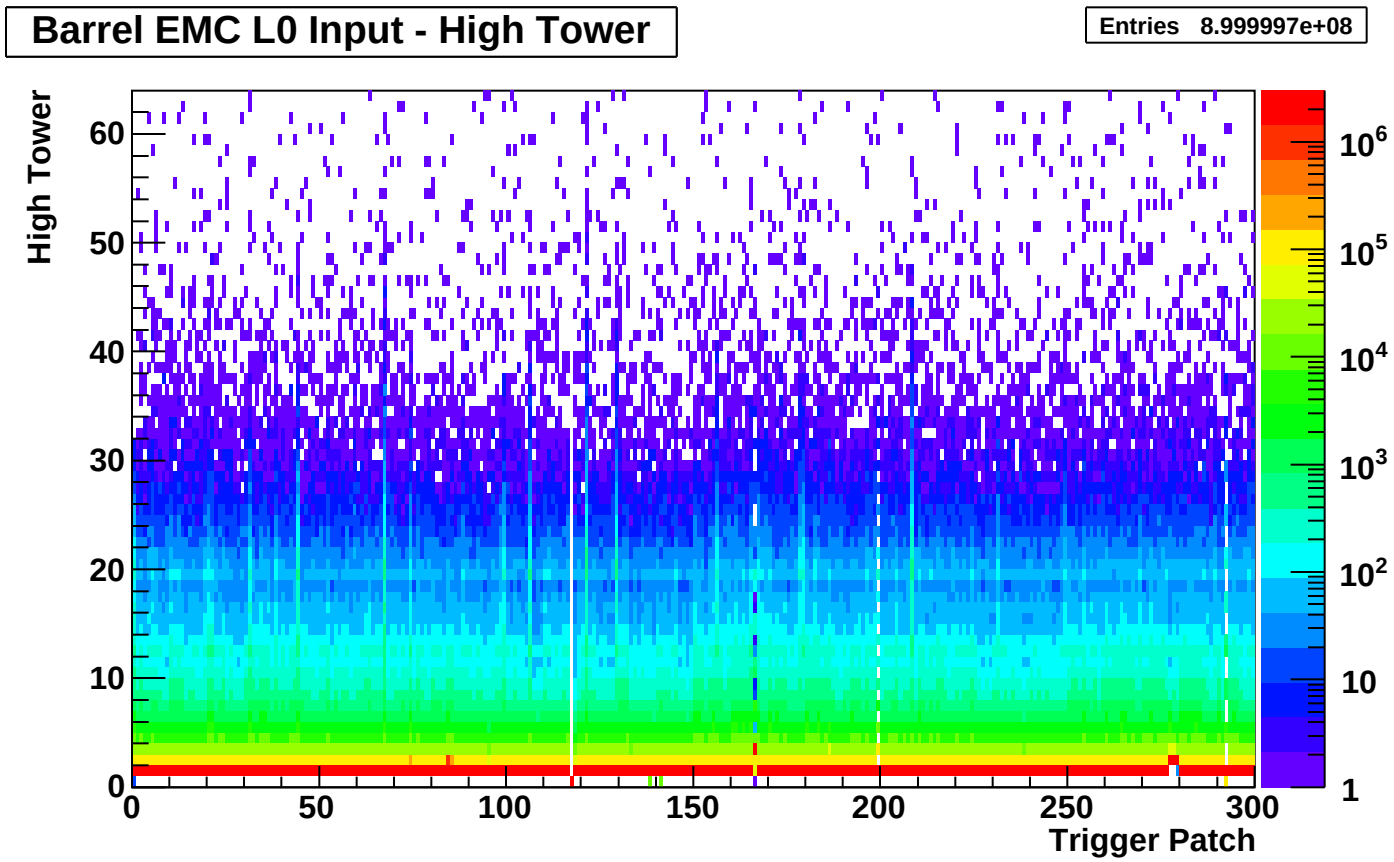
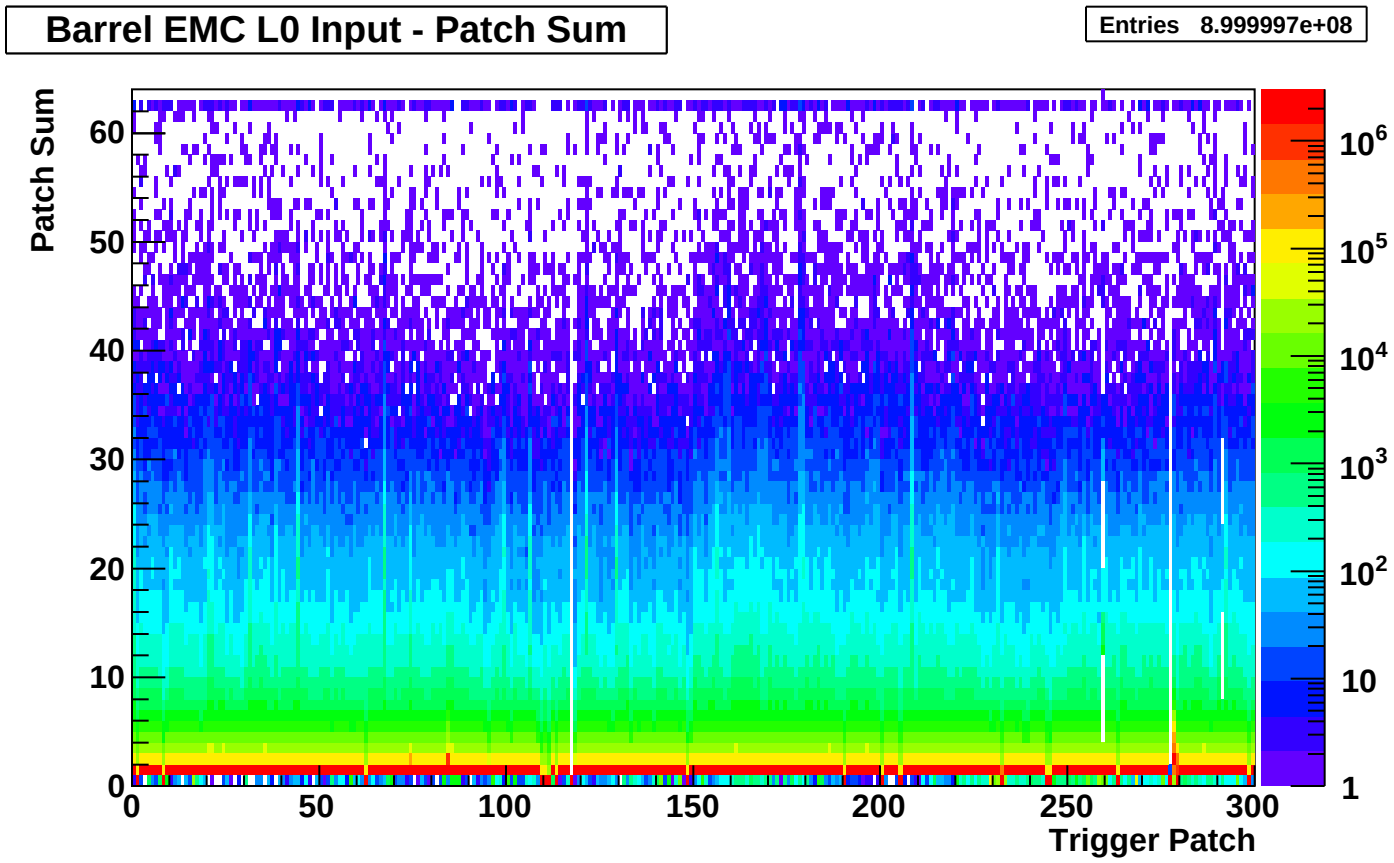
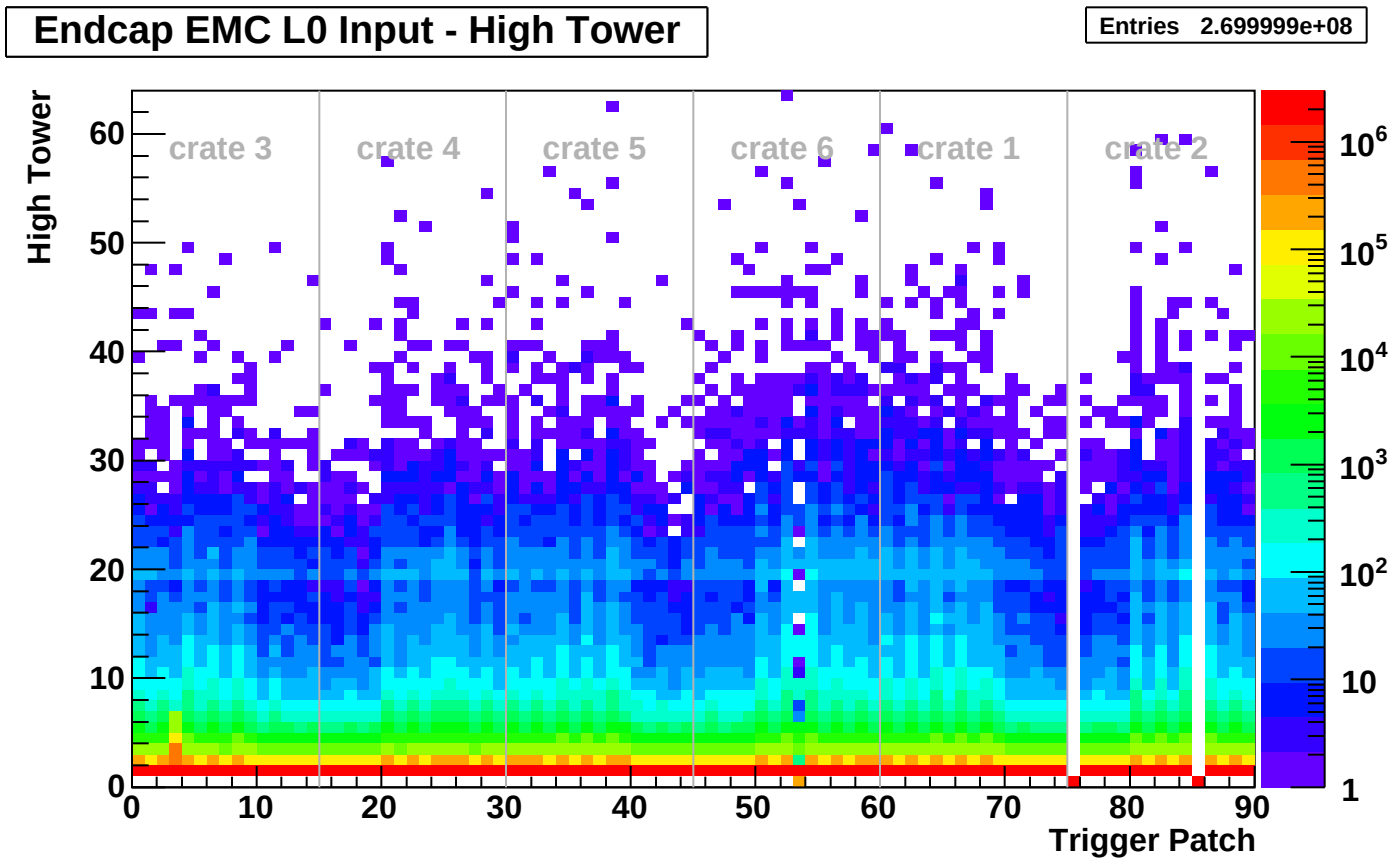
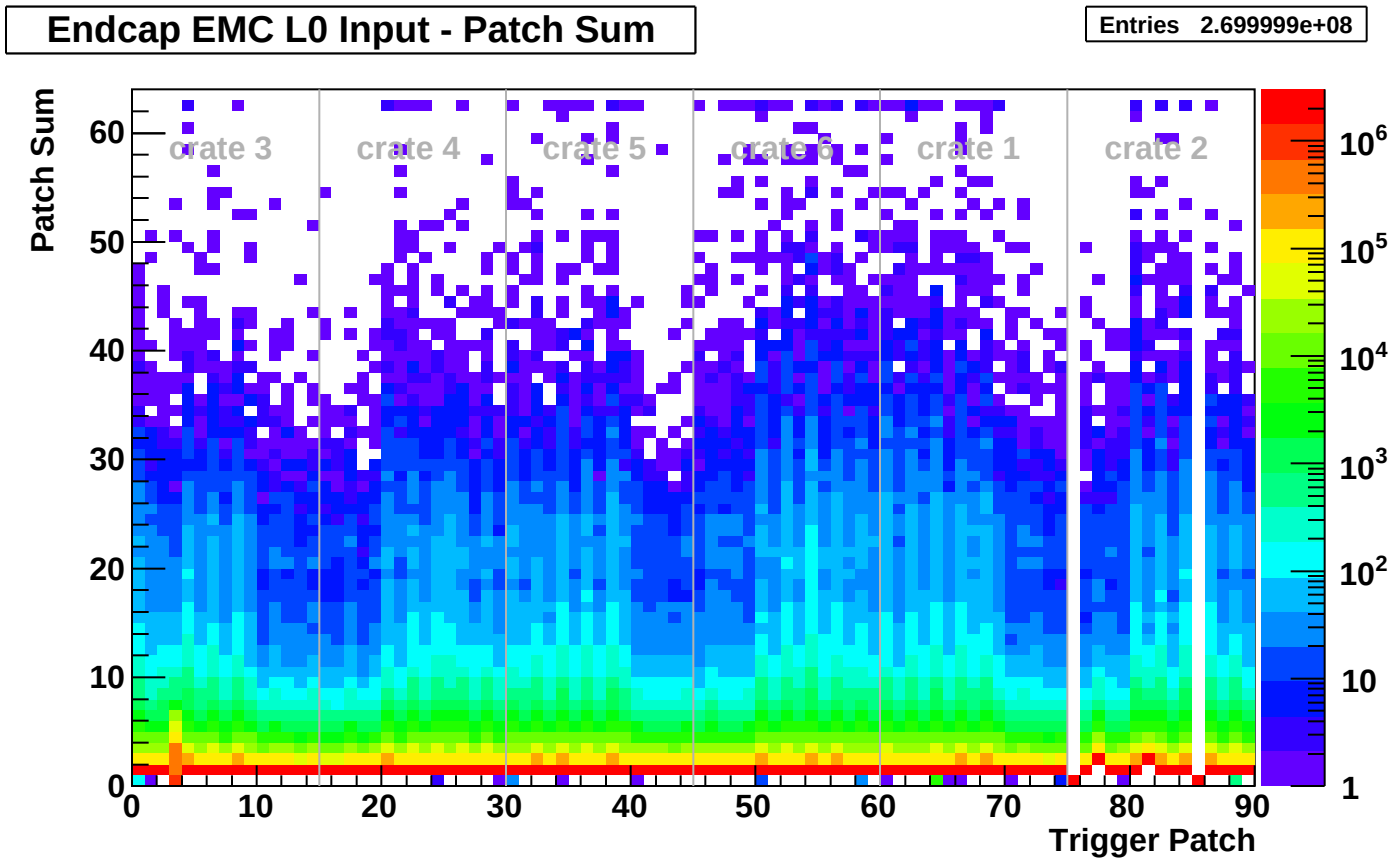
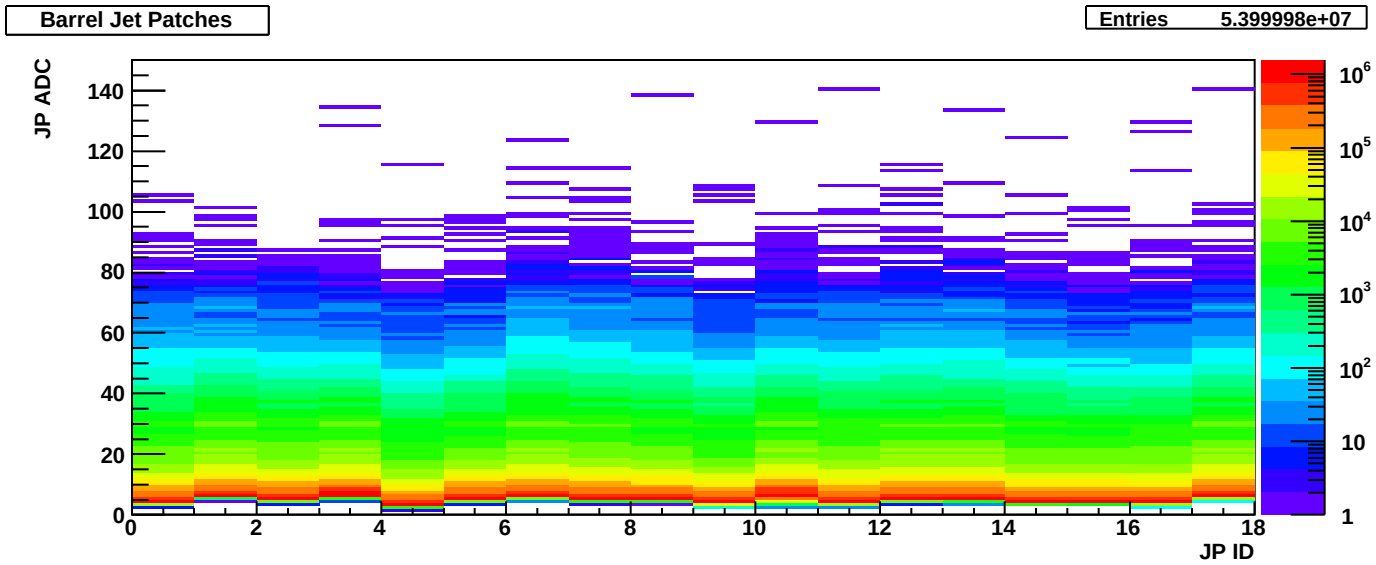
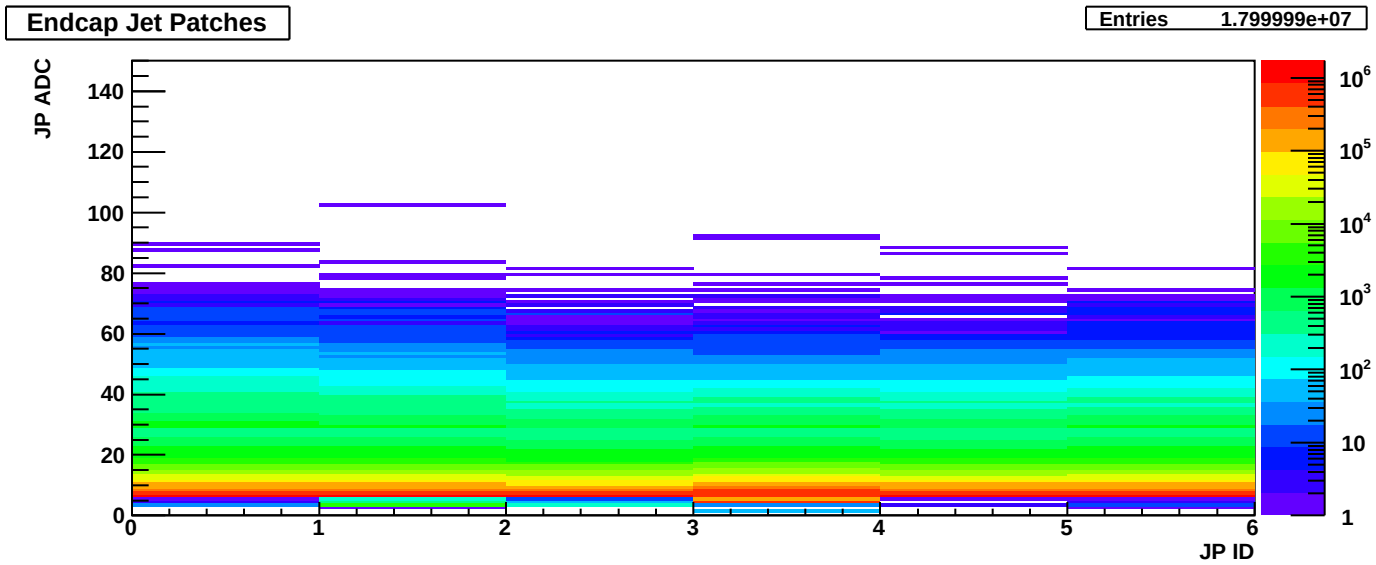

Barrel EMC L0 Input - High Tower
Entries 8.999997e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

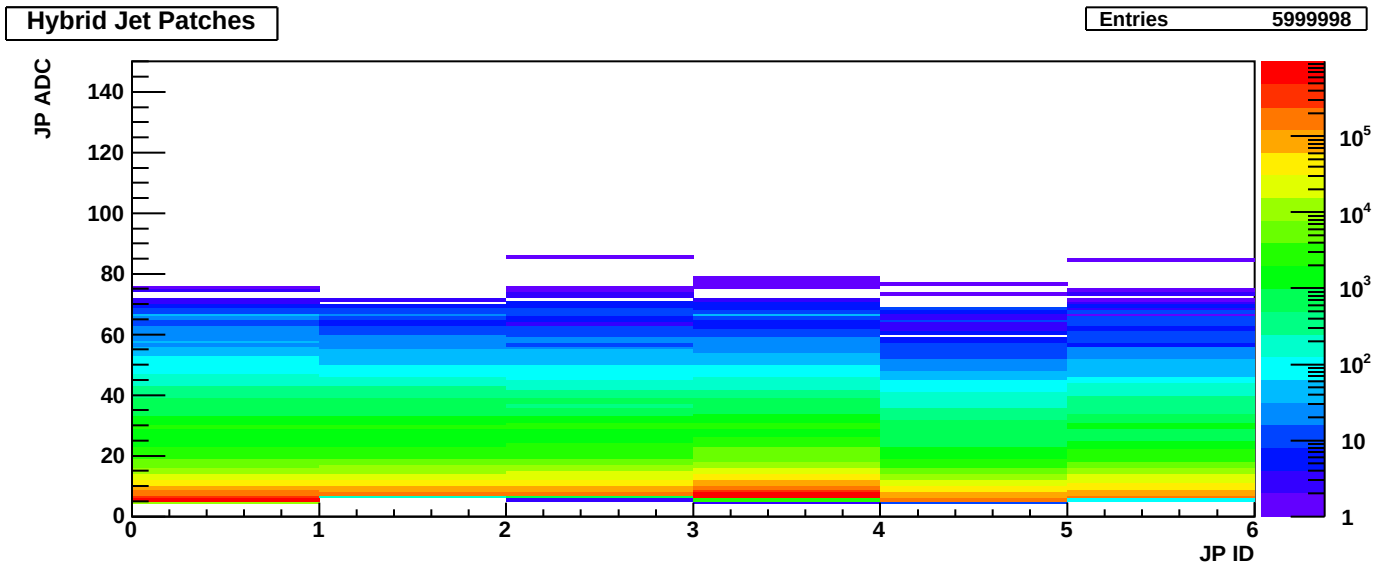

Barrel EMC L0 Input - Patch Sum
Entries 8.999997e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

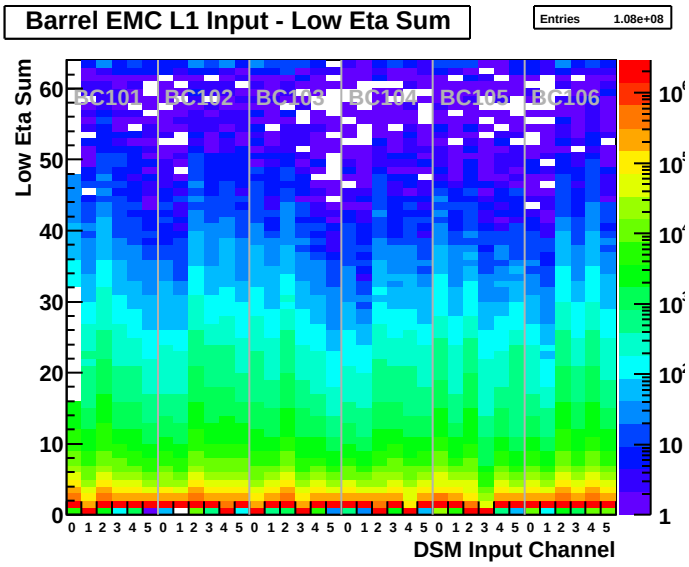

Endcap EMC L0 Input - High Tower
Entries 2.699999e+08
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

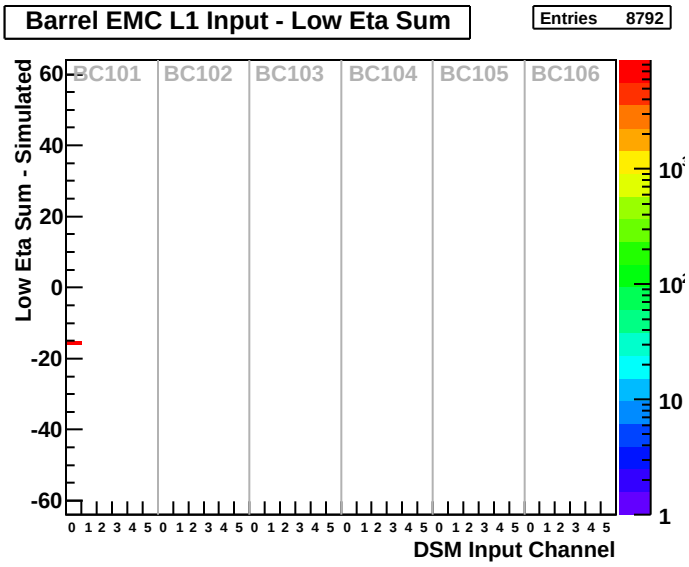

Endcap EMC L0 Input - Patch Sum
Entries 2.699999e+08
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

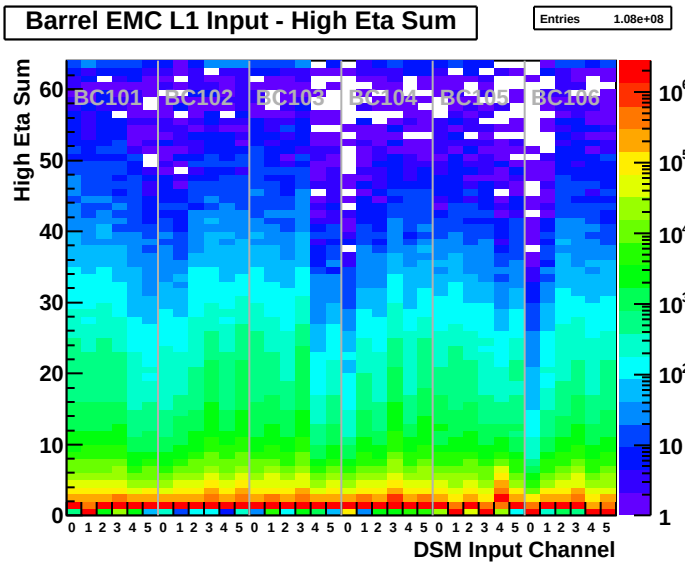

Barrel Jet Patches
Entries 5.399998e+07
JP ADC
JP ID

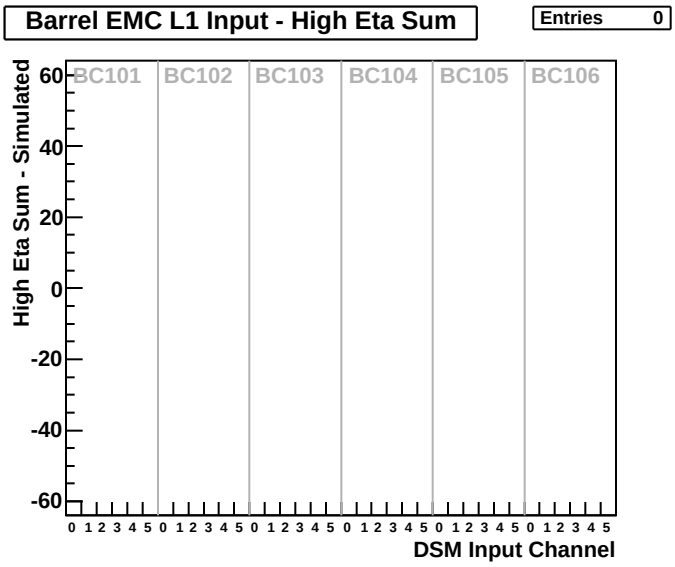

Endcap Jet Patches
Entries 1.799999e+07
JP ADC
JP ID

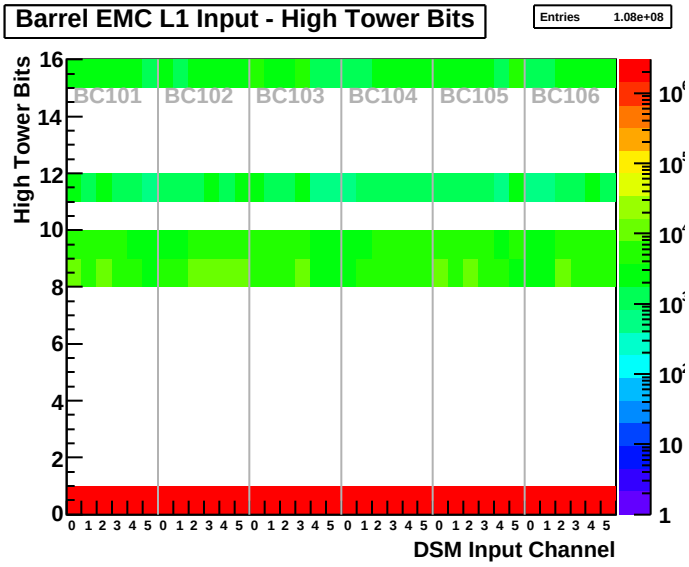

Hybrid Jet Patches
Entries 5999998
JP ADC
JP ID

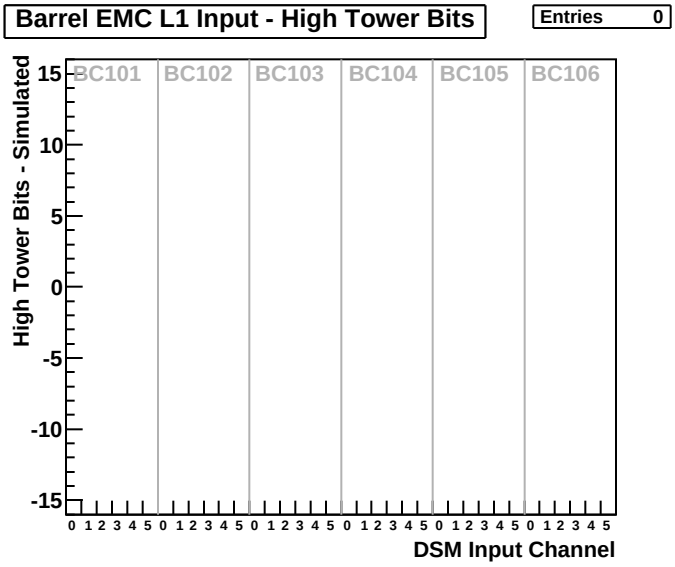

Barrel EMC L1 Input - Low Eta Sum
Entries 1.08e+08
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

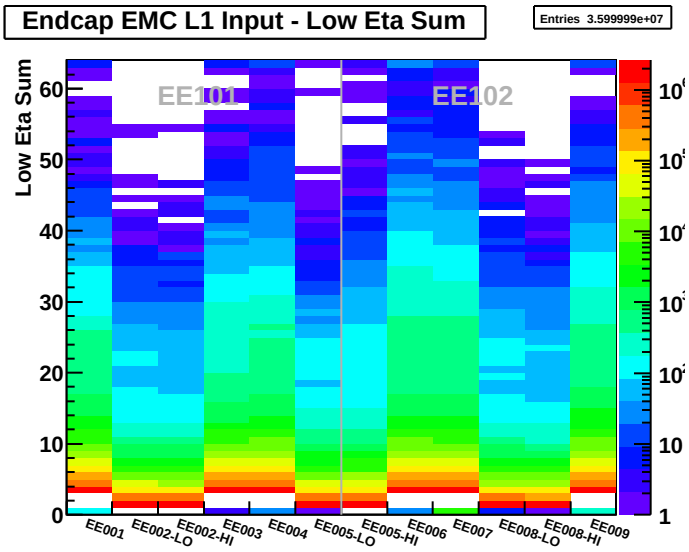

Barrel EMC L1 Input - Low Eta Sum
Entries 8792
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

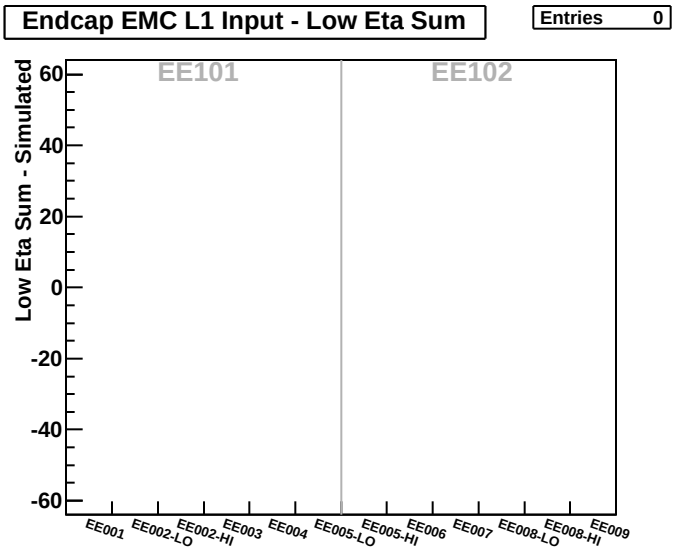

Barrel EMC L1 Input - High Eta Sum
Entries 1.08e+08
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

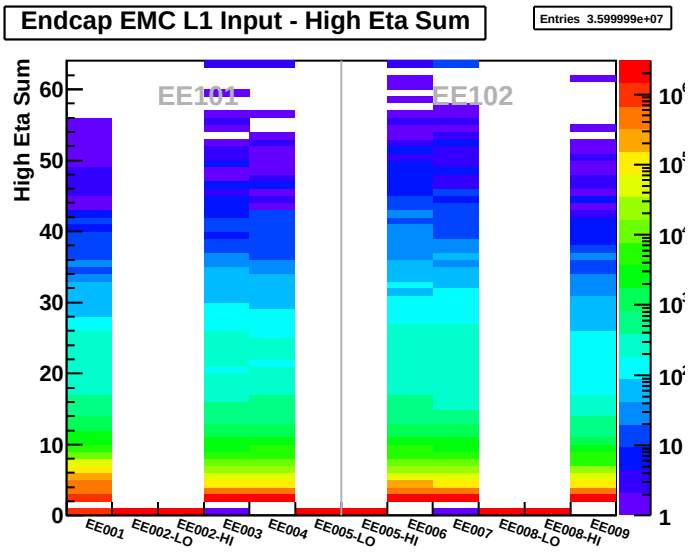

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

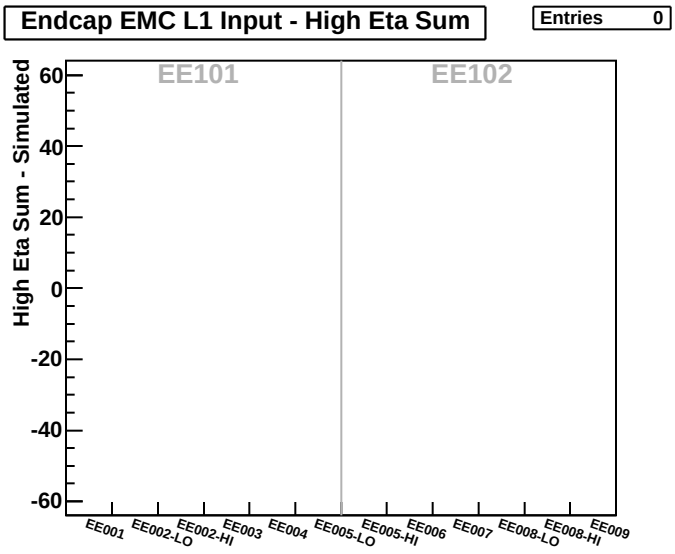

Barrel EMC L1 Input - High Tower Bits
Entries 1.08e+08
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

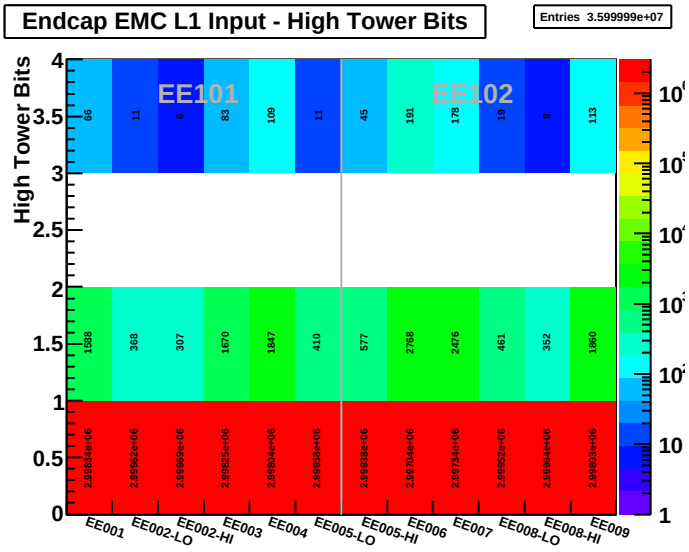

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

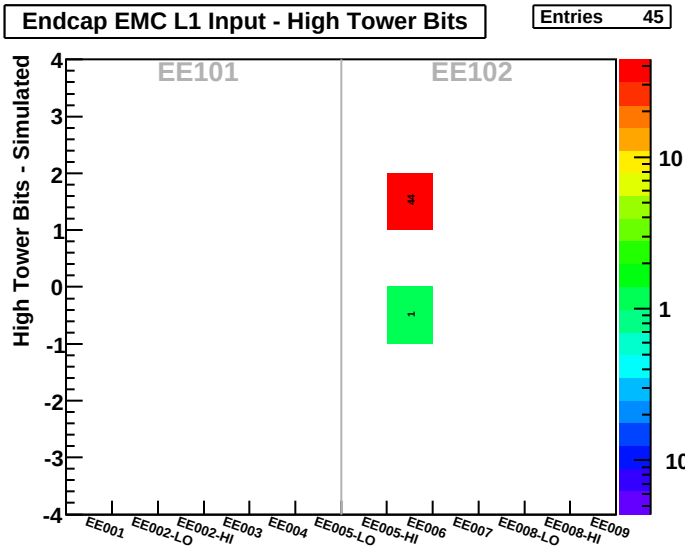

Endcap EMC L1 Input - Low Eta Sum
Entries 3.599999e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

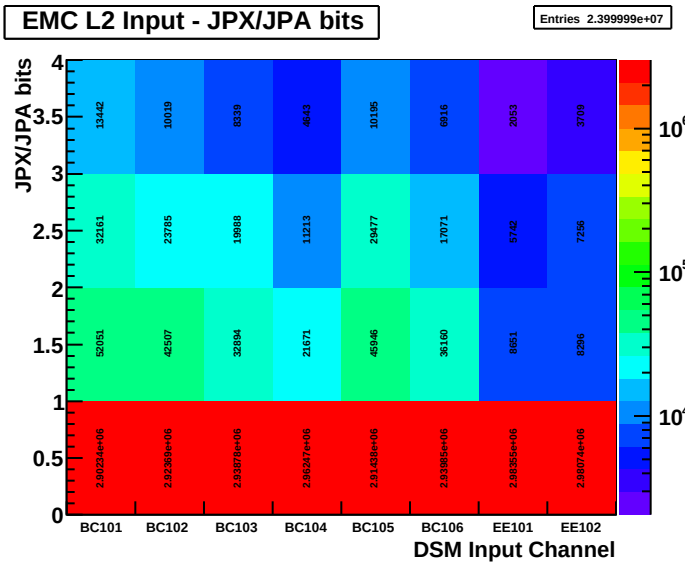

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

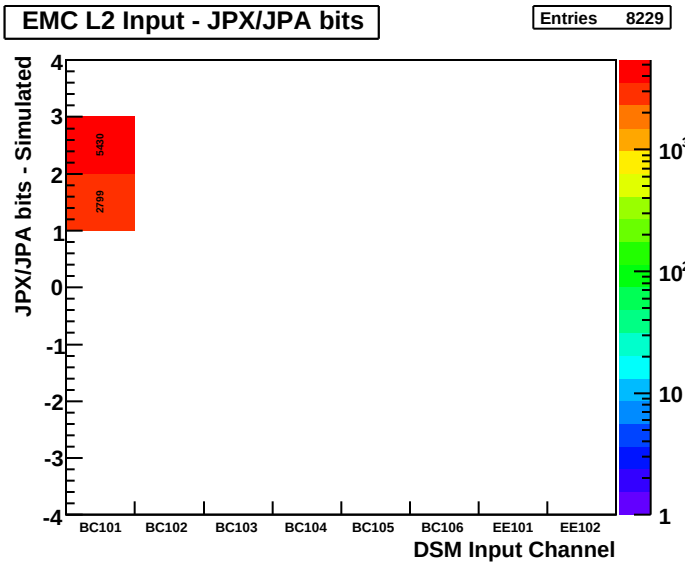

Endcap EMC L1 Input - High Eta Sum
Entries 3.599999e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

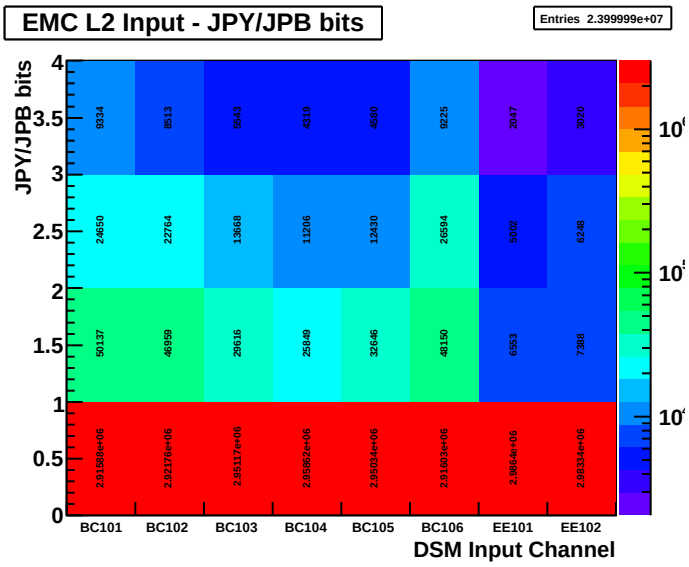

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

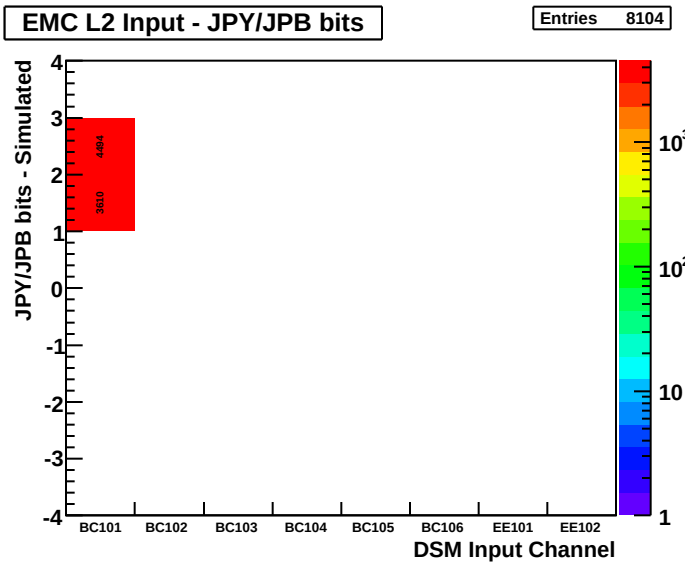

Endcap EMC L1 Input - High Tower Bits
Entries 3.599999e+07
High Tower Bits
EE101
EE102
66 11 6 83 109 11 45 191 178 19 9 113
1588 368 307 1670 1847 410 577 2768 2476 461 352 1860
2.99834e+06 2.99962e+06 2.99963e+06 2.99825e+06 2.99804e+06 2.99959e+06 2.99938e+06 2.99704e+06 2.99734e+06 2.99952e+06 2.99964e+06 2.99803e+06
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

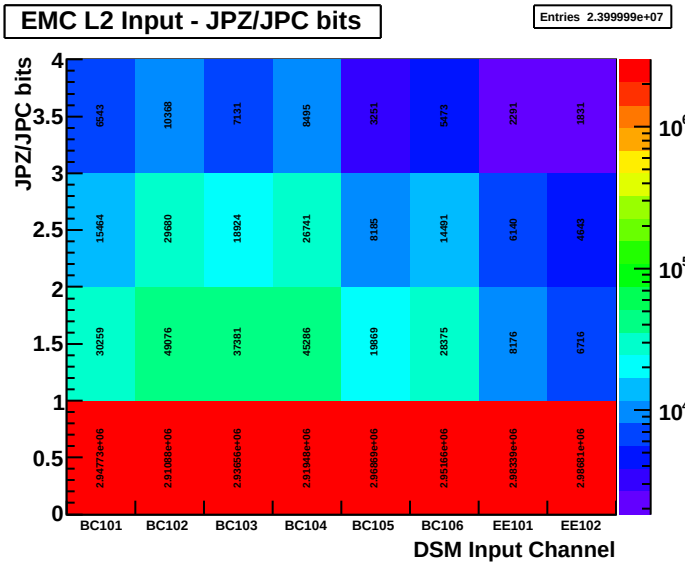

Endcap EMC L1 Input - High Tower Bits
Entries 45
High Tower Bits - Simulated
EE101
EE102
44
1
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

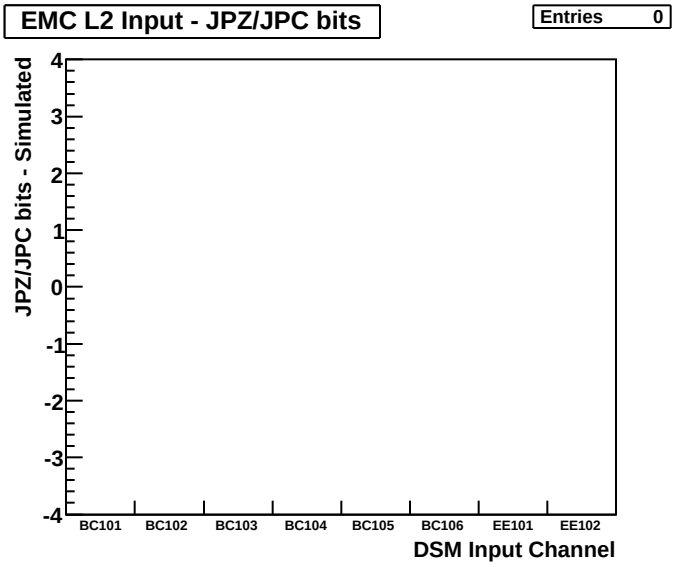

EMC L2 Input - JPX/JPA bits
Entries 2.399999e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
13442 10019 8239 4643 10195 6916 2053 3709
32161 23765 19988 11213 29477 17071 5742 7256
52051 42507 32894 21671 45946 36160 8651 8296
2.90234e+06 2.92359e+06 2.93878e+06 2.96247e+06 2.91438e+06 2.93985e+06 2.98355e+06 2.98074e+06

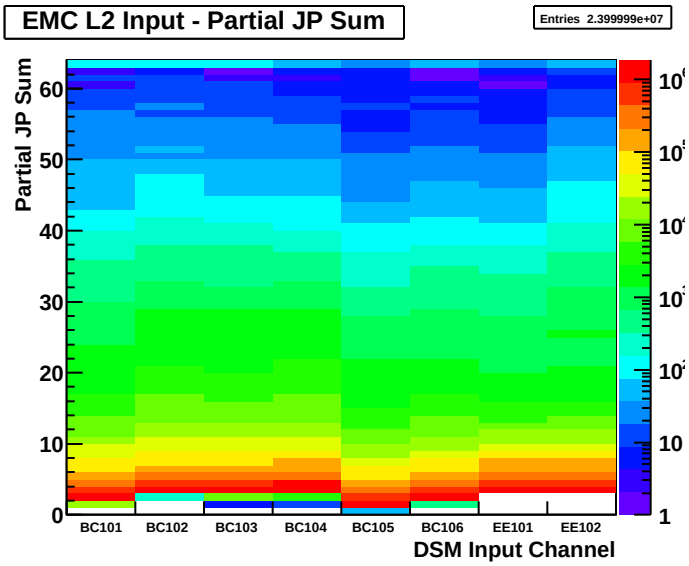

EMC L2 Input - JPX/JPA bits
Entries 8229
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
5430
2799

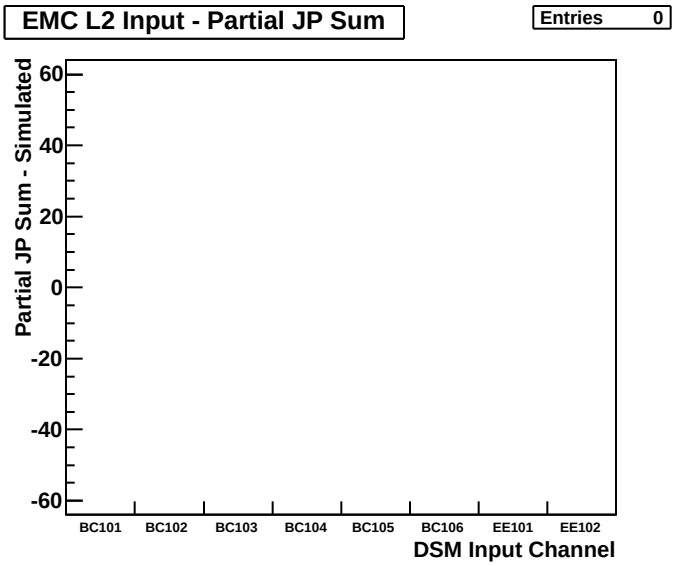

EMC L2 Input - JPY/JPB bits
Entries 2.399999e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
9334 8513 5543 4319 4580 9225 2047 3020
24650 22764 13568 11206 12430 26594 5002 6248
50137 46959 29616 25849 32646 48150 6553 7388
2.91508e+06 2.92176e+06 2.95117e+06 2.95862e+06 2.95034e+06 2.91603e+06 2.9864e+06 2.98334e+06

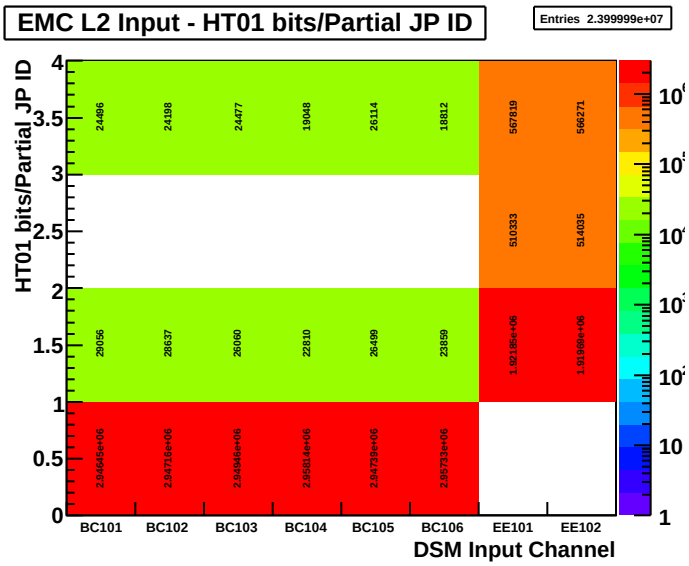

EMC L2 Input - JPY/JPB bits
Entries 8104
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4494
3610

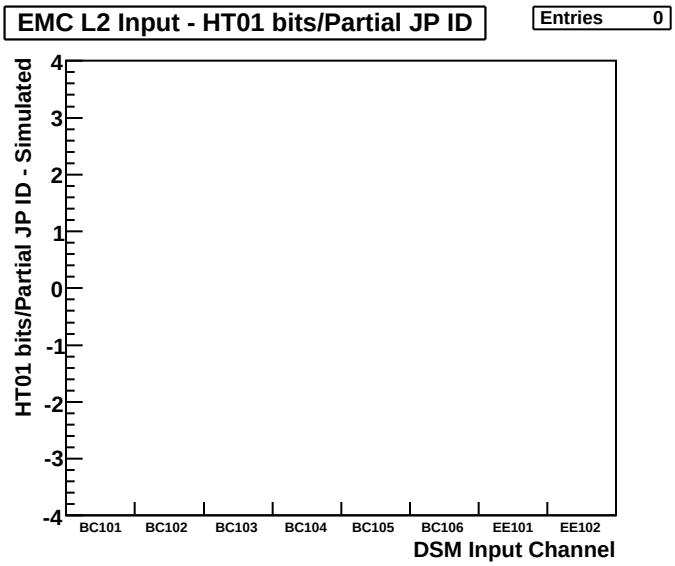

EMC L2 Input - JPZ/JPC bits
Entries 2.399999e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
6543 10368 7131 8495 3251 5473 2291 1831
15464 29680 18924 26741 8185 14491 6140 4643
30259 49976 37381 45286 19869 28375 8176 6716
2.94773e+06 2.91088e+06 2.93658e+06 2.91948e+06 2.96869e+06 2.95166e+06 2.98339e+06 2.98681e+06

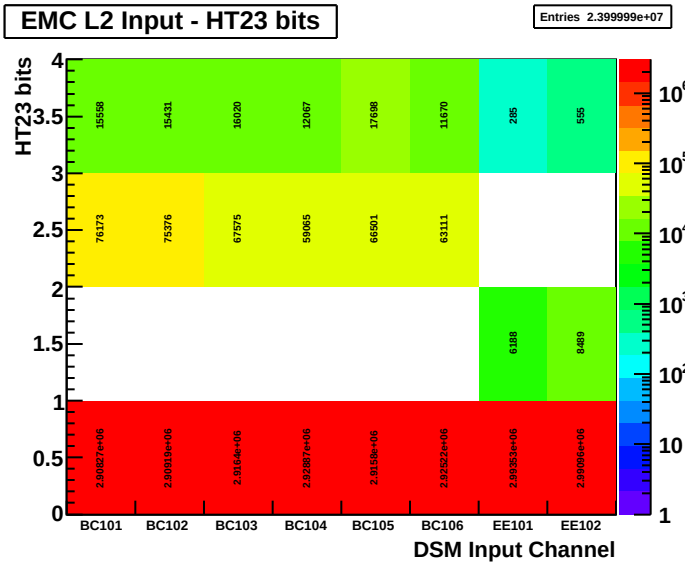

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

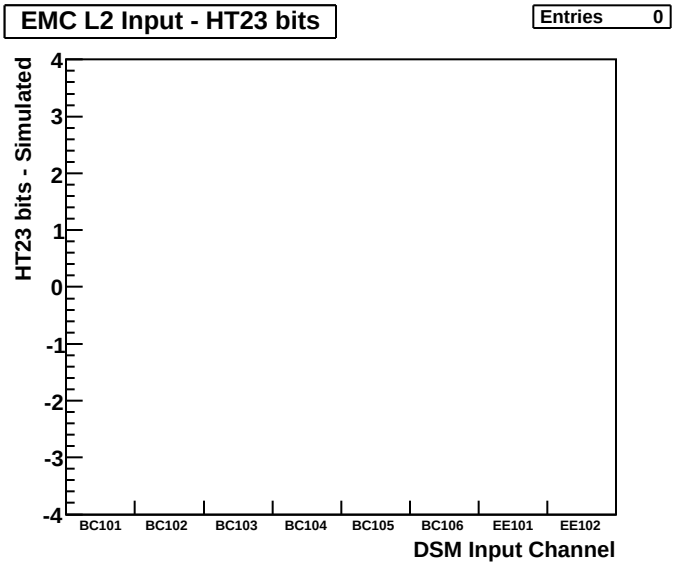

EMC L2 Input - Partial JP Sum
Entries 2.399999e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

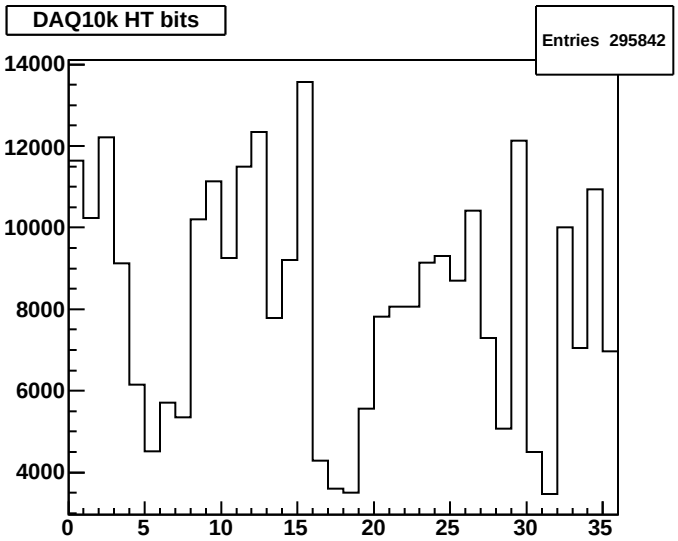

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

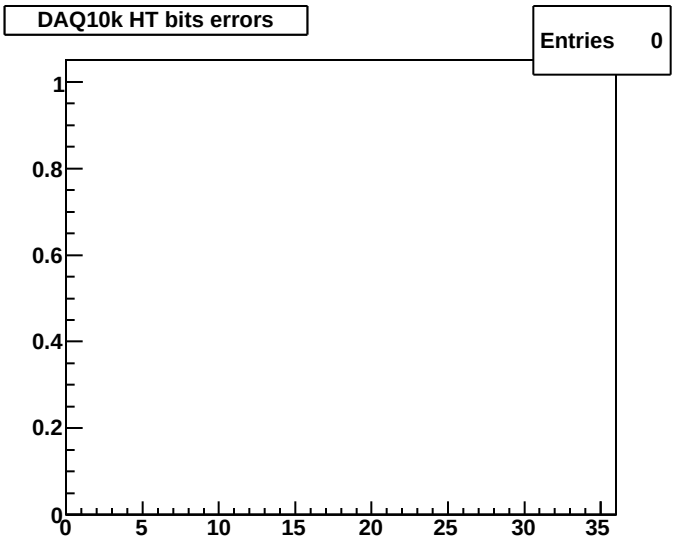

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2.399999e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

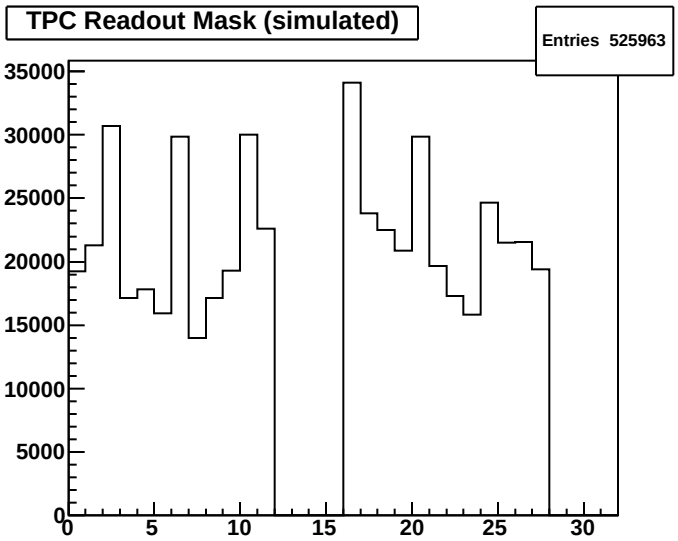

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

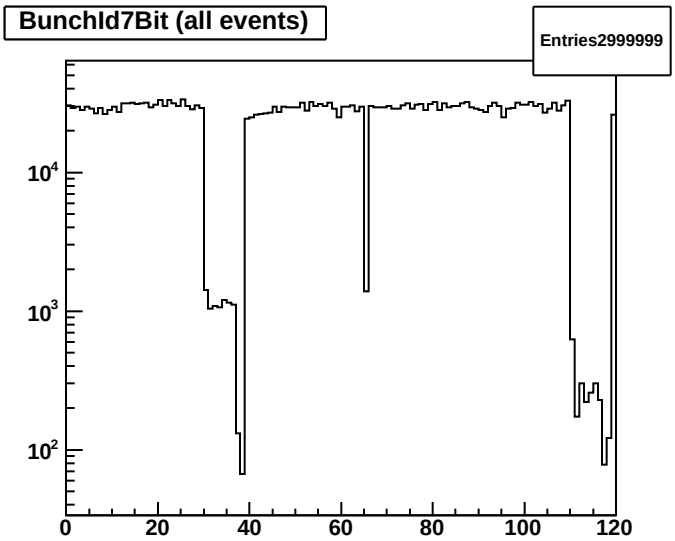

EMC L2 Input - HT23 bits
Entries 2.399999e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

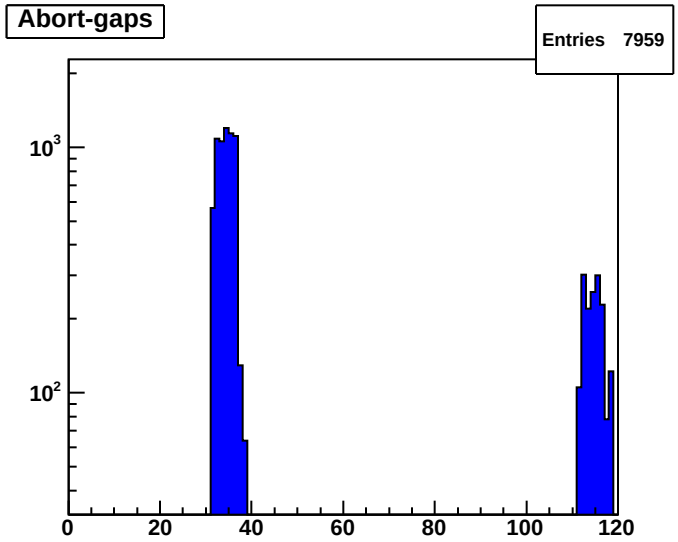

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

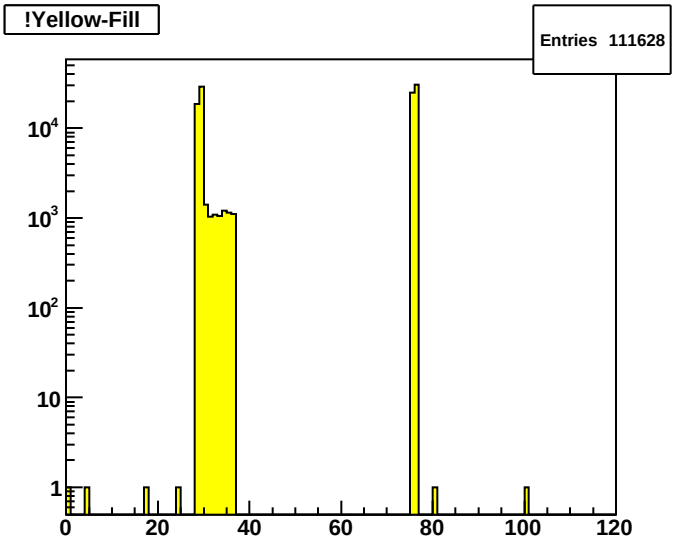

DAQ10k HT bits
Entries 295842
14000
12000
10000
8000
6000
4000
0 5 10 15 20 25 30 35

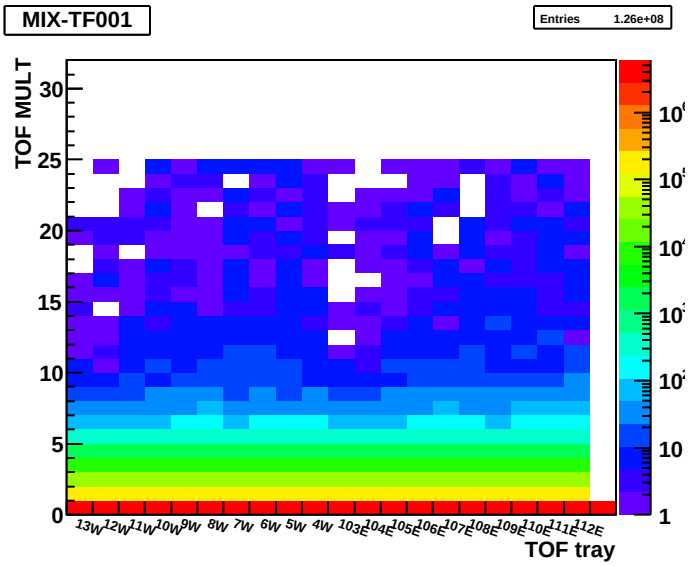

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

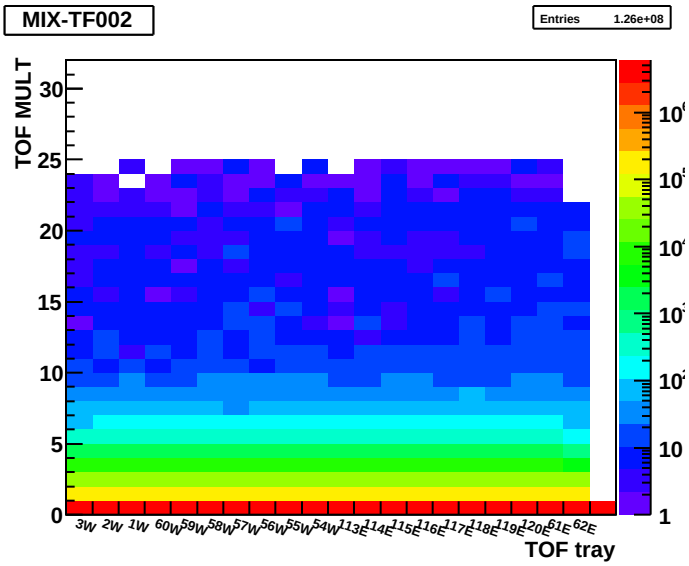

TPC Readout Mask (simulated)
Entries 525963
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

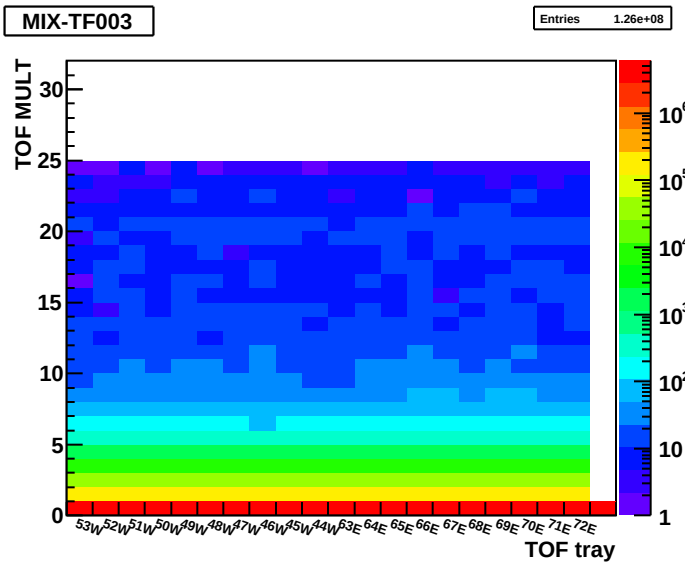

BunchId7Bit (all events)
Entries2999999
10^4
10^3
10^2
0 20 40 60 80 100 120

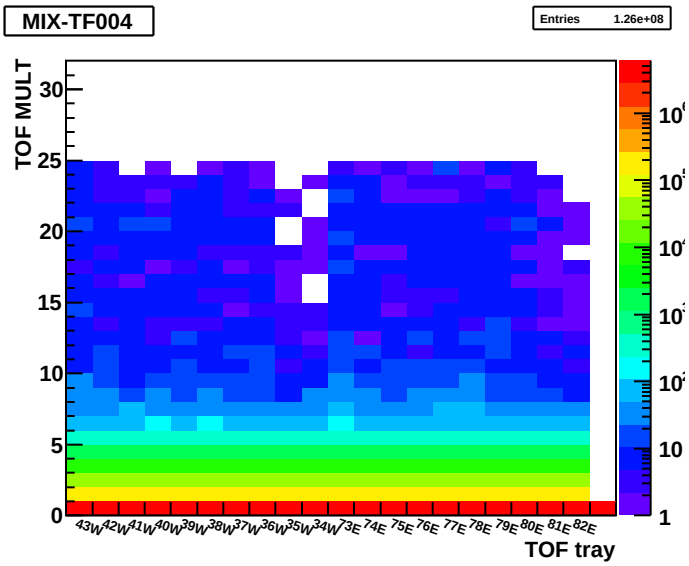

Abort-gaps
Entries 7959
10^3
10^2
0 20 40 60 80 100 120

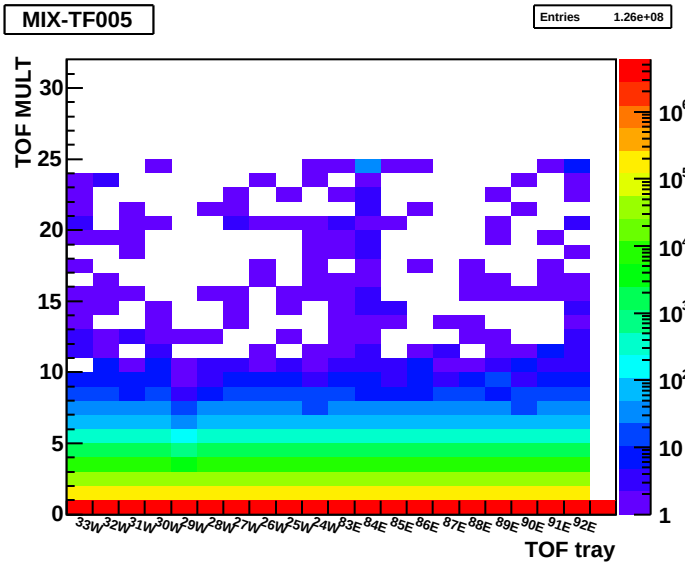

!Yellow-Fill
Entries 111628
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

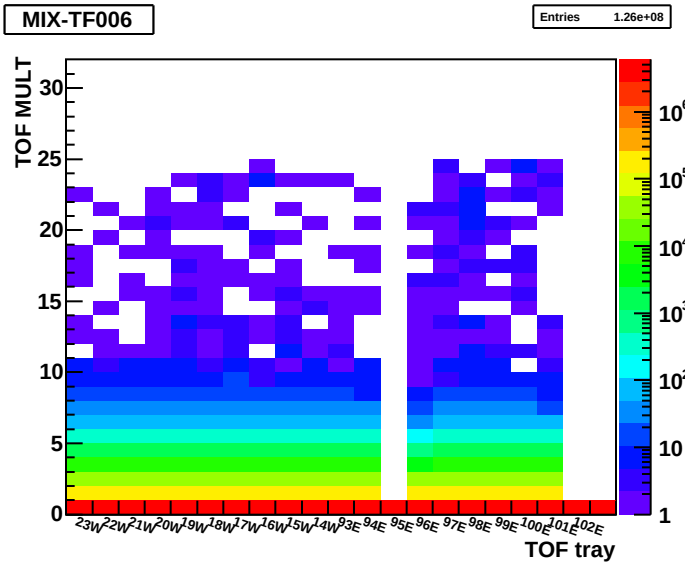

MIX-TF001
Entries 1.26e+08
TOF MULT
TOF tray

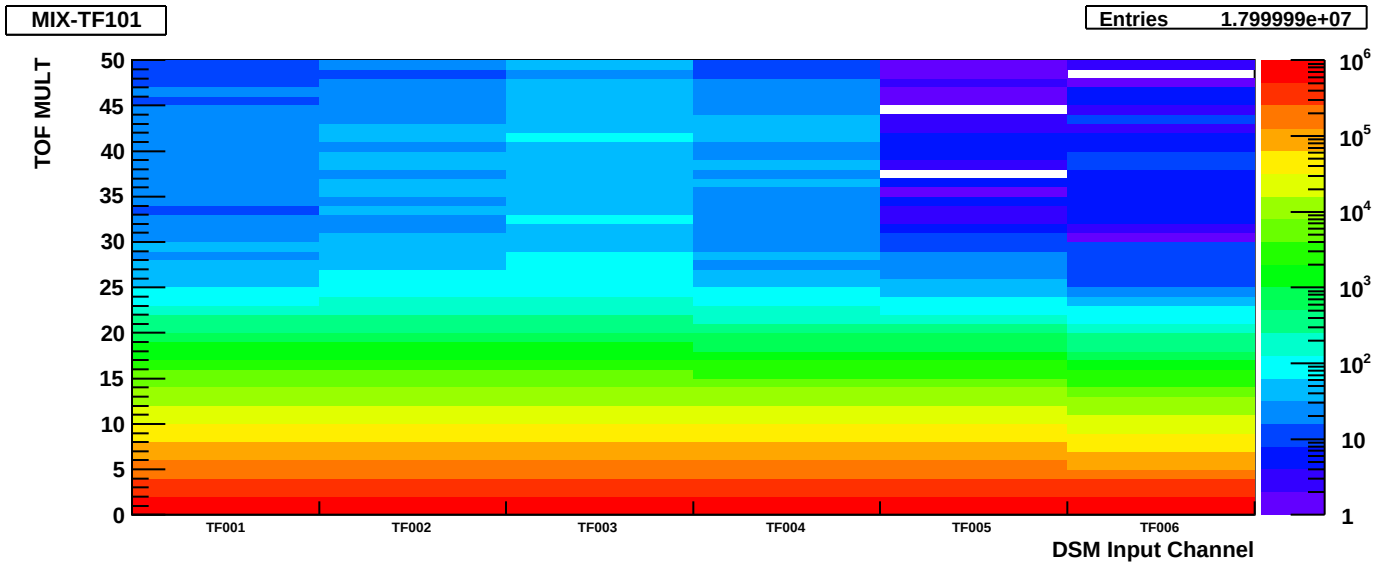

MIX-TF002
Entries 1.26e+08
TOF MULT
TOF tray

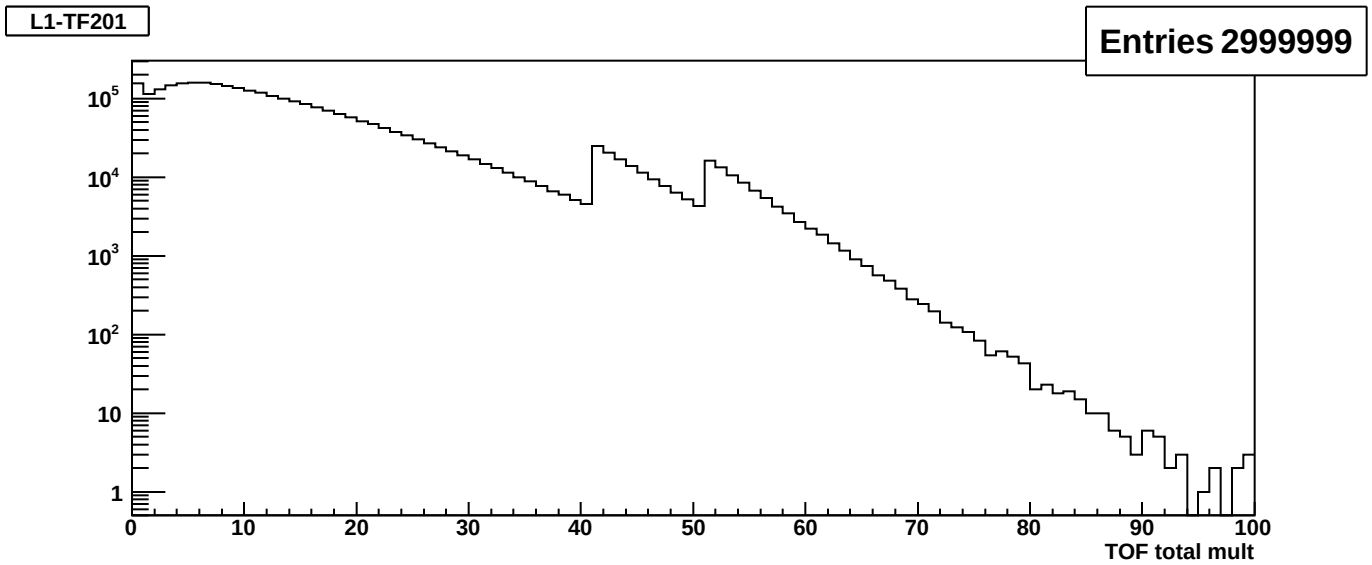

MIX-TF003
Entries 1.26e+08
TOF MULT
TOF tray

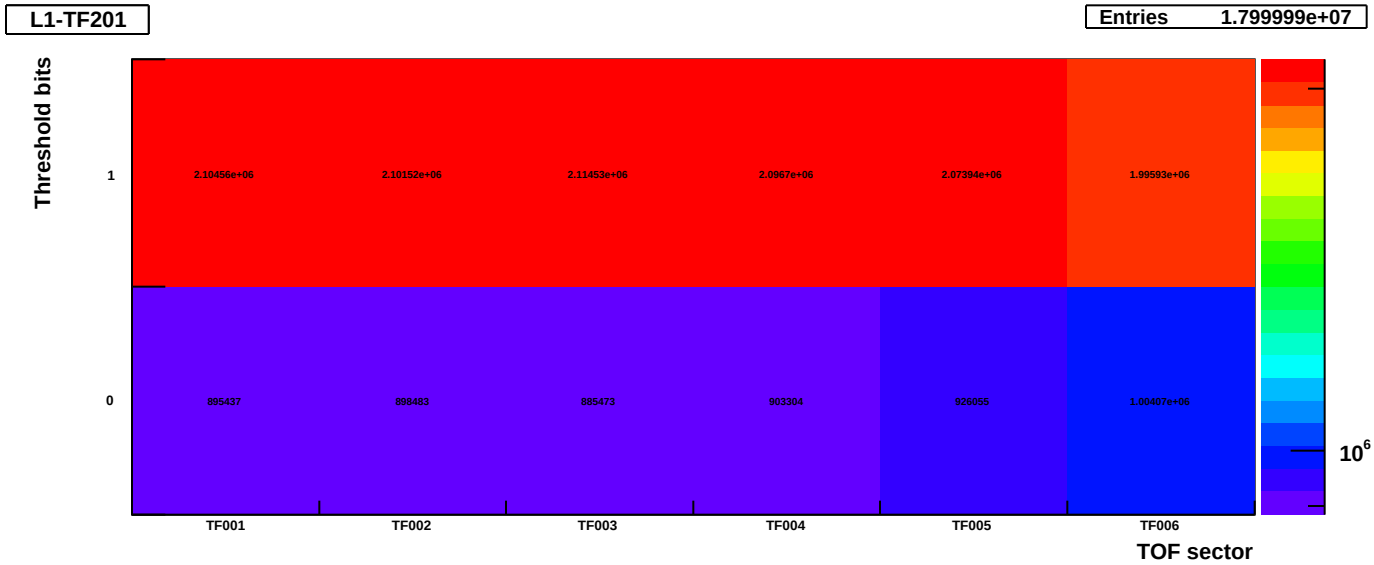

MIX-TF004
Entries 1.26e+08
TOF MULT
TOF tray

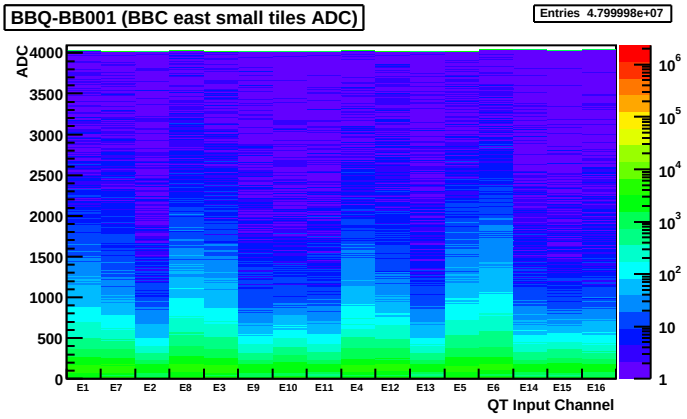

MIX-TF005
Entries 1.26e+08
TOF MULT
TOF tray

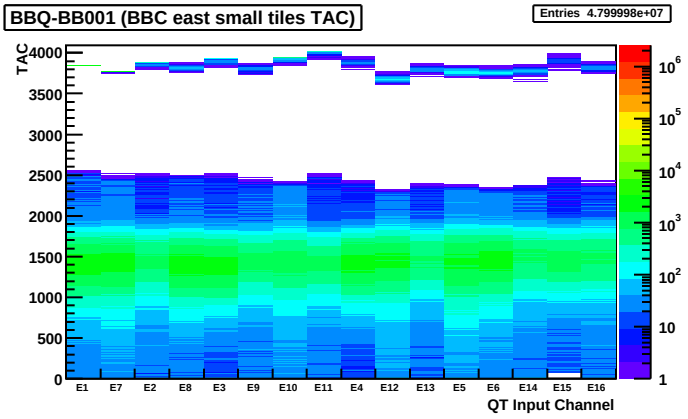

MIX-TF006
Entries 1.26e+08
TOF MULT
TOF tray

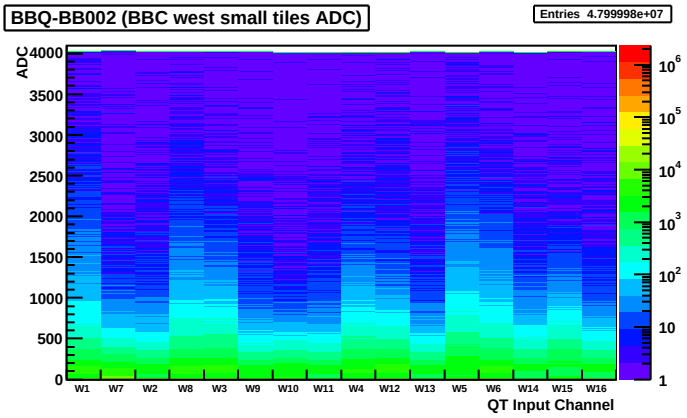

MIX-TF101
Entries 1.799999e+07
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

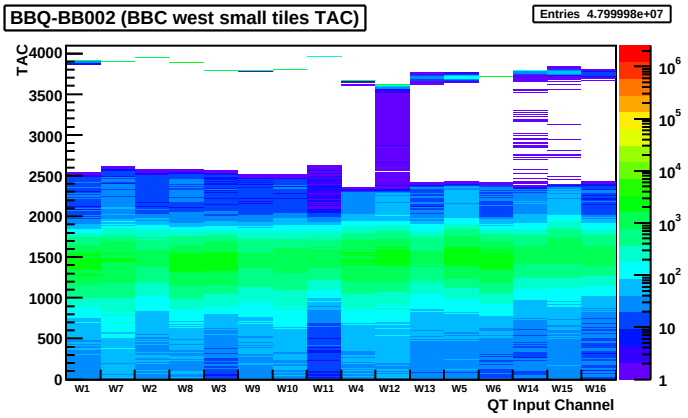

L1-TF201
Entries 2999999
TOF total mult

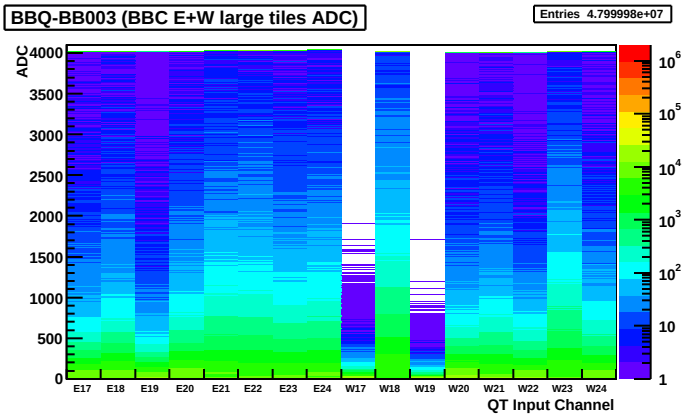

L1-TF201
Entries 1.799999e+07
Threshold bits
2.10456e+06
2.10152e+06
2.11453e+06
2.0967e+06
2.07394e+06
1.99593e+06
895437
898483
885473
903304
926055
1.00407e+06
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

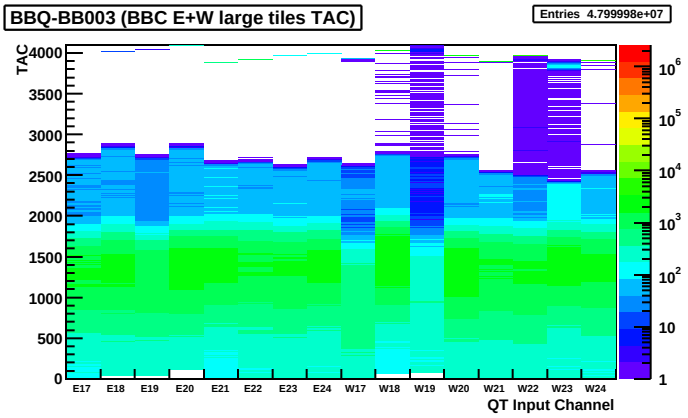

BBQ-BB001 (BBC east small tiles ADC)
Entries 4.799998e+07
ADC
QT Input Channel

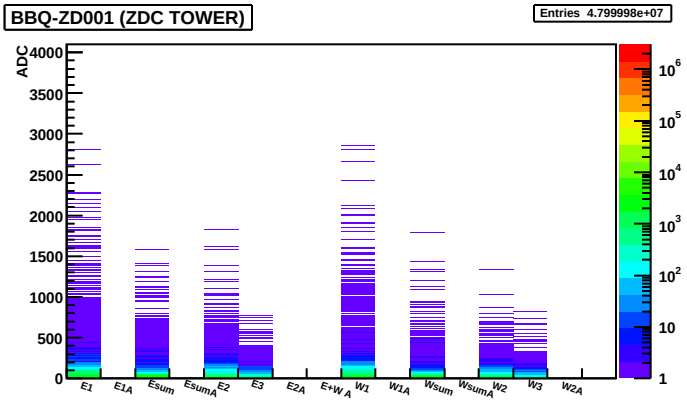

BBQ-BB001 (BBC east small tiles TAC)
Entries 4.799998e+07
TAC
QT Input Channel

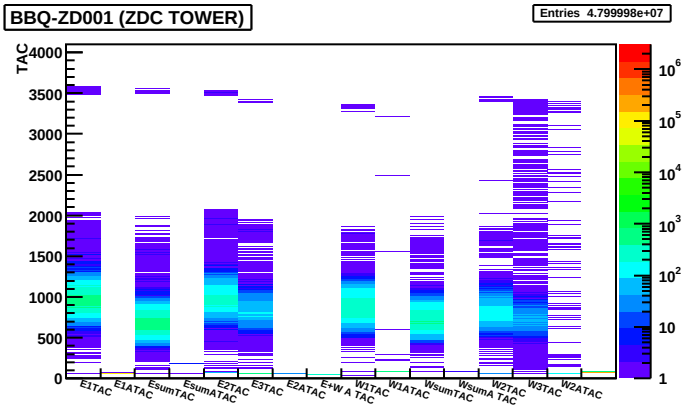

BBQ-BB002 (BBC west small tiles ADC)
Entries 4.799998e+07
ADC
QT Input Channel

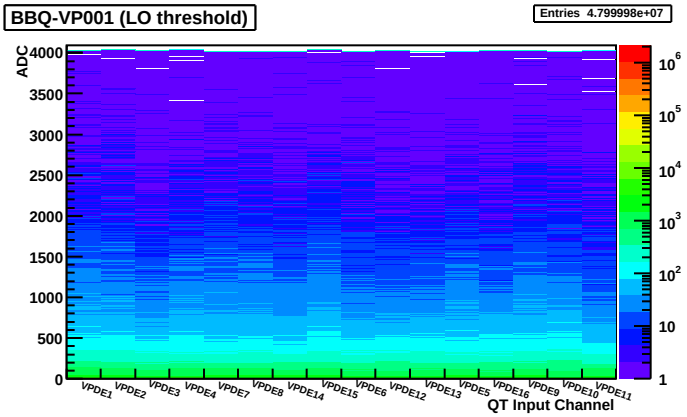

BBQ-BB002 (BBC west small tiles TAC)
Entries 4.799998e+07
TAC
QT Input Channel

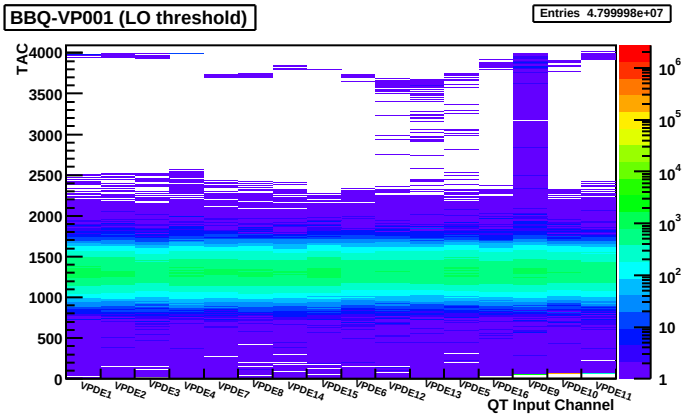

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4.799998e+07
ADC
QT Input Channel

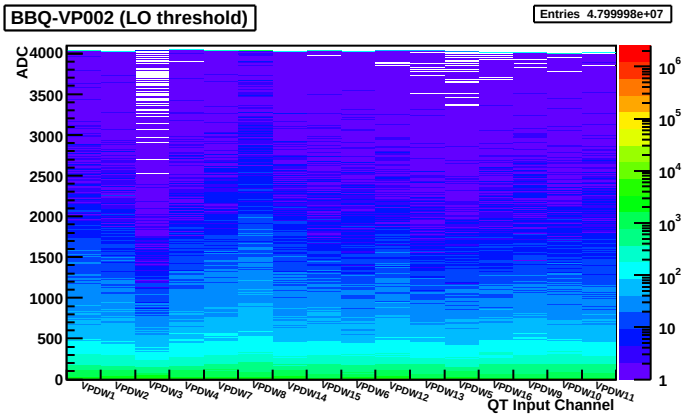

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4.799998e+07
TAC
QT Input Channel

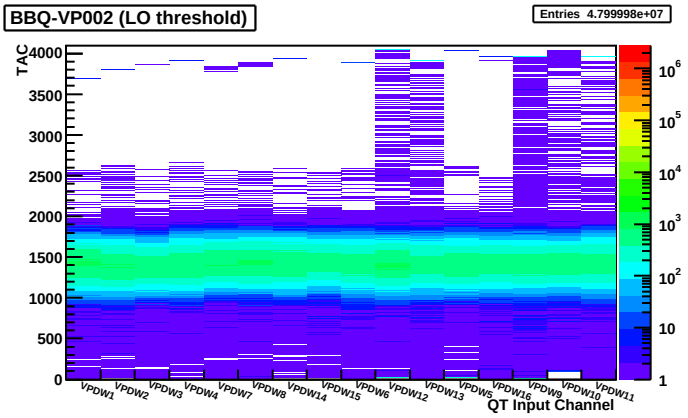

BBQ-ZD001 (ZDC TOWER)
Entries 4.799998e+07
ADC

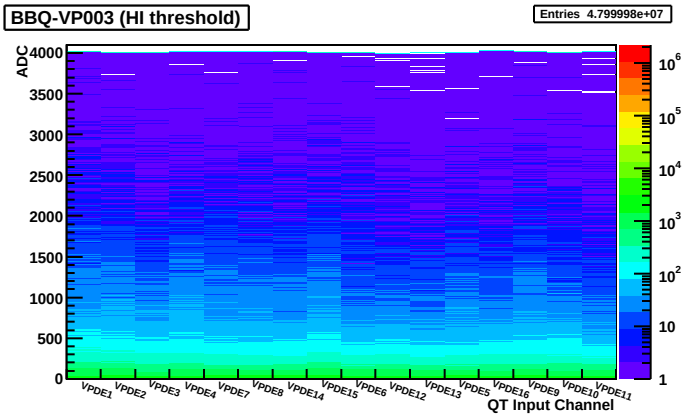

BBQ-ZD001 (ZDC TOWER)
Entries 4.799998e+07
TAC

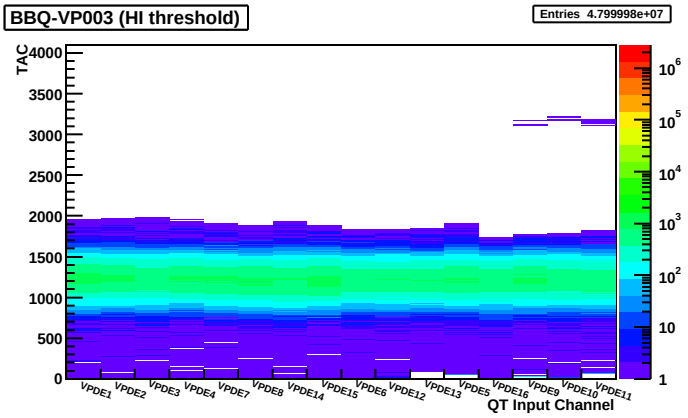

BBQ-VP001 (LO threshold)
Entries 4.799998e+07
ADC
QT Input Channel

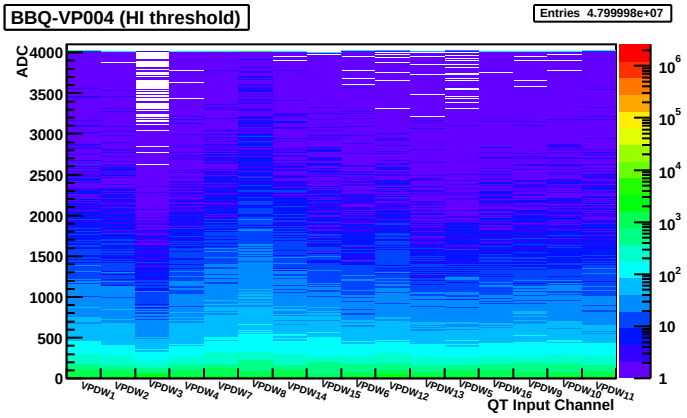

BBQ-VP001 (LO threshold)
Entries 4.799998e+07
TAC
QT Input Channel

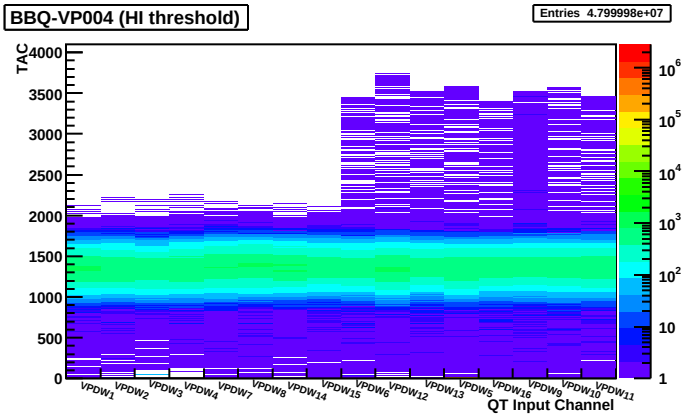

BBQ-VP002 (LO threshold)
Entries 4.799998e+07
ADC
QT Input Channel

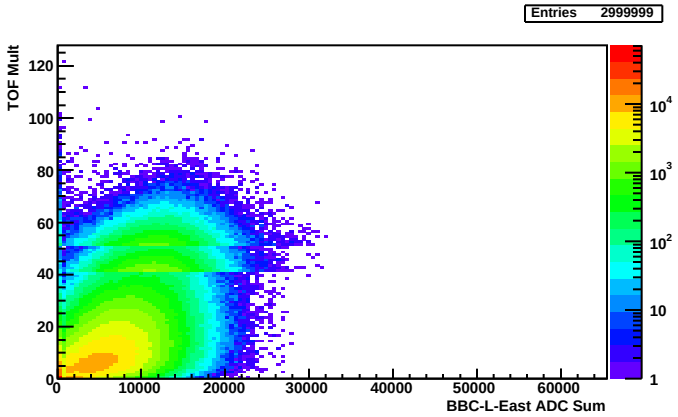

BBQ-VP002 (LO threshold)
Entries 4.799998e+07
TAC
QT Input Channel

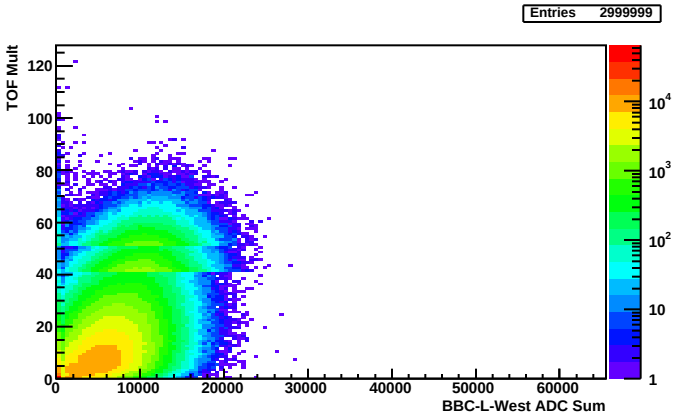

BBQ-VP003 (HI threshold)
Entries 4.799998e+07
ADC
QT Input Channel

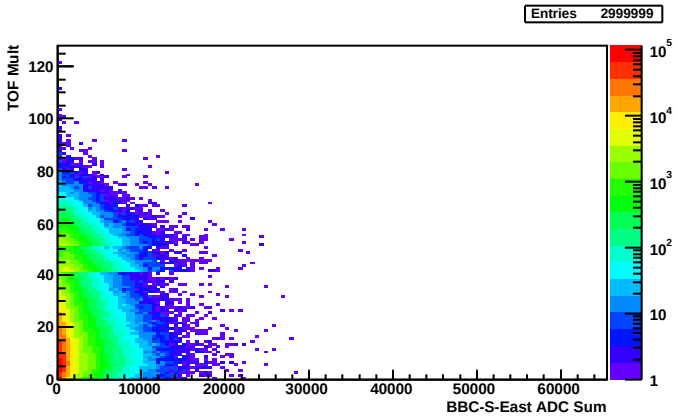

BBQ-VP003 (HI threshold)
Entries 4.799998e+07
TAC
QT Input Channel

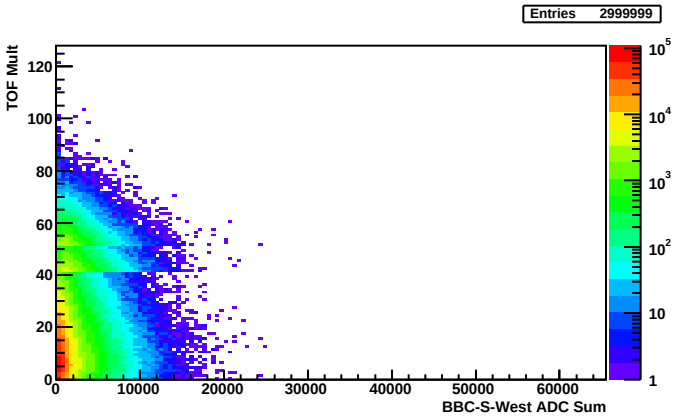

BBQ-VP004 (HI threshold)
Entries 4.799998e+07
ADC
QT Input Channel

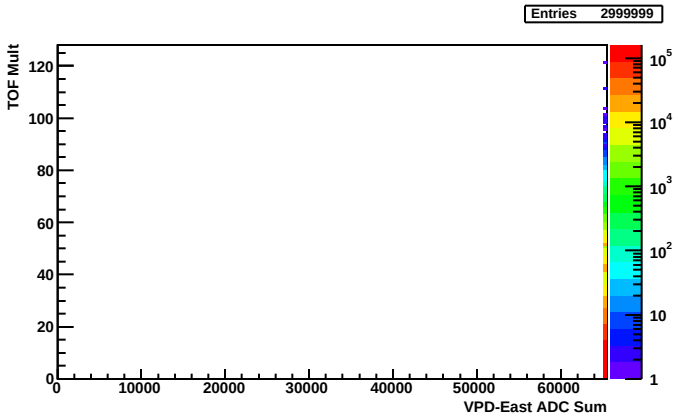

BBQ-VP004 (HI threshold)
Entries 4.799998e+07
TAC
QT Input Channel

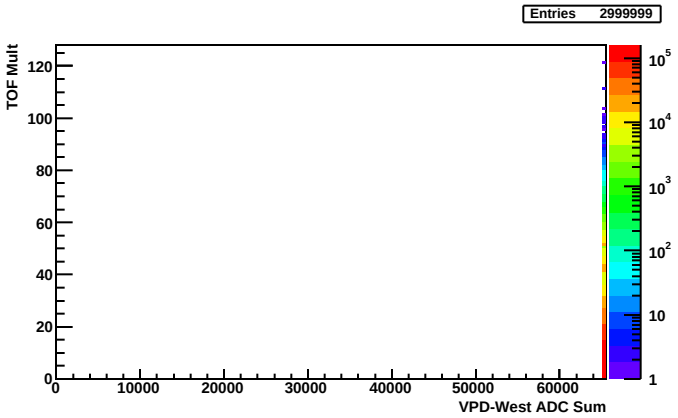

Entries 2999999
TOF Mult
BBC-L-East ADC Sum

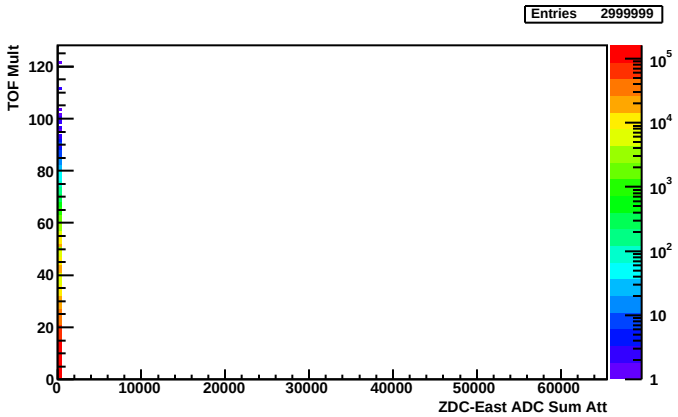

Entries 2999999
TOF Mult
BBC-L-West ADC Sum

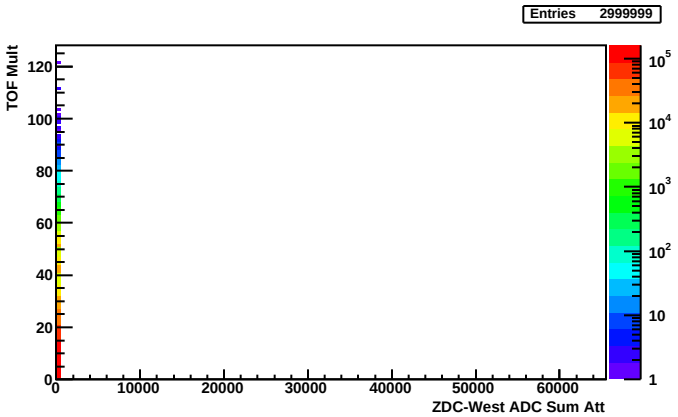

Entries 2999999
TOF Mult
BBC-S-East ADC Sum

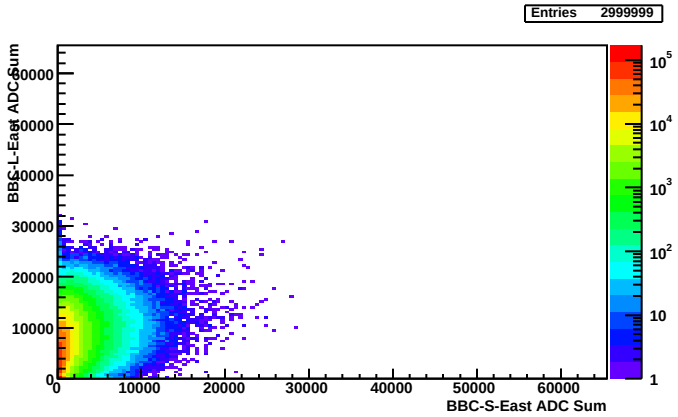

Entries 2999999
TOF Mult
BBC-S-West ADC Sum


Entries 2999999
TOF Mult
VPD-East ADC Sum


Entries 2999999
TOF Mult
VPD-West ADC Sum


Entries 2999999
TOF Mult
ZDC-East ADC Sum Att


Entries 2999999
TOF Mult
ZDC-West ADC Sum Att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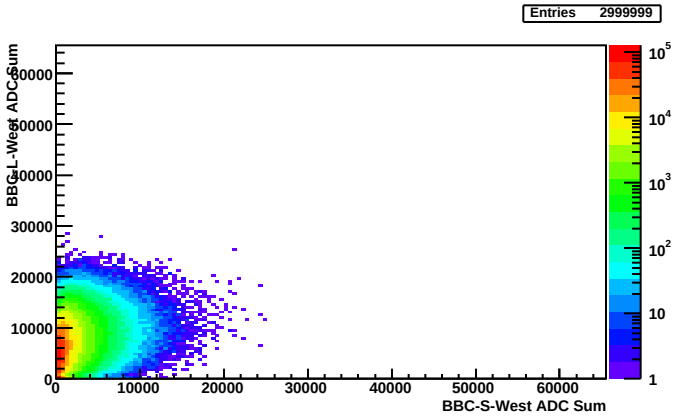
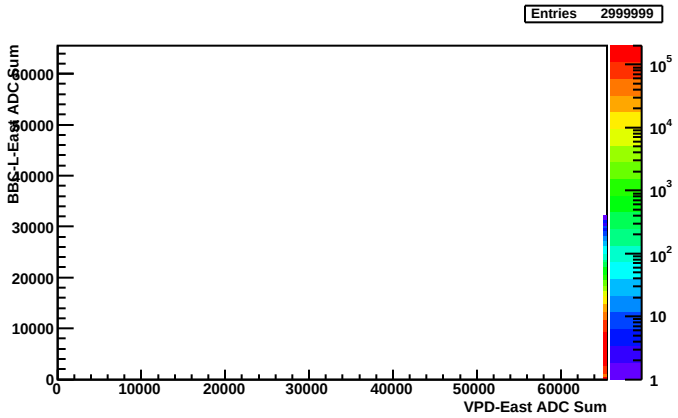
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 2999999
BBC-L-West ADC Sum
BBC-S-West ADC Sum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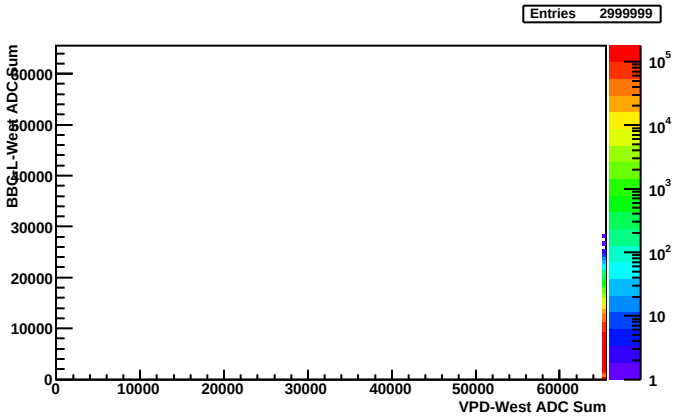
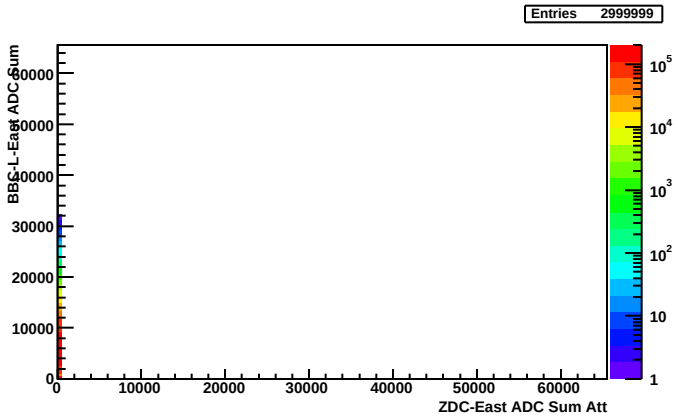
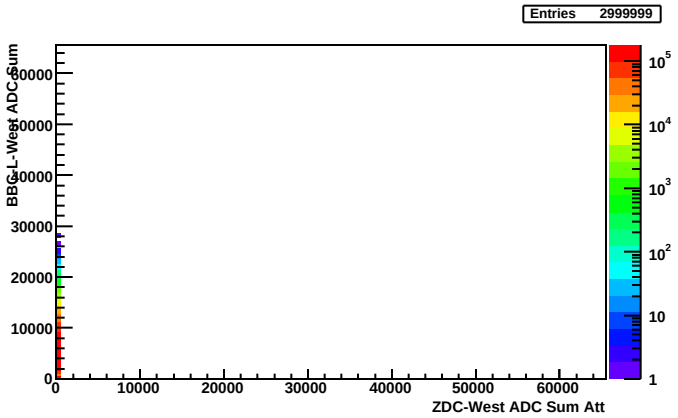
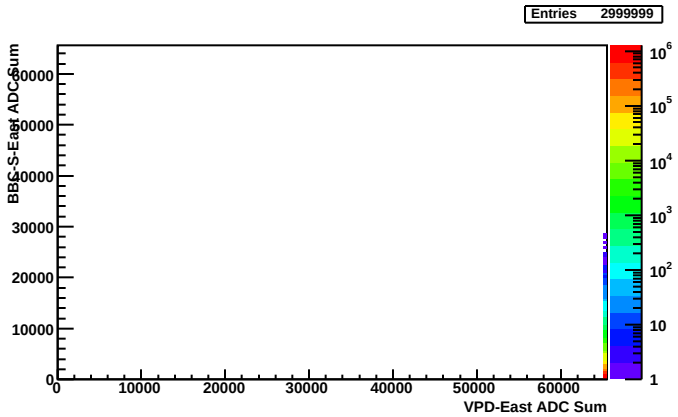
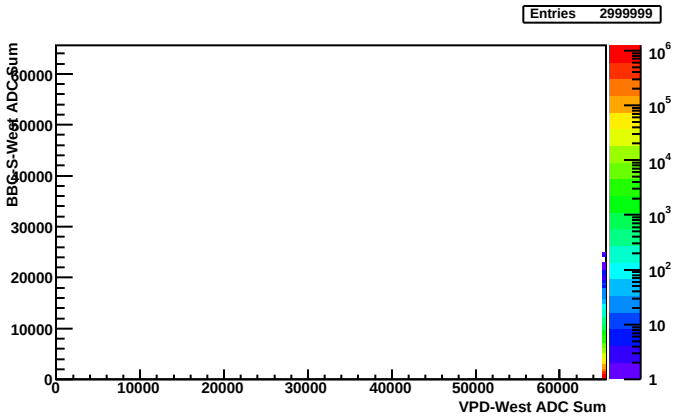
BBC-L-East ADC Sum
VPD-East ADC Sum

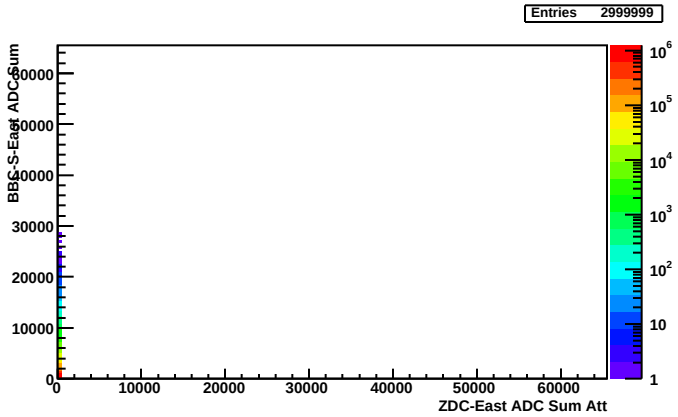

Entries 2999999
BBC-L-West ADC Sum
VPD-West ADC Sum

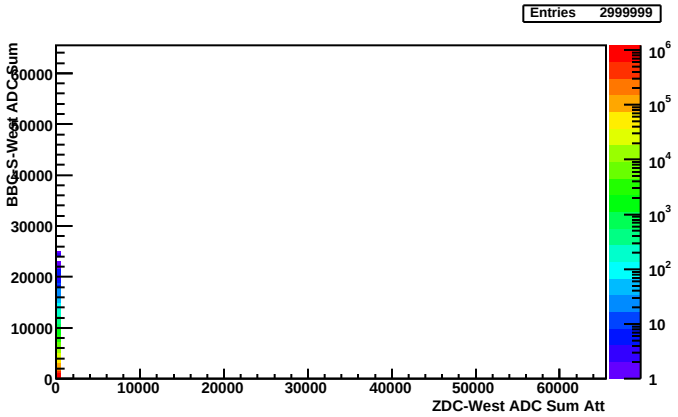

Entries 2999999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att


Entries 2999999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att


Entries 2999999
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 2999999
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 2999999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att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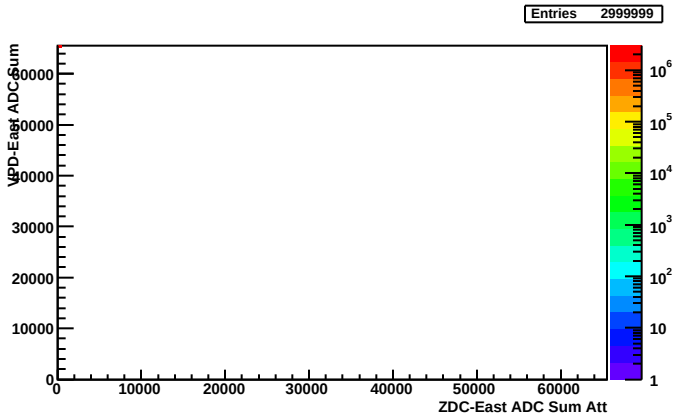
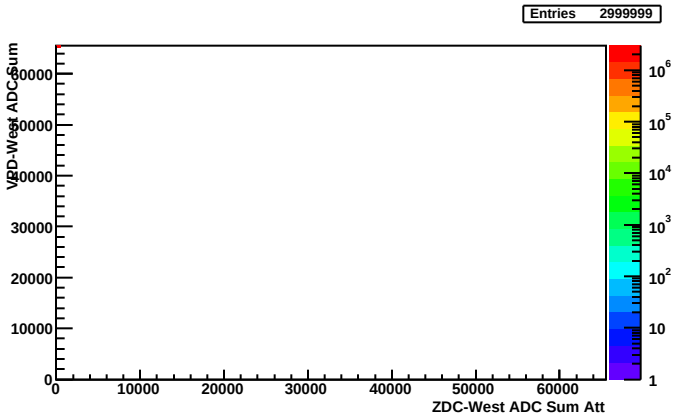
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 2999999
VPD-East ADC Sum
ZDC-East ADC Sum Att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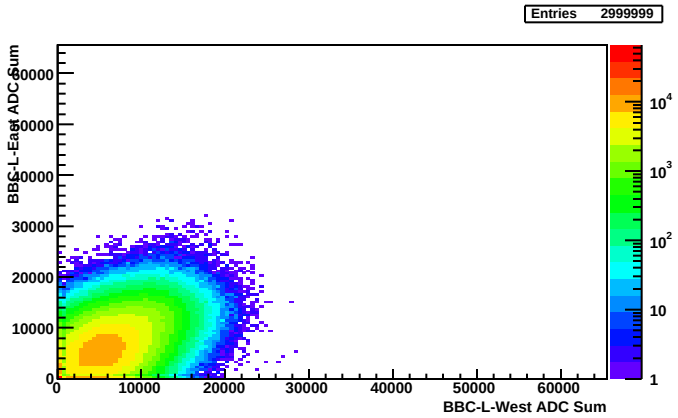
VPD-West ADC Sum
ZDC-West ADC Sum Att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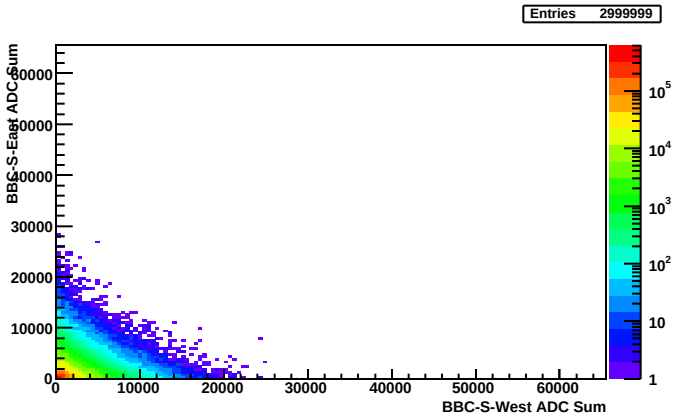
BBC-L-East ADC Sum
BBC-L-West ADC Sum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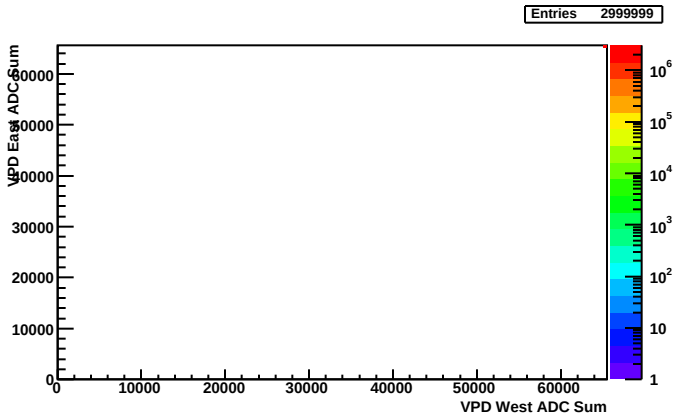
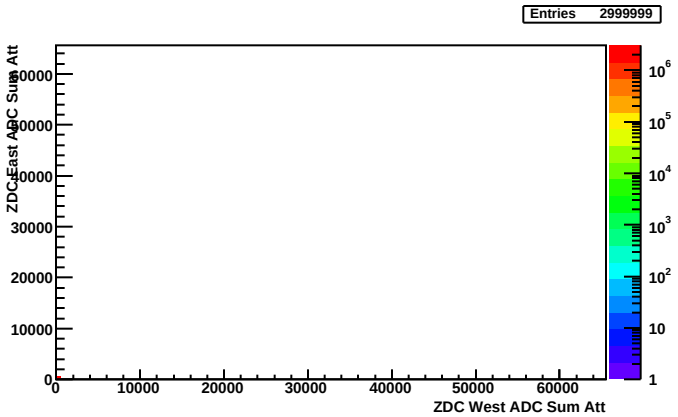
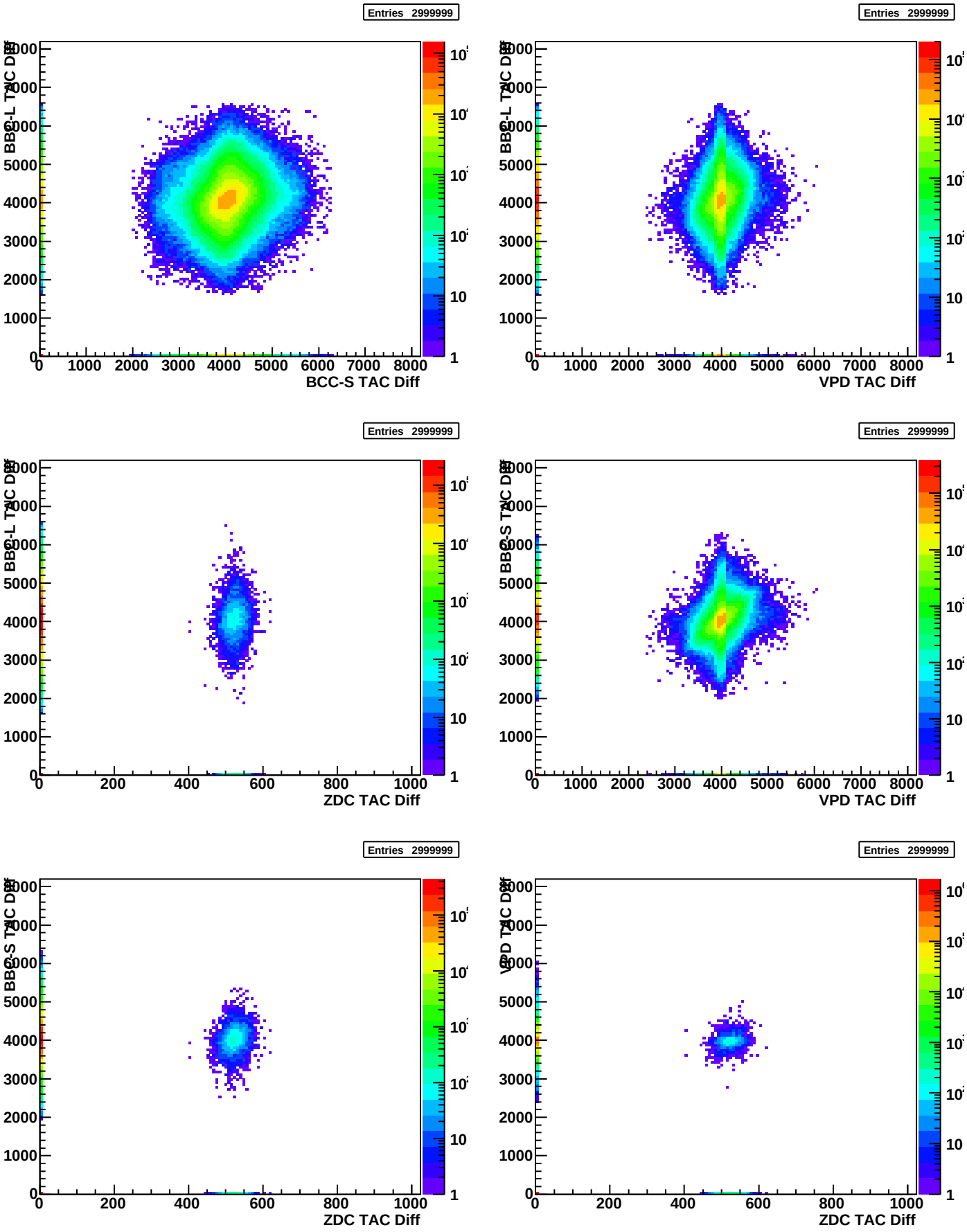
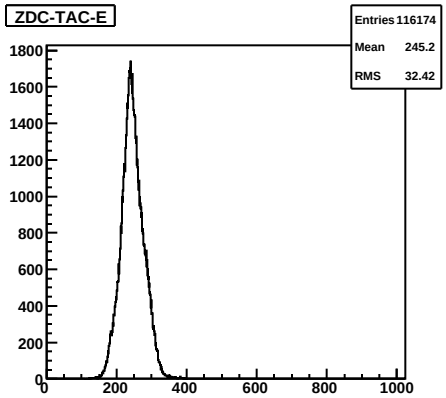
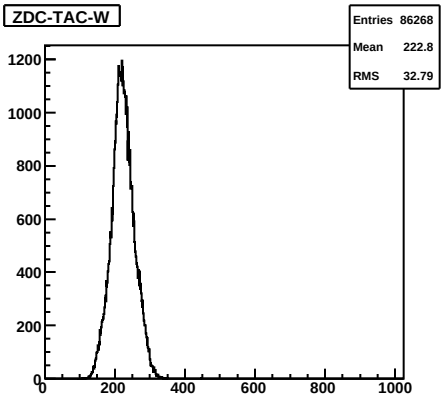
BBC-S-East ADC Sum
BBC-S-West ADC Sum

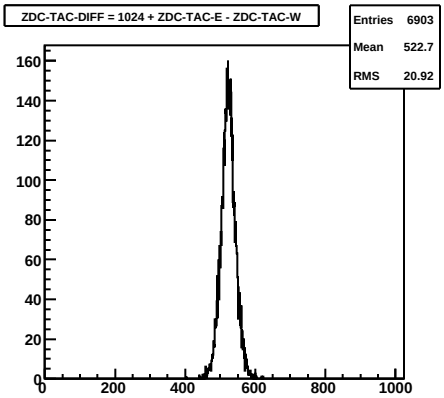

Entries 2999999
VPD East ADC Sum
VPD West ADC Sum

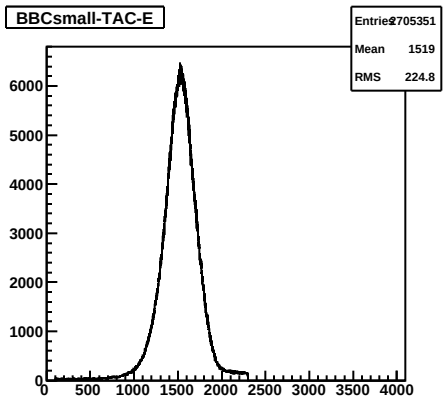

Entries 2999999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

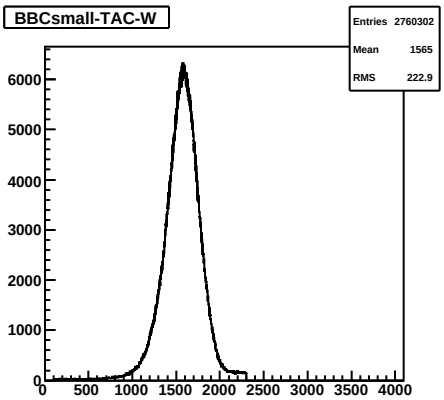

Entries 2999999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 2999999
BBC-L TAC Diff
VPD TAC Diff
Entries 2999999
BBC-L TAC Diff
ZDC TAC Diff
Entries 2999999
BBC-S TAC Diff
VPD TAC Diff
Entries 2999999
BBC-S TAC Diff
ZDC TAC Diff
Entries 2999999
VPD TAC Diff
ZDC TAC Diff

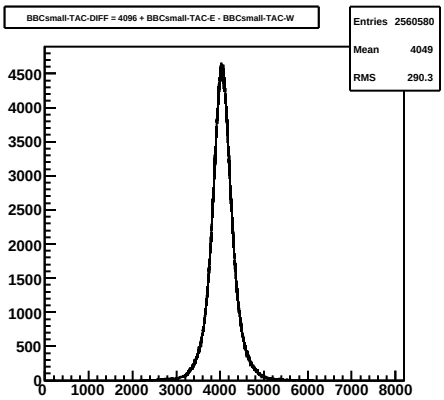

ZDC-TAC-E
Entries 116174
Mean 245.2
RMS 32.42

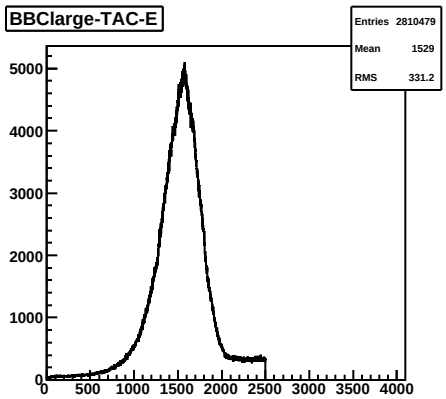

ZDC-TAC-W
Entries 86268
Mean 222.8
RMS 32.79

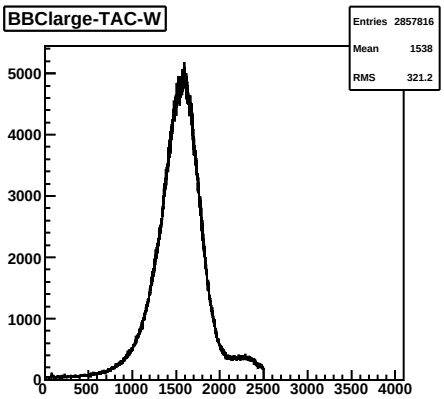

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 6903
Mean 522.7
RMS 20.92

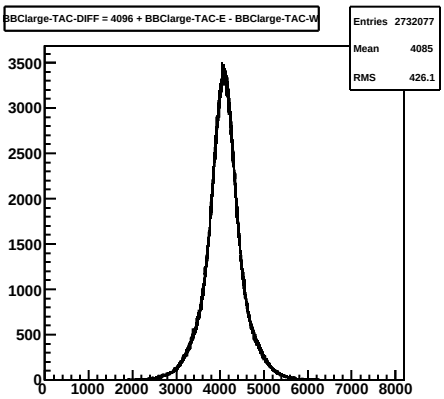

BBCsmall-TAC-E
Entries 2705351
Mean 1519
RMS 224.8

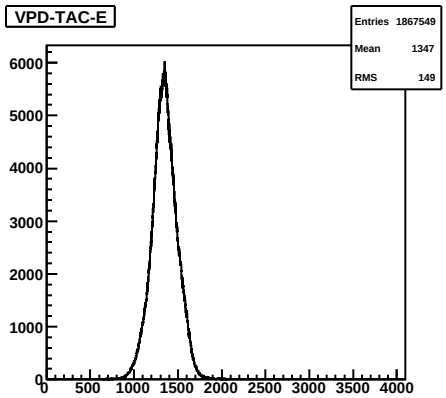

BBCsmall-TAC-W
Entries 2760302
Mean 1565
RMS 222.9

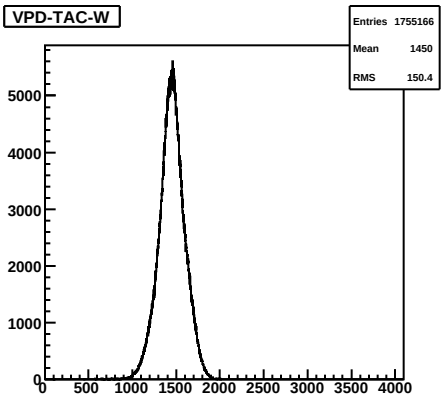

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 2560580
Mean 4049
RMS 290.3

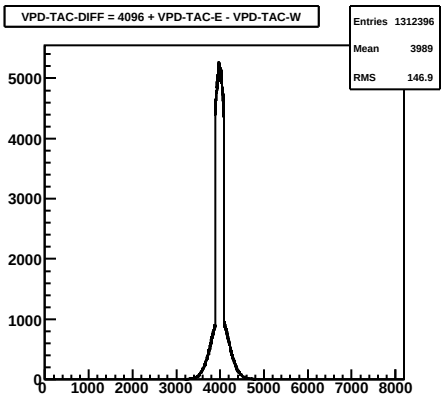

BBClarge-TAC-E
Entries 2810479
Mean 1529
RMS 331.2

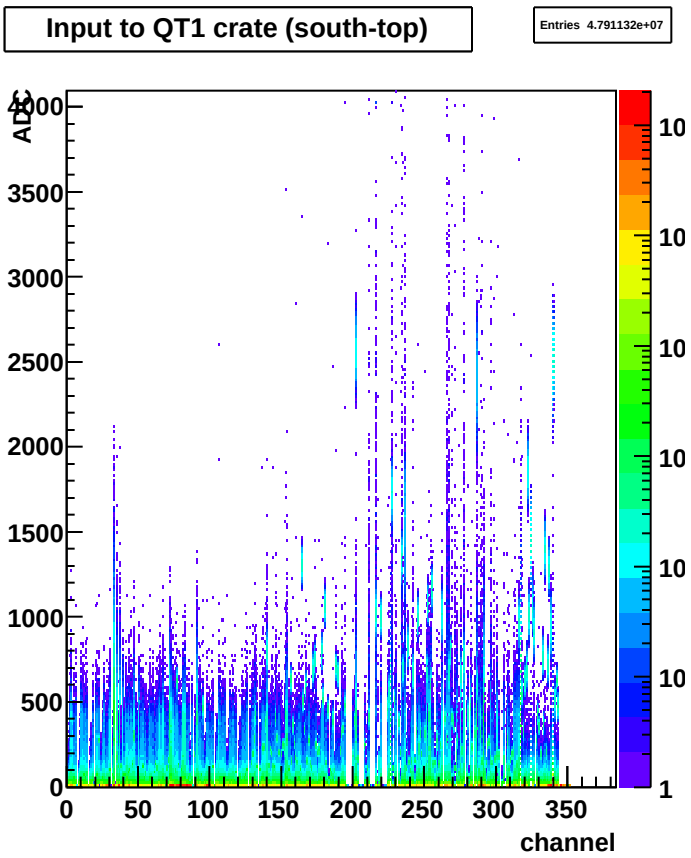

BBClarge-TAC-W
Entries 2857816
Mean 1538
RMS 321.2

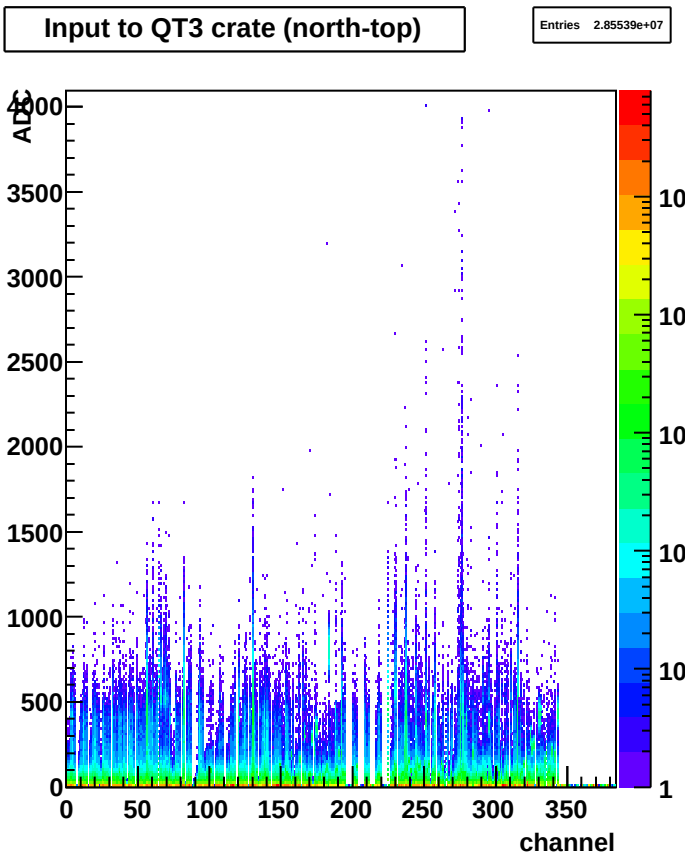

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 2732077
Mean 4085
RMS 426.1

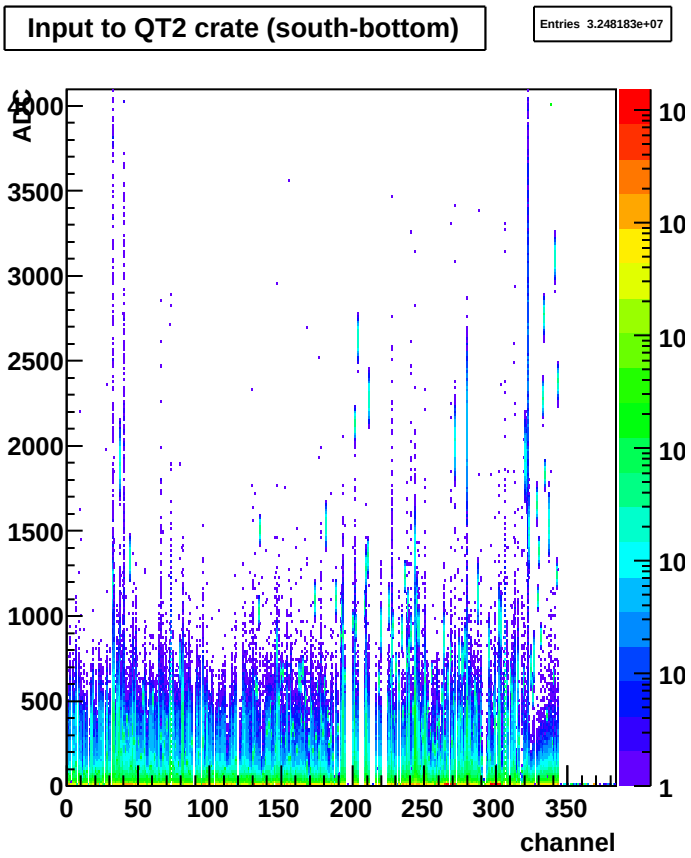

VPD-TAC-E
Entries 1867549
Mean 1347
RMS 149

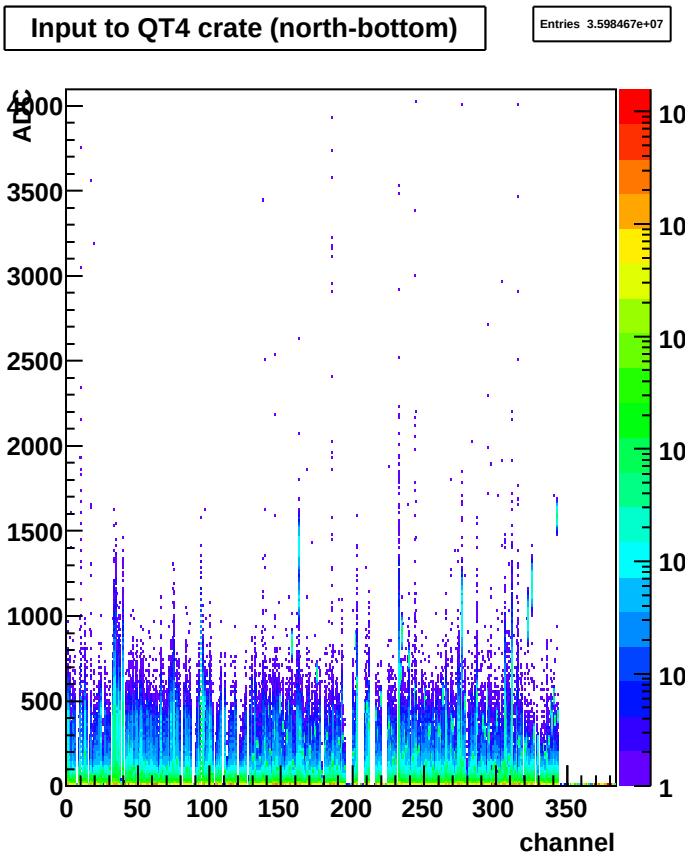

VPD-TAC-W
Entries 1755166
Mean 1450
RMS 150.4

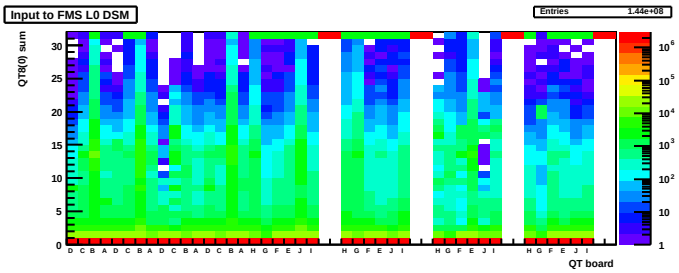

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1312396
Mean 3989
RMS 146.9

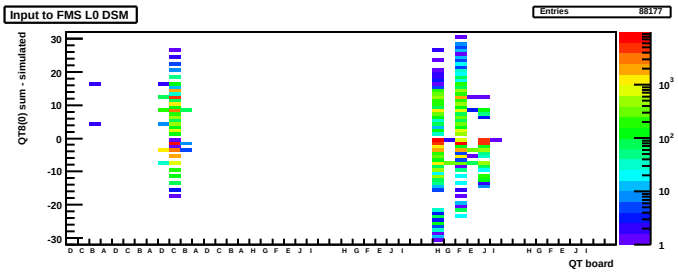

Input to QT1 crate (south-top)
Entries 4.791132e+07
ADC
channel

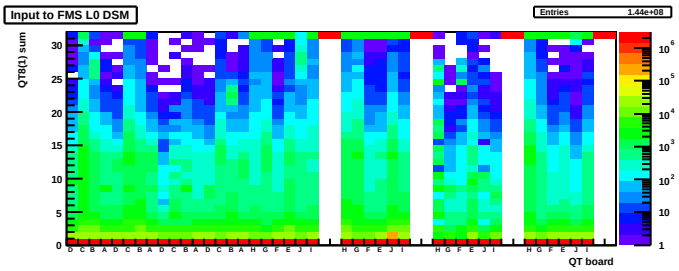

Input to QT3 crate (north-top)
Entries 2.85539e+07
ADC
channel

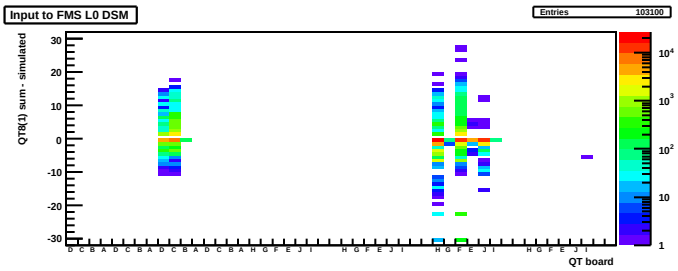

Input to QT2 crate (south-bottom)
Entries 3.248183e+07
ADC
channel

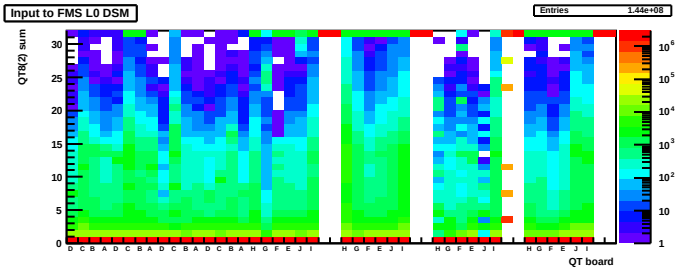

Input to QT4 crate (north-bottom)
Entries 3.598467e+07
ADC
channel

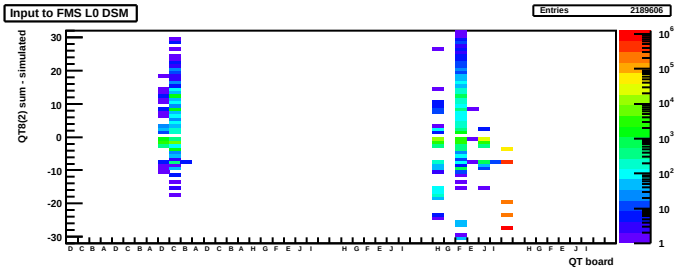

Input to FMS L0 DSM
Entries 1.44e+08
QT8(0) sum
QT board

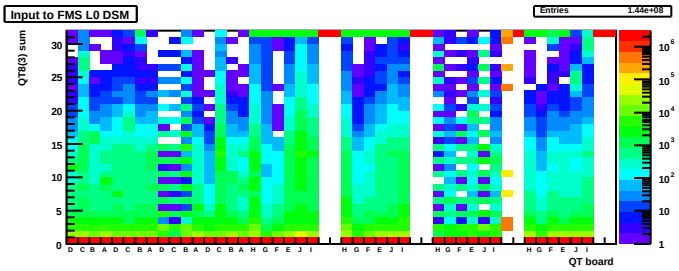

Input to FMS L0 DSM
Entries 88177
QT8(0) sum - simulated
QT board

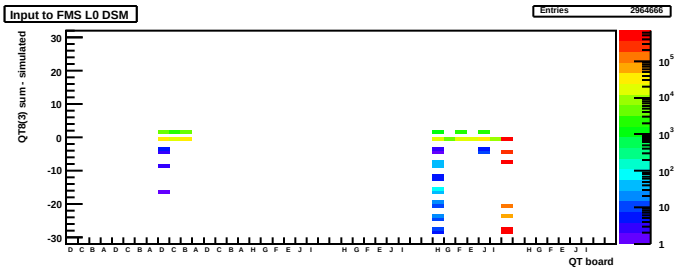

Input to FMS L0 DSM
Entries 1.44e+08
QT8(1) sum
QT board

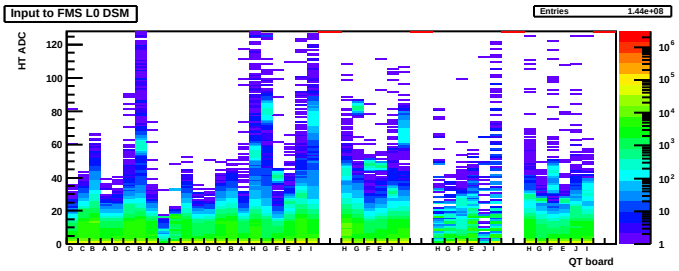

Input to FMS L0 DSM
Entries 103100
QT8(1) sum - simulated
QT board

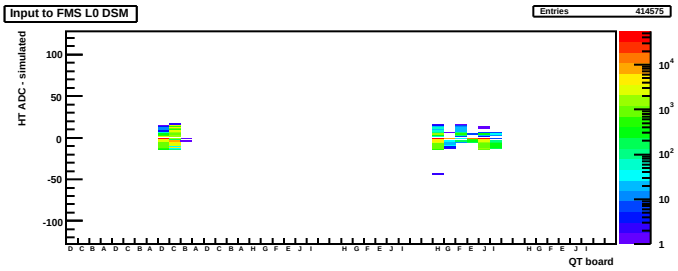

Input to FMS L0 DSM
Entries 1.44e+08
QT8(2) sum
QT board

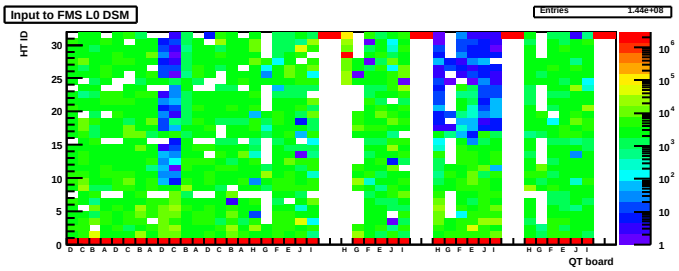

Input to FMS L0 DSM
Entries 2189606
QT8(2) sum - simulated
QT board

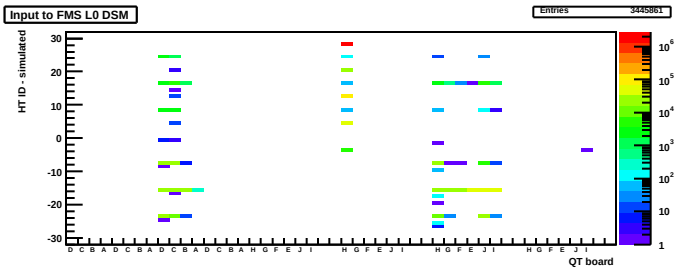

Input to FMS L0 DSM
Entries 1.44e+08
QT8(3) sum
QT board

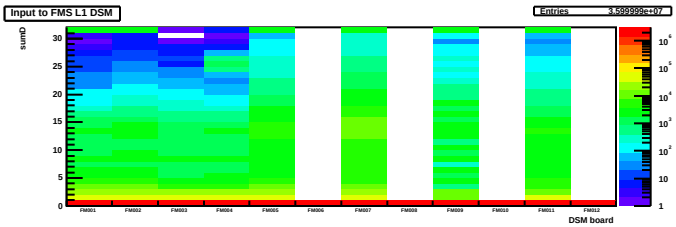

Input to FMS L0 DSM
Entries 2964666
QT8(3) sum - simulated
QT board

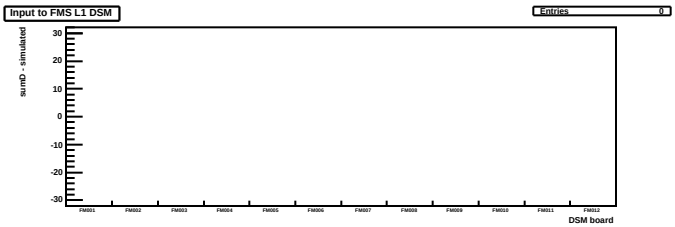

Input to FMS L0 DSM
Entries 1.44e+08
HT ADC
QT board

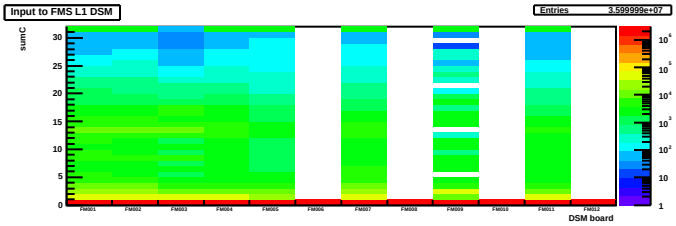

Input to FMS L0 DSM
Entries 414575
HT ADC - simulated
QT board

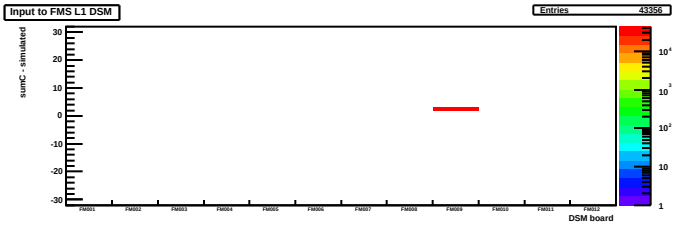

Input to FMS L0 DSM
Entries 1.44e+08
HT ID
QT board

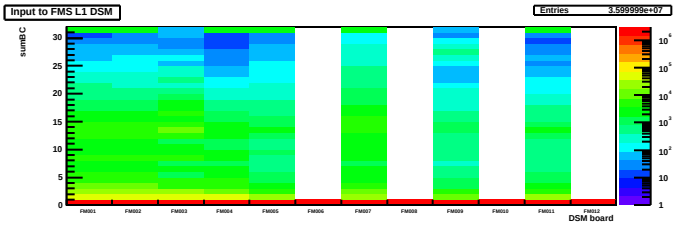

Input to FMS L0 DSM
Entries 3445861
HT ID - simulated
QT board

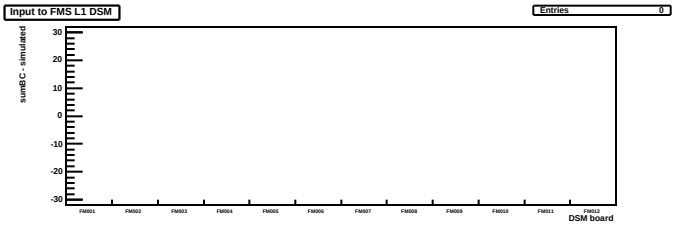

Input to FMS L1 DSM
Entries 3.599999e+07
sumD
DSM board

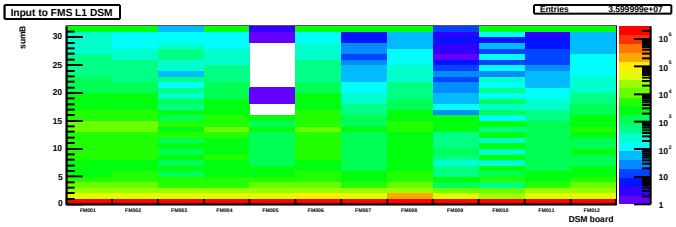

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

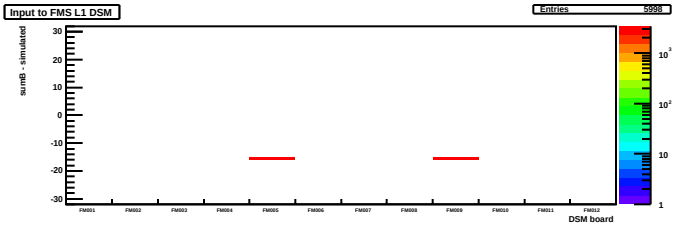

Input to FMS L1 DSM
Entries 3.599999e+07
sumC
DSM board

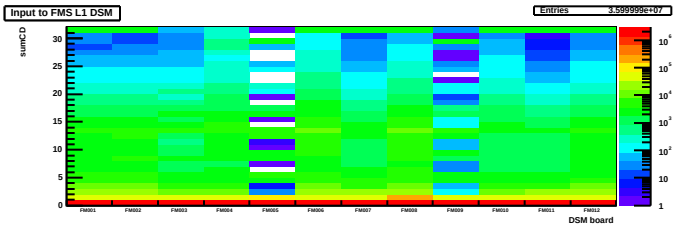

Input to FMS L1 DSM
Entries 43356
sumC - simulated
DSM board

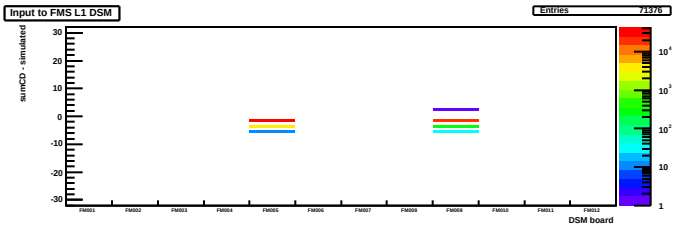

Input to FMS L1 DSM
Entries 3.599999e+07
sumBC
DSM board

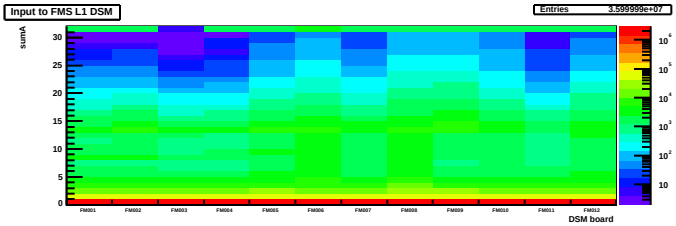

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

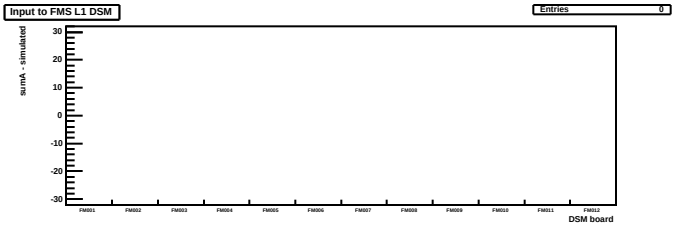

Input to FMS L1 DSM
Entries 3.599999e+07
sumB
DSM board

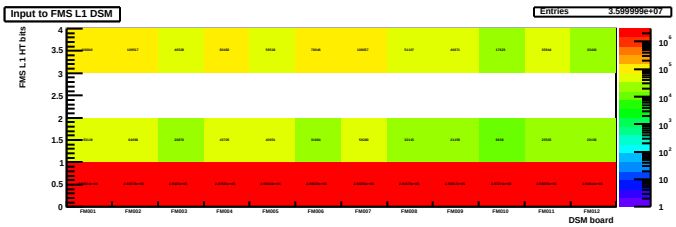

Input to FMS L1 DSM
Entries 5998
sumB - simulated
DSM board

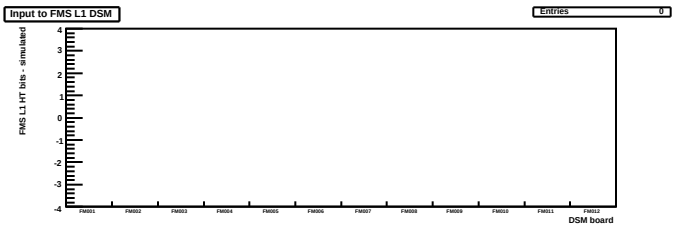

Input to FMS L1 DSM
Entries 3.599999e+07
sumCD
DSM board

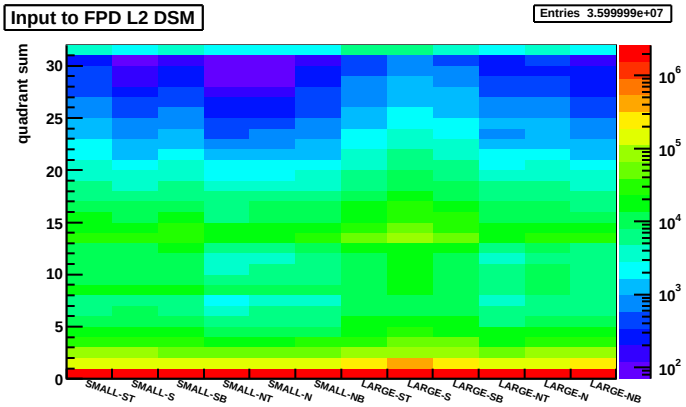

Input to FMS L1 DSM
Entries 71376
sumCD - simulated
DSM board

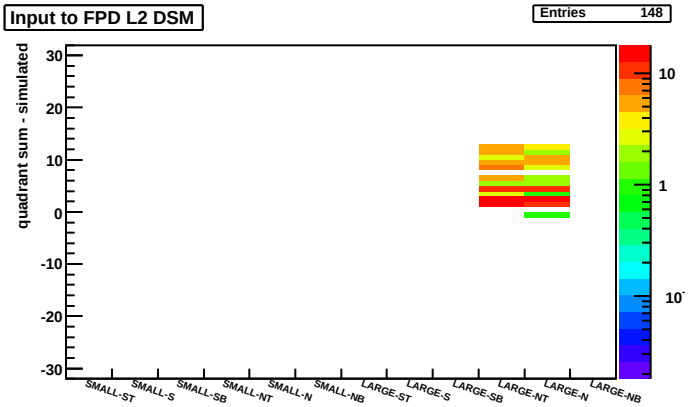

Input to FMS L1 DSM
Entries 3.599999e+07
sumA
DSM board

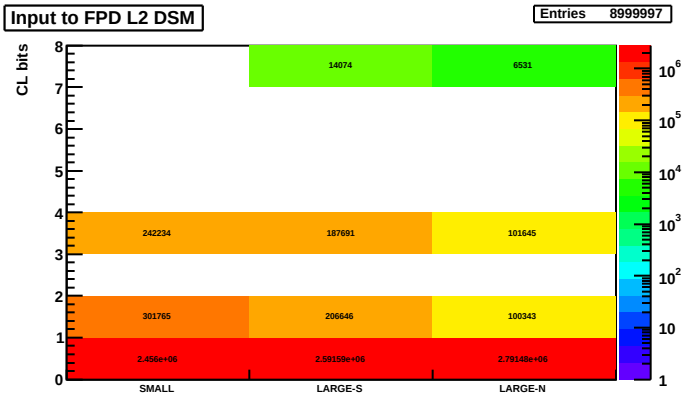

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

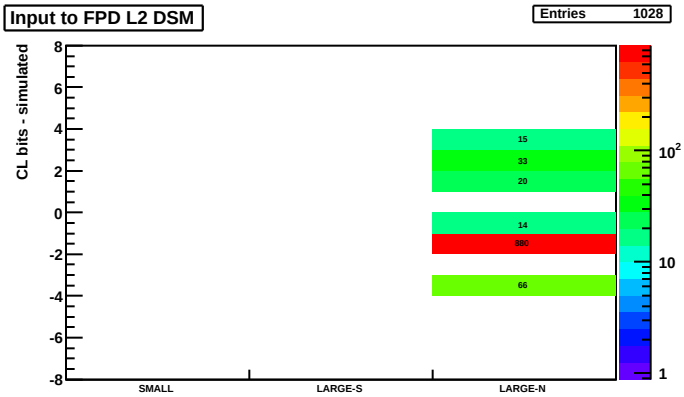

Input to FMS L1 DSM
Entries 3.599999e+07
FMS L1 HT bits
DSM board

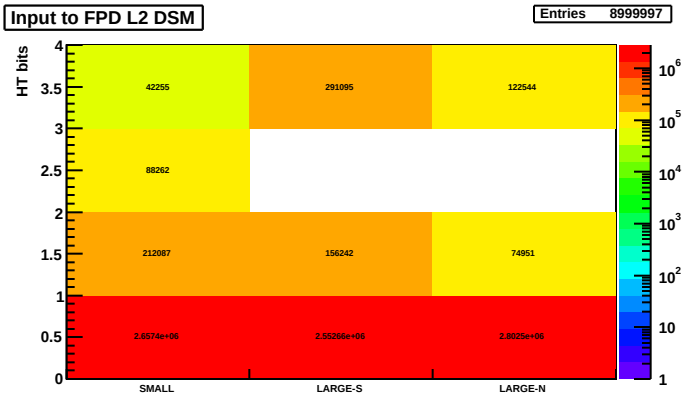

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

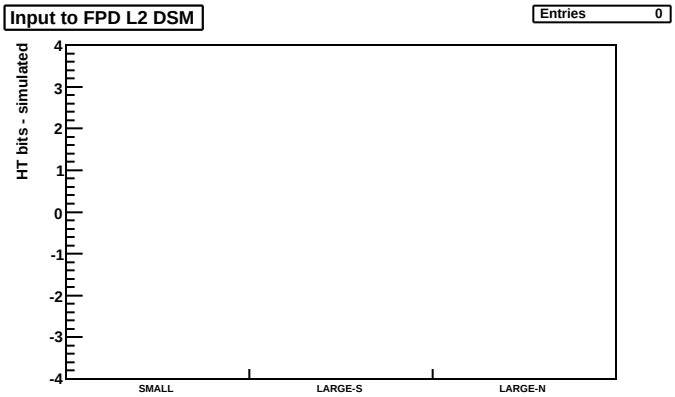

Input to FPD L2 DSM
Entries 3.599999e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

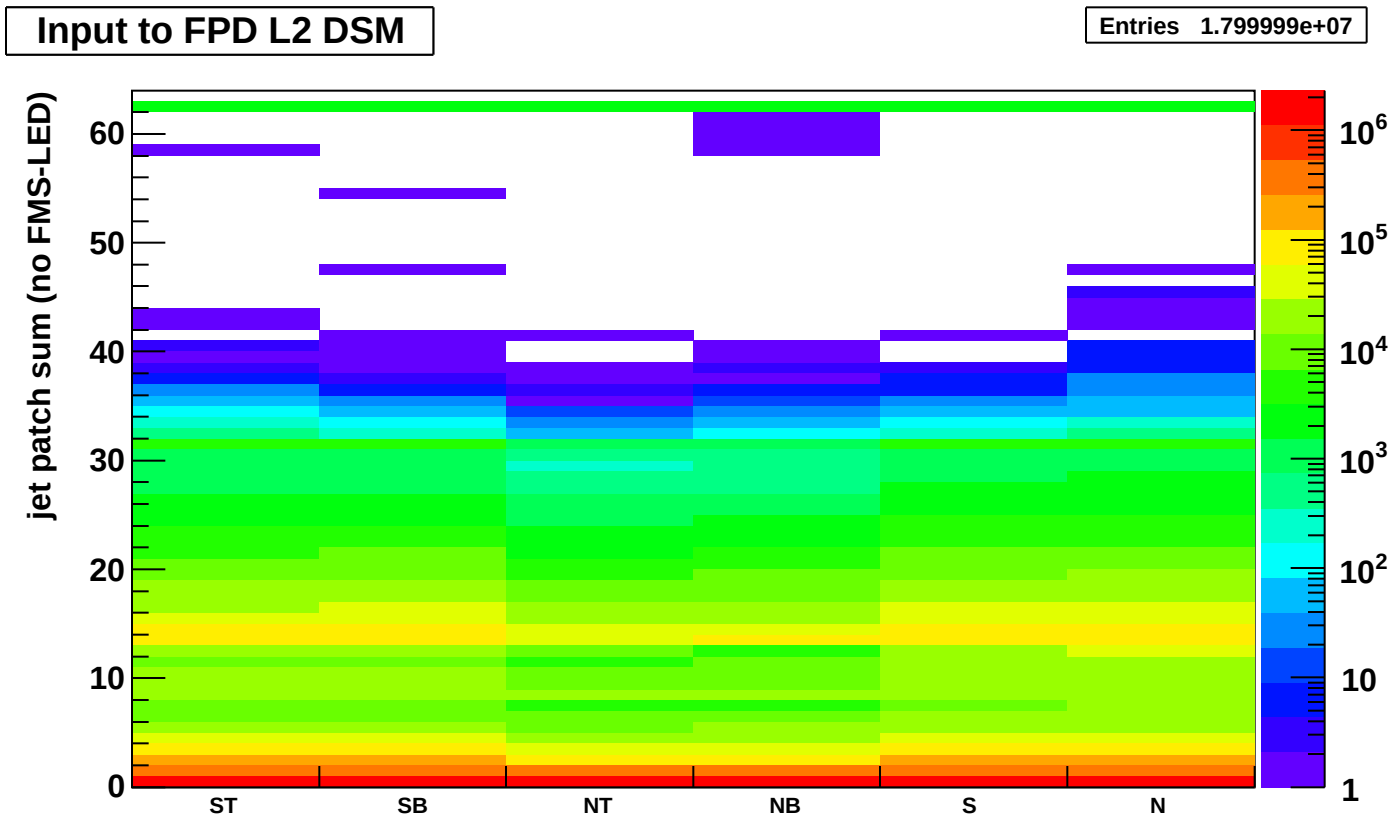

Input to FPD L2 DSM
Entries 148
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

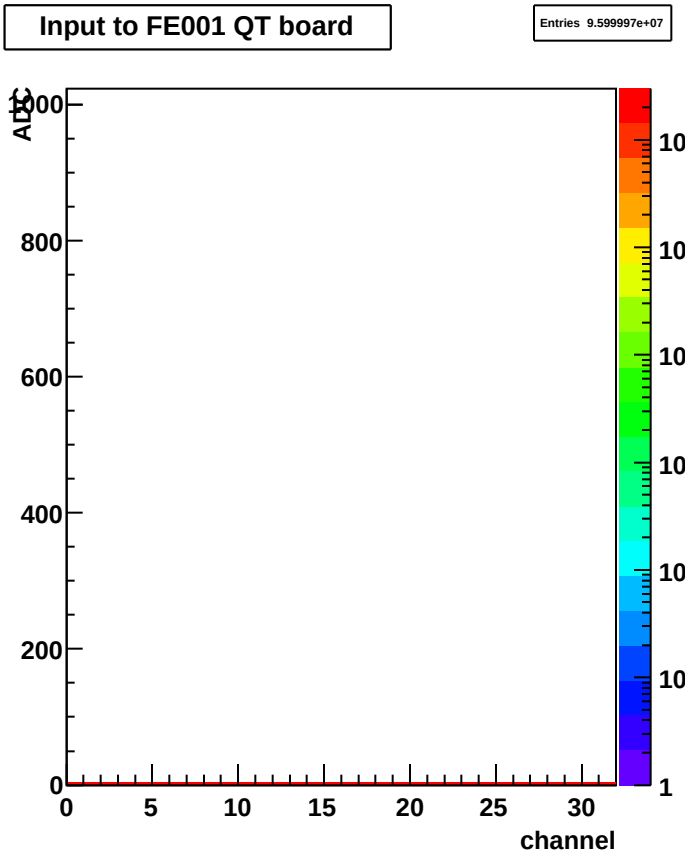

Input to FPD L2 DSM
Entries 8999997
CL bits
14074
6531
242234
187691
101645
301765
206646
100343
2.456e+06
2.59159e+06
2.79148e+06
SMALL
LARGE-S
LARGE-N

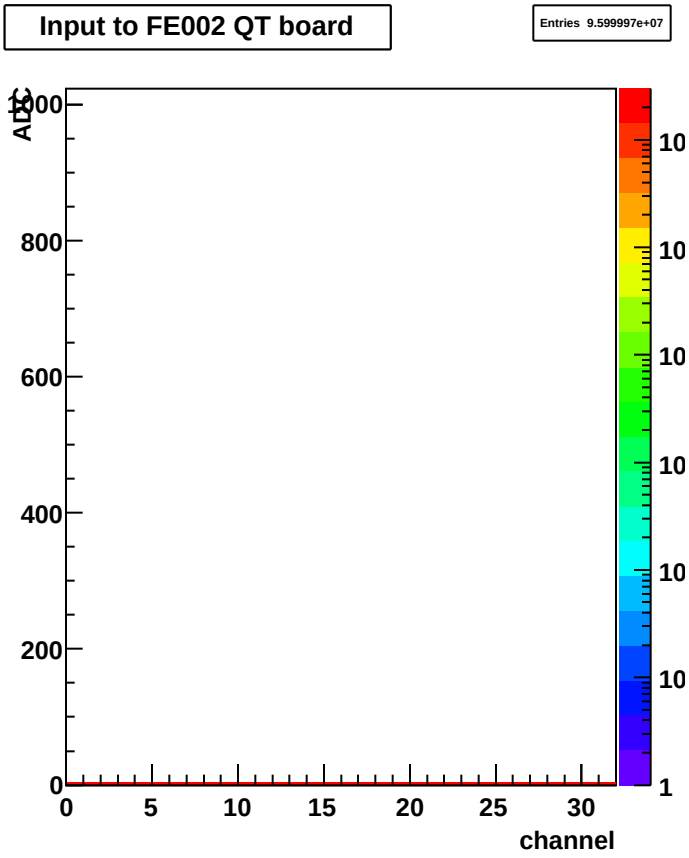

Input to FPD L2 DSM
Entries 1028
CL bits - simulated
15
33
20
14
880
66
SMALL
LARGE-S
LARGE-N

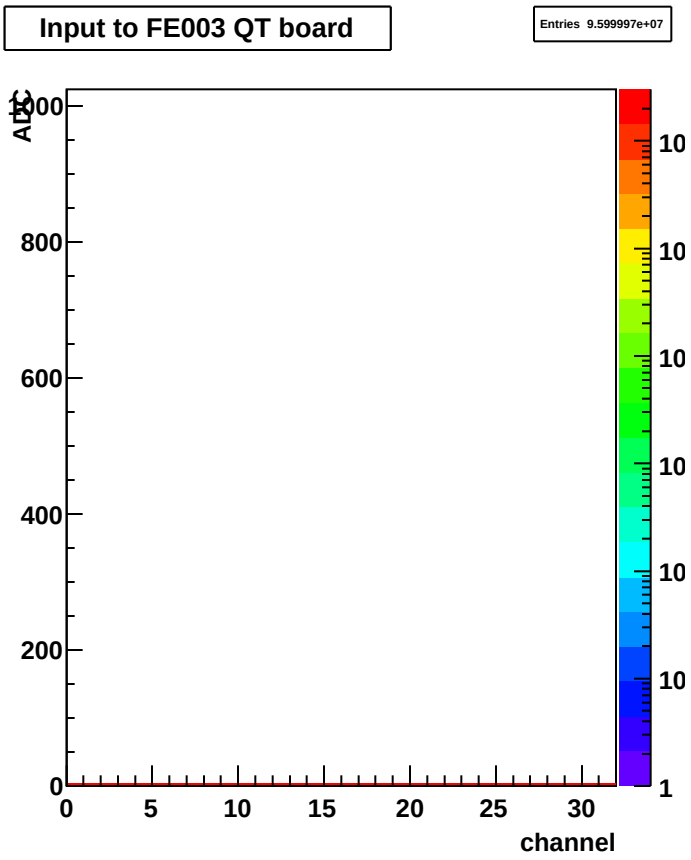

Input to FPD L2 DSM
Entries 8999997
HT bits
42255
291095
122544
88262
212087
156242
74951
2.6574e+06
2.55266e+06
2.8025e+06
SMALL
LARGE-S
LARGE-N

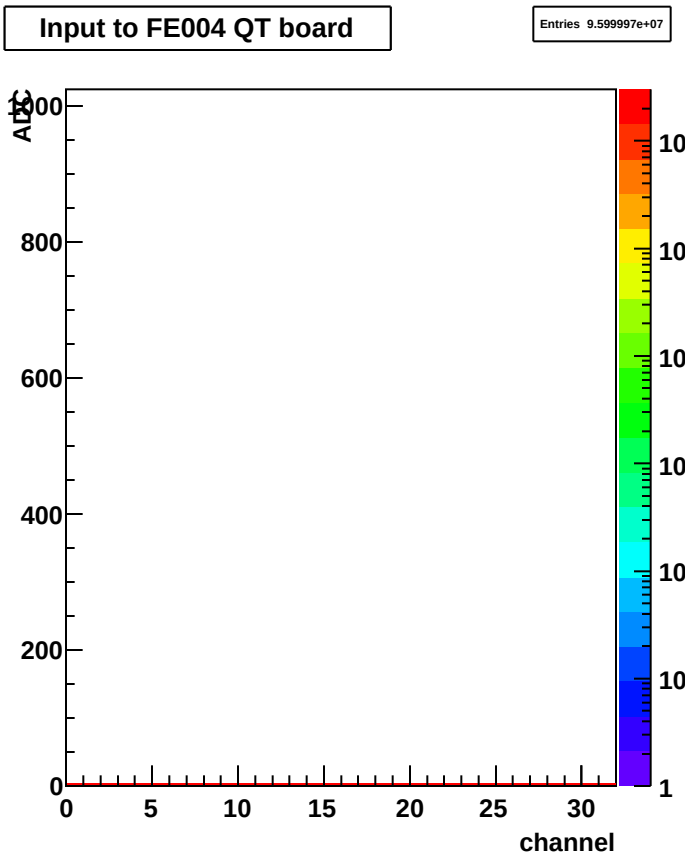

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

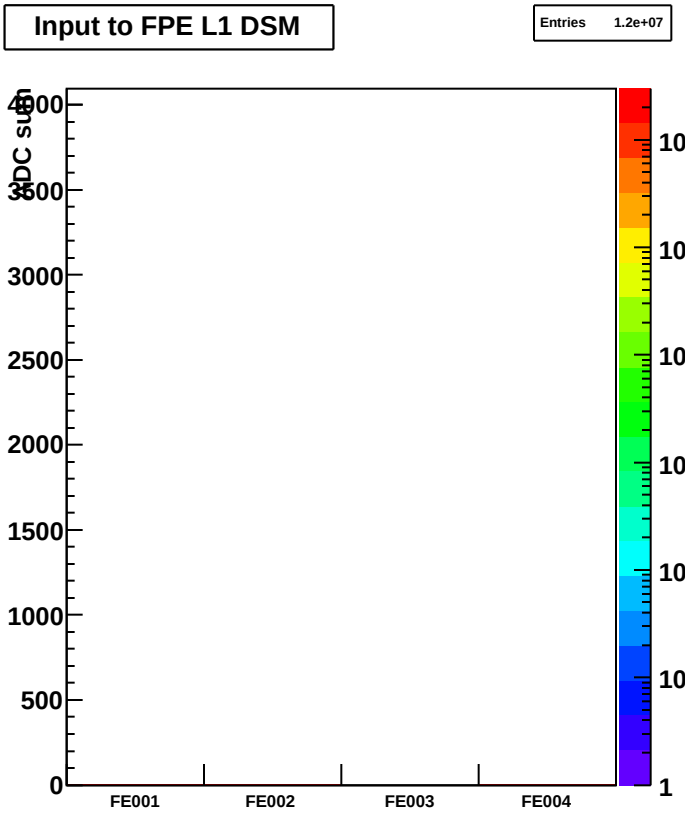

Input to FPD L2 DSM
Entries 1.799999e+07
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6


Input to FE001 QT board
Entries 9.599997e+07
ADC
channel

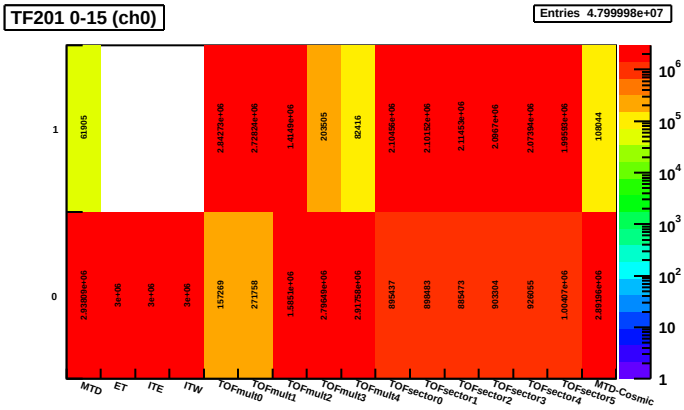

Input to FE002 QT board
Entries 9.599997e+07
ADC
channel


Input to FE003 QT board
Entries 9.599997e+07
ADC
channel

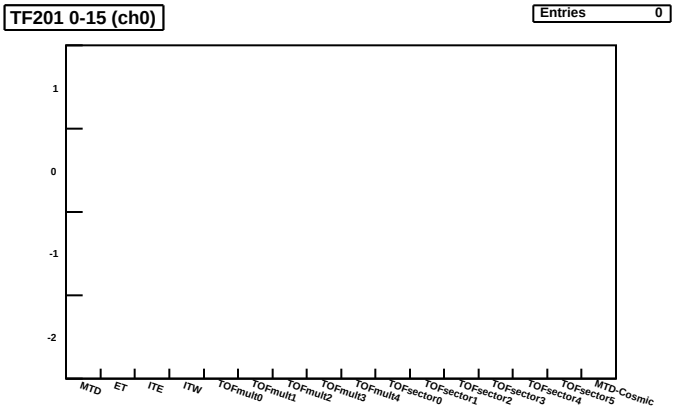

Input to FE004 QT board
Entries 9.599997e+07
ADC
channel


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)



TF201 0-15 (ch0)



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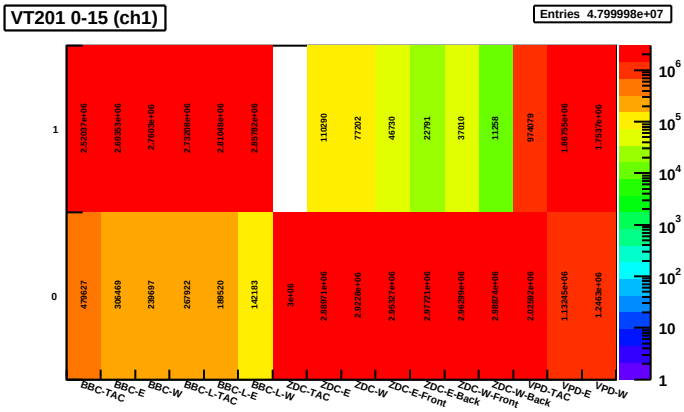

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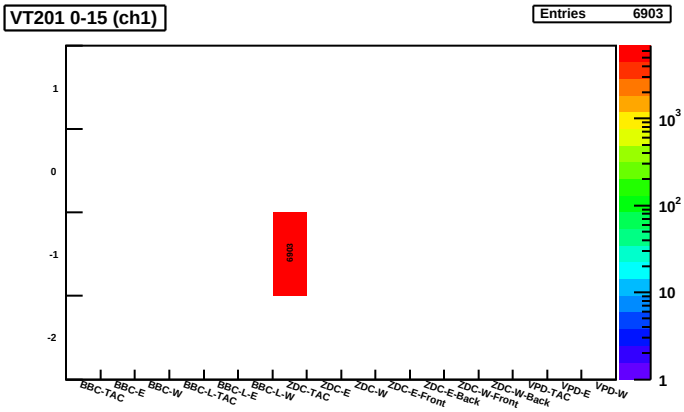

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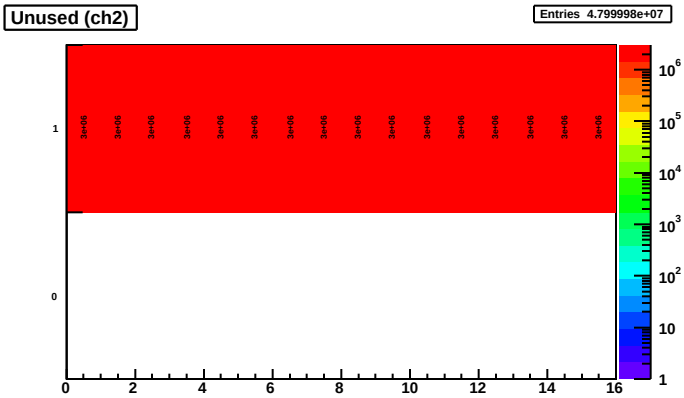
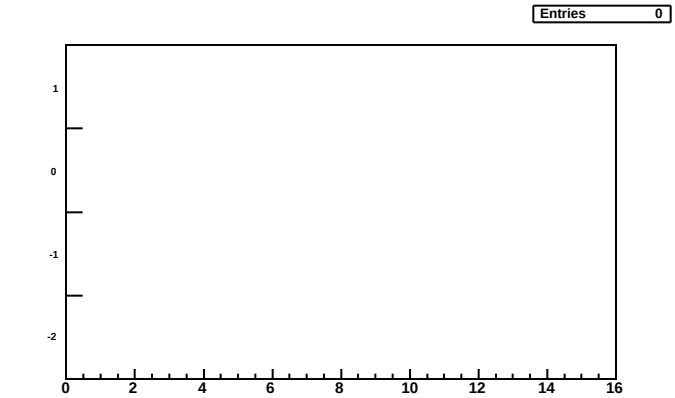
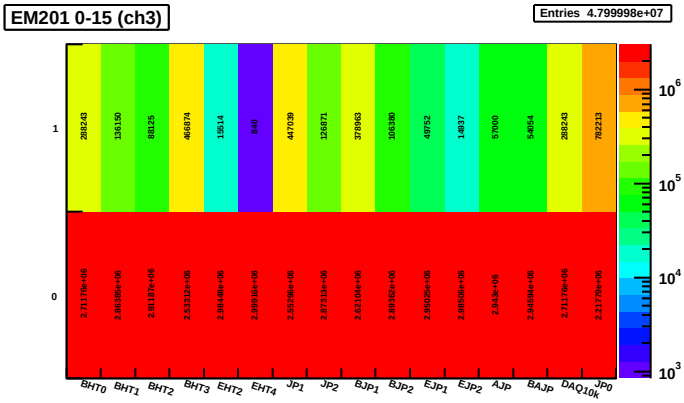




EM201 0-15 (ch3)



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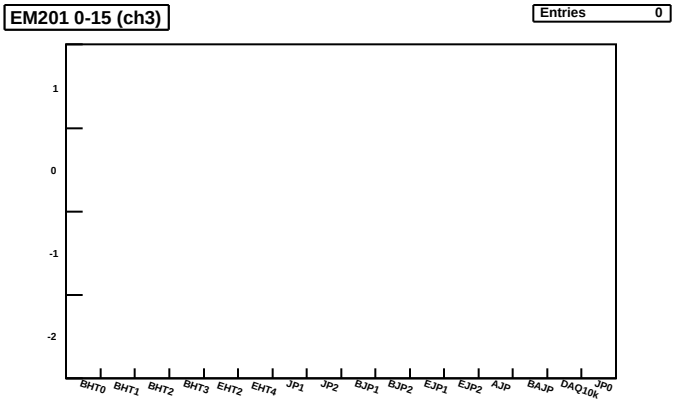
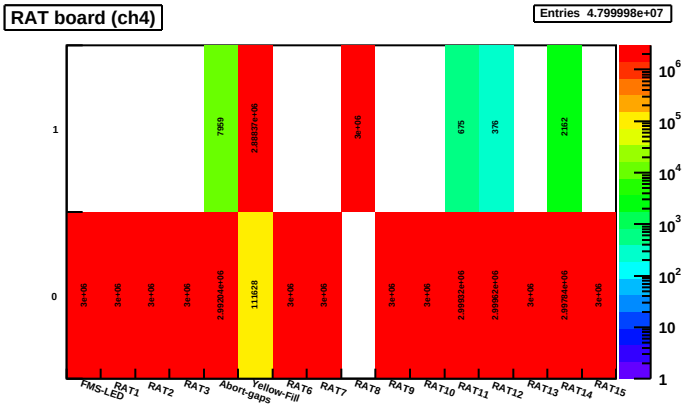
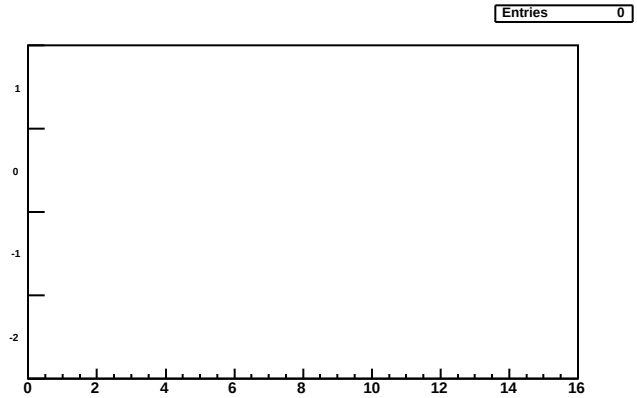
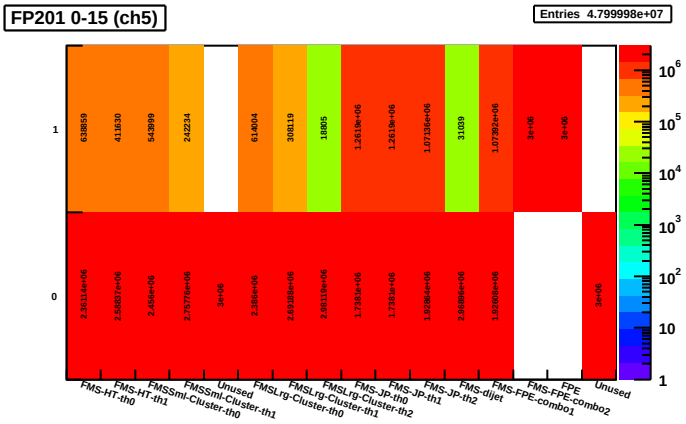


RAT board (ch4)





FP201 0-15 (ch5)



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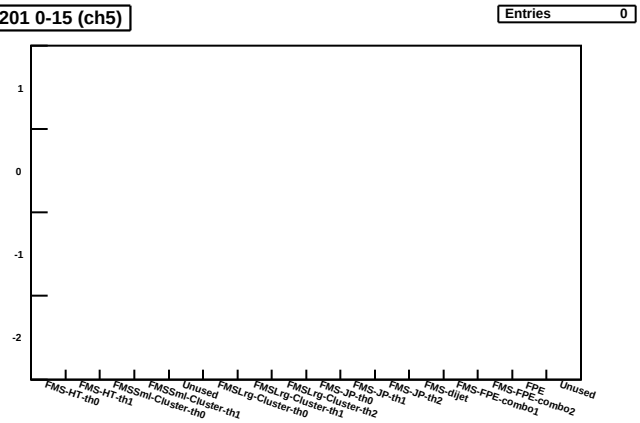
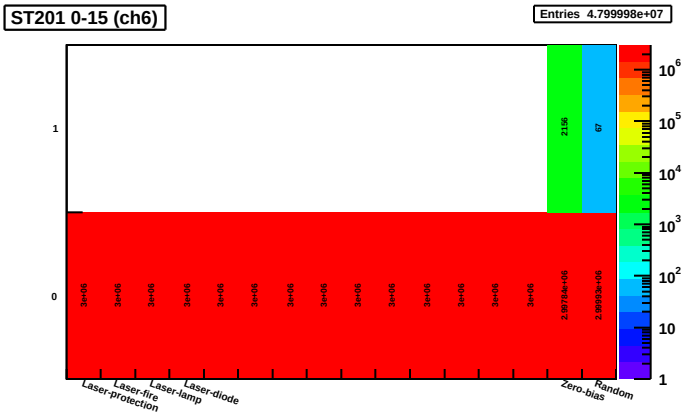
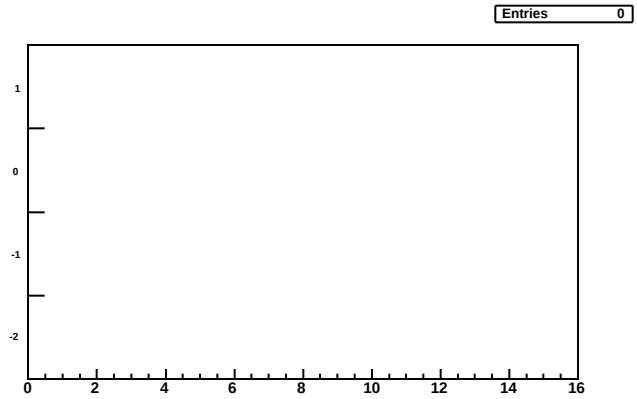
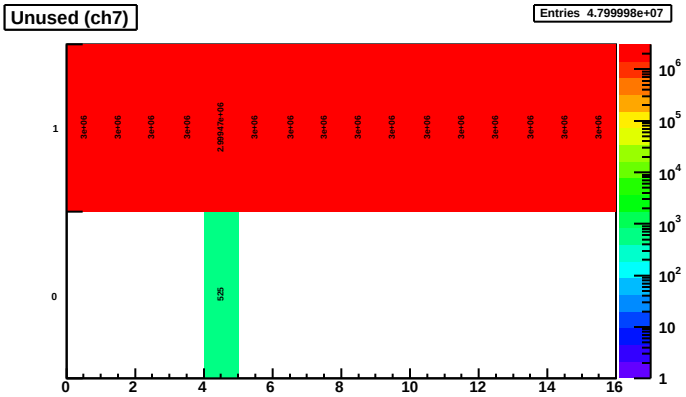
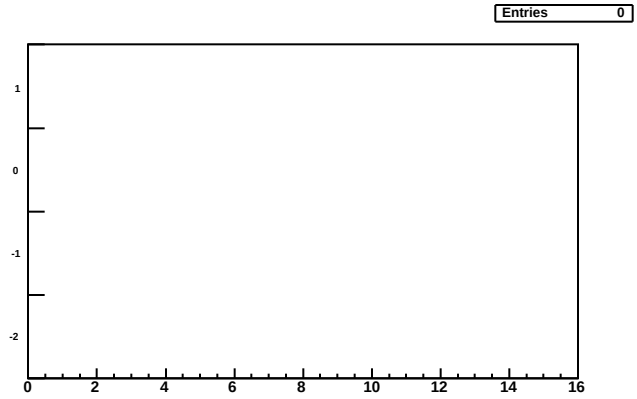


ST201 0-15 (ch6)





Unused (ch7)