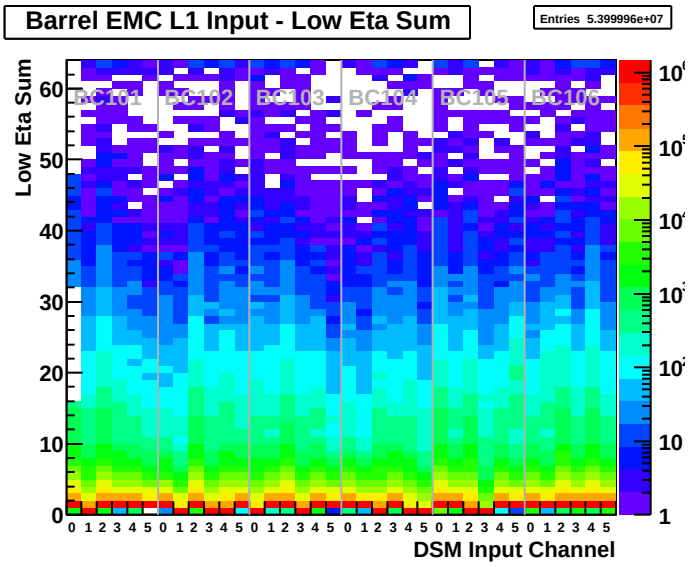
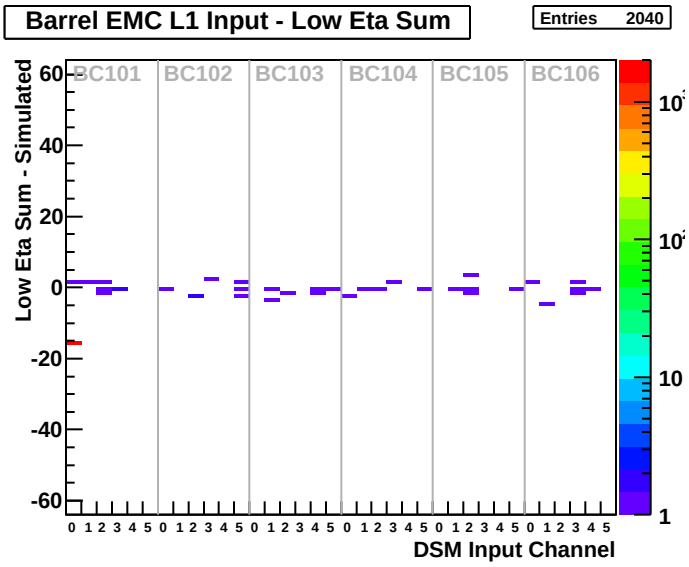
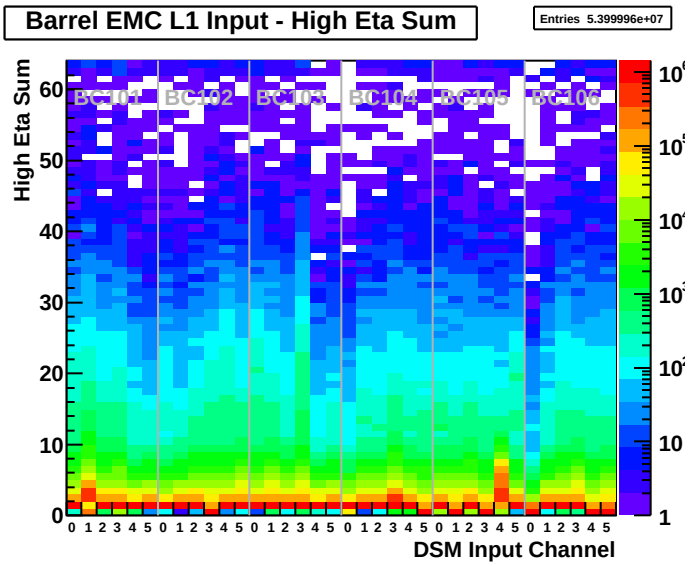
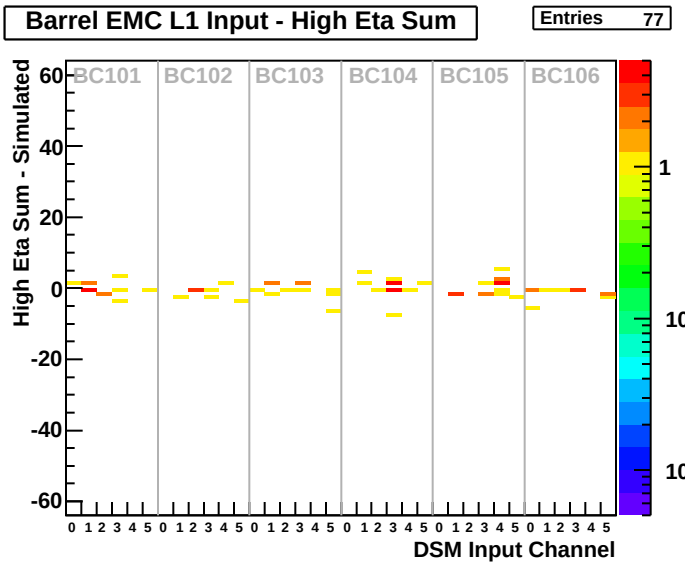
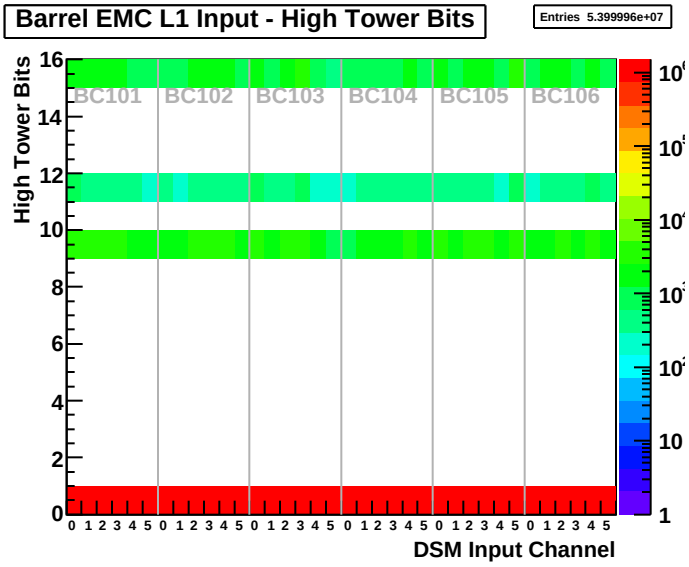
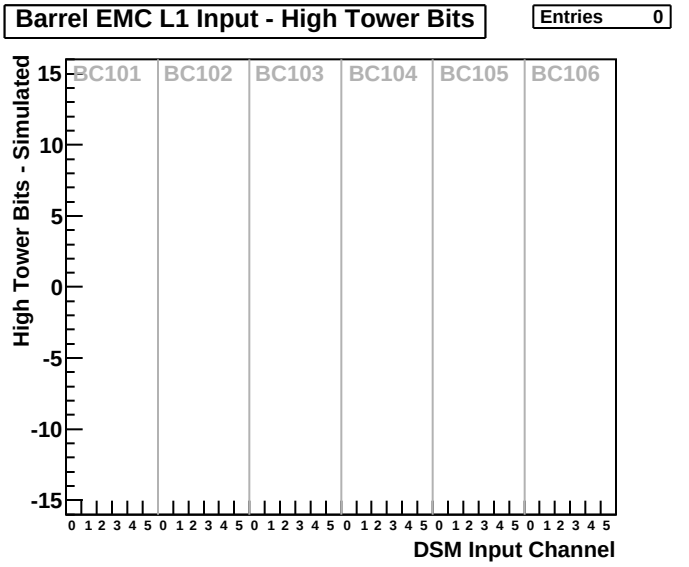

Barrel EMC L1 Input - Low Eta Sum
Entries 5.399996e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

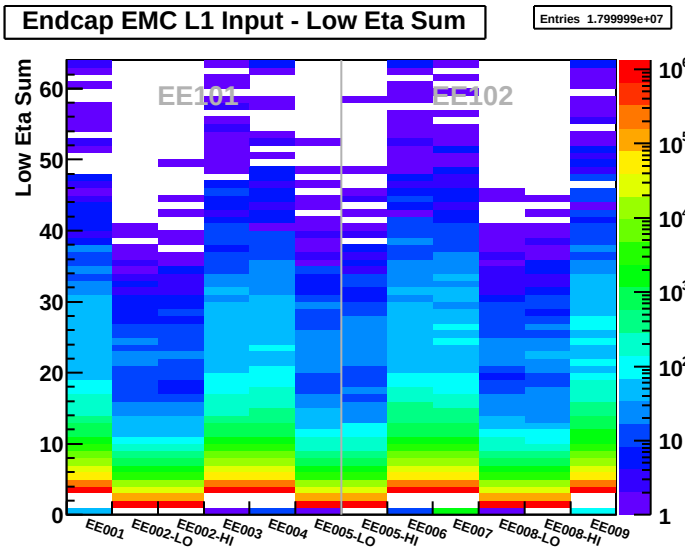

Barrel EMC L1 Input - Low Eta Sum
Entries 2040
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

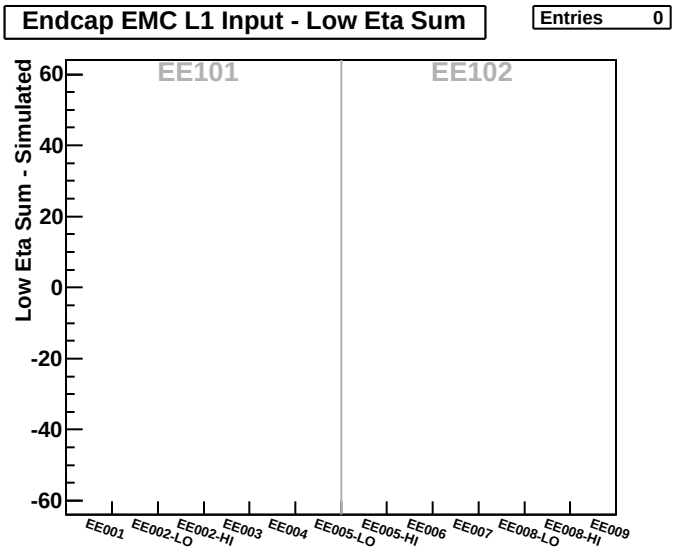

Barrel EMC L1 Input - High Eta Sum
Entries 5.399996e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

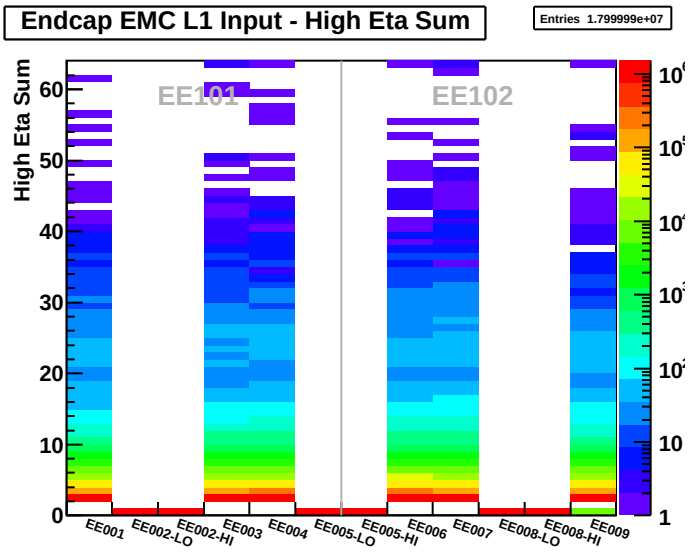

Barrel EMC L1 Input - High Eta Sum
Entries 77
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

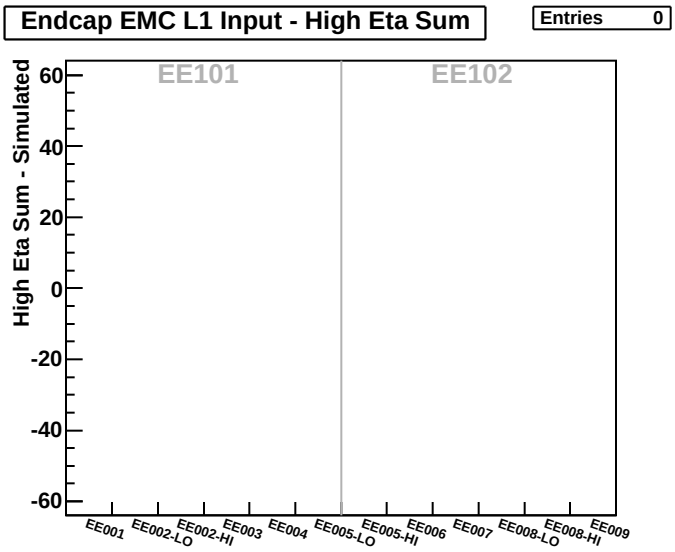

Barrel EMC L1 Input - High Tower Bits
Entries 5.399996e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

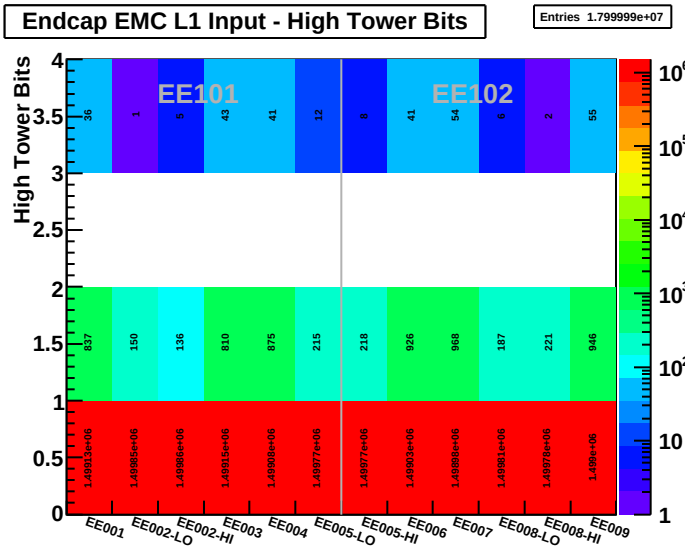

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

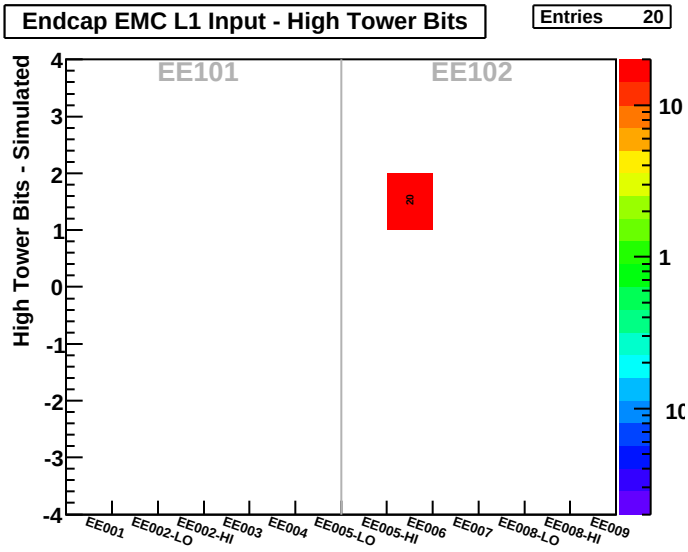

Endcap EMC L1 Input - Low Eta Sum
Entries 1.799999e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

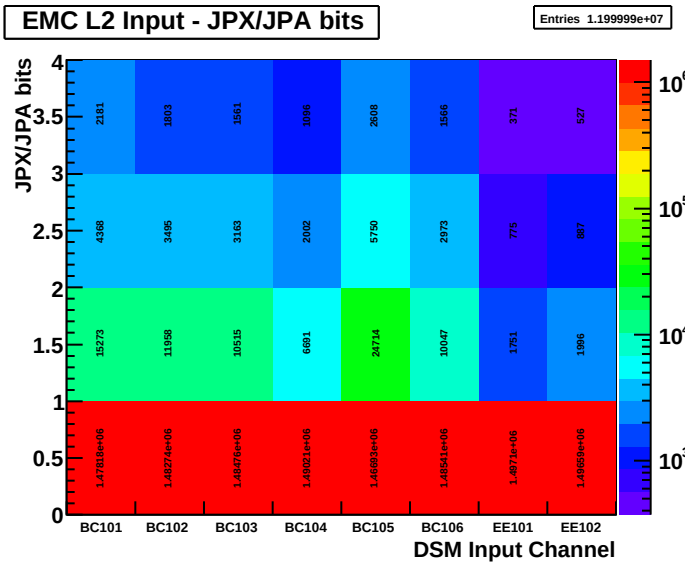

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

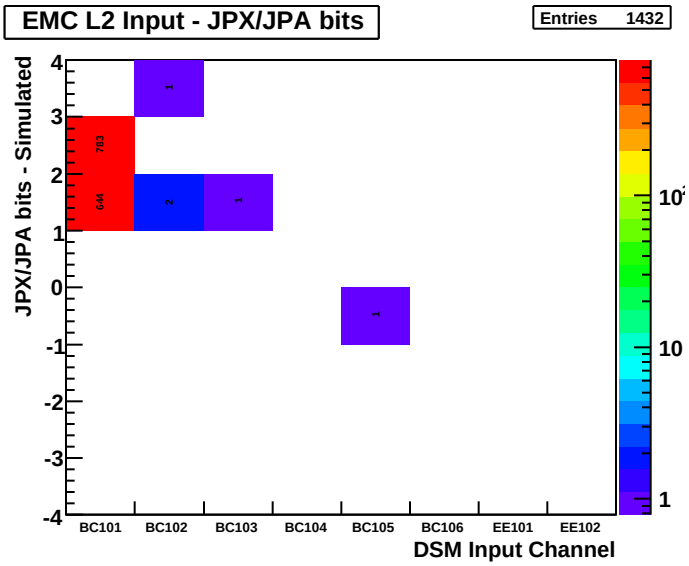

Endcap EMC L1 Input - High Eta Sum
Entries 1.799999e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

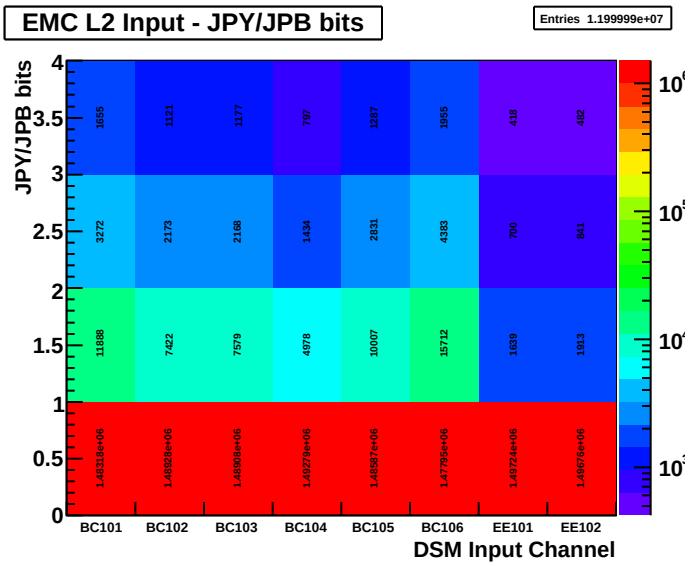

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

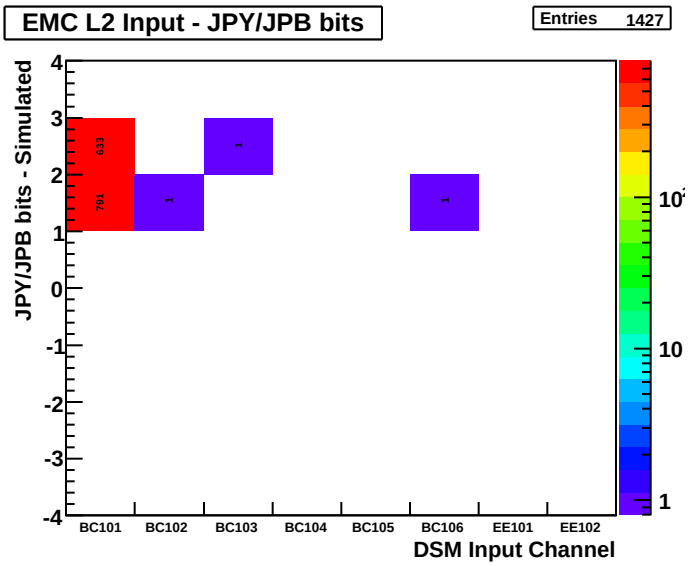

Endcap EMC L1 Input - High Tower Bits
Entries 1.799999e+07
High Tower Bits
EE101
EE102
36 1 5 43 41 12 8 41 54 6 2 55
837 150 136 810 875 215 218 926 968 187 221 946
1.49913e+06 1.49985e+06 1.49936e+06 1.49915e+06 1.49909e+06 1.49977e+06 1.49977e+06 1.49903e+06 1.49898e+06 1.49981e+06 1.49978e+06 1.499e+06
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

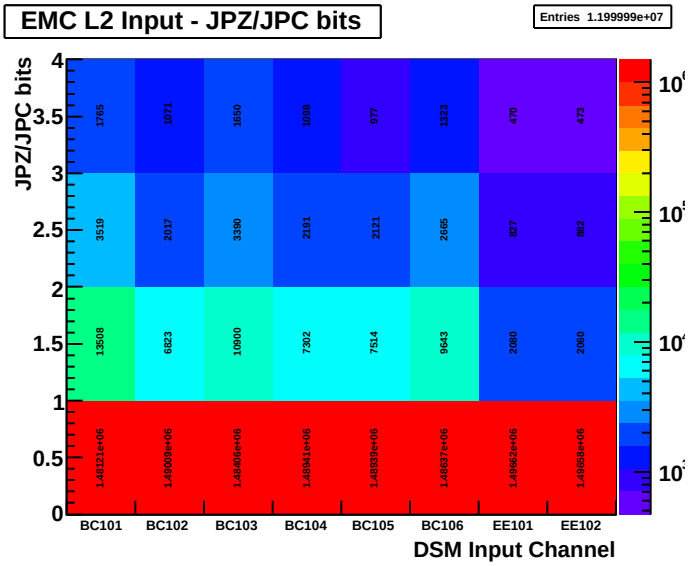

Endcap EMC L1 Input - High Tower Bits
Entries 20
High Tower Bits - Simulated
EE101
EE102
20
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

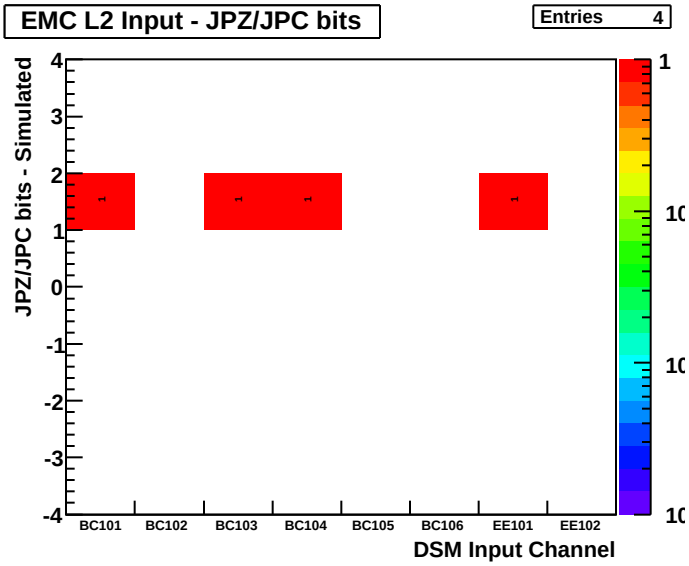

EMC L2 Input - JPX/JPA bits
Entries 1.199999e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2181 1803 1561 1096 2608 1566 371 527
4368 3495 3163 2002 5790 2973 775 887
15273 11958 10515 6691 24714 10047 1751 1996
1.47818e+06 1.48274e+06 1.48476e+06 1.49021e+06 1.46693e+06 1.48541e+06 1.4971e+06 1.49659e+06

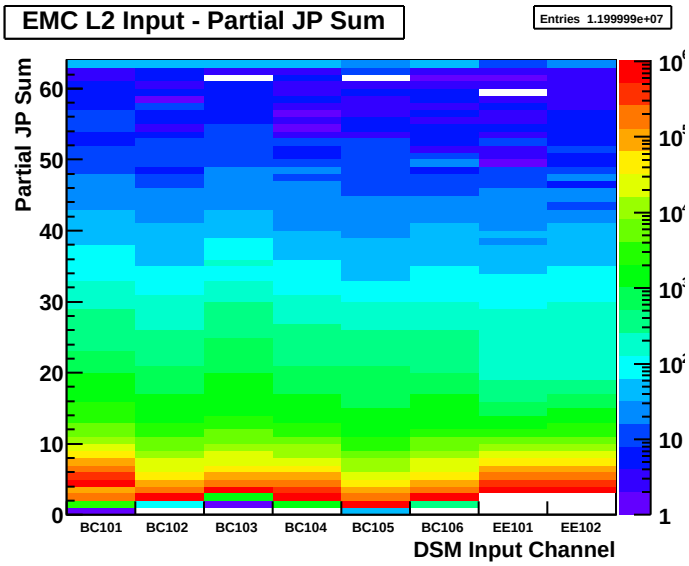

EMC L2 Input - JPX/JPA bits
Entries 1432
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
783 1
644 2 1
1

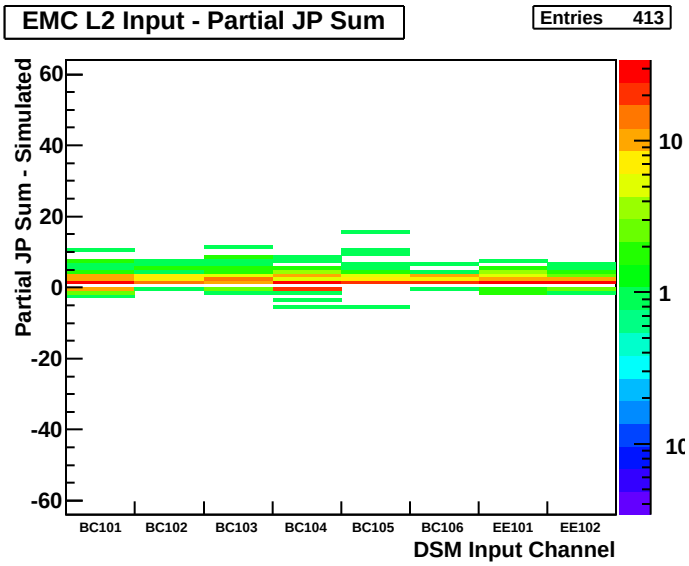

EMC L2 Input - JPY/JPB bits
Entries 1.199999e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1655 1121 1177 797 1287 1955 418 482
3272 2173 2168 1434 2831 4383 700 841
11888 7422 7579 4978 10007 15712 1639 1913
1.48318e+06 1.48928e+06 1.48908e+06 1.49279e+06 1.48597e+06 1.47795e+06 1.49724e+06 1.49676e+06

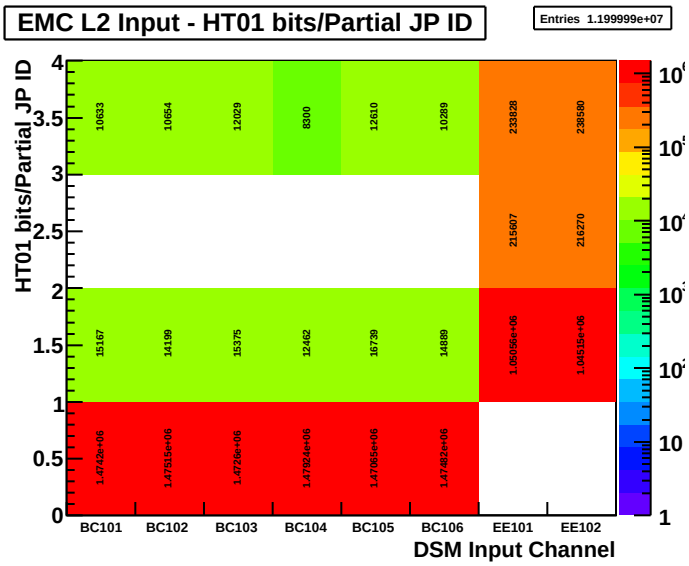

EMC L2 Input - JPY/JPB bits
Entries 1427
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
633 1
791 1 1

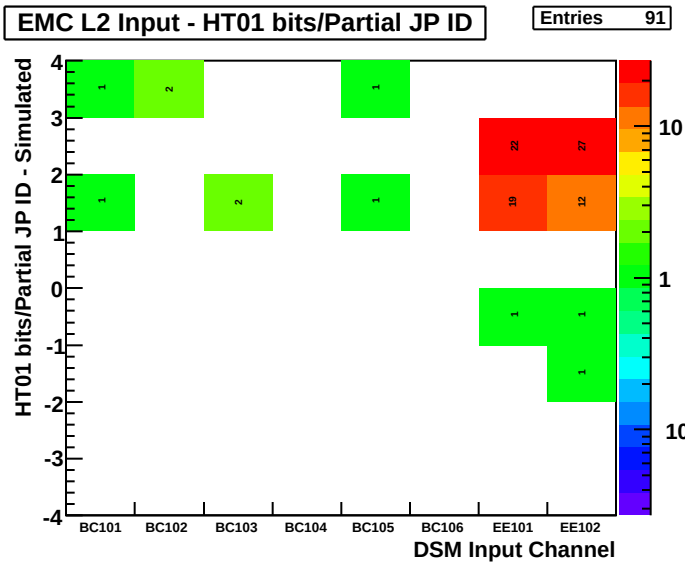

EMC L2 Input - JPZ/JPC bits
Entries 1.199999e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1765 1071 1650 1098 977 1323 470 473
3519 2017 3390 2191 2121 2665 827 882
13508 6823 10900 7302 7514 9643 2080 2060
1.48121e+06 1.49009e+06 1.48406e+06 1.48941e+06 1.48939e+06 1.48637e+06 1.49662e+06 1.49658e+06

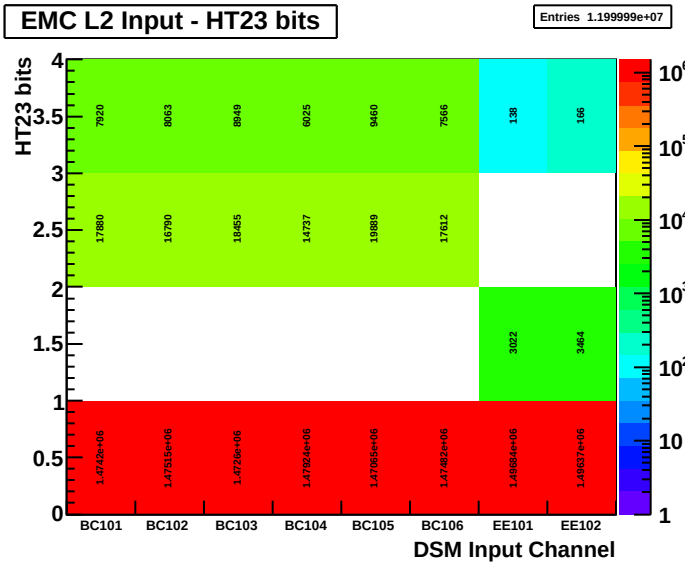

EMC L2 Input - JPZ/JPC bits
Entries 4
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1 1 1 1

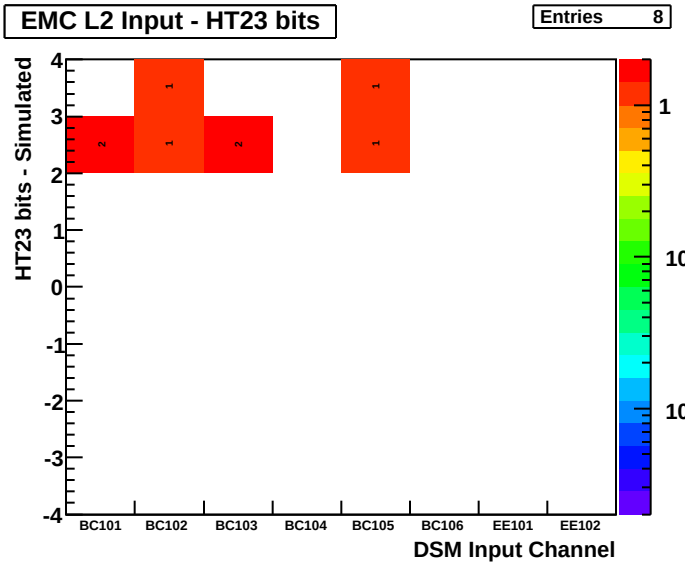

EMC L2 Input - Partial JP Sum
Entries 1.199999e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

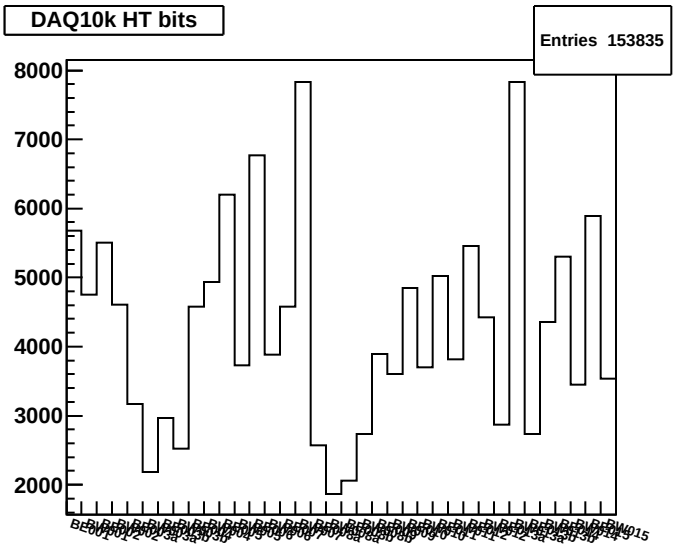

EMC L2 Input - Partial JP Sum
Entries 413
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

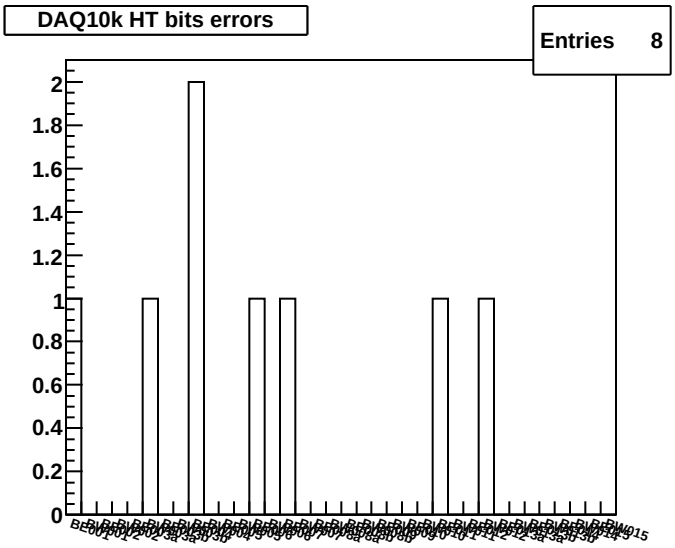

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1.199999e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

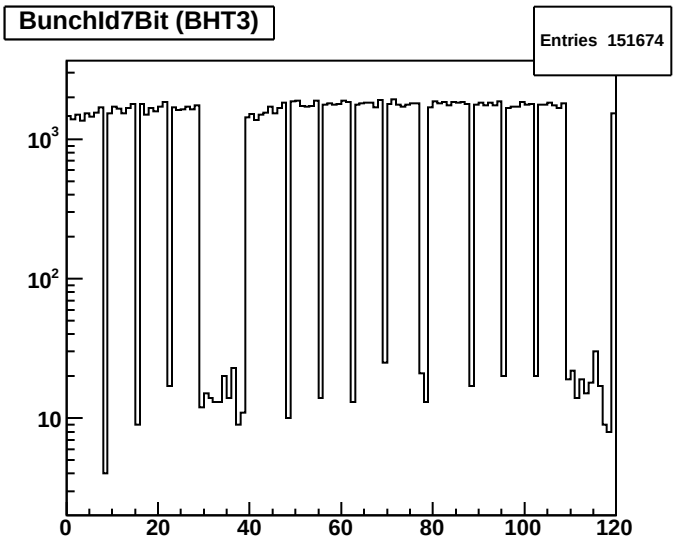

EMC L2 Input - HT01 bits/Partial JP ID
Entries 91
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

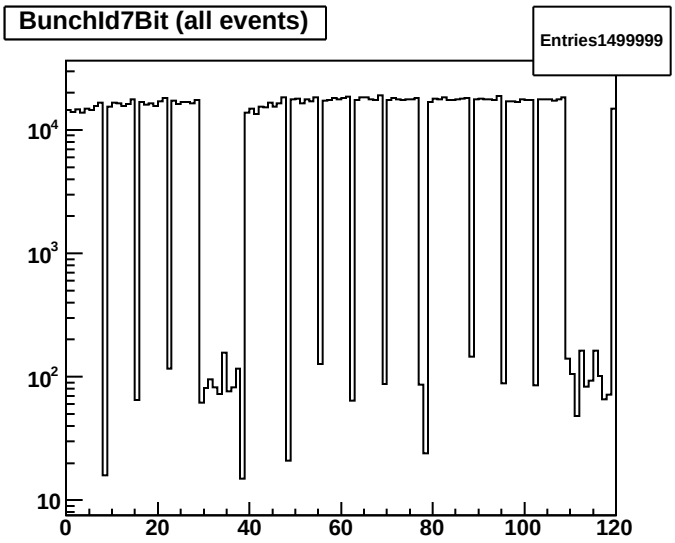

EMC L2 Input - HT23 bits
Entries 1.199999e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

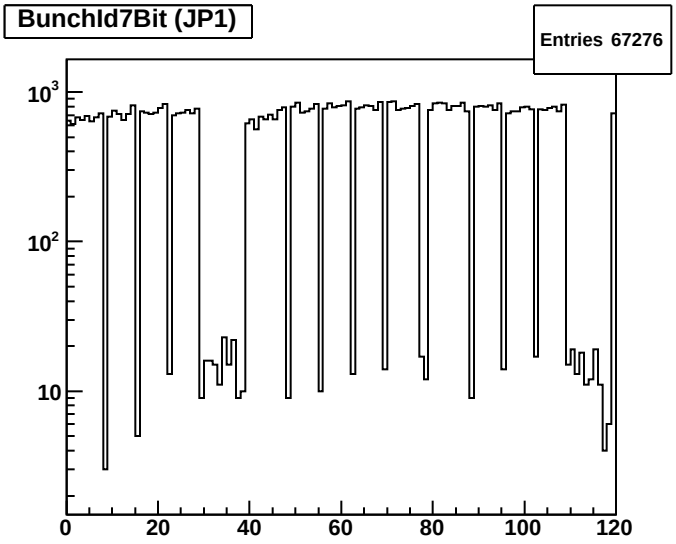

EMC L2 Input - HT23 bits
Entries 8
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

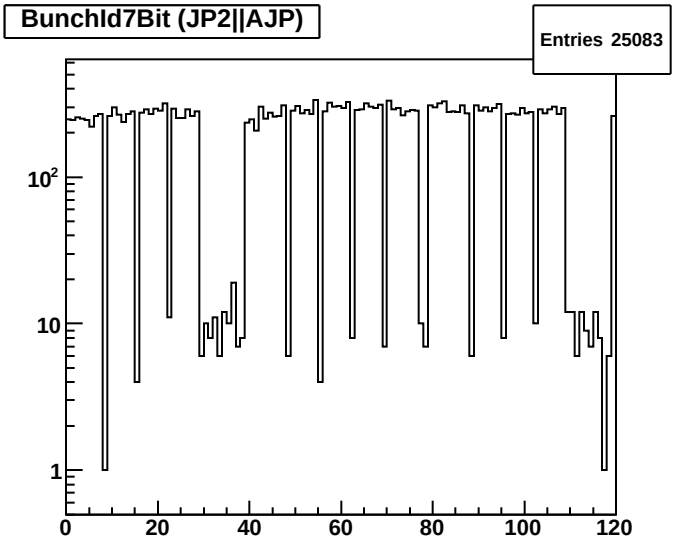

DAQ10k HT bits
Entries 153835
8000
7000
6000
5000
4000
3000
2000

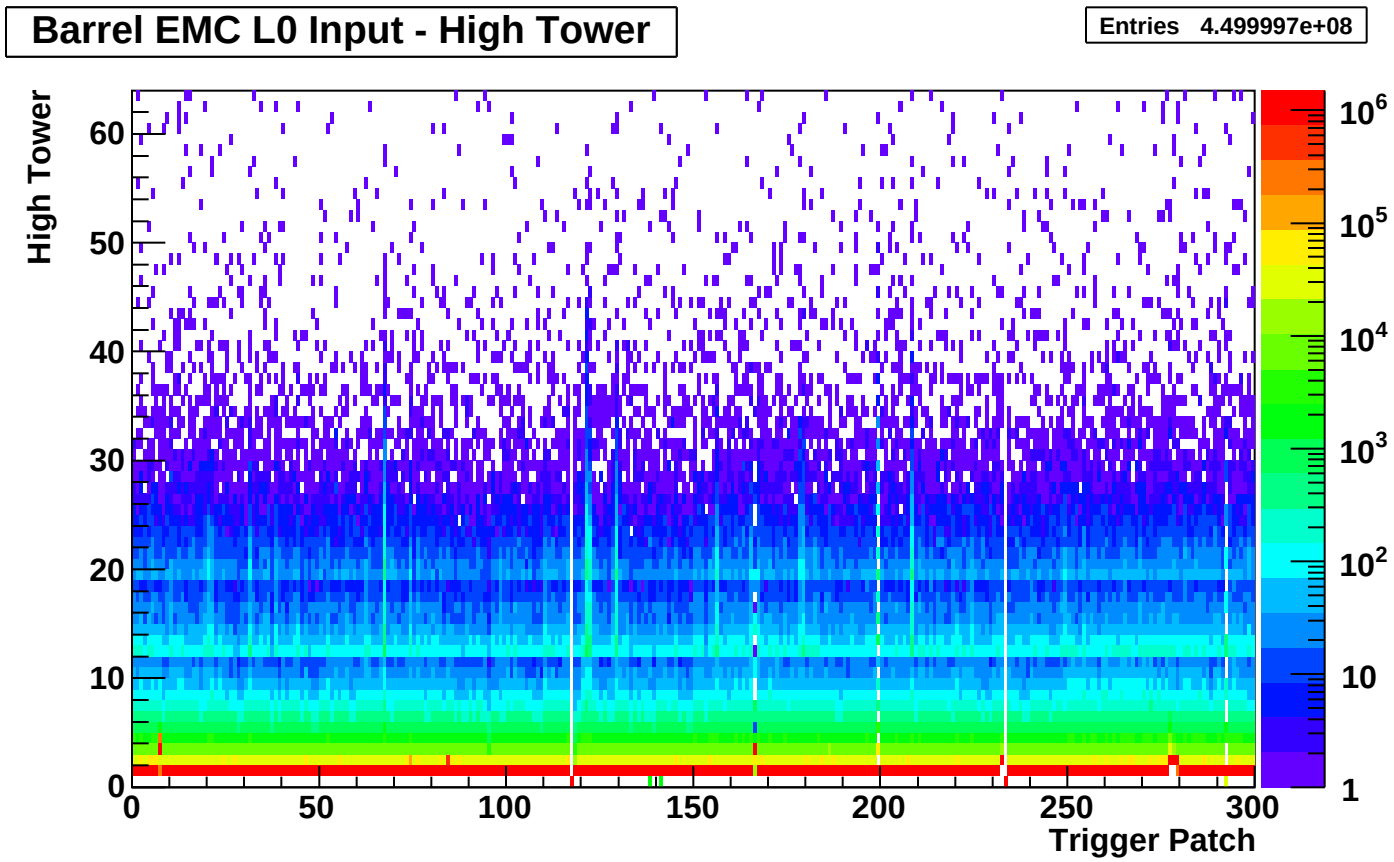

DAQ10k HT bits errors
Entries 8
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0

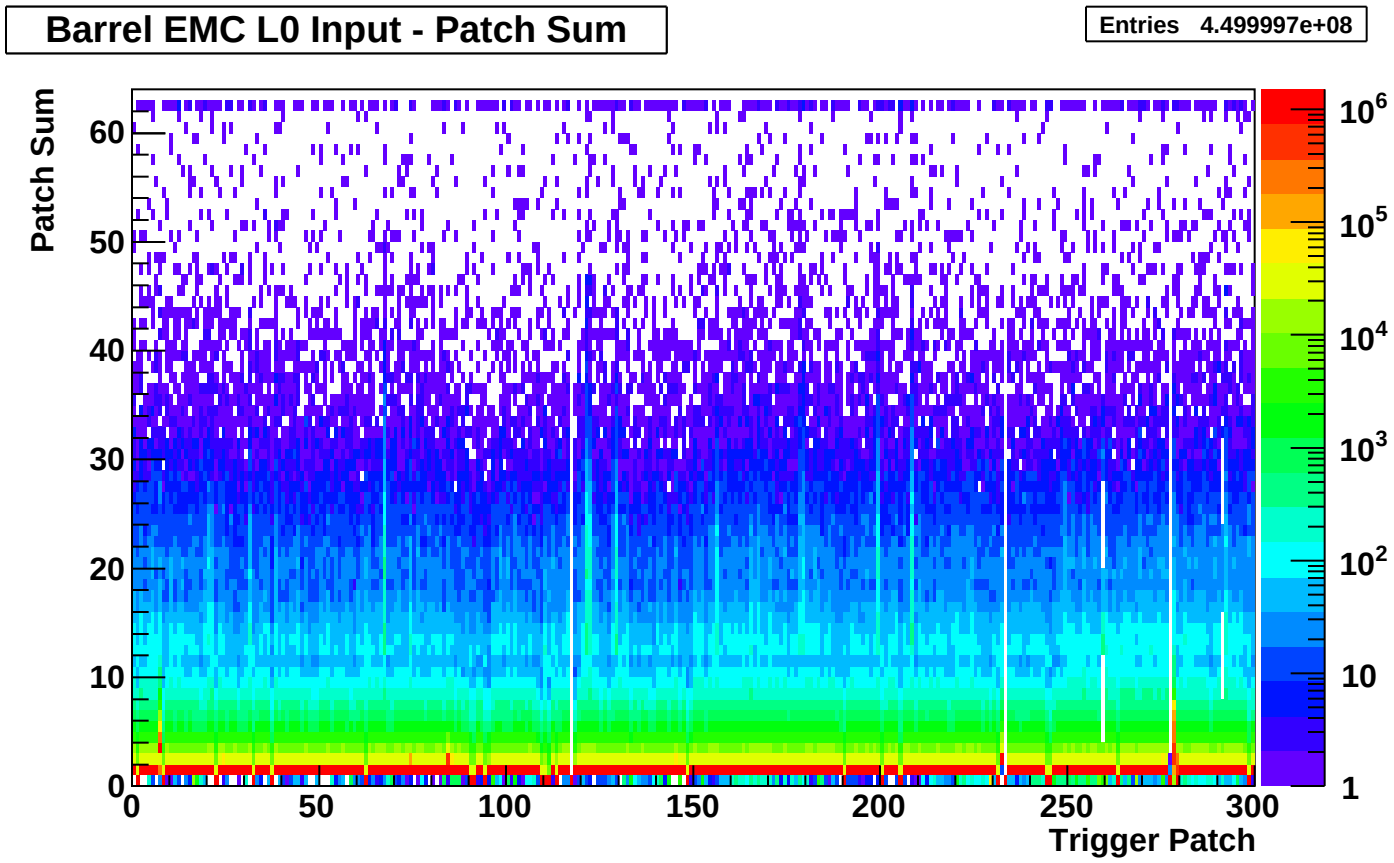

BunchId7Bit (BHT3)
Entries 151674
10^3
10^2
10
0
20
40
60
80
100
120

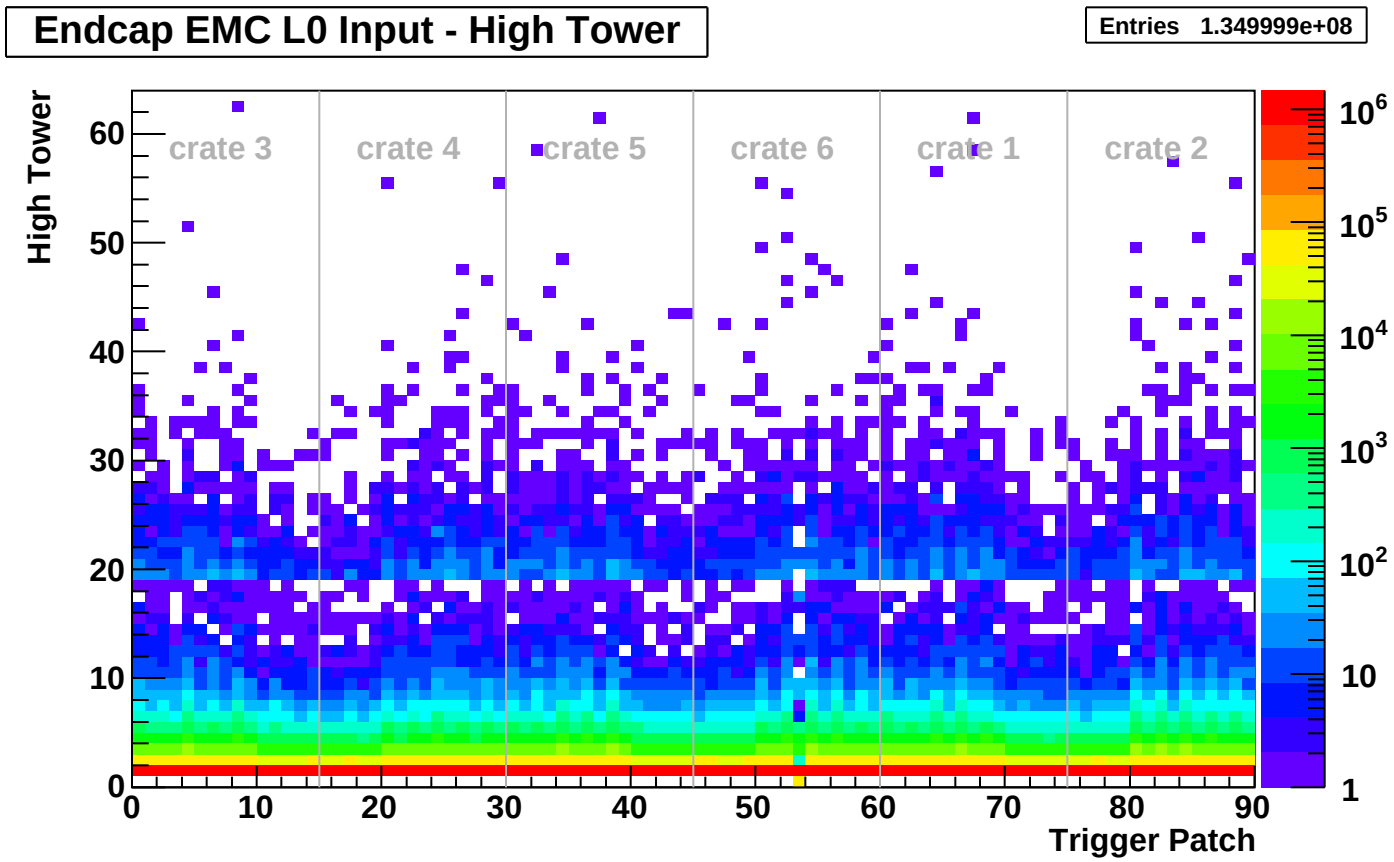

BunchId7Bit (all events)
Entries1499999
10^4
10^3
10^2
10
0
20
40
60
80
100
120

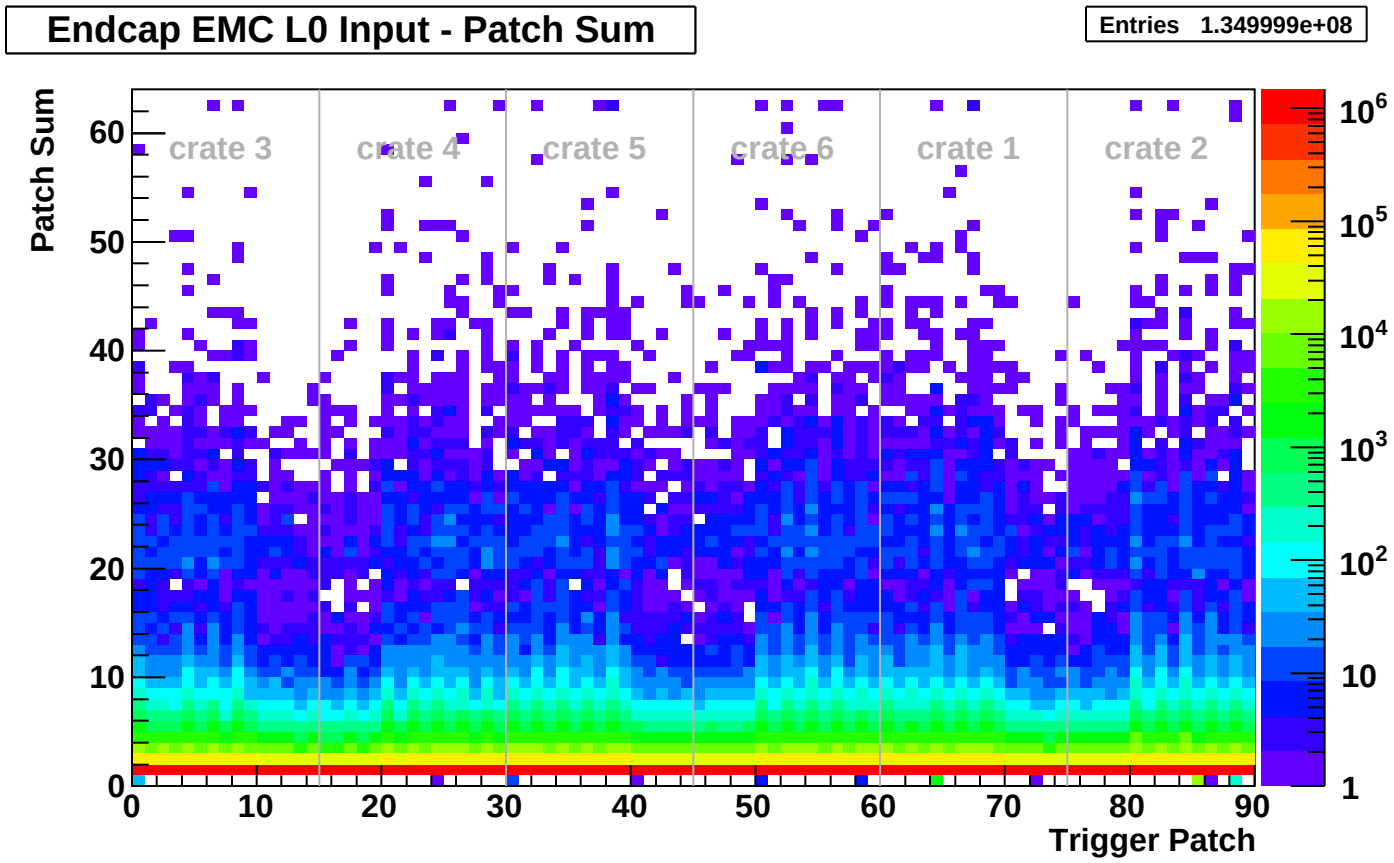

BunchId7Bit (JP1)
Entries 67276
10^3
10^2
10
0
20
40
60
80
100
120

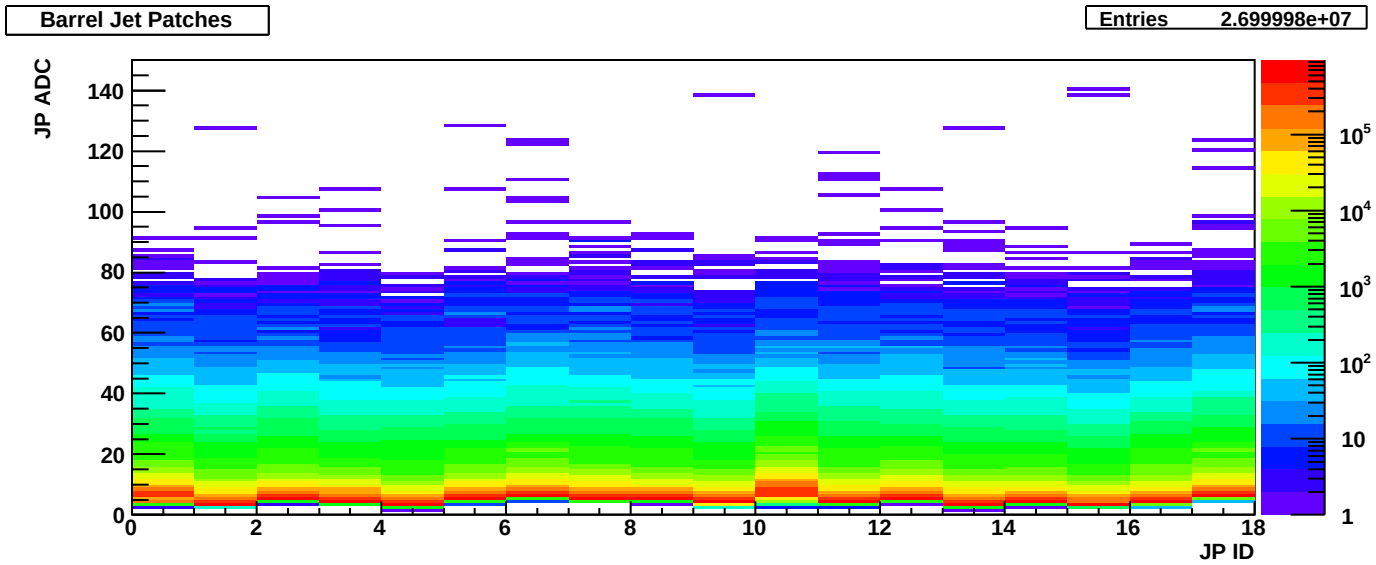

BunchId7Bit (JP2||AJP)
Entries 25083
10^2
10
1
0
20
40
60
80
100
120

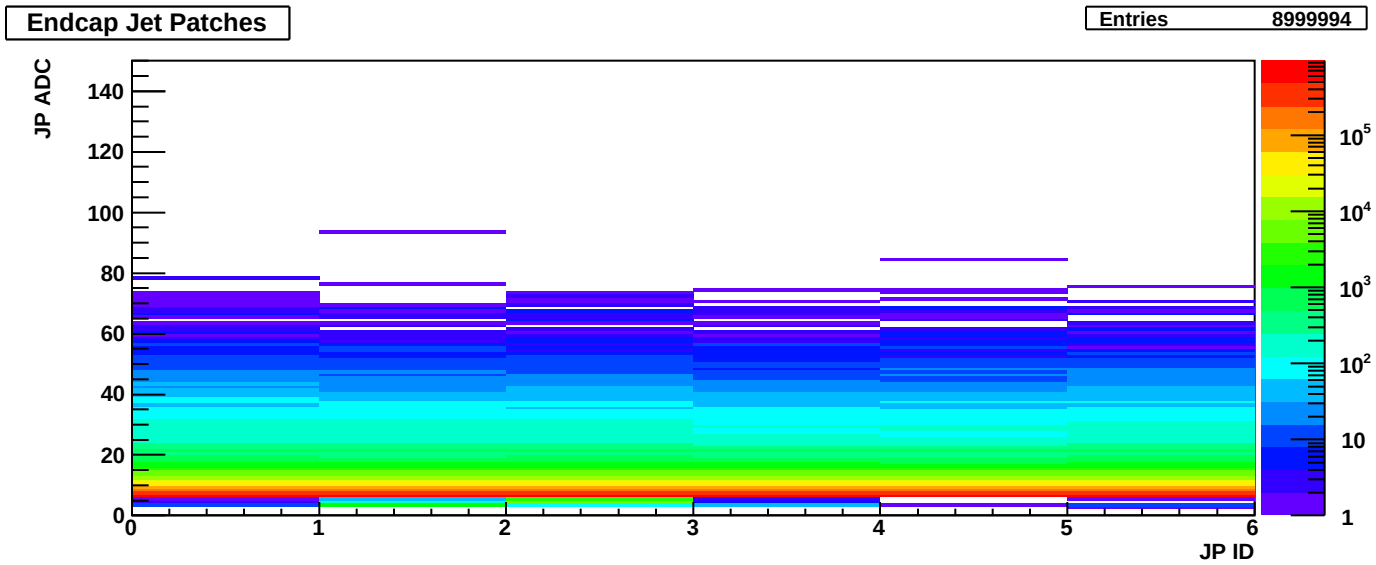

Barrel EMC L0 Input - High Tower
Entries 4.499997e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

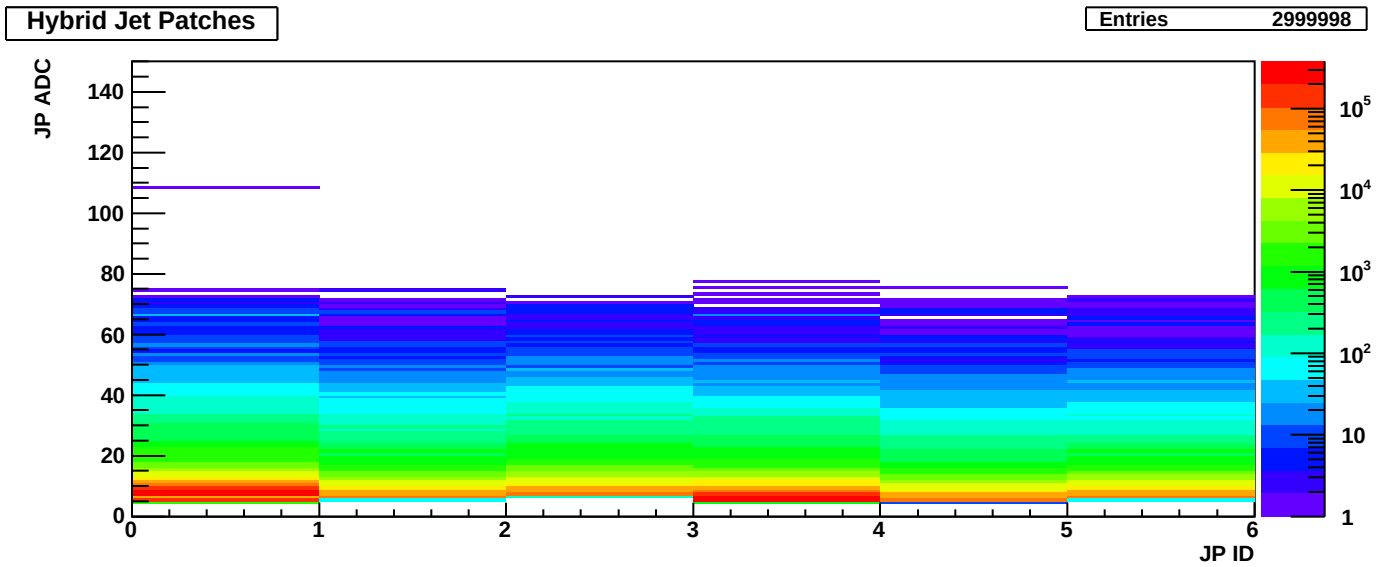

Barrel EMC L0 Input - Patch Sum
Entries 4.499997e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

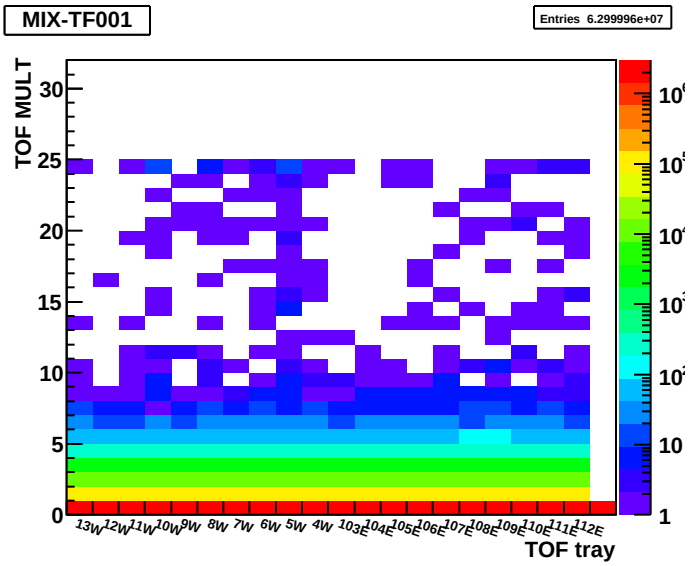

Endcap EMC L0 Input - High Tower
Entries 1.349999e+08
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

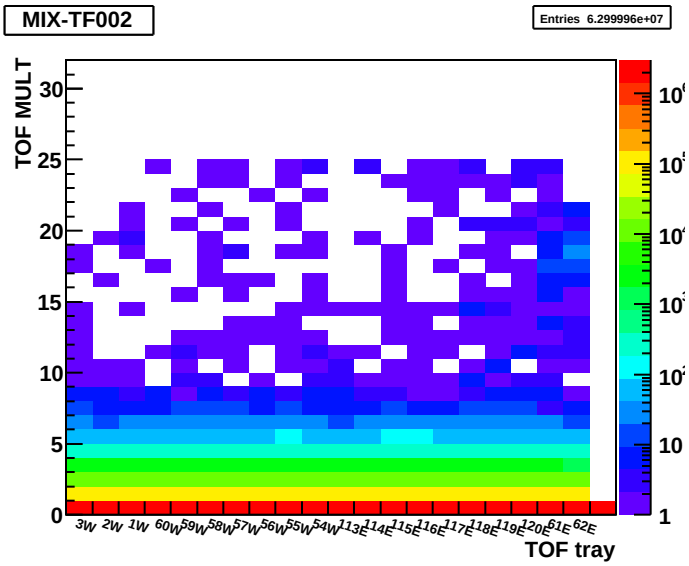

Endcap EMC L0 Input - Patch Sum
Entries 1.349999e+08
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

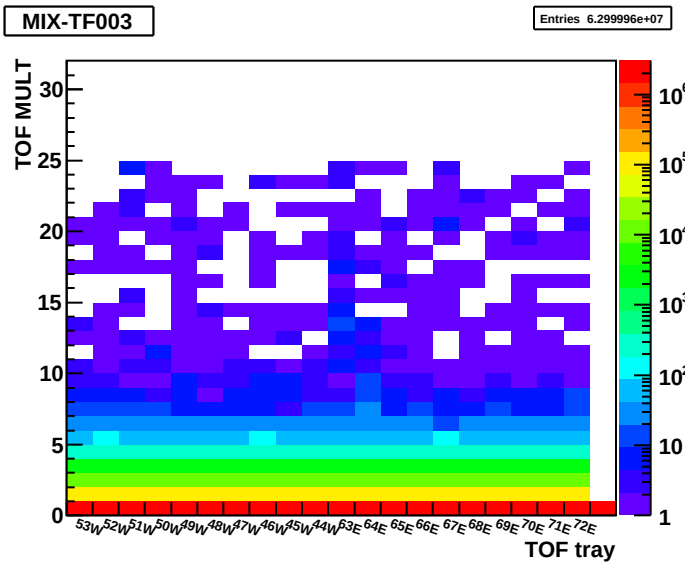

Barrel Jet Patches
Entries 2.699998e+07
JP ADC
JP ID

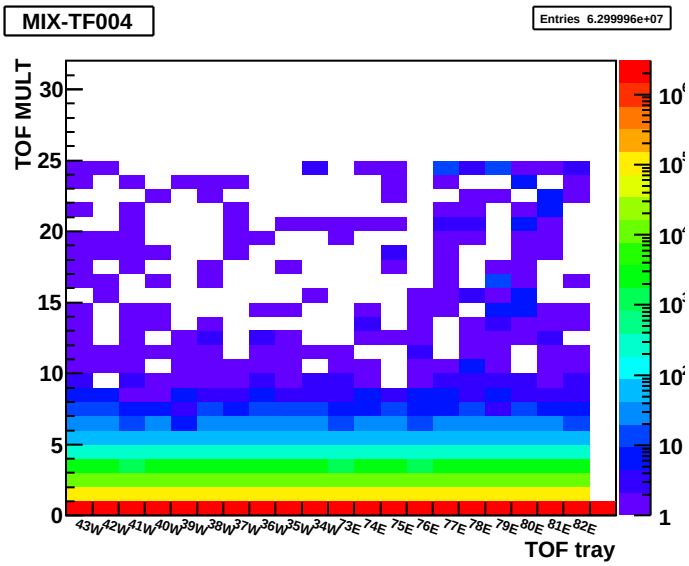

Endcap Jet Patches
Entries 8999994
JP ADC
JP ID

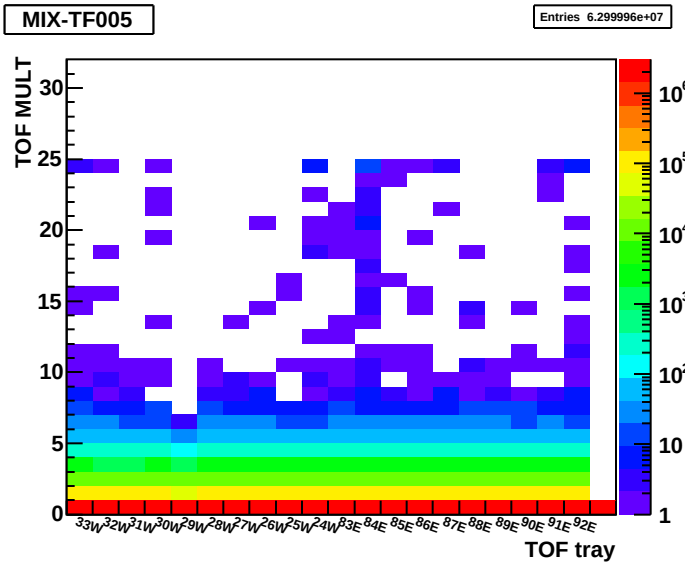

Hybrid Jet Patches
Entries 2999998
JP ADC
JP ID

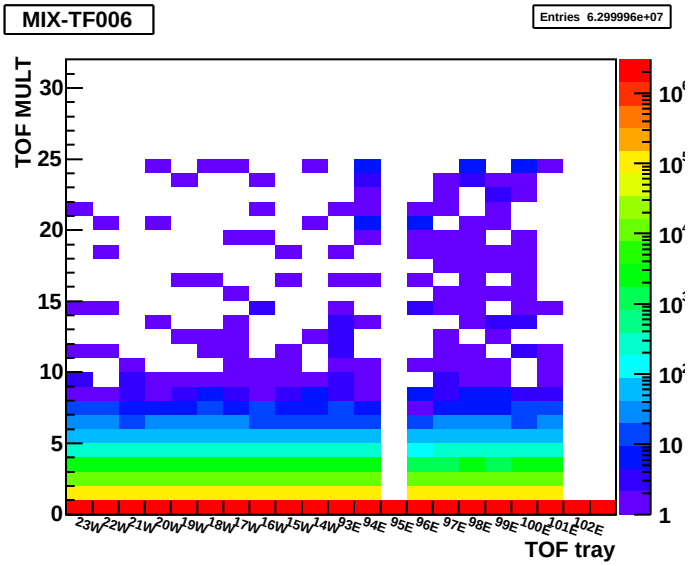

MIX-TF001
Entries 6.299996e+07
TOF MULT
TOF tray

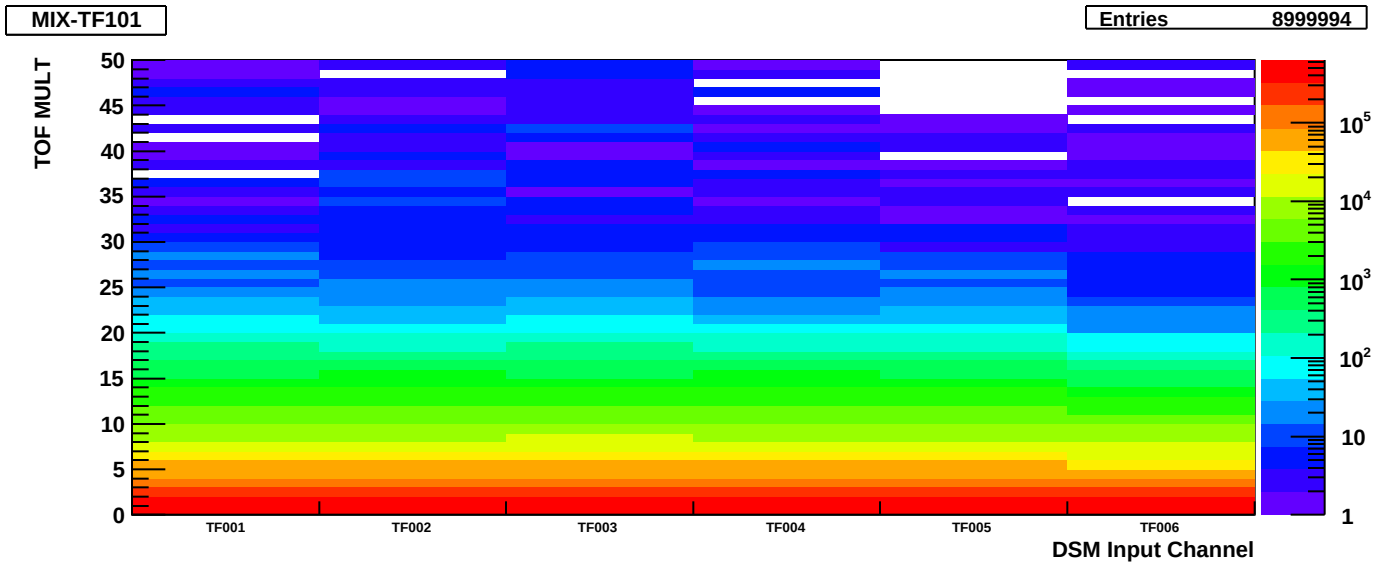

MIX-TF002
Entries 6.299996e+07
TOF MULT
TOF tray

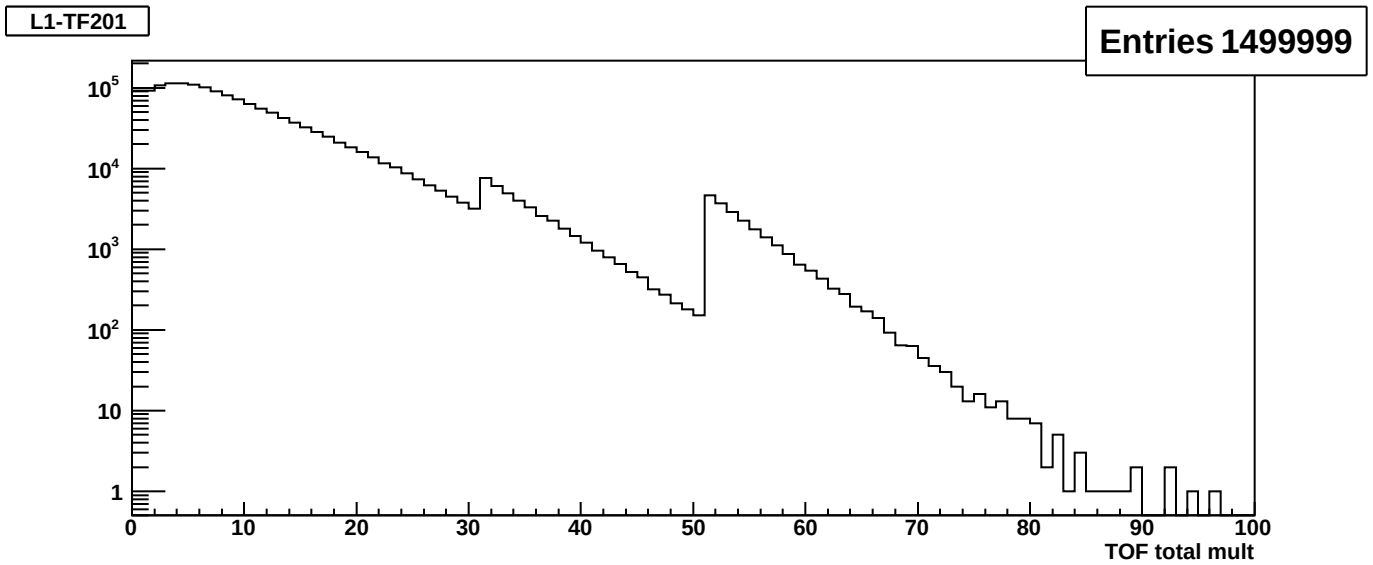

MIX-TF003
Entries 6.299996e+07
TOF MULT
TOF tray

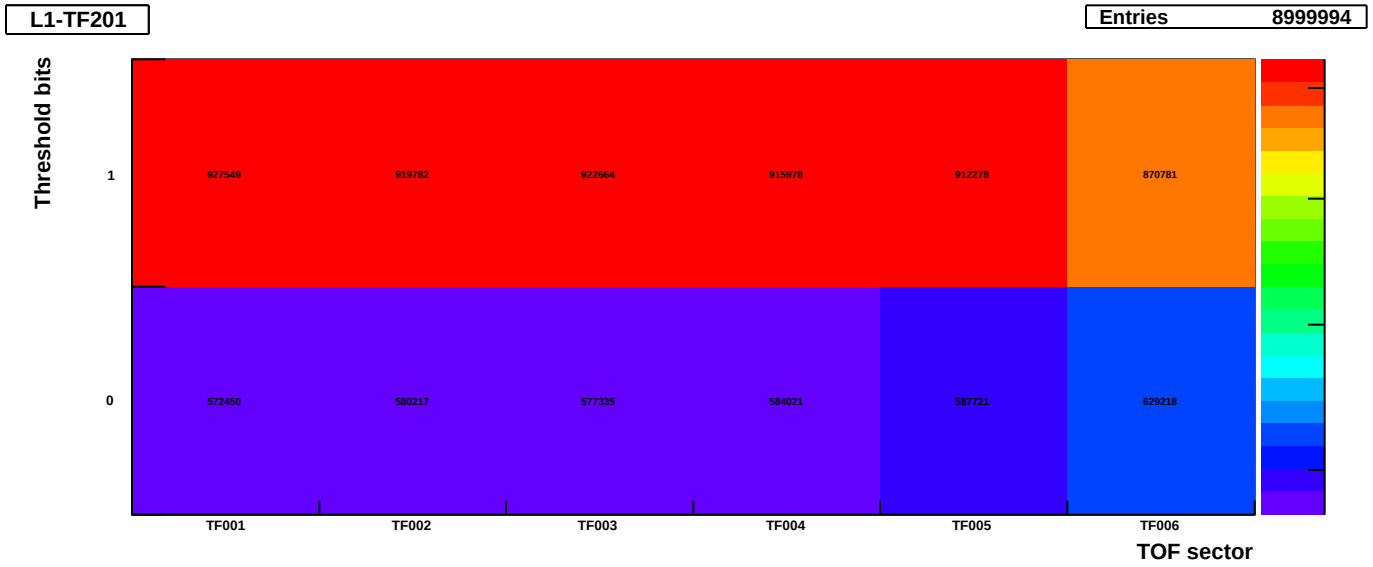

MIX-TF004
Entries 6.299996e+07
TOF MULT
TOF tray

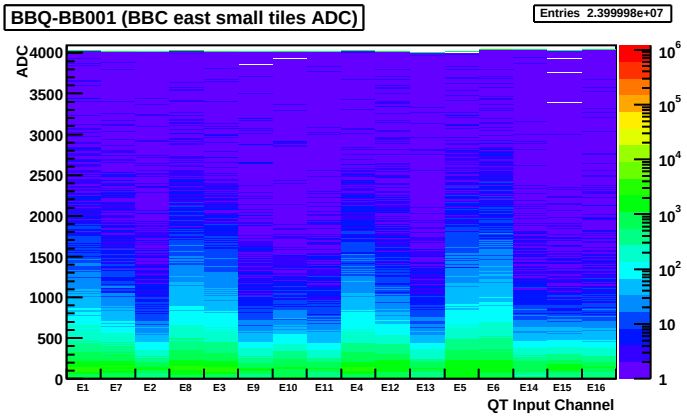

MIX-TF005
Entries 6.299996e+07
TOF MULT
TOF tray

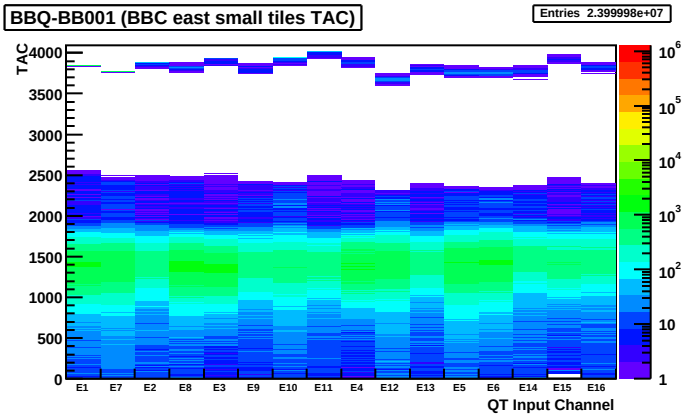

MIX-TF006
Entries 6.299996e+07
TOF MULT
TOF tray

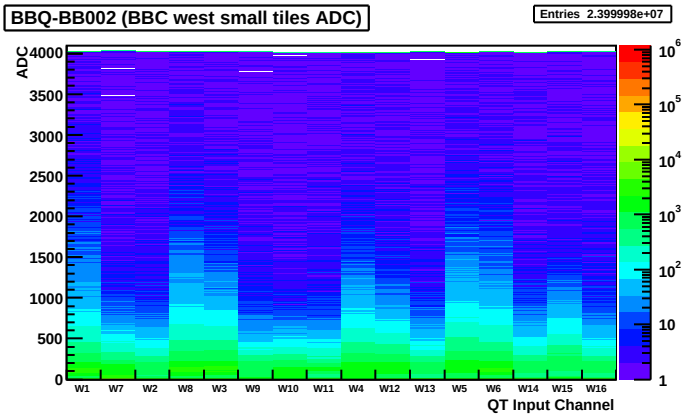

MIX-TF101
Entries 8999994
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

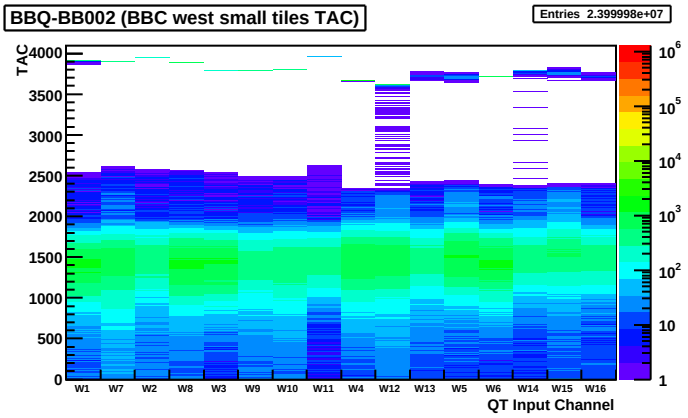

L1-TF201
Entries 1499999
10^5
10^4
10^3
10^2
10
1
0
10
20
30
40
50
60
70
80
90
100
TOF total mult

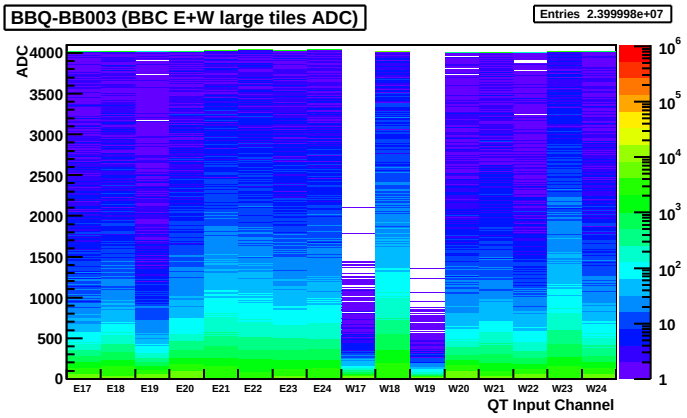

L1-TF201
Entries 8999994
Threshold bits
1
0
927549
919782
922664
915978
912278
870781
572450
580217
577335
584021
587721
629218
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

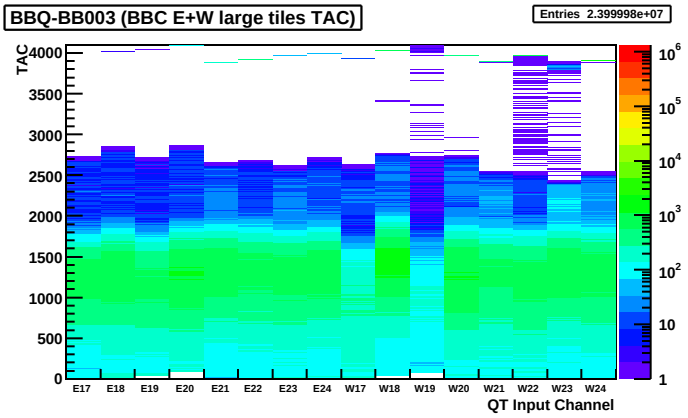

BBQ-BB001 (BBC east small tiles ADC)
Entries 2.399998e+07
ADC
QT Input Channel

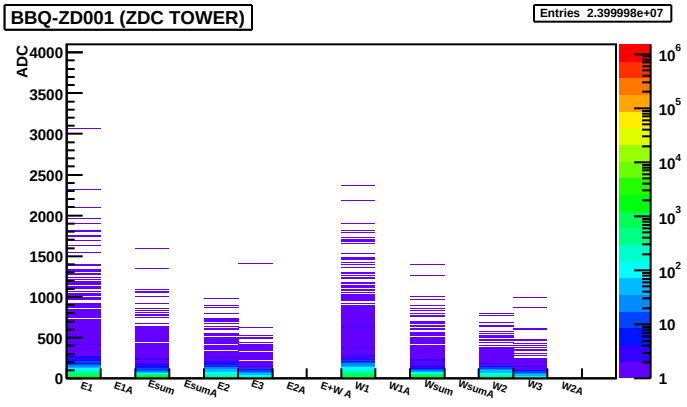

BBQ-BB001 (BBC east small tiles TAC)
Entries 2.399998e+07
TAC
QT Input Channel

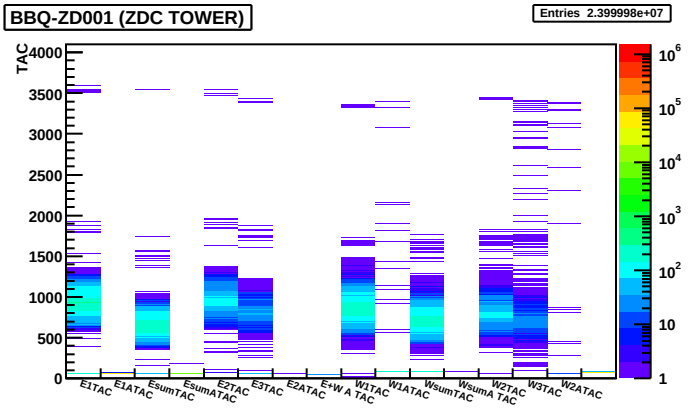

BBQ-BB002 (BBC west small tiles ADC)
Entries 2.399998e+07
ADC
QT Input Channel

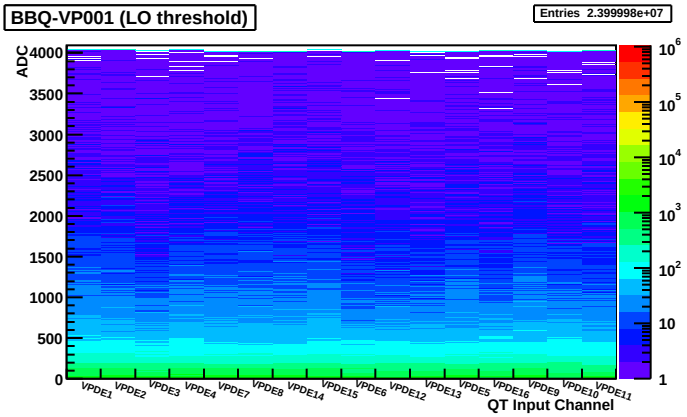

BBQ-BB002 (BBC west small tiles TAC)
Entries 2.399998e+07
TAC
QT Input Channel

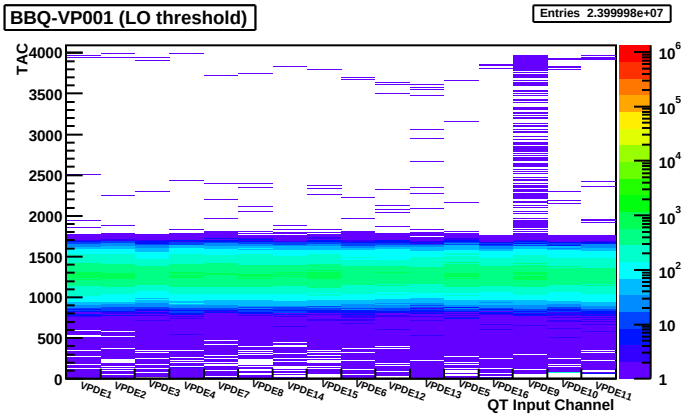

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2.399998e+07
ADC
QT Input Channel

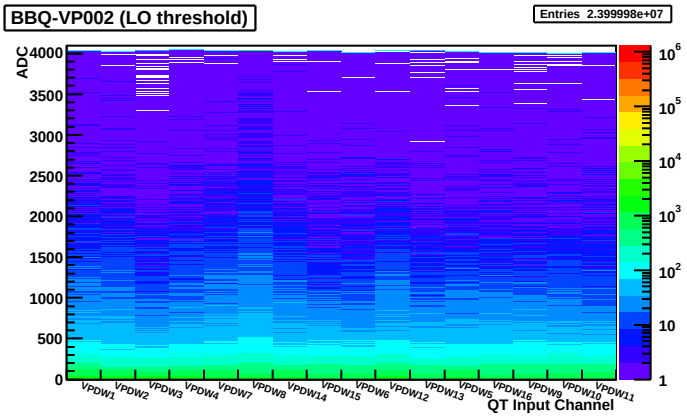

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2.399998e+07
TAC
QT Input Channel

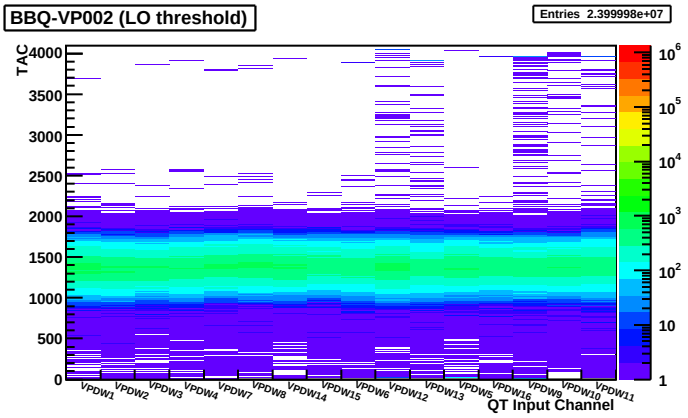

BBQ-ZD001 (ZDC TOWER)
Entries 2.399998e+07
ADC

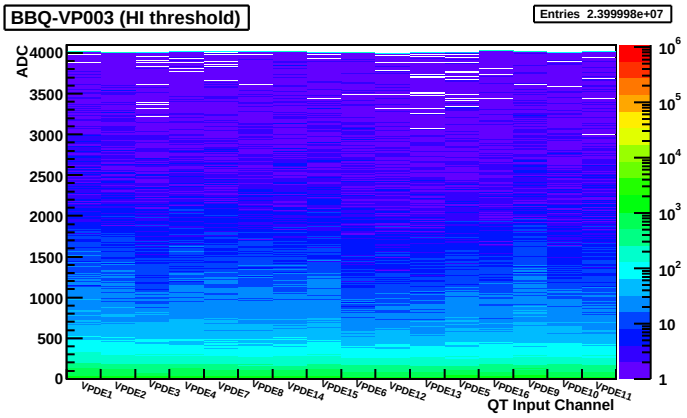

BBQ-ZD001 (ZDC TOWER)
Entries 2.399998e+07
TAC

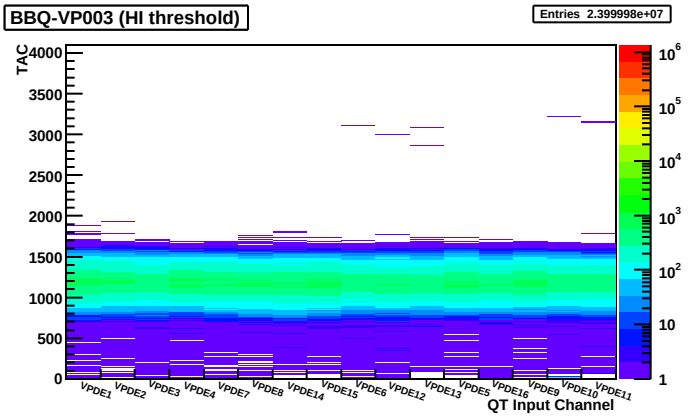

BBQ-VP001 (LO threshold)
Entries 2.399998e+07
ADC
QT Input Channel

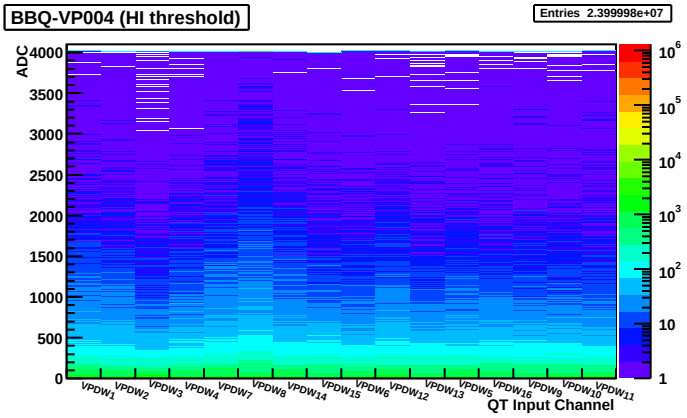

BBQ-VP001 (LO threshold)
Entries 2.399998e+07
TAC
QT Input Channel

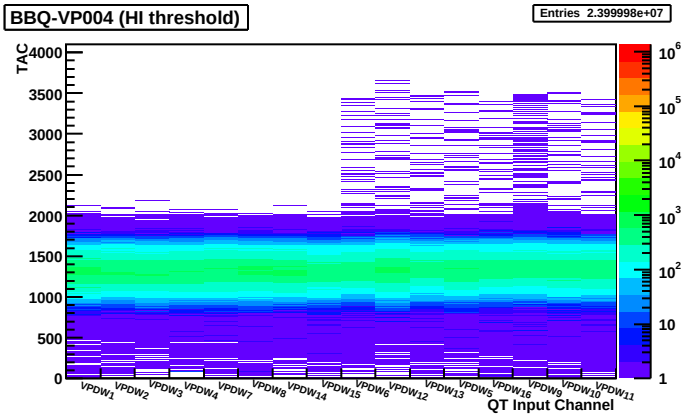

BBQ-VP002 (LO threshold)
Entries 2.399998e+07
ADC
QT Input Channel

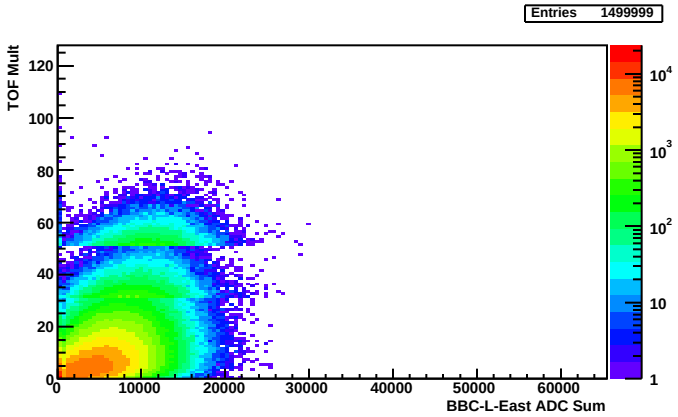

BBQ-VP002 (LO threshold)
Entries 2.399998e+07
TAC
QT Input Channel

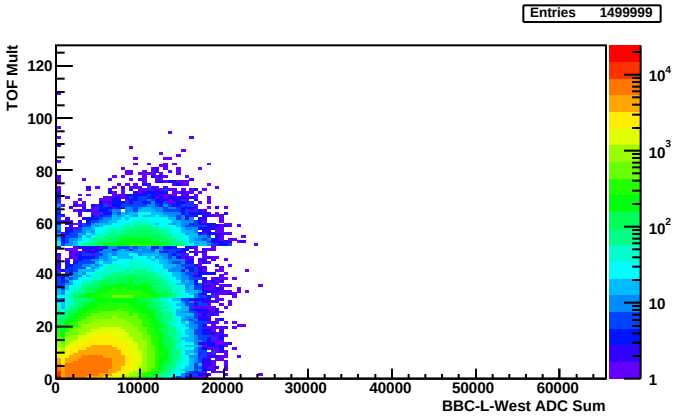

BBQ-VP003 (HI threshold)
Entries 2.399998e+07
ADC
QT Input Channel

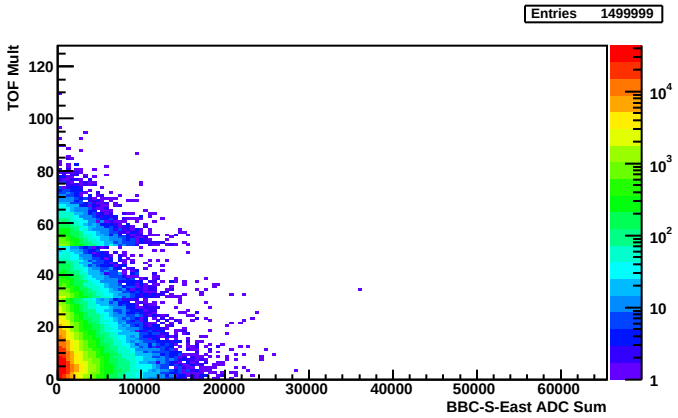

BBQ-VP003 (HI threshold)
Entries 2.399998e+07
TAC
QT Input Channel

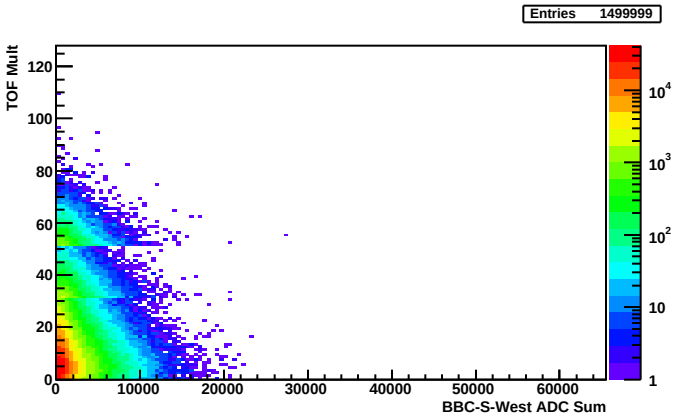

BBQ-VP004 (HI threshold)
Entries 2.399998e+07
ADC
QT Input Channel

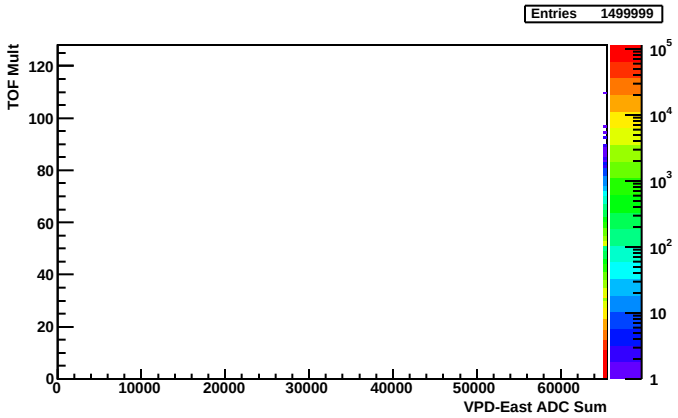

BBQ-VP004 (HI threshold)
Entries 2.399998e+07
TAC
QT Input Channel

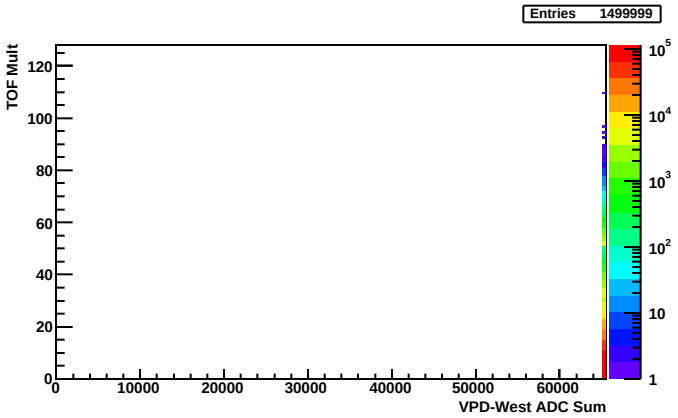

Entries 1499999
TOF Mult
BBC-L-East ADC Sum

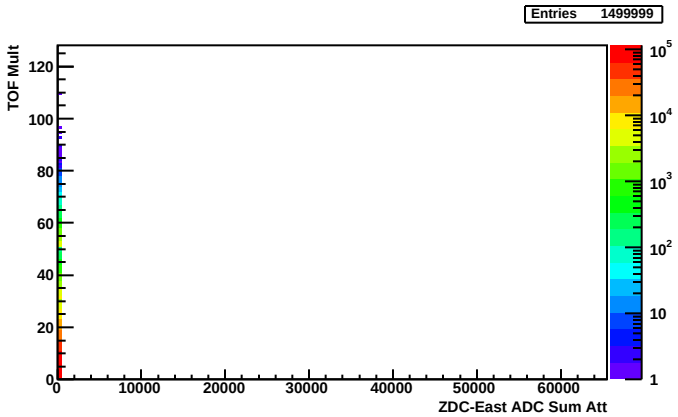

Entries 1499999
TOF Mult
BBC-L-West ADC Sum

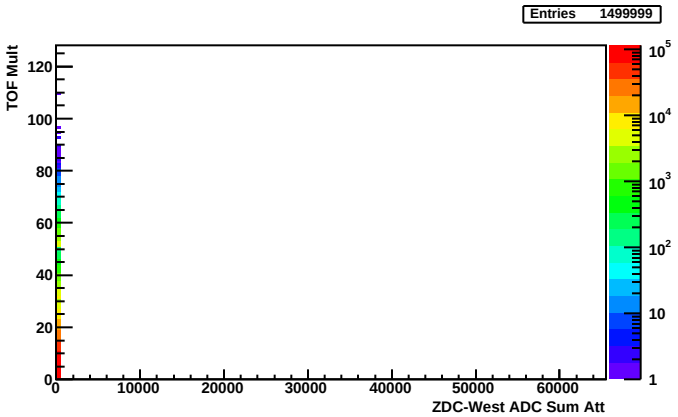

Entries 1499999
TOF Mult
BBC-S-East ADC Sum

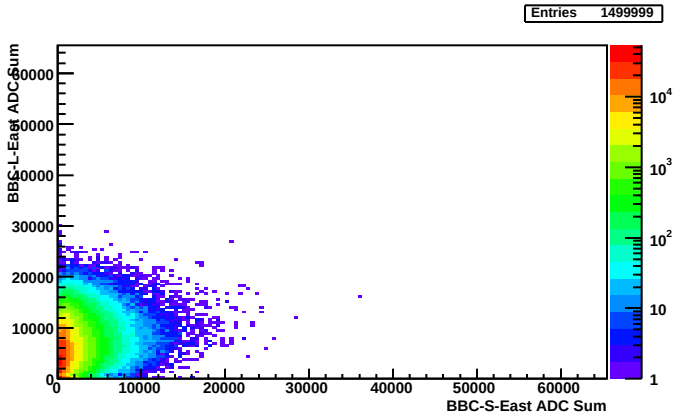

Entries 1499999
TOF Mult
BBC-S-West ADC Sum

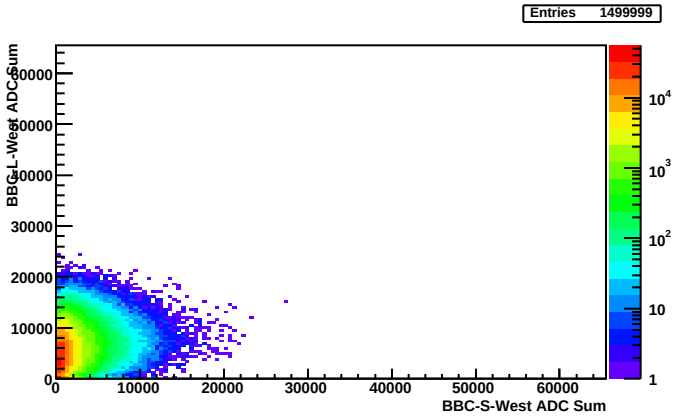

Entries 1499999
TOF Mult
VPD-East ADC Sum

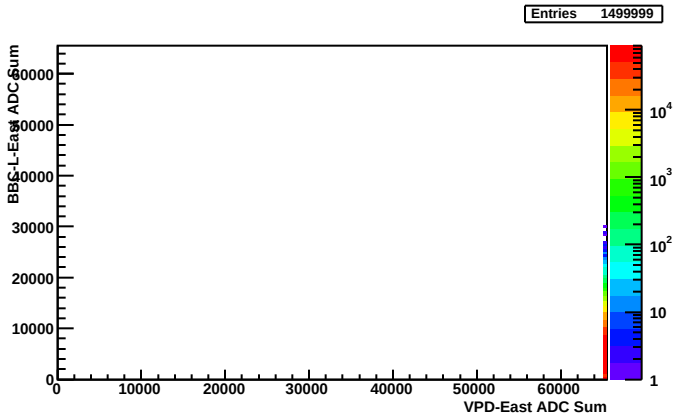

Entries 1499999
TOF Mult
VPD-West ADC Sum

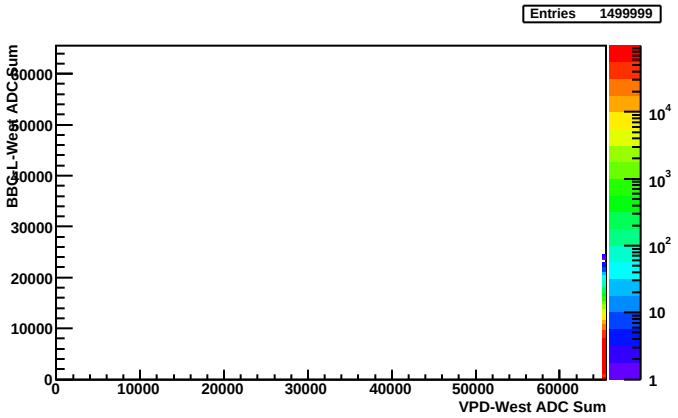

Entries 1499999
TOF Mult
ZDC-East ADC Sum Att

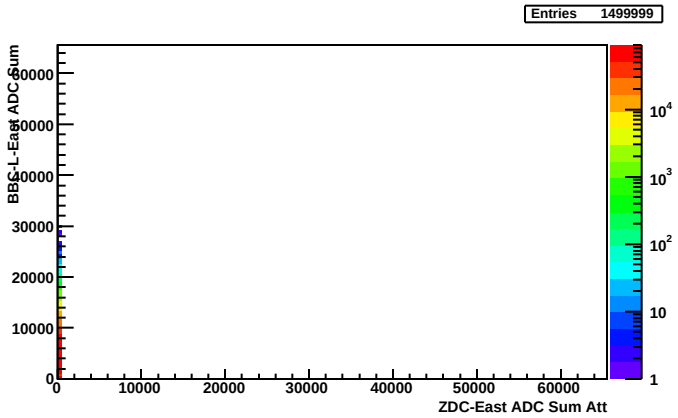

Entries 1499999
TOF Mult
ZDC-West ADC Sum Att

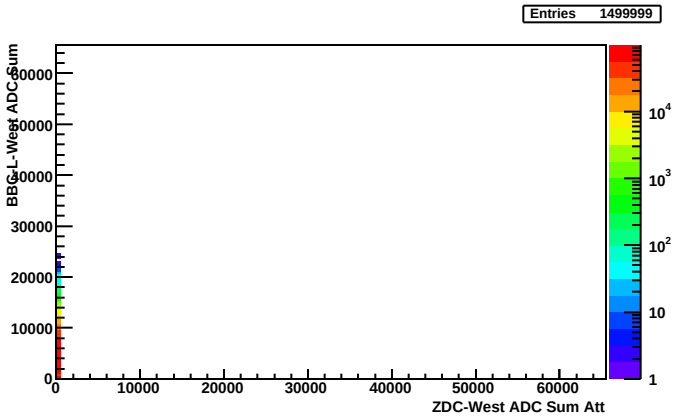

Entries 1499999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

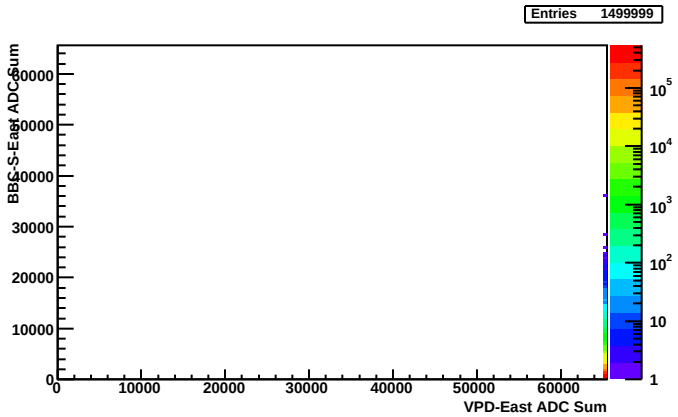

Entries 1499999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

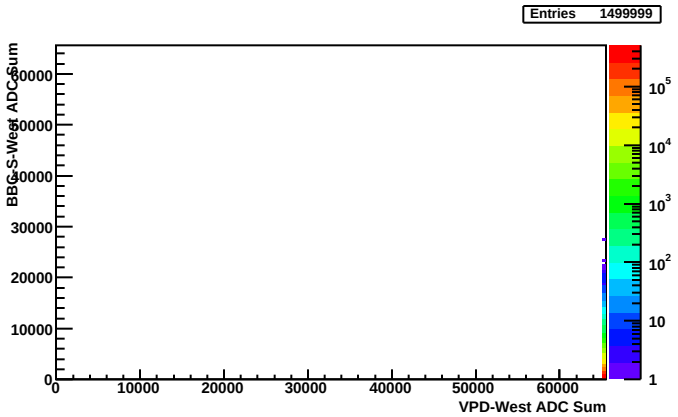

Entries 1499999
BBC-L-East ADC Sum
VPD-East ADC Sum

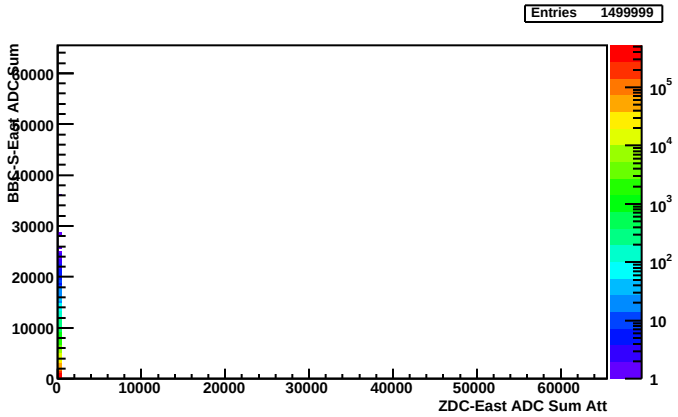

Entries 1499999
BBC-L-West ADC Sum
VPD-West ADC Sum

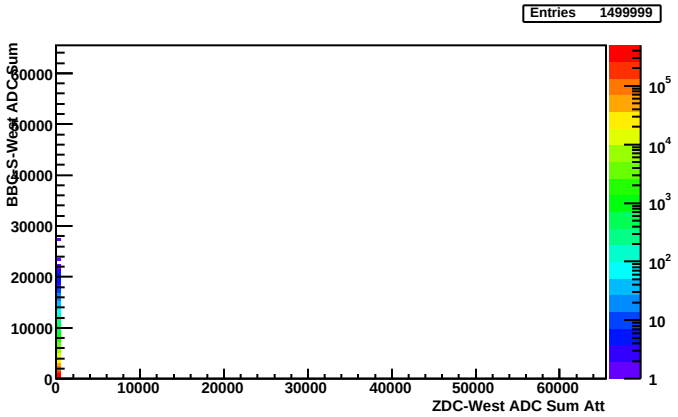

Entries 1499999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

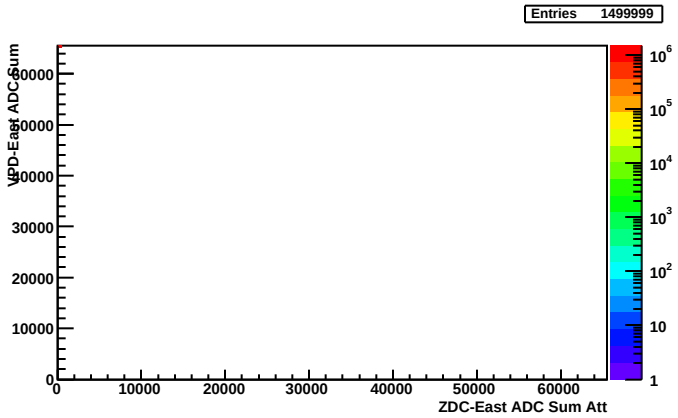

Entries 1499999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

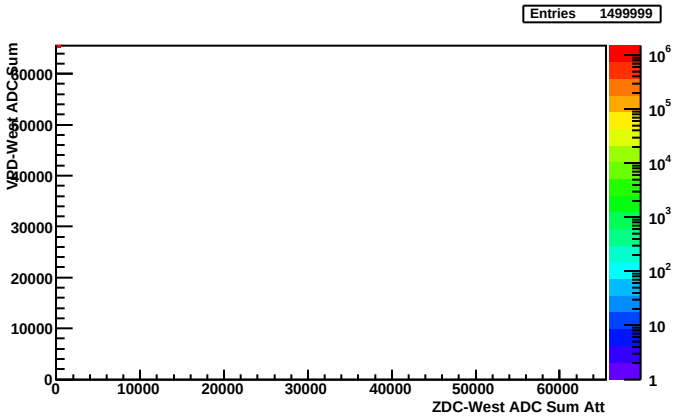

Entries 1499999
BBC-S-East ADC Sum
VPD-East ADC Sum

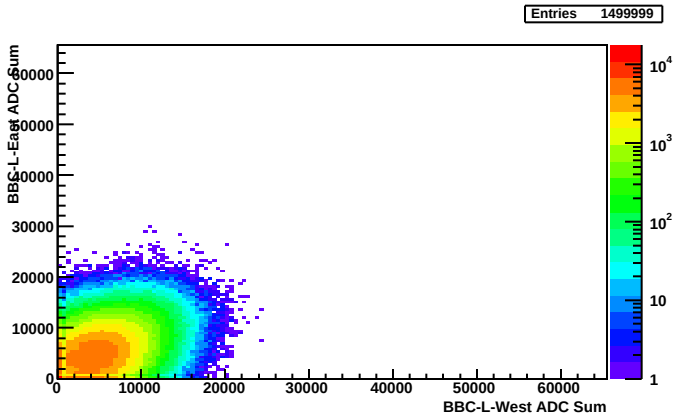

Entries 1499999
BBC-S-West ADC Sum
VPD-West ADC Sum

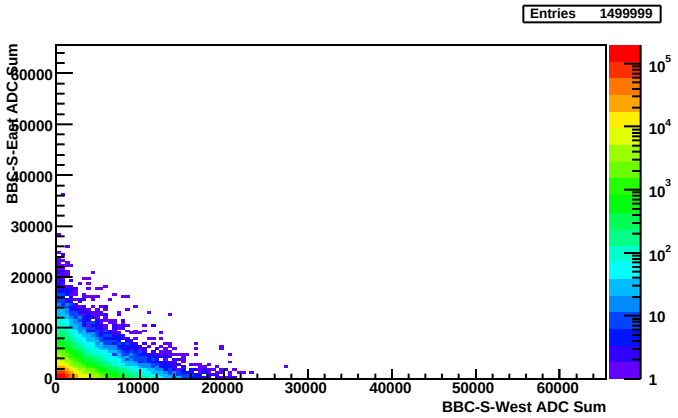

Entries 1499999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

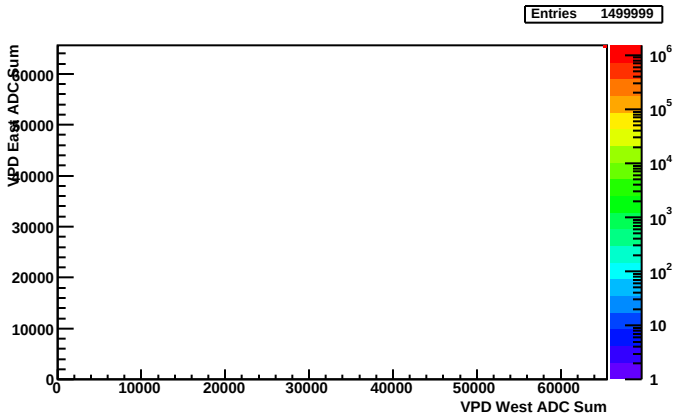

Entries 1499999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

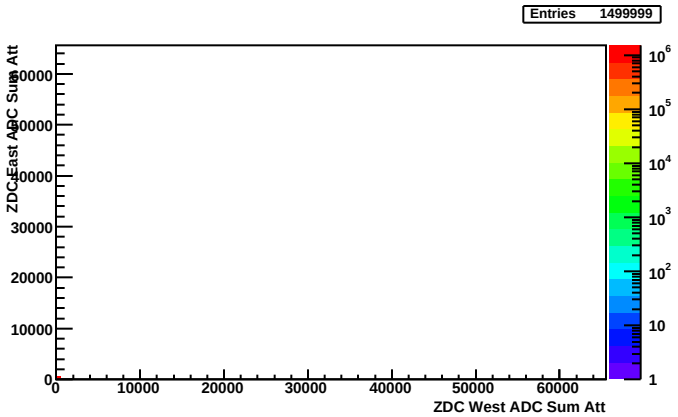

Entries 1499999
VPD-East ADC Sum
ZDC-East ADC Sum Att

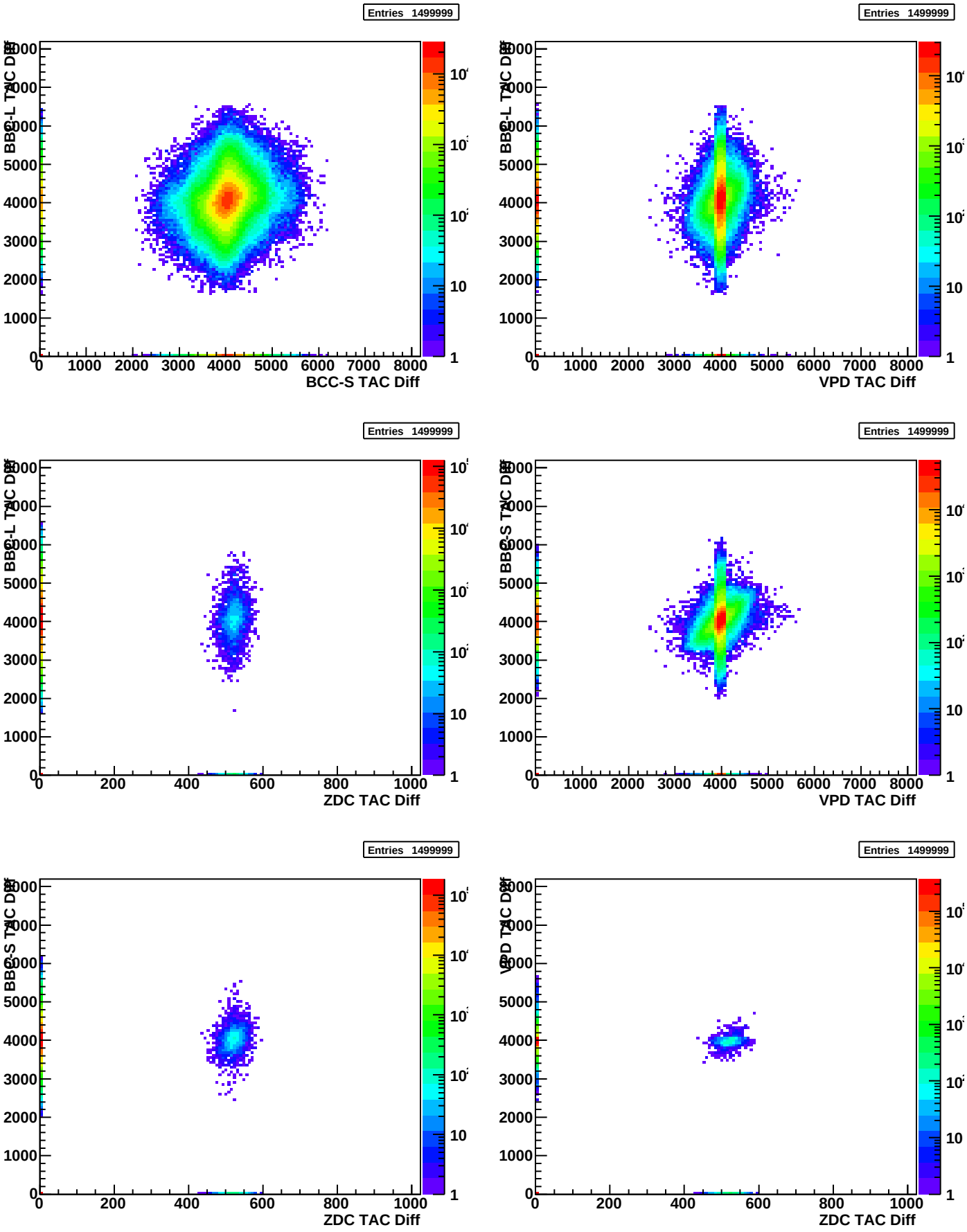

Entries 1499999
VPD-West ADC Sum
ZDC-West ADC Sum Att

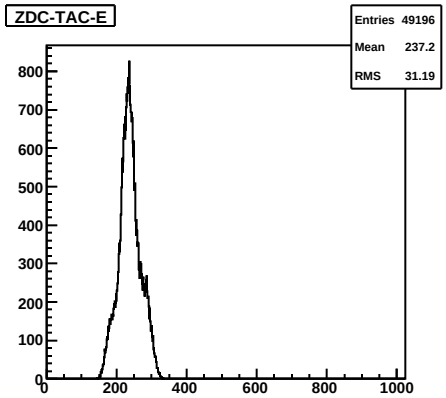

Entries 1499999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

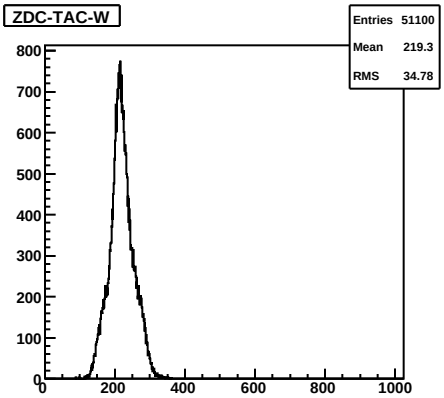

Entries 1499999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

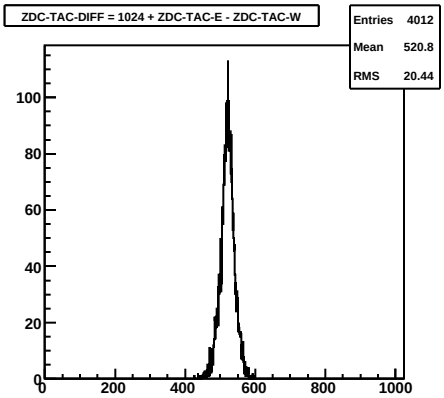

Entries 1499999
VPD East ADC Sum
VPD West ADC Sum

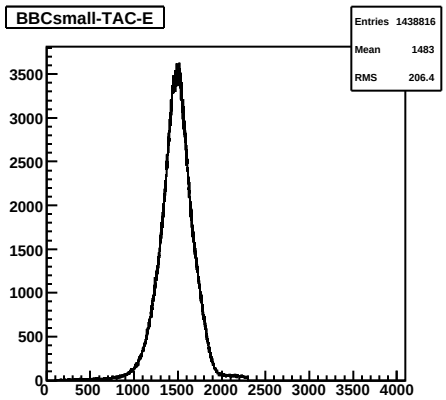

Entries 1499999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

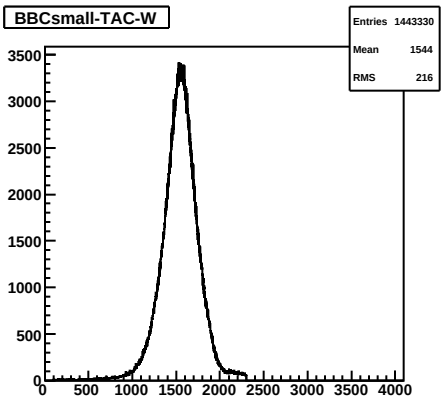

Entries 1499999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 1499999
BBC-L TAC Diff
VPD TAC Diff
Entries 1499999
BBC-L TAC Diff
ZDC TAC Diff
Entries 1499999
BBC-S TAC Diff
VPD TAC Diff
Entries 1499999
BBC-S TAC Diff
ZDC TAC Diff
Entries 1499999
VPD TAC Diff
ZDC TAC Diff

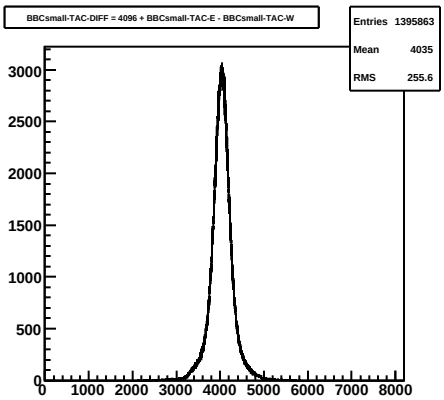

ZDC-TAC-E
Entries 49196
Mean 237.2
RMS 31.19

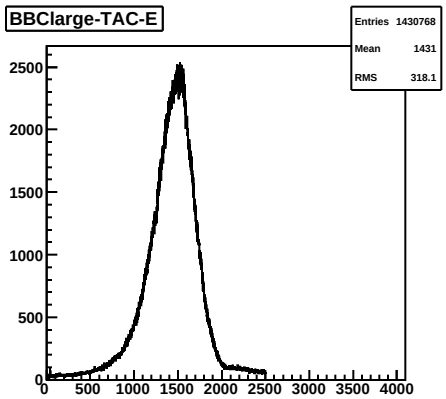

ZDC-TAC-W
Entries 51100
Mean 219.3
RMS 34.78

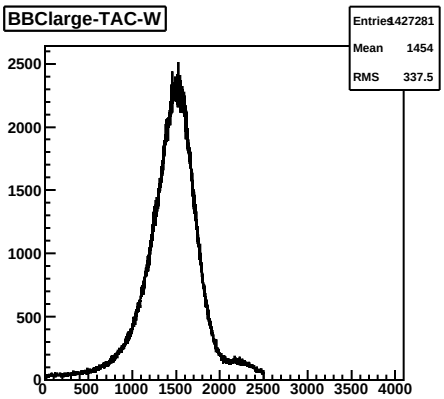

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 4012
Mean 520.8
RMS 20.44

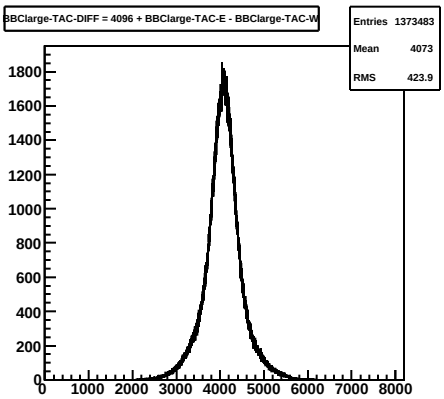

BBCsmall-TAC-E
Entries 1438816
Mean 1483
RMS 206.4

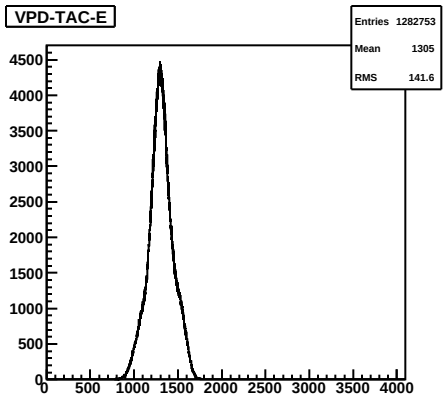

BBCsmall-TAC-W
Entries 1443330
Mean 1544
RMS 216

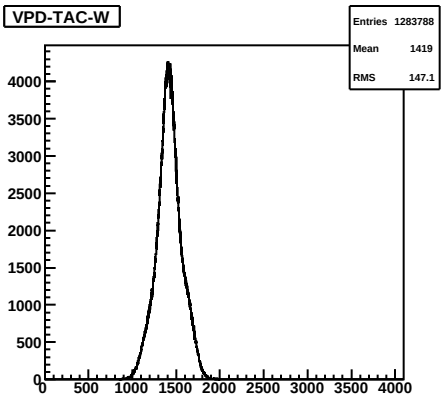

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 1395863
Mean 4035
RMS 255.6

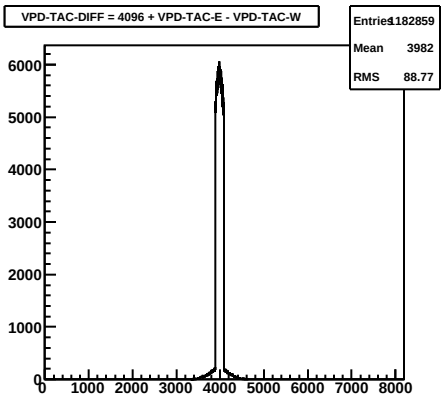

BBClarge-TAC-E
Entries 1430768
Mean 1431
RMS 318.1

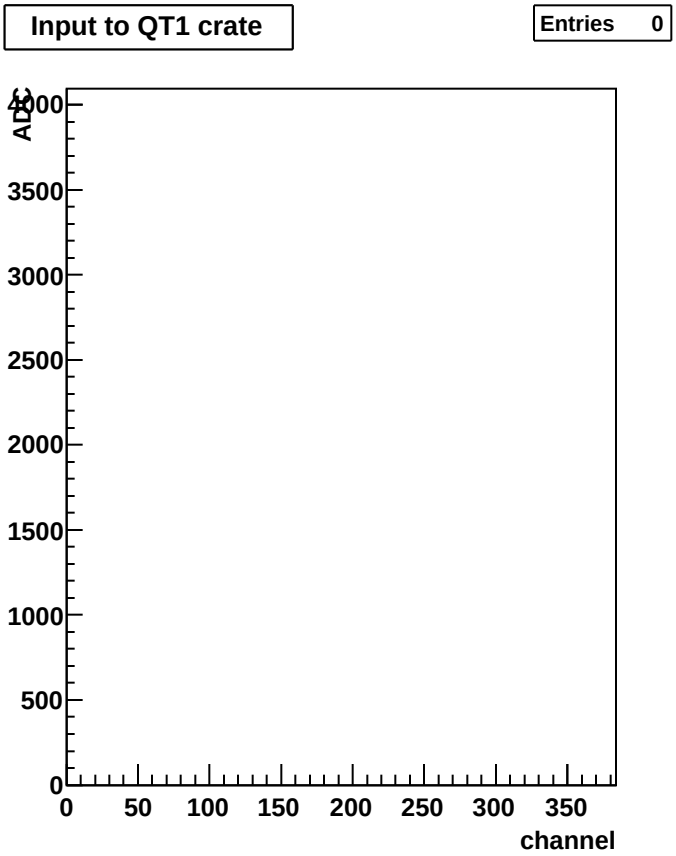

BBClarge-TAC-W
Entries 1427281
Mean 1454
RMS 337.5

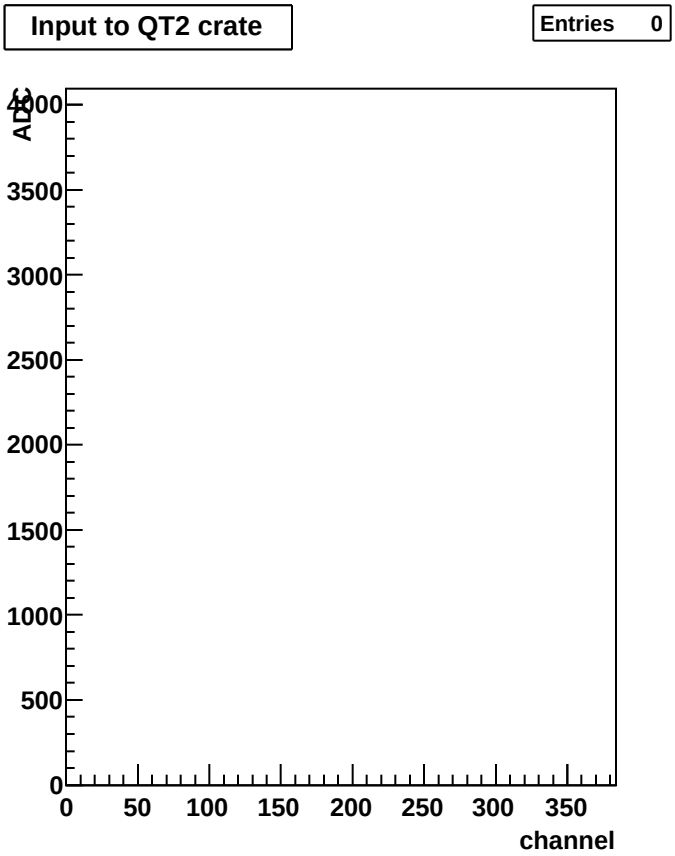

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 1373483
Mean 4073
RMS 423.9

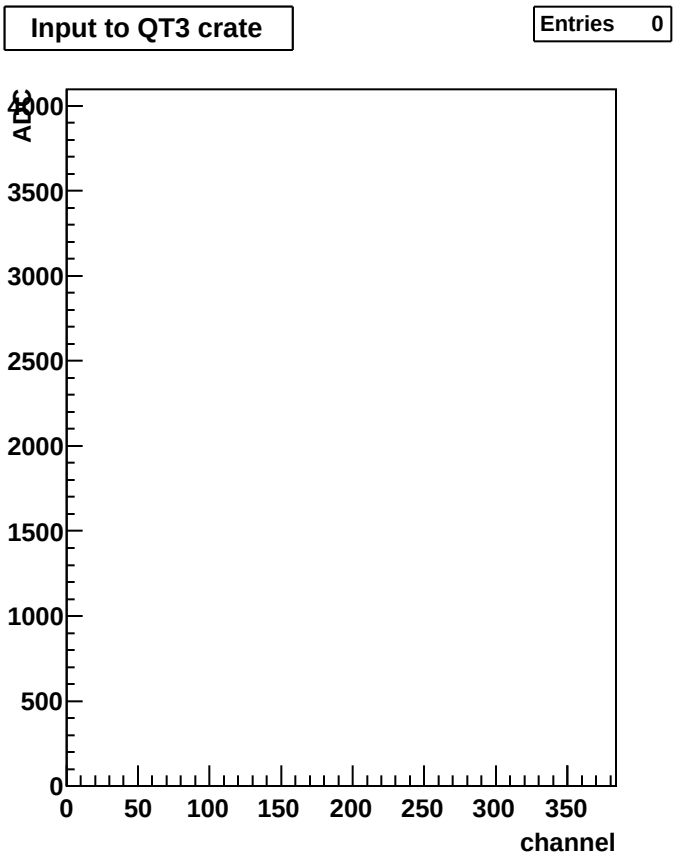

VPD-TAC-E
Entries 1282753
Mean 1305
RMS 141.6

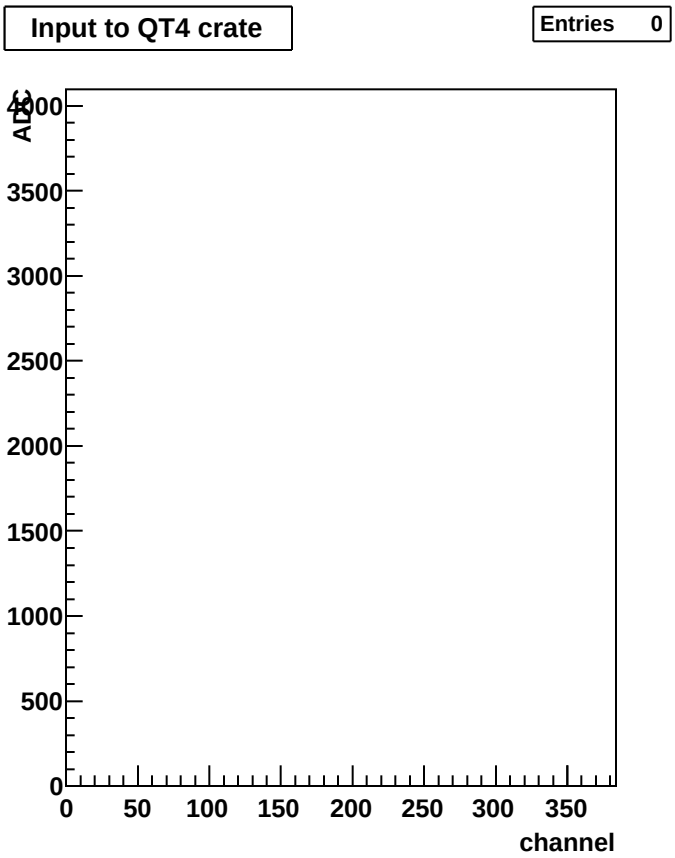

VPD-TAC-W
Entries 1283788
Mean 1419
RMS 147.1

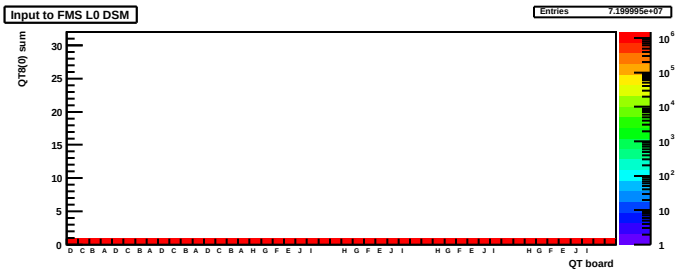

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1182859
Mean 3982
RMS 88.77

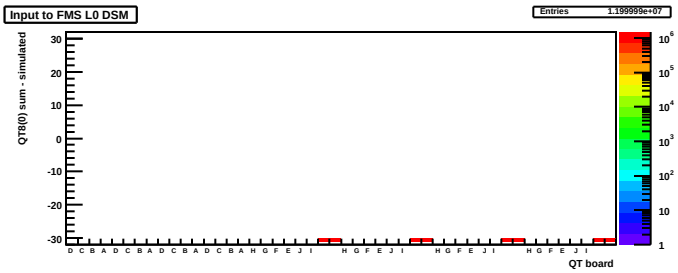

Input to QT1 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

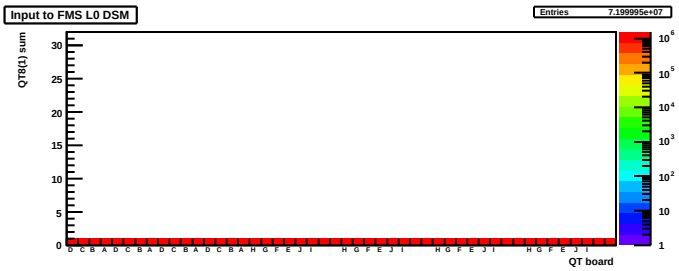

Input to QT2 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

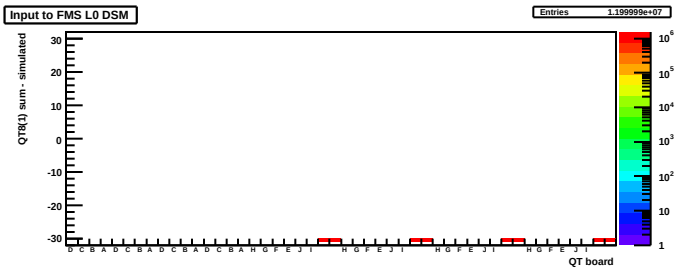

Input to QT3 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

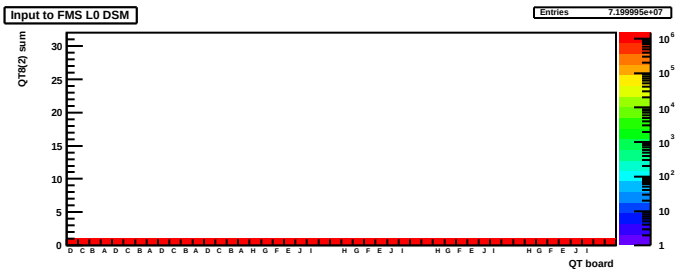

Input to QT4 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

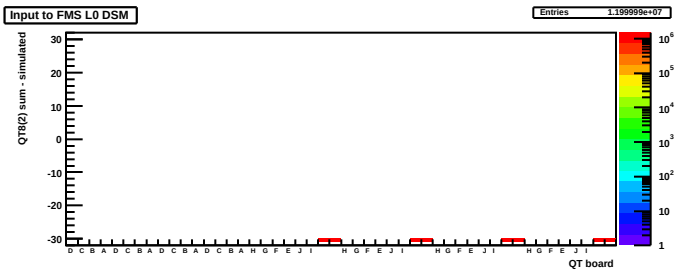

Input to FMS L0 DSM
Entries 7.199995e+07
QT8(0) sum
QT board

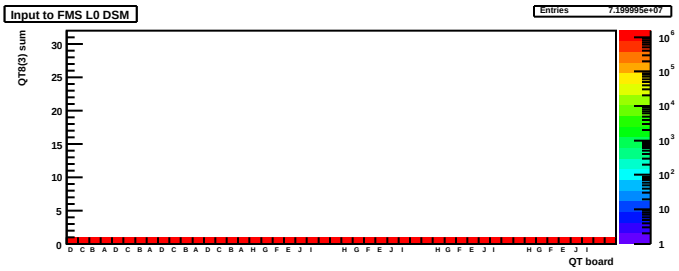

Input to FMS L0 DSM
Entries 1.199999e+07
QT8(0) sum - simulated
QT board

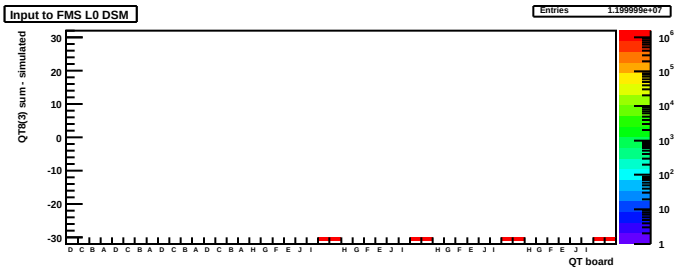

Input to FMS L0 DSM
Entries 7.199995e+07
QT8(1) sum
QT board

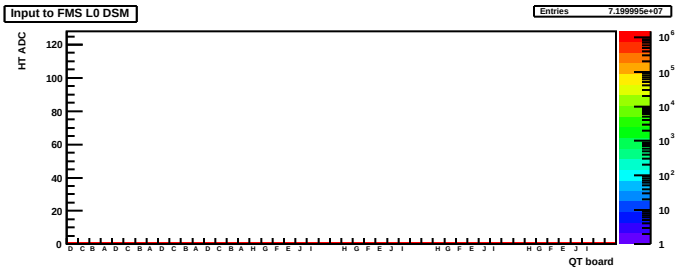

Input to FMS L0 DSM
Entries 1.199999e+07
QT8(1) sum - simulated
QT board

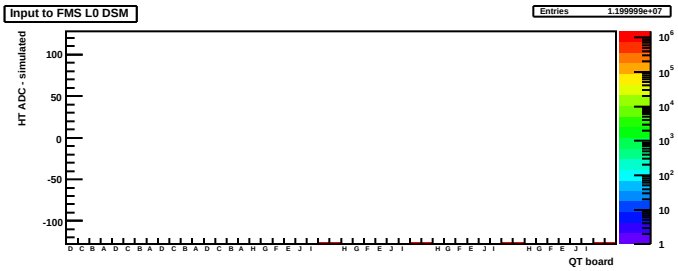

Input to FMS L0 DSM
Entries 7.199995e+07
QT8(2) sum
QT board

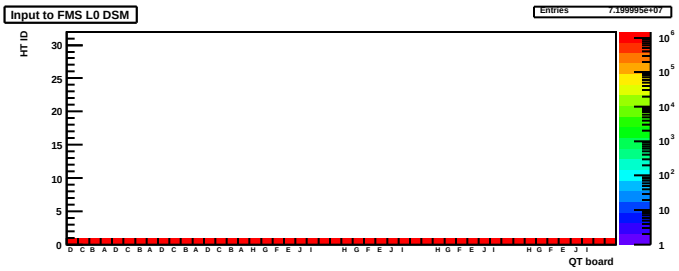

Input to FMS L0 DSM
Entries 1.199999e+07
QT8(2) sum - simulated
QT board

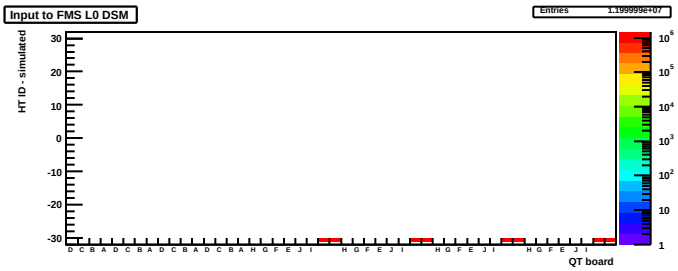

Input to FMS L0 DSM
Entries 7.199995e+07
QT8(3) sum
QT board

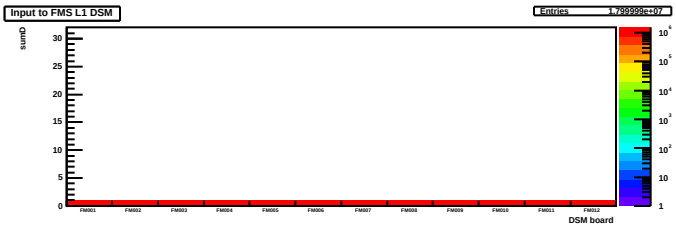

Input to FMS L0 DSM
Entries 1.199999e+07
QT8(3) sum - simulated
QT board

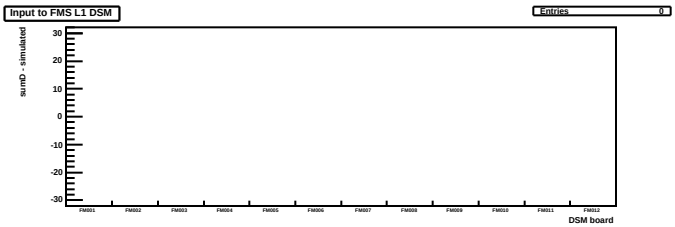

Input to FMS L0 DSM
Entries 7.199995e+07
HT ADC
QT board

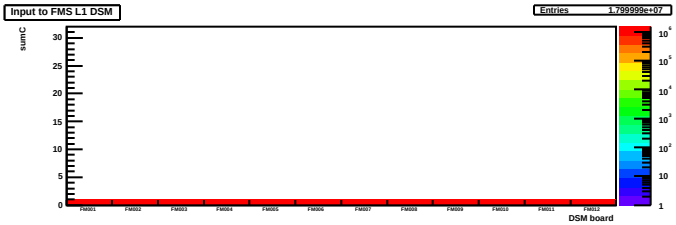

Input to FMS L0 DSM
Entries 1.199999e+07
HT ADC - simulated
QT board

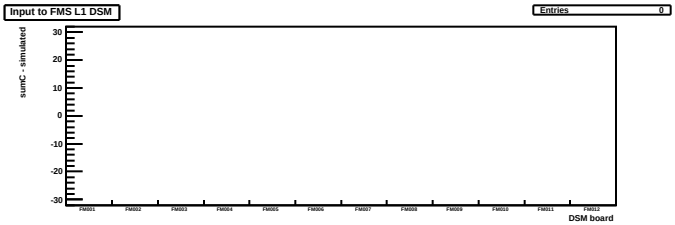

Input to FMS L0 DSM
Entries 7.199995e+07
HT ID
QT board

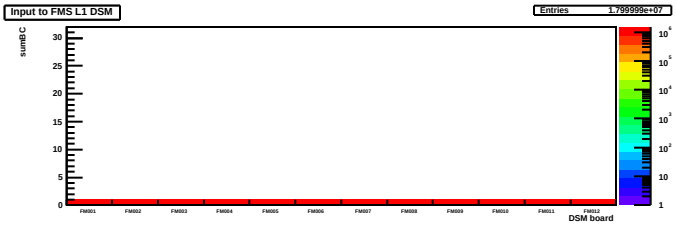

Input to FMS L0 DSM
Entries 1.199999e+07
HT ID - simulated
QT board

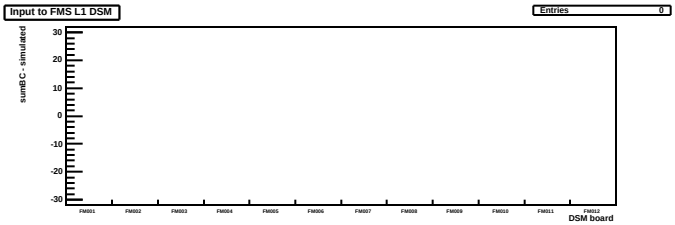

Input to FMS L1 DSM
Entries 1.799999e+07
sumD
DSM board

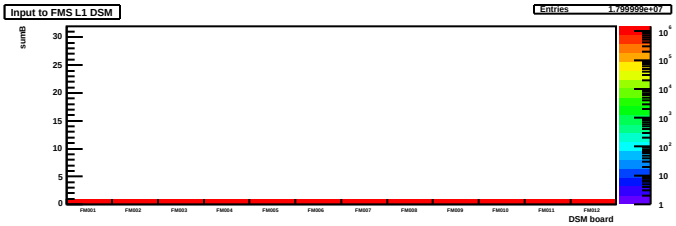

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

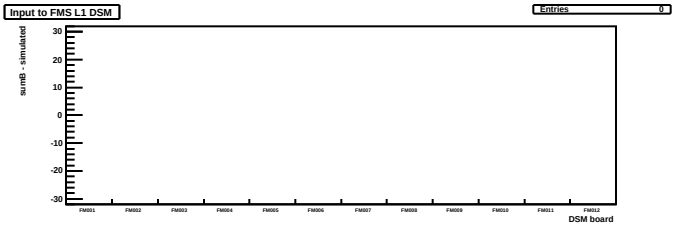

Input to FMS L1 DSM
Entries 1.799999e+07
sumC
DSM board

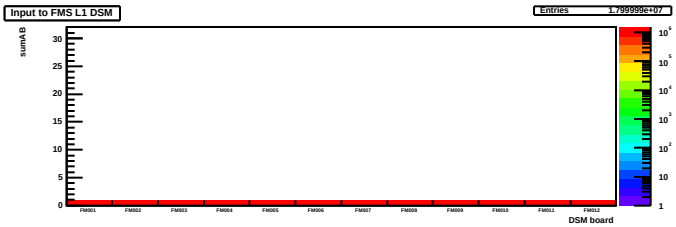

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

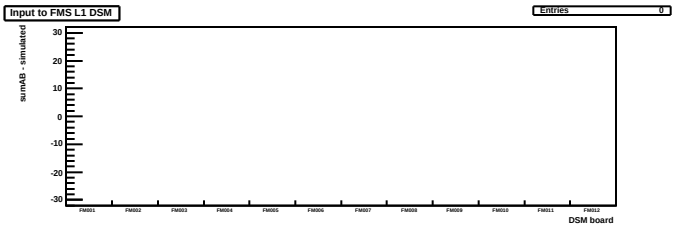

Input to FMS L1 DSM
Entries 1.799999e+07
sumBC
DSM board

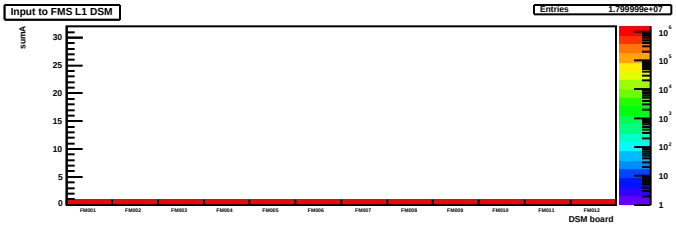

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

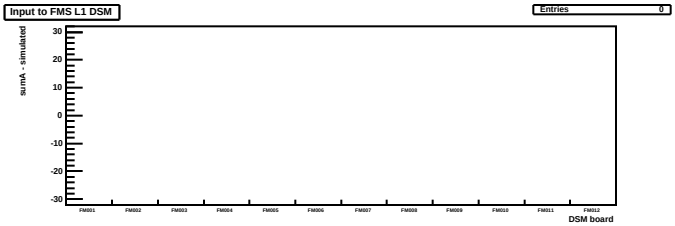

Input to FMS L1 DSM
Entries 1.799999e+07
sumB
DSM board

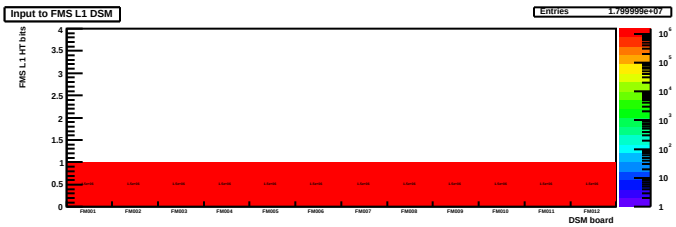

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

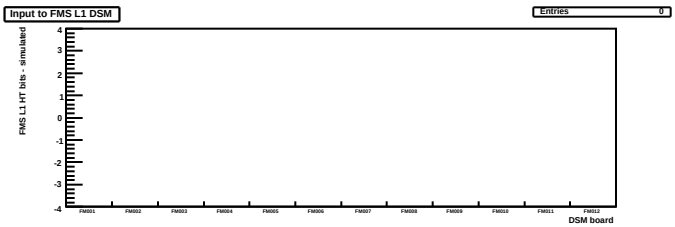

Input to FMS L1 DSM
Entries 1.799999e+07
sumAB
DSM board

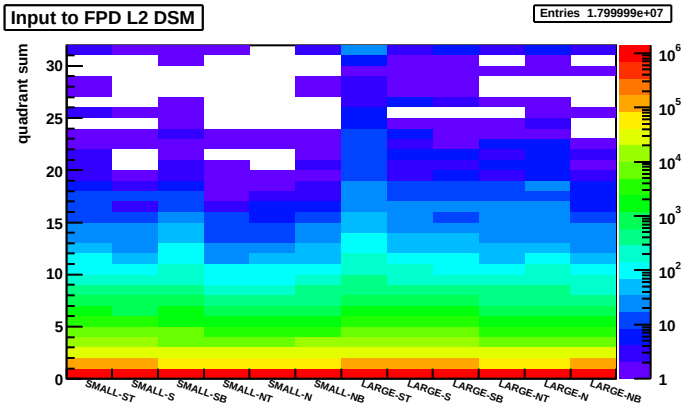

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

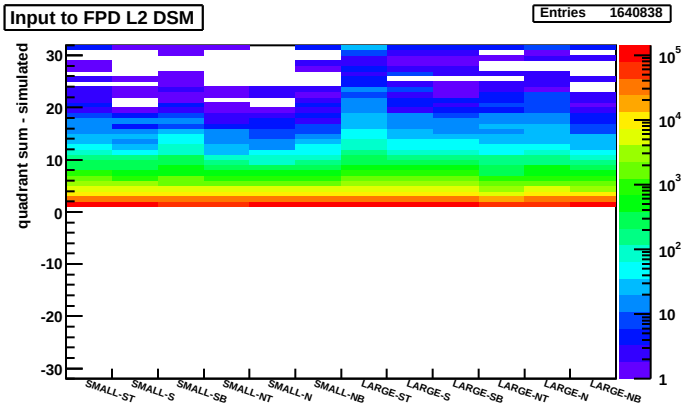

Input to FMS L1 DSM
Entries 1.799999e+07
sumA
DSM board

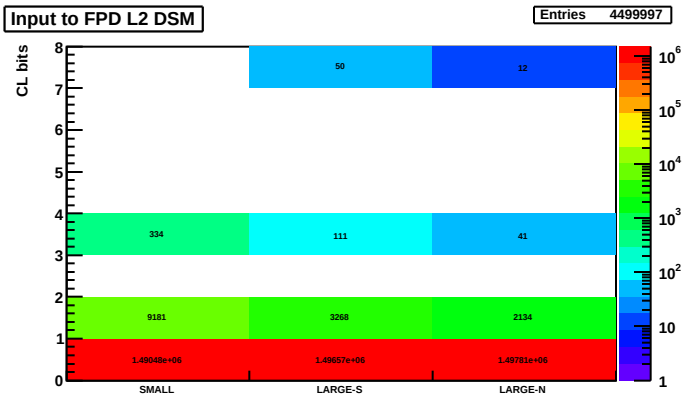

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

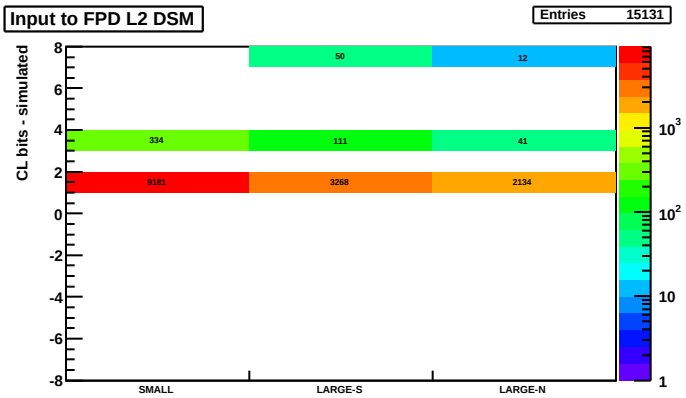

Input to FMS L1 DSM
Entries 1.799999e+07
FMS L1 HT bits
DSM board

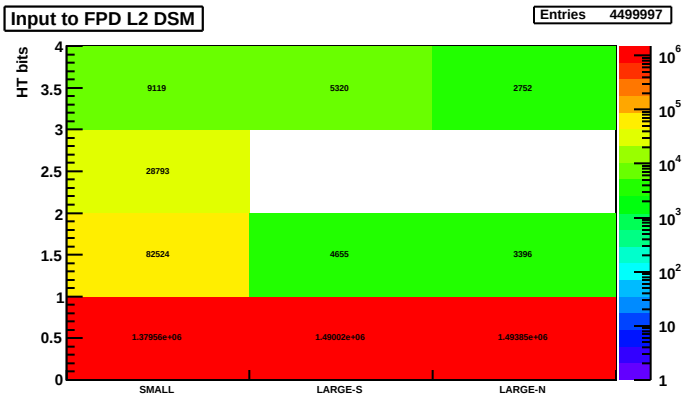

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

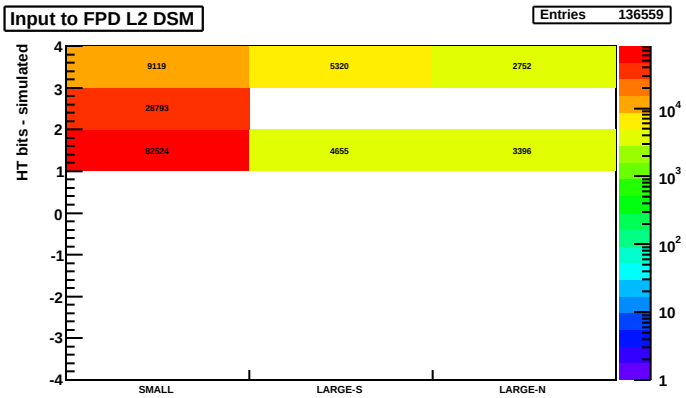

Input to FPD L2 DSM
Entries 1.799999e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

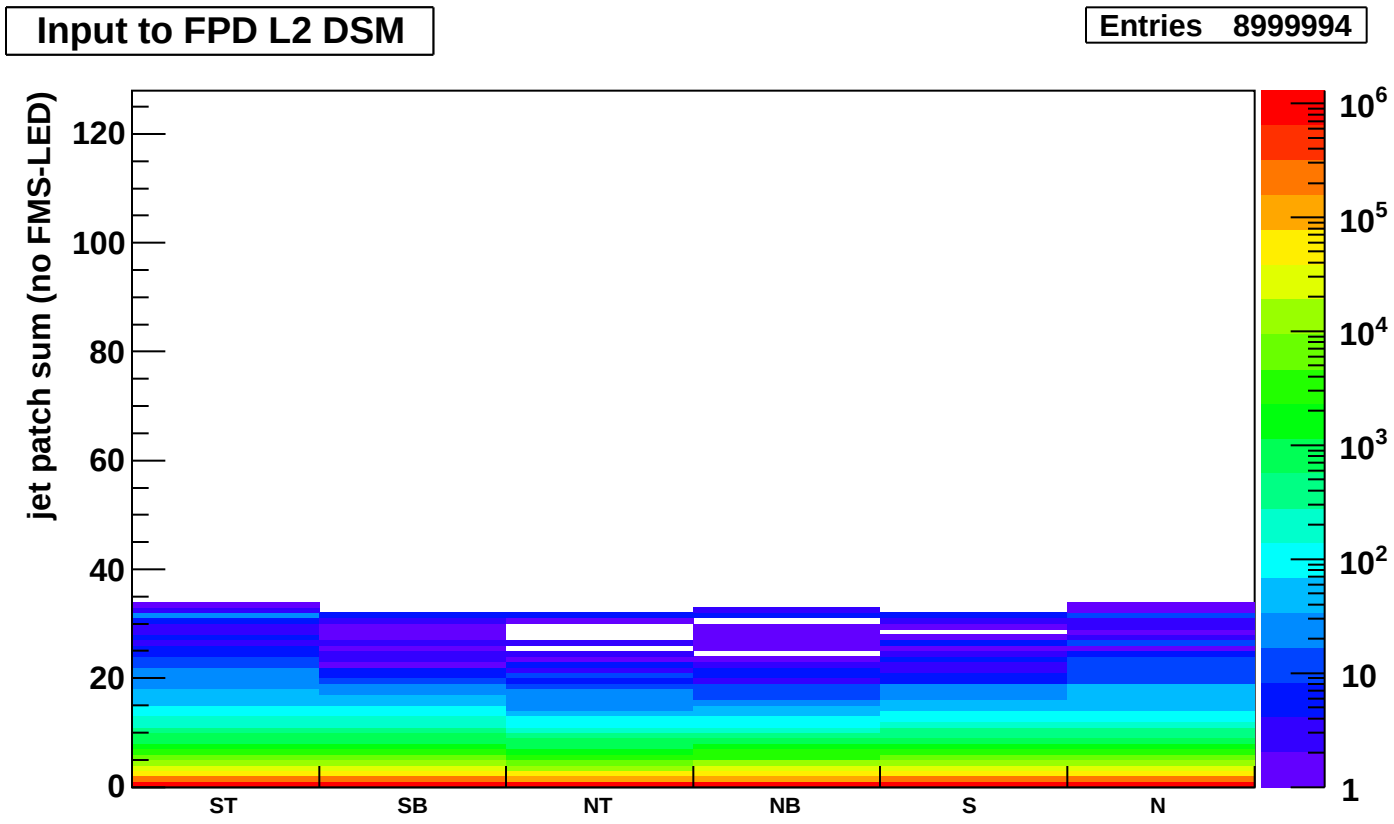

Input to FPD L2 DSM
Entries 1640838
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

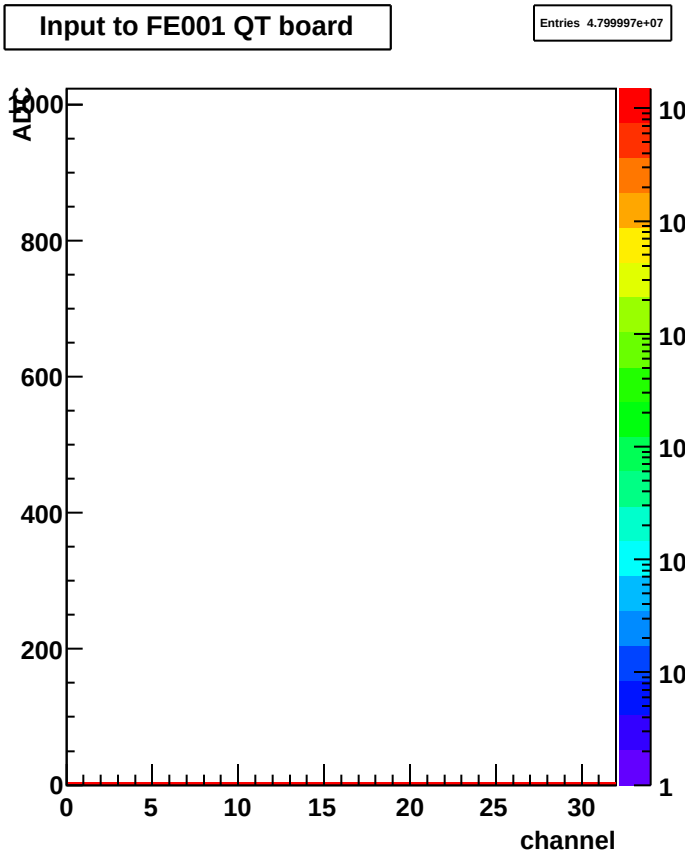

Input to FPD L2 DSM
Entries 4499997
CL bits
50
12
334
111
41
9181
3268
2134
1.49048e+06
1.49657e+06
1.49781e+06
SMALL
LARGE-S
LARGE-N

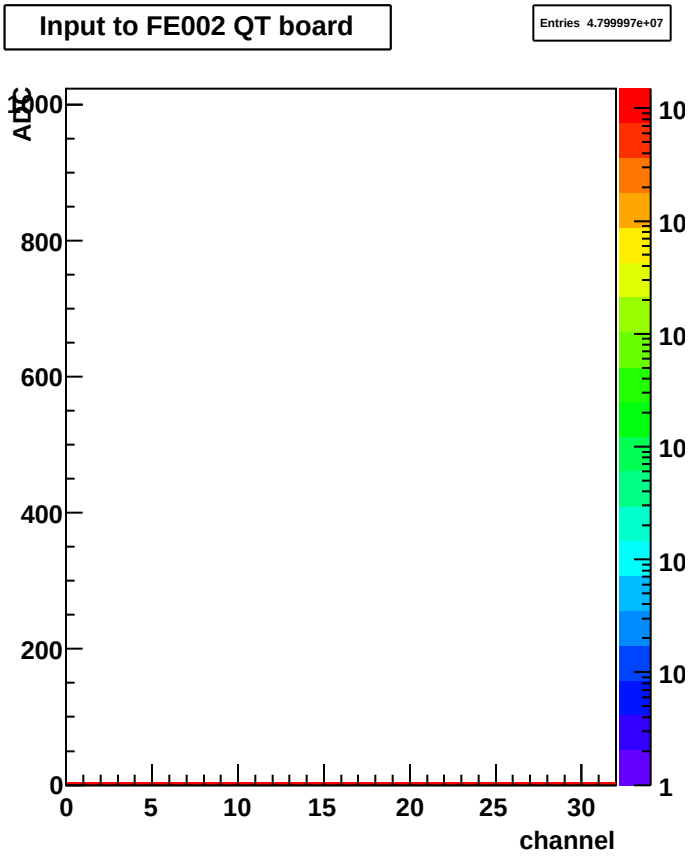

Input to FPD L2 DSM
Entries 15131
CL bits - simulated
50
12
334
111
41
9181
3268
2134
SMALL
LARGE-S
LARGE-N

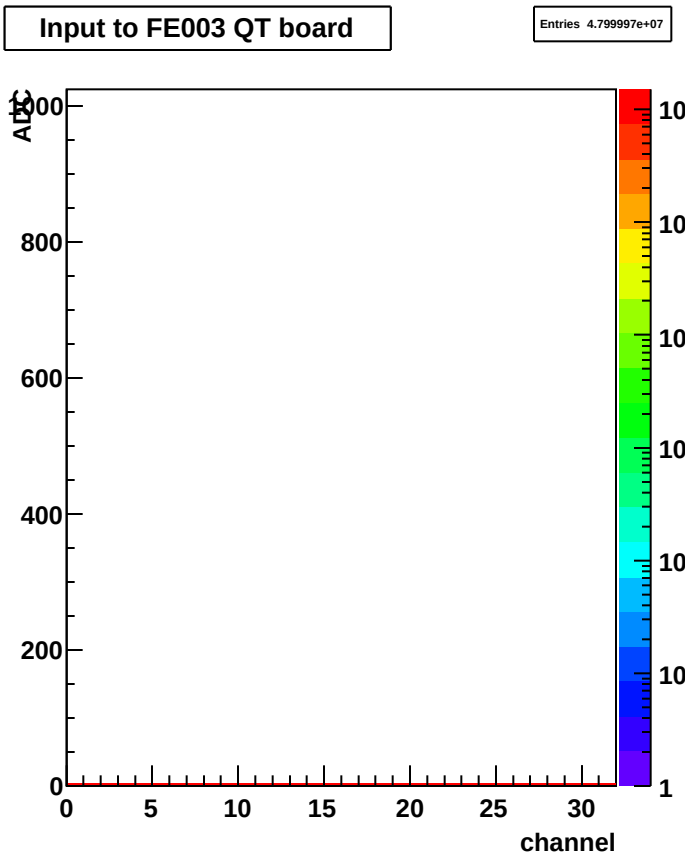

Input to FPD L2 DSM
Entries 4499997
HT bits
9119
5320
2752
28793
82524
4655
3396
1.37956e+06
1.49002e+06
1.49385e+06
SMALL
LARGE-S
LARGE-N

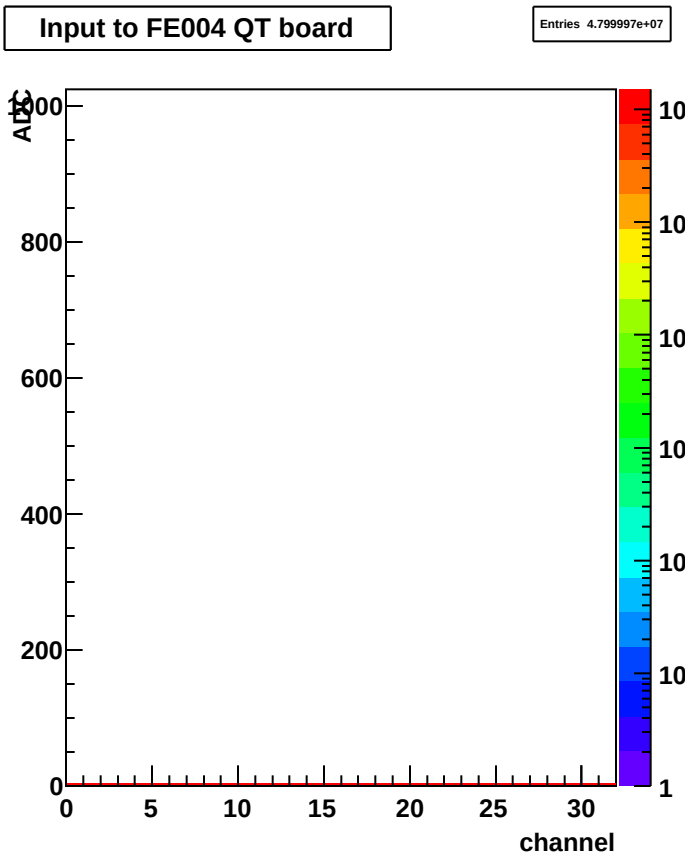

Input to FPD L2 DSM
Entries 136559
HT bits - simulated
9119
5320
2752
28793
82524
4655
3396
SMALL
LARGE-S
LARGE-N

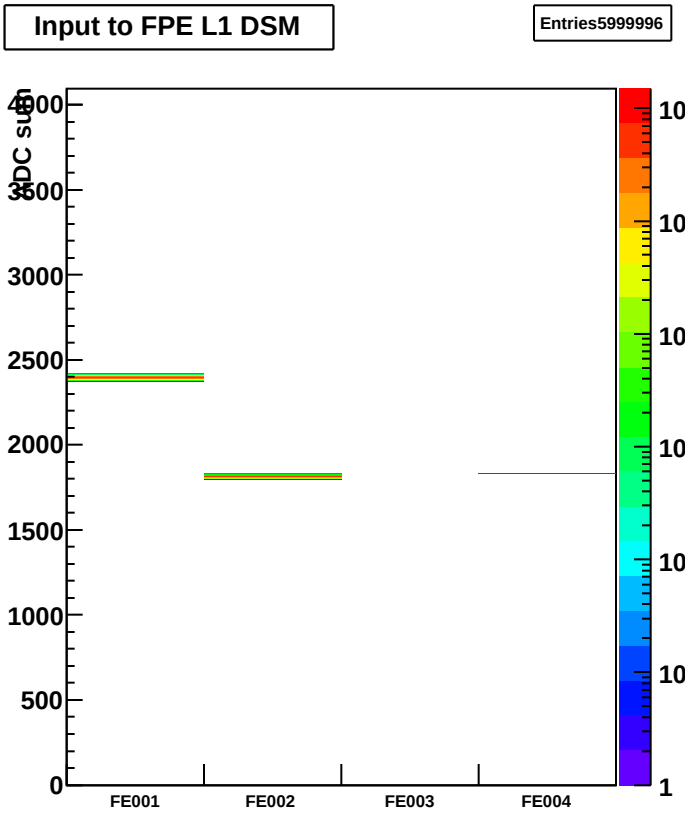

Input to FPD L2 DSM
Entries 8999994
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6


Input to FE001 QT board
Entries 4.799997e+07
ADC
channel

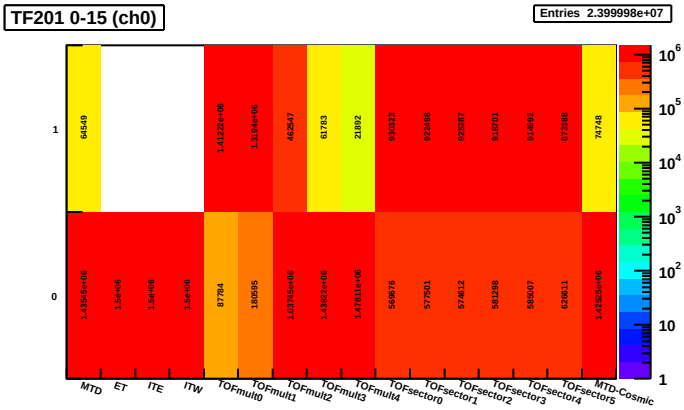

Input to FE002 QT board
Entries 4.799997e+07
ADC
channel


Input to FE003 QT board
Entries 4.799997e+07
ADC
channel


Input to FE004 QT board
Entries 4.799997e+07
ADC
channel


Input to FPE L1 DSM
Entries5999996
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)



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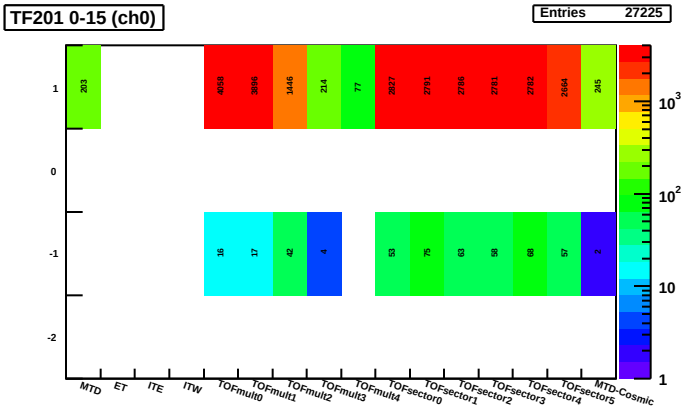

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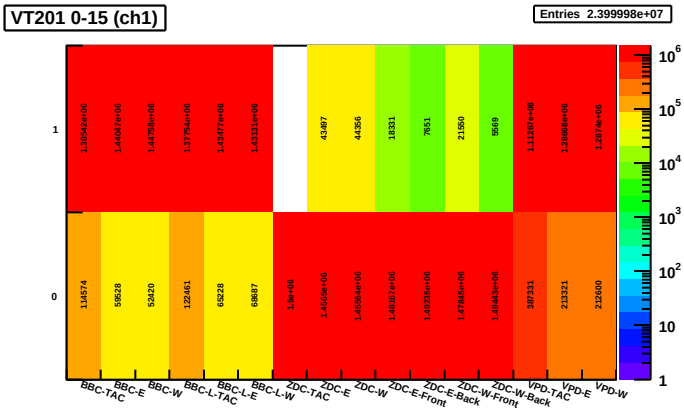

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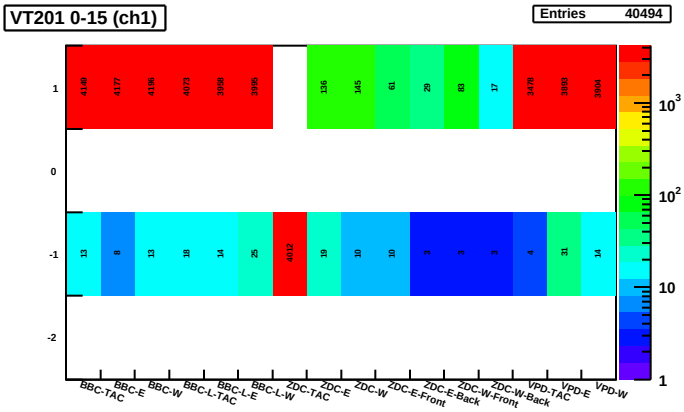
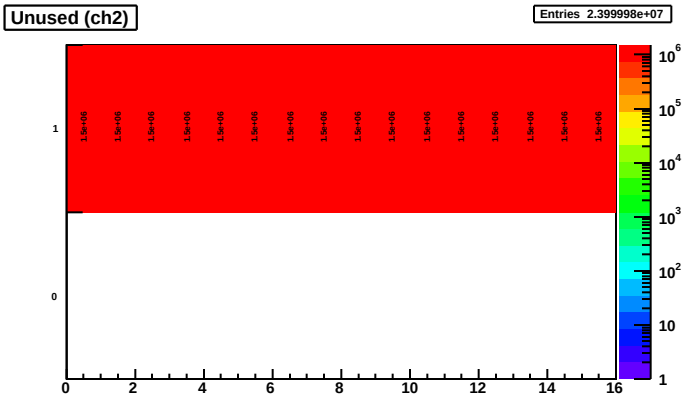
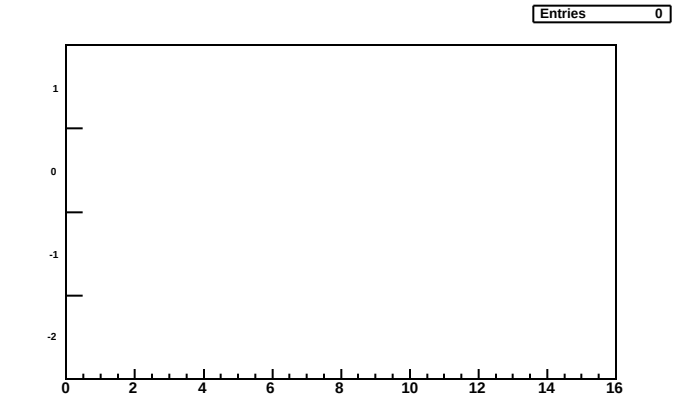
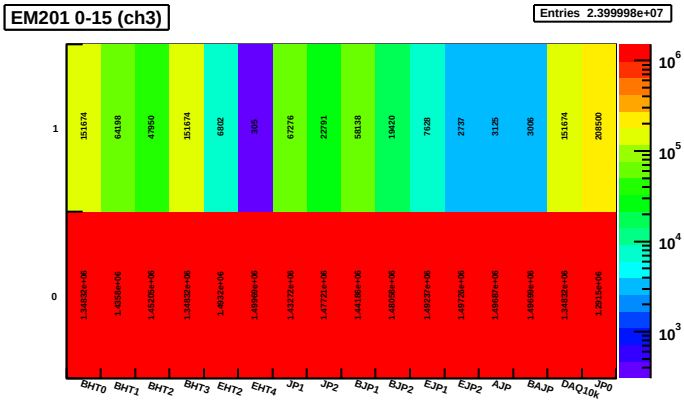


Unused (ch2)

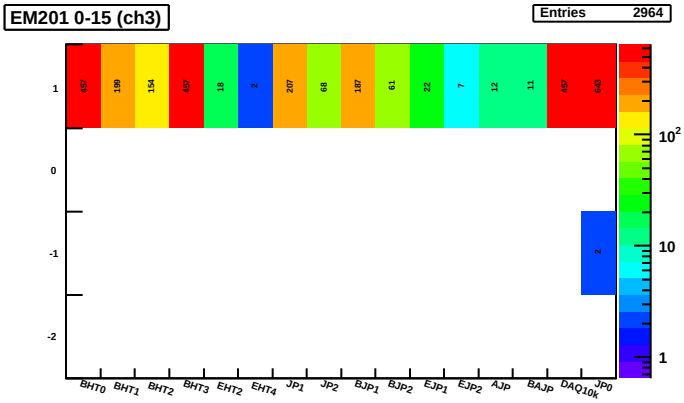




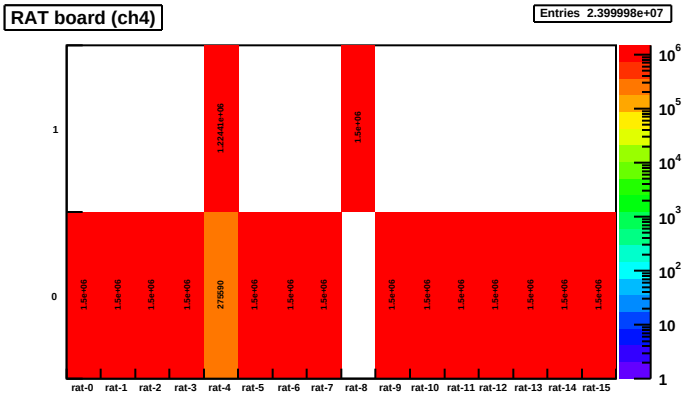
EM201 0-15 (ch3)

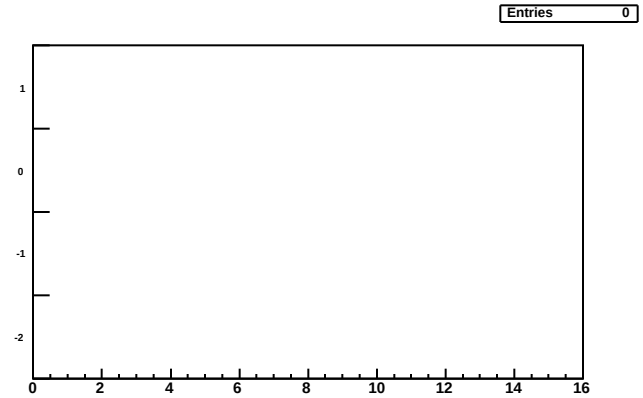


EM201 0-15 (ch3)

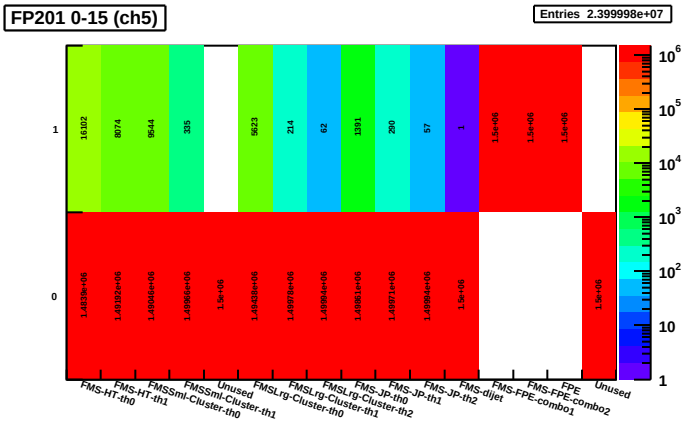


RAT board (ch4)

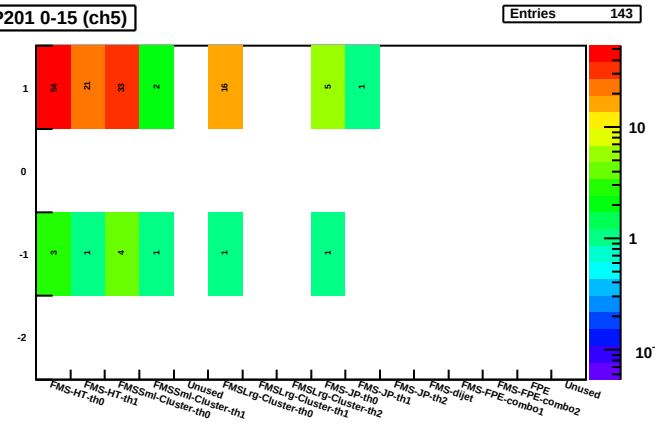




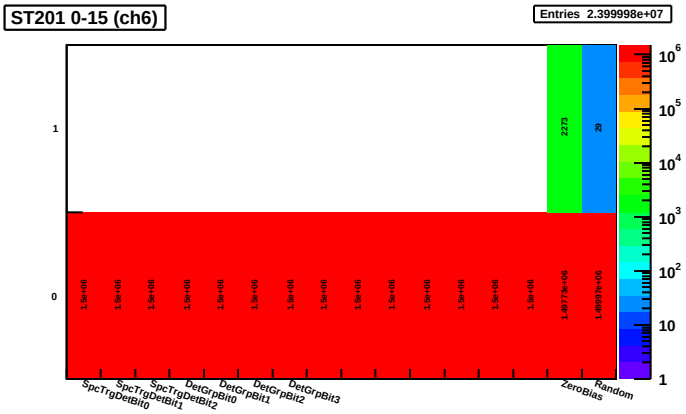
FP201 0-15 (ch5)

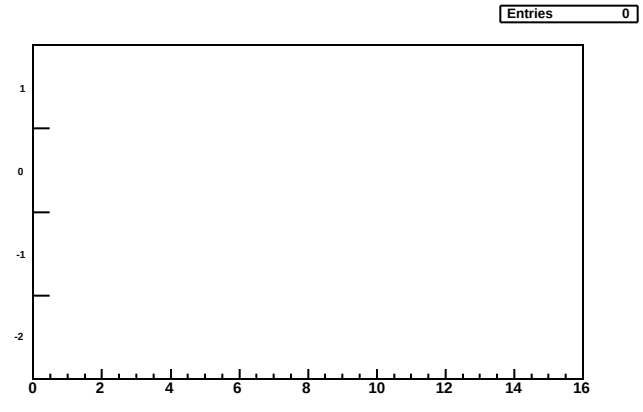
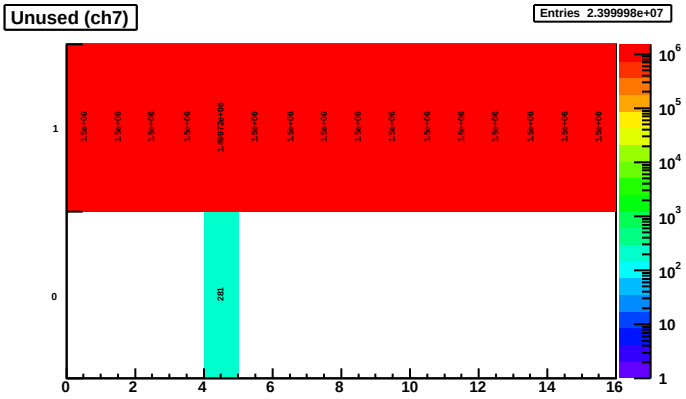
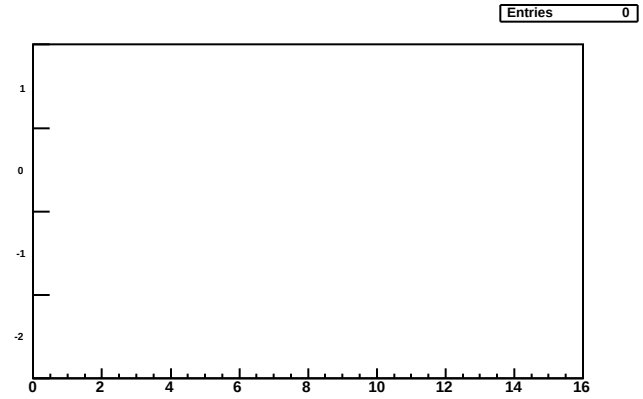


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)