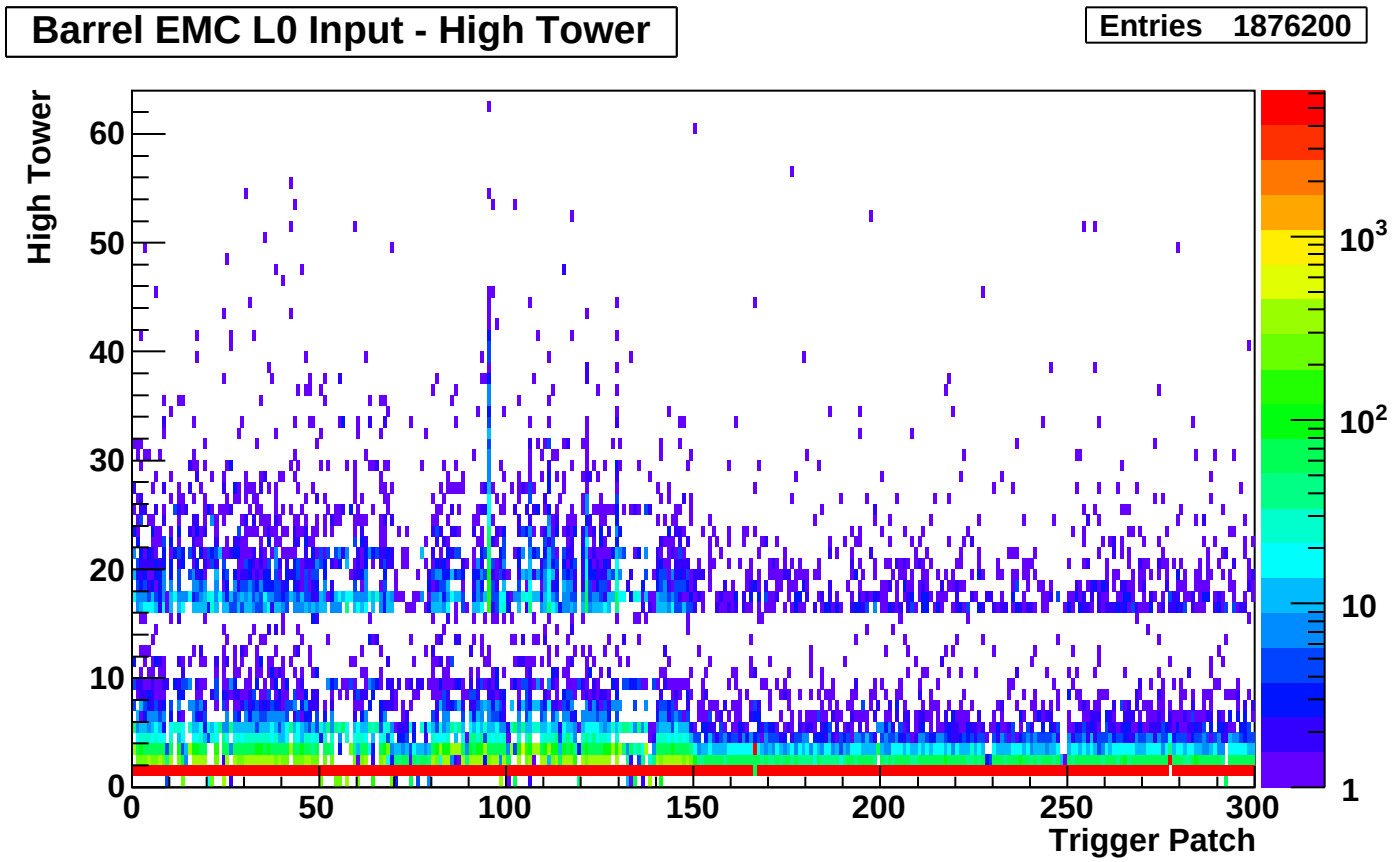
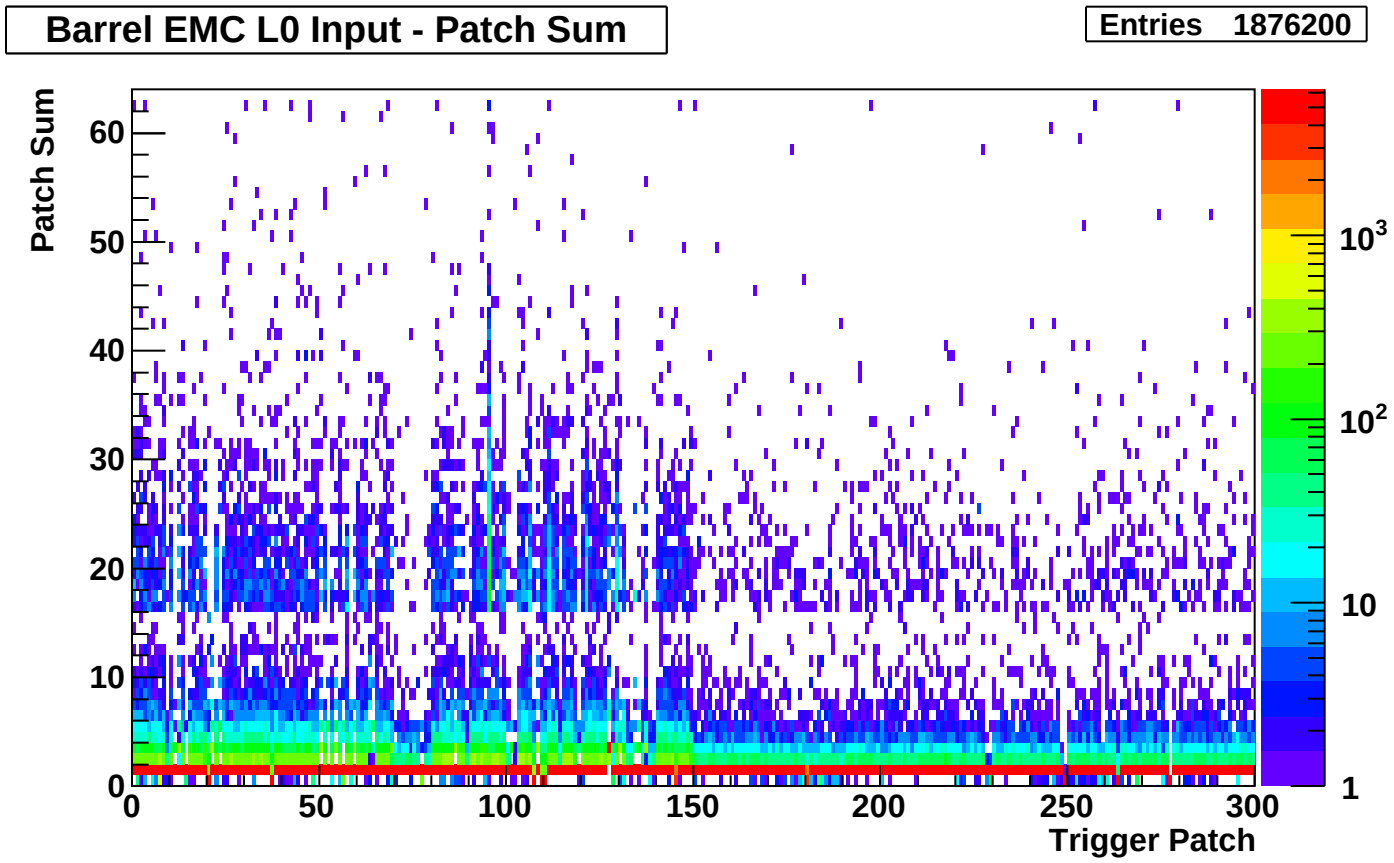
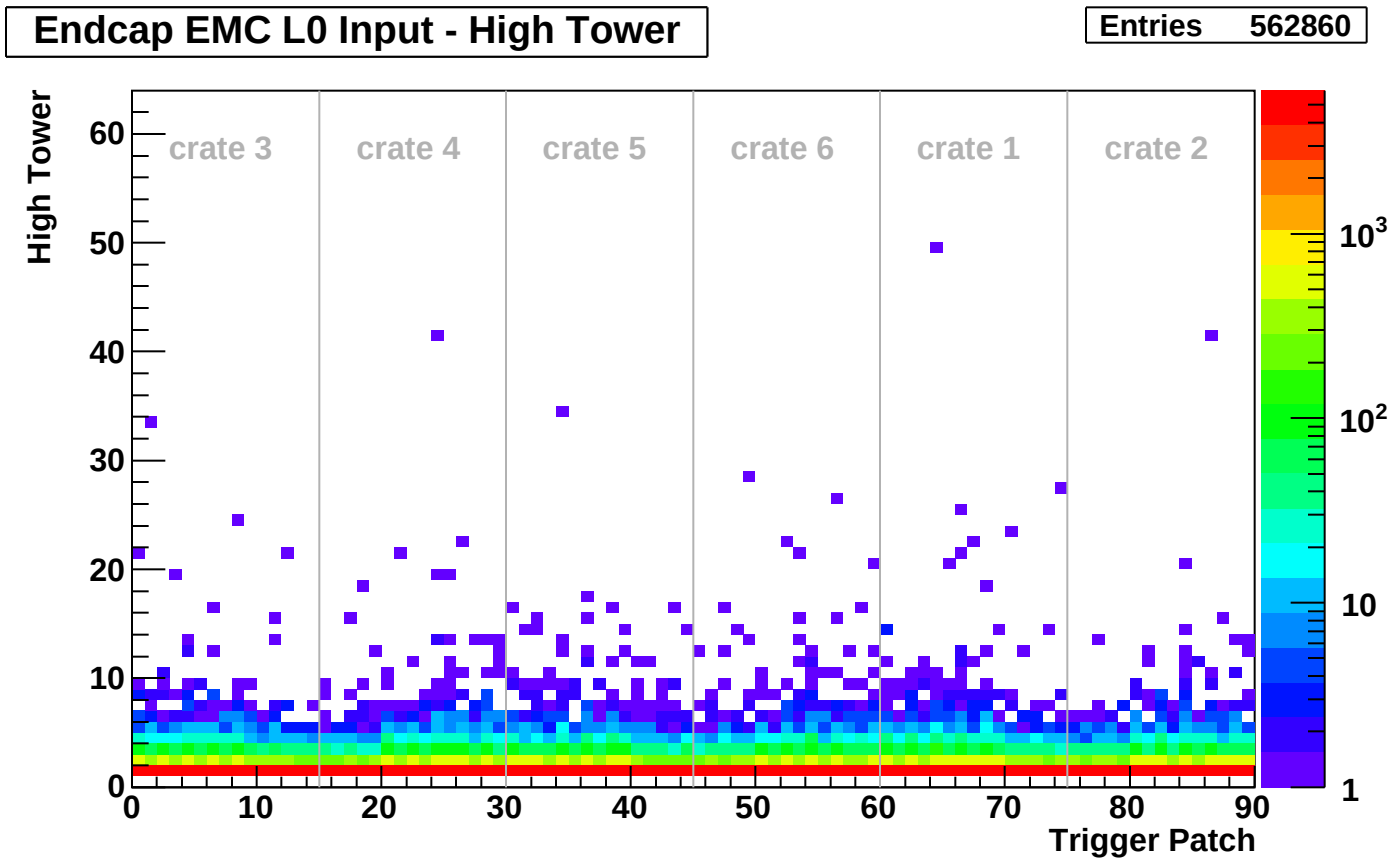
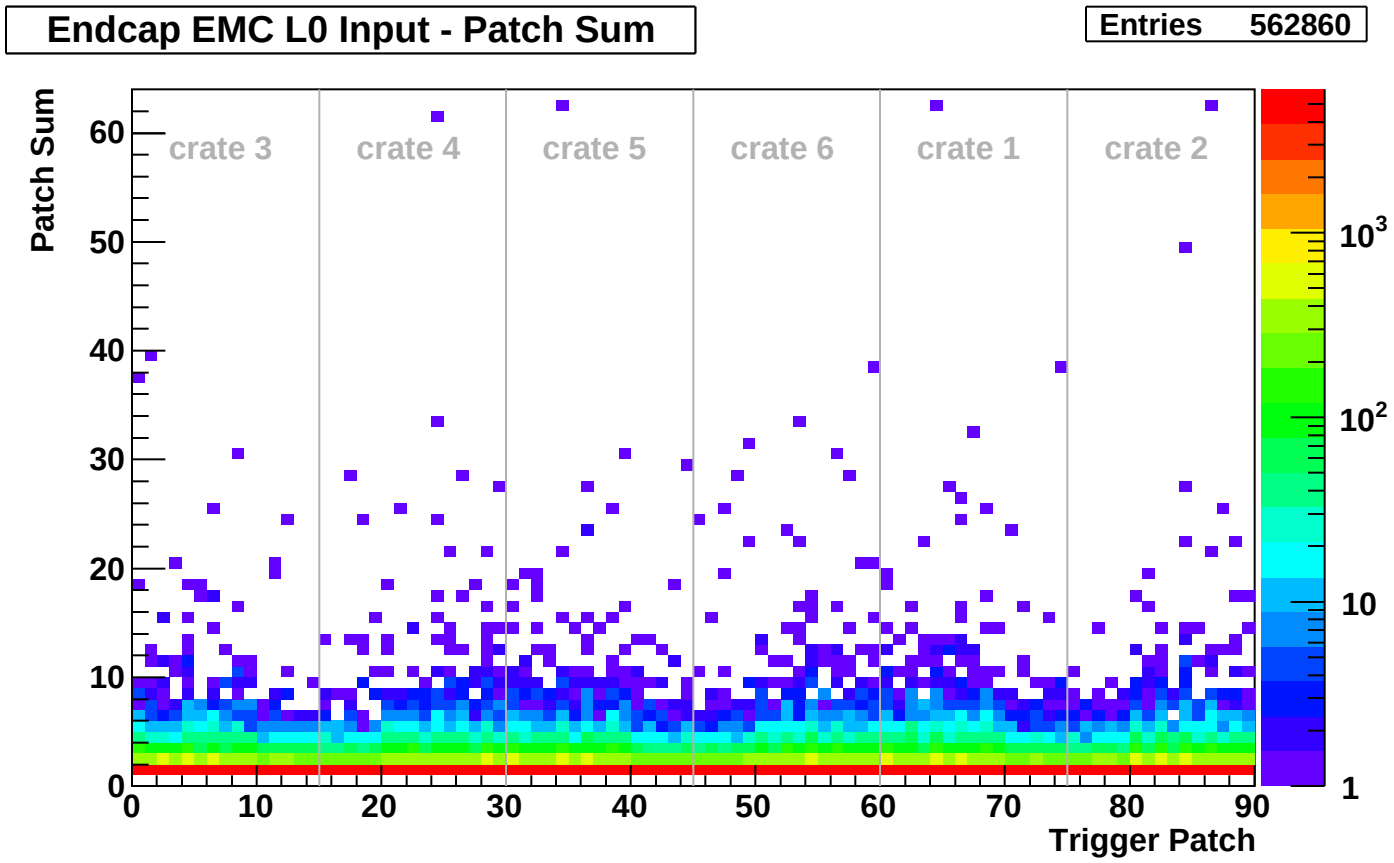
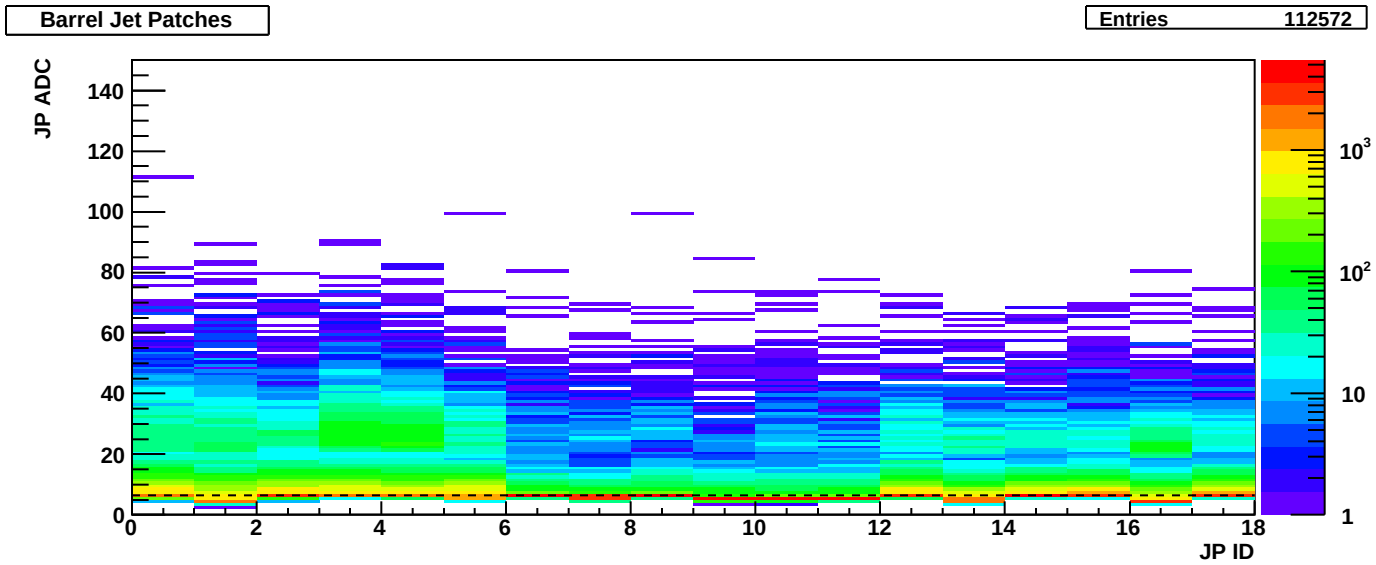
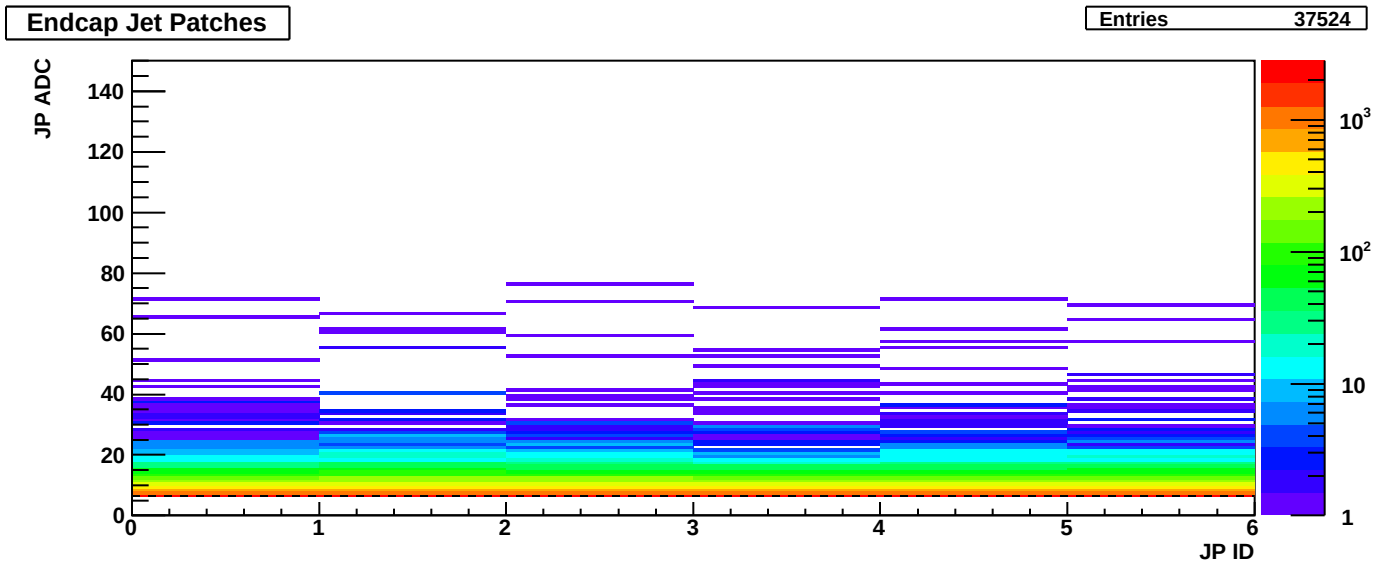

Barrel EMC L0 Input - High Tower
Entries 1876200
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

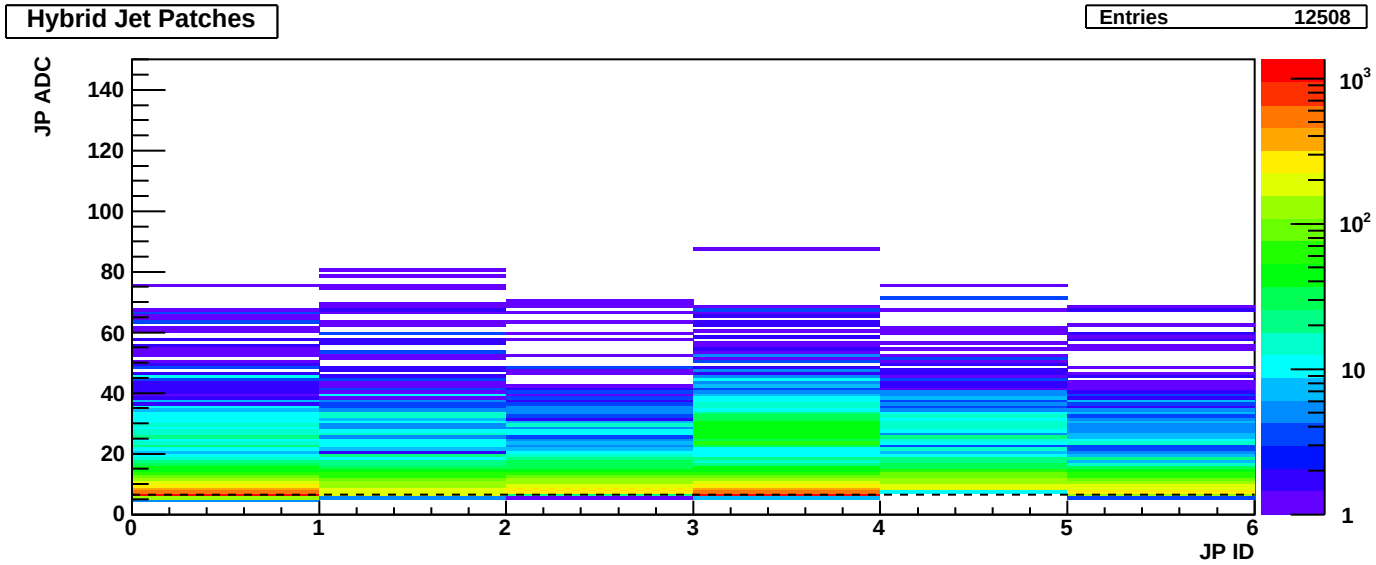

Barrel EMC L0 Input - Patch Sum
Entries 1876200
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

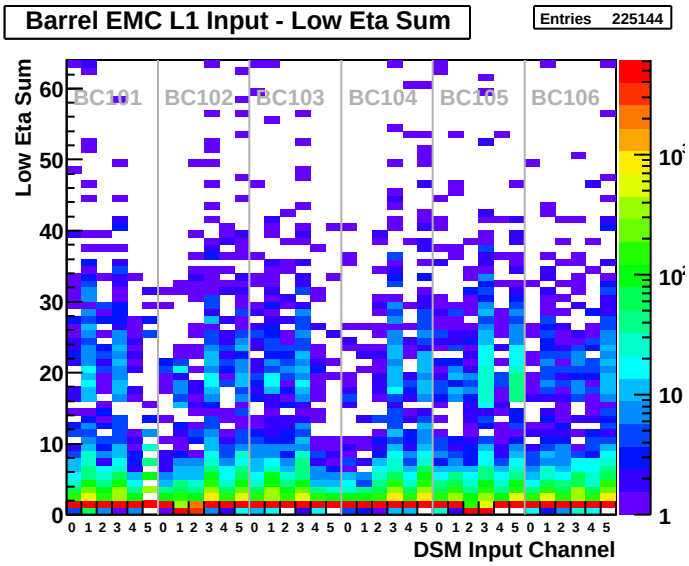

Endcap EMC L0 Input - High Tower
Entries 562860
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

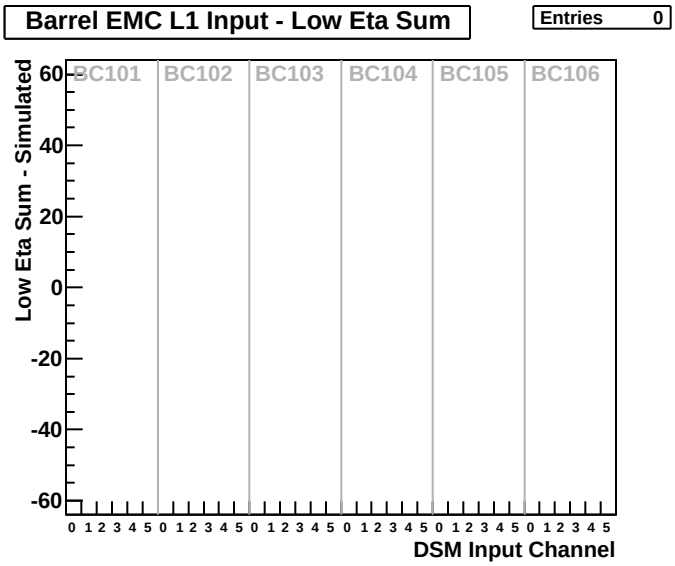

Endcap EMC L0 Input - Patch Sum
Entries 562860
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

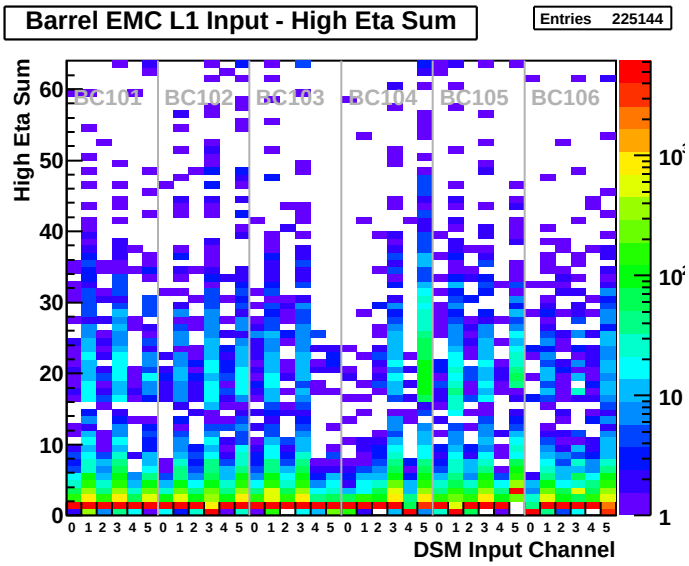

Barrel Jet Patches
Entries 112572
JP ADC
JP ID

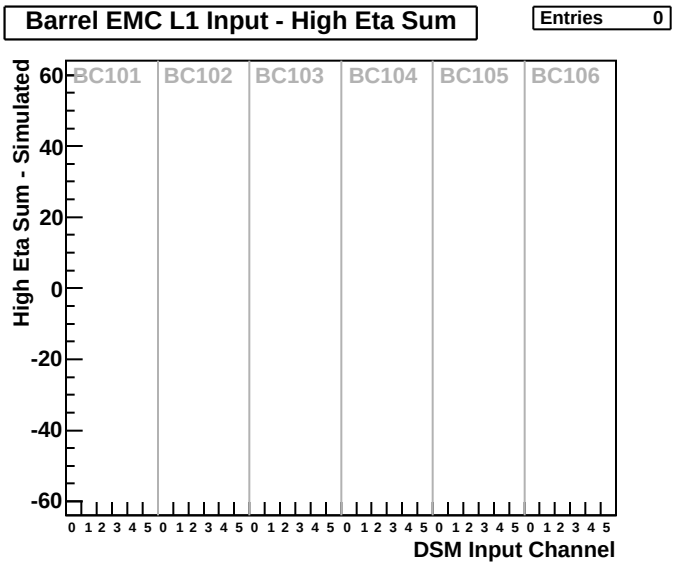

Endcap Jet Patches
Entries 37524
JP ADC
JP ID

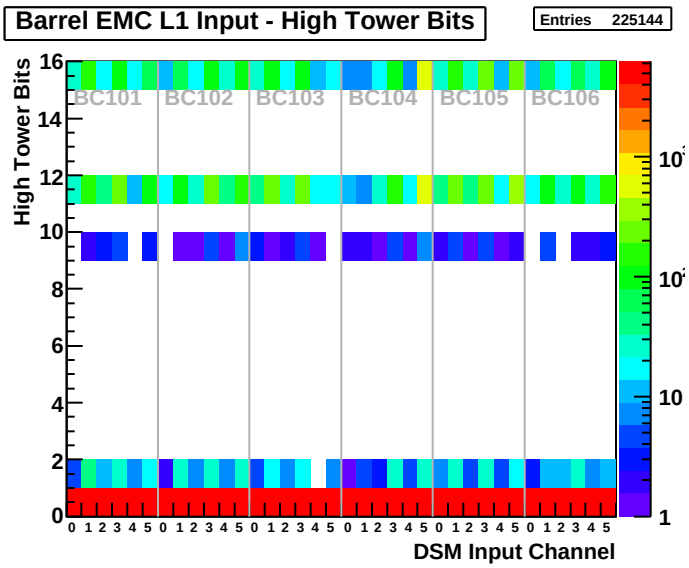

Hybrid Jet Patches
Entries 12508
JP ADC
JP ID

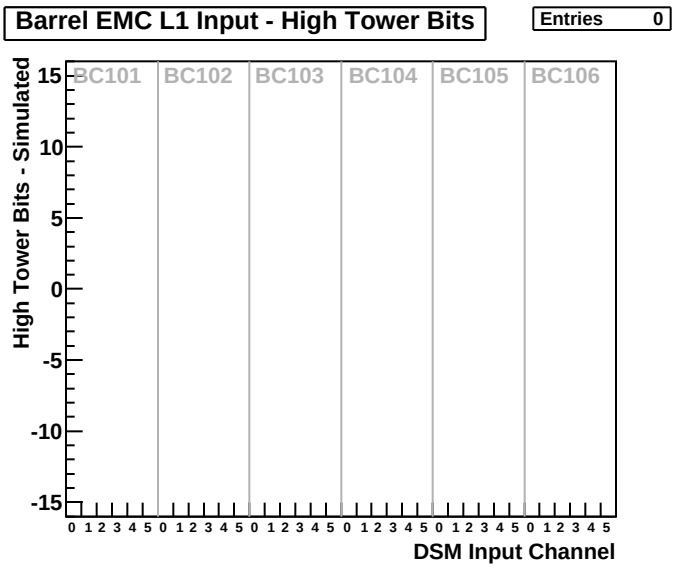

Barrel EMC L1 Input - Low Eta Sum
Entries 225144
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

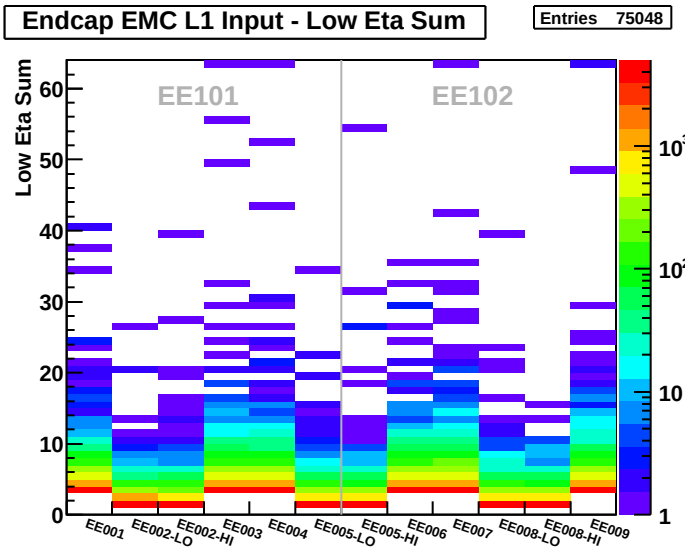

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

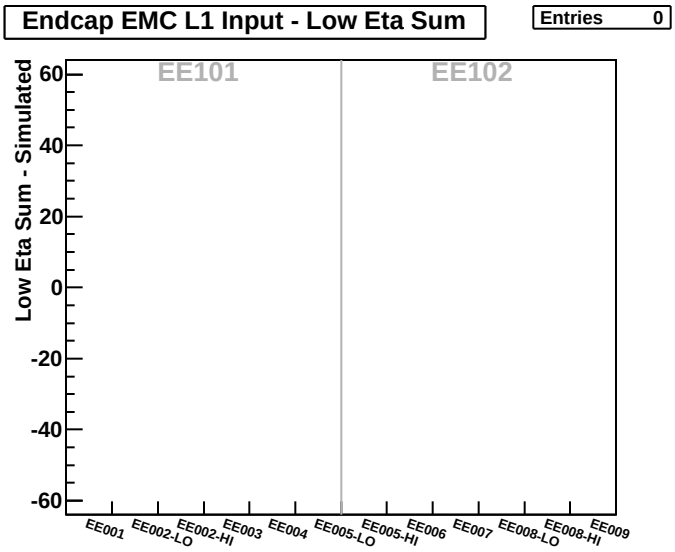

Barrel EMC L1 Input - High Eta Sum
Entries 225144
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

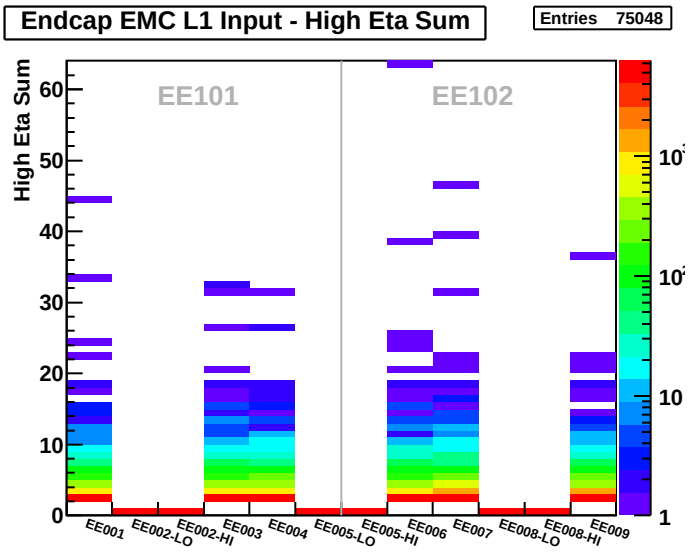

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

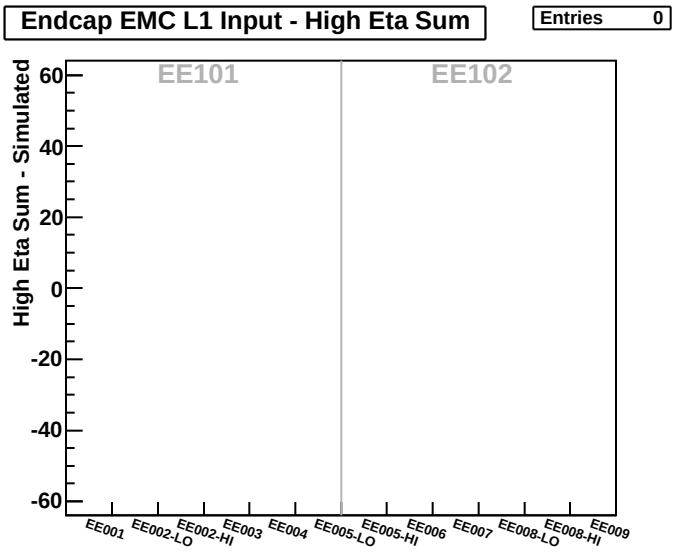

Barrel EMC L1 Input - High Tower Bits
Entries 225144
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

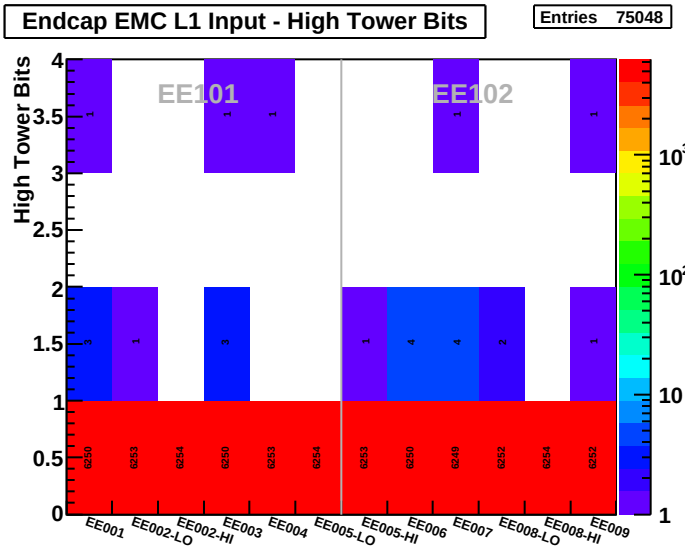

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

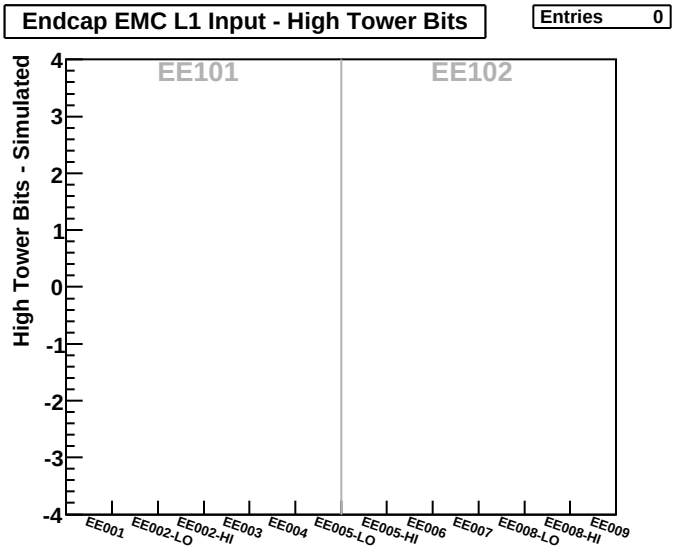

Endcap EMC L1 Input - Low Eta Sum
Entries 75048
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

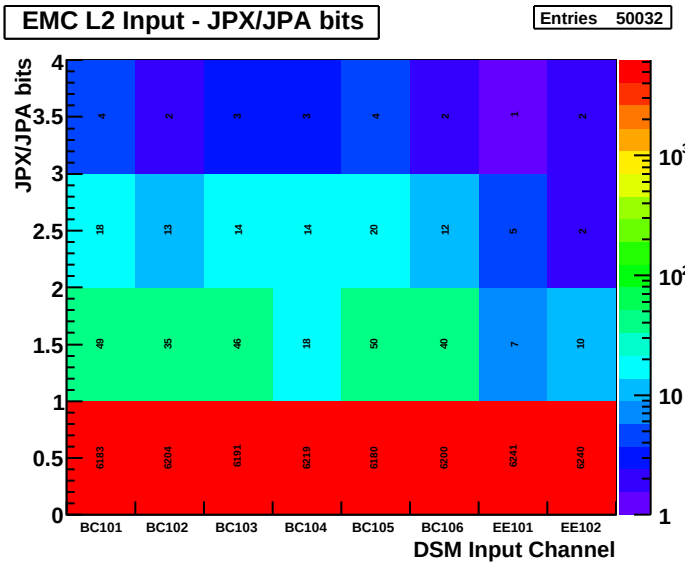

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

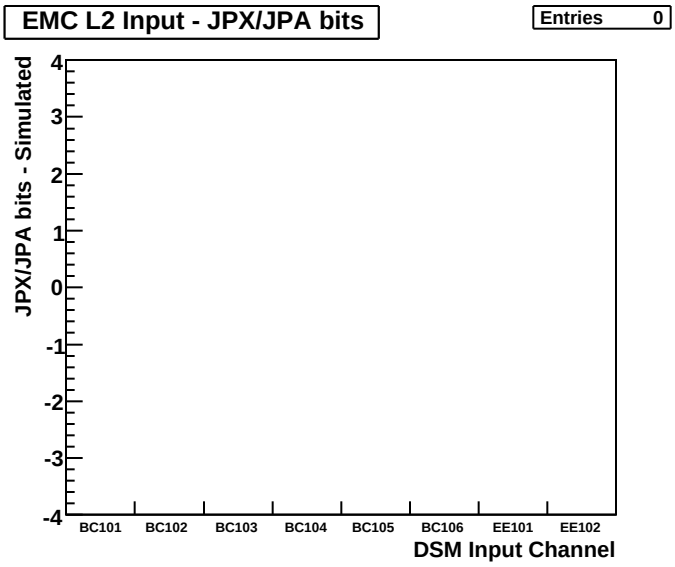

Endcap EMC L1 Input - High Eta Sum
Entries 75048
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

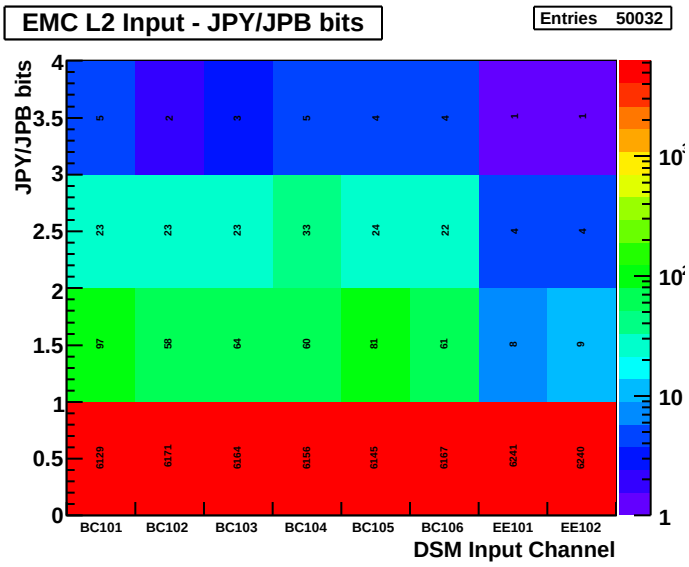

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

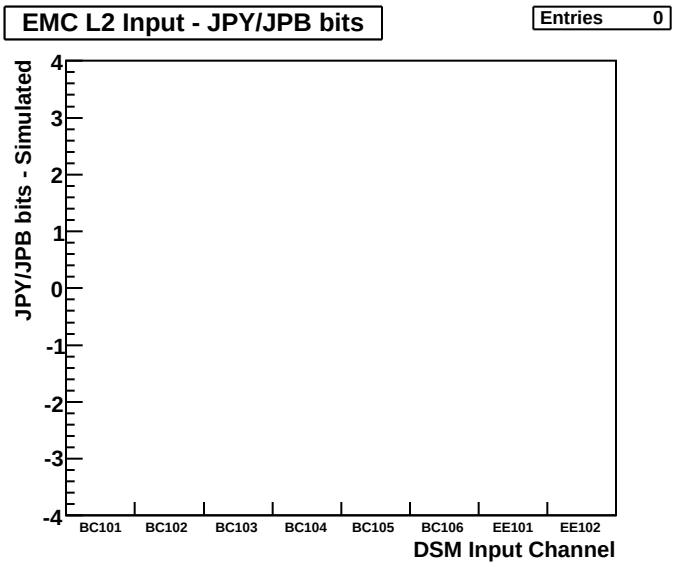

Endcap EMC L1 Input - High Tower Bits
Entries 75048
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

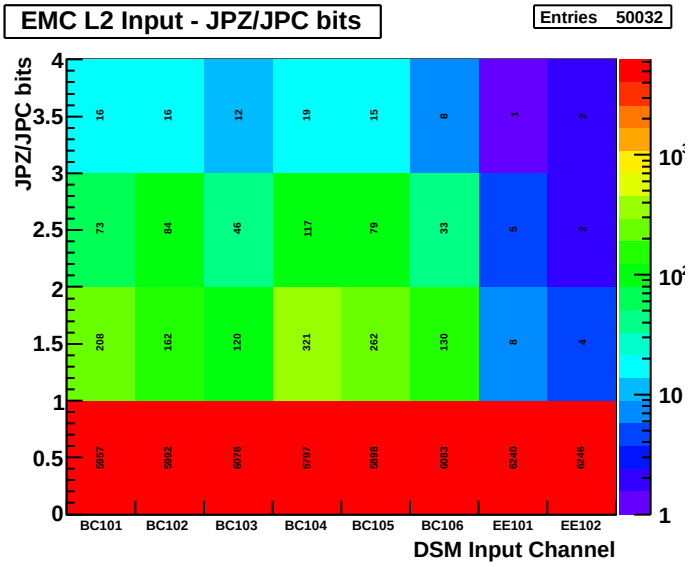

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

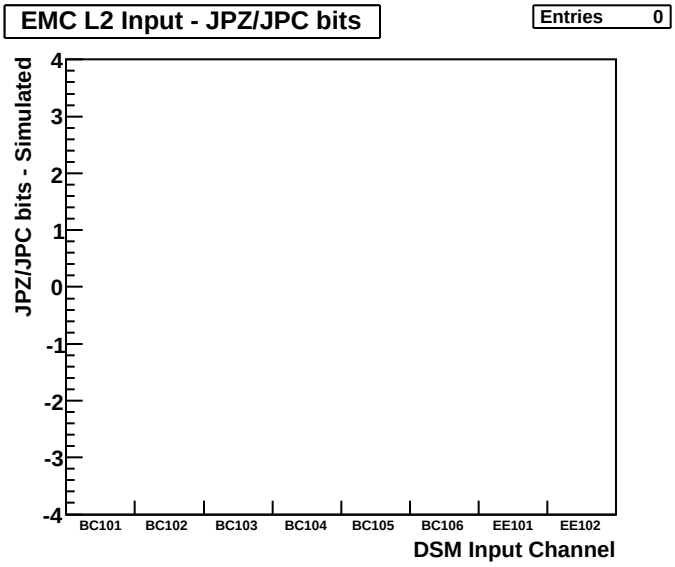

EMC L2 Input - JPX/JPA bits
Entries 50032
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4 2 3 3 4 2 1 2
18 13 14 14 20 12 5 2
49 35 46 18 50 40 7 10
6183 6204 6191 6219 6180 6200 6241 6240

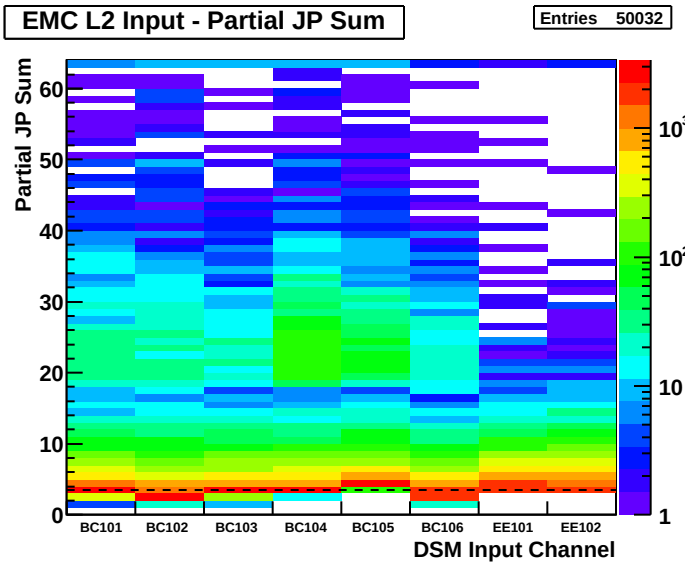

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

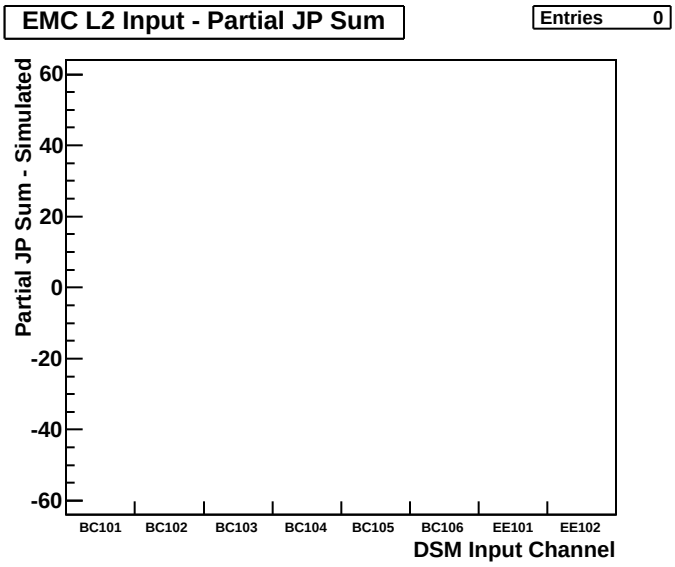

EMC L2 Input - JPY/JPB bits
Entries 50032
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
5 2 3 5 4 4 1 1
23 23 23 33 24 22 4 4
97 58 64 60 81 61 8 9
6129 6171 6164 6156 6145 6167 6241 6240

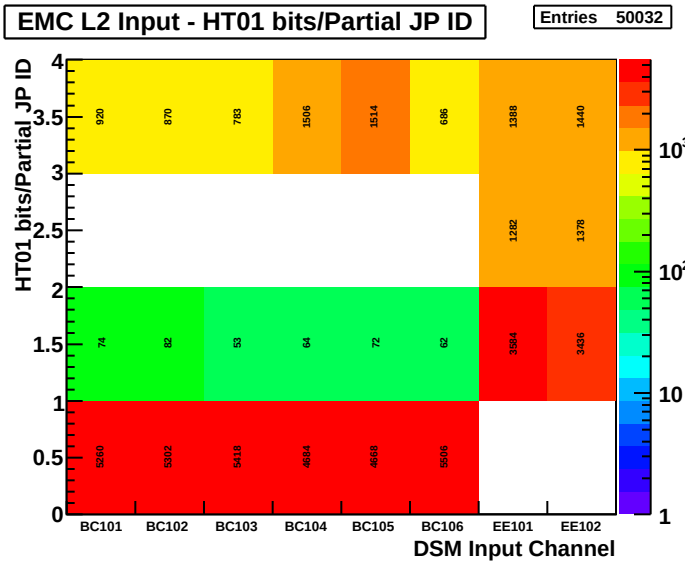

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

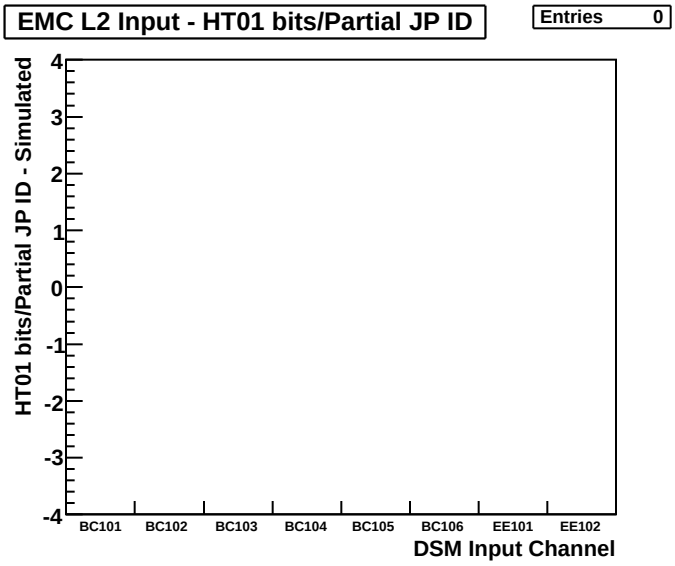

EMC L2 Input - JPZ/JPC bits
Entries 50032
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
16 16 12 19 15 8 1 2
73 84 46 117 79 33 5 2
208 162 120 321 262 130 8 4
5957 5932 6076 5707 5898 6083 6240 6246

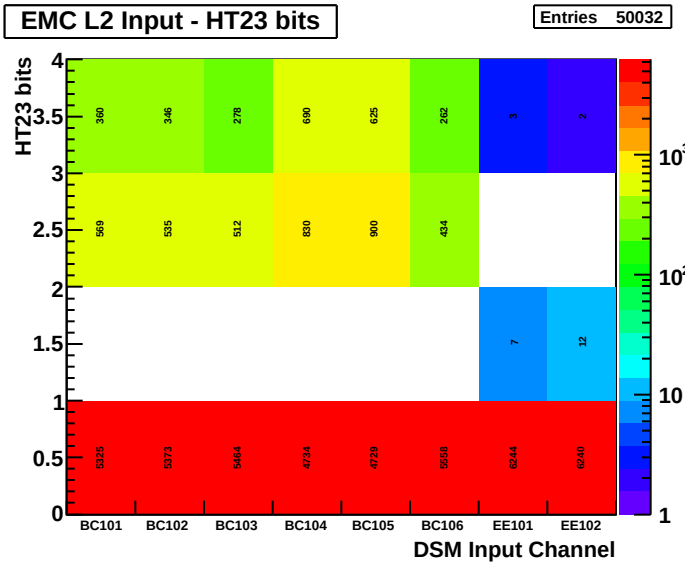

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

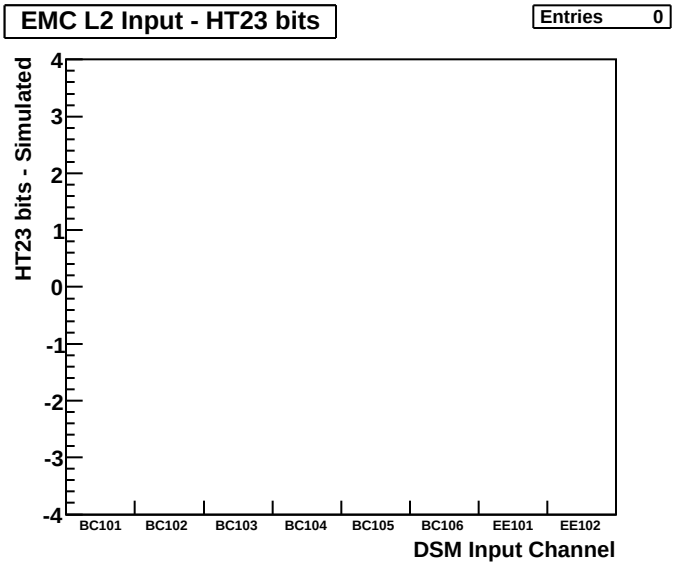

EMC L2 Input - Partial JP Sum
Entries 50032
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

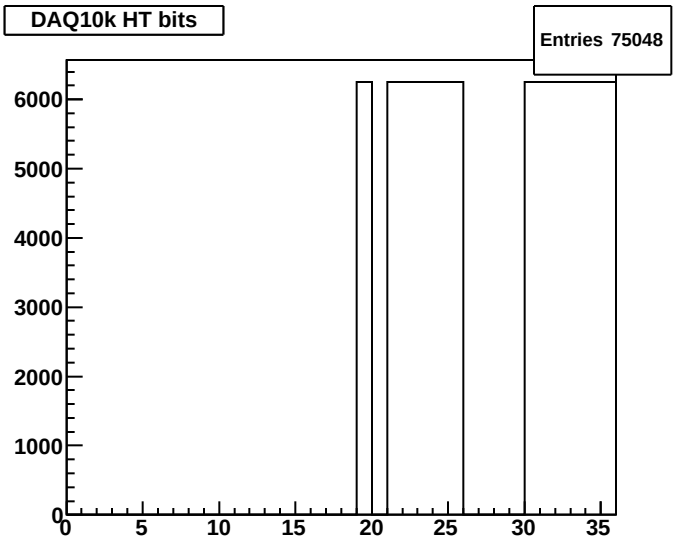

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

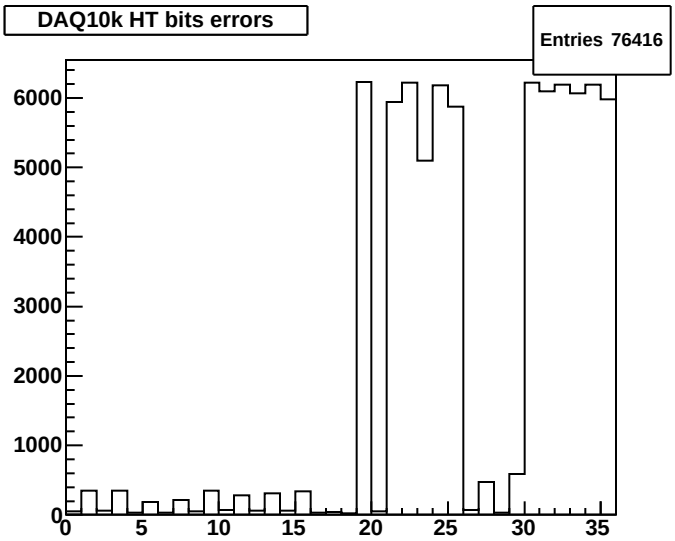

EMC L2 Input - HT01 bits/Partial JP ID
Entries 50032
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

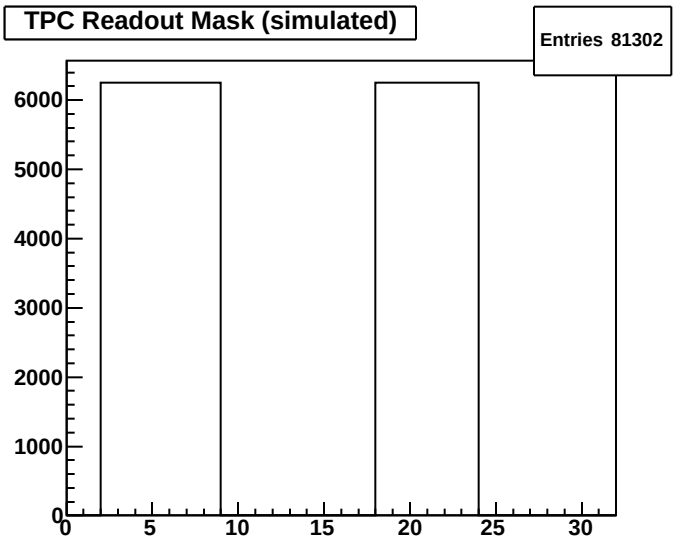

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

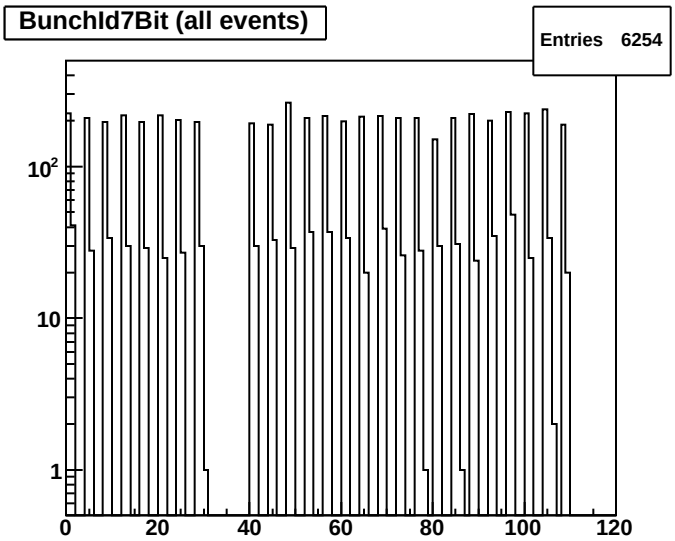

EMC L2 Input - HT23 bits
Entries 50032
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

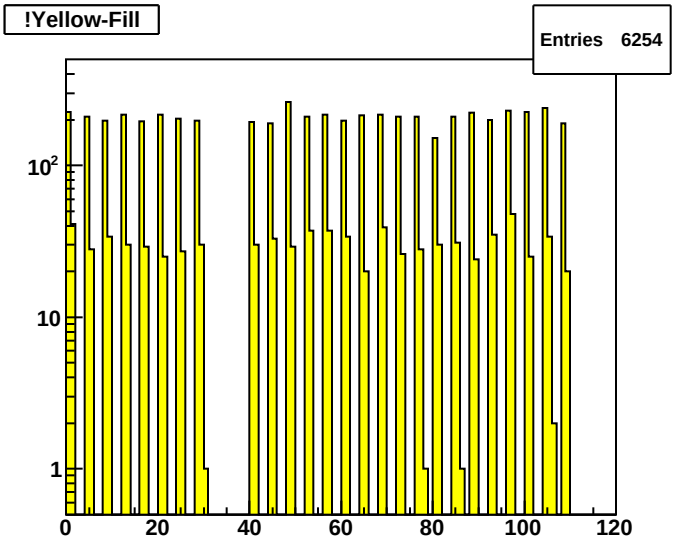

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

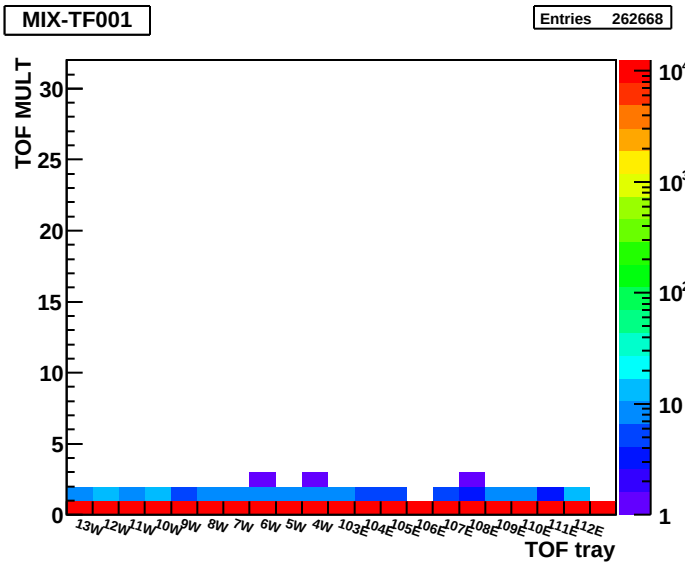

DAQ10k HT bits
Entries 75048
6000
5000
4000
3000
2000
1000
0
0 5 10 15 20 25 30 35

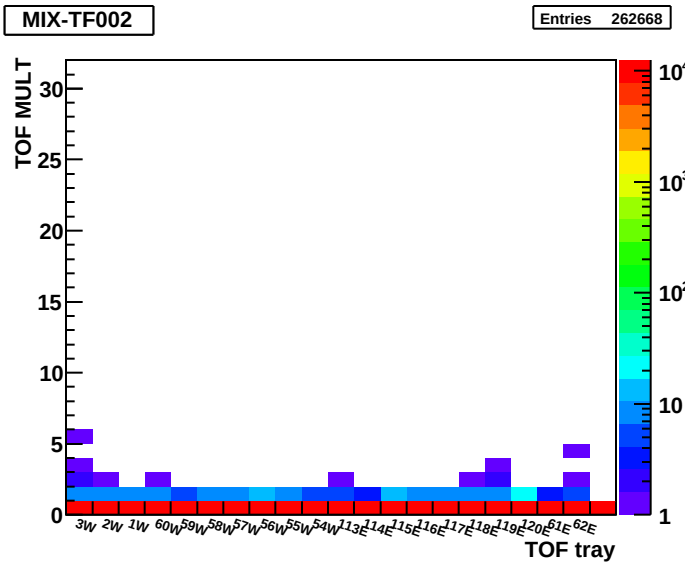

DAQ10k HT bits errors
Entries 76416
6000
5000
4000
3000
2000
1000
0
0 5 10 15 20 25 30 35

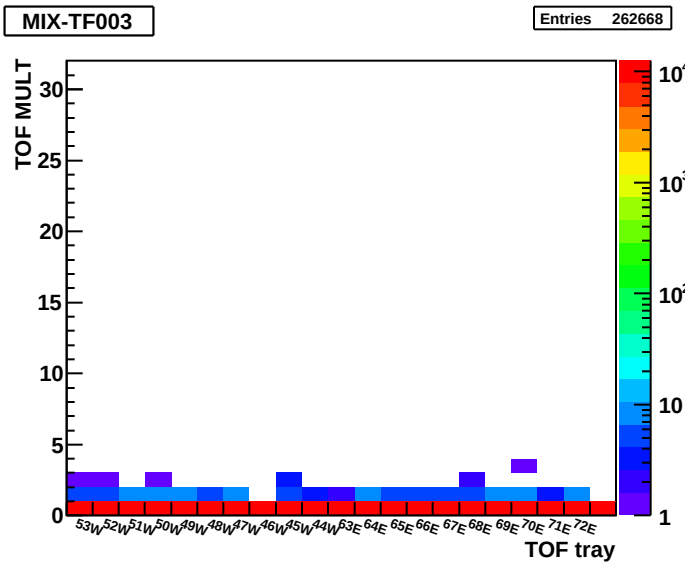

TPC Readout Mask (simulated)
Entries 81302
6000
5000
4000
3000
2000
1000
0
0 5 10 15 20 25 30

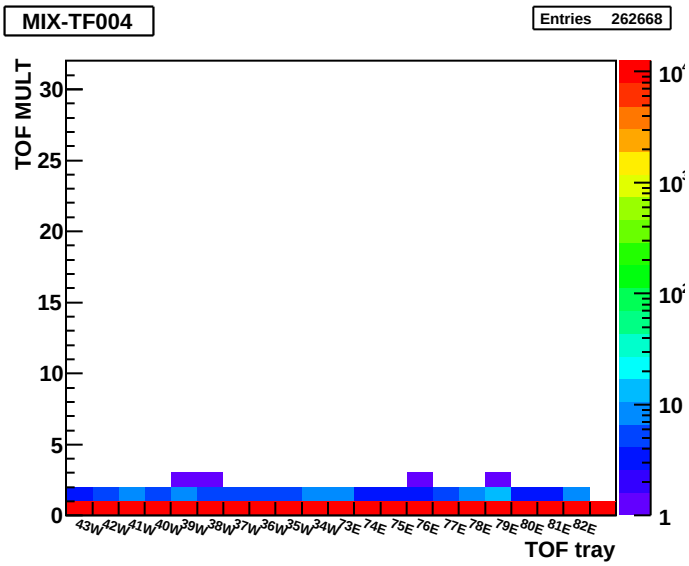

BunchId7Bit (all events)
Entries 6254
10^2
10
1
0 20 40 60 80 100 120

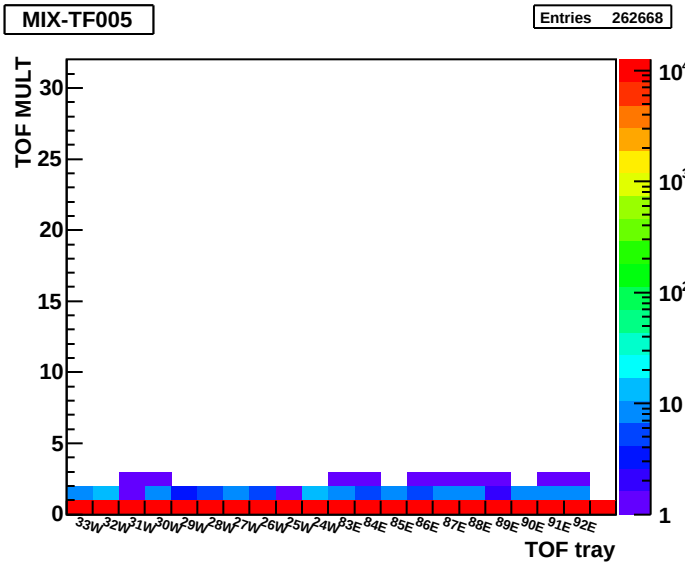

!Yellow-Fill
Entries 6254
10^2
10
1
0 20 40 60 80 100 120

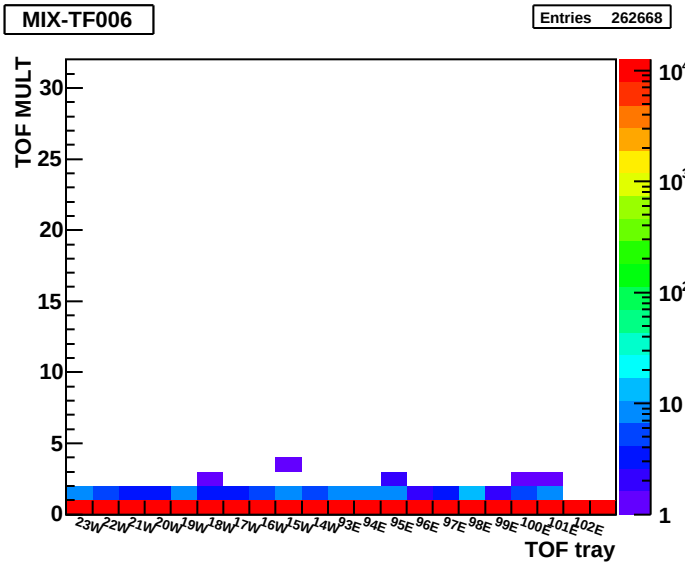

MIX-TF001
Entries 262668
TOF MULT
TOF tray

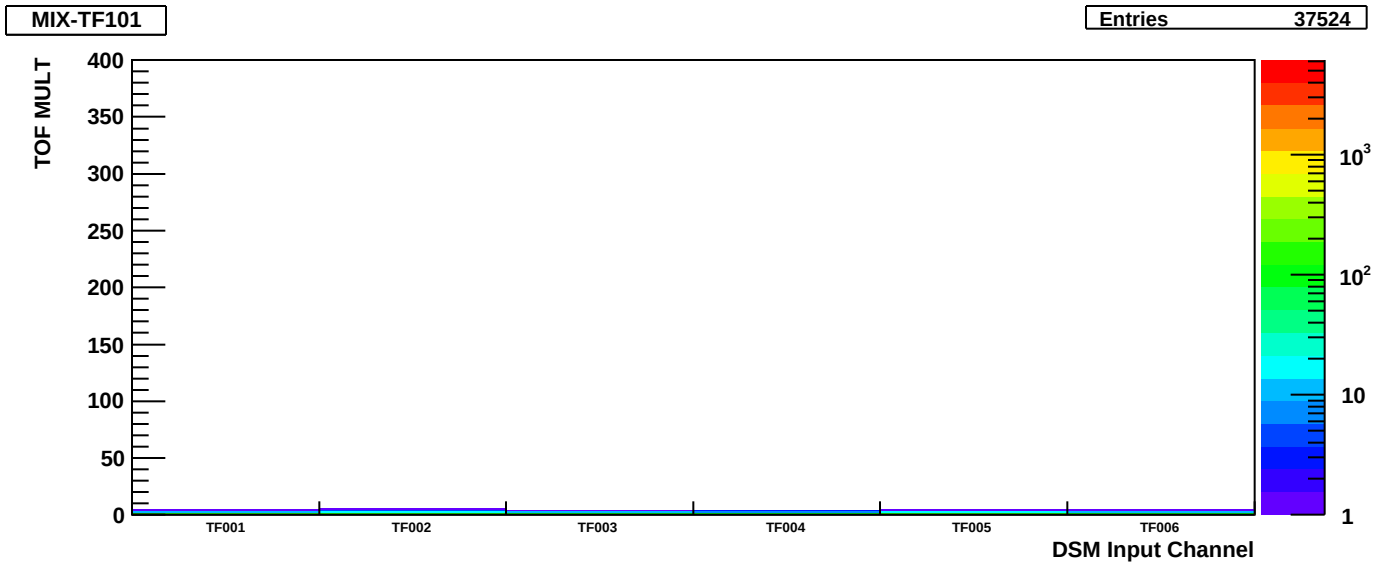

MIX-TF002
Entries 262668
TOF MULT
TOF tray

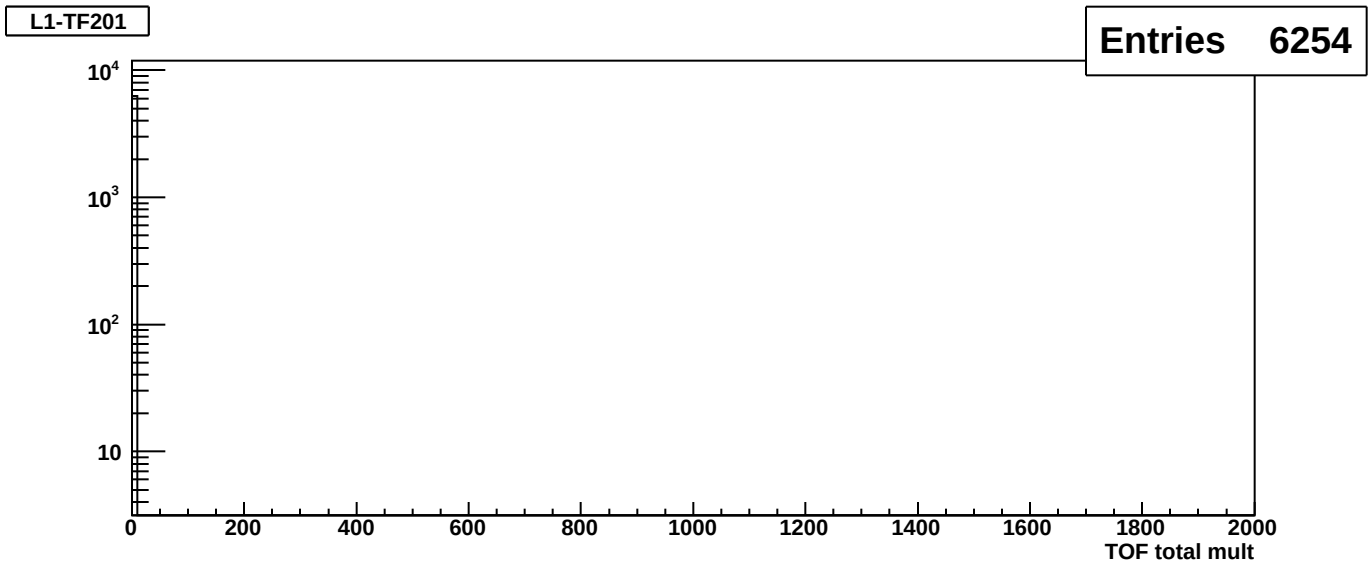

MIX-TF003
Entries 262668
TOF MULT
TOF tray

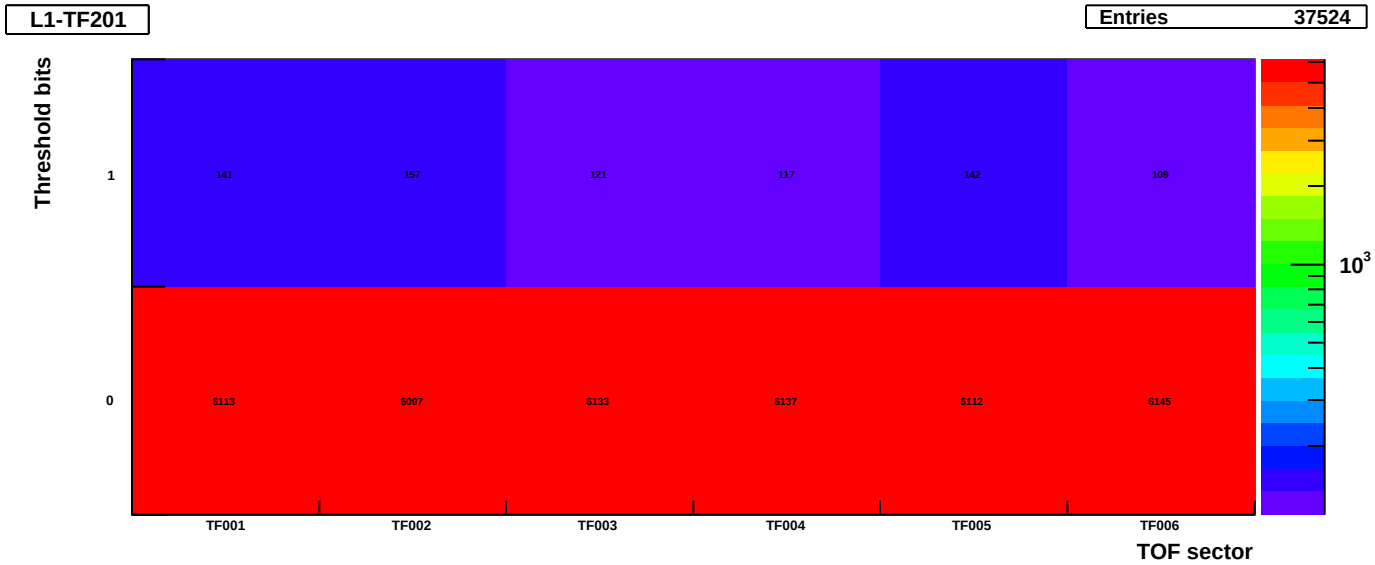

MIX-TF004
Entries 262668
TOF MULT
TOF tray

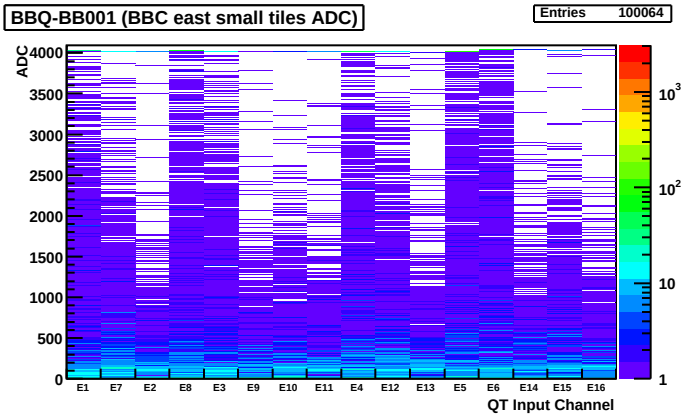

MIX-TF005
Entries 262668
TOF MULT
TOF tray

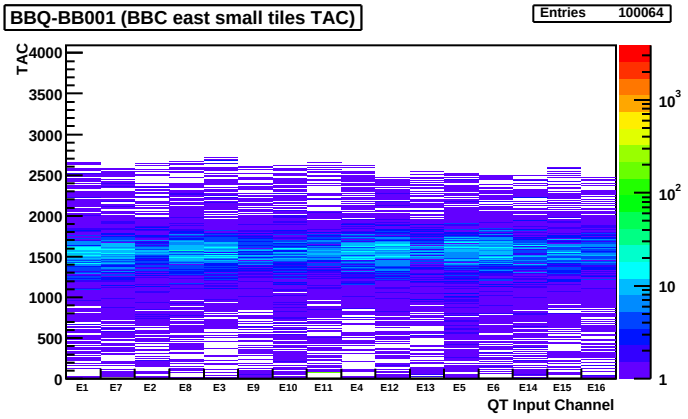

MIX-TF006
Entries 262668
TOF MULT
TOF tray

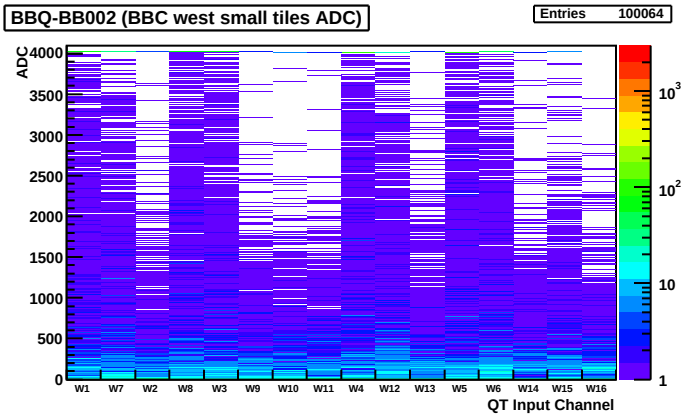

MIX-TF101
Entries 37524
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^3
10^2
10
1

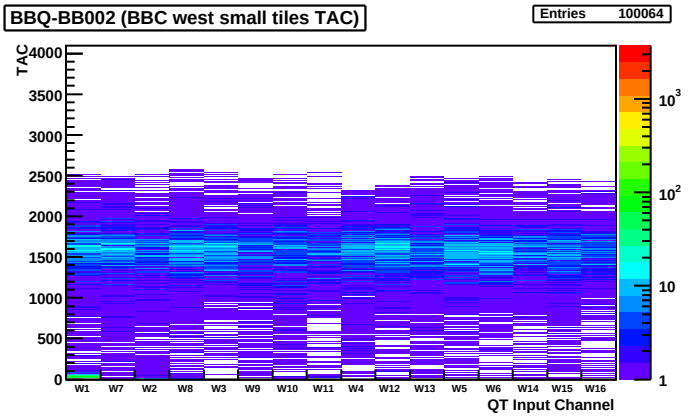

L1-TF201
Entries 6254
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

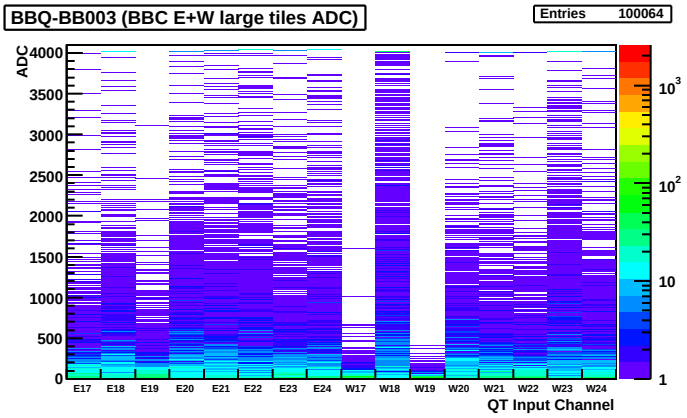

L1-TF201
Entries 37524
Threshold bits
1
0
141
157
121
117
142
109
6113
6097
6133
6137
6112
6145
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^3

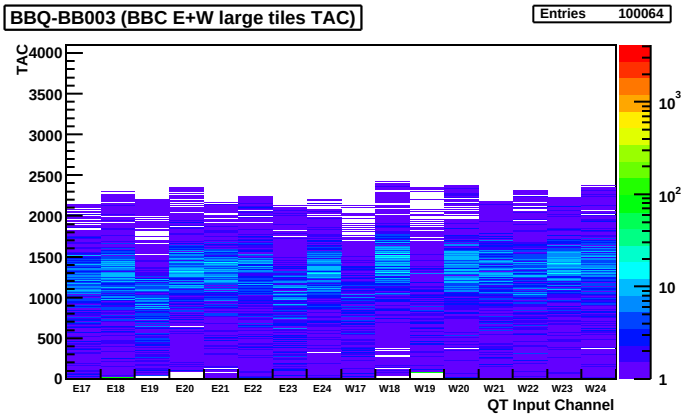

BBQ-BB001 (BBC east small tiles ADC)
Entries 100064
ADC
QT Input Channel

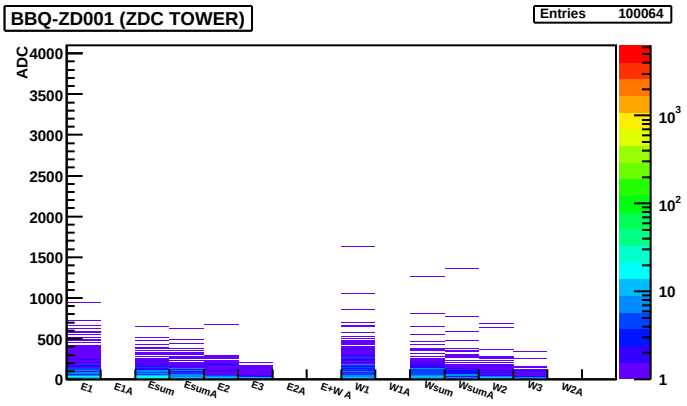

BBQ-BB001 (BBC east small tiles TAC)
Entries 100064
TAC
QT Input Channel

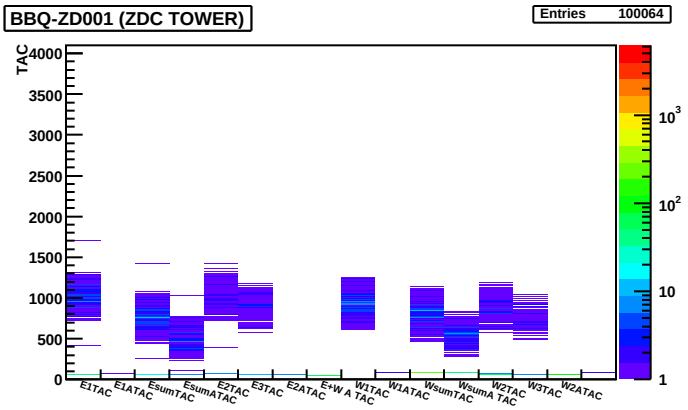

BBQ-BB002 (BBC west small tiles ADC)
Entries 100064
ADC
QT Input Channel

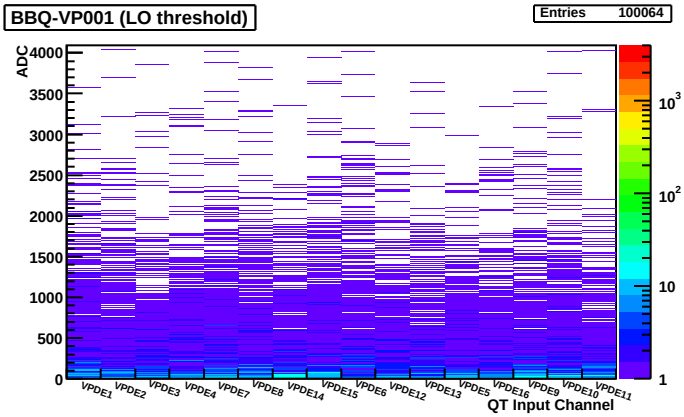

BBQ-BB002 (BBC west small tiles TAC)
Entries 100064
TAC
QT Input Channel

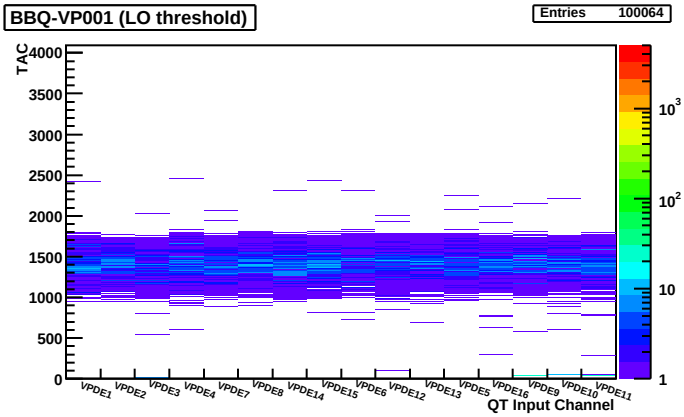

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 100064
ADC
QT Input Channel

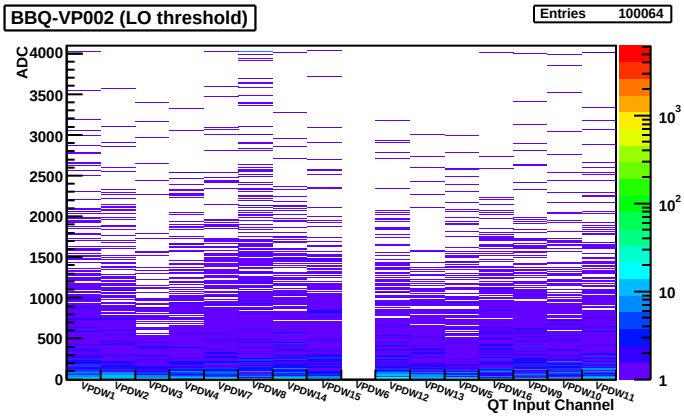

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 100064
TAC
QT Input Channel

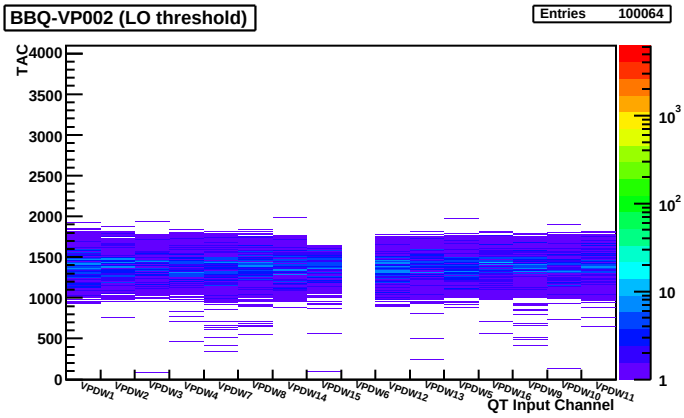

BBQ-ZD001 (ZDC TOWER)
Entries 100064
ADC

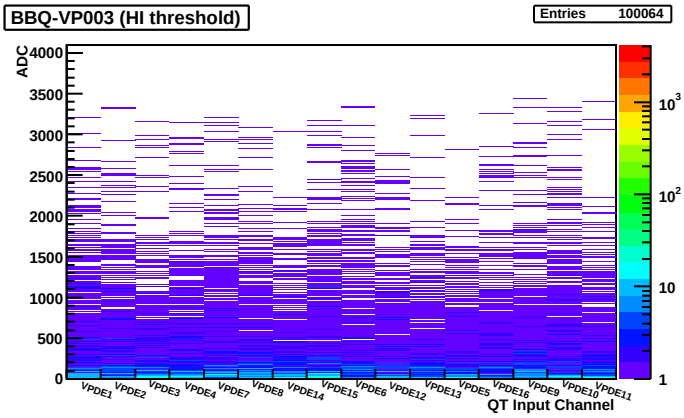

BBQ-ZD001 (ZDC TOWER)
Entries 100064
TAC

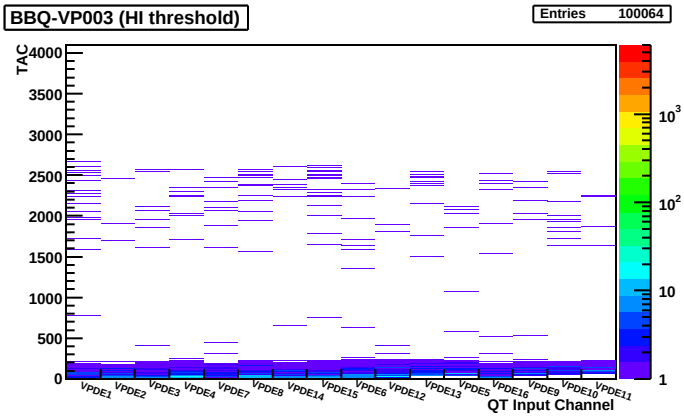

BBQ-VP001 (LO threshold)
Entries 100064
ADC
QT Input Channel

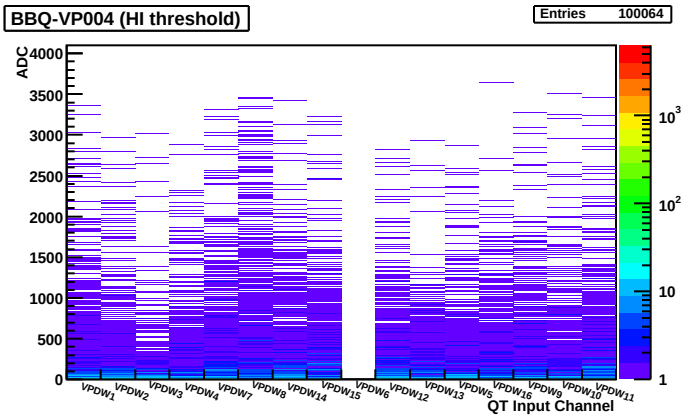

BBQ-VP001 (LO threshold)
Entries 100064
TAC
QT Input Channel

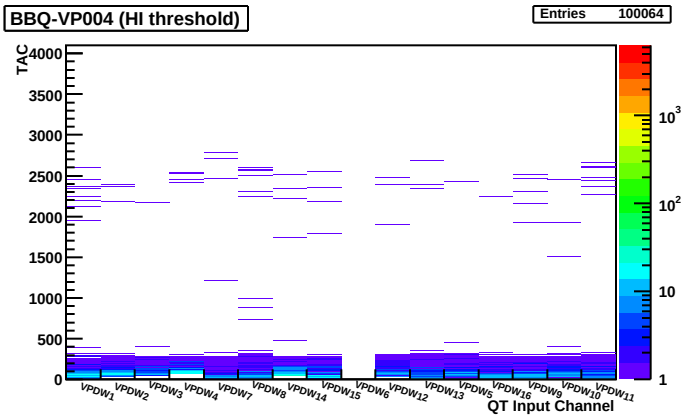

BBQ-VP002 (LO threshold)
Entries 100064
ADC
QT Input Channel

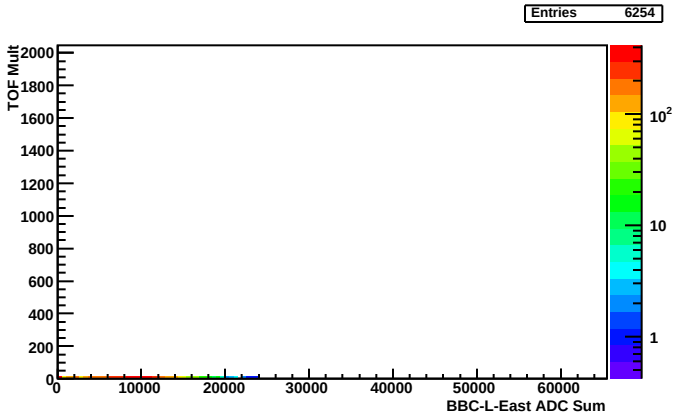

BBQ-VP002 (LO threshold)
Entries 100064
TAC
QT Input Channel

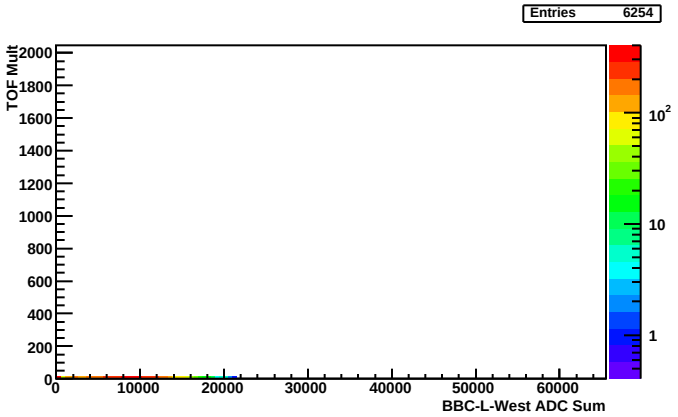

BBQ-VP003 (HI threshold)
Entries 100064
ADC
QT Input Channel

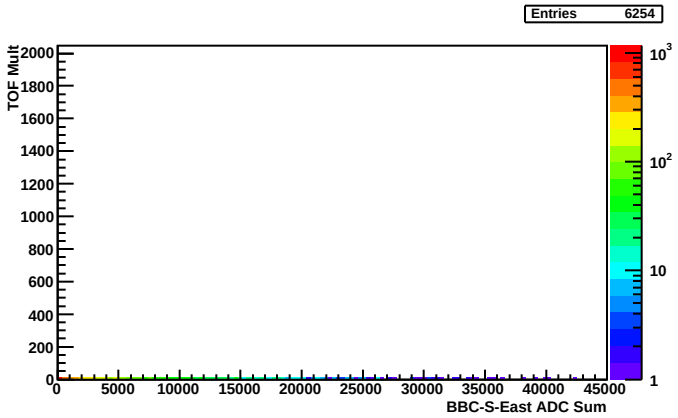

BBQ-VP003 (HI threshold)
Entries 100064
TAC
QT Input Channel

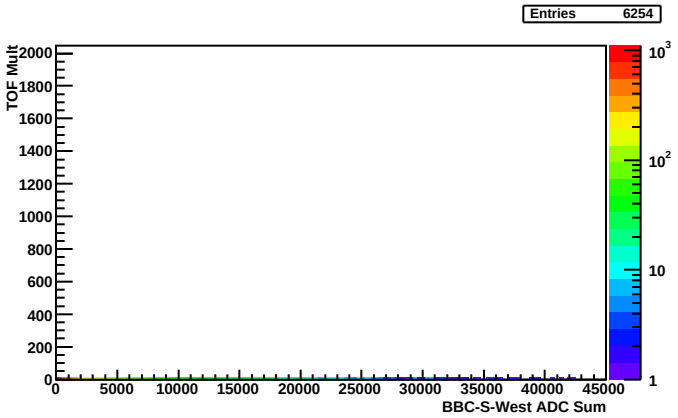

BBQ-VP004 (HI threshold)
Entries 100064
ADC
QT Input Channel

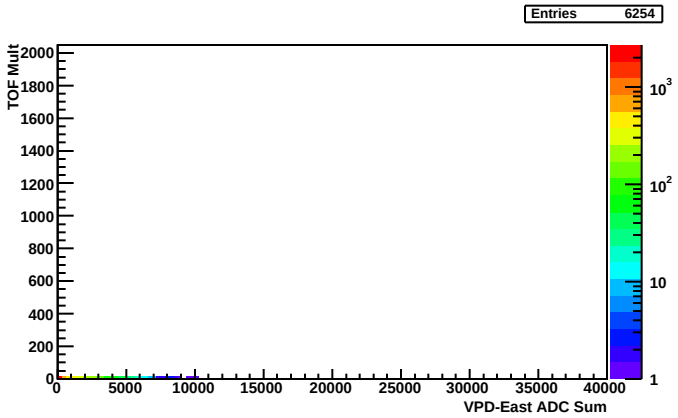

BBQ-VP004 (HI threshold)
Entries 100064
TAC
QT Input Channel

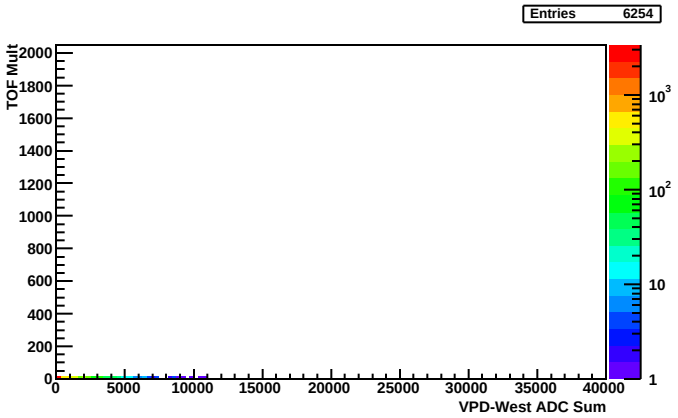

Entries 6254
TOF Mult
BBC-L-East ADC Sum

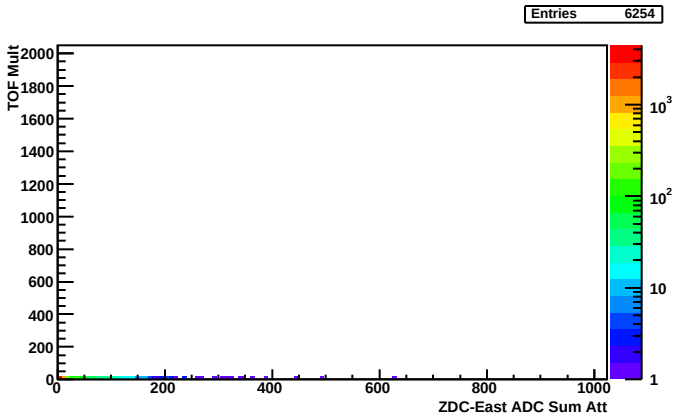

Entries 6254
TOF Mult
BBC-L-West ADC Sum

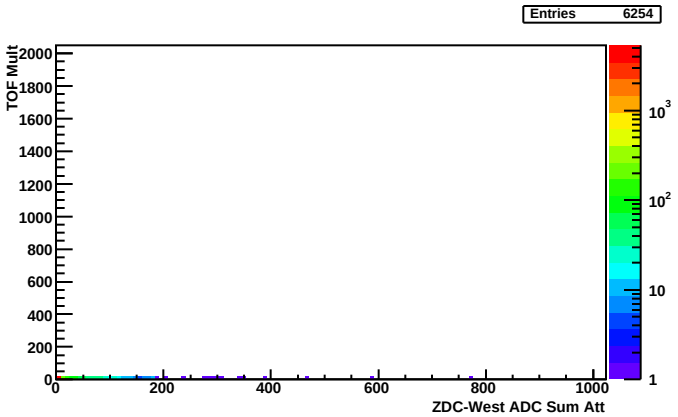

Entries 6254
TOF Mult
BBC-S-East ADC Sum

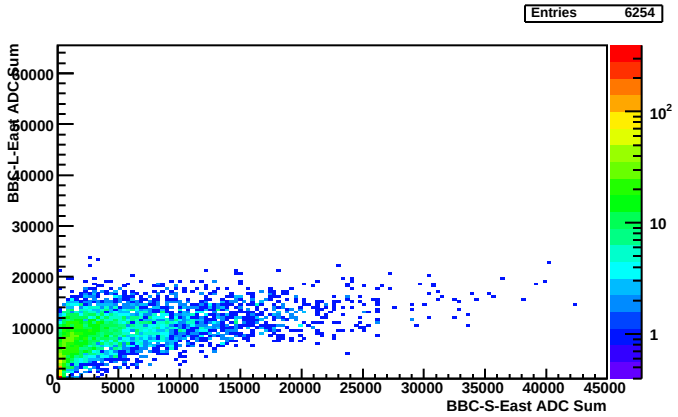

Entries 6254
TOF Mult
BBC-S-West ADC Sum

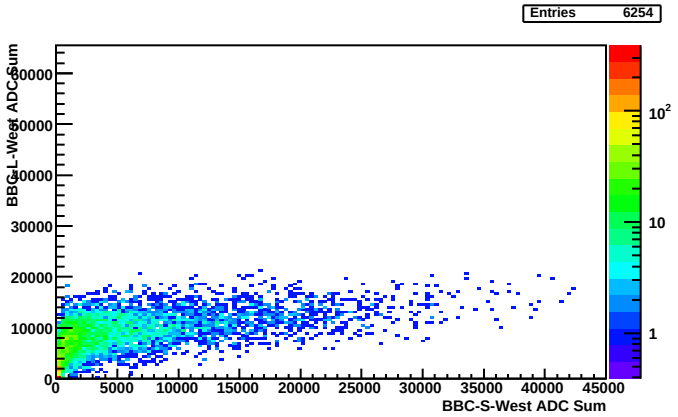

Entries 6254
TOF Mult
VPD-East ADC Sum

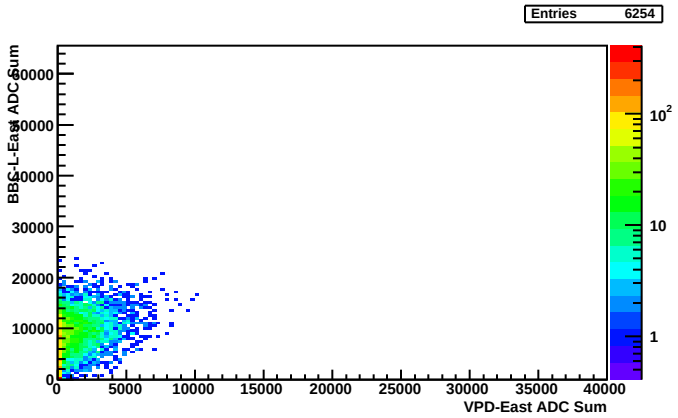

Entries 6254
TOF Mult
VPD-West ADC Sum

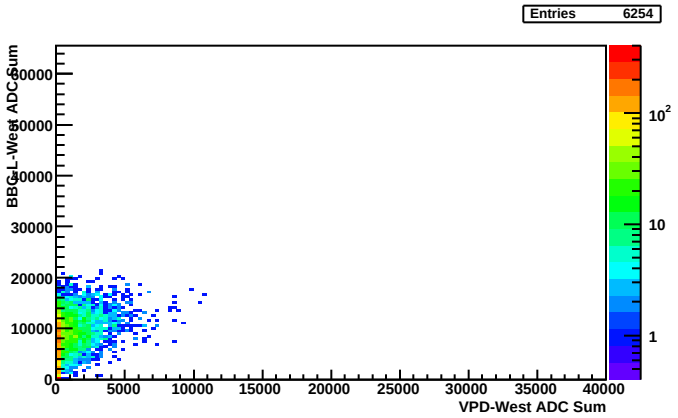

Entries 6254
TOF Mult
ZDC-East ADC Sum Att

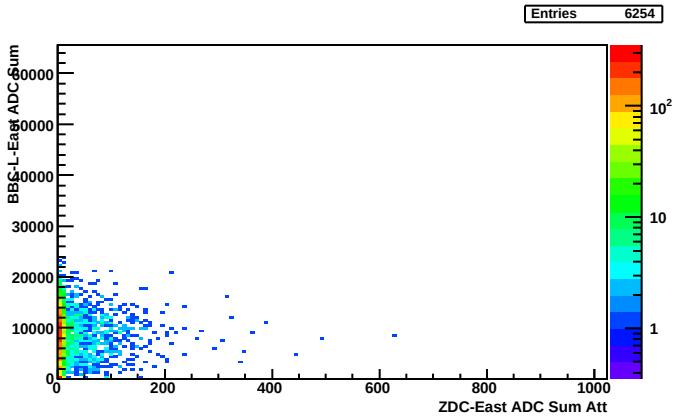

Entries 6254
TOF Mult
ZDC-West ADC Sum Att

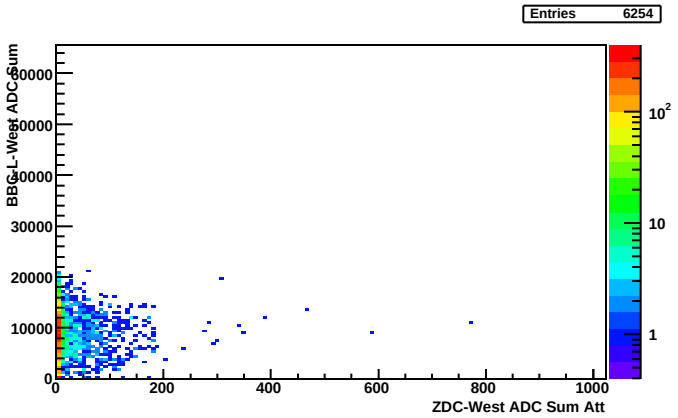

Entries 6254
BBC-L-East ADC Sum
BBC-S-East ADC Sum

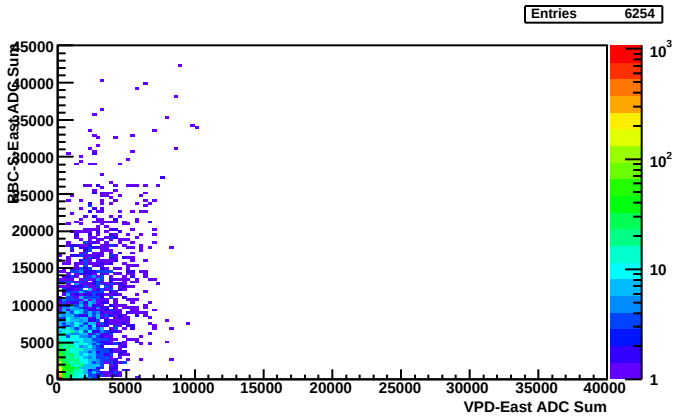

Entries 6254
BBC-L-West ADC Sum
BBC-S-West ADC Sum

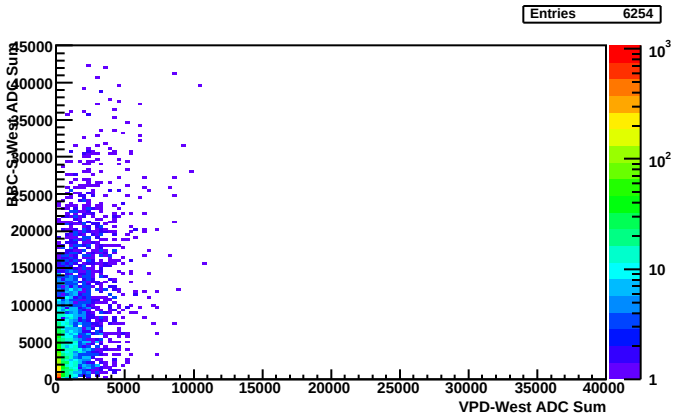

Entries 6254
BBC-L-East ADC Sum
VPD-East ADC Sum

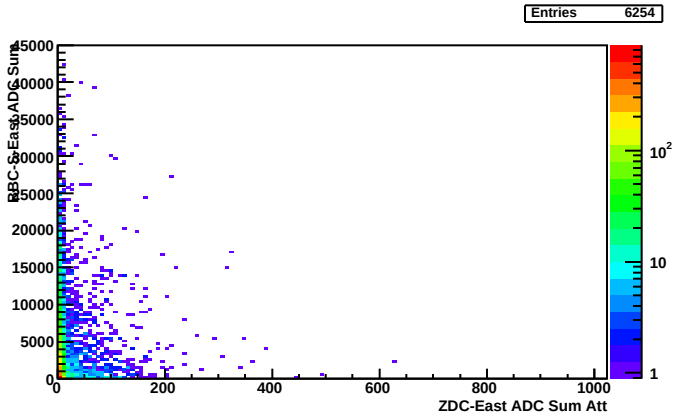

Entries 6254
BBC-L-West ADC Sum
VPD-West ADC Sum

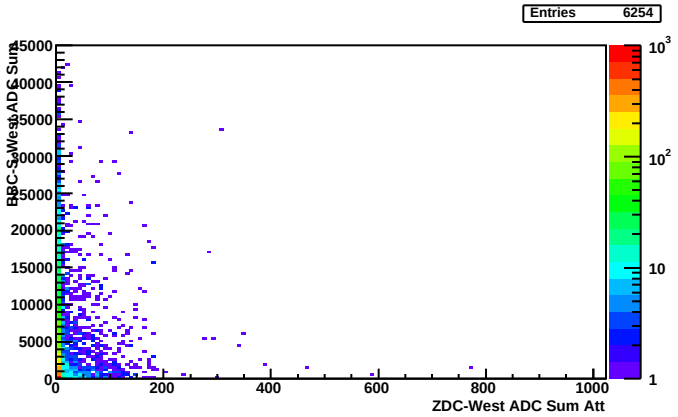

Entries 6254
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

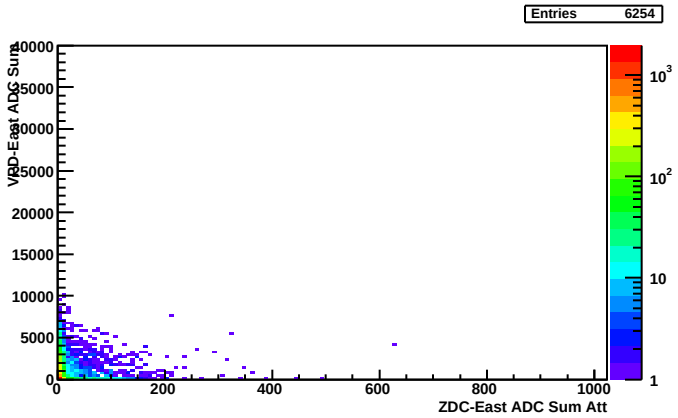

Entries 6254
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

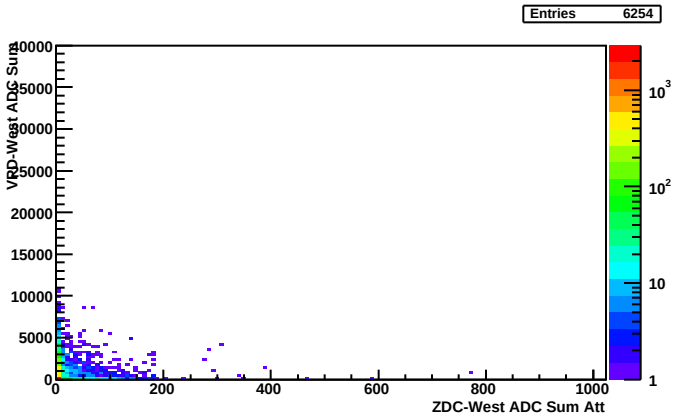

Entries 6254
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 6254
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 6254
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 6254
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 6254
VPD-East ADC Sum
ZDC-East ADC Sum Att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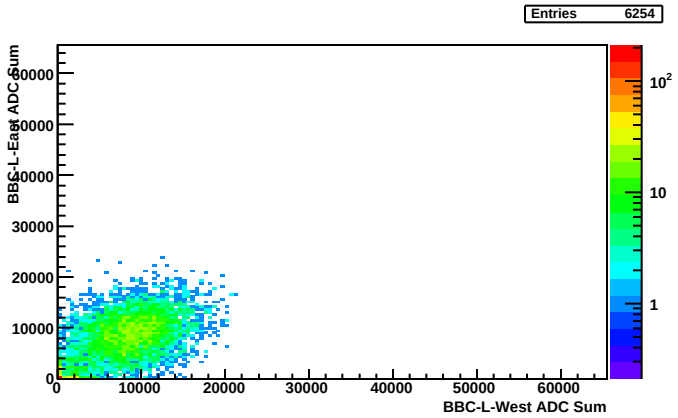
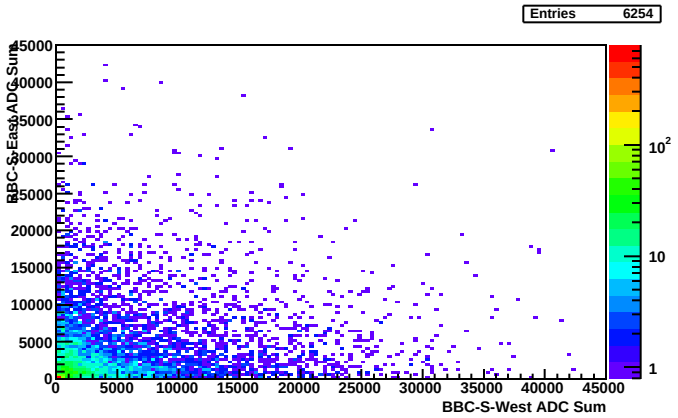
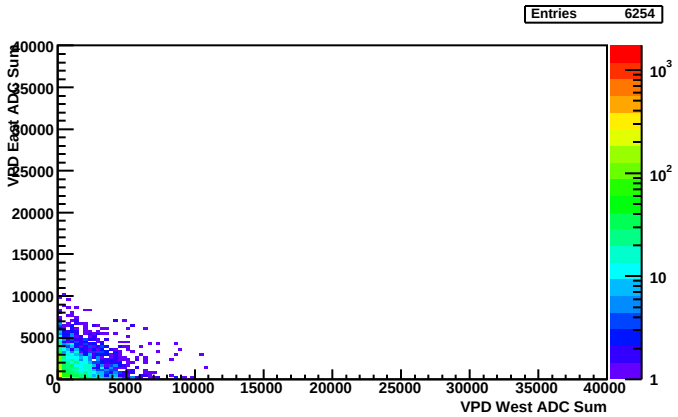
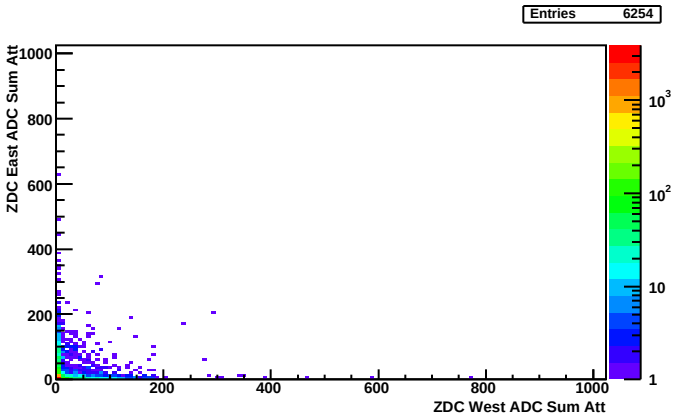
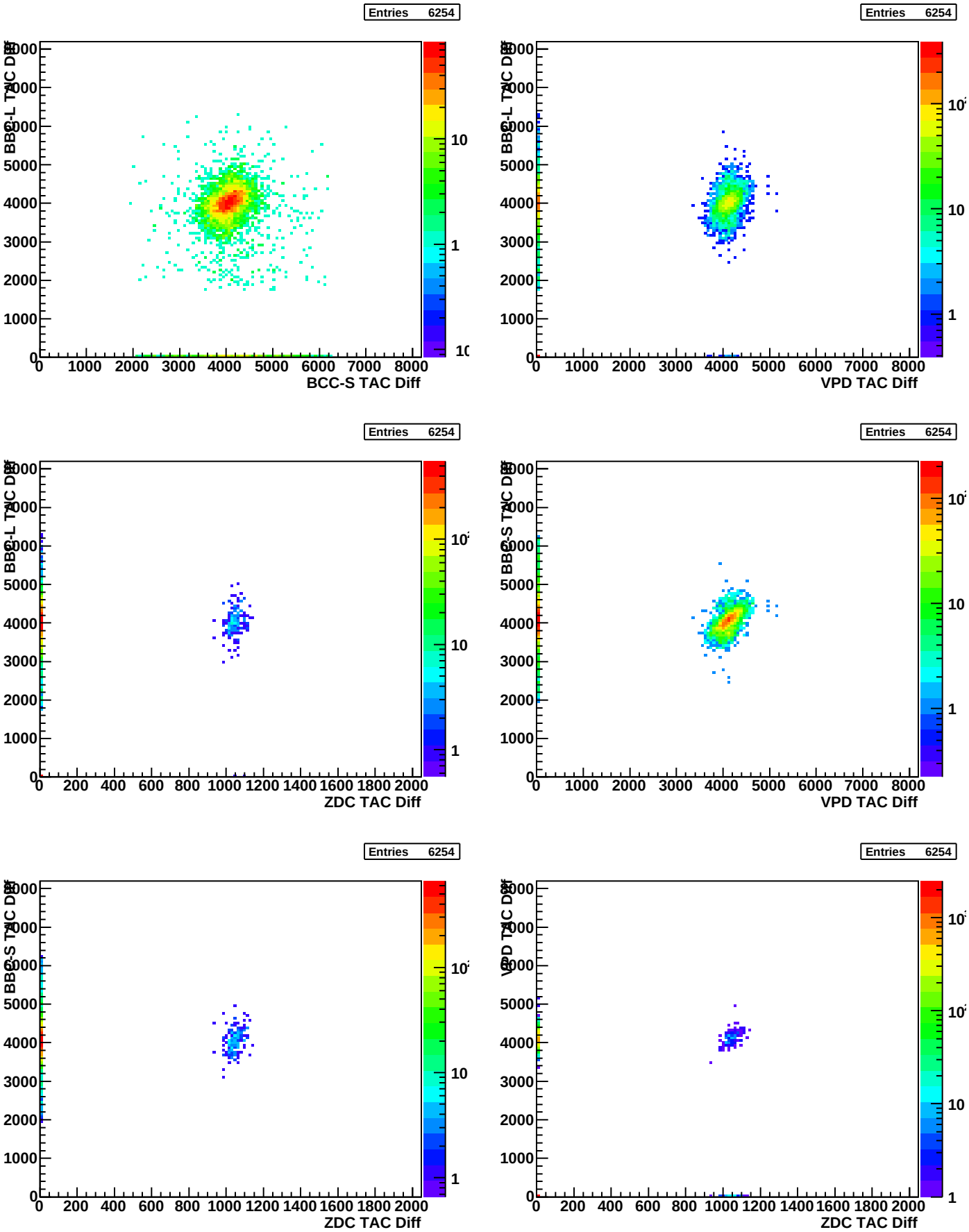
VPD-West ADC Sum
ZDC-West ADC Sum Att

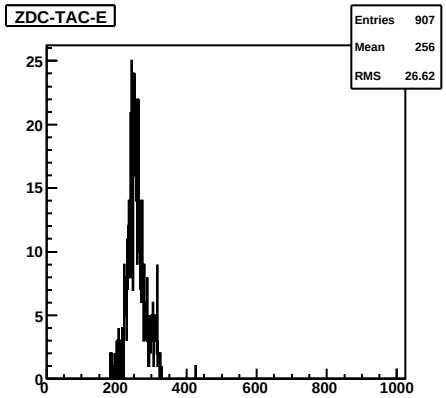

Entries 6254
BBC-L-East ADC Sum
BBC-L-West ADC Sum

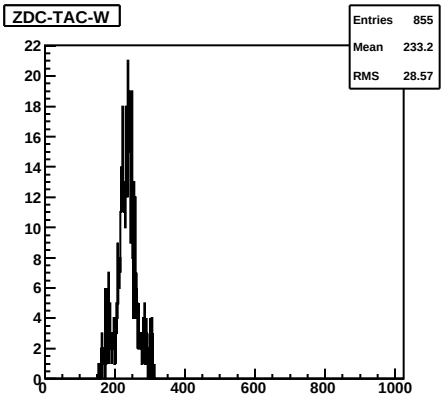

Entries 6254
BBC-S-East ADC Sum
BBC-S-West ADC Sum

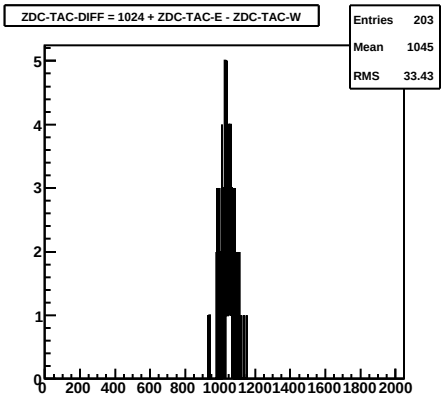

Entries 6254
VPD East ADC Sum
VPD West ADC Sum

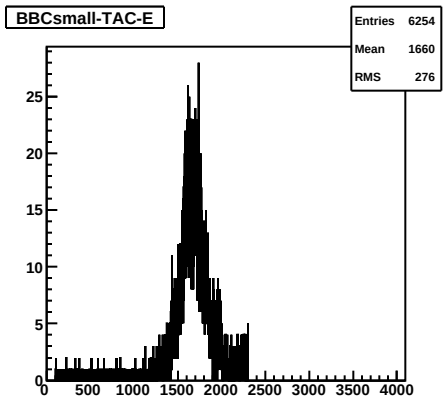

Entries 6254
ZDC East ADC Sum Att
ZDC West ADC Sum Att

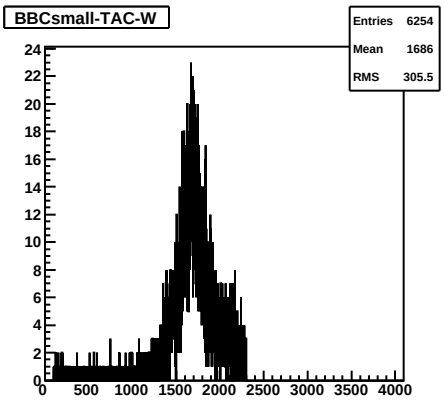

Entries 6254
BBC-L TAC Diff
BCC-S TAC Diff
Entries 6254
BBC-L TAC Diff
VPD TAC Diff
Entries 6254
BBC-L TAC Diff
ZDC TAC Diff
Entries 6254
BBC-S TAC Diff
VPD TAC Diff
Entries 6254
BBC-S TAC Diff
ZDC TAC Diff
Entries 6254
VPD TAC Diff
ZDC TAC Diff

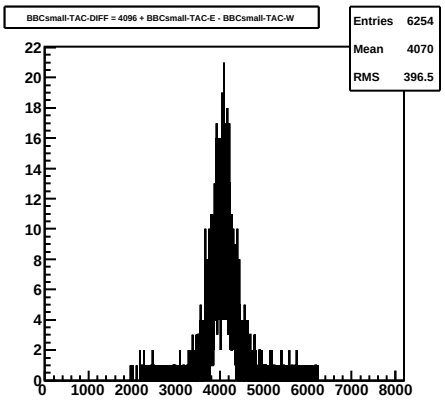

ZDC-TAC-E
Entries 907
Mean 256
RMS 26.62

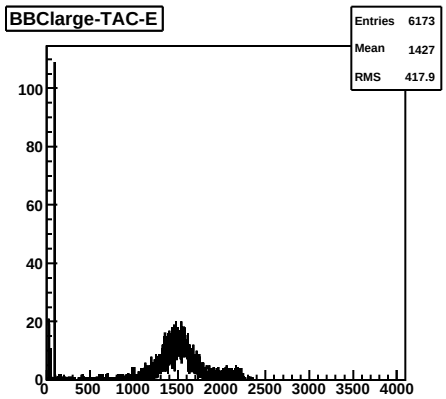

ZDC-TAC-W
Entries 855
Mean 233.2
RMS 28.57

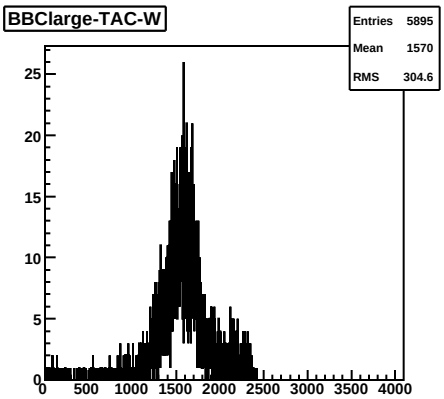

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 203
Mean 1045
RMS 33.43

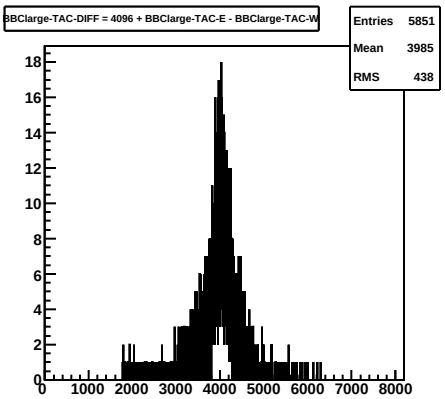

BBCsmall-TAC-E
Entries 6254
Mean 1660
RMS 276

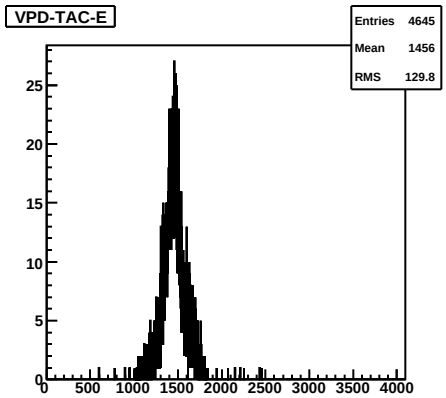

BBCsmall-TAC-W
Entries 6254
Mean 1686
RMS 305.5

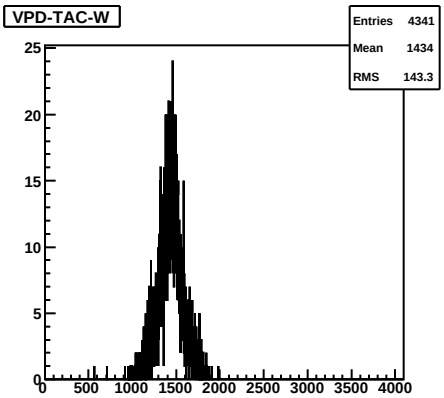

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 6254
Mean 4070
RMS 396.5

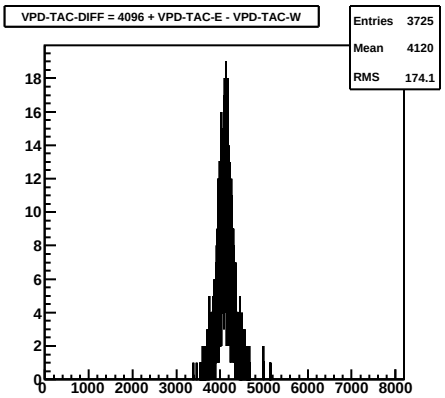

BBClarge-TAC-E
Entries 6173
Mean 1427
RMS 417.9

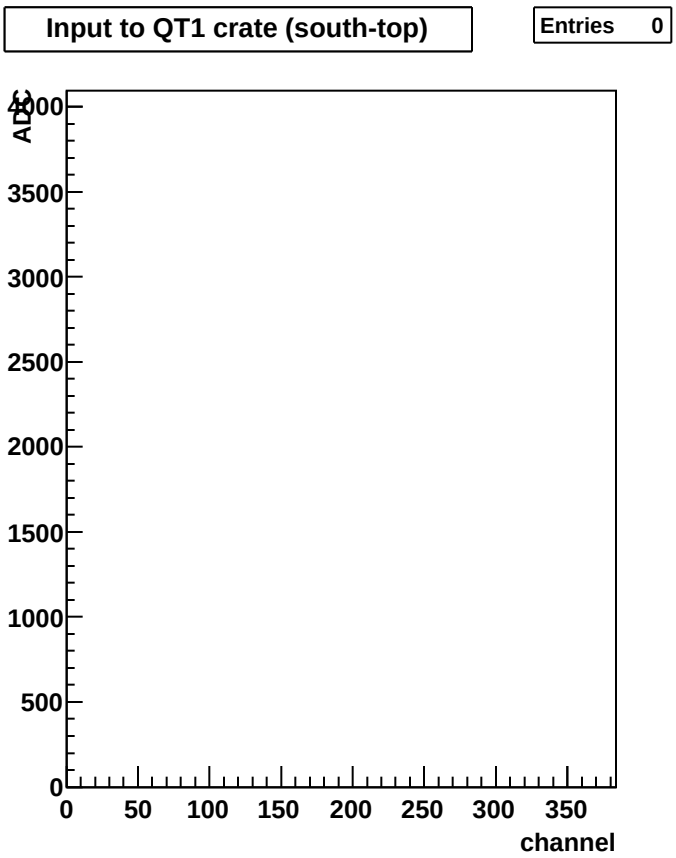

BBClarge-TAC-W
Entries 5895
Mean 1570
RMS 304.6

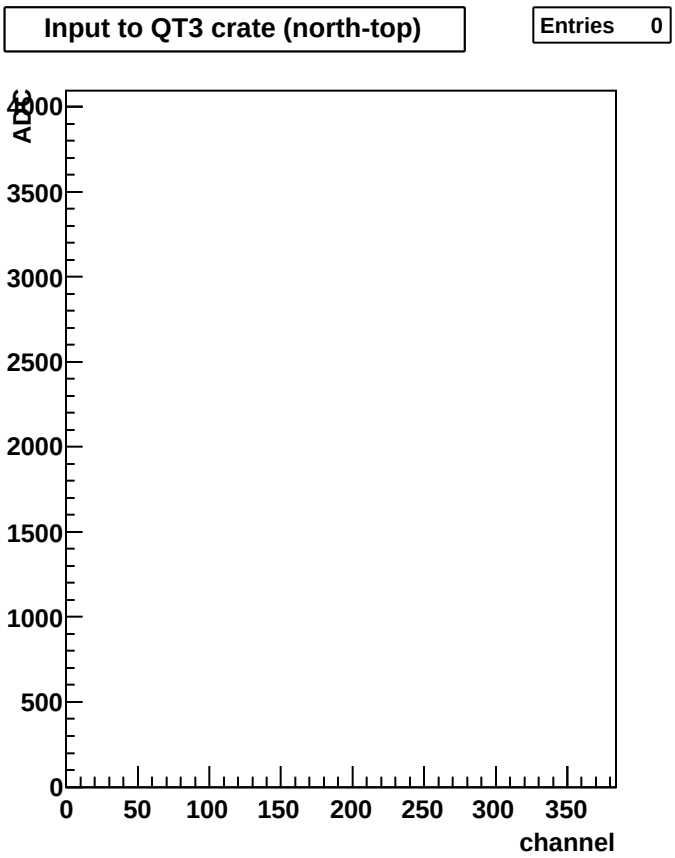

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 5851
Mean 3985
RMS 438

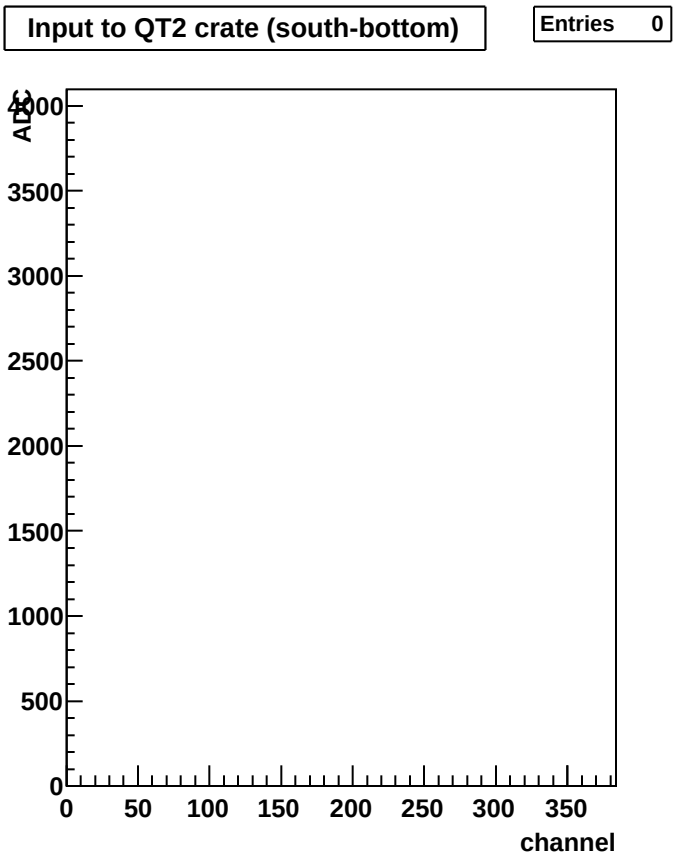

VPD-TAC-E
Entries 4645
Mean 1456
RMS 129.8

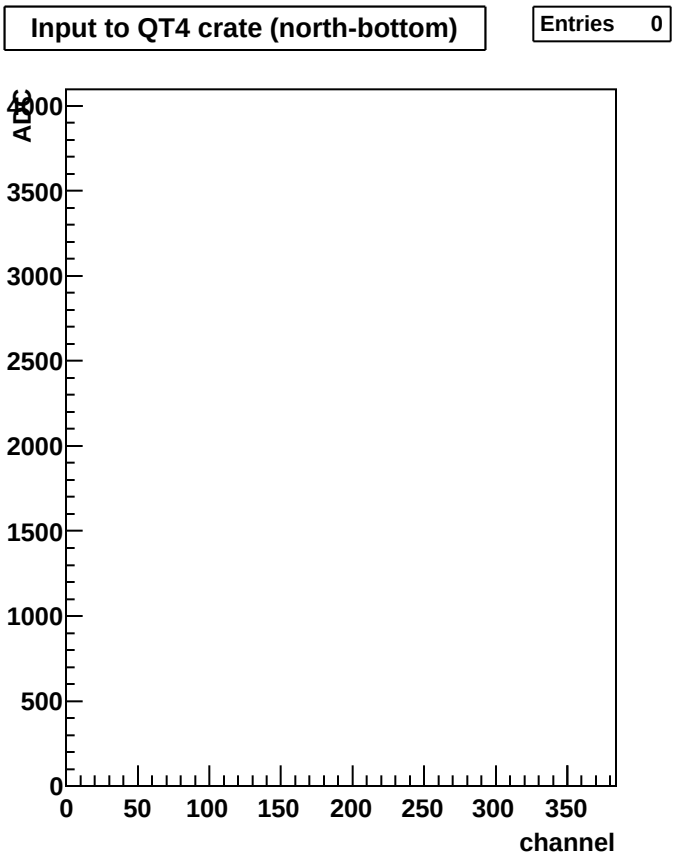

VPD-TAC-W
Entries 4341
Mean 1434
RMS 143.3

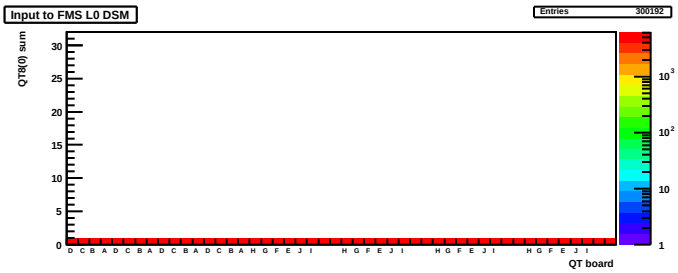

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 3725
Mean 4120
RMS 174.1

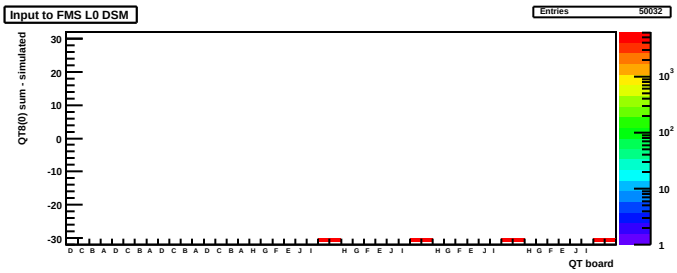

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

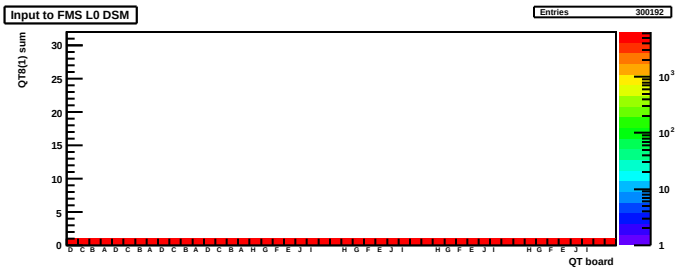

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

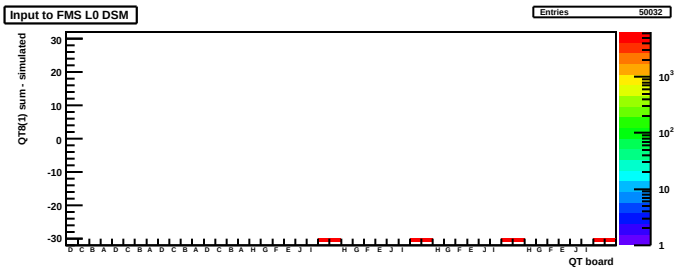

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

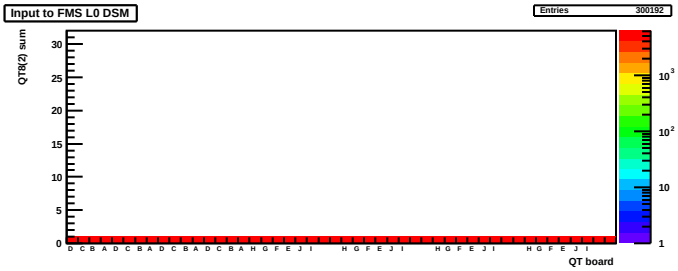

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

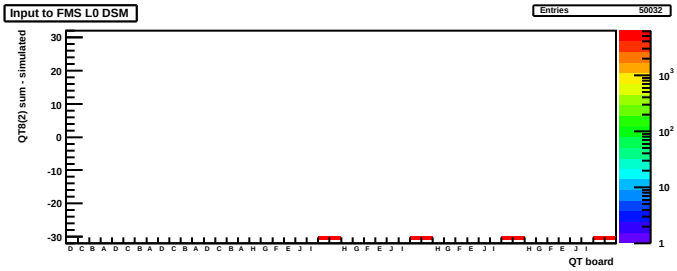

Input to FMS L0 DSM
Entries 300192
QT8(0) sum
QT board

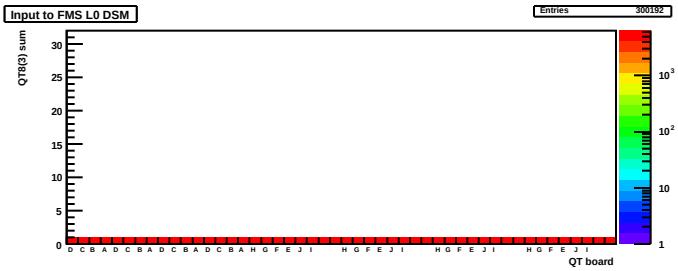

Input to FMS L0 DSM
Entries 50032
QT8(0) sum - simulated
QT board

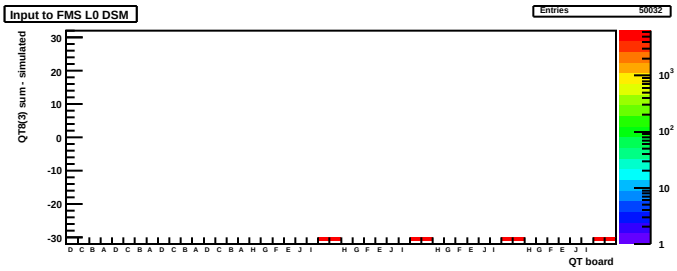

Input to FMS L0 DSM
Entries 300192
QT8(1) sum
QT board

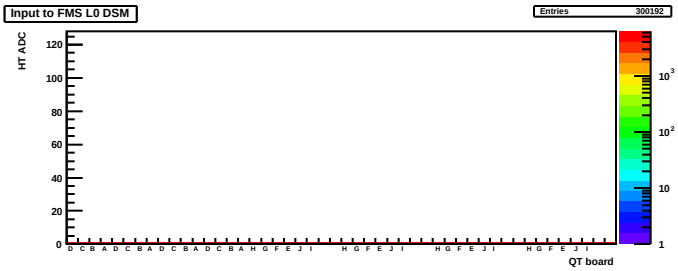

Input to FMS L0 DSM
Entries 50032
QT8(1) sum - simulated
QT board

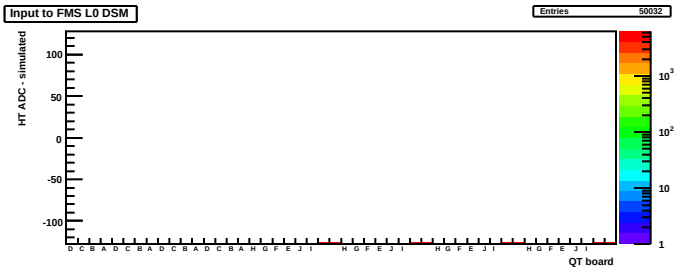

Input to FMS L0 DSM
Entries 300192
QT8(2) sum
QT board

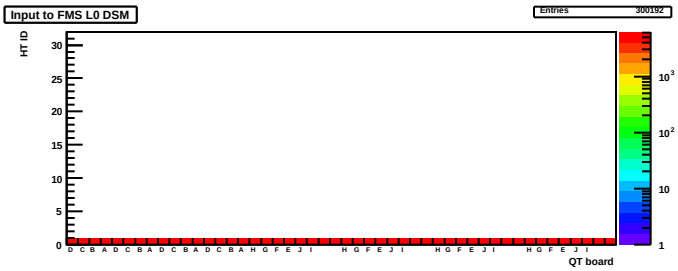

Input to FMS L0 DSM
Entries 50032
QT8(2) sum - simulated
QT board

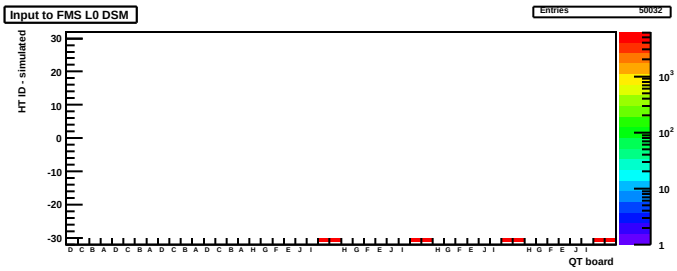

Input to FMS L0 DSM
Entries 300192
QT8(3) sum
QT board

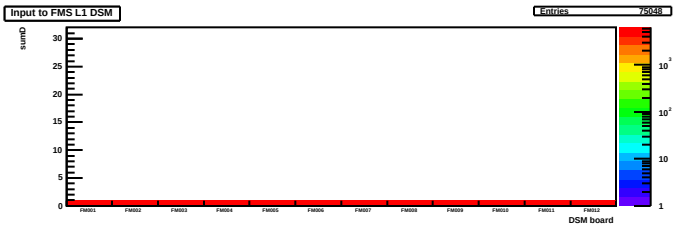

Input to FMS L0 DSM
Entries 50032
QT8(3) sum - simulated
QT board

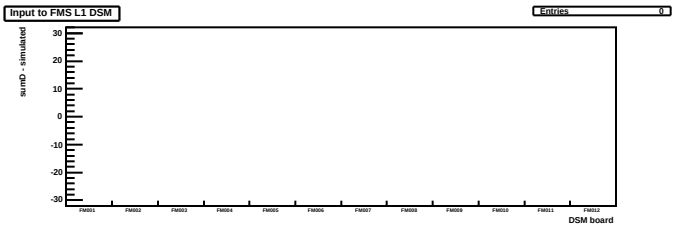

Input to FMS L0 DSM
Entries 300192
HT ADC
QT board

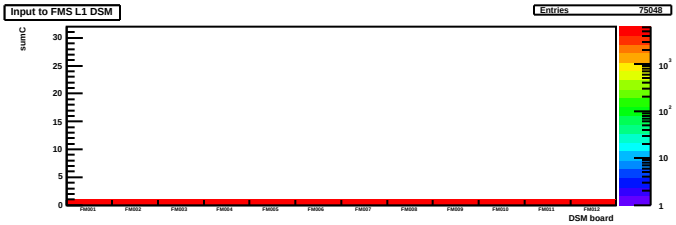

Input to FMS L0 DSM
Entries 50032
HT ADC - simulated
QT board

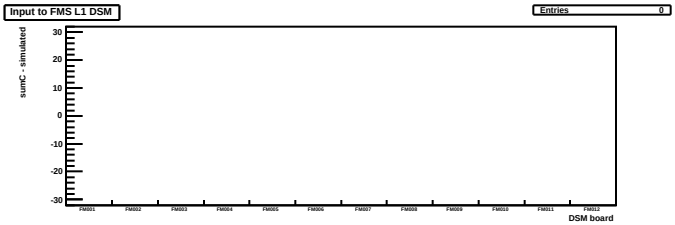

Input to FMS L0 DSM
Entries 300192
HT ID
QT board

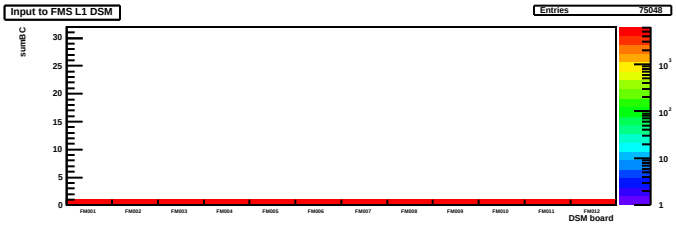

Input to FMS L0 DSM
Entries 50032
HT ID - simulated
QT board

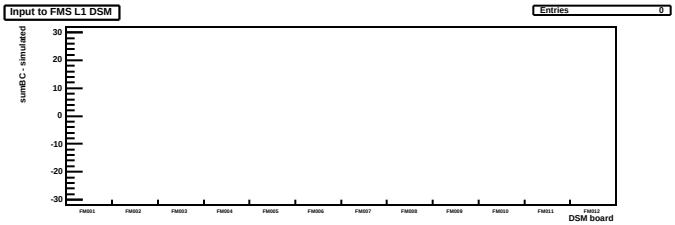

Input to FMS L1 DSM
Entries 75048
sumD
DSM board

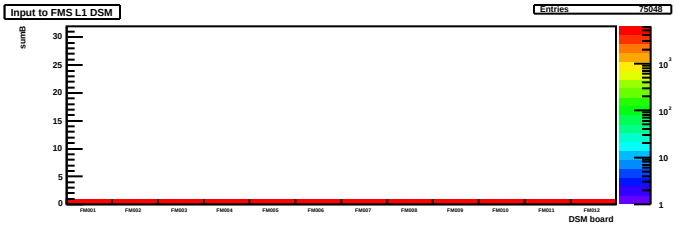

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

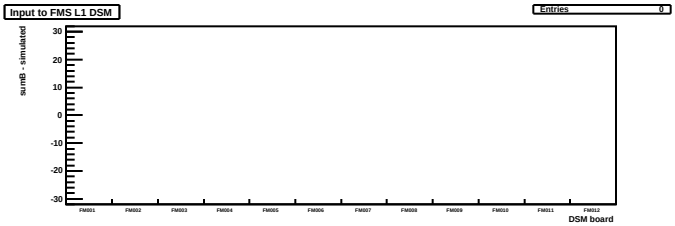

Input to FMS L1 DSM
Entries 75048
sumC
DSM board

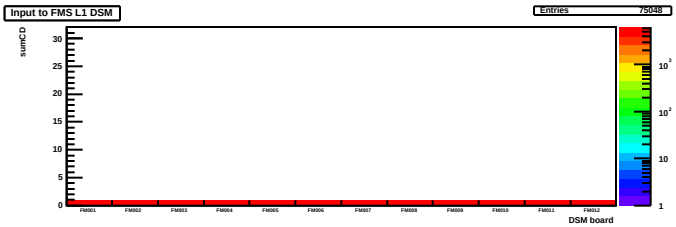

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

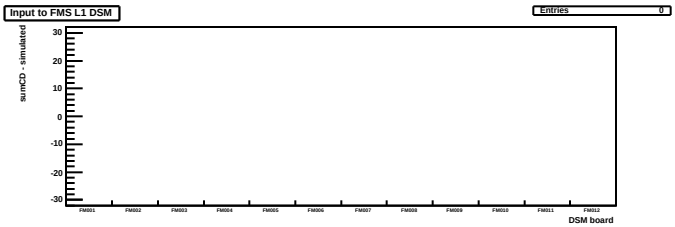

Input to FMS L1 DSM
Entries 75048
sumBC
DSM board

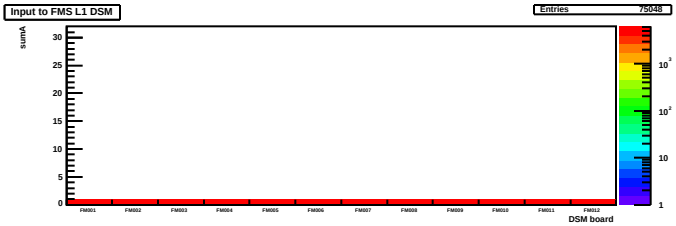

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

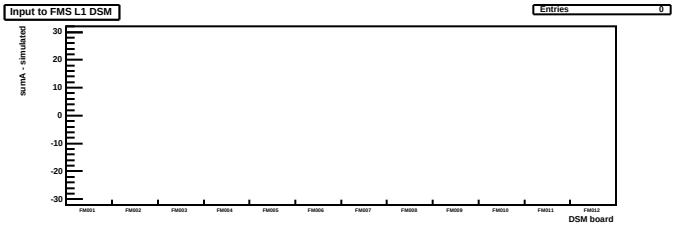

Input to FMS L1 DSM
Entries 75048
sumB
DSM board

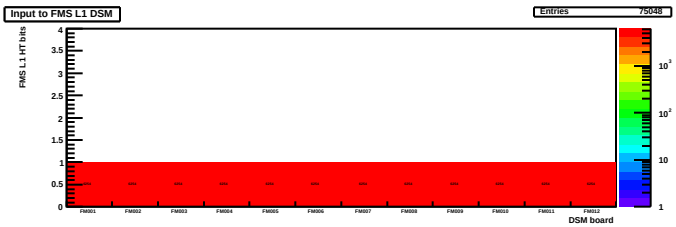

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

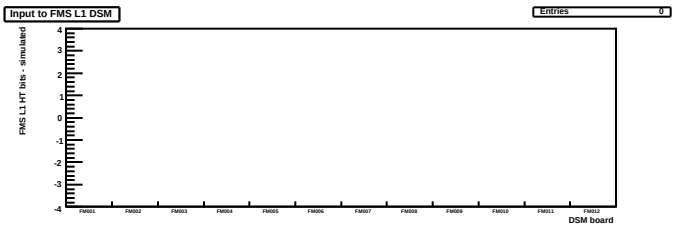

Input to FMS L1 DSM
Entries 75048
sumCD
DSM board

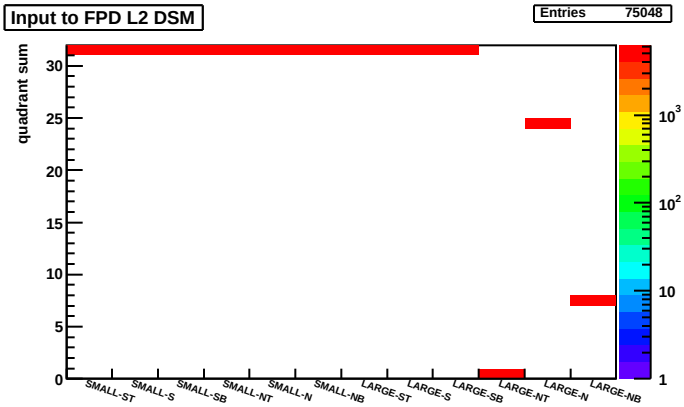

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

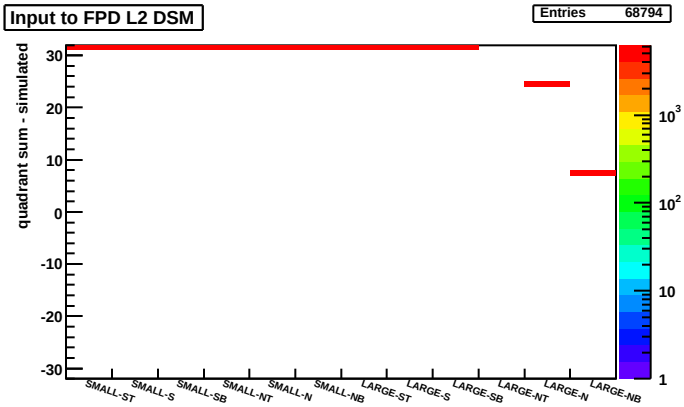

Input to FMS L1 DSM
Entries 75048
sumA
DSM board

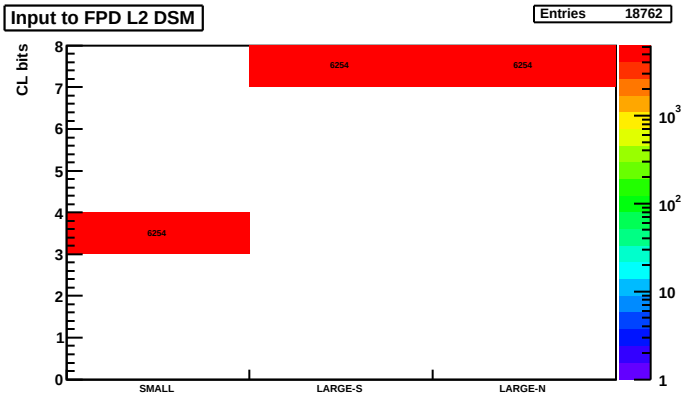

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

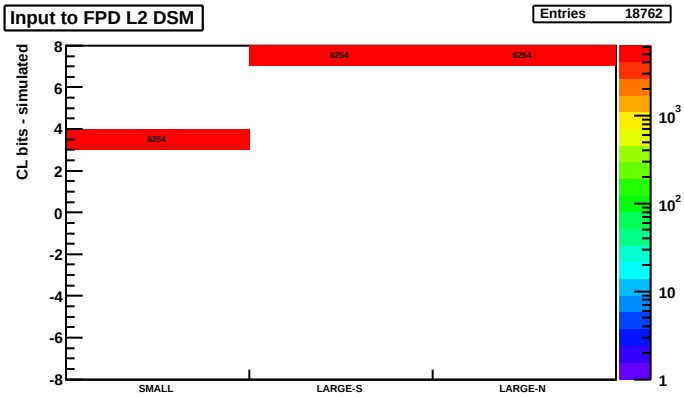

Input to FMS L1 DSM
Entries 75048
FMS L1 HT bits
DSM board

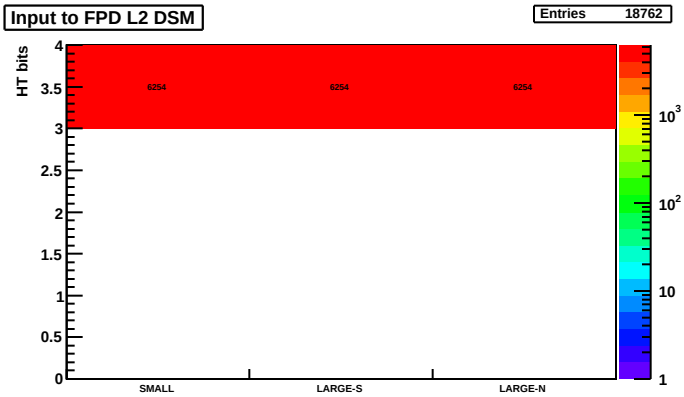

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

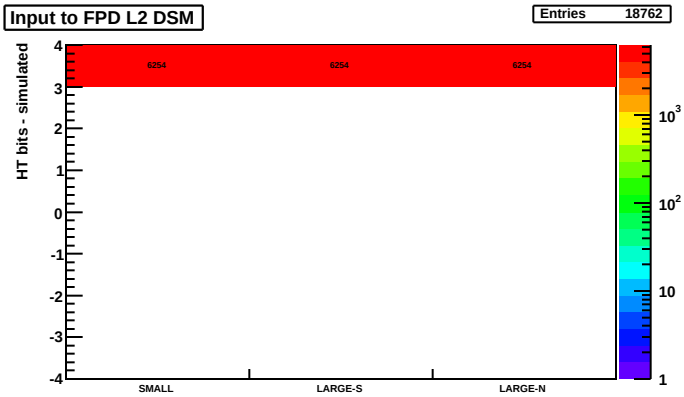

Input to FPD L2 DSM
Entries 75048
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

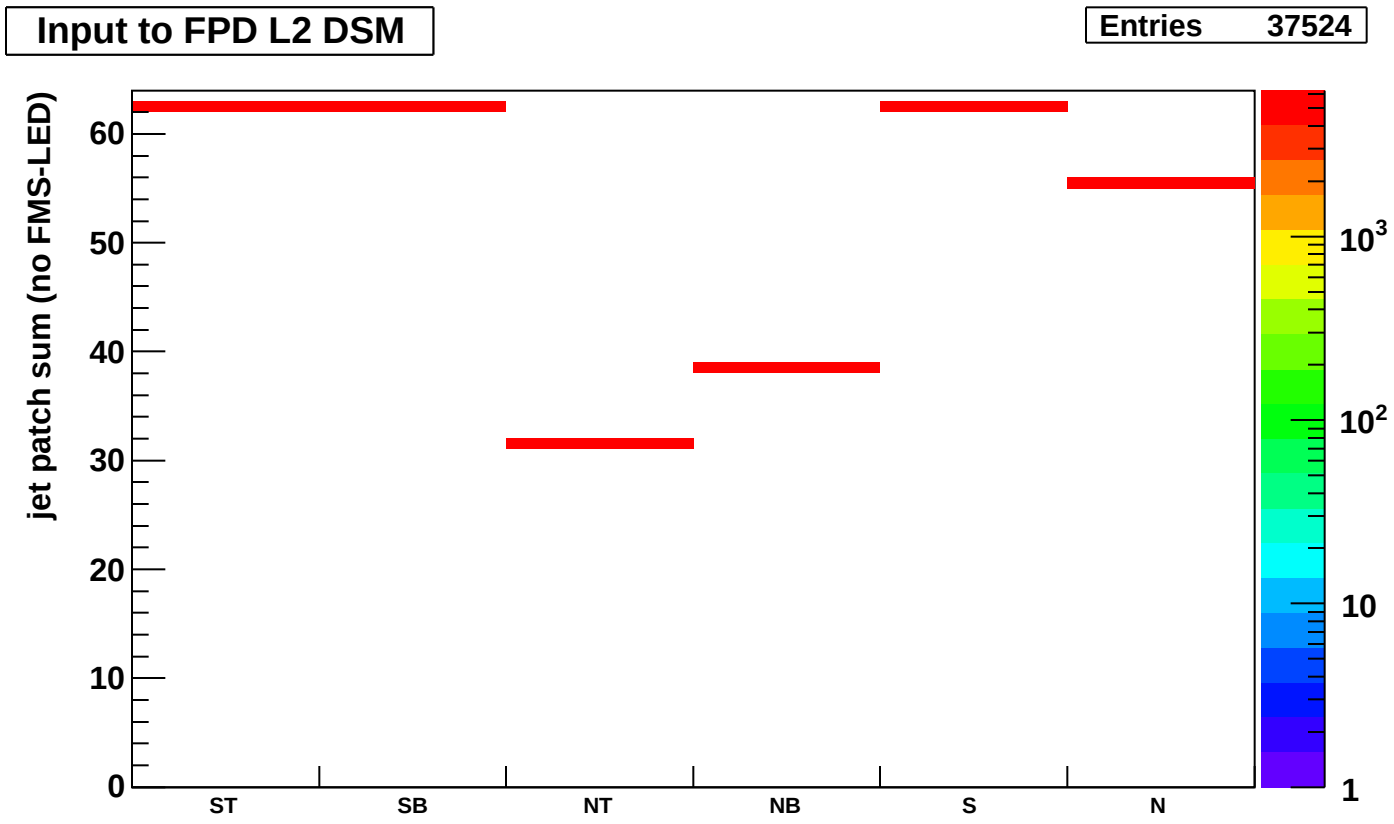

Input to FPD L2 DSM
Entries 68794
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

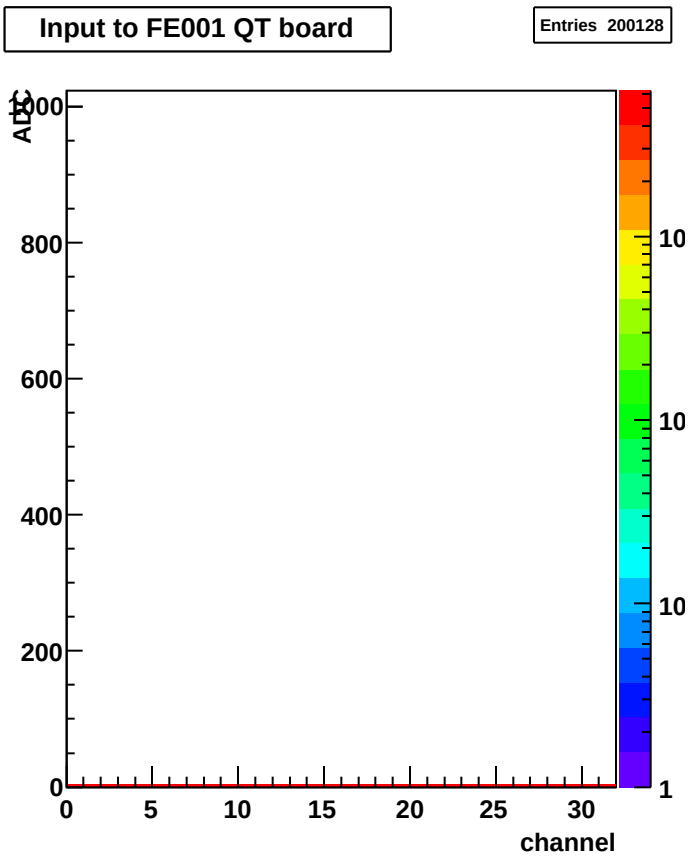

Input to FPD L2 DSM
Entries 18762
CL bits
6254
6254
6254
SMALL
LARGE-S
LARGE-N

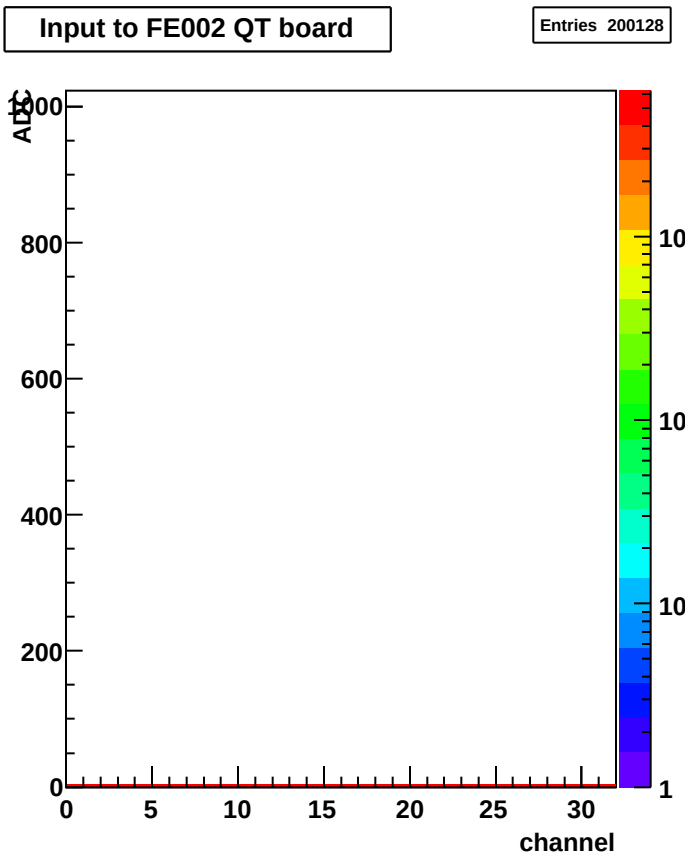

Input to FPD L2 DSM
Entries 18762
CL bits - simulated
6254
6254
6254
SMALL
LARGE-S
LARGE-N

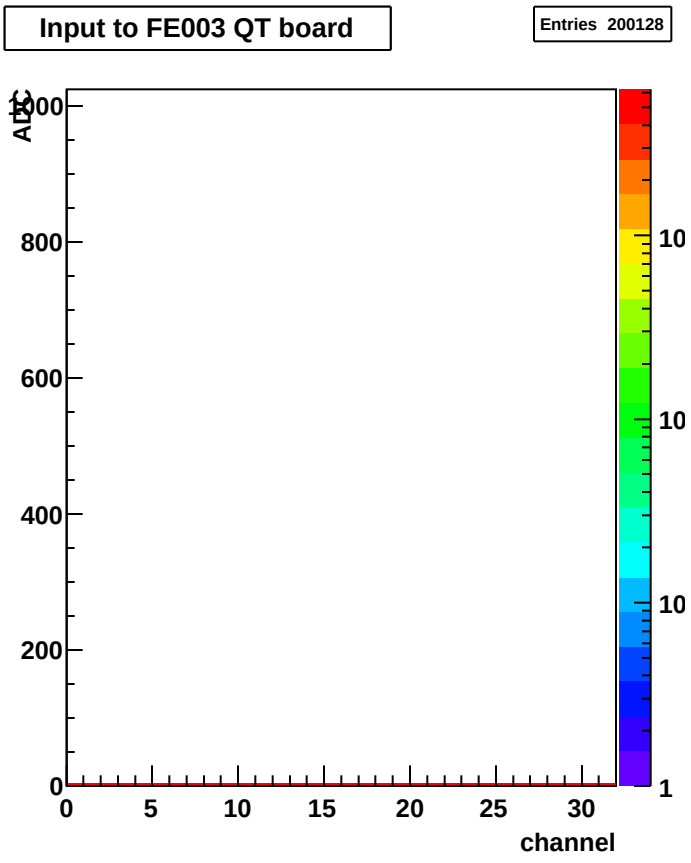

Input to FPD L2 DSM
Entries 18762
HT bits
6254
6254
6254
SMALL
LARGE-S
LARGE-N

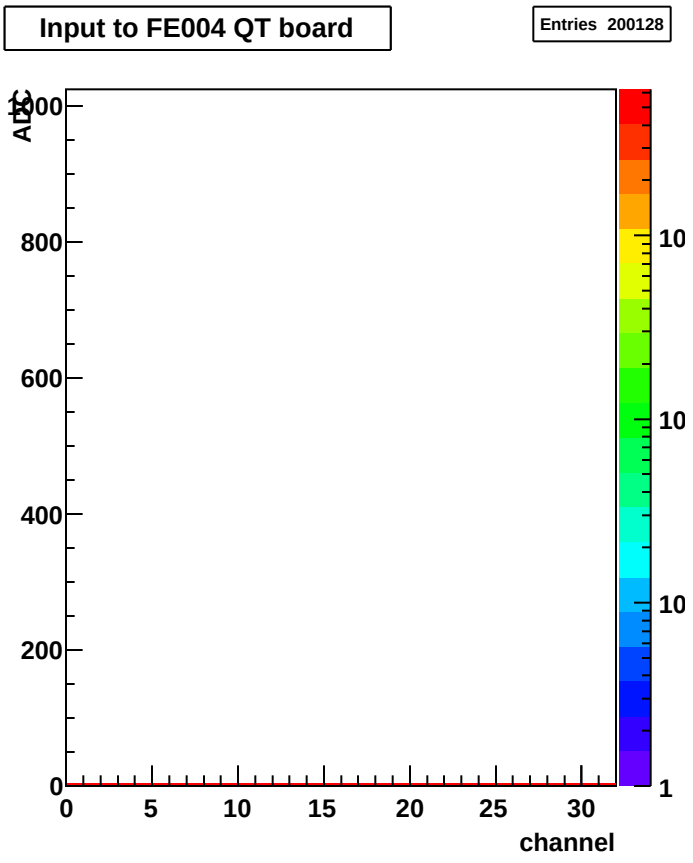

Input to FPD L2 DSM
Entries 18762
HT bits - simulated
6254
6254
6254
SMALL
LARGE-S
LARGE-N

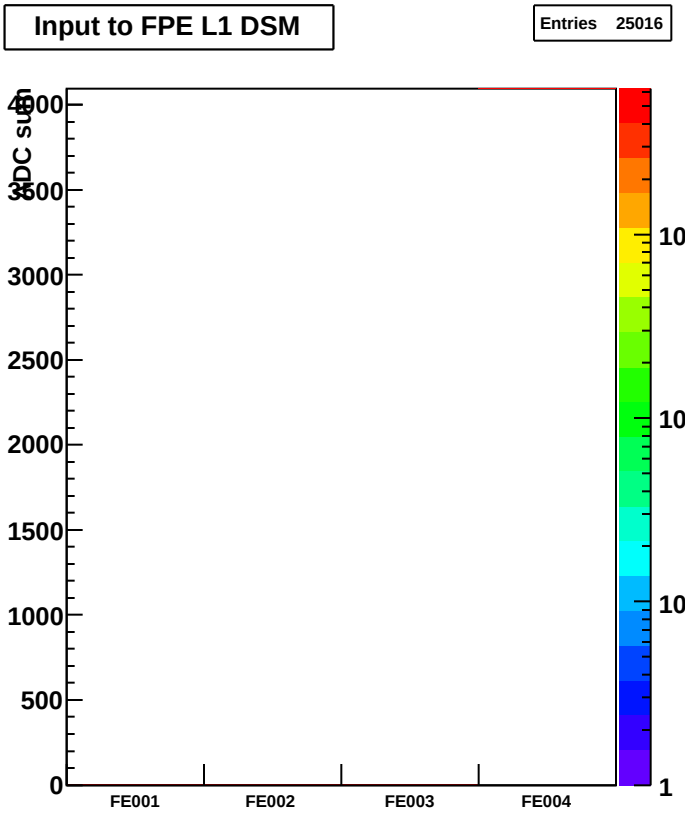

Input to FPD L2 DSM
Entries 37524
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3

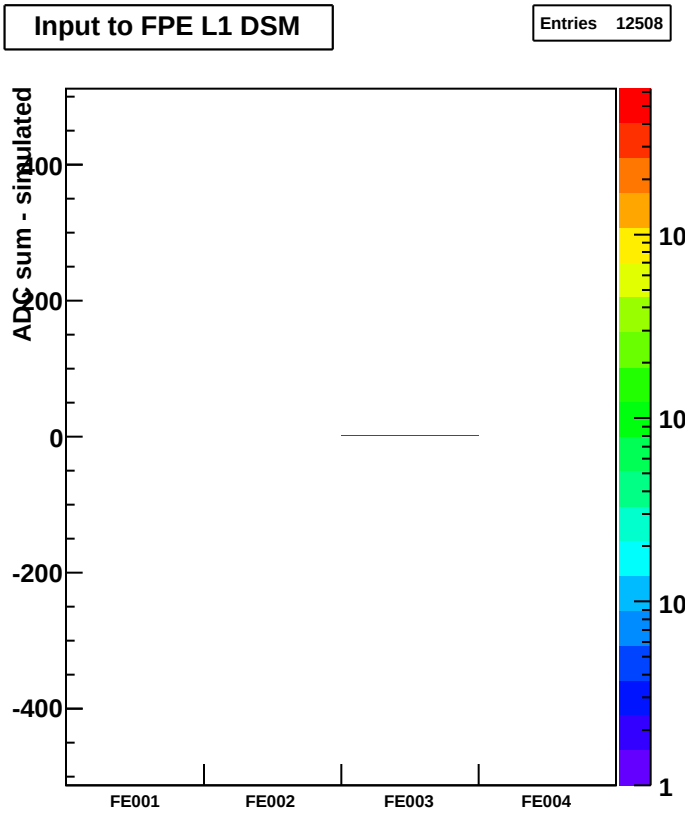

Input to FE001 QT board
Entries 200128
ADC
channel

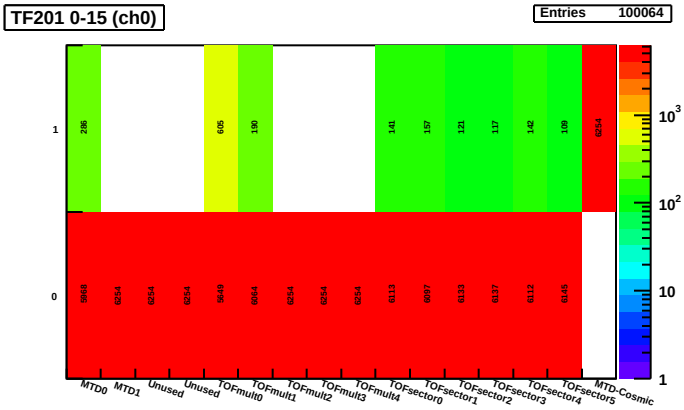

Input to FE002 QT board
Entries 200128
ADC
channel

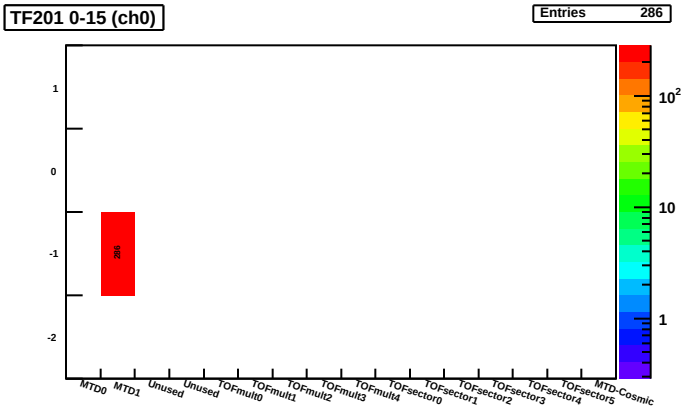

Input to FE003 QT board
Entries 200128
ADC
channel

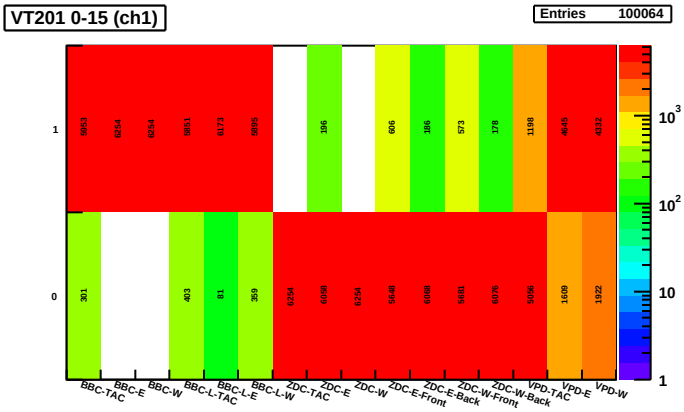

Input to FE004 QT board
Entries 200128
ADC
channel

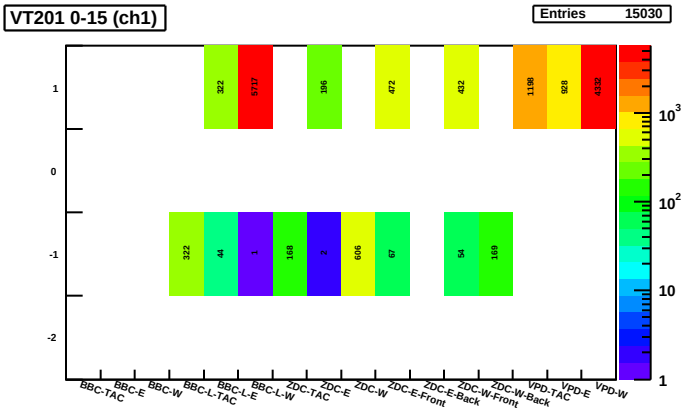

Input to FPE L1 DSM
Entries 25016
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
1

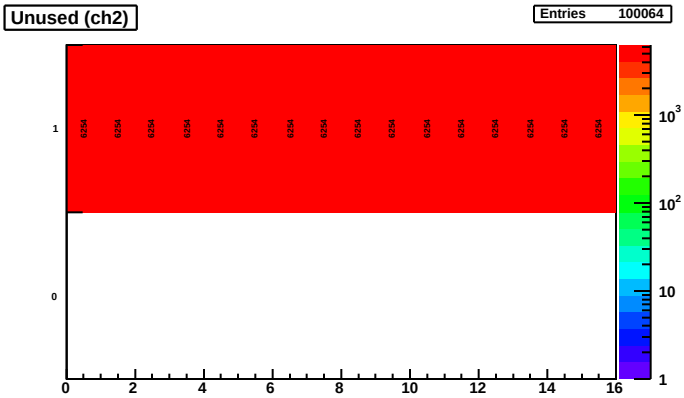

Input to FPE L1 DSM
Entries 12508
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
1

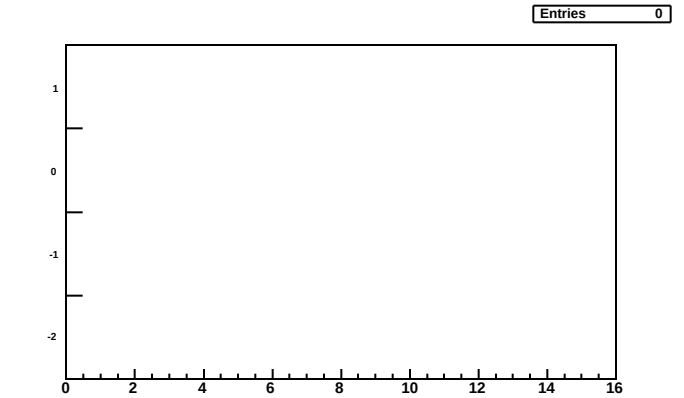

TF201 0-15 (ch0)
Entries 100064
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

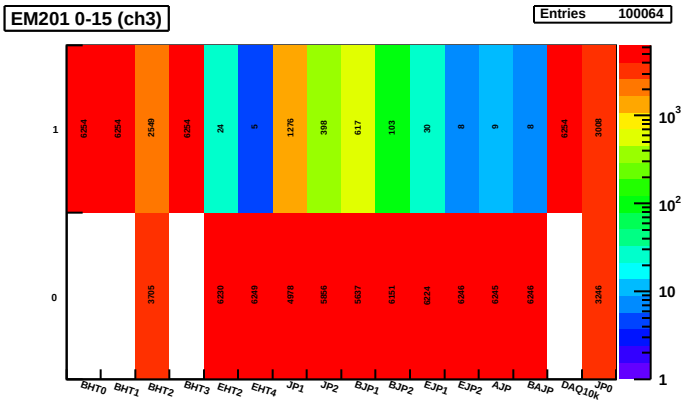

TF201 0-15 (ch0)
Entries 286
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 100064
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 15030
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


Unused (ch2)
Entries 100064


Entries 0


EM201 0-15 (ch3)
Entries 100064
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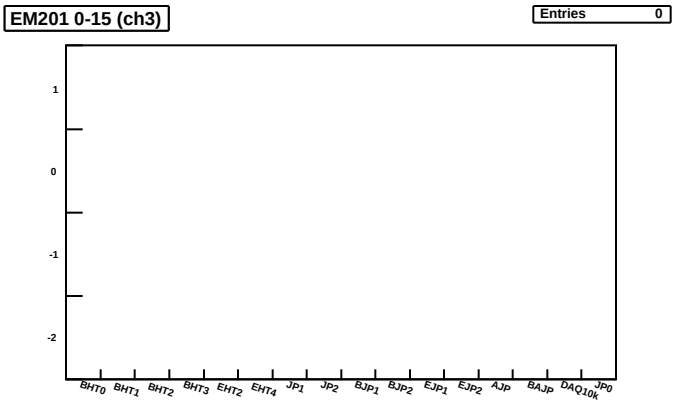
EM201 0-15 (ch3)
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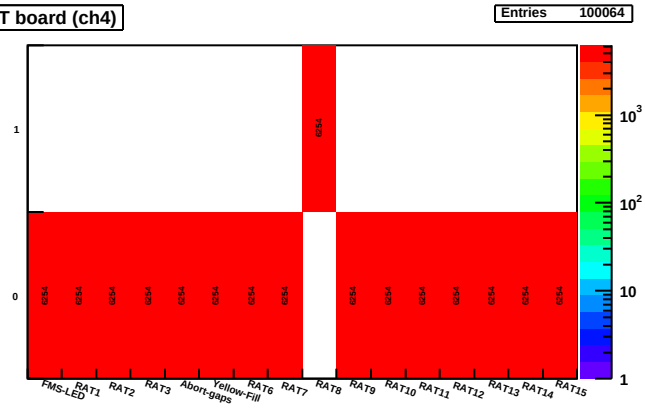
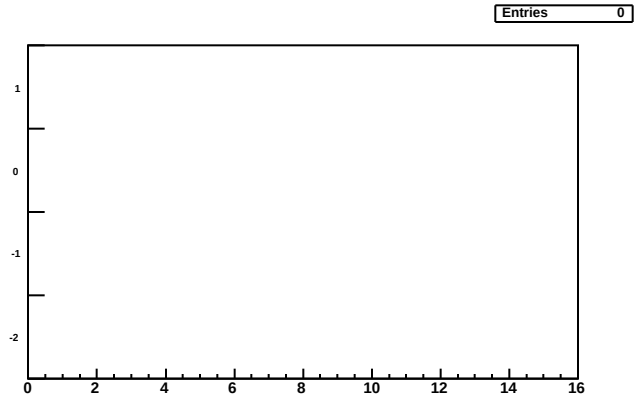
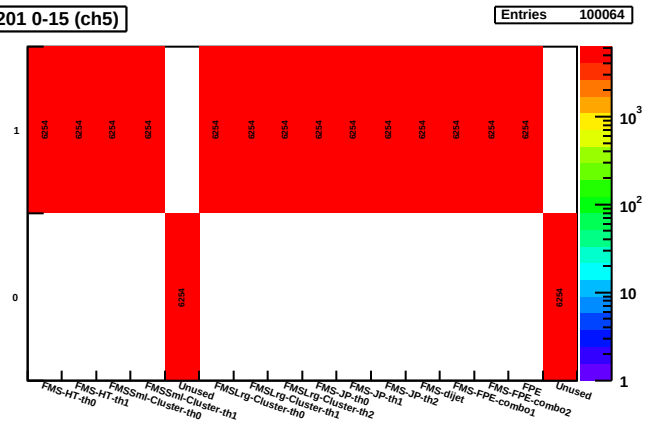
RAT board (ch4)





FP201 0-15 (ch5)



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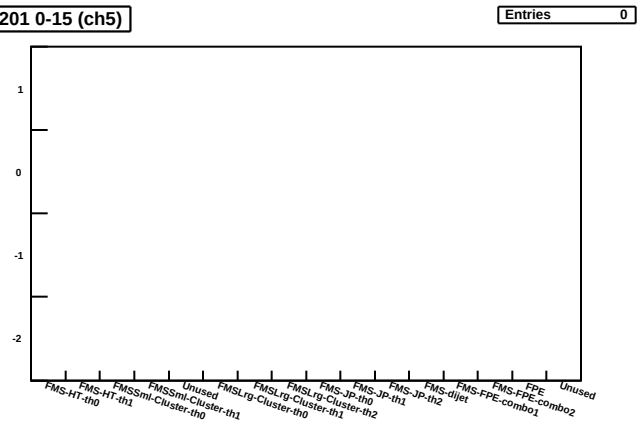
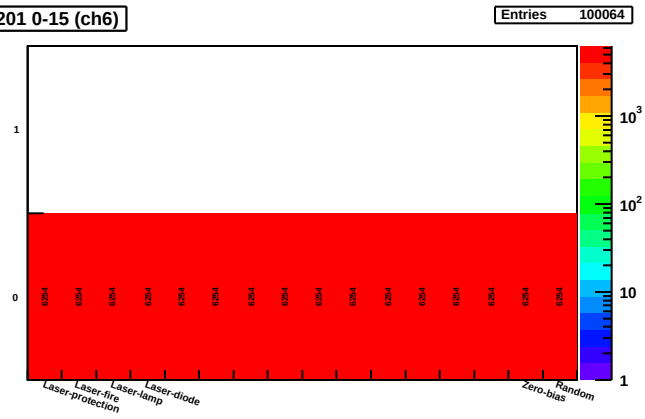
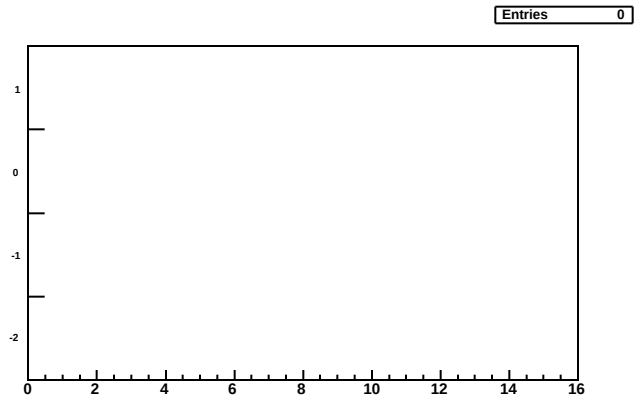
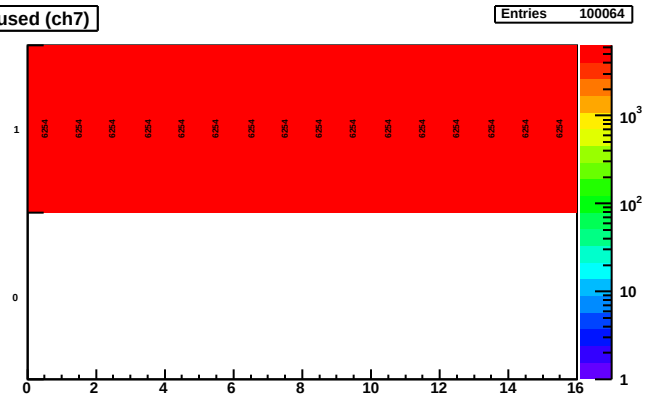
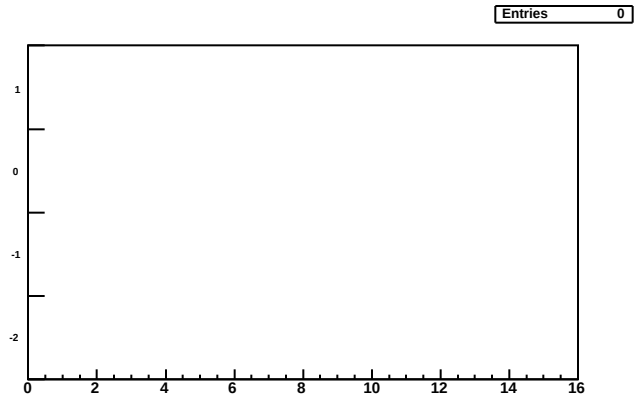


ST201 0-15 (ch6)





Unused (ch7)