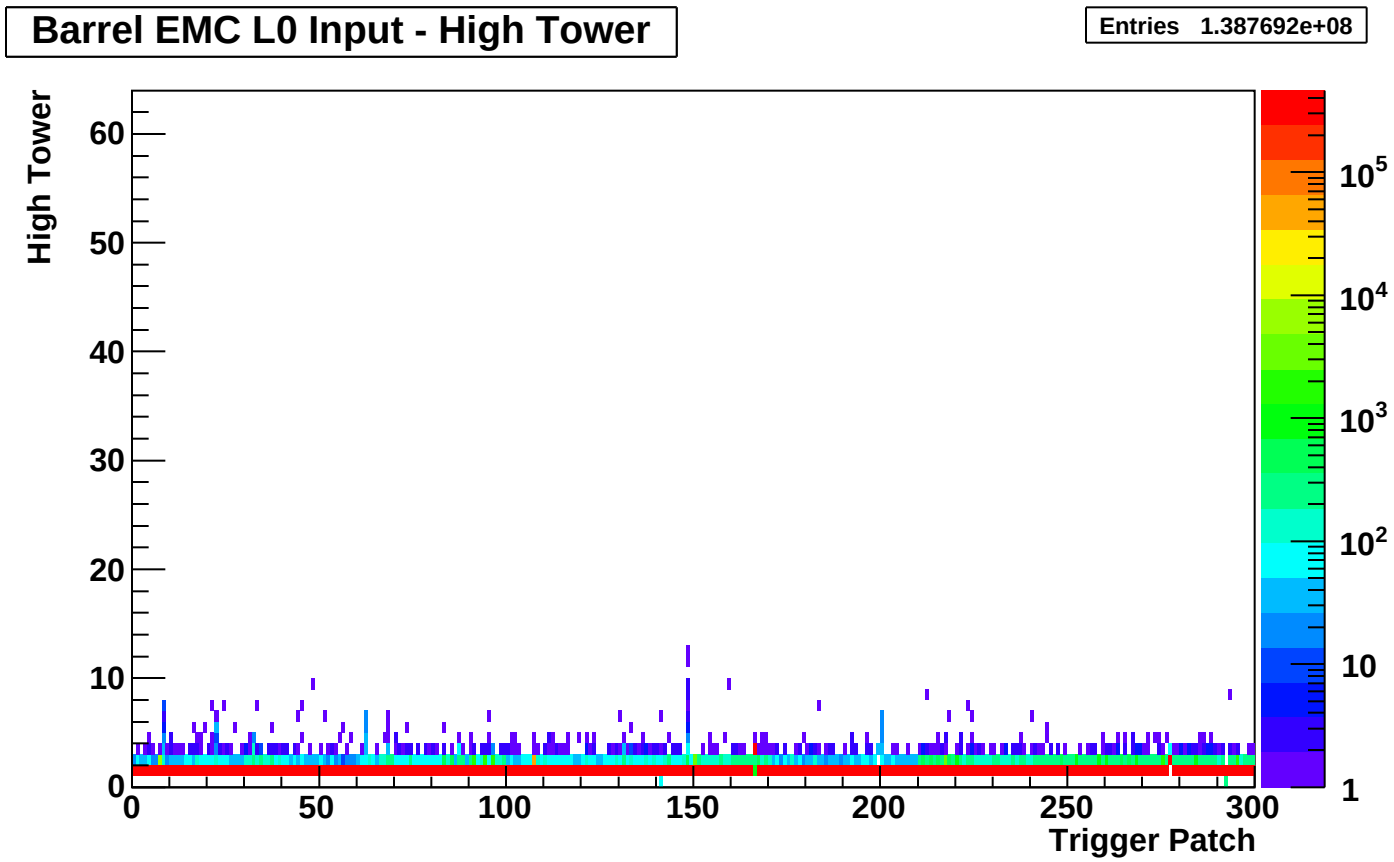
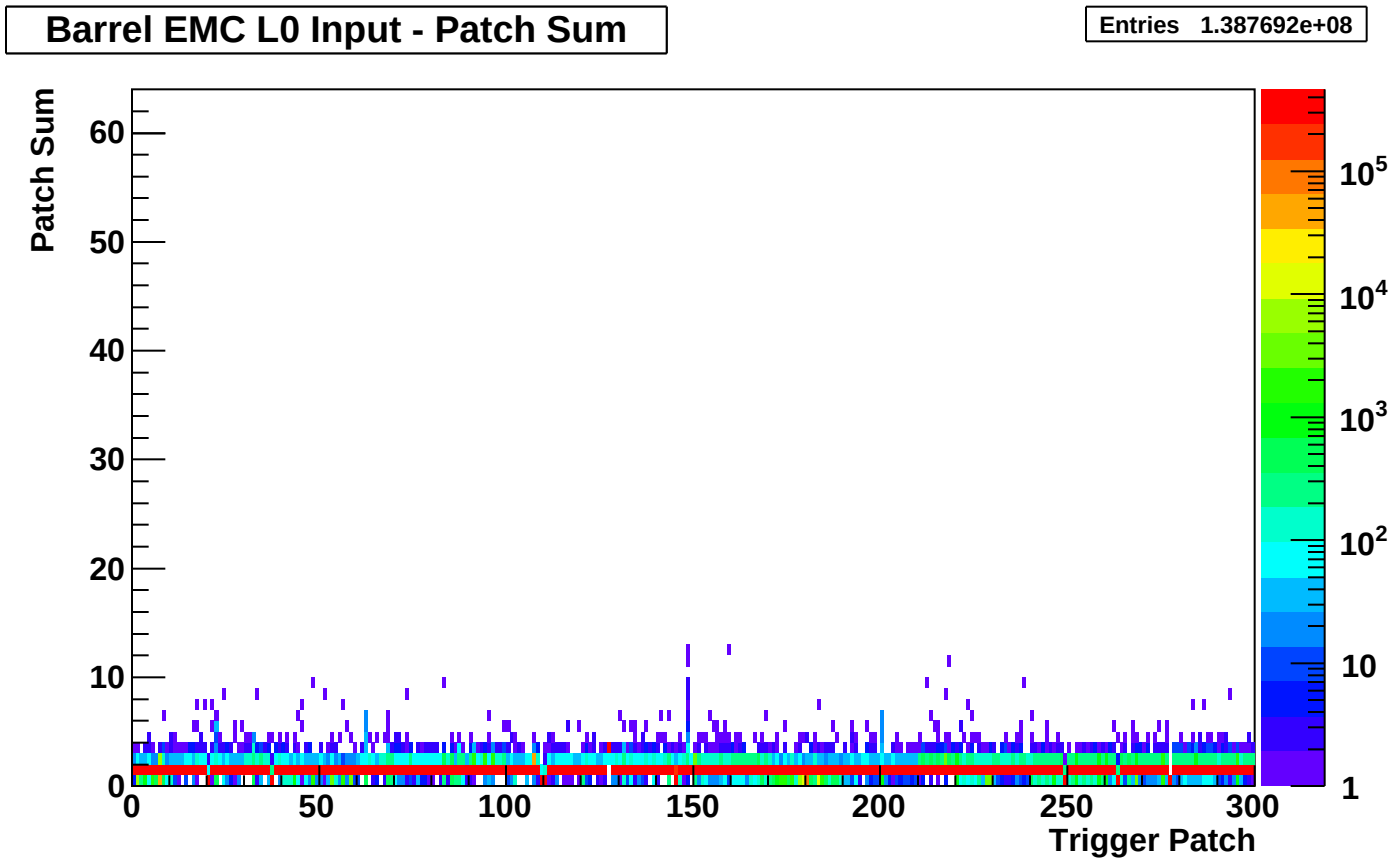
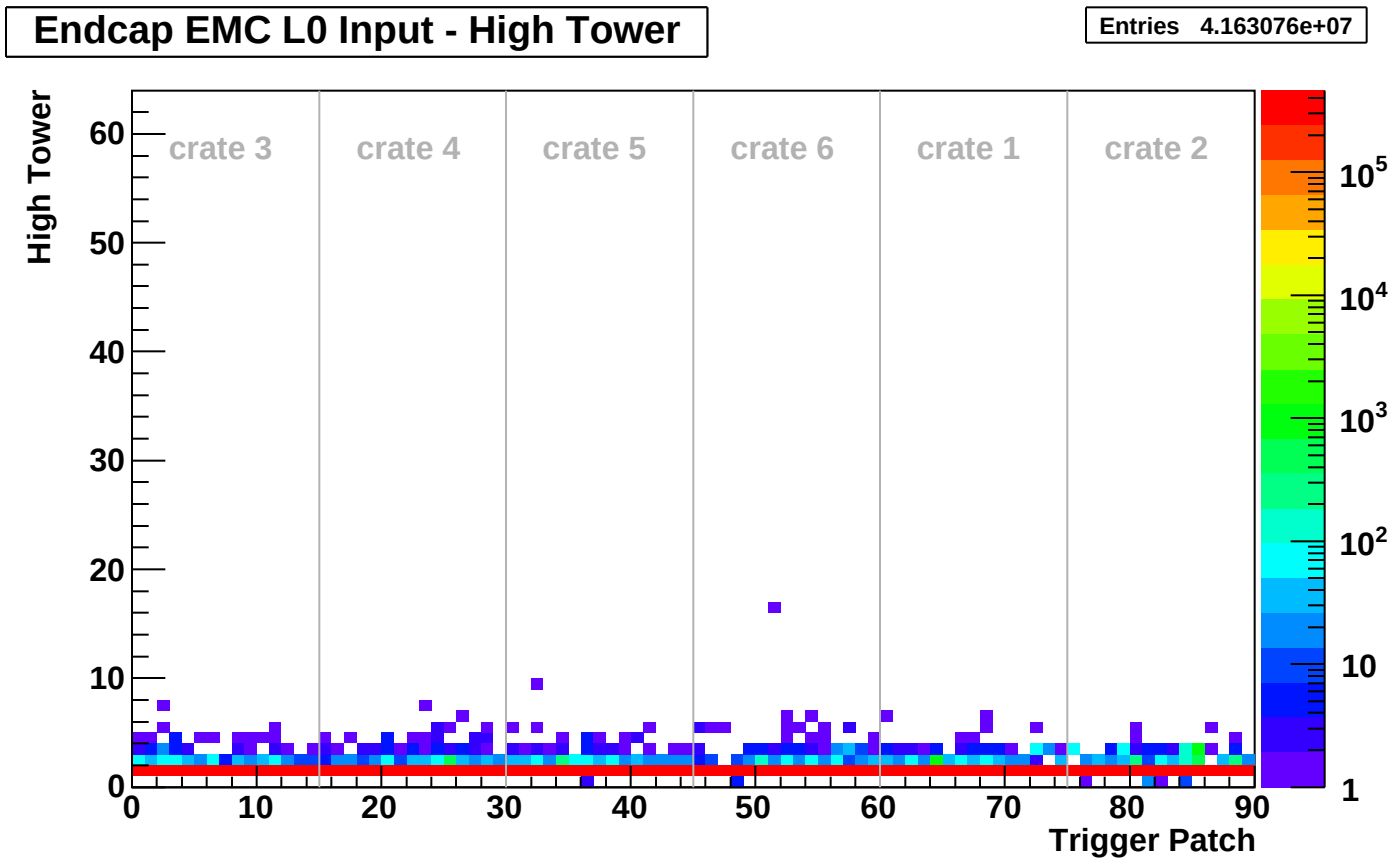
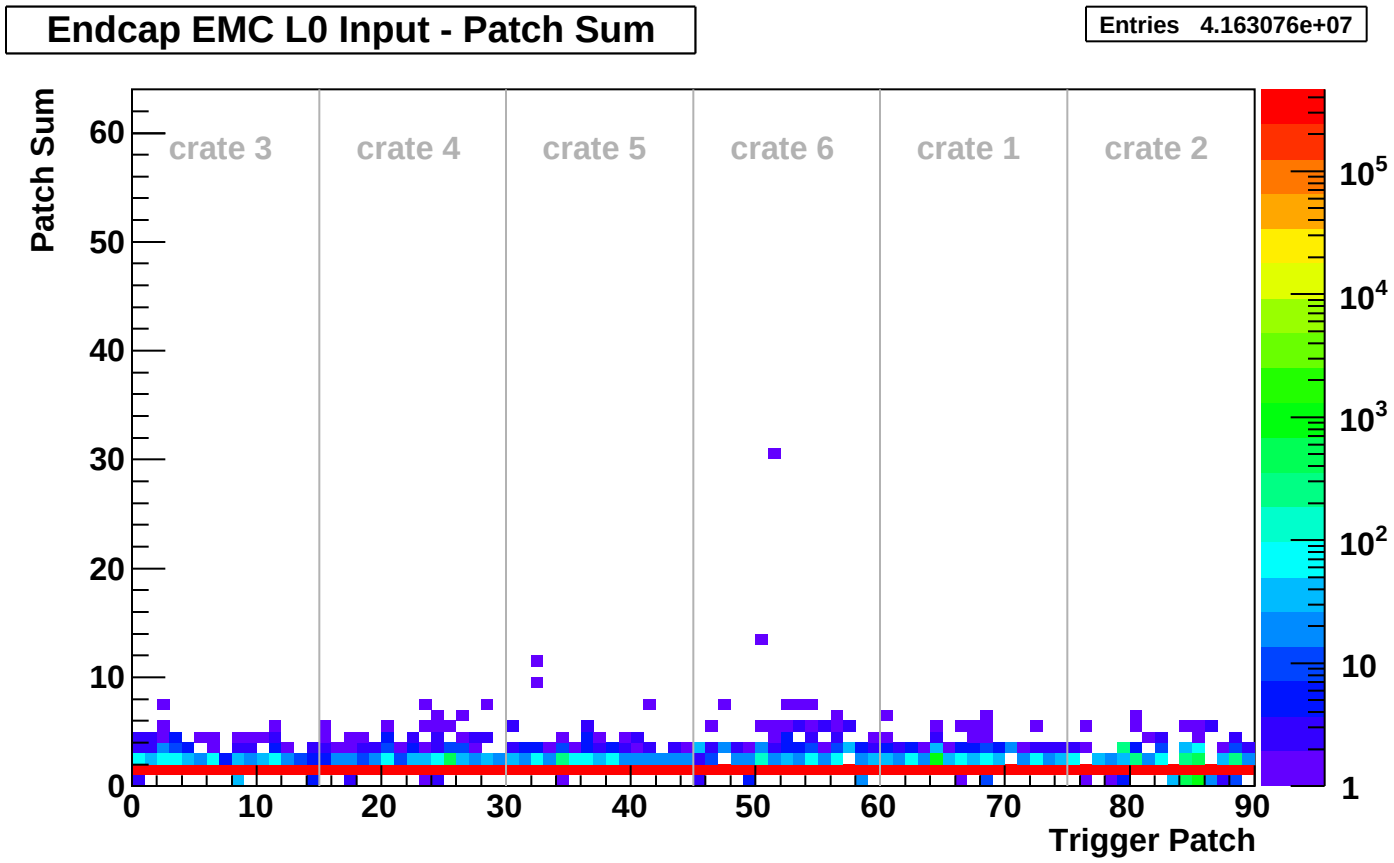
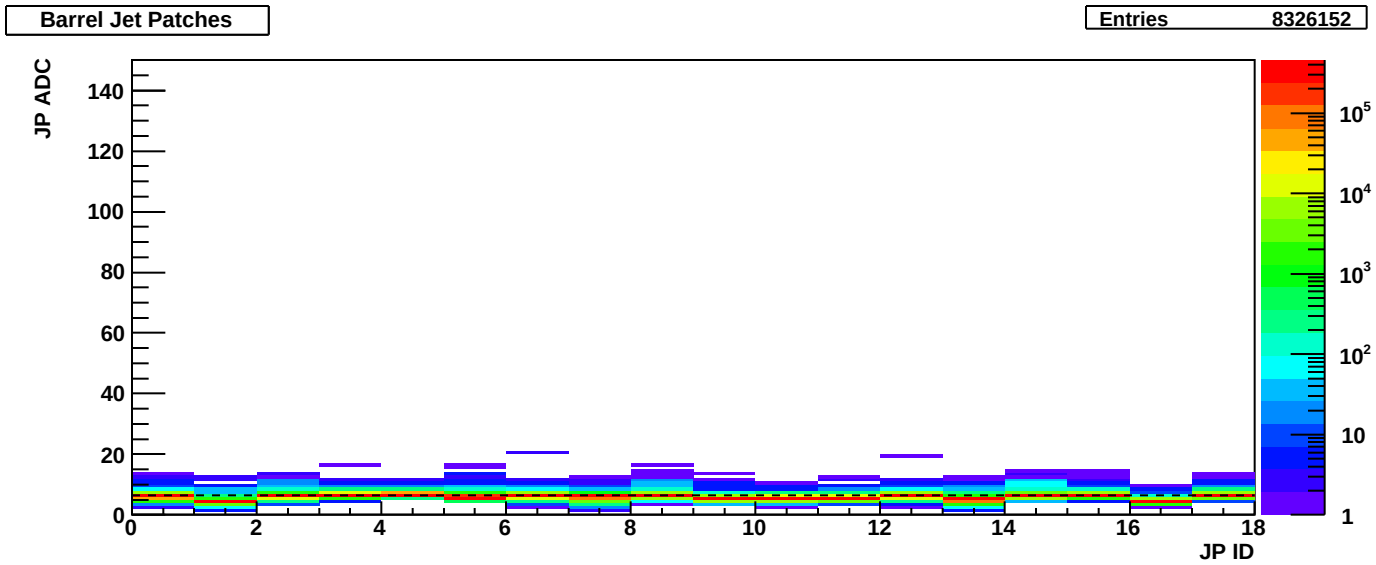
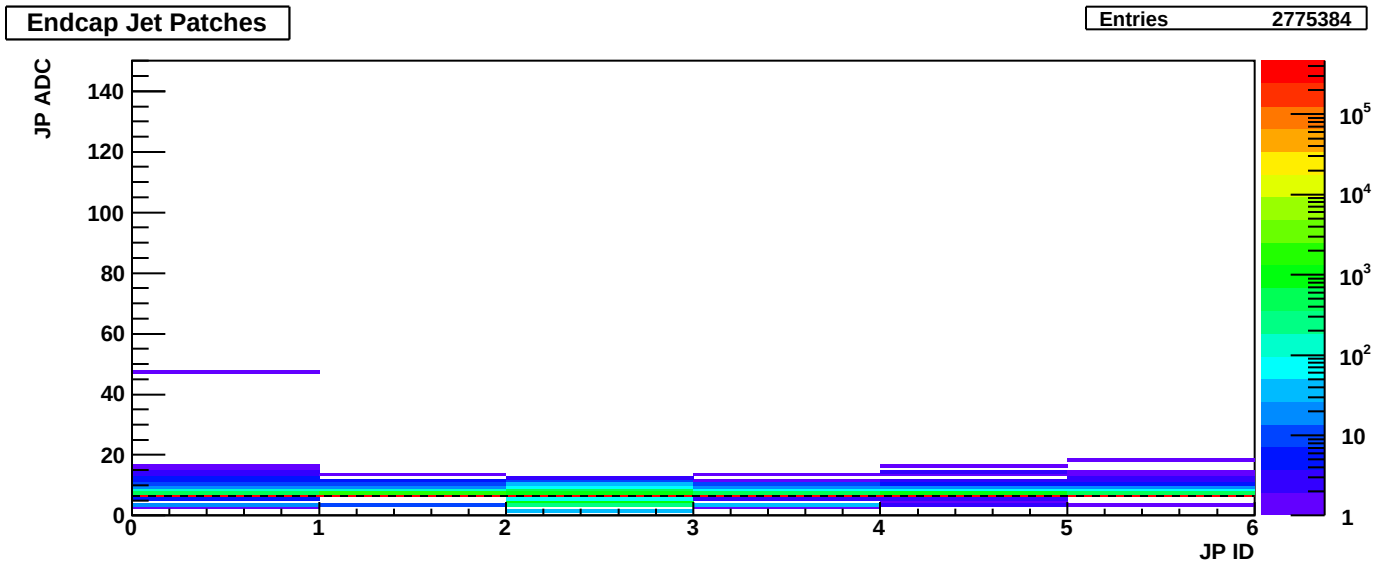

Barrel EMC L0 Input - High Tower
Entries 1.387692e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

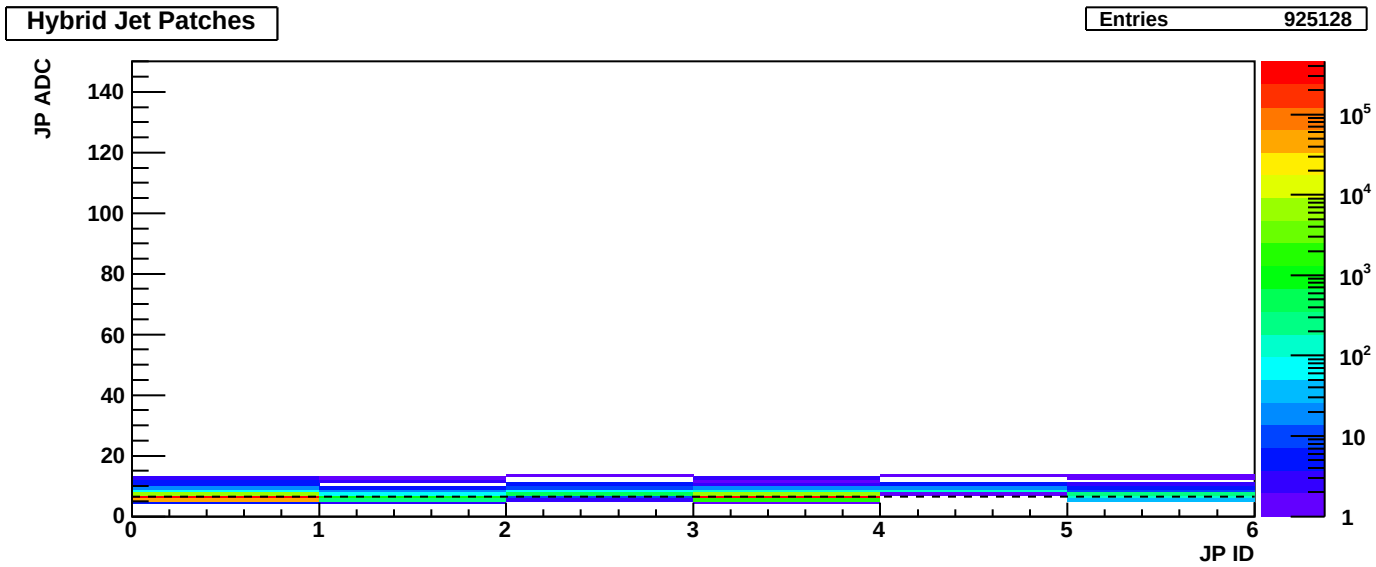

Barrel EMC L0 Input - Patch Sum
Entries 1.387692e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

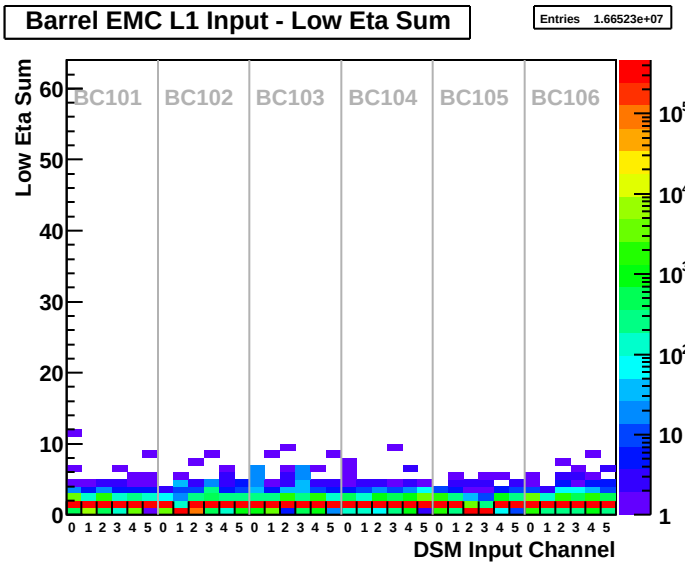

Endcap EMC L0 Input - High Tower
Entries 4.163076e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

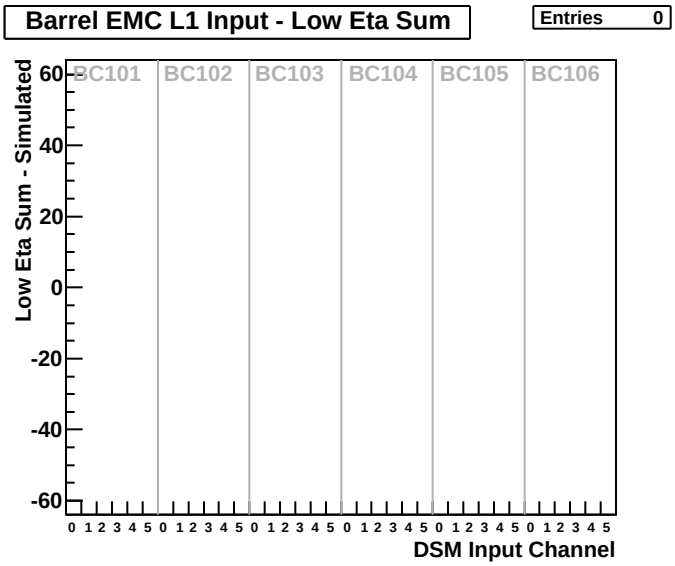

Endcap EMC L0 Input - Patch Sum
Entries 4.163076e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

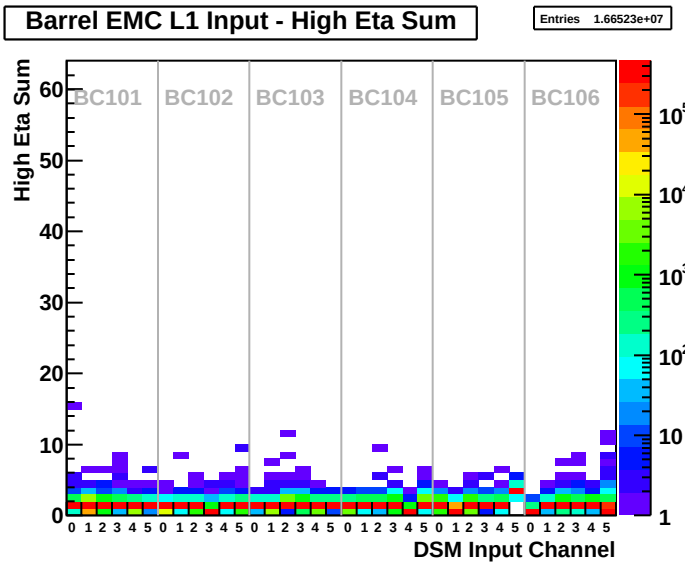

Barrel Jet Patches
Entries 8326152
JP ADC
JP ID

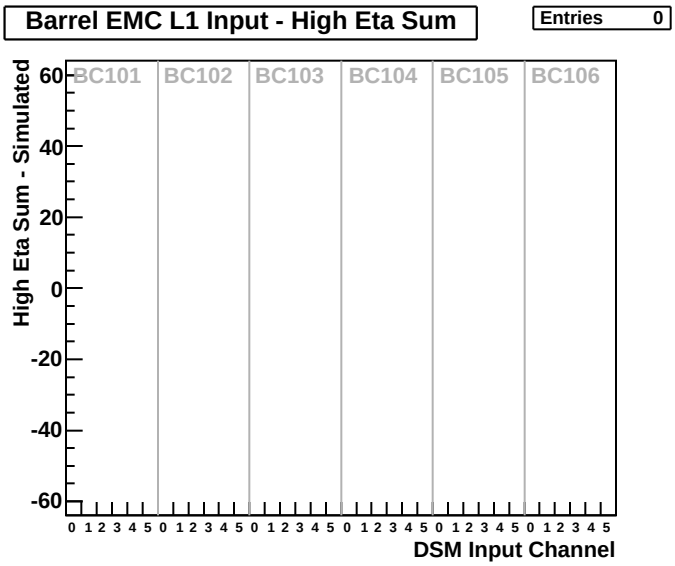

Endcap Jet Patches
Entries 2775384
JP ADC
JP ID

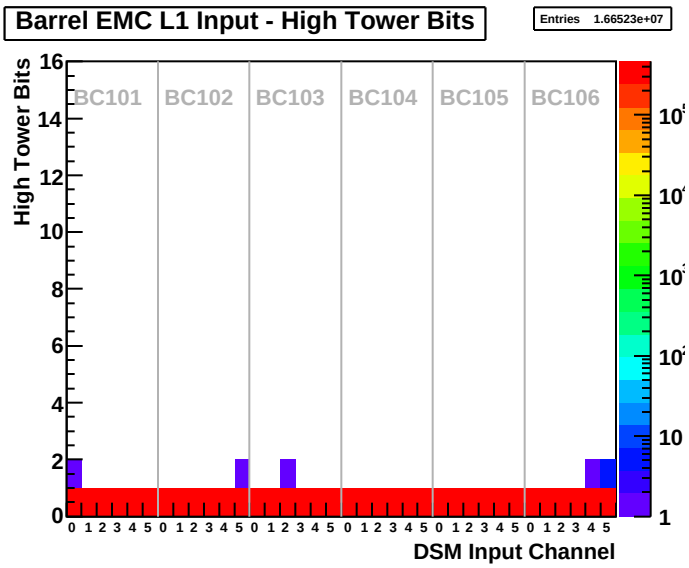

Hybrid Jet Patches
Entries 925128
JP ADC
JP ID

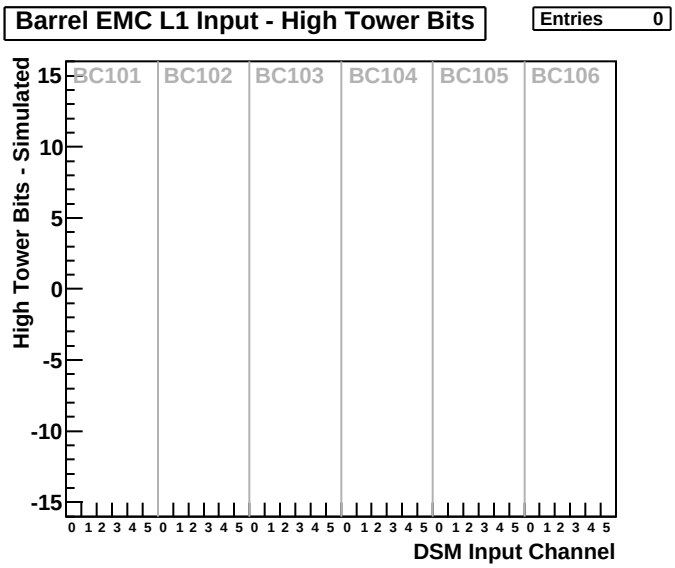

Barrel EMC L1 Input - Low Eta Sum
Entries 1.66523e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

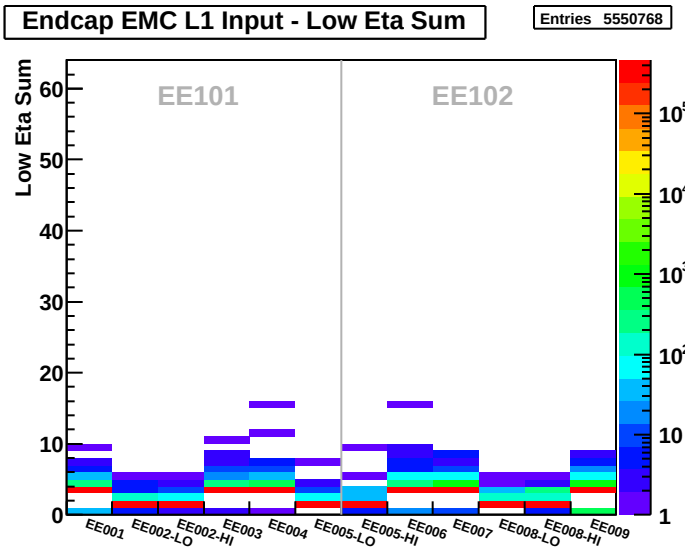

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

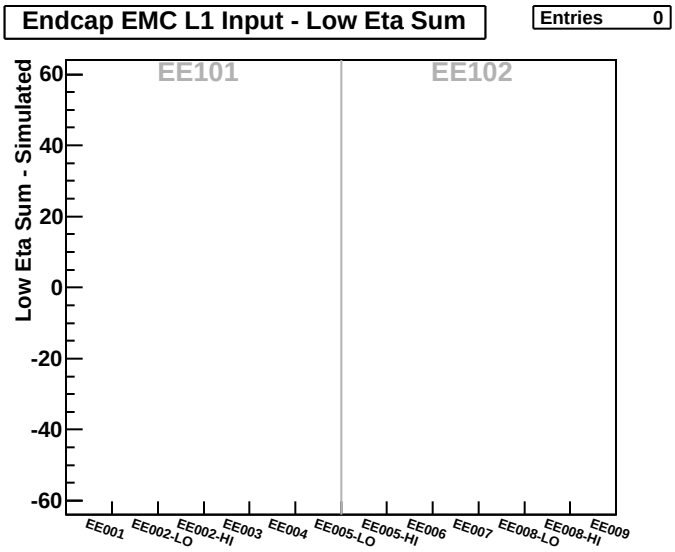

Barrel EMC L1 Input - High Eta Sum
Entries 1.66523e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

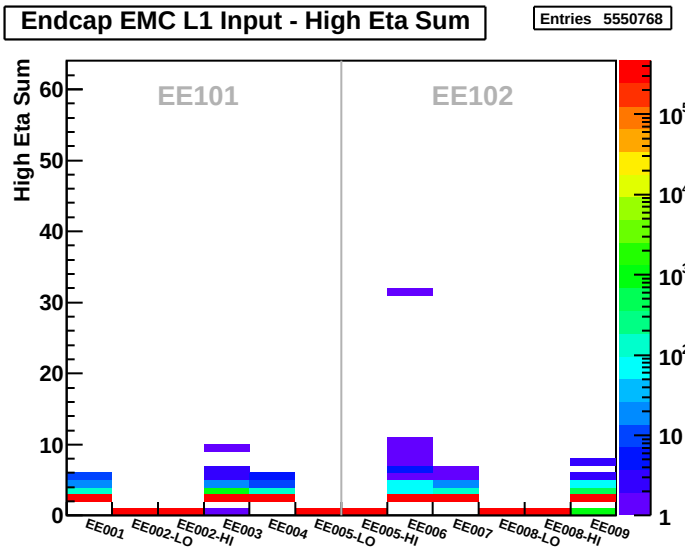

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

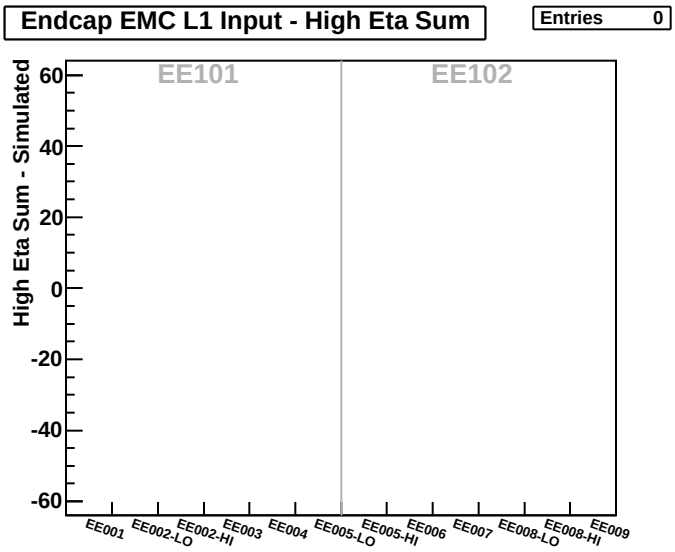

Barrel EMC L1 Input - High Tower Bits
Entries 1.66523e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

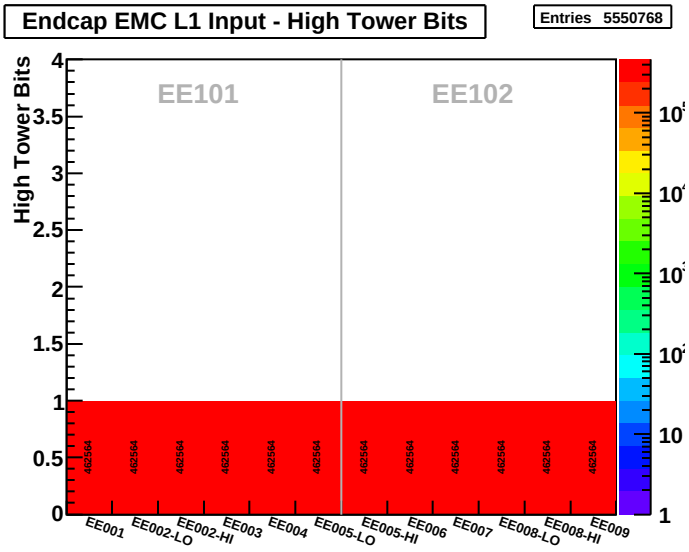

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

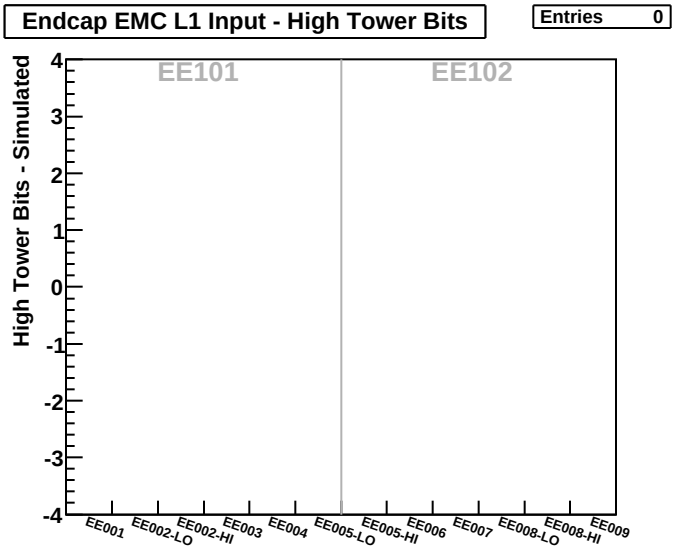

Endcap EMC L1 Input - Low Eta Sum
Entries 5550768
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

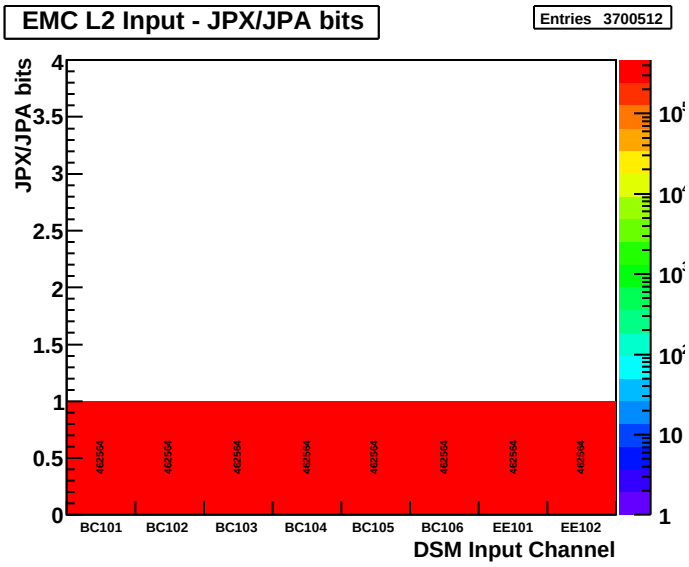

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

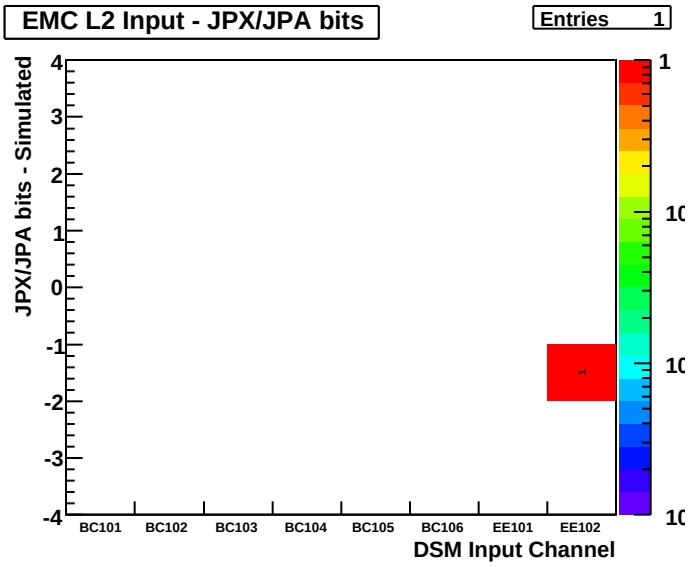

Endcap EMC L1 Input - High Eta Sum
Entries 5550768
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

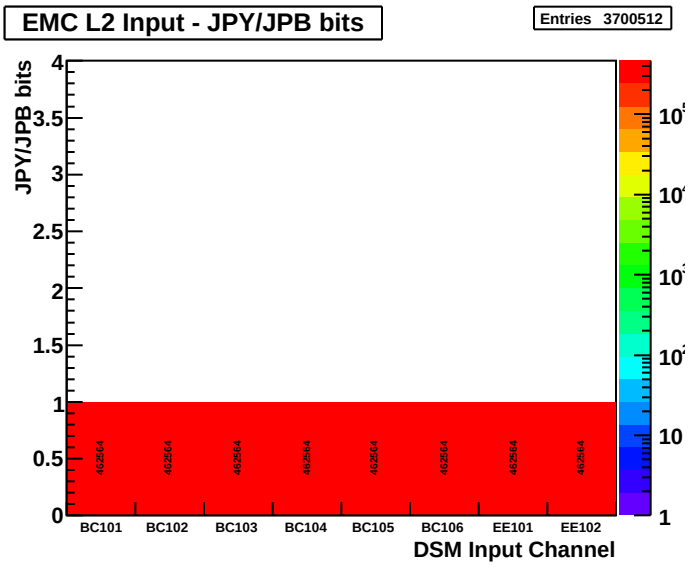

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

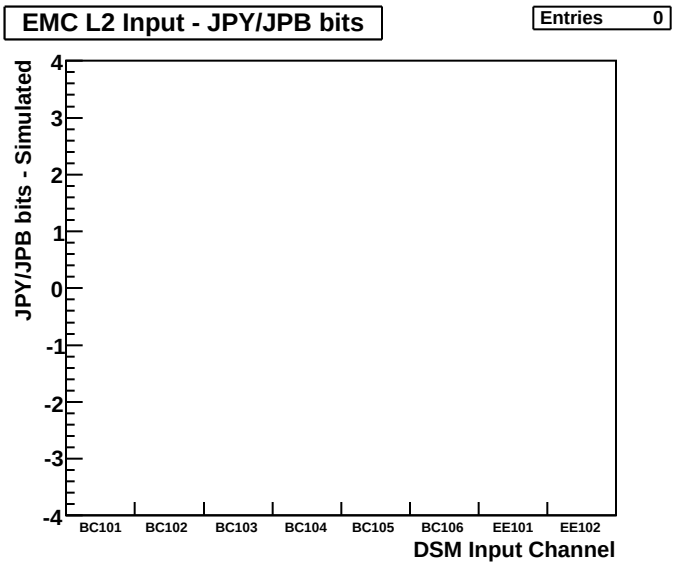

Endcap EMC L1 Input - High Tower Bits
Entries 5550768
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

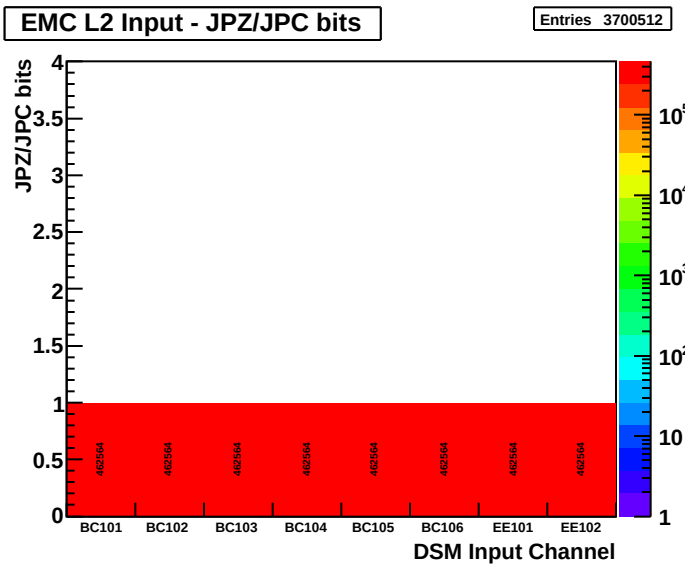

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

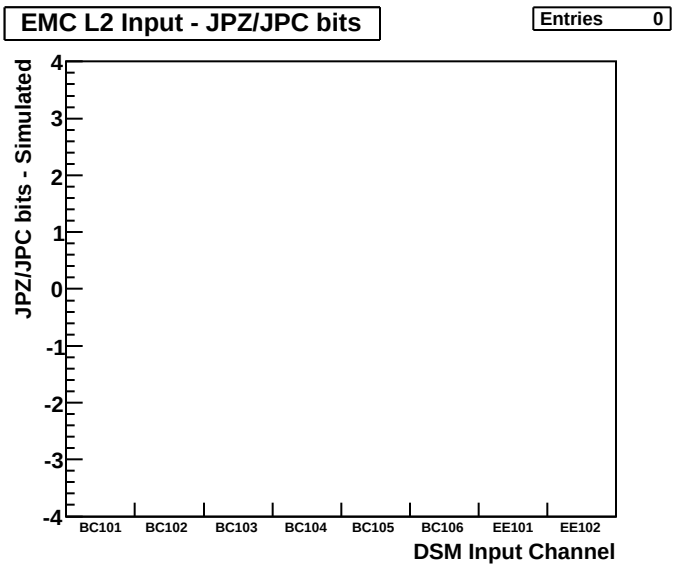

EMC L2 Input - JPX/JPA bits
Entries 3700512
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
462564

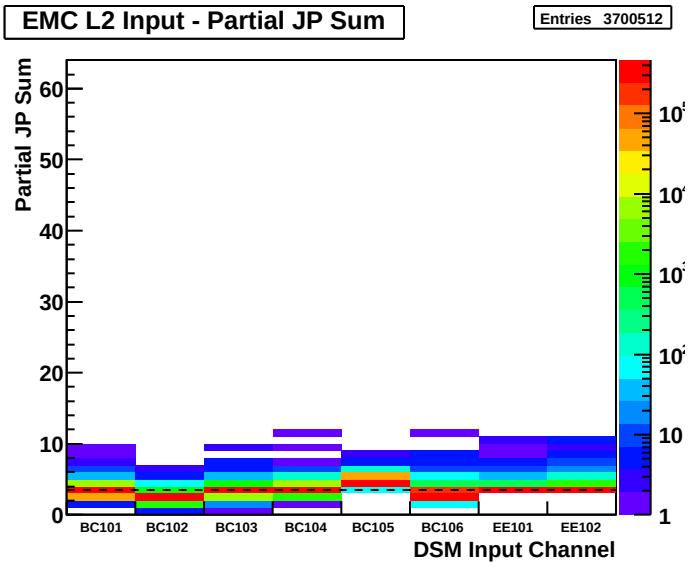

EMC L2 Input - JPX/JPA bits
Entries 1
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

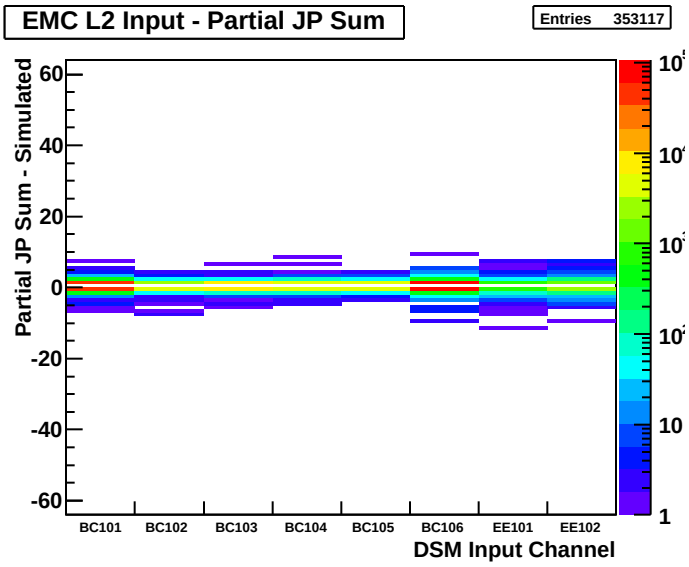

EMC L2 Input - JPY/JPB bits
Entries 3700512
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
462564

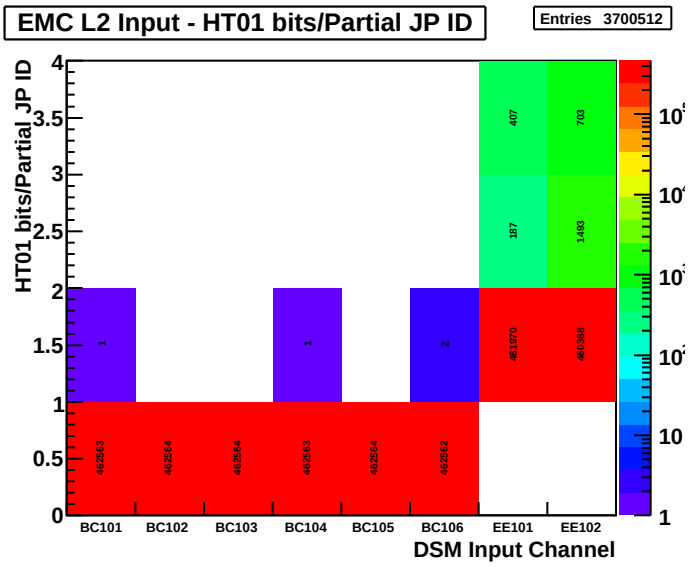

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

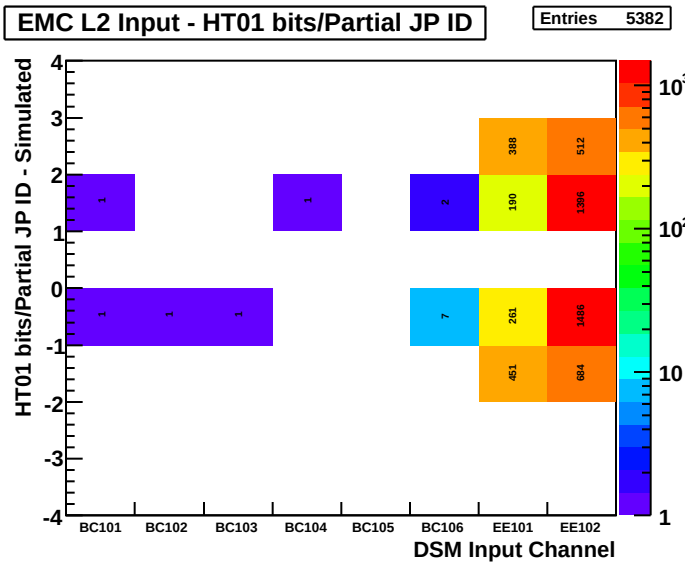

EMC L2 Input - JPZ/JPC bits
Entries 3700512
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
462564

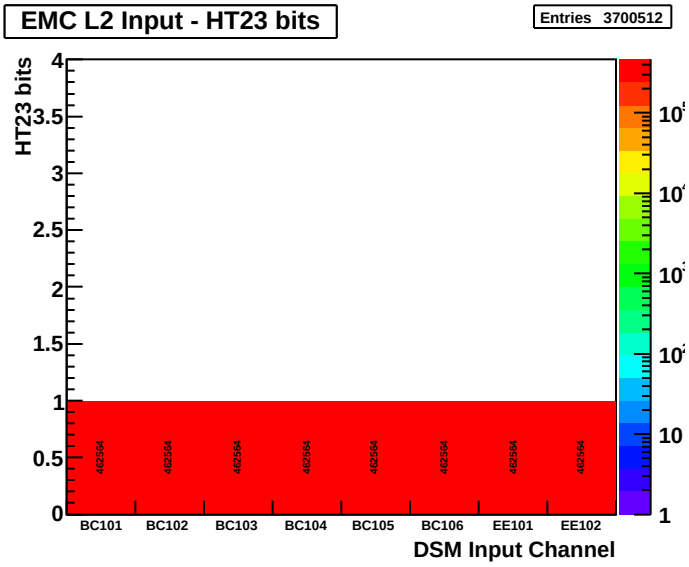

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

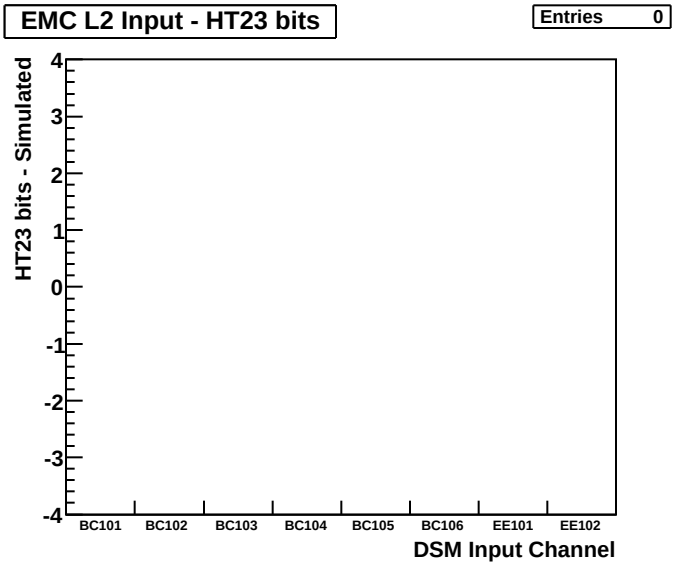

EMC L2 Input - Partial JP Sum
Entries 3700512
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

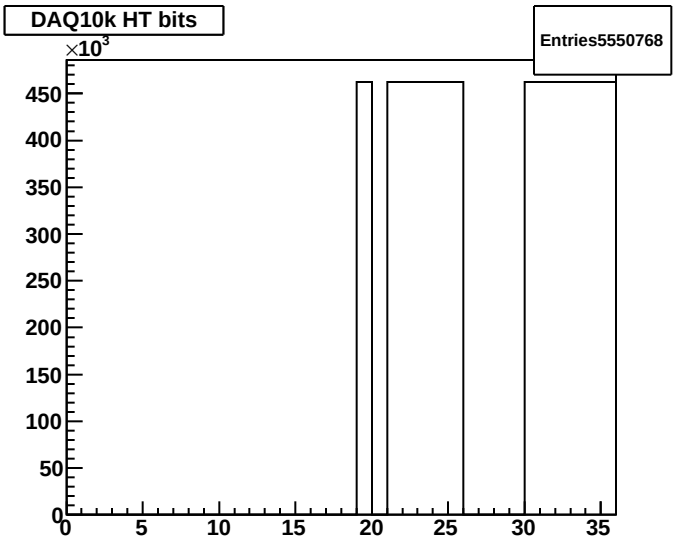

EMC L2 Input - Partial JP Sum
Entries 353117
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

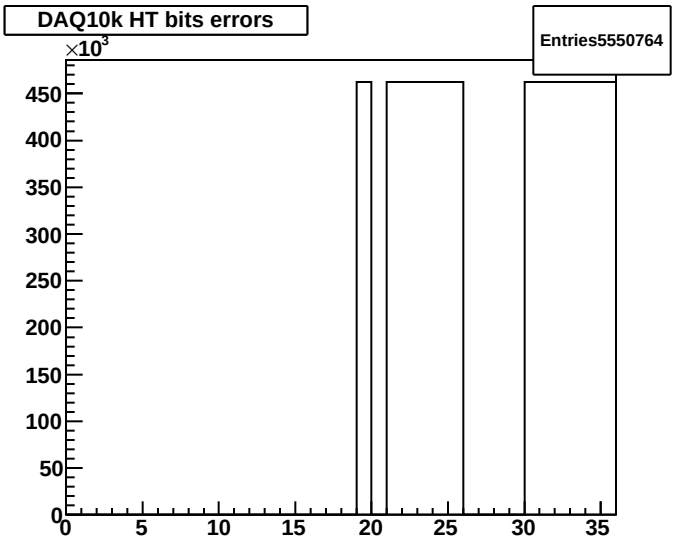

EMC L2 Input - HT01 bits/Partial JP ID
Entries 3700512
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

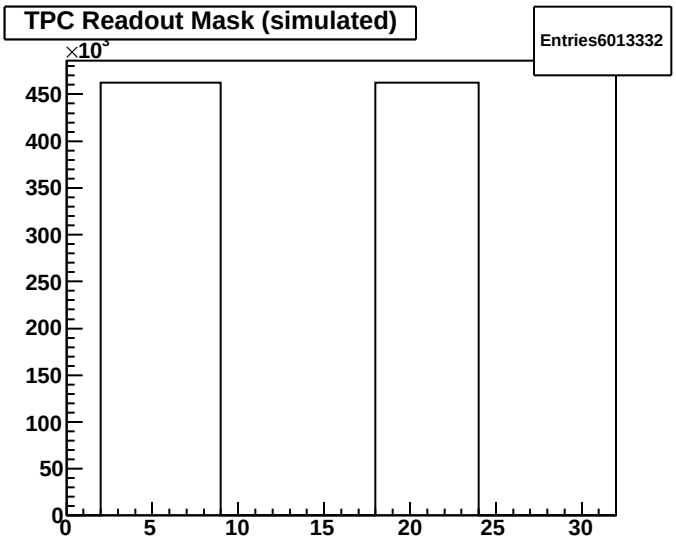

EMC L2 Input - HT01 bits/Partial JP ID
Entries 5382
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

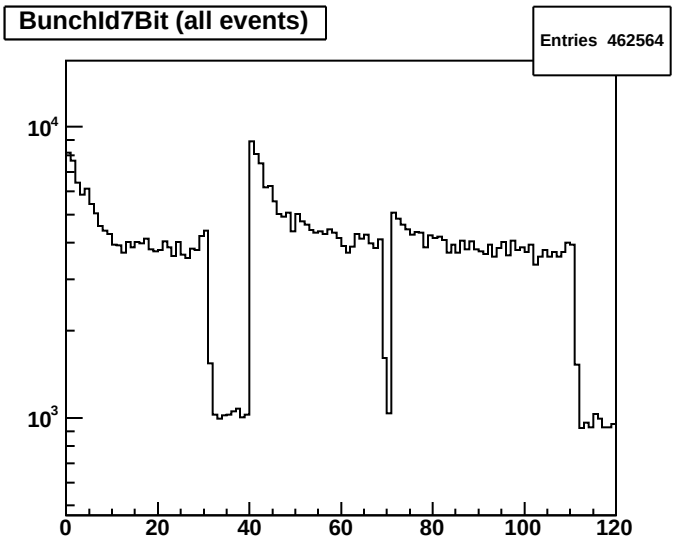

EMC L2 Input - HT23 bits
Entries 3700512
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

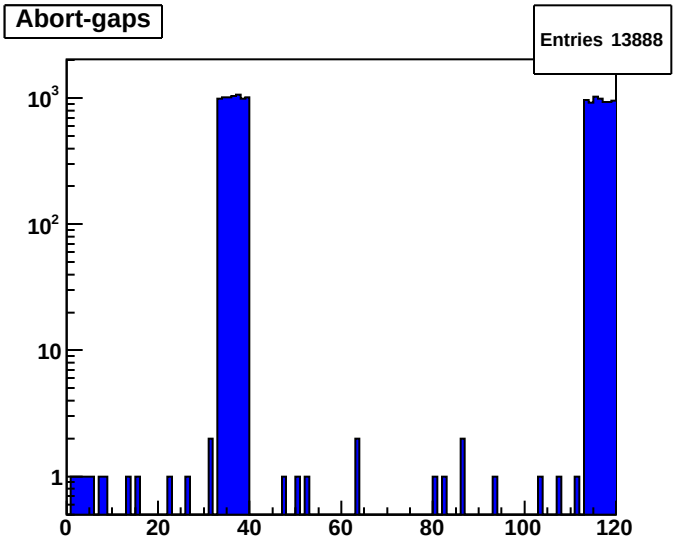

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

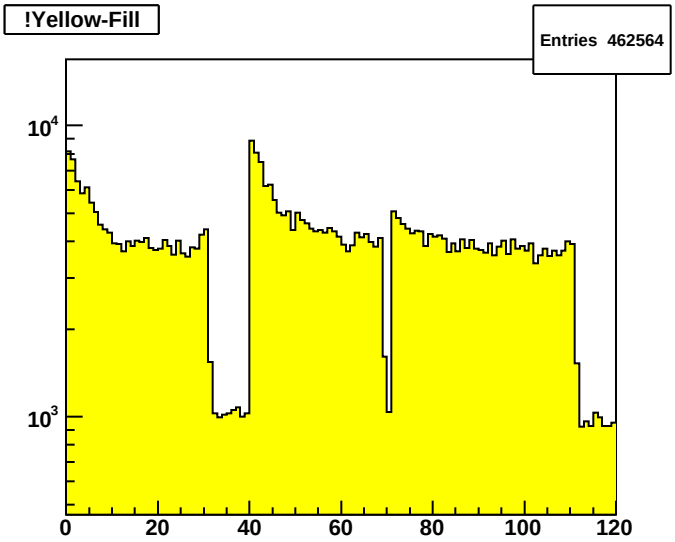

DAQ10k HT bits
Entries5550768
×10^3
450
400
350
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

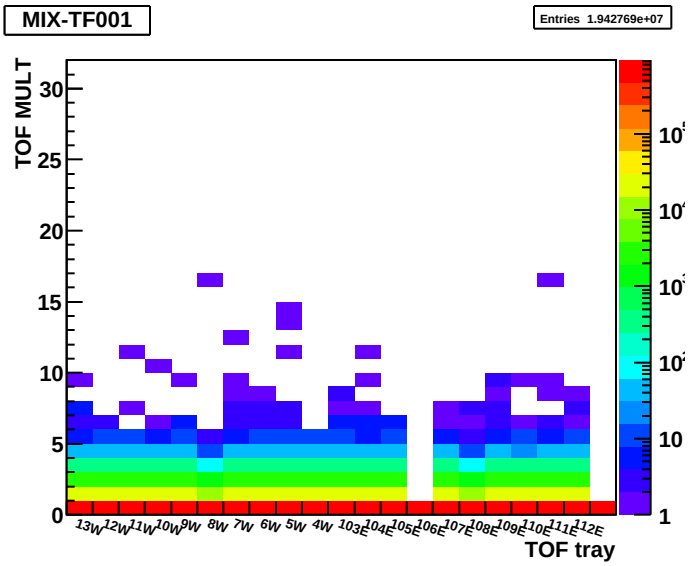

DAQ10k HT bits errors
Entries5550764
×10^3
450
400
350
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

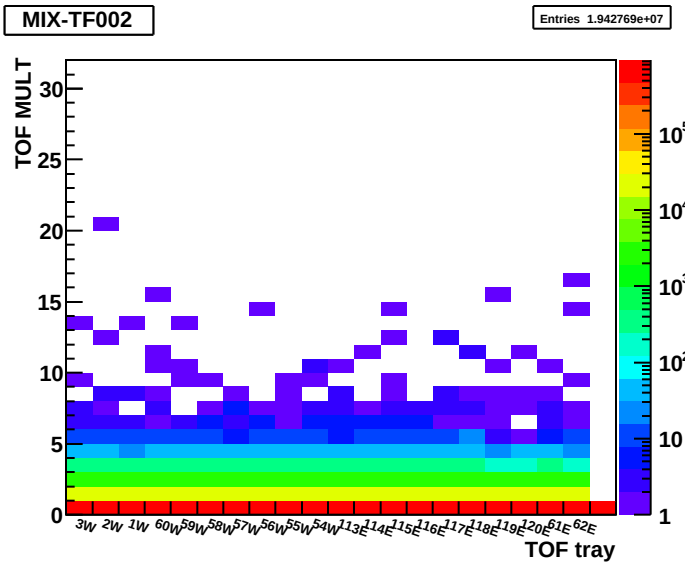

TPC Readout Mask (simulated)
Entries6013332
×10^3
450
400
350
300
250
200
150
100
50
0
0 5 10 15 20 25 30

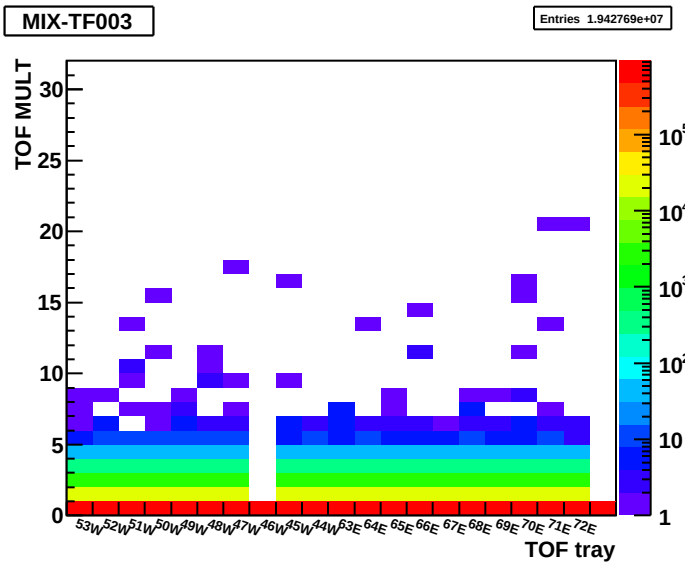

BunchId7Bit (all events)
Entries 462564
10^4
10^3
0 20 40 60 80 100 120

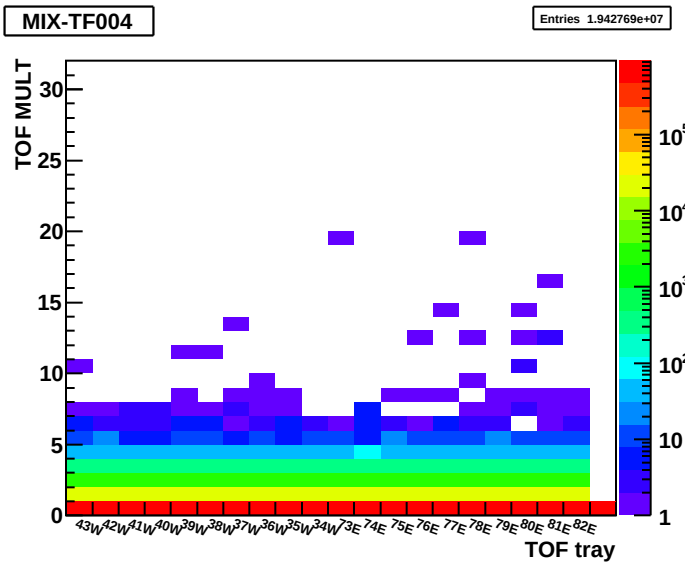

Abort-gaps
Entries 13888
10^3
10^2
10
1
0 20 40 60 80 100 120

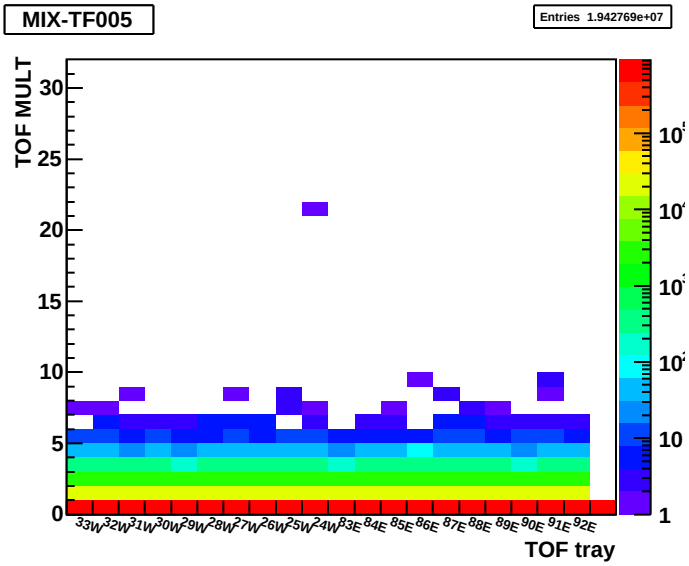

!Yellow-Fill
Entries 462564
10^4
10^3
0 20 40 60 80 100 120

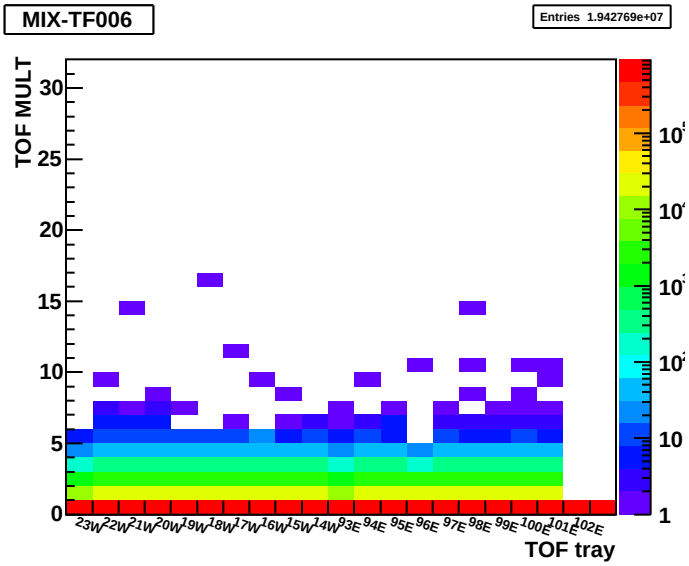

MIX-TF001
Entries 1.942769e+07
TOF MULT
TOF tray

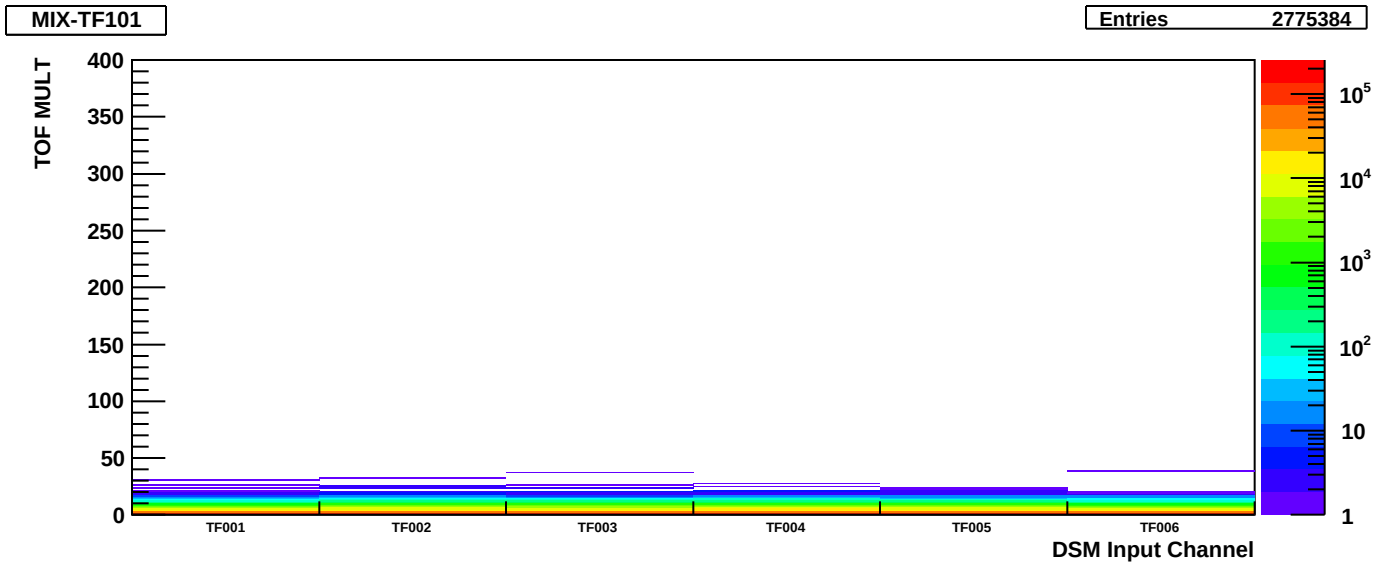

MIX-TF002
Entries 1.942769e+07
TOF MULT
TOF tray

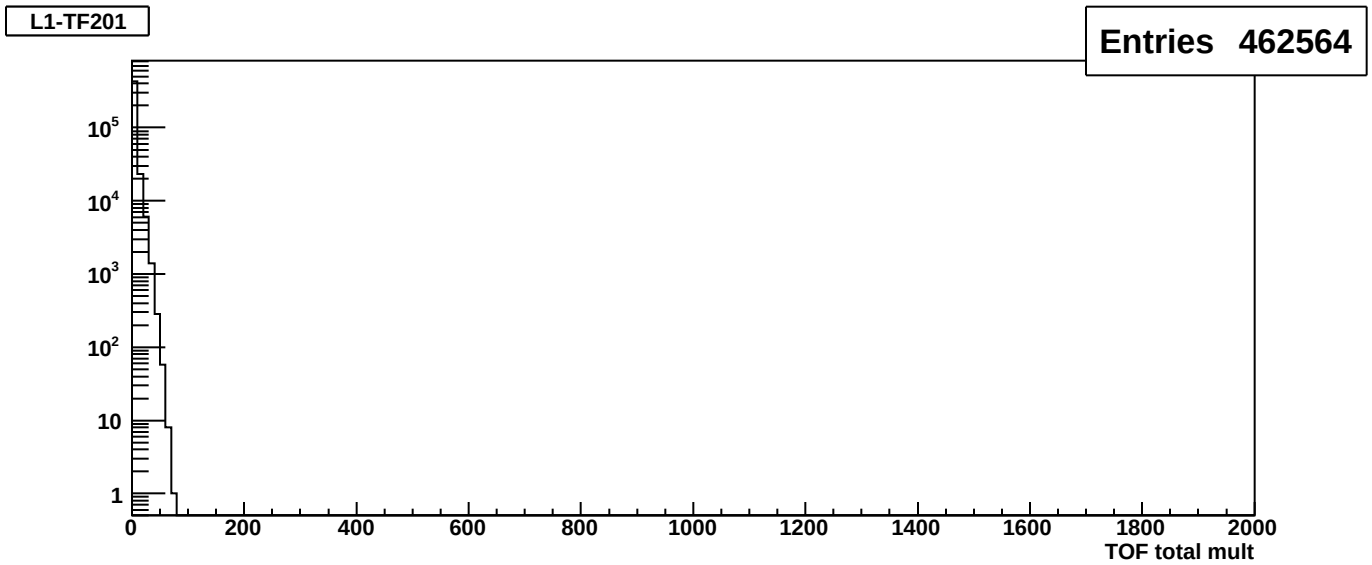

MIX-TF003
Entries 1.942769e+07
TOF MULT
TOF tray

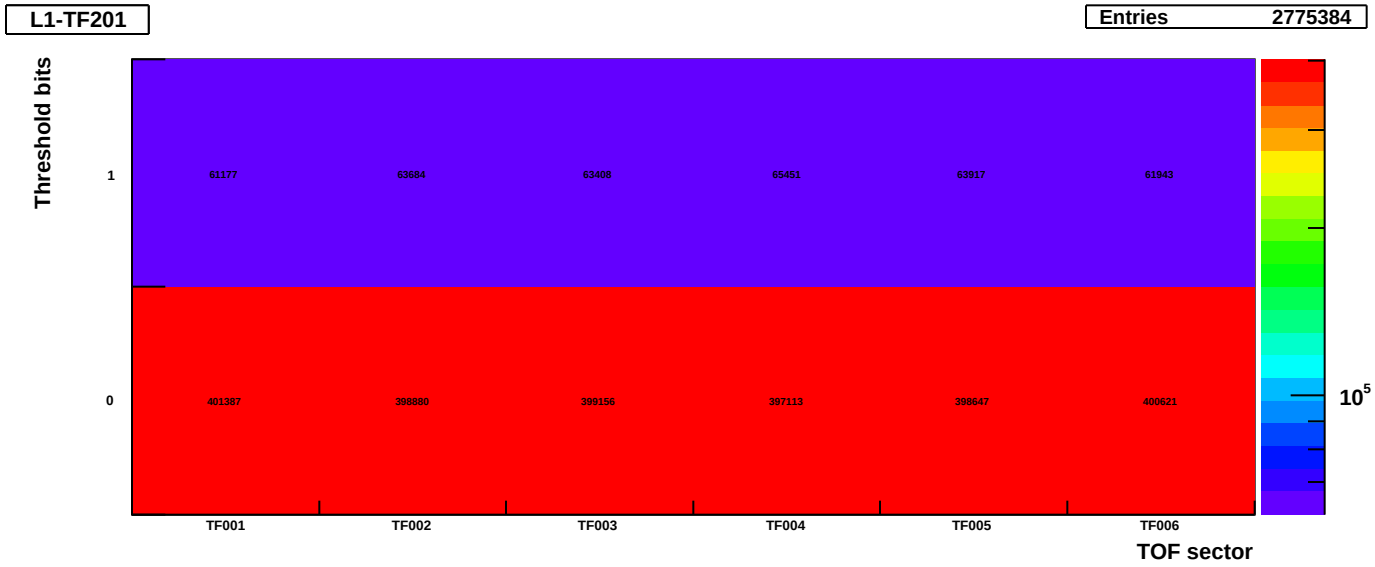

MIX-TF004
Entries 1.942769e+07
TOF MULT
TOF tray

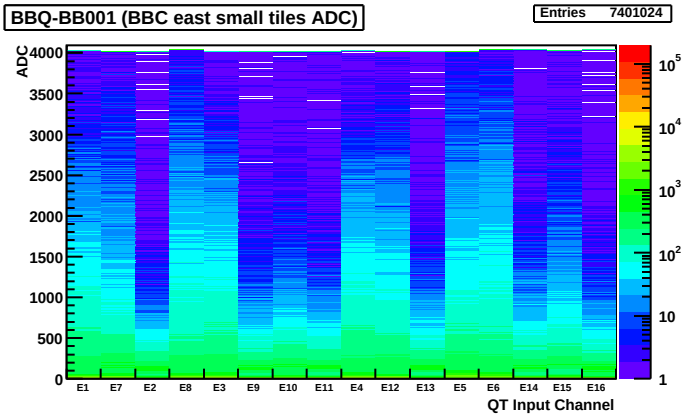

MIX-TF005
Entries 1.942769e+07
TOF MULT
TOF tray

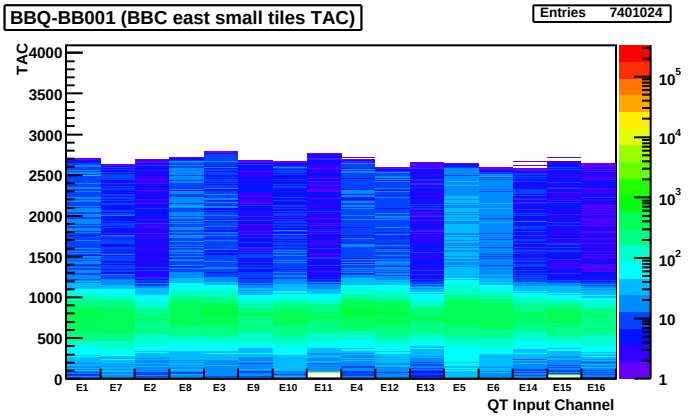

MIX-TF006
Entries 1.942769e+07
TOF MULT
TOF tray

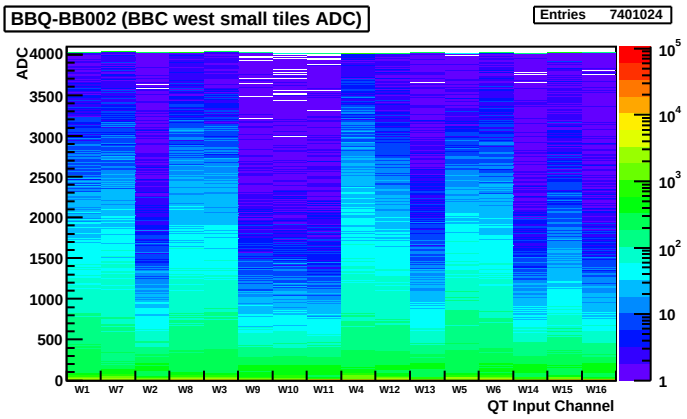

MIX-TF101
Entries 2775384
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

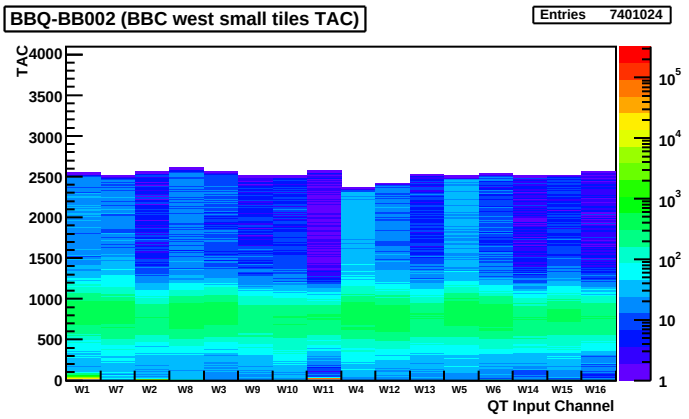

L1-TF201
Entries 462564
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

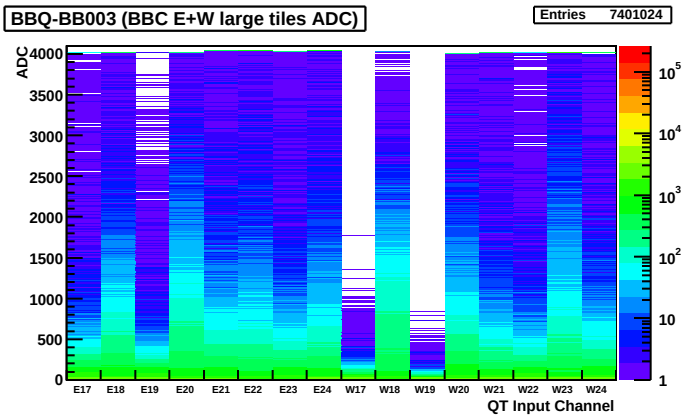

L1-TF201
Entries 2775384
Threshold bits
1
0
61177
63684
63408
65451
63917
61943
401387
398880
399156
397113
398647
400621
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

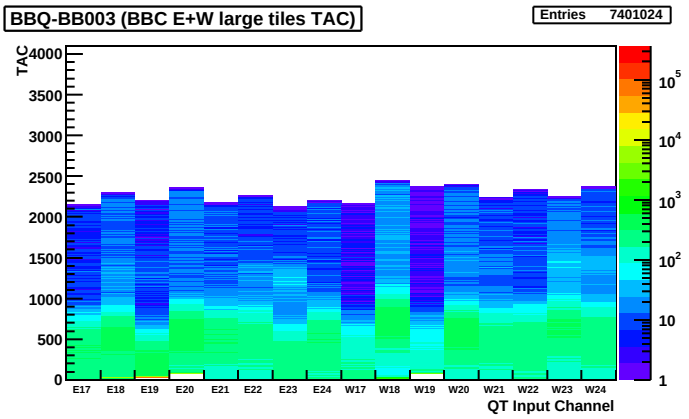

BBQ-BB001 (BBC east small tiles ADC)
Entries 7401024
ADC
QT Input Channel

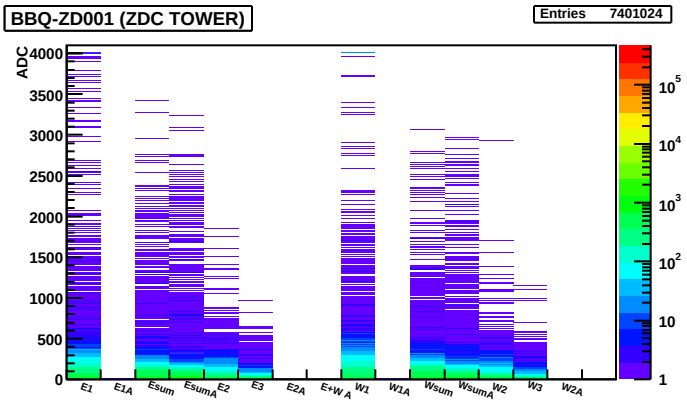

BBQ-BB001 (BBC east small tiles TAC)
Entries 7401024
TAC
QT Input Channel

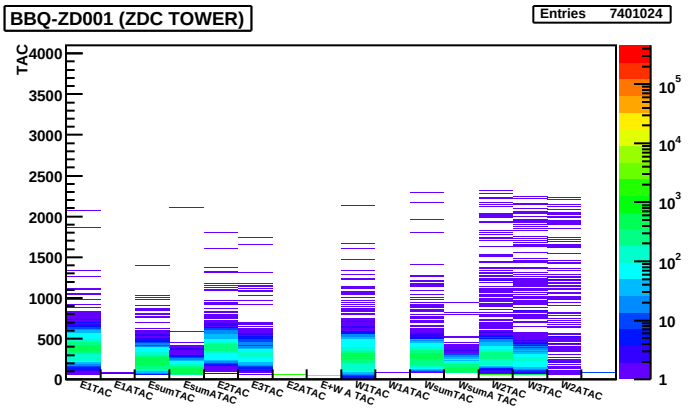

BBQ-BB002 (BBC west small tiles ADC)
Entries 7401024
ADC
QT Input Channel

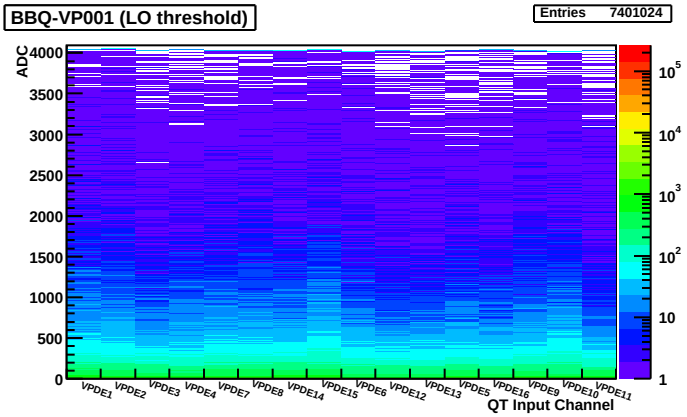

BBQ-BB002 (BBC west small tiles TAC)
Entries 7401024
TAC
QT Input Channel

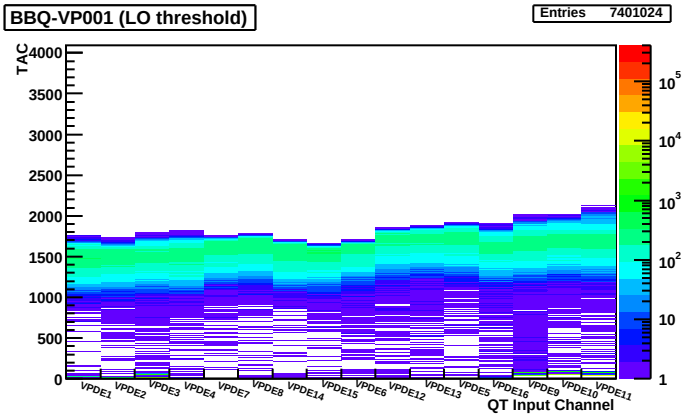

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 7401024
ADC
QT Input Channel

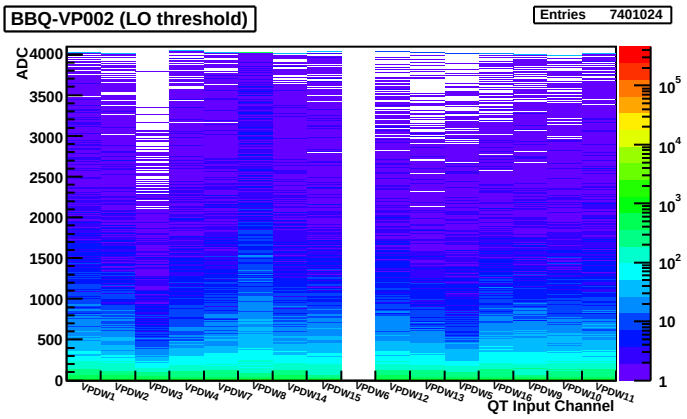

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 7401024
TAC
QT Input Channel

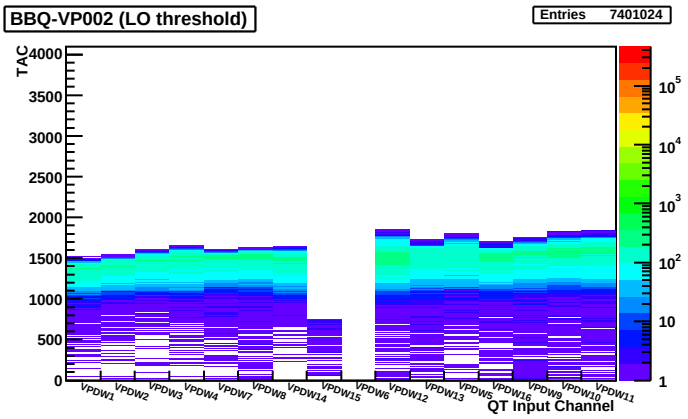

BBQ-ZD001 (ZDC TOWER)
Entries 7401024
ADC

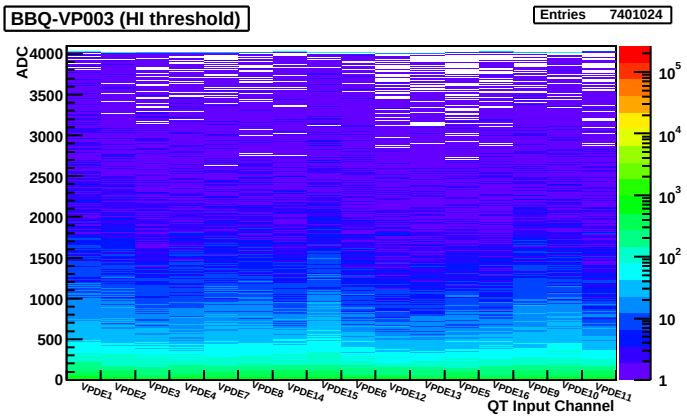

BBQ-ZD001 (ZDC TOWER)
Entries 7401024
TAC

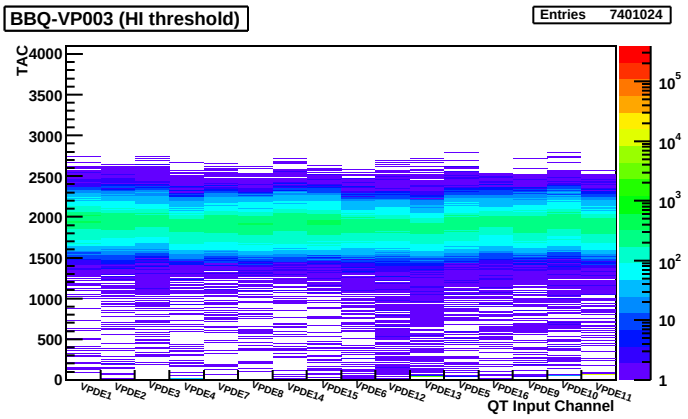

BBQ-VP001 (LO threshold)
Entries 7401024
ADC
QT Input Channel

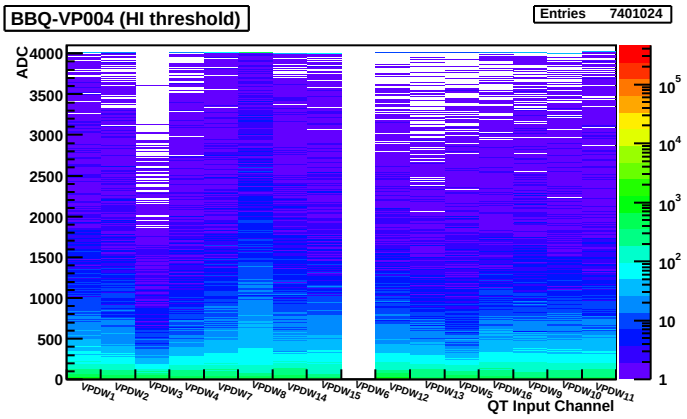

BBQ-VP001 (LO threshold)
Entries 7401024
TAC
QT Input Channel

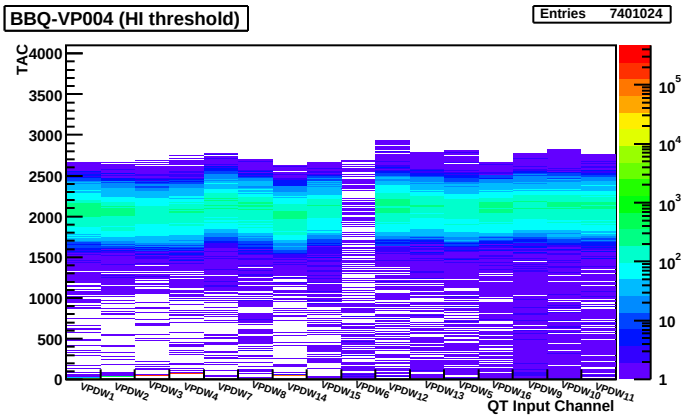

BBQ-VP002 (LO threshold)
Entries 7401024
ADC
QT Input Channel

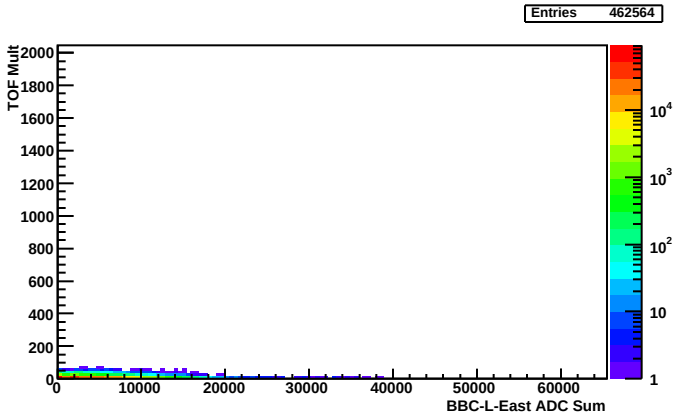

BBQ-VP002 (LO threshold)
Entries 7401024
TAC
QT Input Channel

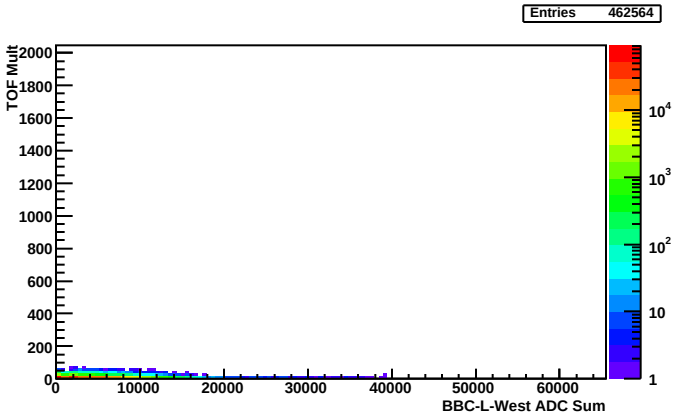

BBQ-VP003 (HI threshold)
Entries 7401024
ADC
QT Input Channel

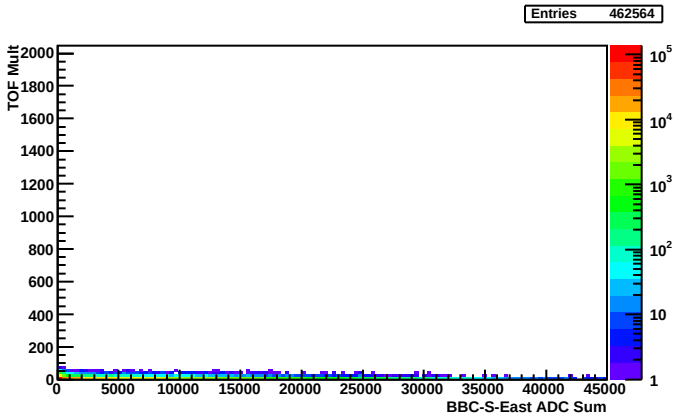

BBQ-VP003 (HI threshold)
Entries 7401024
TAC
QT Input Channel

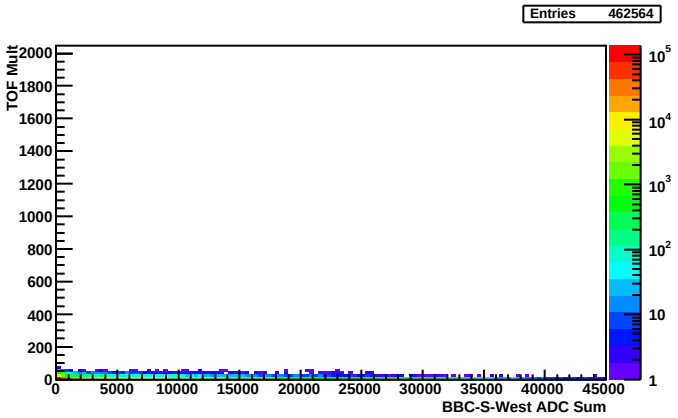

BBQ-VP004 (HI threshold)
Entries 7401024
ADC
QT Input Channel

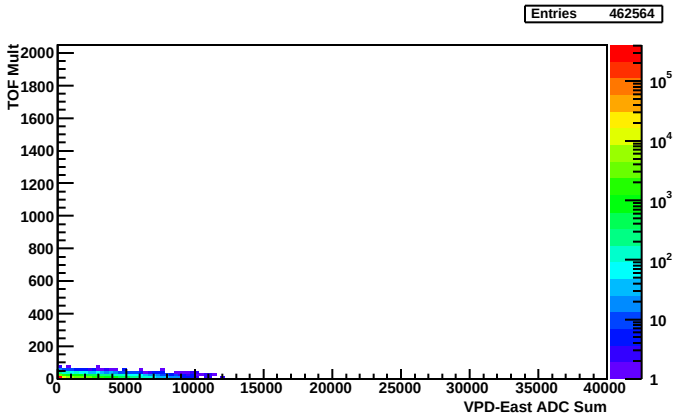

BBQ-VP004 (HI threshold)
Entries 7401024
TAC
QT Input Channel

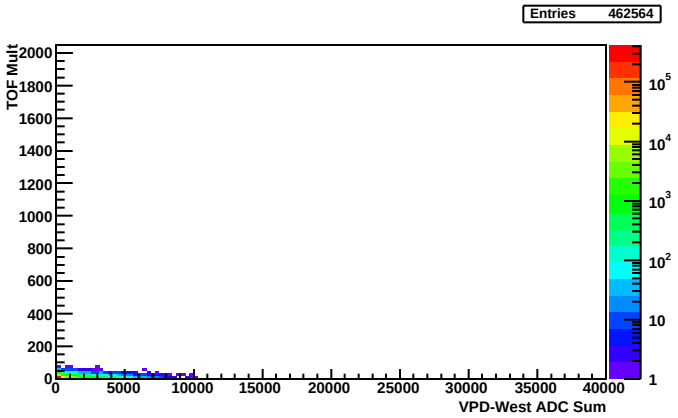

Entries 462564
TOF Mult
BBC-L-East ADC Sum

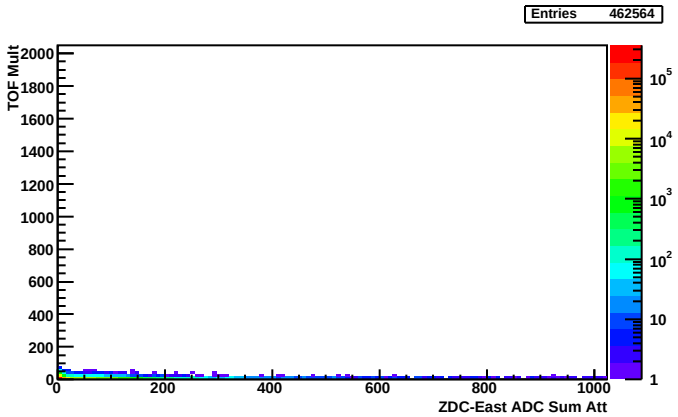

Entries 462564
TOF Mult
BBC-L-West ADC Sum

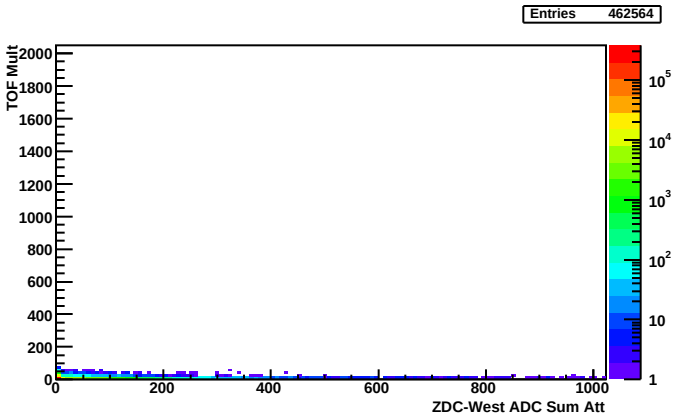

Entries 462564
TOF Mult
BBC-S-East ADC Sum

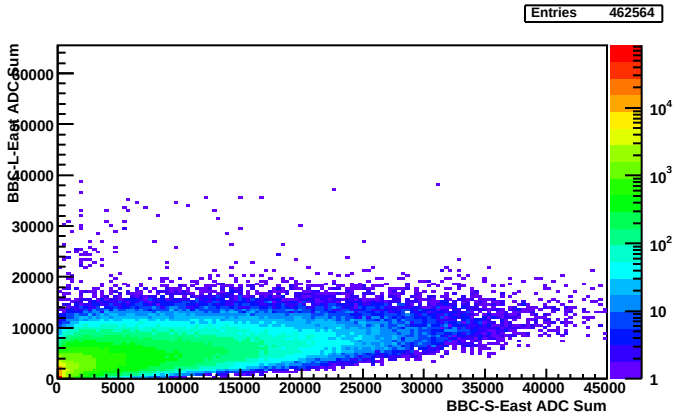

Entries 462564
TOF Mult
BBC-S-West ADC Sum

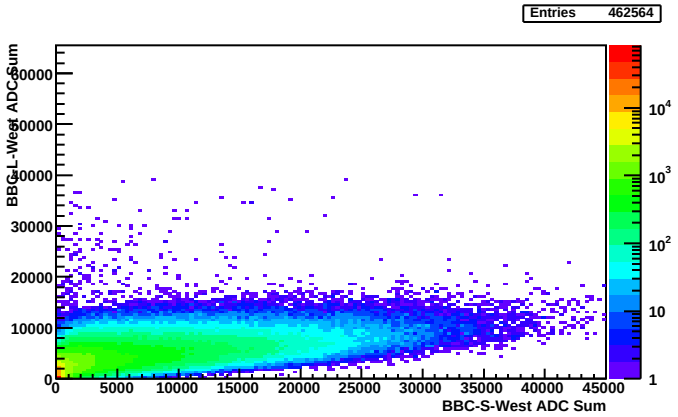

Entries 462564
TOF Mult
VPD-East ADC Sum

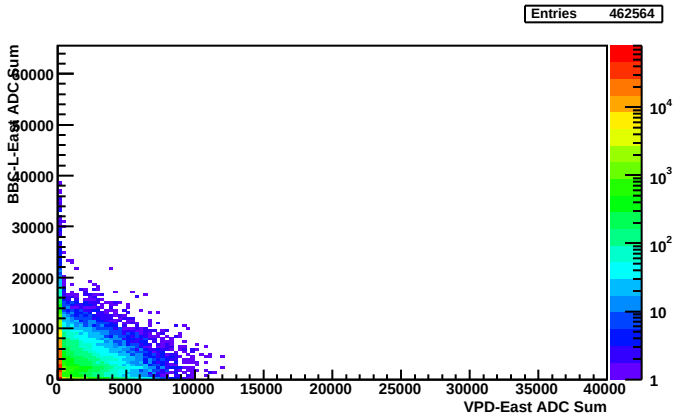

Entries 462564
TOF Mult
VPD-West ADC Sum

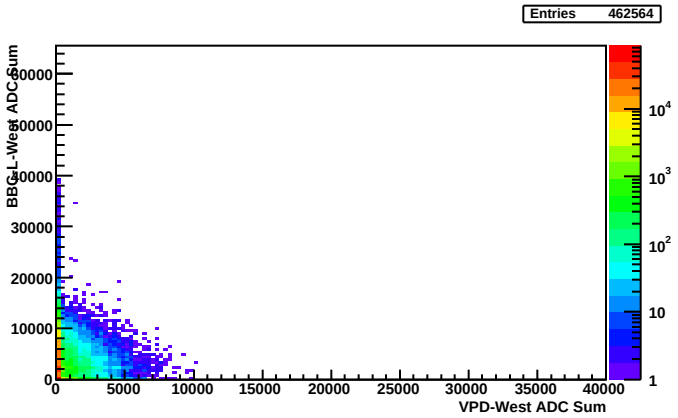

Entries 462564
TOF Mult
ZDC-East ADC Sum Att

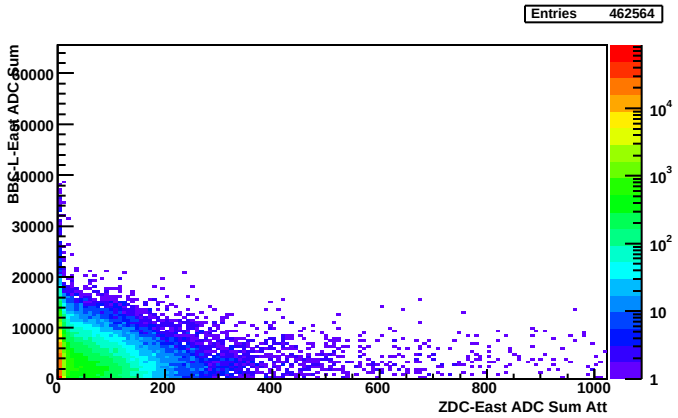

Entries 462564
TOF Mult
ZDC-West ADC Sum Att

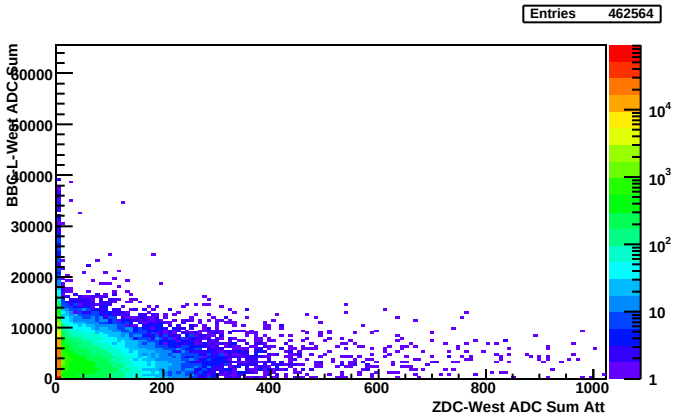

Entries 462564
BBC-L-East ADC Sum
BBC-S-East ADC Sum

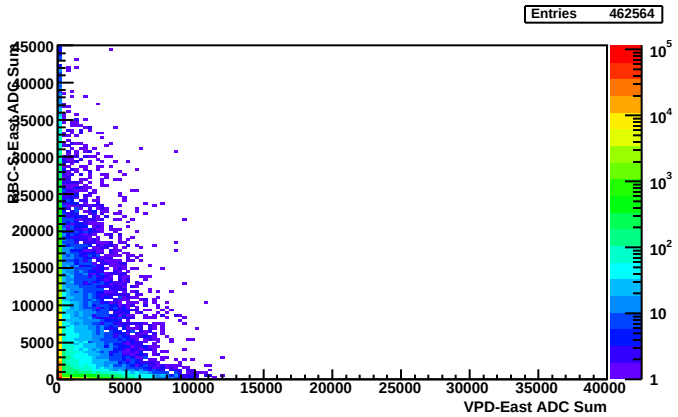

Entries 462564
BBC-L-West ADC Sum
BBC-S-West ADC Sum

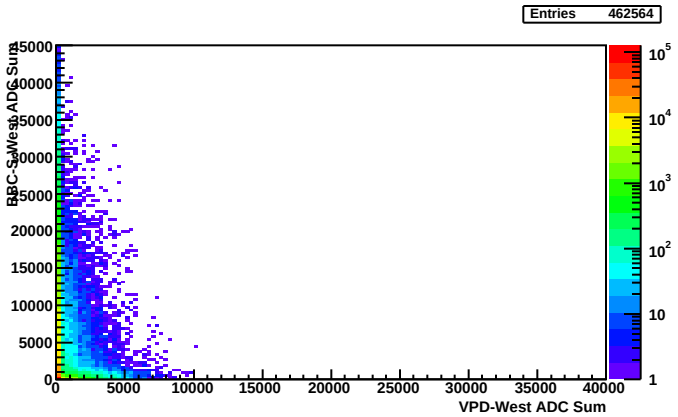

Entries 462564
BBC-L-East ADC Sum
VPD-East ADC Sum

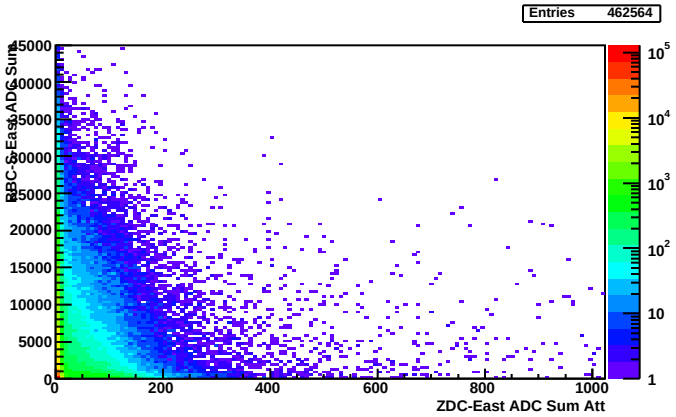

Entries 462564
BBC-L-West ADC Sum
VPD-West ADC Sum

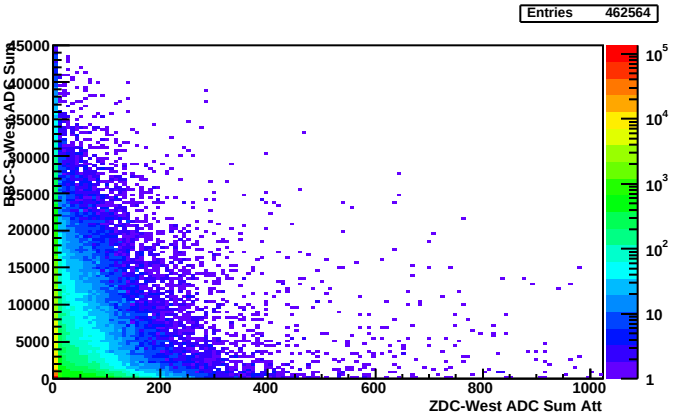

Entries 462564
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

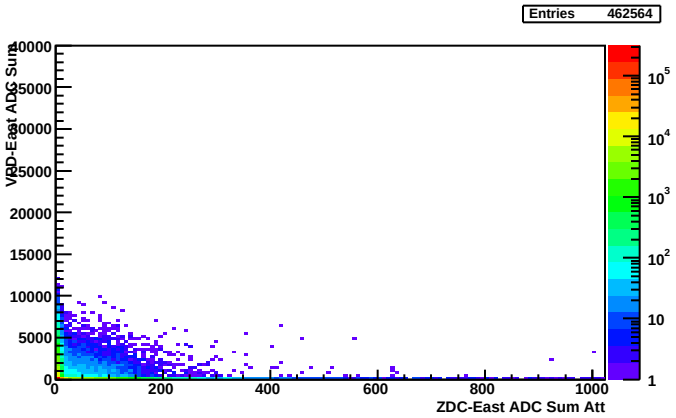

Entries 462564
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

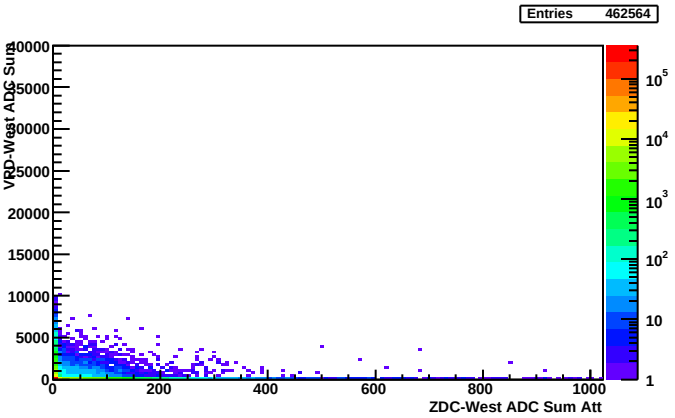

Entries 462564
BBC-S-East ADC Sum
VPD-East ADC Sum

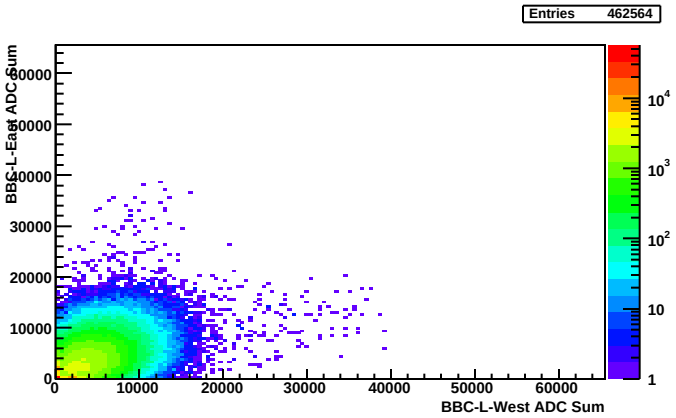

Entries 462564
BBC-S-West ADC Sum
VPD-West ADC Sum

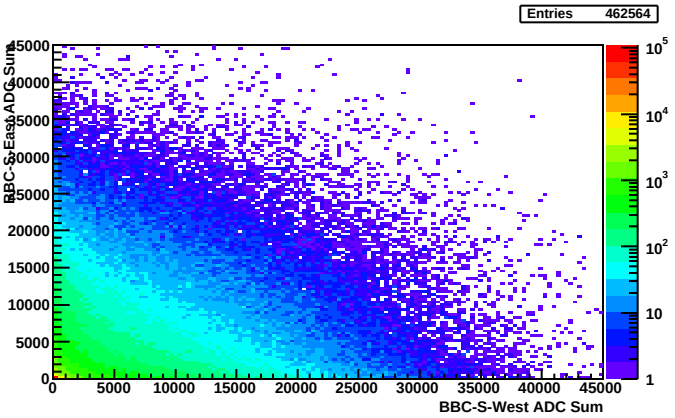

Entries 462564
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

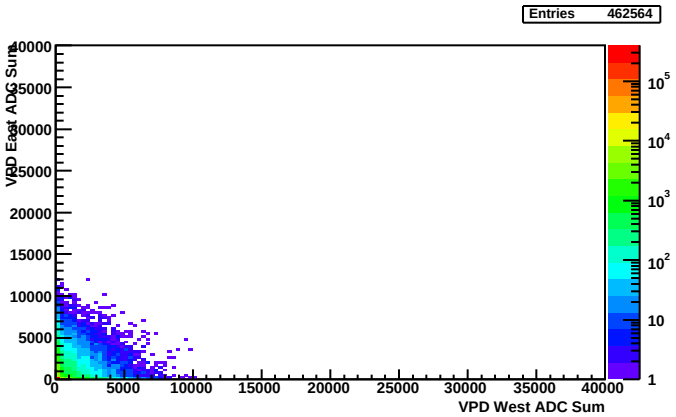

Entries 462564
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

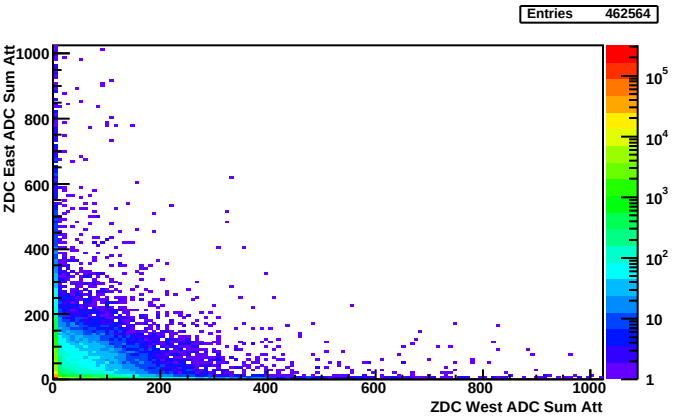

Entries 462564
VPD-East ADC Sum
ZDC-East ADC Sum Att

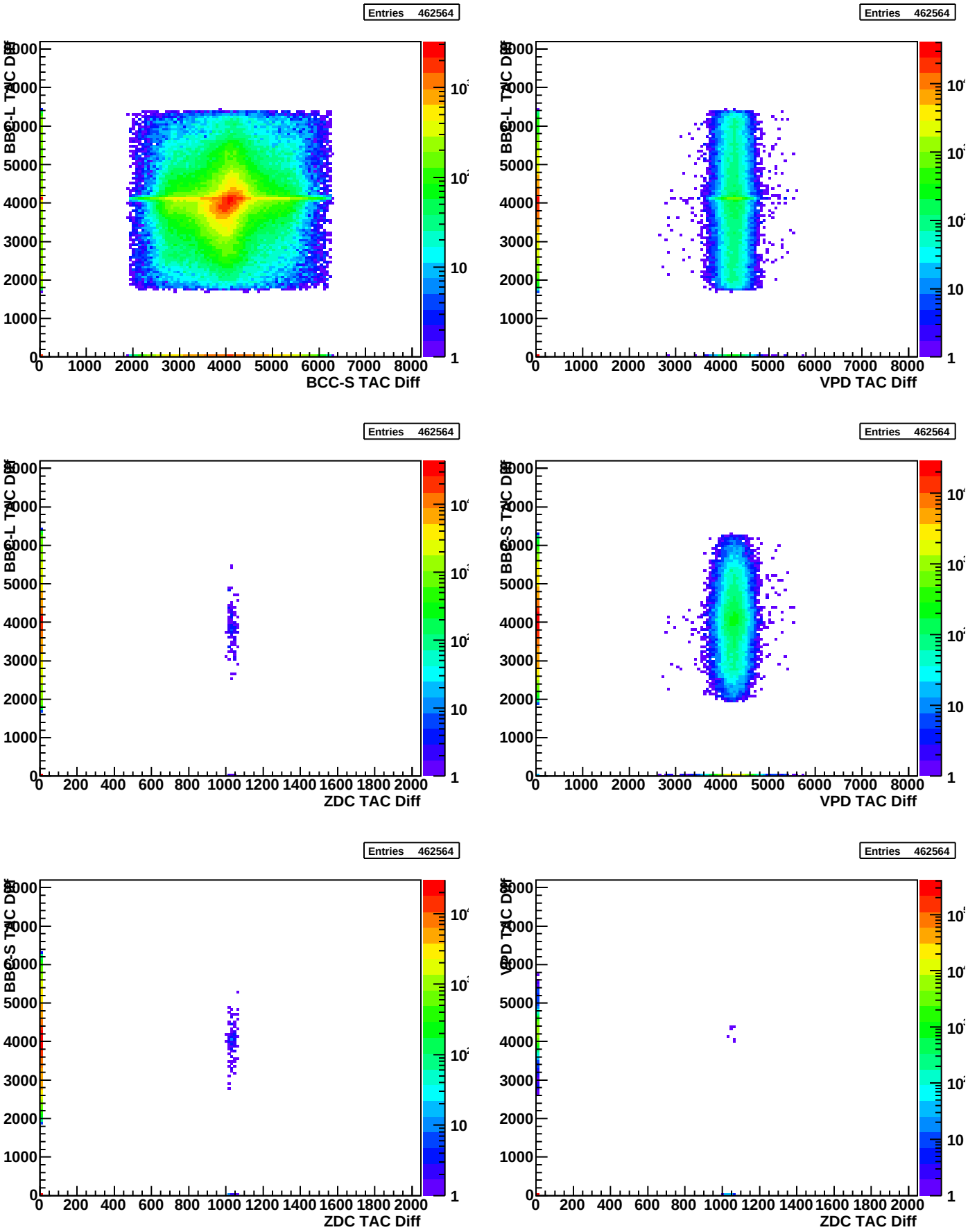

Entries 462564
VPD-West ADC Sum
ZDC-West ADC Sum Att

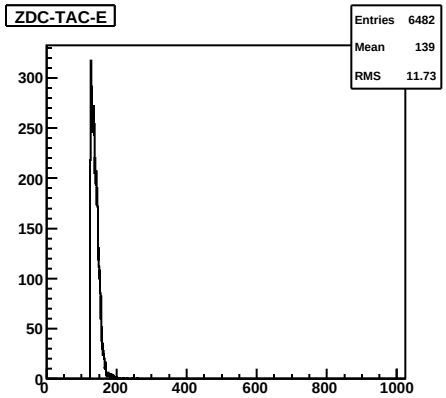

Entries 462564
BBC-L-East ADC Sum
BBC-L-West ADC Sum

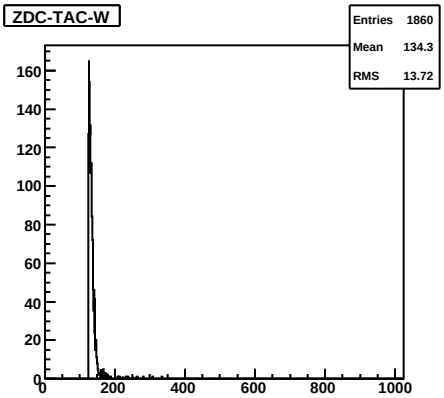

Entries 462564
BBC-S-East ADC Sum
BBC-S-West ADC Sum

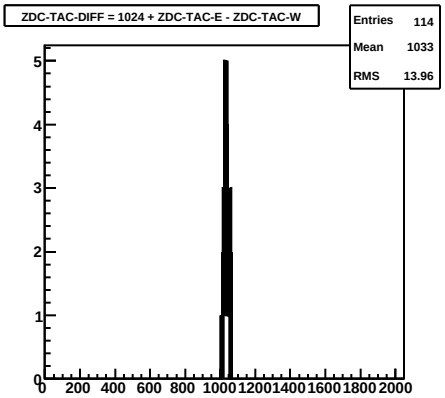

Entries 462564
VPD East ADC Sum
VPD West ADC Sum

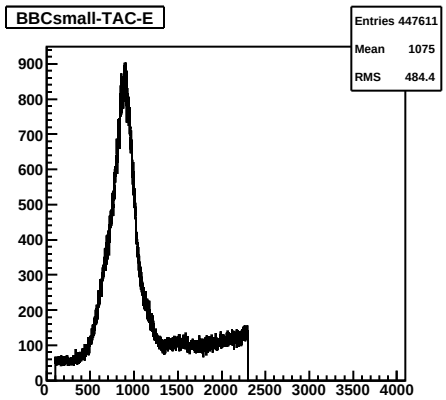

Entries 462564
ZDC East ADC Sum Att
ZDC West ADC Sum Att

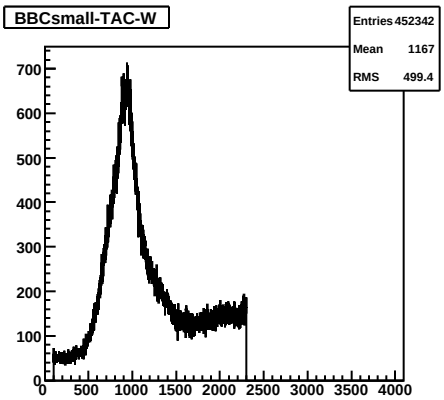

Entries 462564
BBC-L TAC Diff
BCC-S TAC Diff
Entries 462564
BBC-L TAC Diff
VPD TAC Diff
Entries 462564
BBC-L TAC Diff
ZDC TAC Diff
Entries 462564
BBC-S TAC Diff
VPD TAC Diff
Entries 462564
BBC-S TAC Diff
ZDC TAC Diff
Entries 462564
VPD TAC Diff
ZDC TAC Diff

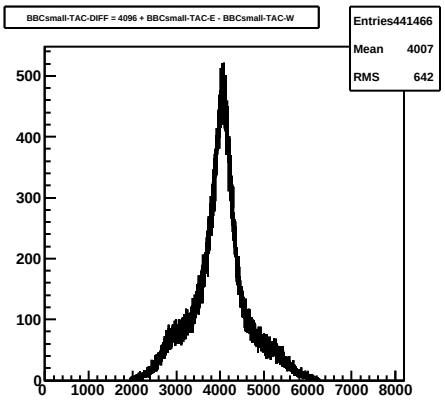

ZDC-TAC-E
Entries 6482
Mean 139
RMS 11.73

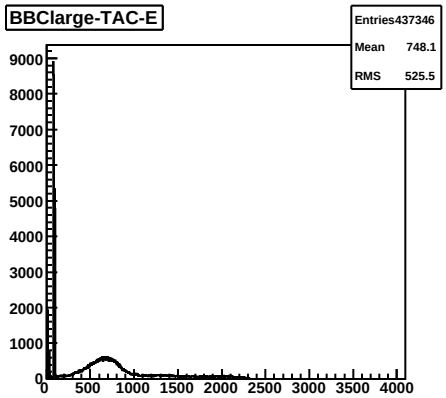

ZDC-TAC-W
Entries 1860
Mean 134.3
RMS 13.72

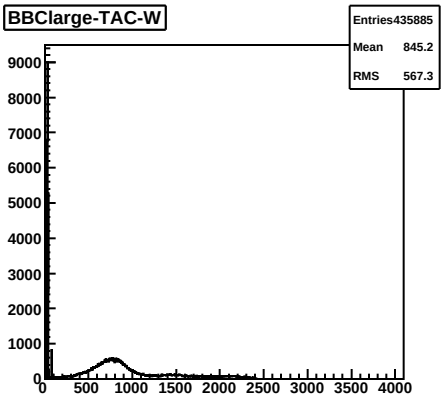

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 114
Mean 1033
RMS 13.96

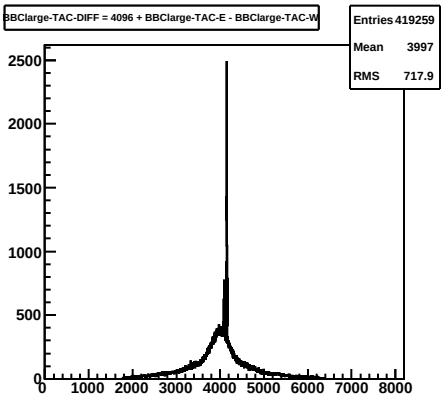

BBCsmall-TAC-E
Entries 447611
Mean 1075
RMS 484.4

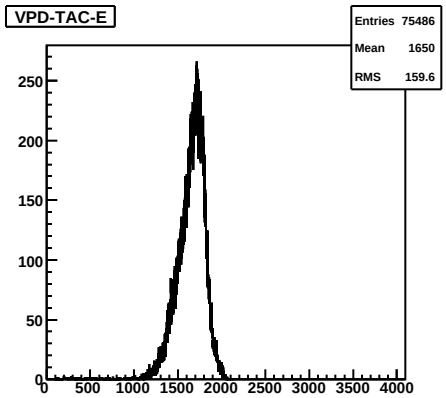

BBCsmall-TAC-W
Entries 452342
Mean 1167
RMS 499.4

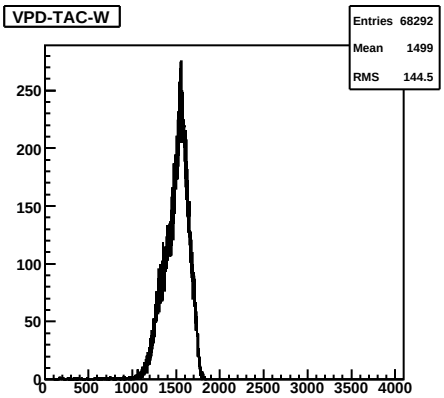

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 441466
Mean 4007
RMS 642

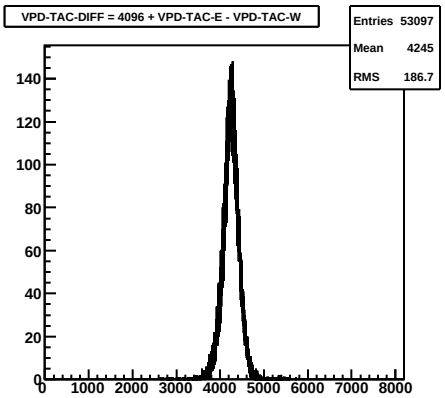

BBClarge-TAC-E
Entries 437346
Mean 748.1
RMS 525.5

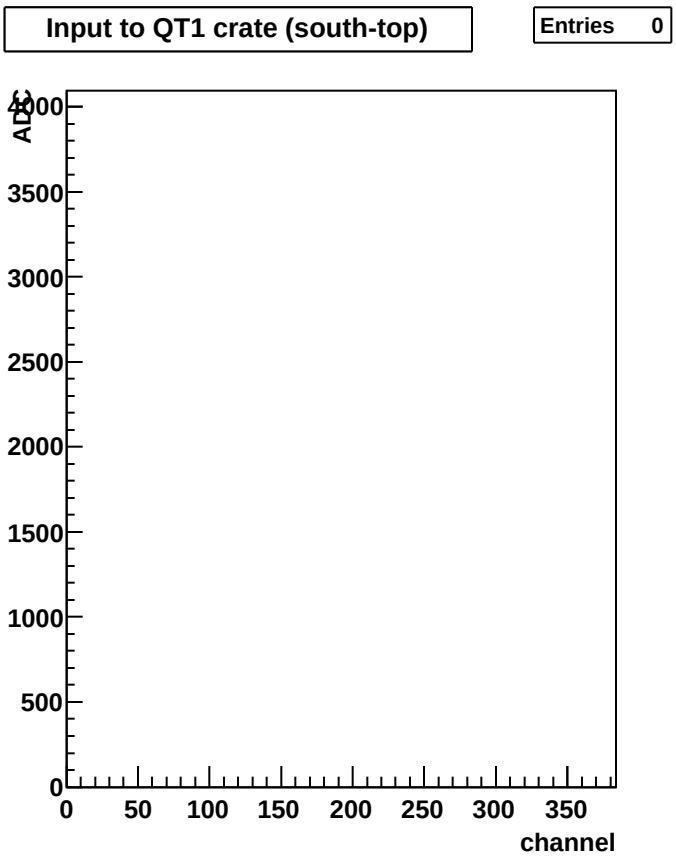

BBClarge-TAC-W
Entries 435885
Mean 845.2
RMS 567.3

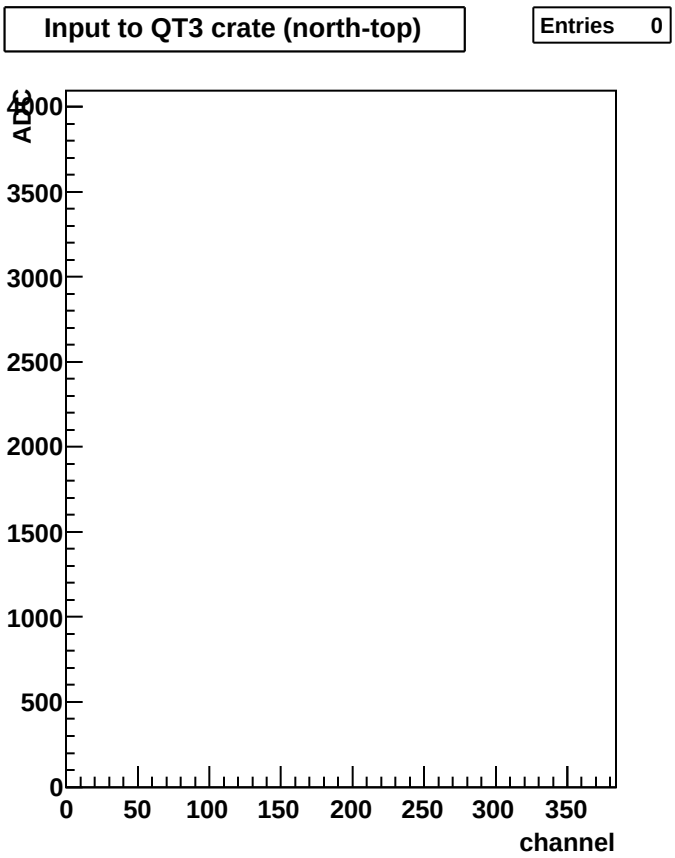

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 419259
Mean 3997
RMS 717.9

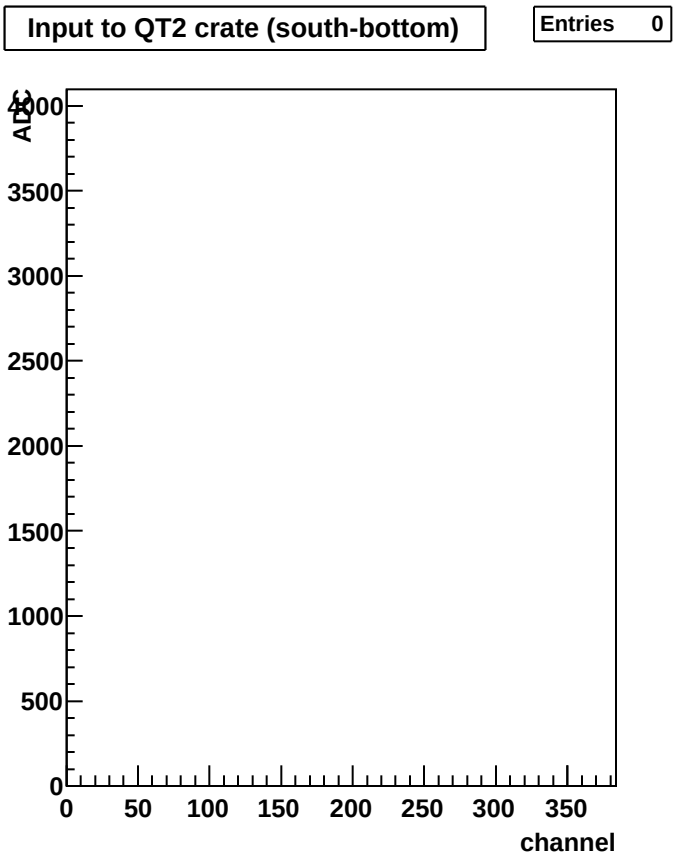

VPD-TAC-E
Entries 75486
Mean 1650
RMS 159.6

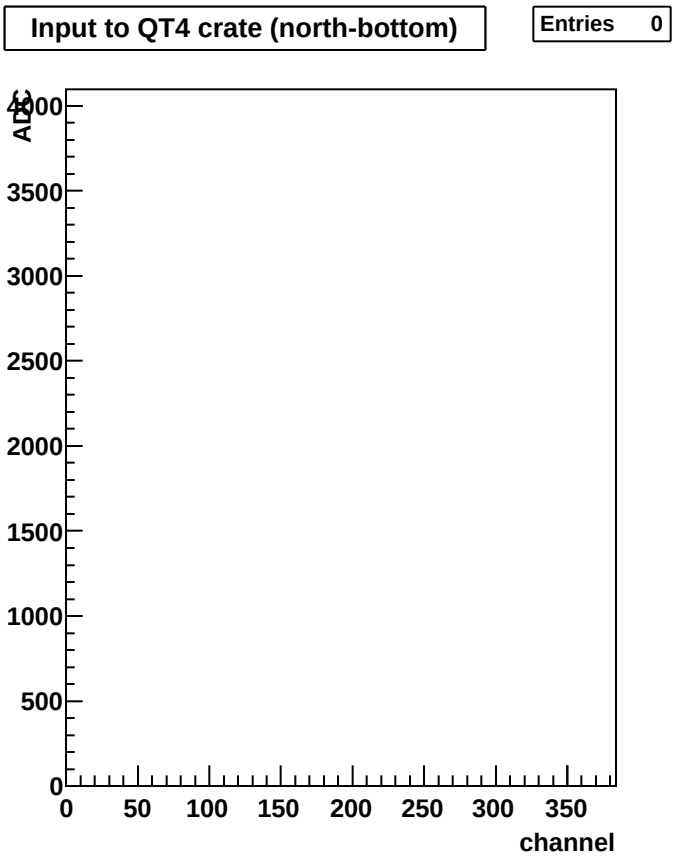

VPD-TAC-W
Entries 68292
Mean 1499
RMS 144.5

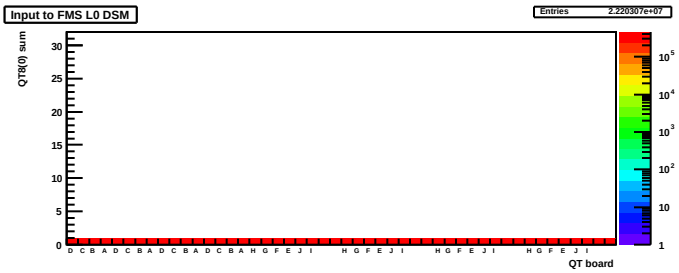

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 53097
Mean 4245
RMS 186.7

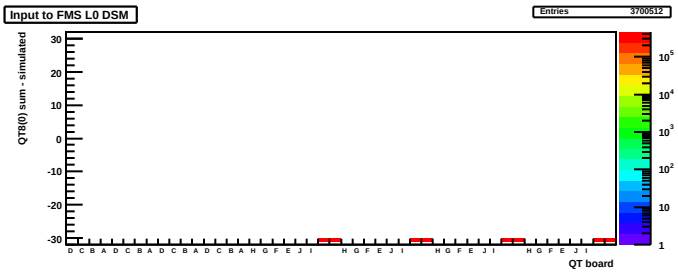

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

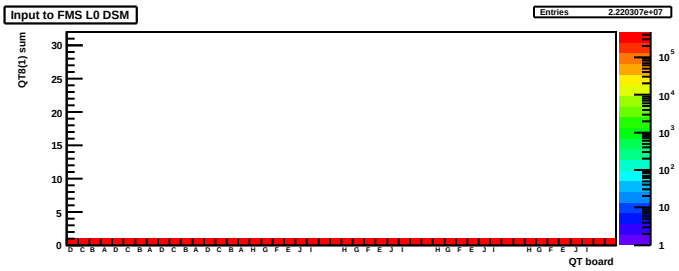

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

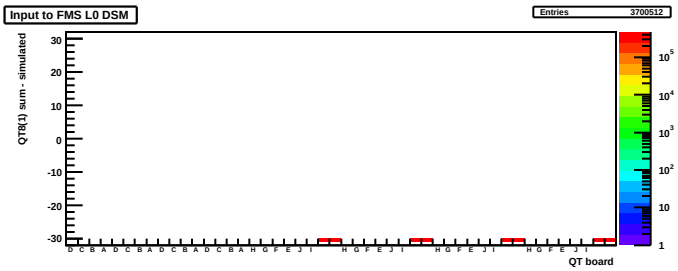

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

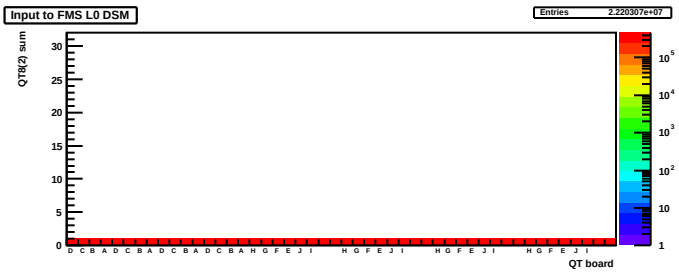

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

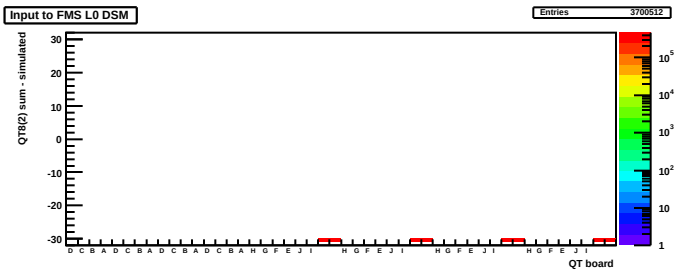

Input to FMS L0 DSM
Entries 2.220307e+07
QT8(0) sum
QT board

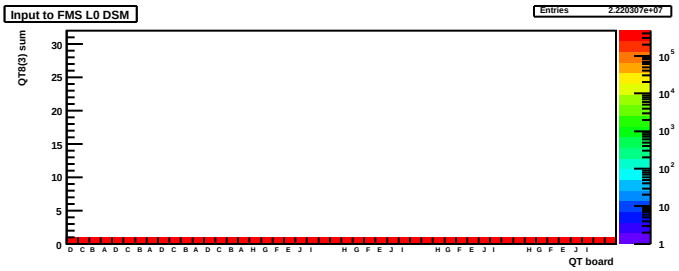

Input to FMS L0 DSM
Entries 3700512
QT8(0) sum - simulated
QT board

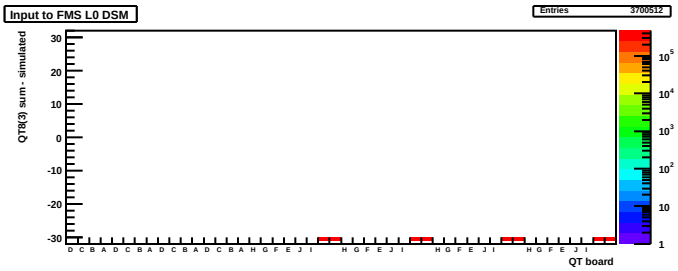

Input to FMS L0 DSM
Entries 2.220307e+07
QT8(1) sum
QT board

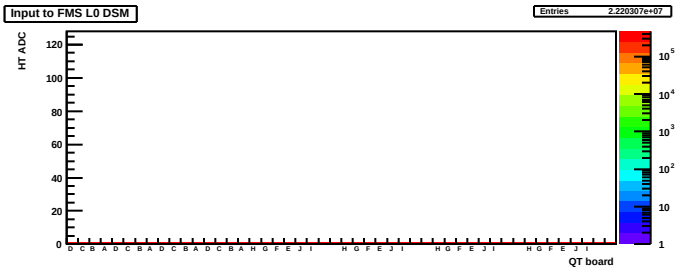

Input to FMS L0 DSM
Entries 3700512
QT8(1) sum - simulated
QT board

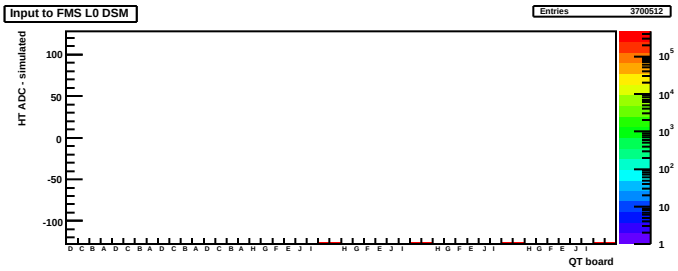

Input to FMS L0 DSM
Entries 2.220307e+07
QT8(2) sum
QT board

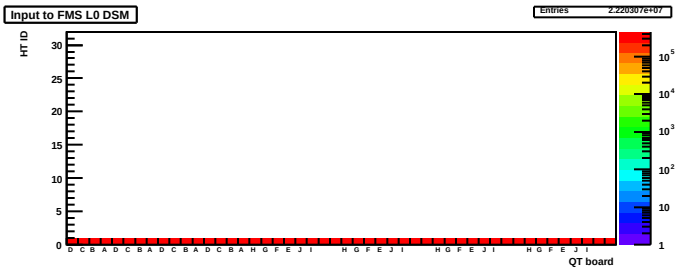

Input to FMS L0 DSM
Entries 3700512
QT8(2) sum - simulated
QT board

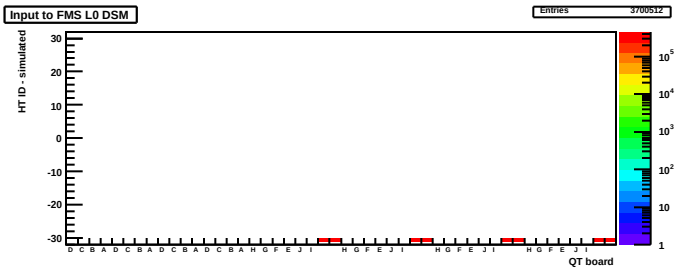

Input to FMS L0 DSM
Entries 2.220307e+07
QT8(3) sum
QT board

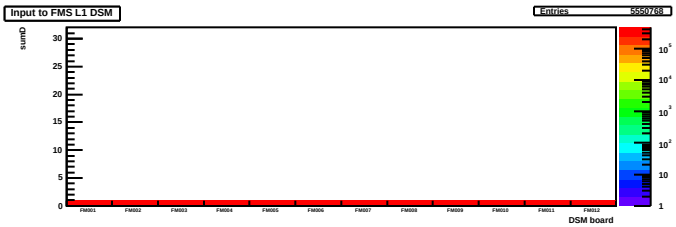

Input to FMS L0 DSM
Entries 3700512
QT8(3) sum - simulated
QT board

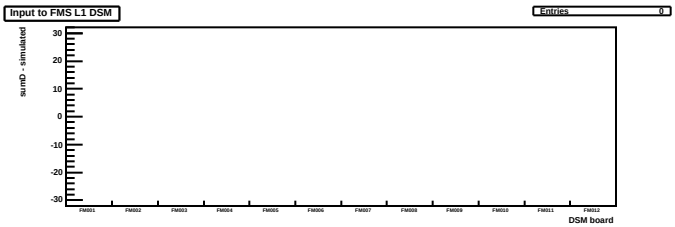

Input to FMS L0 DSM
Entries 2.220307e+07
HT ADC
QT board

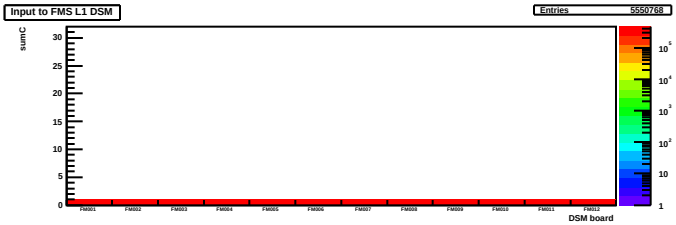

Input to FMS L0 DSM
Entries 3700512
HT ADC - simulated
QT board

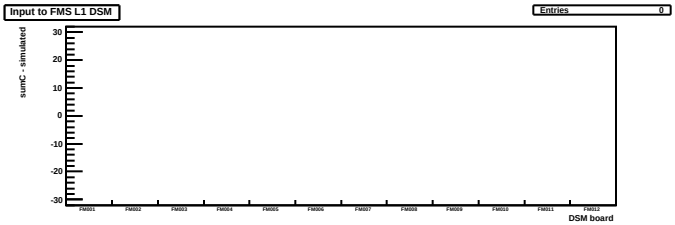

Input to FMS L0 DSM
Entries 2.220307e+07
HT ID
QT board

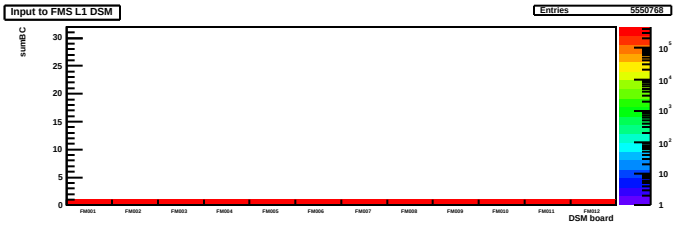

Input to FMS L0 DSM
Entries 3700512
HT ID - simulated
QT board

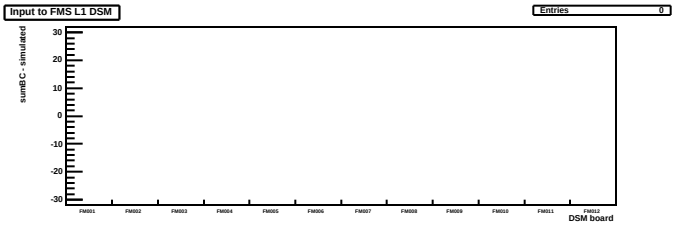

Input to FMS L1 DSM
Entries 5550768
sumD
DSM board

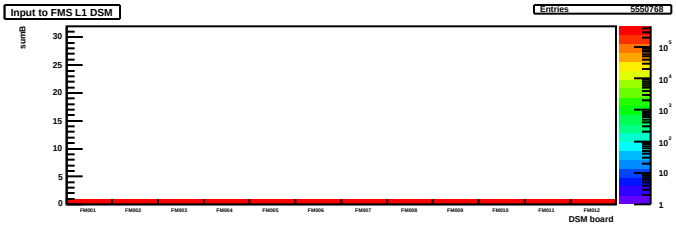

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

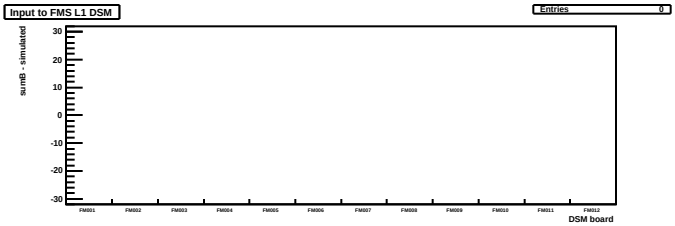

Input to FMS L1 DSM
Entries 5550768
sumC
DSM board

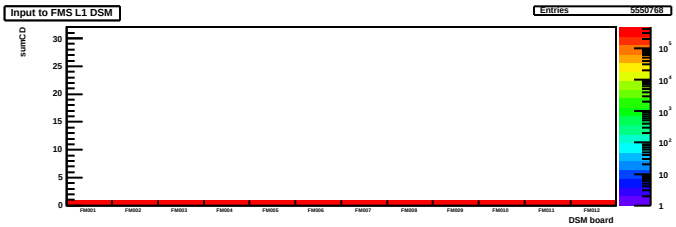

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

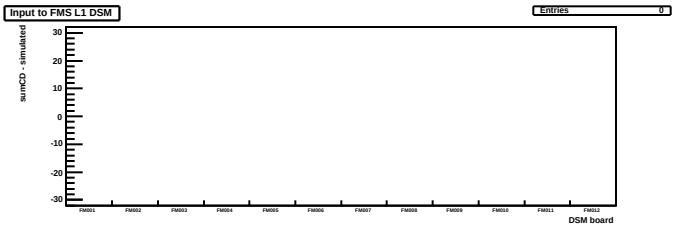

Input to FMS L1 DSM
Entries 5550768
sumBC
DSM board

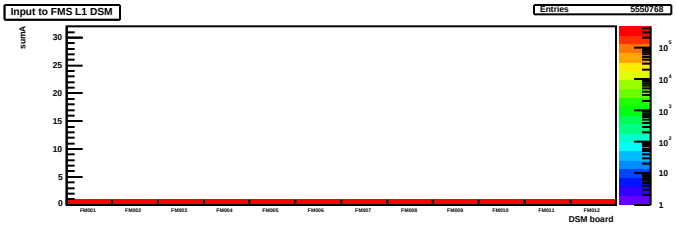

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

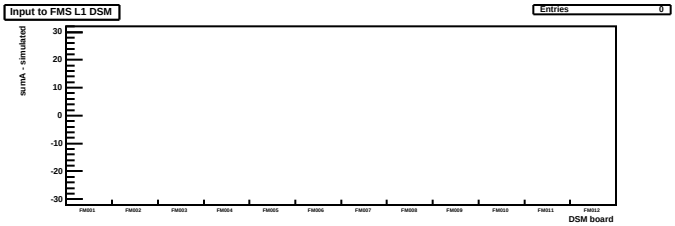

Input to FMS L1 DSM
Entries 5550768
sumB
DSM board

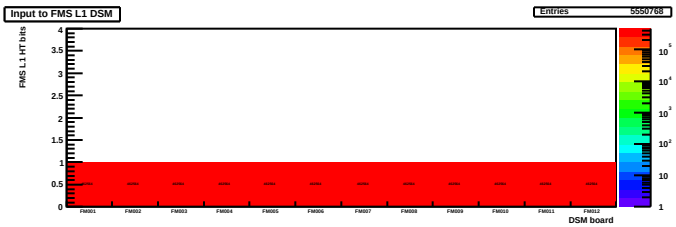

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

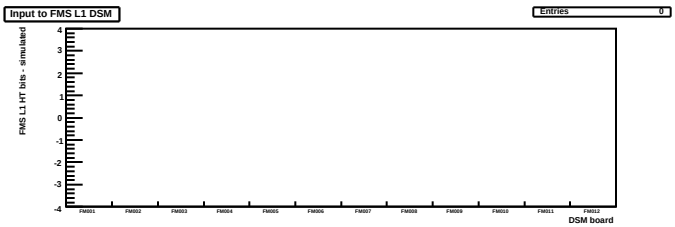

Input to FMS L1 DSM
Entries 5550768
sumCD
DSM board

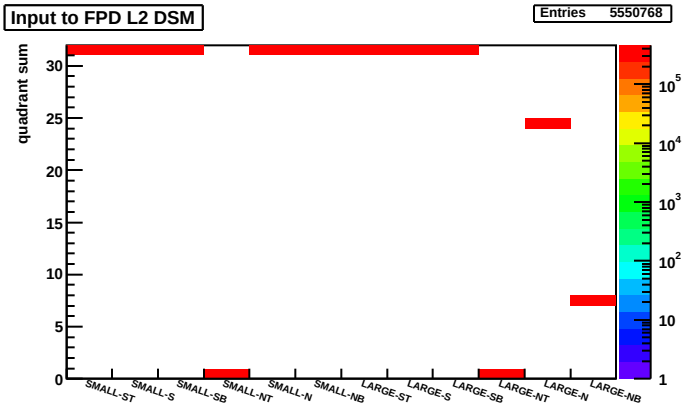

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

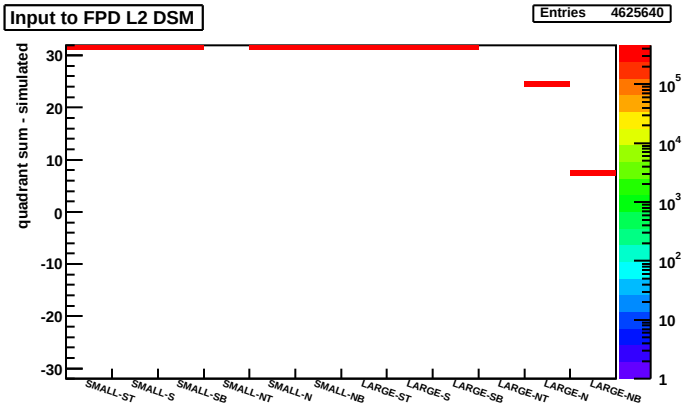

Input to FMS L1 DSM
Entries 5550768
sumA
DSM board

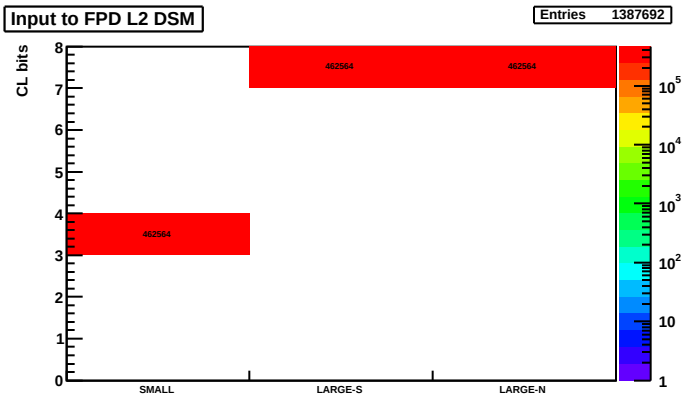

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

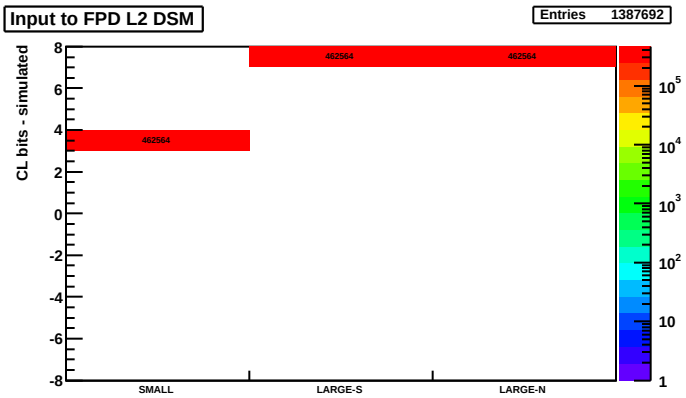

Input to FMS L1 DSM
Entries 5550768
FMS L1 HT bits
DSM board

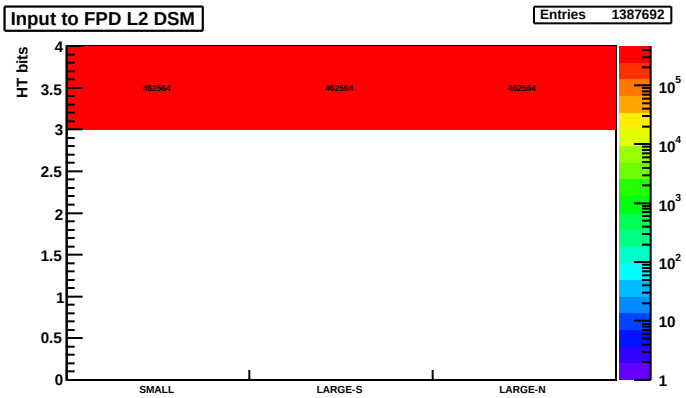

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

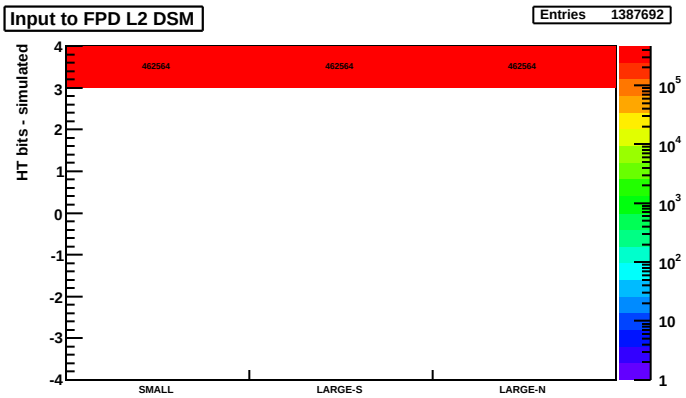

Input to FPD L2 DSM
Entries 5550768
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

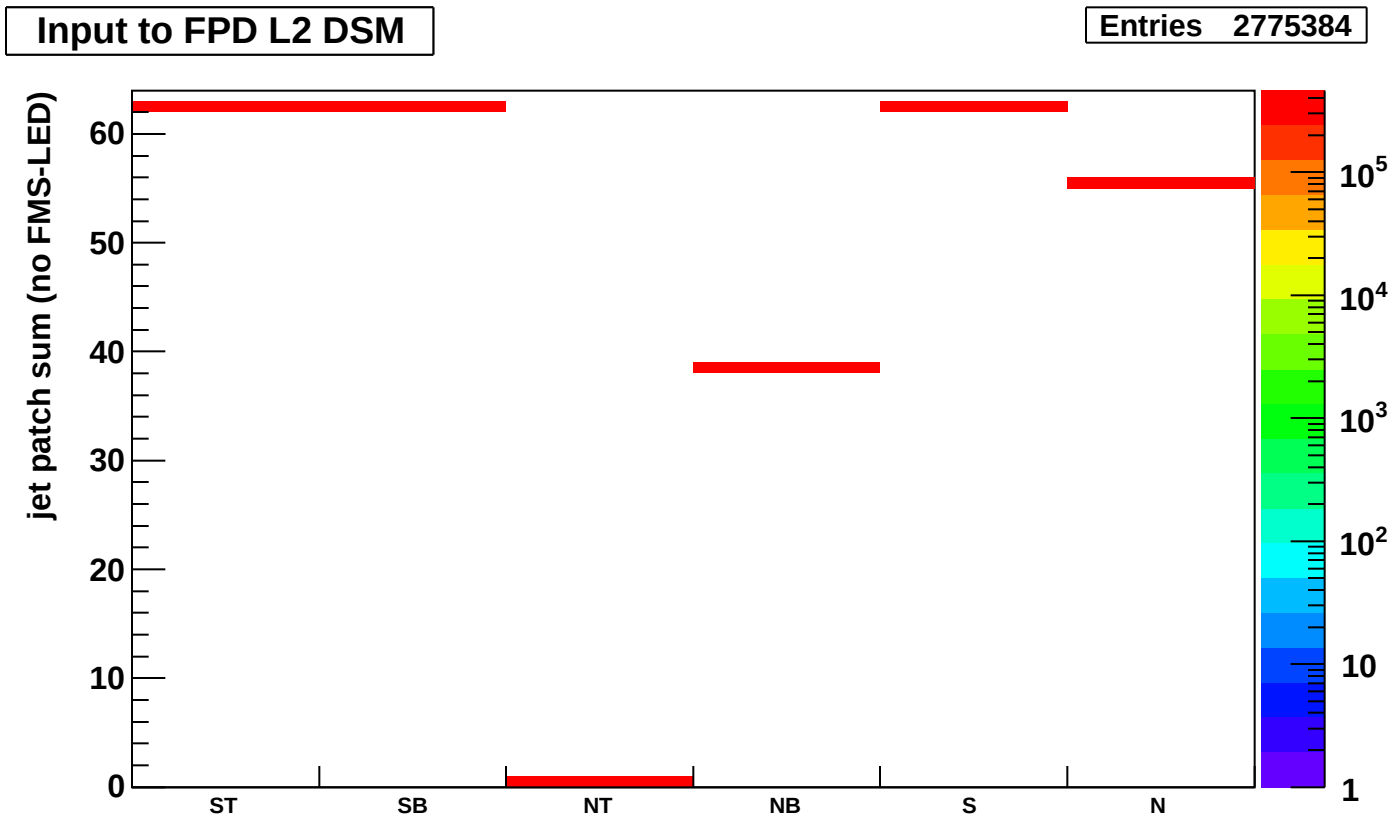

Input to FPD L2 DSM
Entries 4625640
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

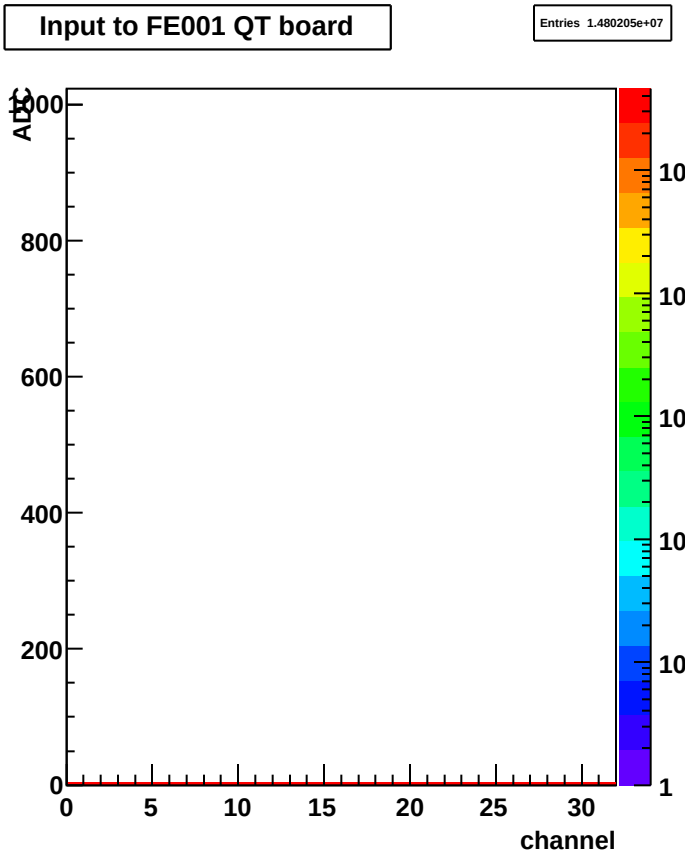

Input to FPD L2 DSM
Entries 1387692
CL bits
462564
462564
462564
SMALL
LARGE-S
LARGE-N

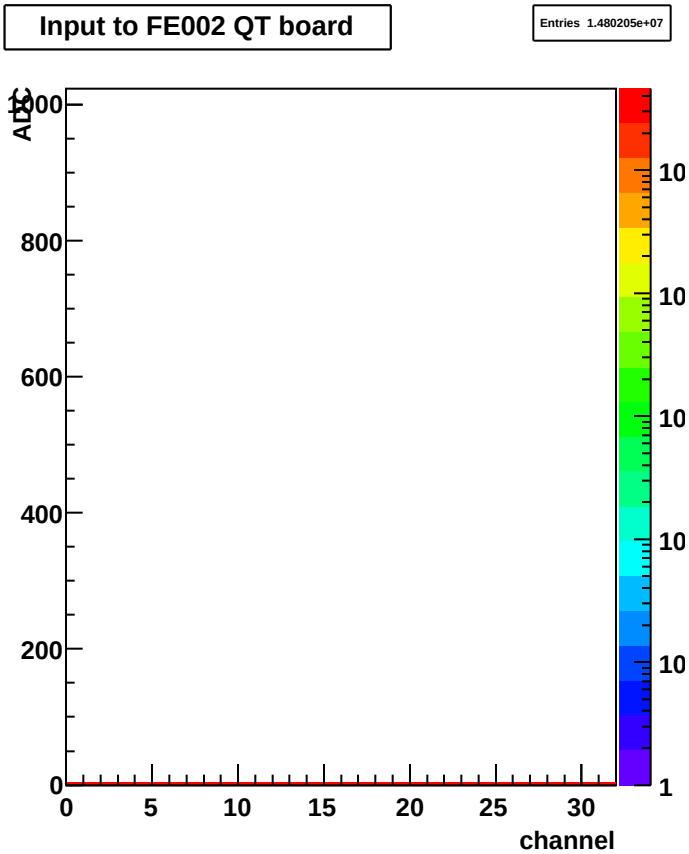

Input to FPD L2 DSM
Entries 1387692
CL bits - simulated
462564
462564
462564
SMALL
LARGE-S
LARGE-N

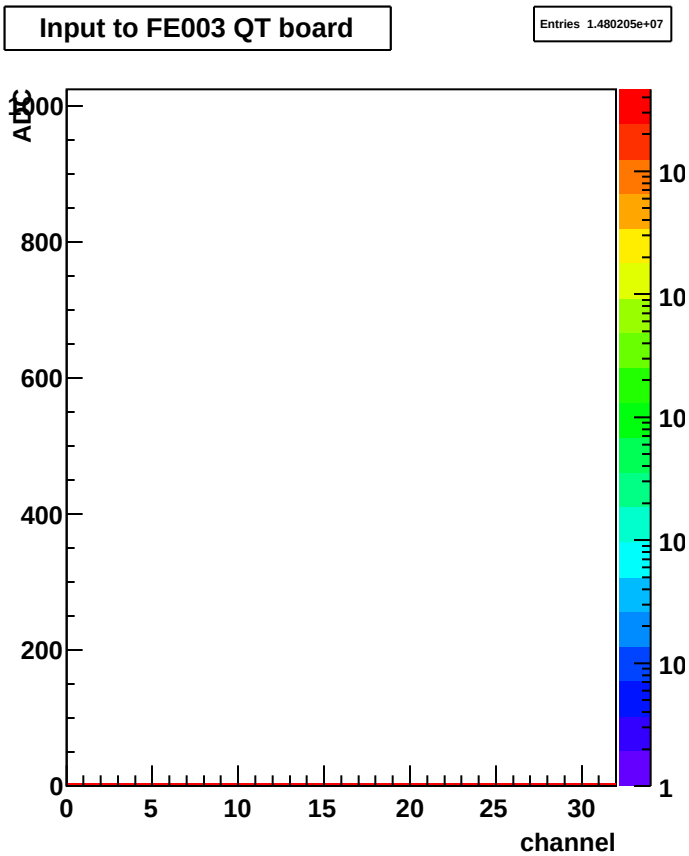

Input to FPD L2 DSM
Entries 1387692
HT bits
462564
462564
462564
SMALL
LARGE-S
LARGE-N

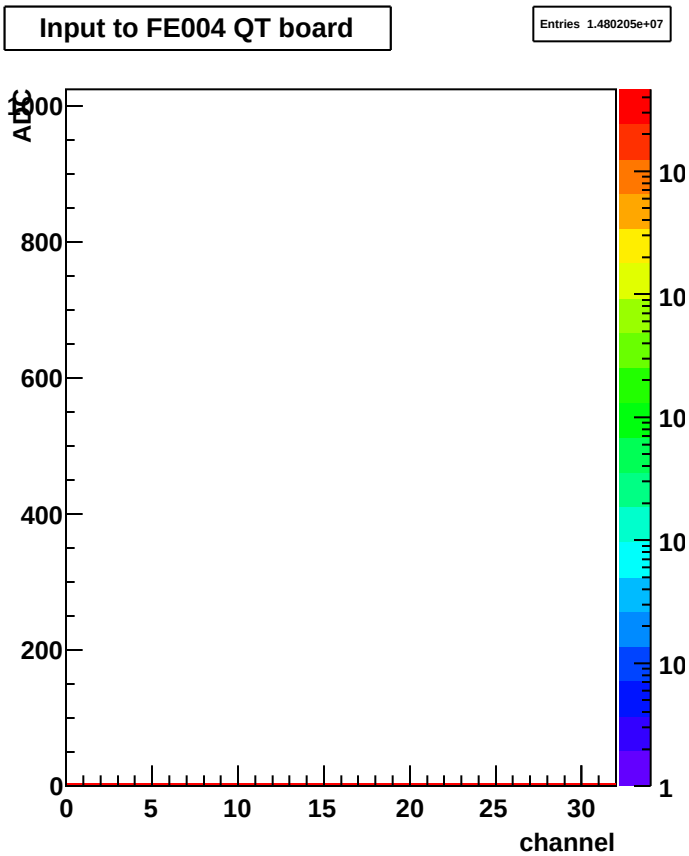

Input to FPD L2 DSM
Entries 1387692
HT bits - simulated
462564
462564
462564
SMALL
LARGE-S
LARGE-N

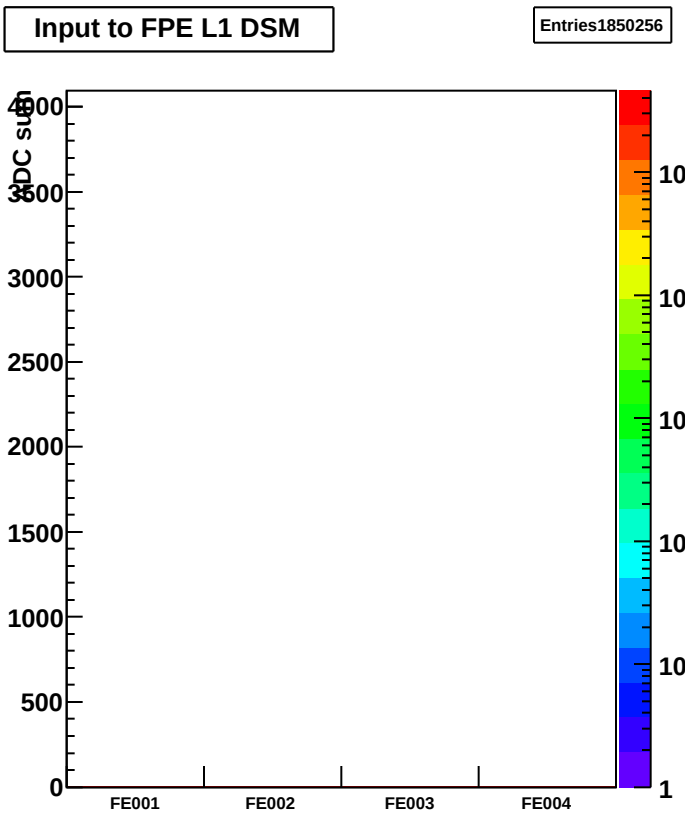

Input to FPD L2 DSM
Entries 2775384
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

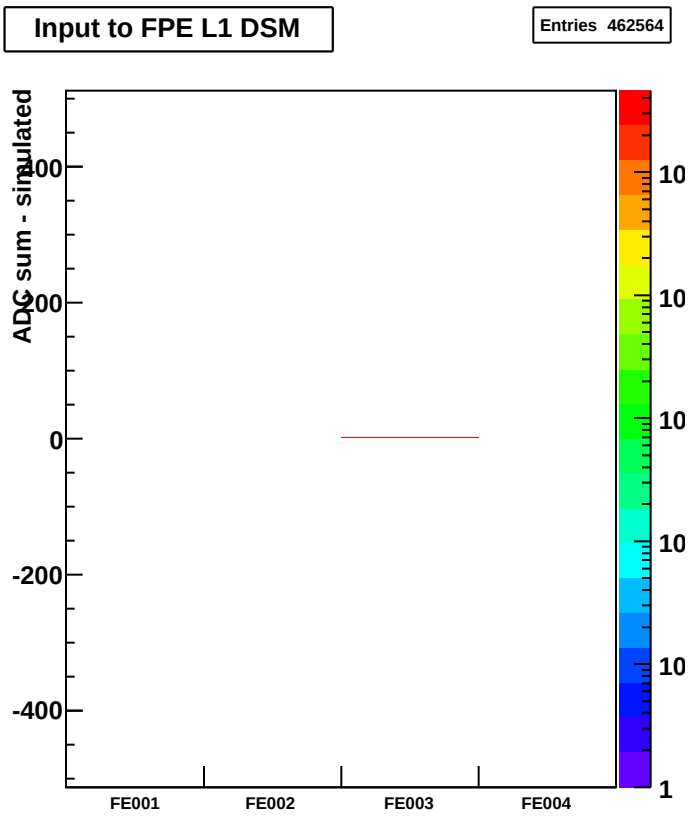

Input to FE001 QT board
Entries 1.480205e+07
ADC
channel

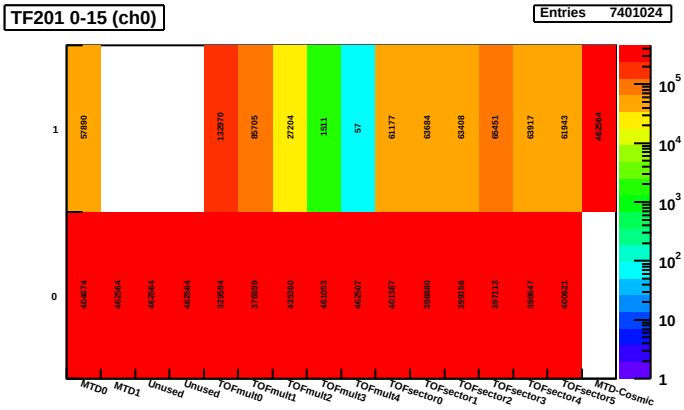

Input to FE002 QT board
Entries 1.480205e+07
ADC
channel

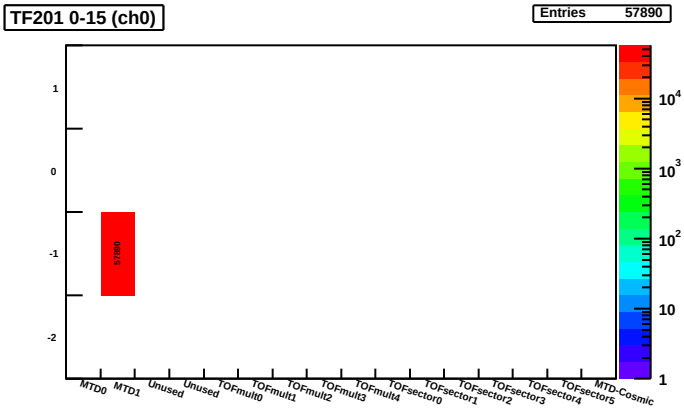

Input to FE003 QT board
Entries 1.480205e+07
ADC
channel

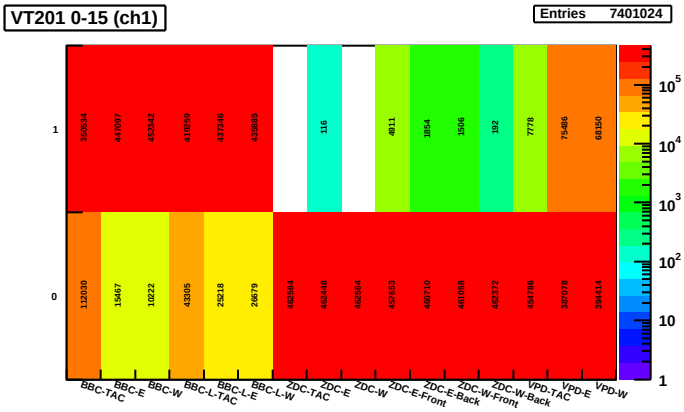

Input to FE004 QT board
Entries 1.480205e+07
ADC
channel

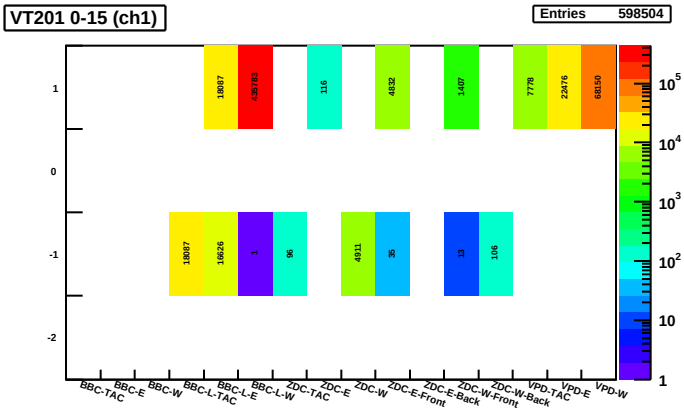

Input to FPE L1 DSM
Entries1850256
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

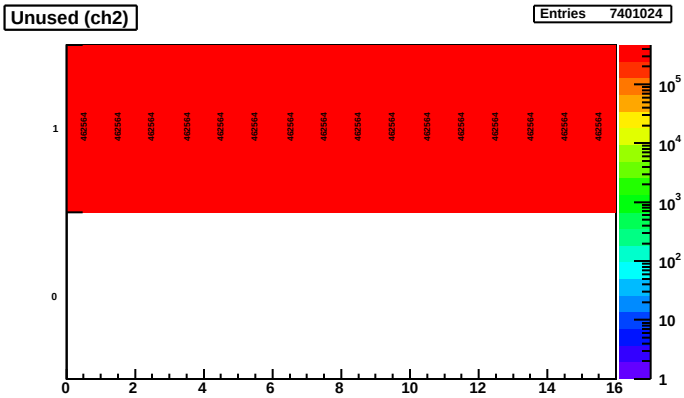

Input to FPE L1 DSM
Entries 462564
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

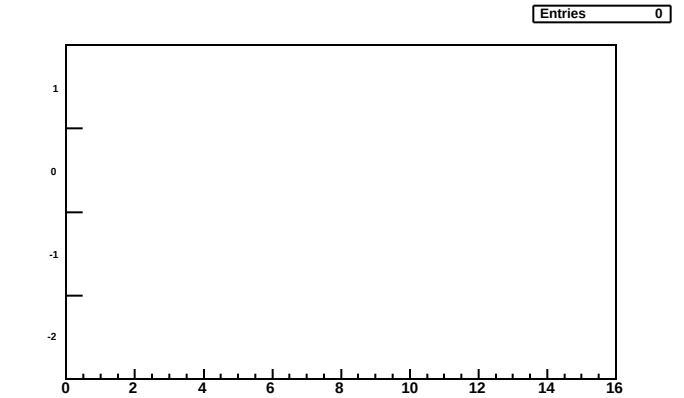

TF201 0-15 (ch0)
Entries 7401024
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

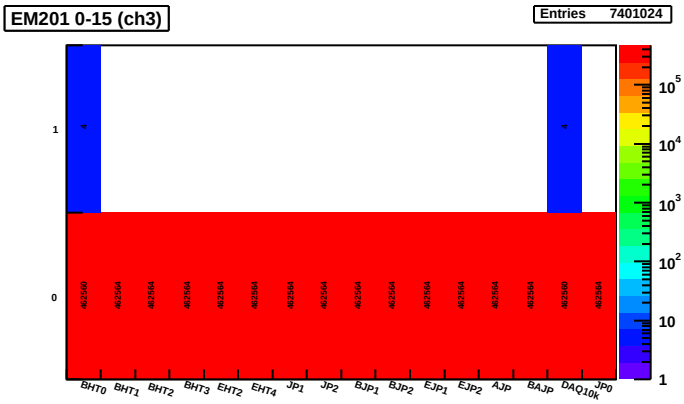

TF201 0-15 (ch0)
Entries 57890
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 7401024
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 598504
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 7401024


Entries 0


EM201 0-15 (ch3)
Entries 7401024
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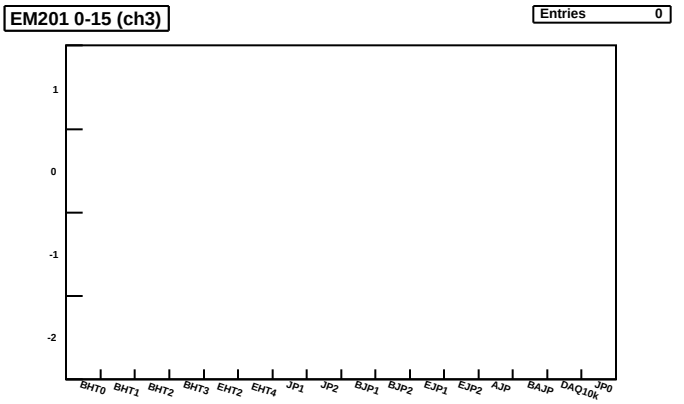
EM201 0-15 (ch3)
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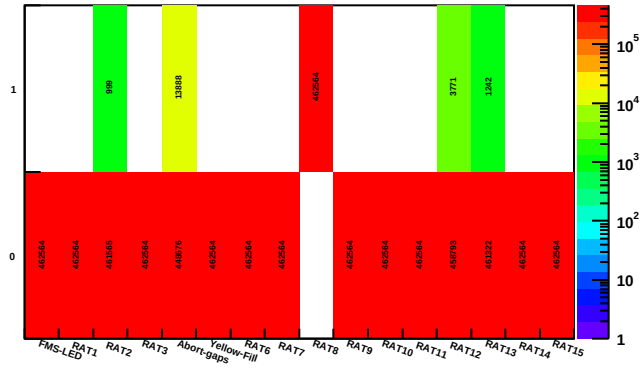
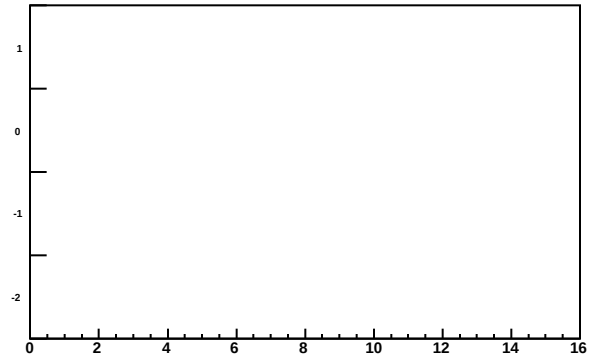
RAT board (ch4)





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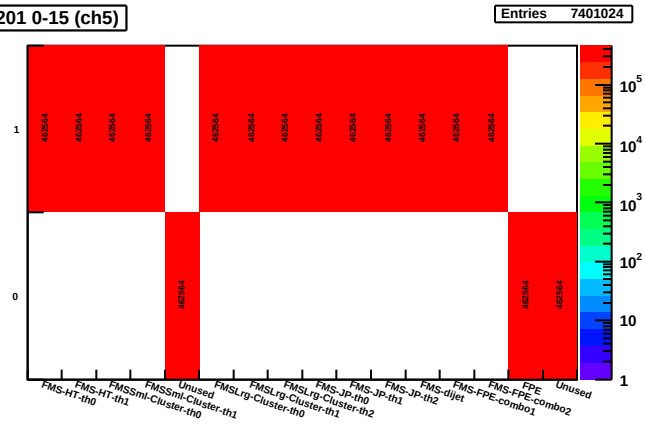

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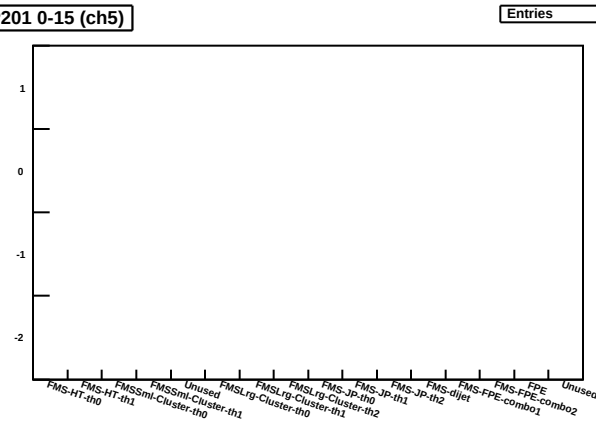
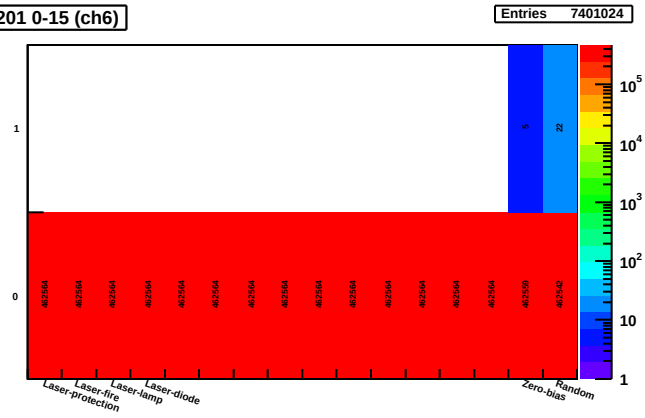
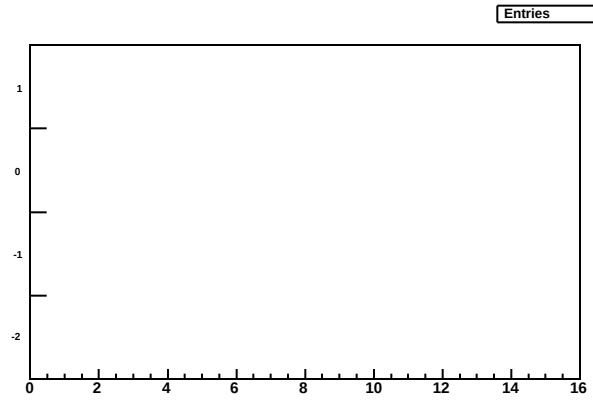
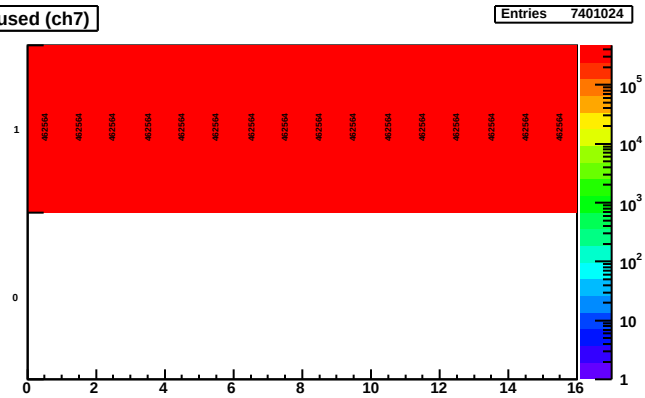
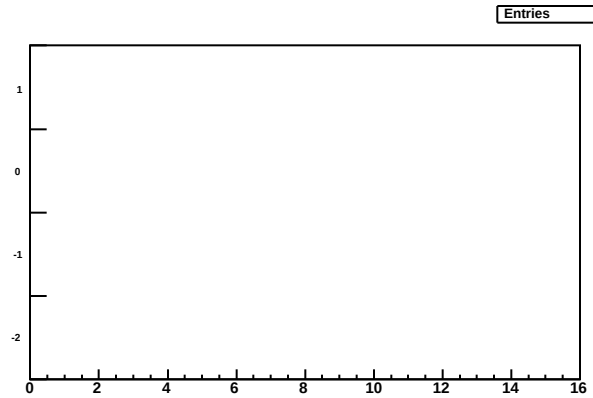


ST201 0-15 (ch6)





Unused (ch7)