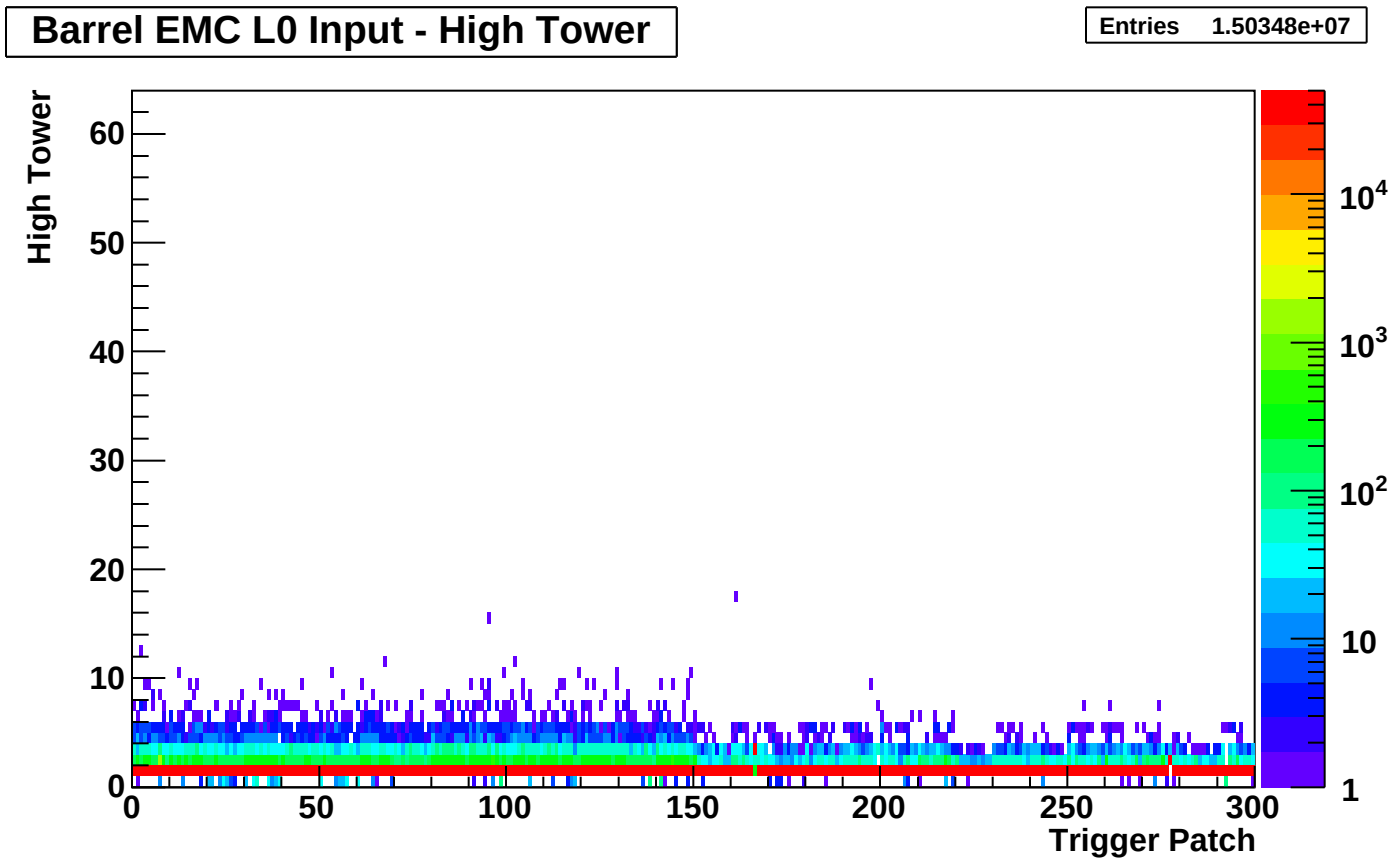
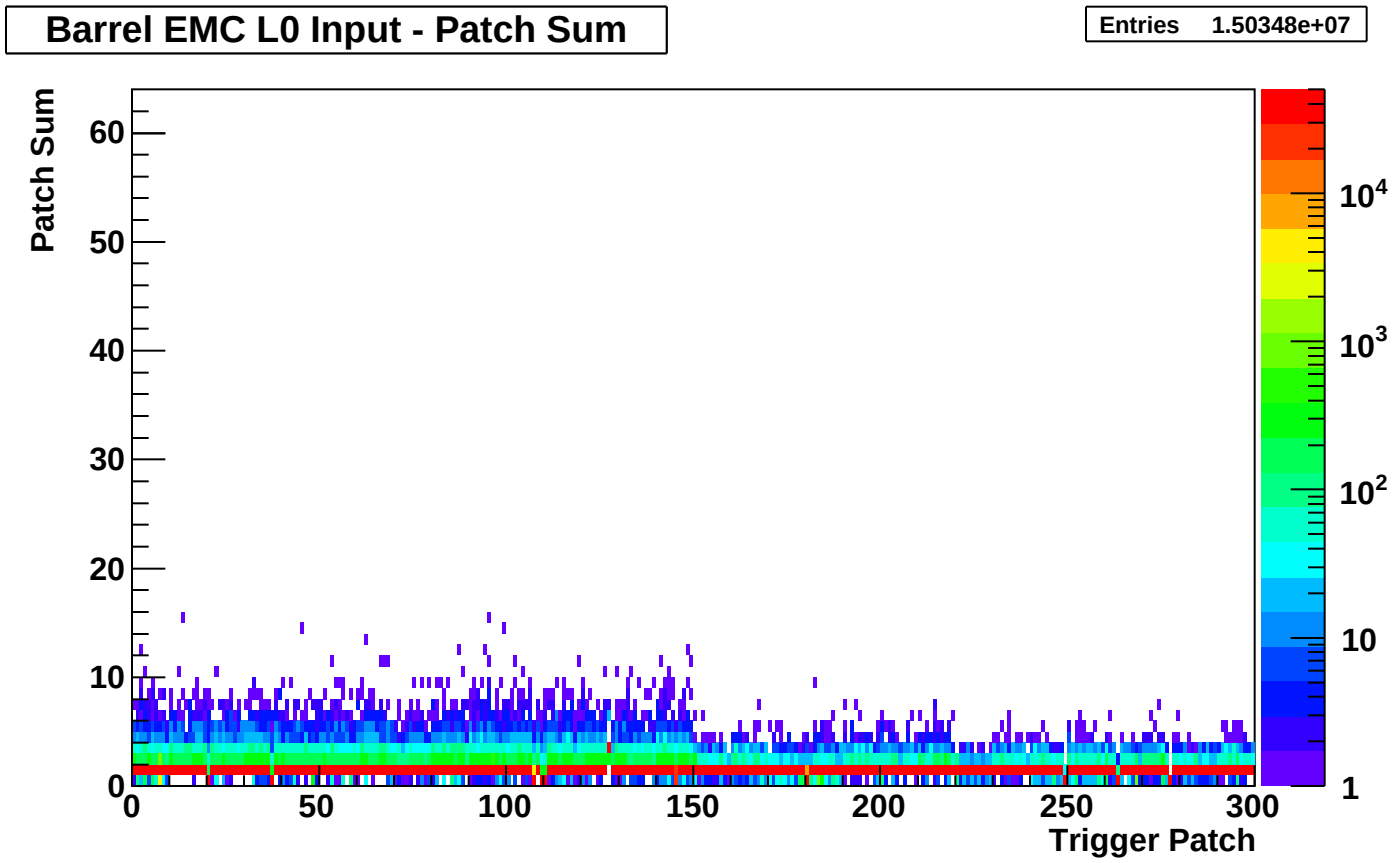
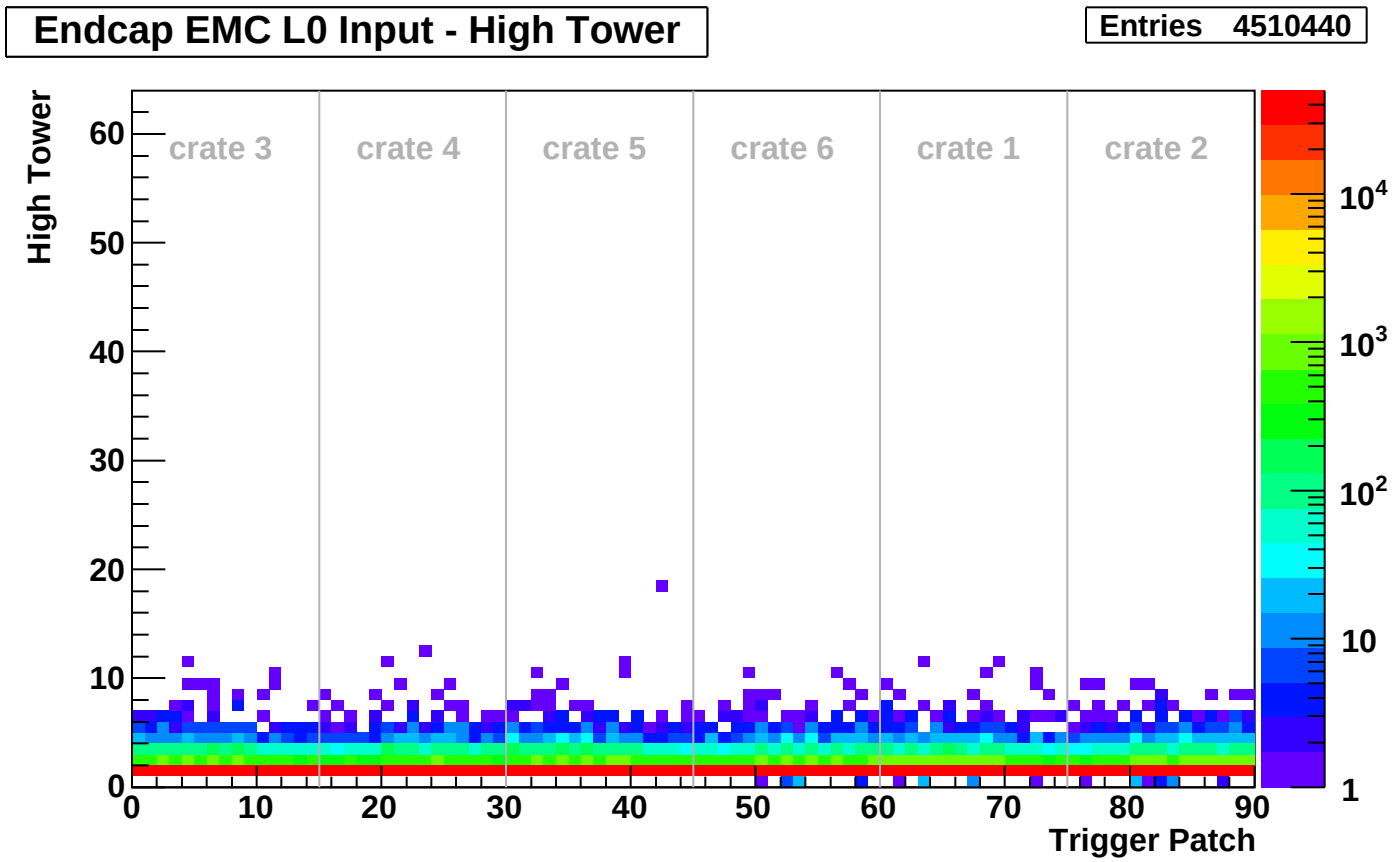
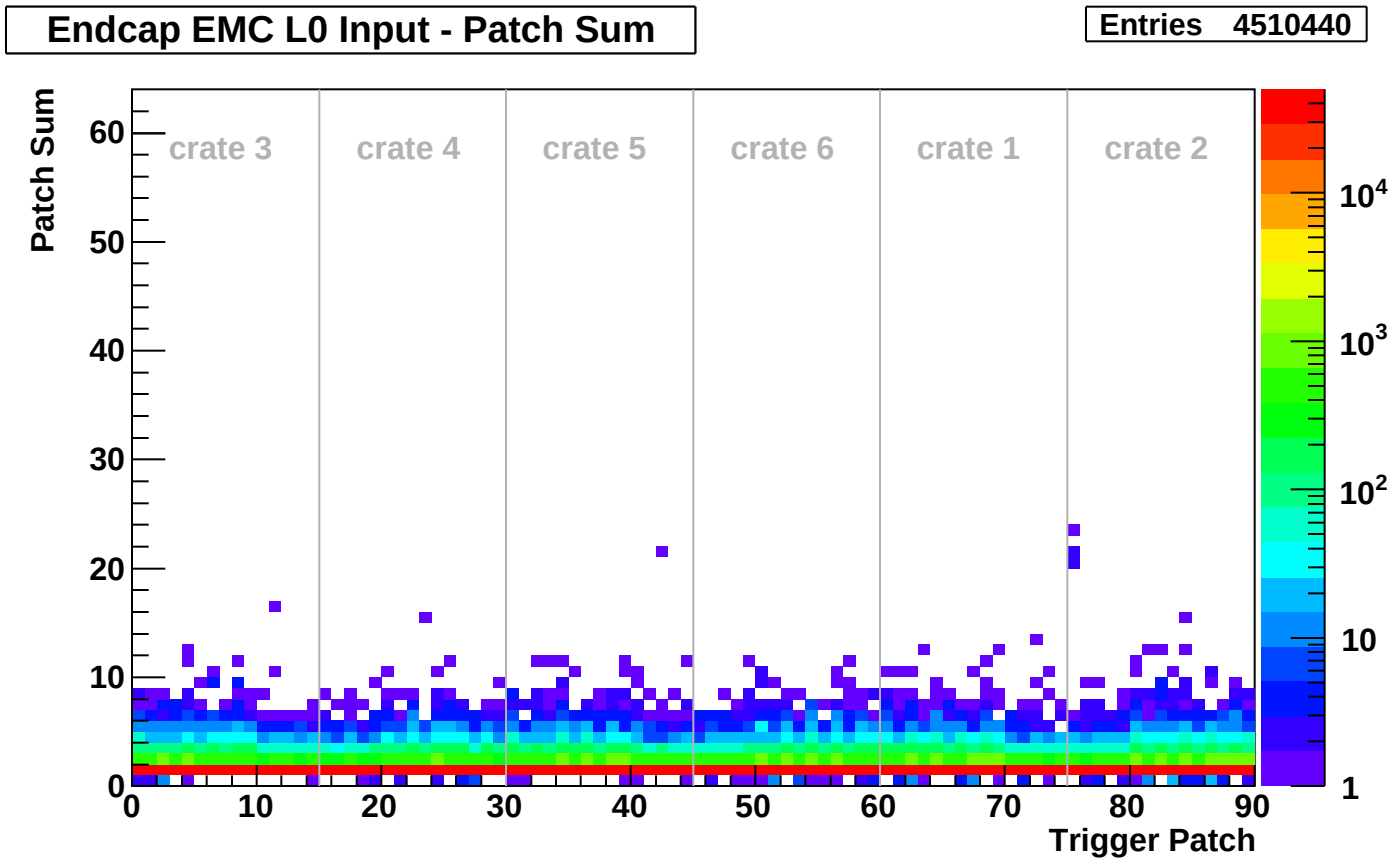
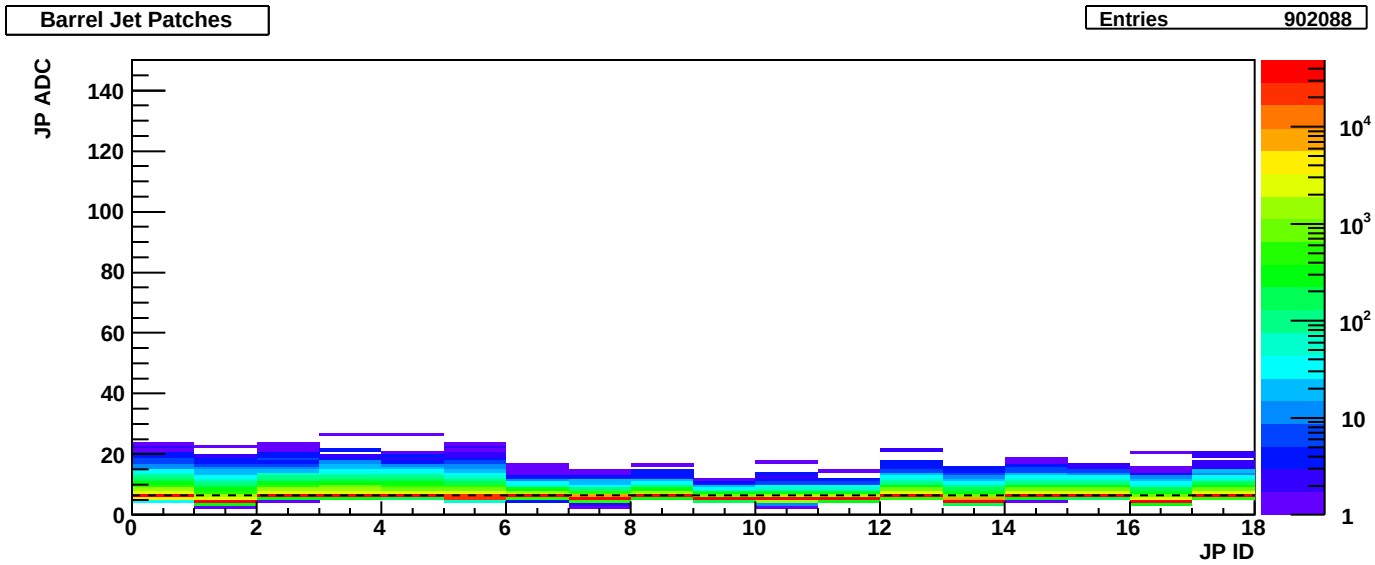
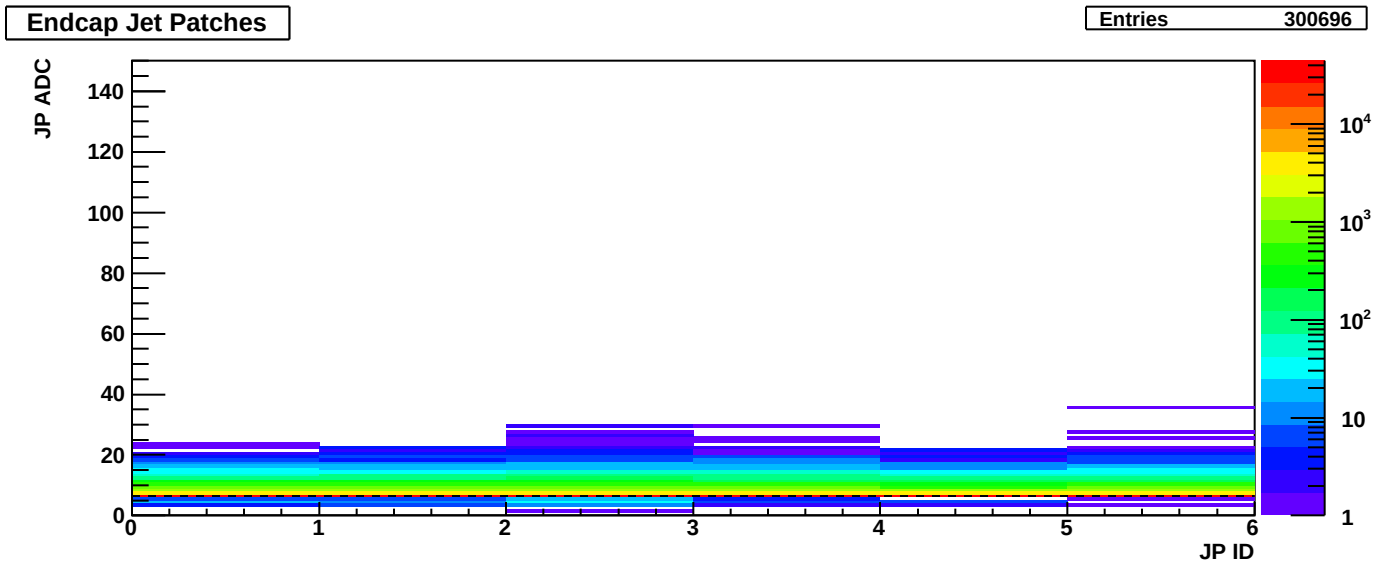

Barrel EMC L0 Input - High Tower
Entries 1.50348e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

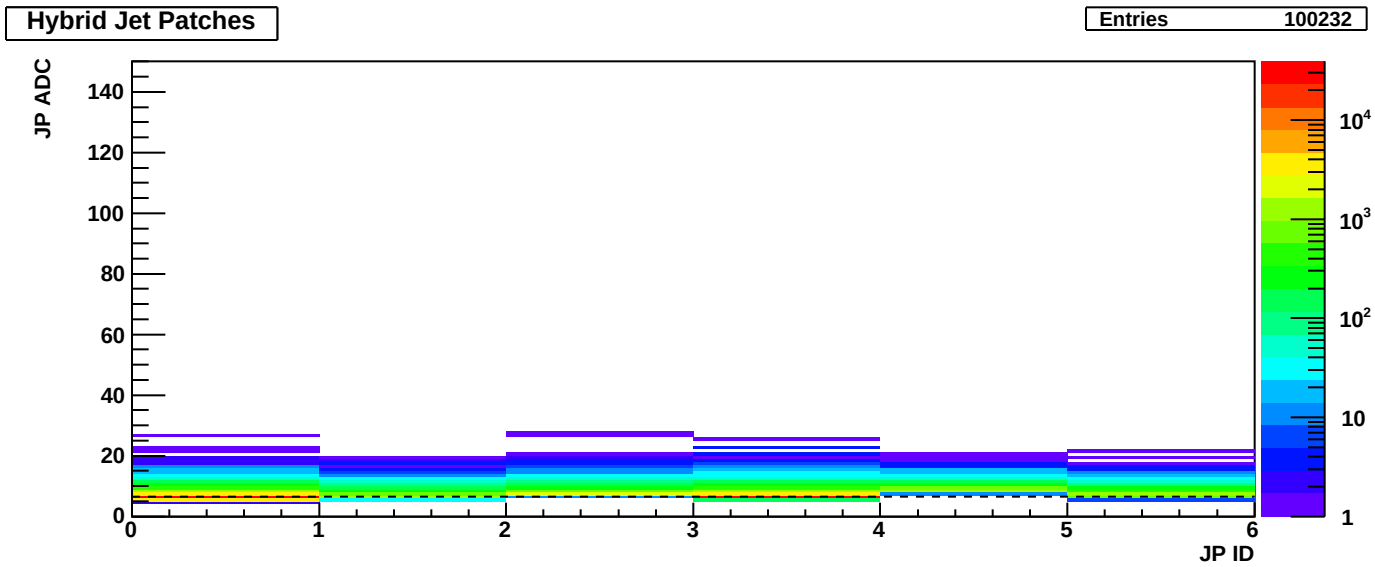

Barrel EMC L0 Input - Patch Sum
Entries 1.50348e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

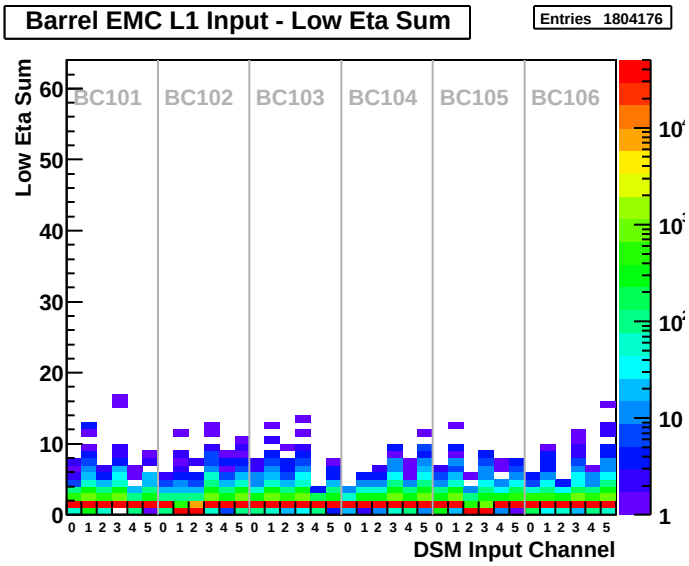

Endcap EMC L0 Input - High Tower
Entries 4510440
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

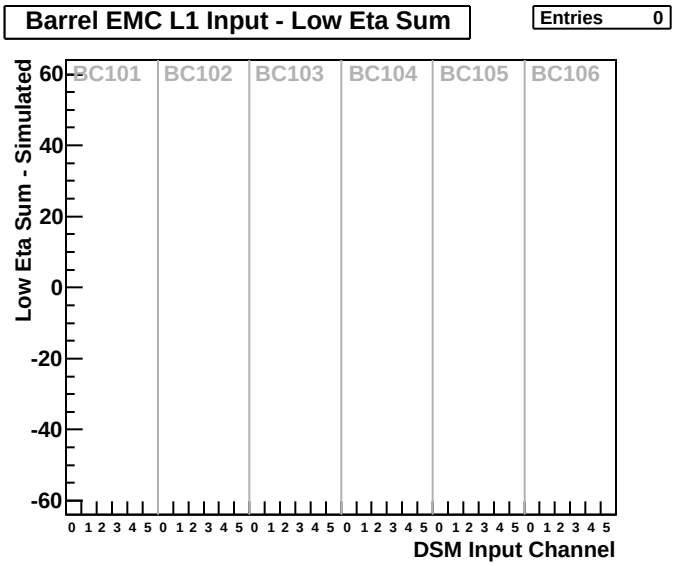

Endcap EMC L0 Input - Patch Sum
Entries 4510440
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

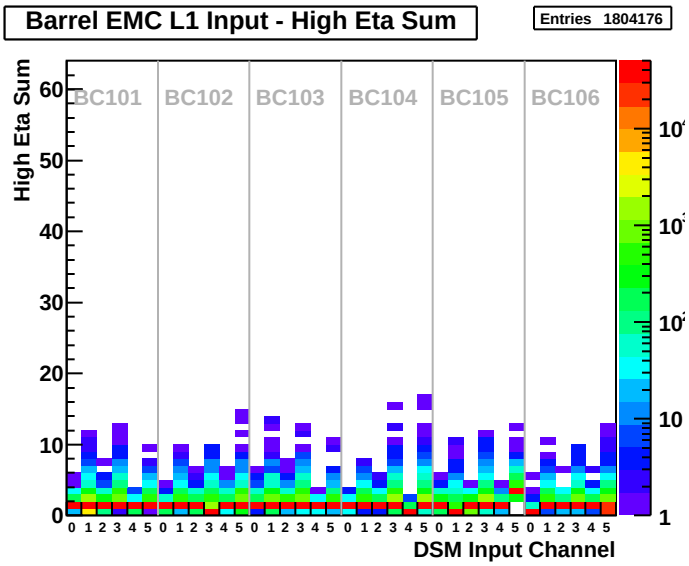

Barrel Jet Patches
Entries 902088
JP ADC
JP ID

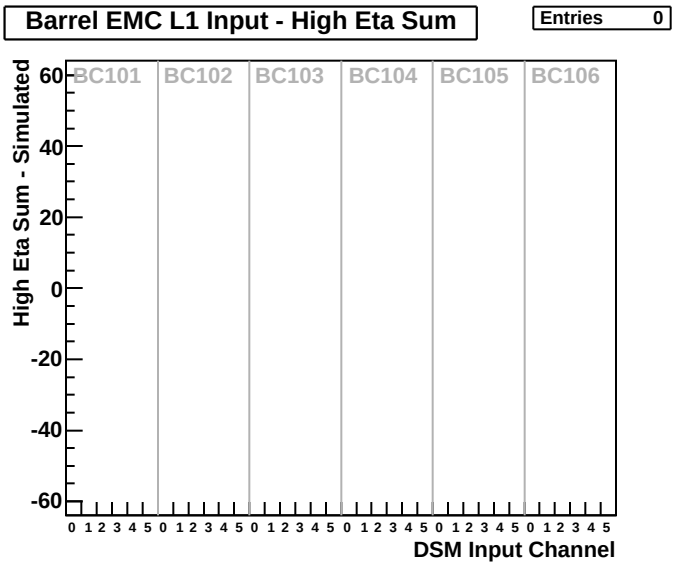

Endcap Jet Patches
Entries 300696
JP ADC
JP ID

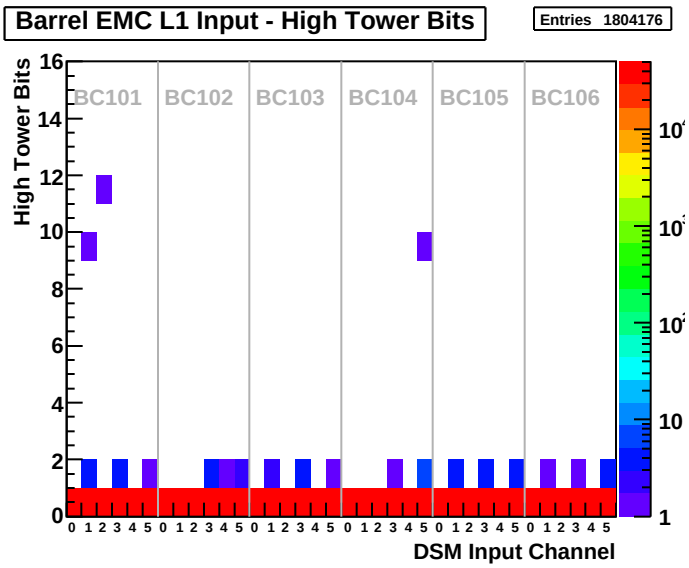

Hybrid Jet Patches
Entries 100232
JP ADC
JP ID

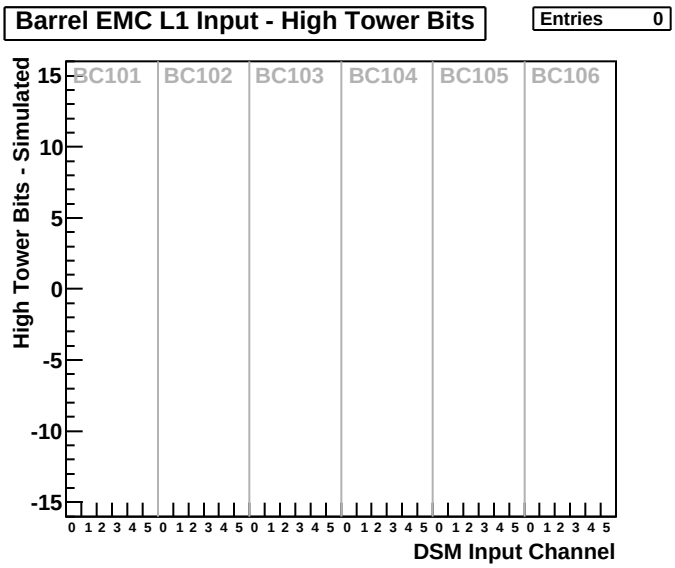

Barrel EMC L1 Input - Low Eta Sum
Entries 1804176
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

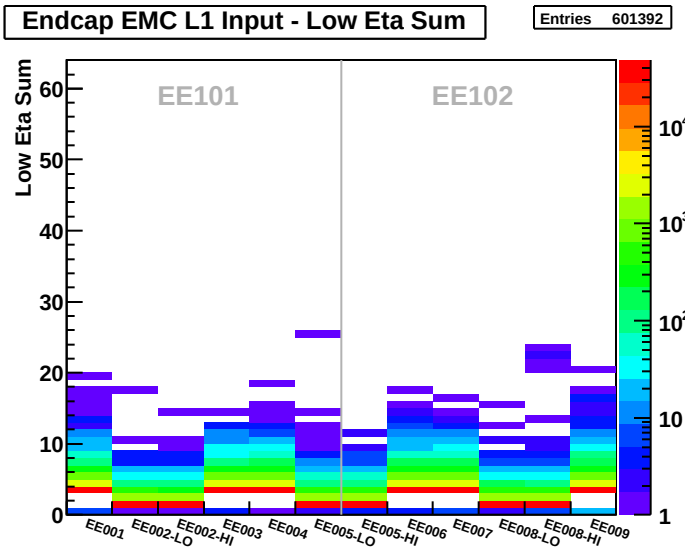

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

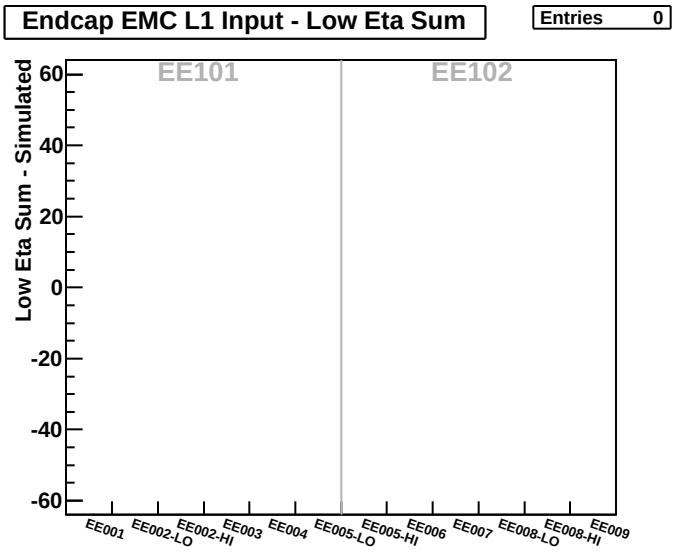

Barrel EMC L1 Input - High Eta Sum
Entries 1804176
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

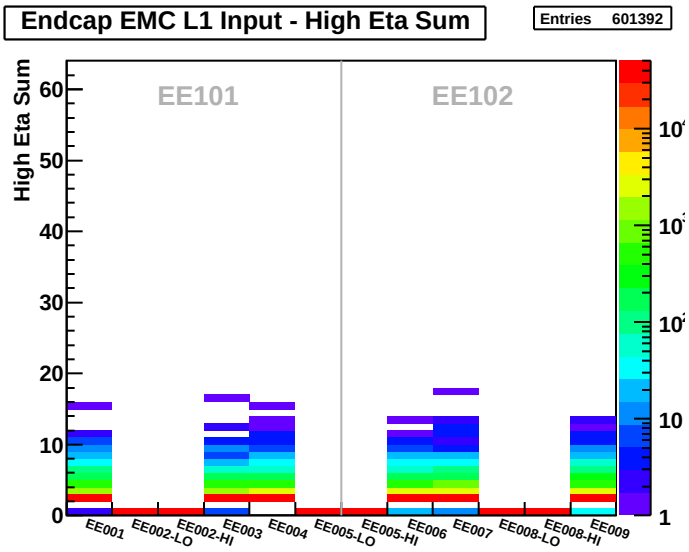

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

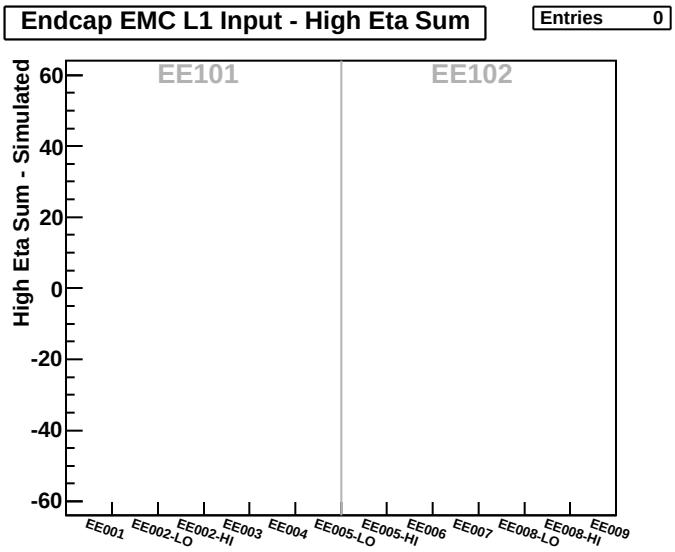

Barrel EMC L1 Input - High Tower Bits
Entries 1804176
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

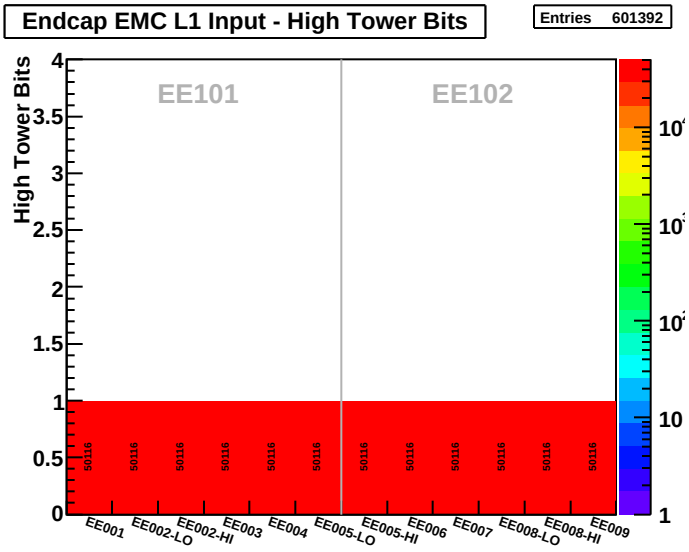

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

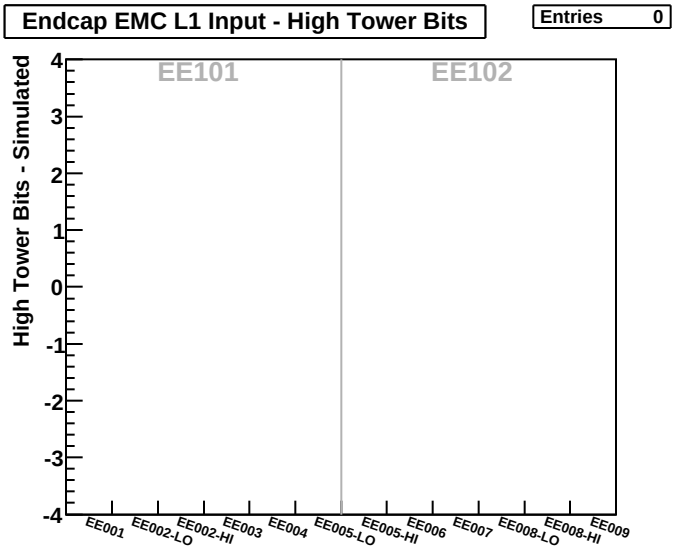

Endcap EMC L1 Input - Low Eta Sum
Entries 601392
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

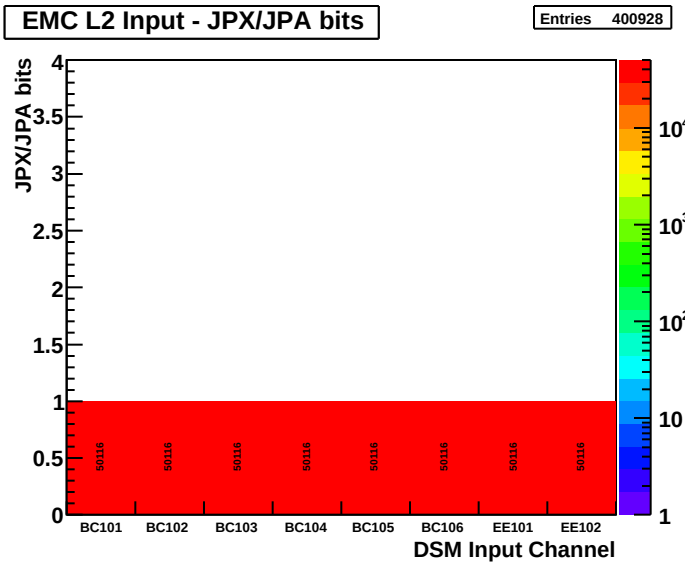

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

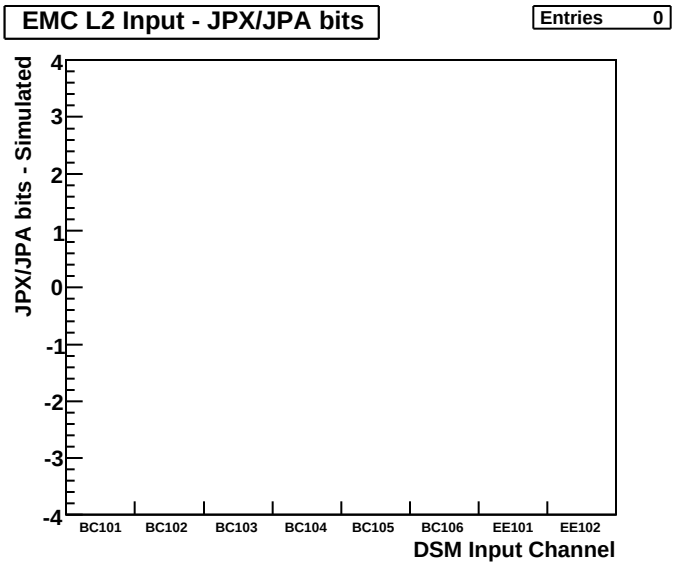

Endcap EMC L1 Input - High Eta Sum
Entries 601392
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

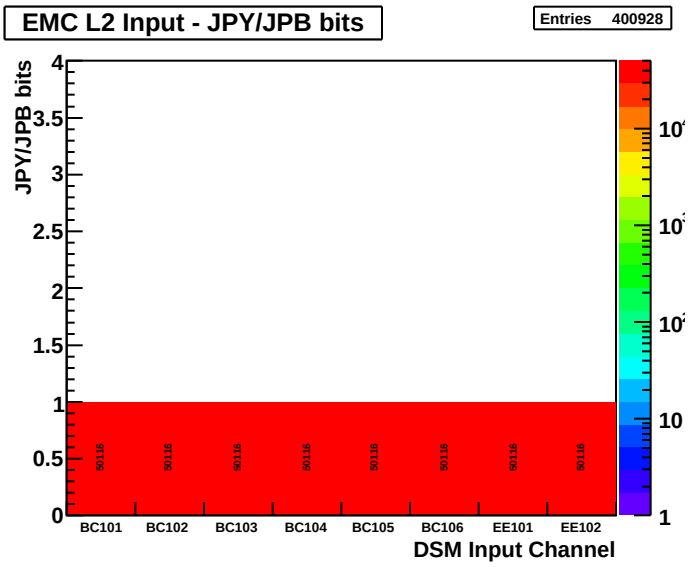

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

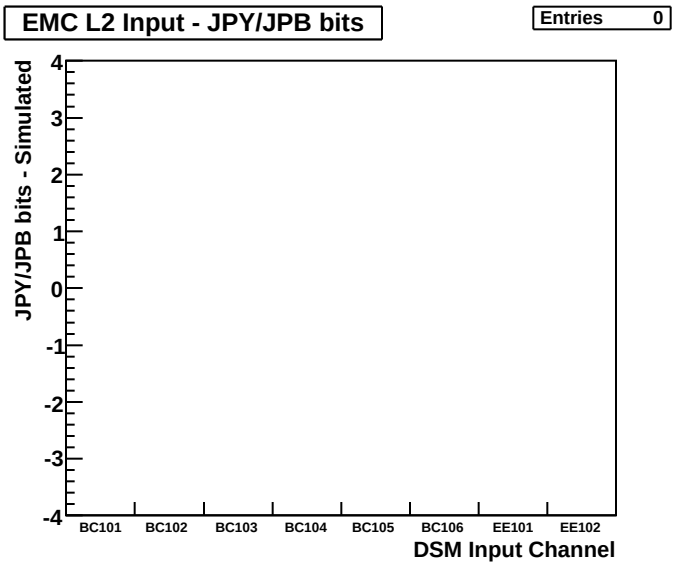

Endcap EMC L1 Input - High Tower Bits
Entries 601392
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

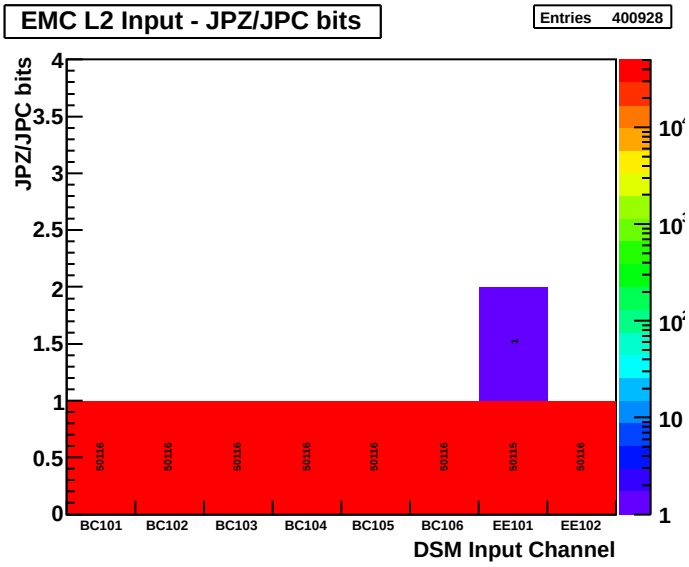

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

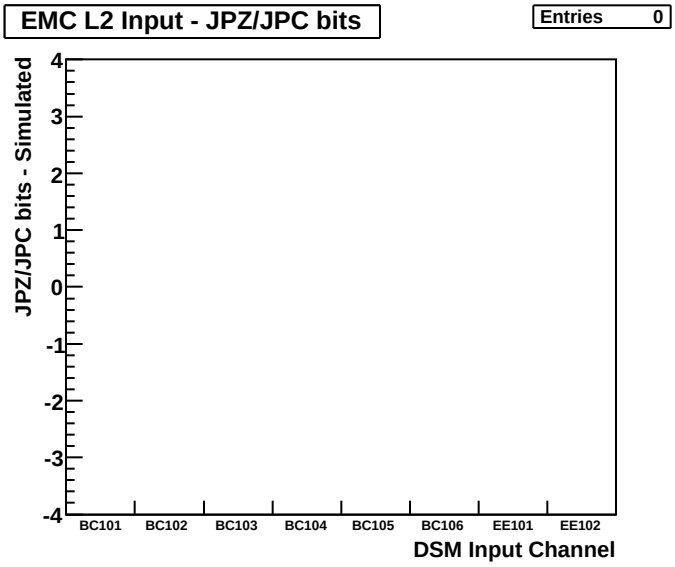

EMC L2 Input - JPX/JPA bits
Entries 400928
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

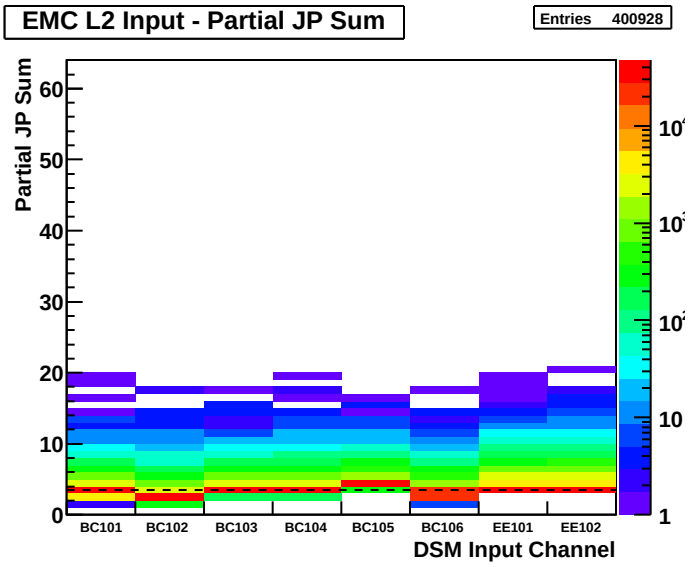

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

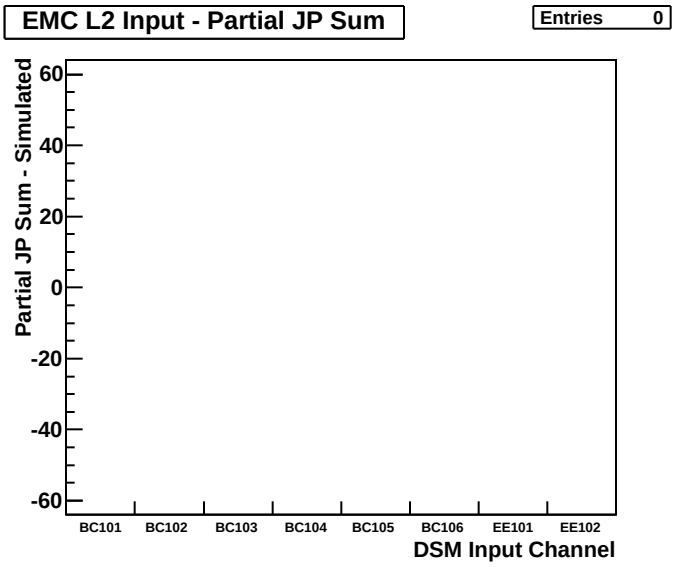

EMC L2 Input - JPY/JPB bits
Entries 400928
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

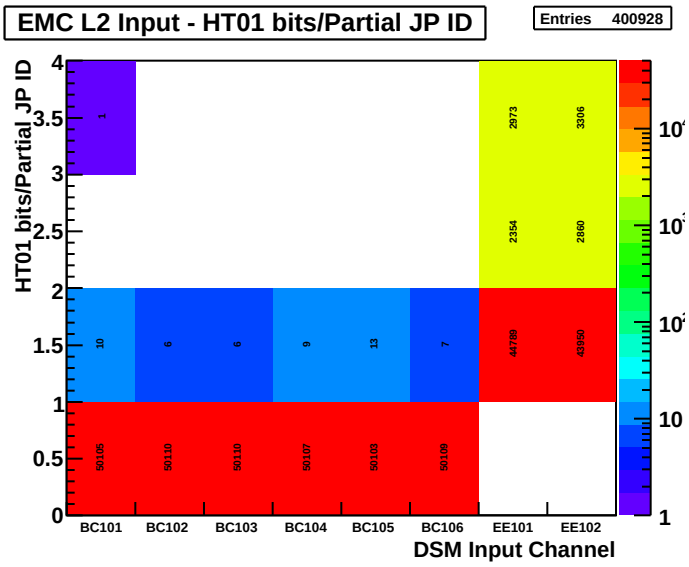

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

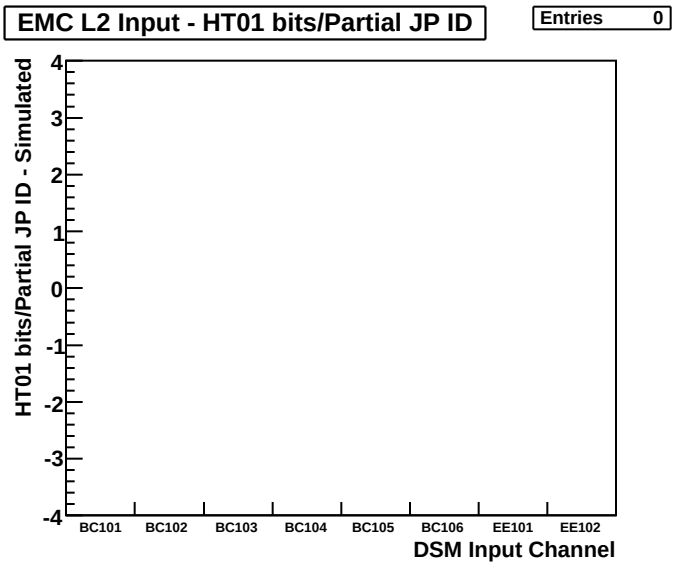

EMC L2 Input - JPZ/JPC bits
Entries 400928
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

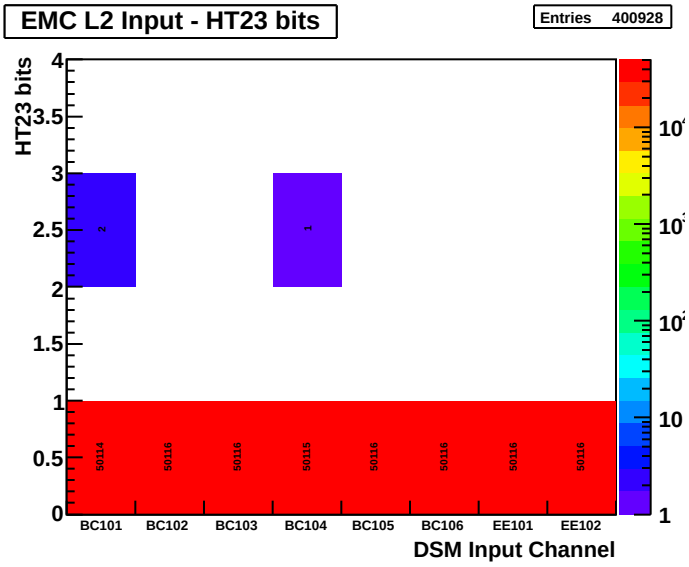

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

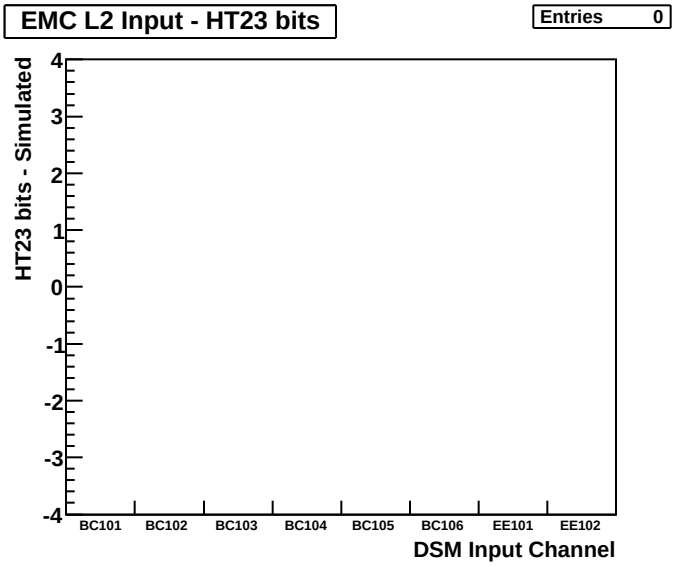

EMC L2 Input - Partial JP Sum
Entries 400928
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

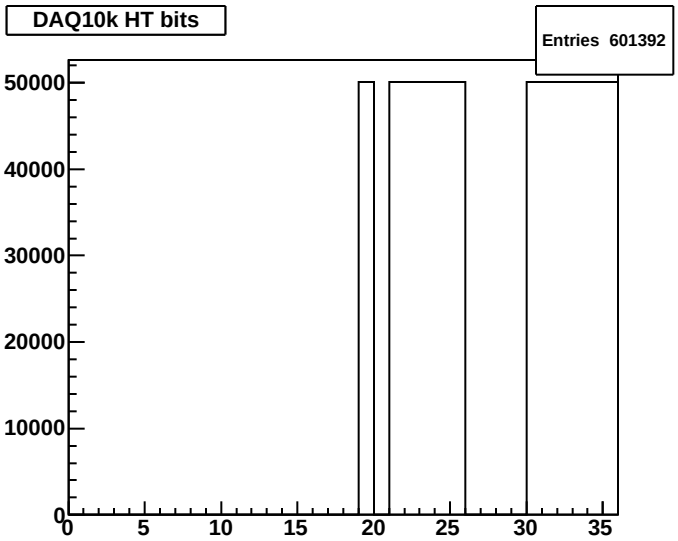

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

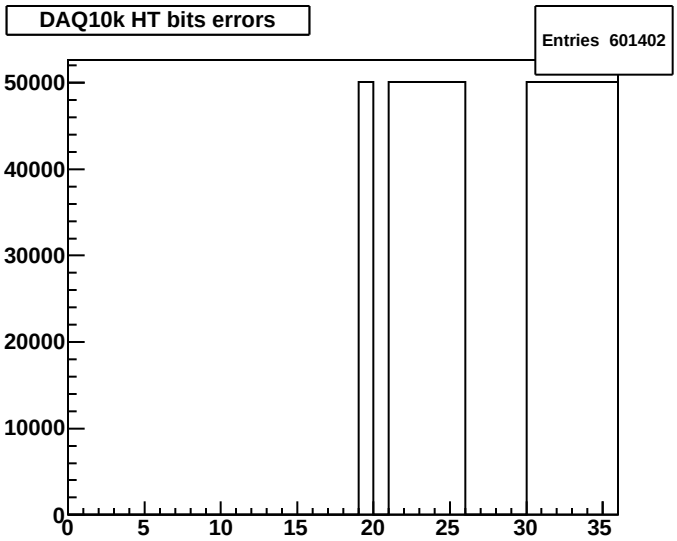

EMC L2 Input - HT01 bits/Partial JP ID
Entries 400928
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

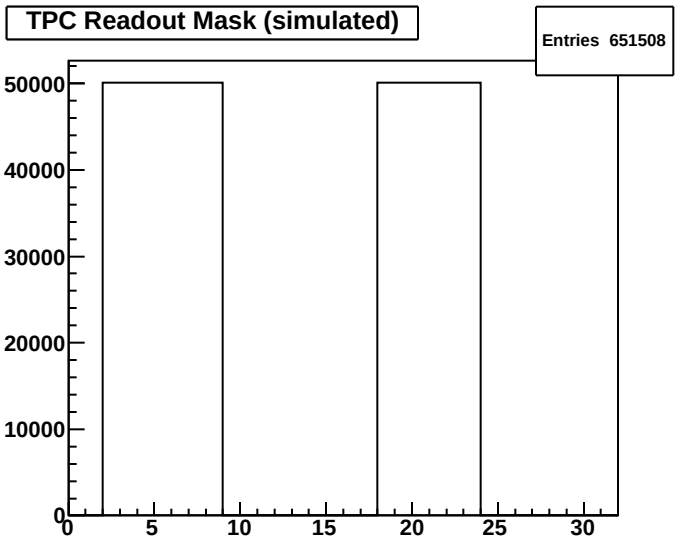

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

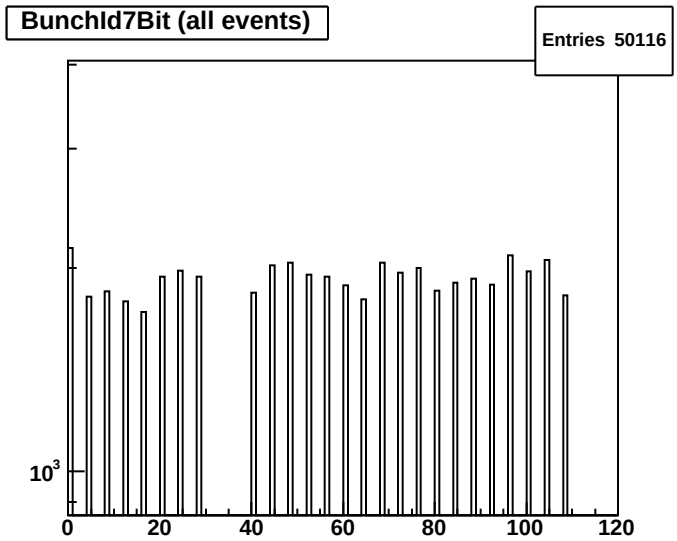

EMC L2 Input - HT23 bits
Entries 400928
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

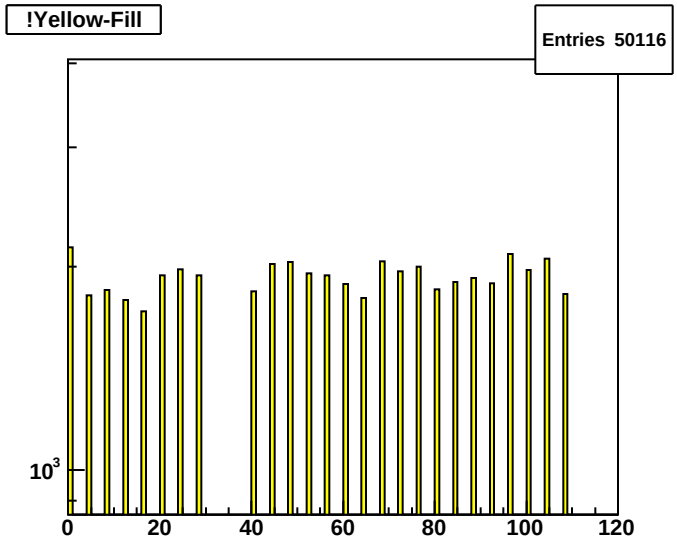

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

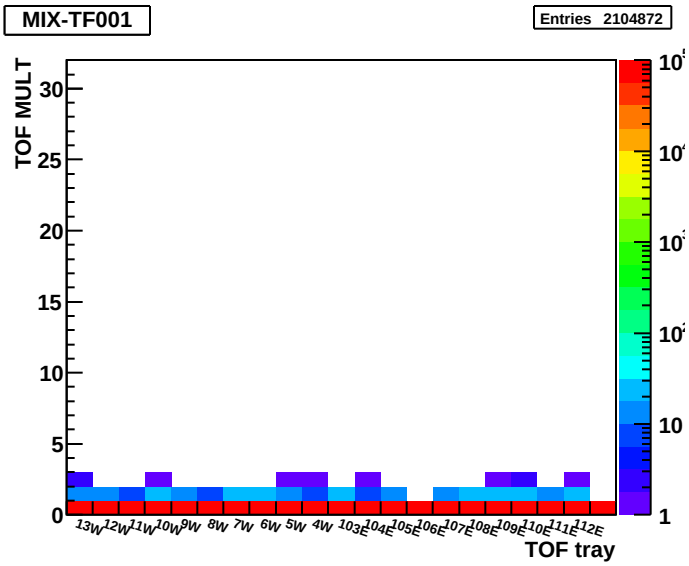

DAQ10k HT bits
Entries 601392
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

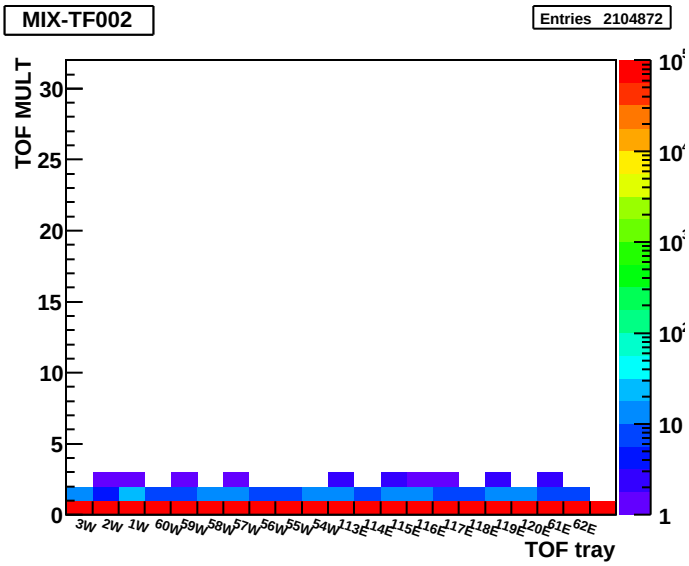

DAQ10k HT bits errors
Entries 601402
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

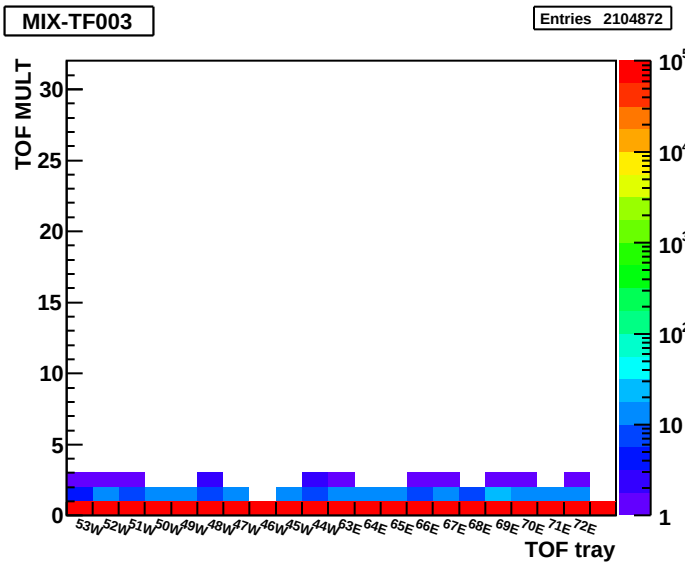

TPC Readout Mask (simulated)
Entries 651508
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

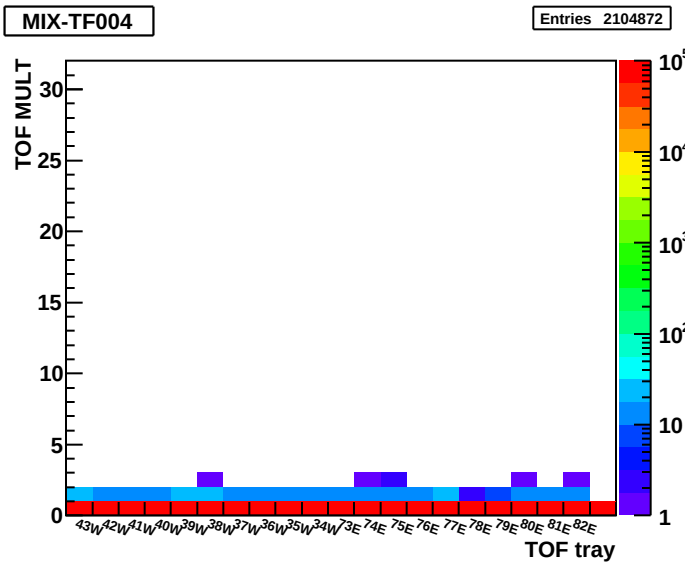

BunchId7Bit (all events)
Entries 50116
10^3
0 20 40 60 80 100 120

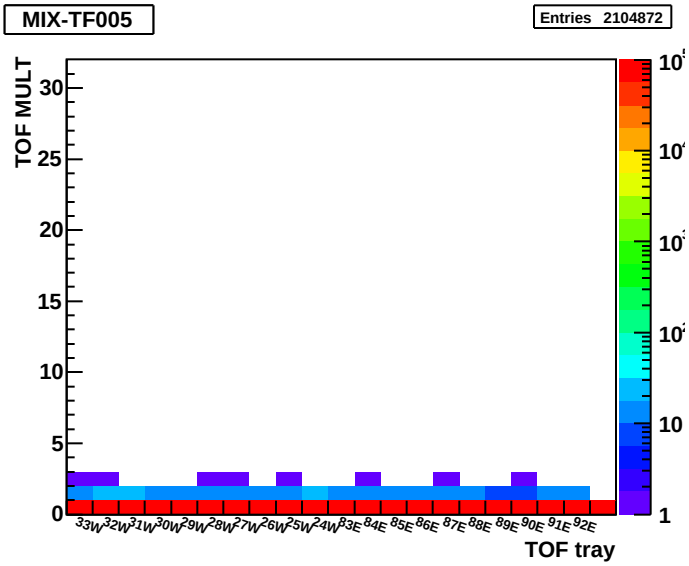

!Yellow-Fill
Entries 50116
10^3
0 20 40 60 80 100 120

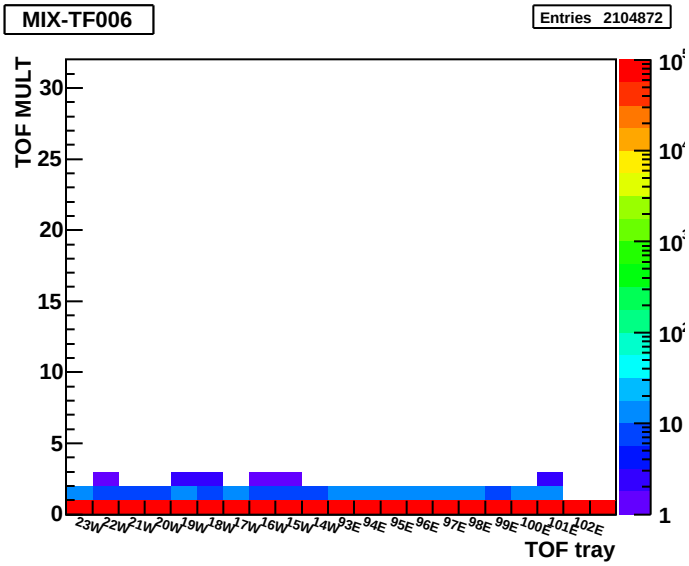

MIX-TF001
Entries 2104872
TOF MULT
TOF tray

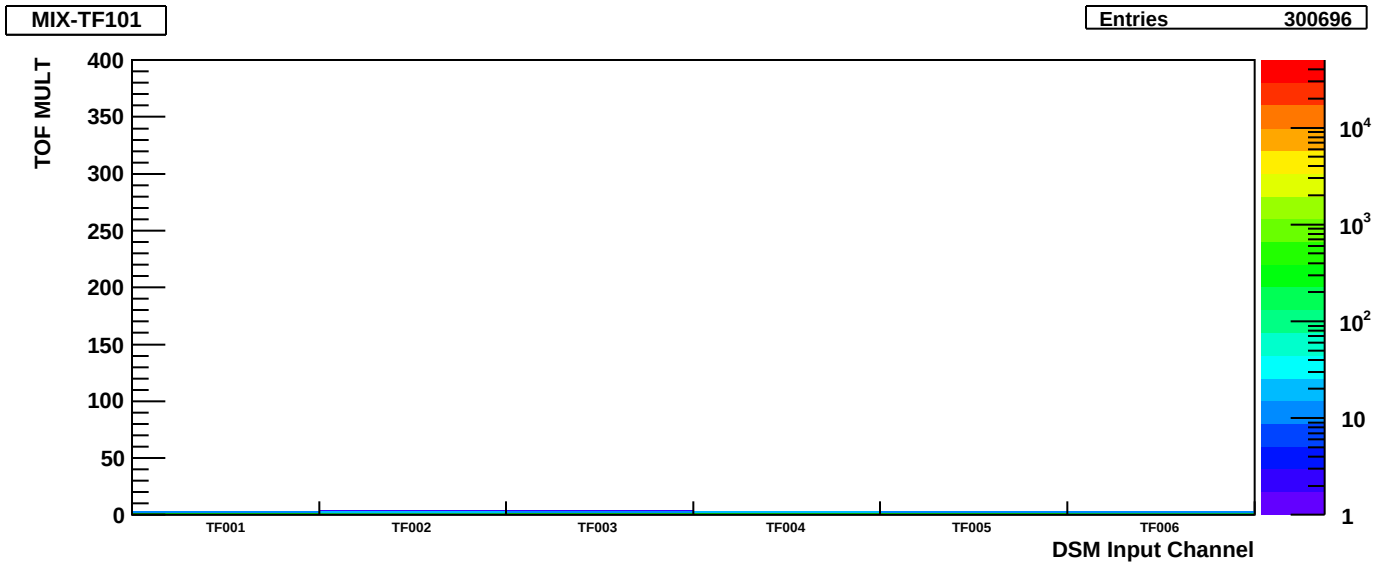

MIX-TF002
Entries 2104872
TOF MULT
TOF tray

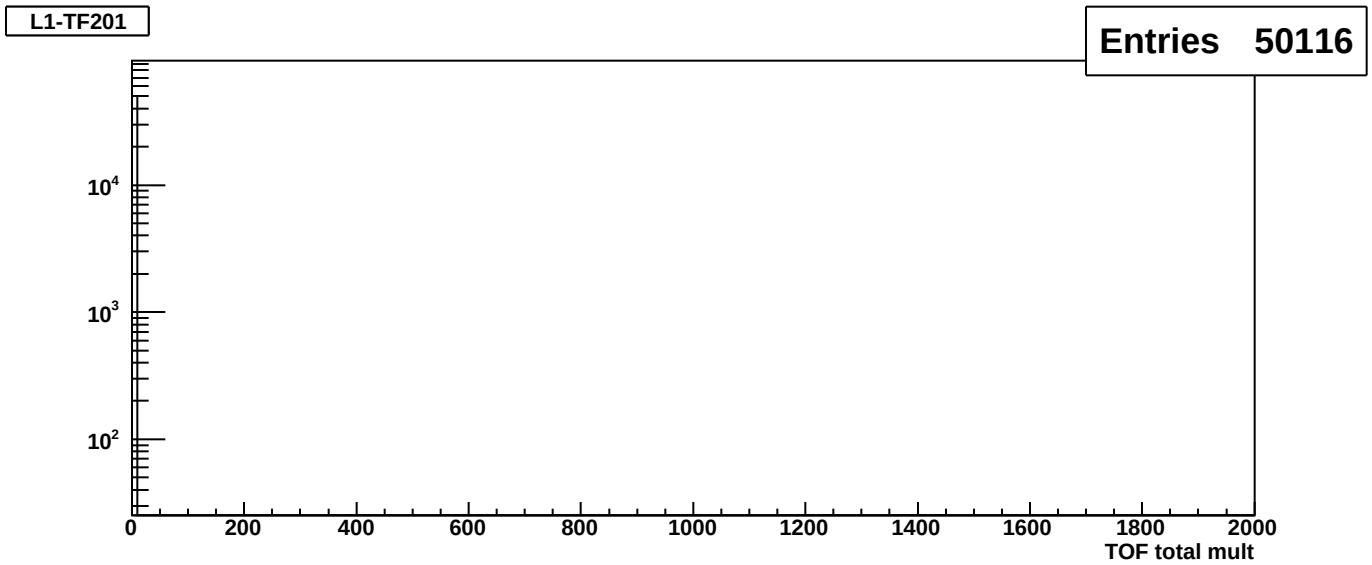

MIX-TF003
Entries 2104872
TOF MULT
TOF tray

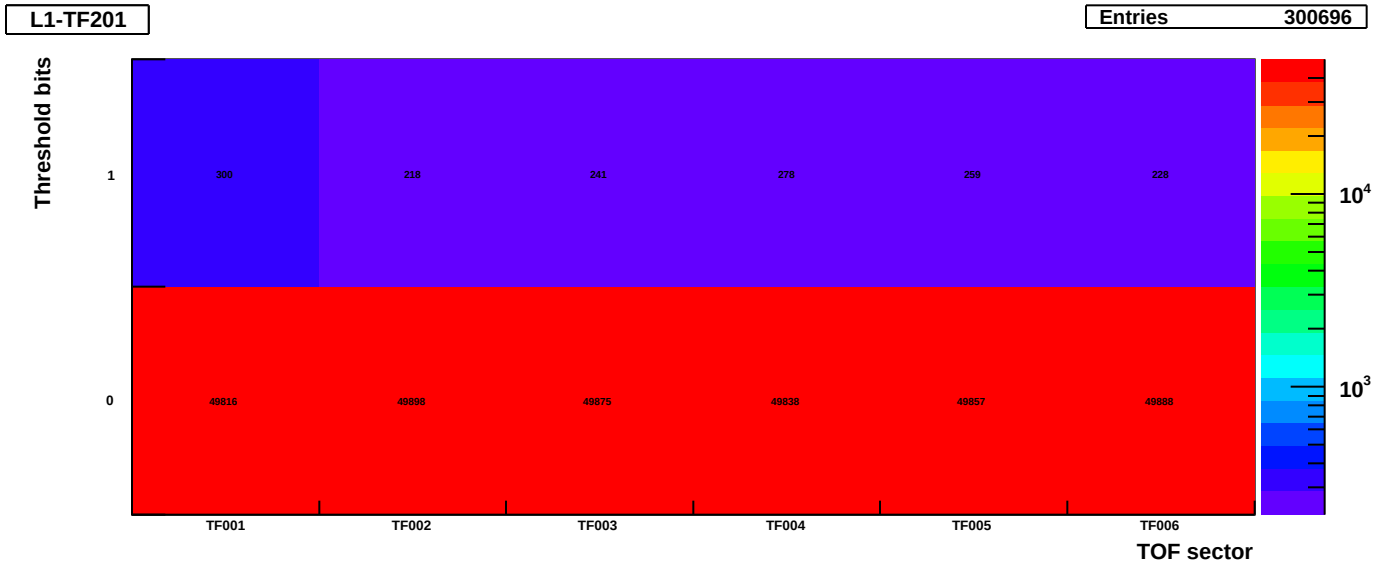

MIX-TF004
Entries 2104872
TOF MULT
TOF tray

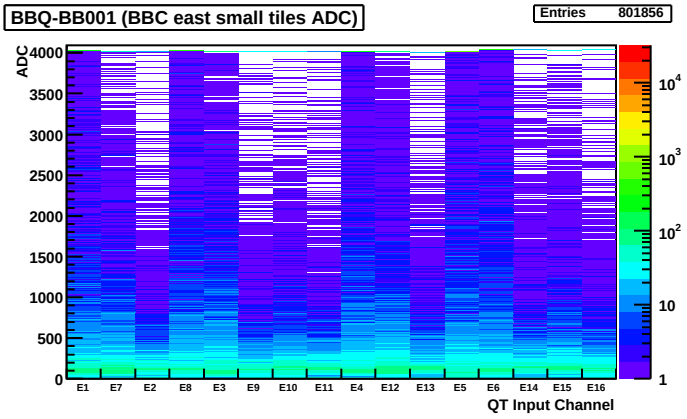

MIX-TF005
Entries 2104872
TOF MULT
TOF tray

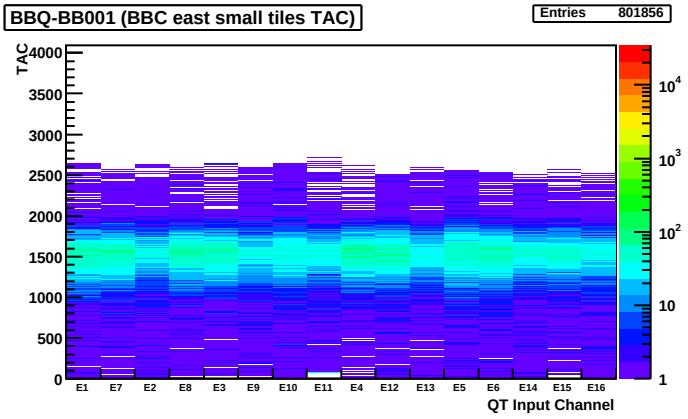

MIX-TF006
Entries 2104872
TOF MULT
TOF tray

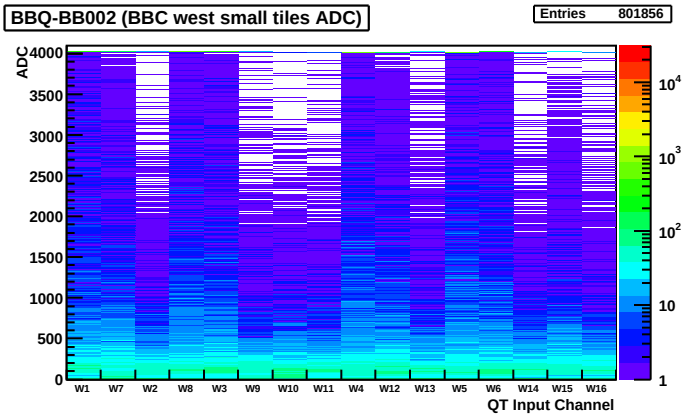

MIX-TF101
Entries 300696
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

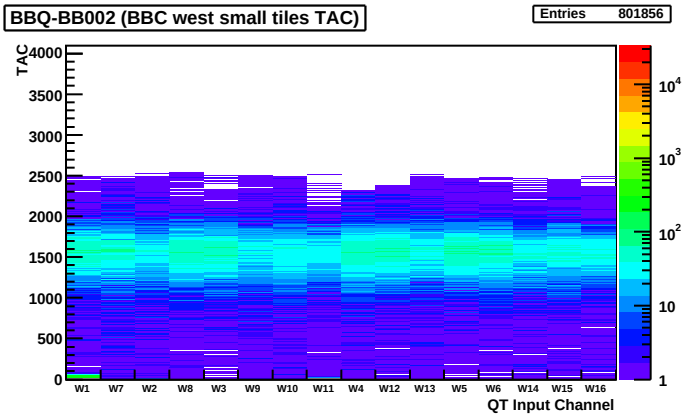

L1-TF201
Entries 50116
10^4
10^3
10^2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

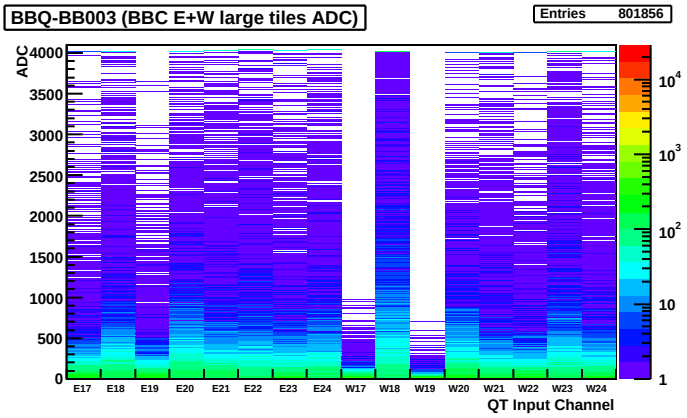

L1-TF201
Entries 300696
Threshold bits
1
0
300
218
241
278
259
228
49816
49898
49875
49838
49857
49888
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

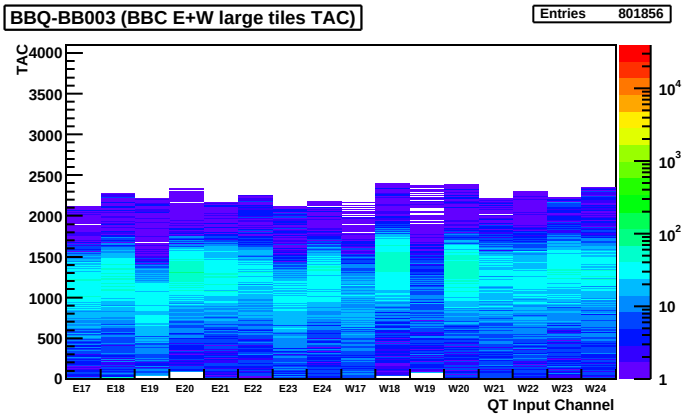

BBQ-BB001 (BBC east small tiles ADC)
Entries 801856
ADC
QT Input Channel

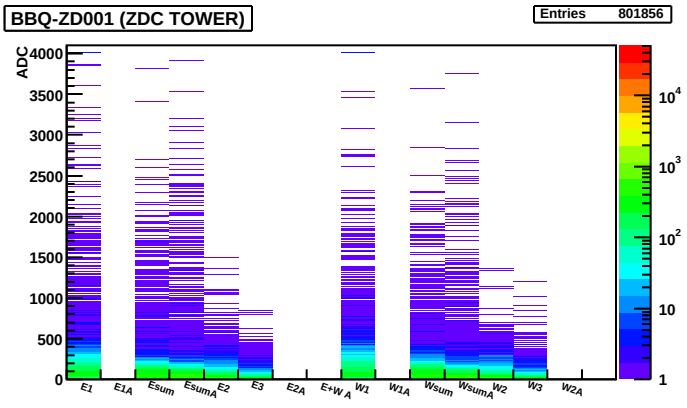

BBQ-BB001 (BBC east small tiles TAC)
Entries 801856
TAC
QT Input Channel

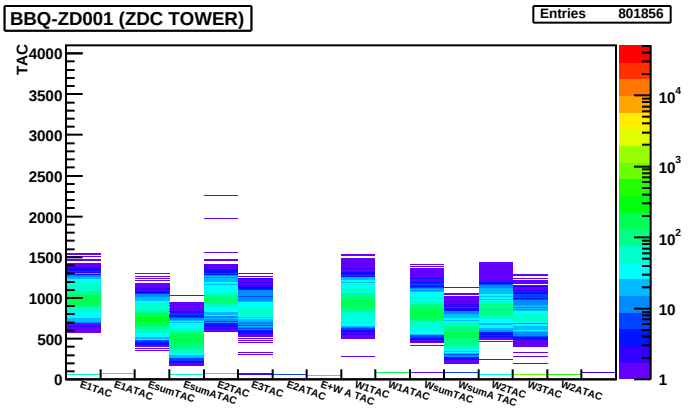

BBQ-BB002 (BBC west small tiles ADC)
Entries 801856
ADC
QT Input Channel

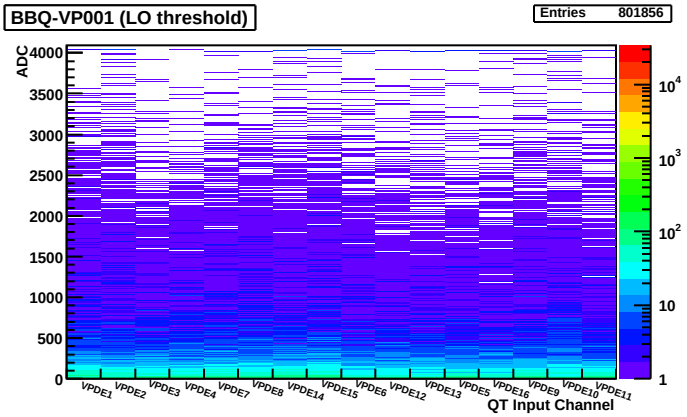

BBQ-BB002 (BBC west small tiles TAC)
Entries 801856
TAC
QT Input Channel

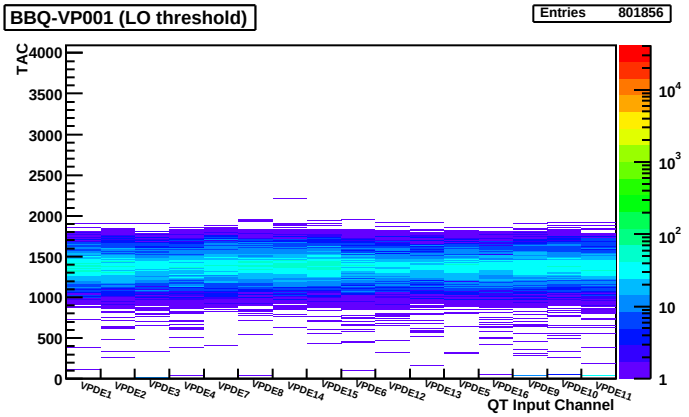

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 801856
ADC
QT Input Channel

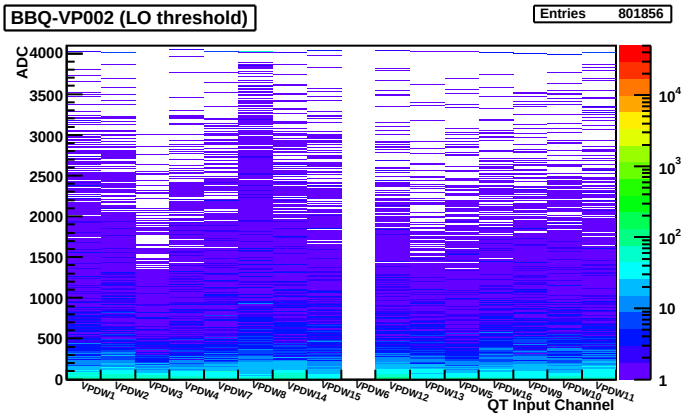

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 801856
TAC
QT Input Channel

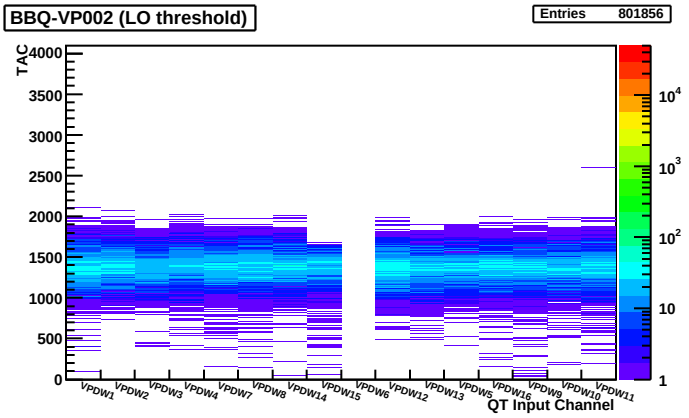

BBQ-ZD001 (ZDC TOWER)
Entries 801856
ADC

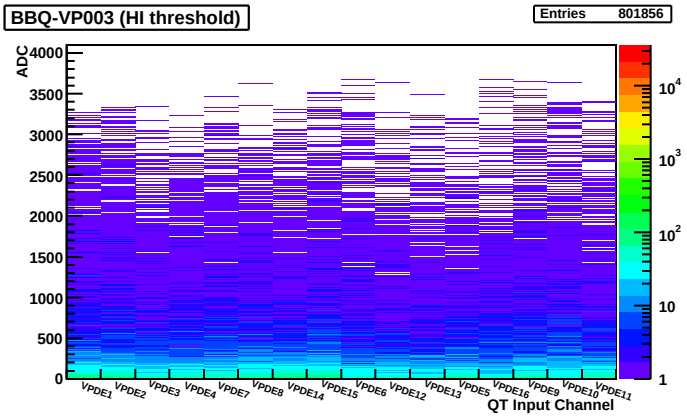

BBQ-ZD001 (ZDC TOWER)
Entries 801856
TAC

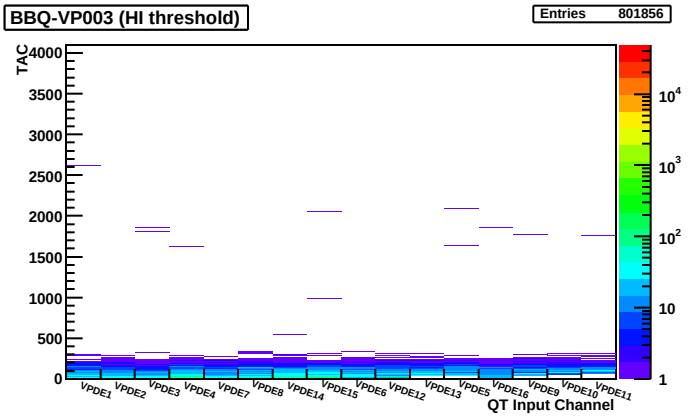

BBQ-VP001 (LO threshold)
Entries 801856
ADC
QT Input Channel

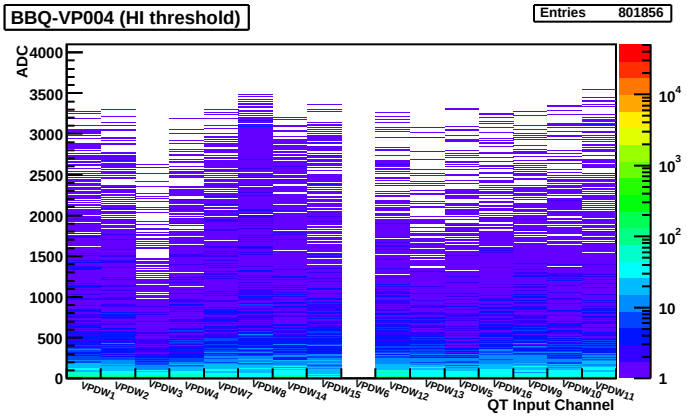

BBQ-VP001 (LO threshold)
Entries 801856
TAC
QT Input Channel

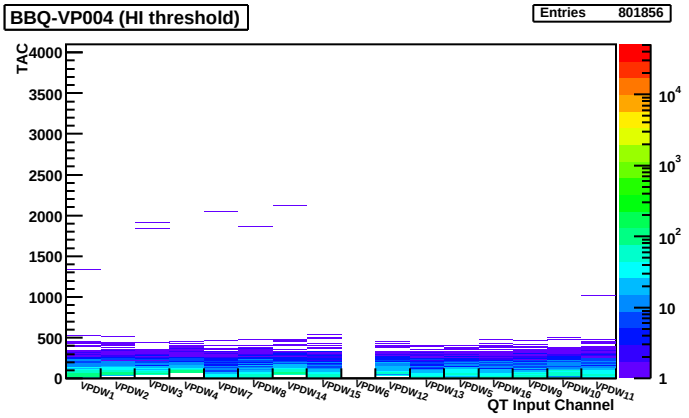

BBQ-VP002 (LO threshold)
Entries 801856
ADC
QT Input Channel

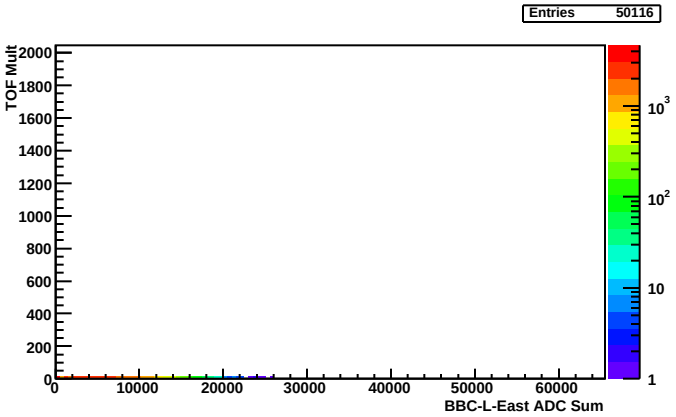

BBQ-VP002 (LO threshold)
Entries 801856
TAC
QT Input Channel

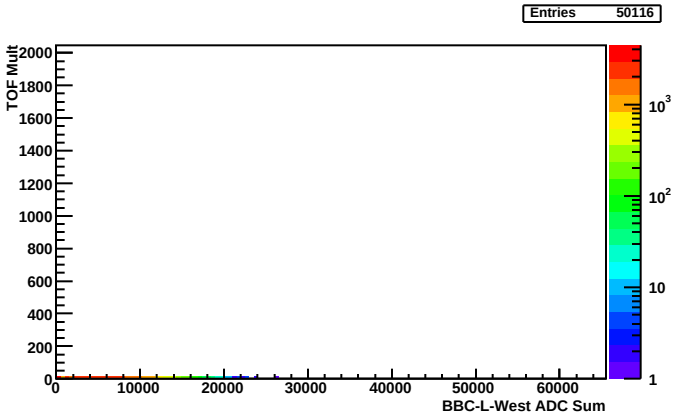

BBQ-VP003 (HI threshold)
Entries 801856
ADC
QT Input Channel

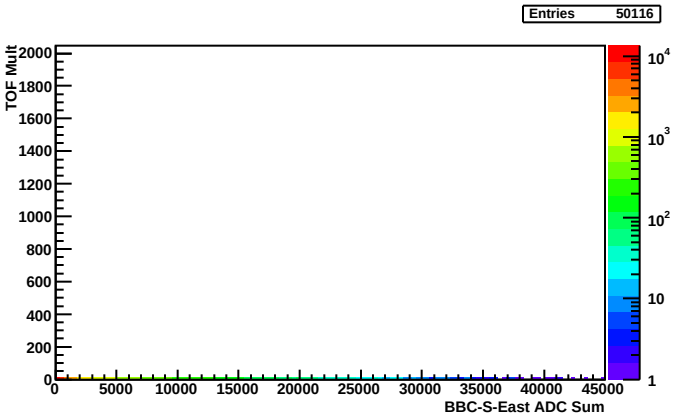

BBQ-VP003 (HI threshold)
Entries 801856
TAC
QT Input Channel

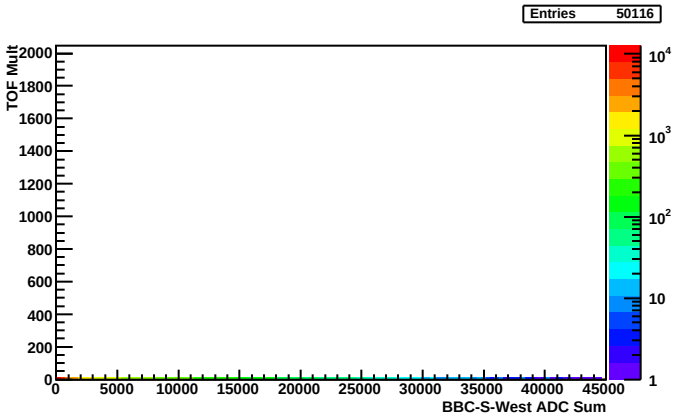

BBQ-VP004 (HI threshold)
Entries 801856
ADC
QT Input Channel

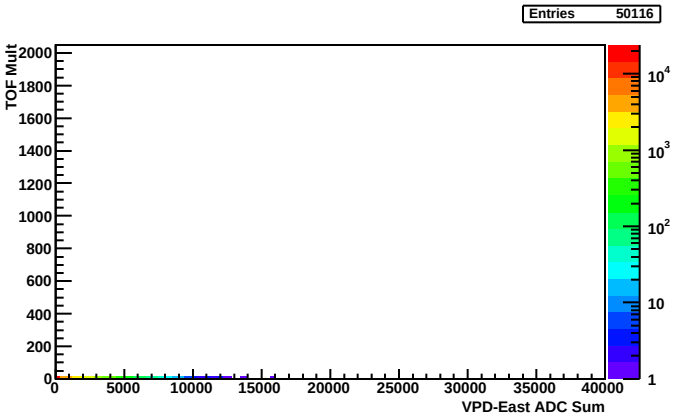

BBQ-VP004 (HI threshold)
Entries 801856
TAC
QT Input Channel

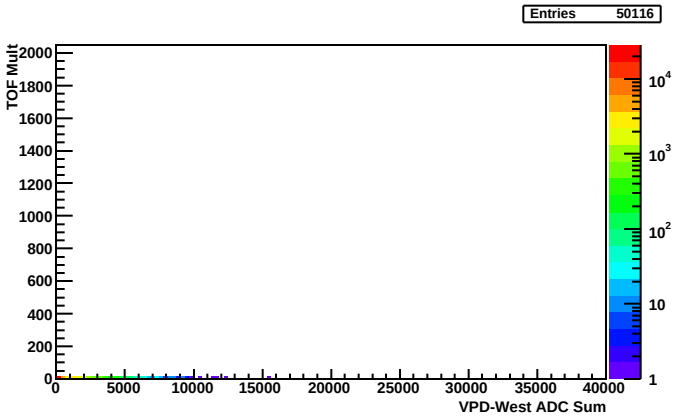

Entries 50116
TOF Mult
BBC-L-East ADC Sum

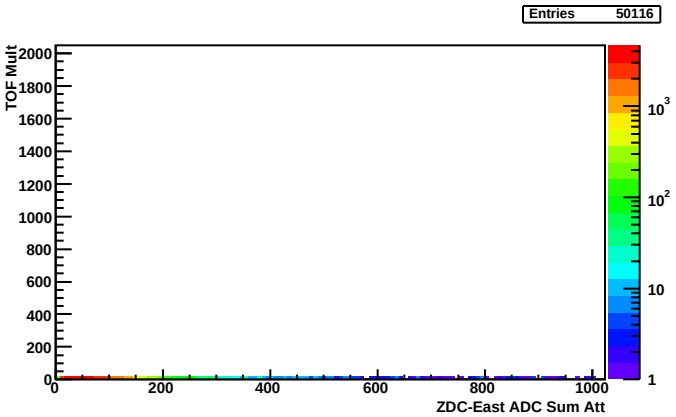

Entries 50116
TOF Mult
BBC-L-West ADC Sum

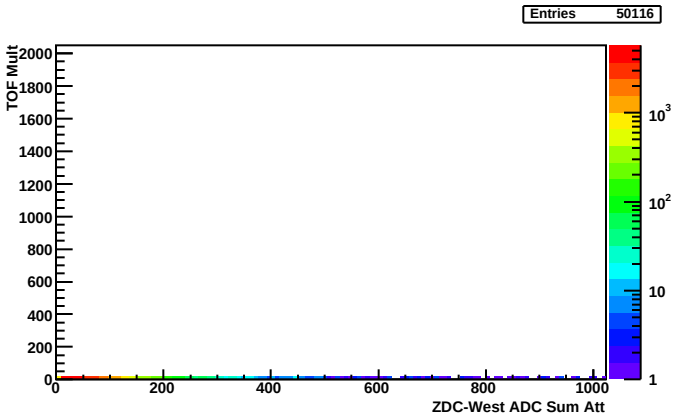

Entries 50116
TOF Mult
BBC-S-East ADC Sum

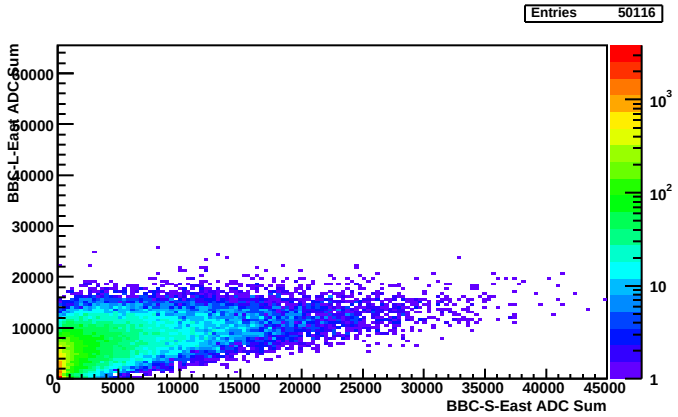

Entries 50116
TOF Mult
BBC-S-West ADC Sum

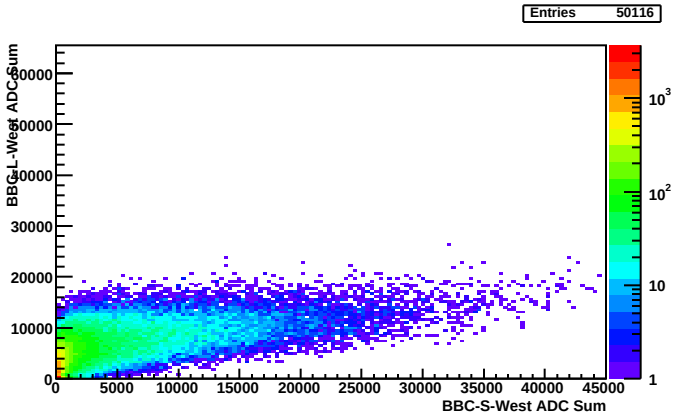

Entries 50116
TOF Mult
VPD-East ADC Sum

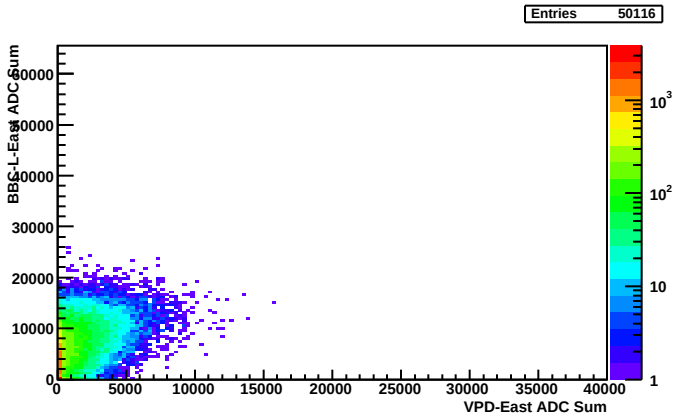

Entries 50116
TOF Mult
VPD-West ADC Sum

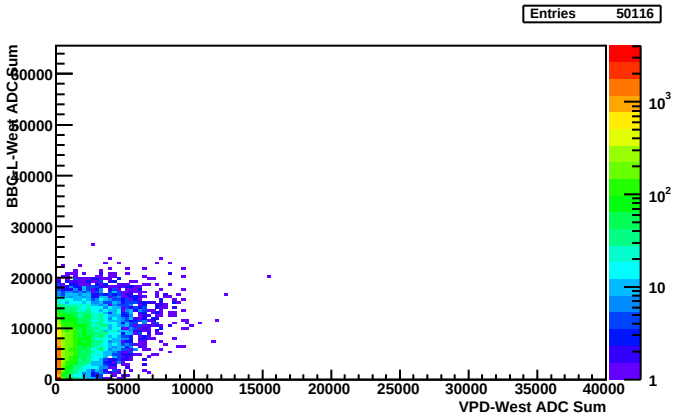

Entries 50116
TOF Mult
ZDC-East ADC Sum Att

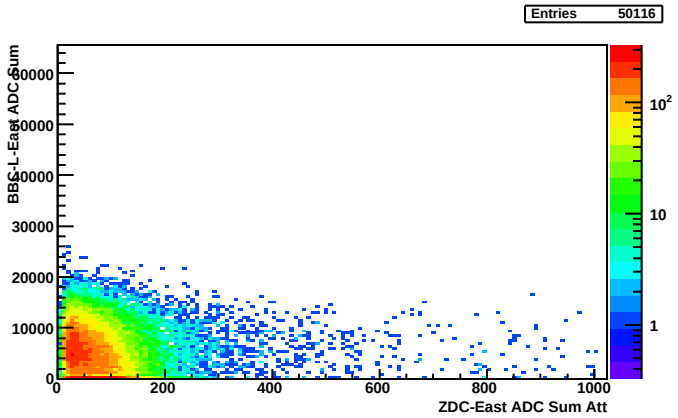

Entries 50116
TOF Mult
ZDC-West ADC Sum Att

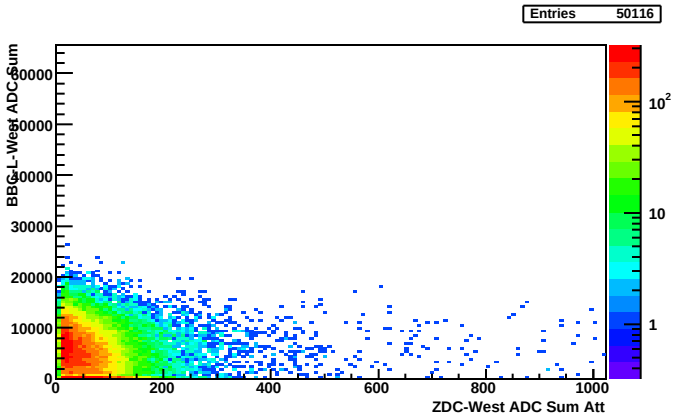

Entries 50116
BBC-L-East ADC Sum
BBC-S-East ADC Sum

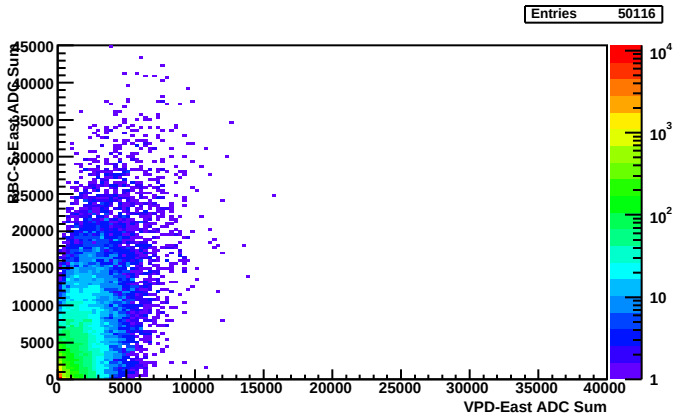

Entries 50116
BBC-L-West ADC Sum
BBC-S-West ADC Sum

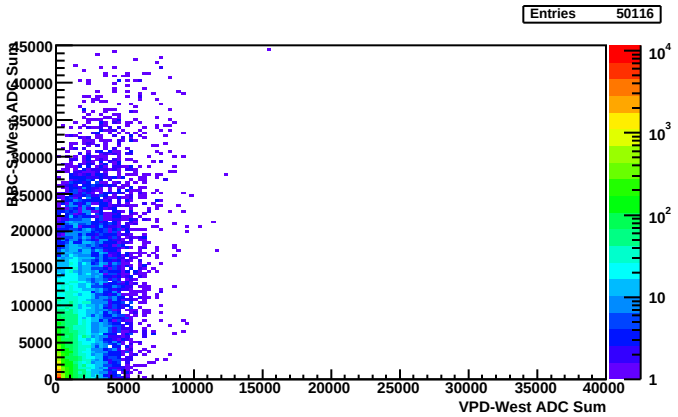

Entries 50116
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 50116
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 50116
BBC-L-East ADC Sum
ZDC-East ADC Sum Att


Entries 50116
BBC-L-West ADC Sum
ZDC-West ADC Sum Att


Entries 50116
BBC-S-East ADC Sum
VPD-East ADC Sum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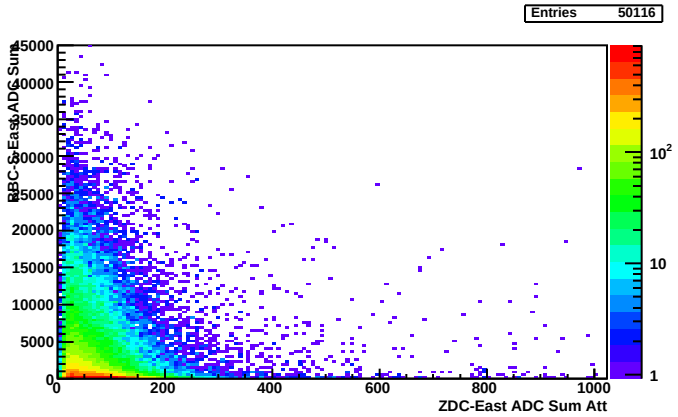
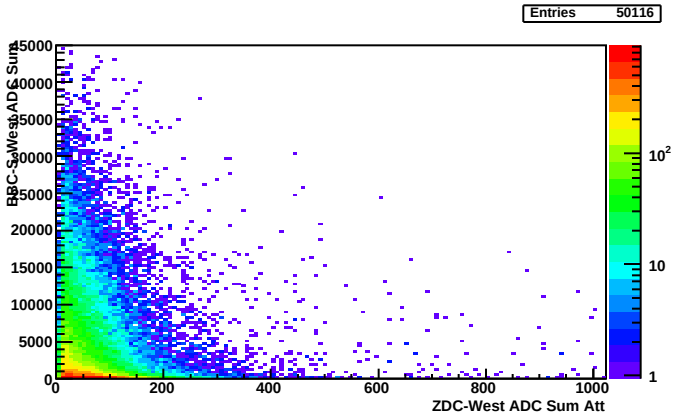
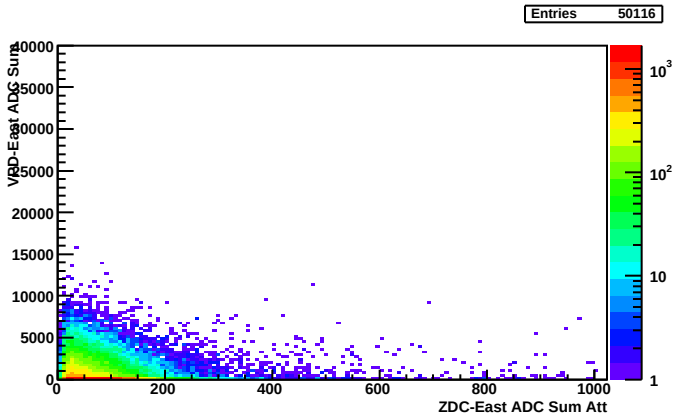
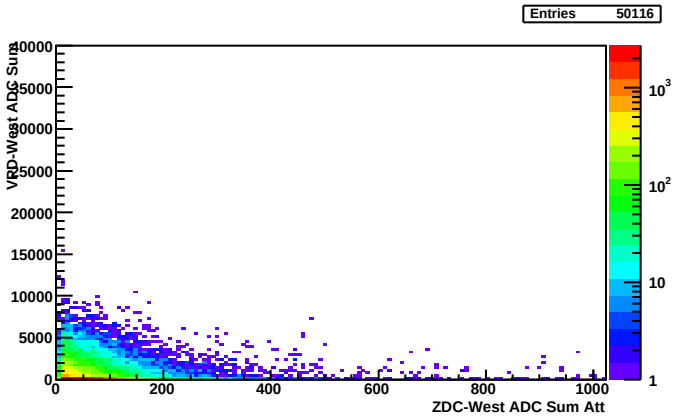
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 50116
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 50116
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 50116
VPD-East ADC Sum
ZDC-East ADC Sum Att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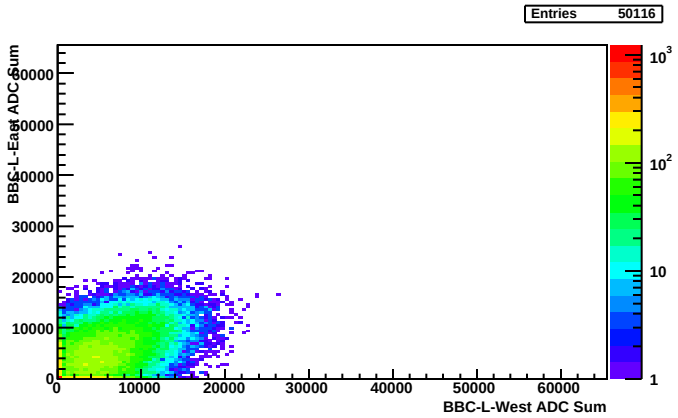
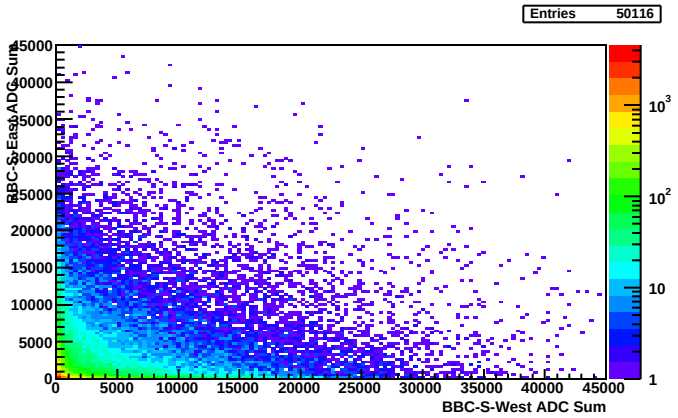
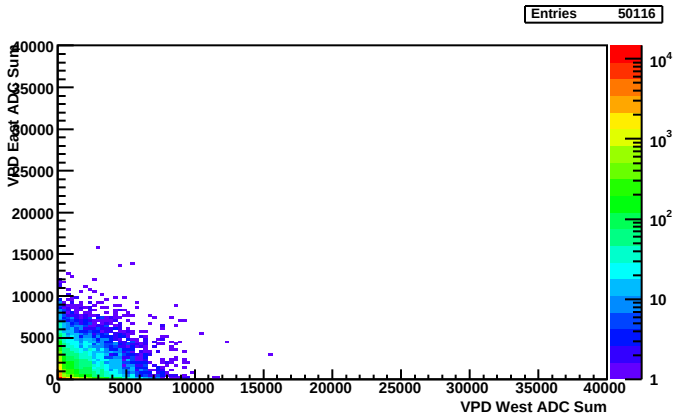
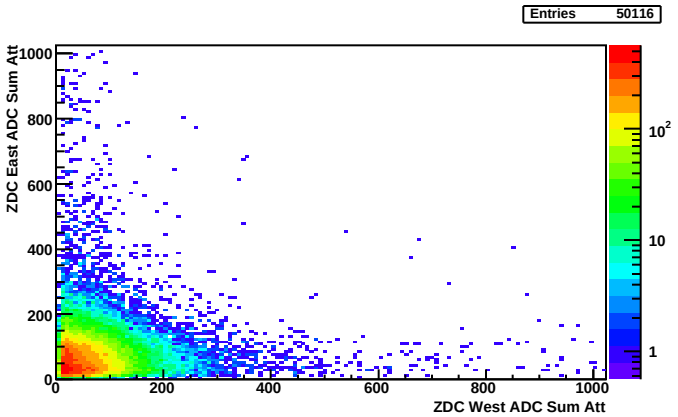
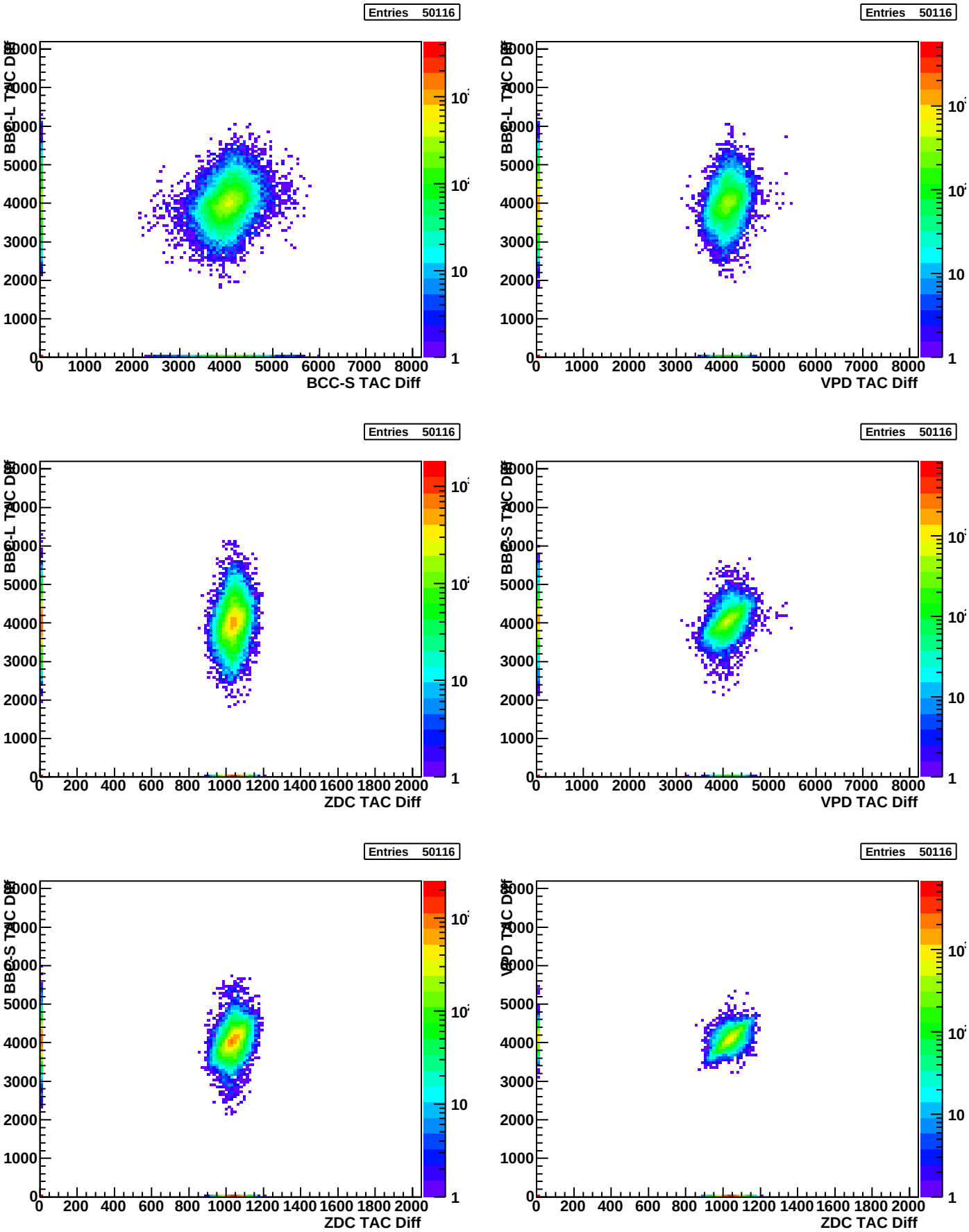
VPD-West ADC Sum
ZDC-West ADC Sum Att

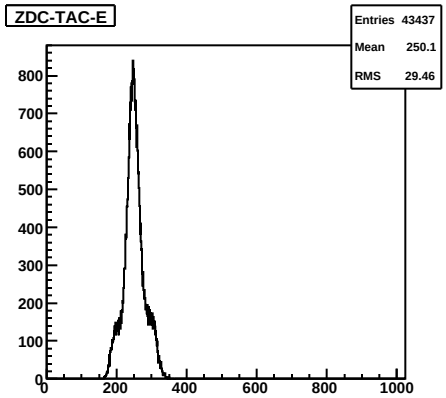

Entries 50116
BBC-L-East ADC Sum
BBC-L-West ADC Sum

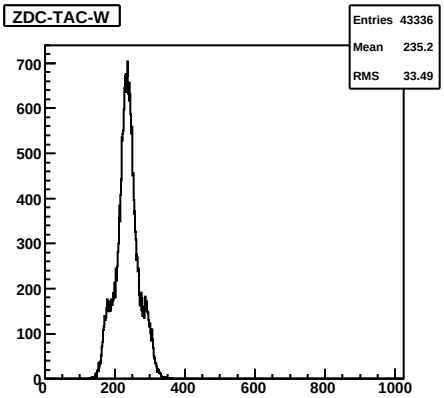

Entries 50116
BBC-S-East ADC Sum
BBC-S-West ADC Sum

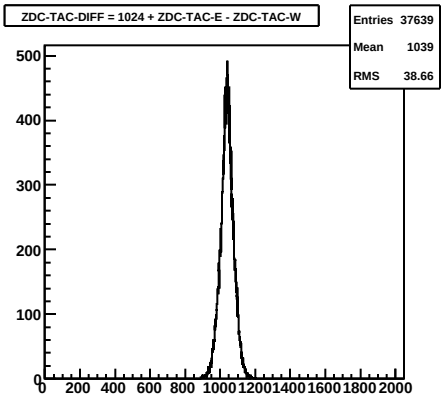

Entries 50116
VPD East ADC Sum
VPD West ADC Sum

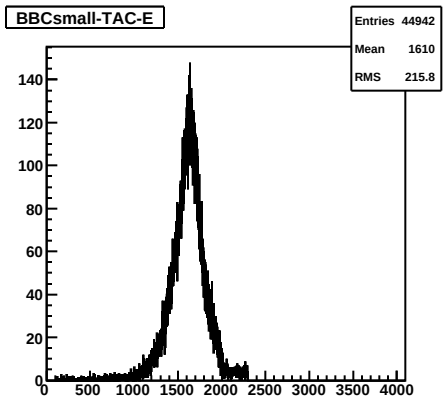

Entries 50116
ZDC East ADC Sum Att
ZDC West ADC Sum Att

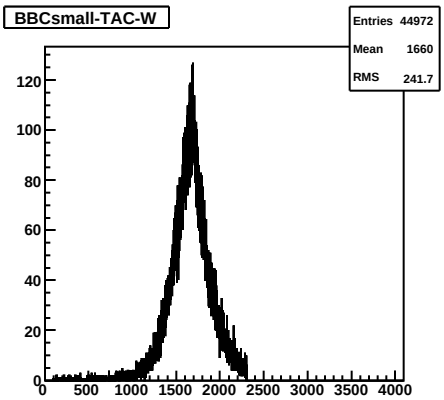

Entries 50116
BBC-L TAC Diff
BCC-S TAC Diff
Entries 50116
BBC-L TAC Diff
VPD TAC Diff
Entries 50116
BBC-L TAC Diff
ZDC TAC Diff
Entries 50116
BBC-S TAC Diff
VPD TAC Diff
Entries 50116
BBC-S TAC Diff
ZDC TAC Diff
Entries 50116
VPD TAC Diff
ZDC TAC Diff

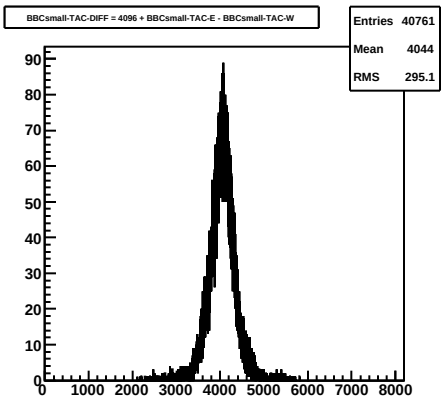

ZDC-TAC-E
Entries 43437
Mean 250.1
RMS 29.46

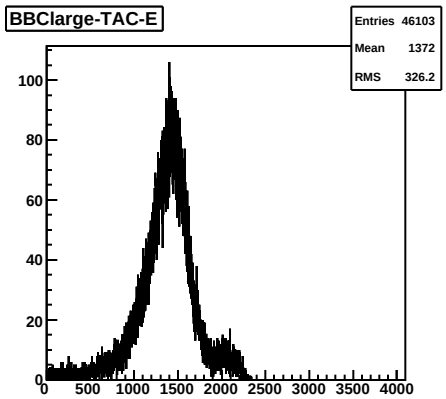

ZDC-TAC-W
Entries 43336
Mean 235.2
RMS 33.49

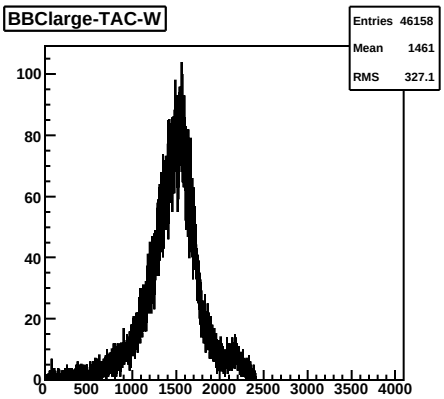

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 37639
Mean 1039
RMS 38.66

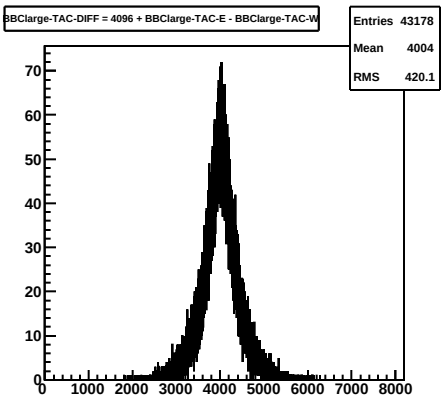

BBCsmall-TAC-E
Entries 44942
Mean 1610
RMS 215.8

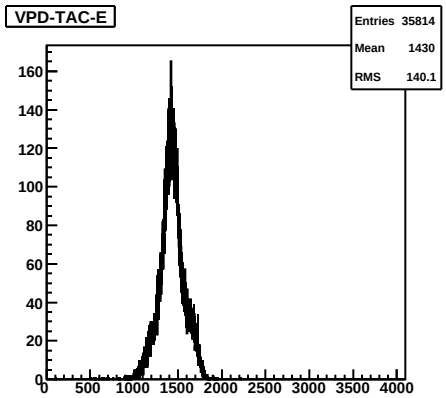

BBCsmall-TAC-W
Entries 44972
Mean 1660
RMS 241.7

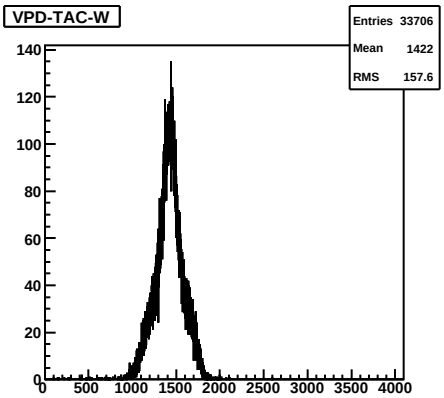

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 40761
Mean 4044
RMS 295.1

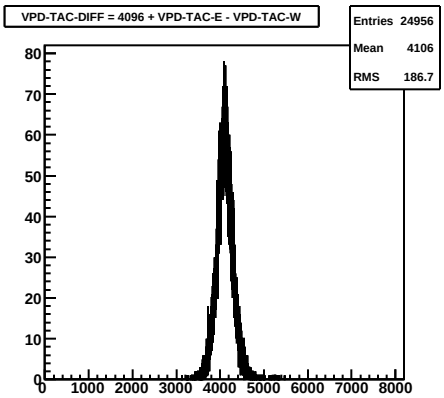

BBClarge-TAC-E
Entries 46103
Mean 1372
RMS 326.2

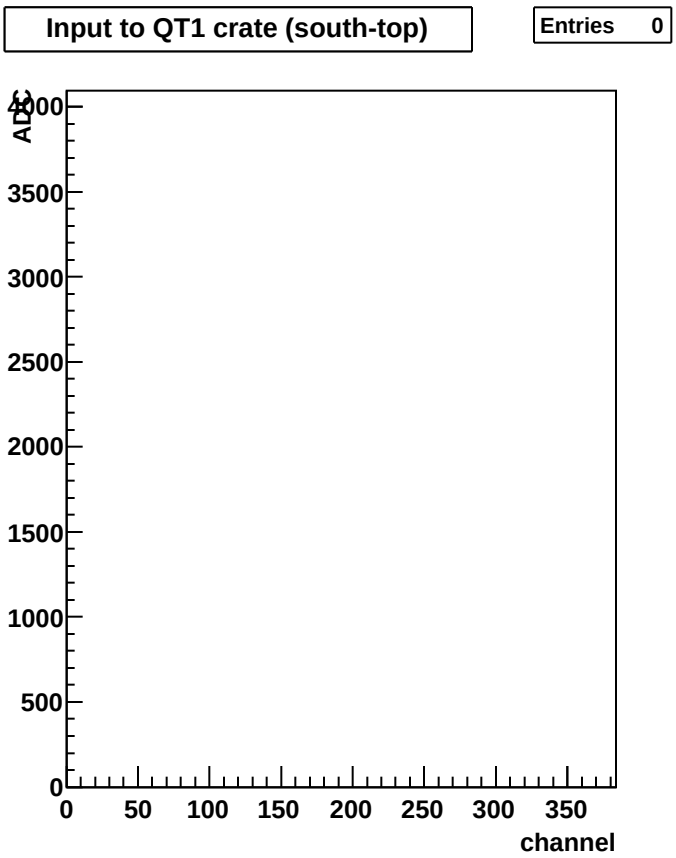

BBClarge-TAC-W
Entries 46158
Mean 1461
RMS 327.1

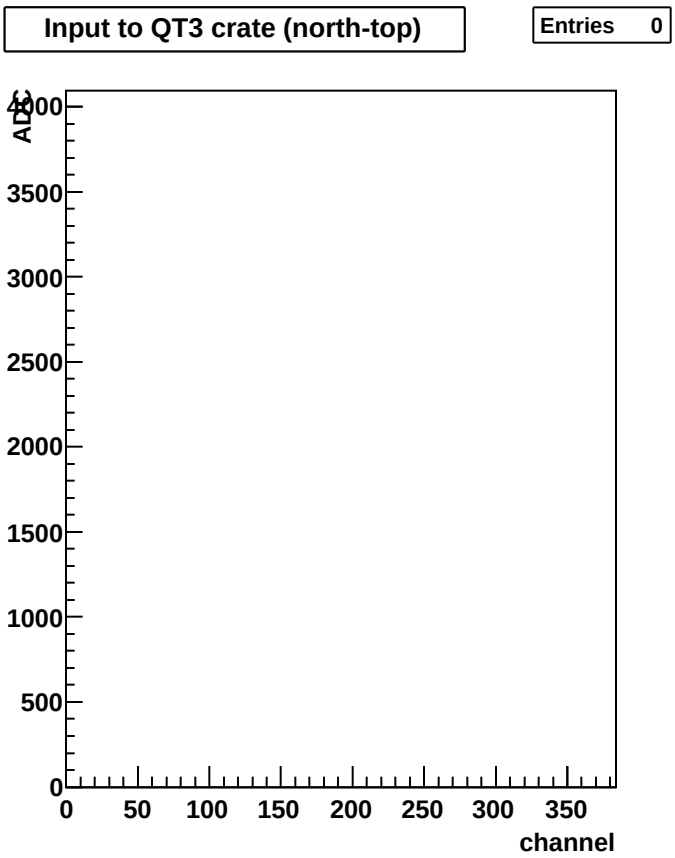

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 43178
Mean 4004
RMS 420.1

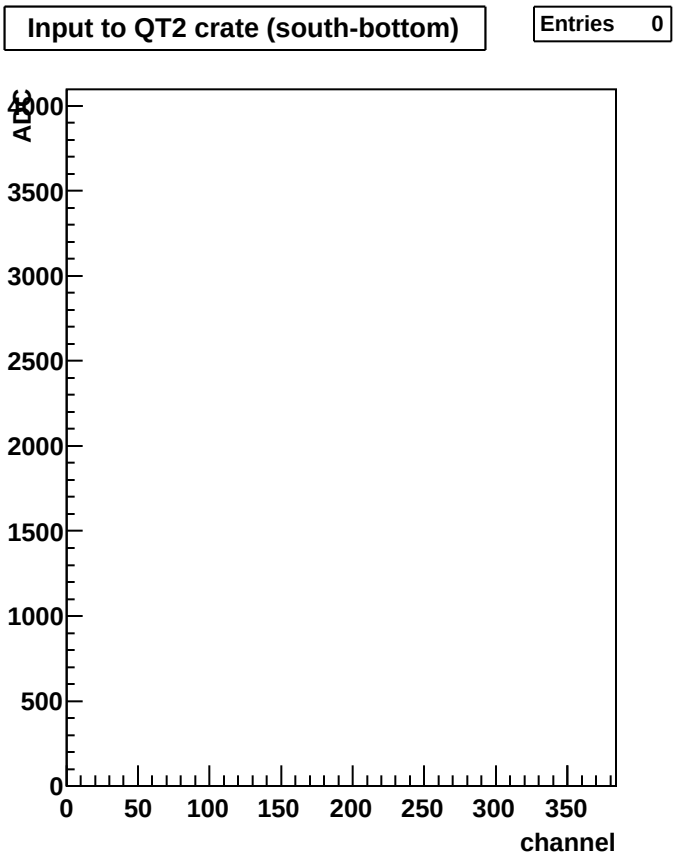

VPD-TAC-E
Entries 35814
Mean 1430
RMS 140.1

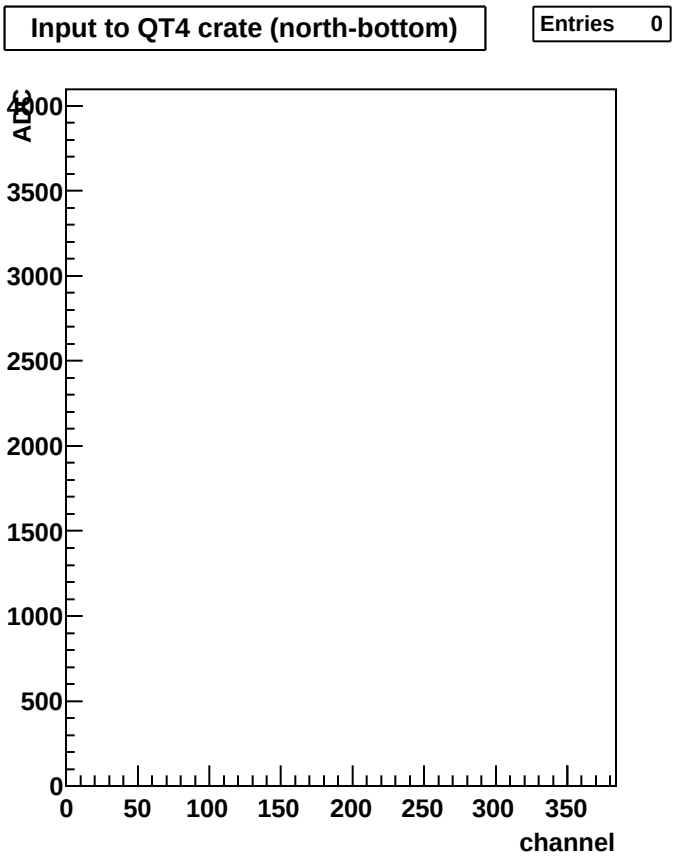

VPD-TAC-W
Entries 33706
Mean 1422
RMS 157.6

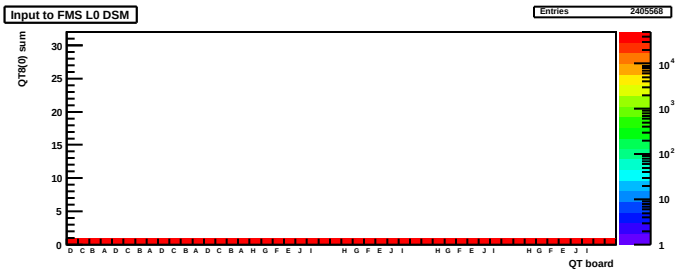

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 24956
Mean 4106
RMS 186.7

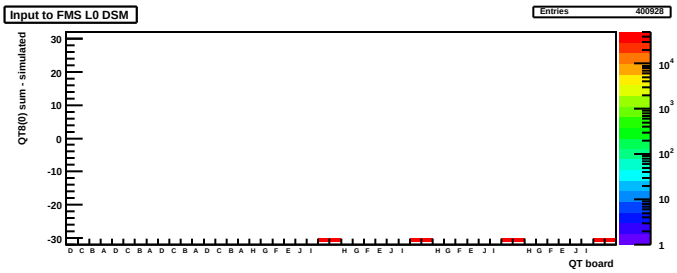

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

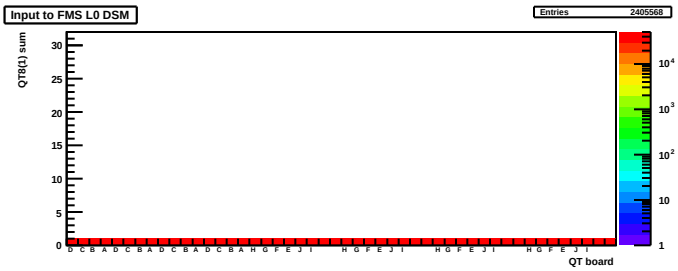

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

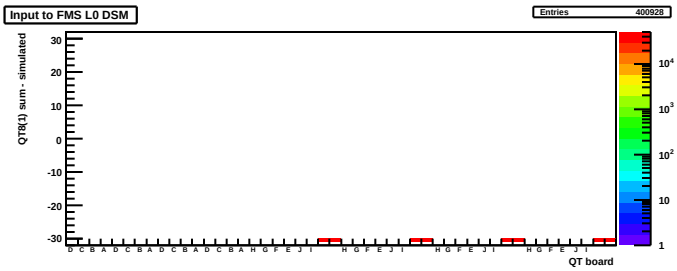

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

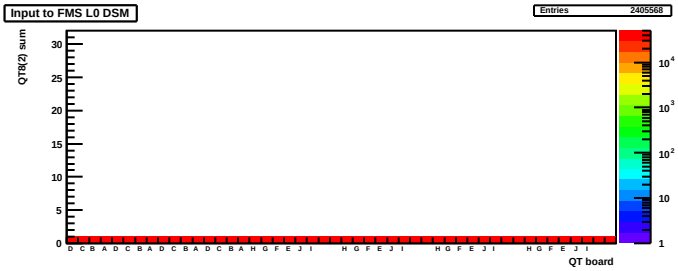

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

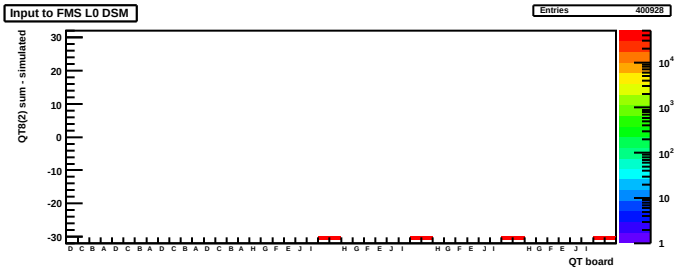

Input to FMS L0 DSM
Entries 2405568
QT8(0) sum
QT board

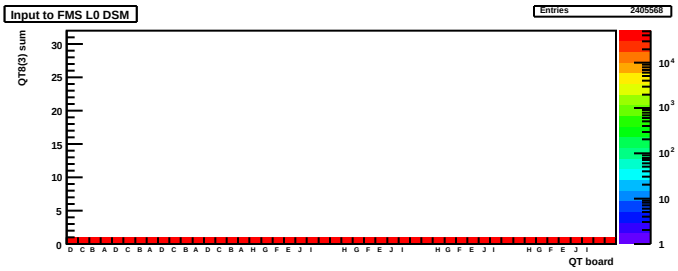

Input to FMS L0 DSM
Entries 400928
QT8(0) sum - simulated
QT board

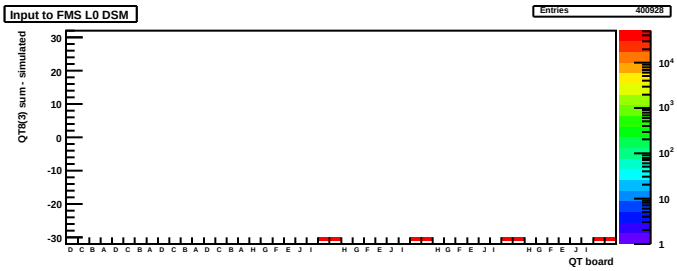

Input to FMS L0 DSM
Entries 2405568
QT8(1) sum
QT board

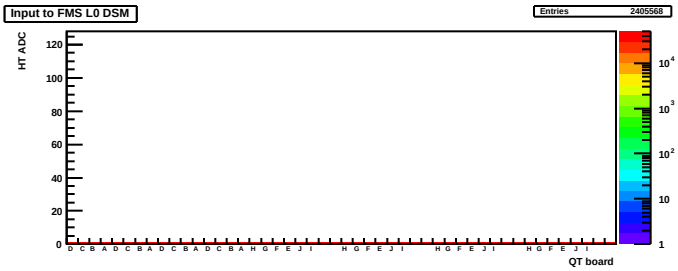

Input to FMS L0 DSM
Entries 400928
QT8(1) sum - simulated
QT board

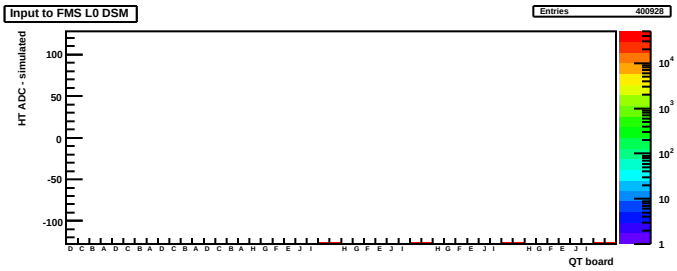

Input to FMS L0 DSM
Entries 2405568
QT8(2) sum
QT board

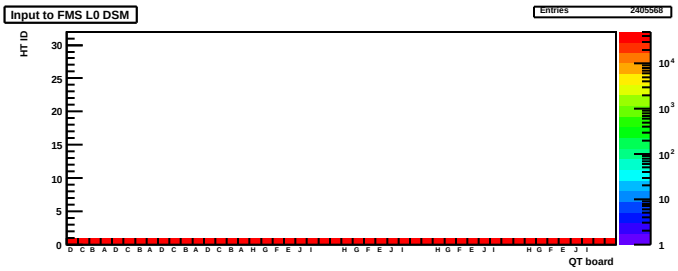

Input to FMS L0 DSM
Entries 400928
QT8(2) sum - simulated
QT board

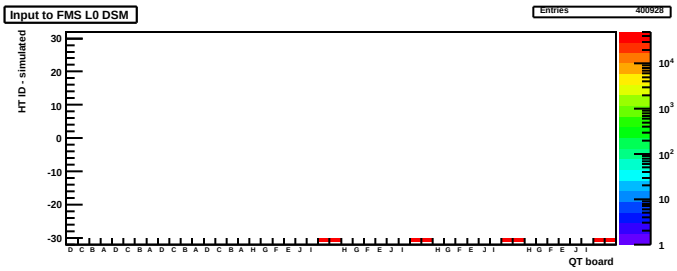

Input to FMS L0 DSM
Entries 2405568
QT8(3) sum
QT board

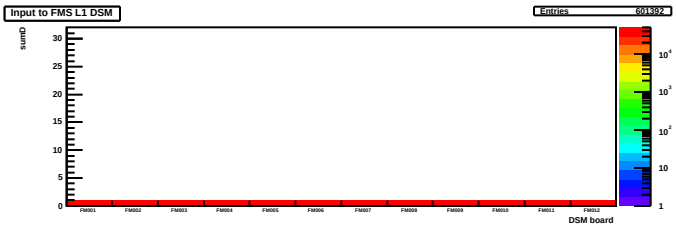

Input to FMS L0 DSM
Entries 400928
QT8(3) sum - simulated
QT board

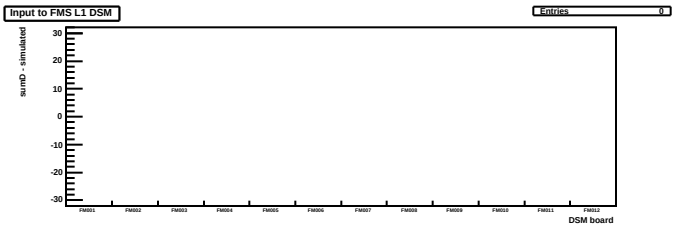

Input to FMS L0 DSM
Entries 2405568
HT ADC
QT board

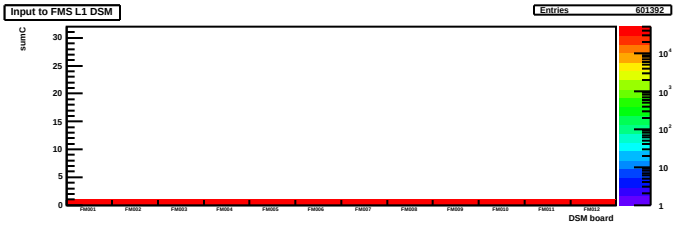

Input to FMS L0 DSM
Entries 400928
HT ADC - simulated
QT board

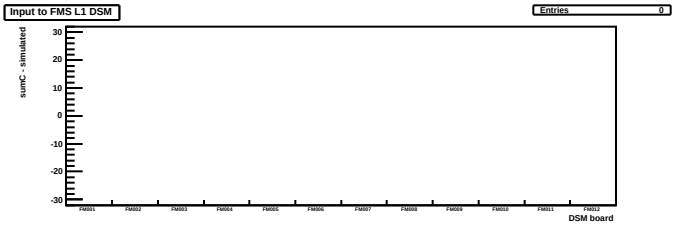

Input to FMS L0 DSM
Entries 2405568
HT ID
QT board

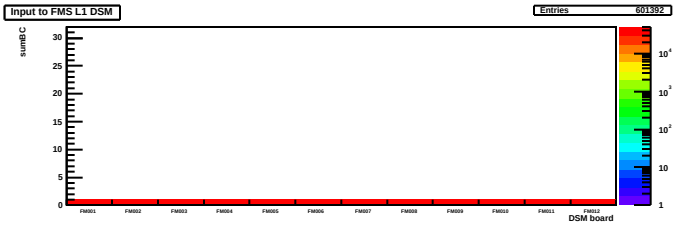

Input to FMS L0 DSM
Entries 400928
HT ID - simulated
QT board

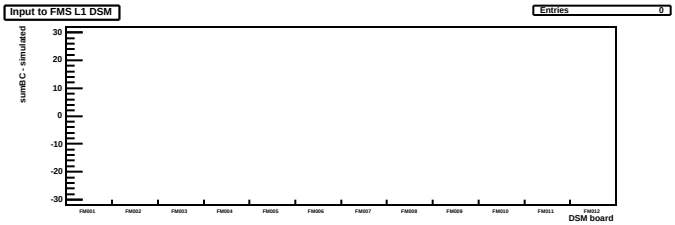

Input to FMS L1 DSM
Entries 601392
sumD
DSM board

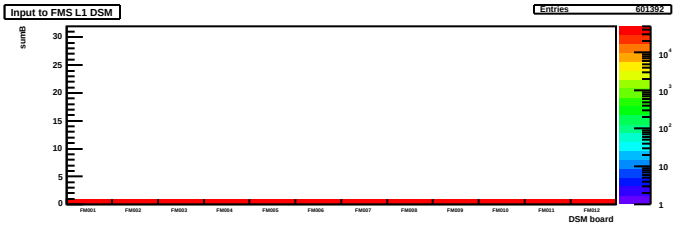

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

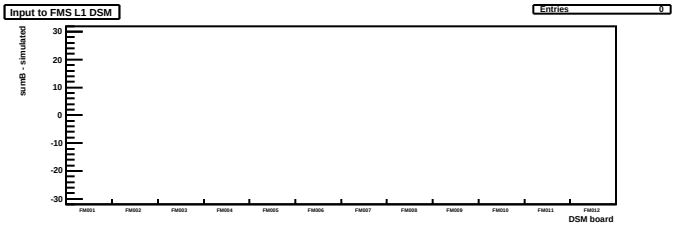

Input to FMS L1 DSM
Entries 601392
sumC
DSM board

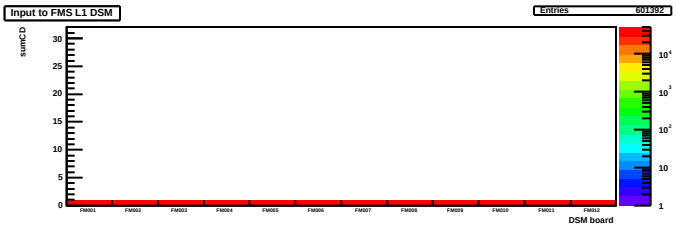

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

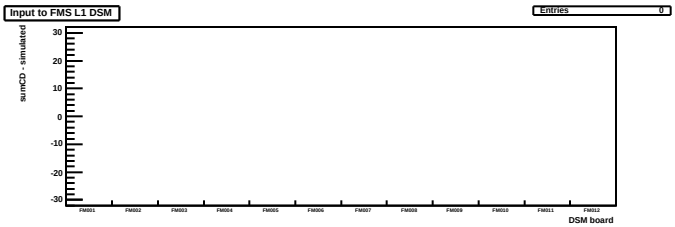

Input to FMS L1 DSM
Entries 601392
sumBC
DSM board

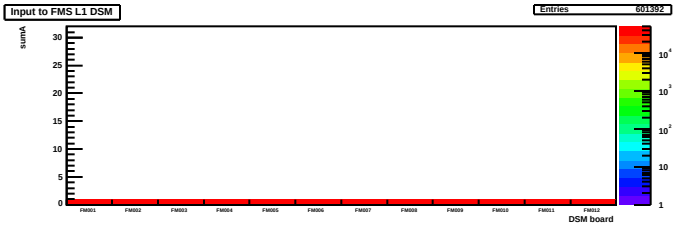

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

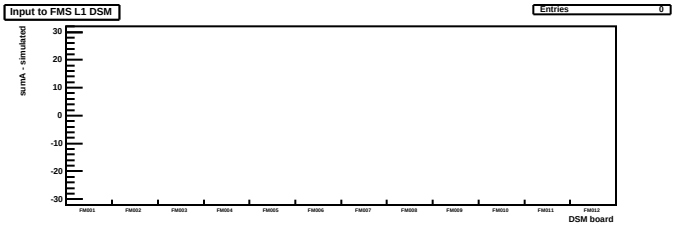

Input to FMS L1 DSM
Entries 601392
sumB
DSM board

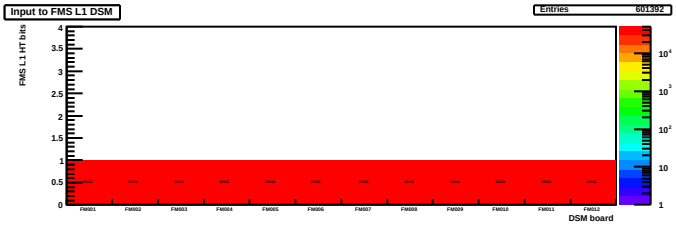

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

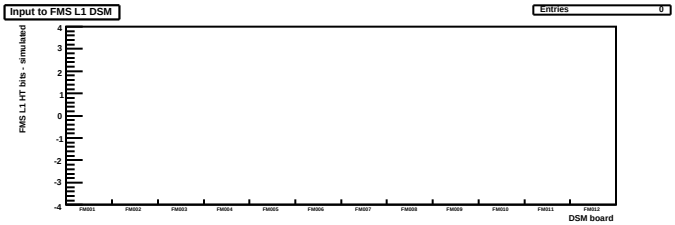

Input to FMS L1 DSM
Entries 601392
sumCD
DSM board

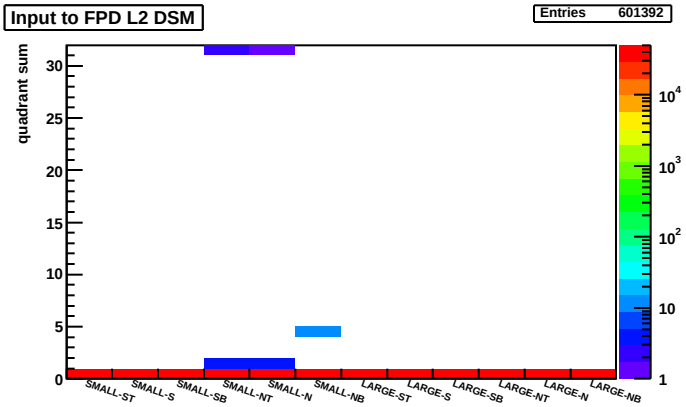

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

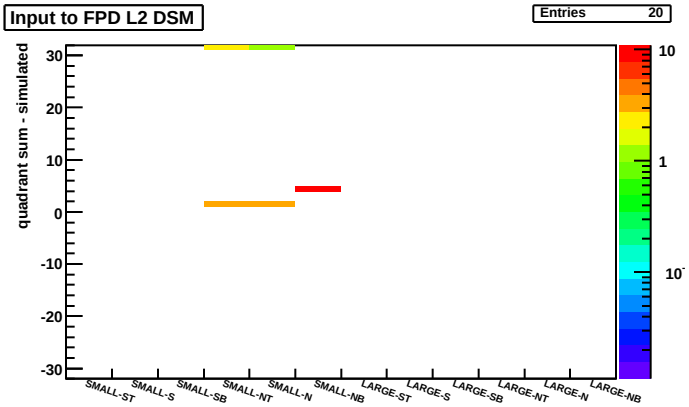

Input to FMS L1 DSM
Entries 601392
sumA
DSM board

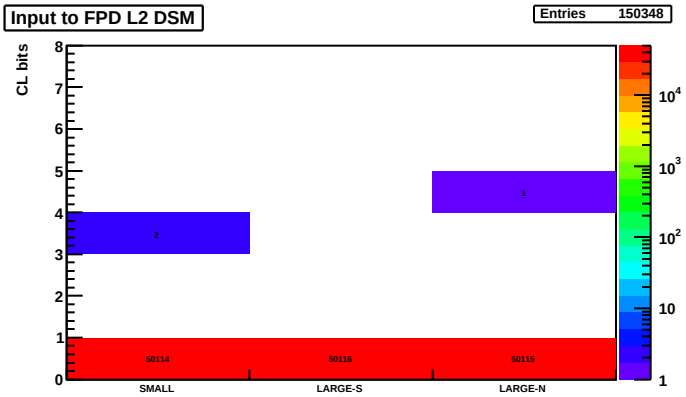

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

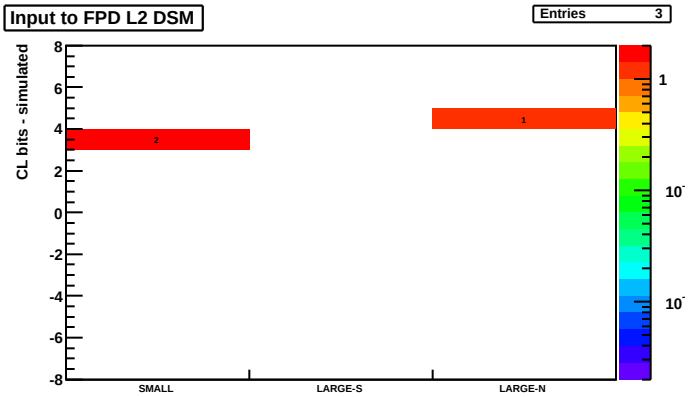

Input to FMS L1 DSM
Entries 601392
FMS L1 HT bits
DSM board

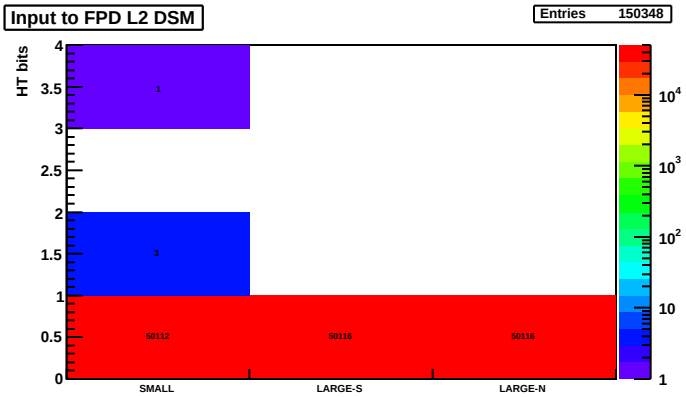

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

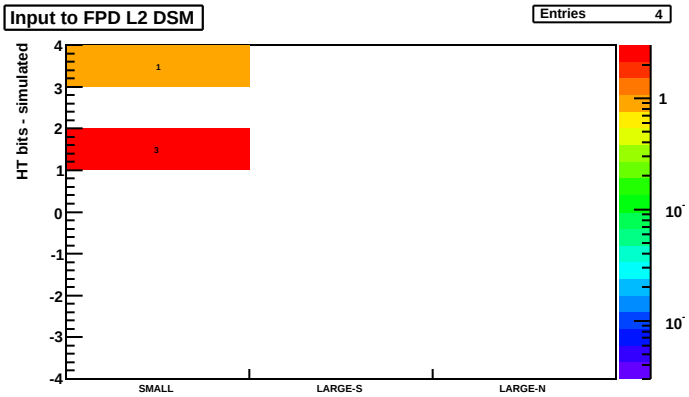

Input to FPD L2 DSM
Entries 601392
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

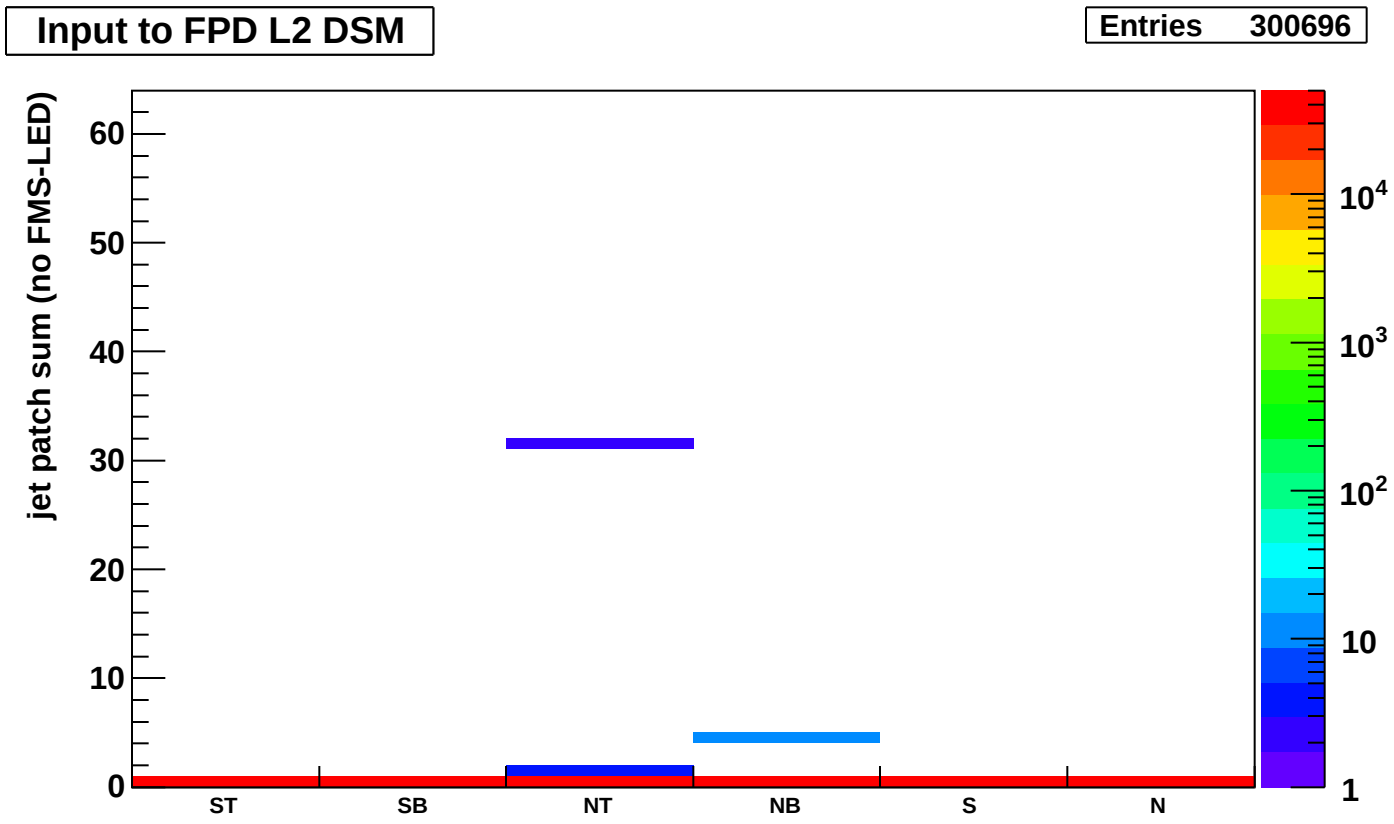

Input to FPD L2 DSM
Entries 20
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

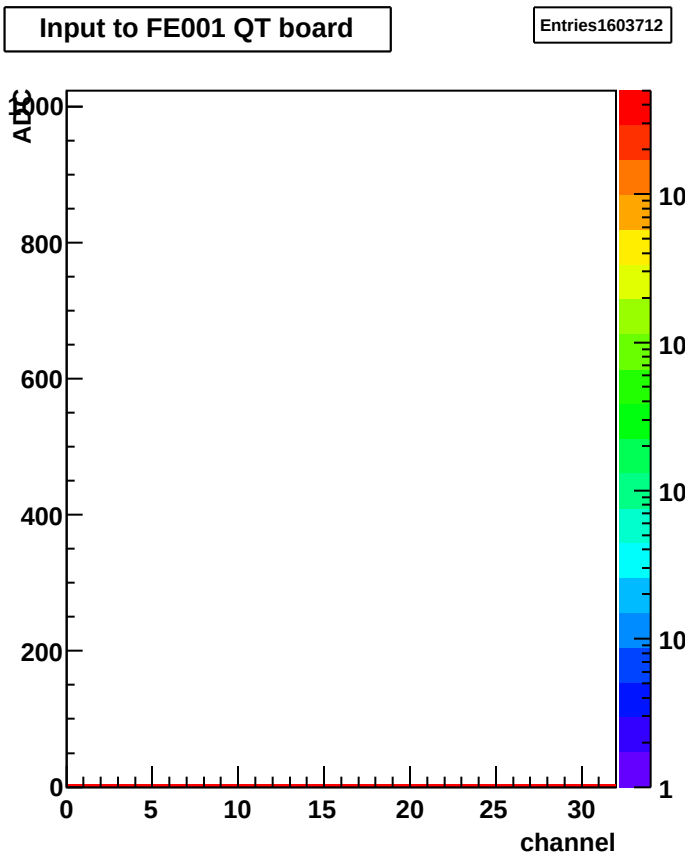

Input to FPD L2 DSM
Entries 150348
CL bits
50114
50116
50115
SMALL
LARGE-S
LARGE-N

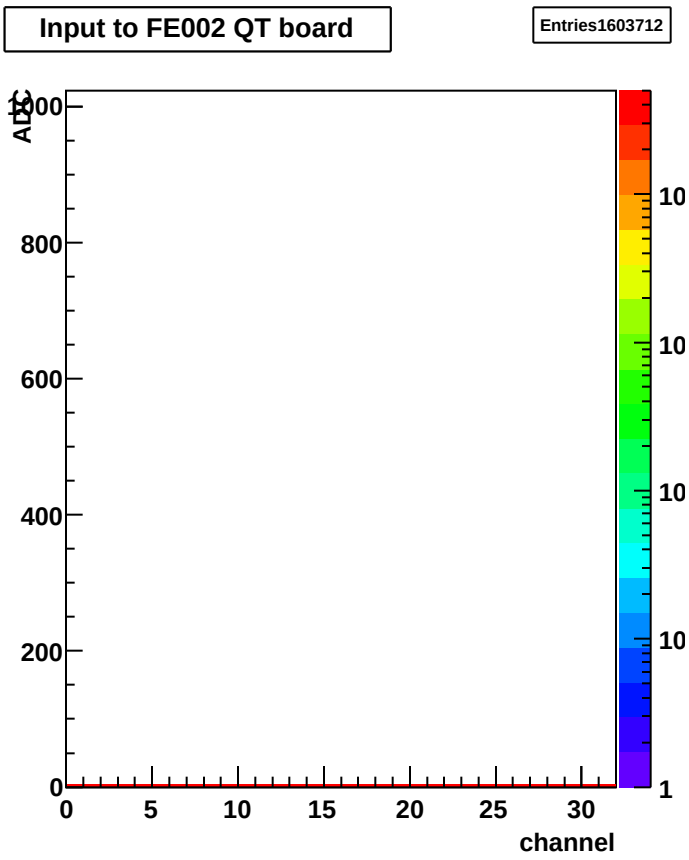

Input to FPD L2 DSM
Entries 3
CL bits - simulated
SMALL
LARGE-S
LARGE-N

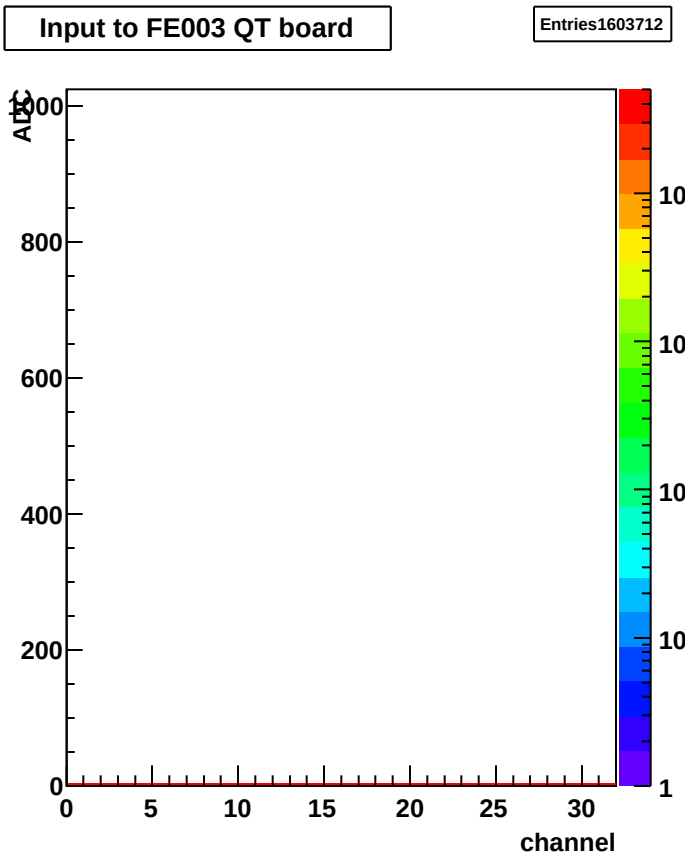

Input to FPD L2 DSM
Entries 150348
HT bits
50112
50116
50116
SMALL
LARGE-S
LARGE-N

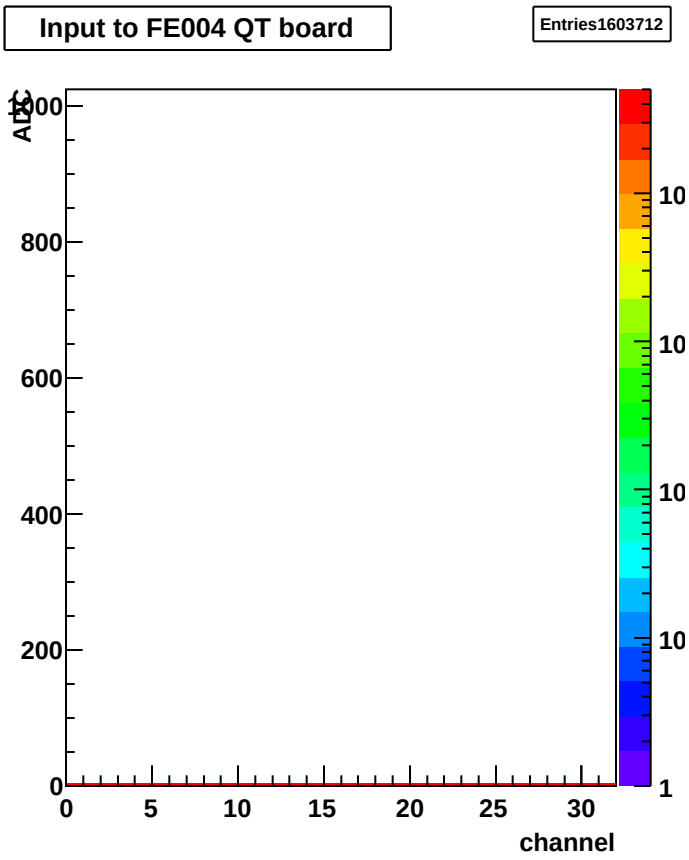

Input to FPD L2 DSM
Entries 4
HT bits - simulated
SMALL
LARGE-S
LARGE-N

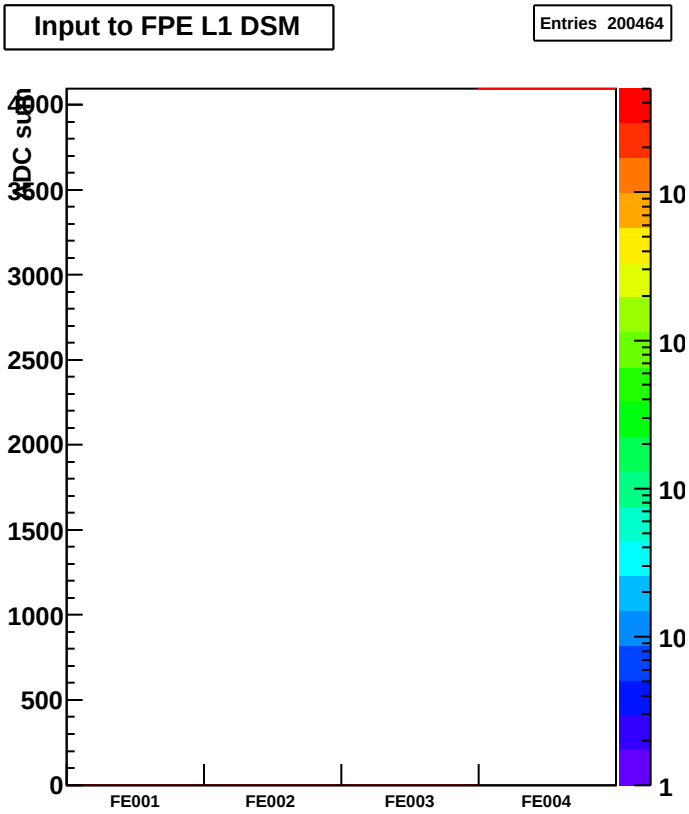

Input to FPD L2 DSM
Entries 300696
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

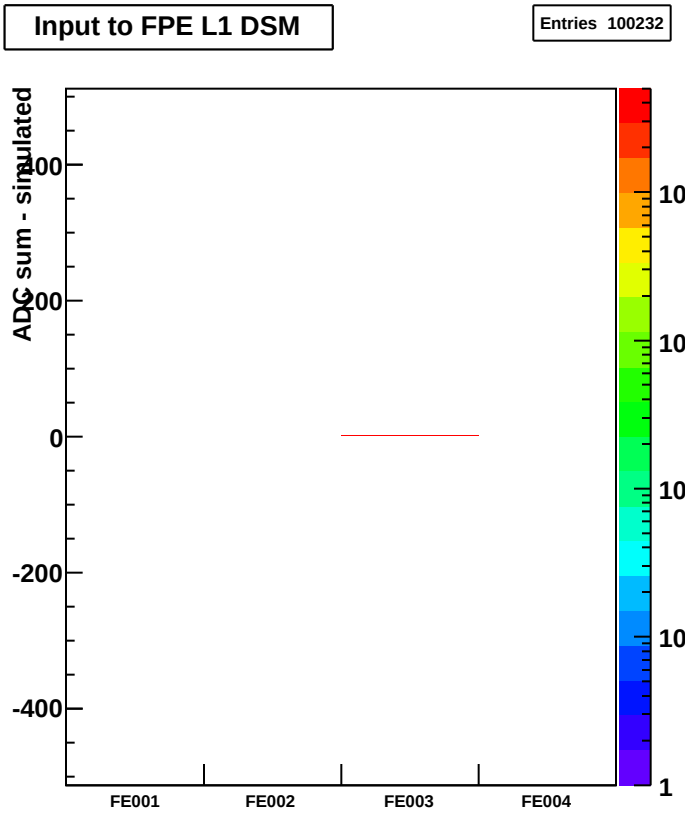

Input to FE001 QT board
Entries1603712
ADC
channel

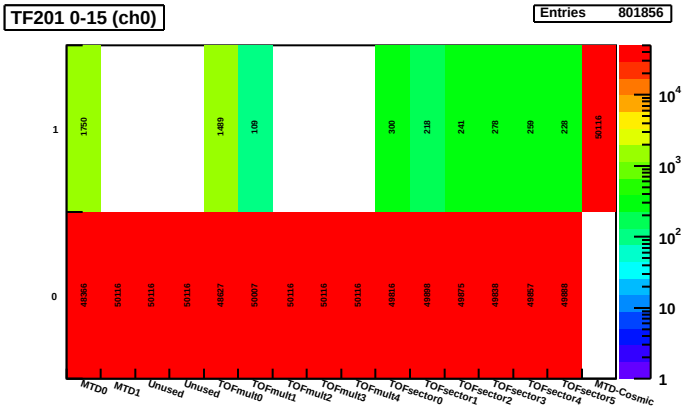

Input to FE002 QT board
Entries1603712
ADC
channel

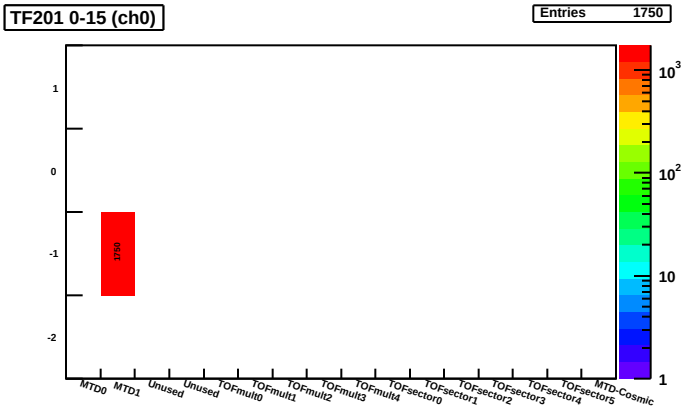

Input to FE003 QT board
Entries1603712
ADC
channel

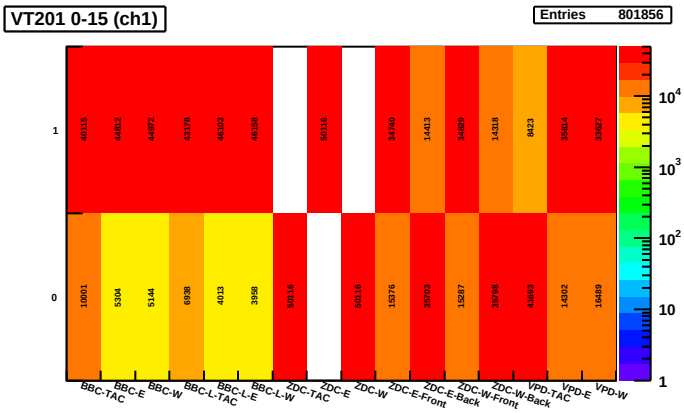

Input to FE004 QT board
Entries1603712
ADC
channel

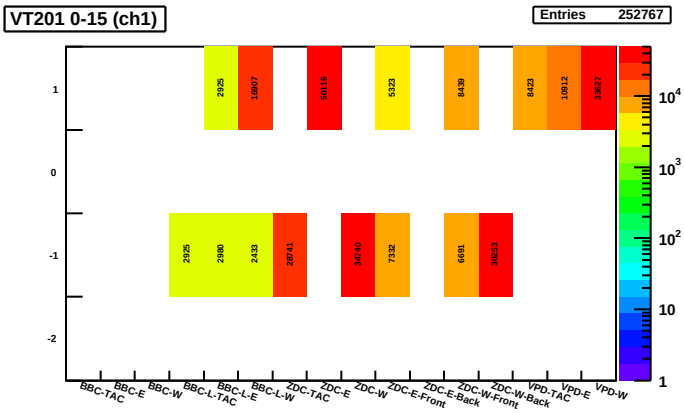

Input to FPE L1 DSM
Entries 200464
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

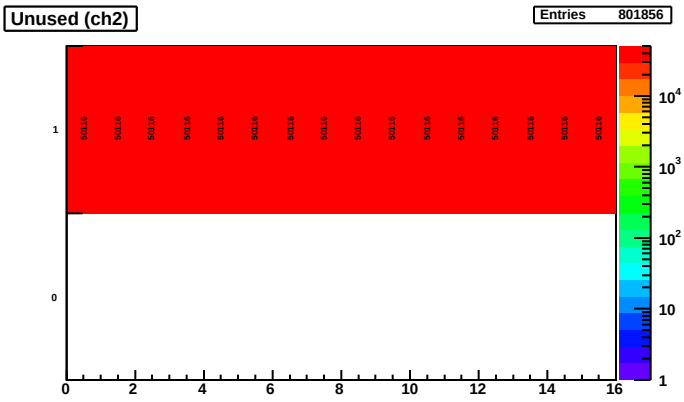

Input to FPE L1 DSM
Entries 100232
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 801856
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 1750
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 801856
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 252767
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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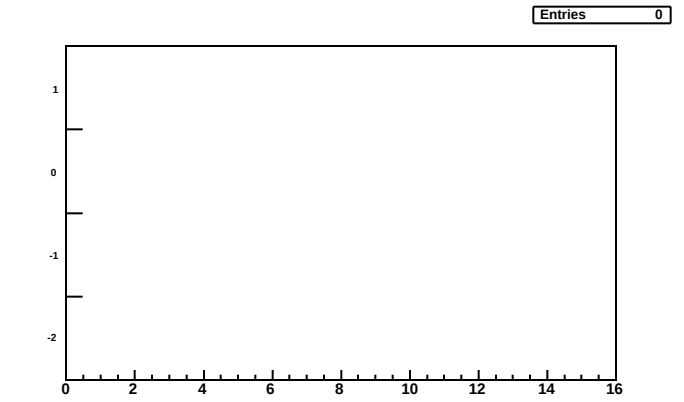
Entries 801856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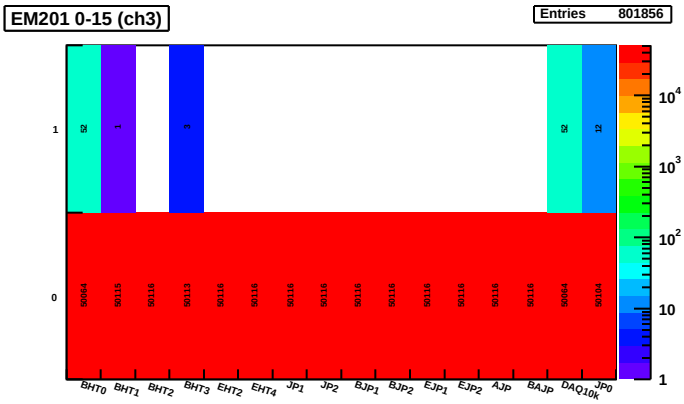
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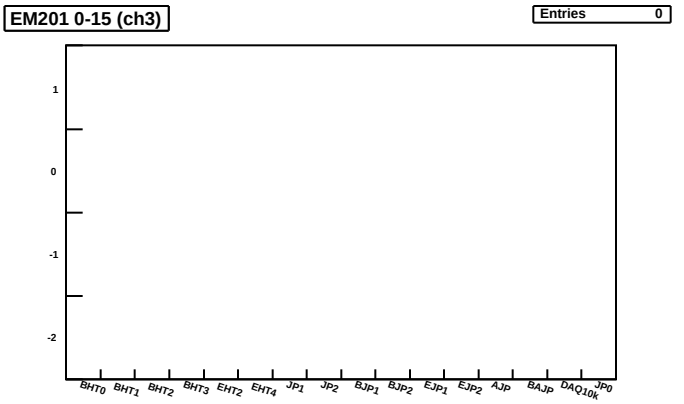
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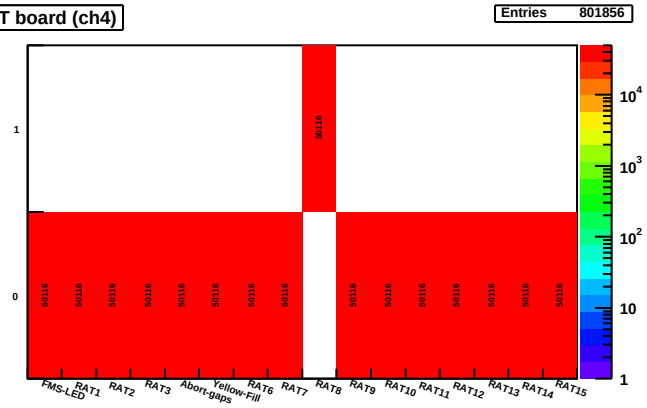
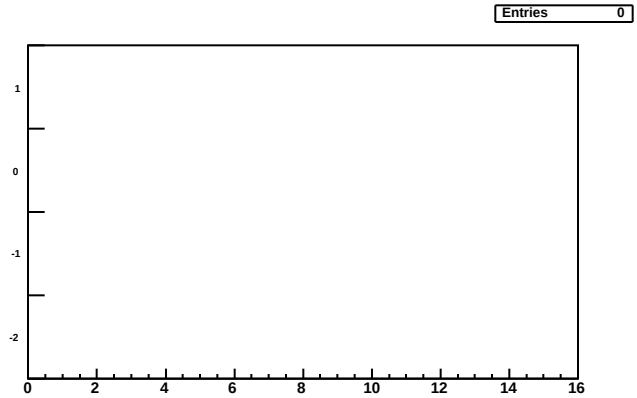
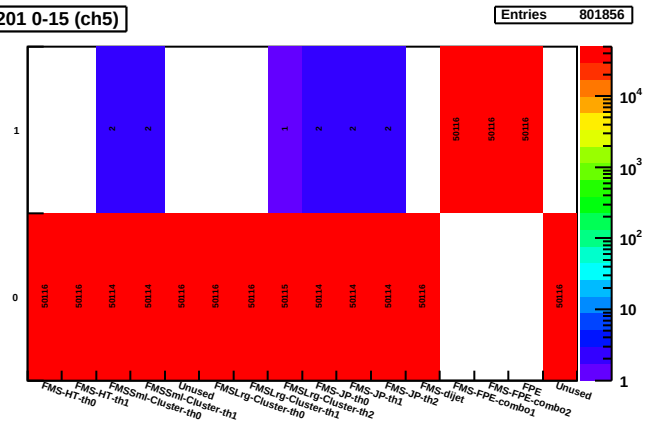
RAT board (ch4)





FP201 0-15 (ch5)



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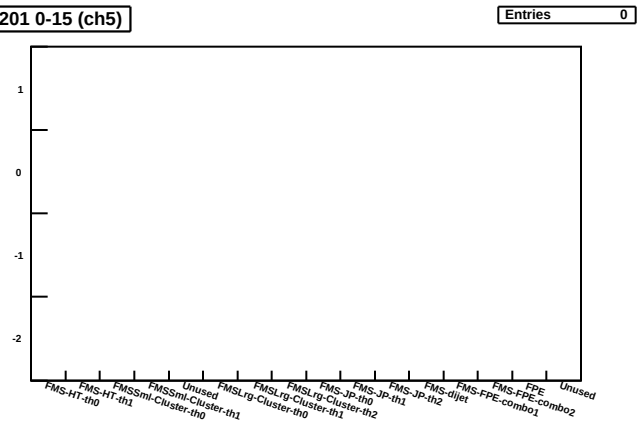
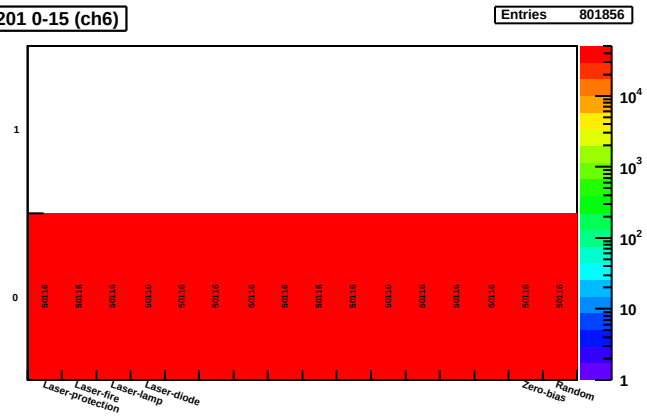
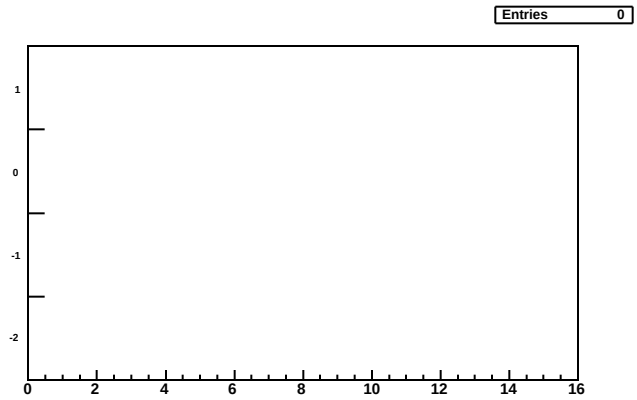
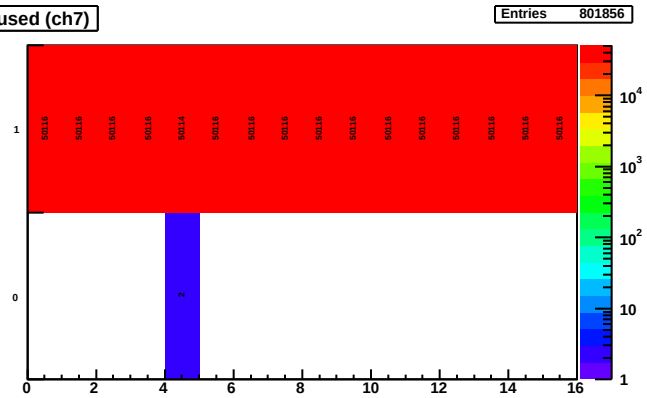
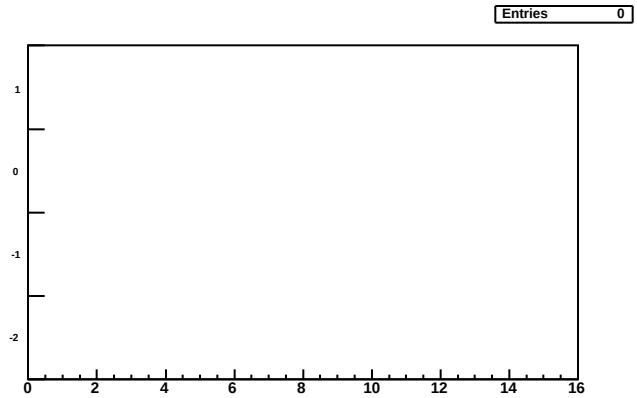


ST201 0-15 (ch6)





Unused (ch7)