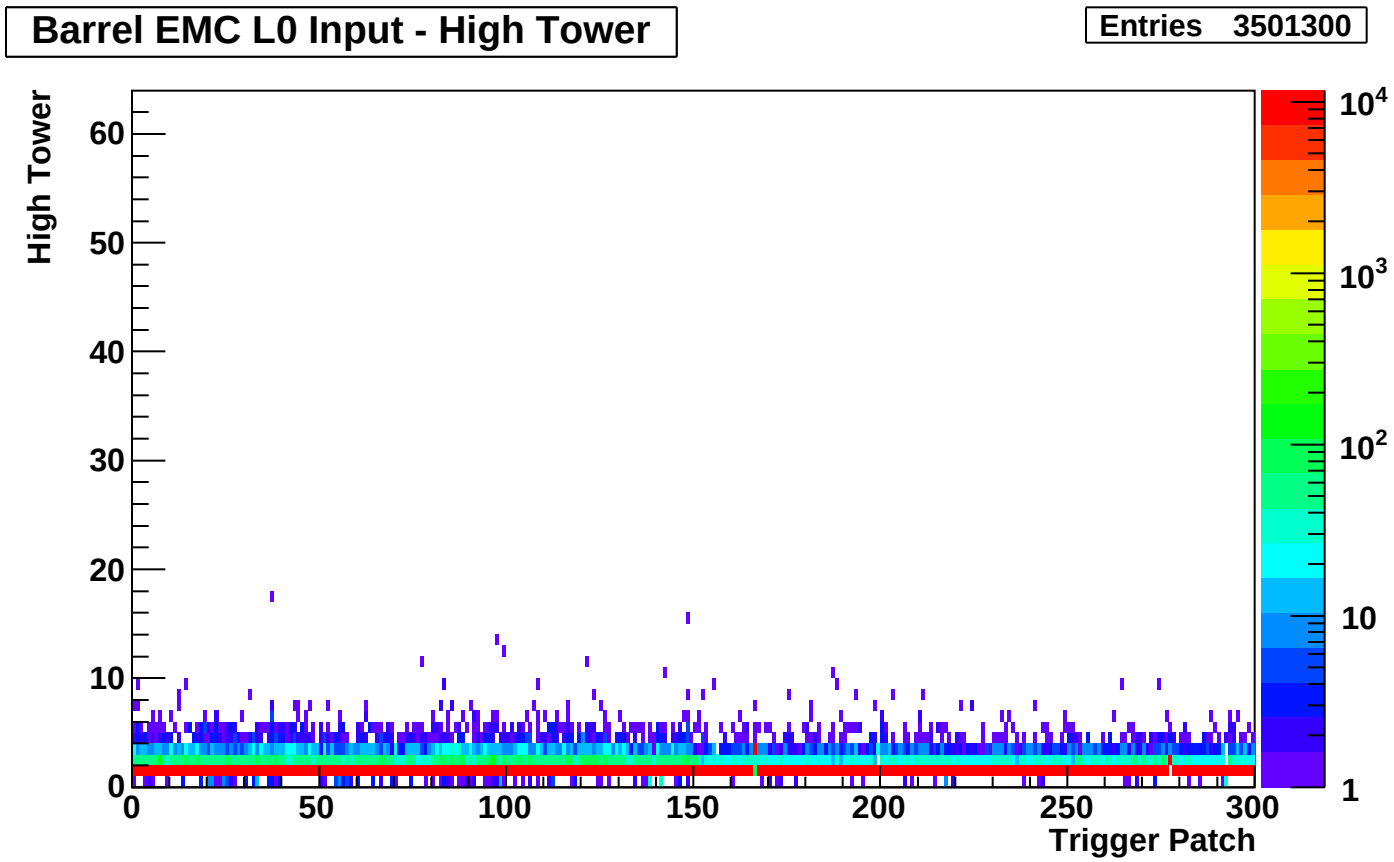
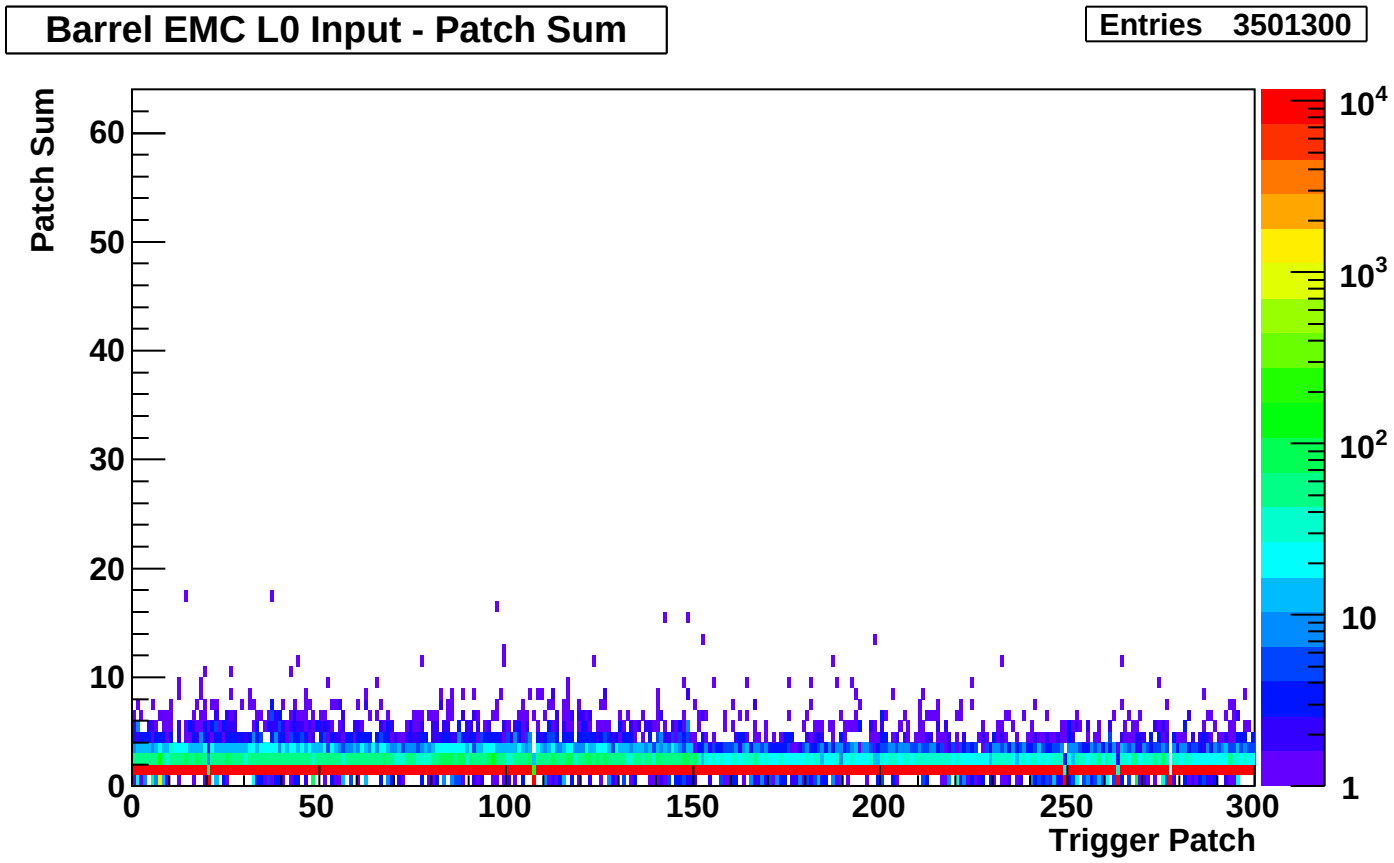
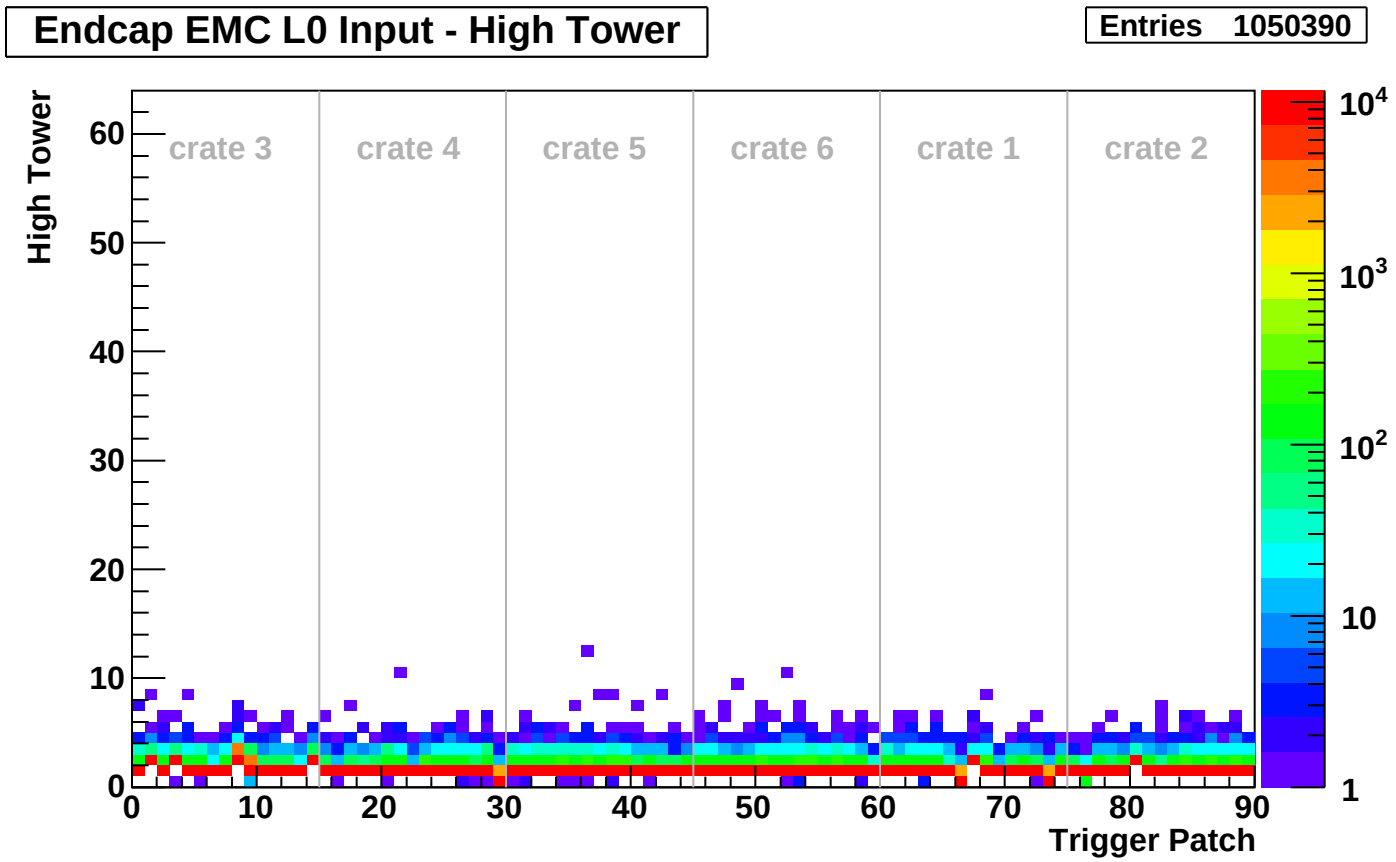
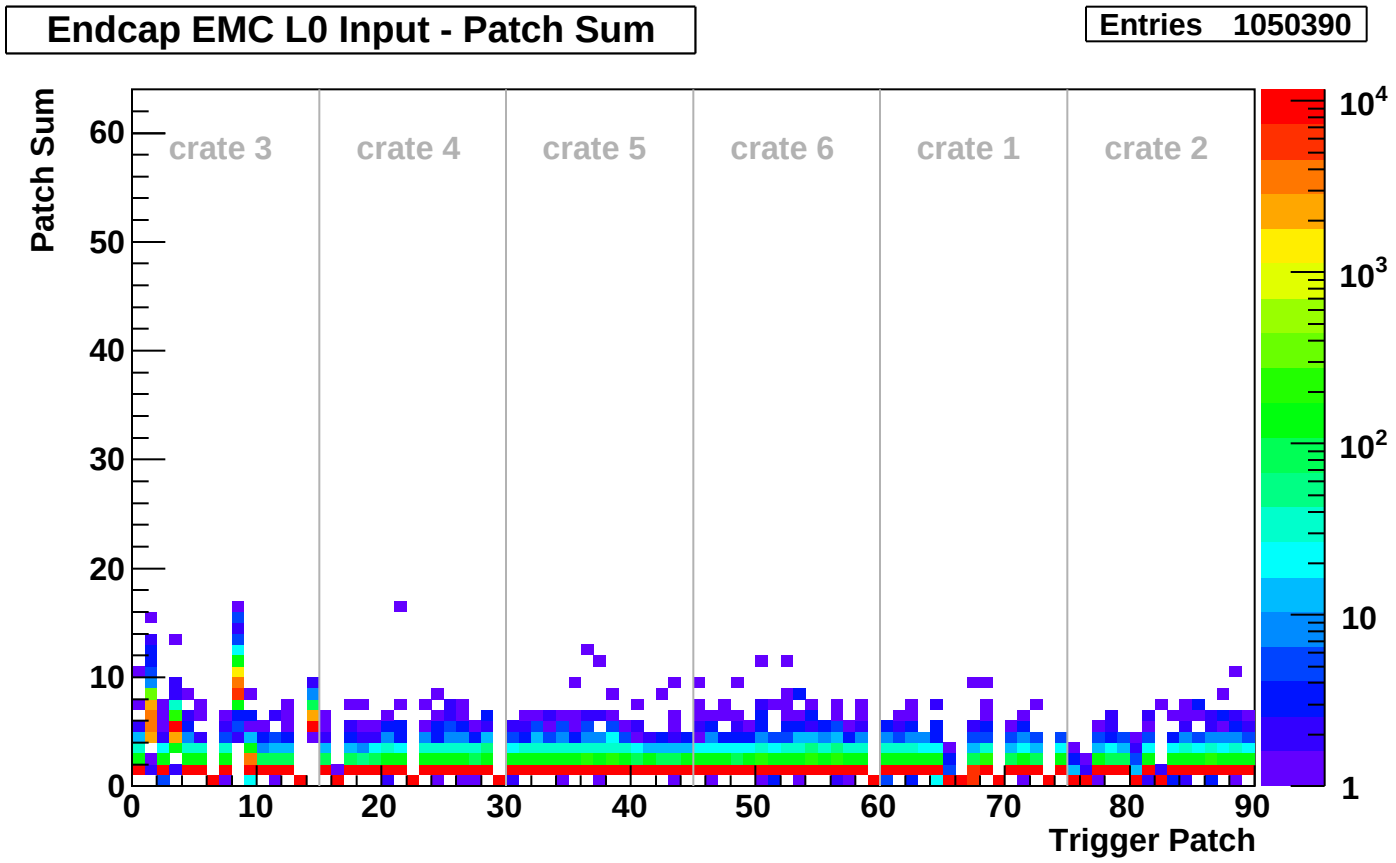
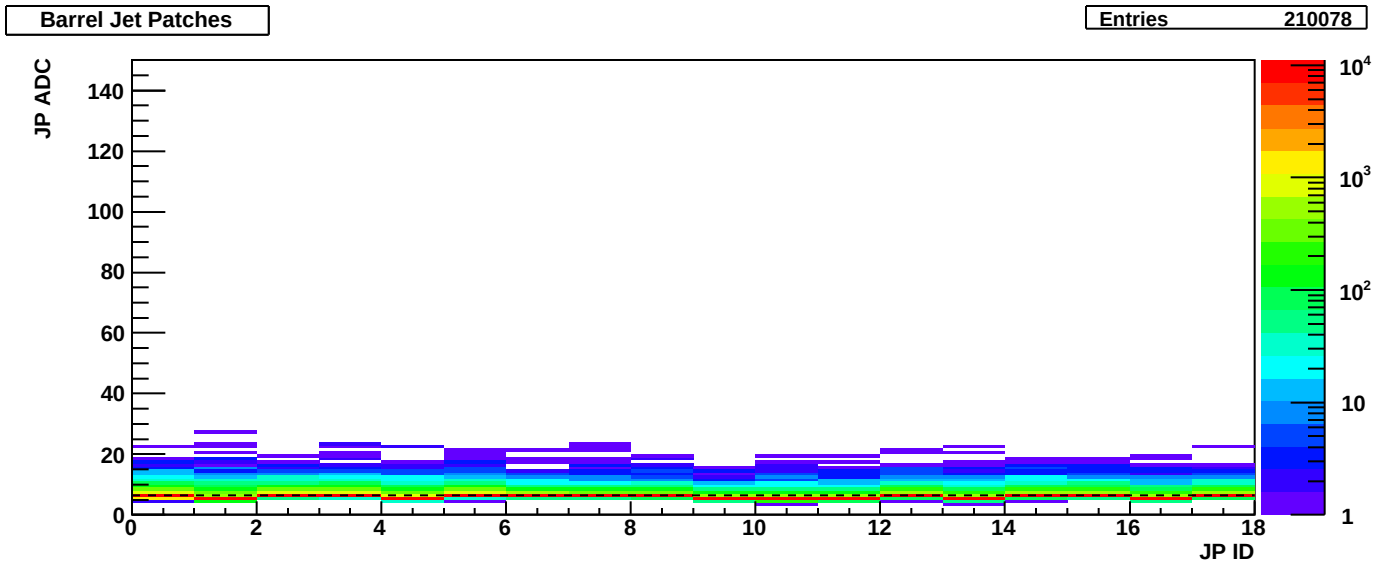
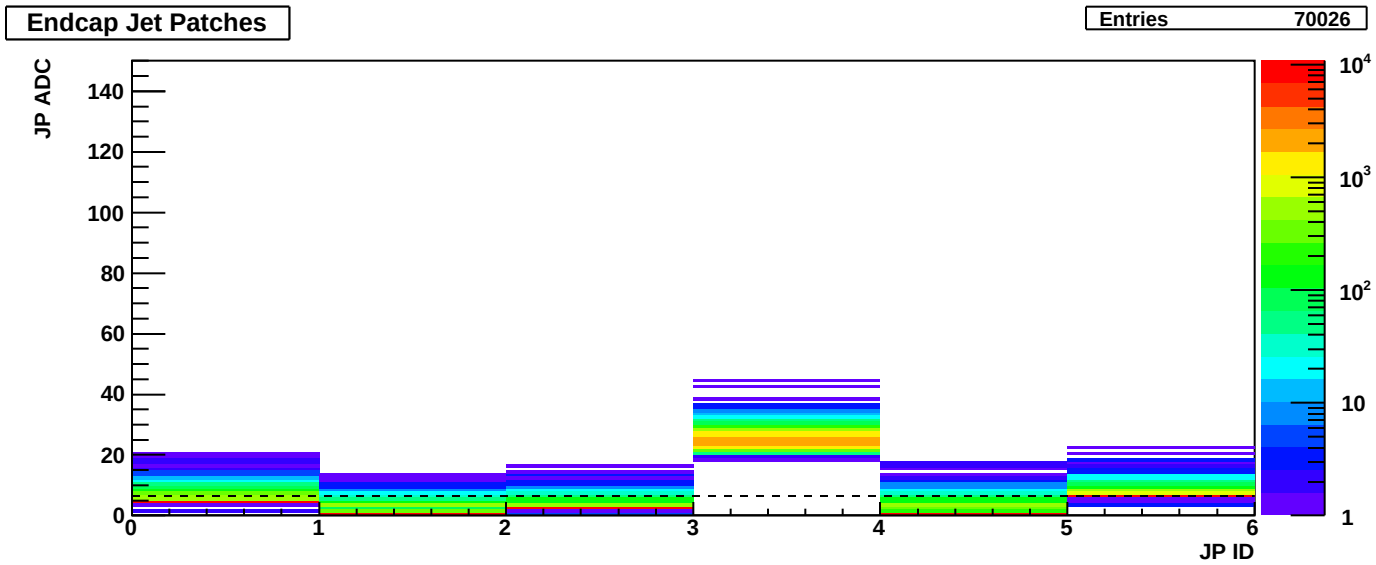

Barrel EMC L0 Input - High Tower
Entries 3501300
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

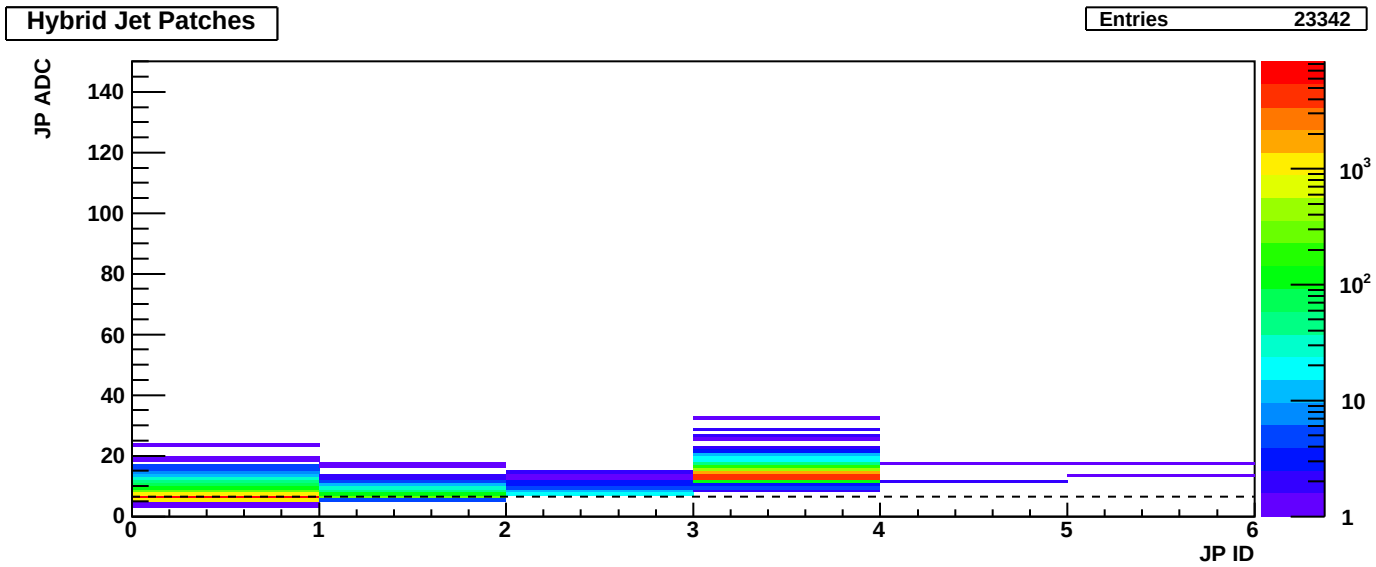

Barrel EMC L0 Input - Patch Sum
Entries 3501300
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

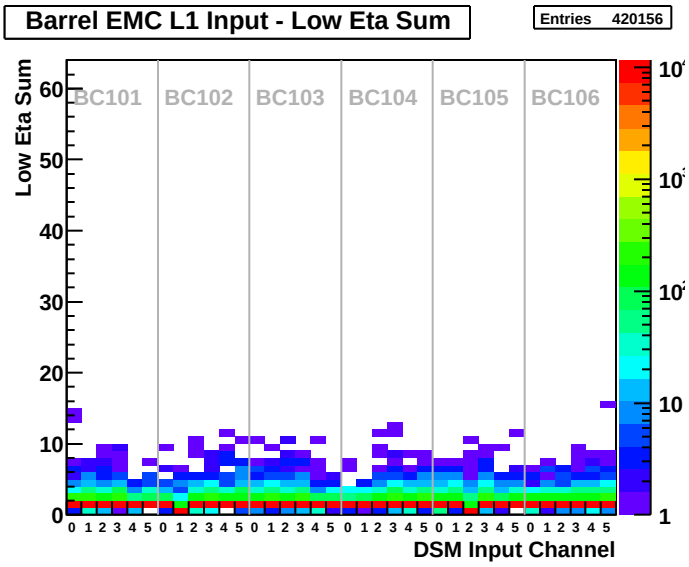

Endcap EMC L0 Input - High Tower
Entries 1050390
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

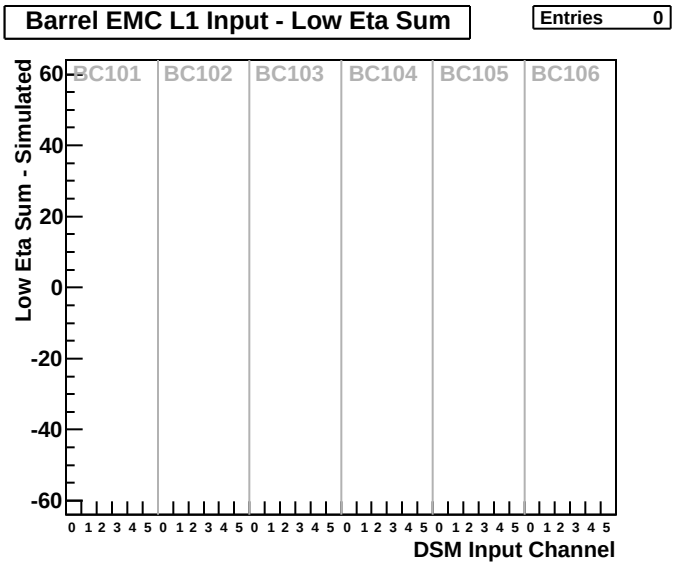

Endcap EMC L0 Input - Patch Sum
Entries 1050390
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

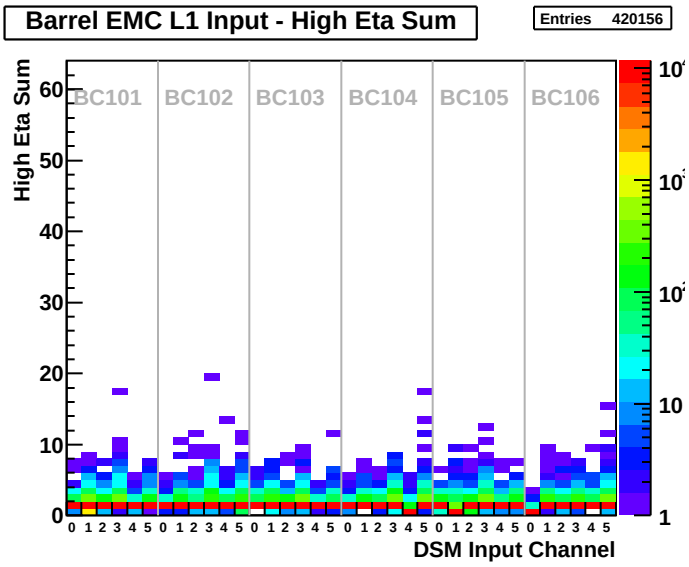

Barrel Jet Patches
Entries 210078
JP ADC
JP ID

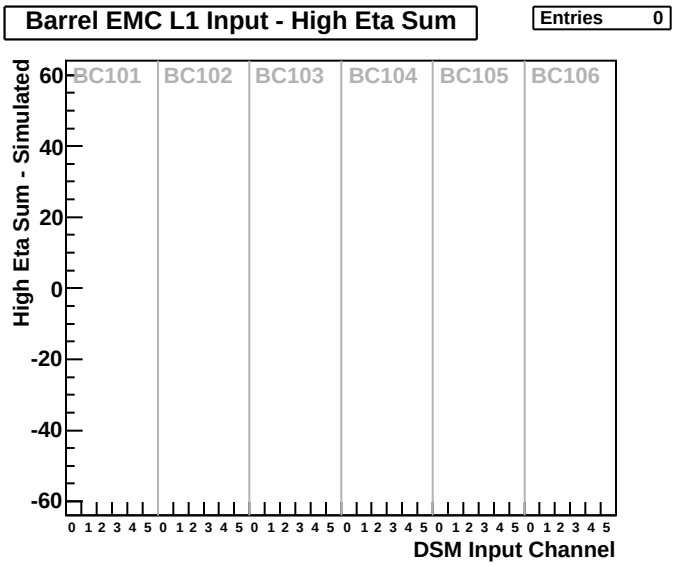

Endcap Jet Patches
Entries 70026
JP ADC
JP ID

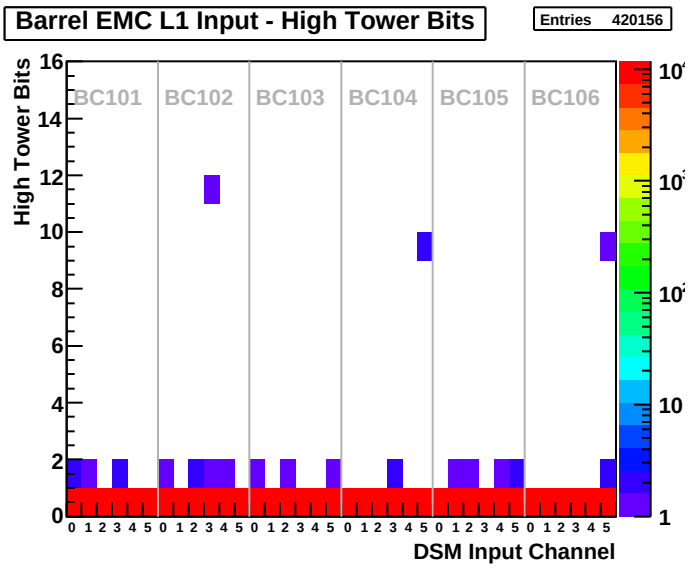

Hybrid Jet Patches
Entries 23342
JP ADC
JP ID

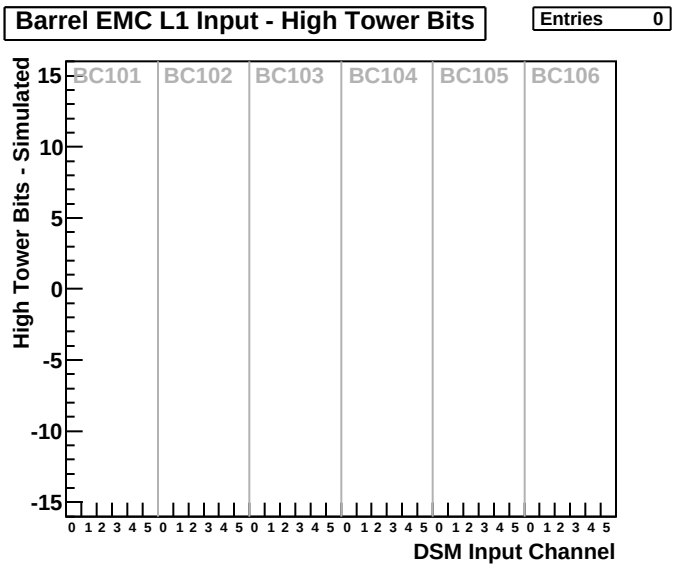

Barrel EMC L1 Input - Low Eta Sum
Entries 420156
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

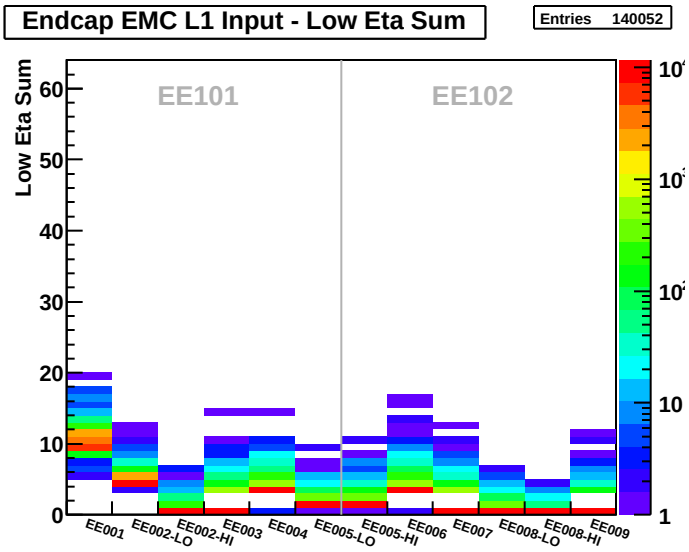

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

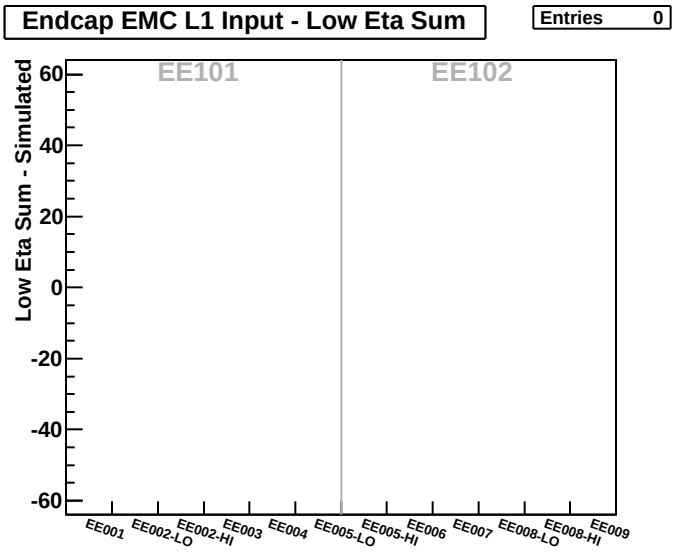

Barrel EMC L1 Input - High Eta Sum
Entries 420156
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

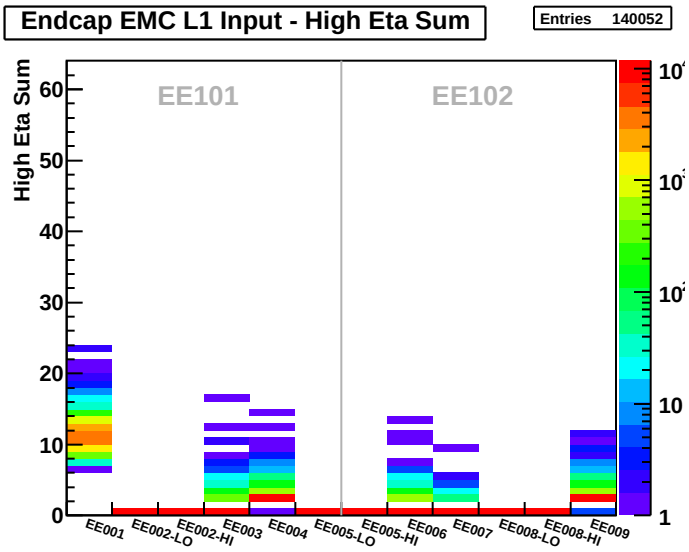

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

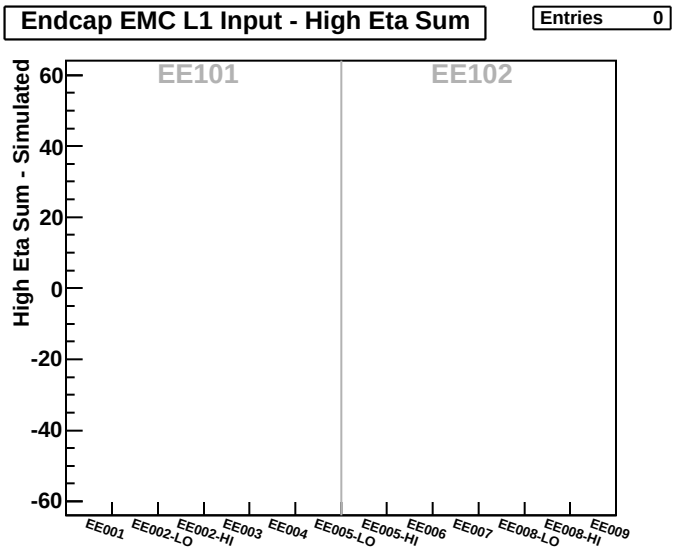

Barrel EMC L1 Input - High Tower Bits
Entries 420156
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

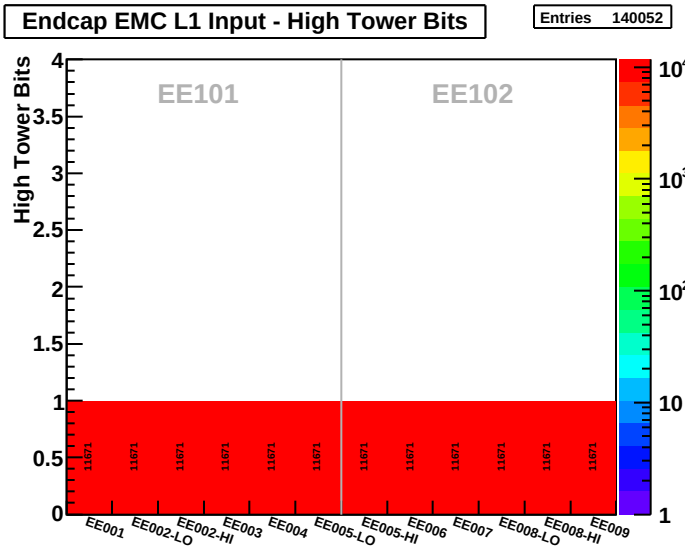

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

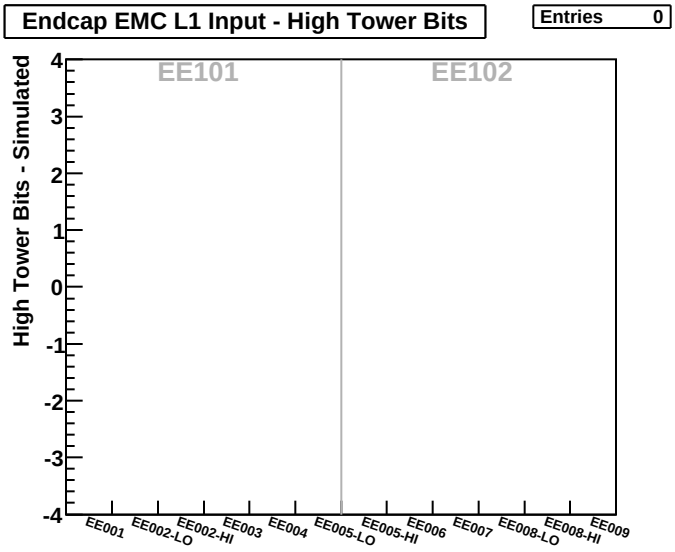

Endcap EMC L1 Input - Low Eta Sum
Entries 140052
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

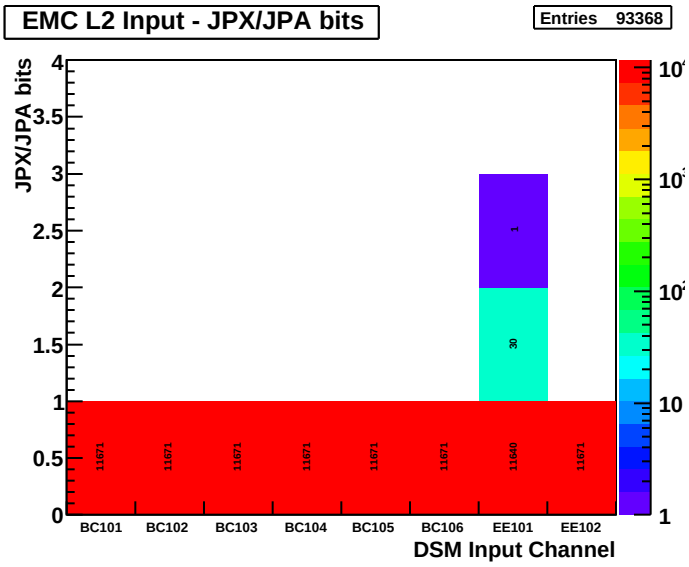

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

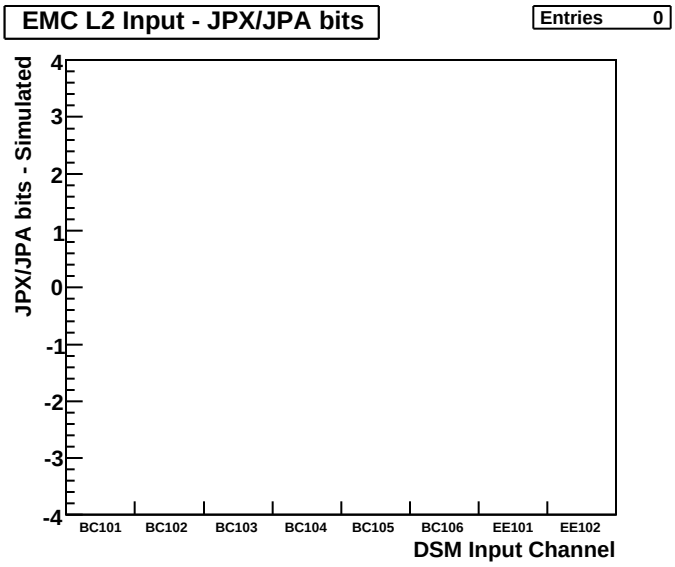

Endcap EMC L1 Input - High Eta Sum
Entries 140052
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

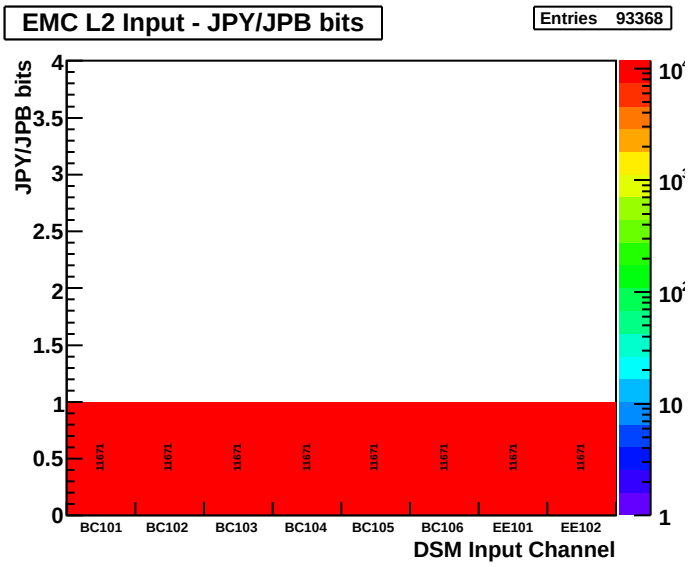

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

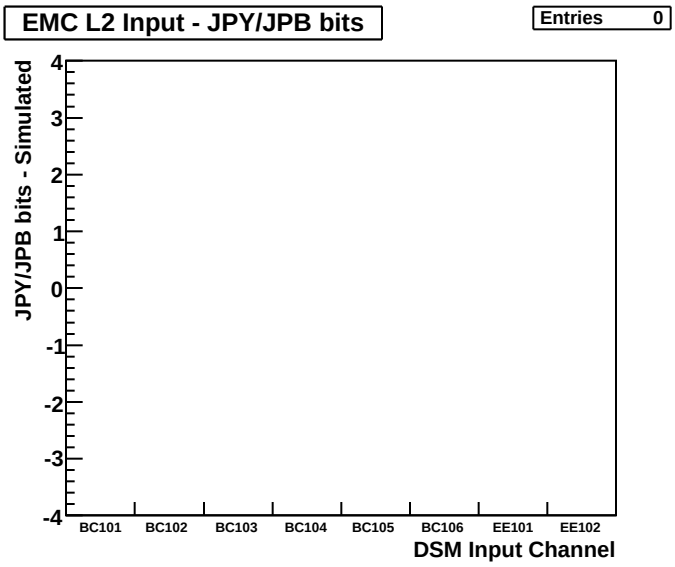

Endcap EMC L1 Input - High Tower Bits
Entries 140052
High Tower Bits
EE101
EE102
11671
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

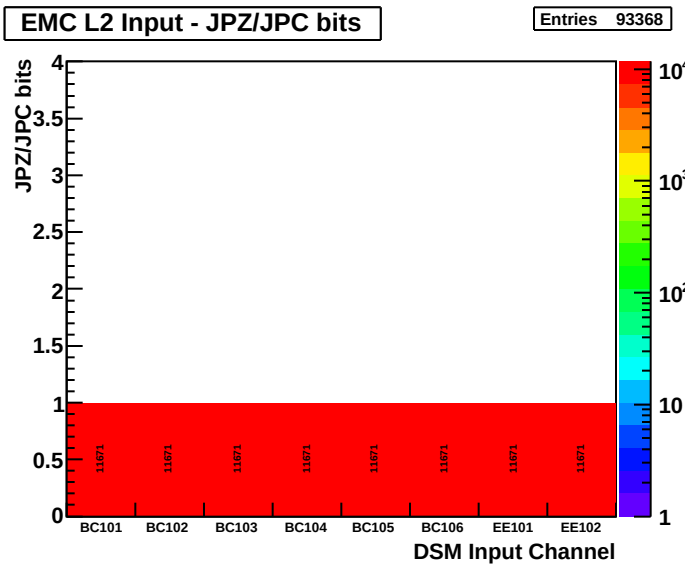

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

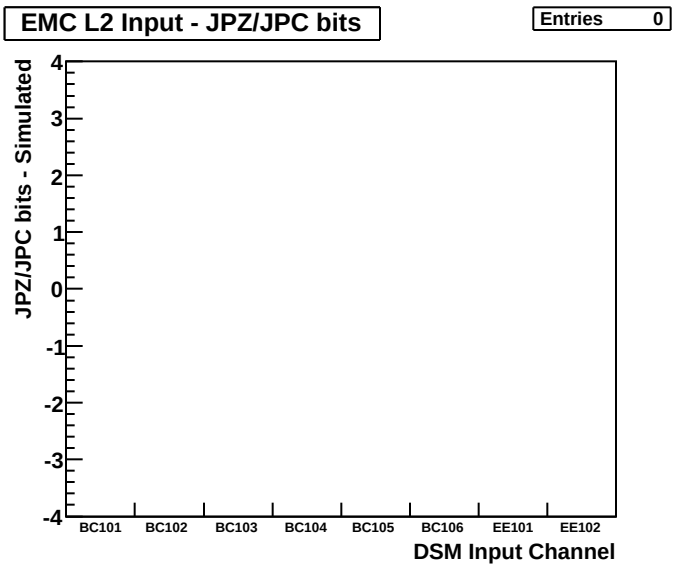

EMC L2 Input - JPX/JPA bits
Entries 93368
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
11671 11671 11671 11671 11671 11671 11640 11671
1
30

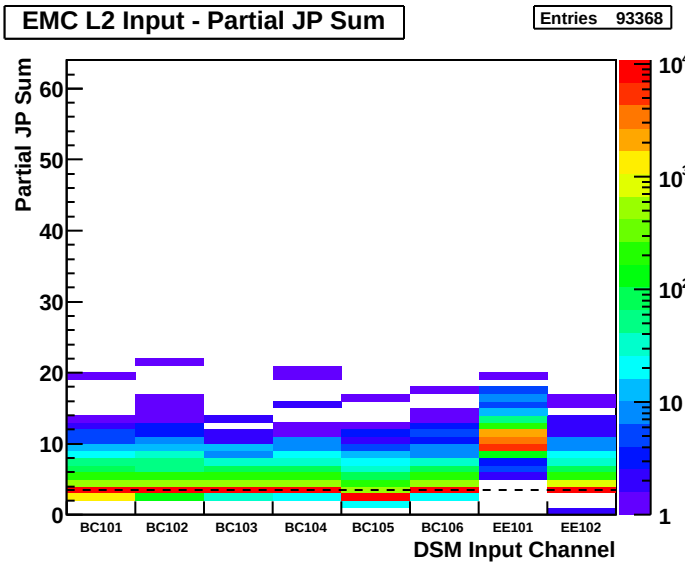

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

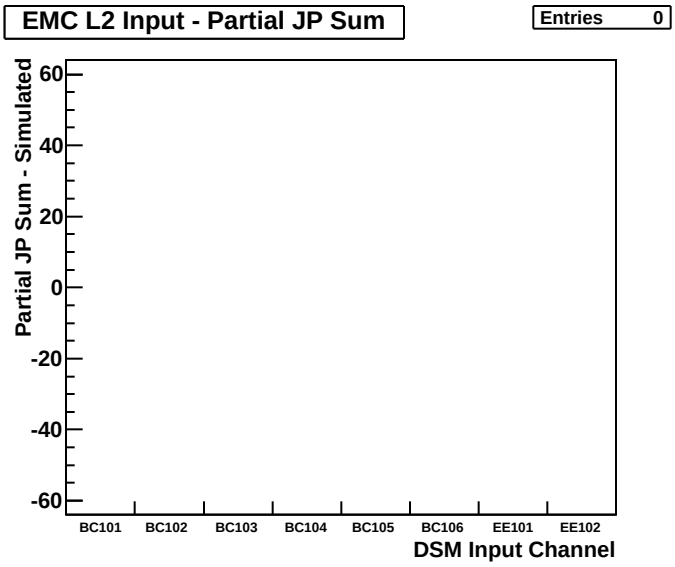

EMC L2 Input - JPY/JPB bits
Entries 93368
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
11671 11671 11671 11671 11671 11671 11671 11671

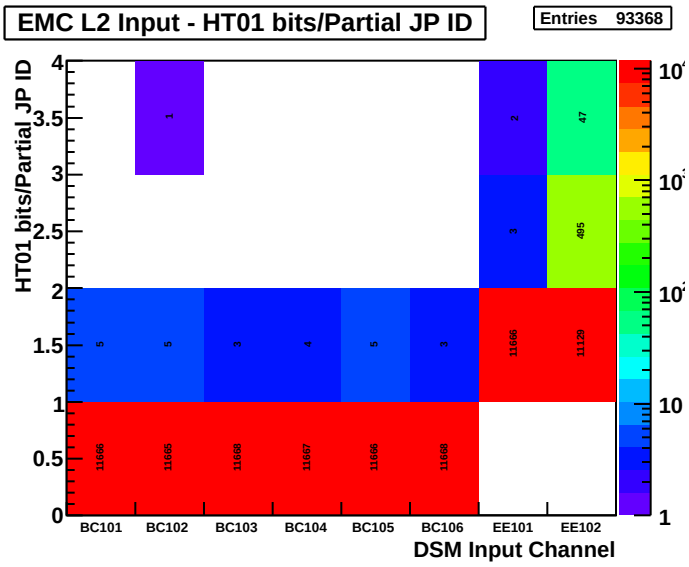

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

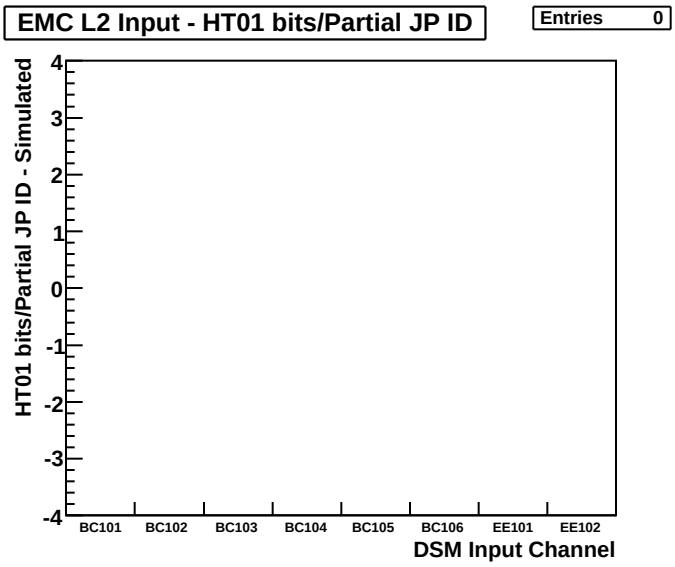

EMC L2 Input - JPZ/JPC bits
Entries 93368
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
11671 11671 11671 11671 11671 11671 11671 11671

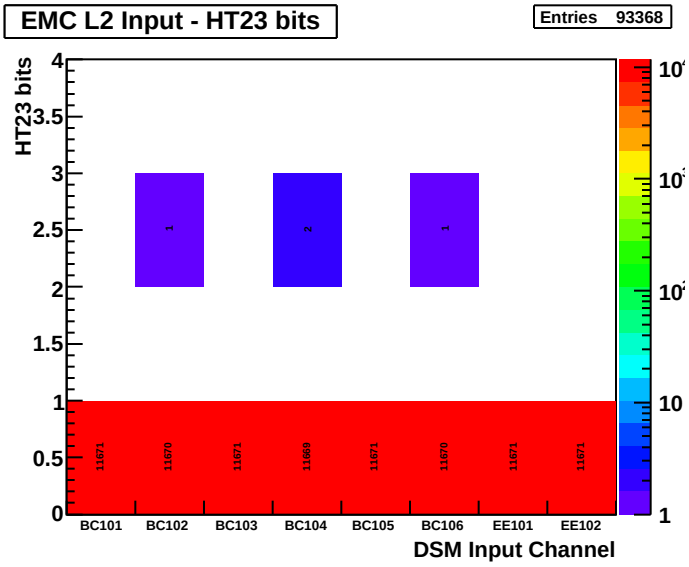

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

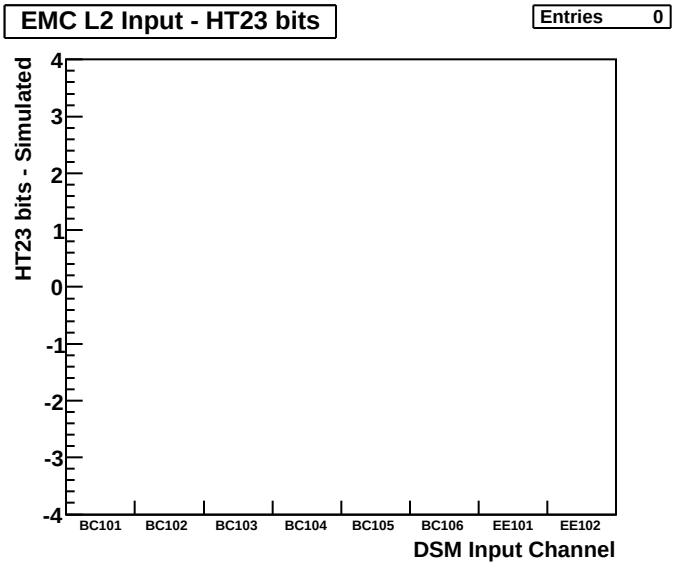

EMC L2 Input - Partial JP Sum
Entries 93368
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

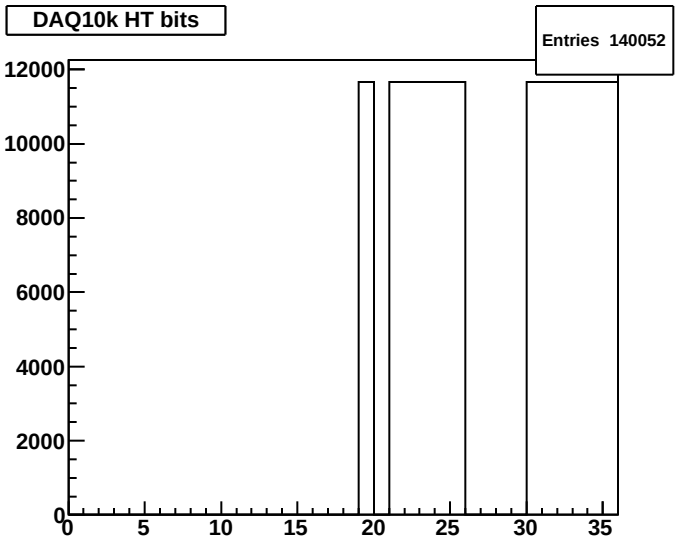

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

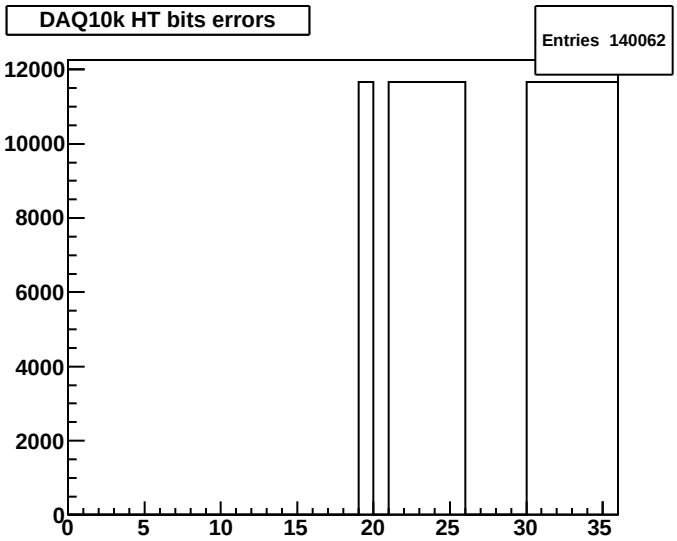

EMC L2 Input - HT01 bits/Partial JP ID
Entries 93368
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

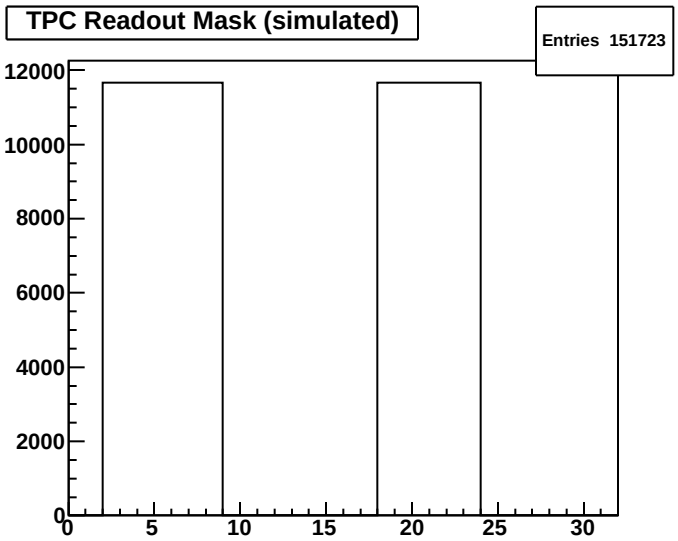

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

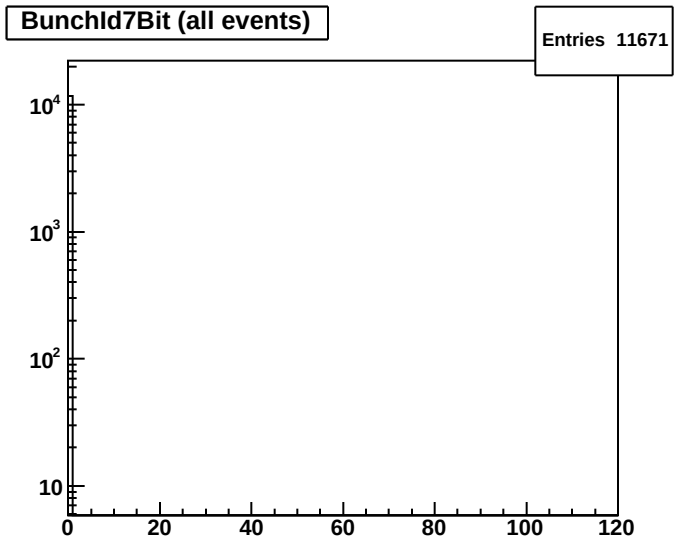

EMC L2 Input - HT23 bits
Entries 93368
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

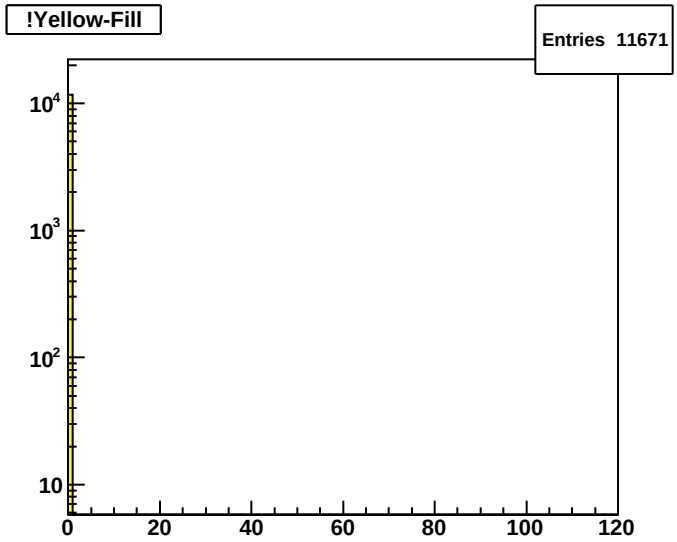

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

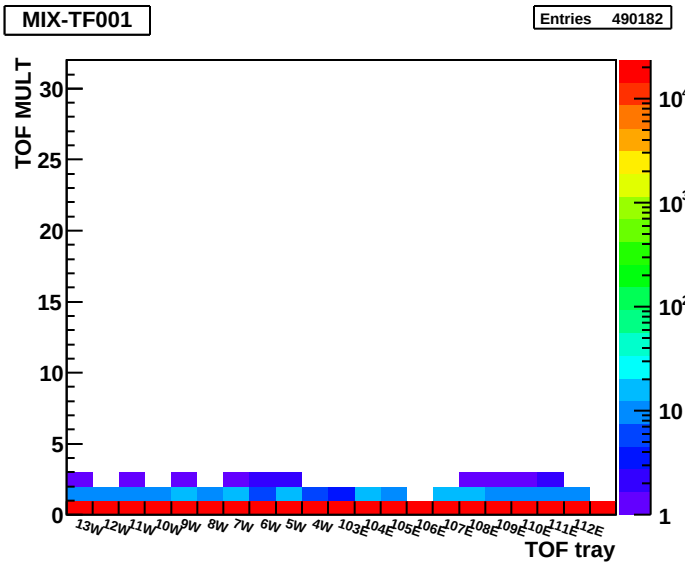

DAQ10k HT bits
Entries 140052
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

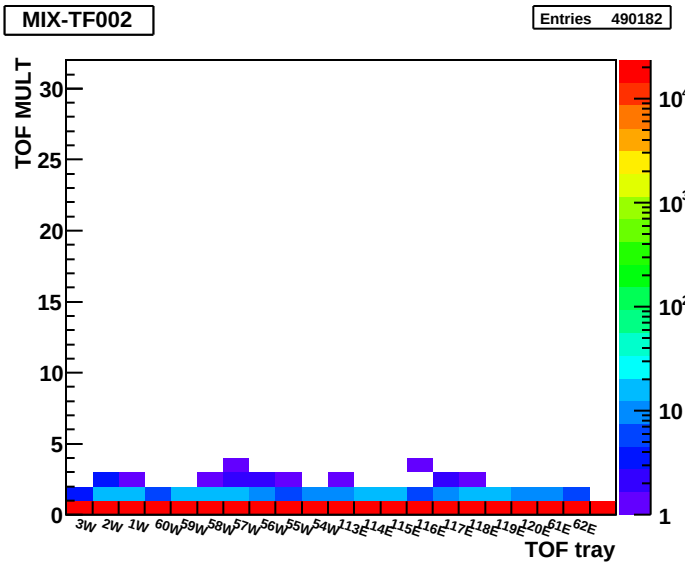

DAQ10k HT bits errors
Entries 140062
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

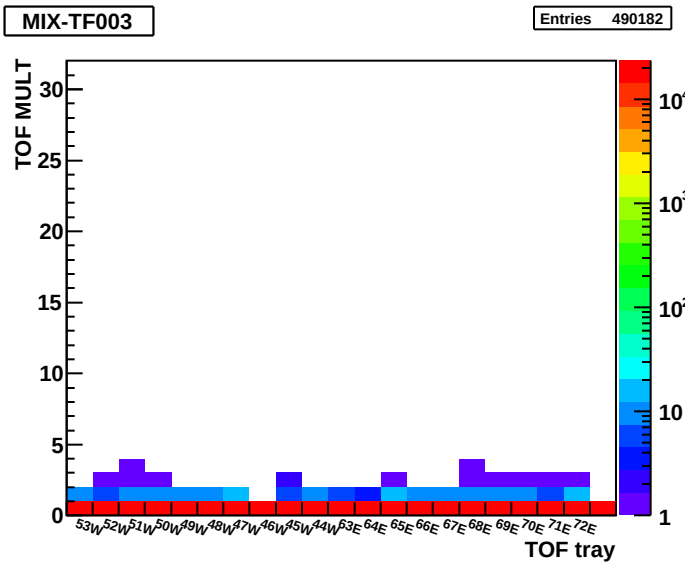

TPC Readout Mask (simulated)
Entries 151723
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30

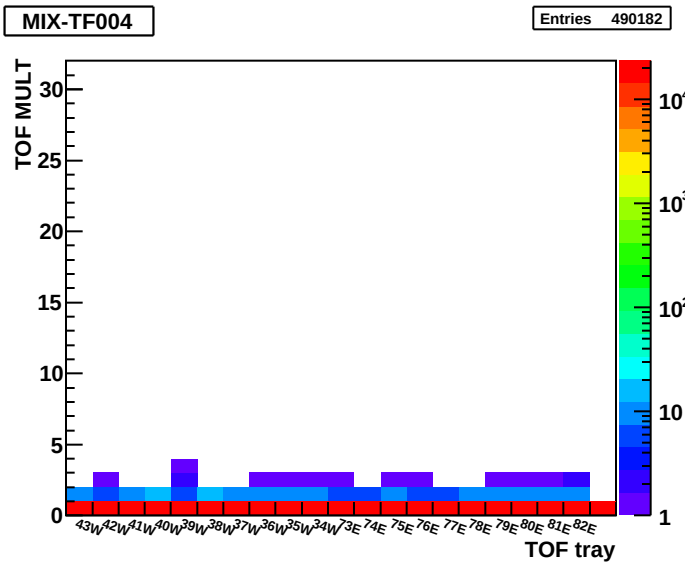

BunchId7Bit (all events)
Entries 11671
10^4
10^3
10^2
10
0 20 40 60 80 100 120

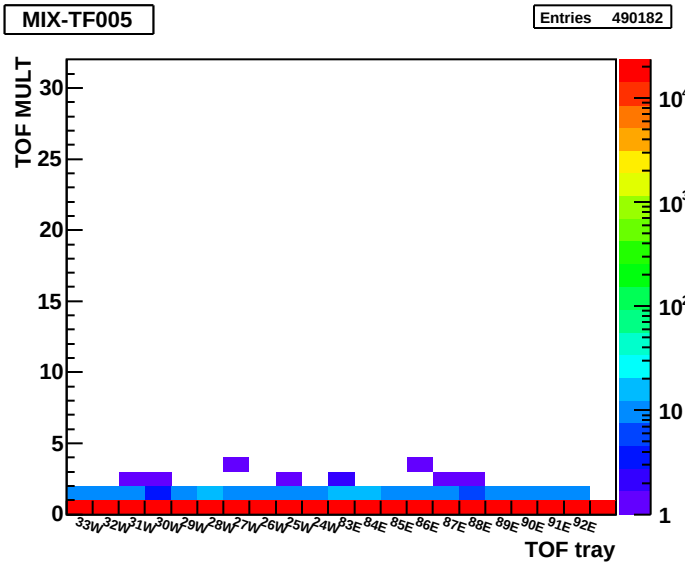

!Yellow-Fill
Entries 11671
10^4
10^3
10^2
10
0 20 40 60 80 100 120

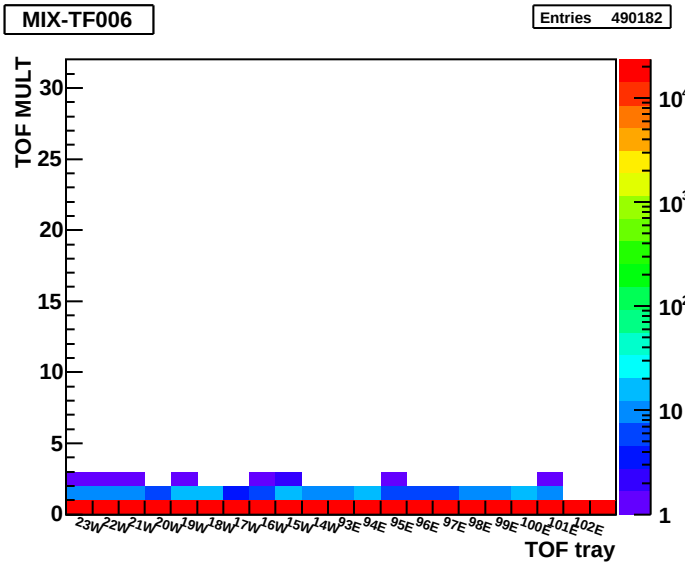

MIX-TF001
Entries 490182
TOF MULT
TOF tray

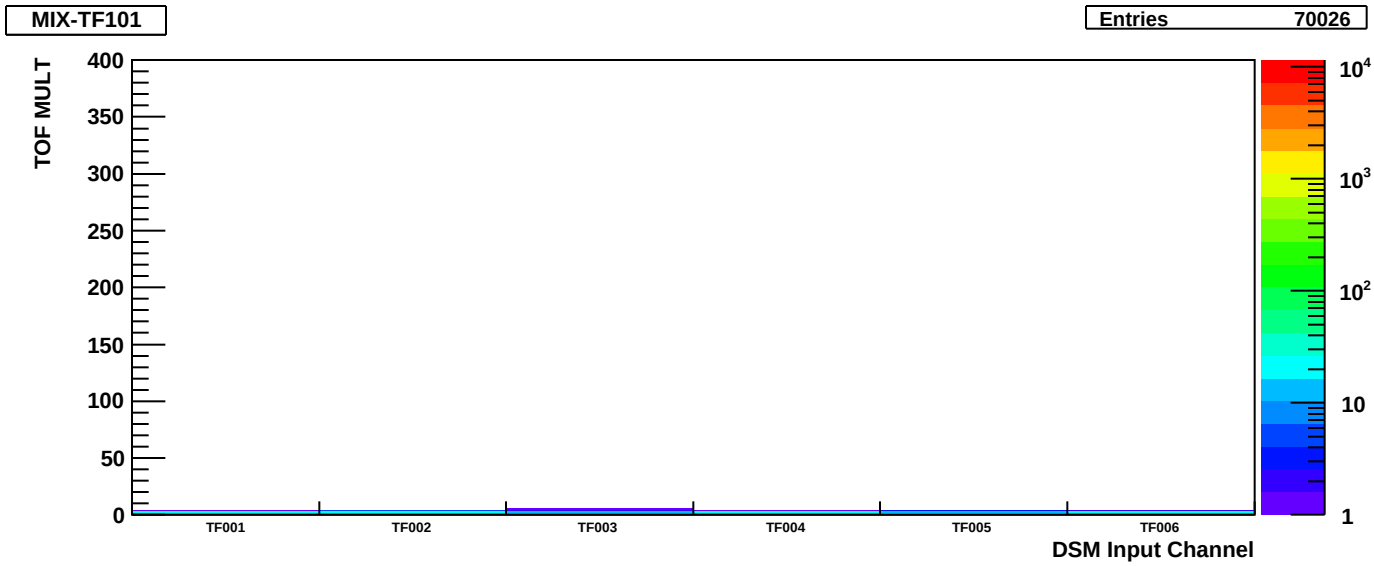

MIX-TF002
Entries 490182
TOF MULT
TOF tray

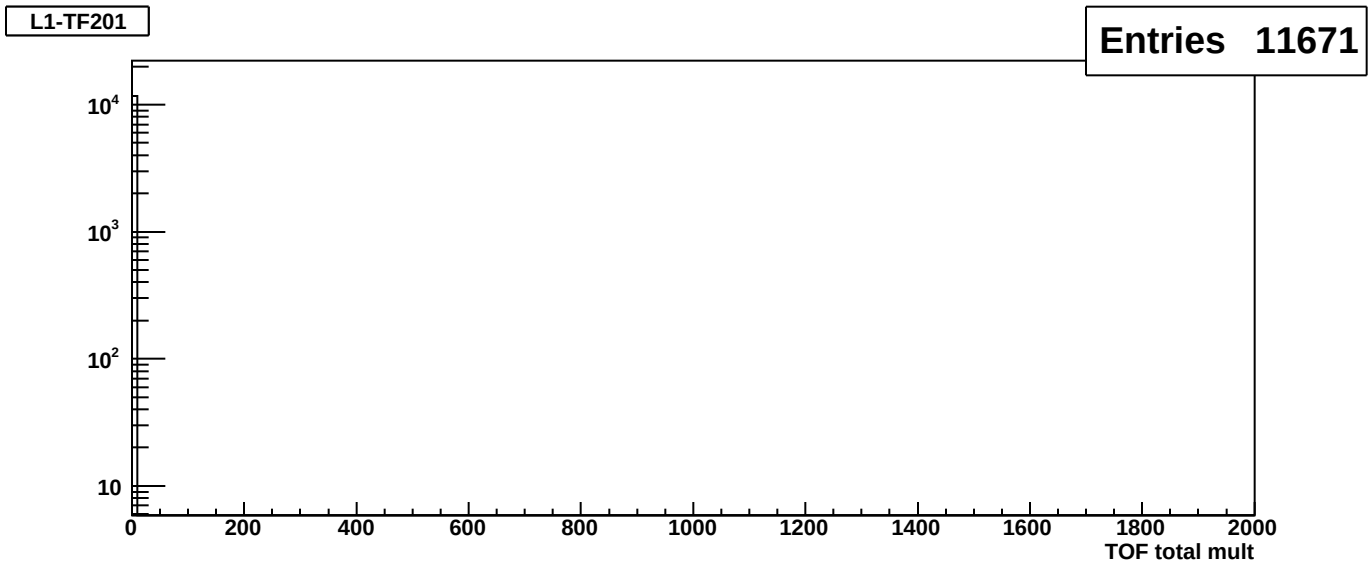

MIX-TF003
Entries 490182
TOF MULT
TOF tray

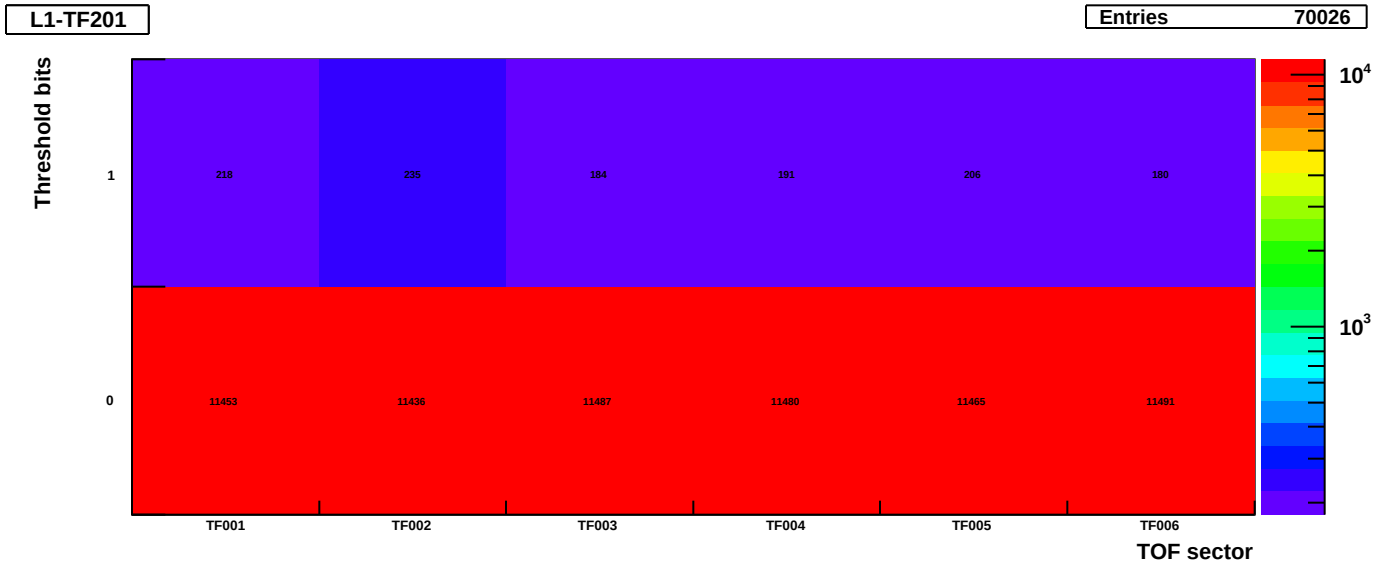

MIX-TF004
Entries 490182
TOF MULT
TOF tray

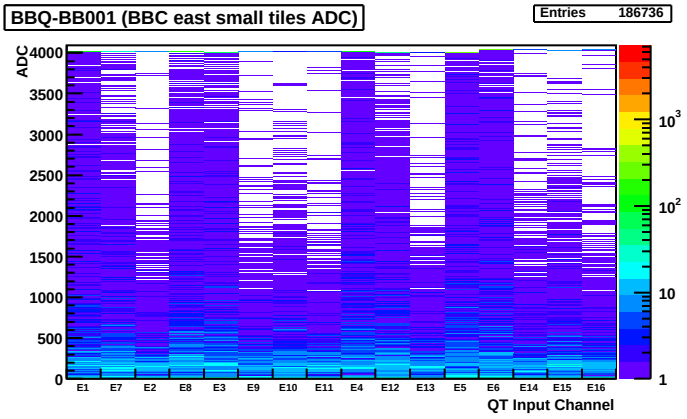

MIX-TF005
Entries 490182
TOF MULT
TOF tray

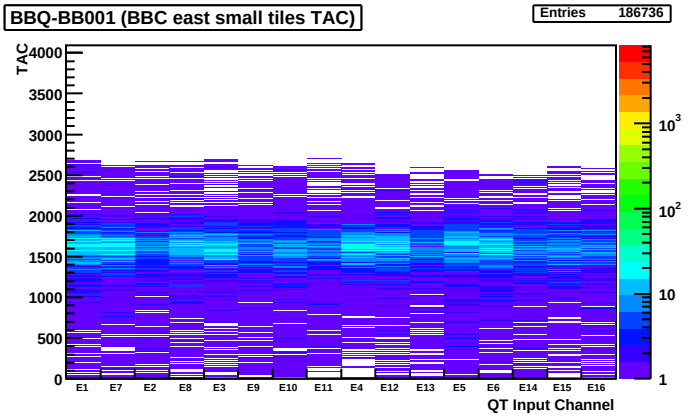

MIX-TF006
Entries 490182
TOF MULT
TOF tray

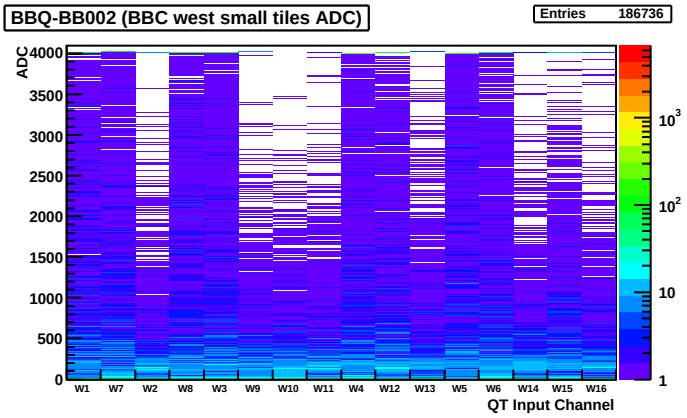

MIX-TF101
Entries 70026
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

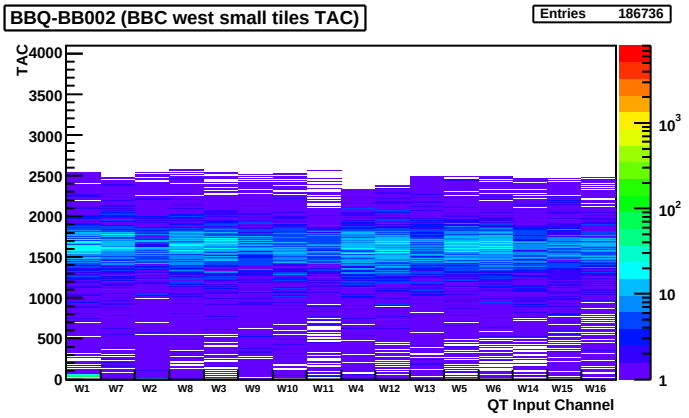

L1-TF201
Entries 11671
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

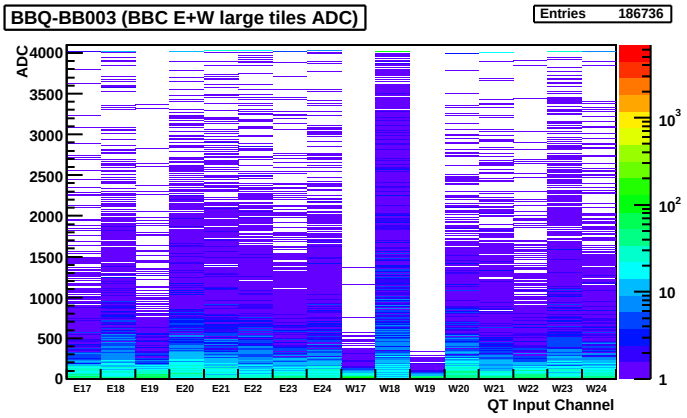

L1-TF201
Entries 70026
Threshold bits
1
0
218
235
184
191
206
180
11453
11436
11487
11480
11465
11491
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

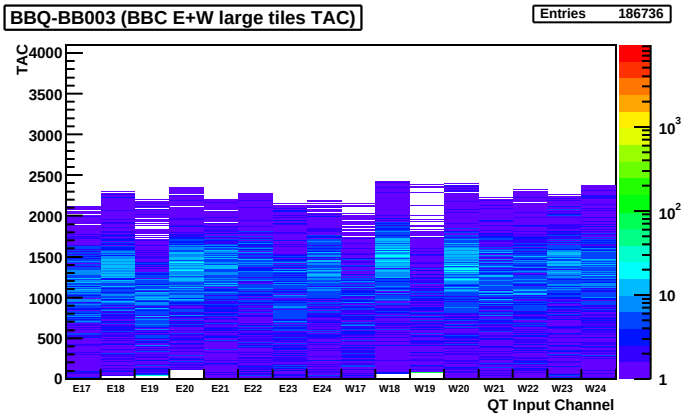

BBQ-BB001 (BBC east small tiles ADC)
Entries 186736
ADC
QT Input Channel

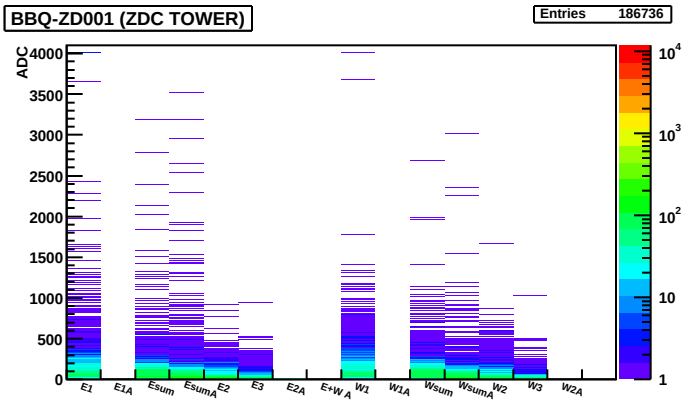

BBQ-BB001 (BBC east small tiles TAC)
Entries 186736
TAC
QT Input Channel

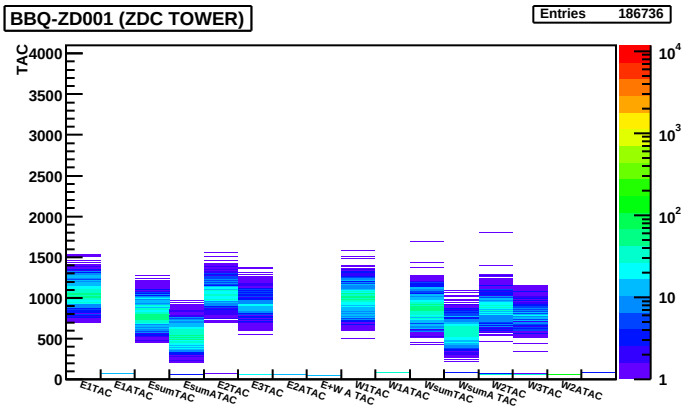

BBQ-BB002 (BBC west small tiles ADC)
Entries 186736
ADC
QT Input Channel

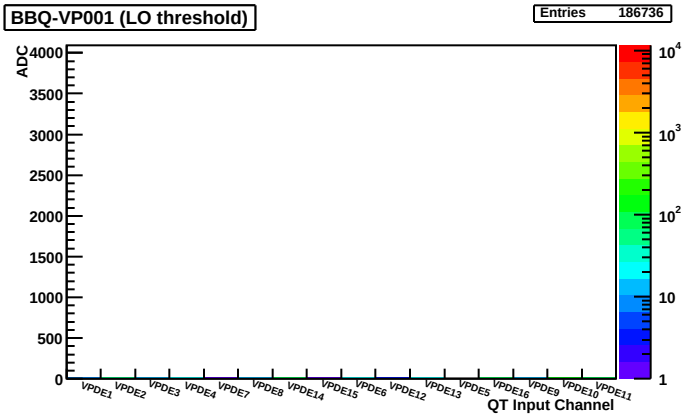

BBQ-BB002 (BBC west small tiles TAC)
Entries 186736
TAC
QT Input Channel

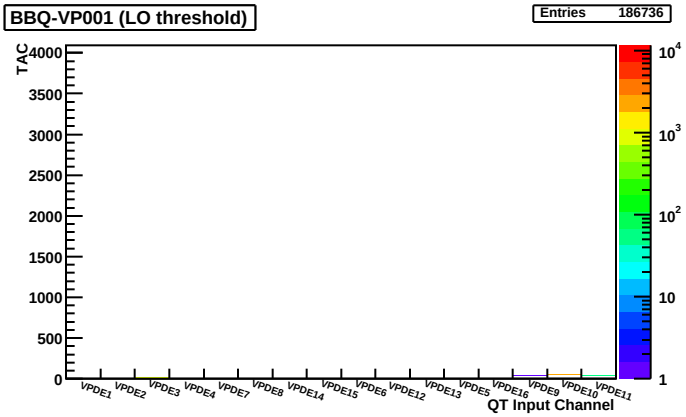

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 186736
ADC
QT Input Channel

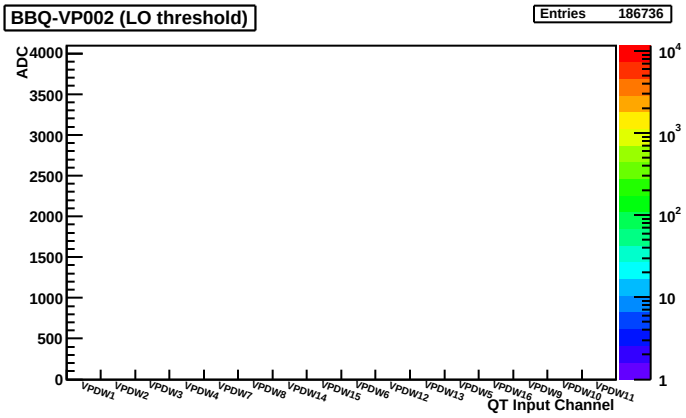

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 186736
TAC
QT Input Channel

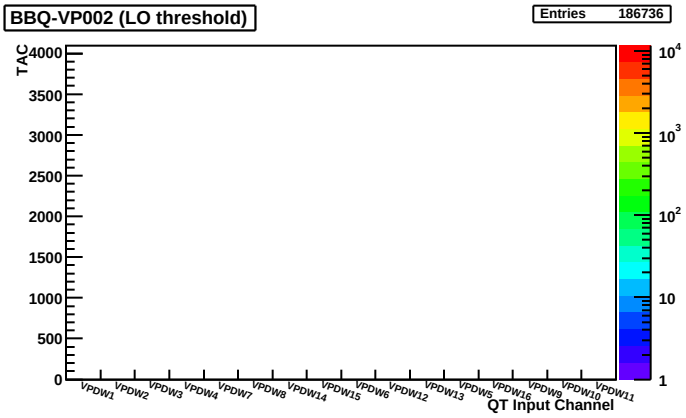

BBQ-ZD001 (ZDC TOWER)
Entries 186736
ADC

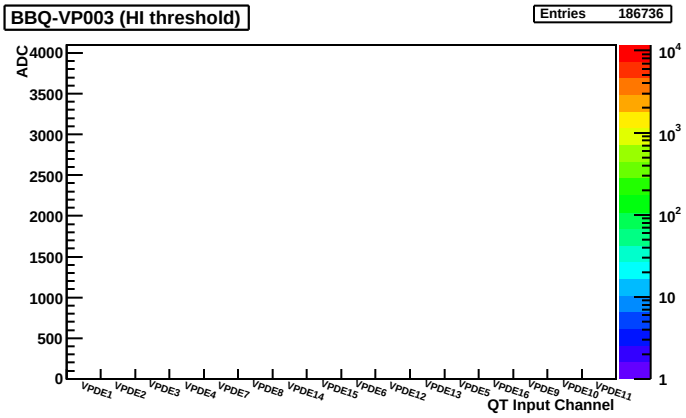

BBQ-ZD001 (ZDC TOWER)
Entries 186736
TAC

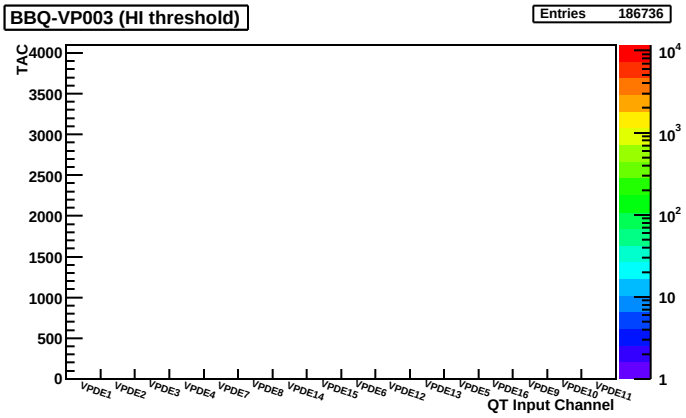

BBQ-VP001 (LO threshold)
Entries 186736
ADC
QT Input Channel

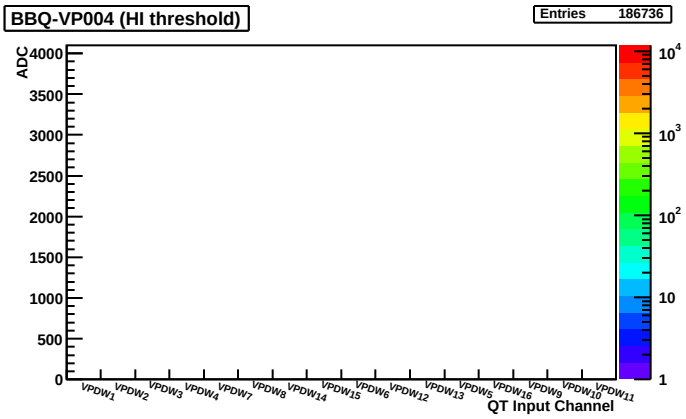

BBQ-VP001 (LO threshold)
Entries 186736
TAC
QT Input Channel

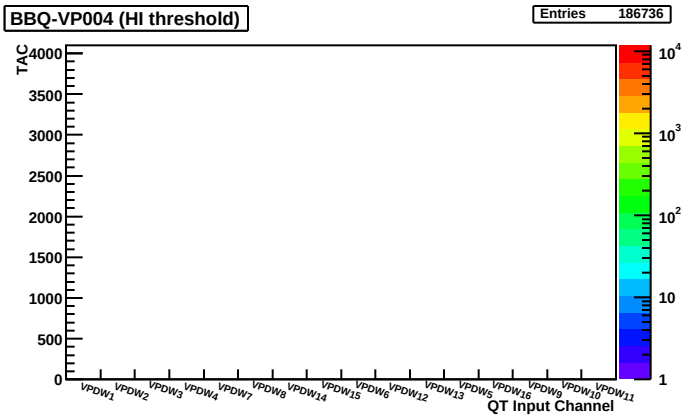

BBQ-VP002 (LO threshold)
Entries 186736
ADC
QT Input Channel

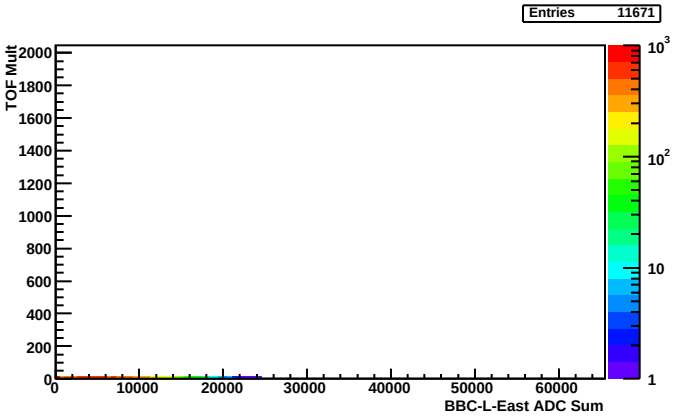

BBQ-VP002 (LO threshold)
Entries 186736
TAC
QT Input Channel

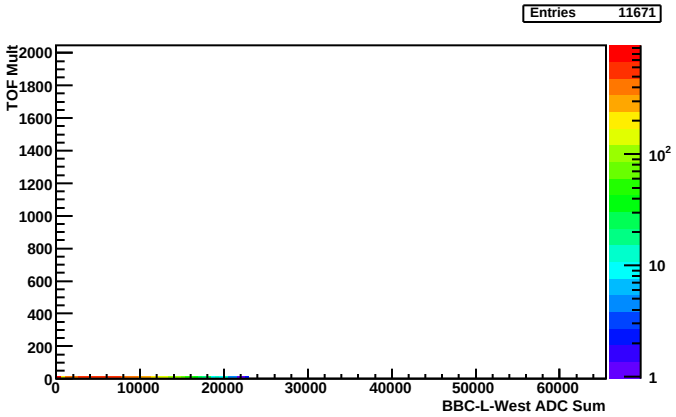

BBQ-VP003 (HI threshold)
Entries 186736
ADC
QT Input Channel

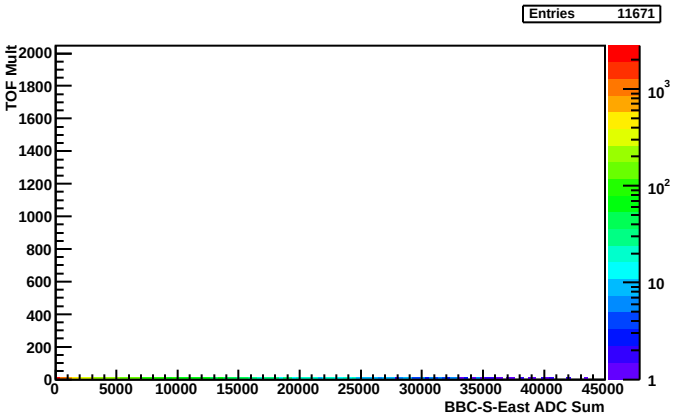

BBQ-VP003 (HI threshold)
Entries 186736
TAC
QT Input Channel

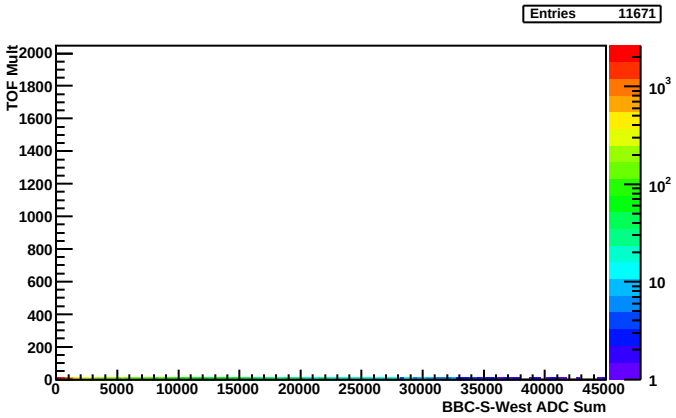

BBQ-VP004 (HI threshold)
Entries 186736
ADC
QT Input Channel

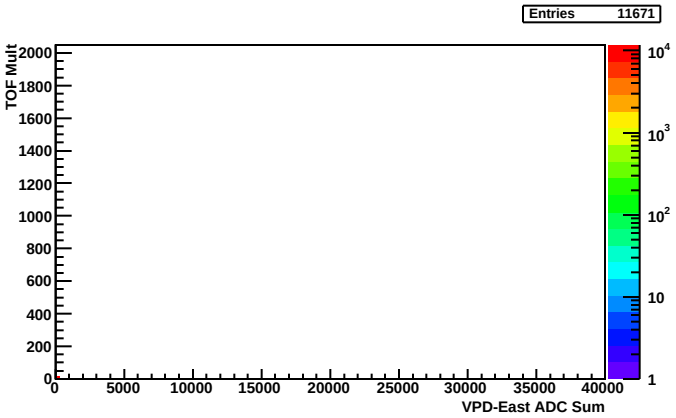

BBQ-VP004 (HI threshold)
Entries 186736
TAC
QT Input Channel

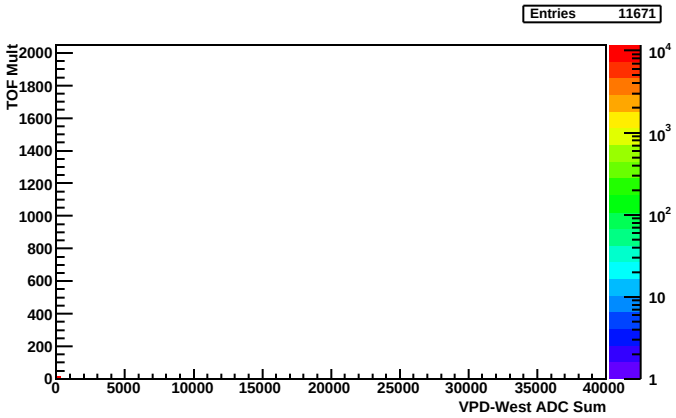

Entries 11671
TOF Mult
BBC-L-East ADC Sum

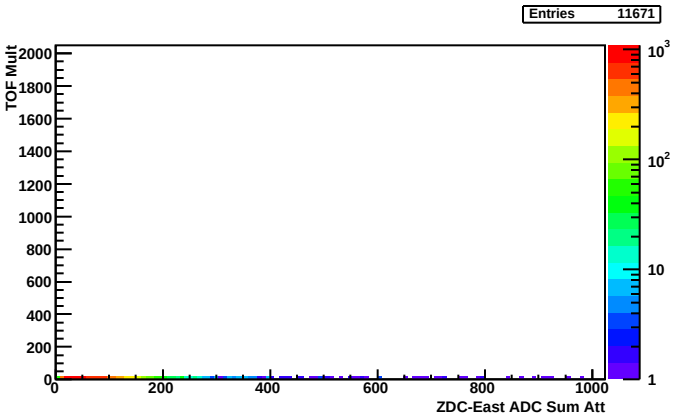

Entries 11671
TOF Mult
BBC-L-West ADC Sum

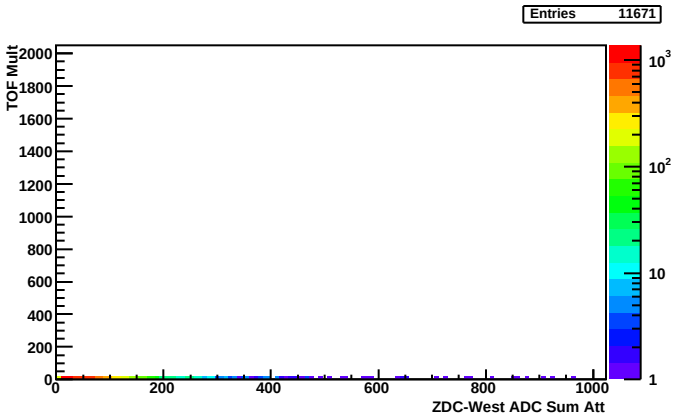

Entries 11671
TOF Mult
BBC-S-East ADC Sum

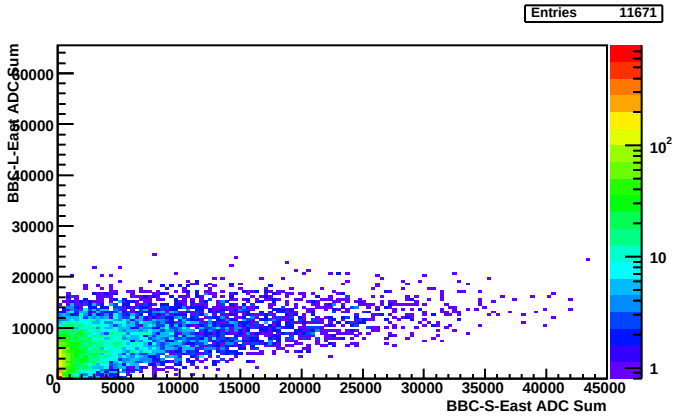

Entries 11671
TOF Mult
BBC-S-West ADC Sum

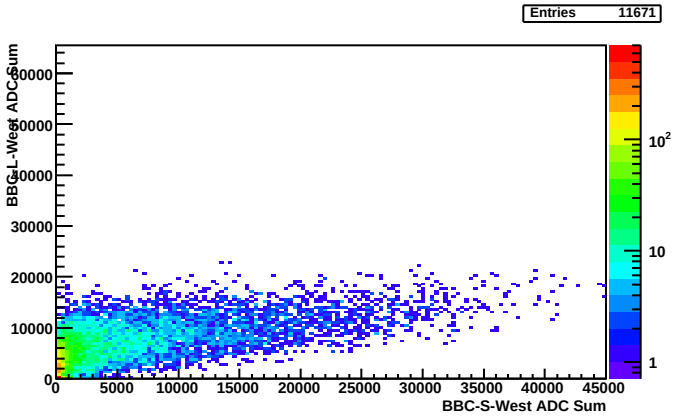

Entries 11671
TOF Mult
VPD-East ADC Sum

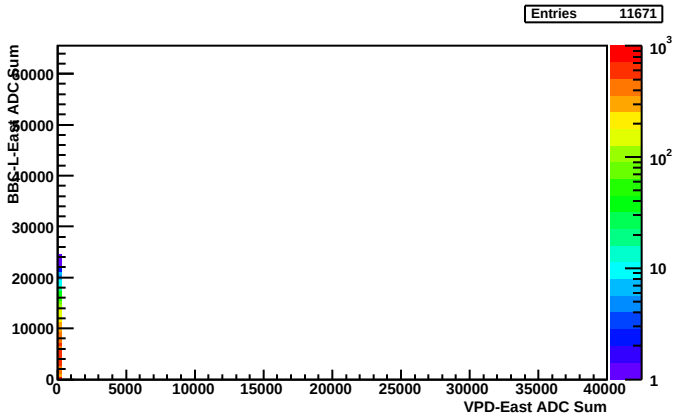

Entries 11671
TOF Mult
VPD-West ADC Sum

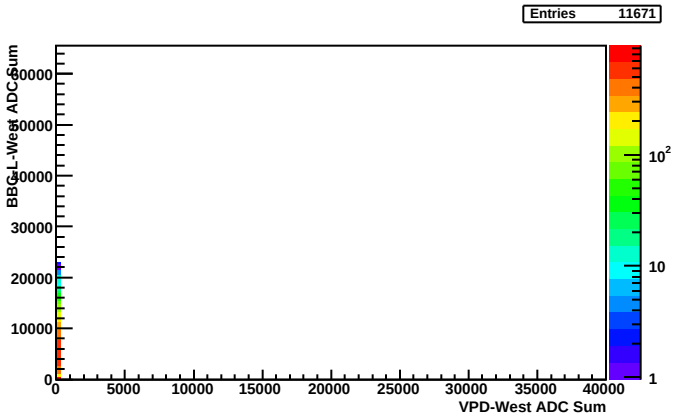

Entries 11671
TOF Mult
ZDC-East ADC Sum Att

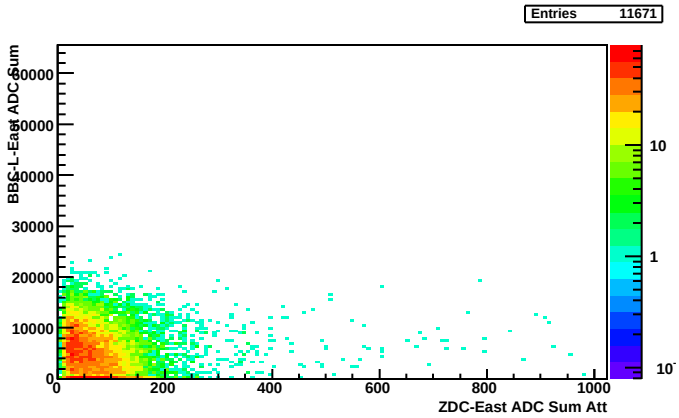

Entries 11671
TOF Mult
ZDC-West ADC Sum Att

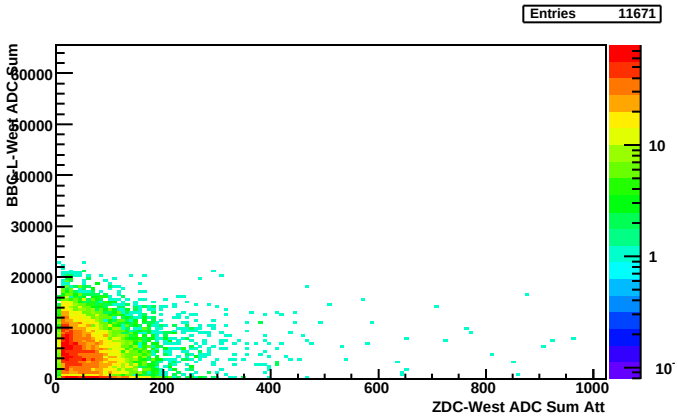

Entries 11671
BBC-L-East ADC Sum
BBC-S-East ADC Sum

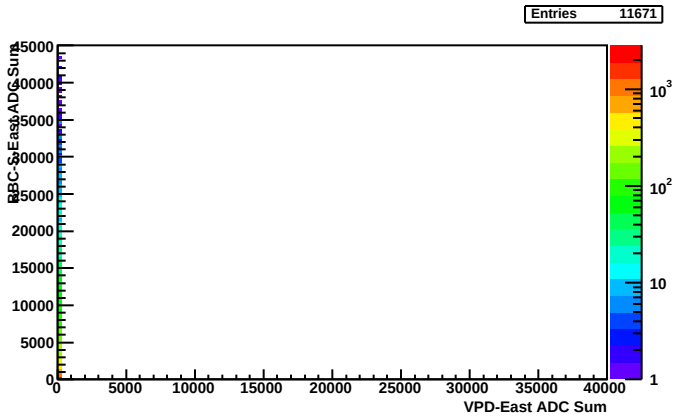

Entries 11671
BBC-L-West ADC Sum
BBC-S-West ADC Sum

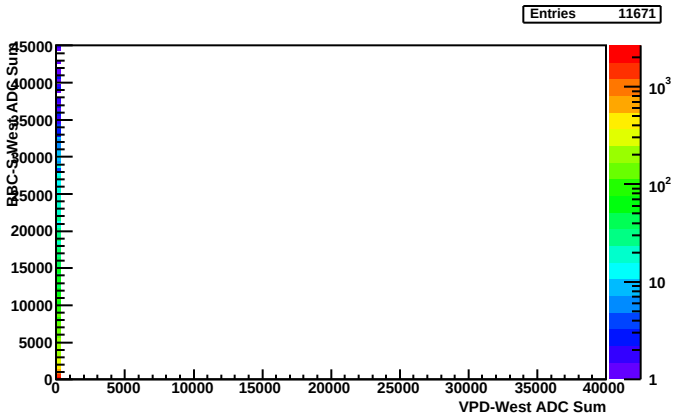

Entries 11671
BBC-L-East ADC Sum
VPD-East ADC Sum

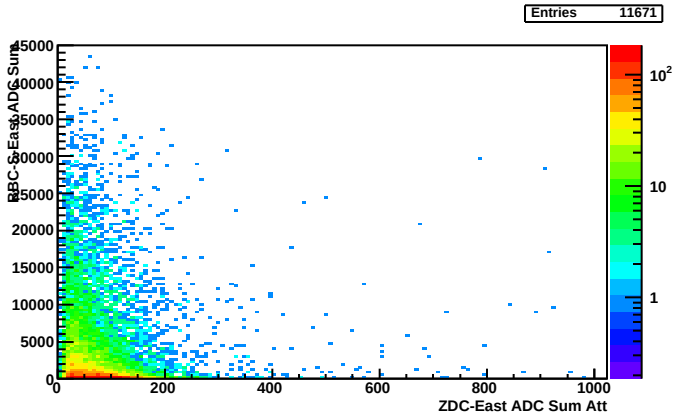

Entries 11671
BBC-L-West ADC Sum
VPD-West ADC Sum

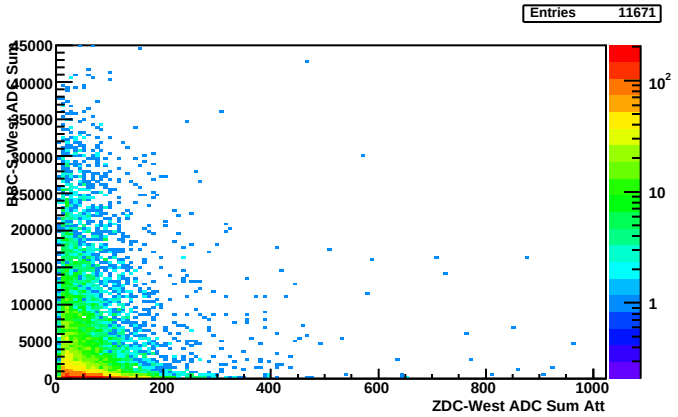

Entries 11671
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

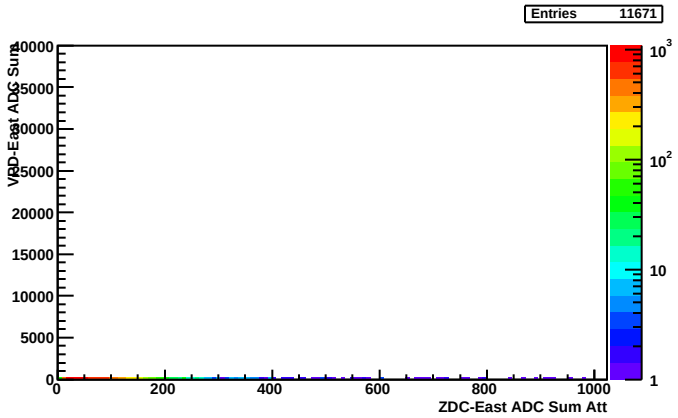

Entries 11671
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

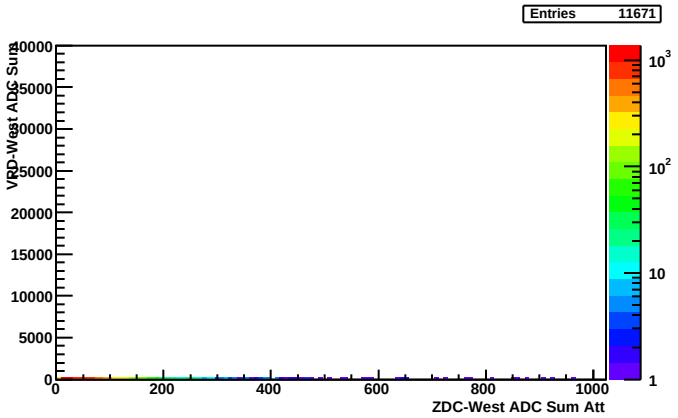

Entries 11671
BBC-S-East ADC Sum
VPD-East ADC Sum

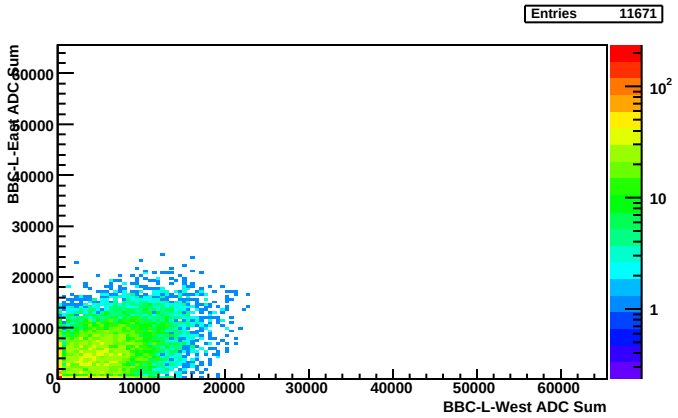

Entries 11671
BBC-S-West ADC Sum
VPD-West ADC Sum

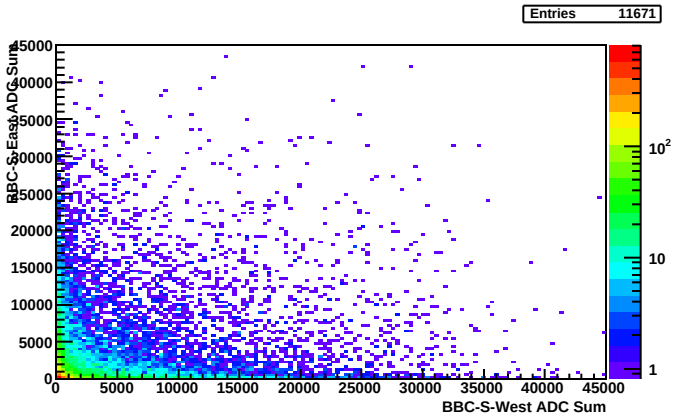

Entries 11671
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

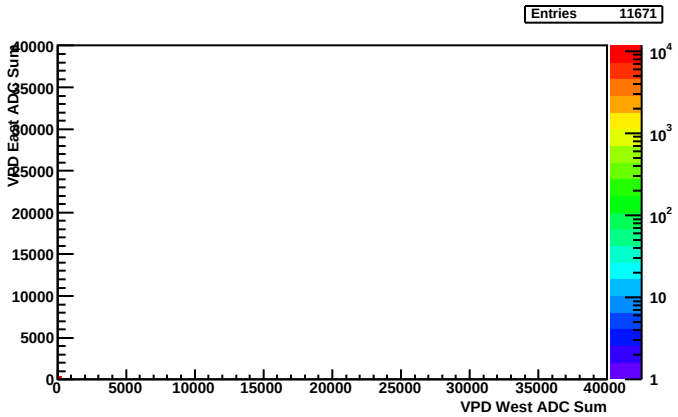

Entries 11671
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

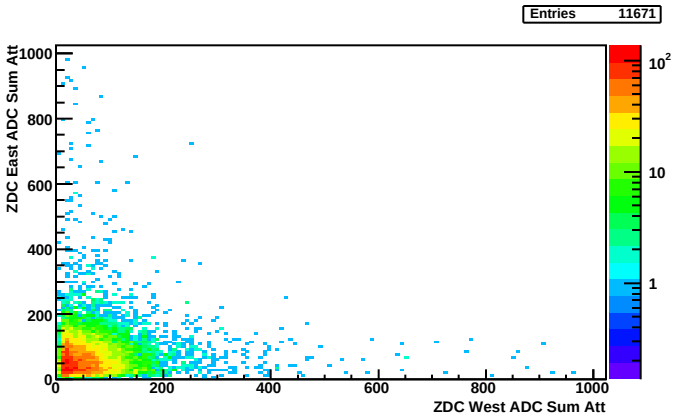

Entries 11671
VPD-East ADC Sum
ZDC-East ADC Sum Att

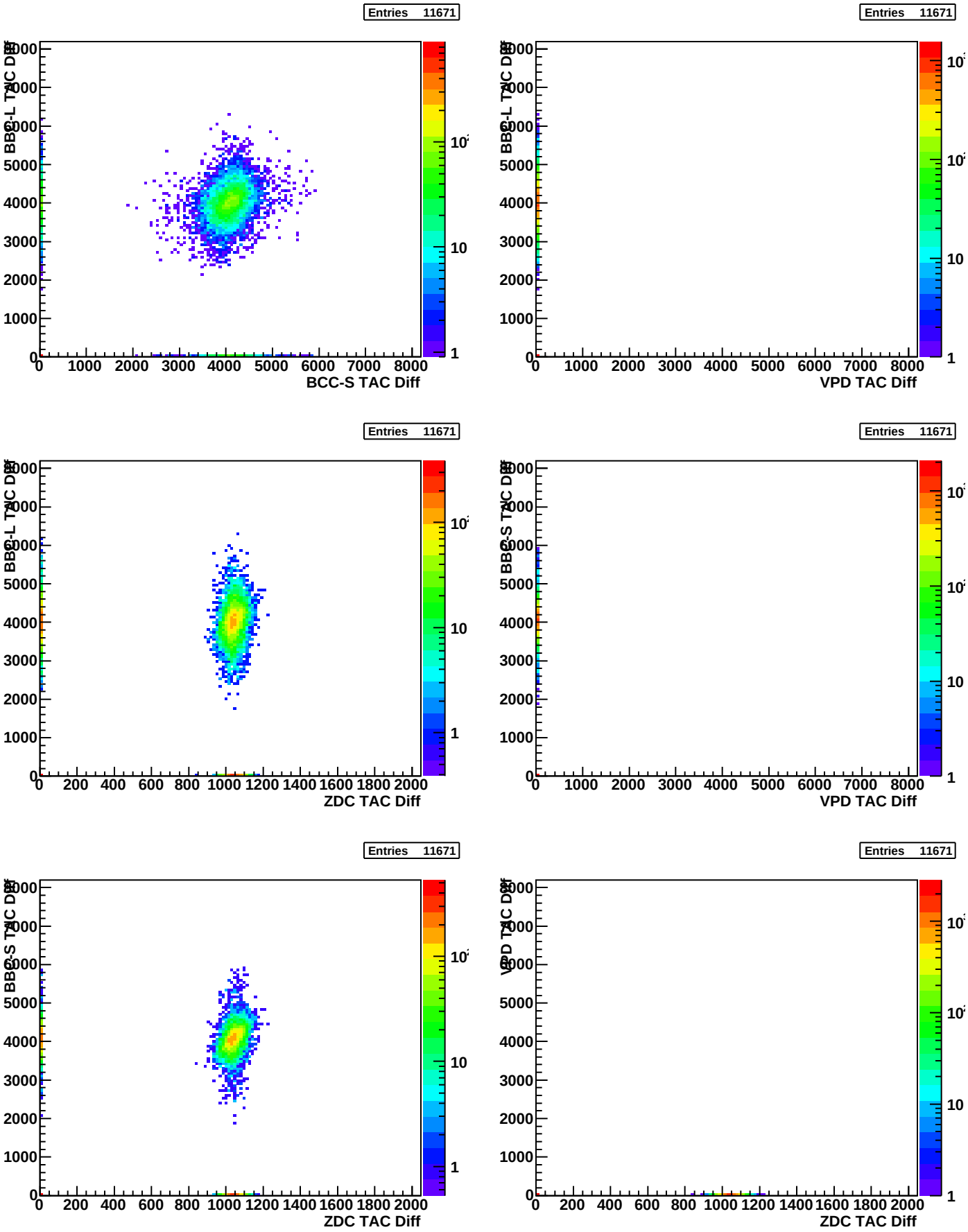

Entries 11671
VPD-West ADC Sum
ZDC-West ADC Sum Att

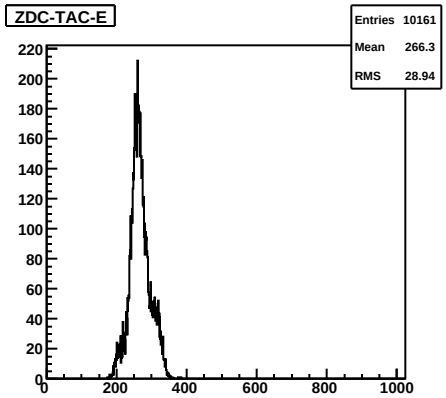

Entries 11671
BBC-L-East ADC Sum
BBC-L-West ADC Sum

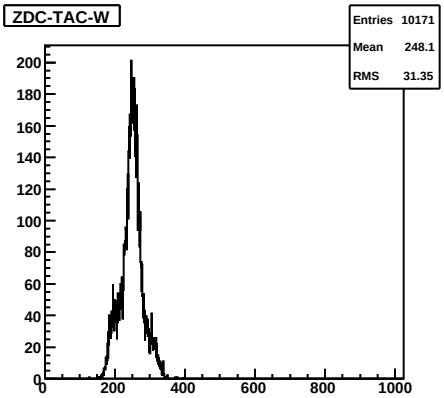

Entries 11671
BBC-S-East ADC Sum
BBC-S-West ADC Sum

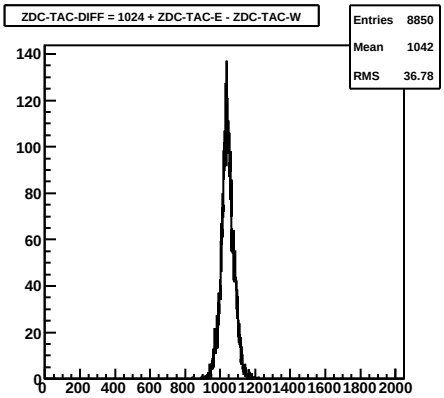

Entries 11671
VPD East ADC Sum
VPD West ADC Sum

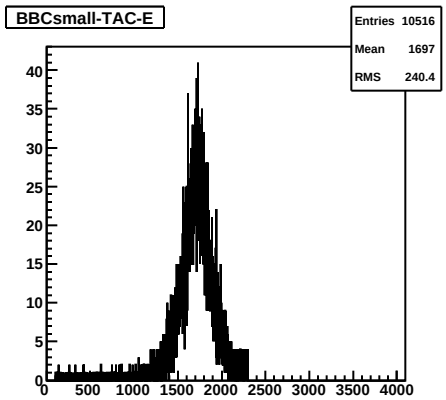

Entries 11671
ZDC East ADC Sum Att
ZDC West ADC Sum Att

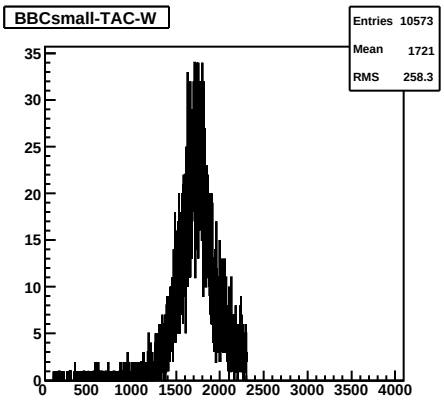

Entries 11671
BBC-L TAC Diff
BCC-S TAC Diff
Entries 11671
BBC-L TAC Diff
VPD TAC Diff
Entries 11671
BBC-L TAC Diff
ZDC TAC Diff
Entries 11671
BBC-S TAC Diff
VPD TAC Diff
Entries 11671
BBC-S TAC Diff
ZDC TAC Diff
Entries 11671
VPD TAC Diff
ZDC TAC Diff

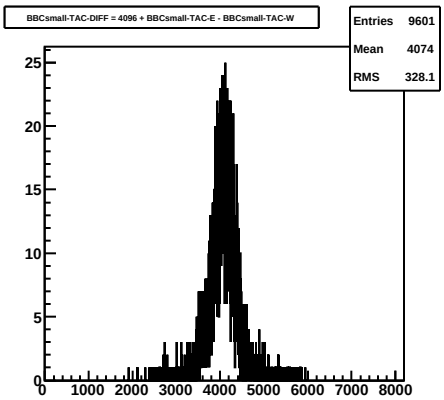

ZDC-TAC-E
Entries 10161
Mean 266.3
RMS 28.94

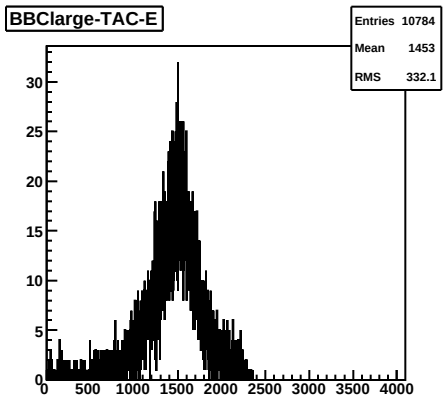

ZDC-TAC-W
Entries 10171
Mean 248.1
RMS 31.35

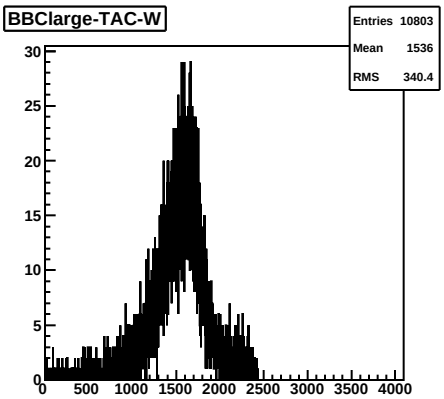

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 8850
Mean 1042
RMS 36.78

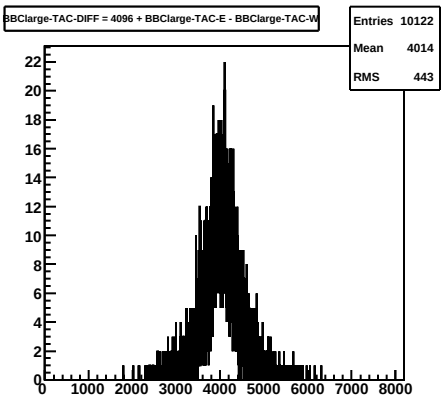

BBCsmall-TAC-E
Entries 10516
Mean 1697
RMS 240.4

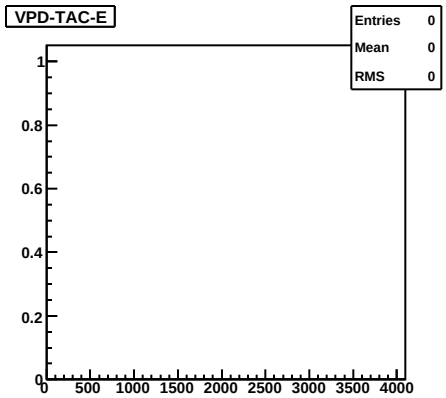

BBCsmall-TAC-W
Entries 10573
Mean 1721
RMS 258.3

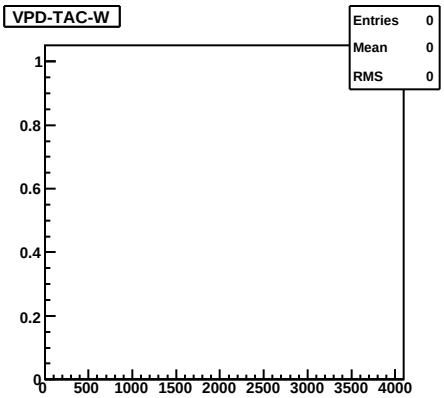

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 9601
Mean 4074
RMS 328.1

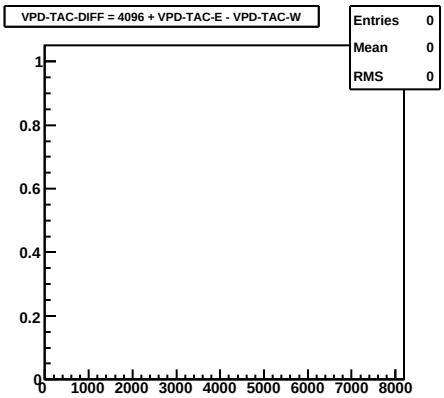

BBClarge-TAC-E
Entries 10784
Mean 1453
RMS 332.1

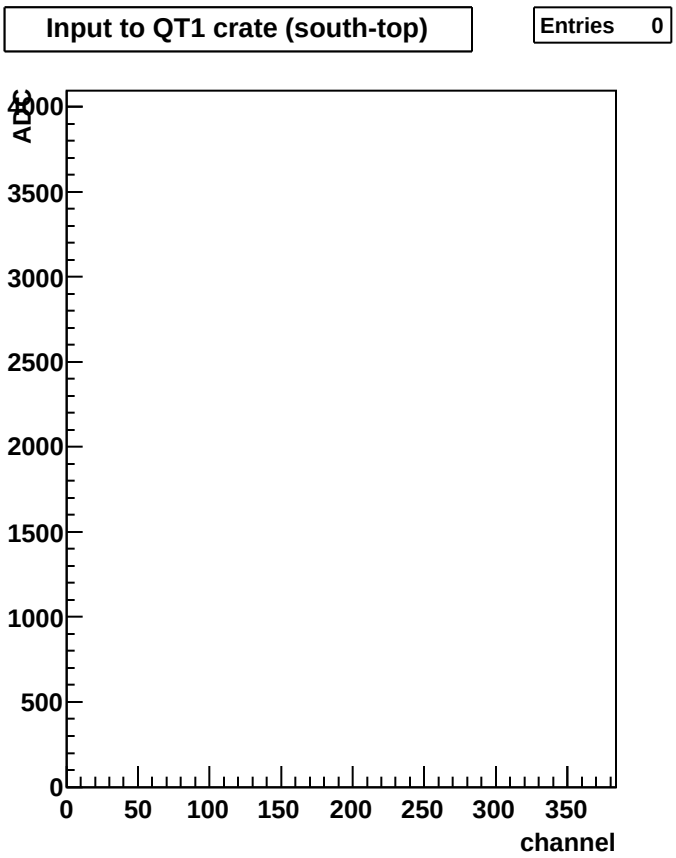

BBClarge-TAC-W
Entries 10803
Mean 1536
RMS 340.4

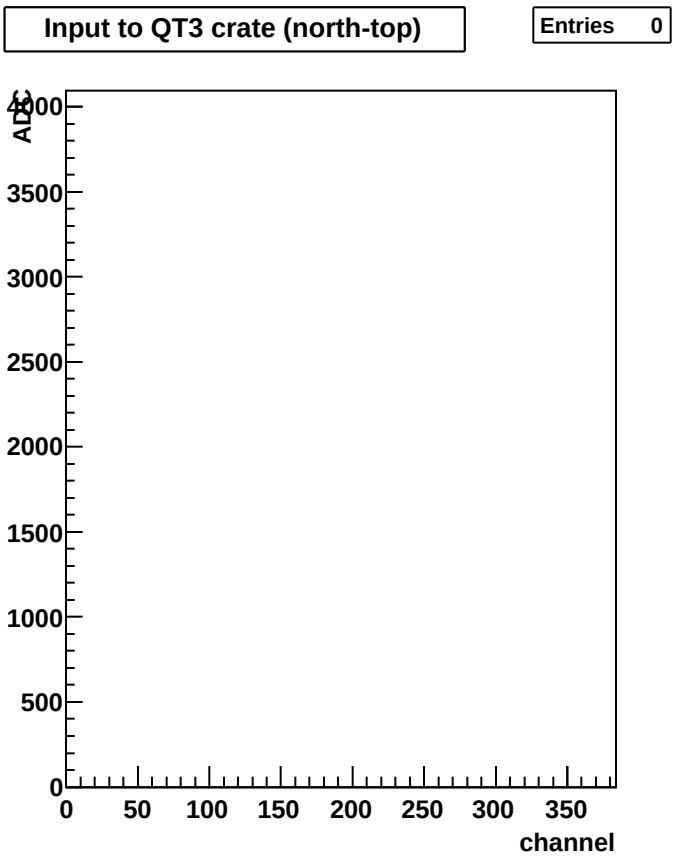

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 10122
Mean 4014
RMS 443

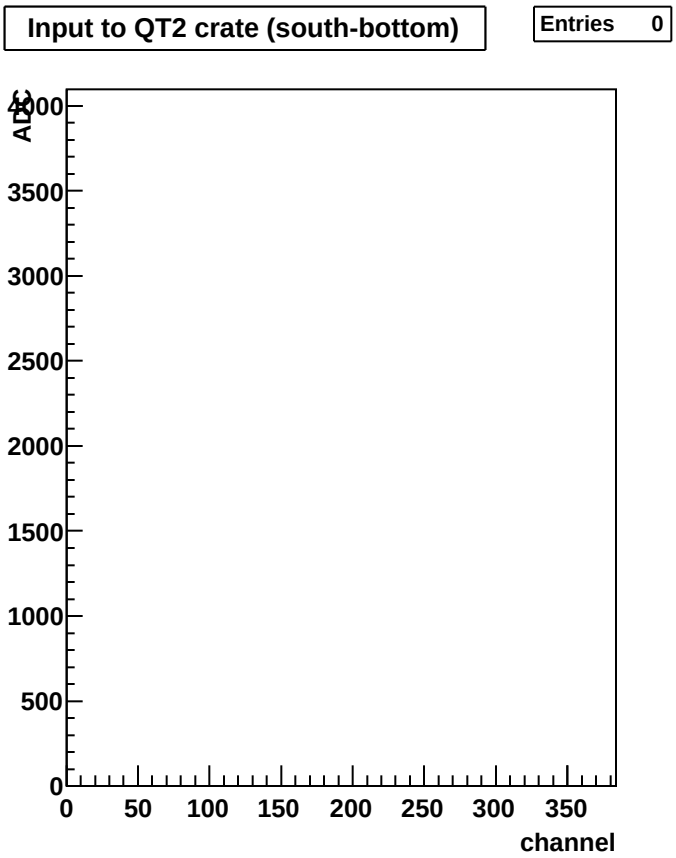

VPD-TAC-E
Entries 0
Mean 0
RMS 0

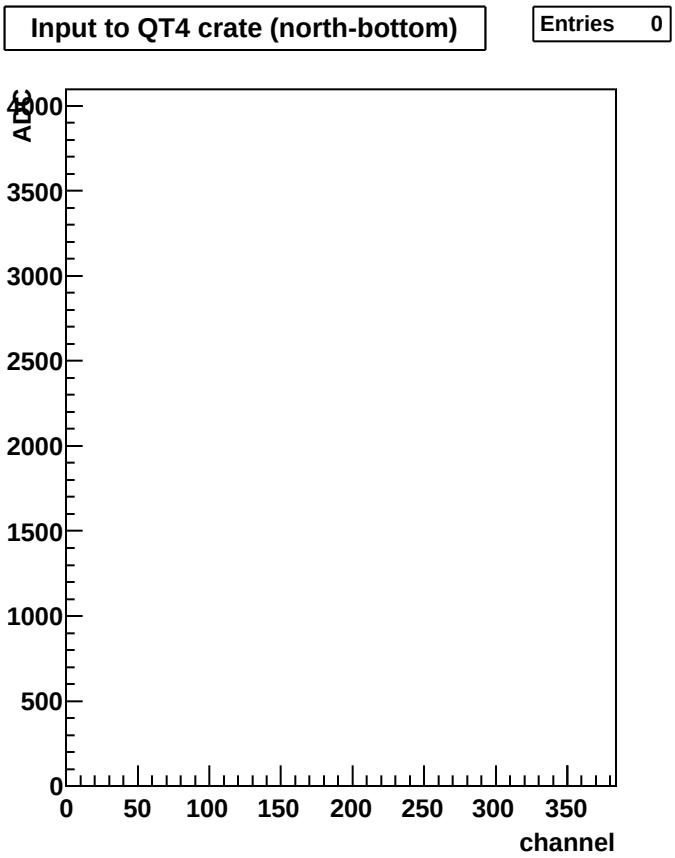

VPD-TAC-W
Entries 0
Mean 0
RMS 0

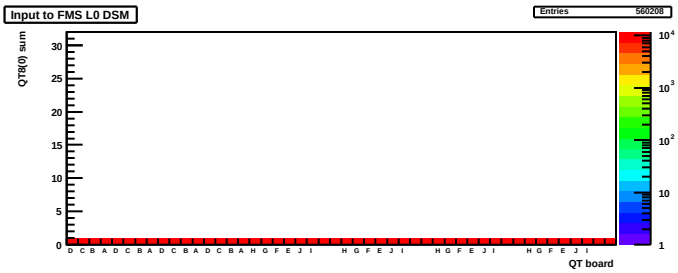

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 0
Mean 0
RMS 0

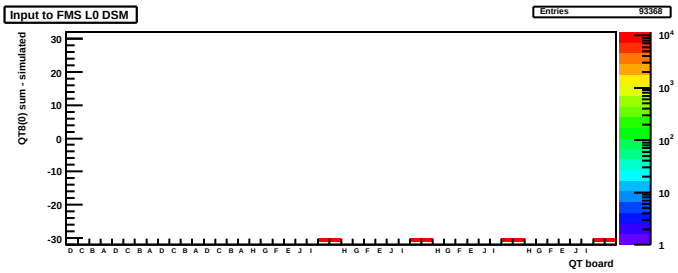

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

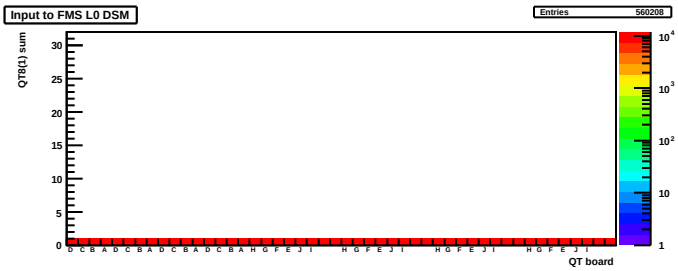

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

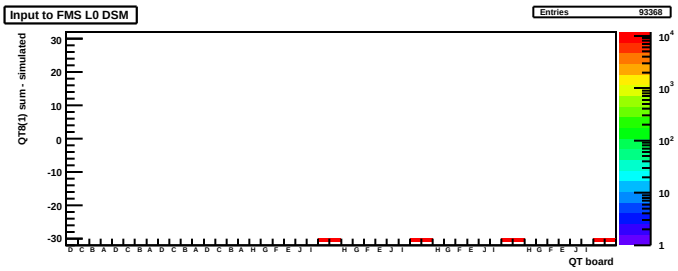

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

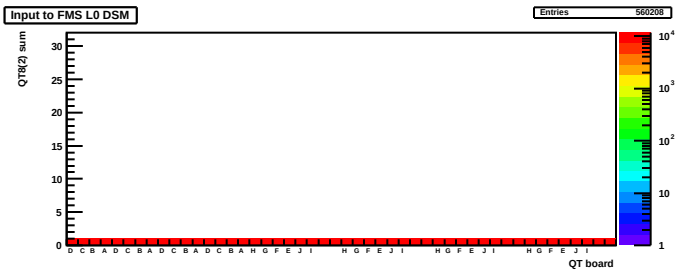

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

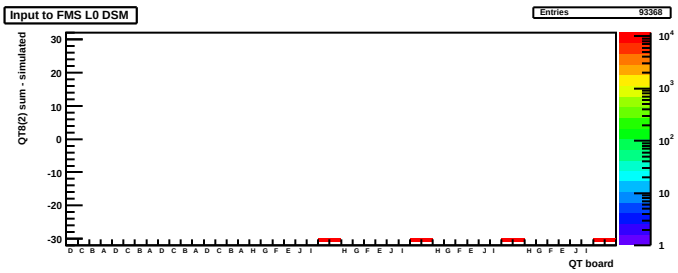

Input to FMS L0 DSM
Entries 560208
QT8(0) sum
QT board

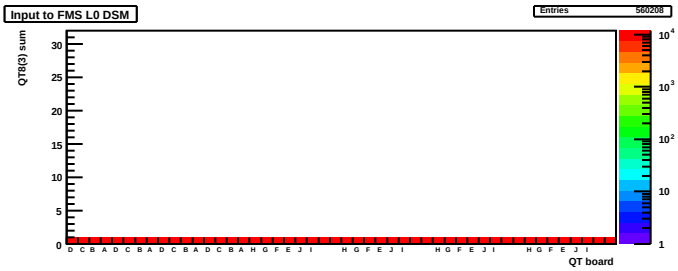

Input to FMS L0 DSM
Entries 93368
QT8(0) sum - simulated
QT board

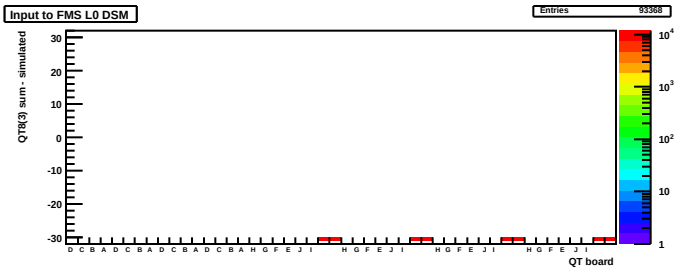

Input to FMS L0 DSM
Entries 560208
QT8(1) sum
QT board

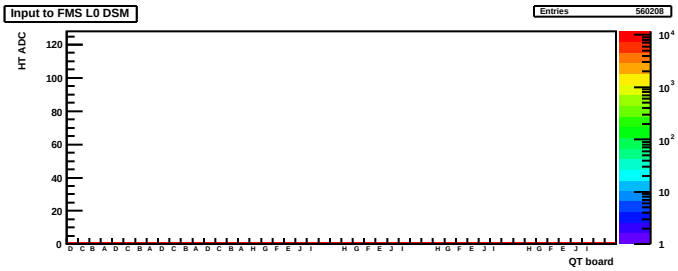

Input to FMS L0 DSM
Entries 93368
QT8(1) sum - simulated
QT board

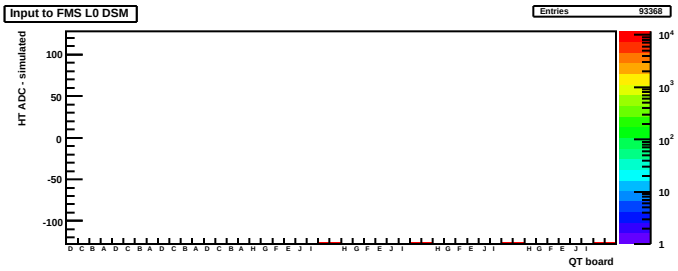

Input to FMS L0 DSM
Entries 560208
QT8(2) sum
QT board

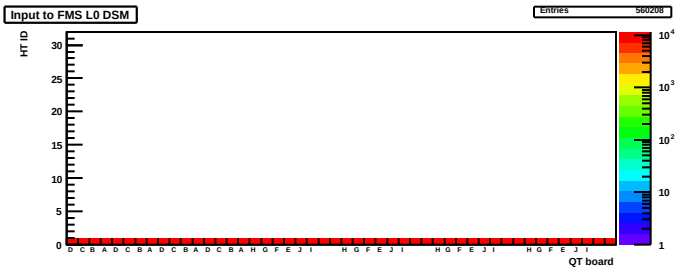

Input to FMS L0 DSM
Entries 93368
QT8(2) sum - simulated
QT board

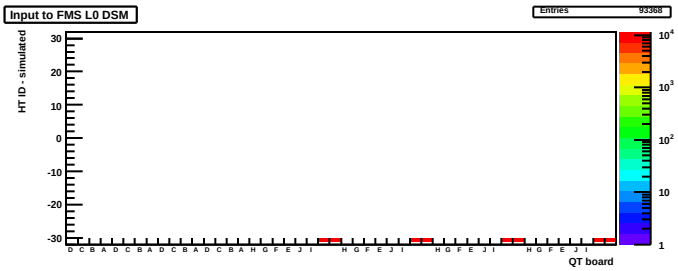

Input to FMS L0 DSM
Entries 560208
QT8(3) sum
QT board

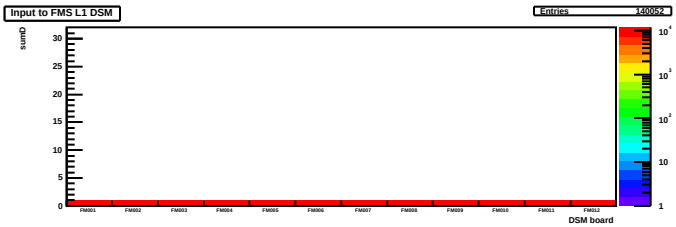

Input to FMS L0 DSM
Entries 93368
QT8(3) sum - simulated
QT board

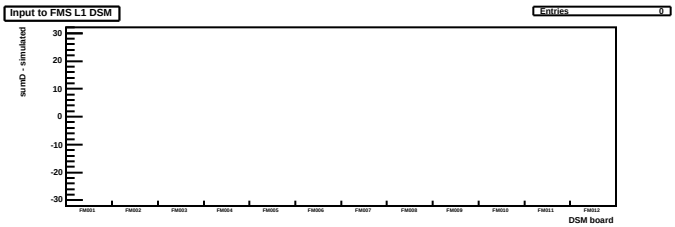

Input to FMS L0 DSM
Entries 560208
HT ADC
QT board

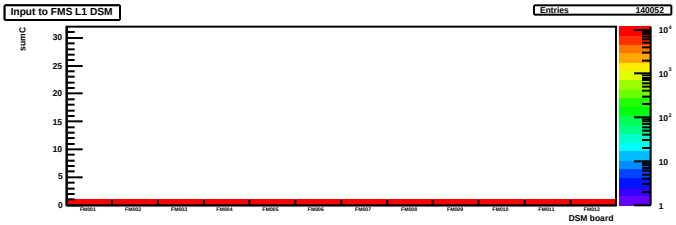

Input to FMS L0 DSM
Entries 93368
HT ADC - simulated
QT board

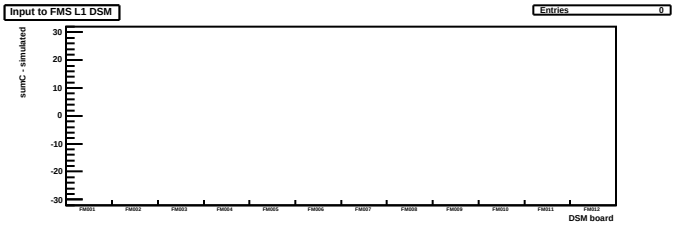

Input to FMS L0 DSM
Entries 560208
HT ID
QT board

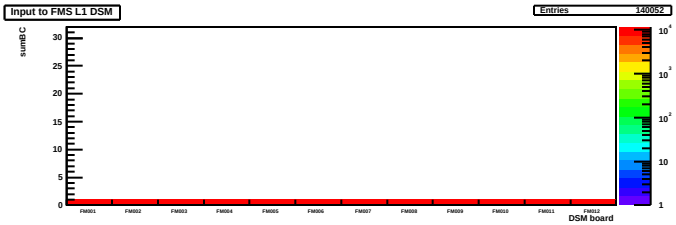

Input to FMS L0 DSM
Entries 93368
HT ID - simulated
QT board

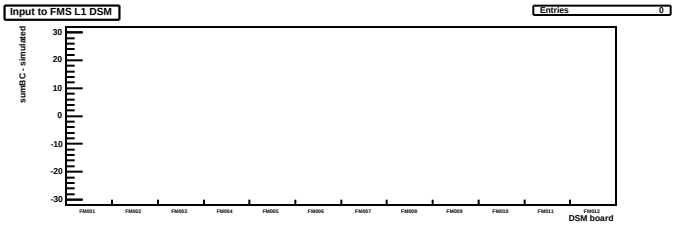

Input to FMS L1 DSM
Entries 140052
sumD
DSM board

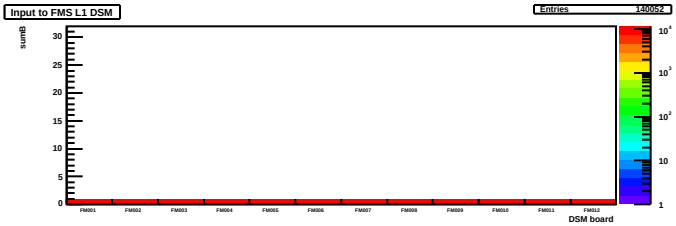

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

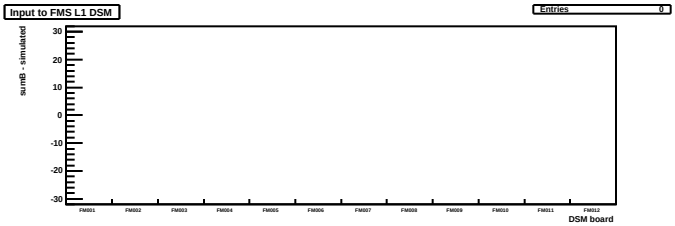

Input to FMS L1 DSM
Entries 140052
sumC
DSM board

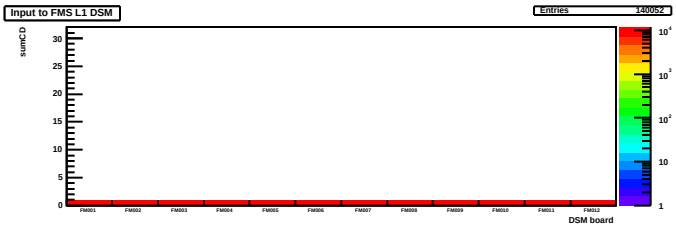

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

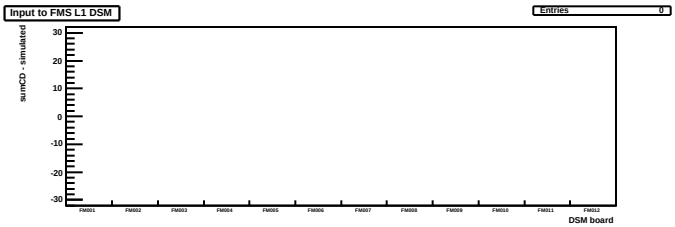

Input to FMS L1 DSM
Entries 140052
sumBC
DSM board

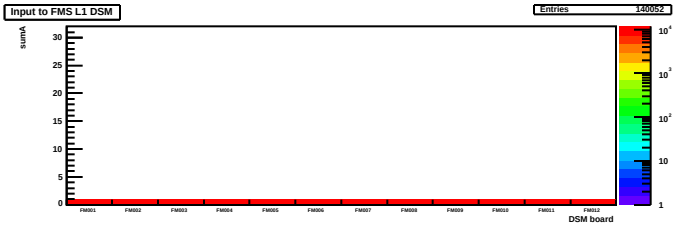

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

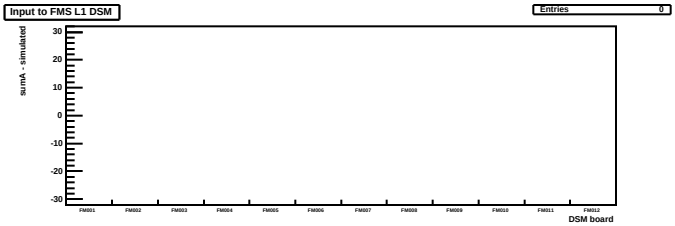

Input to FMS L1 DSM
Entries 140052
sumB
DSM board

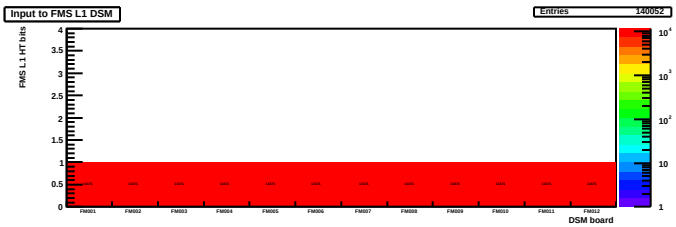

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

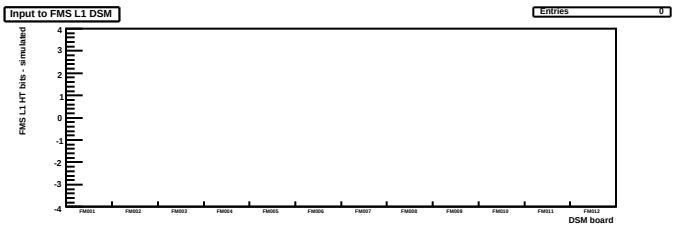

Input to FMS L1 DSM
Entries 140052
sumCD
DSM board

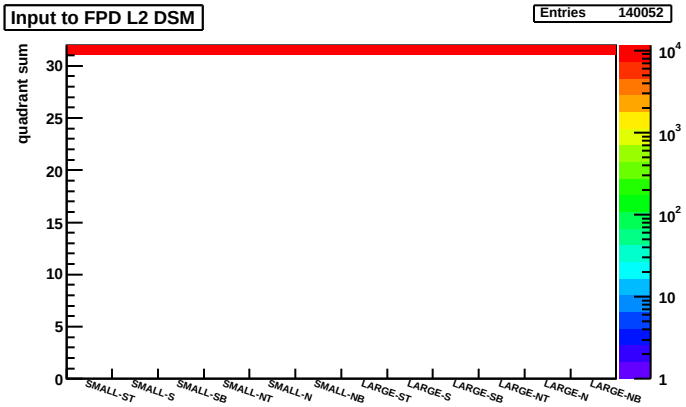

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

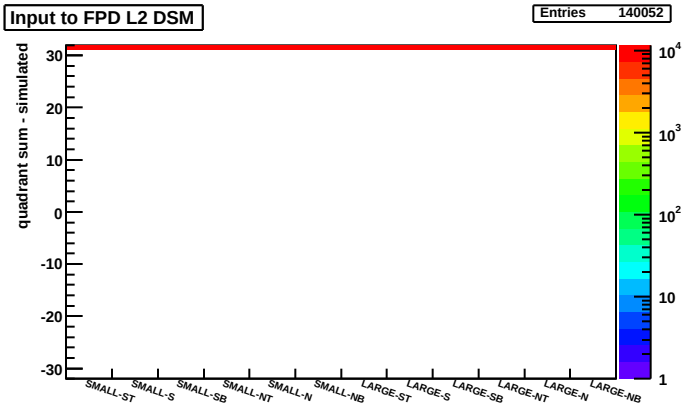

Input to FMS L1 DSM
Entries 140052
sumA
DSM board

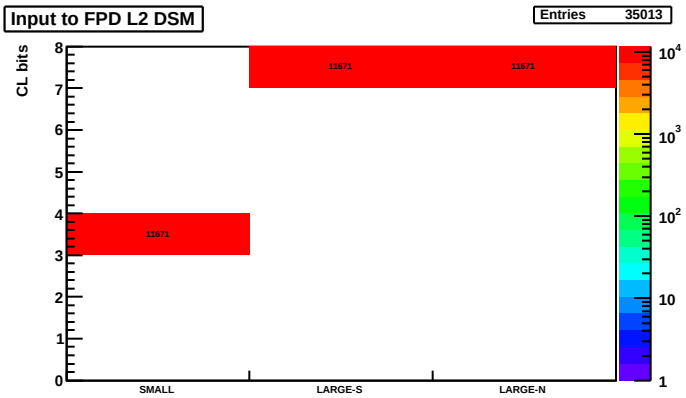

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

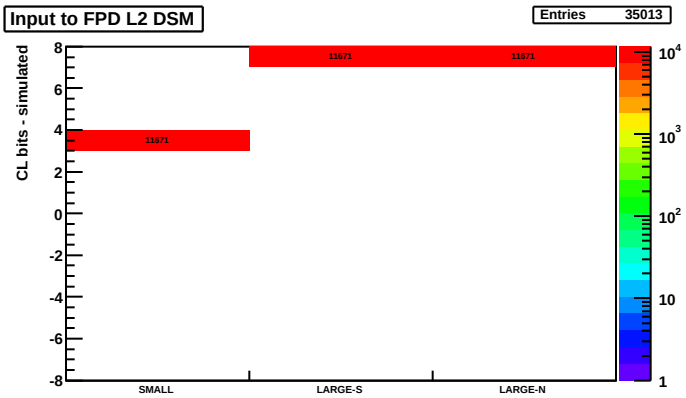

Input to FMS L1 DSM
Entries 140052
FMS L1 HT bits
DSM board

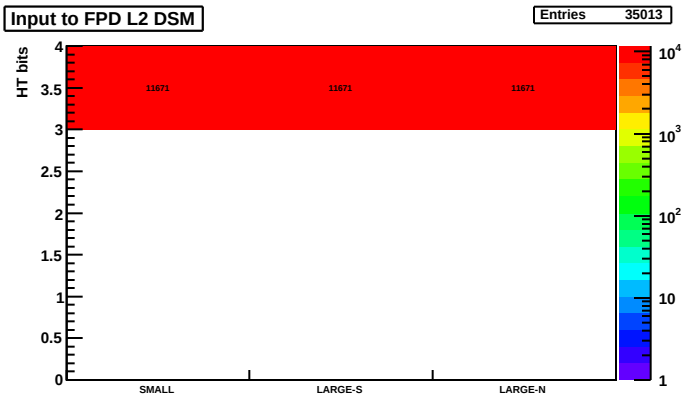

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

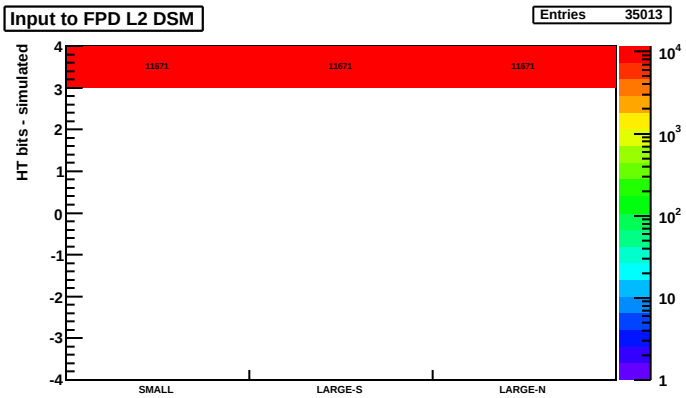

Input to FPD L2 DSM
Entries 140052
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

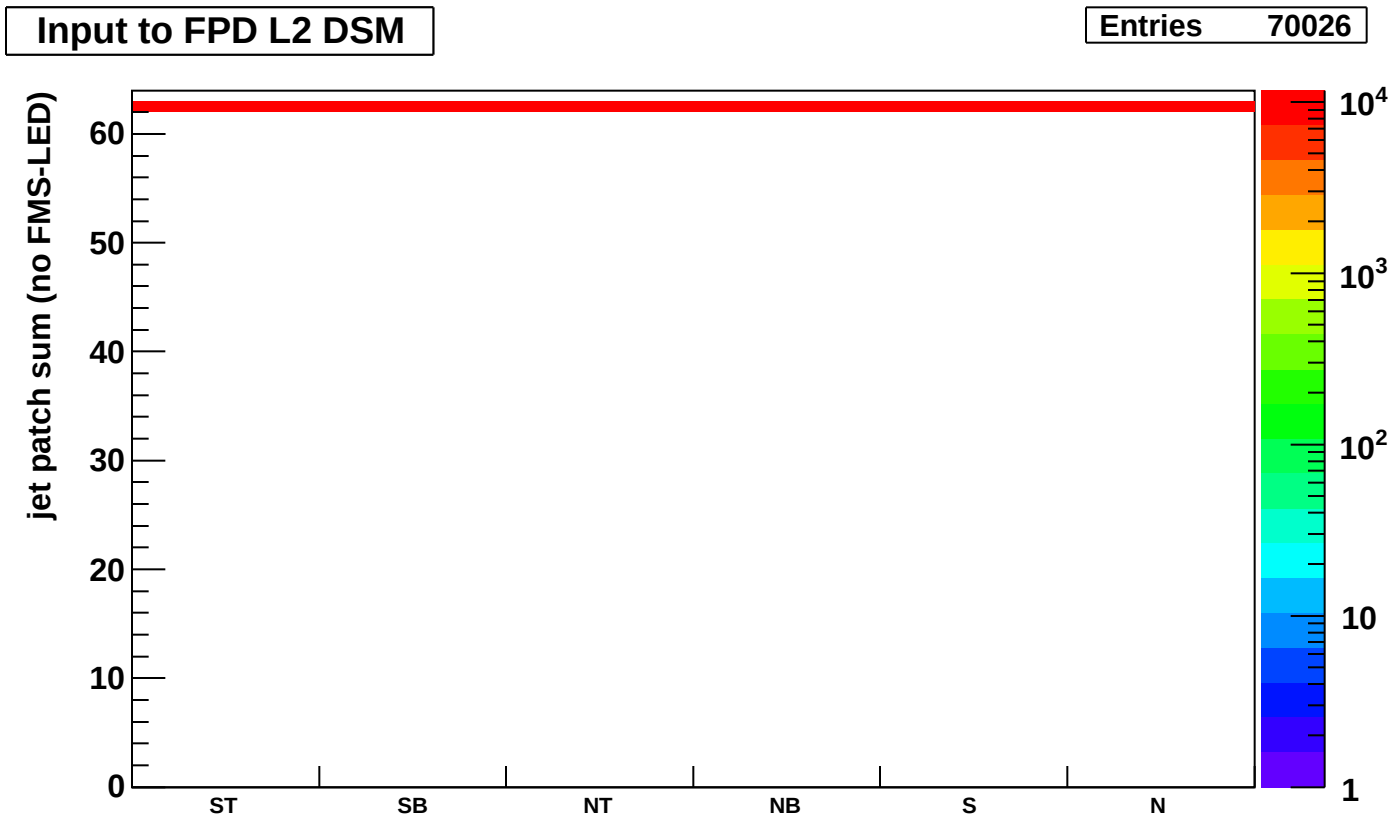

Input to FPD L2 DSM
Entries 140052
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

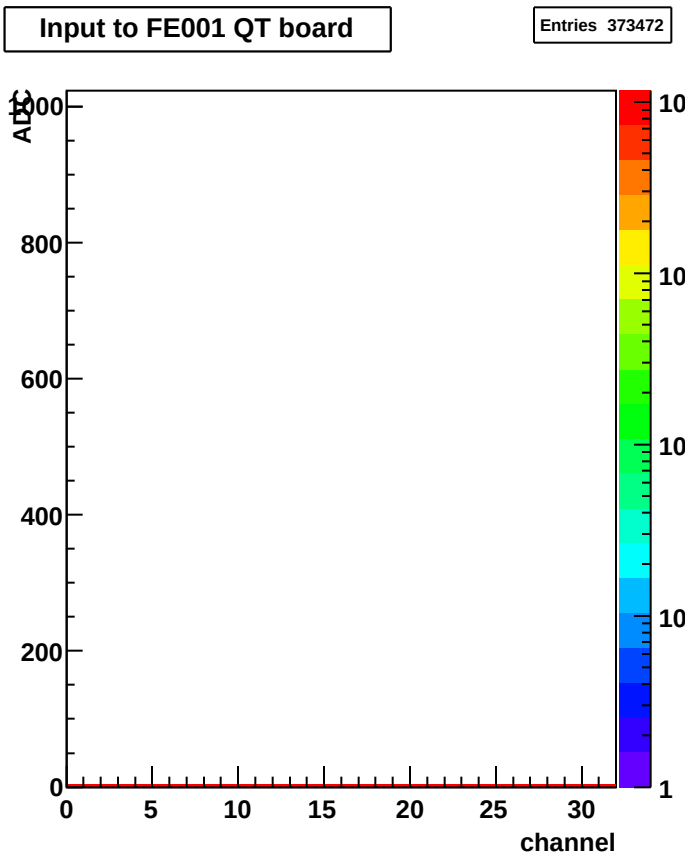

Input to FPD L2 DSM
Entries 35013
CL bits
11671
11671
11671
SMALL
LARGE-S
LARGE-N

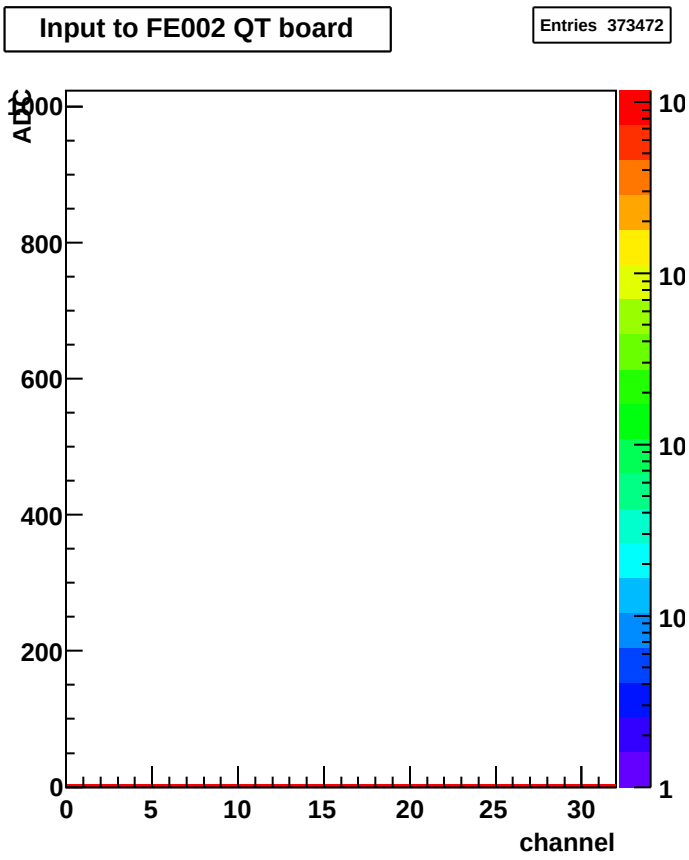

Input to FPD L2 DSM
Entries 35013
CL bits - simulated
11671
11671
11671
SMALL
LARGE-S
LARGE-N

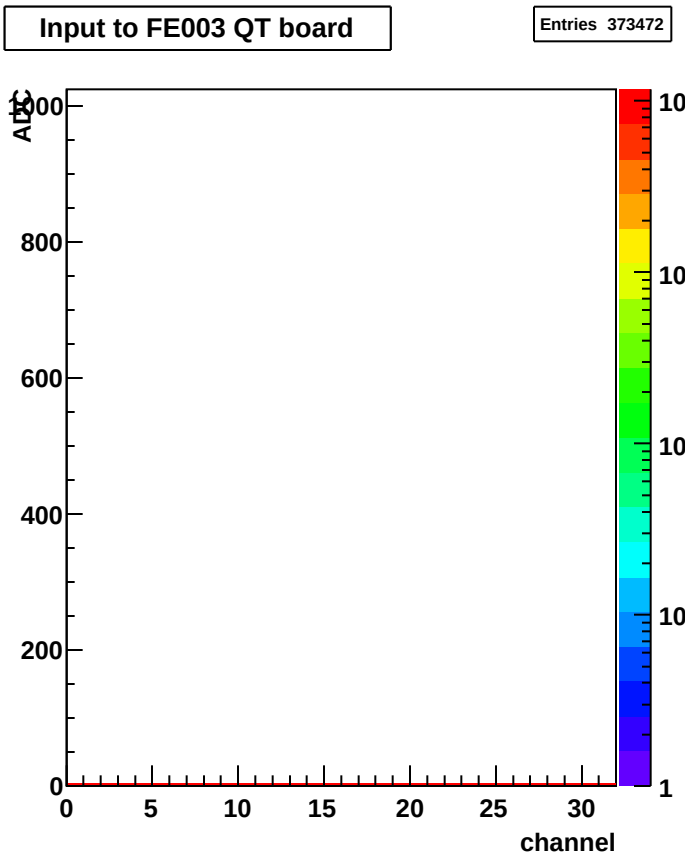

Input to FPD L2 DSM
Entries 35013
HT bits
11671
11671
11671
SMALL
LARGE-S
LARGE-N

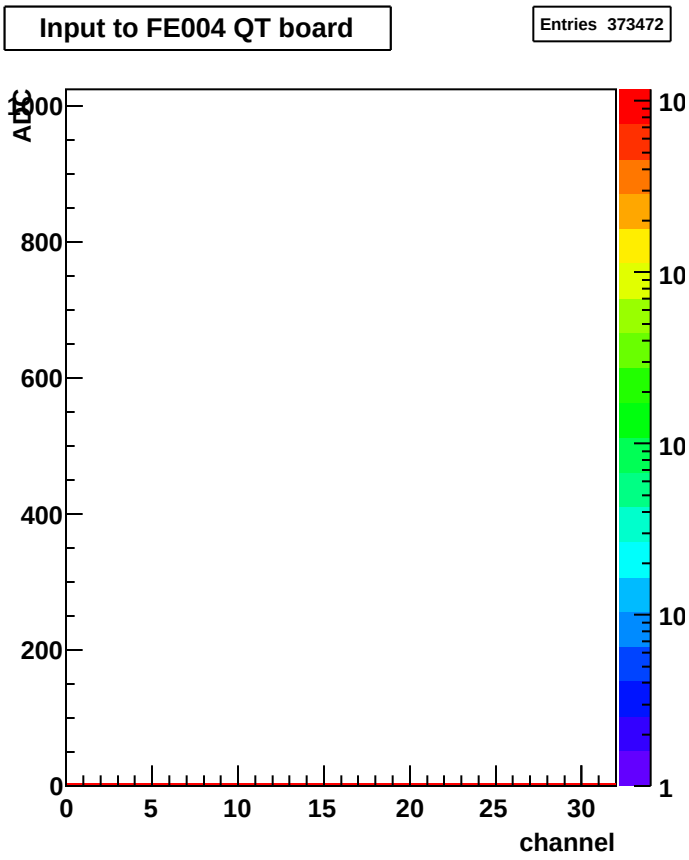

Input to FPD L2 DSM
Entries 35013
HT bits - simulated
11671
11671
11671
SMALL
LARGE-S
LARGE-N

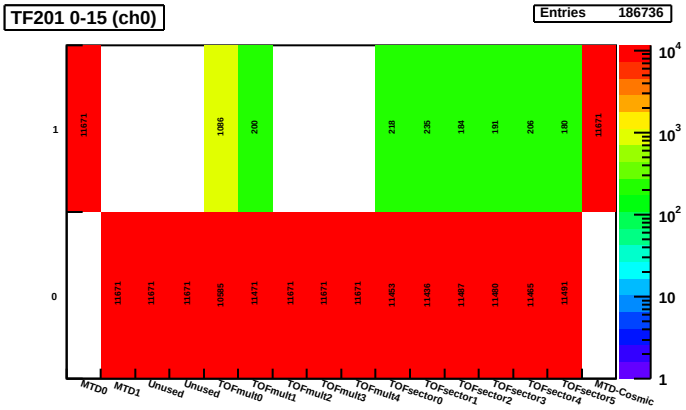

Input to FPD L2 DSM
Entries 70026
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

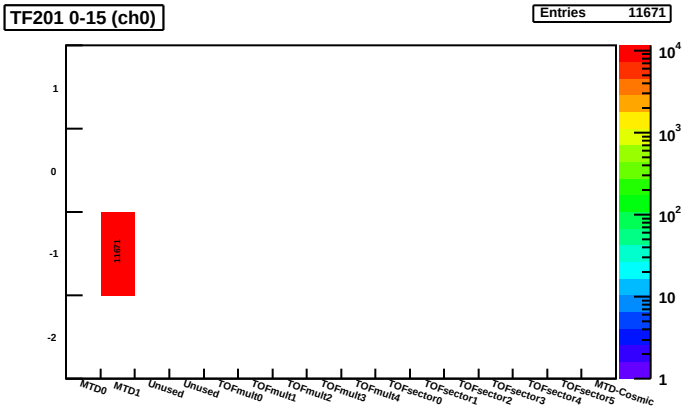

Input to FE001 QT board
Entries 373472
ADC
channel

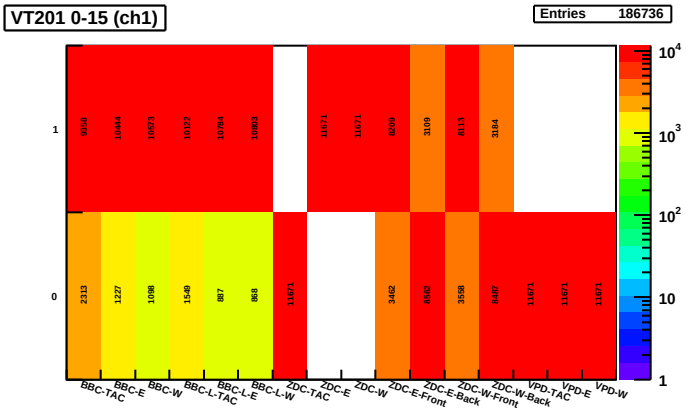

Input to FE002 QT board
Entries 373472
ADC
channel

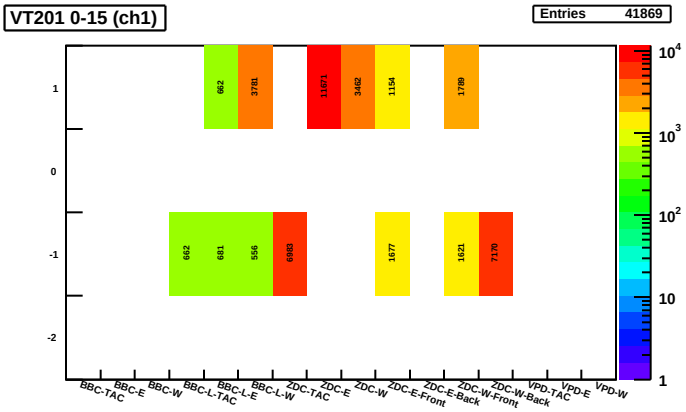

Input to FE003 QT board
Entries 373472
ADC
channel

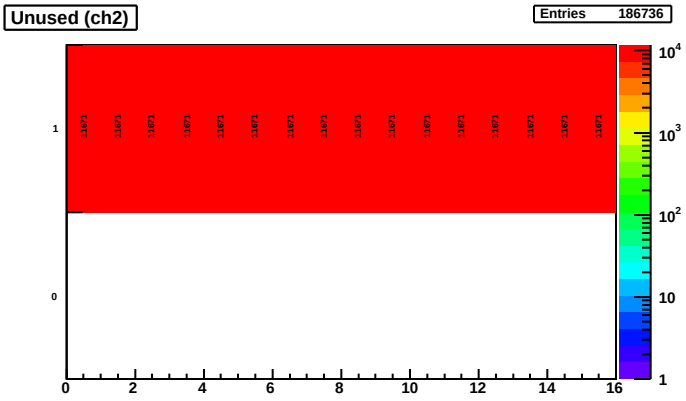

Input to FE004 QT board
Entries 373472
ADC
channel

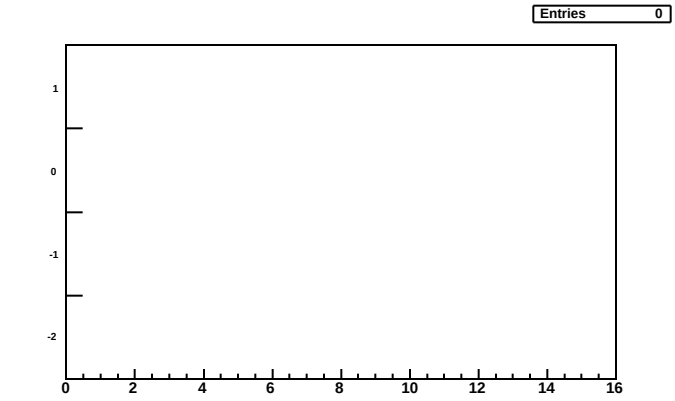

TF201 0-15 (ch0)
Entries 186736
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

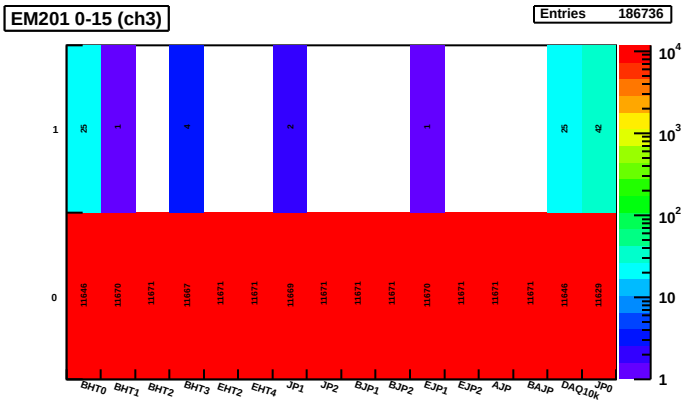

TF201 0-15 (ch0)
Entries 11671
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 186736
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 41869
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


Unused (ch2)
Entries 186736


Entries 0


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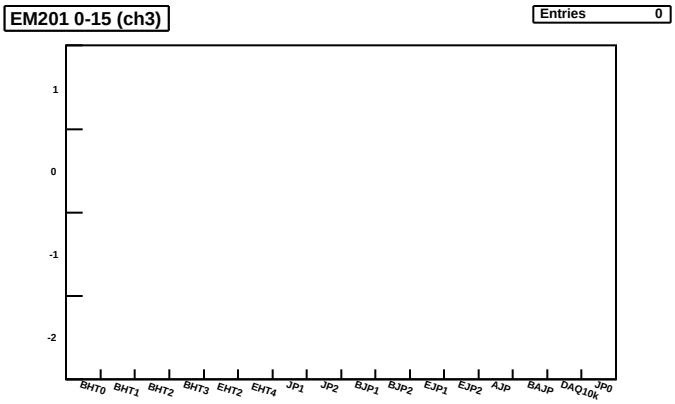
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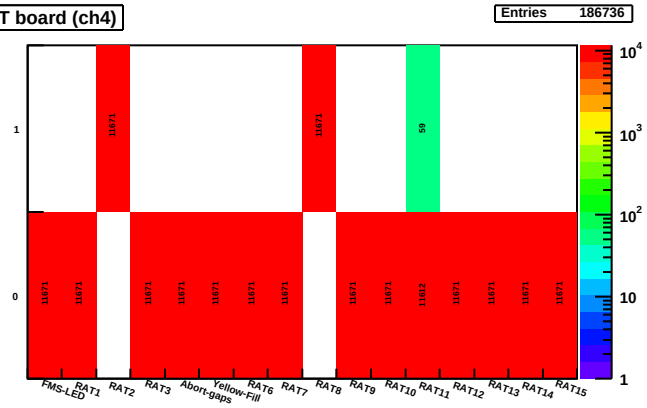
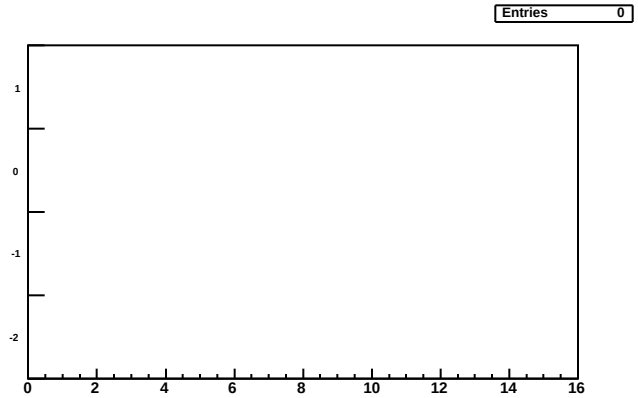
RAT board (ch4)





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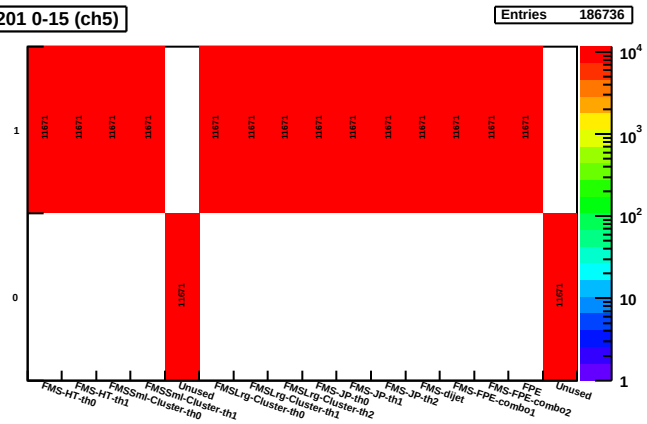

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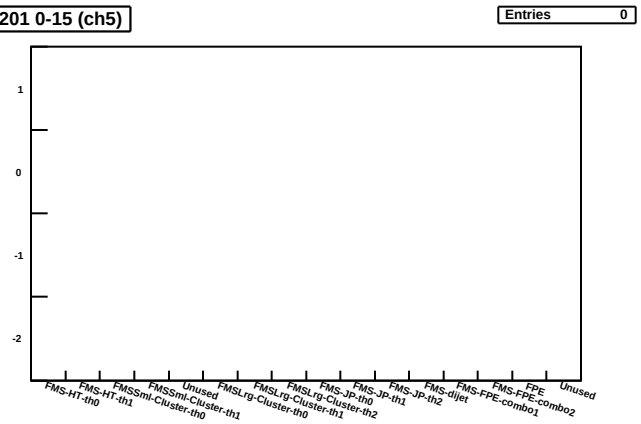

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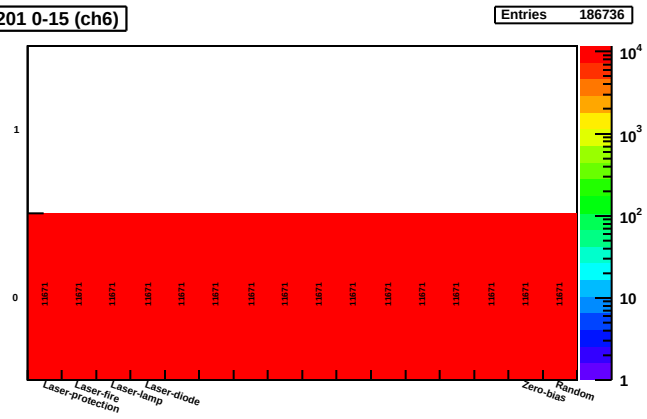

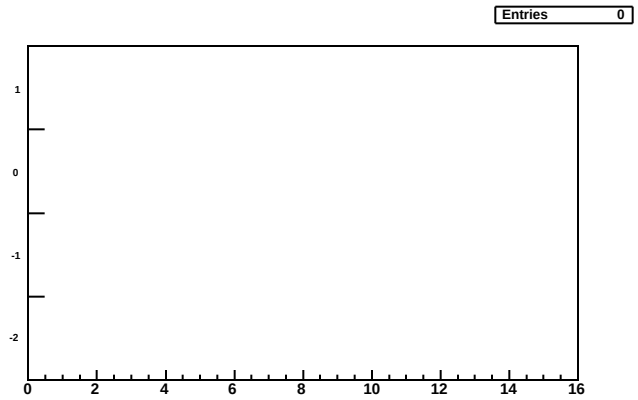
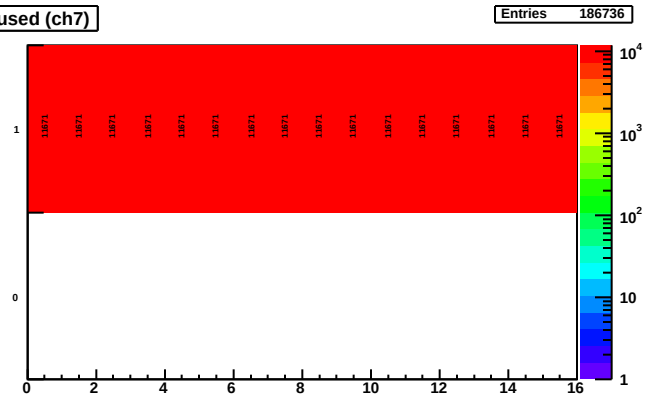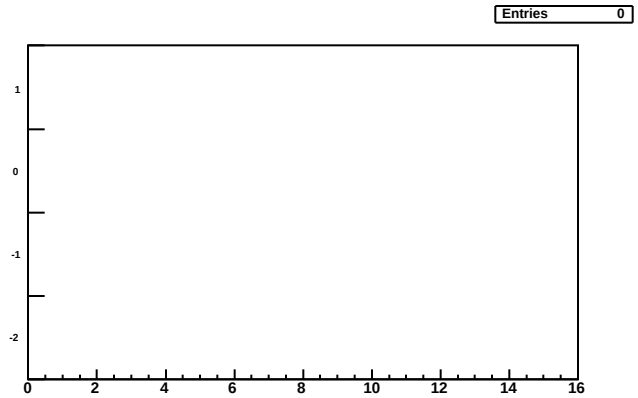
Unused (ch7)