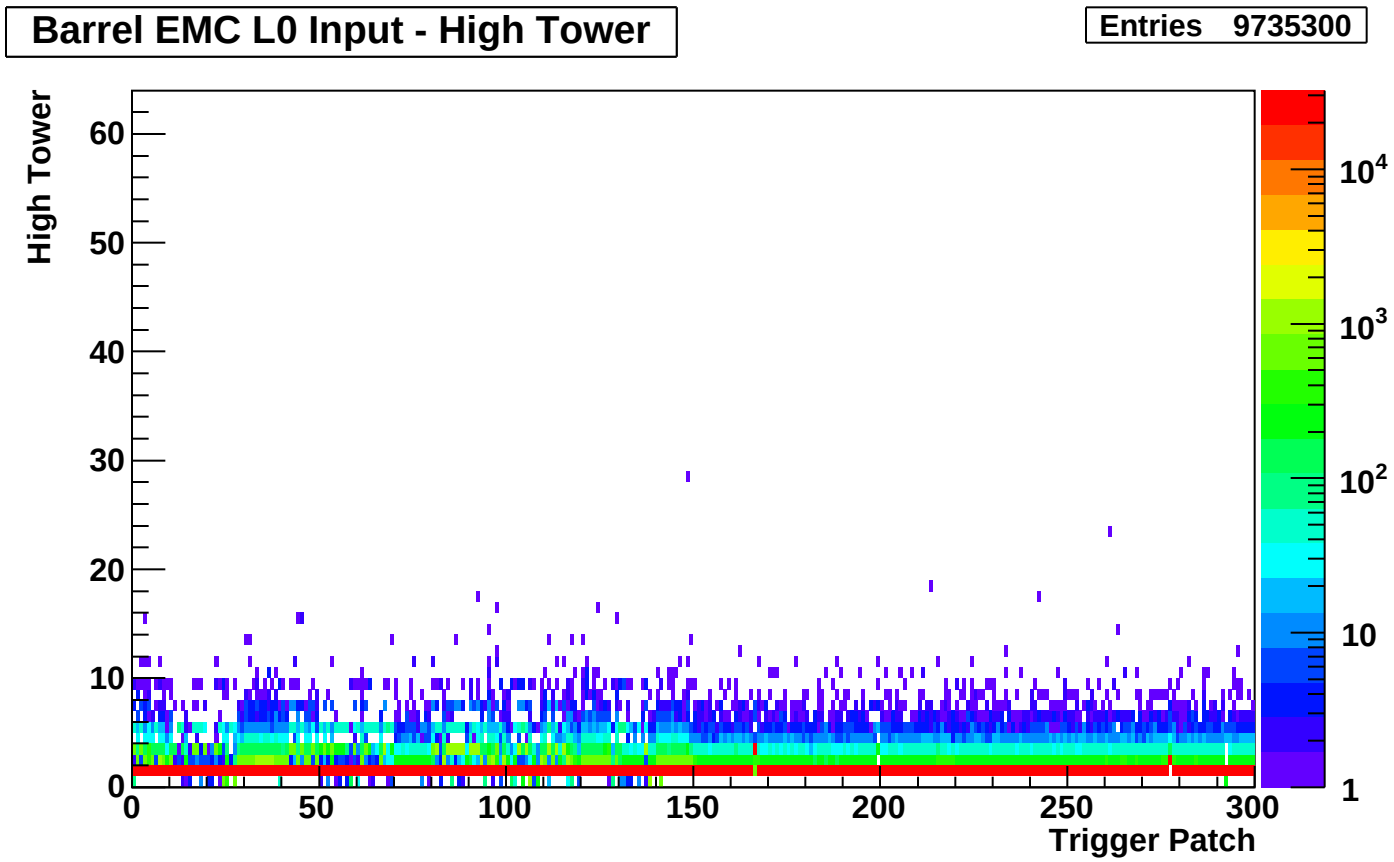
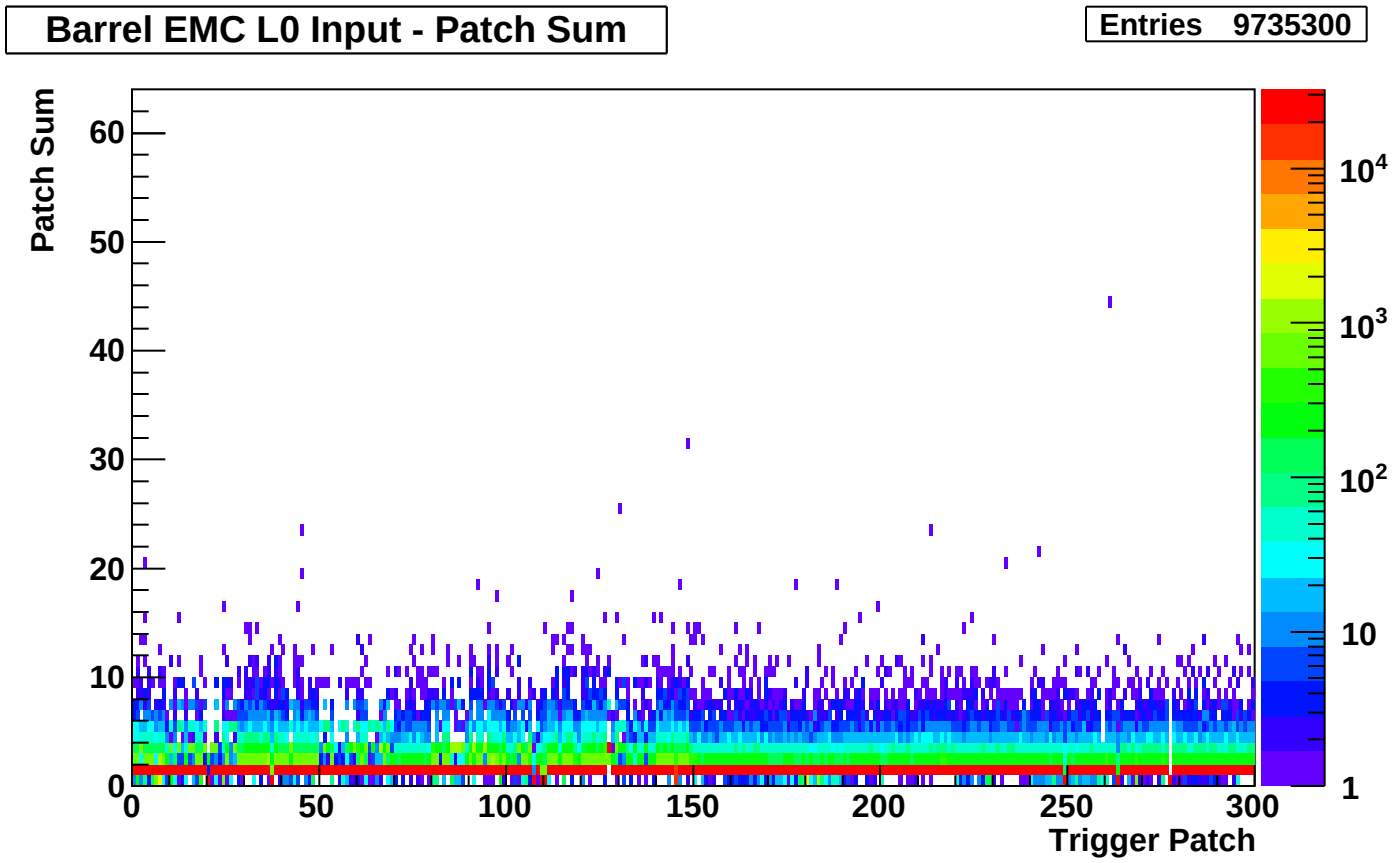
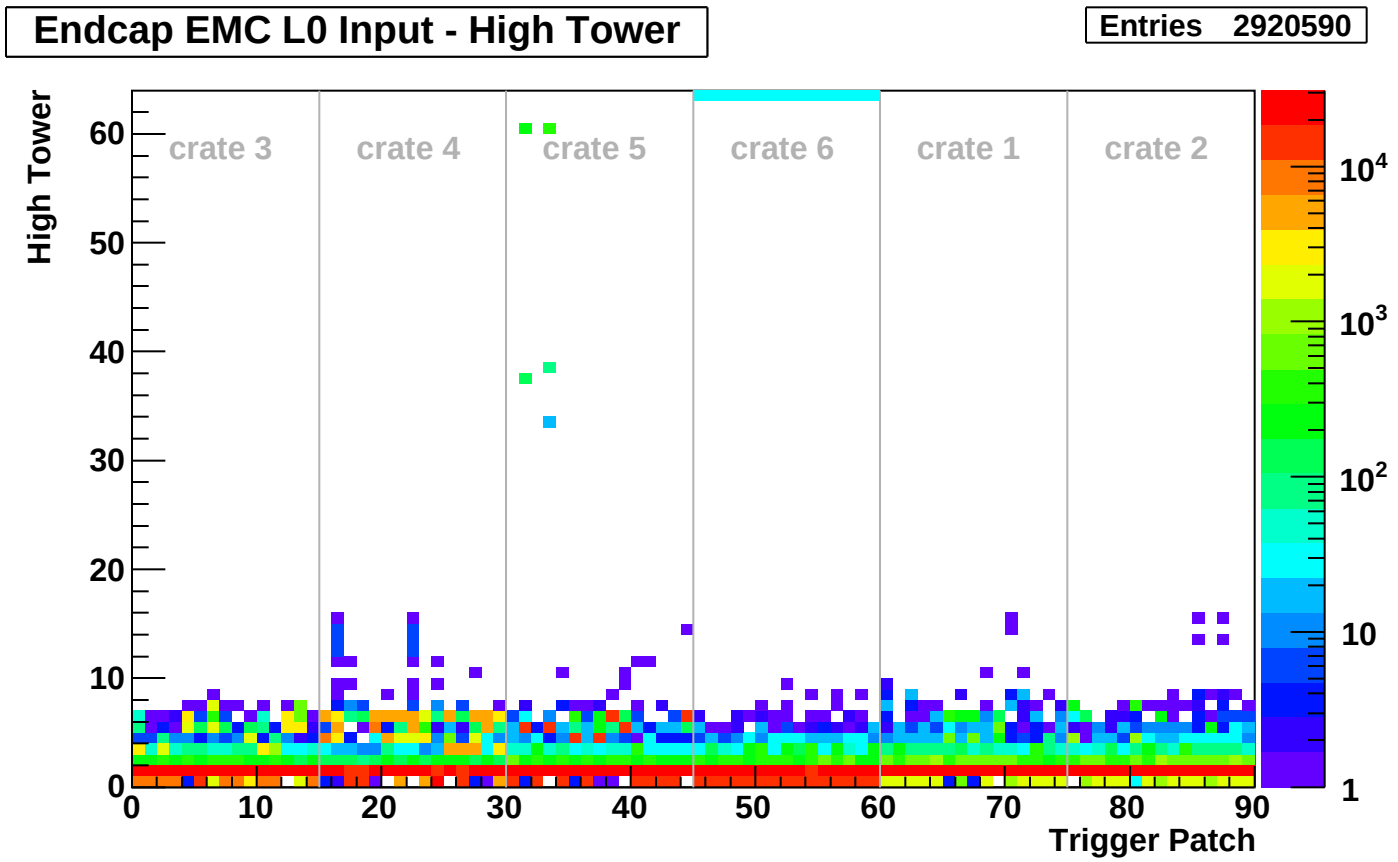
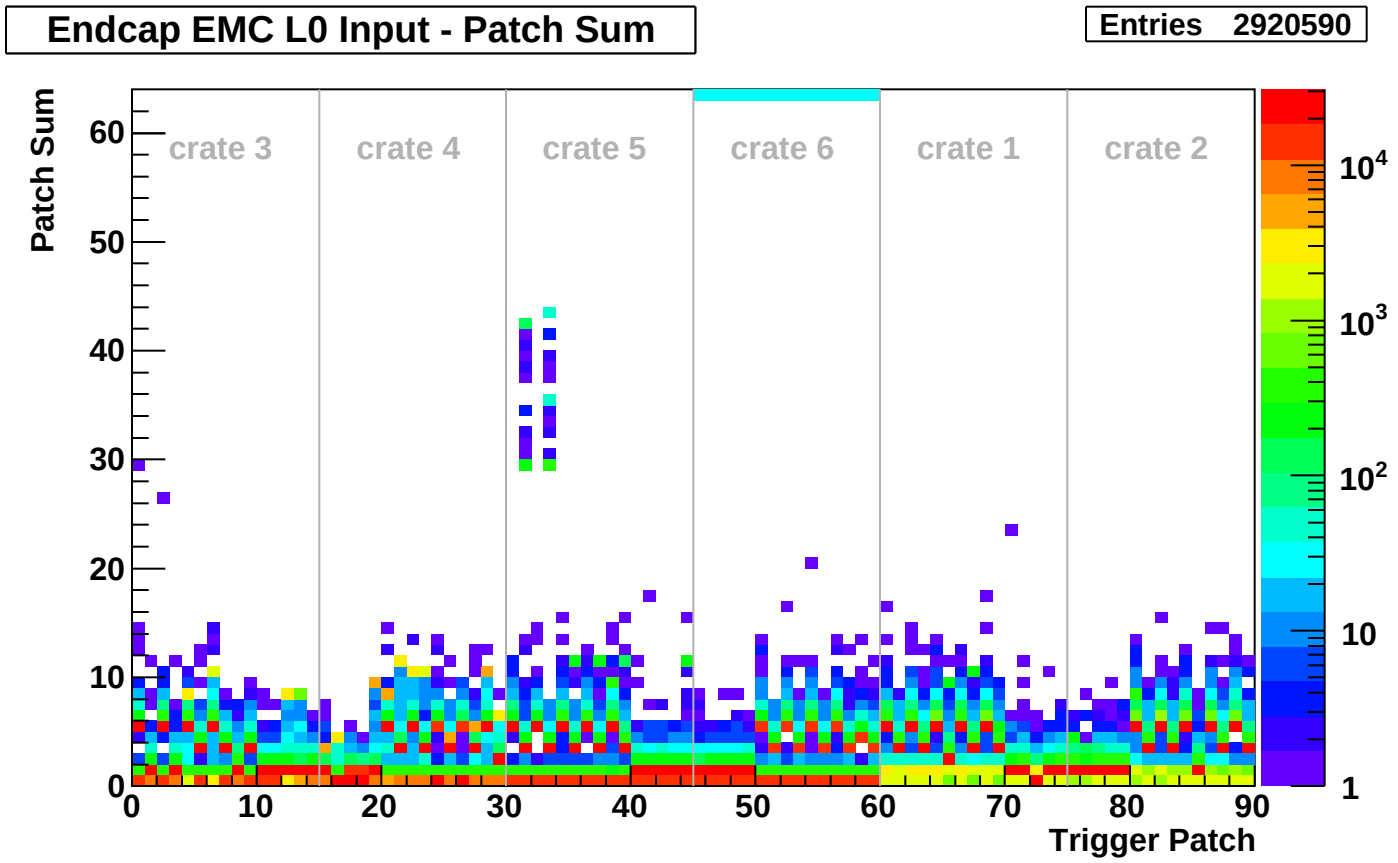
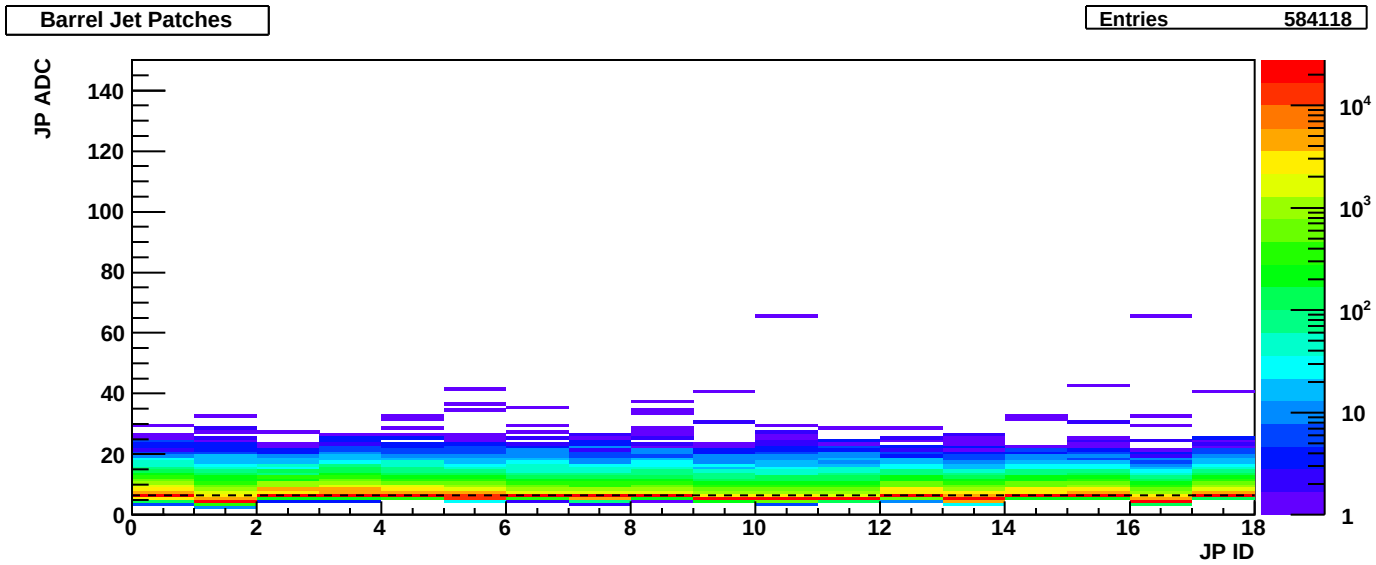
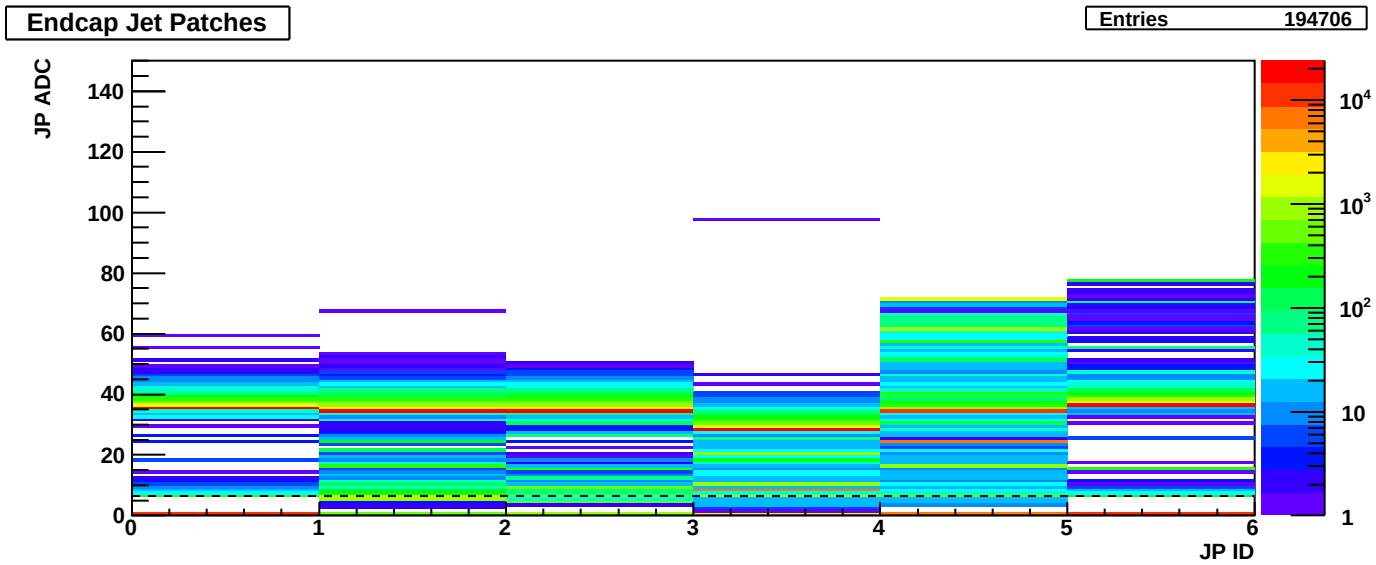

Barrel EMC L0 Input - High Tower
Entries 9735300
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

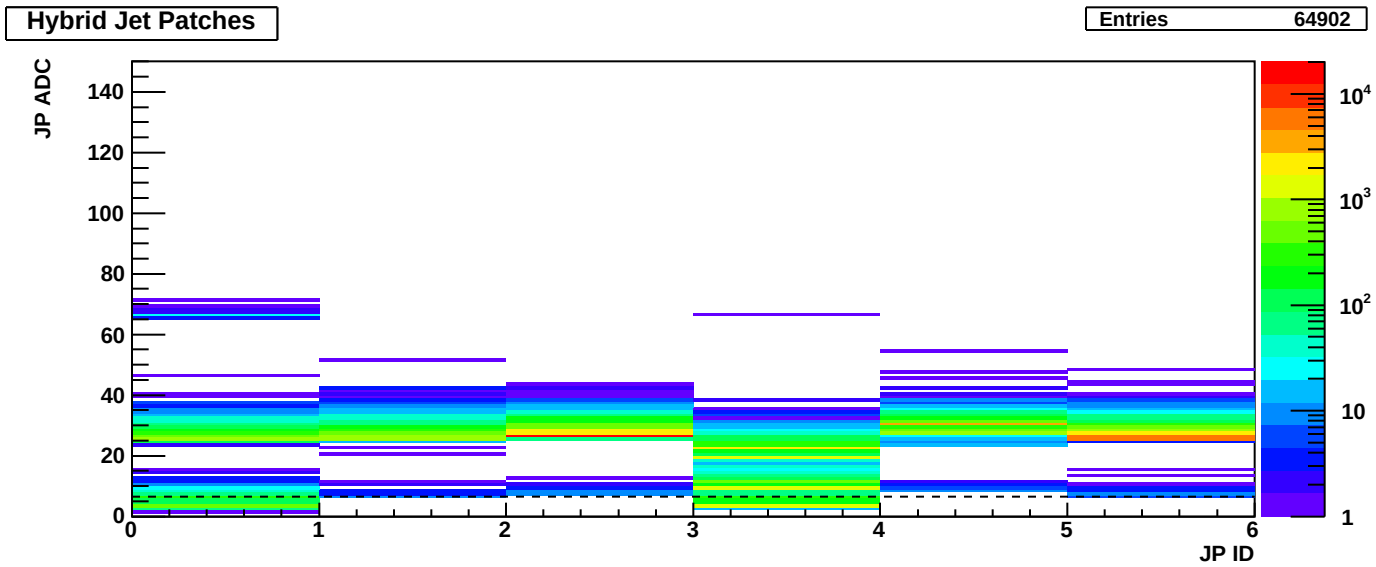

Barrel EMC L0 Input - Patch Sum
Entries 9735300
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

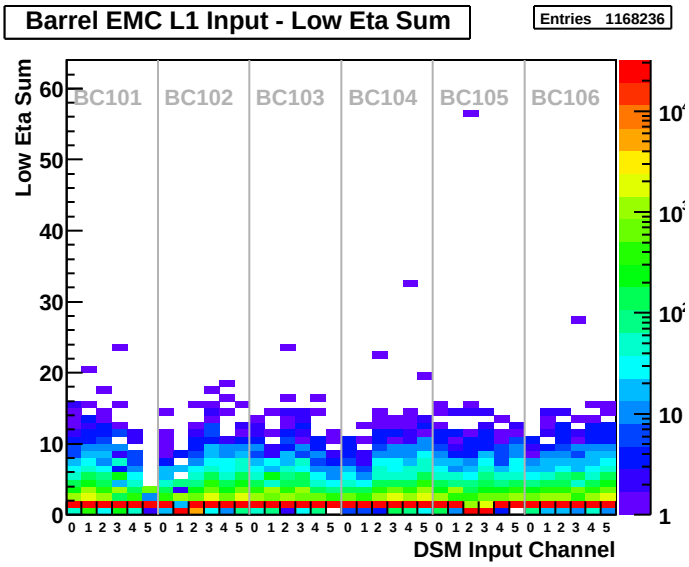

Endcap EMC L0 Input - High Tower
Entries 2920590
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

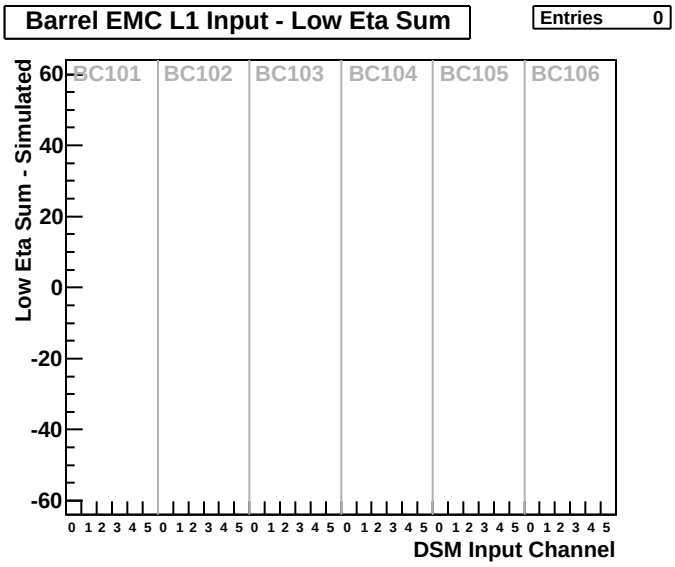

Endcap EMC L0 Input - Patch Sum
Entries 2920590
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

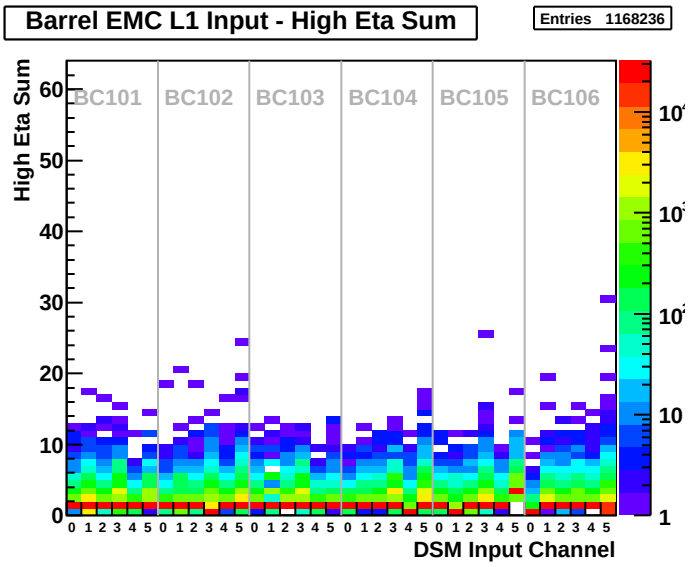

Barrel Jet Patches
Entries 584118
JP ADC
JP ID

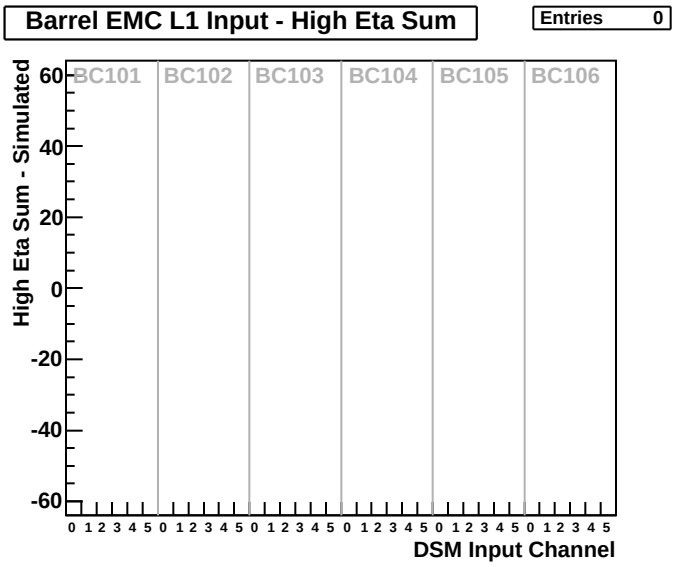

Endcap Jet Patches
Entries 194706
JP ADC
JP ID

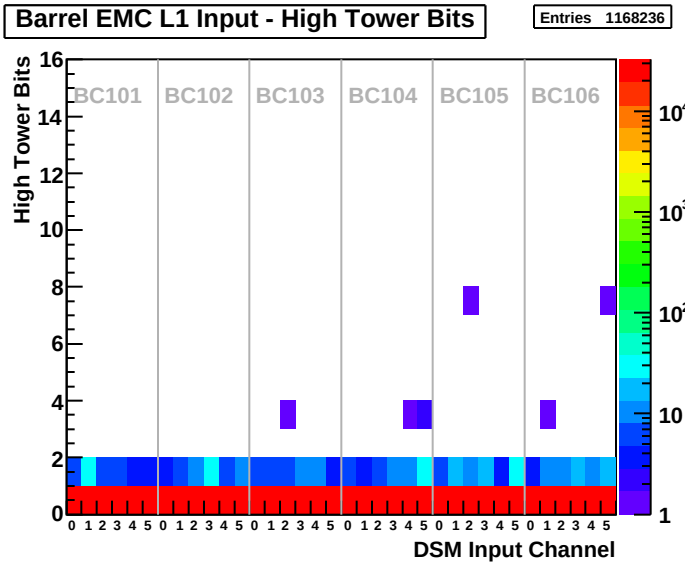

Hybrid Jet Patches
Entries 64902
JP ADC
JP ID

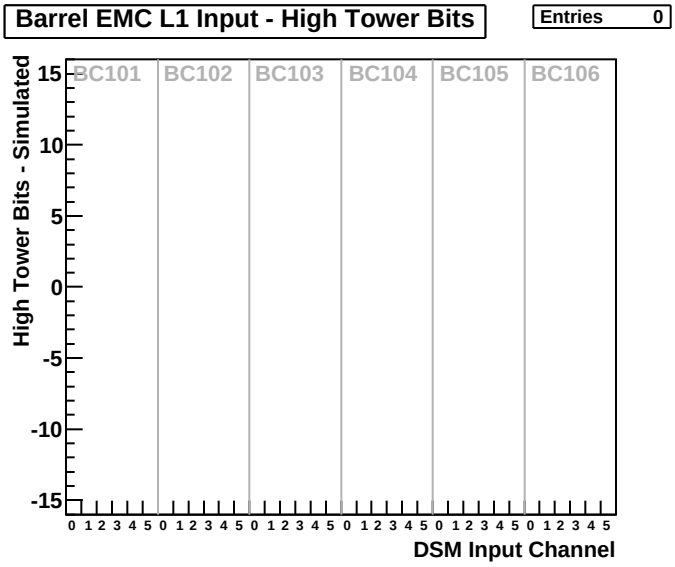

Barrel EMC L1 Input - Low Eta Sum
Entries 1168236
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

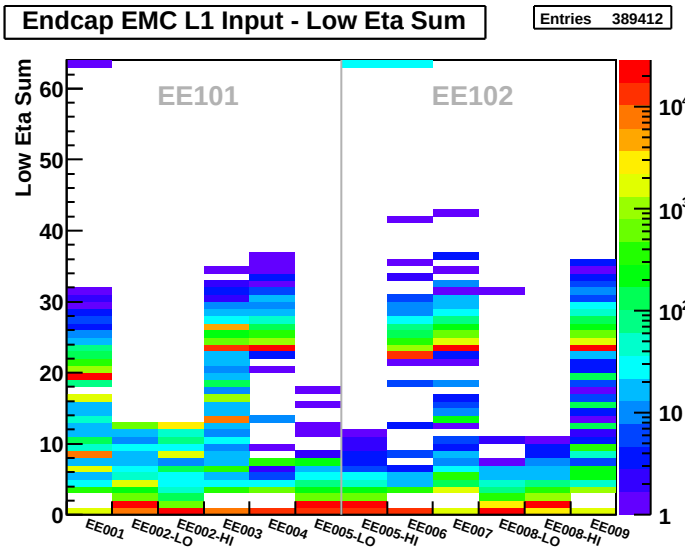

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

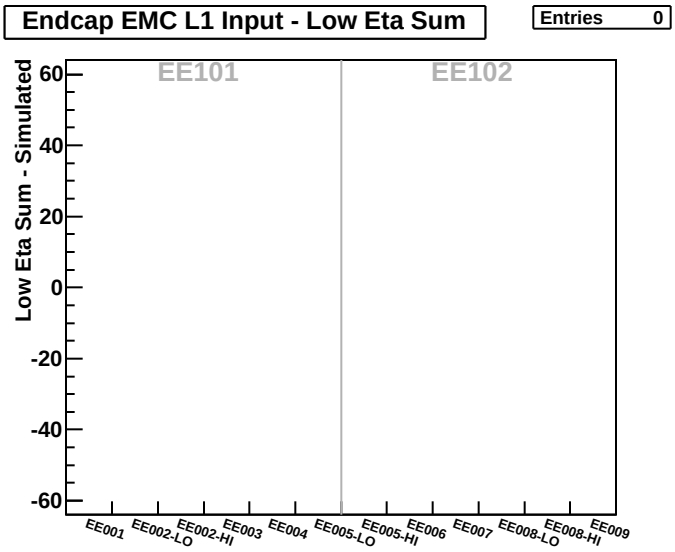

Barrel EMC L1 Input - High Eta Sum
Entries 1168236
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

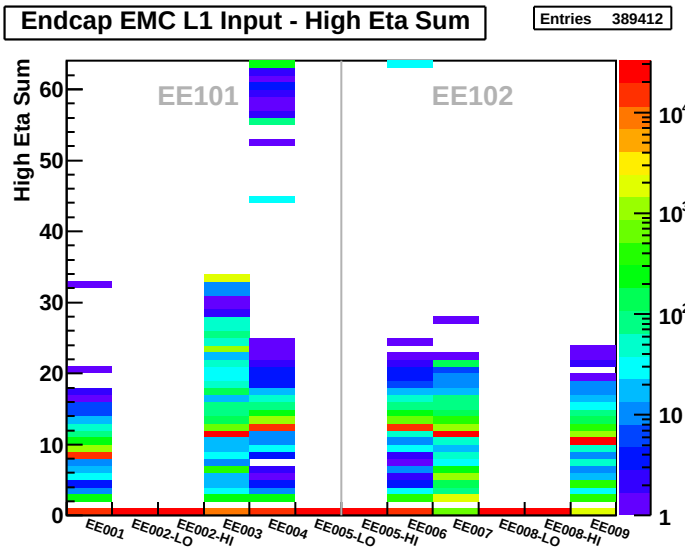

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

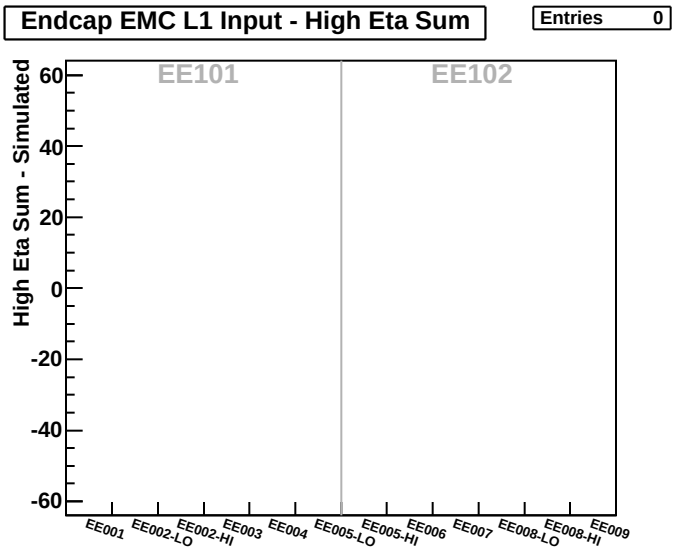

Barrel EMC L1 Input - High Tower Bits
Entries 1168236
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

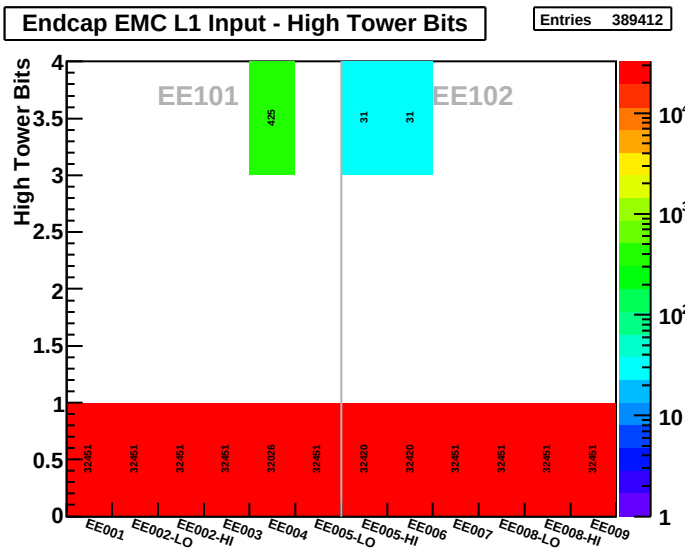

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

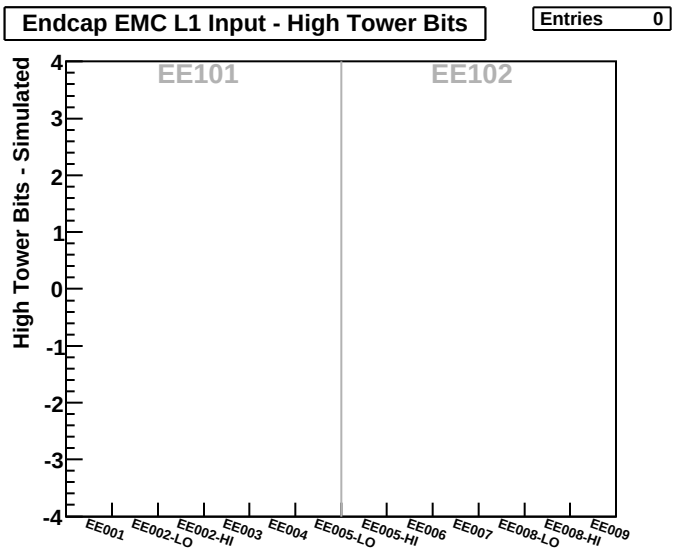

Endcap EMC L1 Input - Low Eta Sum
Entries 389412
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

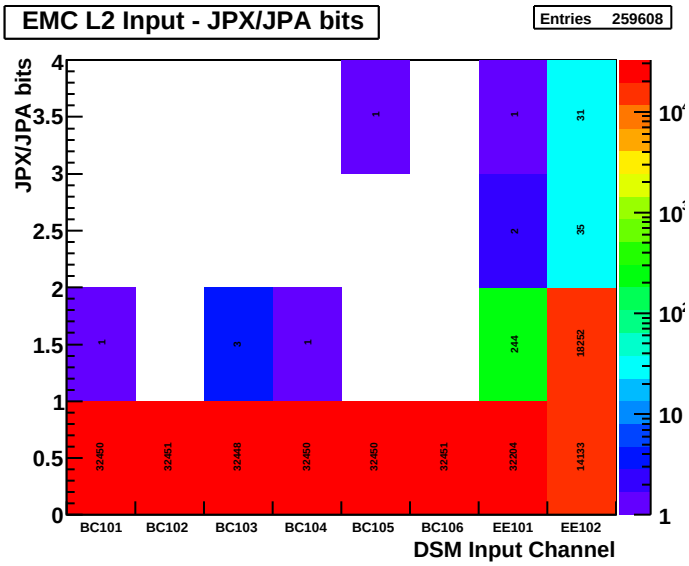

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

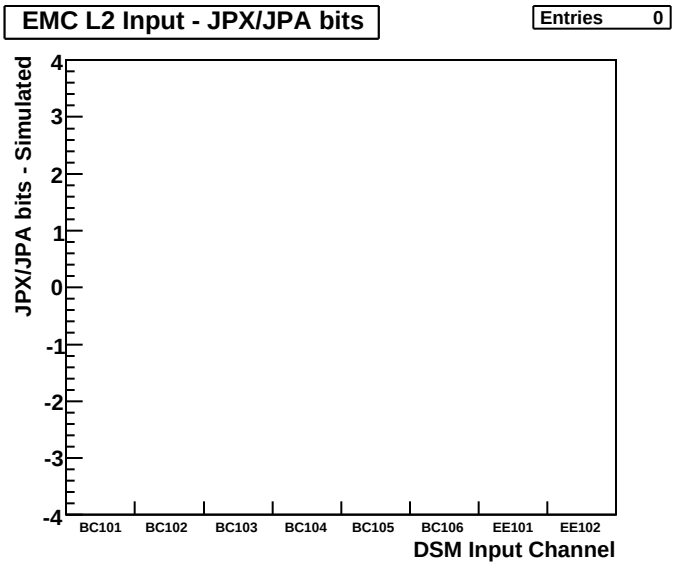

Endcap EMC L1 Input - High Eta Sum
Entries 389412
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

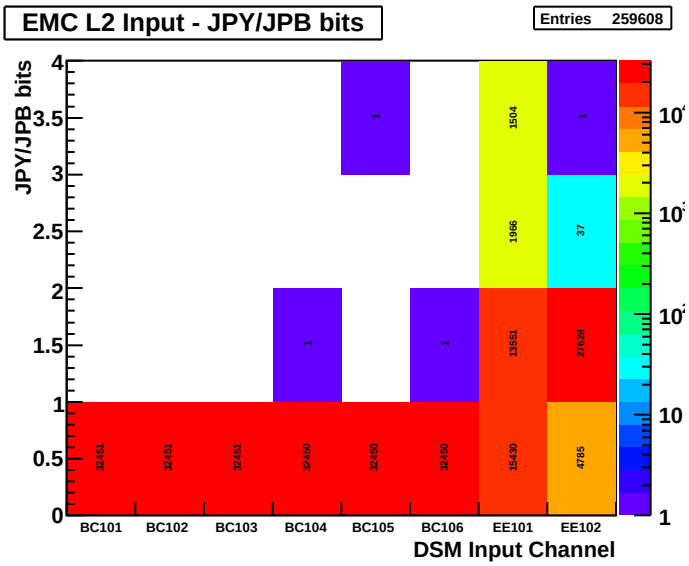

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

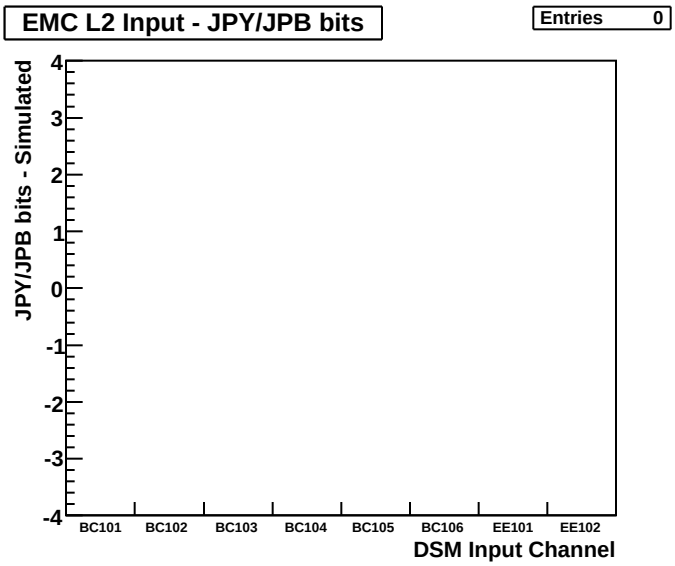

Endcap EMC L1 Input - High Tower Bits
Entries 389412
High Tower Bits
EE101
EE102
425
31
31
32451 32451 32451 32451 32026 32451 32420 32420 32451 32451 32451 32451
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

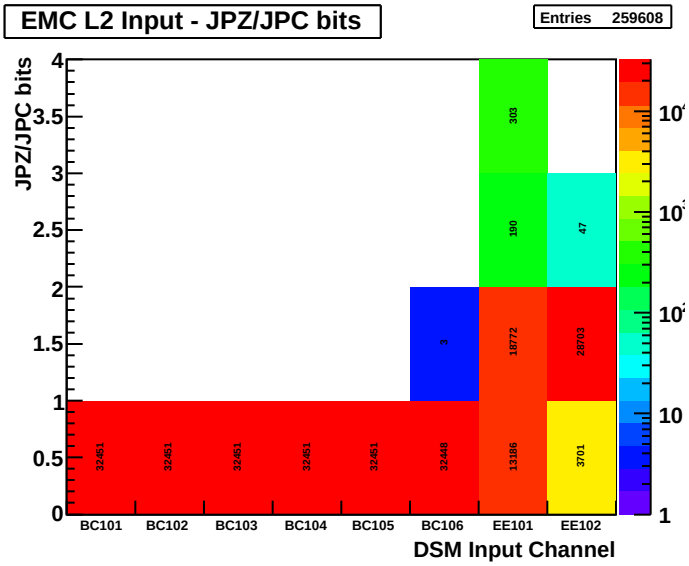

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

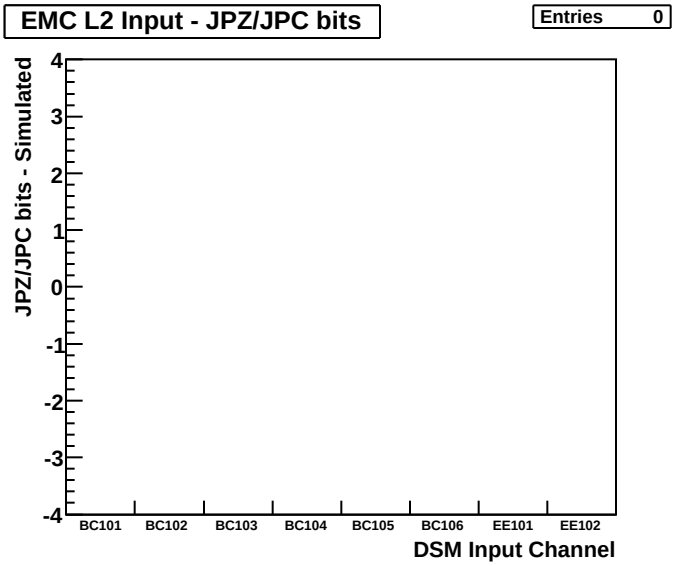

EMC L2 Input - JPX/JPA bits
Entries 259608
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

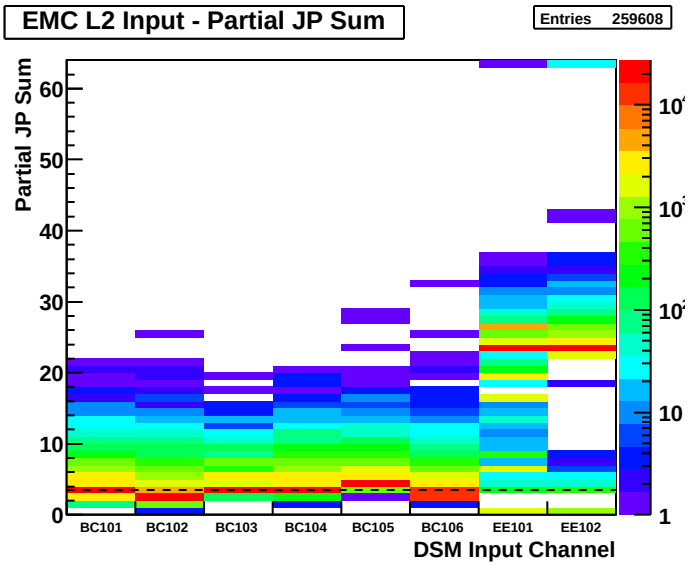

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

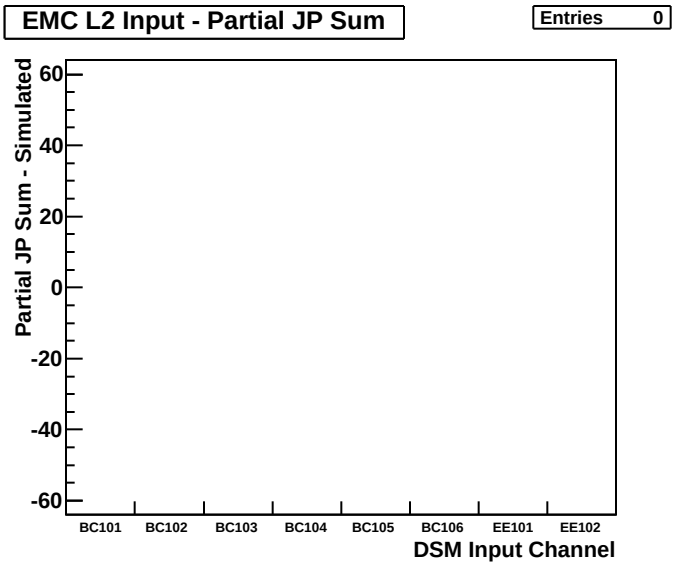

EMC L2 Input - JPY/JPB bits
Entries 259608
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

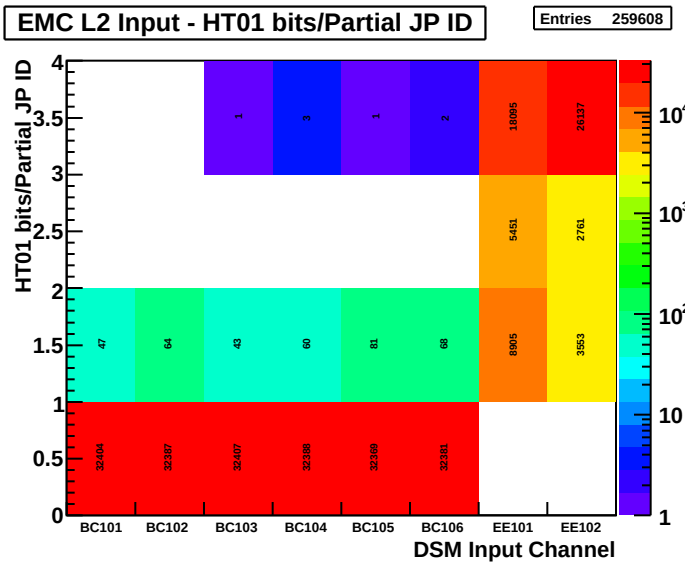

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

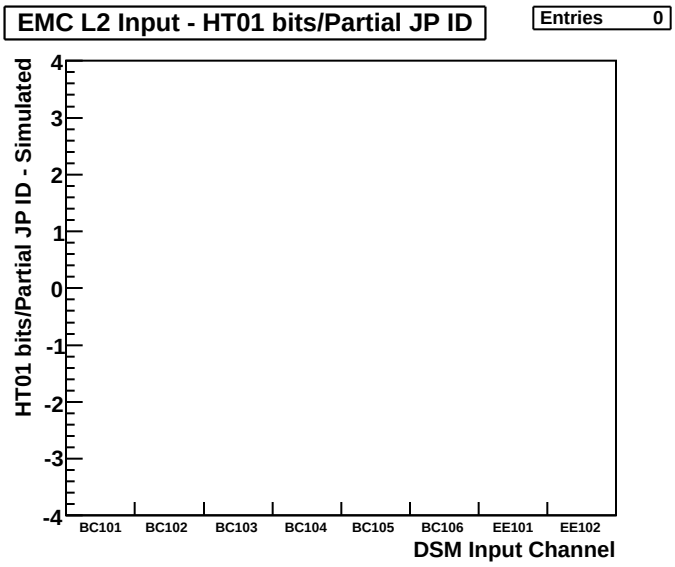

EMC L2 Input - JPZ/JPC bits
Entries 259608
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

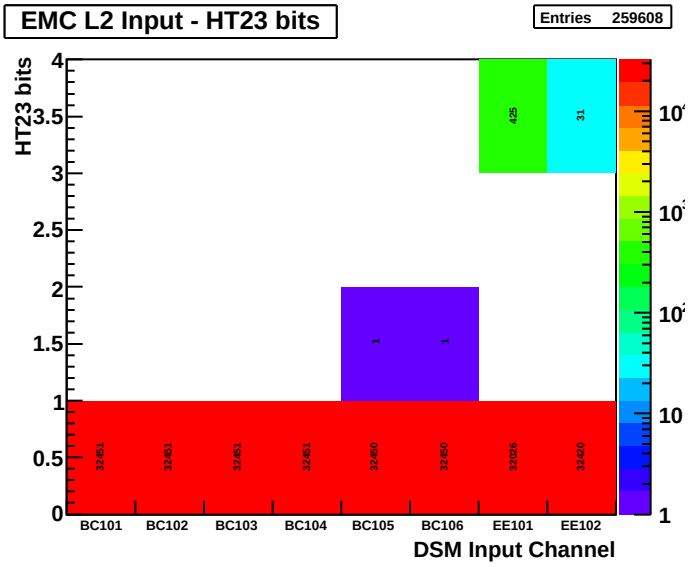

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

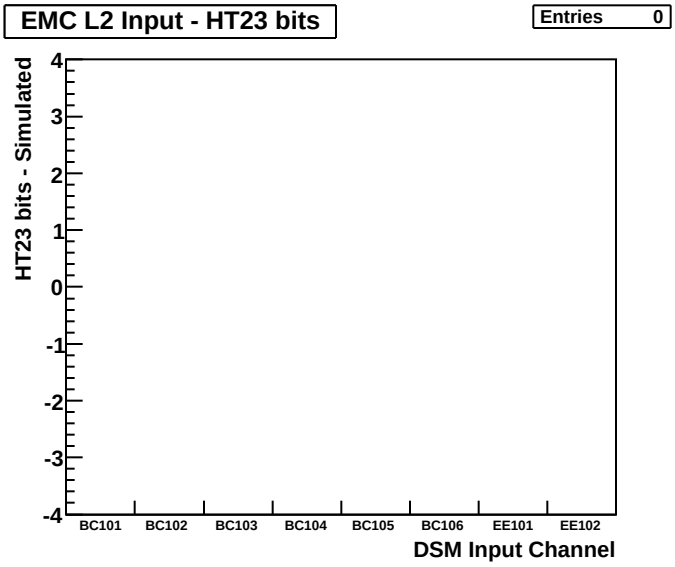

EMC L2 Input - Partial JP Sum
Entries 259608
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

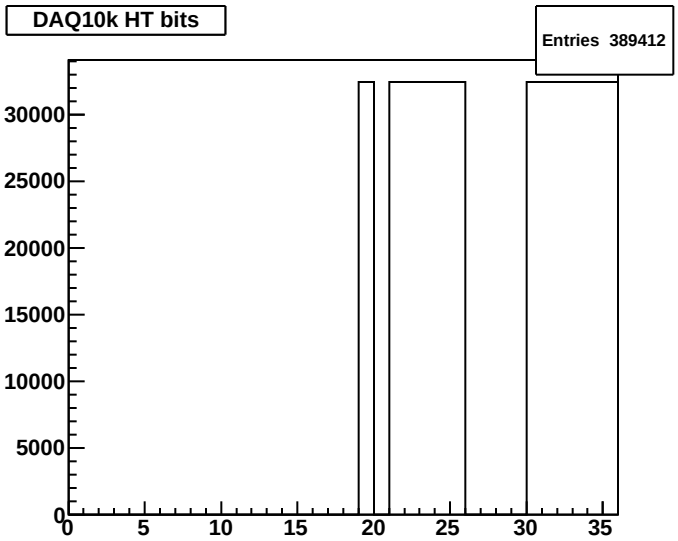

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

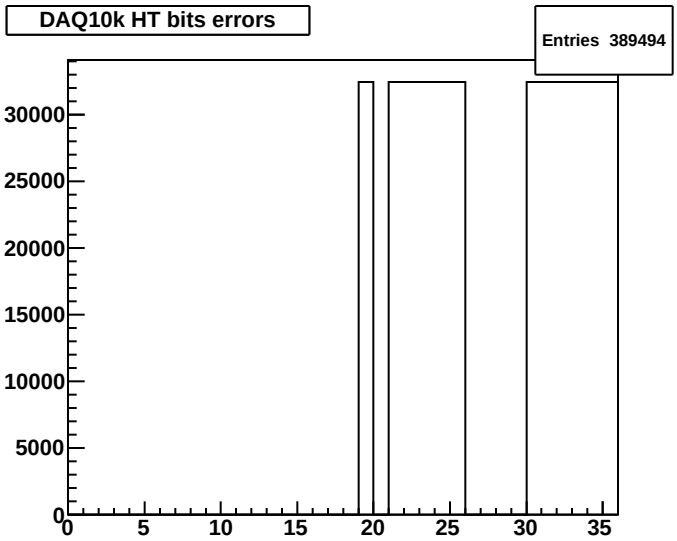

EMC L2 Input - HT01 bits/Partial JP ID
Entries 259608
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

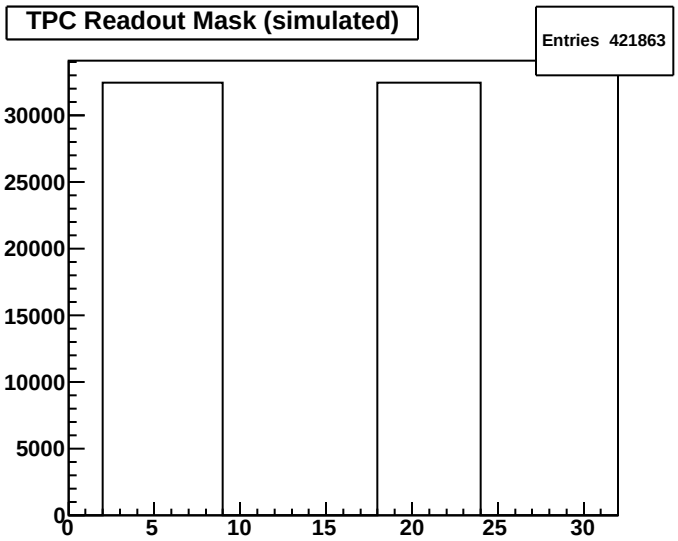

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

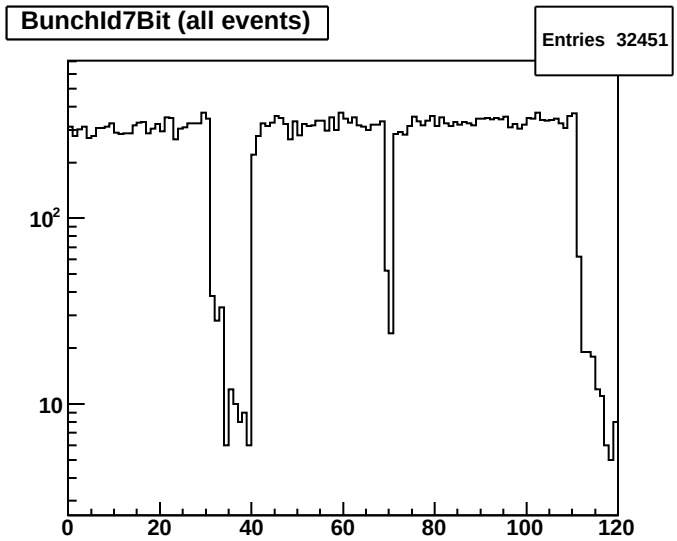

EMC L2 Input - HT23 bits
Entries 259608
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

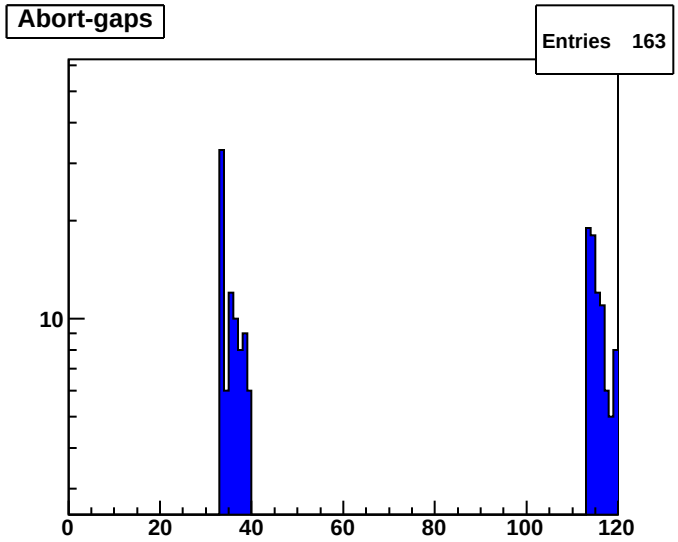

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

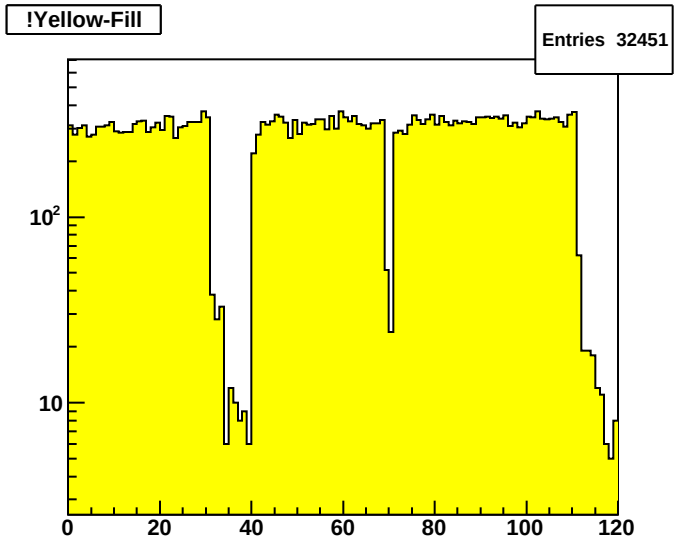

DAQ10k HT bits
Entries 389412
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

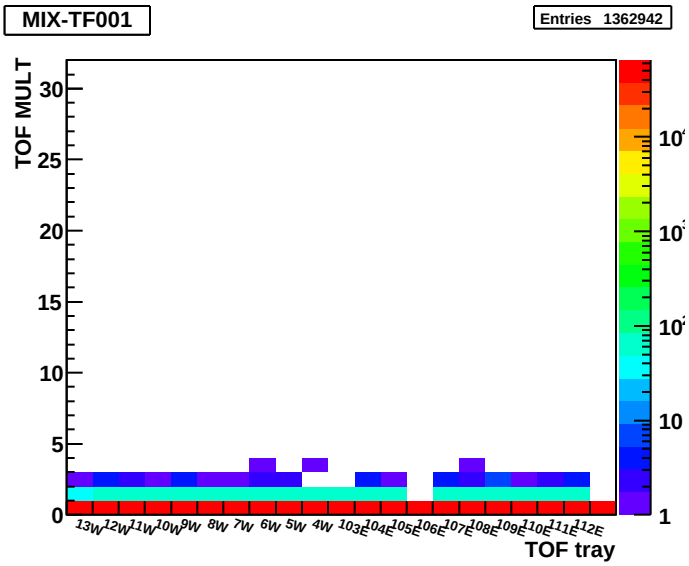

DAQ10k HT bits errors
Entries 389494
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

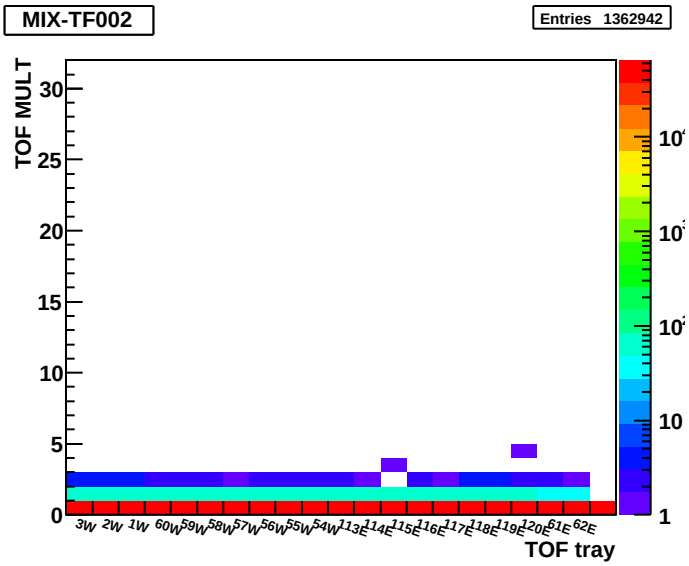

TPC Readout Mask (simulated)
Entries 421863
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

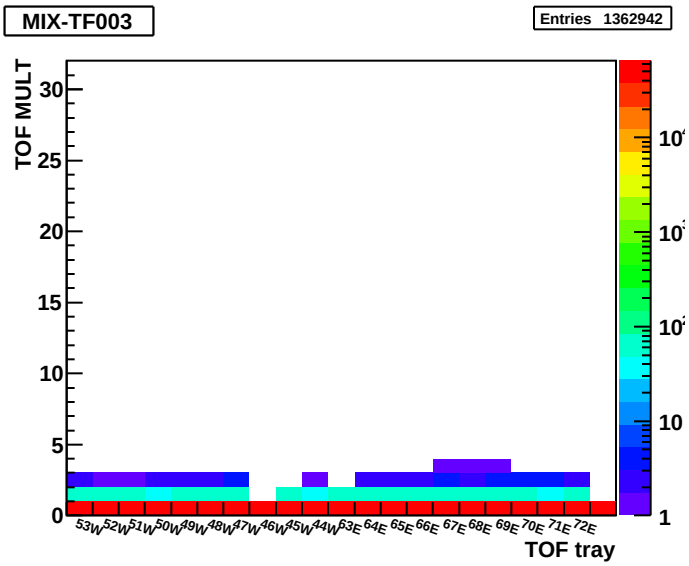

BunchId7Bit (all events)
Entries 32451
10^2
10
0 20 40 60 80 100 120

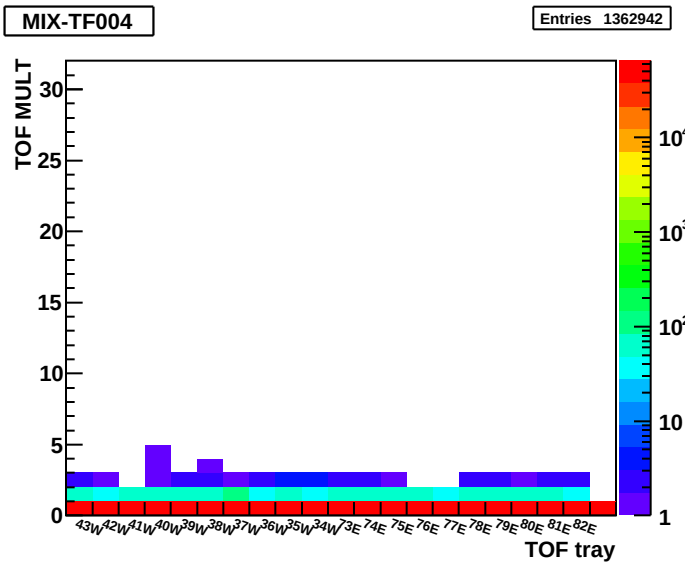

Abort-gaps
Entries 163
10
0 20 40 60 80 100 120

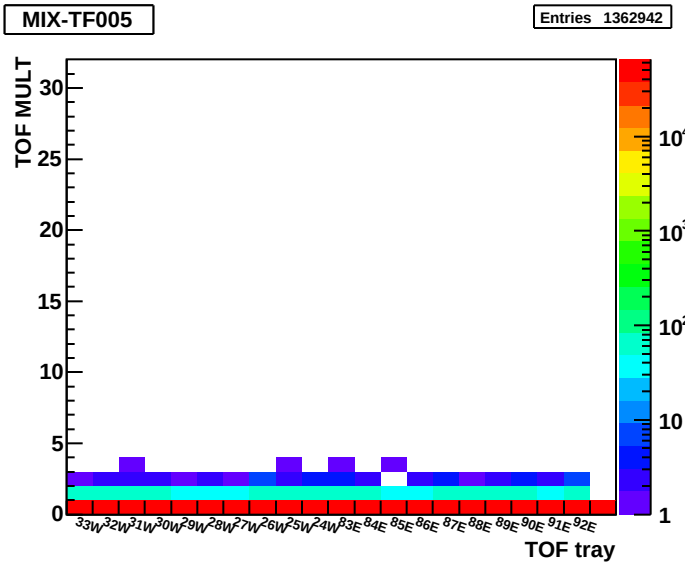

!Yellow-Fill
Entries 32451
10^2
10
0 20 40 60 80 100 120

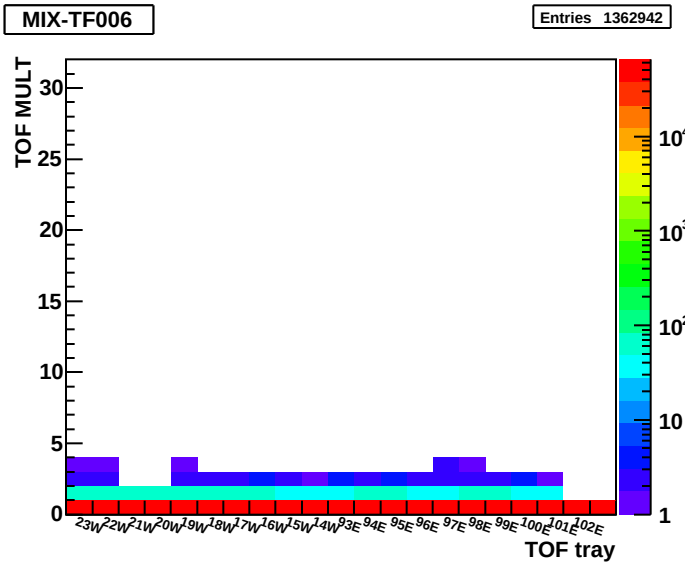

MIX-TF001
Entries 1362942
TOF MULT
TOF tray

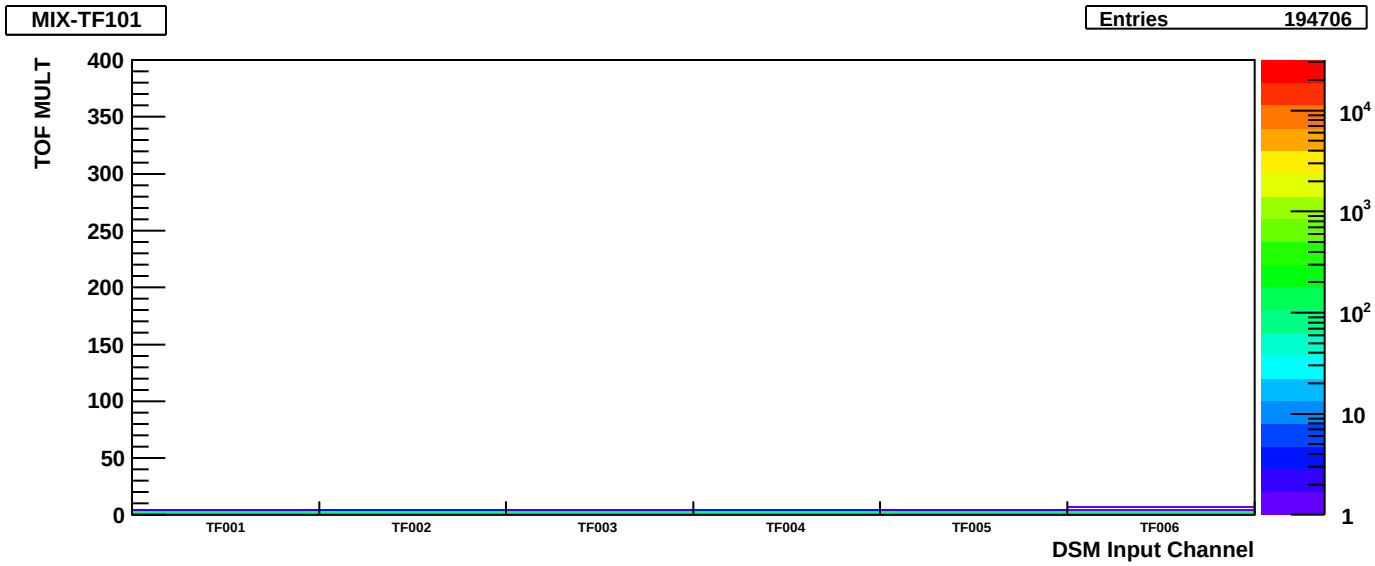

MIX-TF002
Entries 1362942
TOF MULT
TOF tray

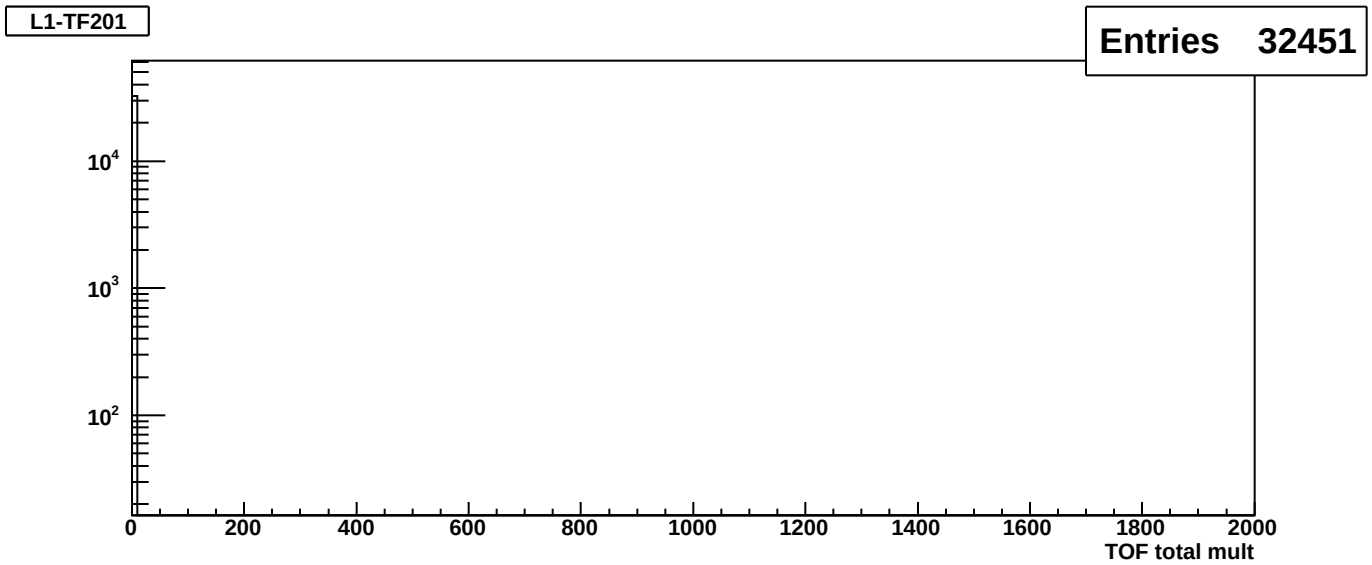

MIX-TF003
Entries 1362942
TOF MULT
TOF tray

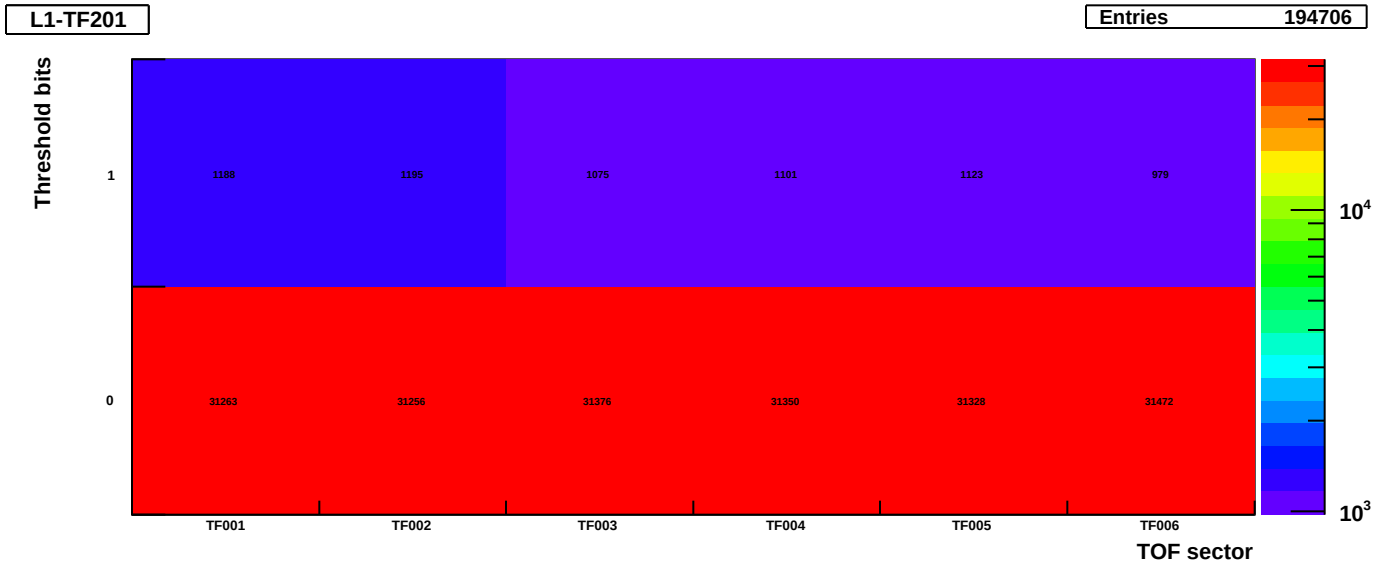

MIX-TF004
Entries 1362942
TOF MULT
TOF tray

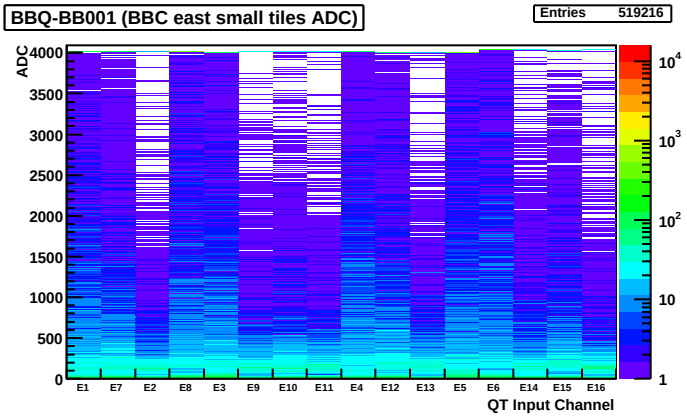

MIX-TF005
Entries 1362942
TOF MULT
TOF tray

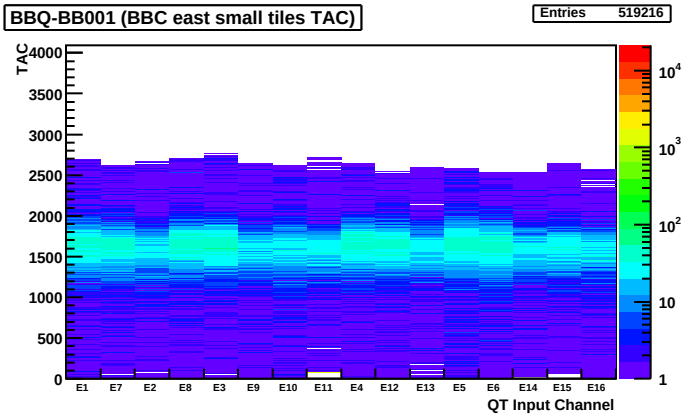

MIX-TF006
Entries 1362942
TOF MULT
TOF tray

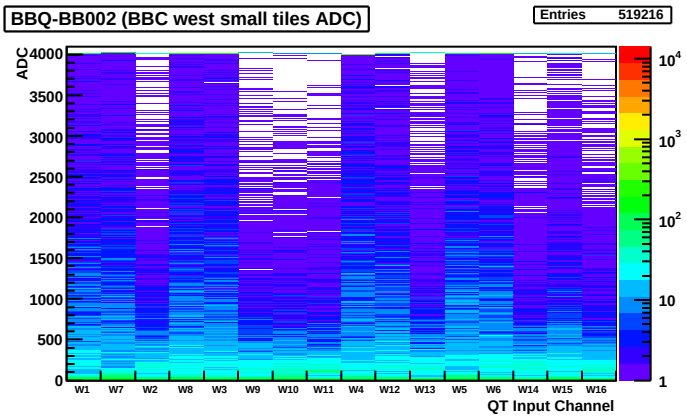

MIX-TF101
Entries 194706
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

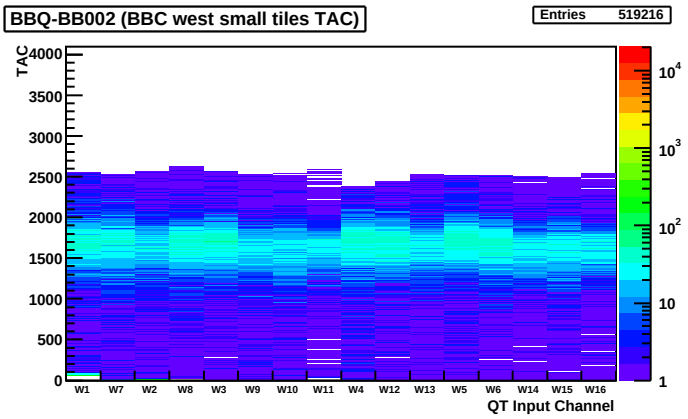

L1-TF201
Entries 32451
10^4
10^3
10^2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

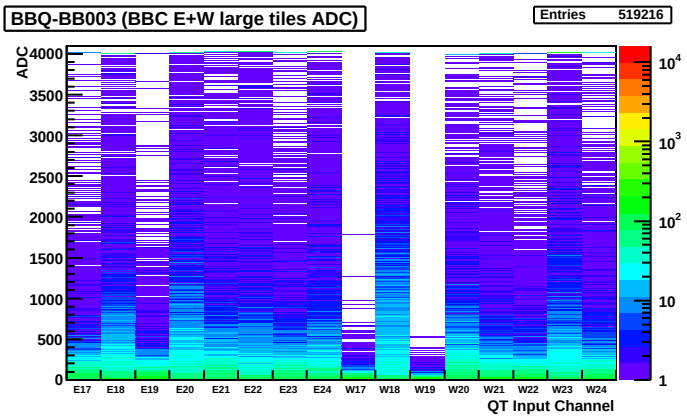

L1-TF201
Entries 194706
Threshold bits
1
0
1188
1195
1075
1101
1123
979
31263
31256
31376
31350
31328
31472
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

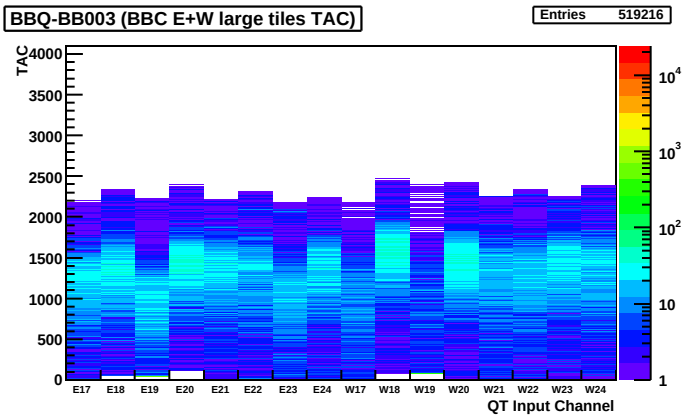

BBQ-BB001 (BBC east small tiles ADC)
Entries 519216
ADC
QT Input Channel

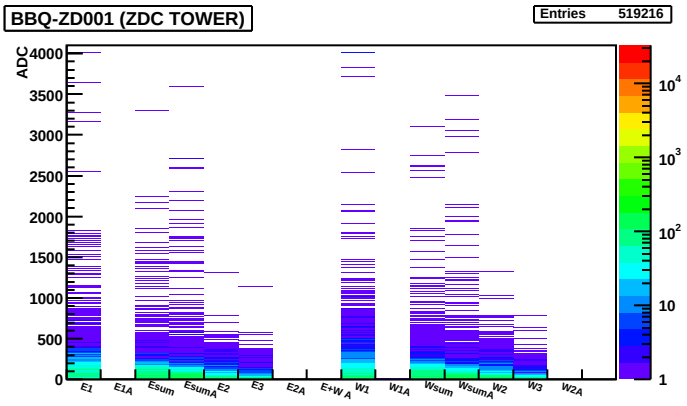

BBQ-BB001 (BBC east small tiles TAC)
Entries 519216
TAC
QT Input Channel

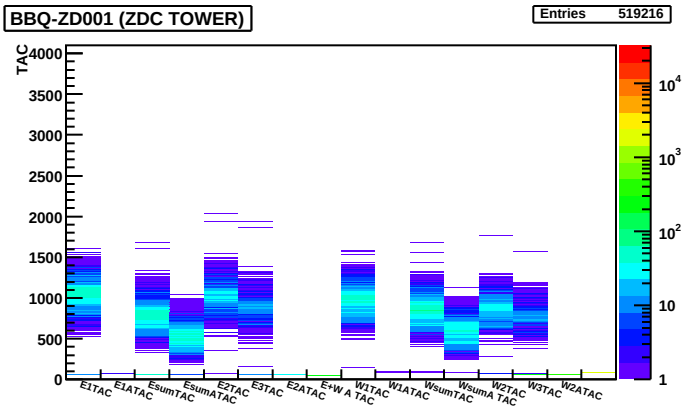

BBQ-BB002 (BBC west small tiles ADC)
Entries 519216
ADC
QT Input Channel

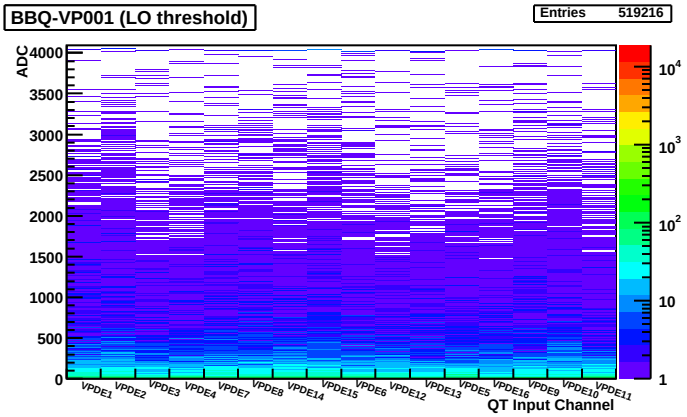

BBQ-BB002 (BBC west small tiles TAC)
Entries 519216
TAC
QT Input Channel

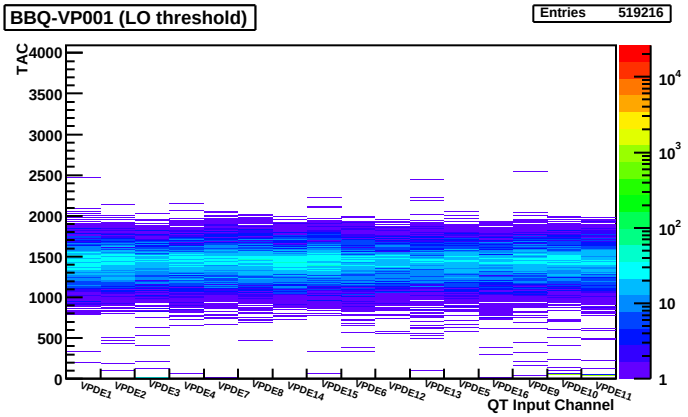

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 519216
ADC
QT Input Channel

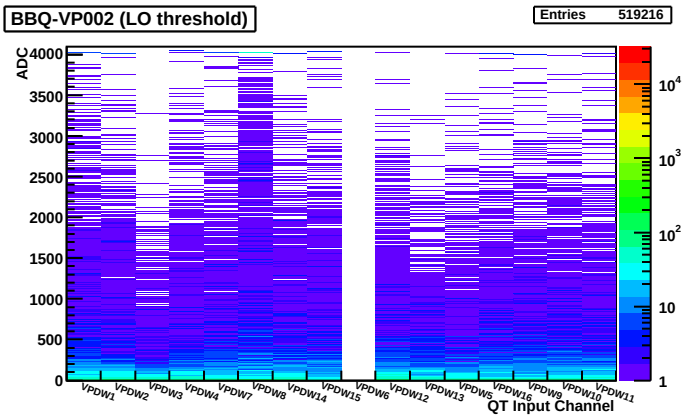

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 519216
TAC
QT Input Channel

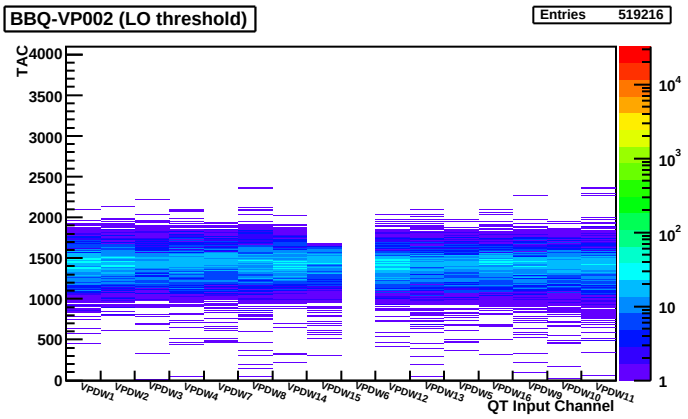

BBQ-ZD001 (ZDC TOWER)
Entries 519216
ADC

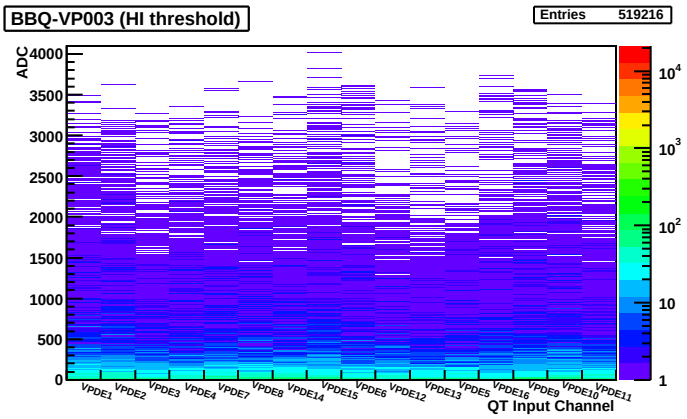

BBQ-ZD001 (ZDC TOWER)
Entries 519216
TAC

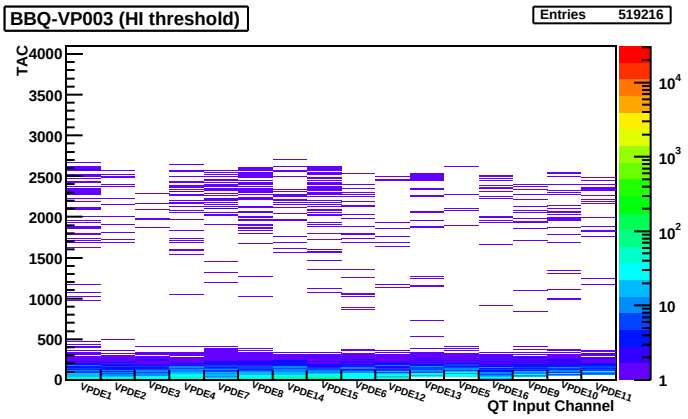

BBQ-VP001 (LO threshold)
Entries 519216
ADC
QT Input Channel

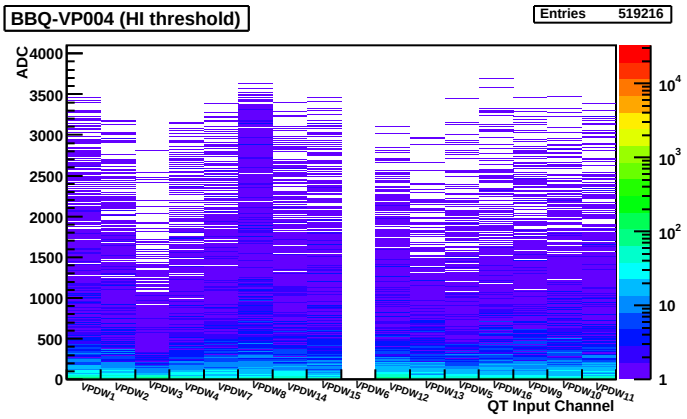

BBQ-VP001 (LO threshold)
Entries 519216
TAC
QT Input Channel

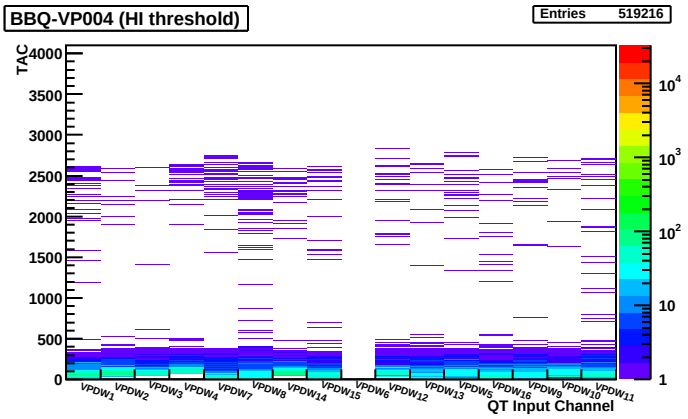

BBQ-VP002 (LO threshold)
Entries 519216
ADC
QT Input Channel

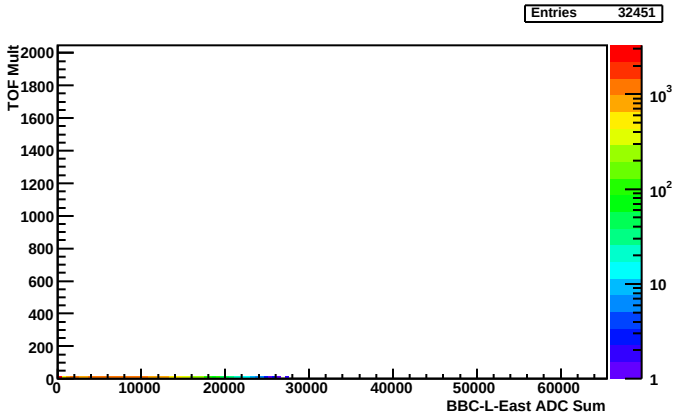

BBQ-VP002 (LO threshold)
Entries 519216
TAC
QT Input Channel

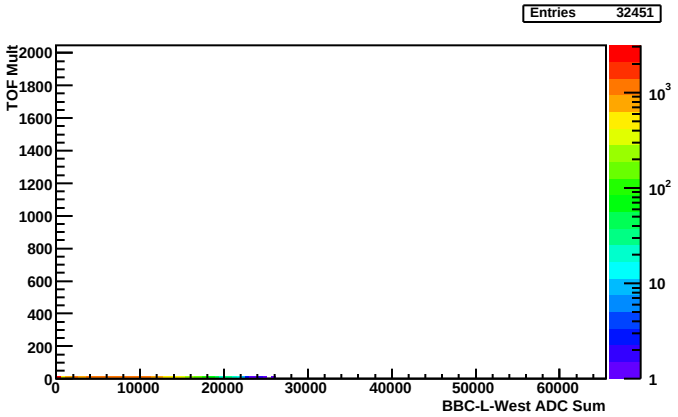

BBQ-VP003 (HI threshold)
Entries 519216
ADC
QT Input Channel

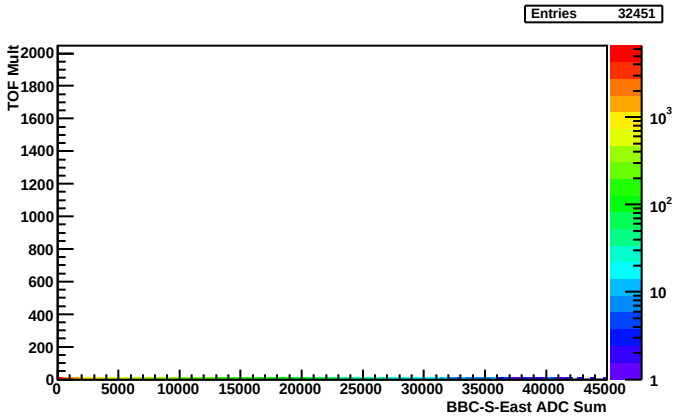

BBQ-VP003 (HI threshold)
Entries 519216
TAC
QT Input Channel

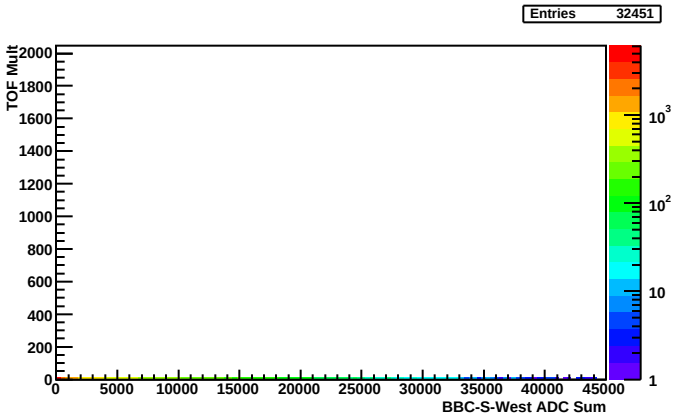

BBQ-VP004 (HI threshold)
Entries 519216
ADC
QT Input Channel

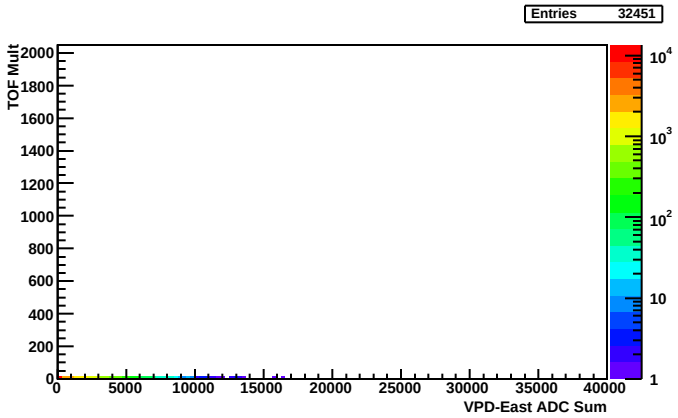

BBQ-VP004 (HI threshold)
Entries 519216
TAC
QT Input Channel

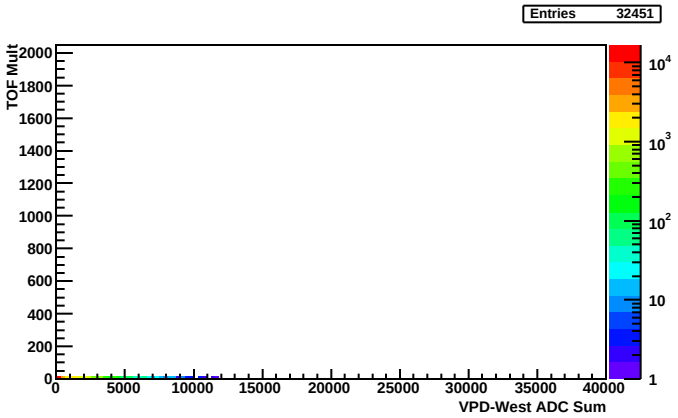

Entries 32451
TOF Mult
BBC-L-East ADC Sum

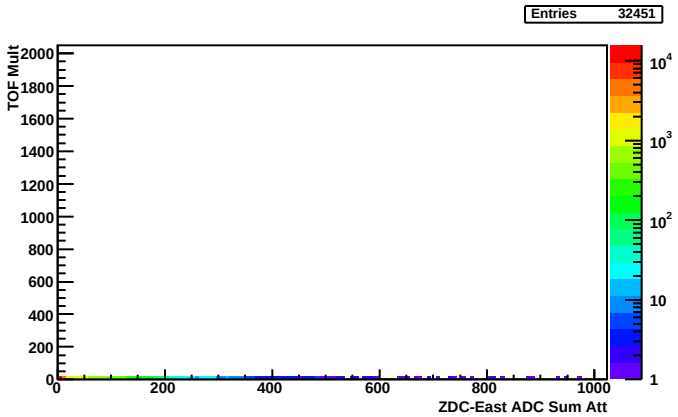

Entries 32451
TOF Mult
BBC-L-West ADC Sum

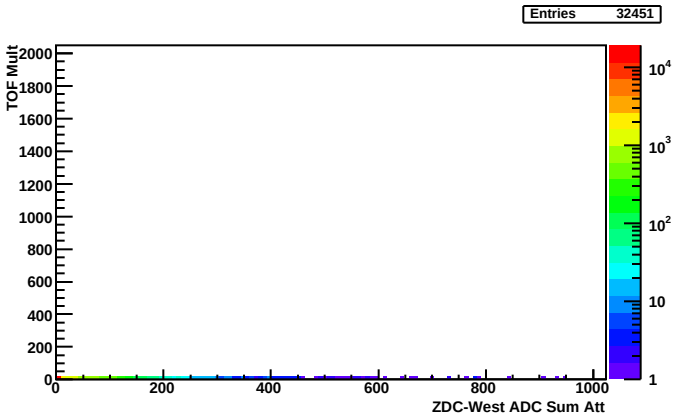

Entries 32451
TOF Mult
BBC-S-East ADC Sum

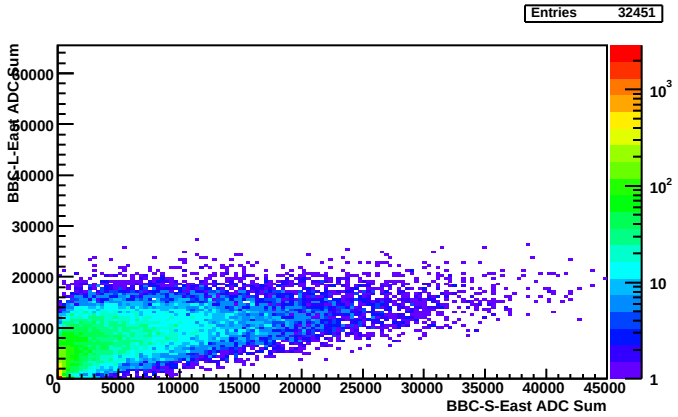

Entries 32451
TOF Mult
BBC-S-West ADC Sum

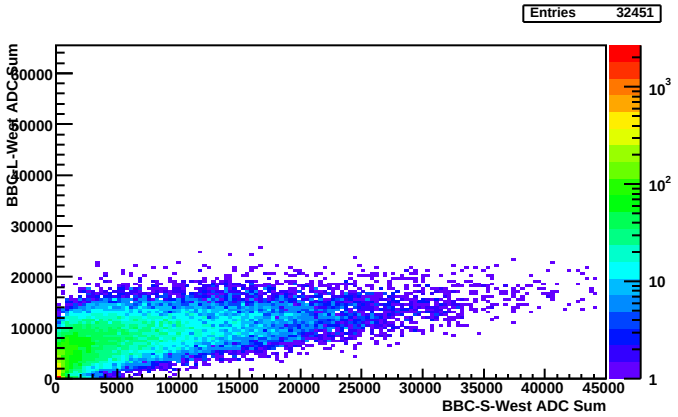

Entries 32451
TOF Mult
VPD-East ADC Sum

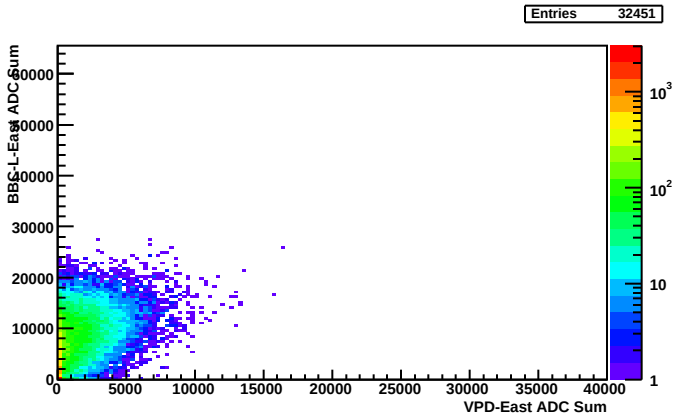

Entries 32451
TOF Mult
VPD-West ADC Sum

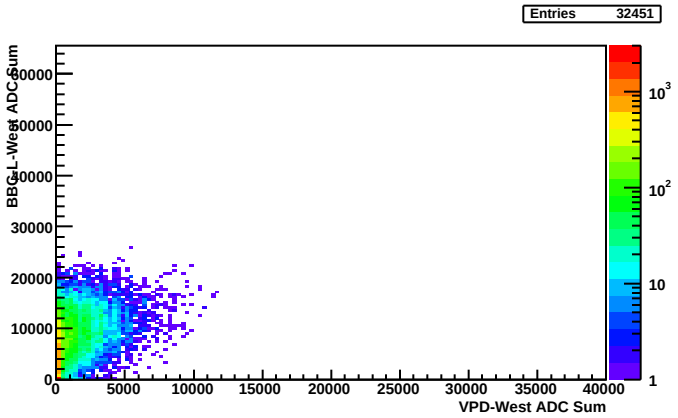

Entries 32451
TOF Mult
ZDC-East ADC Sum Att

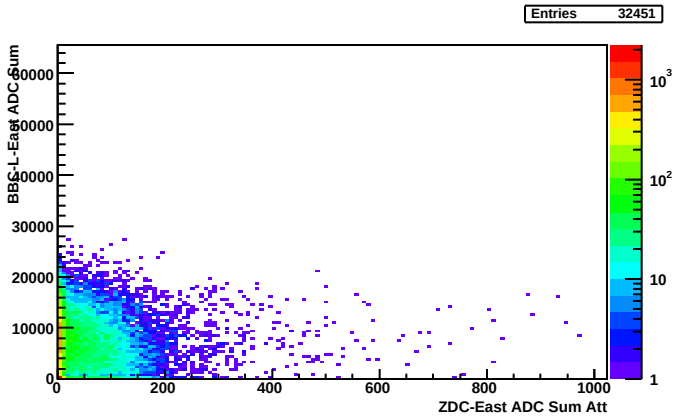

Entries 32451
TOF Mult
ZDC-West ADC Sum Att

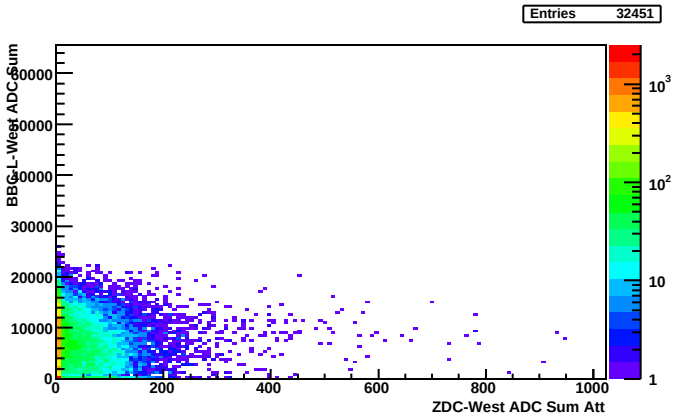

Entries 32451
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 32451
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 32451
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 32451
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 32451
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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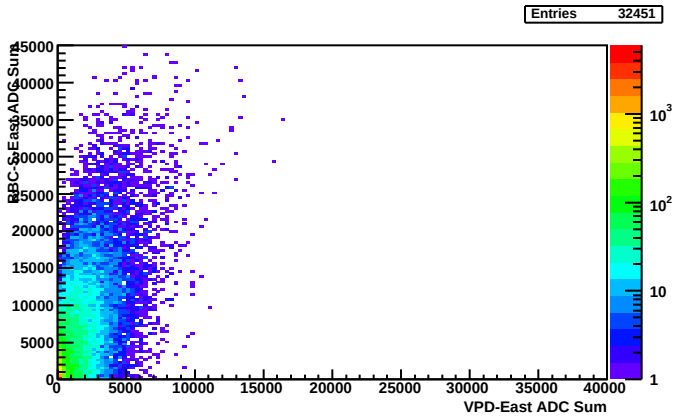
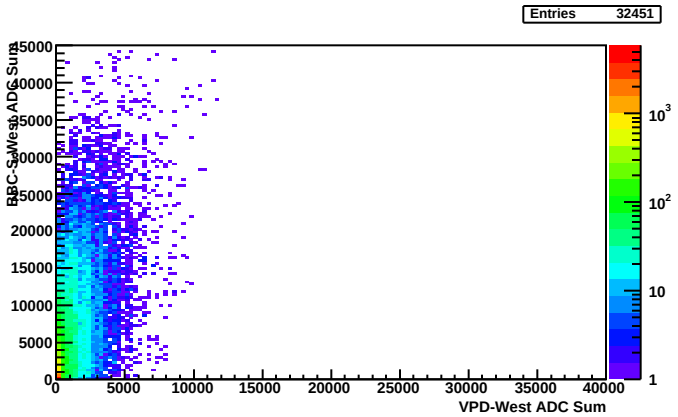
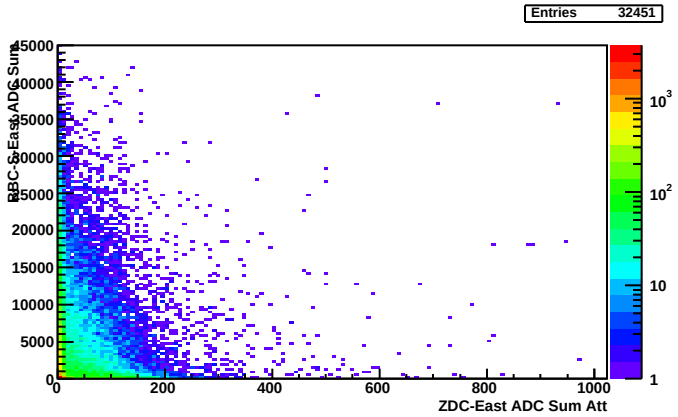
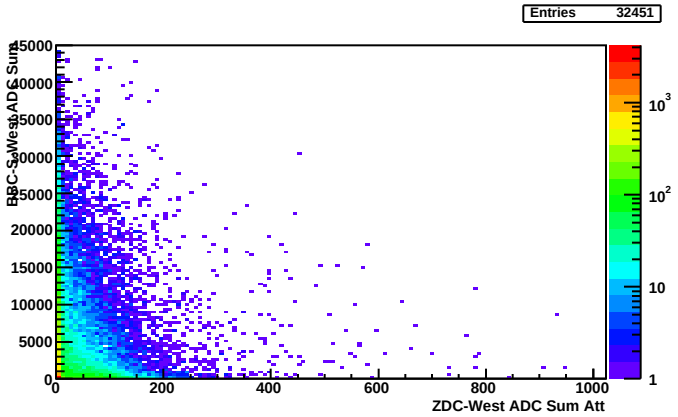
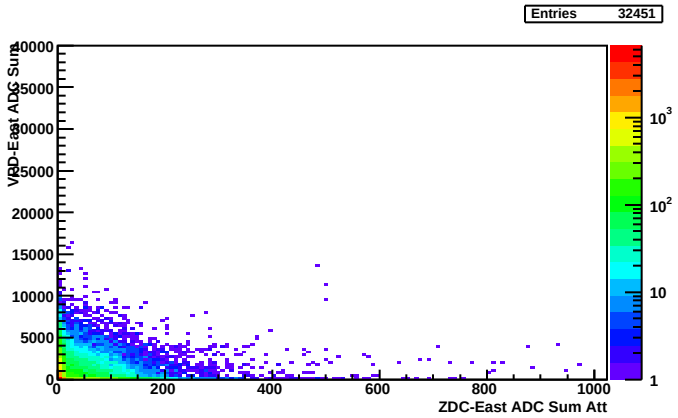
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

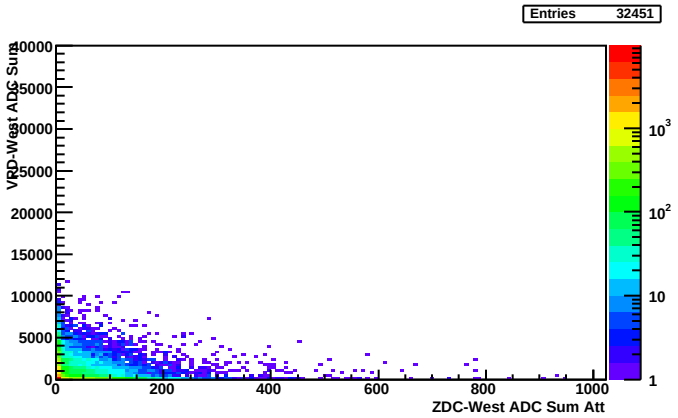

Entries 32451
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 32451
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 32451
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 32451
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 32451
VPD-East ADC Sum
ZDC-East ADC Sum Att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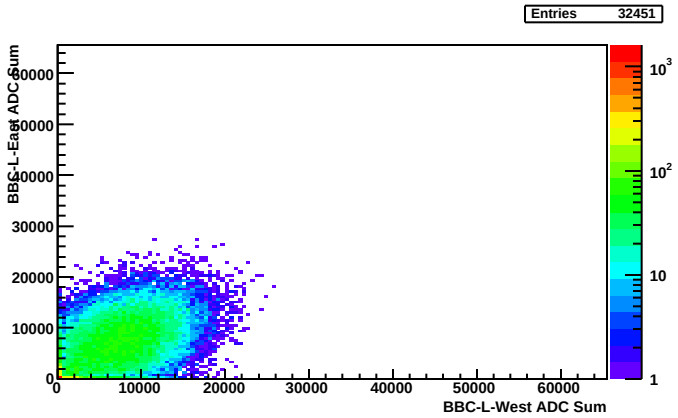
VPD-West ADC Sum
ZDC-West ADC Sum Att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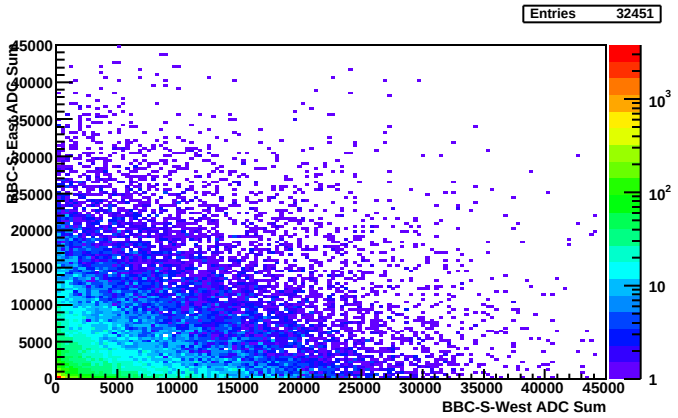
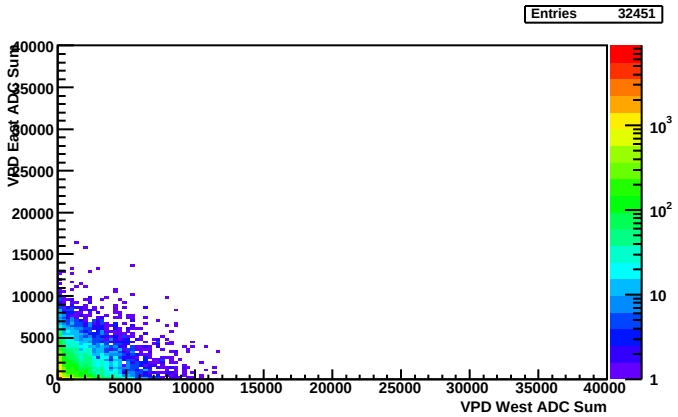
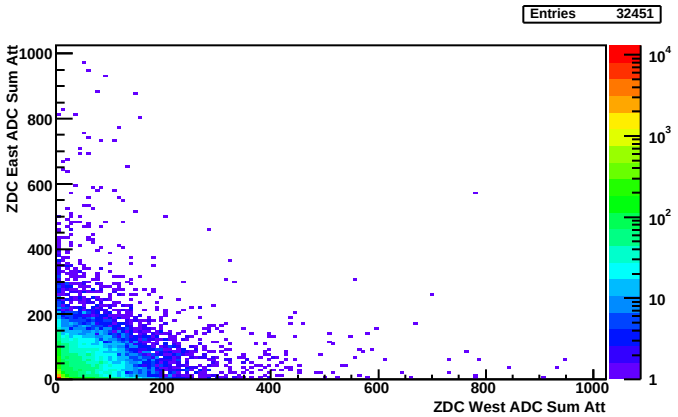
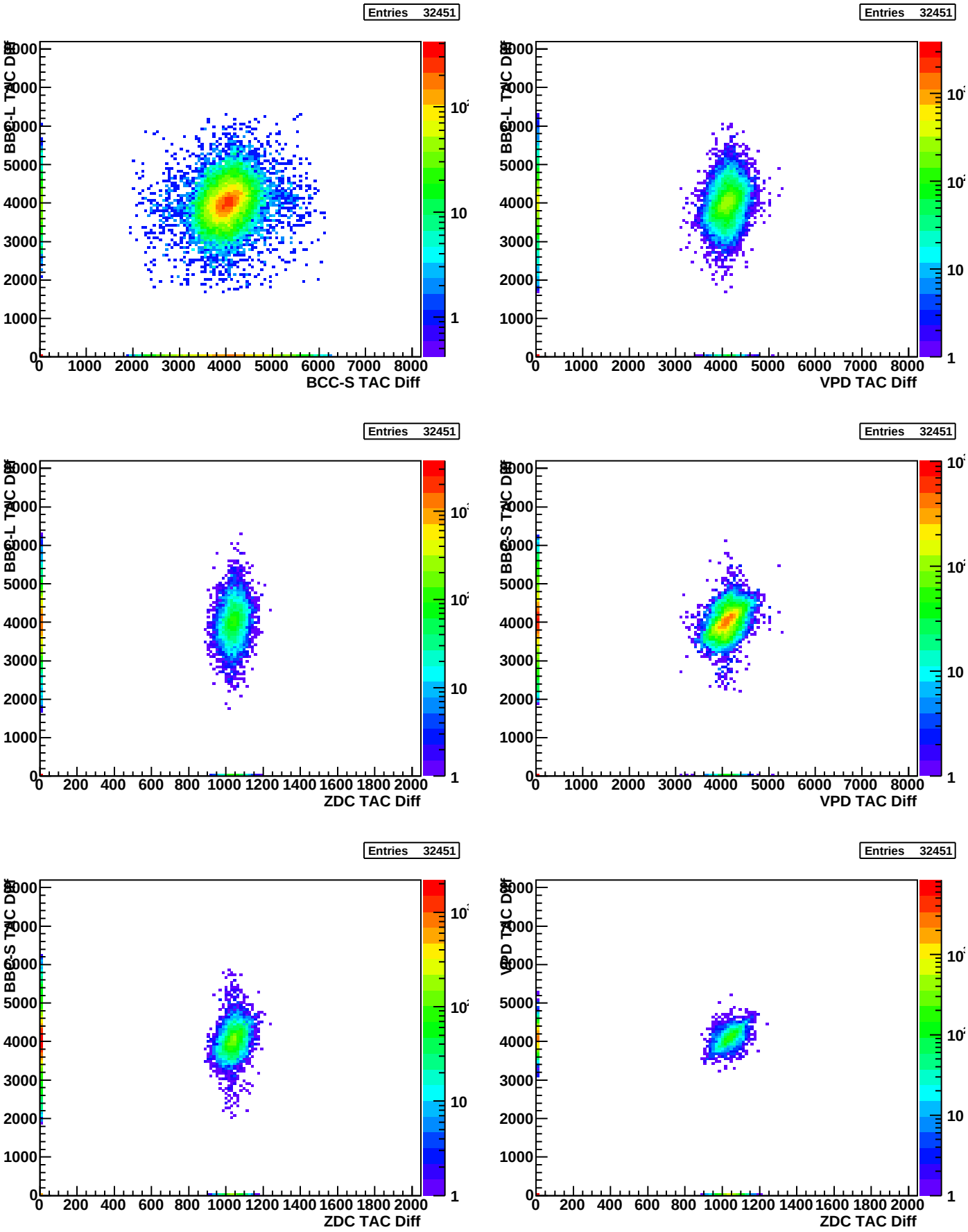
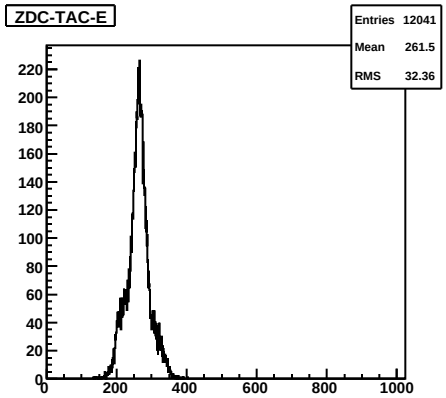
BBC-L-East ADC Sum
BBC-L-West ADC Sum

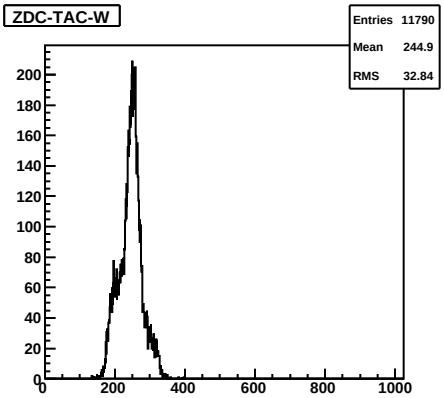

Entries 32451
BBC-S-East ADC Sum
BBC-S-West ADC Sum

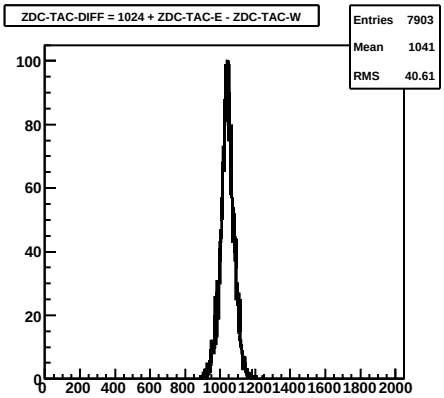

Entries 32451
VPD East ADC Sum
VPD West ADC Sum

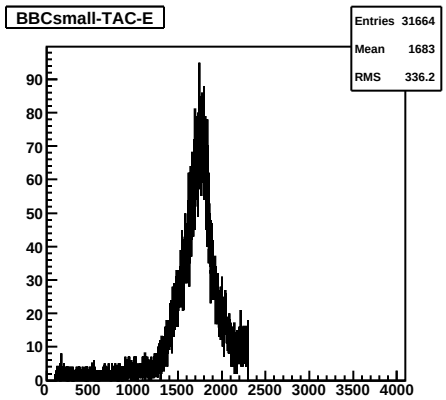

Entries 32451
ZDC East ADC Sum Att
ZDC West ADC Sum Att

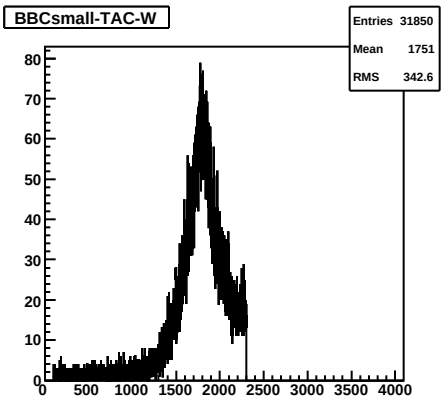

Entries 32451
BBC-L TAC Diff
BCC-S TAC Diff
Entries 32451
BBC-L TAC Diff
VPD TAC Diff
Entries 32451
BBC-L TAC Diff
ZDC TAC Diff
Entries 32451
BBC-S TAC Diff
VPD TAC Diff
Entries 32451
BBC-S TAC Diff
ZDC TAC Diff
Entries 32451
VPD TAC Diff
ZDC TAC Diff

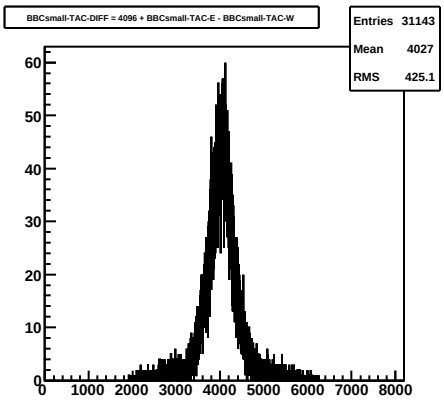

ZDC-TAC-E
Entries 12041
Mean 261.5
RMS 32.36

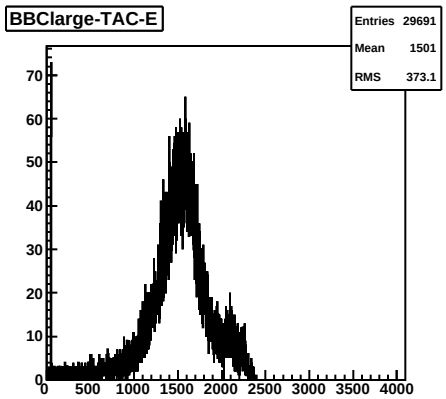

ZDC-TAC-W
Entries 11790
Mean 244.9
RMS 32.84

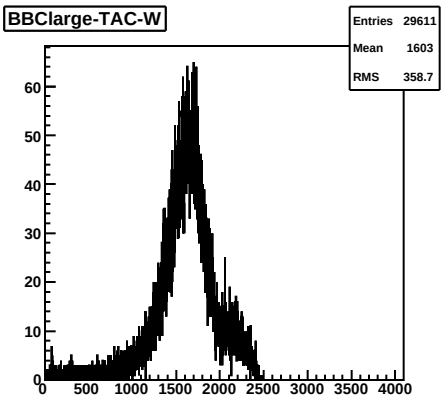

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 7903
Mean 1041
RMS 40.61

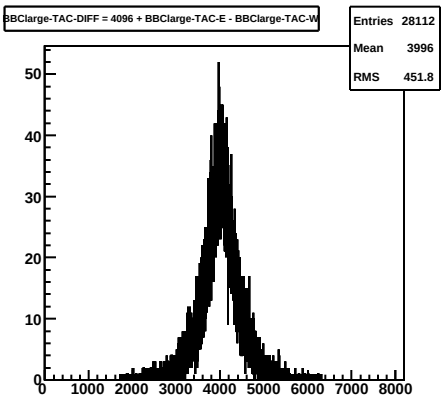

BBCsmall-TAC-E
Entries 31664
Mean 1683
RMS 336.2

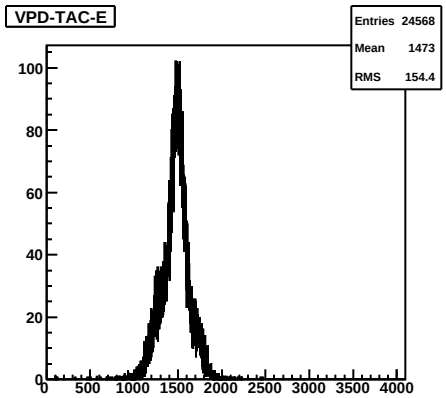

BBCsmall-TAC-W
Entries 31850
Mean 1751
RMS 342.6

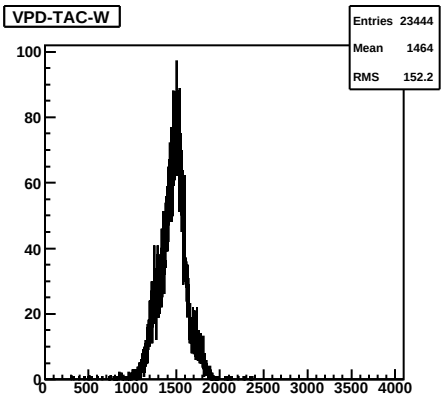

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 31143
Mean 4027
RMS 425.1

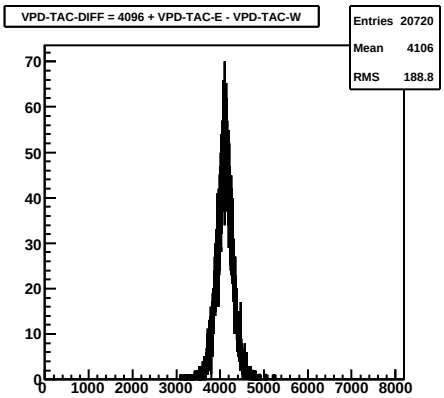

BBClarge-TAC-E
Entries 29691
Mean 1501
RMS 373.1

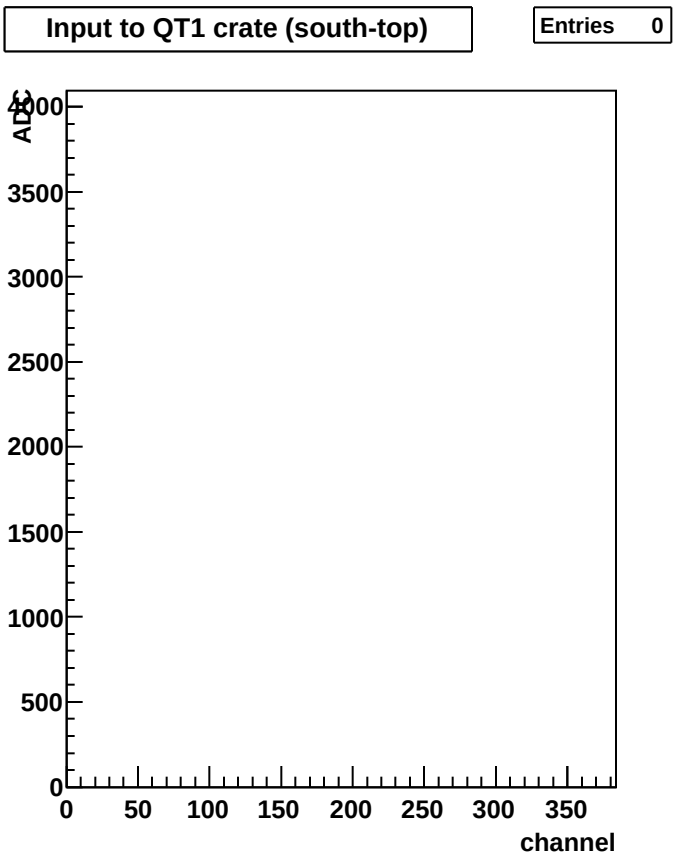

BBClarge-TAC-W
Entries 29611
Mean 1603
RMS 358.7

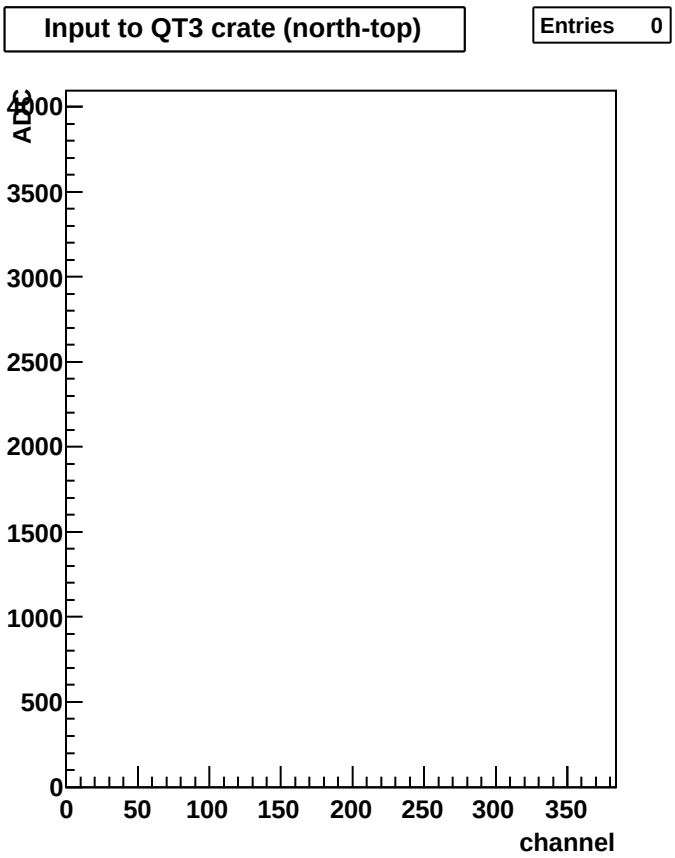

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 28112
Mean 3996
RMS 451.8

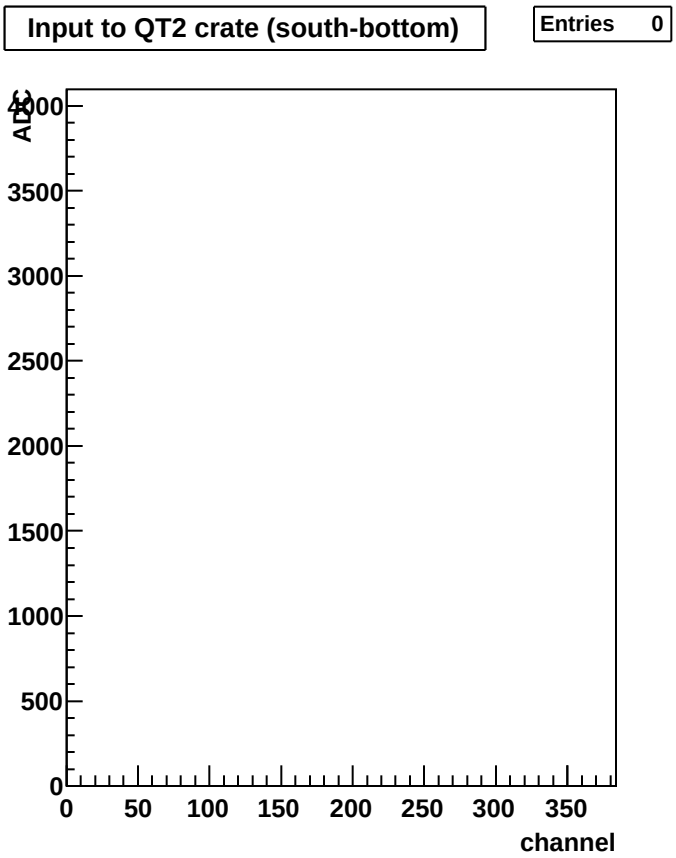

VPD-TAC-E
Entries 24568
Mean 1473
RMS 154.4

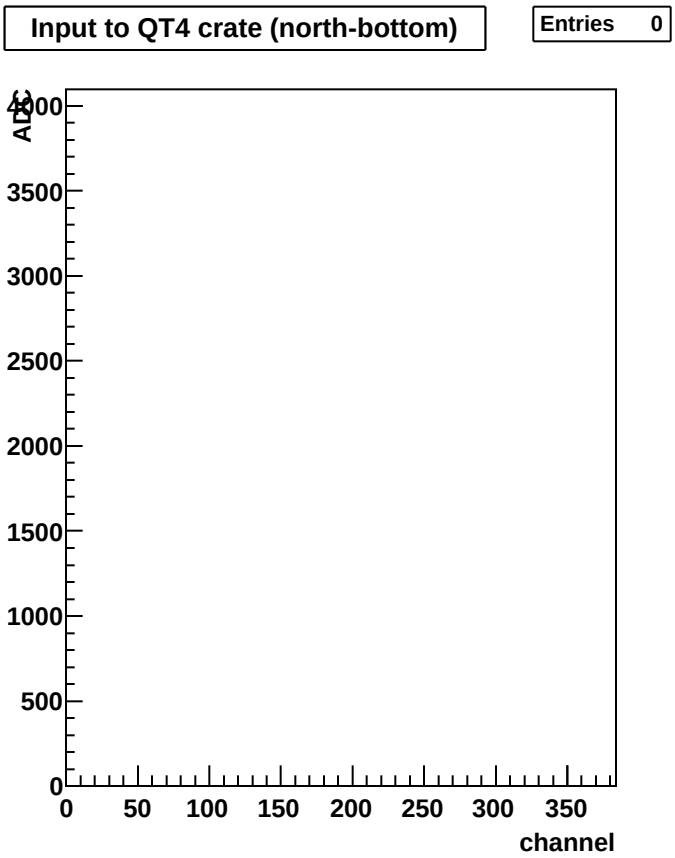

VPD-TAC-W
Entries 23444
Mean 1464
RMS 152.2

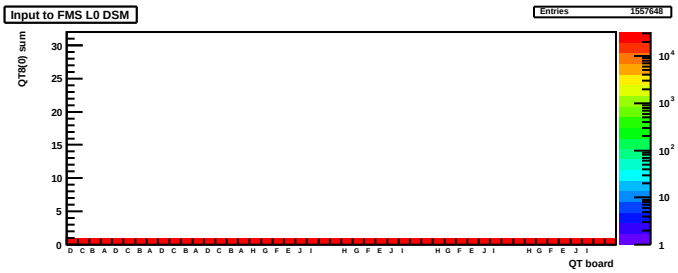

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 20720
Mean 4106
RMS 188.8

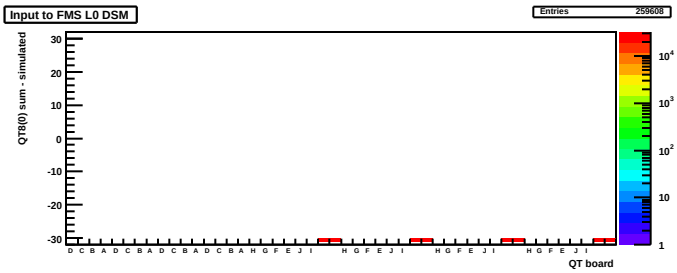

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

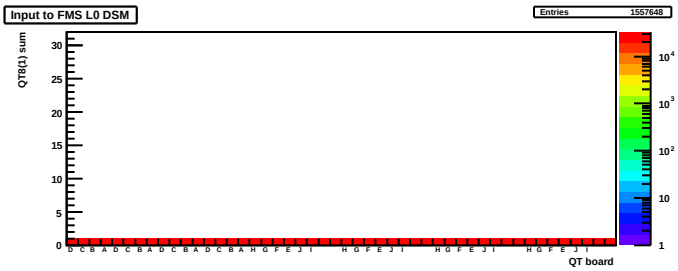

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

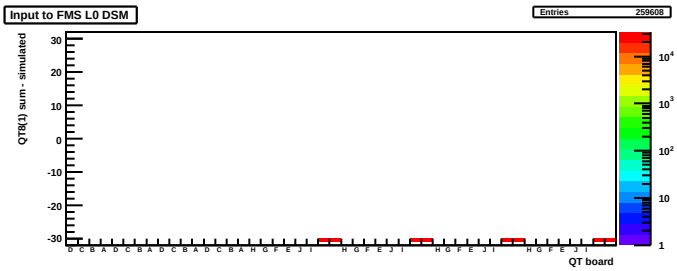

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

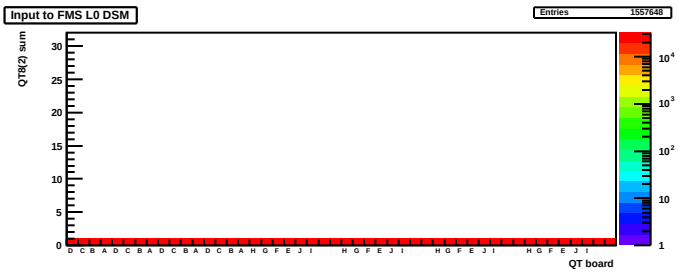

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

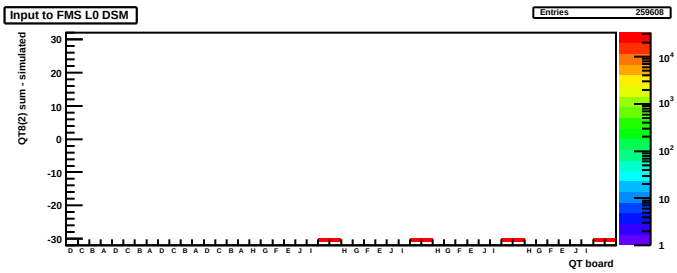

Input to FMS L0 DSM
Entries 1557648
QT8(0) sum
QT board

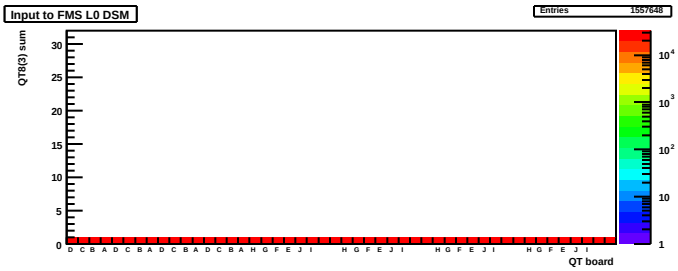

Input to FMS L0 DSM
Entries 259608
QT8(0) sum - simulated
QT board

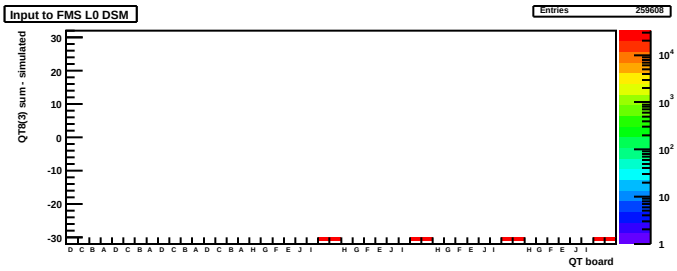

Input to FMS L0 DSM
Entries 1557648
QT8(1) sum
QT board

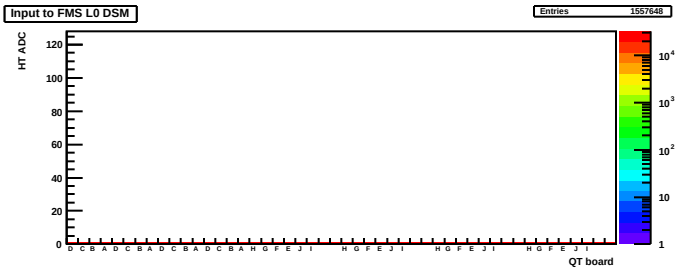

Input to FMS L0 DSM
Entries 259608
QT8(1) sum - simulated
QT board

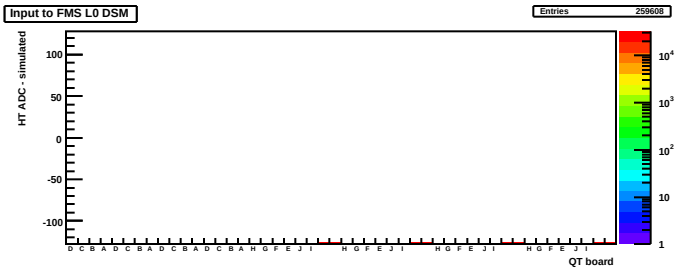

Input to FMS L0 DSM
Entries 1557648
QT8(2) sum
QT board

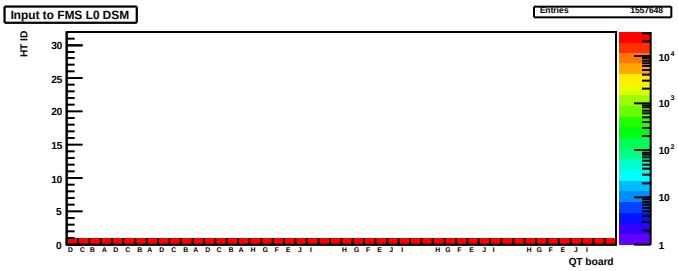

Input to FMS L0 DSM
Entries 259608
QT8(2) sum - simulated
QT board

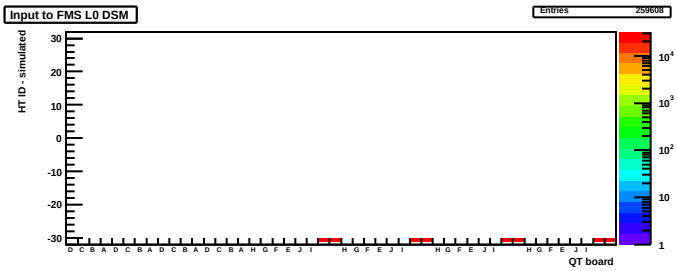

Input to FMS L0 DSM
Entries 1557648
QT8(3) sum
QT board

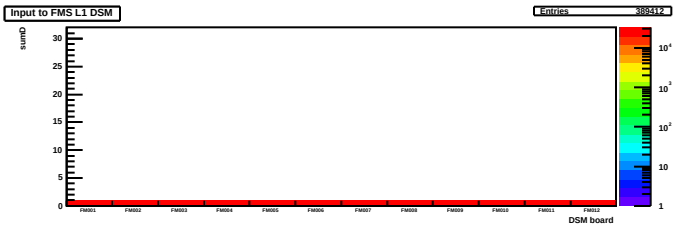

Input to FMS L0 DSM
Entries 259608
QT8(3) sum - simulated
QT board

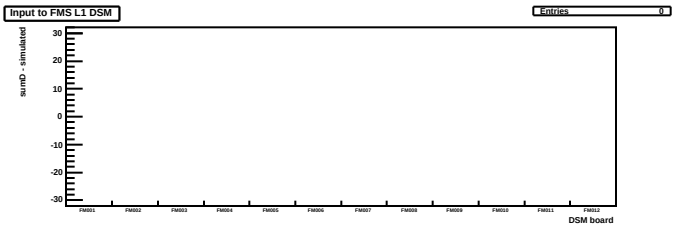

Input to FMS L0 DSM
Entries 1557648
HT ADC
QT board

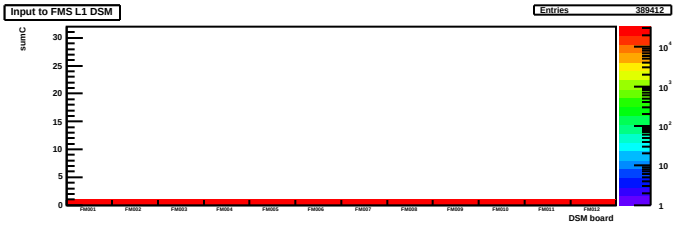

Input to FMS L0 DSM
Entries 259608
HT ADC - simulated
QT board

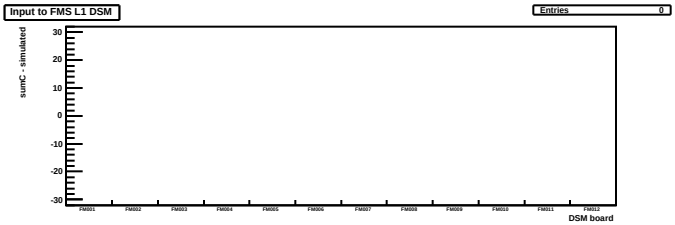

Input to FMS L0 DSM
Entries 1557648
HT ID
QT board

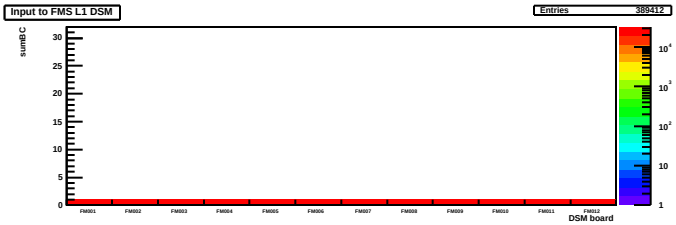

Input to FMS L0 DSM
Entries 259608
HT ID - simulated
QT board

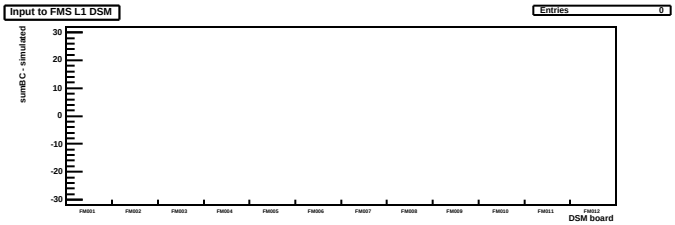

Input to FMS L1 DSM
Entries 389412
sumD
DSM board

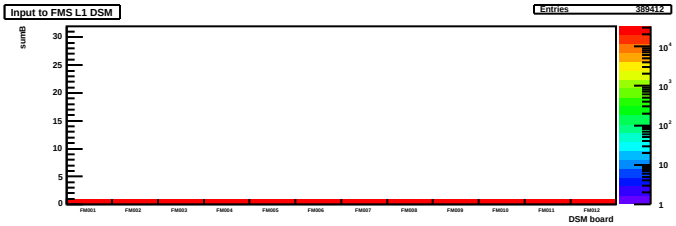

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

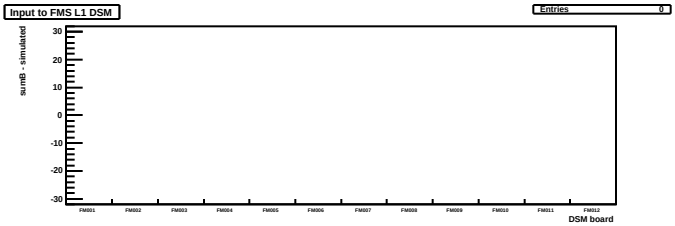

Input to FMS L1 DSM
Entries 389412
sumC
DSM board

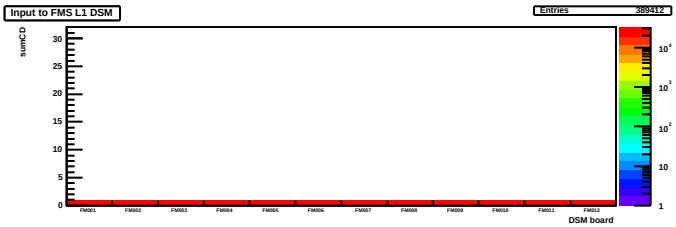

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

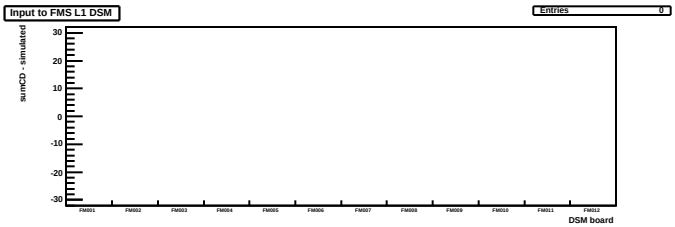

Input to FMS L1 DSM
Entries 389412
sumBC
DSM board

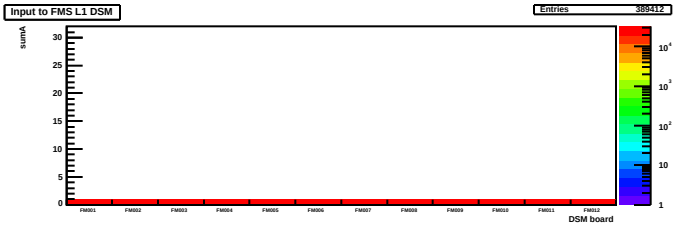

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

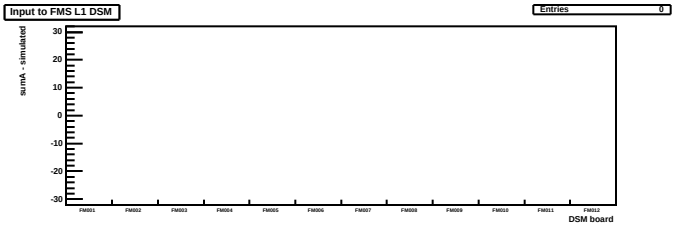

Input to FMS L1 DSM
Entries 389412
sumB
DSM board

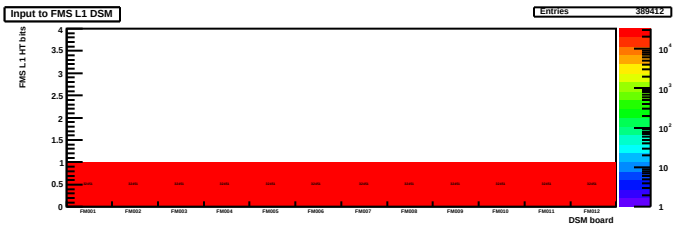

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

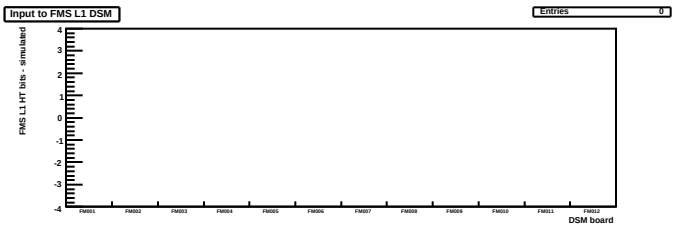

Input to FMS L1 DSM
Entries 389412
sumCD
DSM board

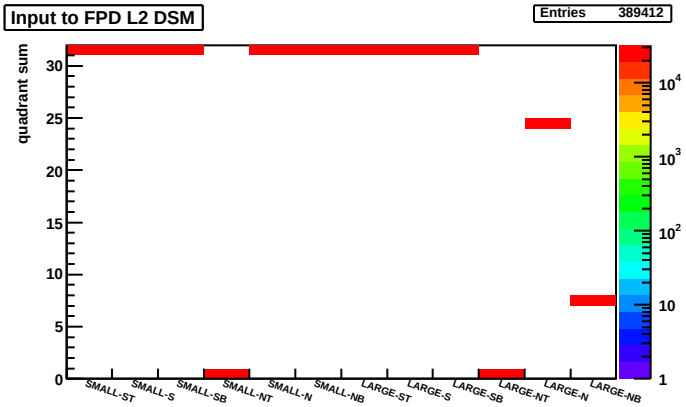

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

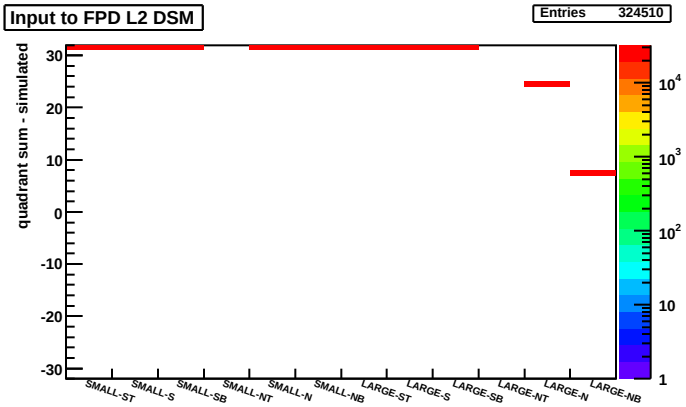

Input to FMS L1 DSM
Entries 389412
sumA
DSM board

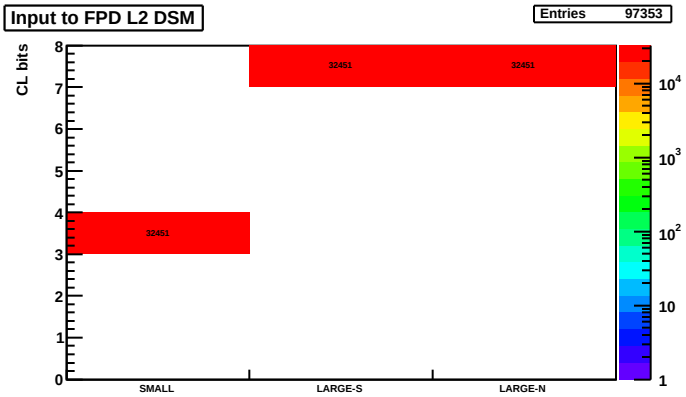

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

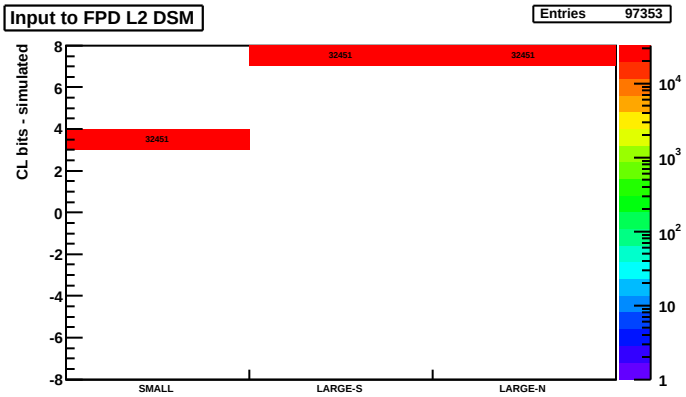

Input to FMS L1 DSM
Entries 389412
FMS L1 HT bits
DSM board

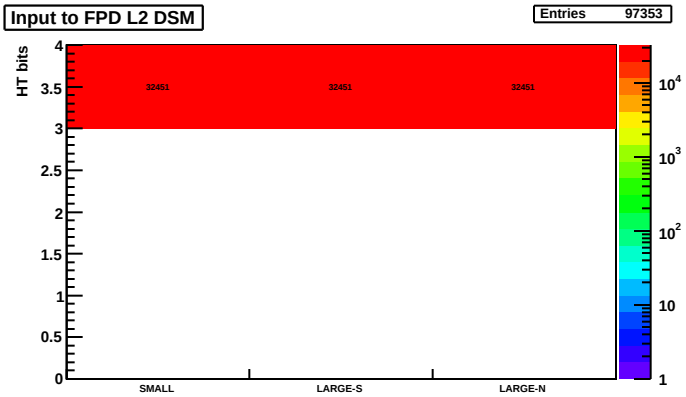

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

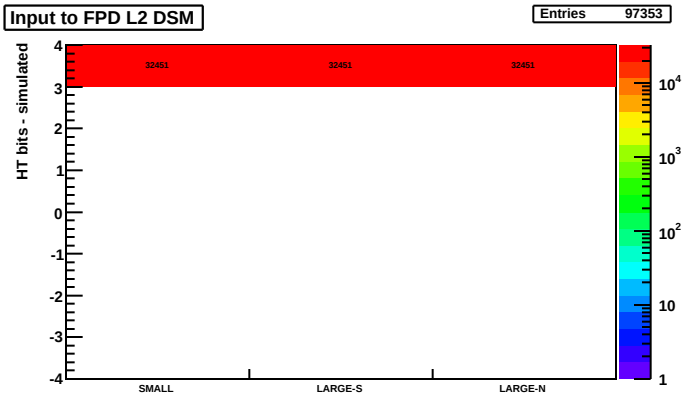

Input to FPD L2 DSM
Entries 389412
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

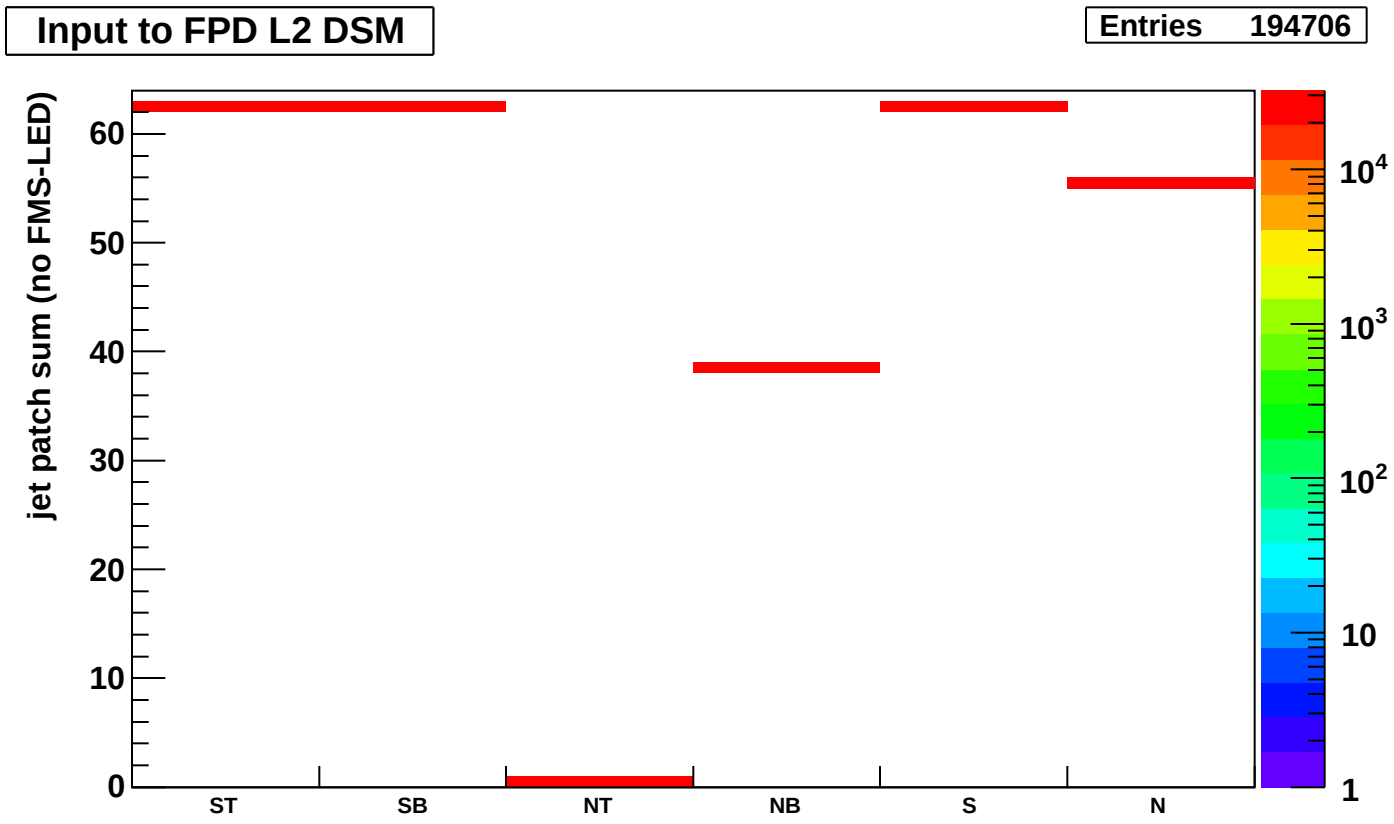

Input to FPD L2 DSM
Entries 324510
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

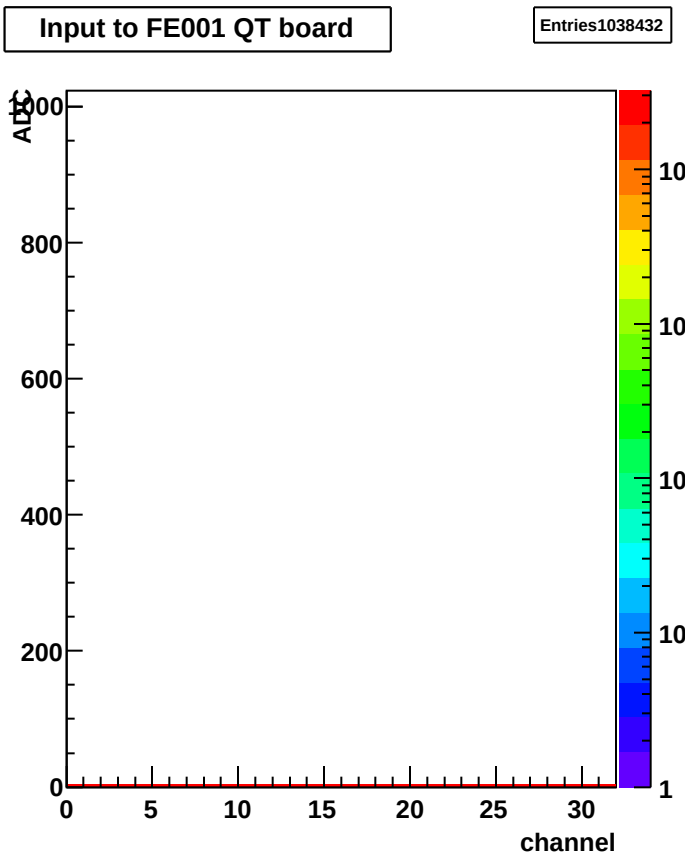

Input to FPD L2 DSM
Entries 97353
CL bits
32451
32451
32451
SMALL
LARGE-S
LARGE-N

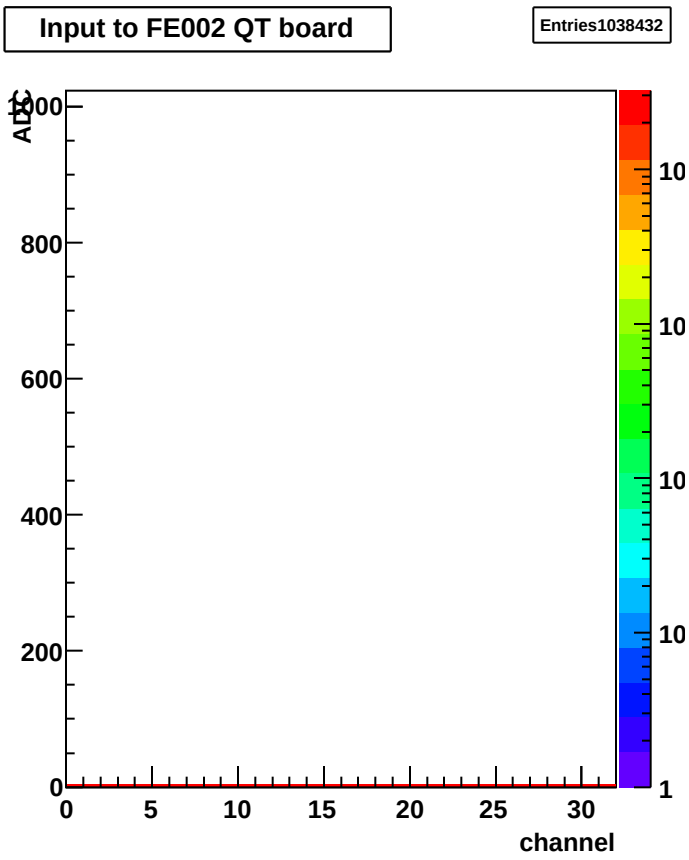

Input to FPD L2 DSM
Entries 97353
CL bits - simulated
32451
32451
32451
SMALL
LARGE-S
LARGE-N

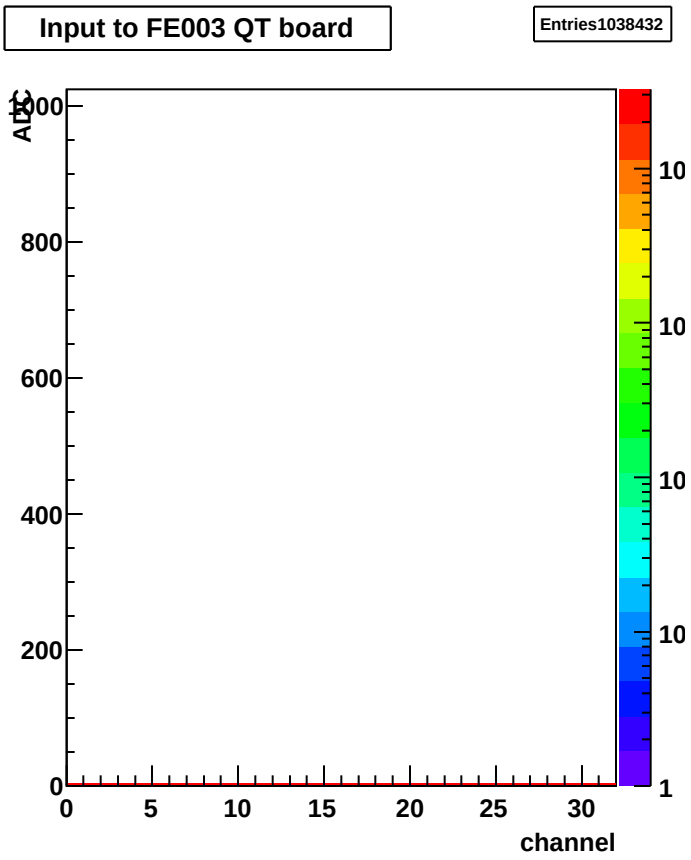

Input to FPD L2 DSM
Entries 97353
HT bits
32451
32451
32451
SMALL
LARGE-S
LARGE-N

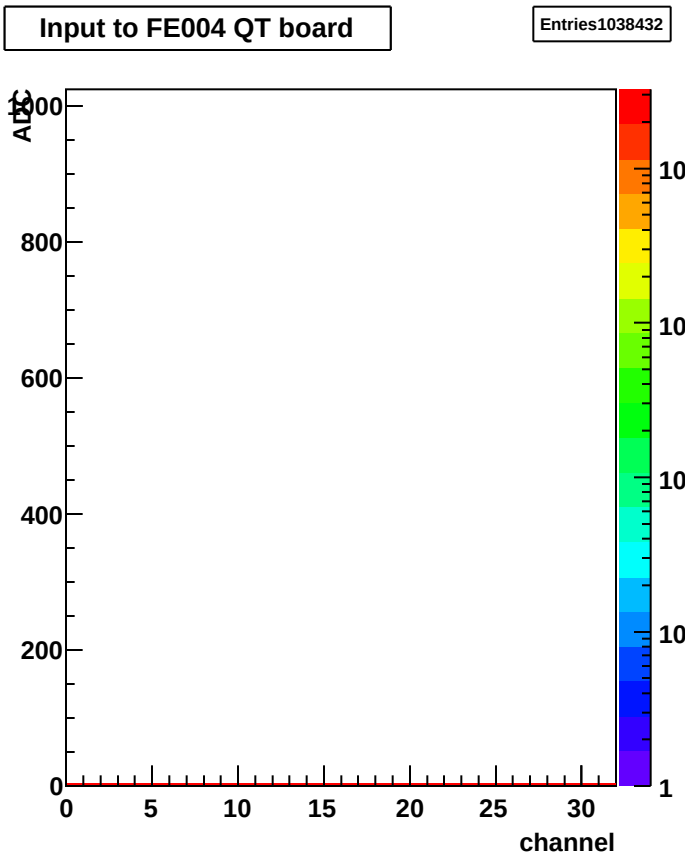

Input to FPD L2 DSM
Entries 97353
HT bits - simulated
32451
32451
32451
SMALL
LARGE-S
LARGE-N

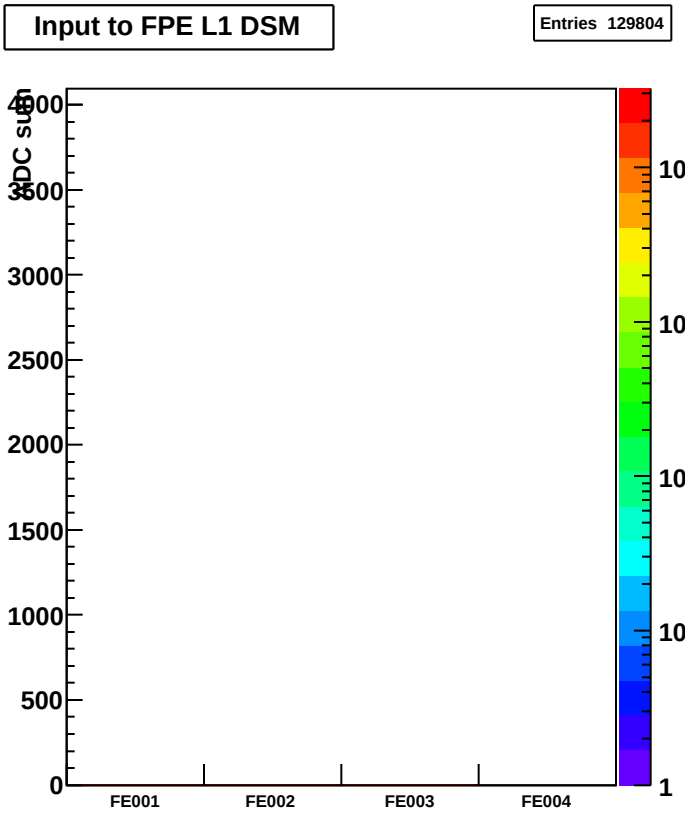

Input to FPD L2 DSM
Entries 194706
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

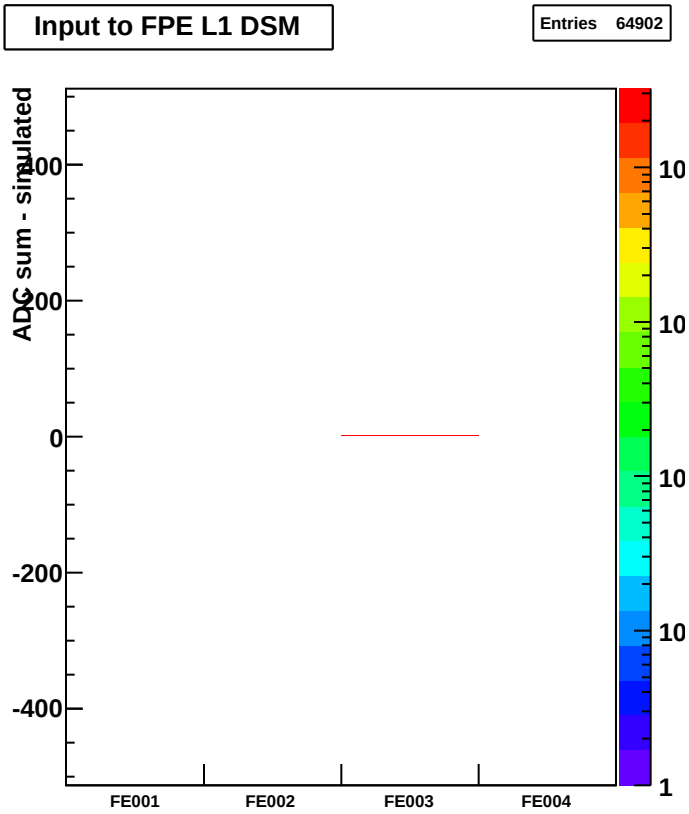

Input to FE001 QT board
Entries1038432
ADC
channel

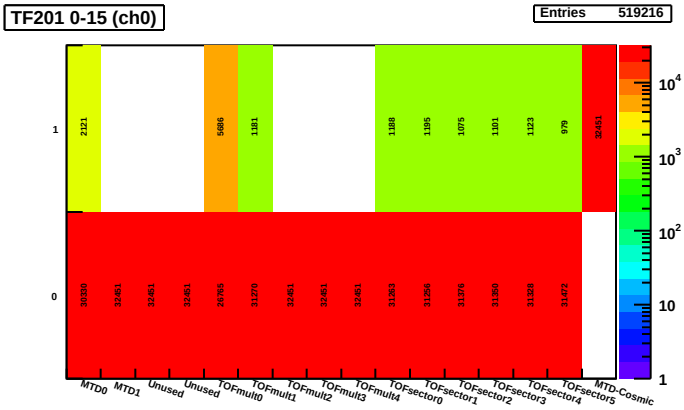

Input to FE002 QT board
Entries1038432
ADC
channel

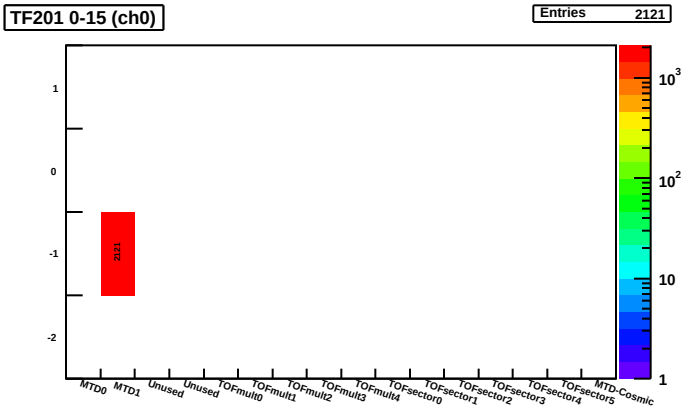

Input to FE003 QT board
Entries1038432
ADC
channel

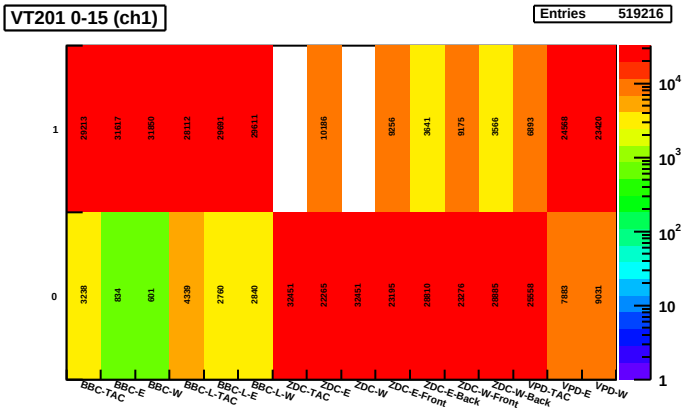

Input to FE004 QT board
Entries1038432
ADC
channel

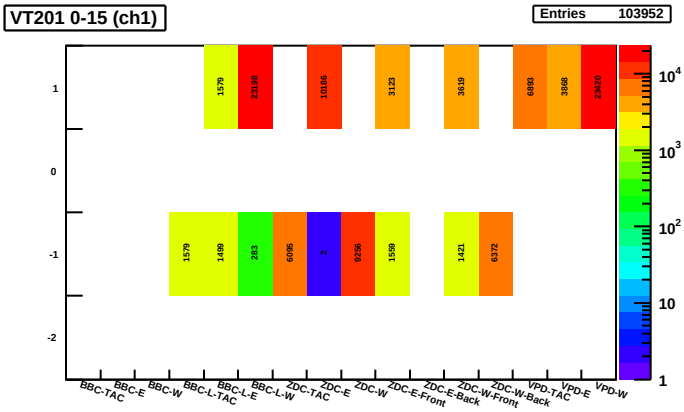

Input to FPE L1 DSM
Entries 129804
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 64902
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 519216
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 2121
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 519216
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)
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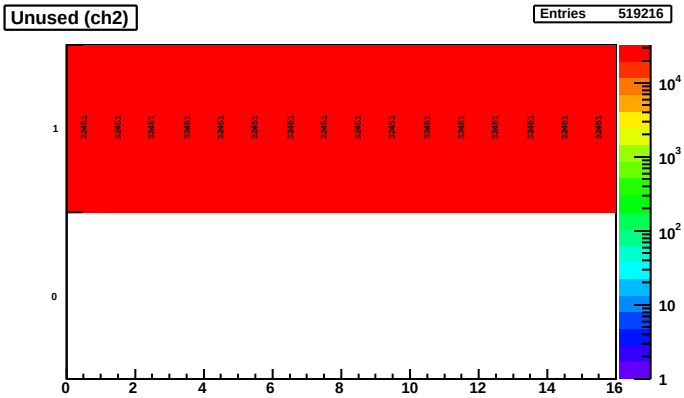
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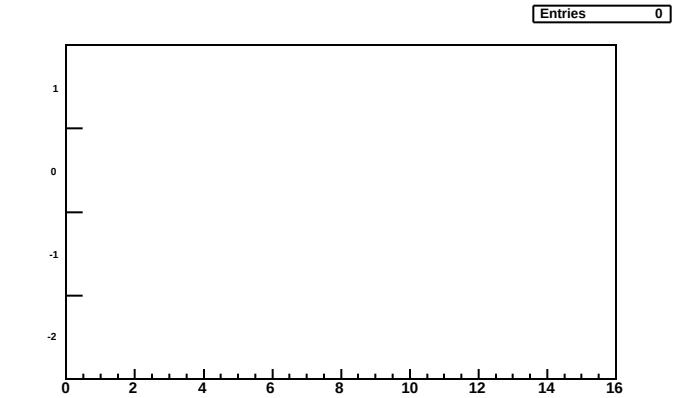
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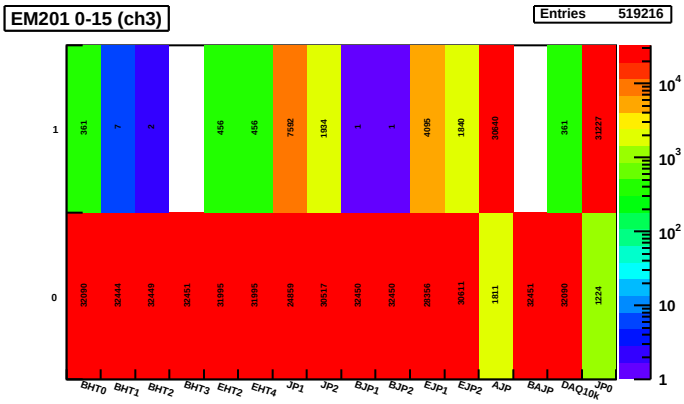
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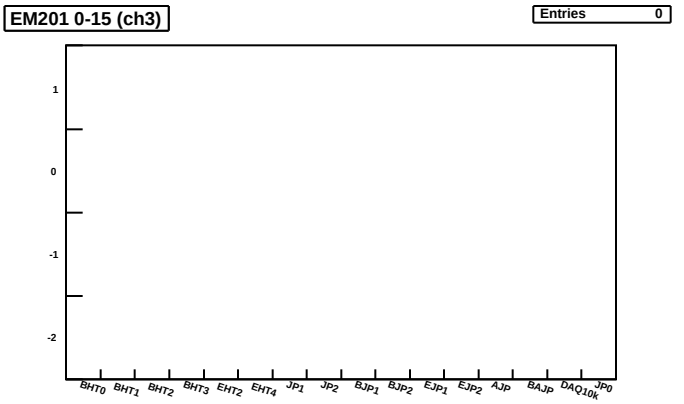
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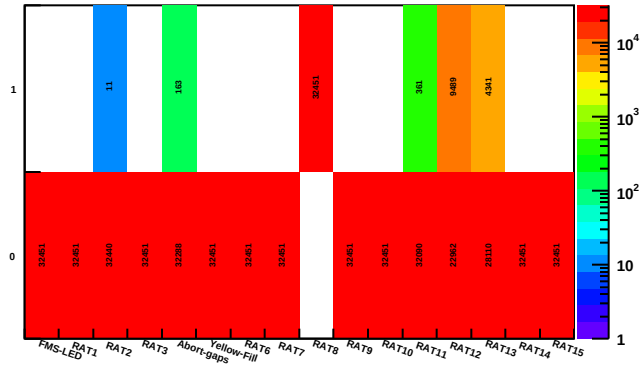
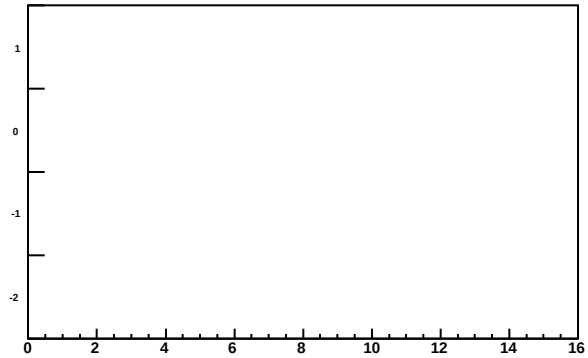
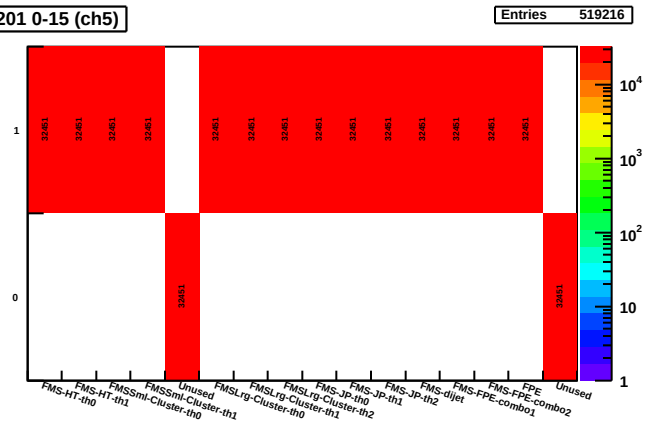
RAT board (ch4)

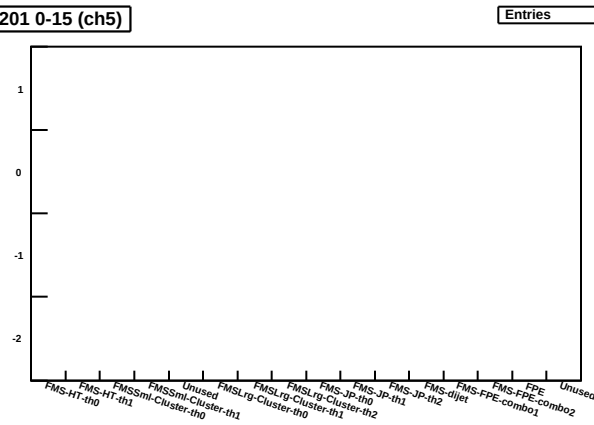




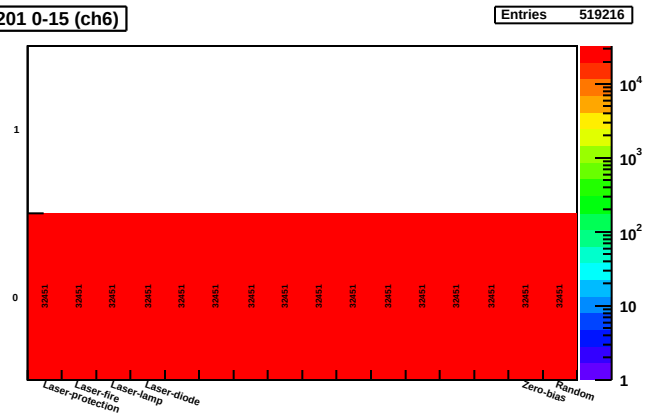
FP201 0-15 (ch5)

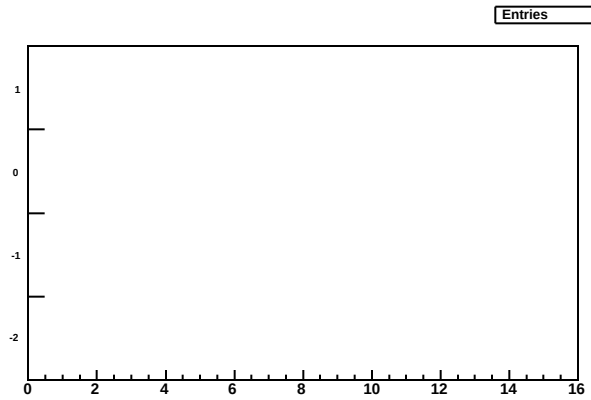
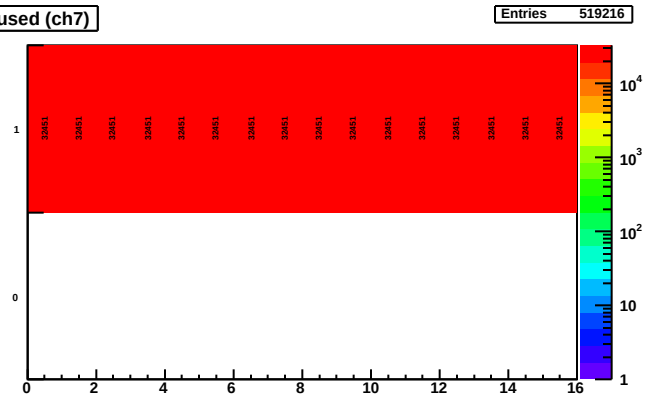
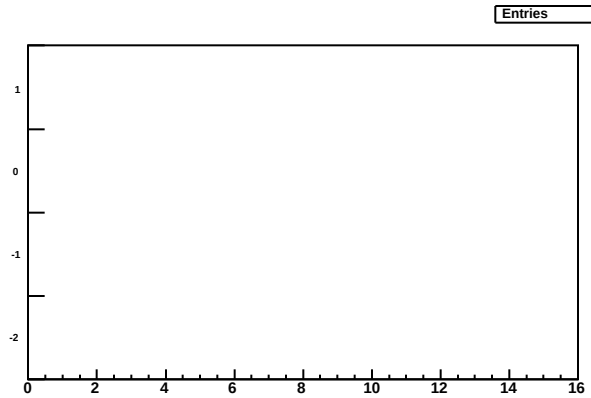


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)