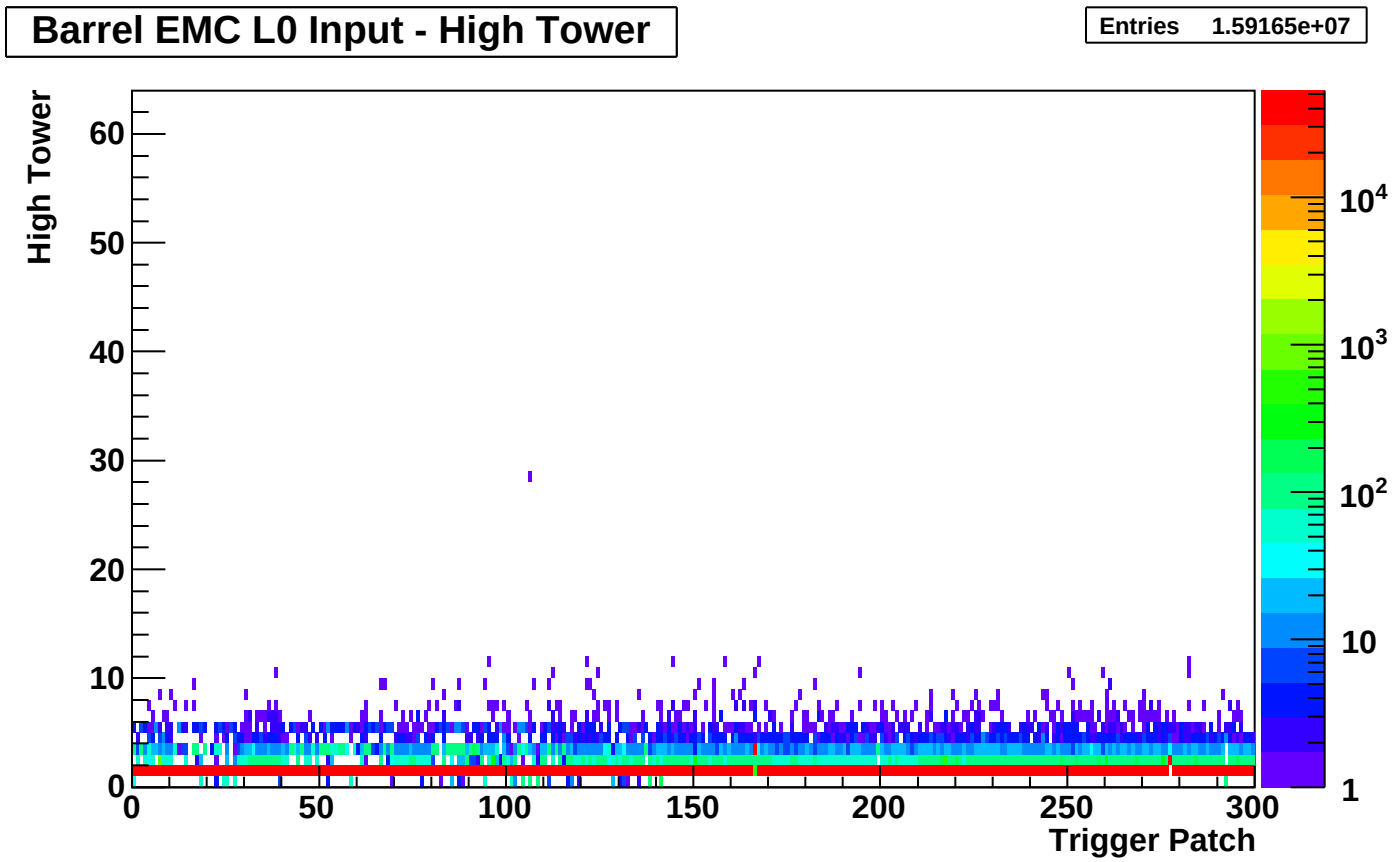
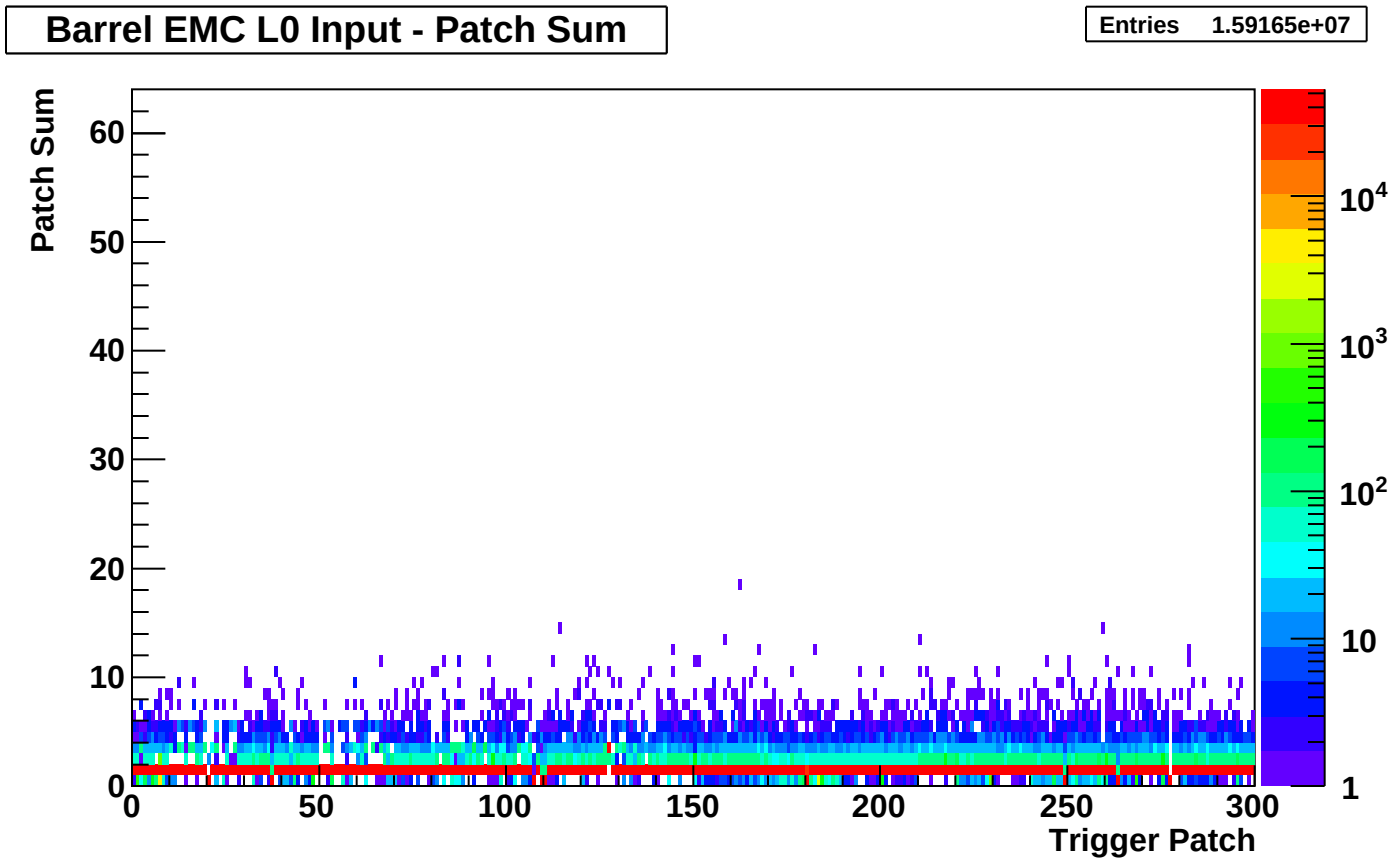
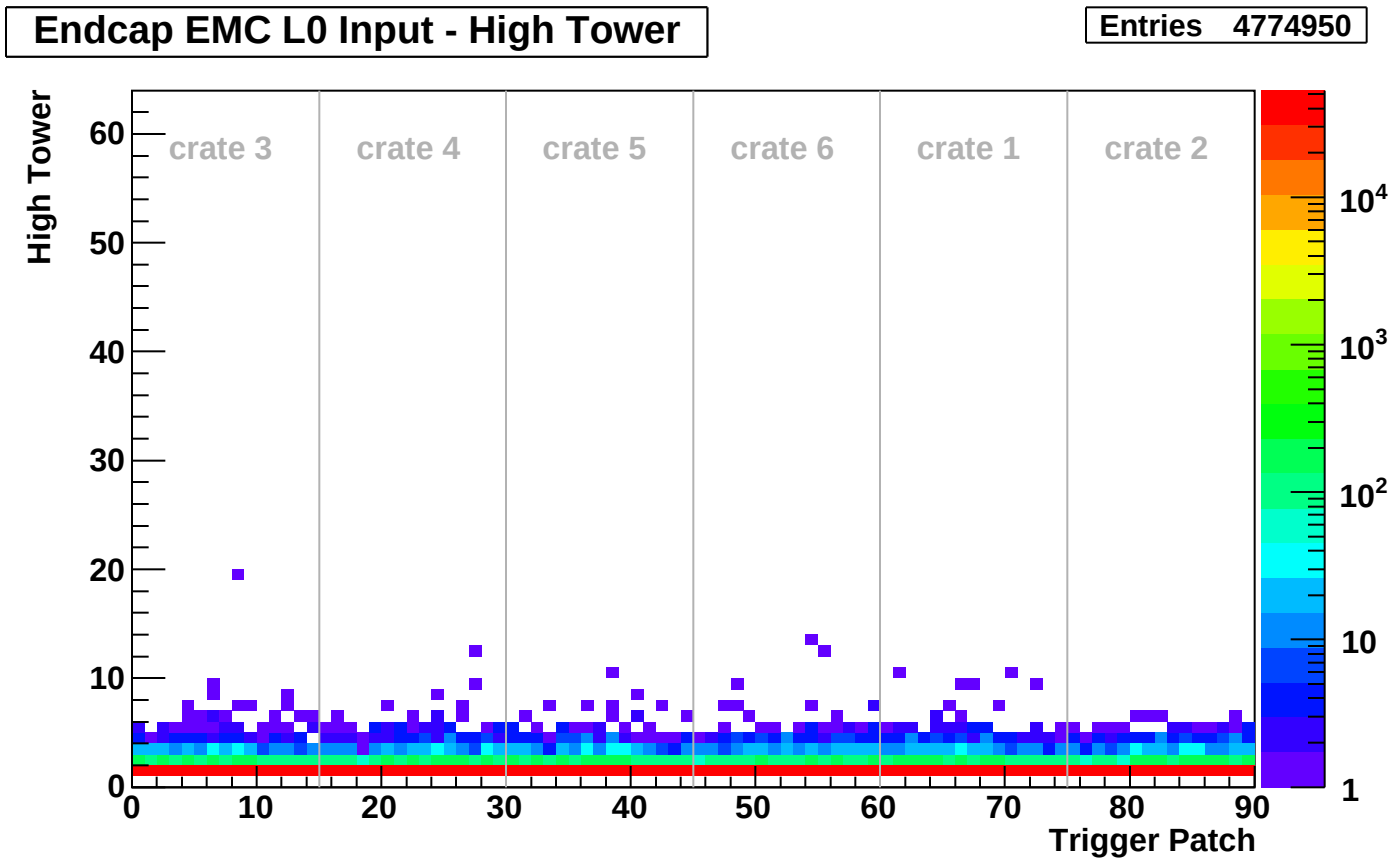
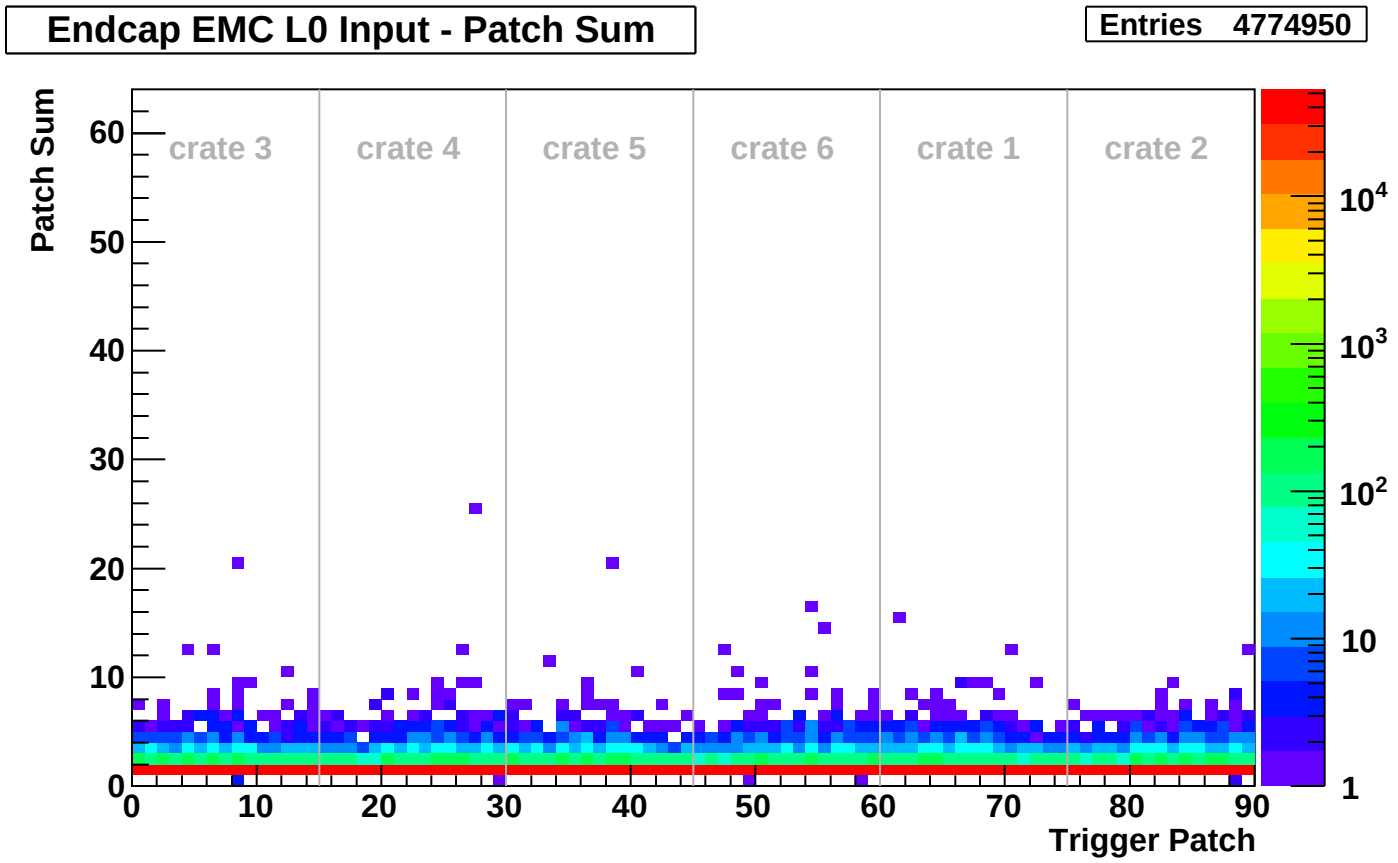
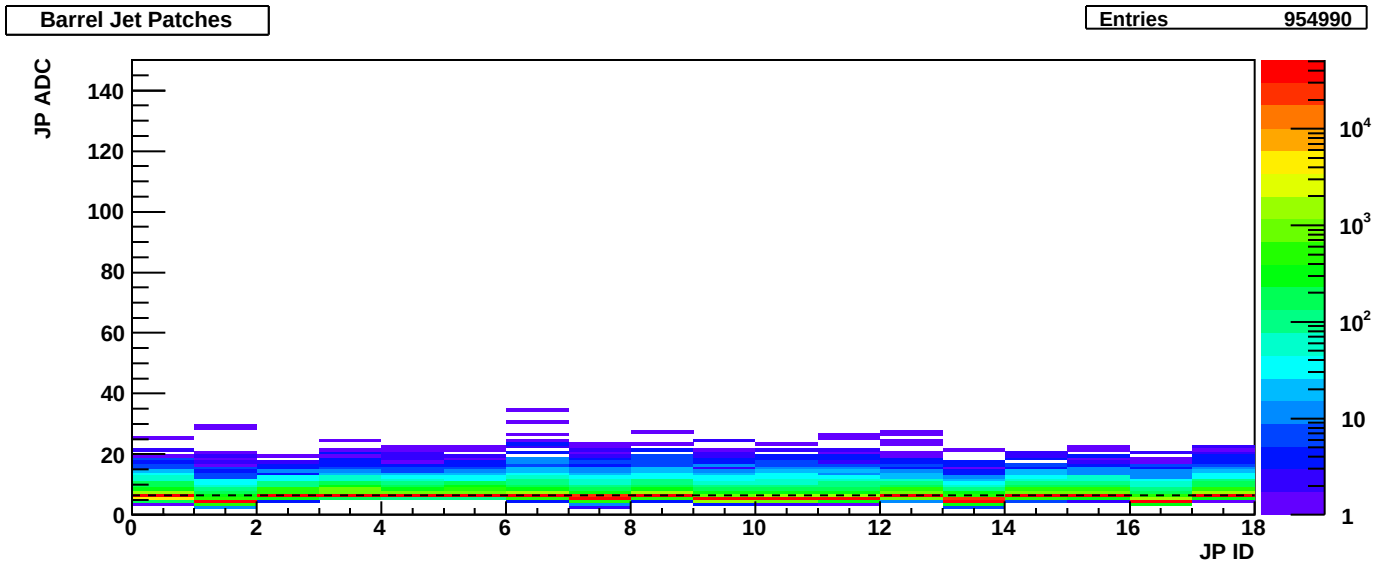
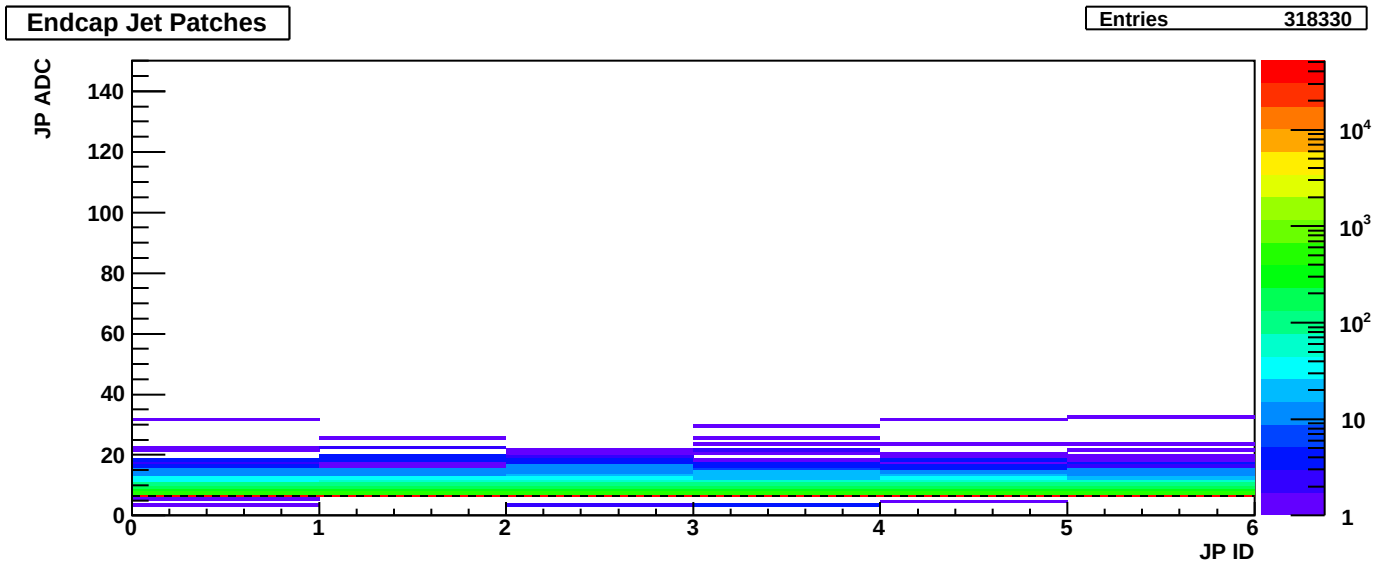

Barrel EMC L0 Input - High Tower
Entries 1.59165e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

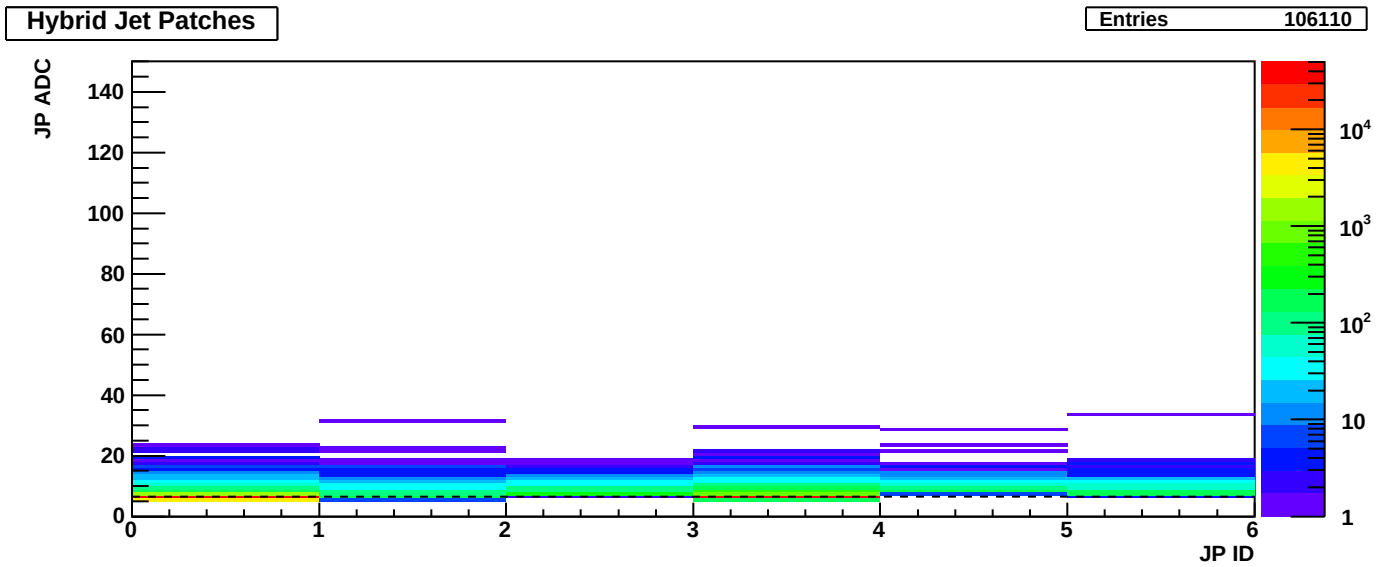

Barrel EMC L0 Input - Patch Sum
Entries 1.59165e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

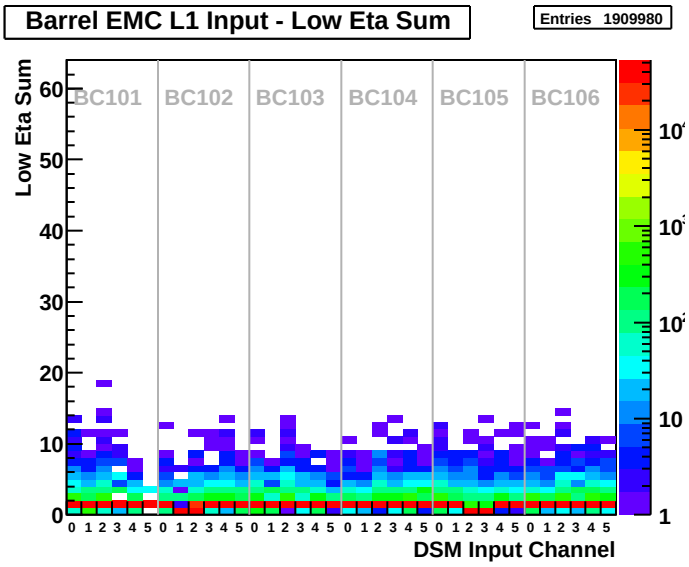

Endcap EMC L0 Input - High Tower
Entries 4774950
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

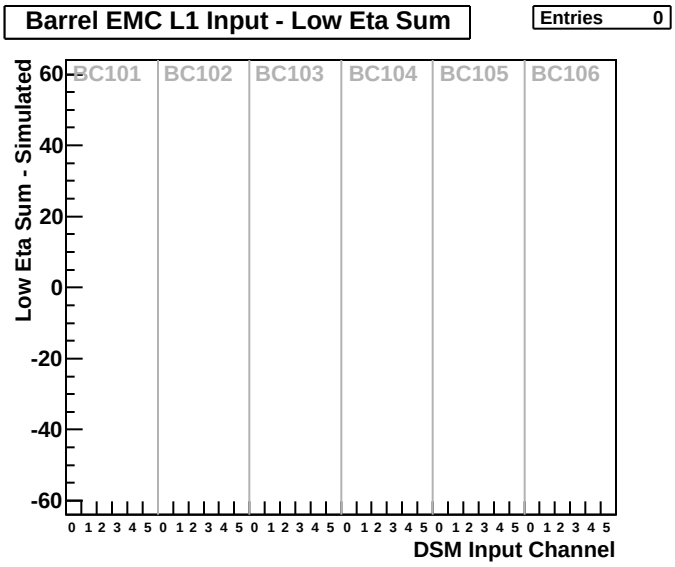

Endcap EMC L0 Input - Patch Sum
Entries 4774950
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

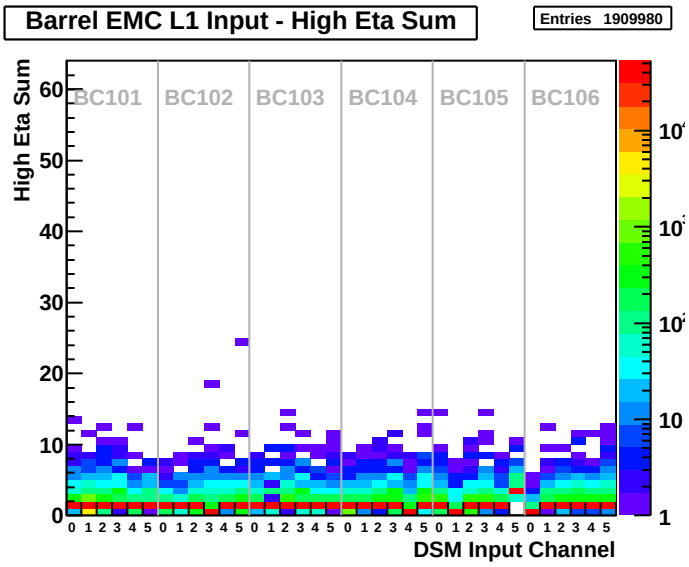

Barrel Jet Patches
Entries 954990
JP ADC
JP ID

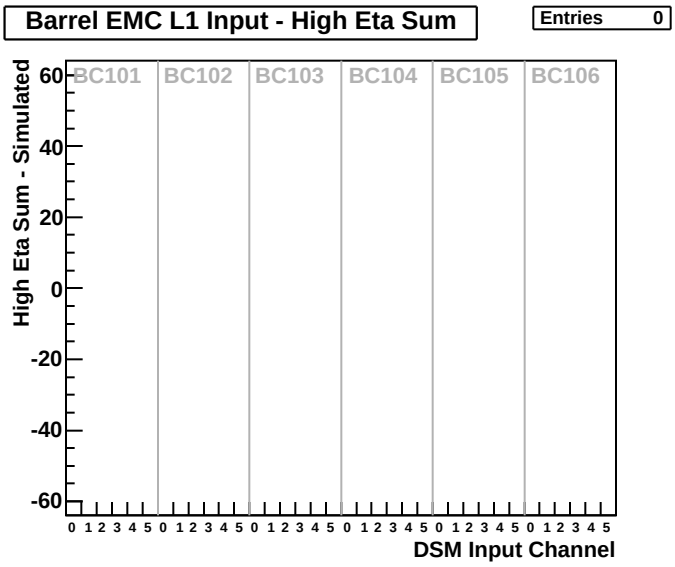

Endcap Jet Patches
Entries 318330
JP ADC
JP ID

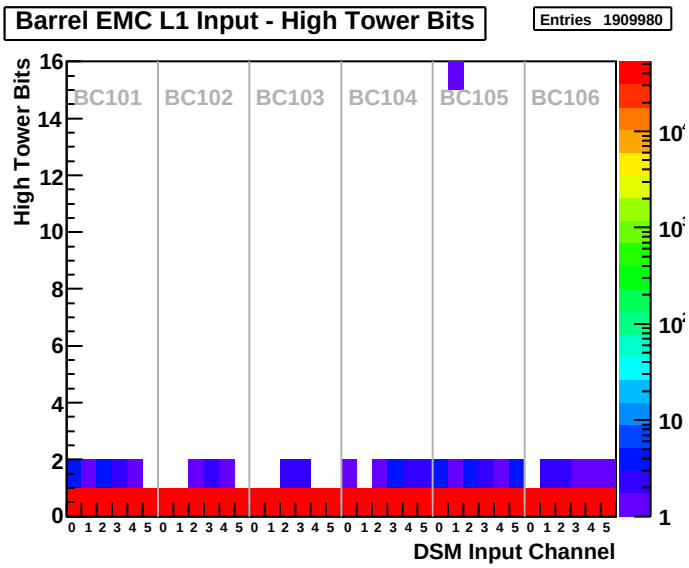

Hybrid Jet Patches
Entries 106110
JP ADC
JP ID

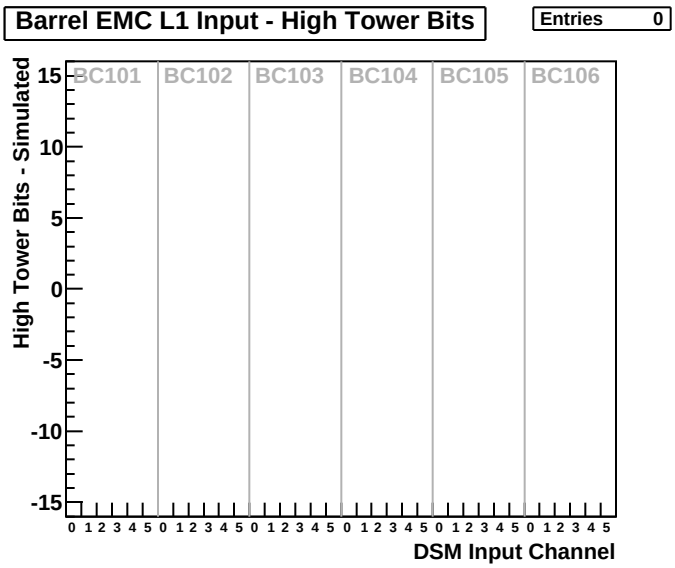

Barrel EMC L1 Input - Low Eta Sum
Entries 1909980
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

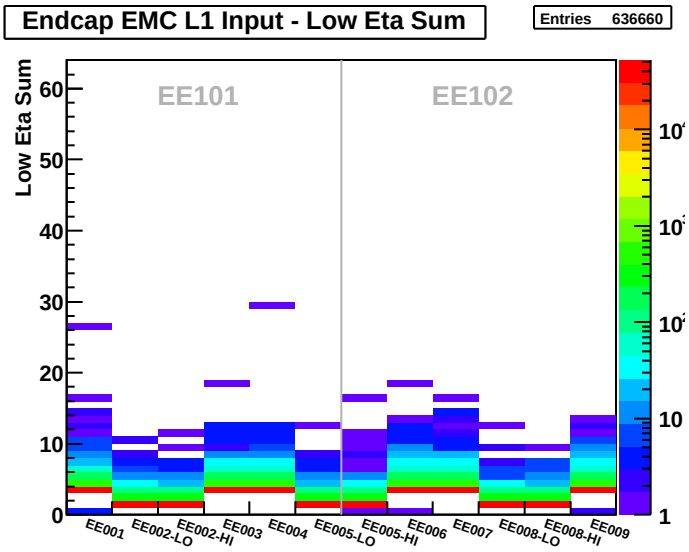

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

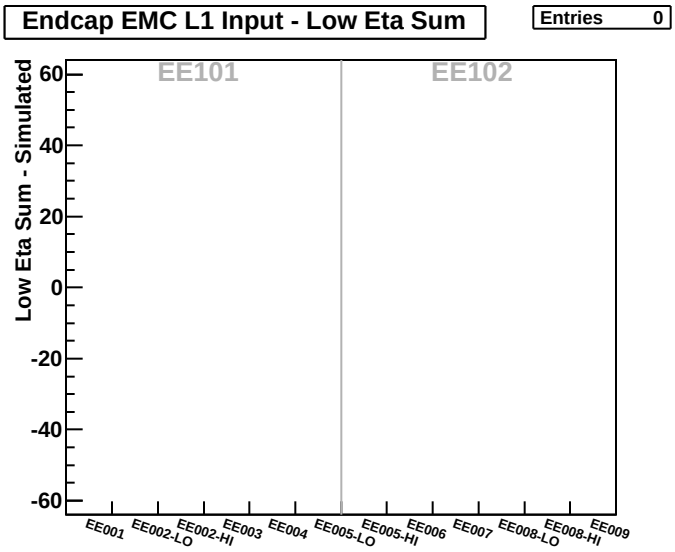

Barrel EMC L1 Input - High Eta Sum
Entries 1909980
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

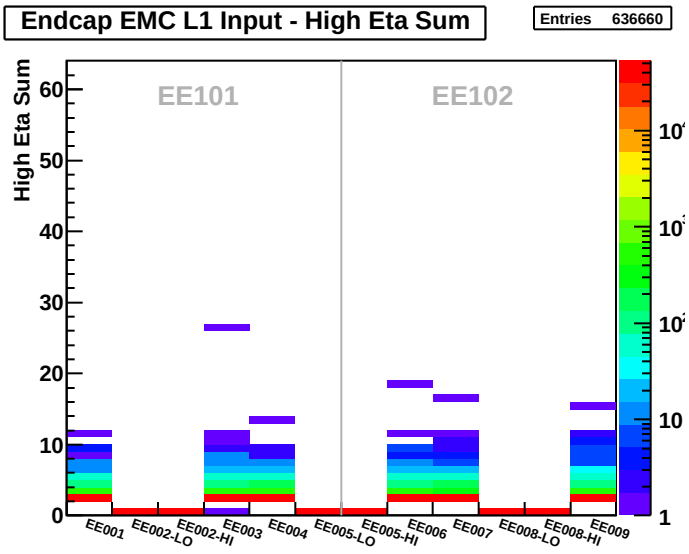

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

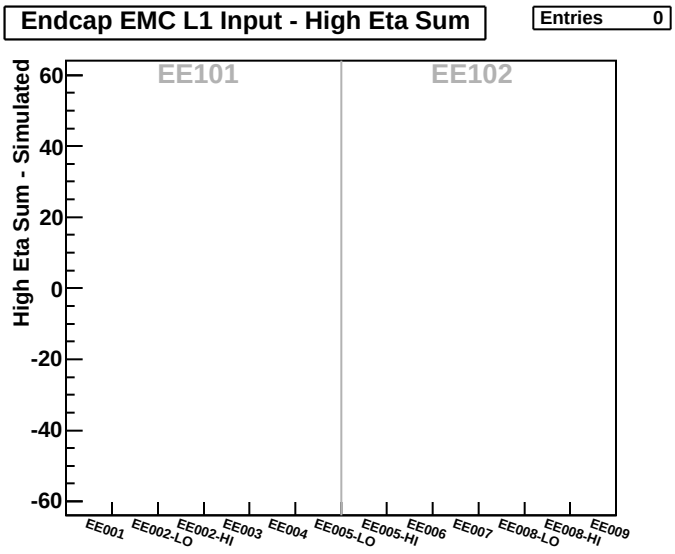

Barrel EMC L1 Input - High Tower Bits
Entries 1909980
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

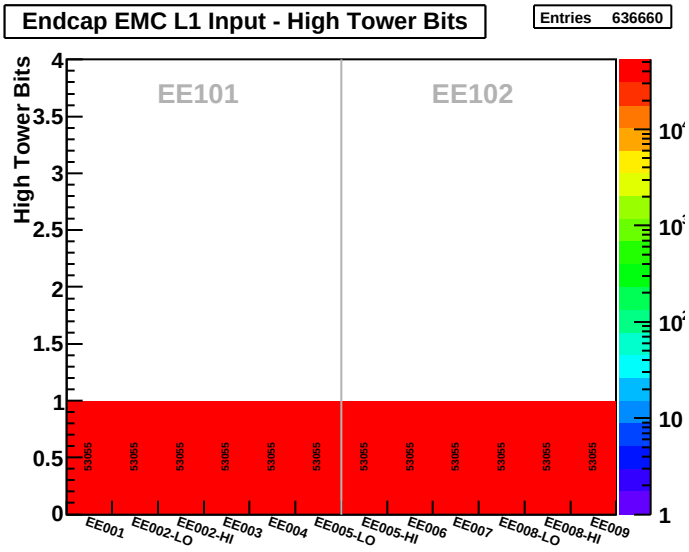

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

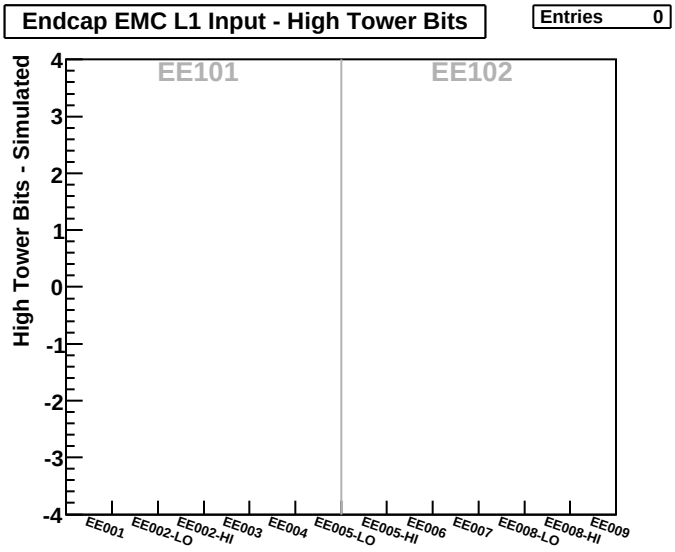

Endcap EMC L1 Input - Low Eta Sum
Entries 636660
Low Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

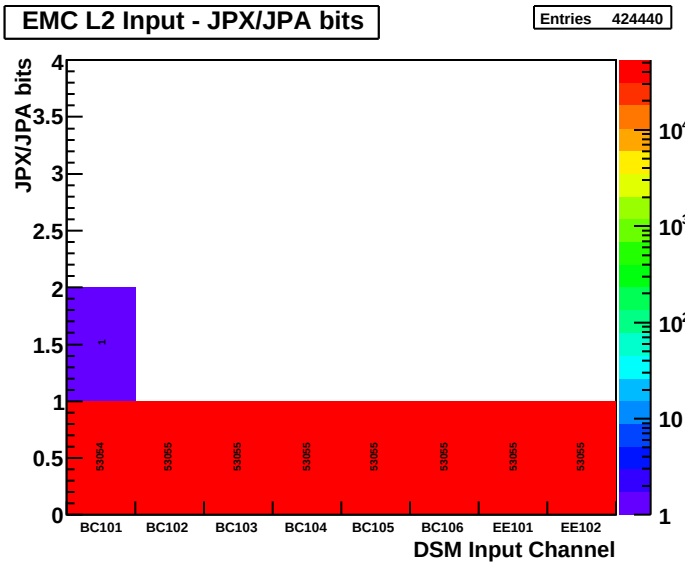

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

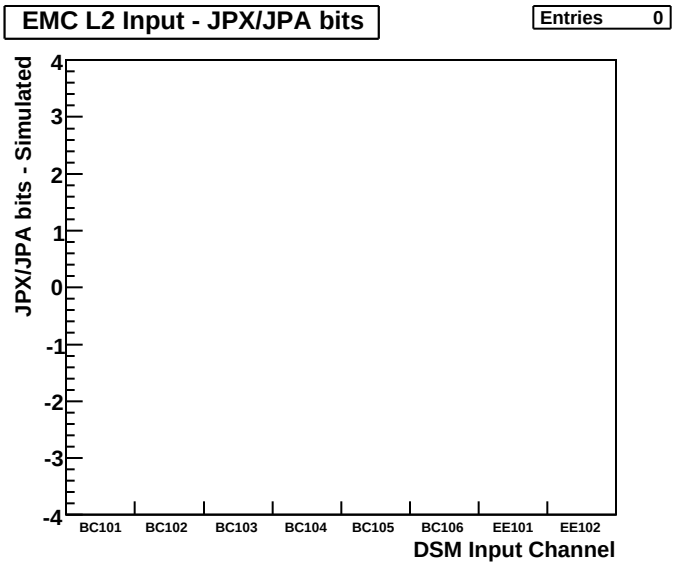

Endcap EMC L1 Input - High Eta Sum
Entries 636660
High Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

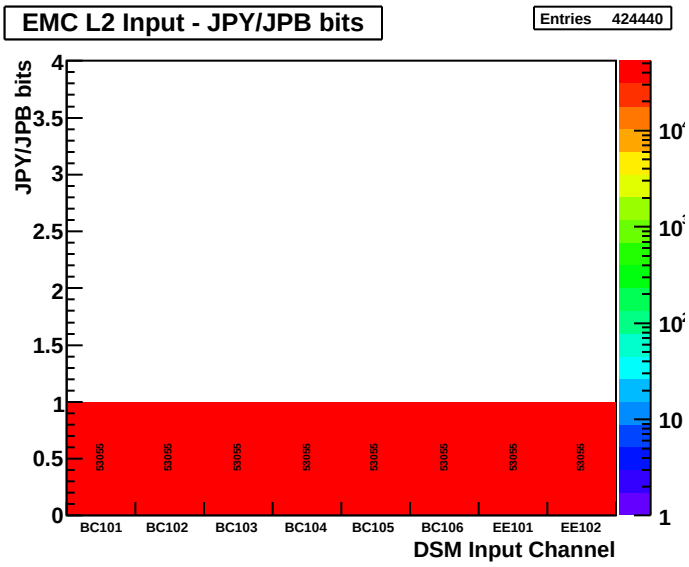

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

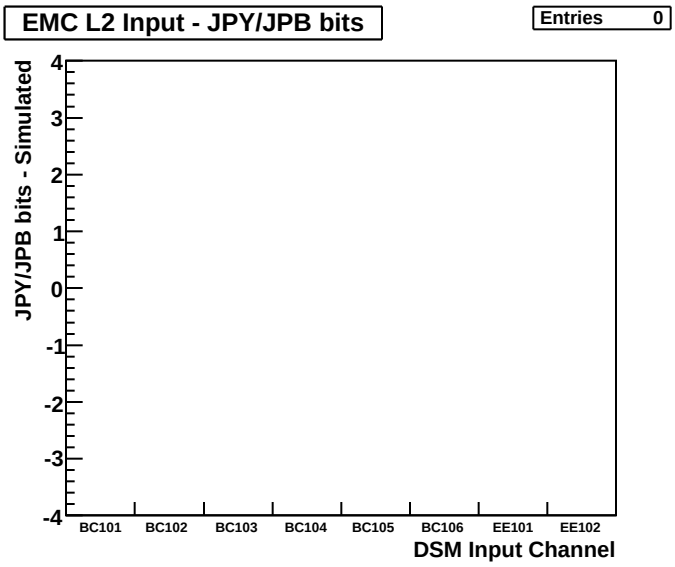

Endcap EMC L1 Input - High Tower Bits
Entries 636660
High Tower Bits
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

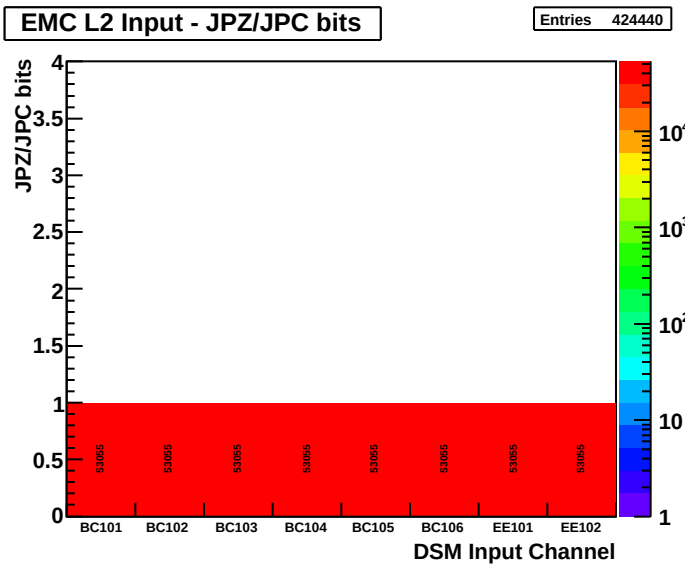

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

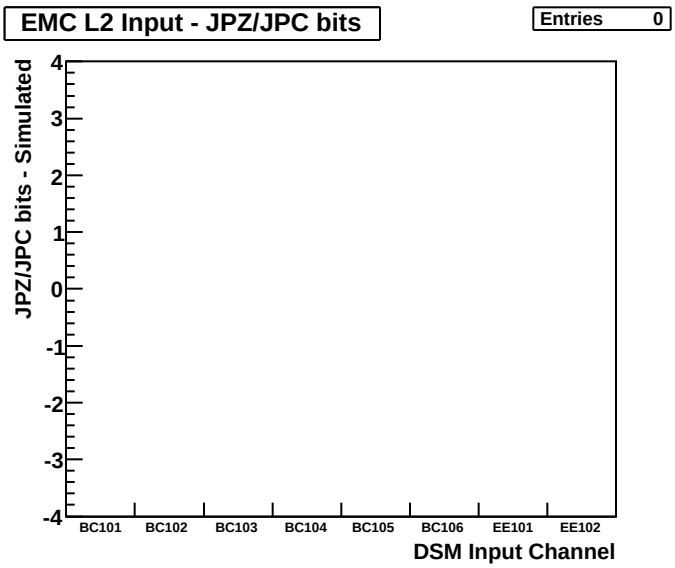

EMC L2 Input - JPX/JPA bits
Entries 424440
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

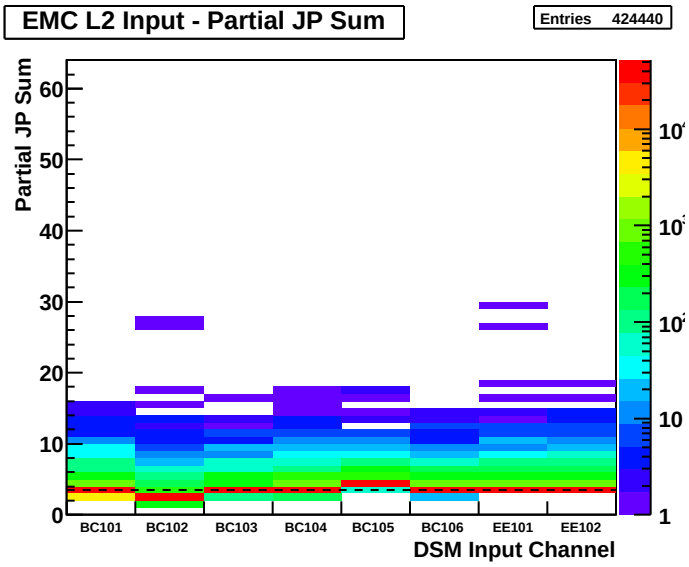

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

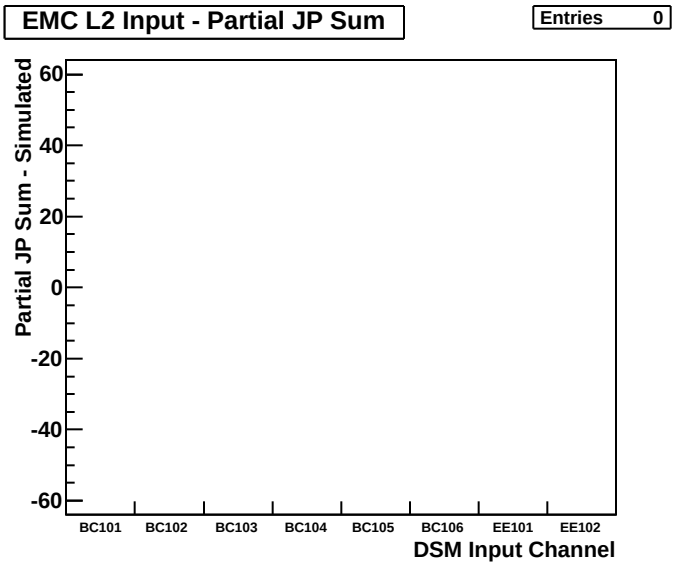

EMC L2 Input - JPY/JPB bits
Entries 424440
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

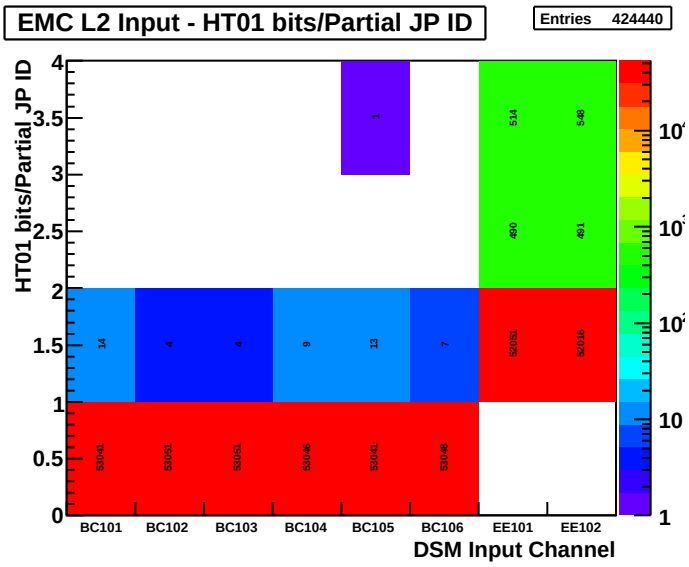

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

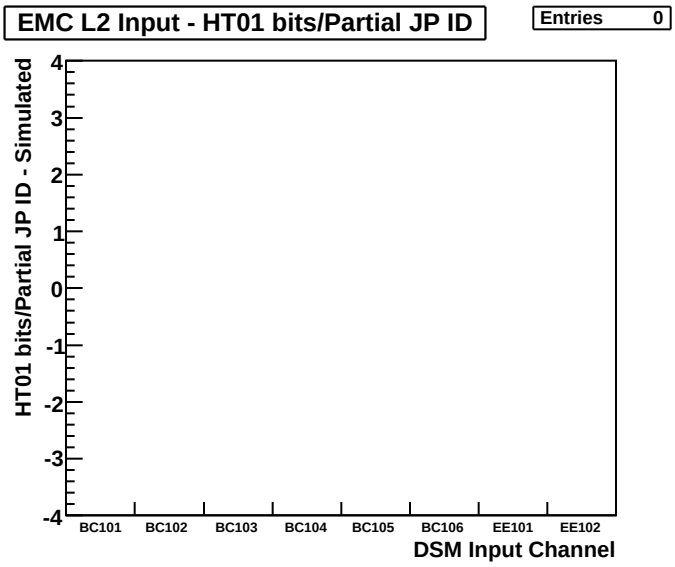

EMC L2 Input - JPZ/JPC bits
Entries 424440
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

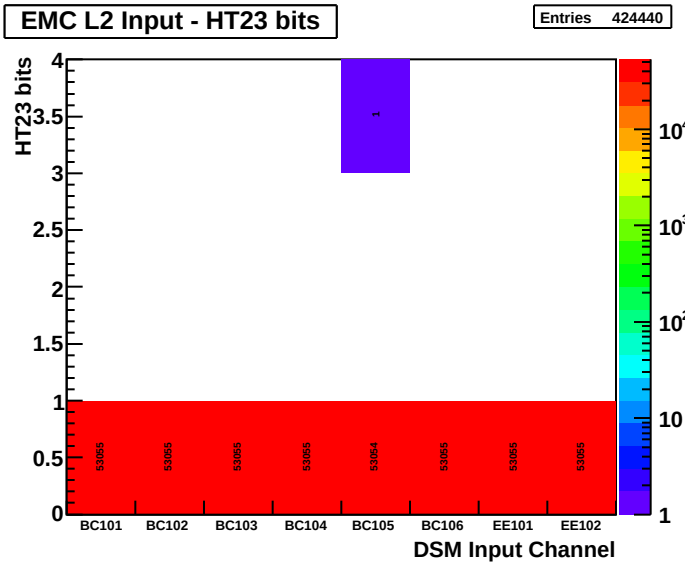

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

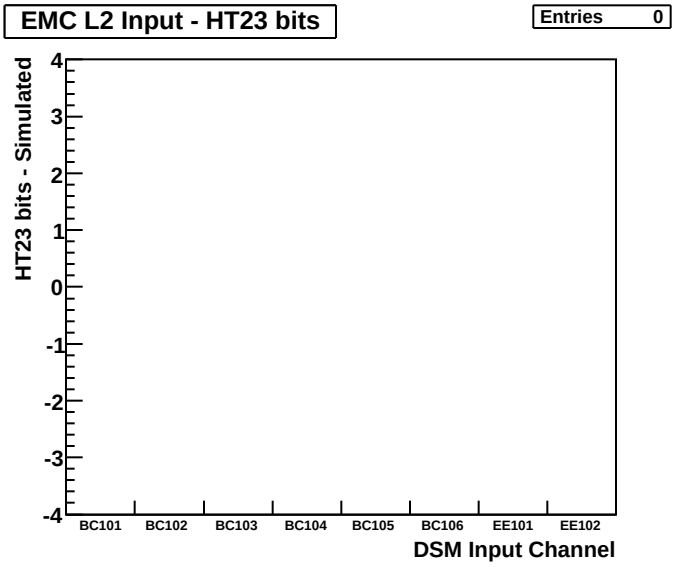

EMC L2 Input - Partial JP Sum
Entries 424440
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

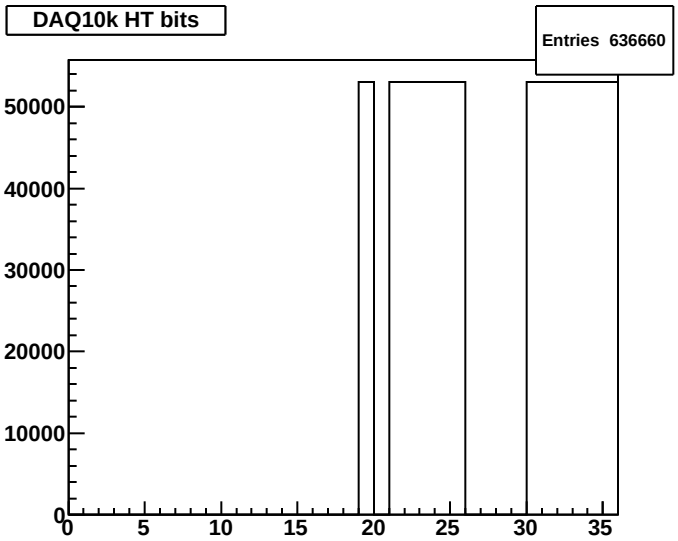

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

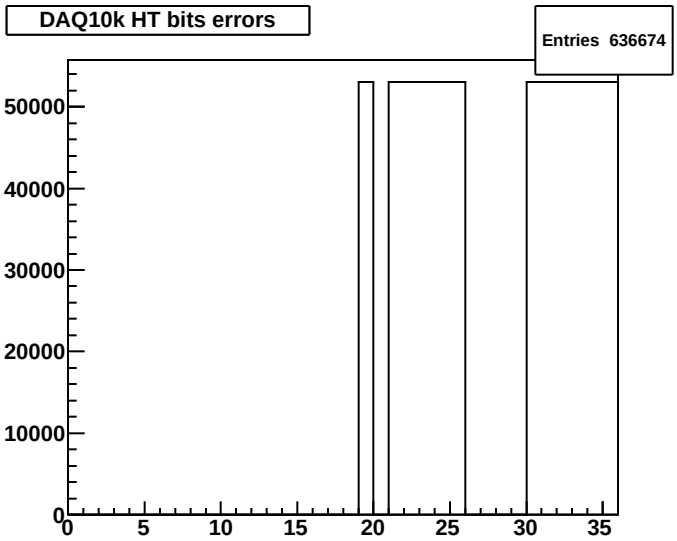

EMC L2 Input - HT01 bits/Partial JP ID
Entries 424440
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

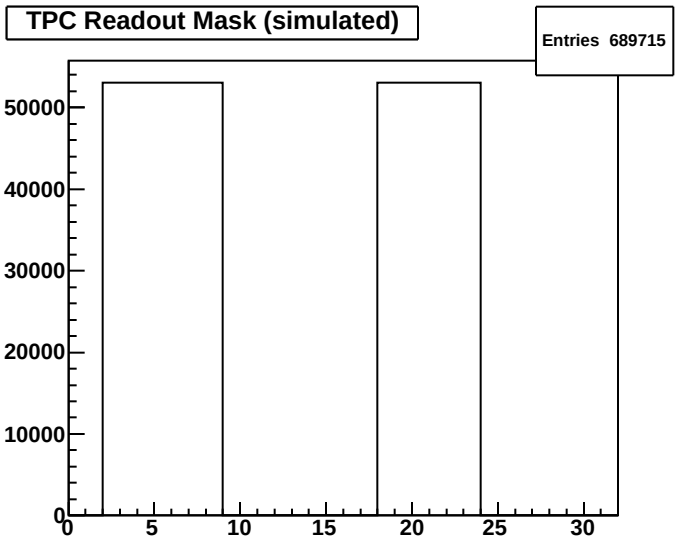

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

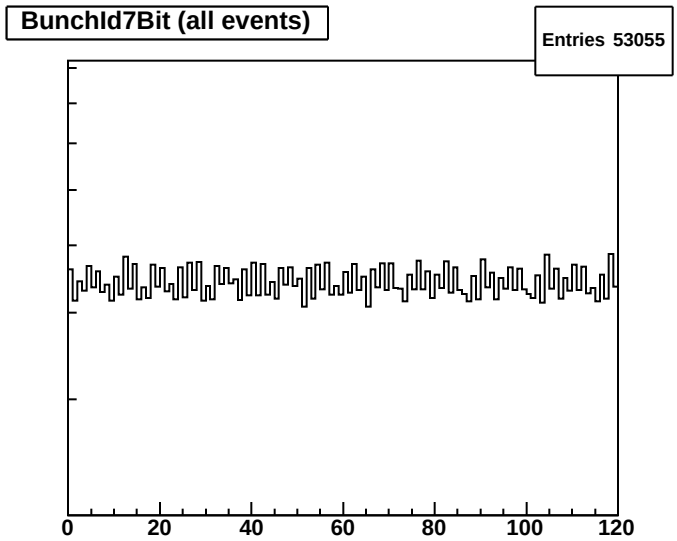

EMC L2 Input - HT23 bits
Entries 424440
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

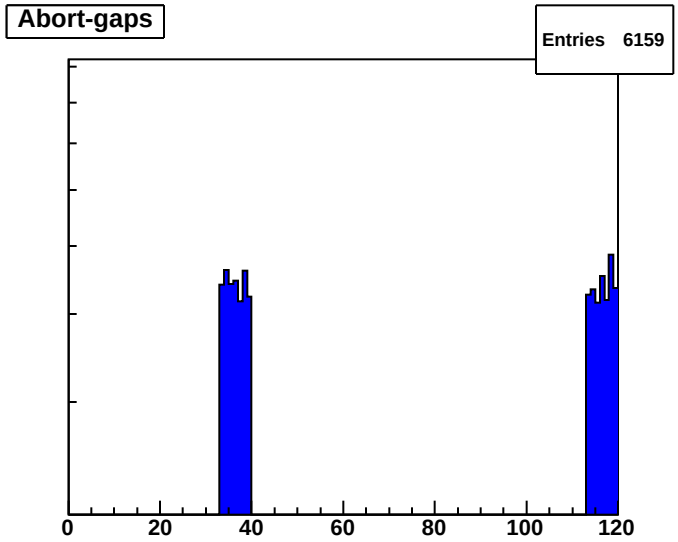

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

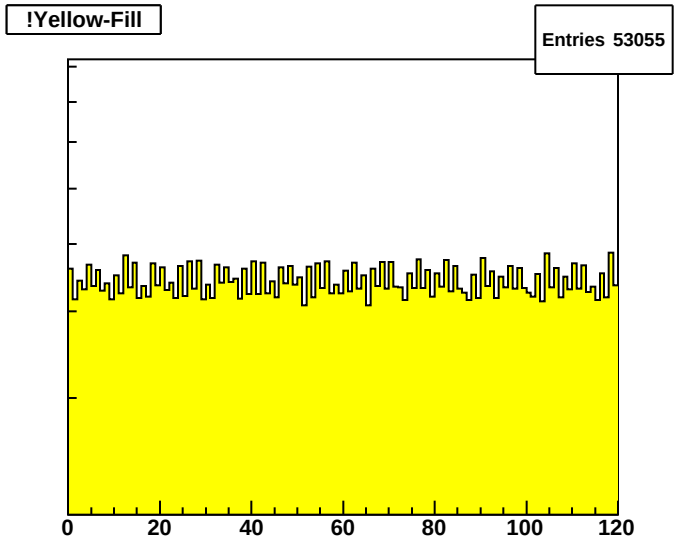

DAQ10k HT bits
Entries 636660
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

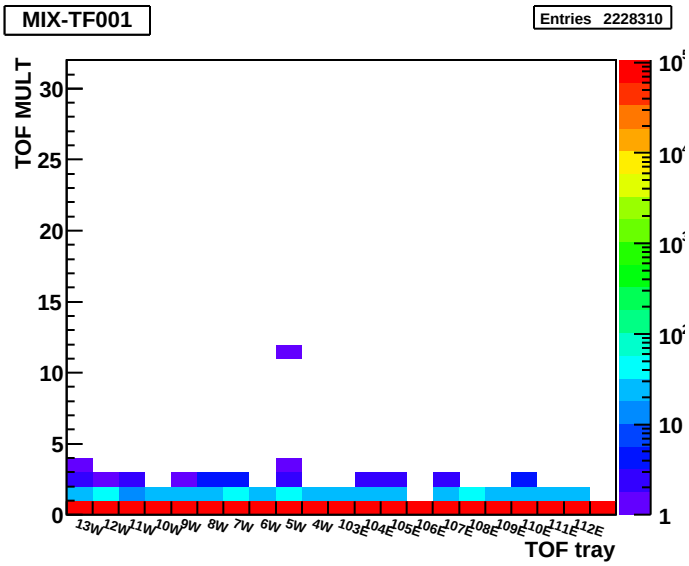

DAQ10k HT bits errors
Entries 636674
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

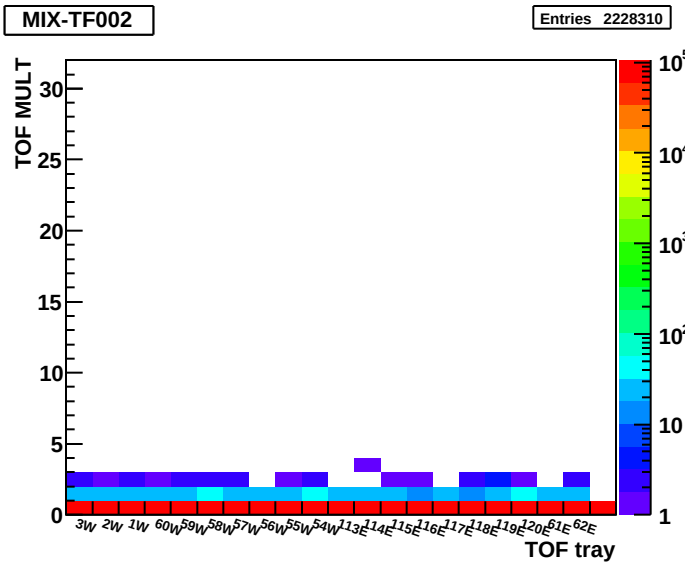

TPC Readout Mask (simulated)
Entries 689715
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

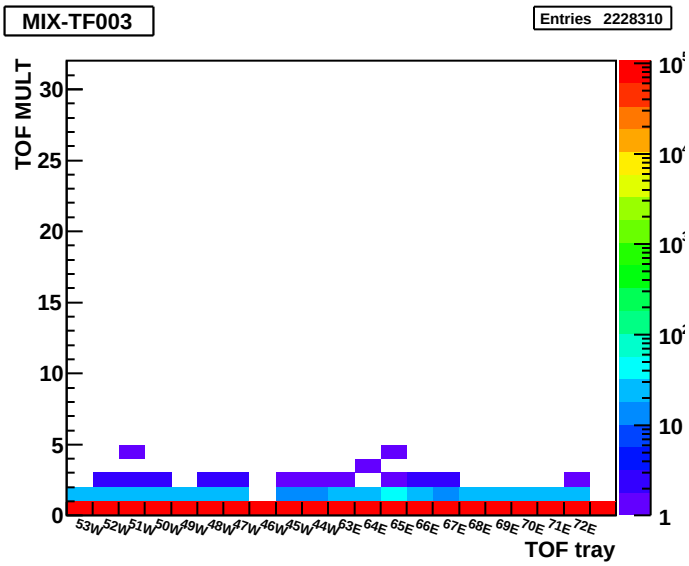

BunchId7Bit (all events)
Entries 53055
0 20 40 60 80 100 120

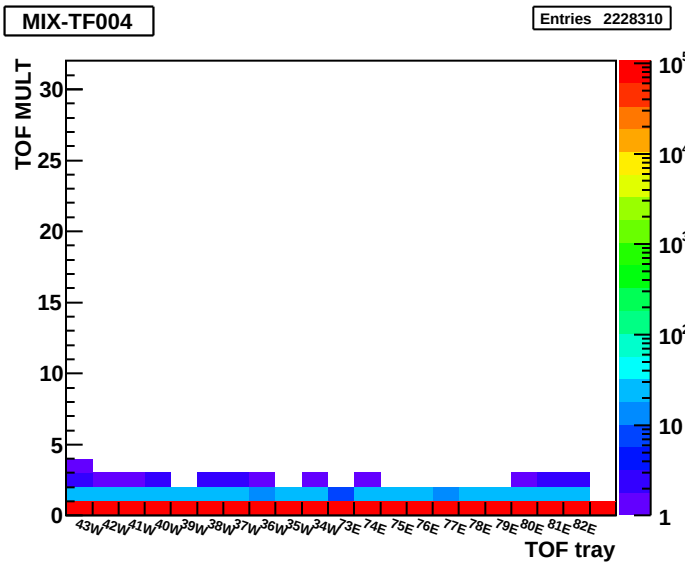

Abort-gaps
Entries 6159
0 20 40 60 80 100 120

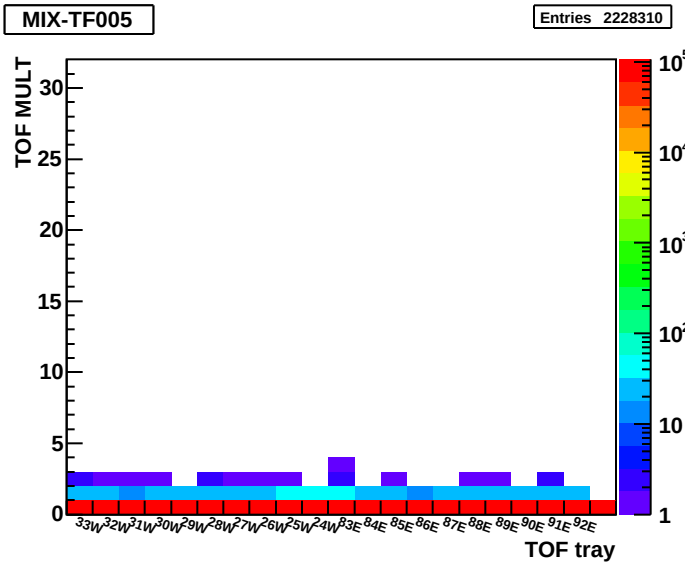

!Yellow-Fill
Entries 53055
0 20 40 60 80 100 120

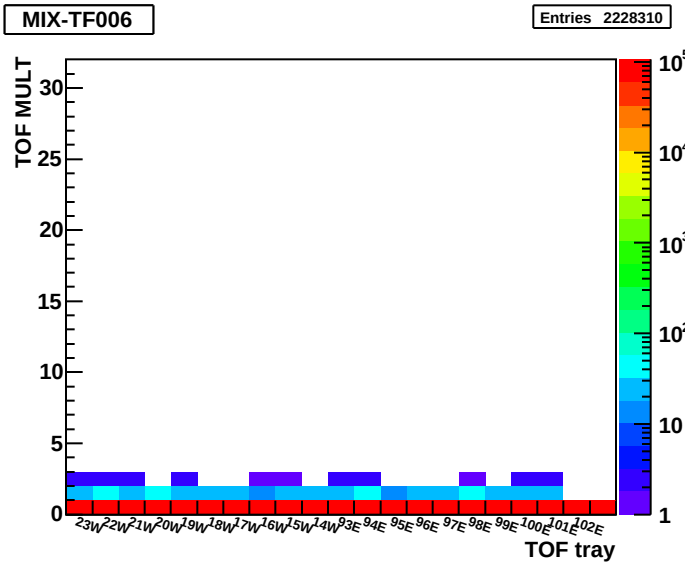

MIX-TF001
Entries 2228310
TOF MULT
TOF tray

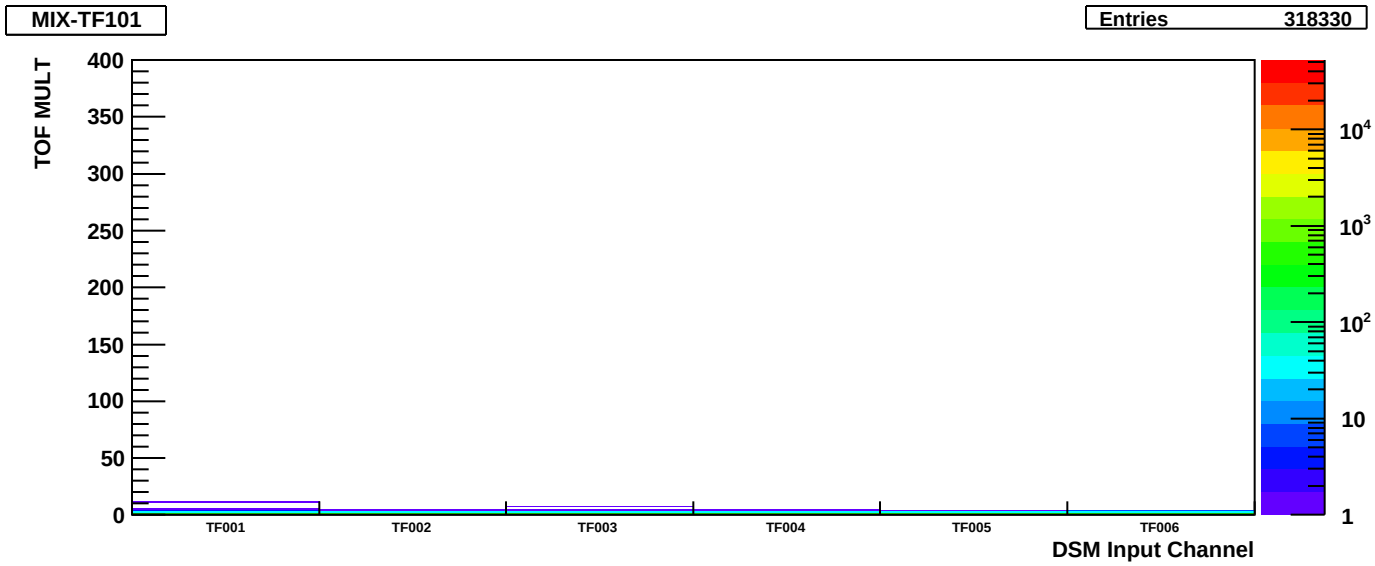

MIX-TF002
Entries 2228310
TOF MULT
TOF tray

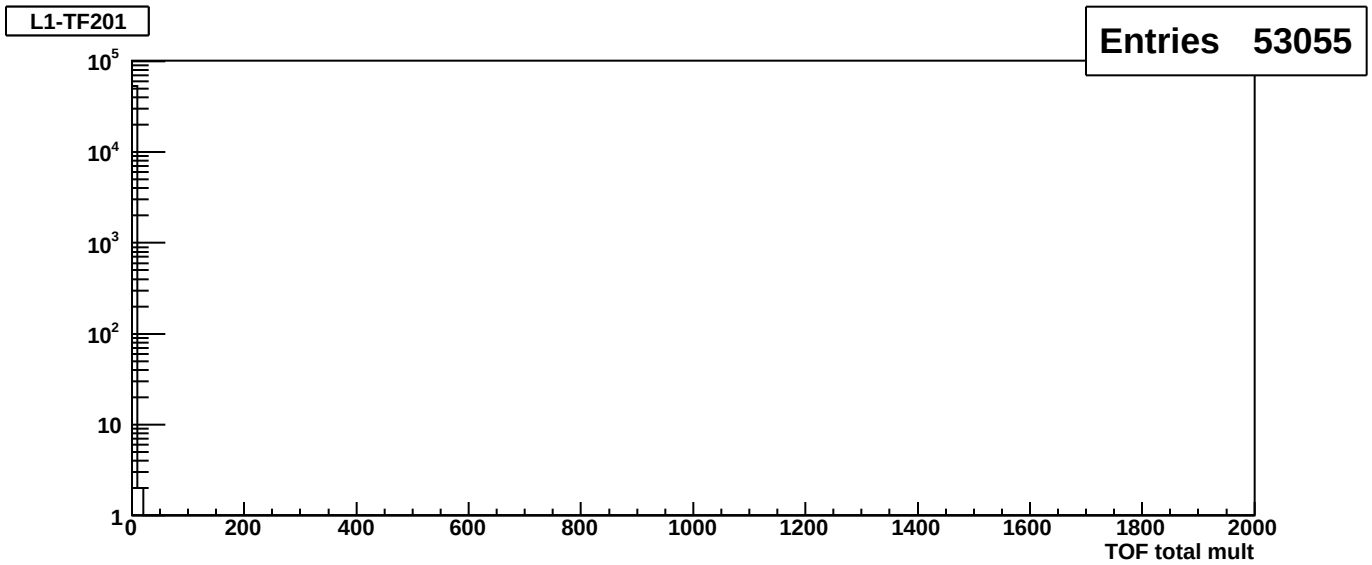

MIX-TF003
Entries 2228310
TOF MULT
TOF tray

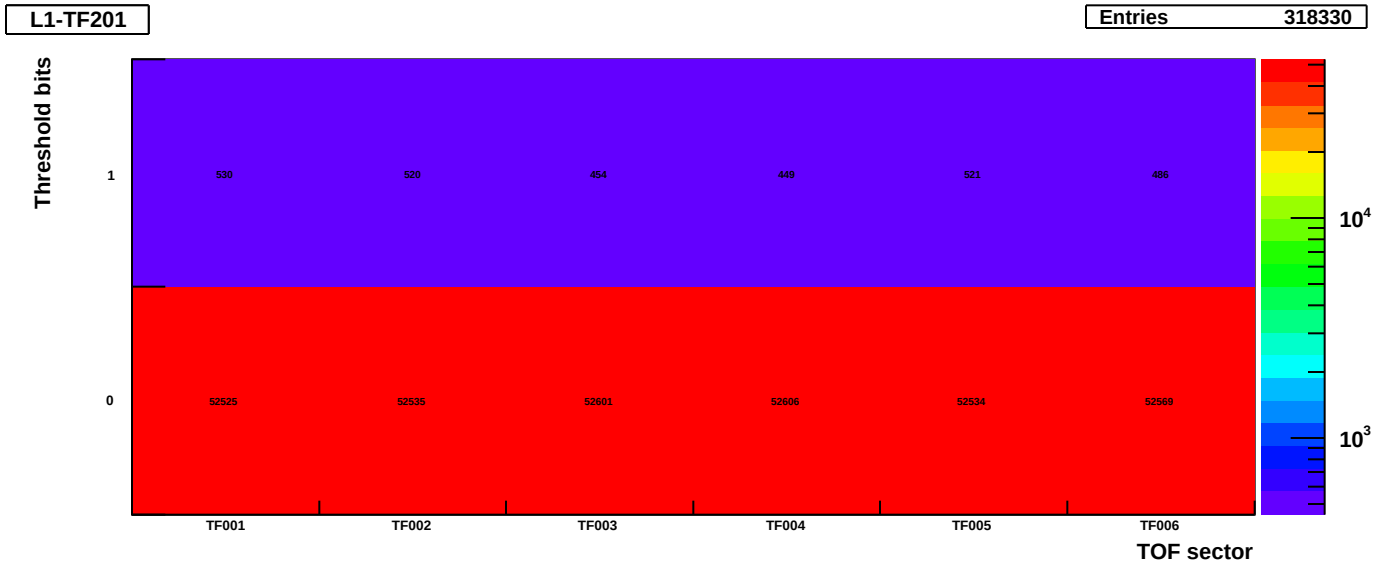

MIX-TF004
Entries 2228310
TOF MULT
TOF tray

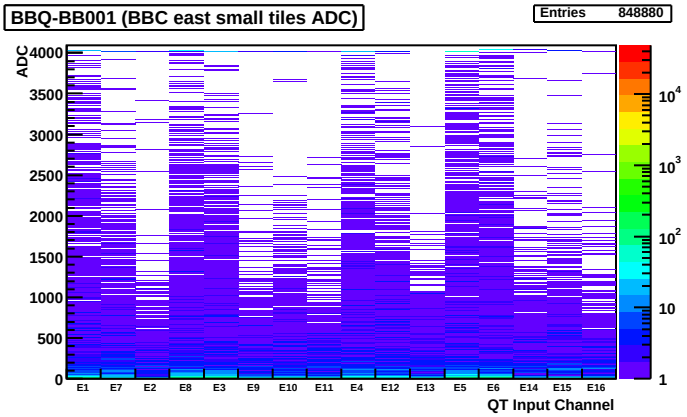

MIX-TF005
Entries 2228310
TOF MULT
TOF tray

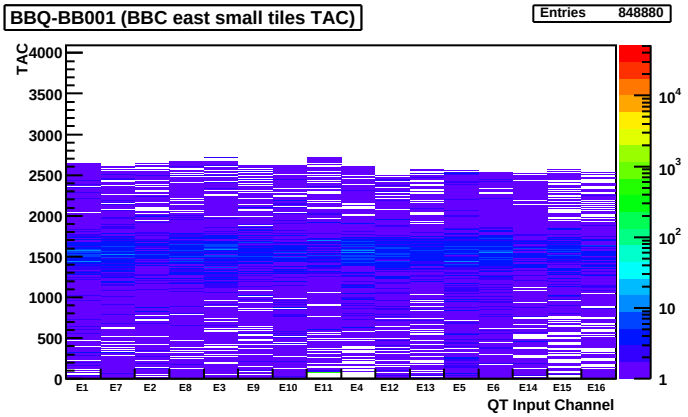

MIX-TF006
Entries 2228310
TOF MULT
TOF tray

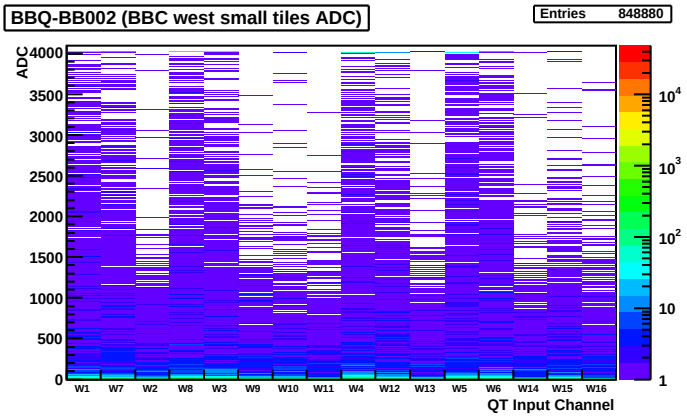

MIX-TF101
Entries 318330
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

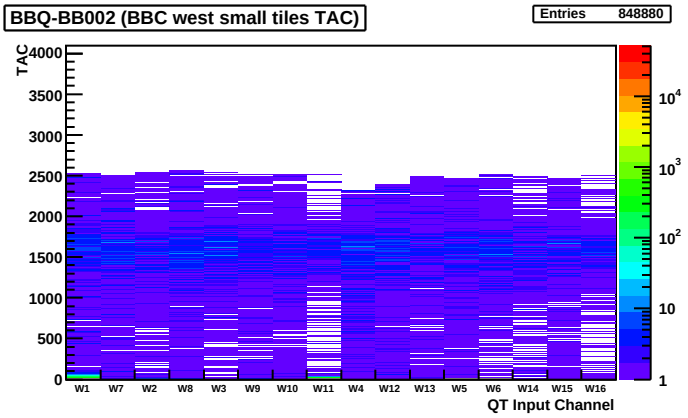

L1-TF201
Entries 53055
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

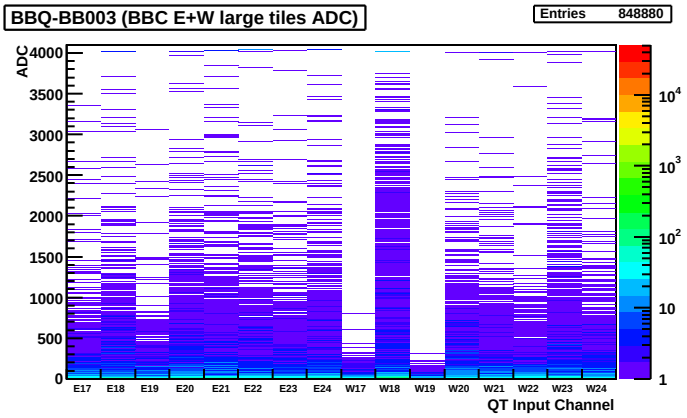

L1-TF201
Entries 318330
Threshold bits
1
0
530
520
454
449
521
486
52525
52535
52601
52606
52534
52569
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

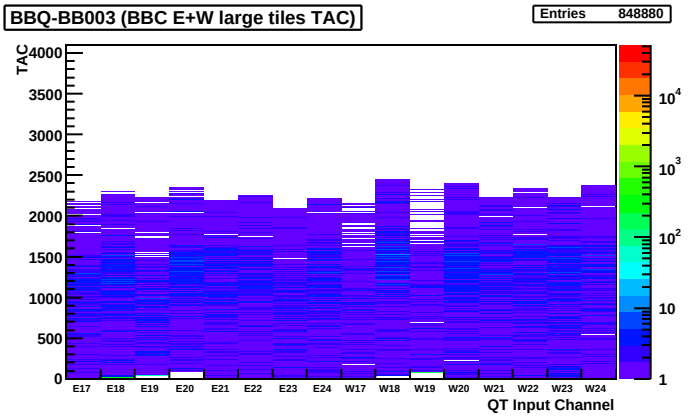

BBQ-BB001 (BBC east small tiles ADC)
Entries 848880
ADC
QT Input Channel

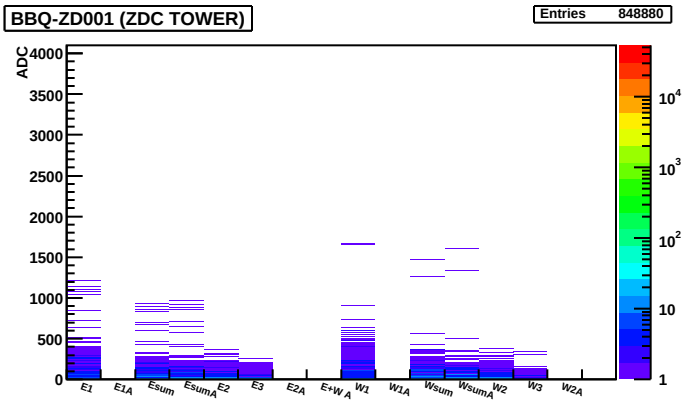

BBQ-BB001 (BBC east small tiles TAC)
Entries 848880
TAC
QT Input Channel

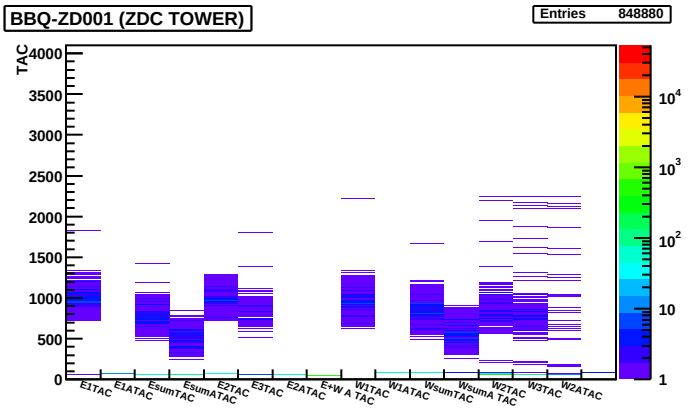

BBQ-BB002 (BBC west small tiles ADC)
Entries 848880
ADC
QT Input Channel

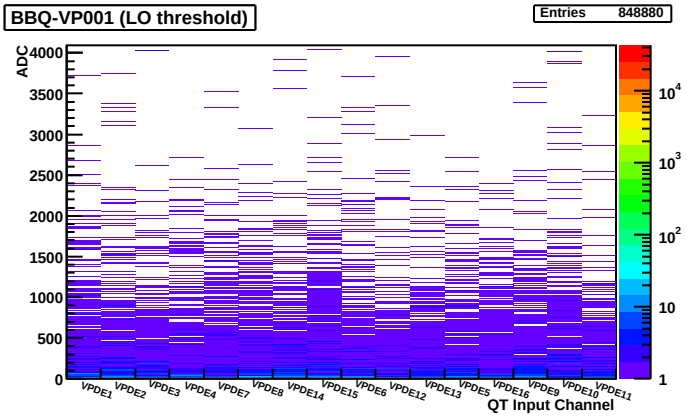

BBQ-BB002 (BBC west small tiles TAC)
Entries 848880
TAC
QT Input Channel

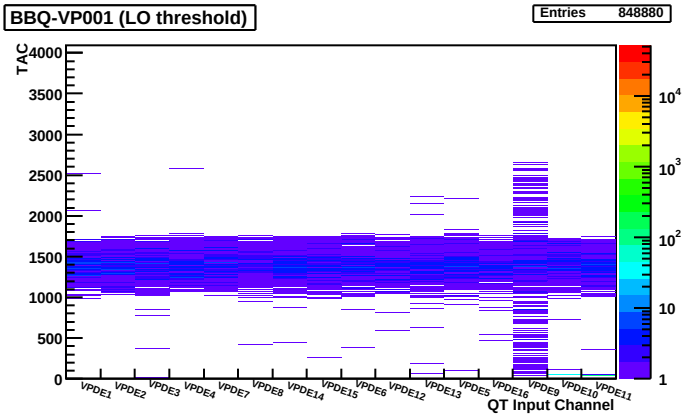

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 848880
ADC
QT Input Channel

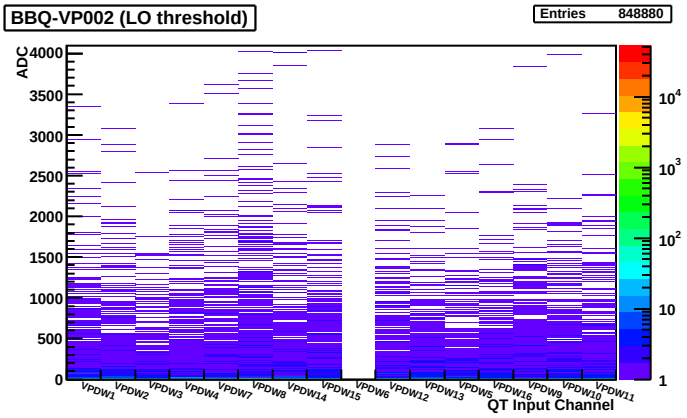

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 848880
TAC
QT Input Channel

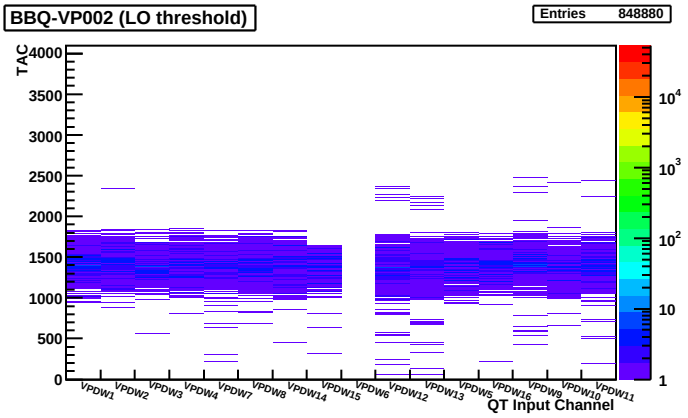

BBQ-ZD001 (ZDC TOWER)
Entries 848880
ADC

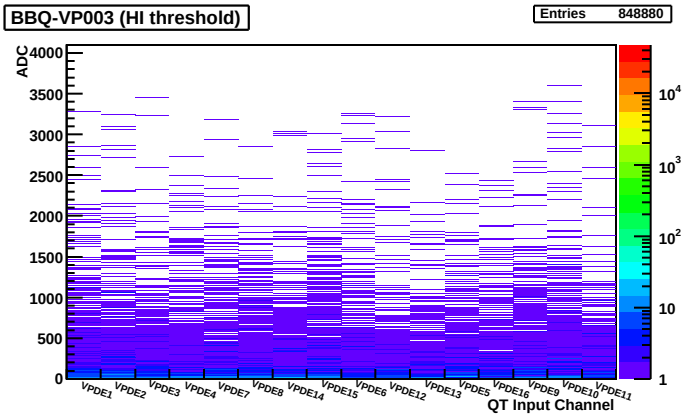

BBQ-ZD001 (ZDC TOWER)
Entries 848880
TAC

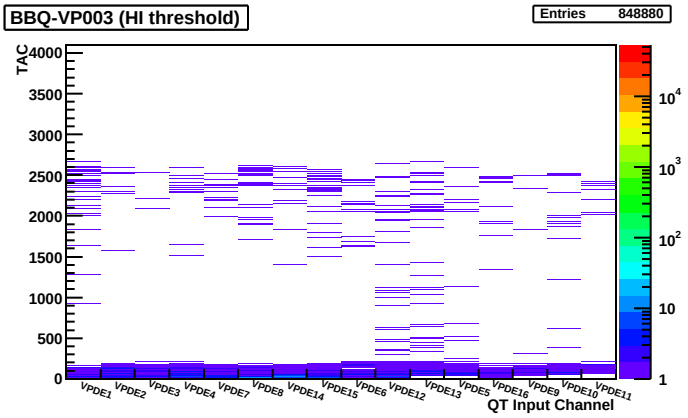

BBQ-VP001 (LO threshold)
Entries 848880
ADC
QT Input Channel

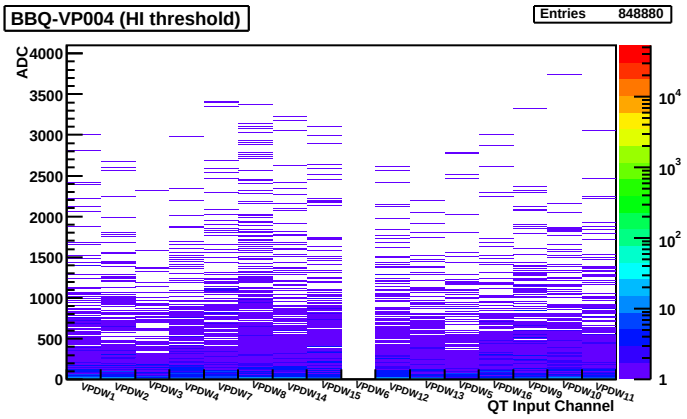

BBQ-VP001 (LO threshold)
Entries 848880
TAC
QT Input Channel

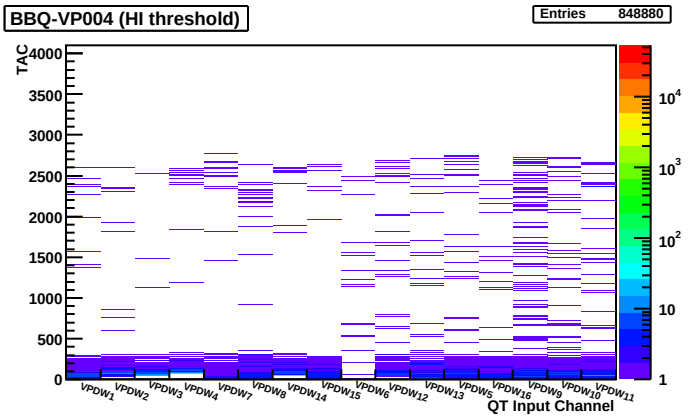

BBQ-VP002 (LO threshold)
Entries 848880
ADC
QT Input Channel

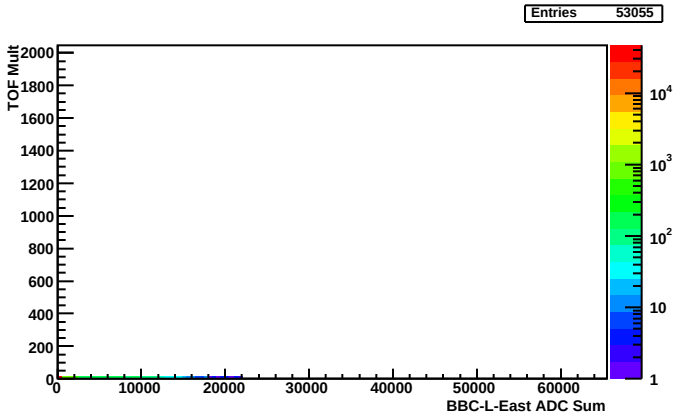

BBQ-VP002 (LO threshold)
Entries 848880
TAC
QT Input Channel

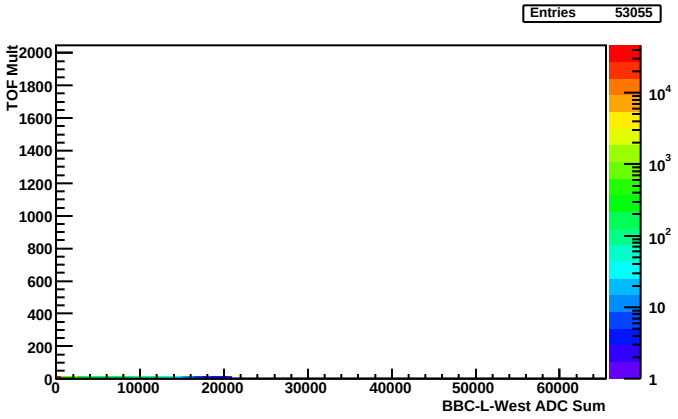

BBQ-VP003 (HI threshold)
Entries 848880
ADC
QT Input Channel

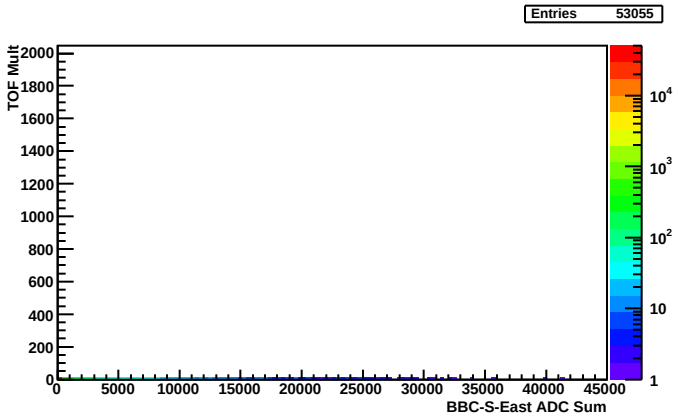

BBQ-VP003 (HI threshold)
Entries 848880
TAC
QT Input Channel

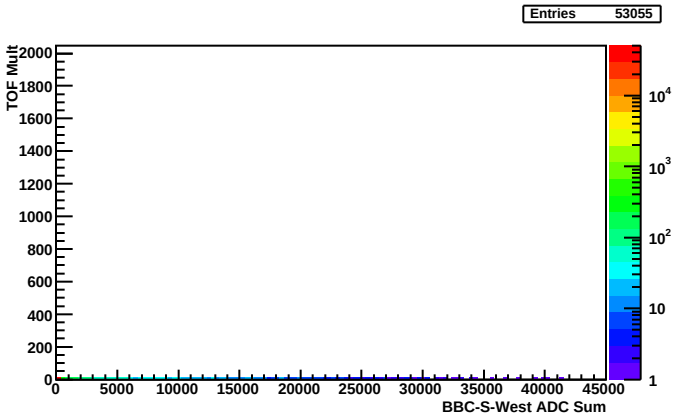

BBQ-VP004 (HI threshold)
Entries 848880
ADC
QT Input Channel

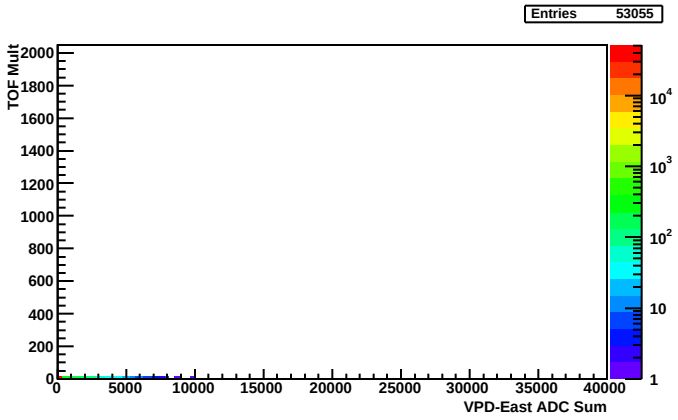

BBQ-VP004 (HI threshold)
Entries 848880
TAC
QT Input Channel

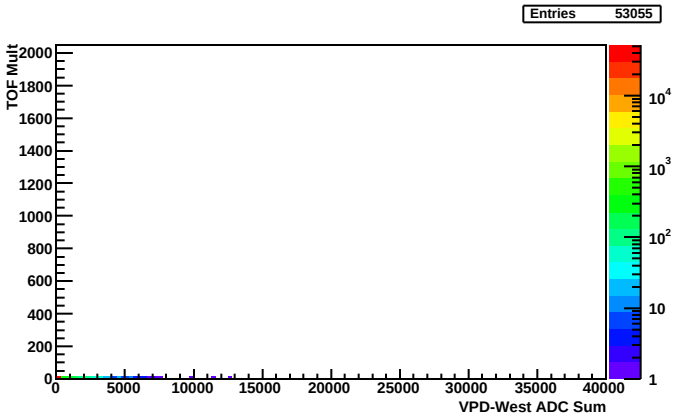

Entries 53055
TOF Mult
BBC-L-East ADC Sum

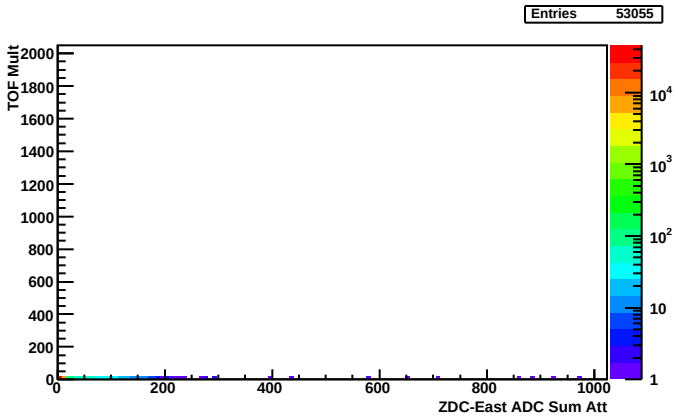

Entries 53055
TOF Mult
BBC-L-West ADC Sum

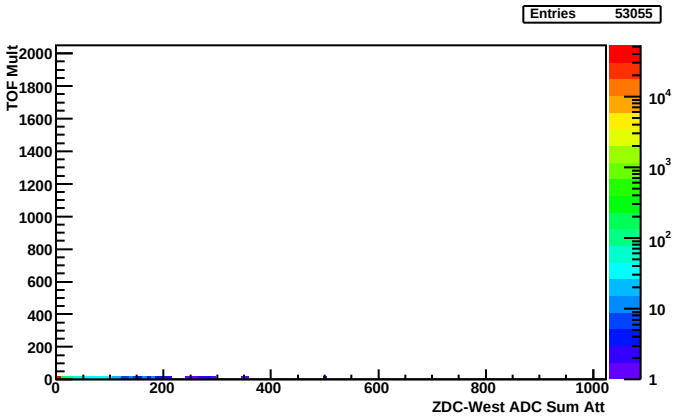

Entries 53055
TOF Mult
BBC-S-East ADC Sum

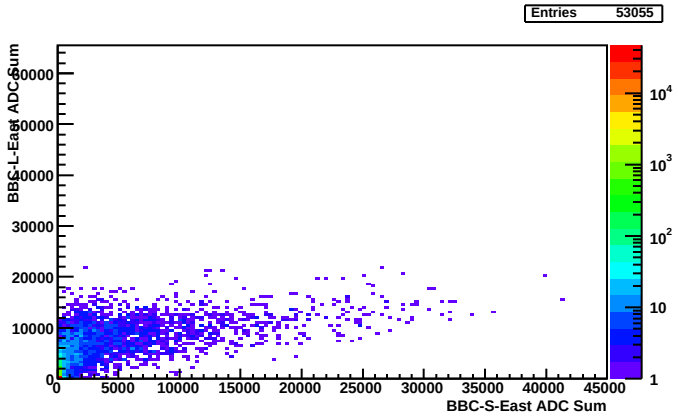

Entries 53055
TOF Mult
BBC-S-West ADC Sum

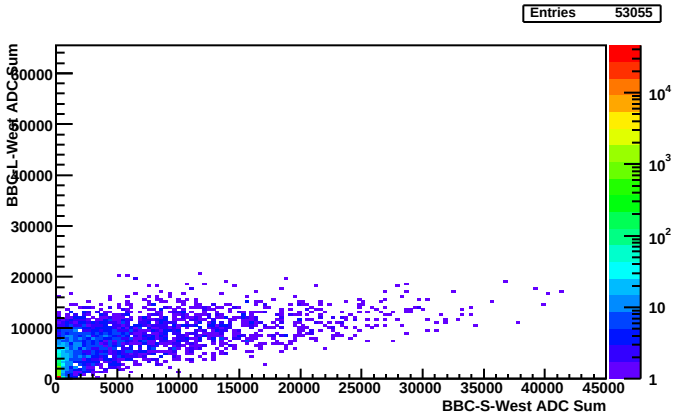

Entries 53055
TOF Mult
VPD-East ADC Sum

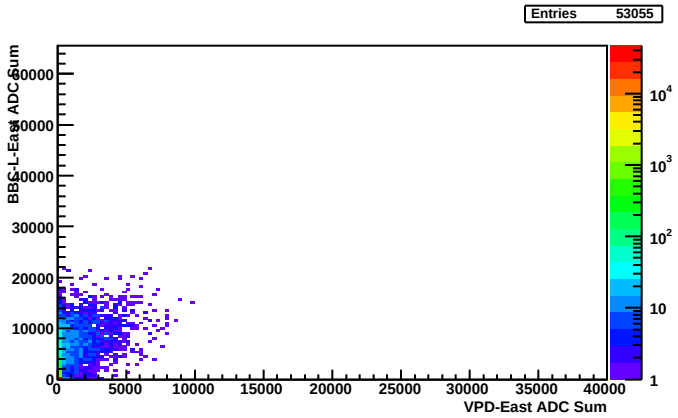

Entries 53055
TOF Mult
VPD-West ADC Sum

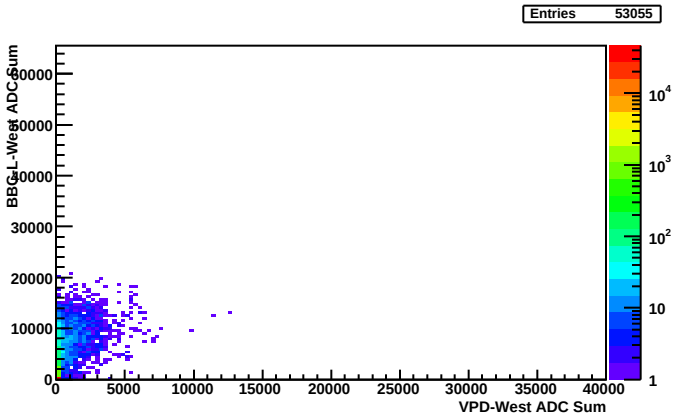

Entries 53055
TOF Mult
ZDC-East ADC Sum Att

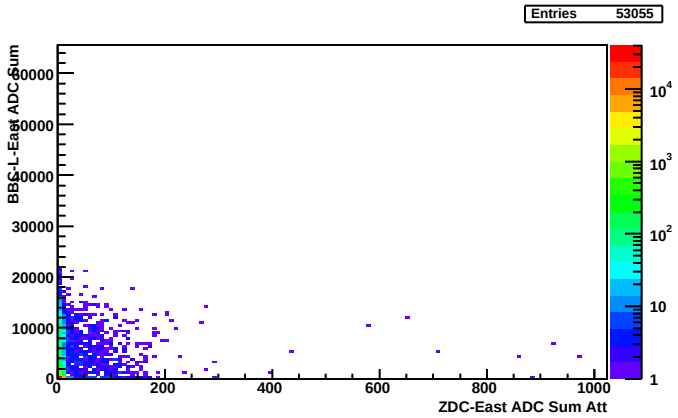

Entries 53055
TOF Mult
ZDC-West ADC Sum Att

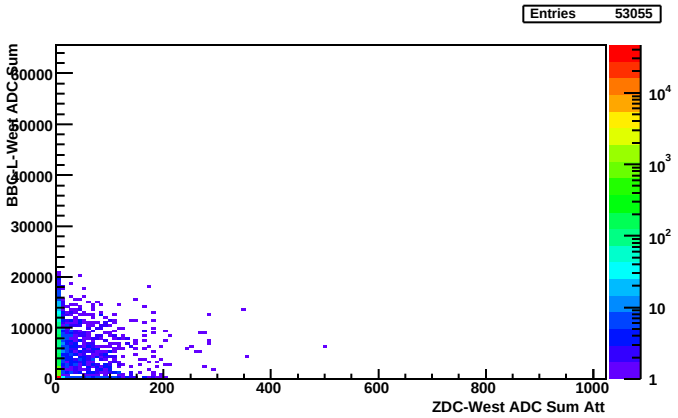

Entries 53055
BBC-L-East ADC Sum
BBC-S-East ADC Sum

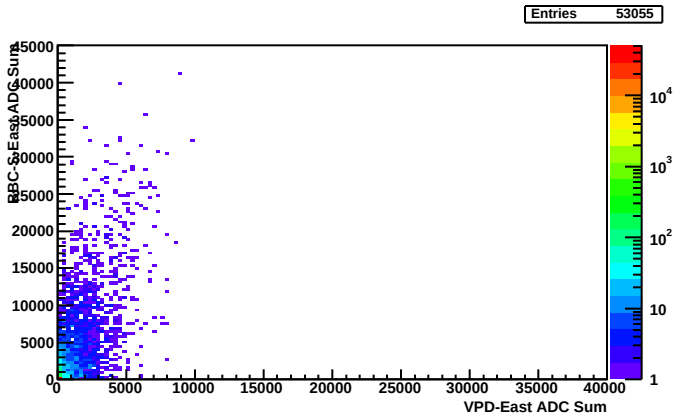

Entries 53055
BBC-L-West ADC Sum
BBC-S-West ADC Sum

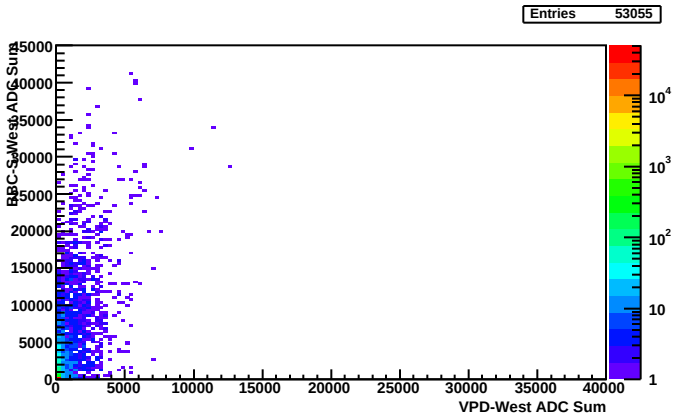

Entries 53055
BBC-L-East ADC Sum
VPD-East ADC Sum

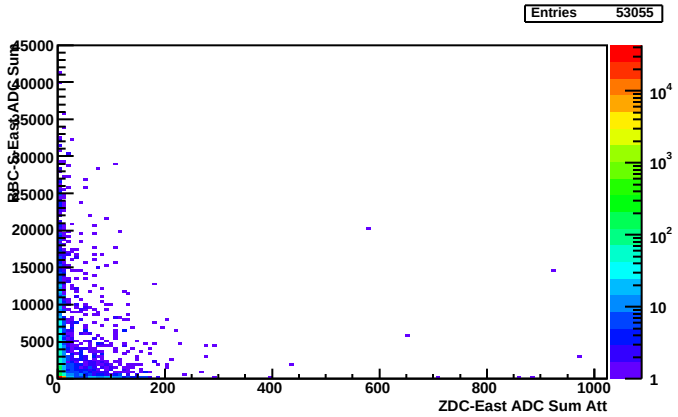

Entries 53055
BBC-L-West ADC Sum
VPD-West ADC Sum

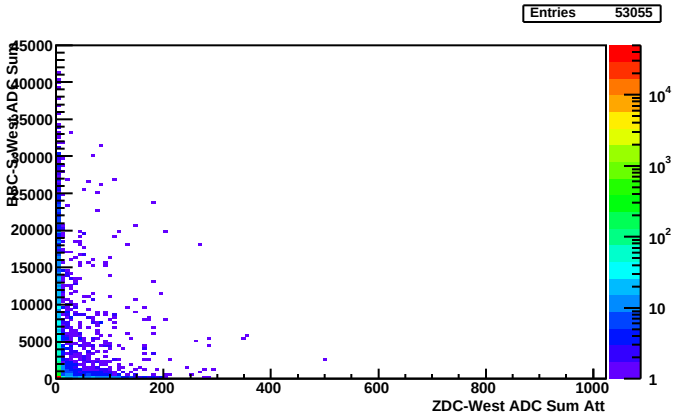

Entries 53055
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

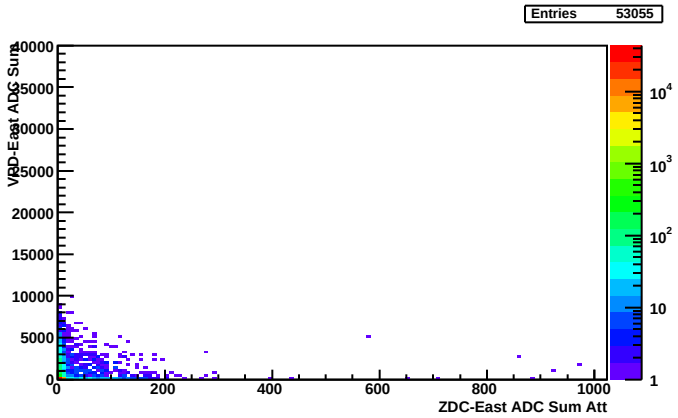

Entries 53055
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

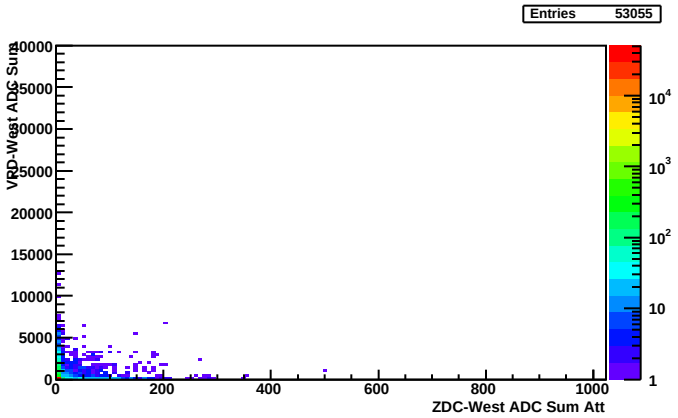

Entries 53055
BBC-S-East ADC Sum
VPD-East ADC Sum

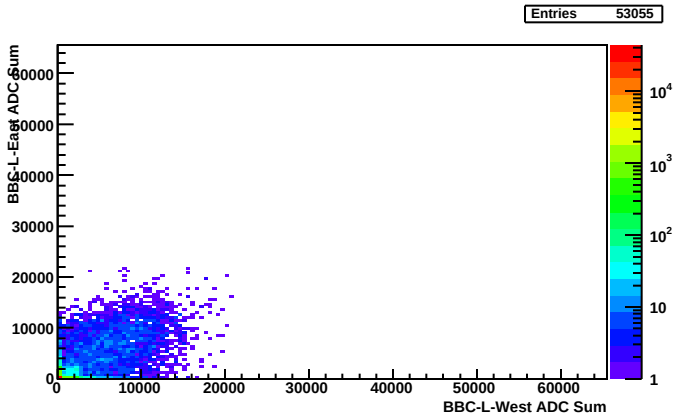

Entries 53055
BBC-S-West ADC Sum
VPD-West ADC Sum

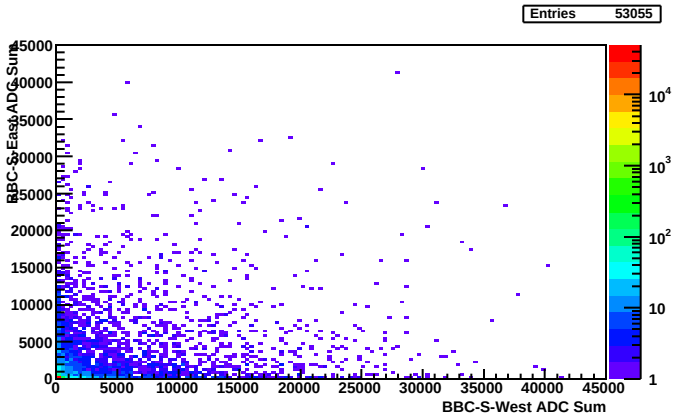

Entries 53055
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

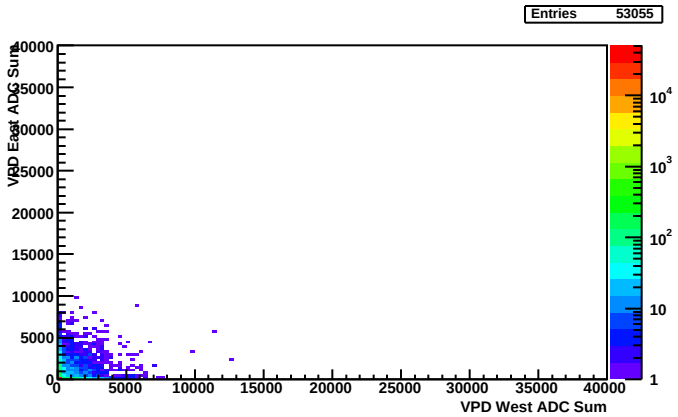

Entries 53055
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

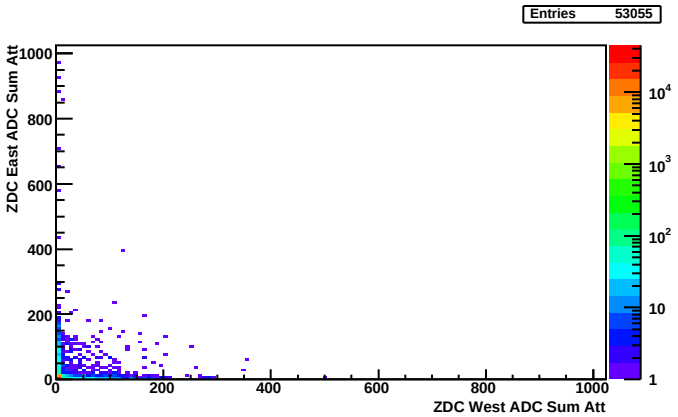

Entries 53055
VPD-East ADC Sum
ZDC-East ADC Sum Att

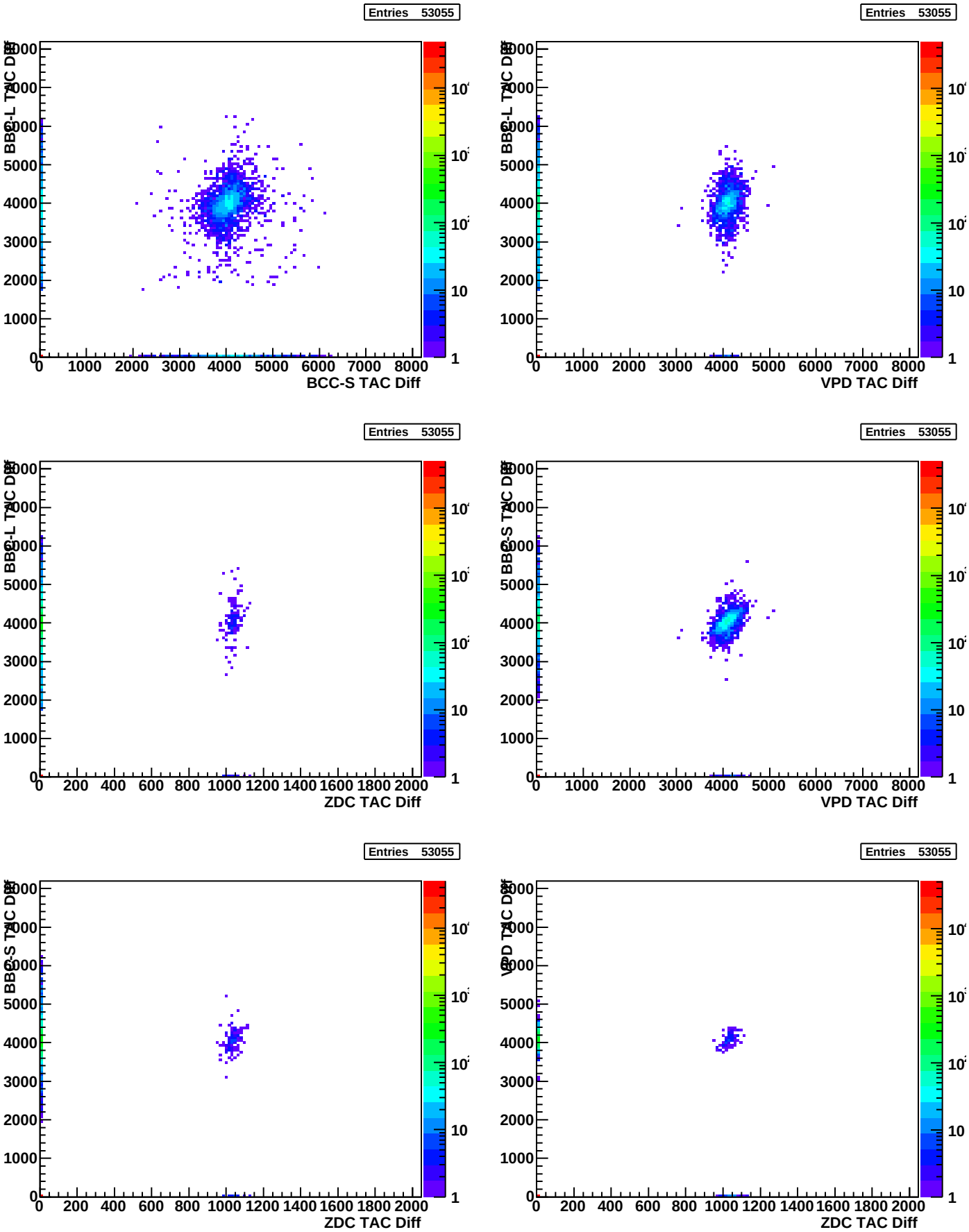

Entries 53055
VPD-West ADC Sum
ZDC-West ADC Sum Att

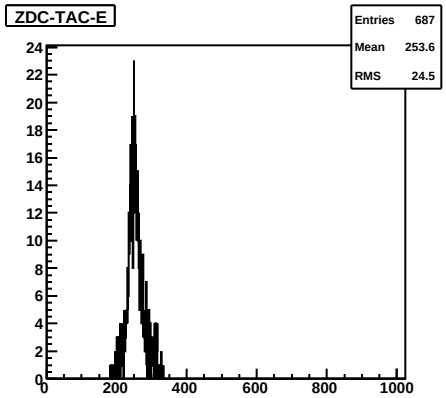

Entries 53055
BBC-L-East ADC Sum
BBC-L-West ADC Sum

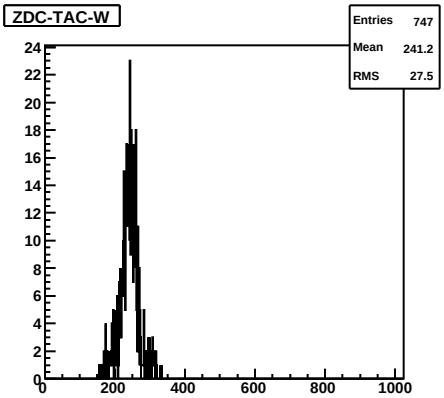

Entries 53055
BBC-S-East ADC Sum
BBC-S-West ADC Sum

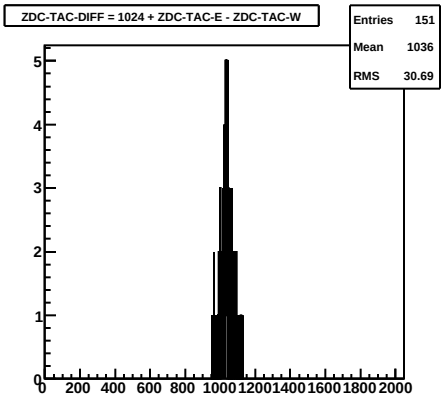

Entries 53055
VPD East ADC Sum
VPD West ADC Sum

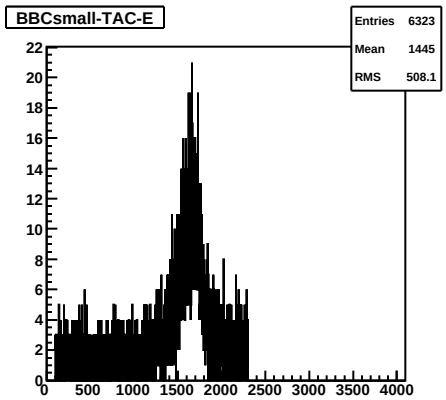

Entries 53055
ZDC East ADC Sum Att
ZDC West ADC Sum Att

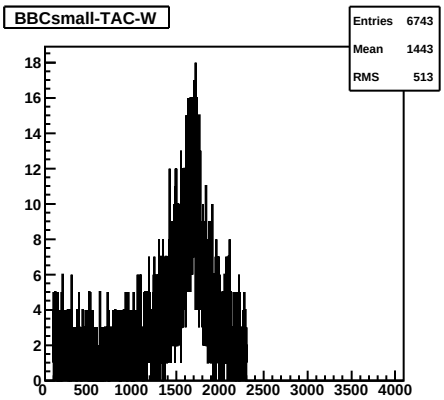

Entries 53055
BBC-L TAC Diff
BCC-S TAC Diff
Entries 53055
BBC-L TAC Diff
VPD TAC Diff
Entries 53055
BBC-L TAC Diff
ZDC TAC Diff
Entries 53055
BBC-S TAC Diff
VPD TAC Diff
Entries 53055
BBC-S TAC Diff
ZDC TAC Diff
Entries 53055
VPD TAC Diff
ZDC TAC Diff

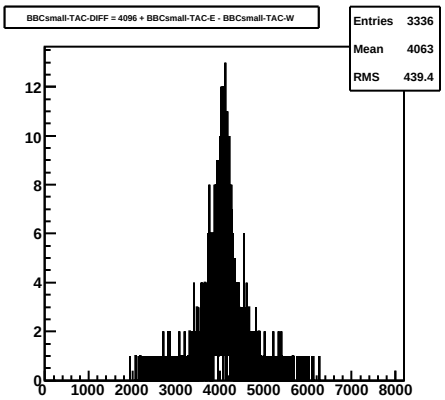

ZDC-TAC-E
Entries 687
Mean 253.6
RMS 24.5

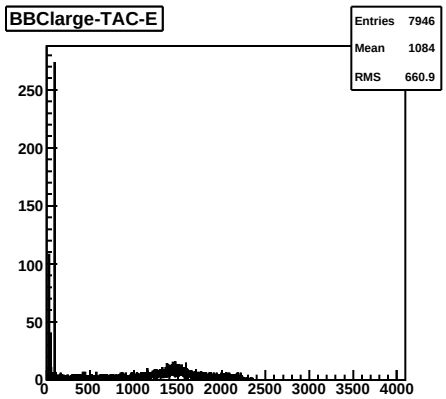

ZDC-TAC-W
Entries 747
Mean 241.2
RMS 27.5

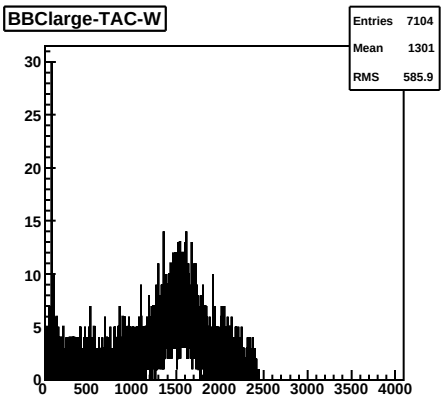

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 151
Mean 1036
RMS 30.69

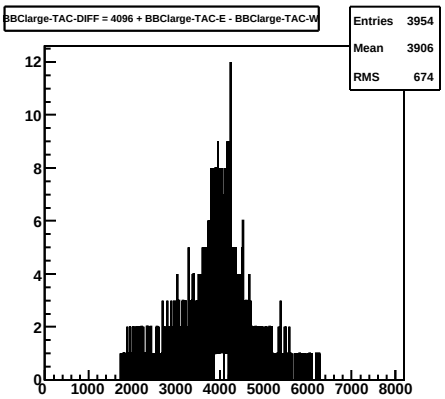

BBCsmall-TAC-E
Entries 6323
Mean 1445
RMS 508.1

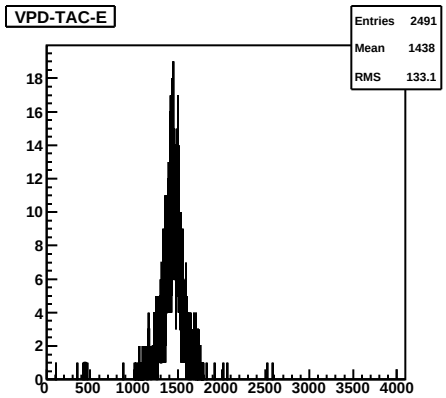

BBCsmall-TAC-W
Entries 6743
Mean 1443
RMS 513

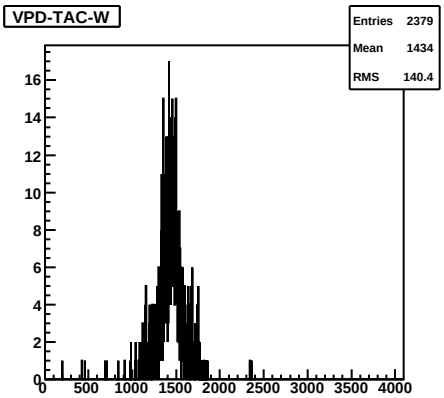

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 3336
Mean 4063
RMS 439.4

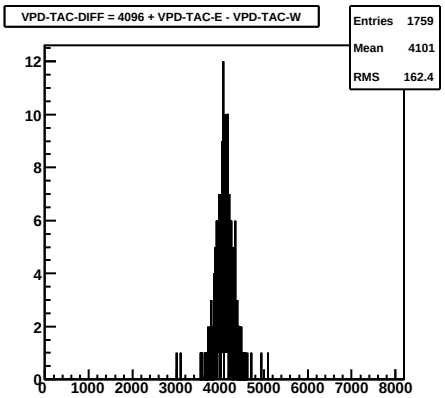

BBClarge-TAC-E
Entries 7946
Mean 1084
RMS 660.9

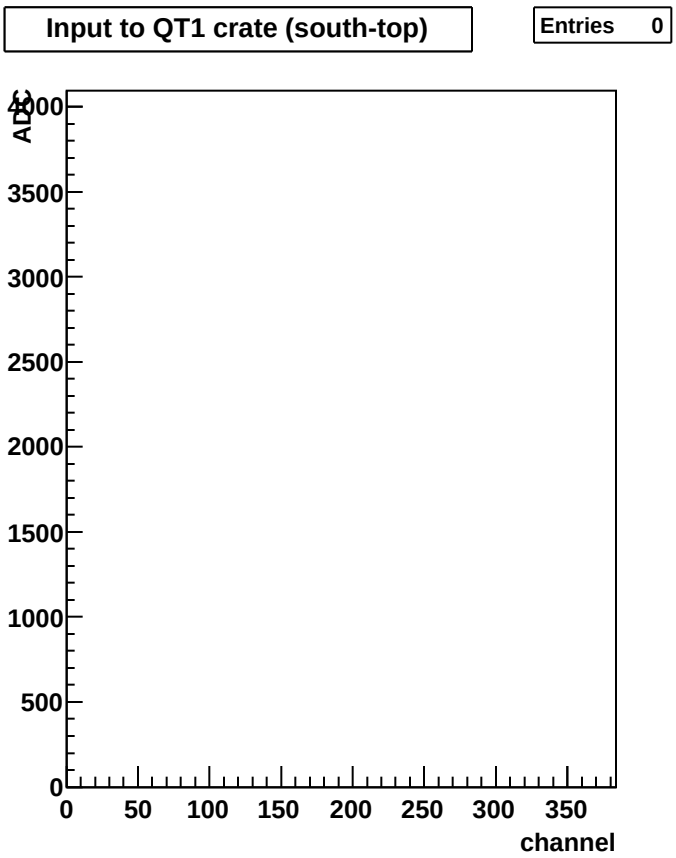

BBClarge-TAC-W
Entries 7104
Mean 1301
RMS 585.9

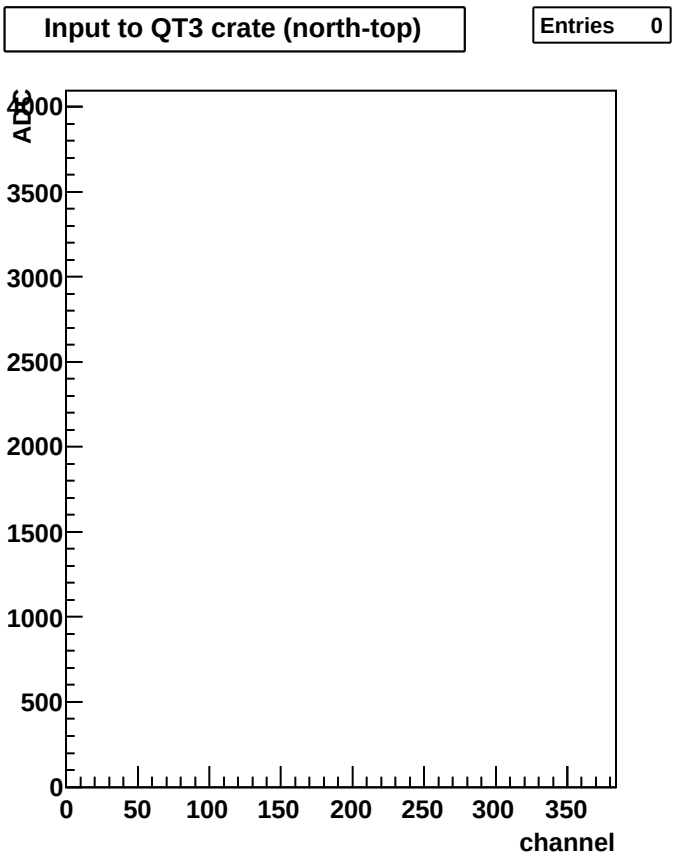

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 3954
Mean 3906
RMS 674

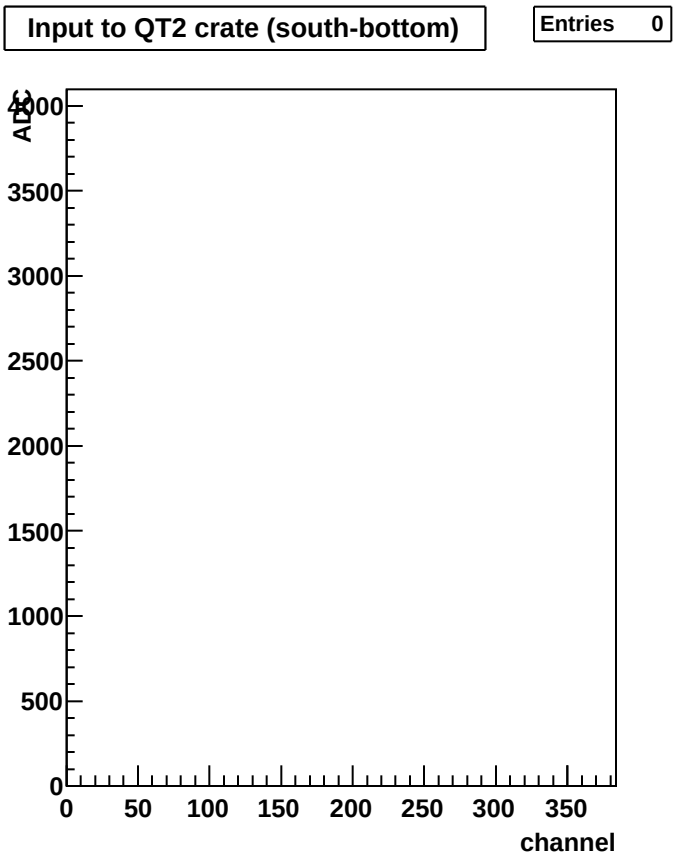

VPD-TAC-E
Entries 2491
Mean 1438
RMS 133.1

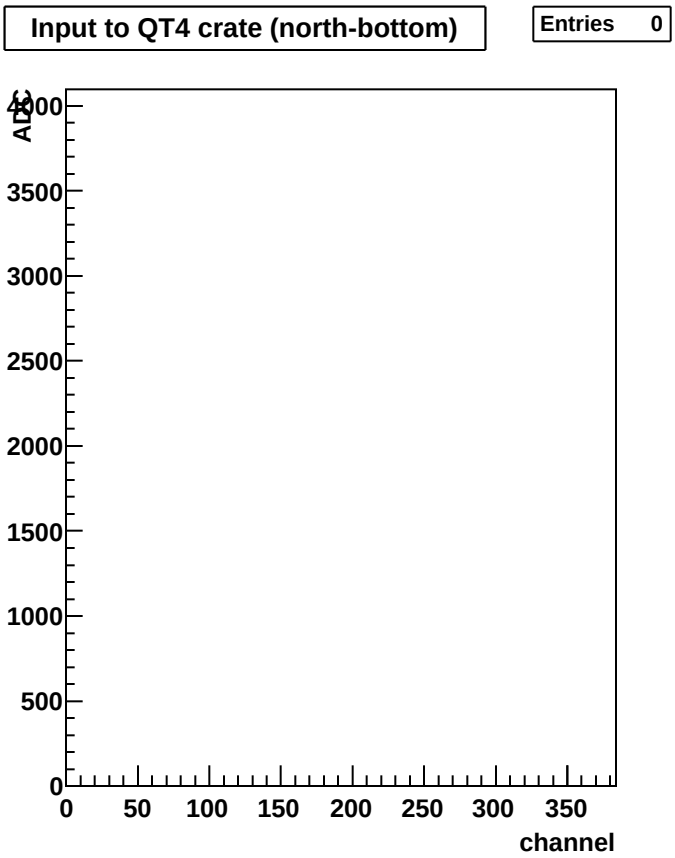

VPD-TAC-W
Entries 2379
Mean 1434
RMS 140.4

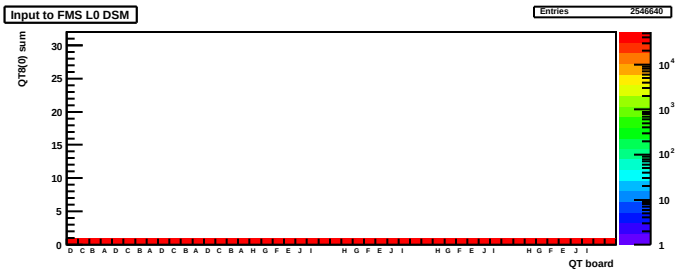

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1759
Mean 4101
RMS 162.4

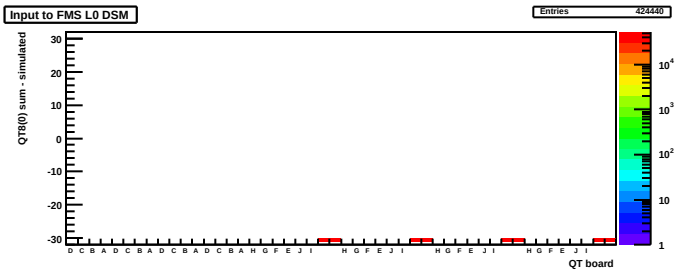

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

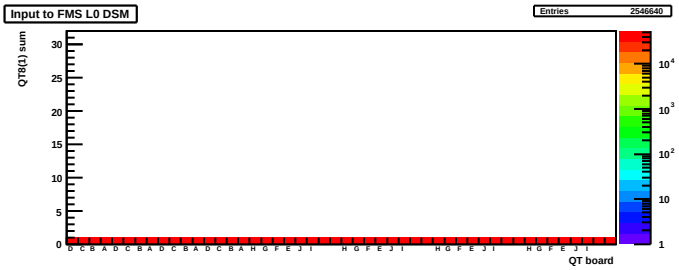

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

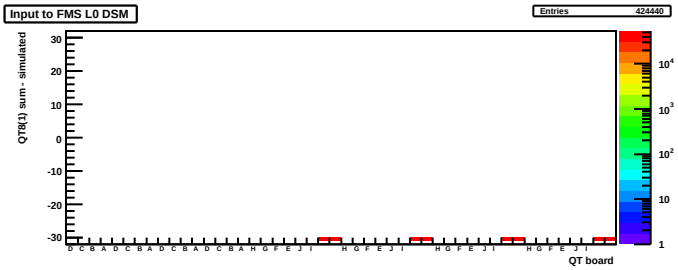

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

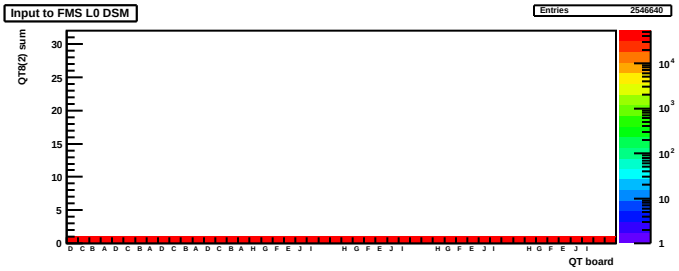

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

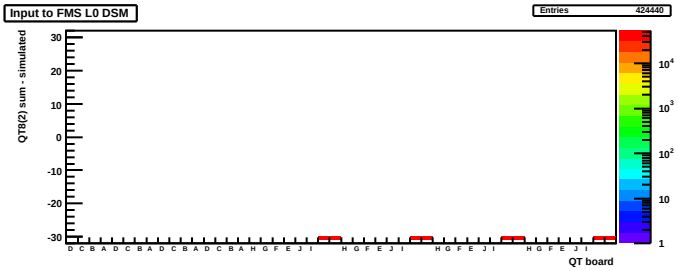

Input to FMS L0 DSM
Entries 2546640
QT8(0) sum
QT board

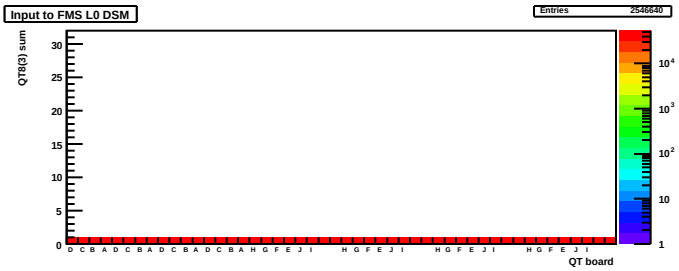

Input to FMS L0 DSM
Entries 424440
QT8(0) sum - simulated
QT board

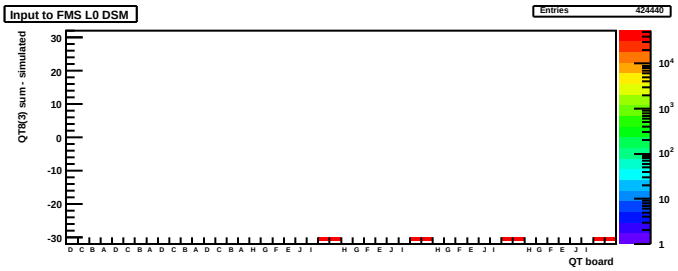

Input to FMS L0 DSM
Entries 2546640
QT8(1) sum
QT board

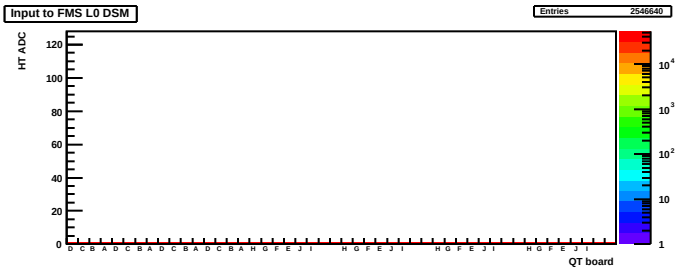

Input to FMS L0 DSM
Entries 424440
QT8(1) sum - simulated
QT board

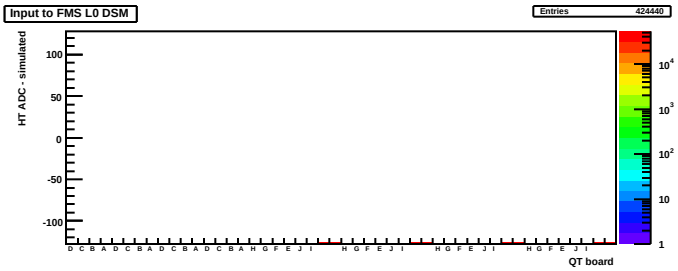

Input to FMS L0 DSM
Entries 2546640
QT8(2) sum
QT board

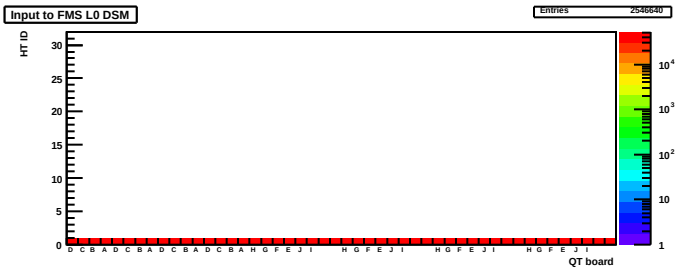

Input to FMS L0 DSM
Entries 424440
QT8(2) sum - simulated
QT board

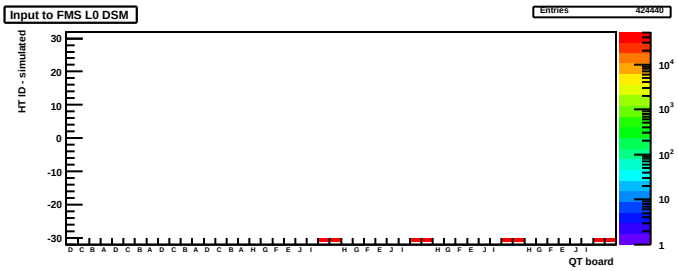

Input to FMS L0 DSM
Entries 2546640
QT8(3) sum
QT board

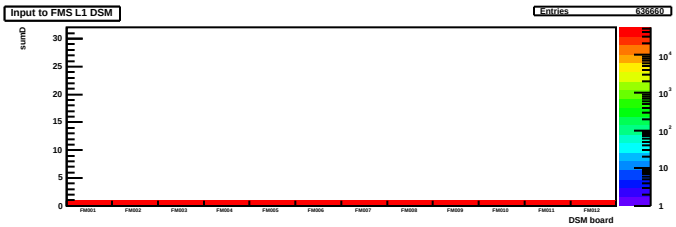

Input to FMS L0 DSM
Entries 424440
QT8(3) sum - simulated
QT board

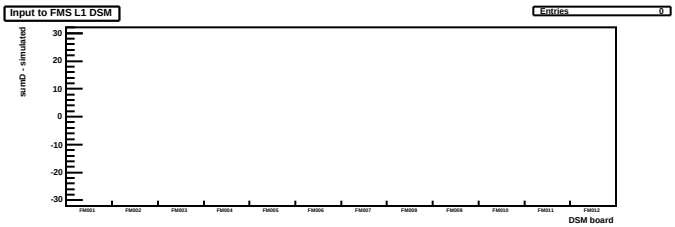

Input to FMS L0 DSM
Entries 2546640
HT ADC
QT board

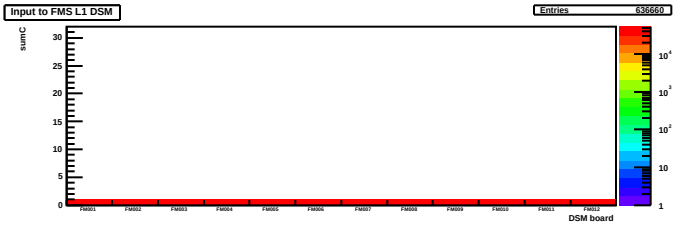

Input to FMS L0 DSM
Entries 424440
HT ADC - simulated
QT board

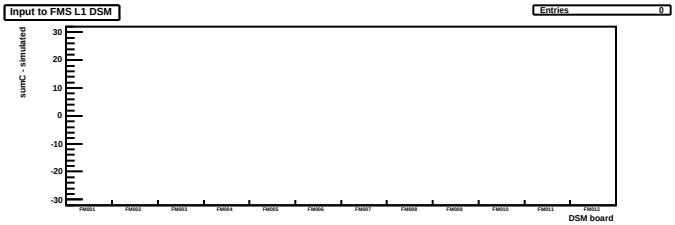

Input to FMS L0 DSM
Entries 2546640
HT ID
QT board

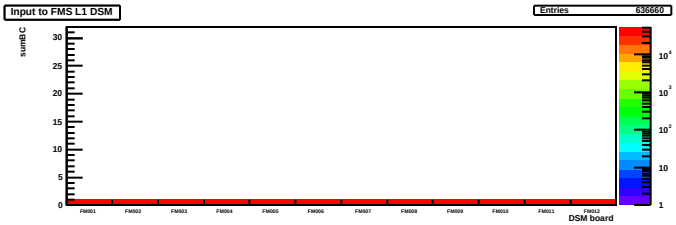

Input to FMS L0 DSM
Entries 424440
HT ID - simulated
QT board

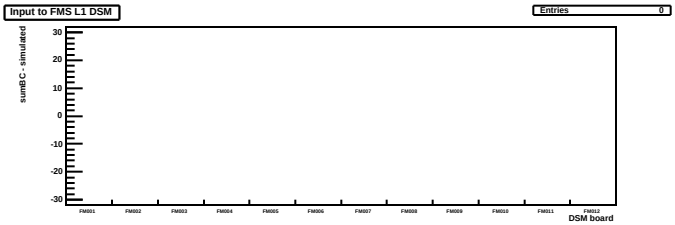

Input to FMS L1 DSM
Entries 636660
sumD
DSM board

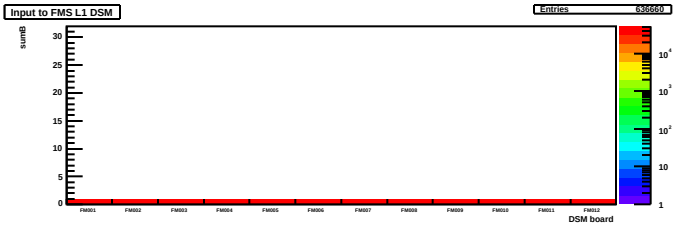

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

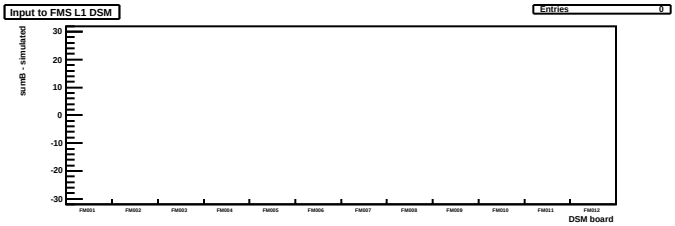

Input to FMS L1 DSM
Entries 636660
sumC
DSM board

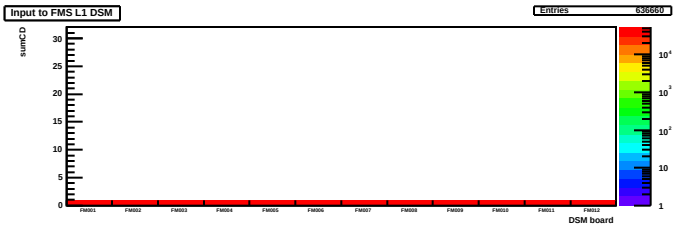

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

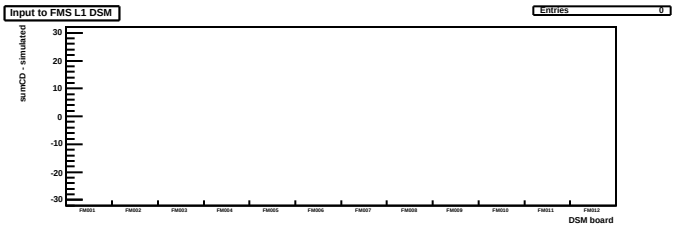

Input to FMS L1 DSM
Entries 636660
sumBC
DSM board

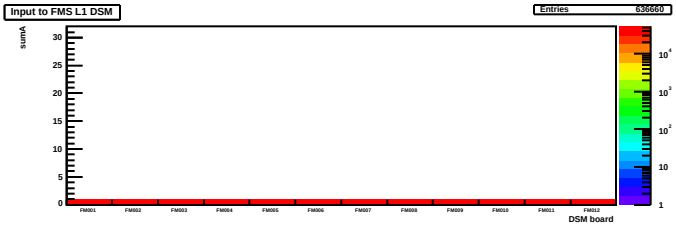

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

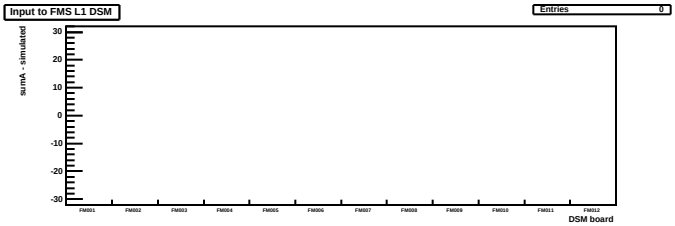

Input to FMS L1 DSM
Entries 636660
sumB
DSM board

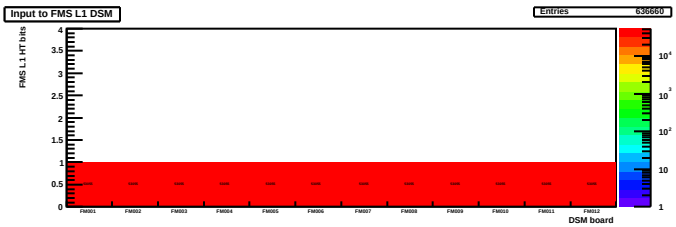

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

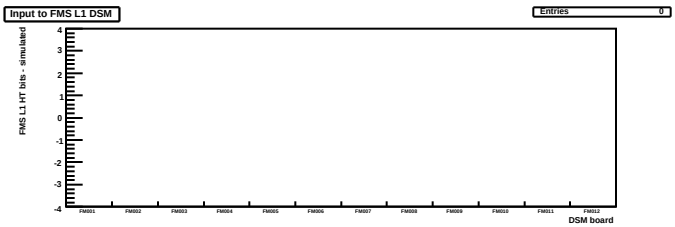

Input to FMS L1 DSM
Entries 636660
sumCD
DSM board

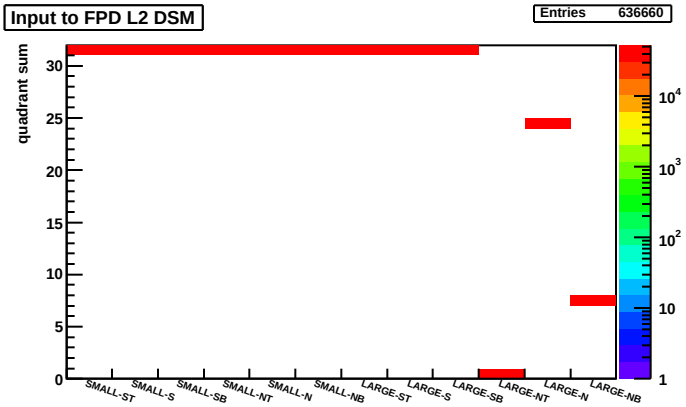

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

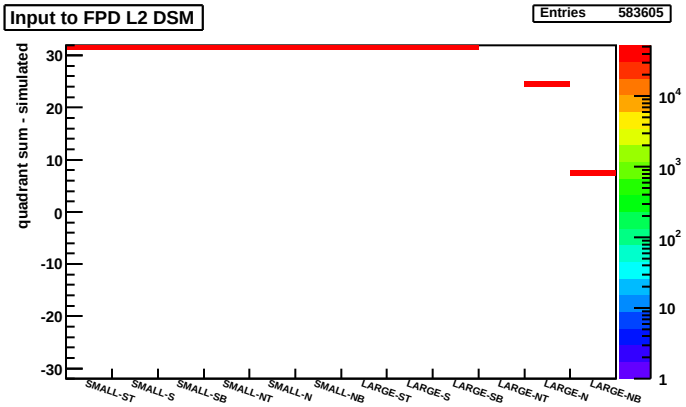

Input to FMS L1 DSM
Entries 636660
sumA
DSM board

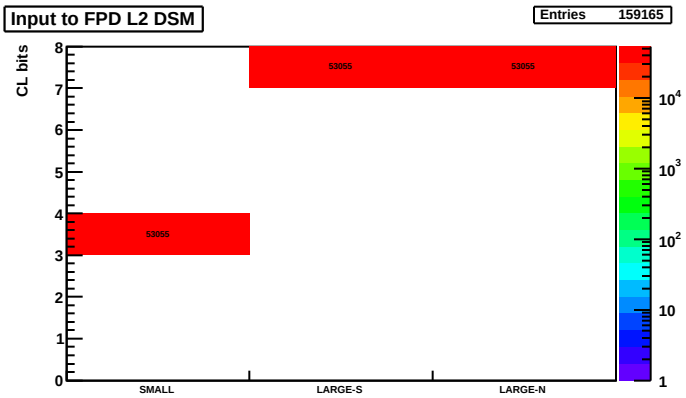

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

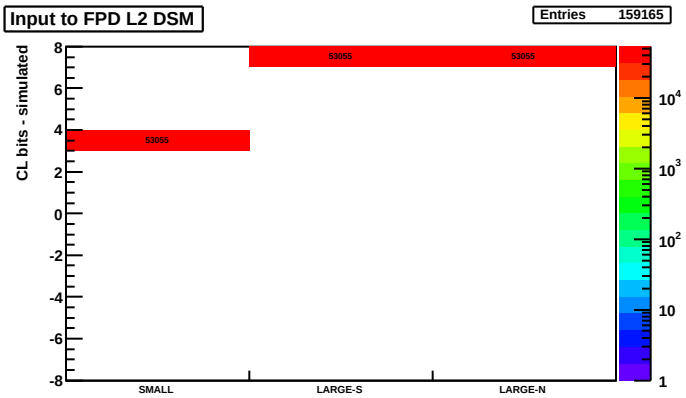

Input to FMS L1 DSM
Entries 636660
FMS L1 HT bits
DSM board

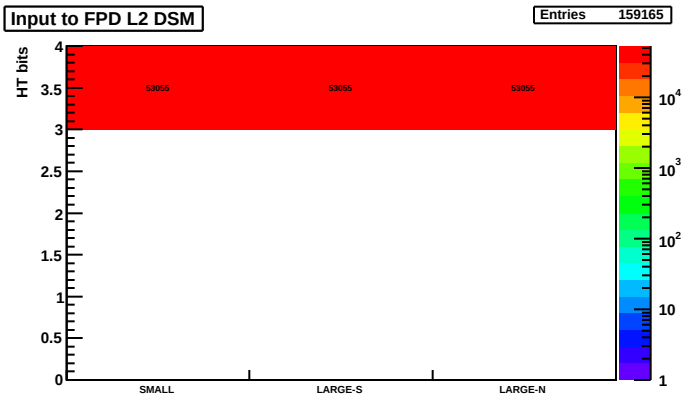

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

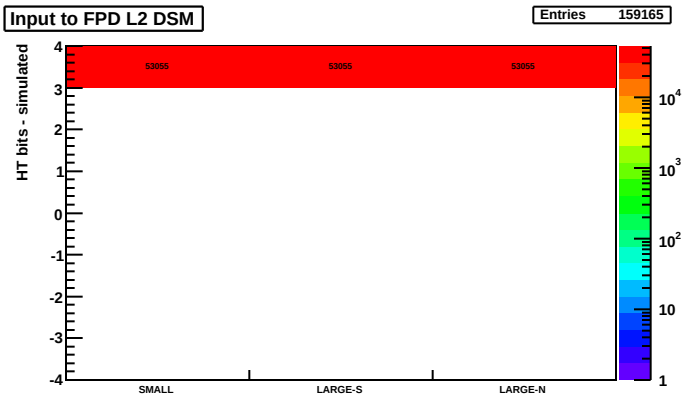

Input to FPD L2 DSM
Entries 636660
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

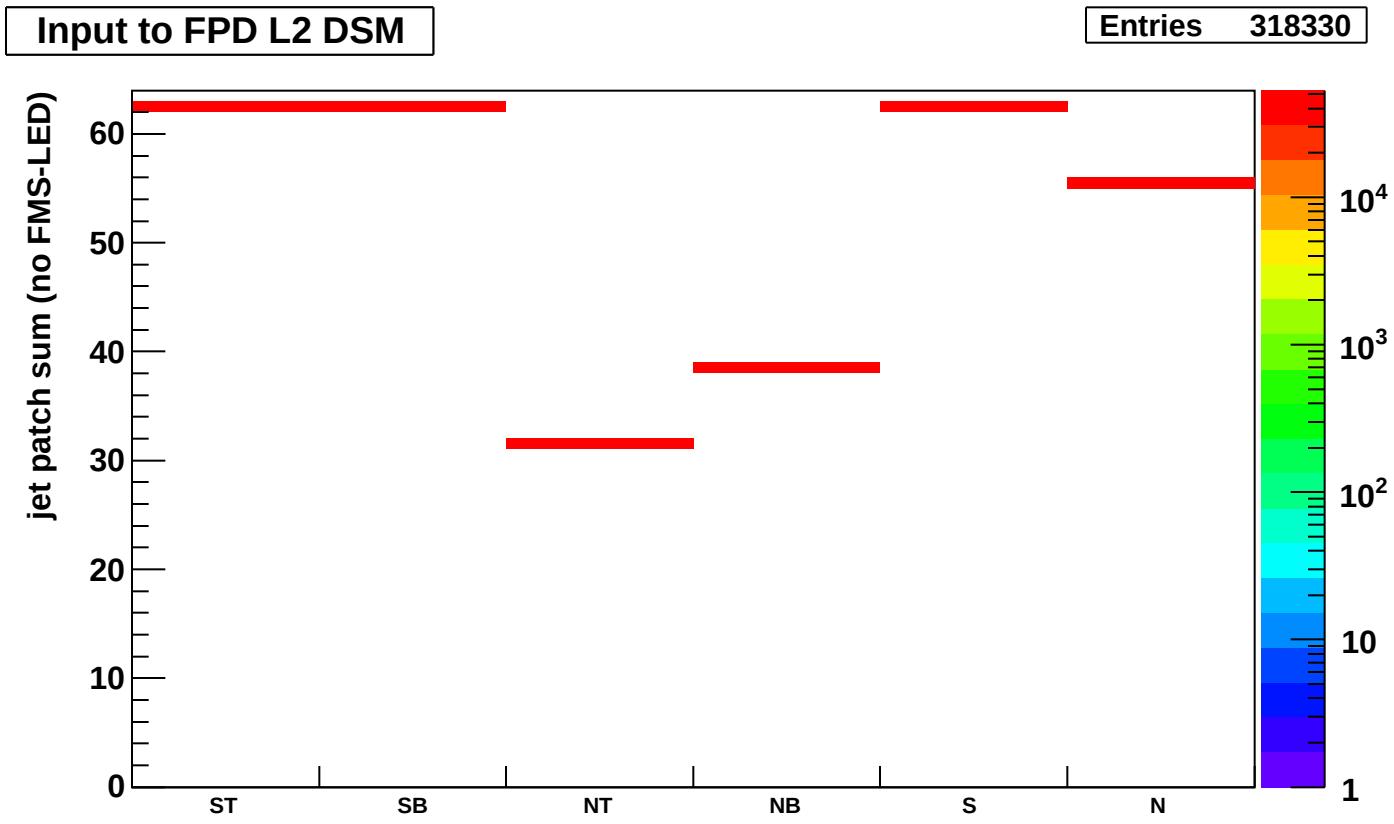

Input to FPD L2 DSM
Entries 583605
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

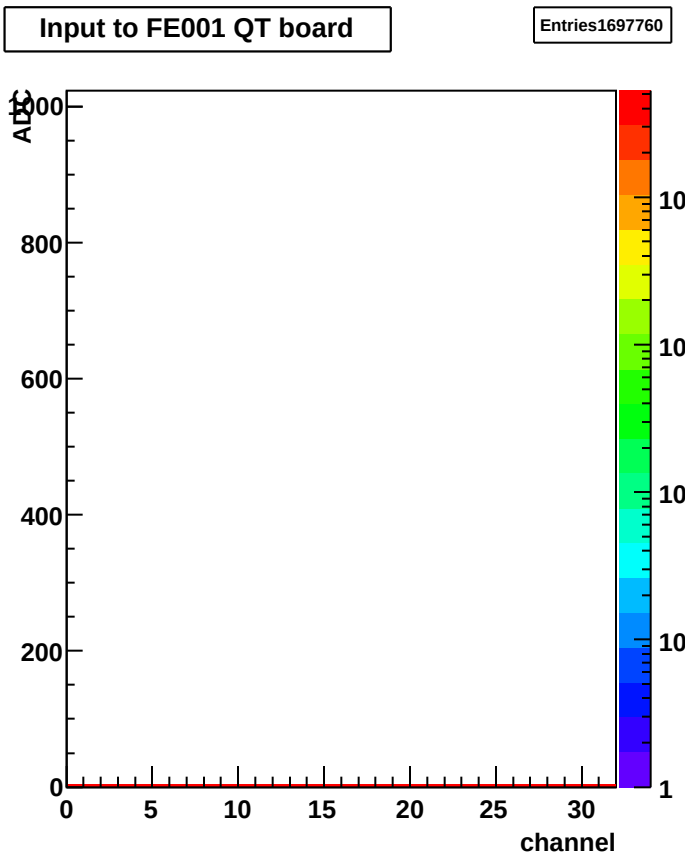

Input to FPD L2 DSM
Entries 159165
CL bits
53055
53055
53055
SMALL
LARGE-S
LARGE-N

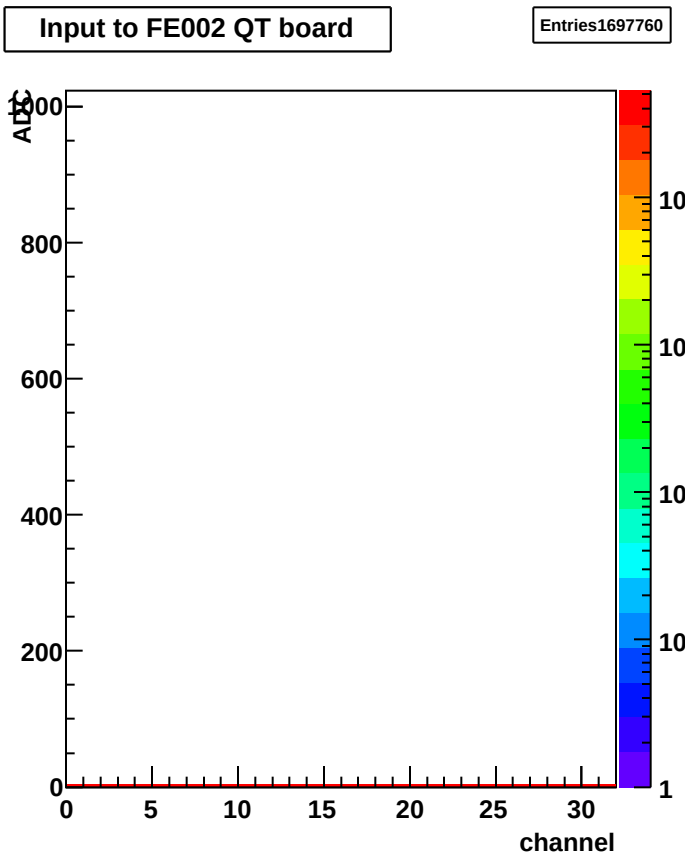

Input to FPD L2 DSM
Entries 159165
CL bits - simulated
53055
53055
53055
SMALL
LARGE-S
LARGE-N

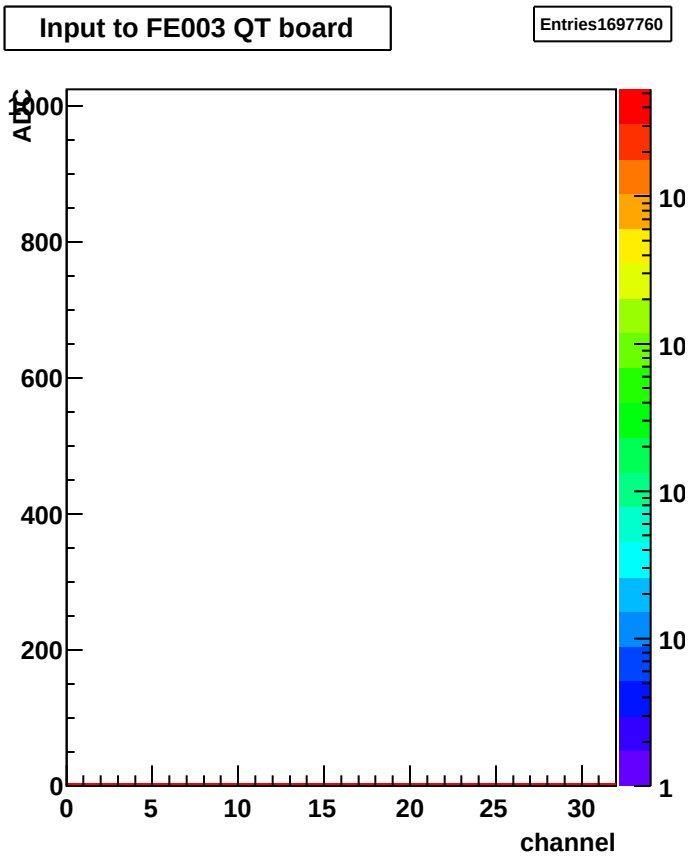

Input to FPD L2 DSM
Entries 159165
HT bits
53055
53055
53055
SMALL
LARGE-S
LARGE-N

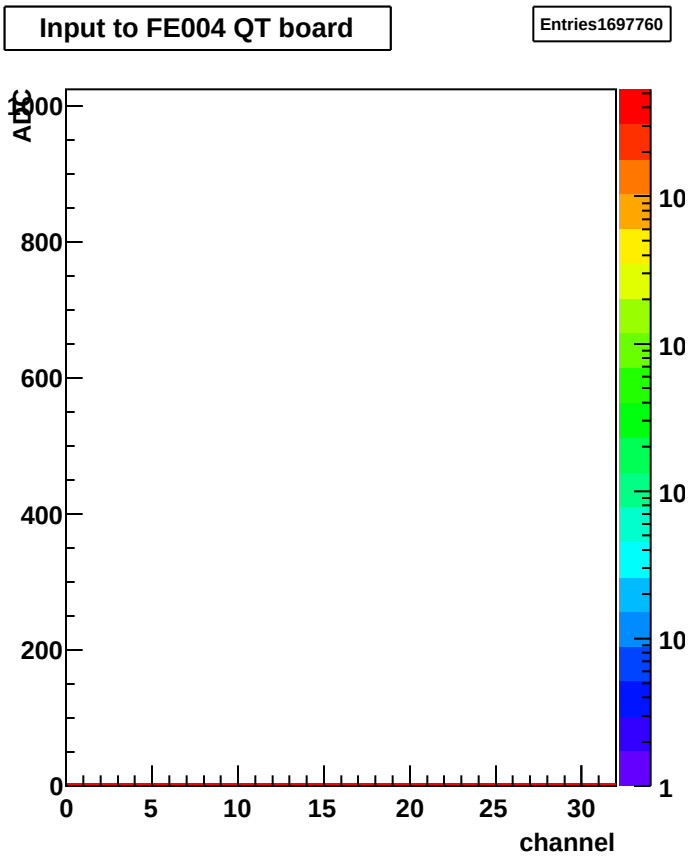

Input to FPD L2 DSM
Entries 159165
HT bits - simulated
53055
53055
53055
SMALL
LARGE-S
LARGE-N

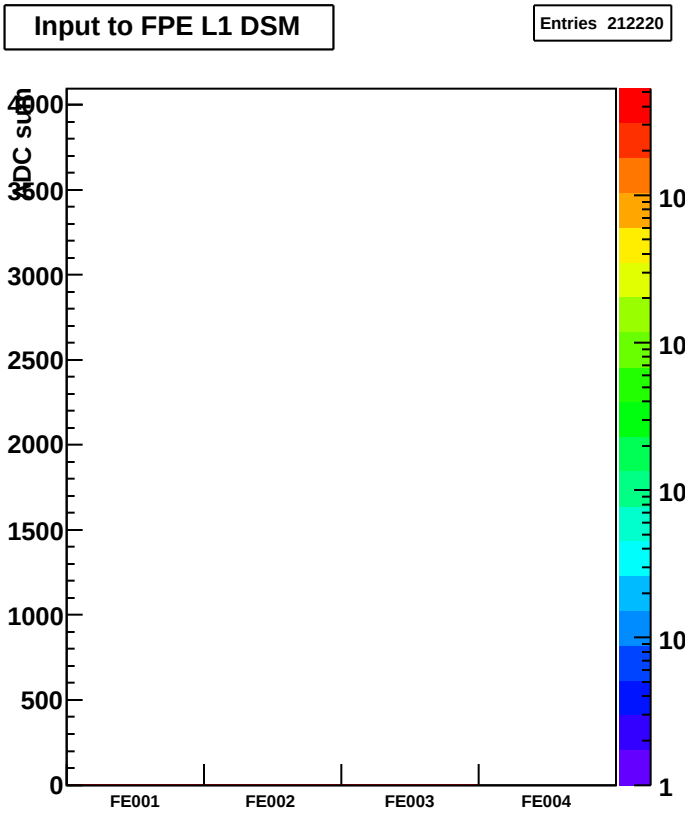

Input to FPD L2 DSM
Entries 318330
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

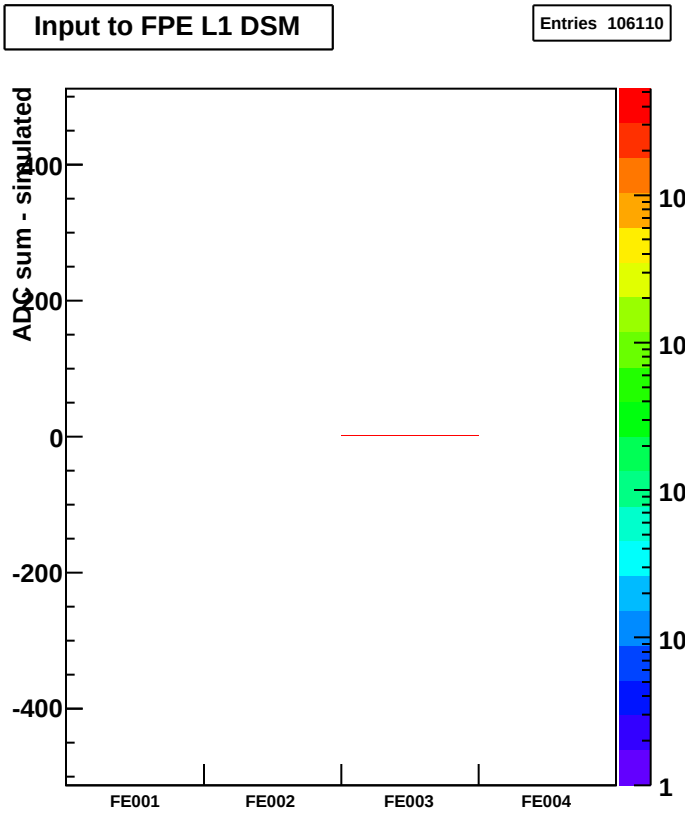

Input to FE001 QT board
Entries1697760
ADC
channel

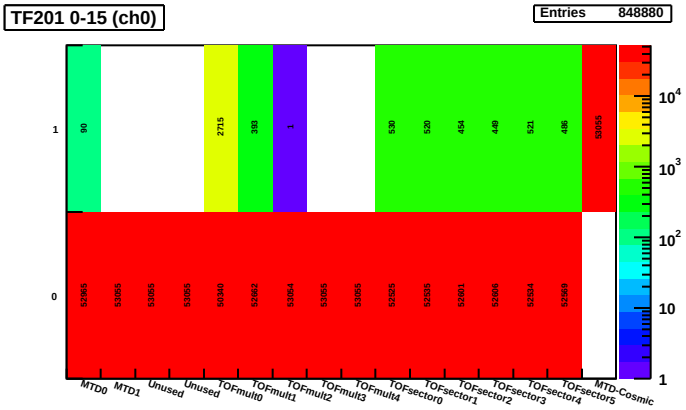

Input to FE002 QT board
Entries1697760
ADC
channel

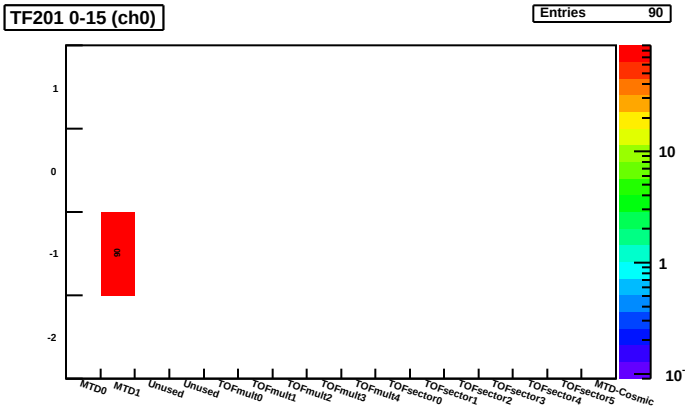

Input to FE003 QT board
Entries1697760
ADC
channel

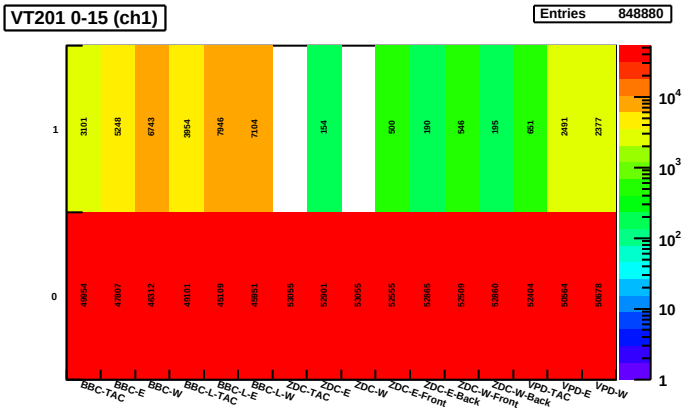

Input to FE004 QT board
Entries1697760
ADC
channel

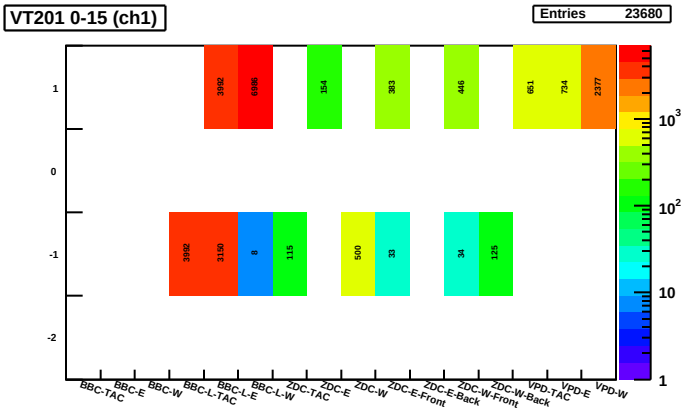

Input to FPE L1 DSM
Entries 212220
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 106110
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 848880
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 90
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 848880
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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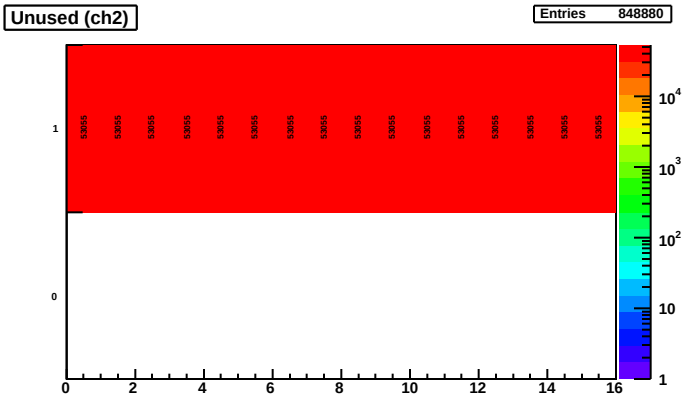
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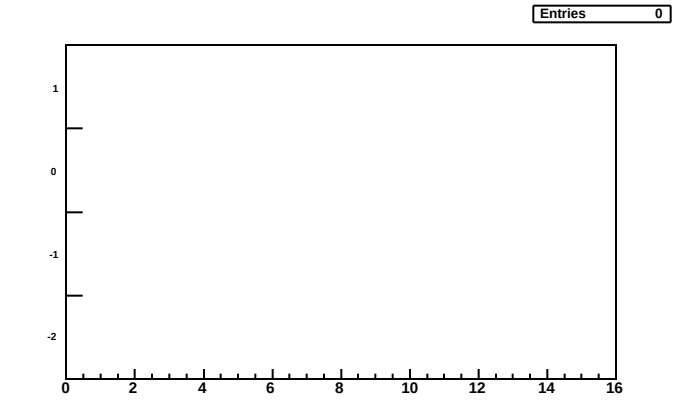
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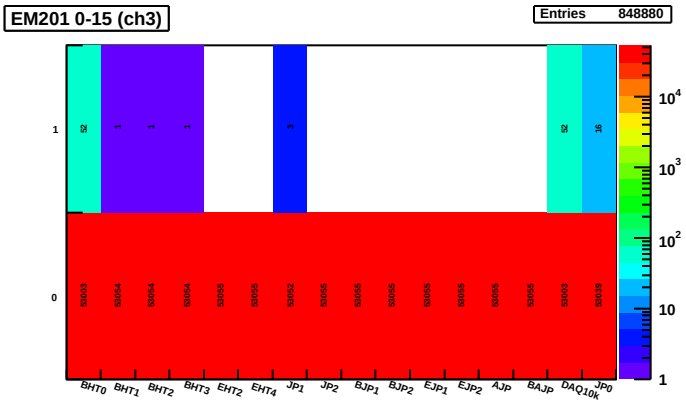
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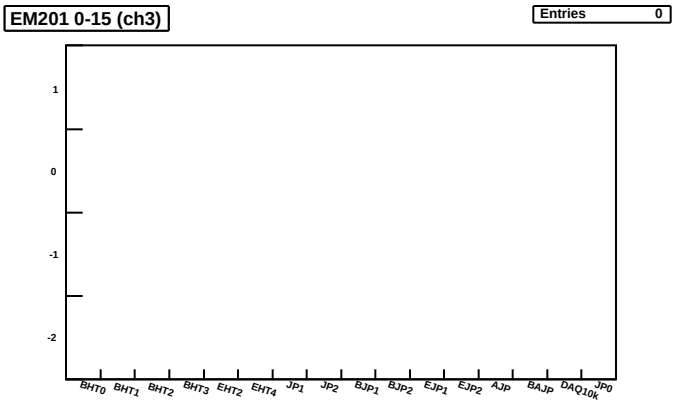
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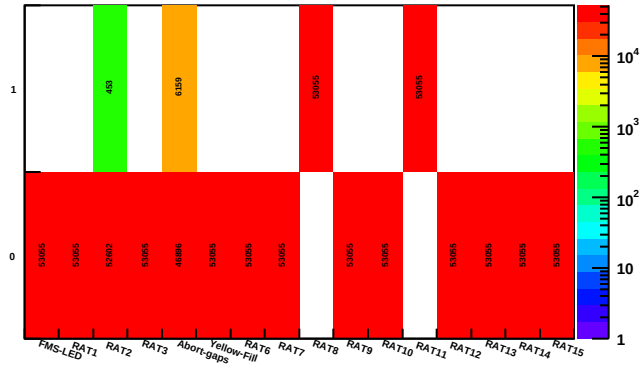
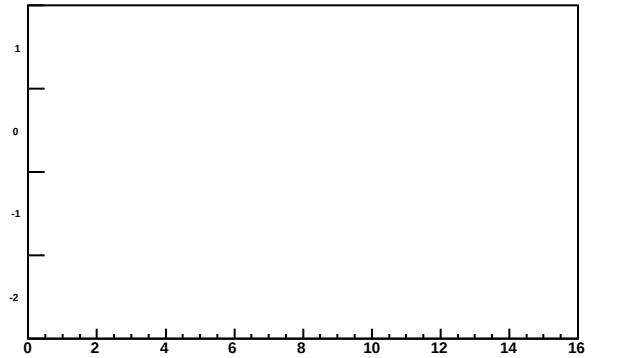
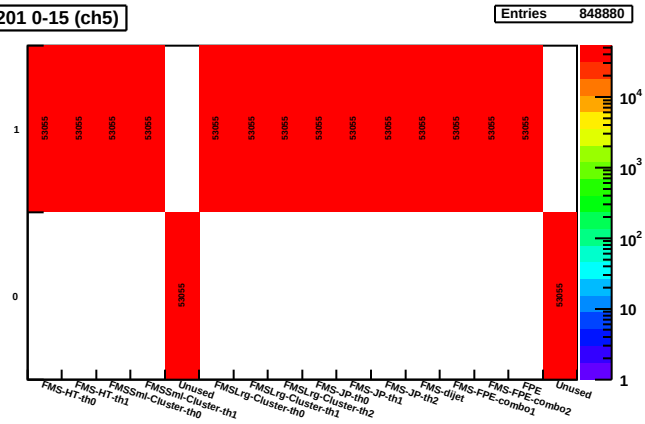
RAT board (ch4)





FP201 0-15 (ch5)



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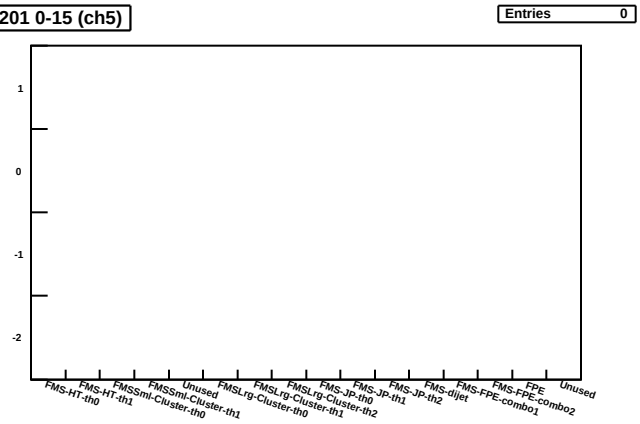
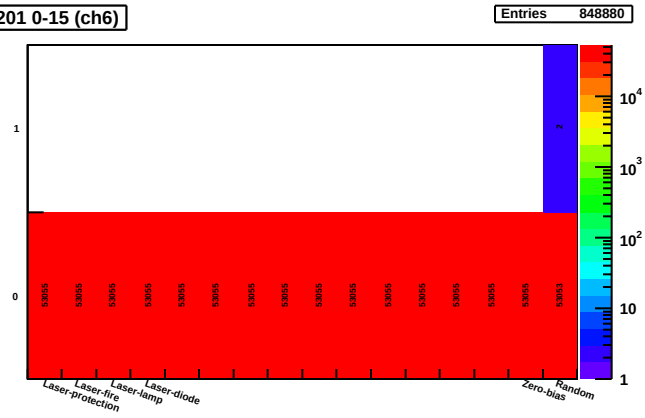
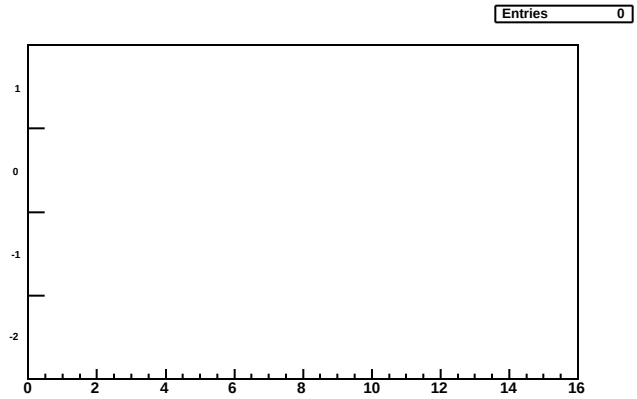
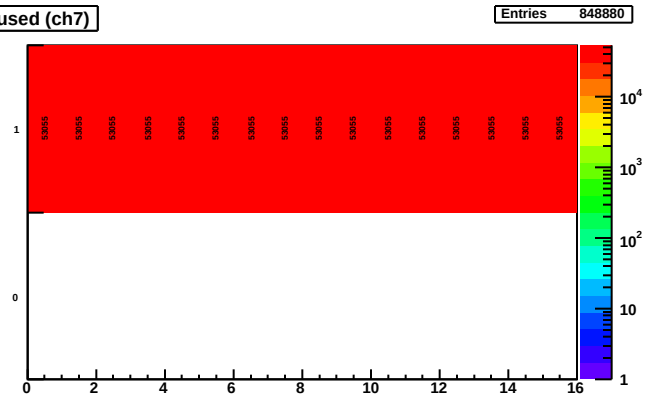
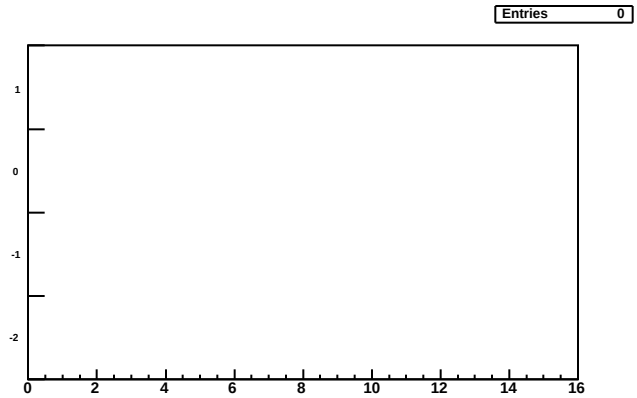


ST201 0-15 (ch6)





Unused (ch7)