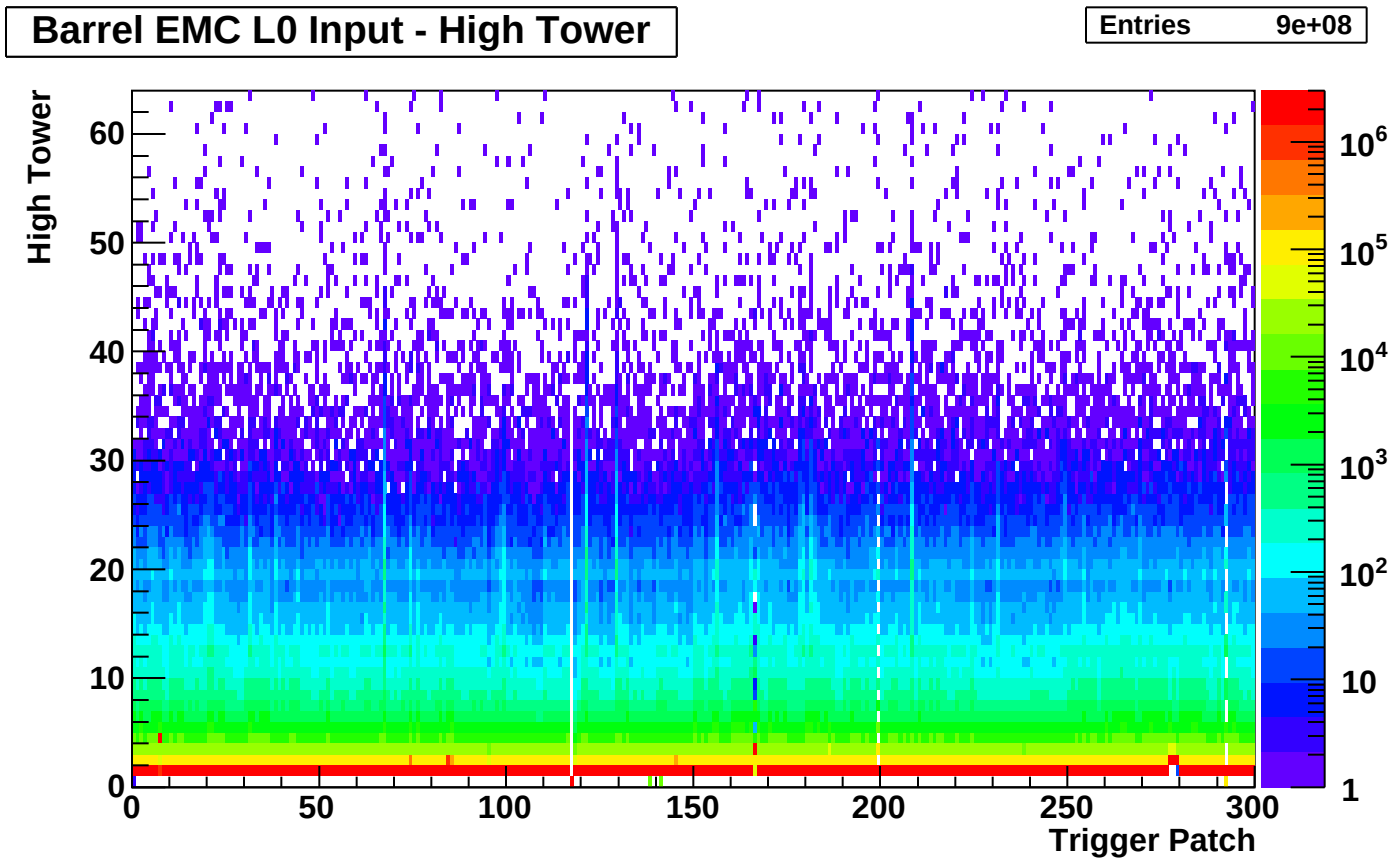
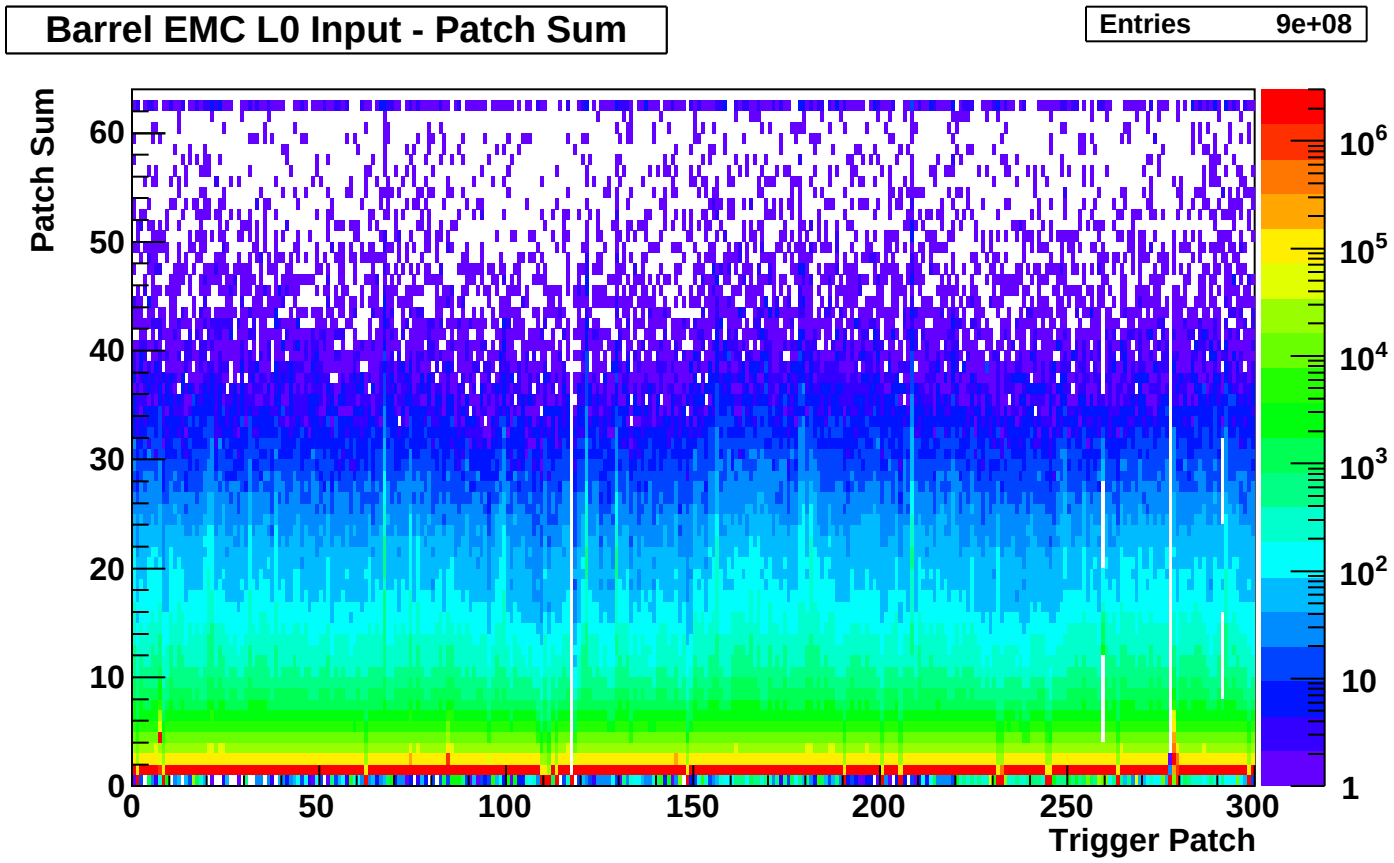
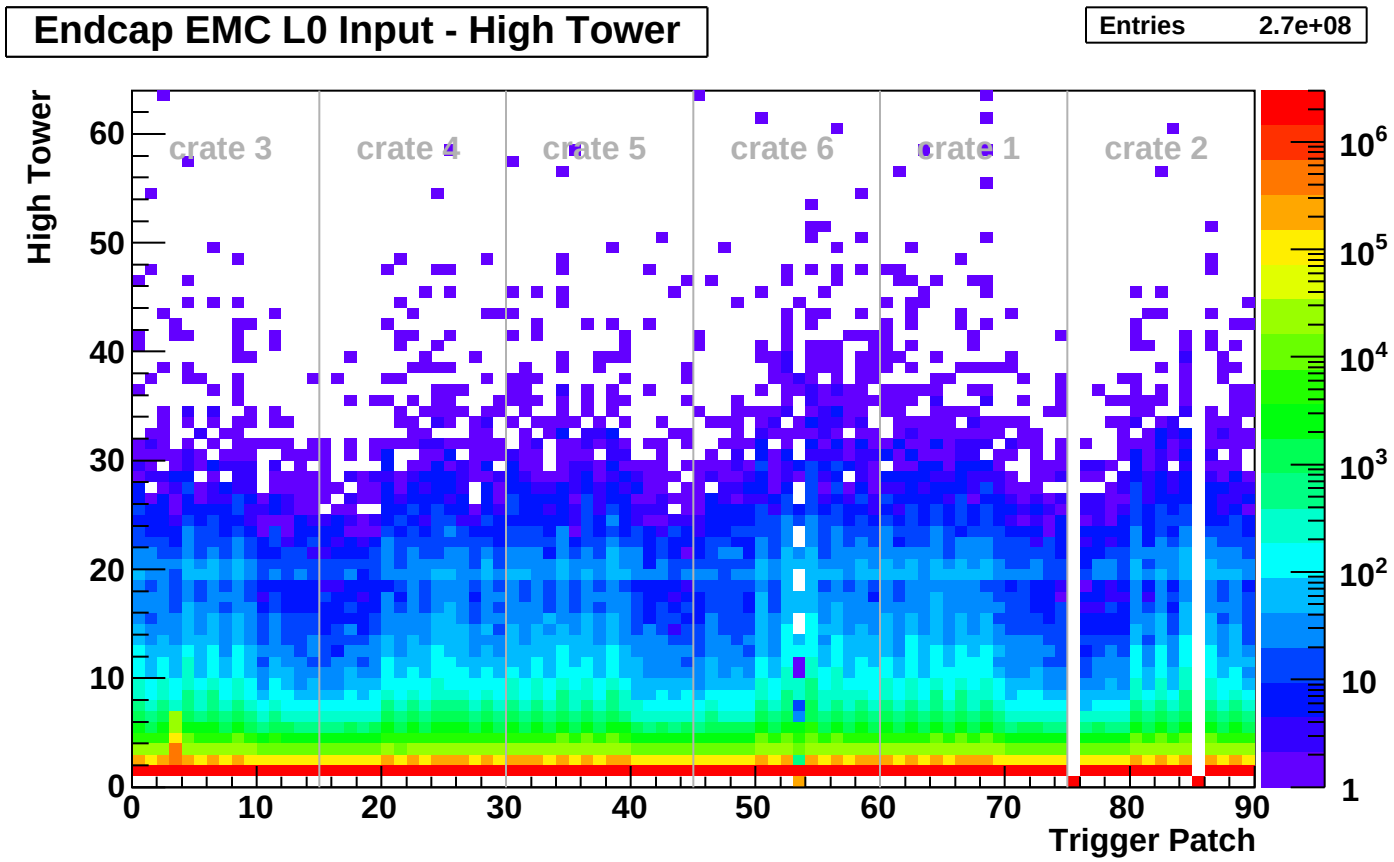
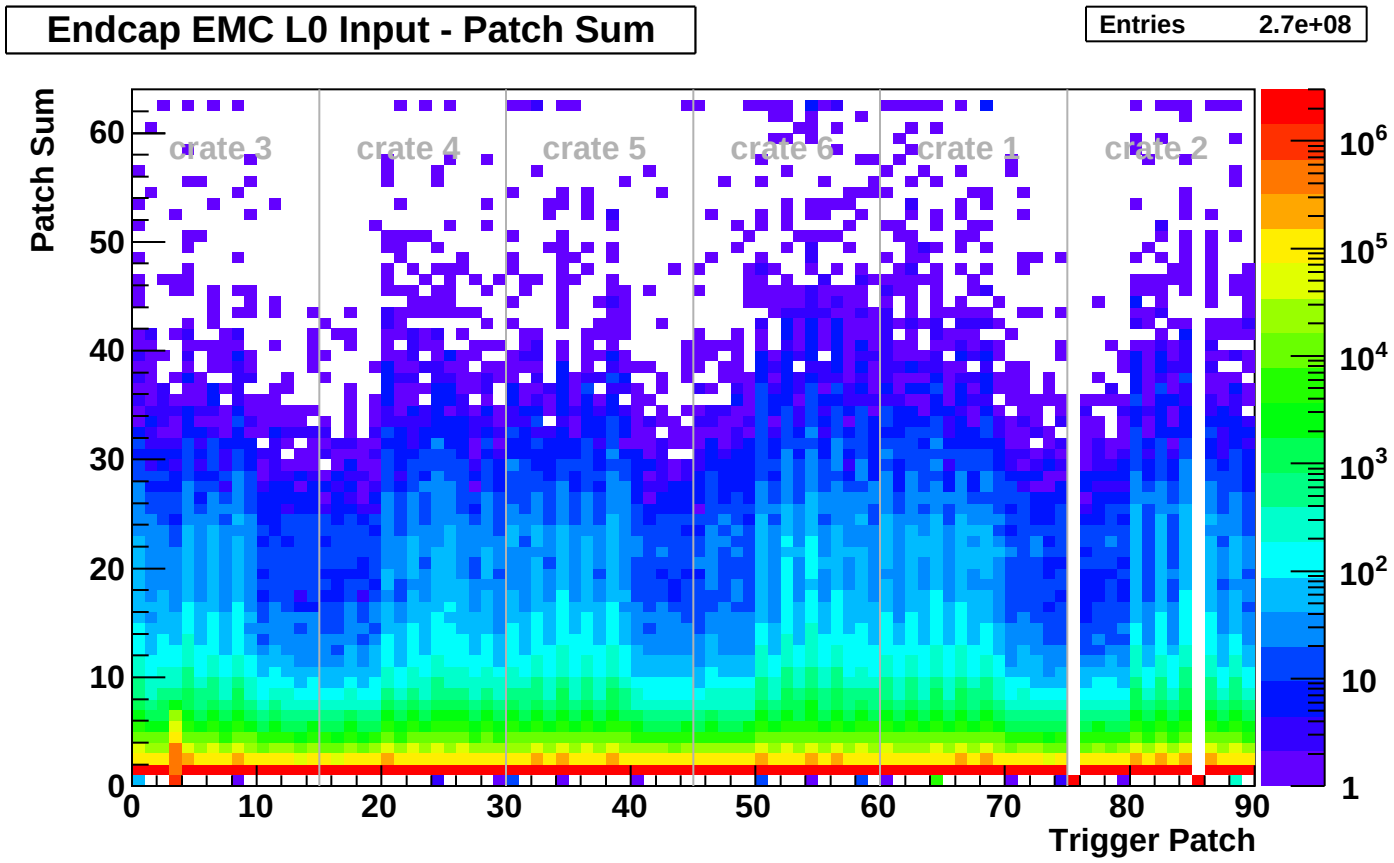
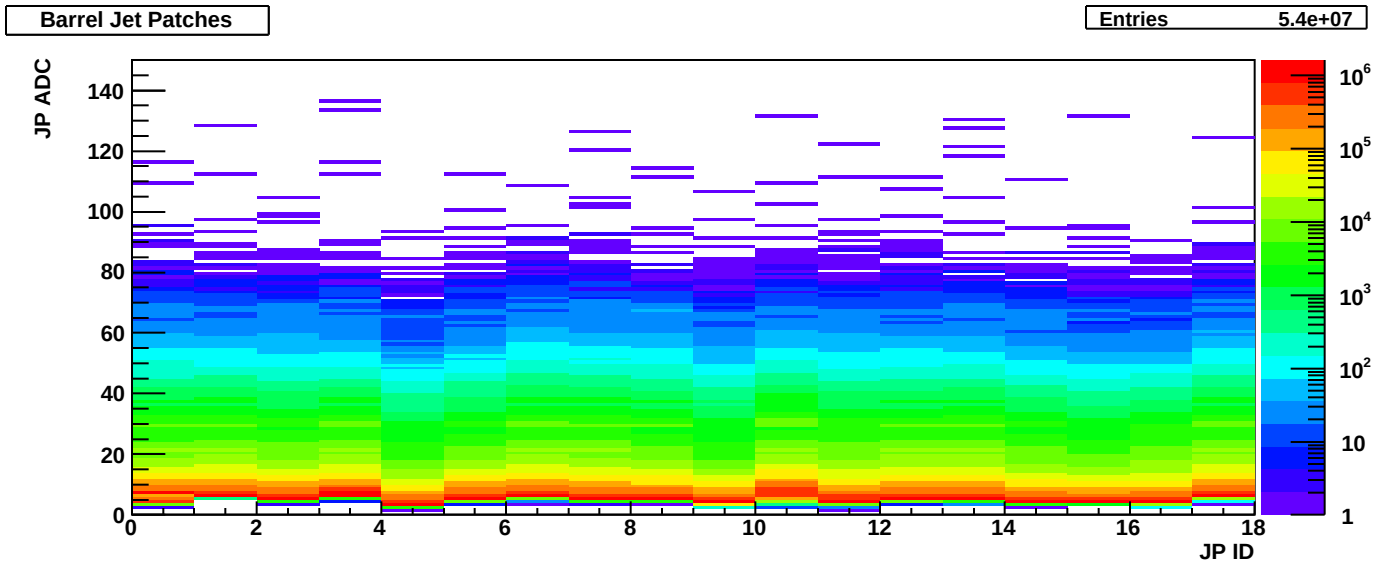
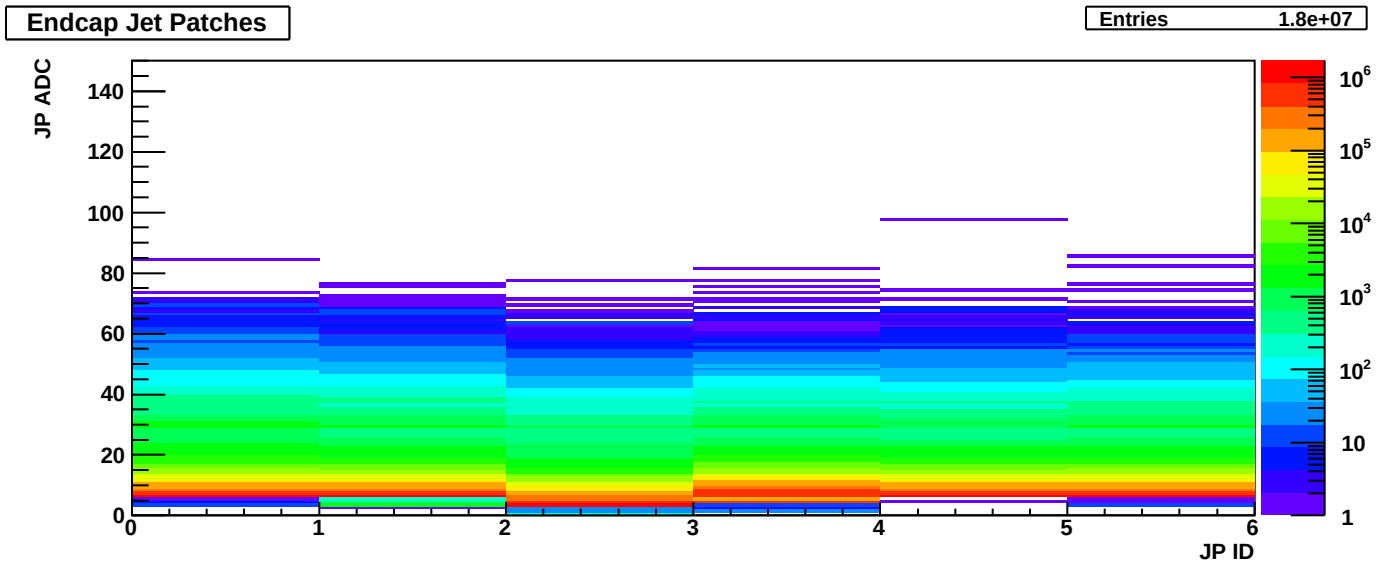

Barrel EMC L0 Input - High Tower
Entries 9e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

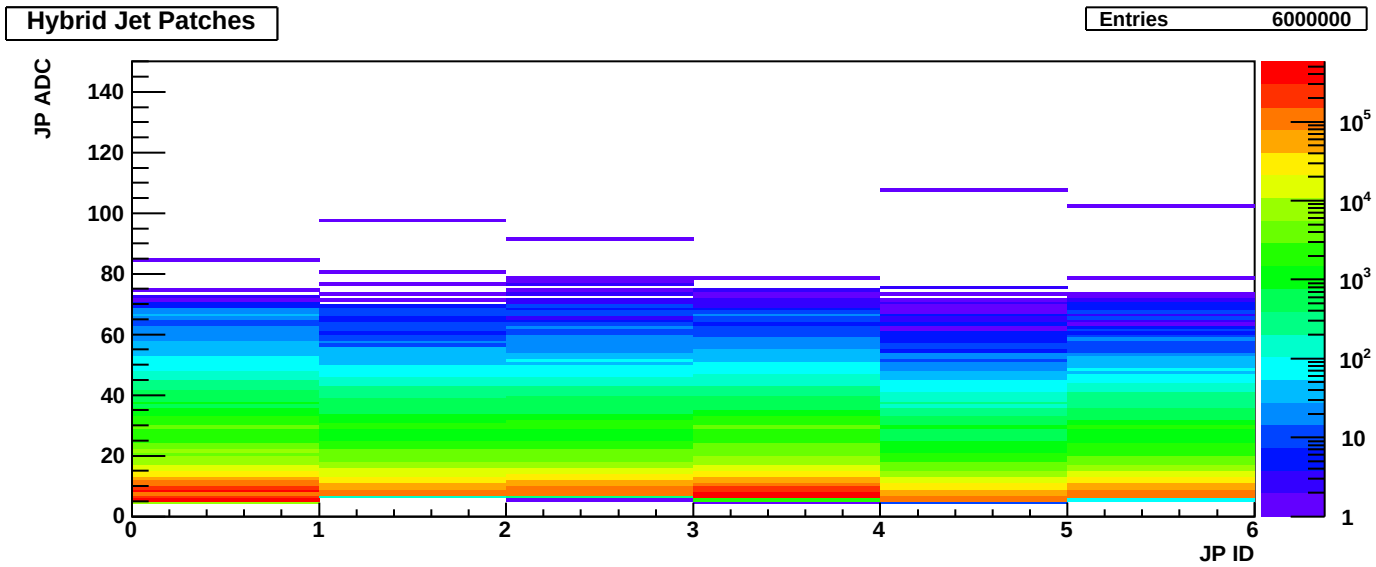

Barrel EMC L0 Input - Patch Sum
Entries 9e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

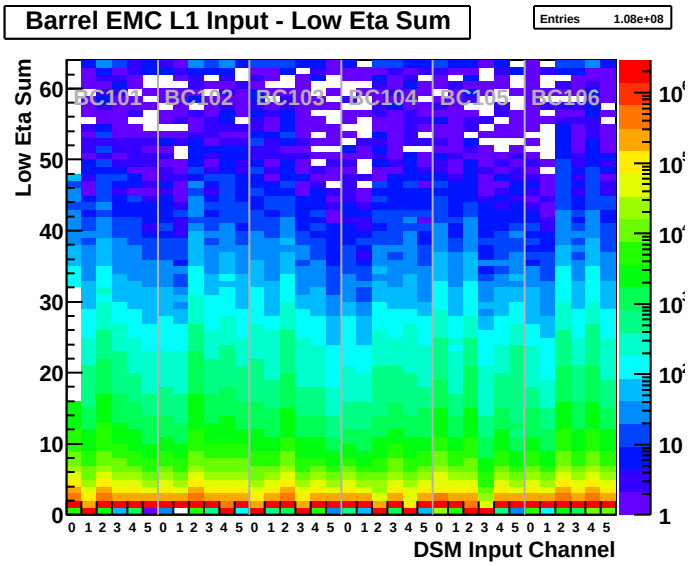

Endcap EMC L0 Input - High Tower
Entries 2.7e+08
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

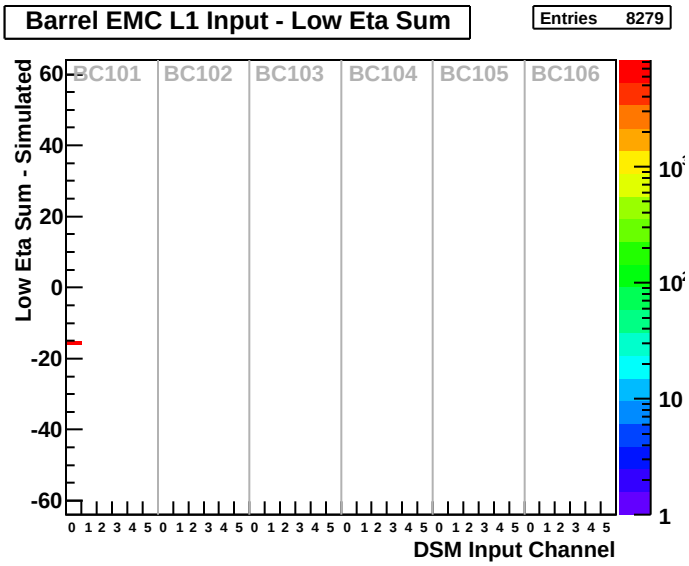

Endcap EMC L0 Input - Patch Sum
Entries 2.7e+08
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

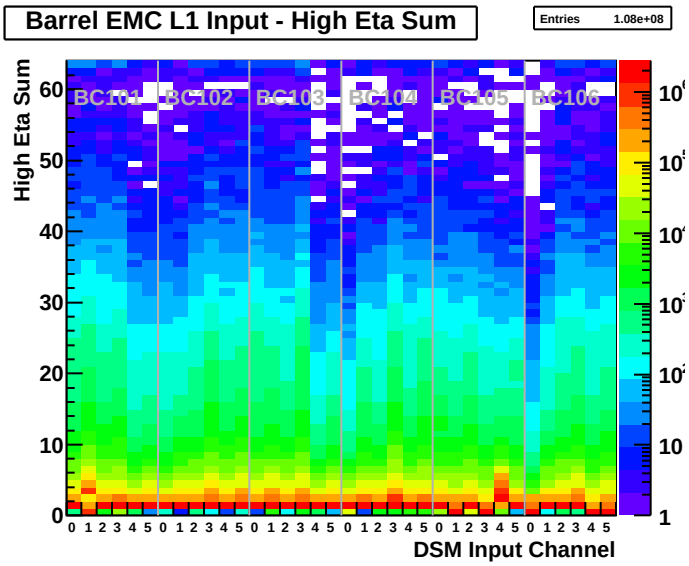

Barrel Jet Patches
Entries 5.4e+07
JP ADC
JP ID

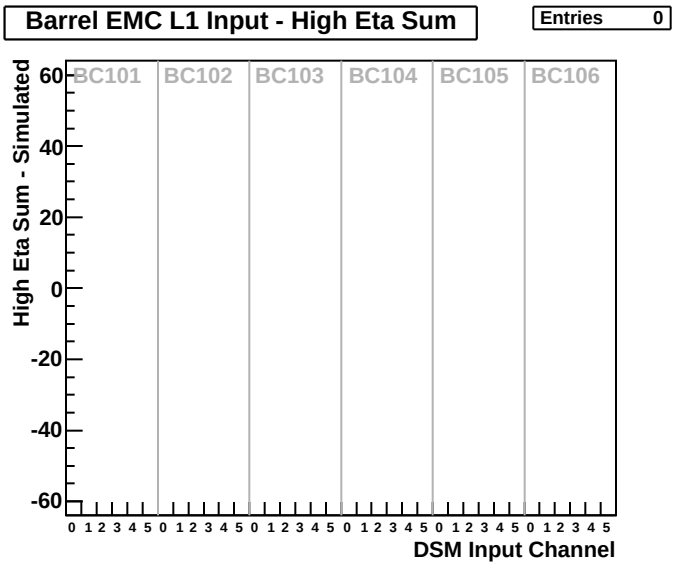

Endcap Jet Patches
Entries 1.8e+07
JP ADC
JP ID

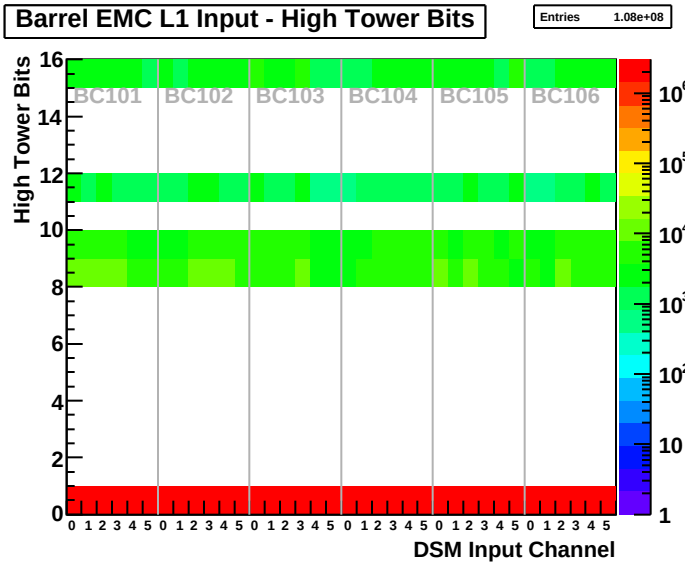

Hybrid Jet Patches
Entries 6000000
JP ADC
JP ID

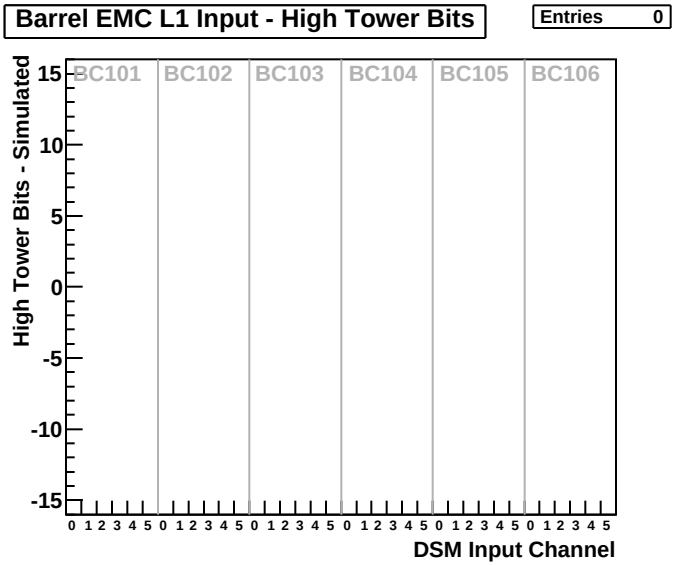

Barrel EMC L1 Input - Low Eta Sum
Entries 1.08e+08
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

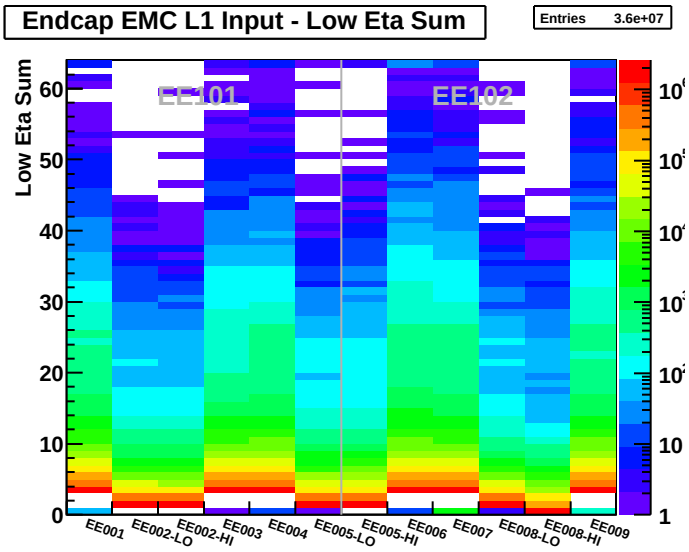

Barrel EMC L1 Input - Low Eta Sum
Entries 8279
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

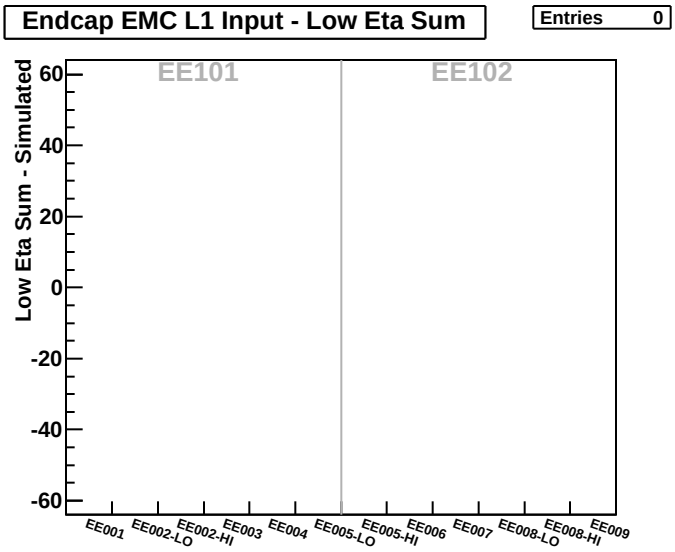

Barrel EMC L1 Input - High Eta Sum
Entries 1.08e+08
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

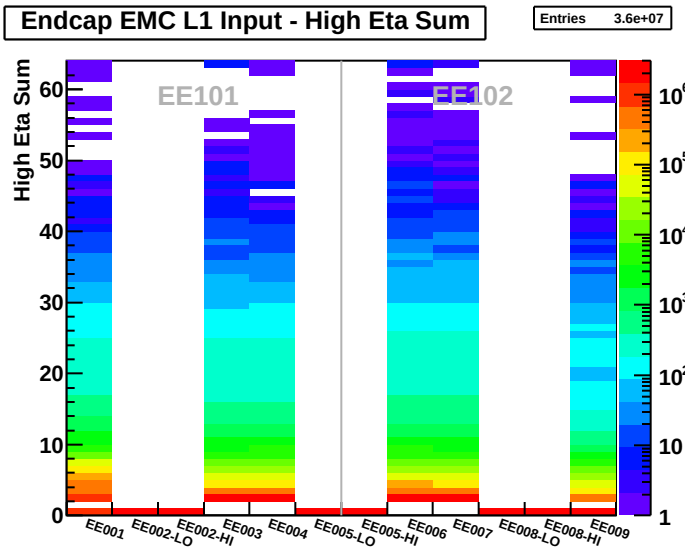

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

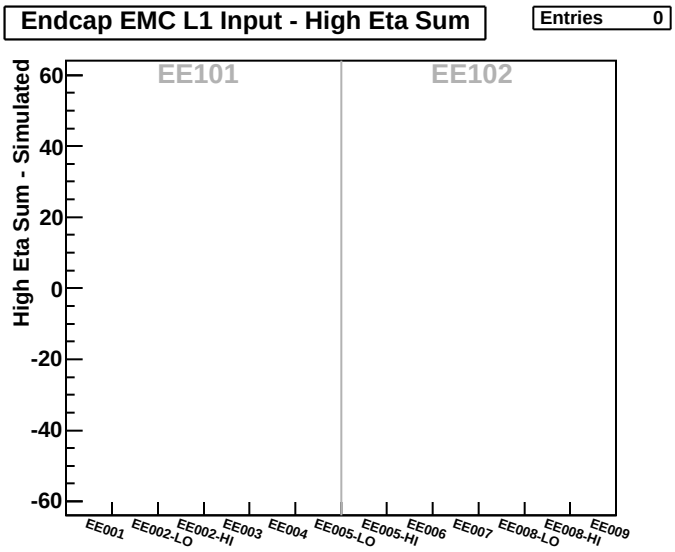

Barrel EMC L1 Input - High Tower Bits
Entries 1.08e+08
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

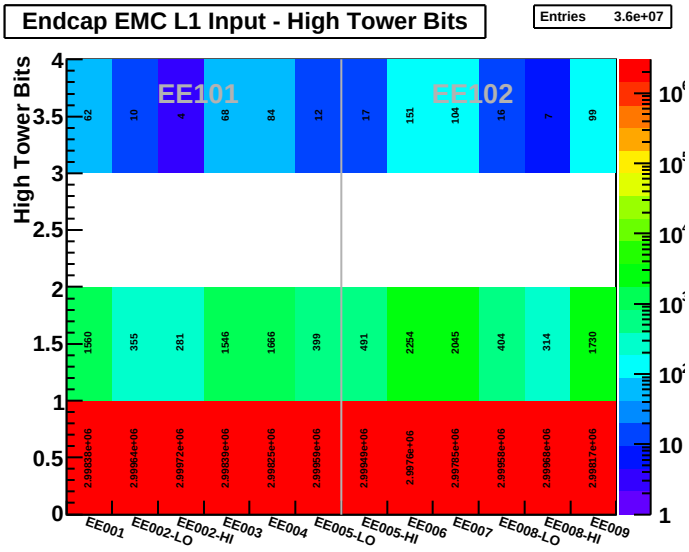

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

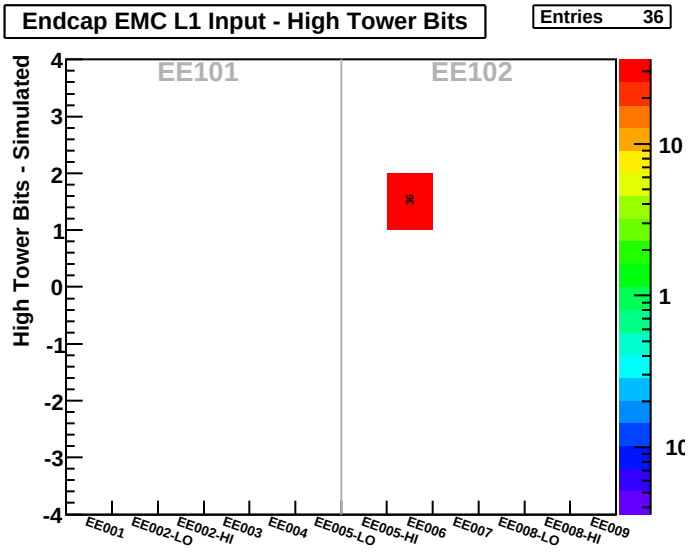

Endcap EMC L1 Input - Low Eta Sum
Entries 3.6e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

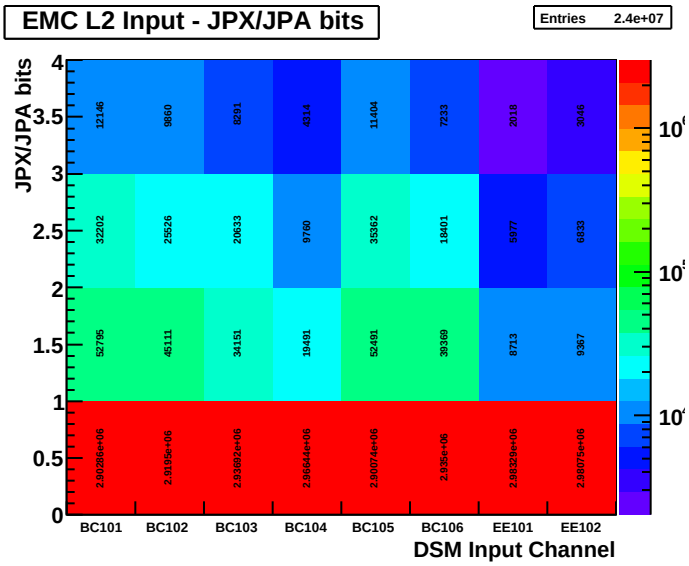

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

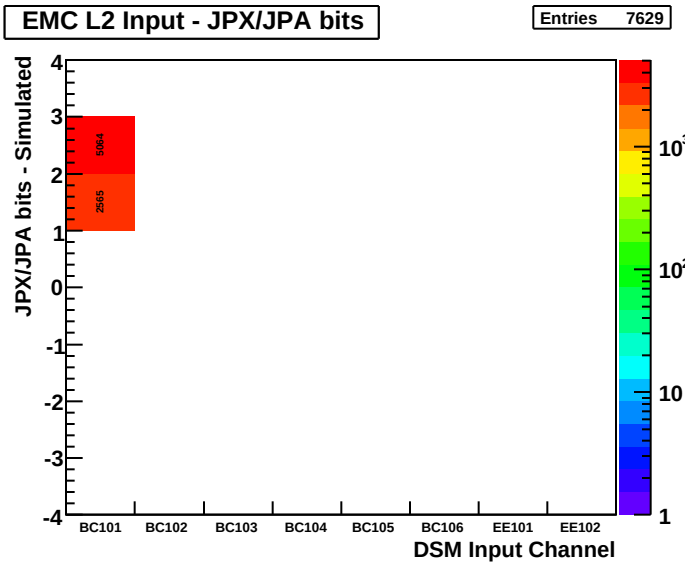

Endcap EMC L1 Input - High Eta Sum
Entries 3.6e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

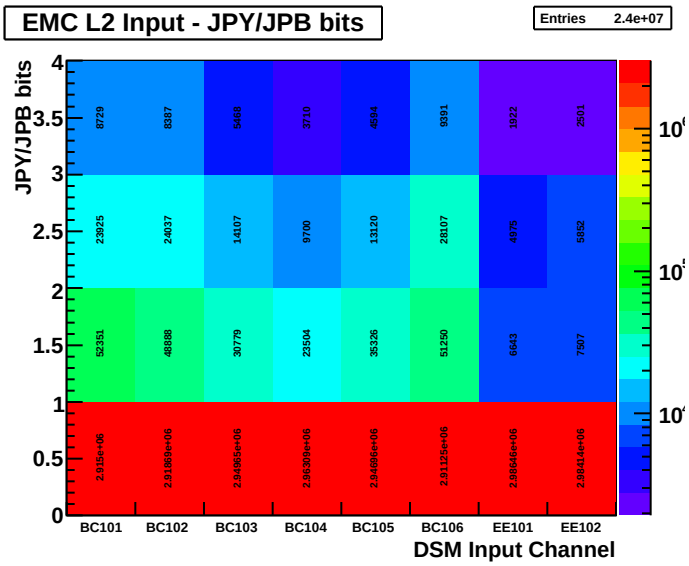

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

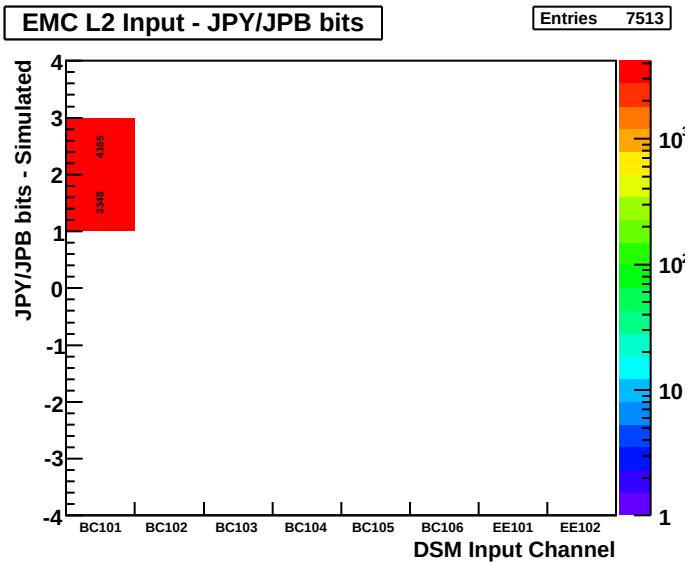

Endcap EMC L1 Input - High Tower Bits
Entries 3.6e+07
High Tower Bits
EE101
EE102
62 10 4 68 84 12 17 151 104 16 7 99
1560 355 281 1546 1666 399 491 2254 2045 404 314 1730
2.99839e+06 2.99964e+06 2.99972e+06 2.99839e+06 2.99825e+06 2.99959e+06 2.99948e+06 2.9976e+06 2.99785e+06 2.99958e+06 2.99968e+06 2.99817e+06
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

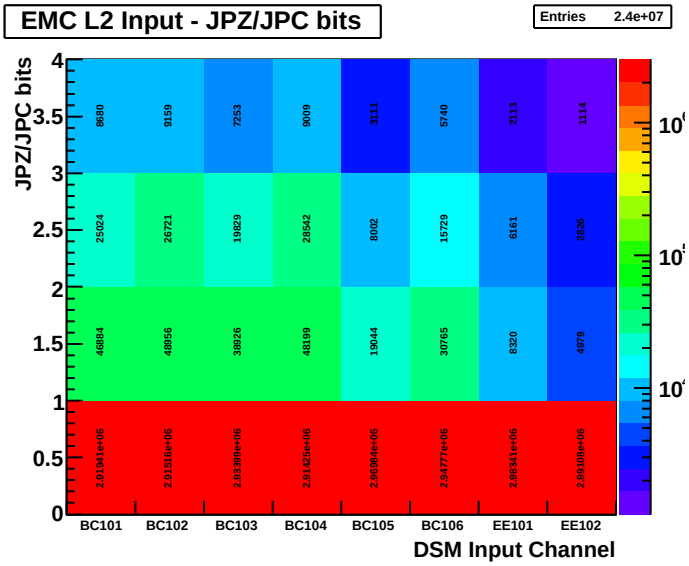

Endcap EMC L1 Input - High Tower Bits
Entries 36
High Tower Bits - Simulated
EE101
EE102
36
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

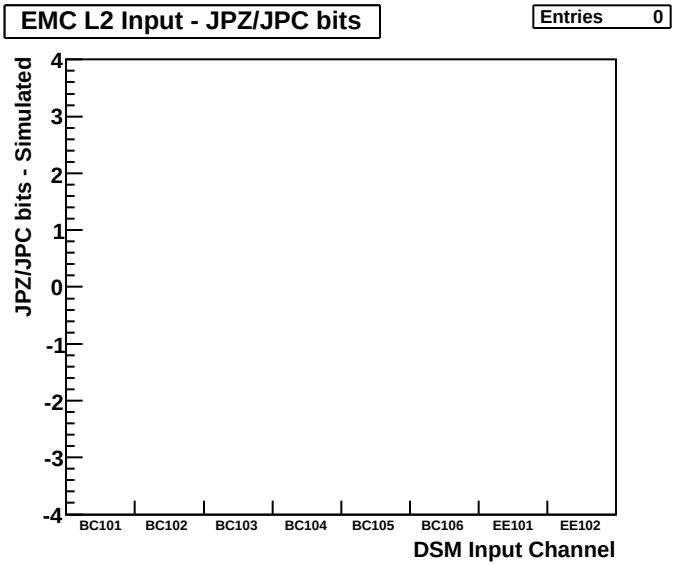

EMC L2 Input - JPX/JPA bits
Entries 2.4e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
12146 9860 8201 4314 11404 7233 2018 3046
32202 25526 20633 9760 35362 18401 5977 6833
52795 45111 34151 19491 52491 39369 8713 9367
2.90286e+06 2.8195e+06 2.93682e+06 2.96644e+06 2.90074e+06 2.935e+06 2.98329e+06 2.98075e+06

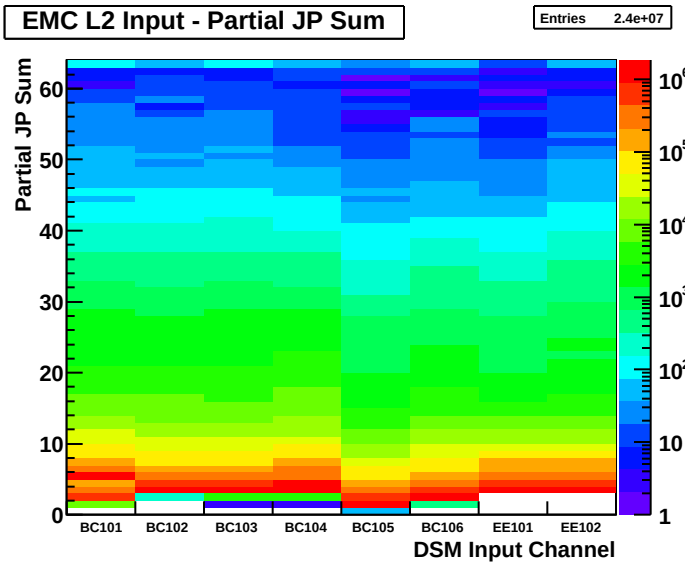

EMC L2 Input - JPX/JPA bits
Entries 7629
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
5064
2565

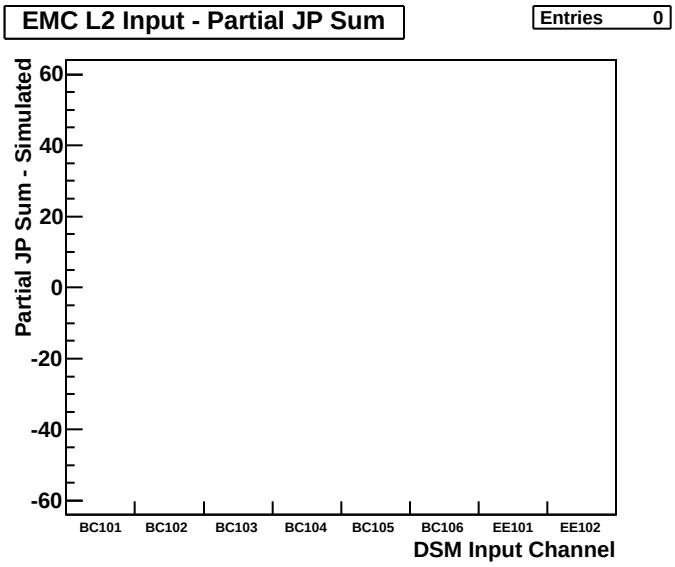

EMC L2 Input - JPY/JPB bits
Entries 2.4e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
8729 8387 5468 3710 4594 9391 1922 2501
23925 24037 14107 9700 13120 26107 4975 5852
52351 48888 30779 23504 35326 51250 6643 7507
2.915e+06 2.91869e+06 2.94965e+06 2.96309e+06 2.94696e+06 2.91125e+06 2.98646e+06 2.98414e+06

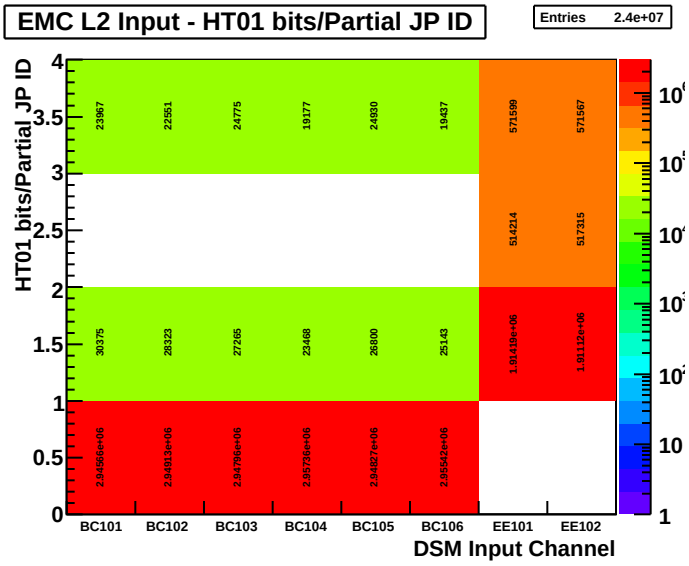

EMC L2 Input - JPY/JPB bits
Entries 7513
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4165
3348

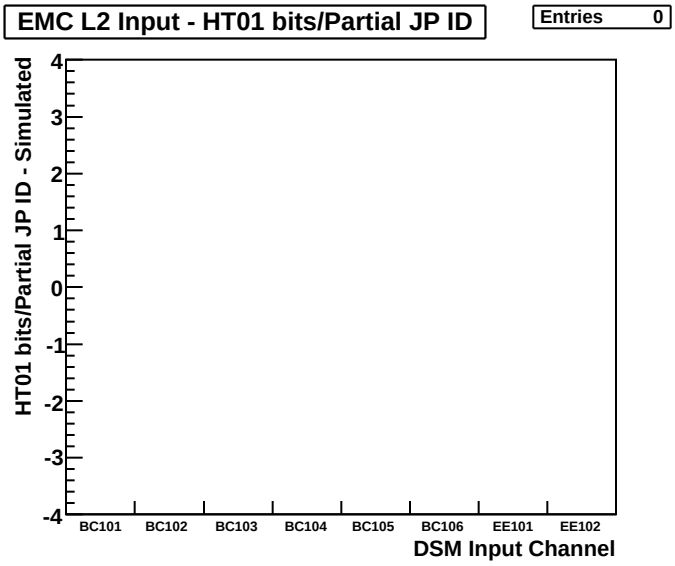

EMC L2 Input - JPZ/JPC bits
Entries 2.4e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
8680 9159 7253 9009 3111 5740 2113 1114
25024 26721 19829 28542 8002 15729 6161 2826
46884 48956 38926 48199 19044 30765 8320 4979
2.91941e+06 2.91516e+06 2.93393e+06 2.91425e+06 2.96984e+06 2.94777e+06 2.98341e+06 2.99108e+06

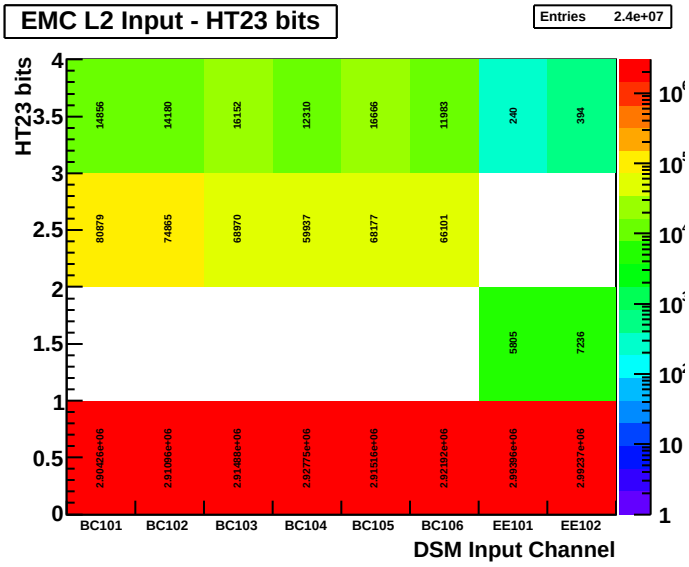

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

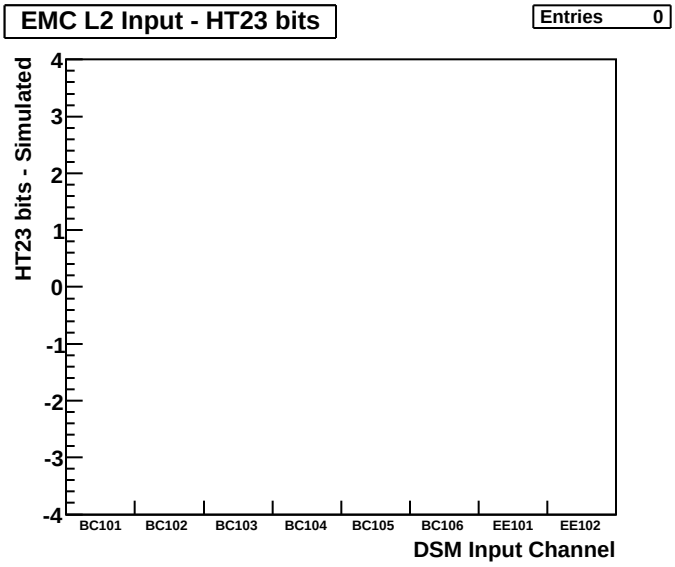

EMC L2 Input - Partial JP Sum
Entries 2.4e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

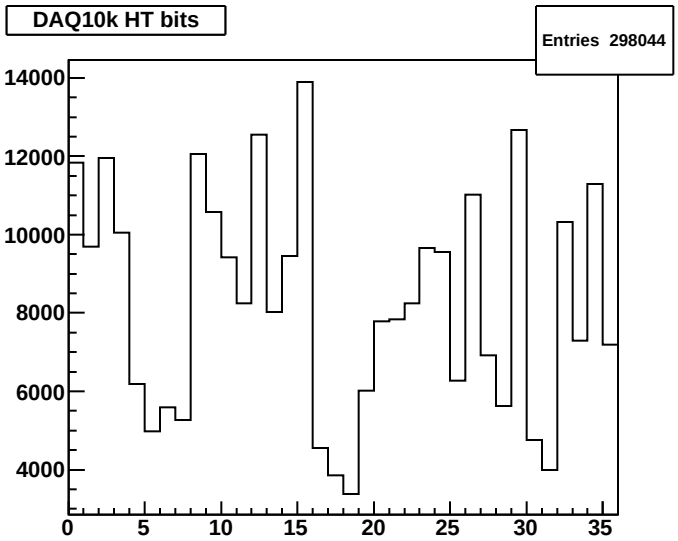

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

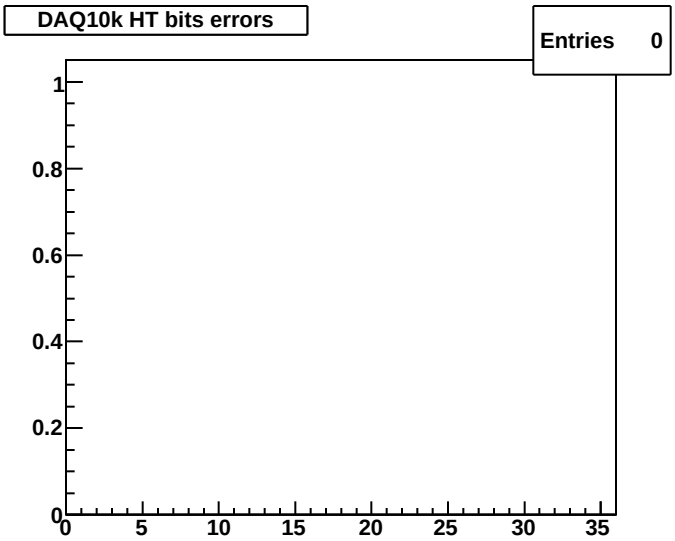

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2.4e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

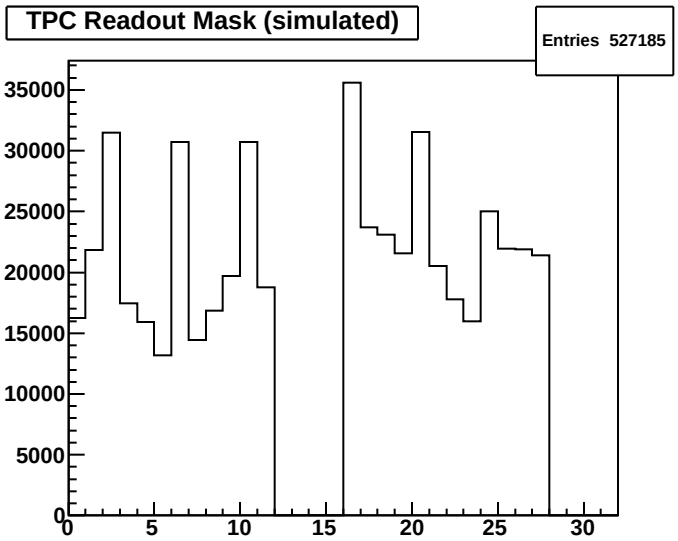

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

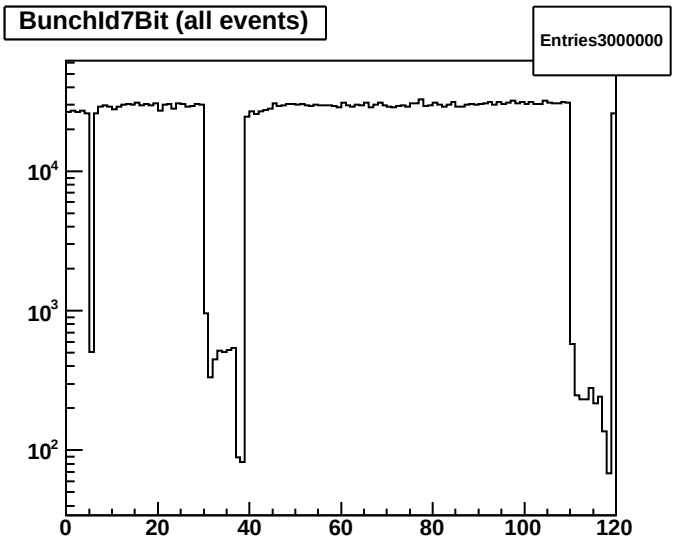

EMC L2 Input - HT23 bits
Entries 2.4e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

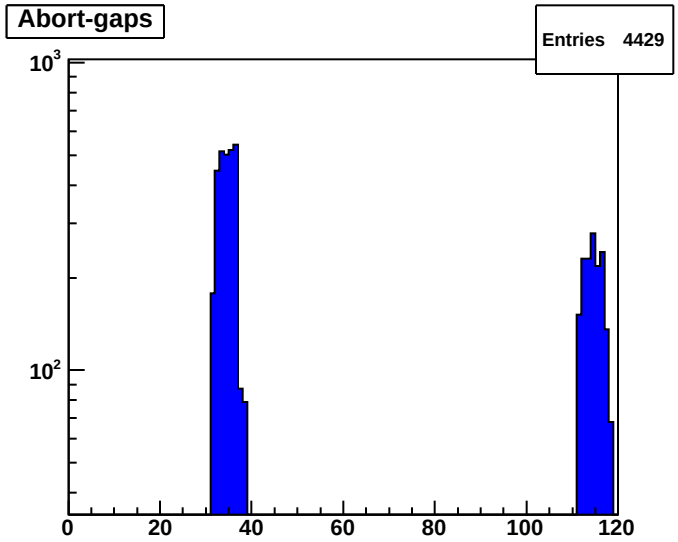

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

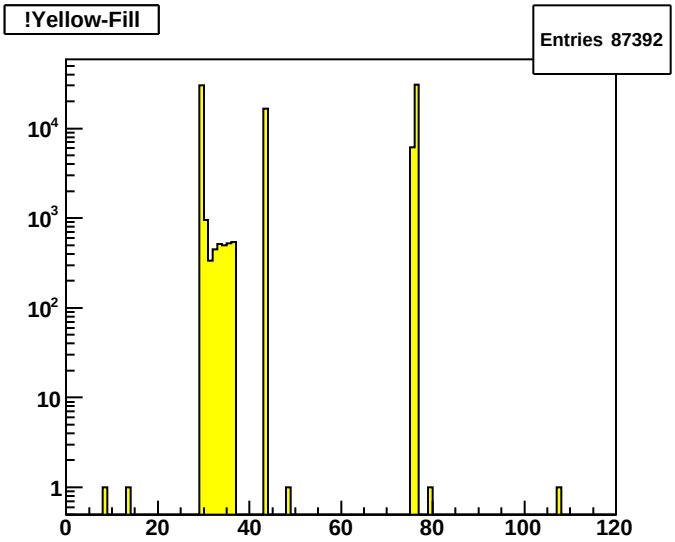

DAQ10k HT bits
Entries 298044
14000
12000
10000
8000
6000
4000
0 5 10 15 20 25 30 35

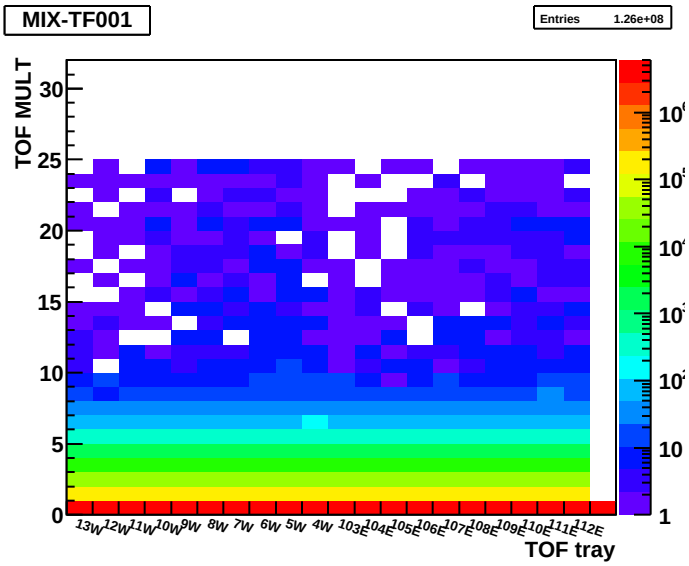

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

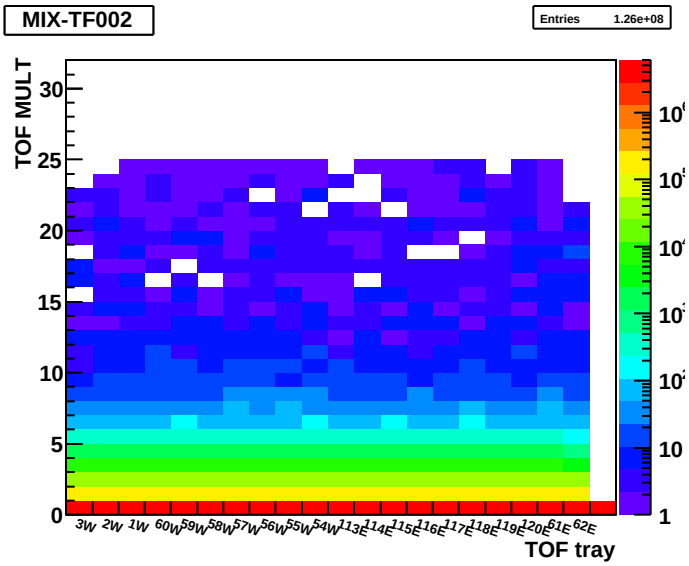

TPC Readout Mask (simulated)
Entries 527185
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

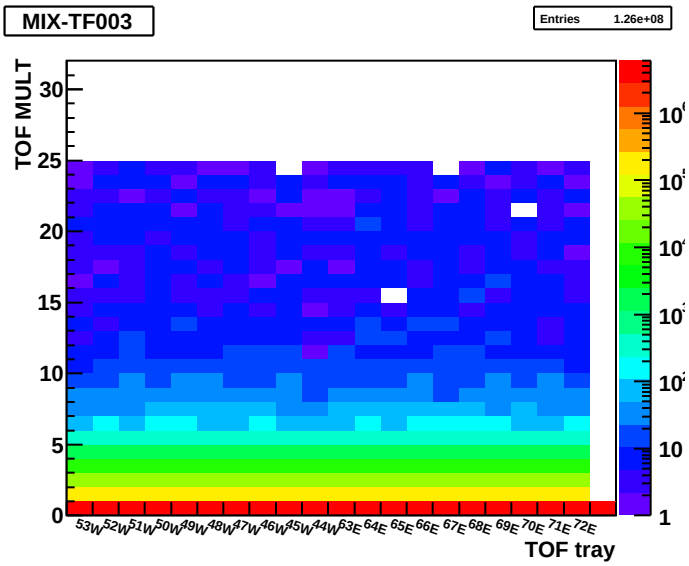

BunchId7Bit (all events)
Entries3000000
10^4
10^3
10^2
0 20 40 60 80 100 120

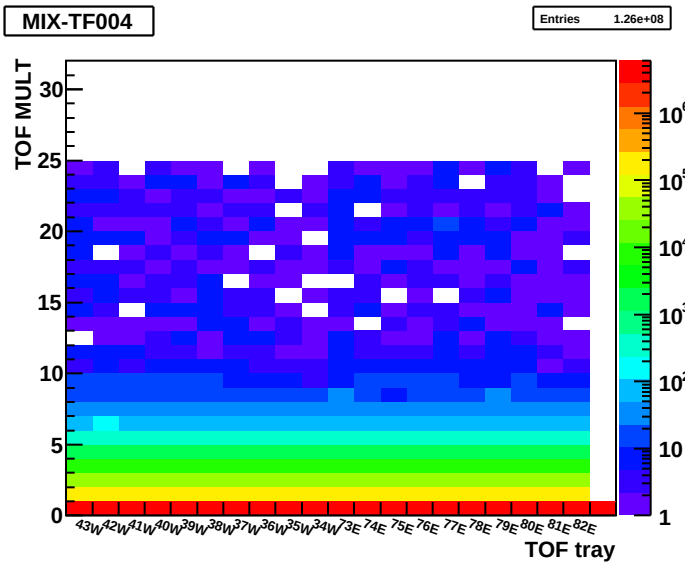

Abort-gaps
Entries 4429
10^3
10^2
0 20 40 60 80 100 120

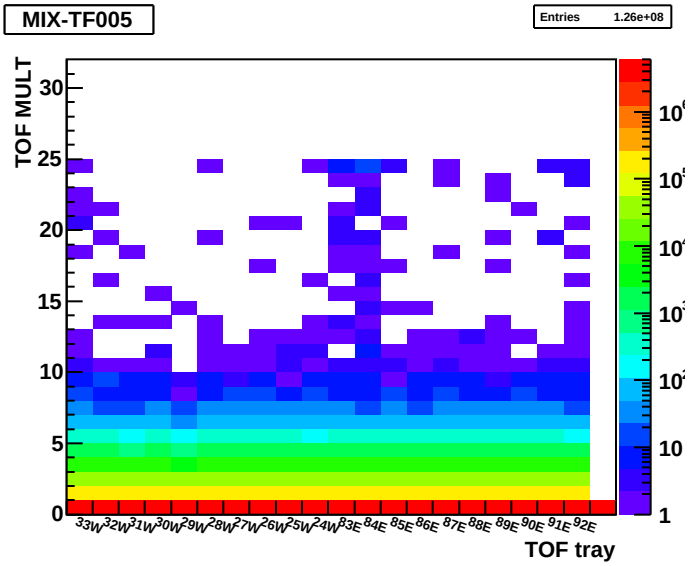

!Yellow-Fill
Entries 87392
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

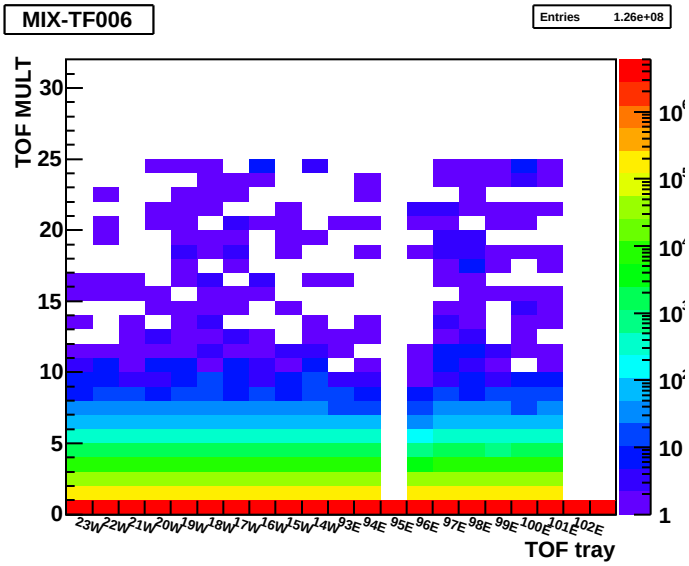

MIX-TF001
Entries 1.26e+08
TOF MULT
TOF tray

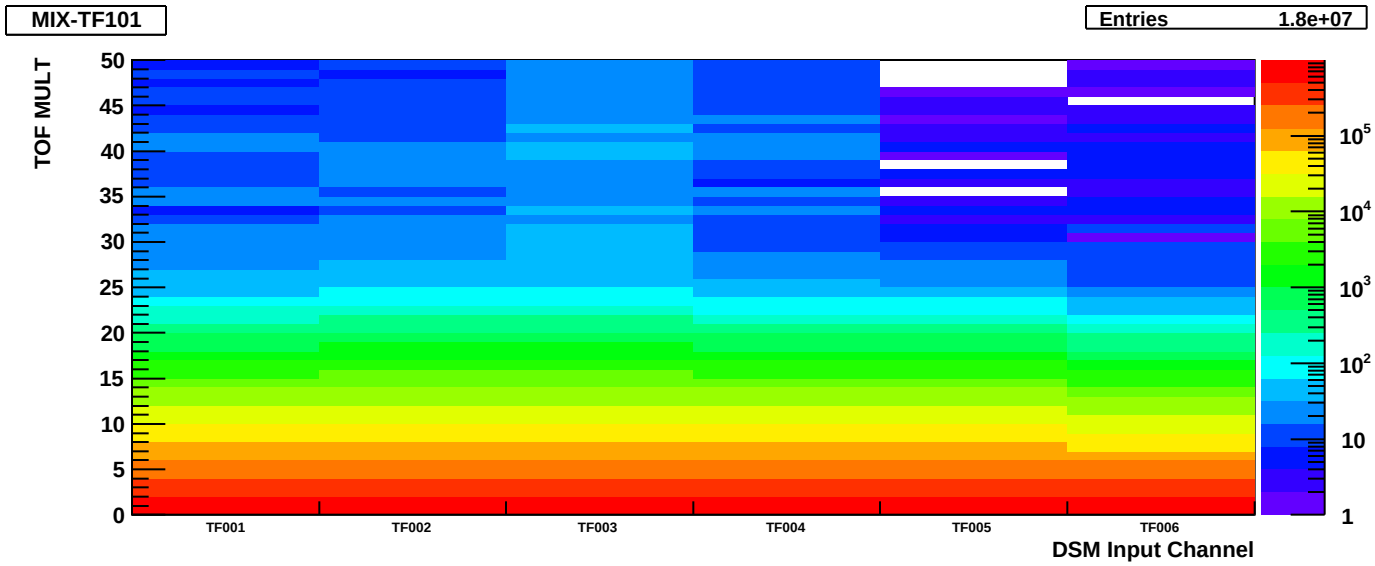

MIX-TF002
Entries 1.26e+08
TOF MULT
TOF tray

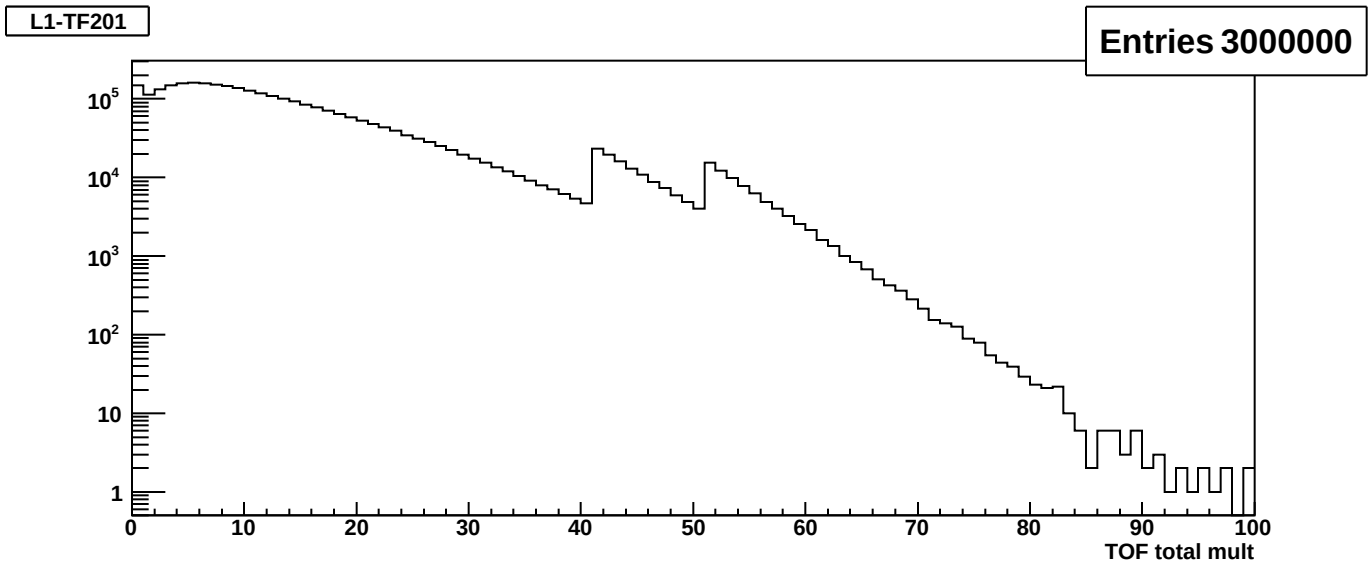

MIX-TF003
Entries 1.26e+08
TOF MULT
TOF tray

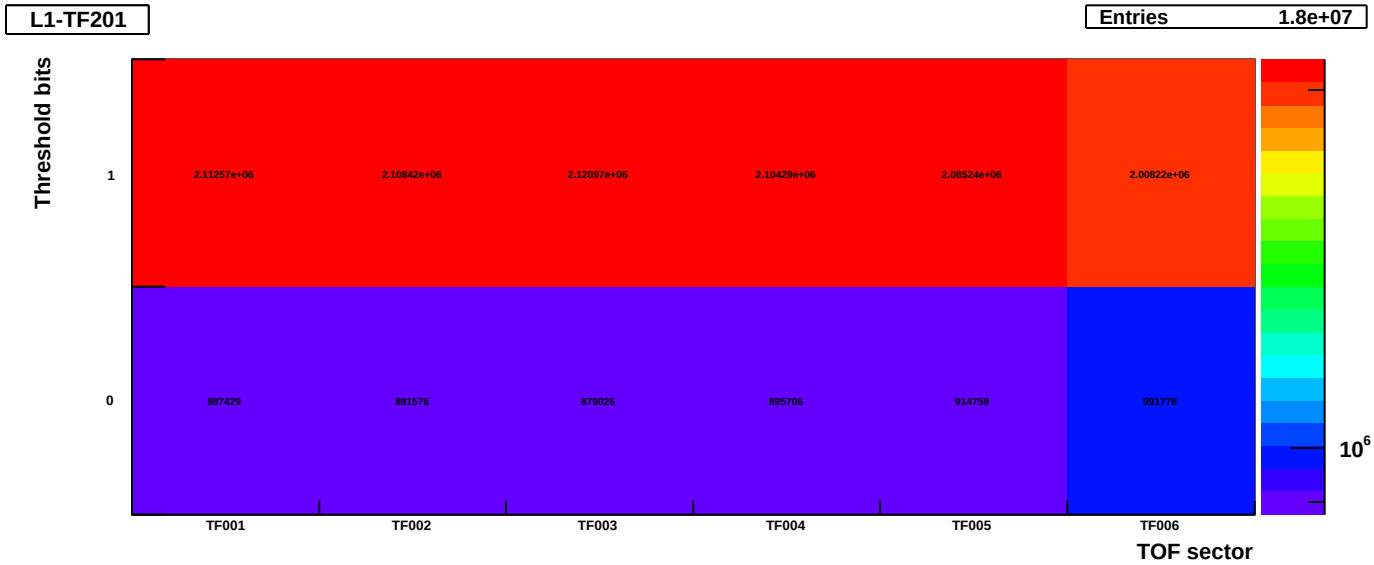

MIX-TF004
Entries 1.26e+08
TOF MULT
TOF tray

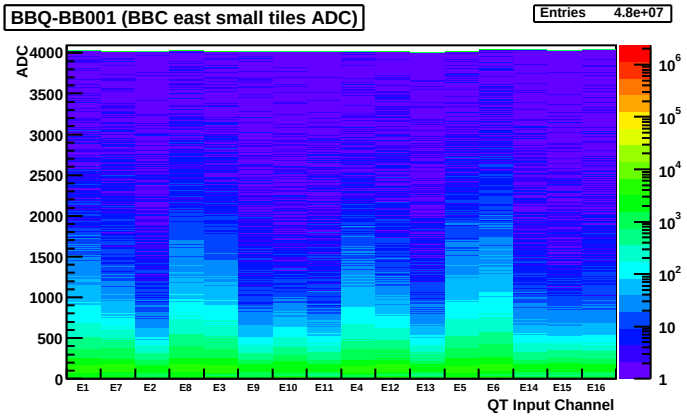

MIX-TF005
Entries 1.26e+08
TOF MULT
TOF tray

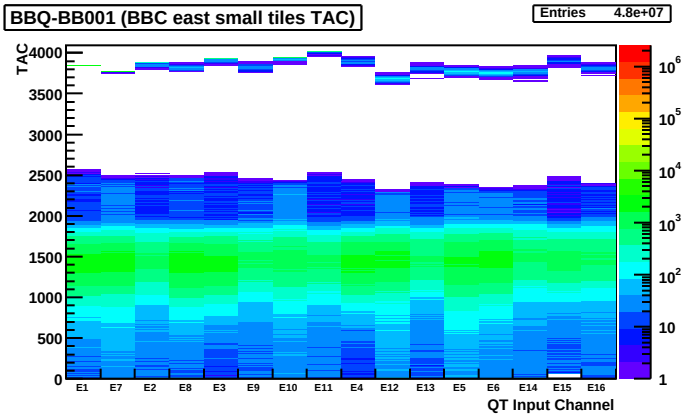

MIX-TF006
Entries 1.26e+08
TOF MULT
TOF tray

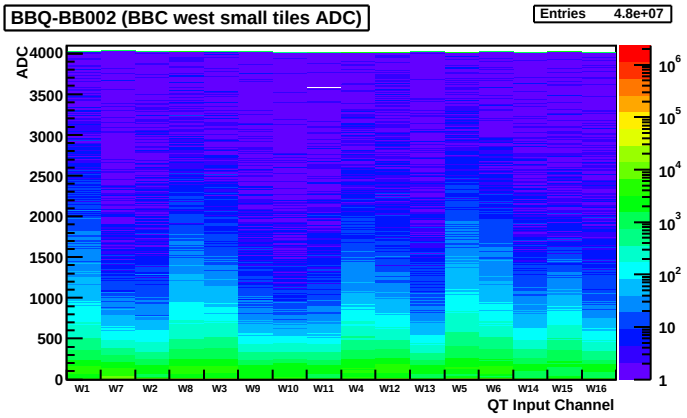

MIX-TF101
Entries 1.8e+07
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

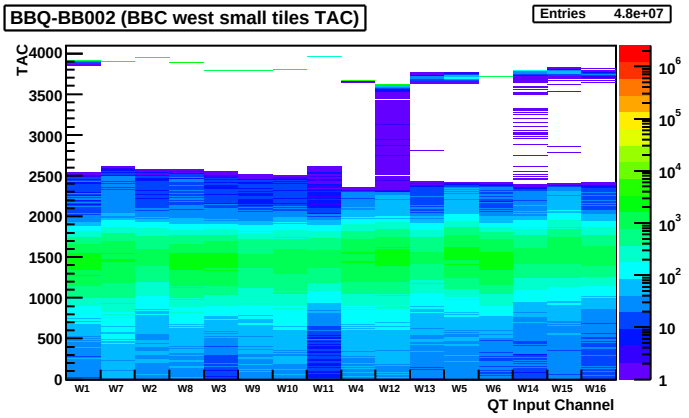

L1-TF201
Entries 3000000
TOF total mult

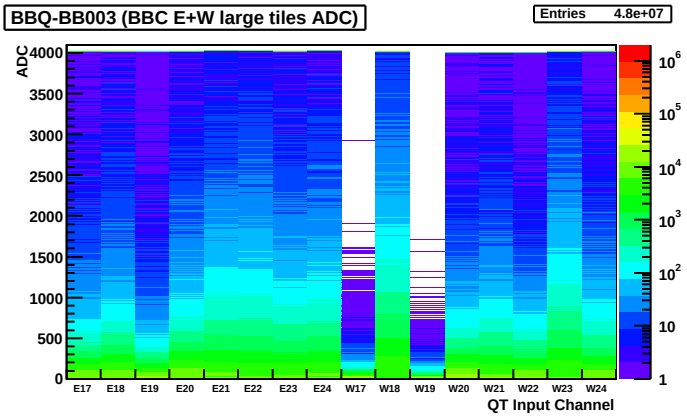

L1-TF201
Entries 1.8e+07
Threshold bits
2.11257e+06
2.10842e+06
2.12097e+06
2.10429e+06
2.08524e+06
2.00822e+06
887429
891576
879026
895706
914759
991778
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

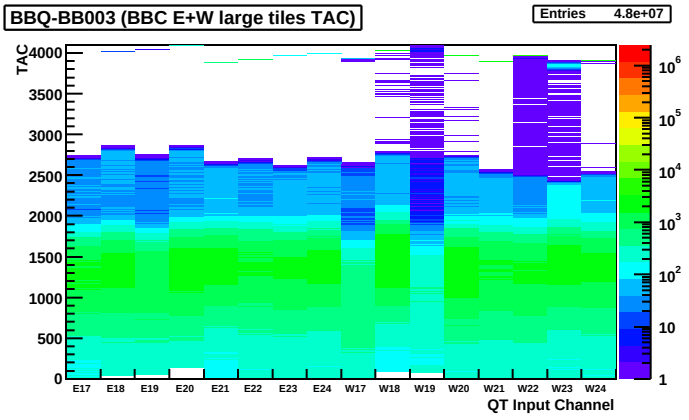

BBQ-BB001 (BBC east small tiles ADC)
Entries 4.8e+07
ADC
QT Input Channel

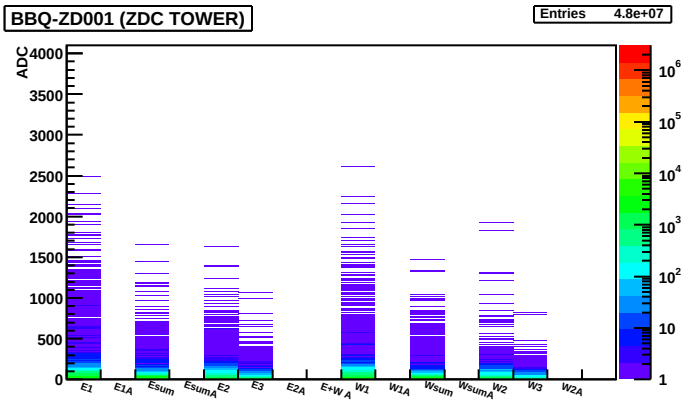

BBQ-BB001 (BBC east small tiles TAC)
Entries 4.8e+07
TAC
QT Input Channel

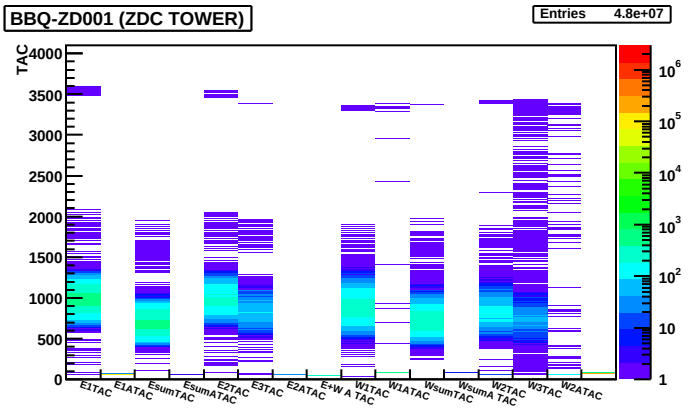

BBQ-BB002 (BBC west small tiles ADC)
Entries 4.8e+07
ADC
QT Input Channel

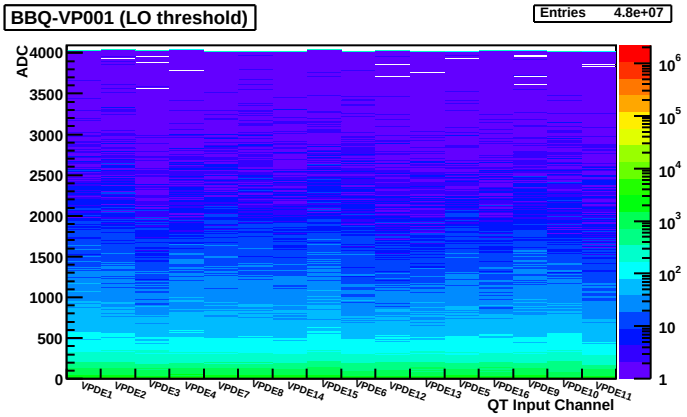

BBQ-BB002 (BBC west small tiles TAC)
Entries 4.8e+07
TAC
QT Input Channel

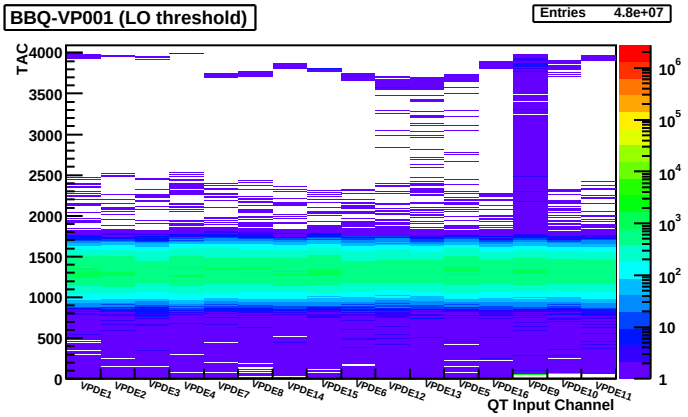

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4.8e+07
ADC
QT Input Channel

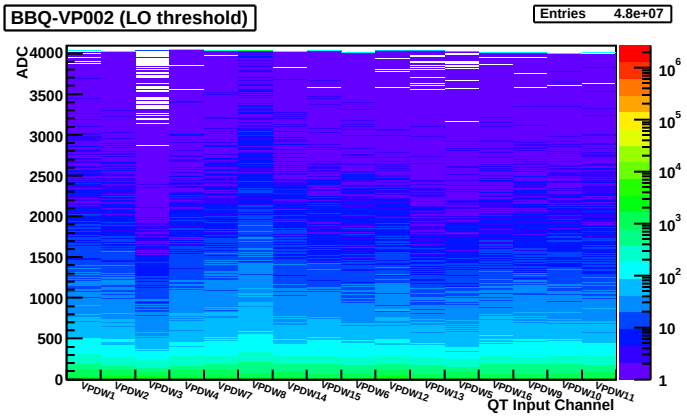

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4.8e+07
TAC
QT Input Channel

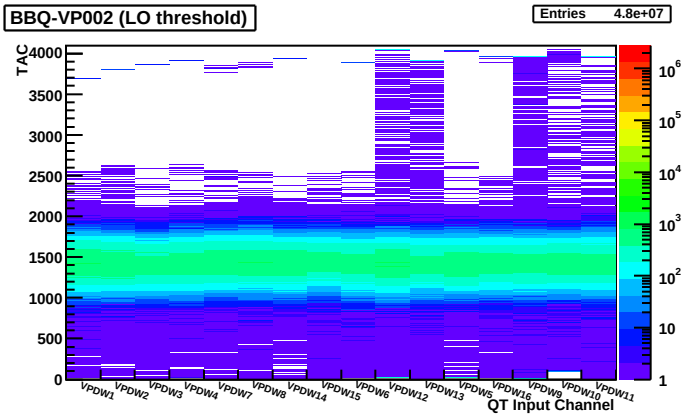

BBQ-ZD001 (ZDC TOWER)
Entries 4.8e+07
ADC

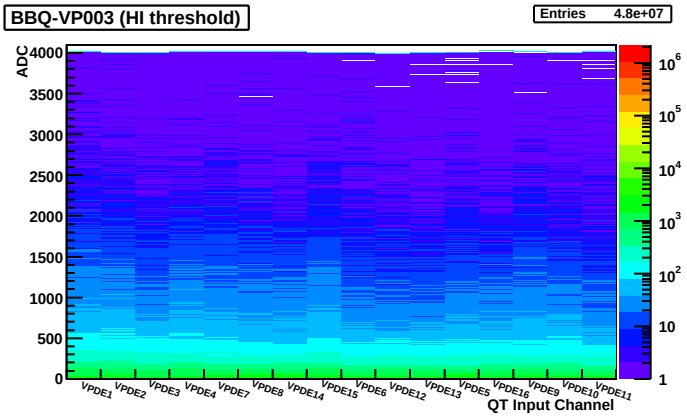

BBQ-ZD001 (ZDC TOWER)
Entries 4.8e+07
TAC

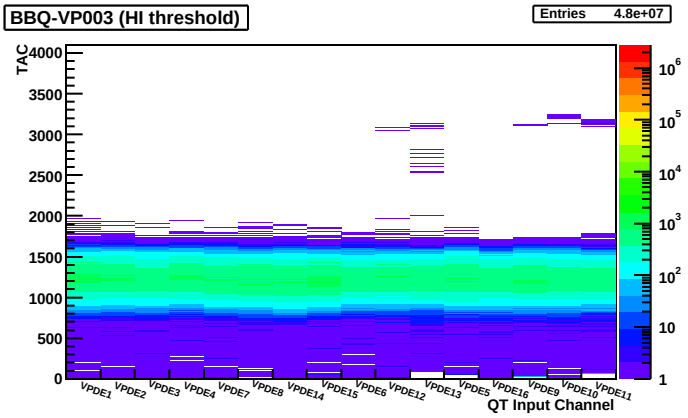

BBQ-VP001 (LO threshold)
Entries 4.8e+07
ADC
QT Input Channel

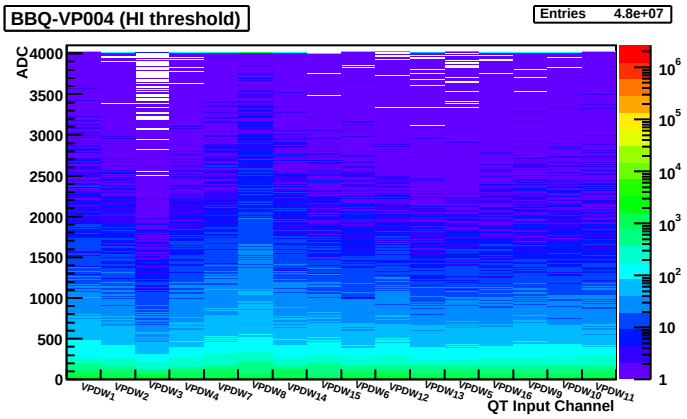

BBQ-VP001 (LO threshold)
Entries 4.8e+07
TAC
QT Input Channel

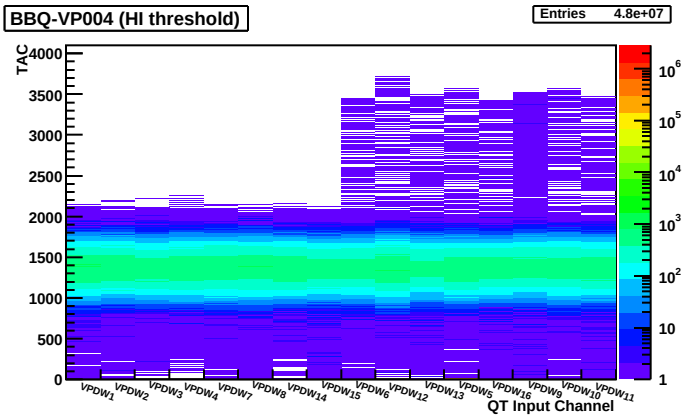

BBQ-VP002 (LO threshold)
Entries 4.8e+07
ADC
QT Input Channel

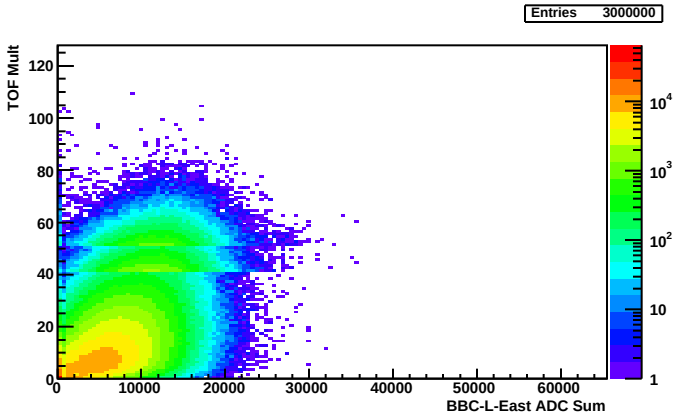

BBQ-VP002 (LO threshold)
Entries 4.8e+07
TAC
QT Input Channel

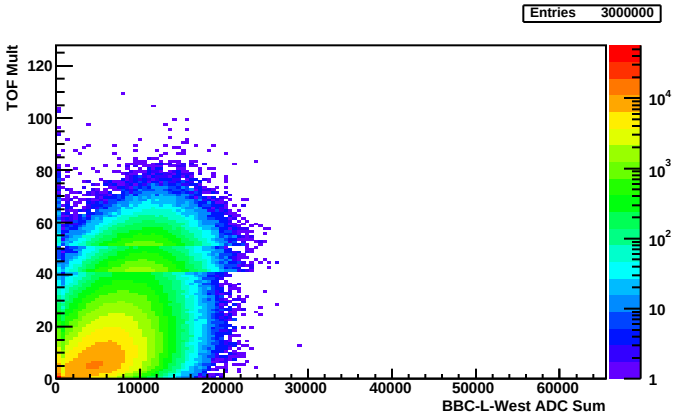

BBQ-VP003 (HI threshold)
Entries 4.8e+07
ADC
QT Input Channel

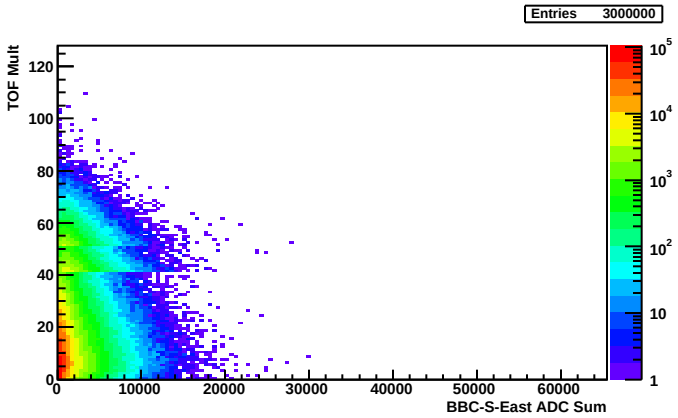

BBQ-VP003 (HI threshold)
Entries 4.8e+07
TAC
QT Input Channel

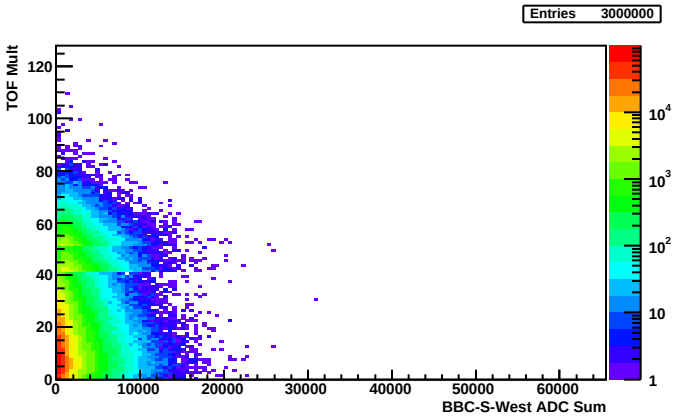

BBQ-VP004 (HI threshold)
Entries 4.8e+07
ADC
QT Input Channel

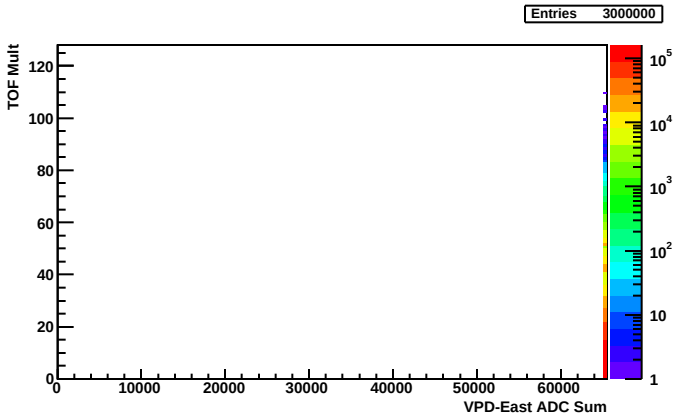

BBQ-VP004 (HI threshold)
Entries 4.8e+07
TAC
QT Input Channel

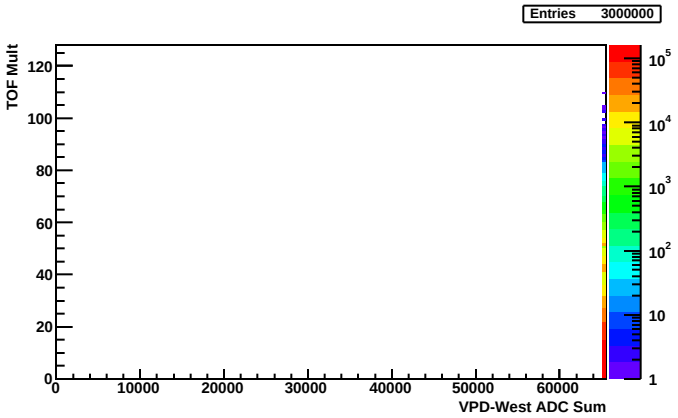

Entries 3000000
TOF Mult
BBC-L-East ADC Sum

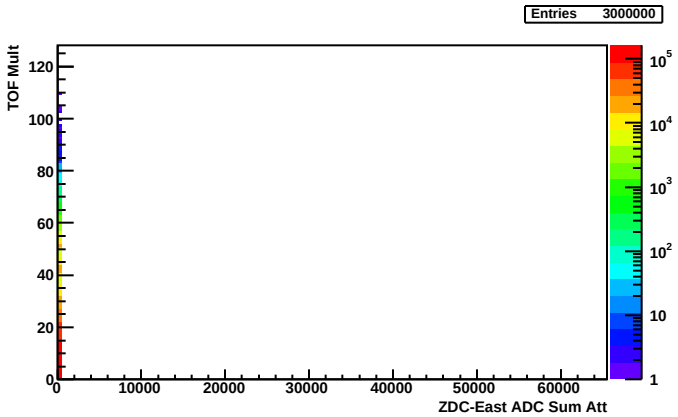

Entries 3000000
TOF Mult
BBC-L-West ADC Sum

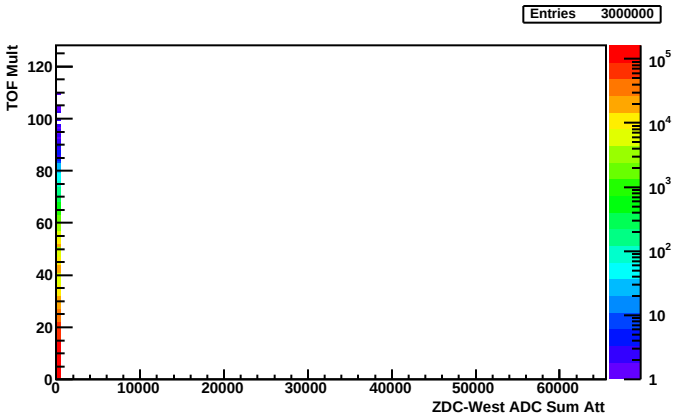

Entries 3000000
TOF Mult
BBC-S-East ADC Sum

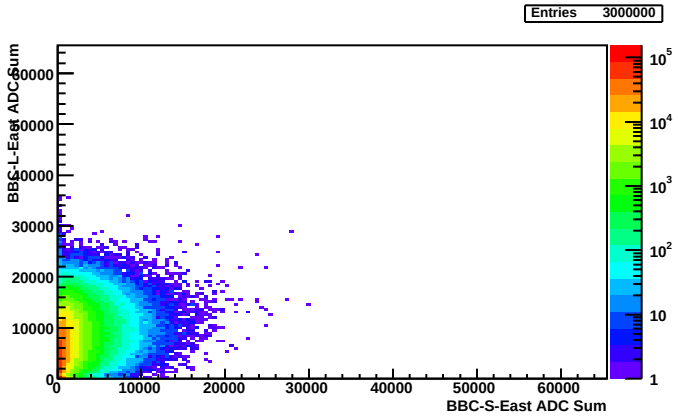

Entries 3000000
TOF Mult
BBC-S-West ADC Sum

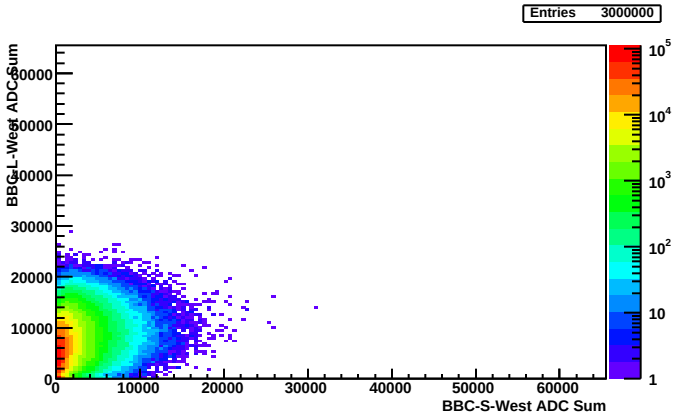

Entries 3000000
TOF Mult
VPD-East ADC Sum

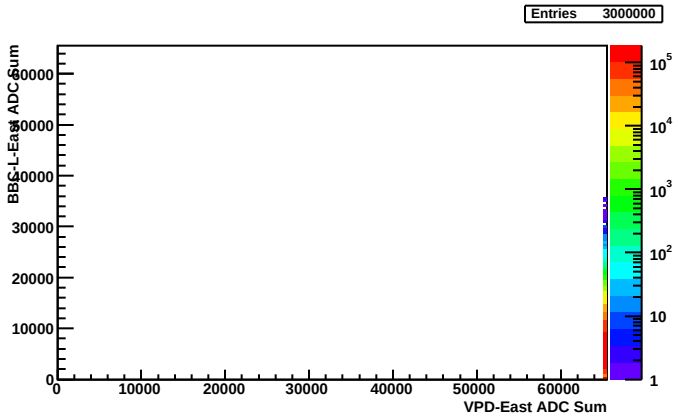

Entries 3000000
TOF Mult
VPD-West ADC Sum

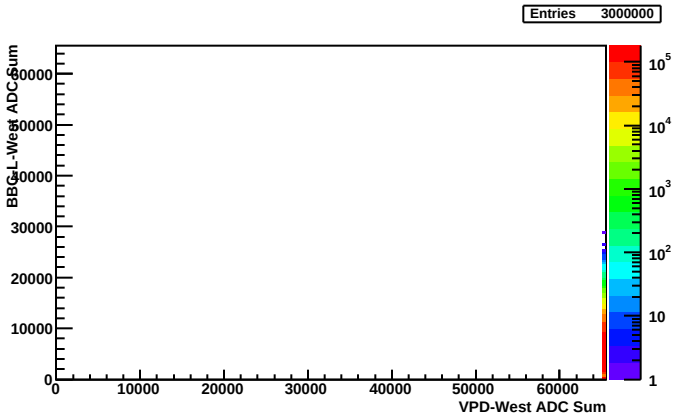

Entries 3000000
TOF Mult
ZDC-East ADC Sum Att

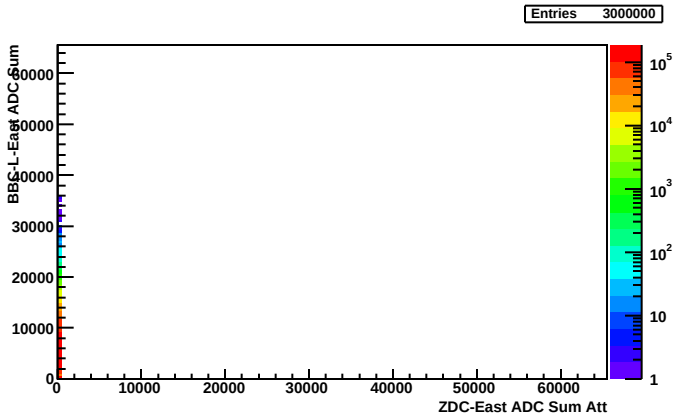

Entries 3000000
TOF Mult
ZDC-West ADC Sum Att

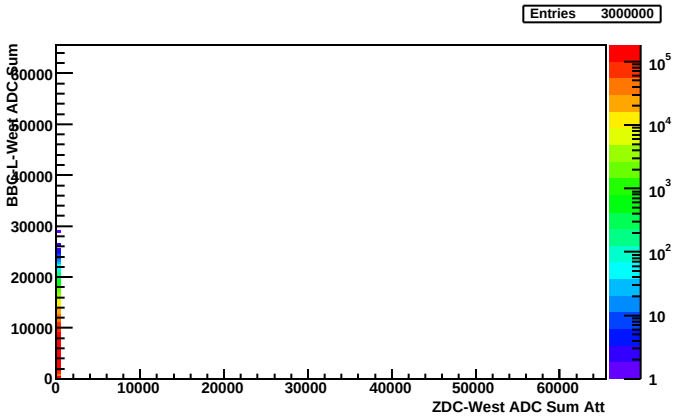

Entries 3000000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

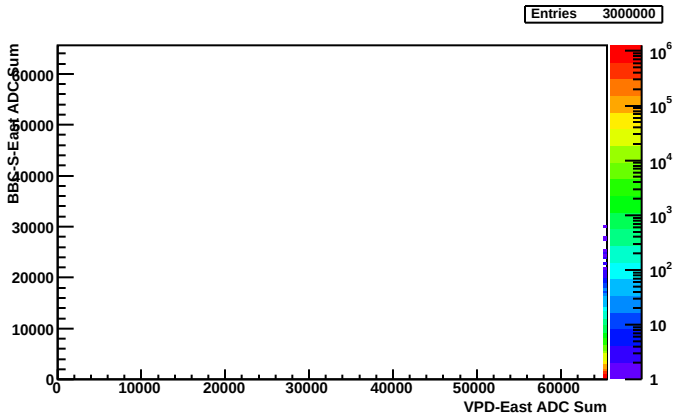

Entries 3000000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

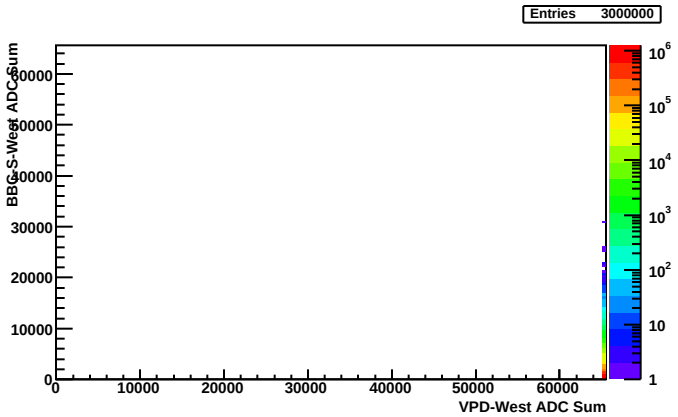

Entries 3000000
BBC-L-East ADC Sum
VPD-East ADC Sum

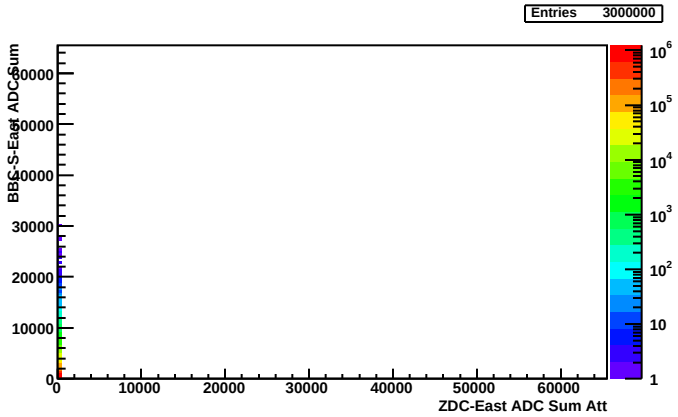

Entries 3000000
BBC-L-West ADC Sum
VPD-West ADC Sum

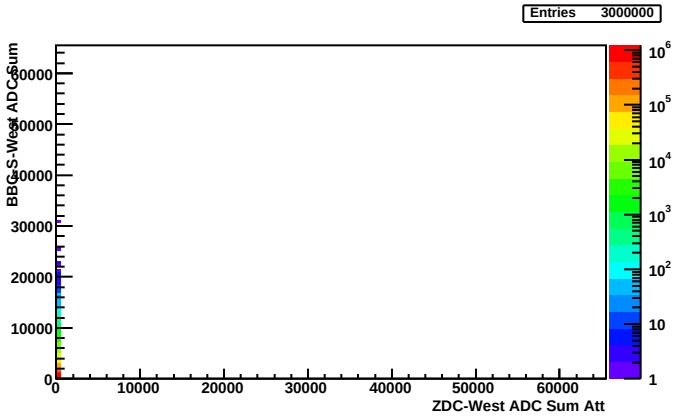

Entries 3000000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

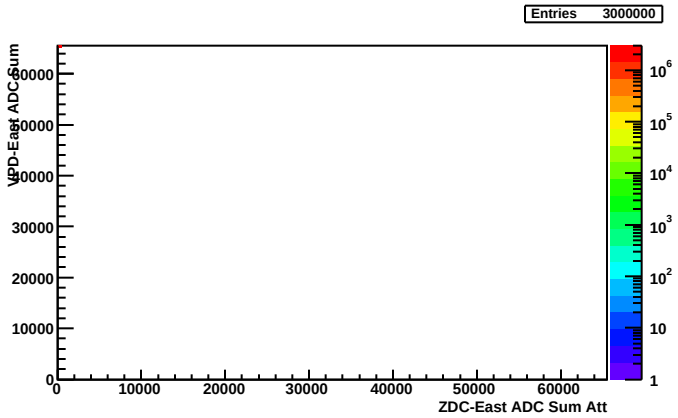

Entries 3000000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

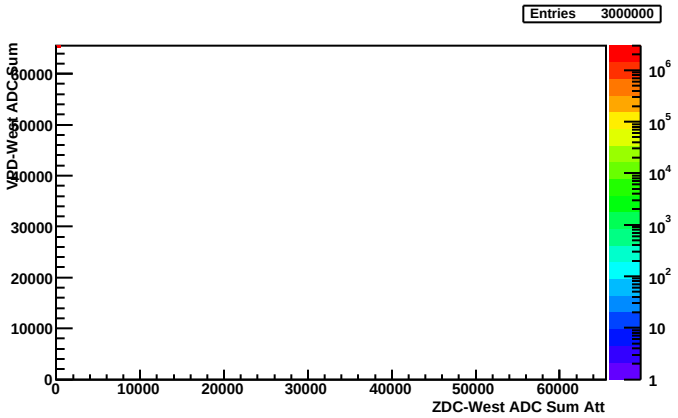

Entries 3000000
BBC-S-East ADC Sum
VPD-East ADC Sum

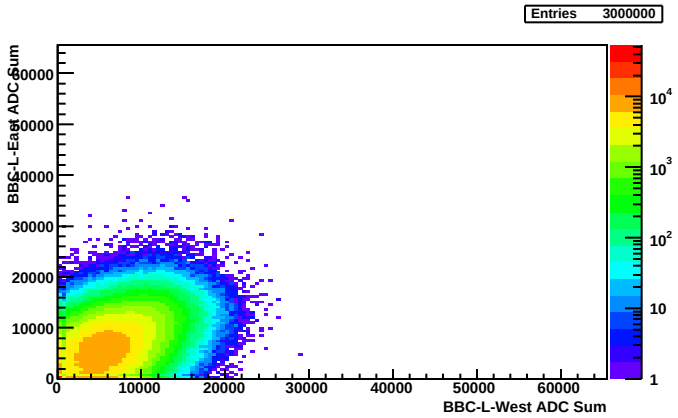

Entries 3000000
BBC-S-West ADC Sum
VPD-West ADC Sum

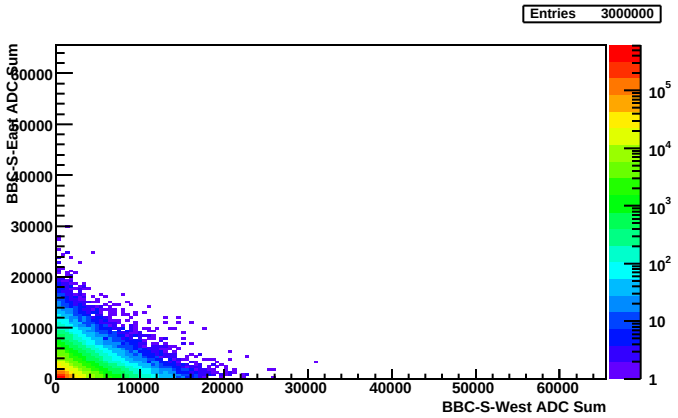

Entries 3000000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

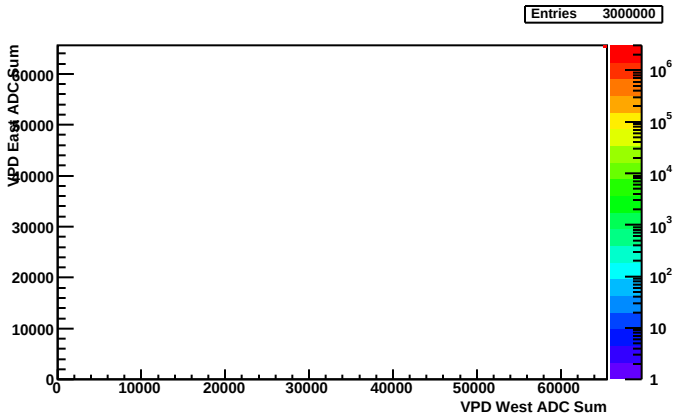

Entries 3000000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

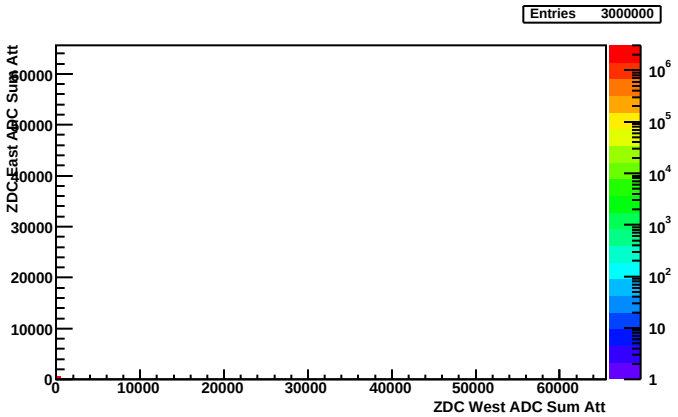

Entries 3000000
VPD-East ADC Sum
ZDC-East ADC Sum Att

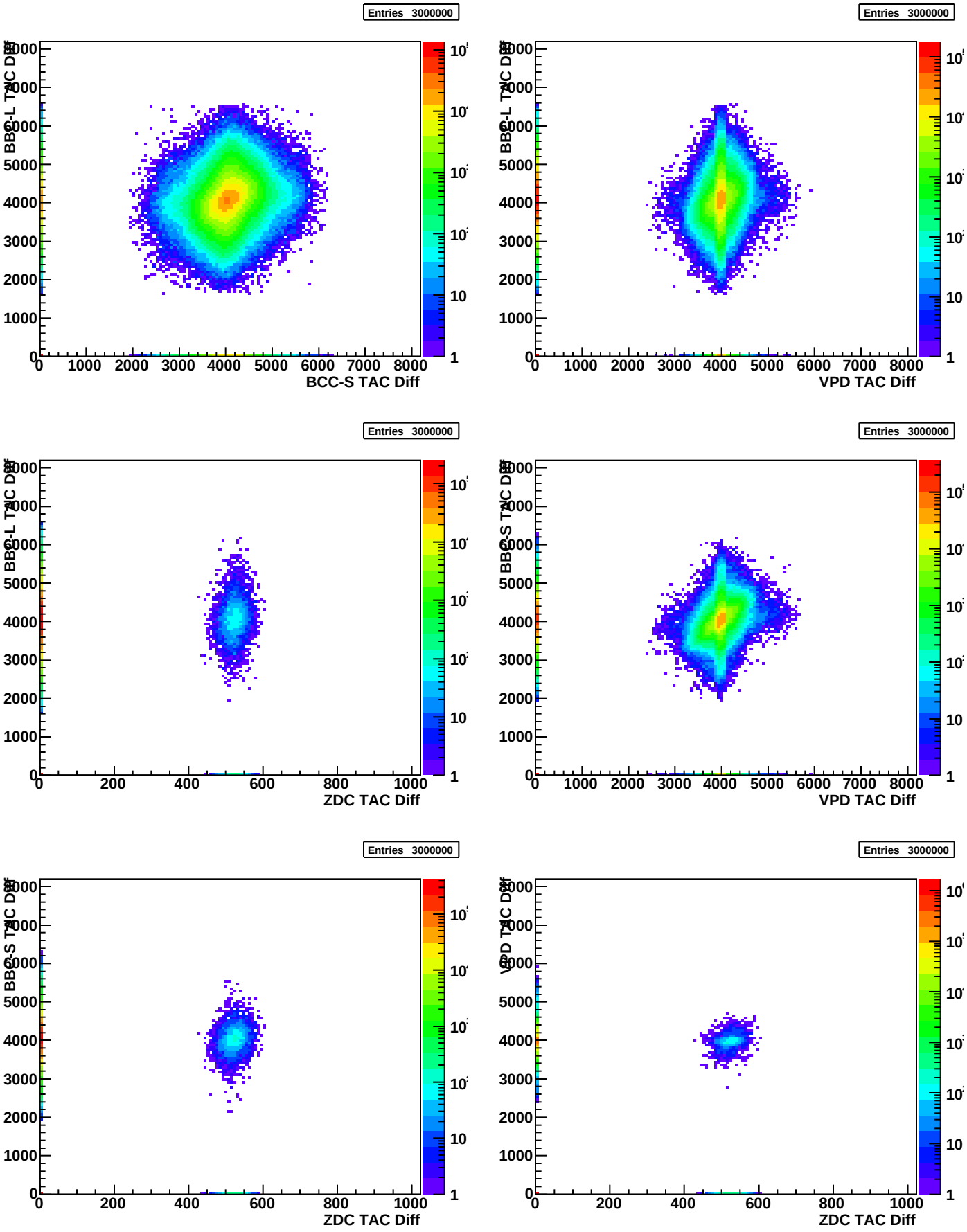

Entries 3000000
VPD-West ADC Sum
ZDC-West ADC Sum Att

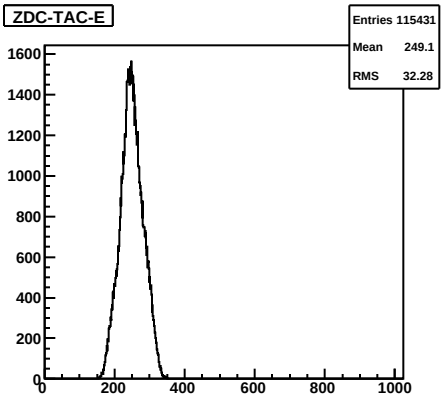

Entries 3000000
BBC-L-East ADC Sum
BBC-L-West ADC Sum

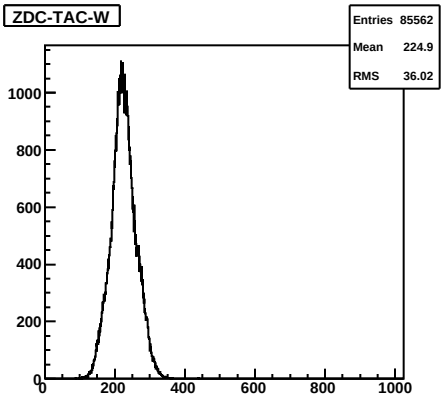

Entries 3000000
BBC-S-East ADC Sum
BBC-S-West ADC Sum

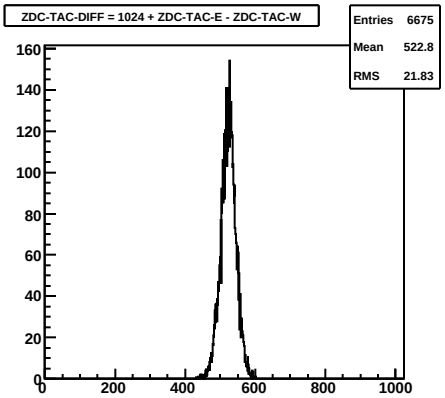

Entries 3000000
VPD East ADC Sum
VPD West ADC Sum

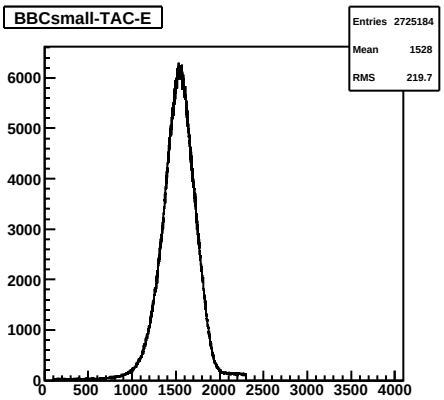

Entries 3000000
ZDC East ADC Sum Att
ZDC West ADC Sum Att

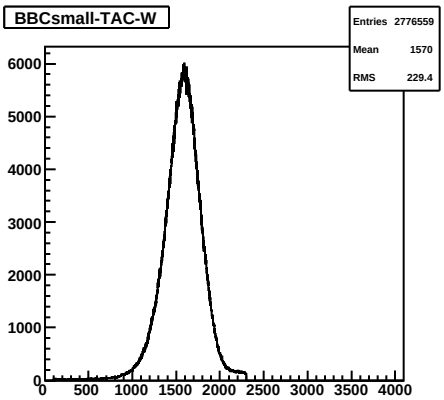

Entries 3000000
BBC-L TAC Diff
BCC-S TAC Diff
Entries 3000000
BBC-L TAC Diff
VPD TAC Diff
Entries 3000000
BBC-L TAC Diff
ZDC TAC Diff
Entries 3000000
BBC-S TAC Diff
VPD TAC Diff
Entries 3000000
BBC-S TAC Diff
ZDC TAC Diff
Entries 3000000
VPD TAC Diff
ZDC TAC Diff

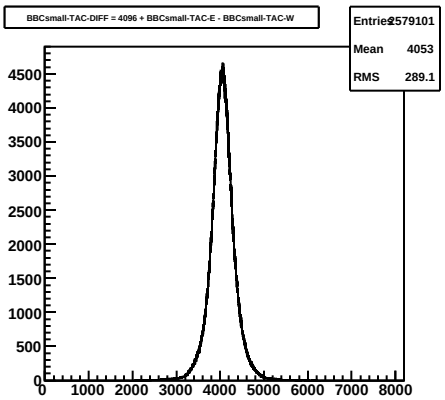

ZDC-TAC-E
Entries 115431
Mean 249.1
RMS 32.28

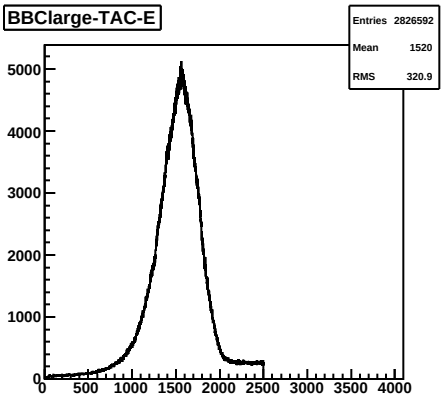

ZDC-TAC-W
Entries 85562
Mean 224.9
RMS 36.02

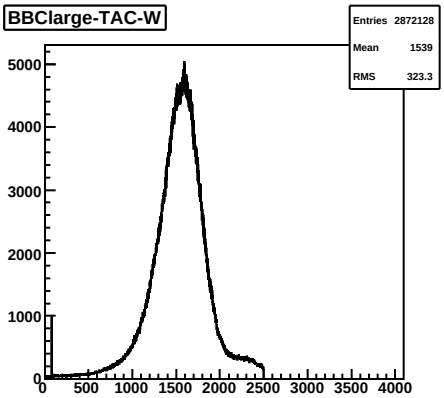

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 6675
Mean 522.8
RMS 21.83

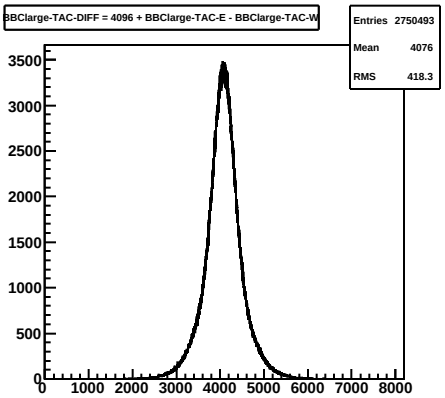

BBCsmall-TAC-E
Entries 2725184
Mean 1528
RMS 219.7

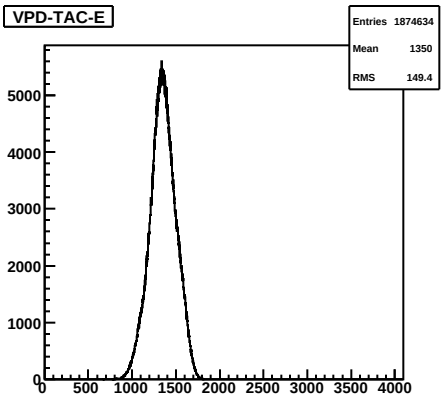

BBCsmall-TAC-W
Entries 2776559
Mean 1570
RMS 229.4

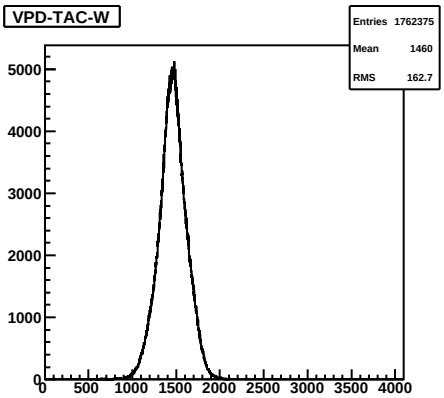

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 2579101
Mean 4053
RMS 289.1

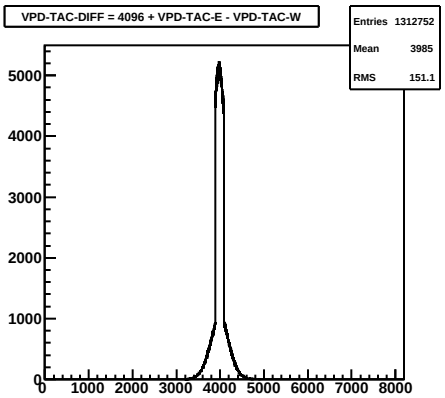

BBClarge-TAC-E
Entries 2826592
Mean 1520
RMS 320.9

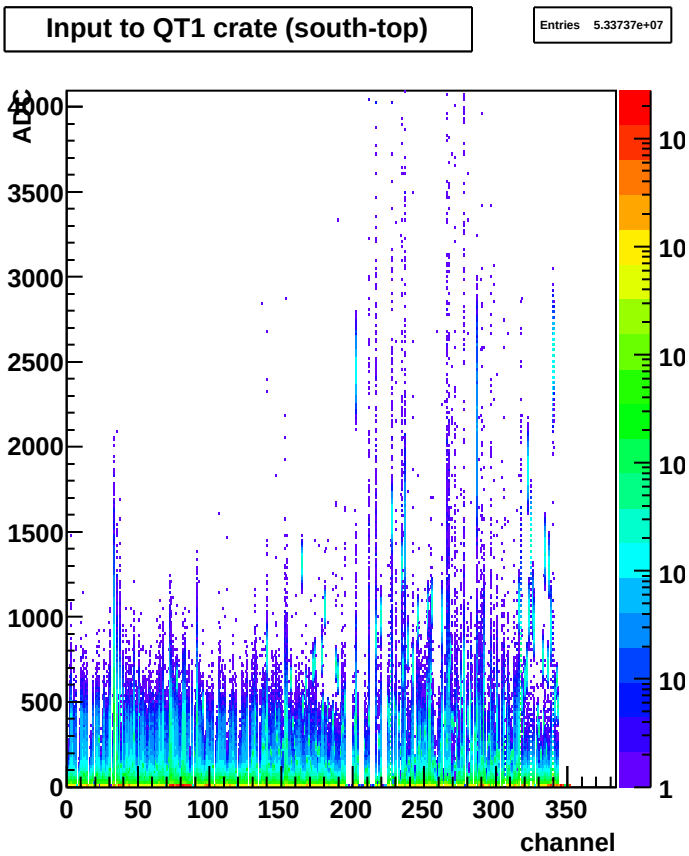

BBClarge-TAC-W
Entries 2872128
Mean 1539
RMS 323.3

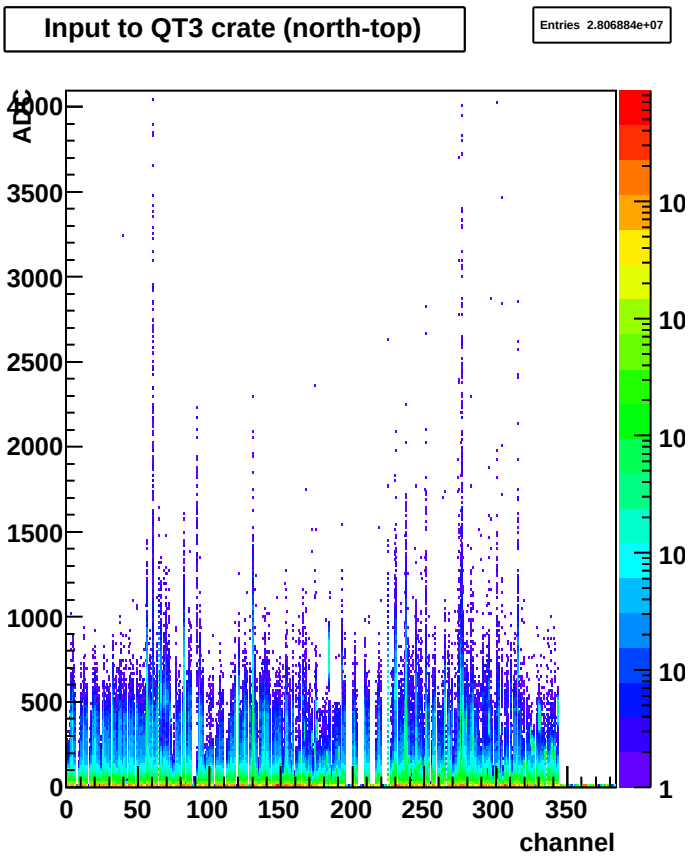

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 2750493
Mean 4076
RMS 418.3

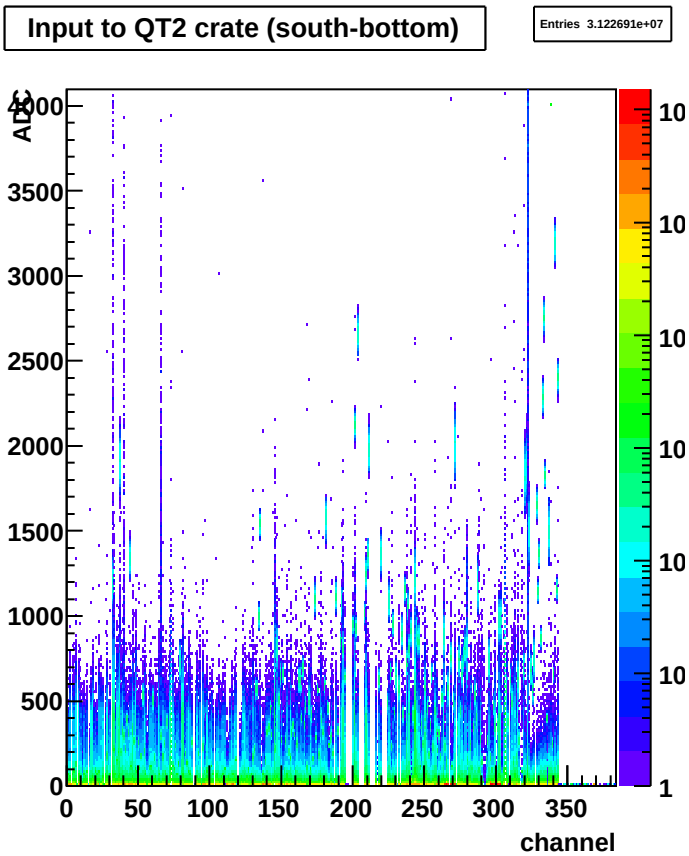

VPD-TAC-E
Entries 1874634
Mean 1350
RMS 149.4

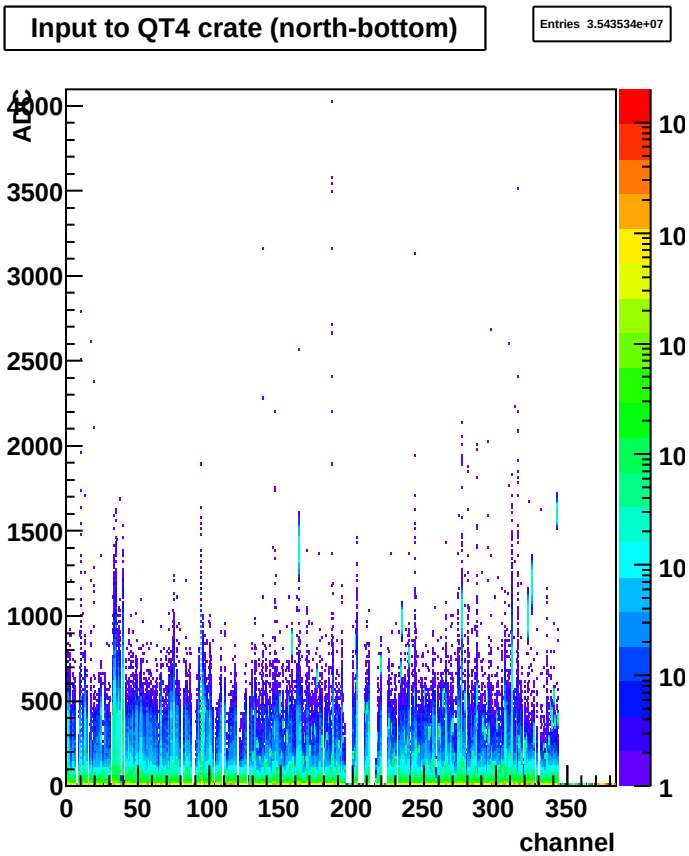

VPD-TAC-W
Entries 1762375
Mean 1460
RMS 162.7

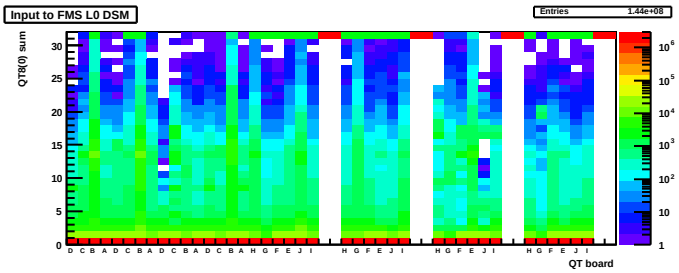

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1312752
Mean 3985
RMS 151.1

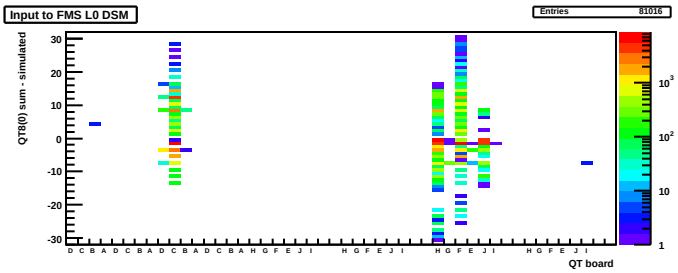

Input to QT1 crate (south-top)
Entries 5.33737e+07
ADC
channel

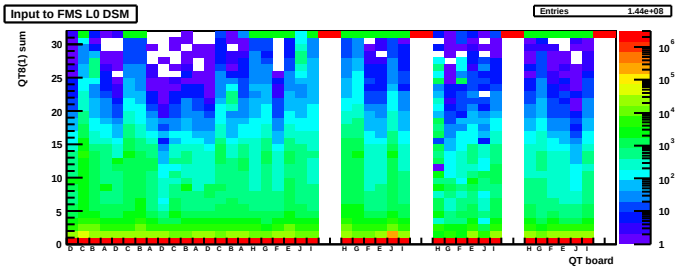

Input to QT3 crate (north-top)
Entries 2.806884e+07
ADC
channel

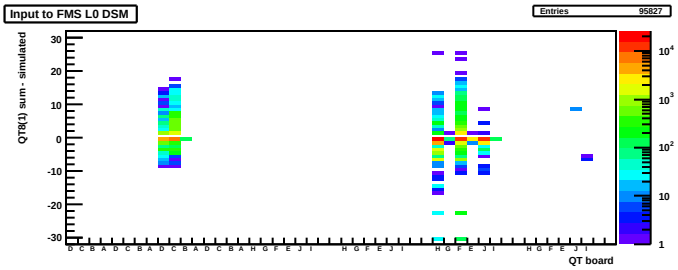

Input to QT2 crate (south-bottom)
Entries 3.122691e+07
ADC
channel

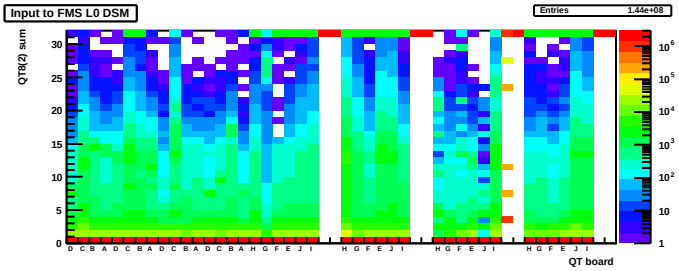

Input to QT4 crate (north-bottom)
Entries 3.543534e+07
ADC
channel

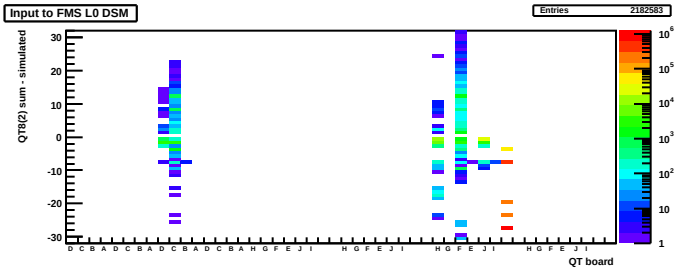

Input to FMS L0 DSM
Entries 1.44e+08
QT8(0) sum
QT board

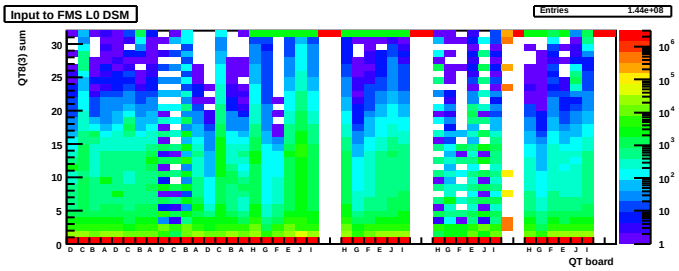

Input to FMS L0 DSM
Entries 81016
QT8(0) sum - simulated
QT board

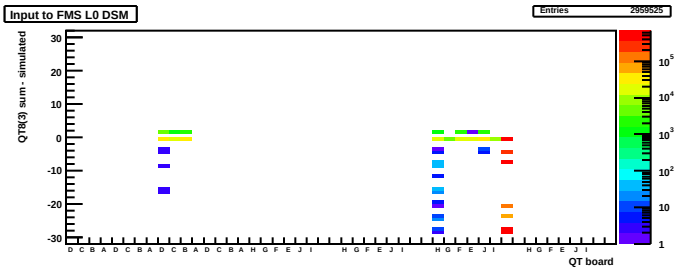

Input to FMS L0 DSM
Entries 1.44e+08
QT8(1) sum
QT board

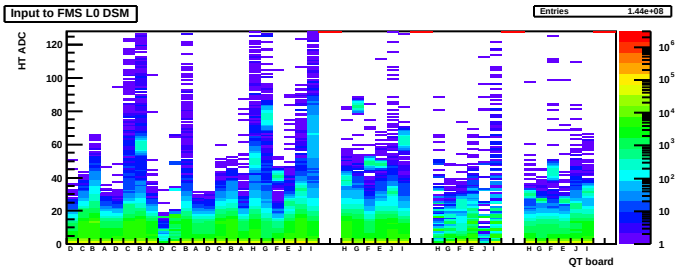

Input to FMS L0 DSM
Entries 95827
QT8(1) sum - simulated
QT board

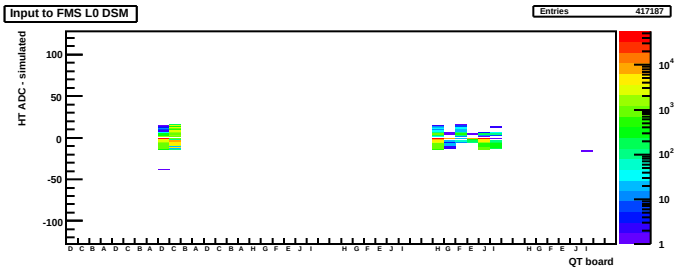

Input to FMS L0 DSM
Entries 1.44e+08
QT8(2) sum
QT board

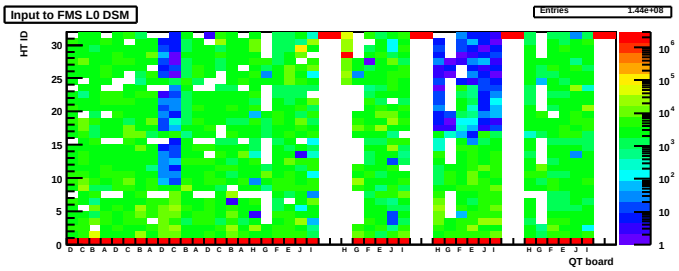

Input to FMS L0 DSM
Entries 2182583
QT8(2) sum - simulated
QT board

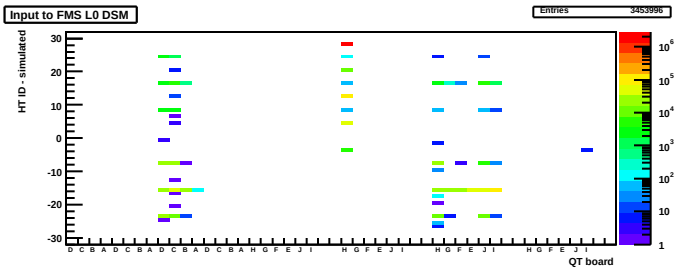

Input to FMS L0 DSM
Entries 1.44e+08
QT8(3) sum
QT board

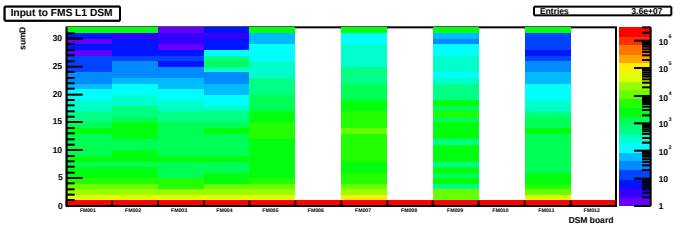

Input to FMS L0 DSM
Entries 2959525
QT8(3) sum - simulated
QT board

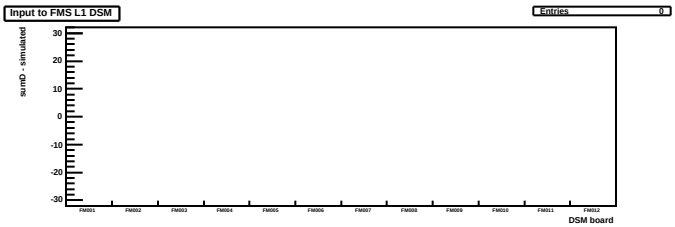

Input to FMS L0 DSM
Entries 1.44e+08
HT ADC
QT board

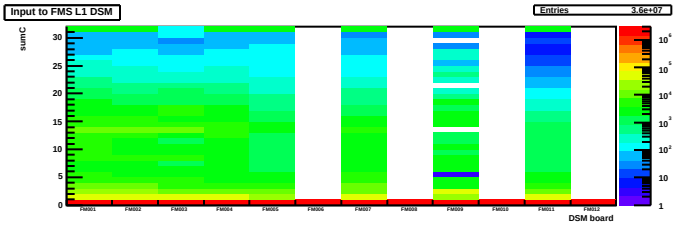

Input to FMS L0 DSM
Entries 417187
HT ADC - simulated
QT board

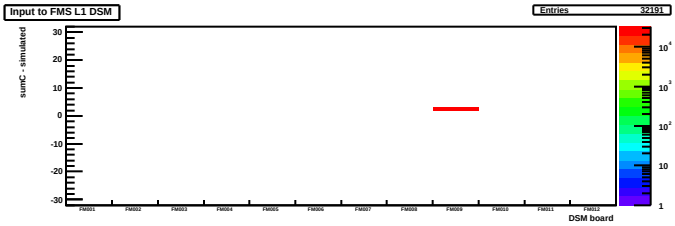

Input to FMS L0 DSM
Entries 1.44e+08
HT ID
QT board

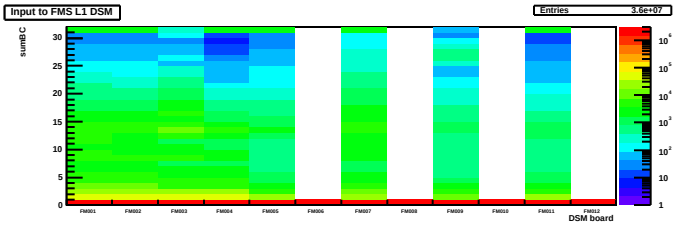

Input to FMS L0 DSM
Entries 3453996
HT ID - simulated
QT board

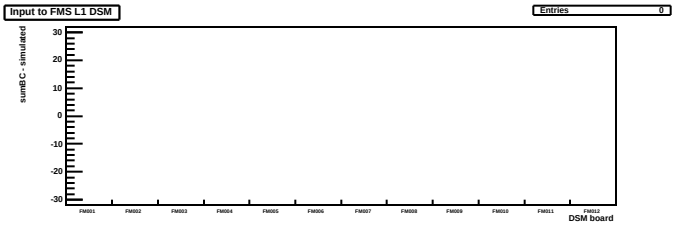

Input to FMS L1 DSM
Entries 3.6e+07
sumD
DSM board

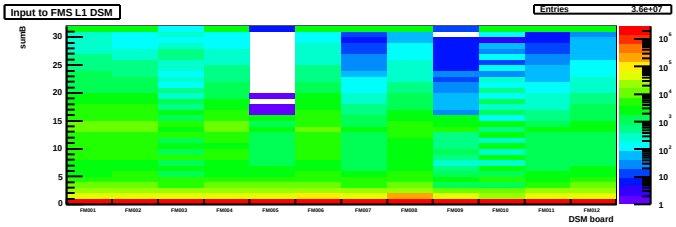

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

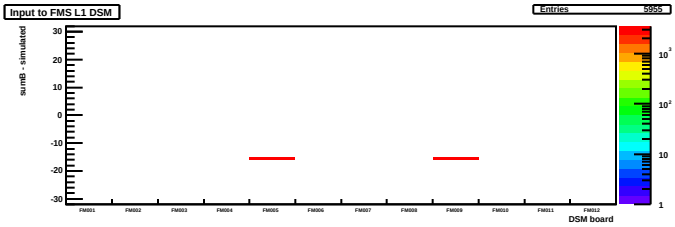

Input to FMS L1 DSM
Entries 3.6e+07
sumC
DSM board

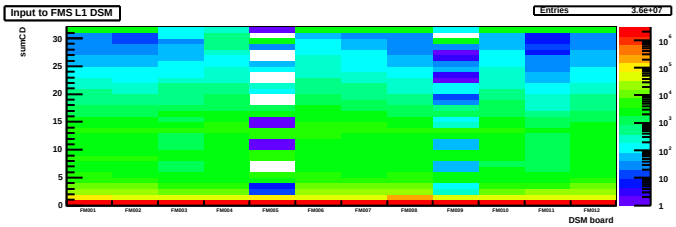

Input to FMS L1 DSM
Entries 32191
sumC - simulated
DSM board

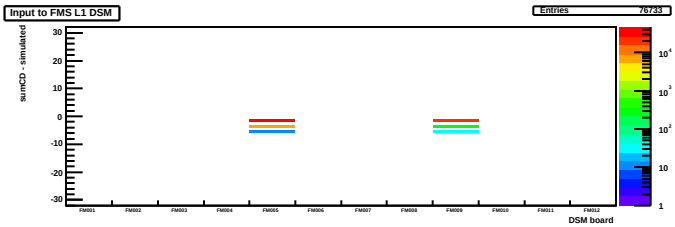

Input to FMS L1 DSM
Entries 3.6e+07
sumBC
DSM board

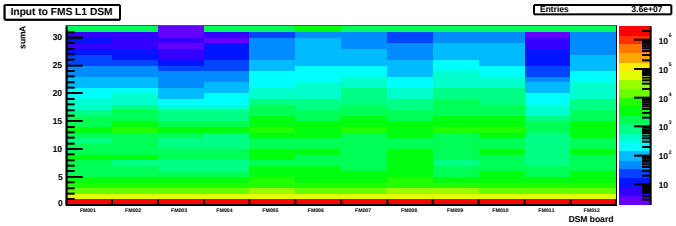

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

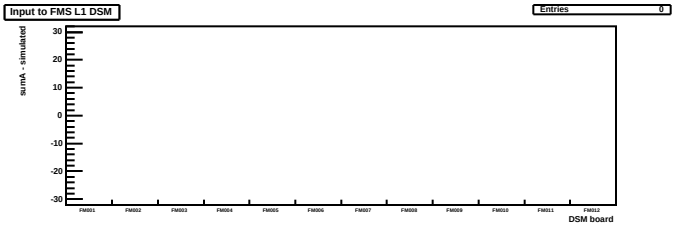

Input to FMS L1 DSM
Entries 3.6e+07
sumB
DSM board

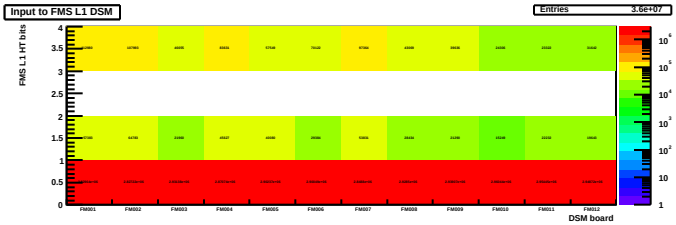

Input to FMS L1 DSM
Entries 5955
sumB - simulated
DSM board

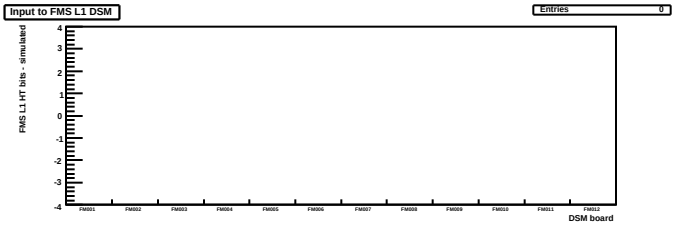

Input to FMS L1 DSM
Entries 3.6e+07
sumCD
DSM board

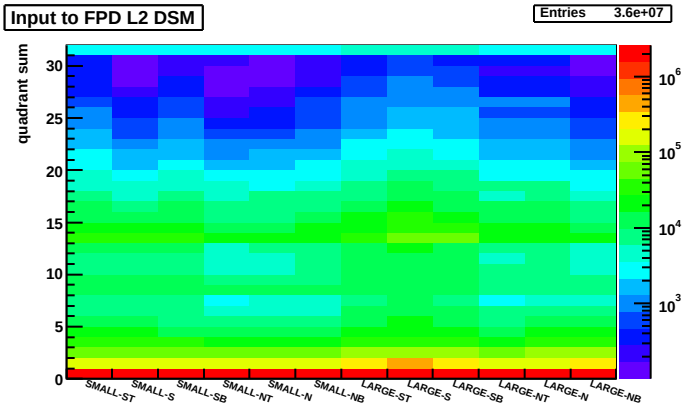

Input to FMS L1 DSM
Entries 76733
sumCD - simulated
DSM board

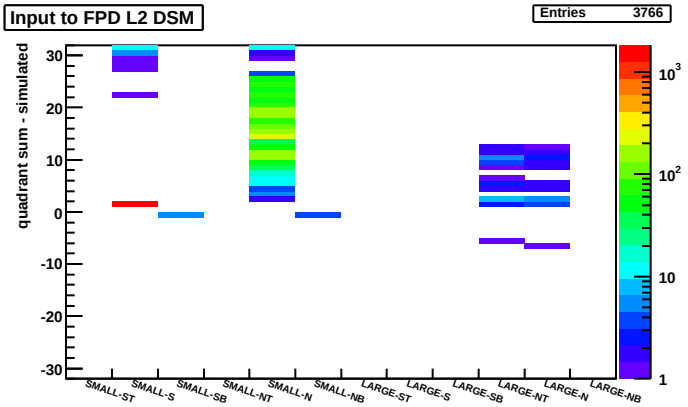

Input to FMS L1 DSM
Entries 3.6e+07
sumA
DSM board

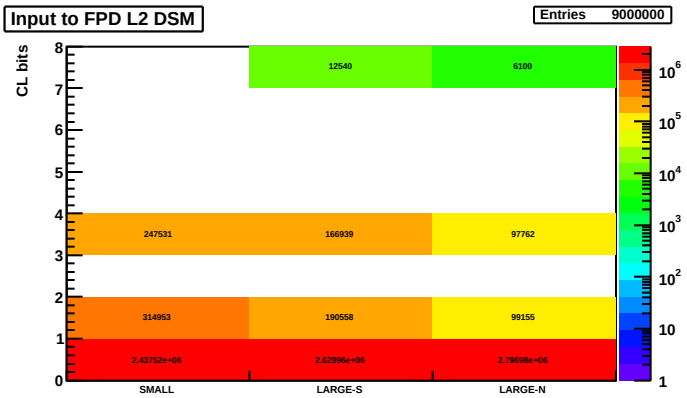

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

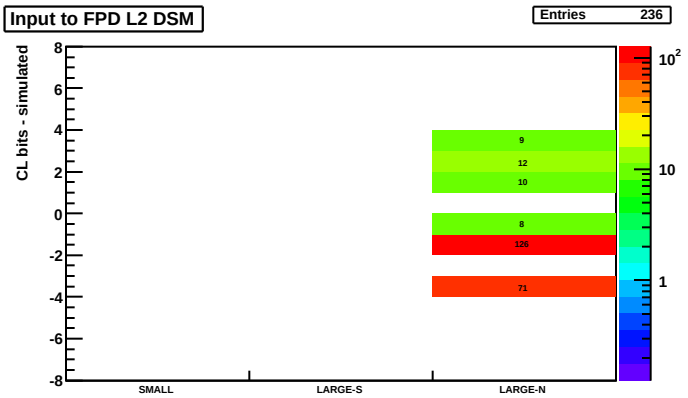

Input to FMS L1 DSM
Entries 3.6e+07
FMS L1 HT bits
DSM board

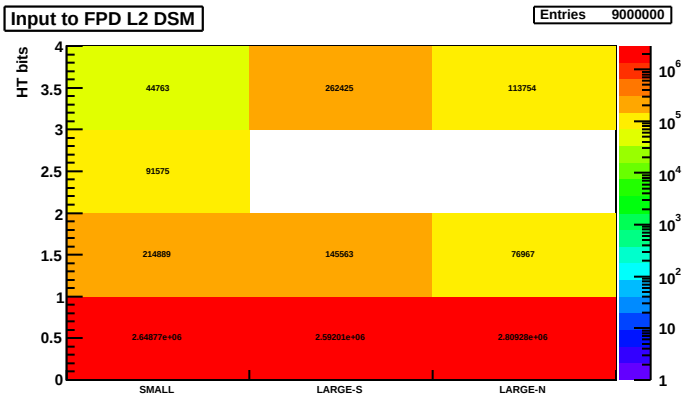

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

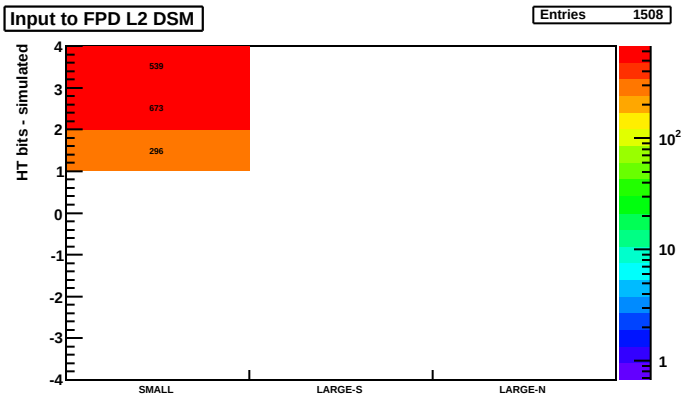

Input to FPD L2 DSM
Entries 3.6e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

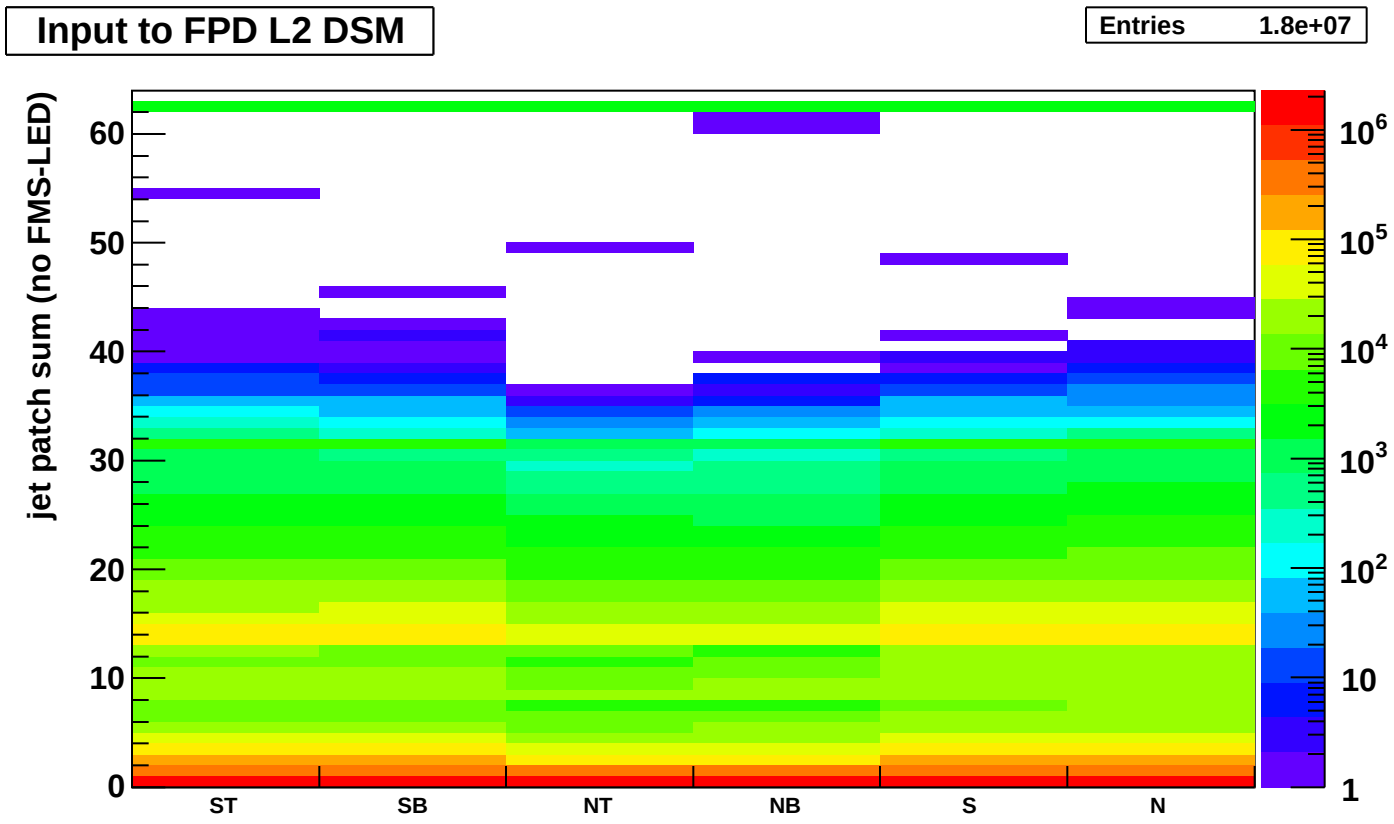

Input to FPD L2 DSM
Entries 3766
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

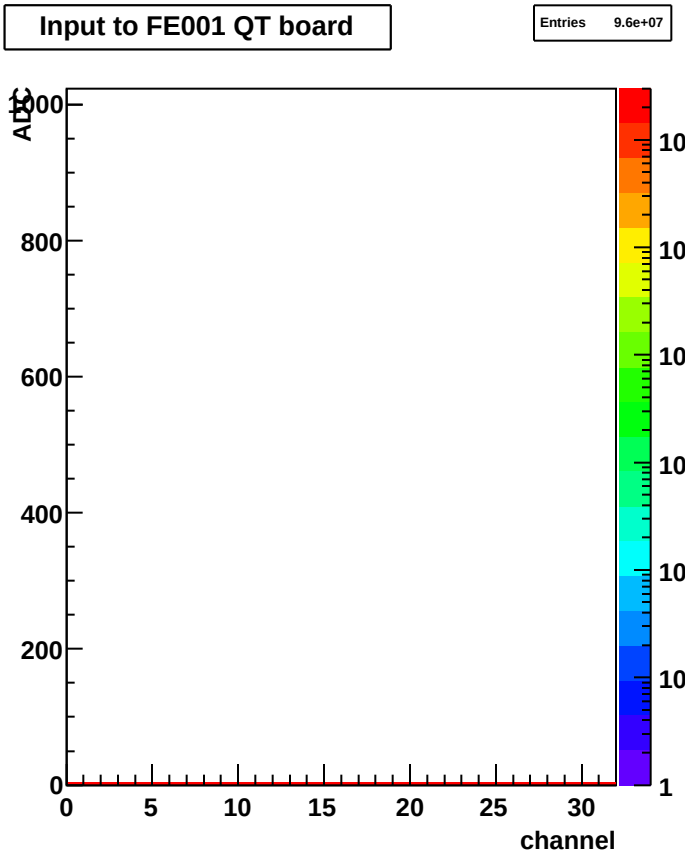

Input to FPD L2 DSM
Entries 9000000
CL bits
12540
6100
247531
166939
97762
314953
190558
99155
2.43752e+06
2.62996e+06
2.79698e+06
SMALL
LARGE-S
LARGE-N

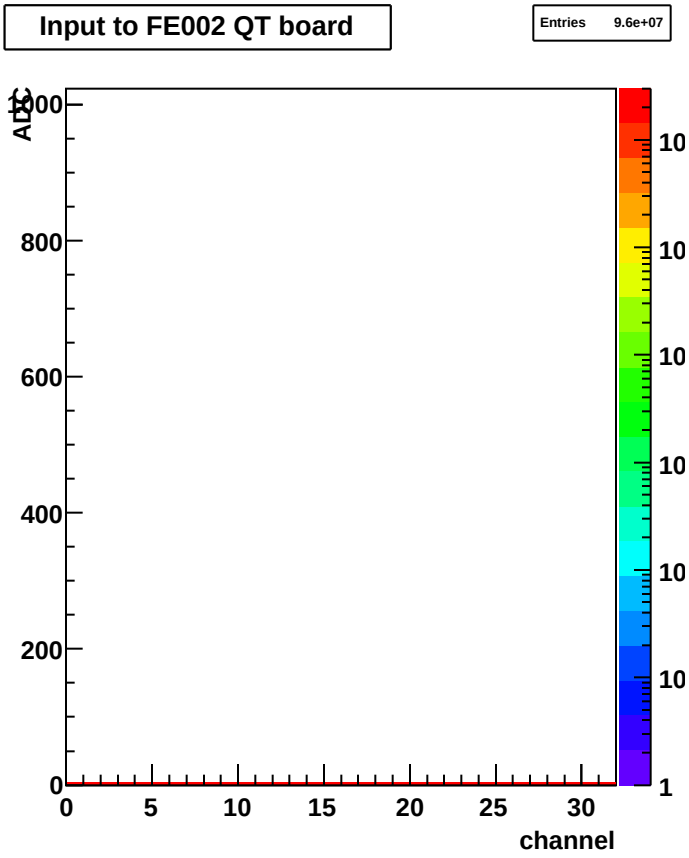

Input to FPD L2 DSM
Entries 236
CL bits - simulated
9
12
10
8
126
71
SMALL
LARGE-S
LARGE-N

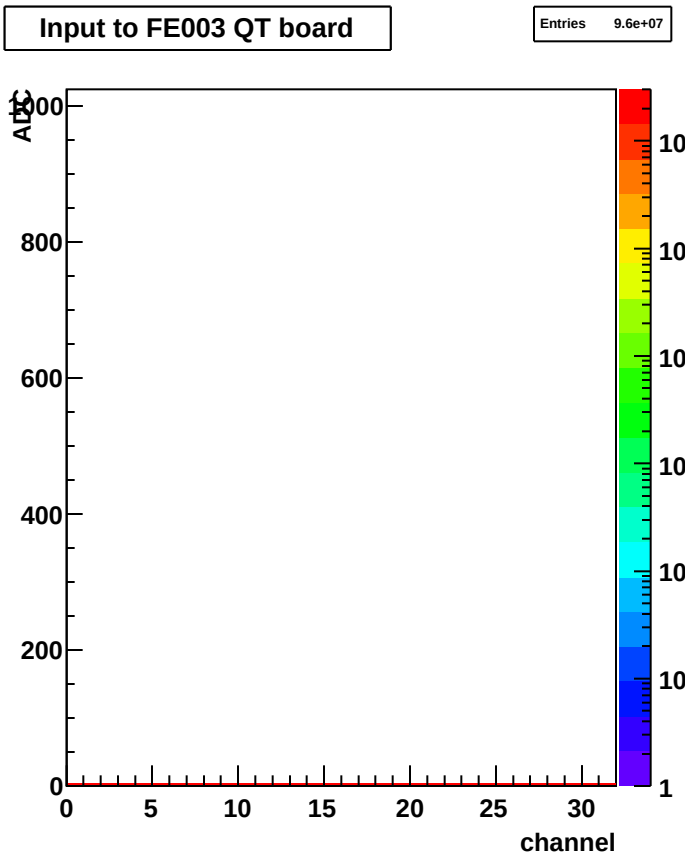

Input to FPD L2 DSM
Entries 9000000
HT bits
44763
262425
113754
91575
214889
145563
76967
2.64877e+06
2.59201e+06
2.80928e+06
SMALL
LARGE-S
LARGE-N

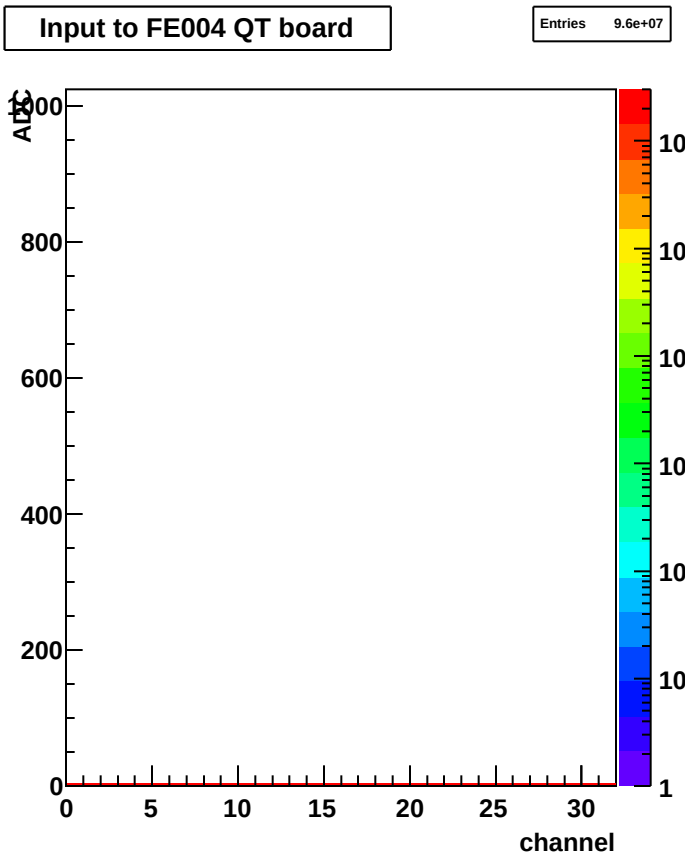

Input to FPD L2 DSM
Entries 1508
HT bits - simulated
539
673
296
SMALL
LARGE-S
LARGE-N

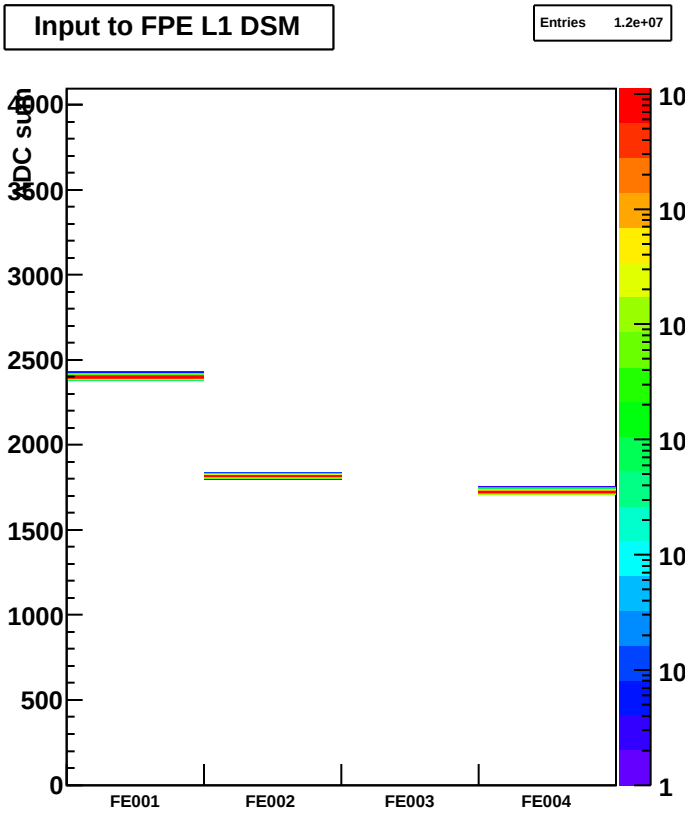

Input to FPD L2 DSM
Entries 1.8e+07
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6

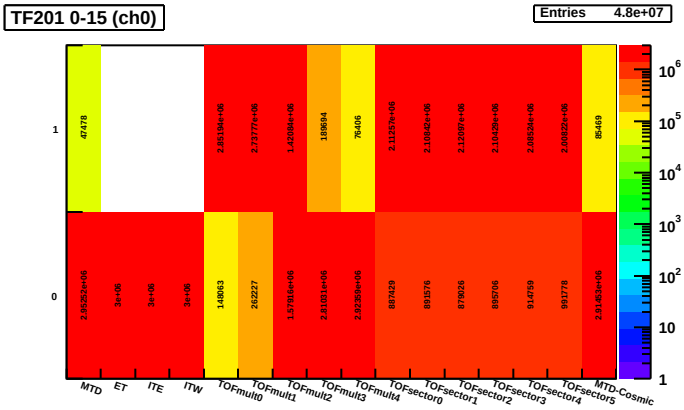

Input to FE001 QT board
Entries 9.6e+07
ADC
channel

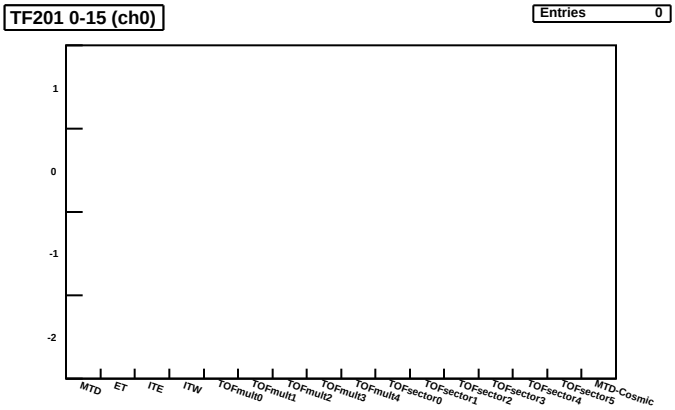

Input to FE002 QT board
Entries 9.6e+07
ADC
channel


Input to FE003 QT board
Entries 9.6e+07
ADC
channel


Input to FE004 QT board
Entries 9.6e+07
ADC
channel


Input to FPE L1 DSM
Entries 1.2e+07
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
10
1


TF201 0-15 (ch0)
Entries 4.8e+07
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 0
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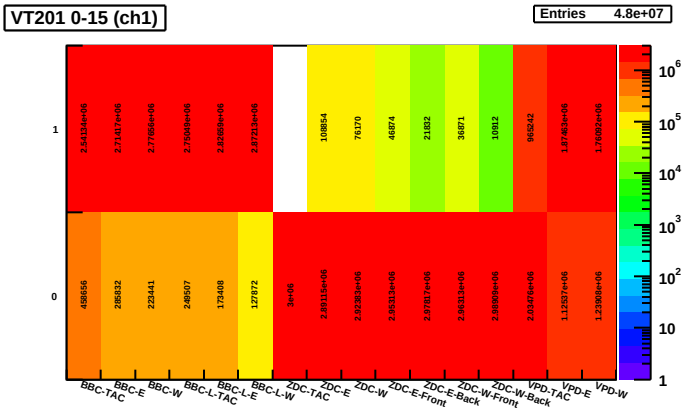
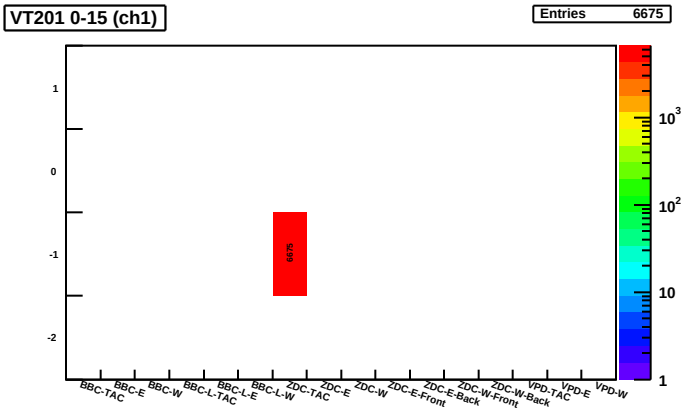
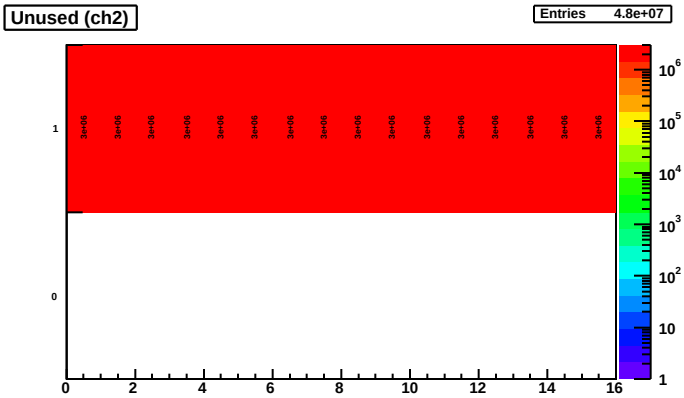
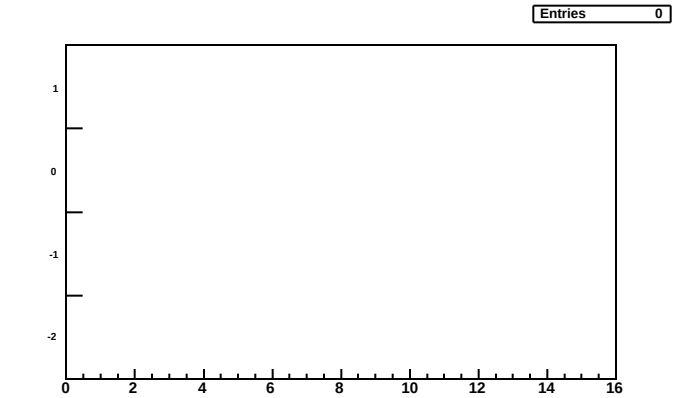
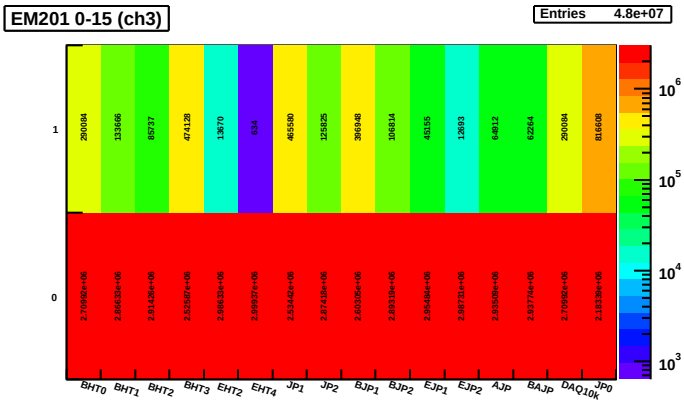

VT201 0-15 (ch1)
Entries 4.8e+07
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 6675
6675
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 4.8e+07


Entries 0


EM201 0-15 (ch3)
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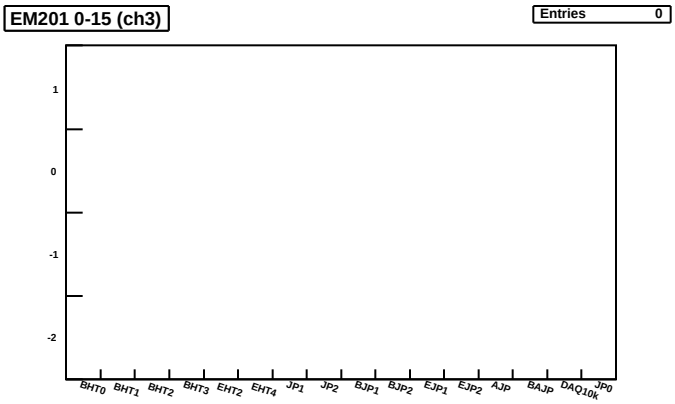
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


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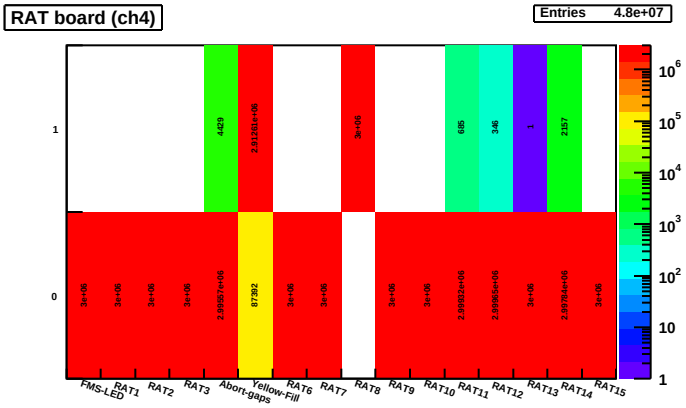
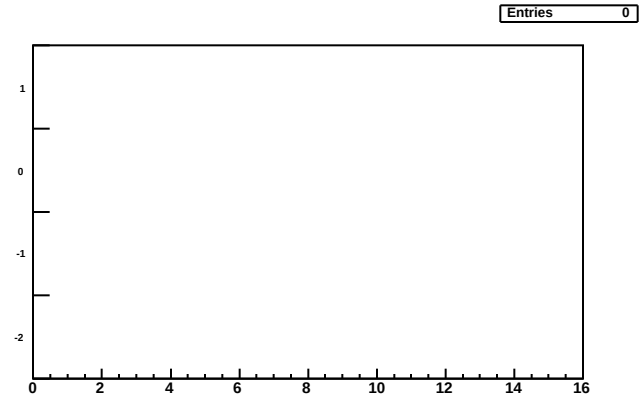
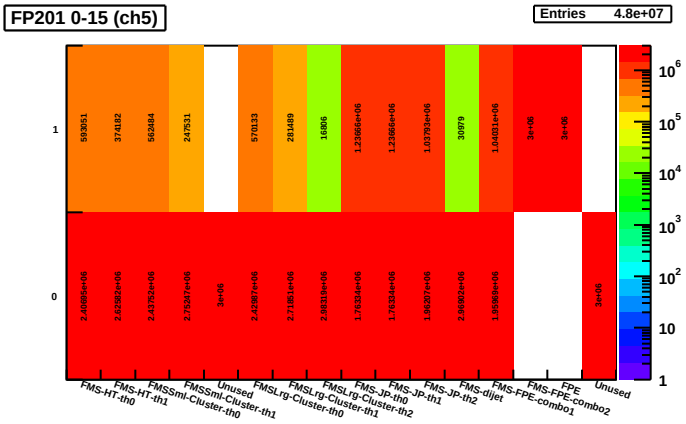
RAT board (ch4)





FP201 0-15 (ch5)



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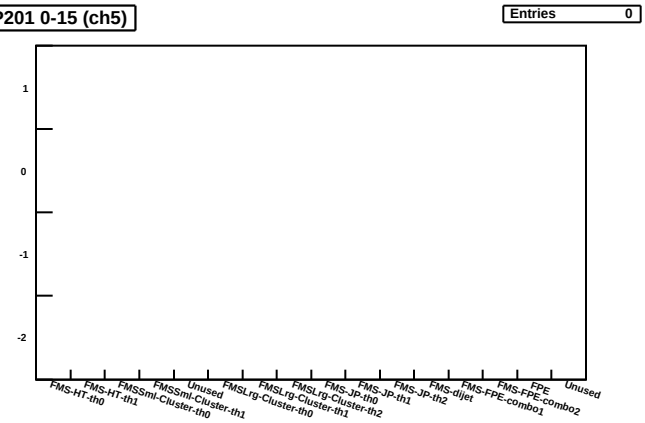
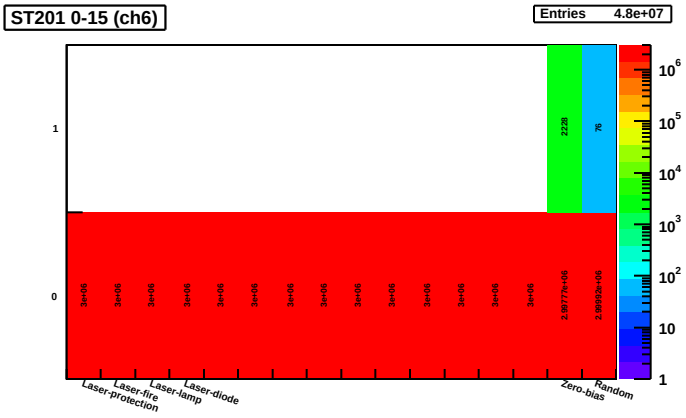
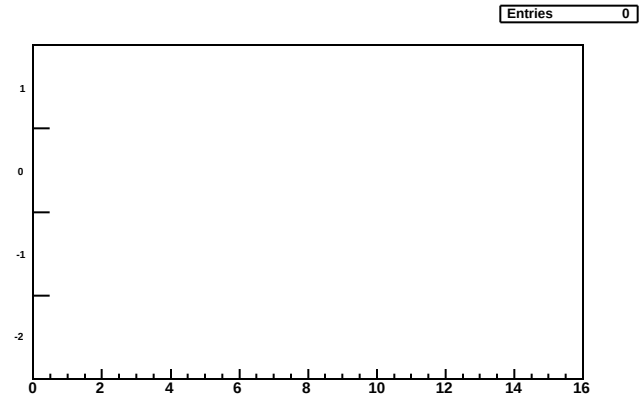
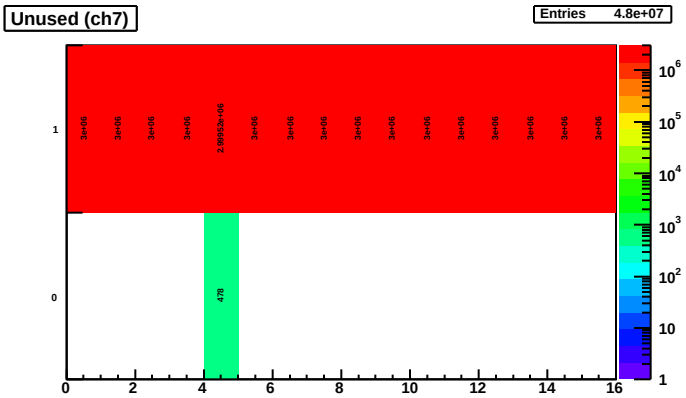
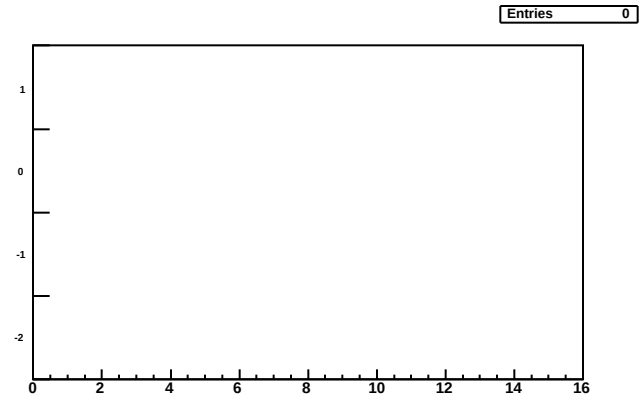


ST201 0-15 (ch6)





Unused (ch7)