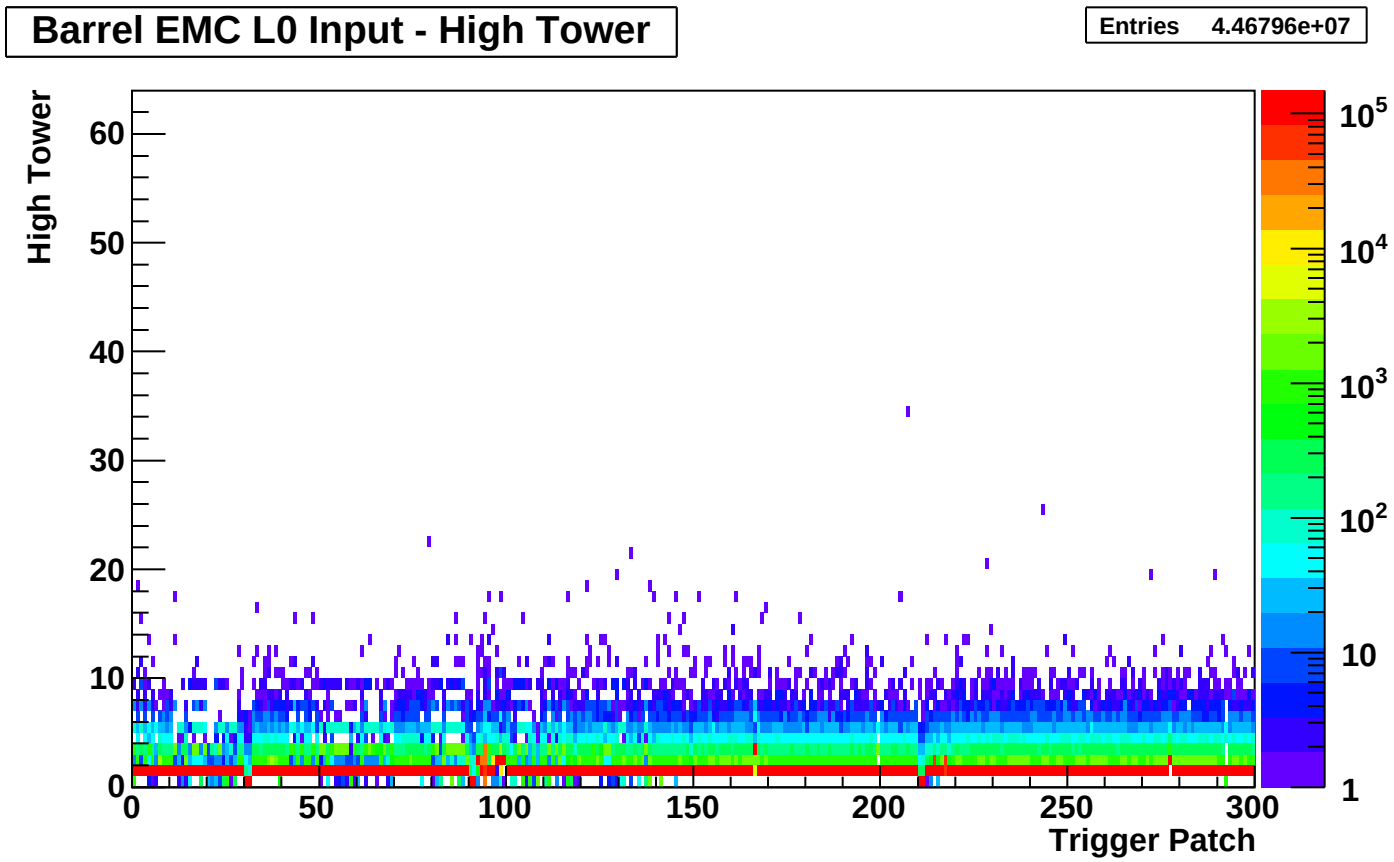
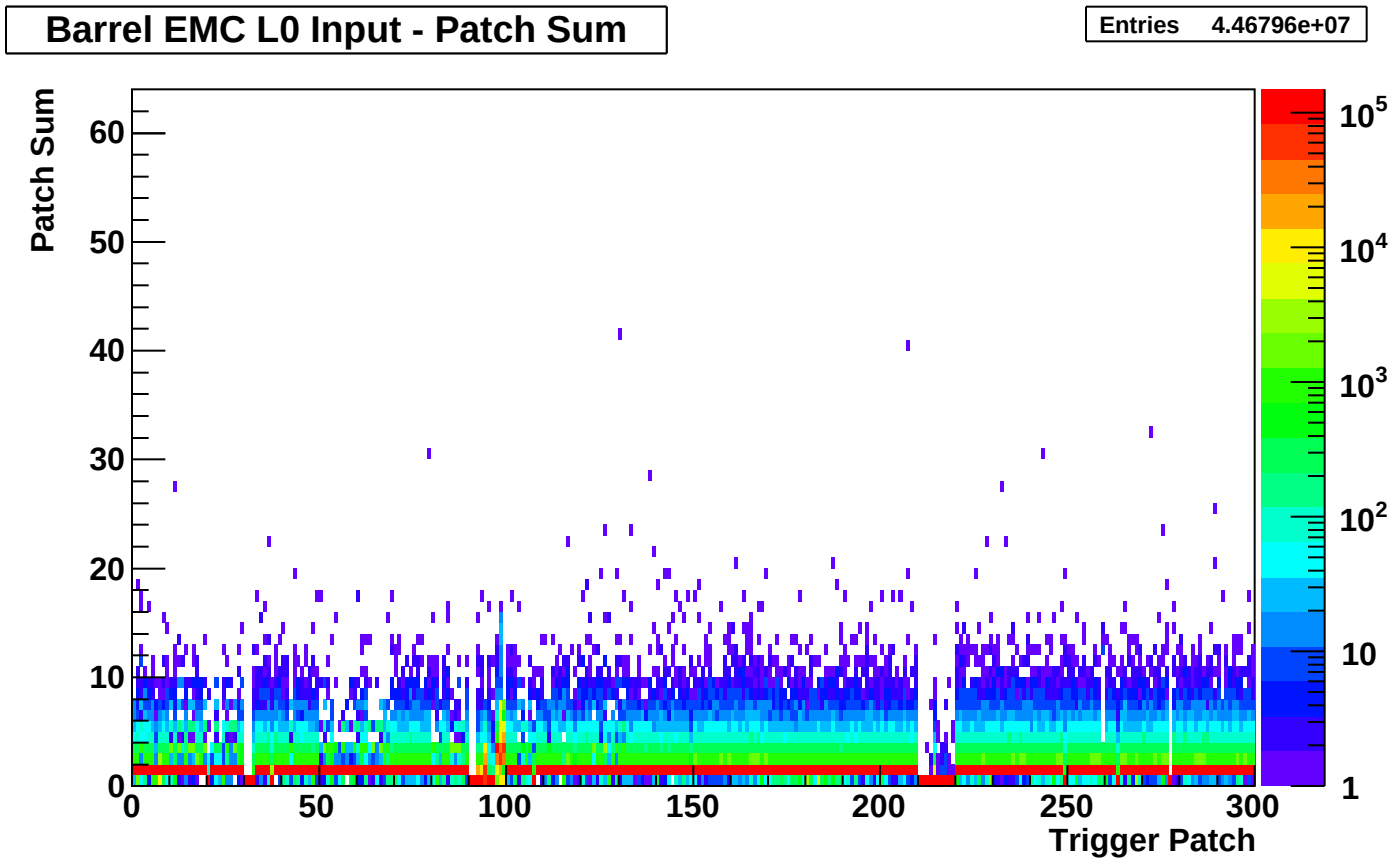
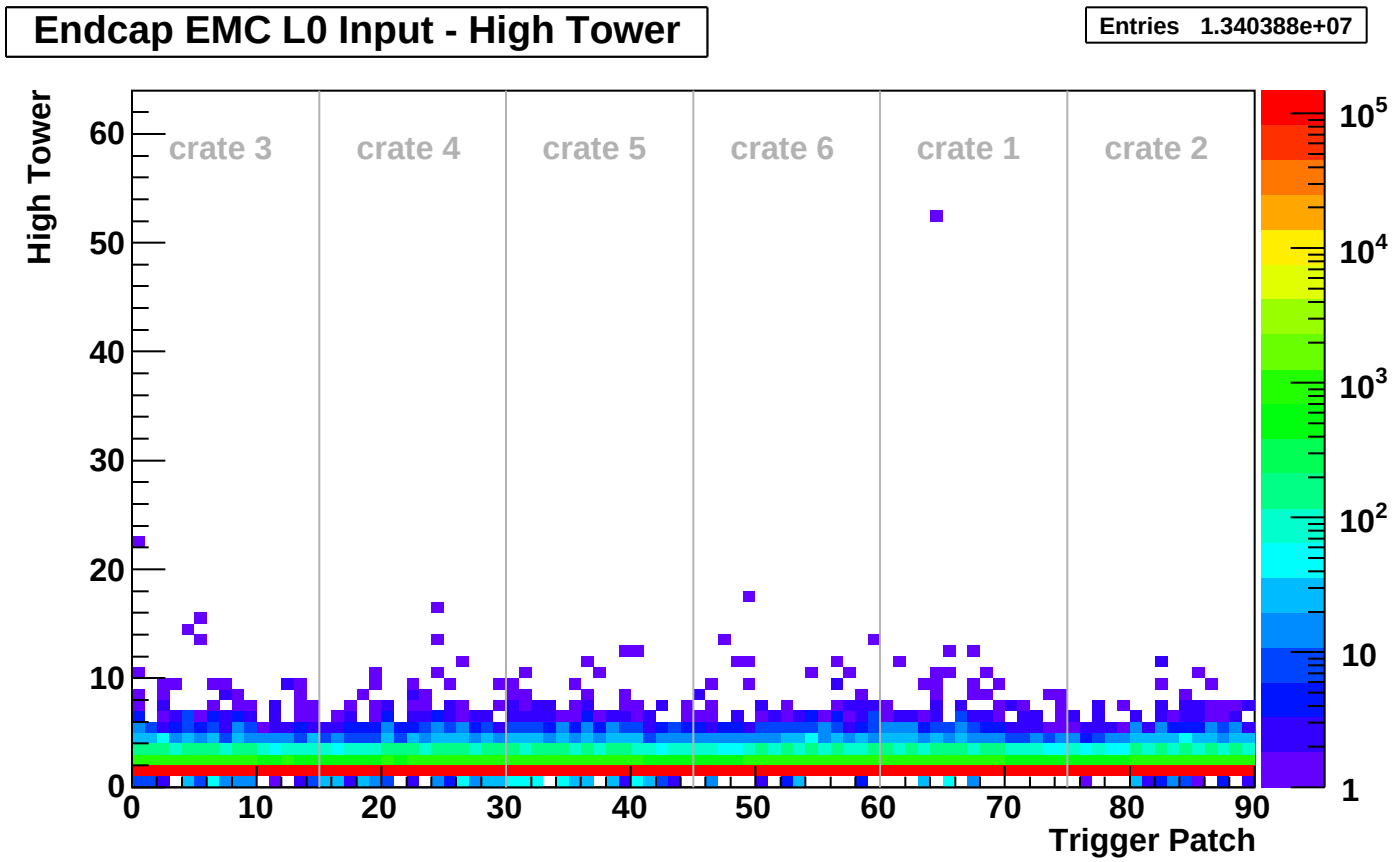
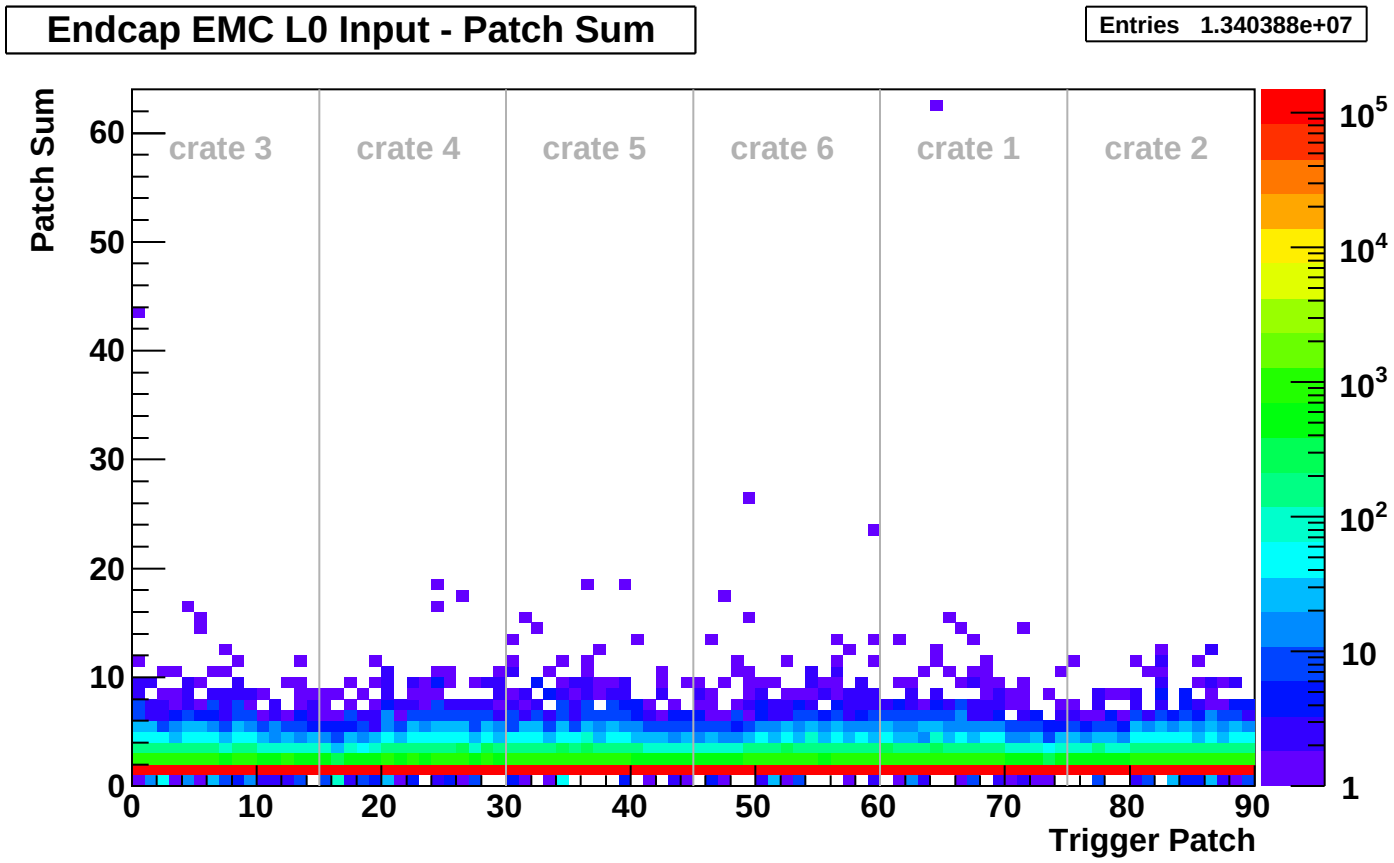
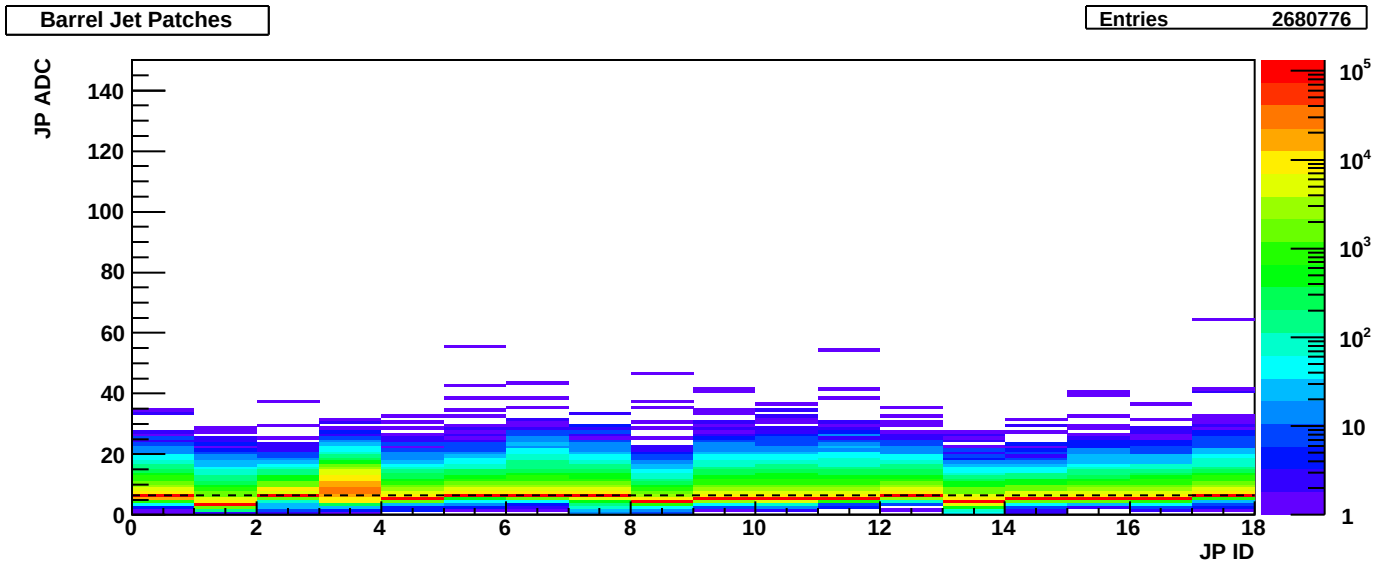
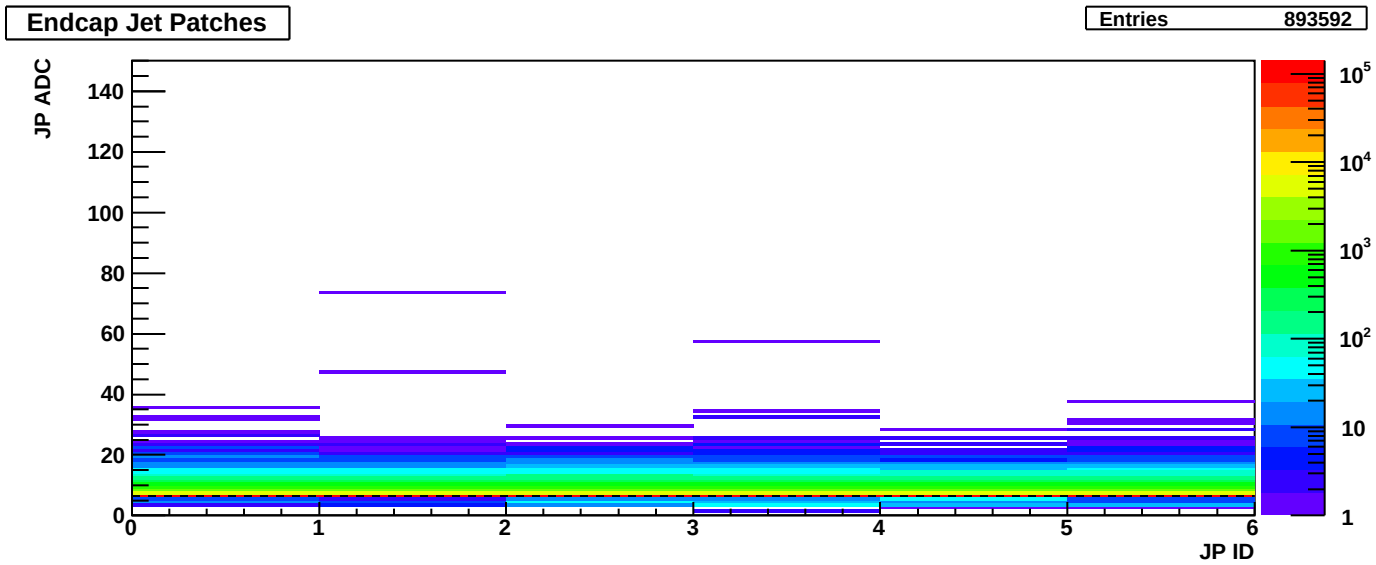

Barrel EMC L0 Input - High Tower
Entries 4.46796e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

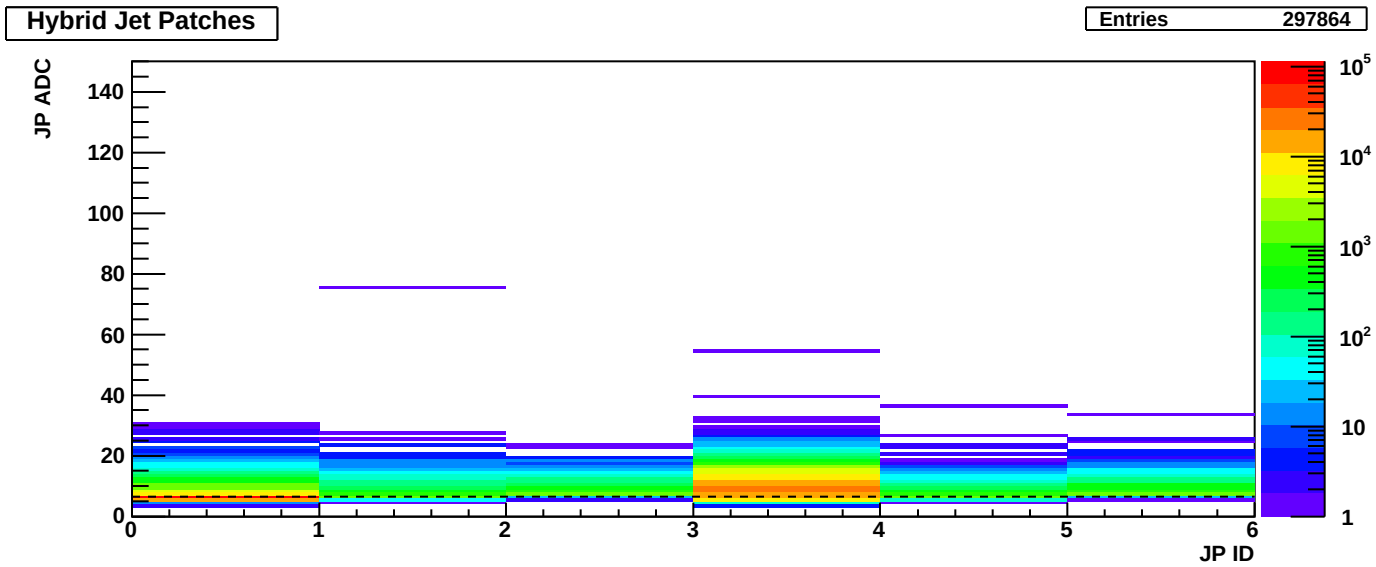

Barrel EMC L0 Input - Patch Sum
Entries 4.46796e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

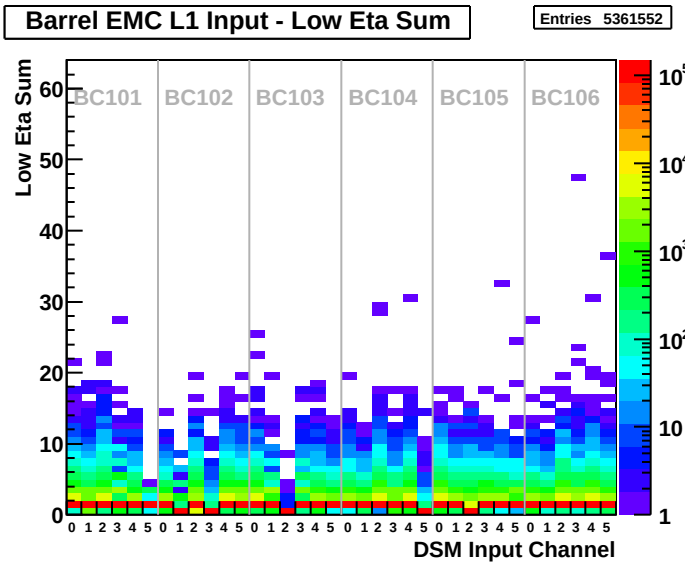

Endcap EMC L0 Input - High Tower
Entries 1.340388e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

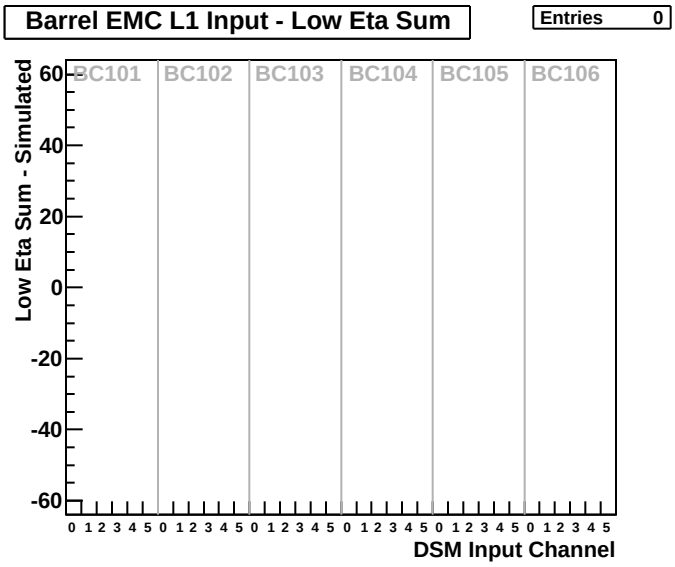

Endcap EMC L0 Input - Patch Sum
Entries 1.340388e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

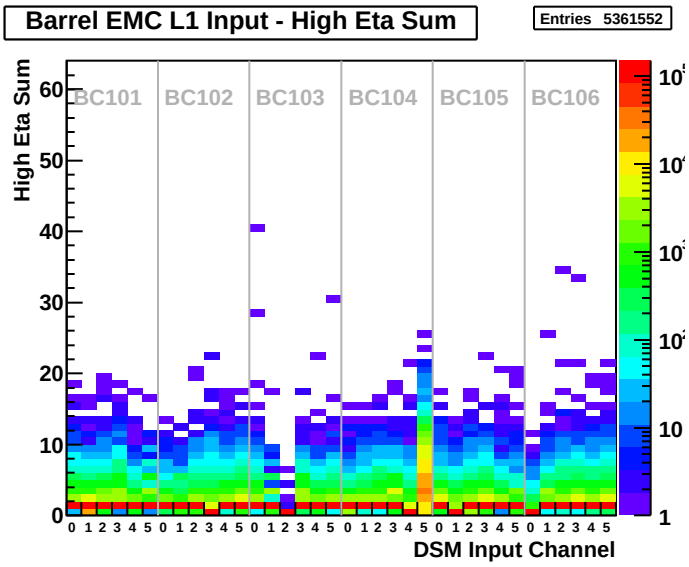

Barrel Jet Patches
Entries 2680776
JP ADC
JP ID

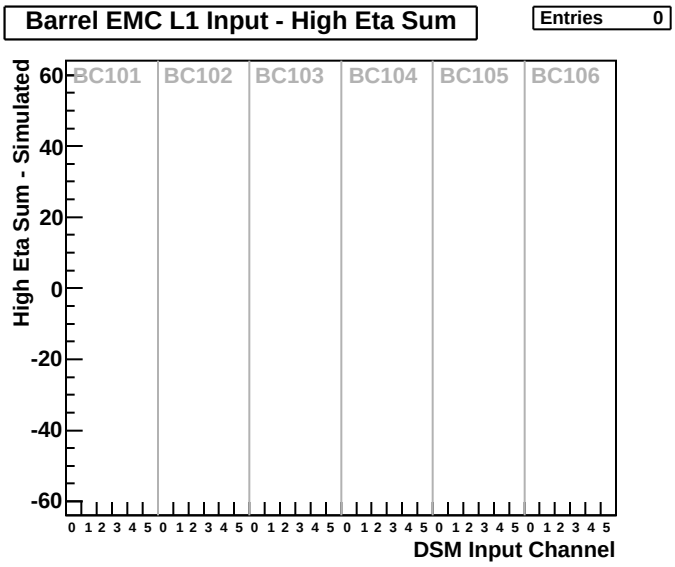

Endcap Jet Patches
Entries 893592
JP ADC
JP ID

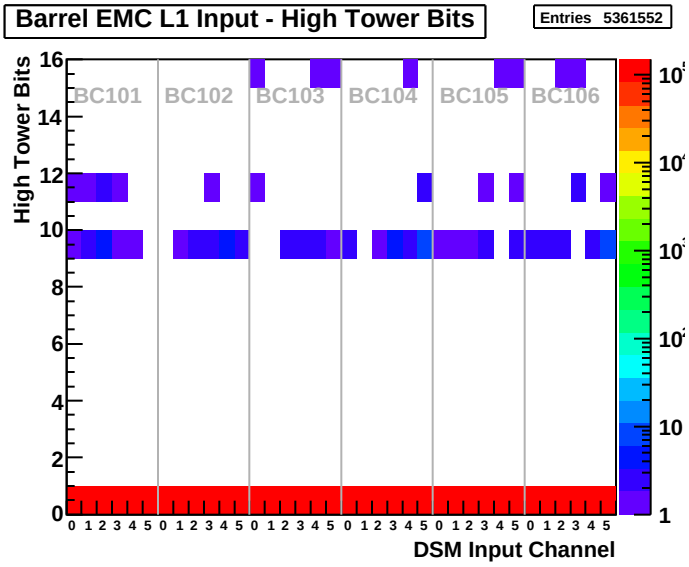

Hybrid Jet Patches
Entries 297864
JP ADC
JP ID

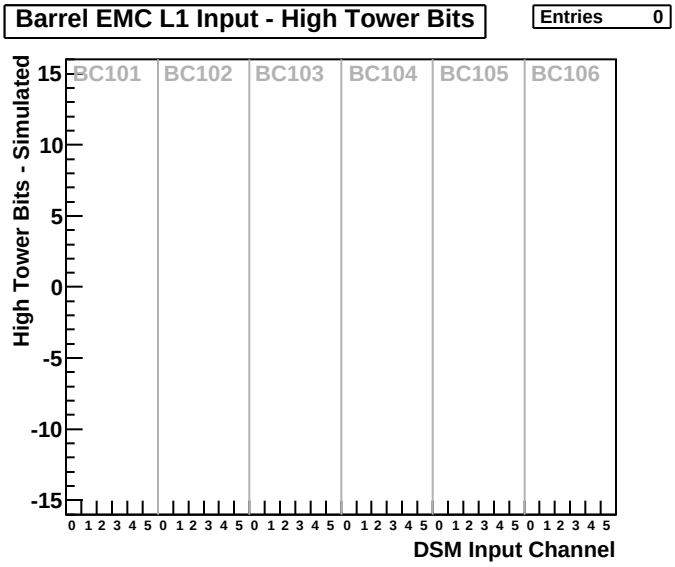

Barrel EMC L1 Input - Low Eta Sum
Entries 5361552
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

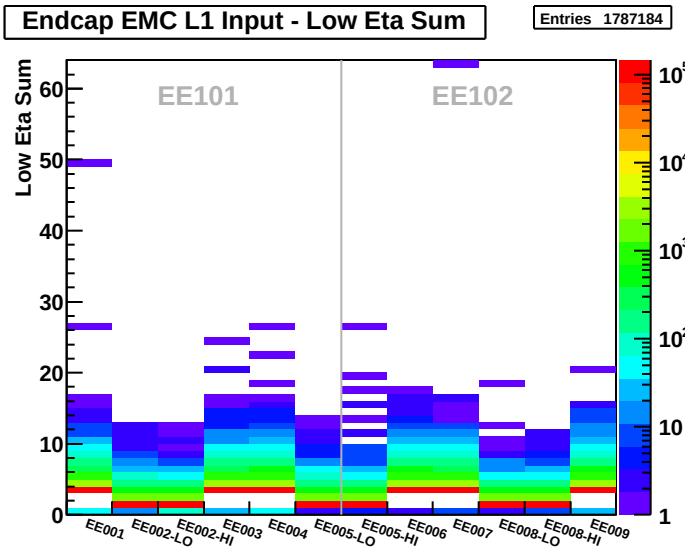

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

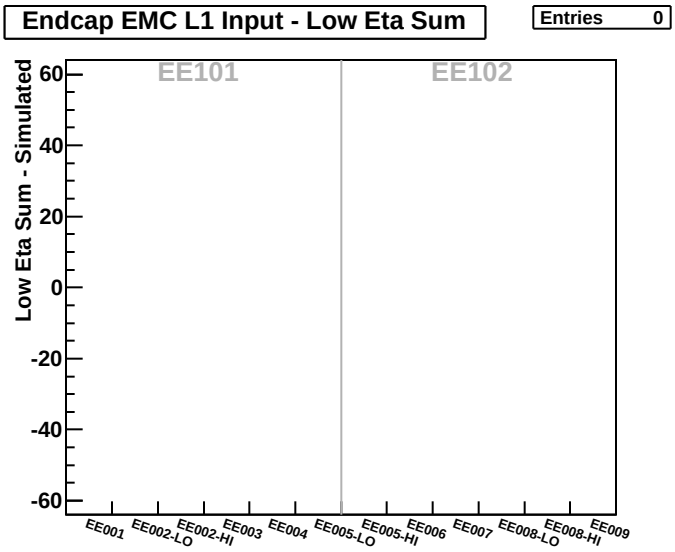

Barrel EMC L1 Input - High Eta Sum
Entries 5361552
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

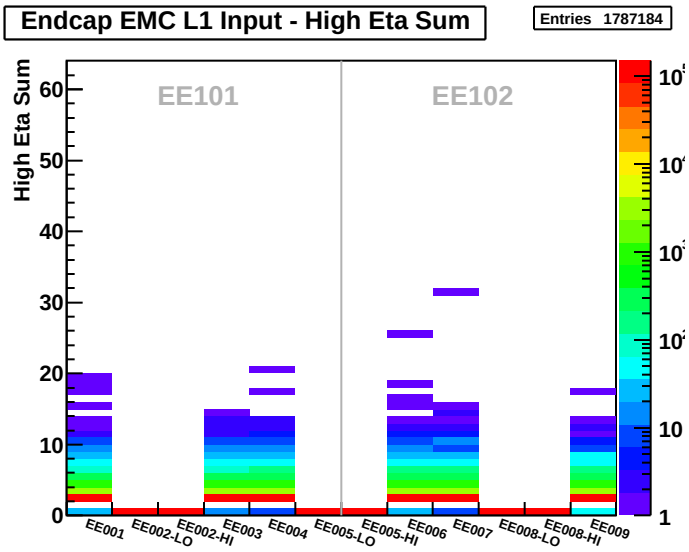

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

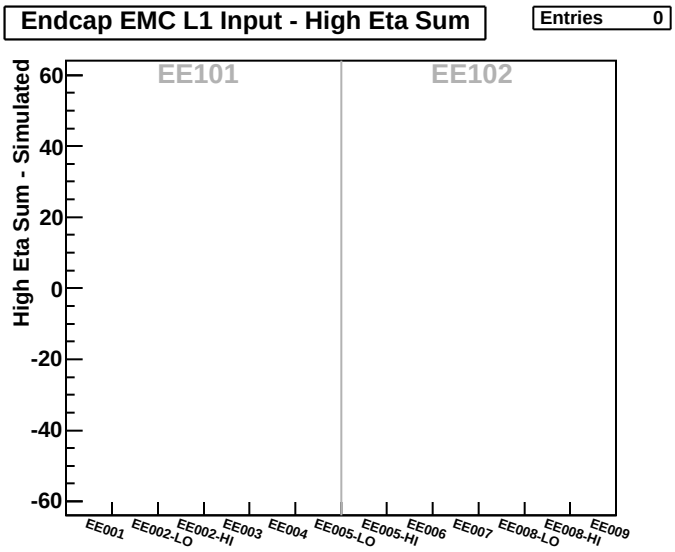

Barrel EMC L1 Input - High Tower Bits
Entries 5361552
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

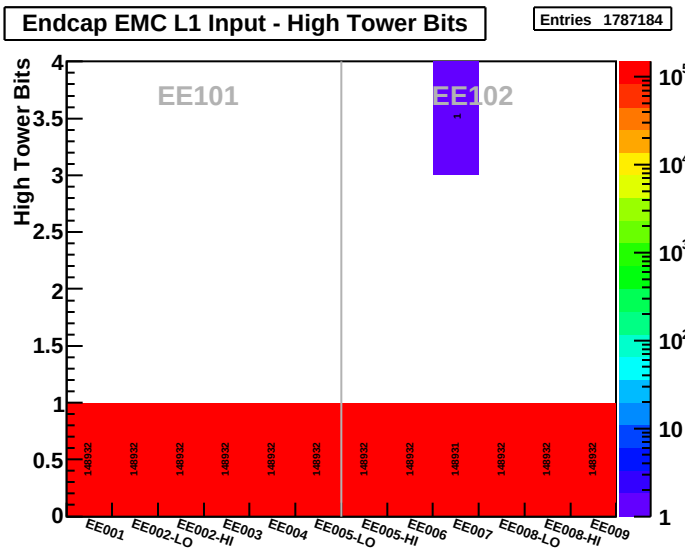

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

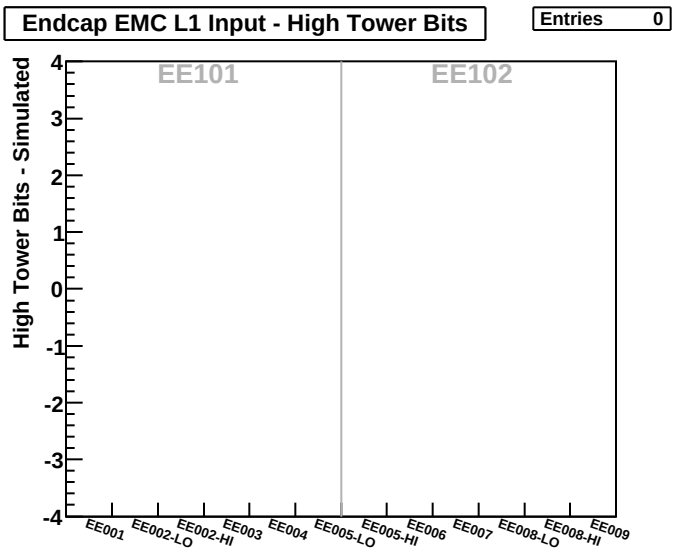

Endcap EMC L1 Input - Low Eta Sum
Entries 1787184
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

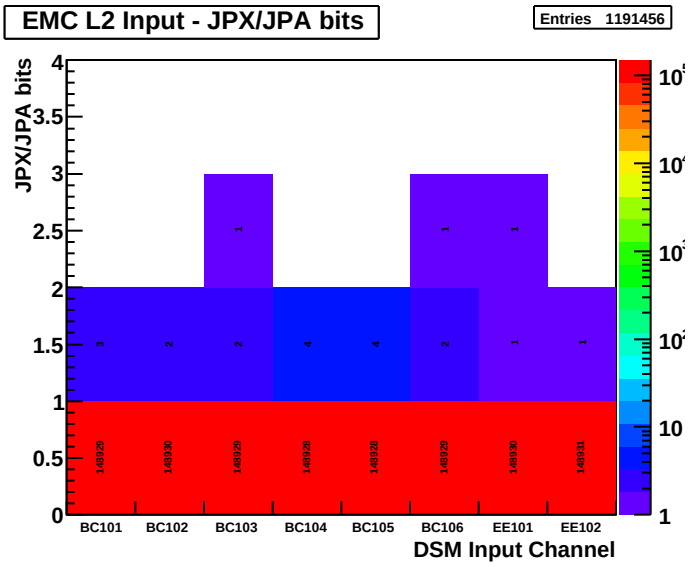

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

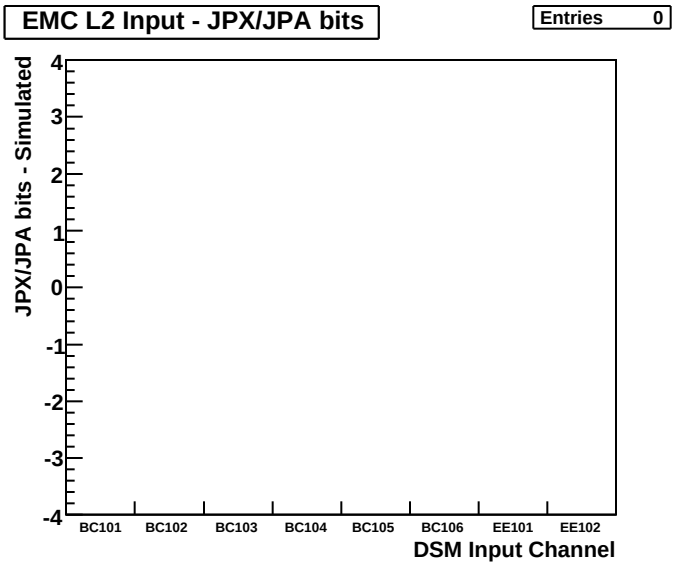

Endcap EMC L1 Input - High Eta Sum
Entries 1787184
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

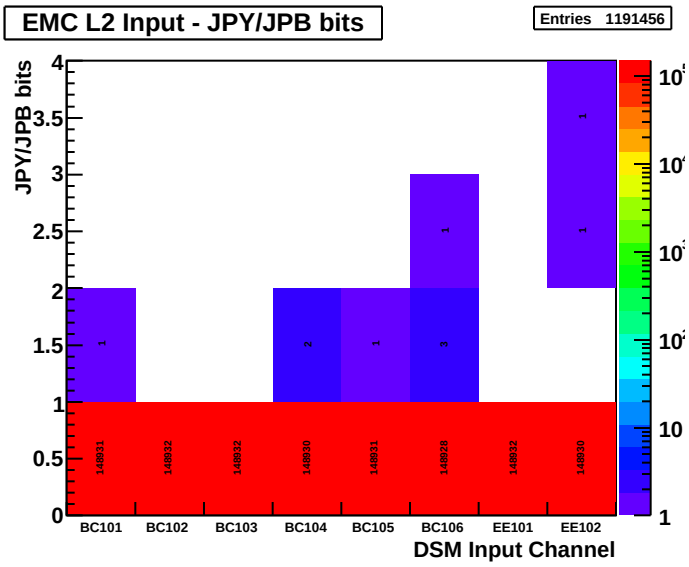

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

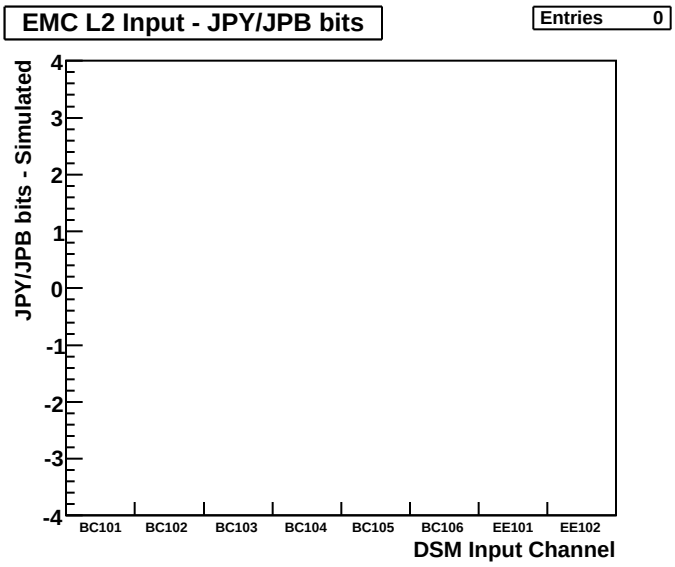

Endcap EMC L1 Input - High Tower Bits
Entries 1787184
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

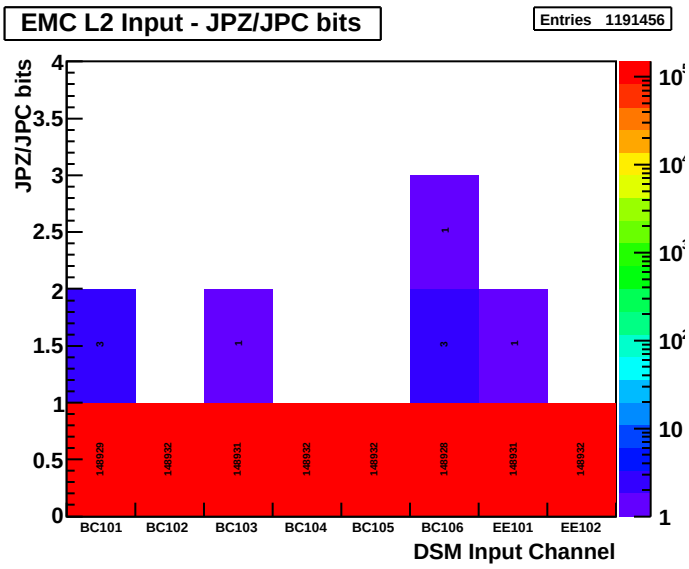

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

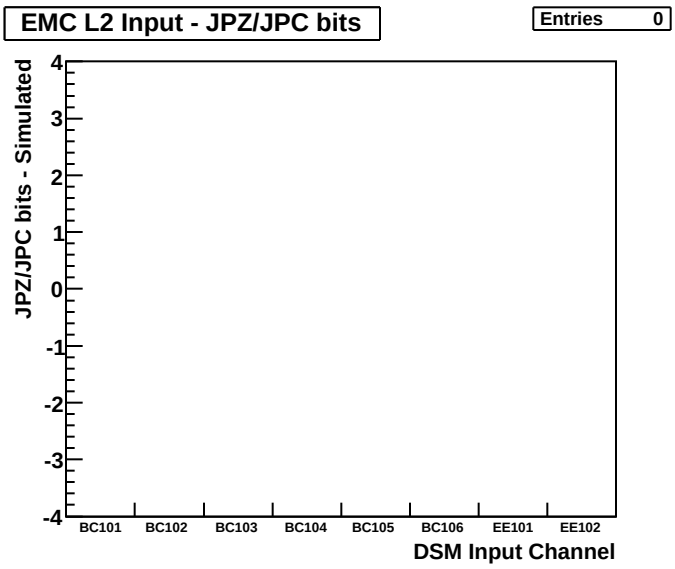

EMC L2 Input - JPX/JPA bits
Entries 1191456
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

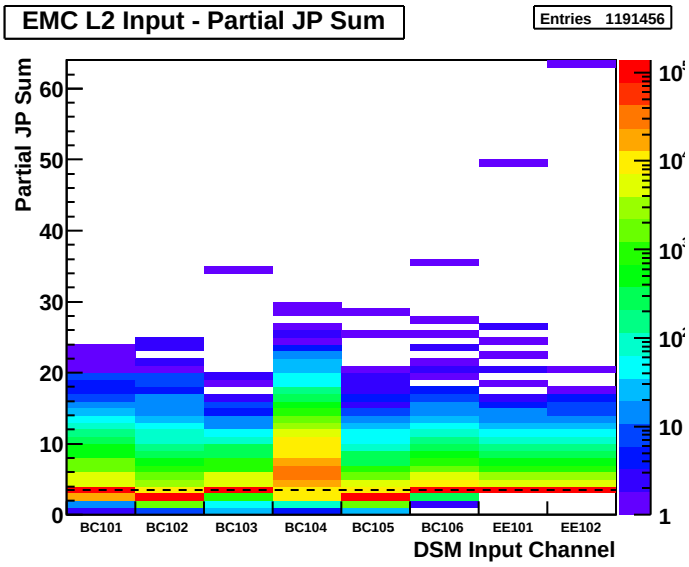

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

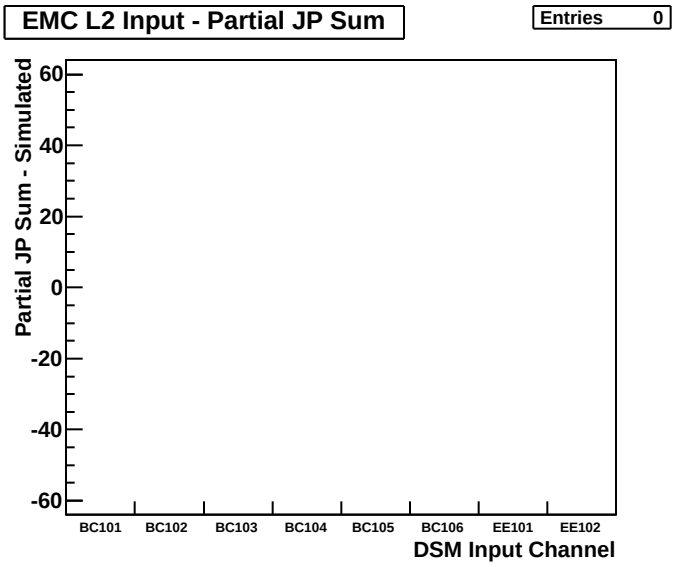

EMC L2 Input - JPY/JPB bits
Entries 1191456
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

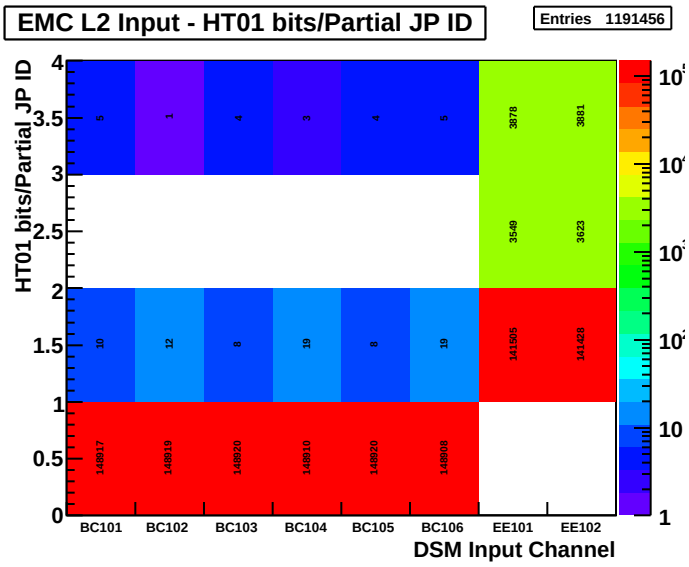

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

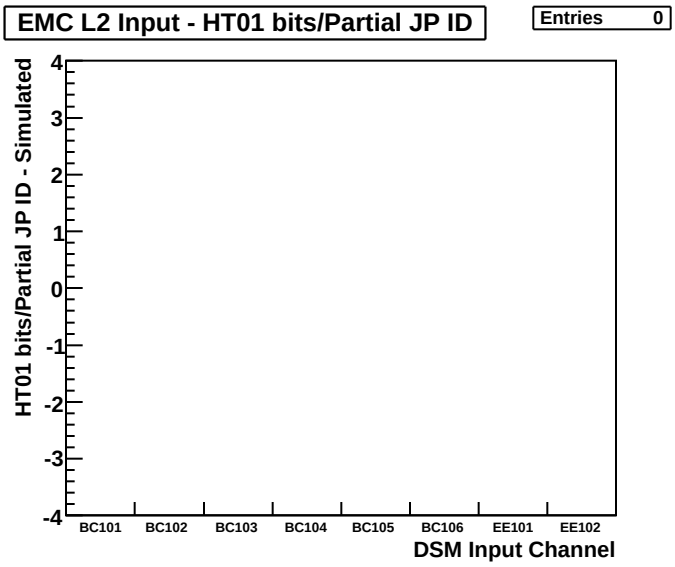

EMC L2 Input - JPZ/JPC bits
Entries 1191456
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

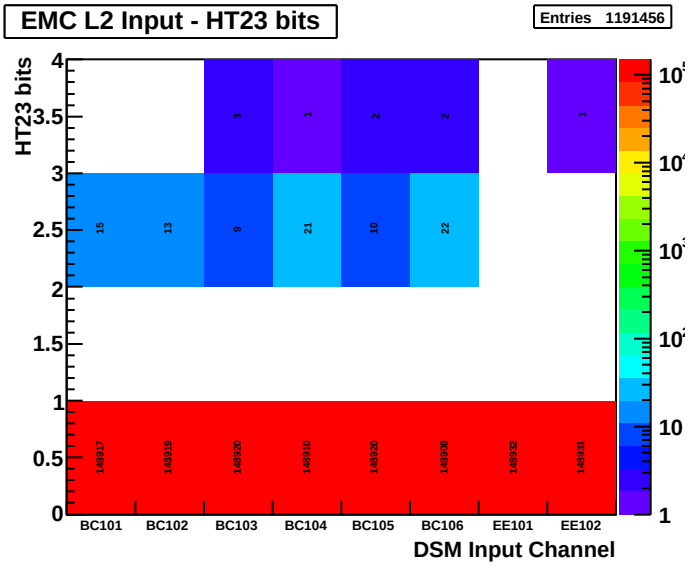

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

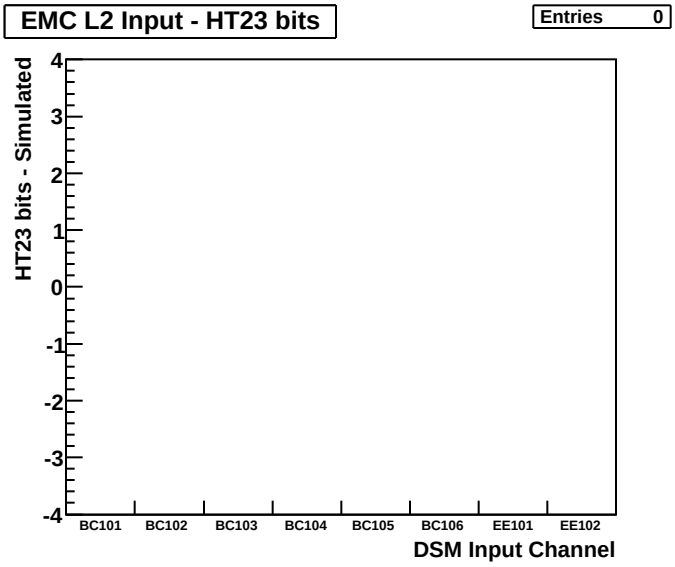

EMC L2 Input - Partial JP Sum
Entries 1191456
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

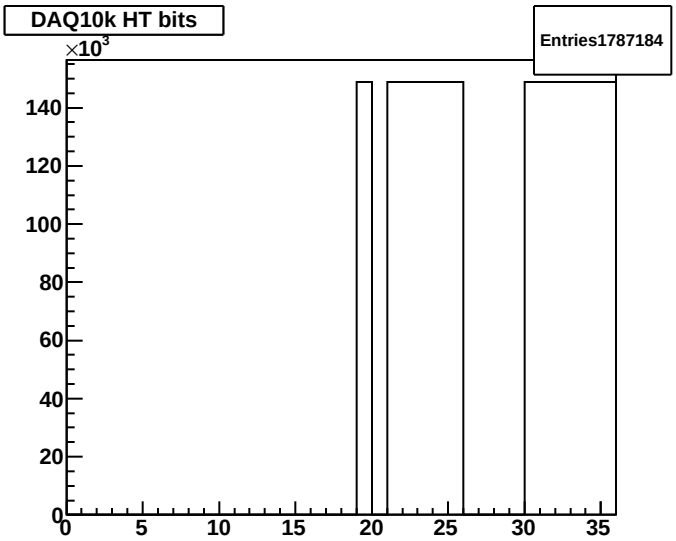

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

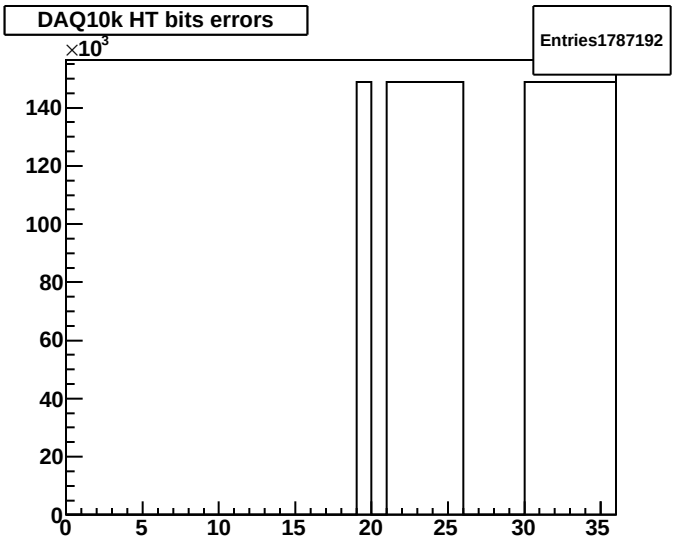

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1191456
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

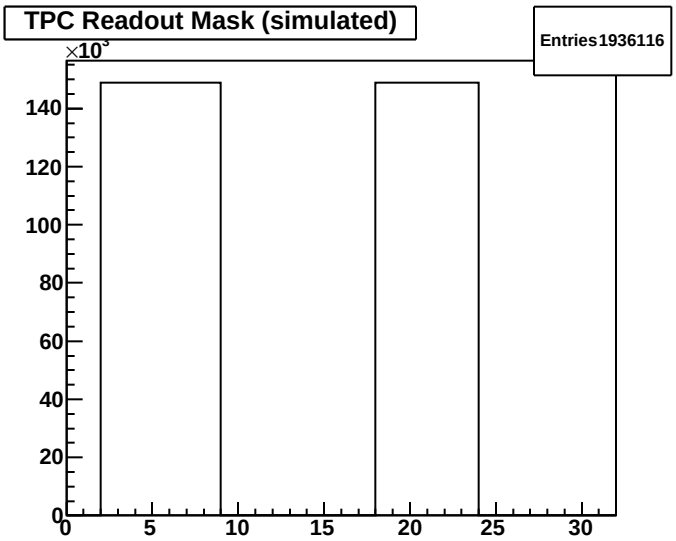

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

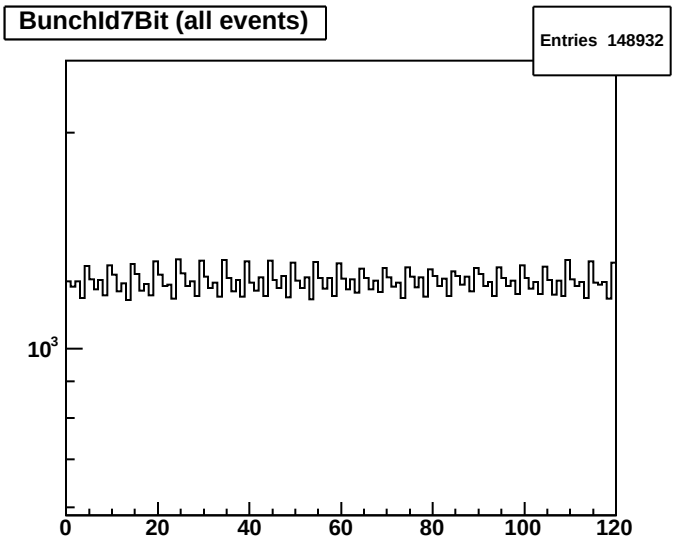

EMC L2 Input - HT23 bits
Entries 1191456
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

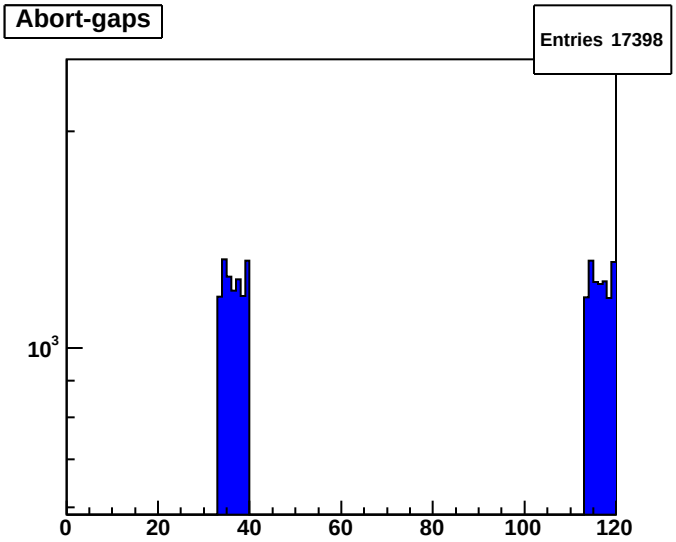

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

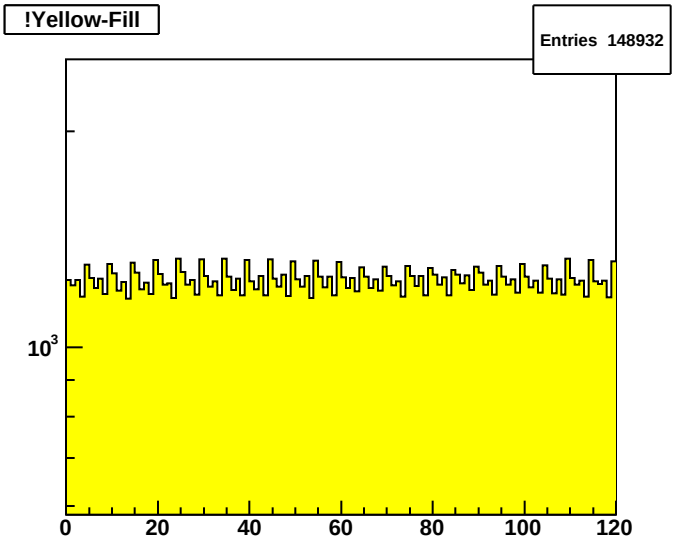

DAQ10k HT bits
Entries1787184
×10^3
140
120
100
80
60
40
20
0
0
5
10
15
20
25
30
35

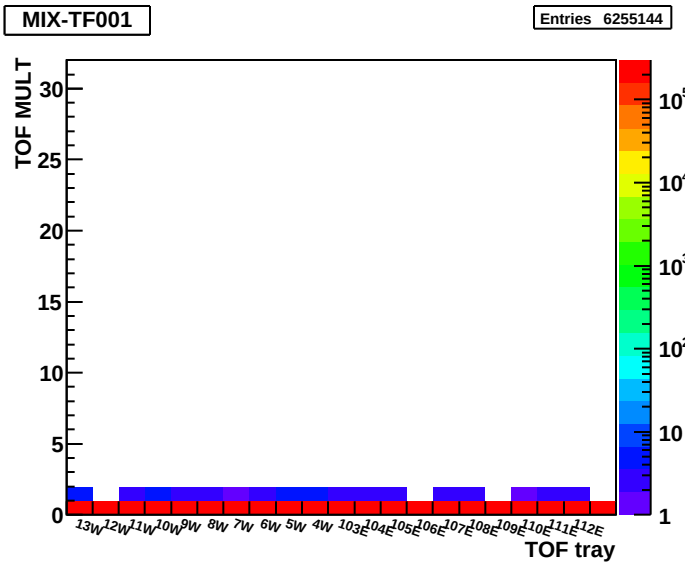

DAQ10k HT bits errors
Entries1787192
×10^3
140
120
100
80
60
40
20
0
0
5
10
15
20
25
30
35

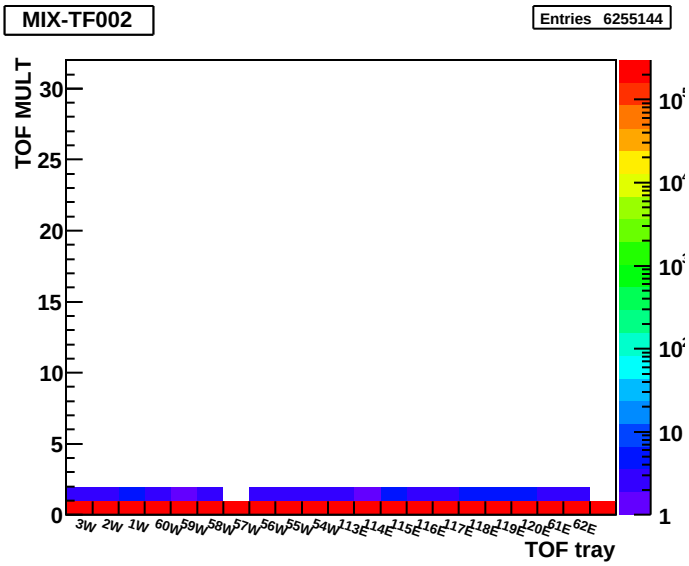

TPC Readout Mask (simulated)
Entries1936116
×10^3
140
120
100
80
60
40
20
0
0
5
10
15
20
25
30

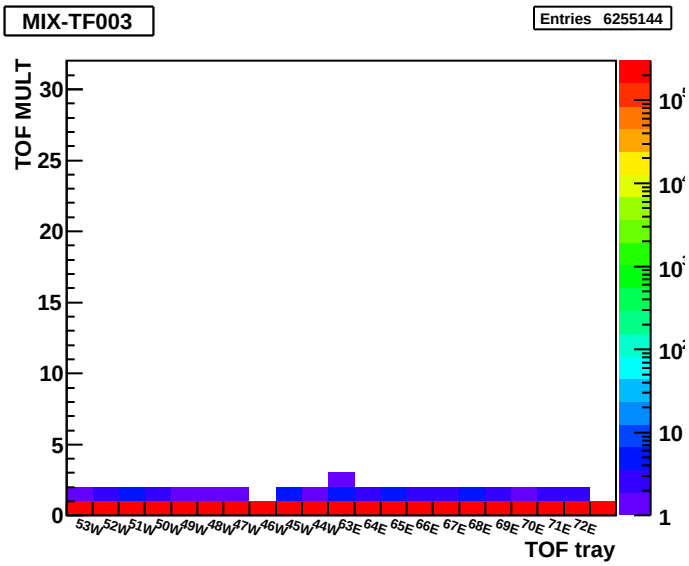

BunchId7Bit (all events)
Entries 148932
10^3
0
20
40
60
80
100
120

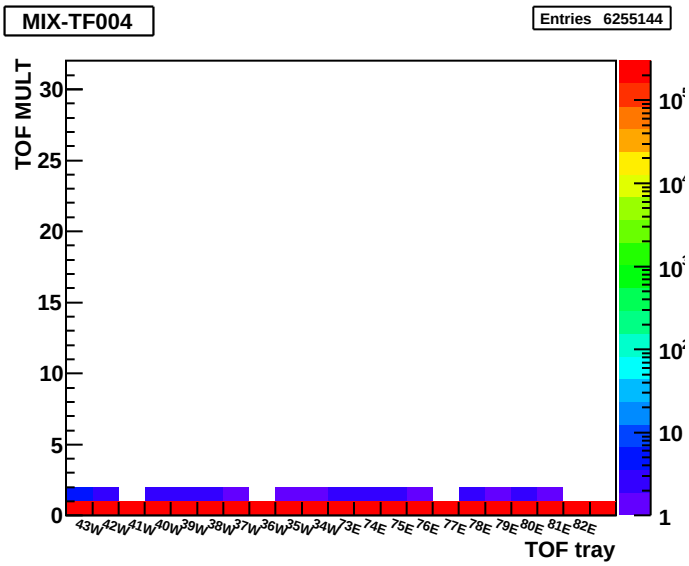

Abort-gaps
Entries 17398
10^3
0
20
40
60
80
100
120

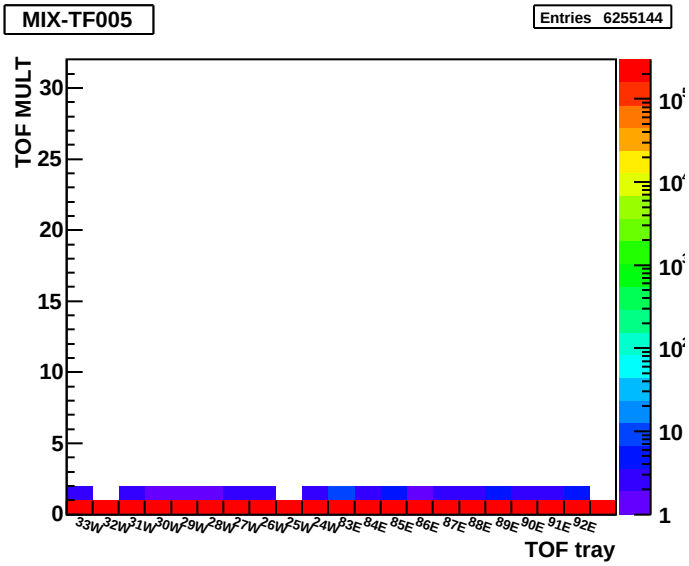

!Yellow-Fill
Entries 148932
10^3
0
20
40
60
80
100
120

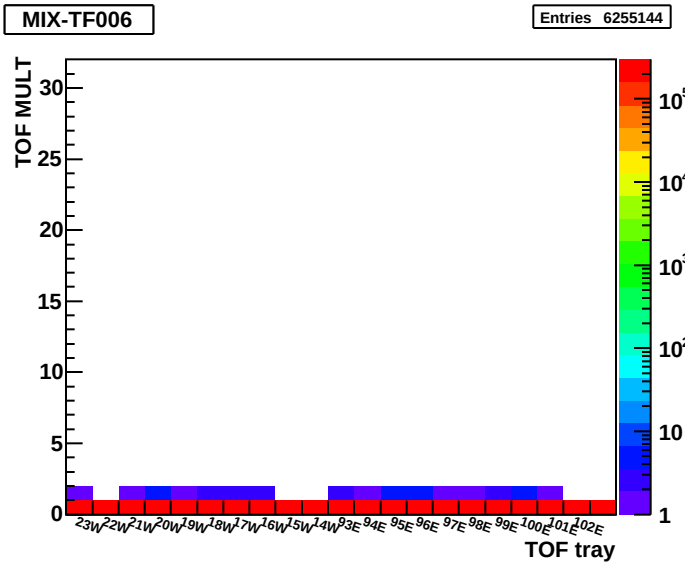

MIX-TF001
Entries 6255144
TOF MULT
TOF tray

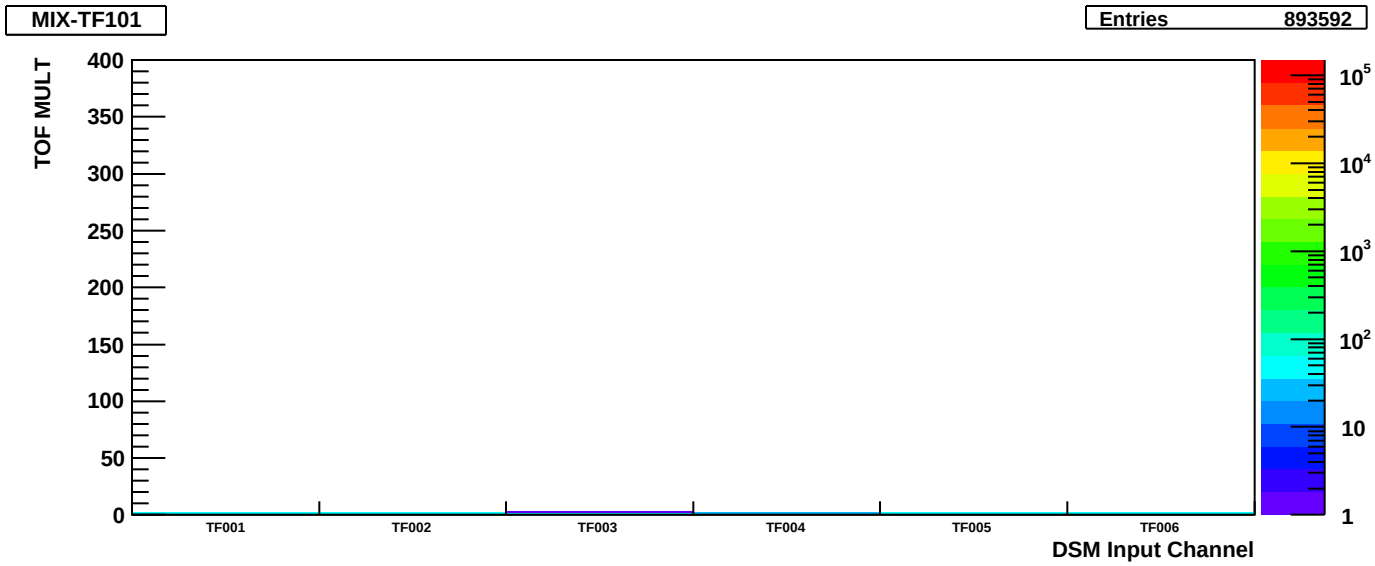

MIX-TF002
Entries 6255144
TOF MULT
TOF tray

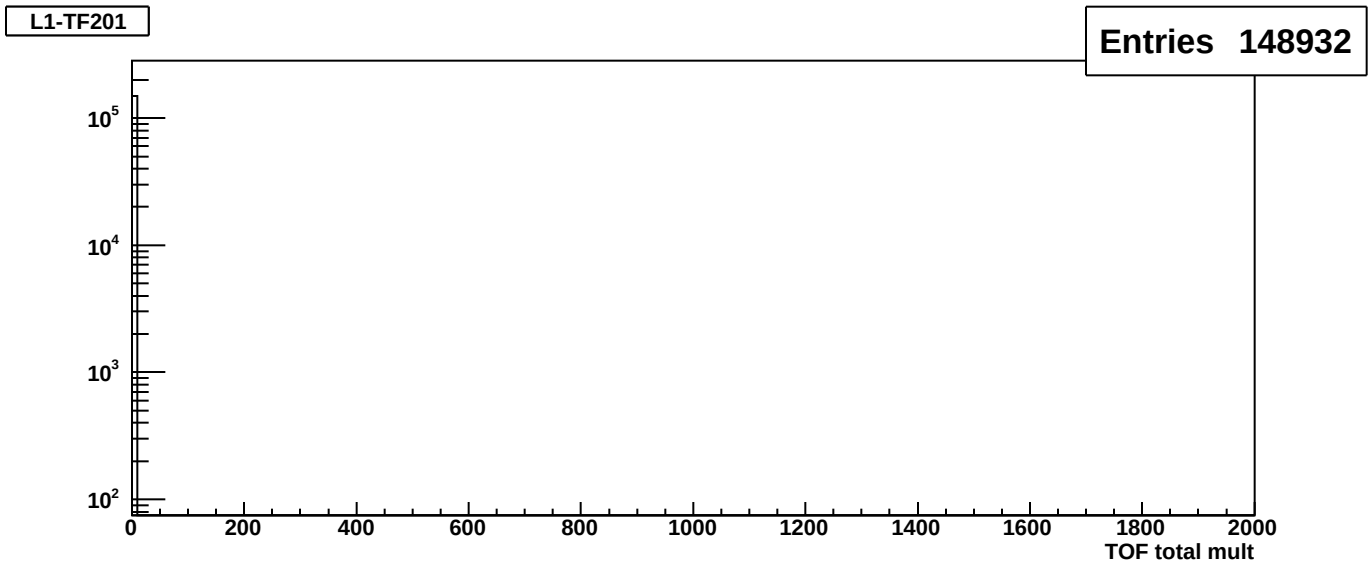

MIX-TF003
Entries 6255144
TOF MULT
TOF tray

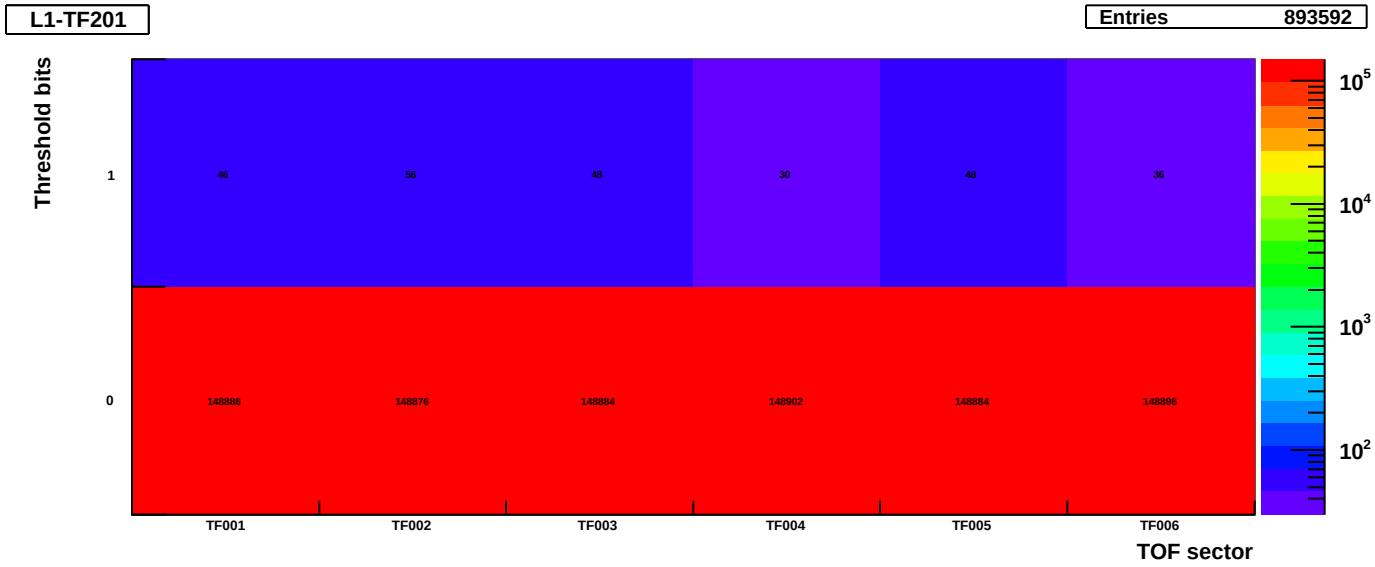

MIX-TF004
Entries 6255144
TOF MULT
TOF tray

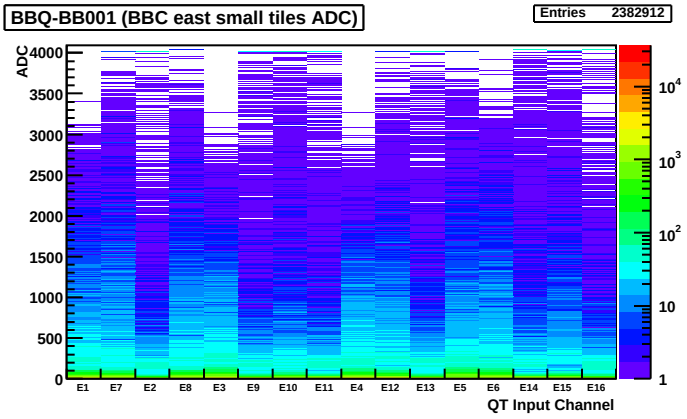

MIX-TF005
Entries 6255144
TOF MULT
TOF tray

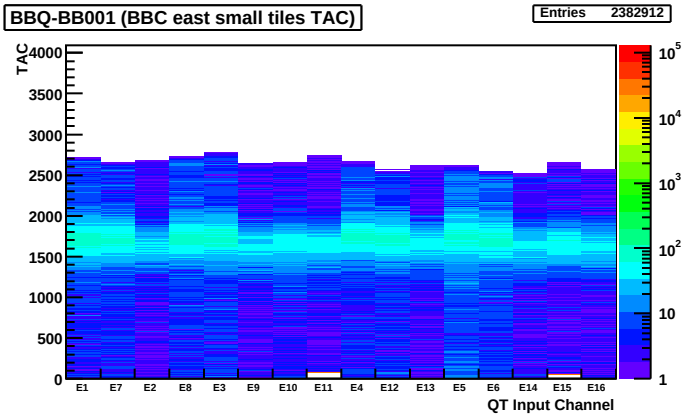

MIX-TF006
Entries 6255144
TOF MULT
TOF tray

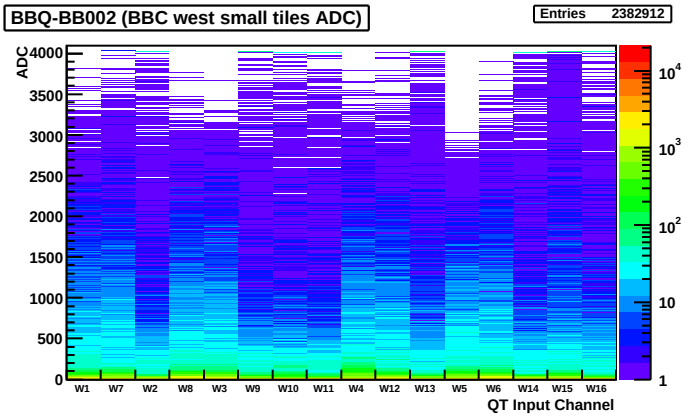

MIX-TF101
Entries 893592
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

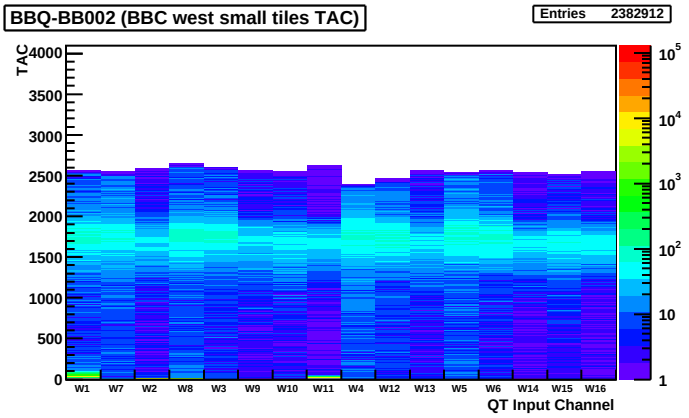

L1-TF201
Entries 148932
10^5
10^4
10^3
10^2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

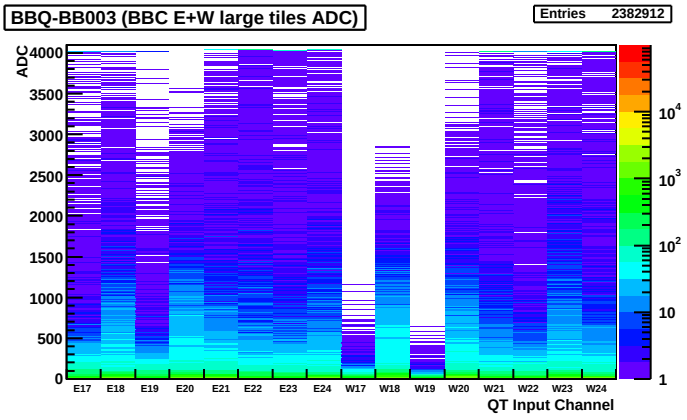

L1-TF201
Entries 893592
Threshold bits
1
0
46
56
48
30
48
36
148886
148876
148884
148902
148884
148896
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4
10^3
10^2

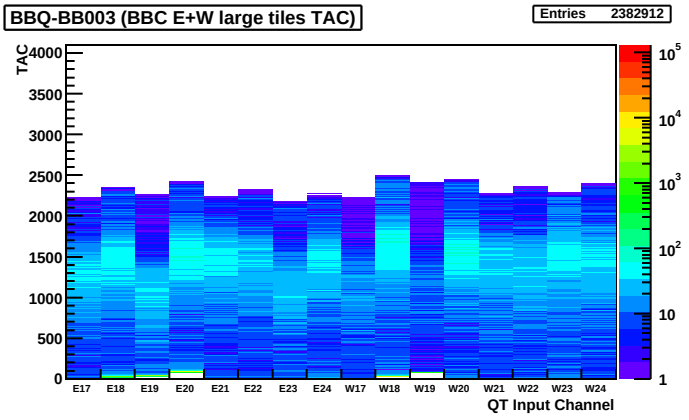

BBQ-BB001 (BBC east small tiles ADC)
Entries 2382912
ADC
QT Input Channel

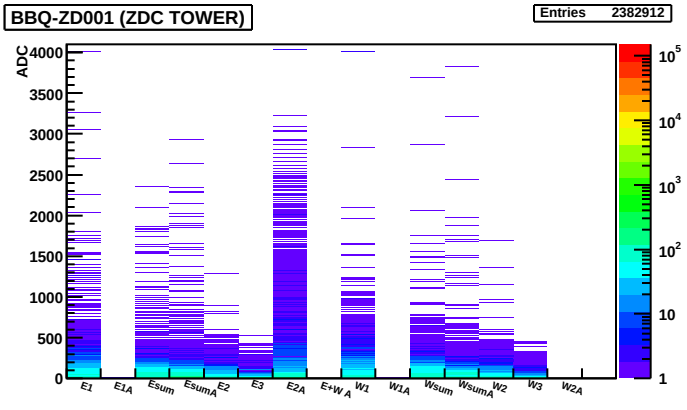

BBQ-BB001 (BBC east small tiles TAC)
Entries 2382912
TAC
QT Input Channel

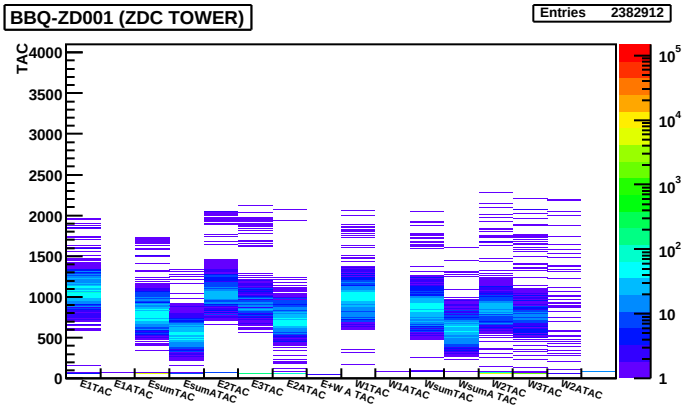

BBQ-BB002 (BBC west small tiles ADC)
Entries 2382912
ADC
QT Input Channel

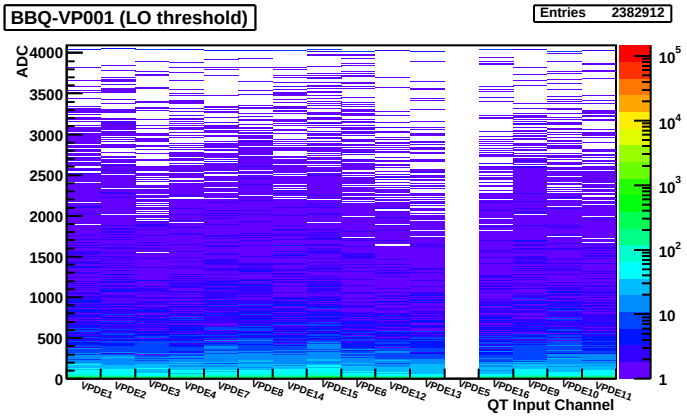

BBQ-BB002 (BBC west small tiles TAC)
Entries 2382912
TAC
QT Input Channel

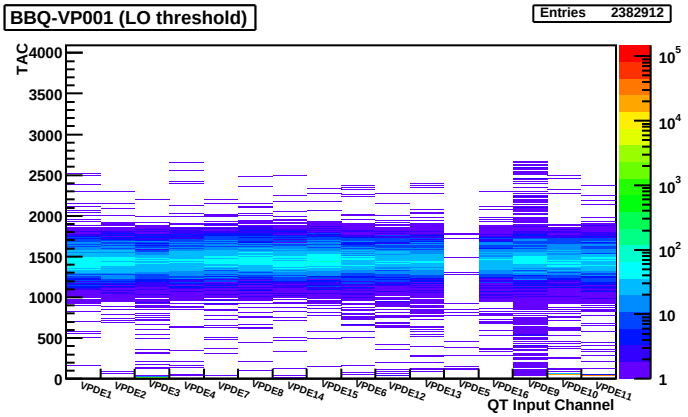

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2382912
ADC
QT Input Channel

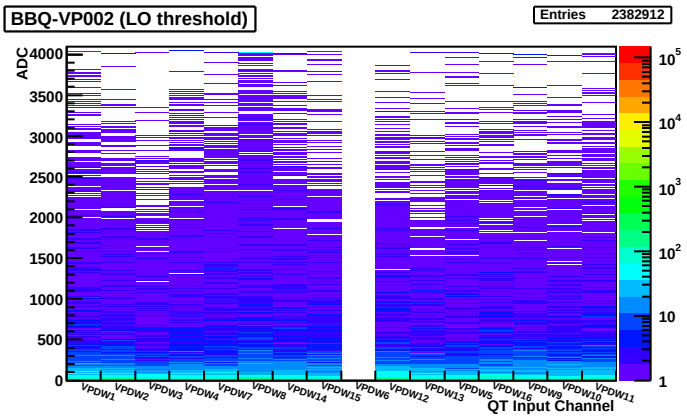

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2382912
TAC
QT Input Channel

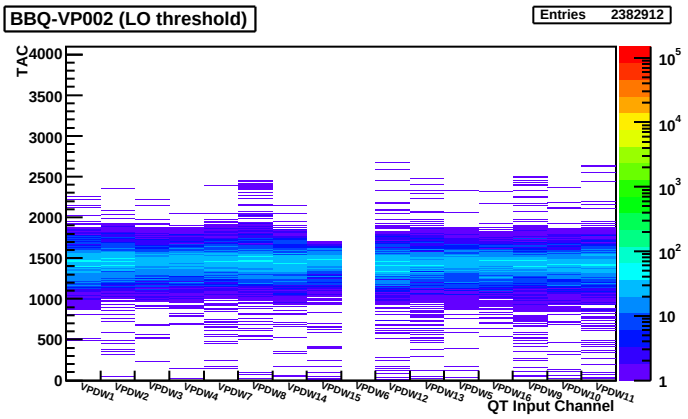

BBQ-ZD001 (ZDC TOWER)
Entries 2382912
ADC

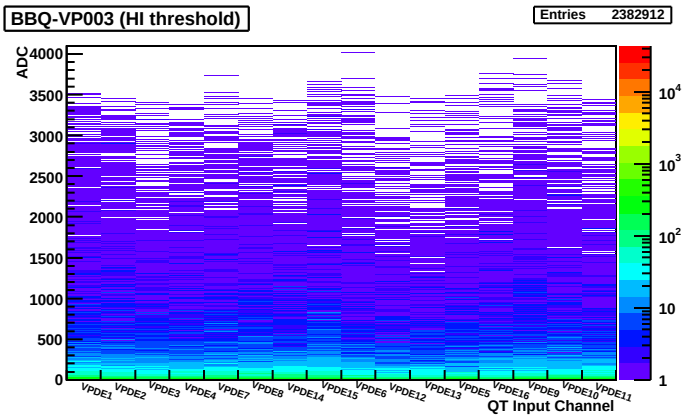

BBQ-ZD001 (ZDC TOWER)
Entries 2382912
TAC

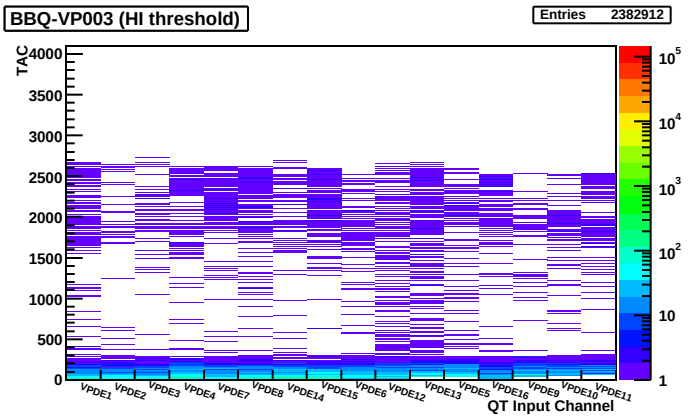

BBQ-VP001 (LO threshold)
Entries 2382912
ADC
QT Input Channel

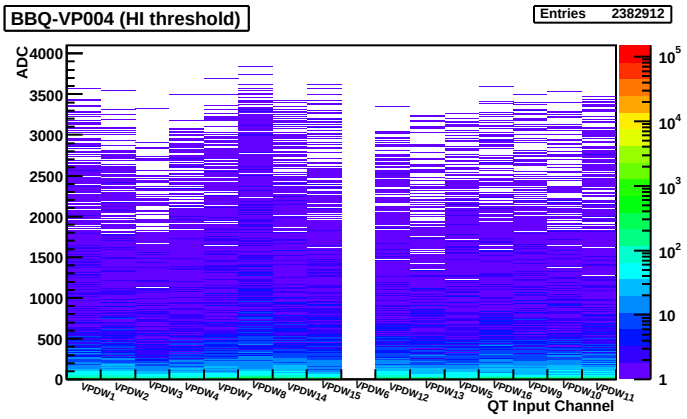

BBQ-VP001 (LO threshold)
Entries 2382912
TAC
QT Input Channel

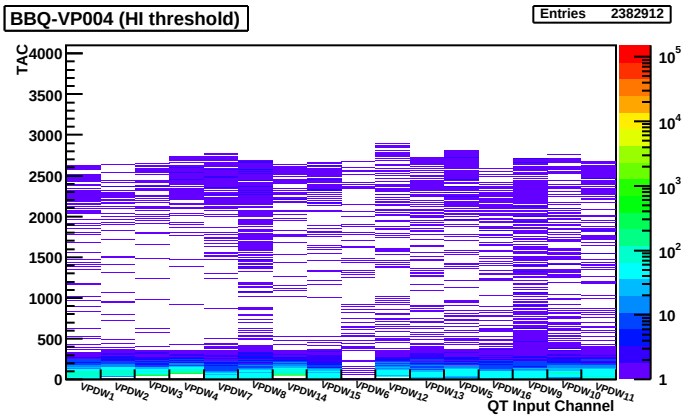

BBQ-VP002 (LO threshold)
Entries 2382912
ADC
QT Input Channel

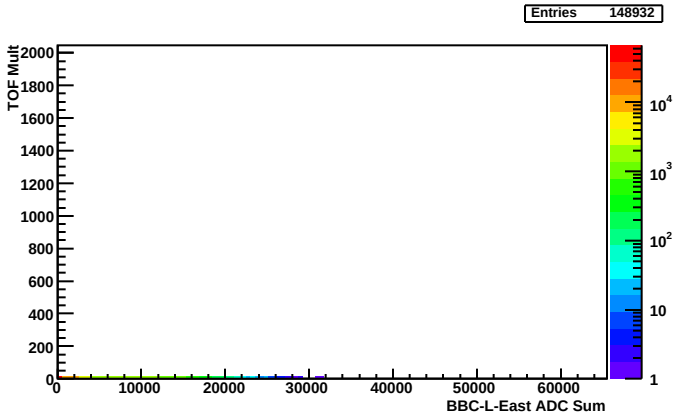

BBQ-VP002 (LO threshold)
Entries 2382912
TAC
QT Input Channel

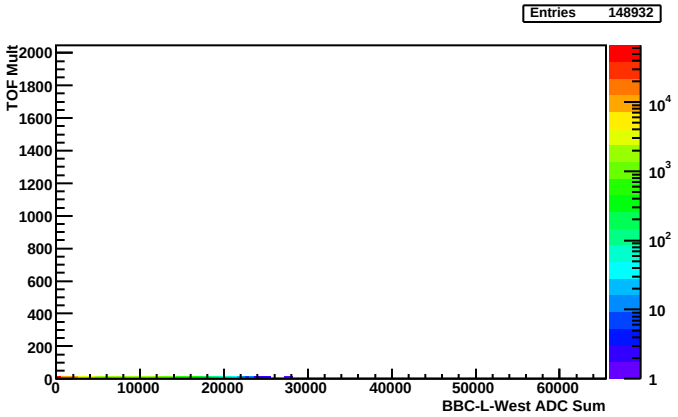

BBQ-VP003 (HI threshold)
Entries 2382912
ADC
QT Input Channel

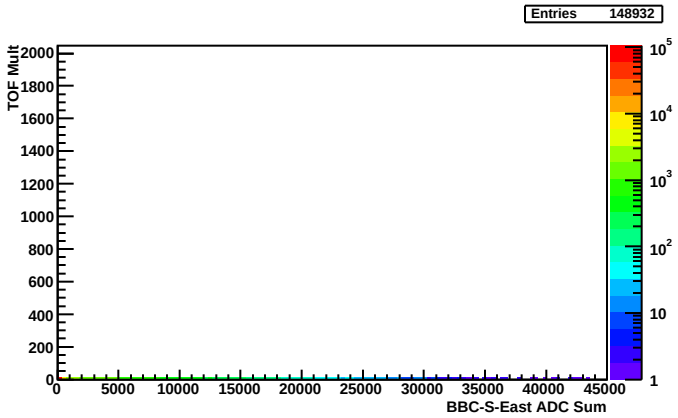

BBQ-VP003 (HI threshold)
Entries 2382912
TAC
QT Input Channel

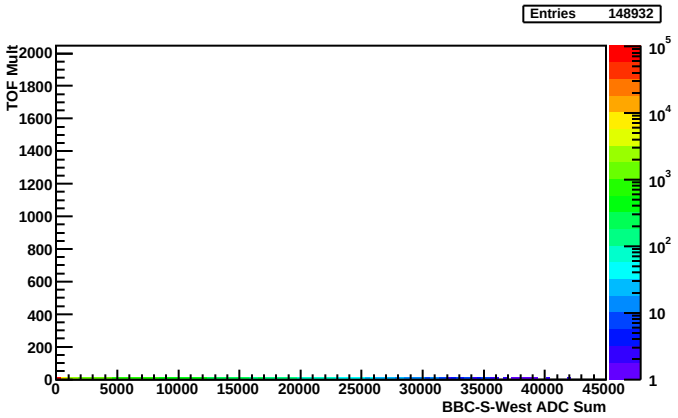

BBQ-VP004 (HI threshold)
Entries 2382912
ADC
QT Input Channel

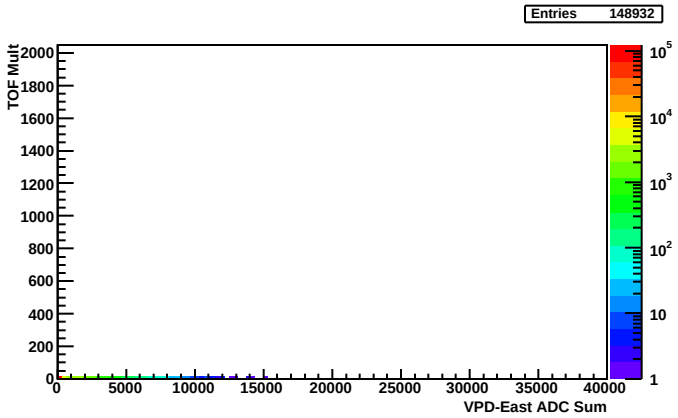

BBQ-VP004 (HI threshold)
Entries 2382912
TAC
QT Input Channel

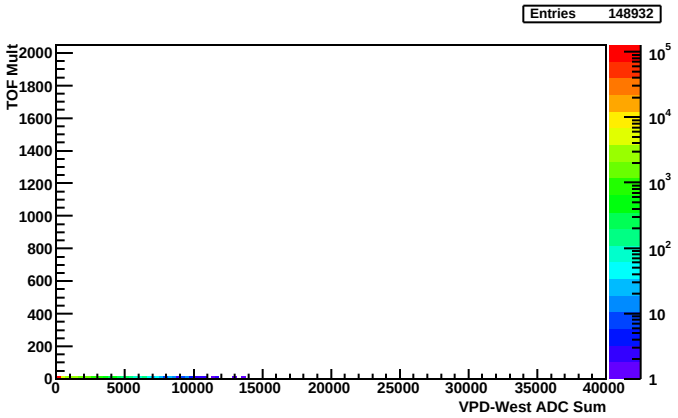

Entries 148932
TOF Mult
BBC-L-East ADC Sum

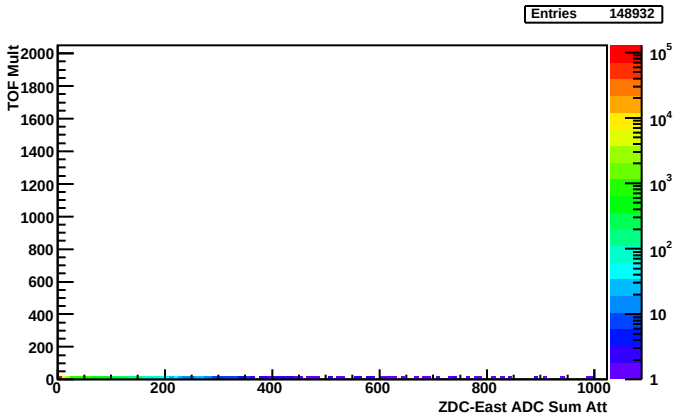

Entries 148932
TOF Mult
BBC-L-West ADC Sum

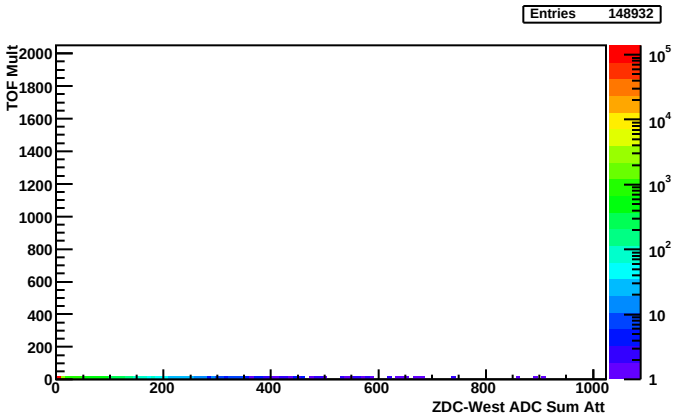

Entries 148932
TOF Mult
BBC-S-East ADC Sum

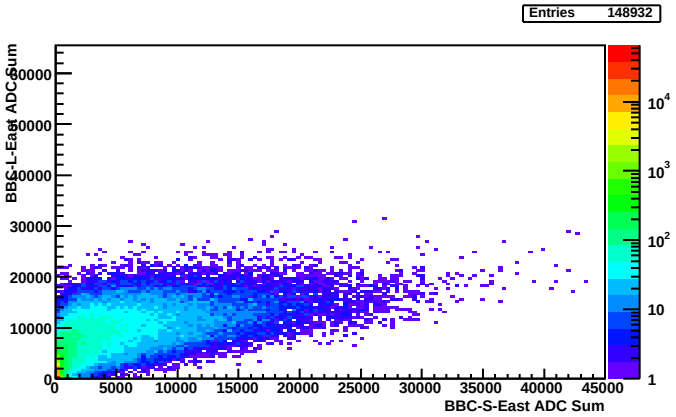

Entries 148932
TOF Mult
BBC-S-West ADC Sum

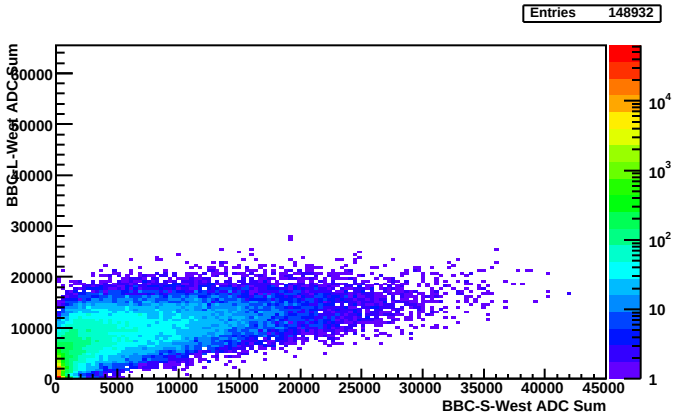

Entries 148932
TOF Mult
VPD-East ADC Sum

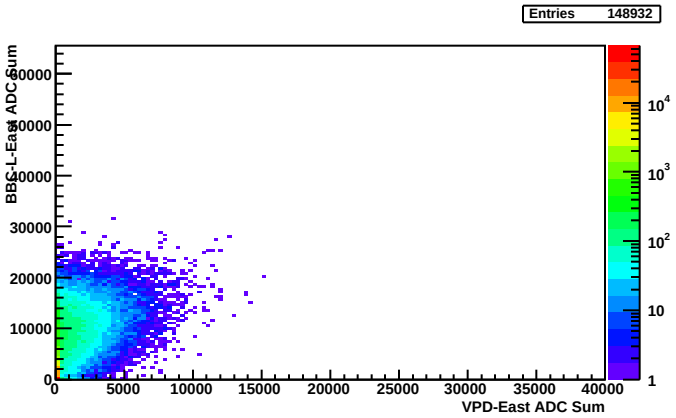

Entries 148932
TOF Mult
VPD-West ADC Sum

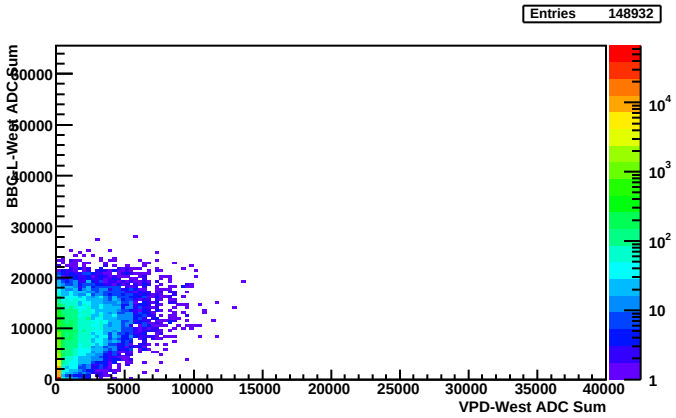

Entries 148932
TOF Mult
ZDC-East ADC Sum Att

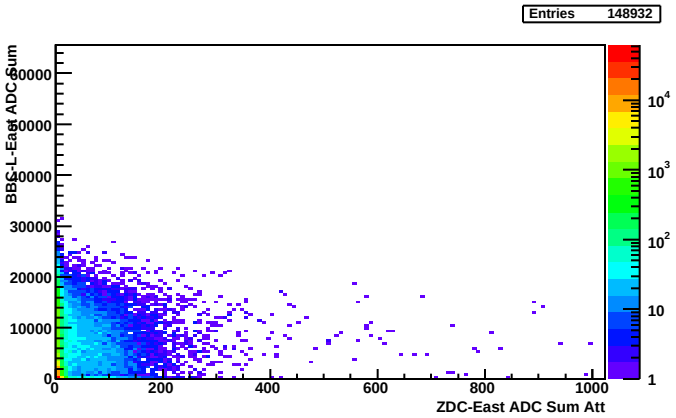

Entries 148932
TOF Mult
ZDC-West ADC Sum Att

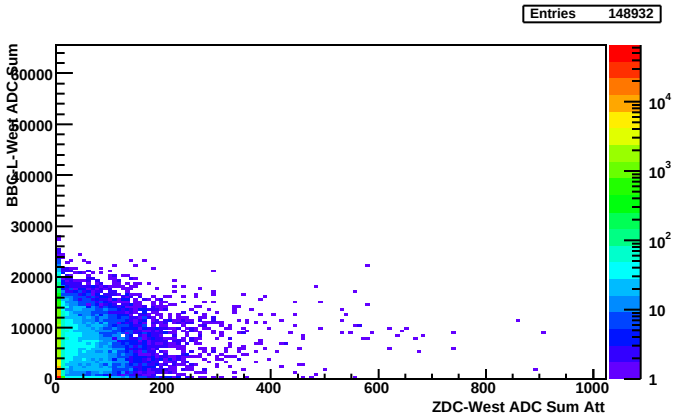

Entries 148932
BBC-L-East ADC Sum
BBC-S-East ADC Sum

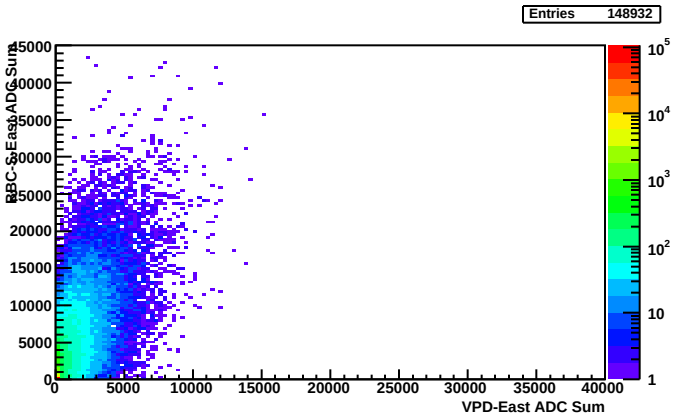

Entries 148932
BBC-L-West ADC Sum
BBC-S-West ADC Sum

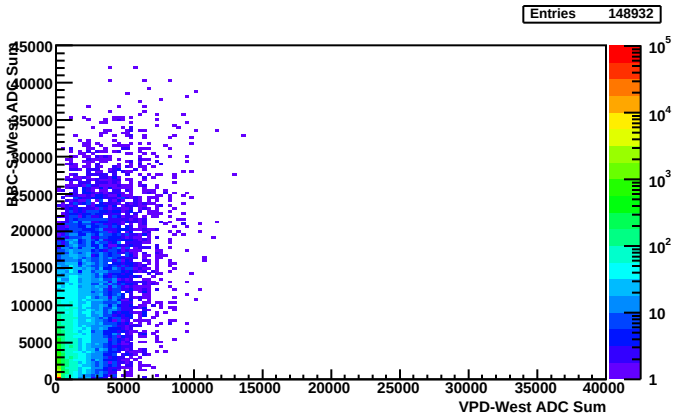

Entries 148932
BBC-L-East ADC Sum
VPD-East ADC Sum

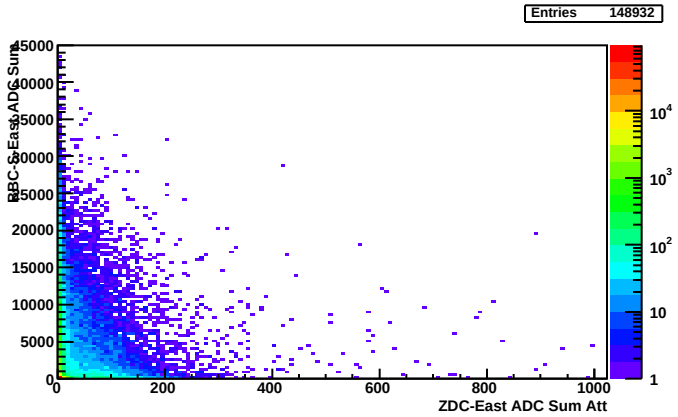

Entries 148932
BBC-L-West ADC Sum
VPD-West ADC Sum

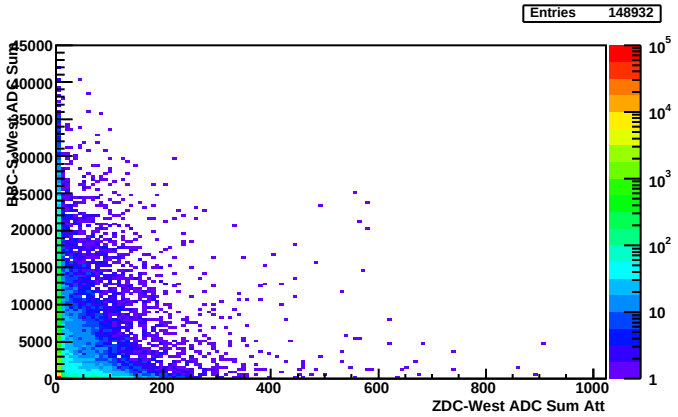

Entries 148932
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

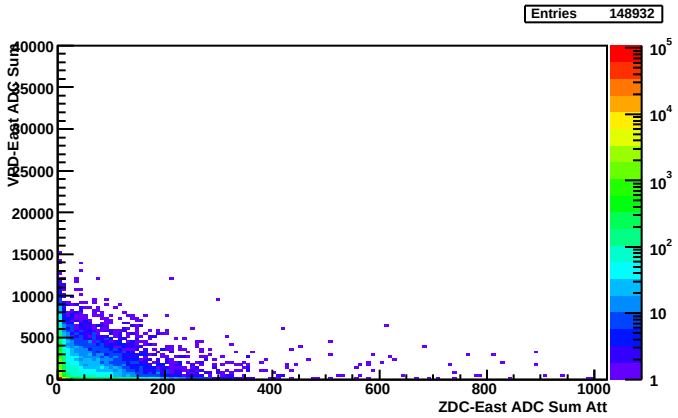

Entries 148932
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

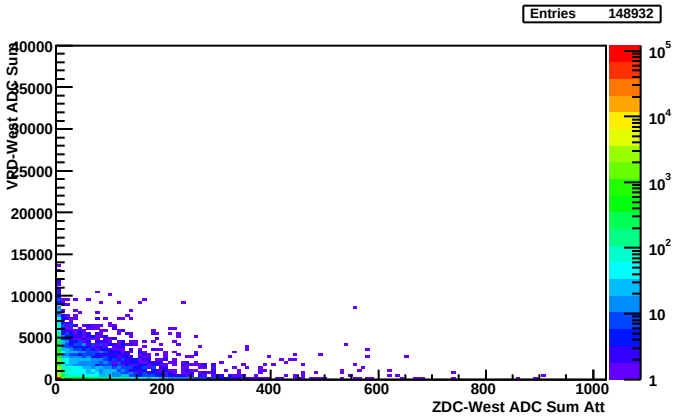

Entries 148932
BBC-S-East ADC Sum
VPD-East ADC Sum

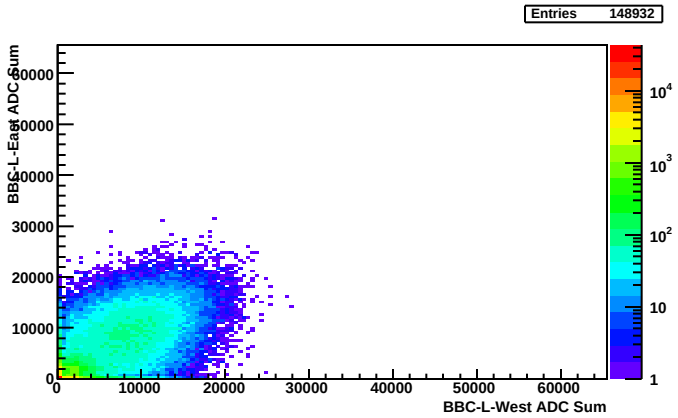

Entries 148932
BBC-S-West ADC Sum
VPD-West ADC Sum

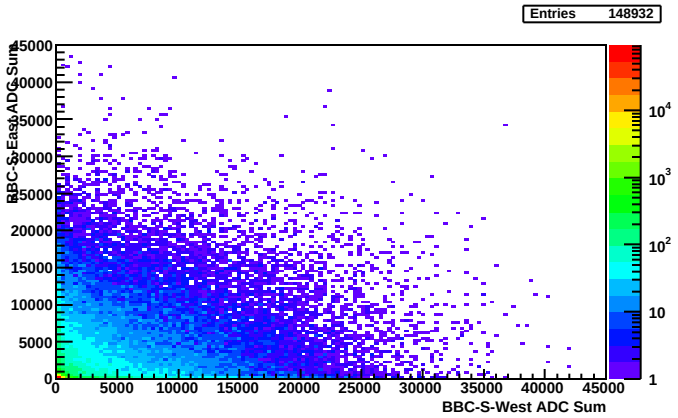

Entries 148932
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

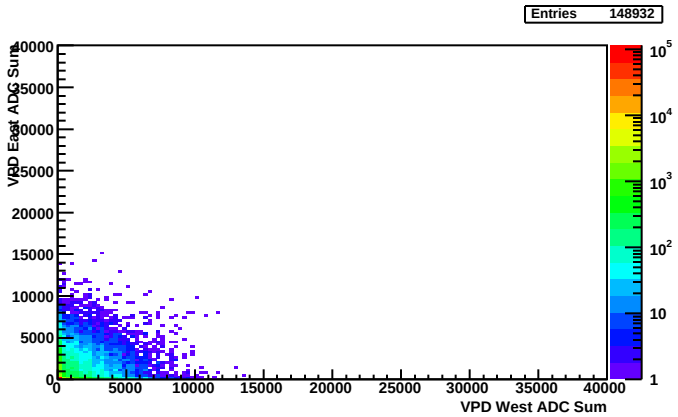

Entries 148932
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

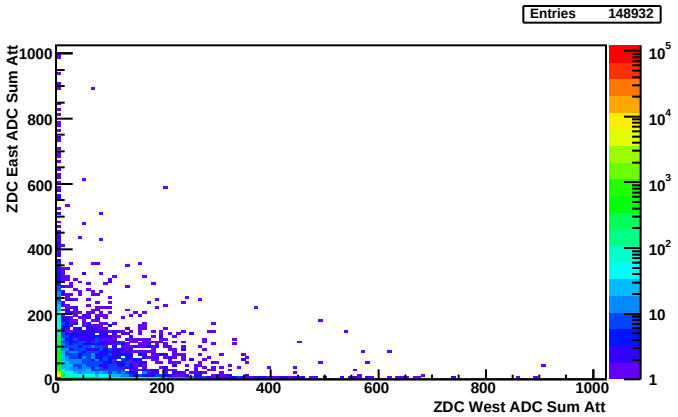

Entries 148932
VPD-East ADC Sum
ZDC-East ADC Sum Att

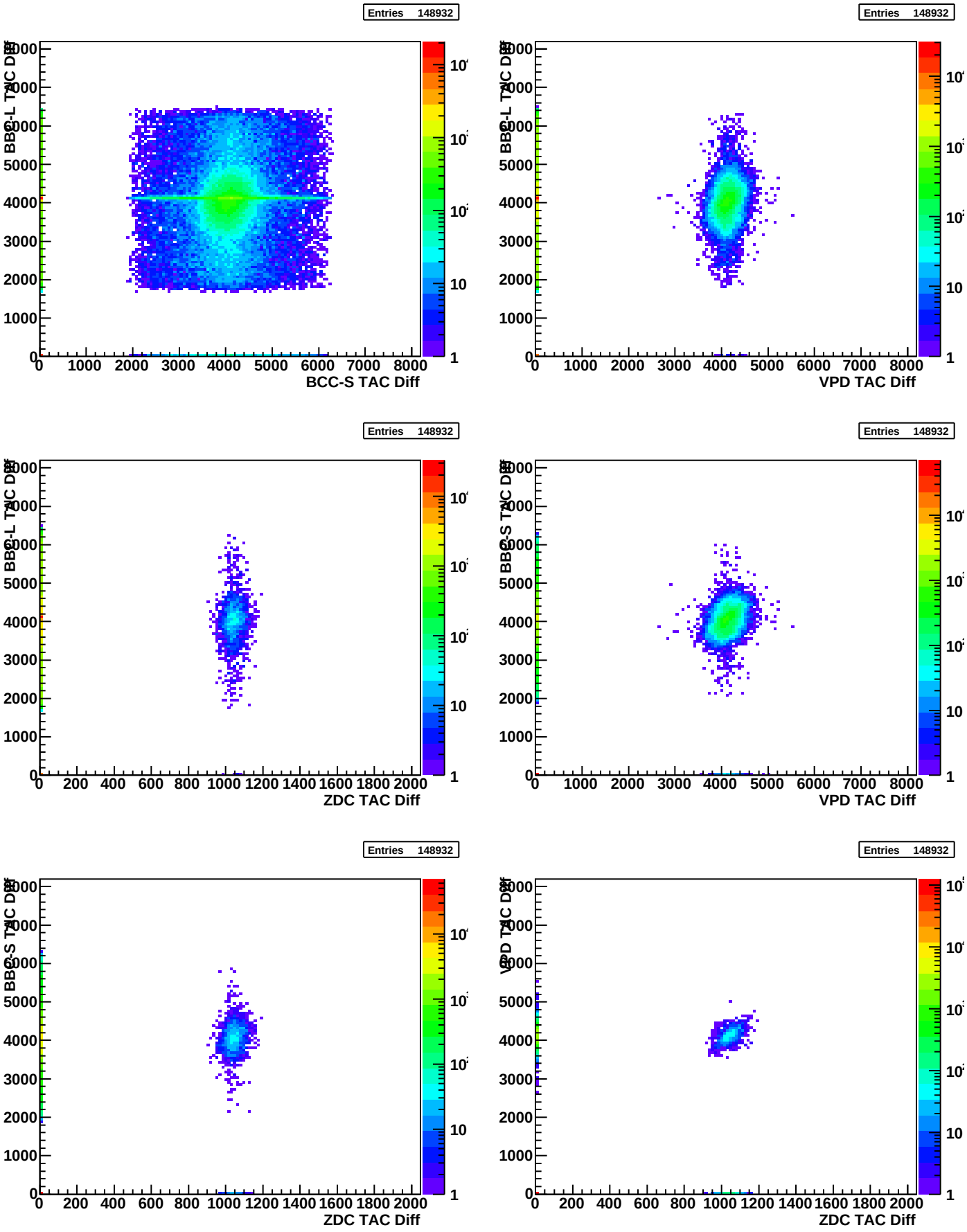

Entries 148932
VPD-West ADC Sum
ZDC-West ADC Sum Att

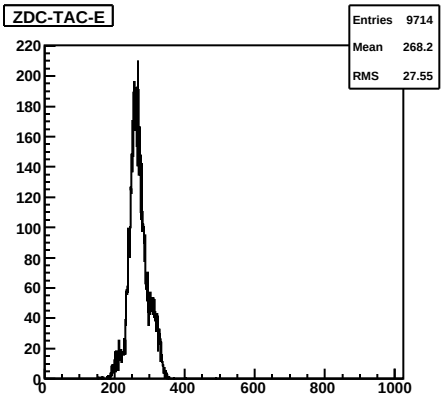

Entries 148932
BBC-L-East ADC Sum
BBC-L-West ADC Sum

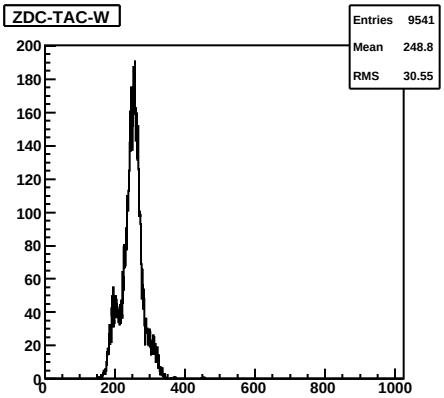

Entries 148932
BBC-S-East ADC Sum
BBC-S-West ADC Sum

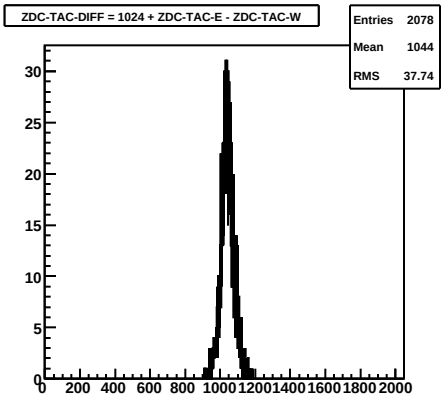

Entries 148932
VPD East ADC Sum
VPD West ADC Sum

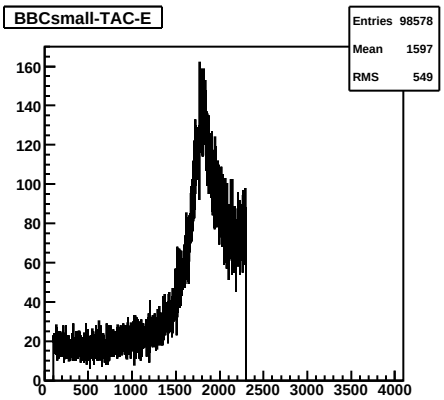

Entries 148932
ZDC East ADC Sum Att
ZDC West ADC Sum Att

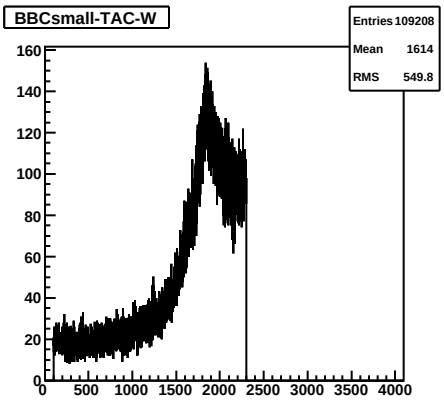

Entries 148932
BBC-L TAC Diff
BCC-S TAC Diff
Entries 148932
BBC-L TAC Diff
VPD TAC Diff
Entries 148932
BBC-L TAC Diff
ZDC TAC Diff
Entries 148932
BBC-S TAC Diff
VPD TAC Diff
Entries 148932
BBC-S TAC Diff
ZDC TAC Diff
Entries 148932
VPD TAC Diff
ZDC TAC Diff

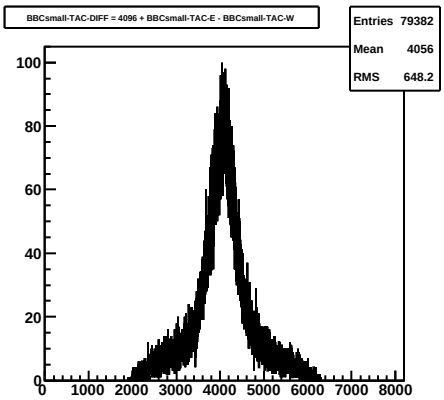

ZDC-TAC-E
Entries 9714
Mean 268.2
RMS 27.55

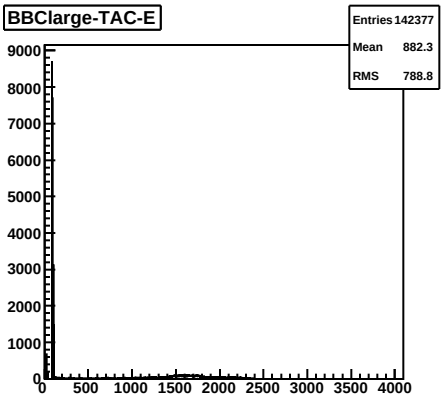

ZDC-TAC-W
Entries 9541
Mean 248.8
RMS 30.55

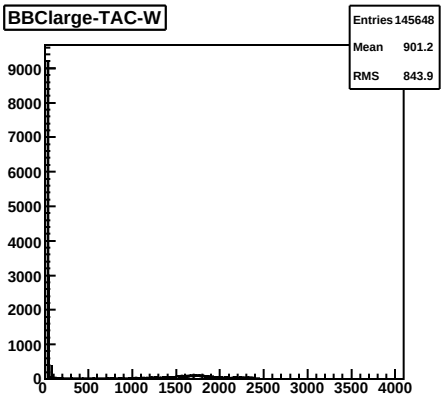

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 2078
Mean 1044
RMS 37.74

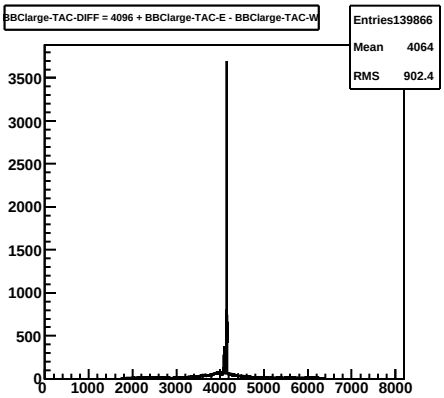

BBCsmall-TAC-E
Entries 98578
Mean 1597
RMS 549

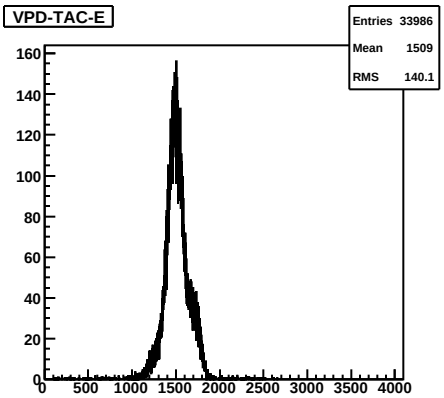

BBCsmall-TAC-W
Entries 109208
Mean 1614
RMS 549.8

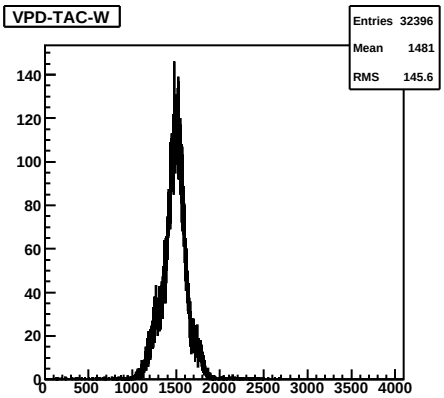

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 79382
Mean 4056
RMS 648.2

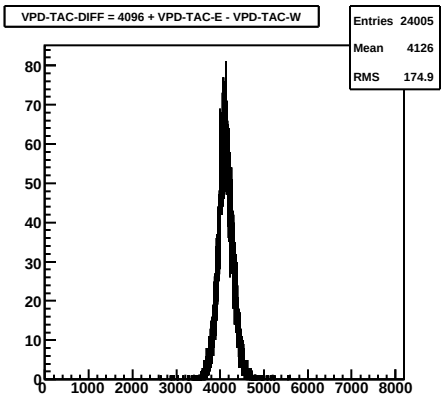

BBClarge-TAC-E
Entries 142377
Mean 882.3
RMS 788.8

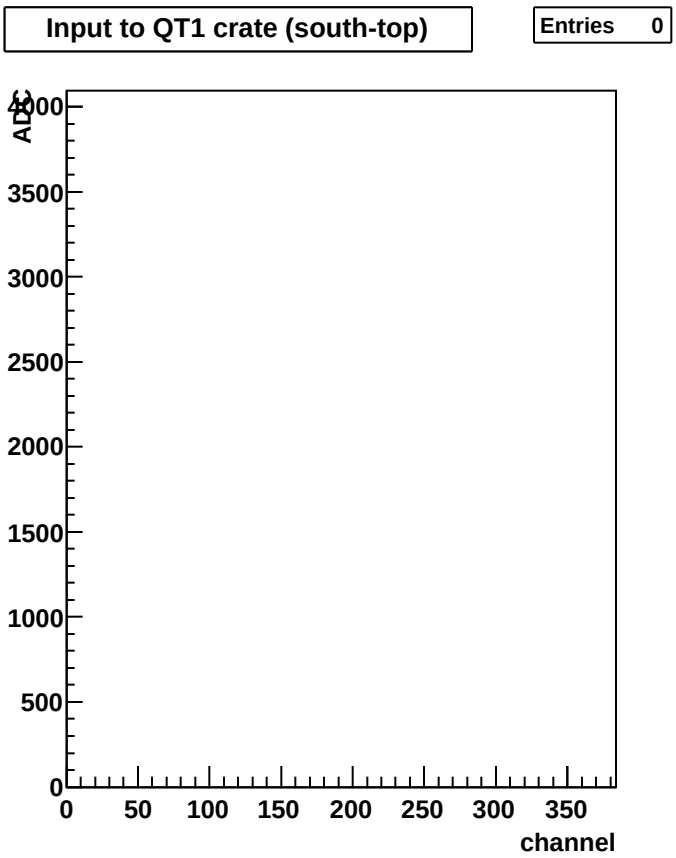

BBClarge-TAC-W
Entries 145648
Mean 901.2
RMS 843.9

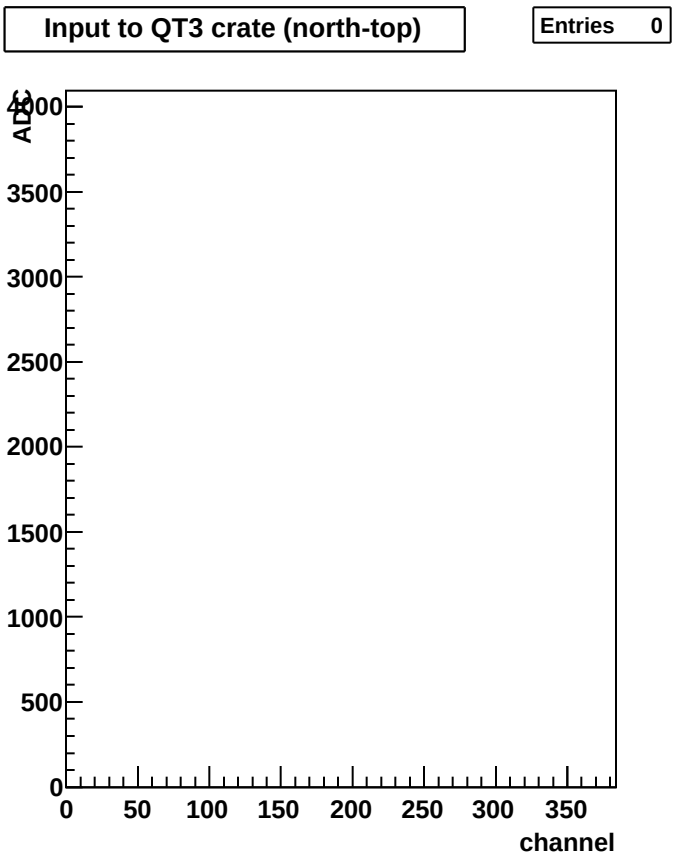

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 139866
Mean 4064
RMS 902.4

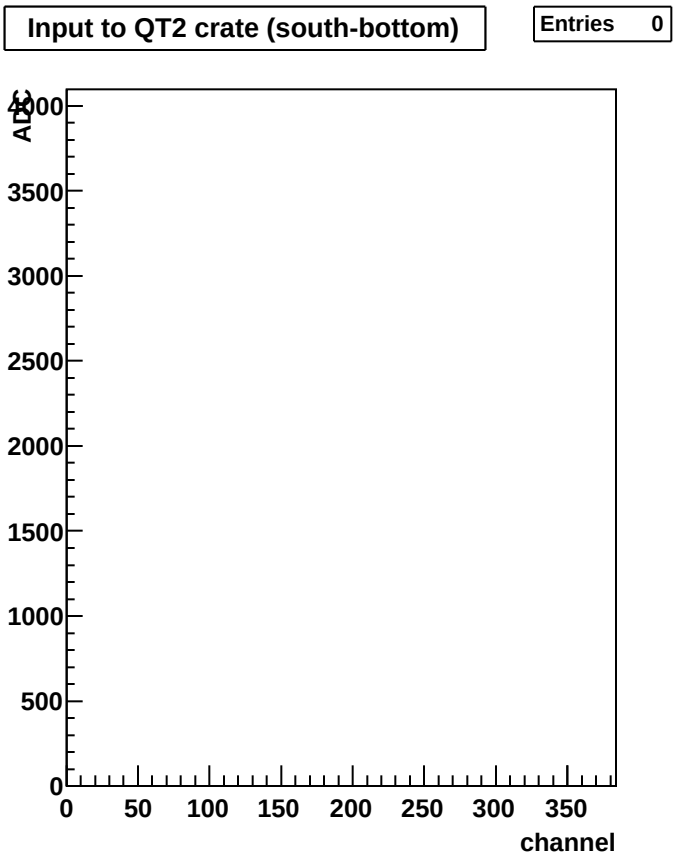

VPD-TAC-E
Entries 33986
Mean 1509
RMS 140.1

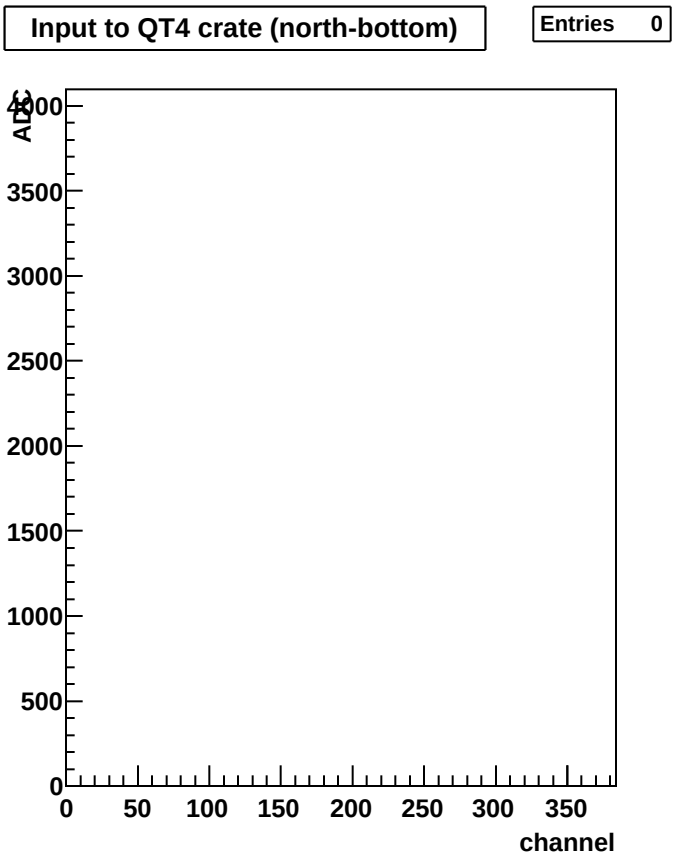

VPD-TAC-W
Entries 32396
Mean 1481
RMS 145.6

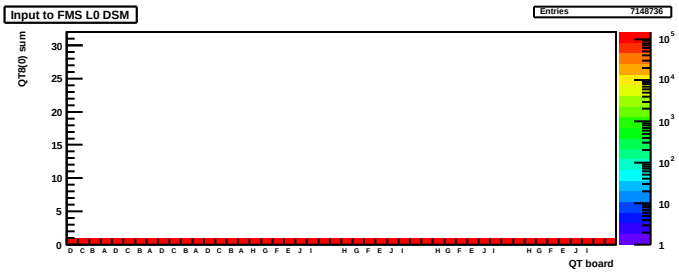

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 24005
Mean 4126
RMS 174.9

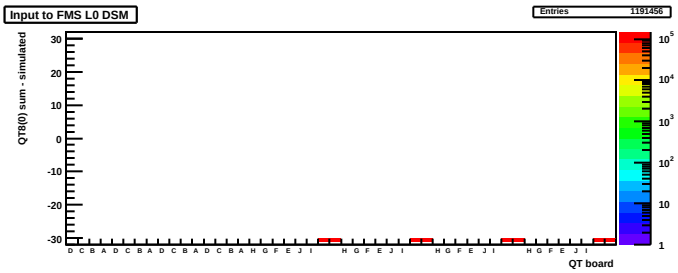

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

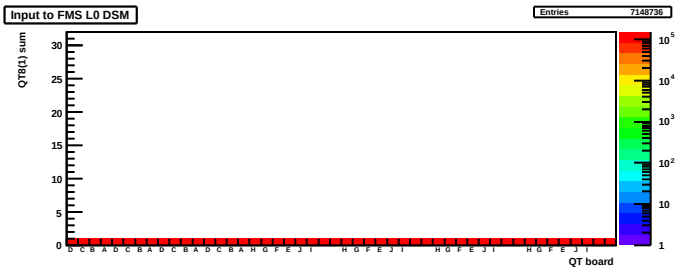

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

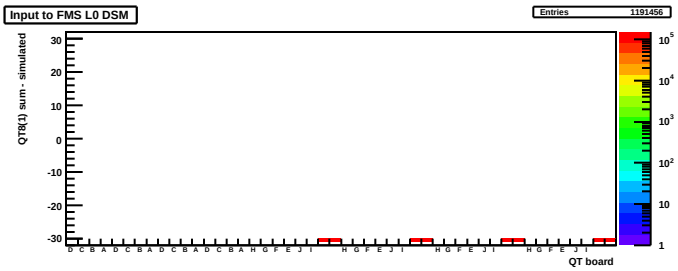

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

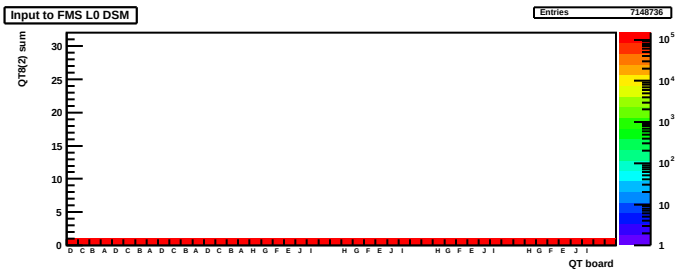

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

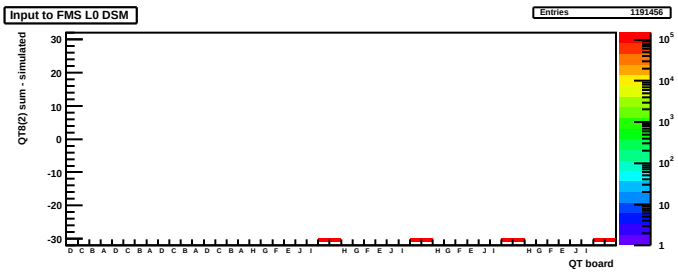

Input to FMS L0 DSM
Entries 7148736
QT8(0) sum
QT board

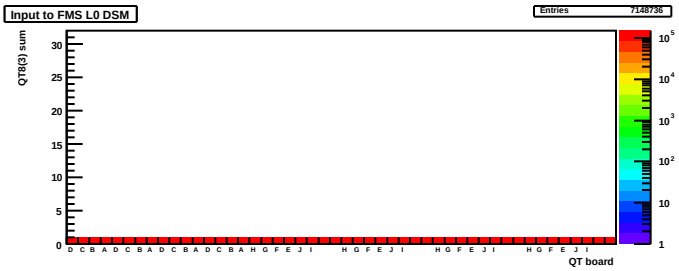

Input to FMS L0 DSM
Entries 1191456
QT8(0) sum - simulated
QT board

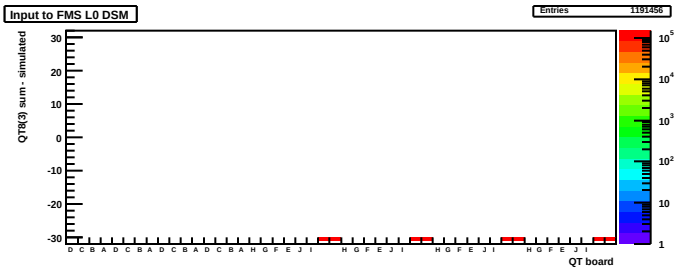

Input to FMS L0 DSM
Entries 7148736
QT8(1) sum
QT board

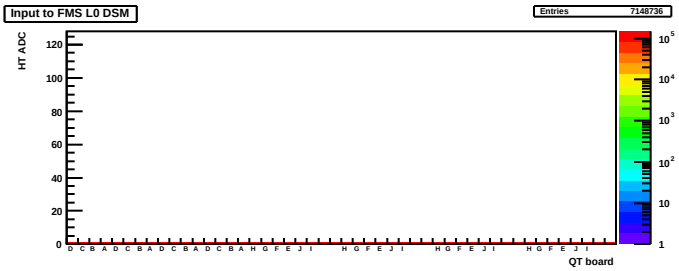

Input to FMS L0 DSM
Entries 1191456
QT8(1) sum - simulated
QT board

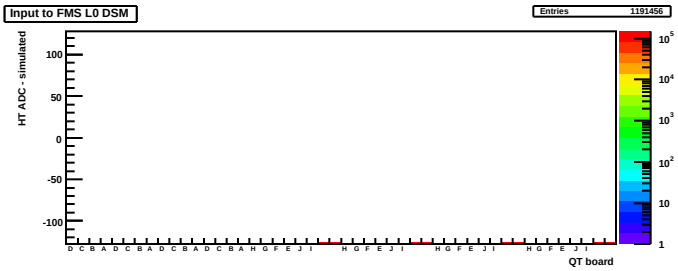

Input to FMS L0 DSM
Entries 7148736
QT8(2) sum
QT board

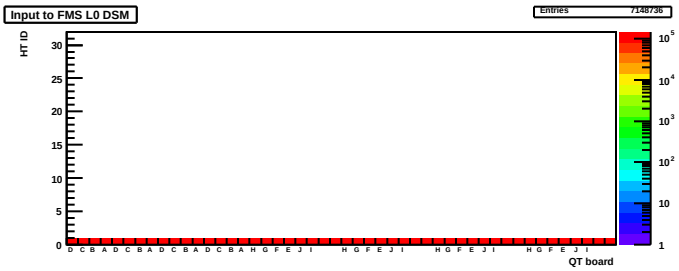

Input to FMS L0 DSM
Entries 1191456
QT8(2) sum - simulated
QT board

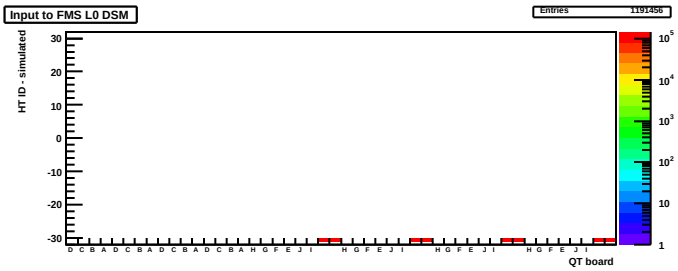

Input to FMS L0 DSM
Entries 7148736
QT8(3) sum
QT board

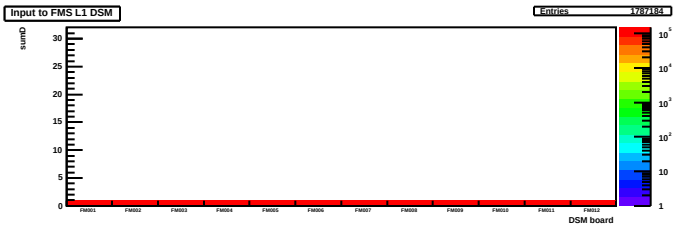

Input to FMS L0 DSM
Entries 1191456
QT8(3) sum - simulated
QT board

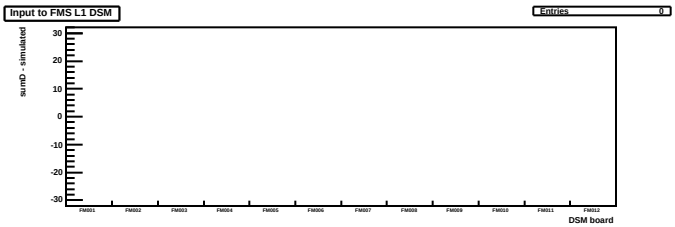

Input to FMS L0 DSM
Entries 7148736
HT ADC
QT board

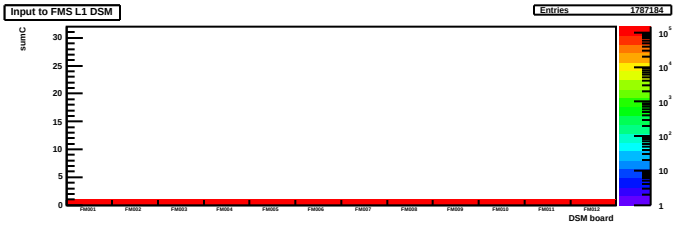

Input to FMS L0 DSM
Entries 1191456
HT ADC - simulated
QT board

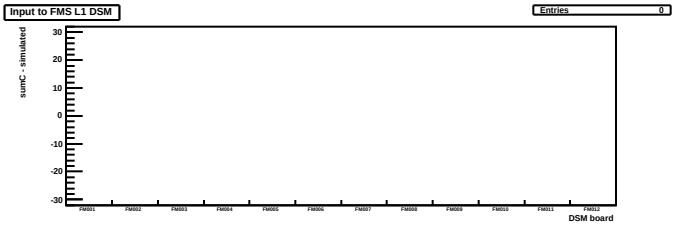

Input to FMS L0 DSM
Entries 7148736
HT ID
QT board

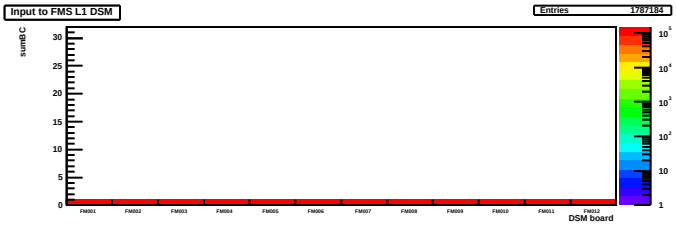

Input to FMS L0 DSM
Entries 1191456
HT ID - simulated
QT board

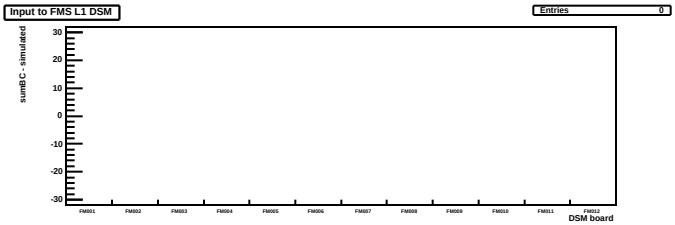

Input to FMS L1 DSM
Entries 1787184
sumD
DSM board

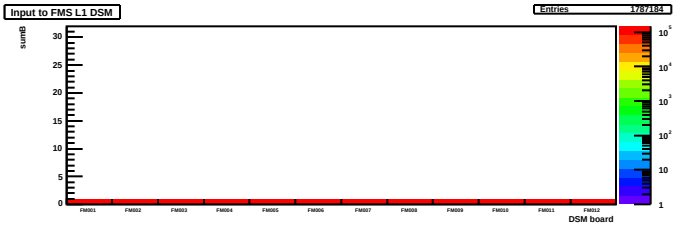

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

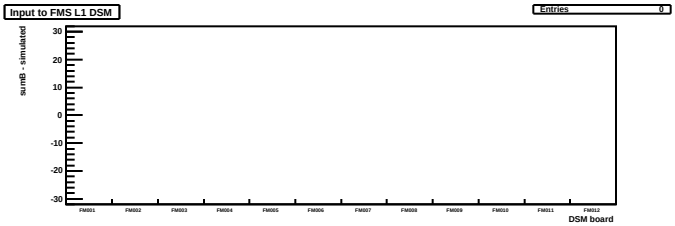

Input to FMS L1 DSM
Entries 1787184
sumC
DSM board

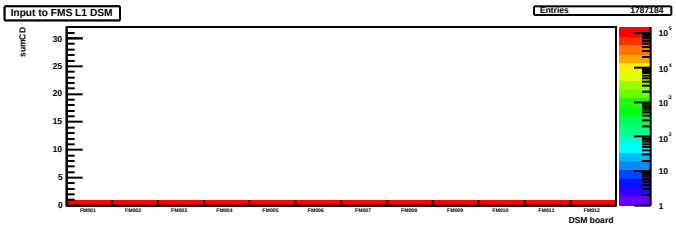

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

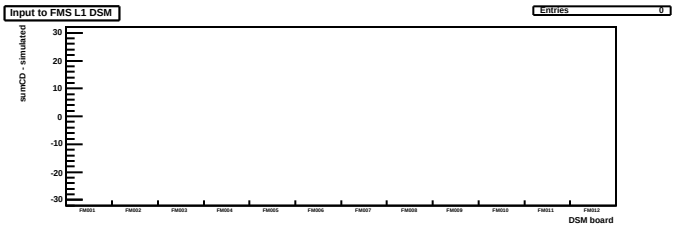

Input to FMS L1 DSM
Entries 1787184
sumBC
DSM board

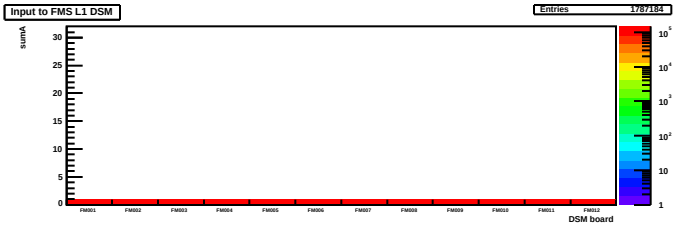

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

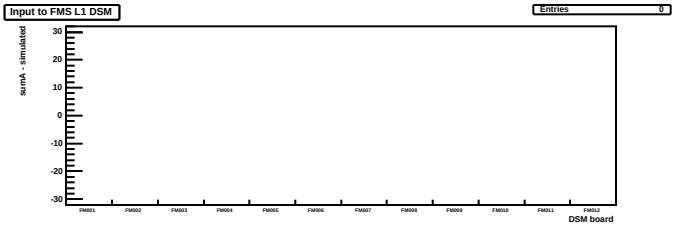

Input to FMS L1 DSM
Entries 1787184
sumB
DSM board

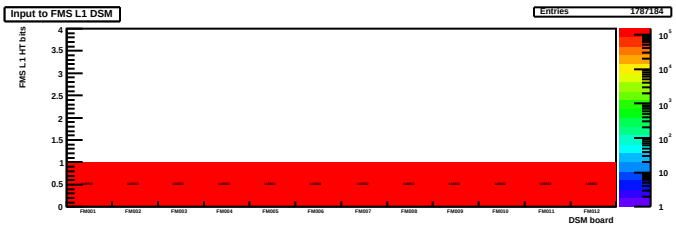

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

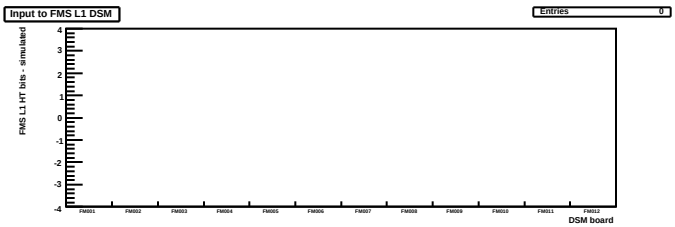

Input to FMS L1 DSM
Entries 1787184
sumCD
DSM board

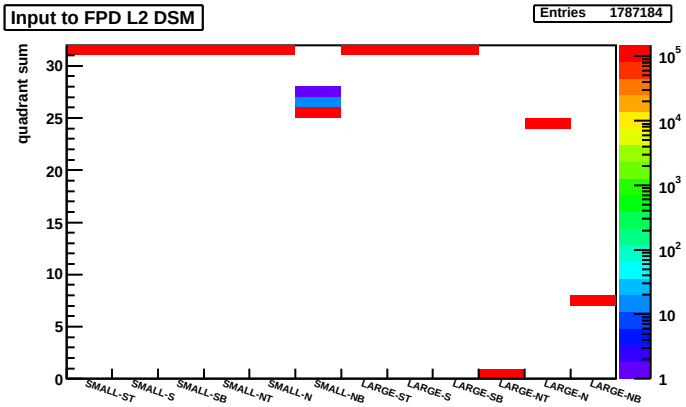

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

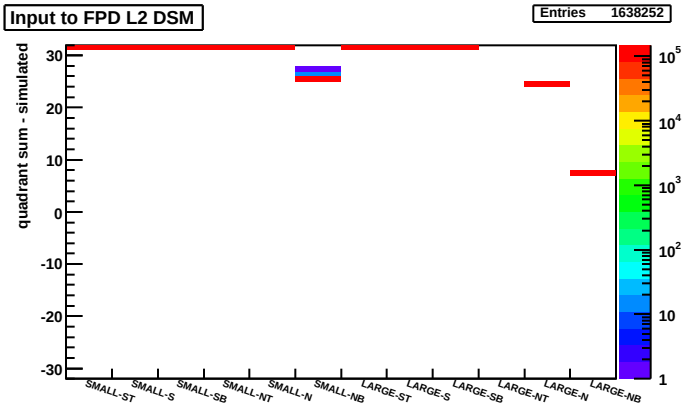

Input to FMS L1 DSM
Entries 1787184
sumA
DSM board

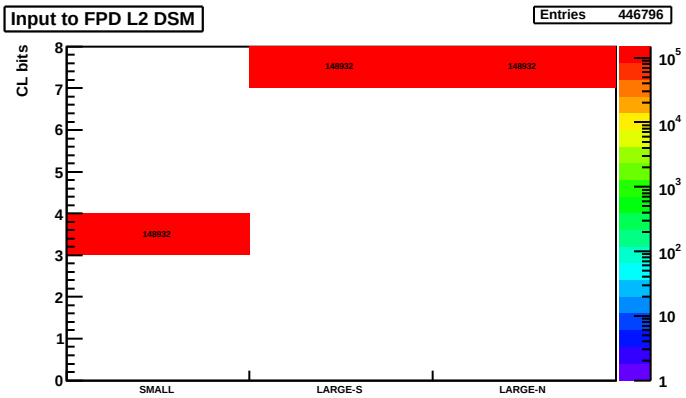

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

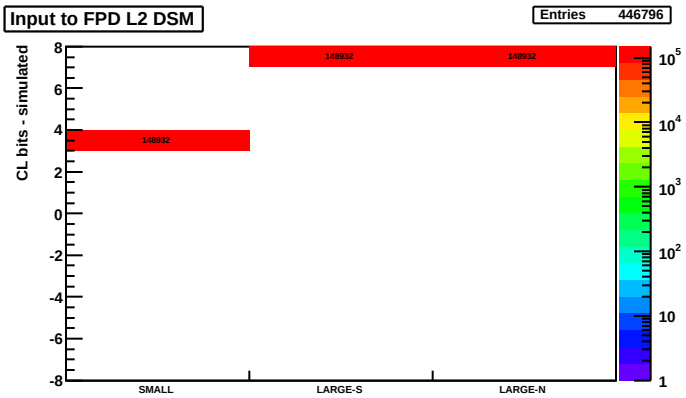

Input to FMS L1 DSM
Entries 1787184
FMS L1 HT bits
DSM board

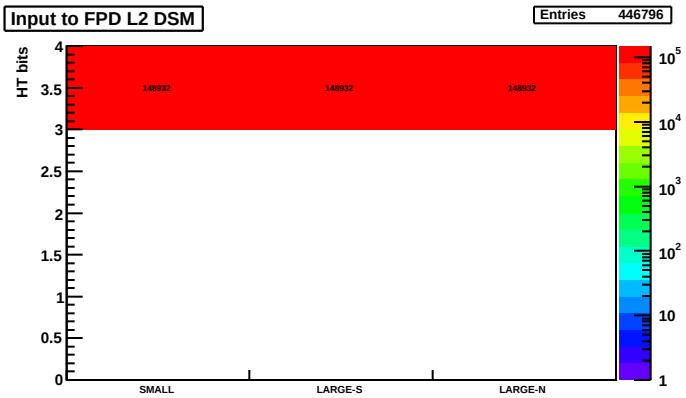

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

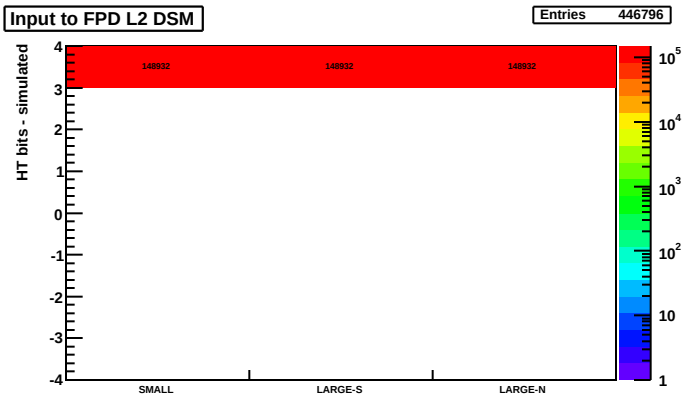

Input to FPD L2 DSM
Entries 1787184
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

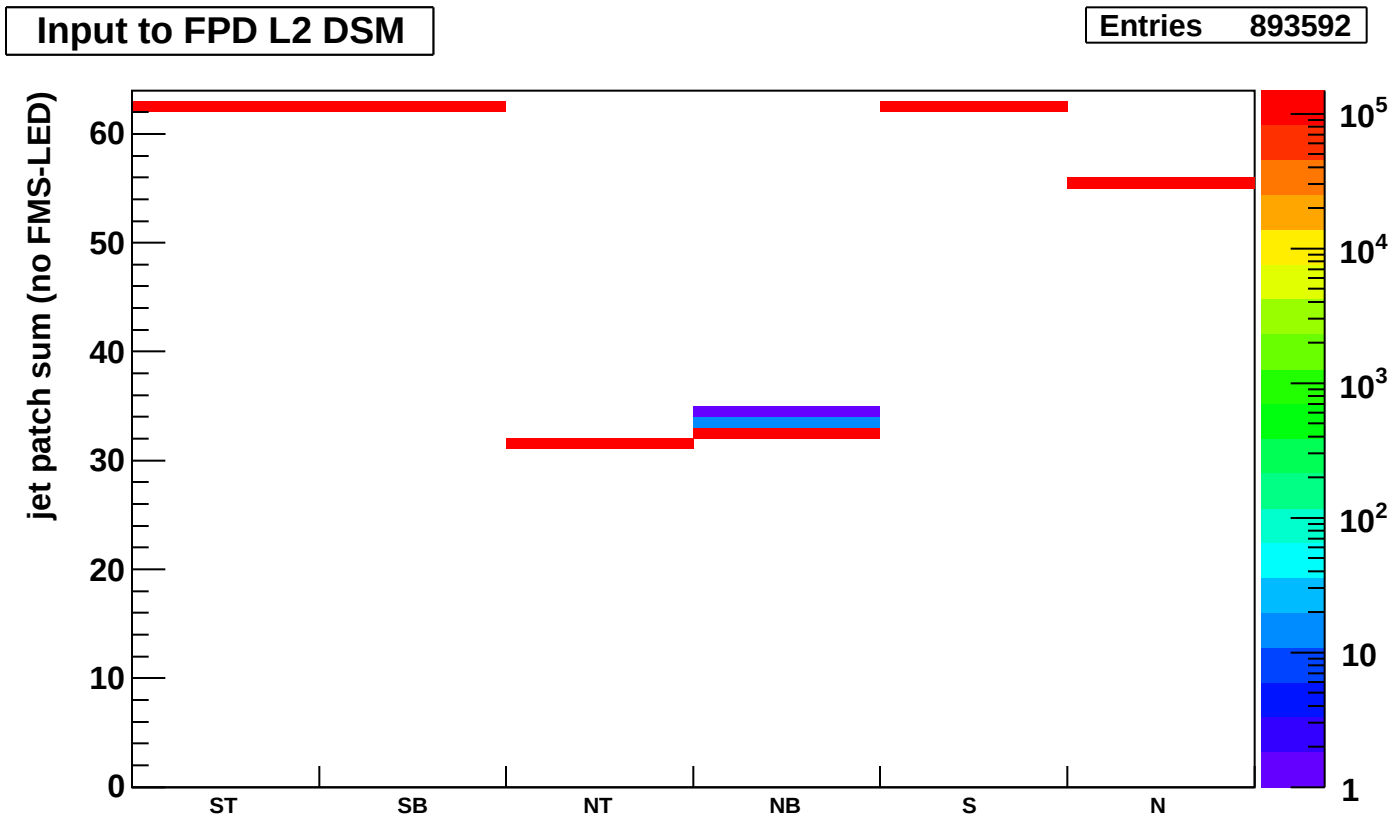

Input to FPD L2 DSM
Entries 1638252
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

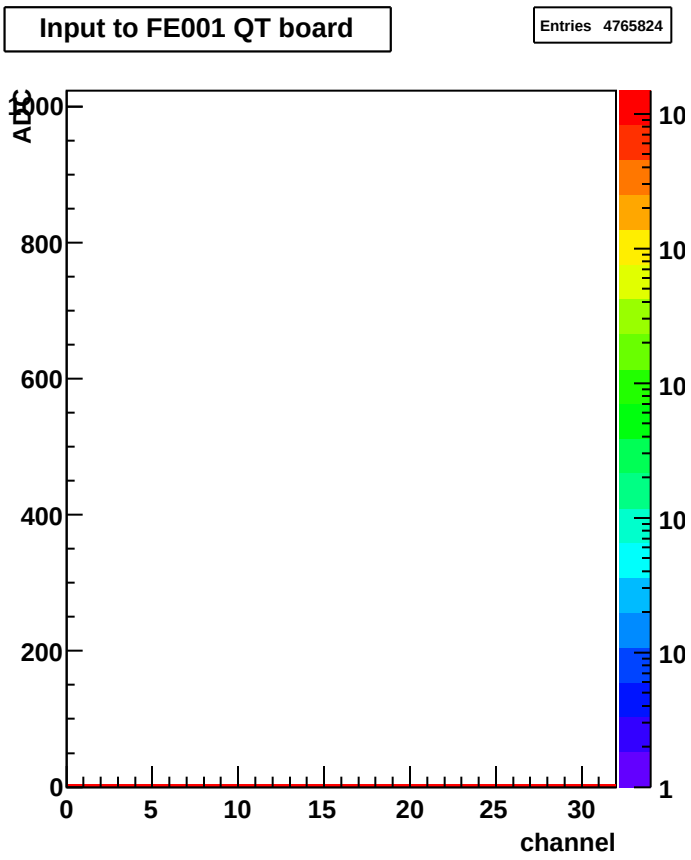

Input to FPD L2 DSM
Entries 446796
CL bits
148932
148932
148932
SMALL
LARGE-S
LARGE-N

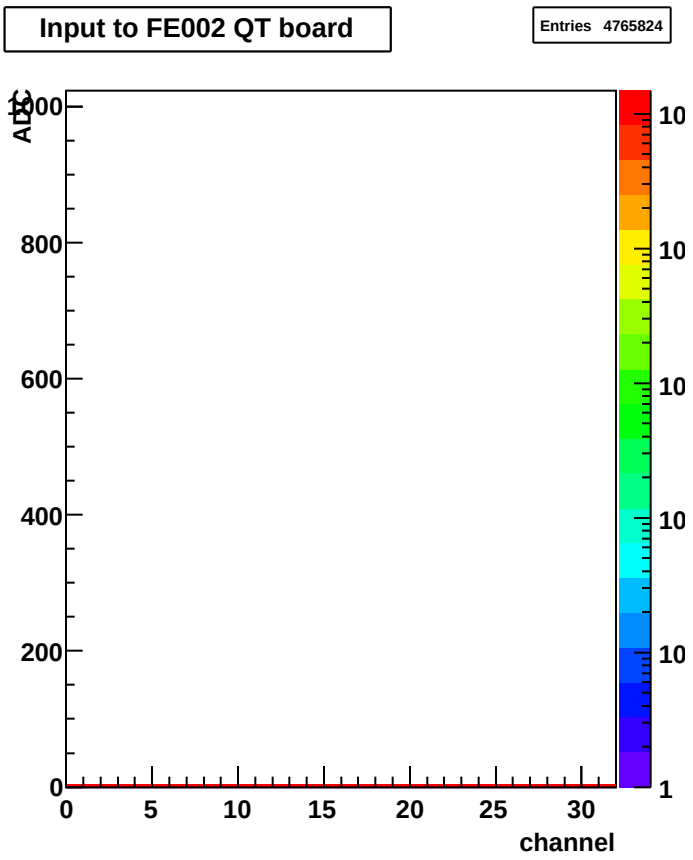

Input to FPD L2 DSM
Entries 446796
CL bits - simulated
148932
148932
148932
SMALL
LARGE-S
LARGE-N

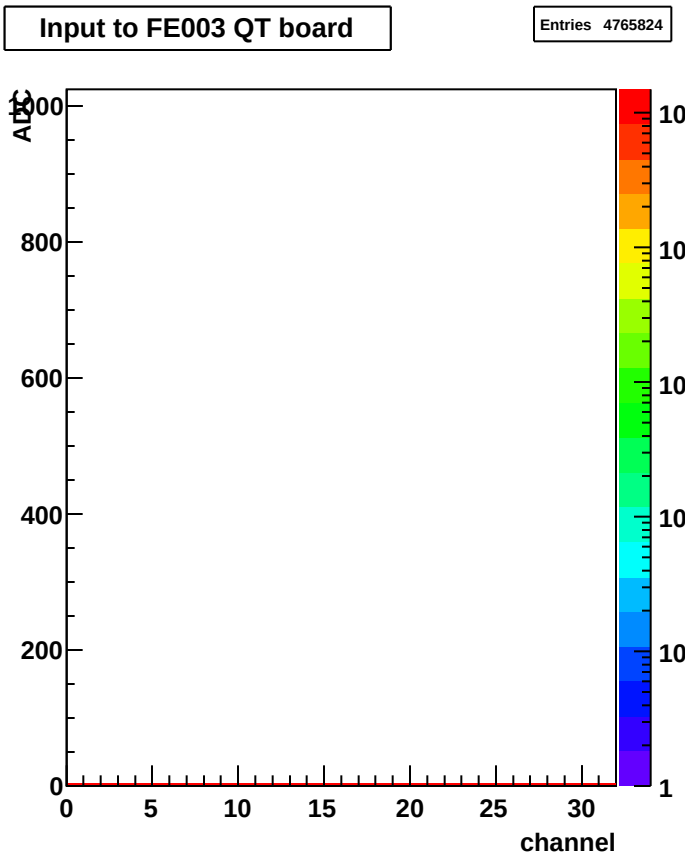

Input to FPD L2 DSM
Entries 446796
HT bits
148932
148932
148932
SMALL
LARGE-S
LARGE-N

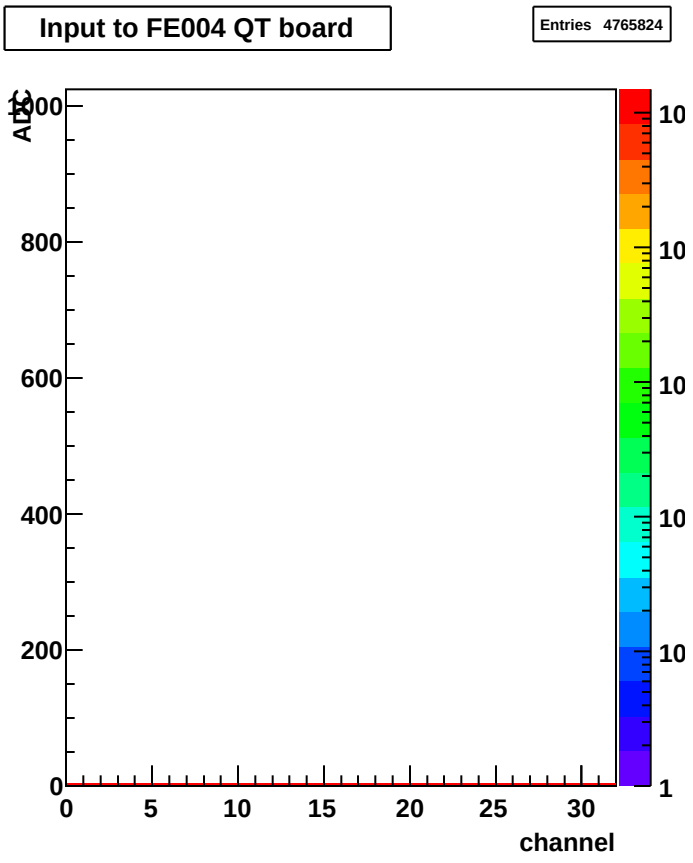

Input to FPD L2 DSM
Entries 446796
HT bits - simulated
148932
148932
148932
SMALL
LARGE-S
LARGE-N

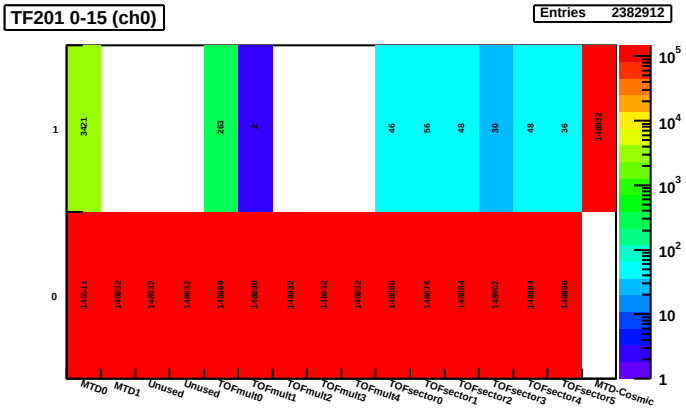

Input to FPD L2 DSM
Entries 893592
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

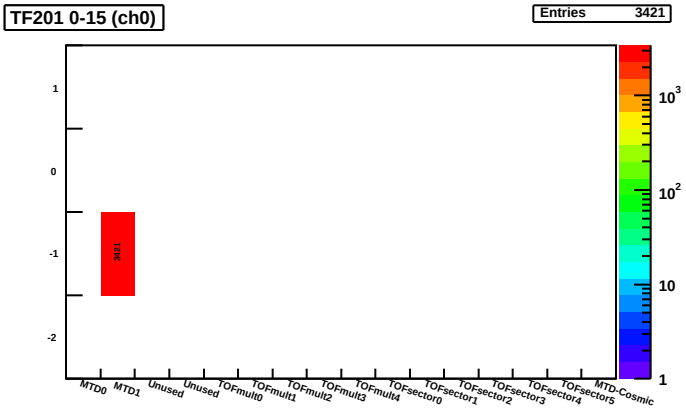

Input to FE001 QT board
Entries 4765824
ADC
channel

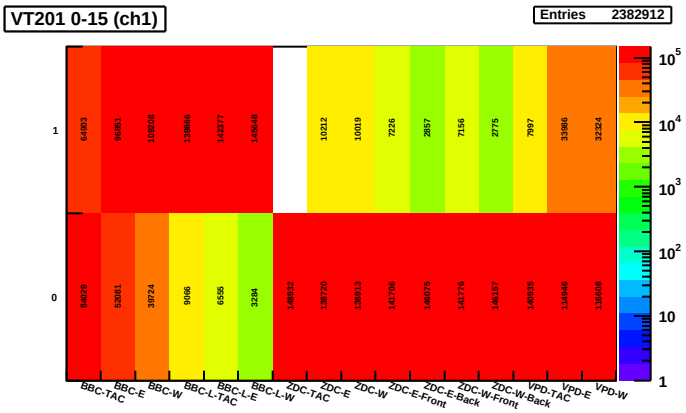

Input to FE002 QT board
Entries 4765824
ADC
channel

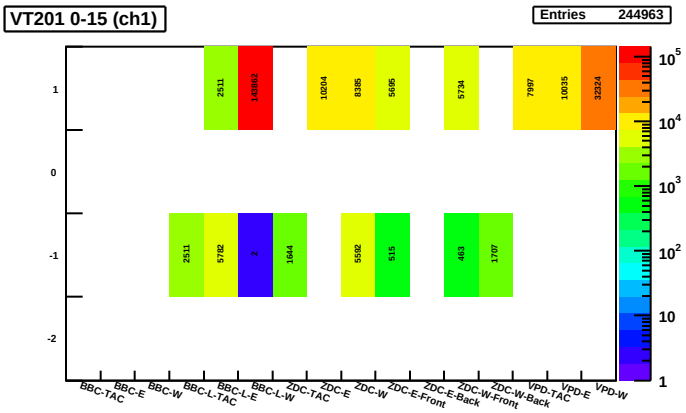

Input to FE003 QT board
Entries 4765824
ADC
channel

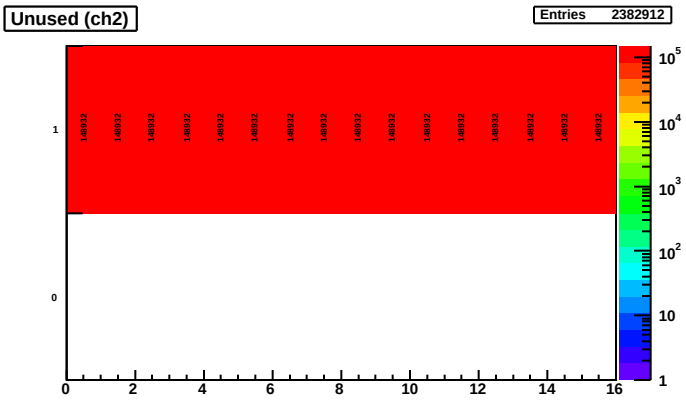

Input to FE004 QT board
Entries 4765824
ADC
channel


TF201 0-15 (ch0)
Entries 2382912
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 3421
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 2382912
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 244963
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W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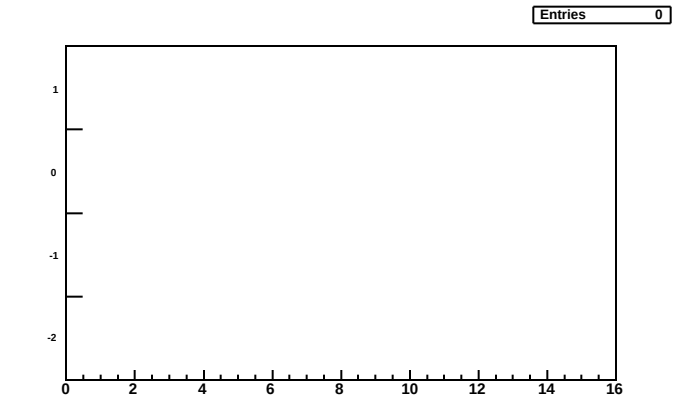
Entries 2382912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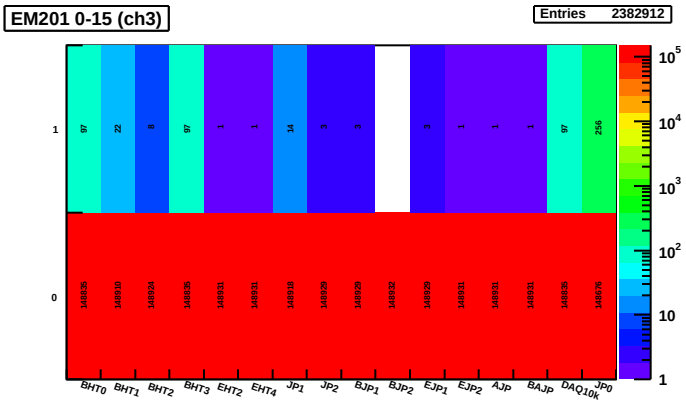
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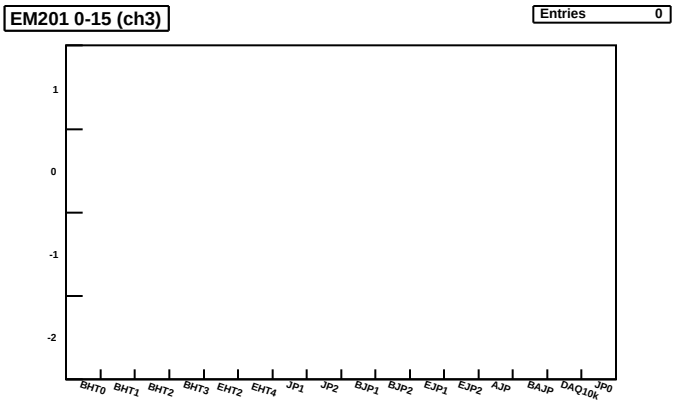
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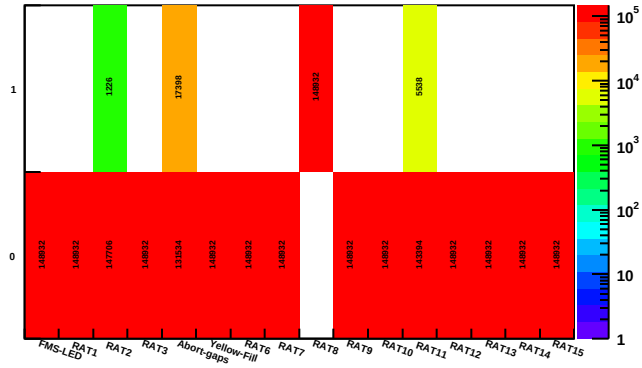
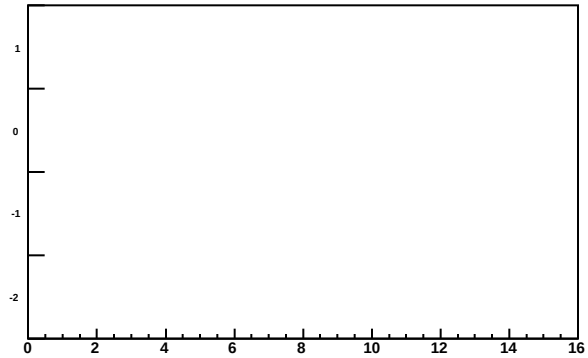
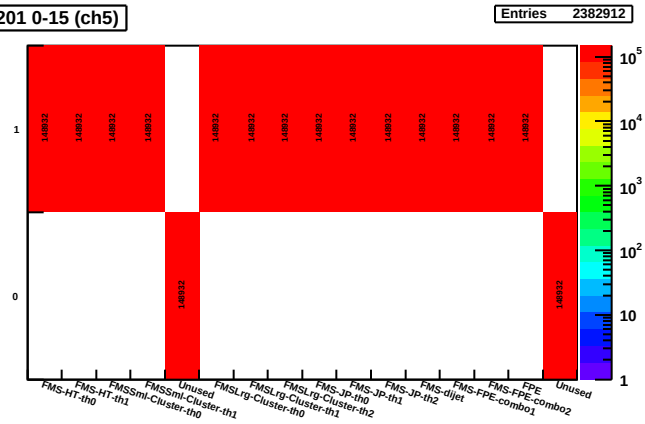
RAT board (ch4)





FP201 0-15 (ch5)



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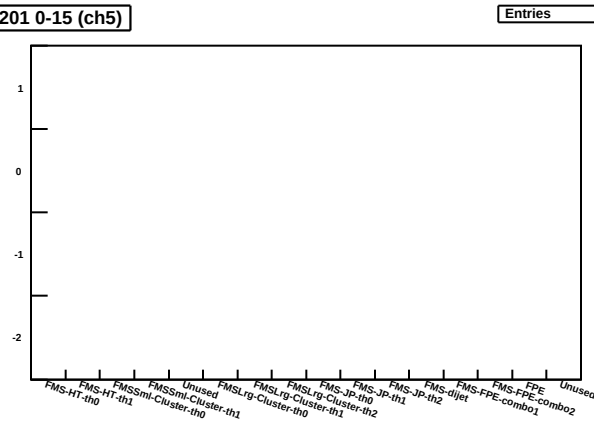
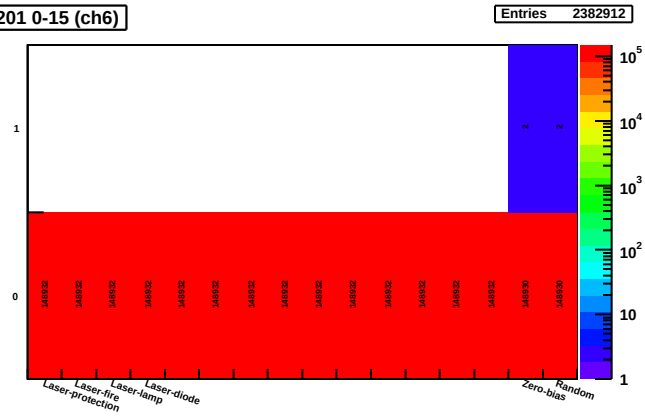
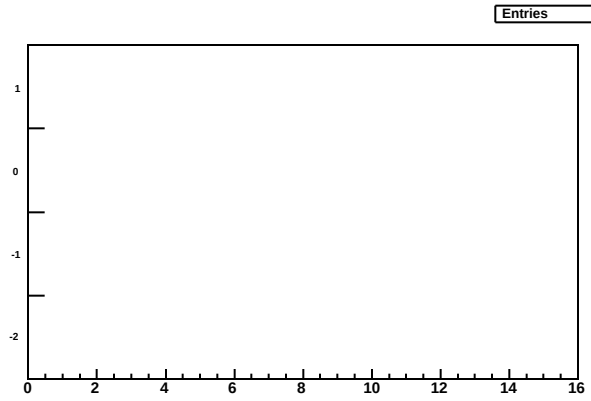
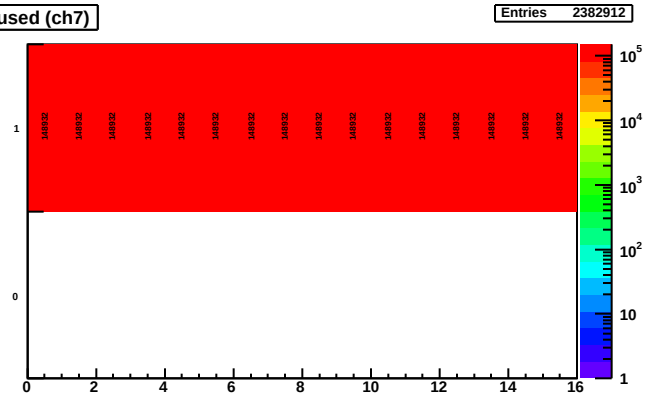
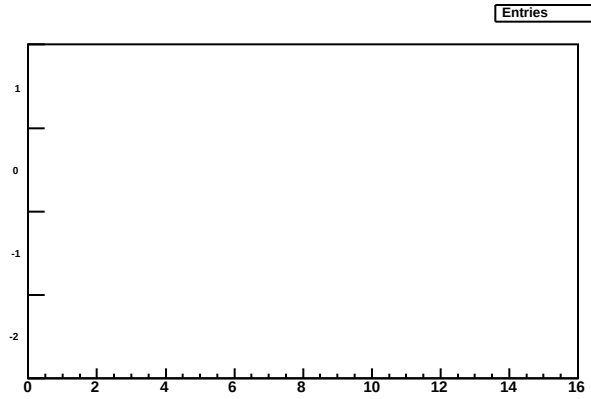


ST201 0-15 (ch6)





Unused (ch7)