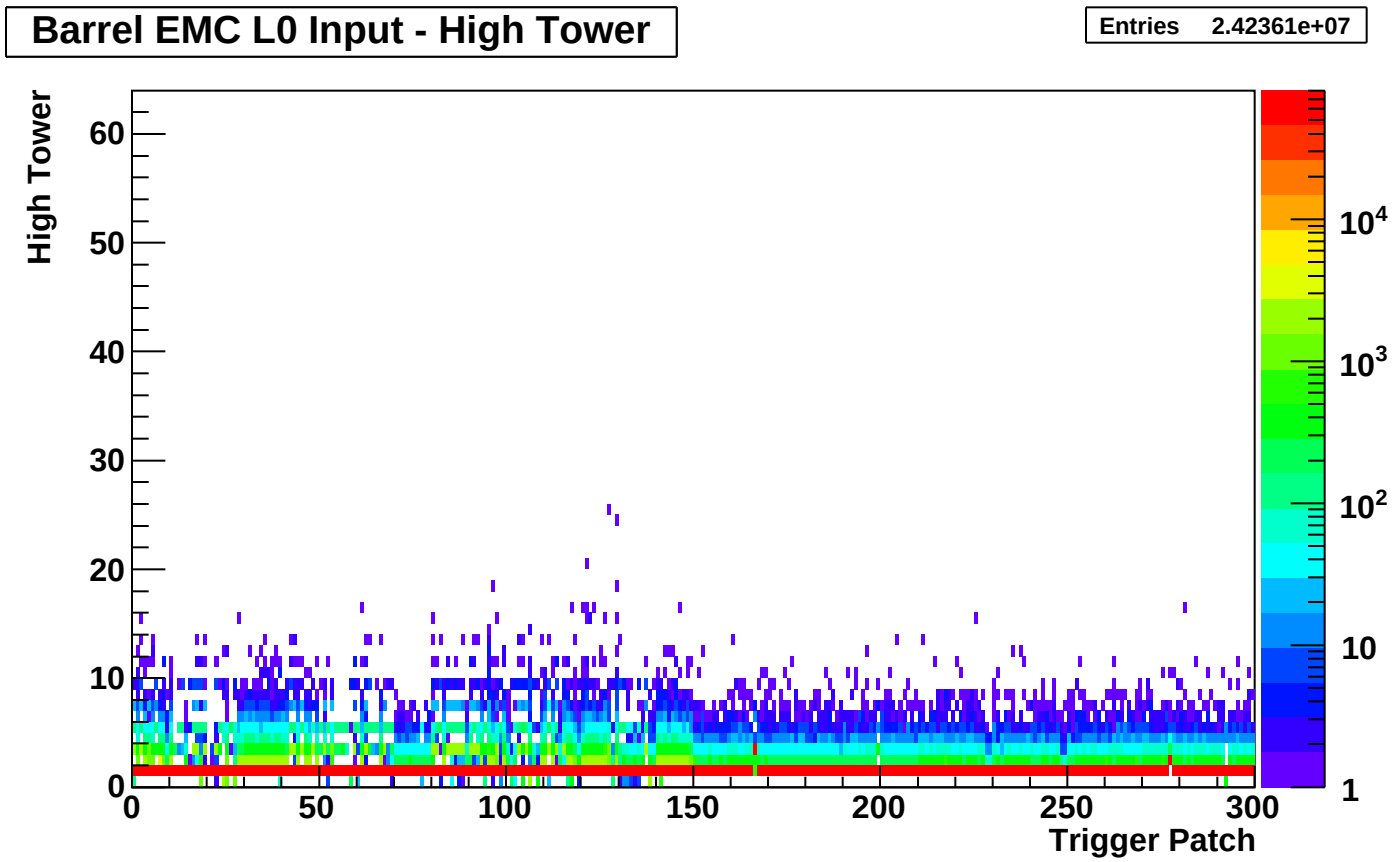
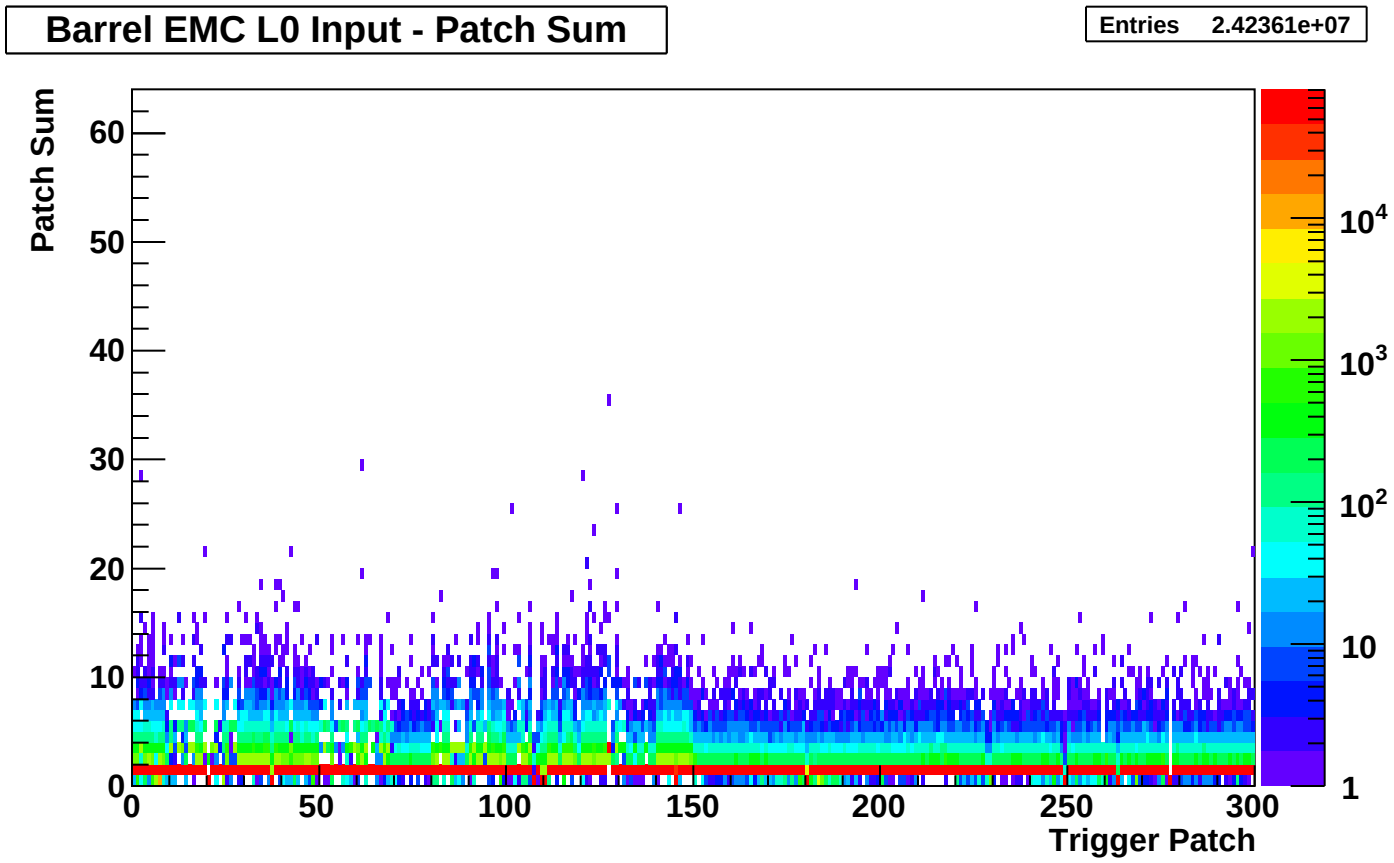
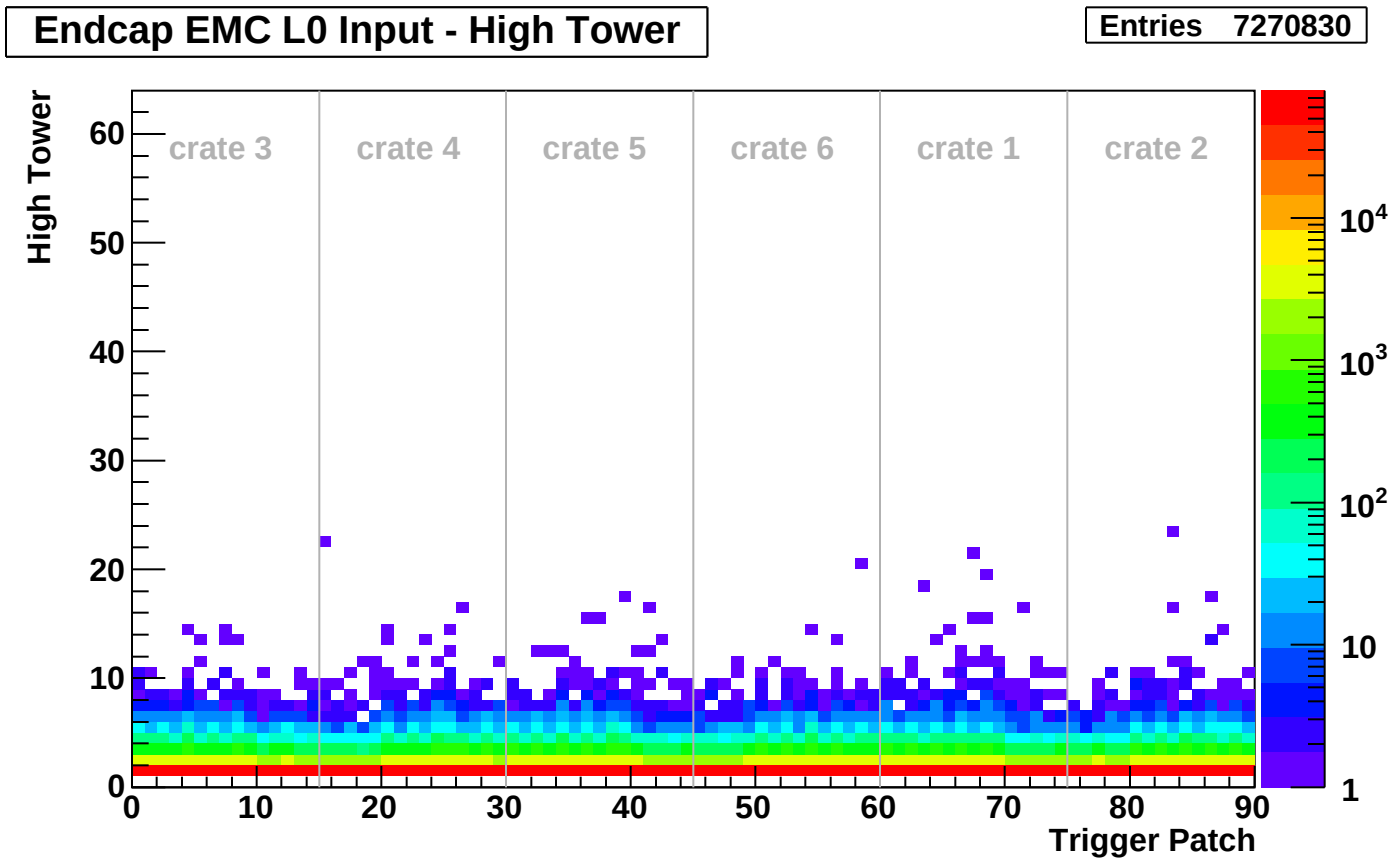
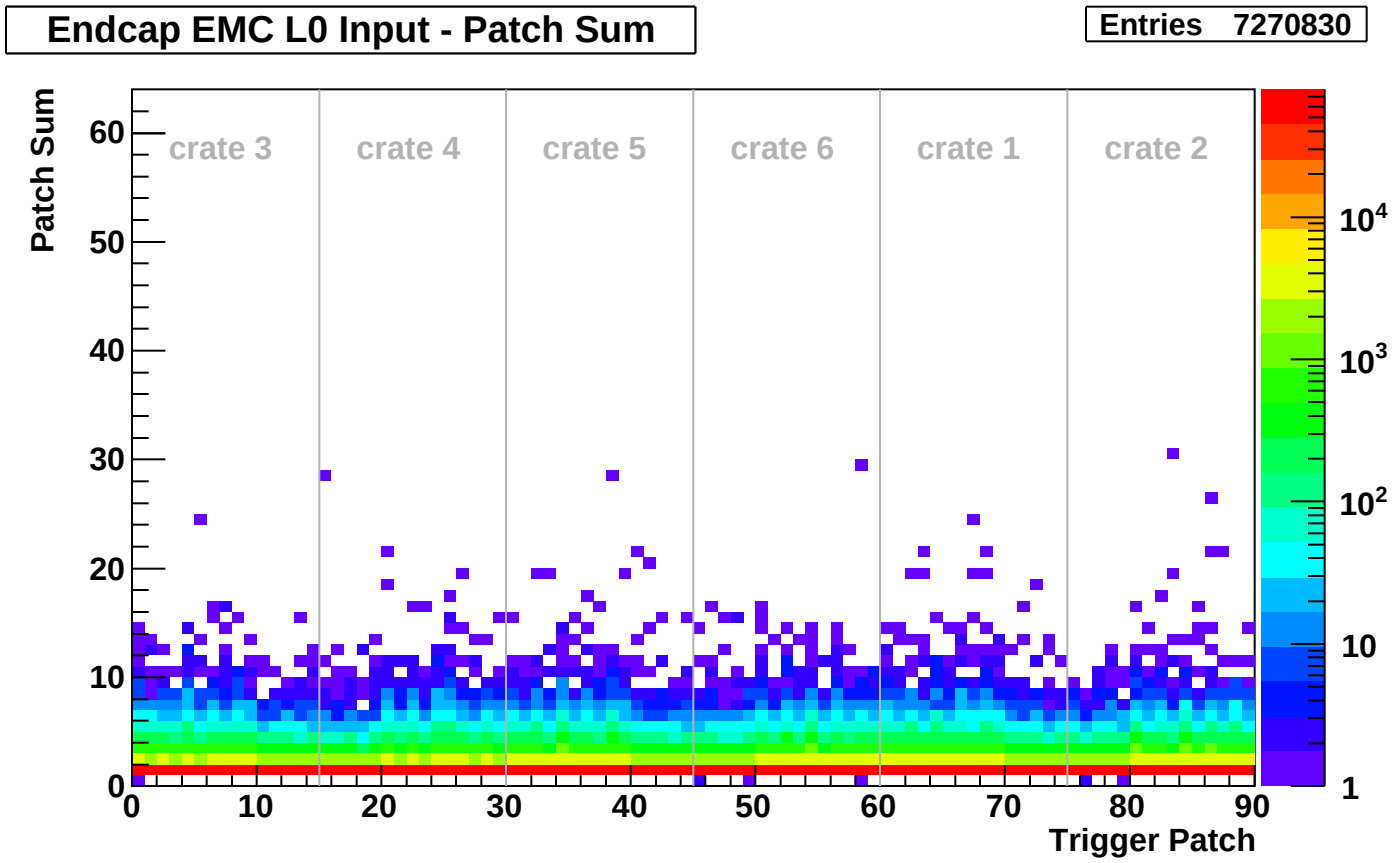
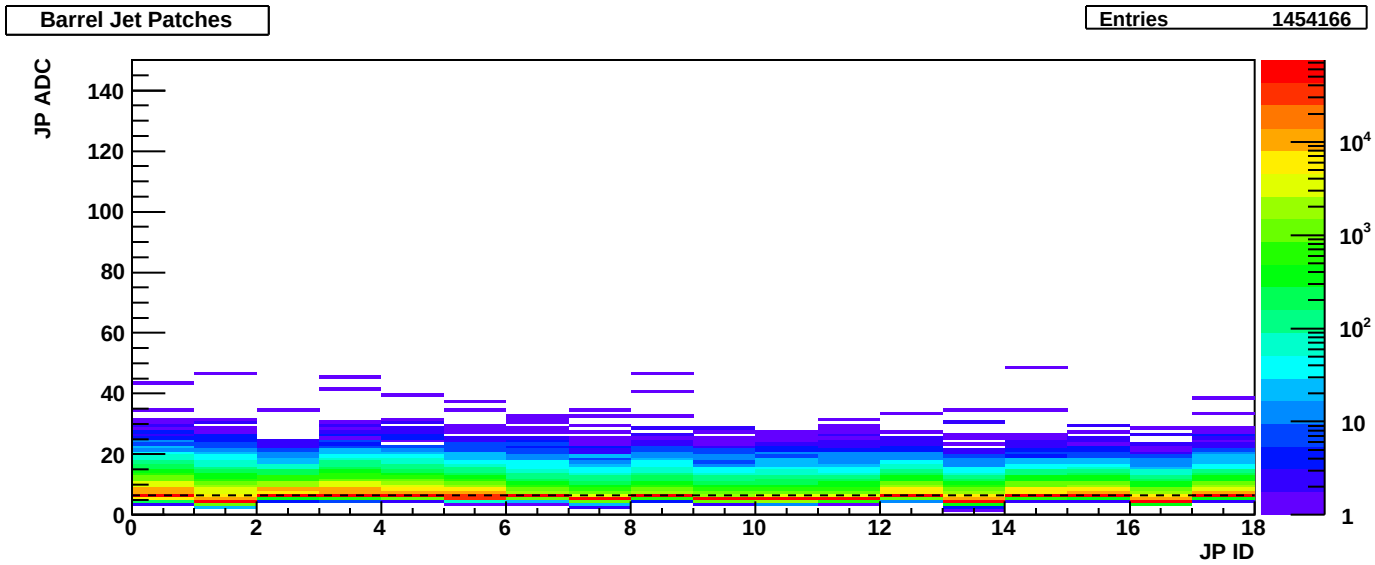
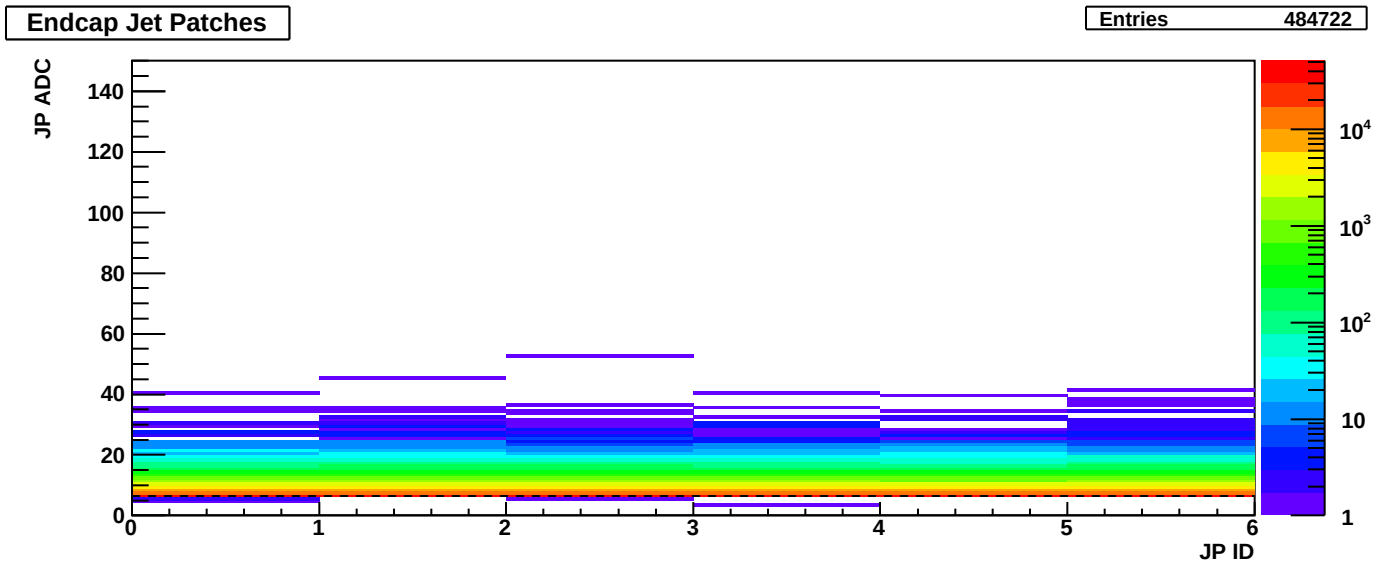

Barrel EMC L0 Input - High Tower
Entries 2.42361e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

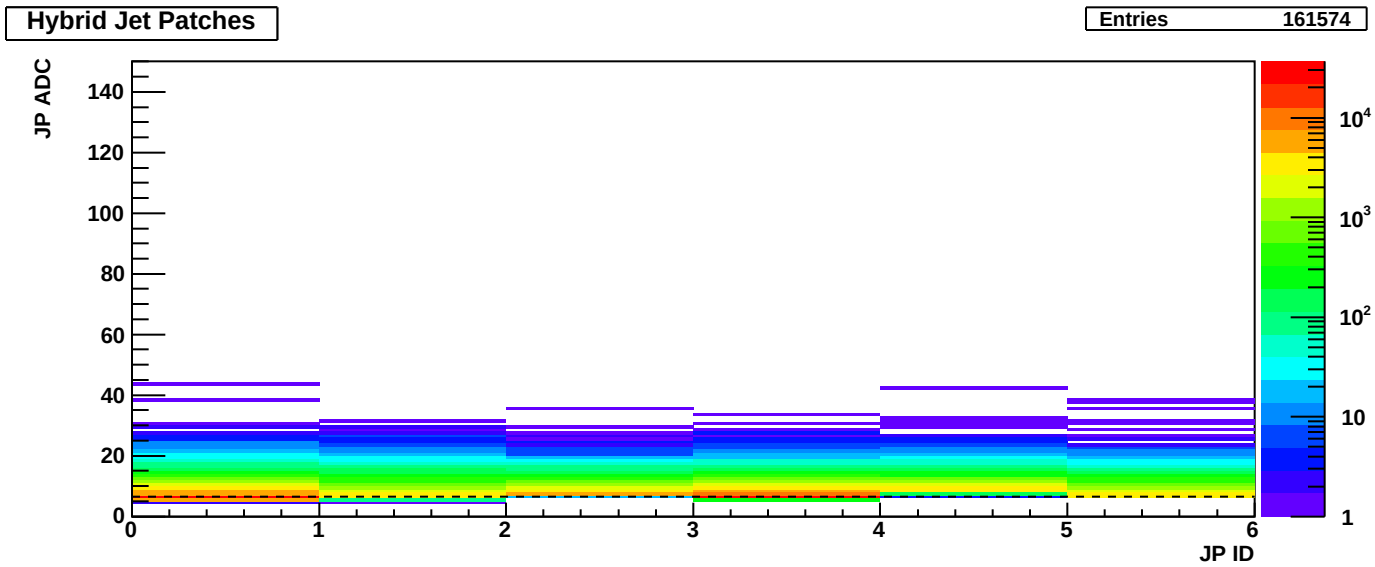

Barrel EMC L0 Input - Patch Sum
Entries 2.42361e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

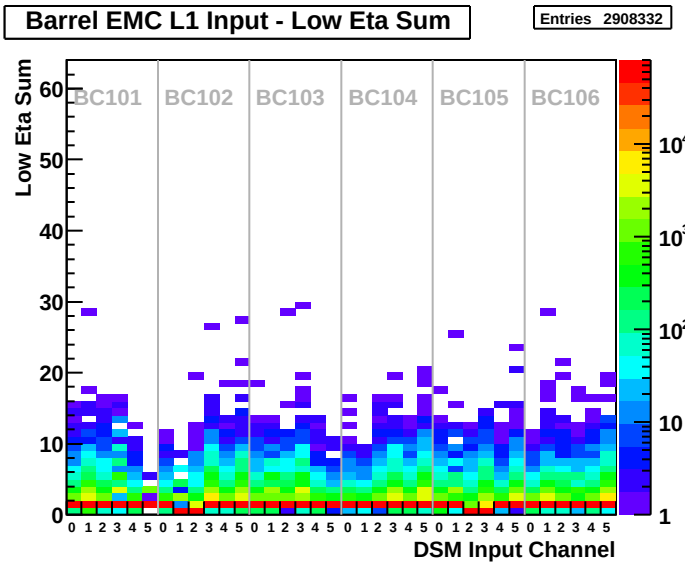

Endcap EMC L0 Input - High Tower
Entries 7270830
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

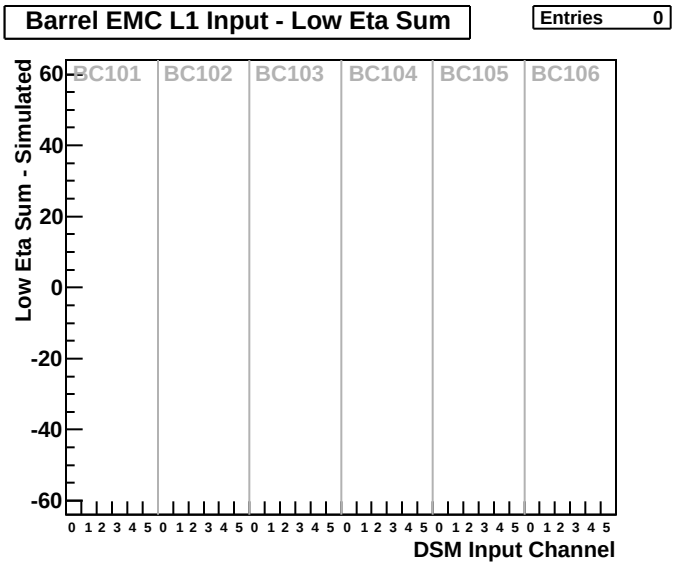

Endcap EMC L0 Input - Patch Sum
Entries 7270830
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

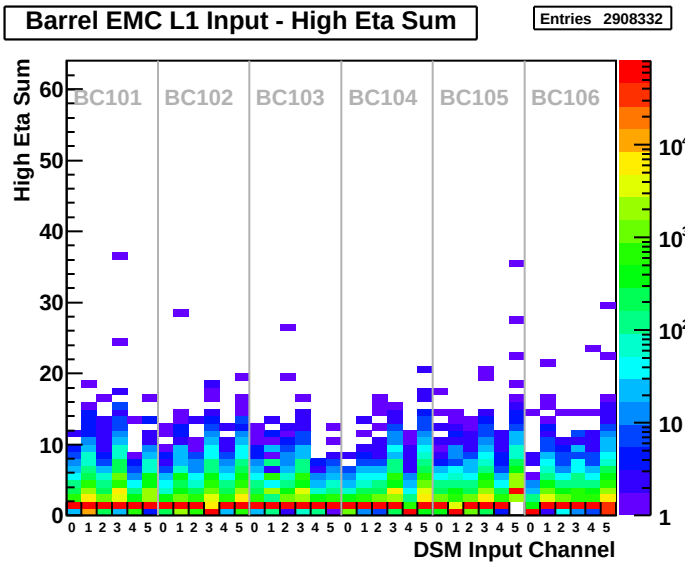

Barrel Jet Patches
Entries 1454166
JP ADC
JP ID

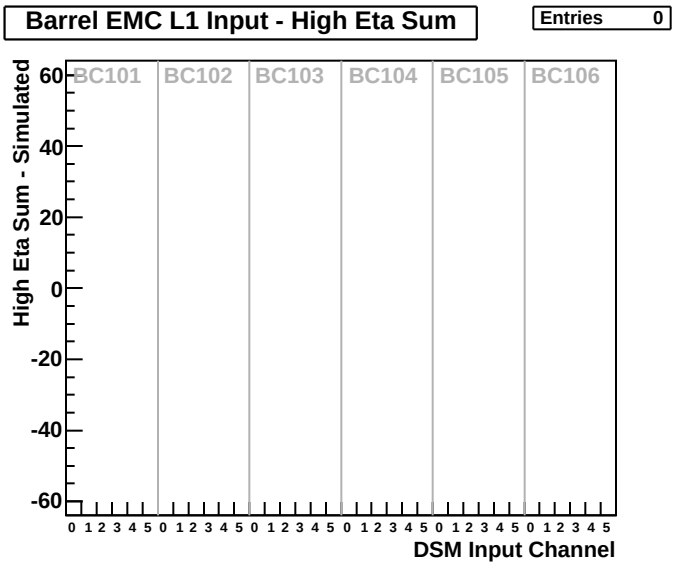

Endcap Jet Patches
Entries 484722
JP ADC
JP ID

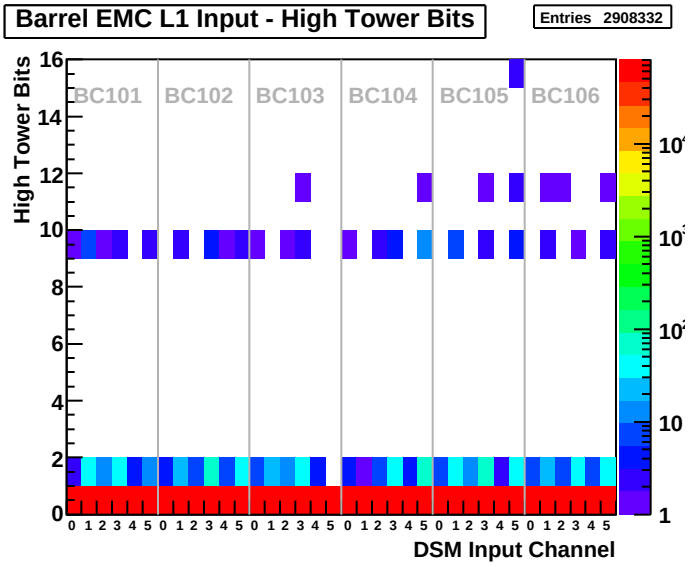

Hybrid Jet Patches
Entries 161574
JP ADC
JP ID

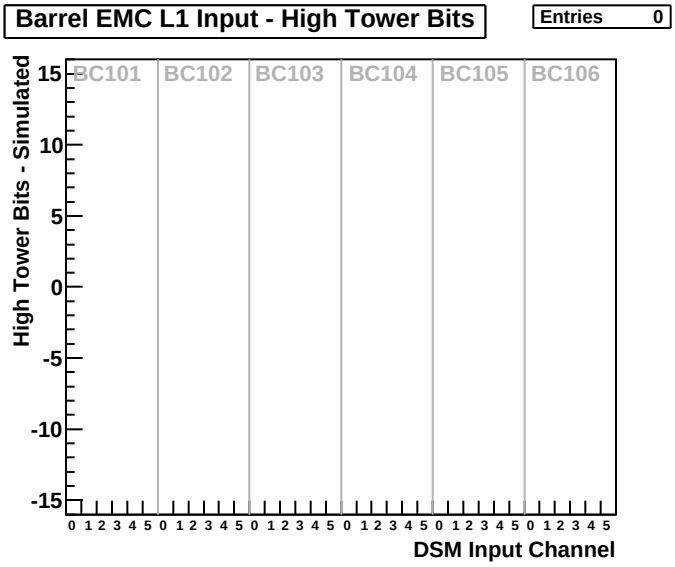

Barrel EMC L1 Input - Low Eta Sum
Entries 2908332
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

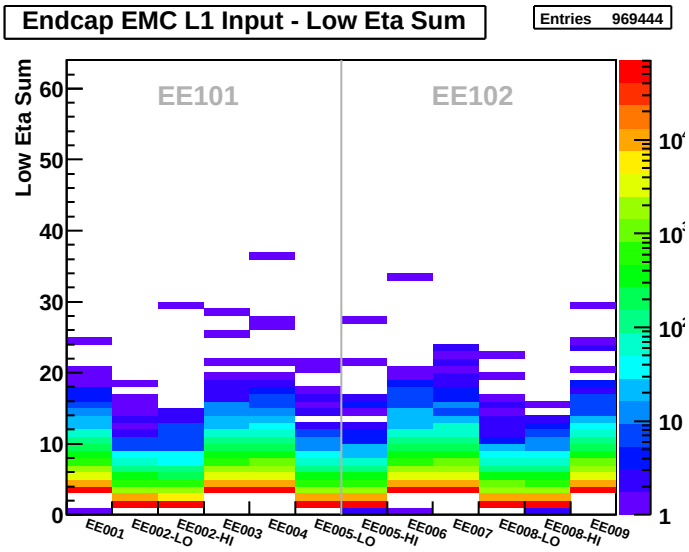

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

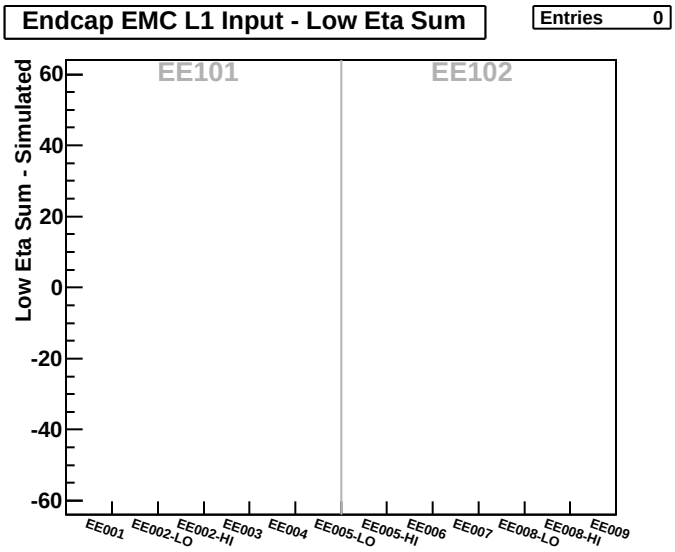

Barrel EMC L1 Input - High Eta Sum
Entries 2908332
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

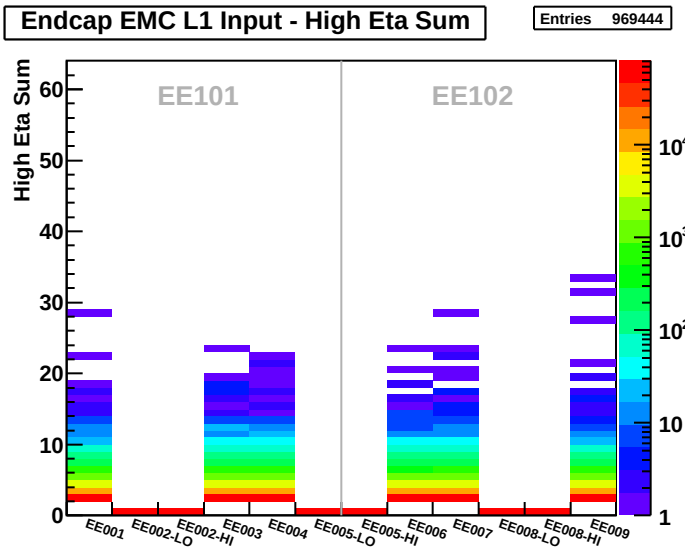

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

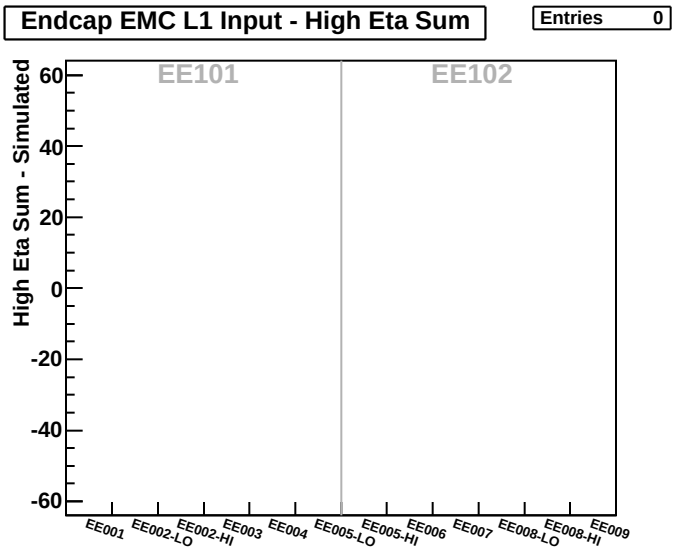

Barrel EMC L1 Input - High Tower Bits
Entries 2908332
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

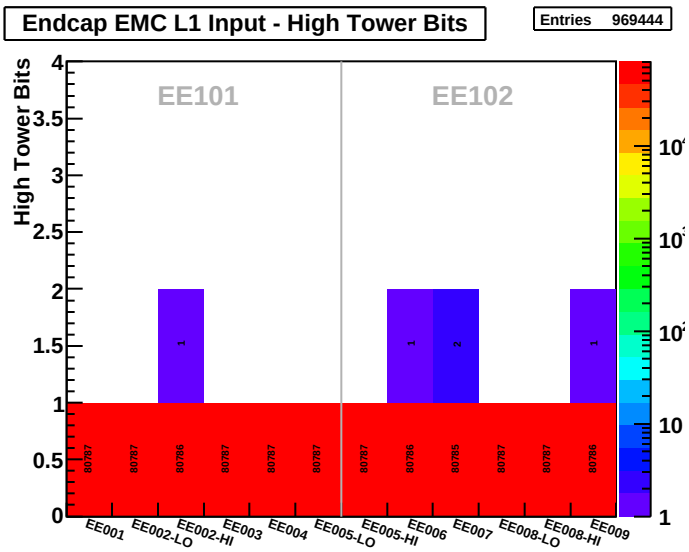

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

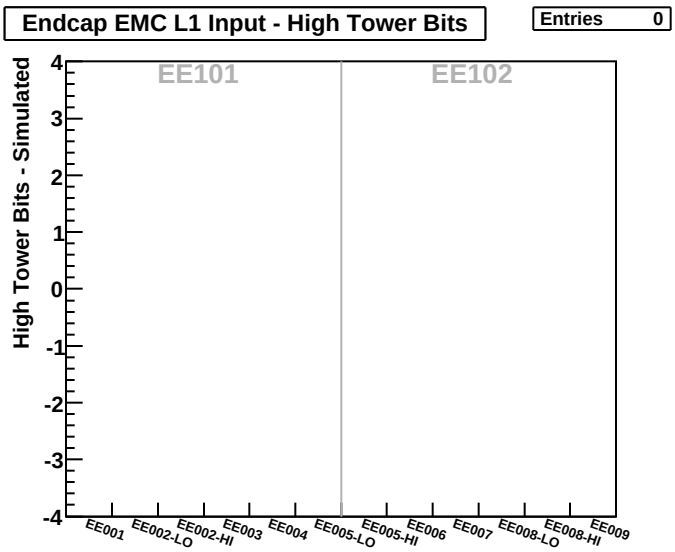

Endcap EMC L1 Input - Low Eta Sum
Entries 969444
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

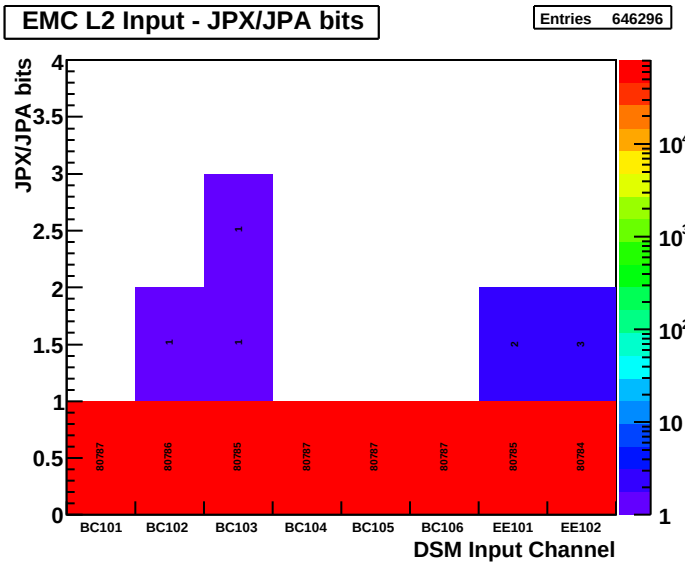

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

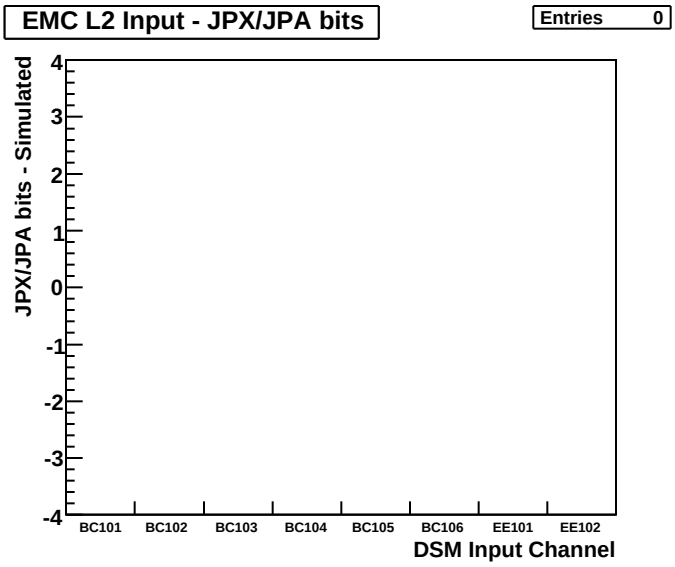

Endcap EMC L1 Input - High Eta Sum
Entries 969444
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

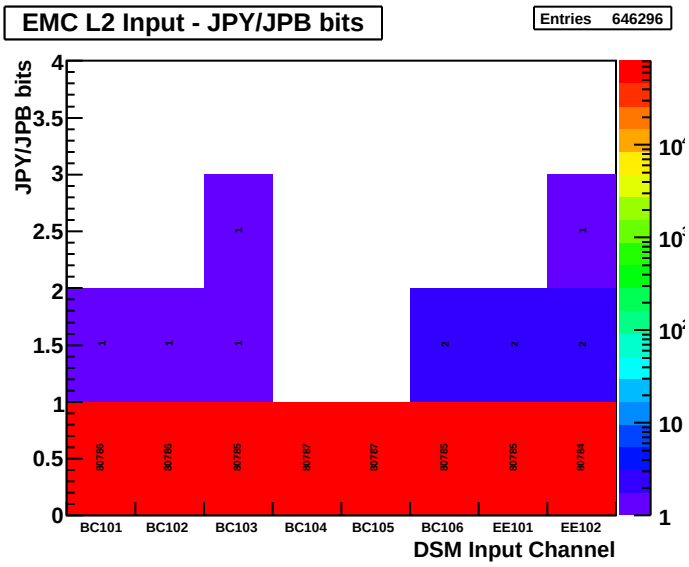

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

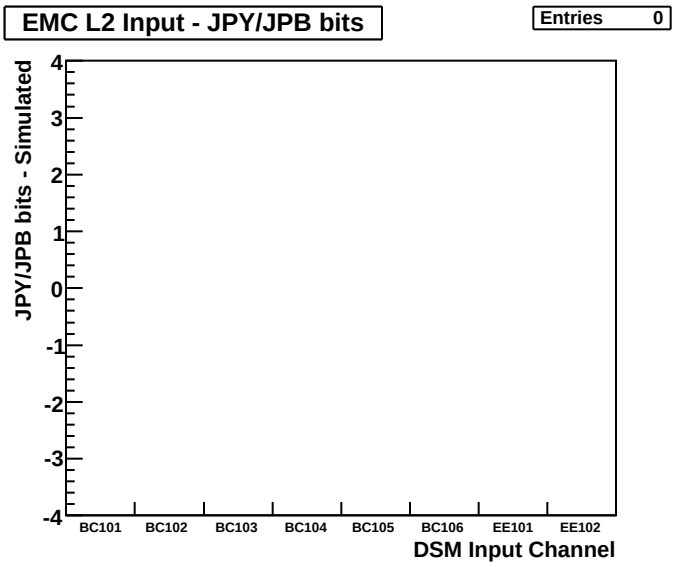

Endcap EMC L1 Input - High Tower Bits
Entries 969444
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

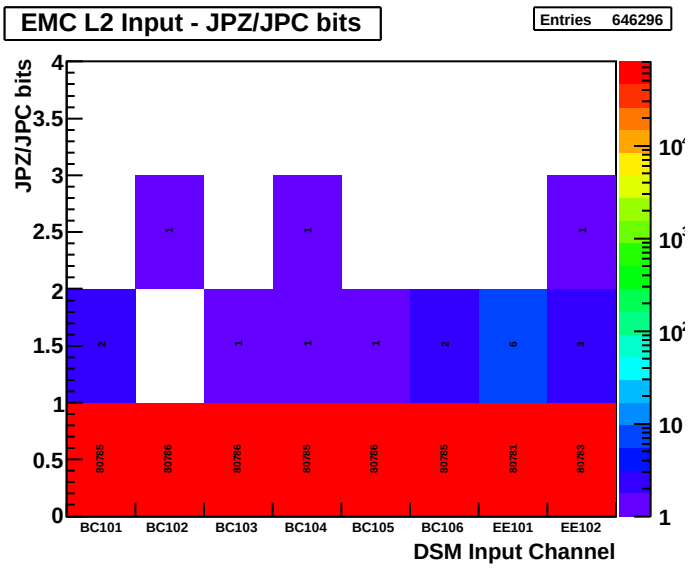

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

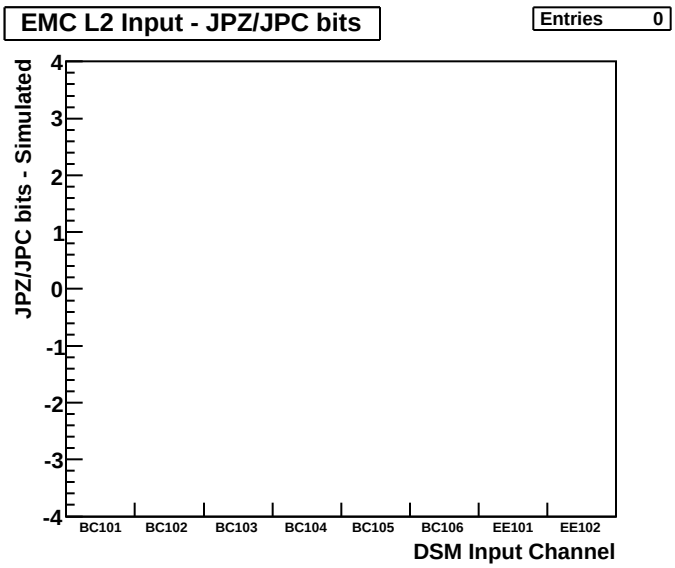

EMC L2 Input - JPX/JPA bits
Entries 646296
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

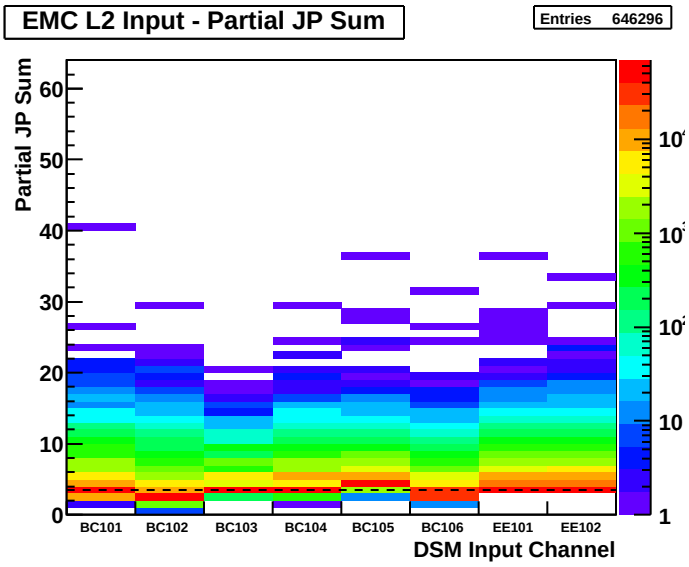

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

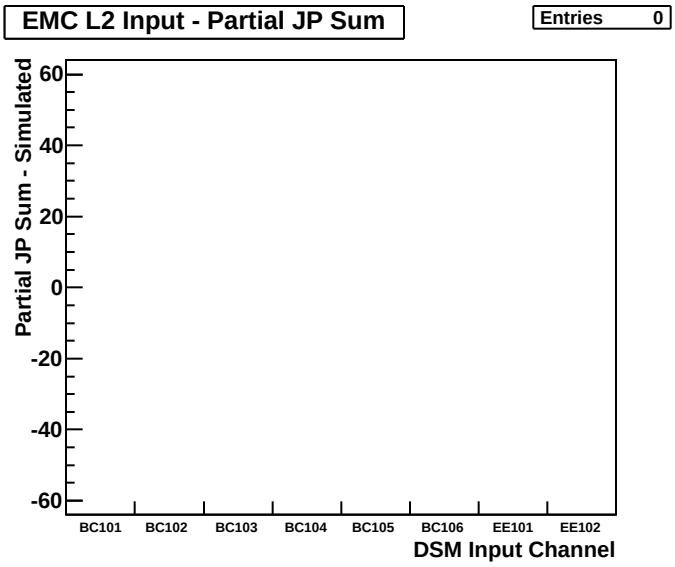

EMC L2 Input - JPY/JPB bits
Entries 646296
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

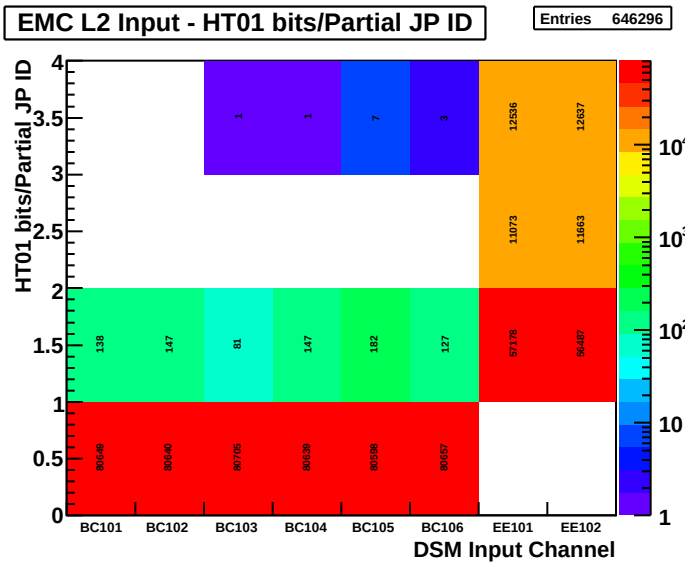

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

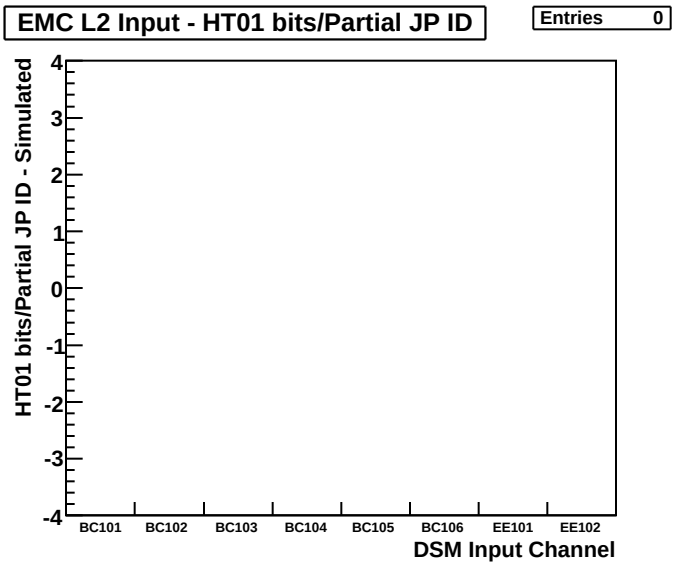

EMC L2 Input - JPZ/JPC bits
Entries 646296
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

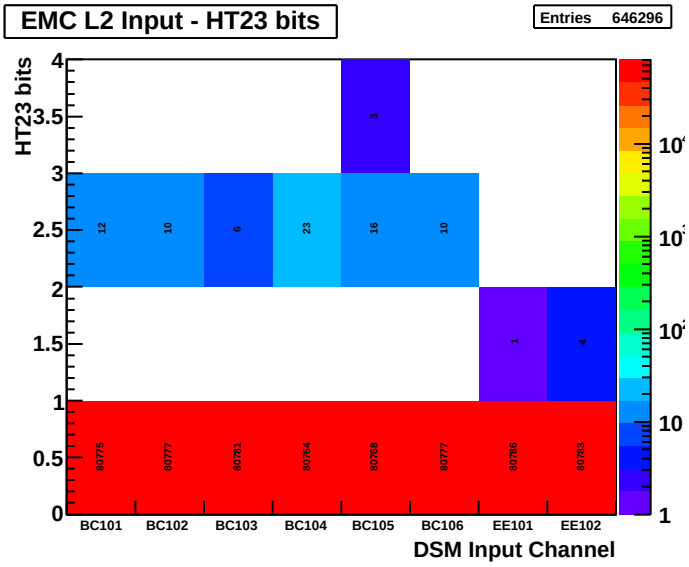

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

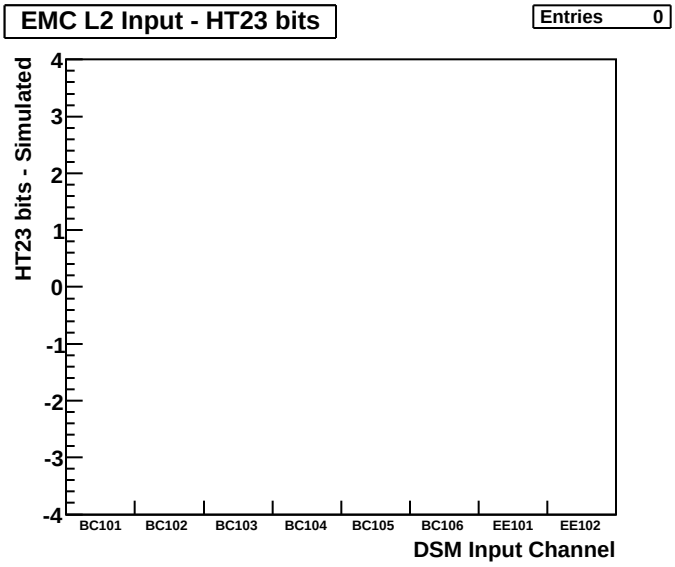

EMC L2 Input - Partial JP Sum
Entries 646296
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

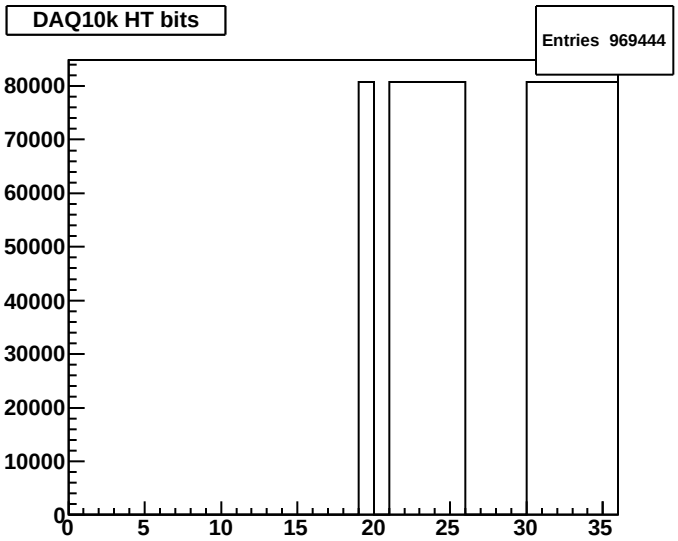

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

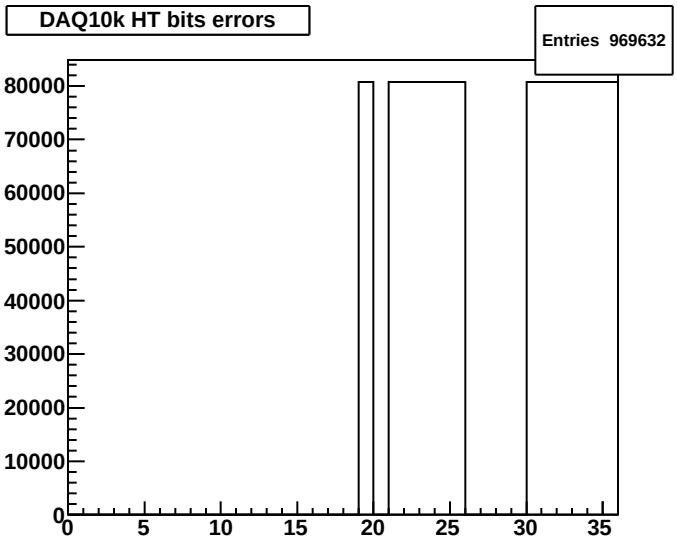

EMC L2 Input - HT01 bits/Partial JP ID
Entries 646296
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

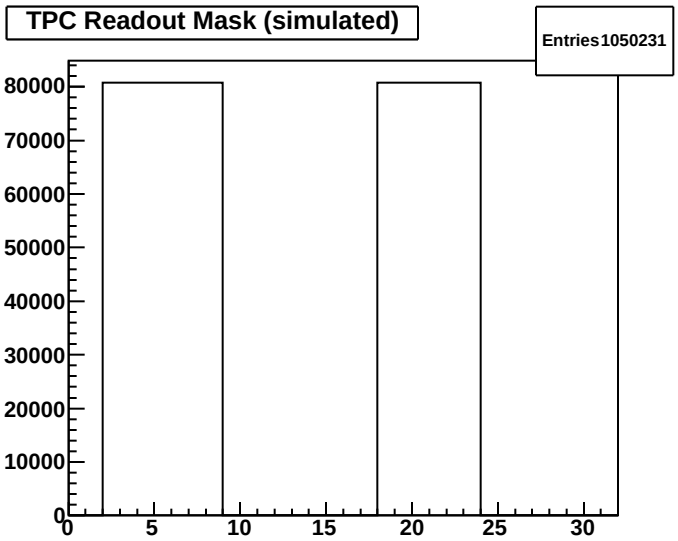

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

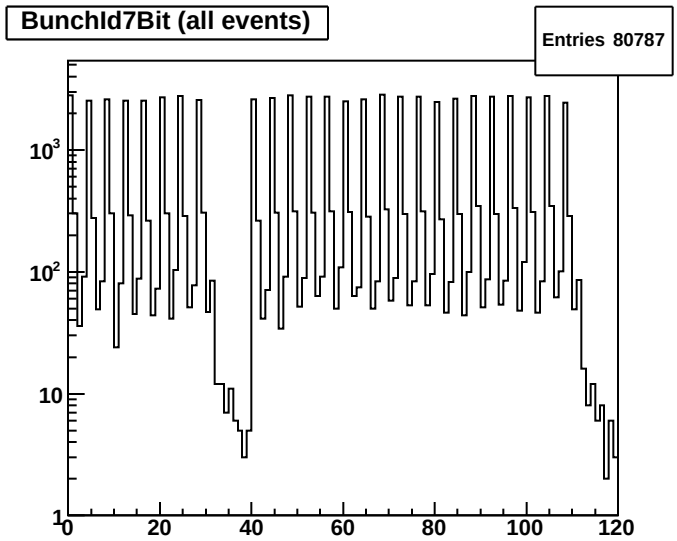

EMC L2 Input - HT23 bits
Entries 646296
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

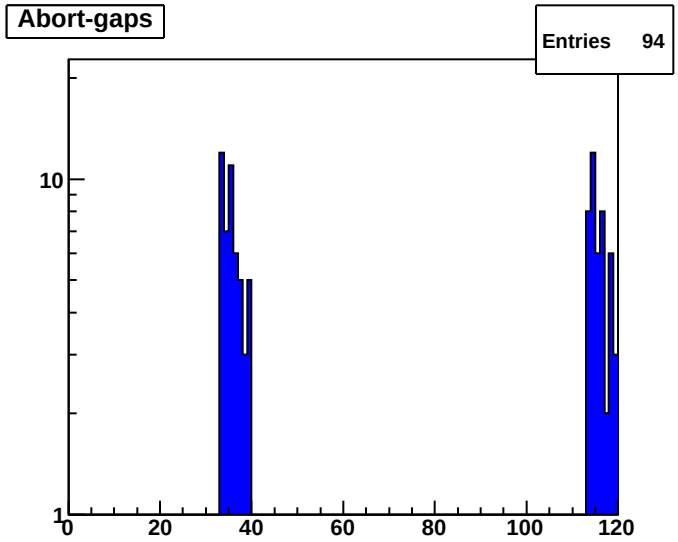

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

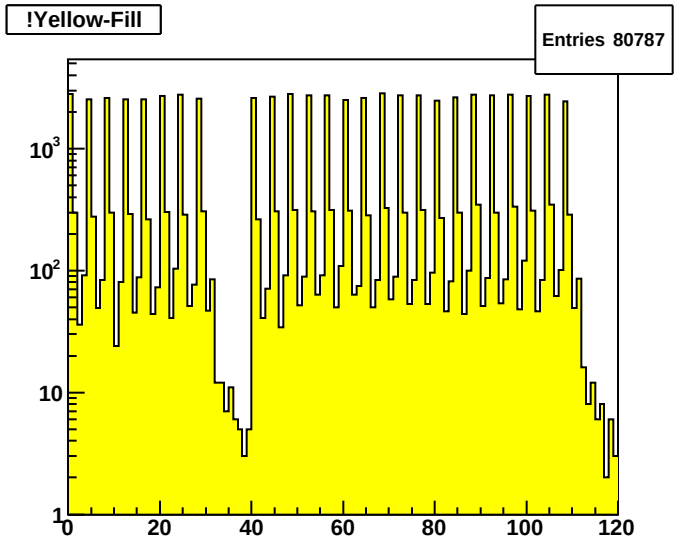

DAQ10k HT bits
Entries 969444
80000
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

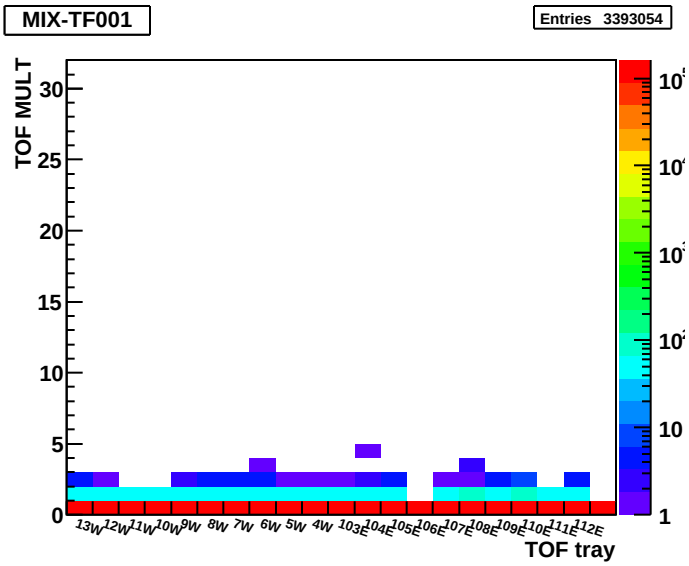

DAQ10k HT bits errors
Entries 969632
80000
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

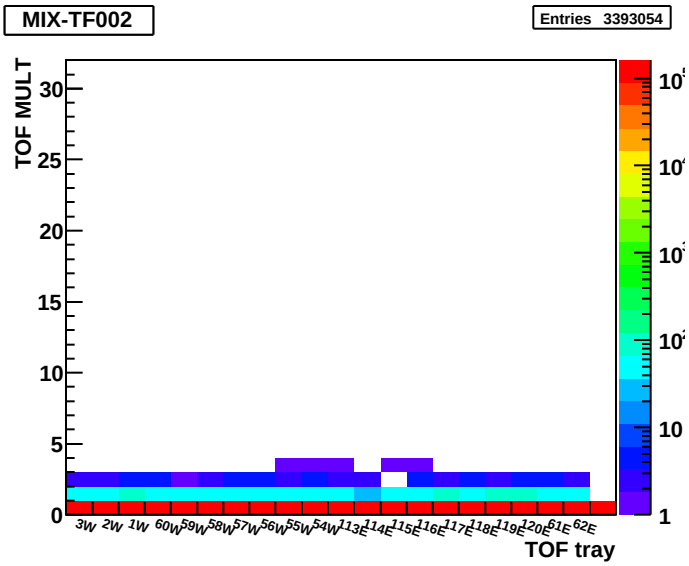

TPC Readout Mask (simulated)
Entries 1050231
80000
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

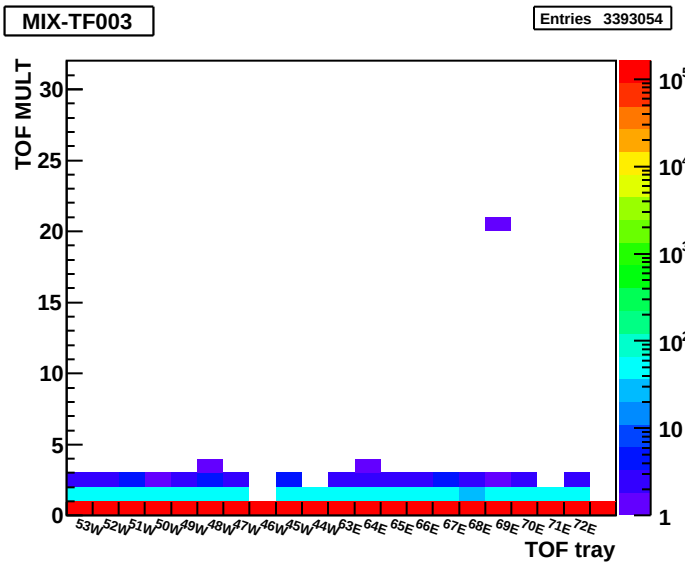

BunchId7Bit (all events)
Entries 80787
10^3
10^2
10
1
0 20 40 60 80 100 120

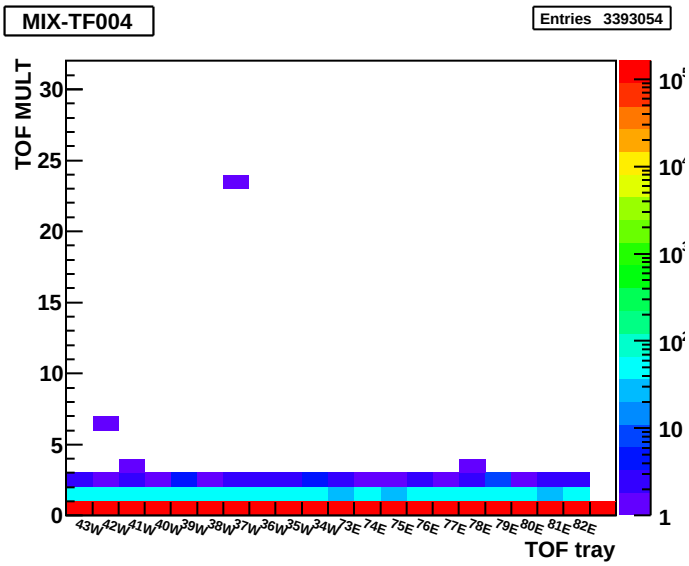

Abort-gaps
Entries 94
10
1
0 20 40 60 80 100 120

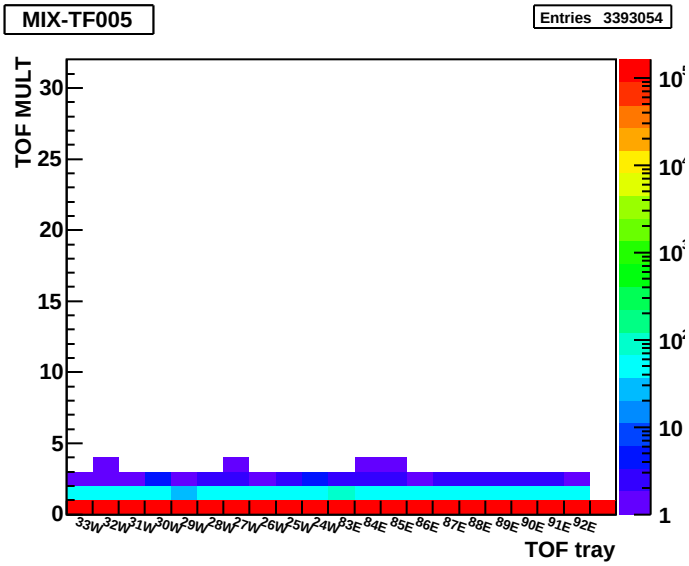

!Yellow-Fill
Entries 80787
10^3
10^2
10
1
0 20 40 60 80 100 120

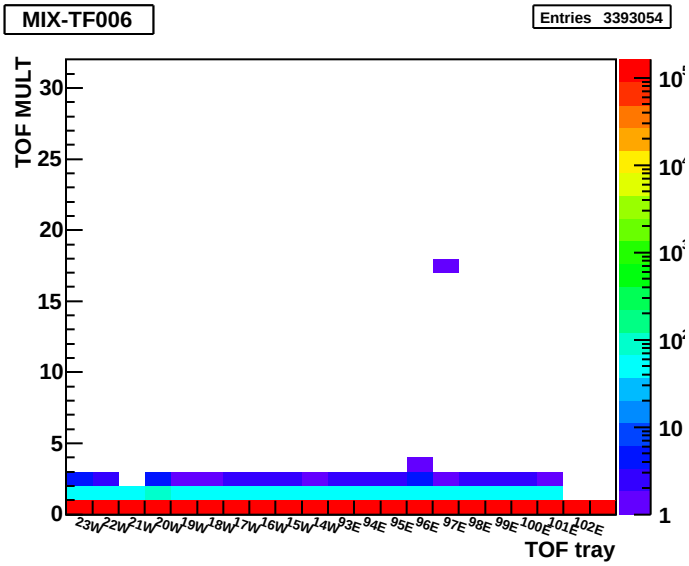

MIX-TF001
Entries 3393054
TOF MULT
TOF tray

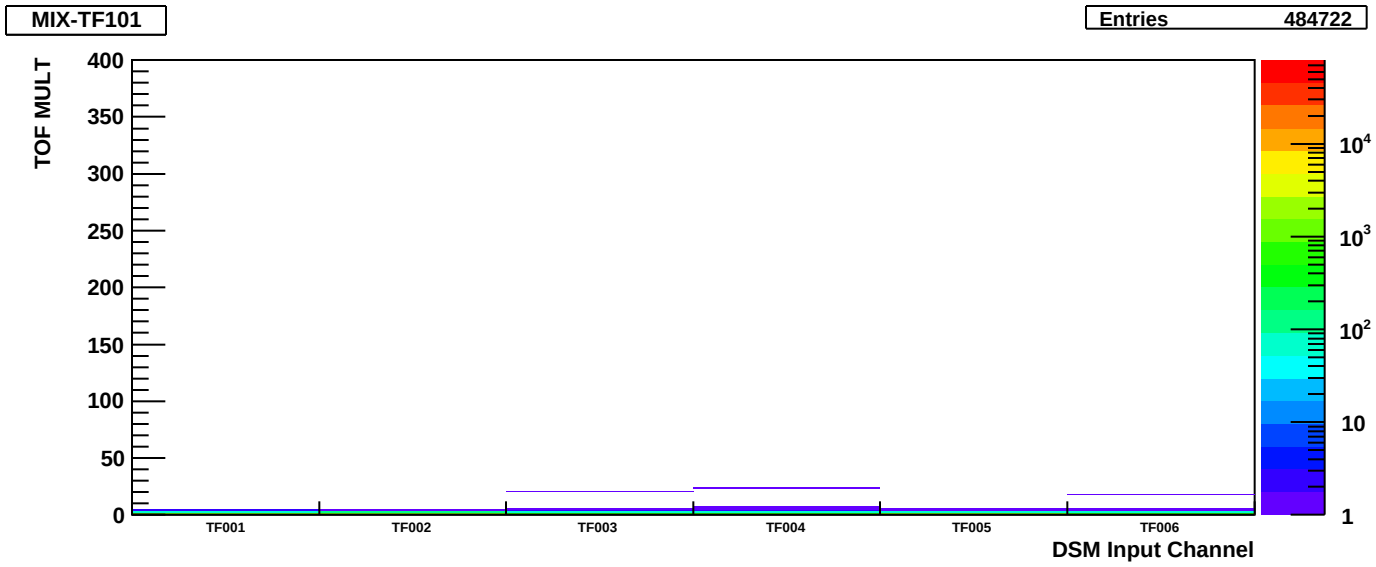

MIX-TF002
Entries 3393054
TOF MULT
TOF tray

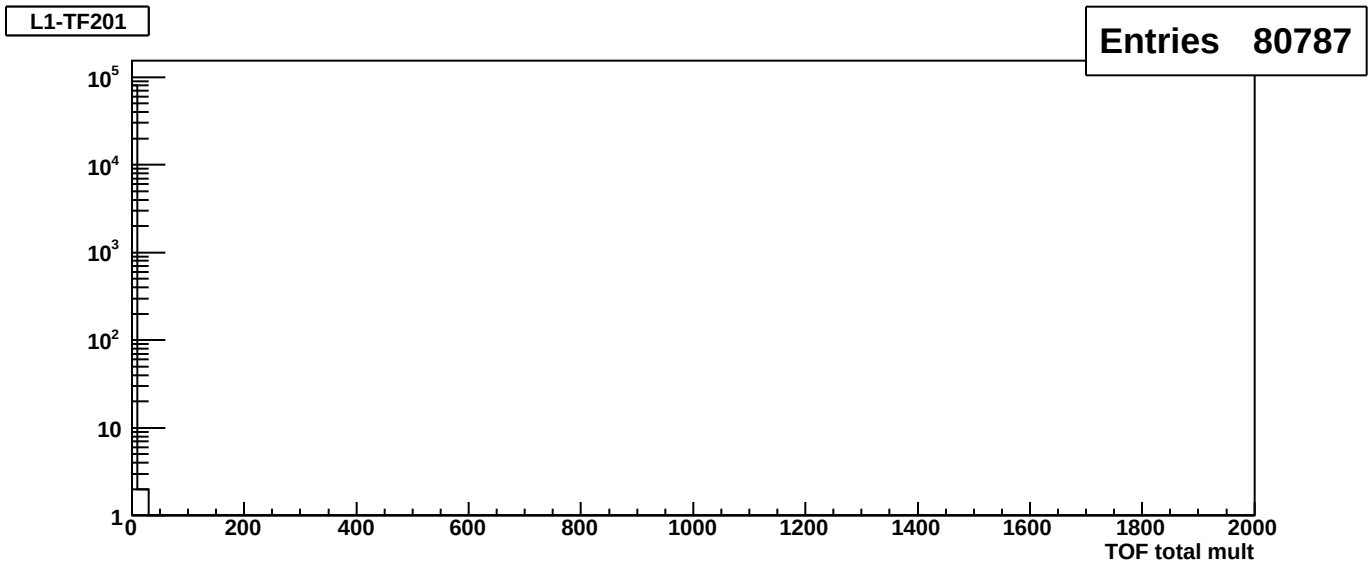

MIX-TF003
Entries 3393054
TOF MULT
TOF tray

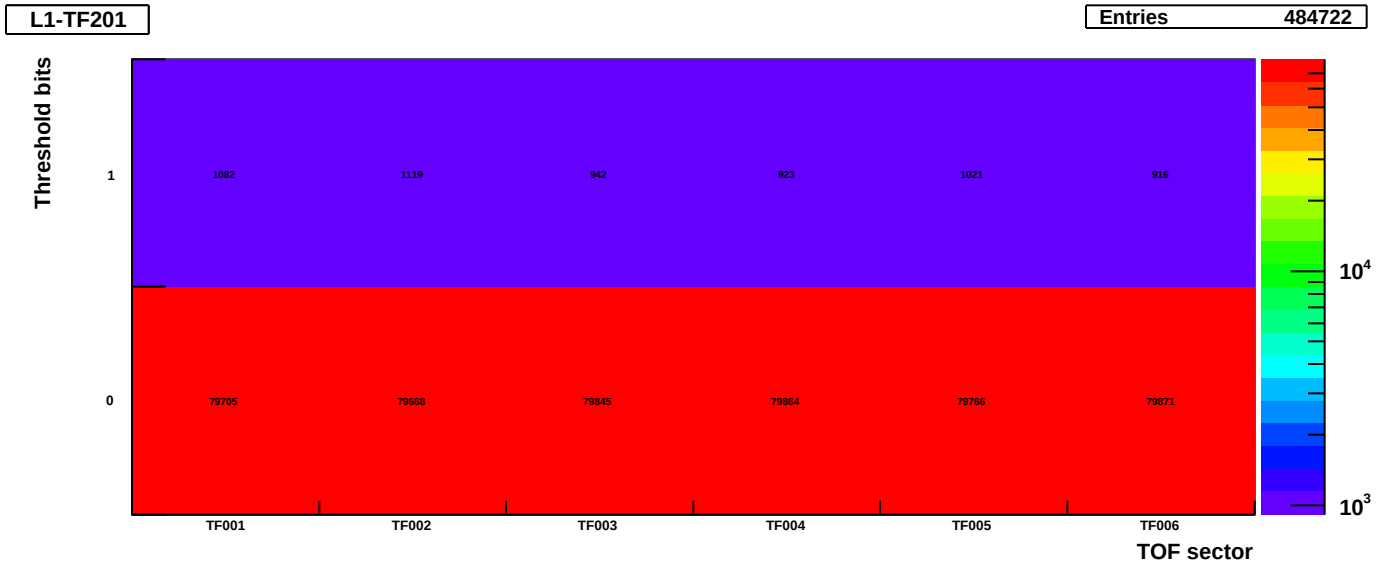

MIX-TF004
Entries 3393054
TOF MULT
TOF tray

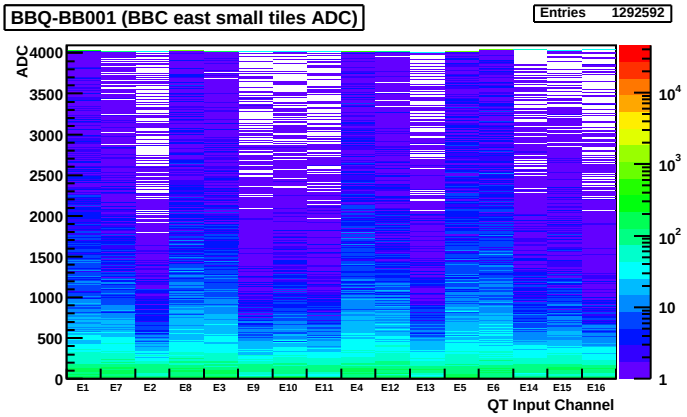

MIX-TF005
Entries 3393054
TOF MULT
TOF tray

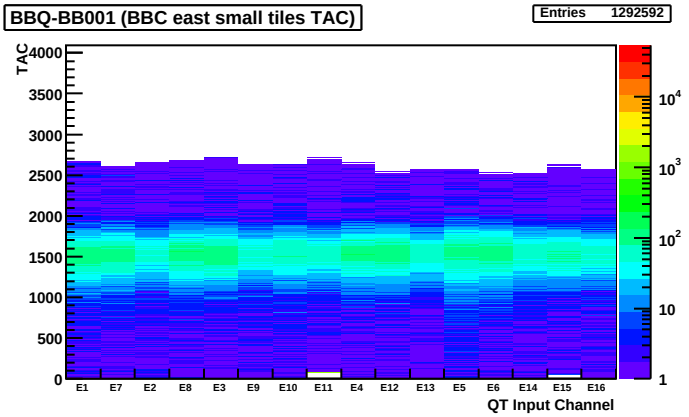

MIX-TF006
Entries 3393054
TOF MULT
TOF tray

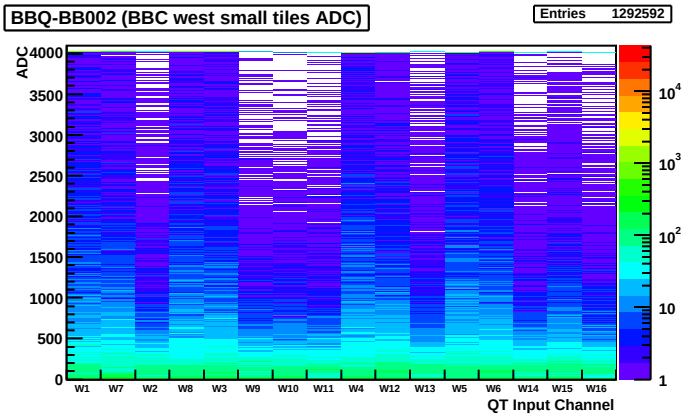

MIX-TF101
Entries 484722
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

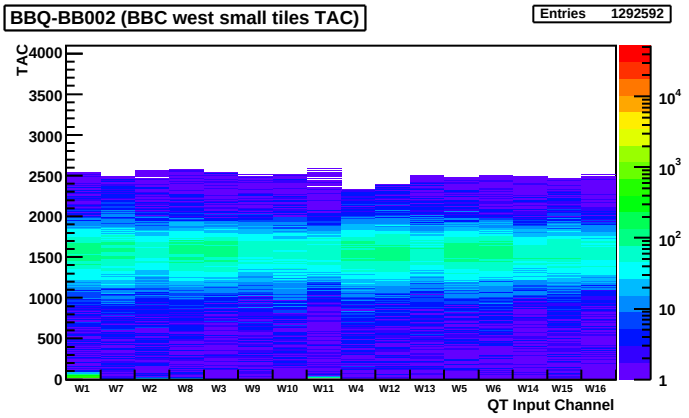

L1-TF201
Entries 80787
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

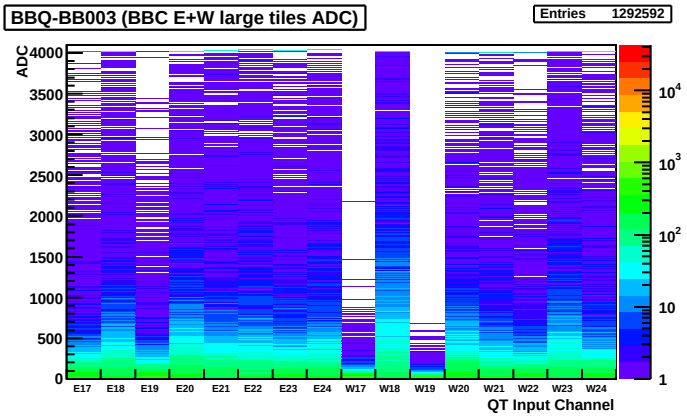

L1-TF201
Entries 484722
Threshold bits
1
0
1082
1119
942
923
1021
916
79705
79668
79845
79864
79766
79871
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

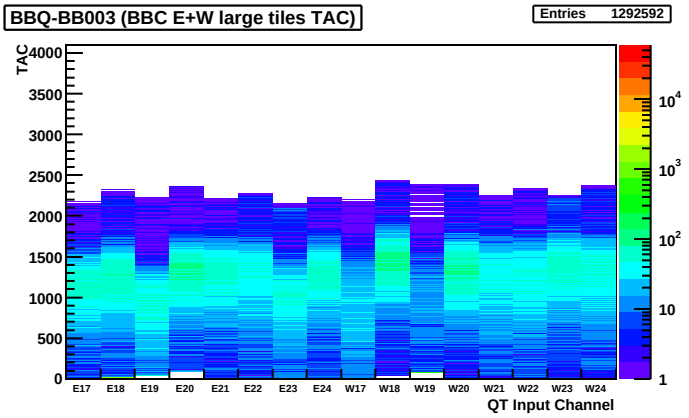

BBQ-BB001 (BBC east small tiles ADC)
Entries 1292592
ADC
QT Input Channel

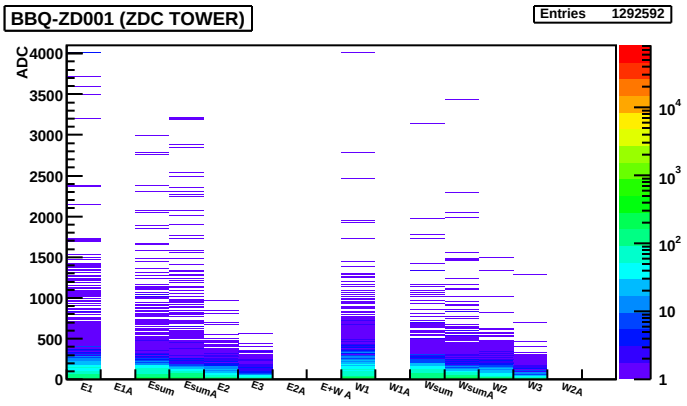

BBQ-BB001 (BBC east small tiles TAC)
Entries 1292592
TAC
QT Input Channel

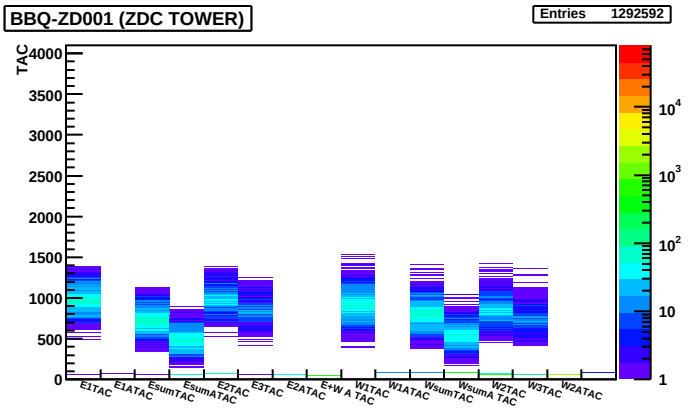

BBQ-BB002 (BBC west small tiles ADC)
Entries 1292592
ADC
QT Input Channel

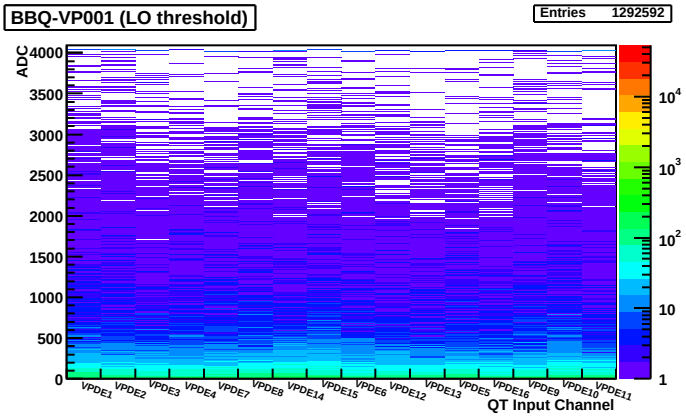

BBQ-BB002 (BBC west small tiles TAC)
Entries 1292592
TAC
QT Input Channel

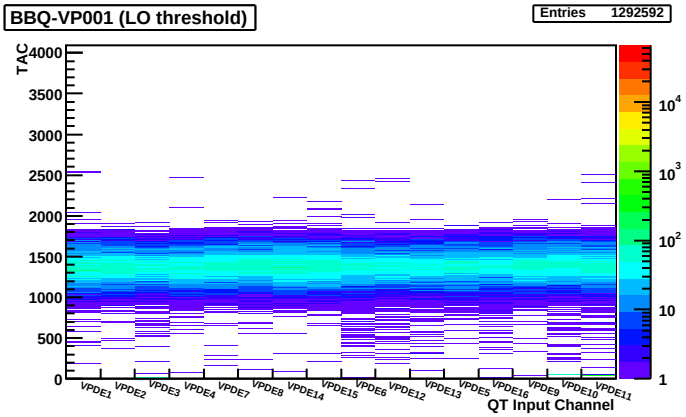

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1292592
ADC
QT Input Channel

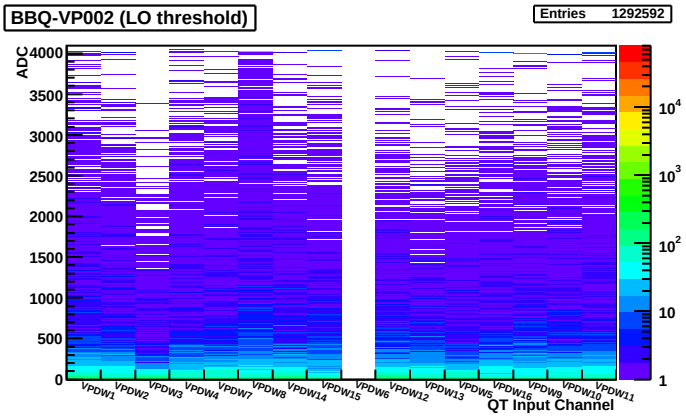

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1292592
TAC
QT Input Channel

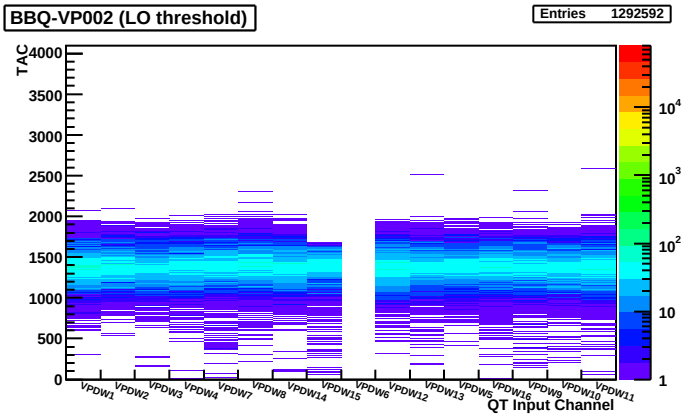

BBQ-ZD001 (ZDC TOWER)
Entries 1292592
ADC

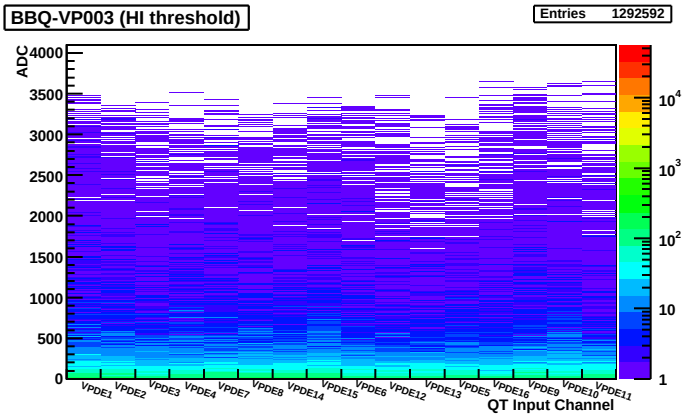

BBQ-ZD001 (ZDC TOWER)
Entries 1292592
TAC

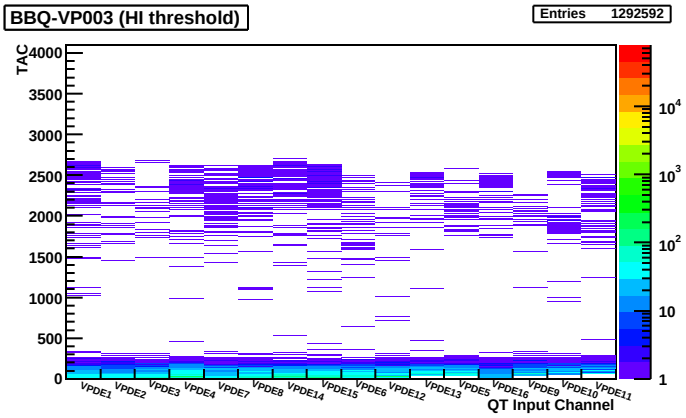

BBQ-VP001 (LO threshold)
Entries 1292592
ADC
QT Input Channel

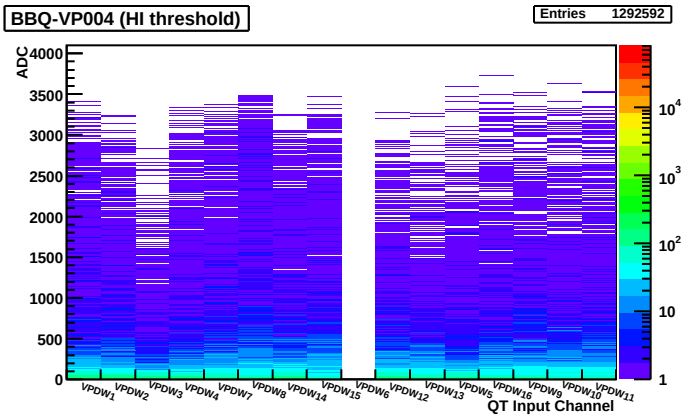

BBQ-VP001 (LO threshold)
Entries 1292592
TAC
QT Input Channel

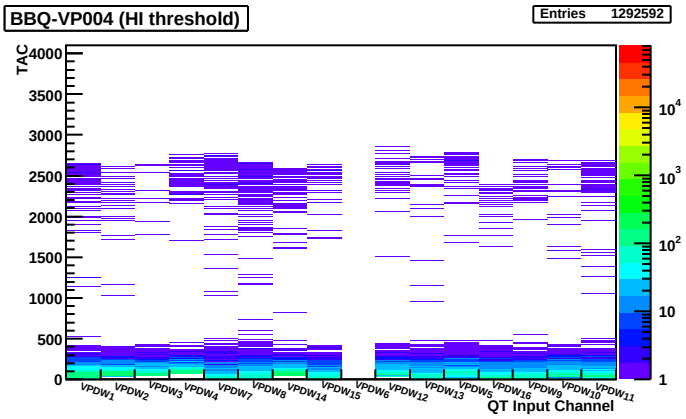

BBQ-VP002 (LO threshold)
Entries 1292592
ADC
QT Input Channel

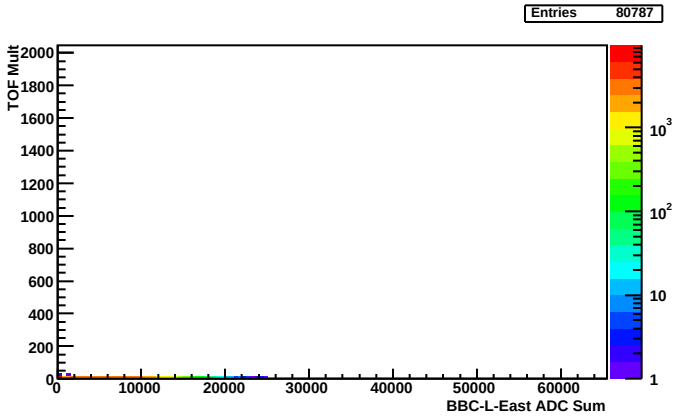

BBQ-VP002 (LO threshold)
Entries 1292592
TAC
QT Input Channel

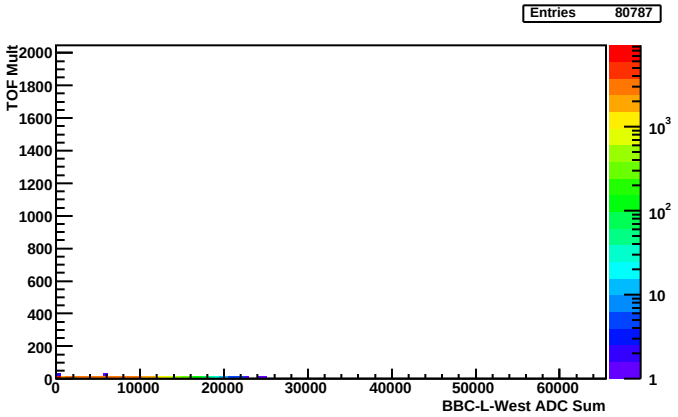

BBQ-VP003 (HI threshold)
Entries 1292592
ADC
QT Input Channel

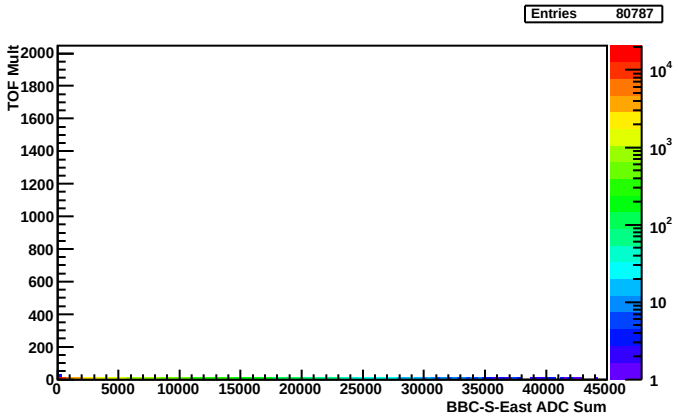

BBQ-VP003 (HI threshold)
Entries 1292592
TAC
QT Input Channel

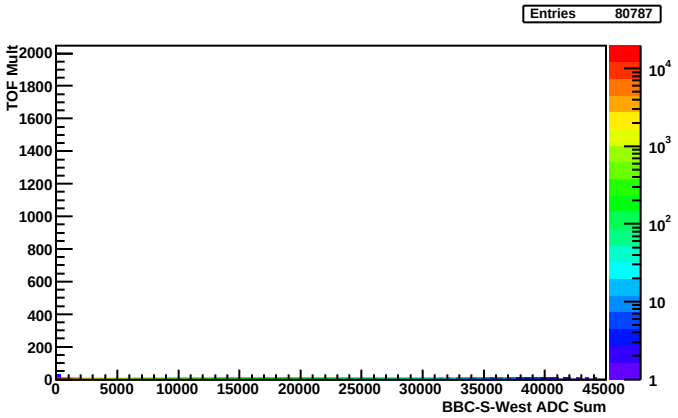

BBQ-VP004 (HI threshold)
Entries 1292592
ADC
QT Input Channel

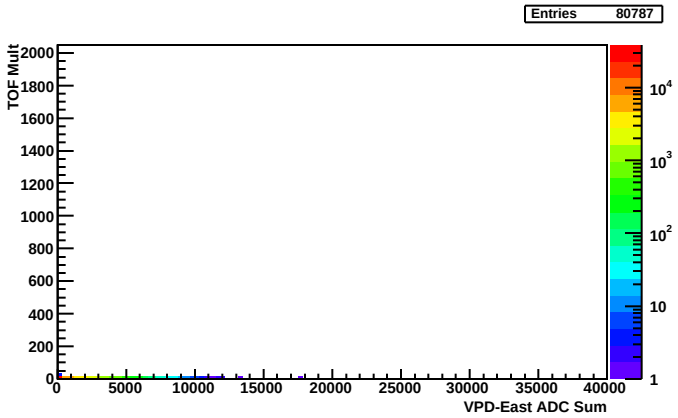

BBQ-VP004 (HI threshold)
Entries 1292592
TAC
QT Input Channel

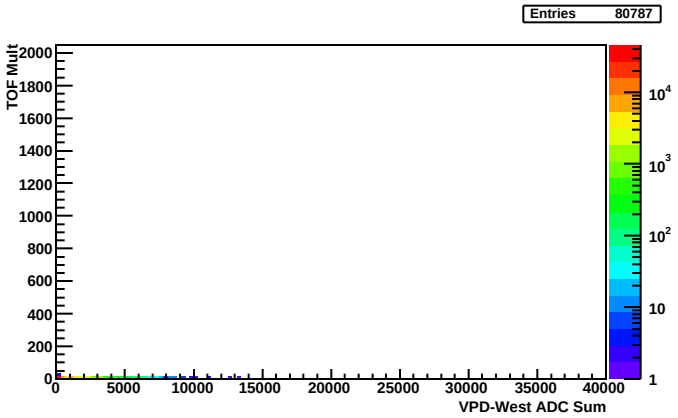

Entries 80787
TOF Mult
BBC-L-East ADC Sum

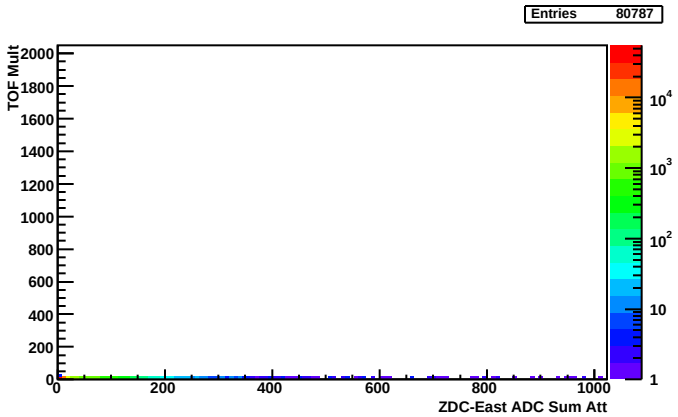

Entries 80787
TOF Mult
BBC-L-West ADC Sum

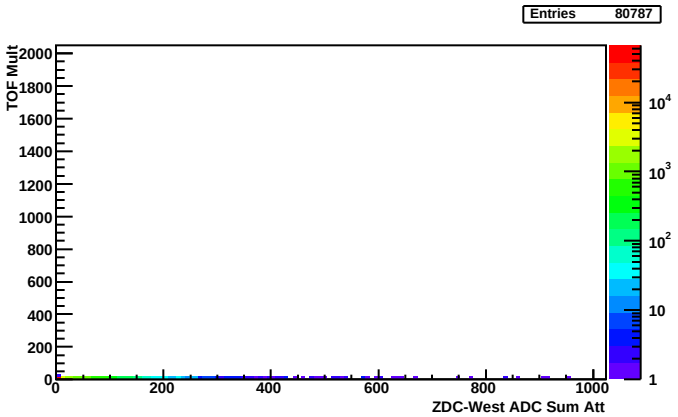

Entries 80787
TOF Mult
BBC-S-East ADC Sum

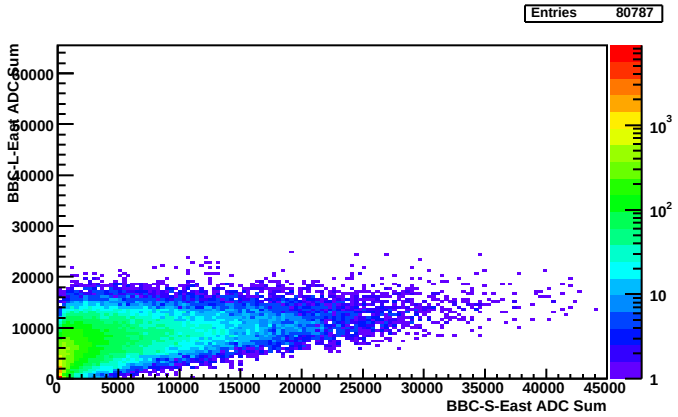

Entries 80787
TOF Mult
BBC-S-West ADC Sum

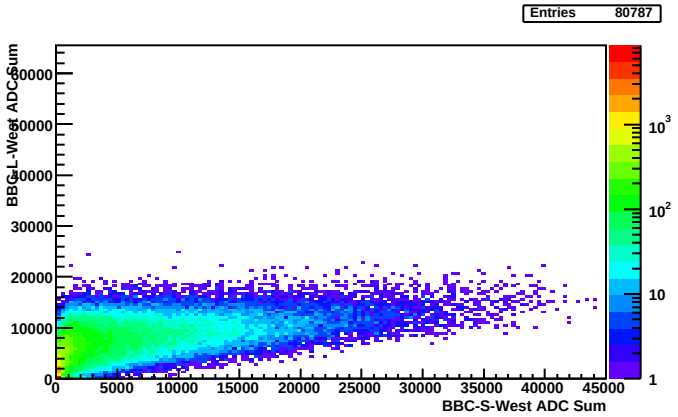

Entries 80787
TOF Mult
VPD-East ADC Sum

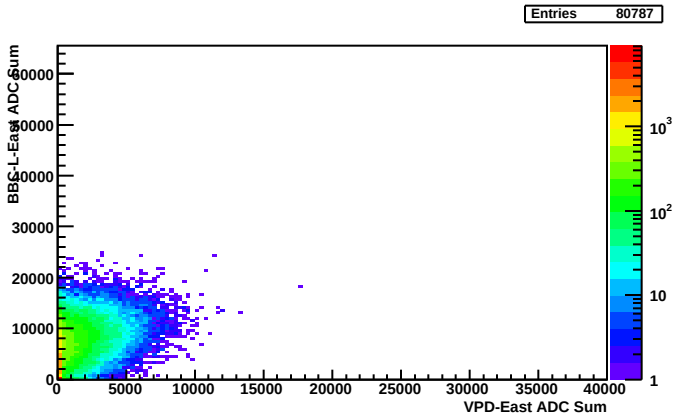

Entries 80787
TOF Mult
VPD-West ADC Sum

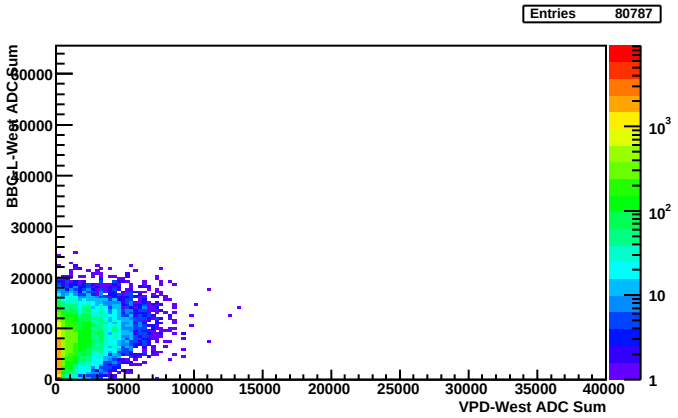

Entries 80787
TOF Mult
ZDC-East ADC Sum Att

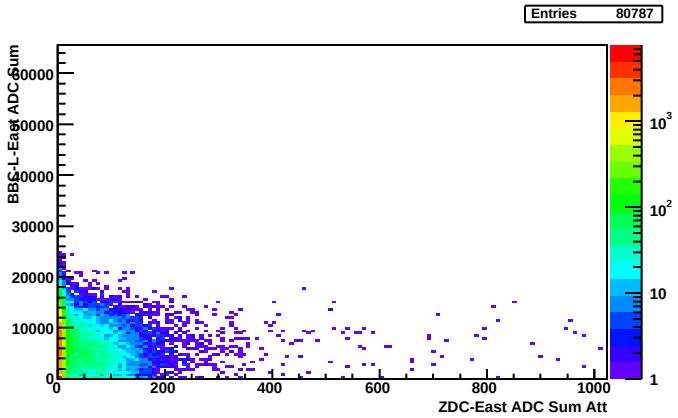

Entries 80787
TOF Mult
ZDC-West ADC Sum Att

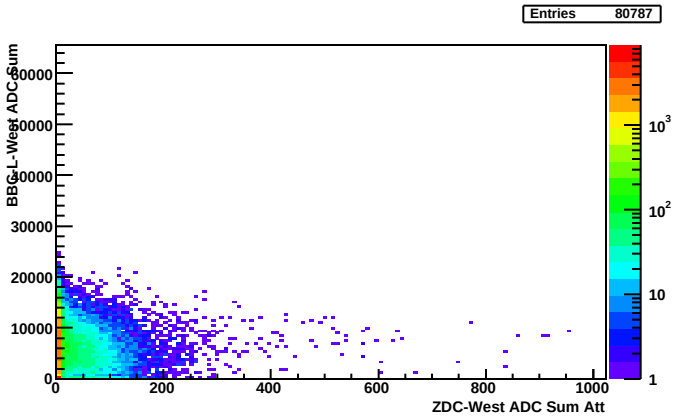

Entries 80787
BBC-L-East ADC Sum
BBC-S-East ADC Sum

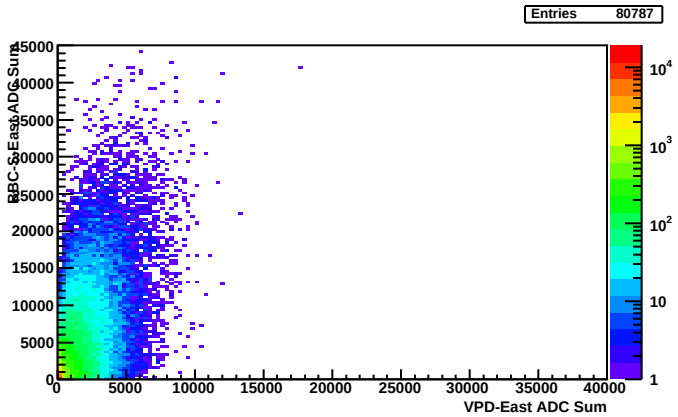

Entries 80787
BBC-L-West ADC Sum
BBC-S-West ADC Sum

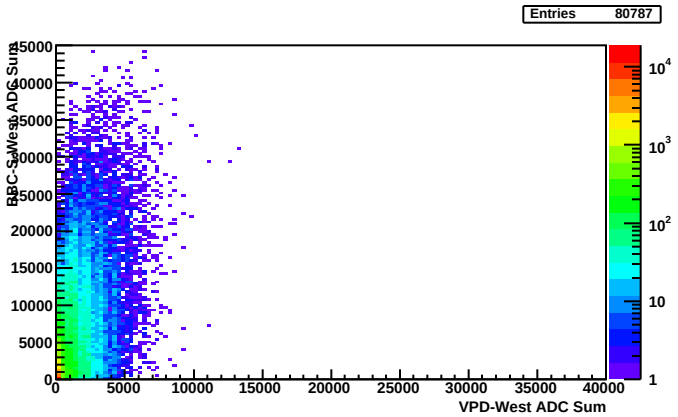

Entries 80787
BBC-L-East ADC Sum
VPD-East ADC Sum

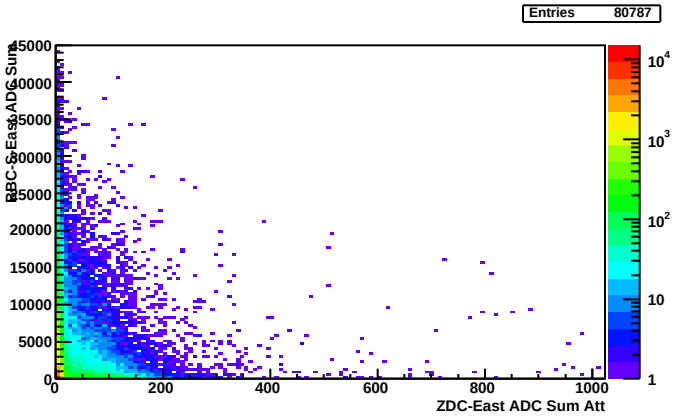

Entries 80787
BBC-L-West ADC Sum
VPD-West ADC Sum

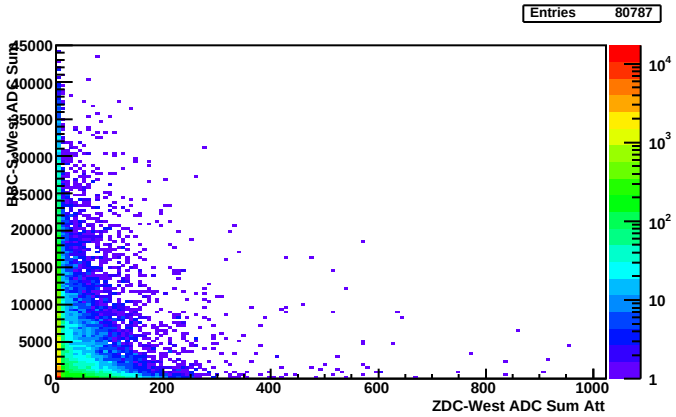

Entries 80787
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

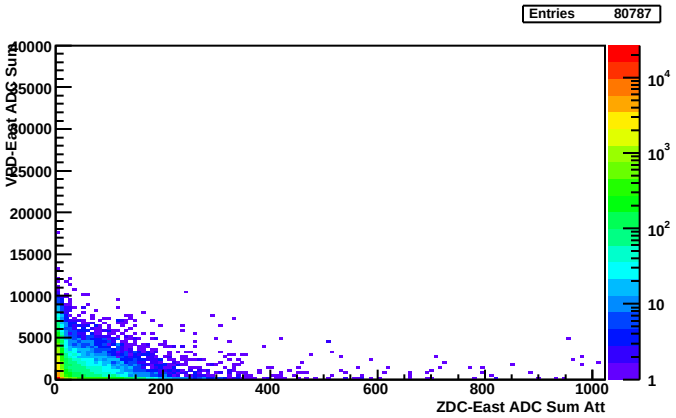

Entries 80787
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

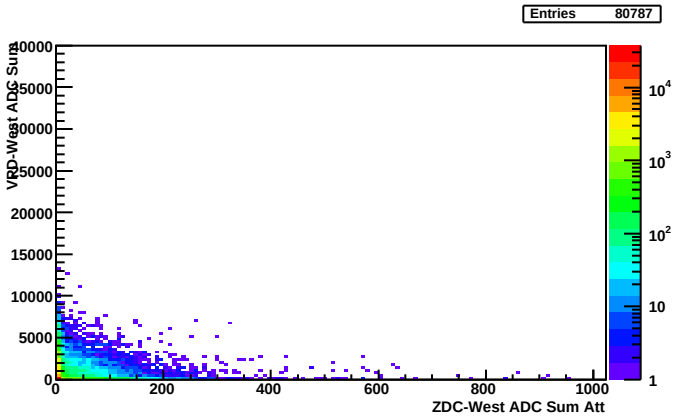

Entries 80787
BBC-S-East ADC Sum
VPD-East ADC Sum

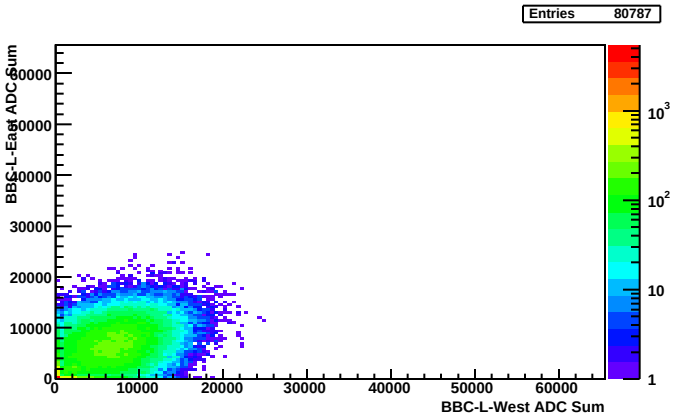

Entries 80787
BBC-S-West ADC Sum
VPD-West ADC Sum

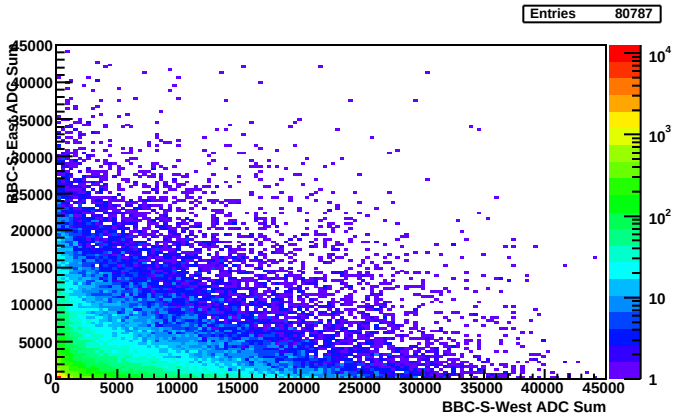

Entries 80787
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

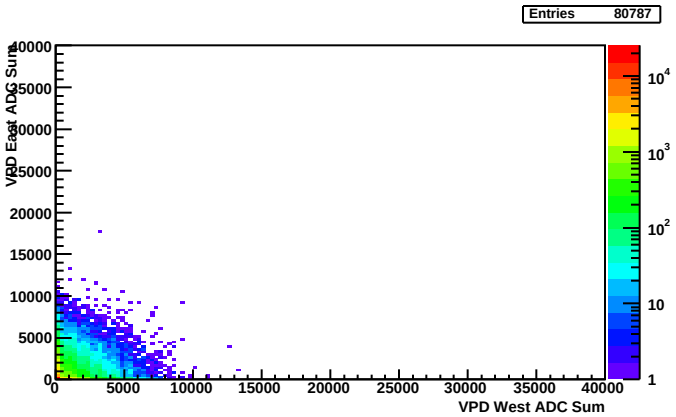

Entries 80787
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

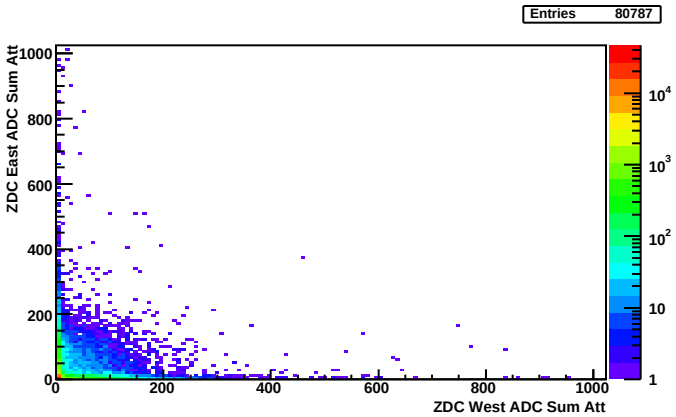

Entries 80787
VPD-East ADC Sum
ZDC-East ADC Sum Att

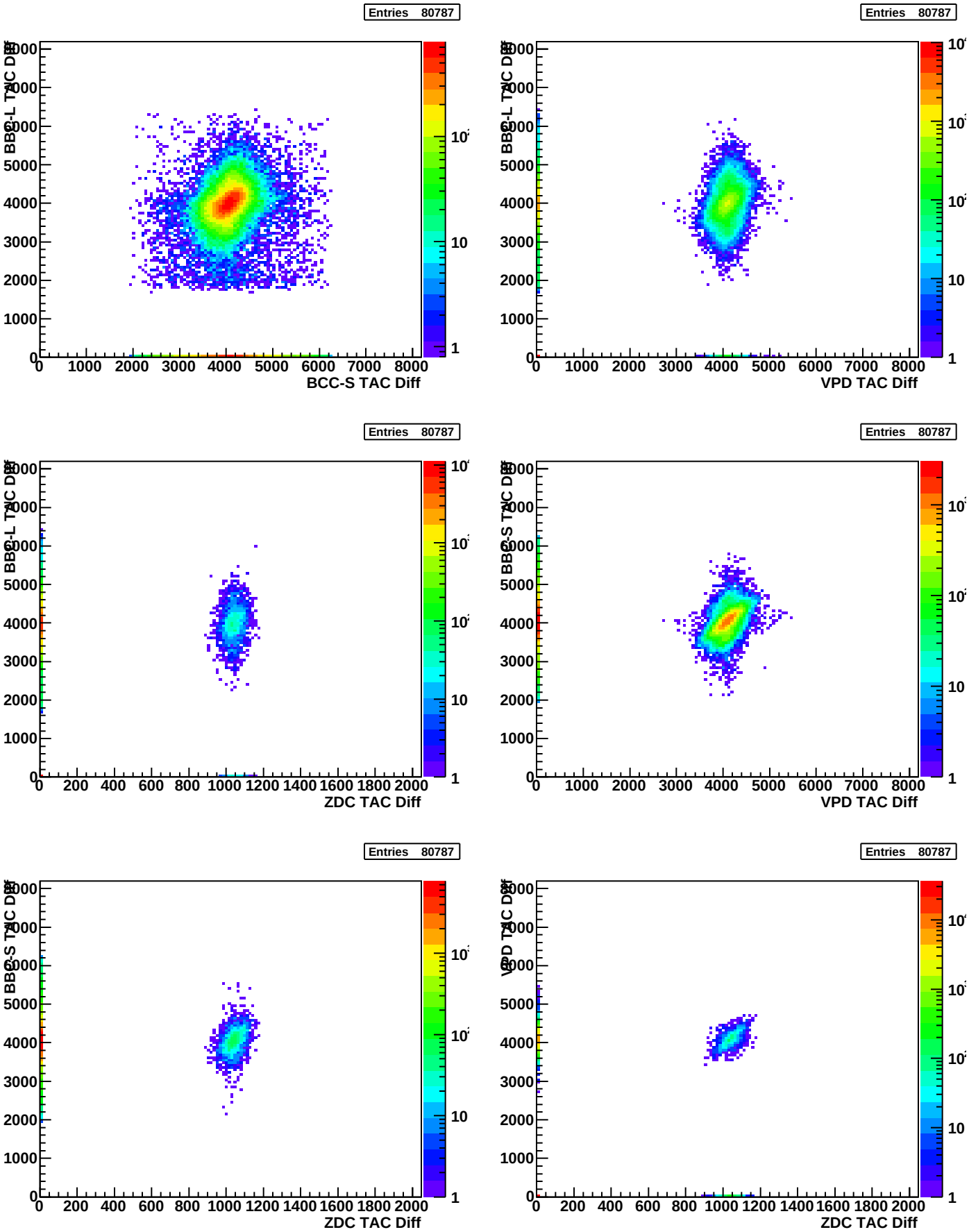

Entries 80787
VPD-West ADC Sum
ZDC-West ADC Sum Att

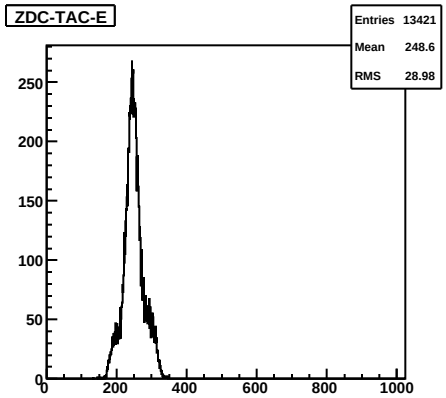

Entries 80787
BBC-L-East ADC Sum
BBC-L-West ADC Sum

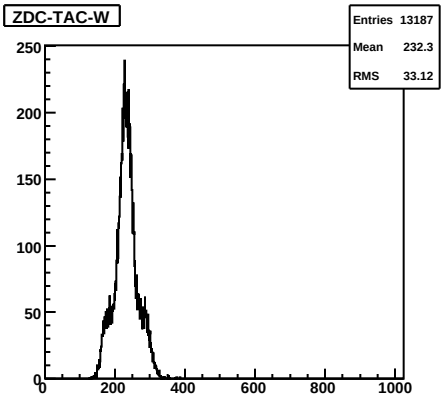

Entries 80787
BBC-S-East ADC Sum
BBC-S-West ADC Sum

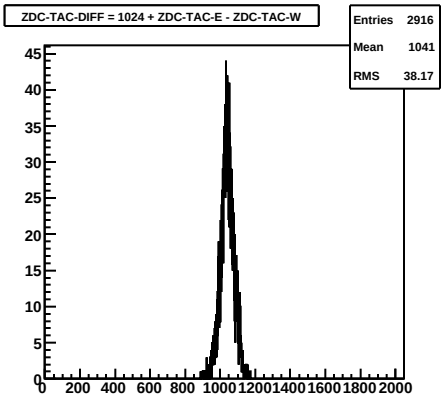

Entries 80787
VPD East ADC Sum
VPD West ADC Sum

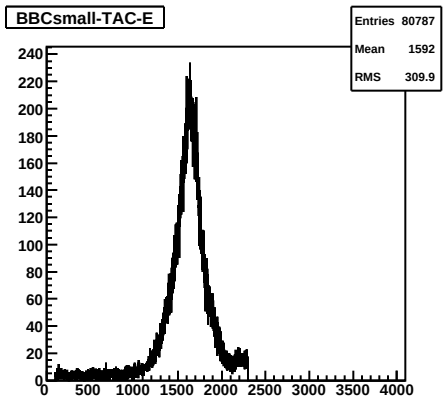

Entries 80787
ZDC East ADC Sum Att
ZDC West ADC Sum Att

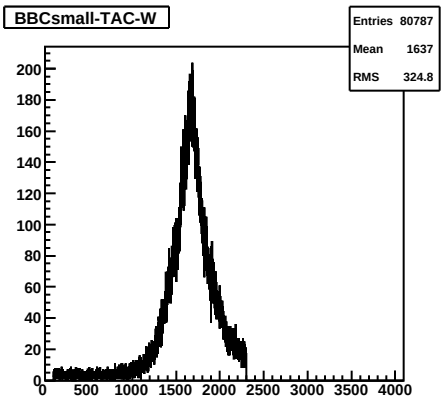

Entries 80787
BBC-L TAC Diff
BCC-S TAC Diff
Entries 80787
BBC-L TAC Diff
VPD TAC Diff
Entries 80787
BBC-L TAC Diff
ZDC TAC Diff
Entries 80787
BBC-S TAC Diff
VPD TAC Diff
Entries 80787
BBC-S TAC Diff
ZDC TAC Diff
Entries 80787
VPD TAC Diff
ZDC TAC Diff

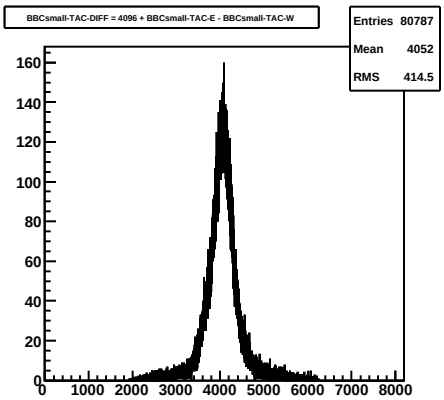

ZDC-TAC-E
Entries 13421
Mean 248.6
RMS 28.98

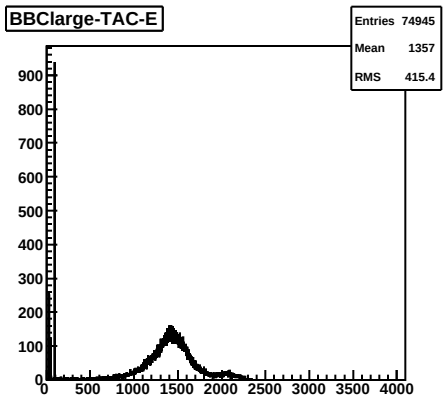

ZDC-TAC-W
Entries 13187
Mean 232.3
RMS 33.12

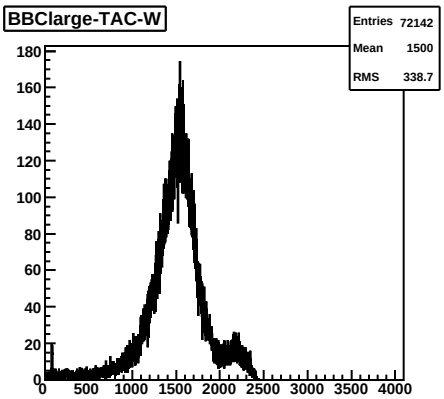

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 2916
Mean 1041
RMS 38.17

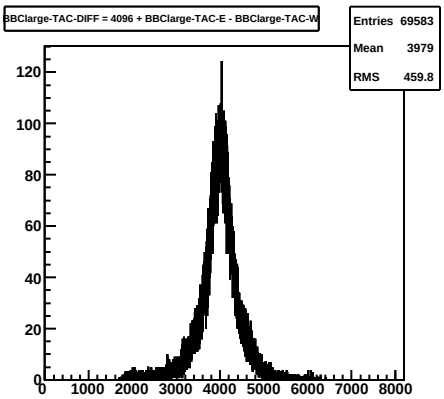

BBCsmall-TAC-E
Entries 80787
Mean 1592
RMS 309.9

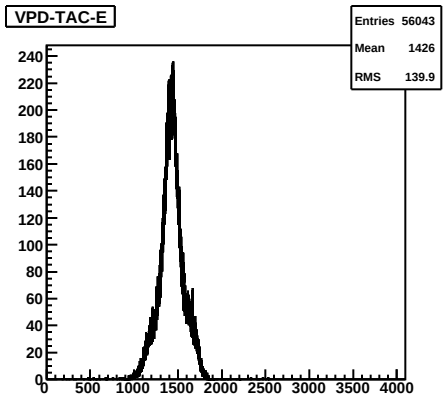

BBCsmall-TAC-W
Entries 80787
Mean 1637
RMS 324.8

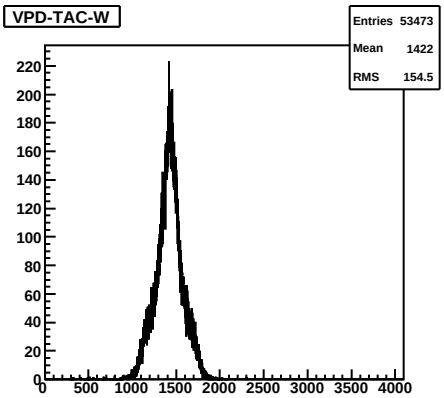

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 80787
Mean 4052
RMS 414.5

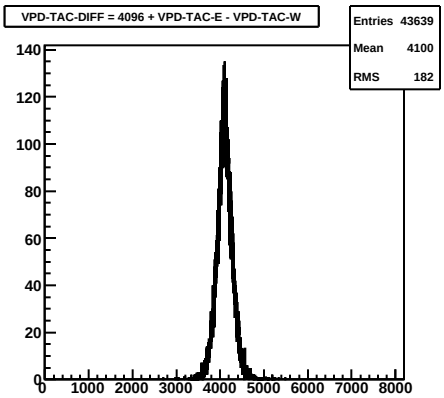

BBClarge-TAC-E
Entries 74945
Mean 1357
RMS 415.4

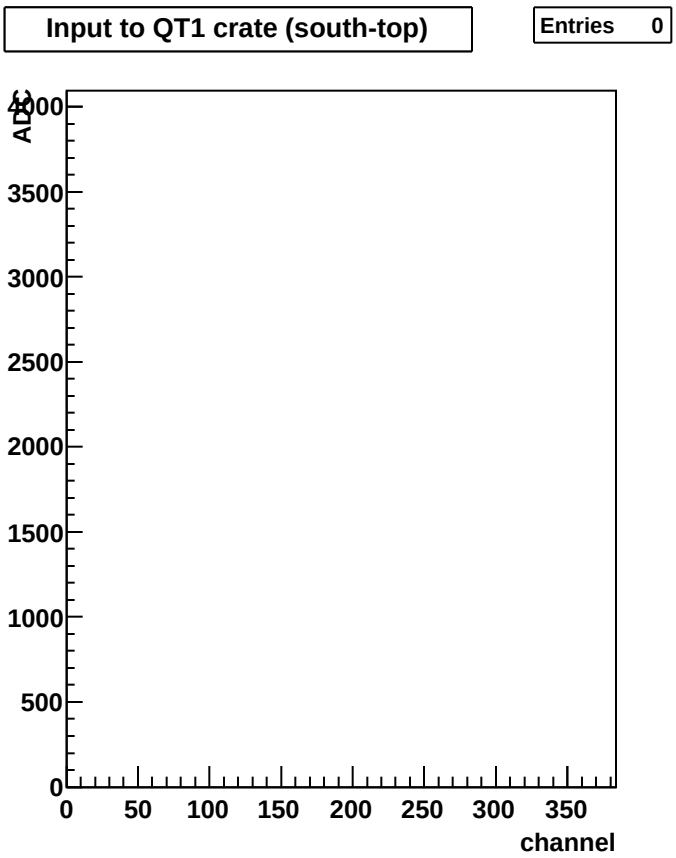

BBClarge-TAC-W
Entries 72142
Mean 1500
RMS 338.7

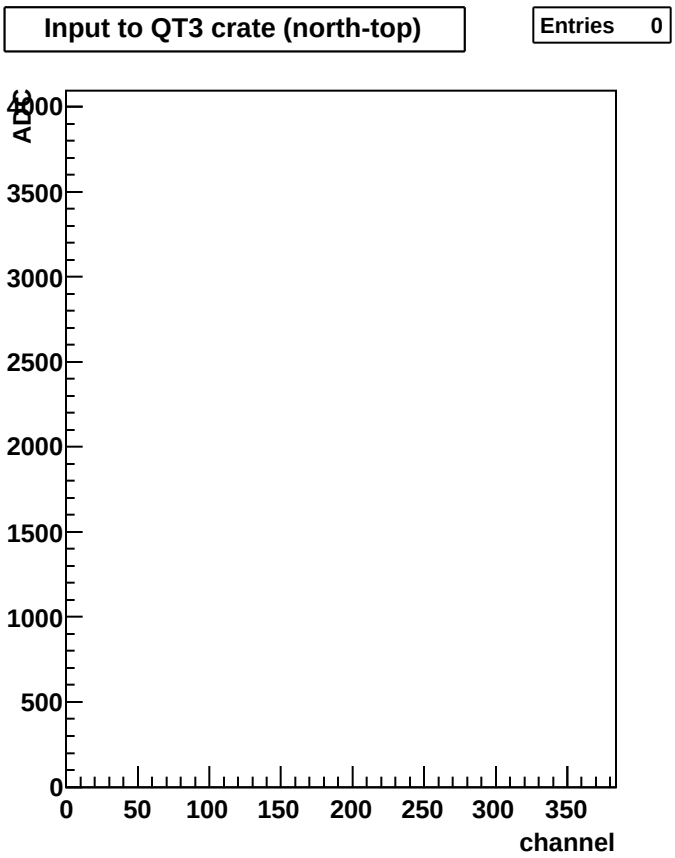

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 69583
Mean 3979
RMS 459.8

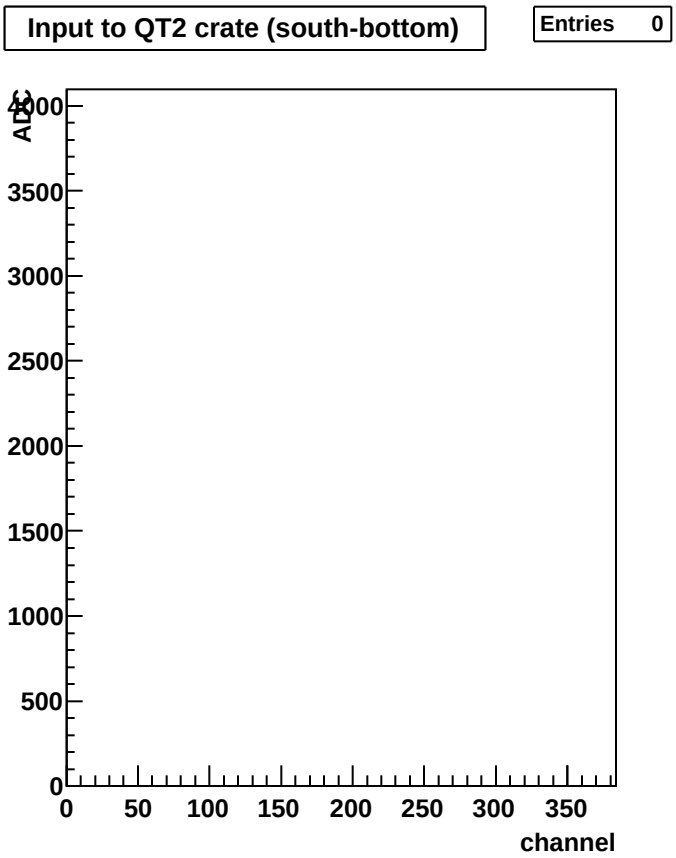

VPD-TAC-E
Entries 56043
Mean 1426
RMS 139.9

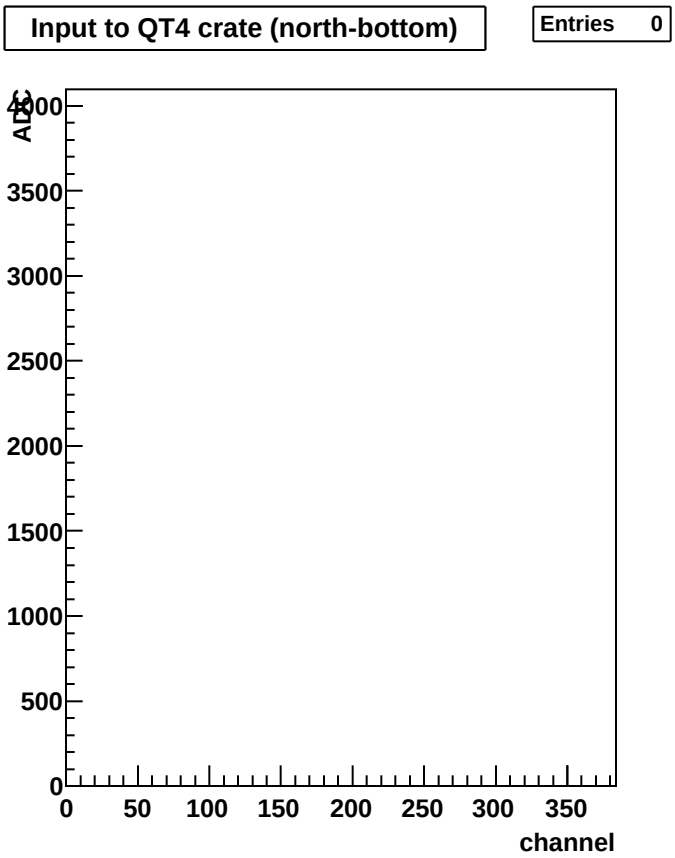

VPD-TAC-W
Entries 53473
Mean 1422
RMS 154.5

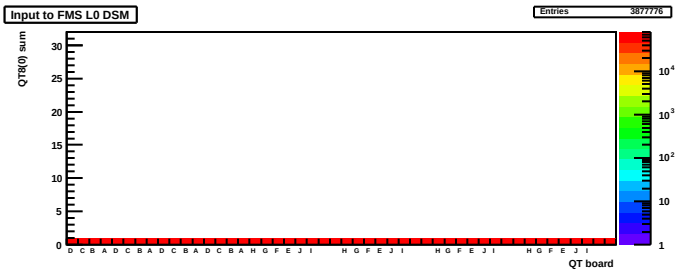

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 43639
Mean 4100
RMS 182

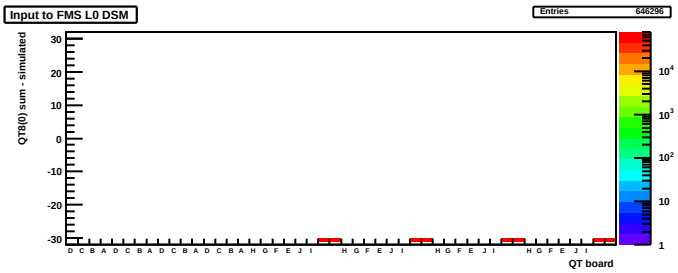

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

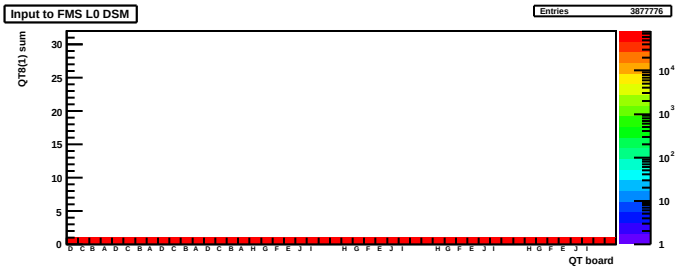

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

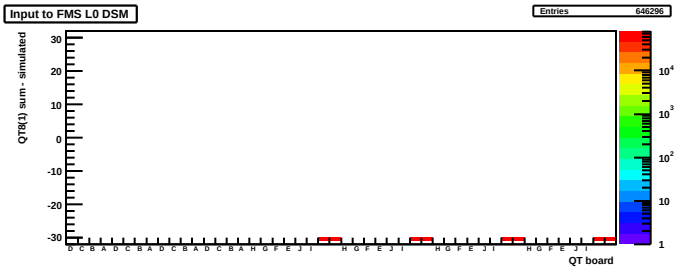

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

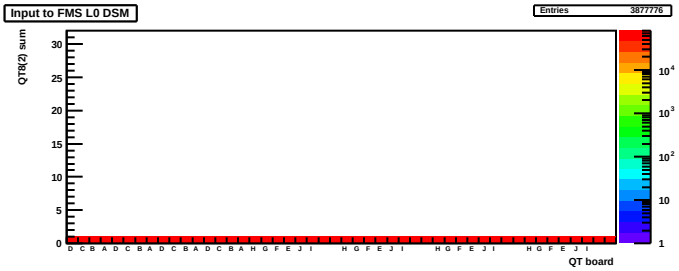

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

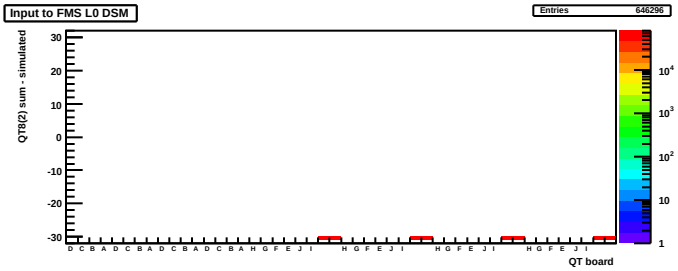

Input to FMS L0 DSM
Entries 3877776
QT8(0) sum
QT board

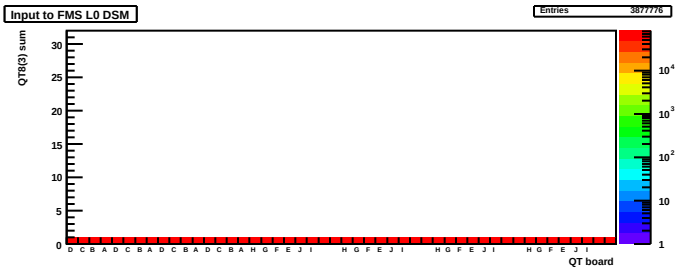

Input to FMS L0 DSM
Entries 646296
QT8(0) sum - simulated
QT board

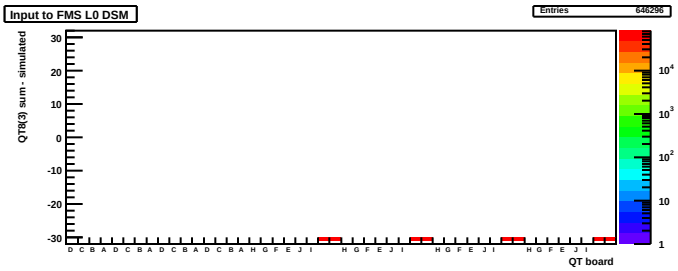

Input to FMS L0 DSM
Entries 3877776
QT8(1) sum
QT board

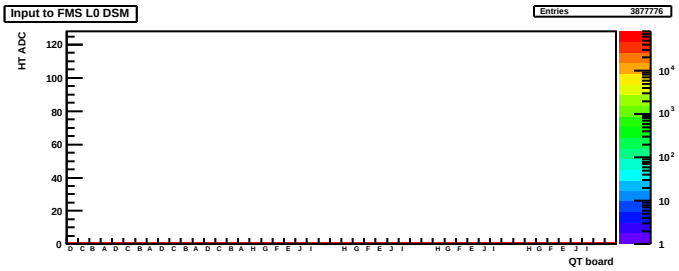

Input to FMS L0 DSM
Entries 646296
QT8(1) sum - simulated
QT board

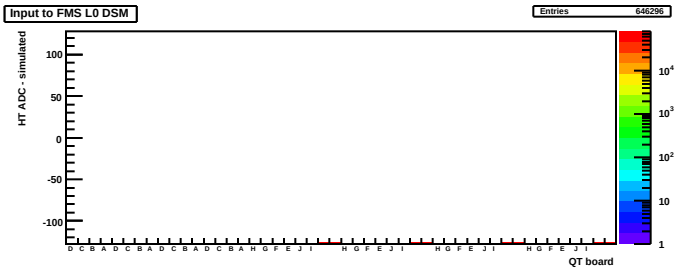

Input to FMS L0 DSM
Entries 3877776
QT8(2) sum
QT board

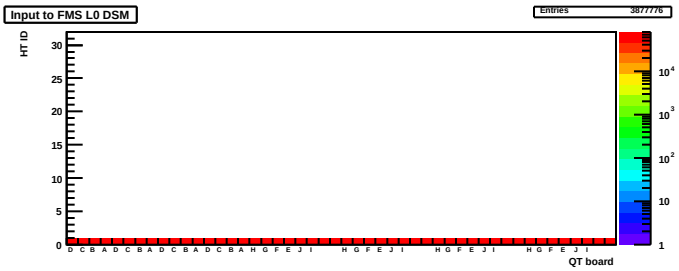

Input to FMS L0 DSM
Entries 646296
QT8(2) sum - simulated
QT board

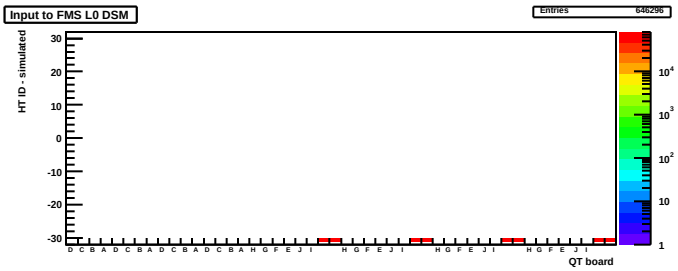

Input to FMS L0 DSM
Entries 3877776
QT8(3) sum
QT board

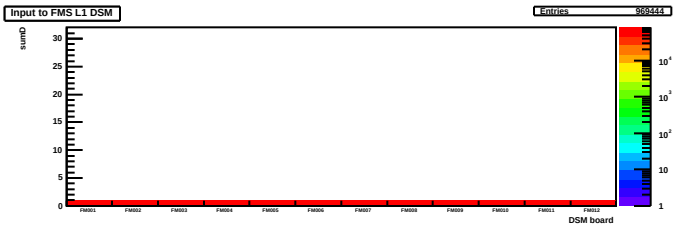

Input to FMS L0 DSM
Entries 646296
QT8(3) sum - simulated
QT board

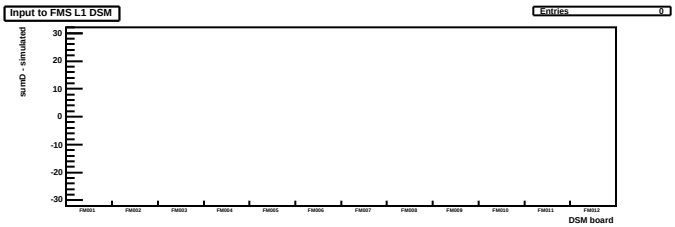

Input to FMS L0 DSM
Entries 3877776
HT ADC
QT board

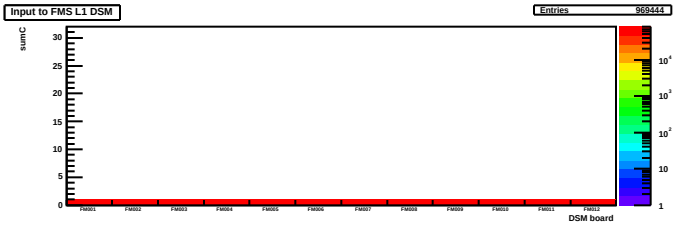

Input to FMS L0 DSM
Entries 646296
HT ADC - simulated
QT board

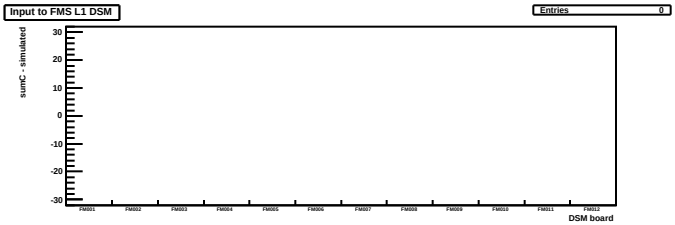

Input to FMS L0 DSM
Entries 3877776
HT ID
QT board

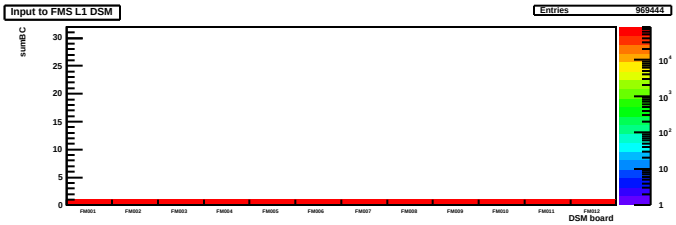

Input to FMS L0 DSM
Entries 646296
HT ID - simulated
QT board

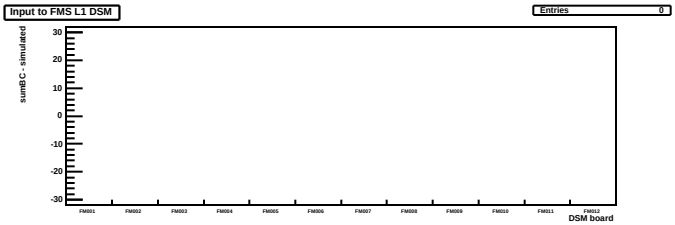

Input to FMS L1 DSM
Entries 969444
sumD
DSM board

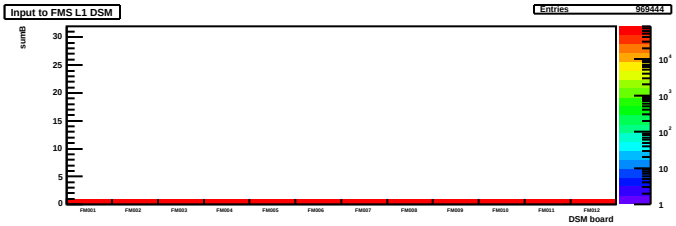

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

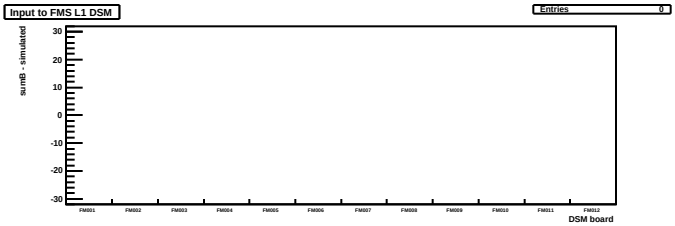

Input to FMS L1 DSM
Entries 969444
sumC
DSM board

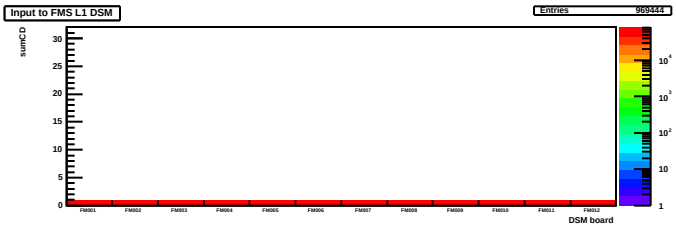

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

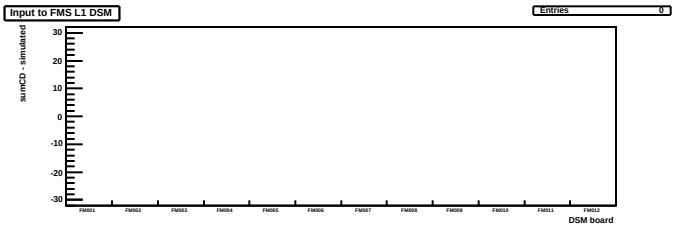

Input to FMS L1 DSM
Entries 969444
sumBC
DSM board

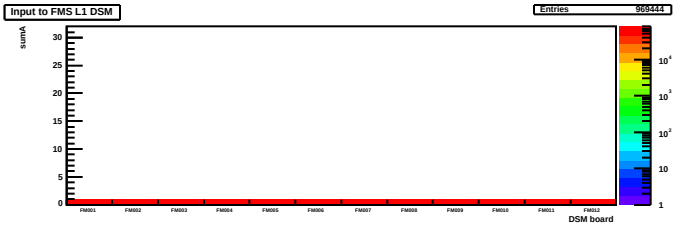

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

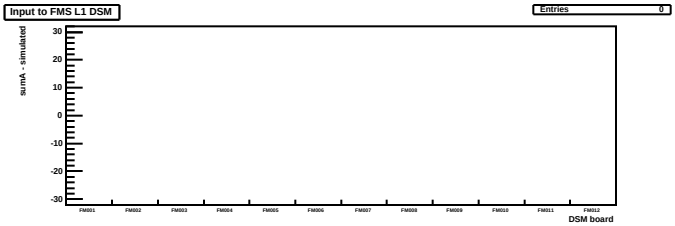

Input to FMS L1 DSM
Entries 969444
sumB
DSM board

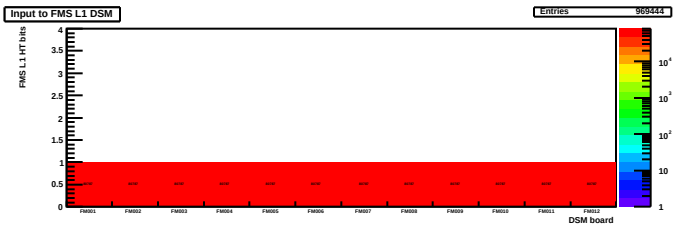

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

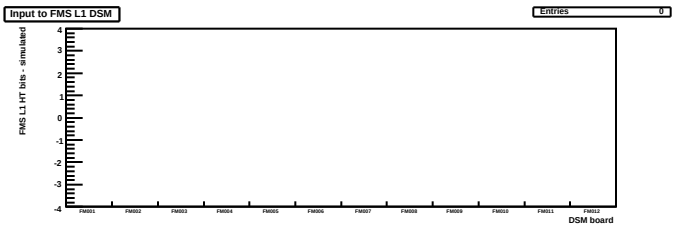

Input to FMS L1 DSM
Entries 969444
sumCD
DSM board

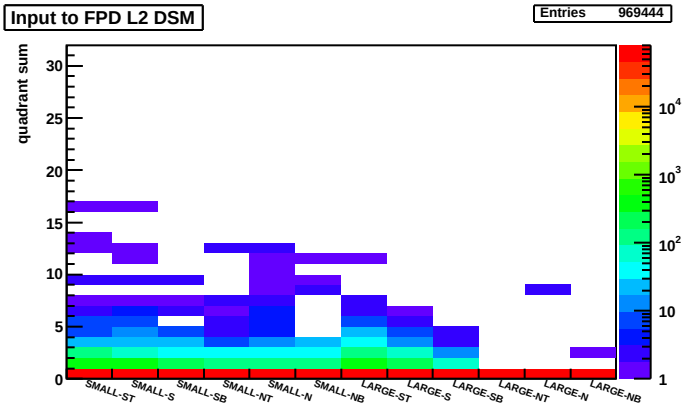

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

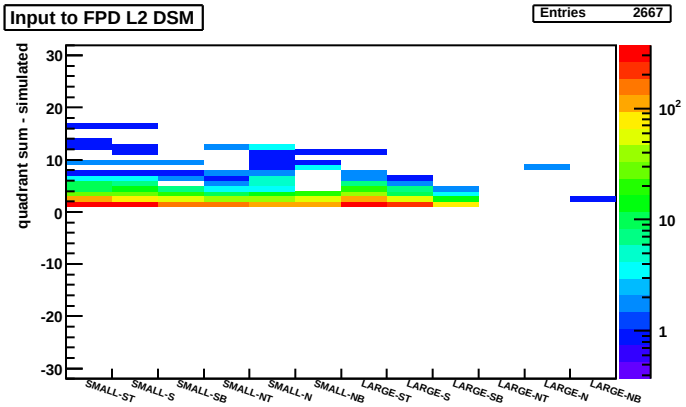

Input to FMS L1 DSM
Entries 969444
sumA
DSM board

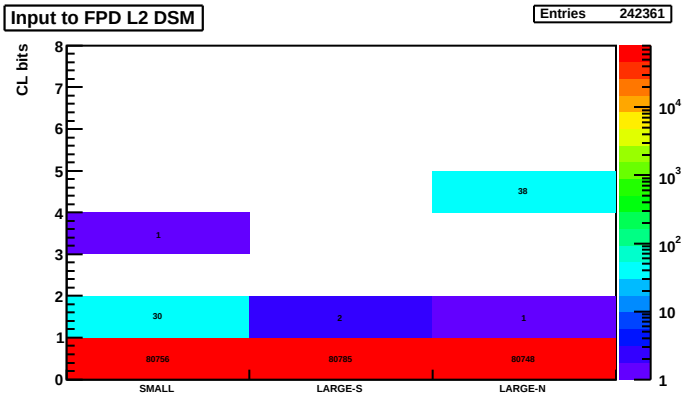

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

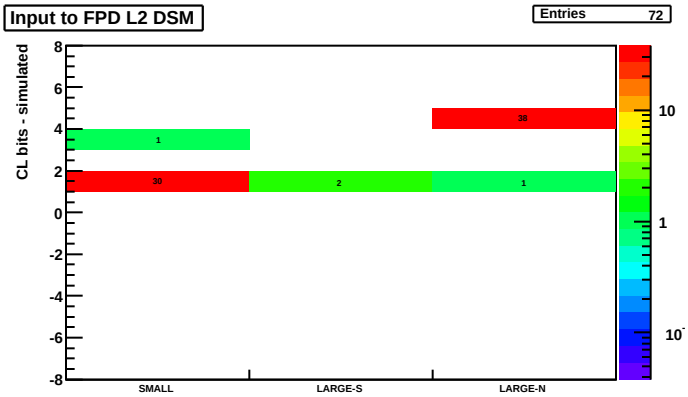

Input to FMS L1 DSM
Entries 969444
FMS L1 HT bits
DSM board

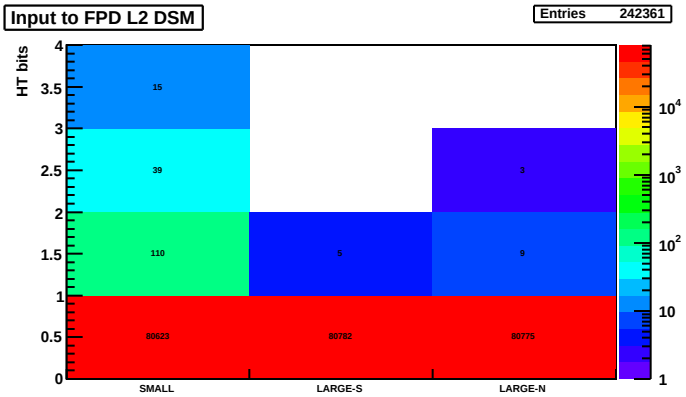

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

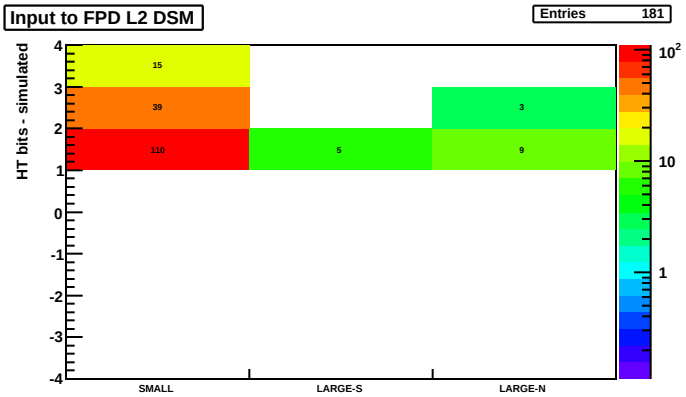

Input to FPD L2 DSM
Entries 969444
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

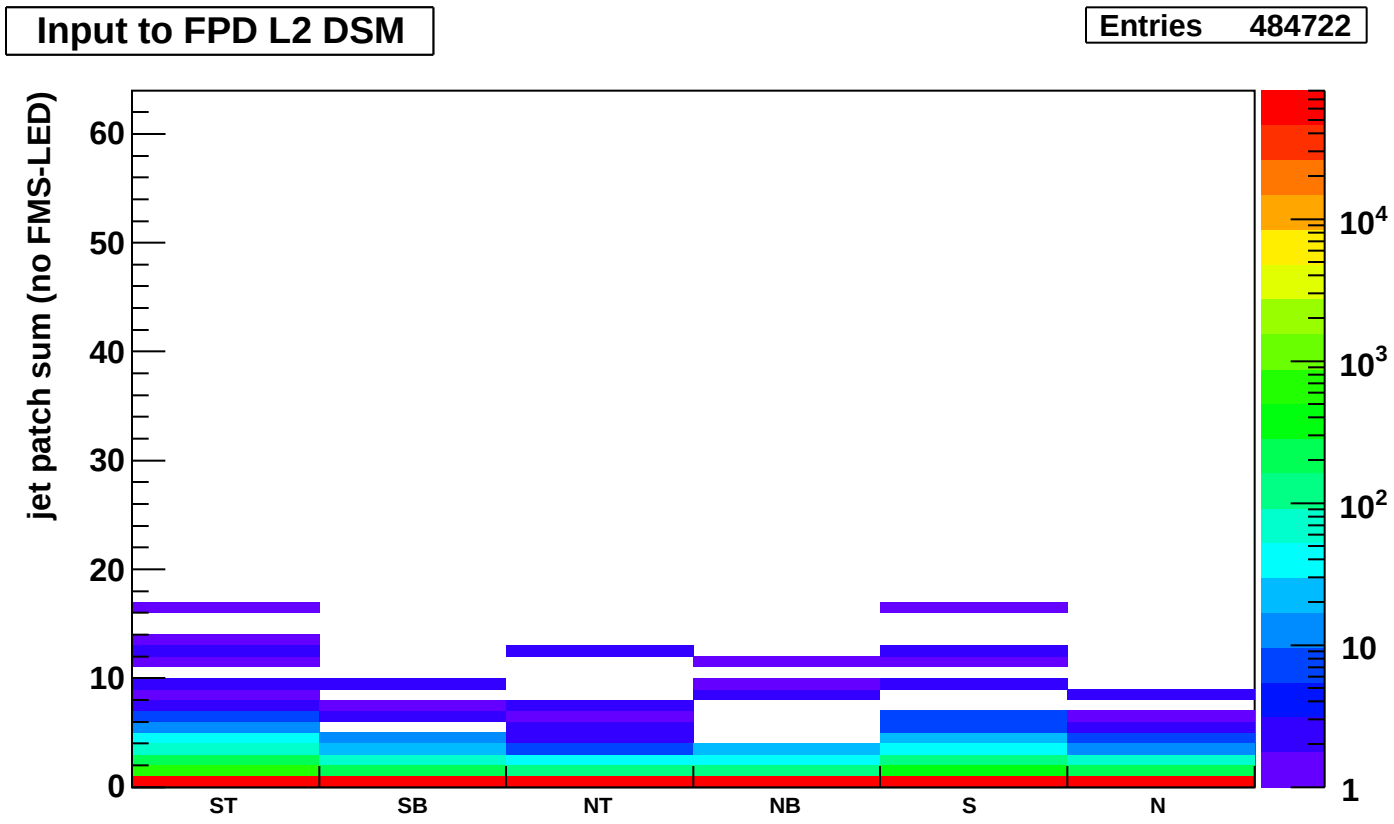

Input to FPD L2 DSM
Entries 2667
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

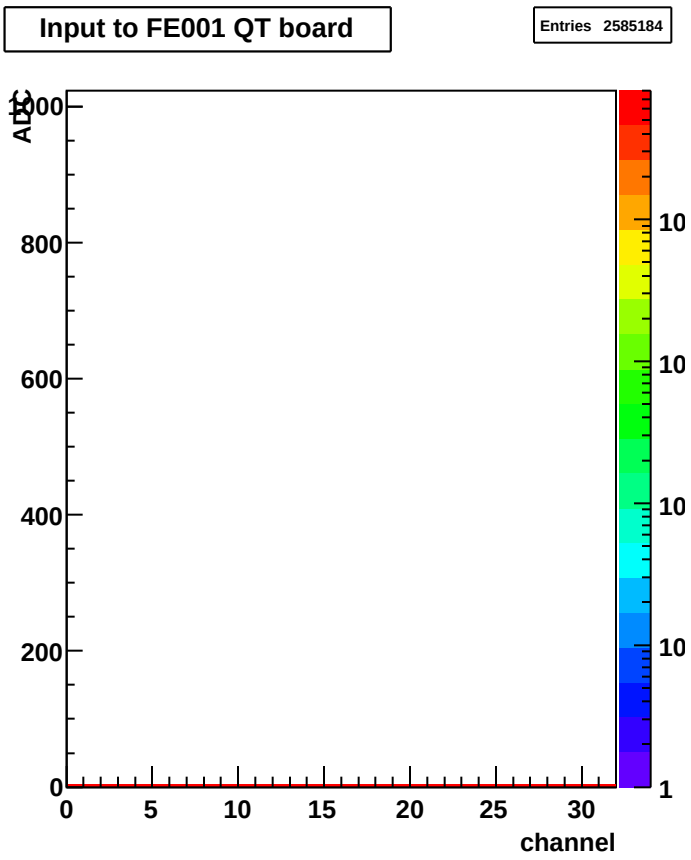

Input to FPD L2 DSM
Entries 242361
CL bits
1
30
2
1
38
80756
80785
80748
SMALL
LARGE-S
LARGE-N

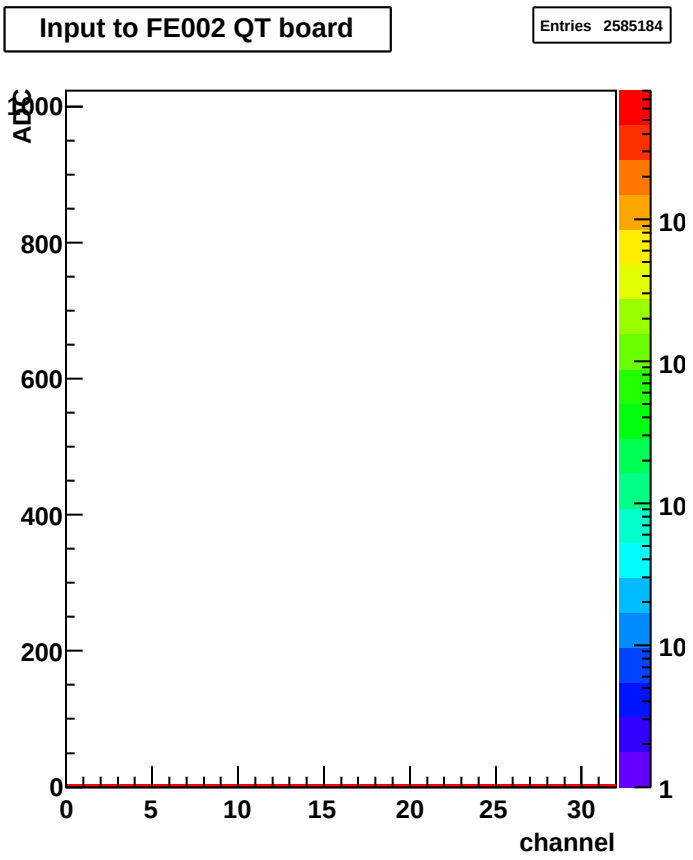

Input to FPD L2 DSM
Entries 72
CL bits - simulated
1
38
30
2
1
SMALL
LARGE-S
LARGE-N

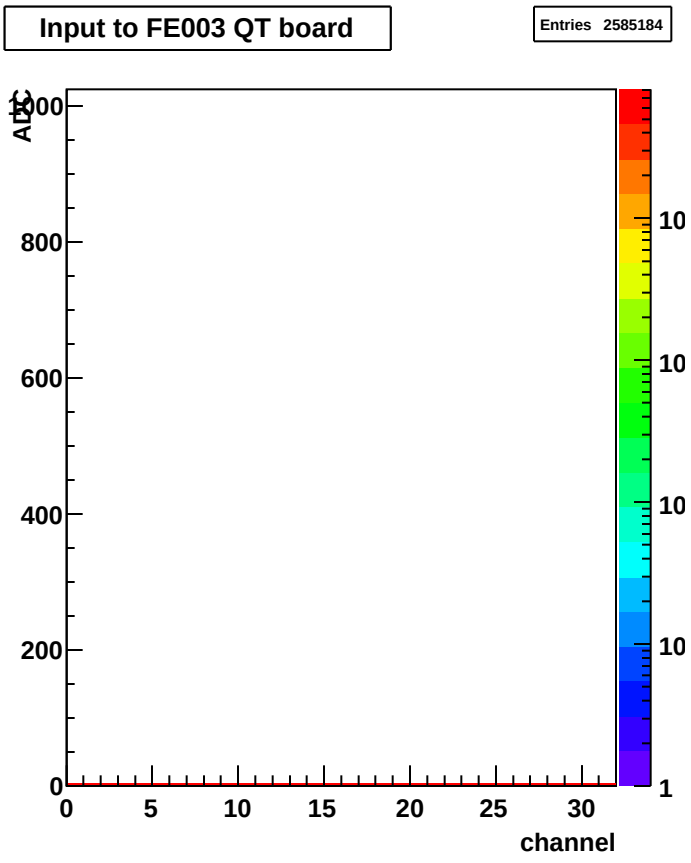

Input to FPD L2 DSM
Entries 242361
HT bits
15
39
110
5
3
9
80623
80782
80775
SMALL
LARGE-S
LARGE-N

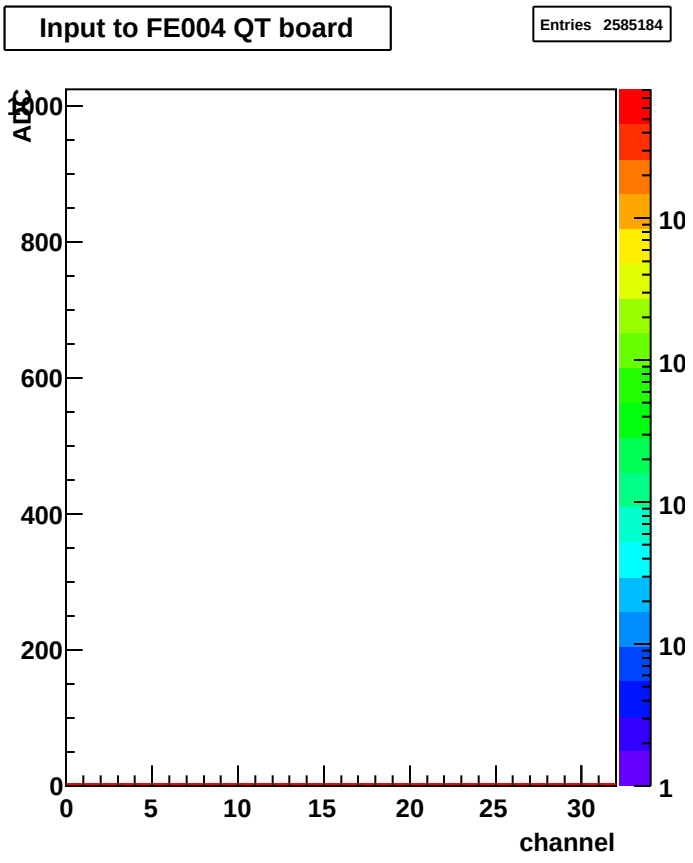

Input to FPD L2 DSM
Entries 181
HT bits - simulated
15
39
3
110
5
9
SMALL
LARGE-S
LARGE-N

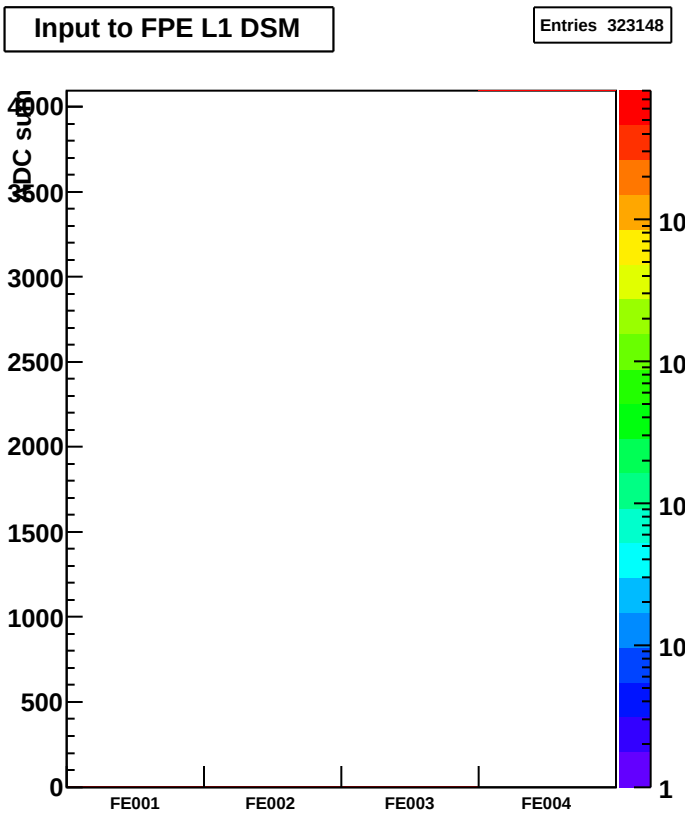

Input to FPD L2 DSM
Entries 484722
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

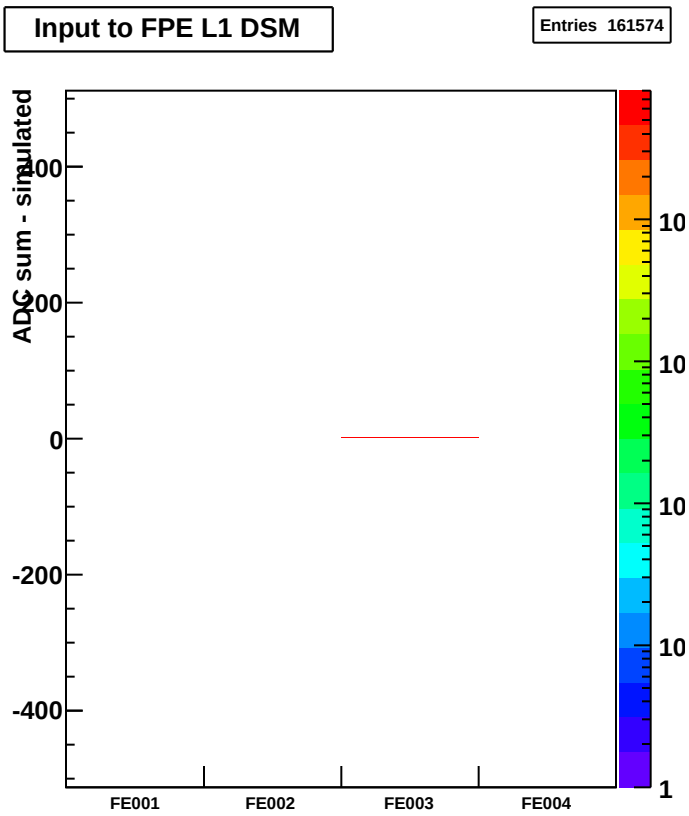

Input to FE001 QT board
Entries 2585184
ADC
channel

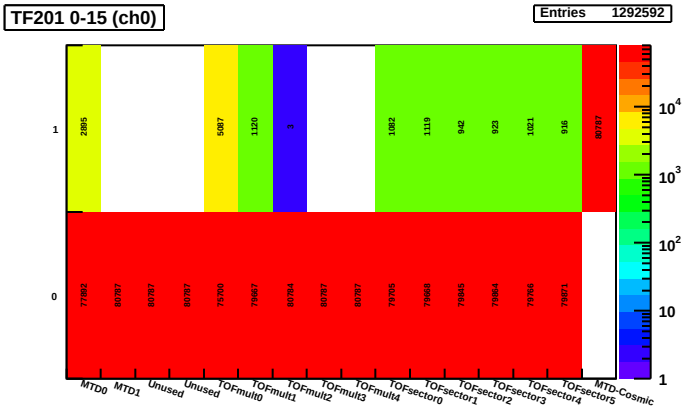

Input to FE002 QT board
Entries 2585184
ADC
channel

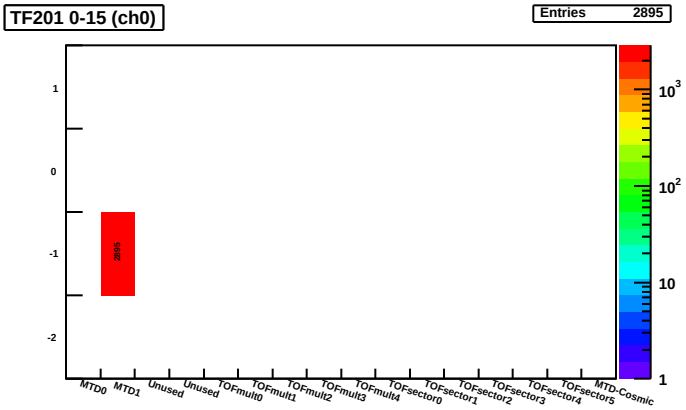

Input to FE003 QT board
Entries 2585184
ADC
channel

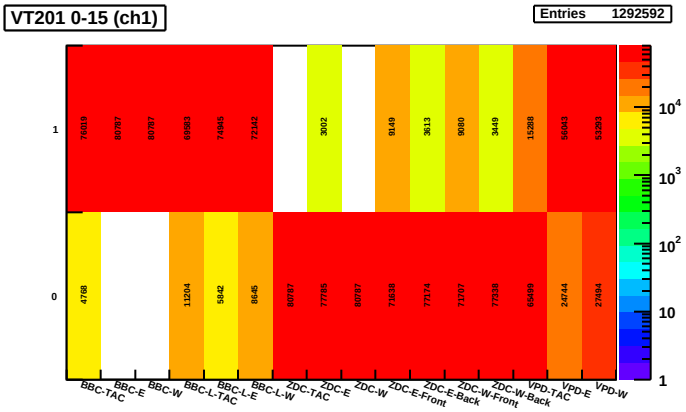

Input to FE004 QT board
Entries 2585184
ADC
channel

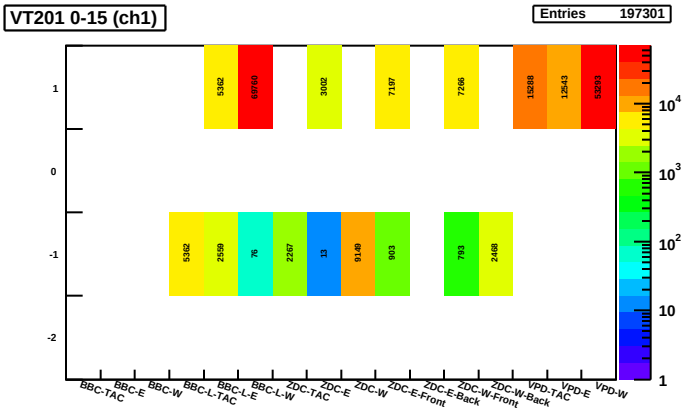

Input to FPE L1 DSM
Entries 323148
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

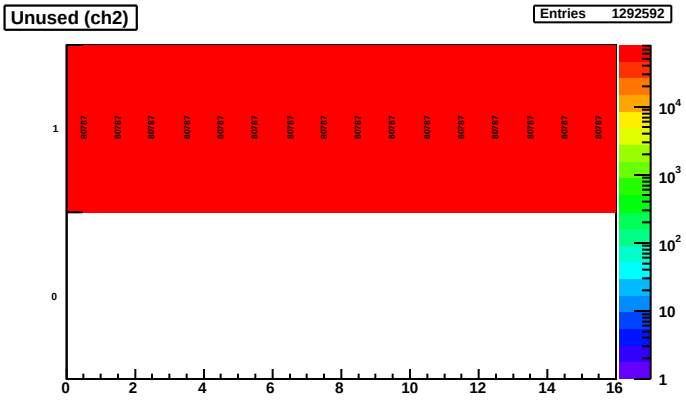

Input to FPE L1 DSM
Entries 161574
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

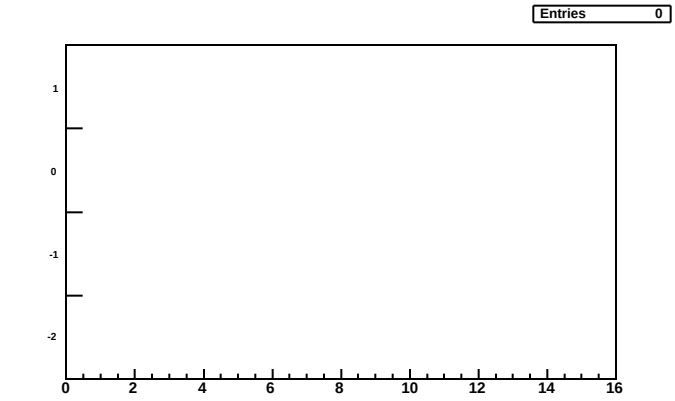

TF201 0-15 (ch0)
Entries 1292592
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

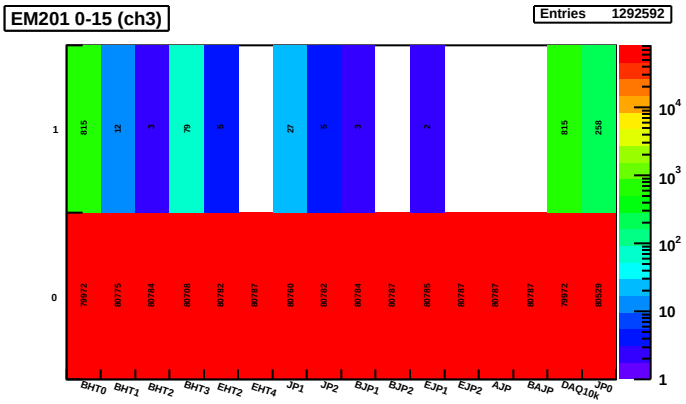

TF201 0-15 (ch0)
Entries 2895
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

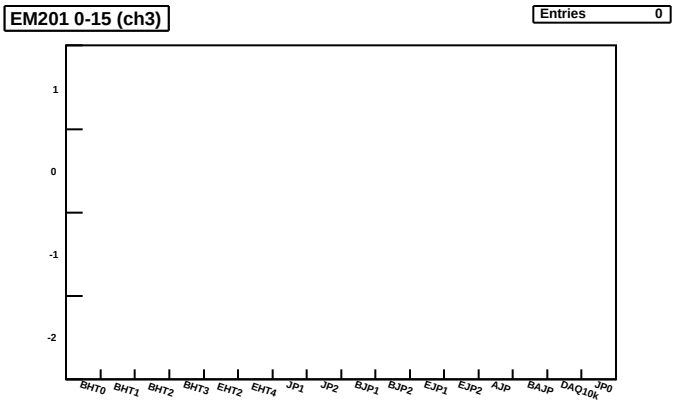

VT201 0-15 (ch1)
Entries 1292592
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 197301
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


Unused (ch2)
Entries 1292592


Entries 0


EM201 0-15 (ch3)
Entries 1292592
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


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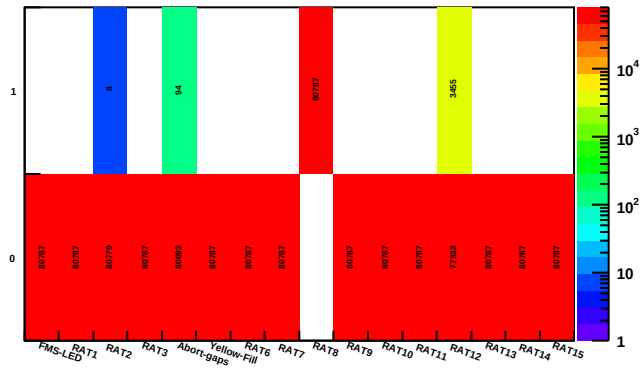
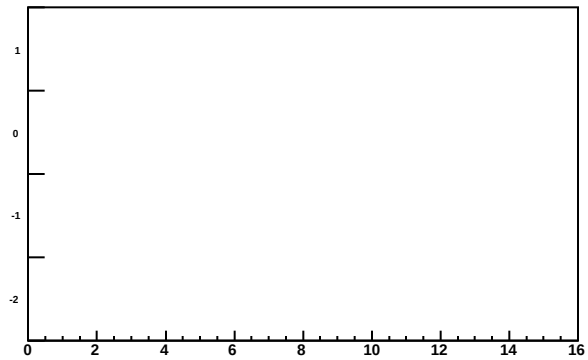
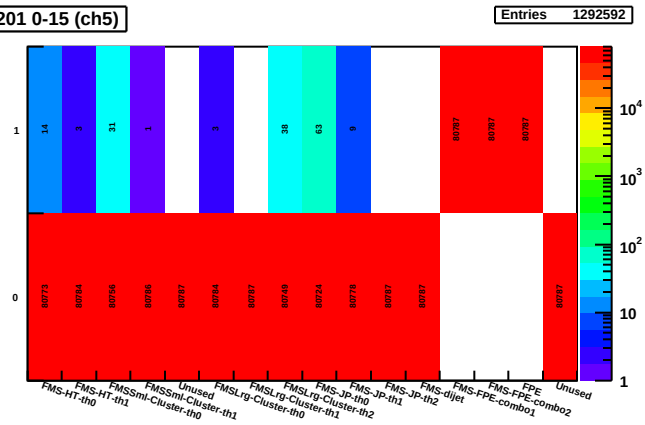
RAT board (ch4)





FP201 0-15 (ch5)



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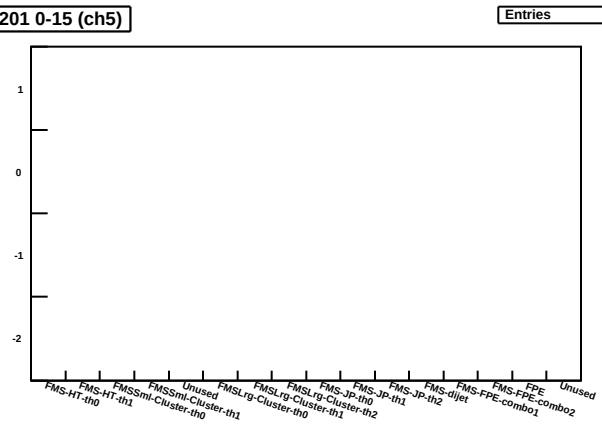
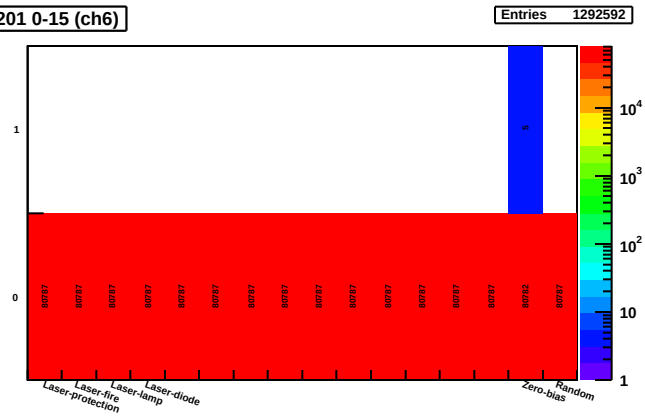
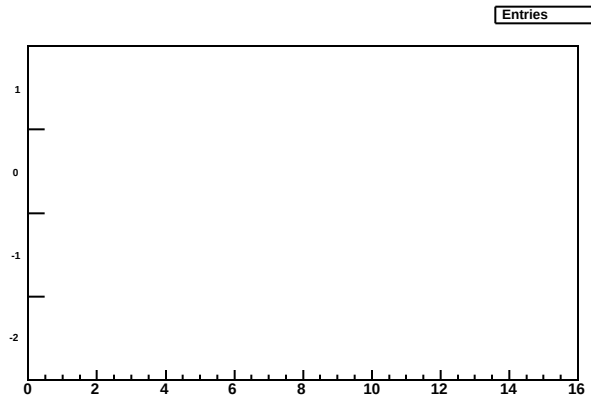
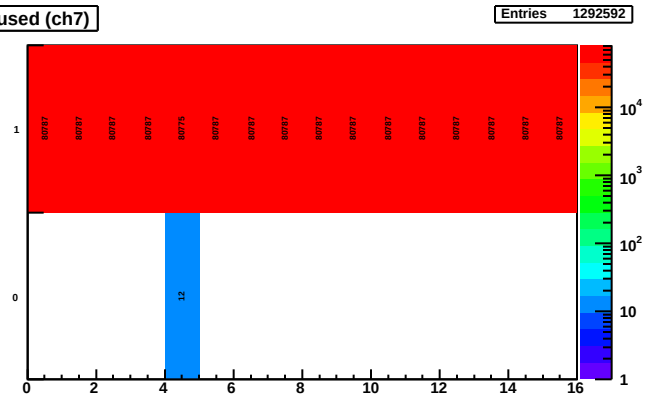
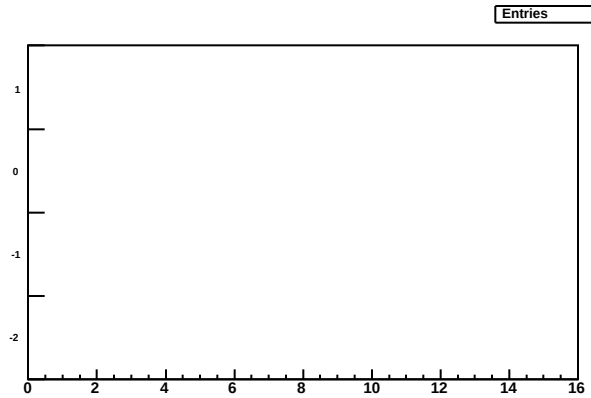


ST201 0-15 (ch6)





Unused (ch7)