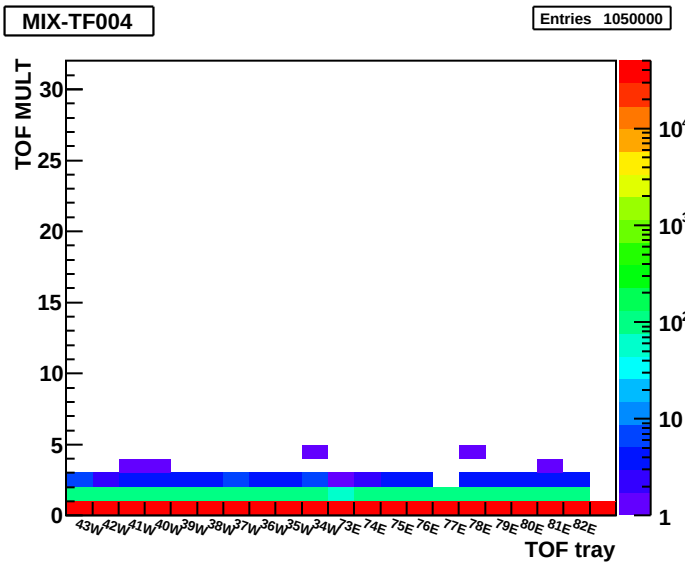

Abort-gaps
Entries 9
1
0 20 40 60 80 100 120

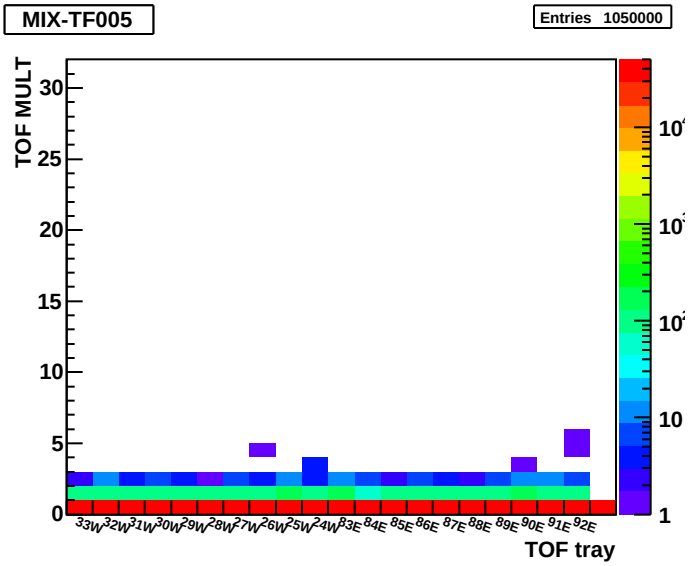

!Yellow-Fill
Entries 25000
10^2
10
1
0 20 40 60 80 100 120

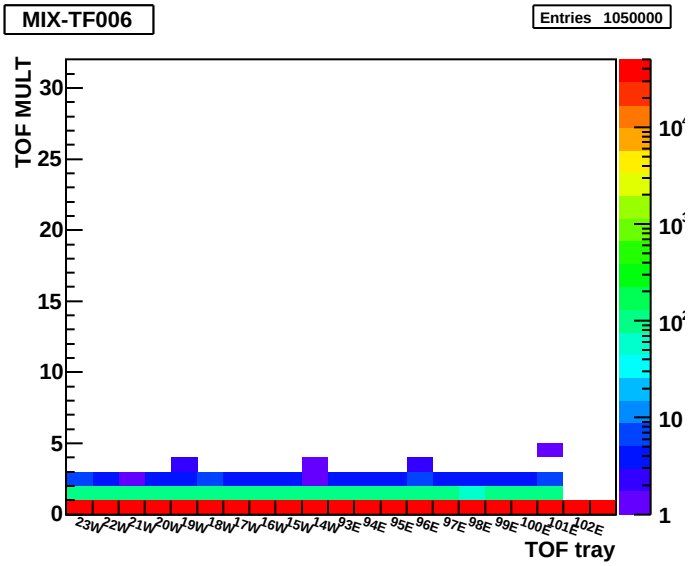

MIX-TF001
Entries 1050000
TOF MULT
TOF tray

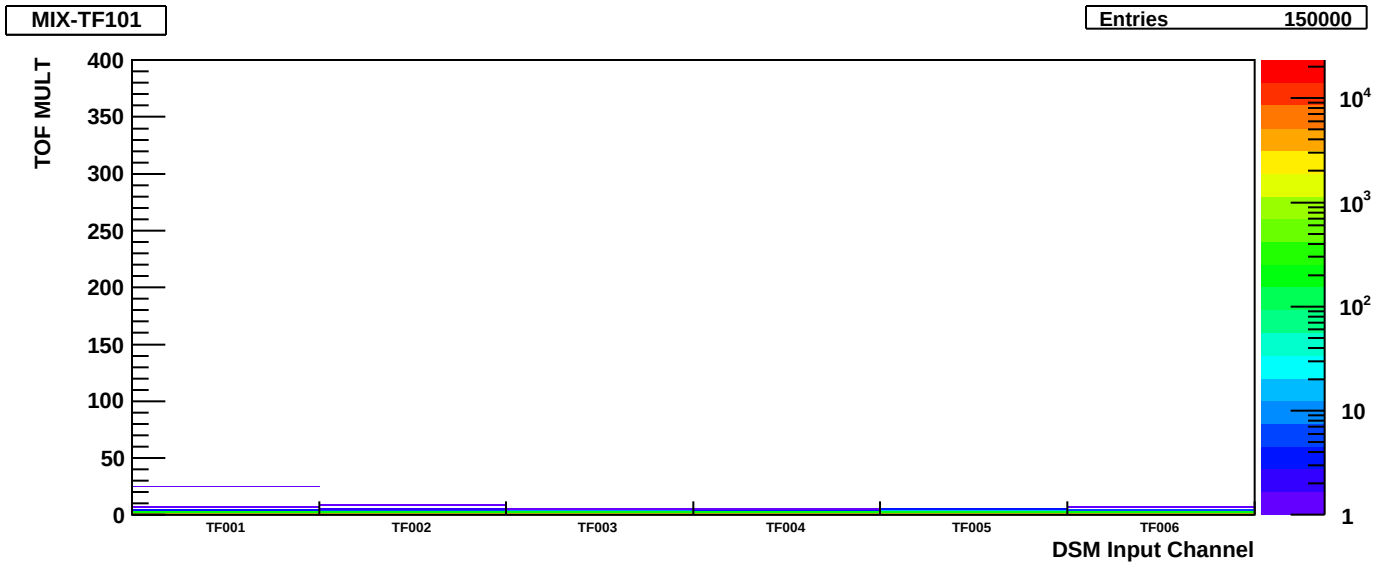

MIX-TF002
Entries 1050000
TOF MULT
TOF tray

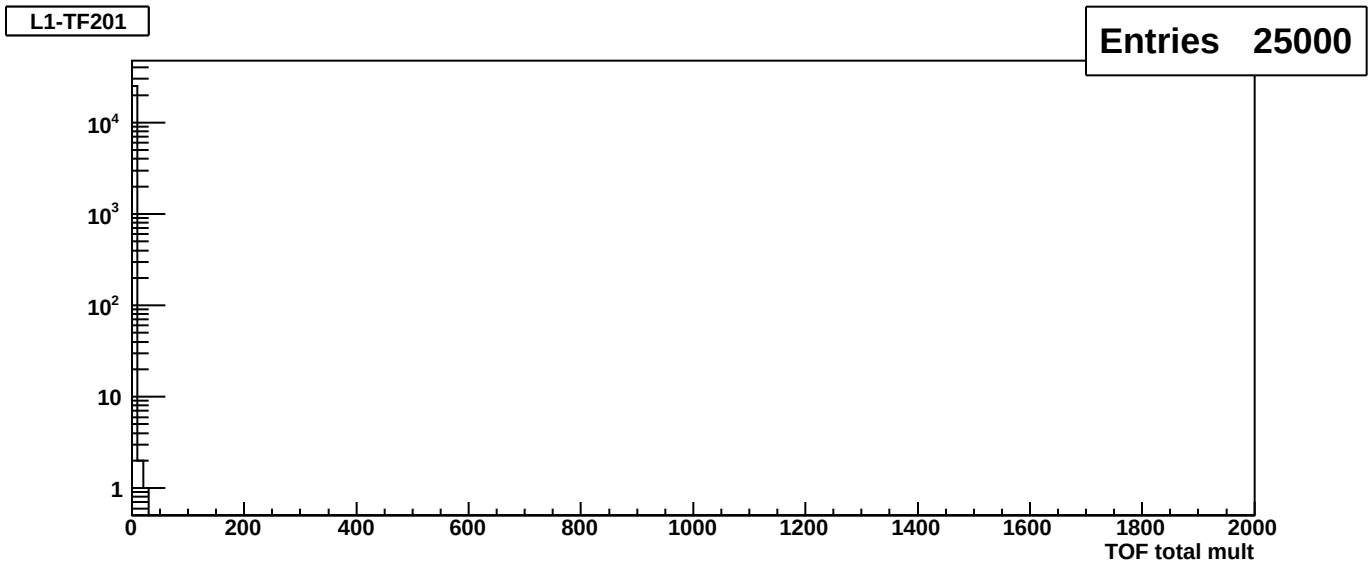

MIX-TF003
Entries 1050000
TOF MULT
TOF tray

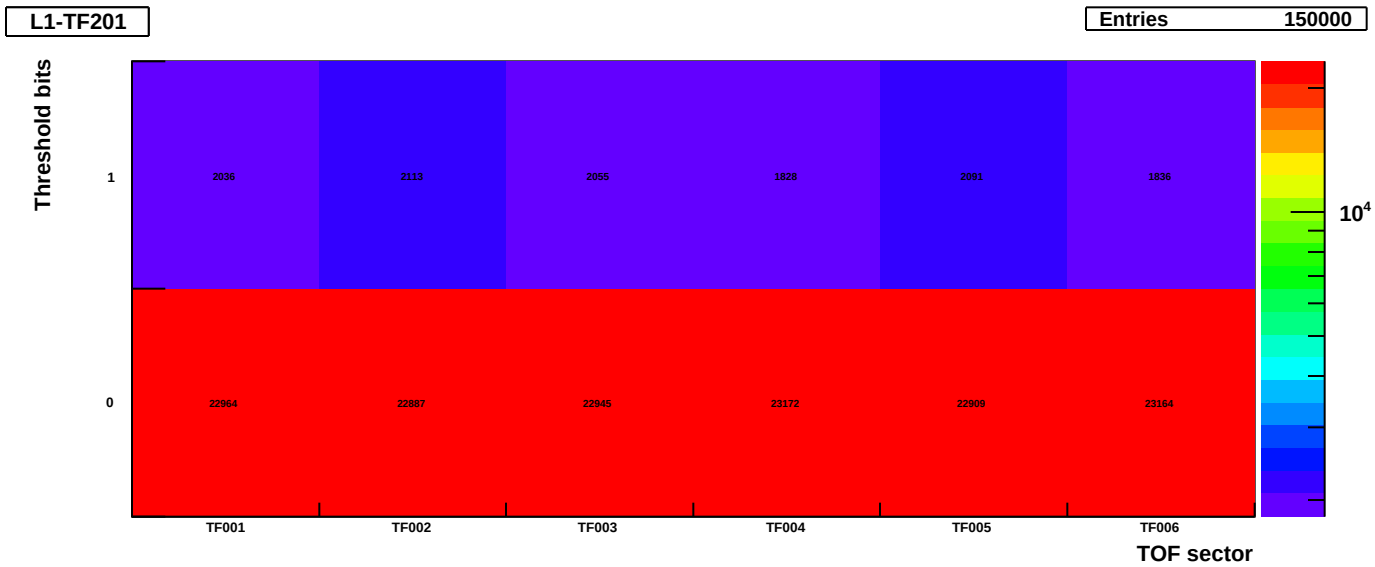

MIX-TF004
Entries 1050000
TOF MULT
TOF tray

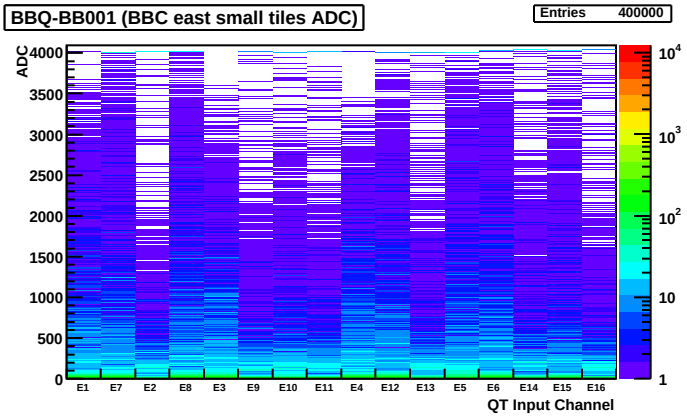

MIX-TF005
Entries 1050000
TOF MULT
TOF tray

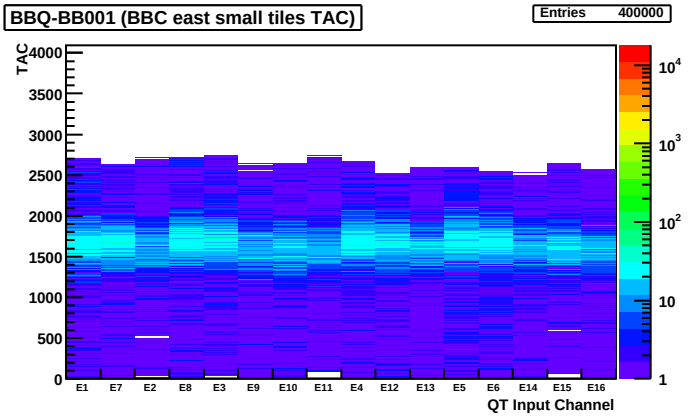

MIX-TF006
Entries 1050000
TOF MULT
TOF tray

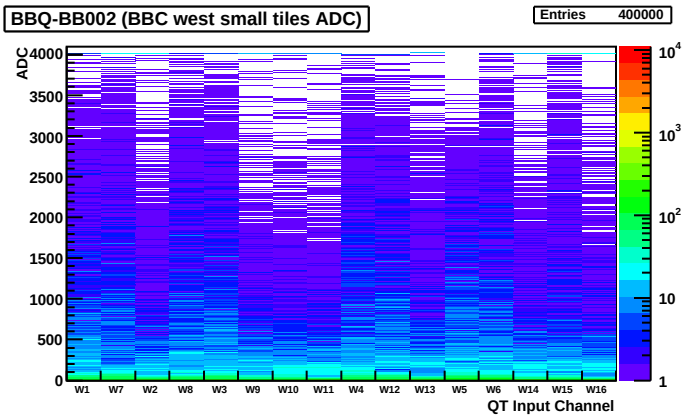

MIX-TF101
Entries 150000
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

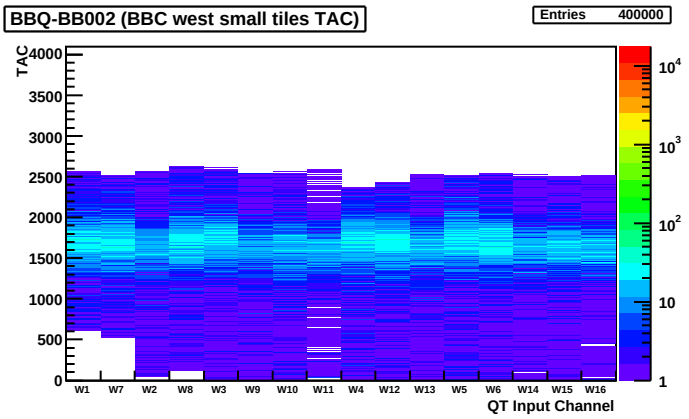

L1-TF201
Entries 25000
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

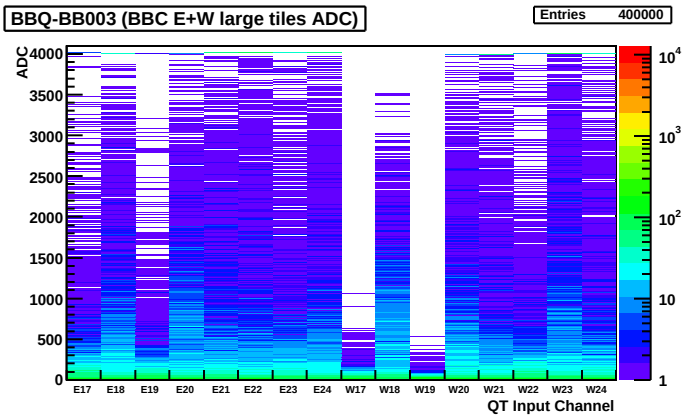

L1-TF201
Entries 150000
Threshold bits
1
0
2036
2113
2055
1828
2091
1836
22964
22887
22945
23172
22909
23164
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

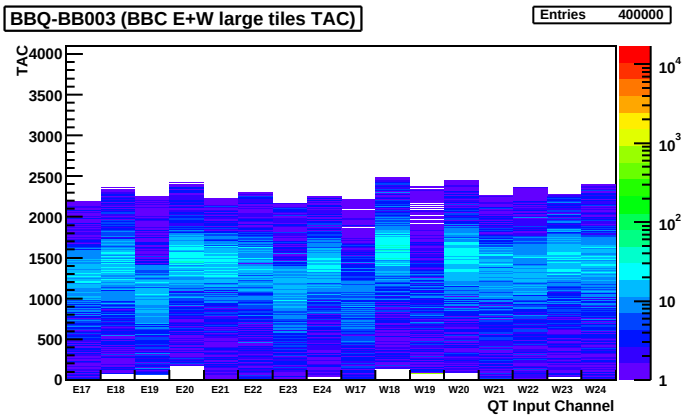

BBQ-BB001 (BBC east small tiles ADC)
Entries 400000
ADC
QT Input Channel

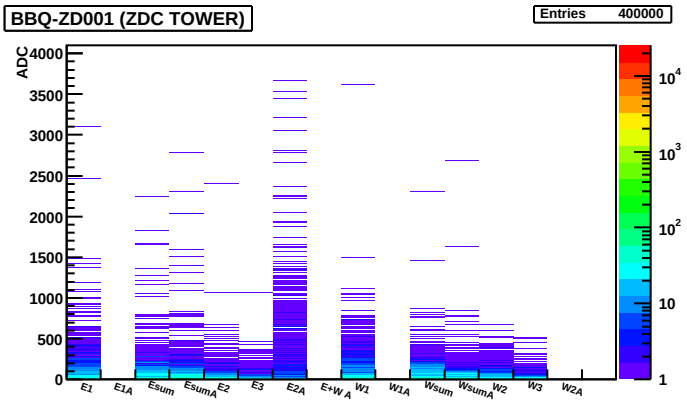

BBQ-BB001 (BBC east small tiles TAC)
Entries 400000
TAC
QT Input Channel

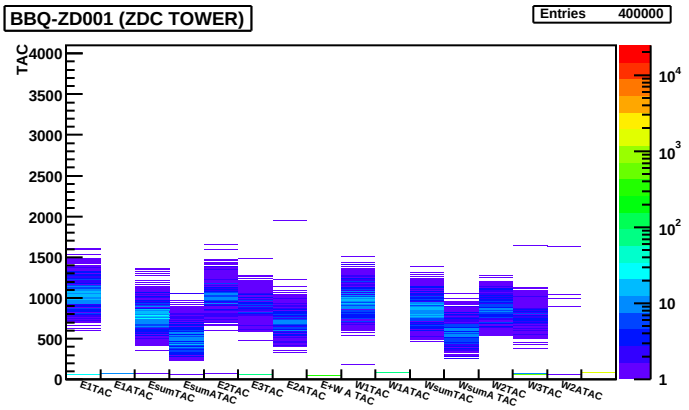

BBQ-BB002 (BBC west small tiles ADC)
Entries 400000
ADC
QT Input Channel

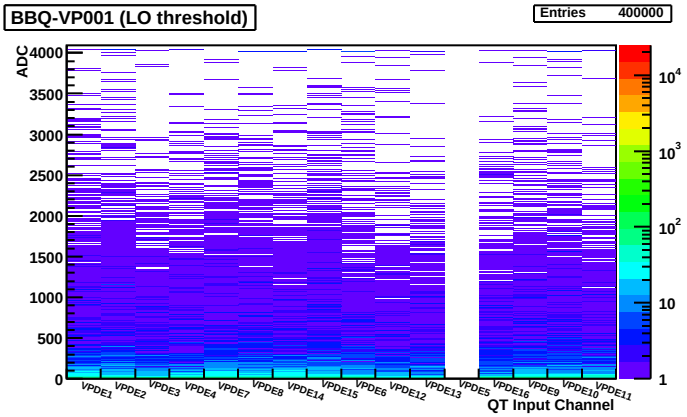

BBQ-BB002 (BBC west small tiles TAC)
Entries 400000
TAC
QT Input Channel

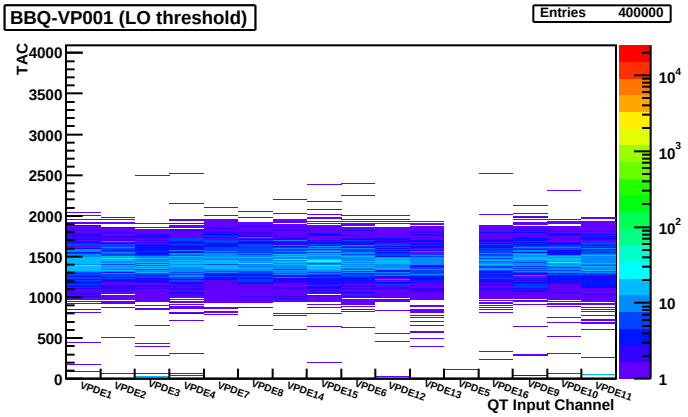

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 400000
ADC
QT Input Channel

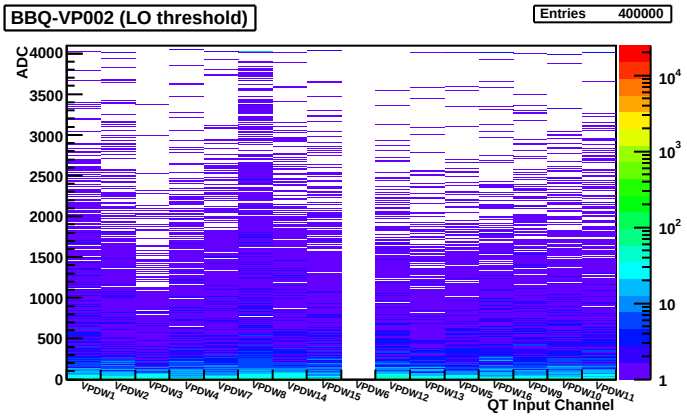

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 400000
TAC
QT Input Channel

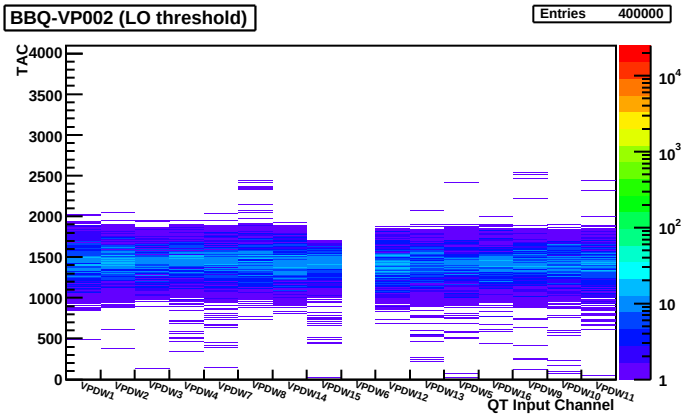

BBQ-ZD001 (ZDC TOWER)
Entries 400000
ADC

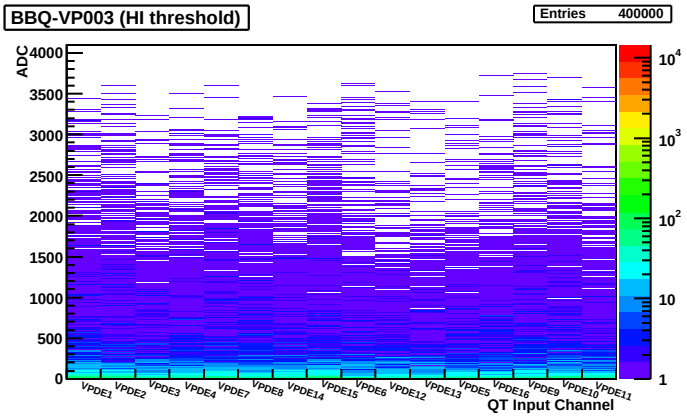

BBQ-ZD001 (ZDC TOWER)
Entries 400000
TAC

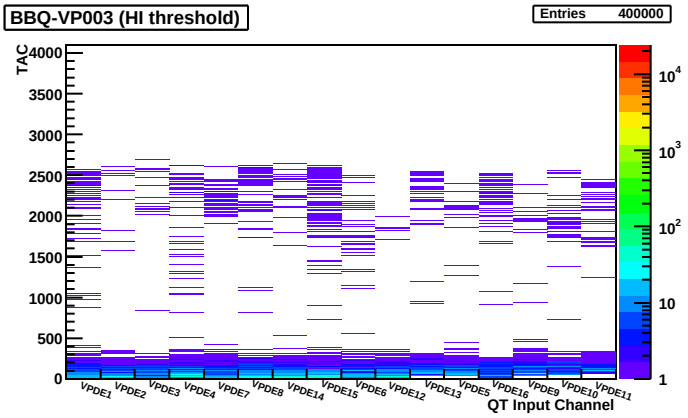

BBQ-VP001 (LO threshold)
Entries 400000
ADC
QT Input Channel

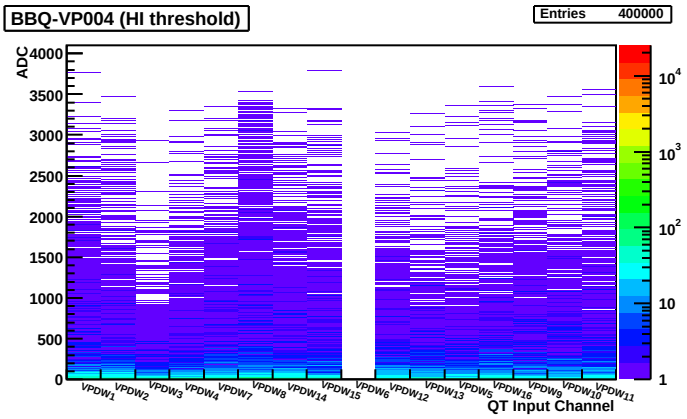

BBQ-VP001 (LO threshold)
Entries 400000
TAC
QT Input Channel

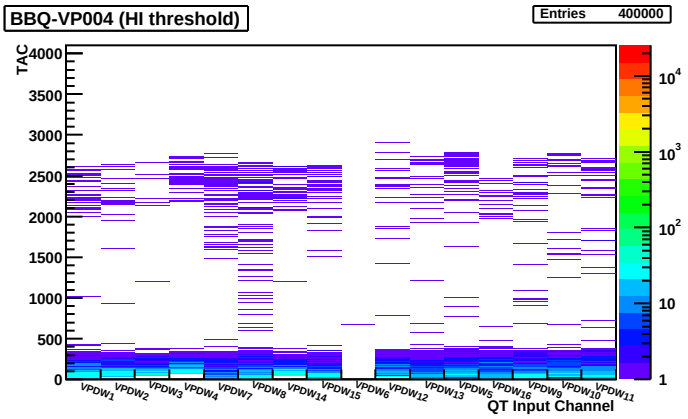

BBQ-VP002 (LO threshold)
Entries 400000
ADC
QT Input Channel

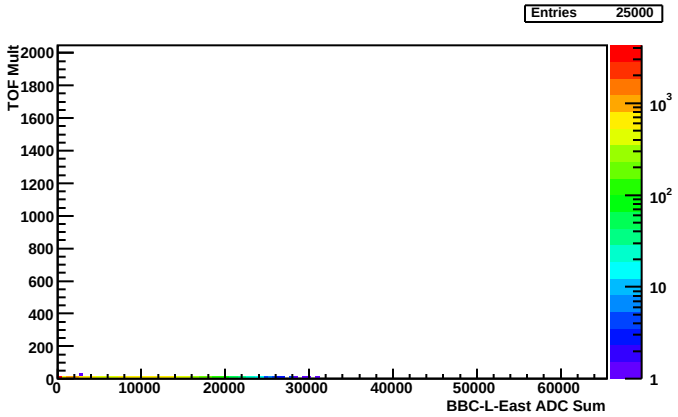

BBQ-VP002 (LO threshold)
Entries 400000
TAC
QT Input Channel

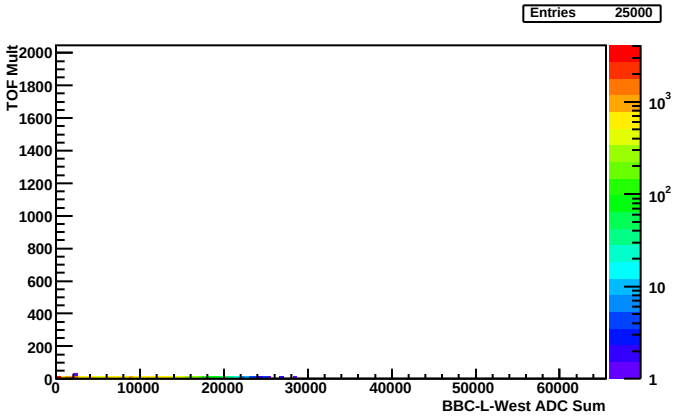

BBQ-VP003 (HI threshold)
Entries 400000
ADC
QT Input Channel

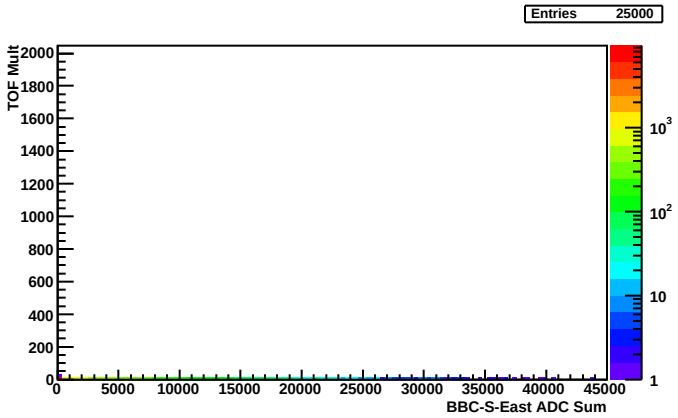

BBQ-VP003 (HI threshold)
Entries 400000
TAC
QT Input Channel

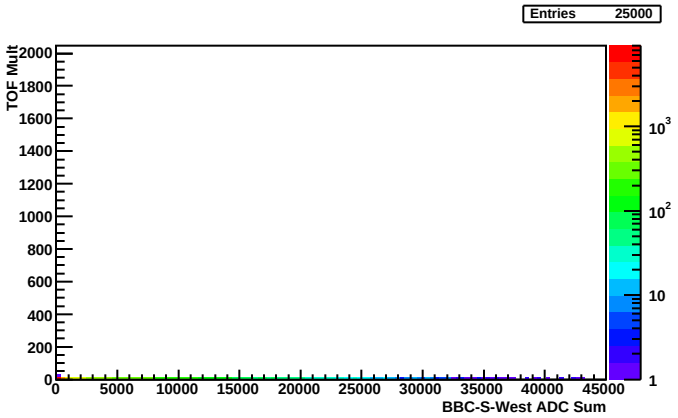

BBQ-VP004 (HI threshold)
Entries 400000
ADC
QT Input Channel

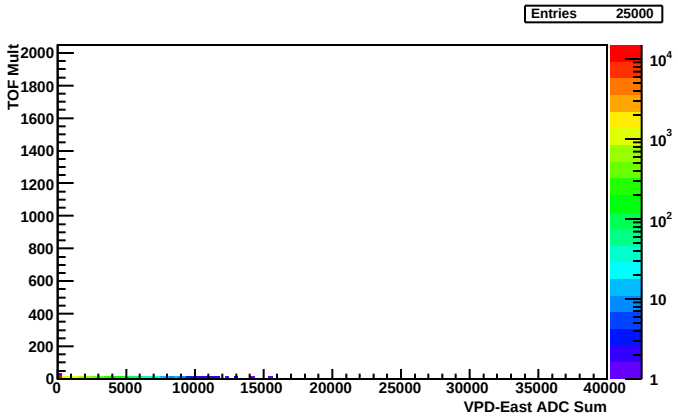

BBQ-VP004 (HI threshold)
Entries 400000
TAC
QT Input Channel

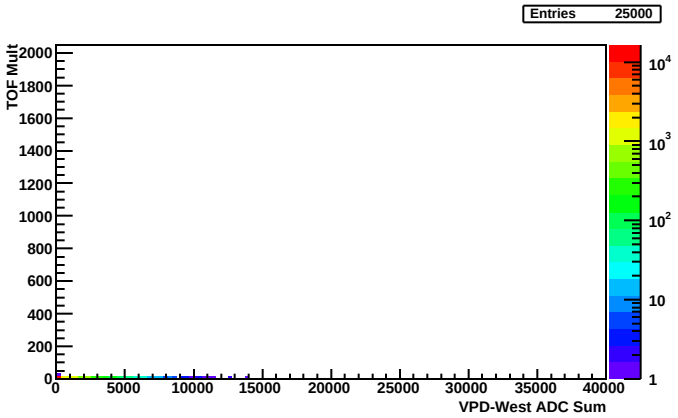

Entries 25000
TOF Mult
BBC-L-East ADC Sum

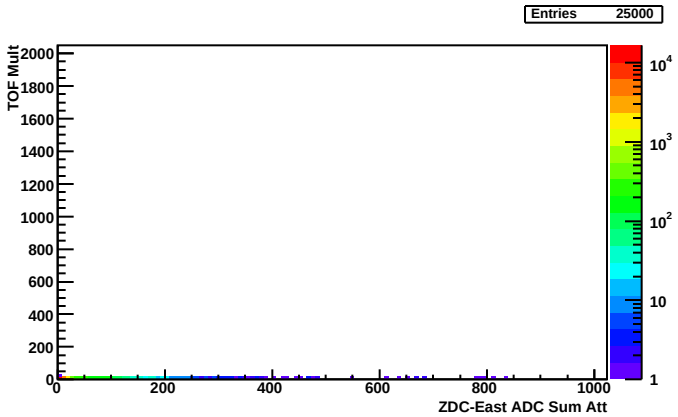

Entries 25000
TOF Mult
BBC-L-West ADC Sum

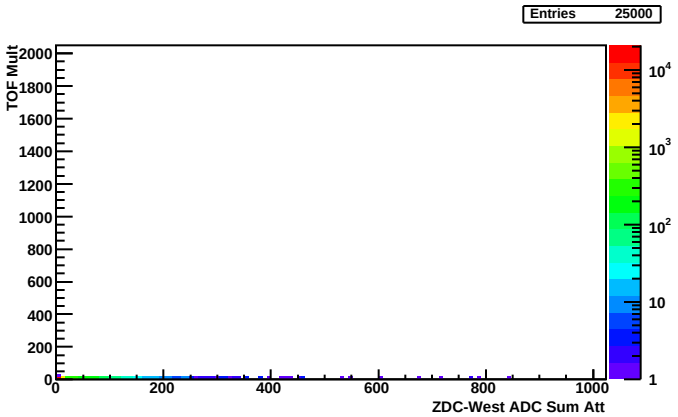

Entries 25000
TOF Mult
BBC-S-East ADC Sum

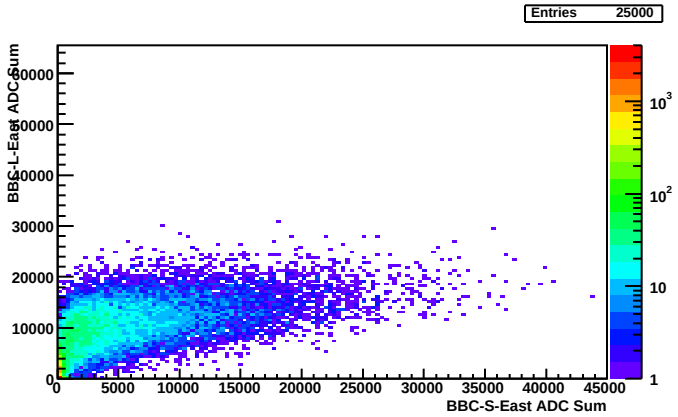

Entries 25000
TOF Mult
BBC-S-West ADC Sum

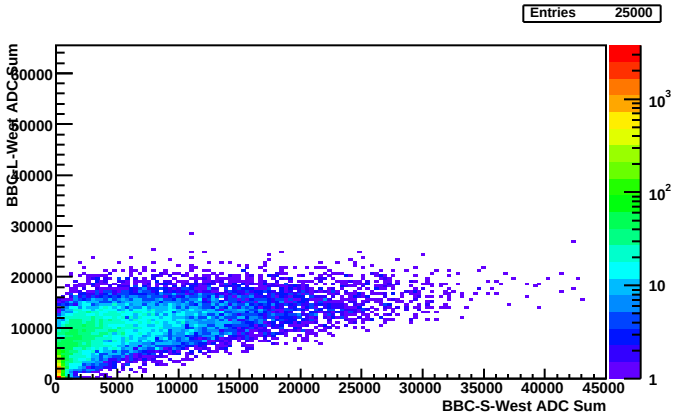

Entries 25000
TOF Mult
VPD-East ADC Sum

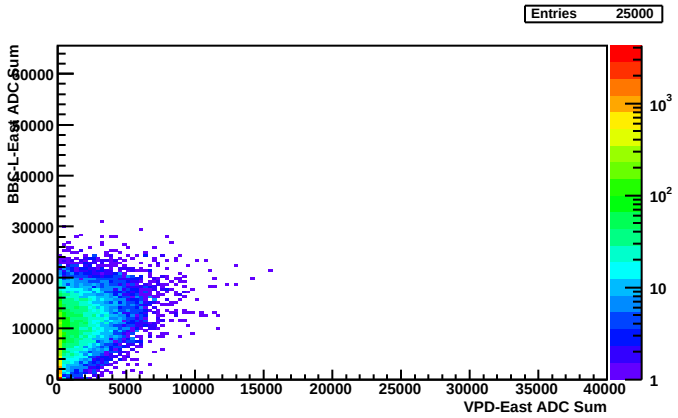

Entries 25000
TOF Mult
VPD-West ADC Sum

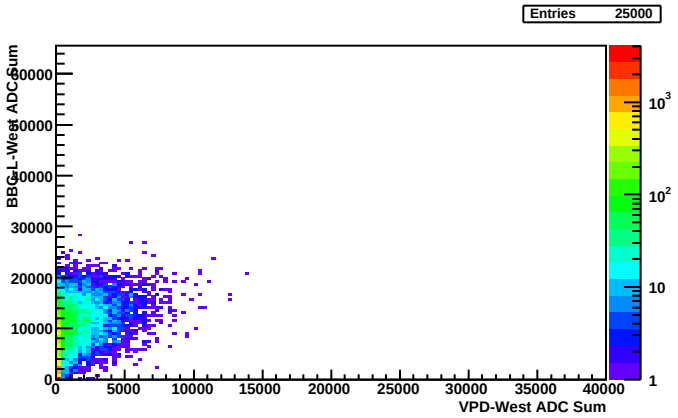

Entries 25000
TOF Mult
ZDC-East ADC Sum Att

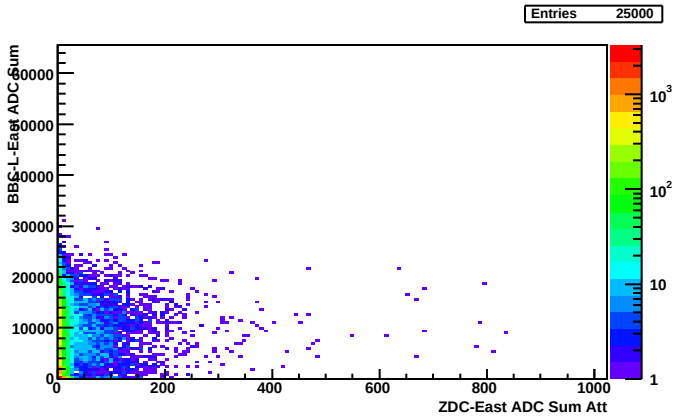

Entries 25000
TOF Mult
ZDC-West ADC Sum Att

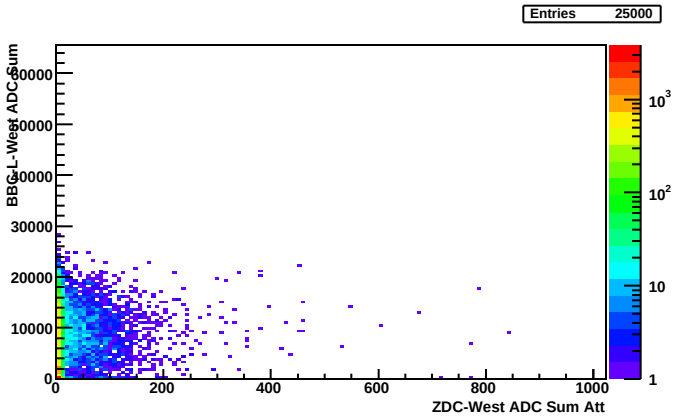

Entries 25000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

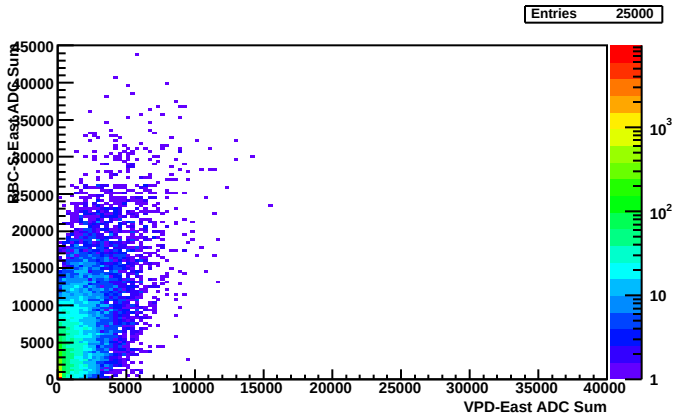

Entries 25000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

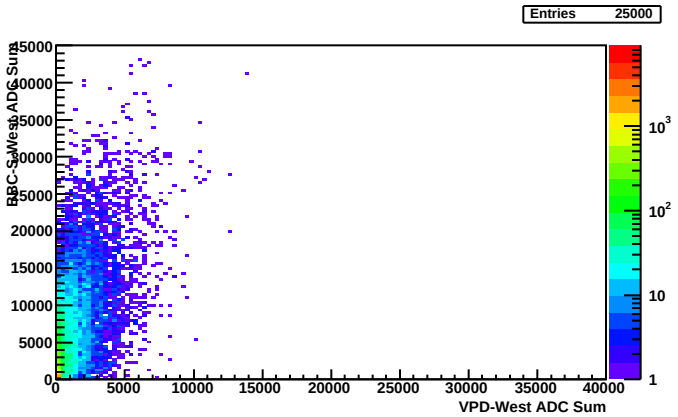

Entries 25000
BBC-L-East ADC Sum
VPD-East ADC Sum

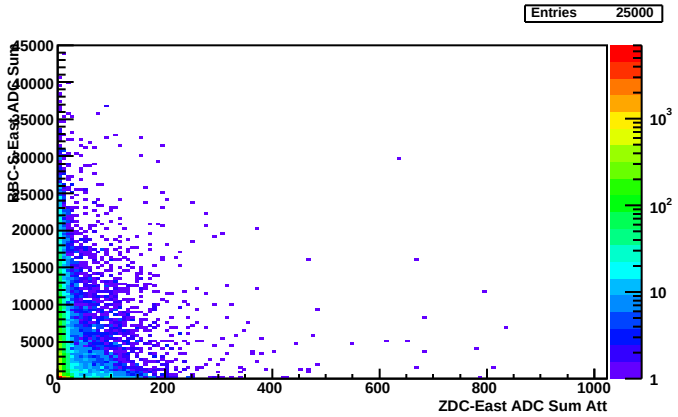

Entries 25000
BBC-L-West ADC Sum
VPD-West ADC Sum

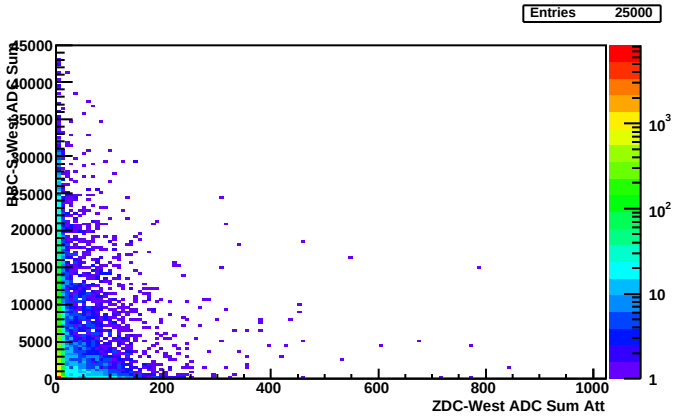

Entries 25000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

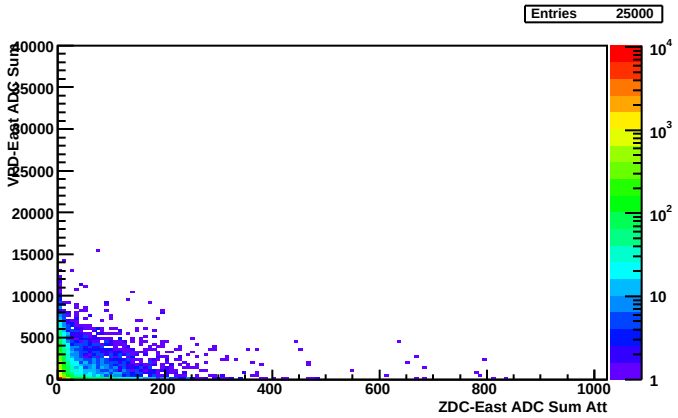

Entries 25000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

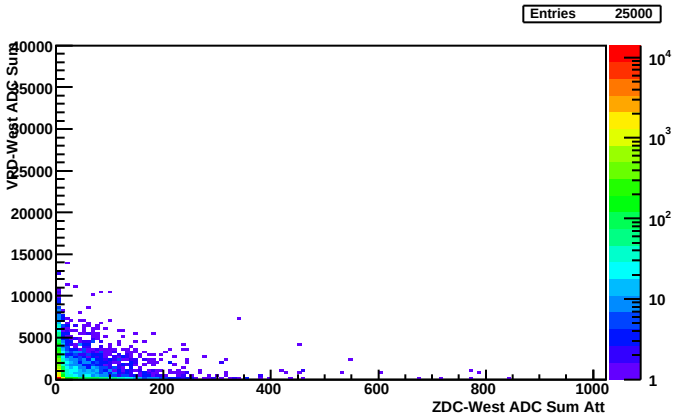

Entries 25000
BBC-S-East ADC Sum
VPD-East ADC Sum

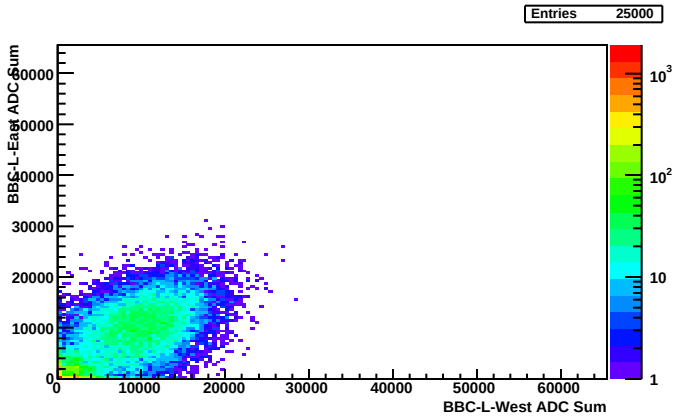

Entries 25000
BBC-S-West ADC Sum
VPD-West ADC Sum

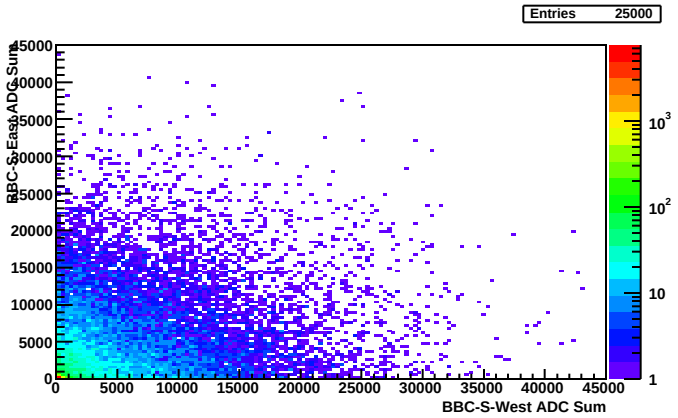

Entries 25000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

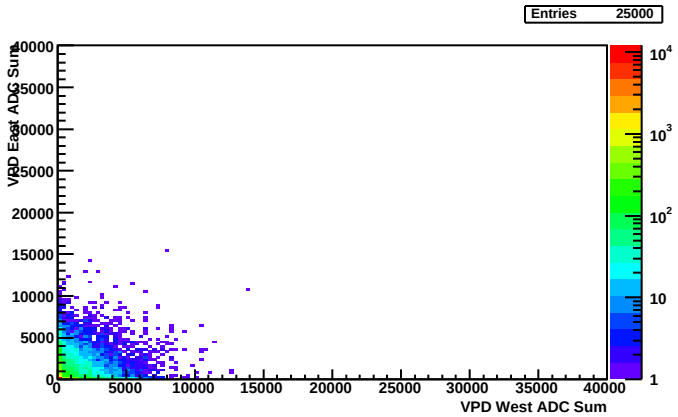

Entries 25000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

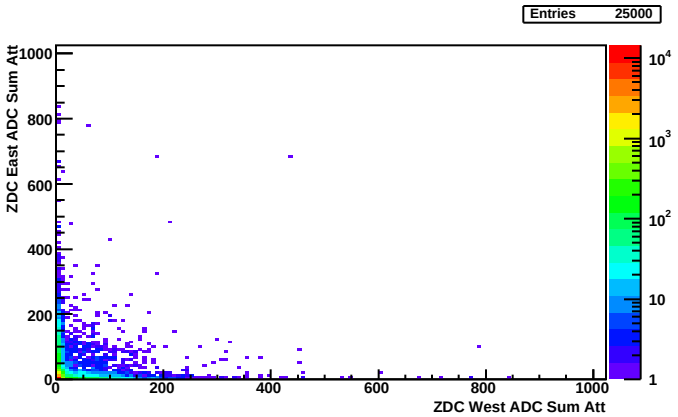

Entries 25000
VPD-East ADC Sum
ZDC-East ADC Sum Att

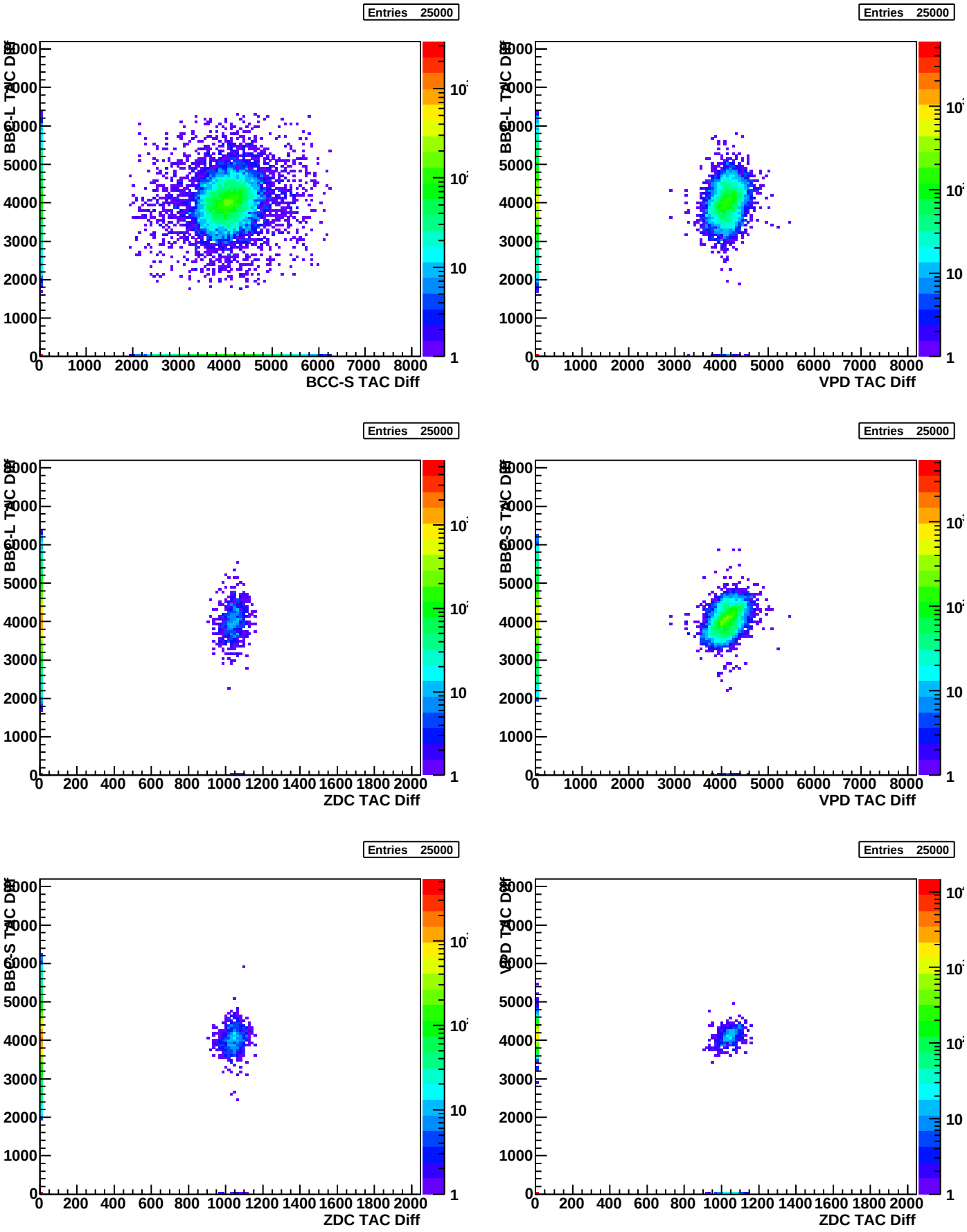

Entries 25000
VPD-West ADC Sum
ZDC-West ADC Sum Att

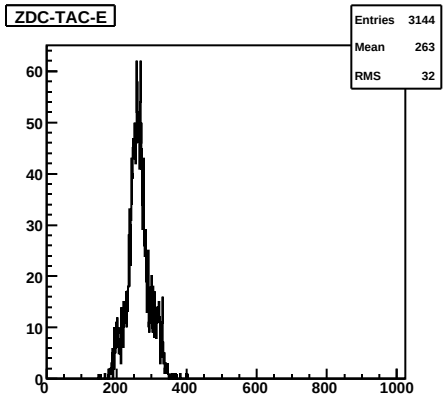

Entries 25000
BBC-L-East ADC Sum
BBC-L-West ADC Sum

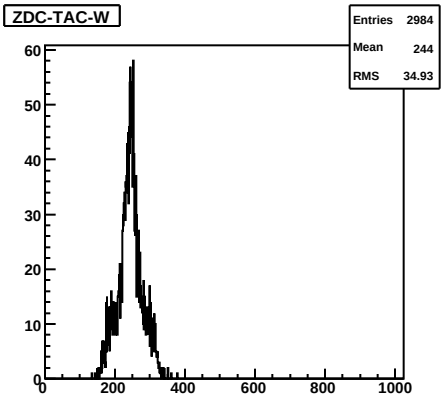

Entries 25000
BBC-S-East ADC Sum
BBC-S-West ADC Sum

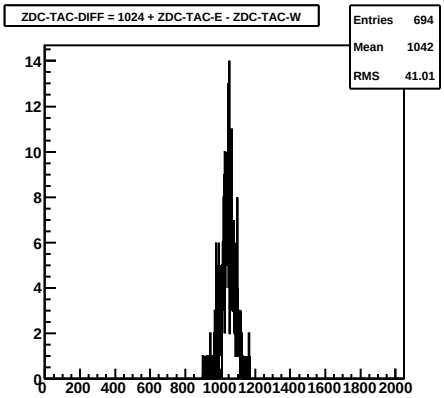

Entries 25000
VPD East ADC Sum
VPD West ADC Sum

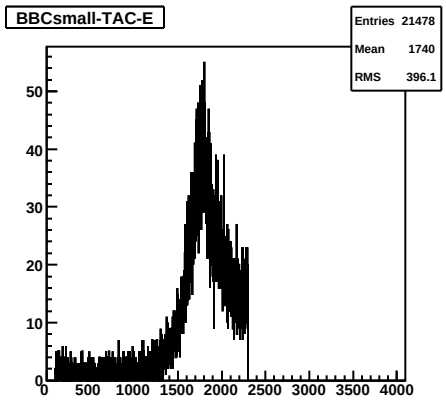

Entries 25000
ZDC East ADC Sum Att
ZDC West ADC Sum Att

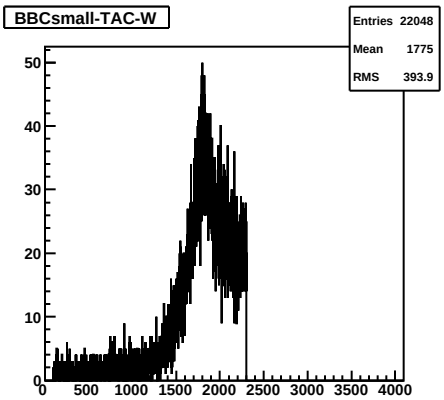

Entries 25000
BBC-L TAC Diff
BCC-S TAC Diff
Entries 25000
BBC-L TAC Diff
VPD TAC Diff
Entries 25000
BBC-L TAC Diff
ZDC TAC Diff
Entries 25000
BBC-S TAC Diff
VPD TAC Diff
Entries 25000
BBC-S TAC Diff
ZDC TAC Diff
Entries 25000
VPD TAC Diff
ZDC TAC Diff

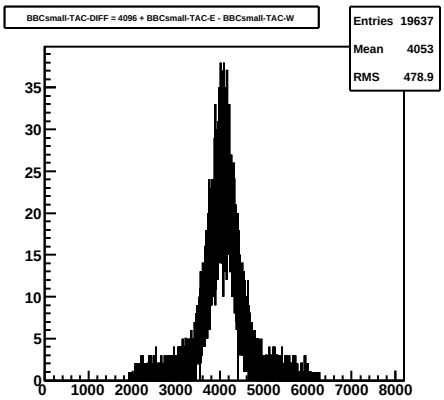

ZDC-TAC-E
Entries 3144
Mean 263
RMS 32

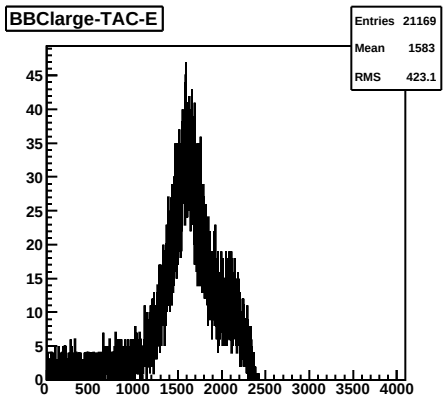

ZDC-TAC-W
Entries 2984
Mean 244
RMS 34.93

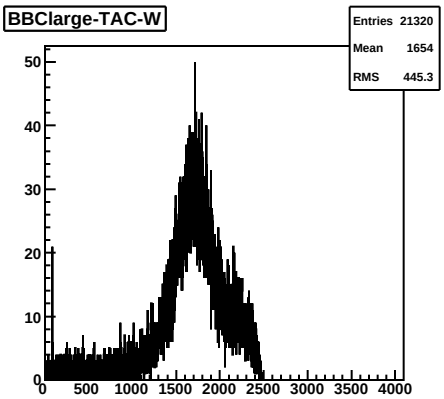

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 694
Mean 1042
RMS 41.01

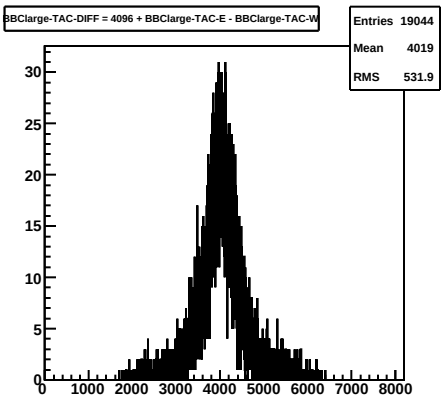

BBCsmall-TAC-E
Entries 21478
Mean 1740
RMS 396.1

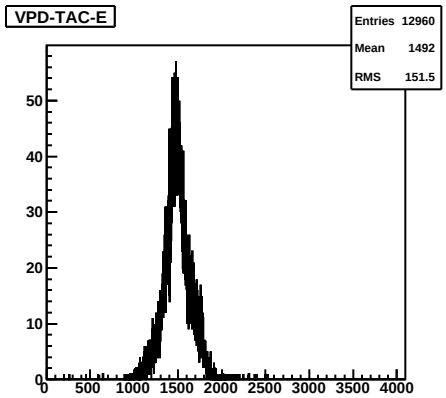

BBCsmall-TAC-W
Entries 22048
Mean 1775
RMS 393.9

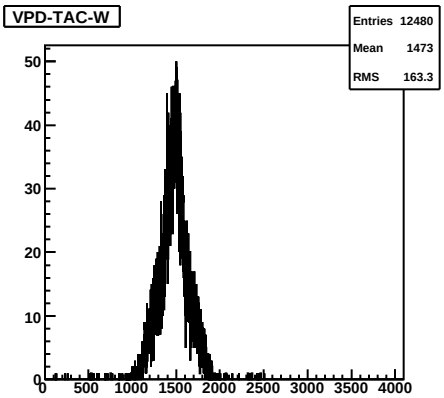

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 19637
Mean 4053
RMS 478.9

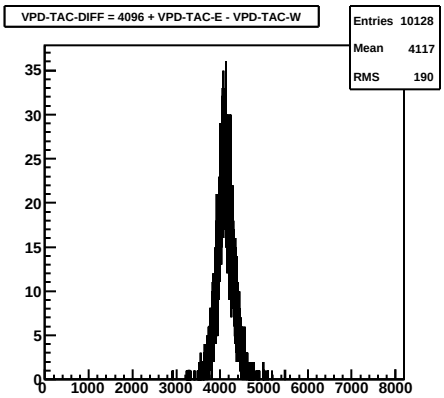

BBClarge-TAC-E
Entries 21169
Mean 1583
RMS 423.1

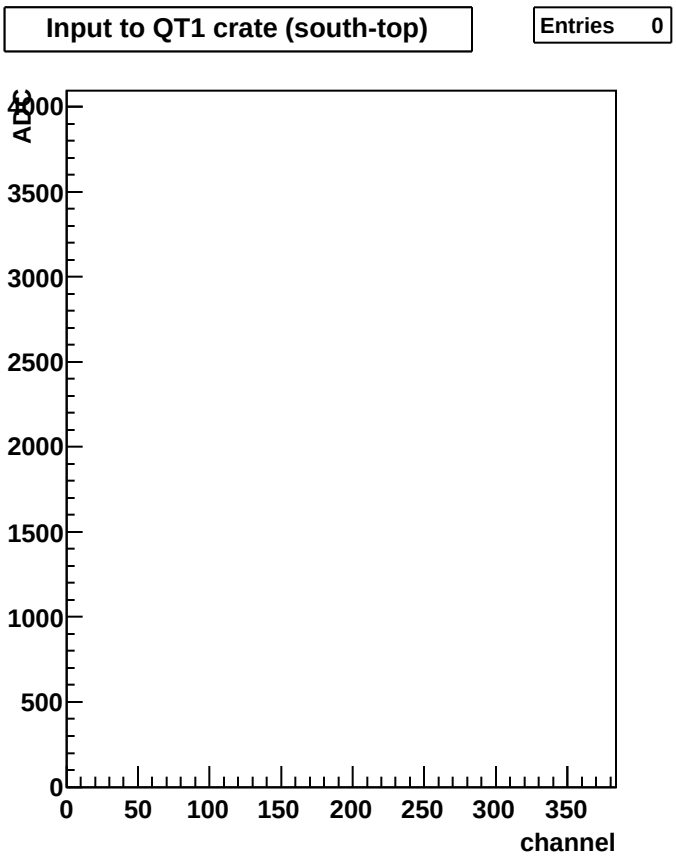

BBClarge-TAC-W
Entries 21320
Mean 1654
RMS 445.3

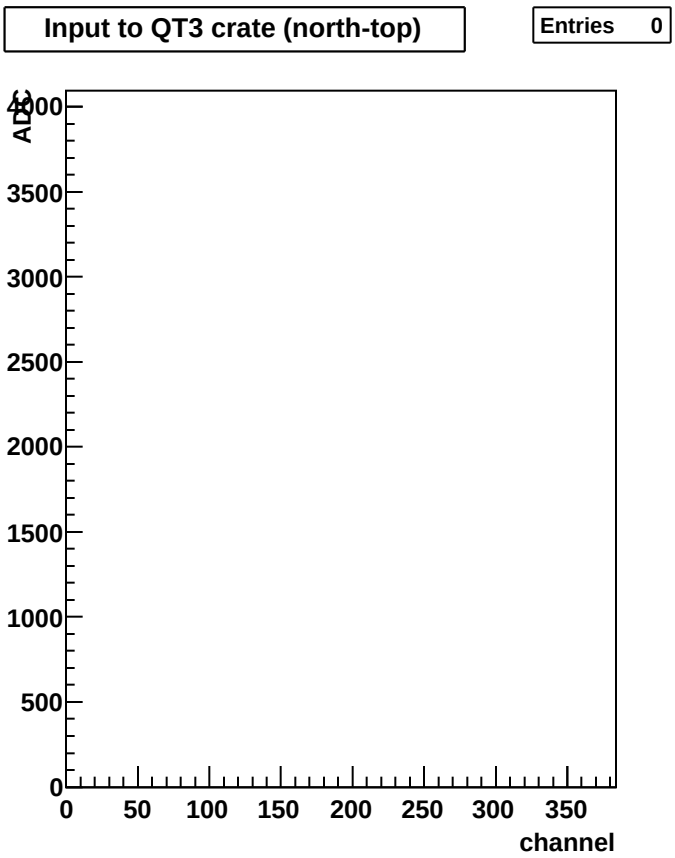

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 19044
Mean 4019
RMS 531.9

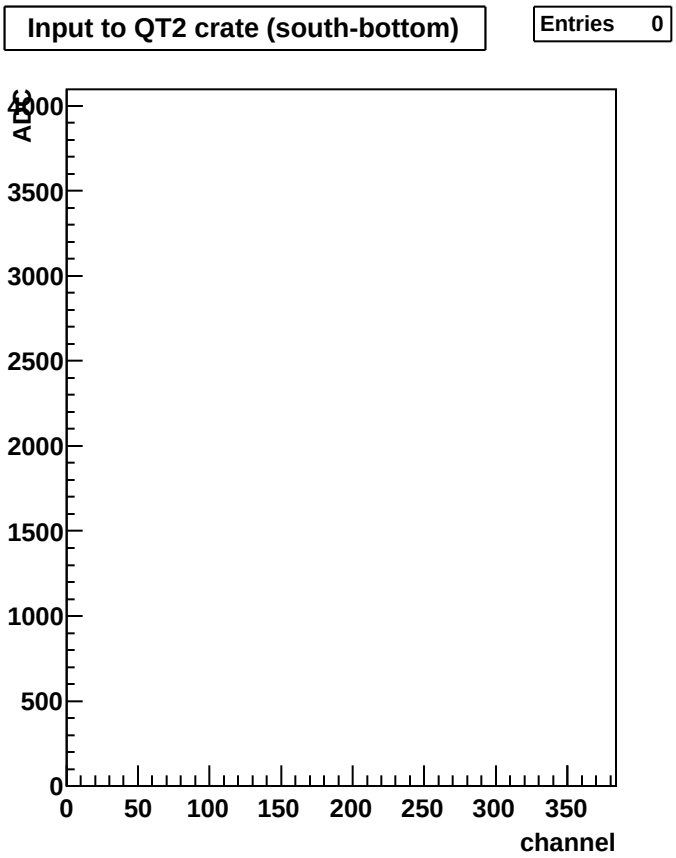

VPD-TAC-E
Entries 12960
Mean 1492
RMS 151.5

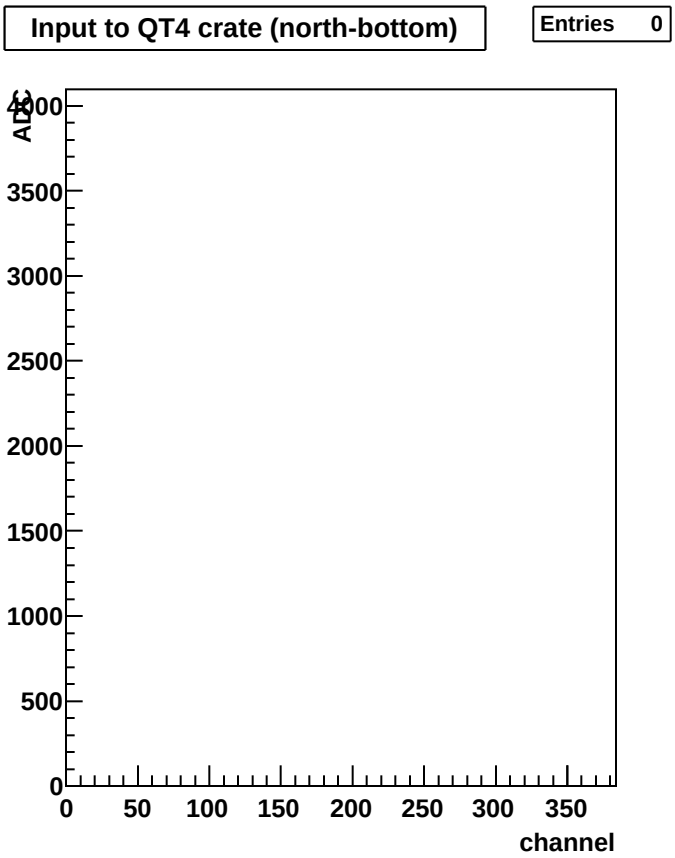

VPD-TAC-W
Entries 12480
Mean 1473
RMS 163.3

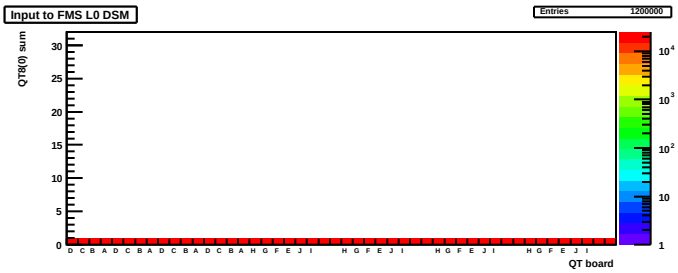

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 10128
Mean 4117
RMS 190

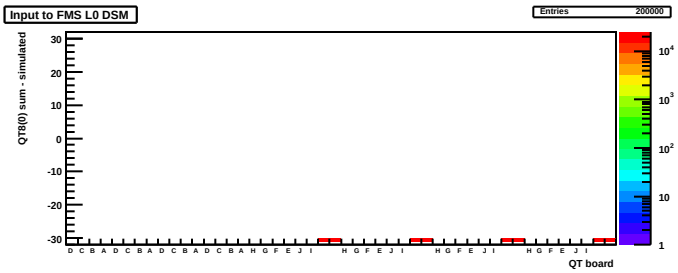

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

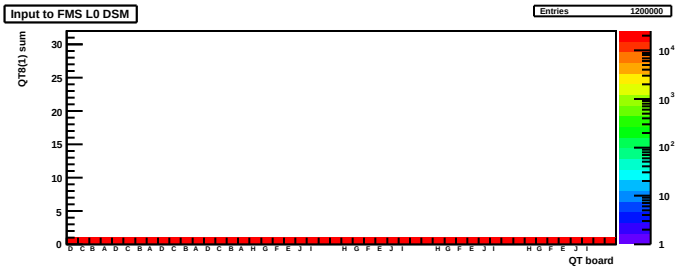

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

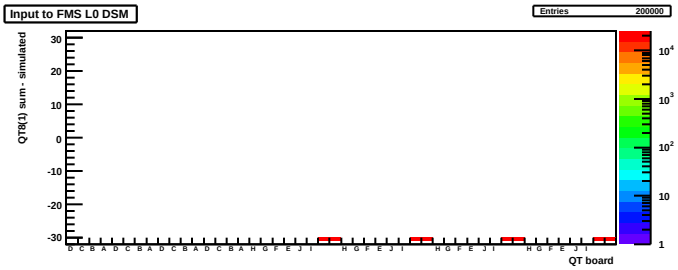

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

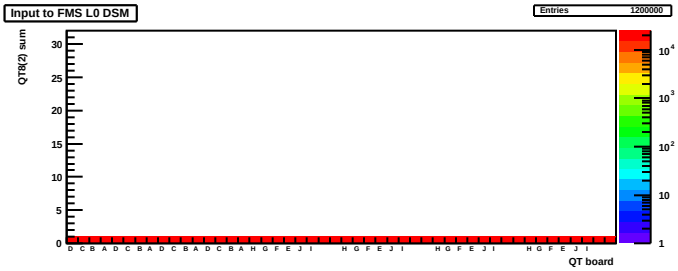

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

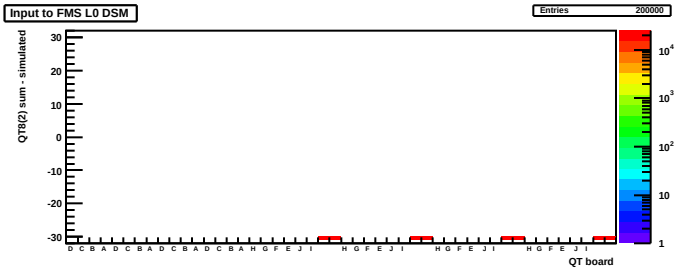

Input to FMS L0 DSM
Entries 1200000
QT8(0) sum
QT board

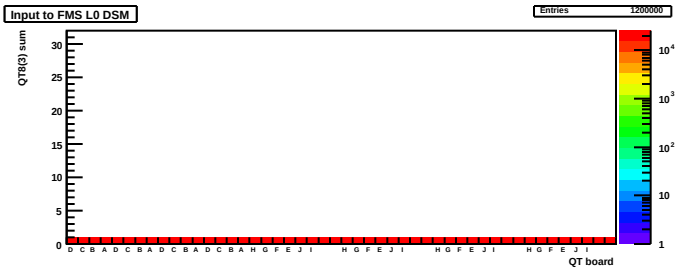

Input to FMS L0 DSM
Entries 200000
QT8(0) sum - simulated
QT board

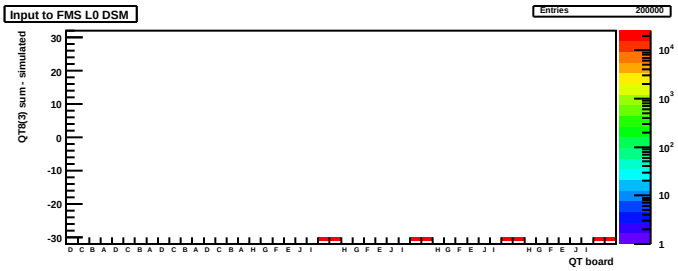

Input to FMS L0 DSM
Entries 1200000
QT8(1) sum
QT board

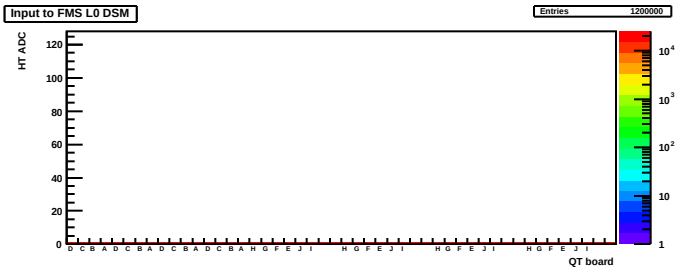

Input to FMS L0 DSM
Entries 200000
QT8(1) sum - simulated
QT board

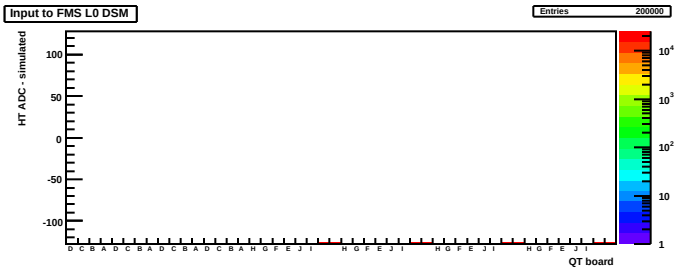

Input to FMS L0 DSM
Entries 1200000
QT8(2) sum
QT board

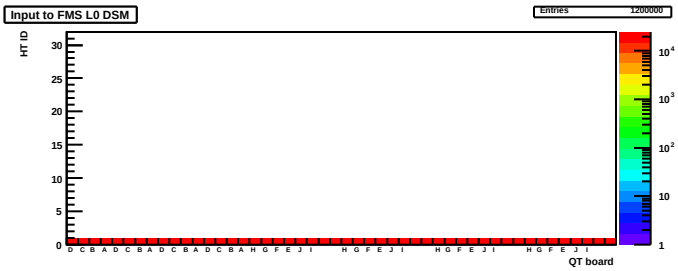

Input to FMS L0 DSM
Entries 200000
QT8(2) sum - simulated
QT board

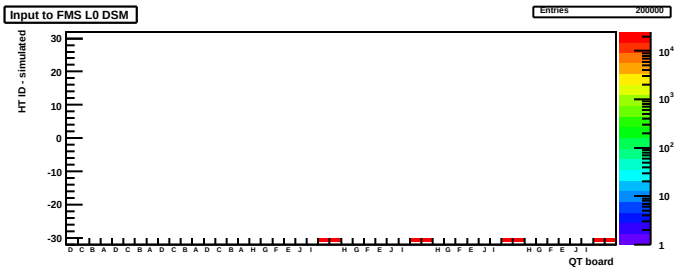

Input to FMS L0 DSM
Entries 1200000
QT8(3) sum
QT board

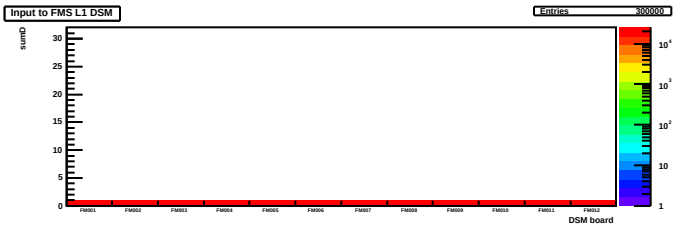

Input to FMS L0 DSM
Entries 200000
QT8(3) sum - simulated
QT board

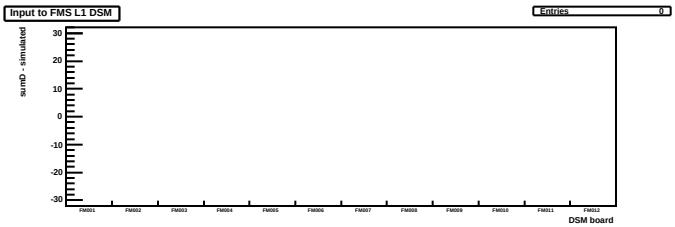

Input to FMS L0 DSM
Entries 1200000
HT ADC
QT board

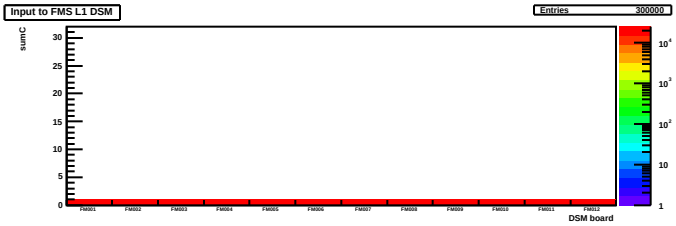

Input to FMS L0 DSM
Entries 200000
HT ADC - simulated
QT board

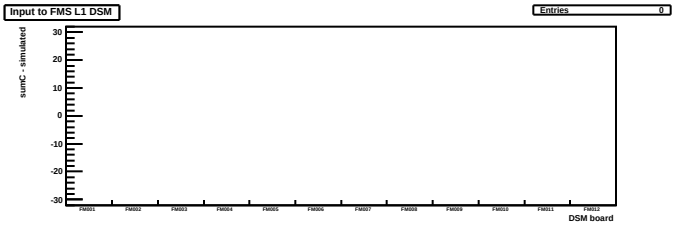

Input to FMS L0 DSM
Entries 1200000
HT ID
QT board

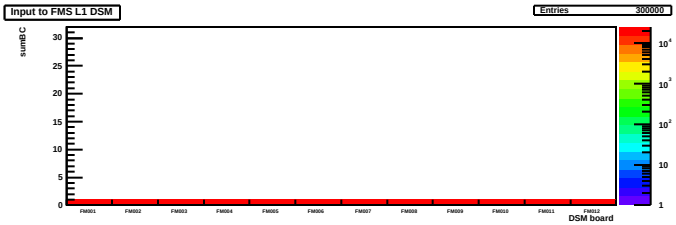

Input to FMS L0 DSM
Entries 200000
HT ID - simulated
QT board

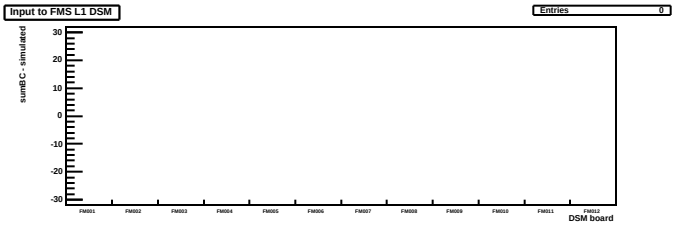

Input to FMS L1 DSM
Entries 300000
sumD
DSM board

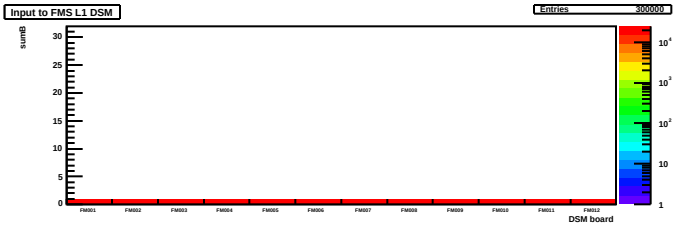

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

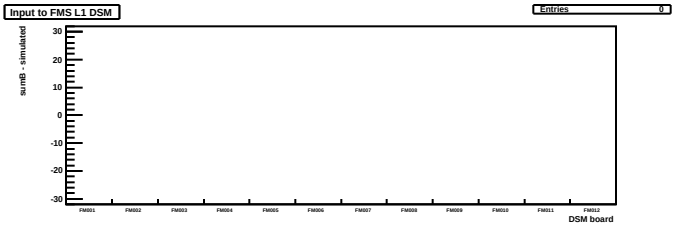

Input to FMS L1 DSM
Entries 300000
sumC
DSM board

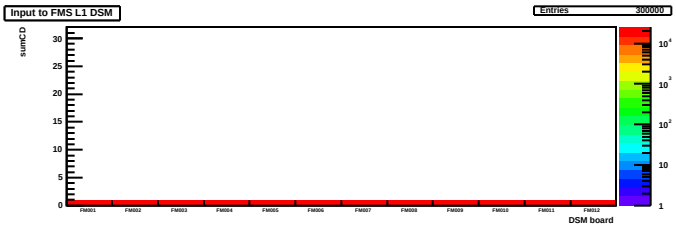

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

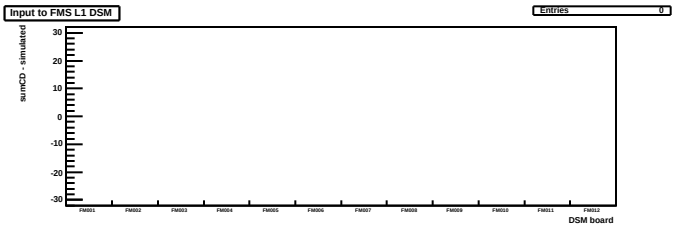

Input to FMS L1 DSM
Entries 300000
sumBC
DSM board

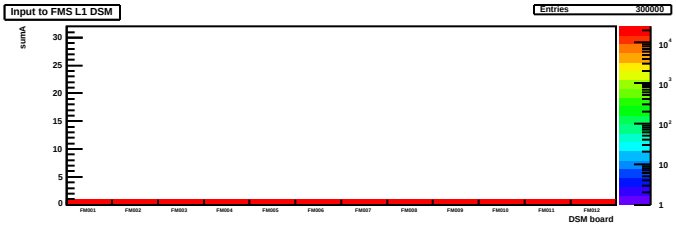

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

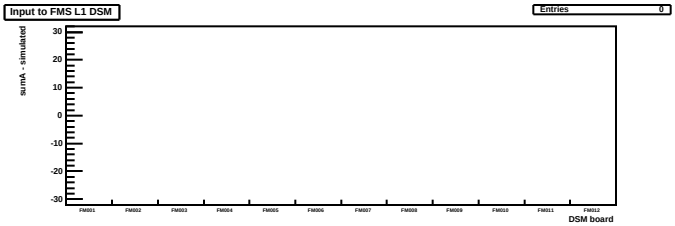

Input to FMS L1 DSM
Entries 300000
sumB
DSM board

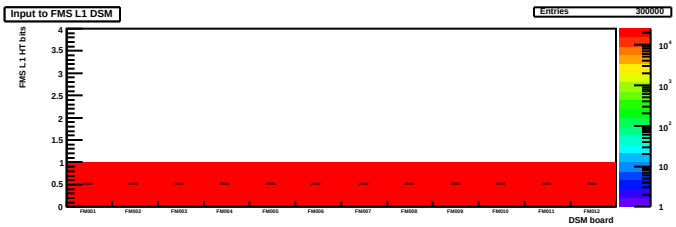

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

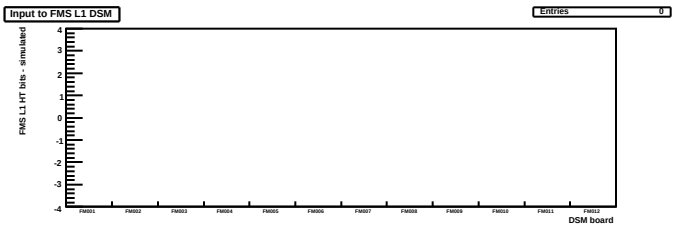

Input to FMS L1 DSM
Entries 300000
sumCD
DSM board

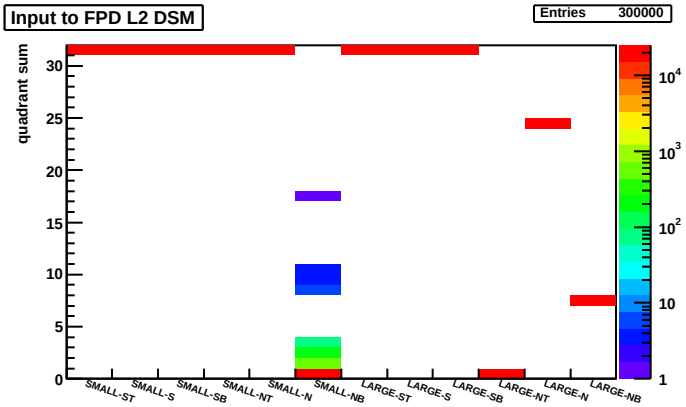

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

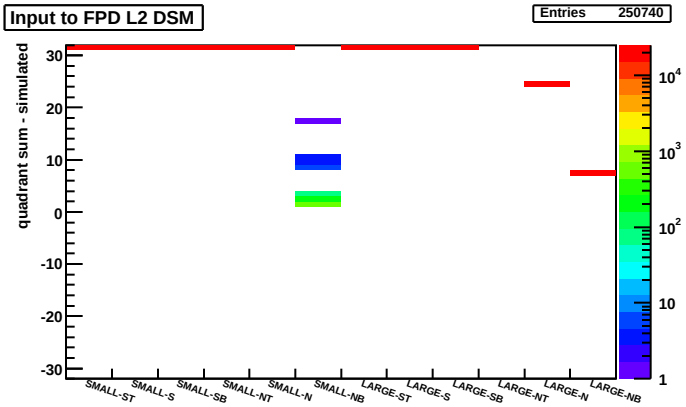

Input to FMS L1 DSM
Entries 300000
sumA
DSM board

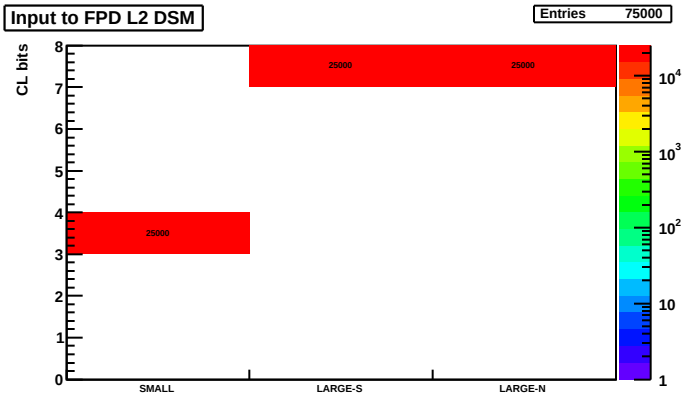

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

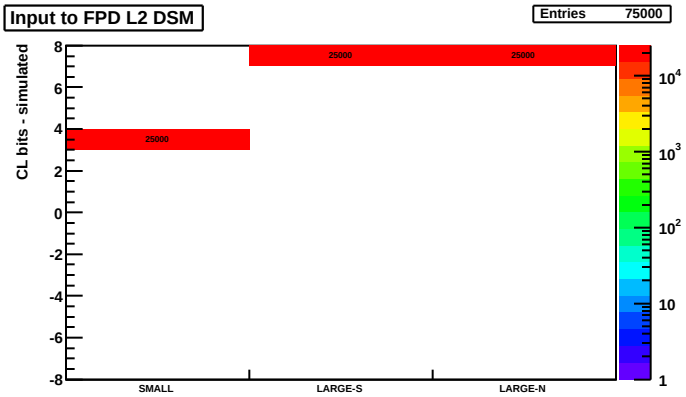

Input to FMS L1 DSM
Entries 300000
FMS L1 HT bits
DSM board

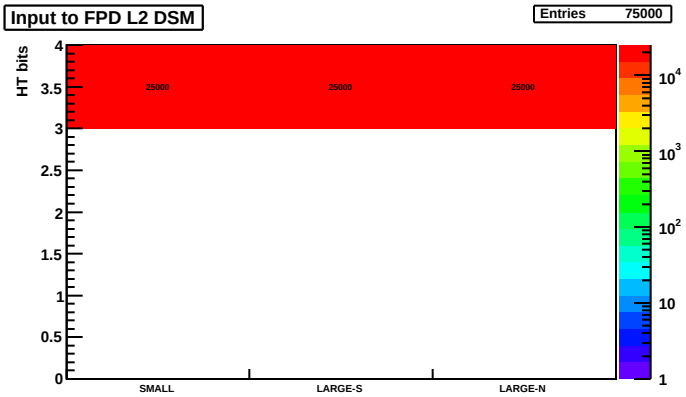

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

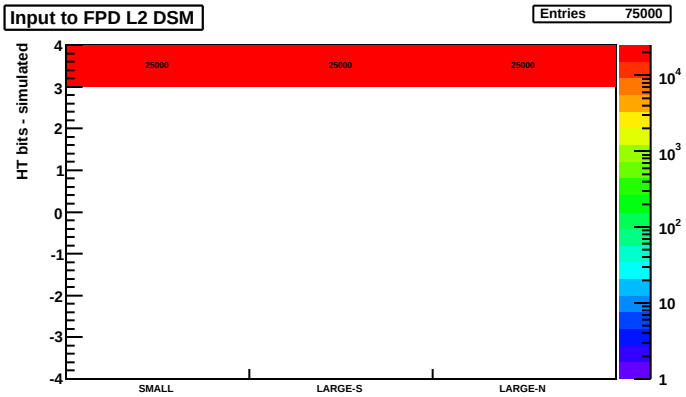

Input to FPD L2 DSM
Entries 300000
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

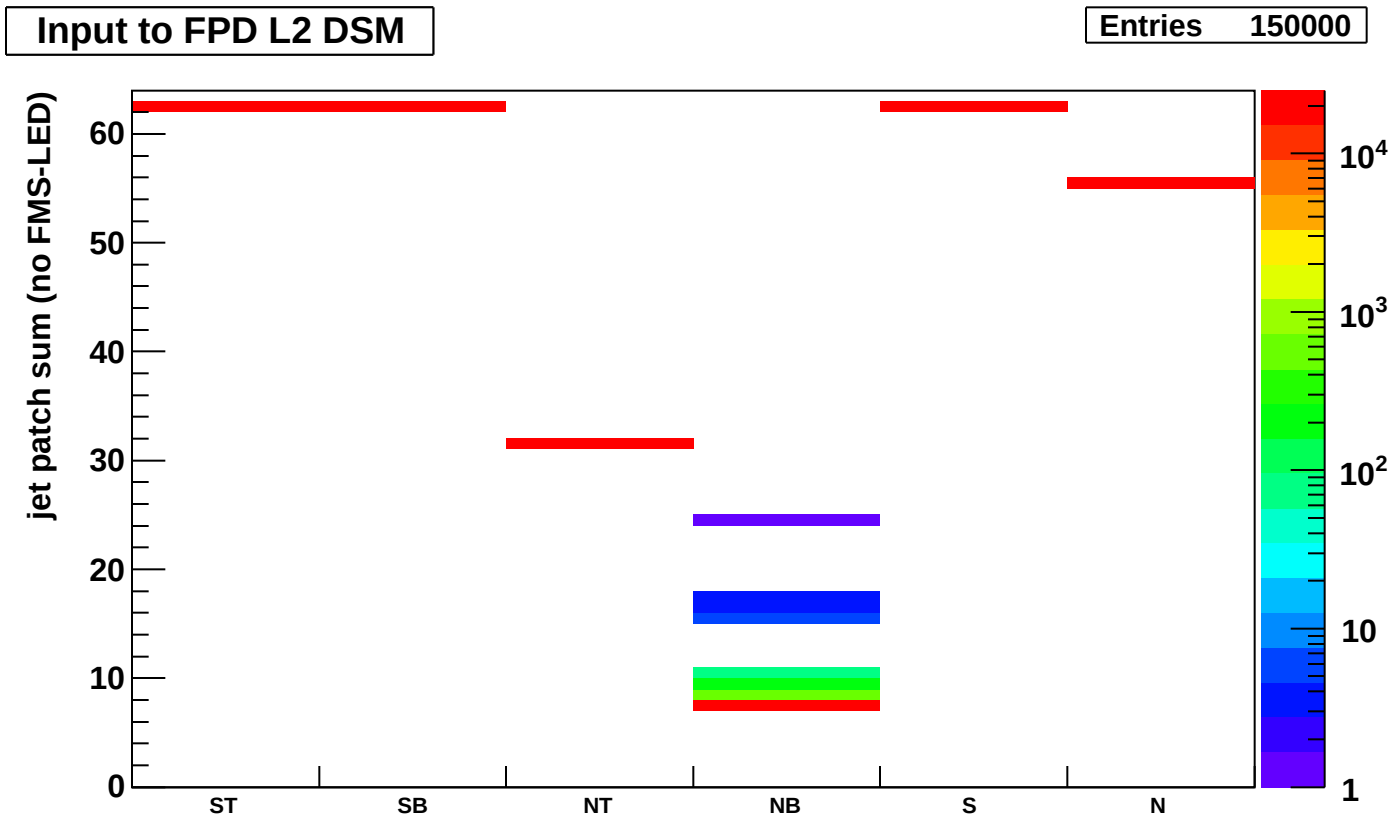

Input to FPD L2 DSM
Entries 250740
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

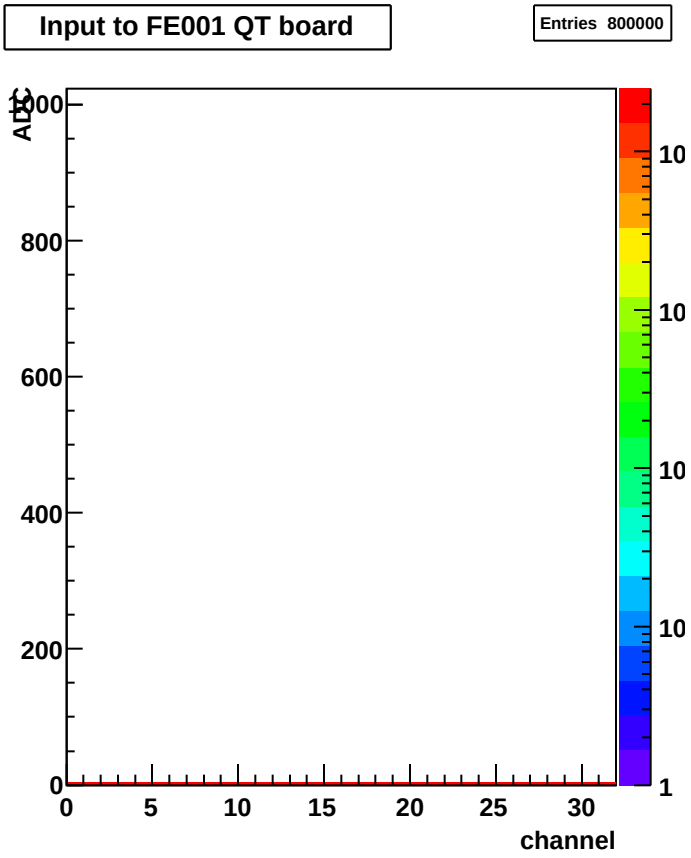

Input to FPD L2 DSM
Entries 75000
CL bits
25000
25000
25000
SMALL
LARGE-S
LARGE-N

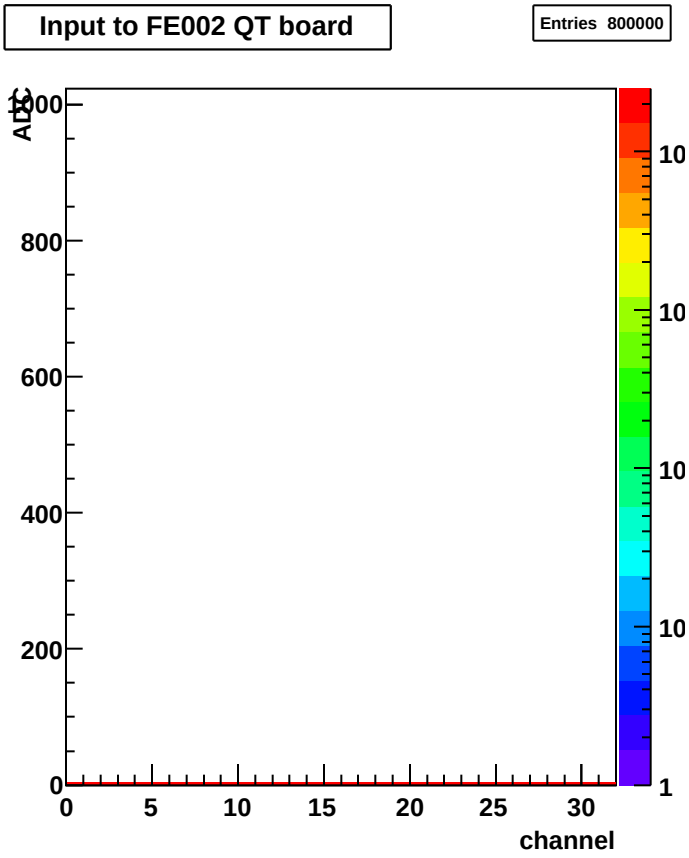

Input to FPD L2 DSM
Entries 75000
CL bits - simulated
25000
25000
25000
SMALL
LARGE-S
LARGE-N

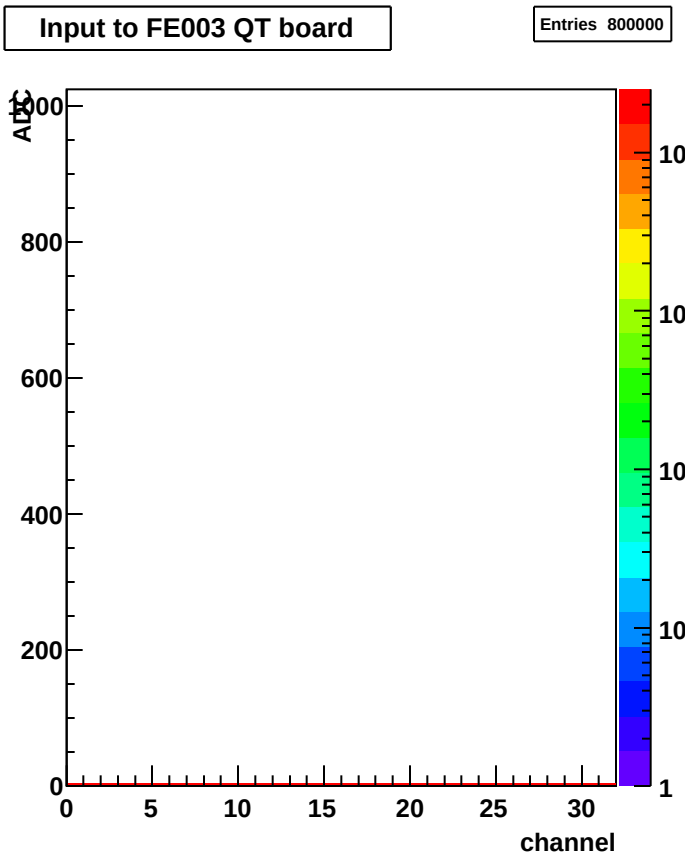

Input to FPD L2 DSM
Entries 75000
HT bits
25000
25000
25000
SMALL
LARGE-S
LARGE-N

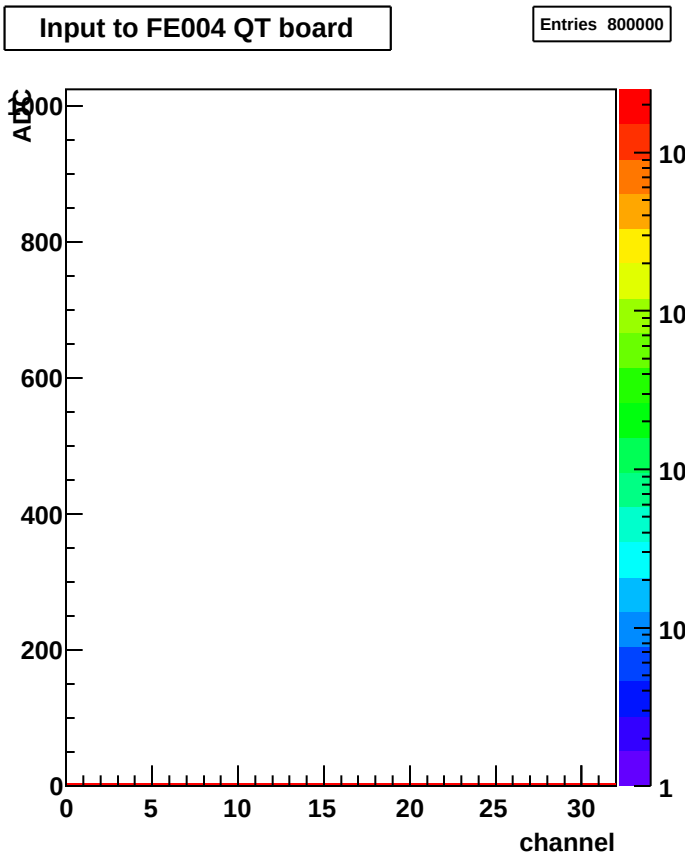

Input to FPD L2 DSM
Entries 75000
HT bits - simulated
25000
25000
25000
SMALL
LARGE-S
LARGE-N

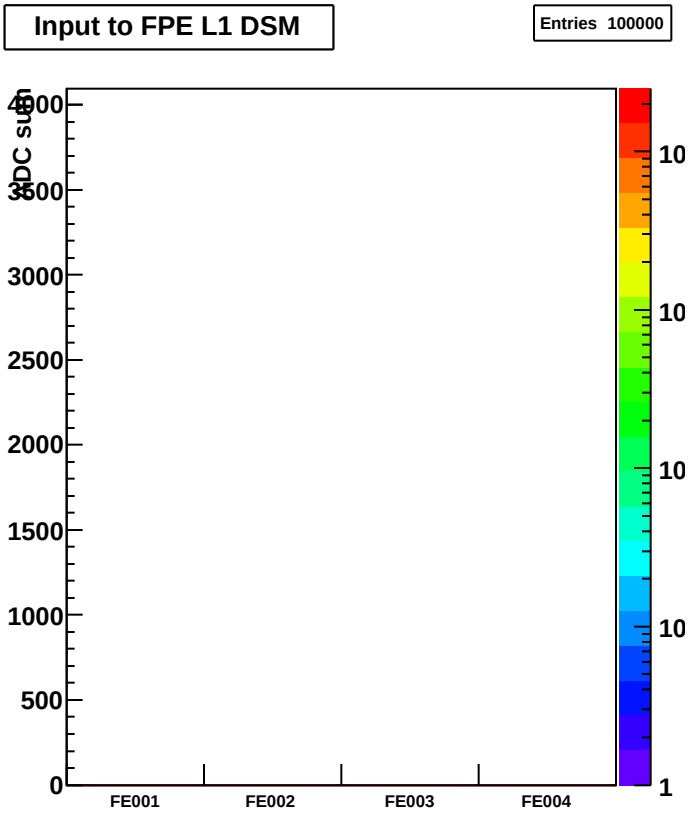

Input to FPD L2 DSM
Entries 150000
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

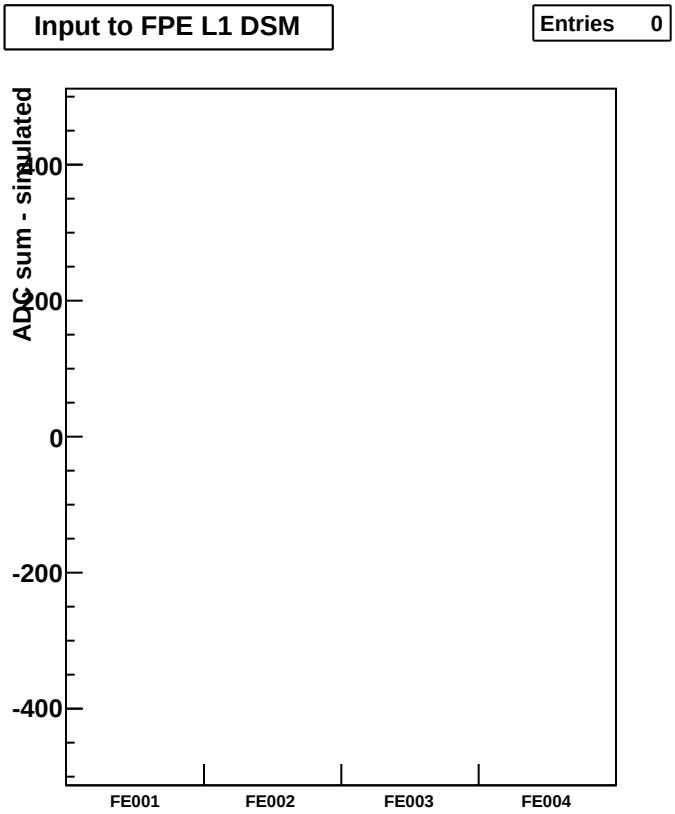

Input to FE001 QT board
Entries 800000
ADC
channel

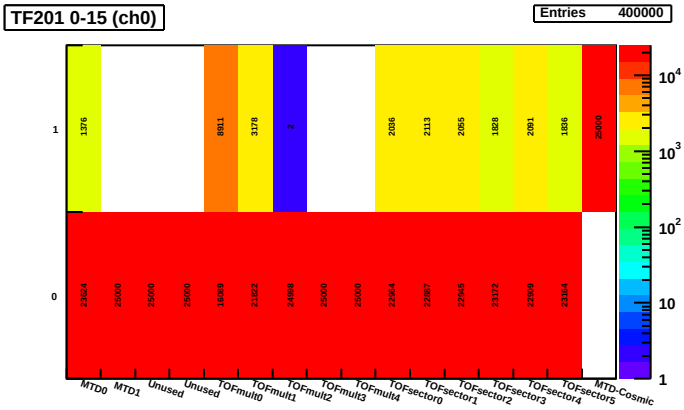

Input to FE002 QT board
Entries 800000
ADC
channel

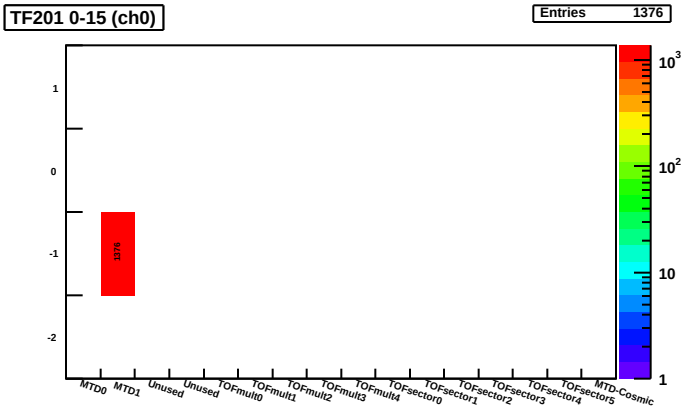

Input to FE003 QT board
Entries 800000
ADC
channel

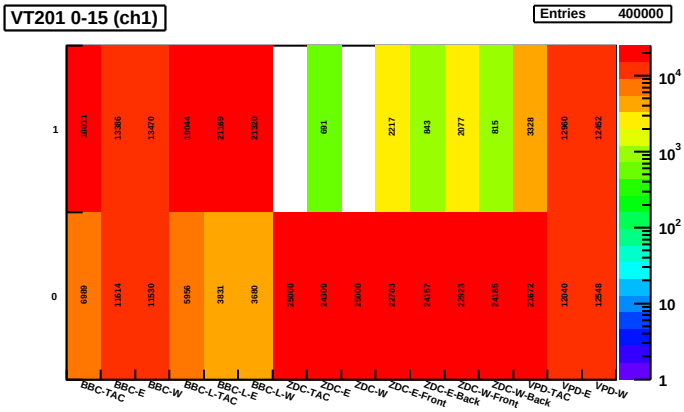

Input to FE004 QT board
Entries 800000
ADC
channel

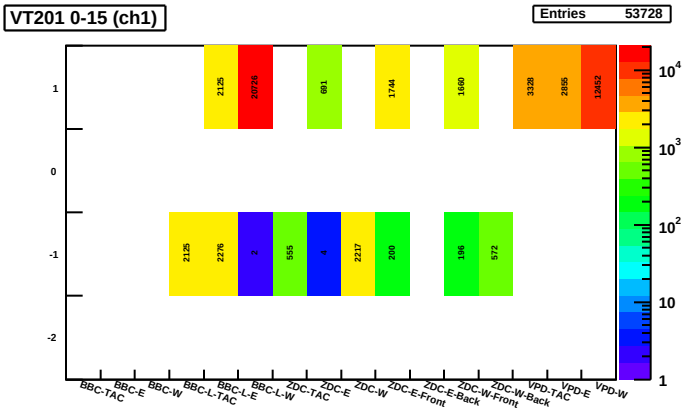

Input to FPE L1 DSM
Entries 100000
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


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


TF201 0-15 (ch0)
Entries 400000
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 1376
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 400000
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 53728
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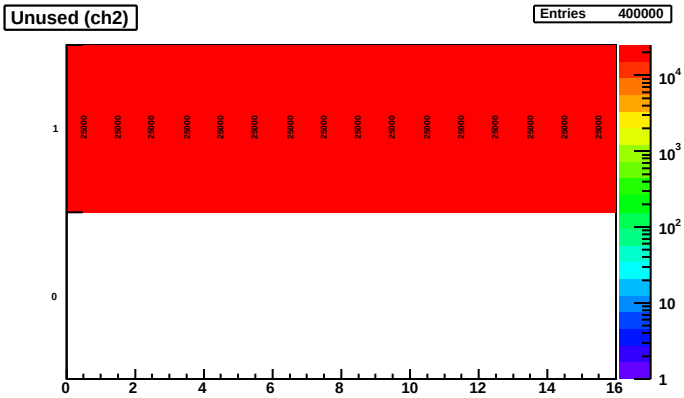
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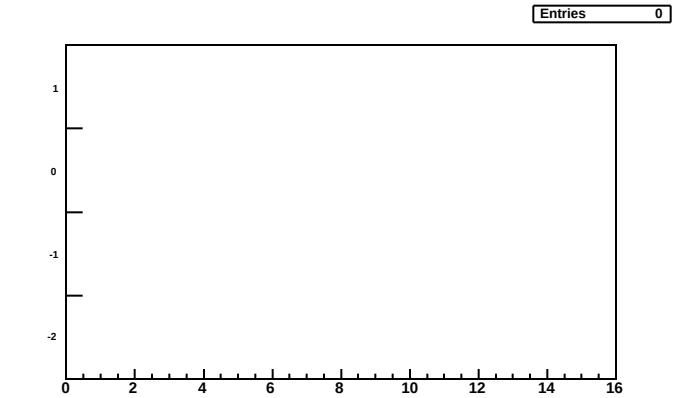
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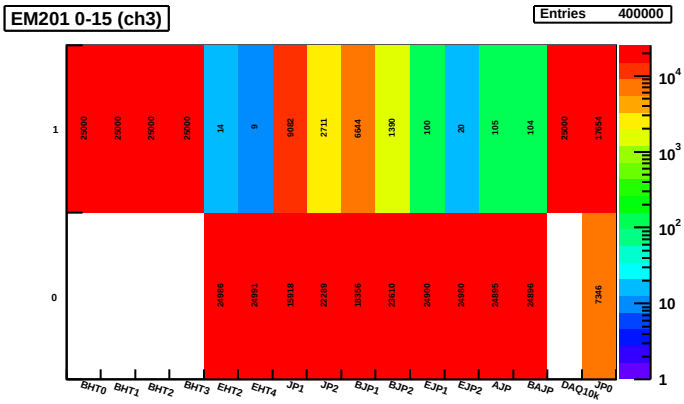
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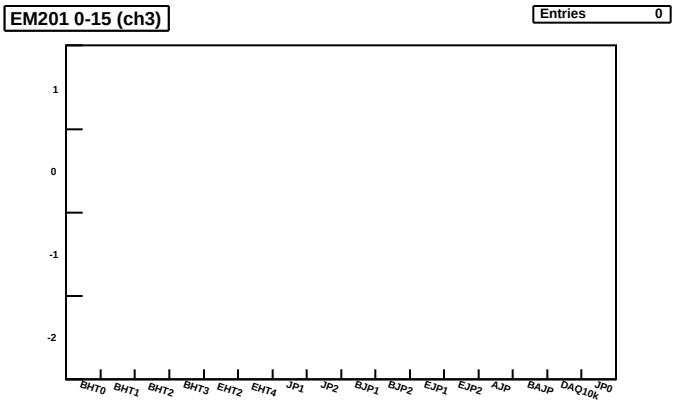
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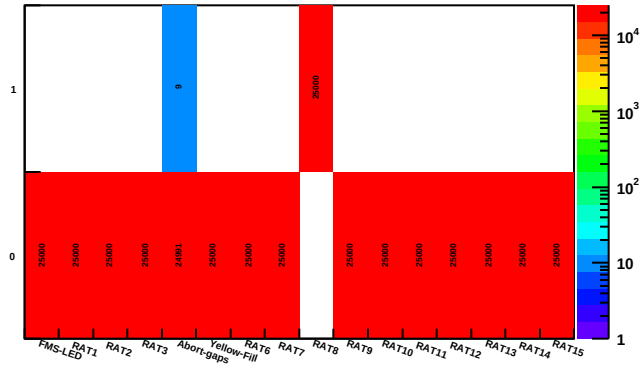
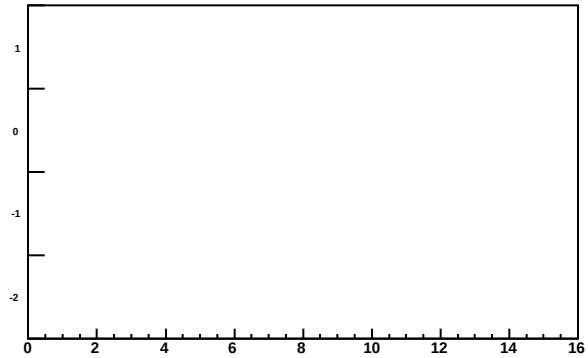
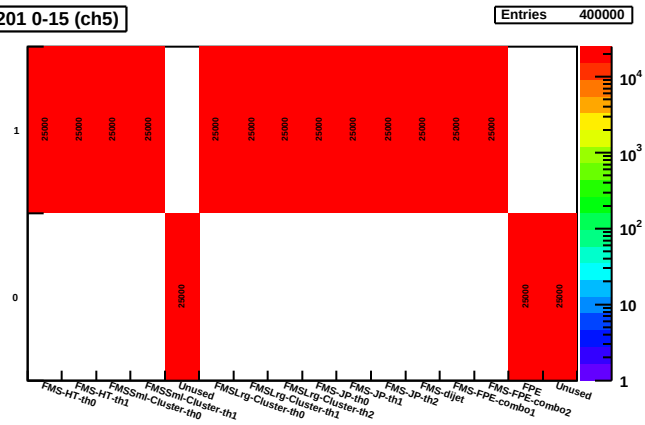
RAT board (ch4)

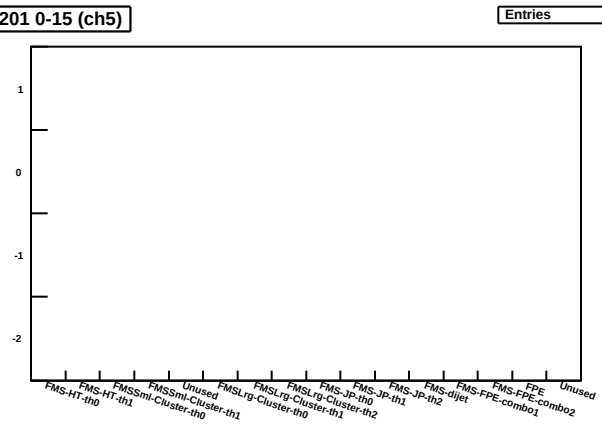




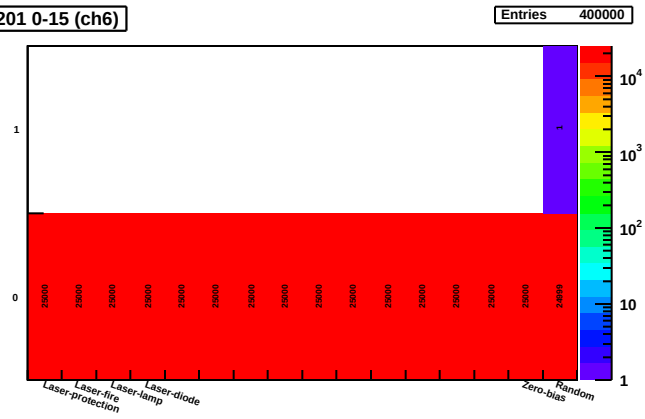
FP201 0-15 (ch5)

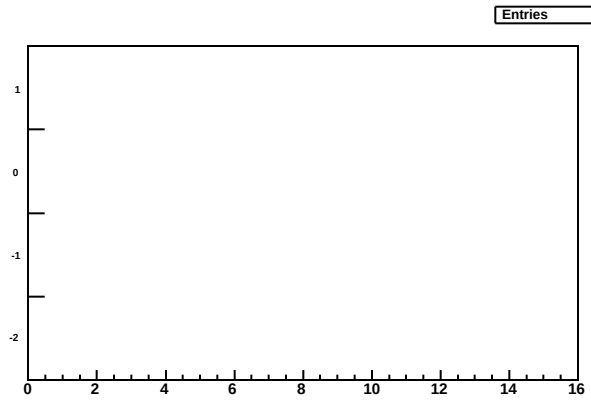
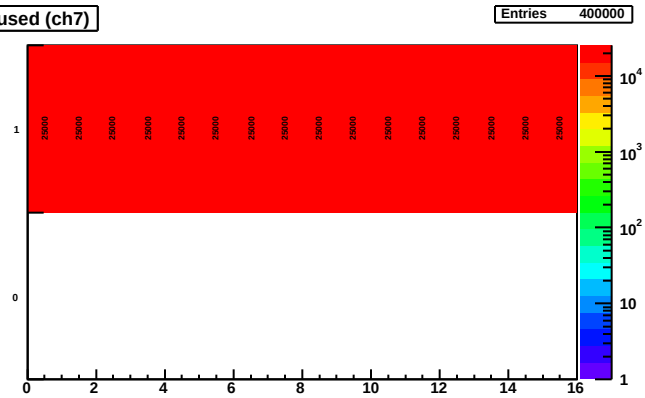
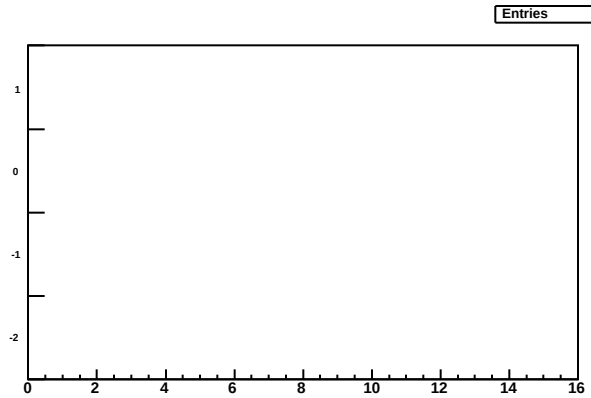


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)