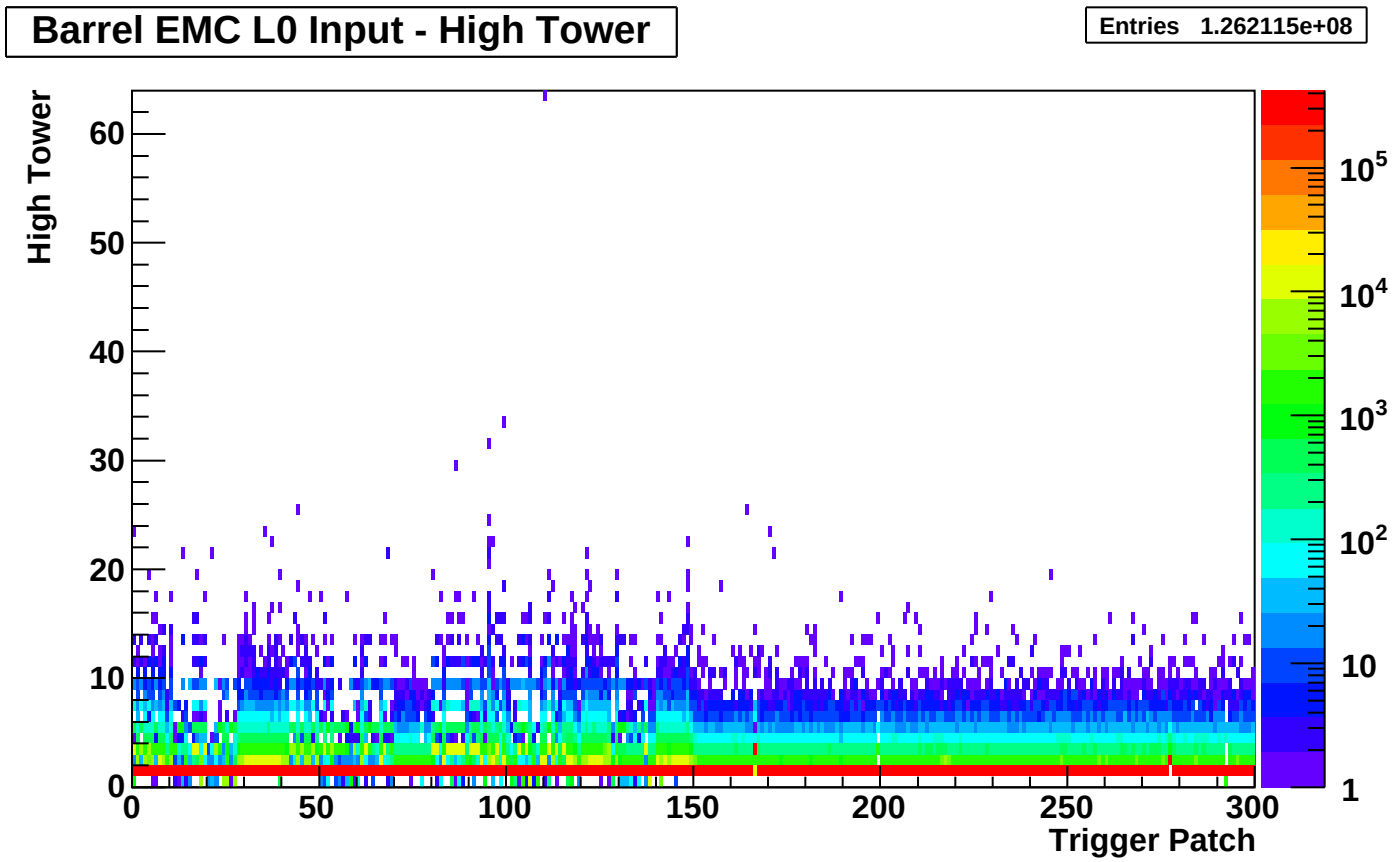
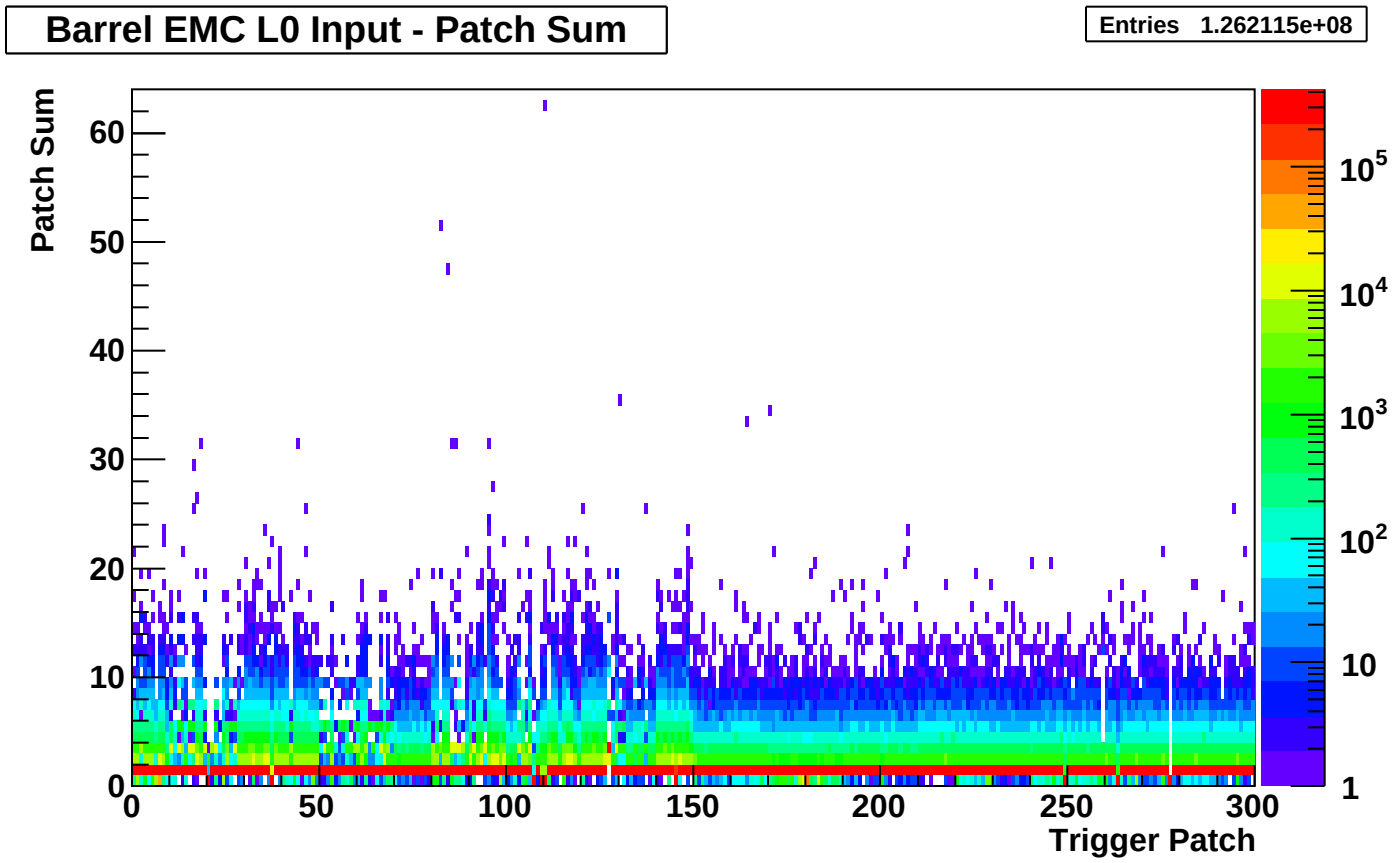
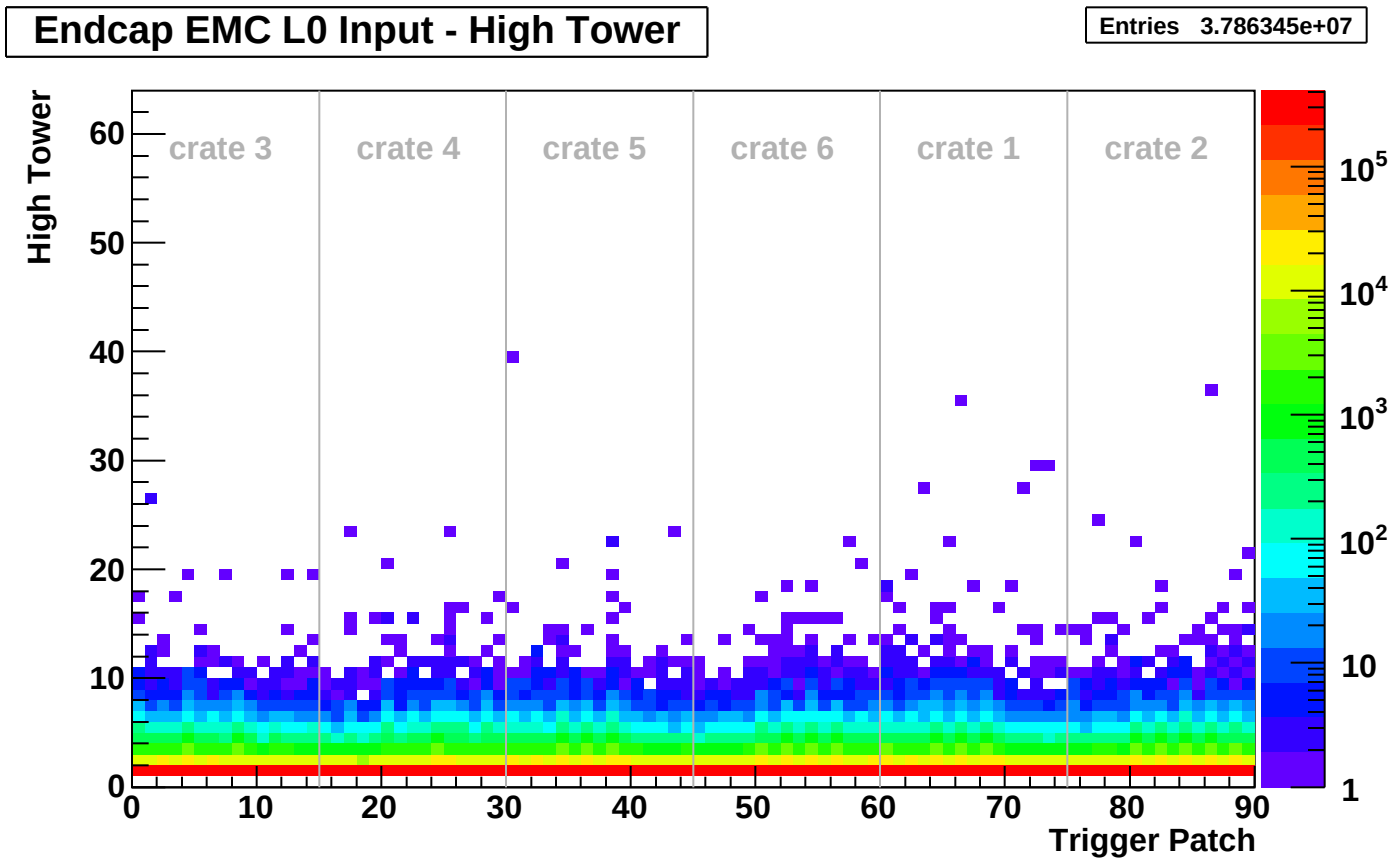
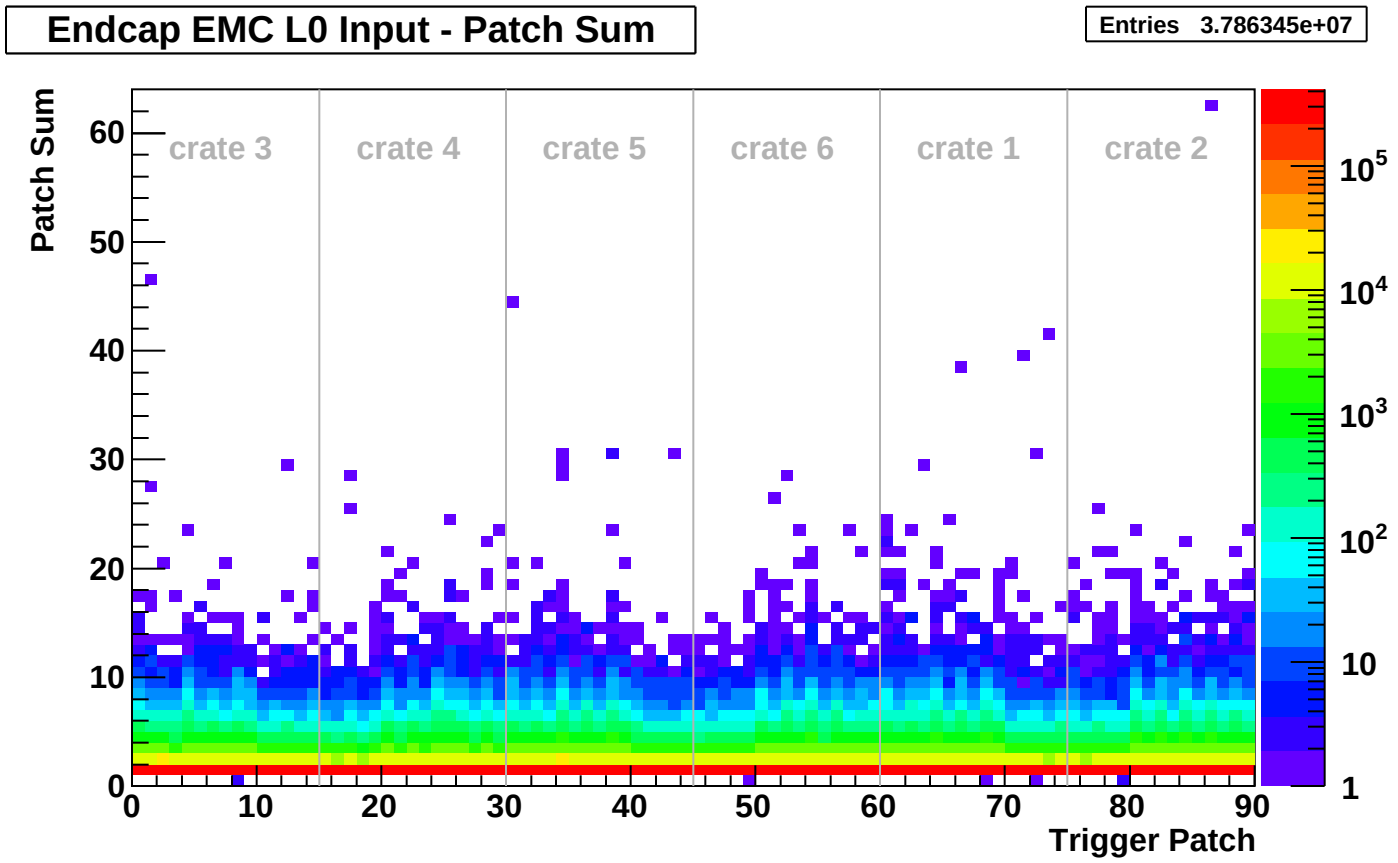
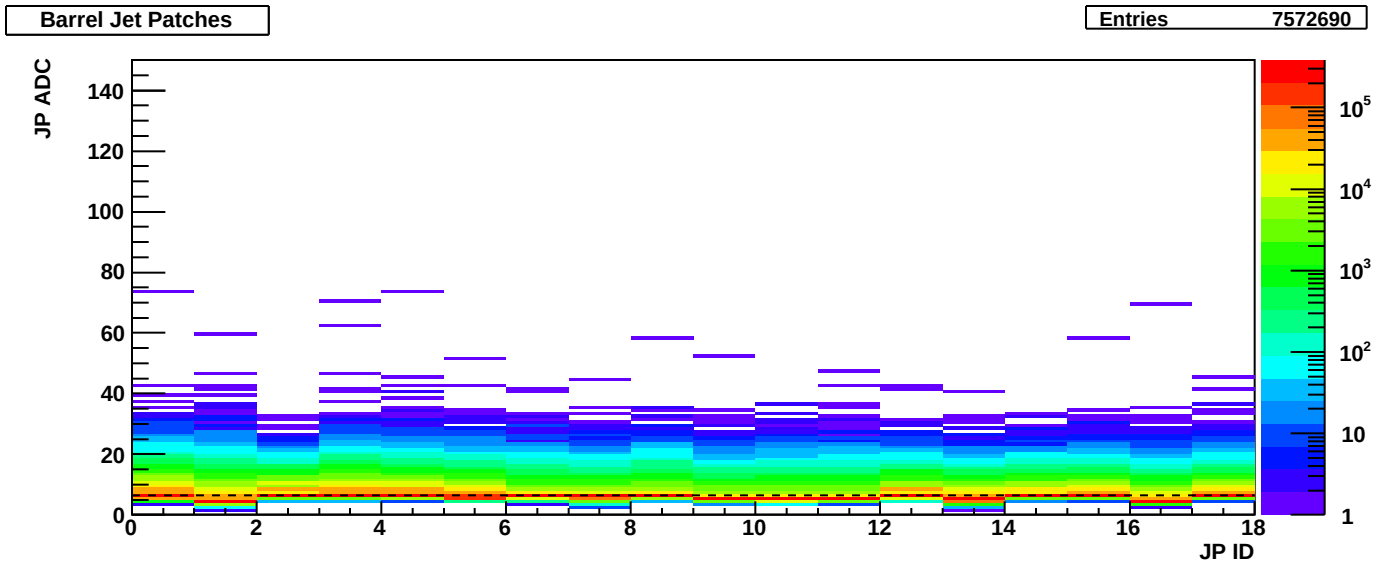
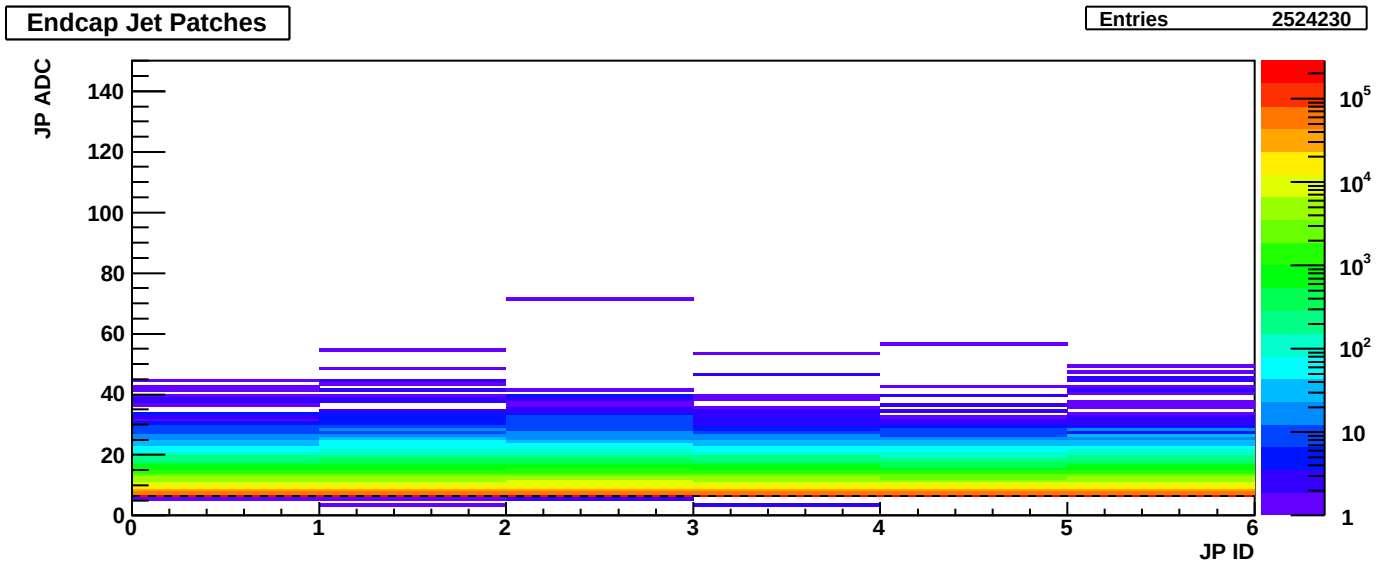

Barrel EMC L0 Input - High Tower
Entries 1.262115e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

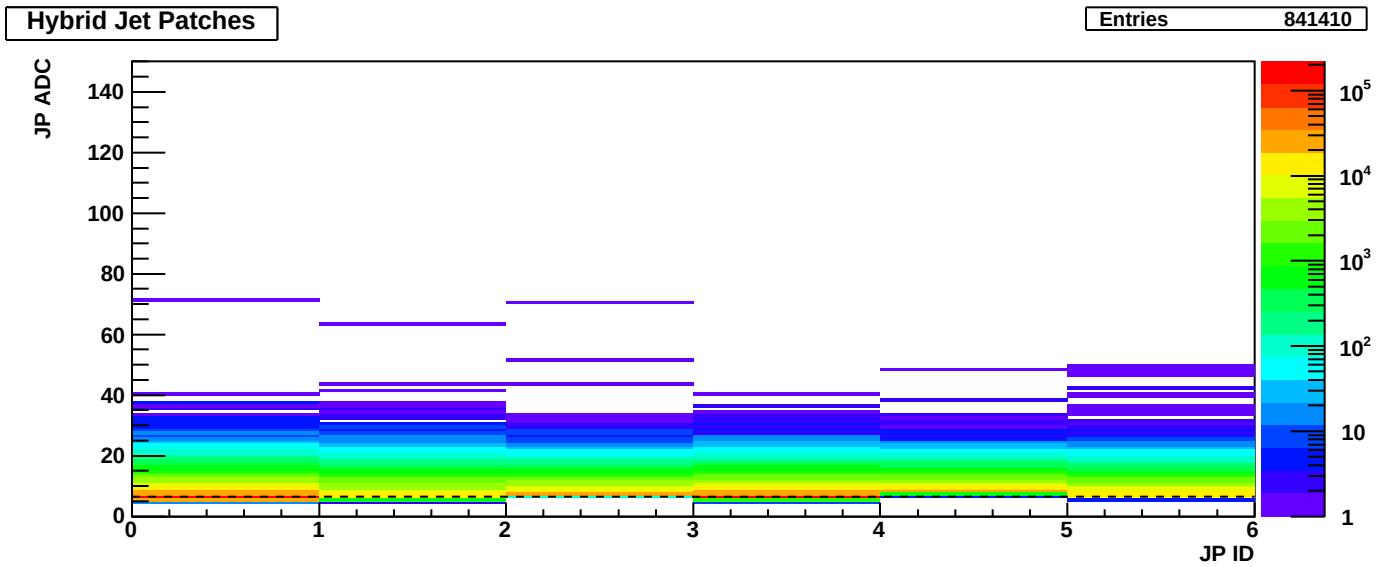

Barrel EMC L0 Input - Patch Sum
Entries 1.262115e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

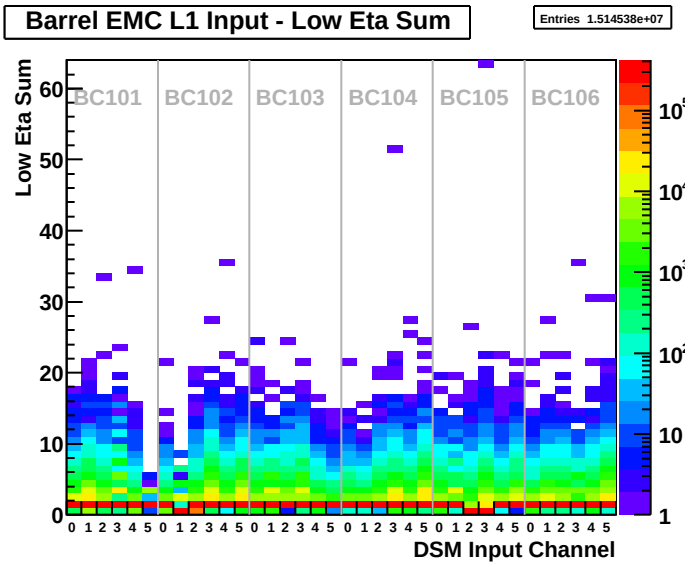

Endcap EMC L0 Input - High Tower
Entries 3.786345e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

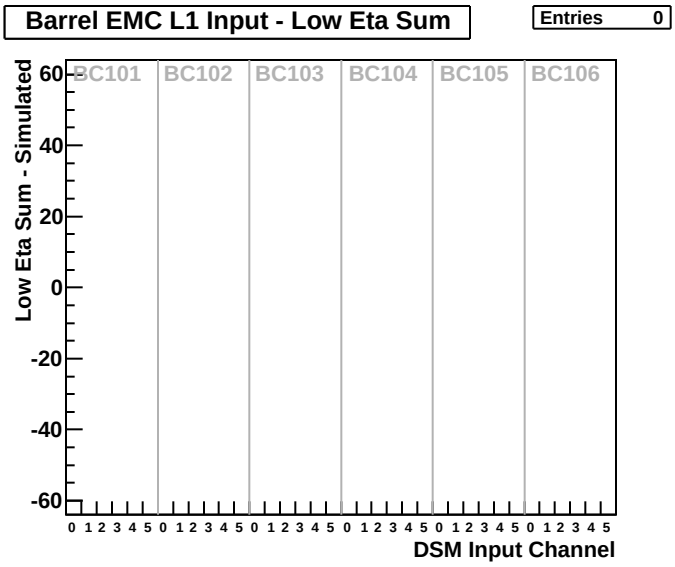

Endcap EMC L0 Input - Patch Sum
Entries 3.786345e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

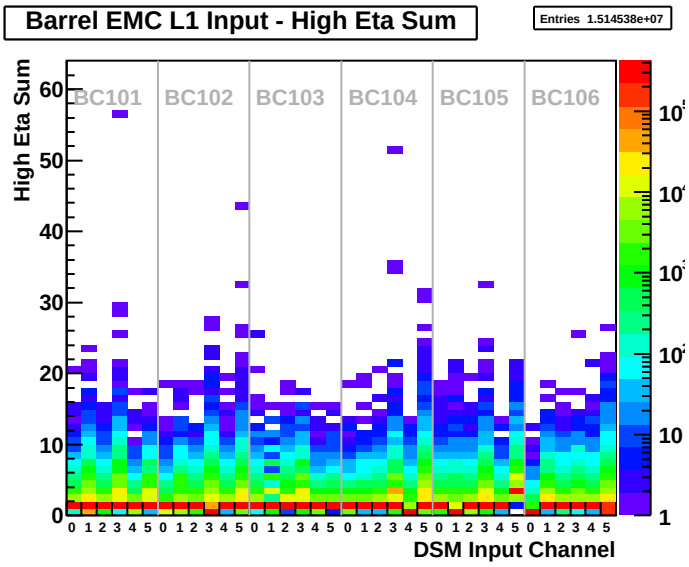

Barrel Jet Patches
Entries 7572690
JP ADC
JP ID

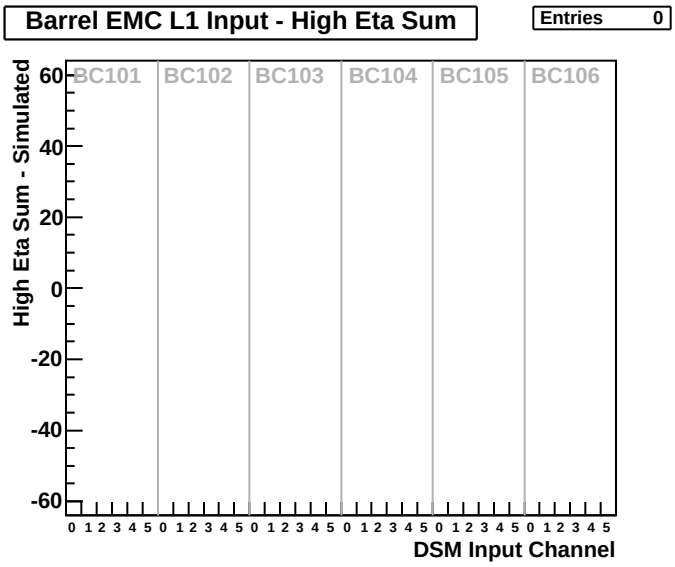

Endcap Jet Patches
Entries 2524230
JP ADC
JP ID

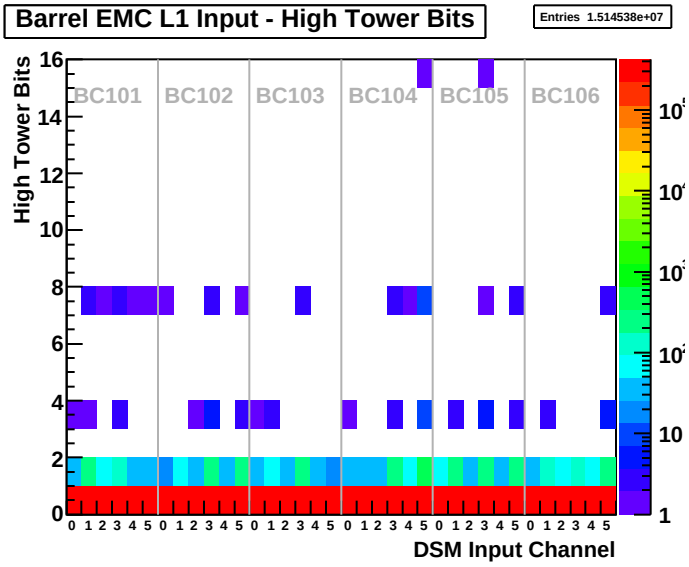

Hybrid Jet Patches
Entries 841410
JP ADC
JP ID

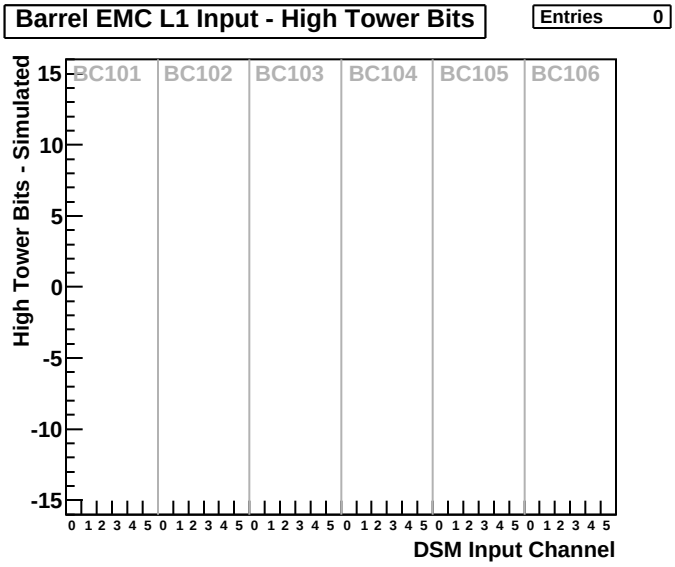

Barrel EMC L1 Input - Low Eta Sum
Entries 1.514538e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

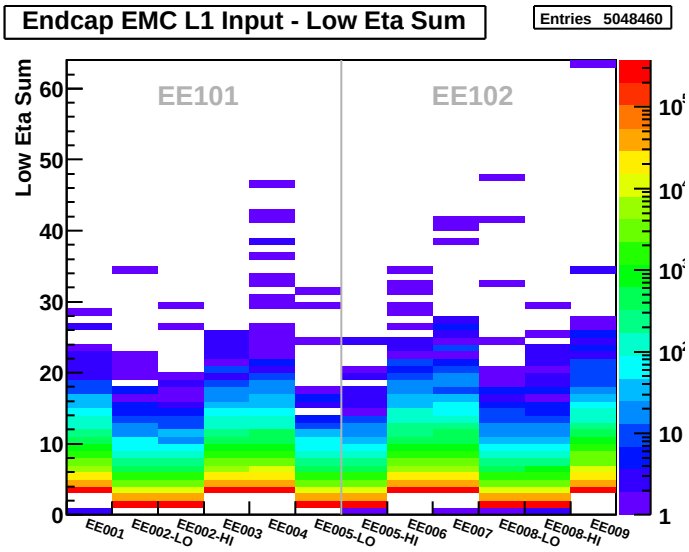

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

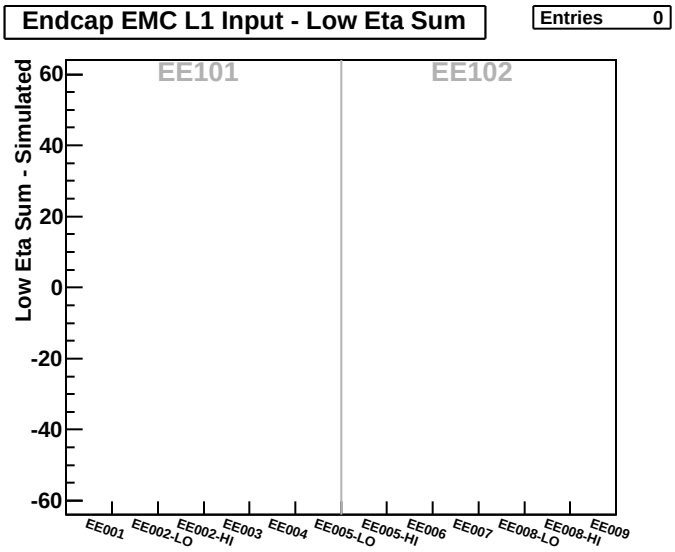

Barrel EMC L1 Input - High Eta Sum
Entries 1.514538e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

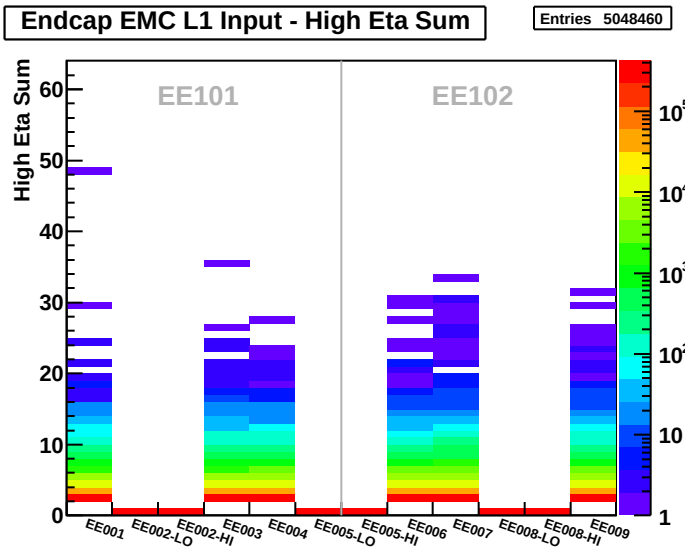

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

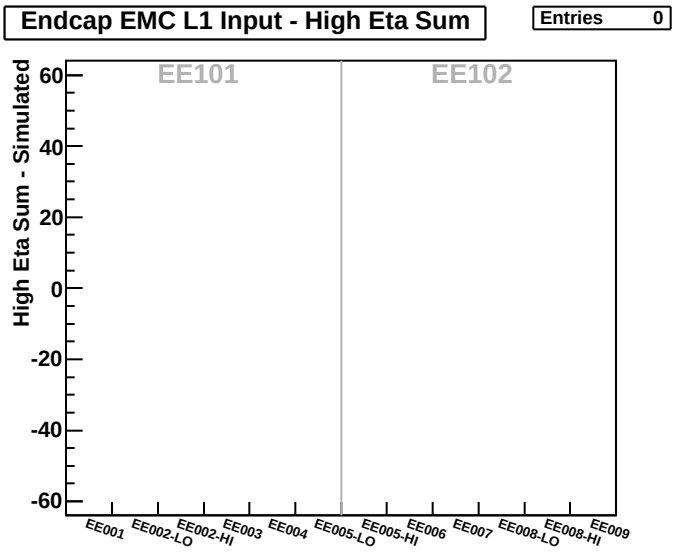

Barrel EMC L1 Input - High Tower Bits
Entries 1.514538e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

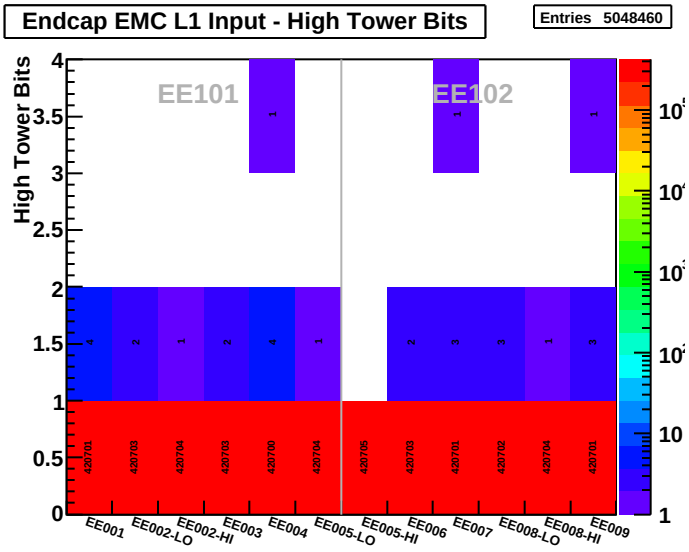

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

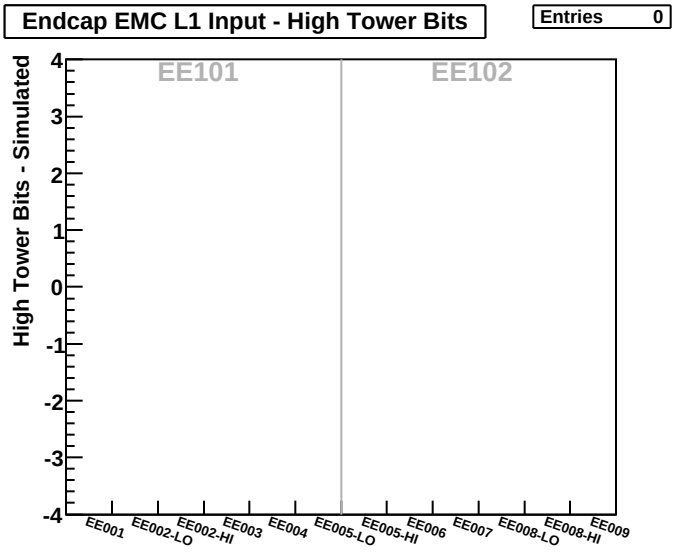

Endcap EMC L1 Input - Low Eta Sum
Entries 5048460
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

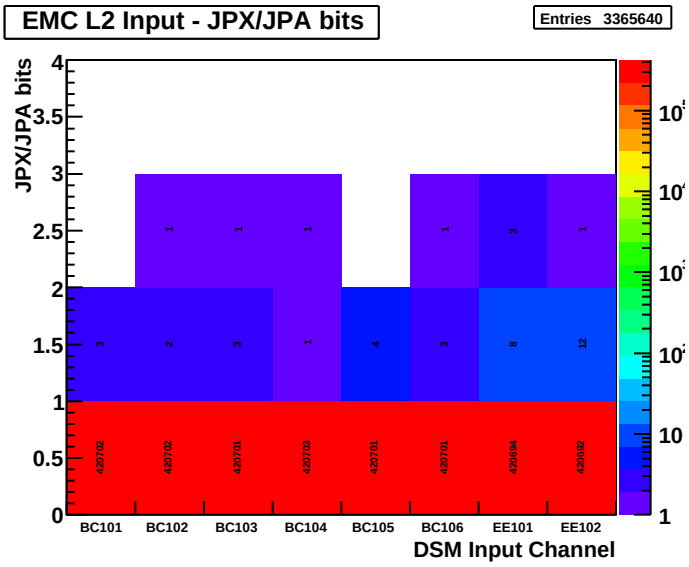

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

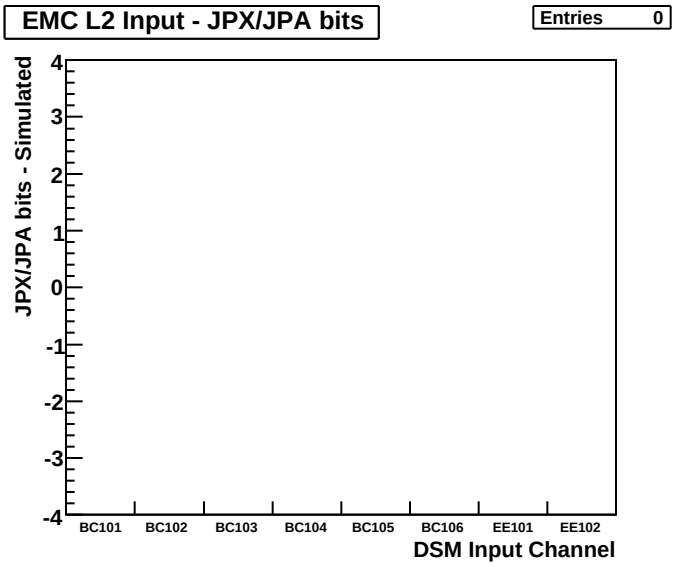

Endcap EMC L1 Input - High Eta Sum
Entries 5048460
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

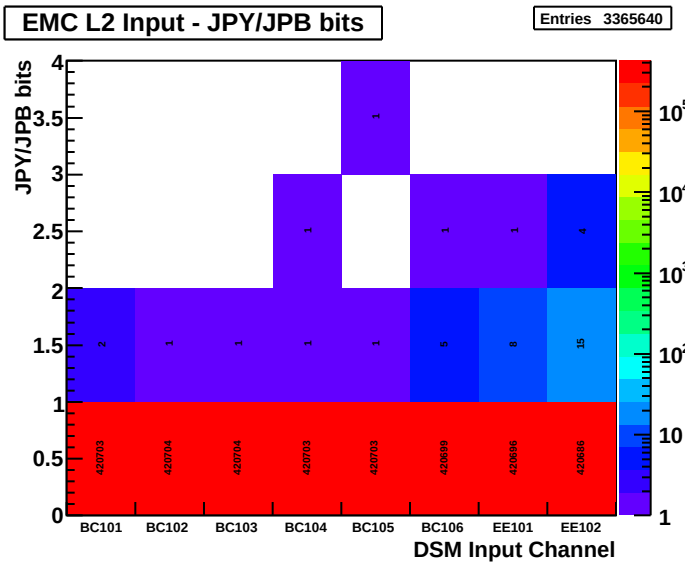

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

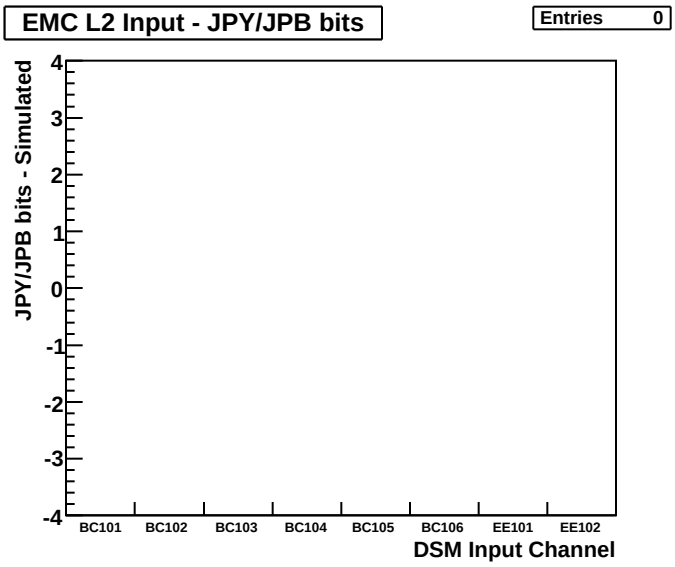

Endcap EMC L1 Input - High Tower Bits
Entries 5048460
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

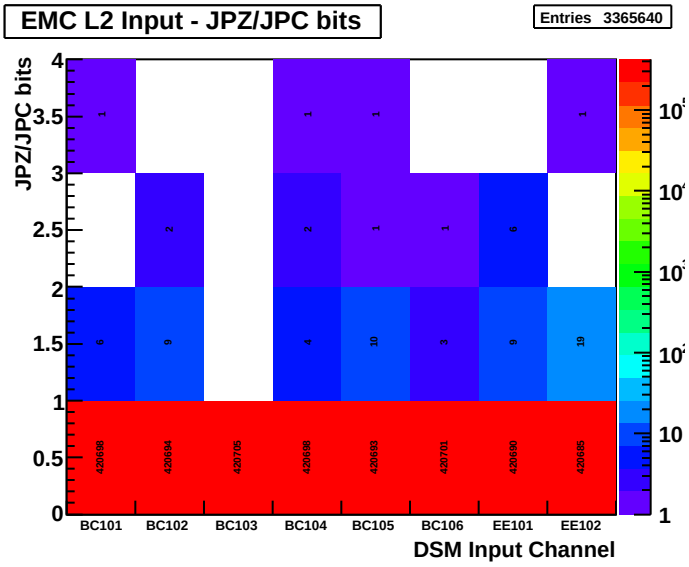

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

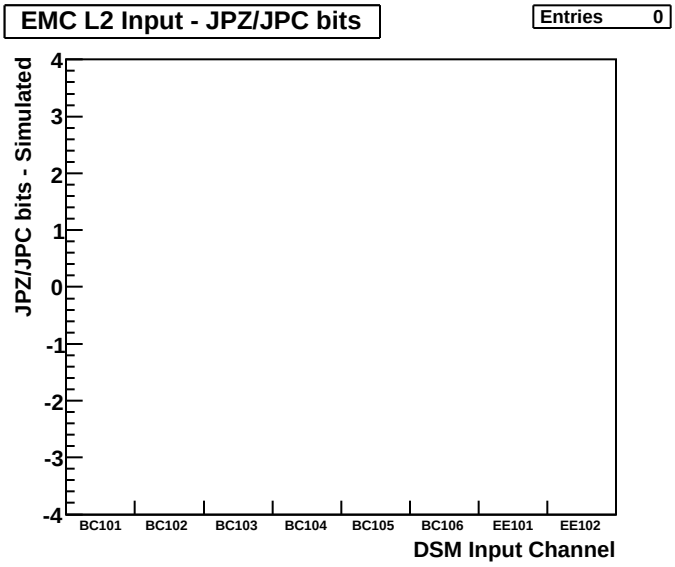

EMC L2 Input - JPX/JPA bits
Entries 3365640
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

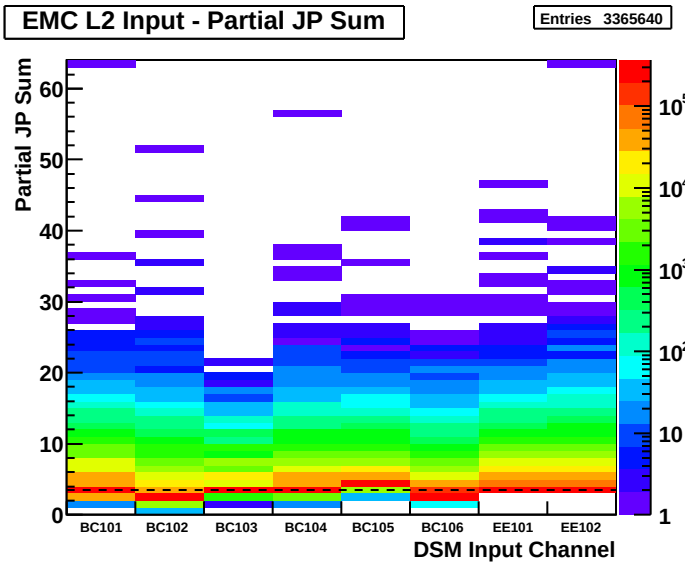

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

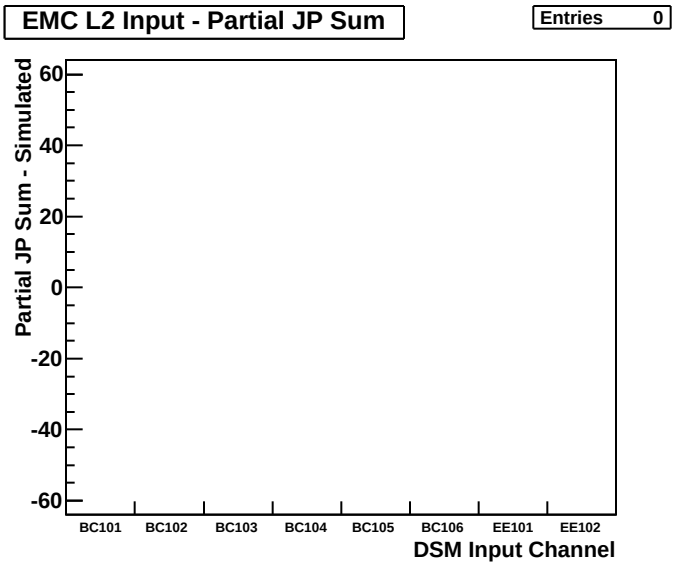

EMC L2 Input - JPY/JPB bits
Entries 3365640
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

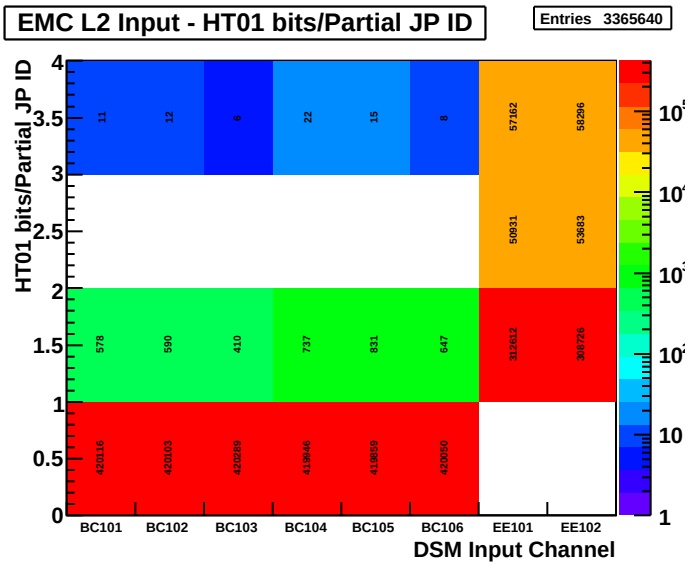

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

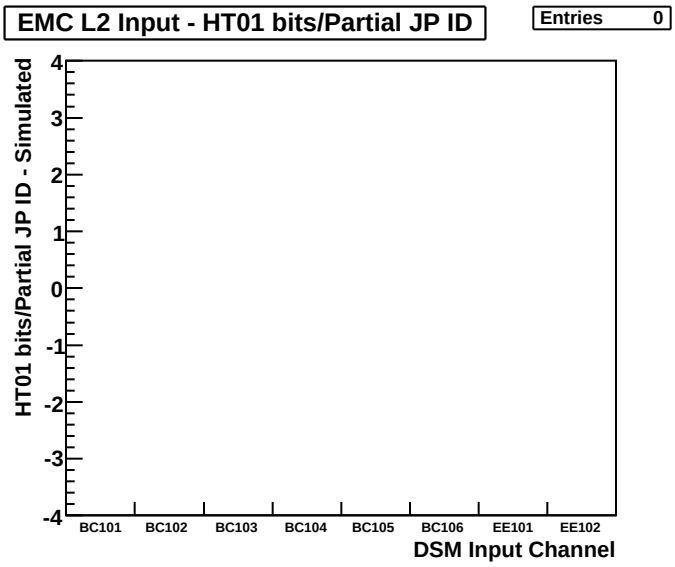

EMC L2 Input - JPZ/JPC bits
Entries 3365640
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

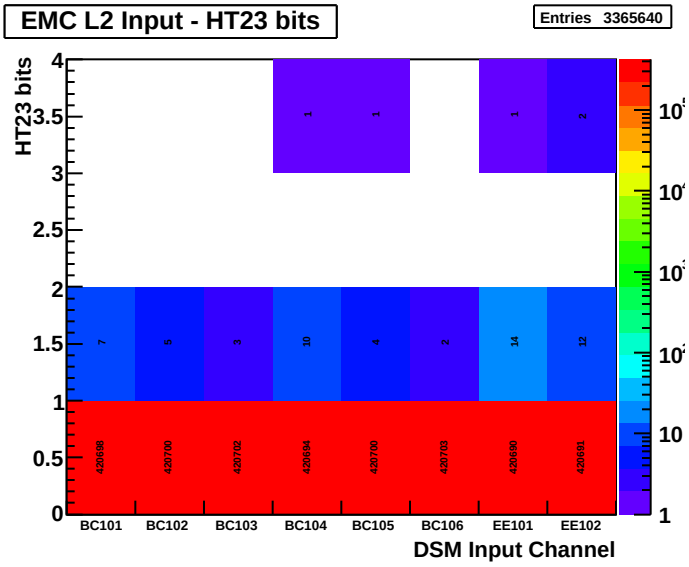

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

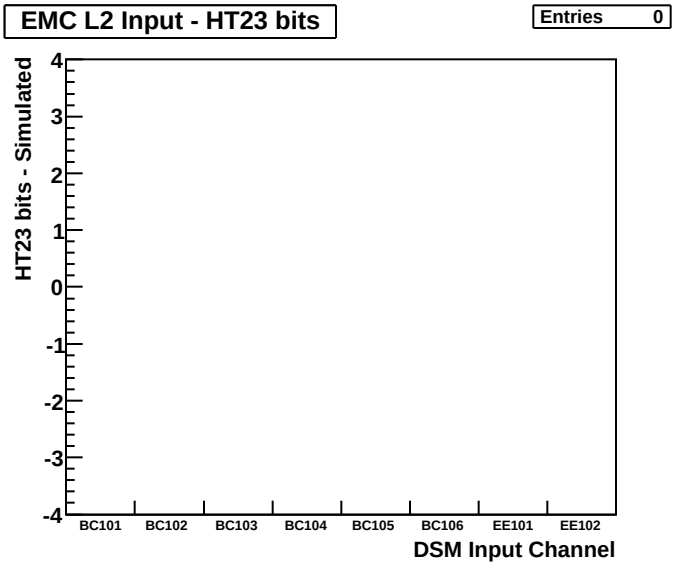

EMC L2 Input - Partial JP Sum
Entries 3365640
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

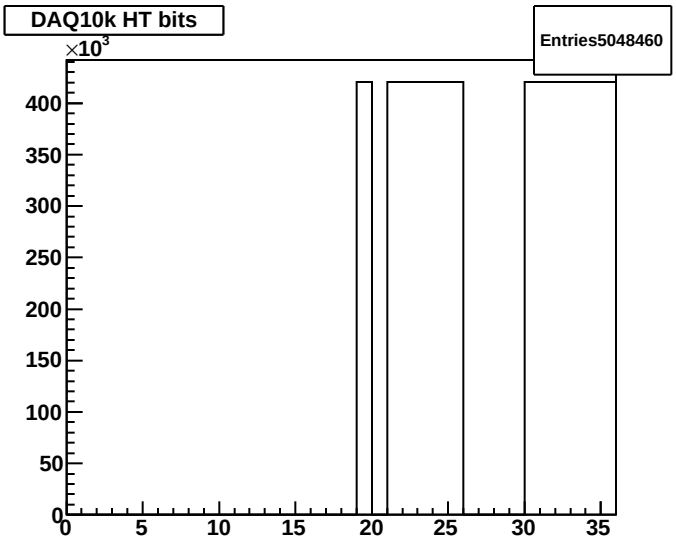

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

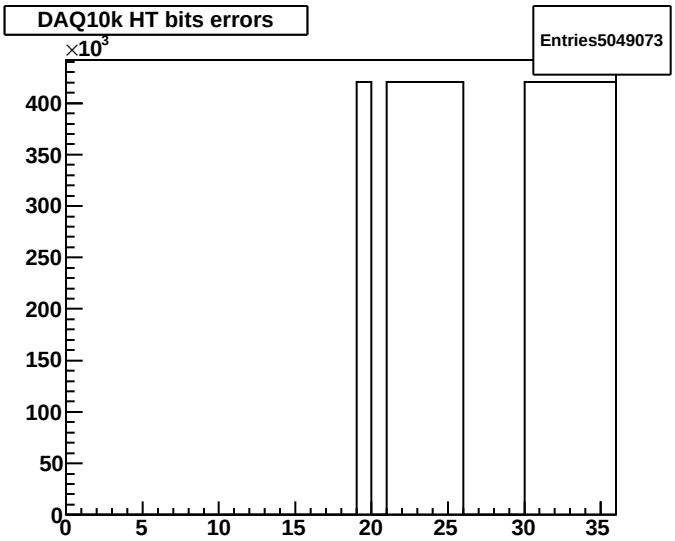

EMC L2 Input - HT01 bits/Partial JP ID
Entries 3365640
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

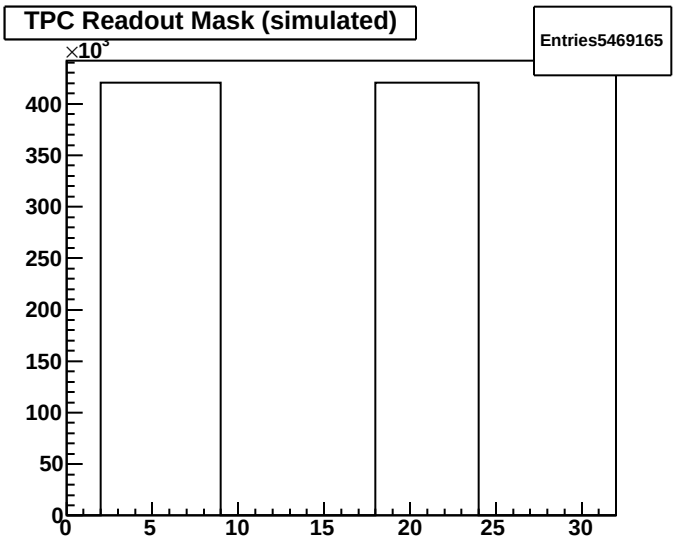

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

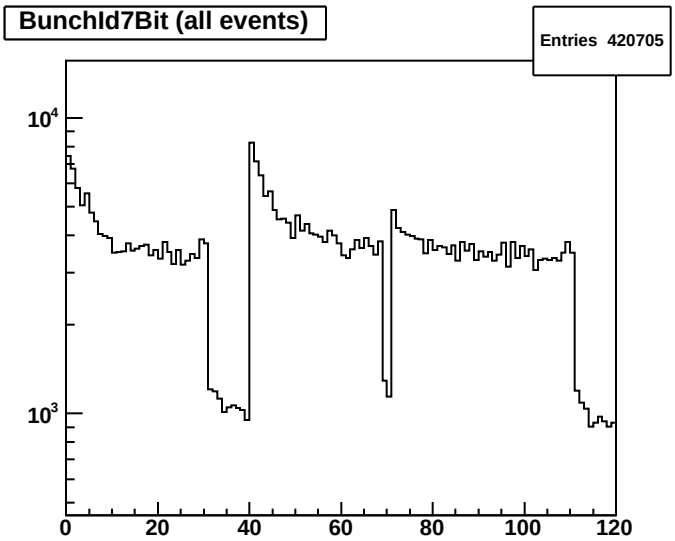

EMC L2 Input - HT23 bits
Entries 3365640
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

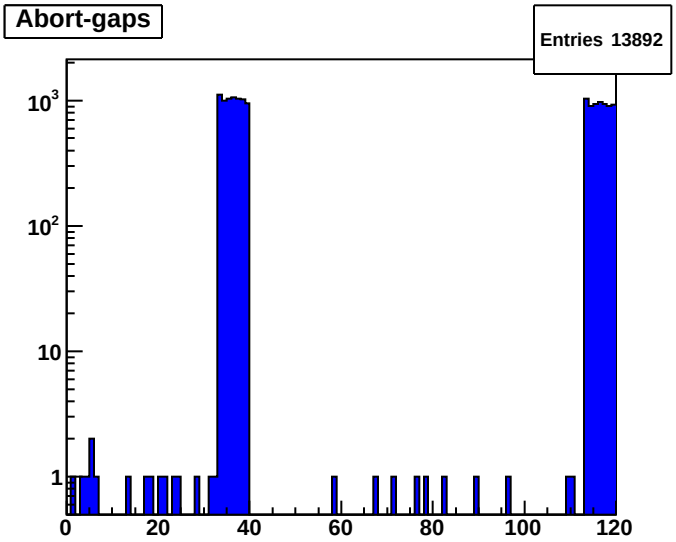

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

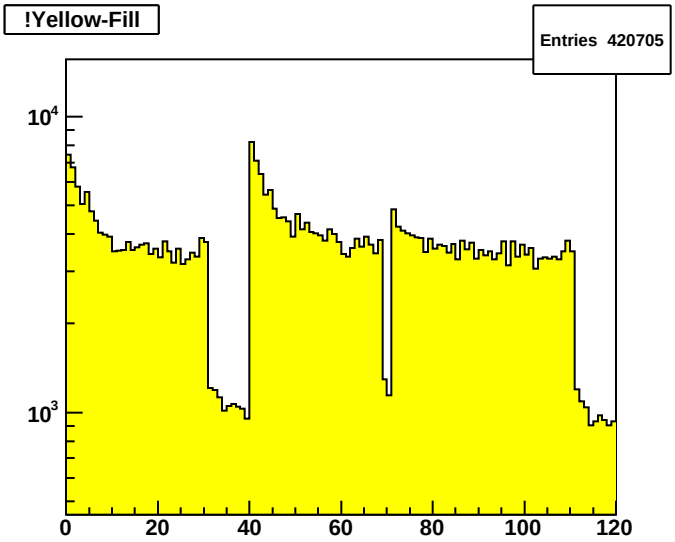

DAQ10k HT bits
Entries5048460
×10^3
400
350
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

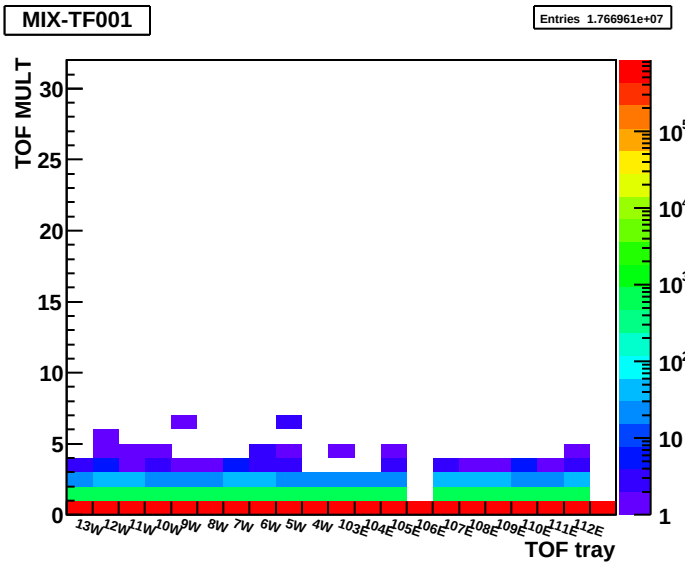

DAQ10k HT bits errors
Entries5049073
×10^3
400
350
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

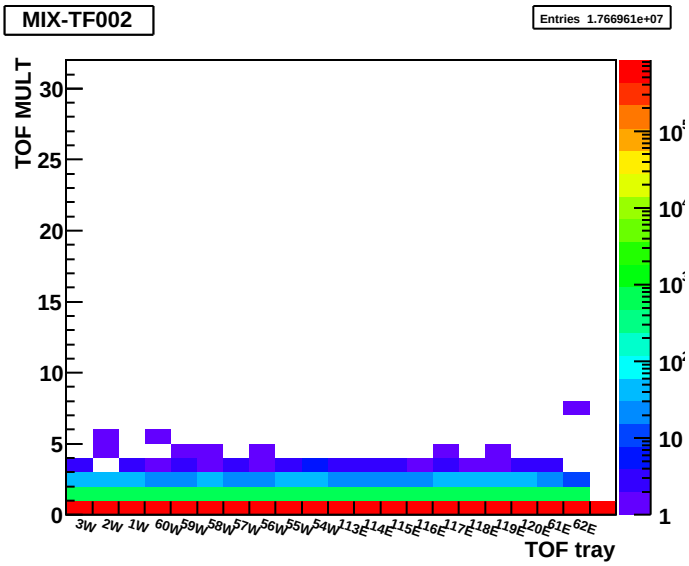

TPC Readout Mask (simulated)
Entries5469165
×10^3
400
350
300
250
200
150
100
50
0
0 5 10 15 20 25 30

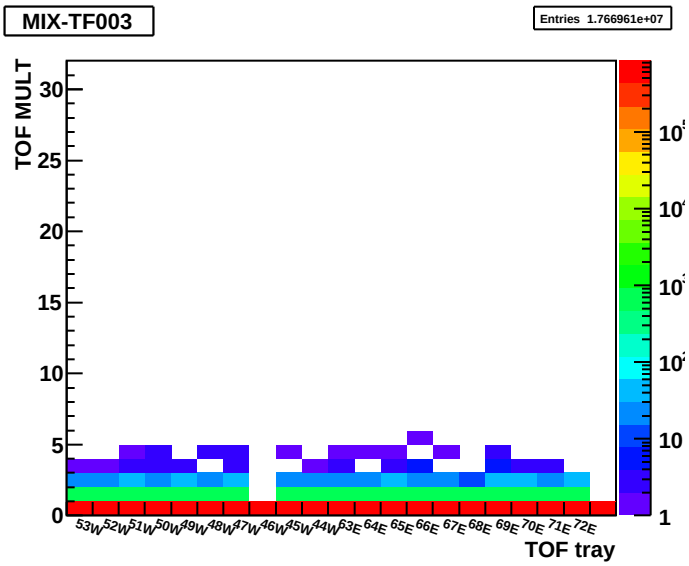

BunchId7Bit (all events)
Entries 420705
10^4
10^3
0 20 40 60 80 100 120

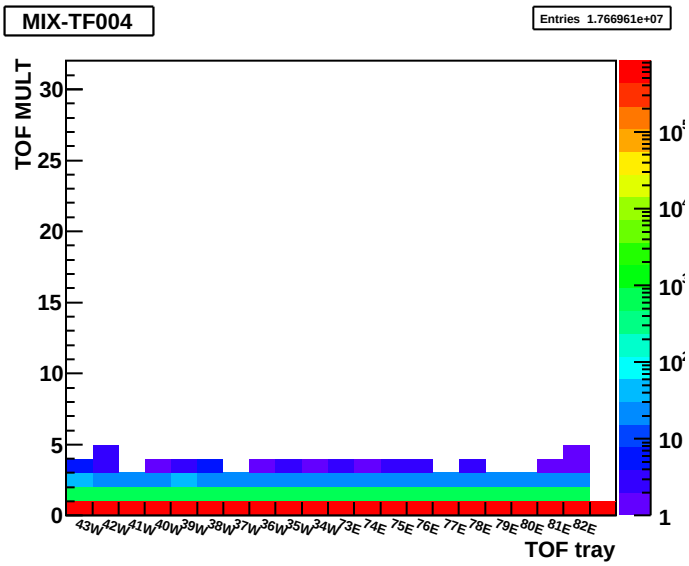

Abort-gaps
Entries 13892
10^3
10^2
10
1
0 20 40 60 80 100 120

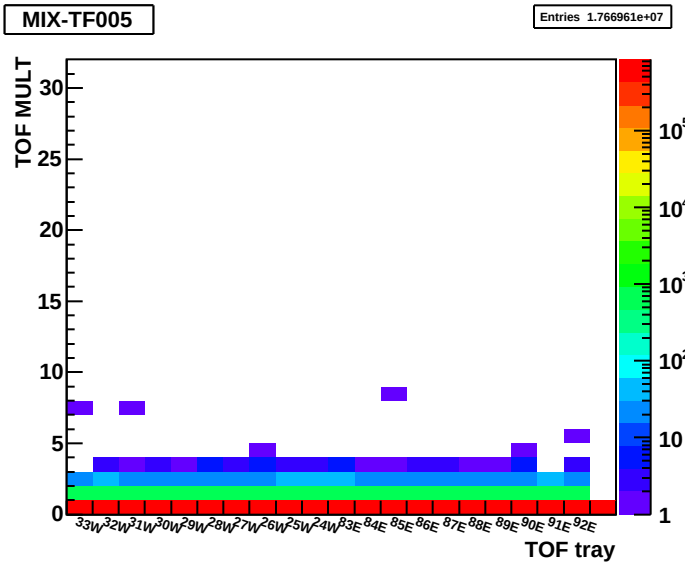

!Yellow-Fill
Entries 420705
10^4
10^3
0 20 40 60 80 100 120

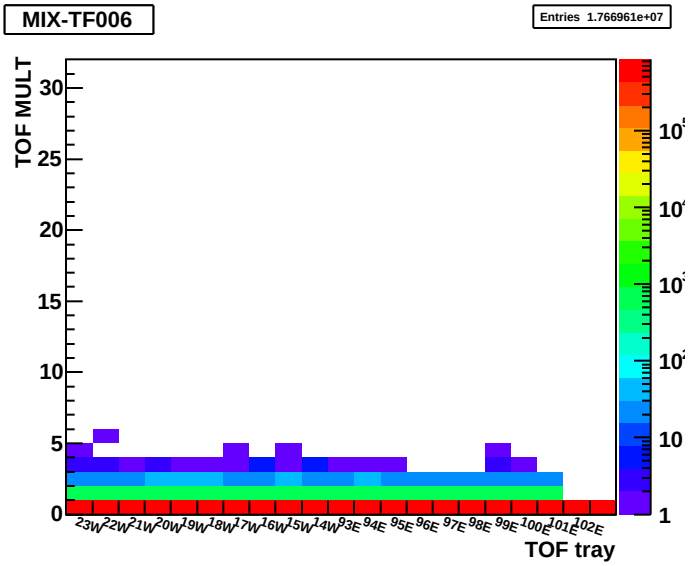

MIX-TF001
Entries 1.766961e+07
TOF MULT
TOF tray

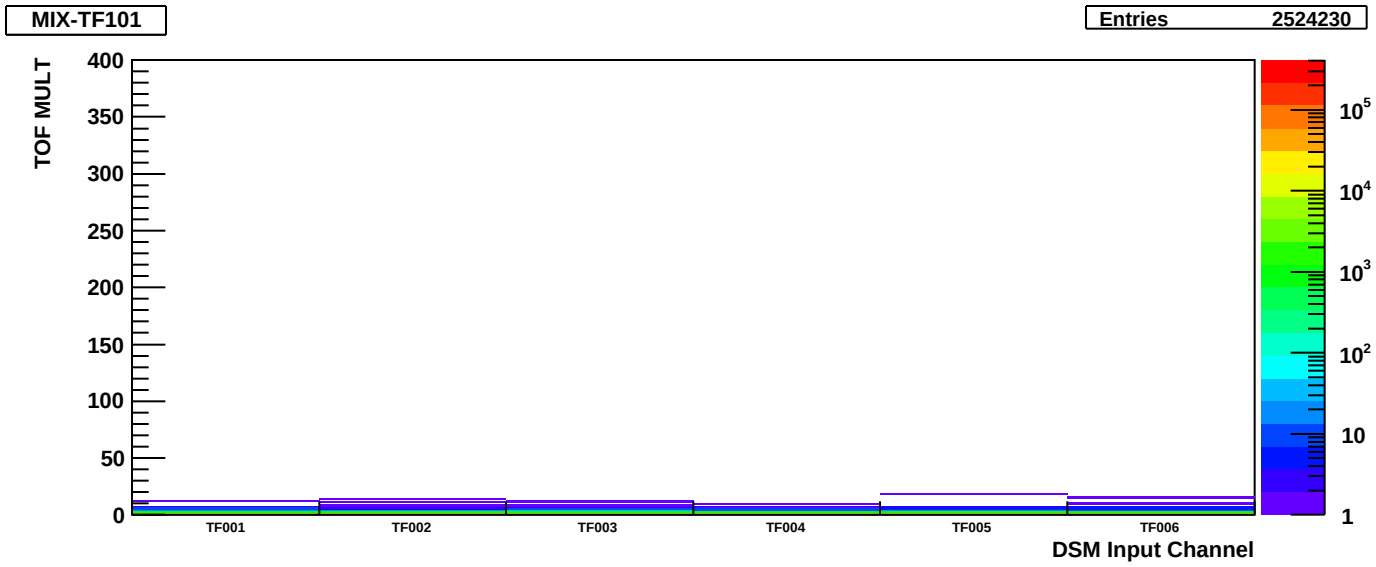

MIX-TF002
Entries 1.766961e+07
TOF MULT
TOF tray

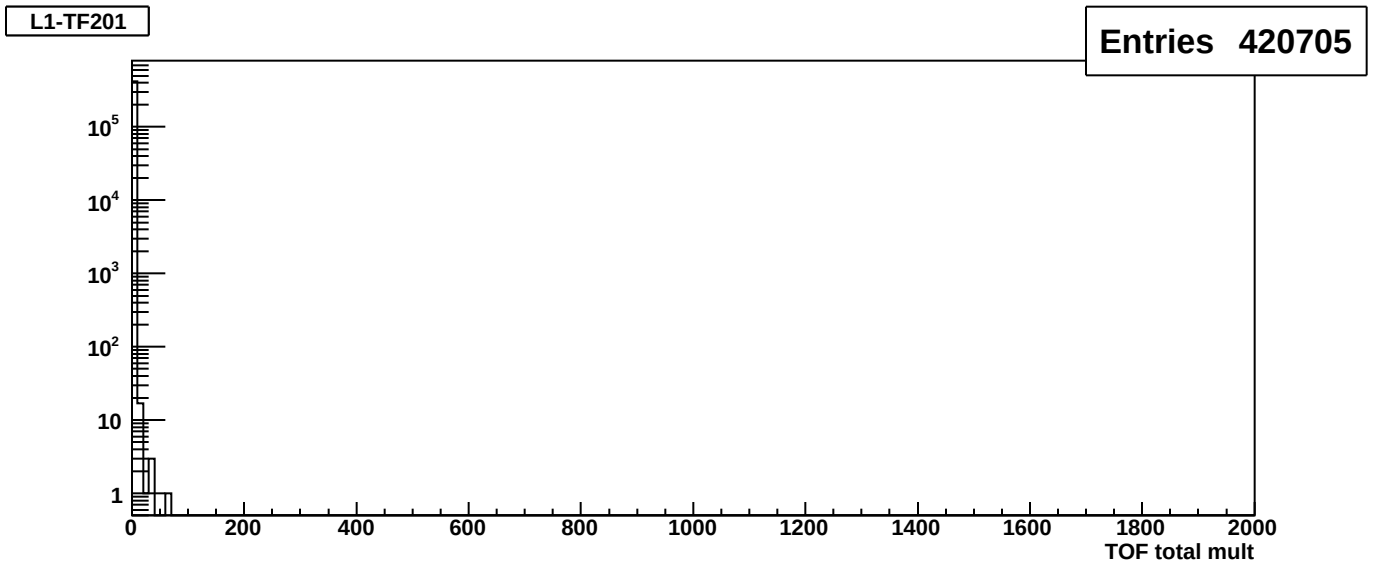

MIX-TF003
Entries 1.766961e+07
TOF MULT
TOF tray

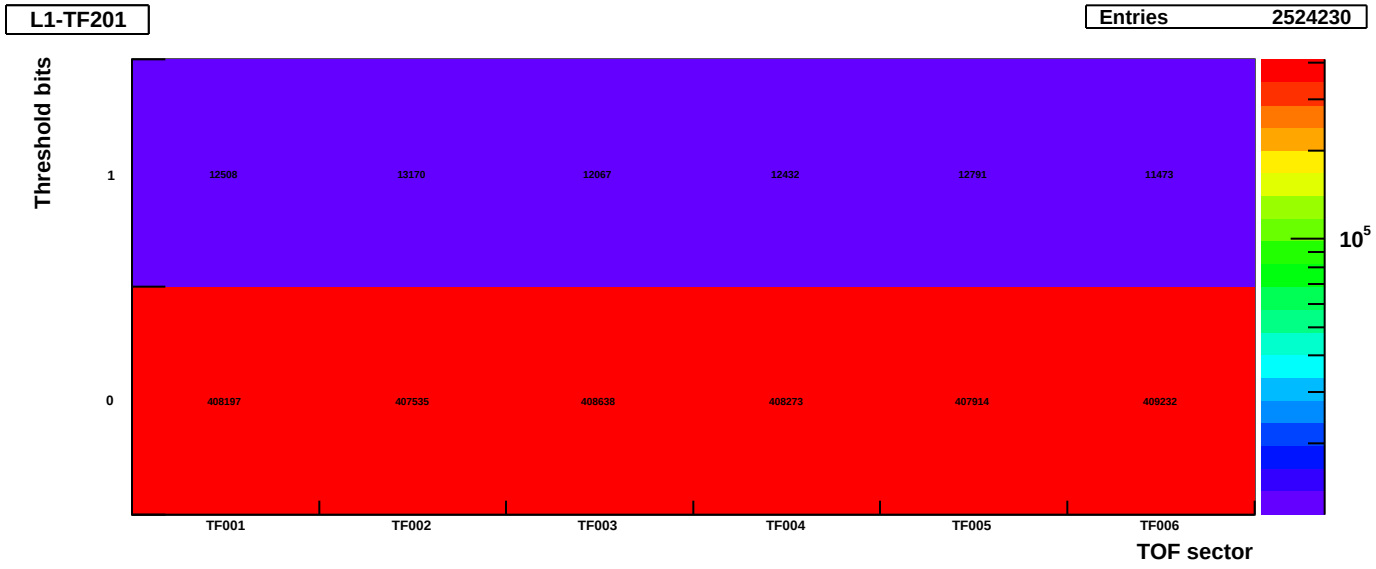

MIX-TF004
Entries 1.766961e+07
TOF MULT
TOF tray

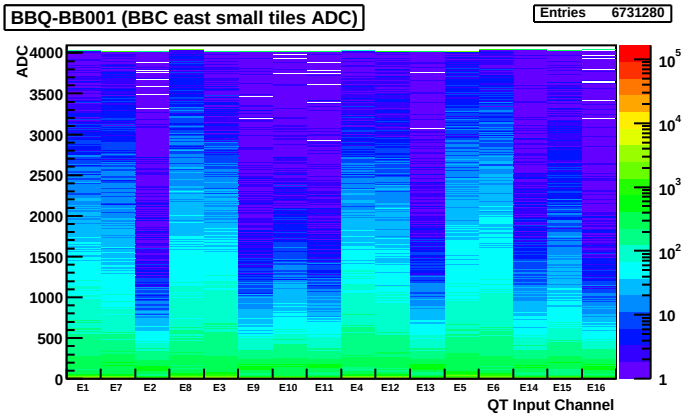

MIX-TF005
Entries 1.766961e+07
TOF MULT
TOF tray

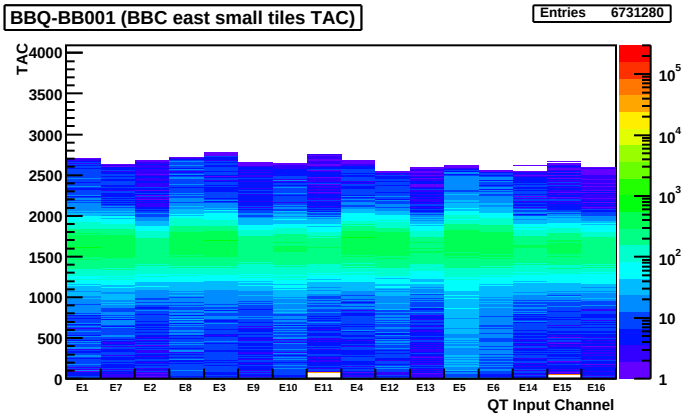

MIX-TF006
Entries 1.766961e+07
TOF MULT
TOF tray

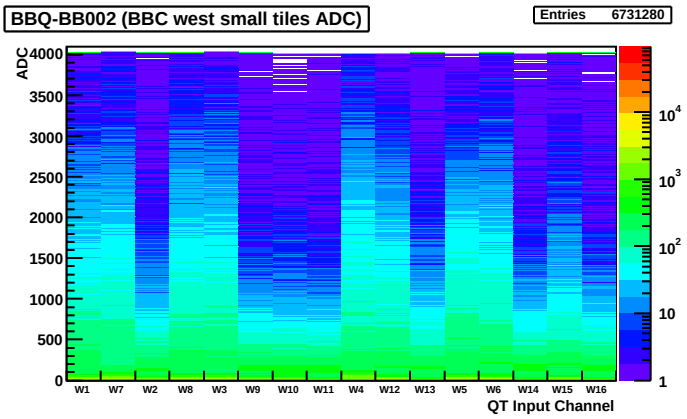

MIX-TF101
Entries 2524230
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

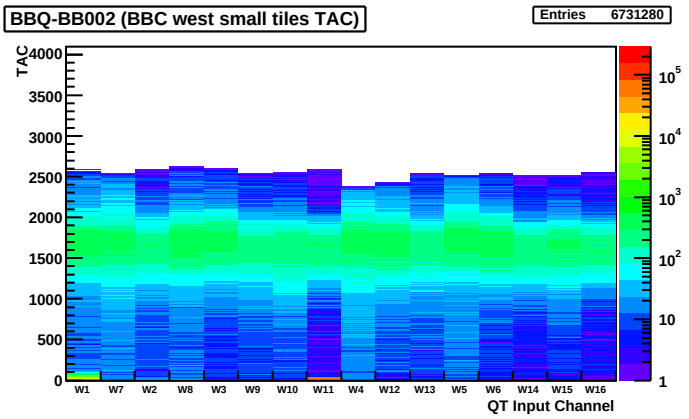

L1-TF201
Entries 420705
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

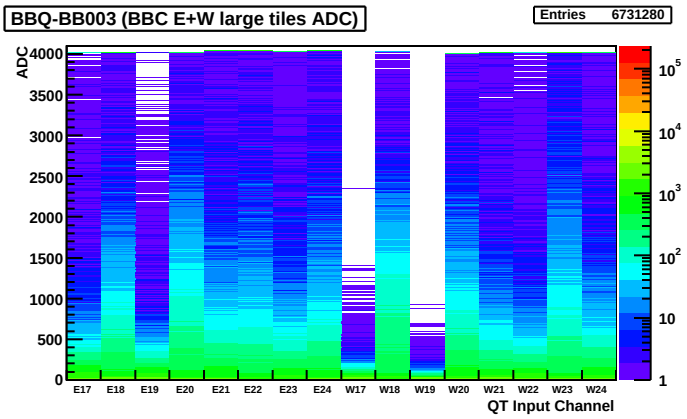

L1-TF201
Entries 2524230
Threshold bits
1
0
12508
13170
12067
12432
12791
11473
408197
407535
408638
408273
407914
409232
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

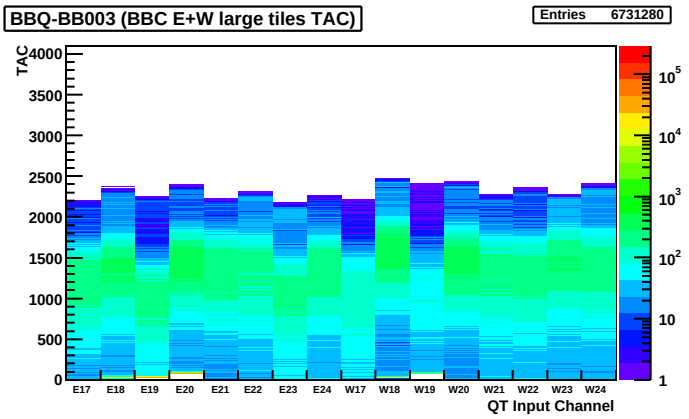

BBQ-BB001 (BBC east small tiles ADC)
Entries 6731280
ADC
QT Input Channel

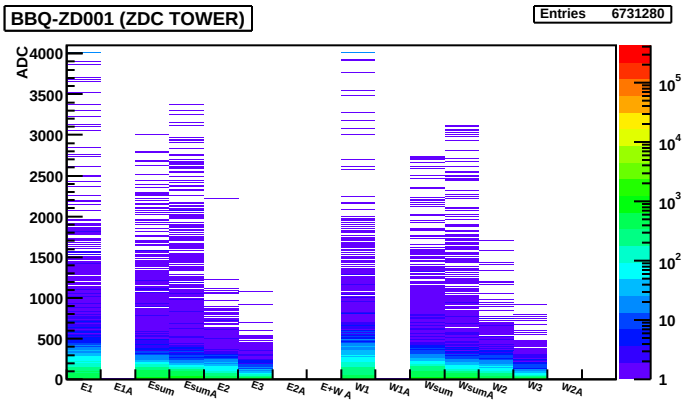

BBQ-BB001 (BBC east small tiles TAC)
Entries 6731280
TAC
QT Input Channel

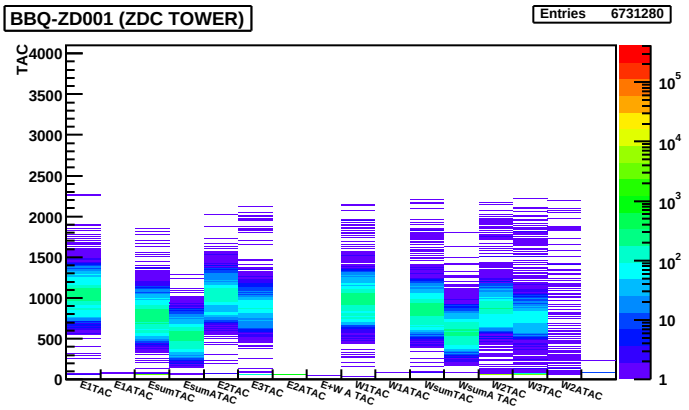

BBQ-BB002 (BBC west small tiles ADC)
Entries 6731280
ADC
QT Input Channel

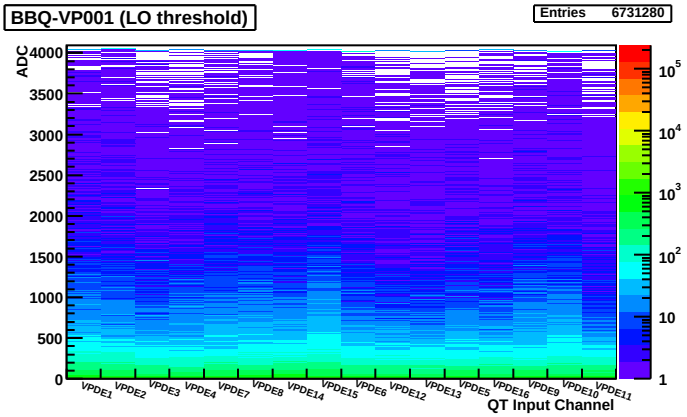

BBQ-BB002 (BBC west small tiles TAC)
Entries 6731280
TAC
QT Input Channel

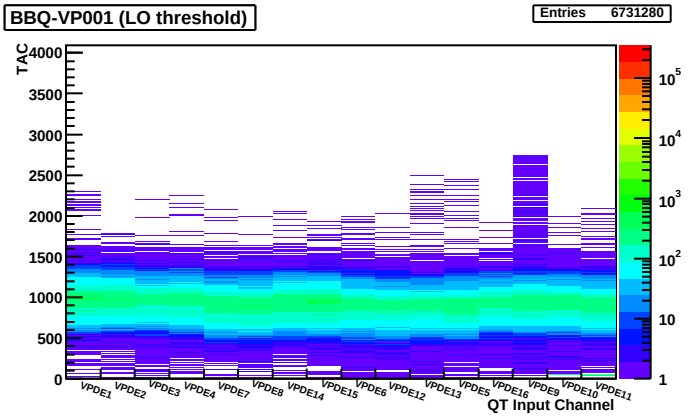

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 6731280
ADC
QT Input Channel

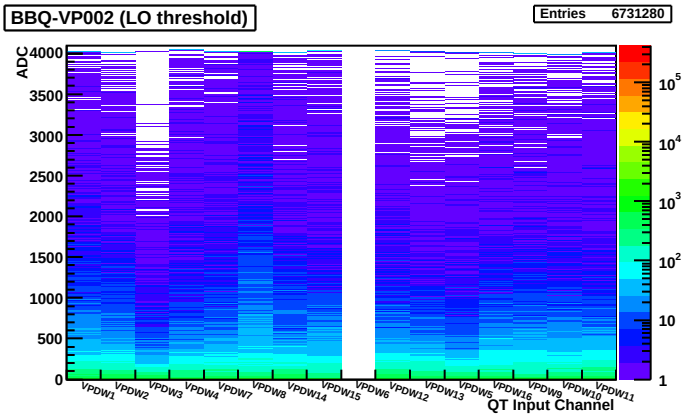

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 6731280
TAC
QT Input Channel

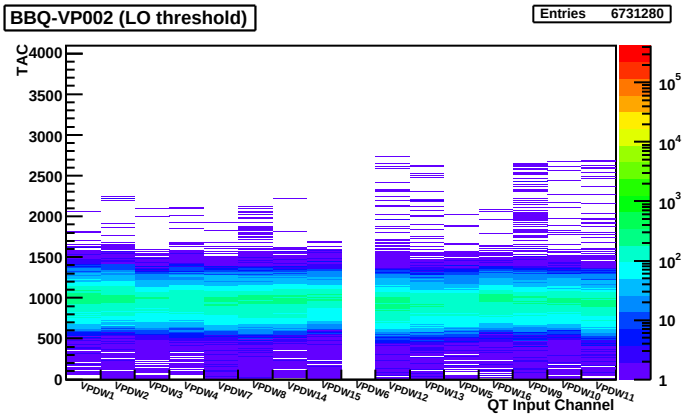

BBQ-ZD001 (ZDC TOWER)
Entries 6731280
ADC

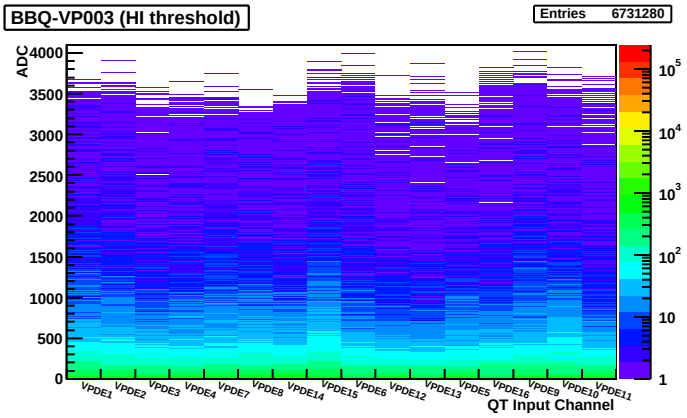

BBQ-ZD001 (ZDC TOWER)
Entries 6731280
TAC

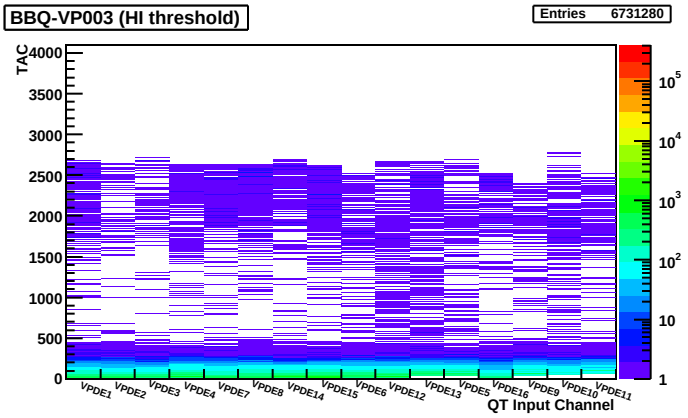

BBQ-VP001 (LO threshold)
Entries 6731280
ADC
QT Input Channel

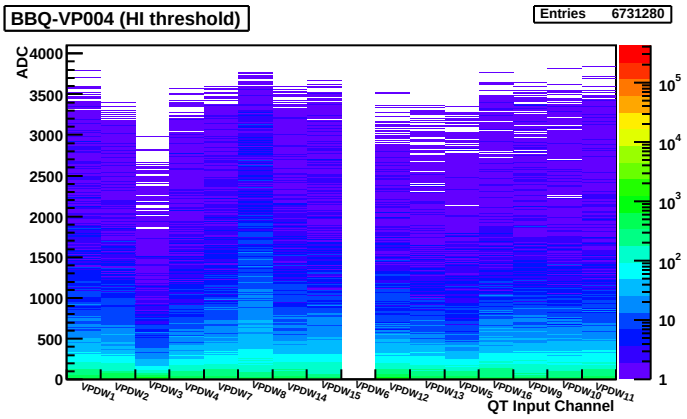

BBQ-VP001 (LO threshold)
Entries 6731280
TAC
QT Input Channel

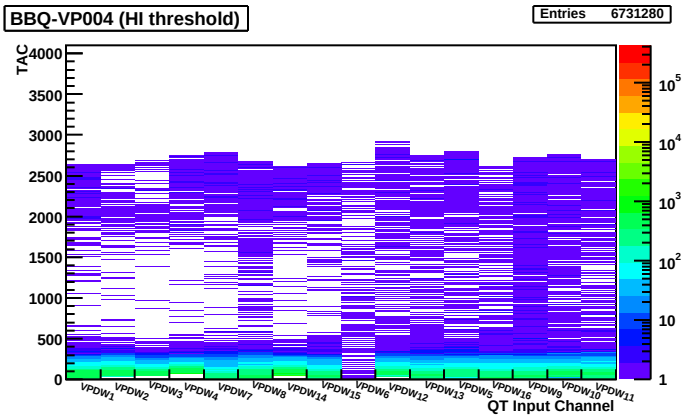

BBQ-VP002 (LO threshold)
Entries 6731280
ADC
QT Input Channel

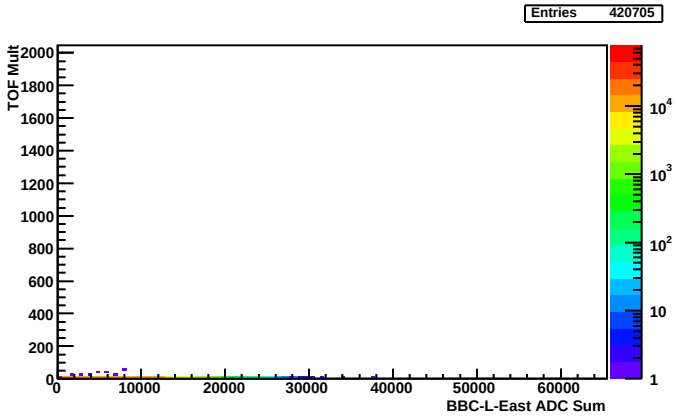

BBQ-VP002 (LO threshold)
Entries 6731280
TAC
QT Input Channel

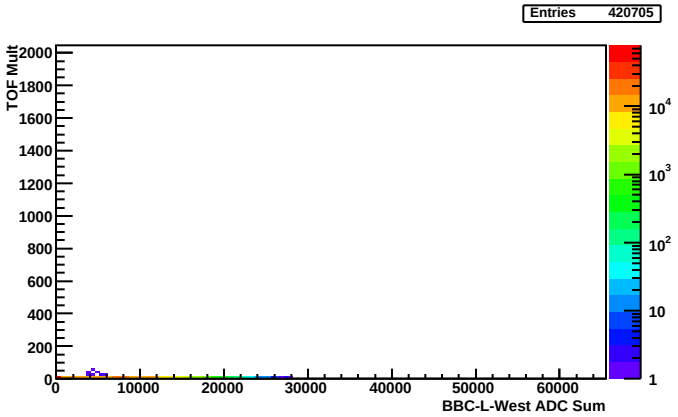

BBQ-VP003 (HI threshold)
Entries 6731280
ADC
QT Input Channel

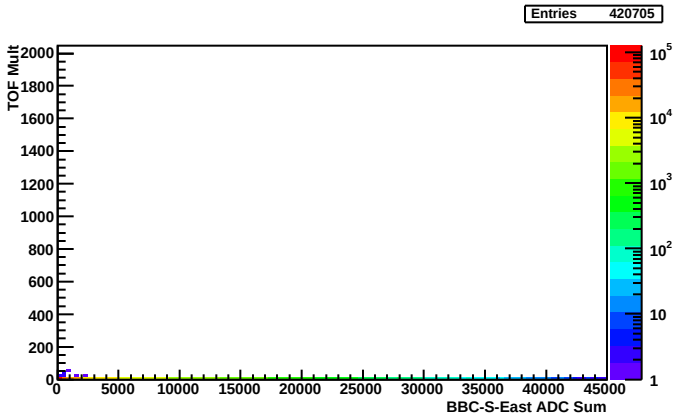

BBQ-VP003 (HI threshold)
Entries 6731280
TAC
QT Input Channel

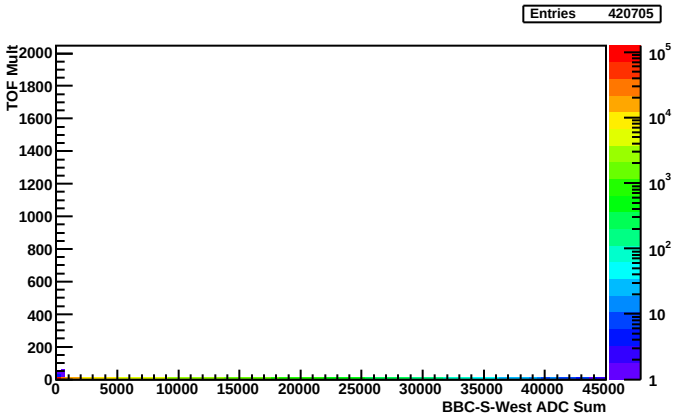

BBQ-VP004 (HI threshold)
Entries 6731280
ADC
QT Input Channel

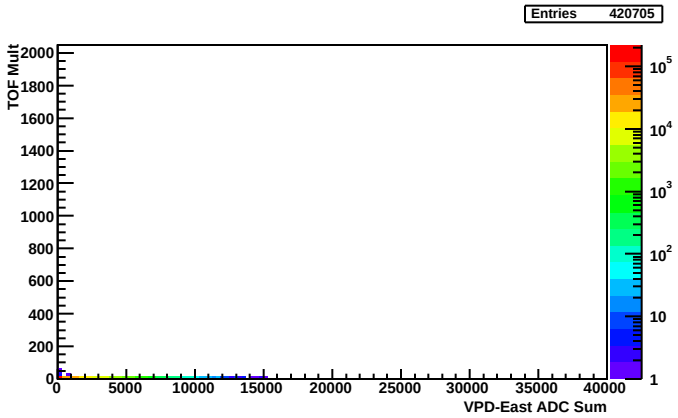

BBQ-VP004 (HI threshold)
Entries 6731280
TAC
QT Input Channel

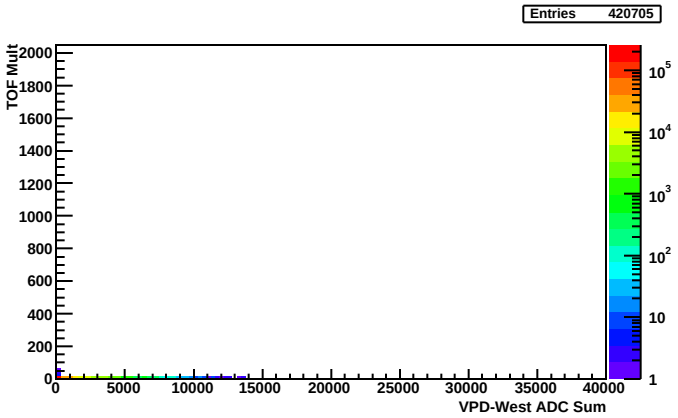

Entries 420705
TOF Mult
BBC-L-East ADC Sum

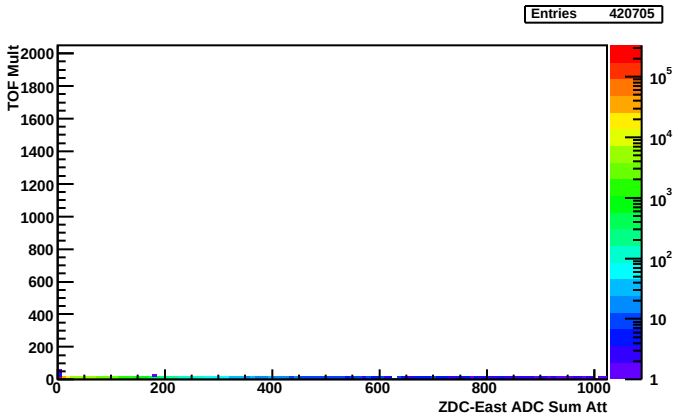

Entries 420705
TOF Mult
BBC-L-West ADC Sum

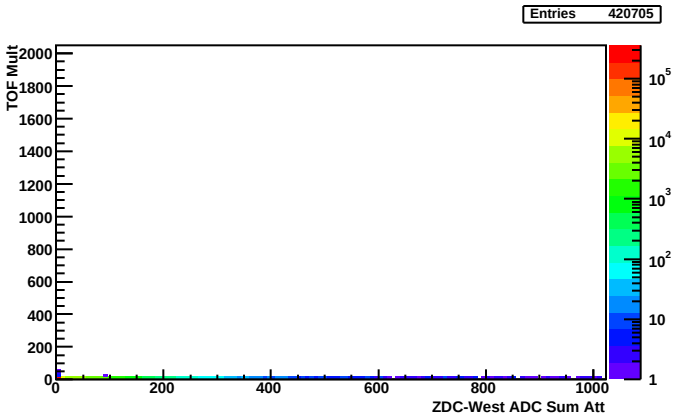

Entries 420705
TOF Mult
BBC-S-East ADC Sum

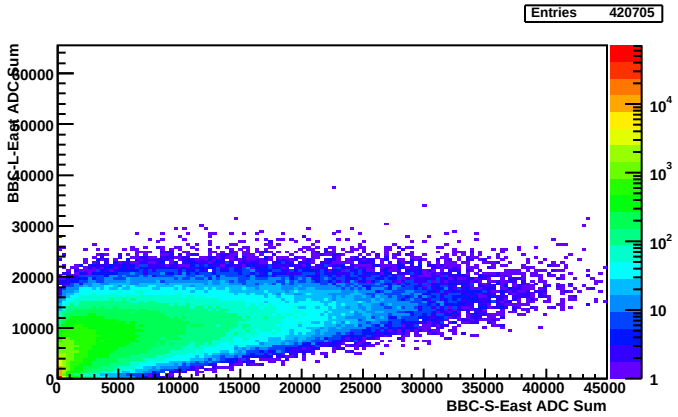

Entries 420705
TOF Mult
BBC-S-West ADC Sum

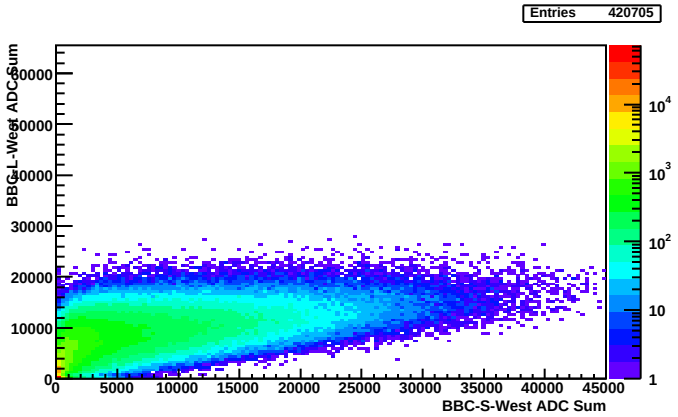

Entries 420705
TOF Mult
VPD-East ADC Sum

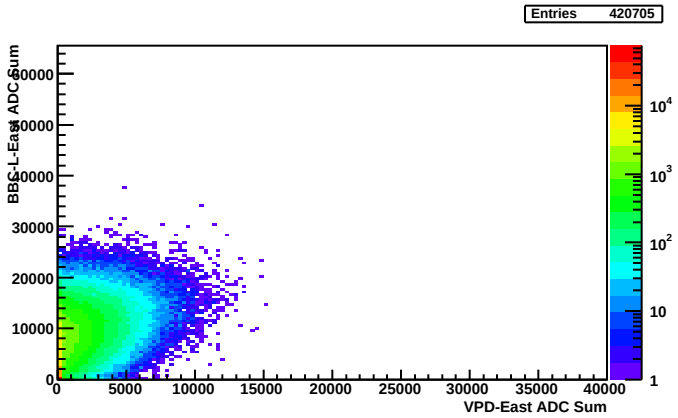

Entries 420705
TOF Mult
VPD-West ADC Sum

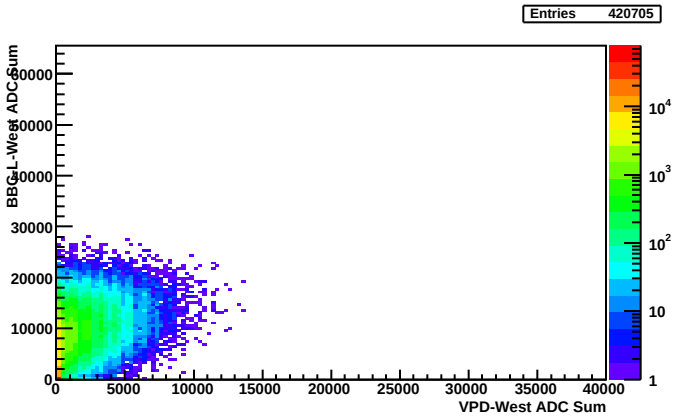

Entries 420705
TOF Mult
ZDC-East ADC Sum Att

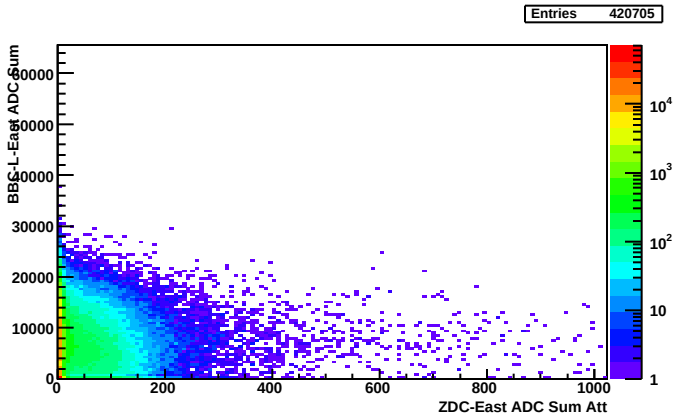

Entries 420705
TOF Mult
ZDC-West ADC Sum Att

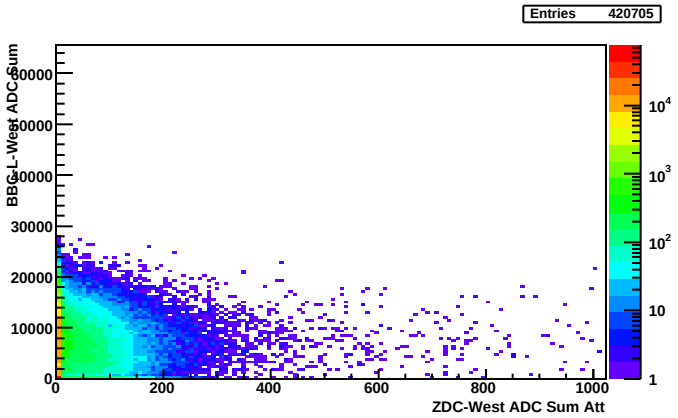

Entries 420705
BBC-L-East ADC Sum
BBC-S-East ADC Sum

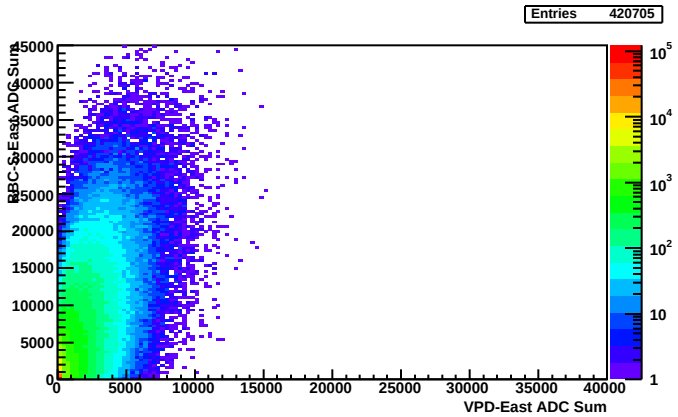

Entries 420705
BBC-L-West ADC Sum
BBC-S-West ADC Sum

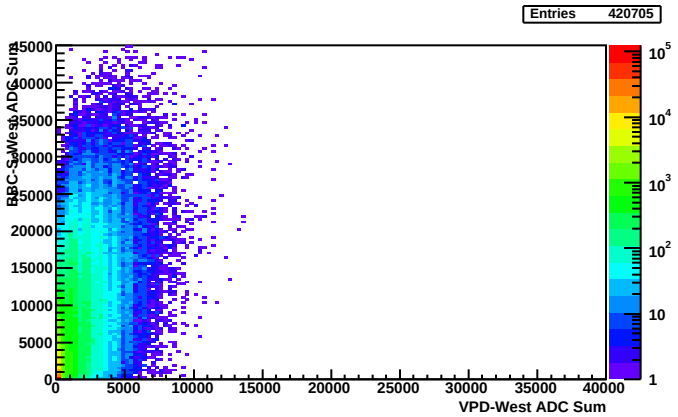

Entries 420705
BBC-L-East ADC Sum
VPD-East ADC Sum

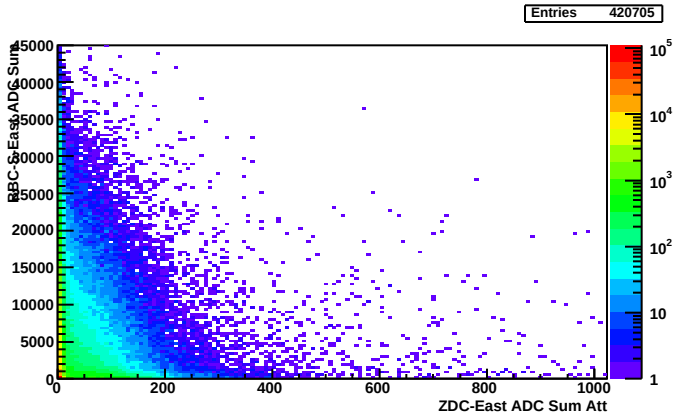

Entries 420705
BBC-L-West ADC Sum
VPD-West ADC Sum

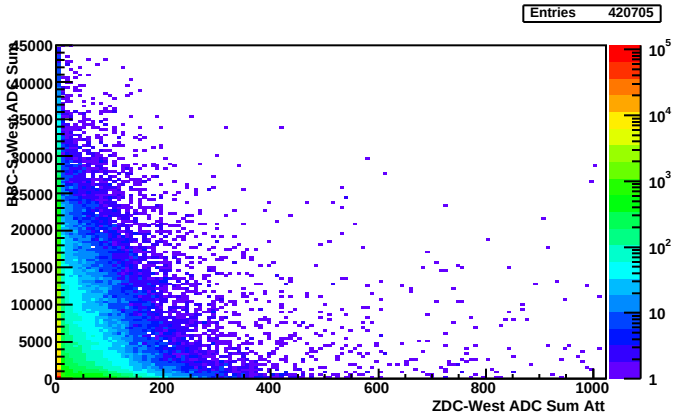

Entries 420705
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

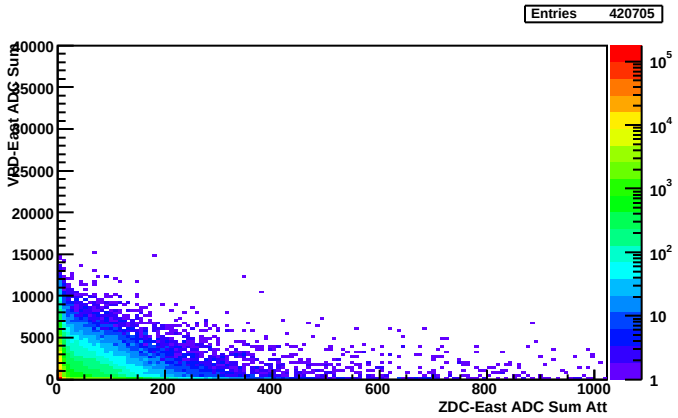

Entries 420705
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

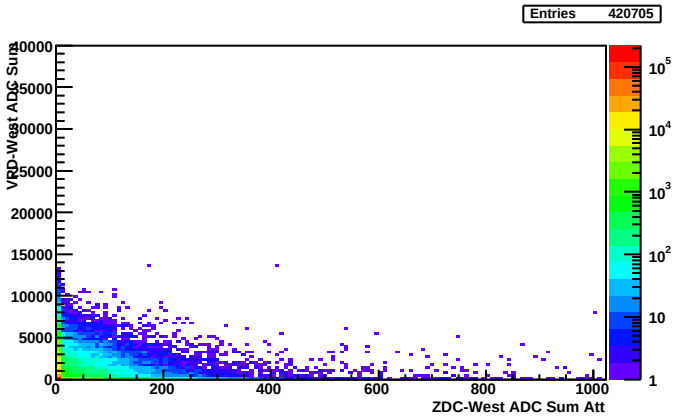

Entries 420705
BBC-S-East ADC Sum
VPD-East ADC Sum

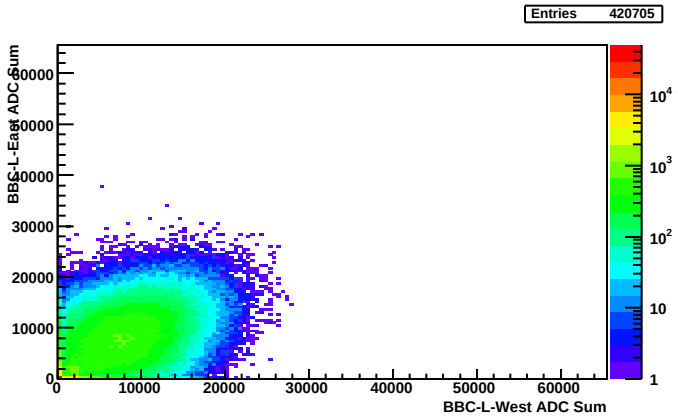

Entries 420705
BBC-S-West ADC Sum
VPD-West ADC Sum

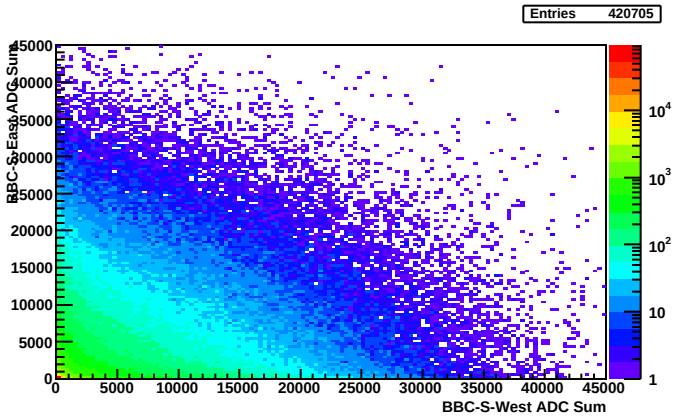

Entries 420705
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

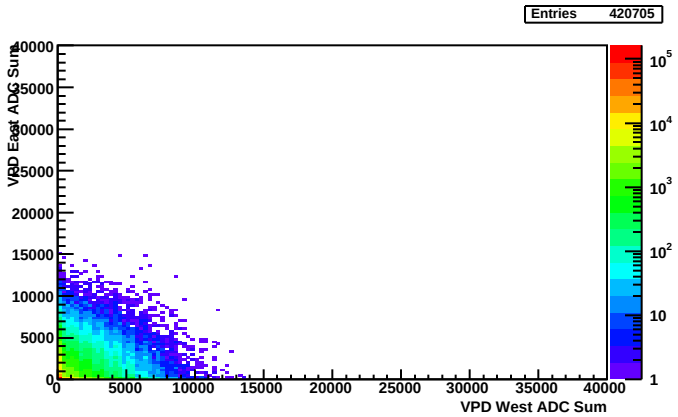

Entries 420705
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

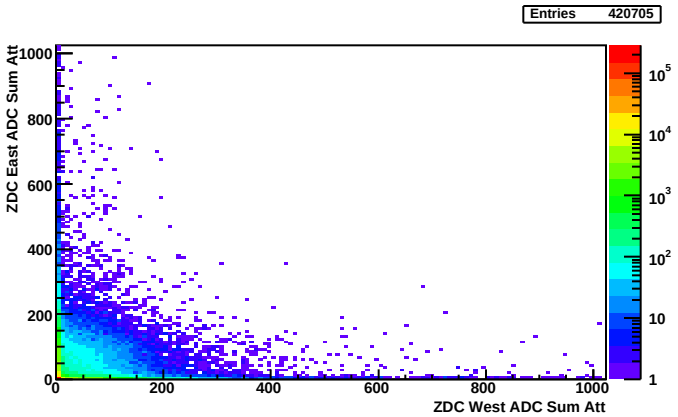

Entries 420705
VPD-East ADC Sum
ZDC-East ADC Sum Att

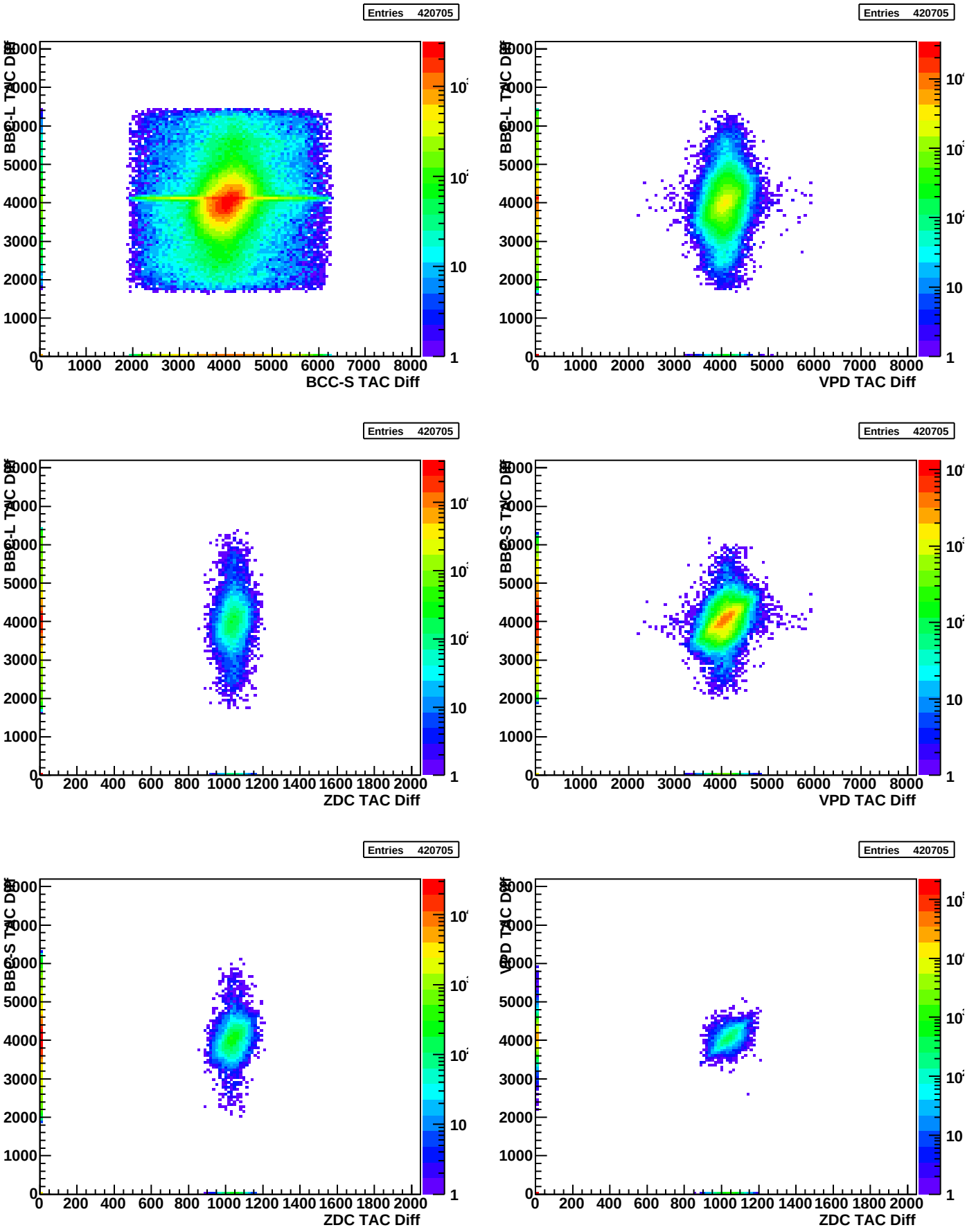

Entries 420705
VPD-West ADC Sum
ZDC-West ADC Sum Att

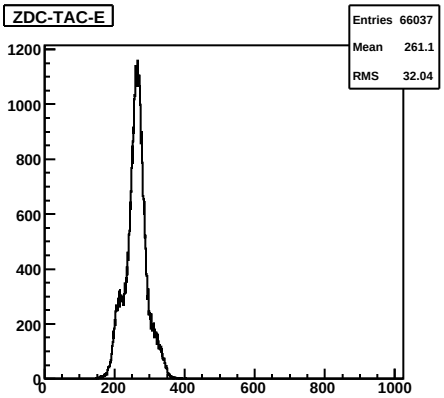

Entries 420705
BBC-L-East ADC Sum
BBC-L-West ADC Sum

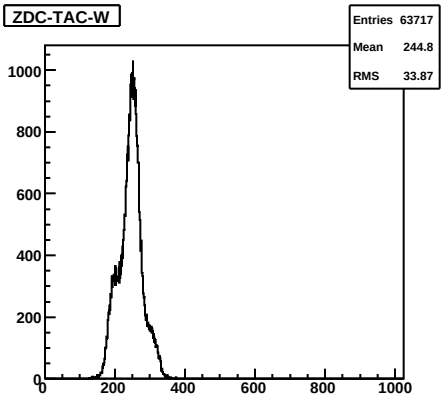

Entries 420705
BBC-S-East ADC Sum
BBC-S-West ADC Sum

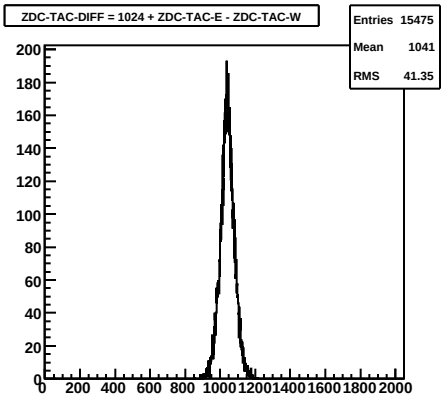

Entries 420705
VPD East ADC Sum
VPD West ADC Sum

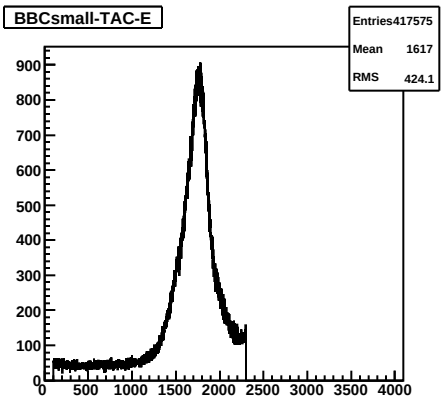

Entries 420705
ZDC East ADC Sum Att
ZDC West ADC Sum Att

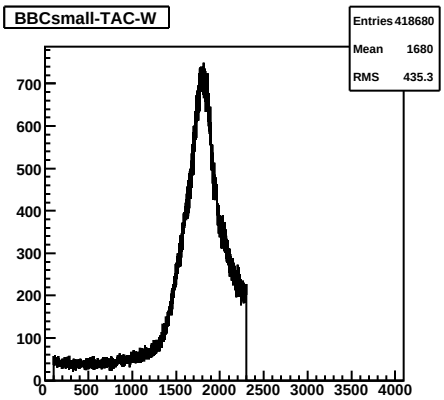

Entries 420705
BBC-L TAC Diff
BCC-S TAC Diff
Entries 420705
BBC-L TAC Diff
VPD TAC Diff
Entries 420705
BBC-L TAC Diff
ZDC TAC Diff
Entries 420705
BBC-S TAC Diff
VPD TAC Diff
Entries 420705
BBC-S TAC Diff
ZDC TAC Diff
Entries 420705
VPD TAC Diff
ZDC TAC Diff

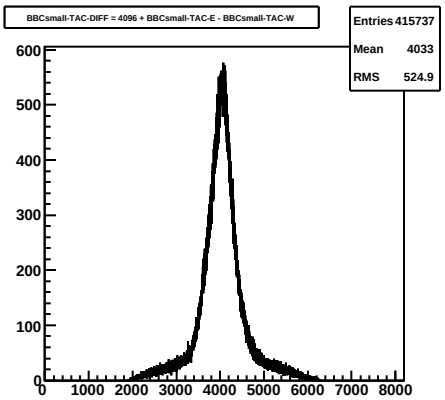

ZDC-TAC-E
Entries 66037
Mean 261.1
RMS 32.04

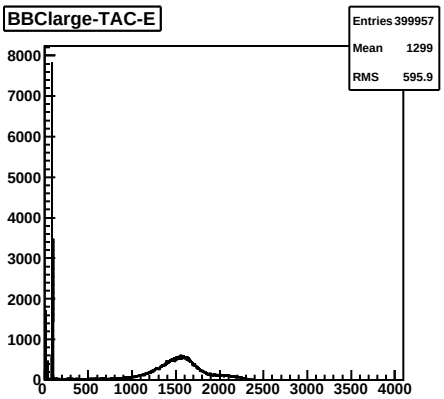

ZDC-TAC-W
Entries 63717
Mean 244.8
RMS 33.87

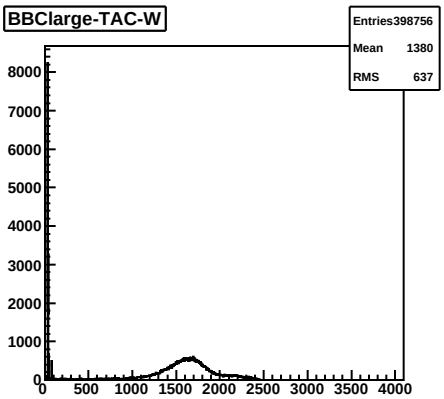

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 15475
Mean 1041
RMS 41.35

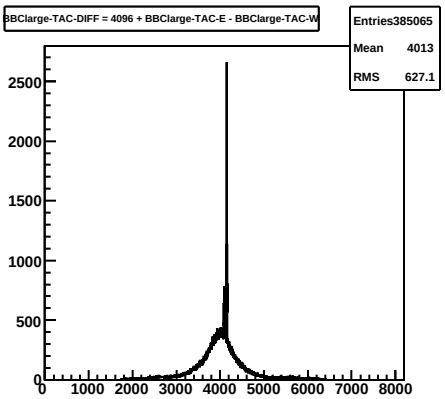

BBCsmall-TAC-E
Entries 417575
Mean 1617
RMS 424.1

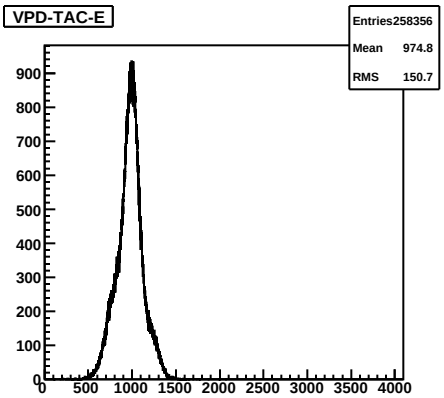

BBCsmall-TAC-W
Entries 418680
Mean 1680
RMS 435.3

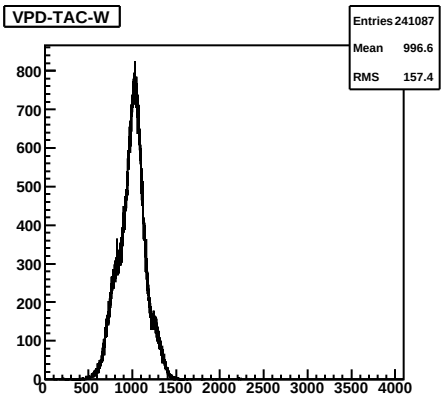

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 415737
Mean 4033
RMS 524.9

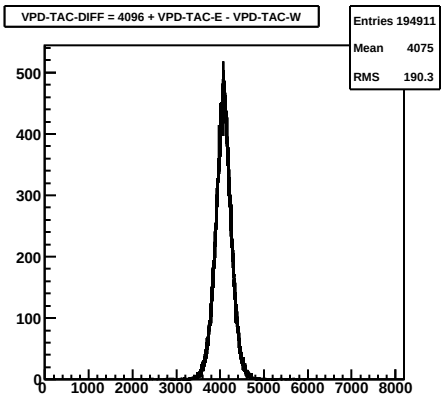

BBClarge-TAC-E
Entries 399957
Mean 1299
RMS 595.9

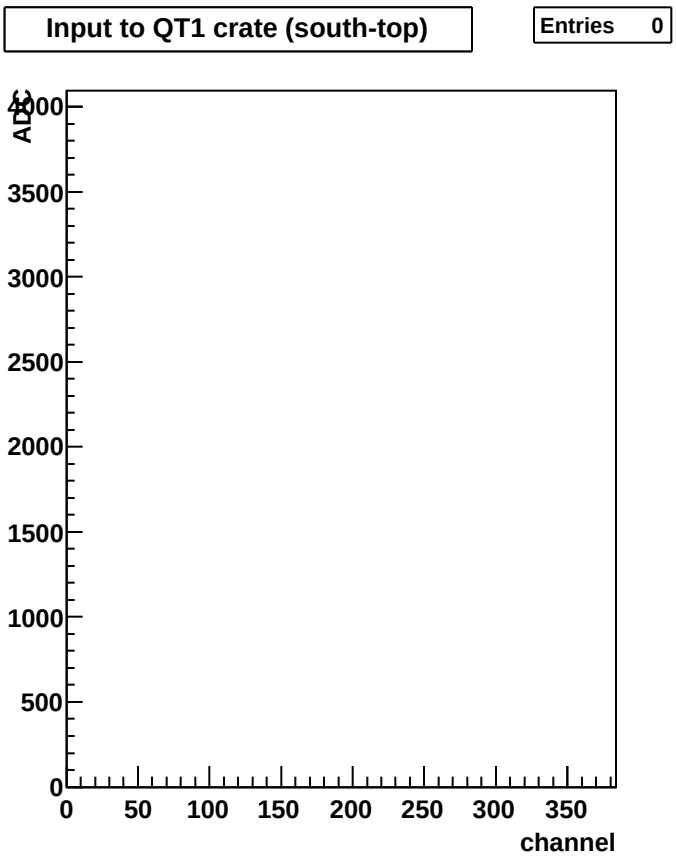

BBClarge-TAC-W
Entries 398756
Mean 1380
RMS 637

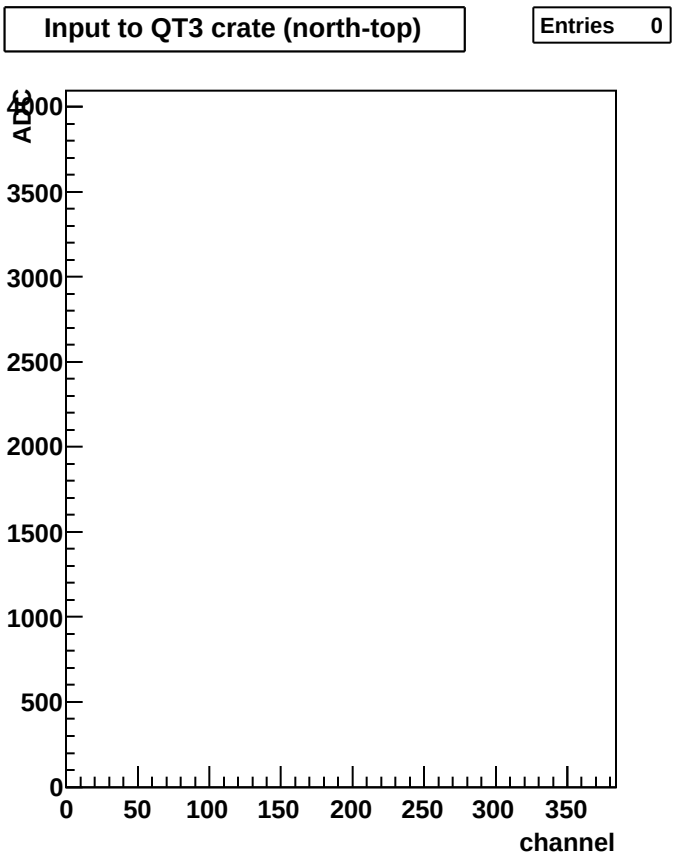

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 385065
Mean 4013
RMS 627.1

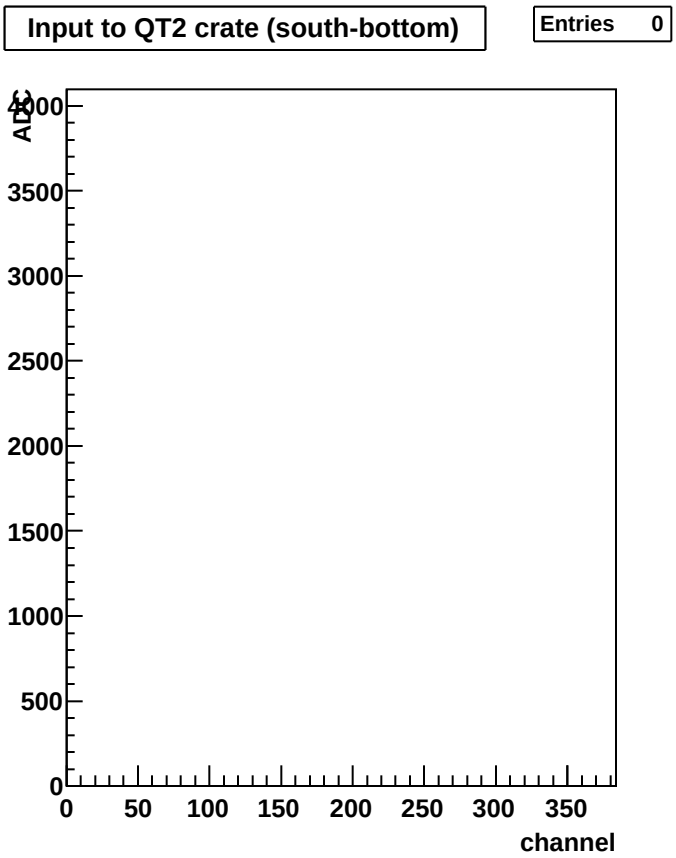

VPD-TAC-E
Entries 258356
Mean 974.8
RMS 150.7

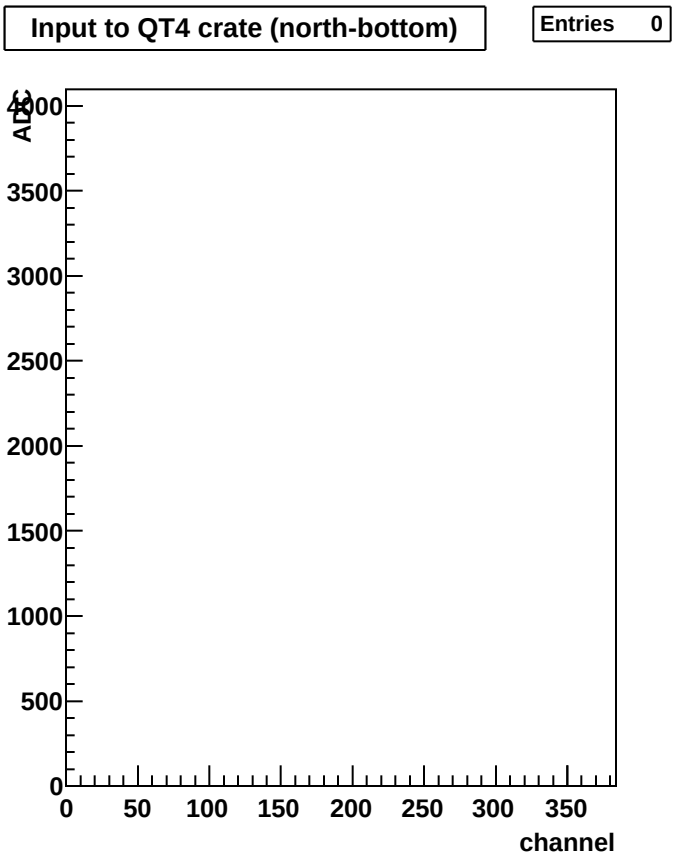

VPD-TAC-W
Entries 241087
Mean 996.6
RMS 157.4

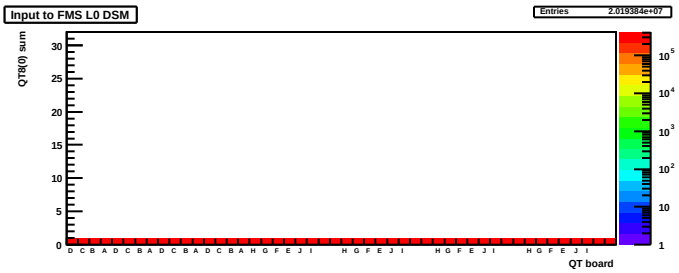

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 194911
Mean 4075
RMS 190.3

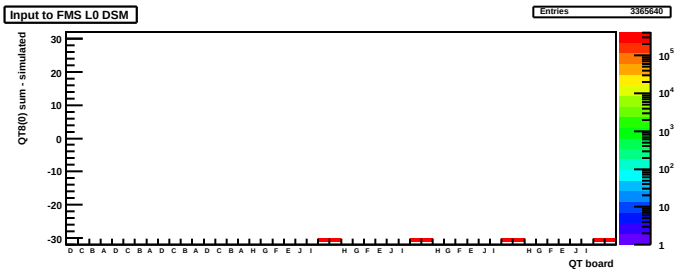

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

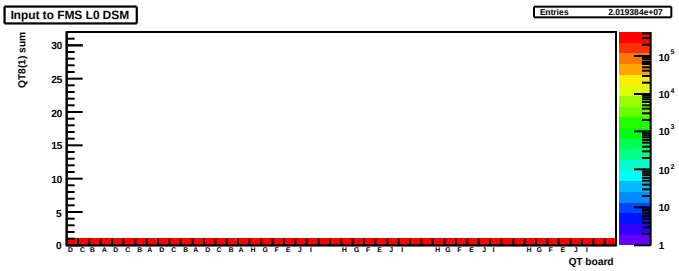

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

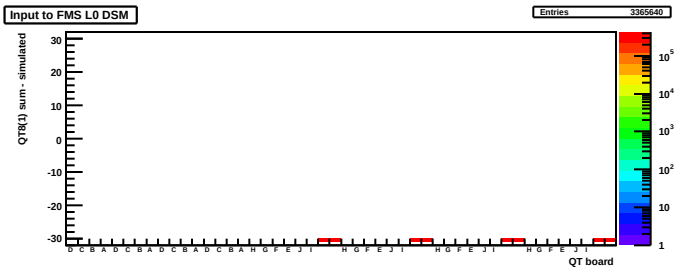

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

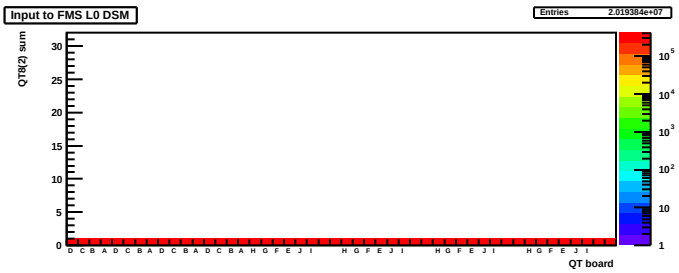

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

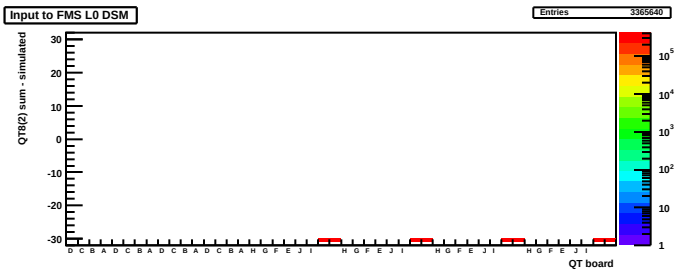

Input to FMS L0 DSM
Entries 2.019384e+07
QT8(0) sum
QT board

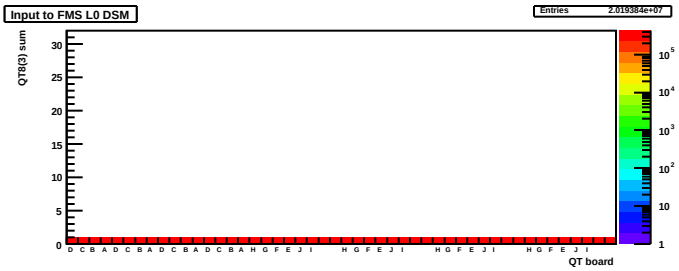

Input to FMS L0 DSM
Entries 3365640
QT8(0) sum - simulated
QT board

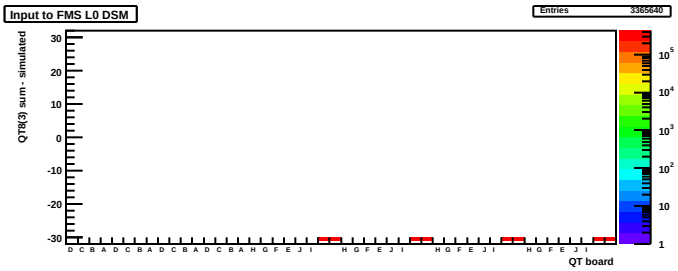

Input to FMS L0 DSM
Entries 2.019384e+07
QT8(1) sum
QT board

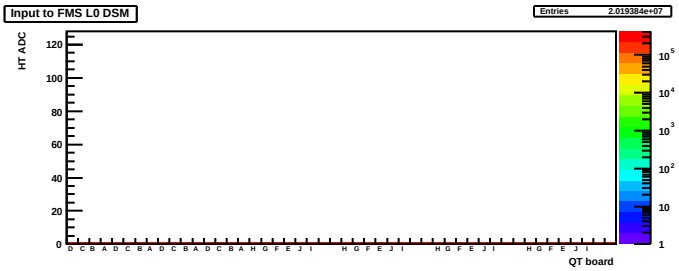

Input to FMS L0 DSM
Entries 3365640
QT8(1) sum - simulated
QT board

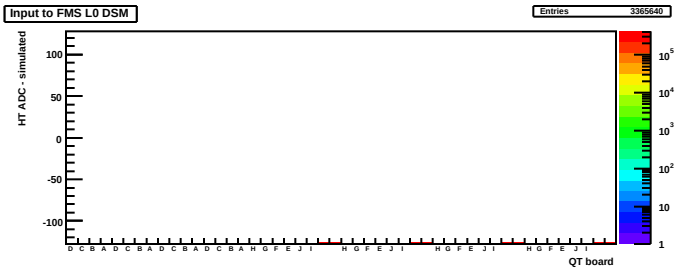

Input to FMS L0 DSM
Entries 2.019384e+07
QT8(2) sum
QT board

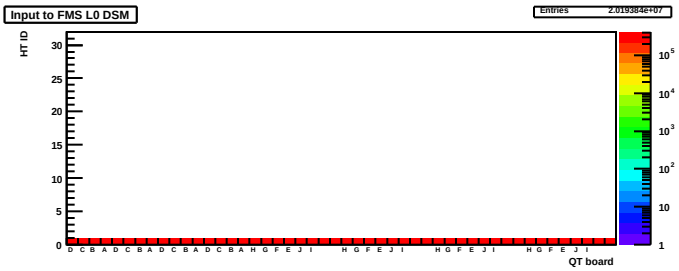

Input to FMS L0 DSM
Entries 3365640
QT8(2) sum - simulated
QT board

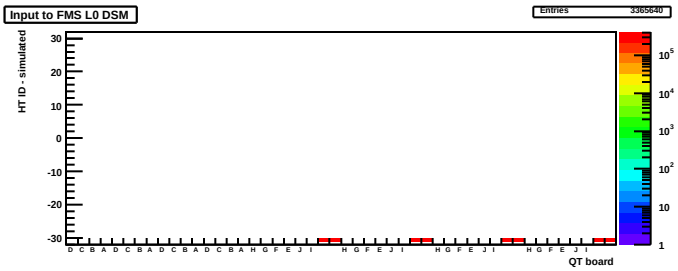

Input to FMS L0 DSM
Entries 2.019384e+07
QT8(3) sum
QT board

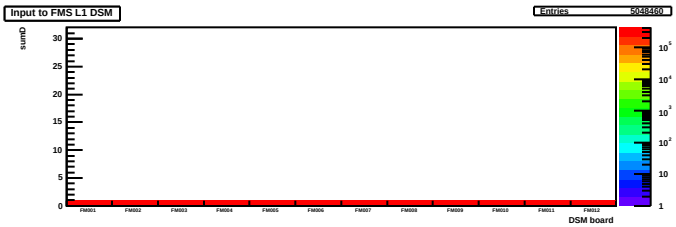

Input to FMS L0 DSM
Entries 3365640
QT8(3) sum - simulated
QT board

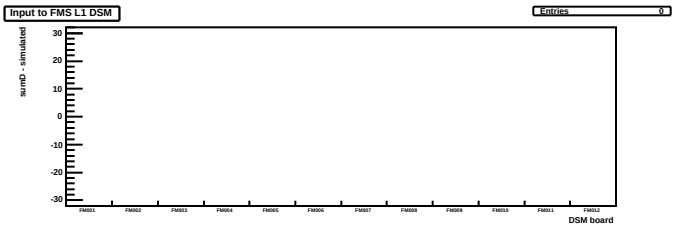

Input to FMS L0 DSM
Entries 2.019384e+07
HT ADC
QT board

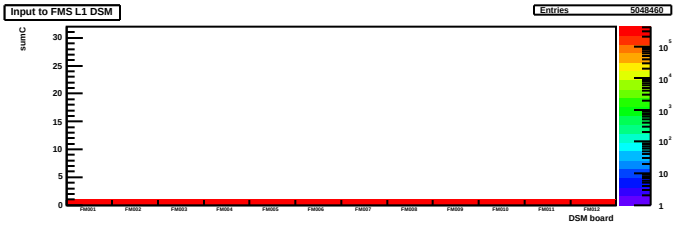

Input to FMS L0 DSM
Entries 3365640
HT ADC - simulated
QT board

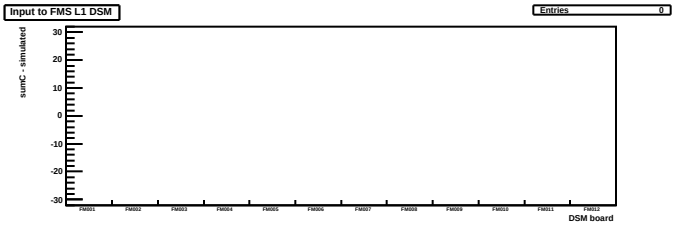

Input to FMS L0 DSM
Entries 2.019384e+07
HT ID
QT board

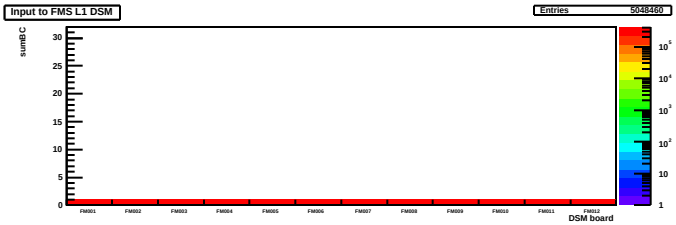

Input to FMS L0 DSM
Entries 3365640
HT ID - simulated
QT board

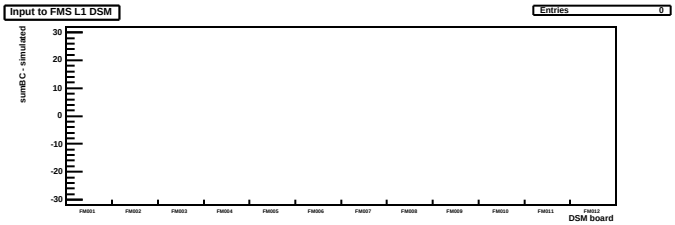

Input to FMS L1 DSM
Entries 5048460
sumD
DSM board

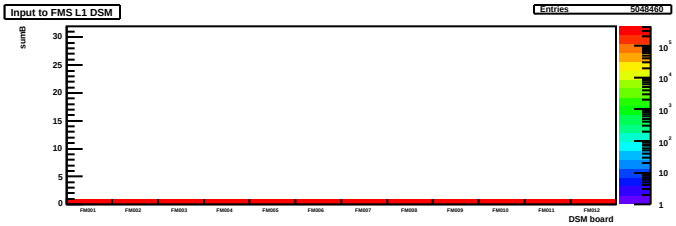

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

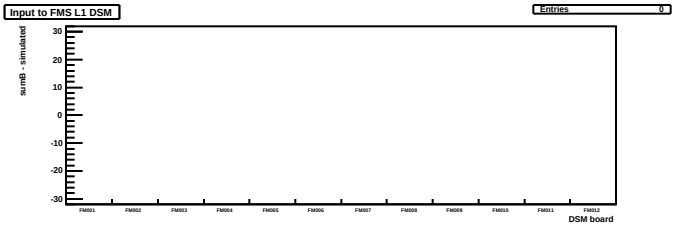

Input to FMS L1 DSM
Entries 5048460
sumC
DSM board

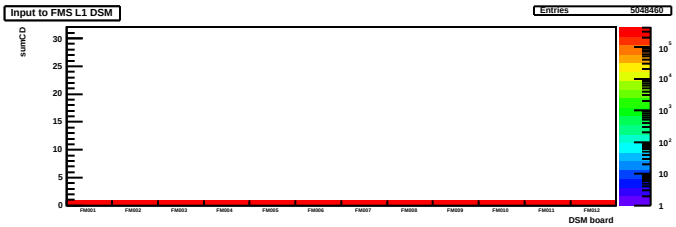

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

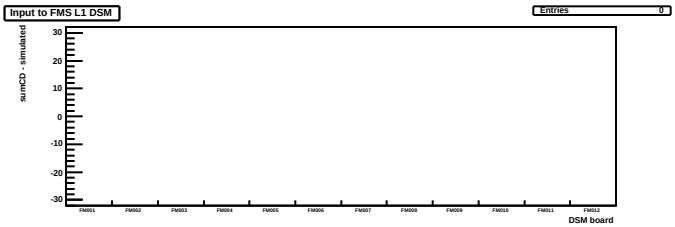

Input to FMS L1 DSM
Entries 5048460
sumBC
DSM board

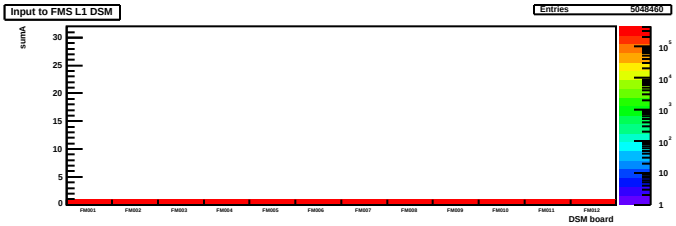

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

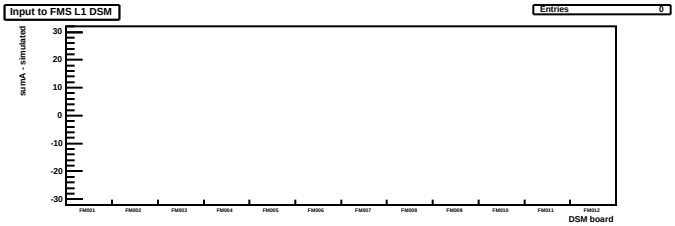

Input to FMS L1 DSM
Entries 5048460
sumB
DSM board

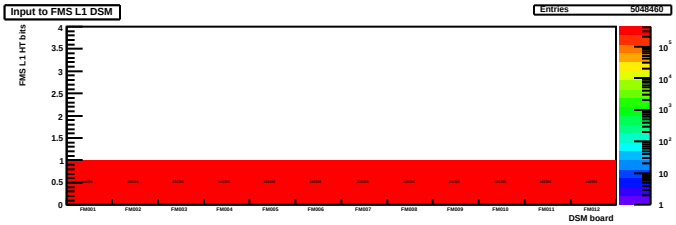

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

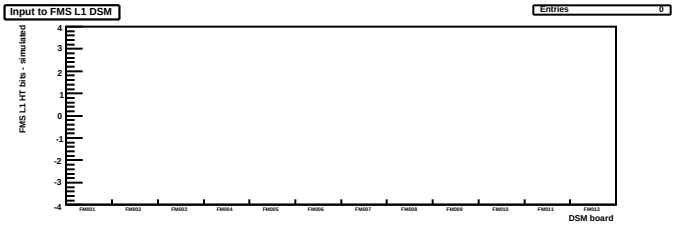

Input to FMS L1 DSM
Entries 5048460
sumCD
DSM board

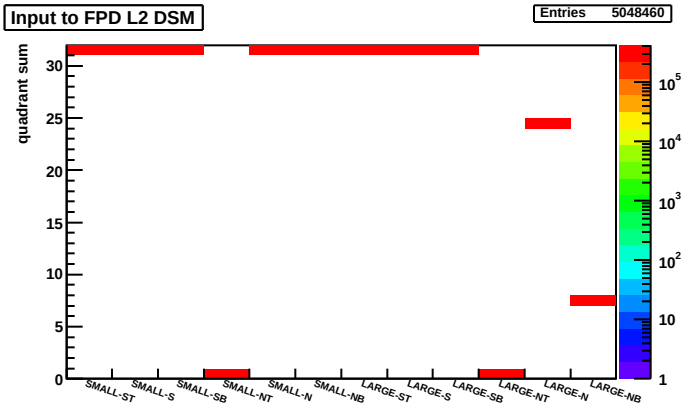

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

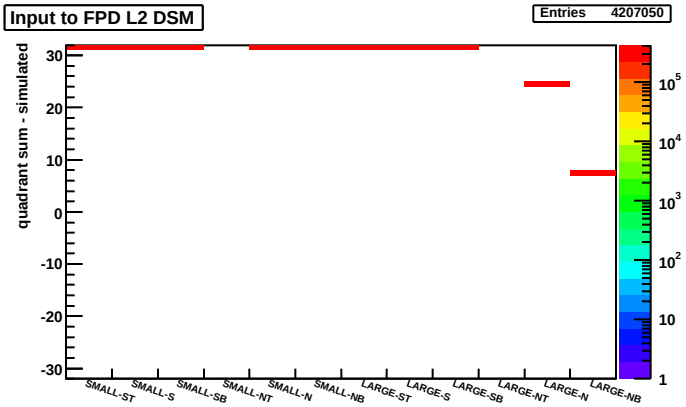

Input to FMS L1 DSM
Entries 5048460
sumA
DSM board

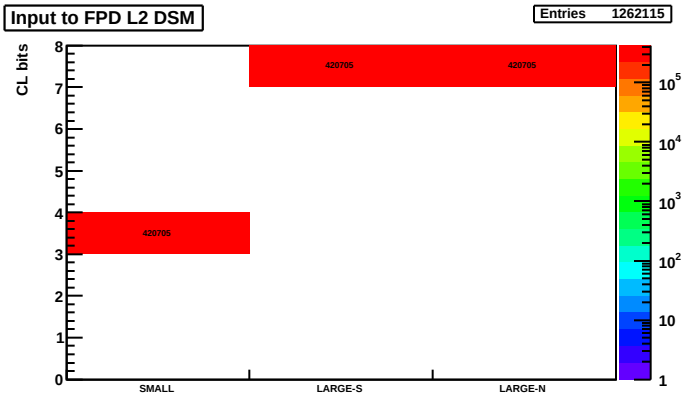

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

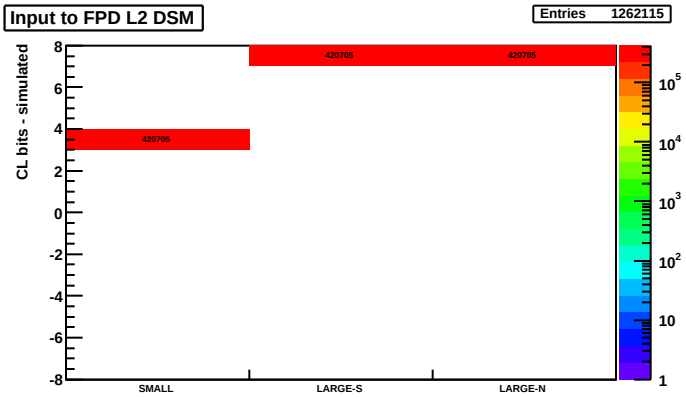

Input to FMS L1 DSM
Entries 5048460
FMS L1 HT bits
DSM board

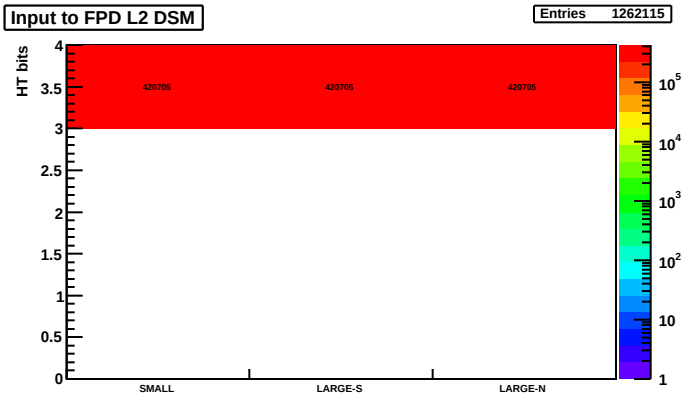

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

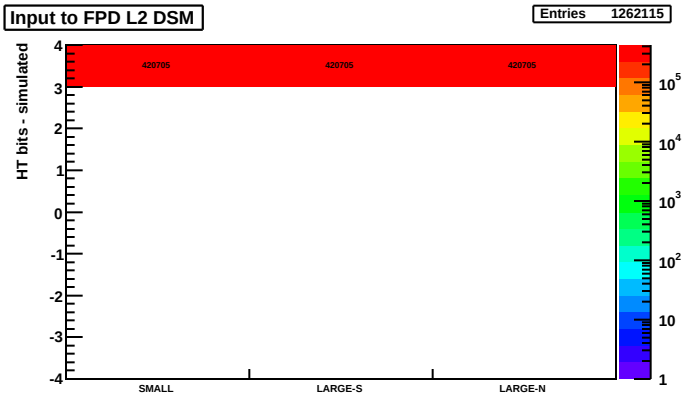

Input to FPD L2 DSM
Entries 5048460
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

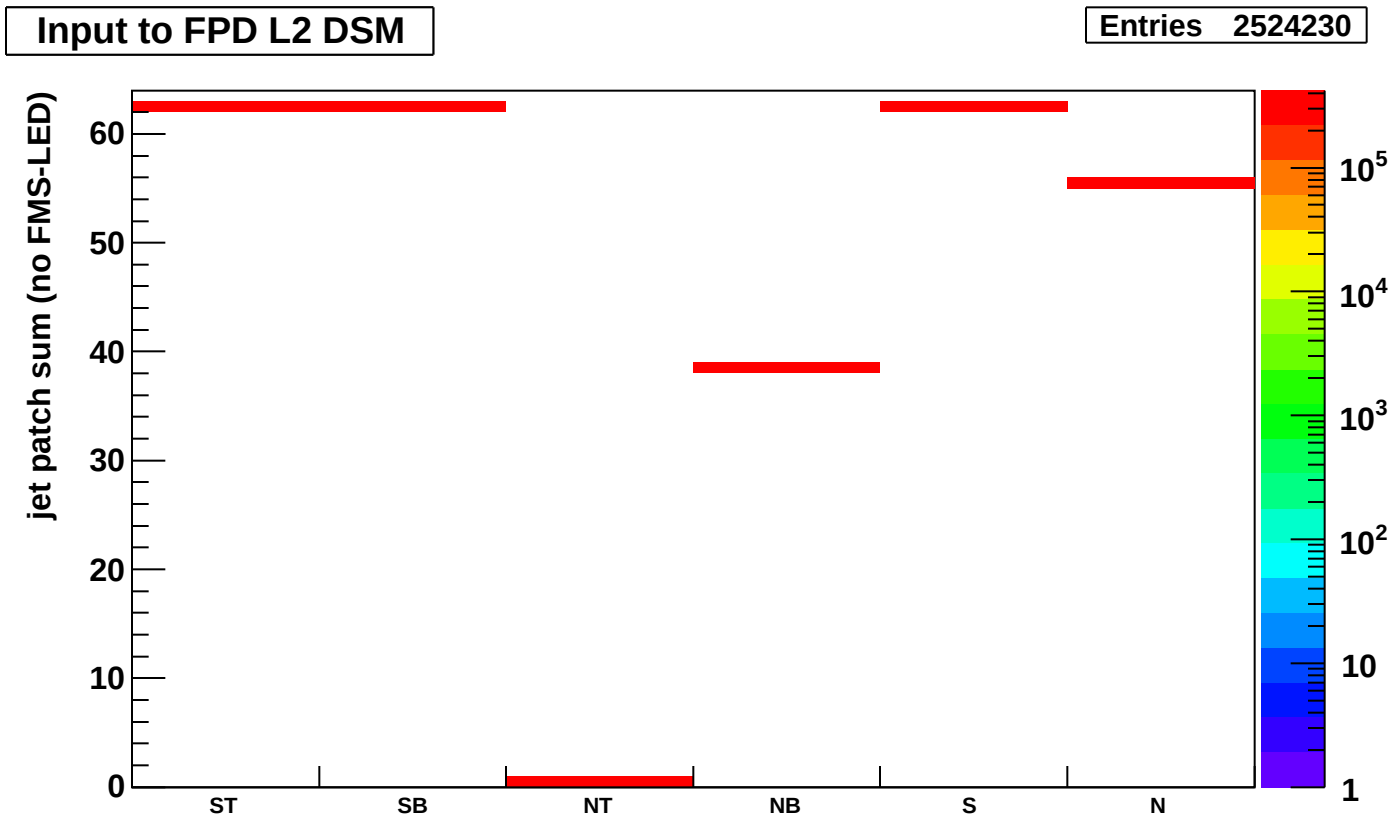

Input to FPD L2 DSM
Entries 4207050
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

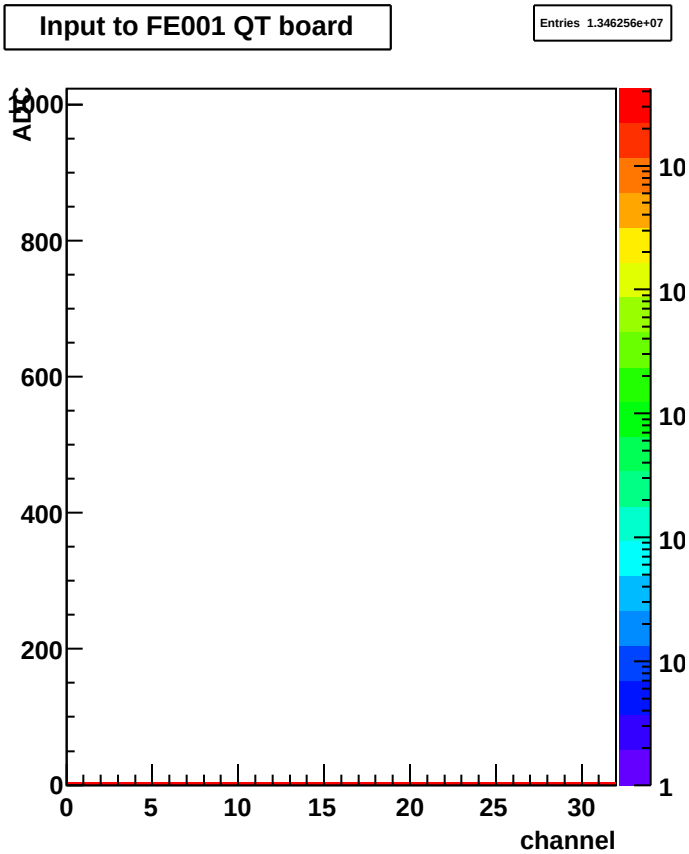

Input to FPD L2 DSM
Entries 1262115
CL bits
420705
420705
420705
SMALL
LARGE-S
LARGE-N

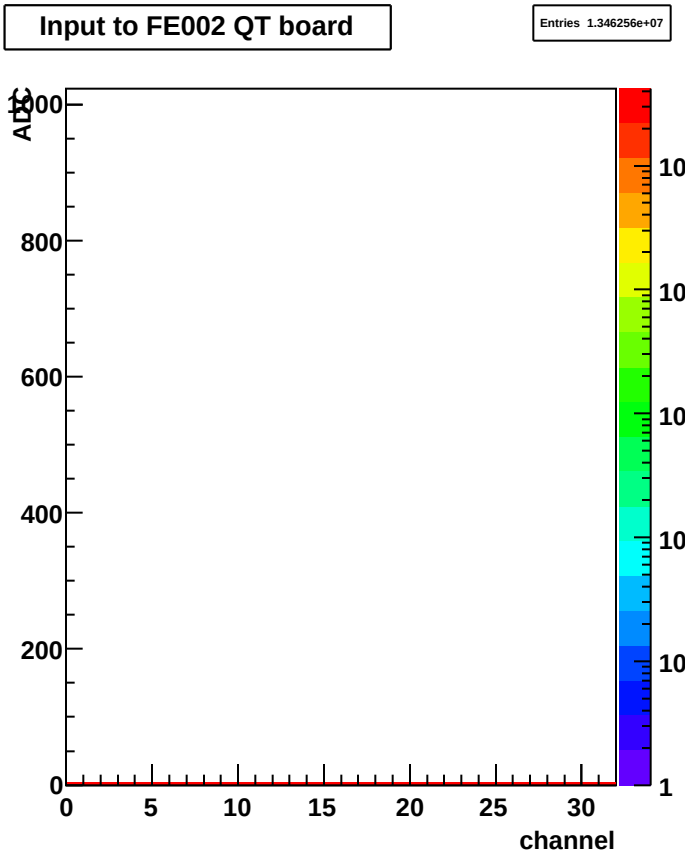

Input to FPD L2 DSM
Entries 1262115
CL bits - simulated
420705
420705
420705
SMALL
LARGE-S
LARGE-N

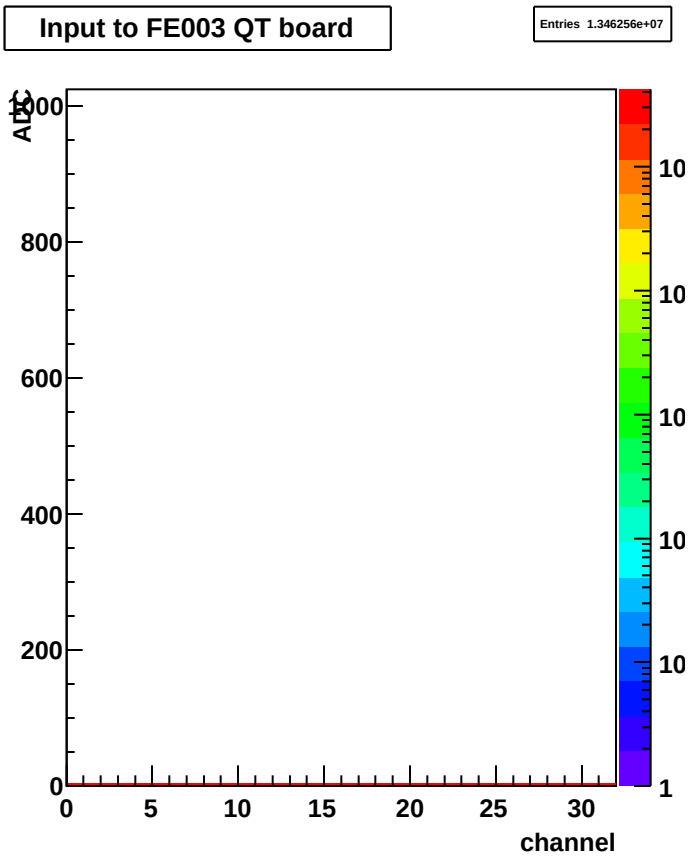

Input to FPD L2 DSM
Entries 1262115
HT bits
420705
420705
420705
SMALL
LARGE-S
LARGE-N

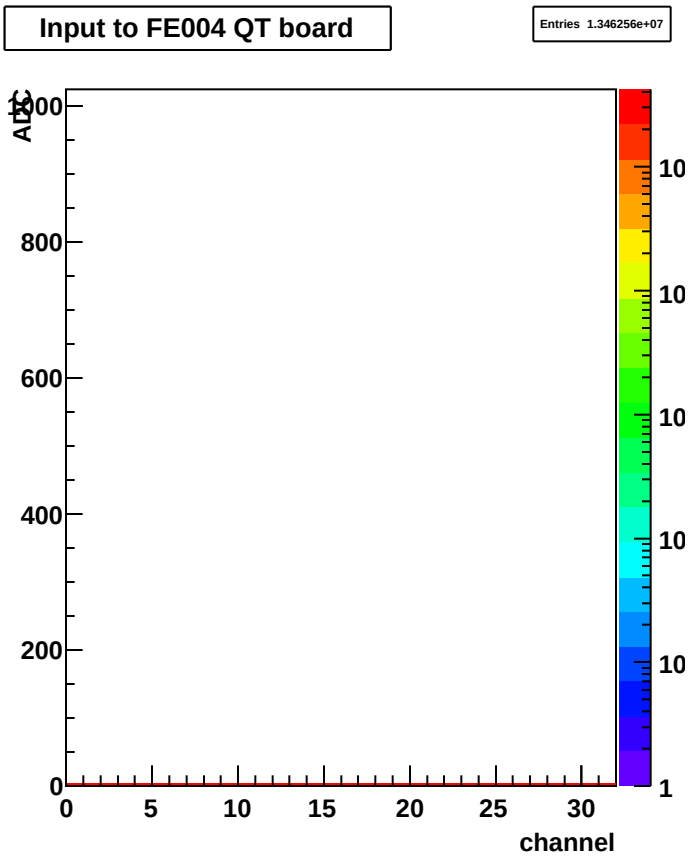

Input to FPD L2 DSM
Entries 1262115
HT bits - simulated
420705
420705
420705
SMALL
LARGE-S
LARGE-N

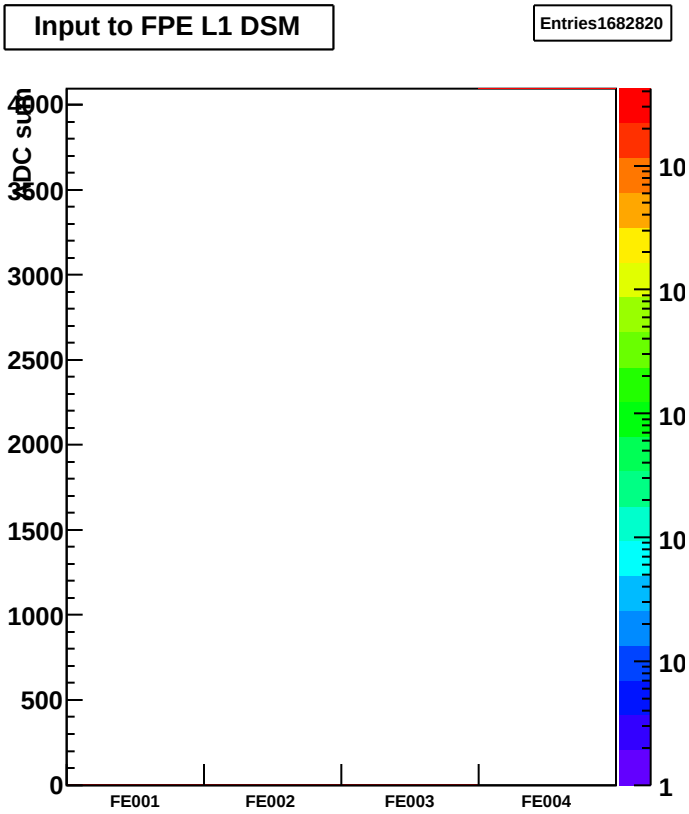

Input to FPD L2 DSM
Entries 2524230
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

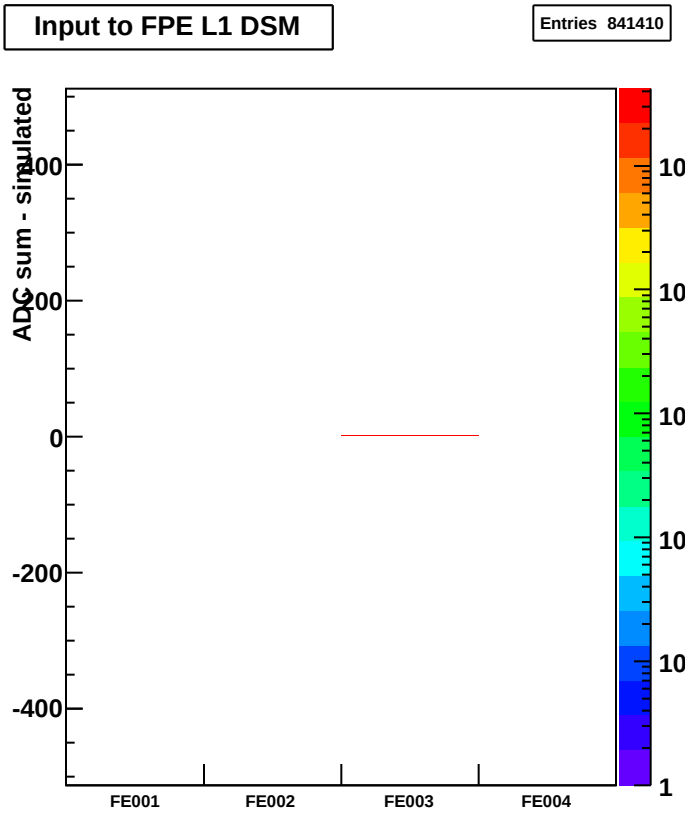

Input to FE001 QT board
Entries 1.346256e+07
ADC
channel

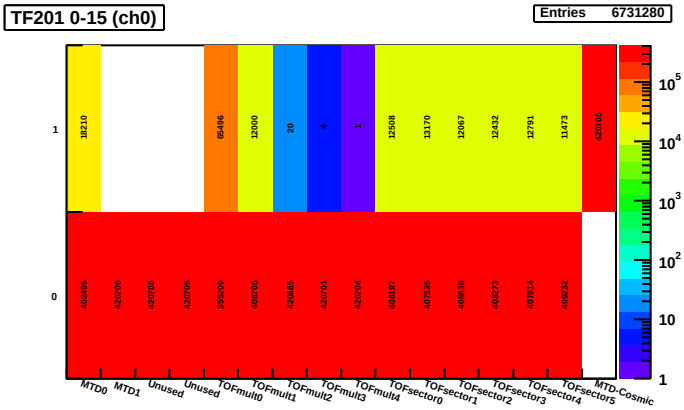

Input to FE002 QT board
Entries 1.346256e+07
ADC
channel

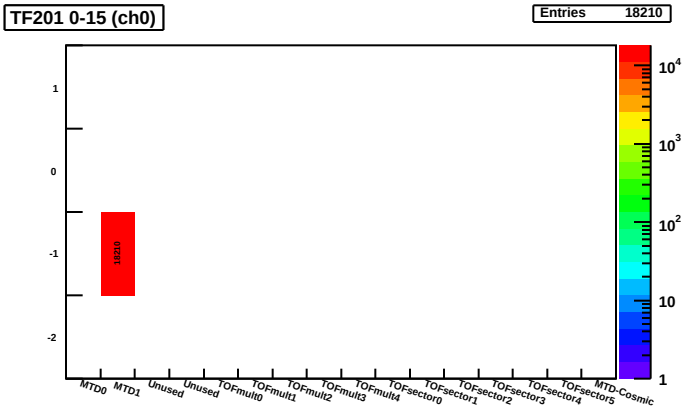

Input to FE003 QT board
Entries 1.346256e+07
ADC
channel

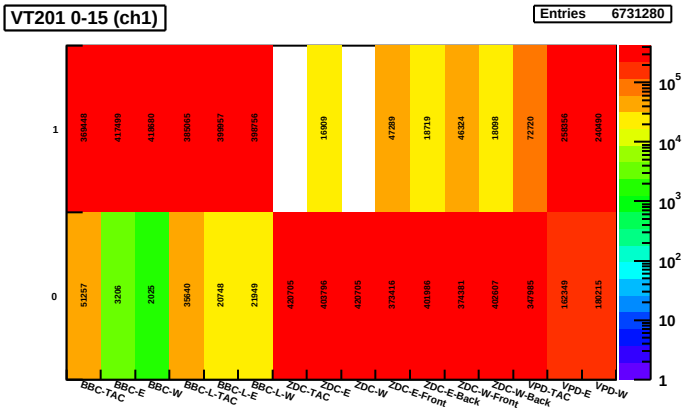

Input to FE004 QT board
Entries 1.346256e+07
ADC
channel

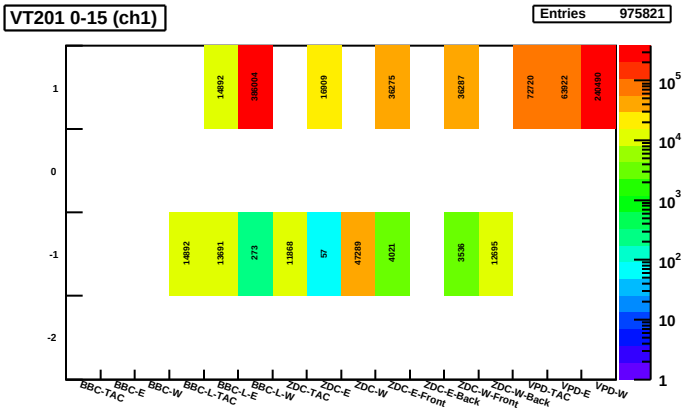

Input to FPE L1 DSM
Entries1682820
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

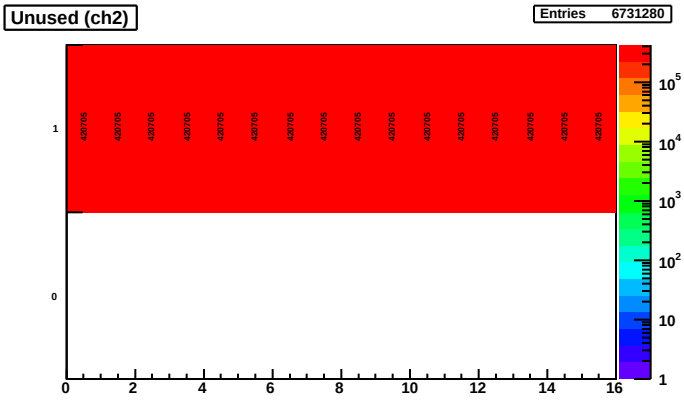

Input to FPE L1 DSM
Entries 841410
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

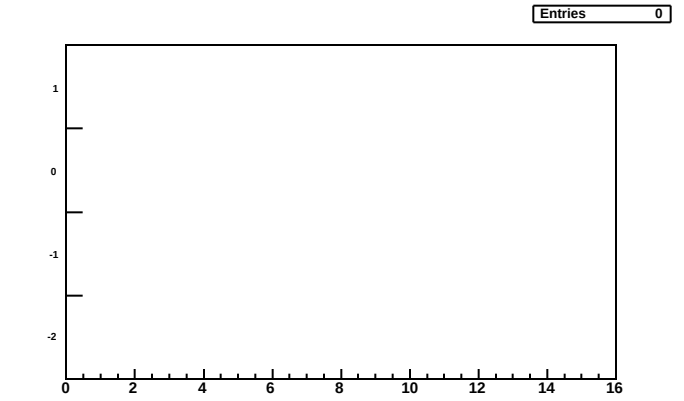

TF201 0-15 (ch0)
Entries 6731280
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

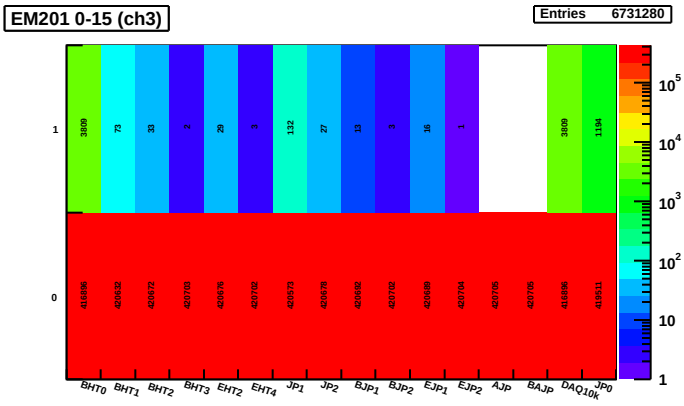

TF201 0-15 (ch0)
Entries 18210
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

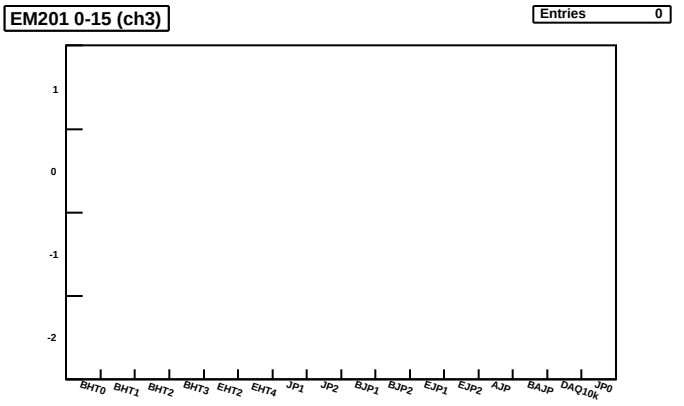

VT201 0-15 (ch1)
Entries 6731280
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 975821
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 6731280


Entries 0


EM201 0-15 (ch3)
Entries 6731280
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


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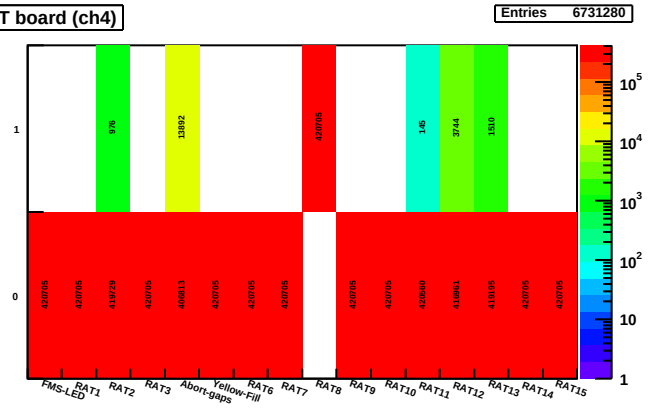
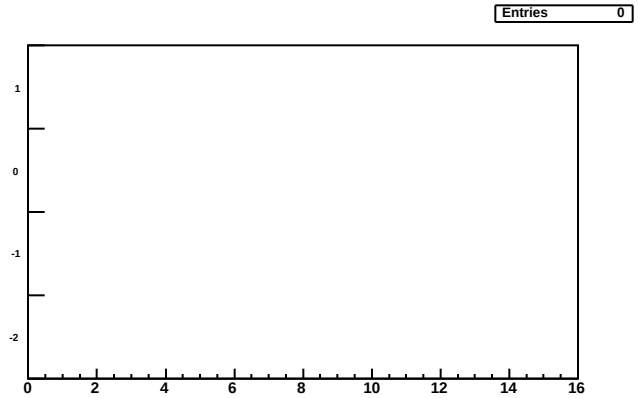
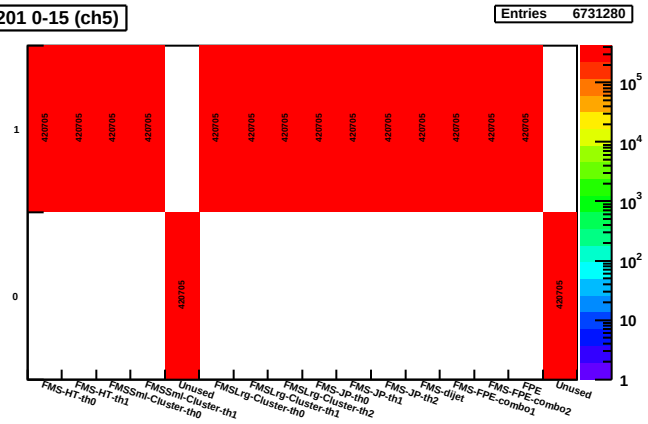
RAT board (ch4)





FP201 0-15 (ch5)



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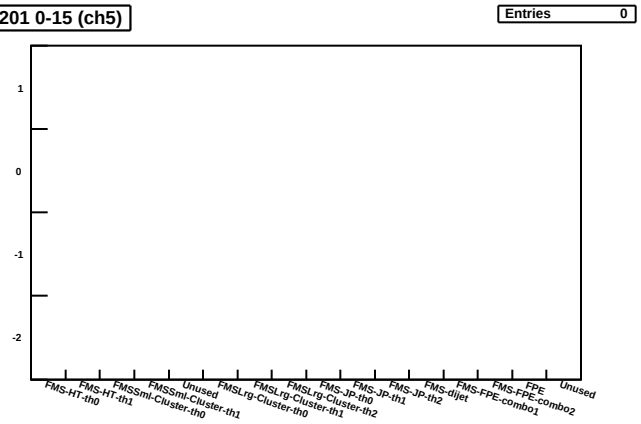
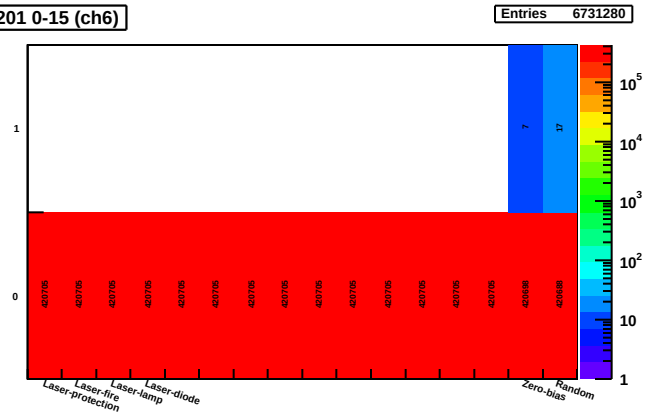
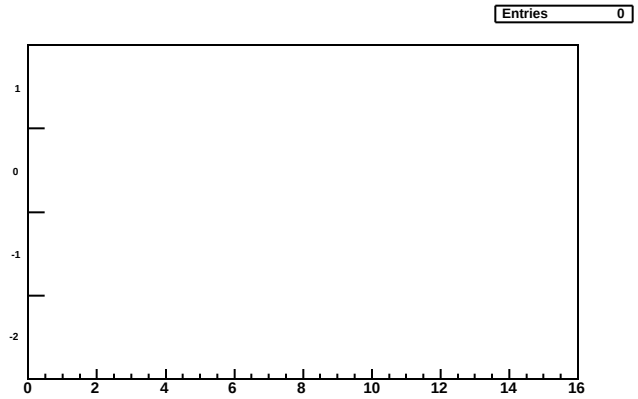
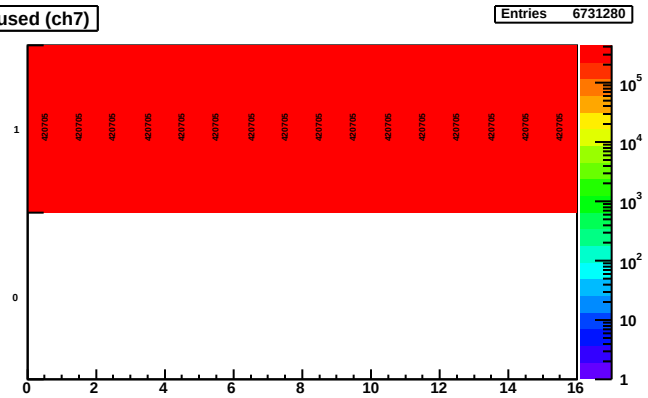
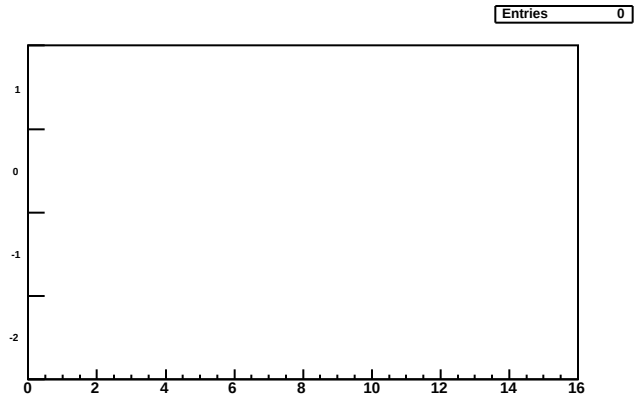


ST201 0-15 (ch6)





Unused (ch7)