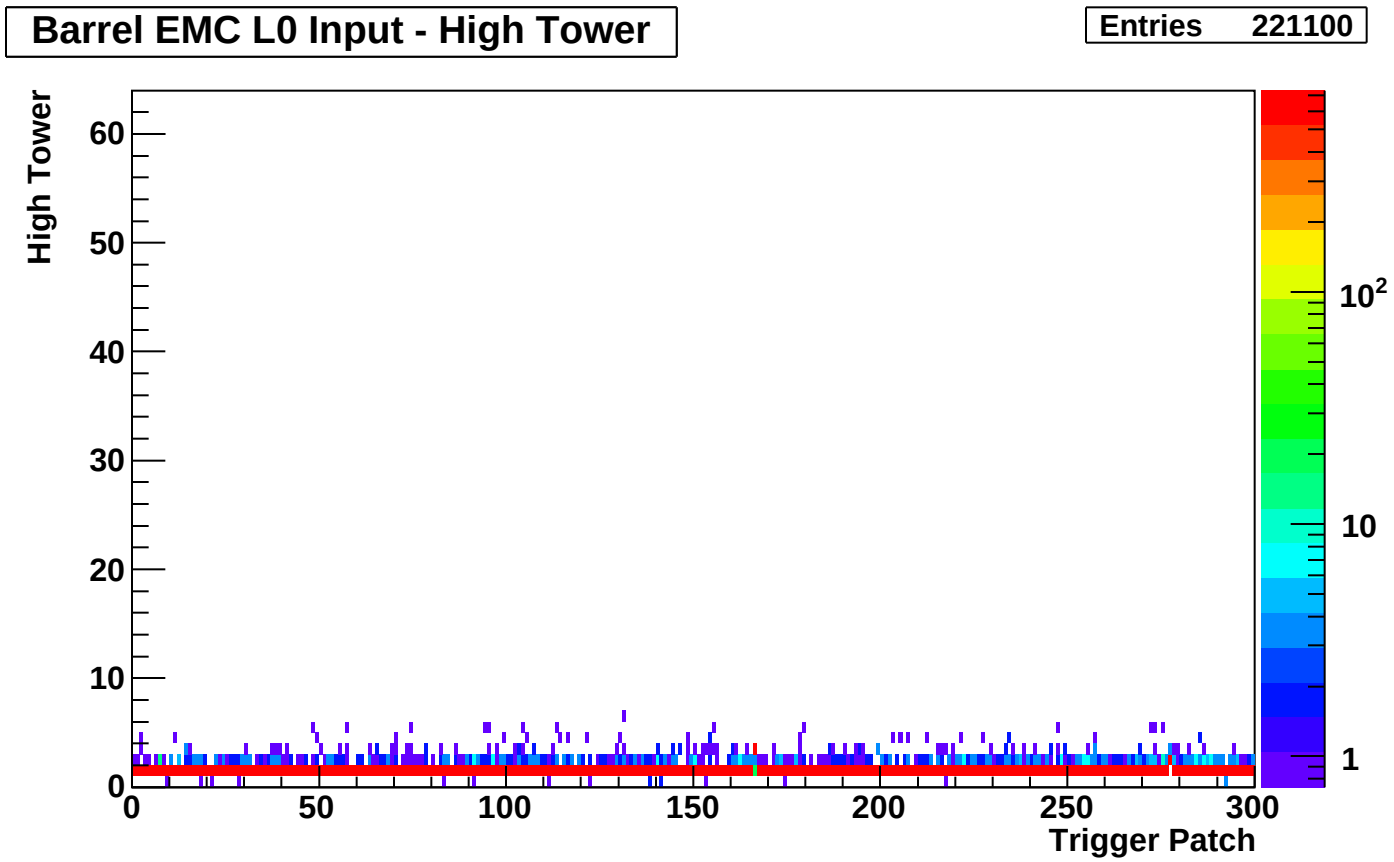
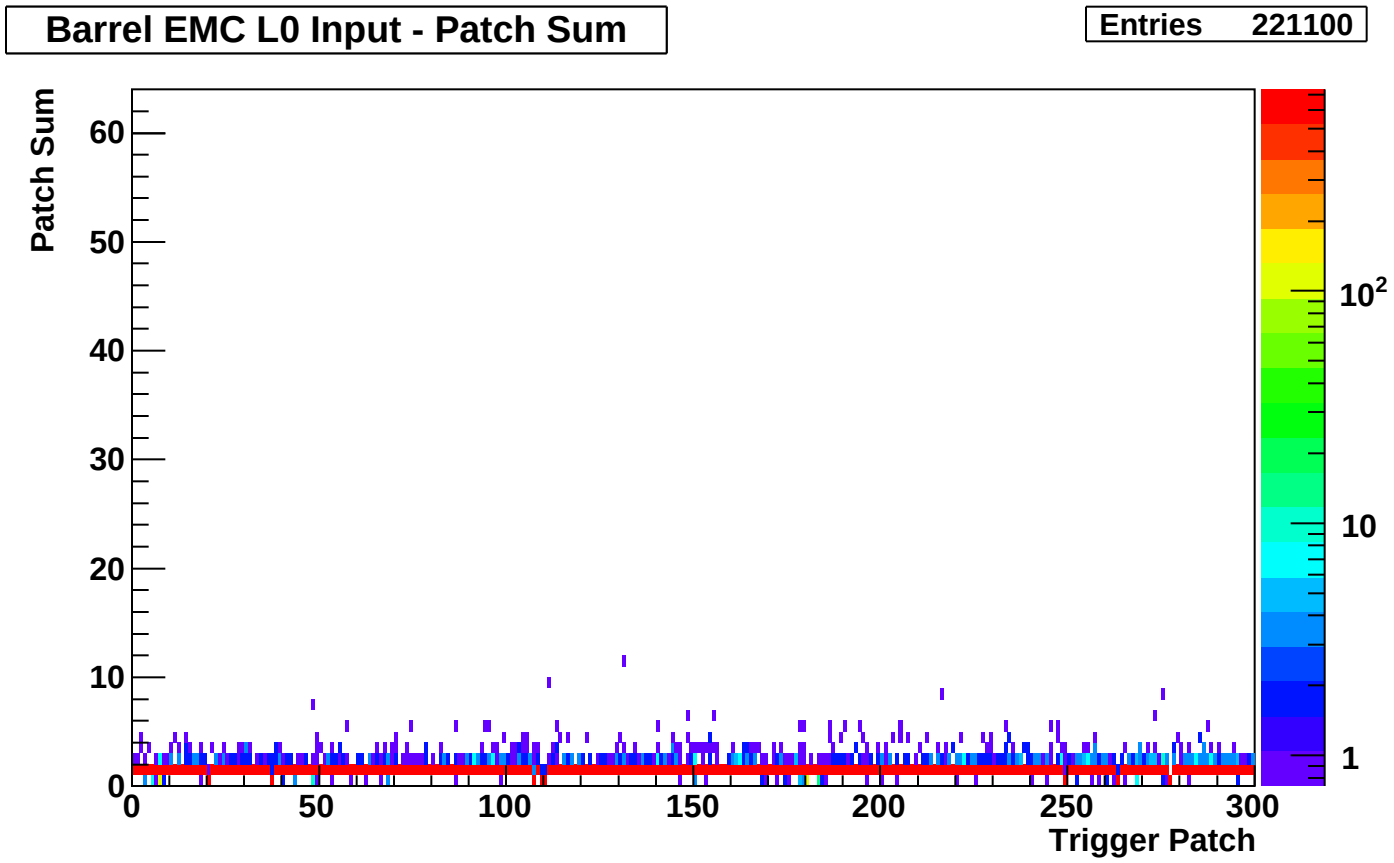
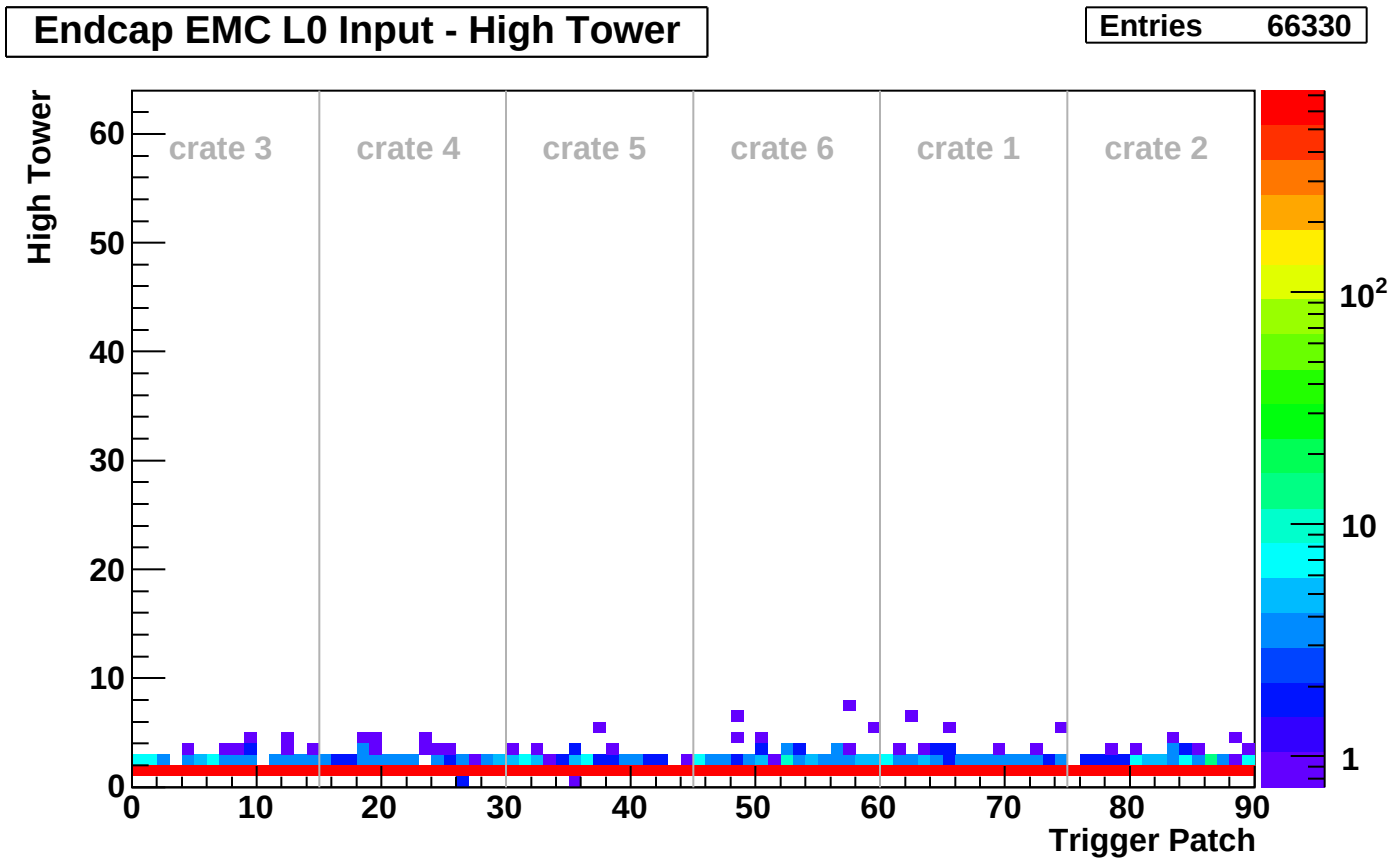
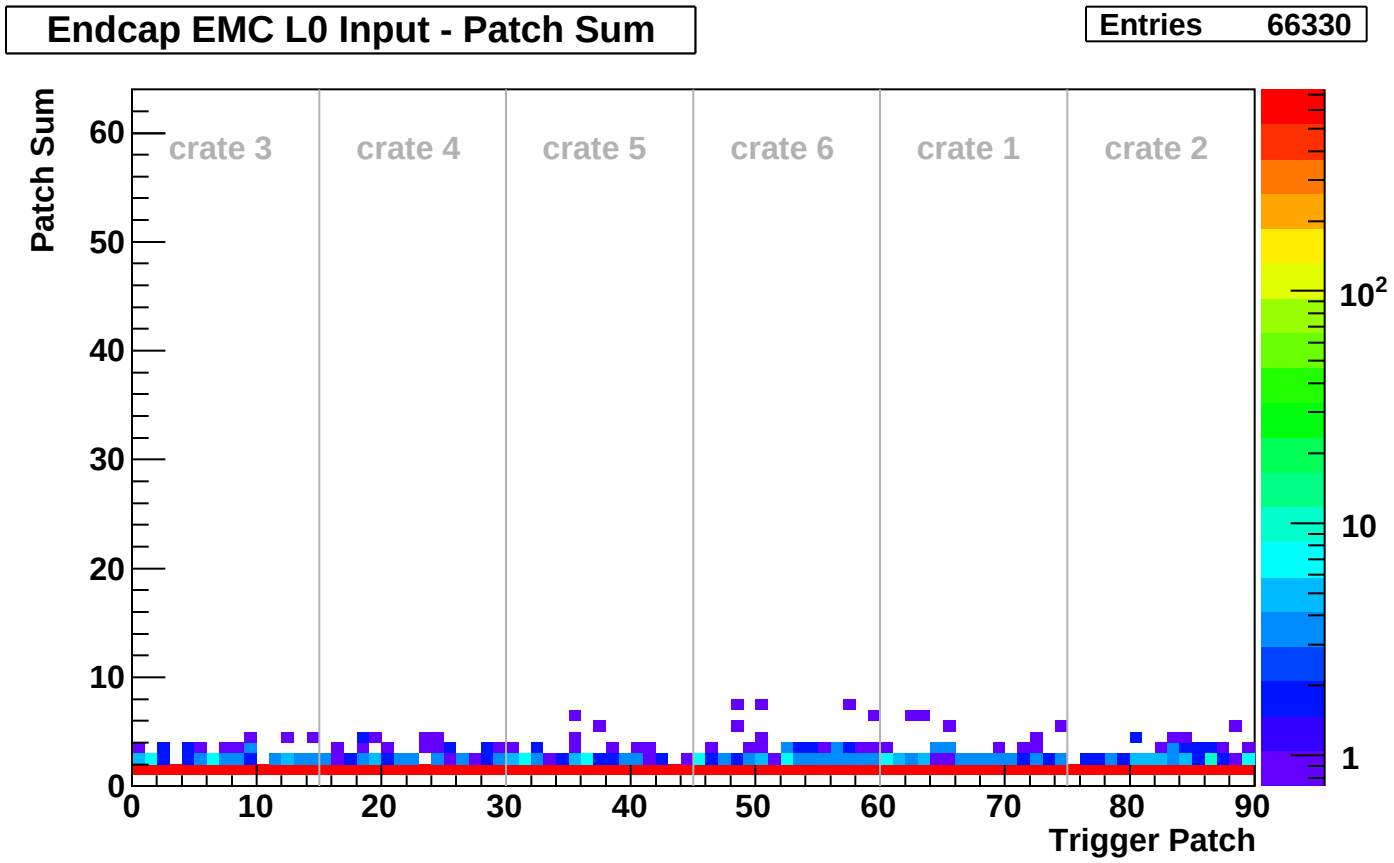
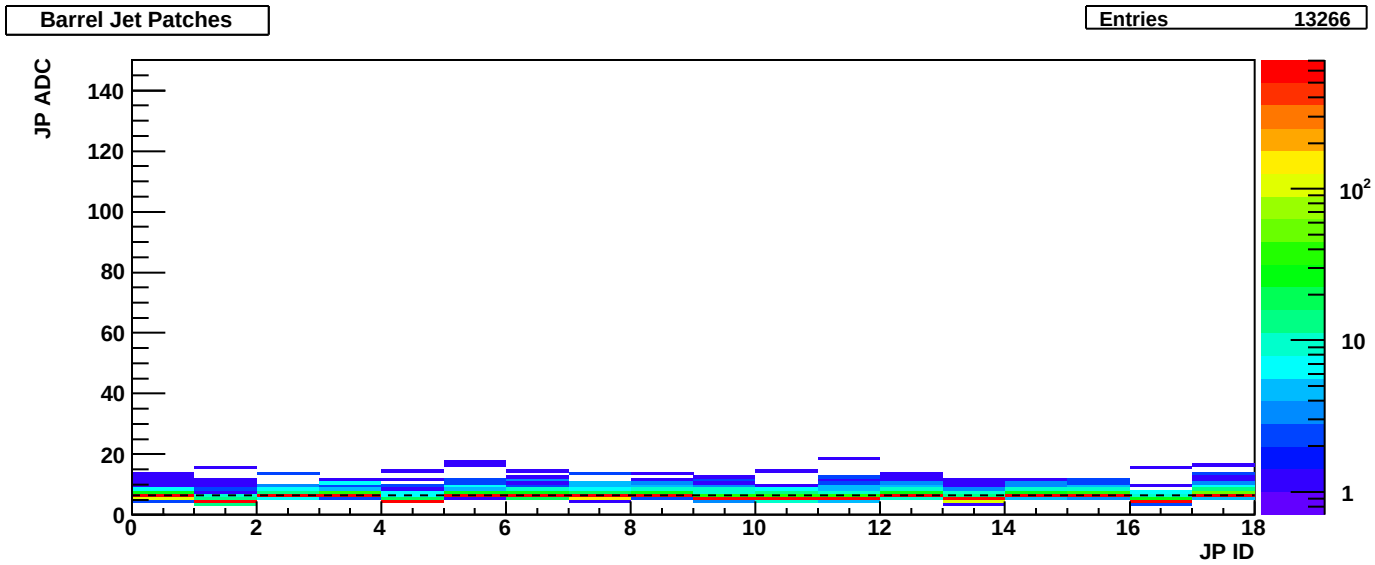
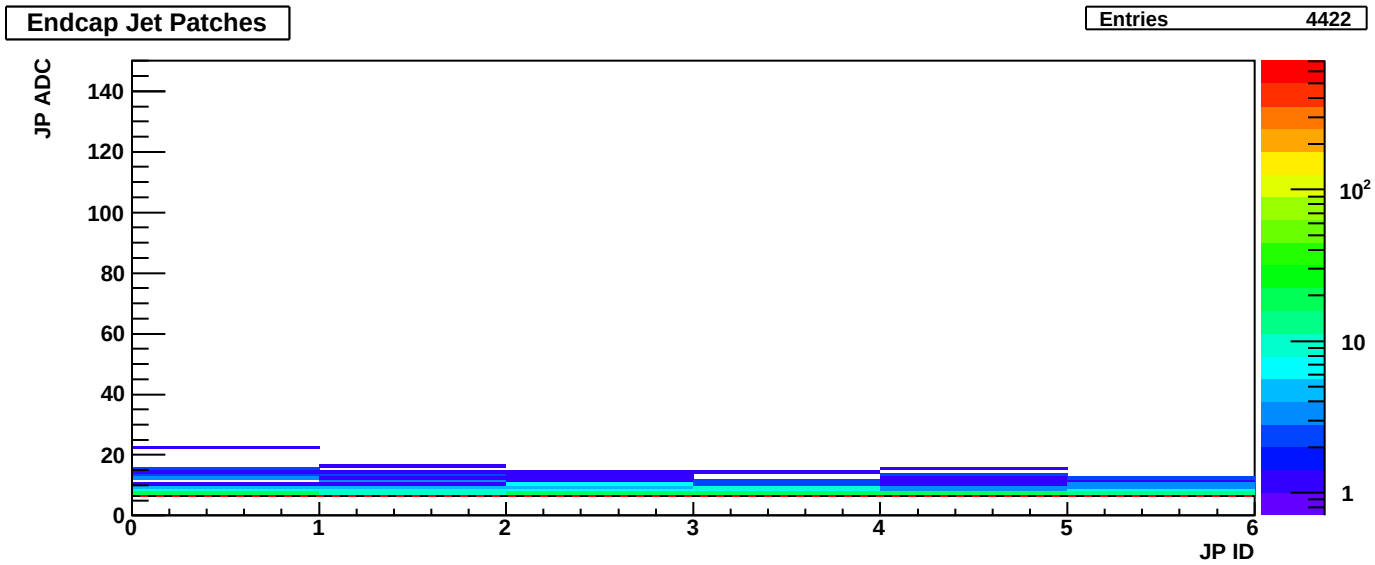

Barrel EMC L0 Input - High Tower
Entries 221100
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2

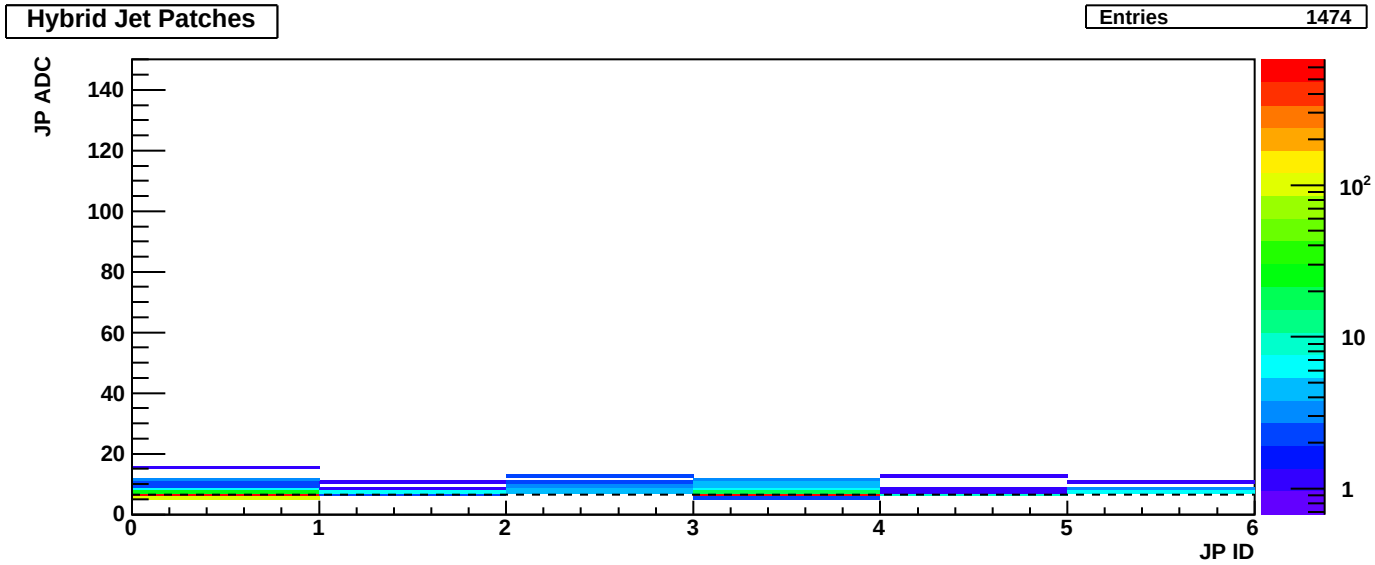

Barrel EMC L0 Input - Patch Sum
Entries 221100
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2

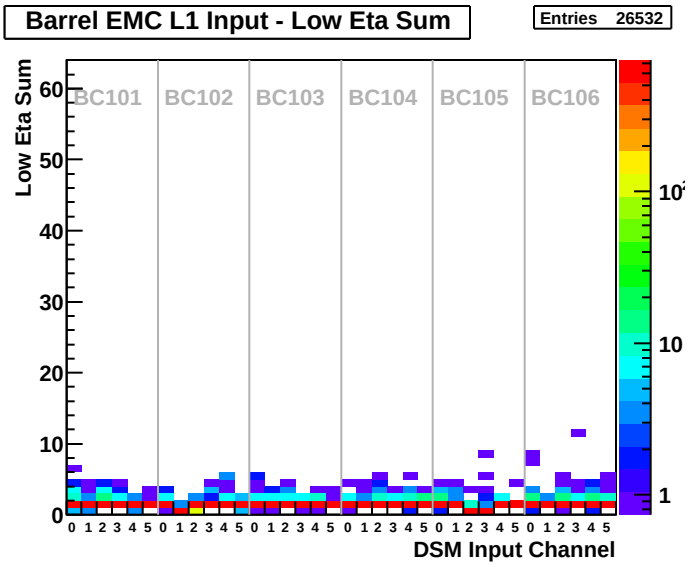

Endcap EMC L0 Input - High Tower
Entries 66330
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2

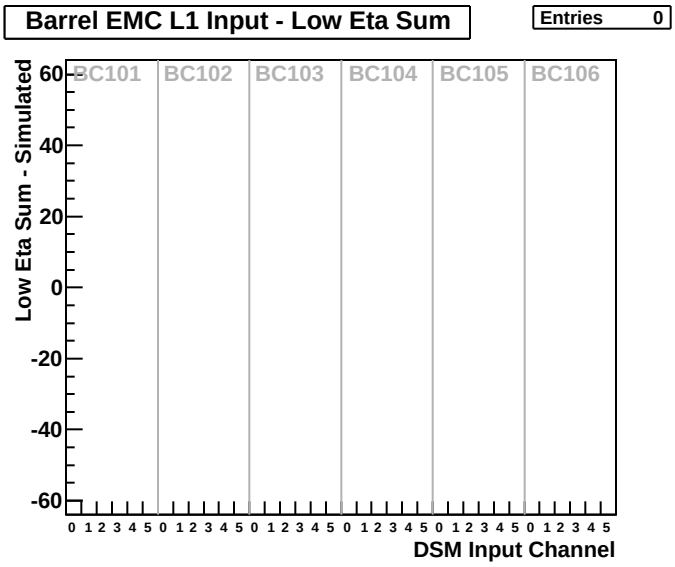

Endcap EMC L0 Input - Patch Sum
Entries 66330
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2

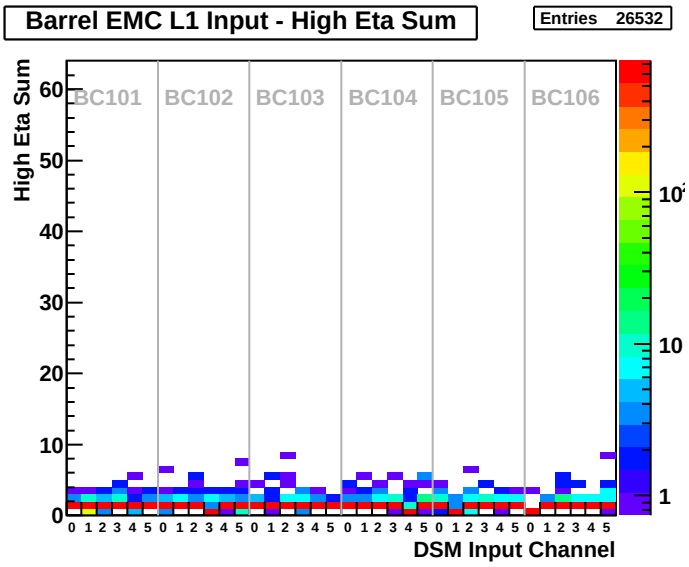

Barrel Jet Patches
Entries 13266
JP ADC
JP ID

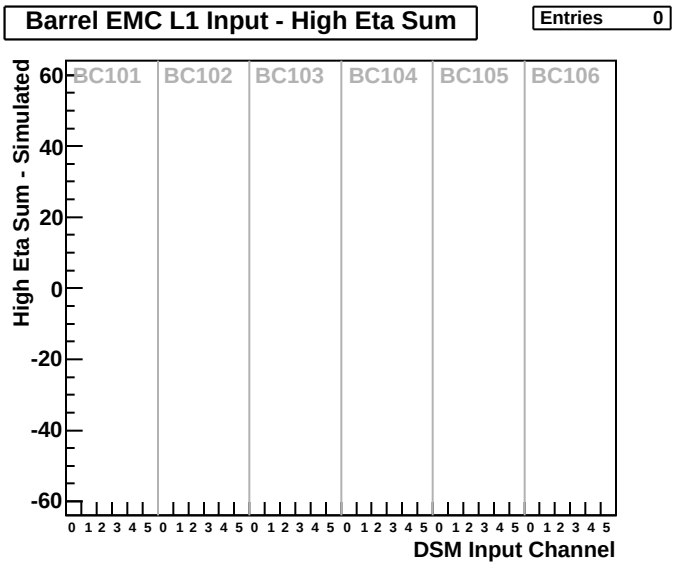

Endcap Jet Patches
Entries 4422
JP ADC
JP ID

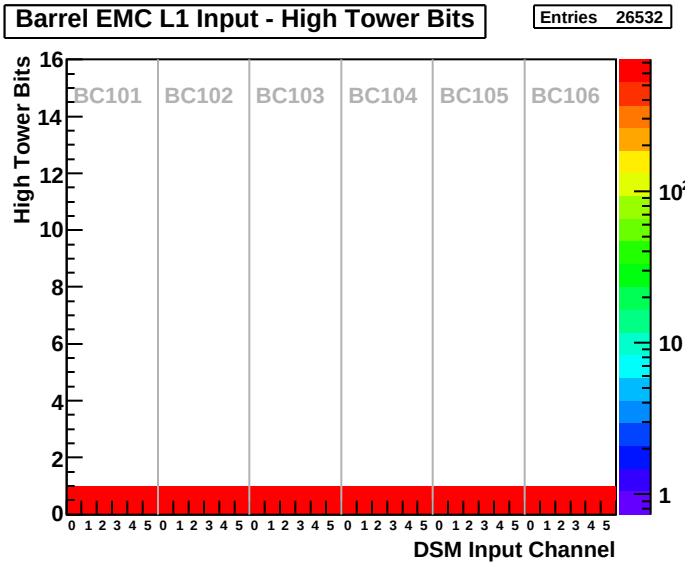

Hybrid Jet Patches
Entries 1474
JP ADC
JP ID

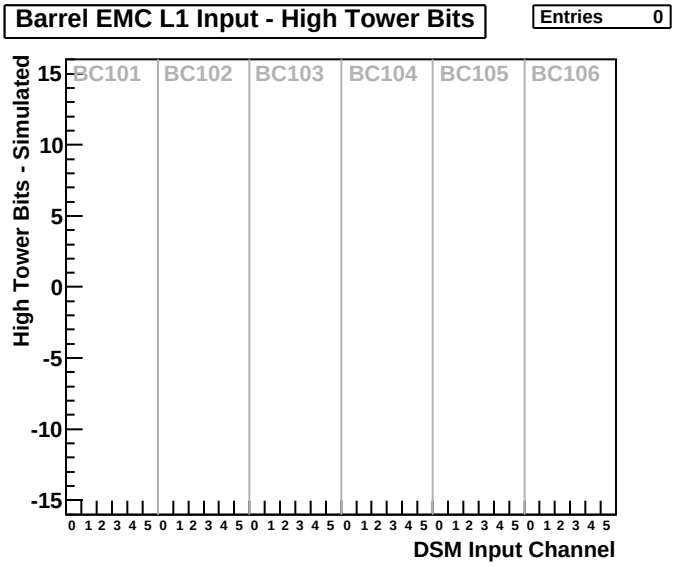

Barrel EMC L1 Input - Low Eta Sum
Entries 26532
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

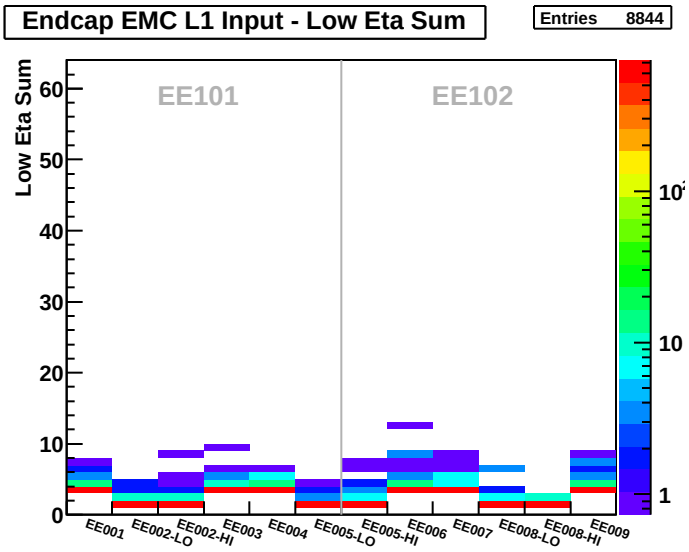

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

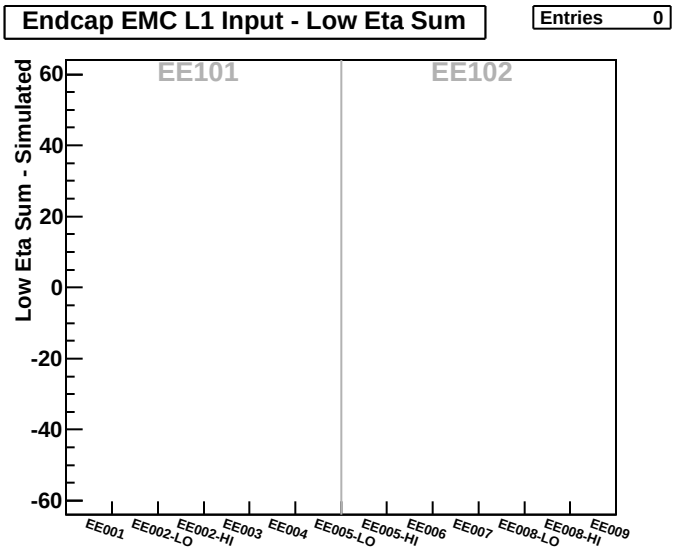

Barrel EMC L1 Input - High Eta Sum
Entries 26532
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

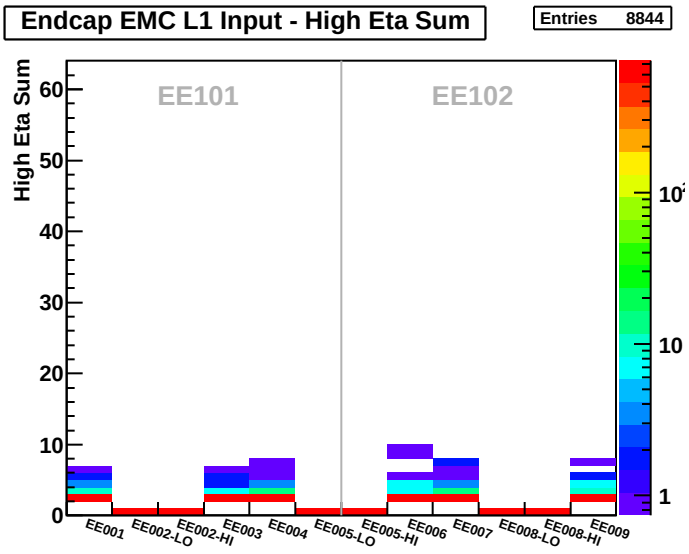

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

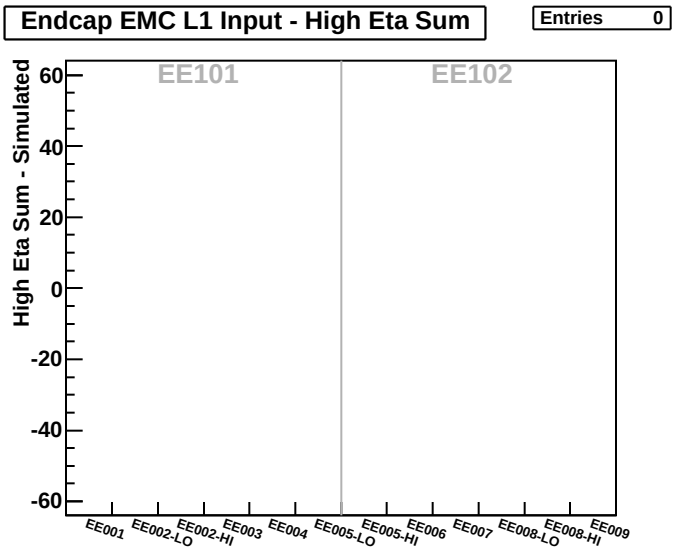

Barrel EMC L1 Input - High Tower Bits
Entries 26532
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

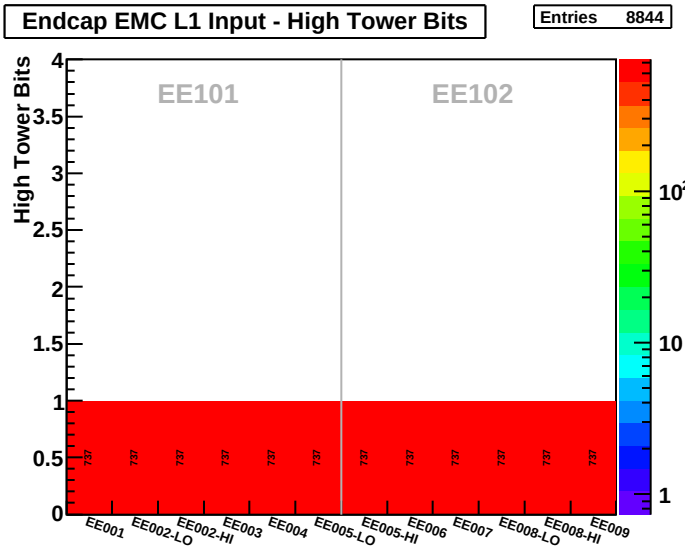

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

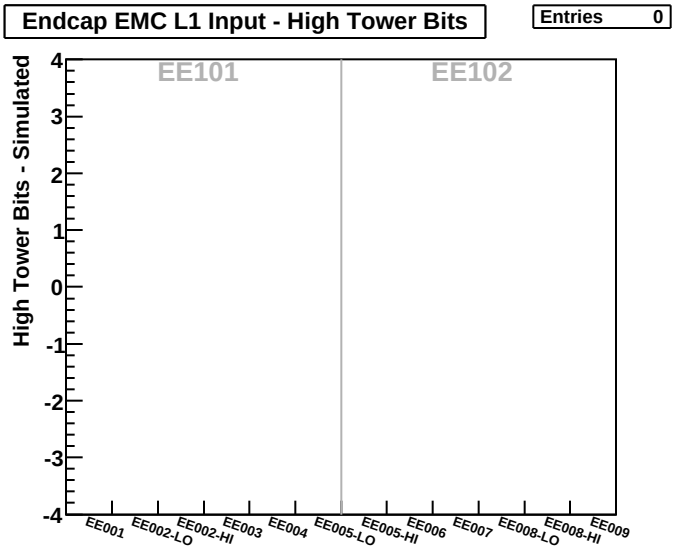

Endcap EMC L1 Input - Low Eta Sum
Entries 8844
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

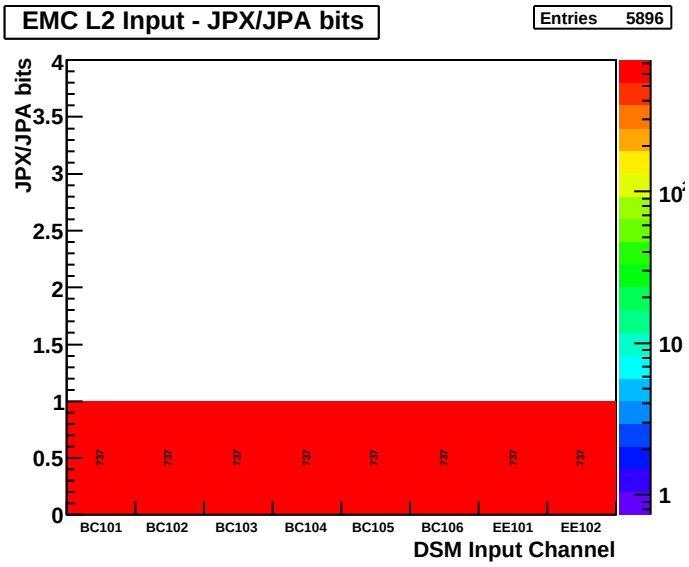

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

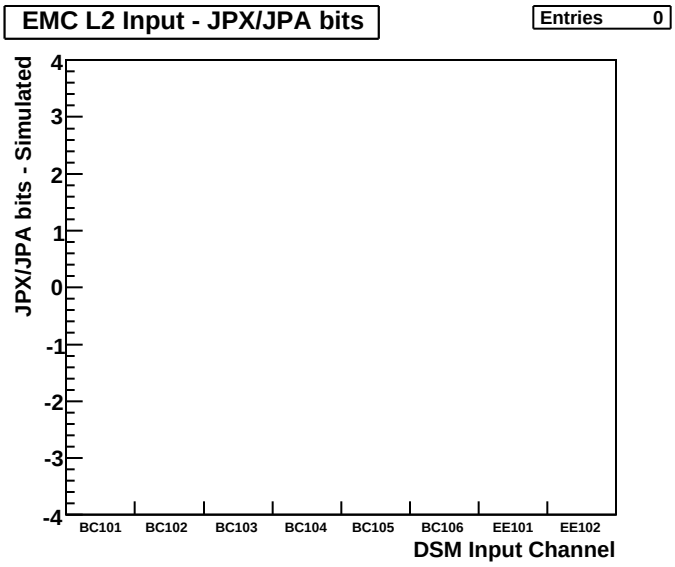

Endcap EMC L1 Input - High Eta Sum
Entries 8844
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

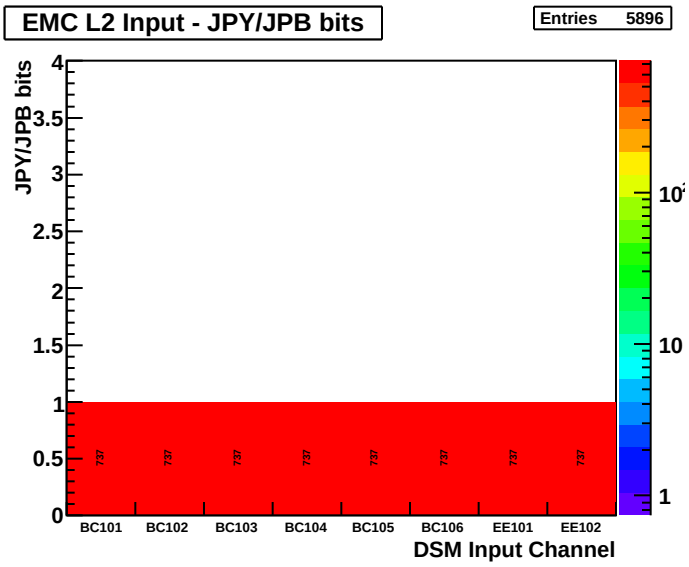

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

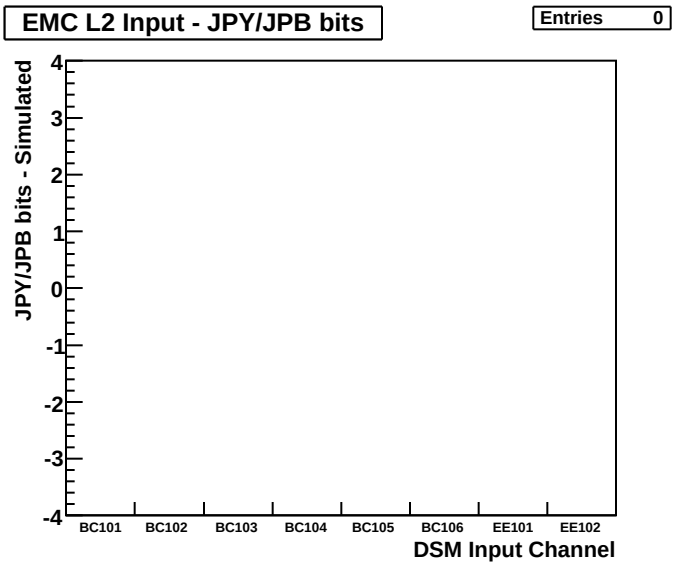

Endcap EMC L1 Input - High Tower Bits
Entries 8844
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

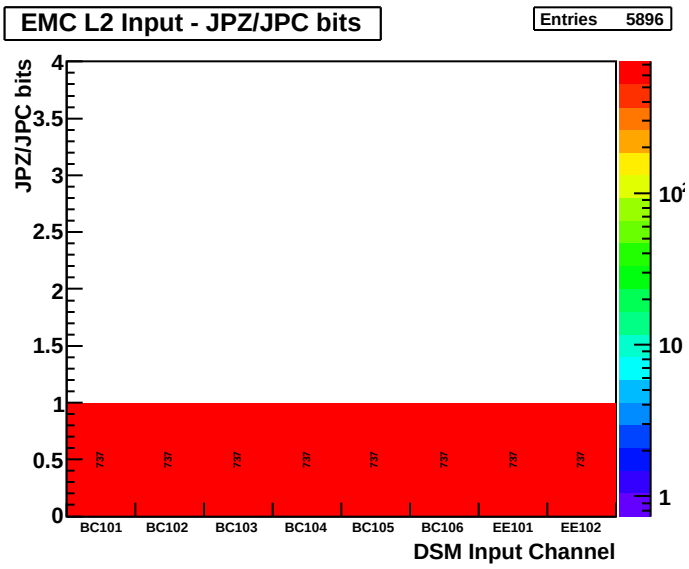

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

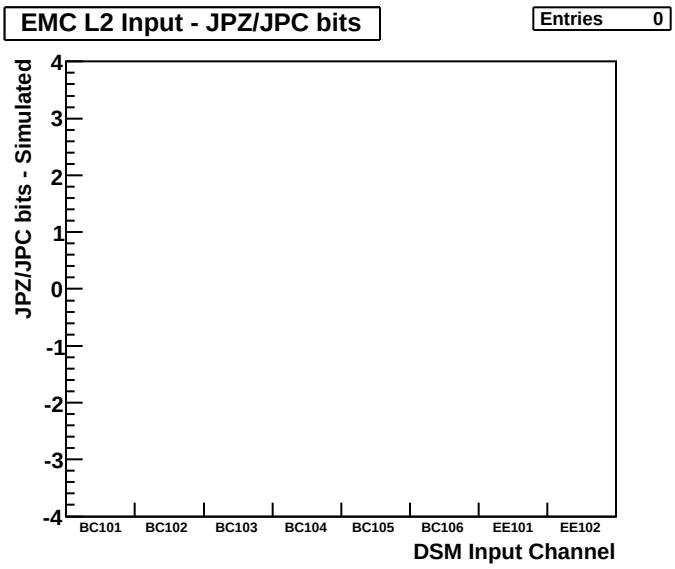

EMC L2 Input - JPX/JPA bits
Entries 5896
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

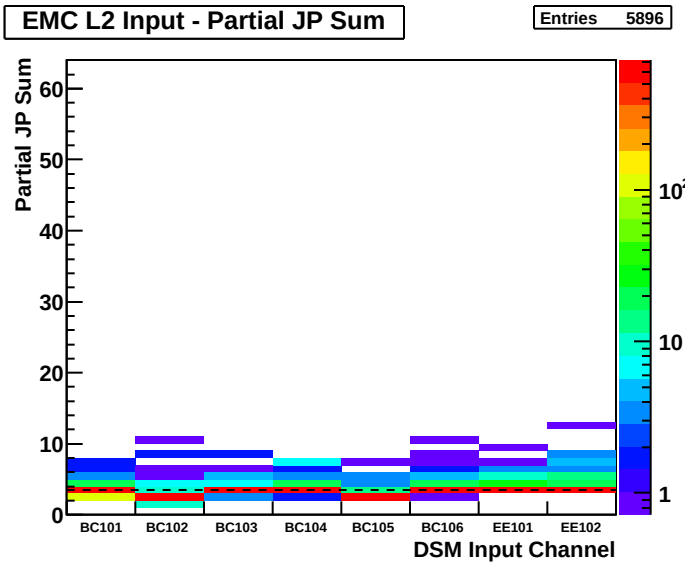

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

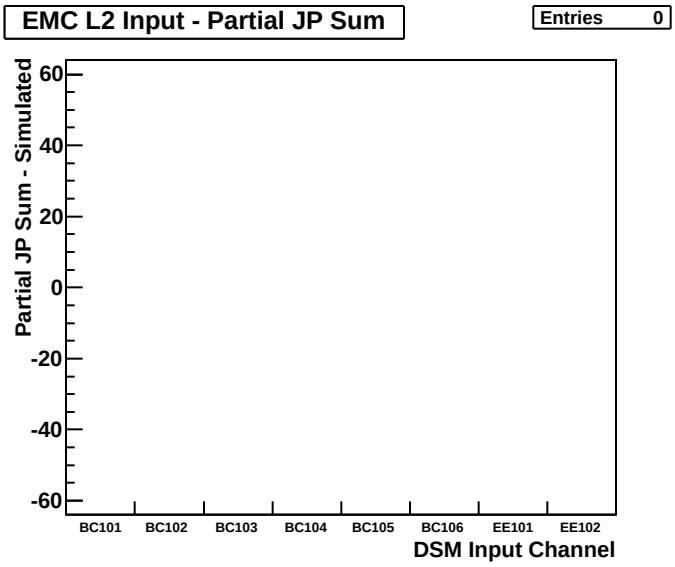

EMC L2 Input - JPY/JPB bits
Entries 5896
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

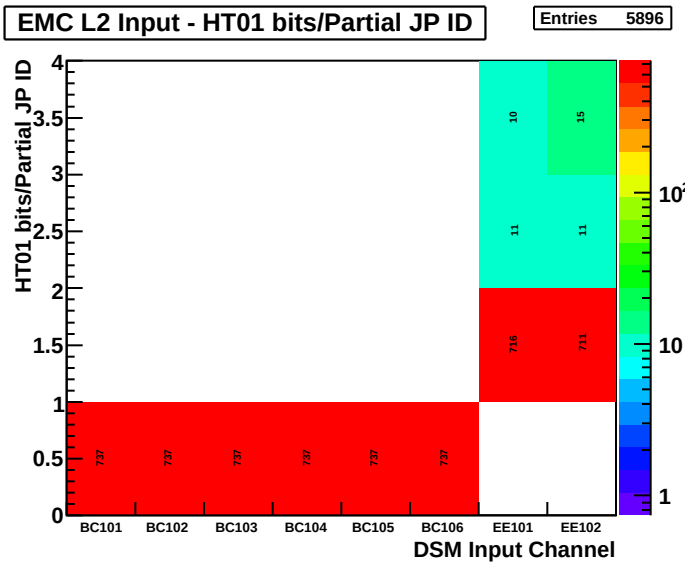

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

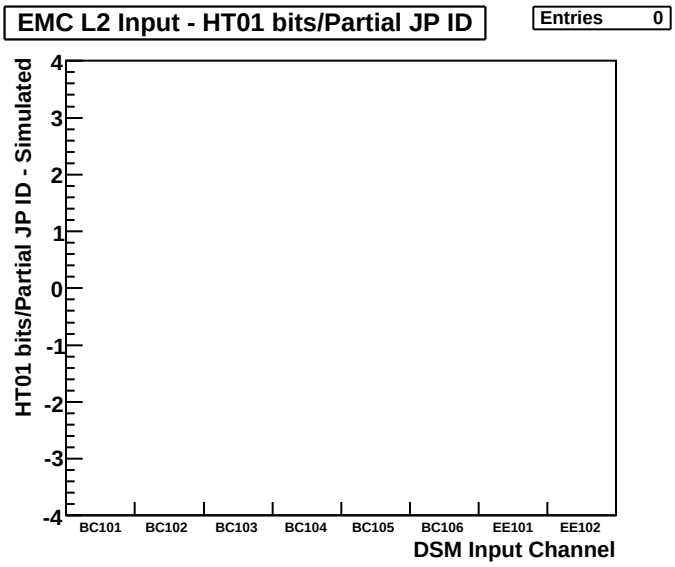

EMC L2 Input - JPZ/JPC bits
Entries 5896
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

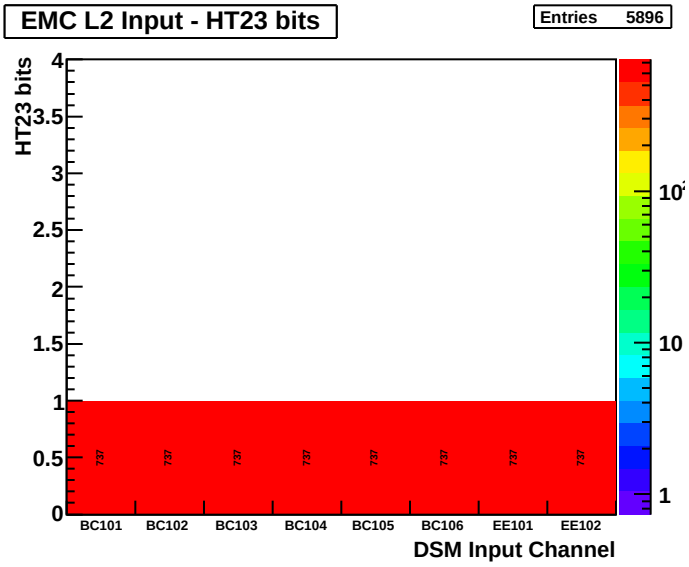

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

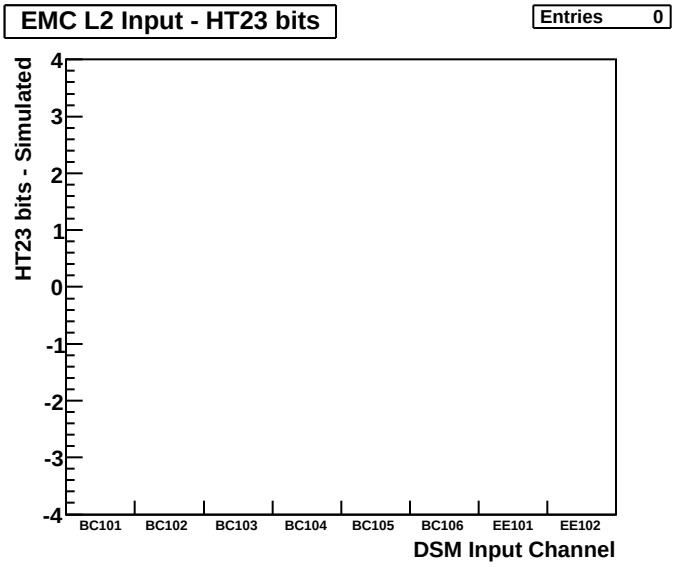

EMC L2 Input - Partial JP Sum
Entries 5896
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

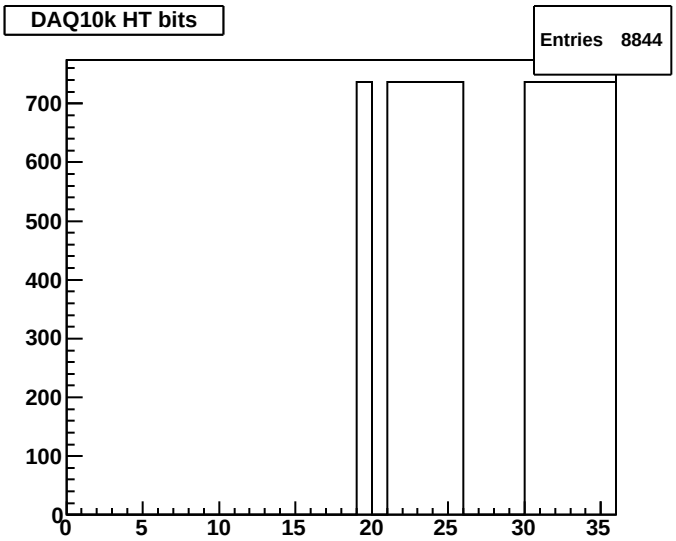

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

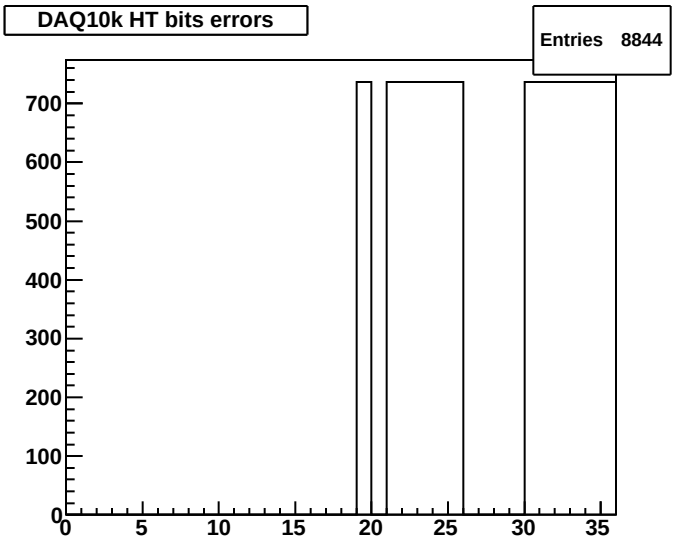

EMC L2 Input - HT01 bits/Partial JP ID
Entries 5896
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

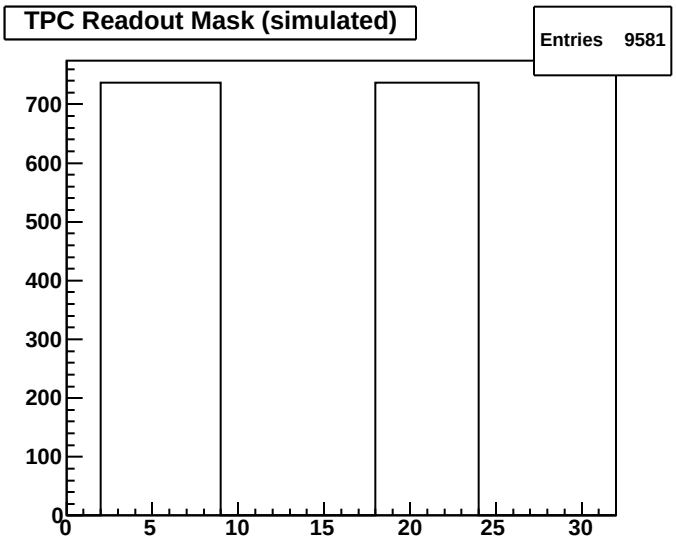

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

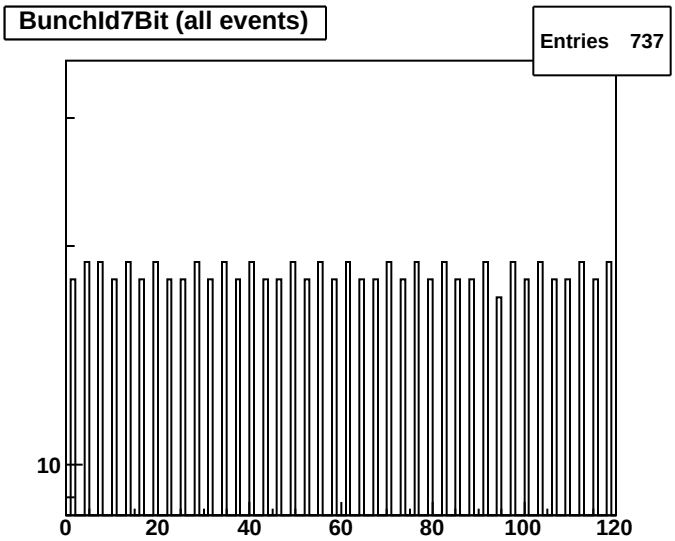

EMC L2 Input - HT23 bits
Entries 5896
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

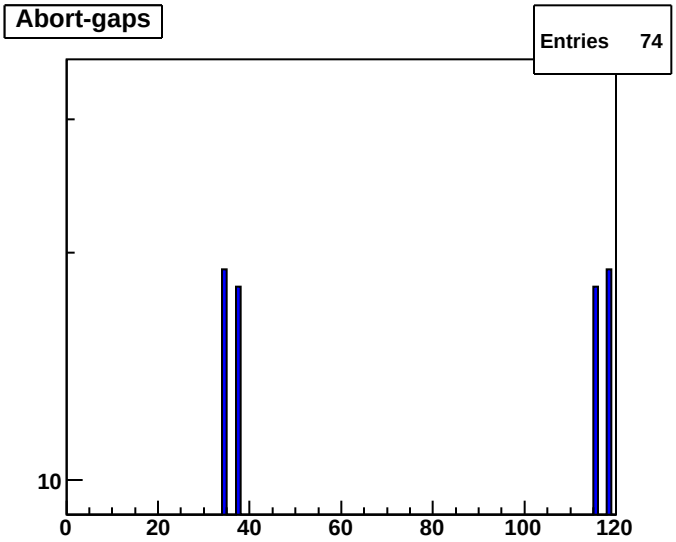

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

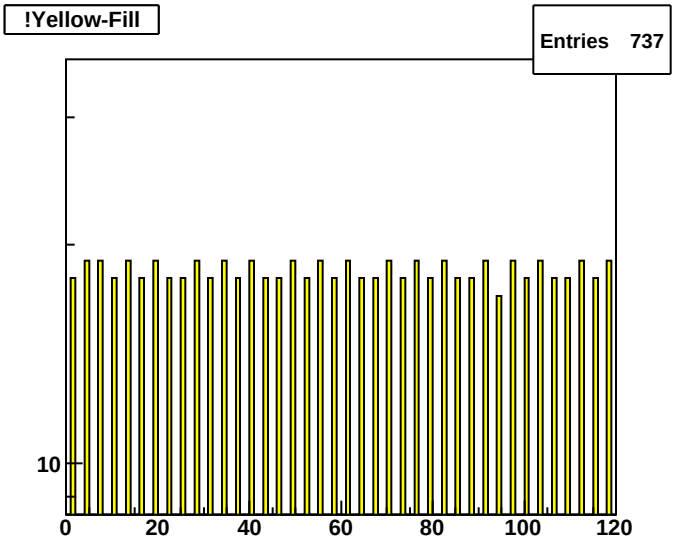

DAQ10k HT bits
Entries 8844
700
600
500
400
300
200
100
0
0 5 10 15 20 25 30 35

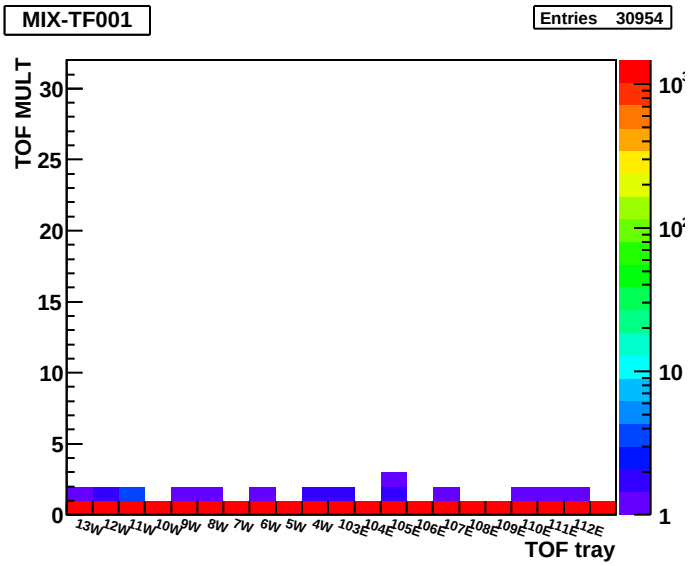

DAQ10k HT bits errors
Entries 8844
700
600
500
400
300
200
100
0
0 5 10 15 20 25 30 35

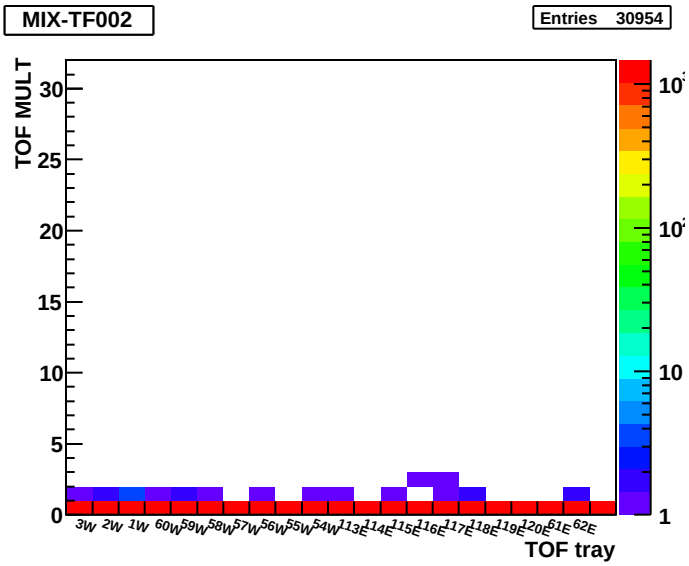

TPC Readout Mask (simulated)
Entries 9581
700
600
500
400
300
200
100
0
0 5 10 15 20 25 30

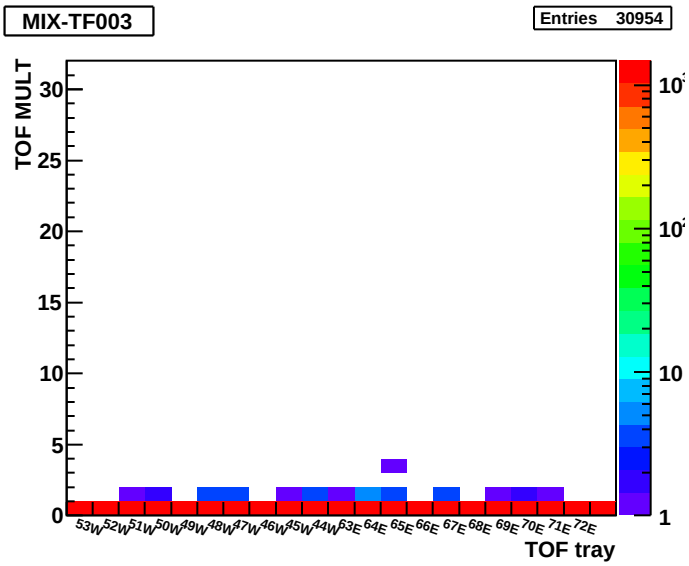

BunchId7Bit (all events)
Entries 737
10
0 20 40 60 80 100 120

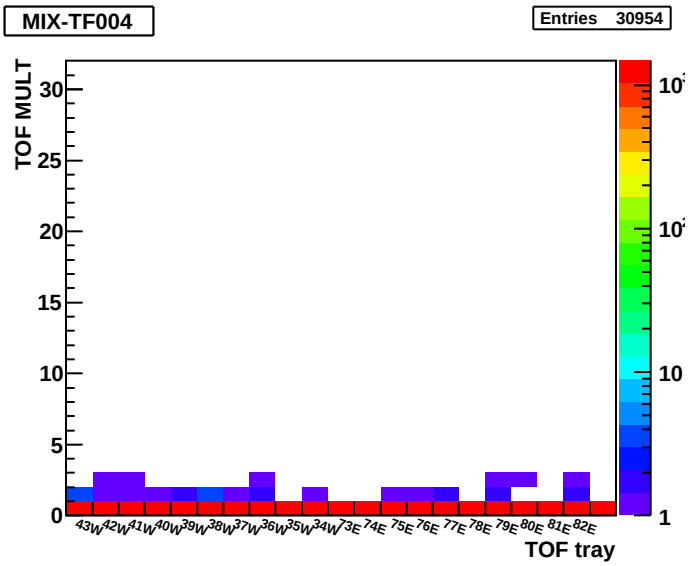

Abort-gaps
Entries 74
10
0 20 40 60 80 100 120

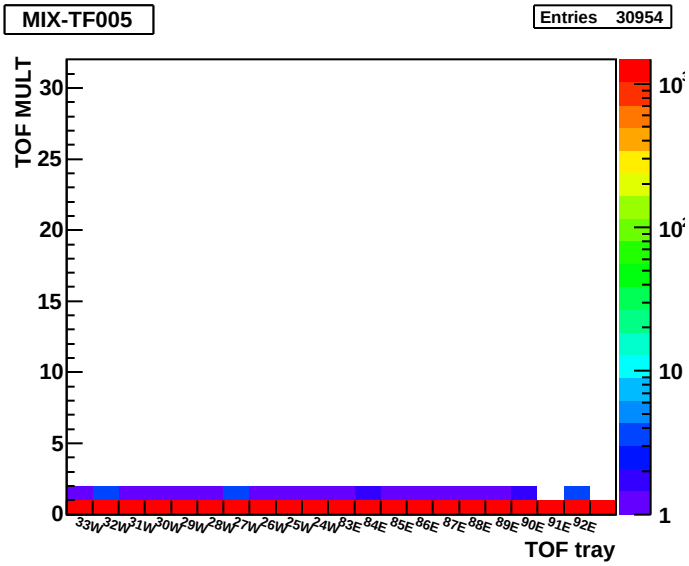

!Yellow-Fill
Entries 737
10
0 20 40 60 80 100 120

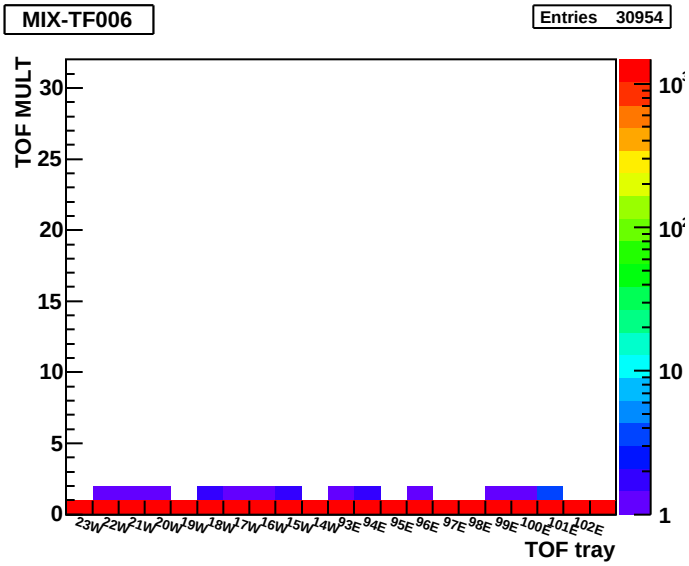

MIX-TF001
Entries 30954
TOF MULT
TOF tray

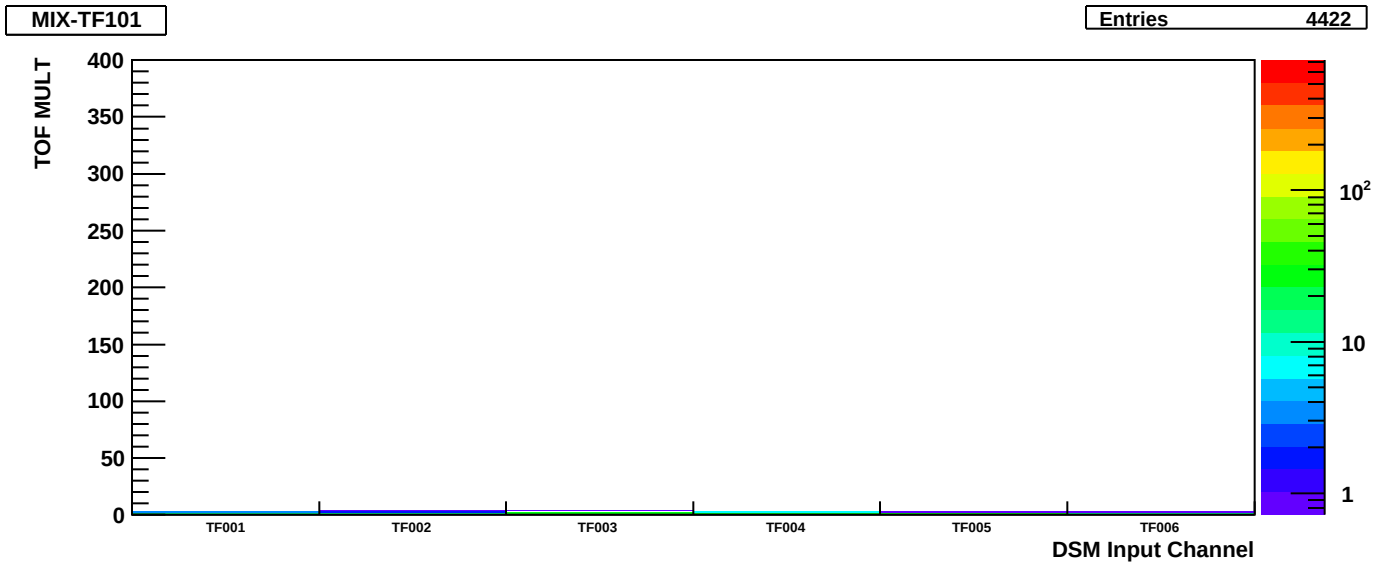

MIX-TF002
Entries 30954
TOF MULT
TOF tray

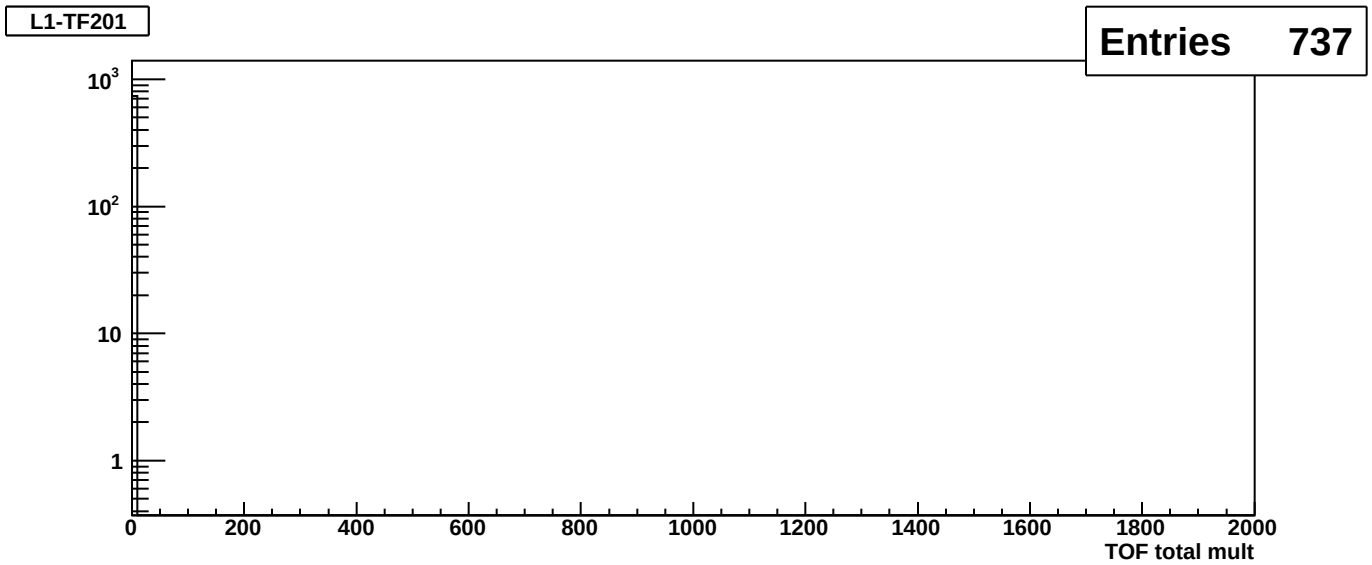

MIX-TF003
Entries 30954
TOF MULT
TOF tray

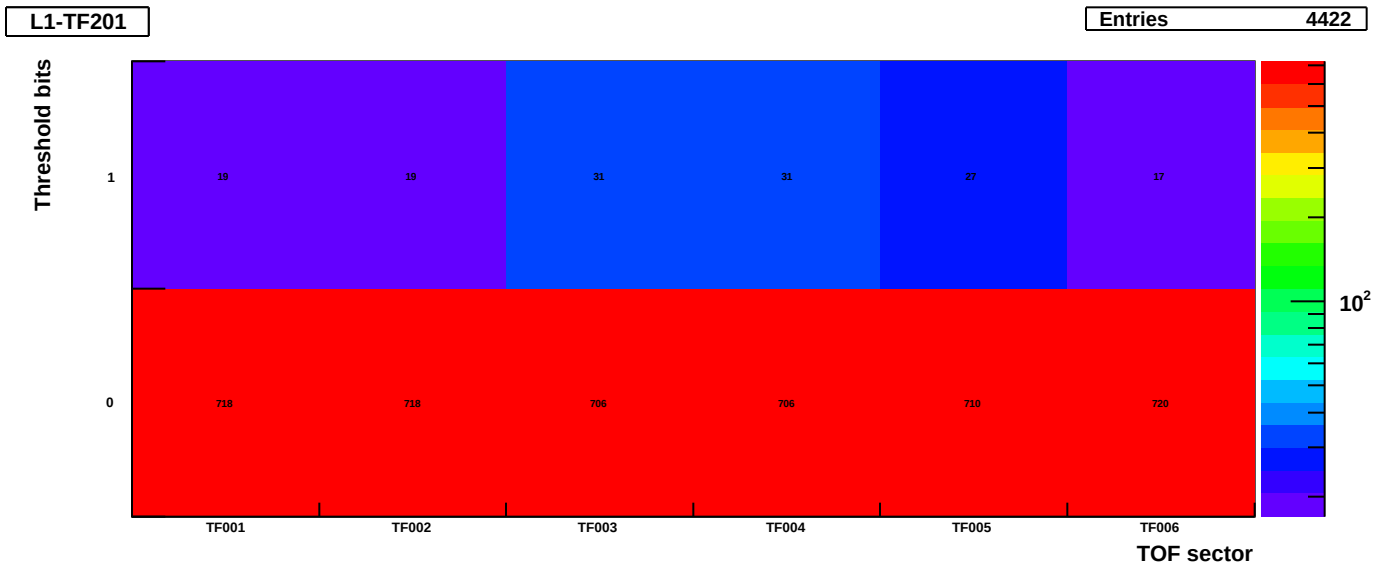

MIX-TF004
Entries 30954
TOF MULT
TOF tray

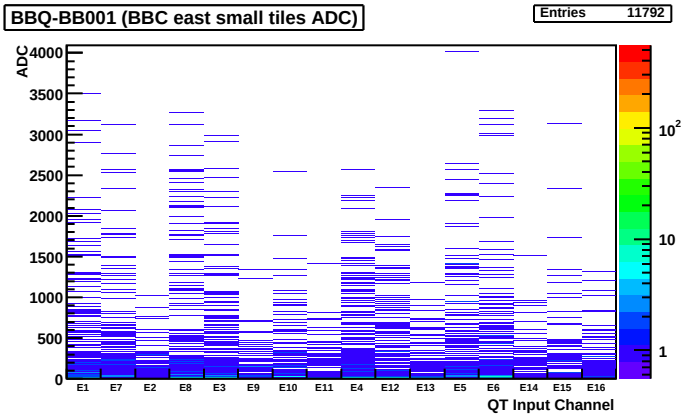

MIX-TF005
Entries 30954
TOF MULT
TOF tray

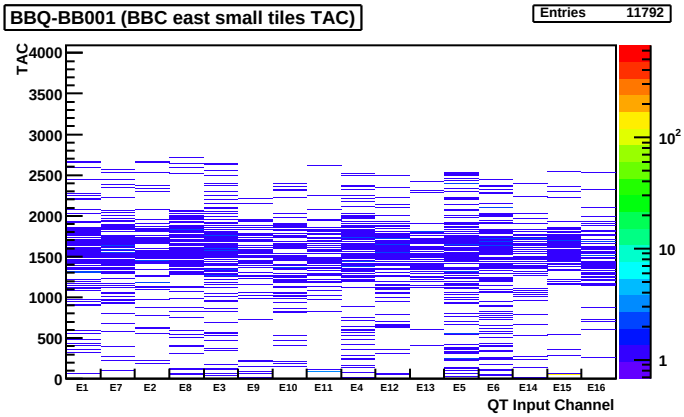

MIX-TF006
Entries 30954
TOF MULT
TOF tray

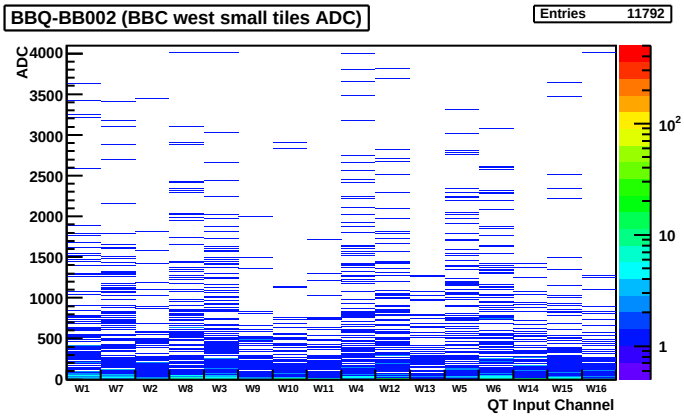

MIX-TF101
Entries 4422
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^2
10
1

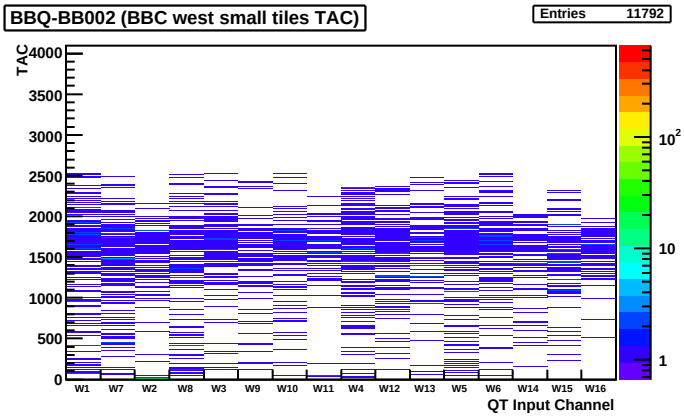

L1-TF201
Entries 737
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

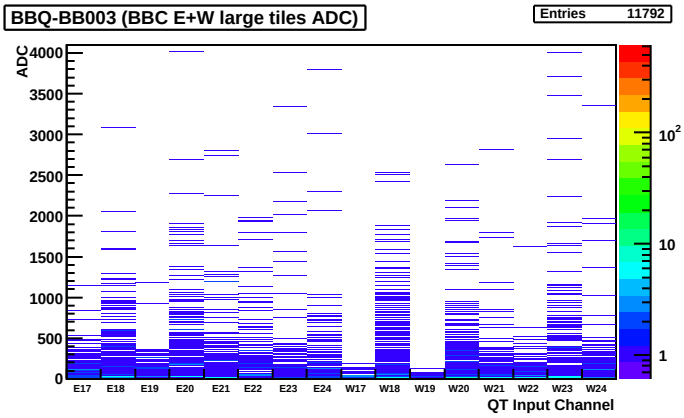

L1-TF201
Entries 4422
Threshold bits
1
0
19
19
31
31
27
17
718
718
706
706
710
720
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^2

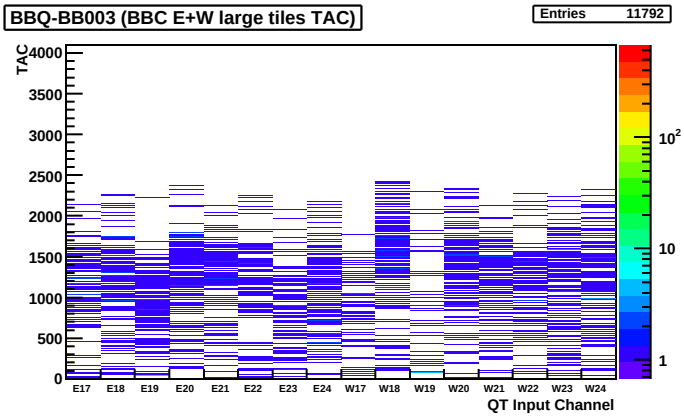

BBQ-BB001 (BBC east small tiles ADC)
Entries 11792
ADC
QT Input Channel

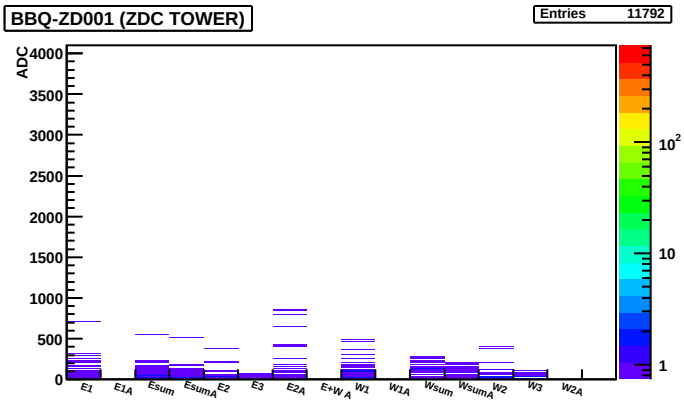

BBQ-BB001 (BBC east small tiles TAC)
Entries 11792
TAC
QT Input Channel

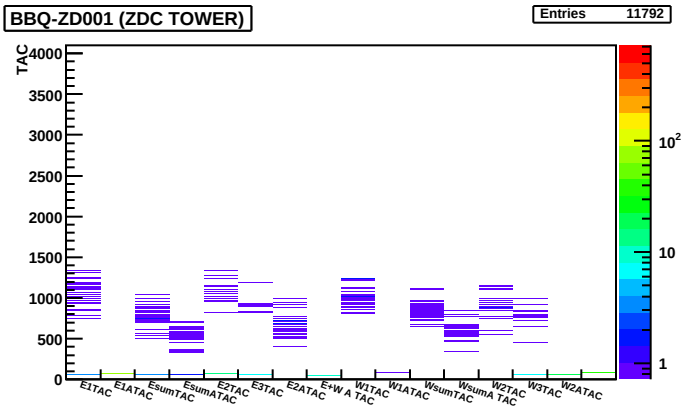

BBQ-BB002 (BBC west small tiles ADC)
Entries 11792
ADC
QT Input Channel

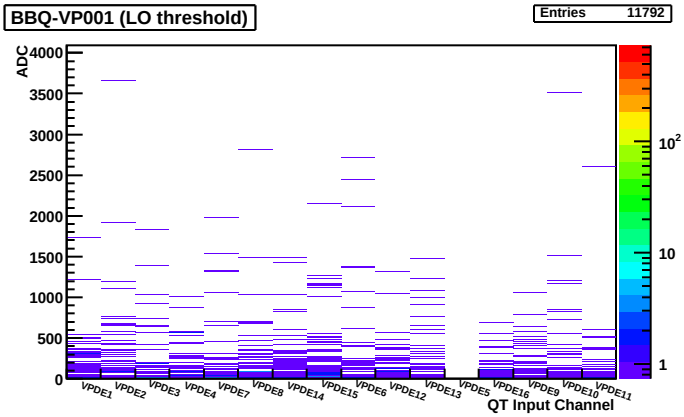

BBQ-BB002 (BBC west small tiles TAC)
Entries 11792
TAC
QT Input Channel

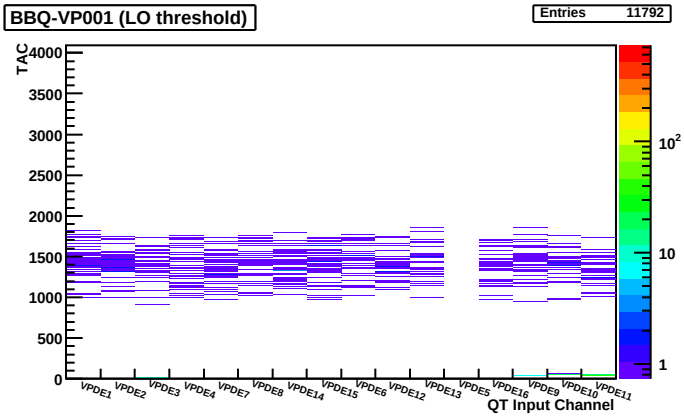

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 11792
ADC
QT Input Channel

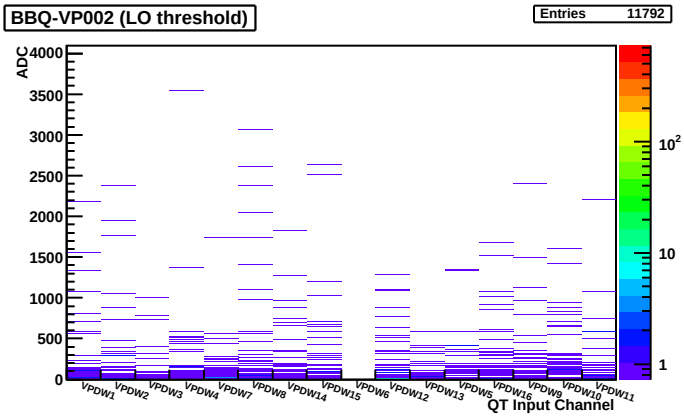

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 11792
TAC
QT Input Channel

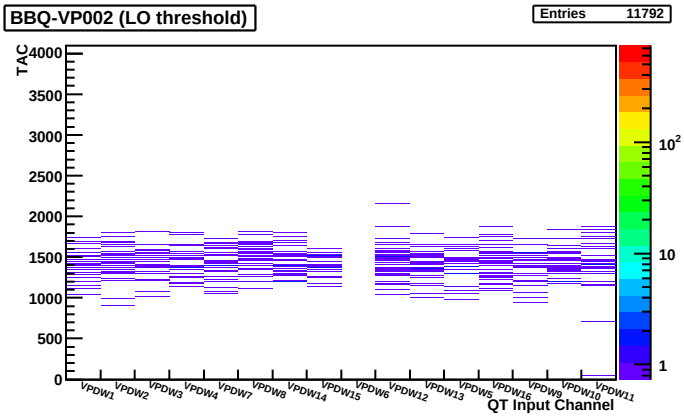

BBQ-ZD001 (ZDC TOWER)
Entries 11792
ADC

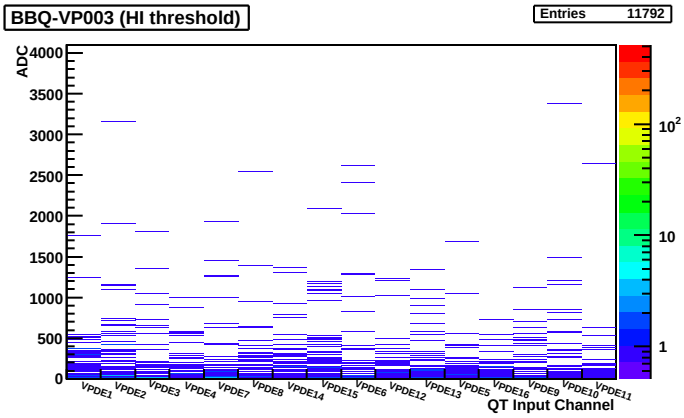

BBQ-ZD001 (ZDC TOWER)
Entries 11792
TAC

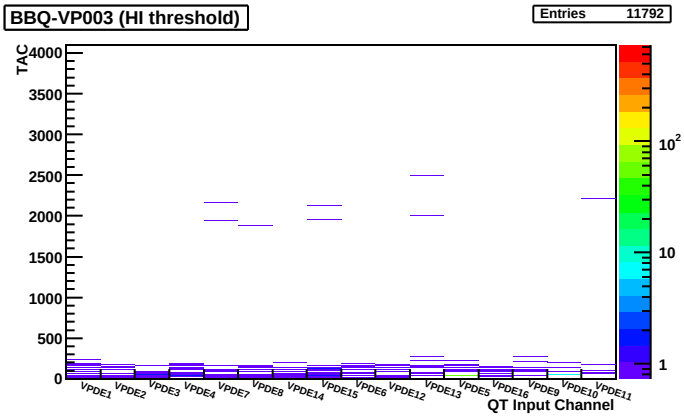

BBQ-VP001 (LO threshold)
Entries 11792
ADC
QT Input Channel

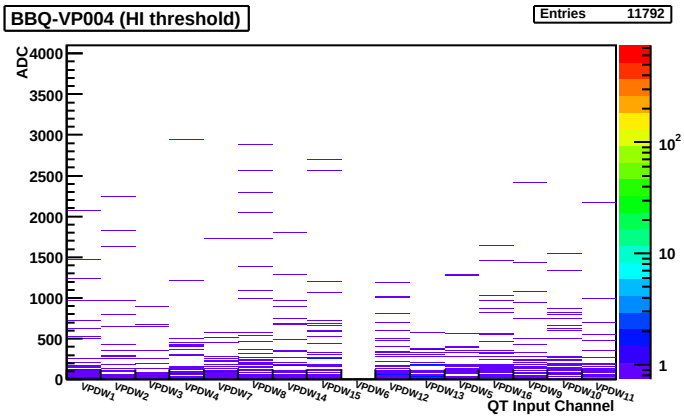

BBQ-VP001 (LO threshold)
Entries 11792
TAC
QT Input Channel

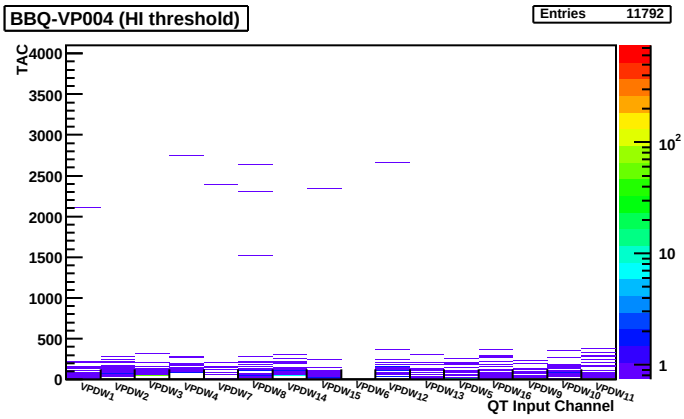

BBQ-VP002 (LO threshold)
Entries 11792
ADC
QT Input Channel

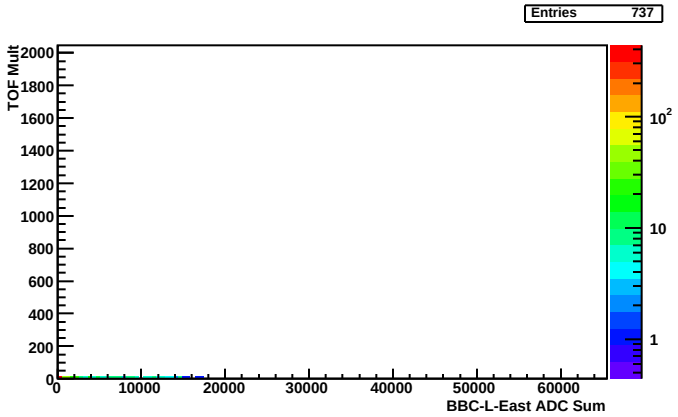

BBQ-VP002 (LO threshold)
Entries 11792
TAC
QT Input Channel

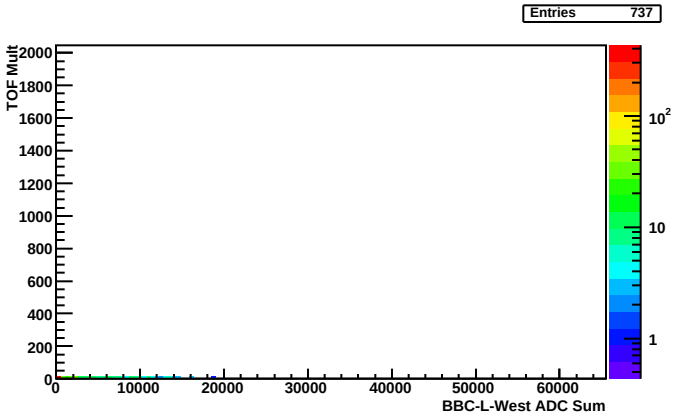

BBQ-VP003 (HI threshold)
Entries 11792
ADC
QT Input Channel

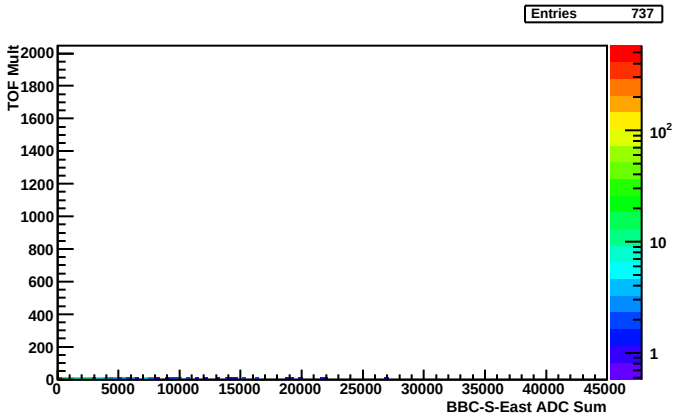

BBQ-VP003 (HI threshold)
Entries 11792
TAC
QT Input Channel

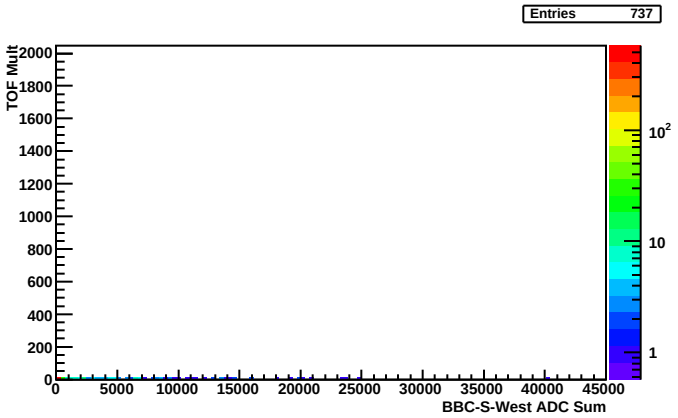

BBQ-VP004 (HI threshold)
Entries 11792
ADC
QT Input Channel

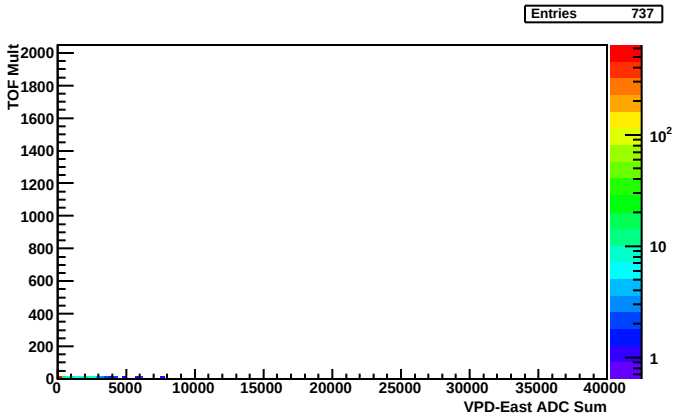

BBQ-VP004 (HI threshold)
Entries 11792
TAC
QT Input Channel

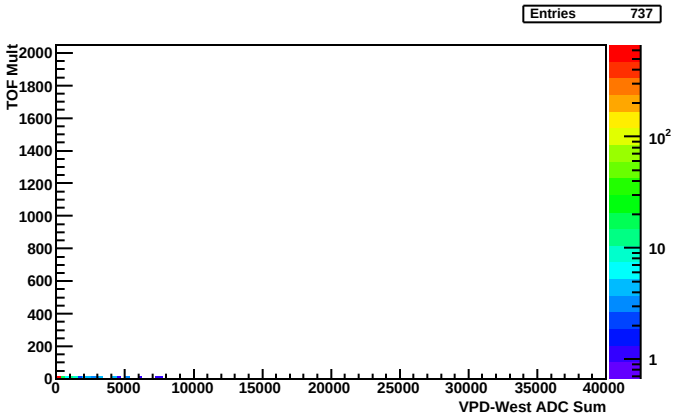

Entries 737
TOF Mult
BBC-L-East ADC Sum

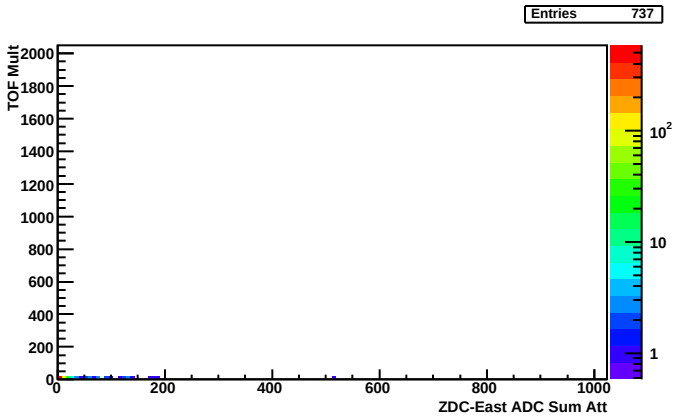

Entries 737
TOF Mult
BBC-L-West ADC Sum

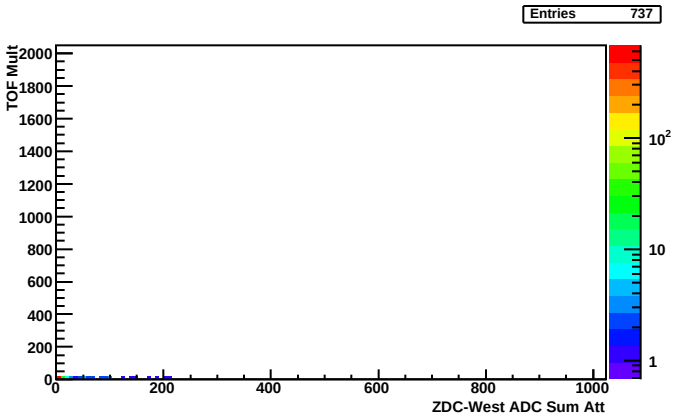

Entries 737
TOF Mult
BBC-S-East ADC Sum

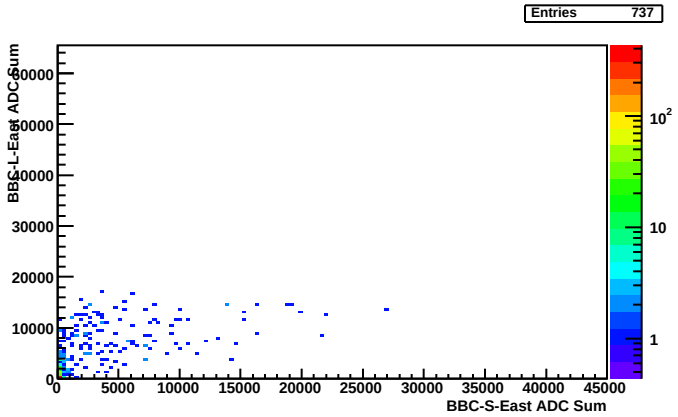

Entries 737
TOF Mult
BBC-S-West ADC Sum

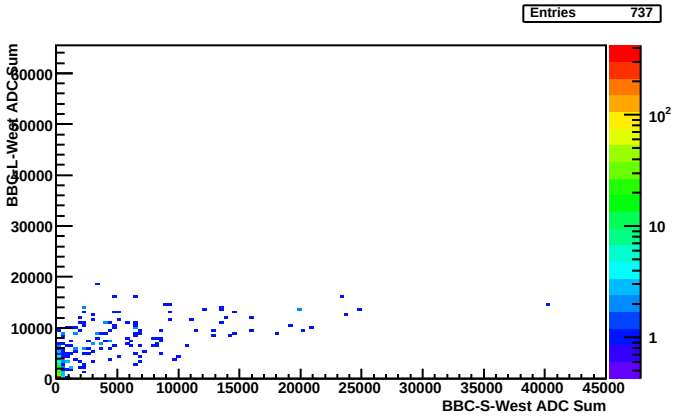

Entries 737
TOF Mult
VPD-East ADC Sum

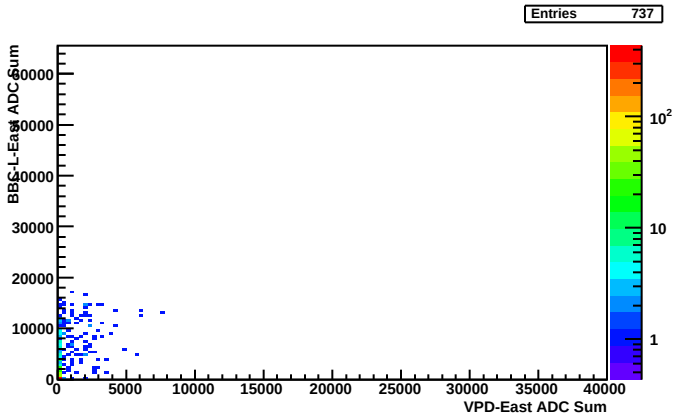

Entries 737
TOF Mult
VPD-West ADC Sum

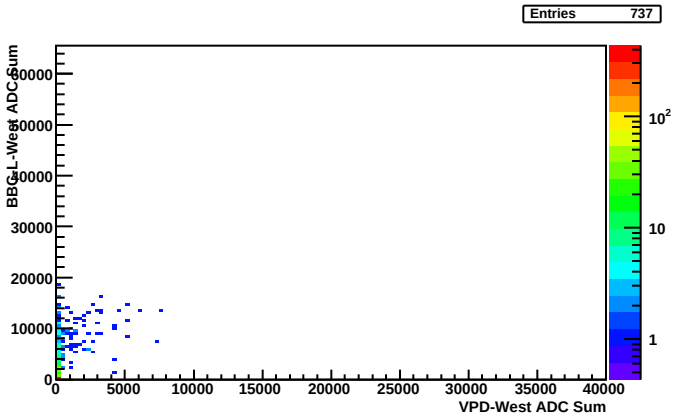

Entries 737
TOF Mult
ZDC-East ADC Sum Att

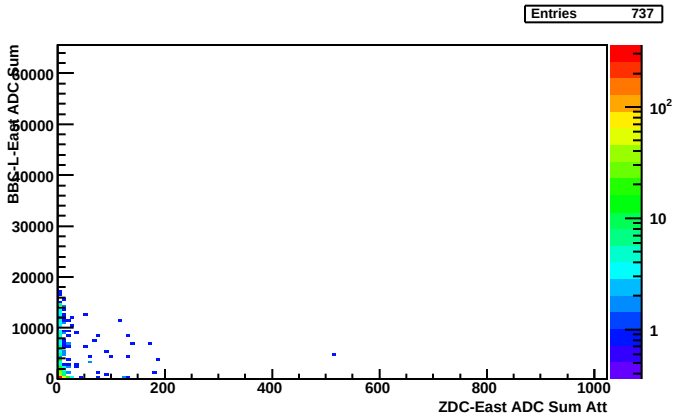

Entries 737
TOF Mult
ZDC-West ADC Sum Att

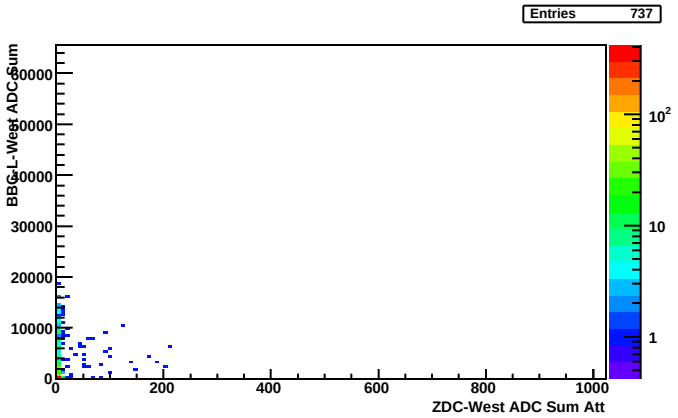

Entries 737
BBC-L-East ADC Sum
BBC-S-East ADC Sum

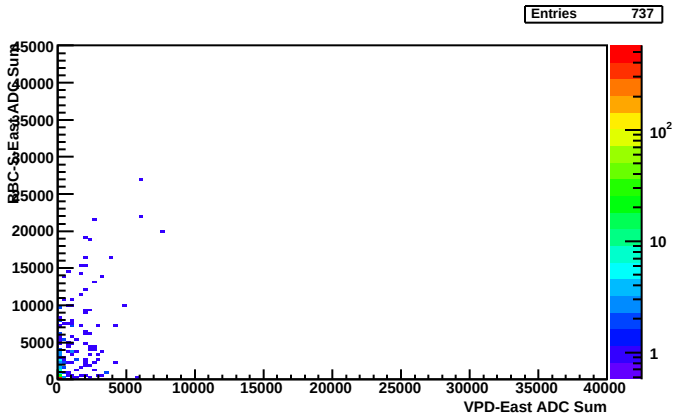

Entries 737
BBC-L-West ADC Sum
BBC-S-West ADC Sum

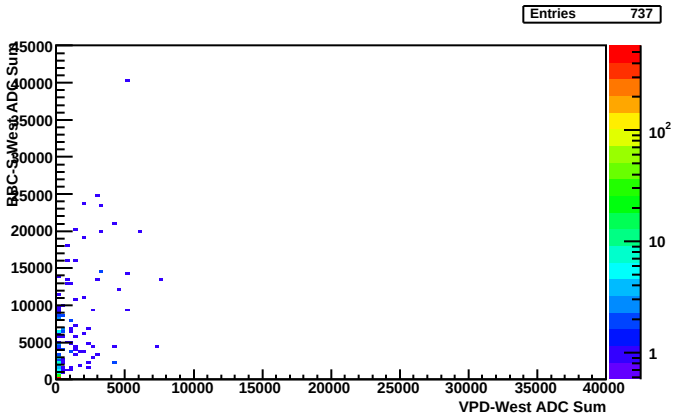

Entries 737
BBC-L-East ADC Sum
VPD-East ADC Sum

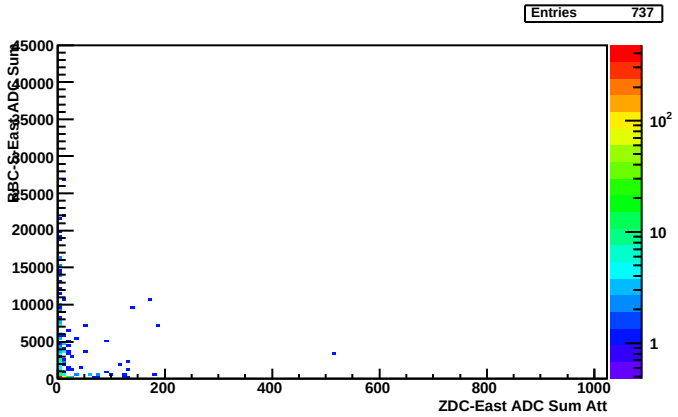

Entries 737
BBC-L-West ADC Sum
VPD-West ADC Sum

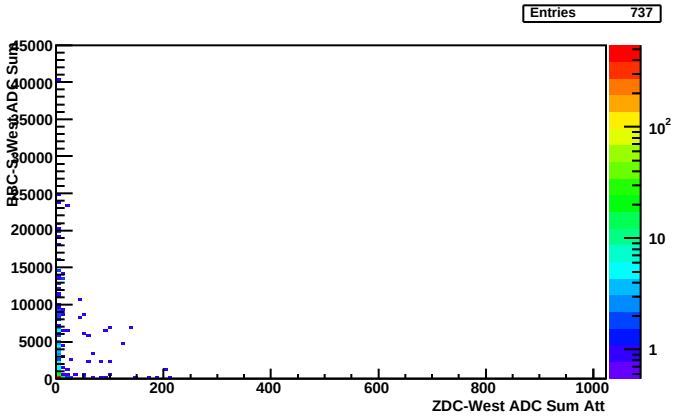

Entries 737
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

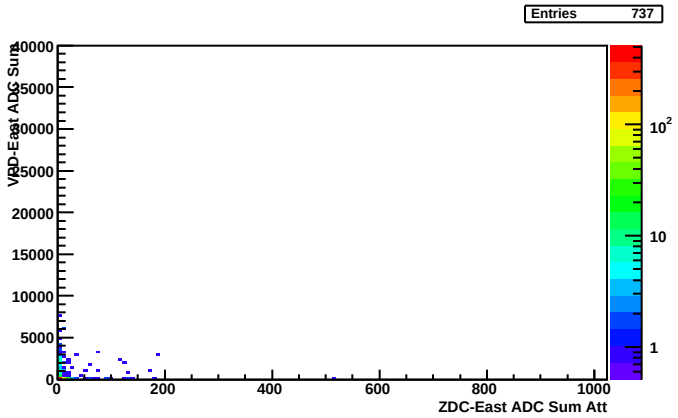

Entries 737
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

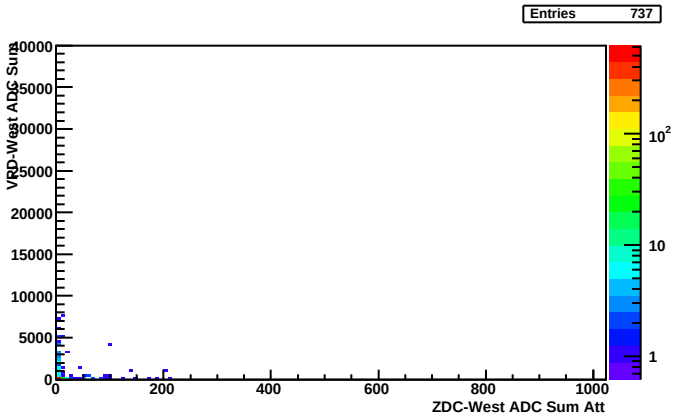

Entries 737
BBC-S-East ADC Sum
VPD-East ADC Sum

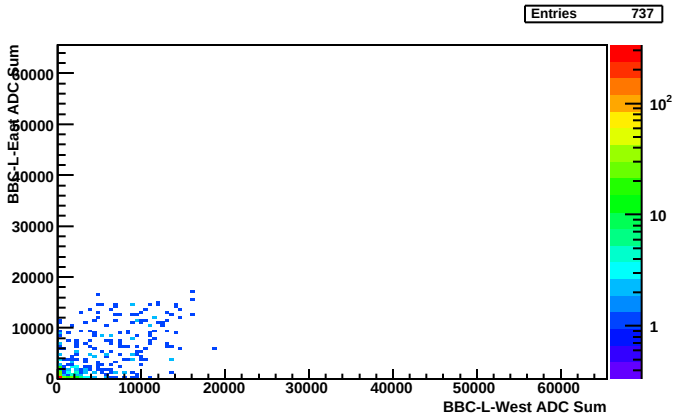

Entries 737
BBC-S-West ADC Sum
VPD-West ADC Sum

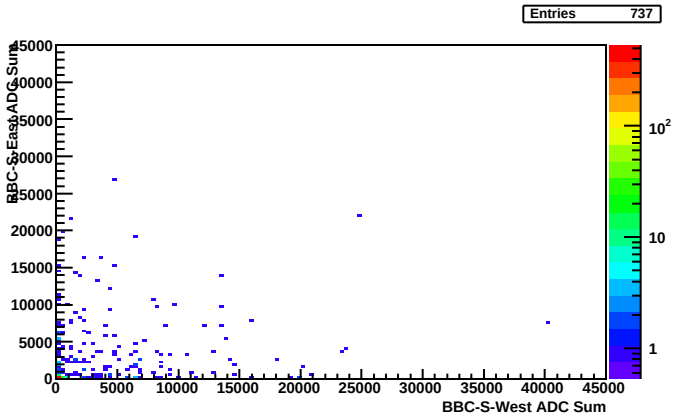

Entries 737
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

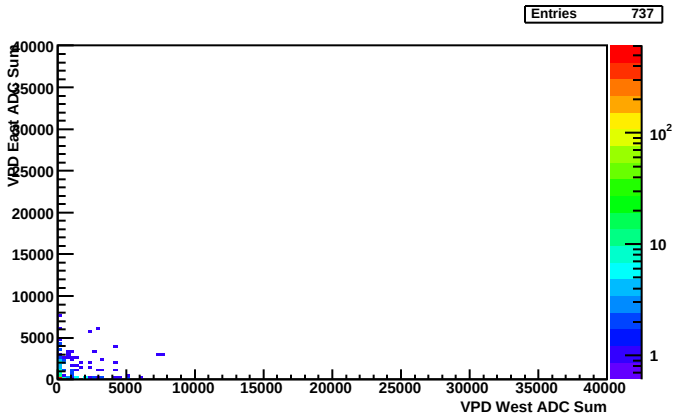

Entries 737
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

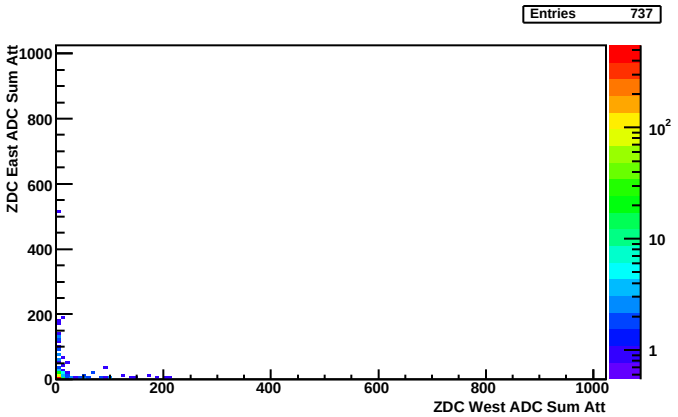

Entries 737
VPD-East ADC Sum
ZDC-East ADC Sum Att

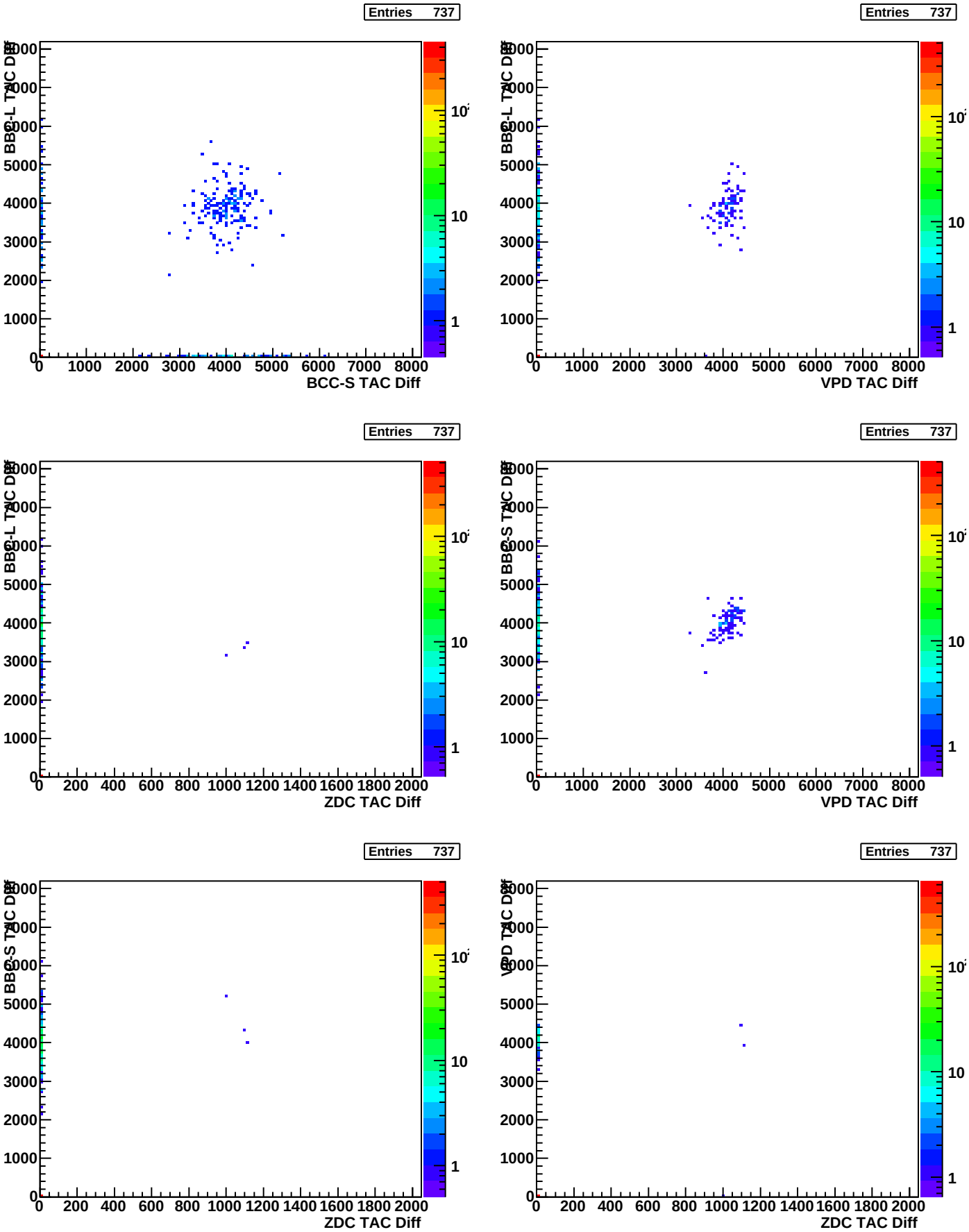

Entries 737
VPD-West ADC Sum
ZDC-West ADC Sum Att

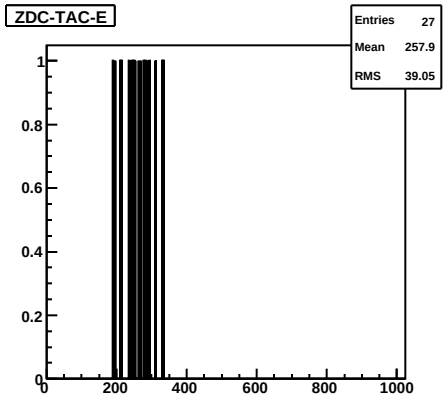

Entries 737
BBC-L-East ADC Sum
BBC-L-West ADC Sum

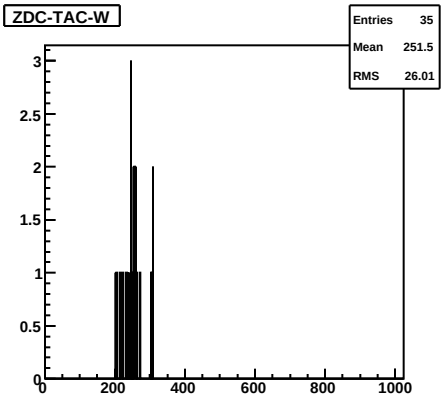

Entries 737
BBC-S-East ADC Sum
BBC-S-West ADC Sum

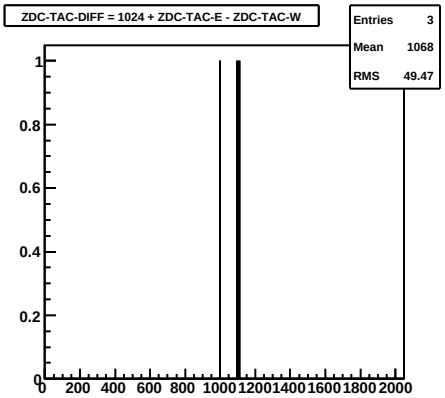

Entries 737
VPD East ADC Sum
VPD West ADC Sum

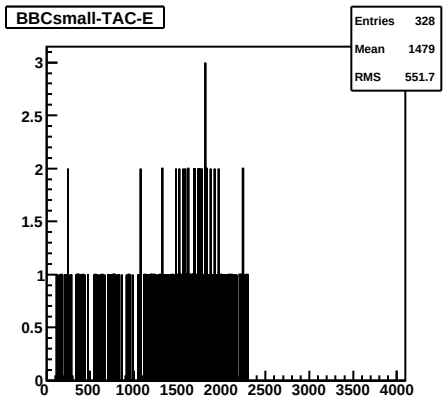

Entries 737
ZDC East ADC Sum Att
ZDC West ADC Sum Att

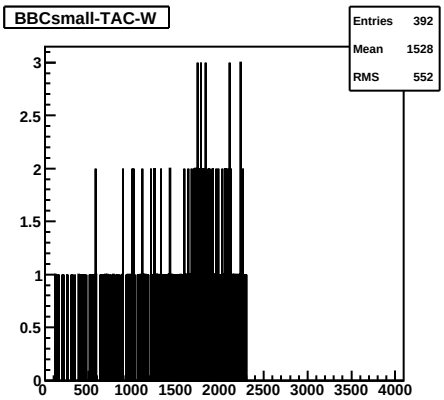

Entries 737
BBC-L TAC Diff
BCC-S TAC Diff
Entries 737
BBC-L TAC Diff
VPD TAC Diff
Entries 737
BBC-L TAC Diff
ZDC TAC Diff
Entries 737
BBC-S TAC Diff
VPD TAC Diff
Entries 737
BBC-S TAC Diff
ZDC TAC Diff
Entries 737
VPD TAC Diff
ZDC TAC Diff

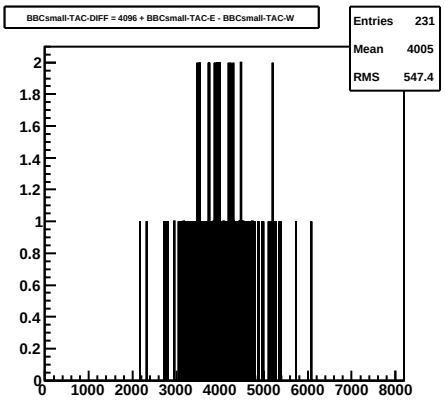

ZDC-TAC-E
Entries 27
Mean 257.9
RMS 39.05

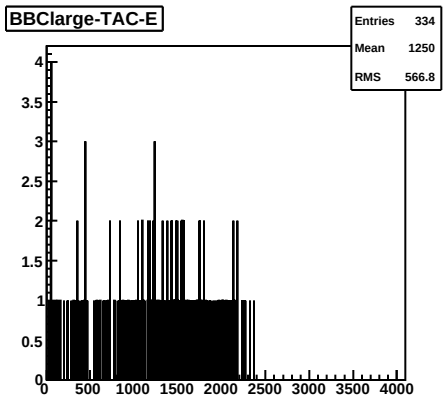

ZDC-TAC-W
Entries 35
Mean 251.5
RMS 26.01

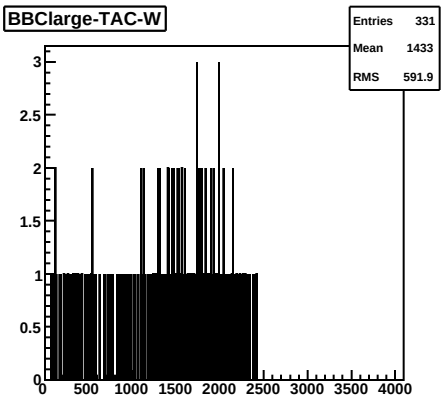

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 3
Mean 1068
RMS 49.47

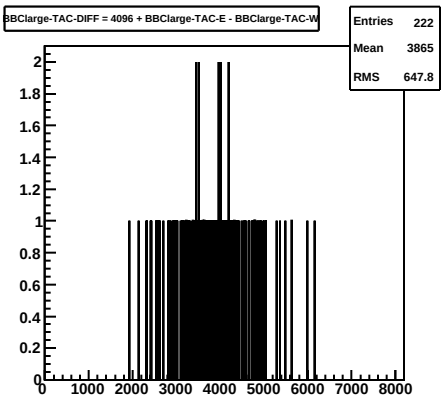

BBCsmall-TAC-E
Entries 328
Mean 1479
RMS 551.7

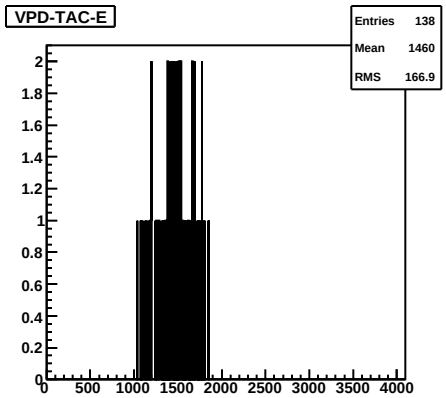

BBCsmall-TAC-W
Entries 392
Mean 1528
RMS 552

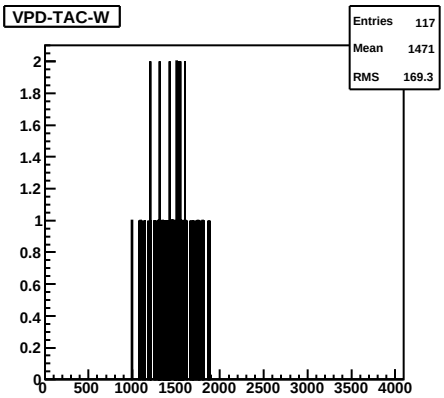

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 231
Mean 4005
RMS 547.4

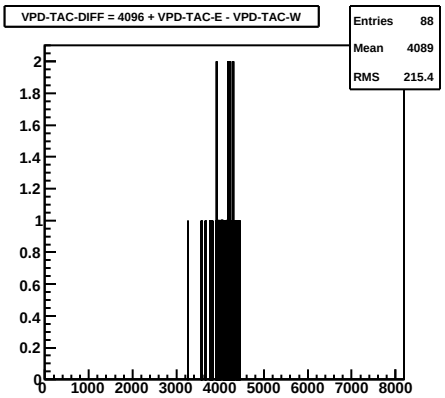

BBClarge-TAC-E
Entries 334
Mean 1250
RMS 566.8

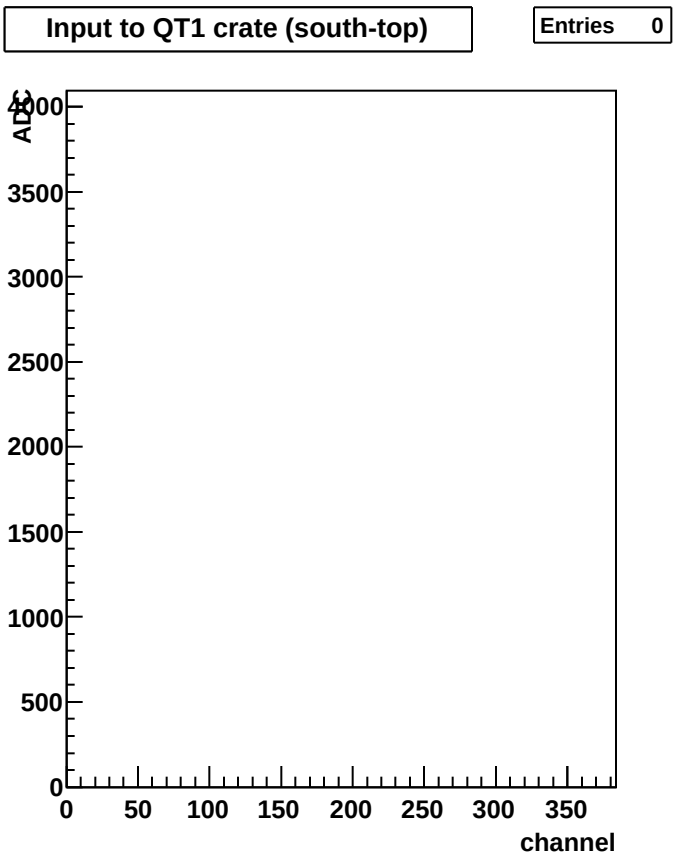

BBClarge-TAC-W
Entries 331
Mean 1433
RMS 591.9

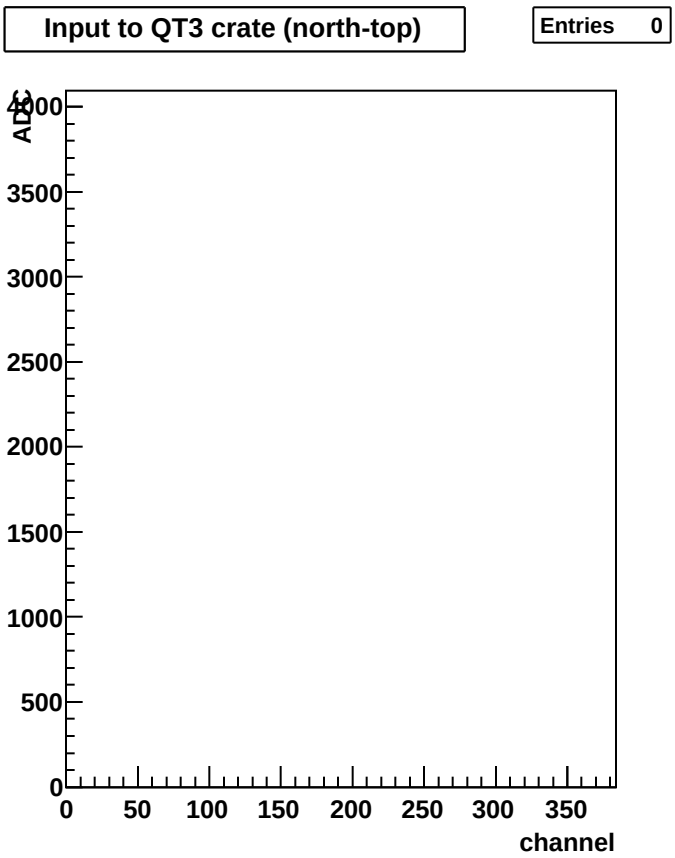

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 222
Mean 3865
RMS 647.8

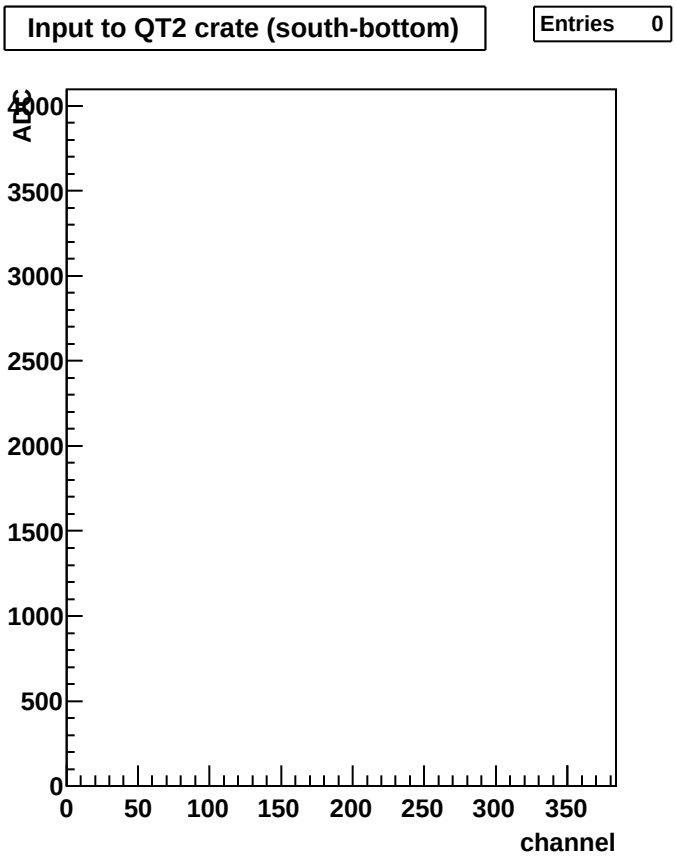

VPD-TAC-E
Entries 138
Mean 1460
RMS 166.9

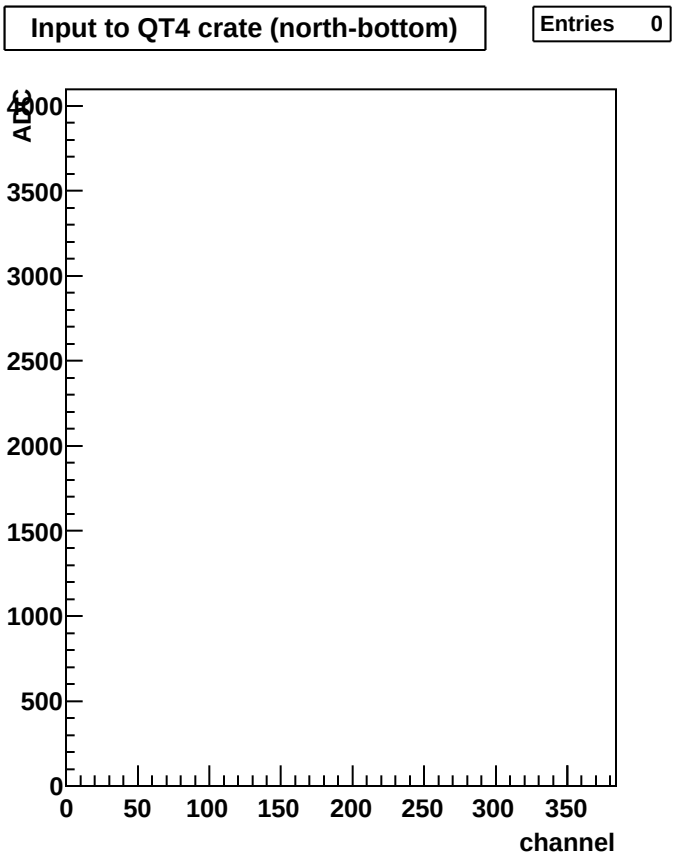

VPD-TAC-W
Entries 117
Mean 1471
RMS 169.3

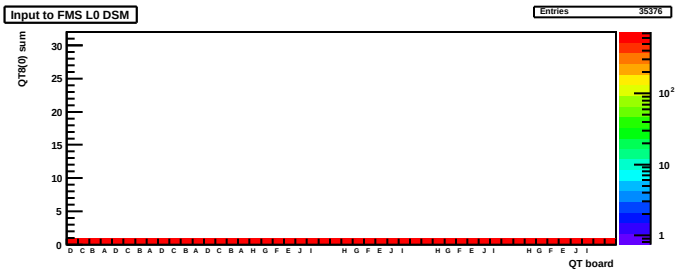

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 88
Mean 4089
RMS 215.4

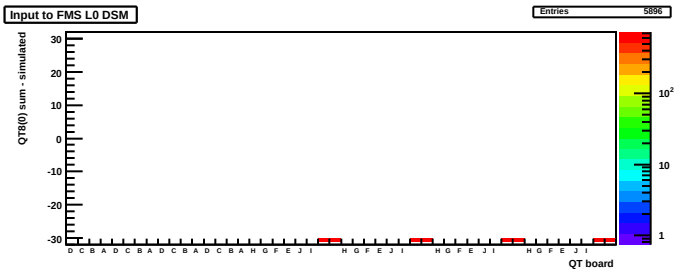

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

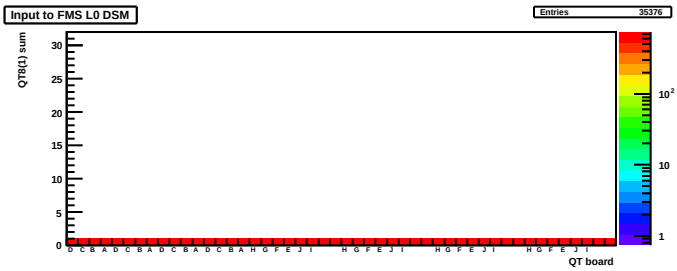

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

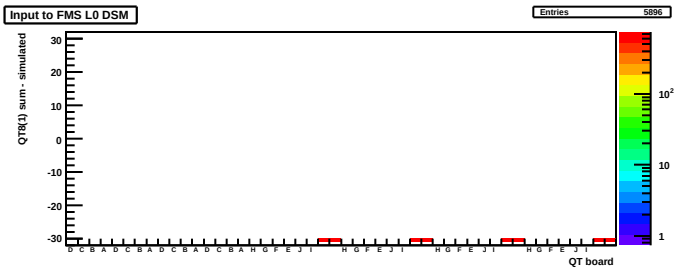

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

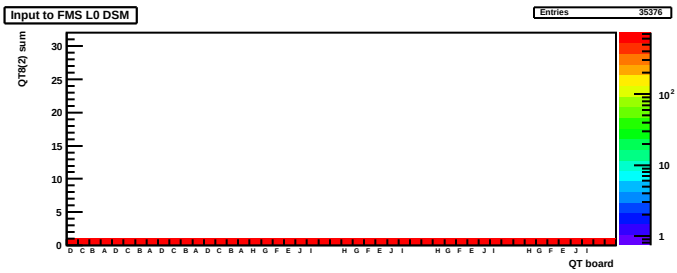

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

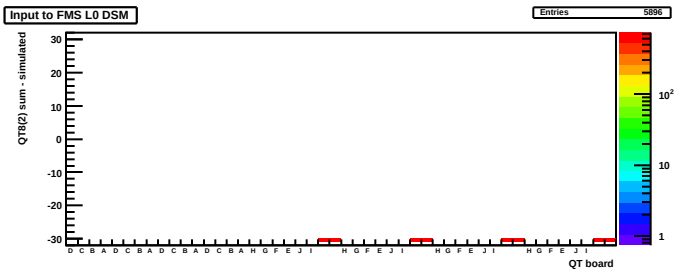

Input to FMS L0 DSM
Entries 35376
QT8(0) sum
QT board

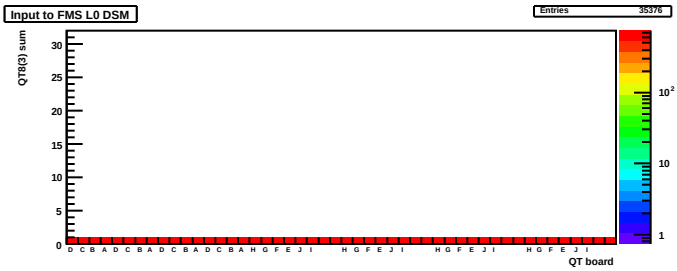

Input to FMS L0 DSM
Entries 5896
QT8(0) sum - simulated
QT board

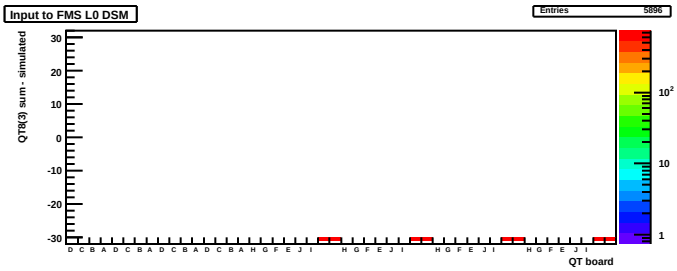

Input to FMS L0 DSM
Entries 35376
QT8(1) sum
QT board

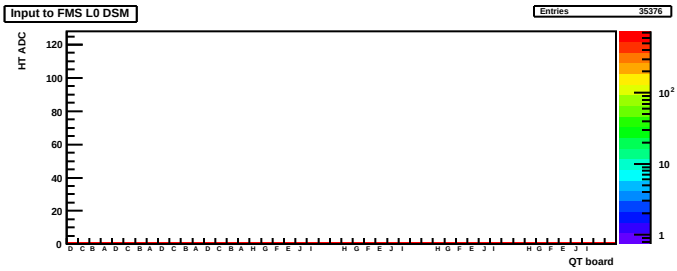

Input to FMS L0 DSM
Entries 5896
QT8(1) sum - simulated
QT board

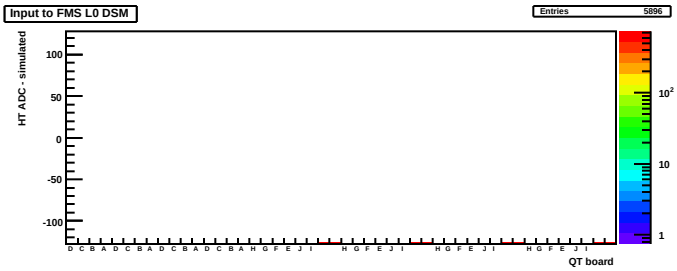

Input to FMS L0 DSM
Entries 35376
QT8(2) sum
QT board

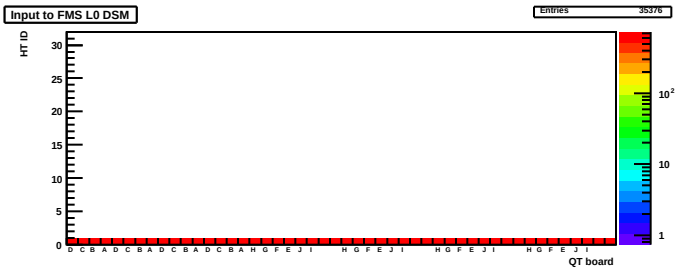

Input to FMS L0 DSM
Entries 5896
QT8(2) sum - simulated
QT board

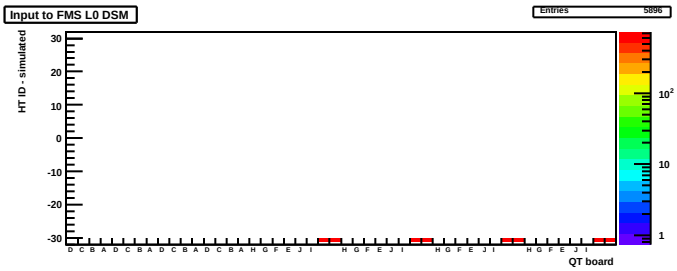

Input to FMS L0 DSM
Entries 35376
QT8(3) sum
QT board

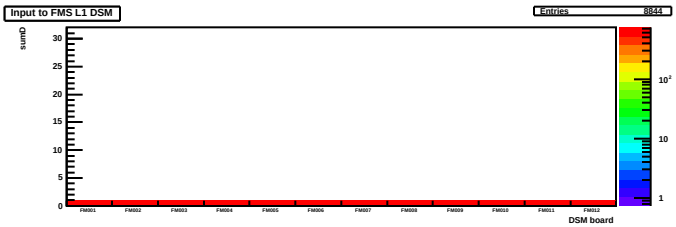

Input to FMS L0 DSM
Entries 5896
QT8(3) sum - simulated
QT board

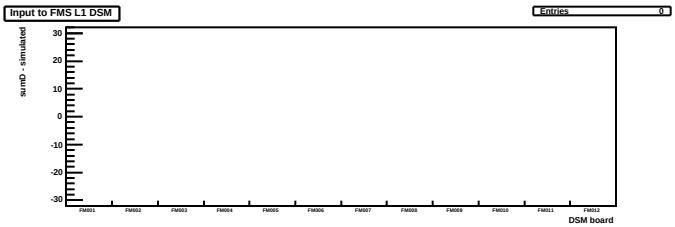

Input to FMS L0 DSM
Entries 35376
HT ADC
QT board

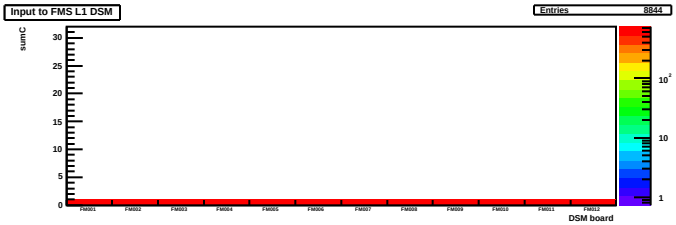

Input to FMS L0 DSM
Entries 5896
HT ADC - simulated
QT board

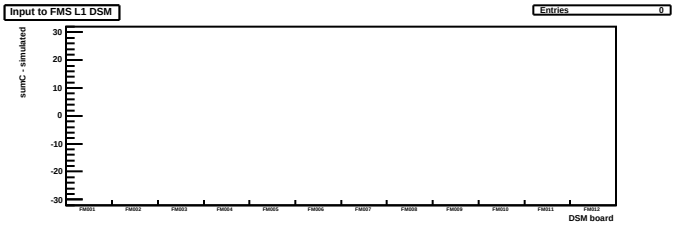

Input to FMS L0 DSM
Entries 35376
HT ID
QT board

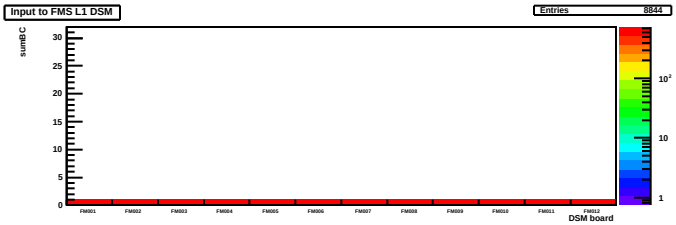

Input to FMS L0 DSM
Entries 5896
HT ID - simulated
QT board

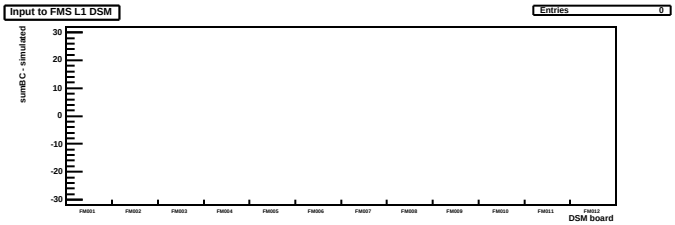

Input to FMS L1 DSM
Entries 8844
sumD
DSM board

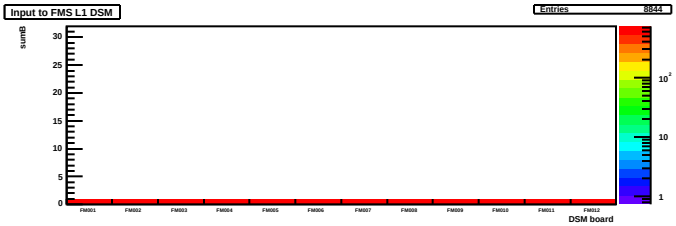

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

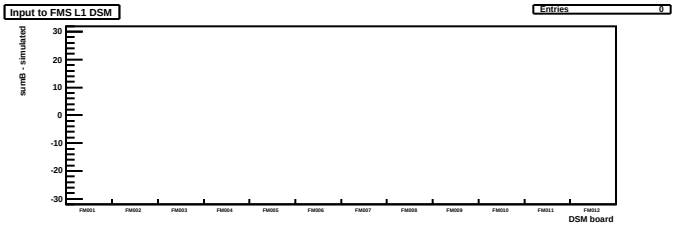

Input to FMS L1 DSM
Entries 8844
sumC
DSM board

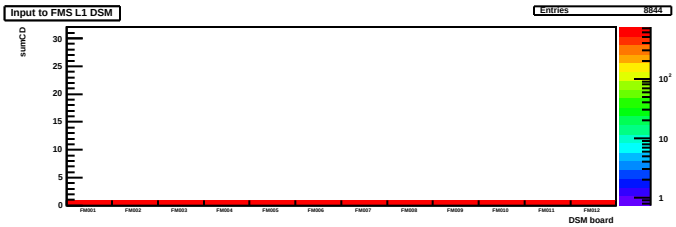

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

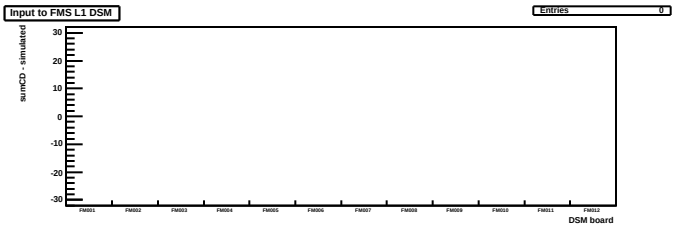

Input to FMS L1 DSM
Entries 8844
sumBC
DSM board

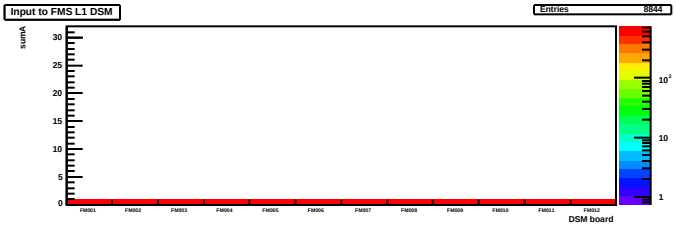

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

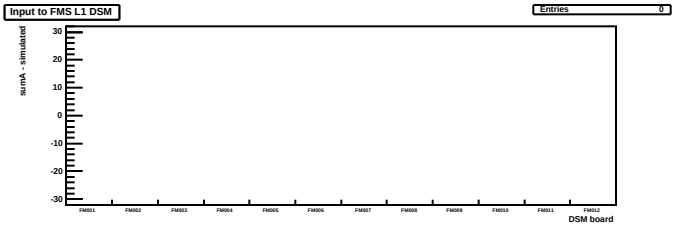

Input to FMS L1 DSM
Entries 8844
sumB
DSM board

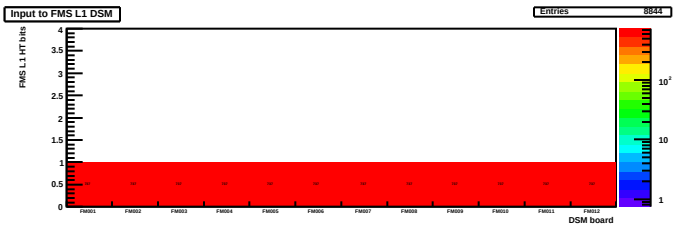

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

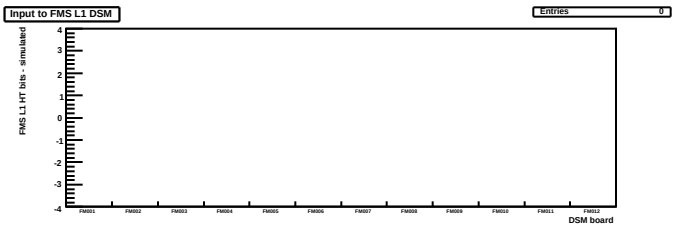

Input to FMS L1 DSM
Entries 8844
sumCD
DSM board

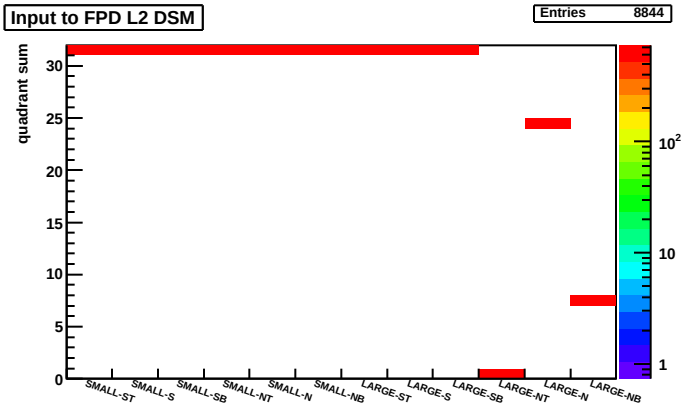

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

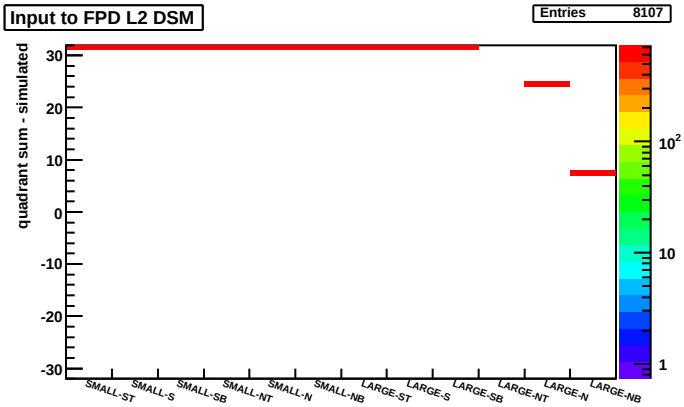

Input to FMS L1 DSM
Entries 8844
sumA
DSM board

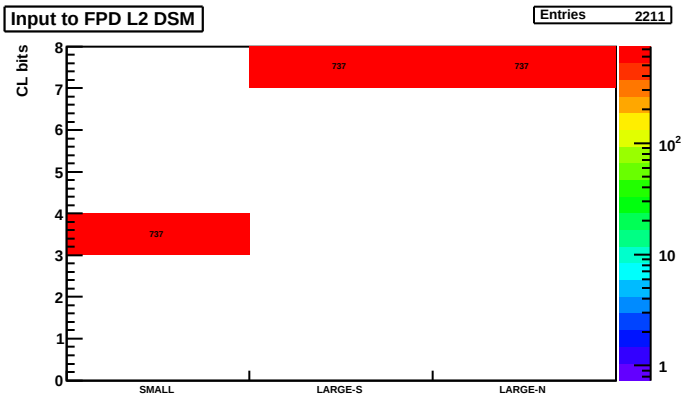

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

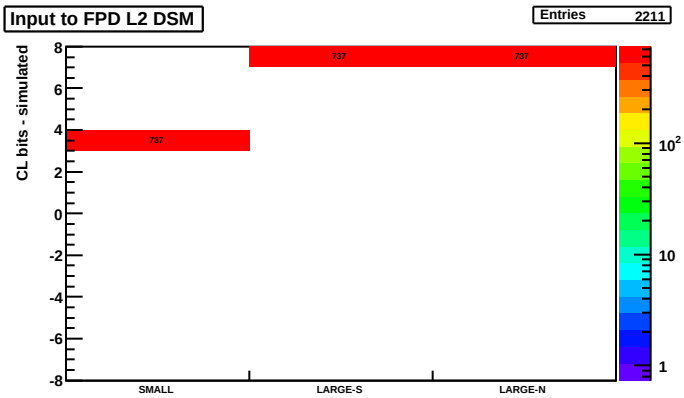

Input to FMS L1 DSM
Entries 8844
FMS L1 HT bits
DSM board

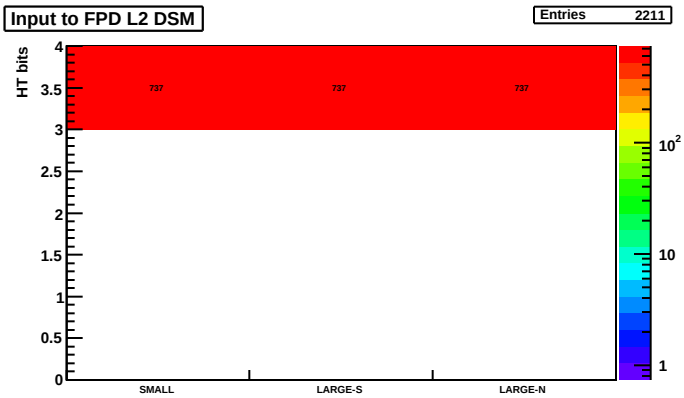

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

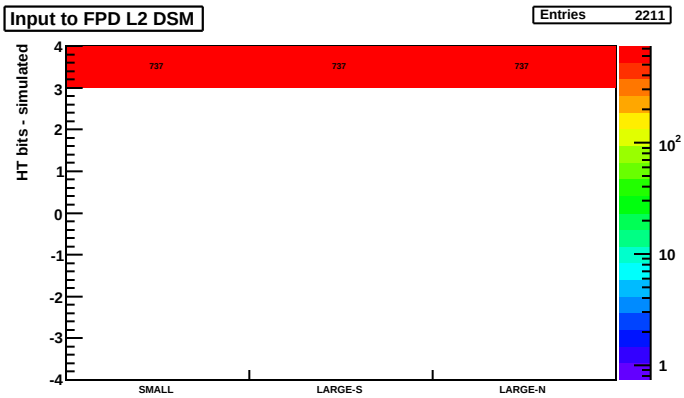

Input to FPD L2 DSM
Entries 8844
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

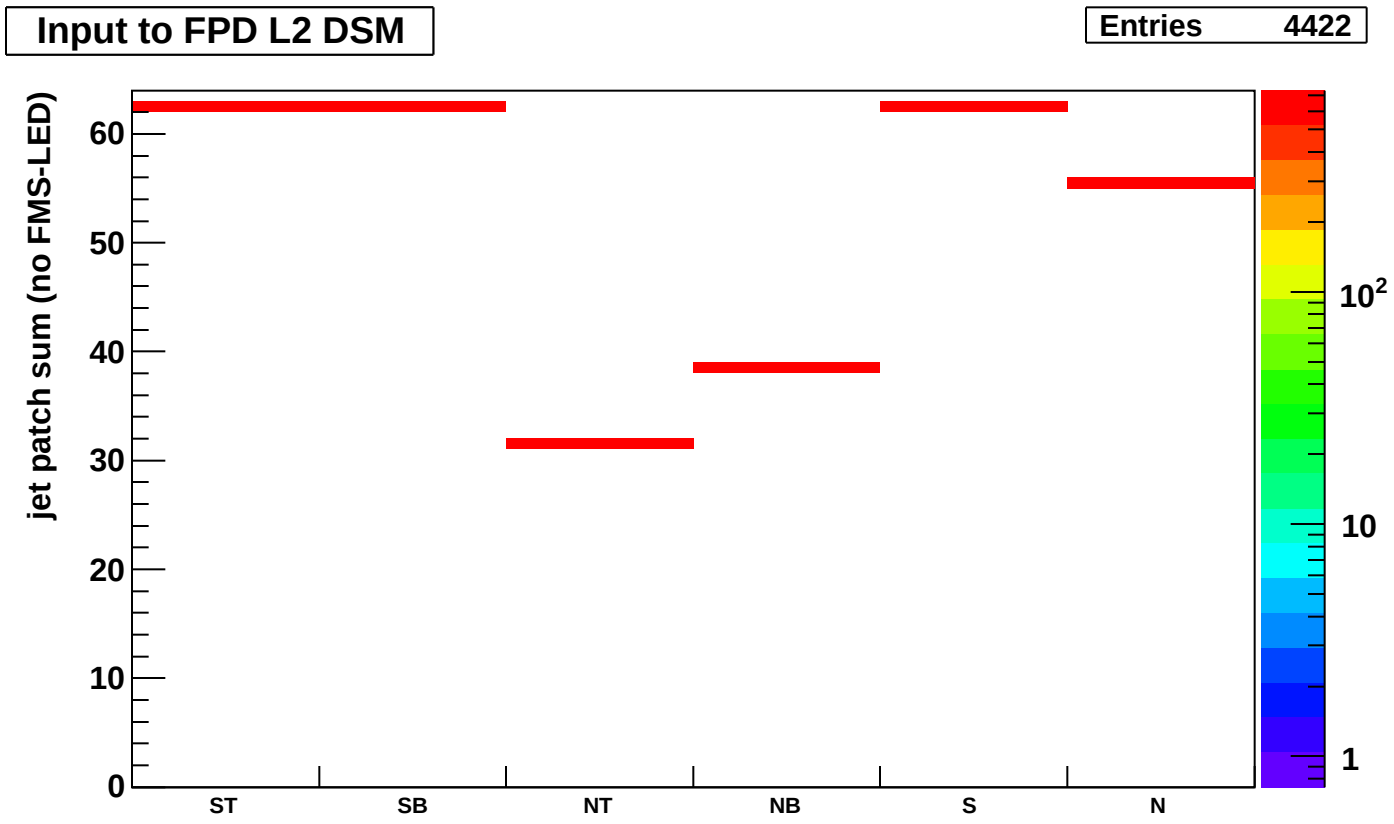

Input to FPD L2 DSM
Entries 8107
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

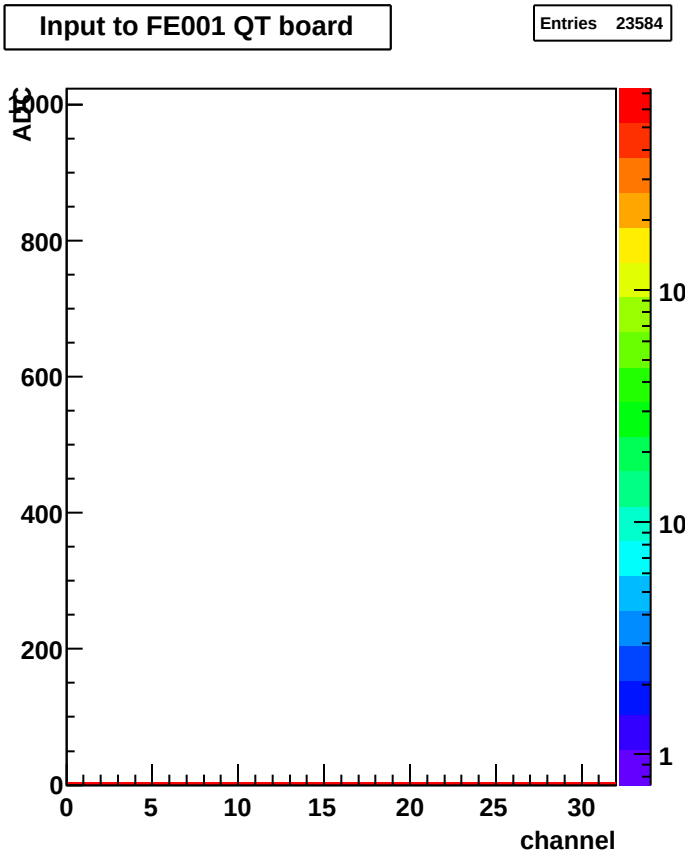

Input to FPD L2 DSM
Entries 2211
CL bits
737
SMALL
LARGE-S
LARGE-N

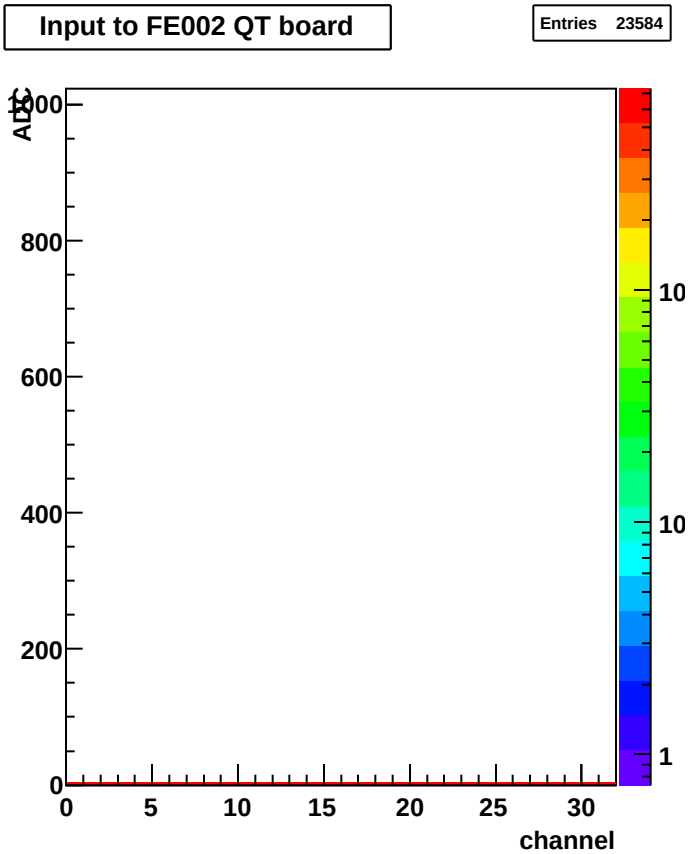

Input to FPD L2 DSM
Entries 2211
CL bits - simulated
737
SMALL
LARGE-S
LARGE-N

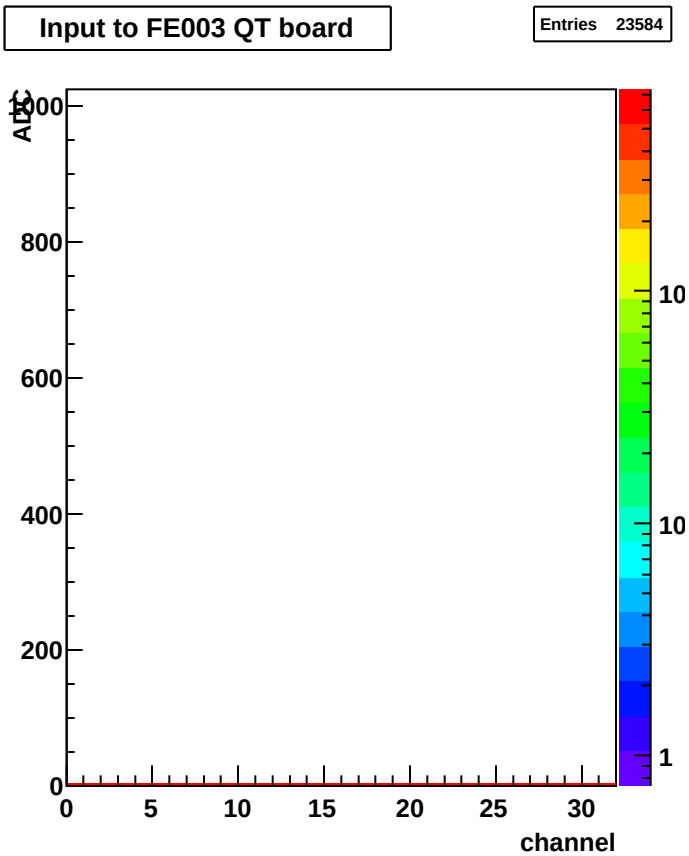

Input to FPD L2 DSM
Entries 2211
HT bits
737
SMALL
LARGE-S
LARGE-N

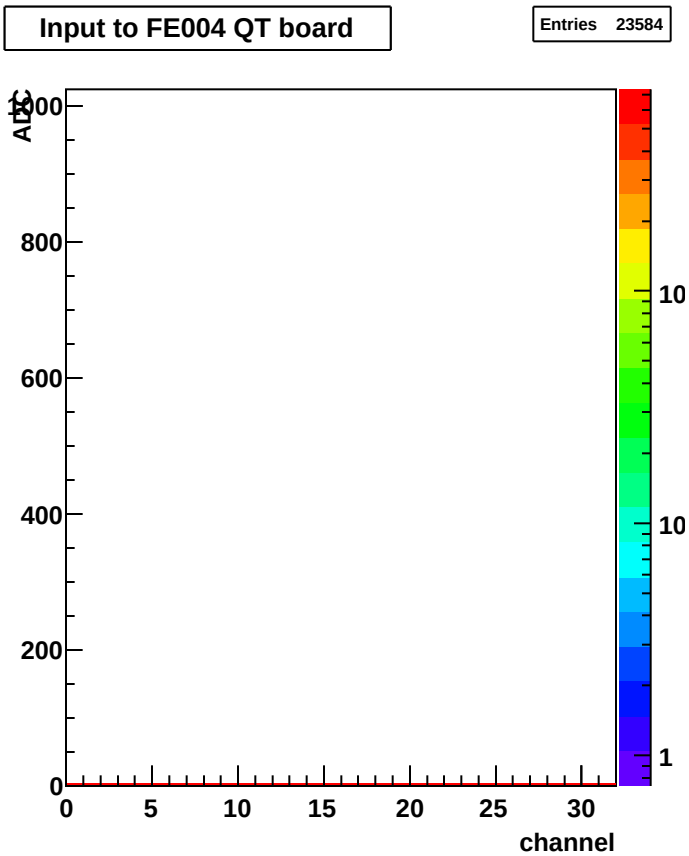

Input to FPD L2 DSM
Entries 2211
HT bits - simulated
737
SMALL
LARGE-S
LARGE-N

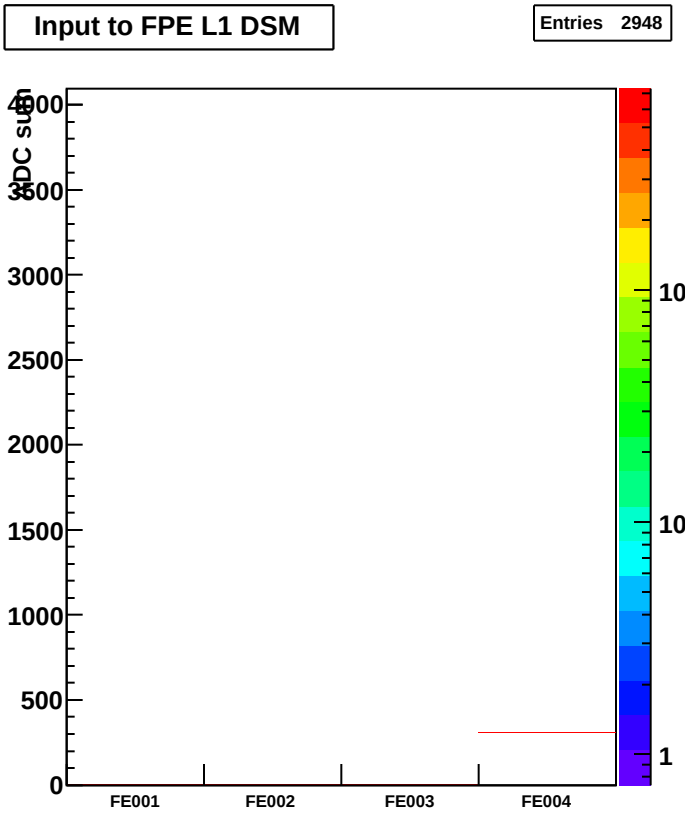

Input to FPD L2 DSM
Entries 4422
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2

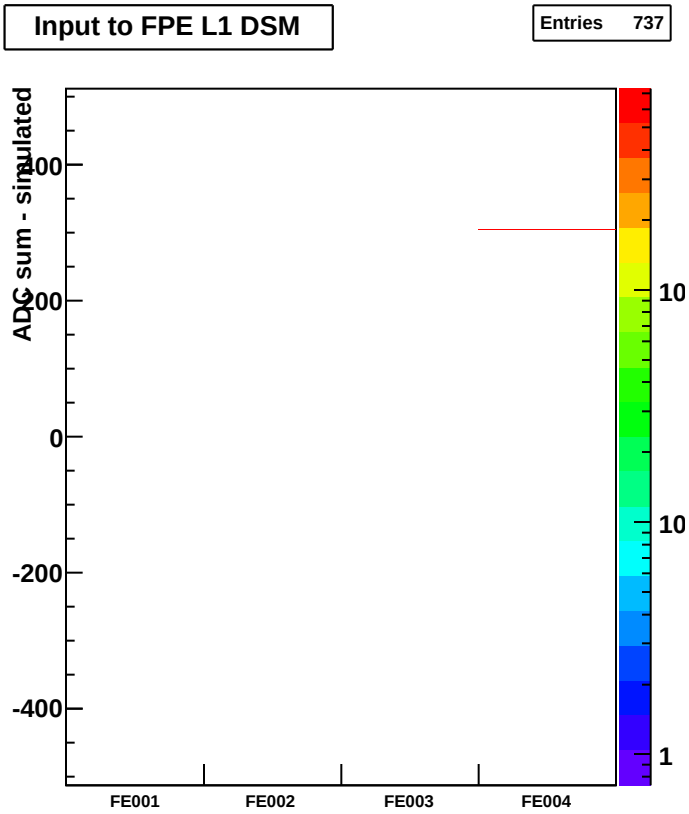

Input to FE001 QT board
Entries 23584
ADC
channel

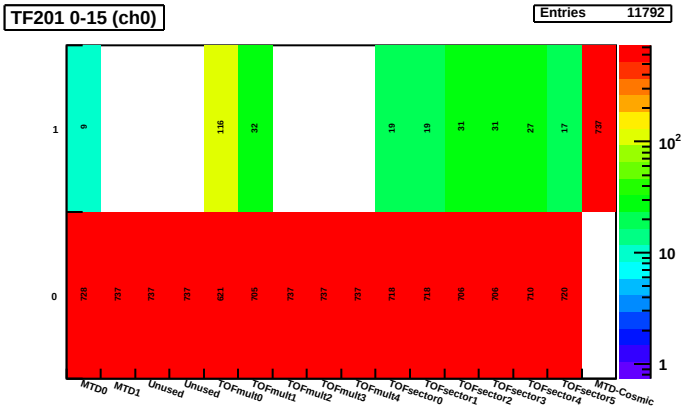

Input to FE002 QT board
Entries 23584
ADC
channel

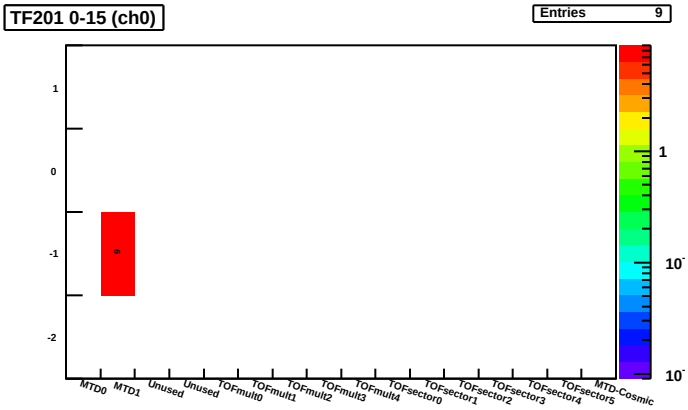

Input to FE003 QT board
Entries 23584
ADC
channel

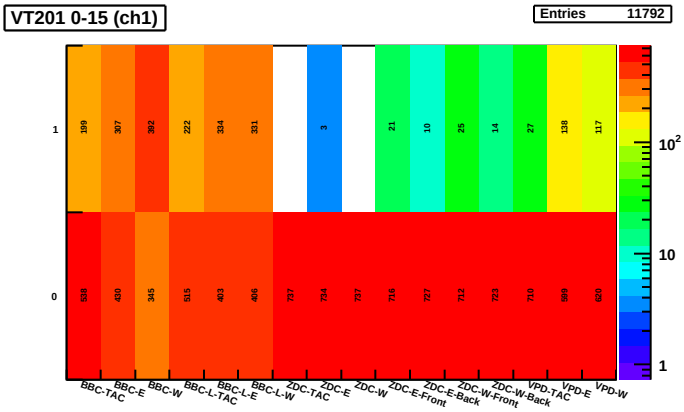

Input to FE004 QT board
Entries 23584
ADC
channel

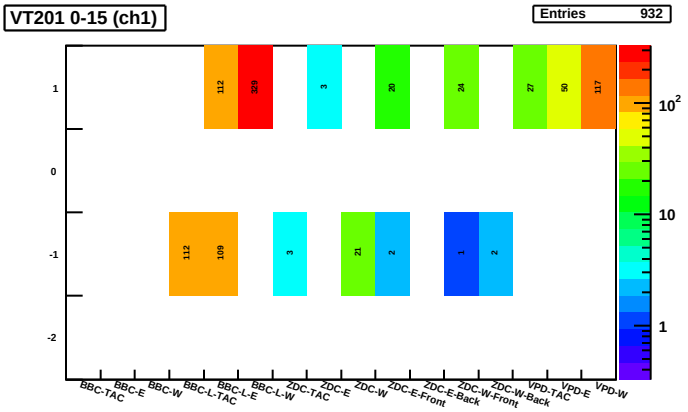

Input to FPE L1 DSM
Entries 2948
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
1


Input to FPE L1 DSM
Entries 737
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
1


TF201 0-15 (ch0)
Entries 11792
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 9
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 11792
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 932
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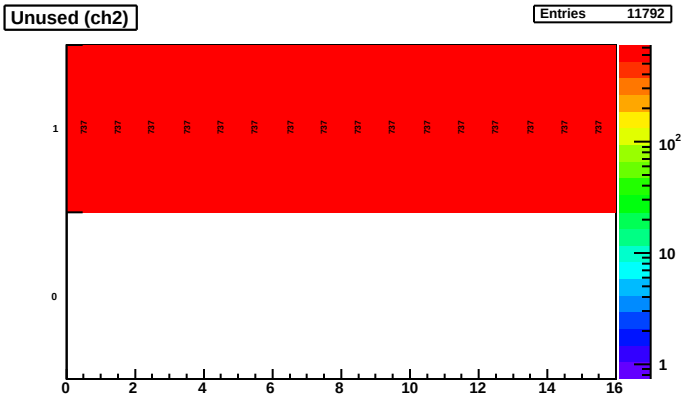
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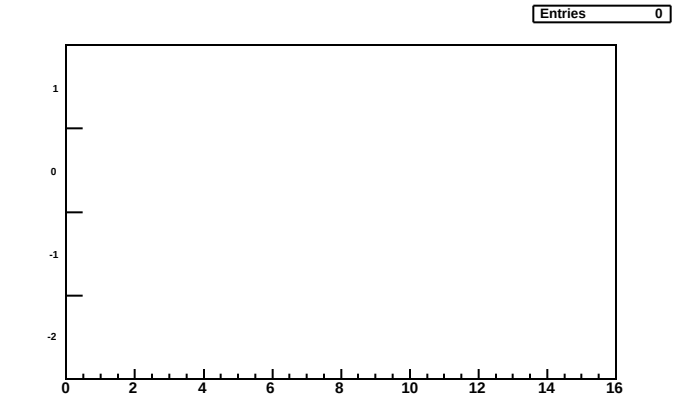
Entries 11792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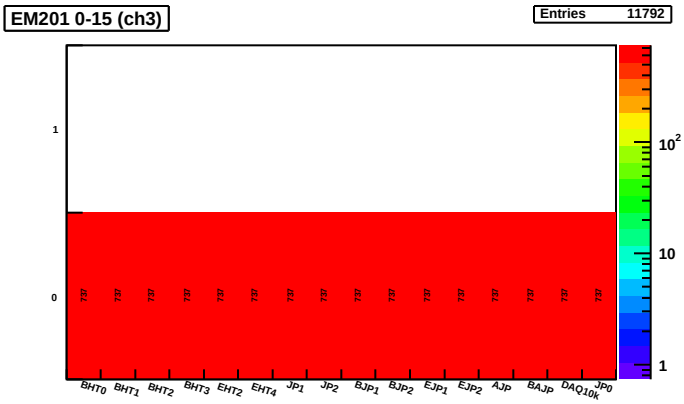
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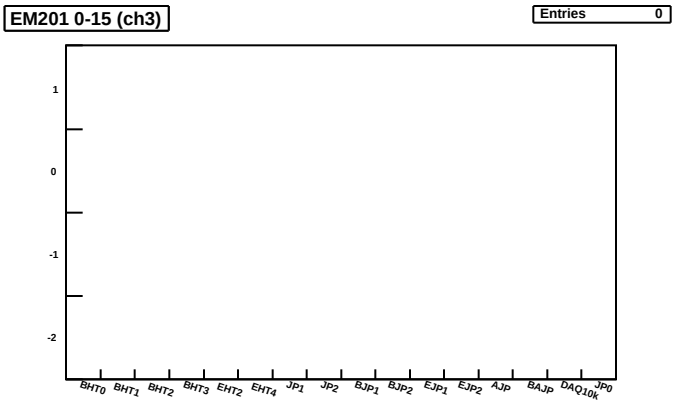
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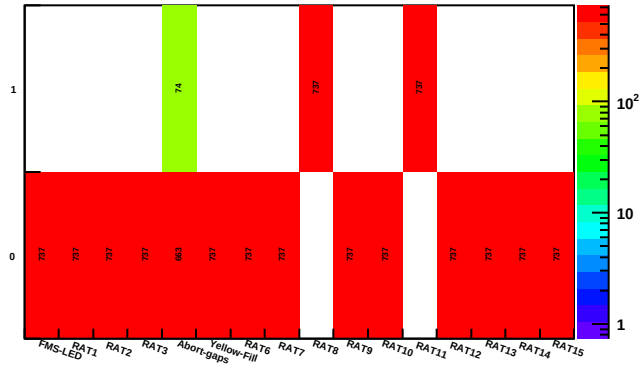
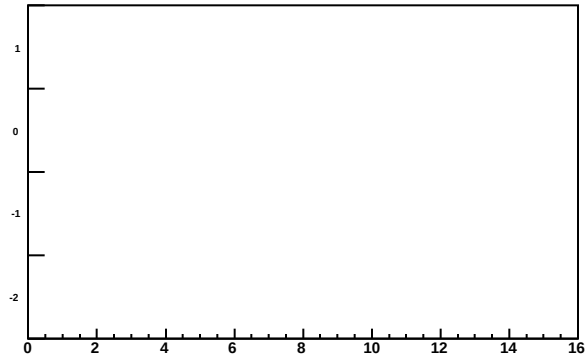
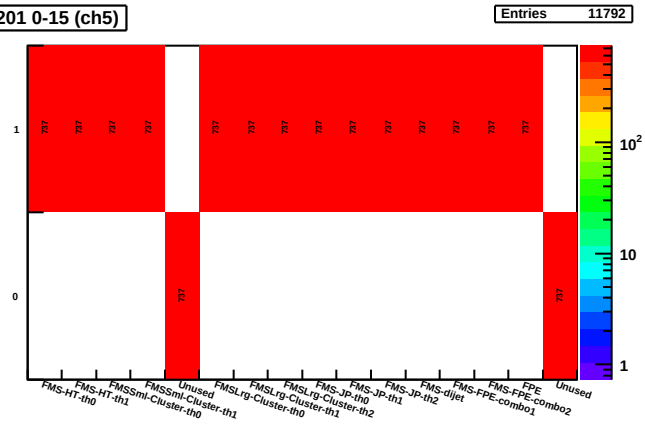
RAT board (ch4)

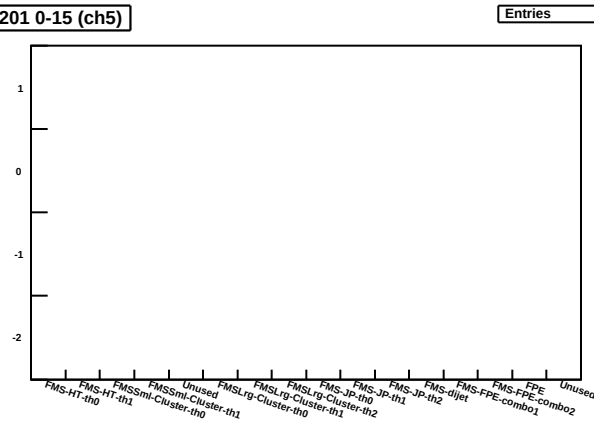




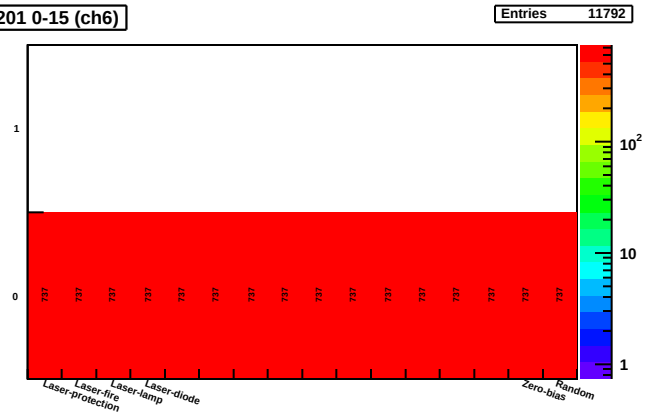
FP201 0-15 (ch5)

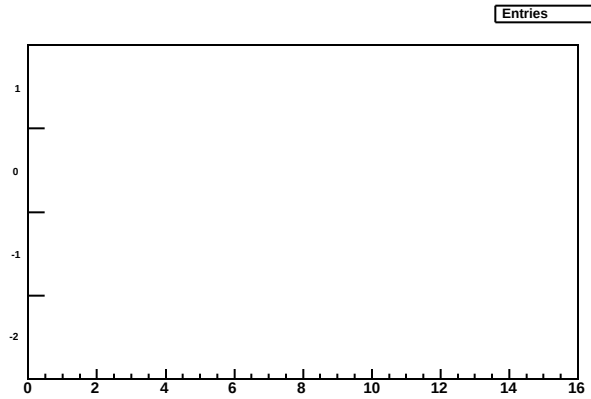
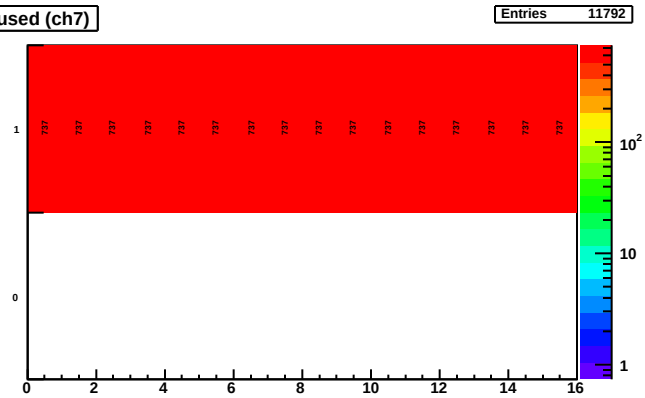
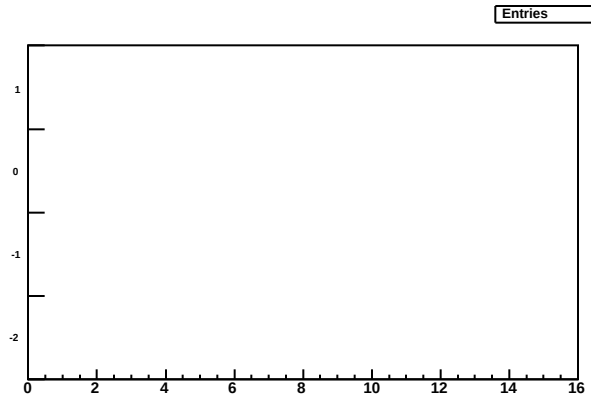


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)