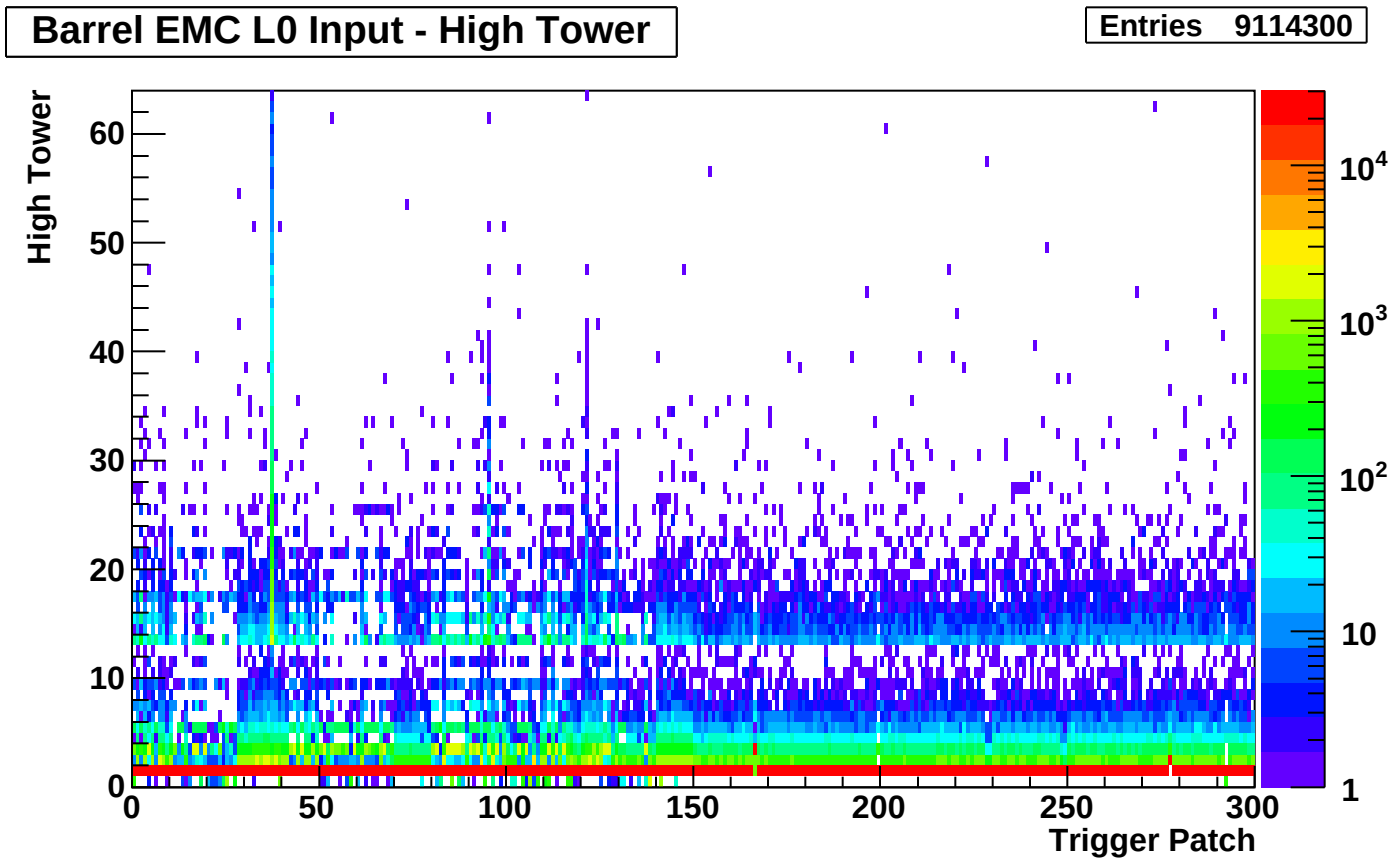
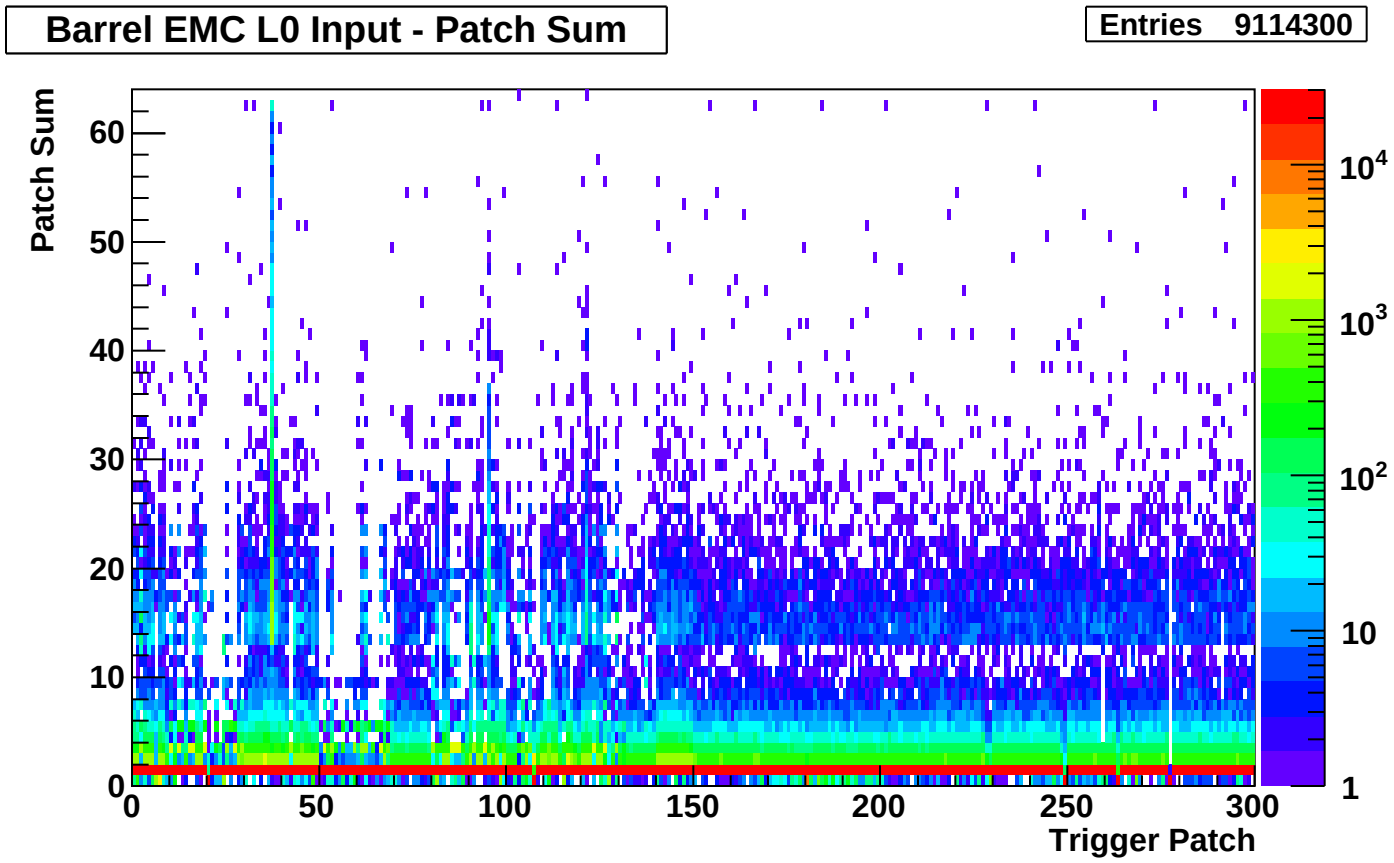
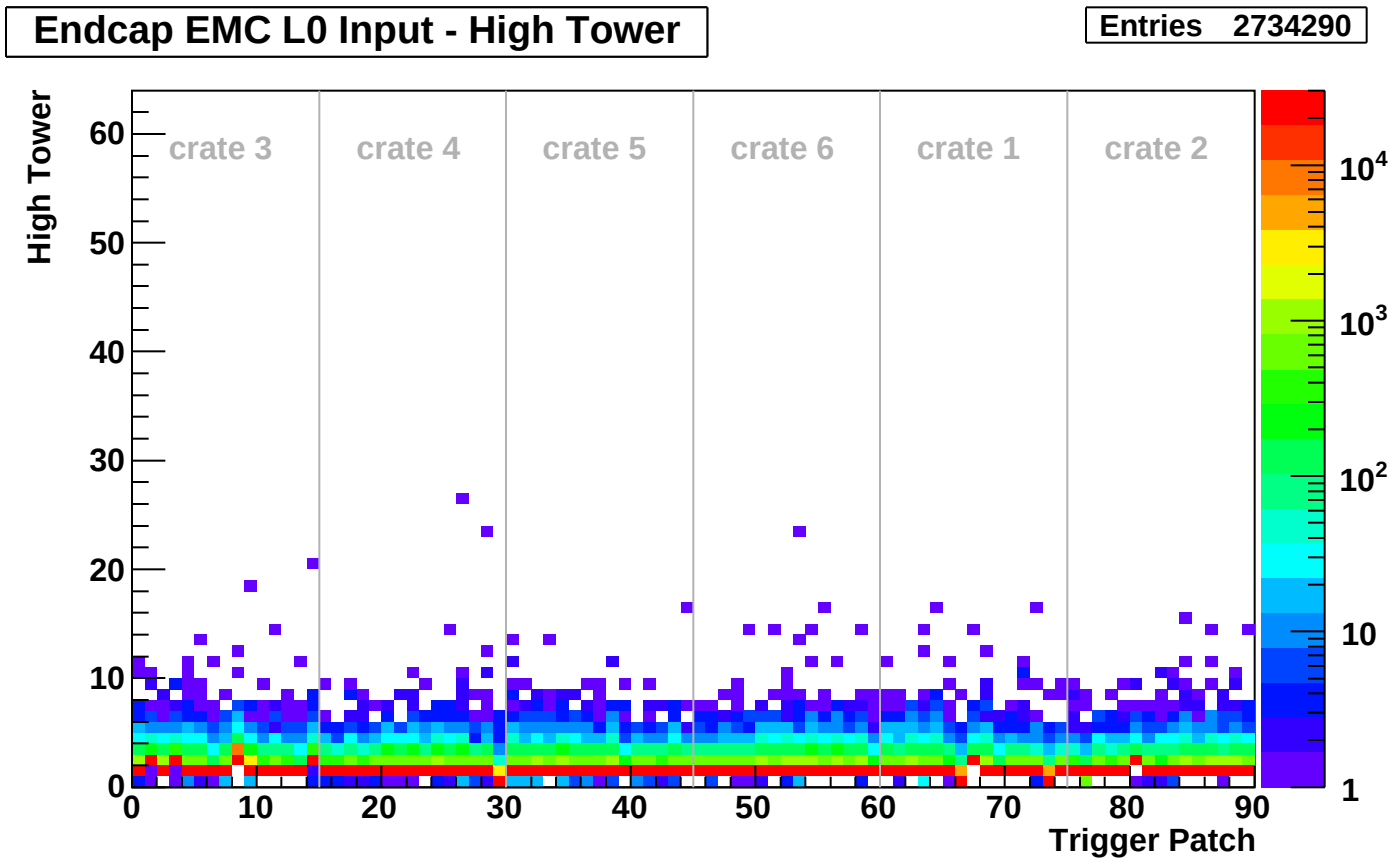
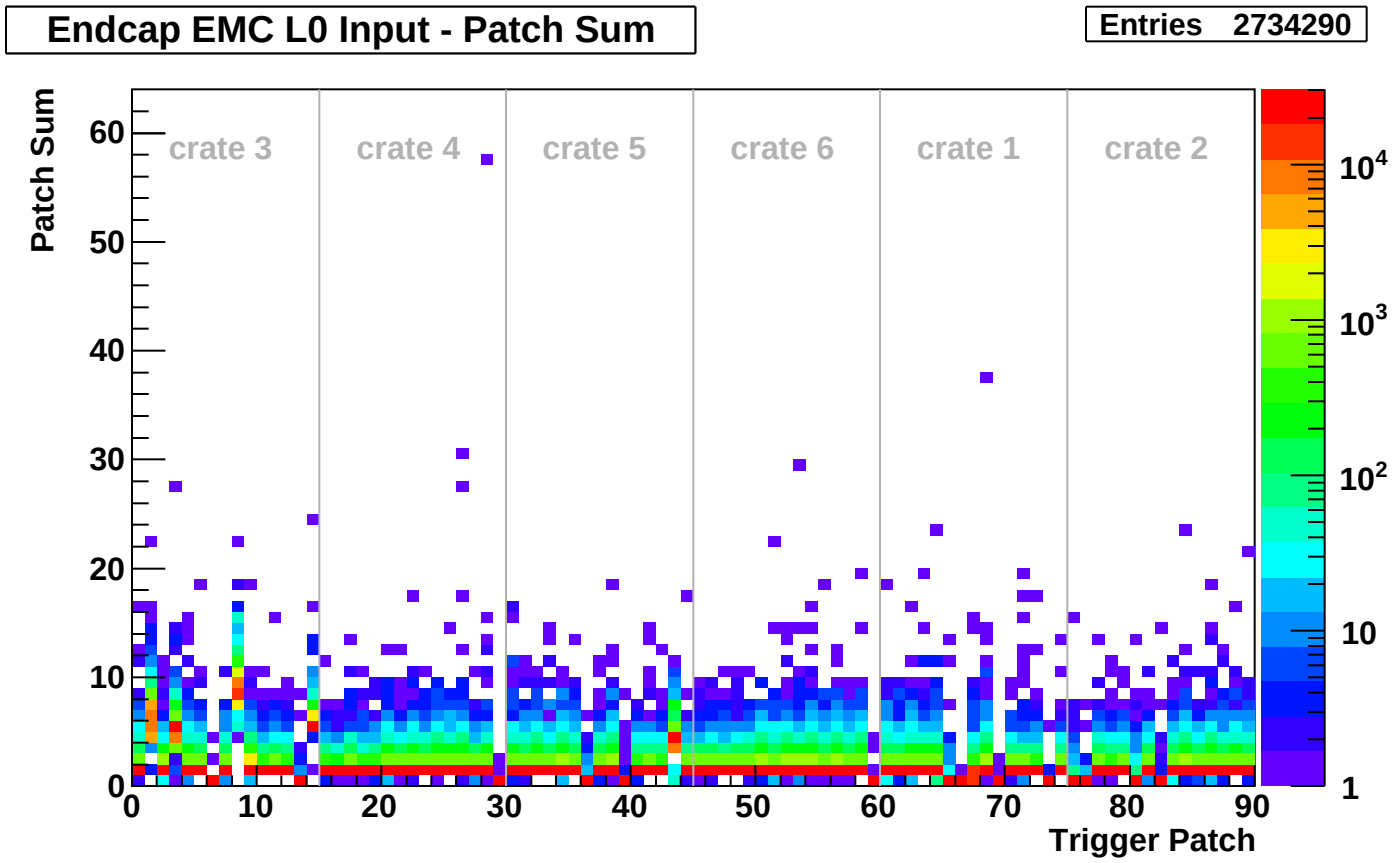
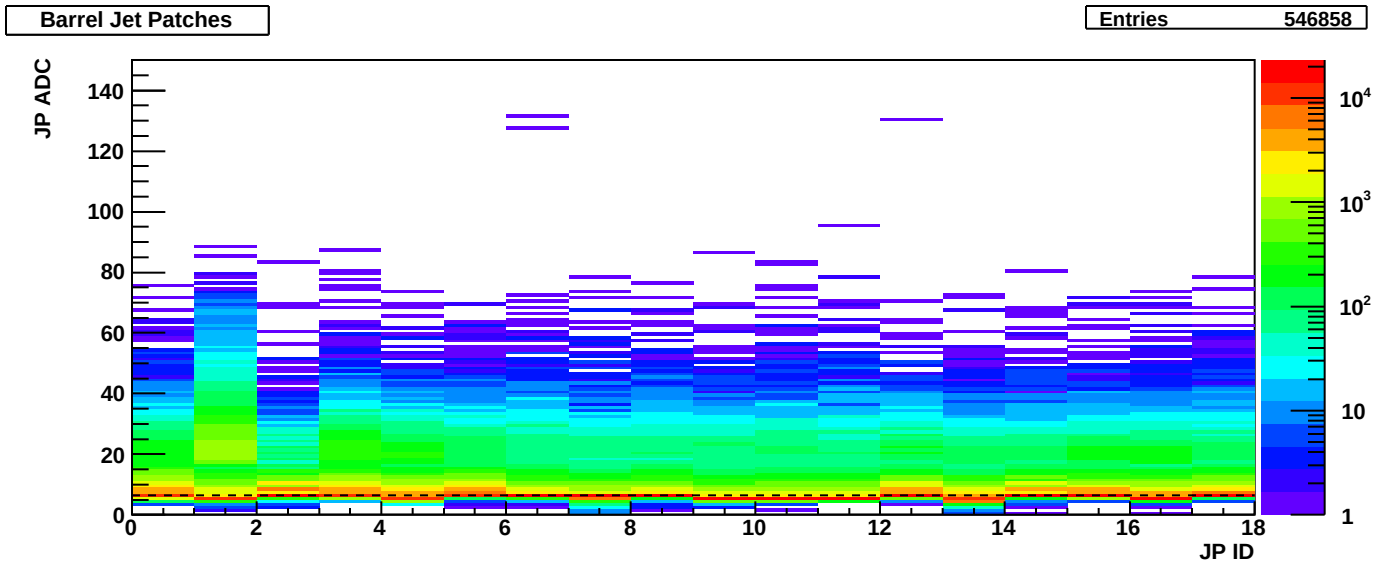
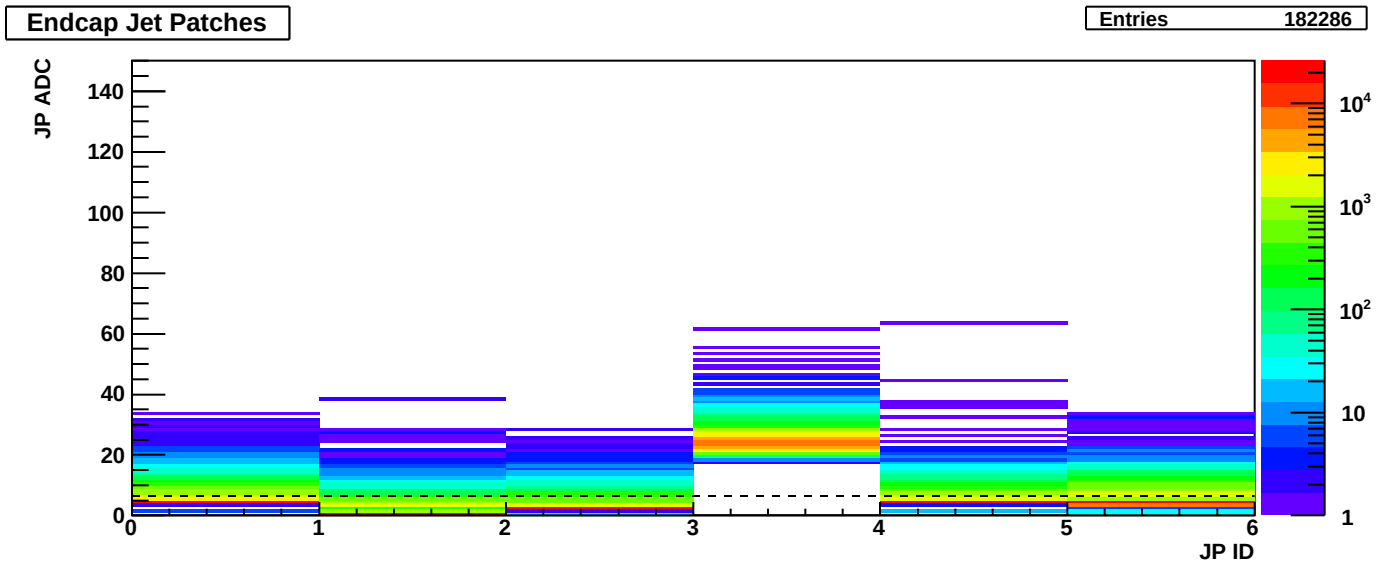

Barrel EMC L0 Input - High Tower
Entries 9114300
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

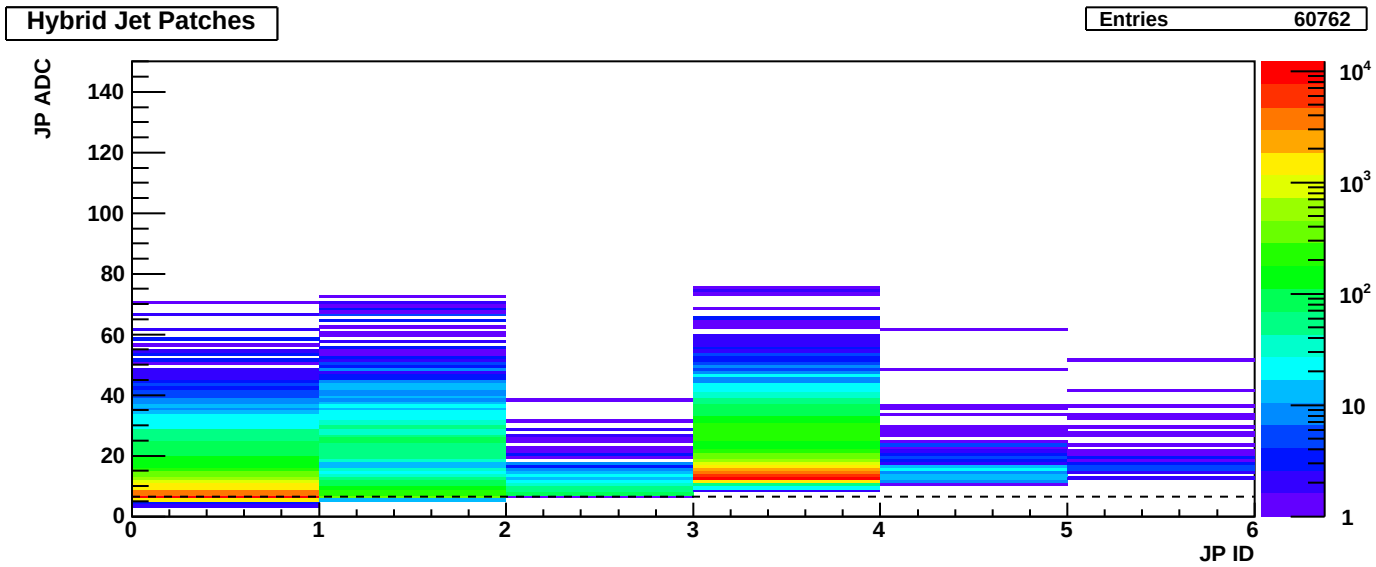

Barrel EMC L0 Input - Patch Sum
Entries 9114300
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

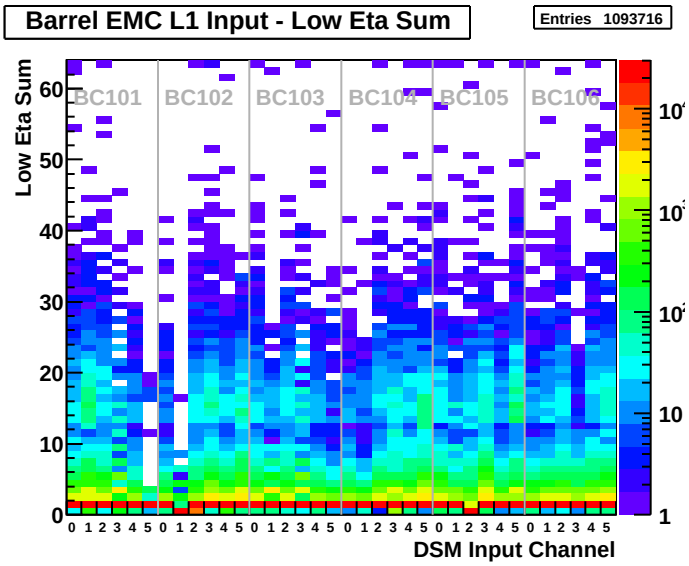

Endcap EMC L0 Input - High Tower
Entries 2734290
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

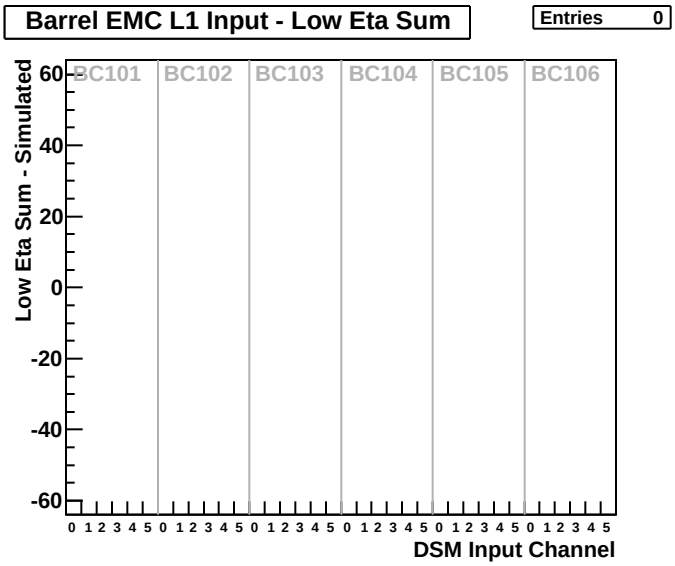

Endcap EMC L0 Input - Patch Sum
Entries 2734290
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

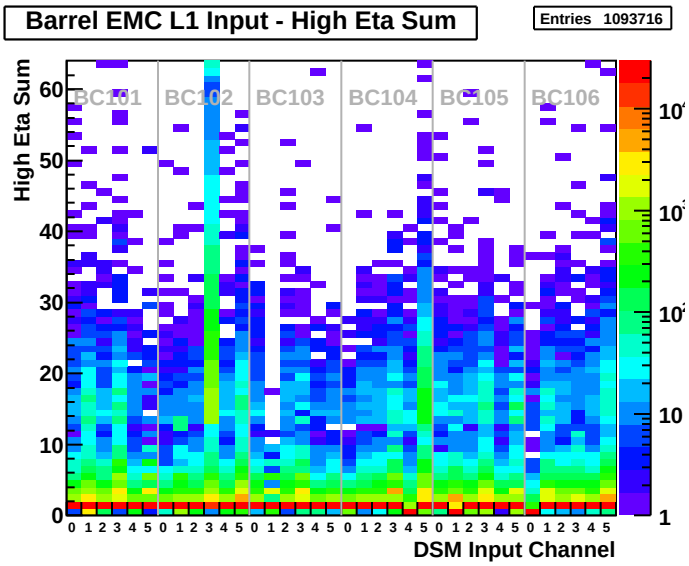

Barrel Jet Patches
Entries 546858
JP ADC
JP ID

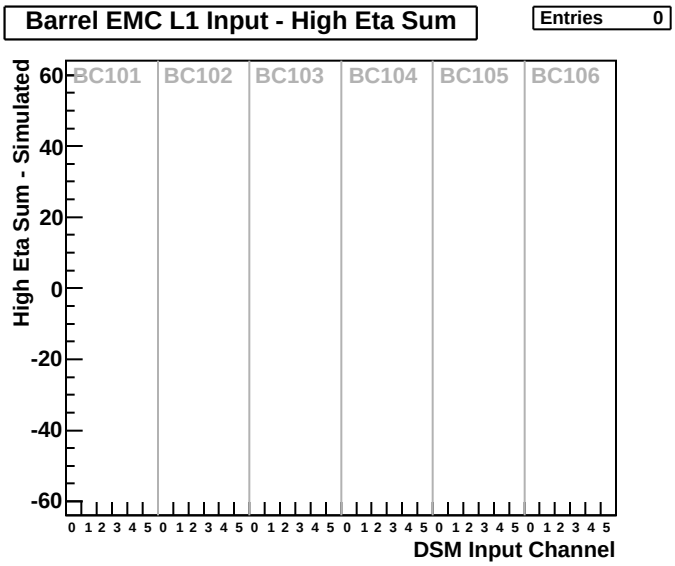

Endcap Jet Patches
Entries 182286
JP ADC
JP ID

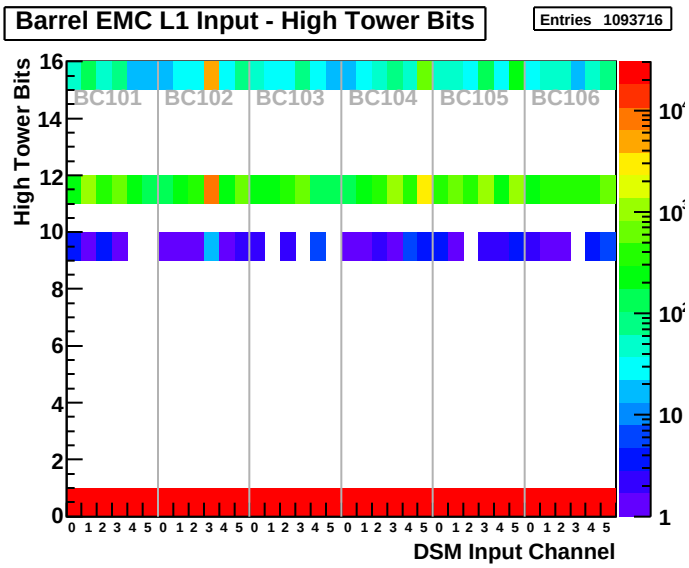

Hybrid Jet Patches
Entries 60762
JP ADC
JP ID

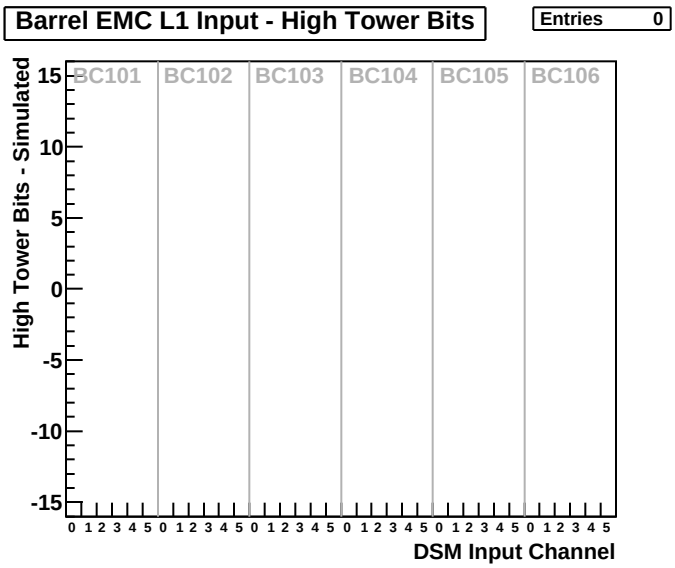

Barrel EMC L1 Input - Low Eta Sum
Entries 1093716
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

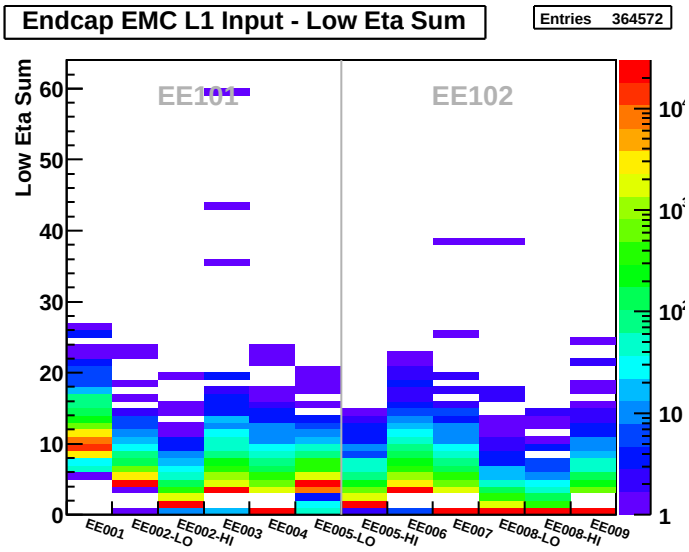

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

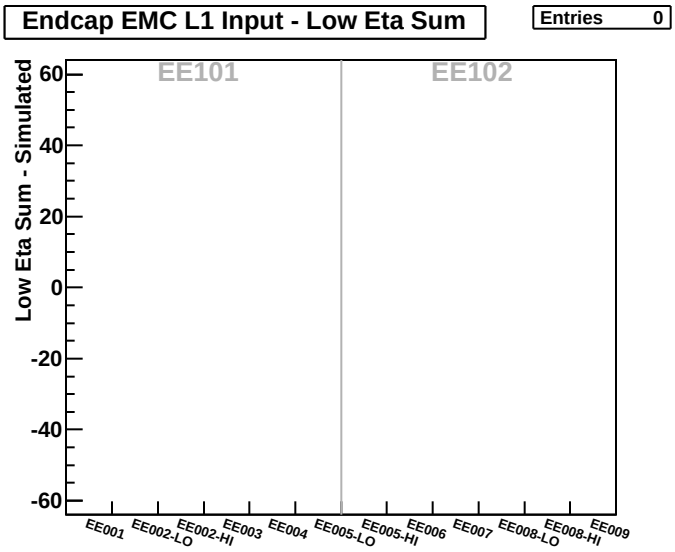

Barrel EMC L1 Input - High Eta Sum
Entries 1093716
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

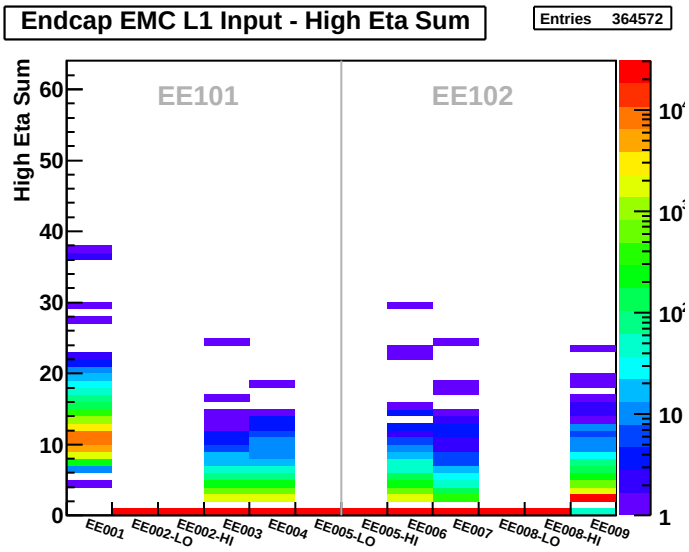

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

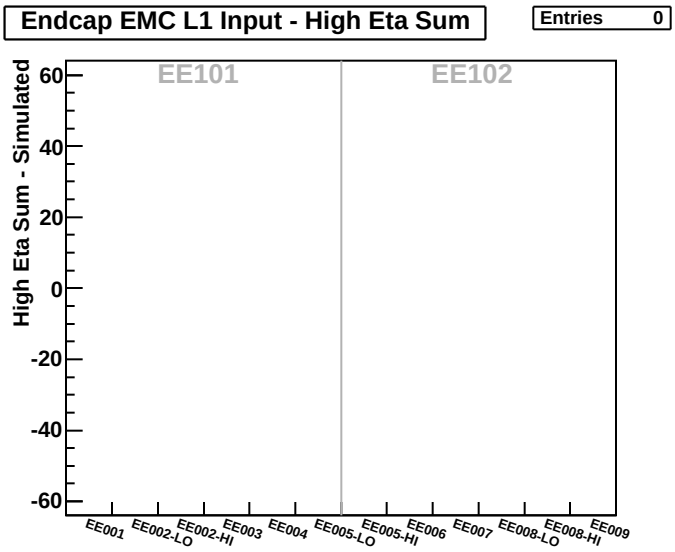

Barrel EMC L1 Input - High Tower Bits
Entries 1093716
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

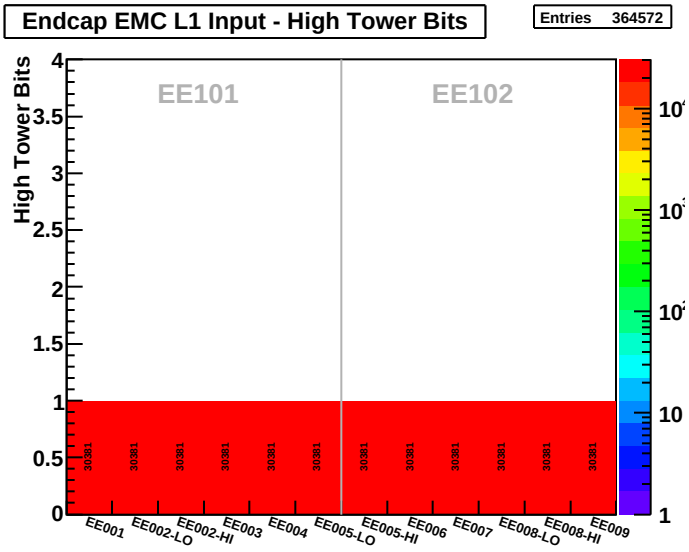

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

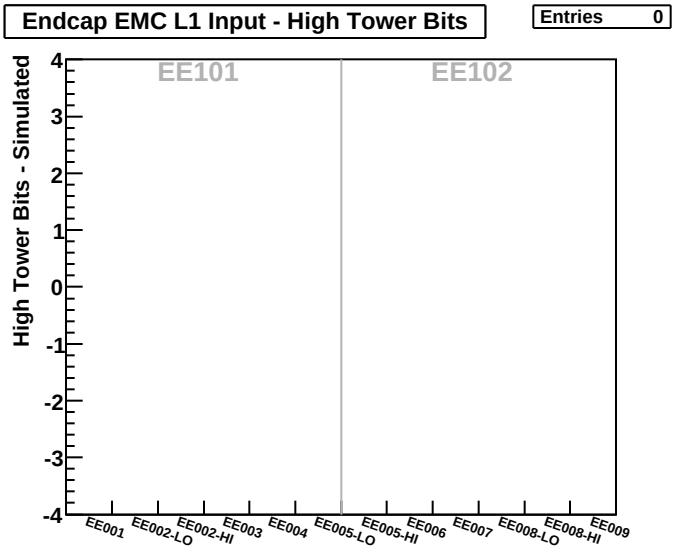

Endcap EMC L1 Input - Low Eta Sum
Entries 364572
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

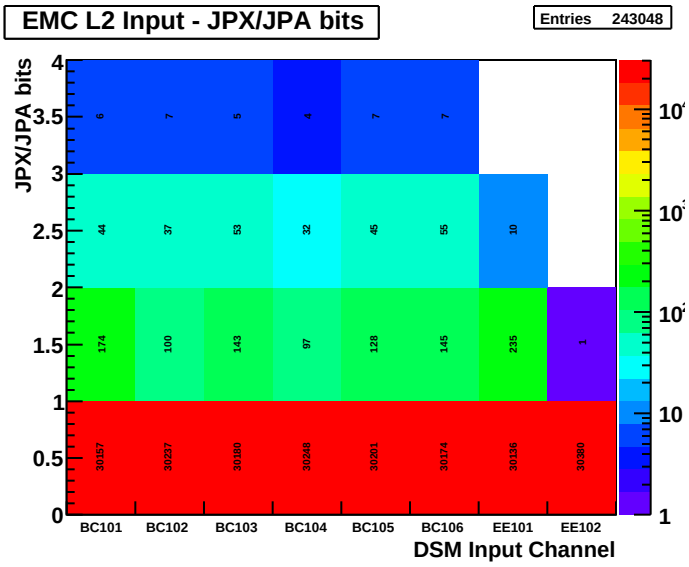

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

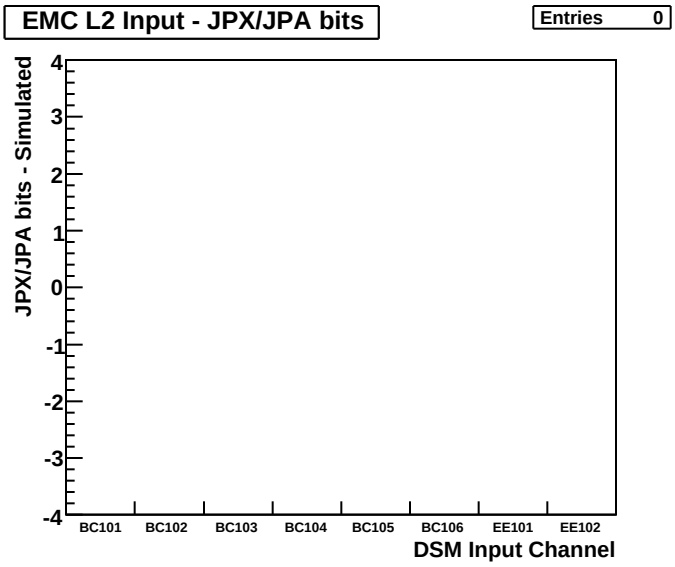

Endcap EMC L1 Input - High Eta Sum
Entries 364572
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

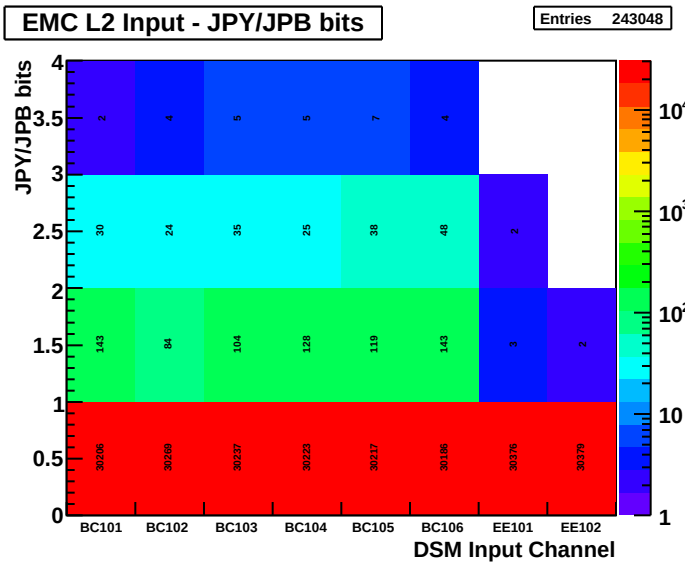

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

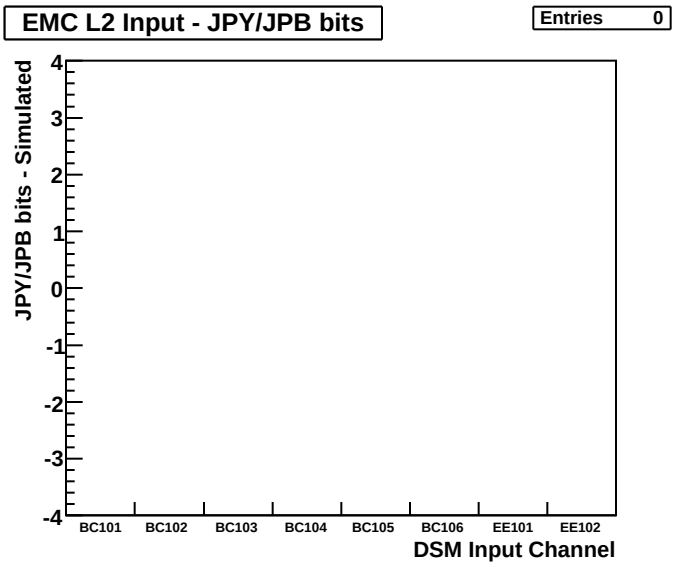

Endcap EMC L1 Input - High Tower Bits
Entries 364572
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

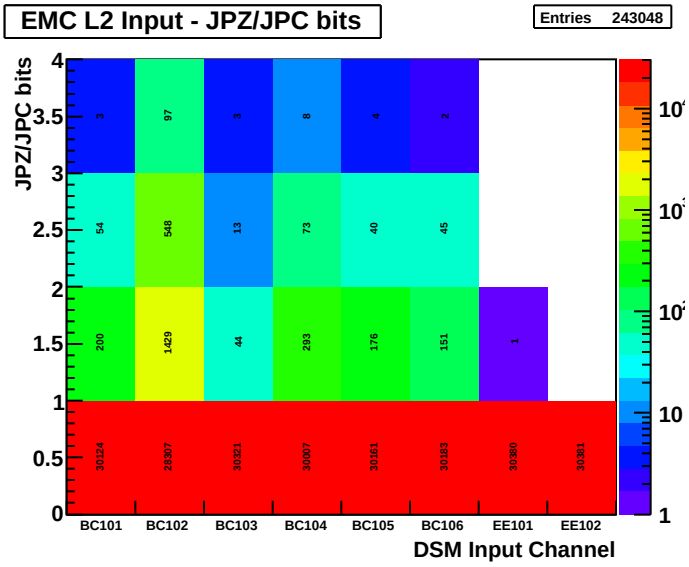

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

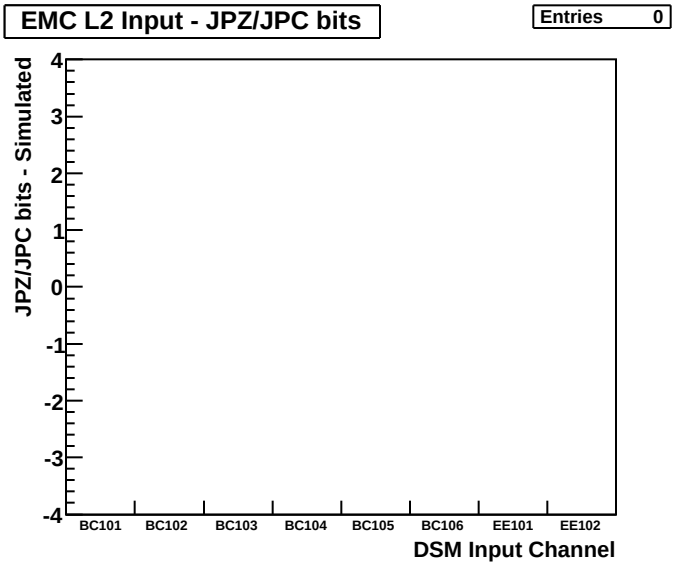

EMC L2 Input - JPX/JPA bits
Entries 243048
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
6 7 5 4 7 7
44 37 53 32 45 55 10
174 100 143 97 128 145 235 1
30157 30237 30180 30248 30201 30174 30136 30380

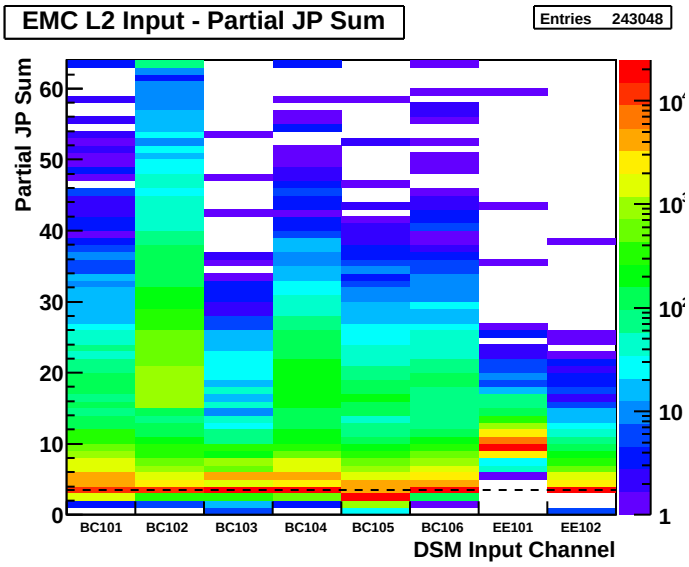

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

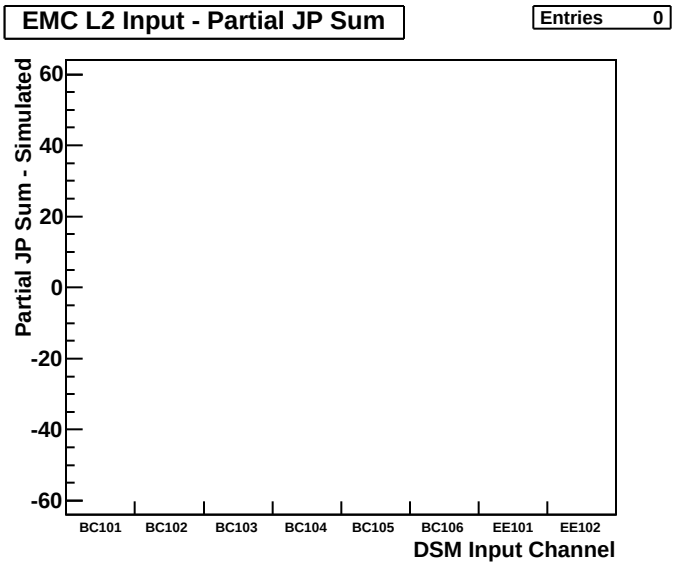

EMC L2 Input - JPY/JPB bits
Entries 243048
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2 4 5 5 7 4
30 24 35 25 38 48 2
143 84 104 128 119 143 3 2
30206 30269 30237 30223 30217 30186 30376 30379

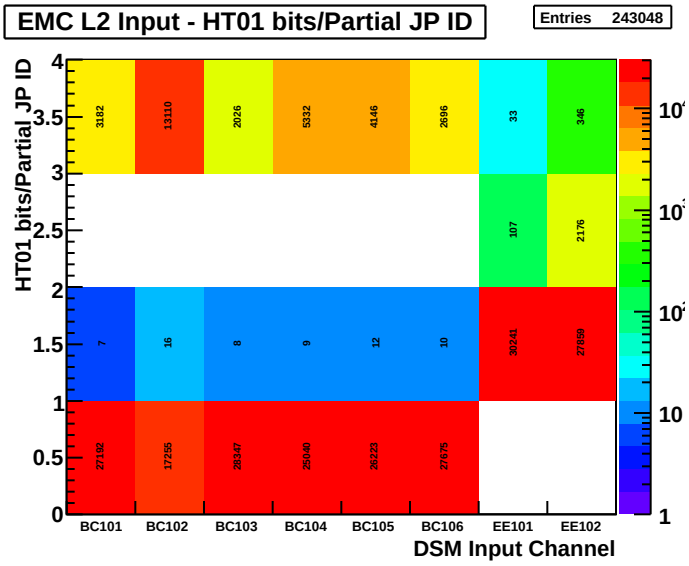

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

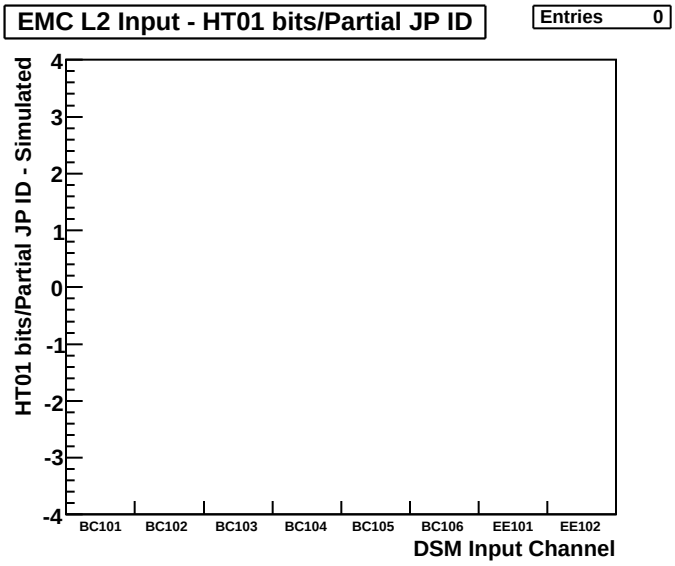

EMC L2 Input - JPZ/JPC bits
Entries 243048
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
3 97 3 8 4 2
54 548 13 73 40 45
200 1429 44 293 176 151 1
30124 28307 30221 30007 30161 30193 30380 30381

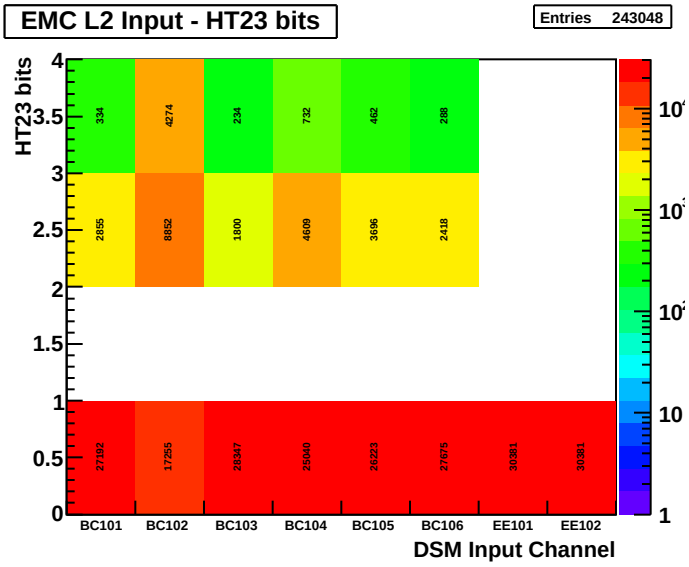

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

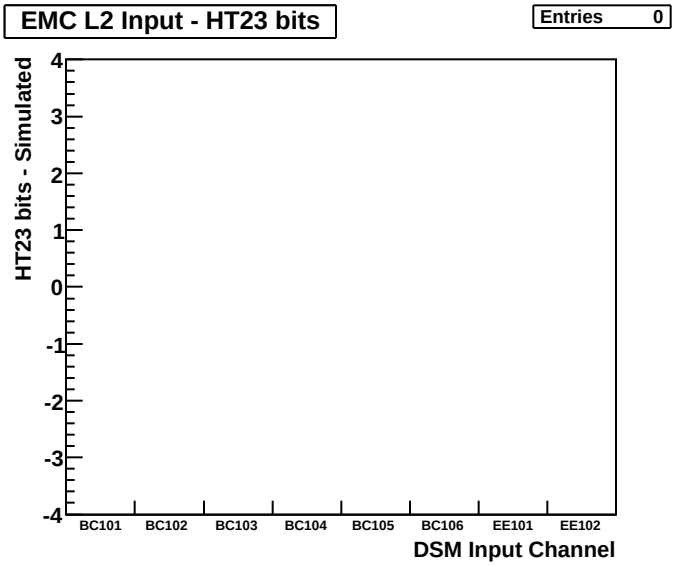

EMC L2 Input - Partial JP Sum
Entries 243048
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

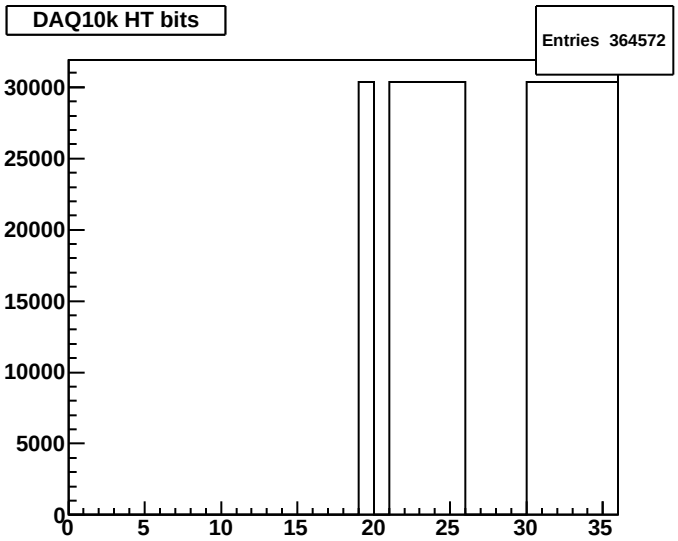

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

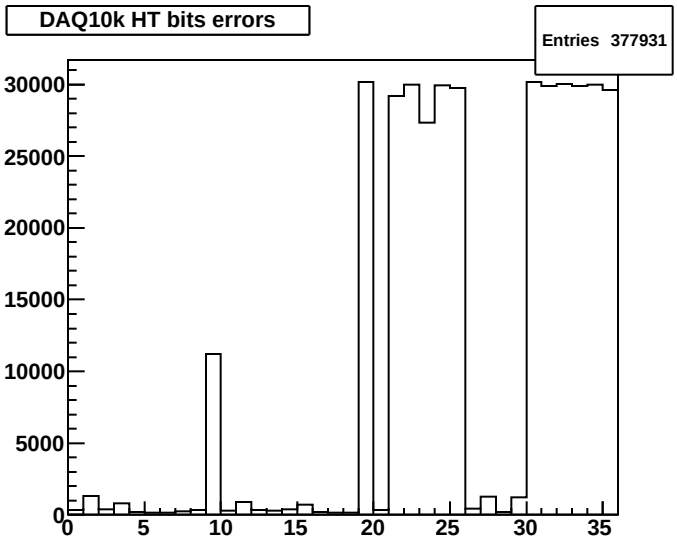

EMC L2 Input - HT01 bits/Partial JP ID
Entries 243048
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

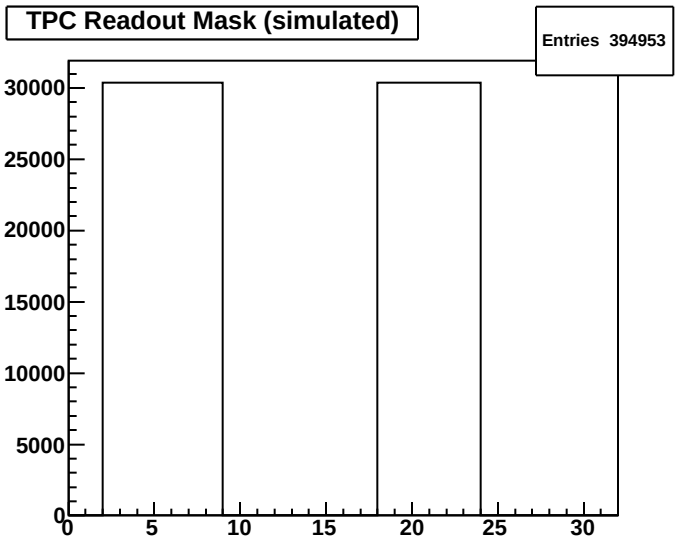

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

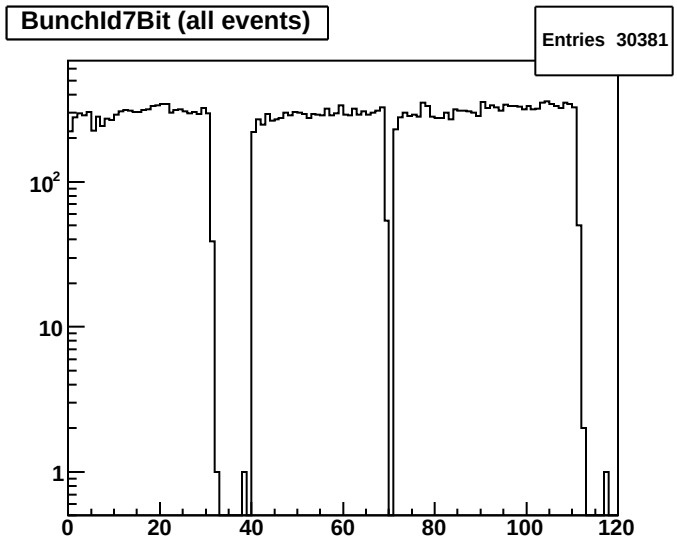

EMC L2 Input - HT23 bits
Entries 243048
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

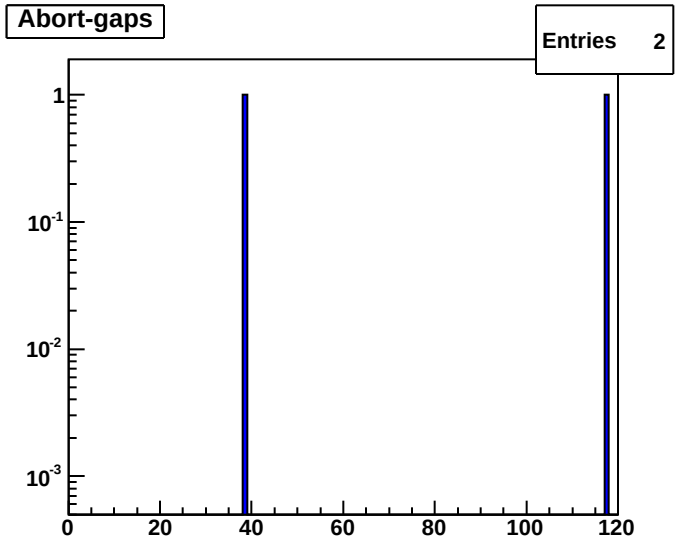

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

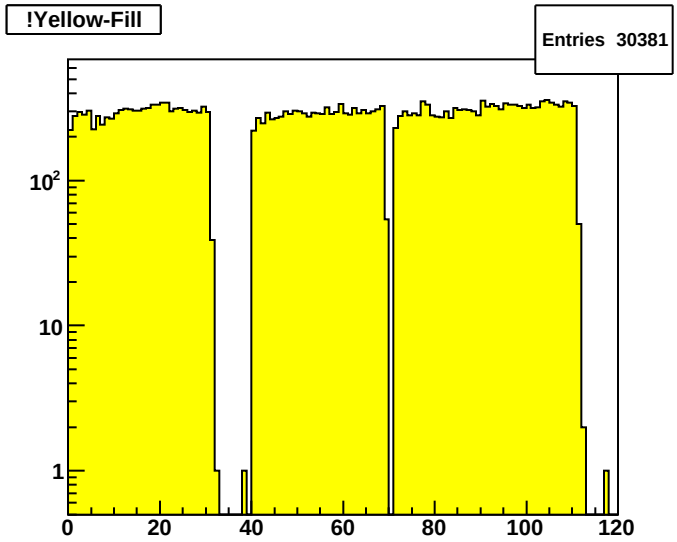

DAQ10k HT bits
Entries 364572
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

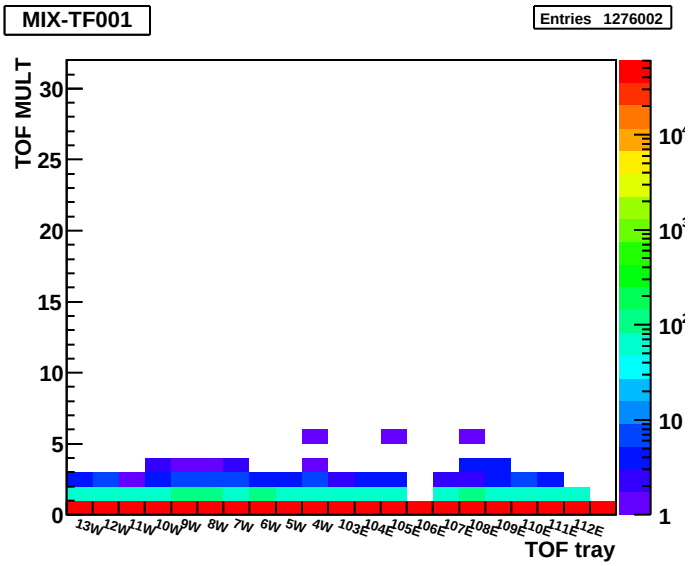

DAQ10k HT bits errors
Entries 377931
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

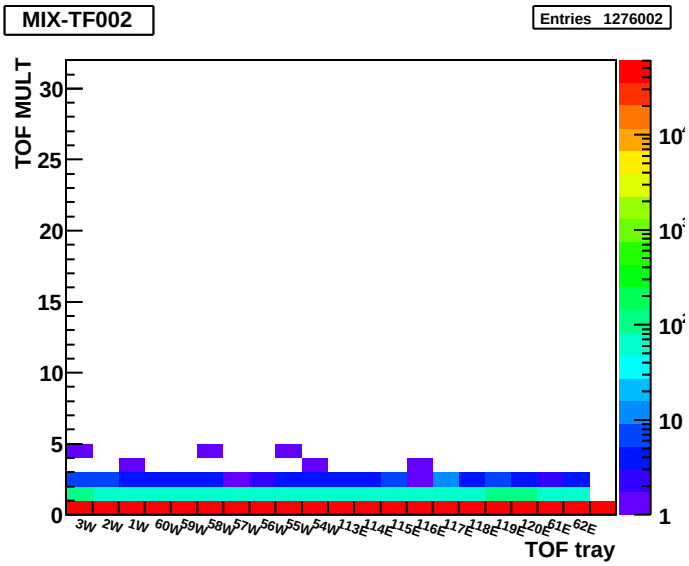

TPC Readout Mask (simulated)
Entries 394953
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

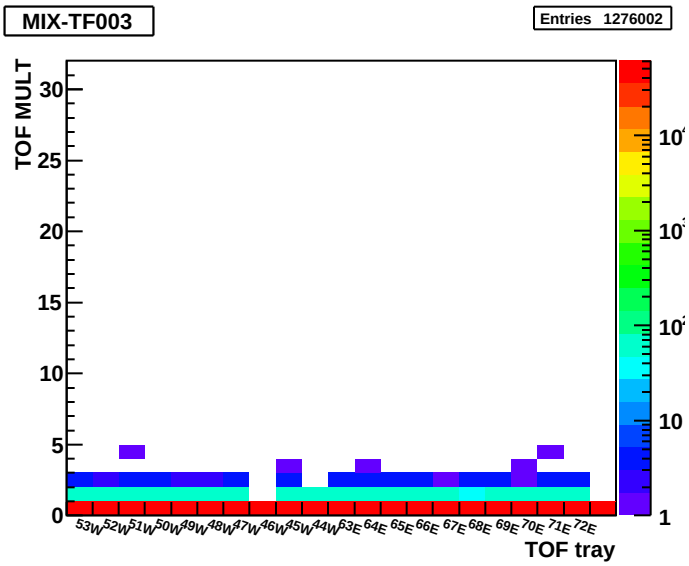

BunchId7Bit (all events)
Entries 30381
10^2
10
1
0 20 40 60 80 100 120

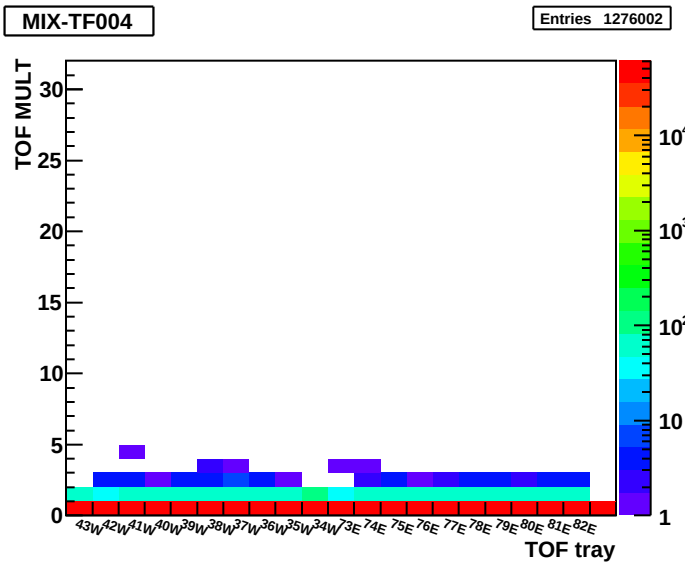

Abort-gaps
Entries 2
1
10^{-1}
10^{-2}
10^{-3}
0 20 40 60 80 100 120

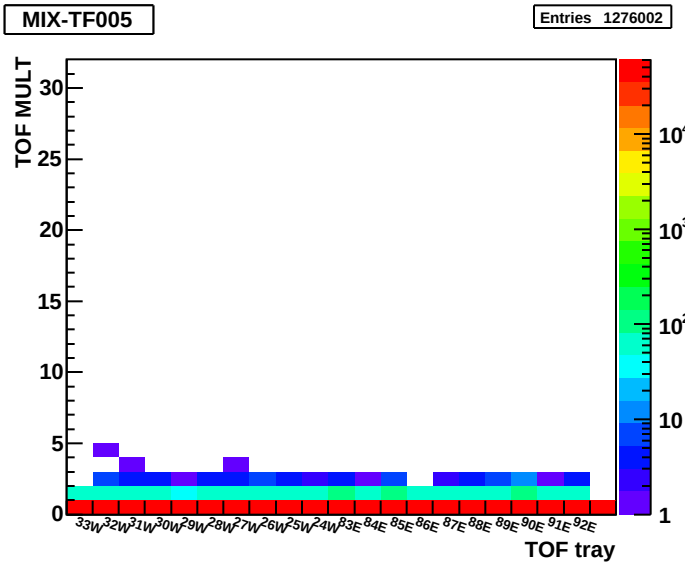

!Yellow-Fill
Entries 30381
10^2
10
1
0 20 40 60 80 100 120

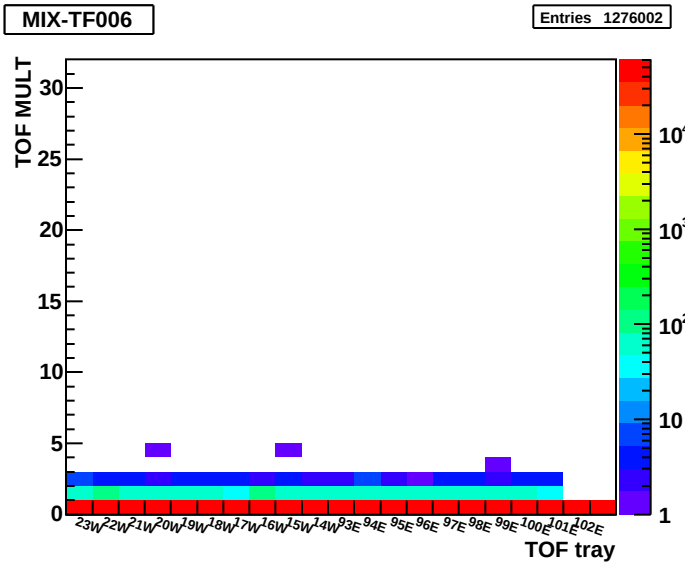

MIX-TF001
Entries 1276002
TOF MULT
TOF tray

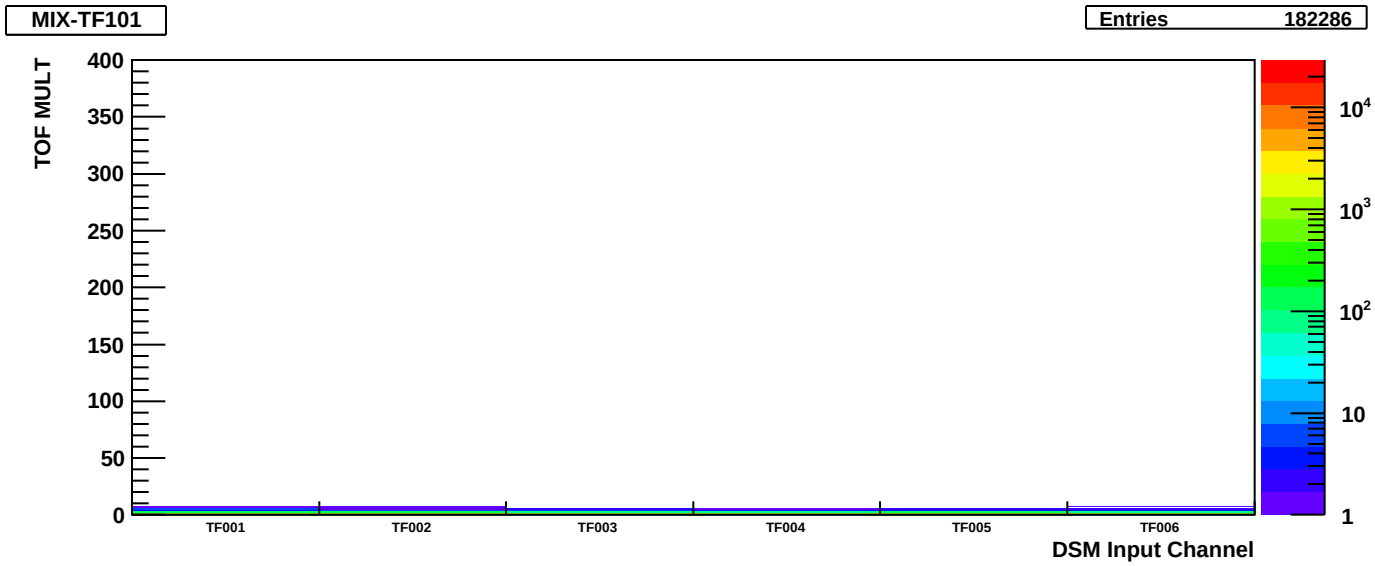

MIX-TF002
Entries 1276002
TOF MULT
TOF tray

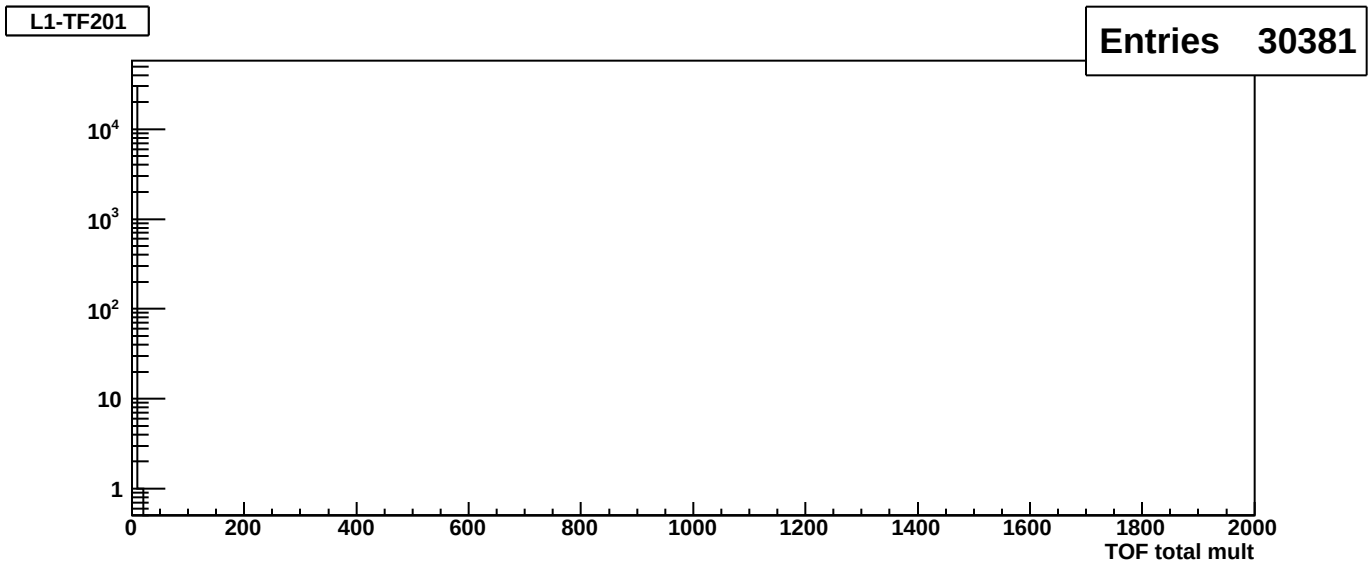

MIX-TF003
Entries 1276002
TOF MULT
TOF tray

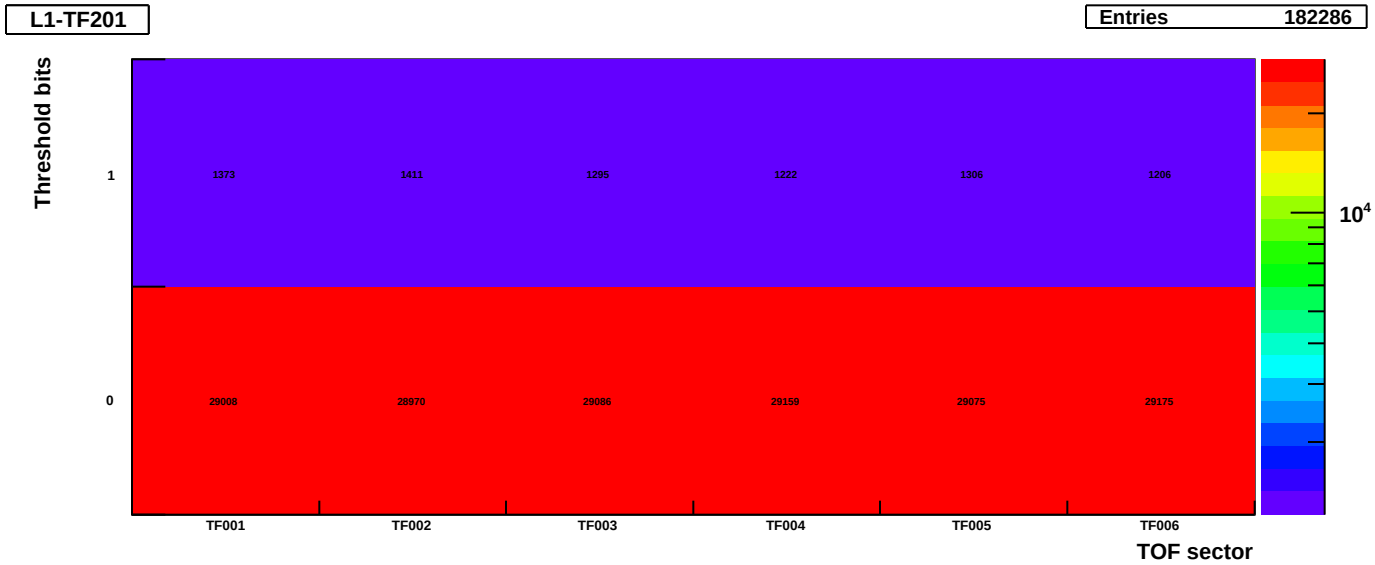

MIX-TF004
Entries 1276002
TOF MULT
TOF tray

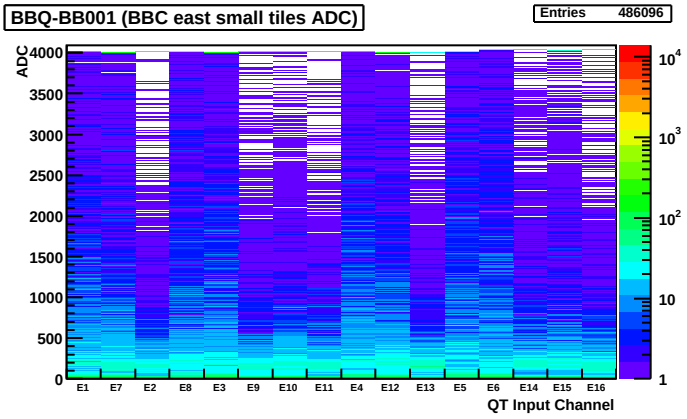

MIX-TF005
Entries 1276002
TOF MULT
TOF tray

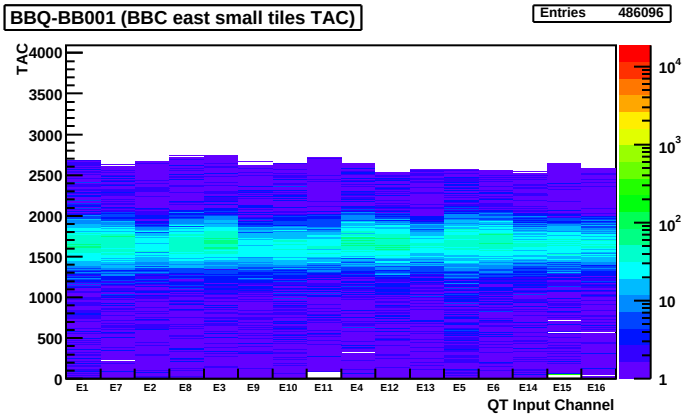

MIX-TF006
Entries 1276002
TOF MULT
TOF tray

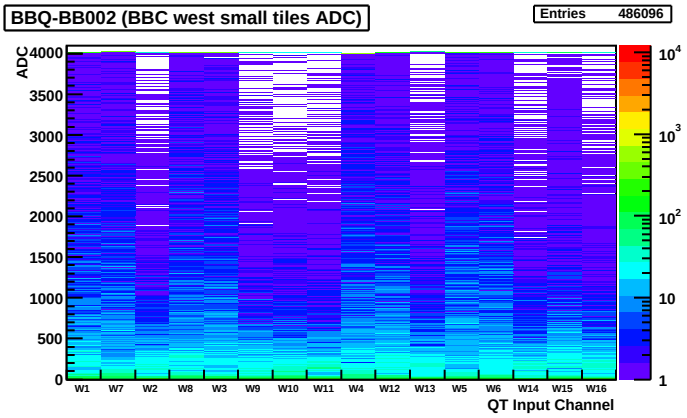

MIX-TF101
Entries 182286
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

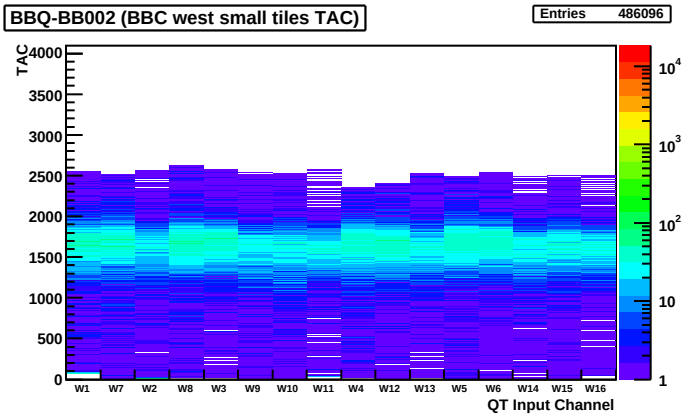

L1-TF201
Entries 30381
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

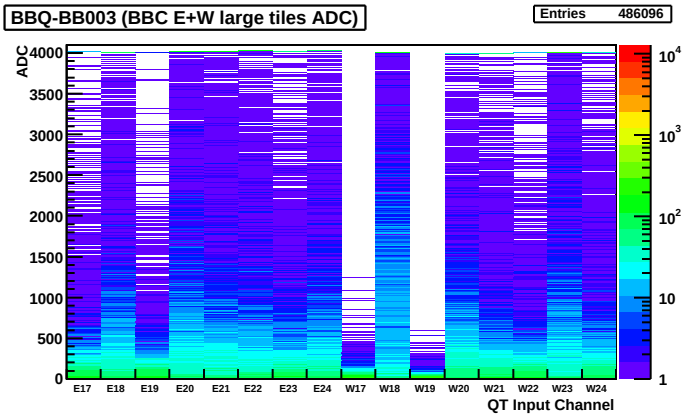

L1-TF201
Entries 182286
Threshold bits
1
0
1373
1411
1295
1222
1306
1206
29008
28970
29086
29159
29075
29175
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

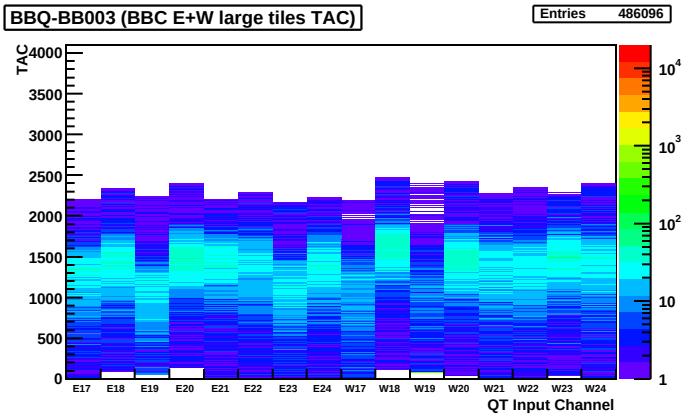

BBQ-BB001 (BBC east small tiles ADC)
Entries 486096
ADC
QT Input Channel

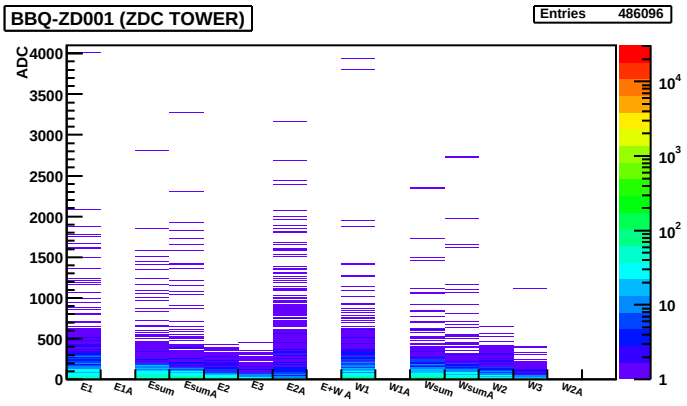

BBQ-BB001 (BBC east small tiles TAC)
Entries 486096
TAC
QT Input Channel

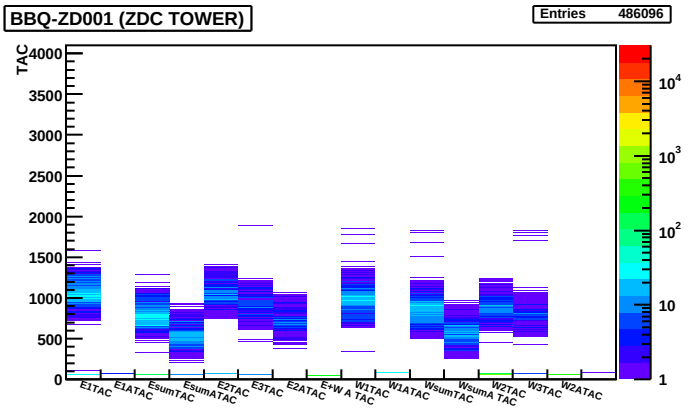

BBQ-BB002 (BBC west small tiles ADC)
Entries 486096
ADC
QT Input Channel

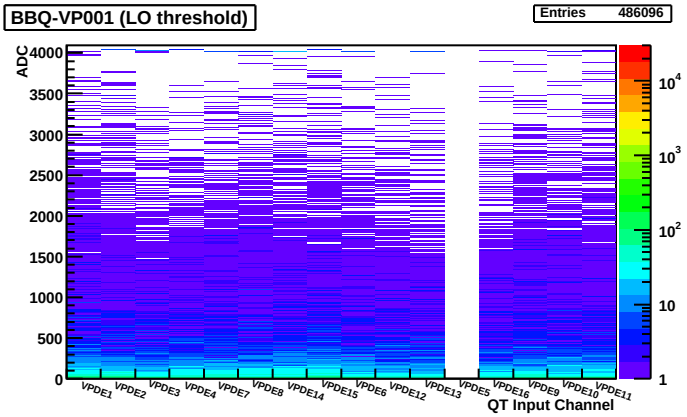

BBQ-BB002 (BBC west small tiles TAC)
Entries 486096
TAC
QT Input Channel

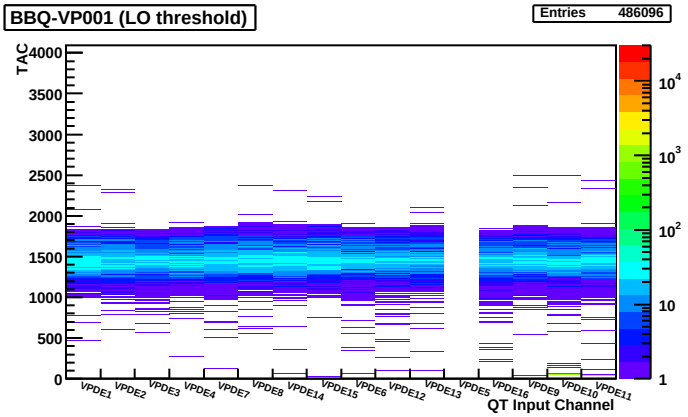

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 486096
ADC
QT Input Channel

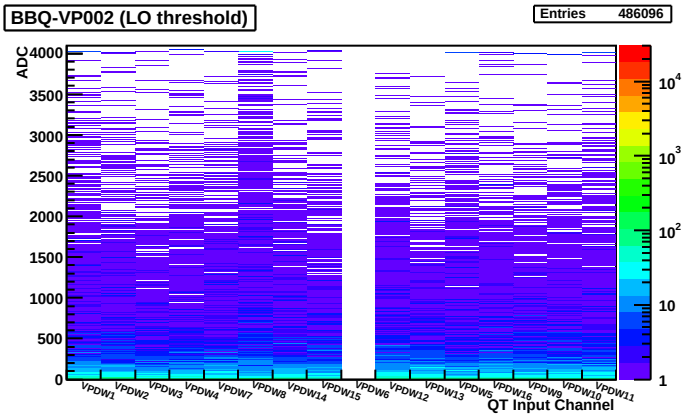

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 486096
TAC
QT Input Channel

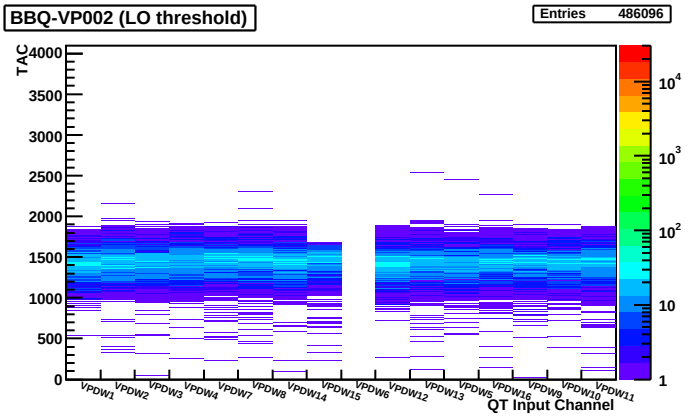

BBQ-ZD001 (ZDC TOWER)
Entries 486096
ADC

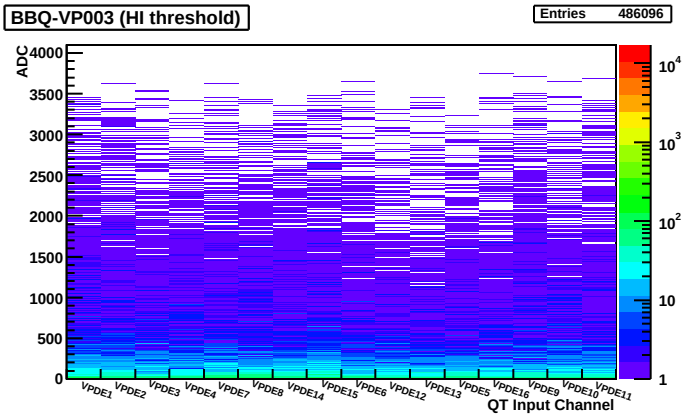

BBQ-ZD001 (ZDC TOWER)
Entries 486096
TAC

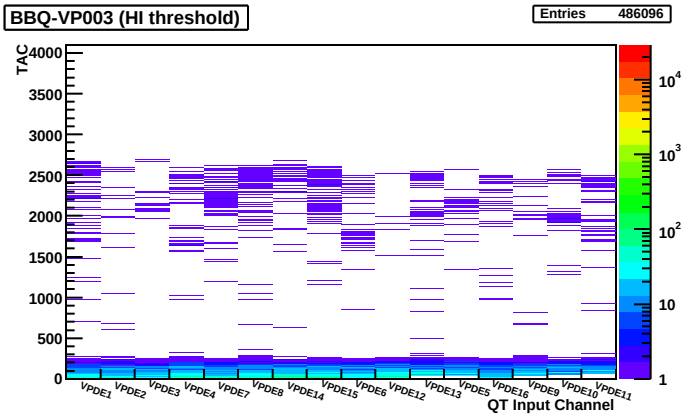

BBQ-VP001 (LO threshold)
Entries 486096
ADC
QT Input Channel

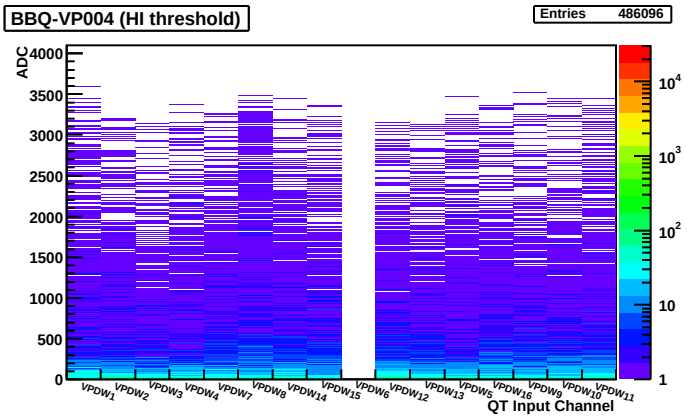

BBQ-VP001 (LO threshold)
Entries 486096
TAC
QT Input Channel

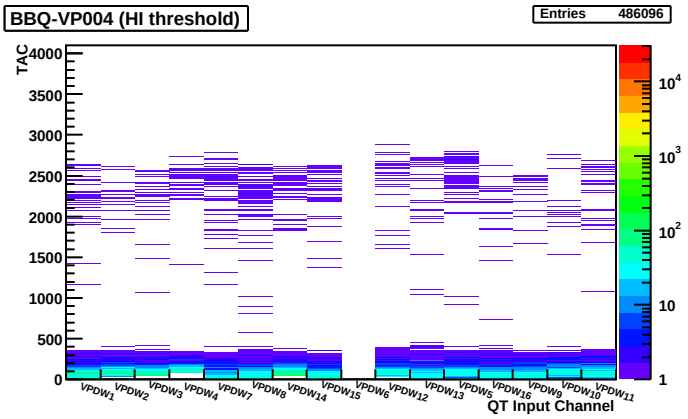

BBQ-VP002 (LO threshold)
Entries 486096
ADC
QT Input Channel

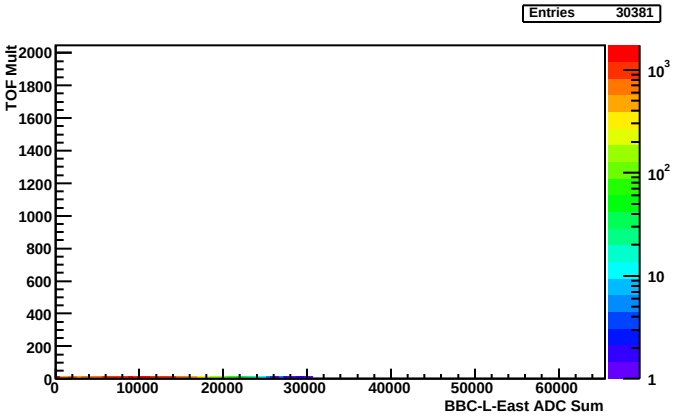

BBQ-VP002 (LO threshold)
Entries 486096
TAC
QT Input Channel

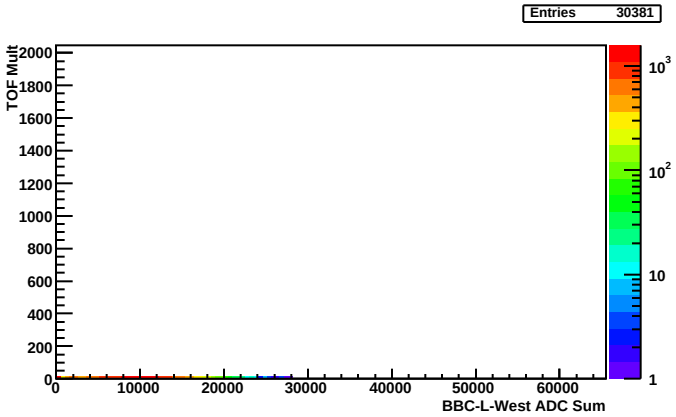

BBQ-VP003 (HI threshold)
Entries 486096
ADC
QT Input Channel

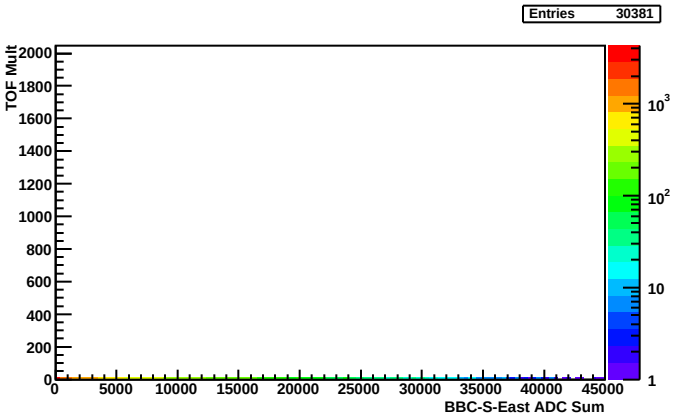

BBQ-VP003 (HI threshold)
Entries 486096
TAC
QT Input Channel

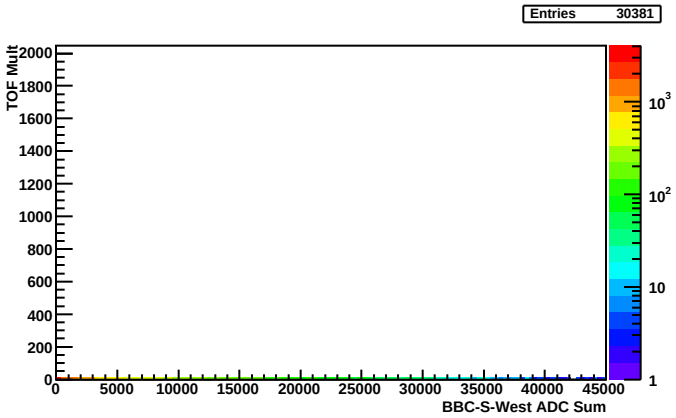

BBQ-VP004 (HI threshold)
Entries 486096
ADC
QT Input Channel

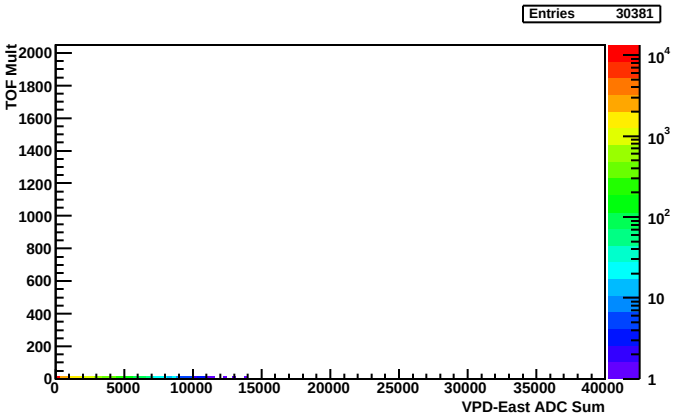

BBQ-VP004 (HI threshold)
Entries 486096
TAC
QT Input Channel

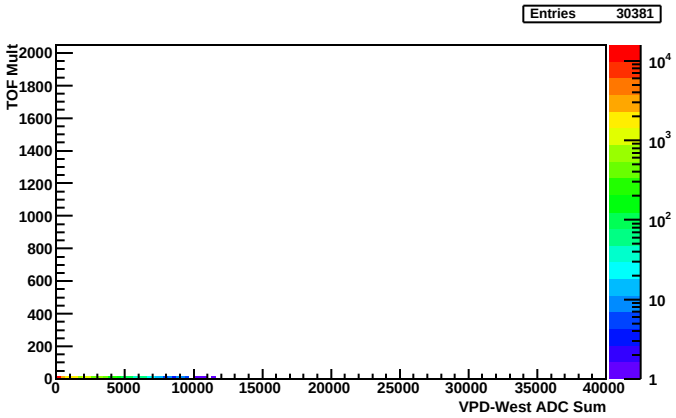

Entries 30381
TOF Mult
BBC-L-East ADC Sum

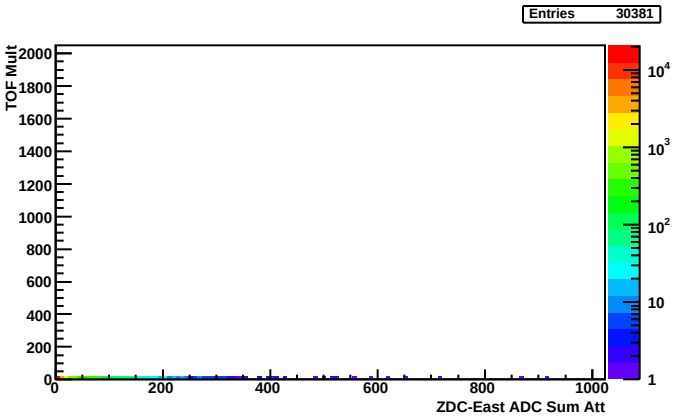

Entries 30381
TOF Mult
BBC-L-West ADC Sum

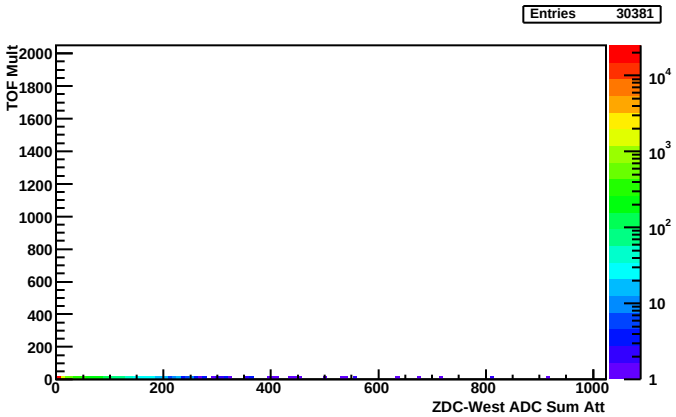

Entries 30381
TOF Mult
BBC-S-East ADC Sum

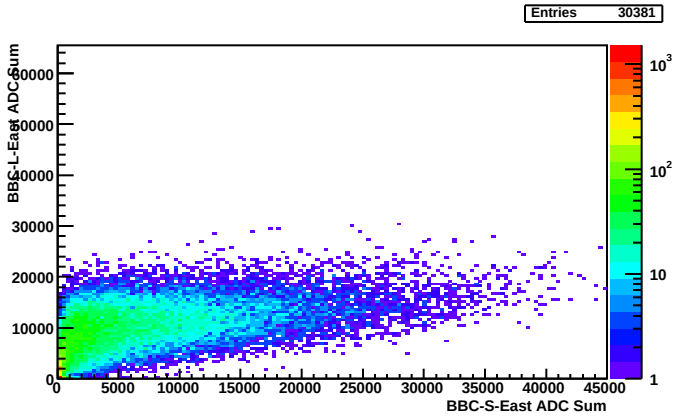

Entries 30381
TOF Mult
BBC-S-West ADC Sum

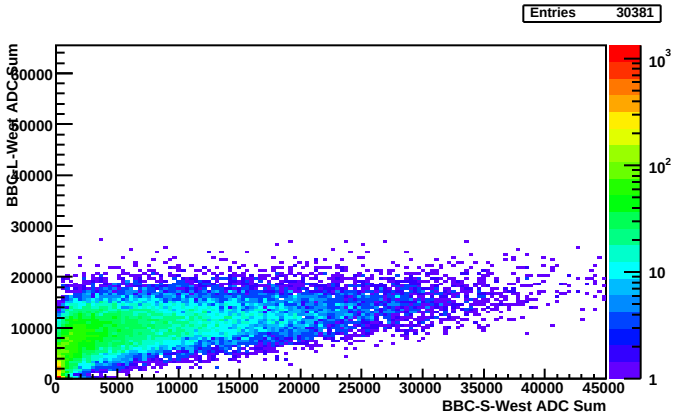

Entries 30381
TOF Mult
VPD-East ADC Sum

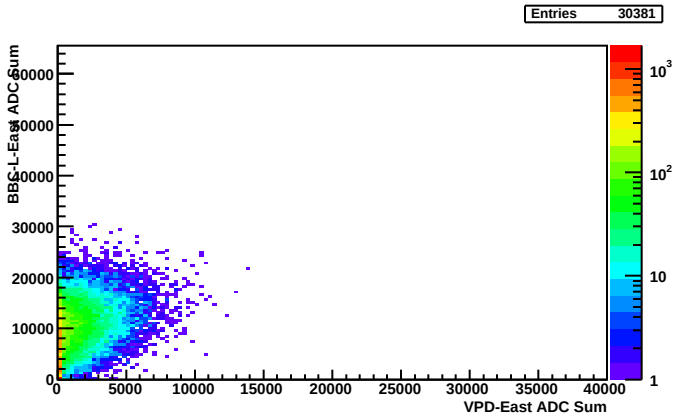

Entries 30381
TOF Mult
VPD-West ADC Sum

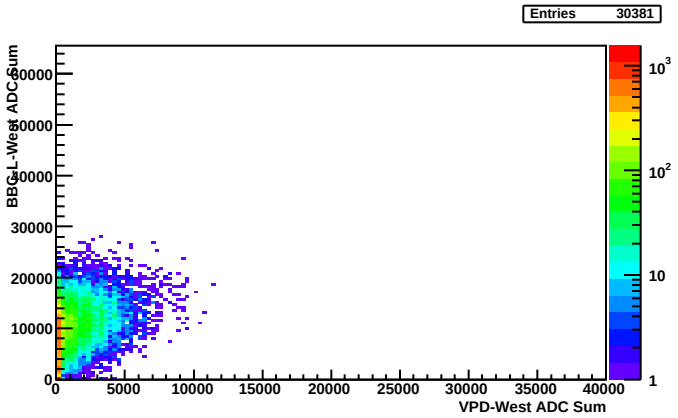

Entries 30381
TOF Mult
ZDC-East ADC Sum Att

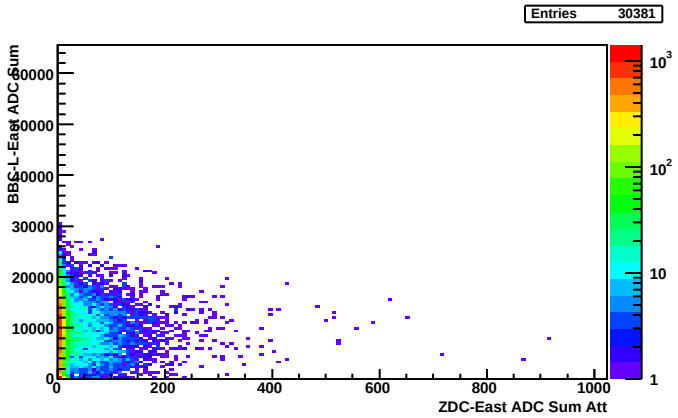

Entries 30381
TOF Mult
ZDC-West ADC Sum Att

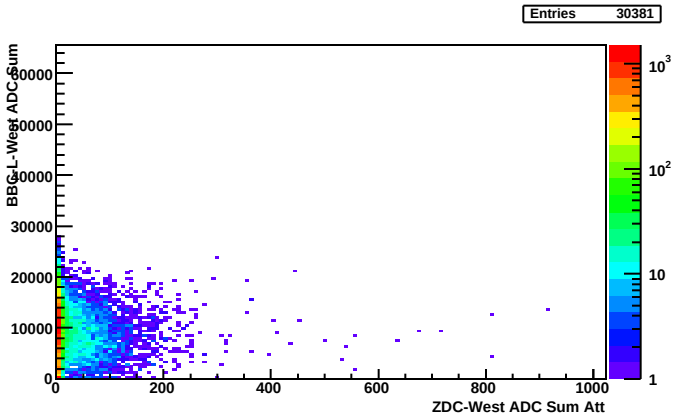

Entries 30381
BBC-L-East ADC Sum
BBC-S-East ADC Sum

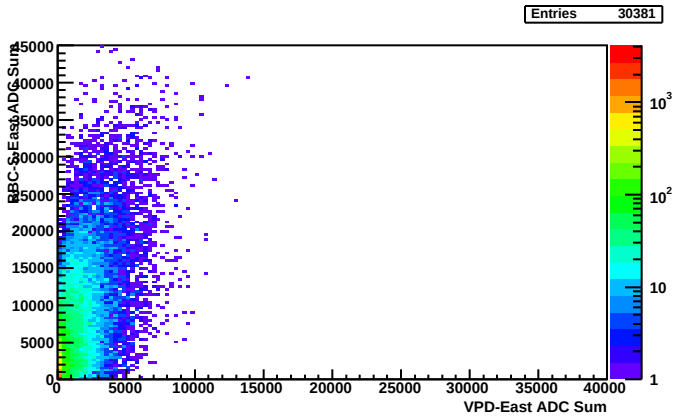

Entries 30381
BBC-L-West ADC Sum
BBC-S-West ADC Sum

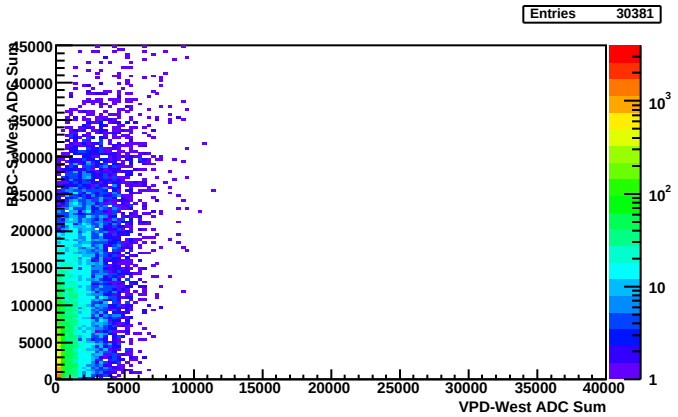

Entries 30381
BBC-L-East ADC Sum
VPD-East ADC Sum

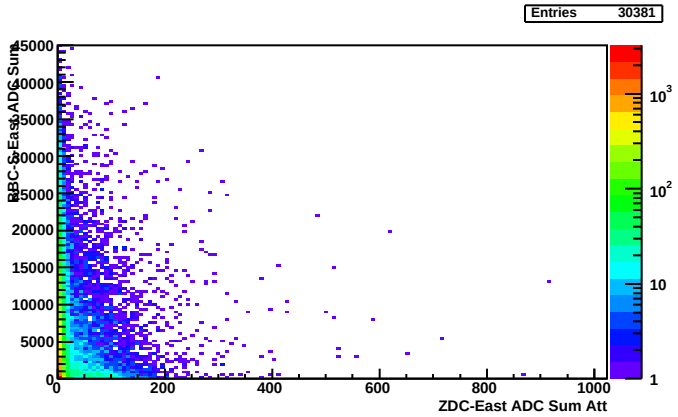

Entries 30381
BBC-L-West ADC Sum
VPD-West ADC Sum

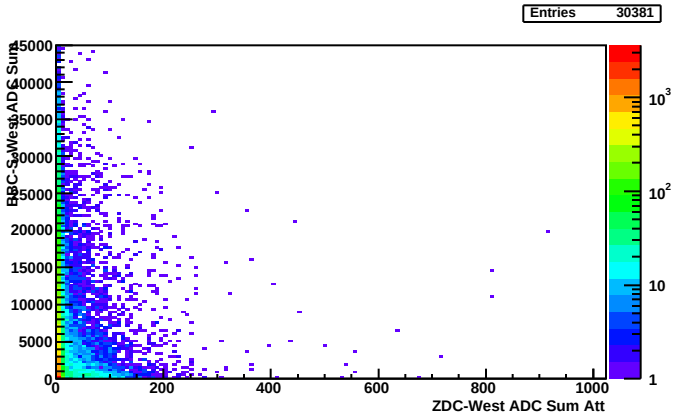

Entries 30381
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

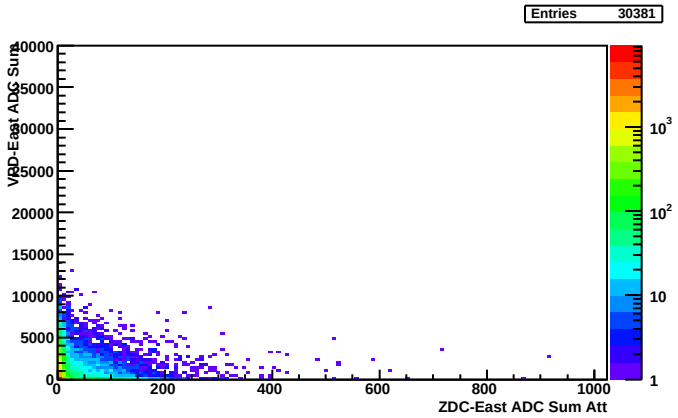

Entries 30381
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

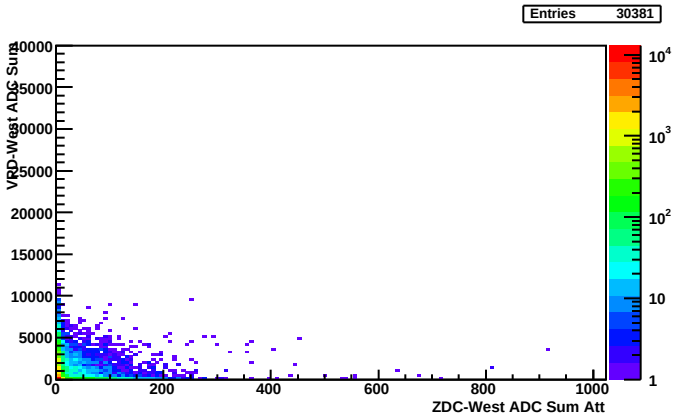

Entries 30381
BBC-S-East ADC Sum
VPD-East ADC Sum

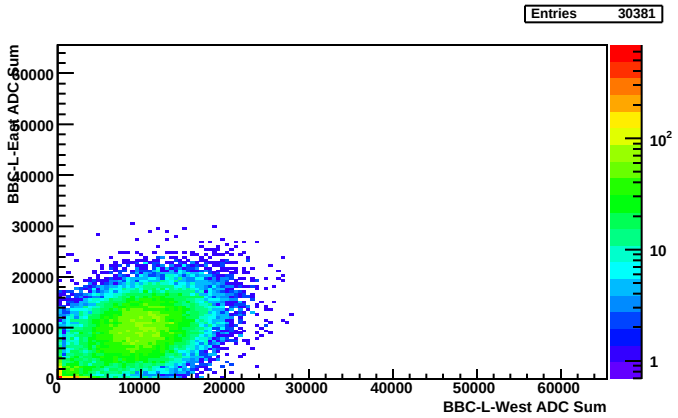

Entries 30381
BBC-S-West ADC Sum
VPD-West ADC Sum

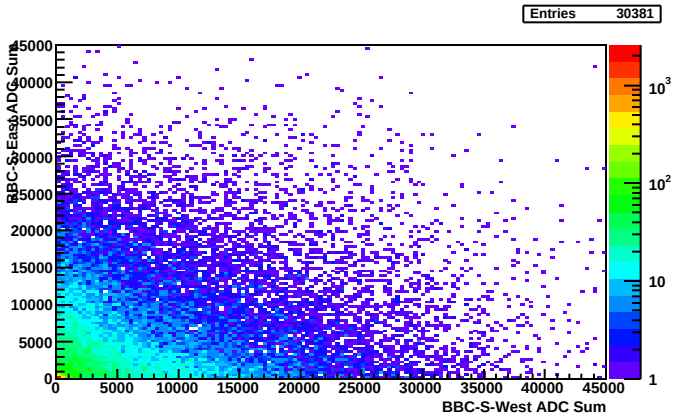

Entries 30381
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

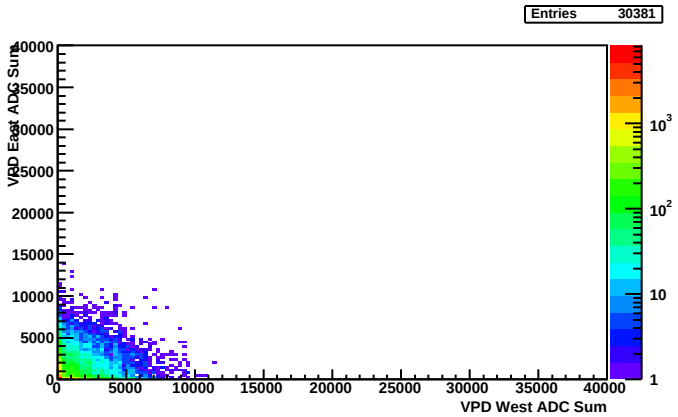

Entries 30381
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

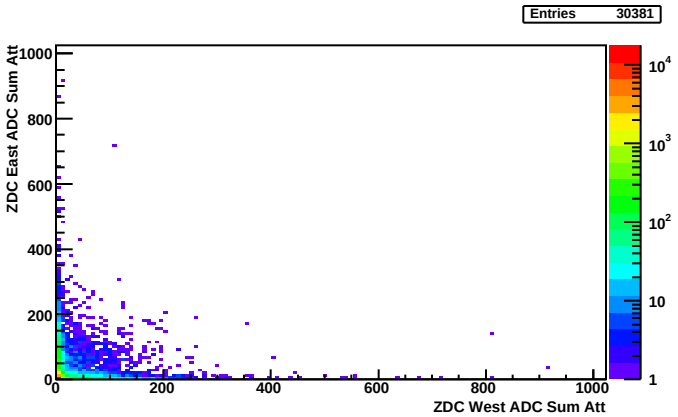

Entries 30381
VPD-East ADC Sum
ZDC-East ADC Sum Att

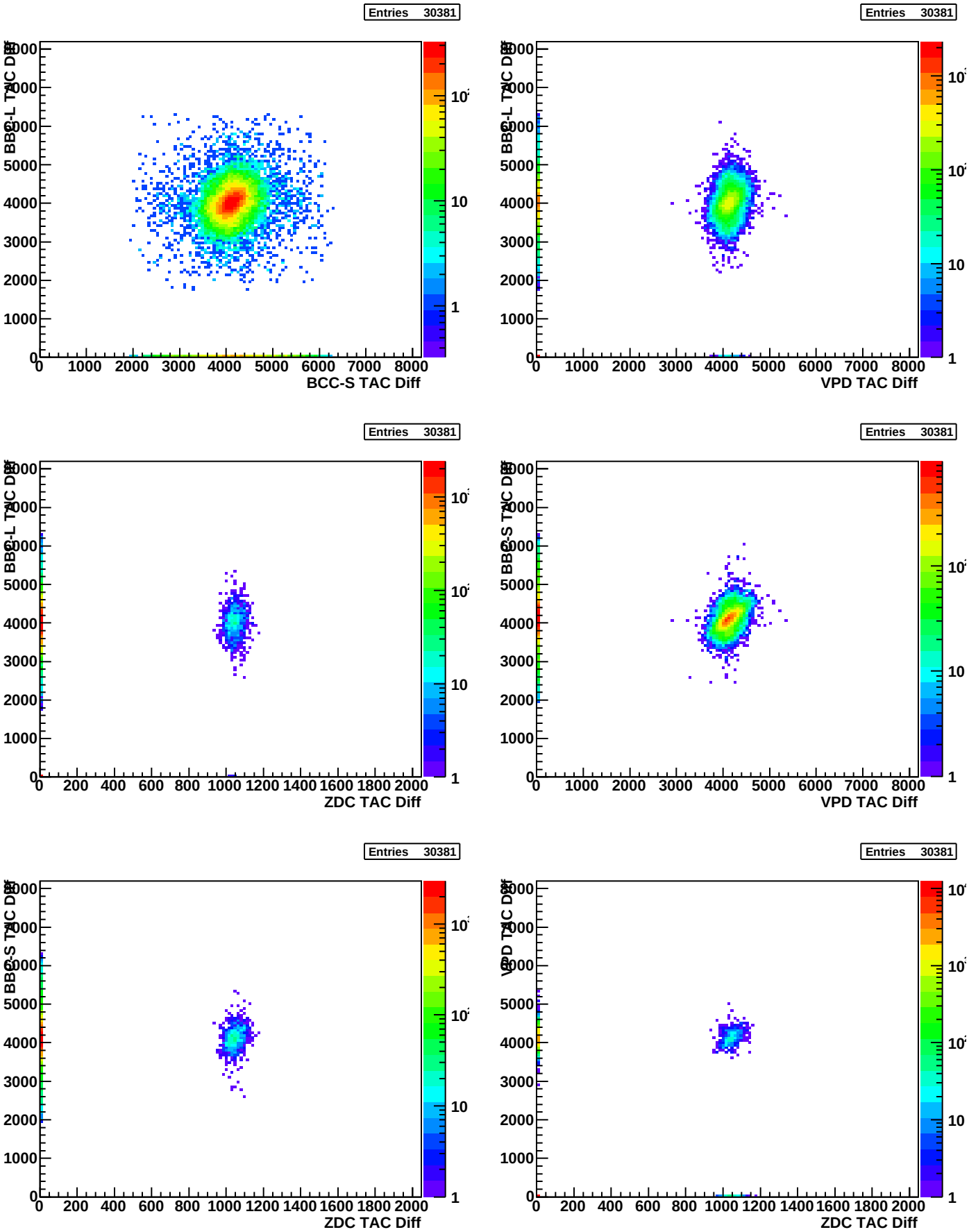

Entries 30381
VPD-West ADC Sum
ZDC-West ADC Sum Att

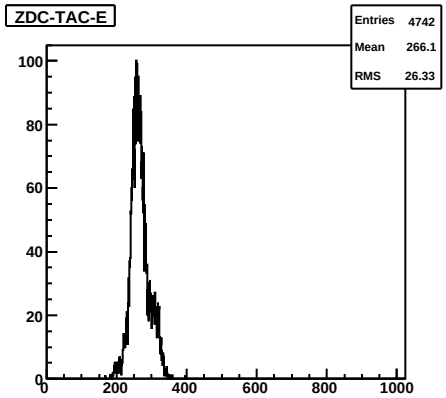

Entries 30381
BBC-L-East ADC Sum
BBC-L-West ADC Sum

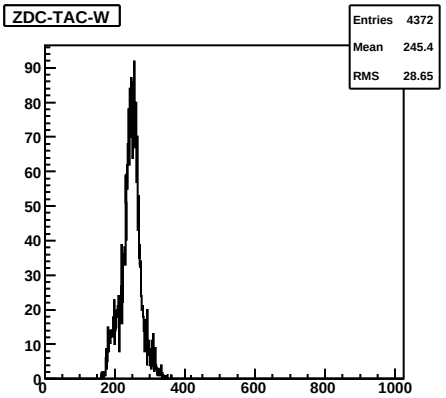

Entries 30381
BBC-S-East ADC Sum
BBC-S-West ADC Sum

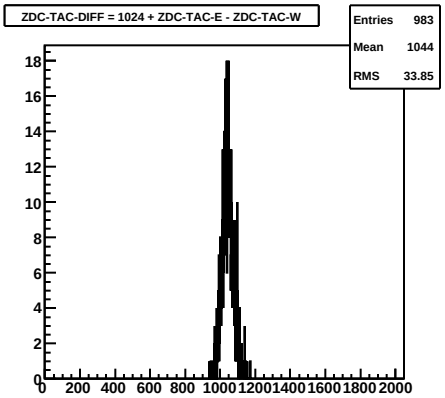

Entries 30381
VPD East ADC Sum
VPD West ADC Sum

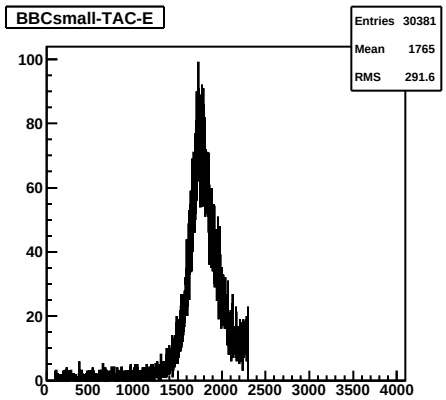

Entries 30381
ZDC East ADC Sum Att
ZDC West ADC Sum Att

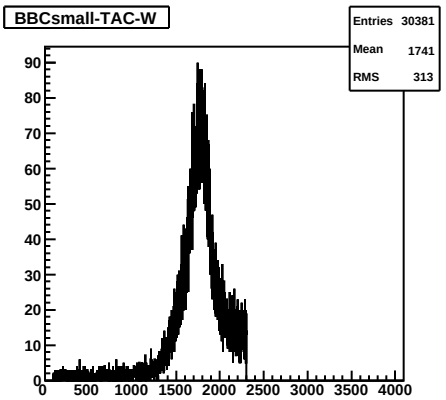

Entries 30381
BBC-L TAC Diff
BCC-S TAC Diff
Entries 30381
BBC-L TAC Diff
VPD TAC Diff
Entries 30381
BBC-L TAC Diff
ZDC TAC Diff
Entries 30381
BBC-S TAC Diff
VPD TAC Diff
Entries 30381
BBC-S TAC Diff
ZDC TAC Diff
Entries 30381
VPD TAC Diff
ZDC TAC Diff

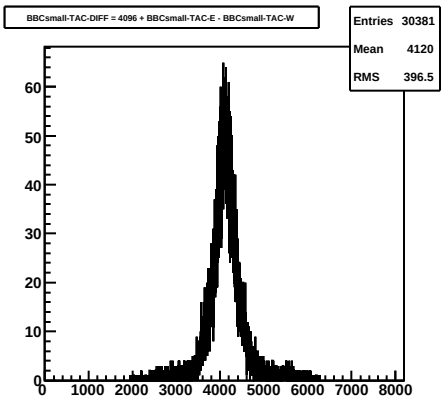

ZDC-TAC-E
Entries 4742
Mean 266.1
RMS 26.33

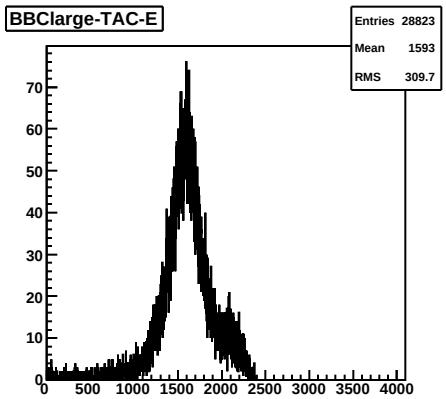

ZDC-TAC-W
Entries 4372
Mean 245.4
RMS 28.65

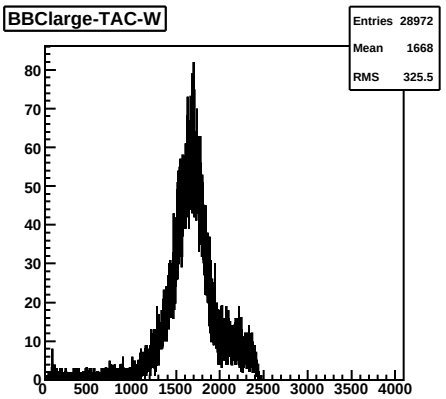

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 983
Mean 1044
RMS 33.85

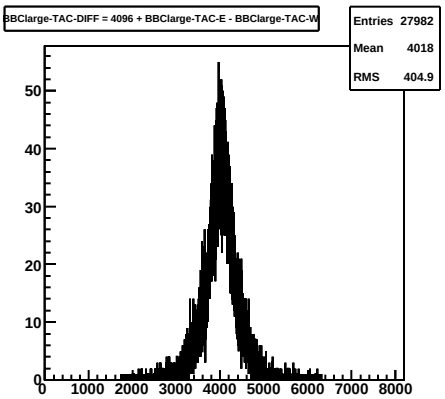

BBCsmall-TAC-E
Entries 30381
Mean 1765
RMS 291.6

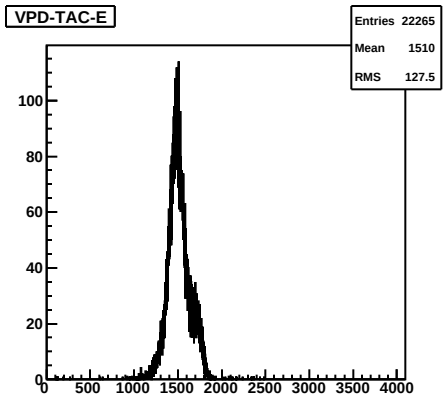

BBCsmall-TAC-W
Entries 30381
Mean 1741
RMS 313

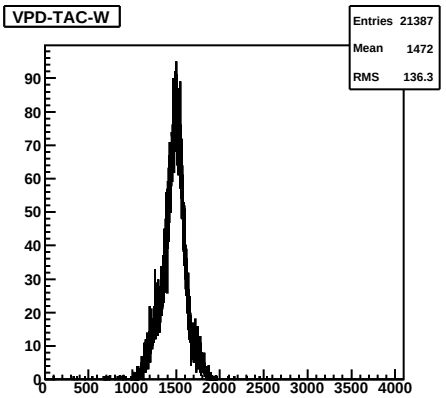

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 30381
Mean 4120
RMS 396.5

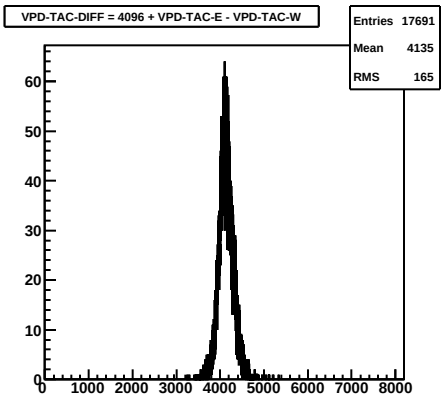

BBClarge-TAC-E
Entries 28823
Mean 1593
RMS 309.7

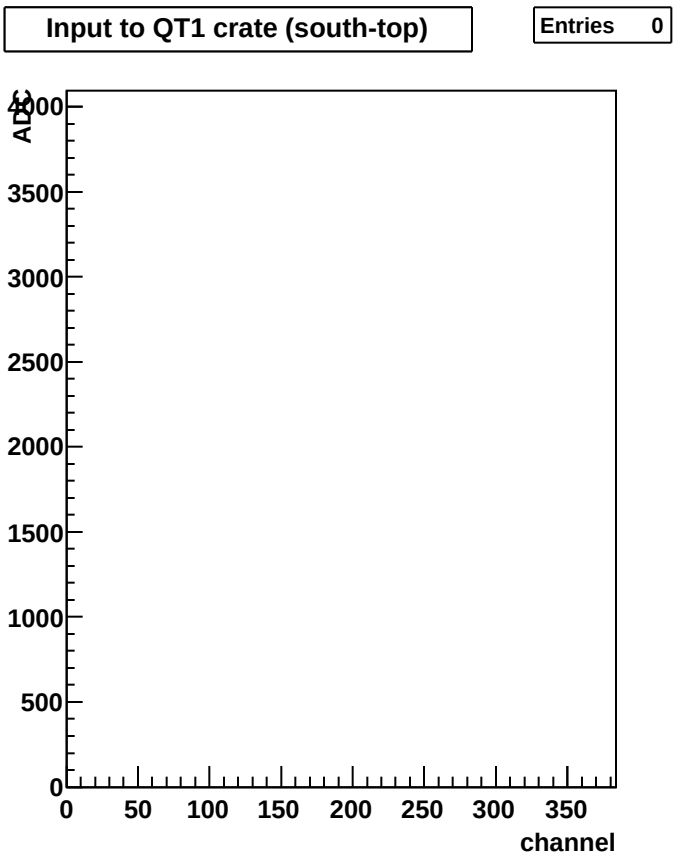

BBClarge-TAC-W
Entries 28972
Mean 1668
RMS 325.5

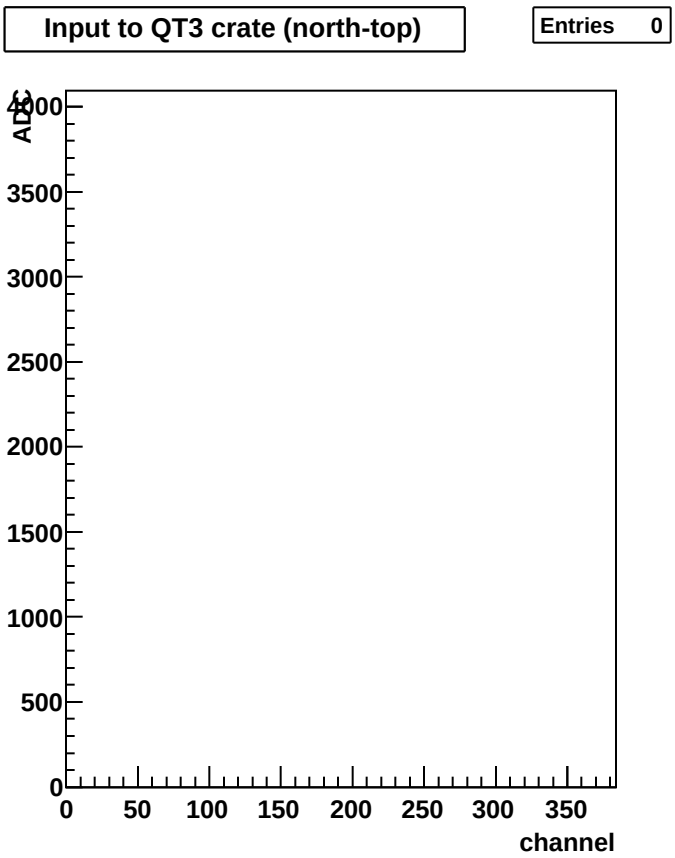

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 27982
Mean 4018
RMS 404.9

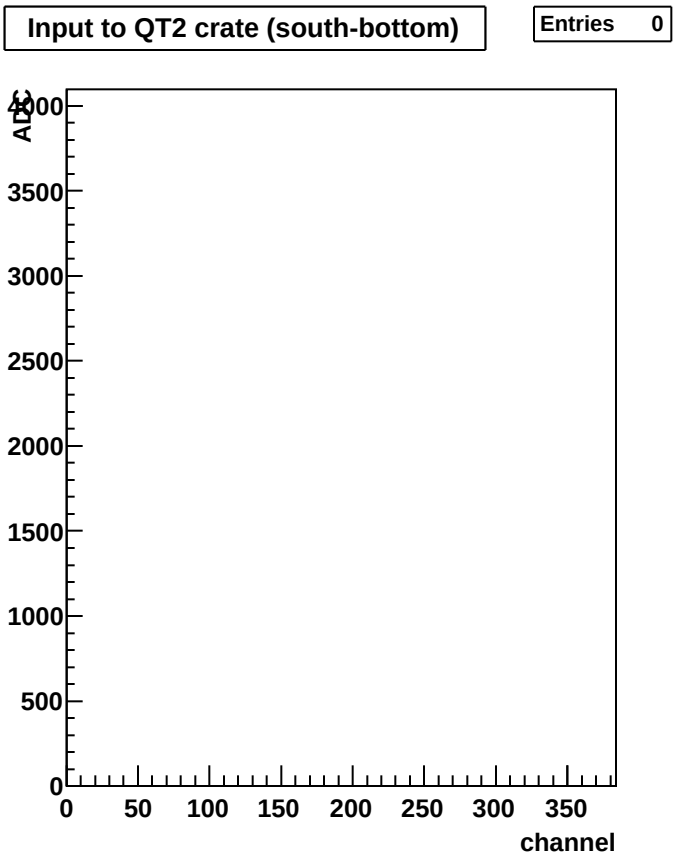

VPD-TAC-E
Entries 22265
Mean 1510
RMS 127.5

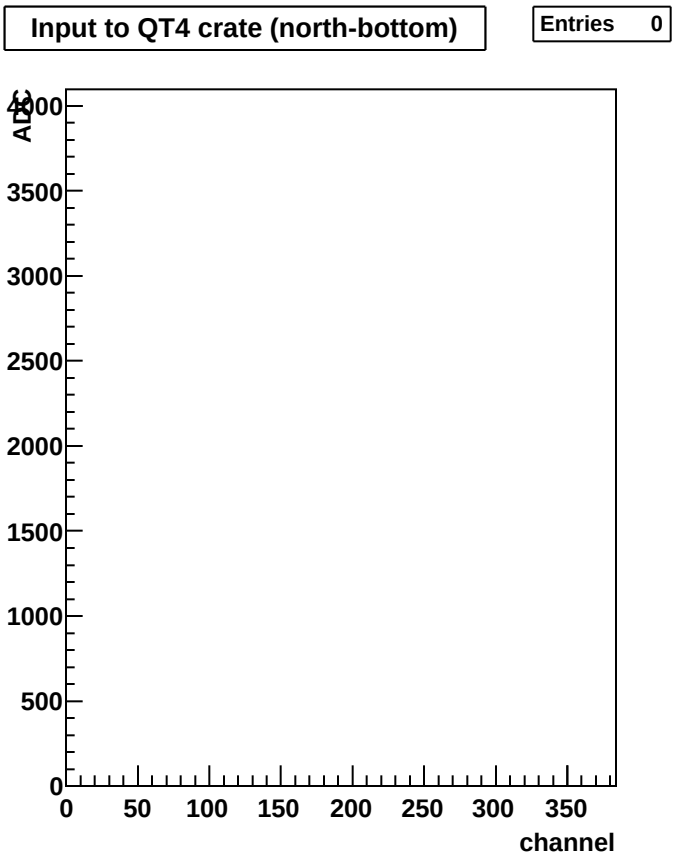

VPD-TAC-W
Entries 21387
Mean 1472
RMS 136.3

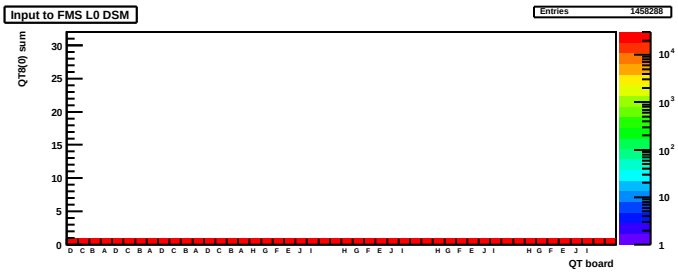

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 17691
Mean 4135
RMS 165

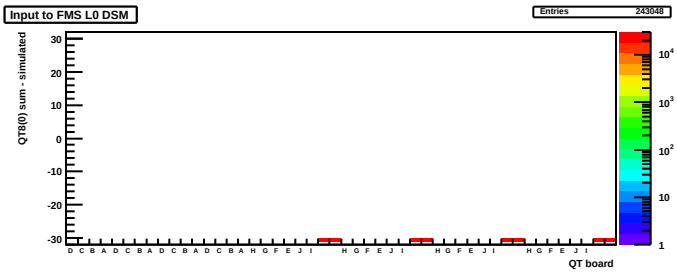

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

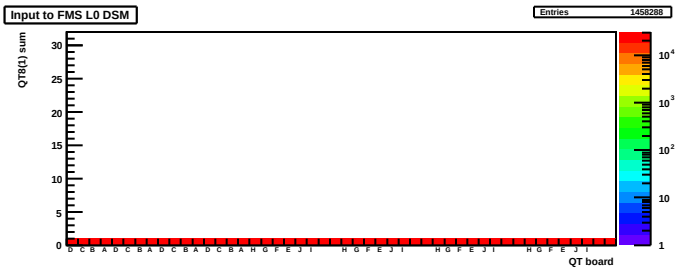

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

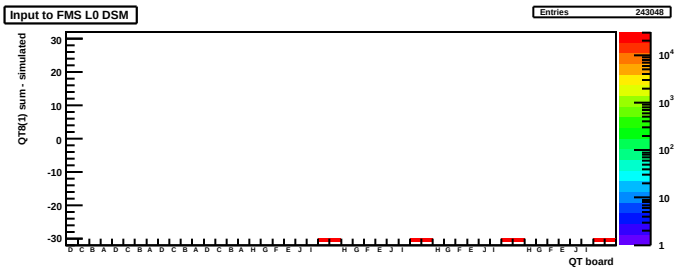

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

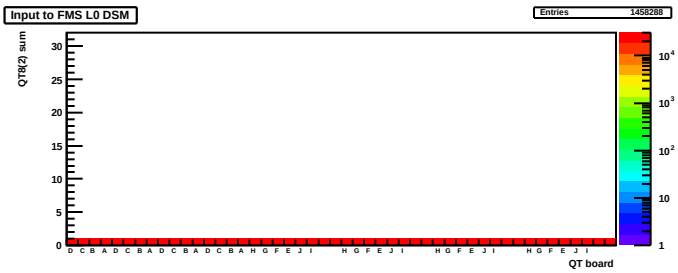

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

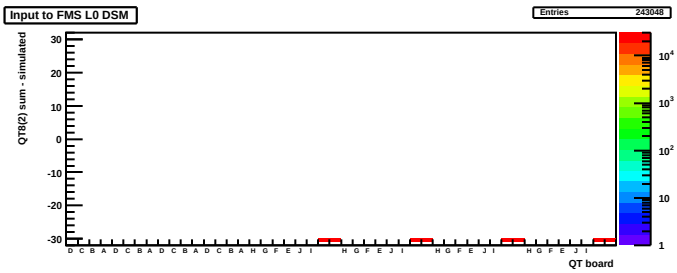

Input to FMS L0 DSM
Entries 1458288
QT8(0) sum
QT board

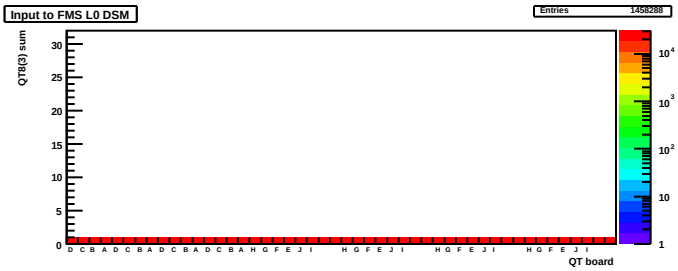

Input to FMS L0 DSM
Entries 243048
QT8(0) sum - simulated
QT board

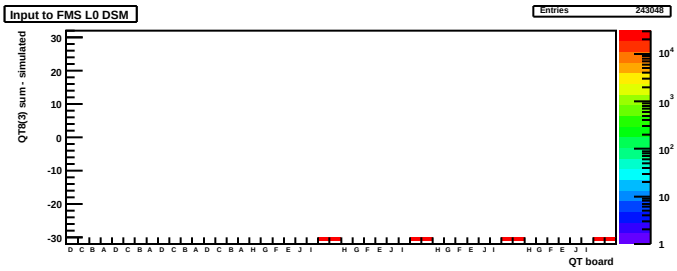

Input to FMS L0 DSM
Entries 1458288
QT8(1) sum
QT board

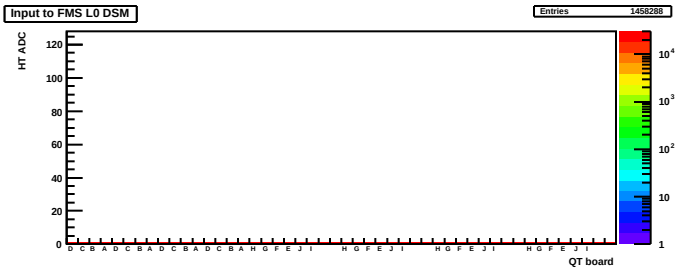

Input to FMS L0 DSM
Entries 243048
QT8(1) sum - simulated
QT board

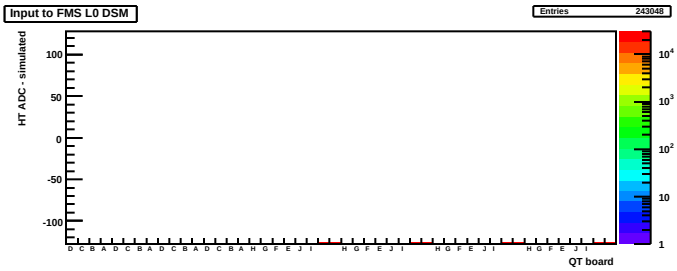

Input to FMS L0 DSM
Entries 1458288
QT8(2) sum
QT board

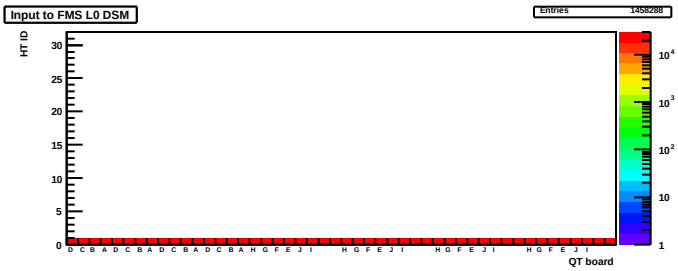

Input to FMS L0 DSM
Entries 243048
QT8(2) sum - simulated
QT board

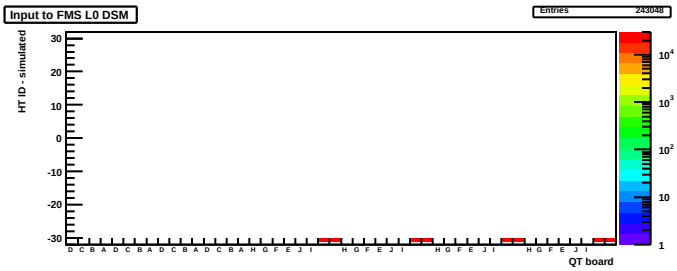

Input to FMS L0 DSM
Entries 1458288
QT8(3) sum
QT board

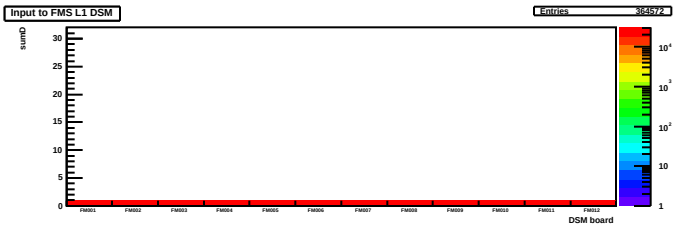

Input to FMS L0 DSM
Entries 243048
QT8(3) sum - simulated
QT board

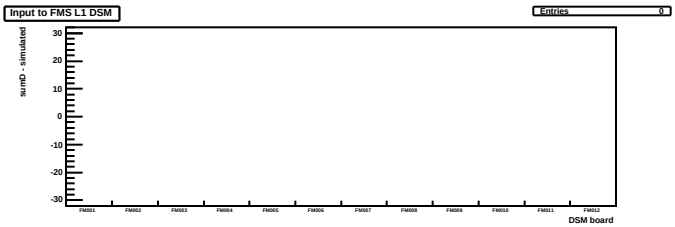

Input to FMS L0 DSM
Entries 1458288
HT ADC
QT board

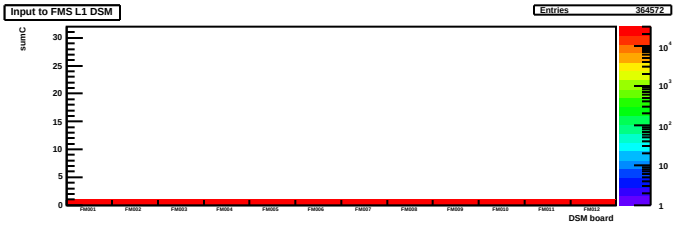

Input to FMS L0 DSM
Entries 243048
HT ADC - simulated
QT board

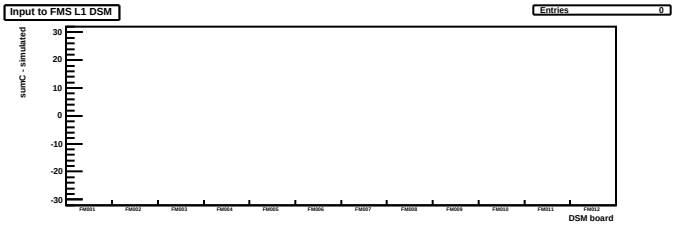

Input to FMS L0 DSM
Entries 1458288
HT ID
QT board

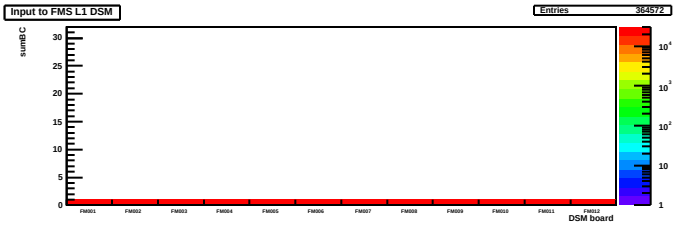

Input to FMS L0 DSM
Entries 243048
HT ID - simulated
QT board

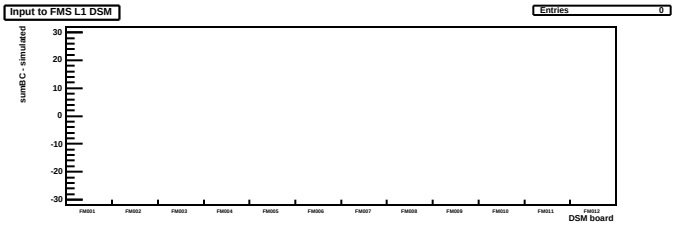

Input to FMS L1 DSM
Entries 364572
sumD
DSM board

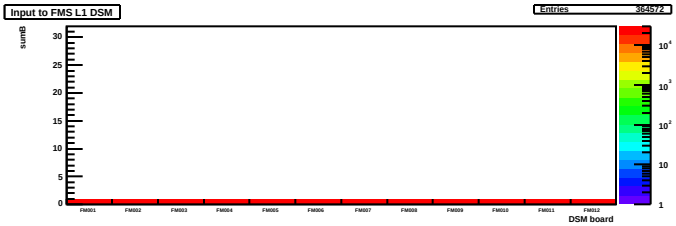

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

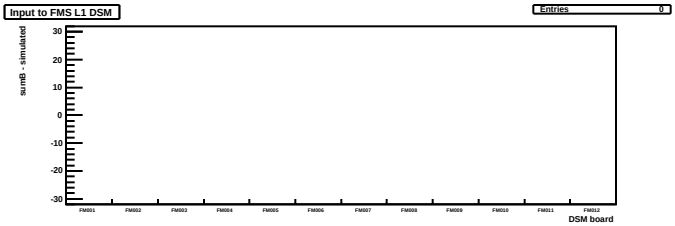

Input to FMS L1 DSM
Entries 364572
sumC
DSM board

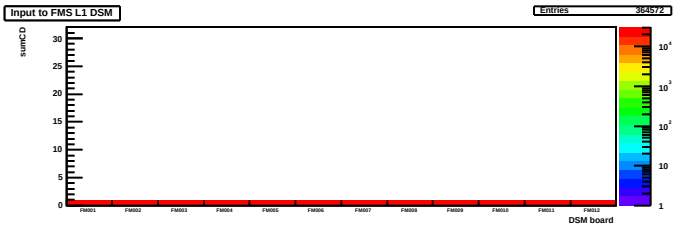

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

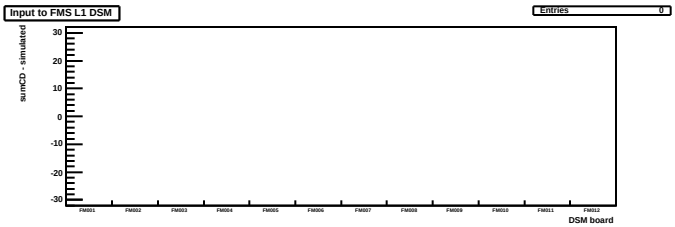

Input to FMS L1 DSM
Entries 364572
sumBC
DSM board

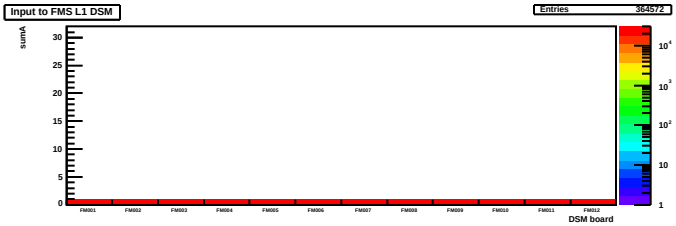

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

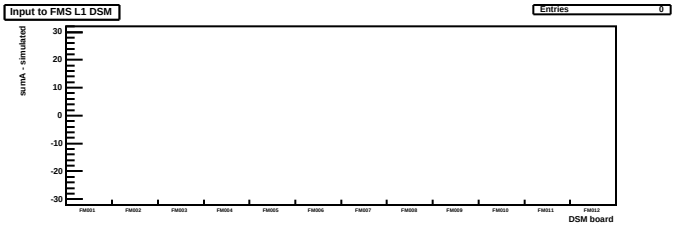

Input to FMS L1 DSM
Entries 364572
sumB
DSM board

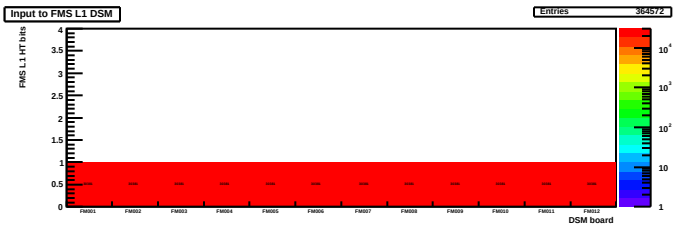

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

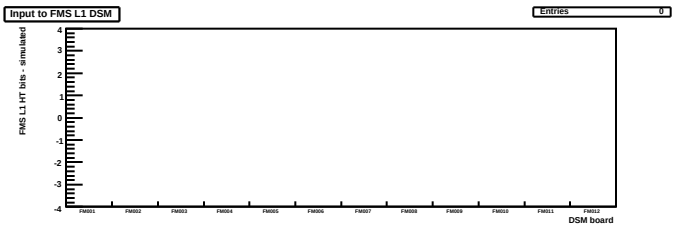

Input to FMS L1 DSM
Entries 364572
sumCD
DSM board

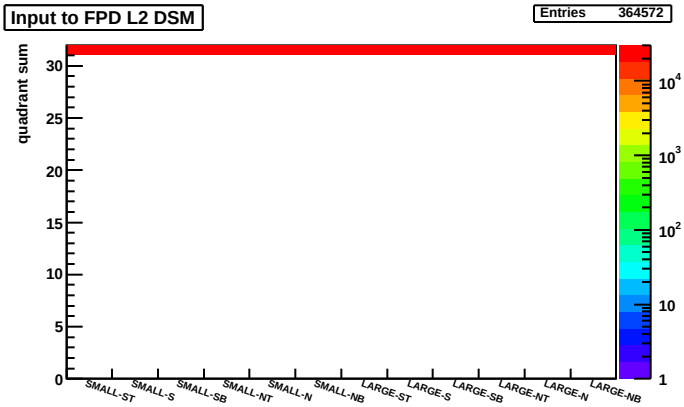

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

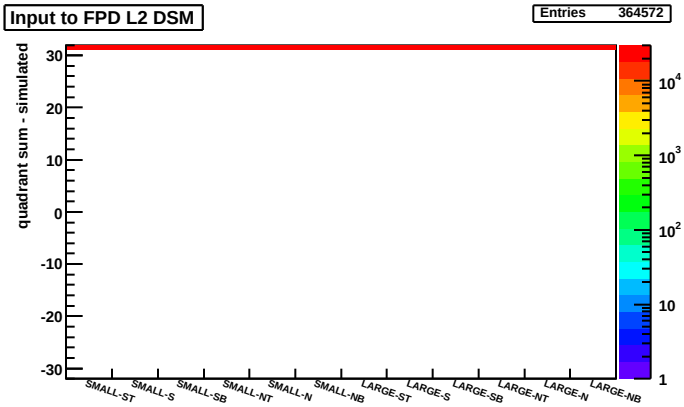

Input to FMS L1 DSM
Entries 364572
sumA
DSM board

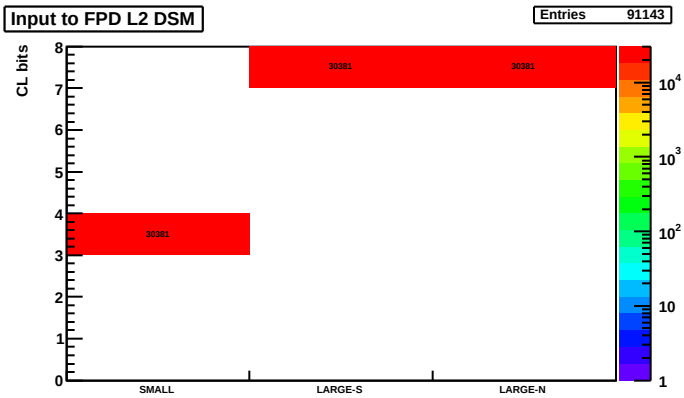

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

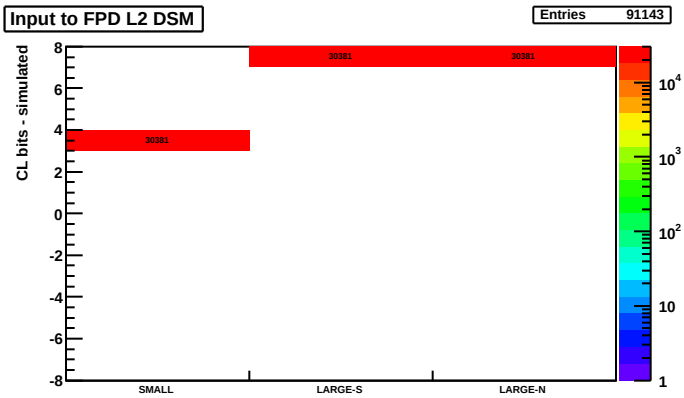

Input to FMS L1 DSM
Entries 364572
FMS L1 HT bits
DSM board

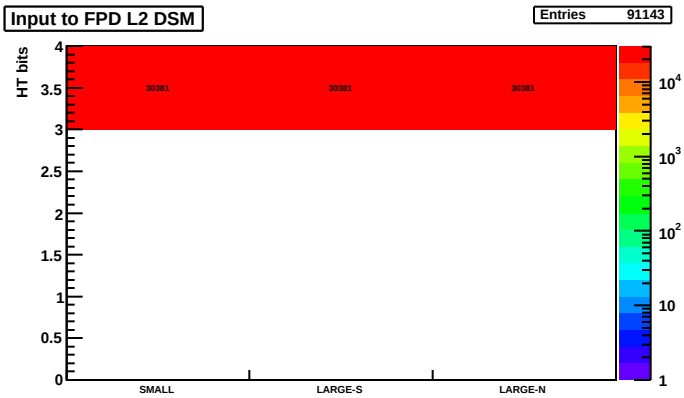

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

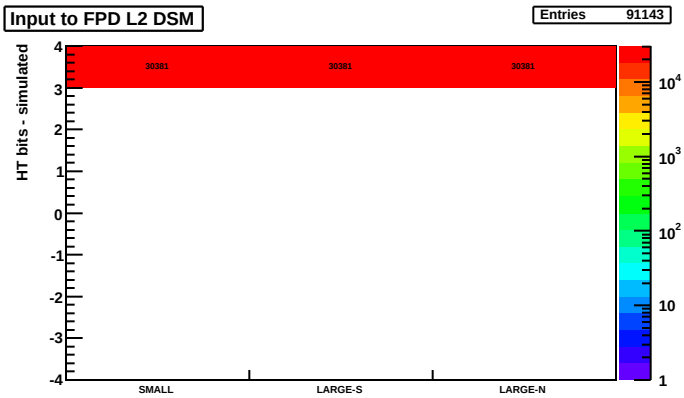

Input to FPD L2 DSM
Entries 364572
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

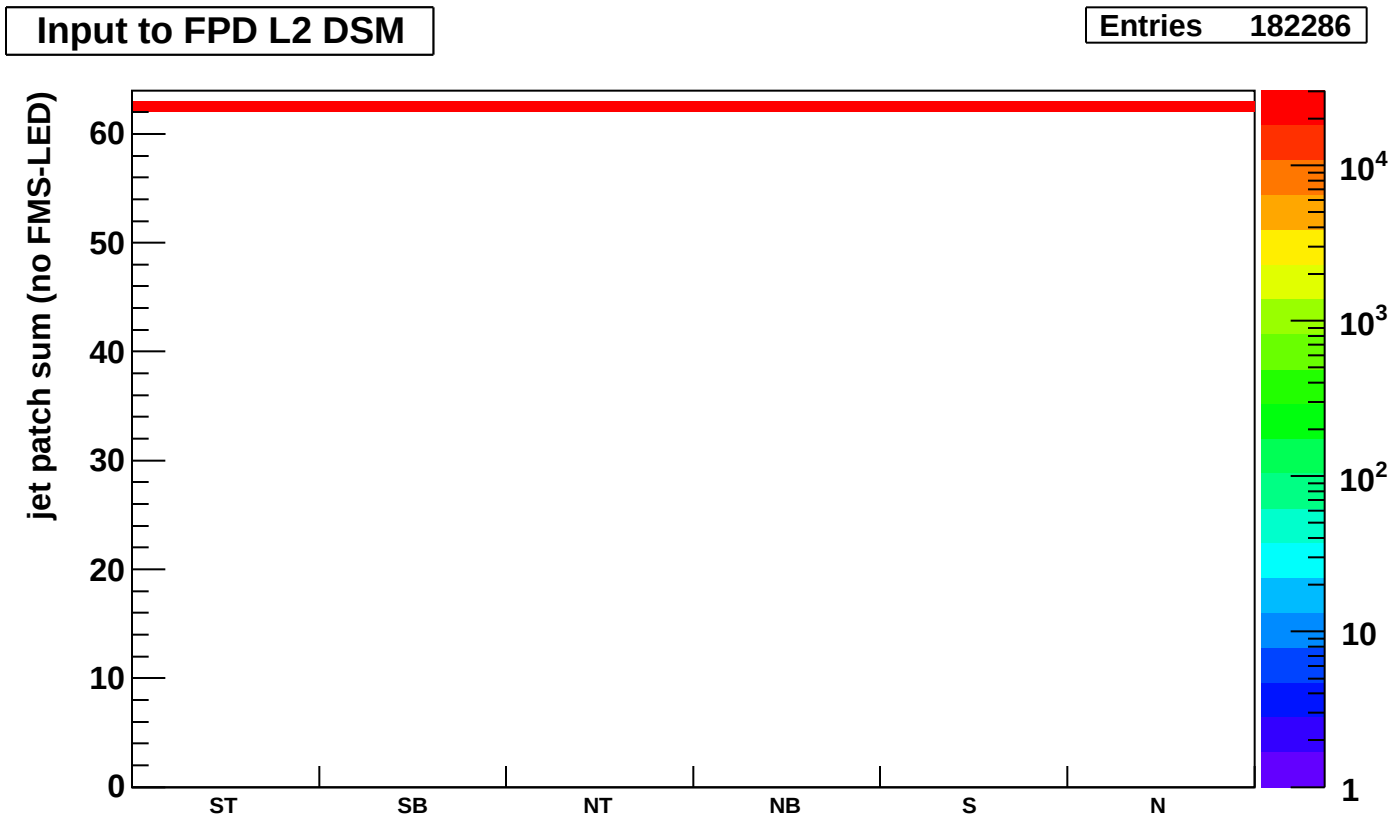

Input to FPD L2 DSM
Entries 364572
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

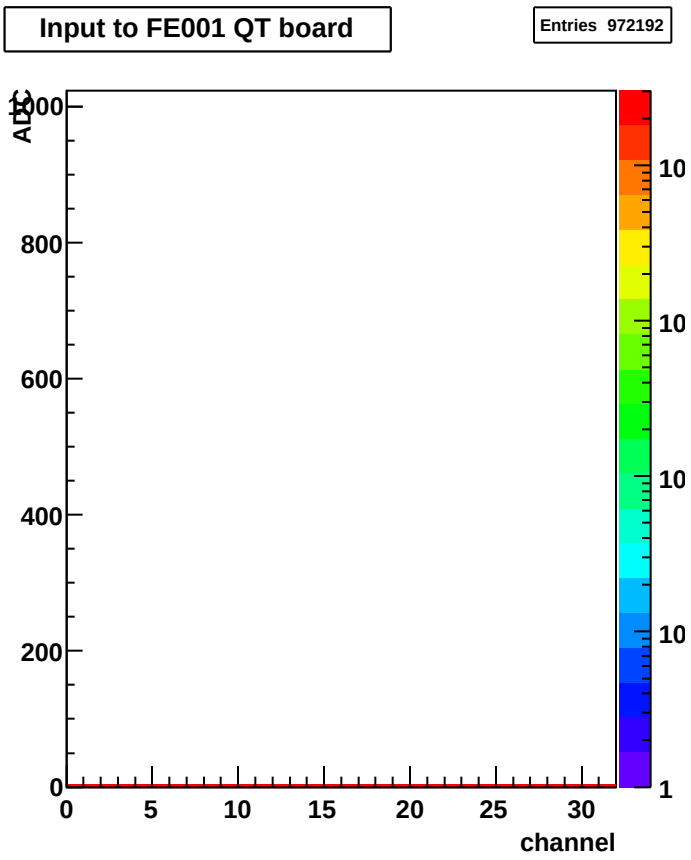

Input to FPD L2 DSM
Entries 91143
CL bits
30381
30381
30381
SMALL
LARGE-S
LARGE-N

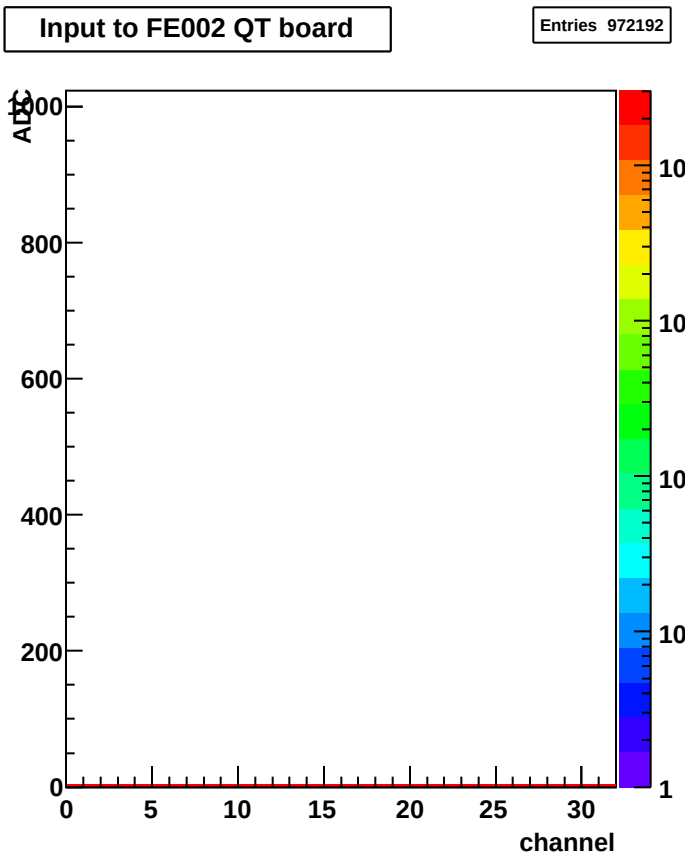

Input to FPD L2 DSM
Entries 91143
CL bits - simulated
30381
30381
30381
SMALL
LARGE-S
LARGE-N

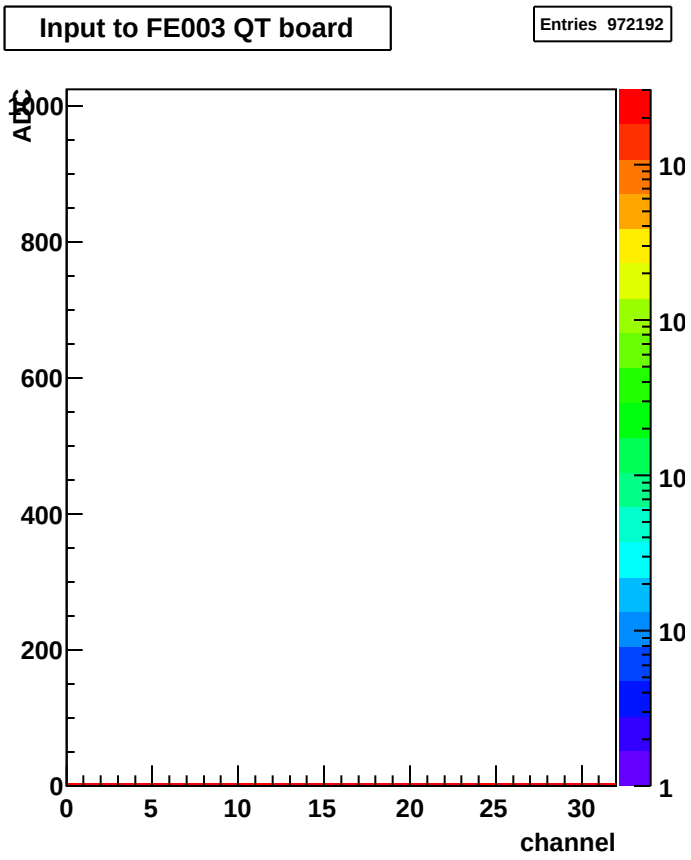

Input to FPD L2 DSM
Entries 91143
HT bits
30381
30381
30381
SMALL
LARGE-S
LARGE-N

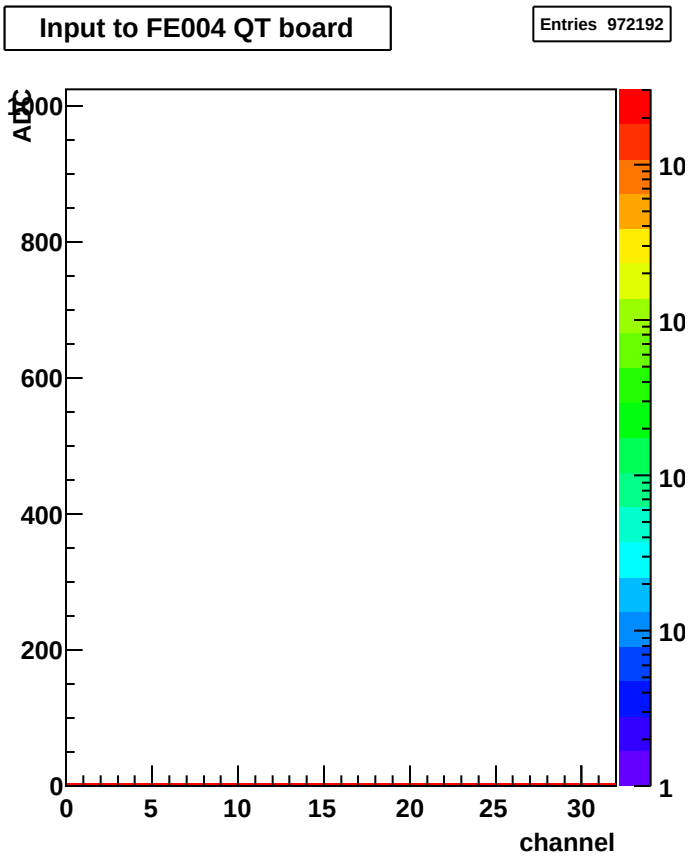

Input to FPD L2 DSM
Entries 91143
HT bits - simulated
30381
30381
30381
SMALL
LARGE-S
LARGE-N

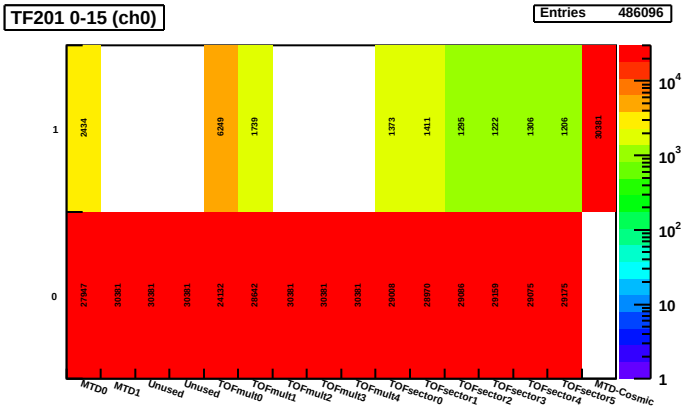

Input to FPD L2 DSM
Entries 182286
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

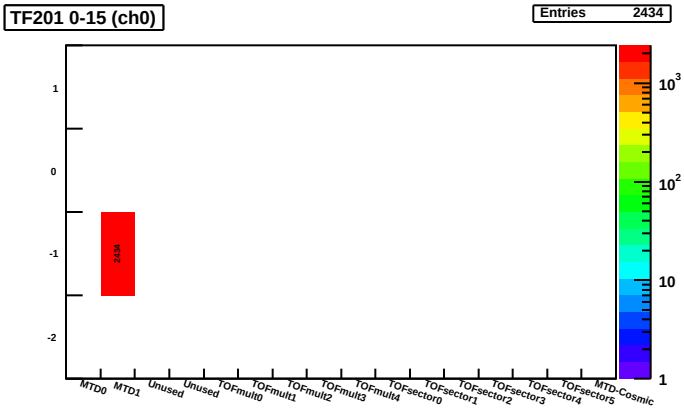

Input to FE001 QT board
Entries 972192
ADC
channel

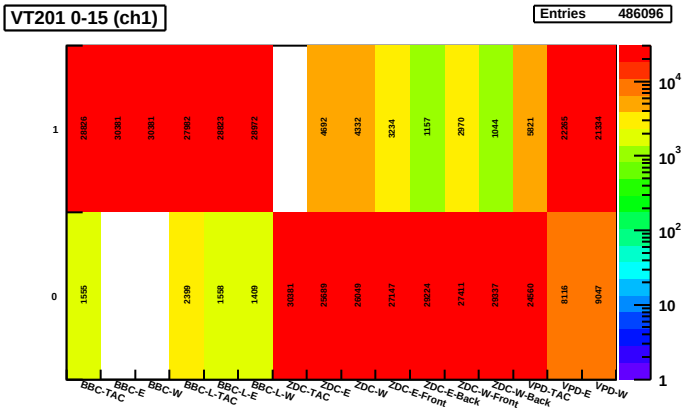

Input to FE002 QT board
Entries 972192
ADC
channel

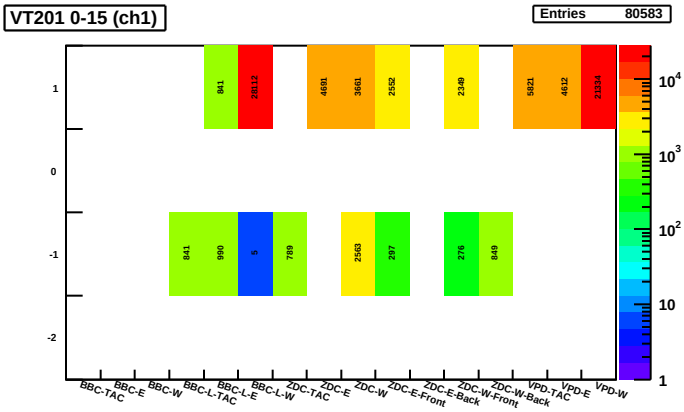

Input to FE003 QT board
Entries 972192
ADC
channel

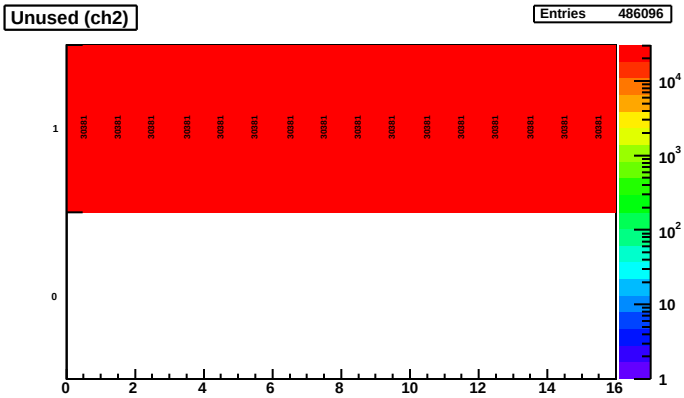

Input to FE004 QT board
Entries 972192
ADC
channel

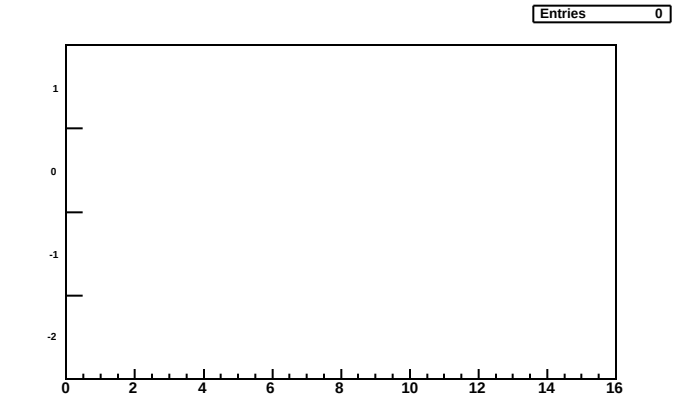

TF201 0-15 (ch0)
Entries 486096
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 2434
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 486096
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 80583
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


Unused (ch2)
Entries 486096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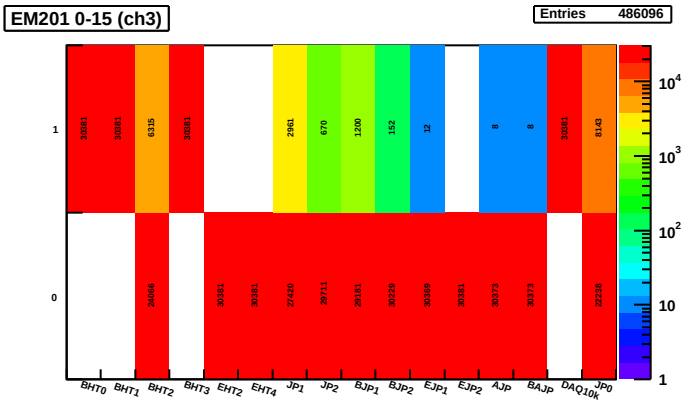
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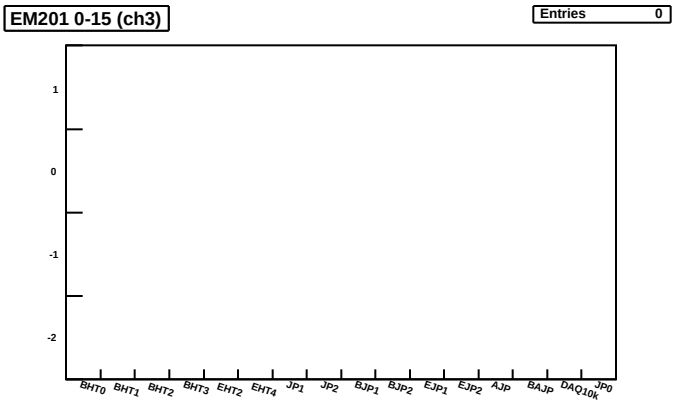
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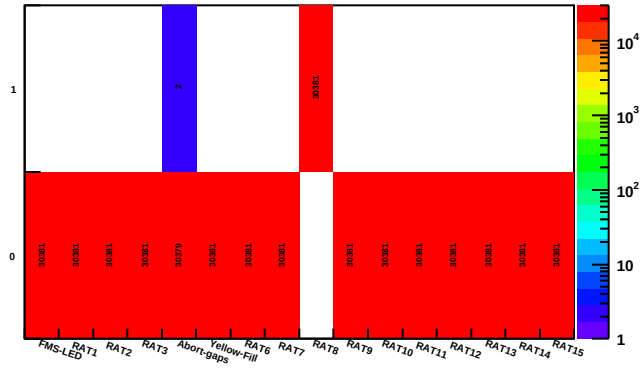
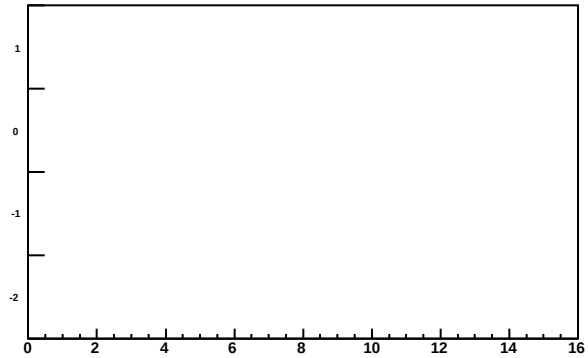
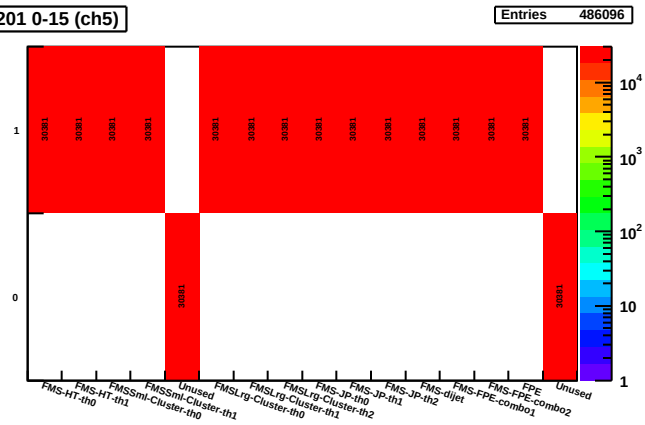
RAT board (ch4)





FP201 0-15 (ch5)



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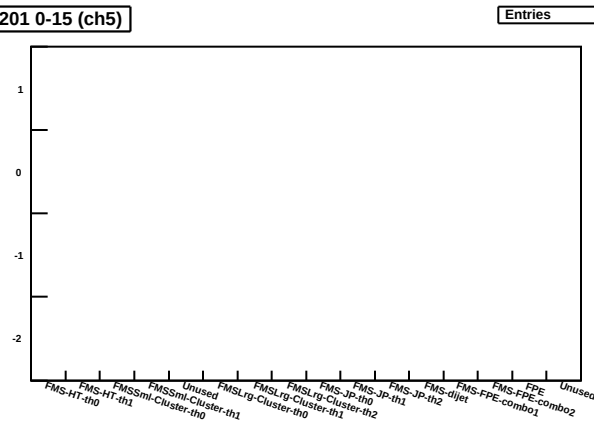

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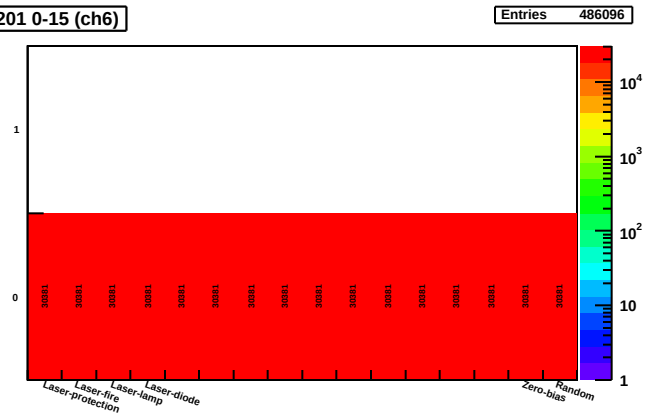

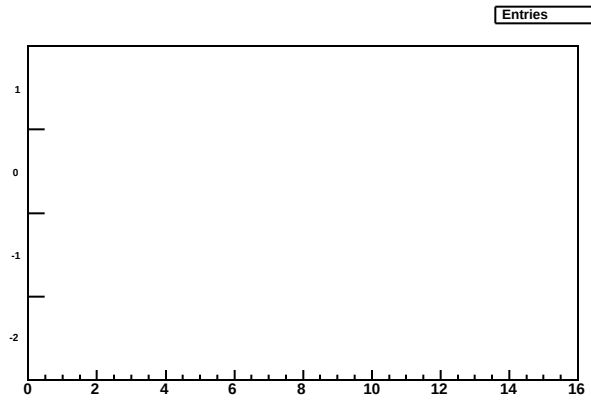
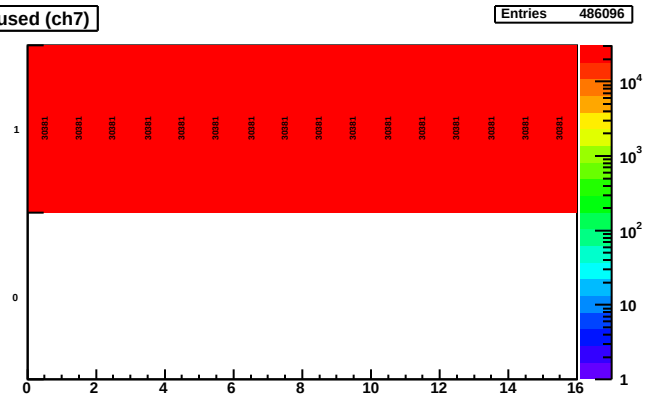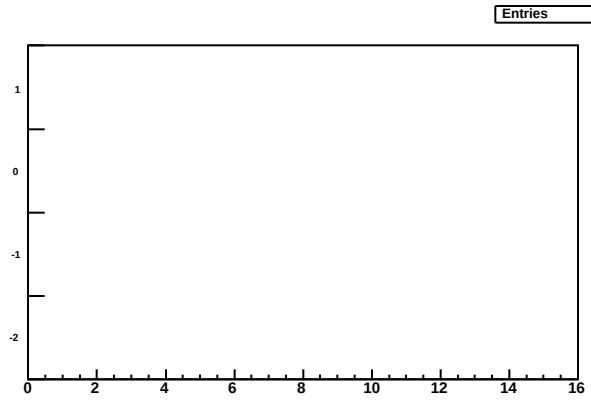
Unused (ch7)