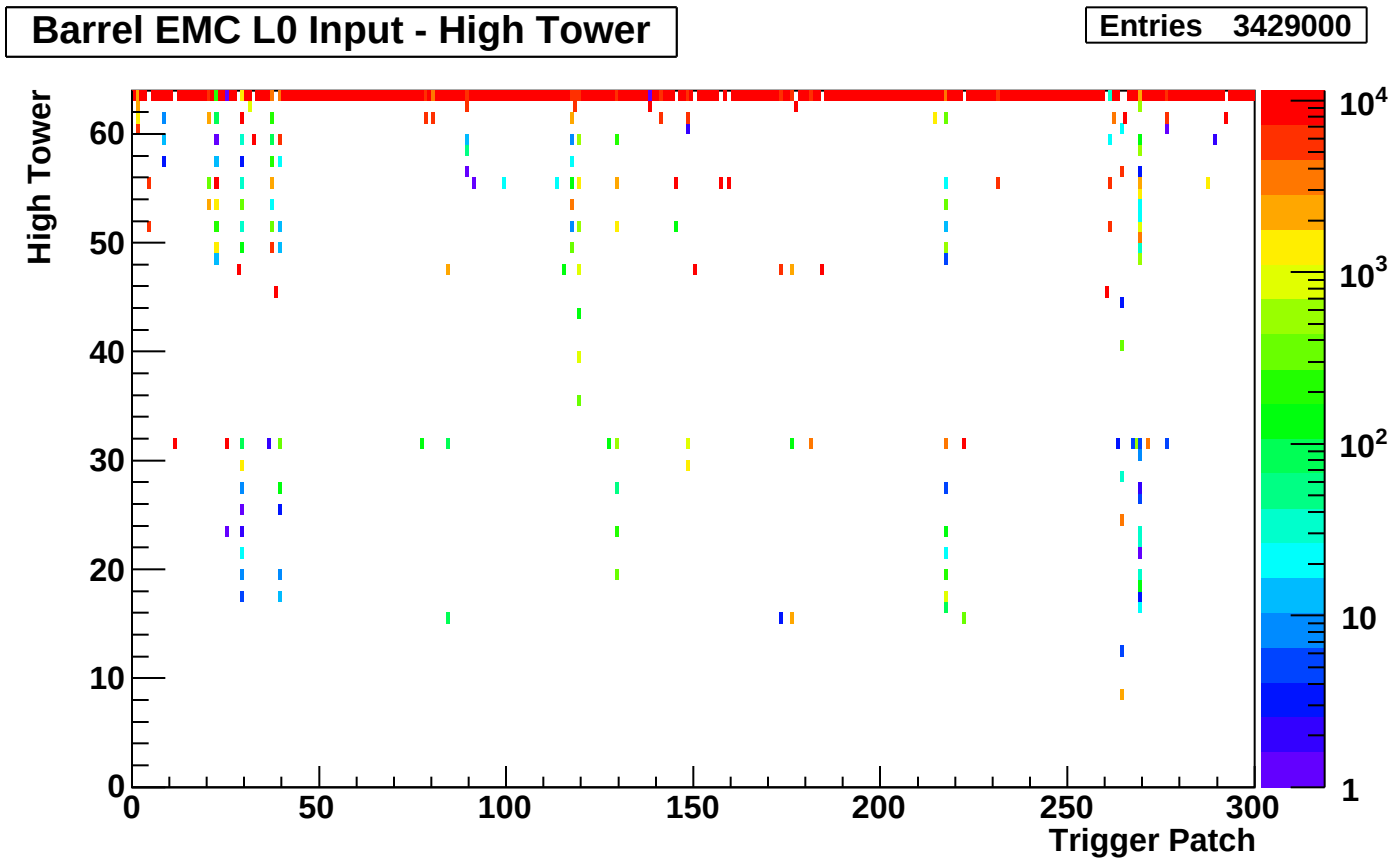
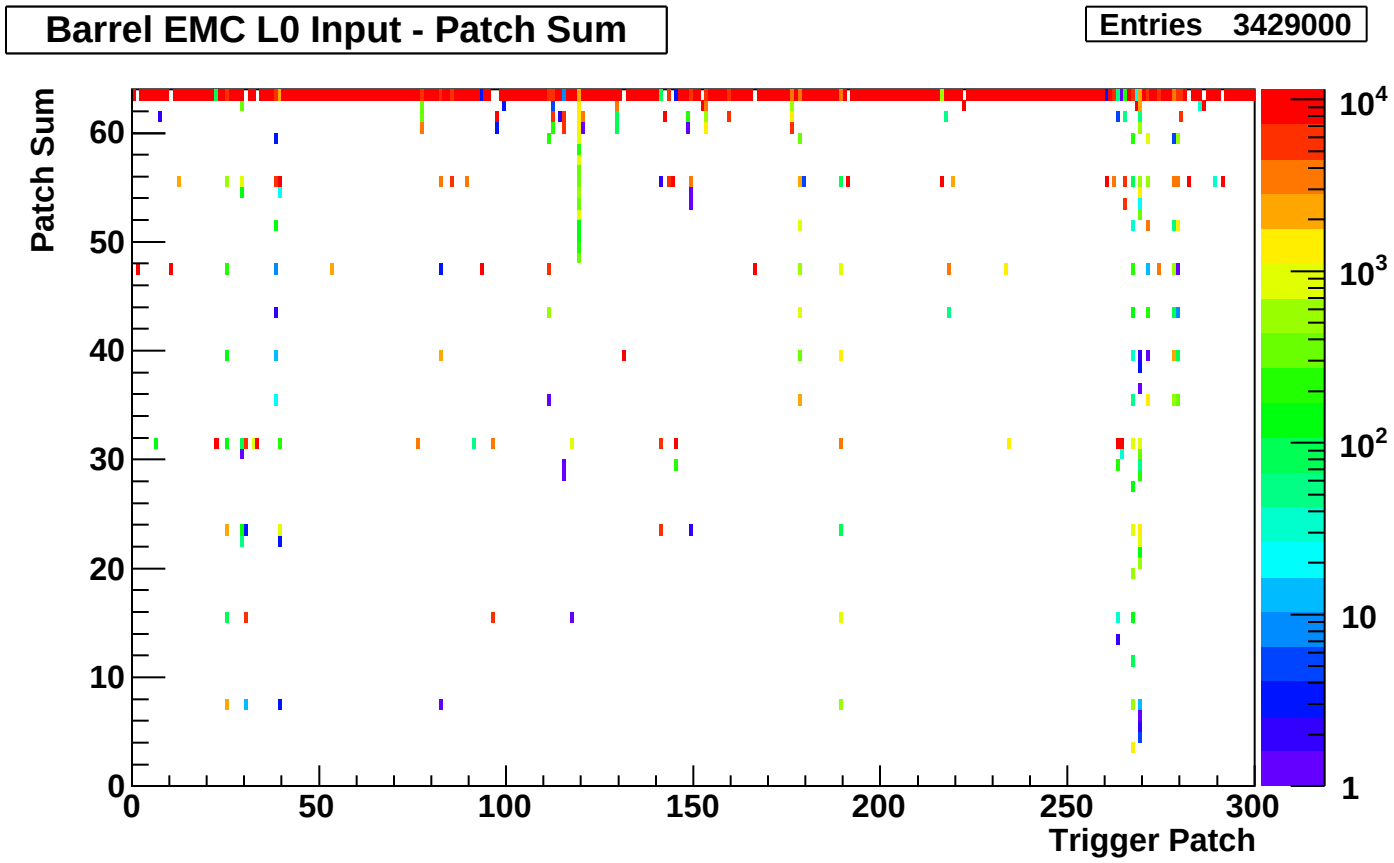
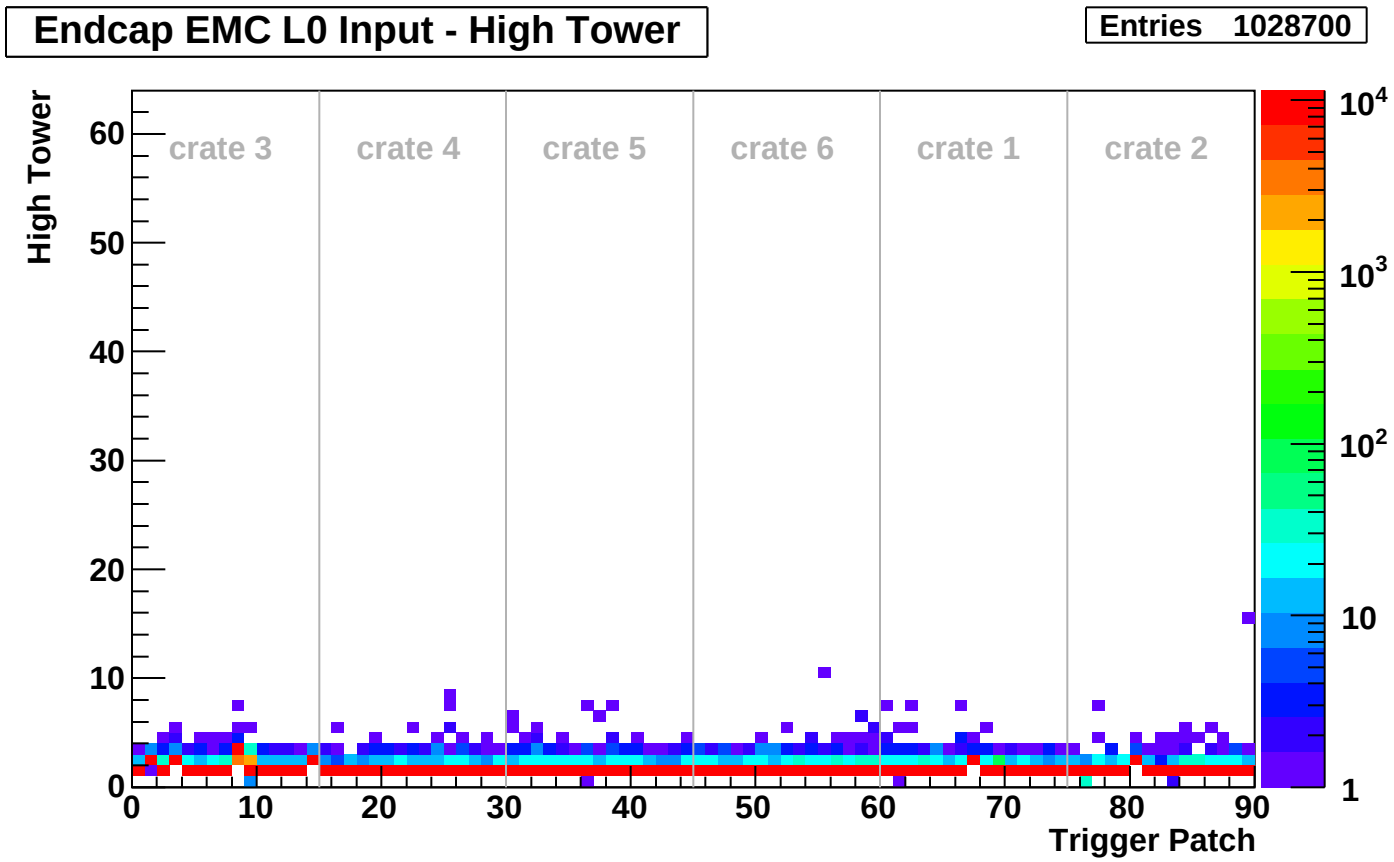
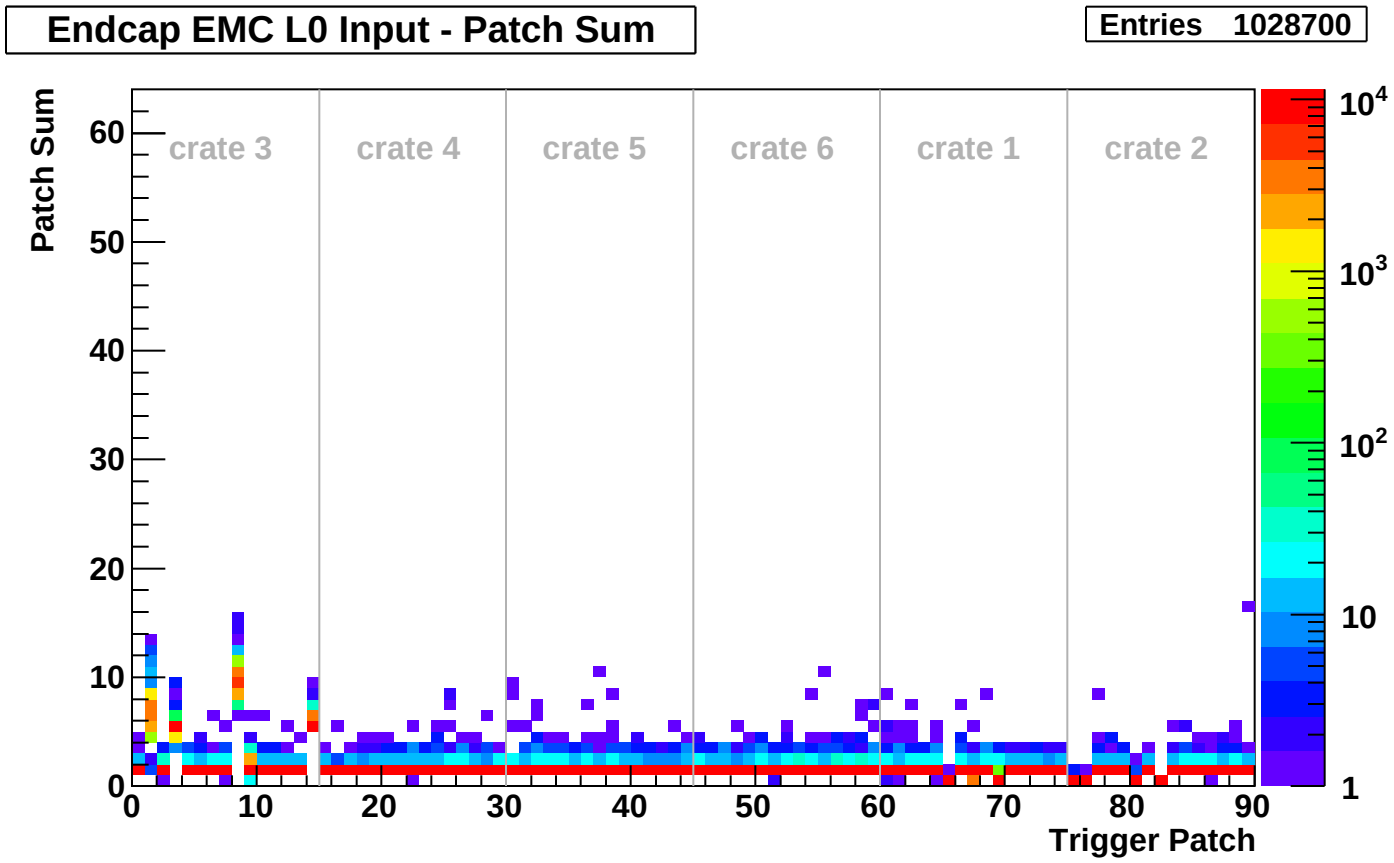
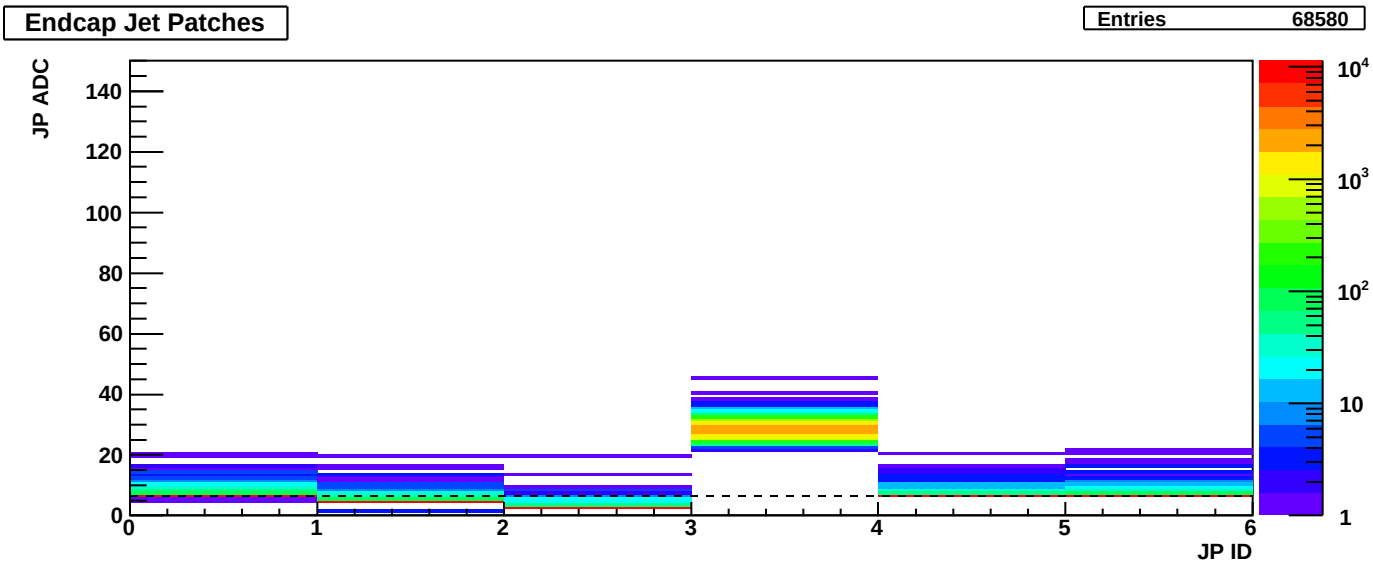
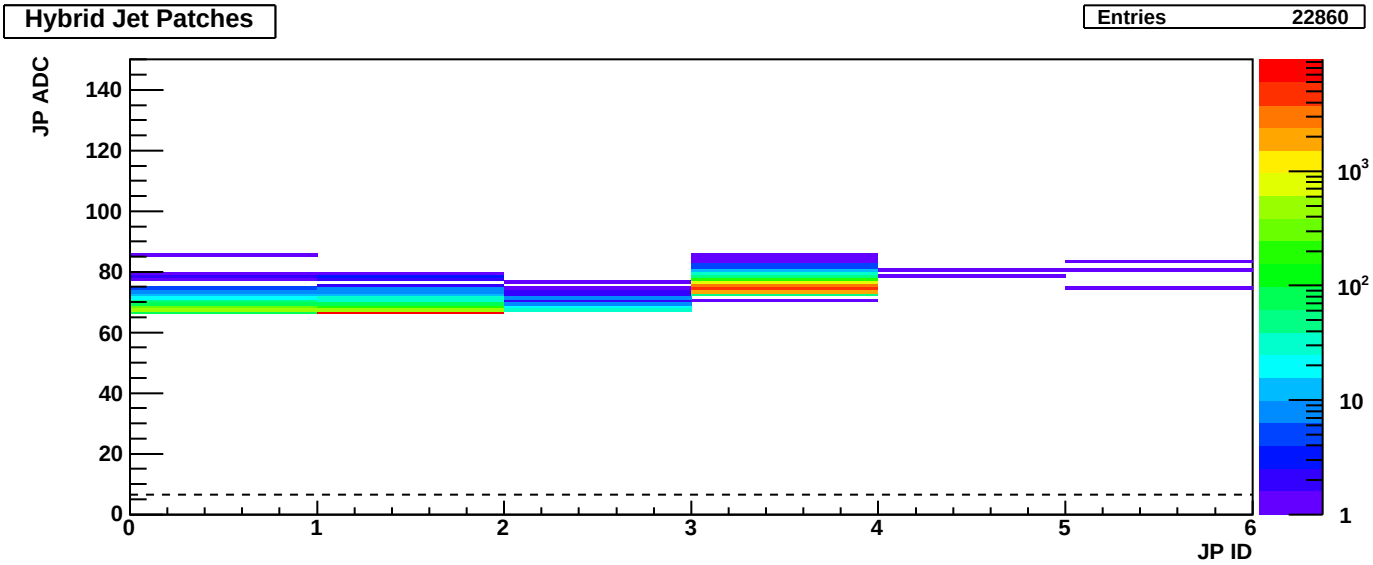

Barrel EMC L0 Input - High Tower
Entries 3429000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

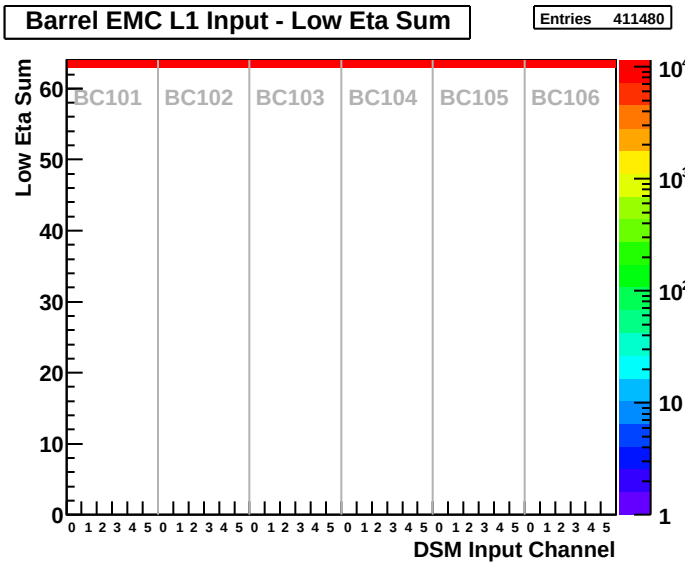

Barrel EMC L0 Input - Patch Sum
Entries 3429000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

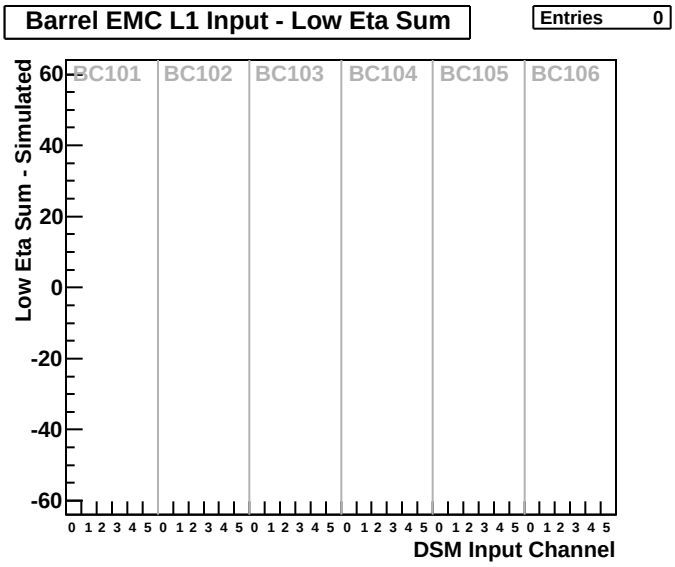

Endcap EMC L0 Input - High Tower
Entries 1028700
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

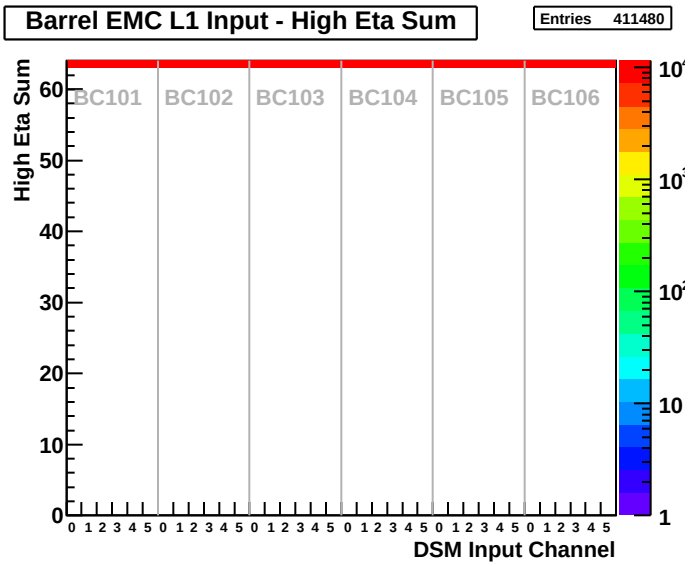

Endcap EMC L0 Input - Patch Sum
Entries 1028700
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

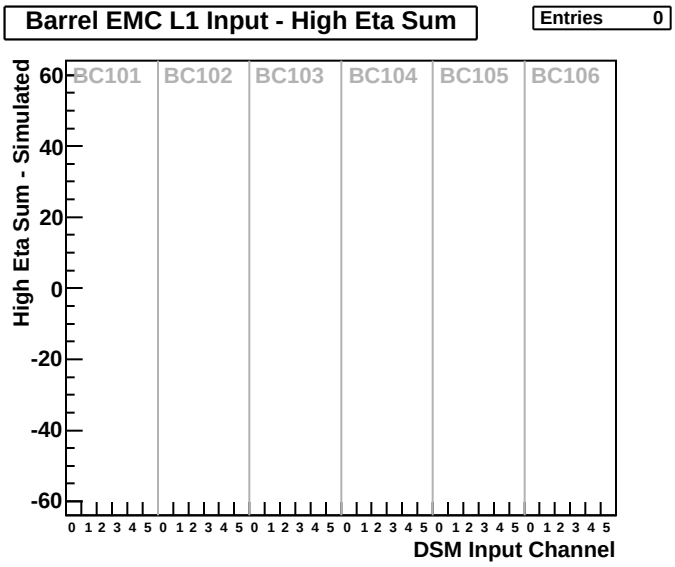

Endcap Jet Patches
Entries 68580
JP ADC
JP ID

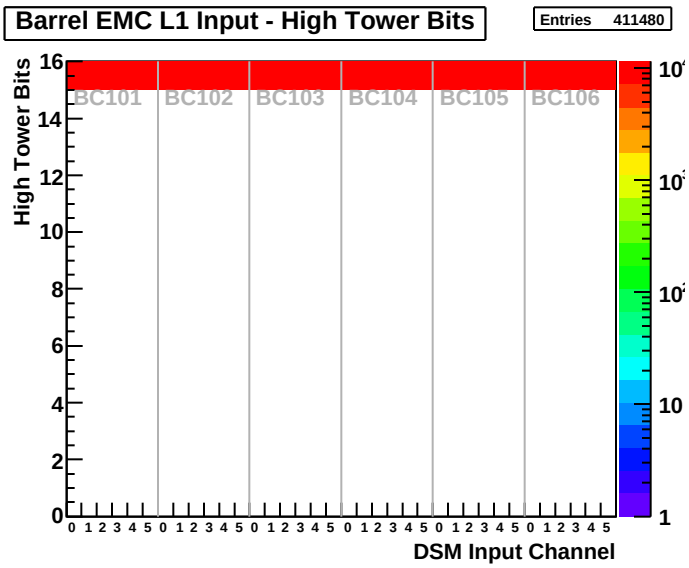

Hybrid Jet Patches
Entries 22860
JP ADC
JP ID

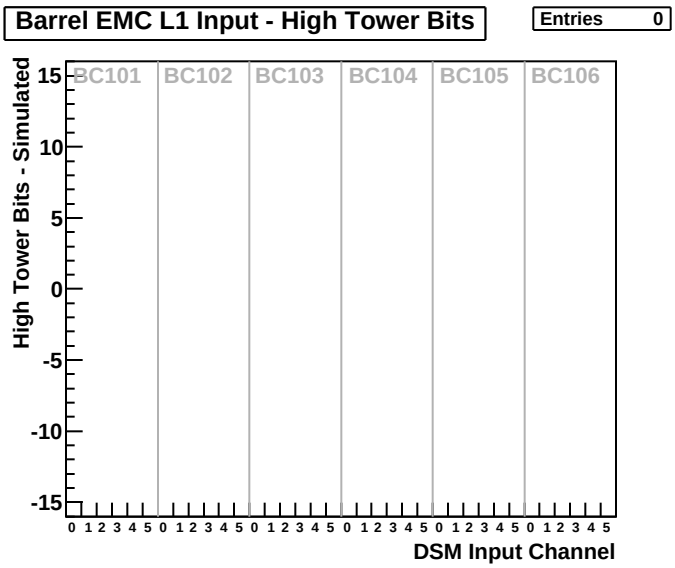

Barrel EMC L1 Input - Low Eta Sum
Entries 411480
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

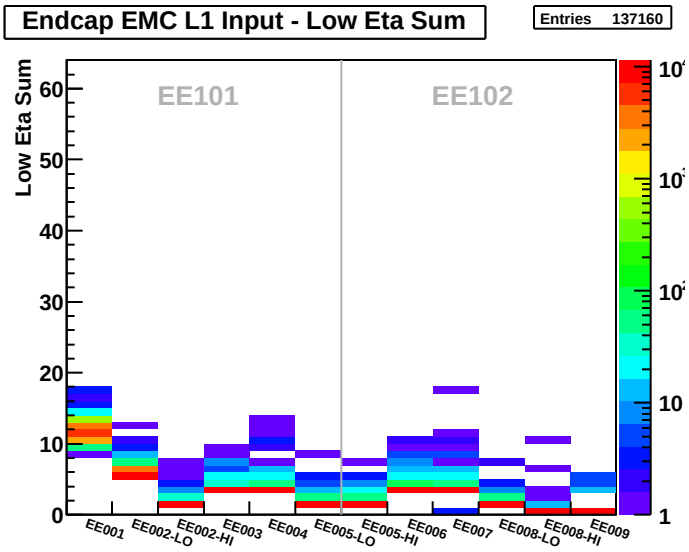

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

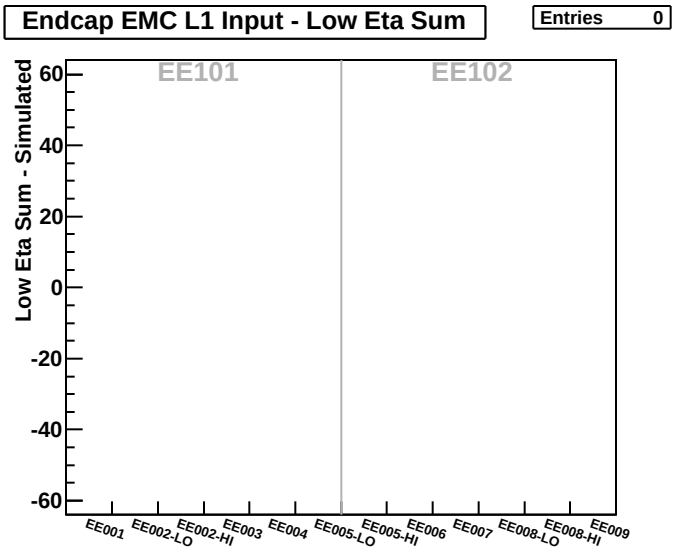

Barrel EMC L1 Input - High Eta Sum
Entries 411480
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

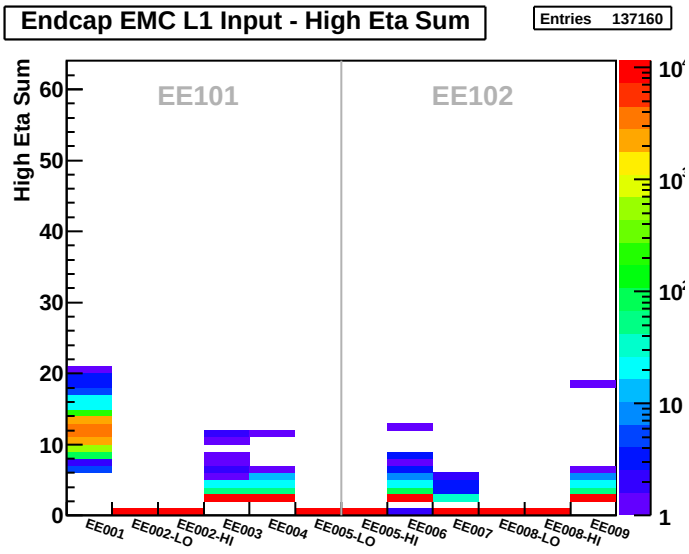

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

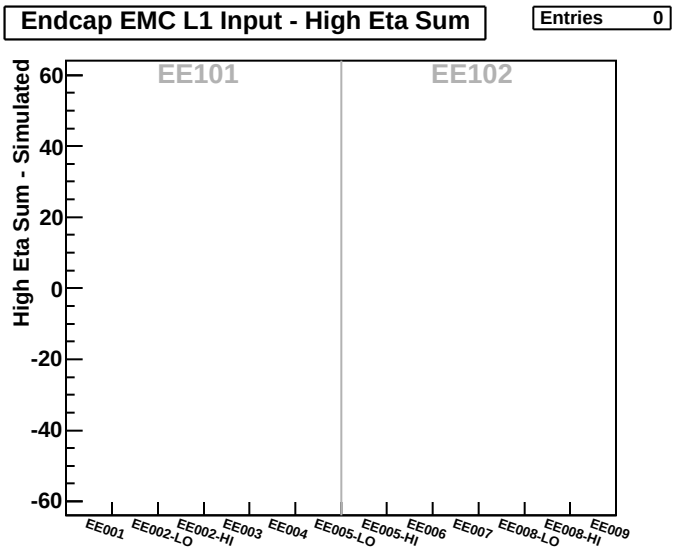

Barrel EMC L1 Input - High Tower Bits
Entries 411480
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

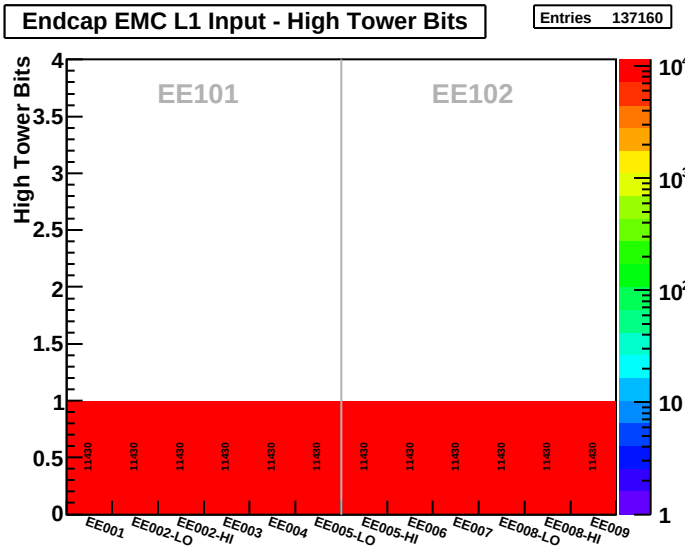

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

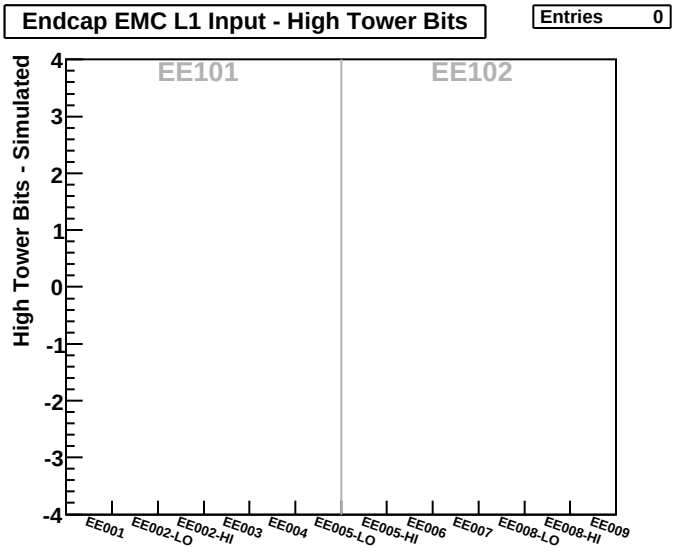

Endcap EMC L1 Input - Low Eta Sum
Entries 137160
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

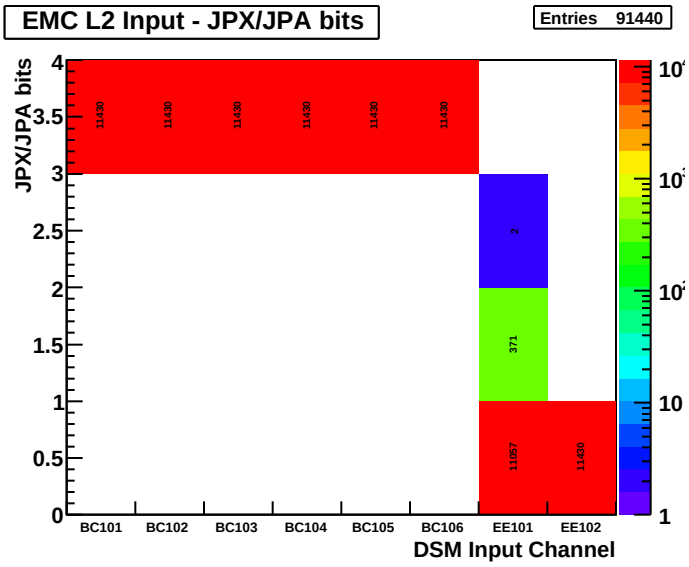

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

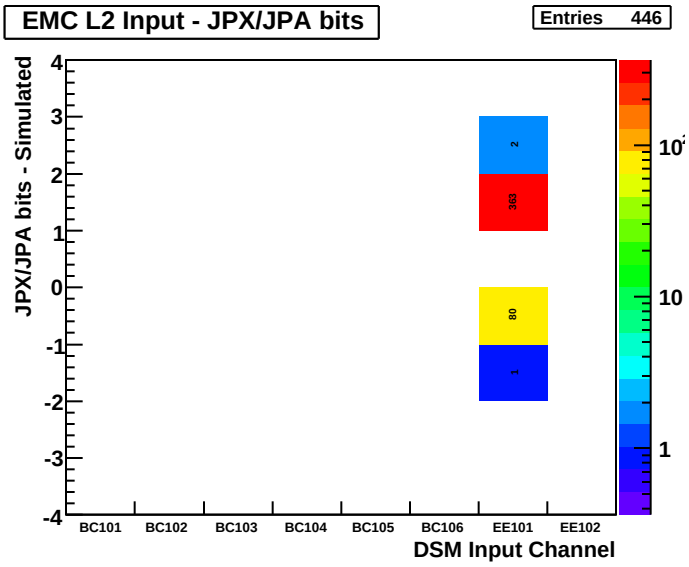

Endcap EMC L1 Input - High Eta Sum
Entries 137160
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

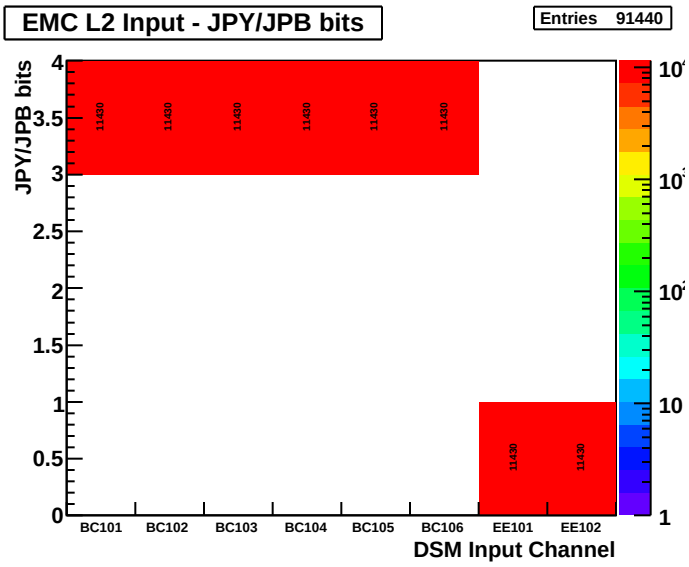

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

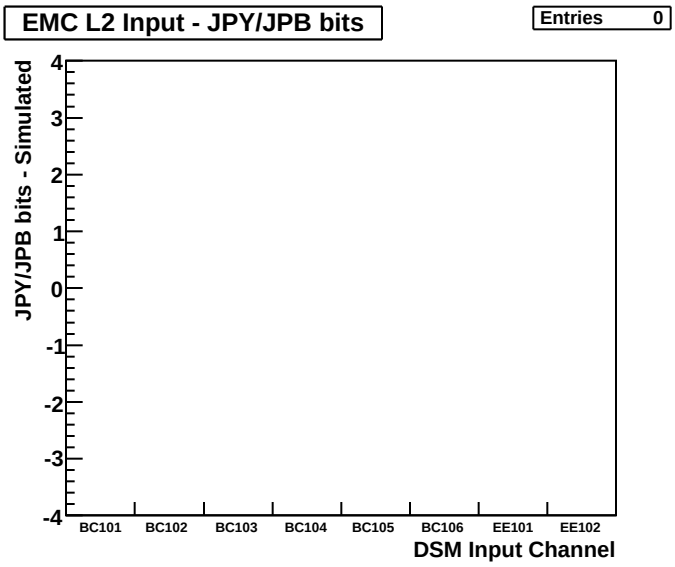

Endcap EMC L1 Input - High Tower Bits
Entries 137160
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

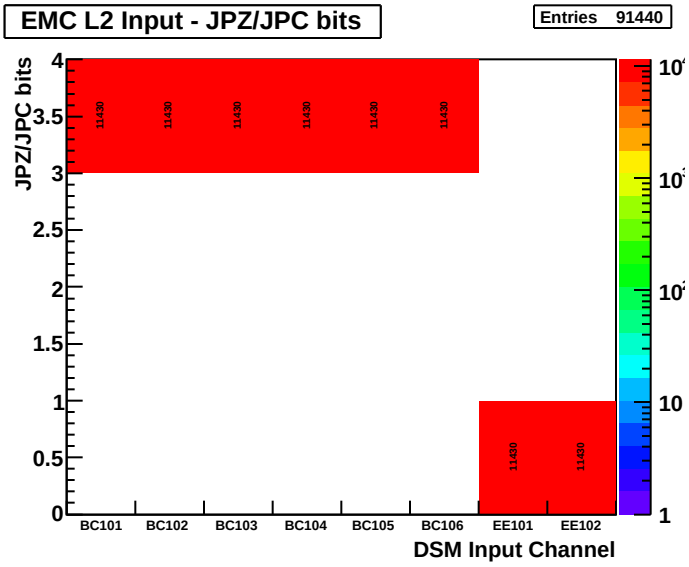

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

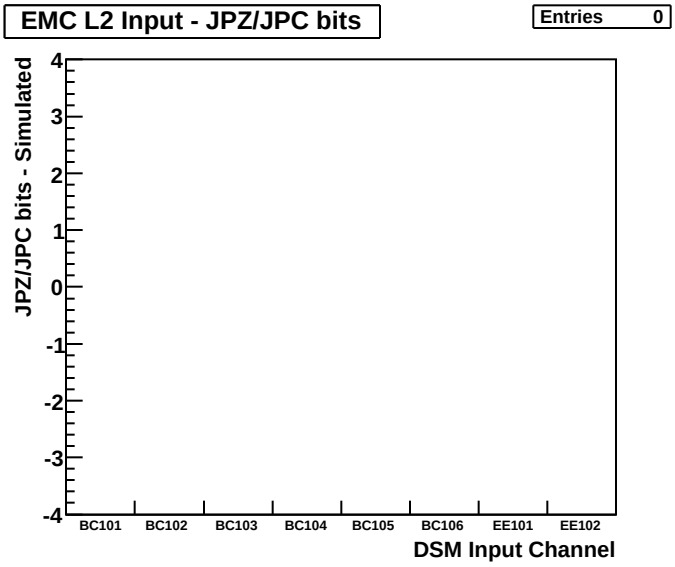

EMC L2 Input - JPX/JPA bits
Entries 91440
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
11430 11430 11430 11430 11430 11430
2
371
11057 11430

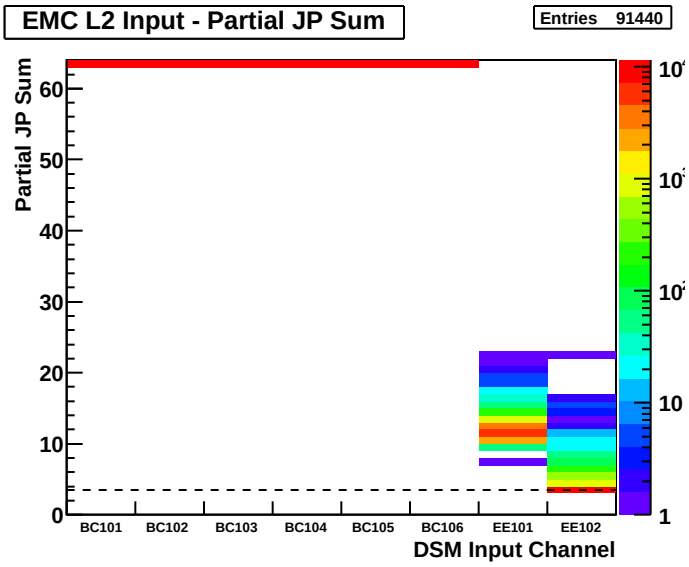

EMC L2 Input - JPX/JPA bits
Entries 446
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2
363
80
1

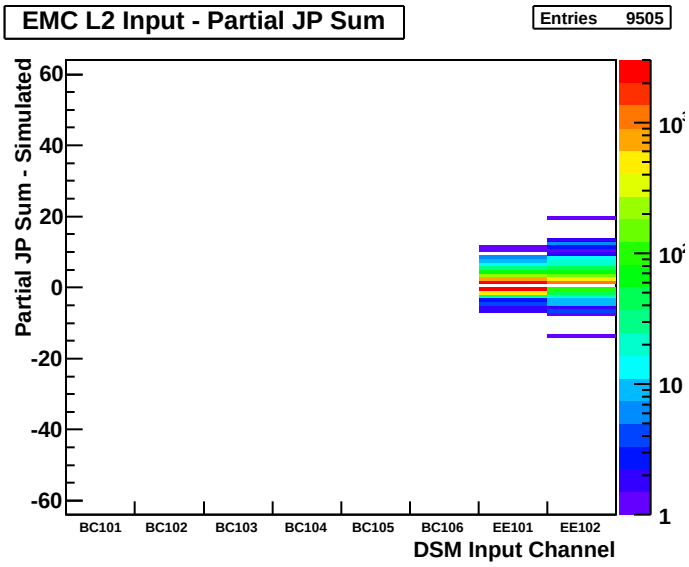

EMC L2 Input - JPY/JPB bits
Entries 91440
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
11430 11430 11430 11430 11430 11430
11430 11430

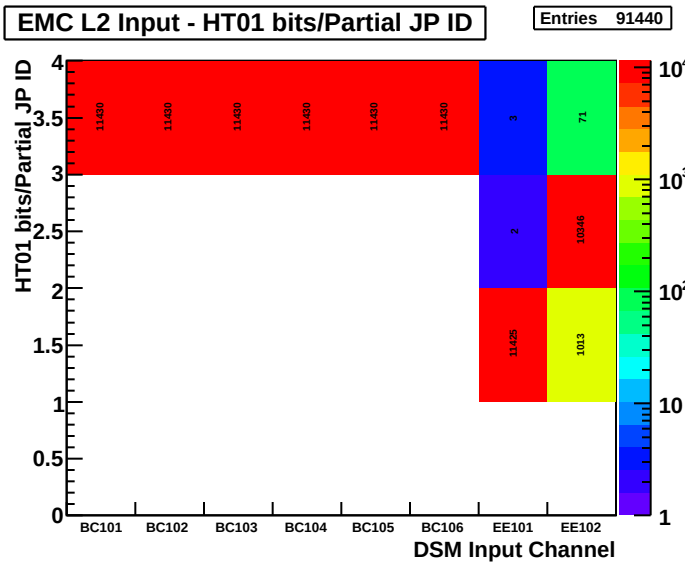

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

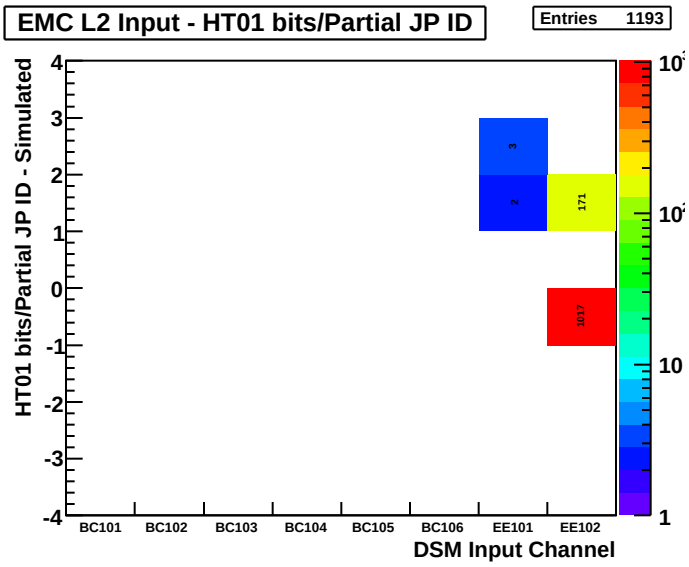

EMC L2 Input - JPZ/JPC bits
Entries 91440
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
11430 11430 11430 11430 11430 11430
11430 11430

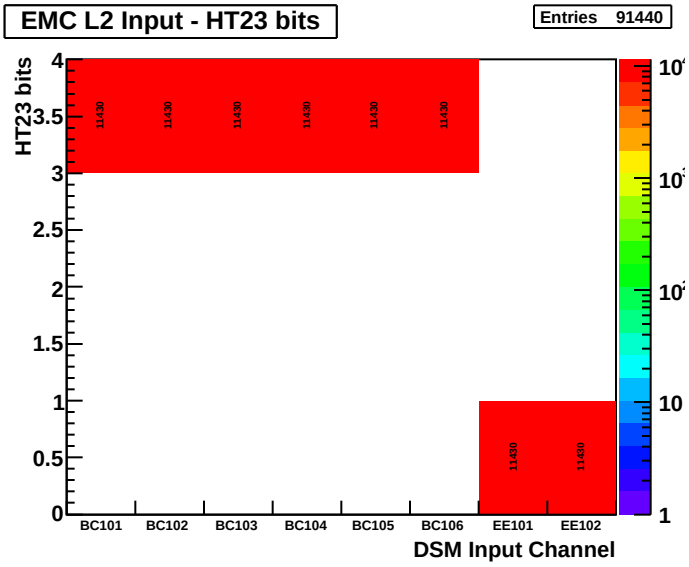

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

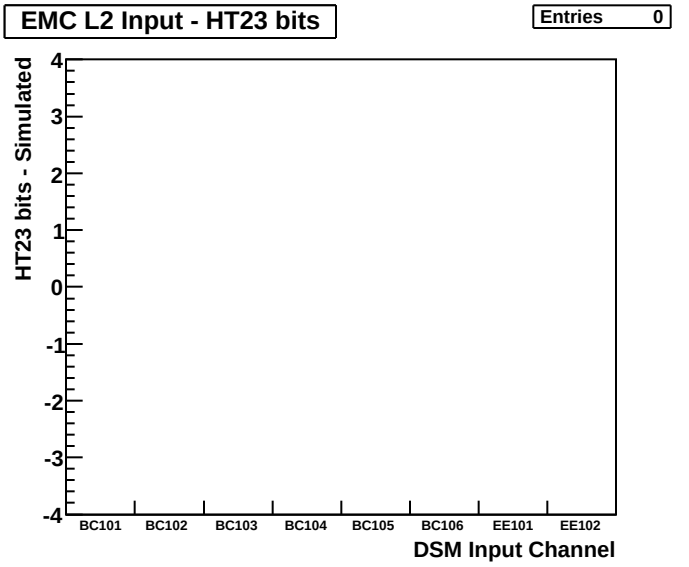

EMC L2 Input - Partial JP Sum
Entries 91440
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

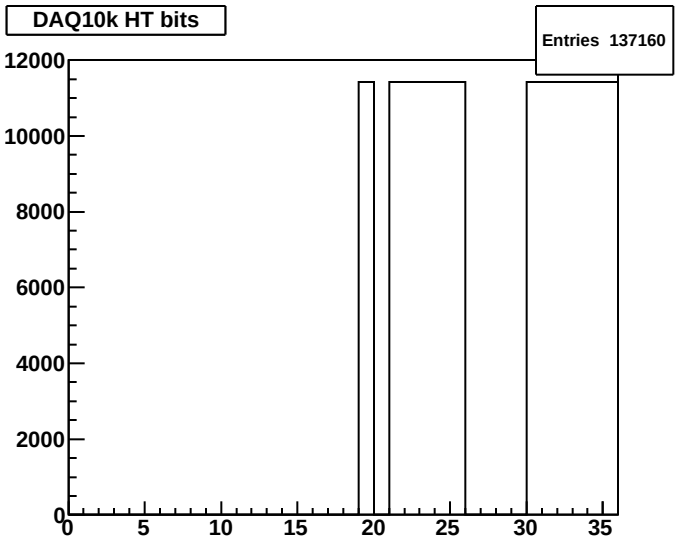

EMC L2 Input - Partial JP Sum
Entries 9505
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

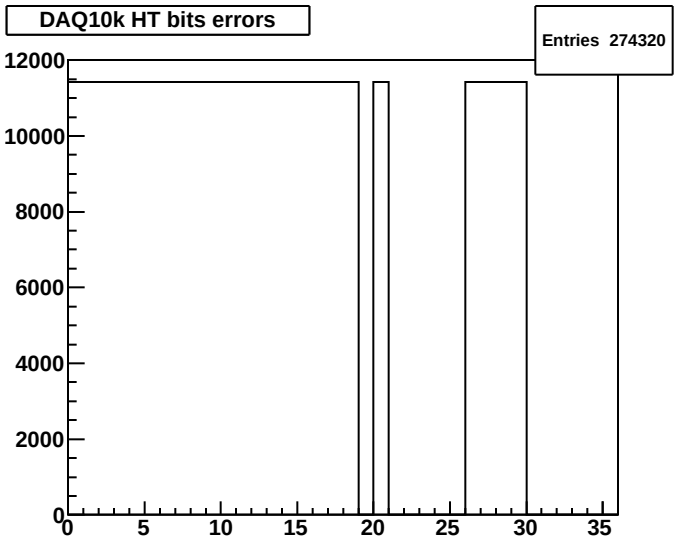

EMC L2 Input - HT01 bits/Partial JP ID
Entries 91440
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

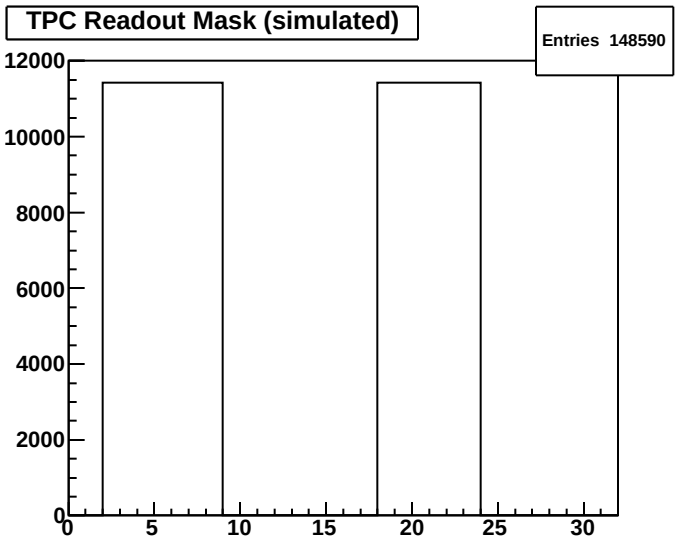

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1193
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

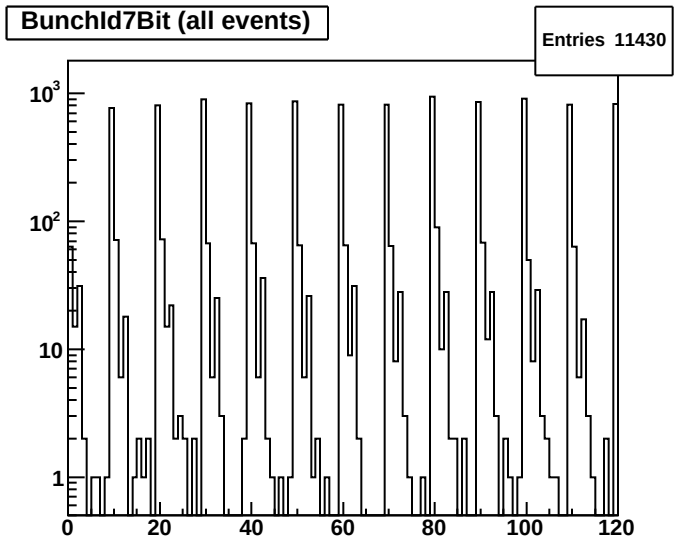

EMC L2 Input - HT23 bits
Entries 91440
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

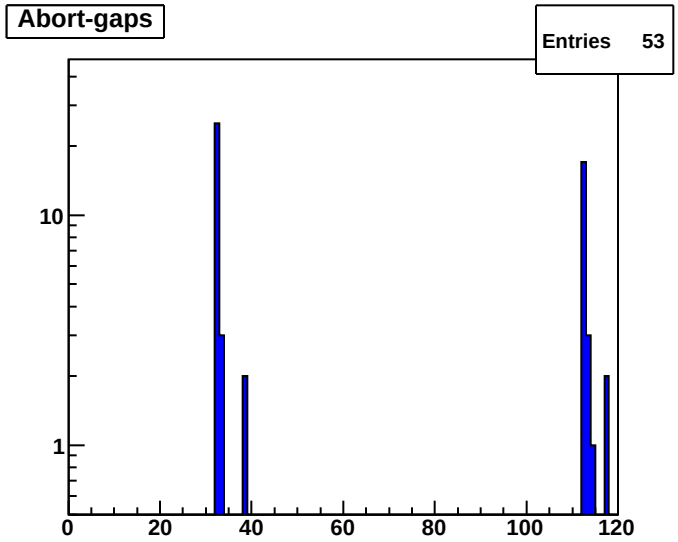

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

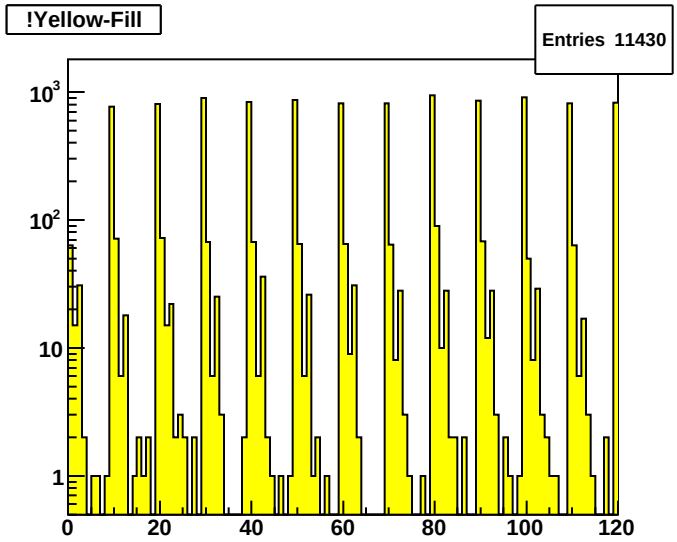

DAQ10k HT bits
Entries 137160
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

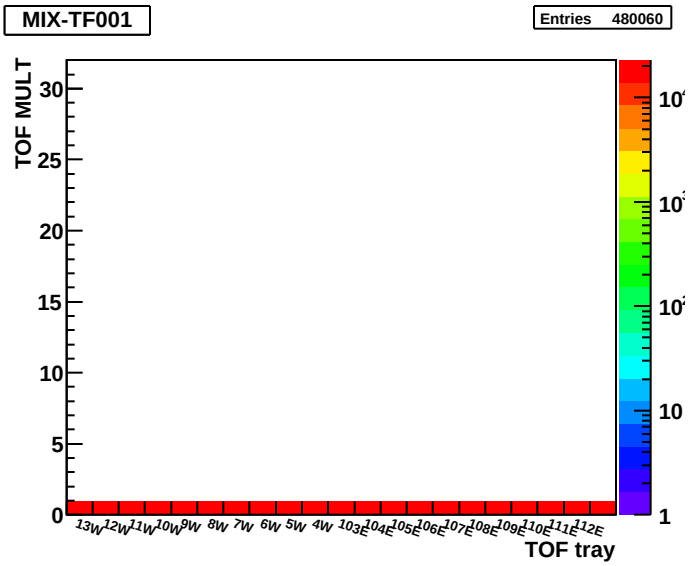

DAQ10k HT bits errors
Entries 274320
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

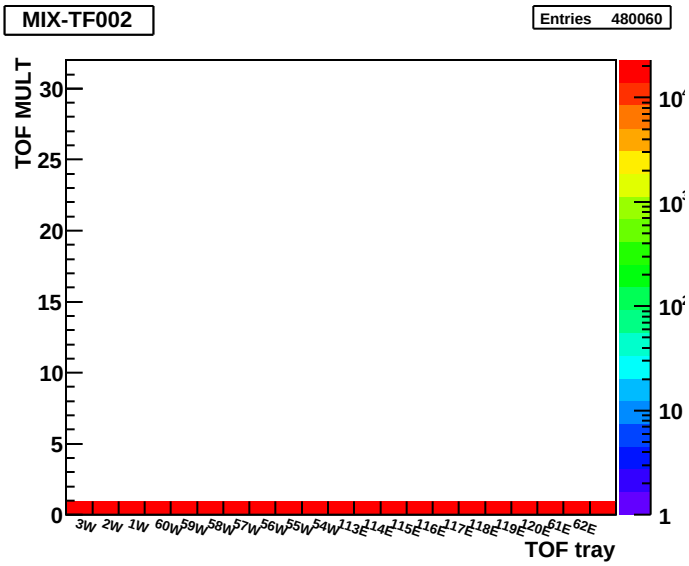

TPC Readout Mask (simulated)
Entries 148590
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30

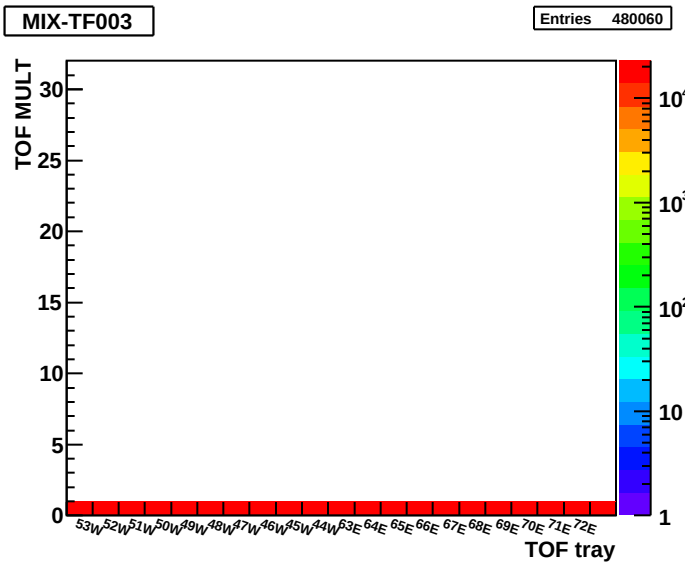

BunchId7Bit (all events)
Entries 11430
10^3
10^2
10
1
0 20 40 60 80 100 120

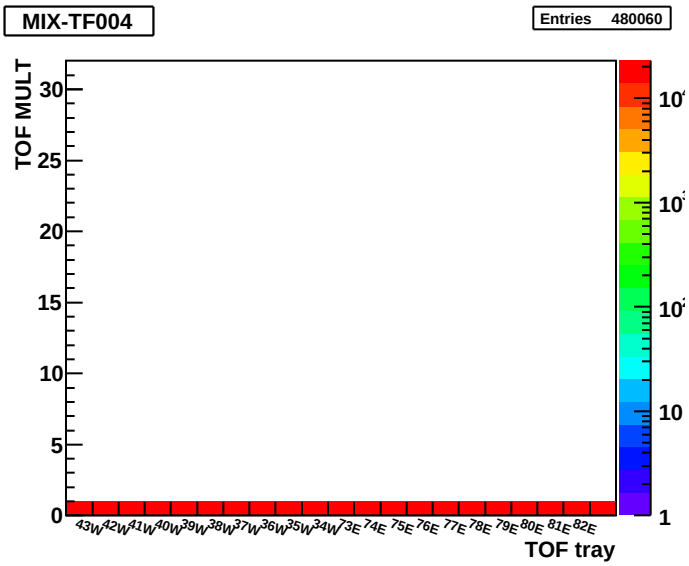

Abort-gaps
Entries 53
10
1
0 20 40 60 80 100 120

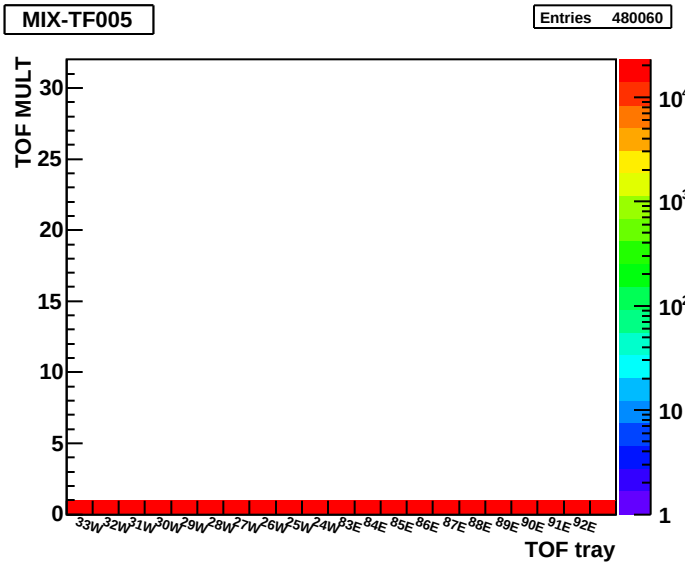

!Yellow-Fill
Entries 11430
10^3
10^2
10
1
0 20 40 60 80 100 120

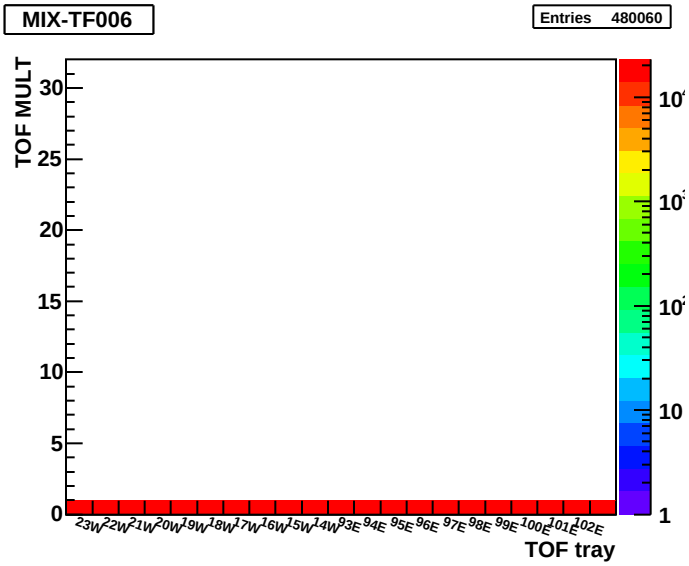

MIX-TF001
Entries 480060
TOF MULT
TOF tray

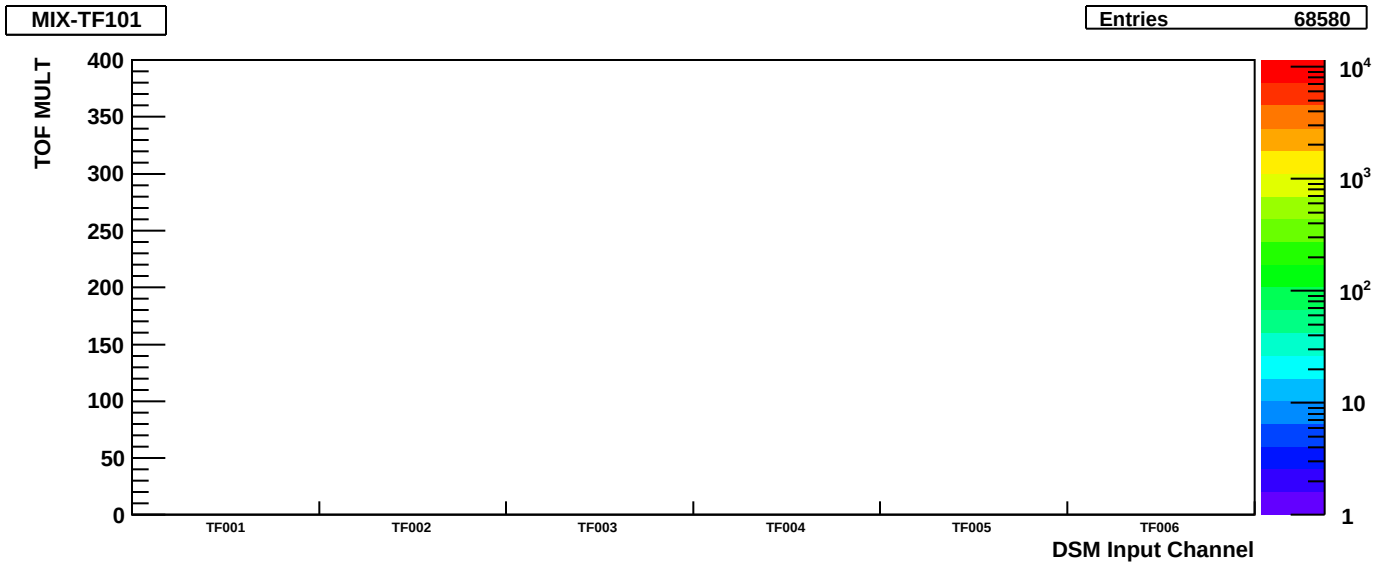

MIX-TF002
Entries 480060
TOF MULT
TOF tray

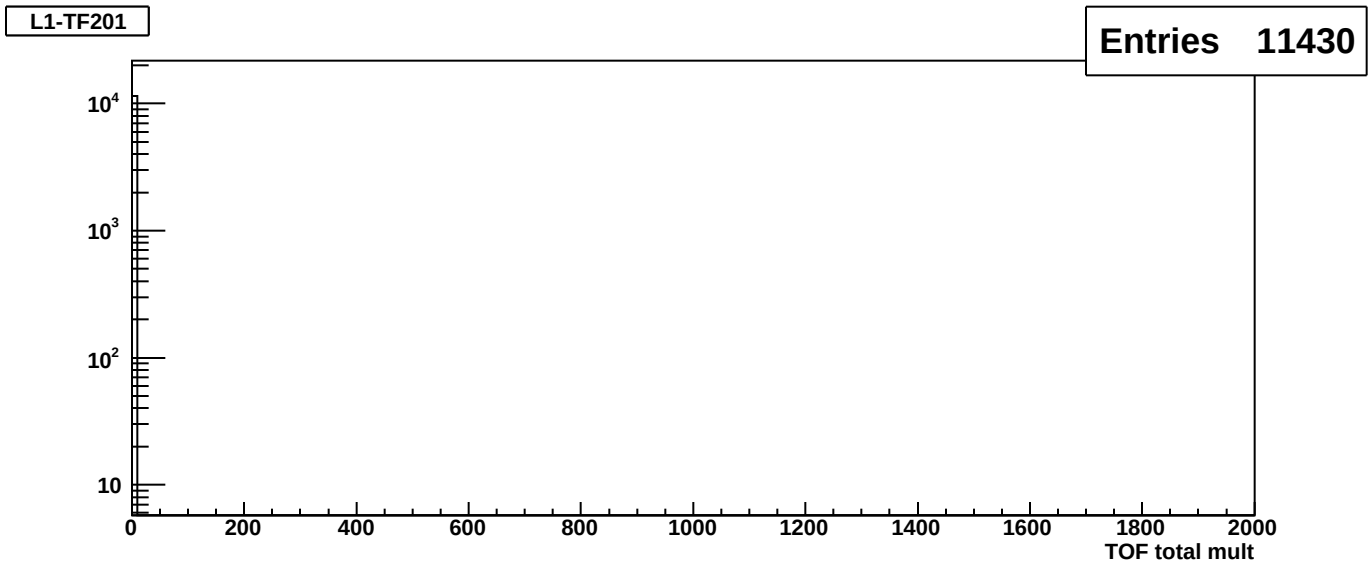

MIX-TF003
Entries 480060
TOF MULT
TOF tray

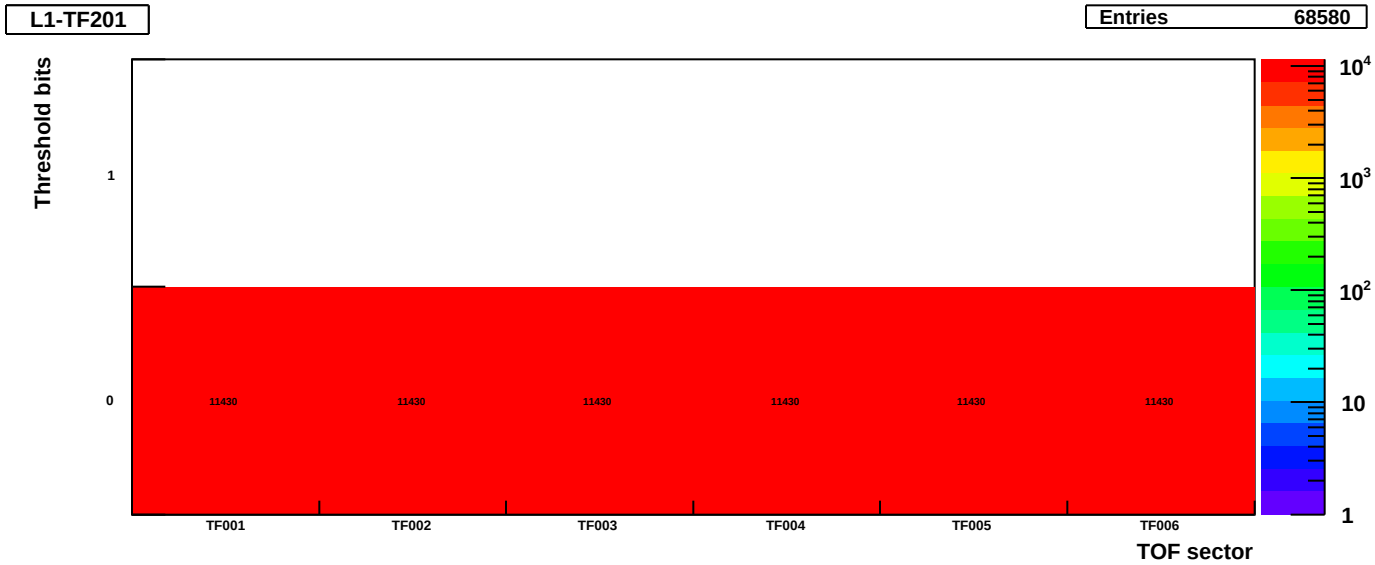

MIX-TF004
Entries 480060
TOF MULT
TOF tray

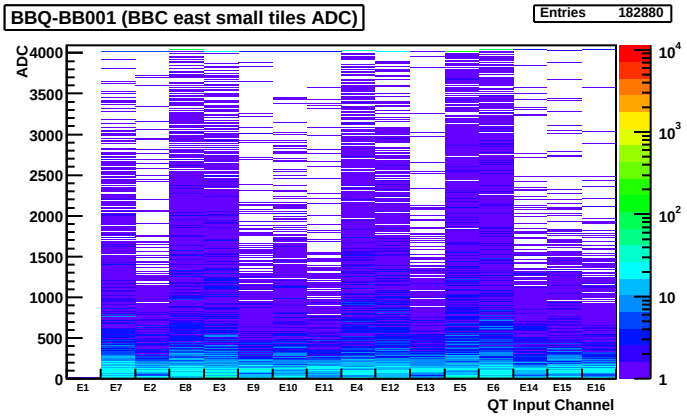

MIX-TF005
Entries 480060
TOF MULT
TOF tray

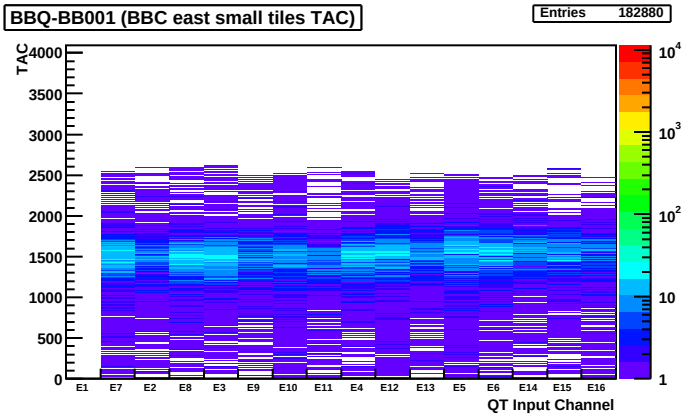

MIX-TF006
Entries 480060
TOF MULT
TOF tray

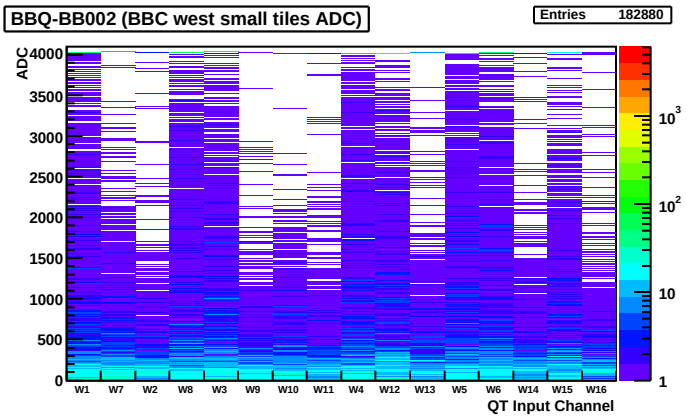

MIX-TF101
Entries 68580
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

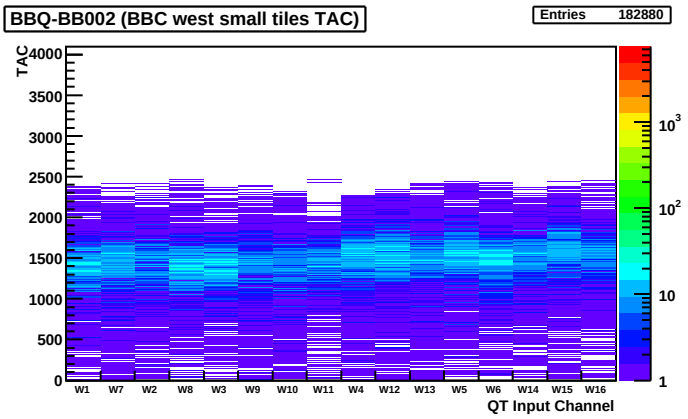

L1-TF201
Entries 11430
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

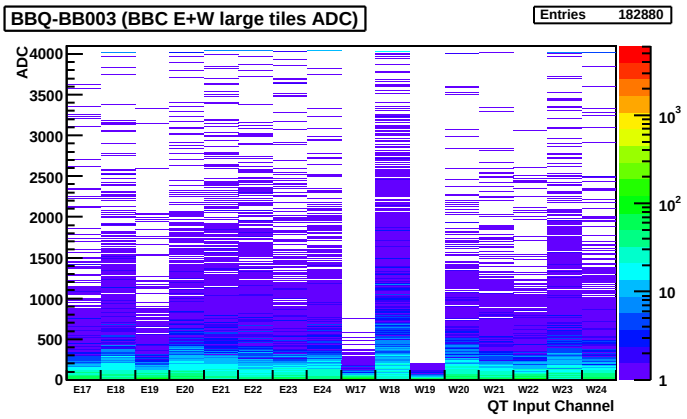

L1-TF201
Entries 68580
Threshold bits
1
0
11430
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3
10^2
10
1

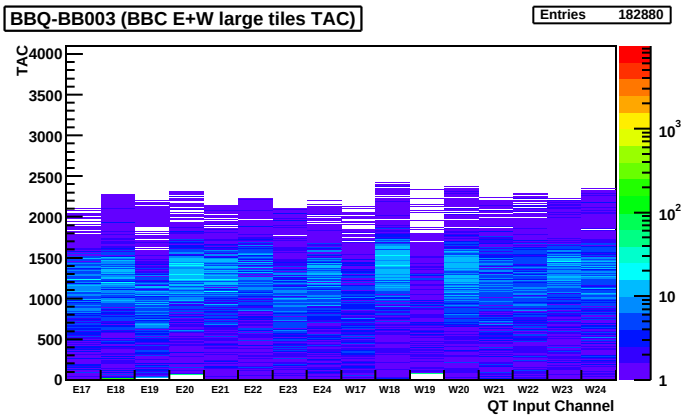

BBQ-BB001 (BBC east small tiles ADC)
Entries 182880
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

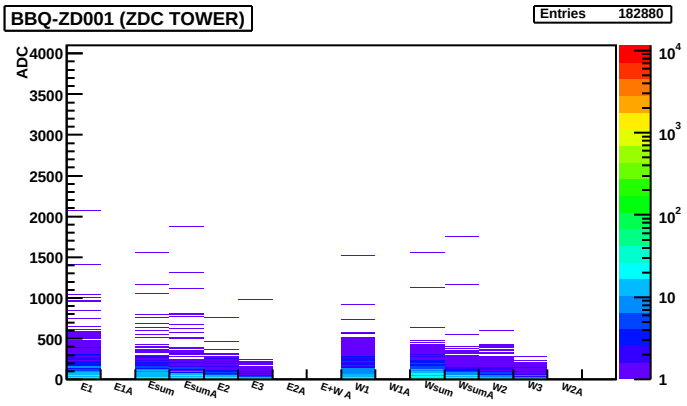

BBQ-BB001 (BBC east small tiles TAC)
Entries 182880
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

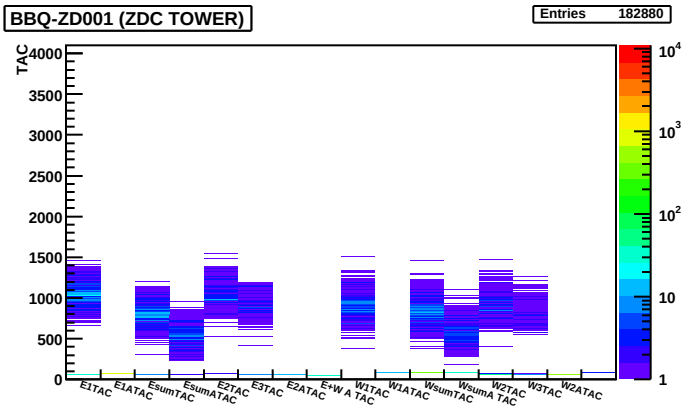

BBQ-BB002 (BBC west small tiles ADC)
Entries 182880
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

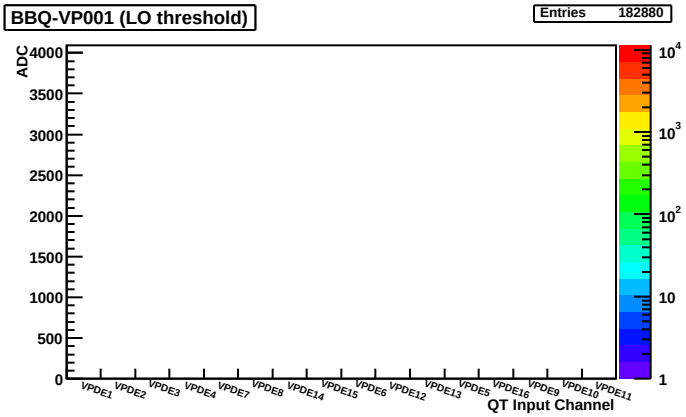

BBQ-BB002 (BBC west small tiles TAC)
Entries 182880
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

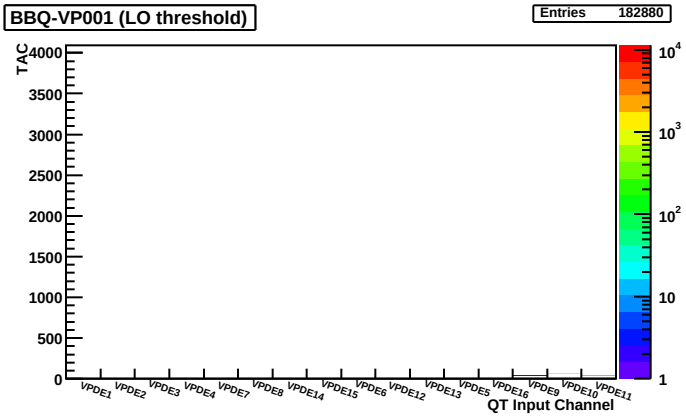

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 182880
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

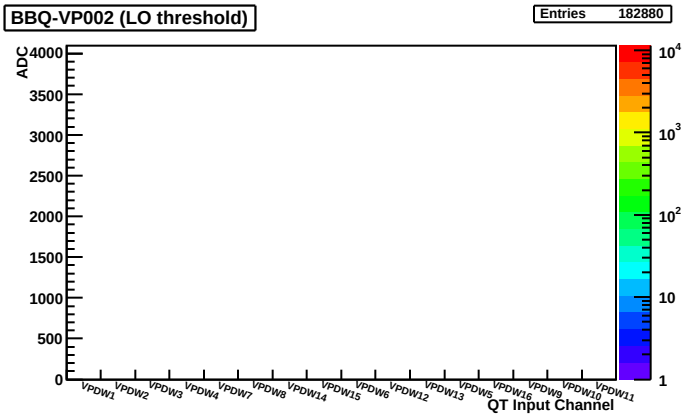

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 182880
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

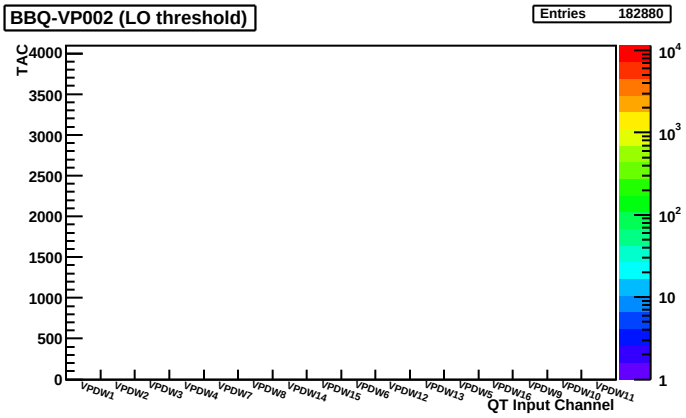

BBQ-ZD001 (ZDC TOWER)
Entries 182880
ADC
E1 E1A Esum EsumA E2 E3 E2A E+W A W1 W1A Wsum WsumA W2 W3 W2A

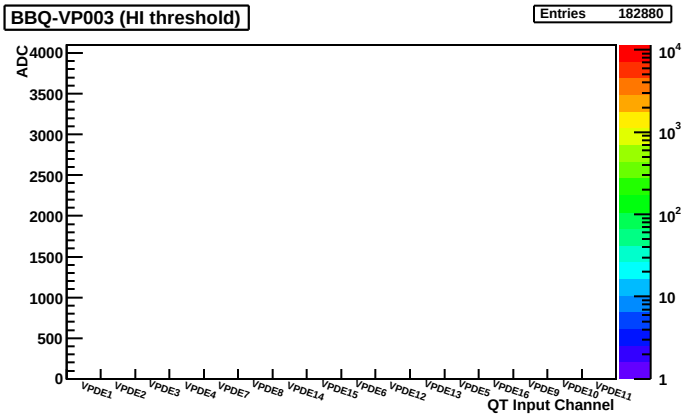

BBQ-ZD001 (ZDC TOWER)
Entries 182880
TAC
E1TAC E1ATAC EsumTAC EsumATAC E2TAC E3TAC E2ATAC E+W A TAC W1TAC W1ATAC WsumTAC WsumA TAC W2TAC W3TAC W2ATAC

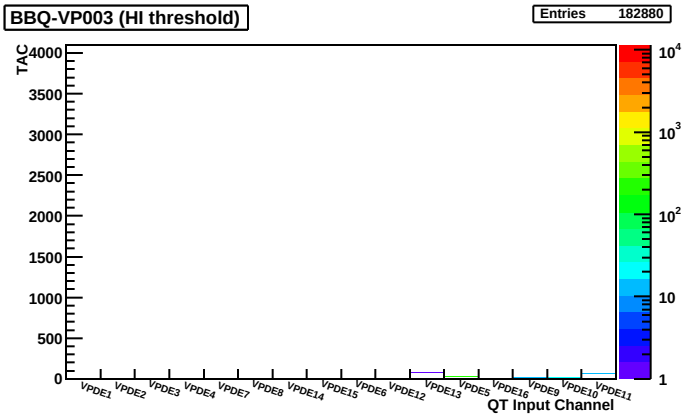

BBQ-VP001 (LO threshold)
Entries 182880
ADC
QT Input Channel

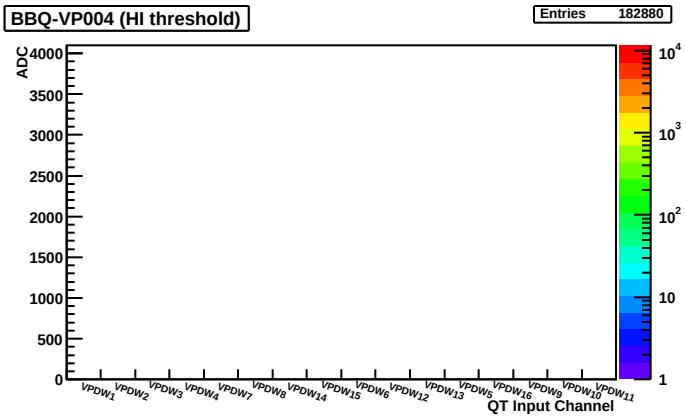

BBQ-VP001 (LO threshold)
Entries 182880
TAC
QT Input Channel

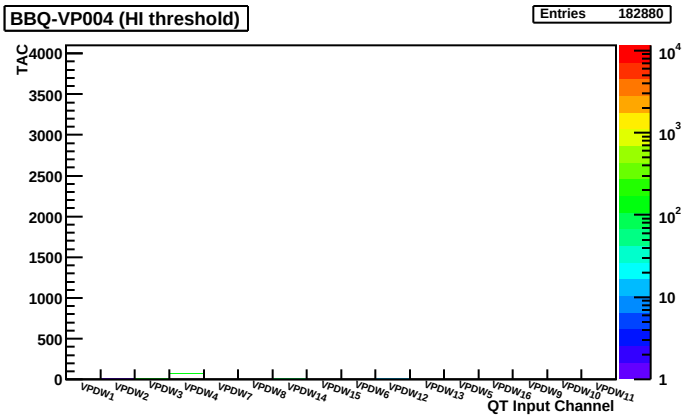

BBQ-VP002 (LO threshold)
Entries 182880
ADC
QT Input Channel

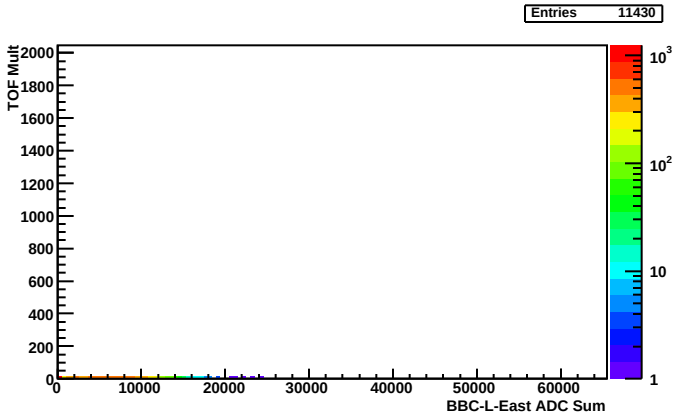

BBQ-VP002 (LO threshold)
Entries 182880
TAC
QT Input Channel

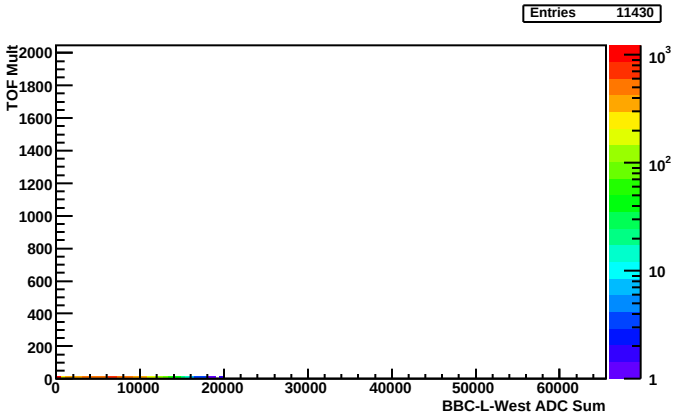

BBQ-VP003 (HI threshold)
Entries 182880
ADC
QT Input Channel

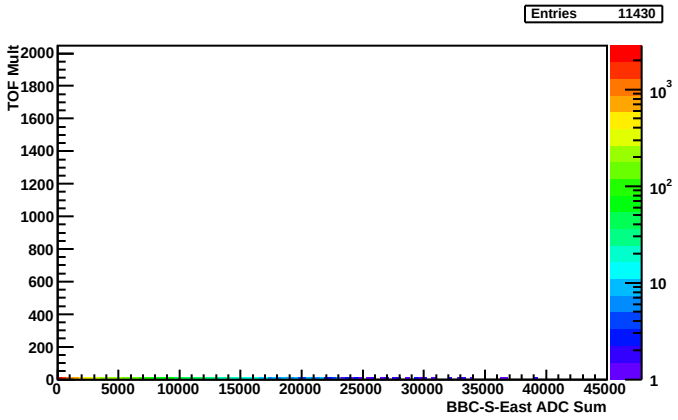

BBQ-VP003 (HI threshold)
Entries 182880
TAC
QT Input Channel

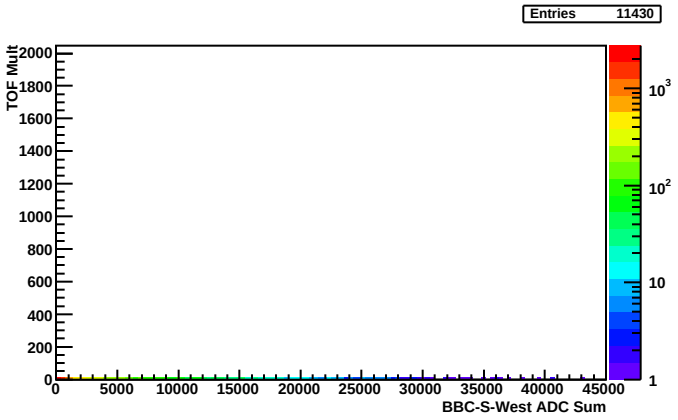

BBQ-VP004 (HI threshold)
Entries 182880
ADC
QT Input Channel

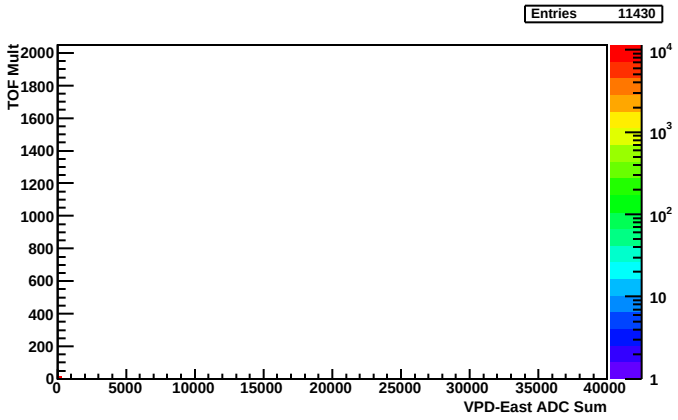

BBQ-VP004 (HI threshold)
Entries 182880
TAC
QT Input Channel

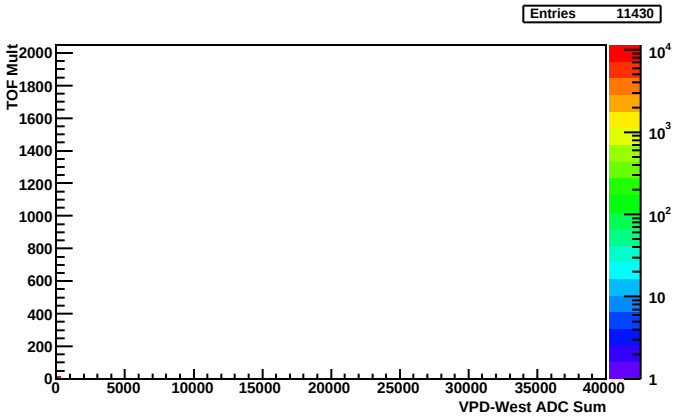

Entries 11430
TOF Mult
BBC-L-East ADC Sum

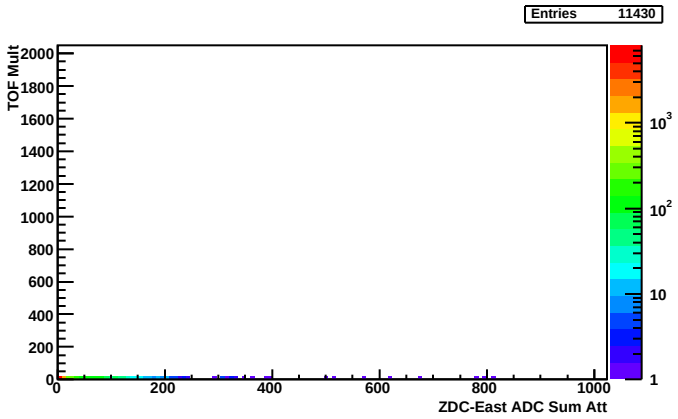

Entries 11430
TOF Mult
BBC-L-West ADC Sum

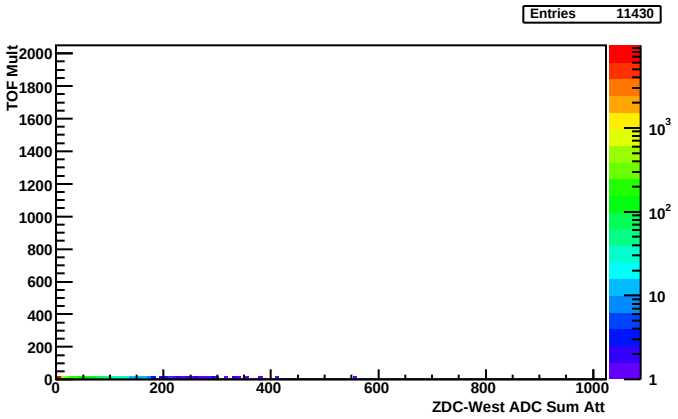

Entries 11430
TOF Mult
BBC-S-East ADC Sum

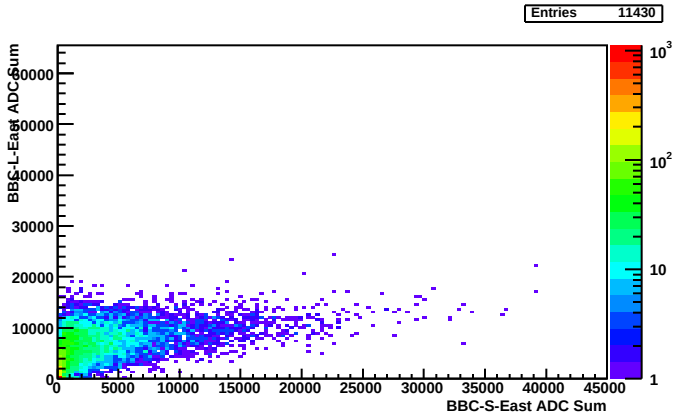

Entries 11430
TOF Mult
BBC-S-West ADC Sum

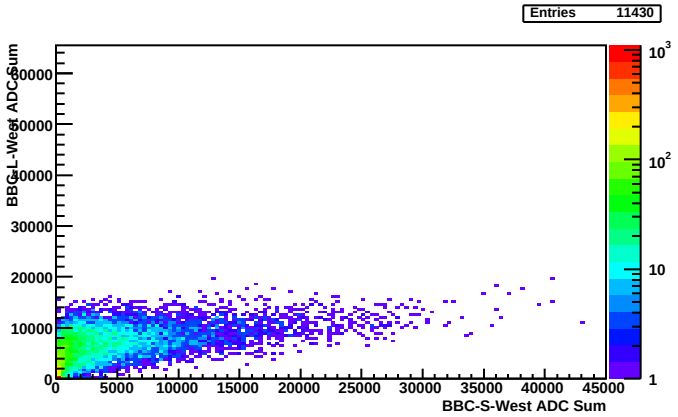

Entries 11430
TOF Mult
VPD-East ADC Sum

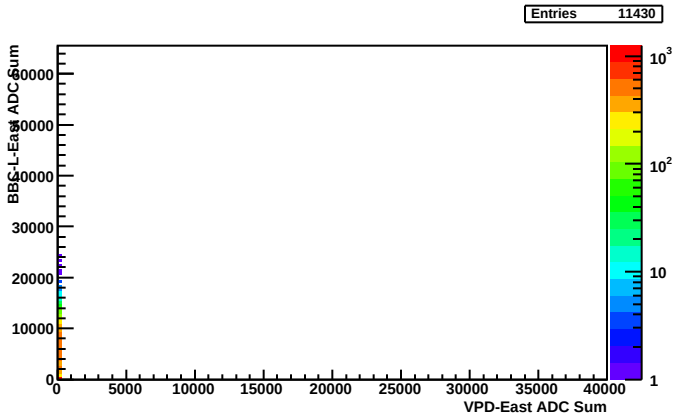

Entries 11430
TOF Mult
VPD-West ADC Sum

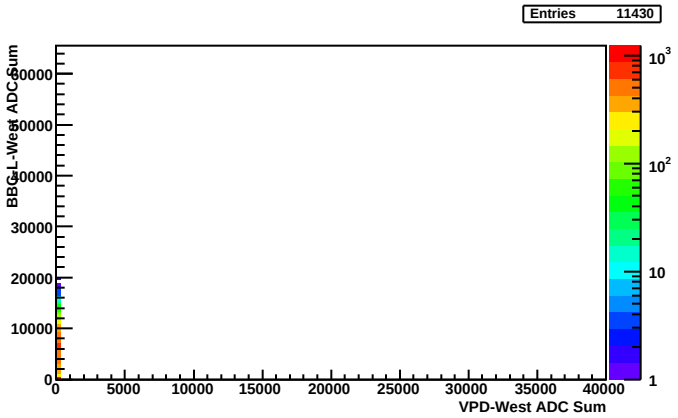

Entries 11430
TOF Mult
ZDC-East ADC Sum Att

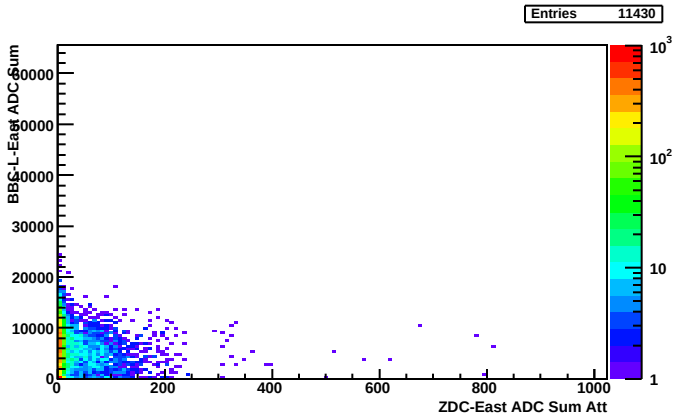

Entries 11430
TOF Mult
ZDC-West ADC Sum Att

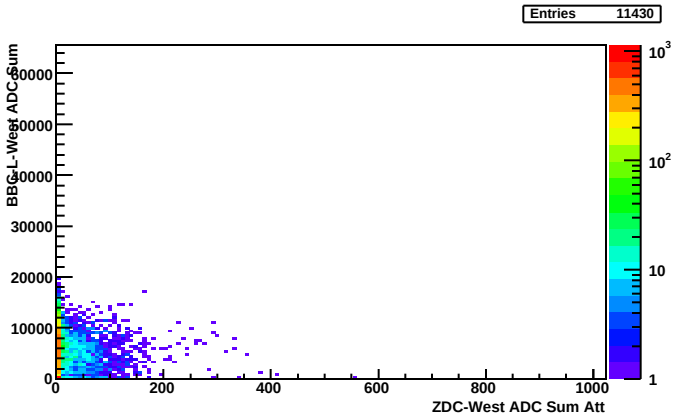

Entries 11430
BBC-L-East ADC Sum
BBC-S-East ADC Sum

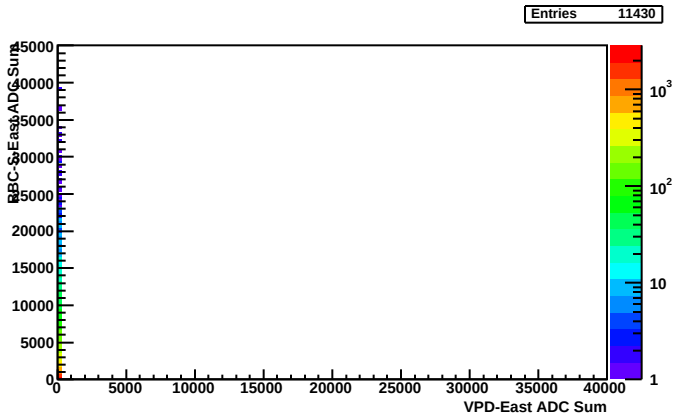

Entries 11430
BBC-L-West ADC Sum
BBC-S-West ADC Sum

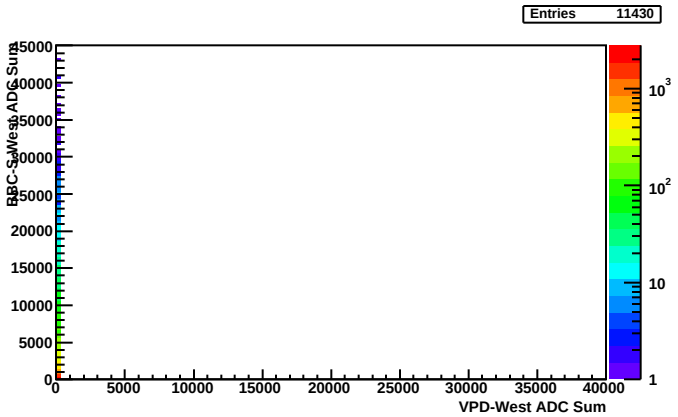

Entries 11430
BBC-L-East ADC Sum
VPD-East ADC Sum

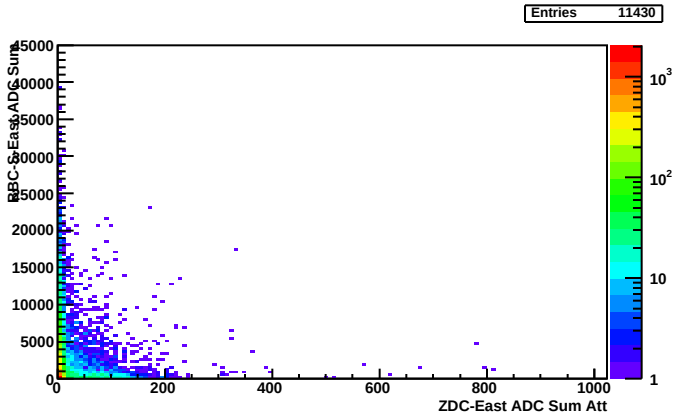

Entries 11430
BBC-L-West ADC Sum
VPD-West ADC Sum

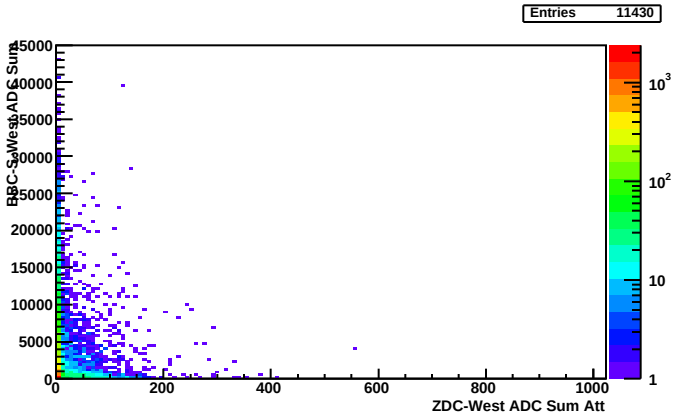

Entries 11430
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

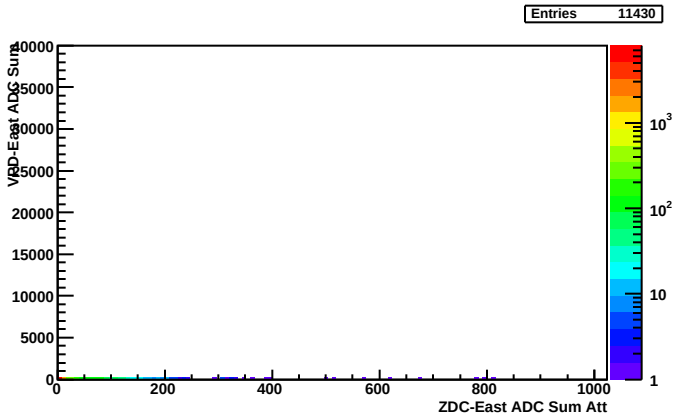

Entries 11430
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

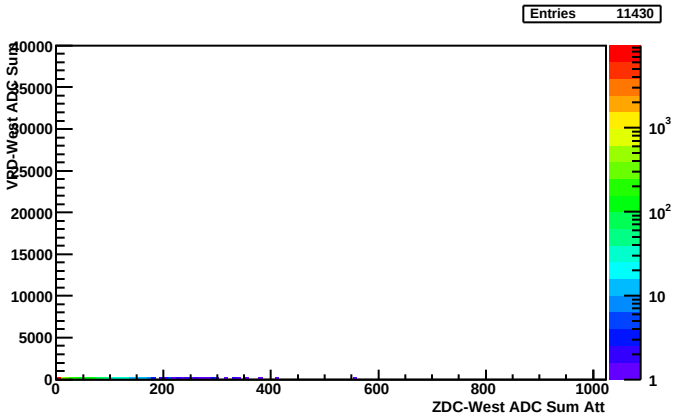

Entries 11430
BBC-S-East ADC Sum
VPD-East ADC Sum

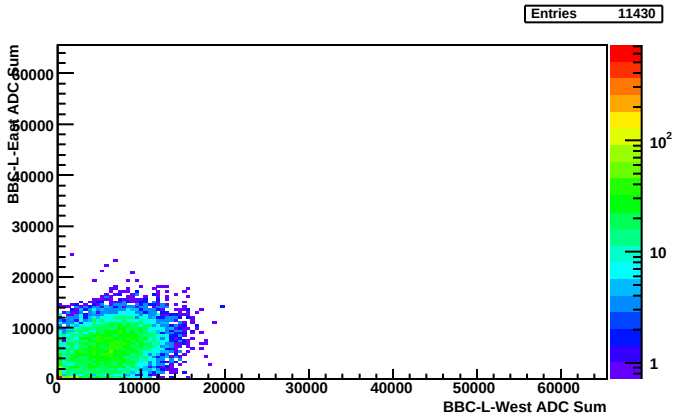

Entries 11430
BBC-S-West ADC Sum
VPD-West ADC Sum

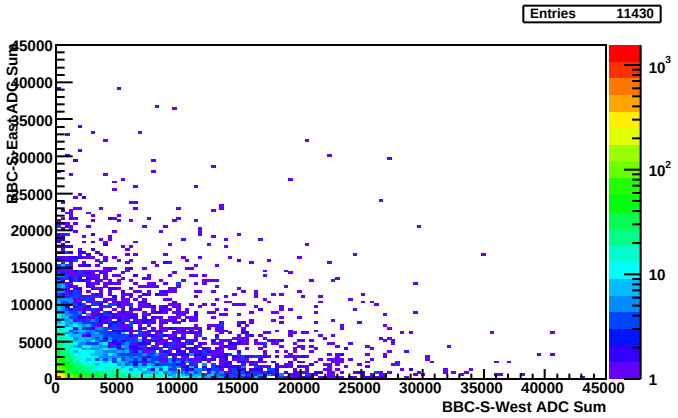

Entries 11430
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

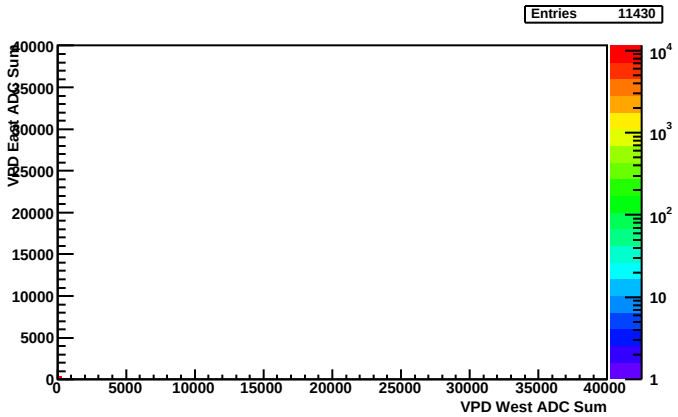

Entries 11430
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

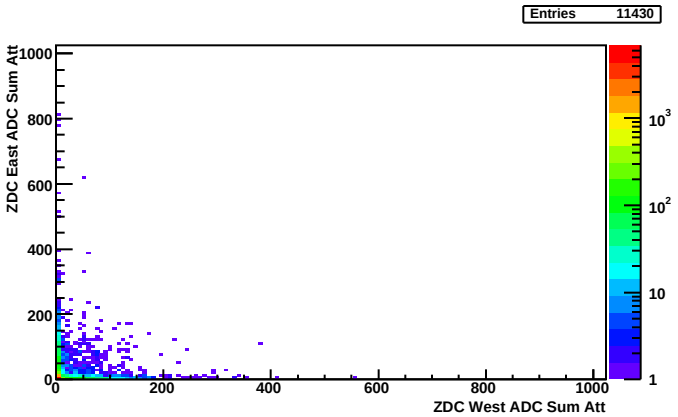

Entries 11430
VPD-East ADC Sum
ZDC-East ADC Sum Att

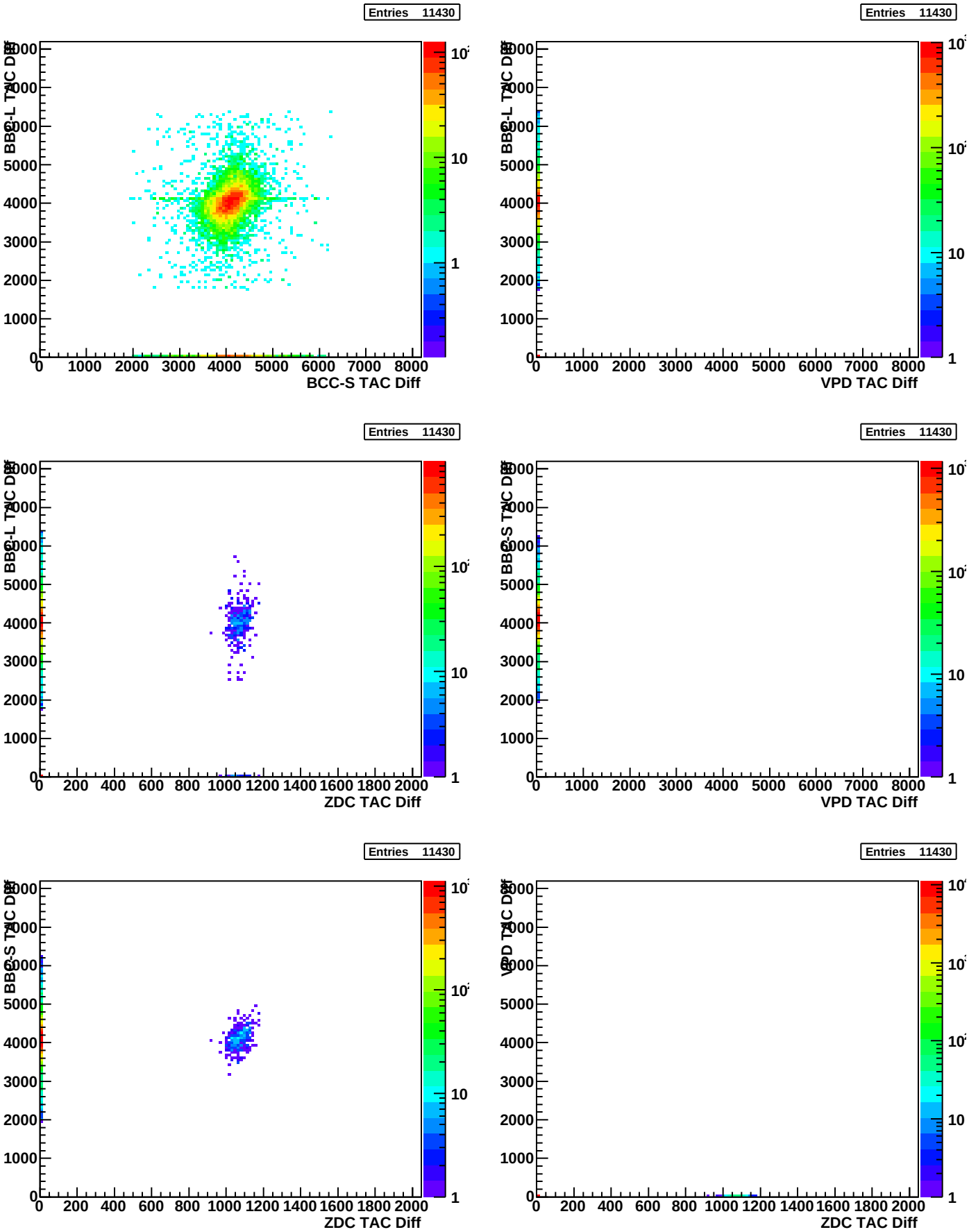

Entries 11430
VPD-West ADC Sum
ZDC-West ADC Sum Att

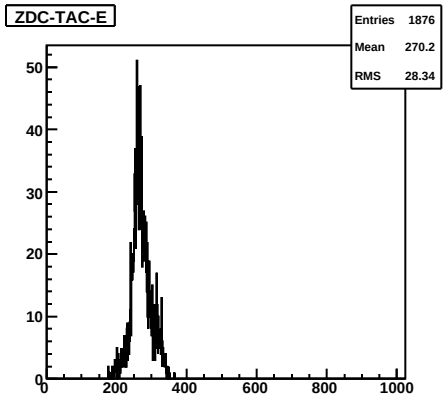

Entries 11430
BBC-L-East ADC Sum
BBC-L-West ADC Sum

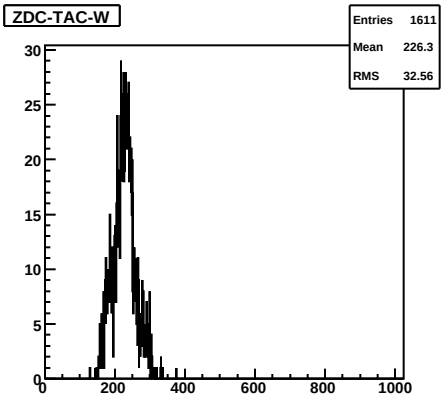

Entries 11430
BBC-S-East ADC Sum
BBC-S-West ADC Sum

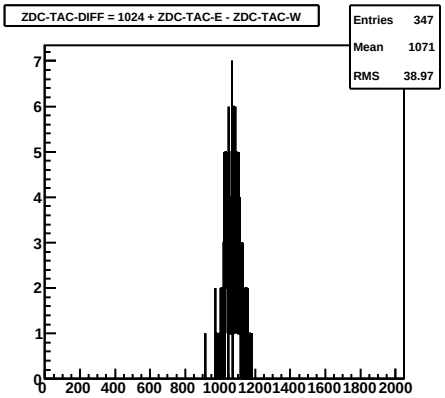

Entries 11430
VPD East ADC Sum
VPD West ADC Sum

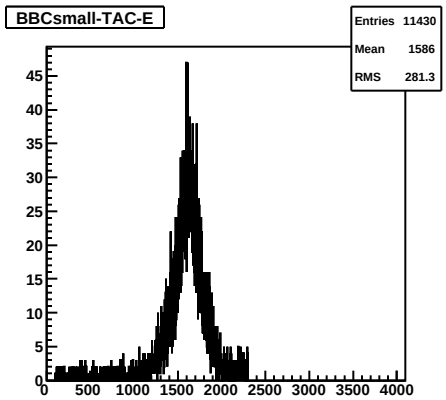

Entries 11430
ZDC East ADC Sum Att
ZDC West ADC Sum Att

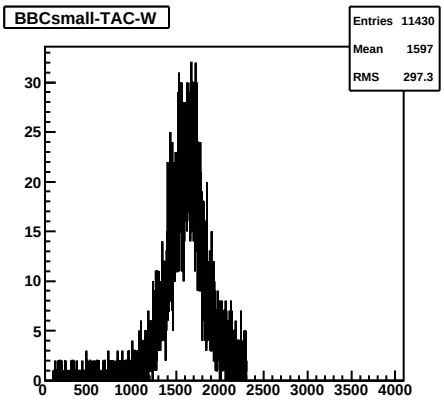

Entries 11430
BBC-L TAC Diff
BCC-S TAC Diff
Entries 11430
BBC-L TAC Diff
VPD TAC Diff
Entries 11430
BBC-L TAC Diff
ZDC TAC Diff
Entries 11430
BBC-S TAC Diff
VPD TAC Diff
Entries 11430
BBC-S TAC Diff
ZDC TAC Diff
Entries 11430
VPD TAC Diff
ZDC TAC Diff

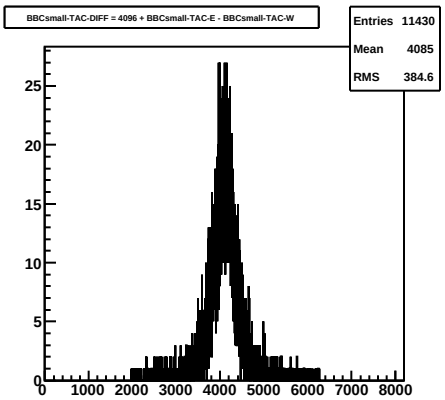

ZDC-TAC-E
Entries 1876
Mean 270.2
RMS 28.34

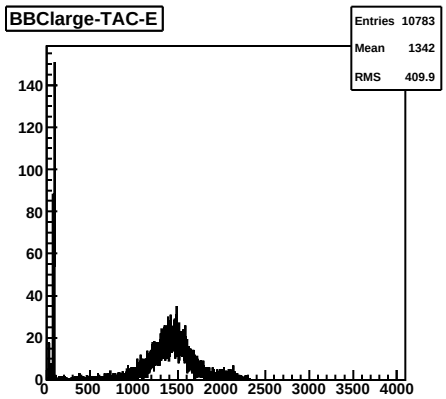

ZDC-TAC-W
Entries 1611
Mean 226.3
RMS 32.56

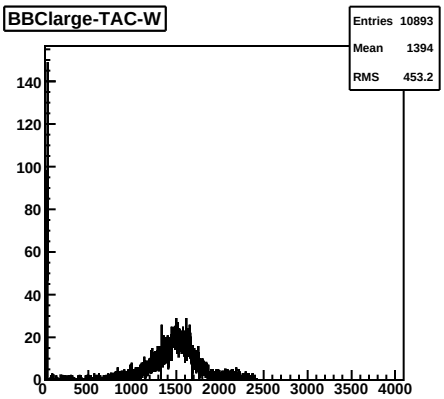

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 347
Mean 1071
RMS 38.97

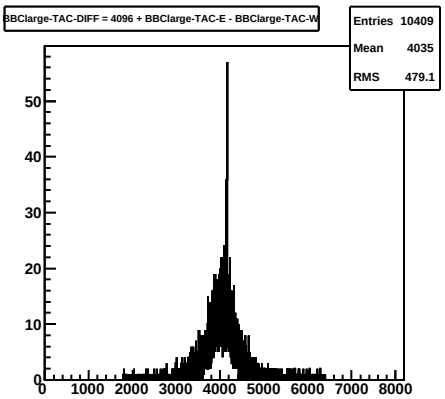

BBCsmall-TAC-E
Entries 11430
Mean 1586
RMS 281.3

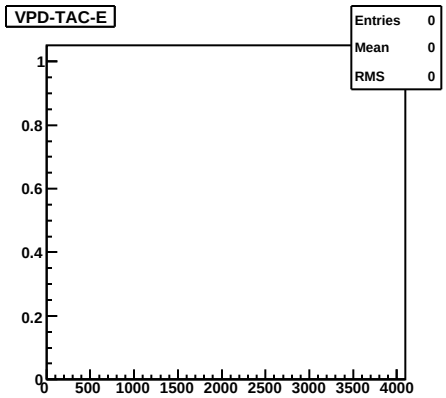

BBCsmall-TAC-W
Entries 11430
Mean 1597
RMS 297.3

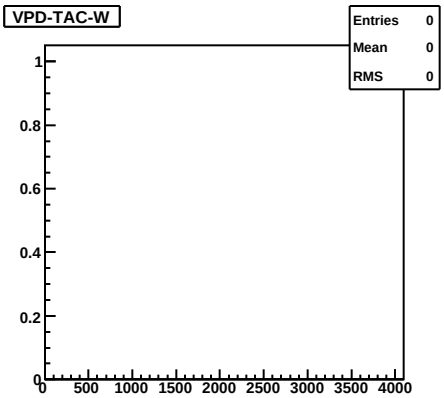

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 11430
Mean 4085
RMS 384.6

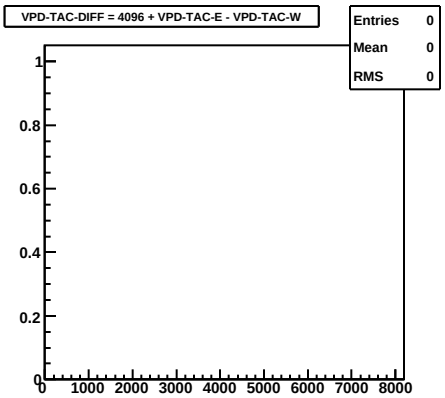

BBClarge-TAC-E
Entries 10783
Mean 1342
RMS 409.9

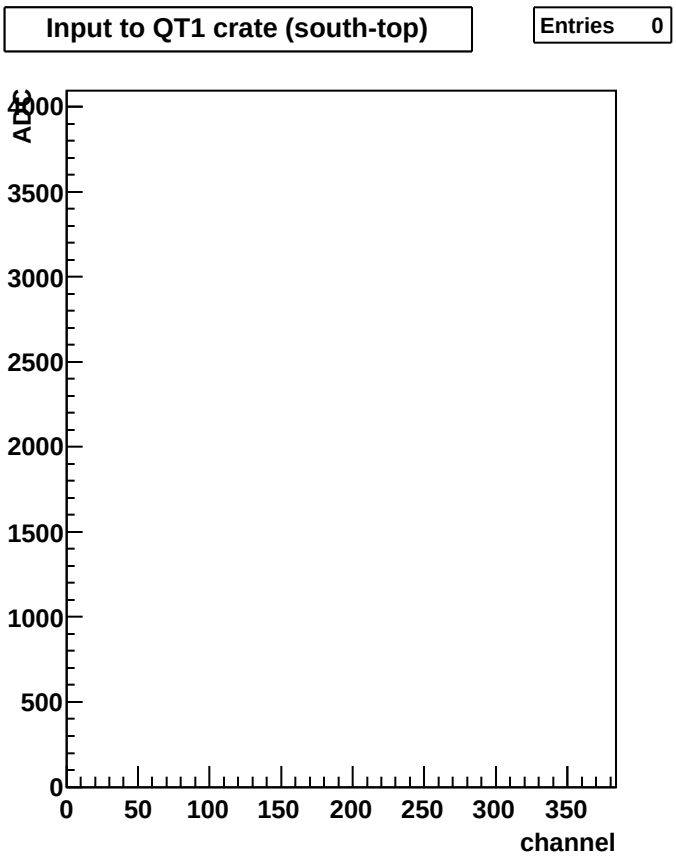

BBClarge-TAC-W
Entries 10893
Mean 1394
RMS 453.2

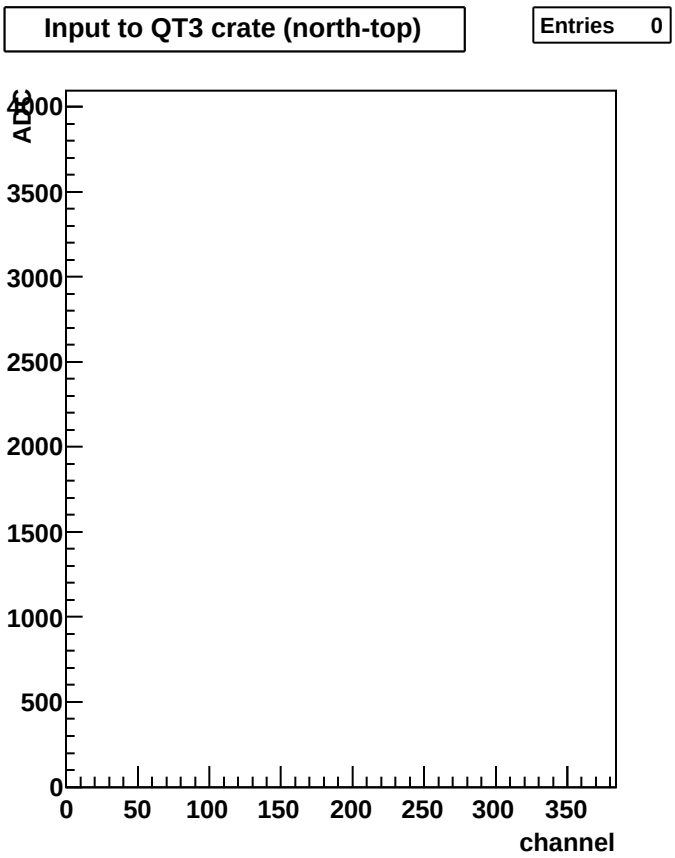

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 10409
Mean 4035
RMS 479.1

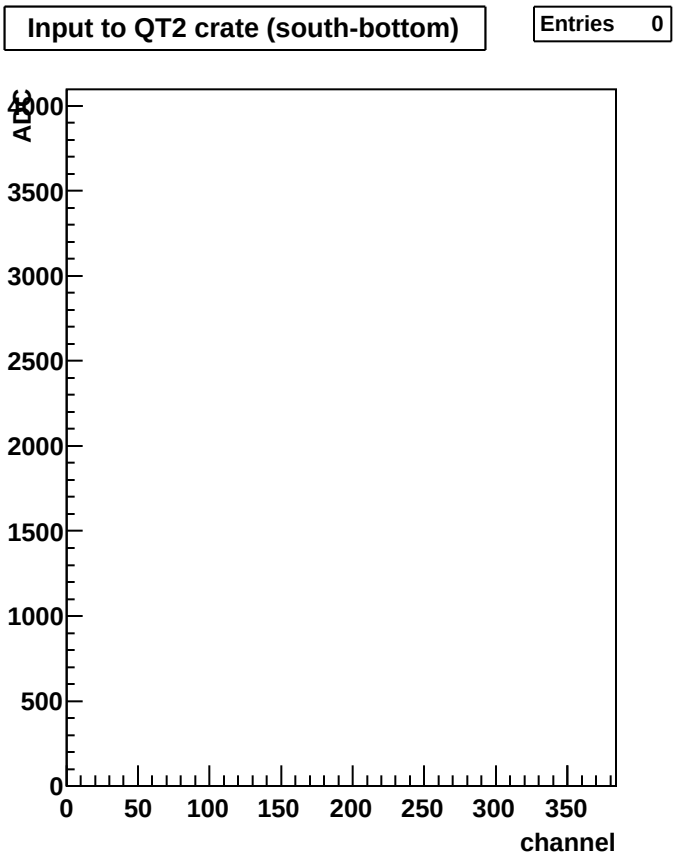

VPD-TAC-E
Entries 0
Mean 0
RMS 0

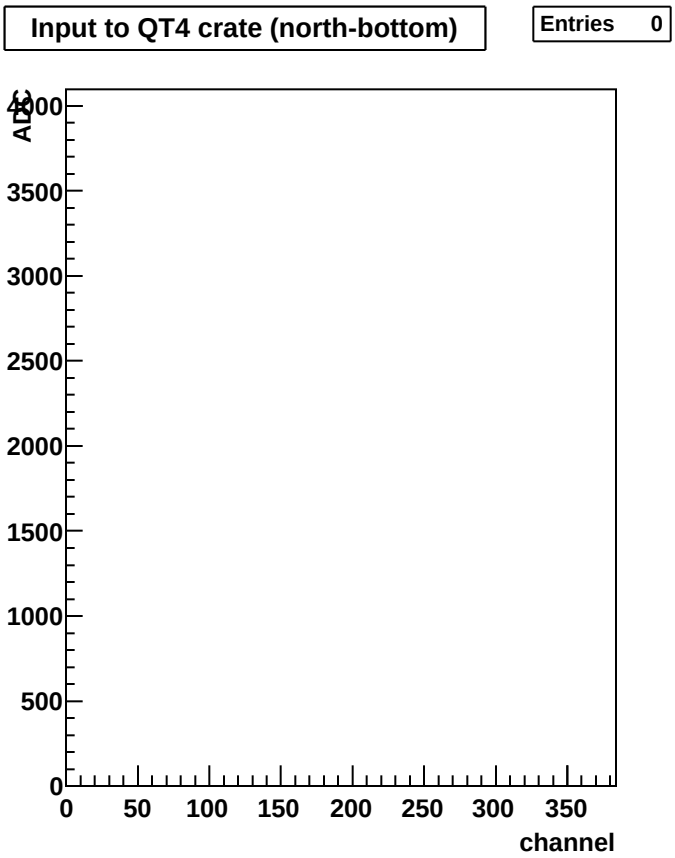

VPD-TAC-W
Entries 0
Mean 0
RMS 0

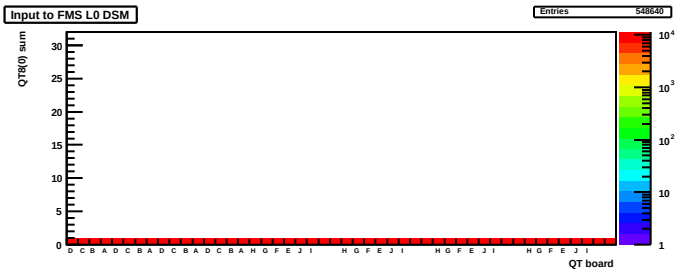

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 0
Mean 0
RMS 0

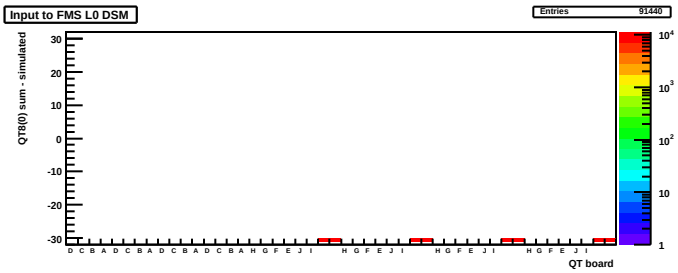

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

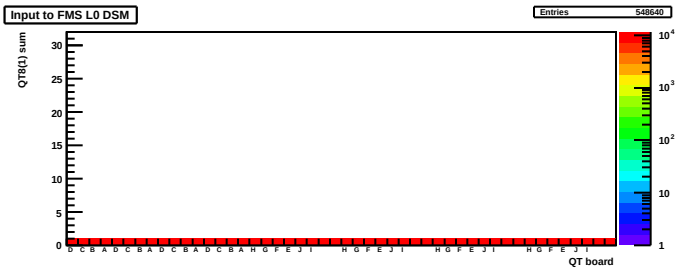

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

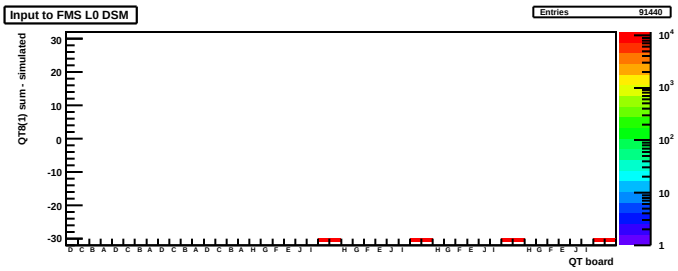

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

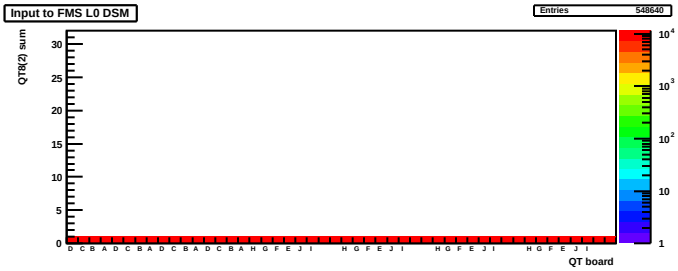

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

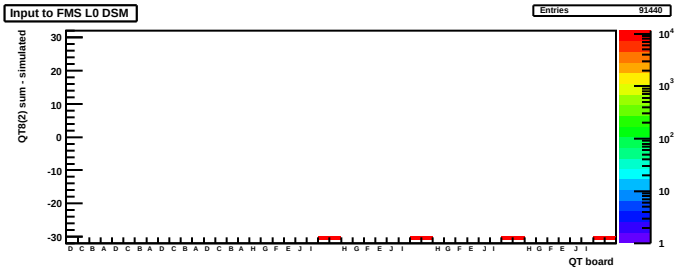

Input to FMS L0 DSM
Entries 548640
QT8(0) sum
QT board

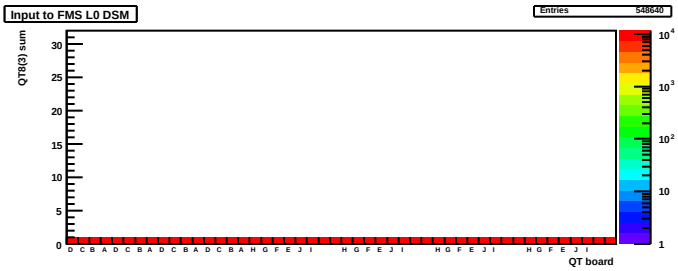

Input to FMS L0 DSM
Entries 91440
QT8(0) sum - simulated
QT board

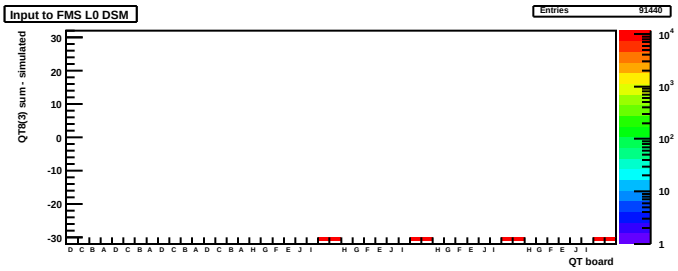

Input to FMS L0 DSM
Entries 548640
QT8(1) sum
QT board

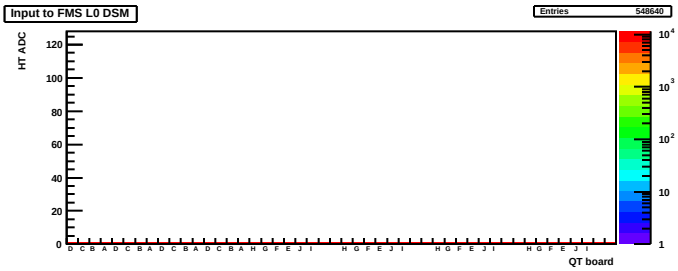

Input to FMS L0 DSM
Entries 91440
QT8(1) sum - simulated
QT board

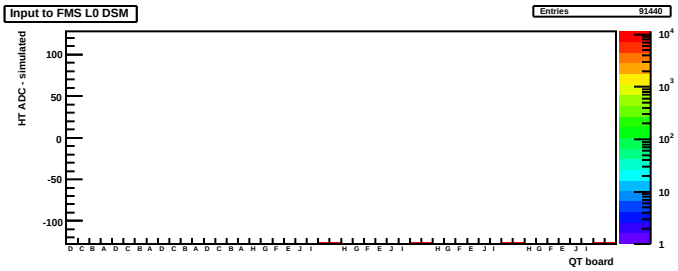

Input to FMS L0 DSM
Entries 548640
QT8(2) sum
QT board

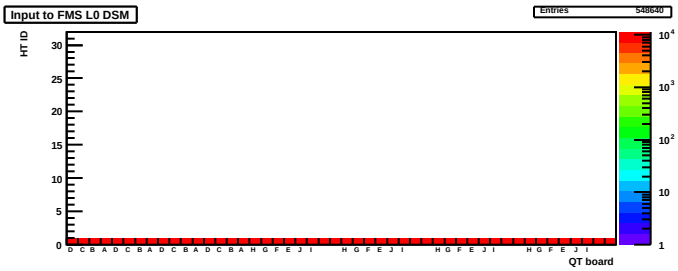

Input to FMS L0 DSM
Entries 91440
QT8(2) sum - simulated
QT board

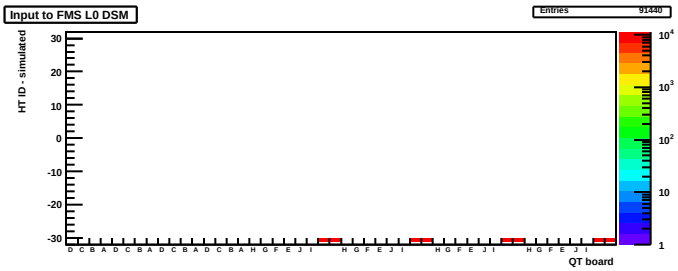

Input to FMS L0 DSM
Entries 548640
QT8(3) sum
QT board

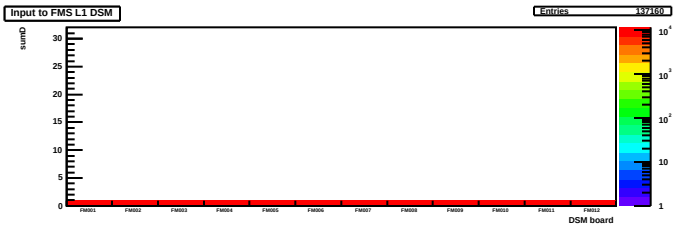

Input to FMS L0 DSM
Entries 91440
QT8(3) sum - simulated
QT board

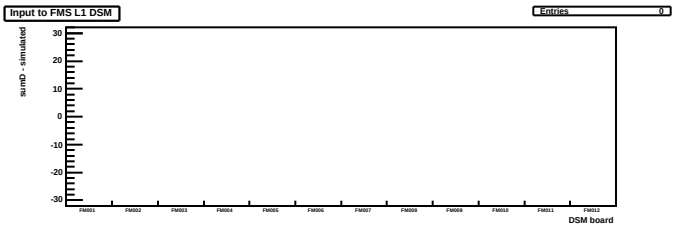

Input to FMS L0 DSM
Entries 548640
HT ADC
QT board

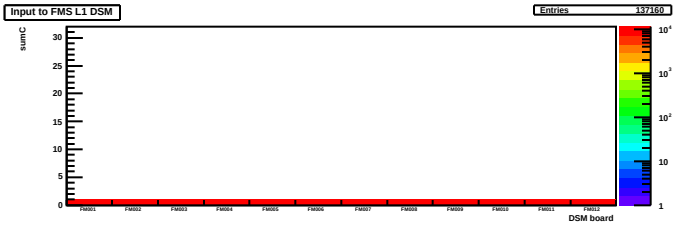

Input to FMS L0 DSM
Entries 91440
HT ADC - simulated
QT board

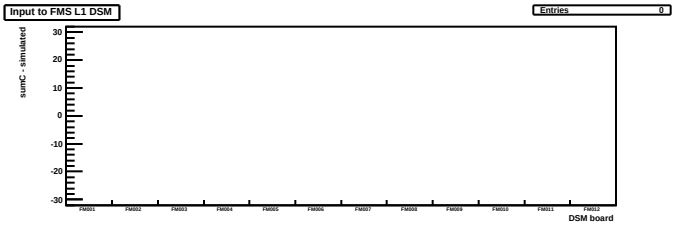

Input to FMS L0 DSM
Entries 548640
HT ID
QT board

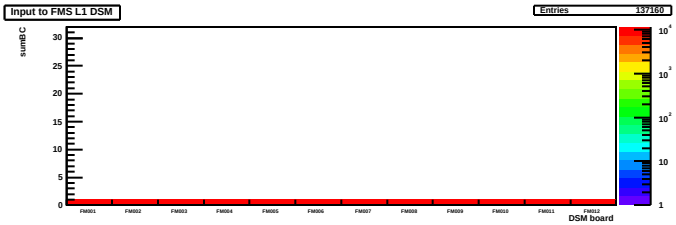

Input to FMS L0 DSM
Entries 91440
HT ID - simulated
QT board

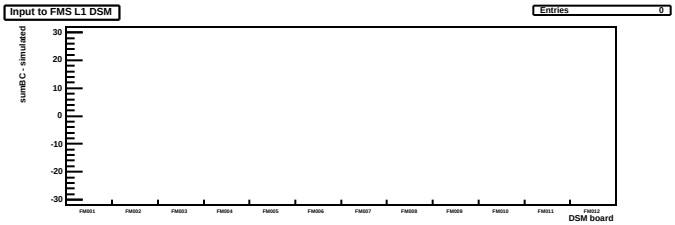

Input to FMS L1 DSM
Entries 137160
sumD
DSM board

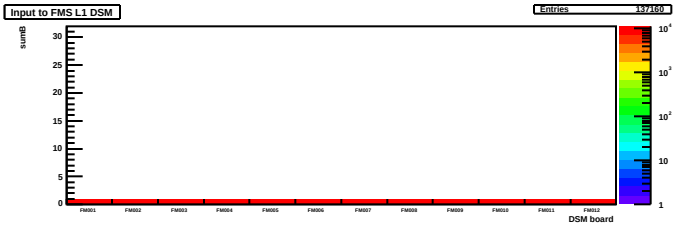

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

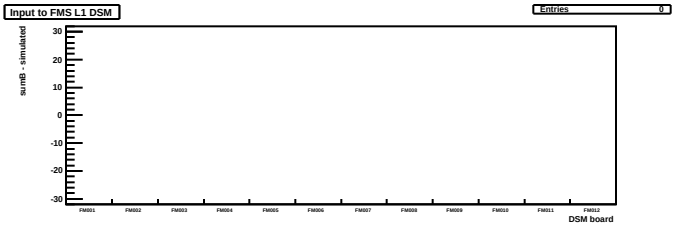

Input to FMS L1 DSM
Entries 137160
sumC
DSM board

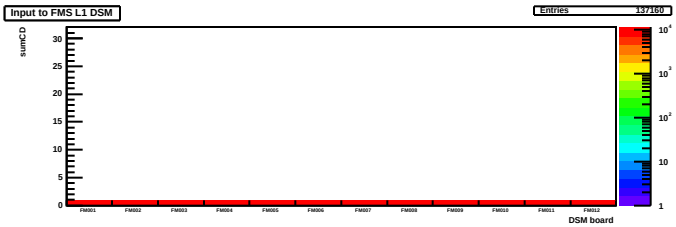

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

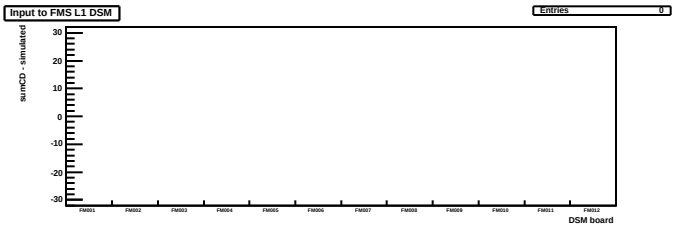

Input to FMS L1 DSM
Entries 137160
sumBC
DSM board

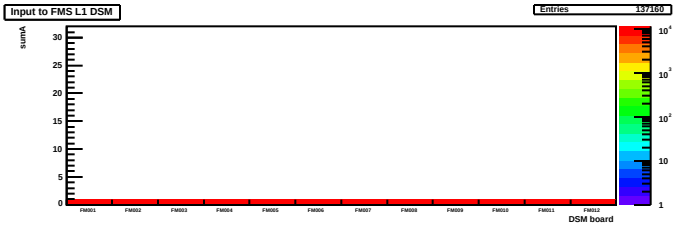

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

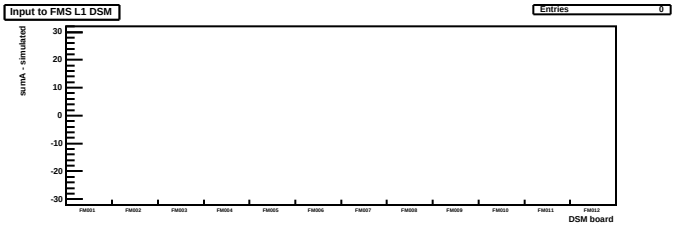

Input to FMS L1 DSM
Entries 137160
sumB
DSM board

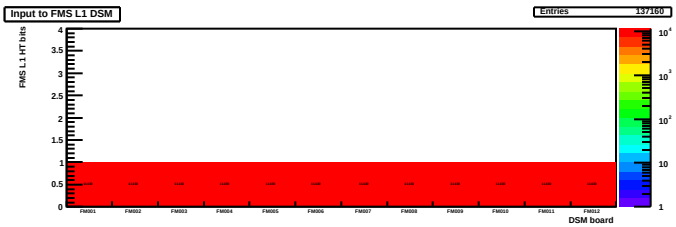

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

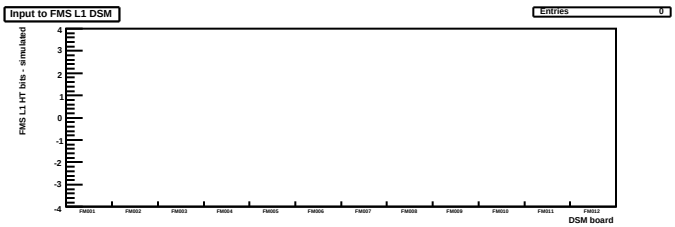

Input to FMS L1 DSM
Entries 137160
sumCD
DSM board

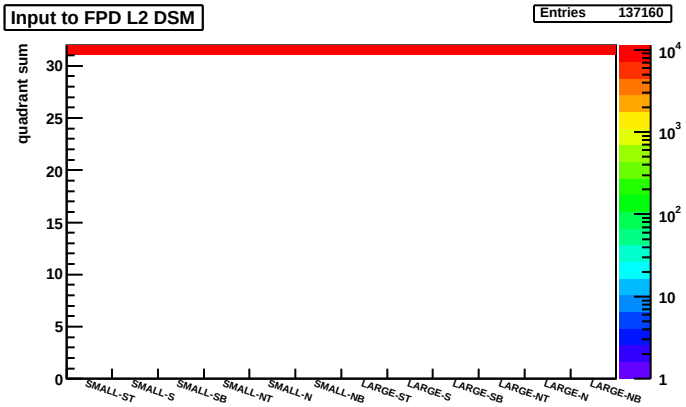

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

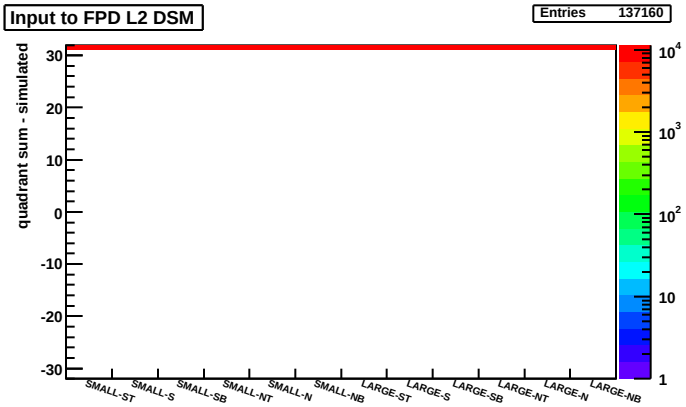

Input to FMS L1 DSM
Entries 137160
sumA
DSM board

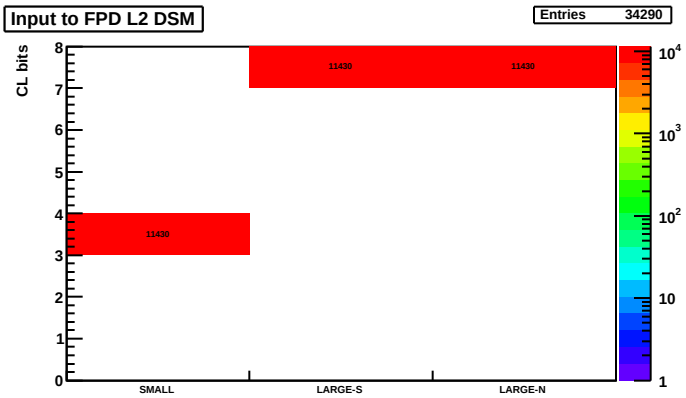

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

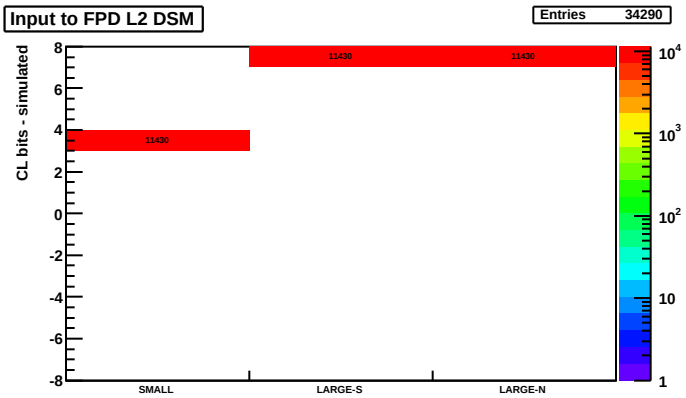

Input to FMS L1 DSM
Entries 137160
FMS L1 HT bits
DSM board

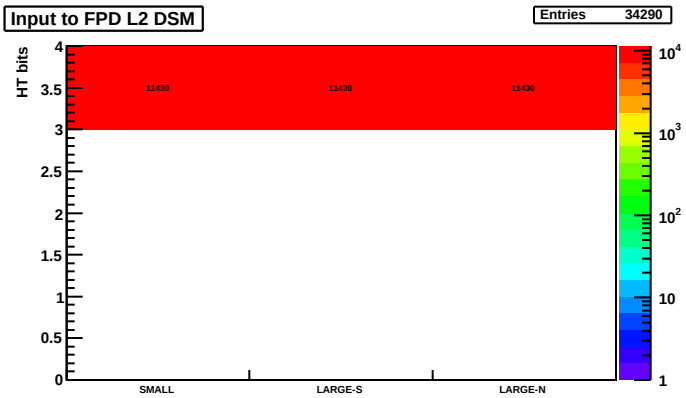

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

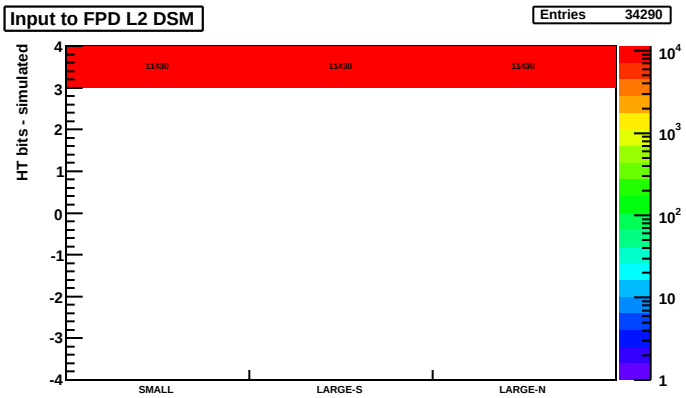

Input to FPD L2 DSM
Entries 137160
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

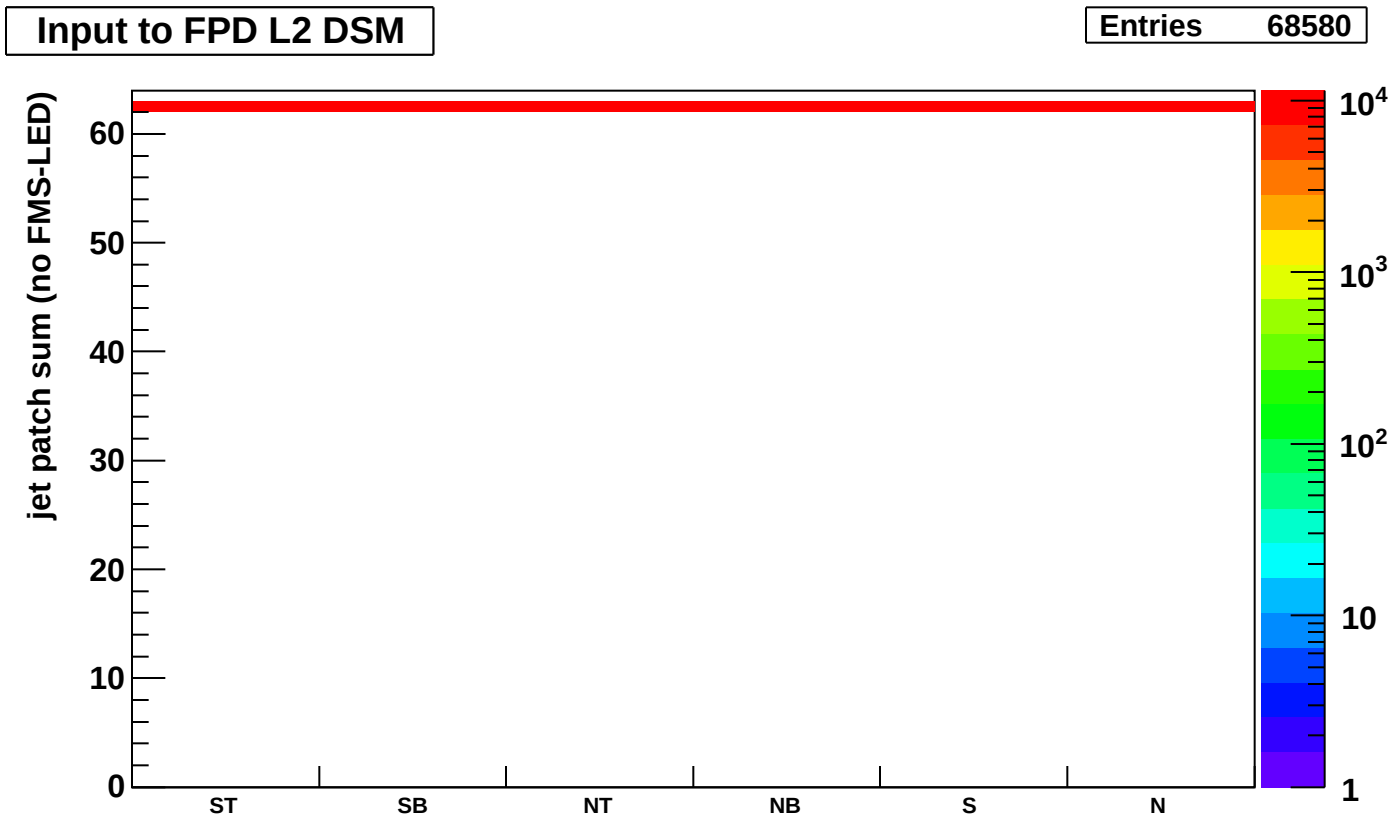

Input to FPD L2 DSM
Entries 137160
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

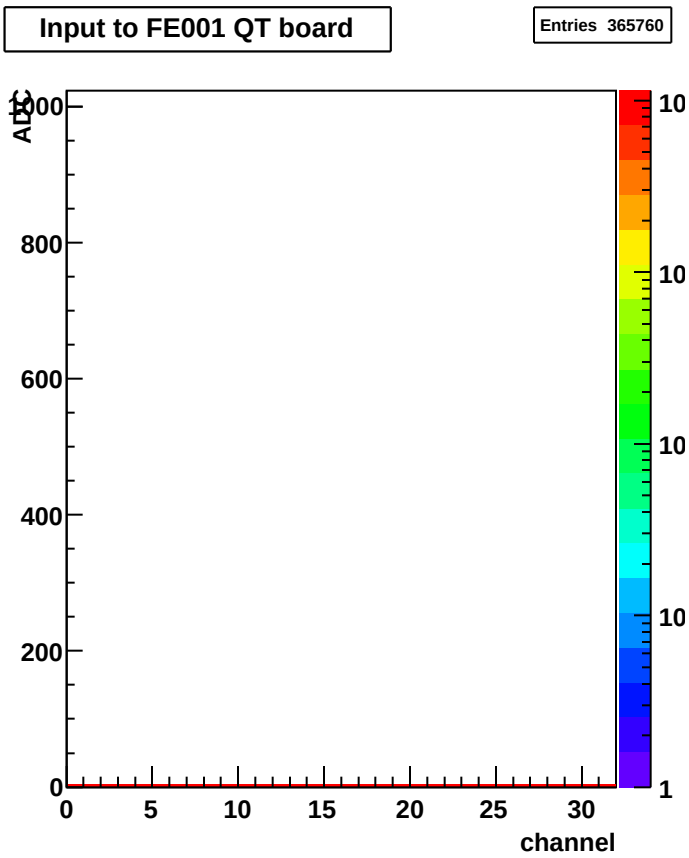

Input to FPD L2 DSM
Entries 34290
CL bits
11430
11430
11430
SMALL
LARGE-S
LARGE-N

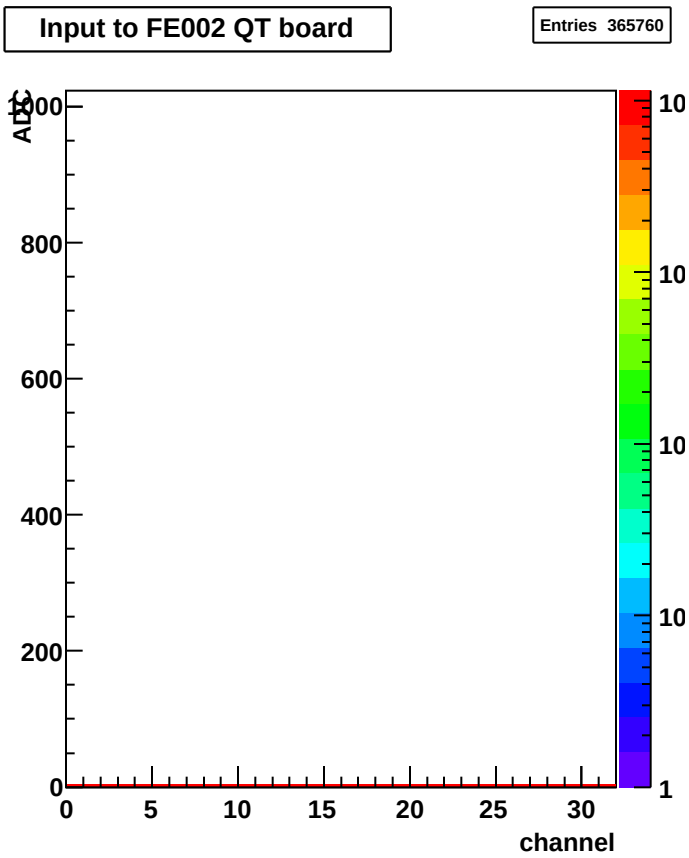

Input to FPD L2 DSM
Entries 34290
CL bits - simulated
11430
11430
11430
SMALL
LARGE-S
LARGE-N

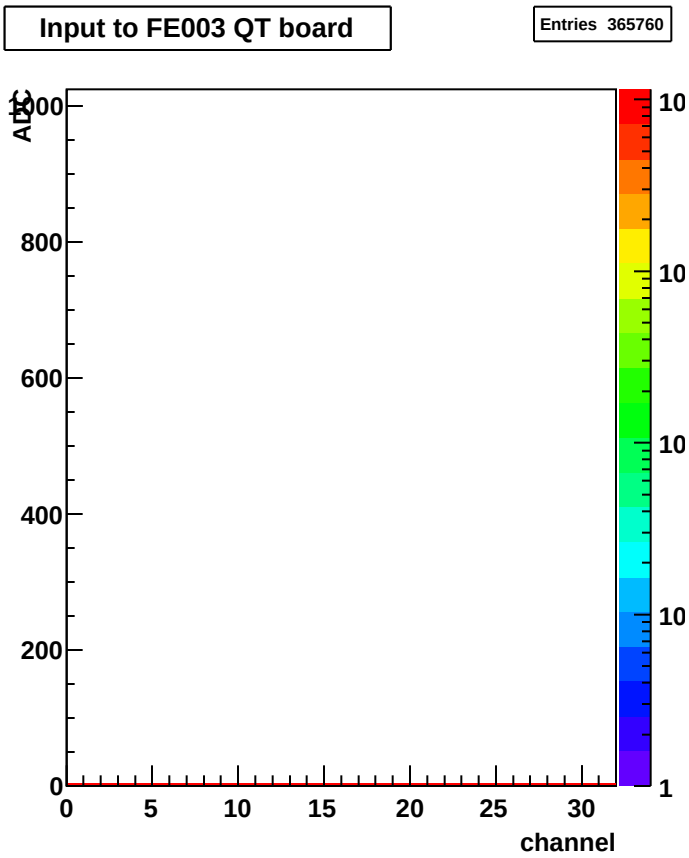

Input to FPD L2 DSM
Entries 34290
HT bits
11430
11430
11430
SMALL
LARGE-S
LARGE-N

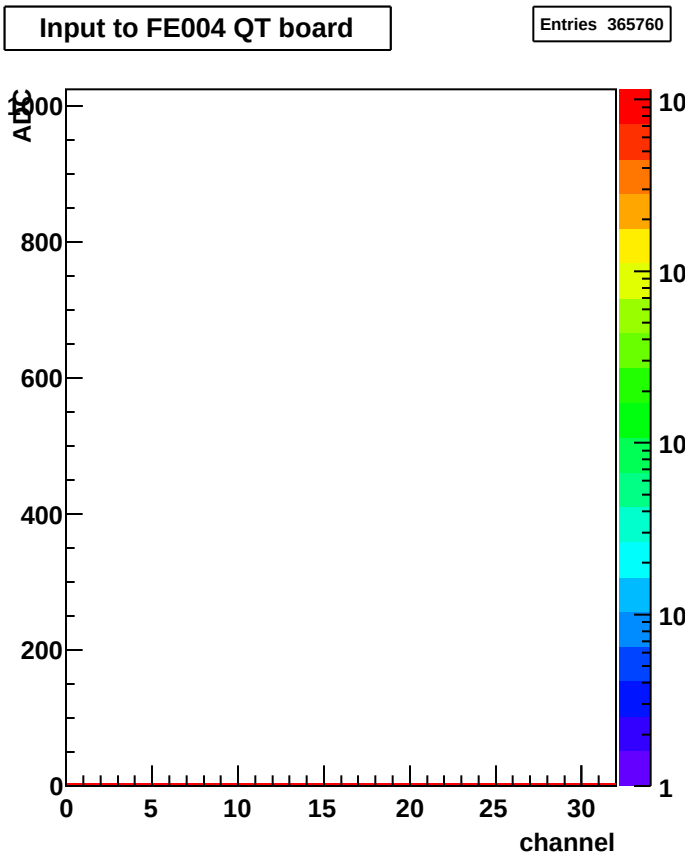

Input to FPD L2 DSM
Entries 34290
HT bits - simulated
11430
11430
11430
SMALL
LARGE-S
LARGE-N

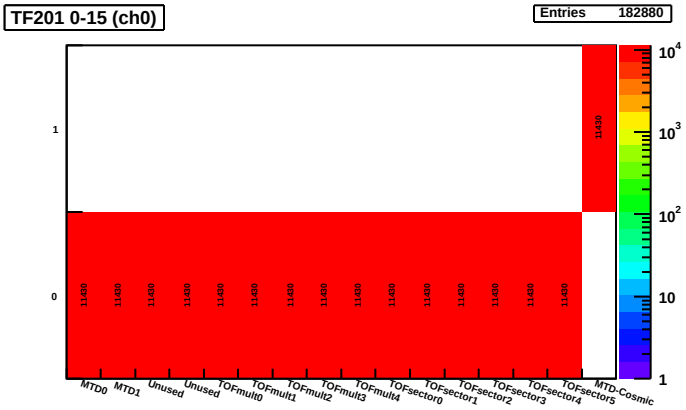

Input to FPD L2 DSM
Entries 68580
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

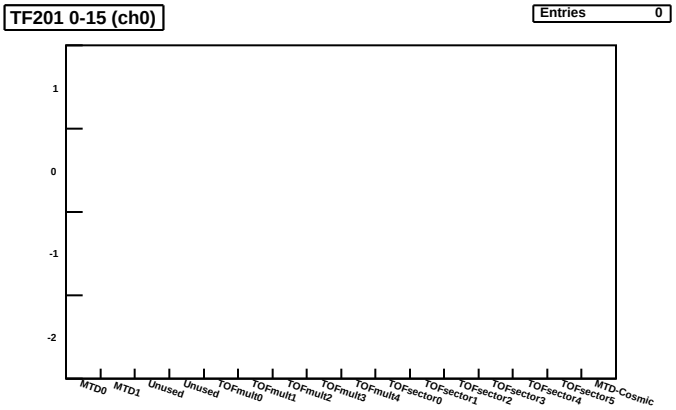

Input to FE001 QT board
Entries 365760
ADC
channel

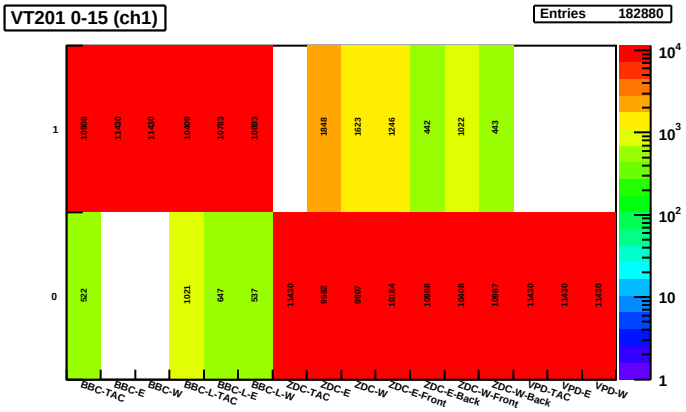

Input to FE002 QT board
Entries 365760
ADC
channel

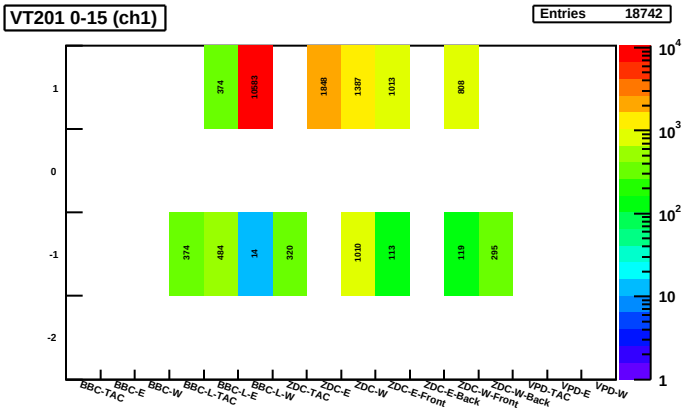

Input to FE003 QT board
Entries 365760
ADC
channel

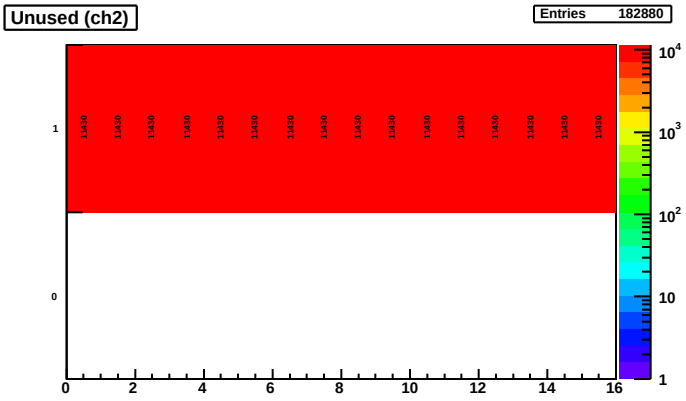

Input to FE004 QT board
Entries 365760
ADC
channel

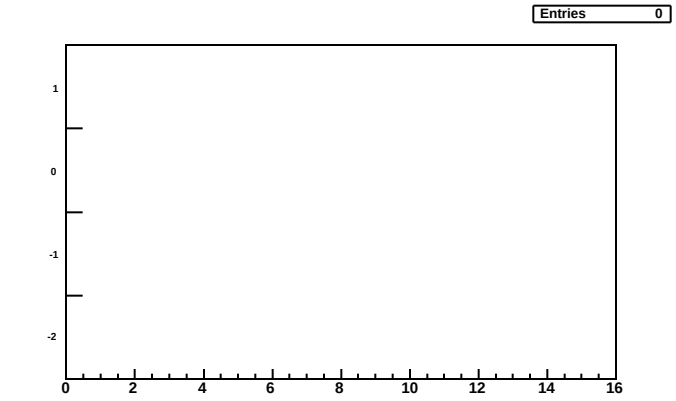

TF201 0-15 (ch0)
Entries 182880
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

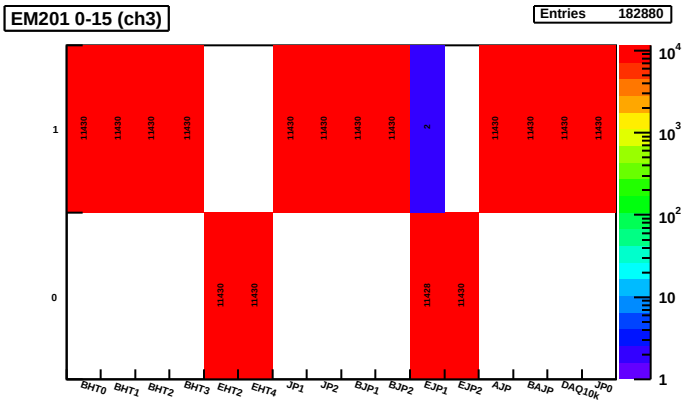

TF201 0-15 (ch0)
Entries 0
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 182880
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 18742
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 182880


Entries 0


EM201 0-15 (ch3)
Entries 182880
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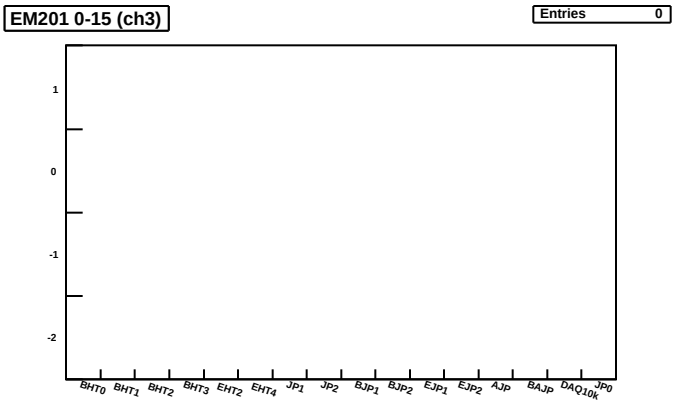
EM201 0-15 (ch3)
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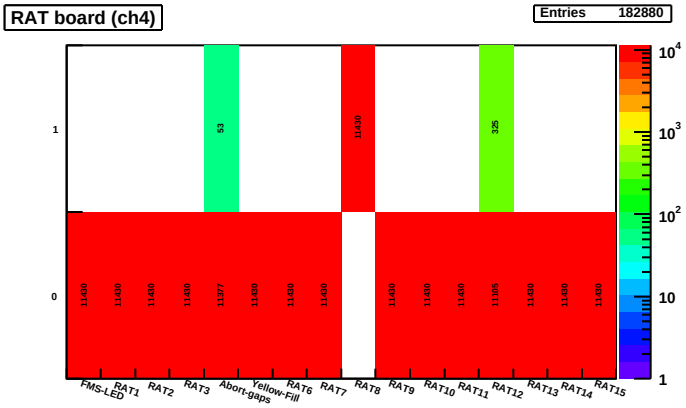
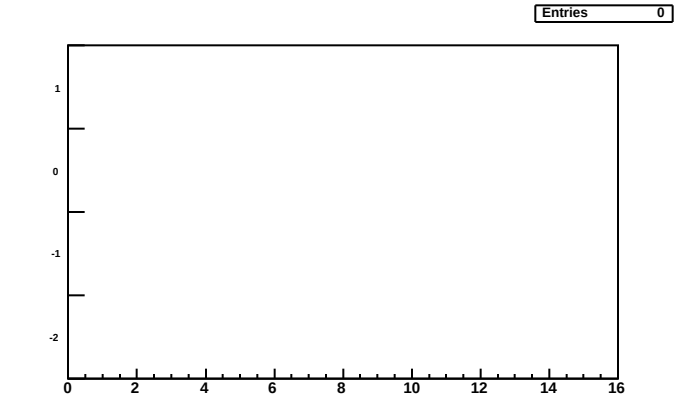
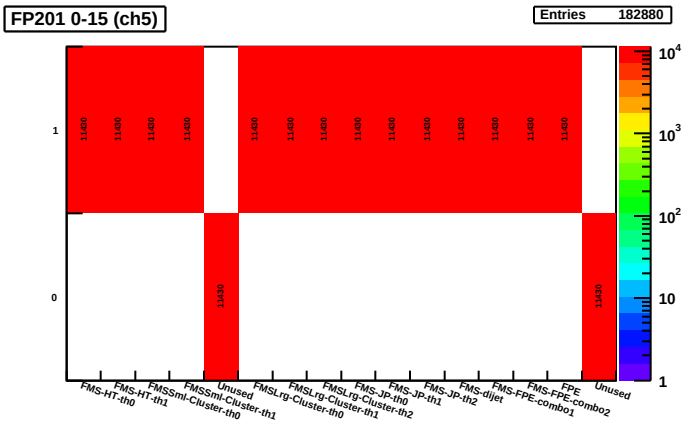
RAT board (ch4)





FP201 0-15 (ch5)



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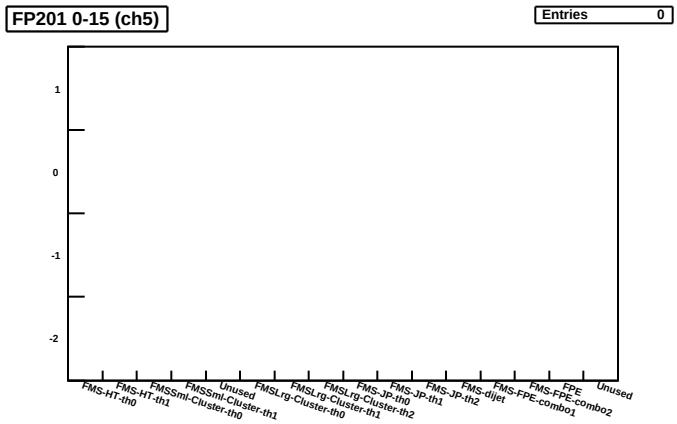
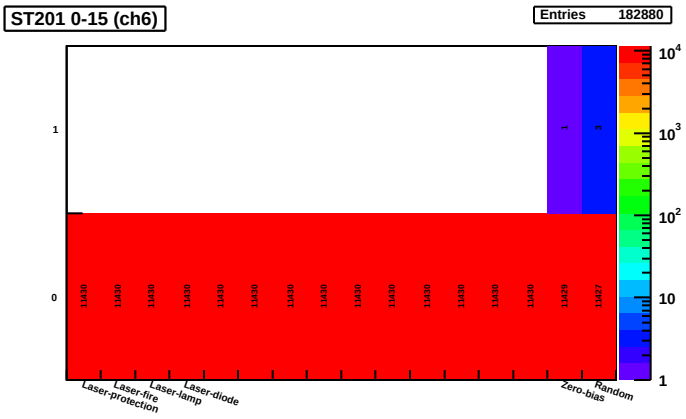
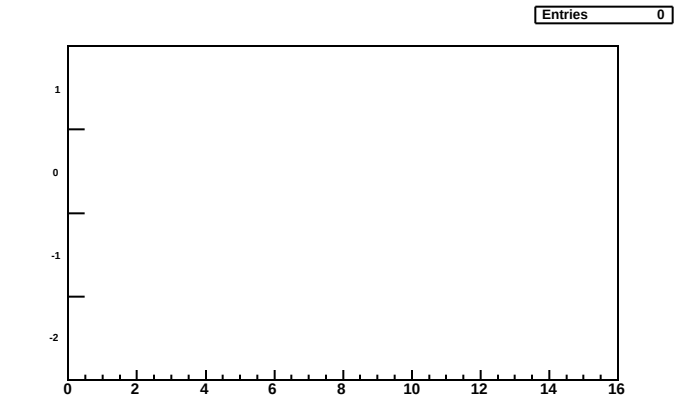
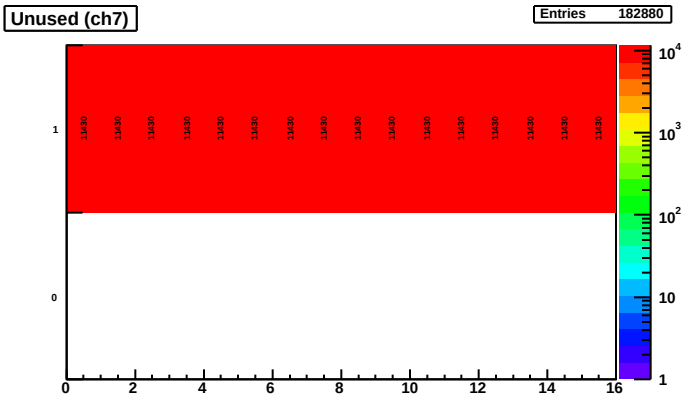
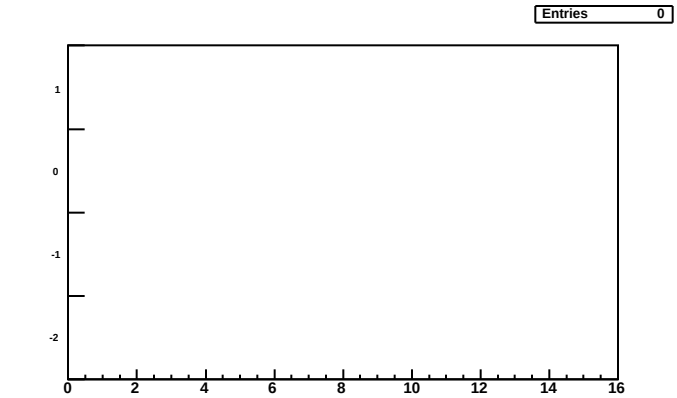


ST201 0-15 (ch6)





Unused (ch7)