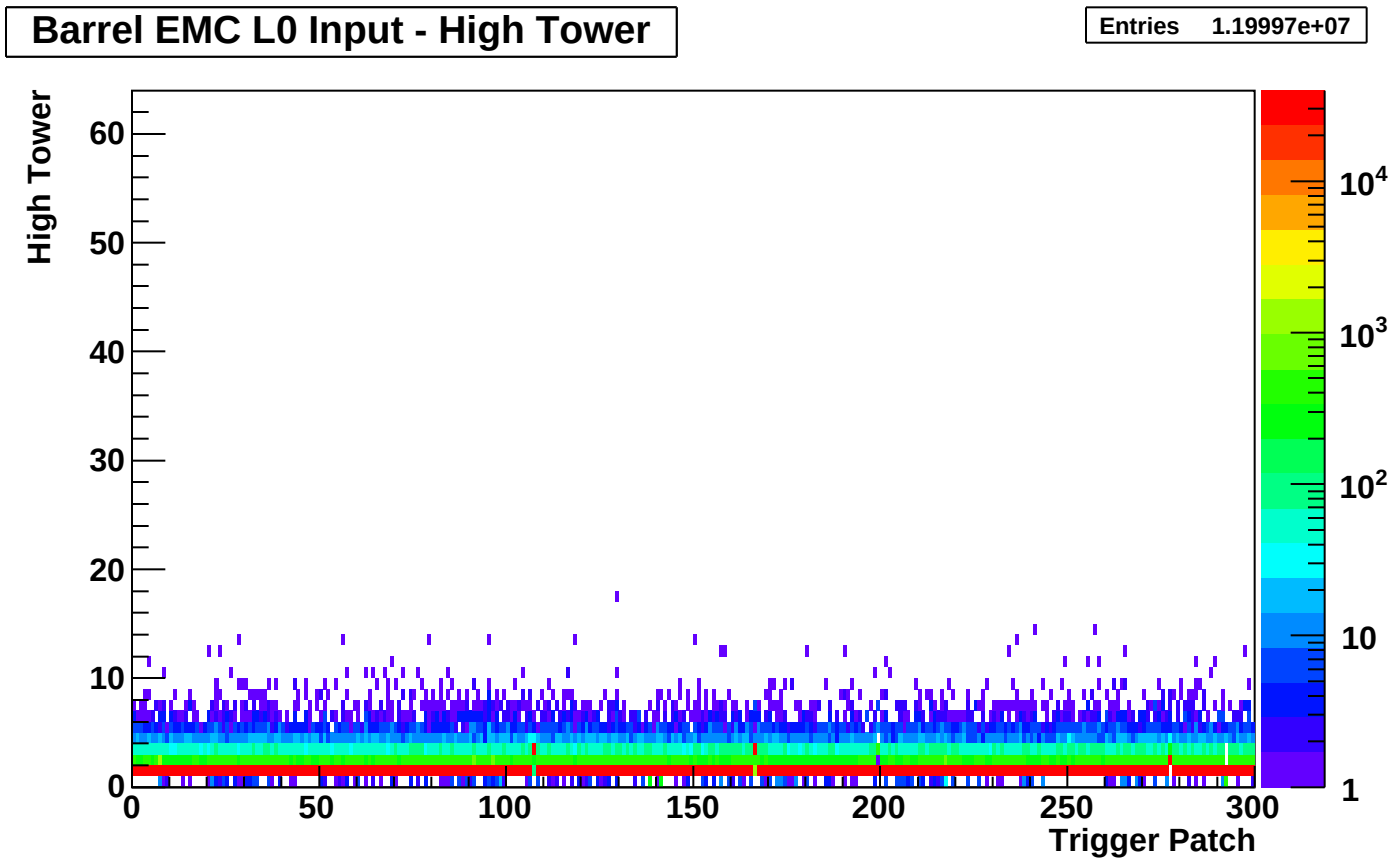
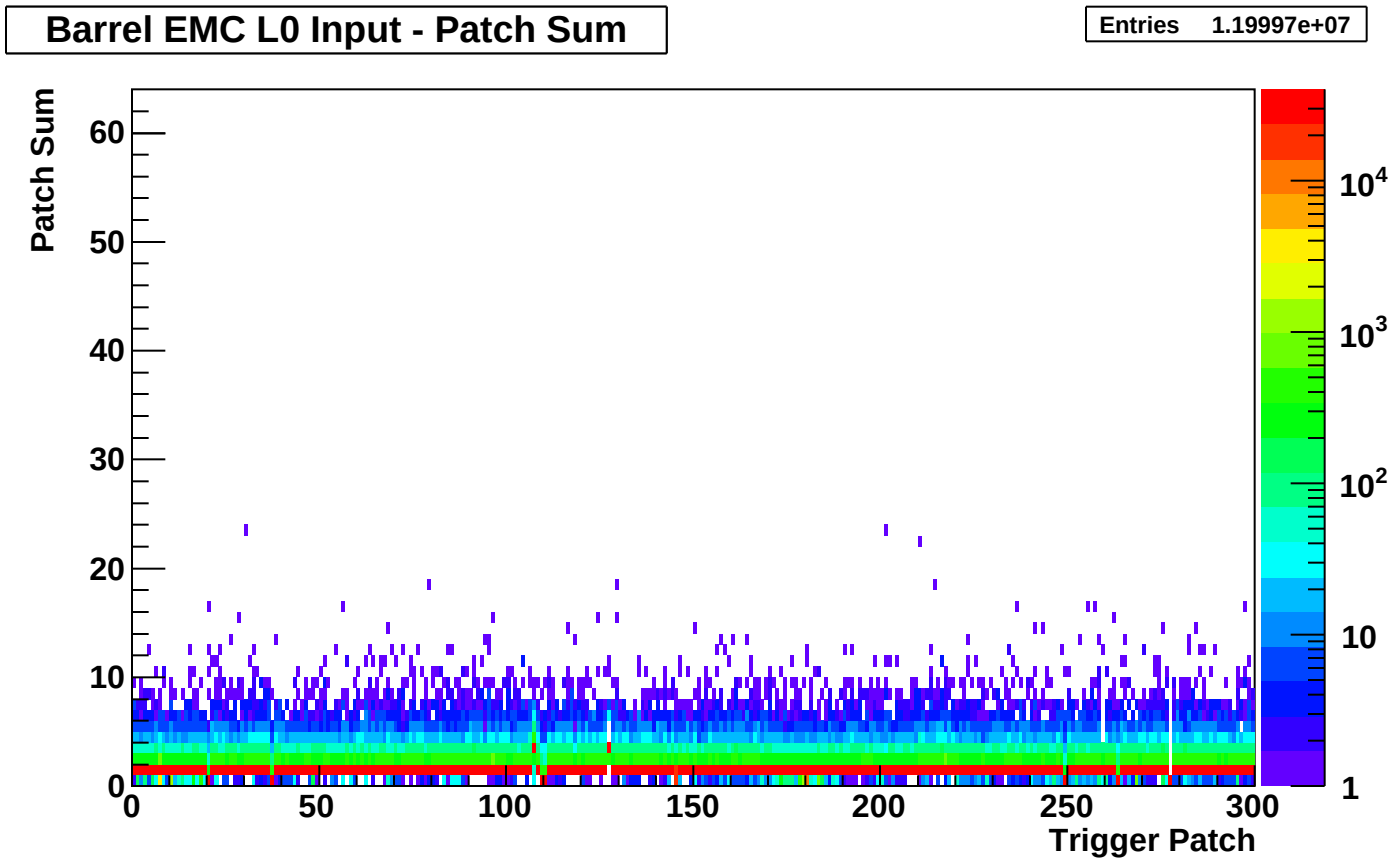
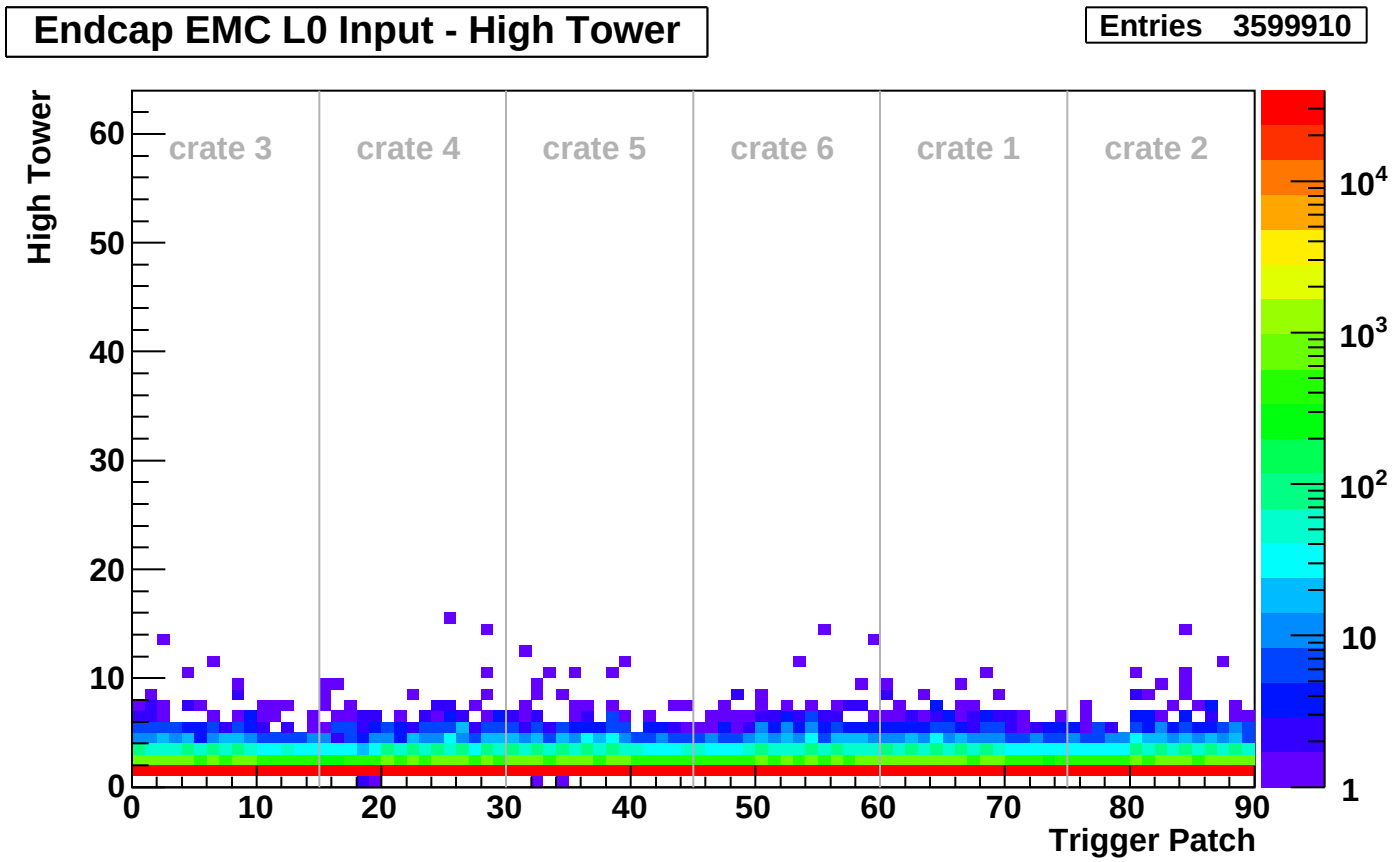
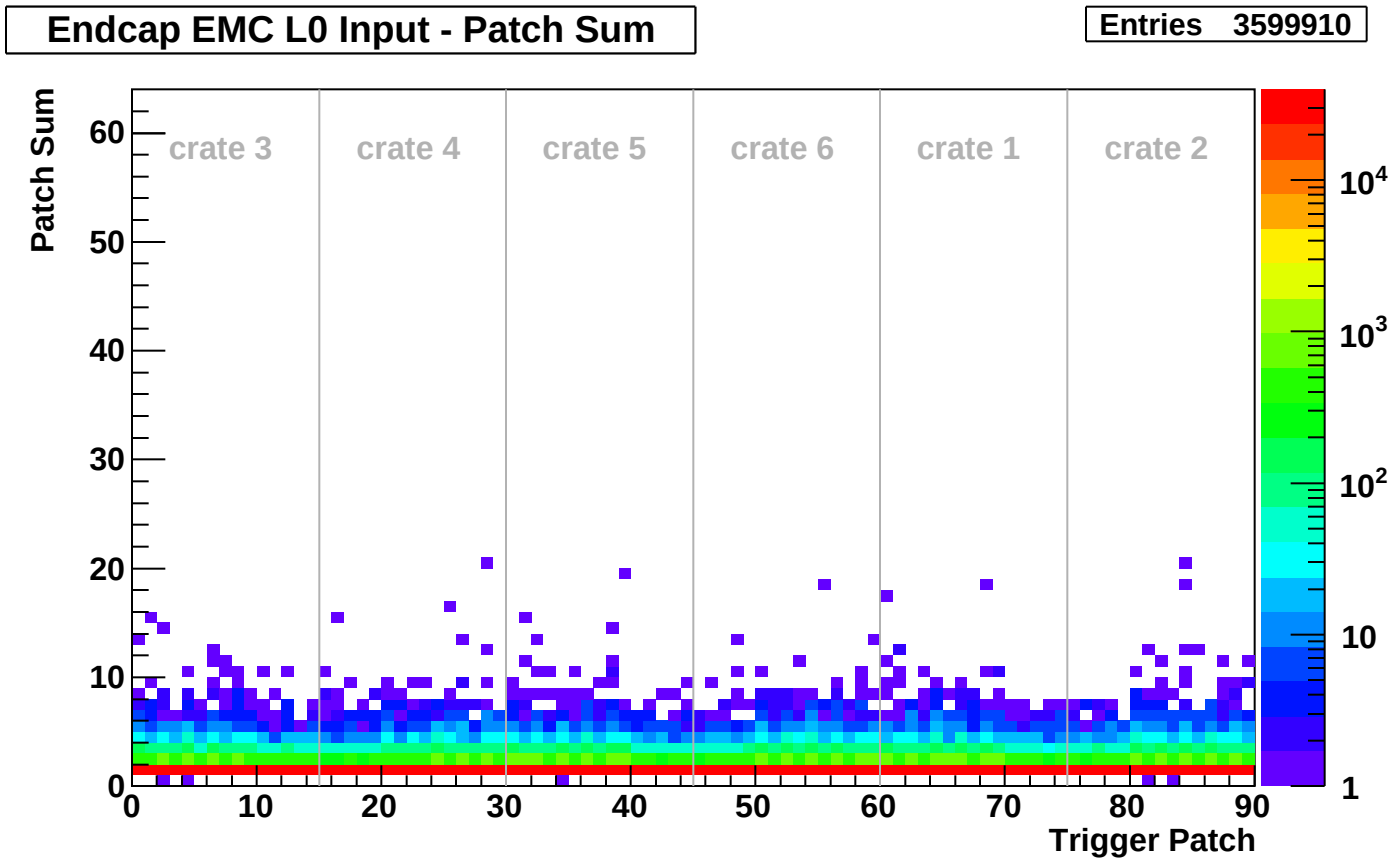
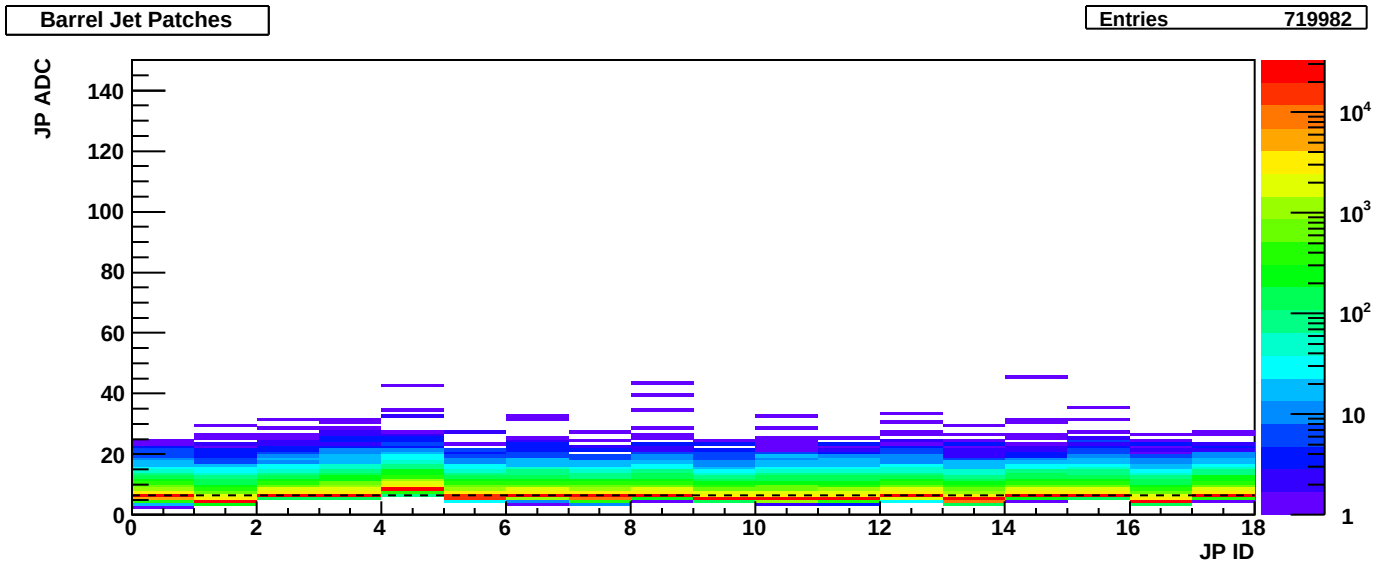
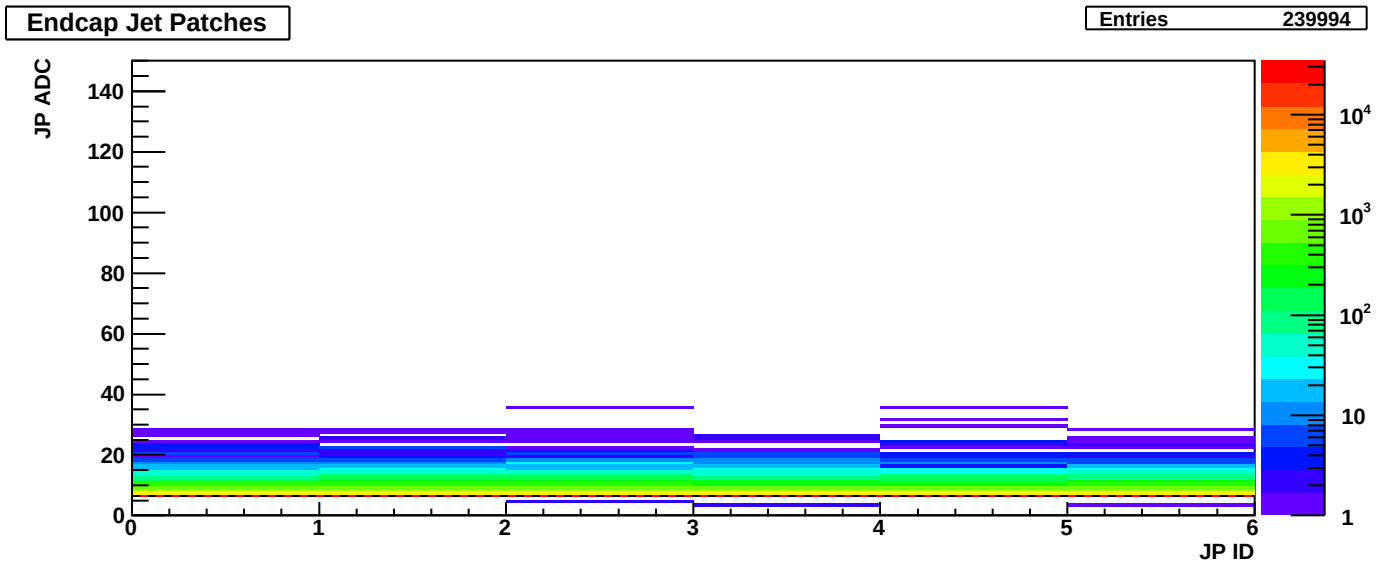

Barrel EMC L0 Input - High Tower
Entries 1.19997e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

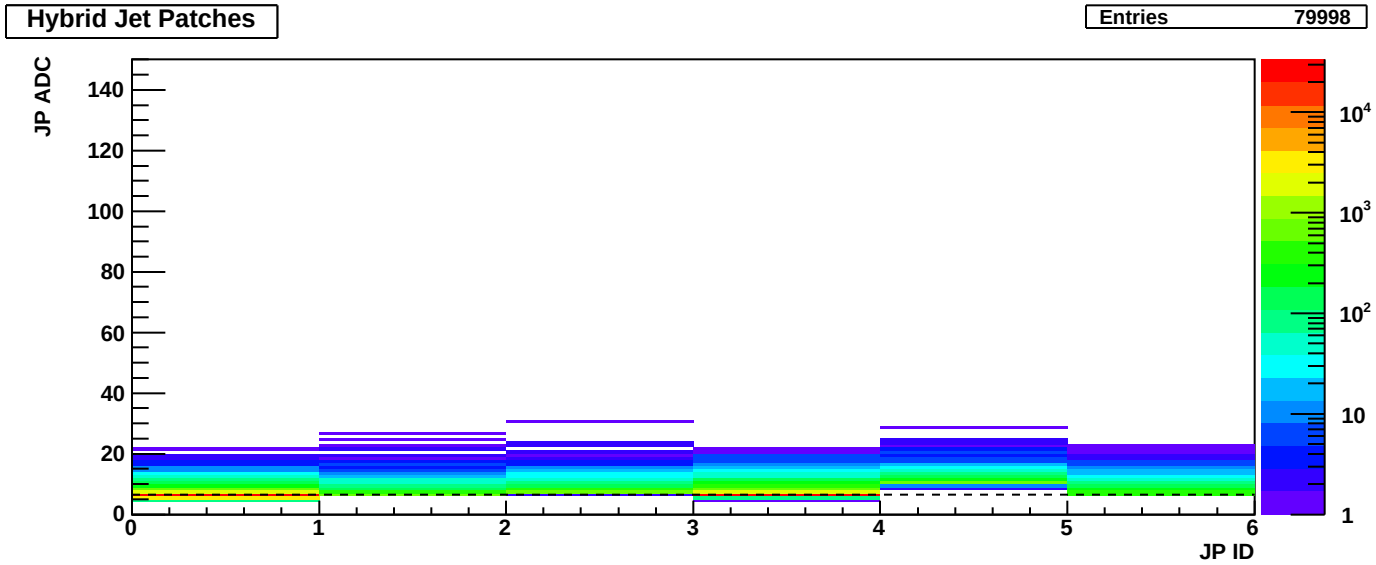

Barrel EMC L0 Input - Patch Sum
Entries 1.19997e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

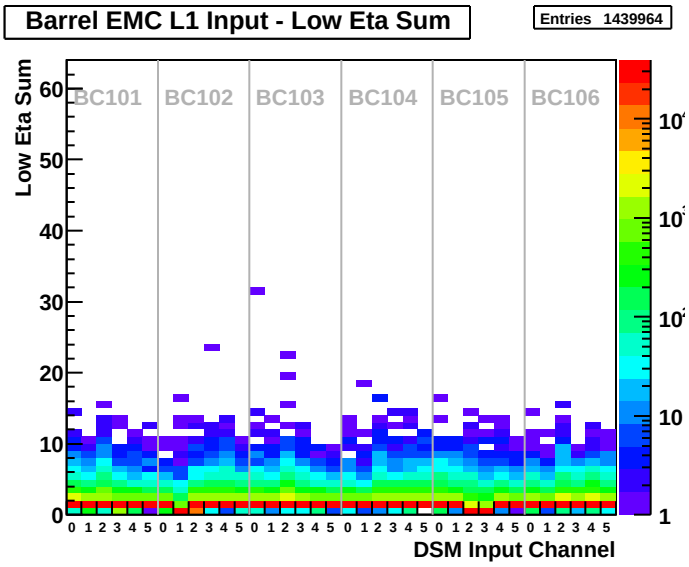

Endcap EMC L0 Input - High Tower
Entries 3599910
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

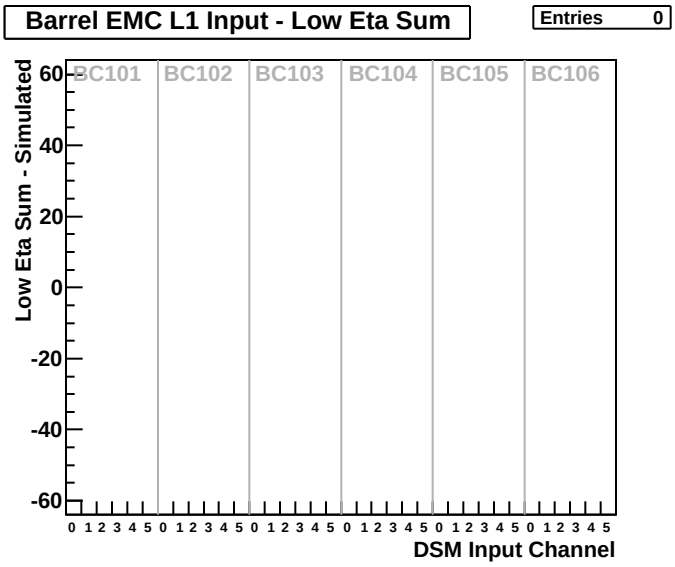

Endcap EMC L0 Input - Patch Sum
Entries 3599910
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

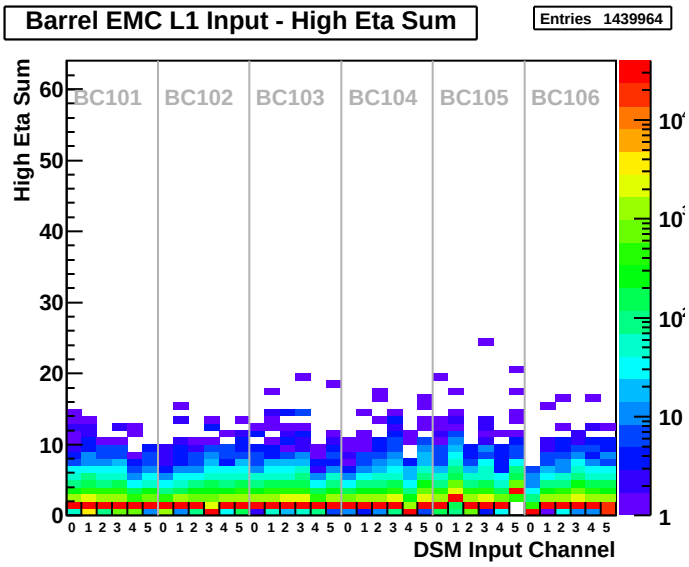

Barrel Jet Patches
Entries 719982
JP ADC
JP ID

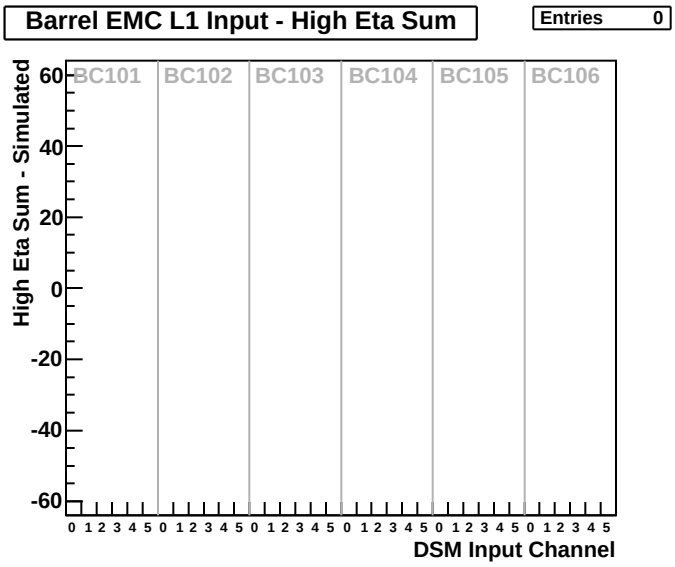

Endcap Jet Patches
Entries 239994
JP ADC
JP ID

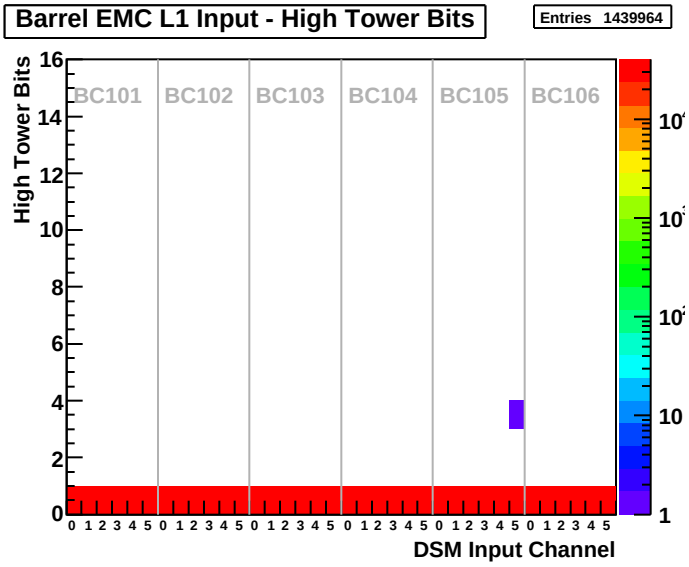

Hybrid Jet Patches
Entries 79998
JP ADC
JP ID

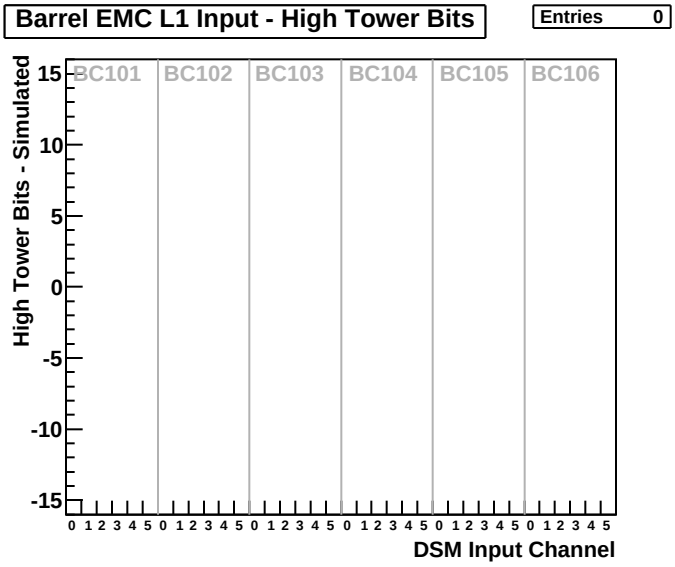

Barrel EMC L1 Input - Low Eta Sum
Entries 1439964
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

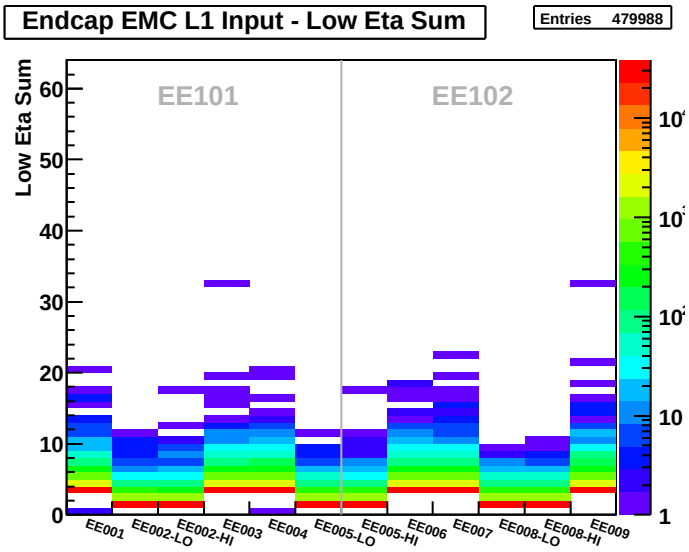

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

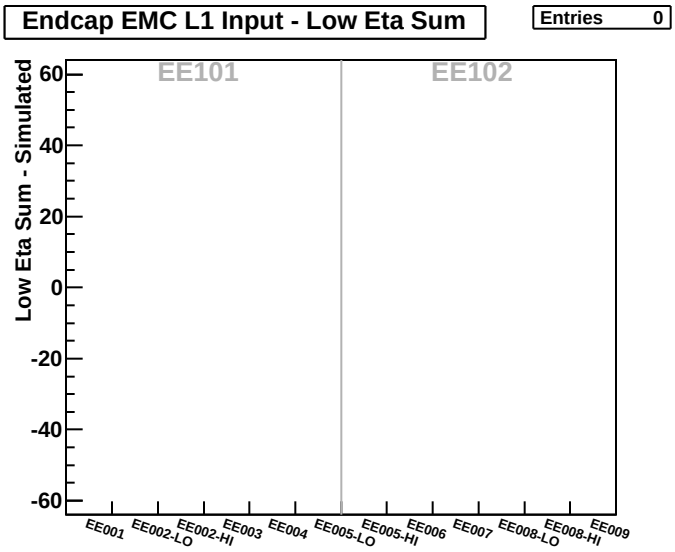

Barrel EMC L1 Input - High Eta Sum
Entries 1439964
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

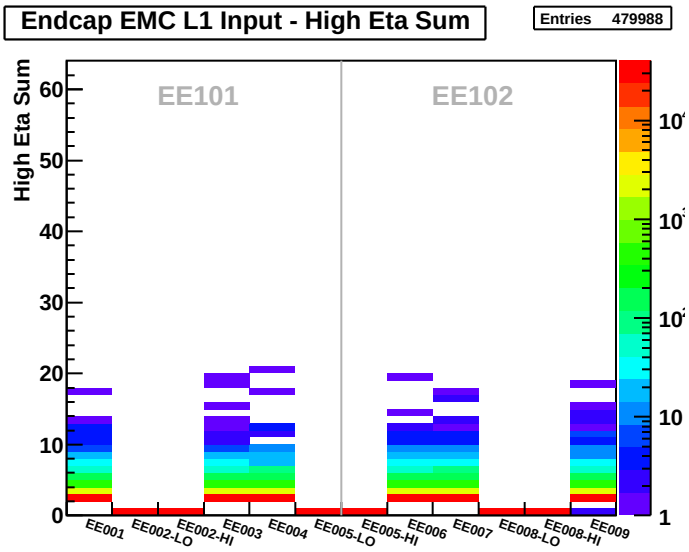

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

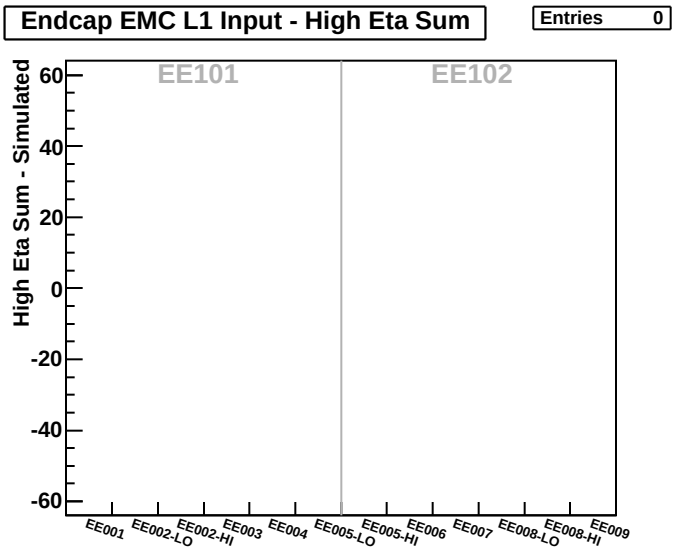

Barrel EMC L1 Input - High Tower Bits
Entries 1439964
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

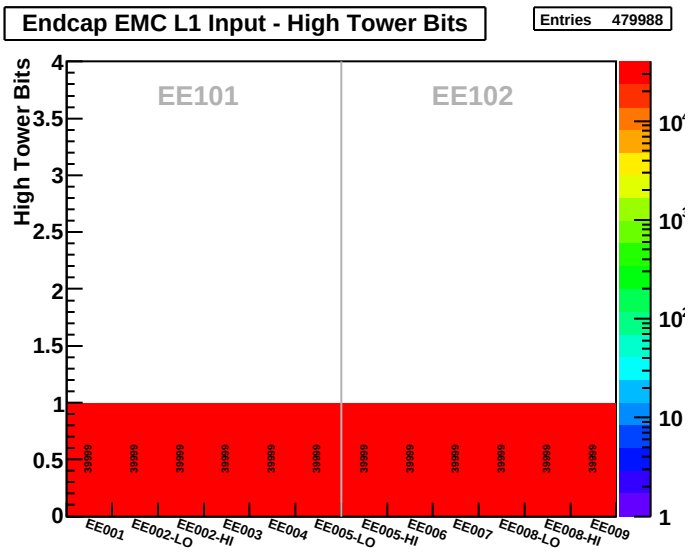

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

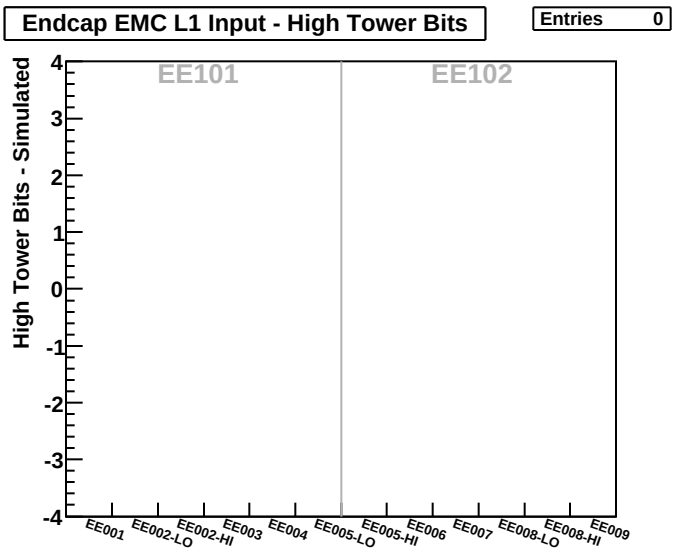

Endcap EMC L1 Input - Low Eta Sum
Entries 479988
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

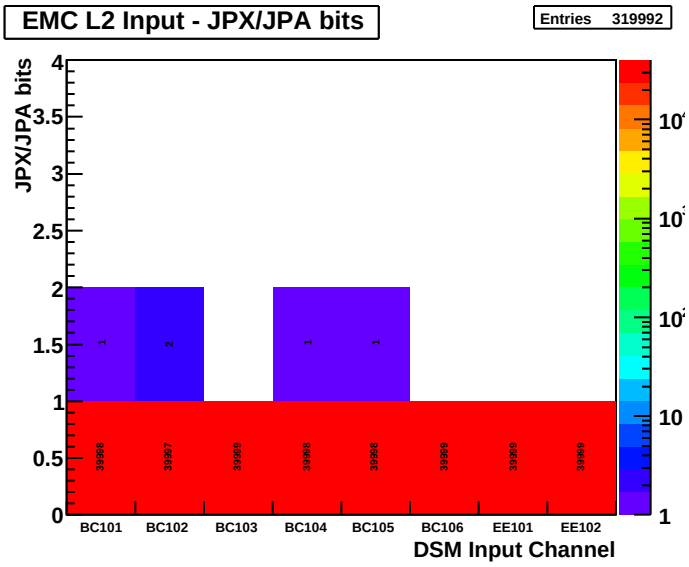

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

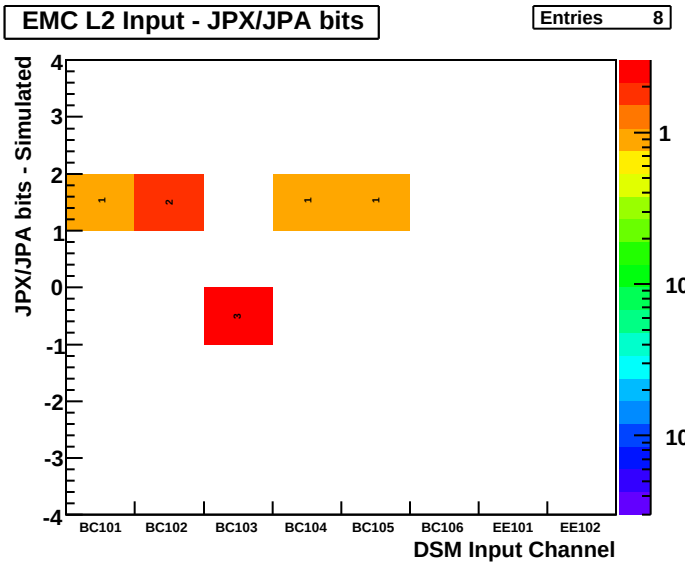

Endcap EMC L1 Input - High Eta Sum
Entries 479988
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

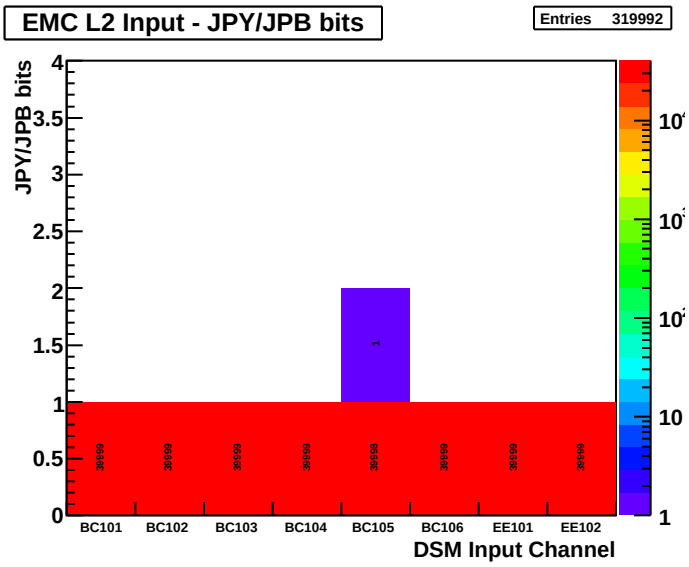

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

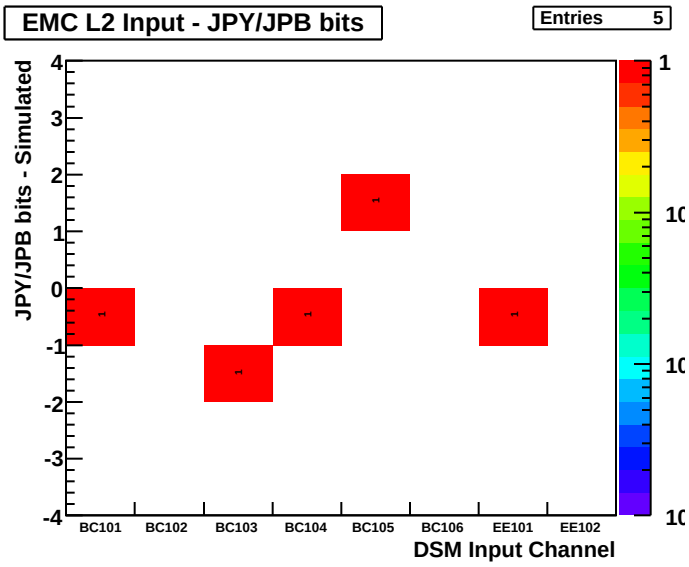

Endcap EMC L1 Input - High Tower Bits
Entries 479988
High Tower Bits
EE101
EE102
39999
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

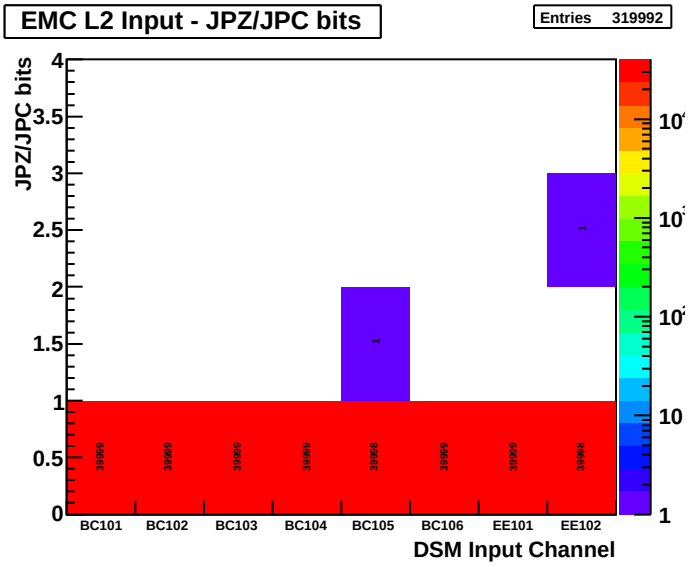

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

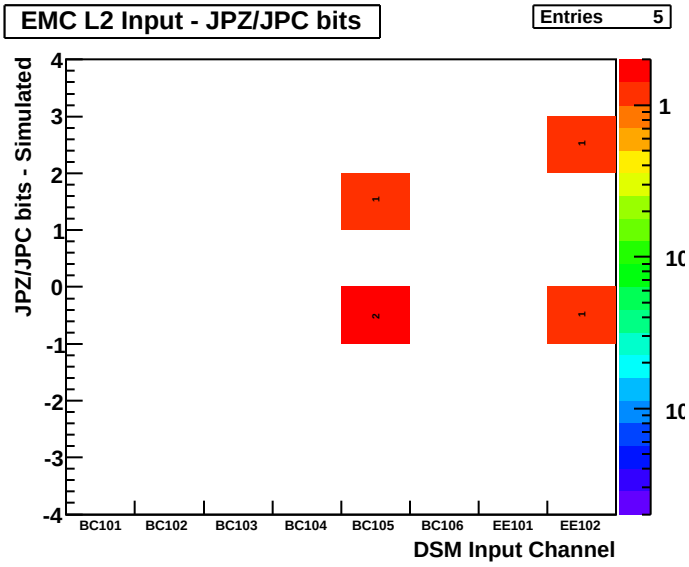

EMC L2 Input - JPX/JPA bits
Entries 319992
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

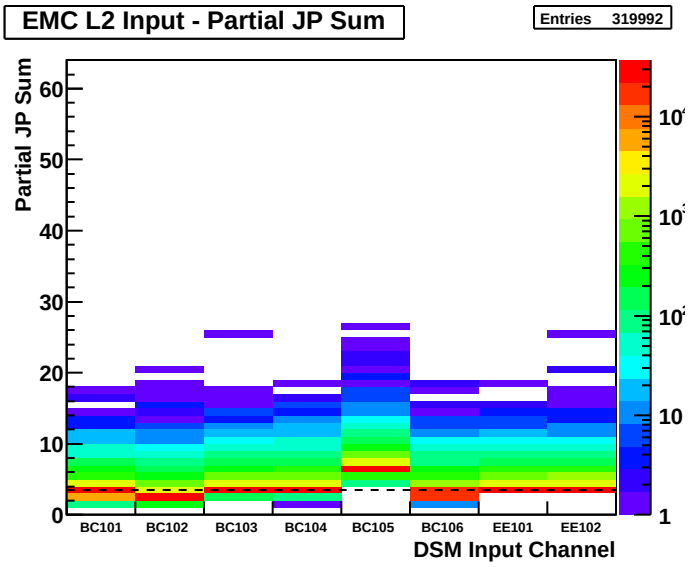

EMC L2 Input - JPX/JPA bits
Entries 8
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

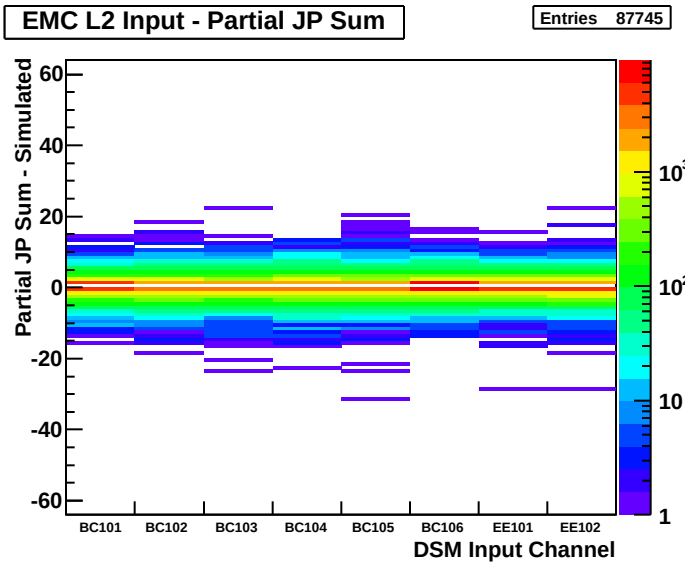

EMC L2 Input - JPY/JPB bits
Entries 319992
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

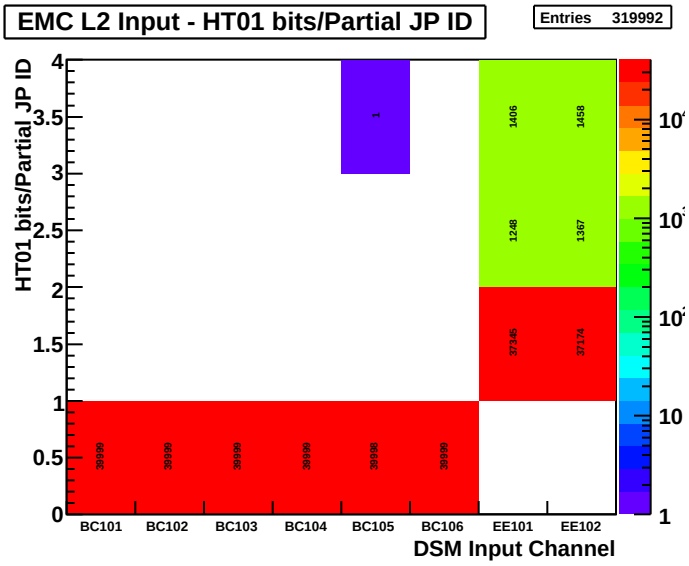

EMC L2 Input - JPY/JPB bits
Entries 5
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

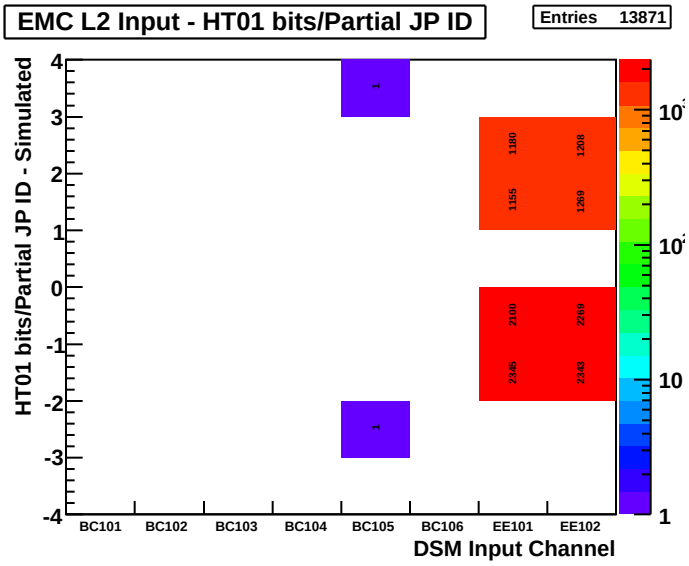

EMC L2 Input - JPZ/JPC bits
Entries 319992
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

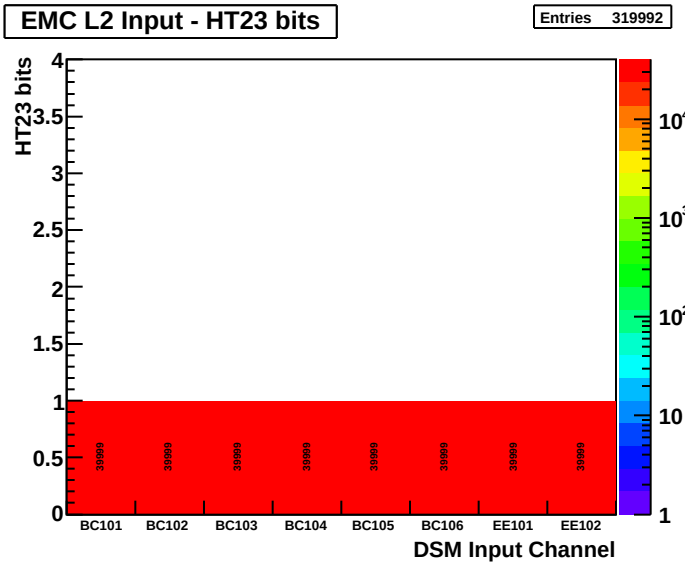

EMC L2 Input - JPZ/JPC bits
Entries 5
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

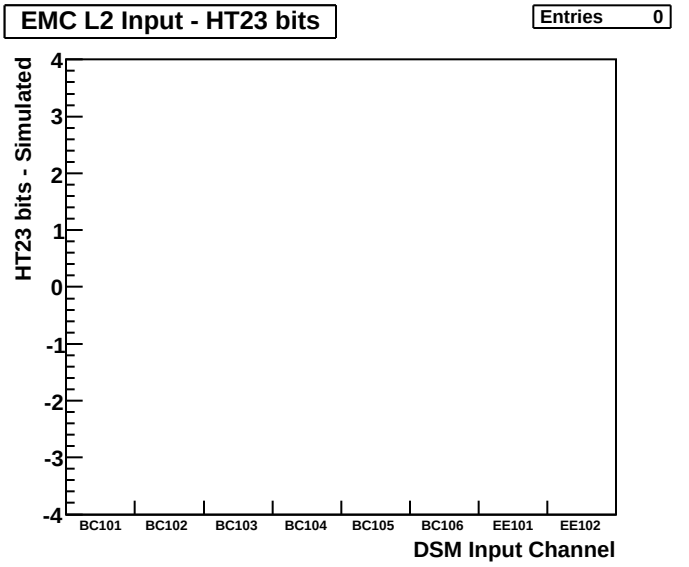

EMC L2 Input - Partial JP Sum
Entries 319992
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

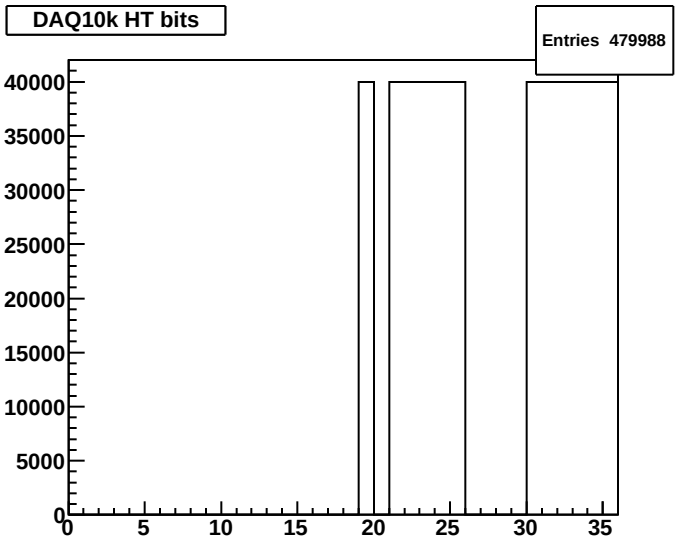

EMC L2 Input - Partial JP Sum
Entries 87745
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

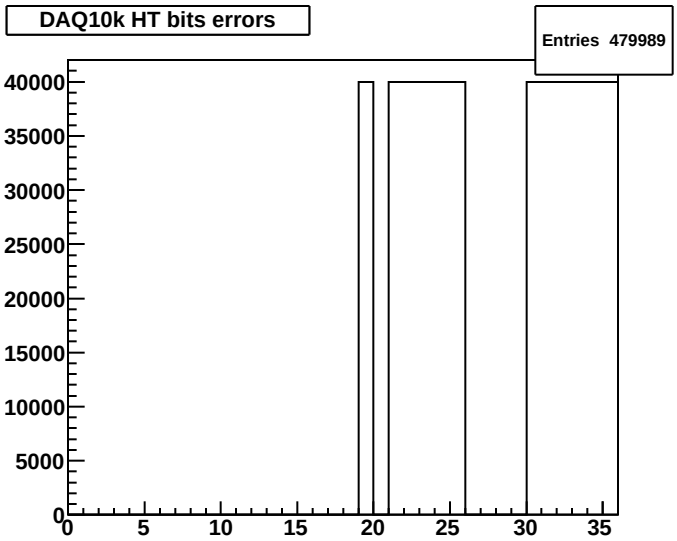

EMC L2 Input - HT01 bits/Partial JP ID
Entries 319992
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

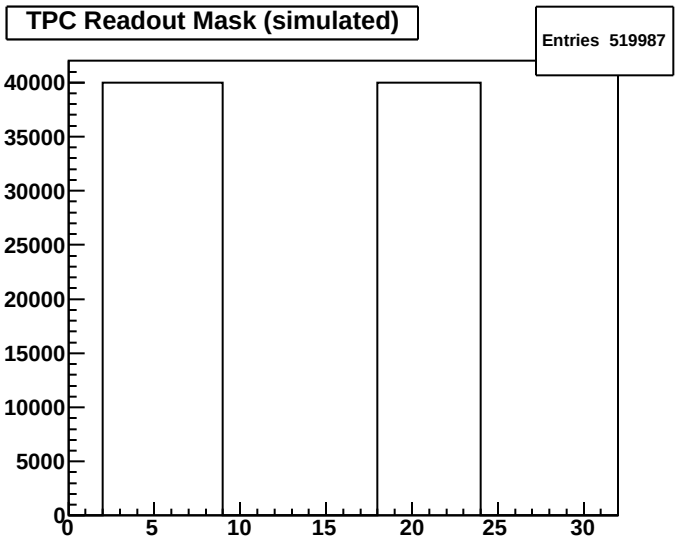

EMC L2 Input - HT01 bits/Partial JP ID
Entries 13871
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

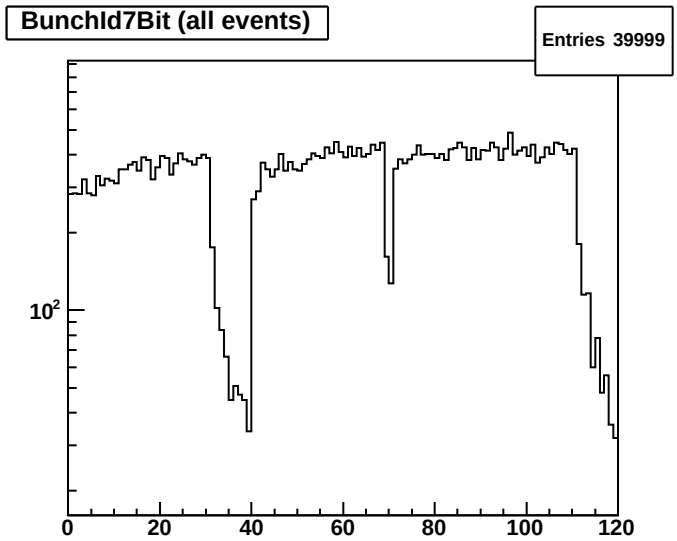

EMC L2 Input - HT23 bits
Entries 319992
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

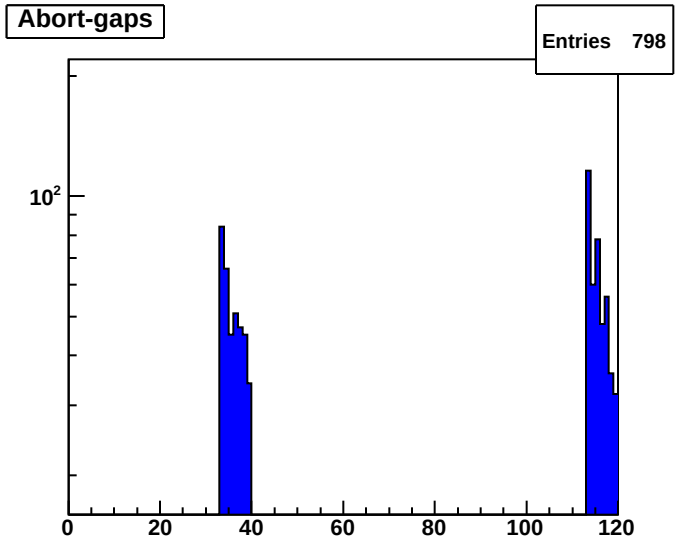

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

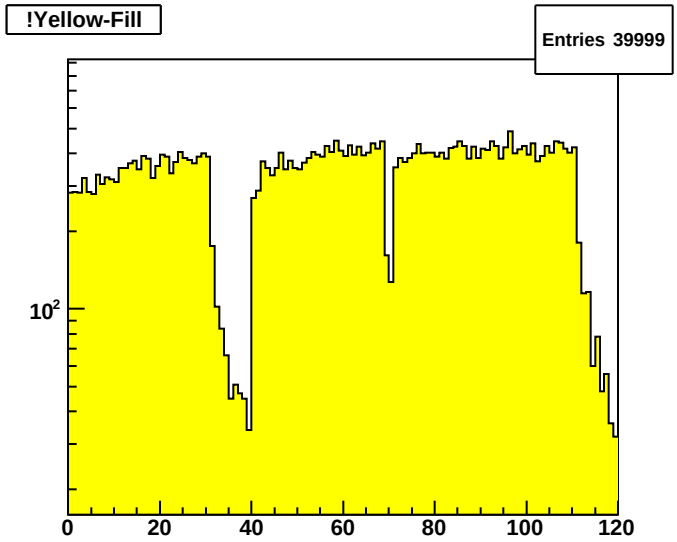

DAQ10k HT bits
Entries 479988
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

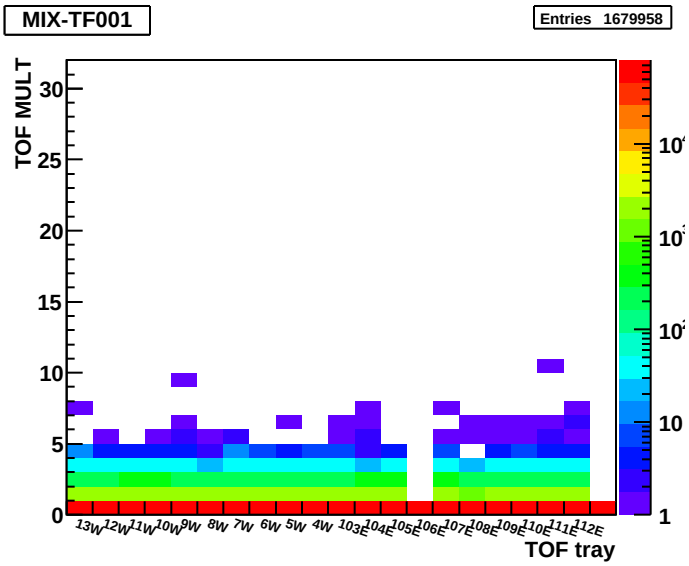

DAQ10k HT bits errors
Entries 479989
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

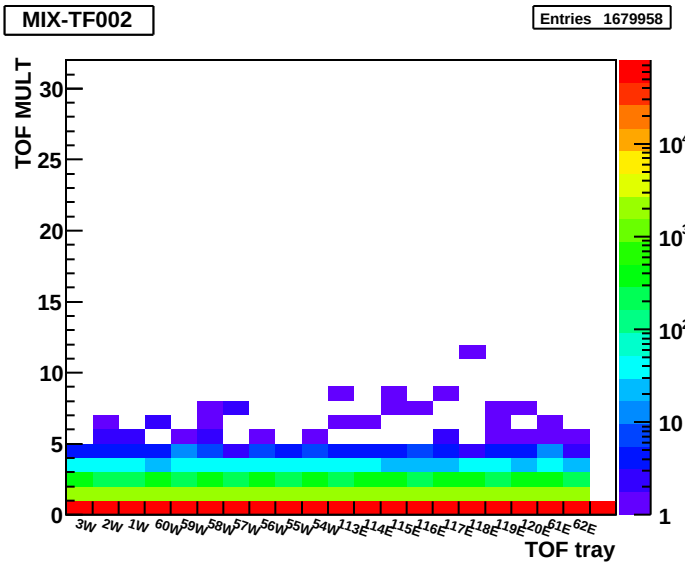

TPC Readout Mask (simulated)
Entries 519987
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

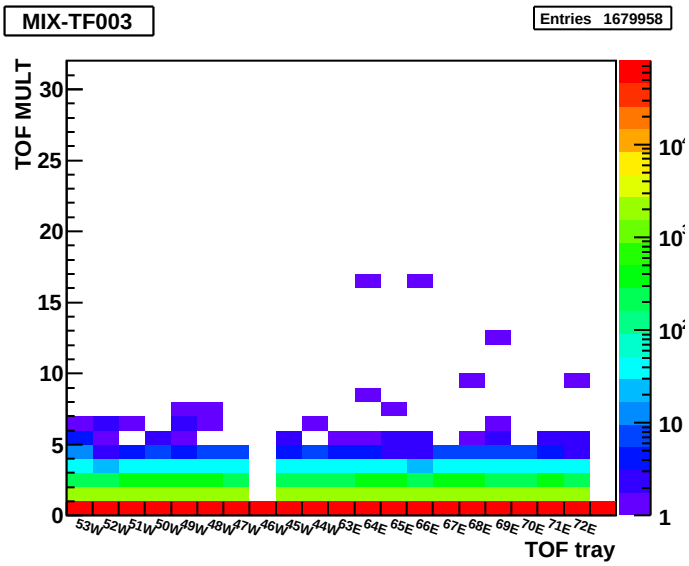

BunchId7Bit (all events)
Entries 39999
10^2
0 20 40 60 80 100 120

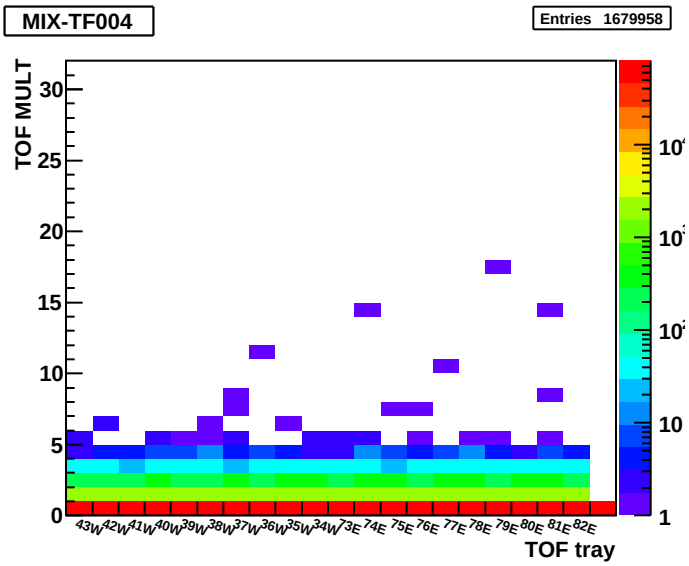

Abort-gaps
Entries 798
10^2
0 20 40 60 80 100 120

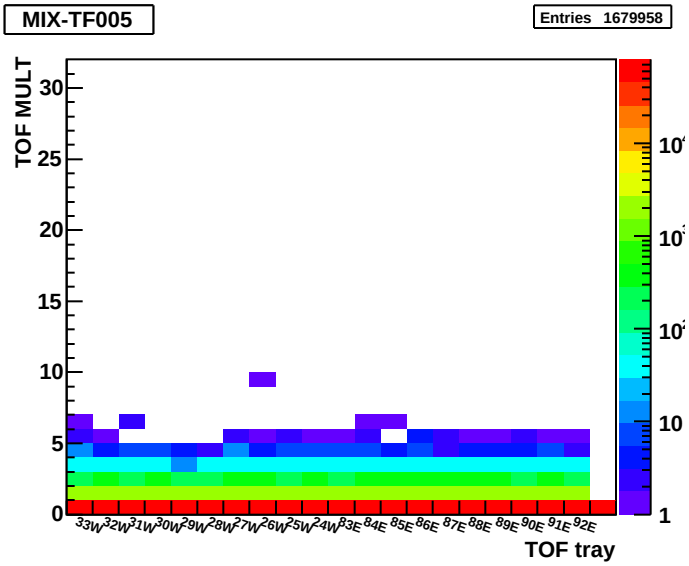

!Yellow-Fill
Entries 39999
10^2
0 20 40 60 80 100 120

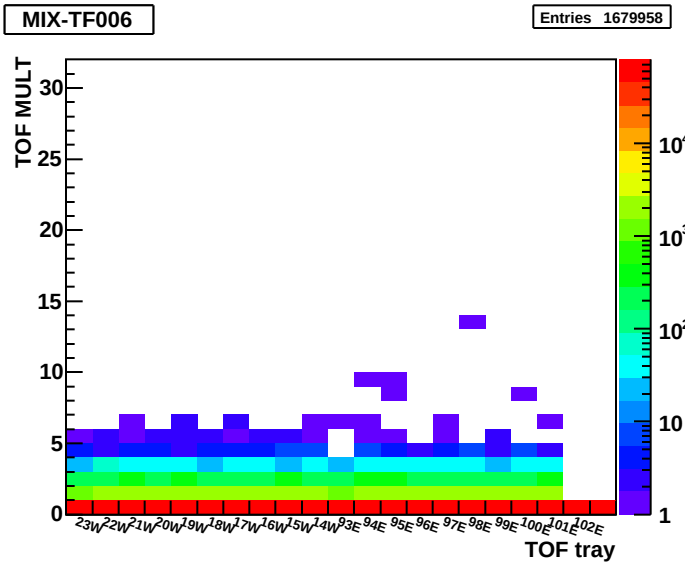

MIX-TF001
Entries 1679958
TOF MULT
TOF tray

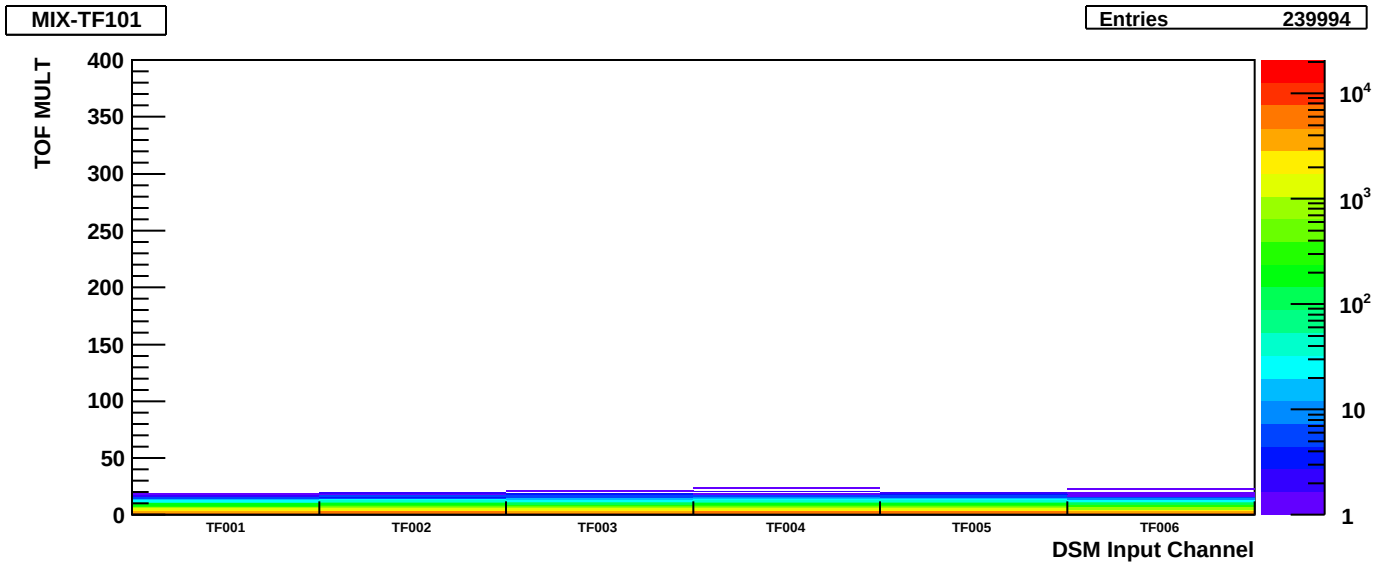

MIX-TF002
Entries 1679958
TOF MULT
TOF tray

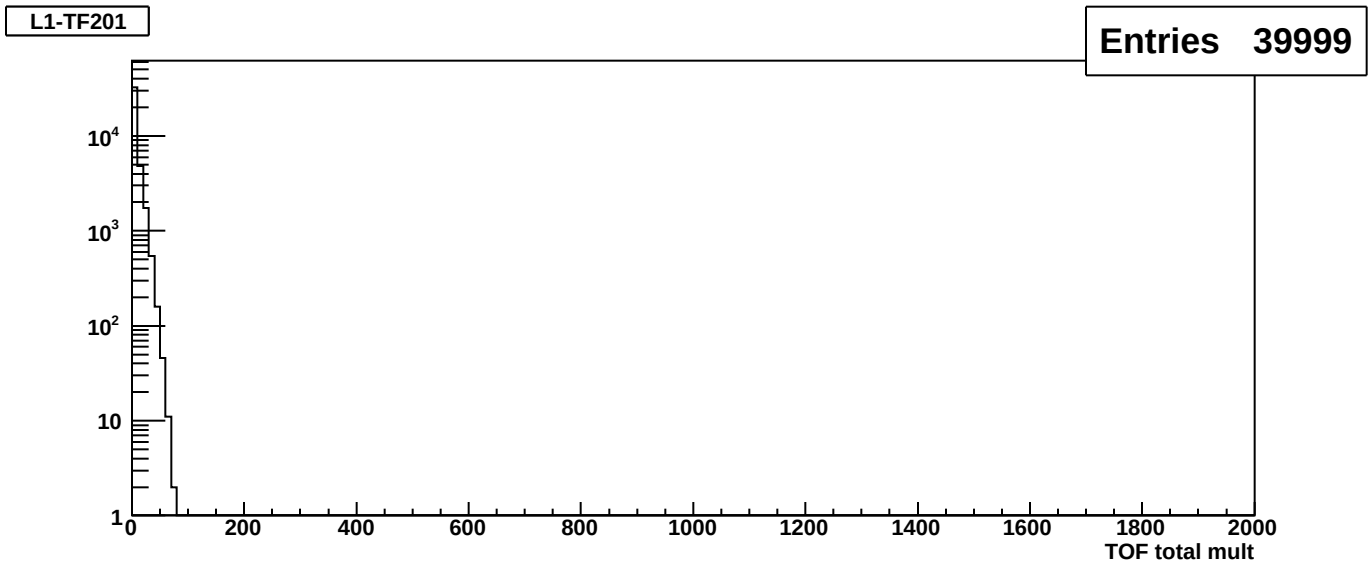

MIX-TF003
Entries 1679958
TOF MULT
TOF tray

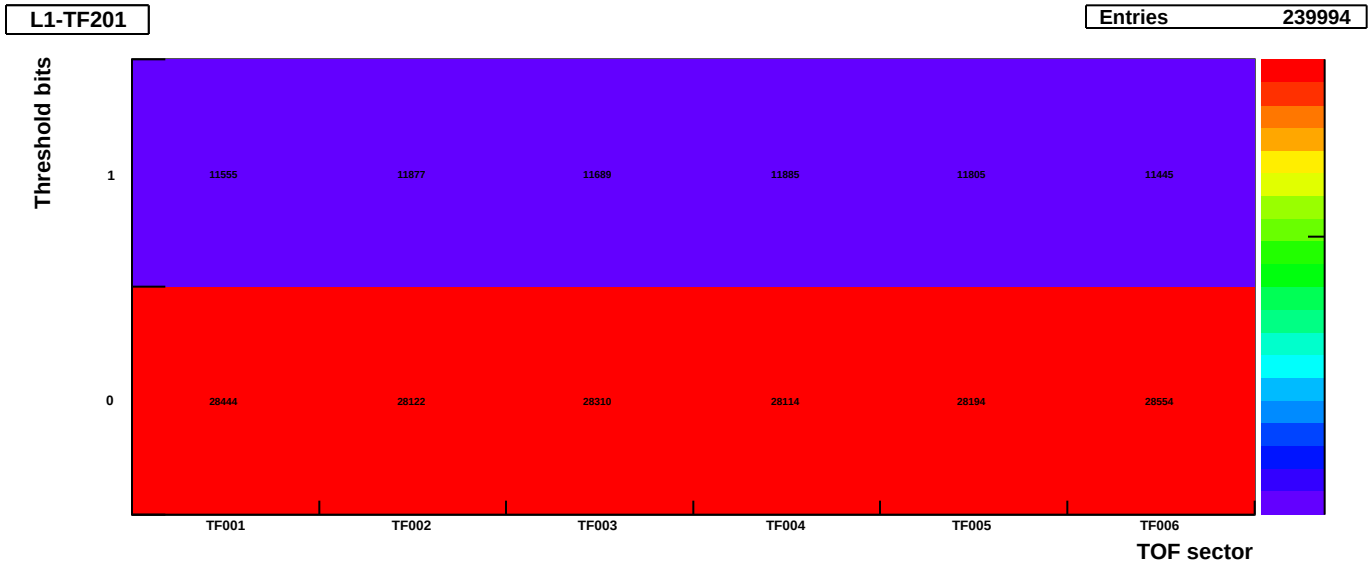

MIX-TF004
Entries 1679958
TOF MULT
TOF tray

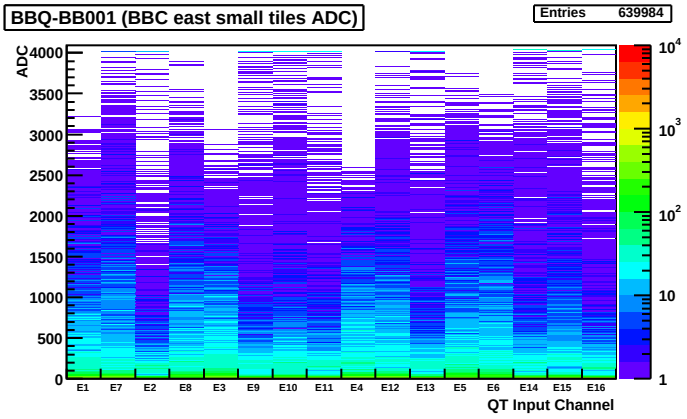

MIX-TF005
Entries 1679958
TOF MULT
TOF tray

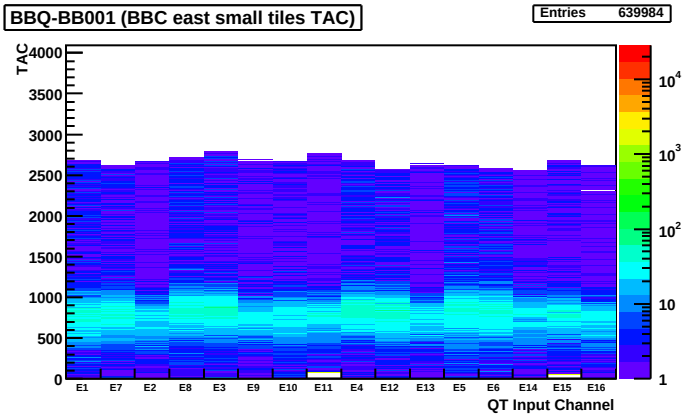

MIX-TF006
Entries 1679958
TOF MULT
TOF tray

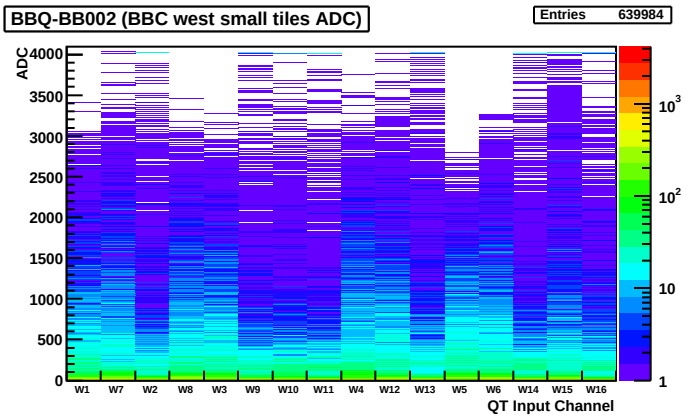

MIX-TF101
Entries 239994
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

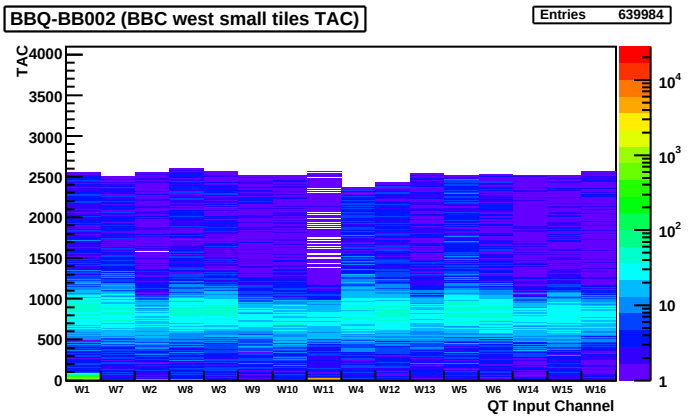

L1-TF201
Entries 39999
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

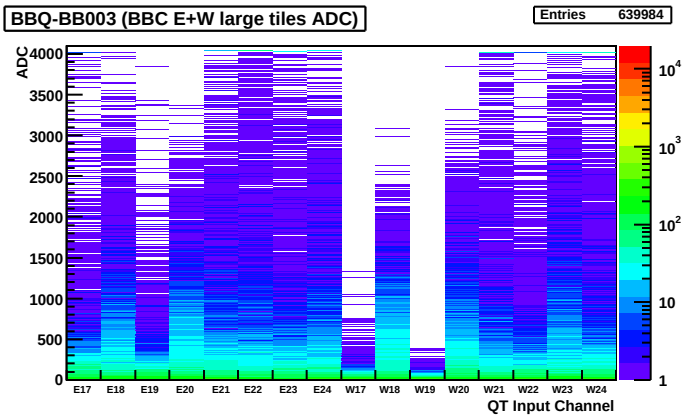

L1-TF201
Entries 239994
Threshold bits
1
0
11555
11877
11689
11885
11805
11445
28444
28122
28310
28114
28194
28554
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

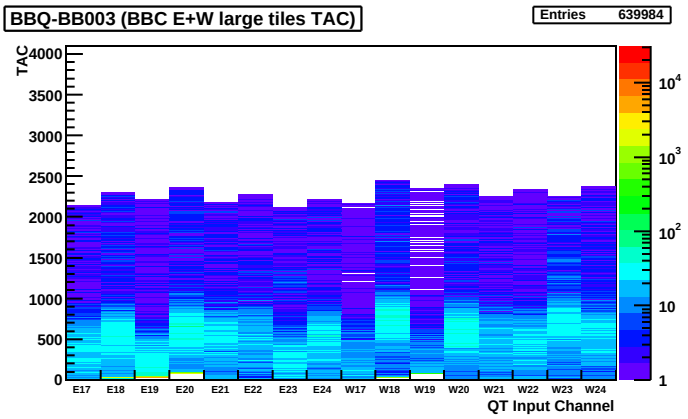

BBQ-BB001 (BBC east small tiles ADC)
Entries 639984
ADC
QT Input Channel

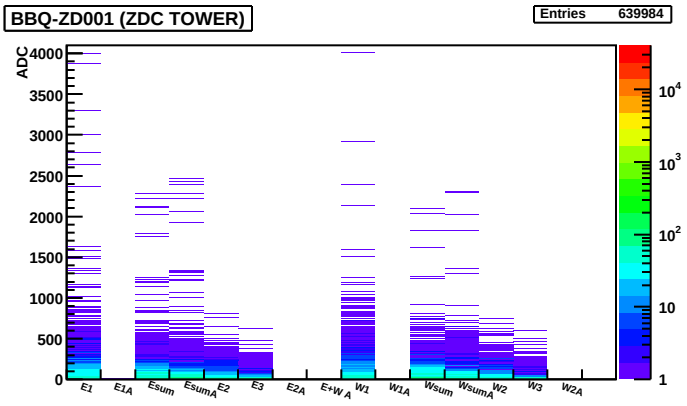

BBQ-BB001 (BBC east small tiles TAC)
Entries 639984
TAC
QT Input Channel

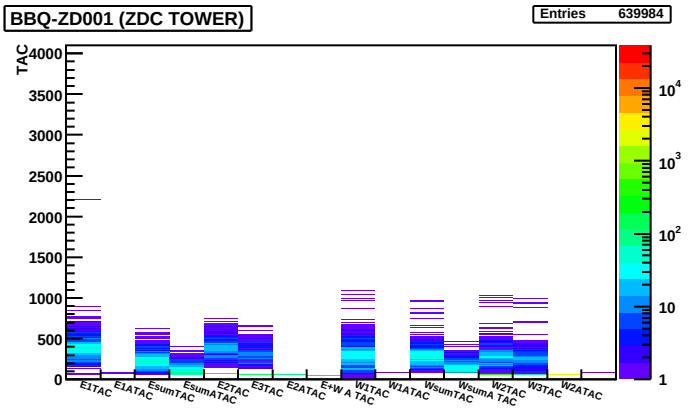

BBQ-BB002 (BBC west small tiles ADC)
Entries 639984
ADC
QT Input Channel

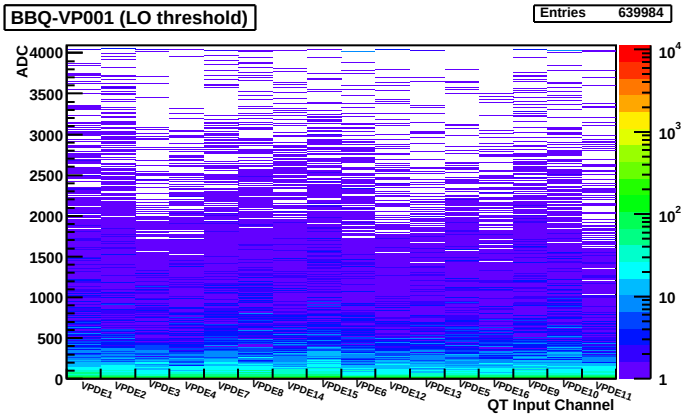

BBQ-BB002 (BBC west small tiles TAC)
Entries 639984
TAC
QT Input Channel

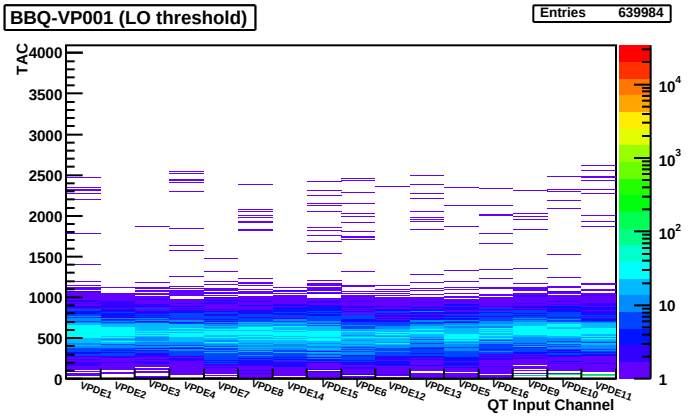

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 639984
ADC
QT Input Channel

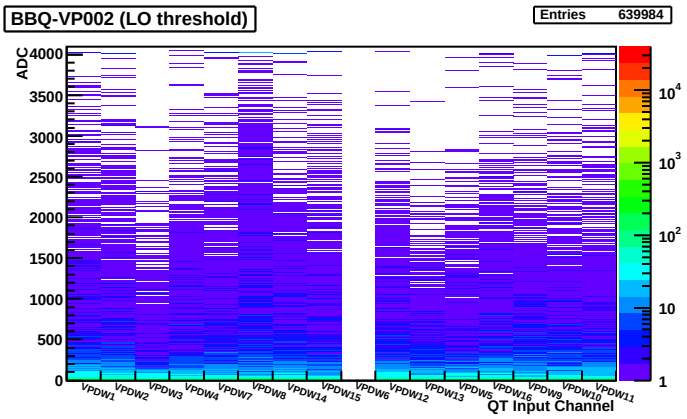

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 639984
TAC
QT Input Channel

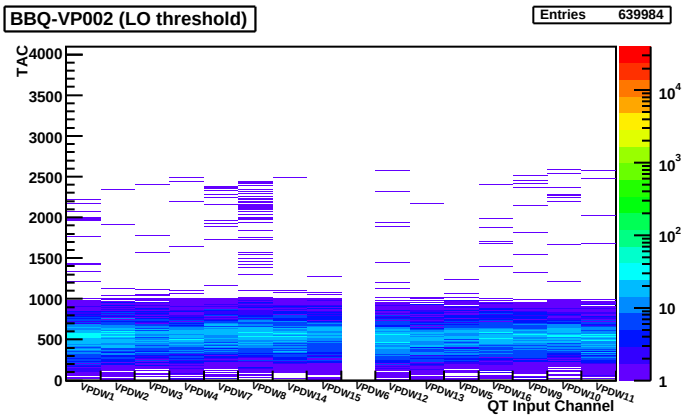

BBQ-ZD001 (ZDC TOWER)
Entries 639984
ADC

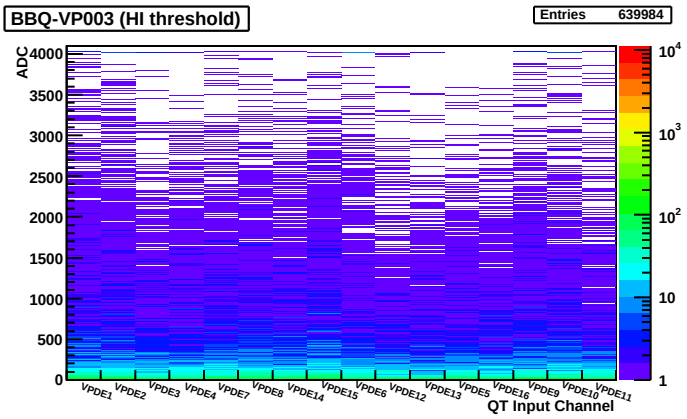

BBQ-ZD001 (ZDC TOWER)
Entries 639984
TAC

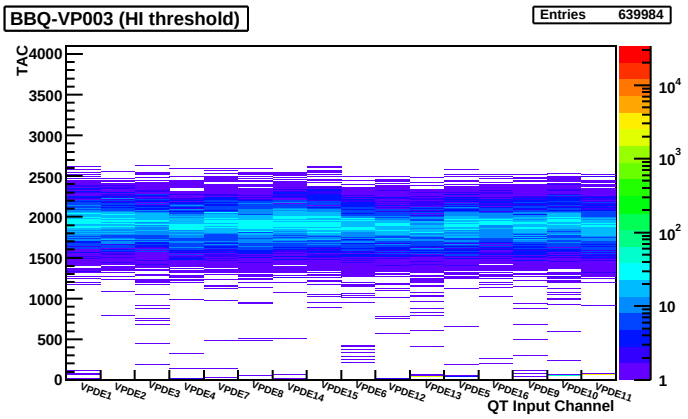

BBQ-VP001 (LO threshold)
Entries 639984
ADC
QT Input Channel

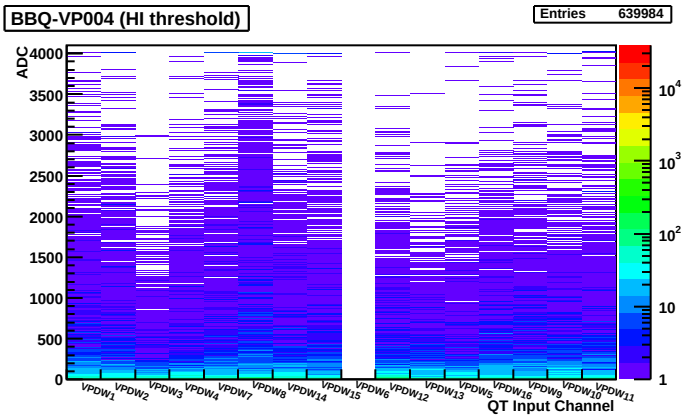

BBQ-VP001 (LO threshold)
Entries 639984
TAC
QT Input Channel

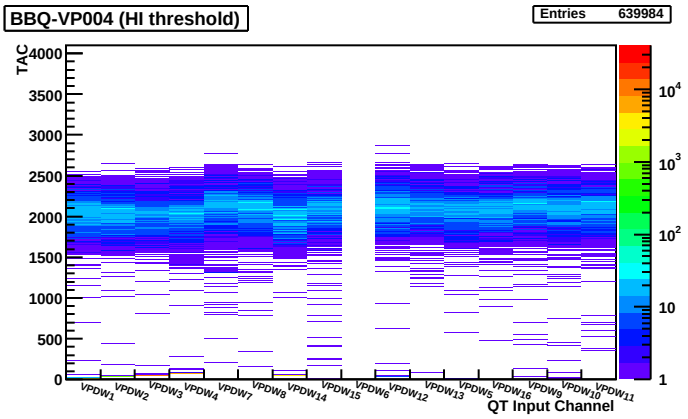

BBQ-VP002 (LO threshold)
Entries 639984
ADC
QT Input Channel

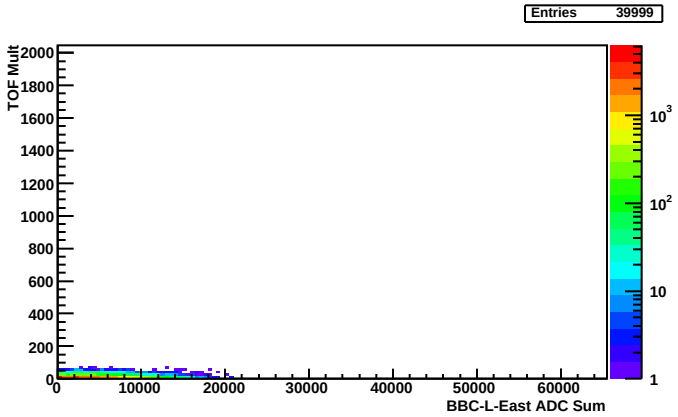

BBQ-VP002 (LO threshold)
Entries 639984
TAC
QT Input Channel

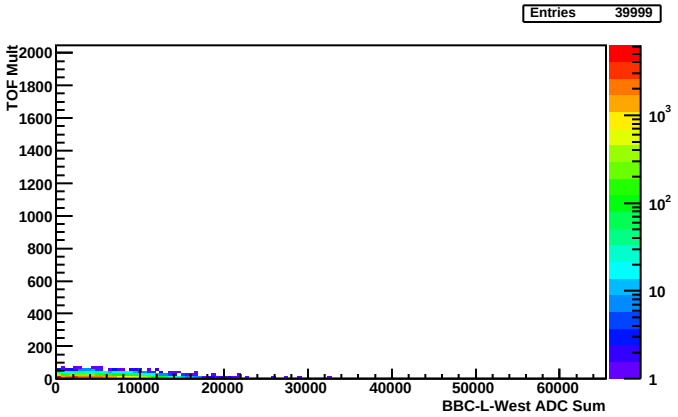

BBQ-VP003 (HI threshold)
Entries 639984
ADC
QT Input Channel

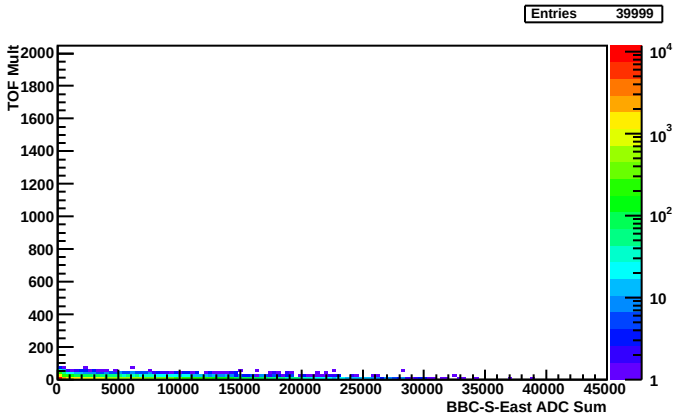

BBQ-VP003 (HI threshold)
Entries 639984
TAC
QT Input Channel

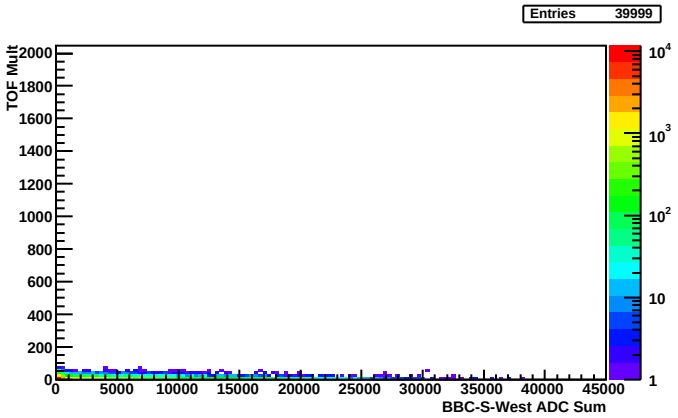

BBQ-VP004 (HI threshold)
Entries 639984
ADC
QT Input Channel

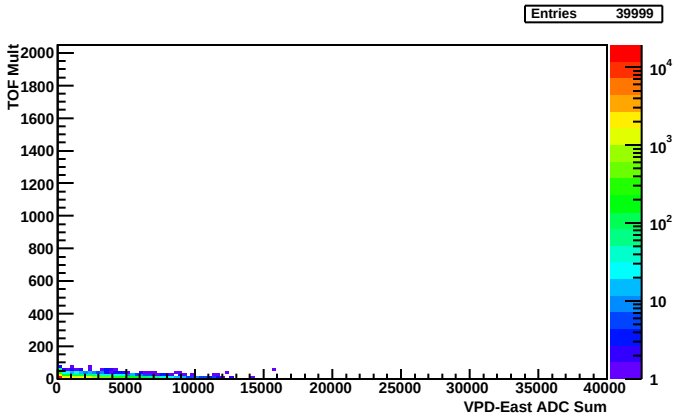

BBQ-VP004 (HI threshold)
Entries 639984
TAC
QT Input Channel

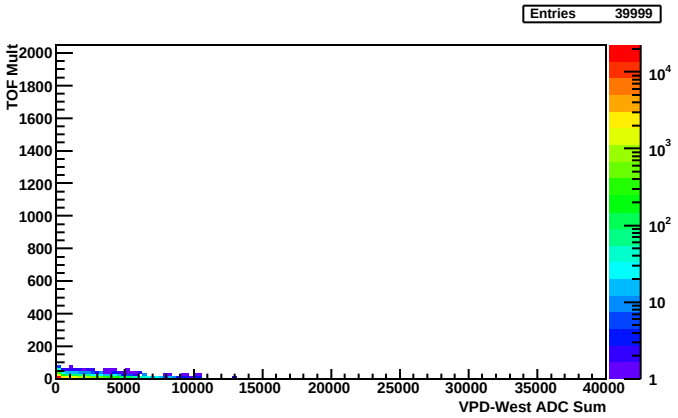

Entries 39999
TOF Mult
BBC-L-East ADC Sum

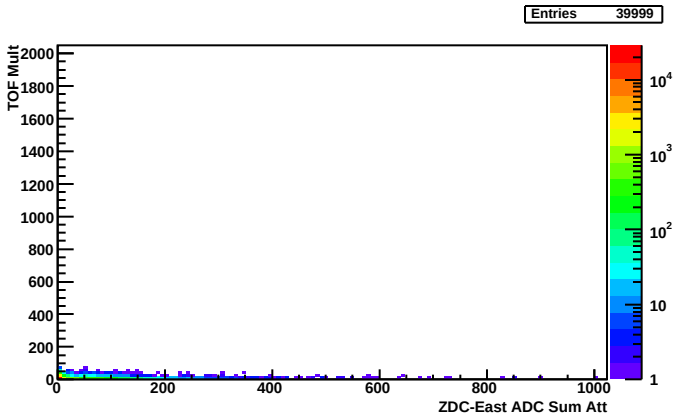

Entries 39999
TOF Mult
BBC-L-West ADC Sum

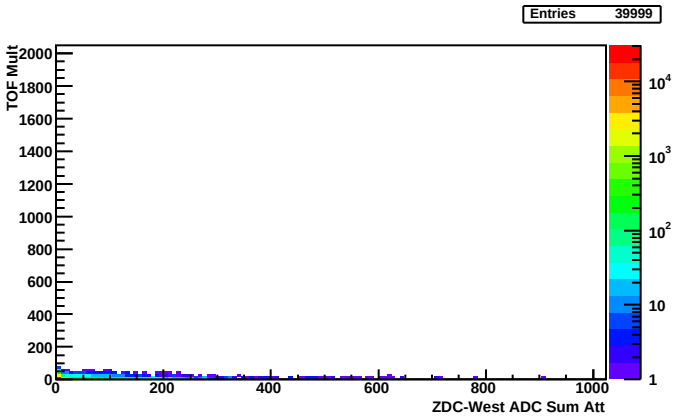

Entries 39999
TOF Mult
BBC-S-East ADC Sum

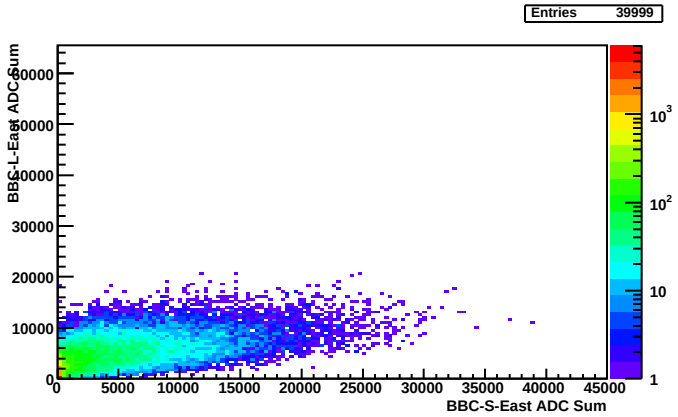

Entries 39999
TOF Mult
BBC-S-West ADC Sum

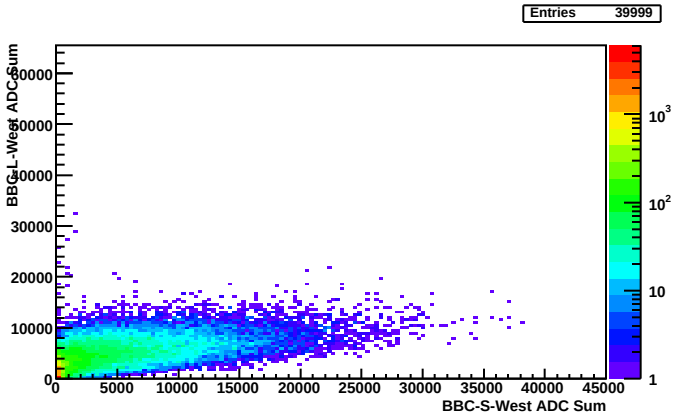

Entries 39999
TOF Mult
VPD-East ADC Sum

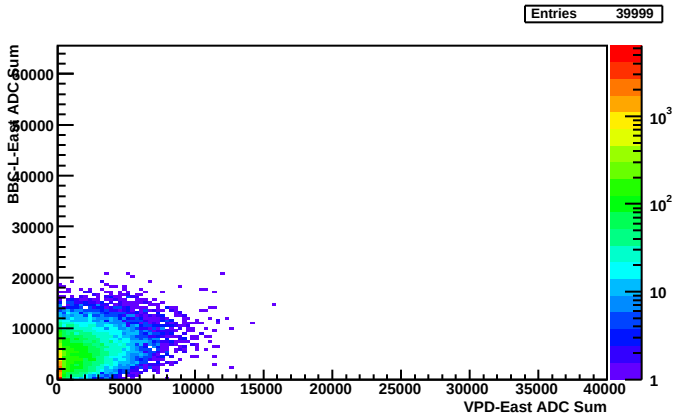

Entries 39999
TOF Mult
VPD-West ADC Sum

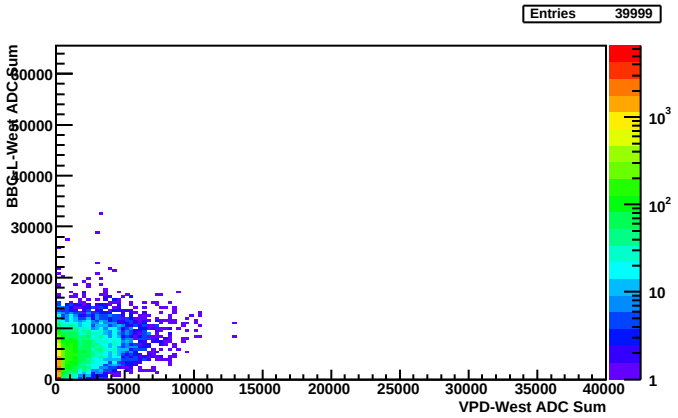

Entries 39999
TOF Mult
ZDC-East ADC Sum Att

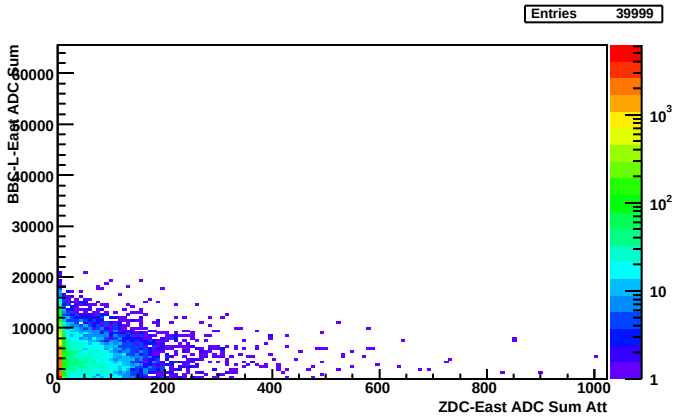

Entries 39999
TOF Mult
ZDC-West ADC Sum Att

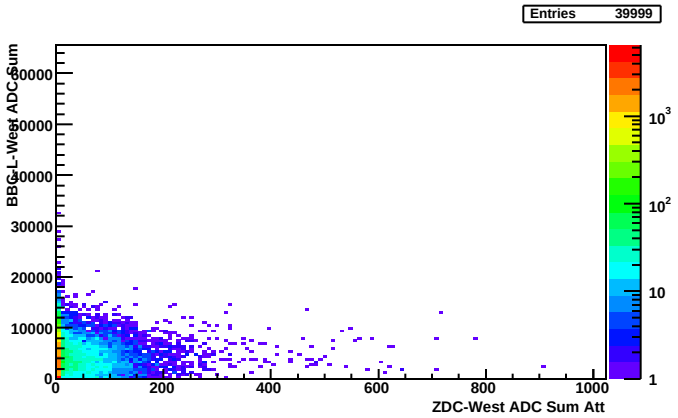

Entries 39999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

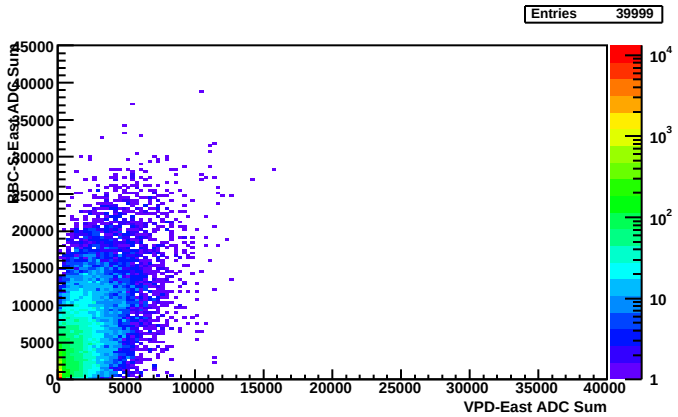

Entries 39999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

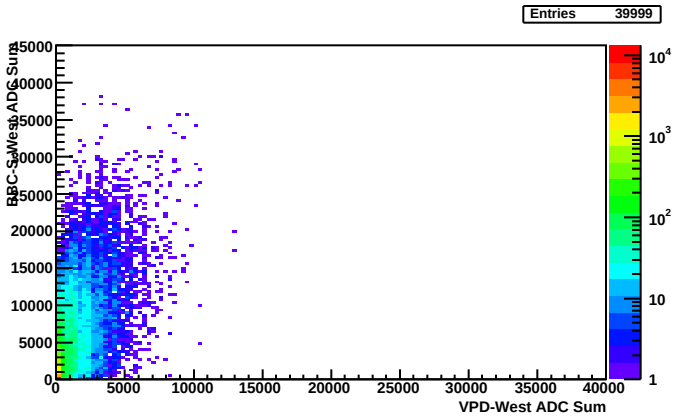

Entries 39999
BBC-L-East ADC Sum
VPD-East ADC Sum

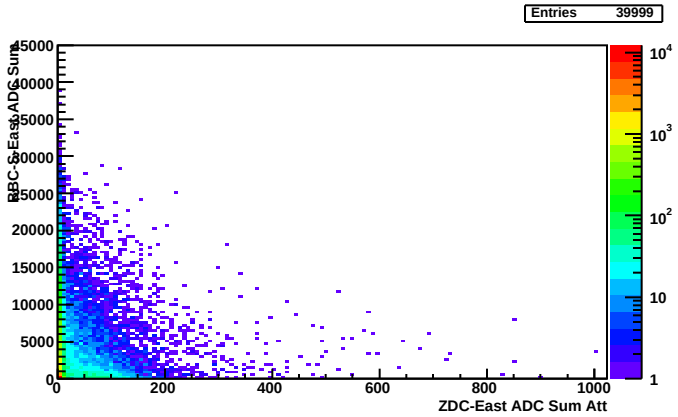

Entries 39999
BBC-L-West ADC Sum
VPD-West ADC Sum

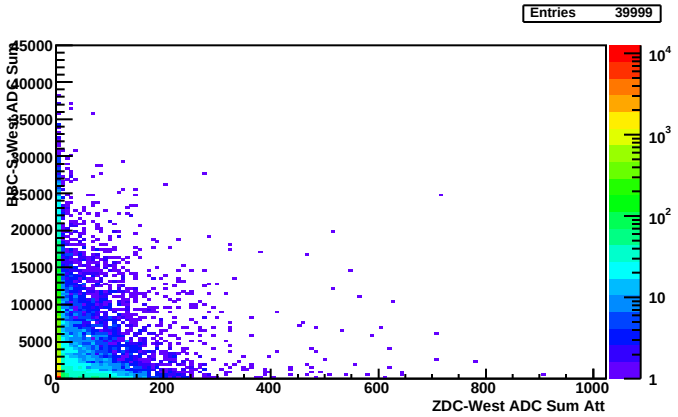

Entries 39999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

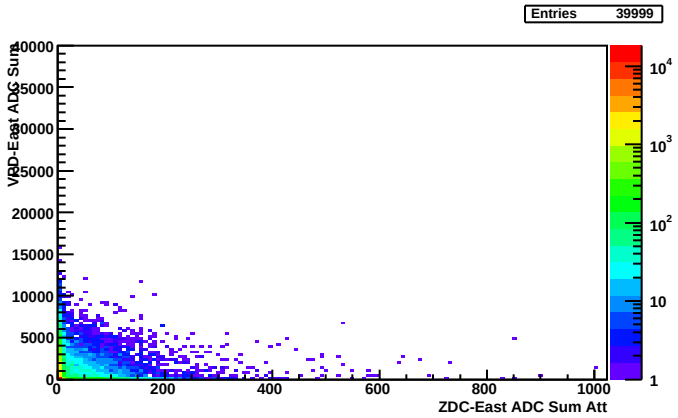

Entries 39999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

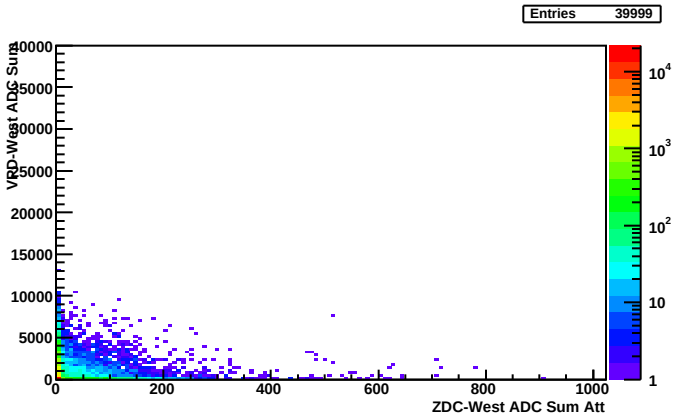

Entries 39999
BBC-S-East ADC Sum
VPD-East ADC Sum

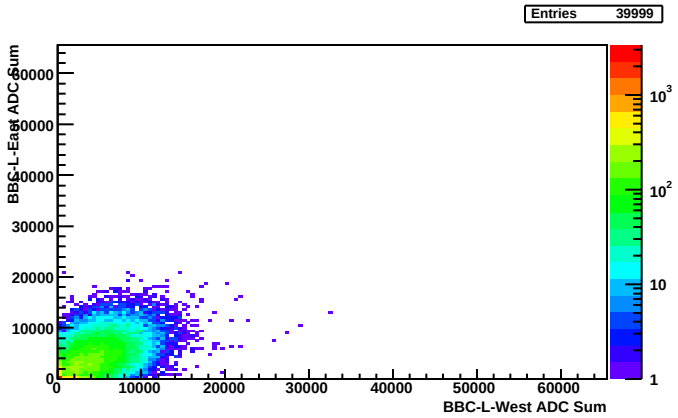

Entries 39999
BBC-S-West ADC Sum
VPD-West ADC Sum

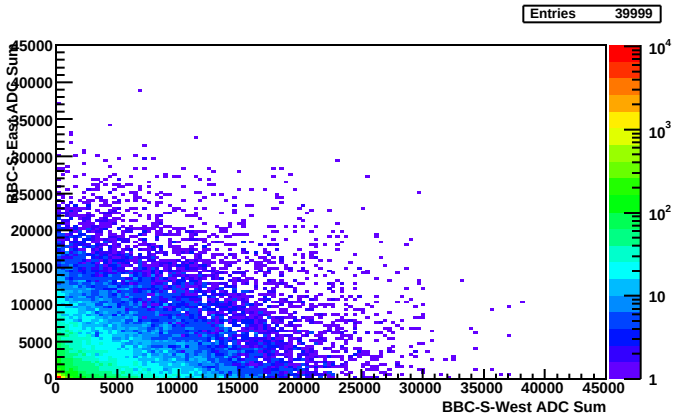

Entries 39999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

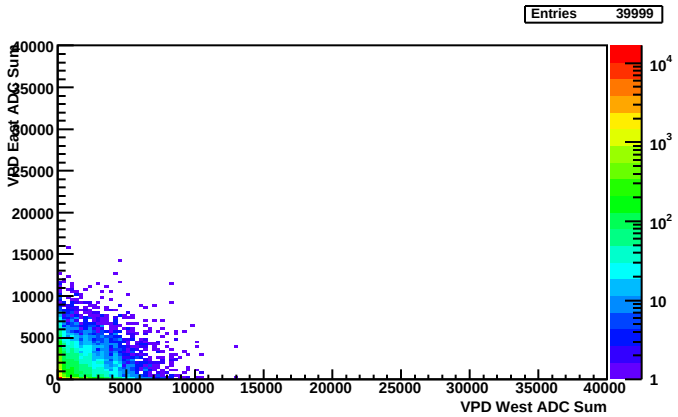

Entries 39999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

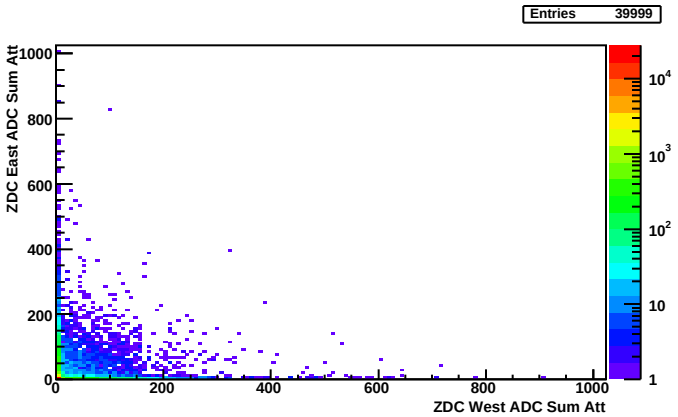

Entries 39999
VPD-East ADC Sum
ZDC-East ADC Sum Att

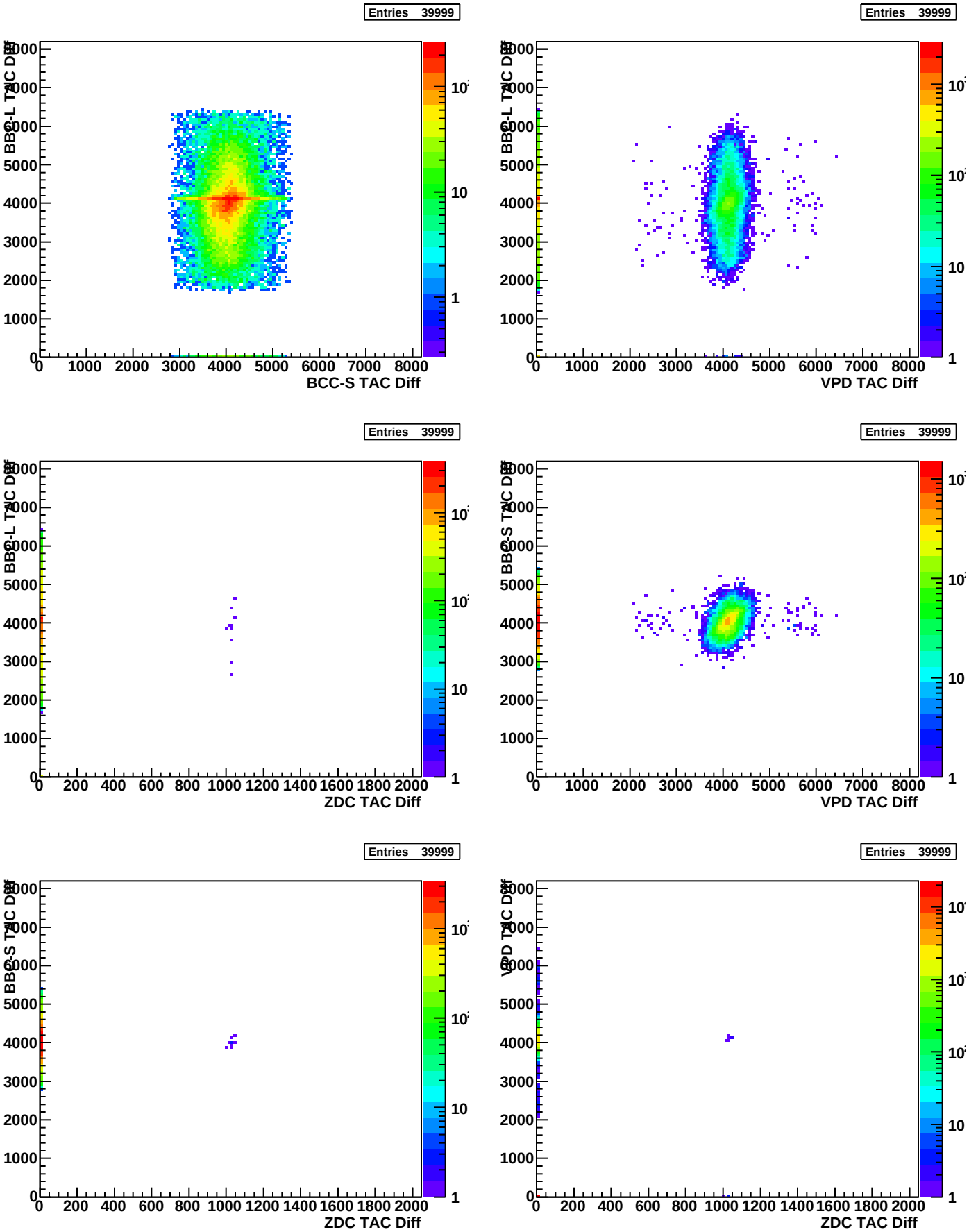

Entries 39999
VPD-West ADC Sum
ZDC-West ADC Sum Att

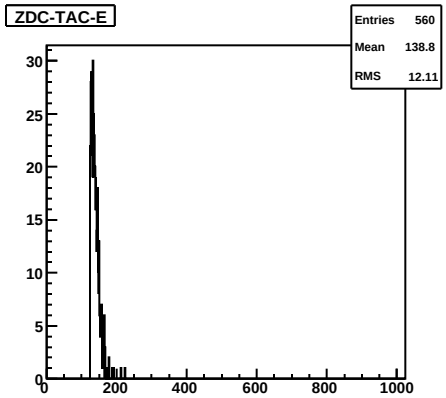

Entries 39999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

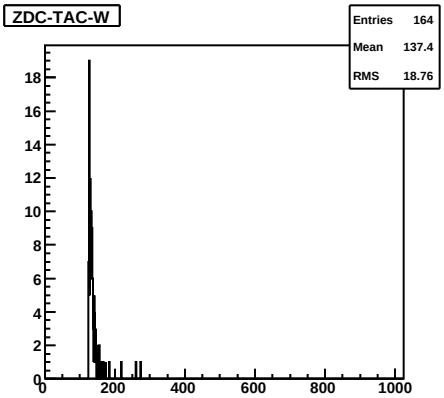

Entries 39999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

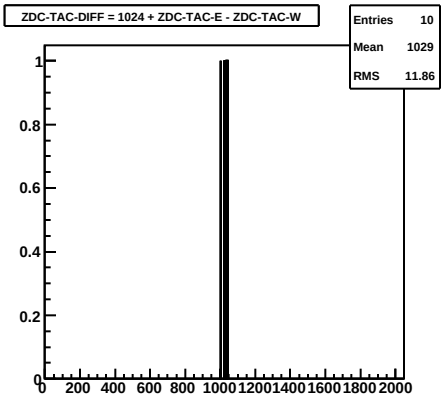

Entries 39999
VPD East ADC Sum
VPD West ADC Sum

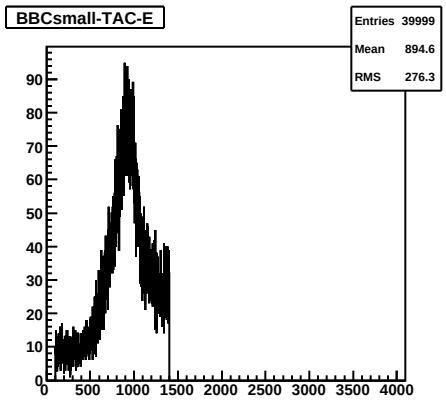

Entries 39999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

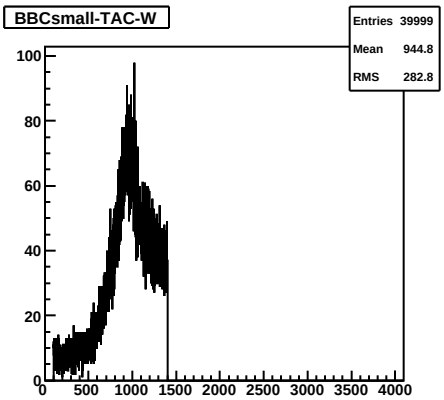

Entries 39999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 39999
BBC-L TAC Diff
VPD TAC Diff
Entries 39999
BBC-L TAC Diff
ZDC TAC Diff
Entries 39999
BBC-S TAC Diff
VPD TAC Diff
Entries 39999
BBC-S TAC Diff
ZDC TAC Diff
Entries 39999
VPD TAC Diff
ZDC TAC Diff

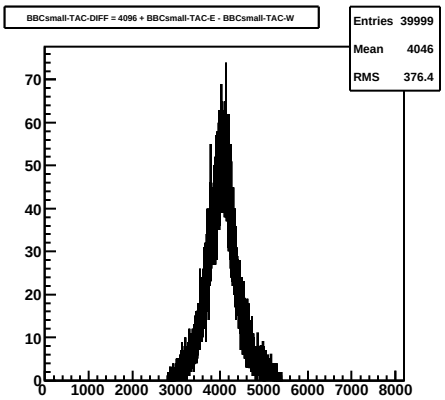

ZDC-TAC-E
Entries 560
Mean 138.8
RMS 12.11

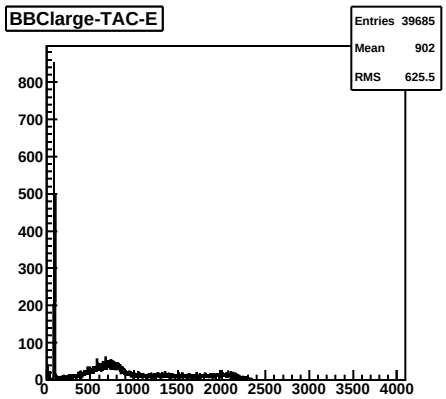

ZDC-TAC-W
Entries 164
Mean 137.4
RMS 18.76

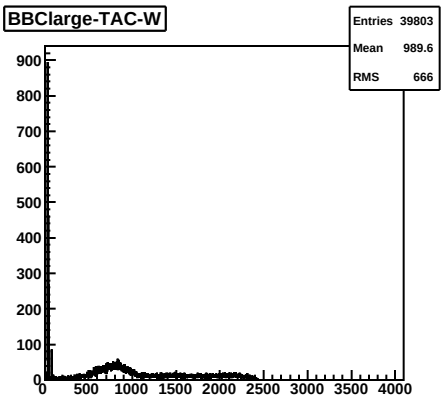

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 10
Mean 1029
RMS 11.86

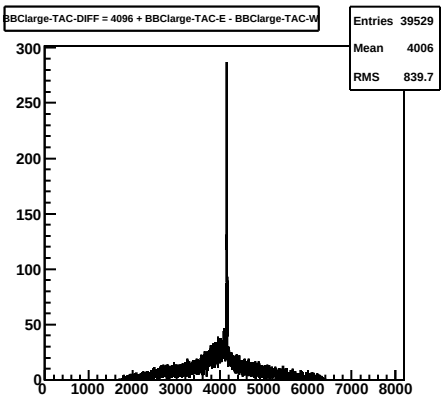

BBCsmall-TAC-E
Entries 39999
Mean 894.6
RMS 276.3

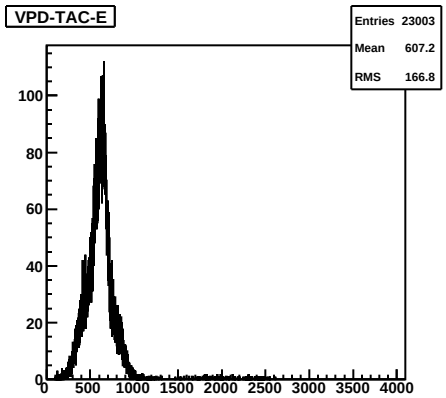

BBCsmall-TAC-W
Entries 39999
Mean 944.8
RMS 282.8

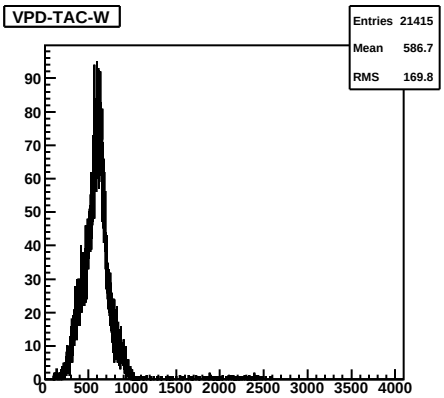

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 39999
Mean 4046
RMS 376.4

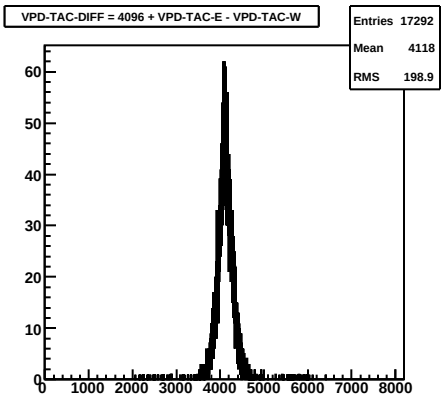

BBClarge-TAC-E
Entries 39685
Mean 902
RMS 625.5

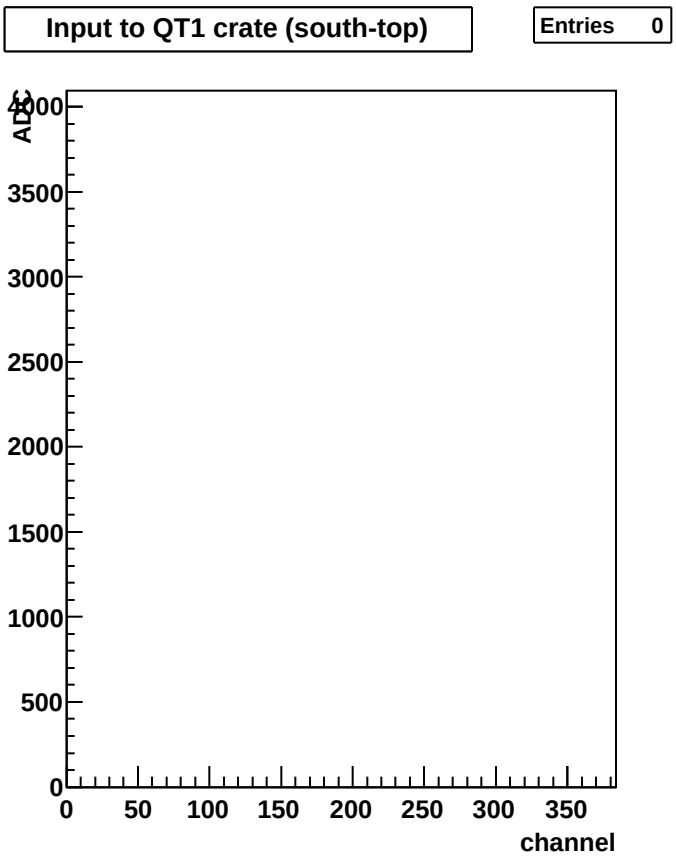

BBClarge-TAC-W
Entries 39803
Mean 989.6
RMS 666

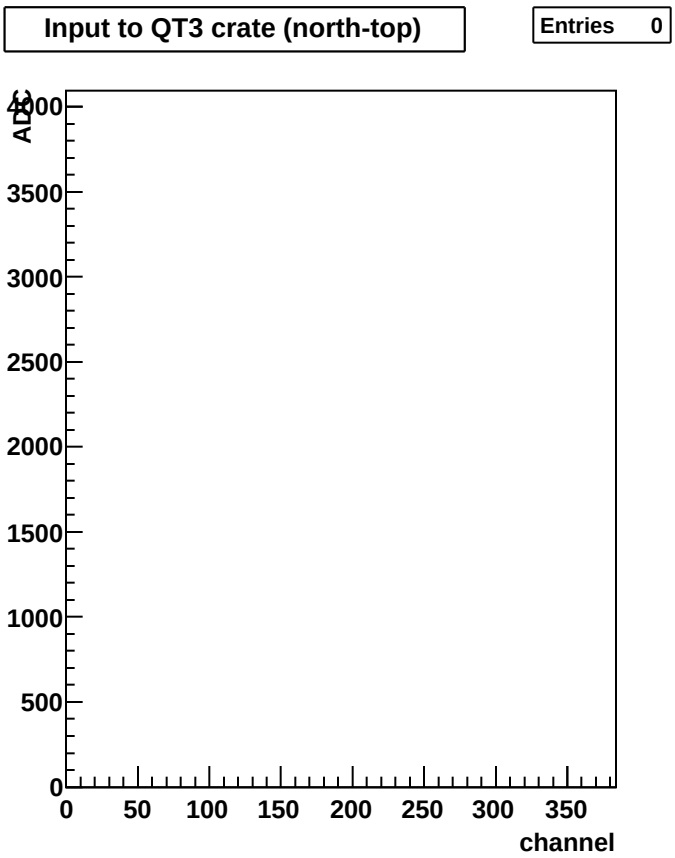

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 39529
Mean 4006
RMS 839.7

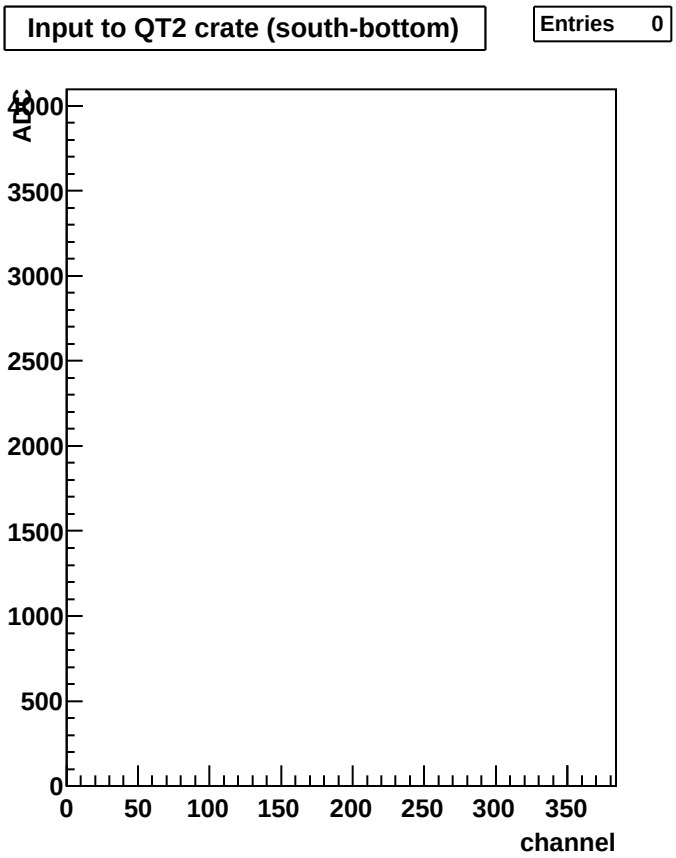

VPD-TAC-E
Entries 23003
Mean 607.2
RMS 166.8

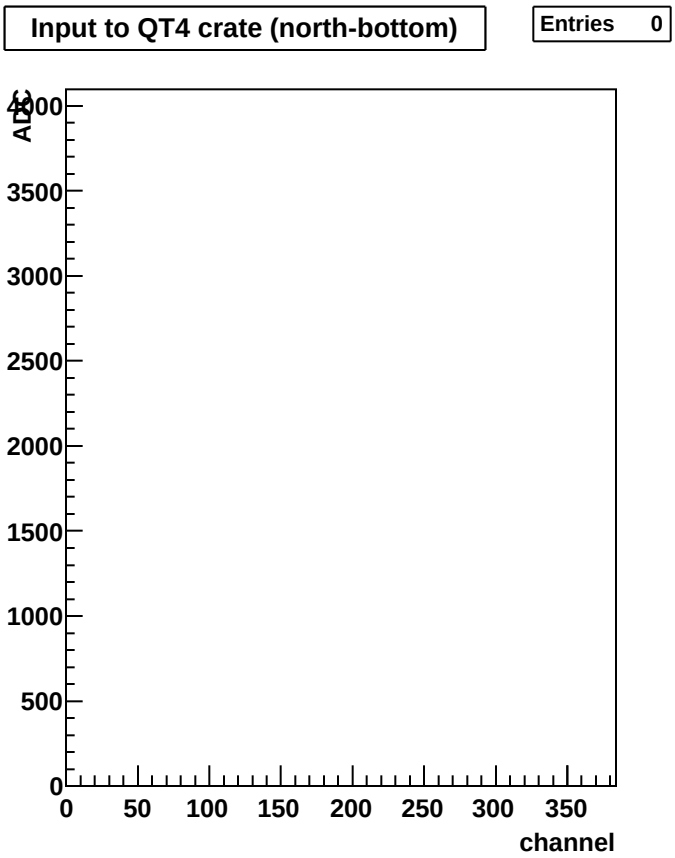

VPD-TAC-W
Entries 21415
Mean 586.7
RMS 169.8

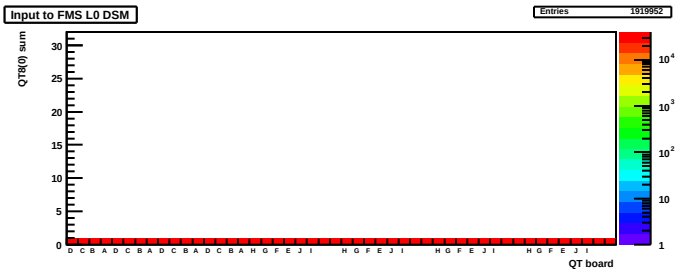

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 17292
Mean 4118
RMS 198.9

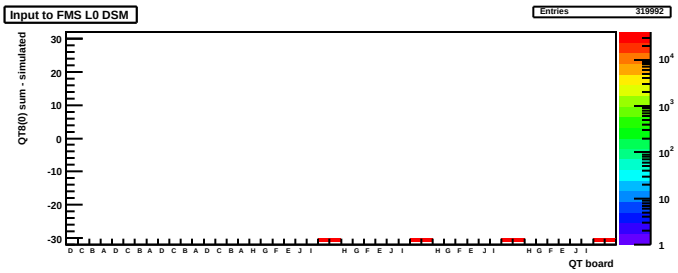

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

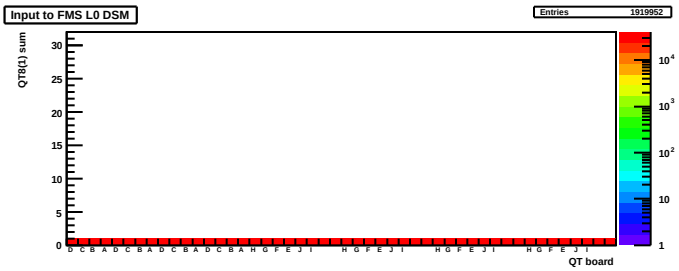

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

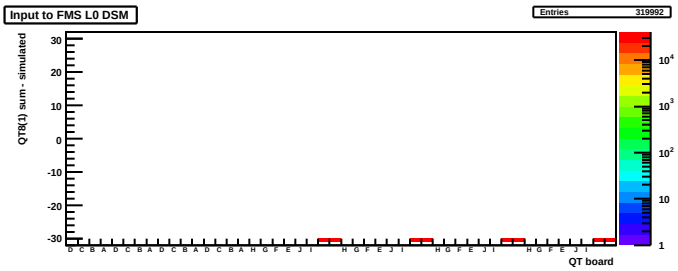

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

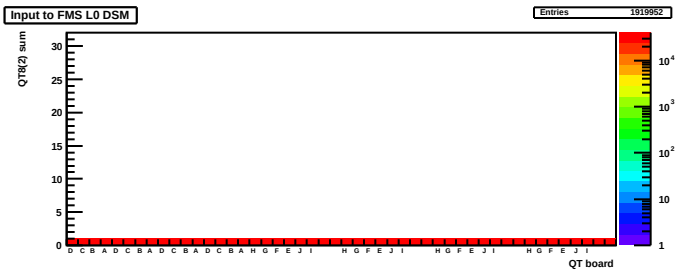

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

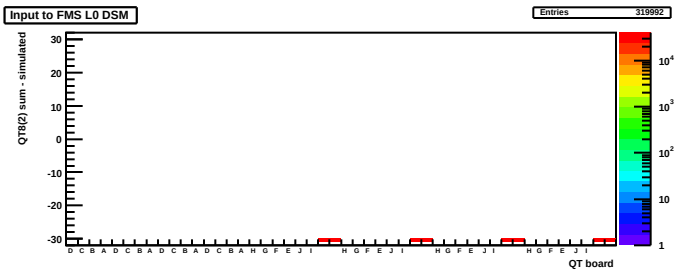

Input to FMS L0 DSM
Entries 1919952
QT8(0) sum
QT board

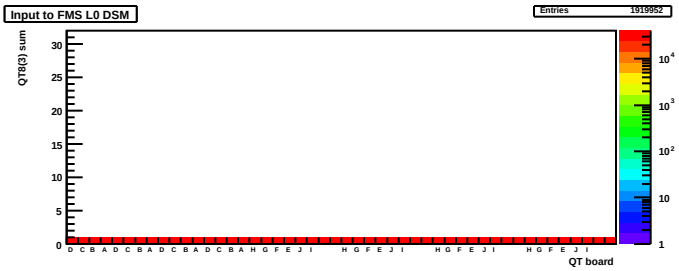

Input to FMS L0 DSM
Entries 319992
QT8(0) sum - simulated
QT board

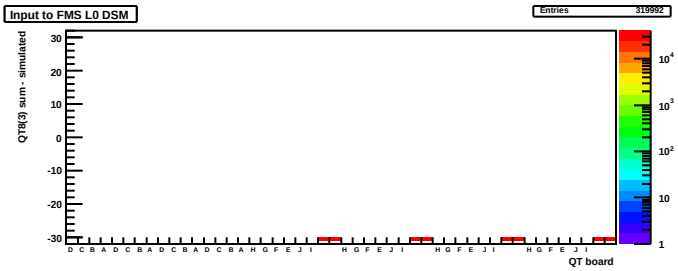

Input to FMS L0 DSM
Entries 1919952
QT8(1) sum
QT board

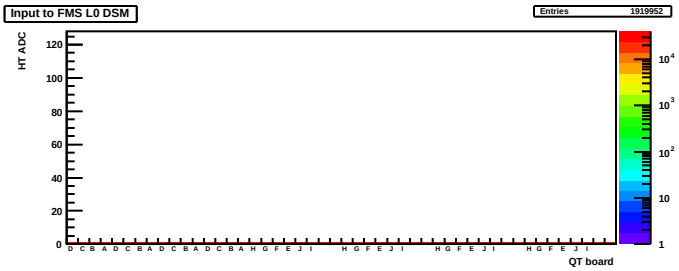

Input to FMS L0 DSM
Entries 319992
QT8(1) sum - simulated
QT board

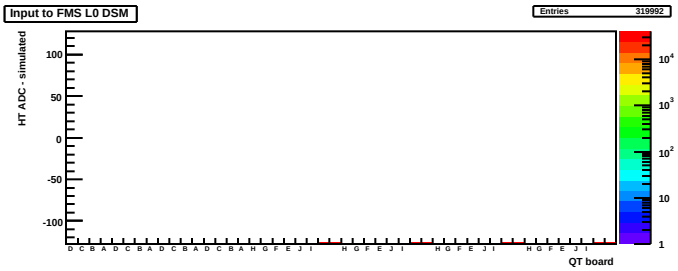

Input to FMS L0 DSM
Entries 1919952
QT8(2) sum
QT board

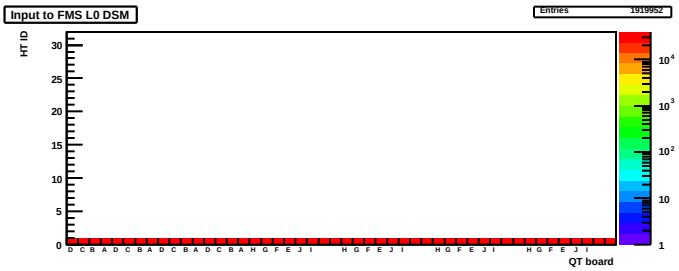

Input to FMS L0 DSM
Entries 319992
QT8(2) sum - simulated
QT board

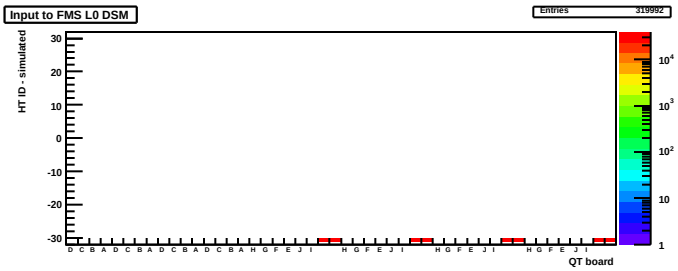

Input to FMS L0 DSM
Entries 1919952
QT8(3) sum
QT board

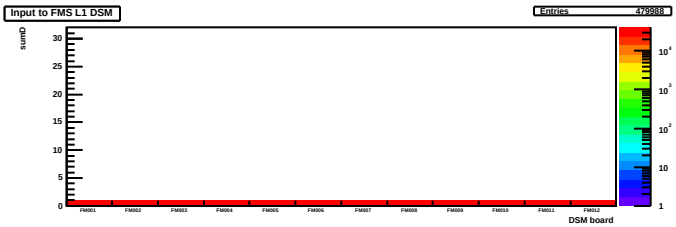

Input to FMS L0 DSM
Entries 319992
QT8(3) sum - simulated
QT board

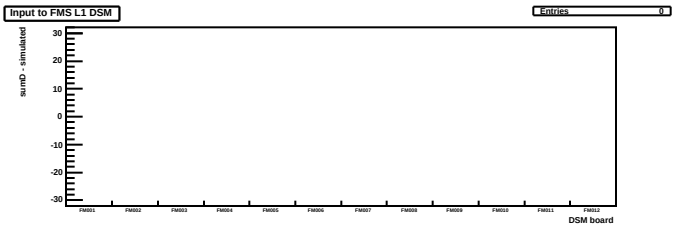

Input to FMS L0 DSM
Entries 1919952
HT ADC
QT board

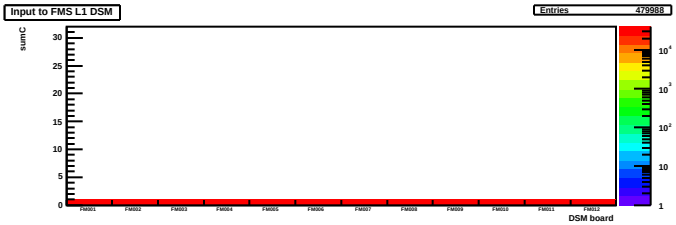

Input to FMS L0 DSM
Entries 319992
HT ADC - simulated
QT board

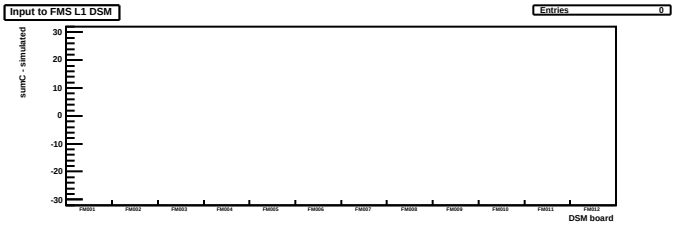

Input to FMS L0 DSM
Entries 1919952
HT ID
QT board

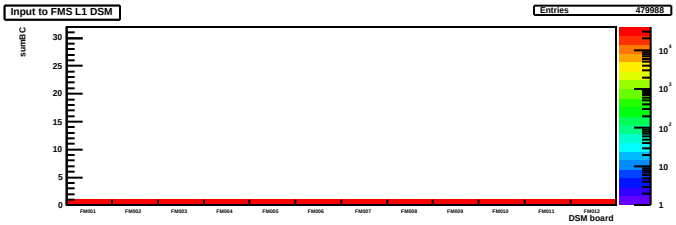

Input to FMS L0 DSM
Entries 319992
HT ID - simulated
QT board

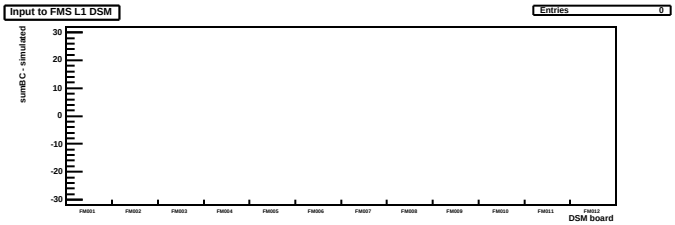

Input to FMS L1 DSM
Entries 479988
sumD
DSM board

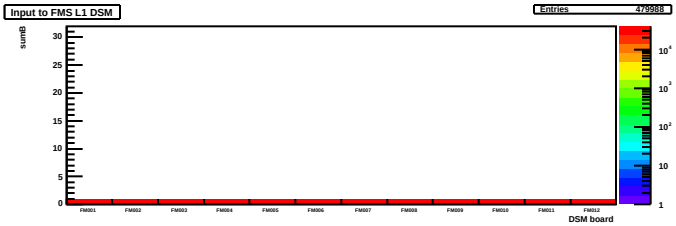

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

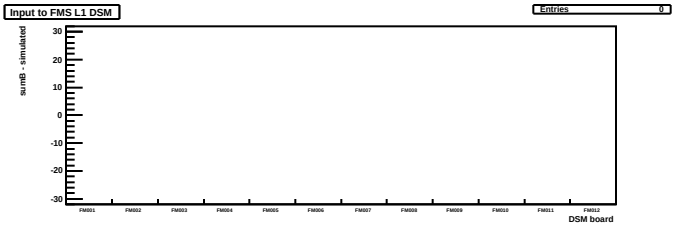

Input to FMS L1 DSM
Entries 479988
sumC
DSM board

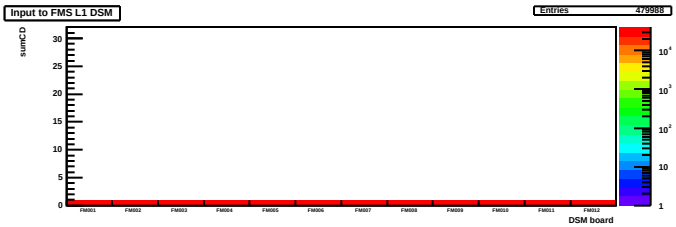

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

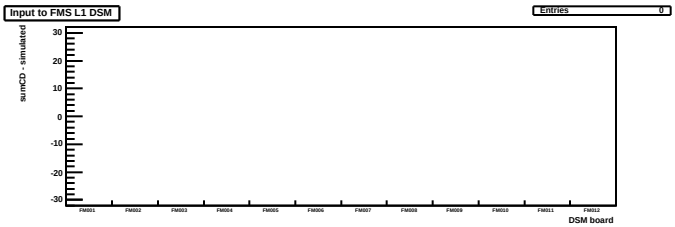

Input to FMS L1 DSM
Entries 479988
sumBC
DSM board

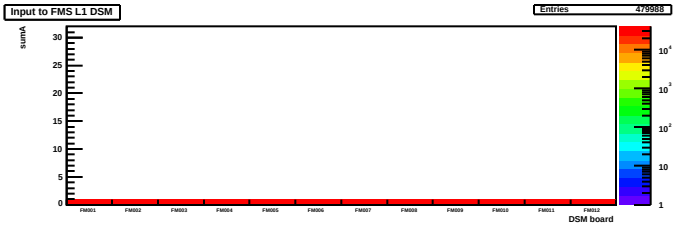

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

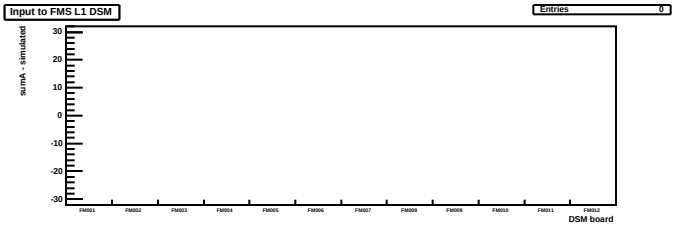

Input to FMS L1 DSM
Entries 479988
sumB
DSM board

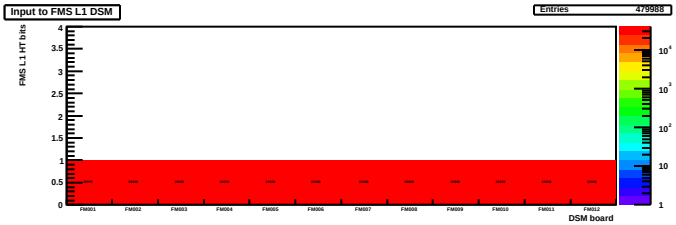

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

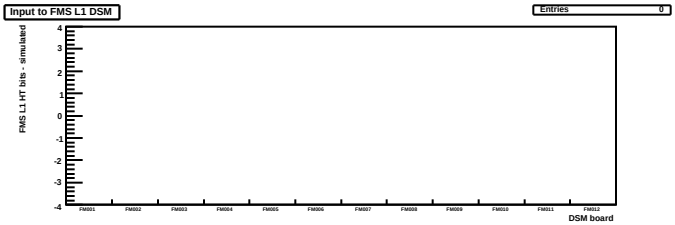

Input to FMS L1 DSM
Entries 479988
sumCD
DSM board

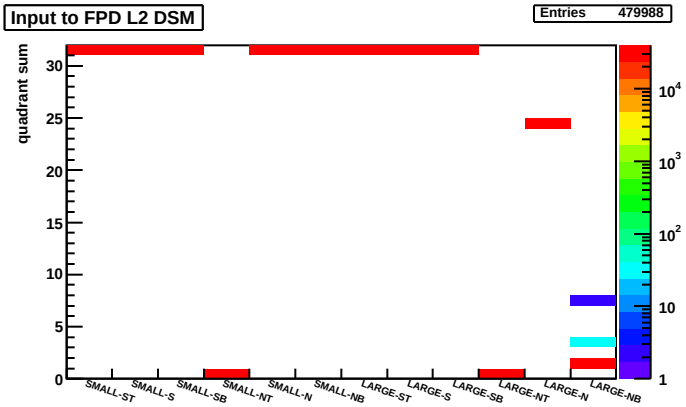

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

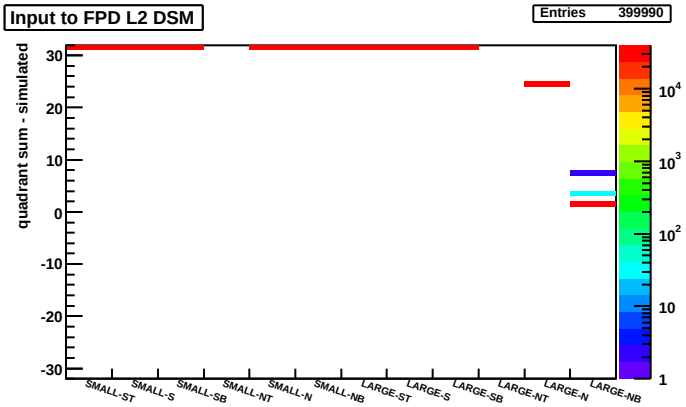

Input to FMS L1 DSM
Entries 479988
sumA
DSM board

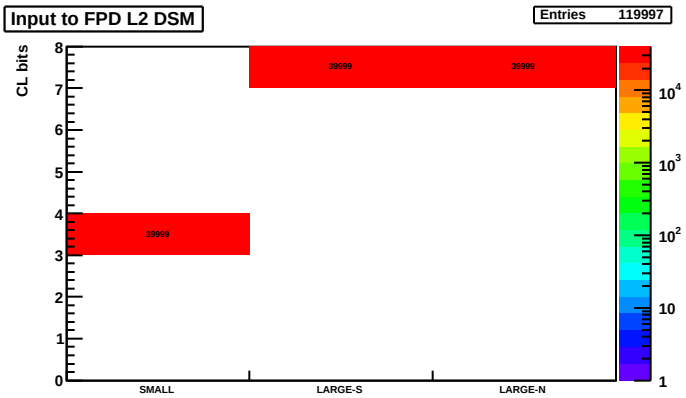

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

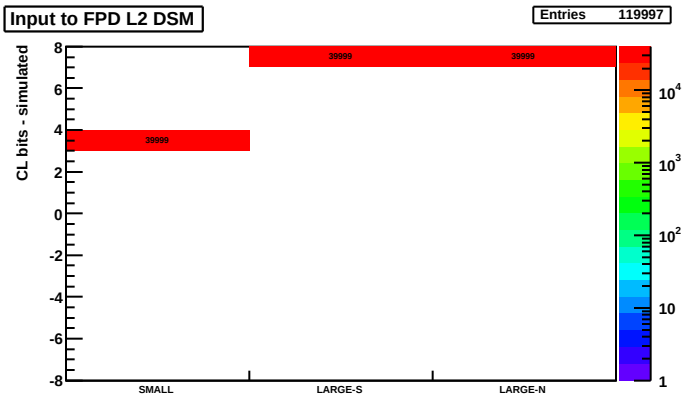

Input to FMS L1 DSM
Entries 479988
FMS L1 HT bits
DSM board

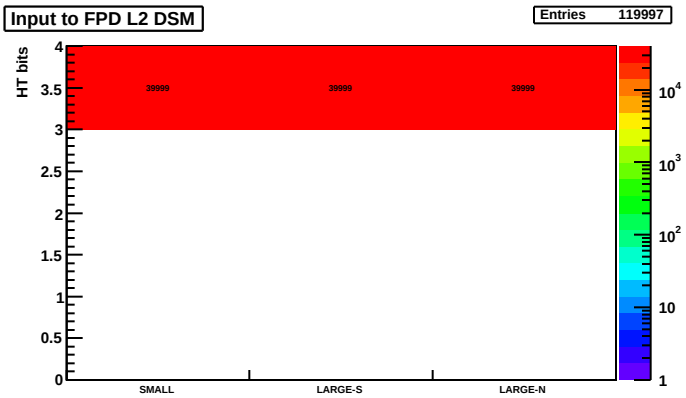

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

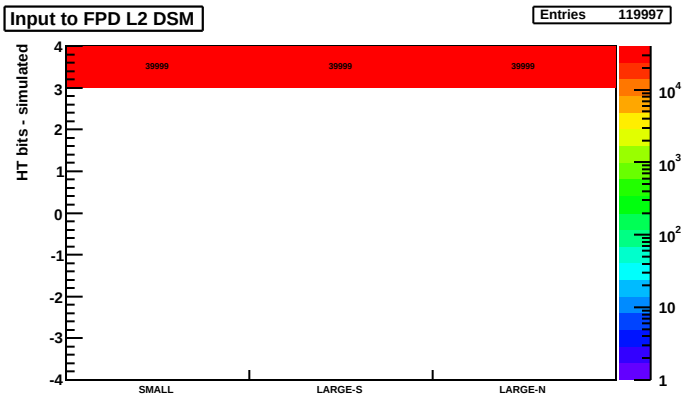

Input to FPD L2 DSM
Entries 479988
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

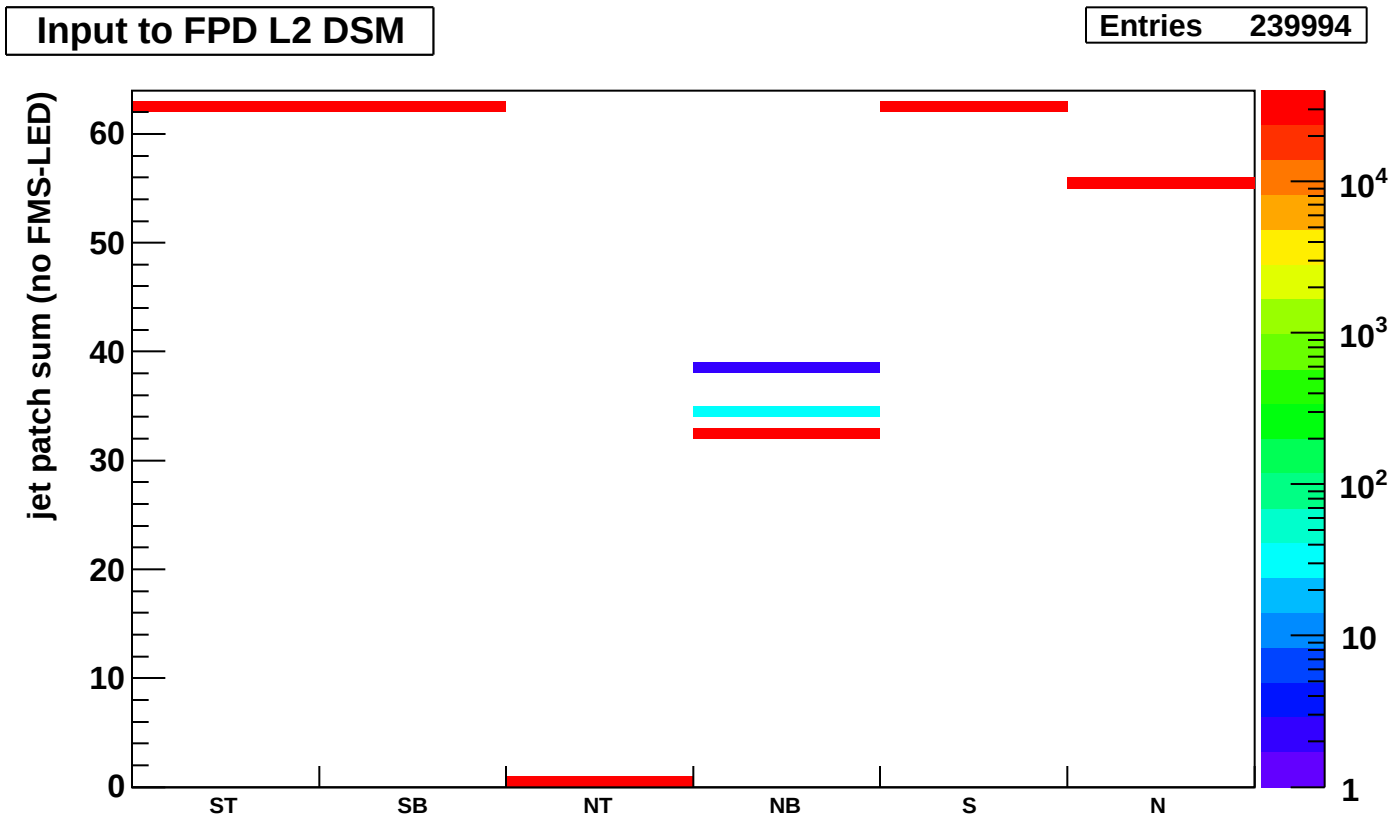

Input to FPD L2 DSM
Entries 399990
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

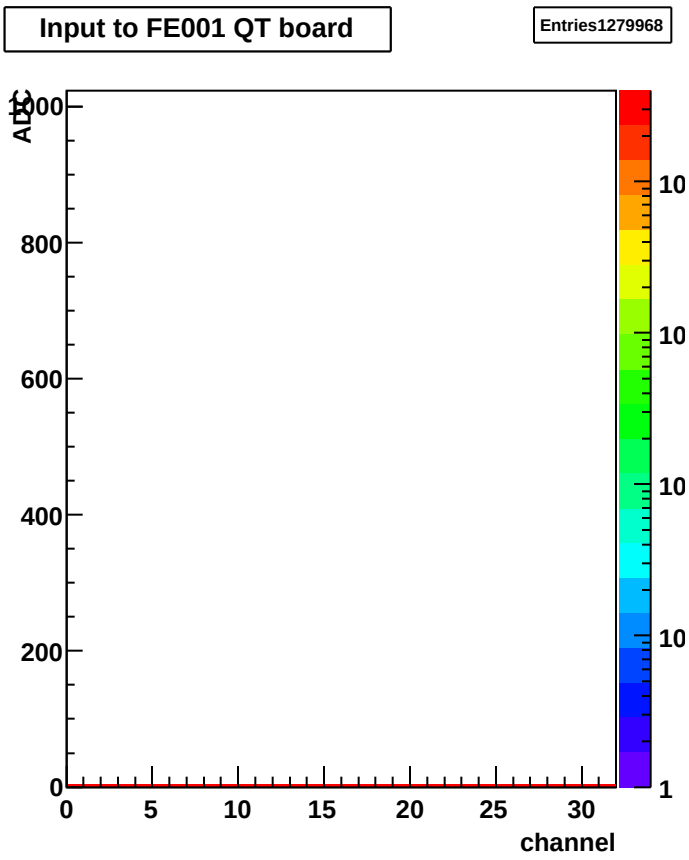

Input to FPD L2 DSM
Entries 119997
CL bits
39999
39999
39999
SMALL
LARGE-S
LARGE-N

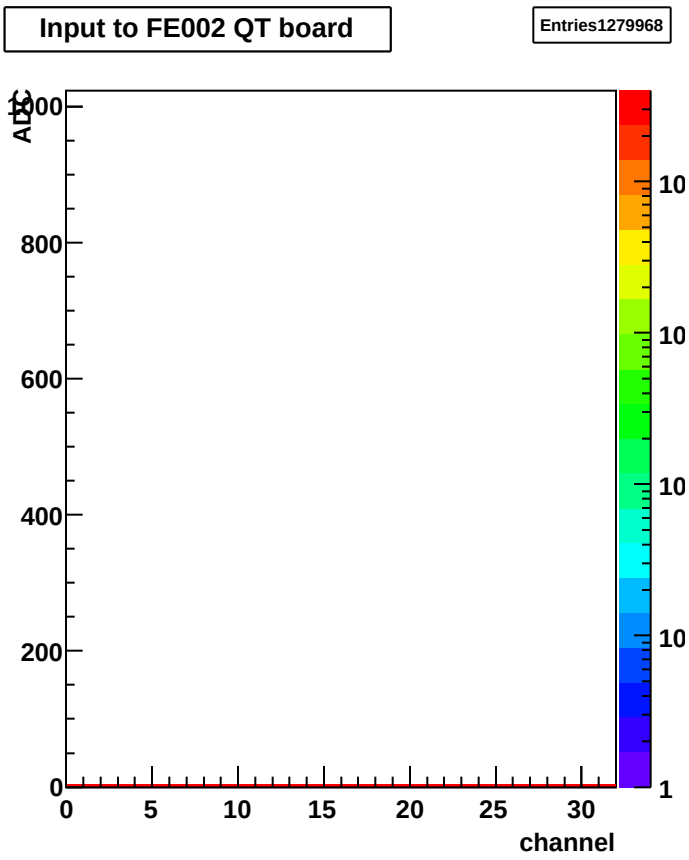

Input to FPD L2 DSM
Entries 119997
CL bits - simulated
39999
39999
39999
SMALL
LARGE-S
LARGE-N

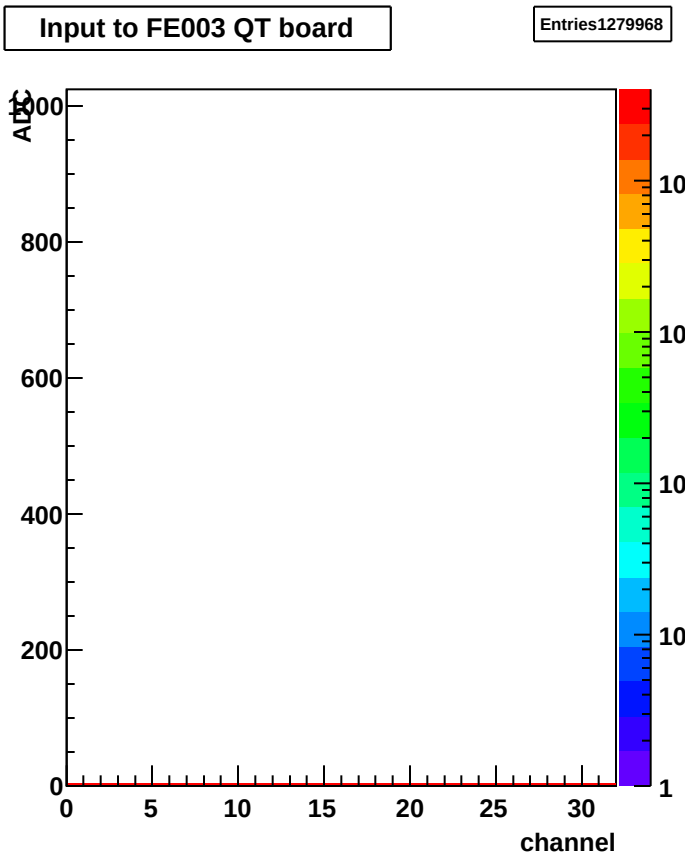

Input to FPD L2 DSM
Entries 119997
HT bits
39999
39999
39999
SMALL
LARGE-S
LARGE-N

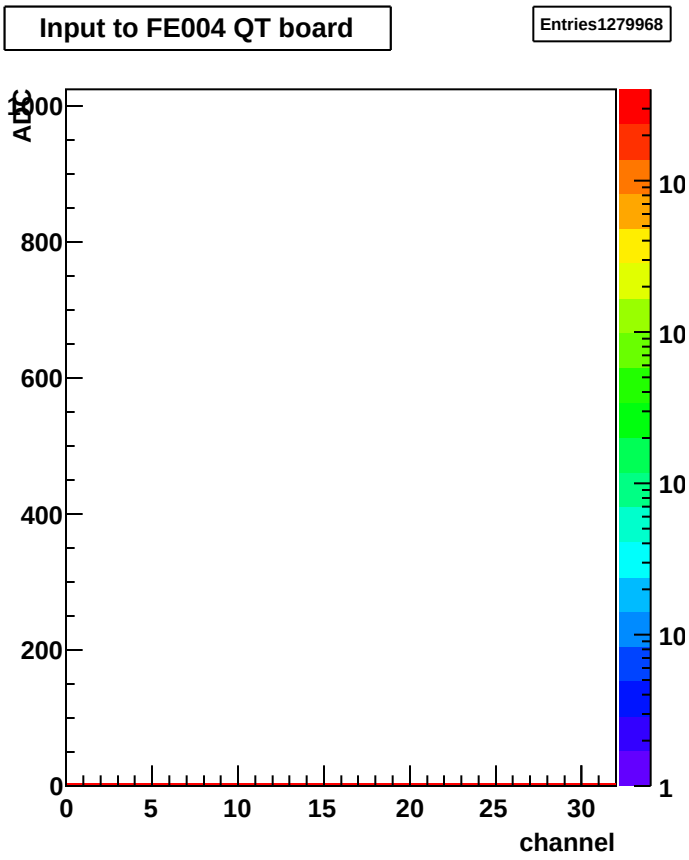

Input to FPD L2 DSM
Entries 119997
HT bits - simulated
39999
39999
39999
SMALL
LARGE-S
LARGE-N

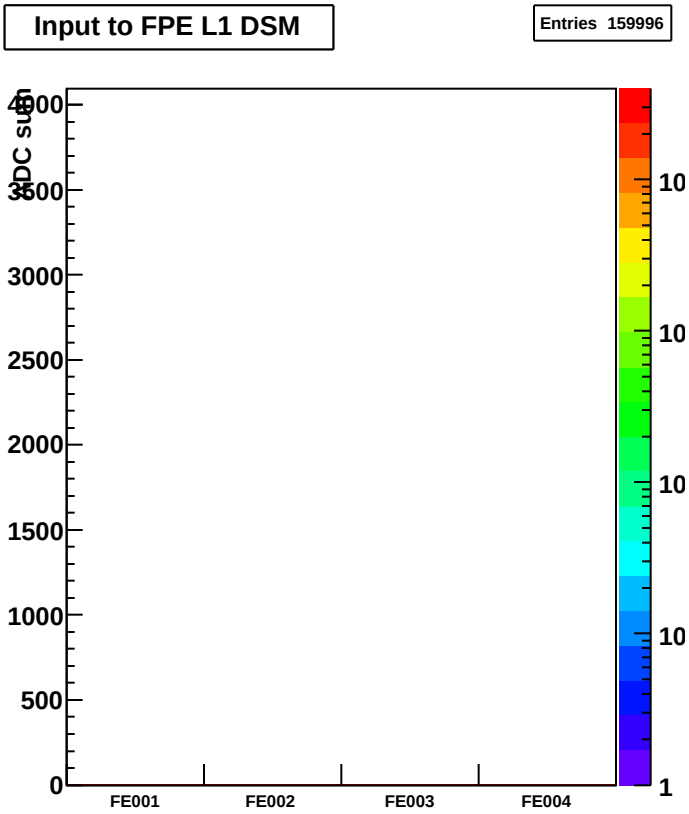

Input to FPD L2 DSM
Entries 239994
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

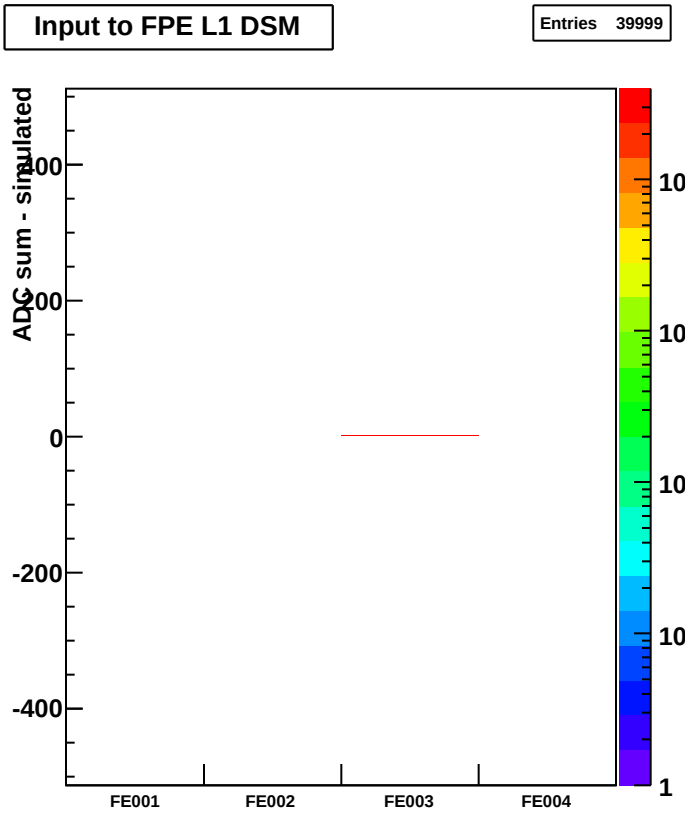

Input to FE001 QT board
Entries1279968
ADC
channel

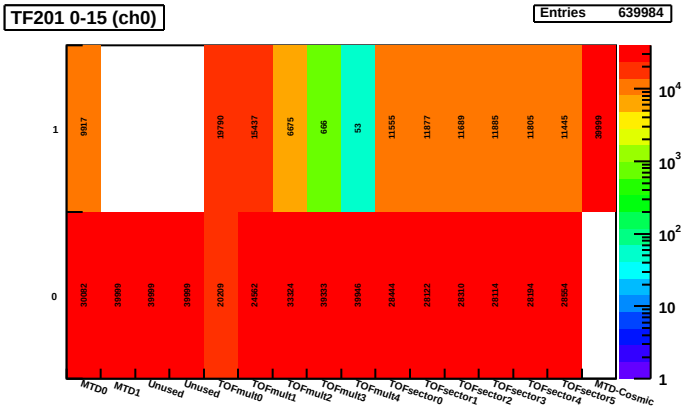

Input to FE002 QT board
Entries1279968
ADC
channel

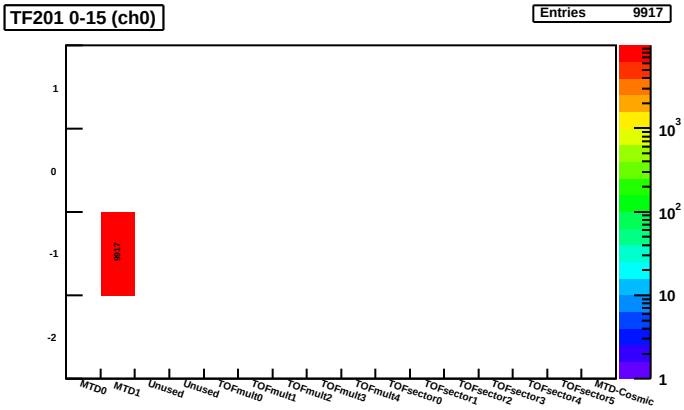

Input to FE003 QT board
Entries1279968
ADC
channel

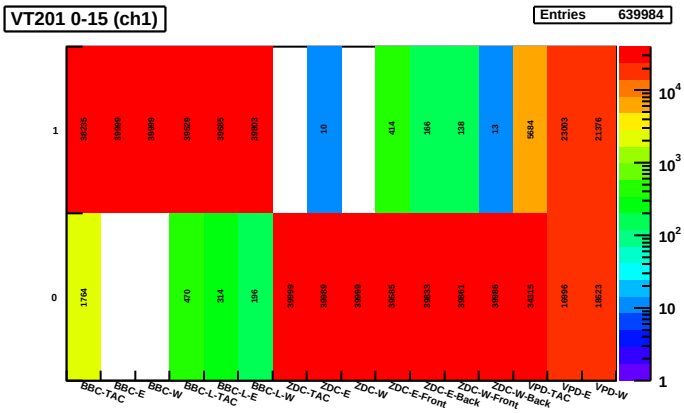

Input to FE004 QT board
Entries1279968
ADC
channel

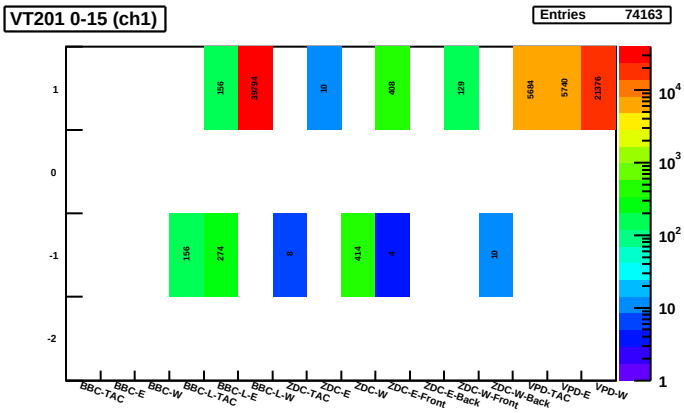

Input to FPE L1 DSM
Entries 159996
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 39999
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 639984
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 9917
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 639984
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 74163
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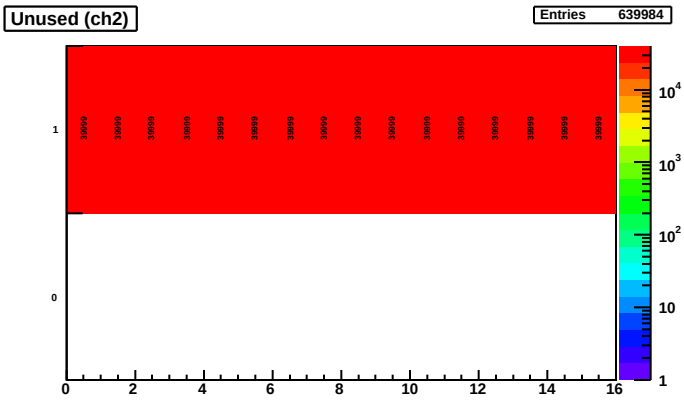
Unused (ch2)
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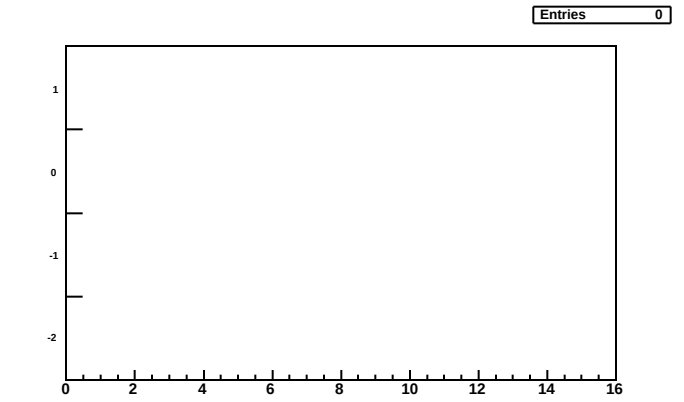
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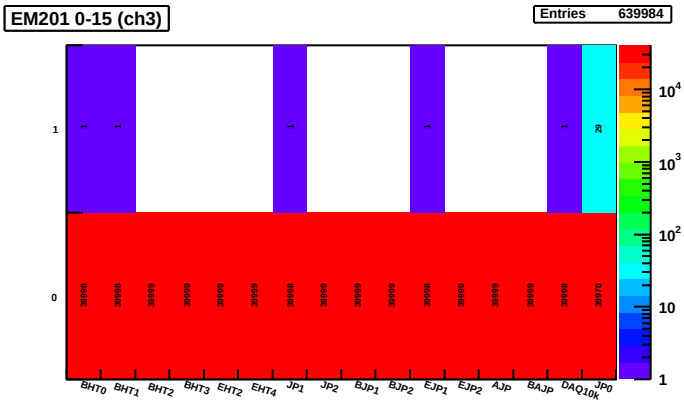
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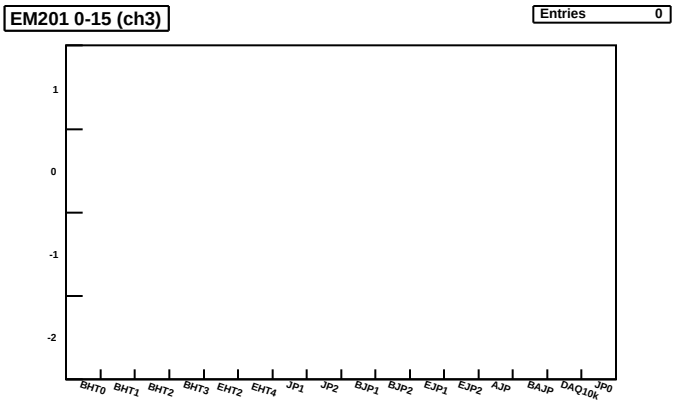
EM201 0-15 (ch3)
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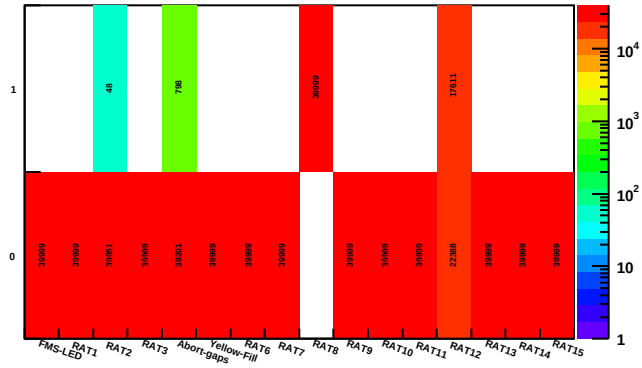
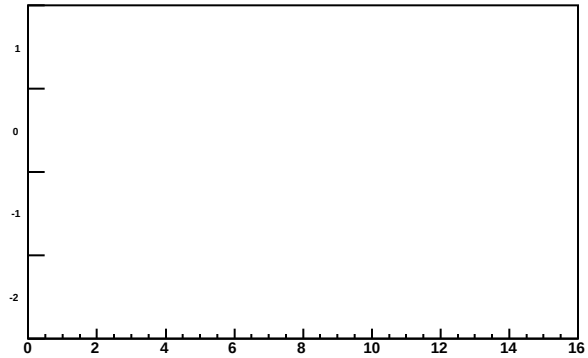
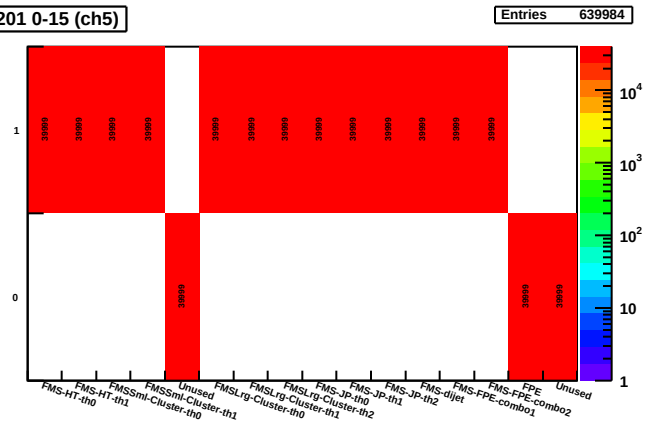
RAT board (ch4)

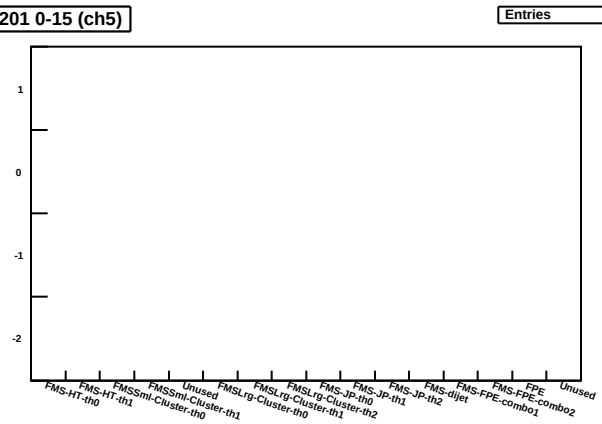




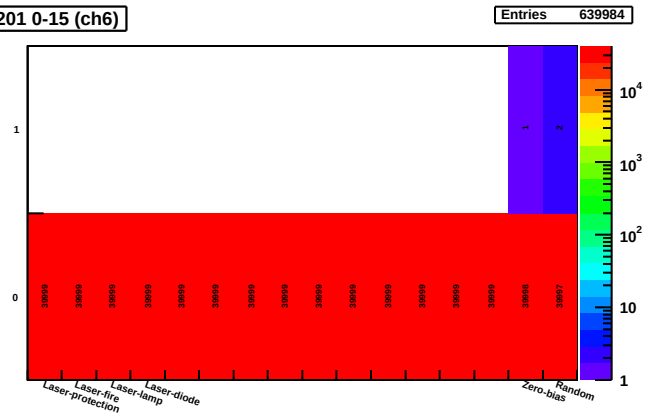
FP201 0-15 (ch5)

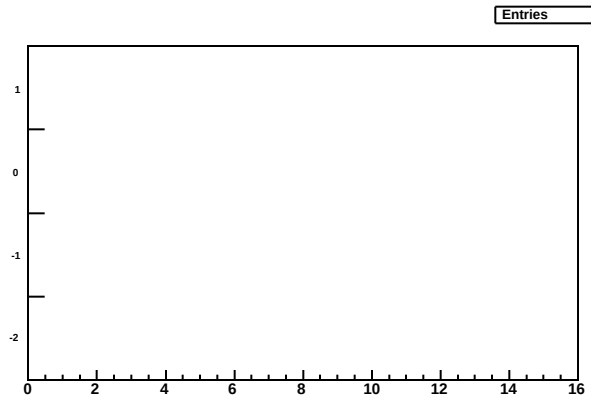
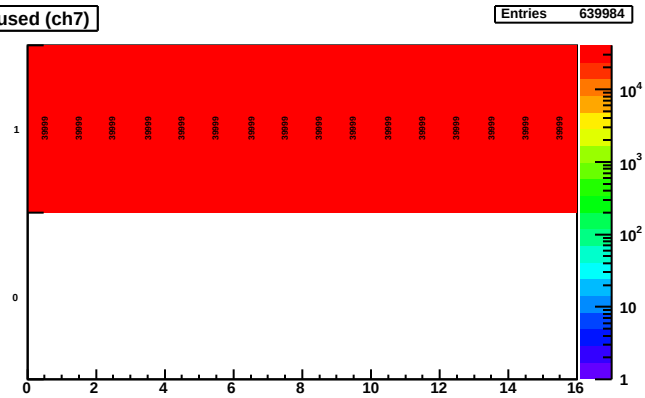
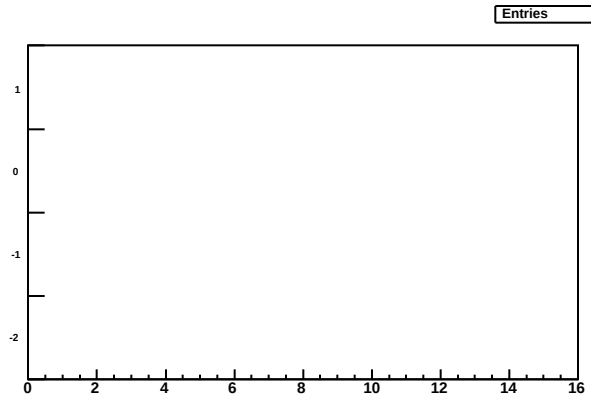


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)