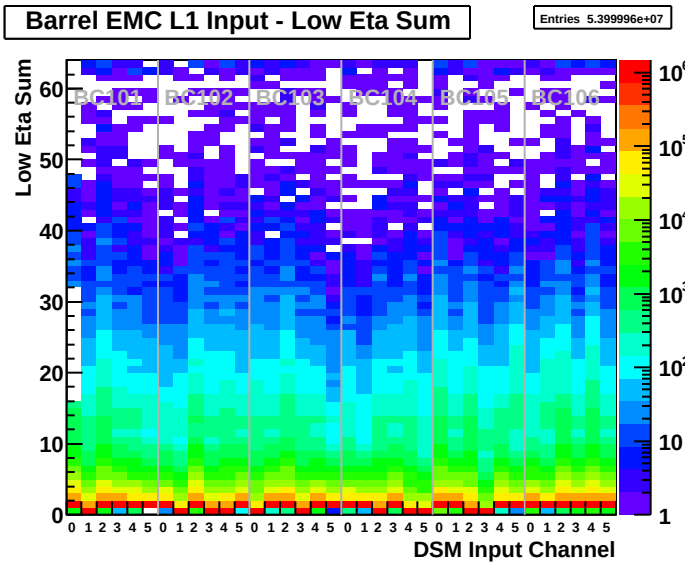
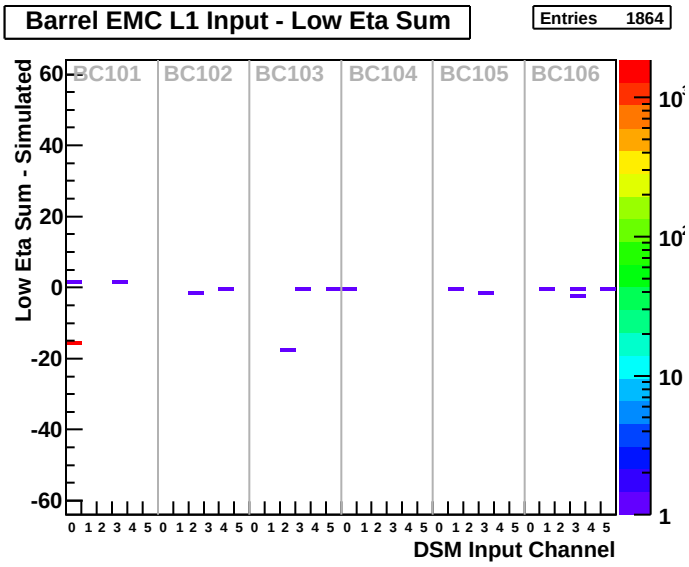
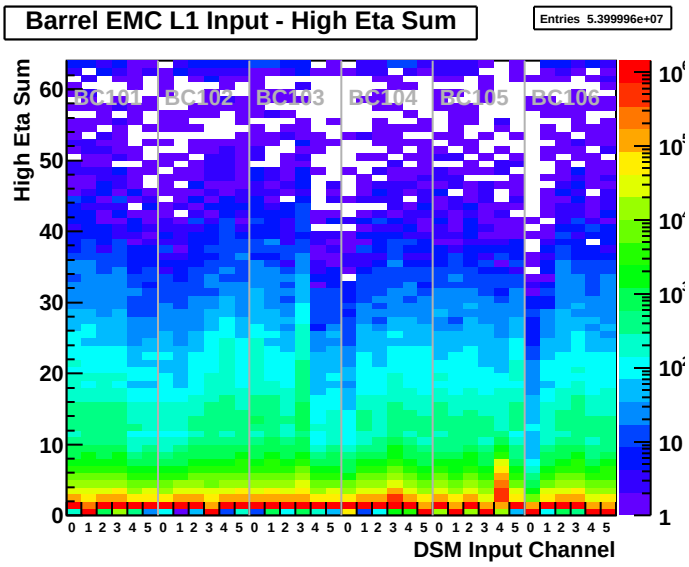
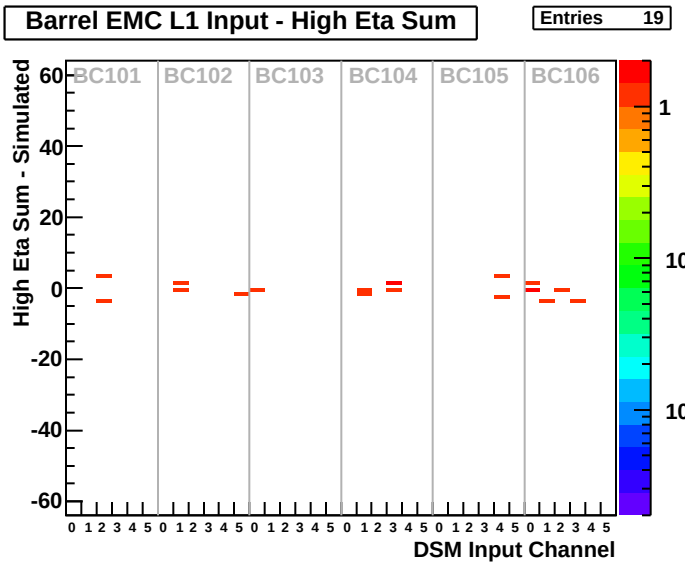
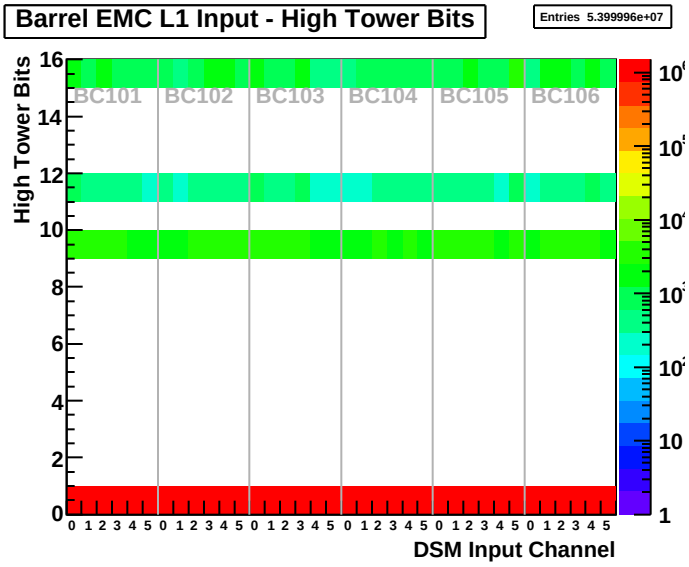
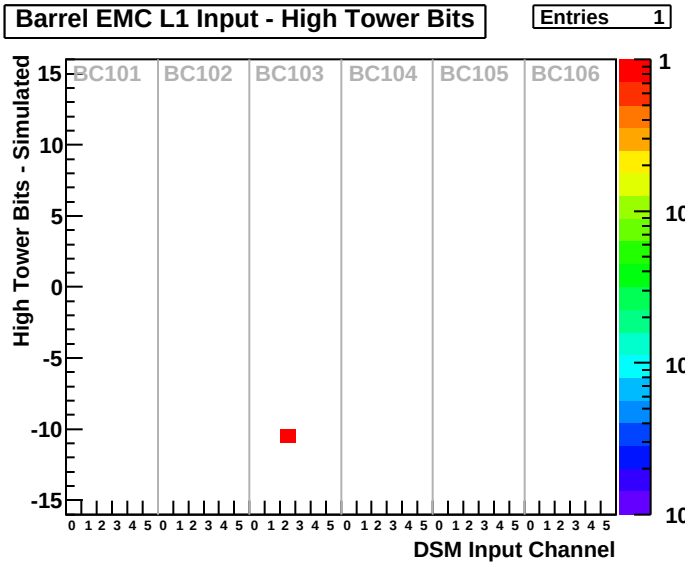

Barrel EMC L1 Input - Low Eta Sum
Entries 5.399996e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

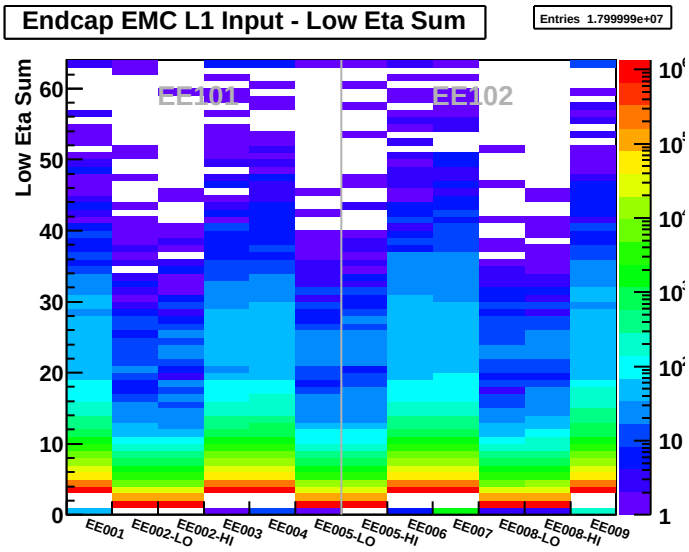

Barrel EMC L1 Input - Low Eta Sum
Entries 1864
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

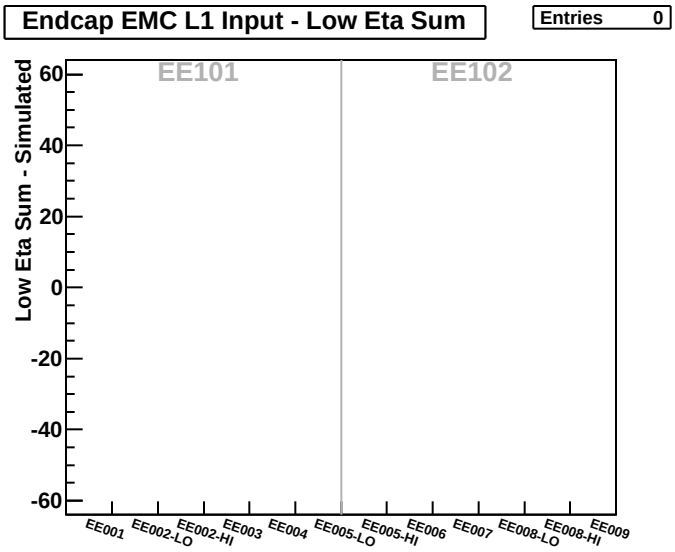

Barrel EMC L1 Input - High Eta Sum
Entries 5.399996e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

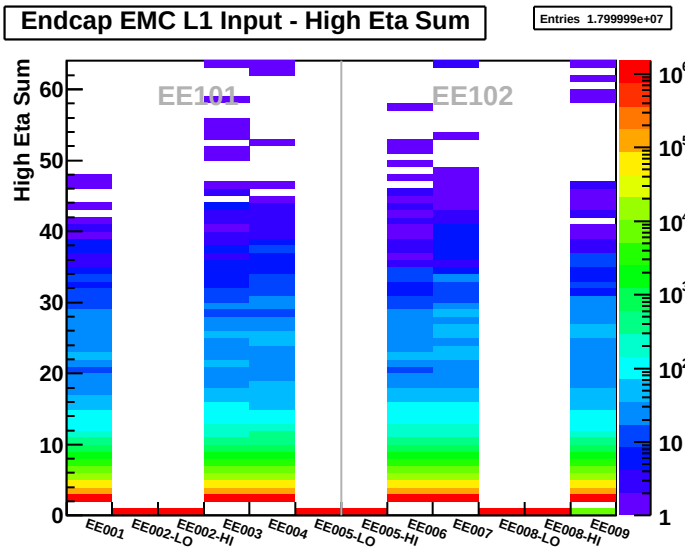

Barrel EMC L1 Input - High Eta Sum
Entries 19
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

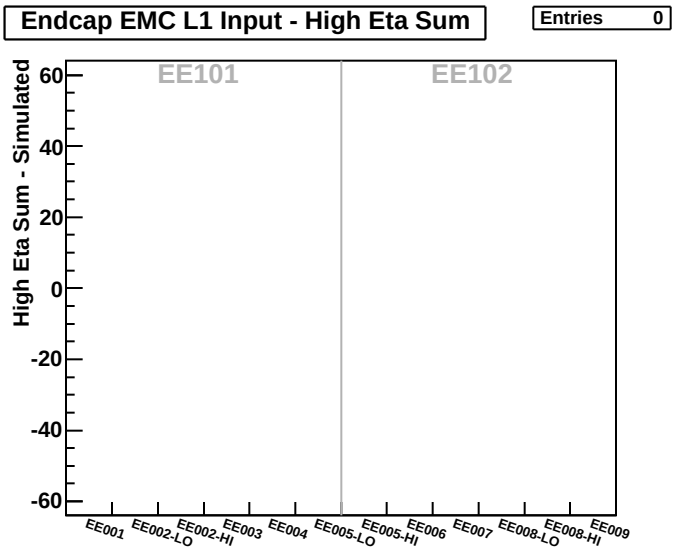

Barrel EMC L1 Input - High Tower Bits
Entries 5.399996e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

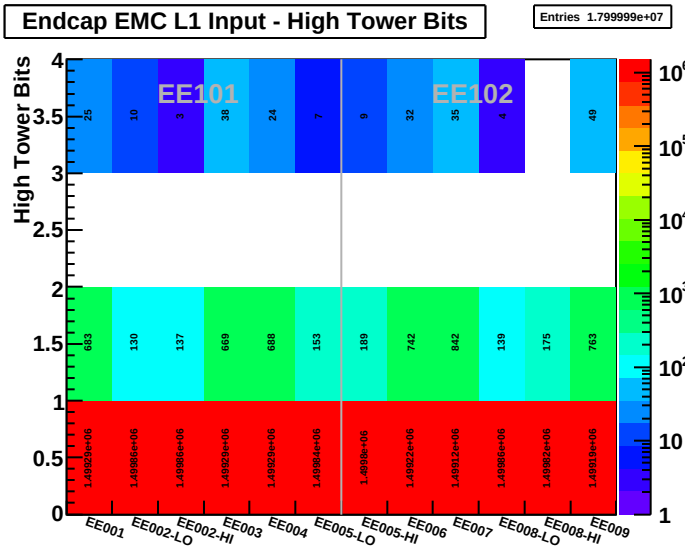

Barrel EMC L1 Input - High Tower Bits
Entries 1
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

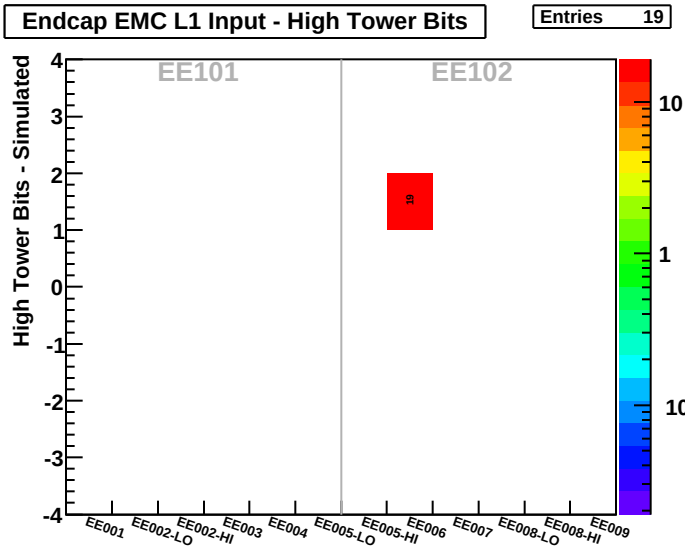

Endcap EMC L1 Input - Low Eta Sum
Entries 1.799999e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

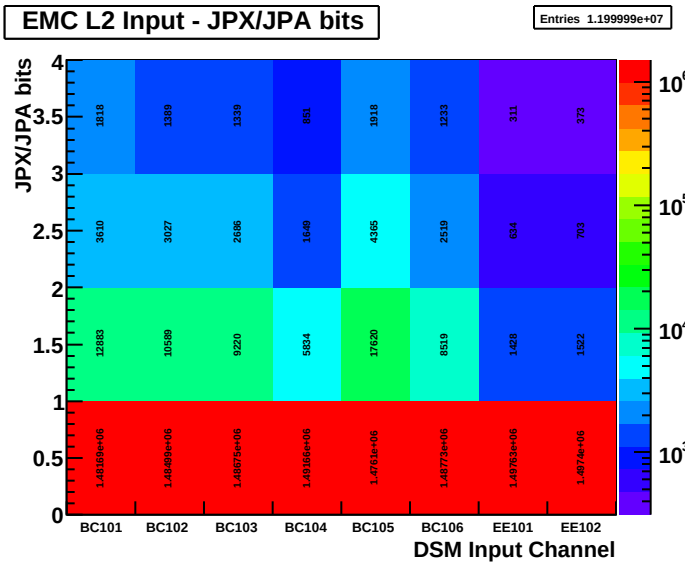

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

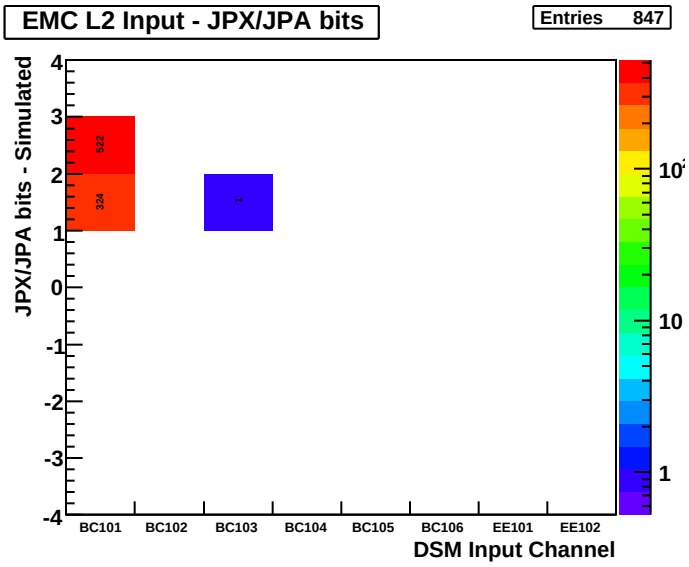

Endcap EMC L1 Input - High Eta Sum
Entries 1.799999e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

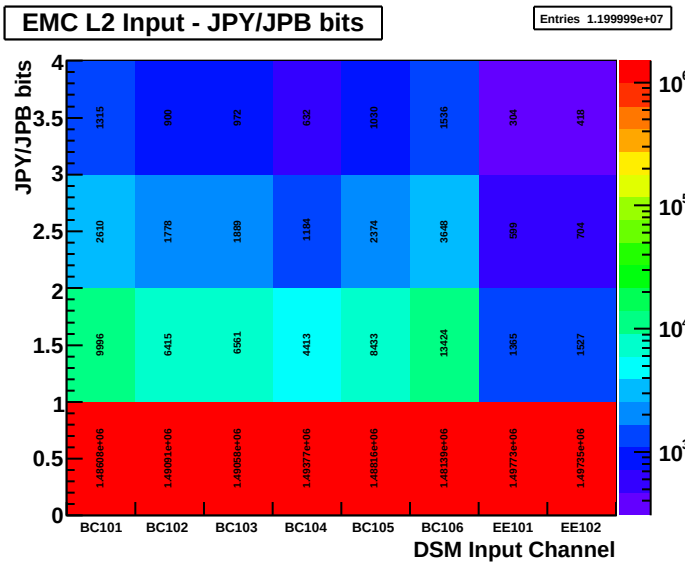

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

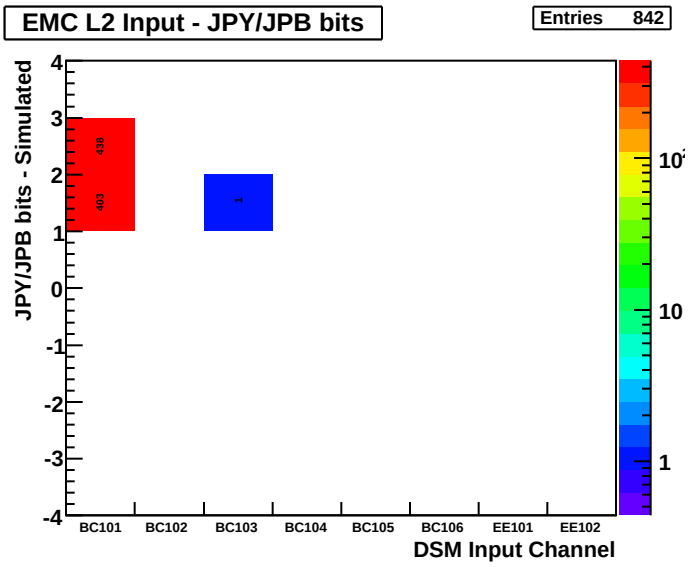

Endcap EMC L1 Input - High Tower Bits
Entries 1.799999e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

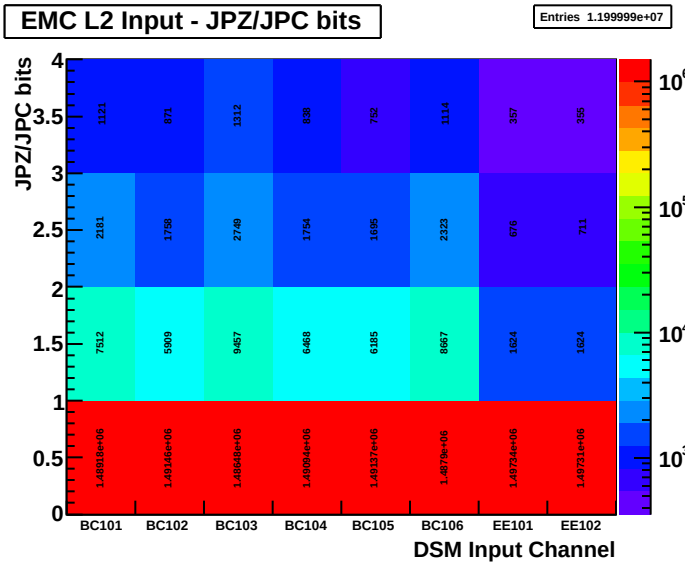

Endcap EMC L1 Input - High Tower Bits
Entries 19
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

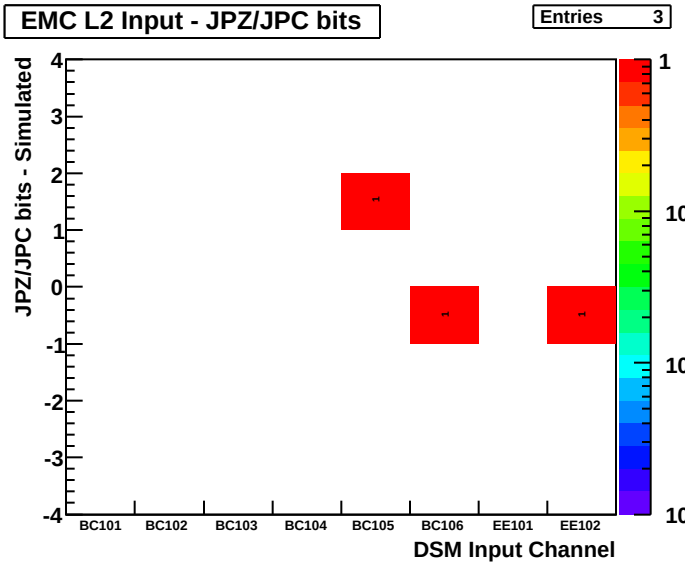

EMC L2 Input - JPX/JPA bits
Entries 1.199999e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1818 1389 1339 851 1918 1233 311 373
3610 3027 2686 1640 4365 2519 634 703
12883 10589 9220 5834 17620 8519 1428 1522
1.48169e+06 1.48499e+06 1.48675e+06 1.49156e+06 1.4761e+06 1.48773e+06 1.49763e+06 1.4974e+06

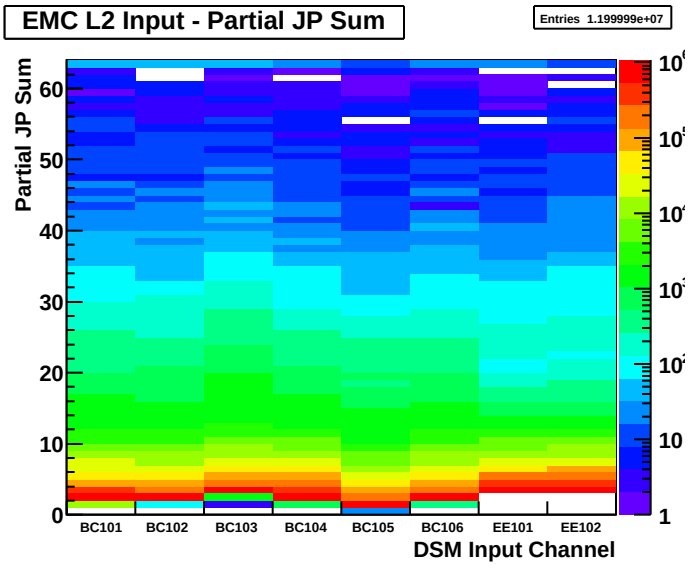

EMC L2 Input - JPX/JPA bits
Entries 847
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
522
324
1

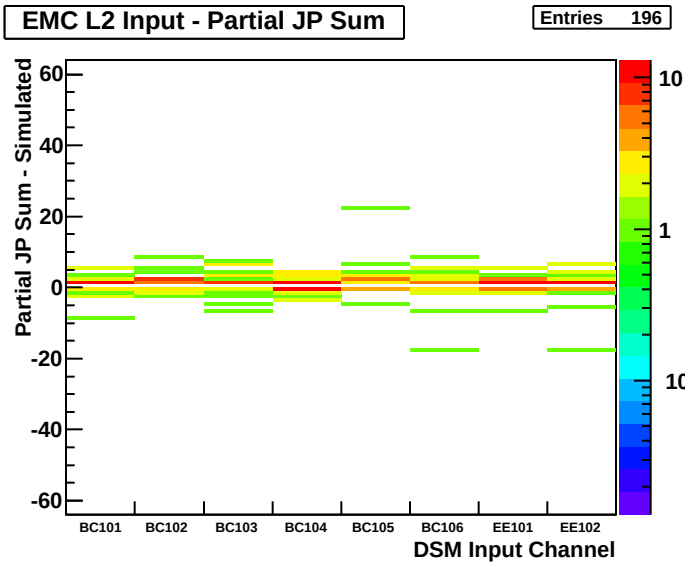

EMC L2 Input - JPY/JPB bits
Entries 1.199999e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1315 900 972 632 1030 1536 304 418
2510 1778 1889 1184 2374 3648 599 704
9996 6415 6561 4413 8433 13424 1365 1527
1.48608e+06 1.49091e+06 1.49058e+06 1.49377e+06 1.48816e+06 1.48139e+06 1.49773e+06 1.49735e+06

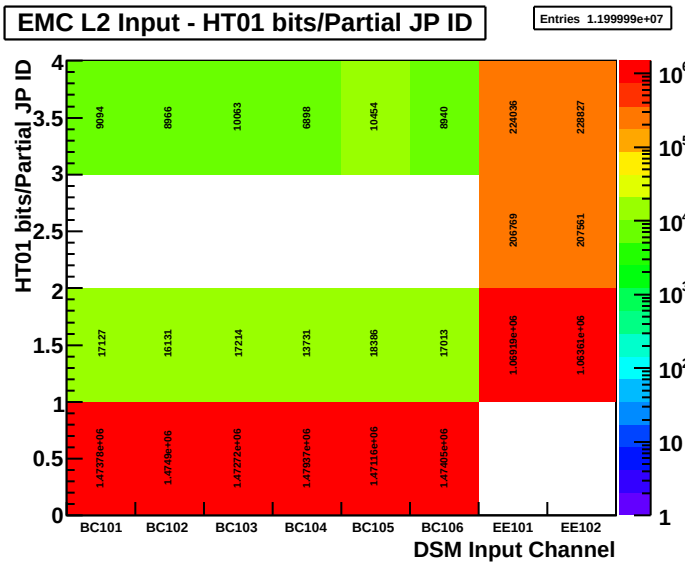

EMC L2 Input - JPY/JPB bits
Entries 842
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
438
403
1

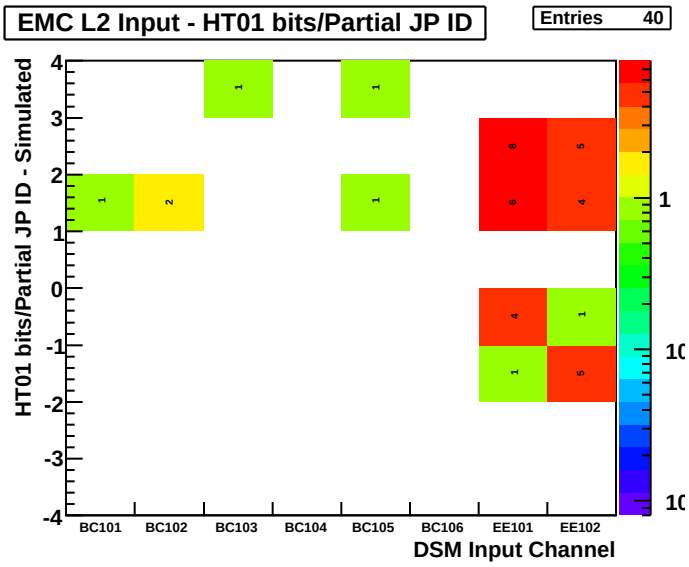

EMC L2 Input - JPZ/JPC bits
Entries 1.199999e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1121 871 1312 838 752 1114 357 355
2181 1758 2749 1754 1695 2323 676 711
7512 5909 9467 6468 6185 8667 1624 1624
1.48918e+06 1.49146e+06 1.48648e+06 1.49094e+06 1.49137e+06 1.4878e+06 1.49734e+06 1.49731e+06

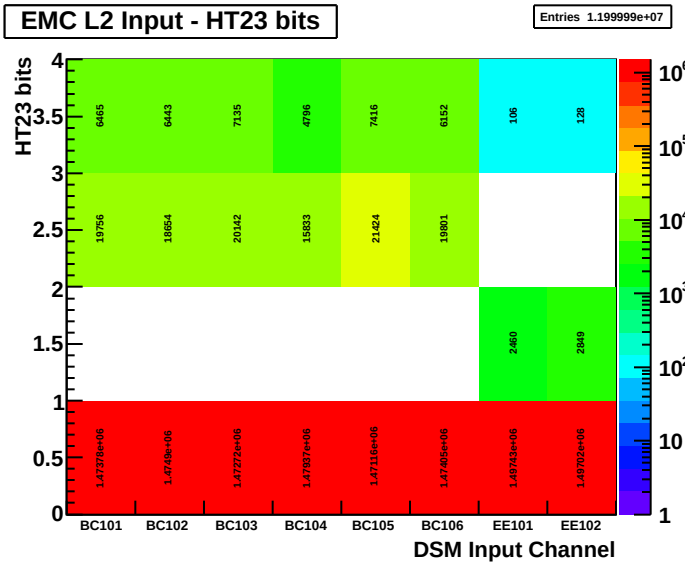

EMC L2 Input - JPZ/JPC bits
Entries 3
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1
1
1

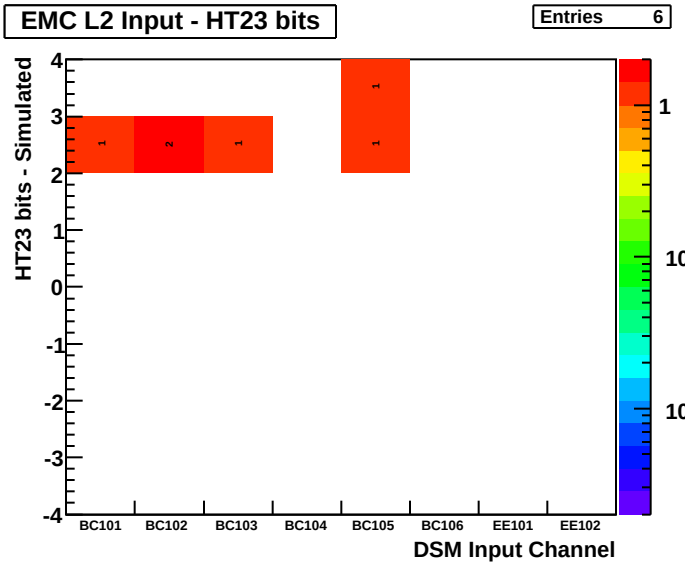

EMC L2 Input - Partial JP Sum
Entries 1.199999e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

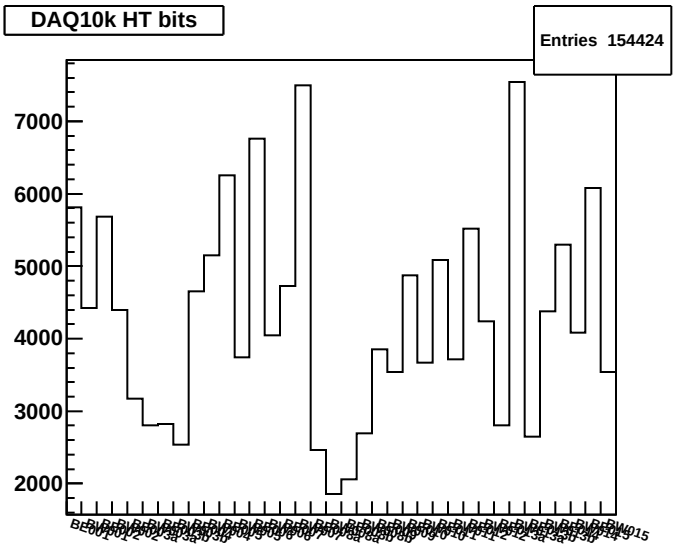

EMC L2 Input - Partial JP Sum
Entries 196
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

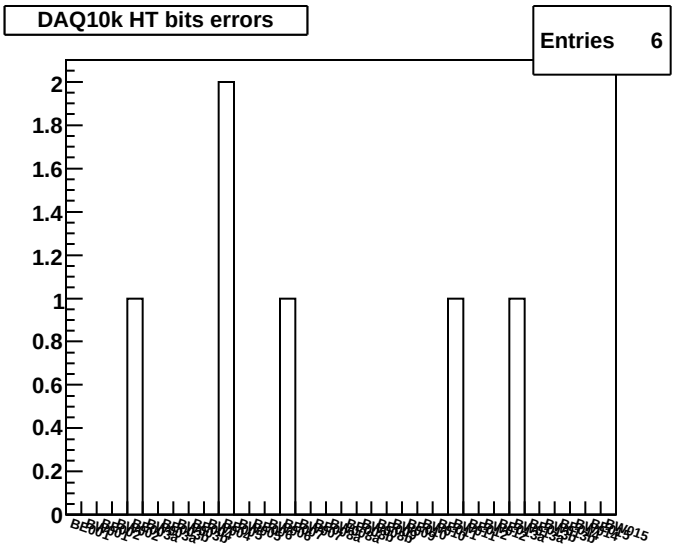

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1.199999e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

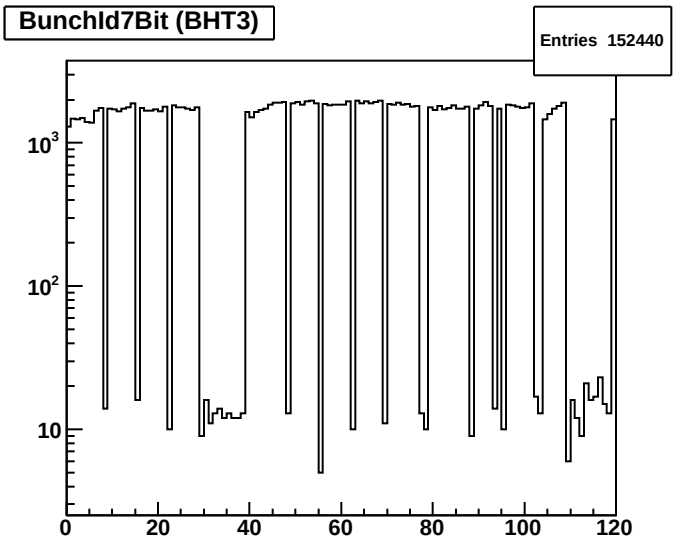

EMC L2 Input - HT01 bits/Partial JP ID
Entries 40
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

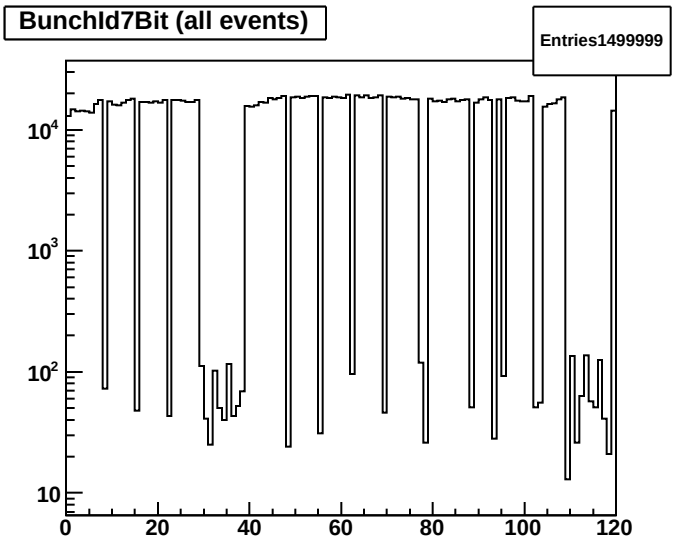

EMC L2 Input - HT23 bits
Entries 1.199999e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

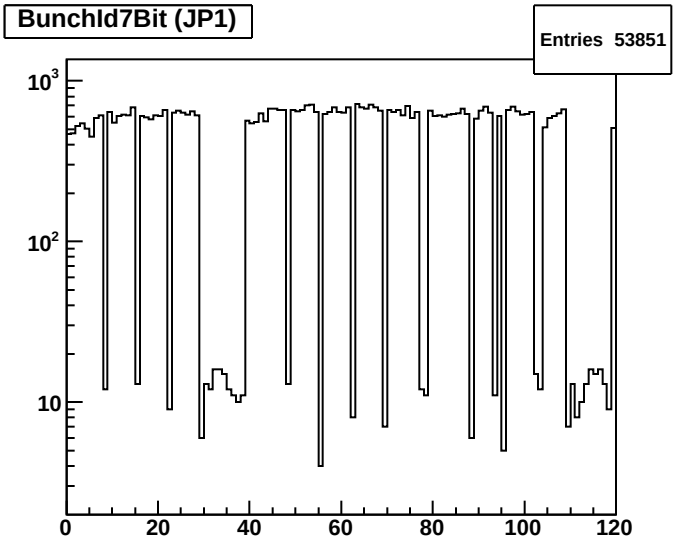

EMC L2 Input - HT23 bits
Entries 6
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

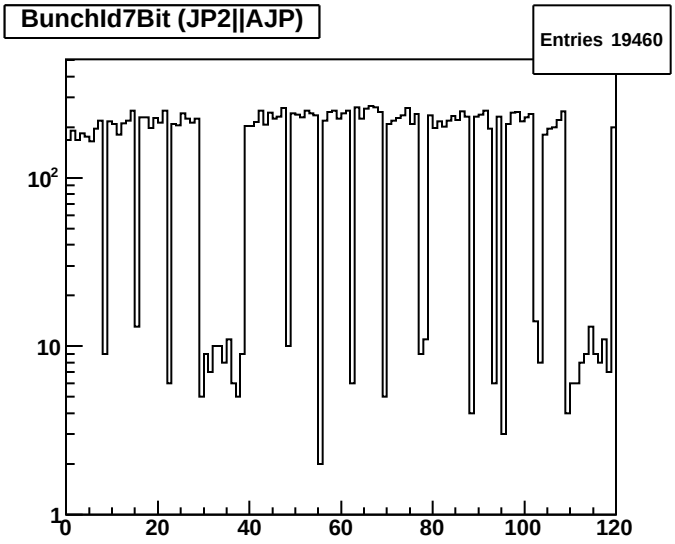

DAQ10k HT bits
Entries 154424
7000
6000
5000
4000
3000
2000

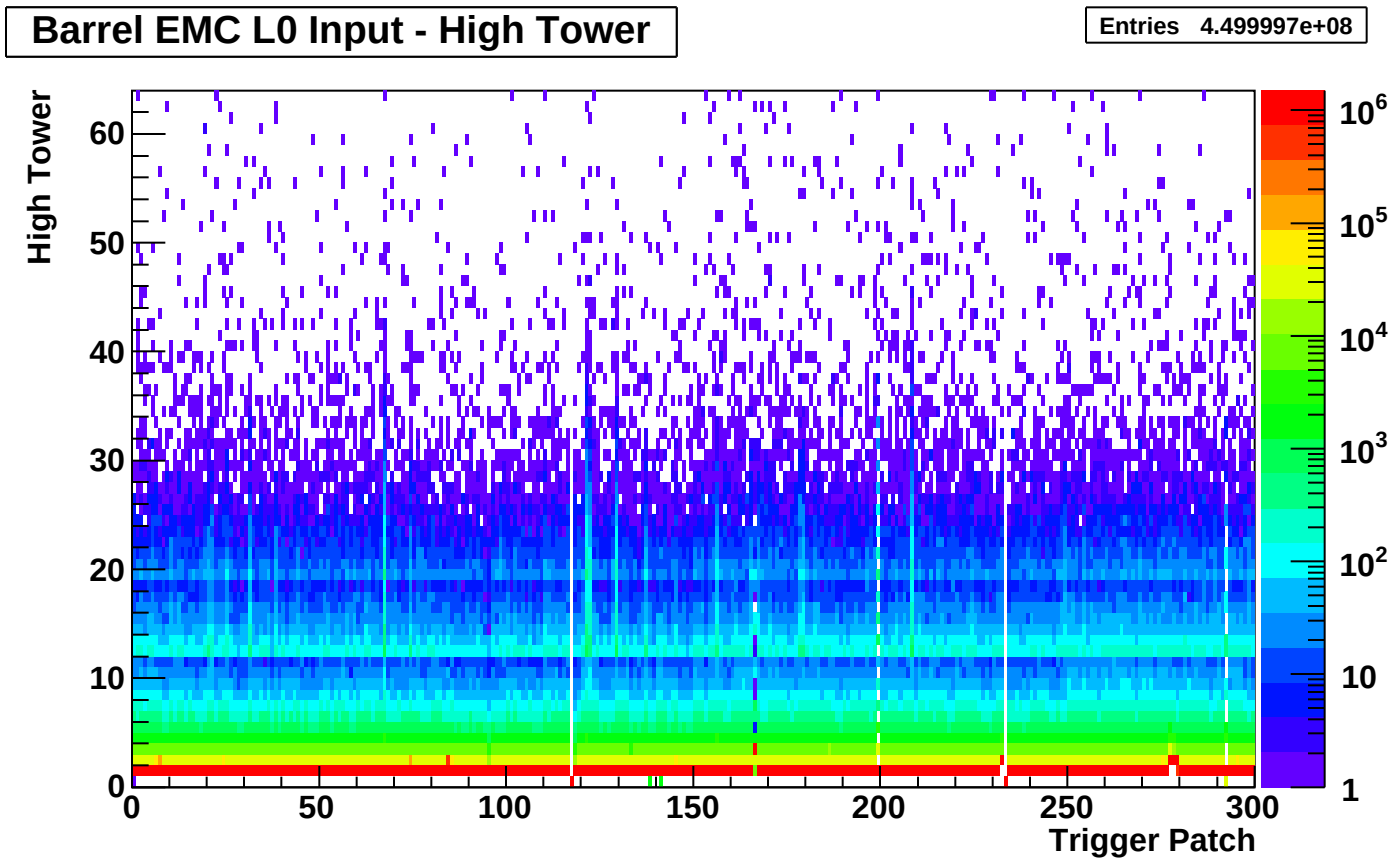

DAQ10k HT bits errors
Entries 6
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0

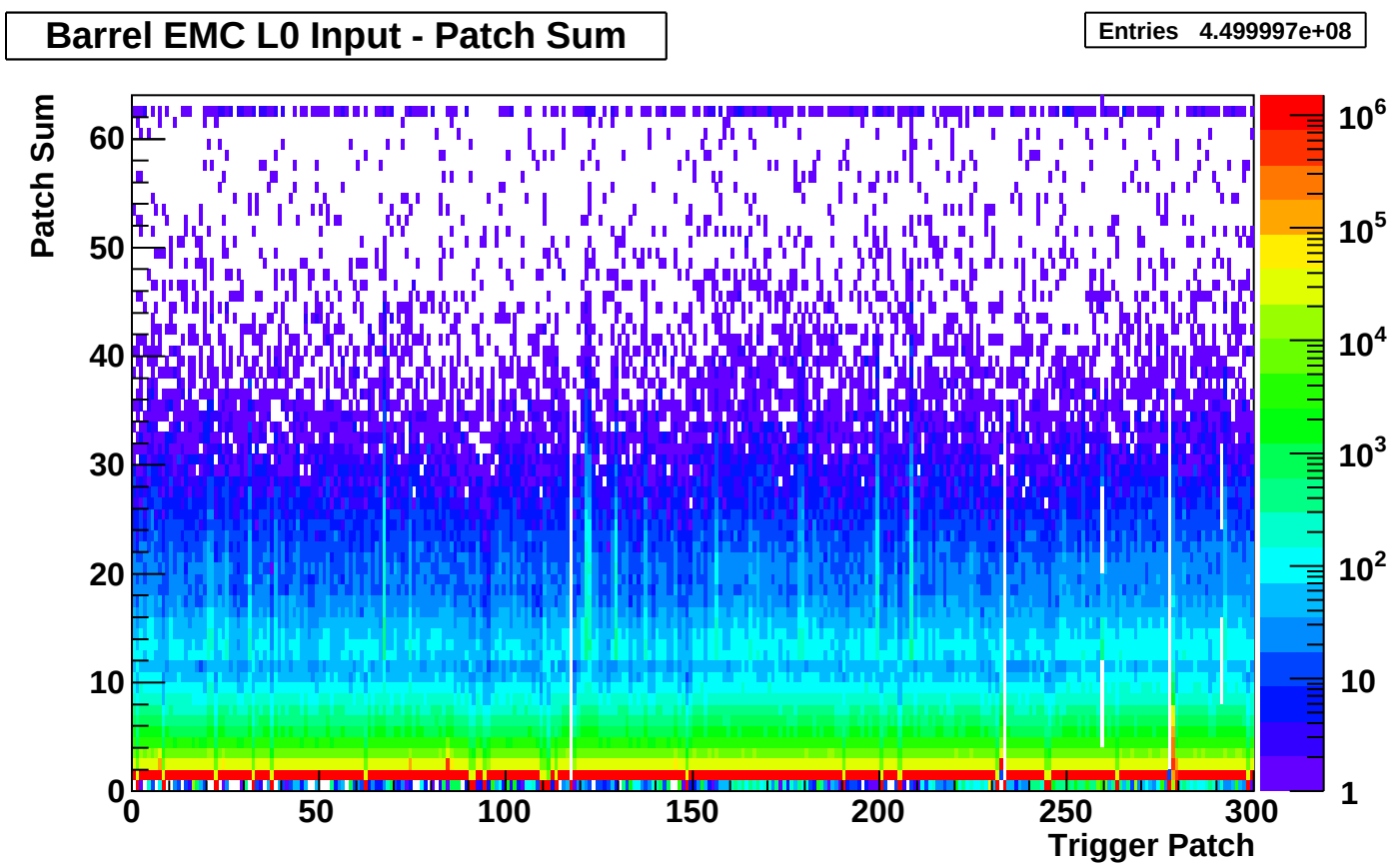

BunchId7Bit (BHT3)
Entries 152440
10^3
10^2
10
0
20
40
60
80
100
120

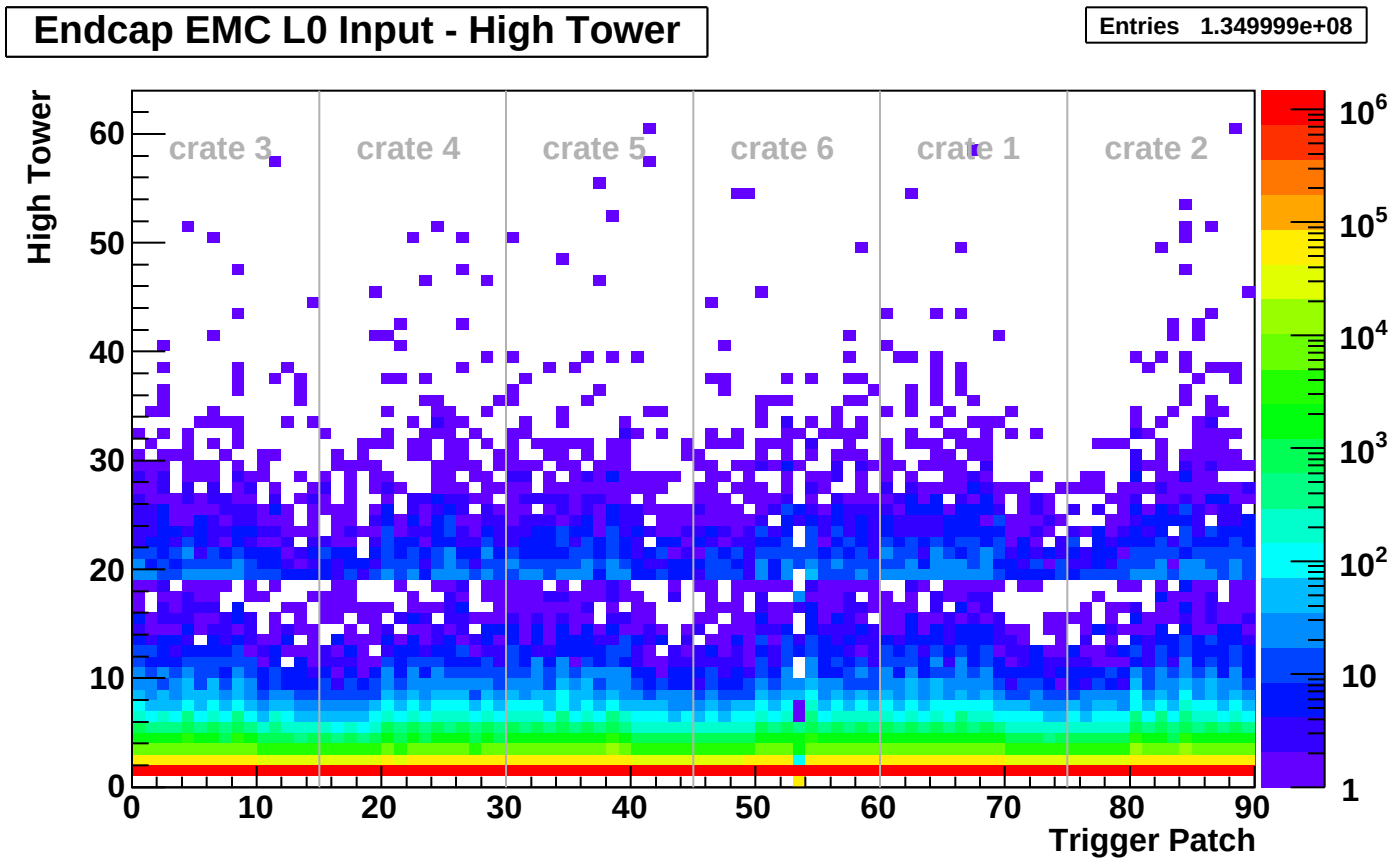

BunchId7Bit (all events)
Entries1499999
10^4
10^3
10^2
10
0
20
40
60
80
100
120

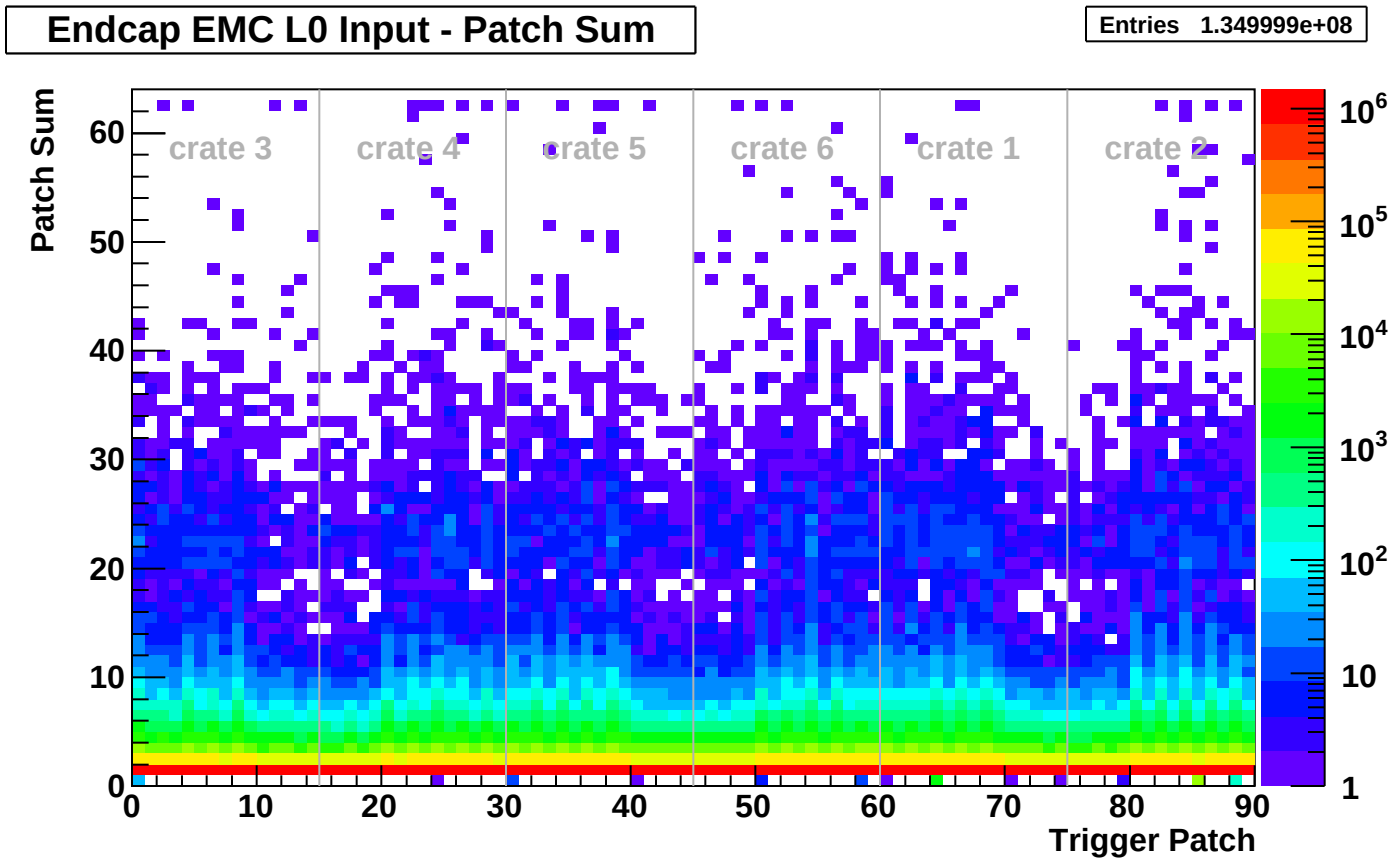

BunchId7Bit (JP1)
Entries 53851
10^3
10^2
10
0
20
40
60
80
100
120

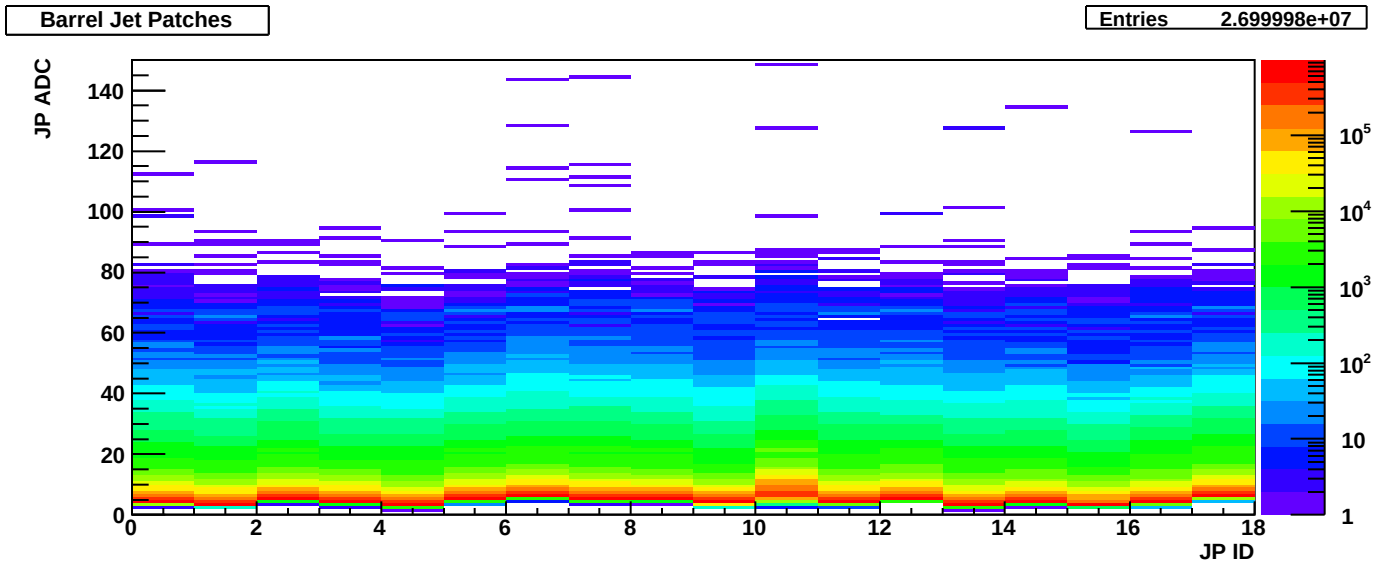

BunchId7Bit (JP2||AJP)
Entries 19460
10^2
10
1
0
20
40
60
80
100
120

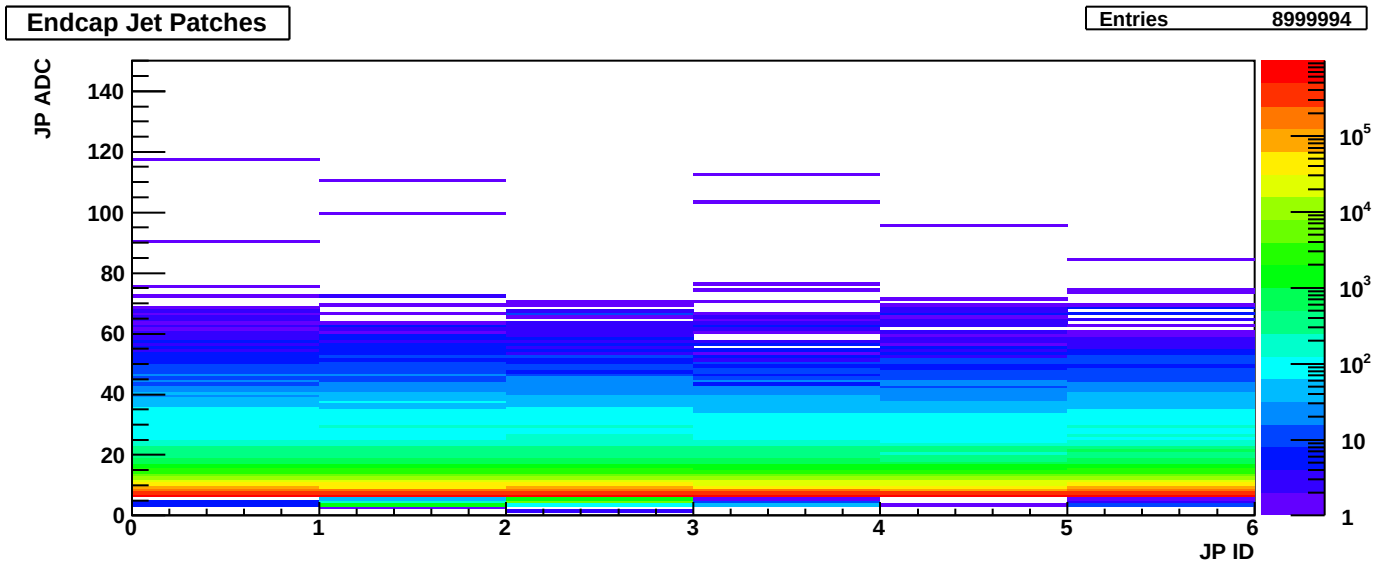

Barrel EMC L0 Input - High Tower
Entries 4.499997e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

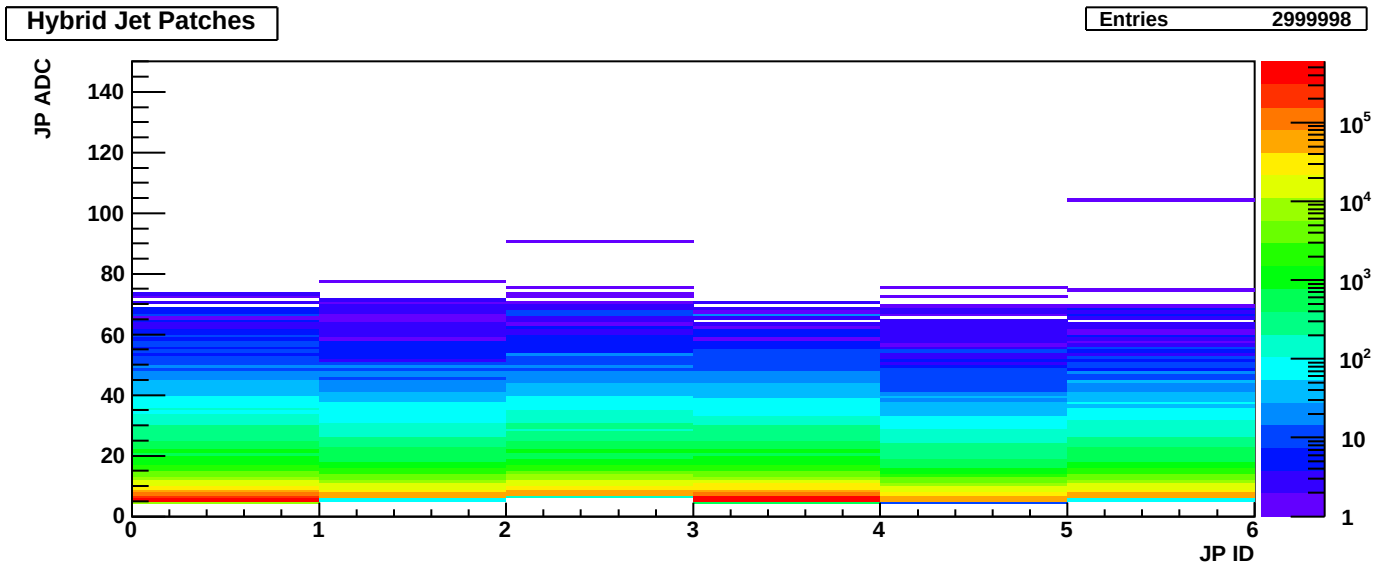

Barrel EMC L0 Input - Patch Sum
Entries 4.499997e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

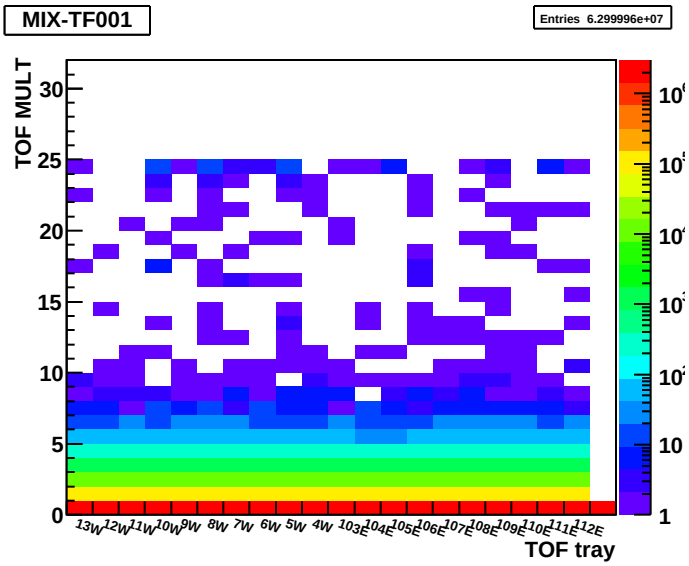

Endcap EMC L0 Input - High Tower
Entries 1.349999e+08
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

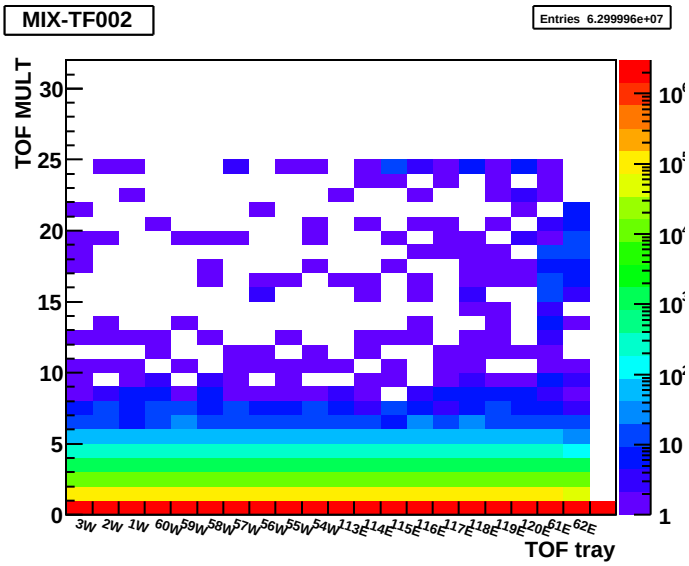

Endcap EMC L0 Input - Patch Sum
Entries 1.349999e+08
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

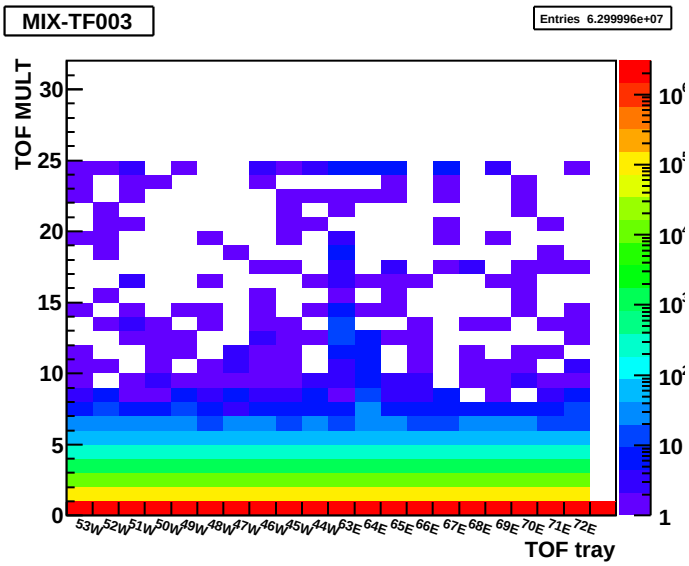

Barrel Jet Patches
Entries 2.699998e+07
JP ADC
JP ID

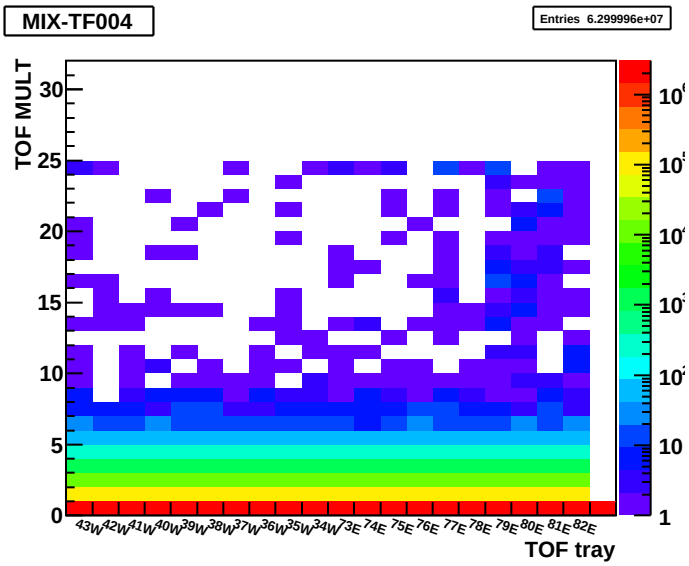

Endcap Jet Patches
Entries 8999994
JP ADC
JP ID

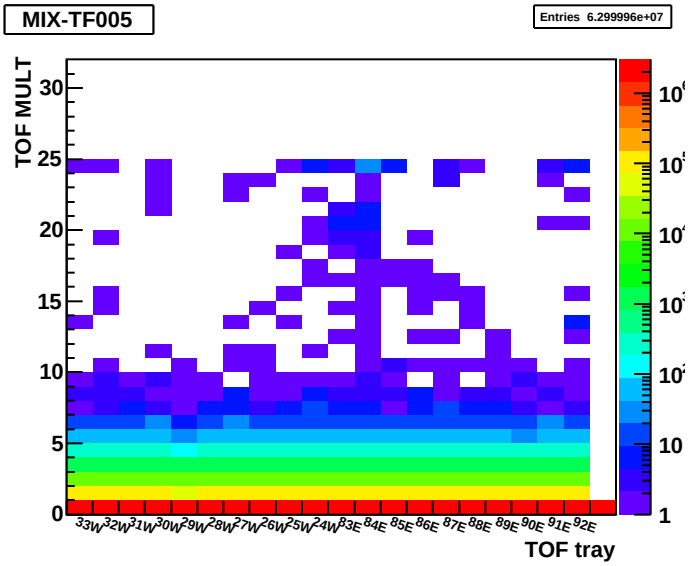

Hybrid Jet Patches
Entries 2999998
JP ADC
JP ID

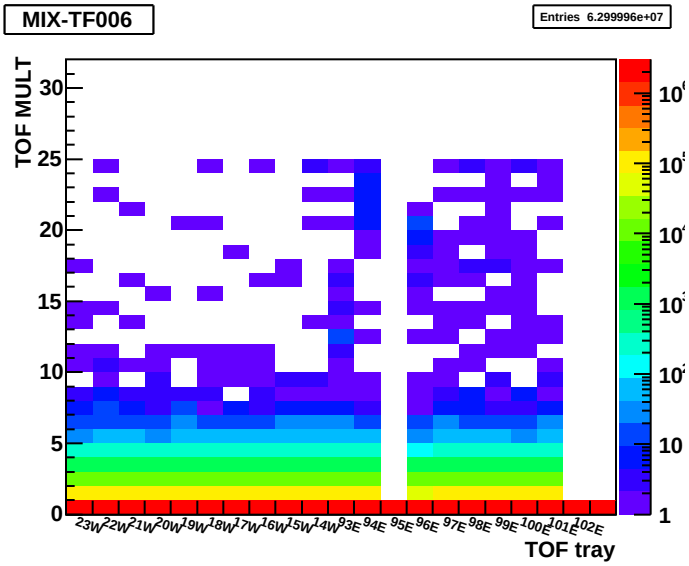

MIX-TF001
Entries 6.299996e+07
TOF MULT
TOF tray

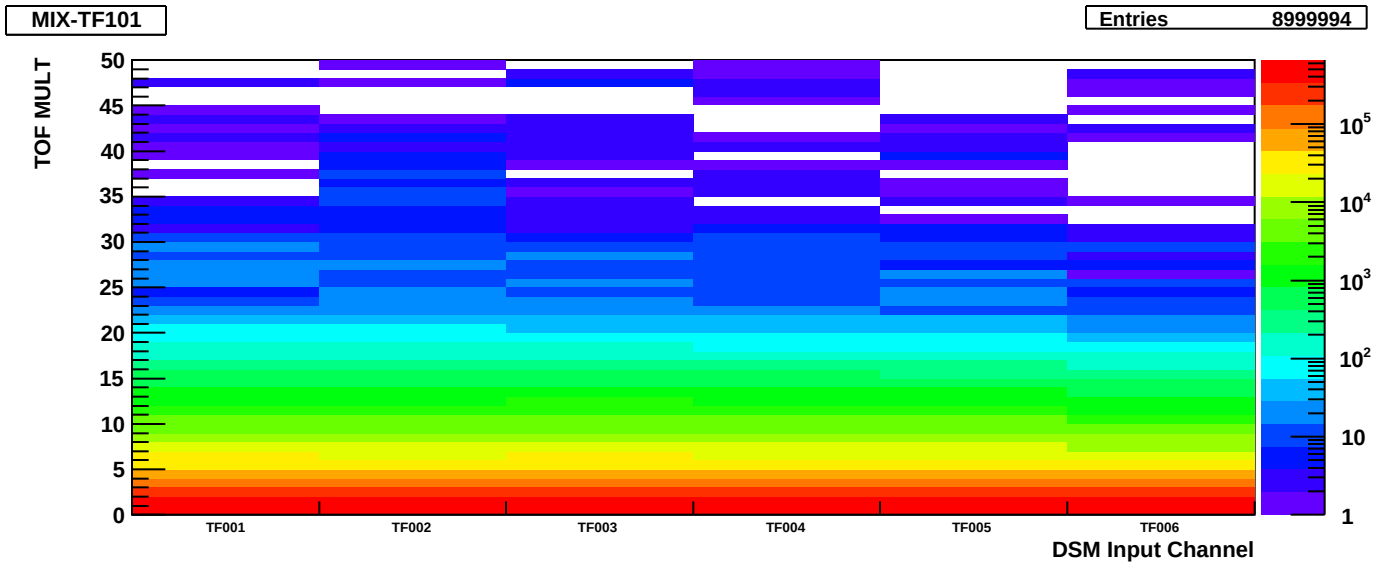

MIX-TF002
Entries 6.299996e+07
TOF MULT
TOF tray

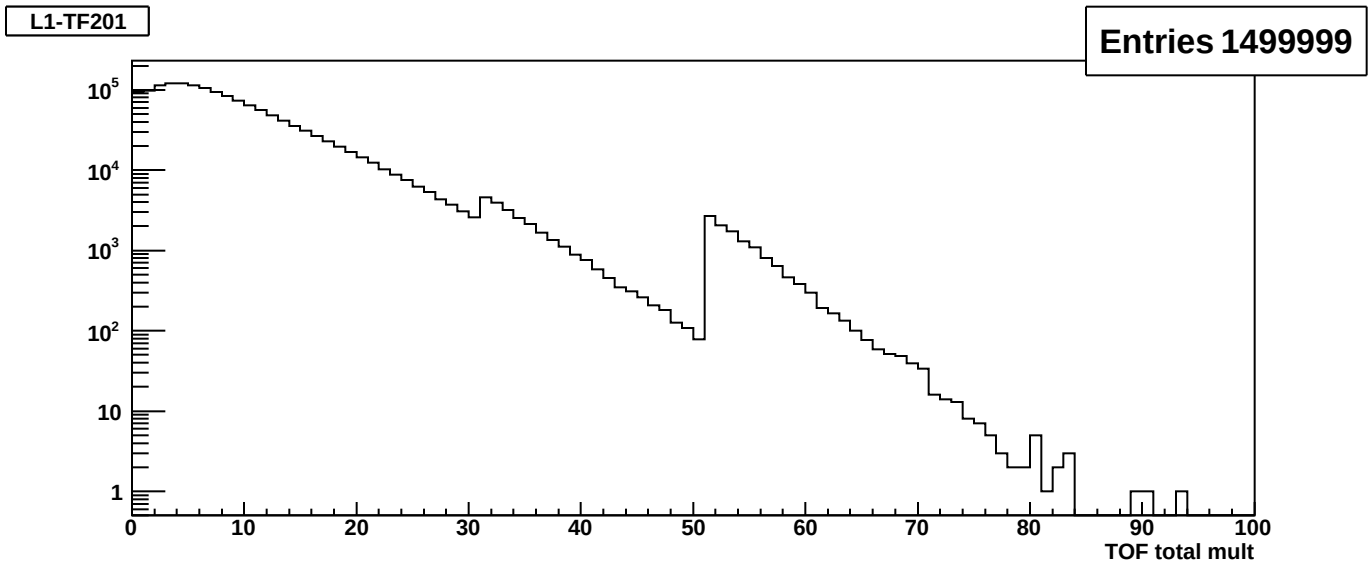

MIX-TF003
Entries 6.299996e+07
TOF MULT
TOF tray

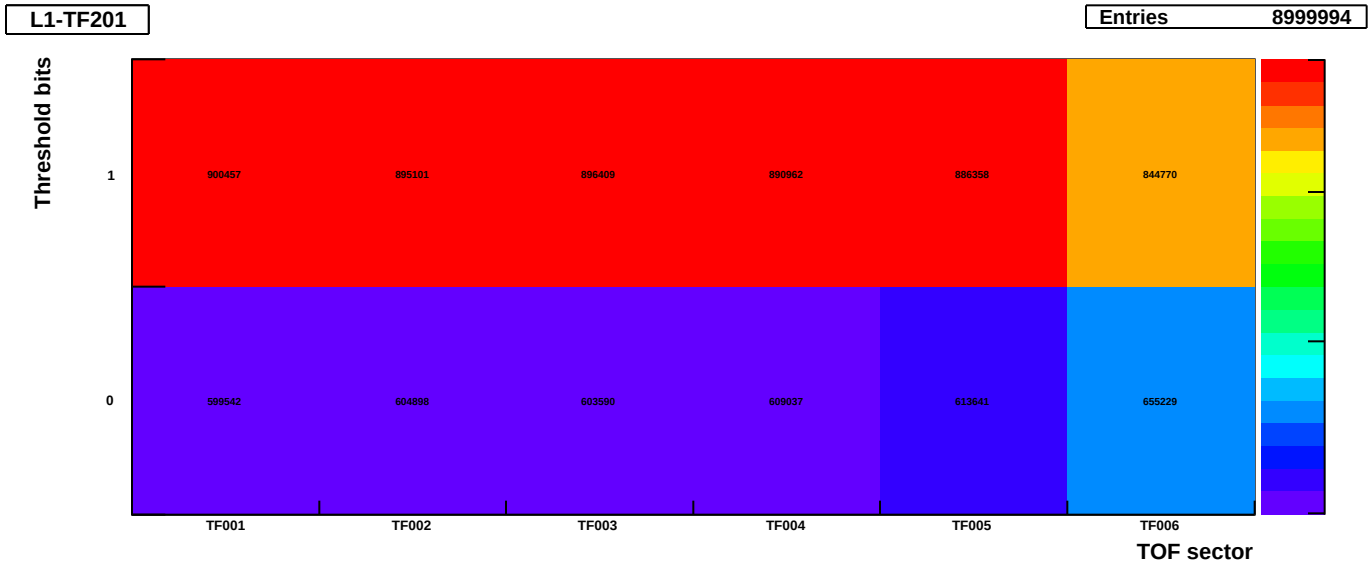

MIX-TF004
Entries 6.299996e+07
TOF MULT
TOF tray

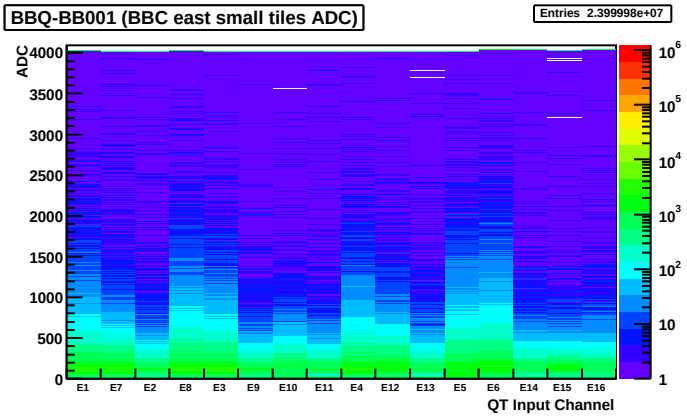

MIX-TF005
Entries 6.299996e+07
TOF MULT
TOF tray

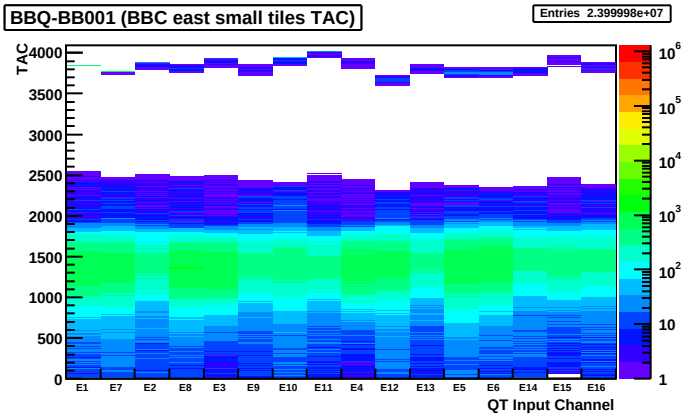

MIX-TF006
Entries 6.299996e+07
TOF MULT
TOF tray

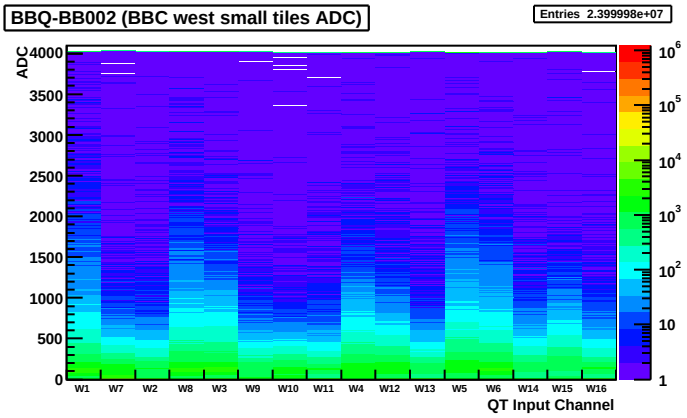

MIX-TF101
Entries 8999994
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

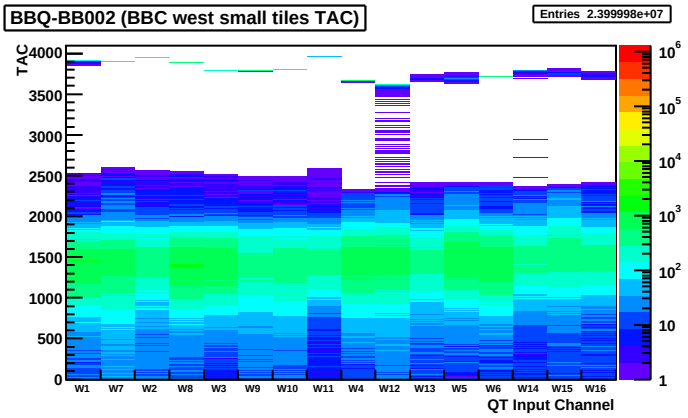

L1-TF201
Entries 1499999
TOF total mult

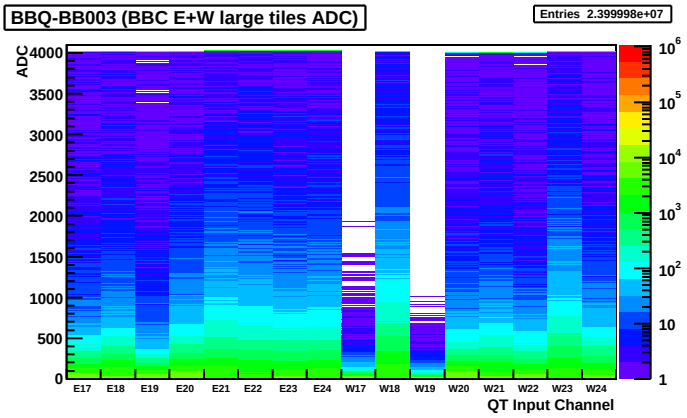

L1-TF201
Entries 8999994
Threshold bits
900457
895101
896409
890962
886358
844770
599542
604898
603590
609037
613641
655229
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

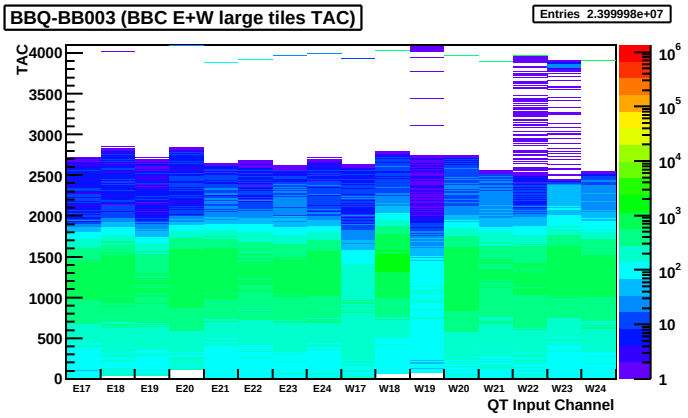

BBQ-BB001 (BBC east small tiles ADC)
Entries 2.399998e+07
ADC
QT Input Channel

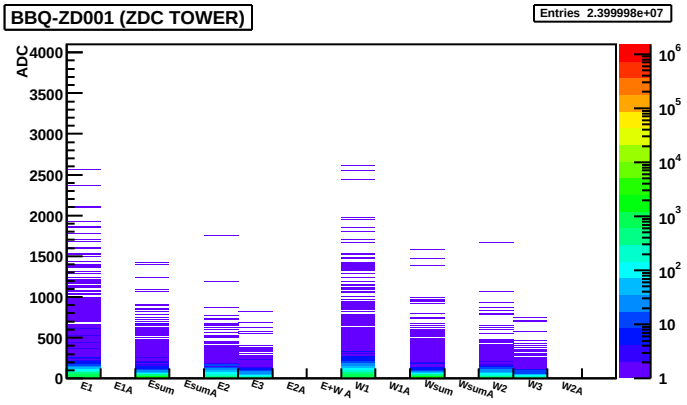

BBQ-BB001 (BBC east small tiles TAC)
Entries 2.399998e+07
TAC
QT Input Channel

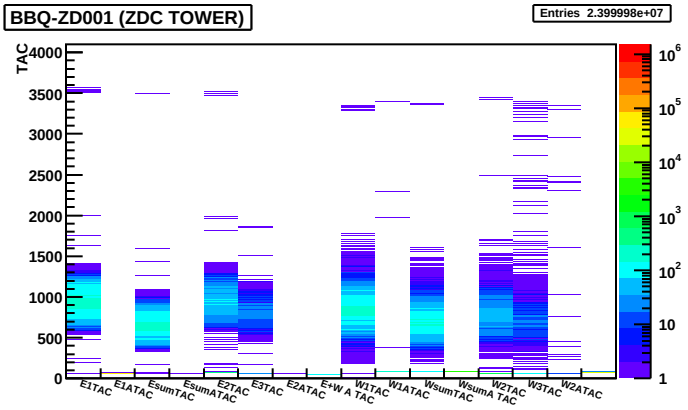

BBQ-BB002 (BBC west small tiles ADC)
Entries 2.399998e+07
ADC
QT Input Channel

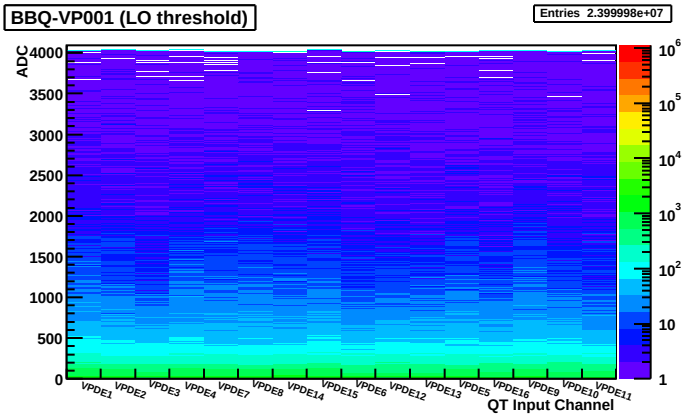

BBQ-BB002 (BBC west small tiles TAC)
Entries 2.399998e+07
TAC
QT Input Channel

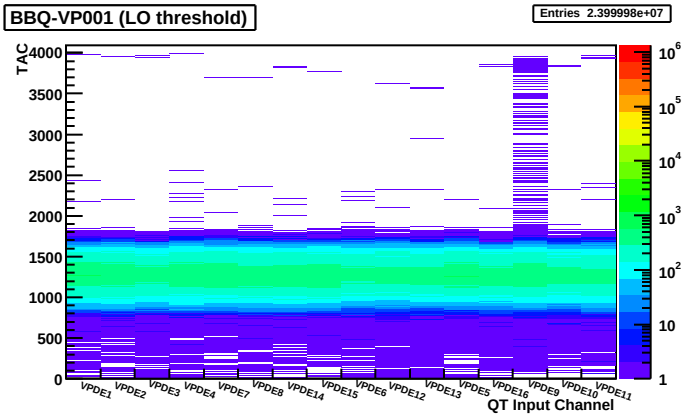

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2.399998e+07
ADC
QT Input Channel

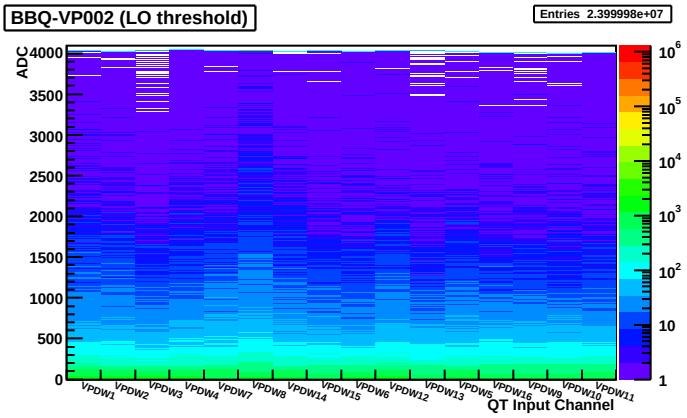

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2.399998e+07
TAC
QT Input Channel

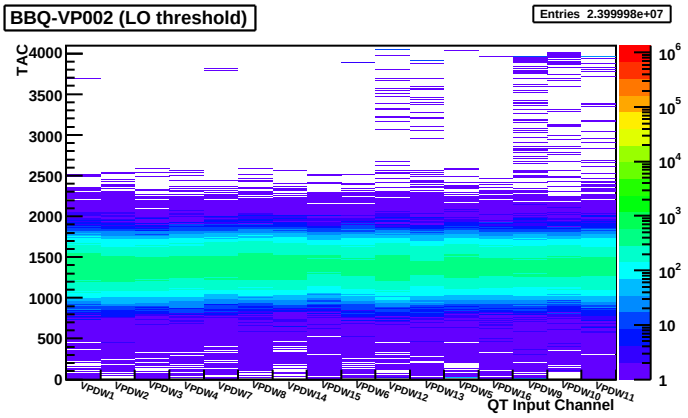

BBQ-ZD001 (ZDC TOWER)
Entries 2.399998e+07
ADC

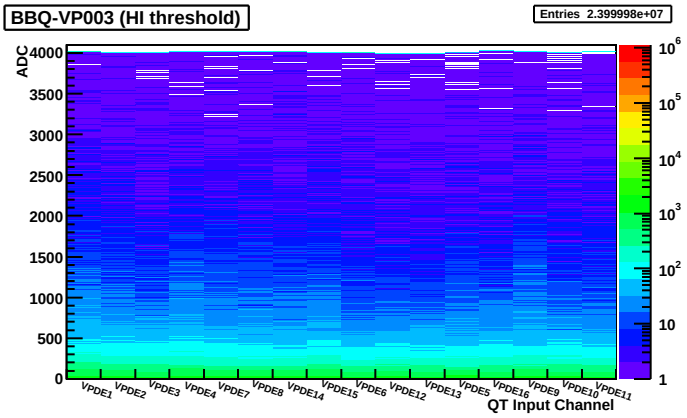

BBQ-ZD001 (ZDC TOWER)
Entries 2.399998e+07
TAC

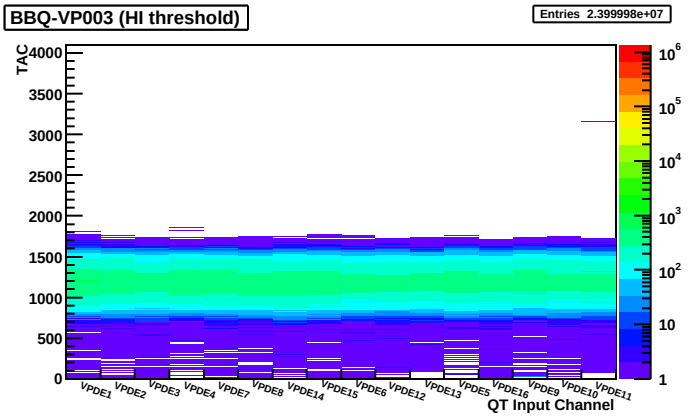

BBQ-VP001 (LO threshold)
Entries 2.399998e+07
ADC
QT Input Channel

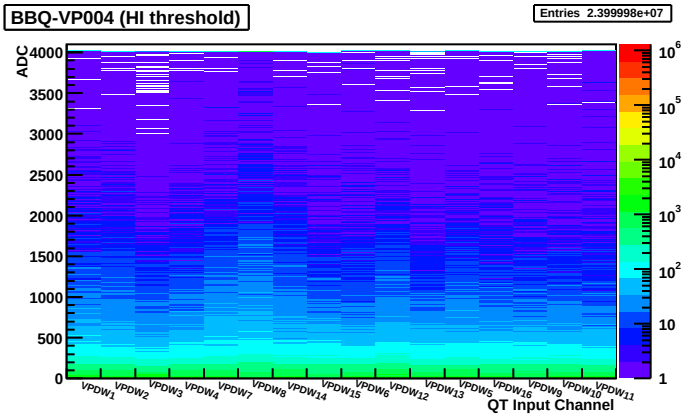

BBQ-VP001 (LO threshold)
Entries 2.399998e+07
TAC
QT Input Channel

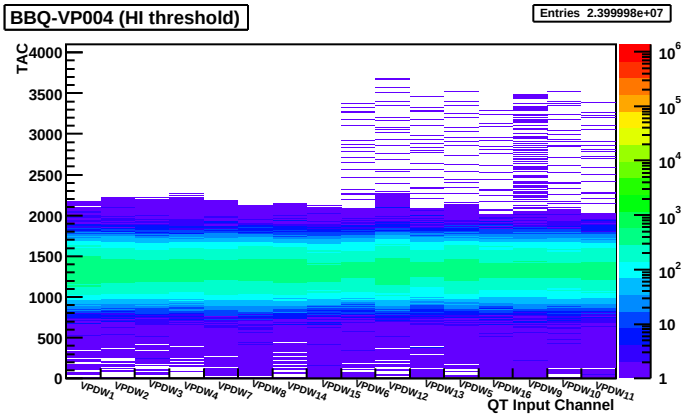

BBQ-VP002 (LO threshold)
Entries 2.399998e+07
ADC
QT Input Channel

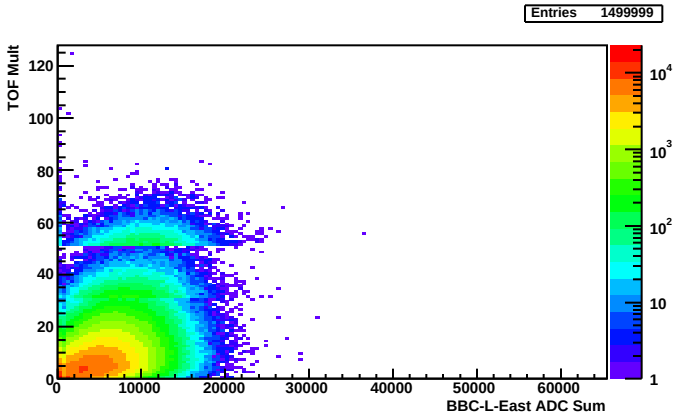

BBQ-VP002 (LO threshold)
Entries 2.399998e+07
TAC
QT Input Channel

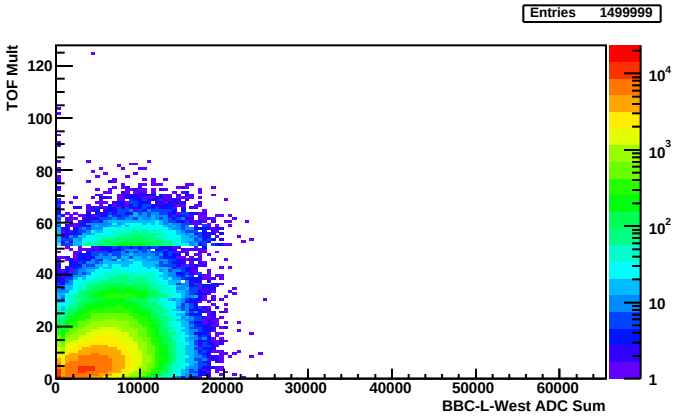

BBQ-VP003 (HI threshold)
Entries 2.399998e+07
ADC
QT Input Channel

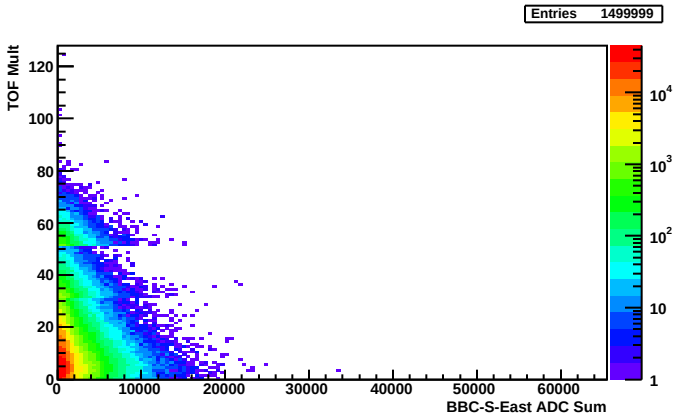

BBQ-VP003 (HI threshold)
Entries 2.399998e+07
TAC
QT Input Channel

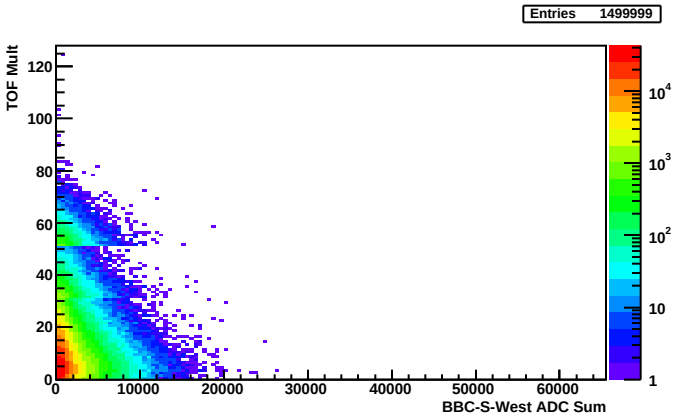

BBQ-VP004 (HI threshold)
Entries 2.399998e+07
ADC
QT Input Channel

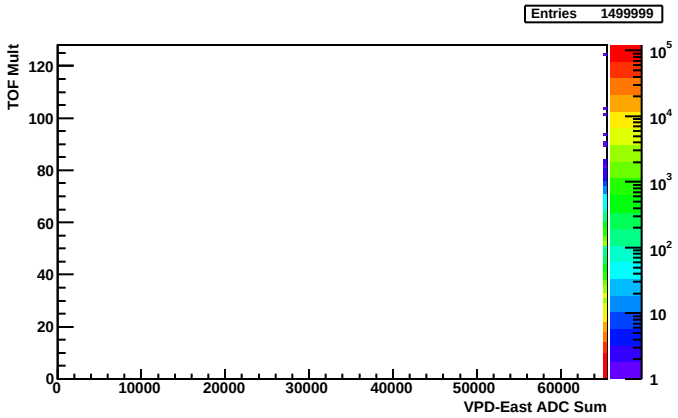

BBQ-VP004 (HI threshold)
Entries 2.399998e+07
TAC
QT Input Channel

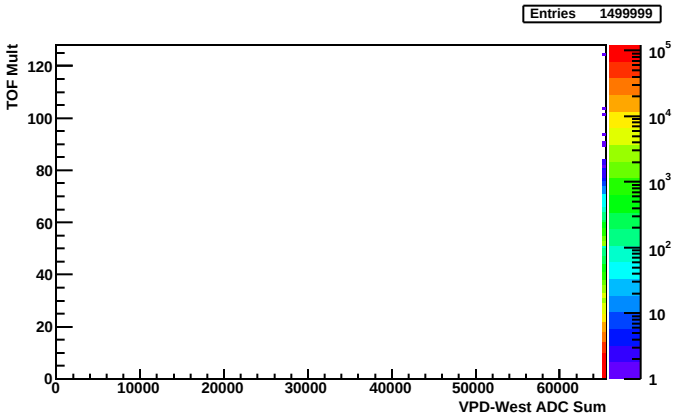

Entries 1499999
TOF Mult
BBC-L-East ADC Sum

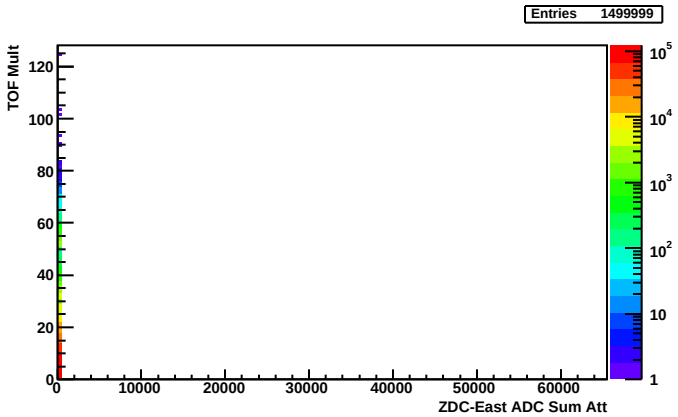

Entries 1499999
TOF Mult
BBC-L-West ADC Sum

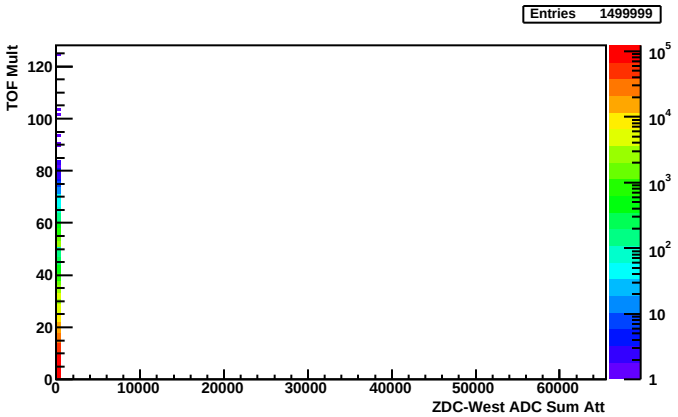

Entries 1499999
TOF Mult
BBC-S-East ADC Sum

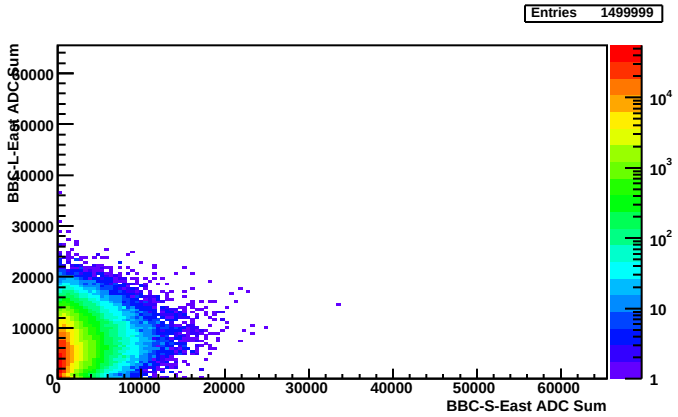

Entries 1499999
TOF Mult
BBC-S-West ADC Sum

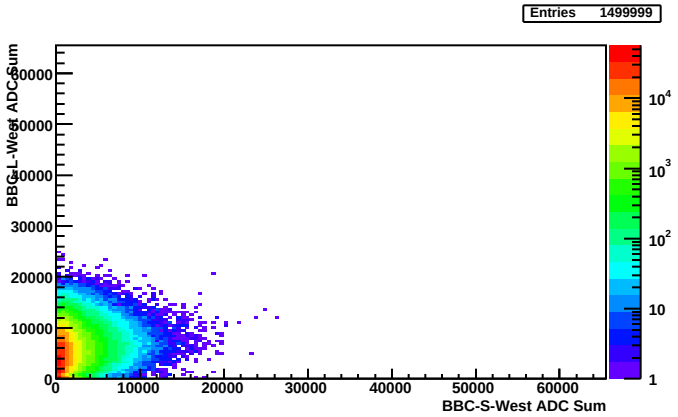

Entries 1499999
TOF Mult
VPD-East ADC Sum

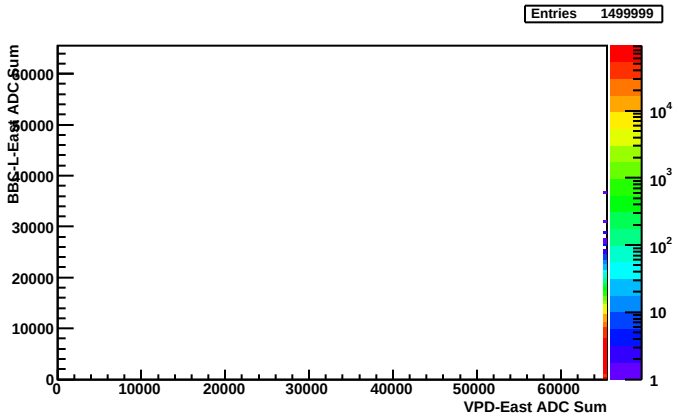

Entries 1499999
TOF Mult
VPD-West ADC Sum

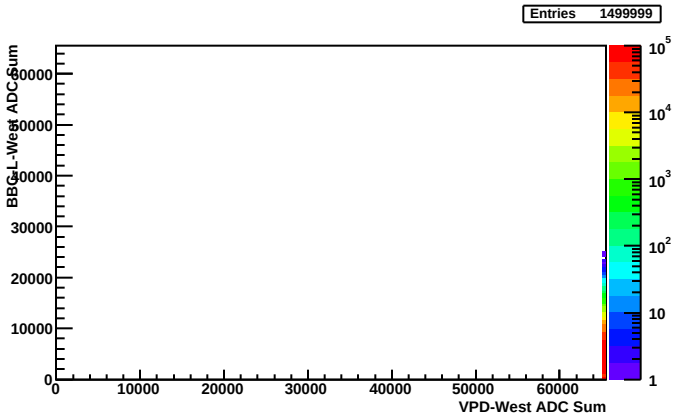

Entries 1499999
TOF Mult
ZDC-East ADC Sum Att

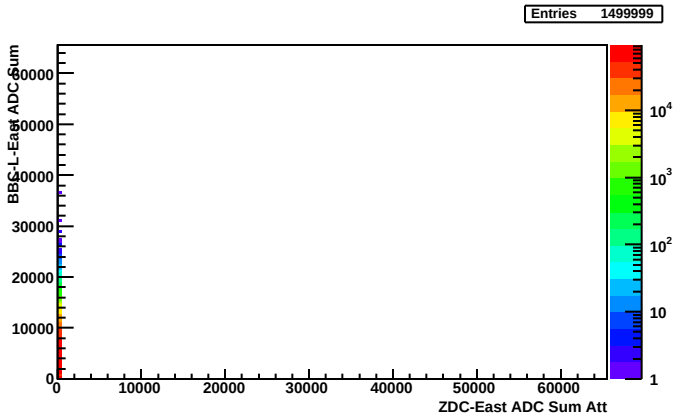

Entries 1499999
TOF Mult
ZDC-West ADC Sum Att

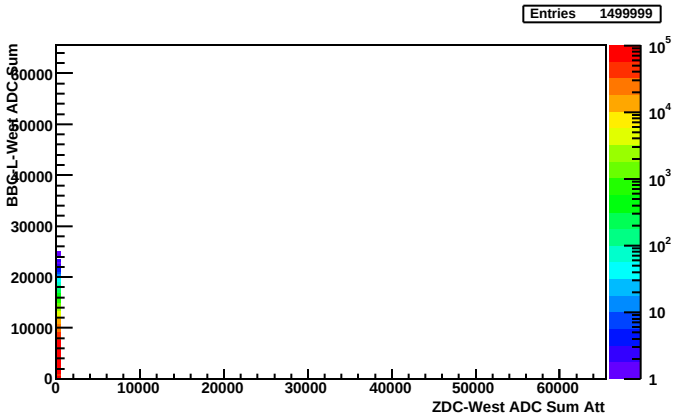

Entries 1499999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

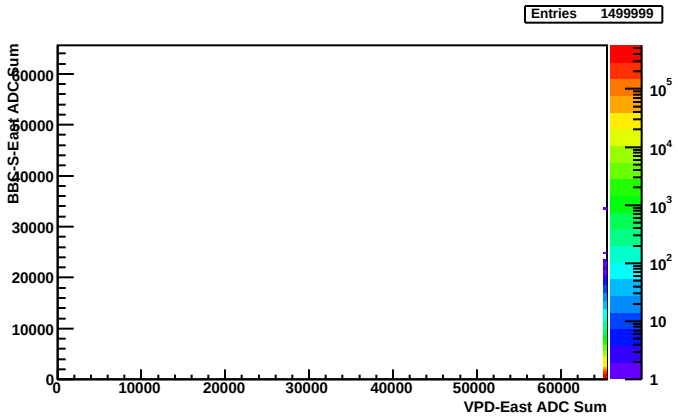

Entries 1499999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

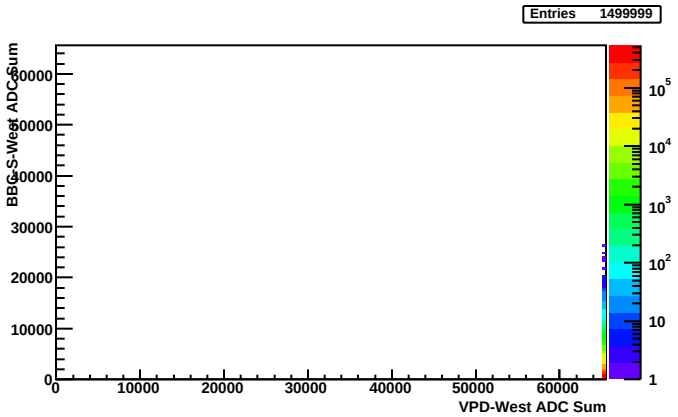

Entries 1499999
BBC-L-East ADC Sum
VPD-East ADC Sum

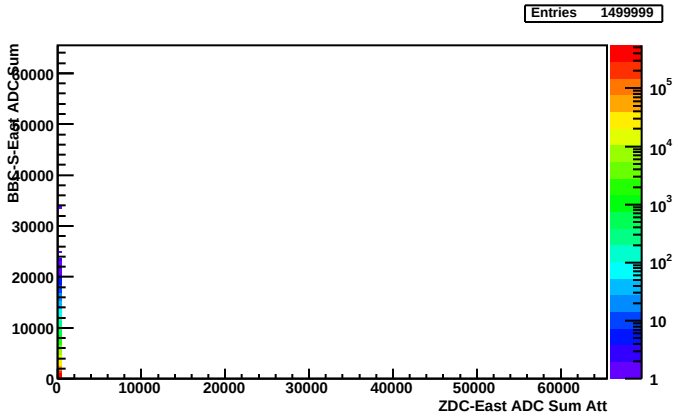

Entries 1499999
BBC-L-West ADC Sum
VPD-West ADC Sum

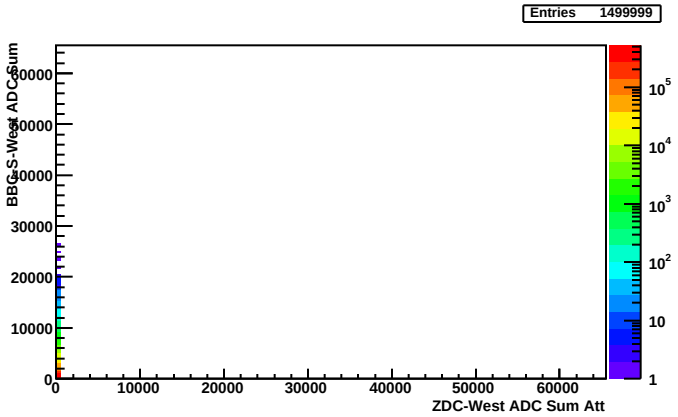

Entries 1499999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

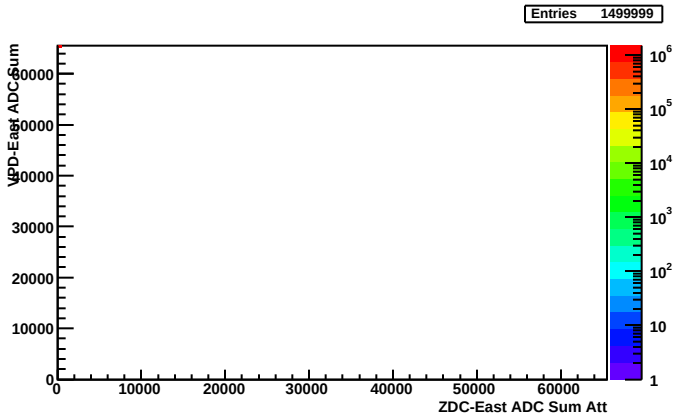

Entries 1499999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

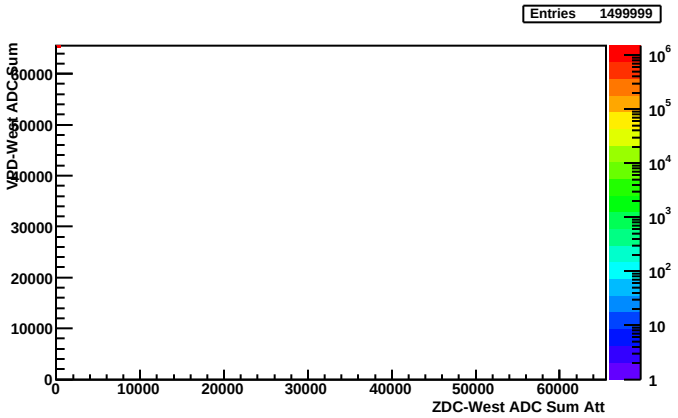

Entries 1499999
BBC-S-East ADC Sum
VPD-East ADC Sum

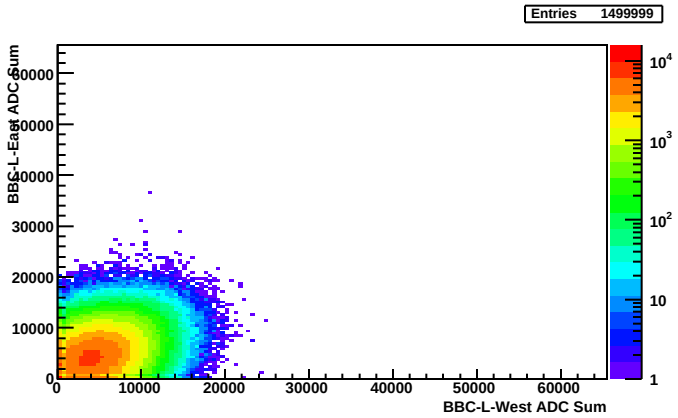

Entries 1499999
BBC-S-West ADC Sum
VPD-West ADC Sum

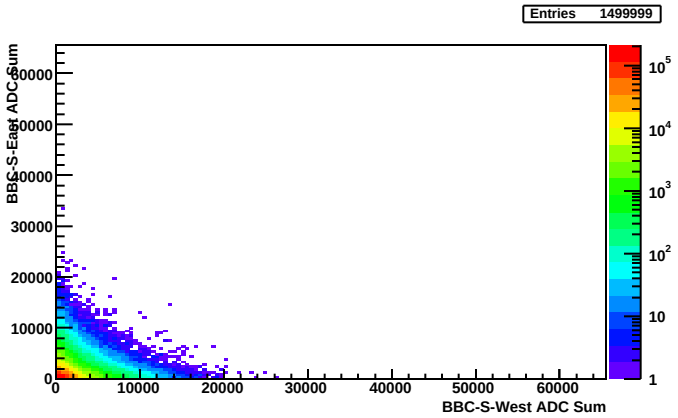

Entries 1499999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

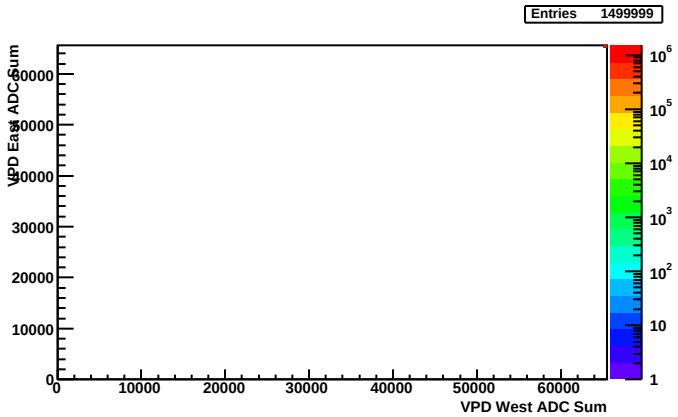

Entries 1499999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

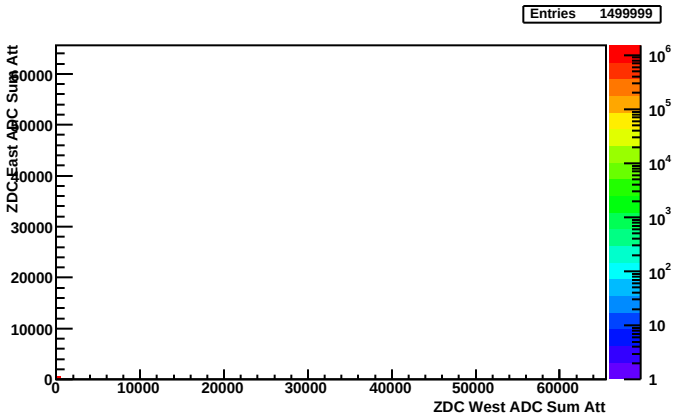

Entries 1499999
VPD-East ADC Sum
ZDC-East ADC Sum Att

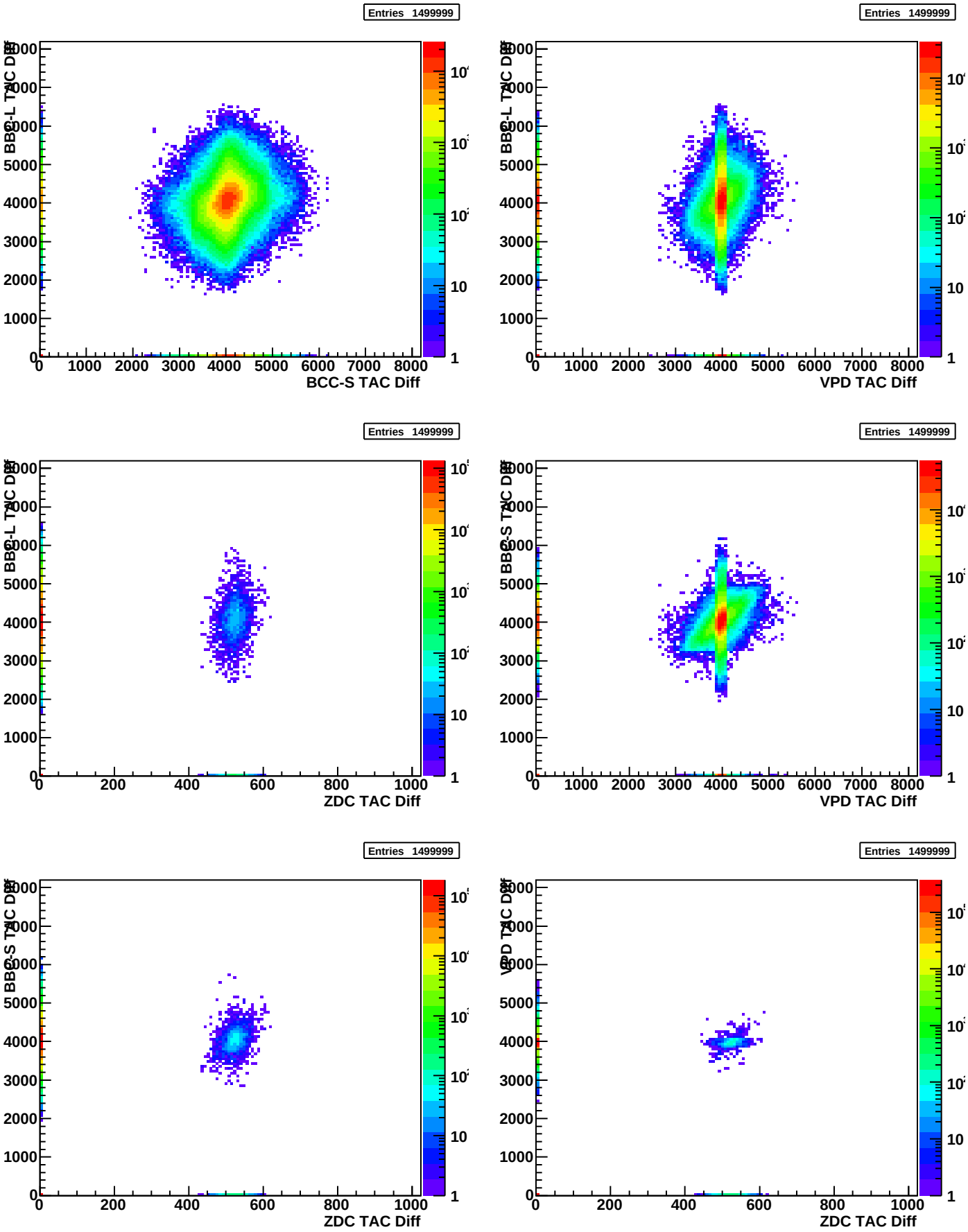

Entries 1499999
VPD-West ADC Sum
ZDC-West ADC Sum Att

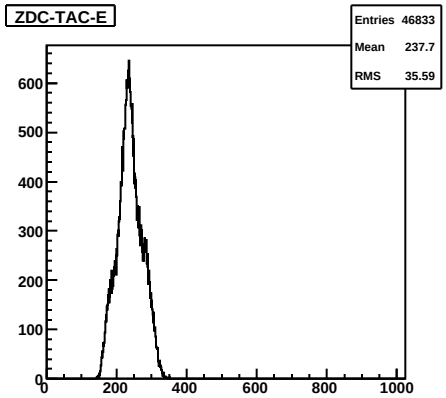

Entries 1499999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

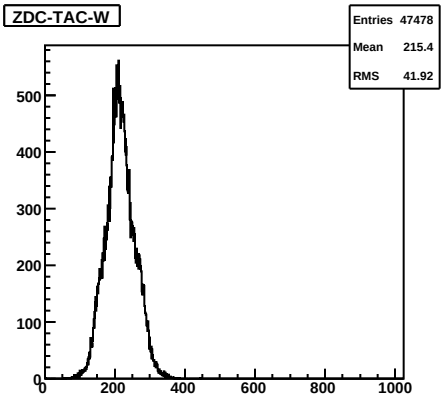

Entries 1499999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

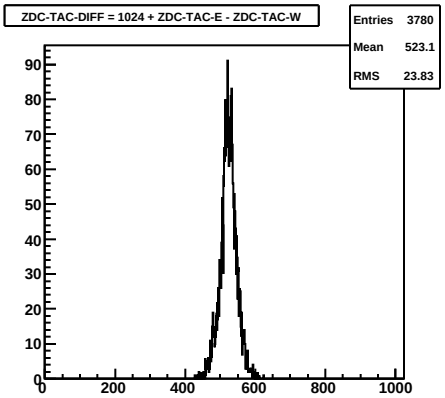

Entries 1499999
VPD East ADC Sum
VPD West ADC Sum

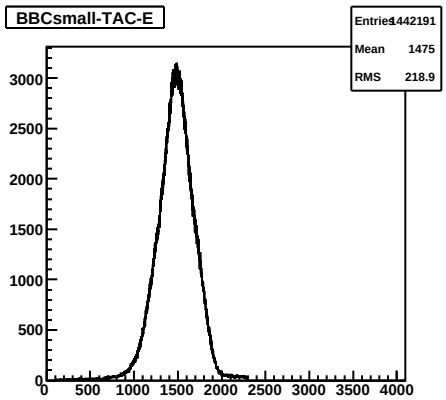

Entries 1499999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

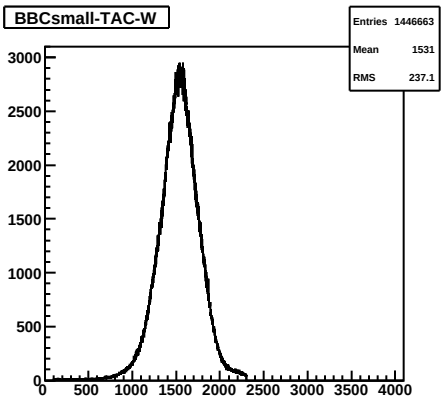

Entries 1499999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 1499999
BBC-L TAC Diff
VPD TAC Diff
Entries 1499999
BBC-L TAC Diff
ZDC TAC Diff
Entries 1499999
BBC-S TAC Diff
VPD TAC Diff
Entries 1499999
BBC-S TAC Diff
ZDC TAC Diff
Entries 1499999
VPD TAC Diff
ZDC TAC Diff

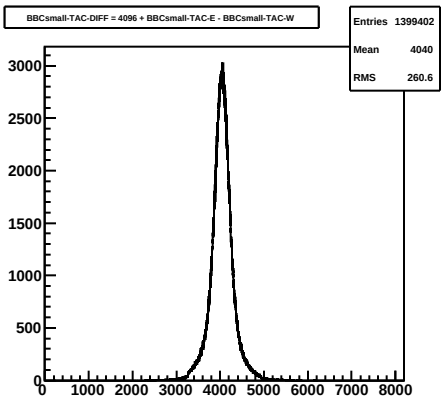

ZDC-TAC-E
Entries 46833
Mean 237.7
RMS 35.59

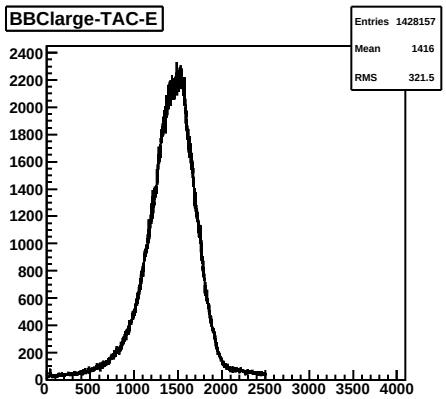

ZDC-TAC-W
Entries 47478
Mean 215.4
RMS 41.92

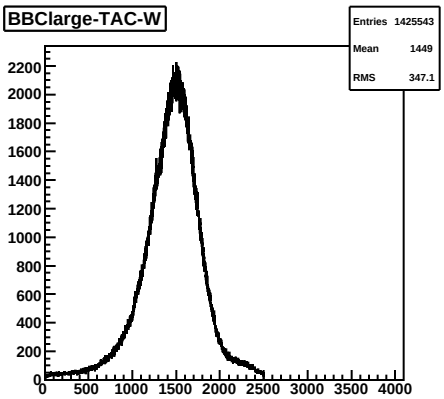

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 3780
Mean 523.1
RMS 23.83

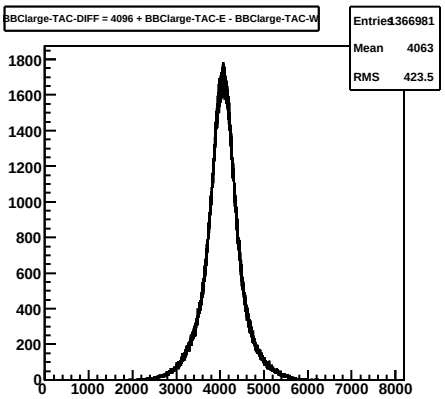

BBCsmall-TAC-E
Entries 1442191
Mean 1475
RMS 218.9

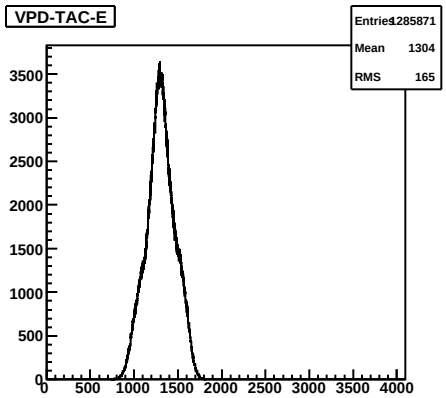

BBCsmall-TAC-W
Entries 1446663
Mean 1531
RMS 237.1

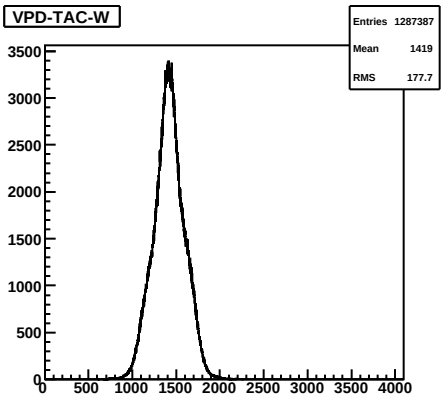

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 1399402
Mean 4040
RMS 260.6

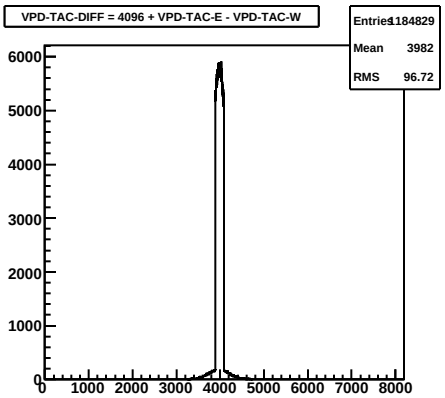

BBClarge-TAC-E
Entries 1428157
Mean 1416
RMS 321.5

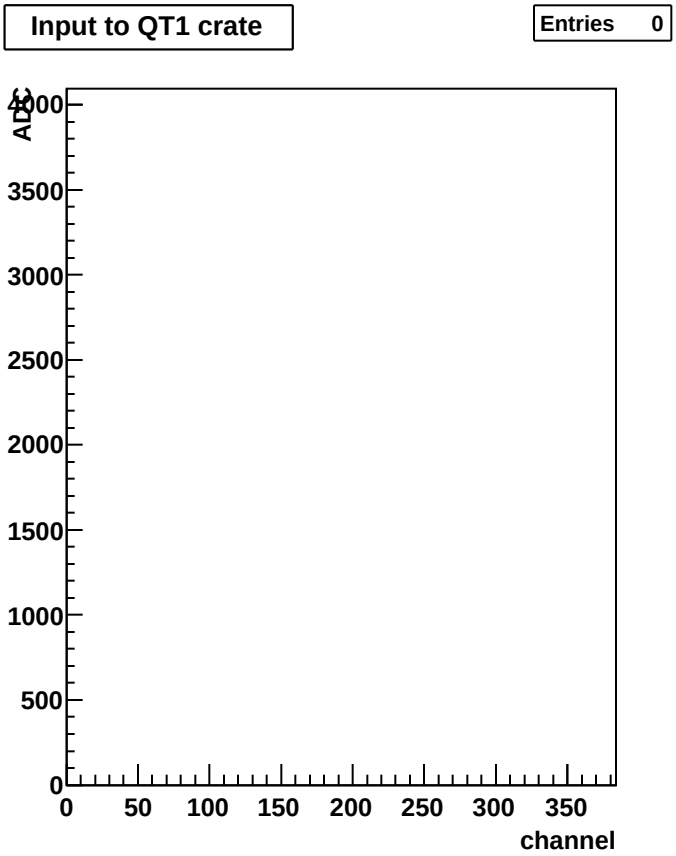

BBClarge-TAC-W
Entries 1425543
Mean 1449
RMS 347.1

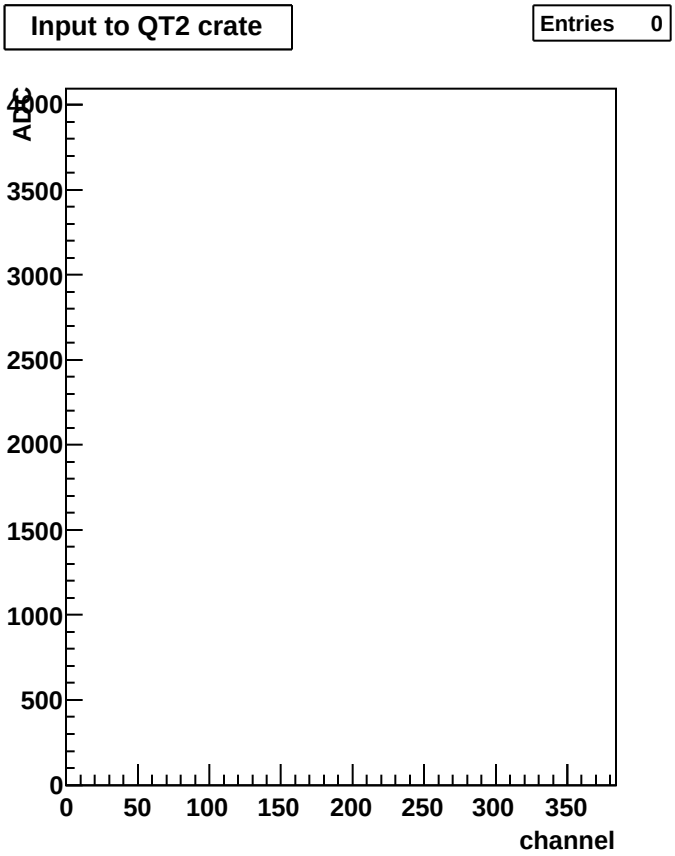

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 1366981
Mean 4063
RMS 423.5

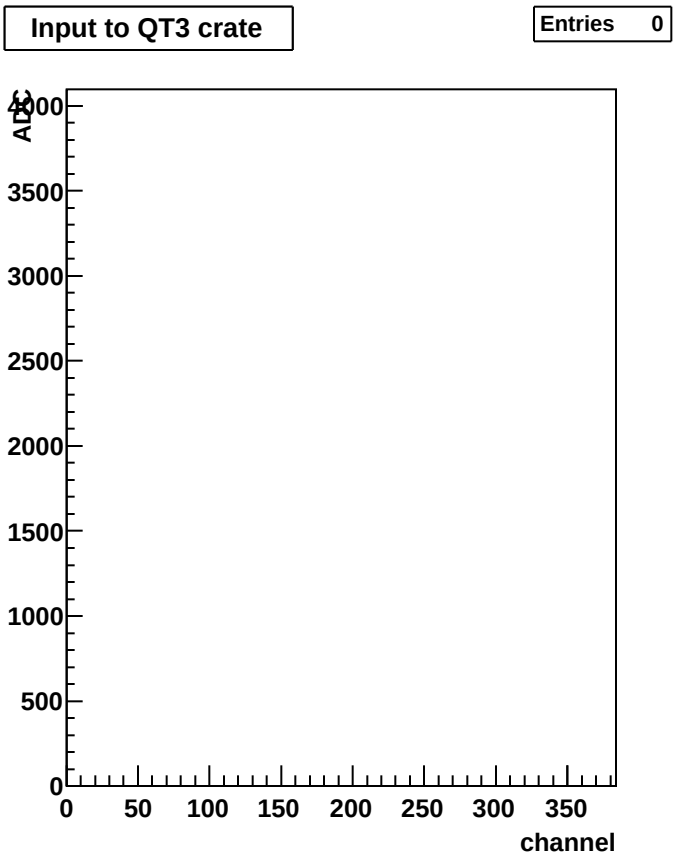

VPD-TAC-E
Entries 1285871
Mean 1304
RMS 165

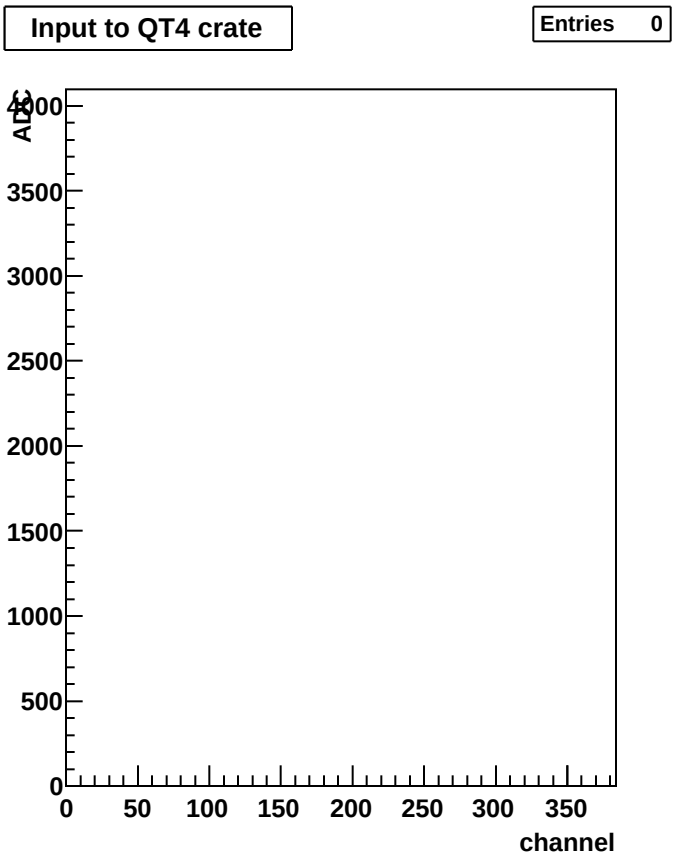

VPD-TAC-W
Entries 1287387
Mean 1419
RMS 177.7

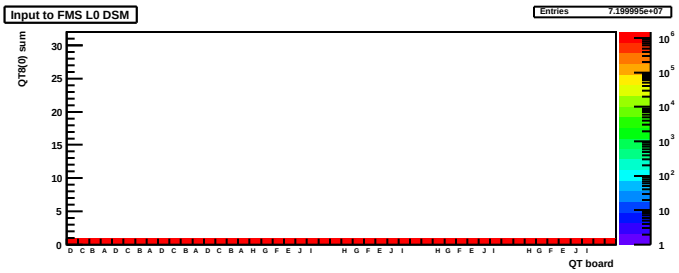

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1184829
Mean 3982
RMS 96.72

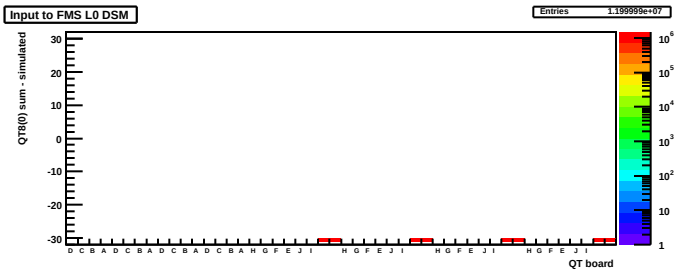

Input to QT1 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

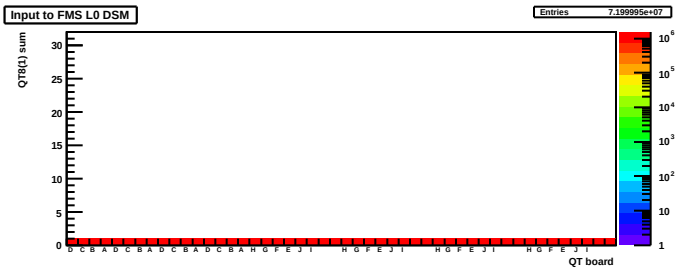

Input to QT2 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

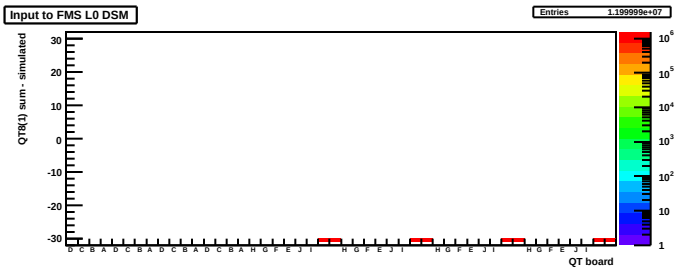

Input to QT3 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

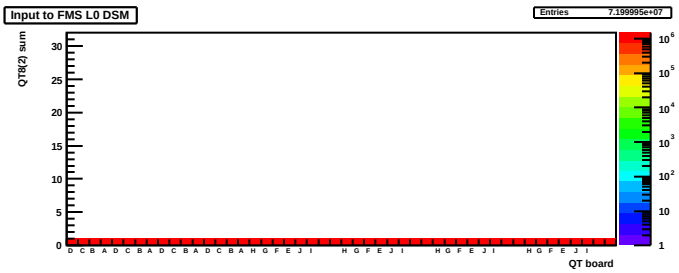

Input to QT4 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

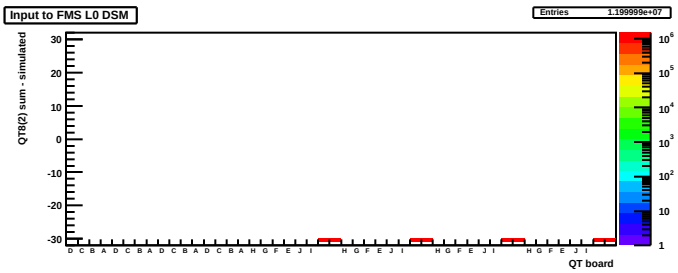

Input to FMS L0 DSM
Entries 7.199995e+07
QT8(0) sum
QT board

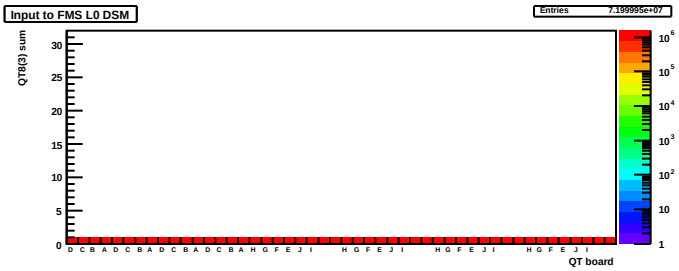

Input to FMS L0 DSM
Entries 1.199999e+07
QT8(0) sum - simulated
QT board

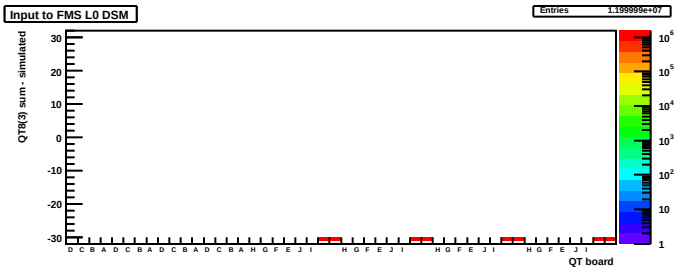

Input to FMS L0 DSM
Entries 7.199995e+07
QT8(1) sum
QT board

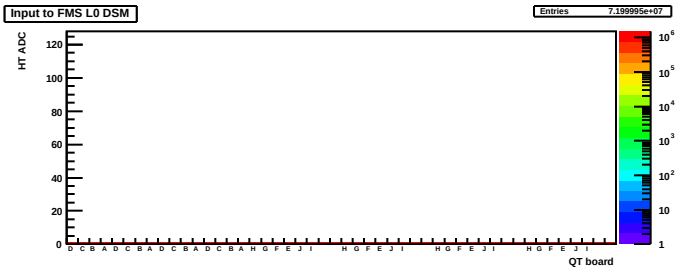

Input to FMS L0 DSM
Entries 1.199999e+07
QT8(1) sum - simulated
QT board

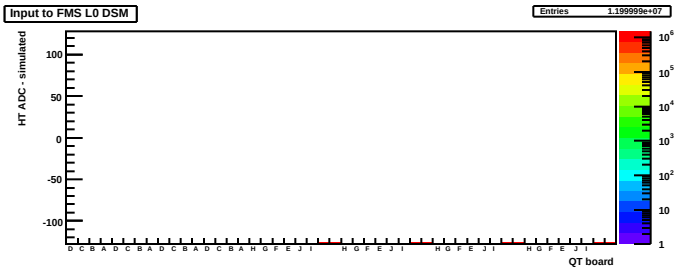

Input to FMS L0 DSM
Entries 7.199995e+07
QT8(2) sum
QT board

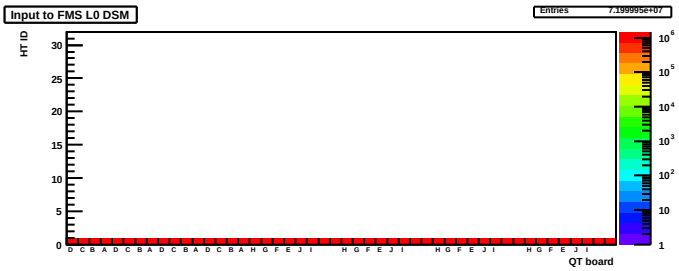

Input to FMS L0 DSM
Entries 1.199999e+07
QT8(2) sum - simulated
QT board

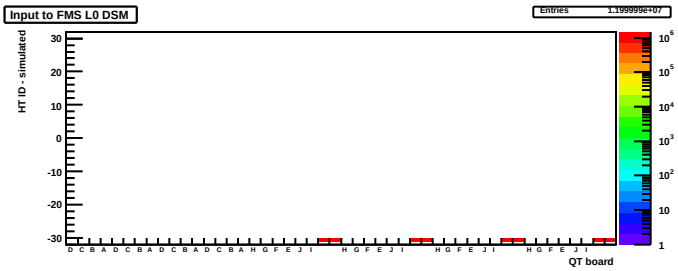

Input to FMS L0 DSM
Entries 7.199995e+07
QT8(3) sum
QT board

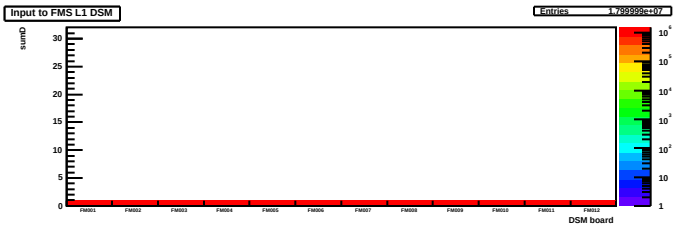

Input to FMS L0 DSM
Entries 1.199999e+07
QT8(3) sum - simulated
QT board

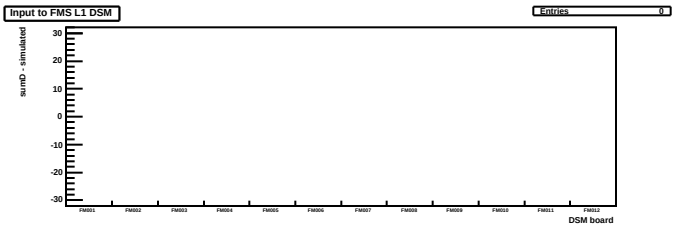

Input to FMS L0 DSM
Entries 7.199995e+07
HT ADC
QT board

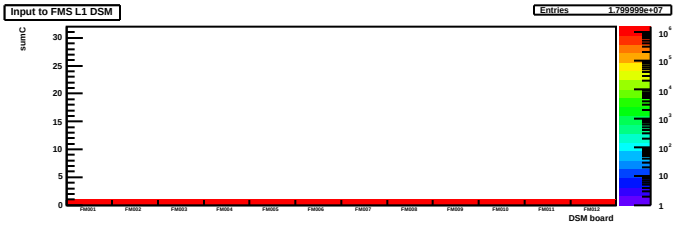

Input to FMS L0 DSM
Entries 1.199999e+07
HT ADC - simulated
QT board

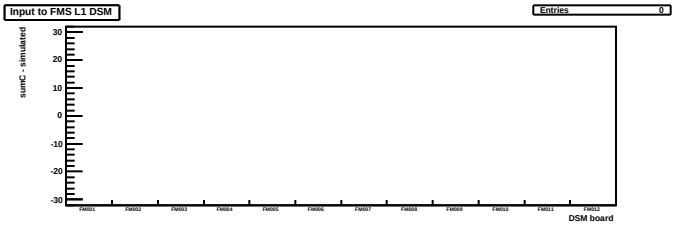

Input to FMS L0 DSM
Entries 7.199995e+07
HT ID
QT board

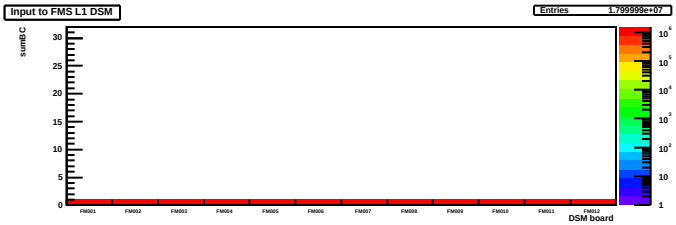

Input to FMS L0 DSM
Entries 1.199999e+07
HT ID - simulated
QT board

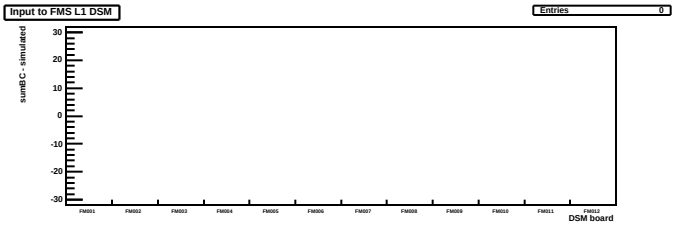

Input to FMS L1 DSM
Entries 1.799999e+07
sumD
DSM board

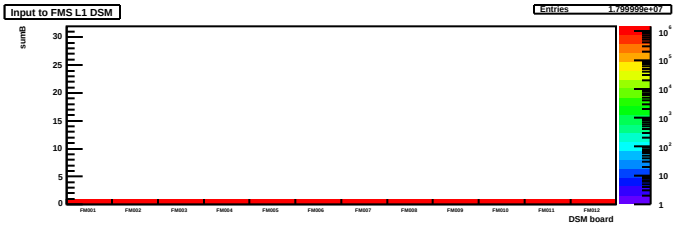

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

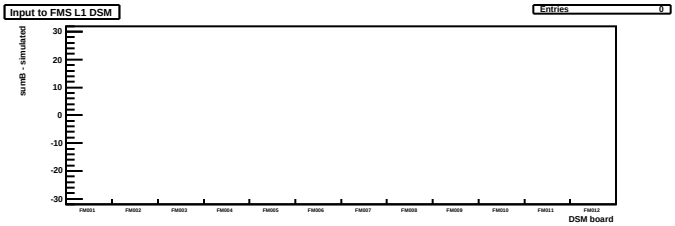

Input to FMS L1 DSM
Entries 1.799999e+07
sumC
DSM board

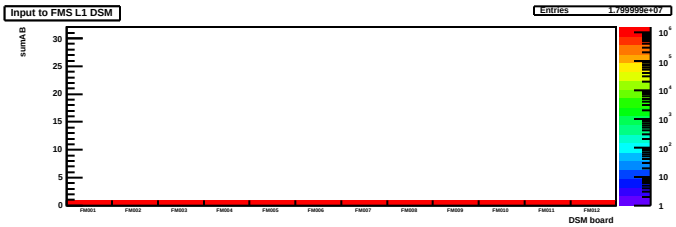

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

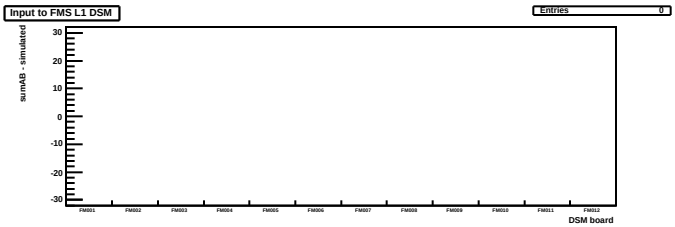

Input to FMS L1 DSM
Entries 1.799999e+07
sumBC
DSM board

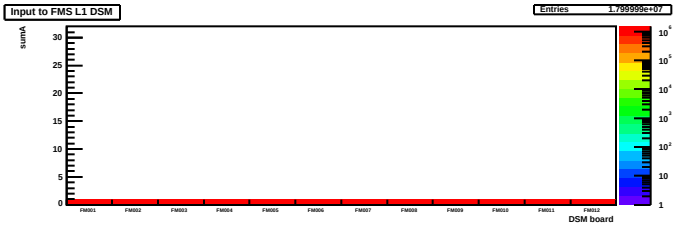

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

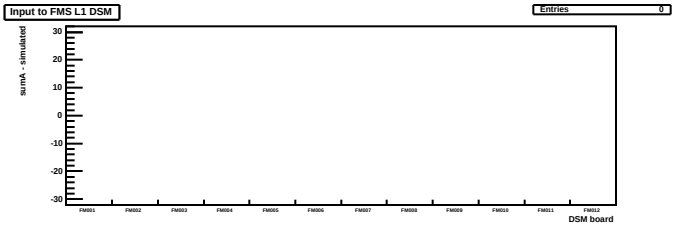

Input to FMS L1 DSM
Entries 1.799999e+07
sumB
DSM board

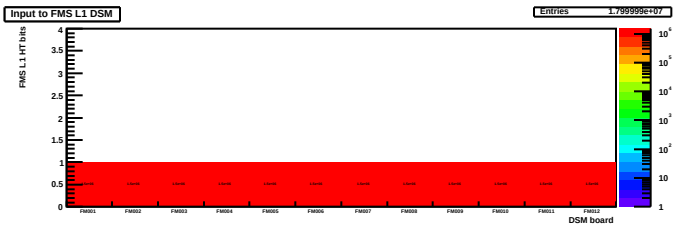

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

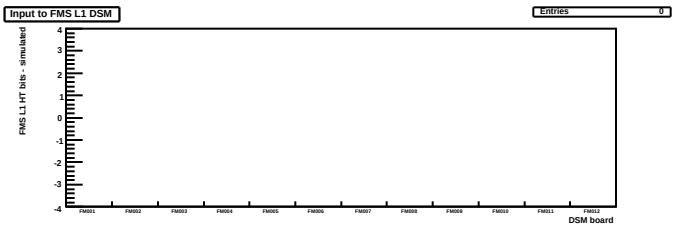

Input to FMS L1 DSM
Entries 1.799999e+07
sumAB
DSM board

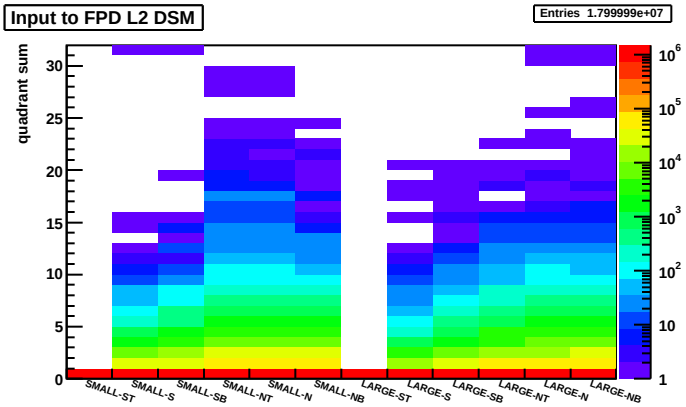

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

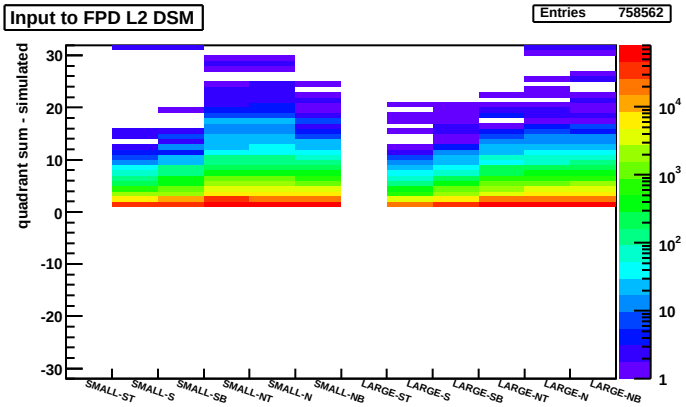

Input to FMS L1 DSM
Entries 1.799999e+07
sumA
DSM board

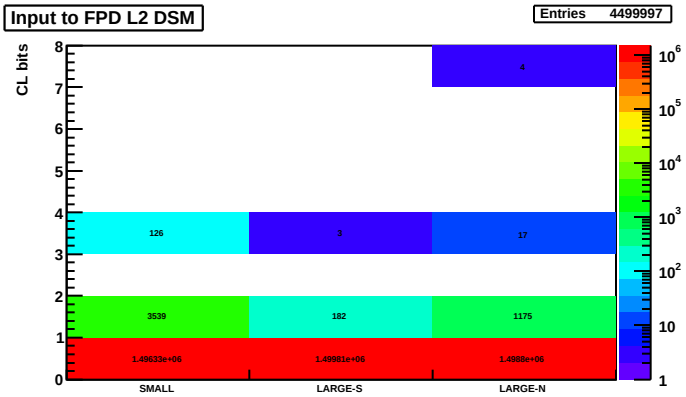

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

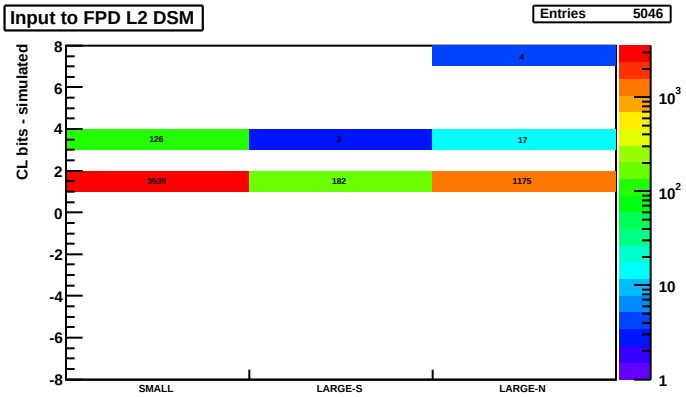

Input to FMS L1 DSM
Entries 1.799999e+07
FMS L1 HT bits
DSM board

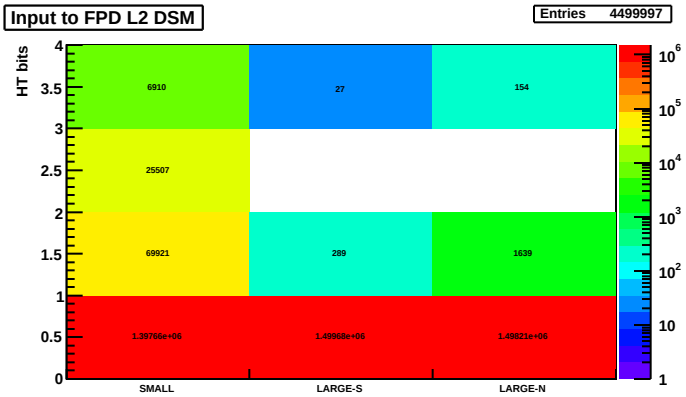

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

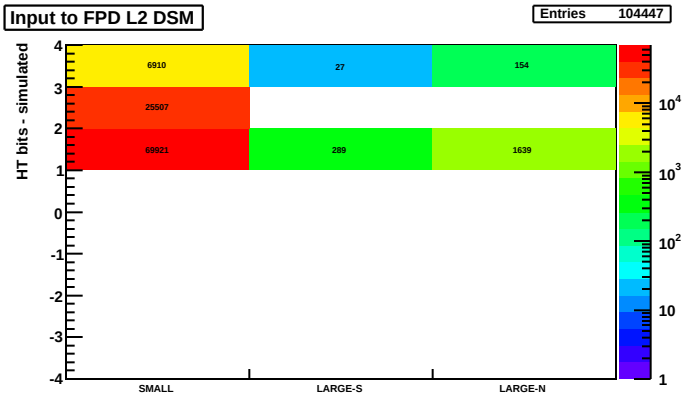

Input to FPD L2 DSM
Entries 1.799999e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

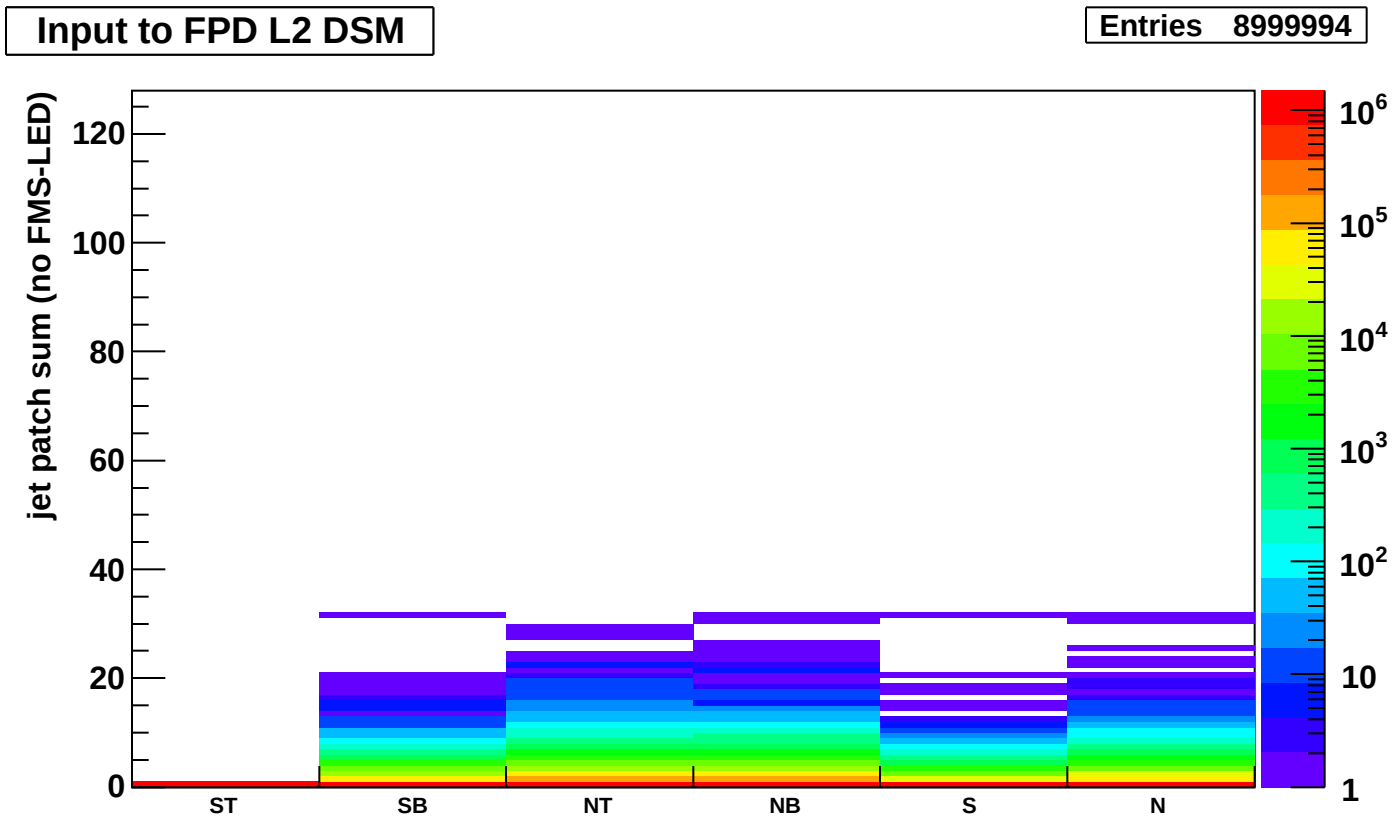

Input to FPD L2 DSM
Entries 758562
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

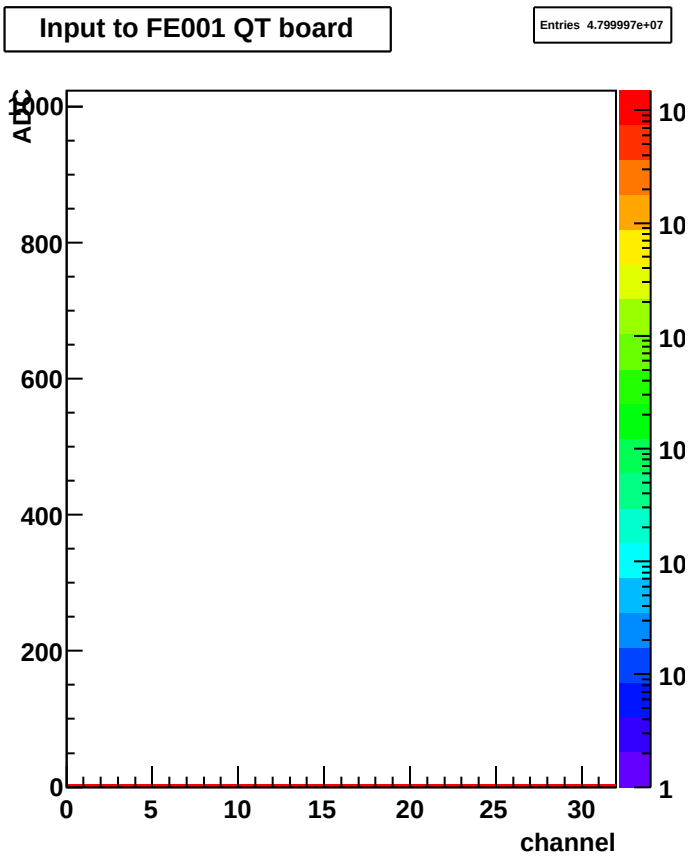

Input to FPD L2 DSM
Entries 4499997
CL bits
4
126
3
17
3539
182
1175
1.49633e+06
1.49981e+06
1.4988e+06
SMALL
LARGE-S
LARGE-N

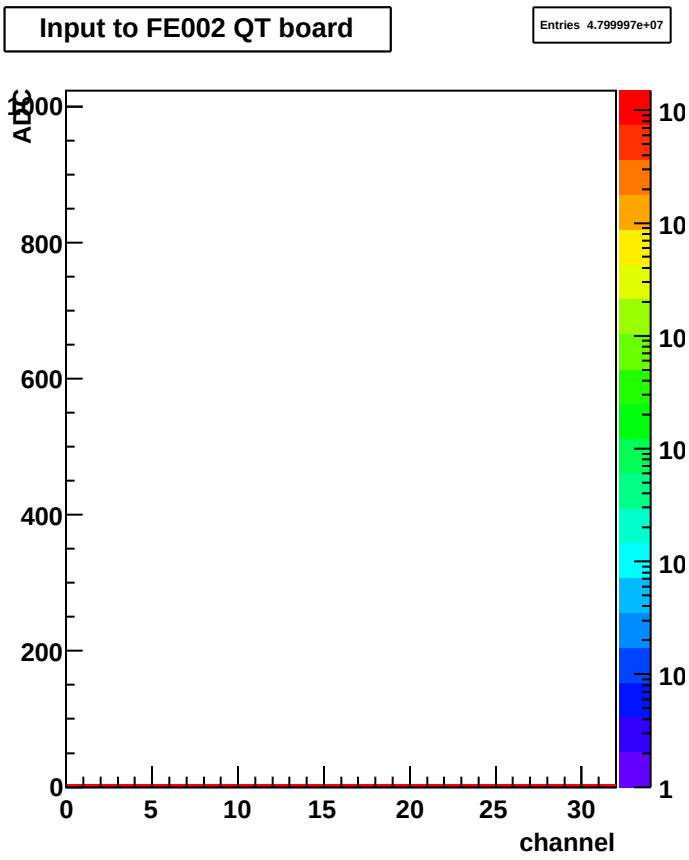

Input to FPD L2 DSM
Entries 5046
CL bits - simulated
4
126
3
17
3539
182
1175
SMALL
LARGE-S
LARGE-N

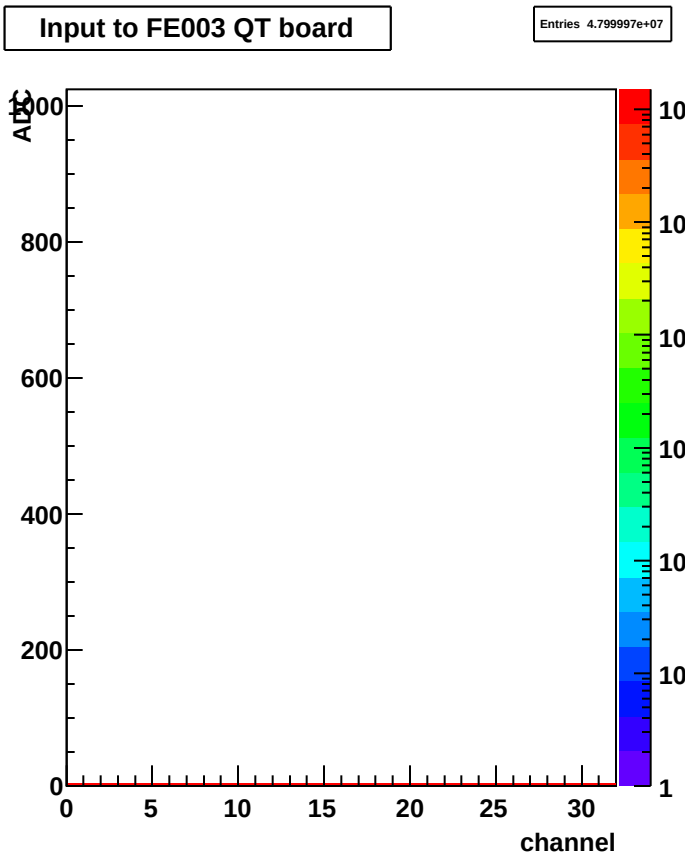

Input to FPD L2 DSM
Entries 4499997
HT bits
6910
27
154
25507
69921
289
1639
1.39766e+06
1.49968e+06
1.49821e+06
SMALL
LARGE-S
LARGE-N

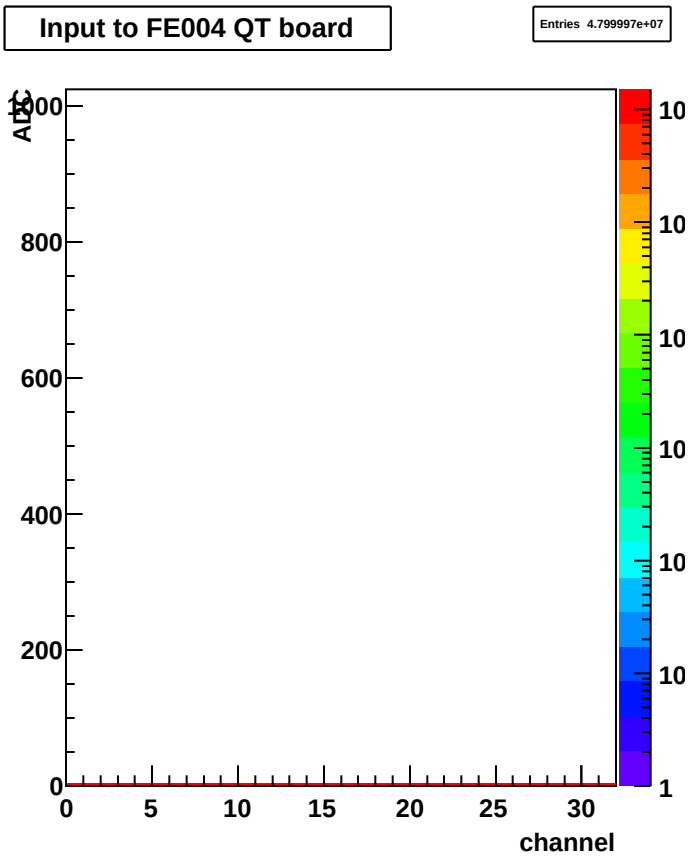

Input to FPD L2 DSM
Entries 104447
HT bits - simulated
6910
27
154
25507
69921
289
1639
SMALL
LARGE-S
LARGE-N

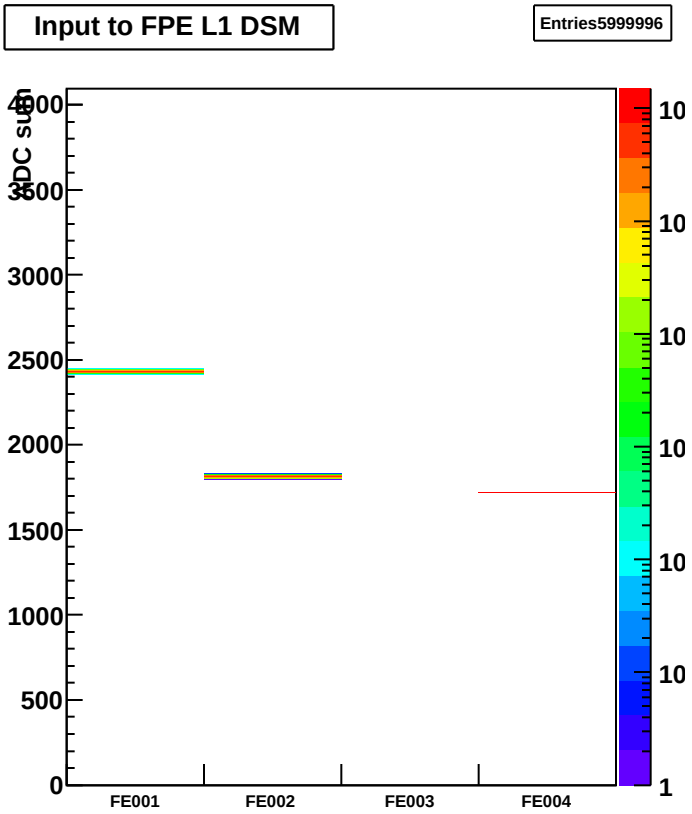

Input to FPD L2 DSM
Entries 8999994
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6


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

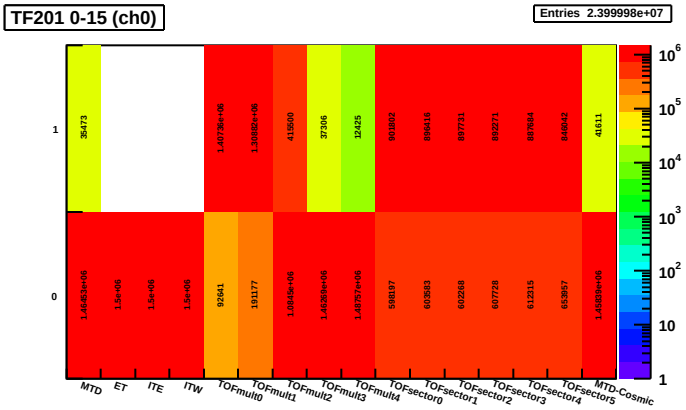

Input to FE002 QT board
Entries 4.799997e+07
ADC
channel


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

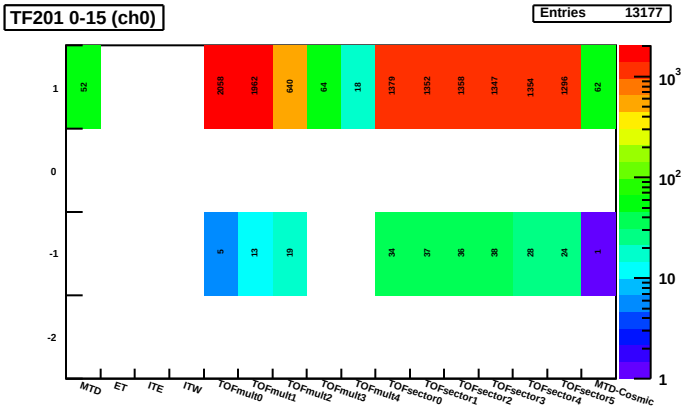

Input to FE004 QT board
Entries 4.799997e+07
ADC
channel


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)



TF201 0-15 (ch0)



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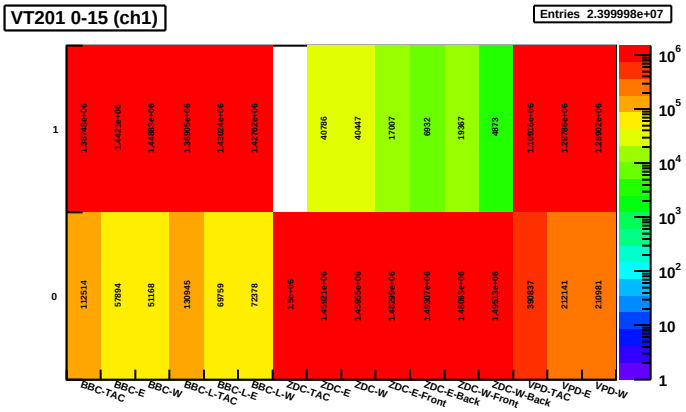

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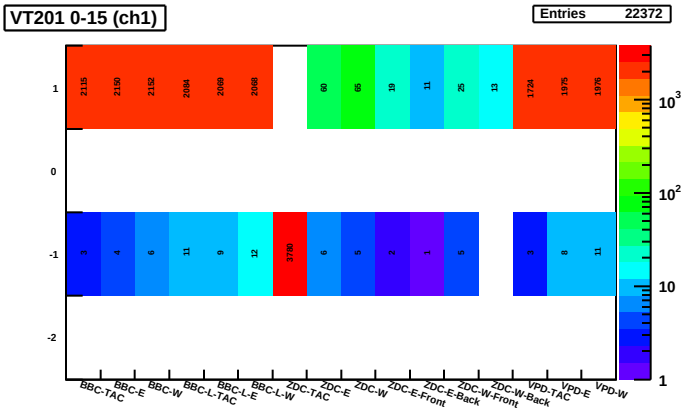

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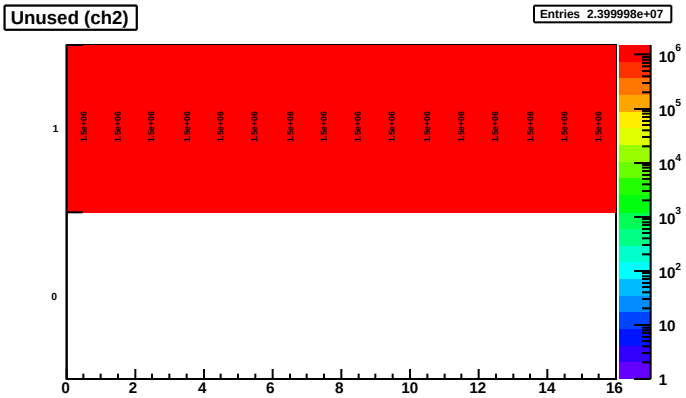
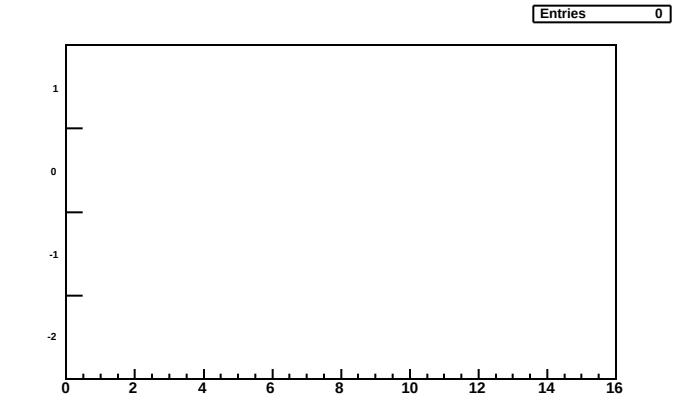
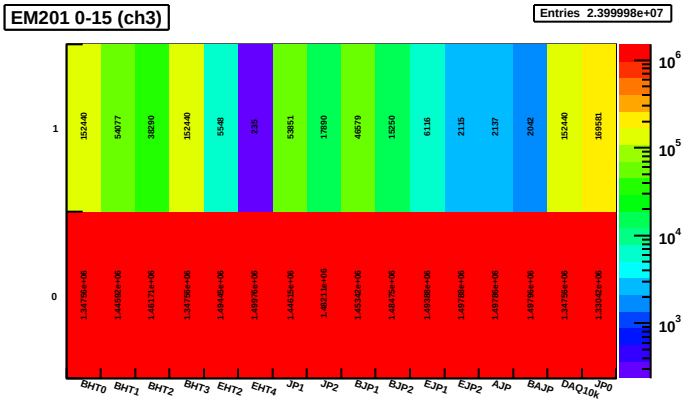




EM201 0-15 (ch3)



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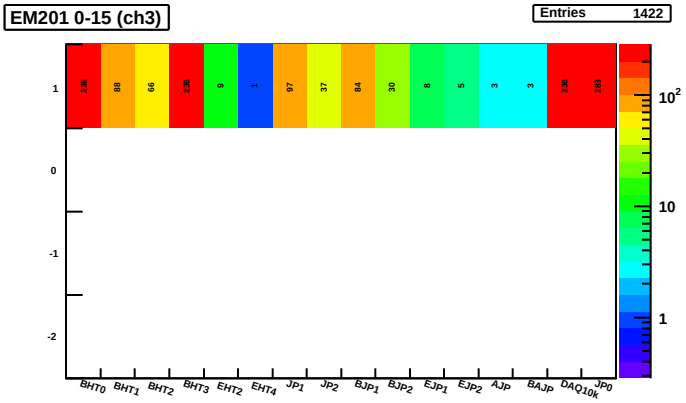
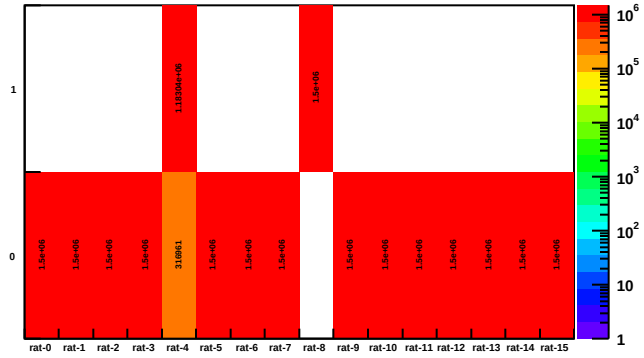
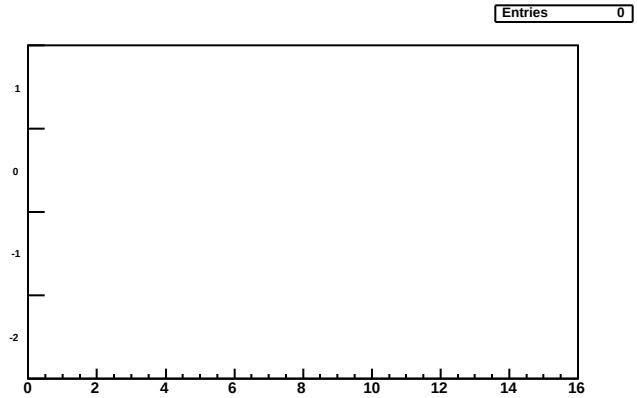
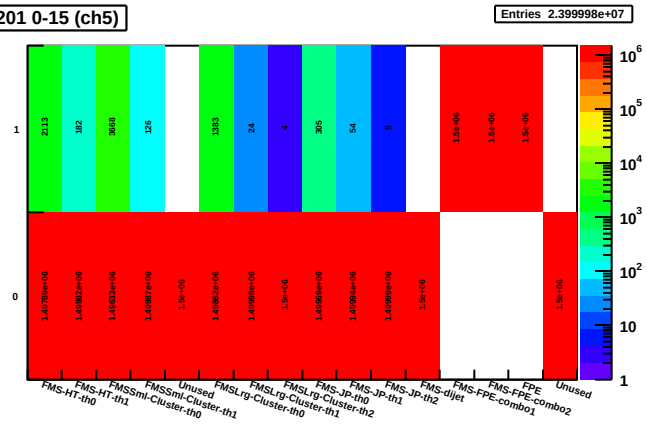


RAT board (ch4)

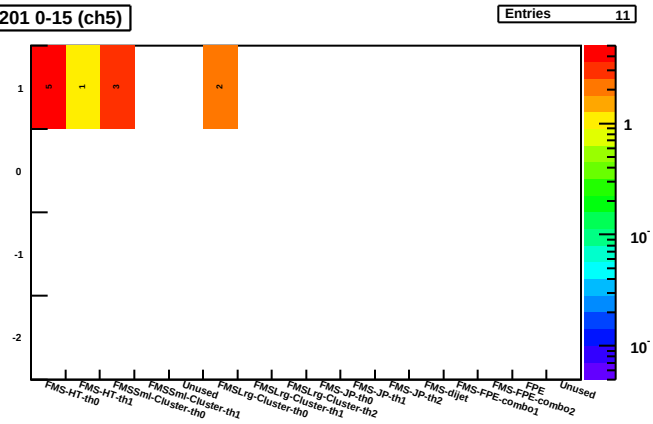




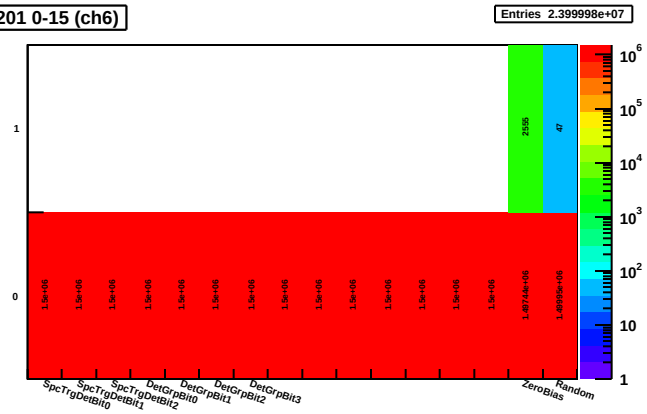
FP201 0-15 (ch5)

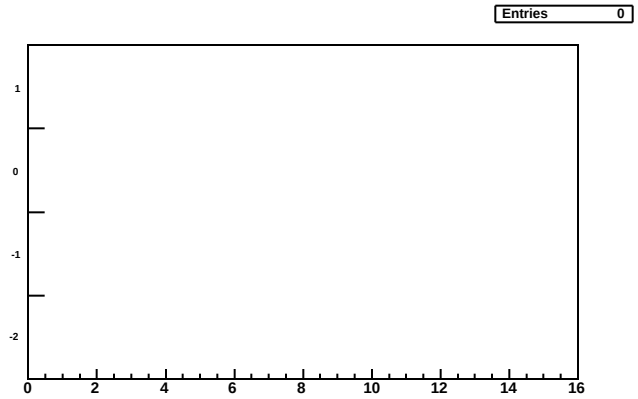
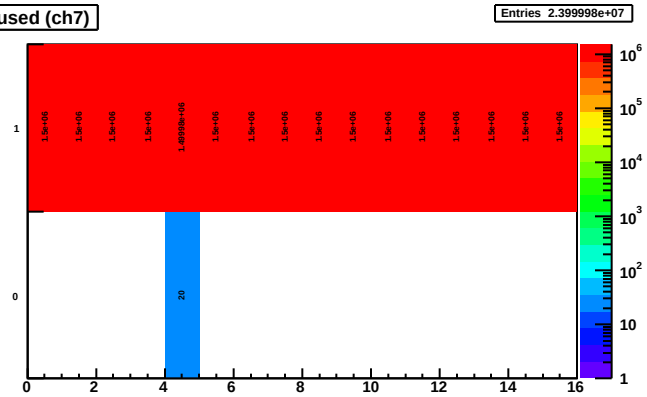
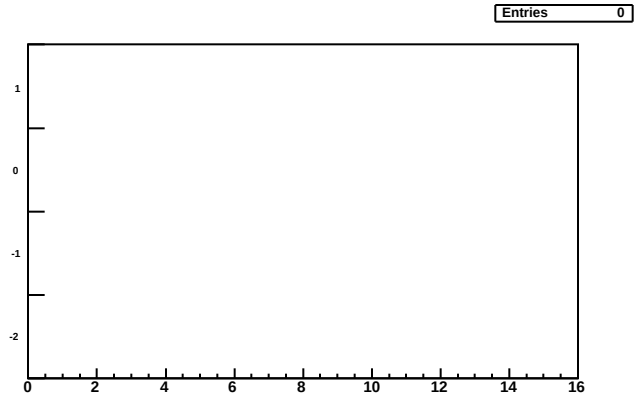


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)