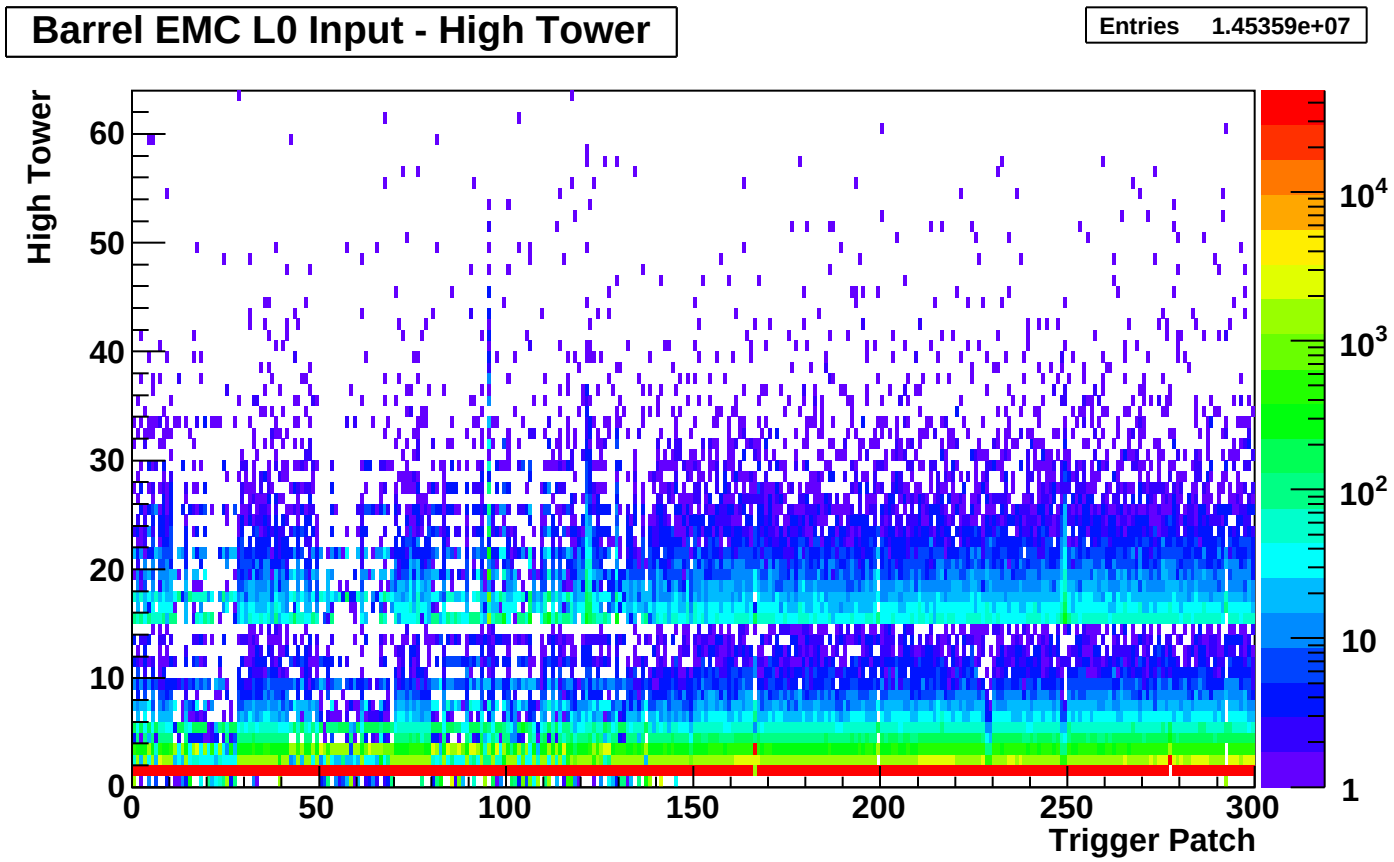
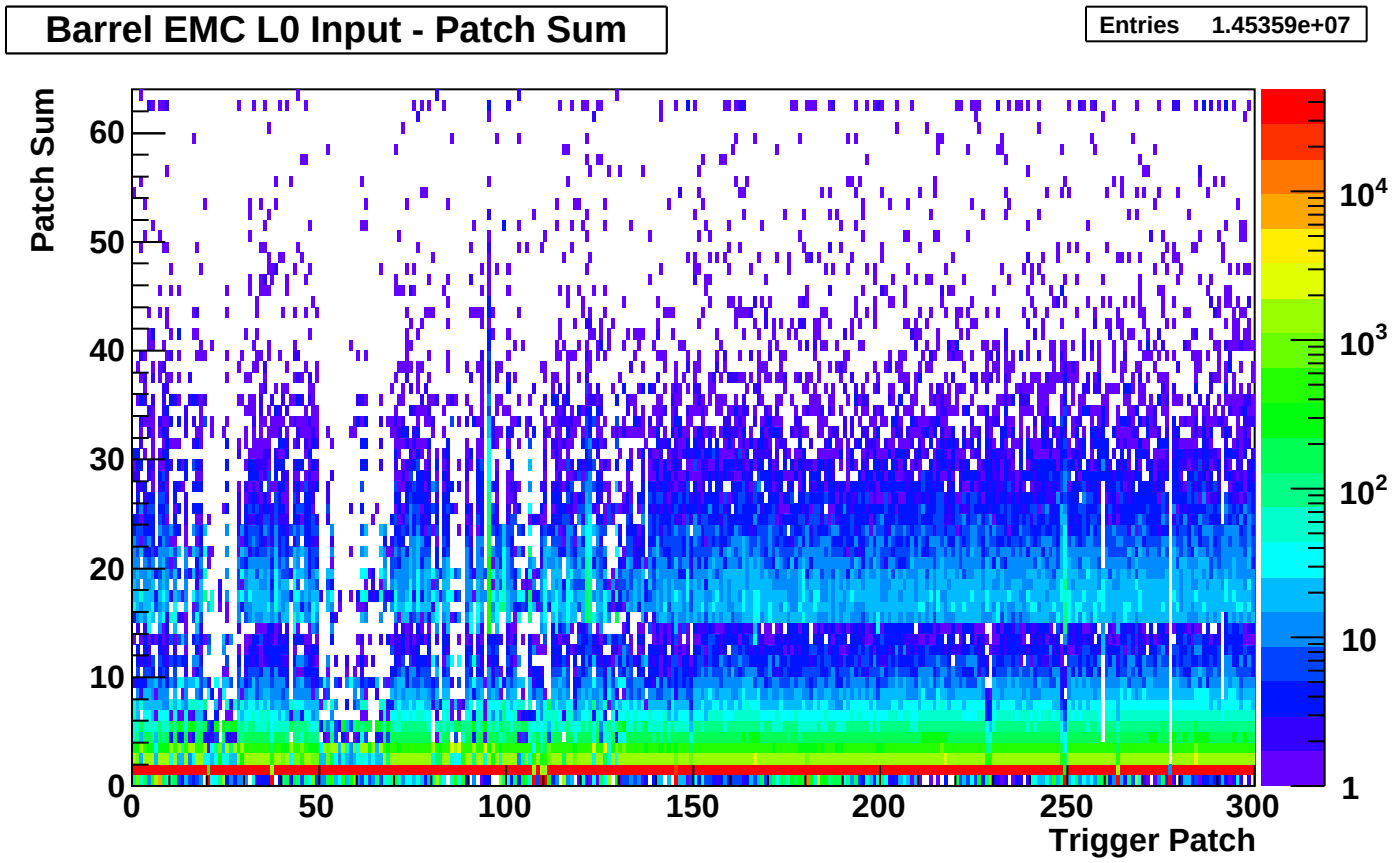
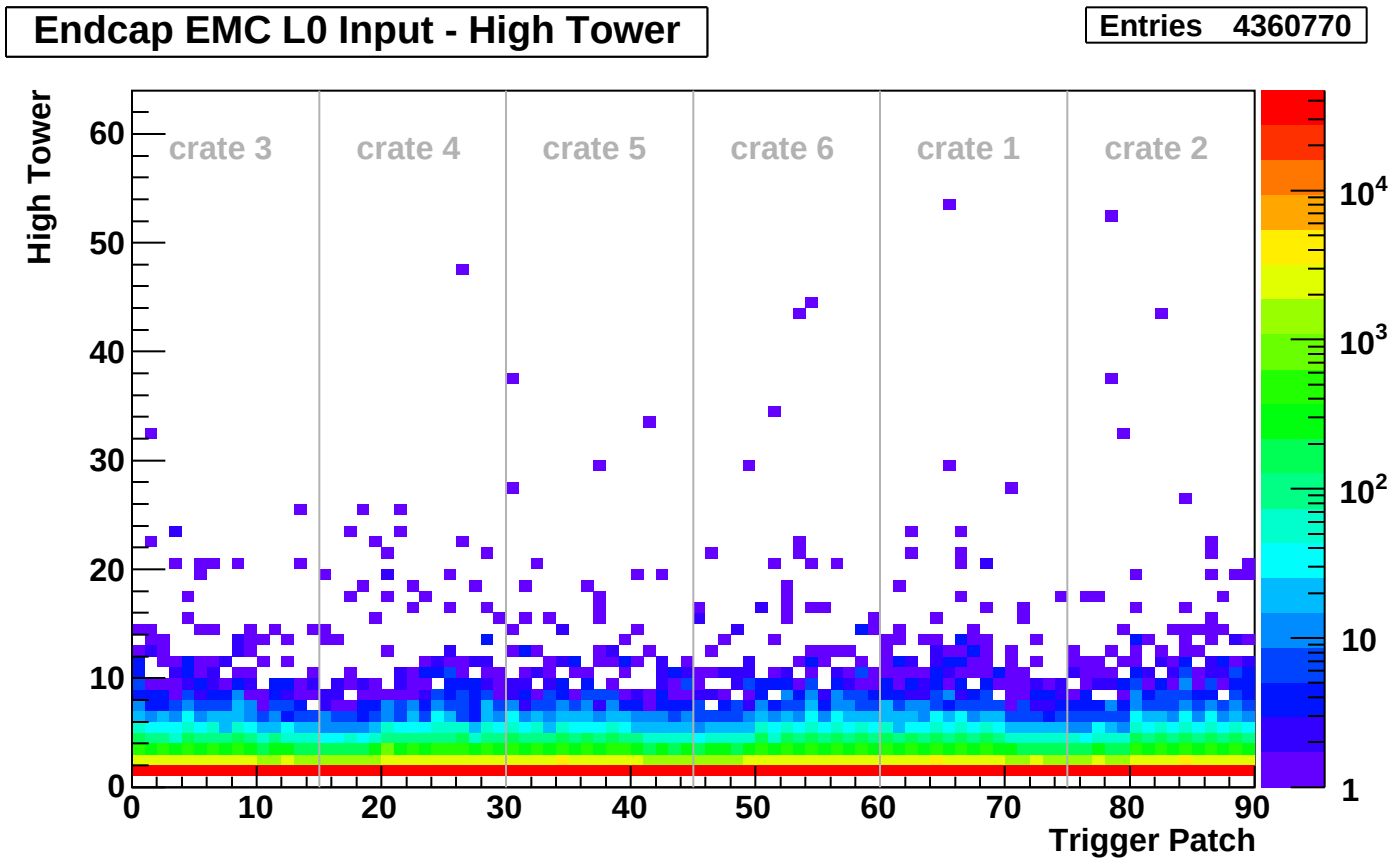
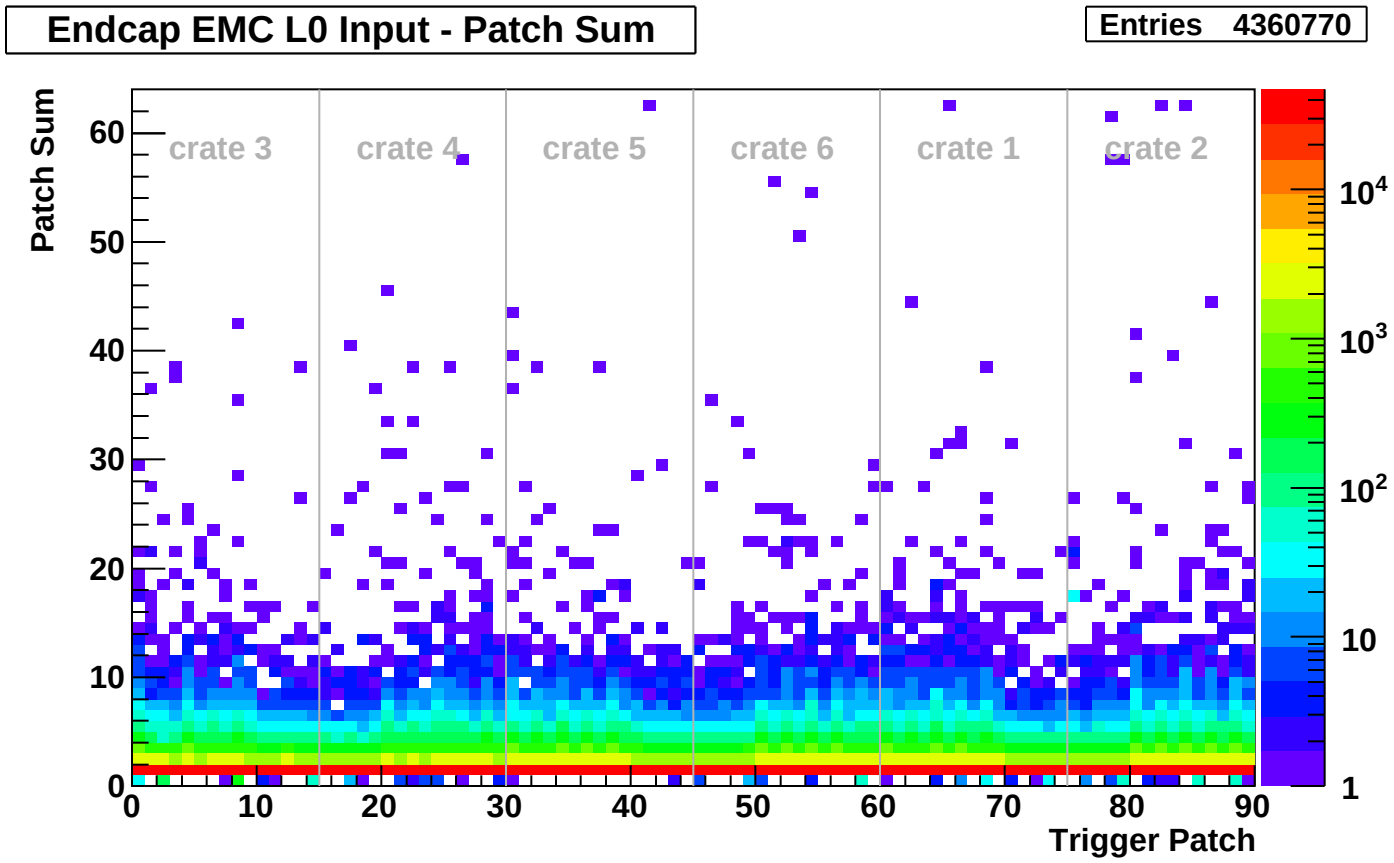
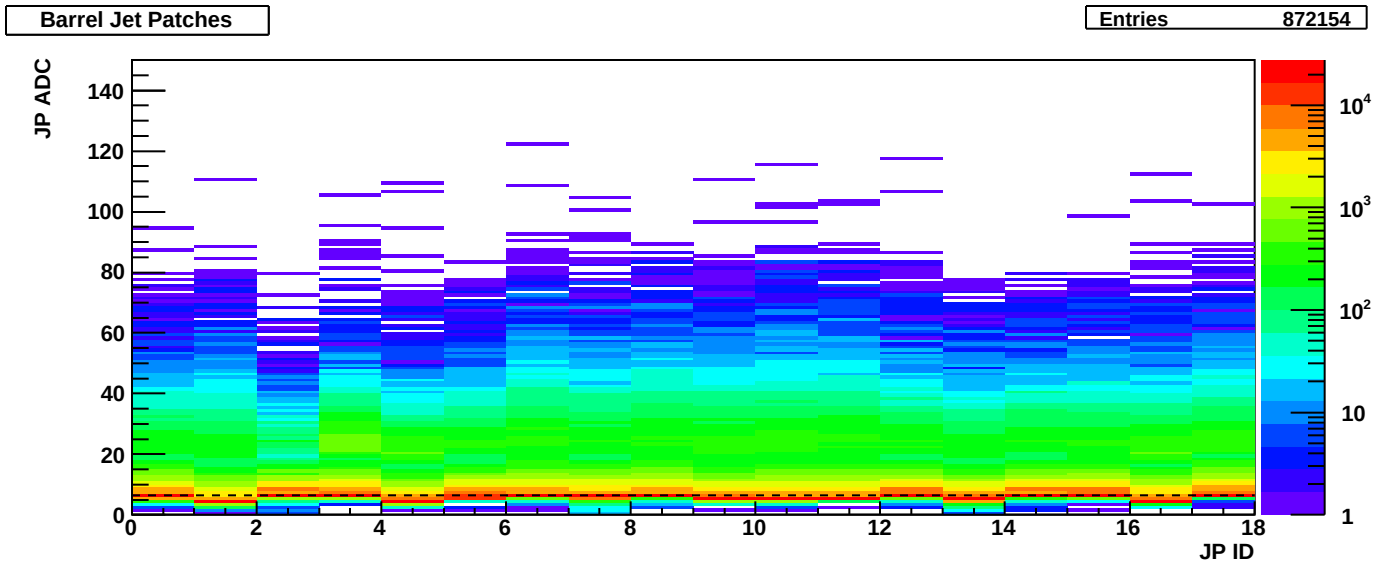
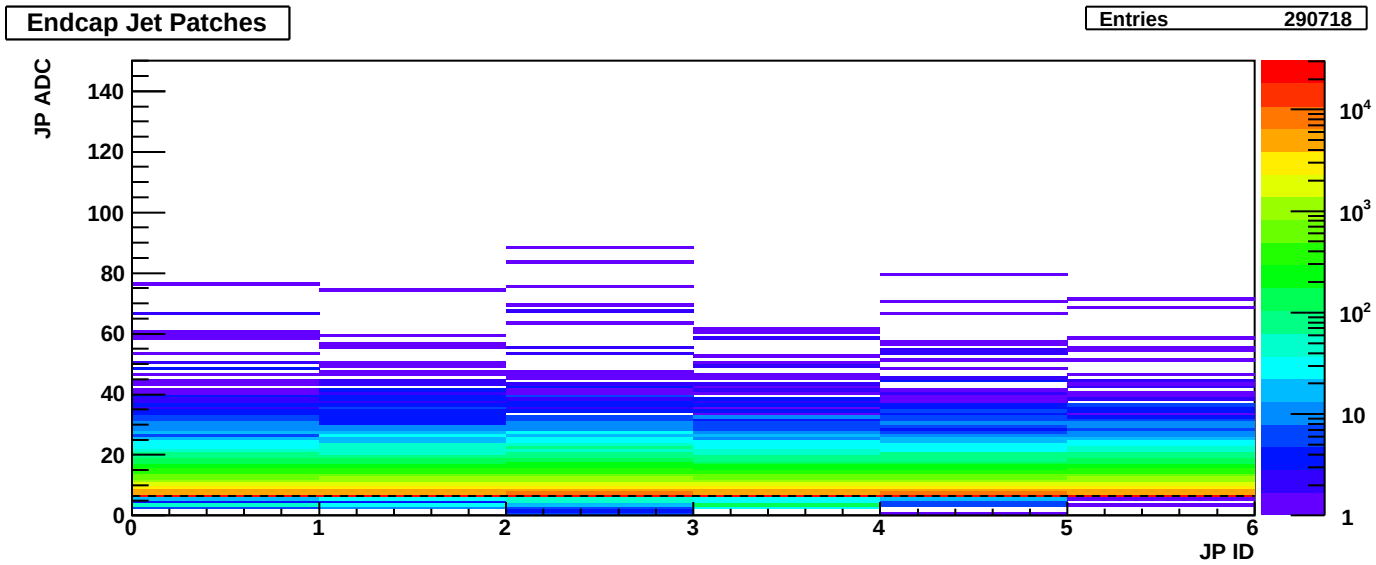

Barrel EMC L0 Input - High Tower
Entries 1.45359e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

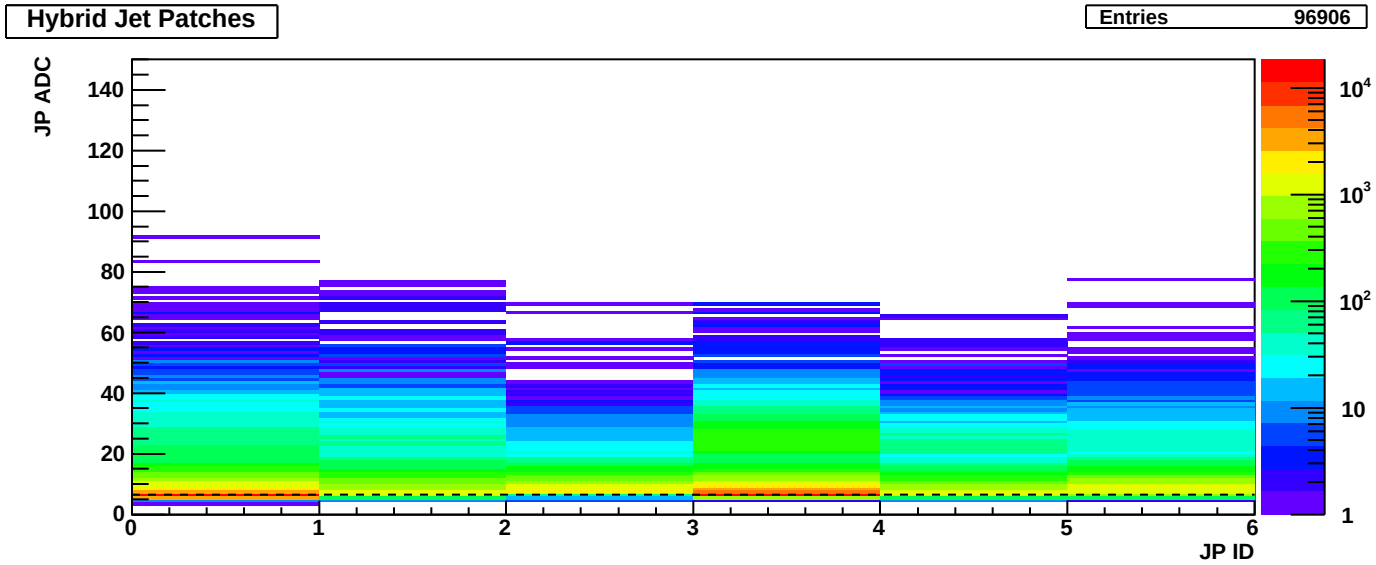

Barrel EMC L0 Input - Patch Sum
Entries 1.45359e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

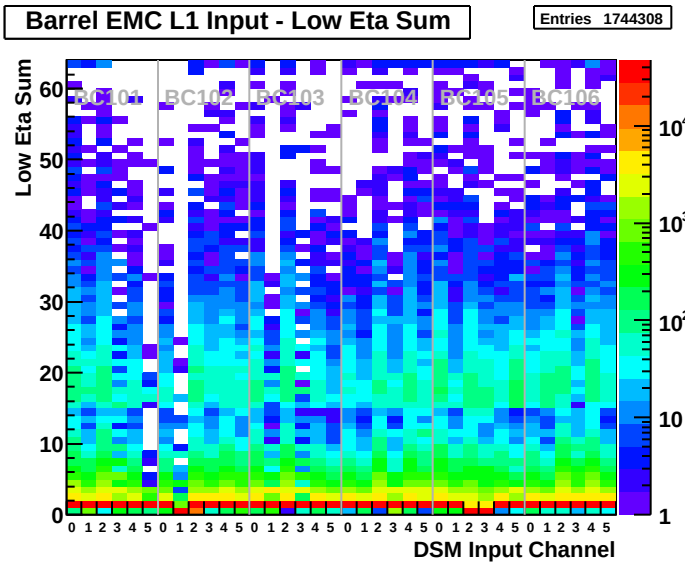

Endcap EMC L0 Input - High Tower
Entries 4360770
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

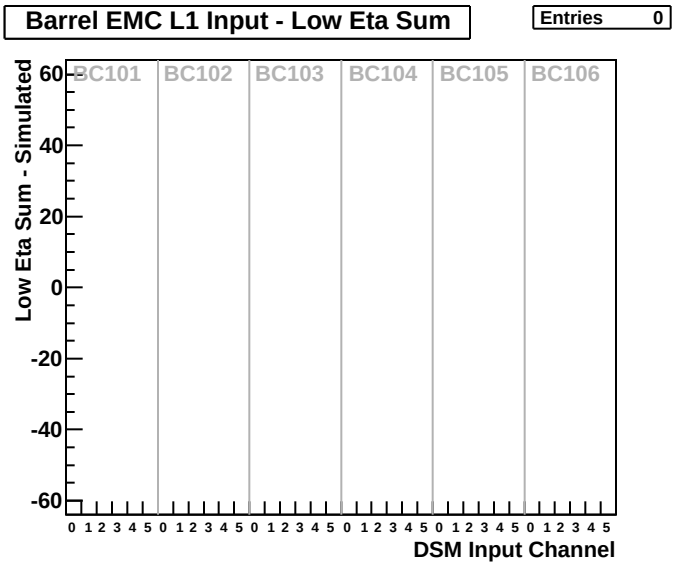

Endcap EMC L0 Input - Patch Sum
Entries 4360770
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

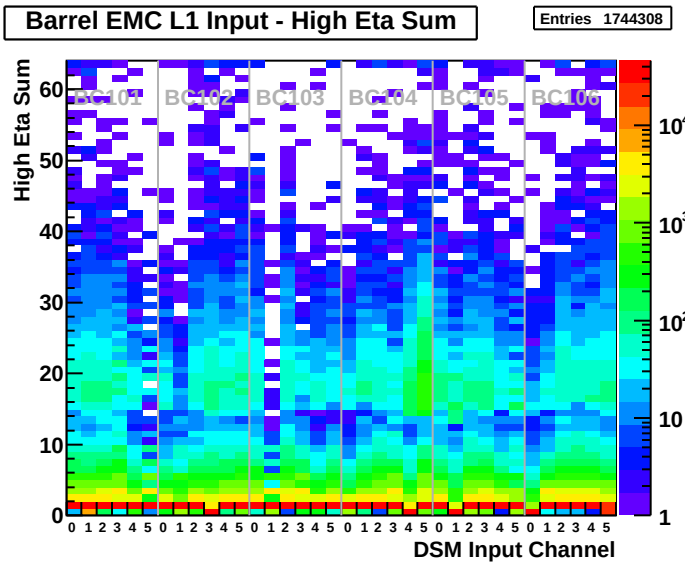

Barrel Jet Patches
Entries 872154
JP ADC
JP ID

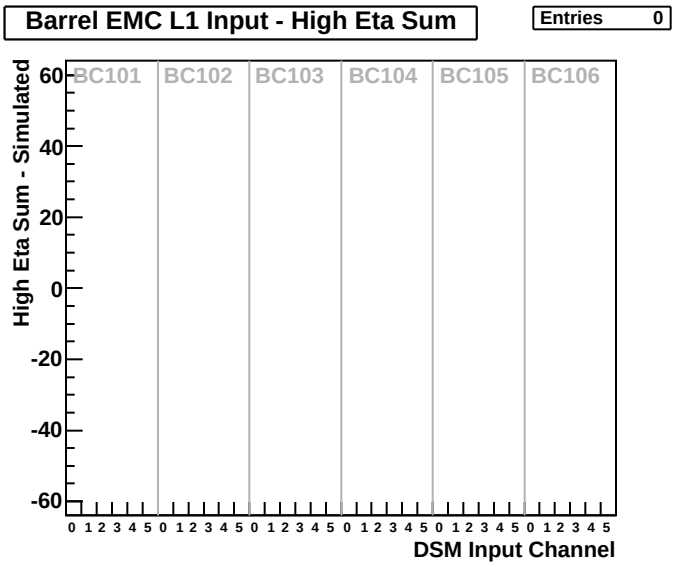

Endcap Jet Patches
Entries 290718
JP ADC
JP ID

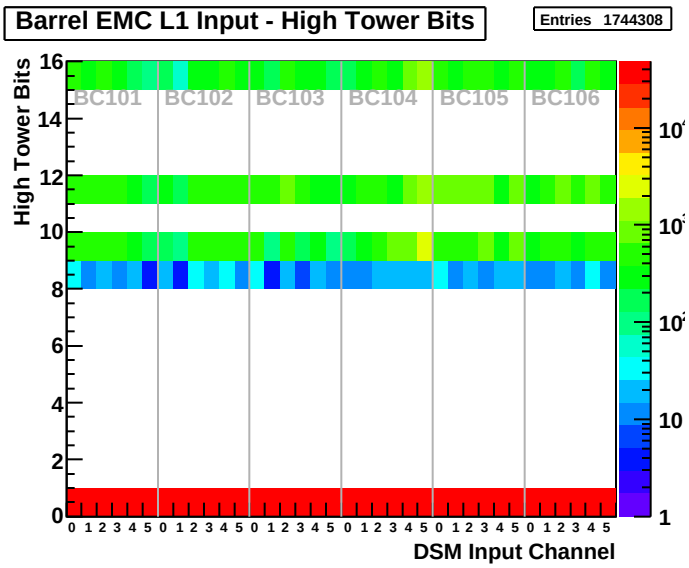

Hybrid Jet Patches
Entries 96906
JP ADC
JP ID

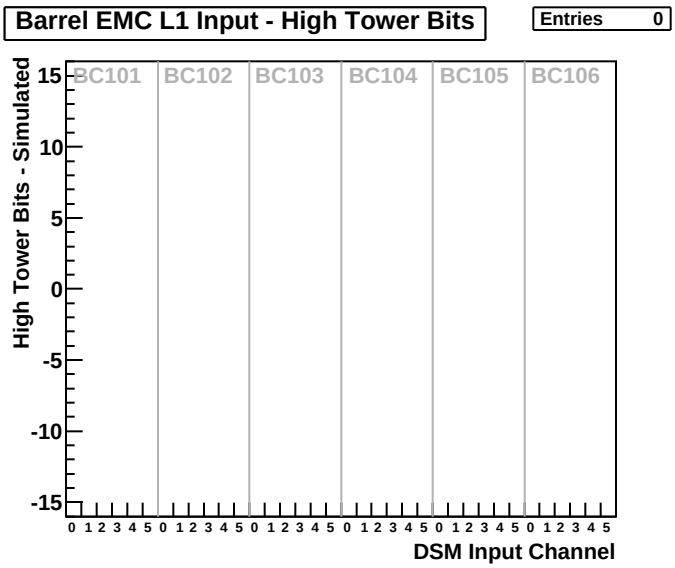

Barrel EMC L1 Input - Low Eta Sum
Entries 1744308
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

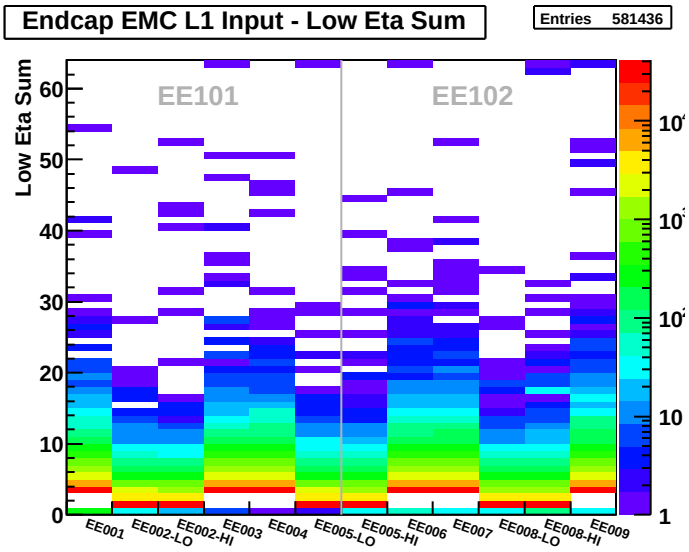

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

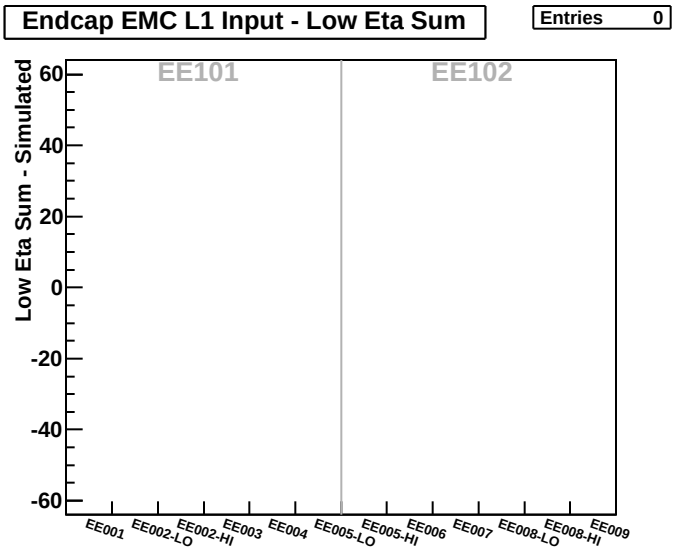

Barrel EMC L1 Input - High Eta Sum
Entries 1744308
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

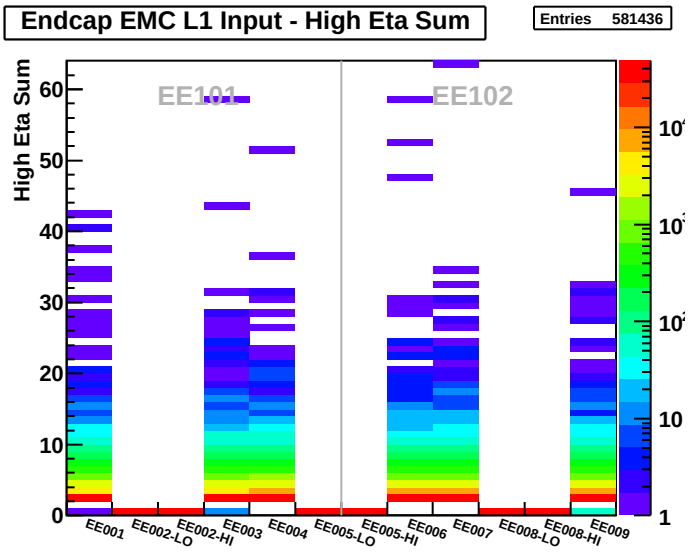

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

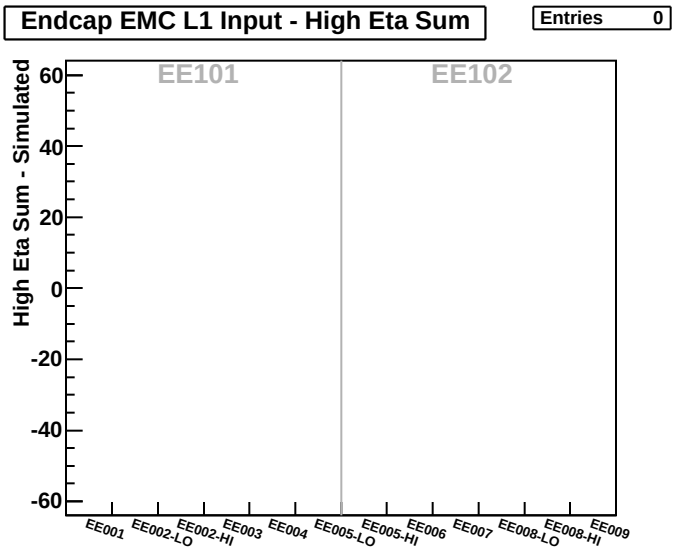

Barrel EMC L1 Input - High Tower Bits
Entries 1744308
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

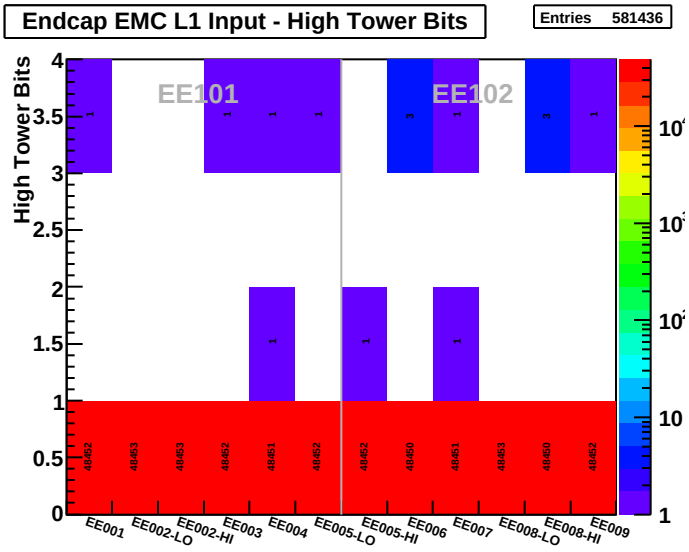

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

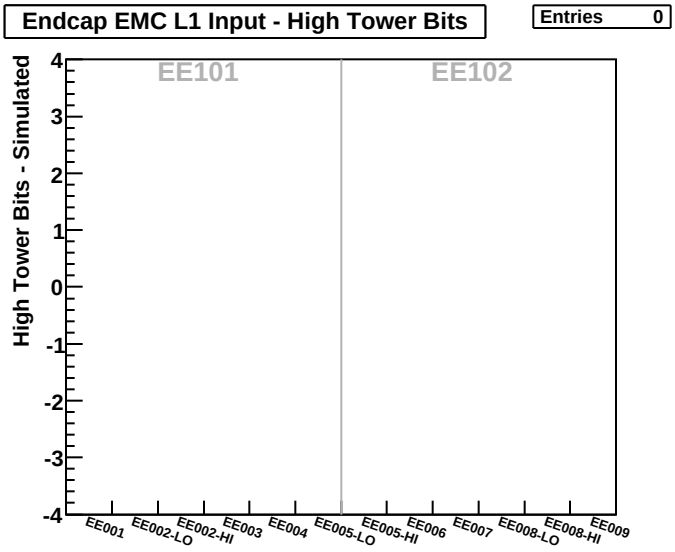

Endcap EMC L1 Input - Low Eta Sum
Entries 581436
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

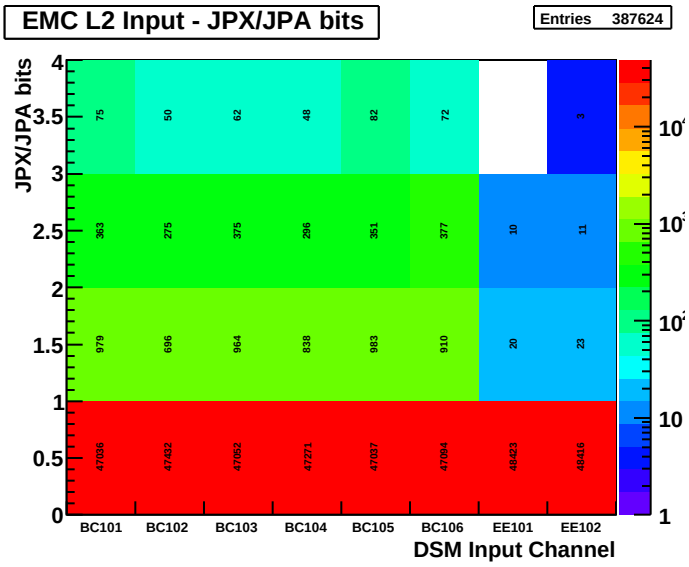

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

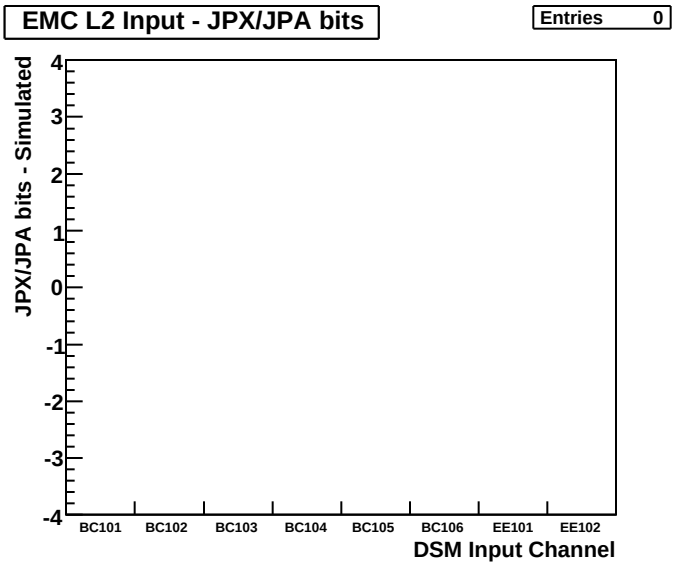

Endcap EMC L1 Input - High Eta Sum
Entries 581436
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

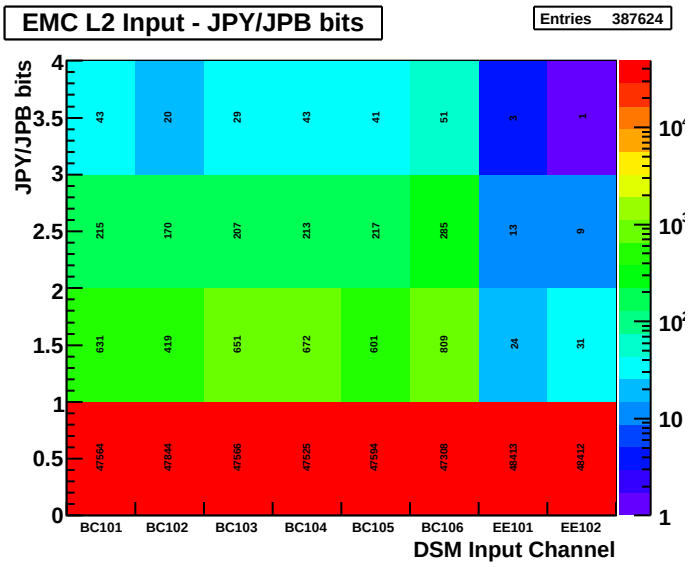

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

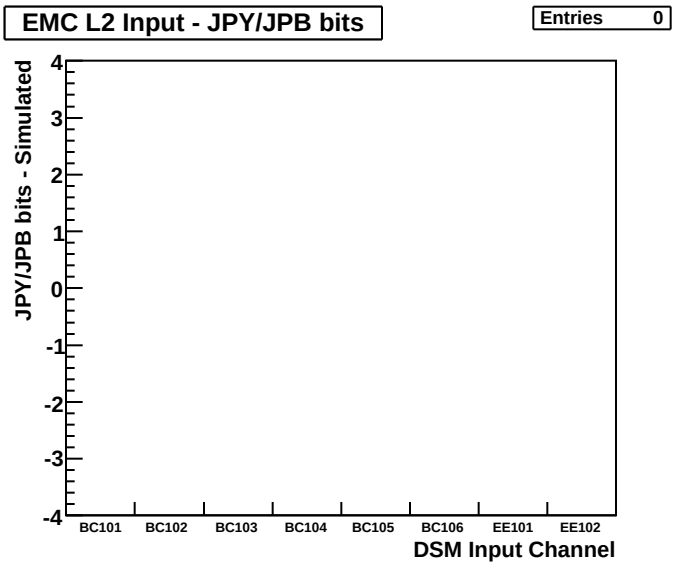

Endcap EMC L1 Input - High Tower Bits
Entries 581436
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

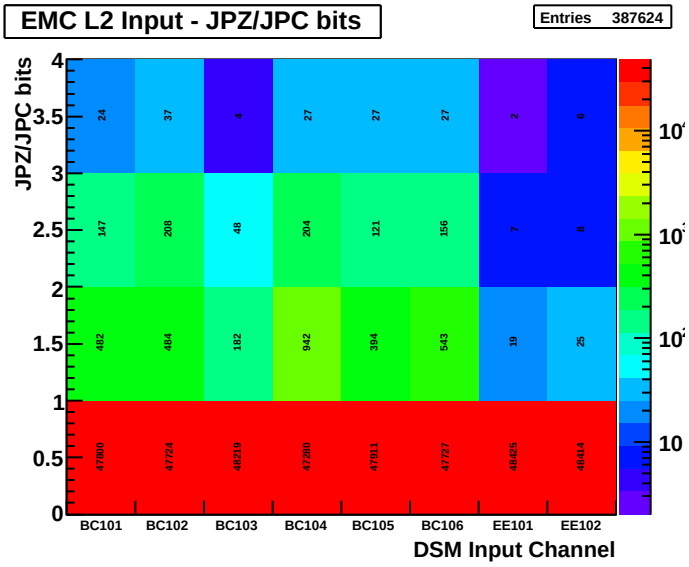

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

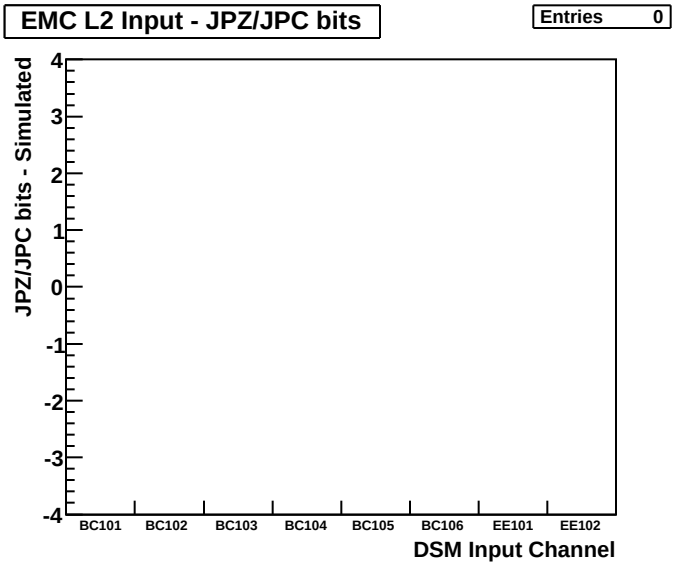

EMC L2 Input - JPX/JPA bits
Entries 387624
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
75 50 62 48 82 72 3
353 275 375 296 351 377 10 11
979 696 964 838 983 910 20 23
47036 47432 47052 47271 47037 47094 48423 48416

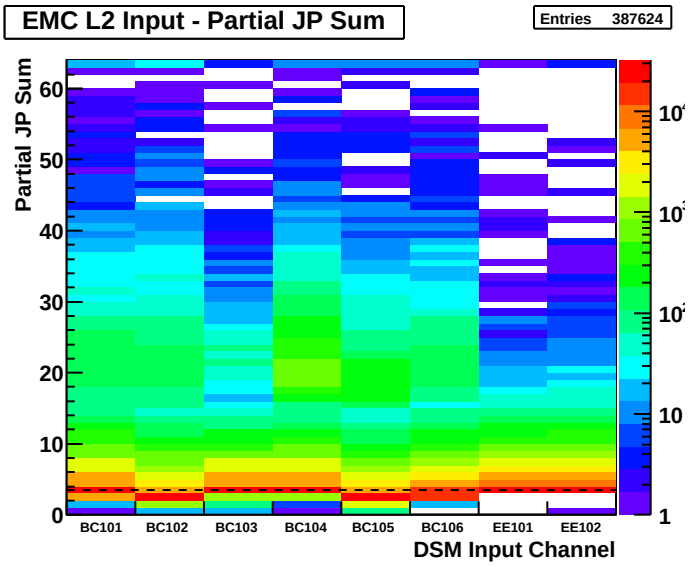

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

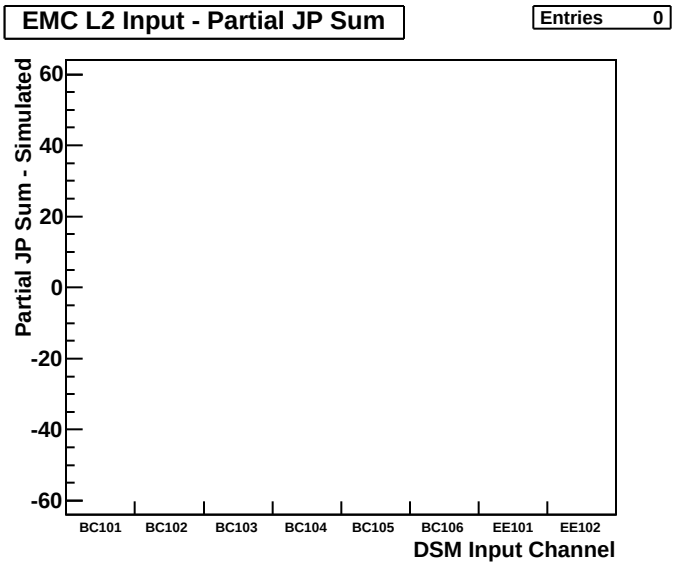

EMC L2 Input - JPY/JPB bits
Entries 387624
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
43 20 29 43 41 51 3 1
215 170 207 213 217 285 13 9
631 419 651 672 601 809 24 31
47564 47344 47566 47525 47594 47308 48413 48412

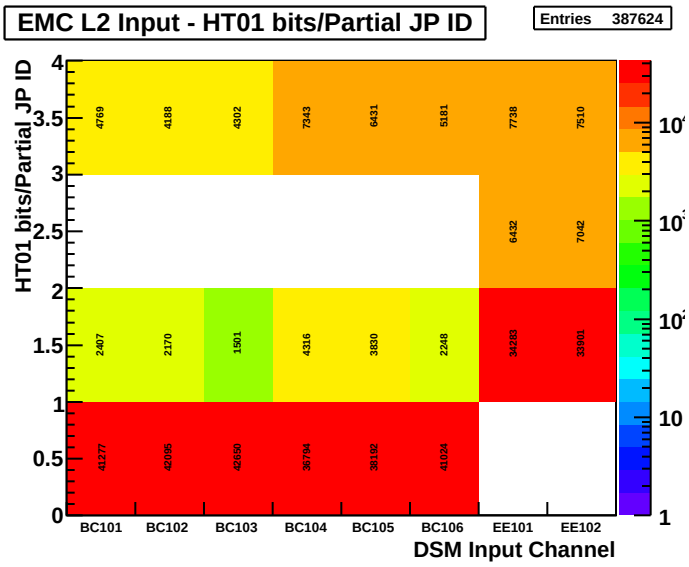

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

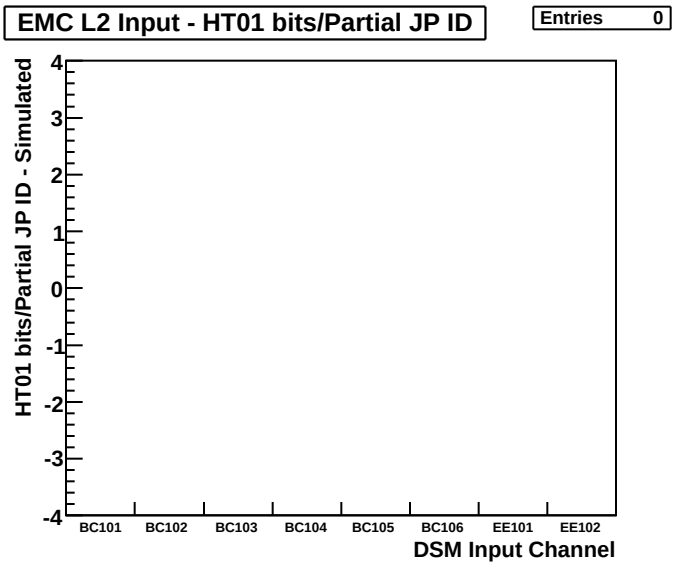

EMC L2 Input - JPZ/JPC bits
Entries 387624
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
24 37 4 27 27 27 2 6
147 208 48 204 121 156 7 8
482 484 182 942 394 543 19 25
47800 47724 48219 47280 47911 47727 48425 48414

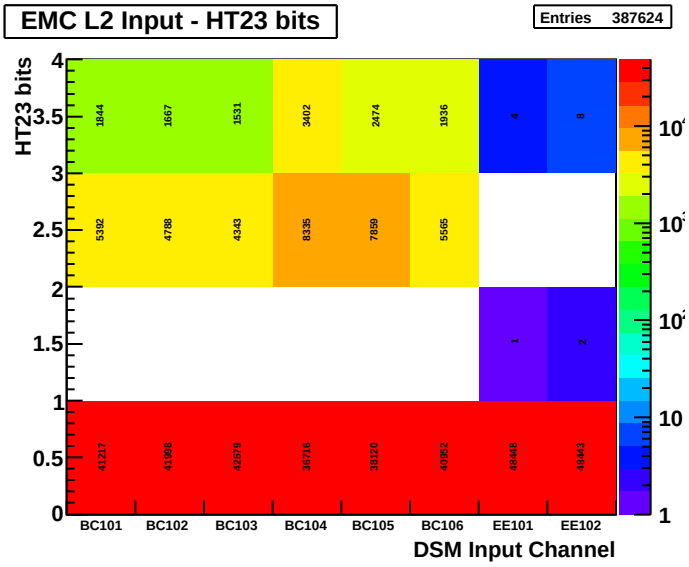

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

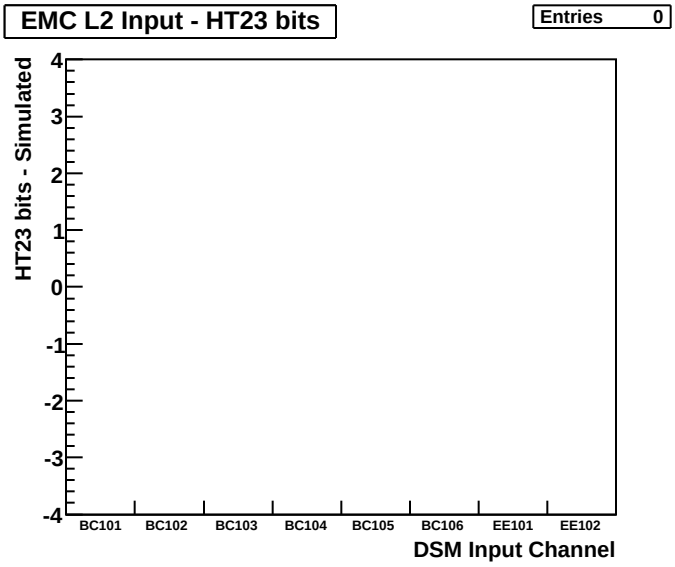

EMC L2 Input - Partial JP Sum
Entries 387624
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

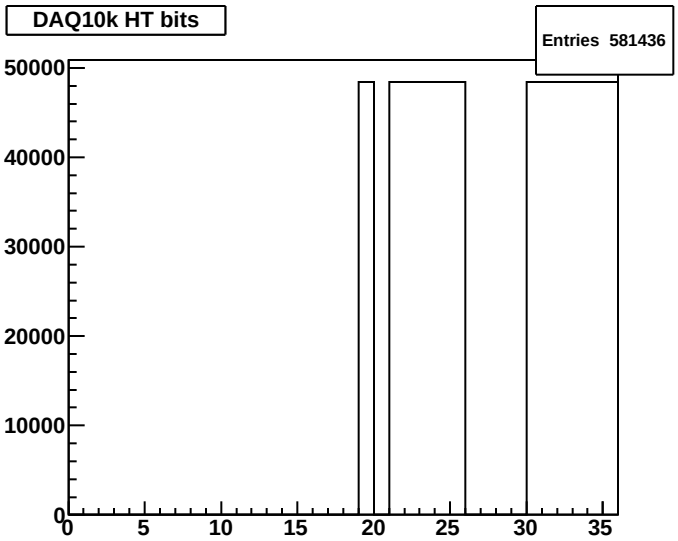

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

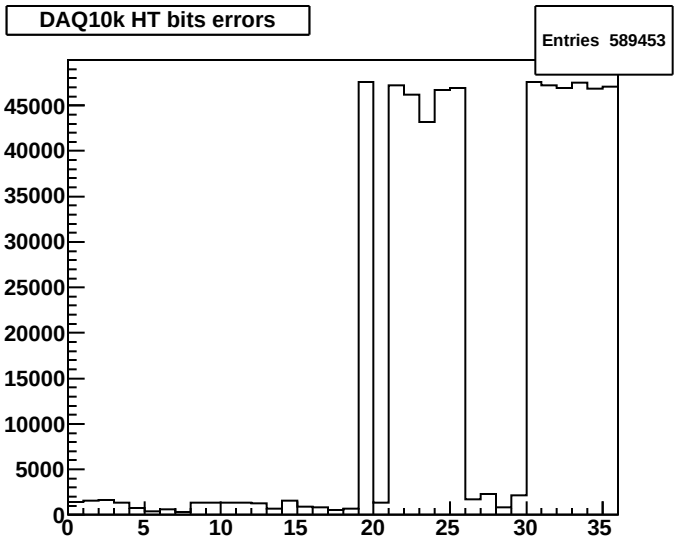

EMC L2 Input - HT01 bits/Partial JP ID
Entries 387624
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

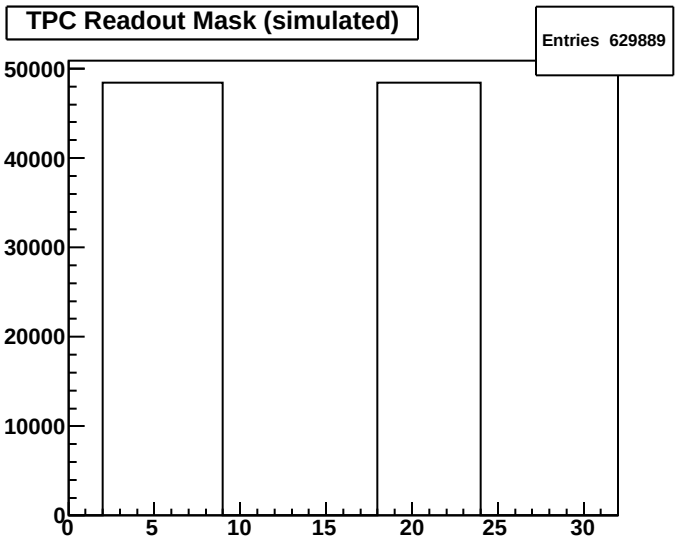

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

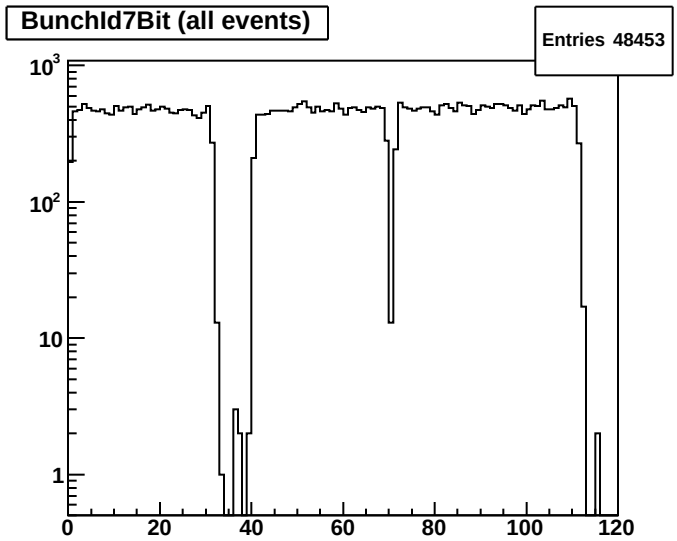

EMC L2 Input - HT23 bits
Entries 387624
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

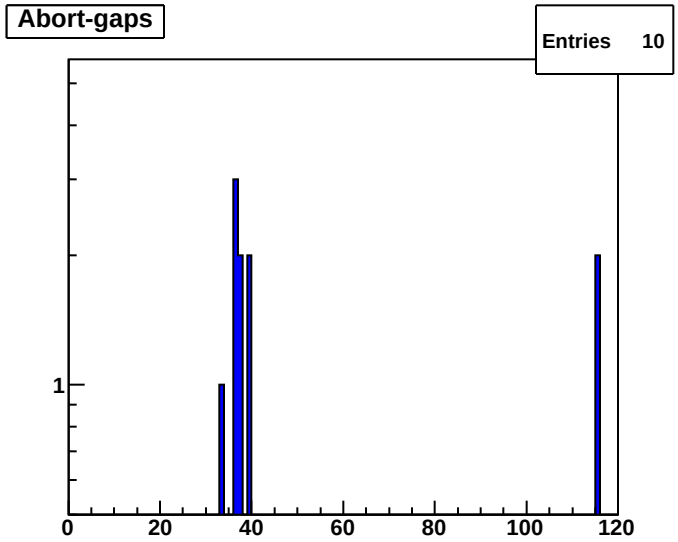

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

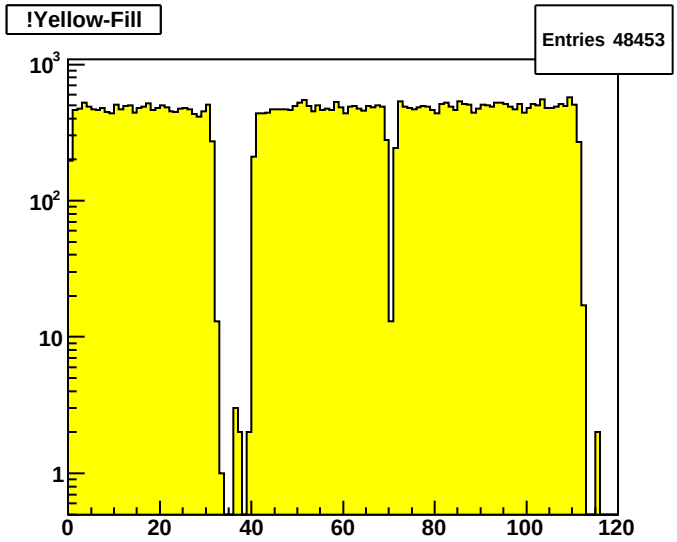

DAQ10k HT bits
Entries 581436
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

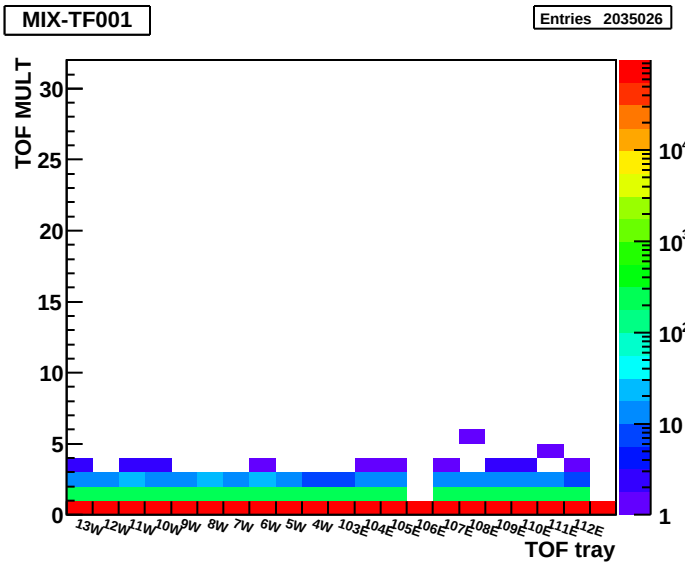

DAQ10k HT bits errors
Entries 589453
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

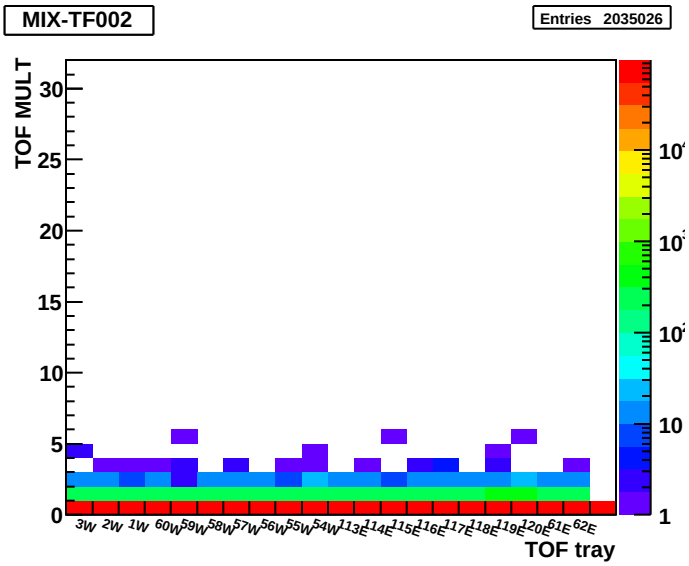

TPC Readout Mask (simulated)
Entries 629889
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

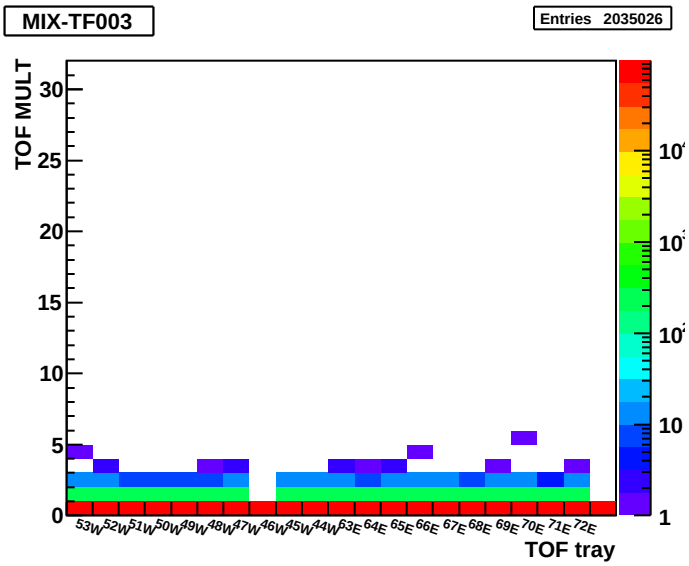

BunchId7Bit (all events)
Entries 48453
10^3
10^2
10
1
0 20 40 60 80 100 120

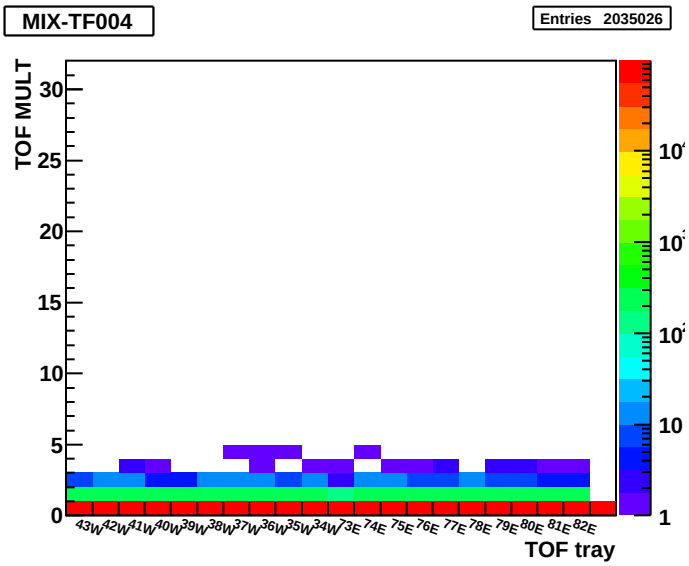

Abort-gaps
Entries 10
1
0 20 40 60 80 100 120

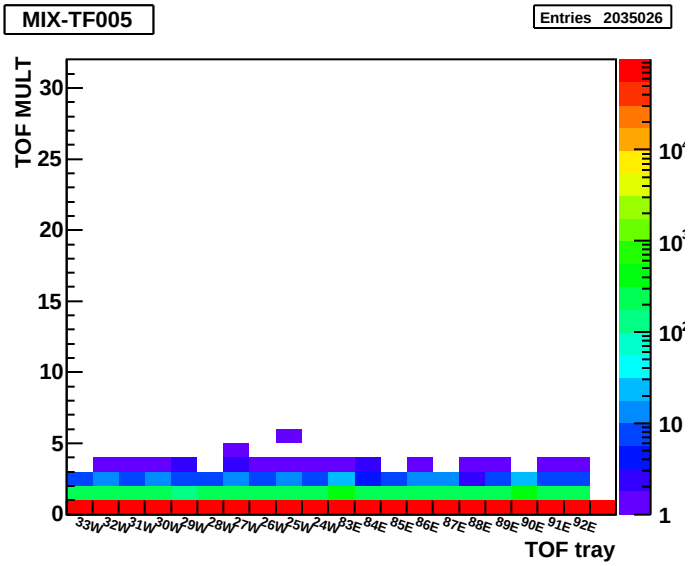

!Yellow-Fill
Entries 48453
10^3
10^2
10
1
0 20 40 60 80 100 120

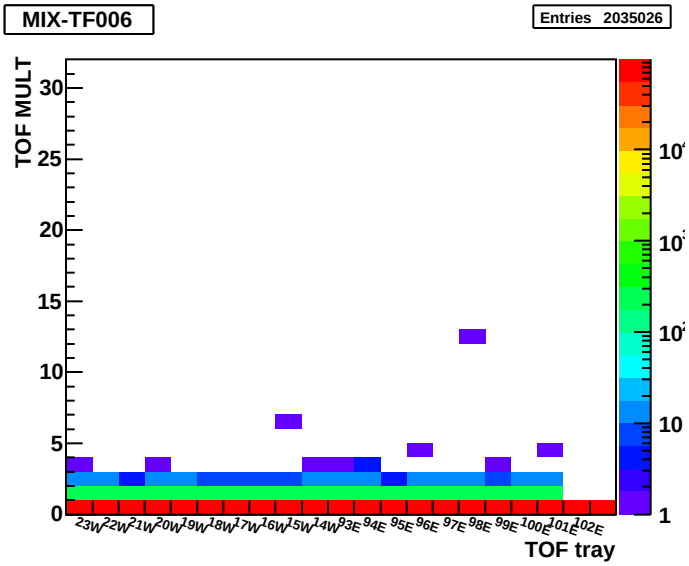

MIX-TF001
Entries 2035026
TOF MULT
TOF tray

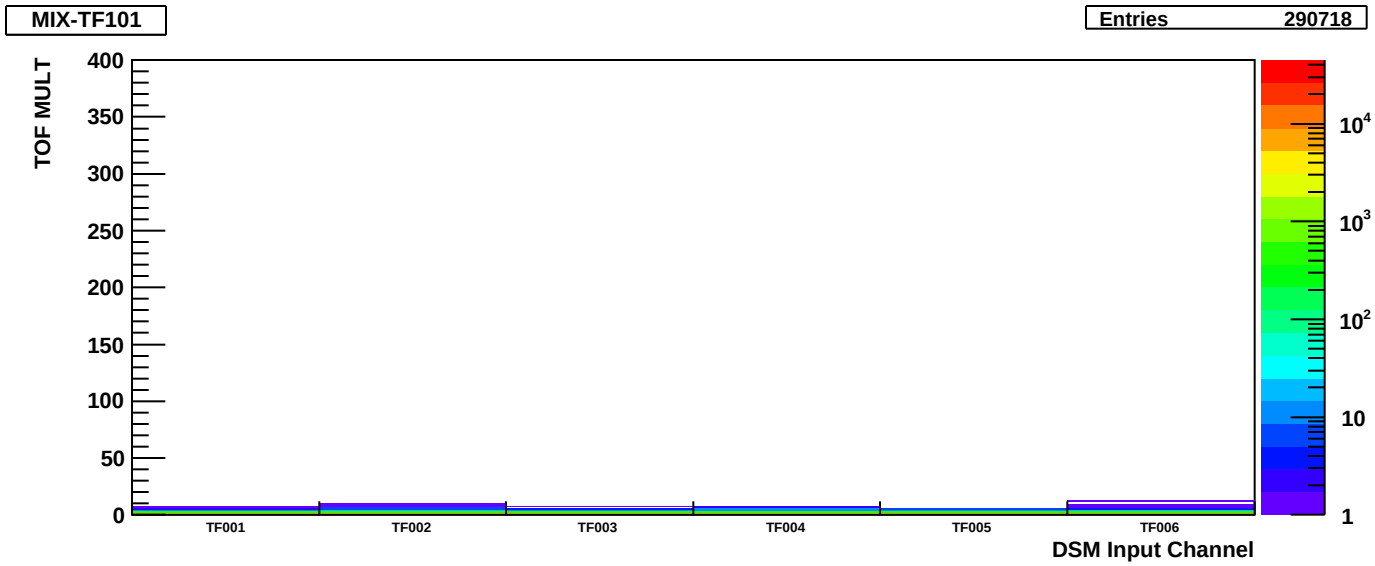

MIX-TF002
Entries 2035026
TOF MULT
TOF tray

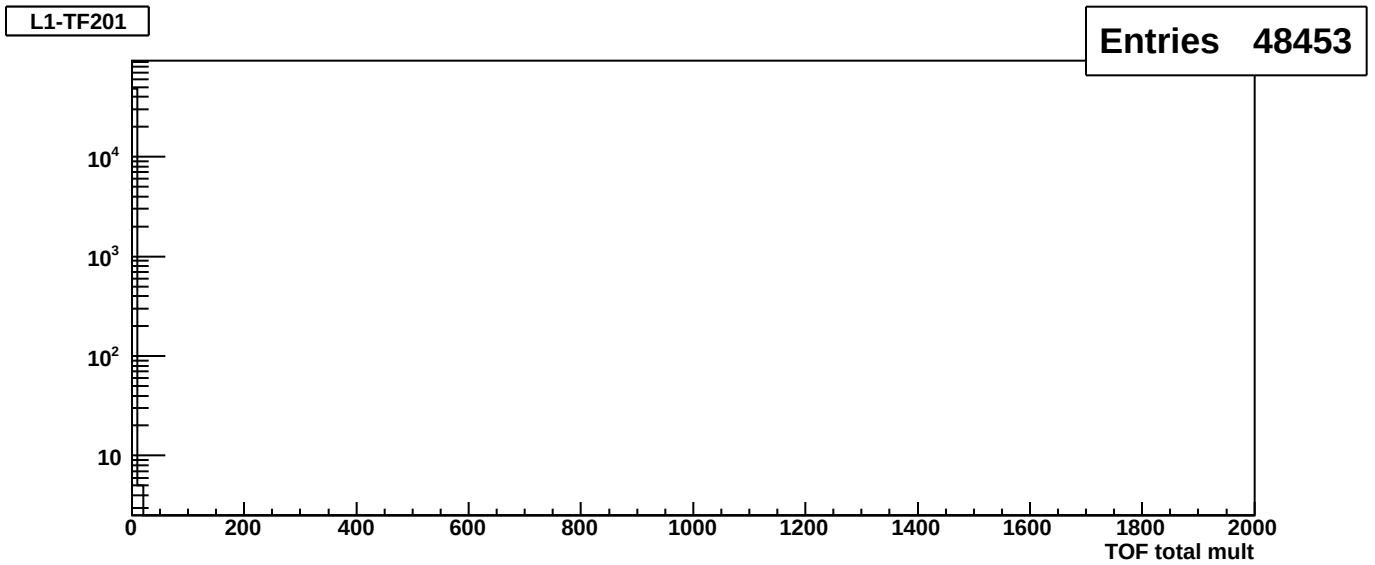

MIX-TF003
Entries 2035026
TOF MULT
TOF tray

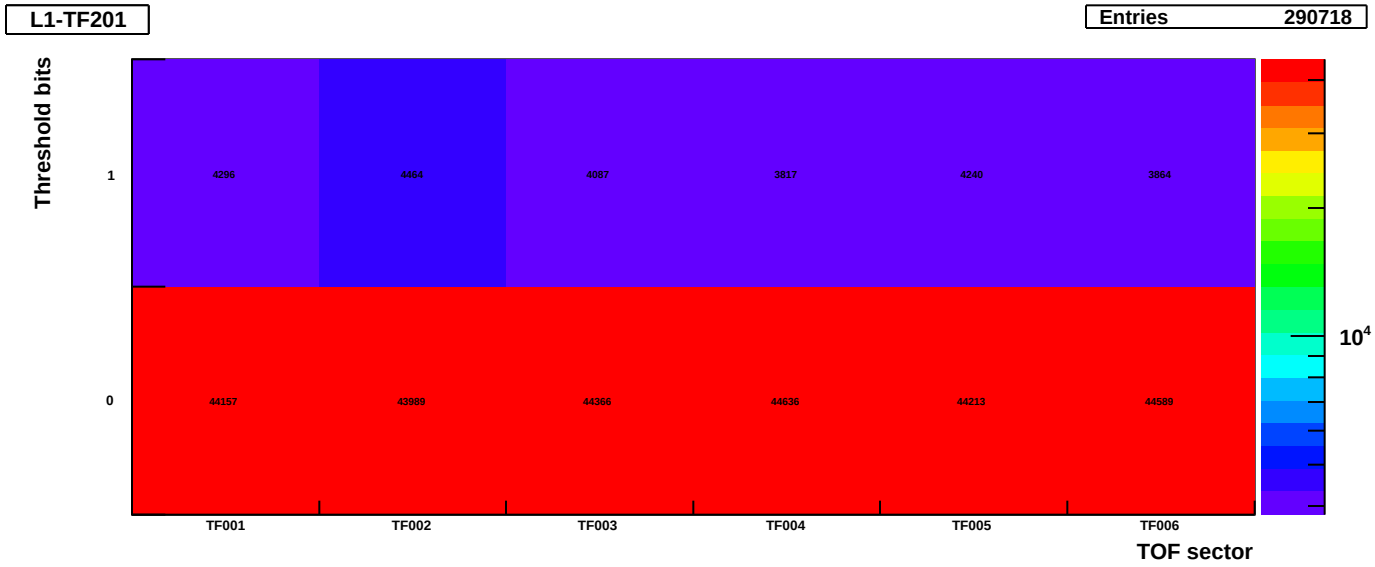

MIX-TF004
Entries 2035026
TOF MULT
TOF tray

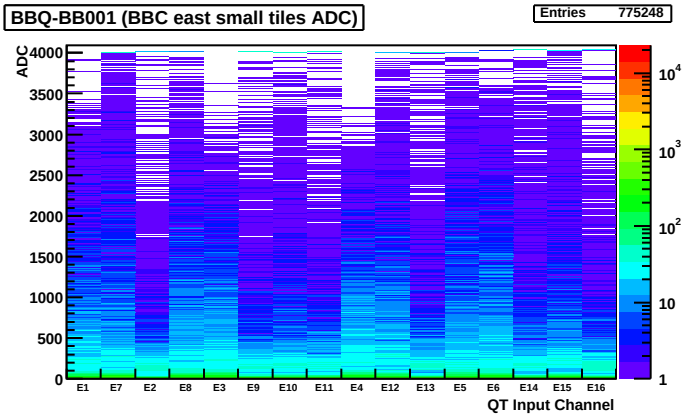

MIX-TF005
Entries 2035026
TOF MULT
TOF tray

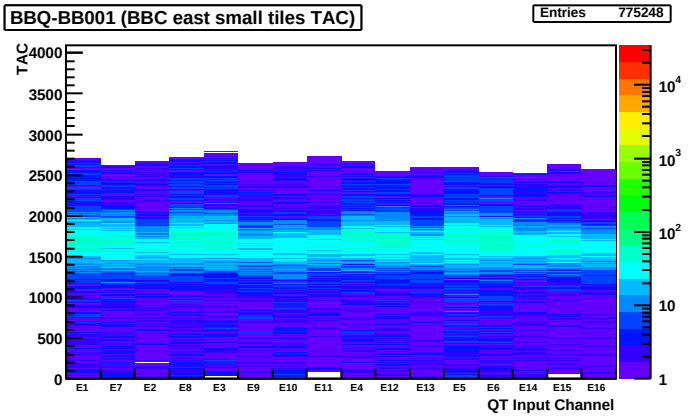

MIX-TF006
Entries 2035026
TOF MULT
TOF tray

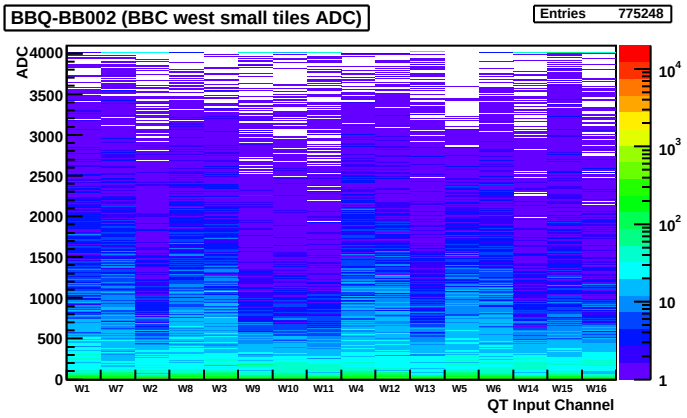

MIX-TF101
Entries 290718
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

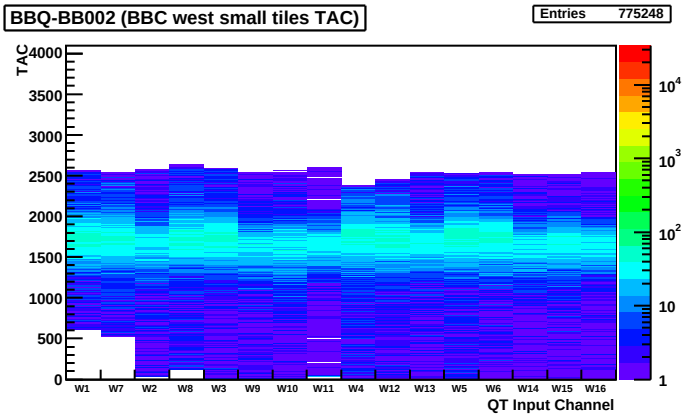

L1-TF201
Entries 48453
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

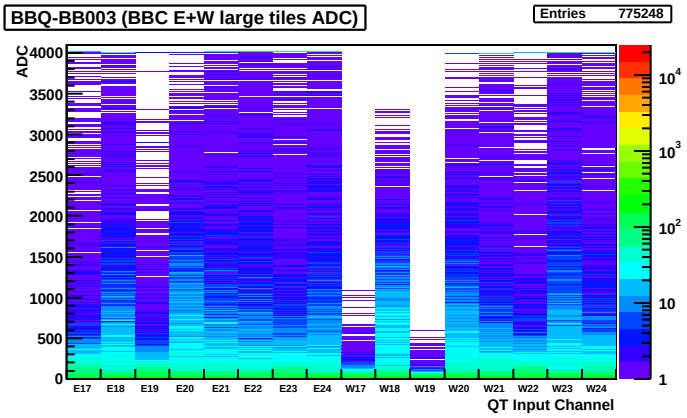

L1-TF201
Entries 290718
Threshold bits
1
0
4296
4464
4087
3817
4240
3864
44157
43989
44366
44636
44213
44589
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

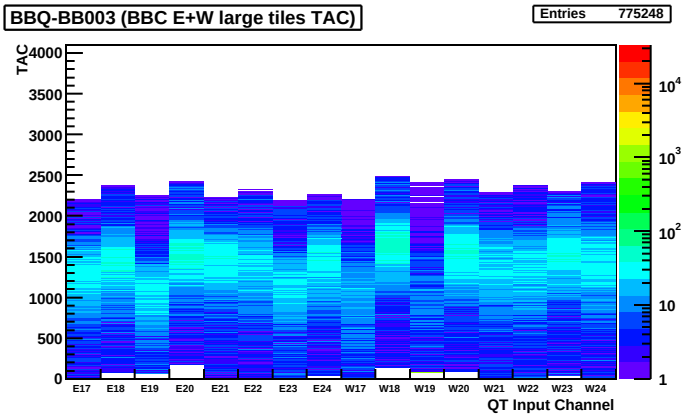

BBQ-BB001 (BBC east small tiles ADC)
Entries 775248
ADC
QT Input Channel

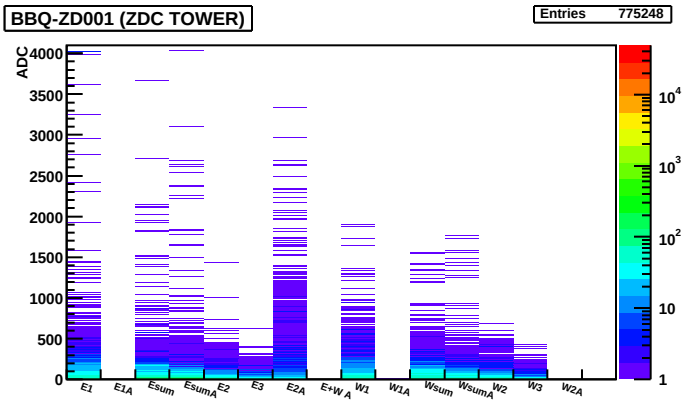

BBQ-BB001 (BBC east small tiles TAC)
Entries 775248
TAC
QT Input Channel

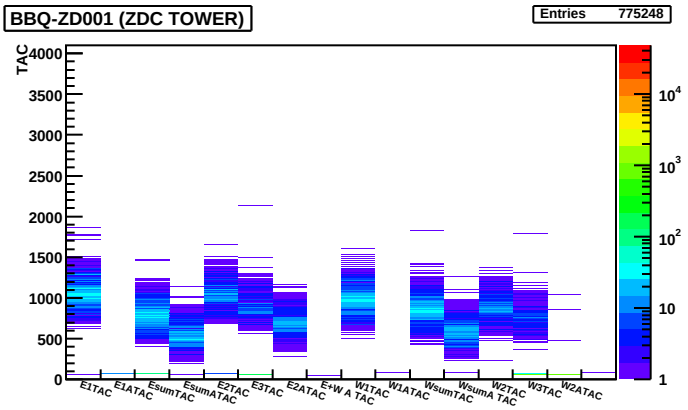

BBQ-BB002 (BBC west small tiles ADC)
Entries 775248
ADC
QT Input Channel

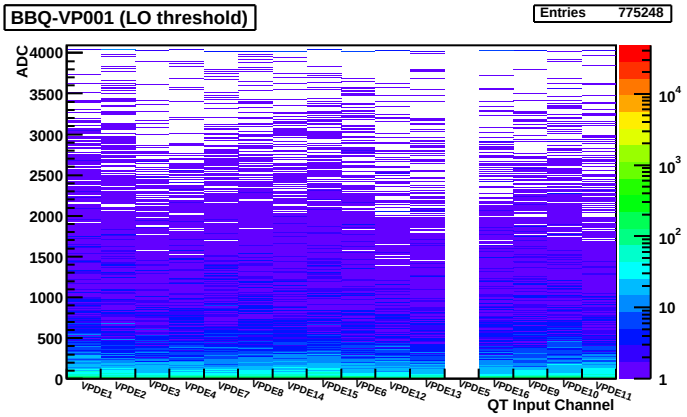

BBQ-BB002 (BBC west small tiles TAC)
Entries 775248
TAC
QT Input Channel

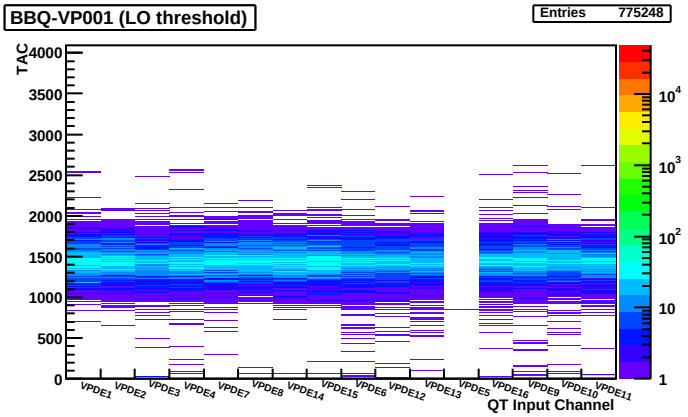

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 775248
ADC
QT Input Channel

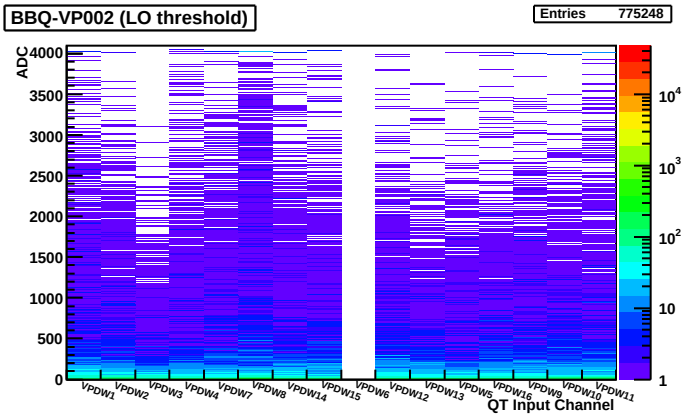

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 775248
TAC
QT Input Channel

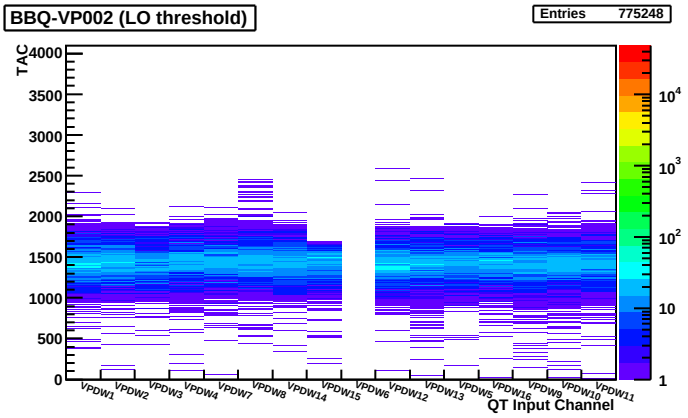

BBQ-ZD001 (ZDC TOWER)
Entries 775248
ADC

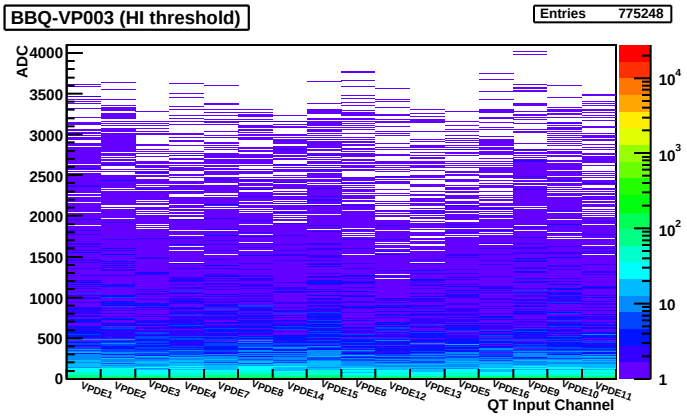

BBQ-ZD001 (ZDC TOWER)
Entries 775248
TAC

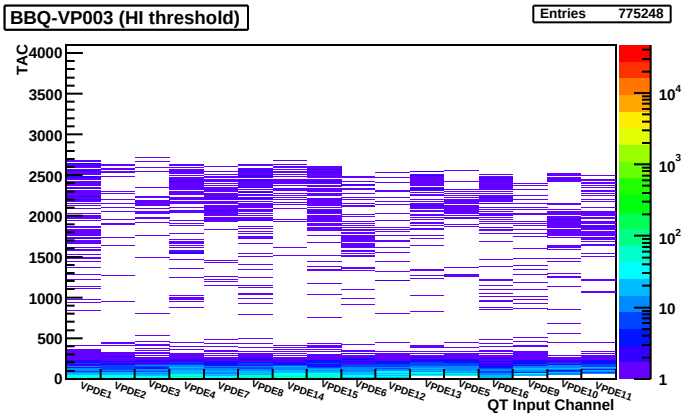

BBQ-VP001 (LO threshold)
Entries 775248
ADC
QT Input Channel

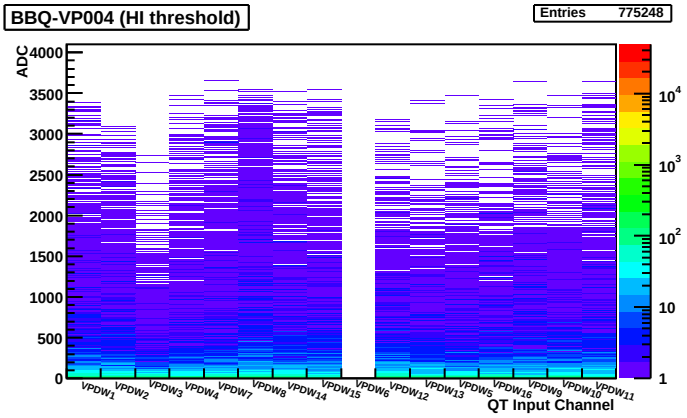

BBQ-VP001 (LO threshold)
Entries 775248
TAC
QT Input Channel

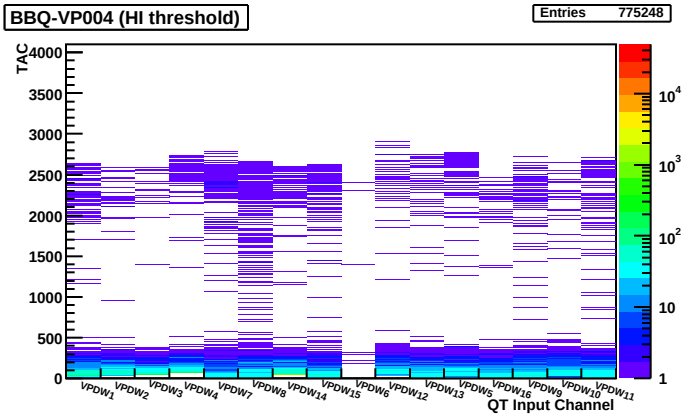

BBQ-VP002 (LO threshold)
Entries 775248
ADC
QT Input Channel

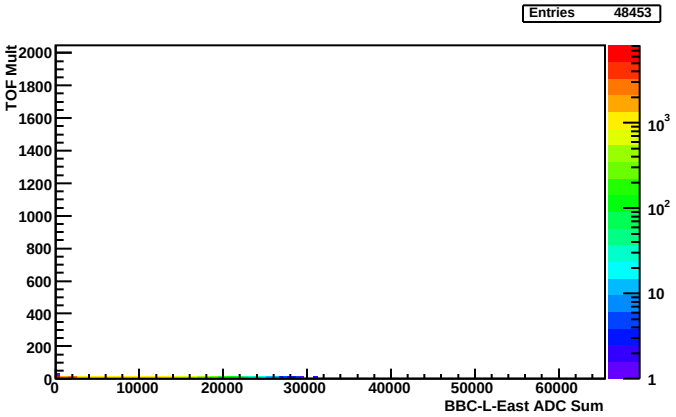

BBQ-VP002 (LO threshold)
Entries 775248
TAC
QT Input Channel

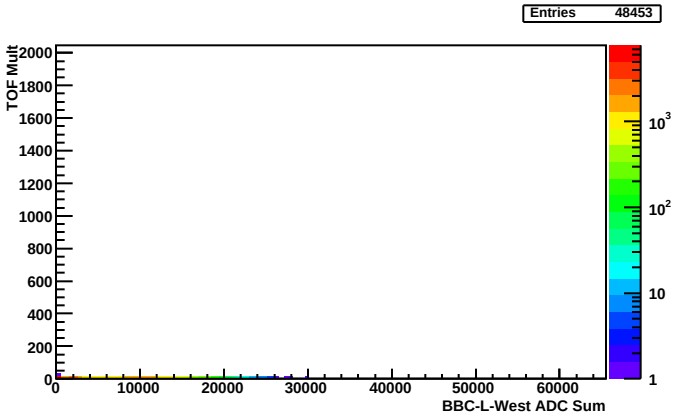

BBQ-VP003 (HI threshold)
Entries 775248
ADC
QT Input Channel

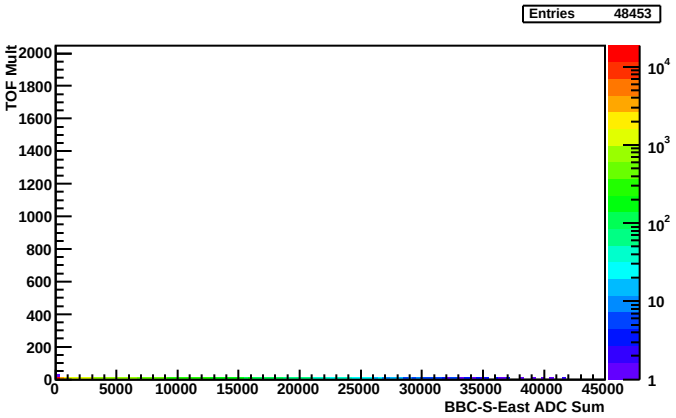

BBQ-VP003 (HI threshold)
Entries 775248
TAC
QT Input Channel

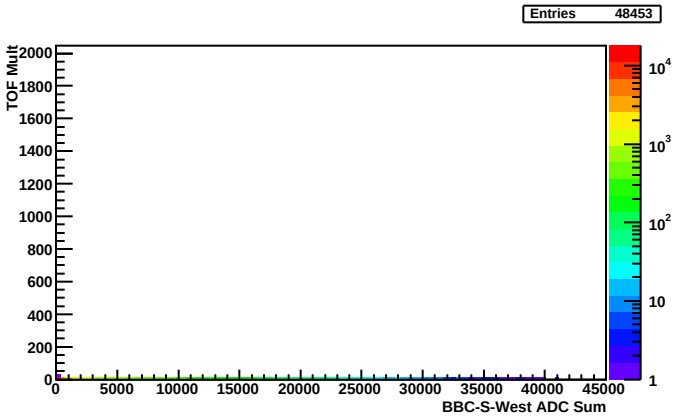

BBQ-VP004 (HI threshold)
Entries 775248
ADC
QT Input Channel

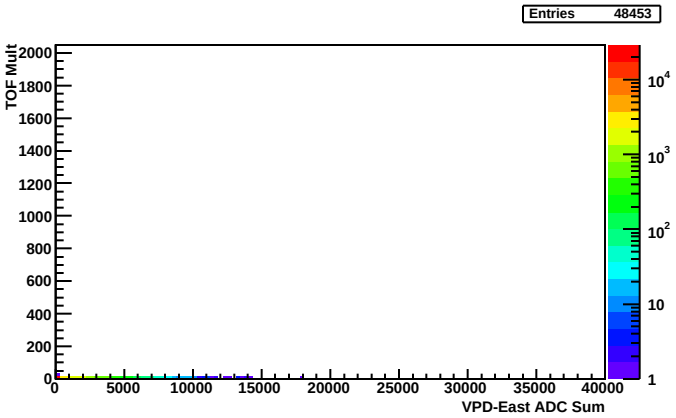

BBQ-VP004 (HI threshold)
Entries 775248
TAC
QT Input Channel

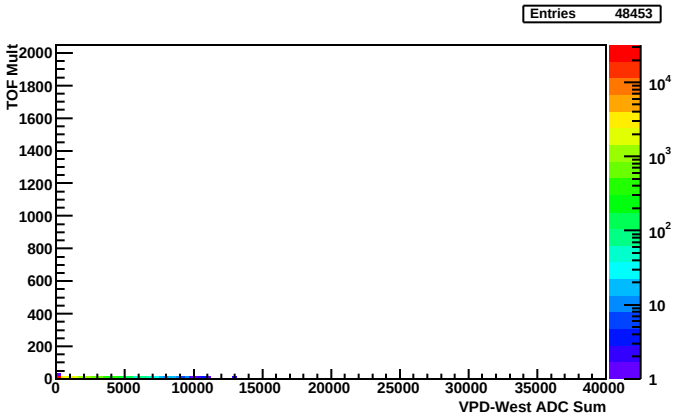

Entries 48453
TOF Mult
BBC-L-East ADC Sum

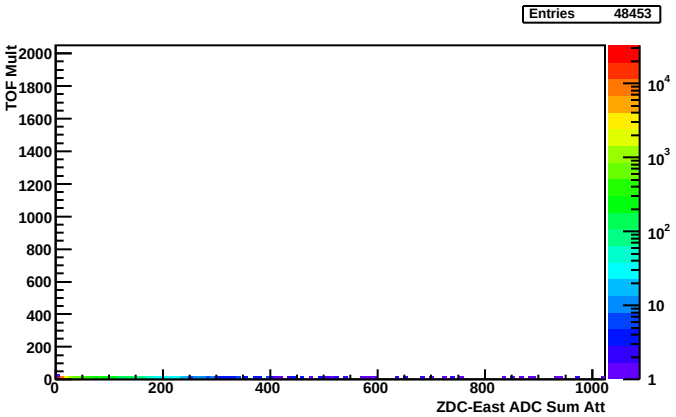

Entries 48453
TOF Mult
BBC-L-West ADC Sum

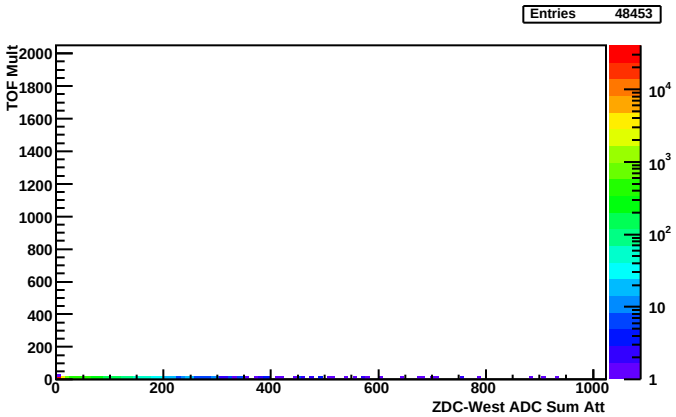

Entries 48453
TOF Mult
BBC-S-East ADC Sum

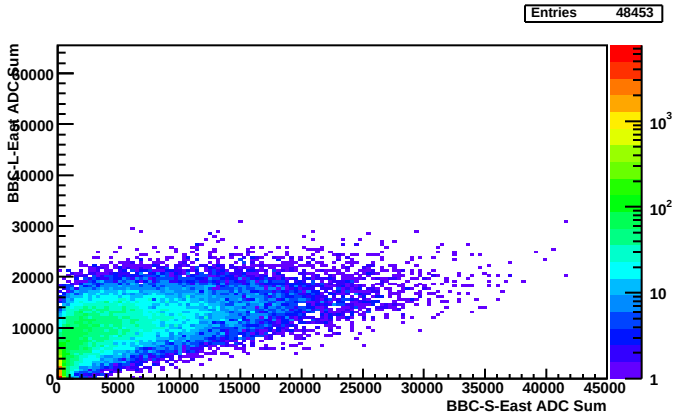

Entries 48453
TOF Mult
BBC-S-West ADC Sum

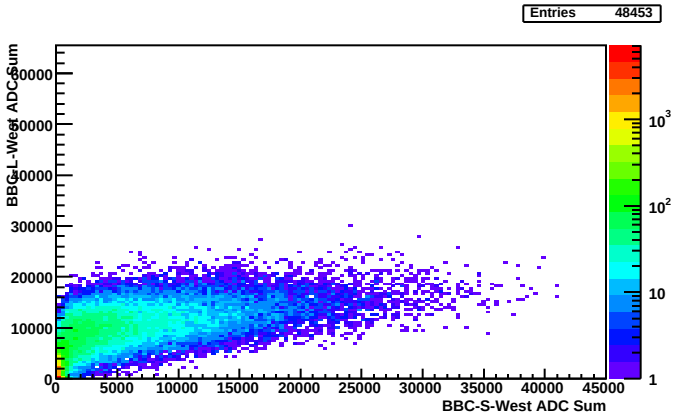

Entries 48453
TOF Mult
VPD-East ADC Sum

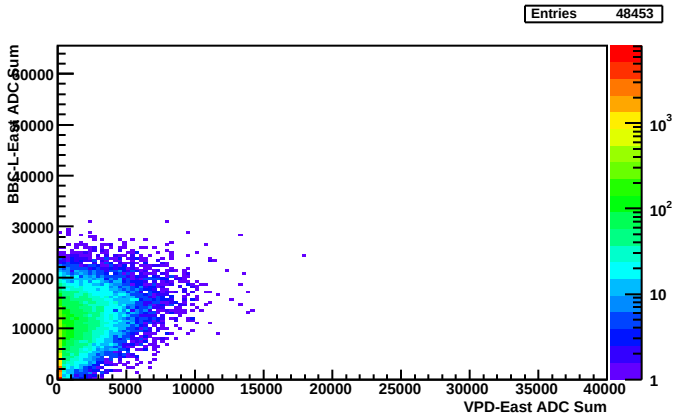

Entries 48453
TOF Mult
VPD-West ADC Sum

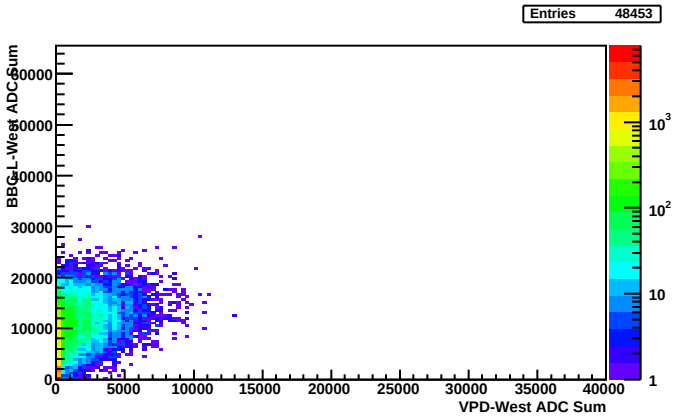

Entries 48453
TOF Mult
ZDC-East ADC Sum Att

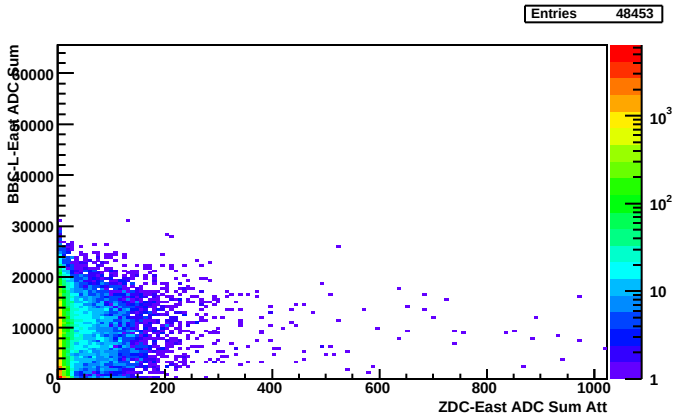

Entries 48453
TOF Mult
ZDC-West ADC Sum Att

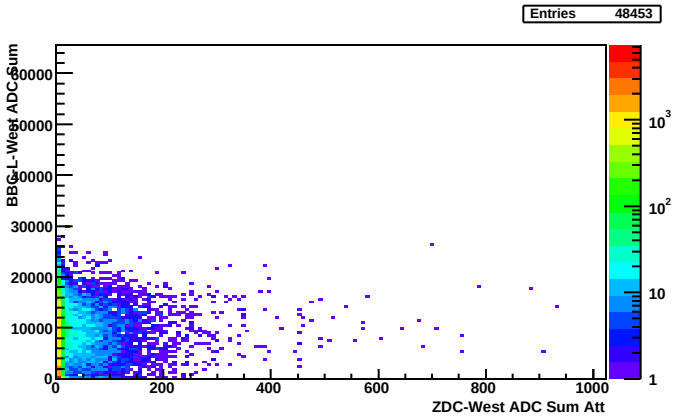

Entries 48453
BBC-L-East ADC Sum
BBC-S-East ADC Sum

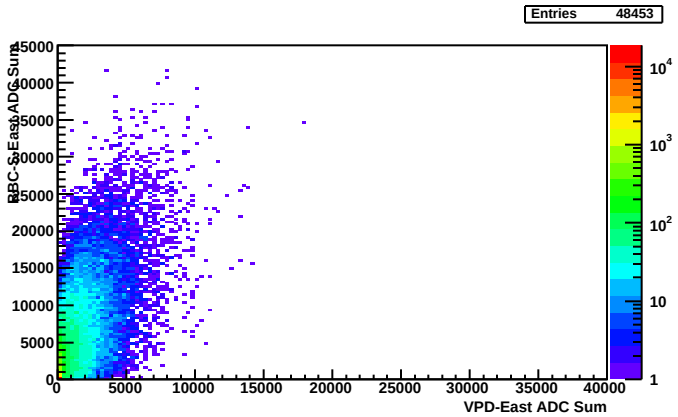

Entries 48453
BBC-L-West ADC Sum
BBC-S-West ADC Sum

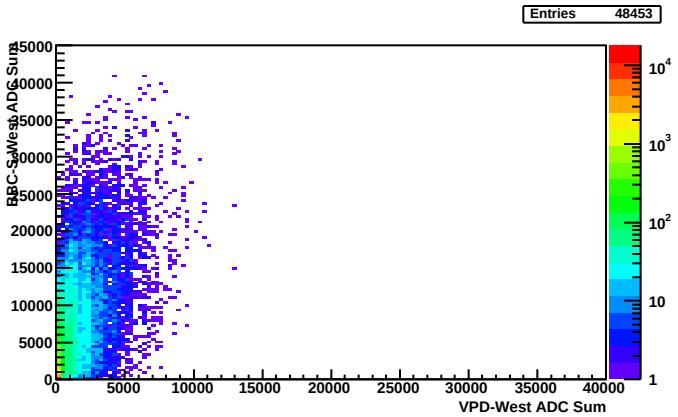

Entries 48453
BBC-L-East ADC Sum
VPD-East ADC Sum

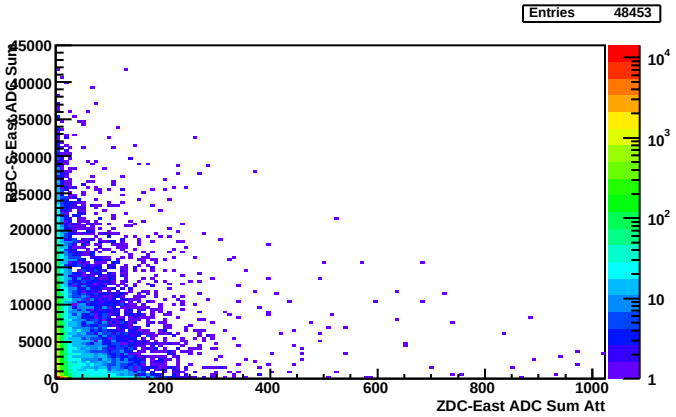

Entries 48453
BBC-L-West ADC Sum
VPD-West ADC Sum

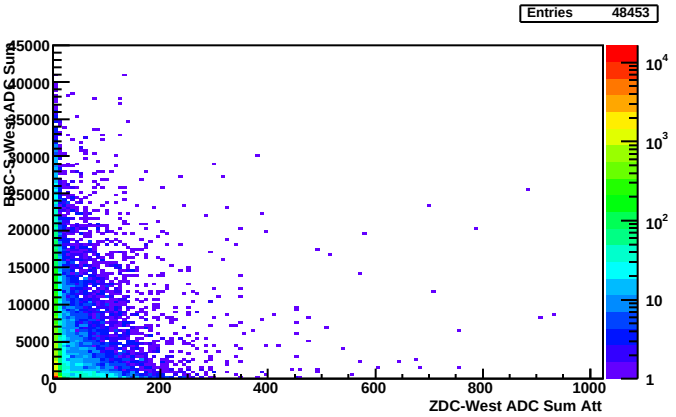

Entries 48453
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

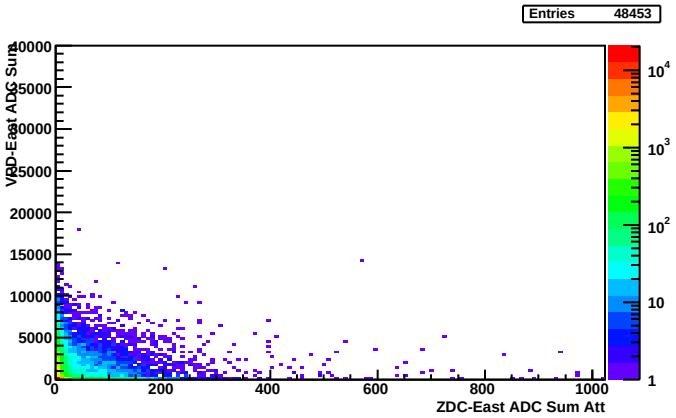

Entries 48453
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

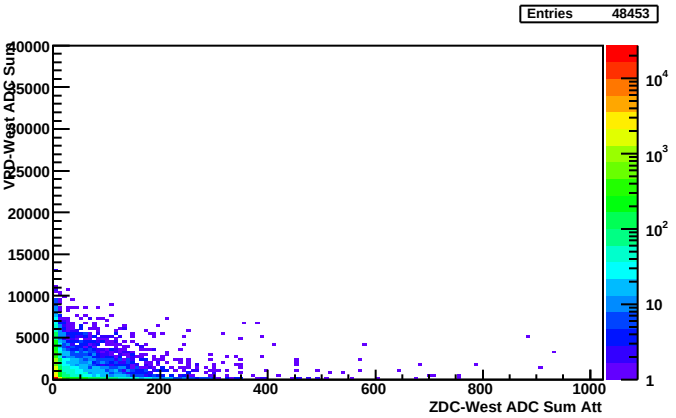

Entries 48453
BBC-S-East ADC Sum
VPD-East ADC Sum

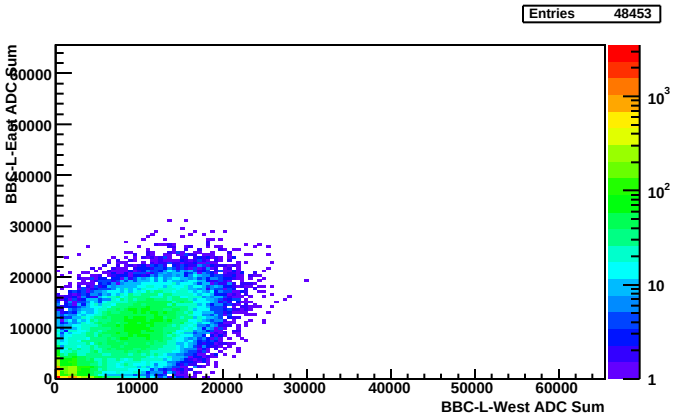

Entries 48453
BBC-S-West ADC Sum
VPD-West ADC Sum

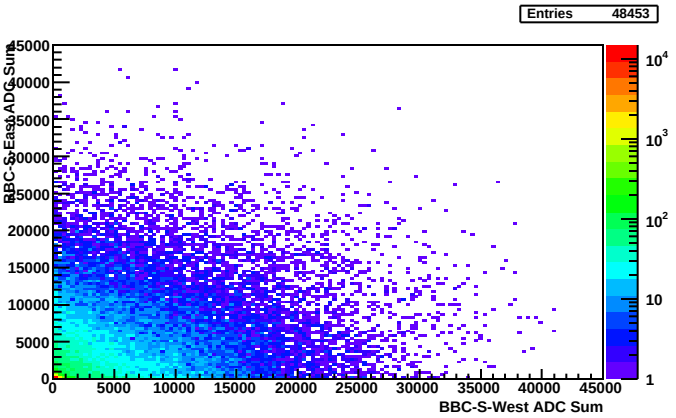

Entries 48453
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

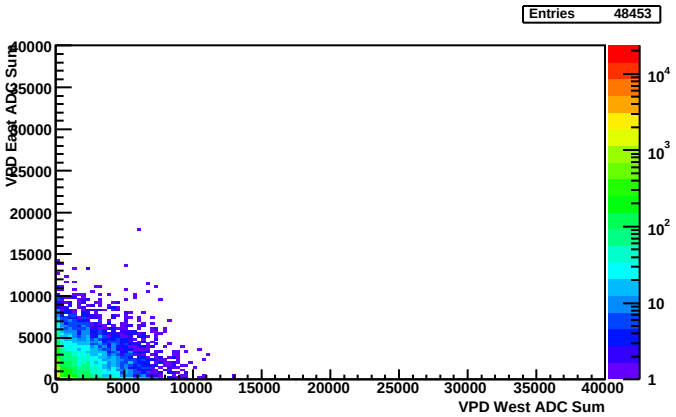

Entries 48453
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

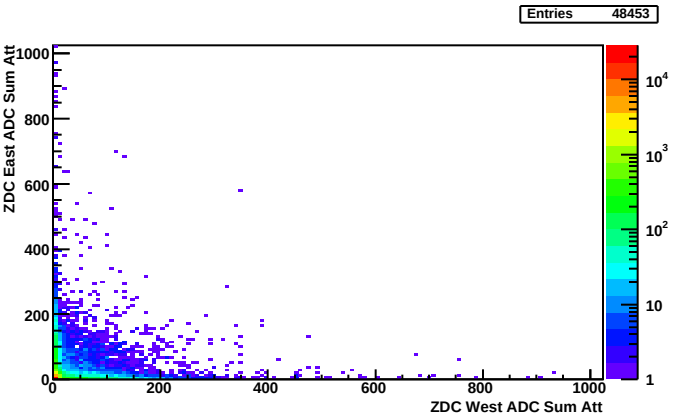

Entries 48453
VPD-East ADC Sum
ZDC-East ADC Sum Att

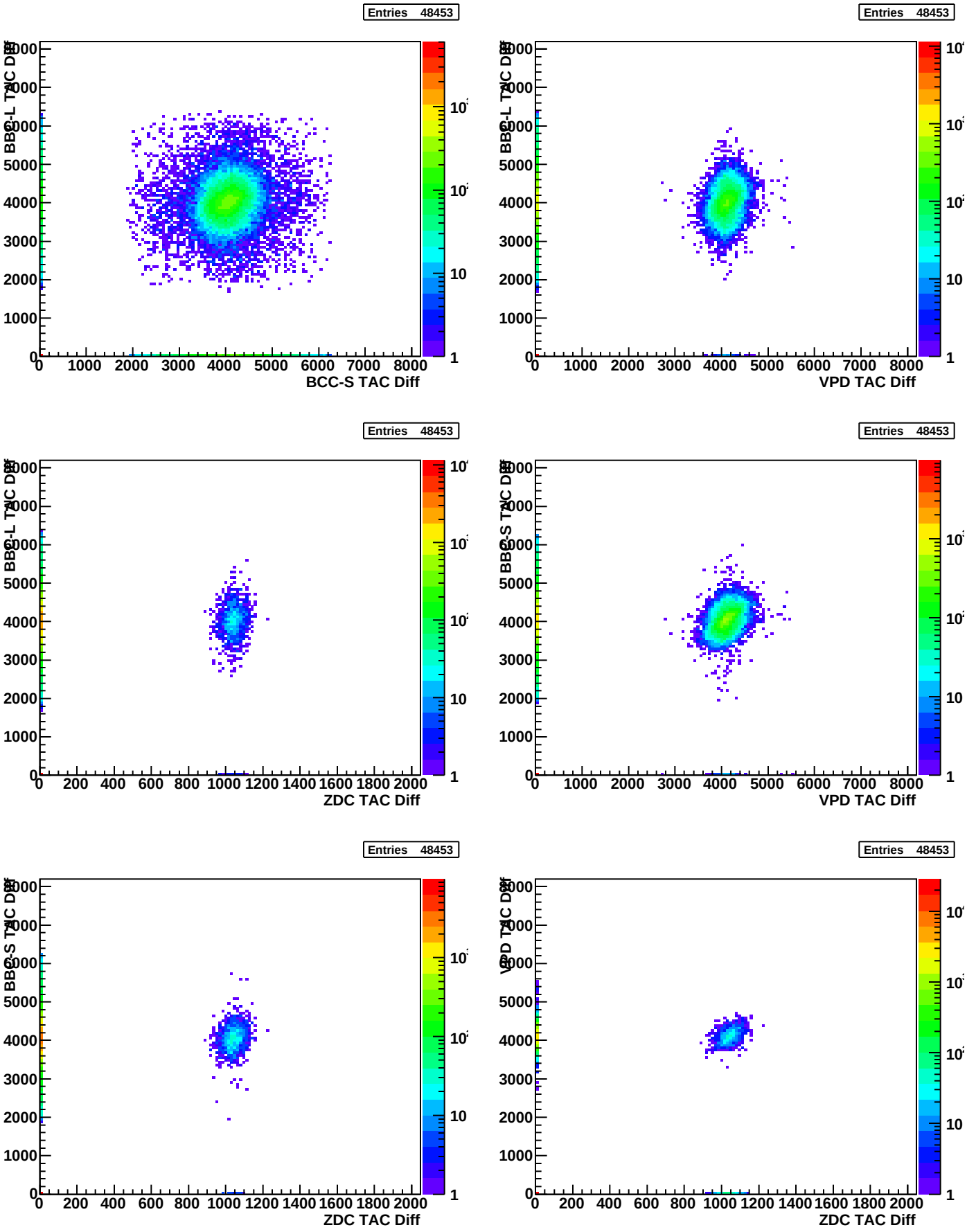

Entries 48453
VPD-West ADC Sum
ZDC-West ADC Sum Att

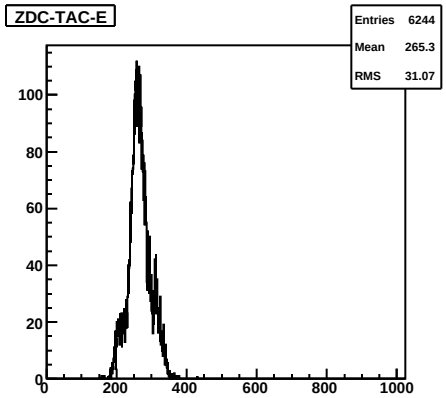

Entries 48453
BBC-L-East ADC Sum
BBC-L-West ADC Sum

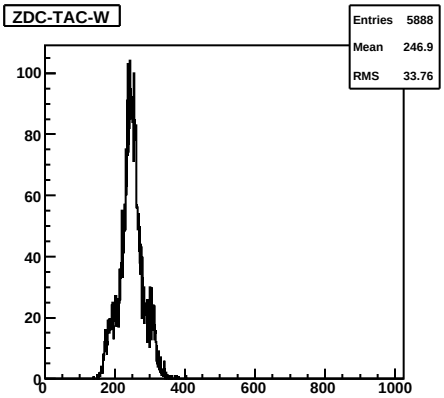

Entries 48453
BBC-S-East ADC Sum
BBC-S-West ADC Sum

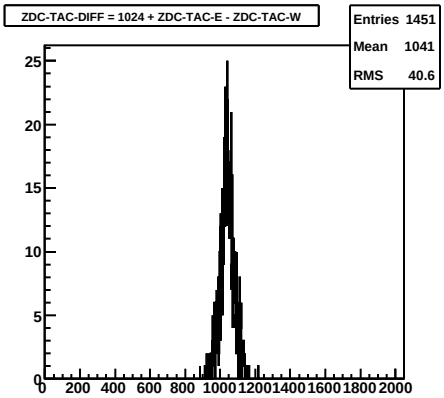

Entries 48453
VPD East ADC Sum
VPD West ADC Sum

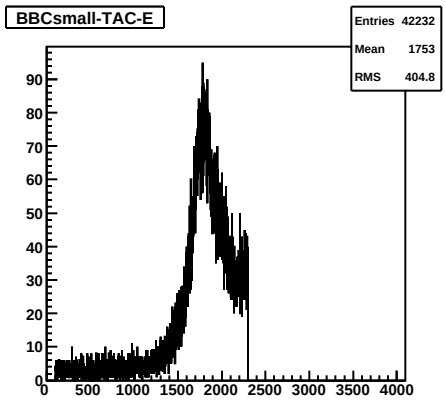

Entries 48453
ZDC East ADC Sum Att
ZDC West ADC Sum Att

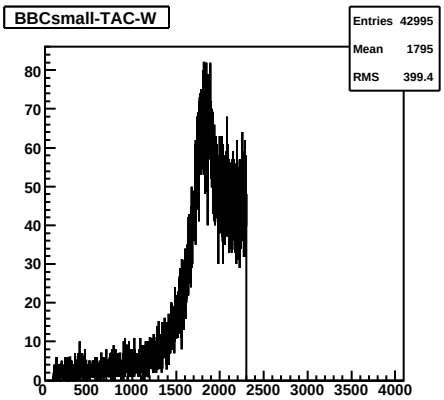

Entries 48453
BBC-L TAC Diff
BCC-S TAC Diff
Entries 48453
BBC-L TAC Diff
VPD TAC Diff
Entries 48453
BBC-L TAC Diff
ZDC TAC Diff
Entries 48453
BBC-S TAC Diff
VPD TAC Diff
Entries 48453
BBC-S TAC Diff
ZDC TAC Diff
Entries 48453
VPD TAC Diff
ZDC TAC Diff

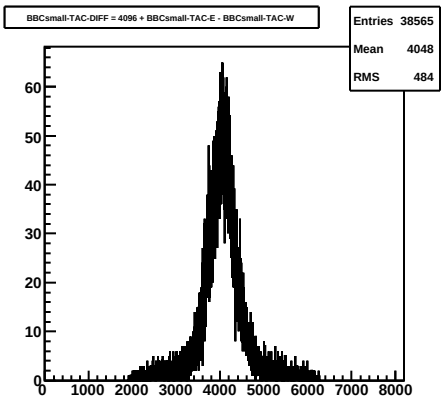

ZDC-TAC-E
Entries 6244
Mean 265.3
RMS 31.07

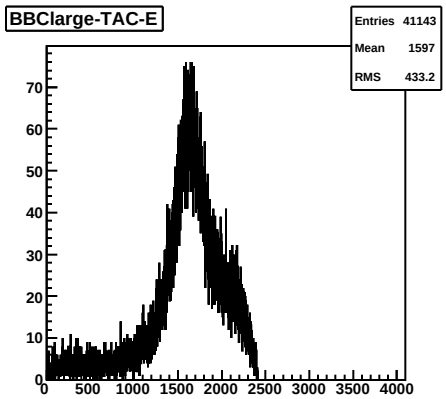

ZDC-TAC-W
Entries 5888
Mean 246.9
RMS 33.76

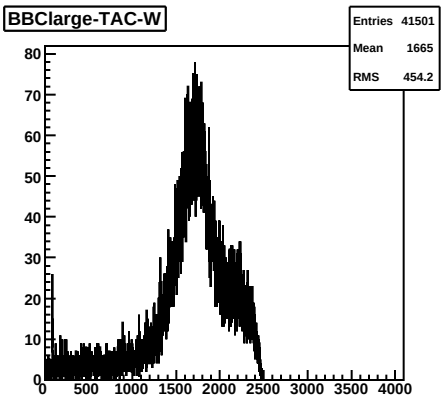

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1451
Mean 1041
RMS 40.6

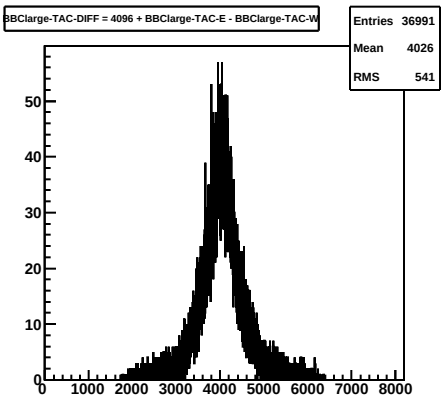

BBCsmall-TAC-E
Entries 42232
Mean 1753
RMS 404.8

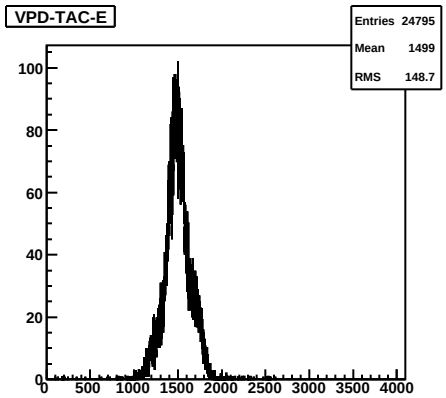

BBCsmall-TAC-W
Entries 42995
Mean 1795
RMS 399.4

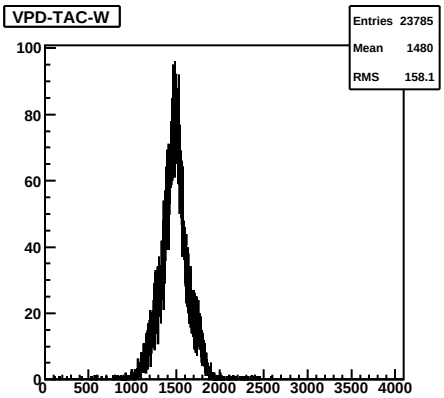

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 38565
Mean 4048
RMS 484

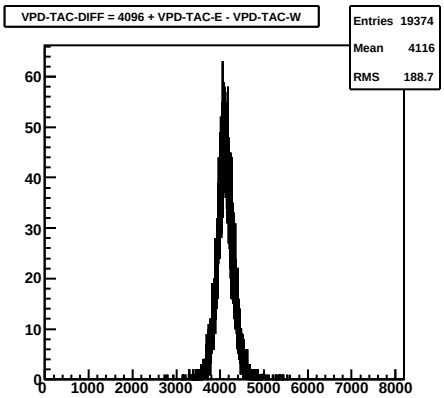

BBClarge-TAC-E
Entries 41143
Mean 1597
RMS 433.2

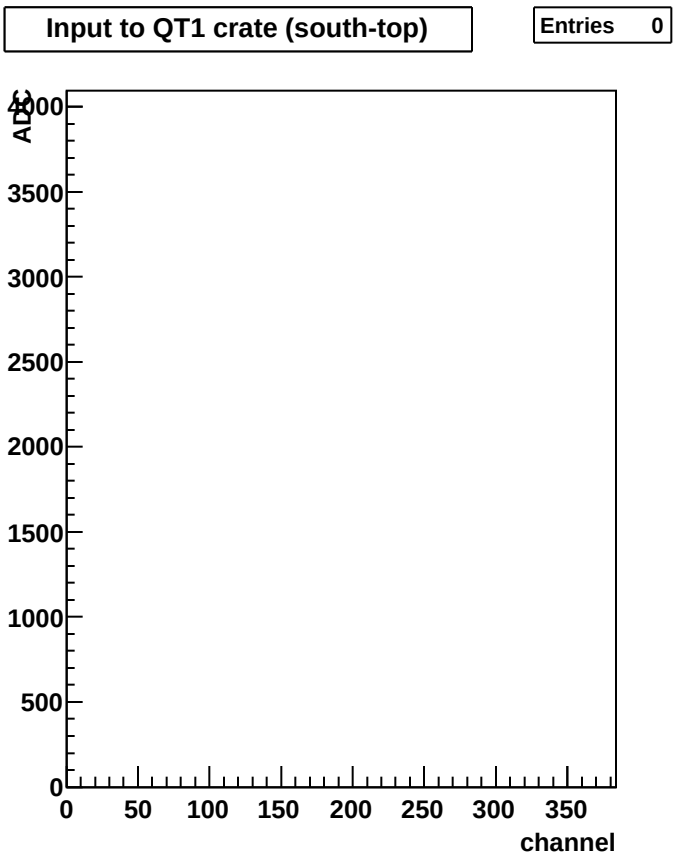

BBClarge-TAC-W
Entries 41501
Mean 1665
RMS 454.2

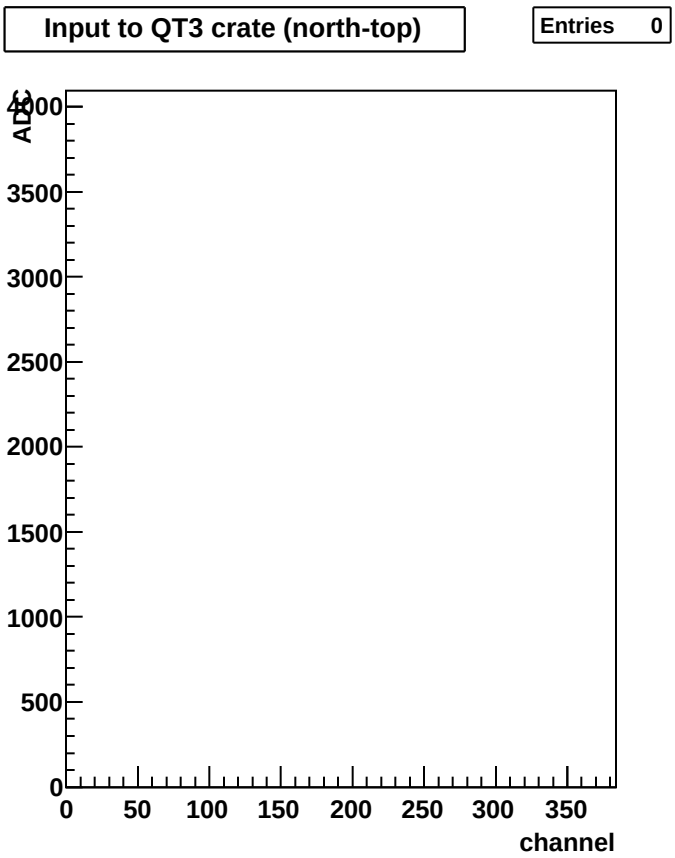

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 36991
Mean 4026
RMS 541

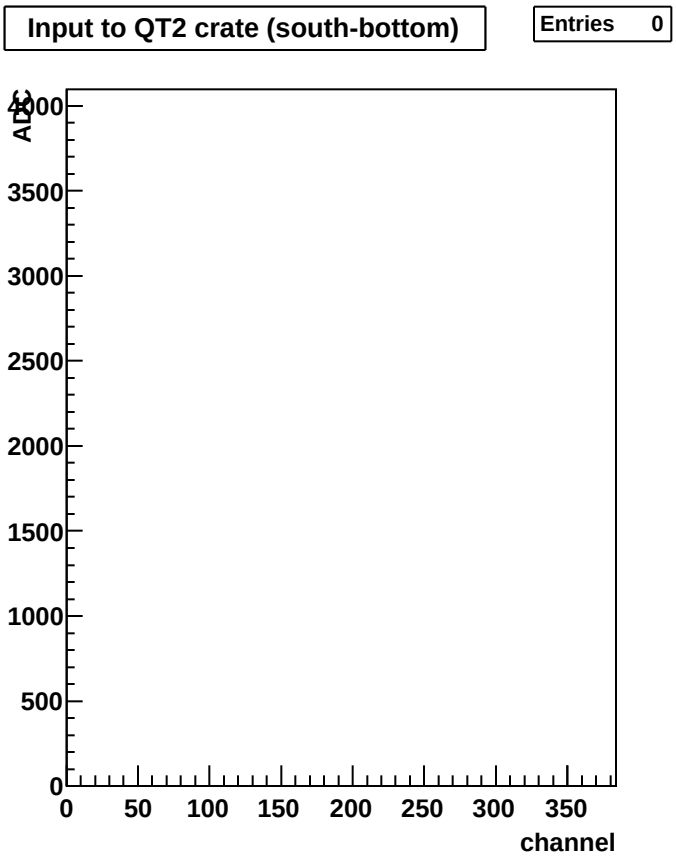

VPD-TAC-E
Entries 24795
Mean 1499
RMS 148.7

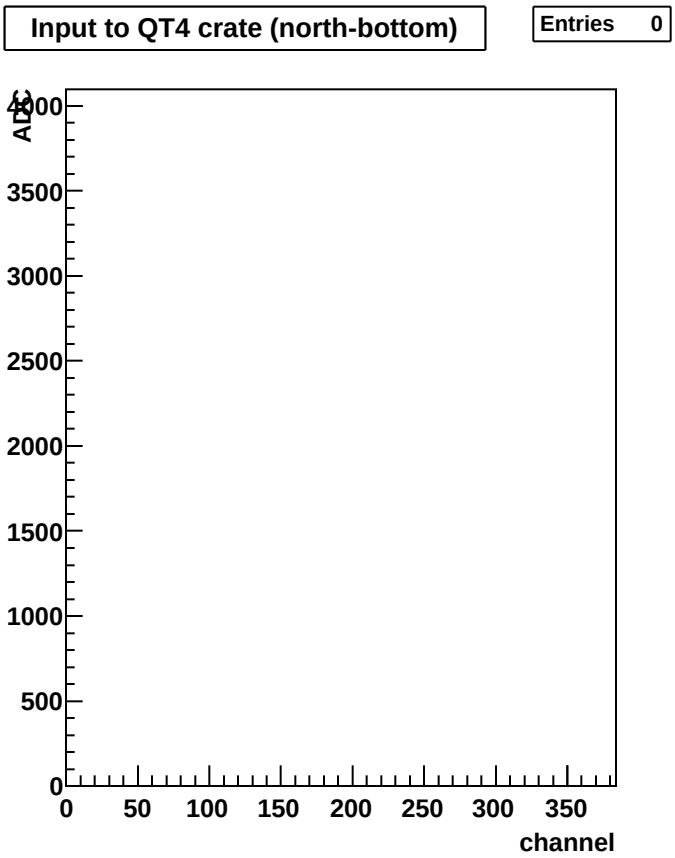

VPD-TAC-W
Entries 23785
Mean 1480
RMS 158.1

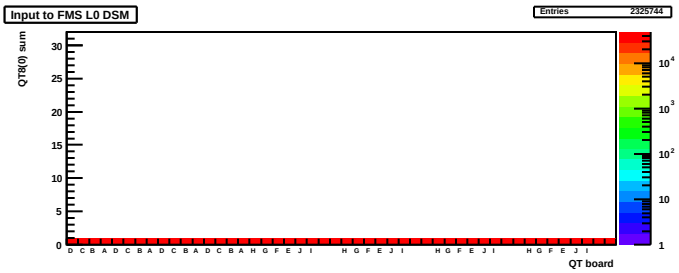

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 19374
Mean 4116
RMS 188.7

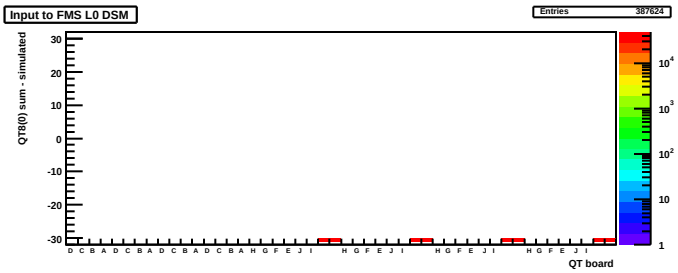

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

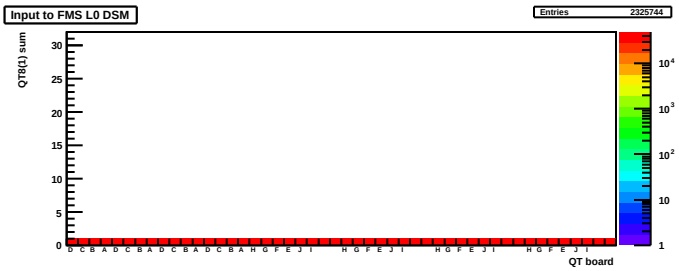

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

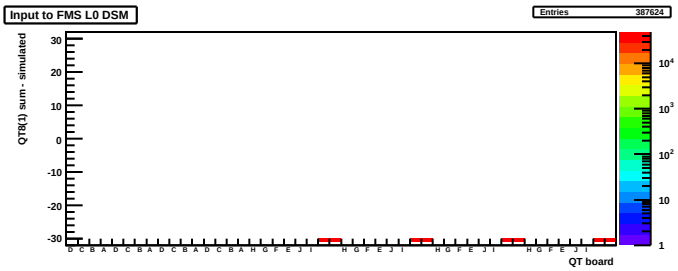

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

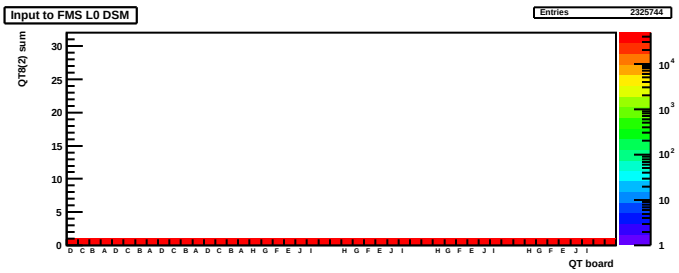

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

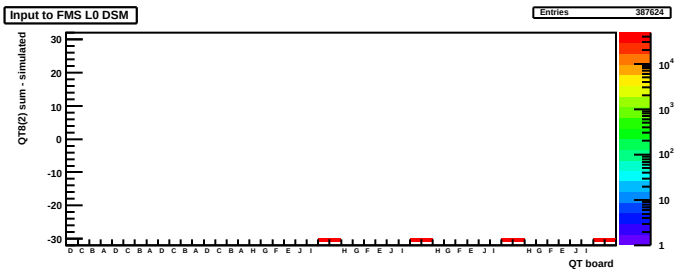

Input to FMS L0 DSM
Entries 2325744
QT8(0) sum
QT board

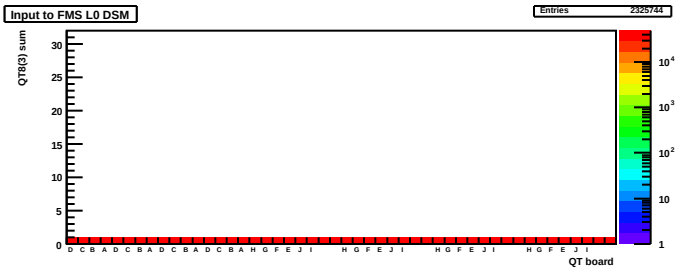

Input to FMS L0 DSM
Entries 387624
QT8(0) sum - simulated
QT board

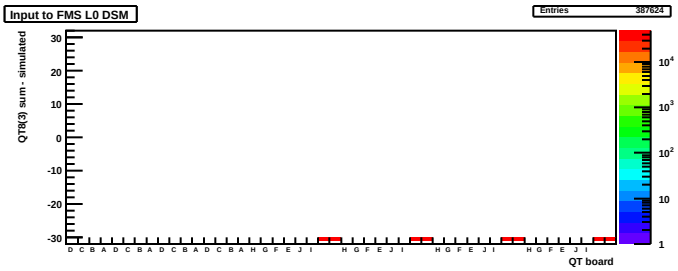

Input to FMS L0 DSM
Entries 2325744
QT8(1) sum
QT board

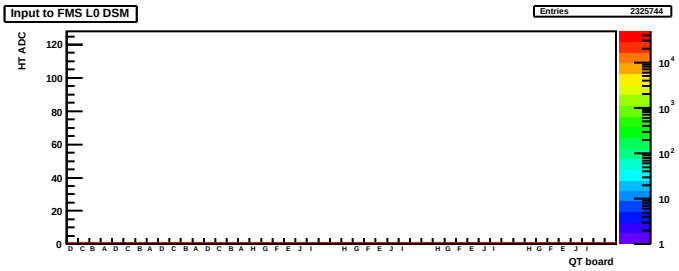

Input to FMS L0 DSM
Entries 387624
QT8(1) sum - simulated
QT board

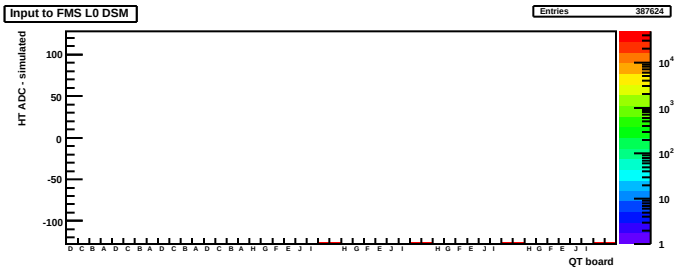

Input to FMS L0 DSM
Entries 2325744
QT8(2) sum
QT board

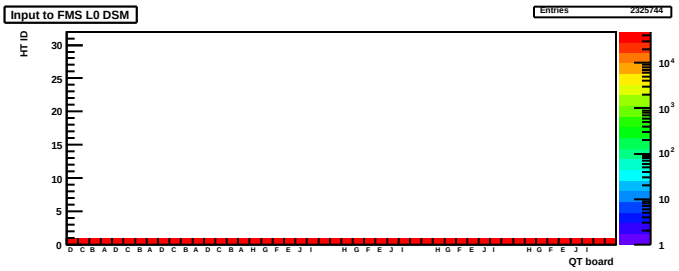

Input to FMS L0 DSM
Entries 387624
QT8(2) sum - simulated
QT board

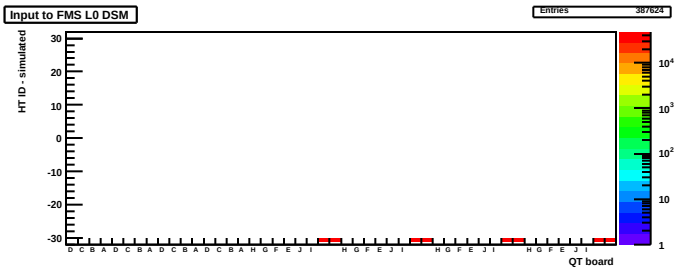

Input to FMS L0 DSM
Entries 2325744
QT8(3) sum
QT board

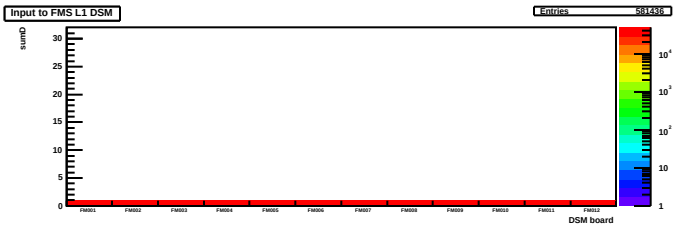

Input to FMS L0 DSM
Entries 387624
QT8(3) sum - simulated
QT board

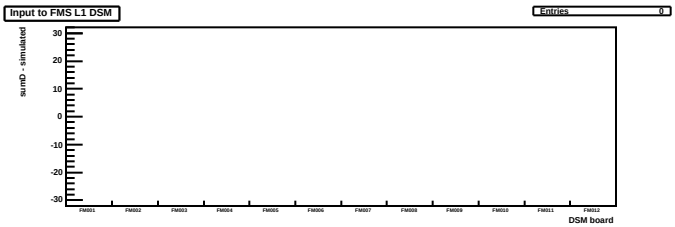

Input to FMS L0 DSM
Entries 2325744
HT ADC
QT board

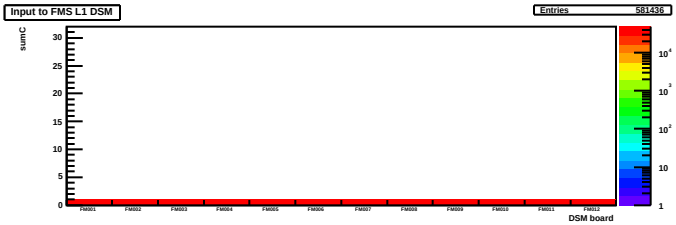

Input to FMS L0 DSM
Entries 387624
HT ADC - simulated
QT board

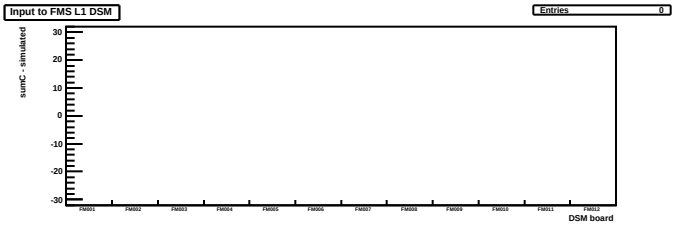

Input to FMS L0 DSM
Entries 2325744
HT ID
QT board

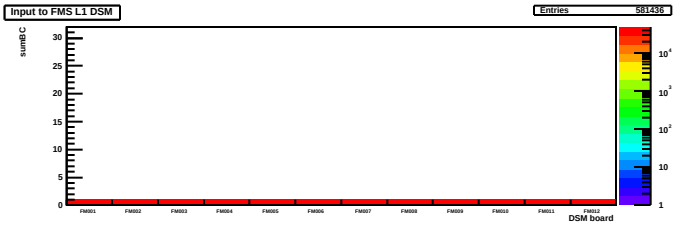

Input to FMS L0 DSM
Entries 387624
HT ID - simulated
QT board

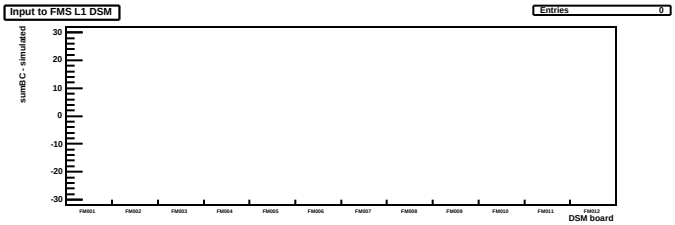

Input to FMS L1 DSM
Entries 581436
sumD
DSM board

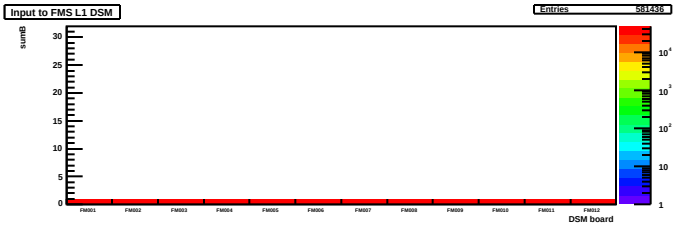

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

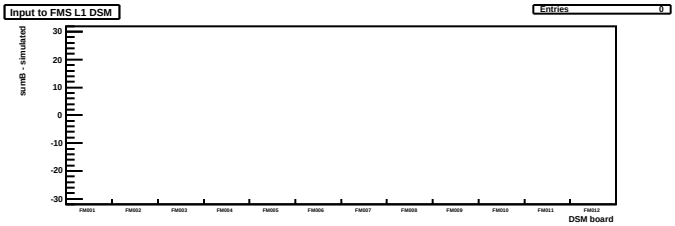

Input to FMS L1 DSM
Entries 581436
sumC
DSM board

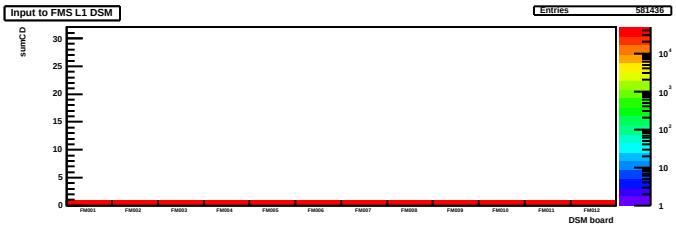

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

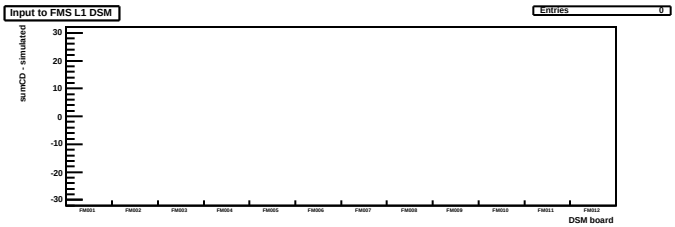

Input to FMS L1 DSM
Entries 581436
sumBC
DSM board

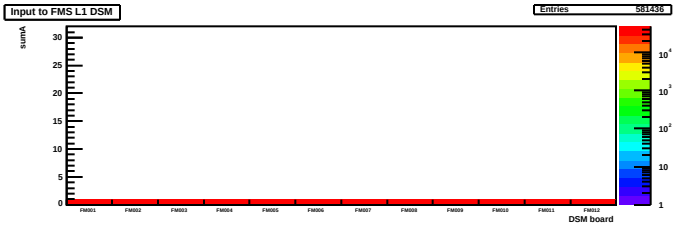

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

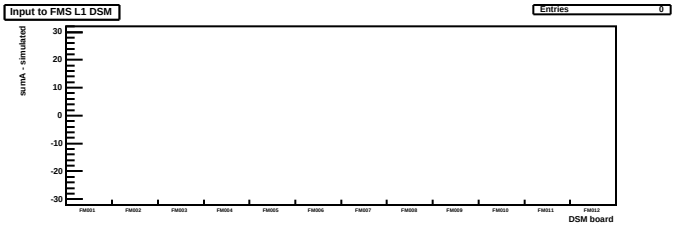

Input to FMS L1 DSM
Entries 581436
sumB
DSM board

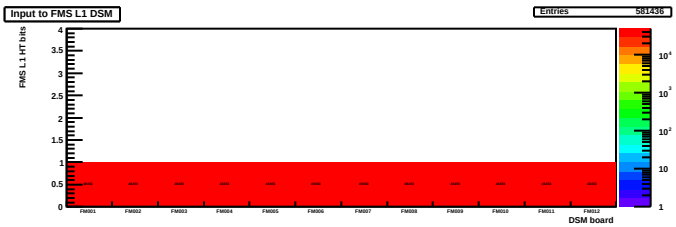

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

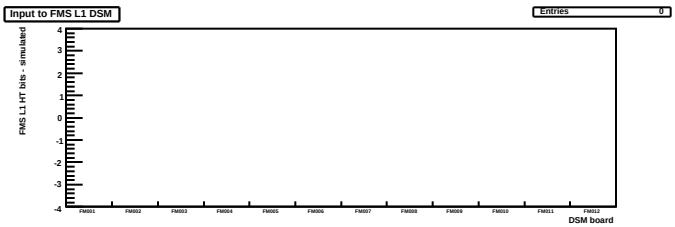

Input to FMS L1 DSM
Entries 581436
sumCD
DSM board

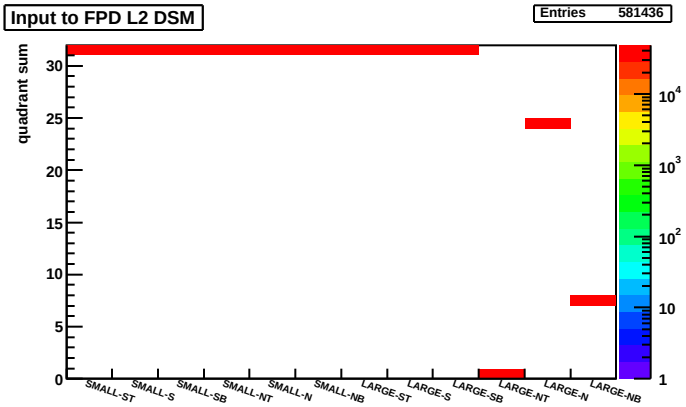

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

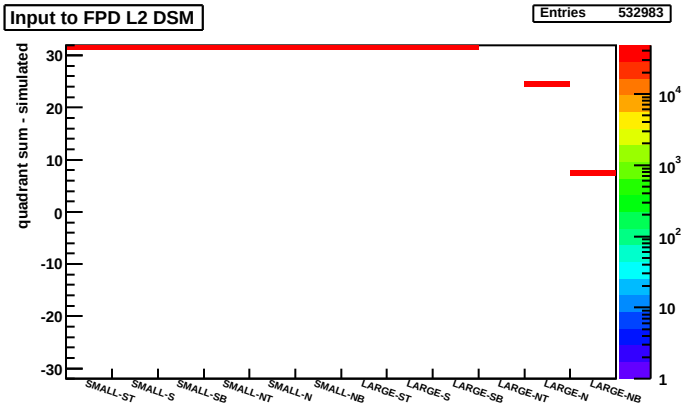

Input to FMS L1 DSM
Entries 581436
sumA
DSM board

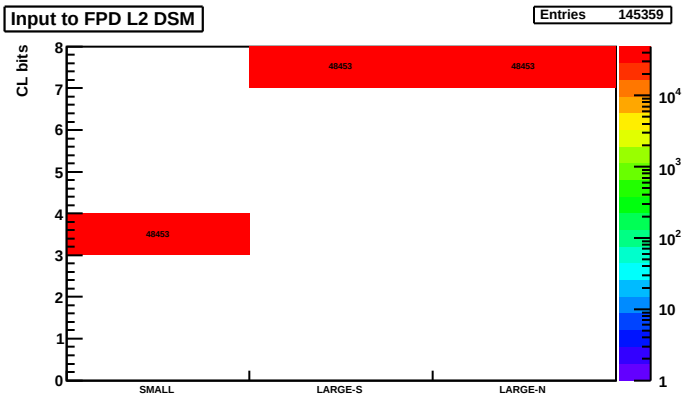

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

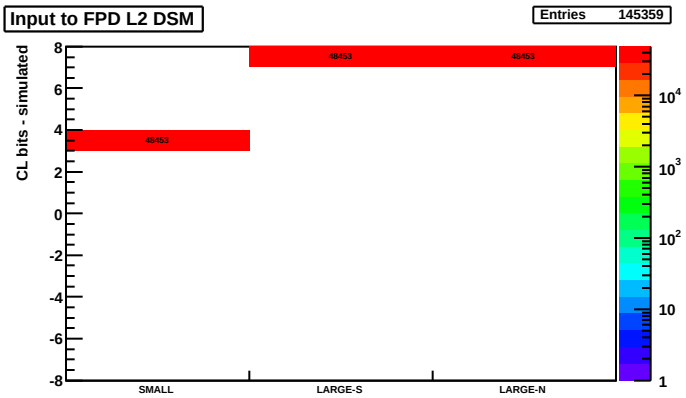

Input to FMS L1 DSM
Entries 581436
FMS L1 HT bits
DSM board

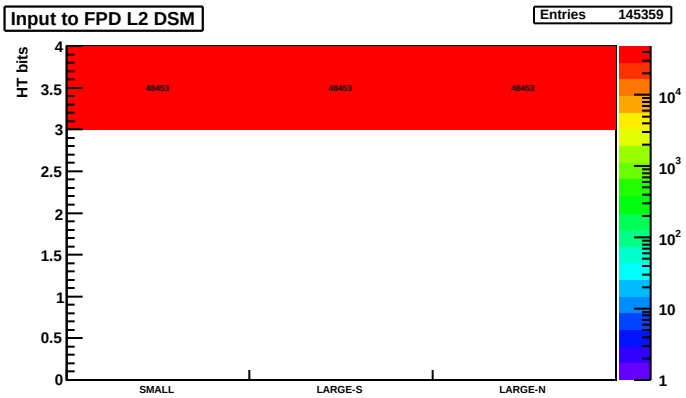

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

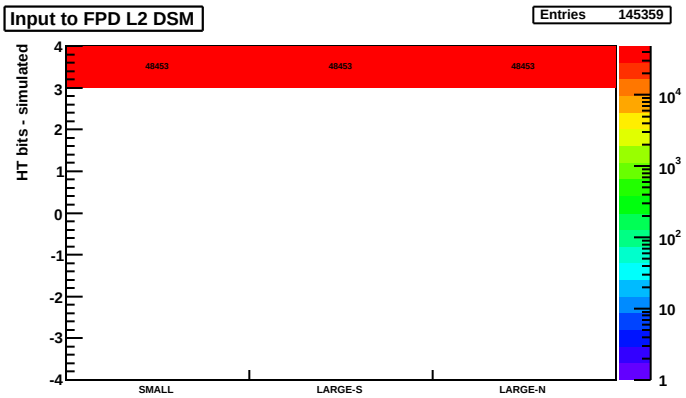

Input to FPD L2 DSM
Entries 581436
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

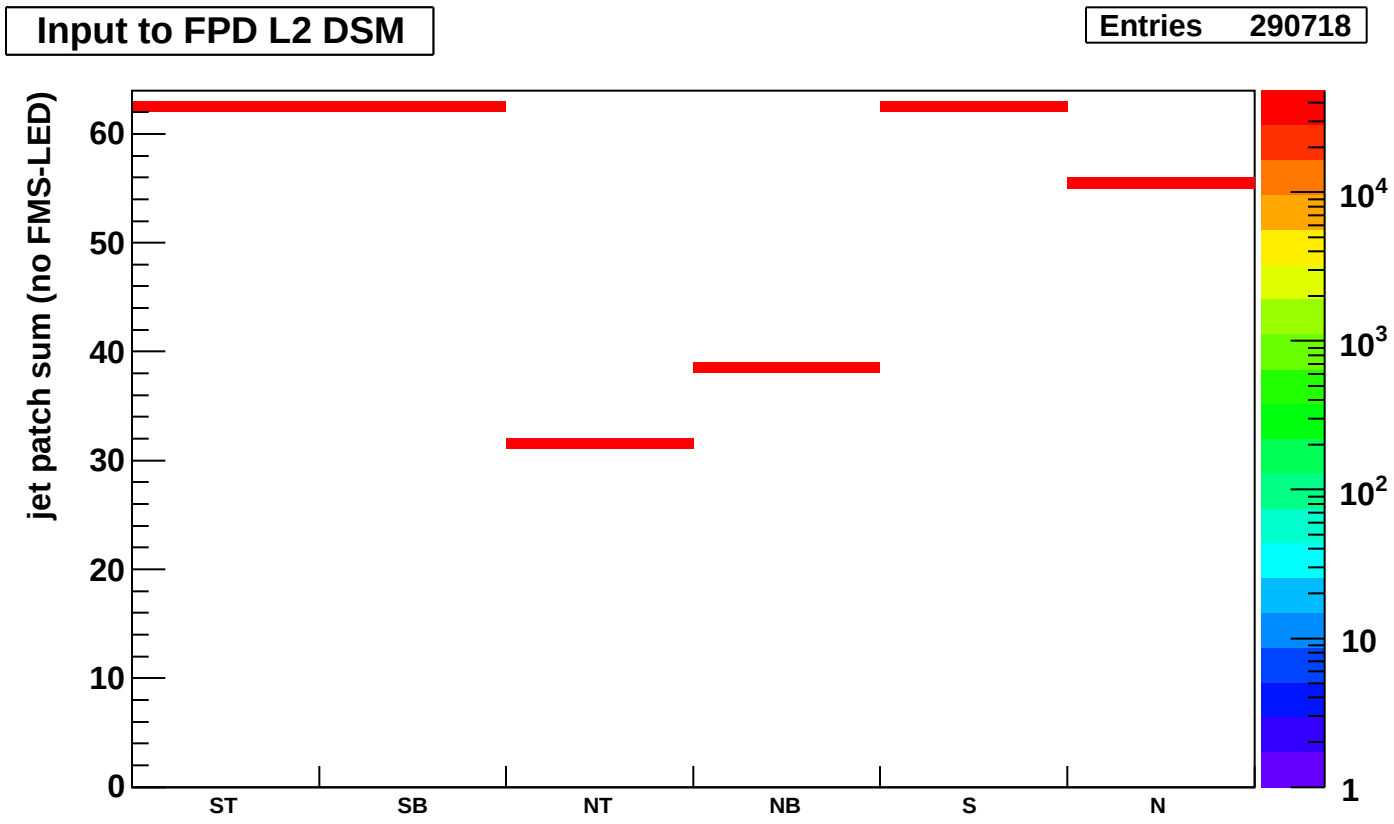

Input to FPD L2 DSM
Entries 532983
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

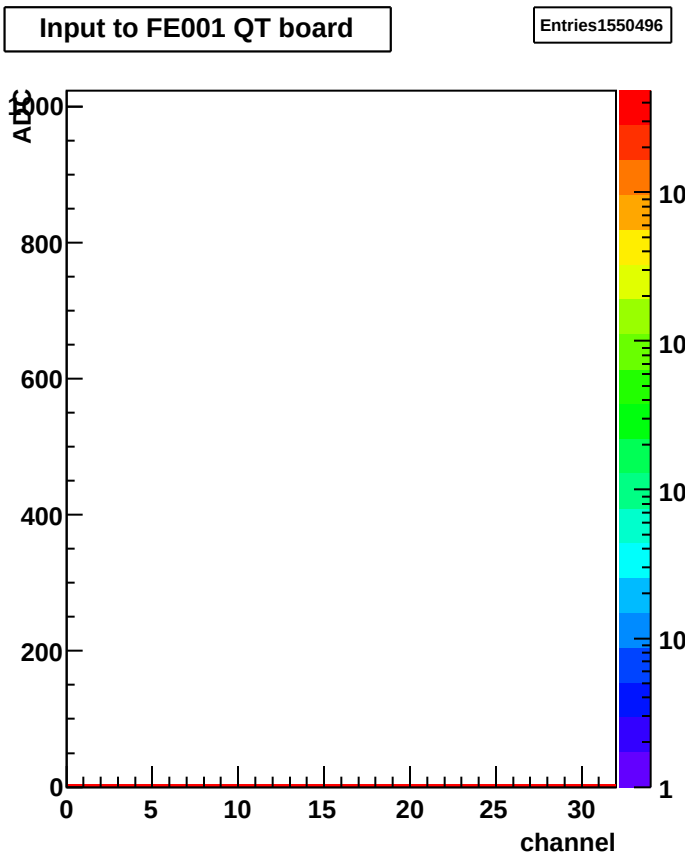

Input to FPD L2 DSM
Entries 145359
CL bits
48453
48453
48453
SMALL
LARGE-S
LARGE-N

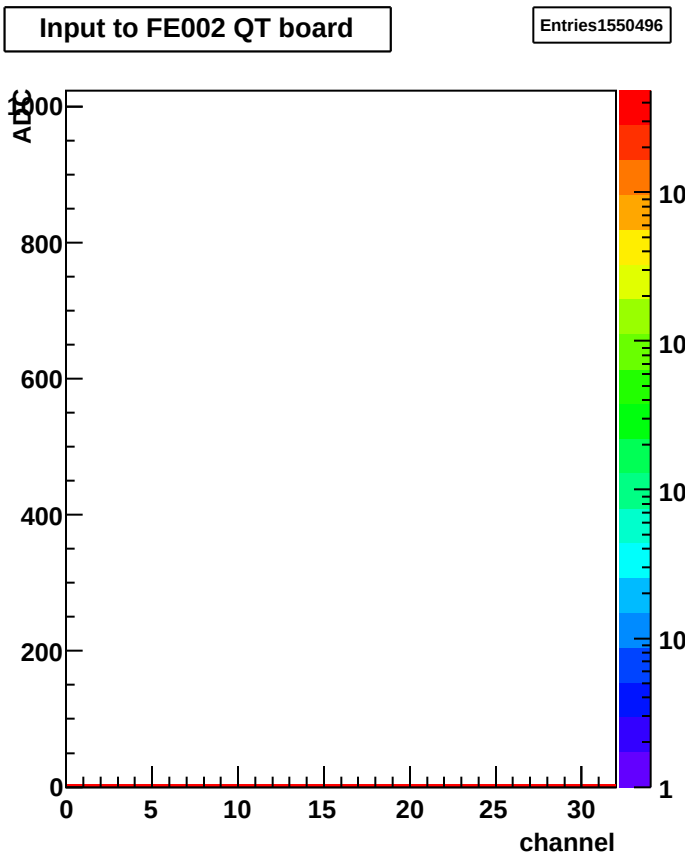

Input to FPD L2 DSM
Entries 145359
CL bits - simulated
48453
48453
48453
SMALL
LARGE-S
LARGE-N

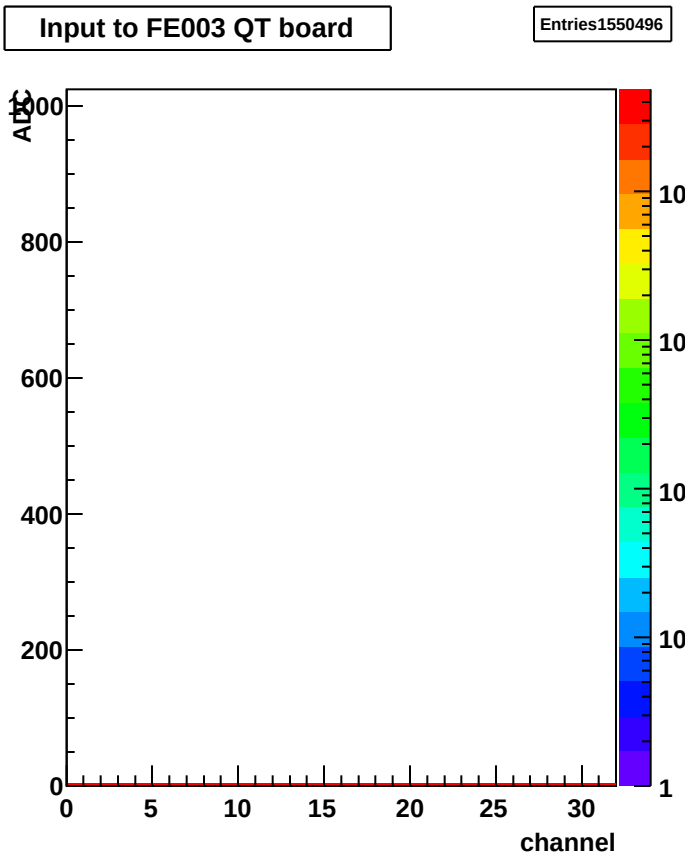

Input to FPD L2 DSM
Entries 145359
HT bits
48453
48453
48453
SMALL
LARGE-S
LARGE-N

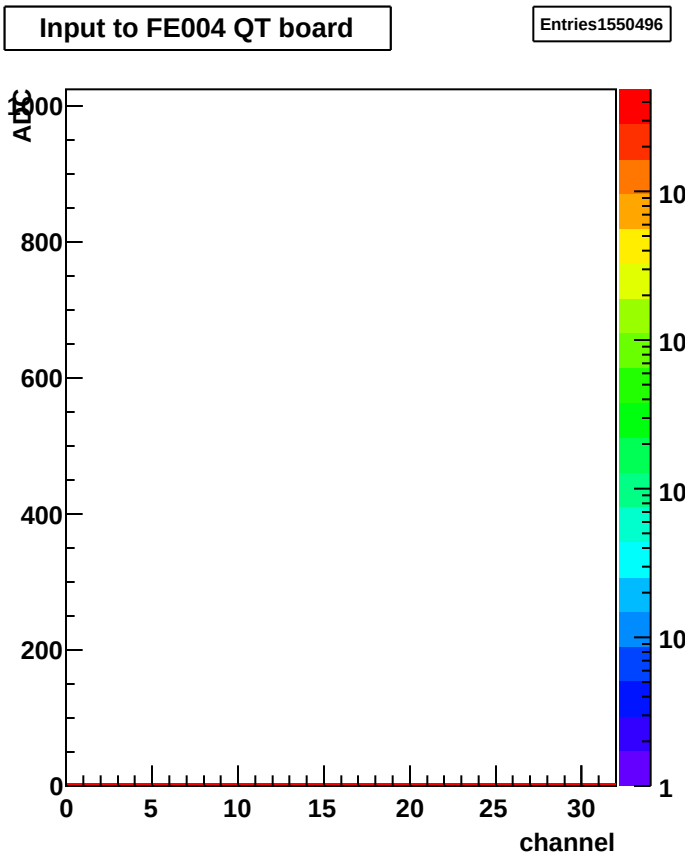

Input to FPD L2 DSM
Entries 145359
HT bits - simulated
48453
48453
48453
SMALL
LARGE-S
LARGE-N

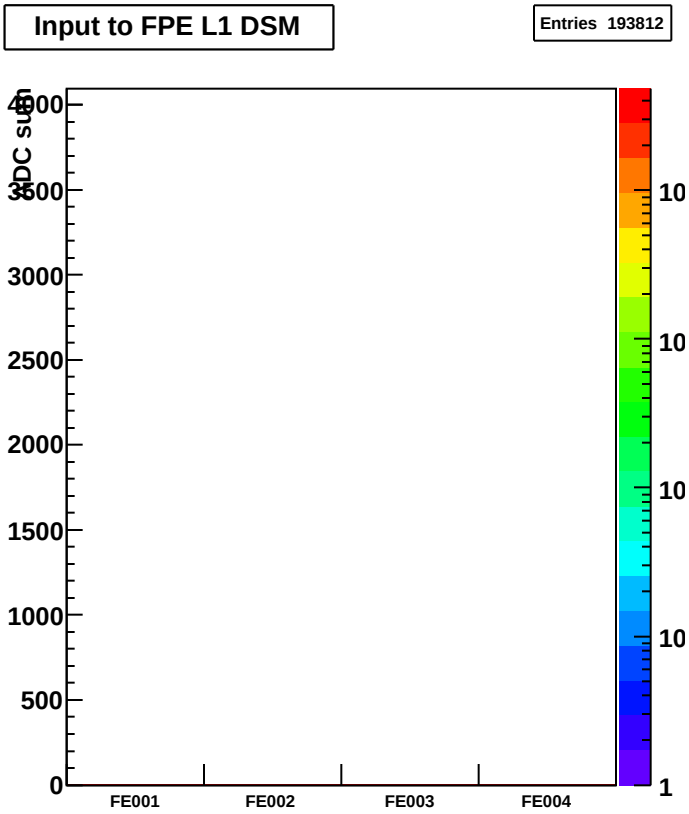

Input to FPD L2 DSM
Entries 290718
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

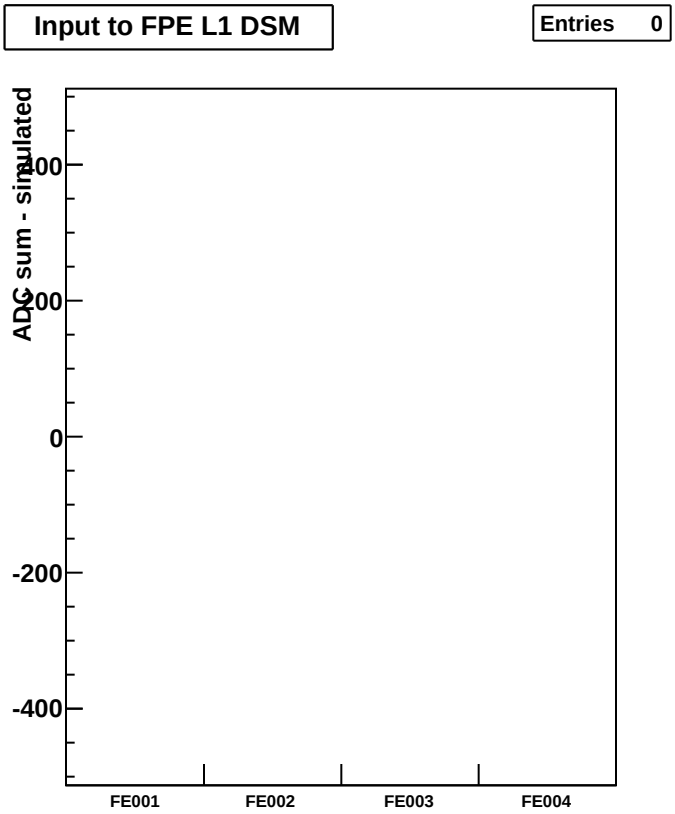

Input to FE001 QT board
Entries1550496
ADC
channel

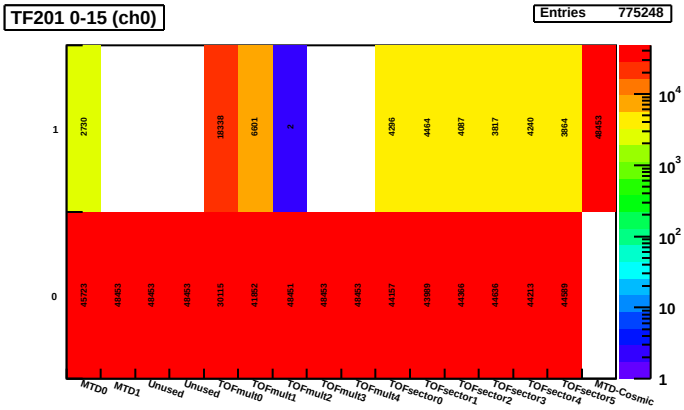

Input to FE002 QT board
Entries1550496
ADC
channel

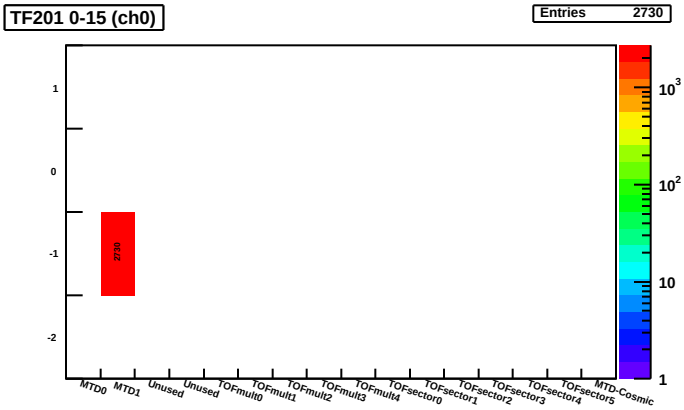

Input to FE003 QT board
Entries1550496
ADC
channel

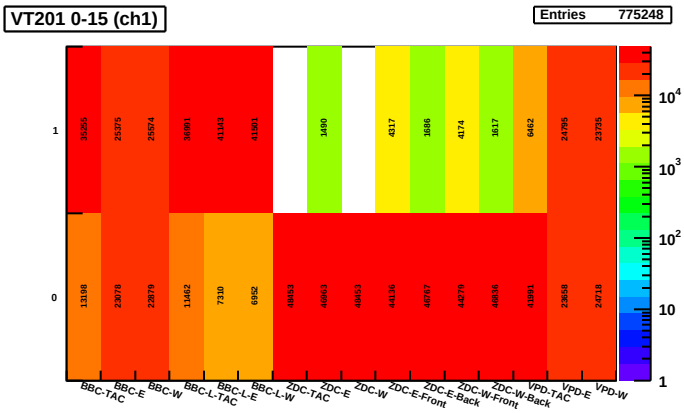

Input to FE004 QT board
Entries1550496
ADC
channel

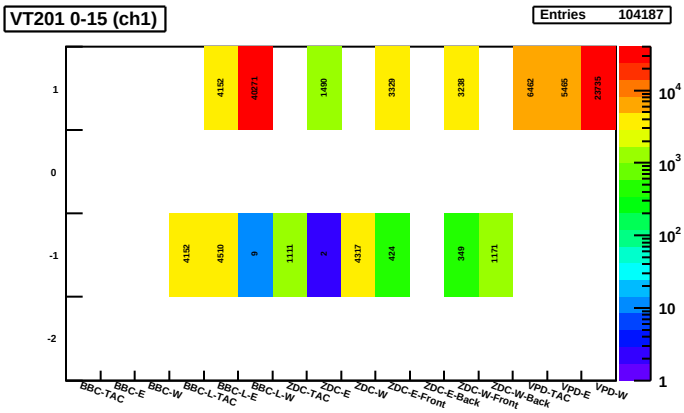

Input to FPE L1 DSM
Entries 193812
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


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


TF201 0-15 (ch0)
Entries 775248
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 2730
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 775248
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 104187
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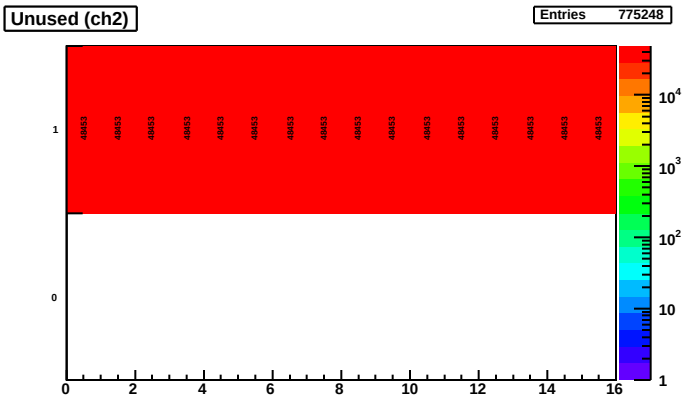
Unused (ch2)
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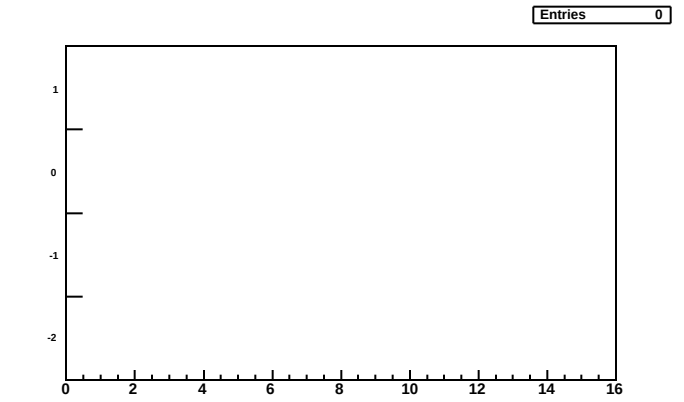
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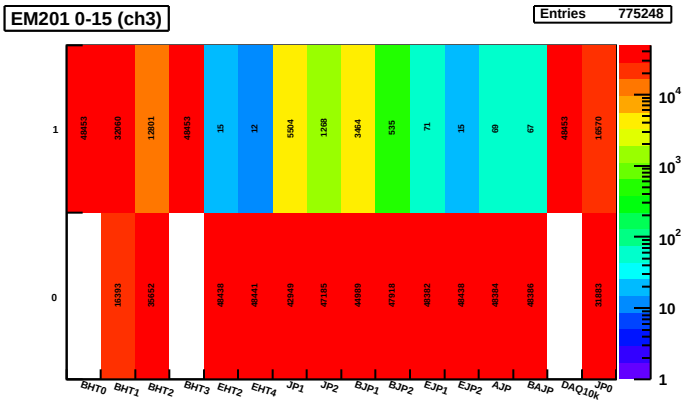
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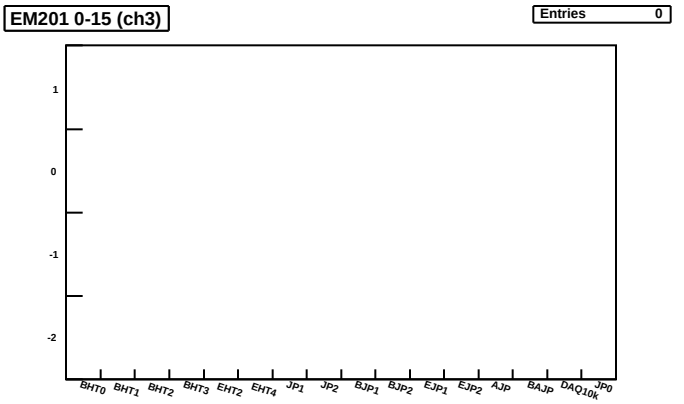
EM201 0-15 (ch3)
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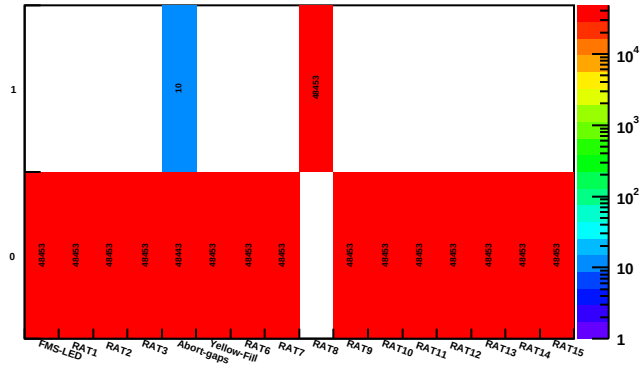
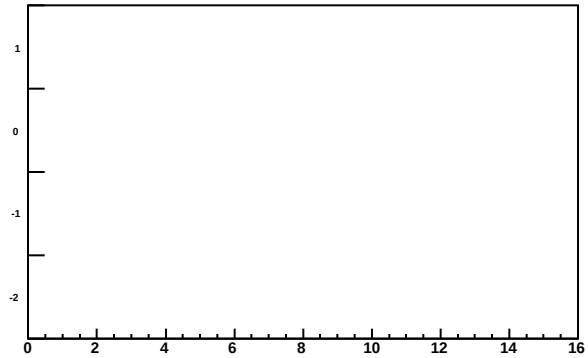
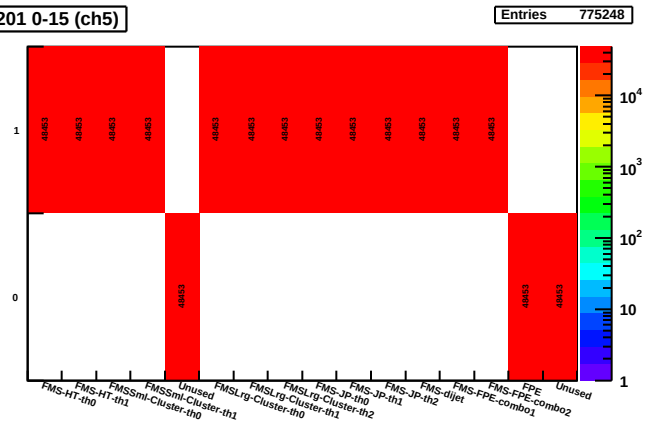
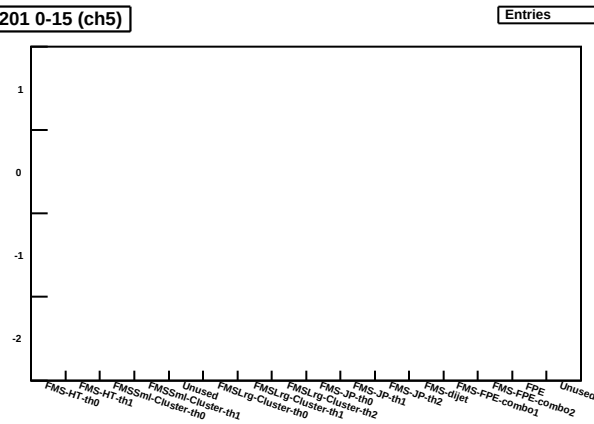
RAT board (ch4)



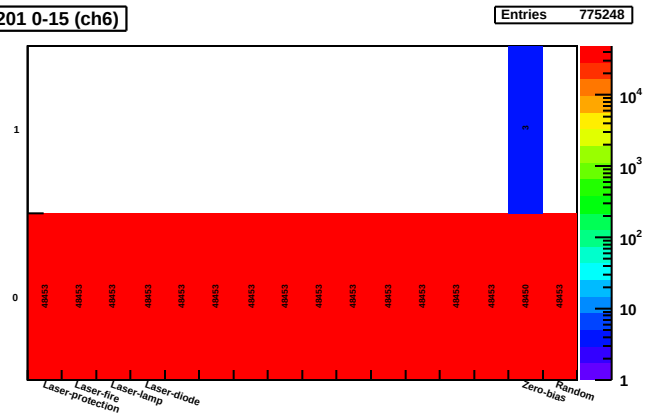


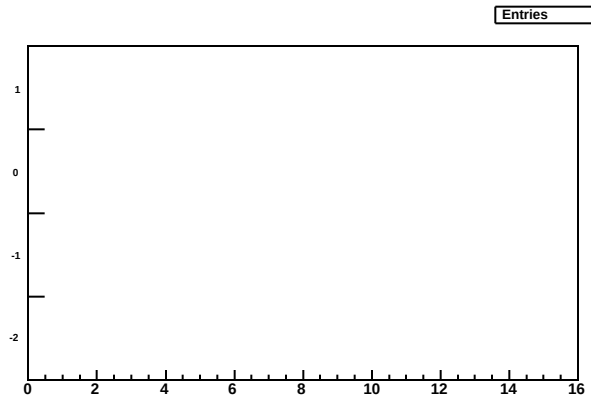
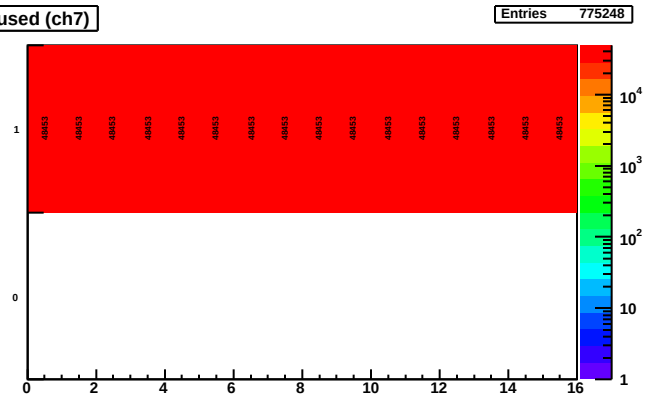
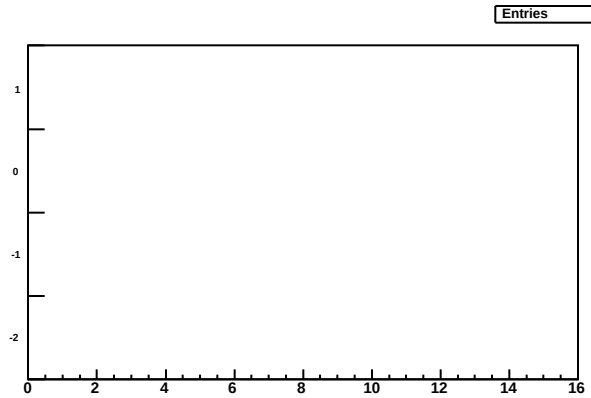
FP201 0-15 (ch5)





ST201 0-15 (ch6)





Unused (ch7)