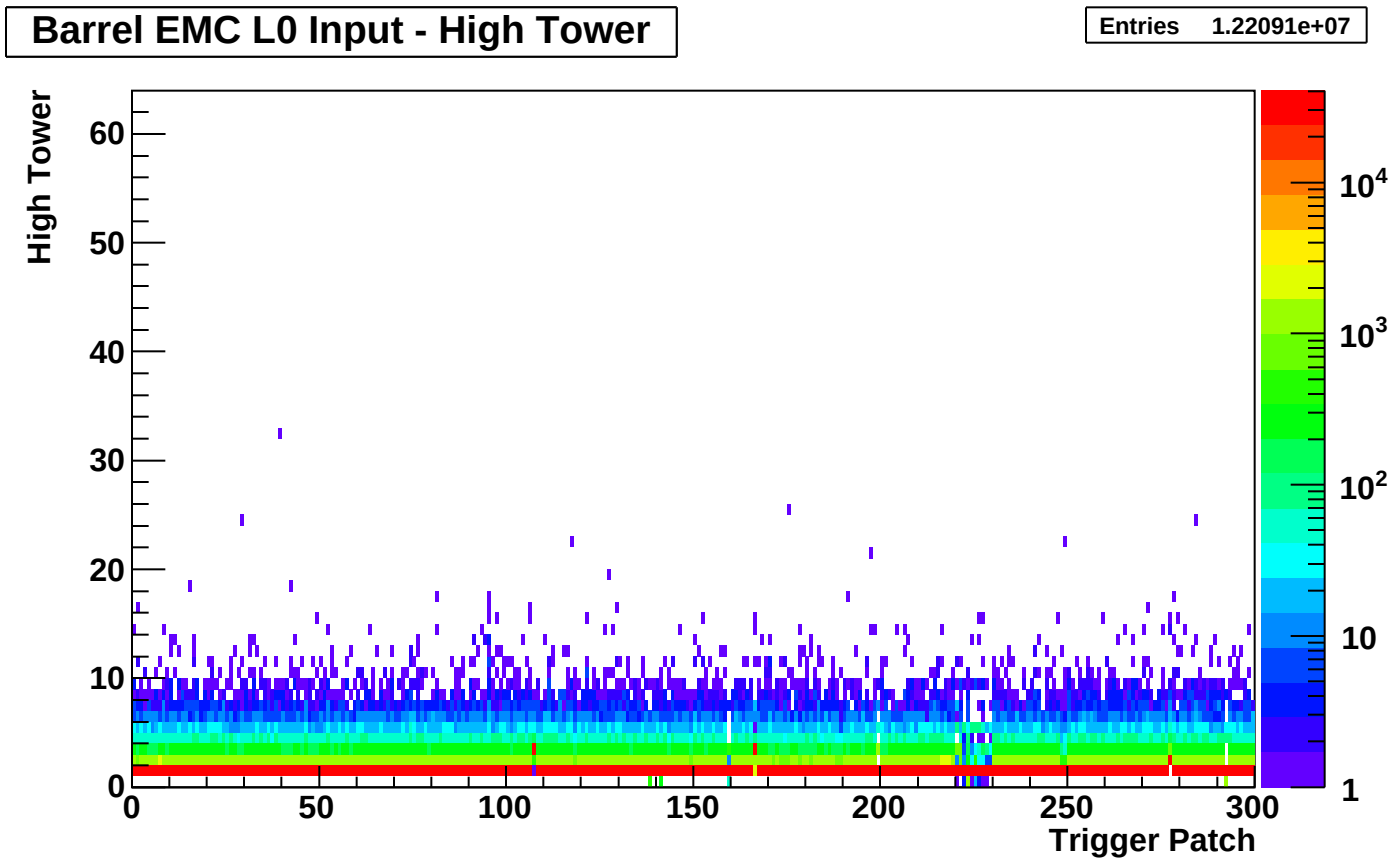
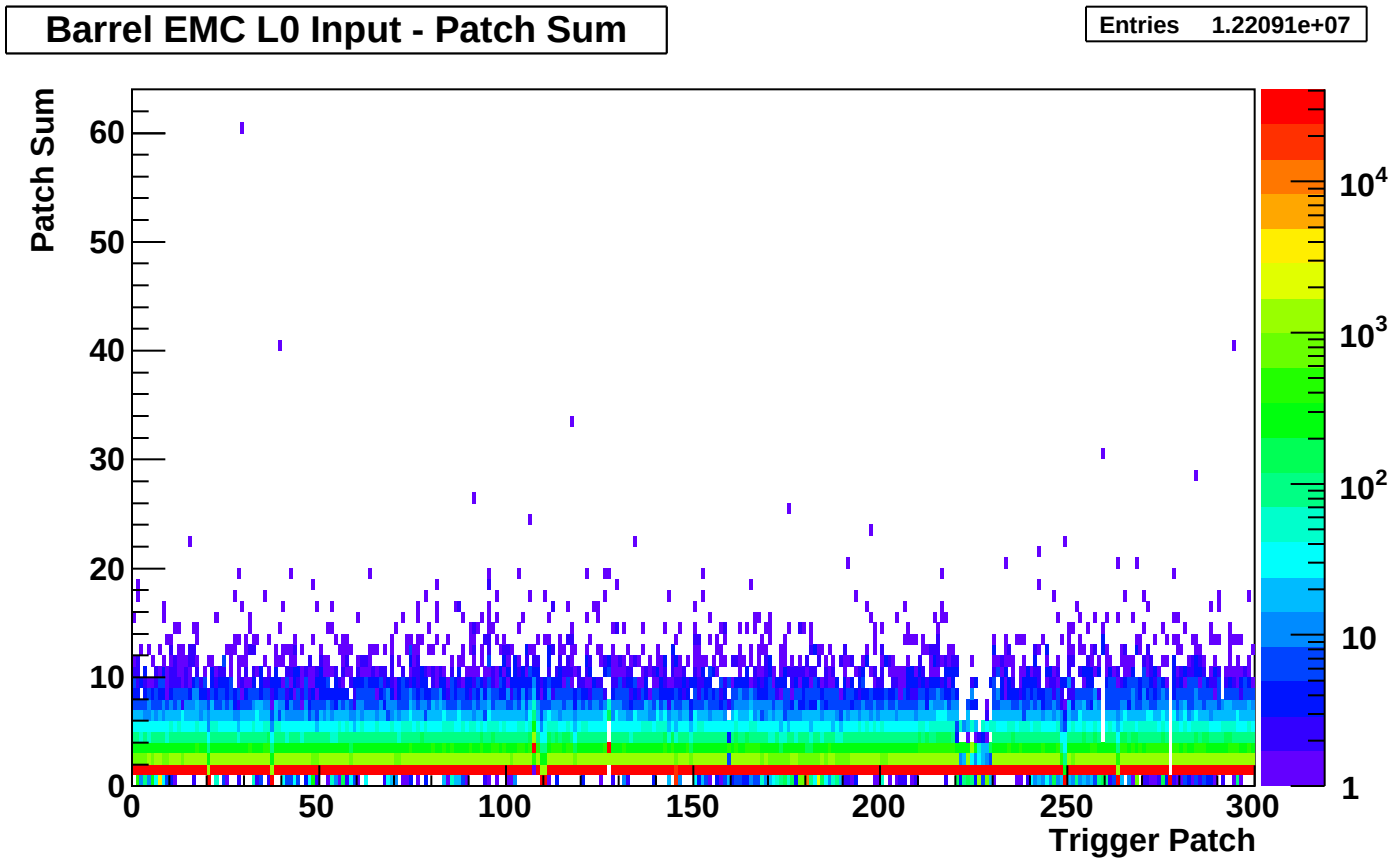
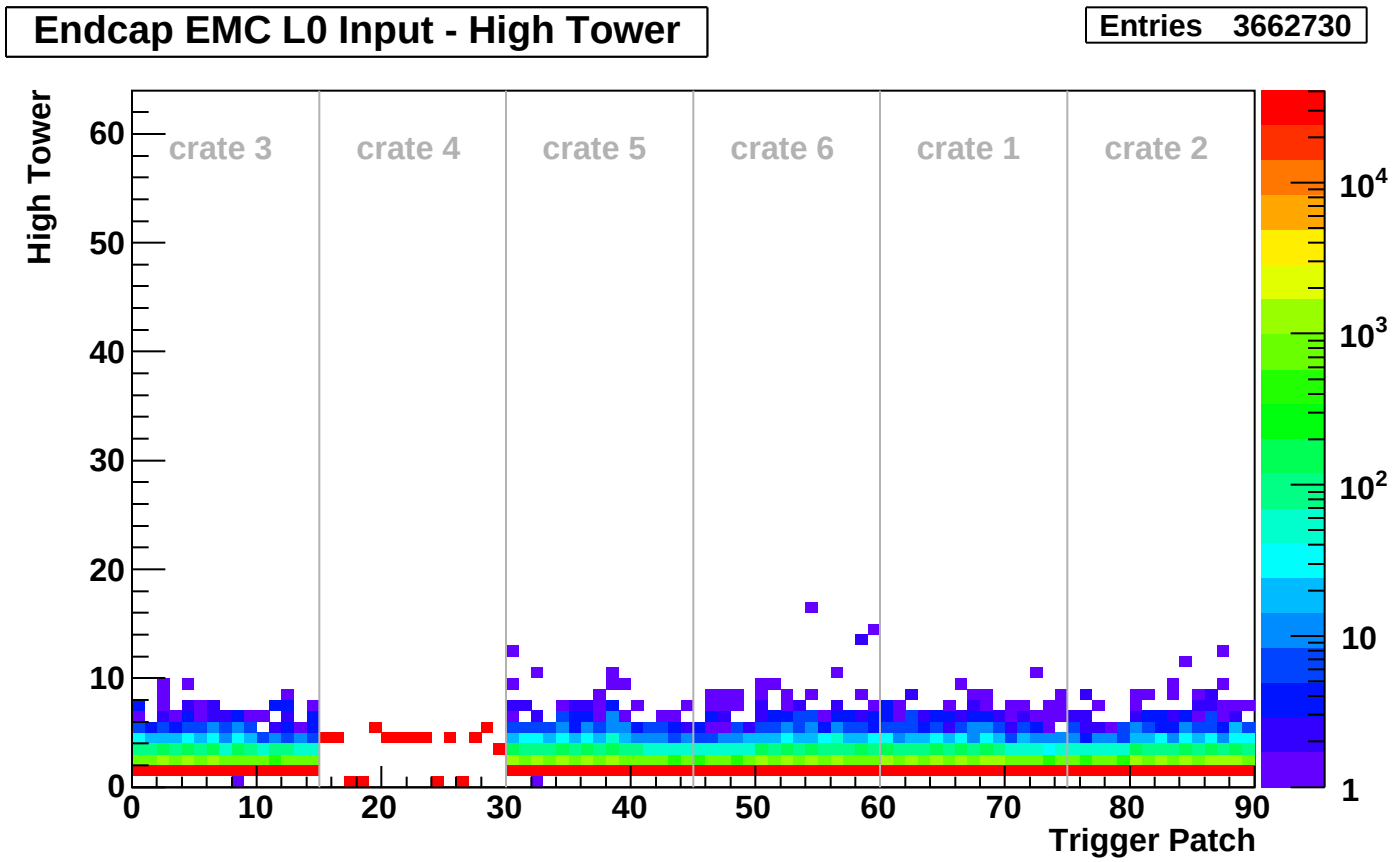
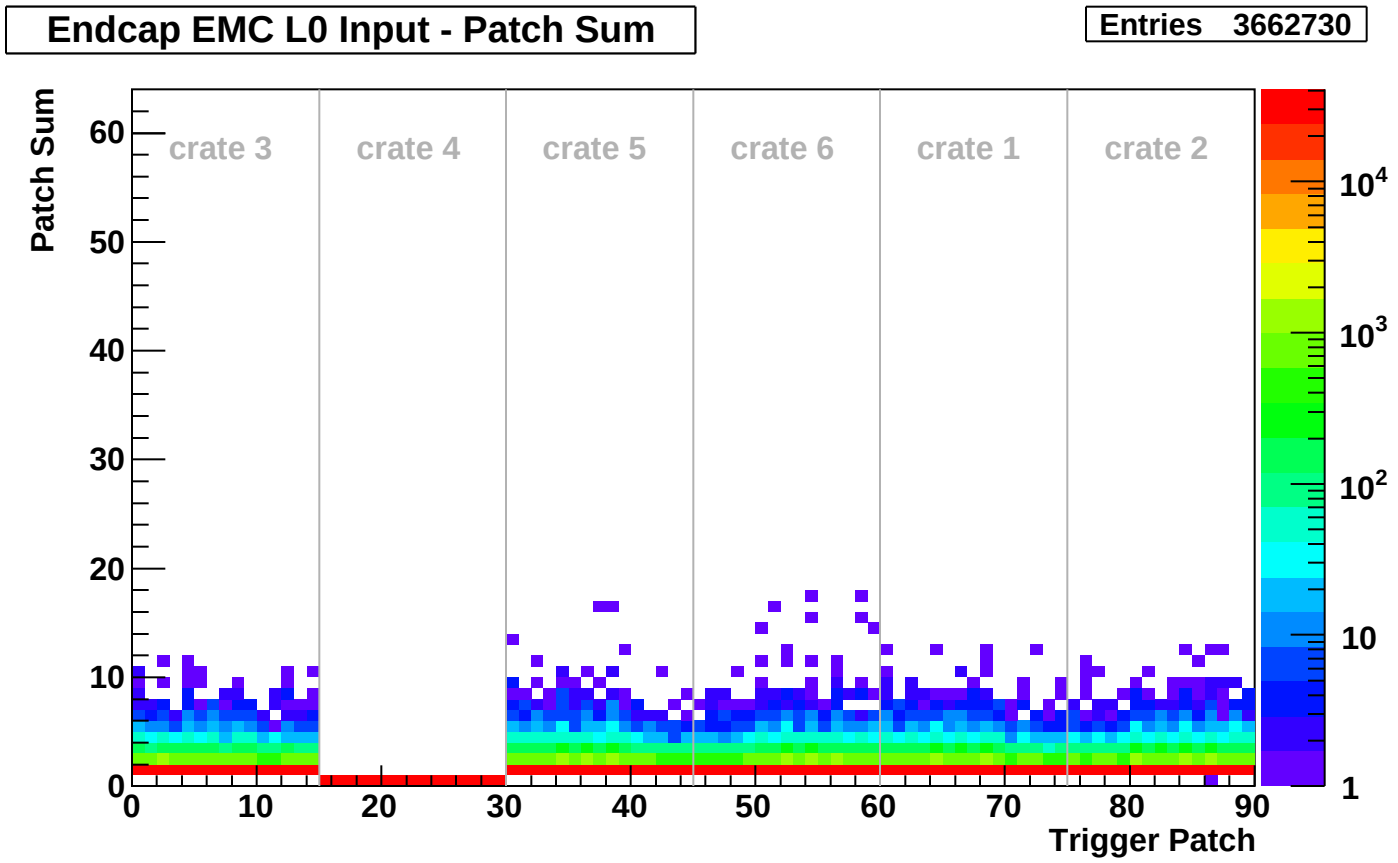
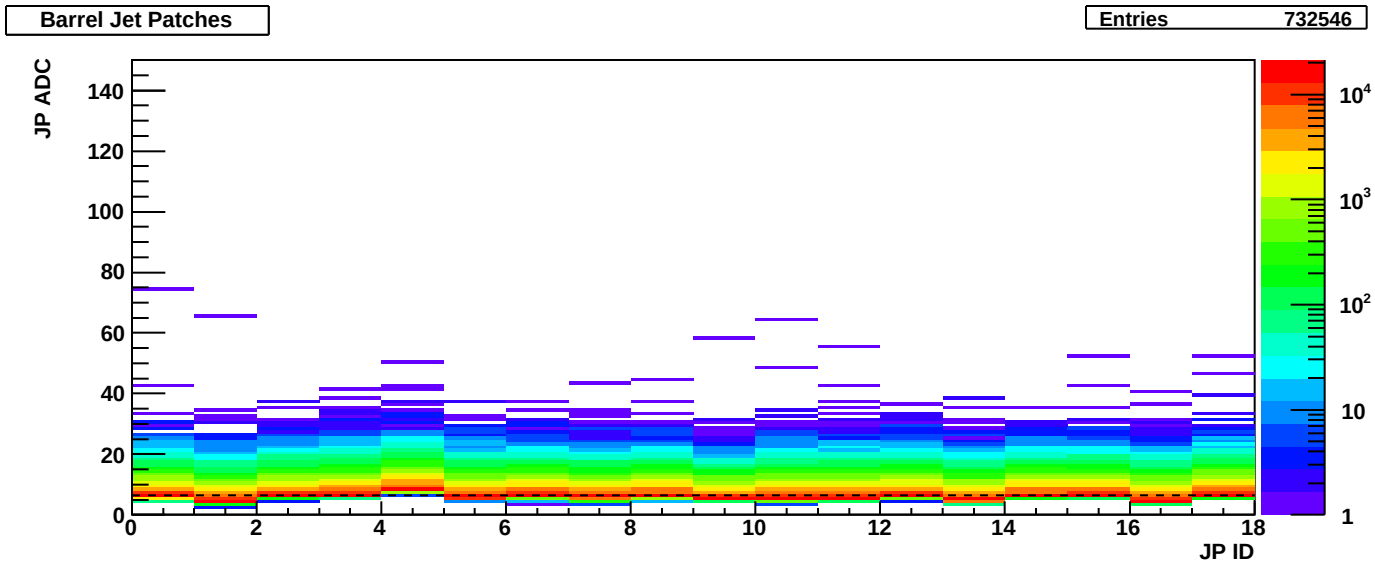
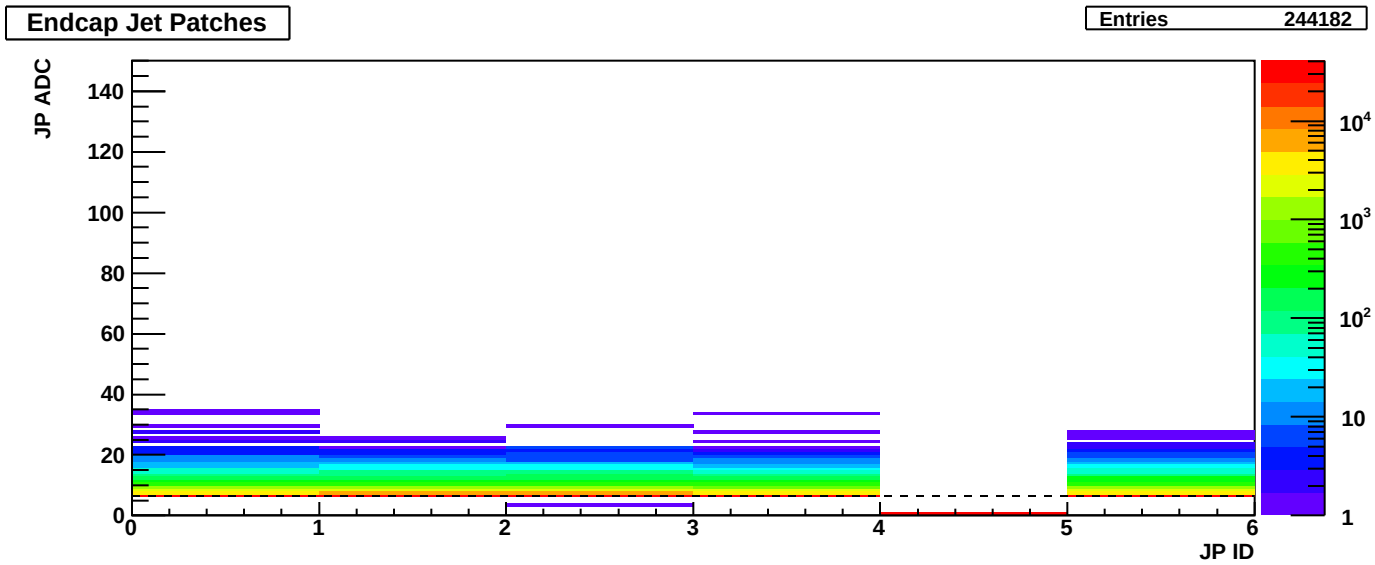

Barrel EMC L0 Input - High Tower
Entries 1.22091e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

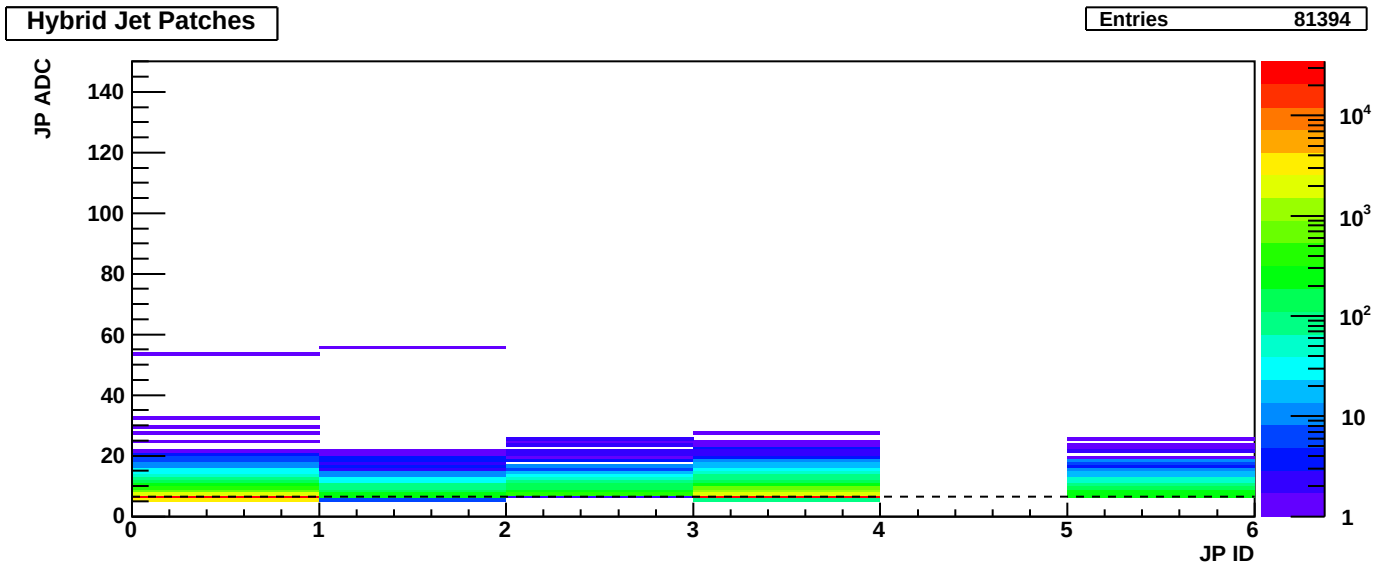

Barrel EMC L0 Input - Patch Sum
Entries 1.22091e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

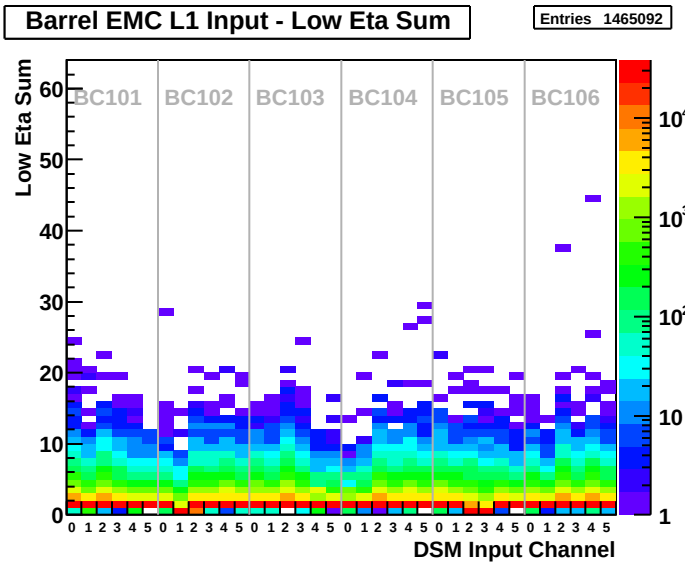

Endcap EMC L0 Input - High Tower
Entries 3662730
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

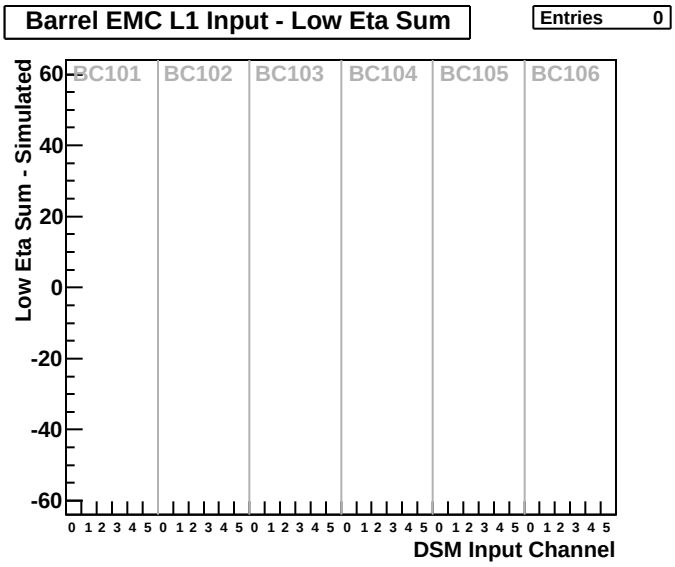

Endcap EMC L0 Input - Patch Sum
Entries 3662730
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

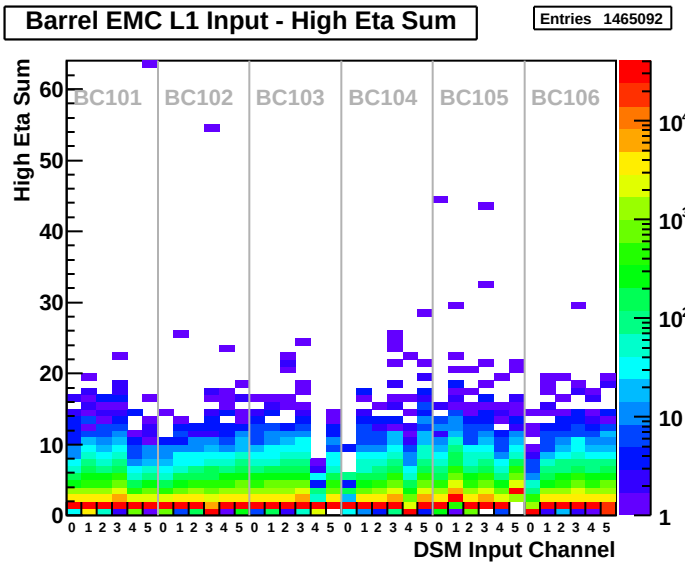

Barrel Jet Patches
Entries 732546
JP ADC
JP ID

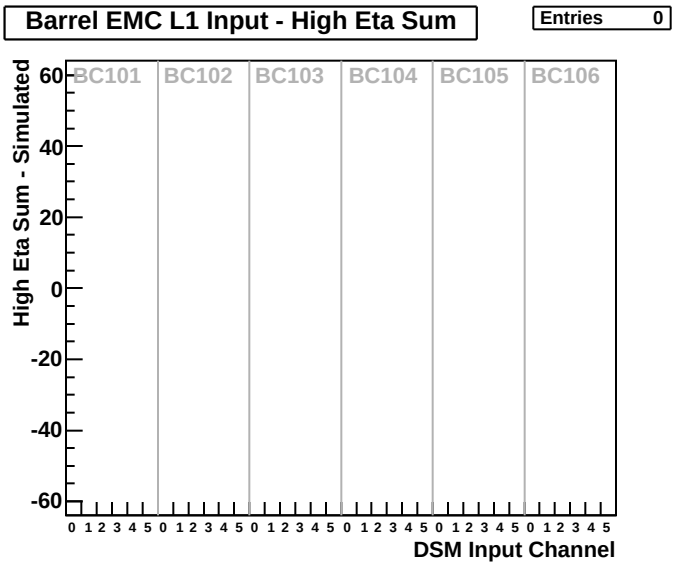

Endcap Jet Patches
Entries 244182
JP ADC
JP ID

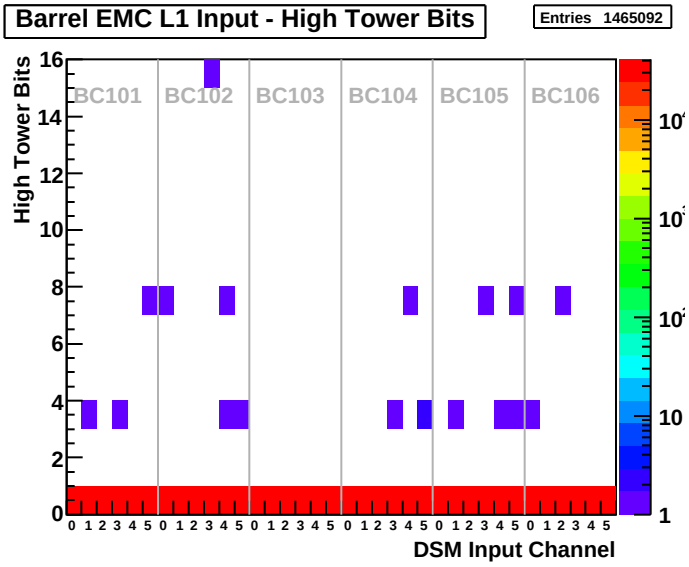

Hybrid Jet Patches
Entries 81394
JP ADC
JP ID

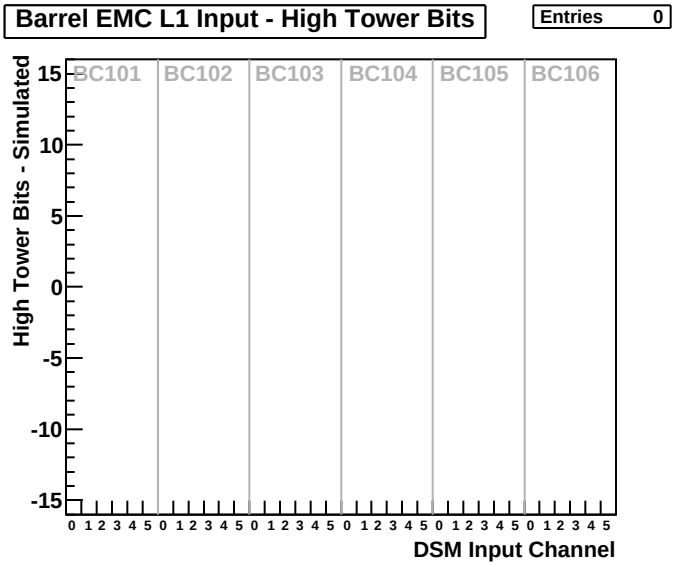

Barrel EMC L1 Input - Low Eta Sum
Entries 1465092
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

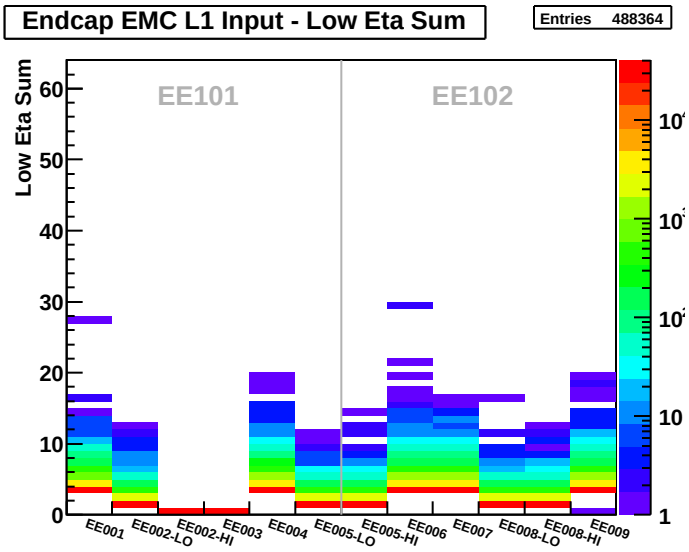

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

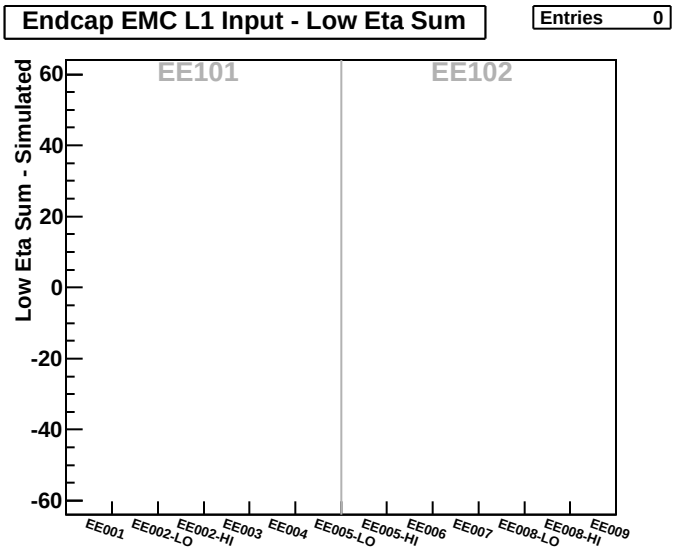

Barrel EMC L1 Input - High Eta Sum
Entries 1465092
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

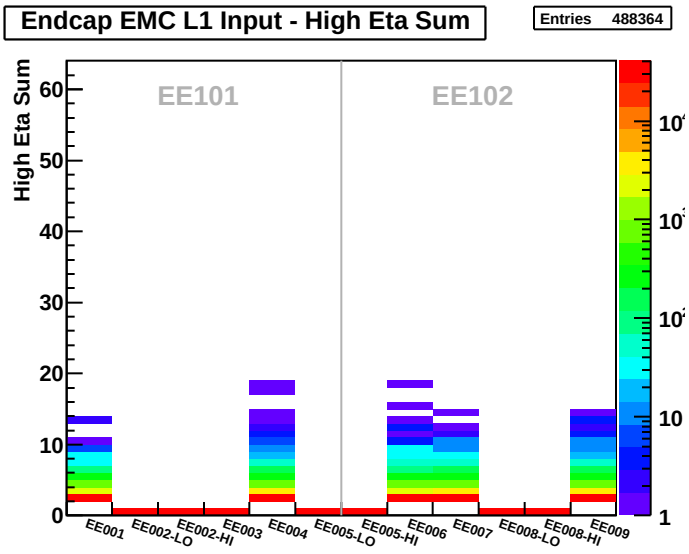

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

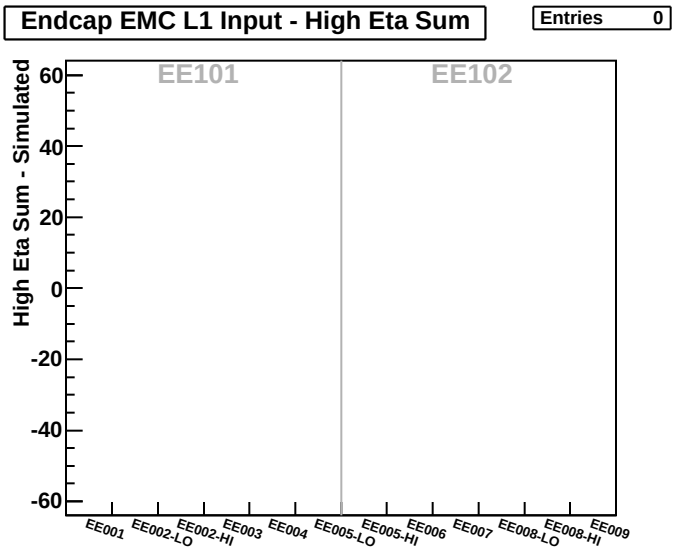

Barrel EMC L1 Input - High Tower Bits
Entries 1465092
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

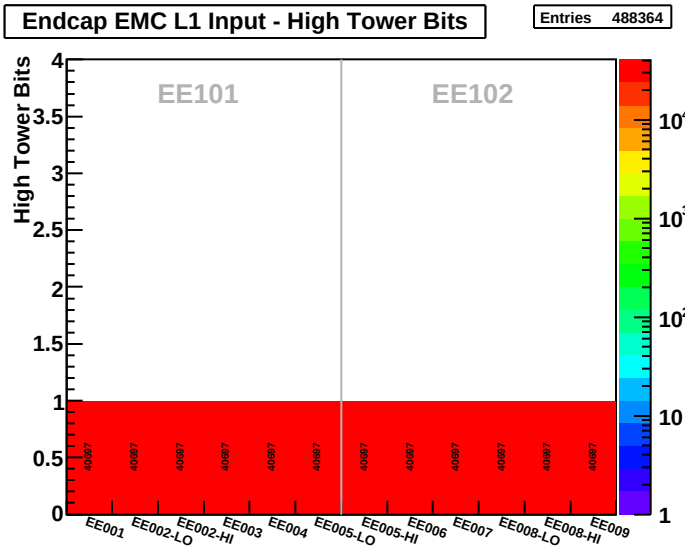

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

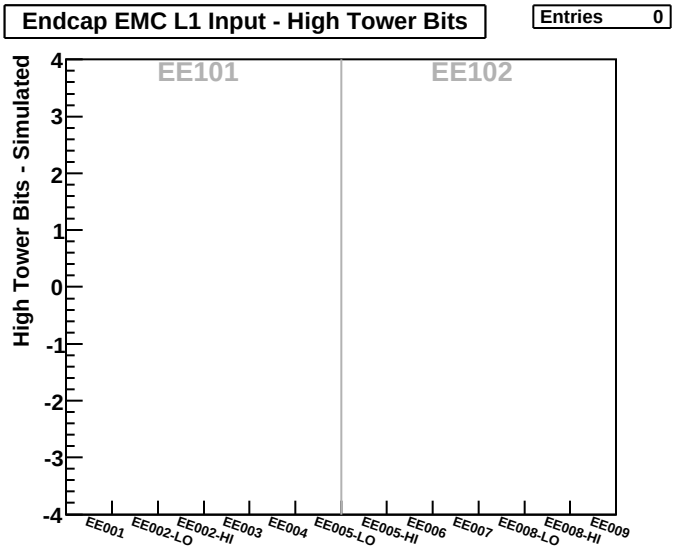

Endcap EMC L1 Input - Low Eta Sum
Entries 488364
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

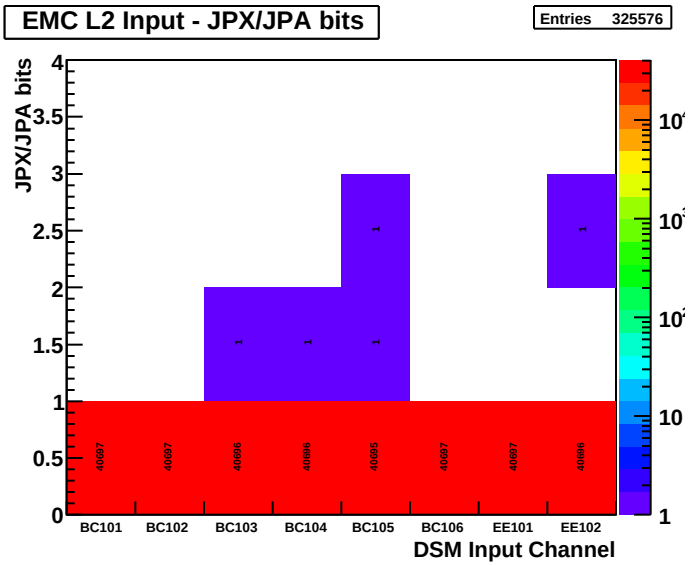

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

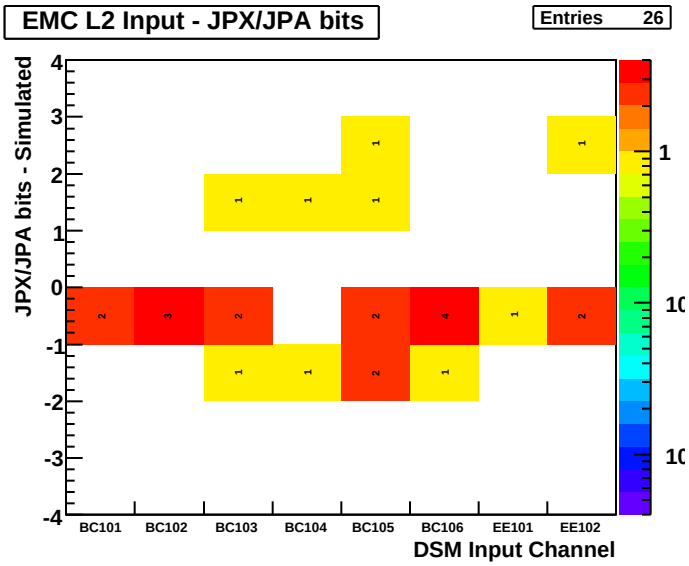

Endcap EMC L1 Input - High Eta Sum
Entries 488364
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

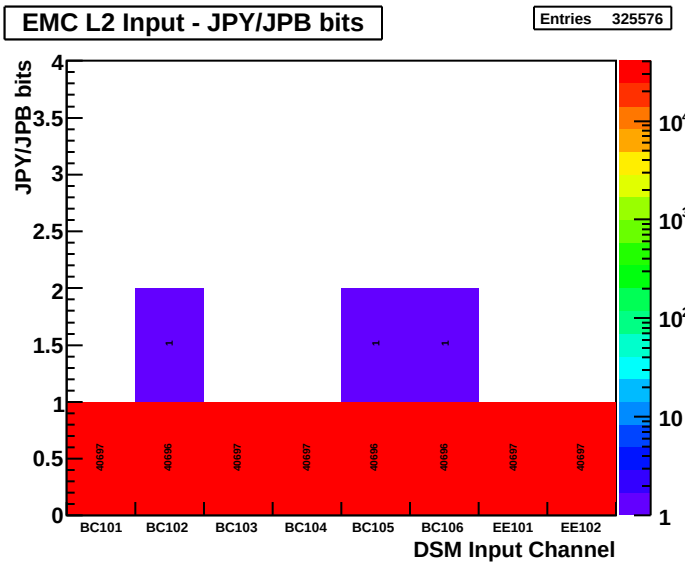

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

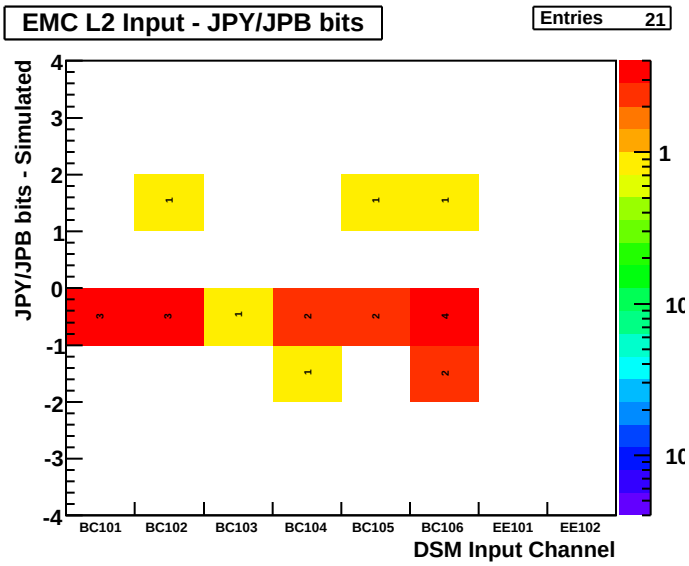

Endcap EMC L1 Input - High Tower Bits
Entries 488364
High Tower Bits
EE101
EE102
40697
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

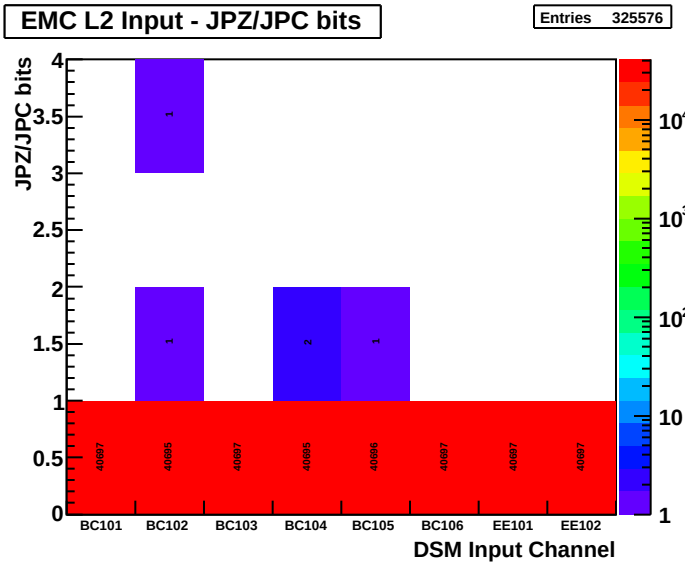

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

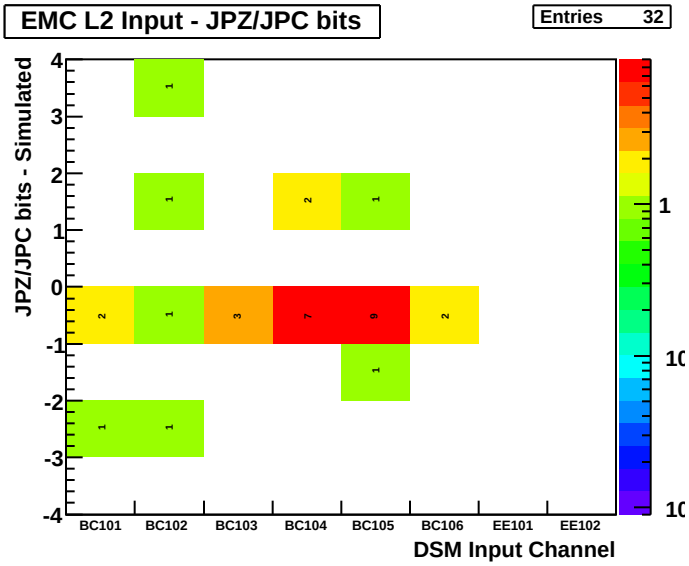

EMC L2 Input - JPX/JPA bits
Entries 325576
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

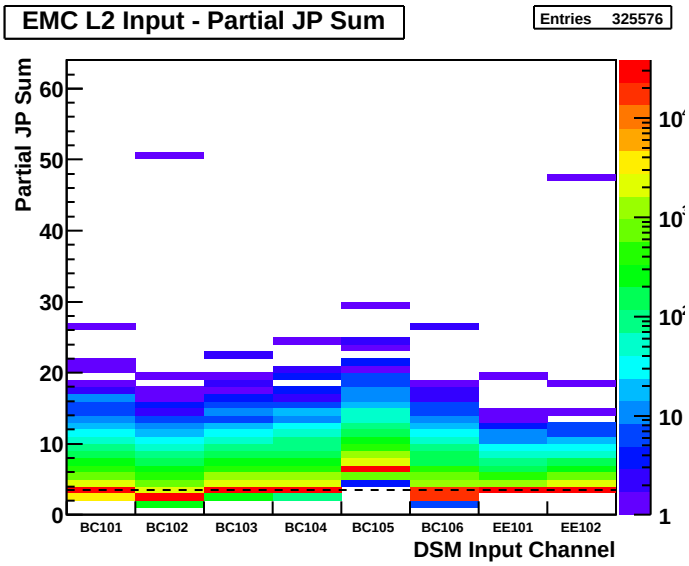

EMC L2 Input - JPX/JPA bits
Entries 26
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

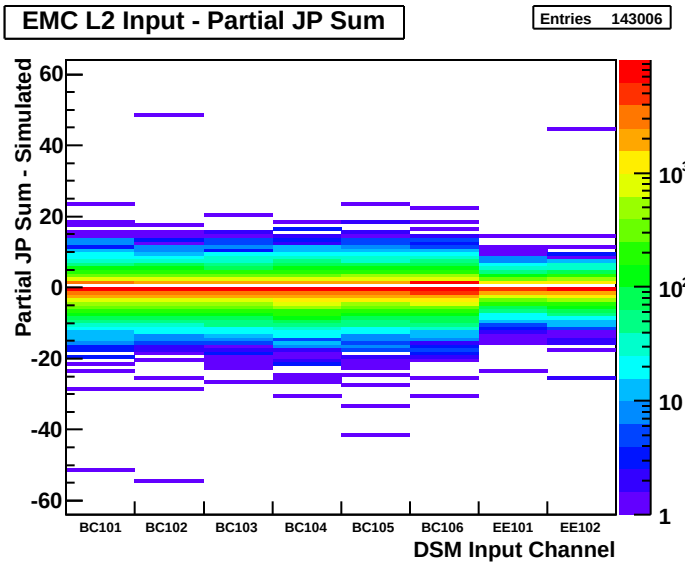

EMC L2 Input - JPY/JPB bits
Entries 325576
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

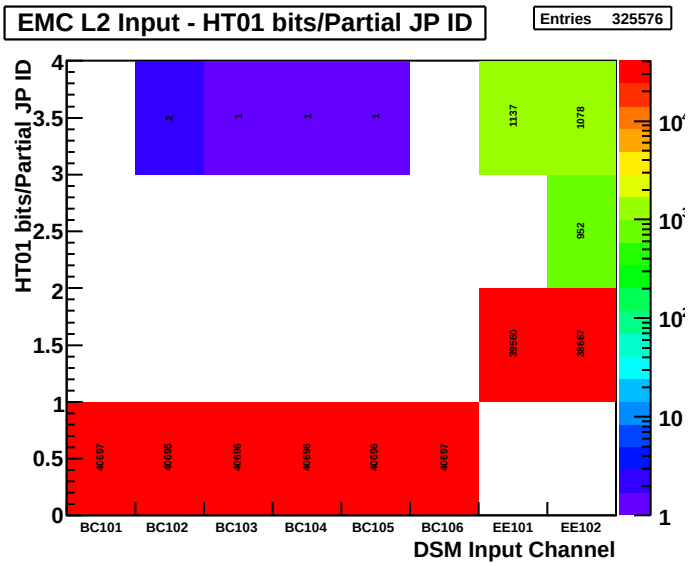

EMC L2 Input - JPY/JPB bits
Entries 21
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

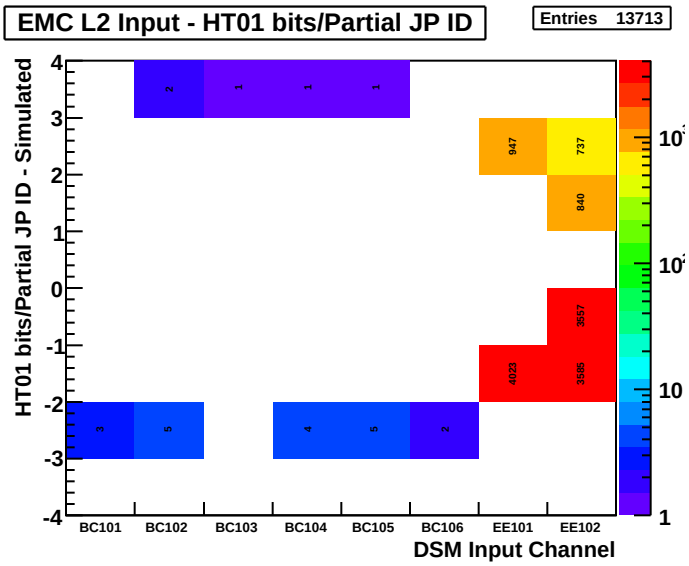

EMC L2 Input - JPZ/JPC bits
Entries 325576
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

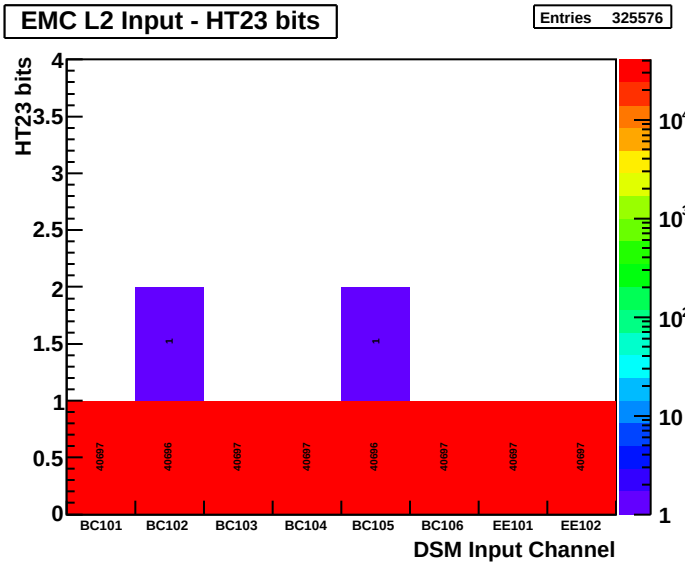

EMC L2 Input - JPZ/JPC bits
Entries 32
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

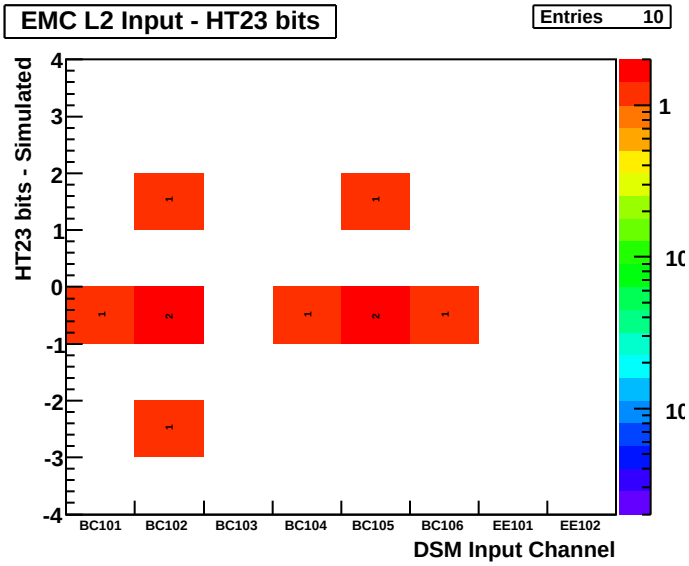

EMC L2 Input - Partial JP Sum
Entries 325576
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

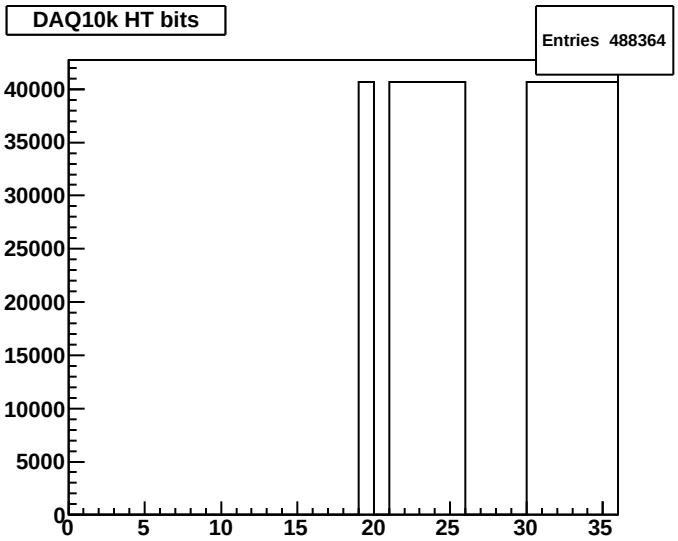

EMC L2 Input - Partial JP Sum
Entries 143006
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

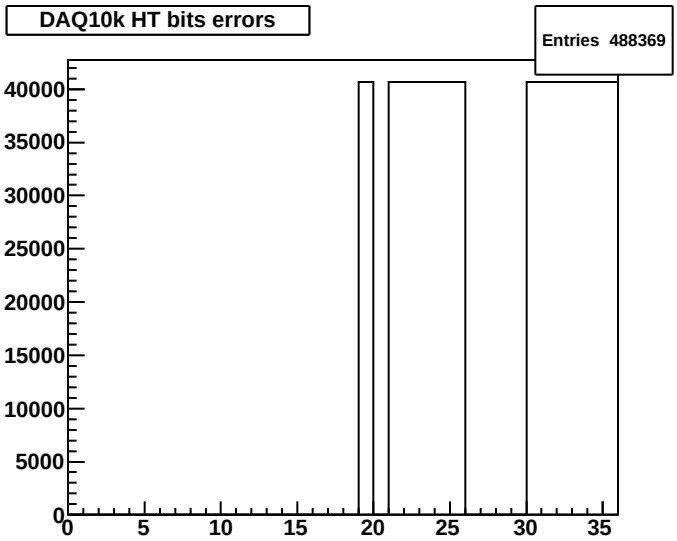

EMC L2 Input - HT01 bits/Partial JP ID
Entries 325576
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

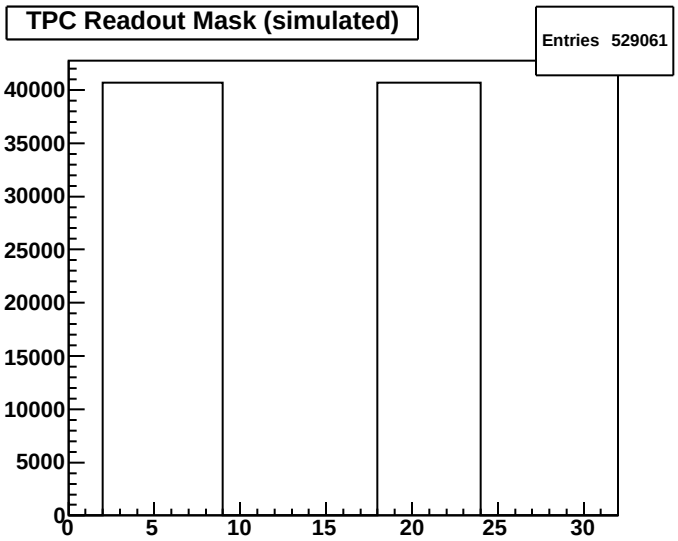

EMC L2 Input - HT01 bits/Partial JP ID
Entries 13713
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

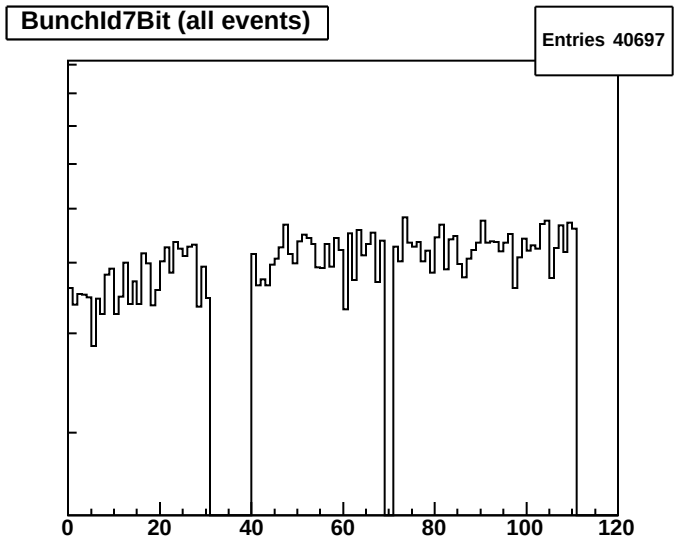

EMC L2 Input - HT23 bits
Entries 325576
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

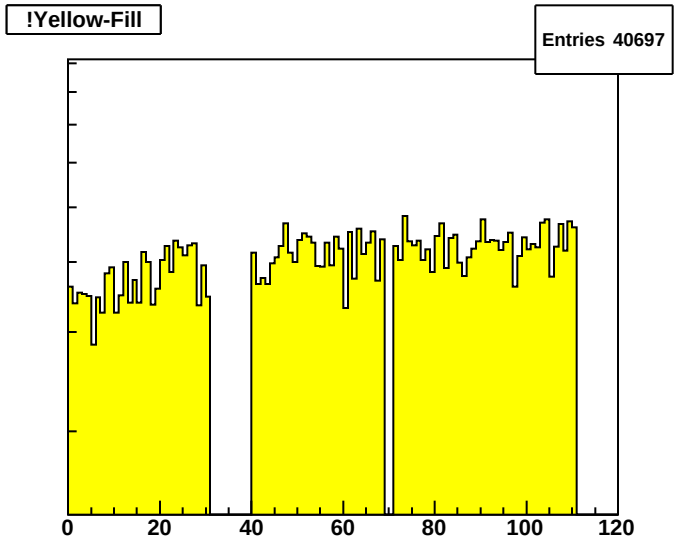

EMC L2 Input - HT23 bits
Entries 10
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

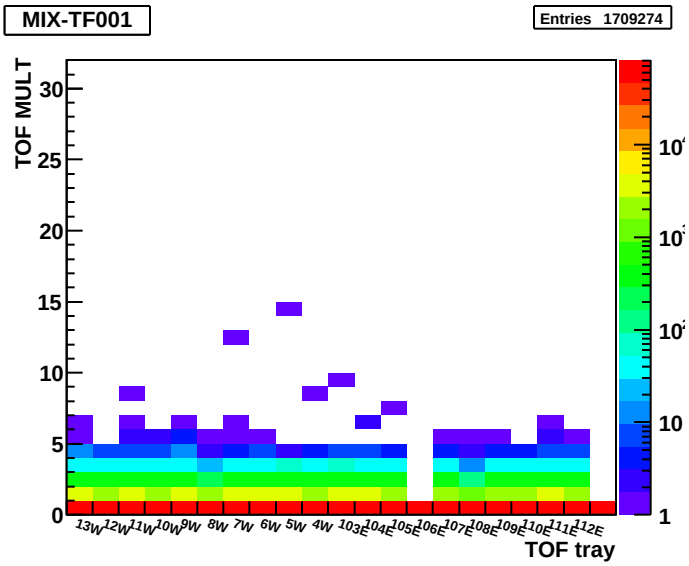

DAQ10k HT bits
Entries 488364
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
25
30
35

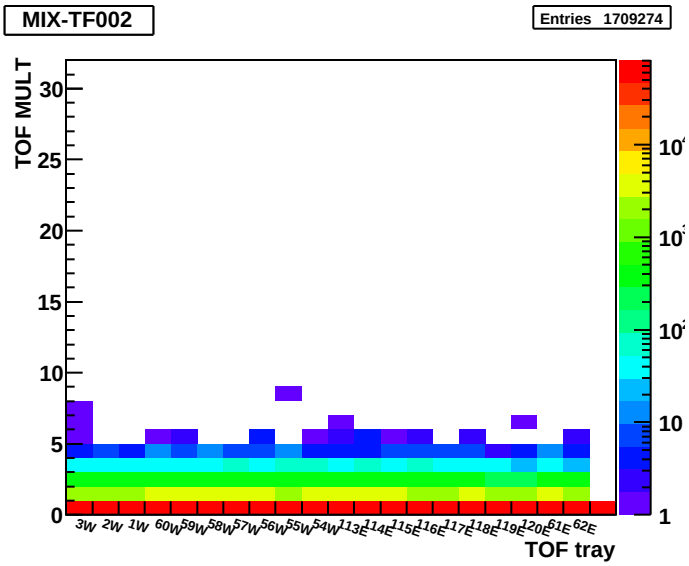

DAQ10k HT bits errors
Entries 488369
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
25
30
35

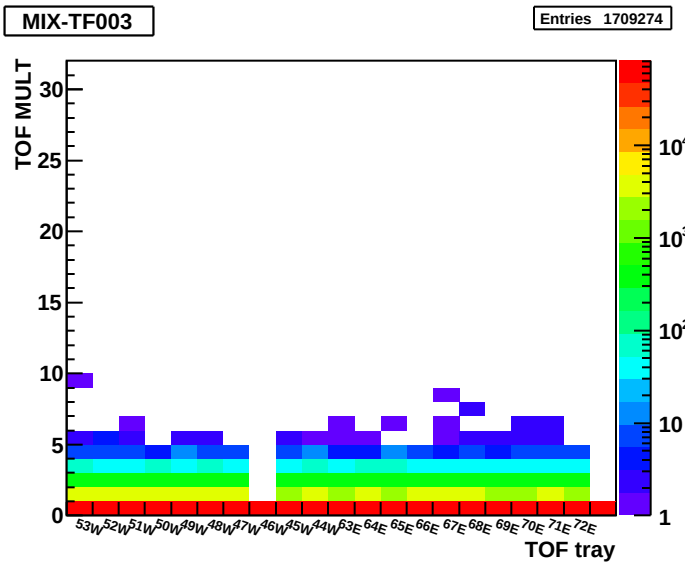

TPC Readout Mask (simulated)
Entries 529061
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
25
30

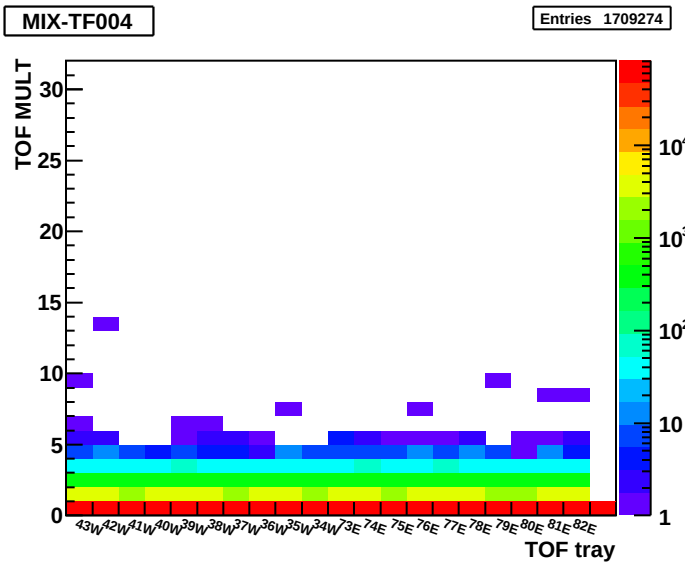

BunchId7Bit (all events)
Entries 40697
0
20
40
60
80
100
120

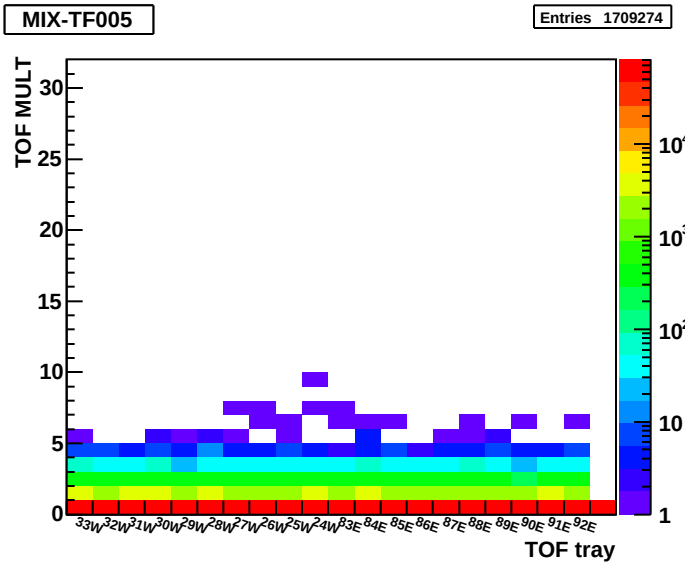

!Yellow-Fill
Entries 40697
0
20
40
60
80
100
120

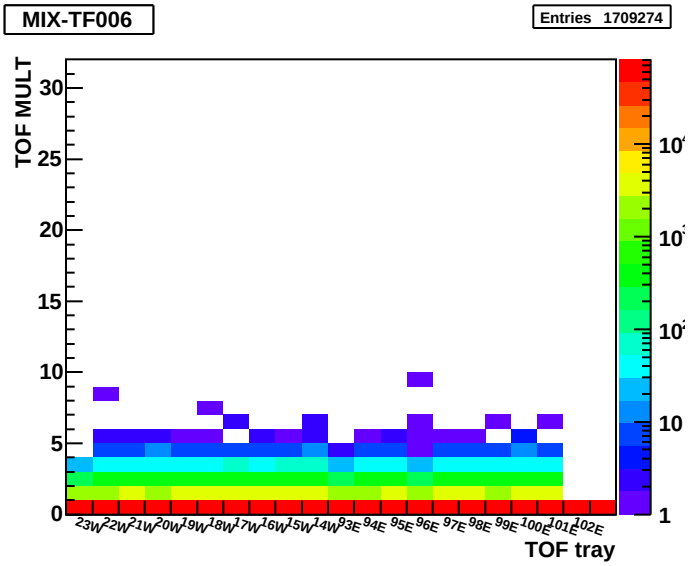

MIX-TF001
Entries 1709274
TOF MULT
TOF tray

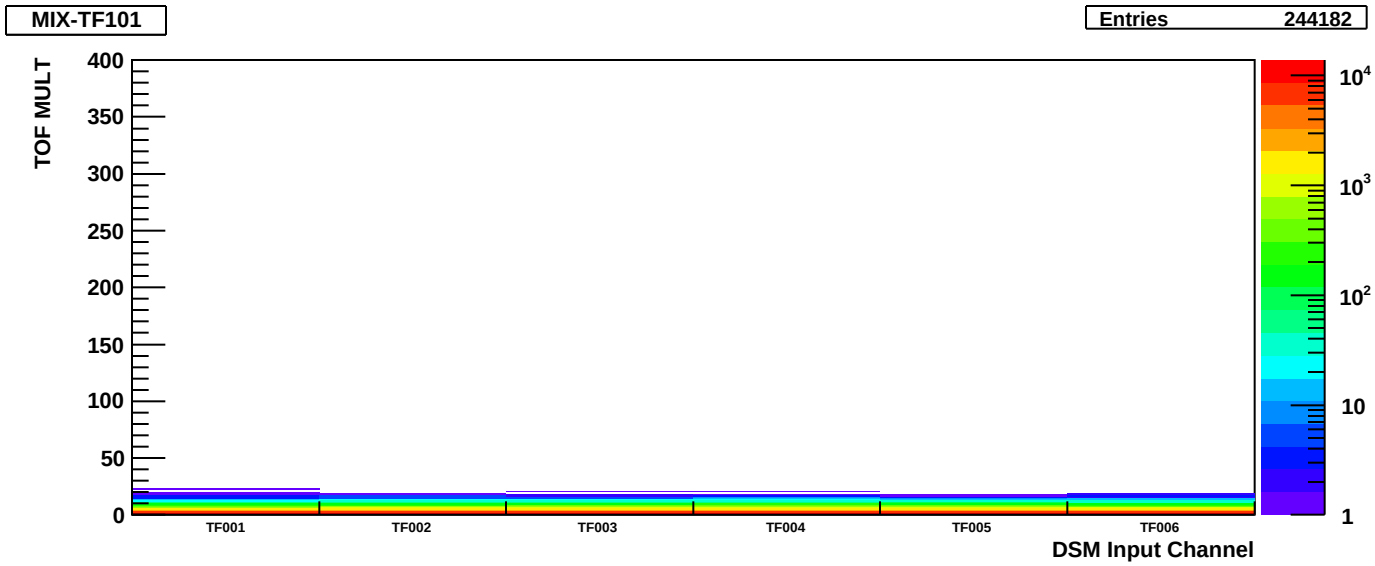

MIX-TF002
Entries 1709274
TOF MULT
TOF tray

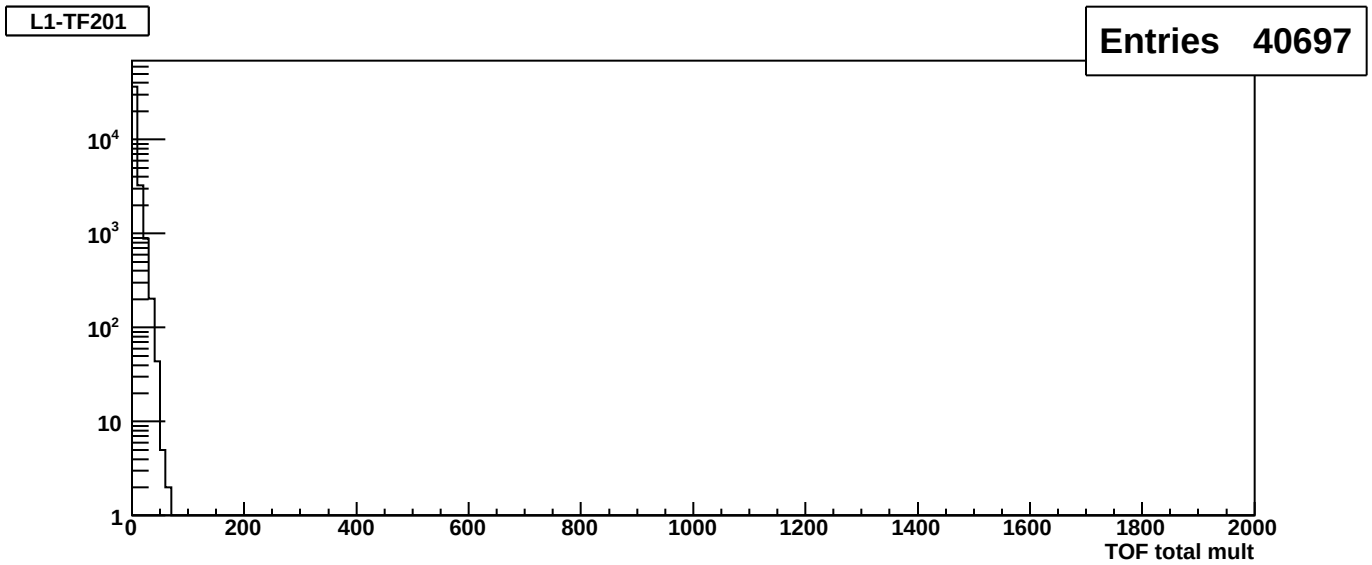

MIX-TF003
Entries 1709274
TOF MULT
TOF tray

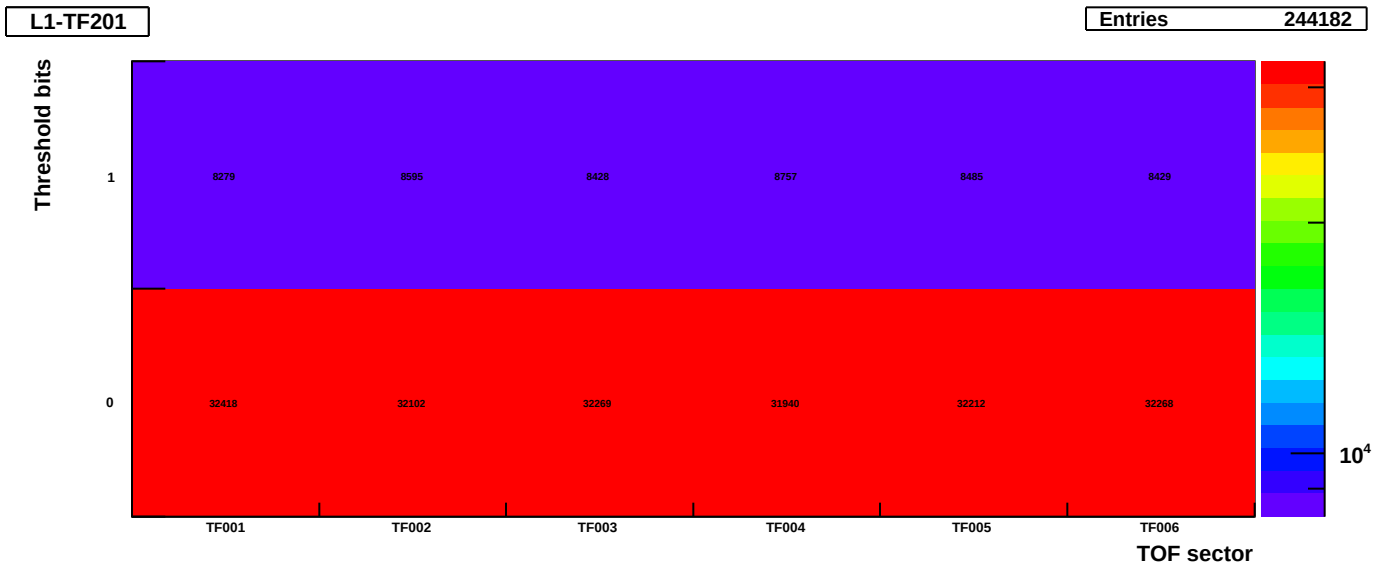

MIX-TF004
Entries 1709274
TOF MULT
TOF tray

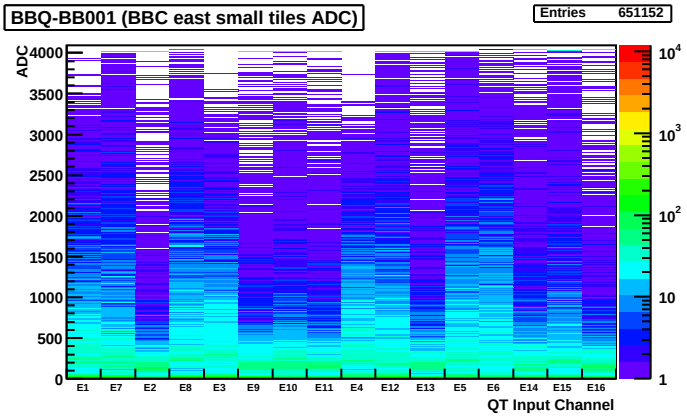

MIX-TF005
Entries 1709274
TOF MULT
TOF tray

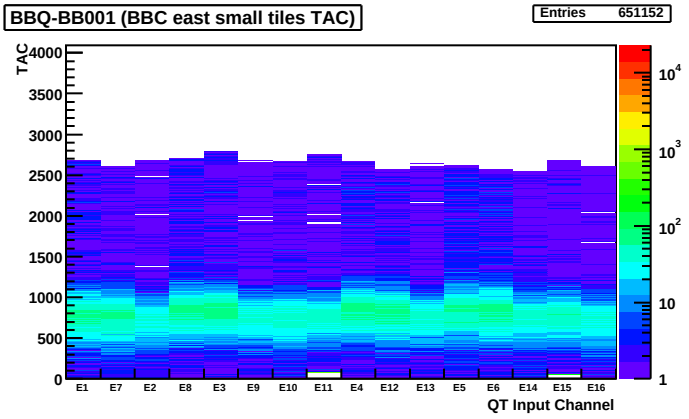

MIX-TF006
Entries 1709274
TOF MULT
TOF tray

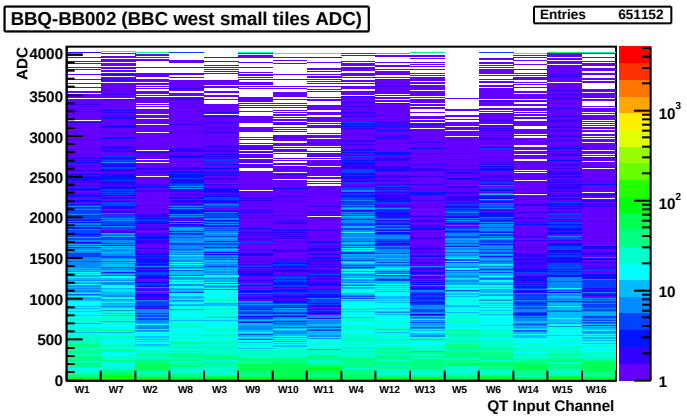

MIX-TF101
Entries 244182
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

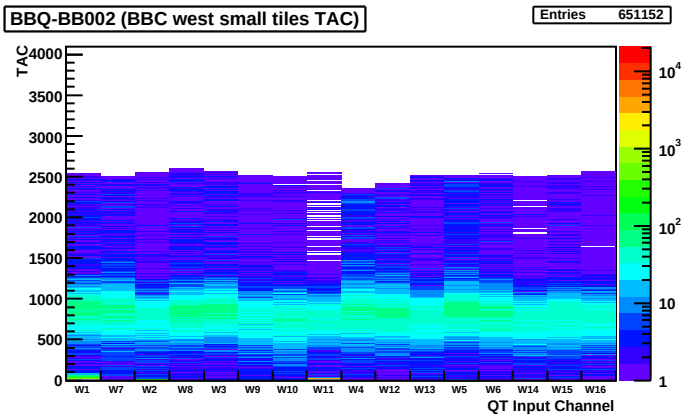

L1-TF201
Entries 40697
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

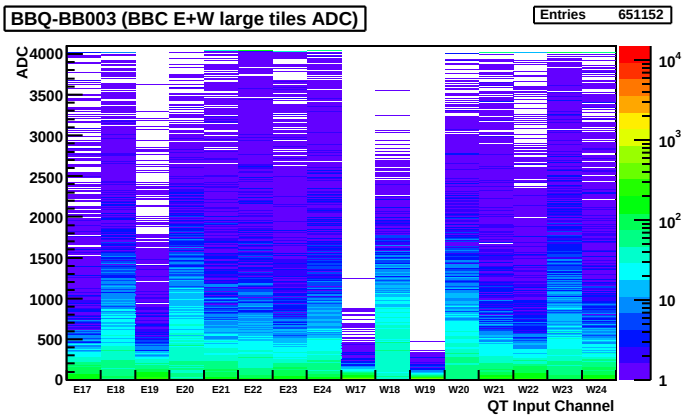

L1-TF201
Entries 244182
Threshold bits
1
0
8279
8595
8428
8757
8485
8429
32418
32102
32269
31940
32212
32268
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

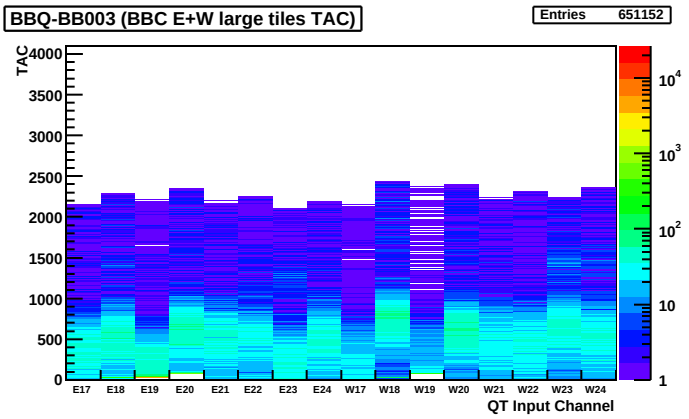

BBQ-BB001 (BBC east small tiles ADC)
Entries 651152
ADC
QT Input Channel

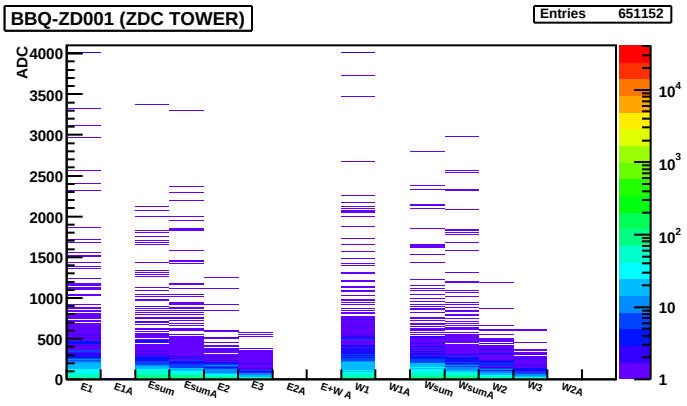

BBQ-BB001 (BBC east small tiles TAC)
Entries 651152
TAC
QT Input Channel

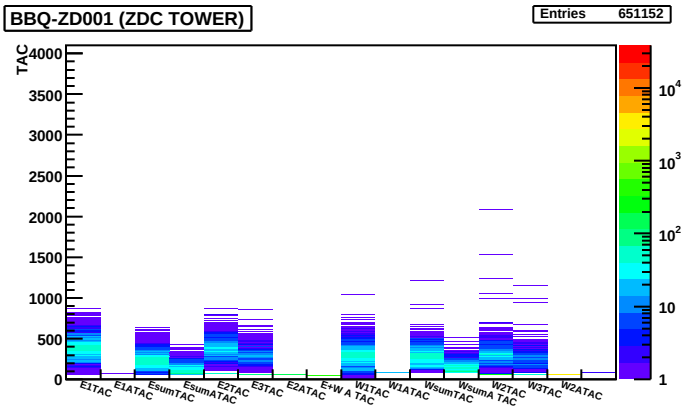

BBQ-BB002 (BBC west small tiles ADC)
Entries 651152
ADC
QT Input Channel

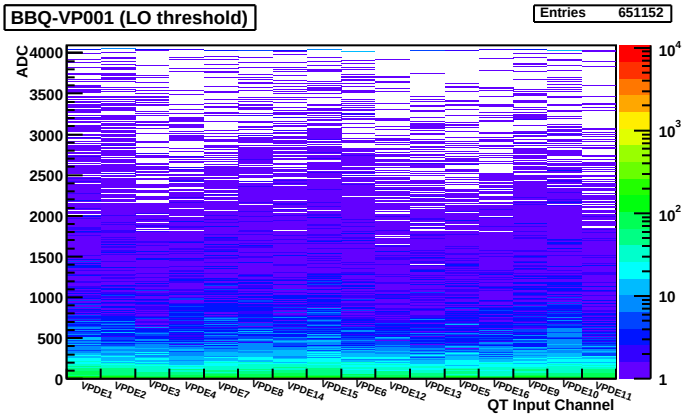

BBQ-BB002 (BBC west small tiles TAC)
Entries 651152
TAC
QT Input Channel

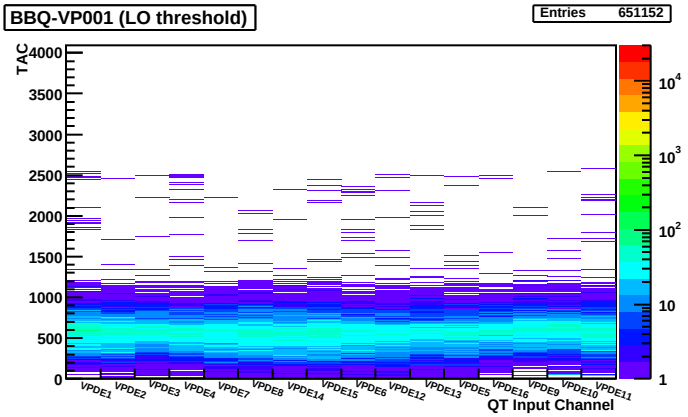

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 651152
ADC
QT Input Channel

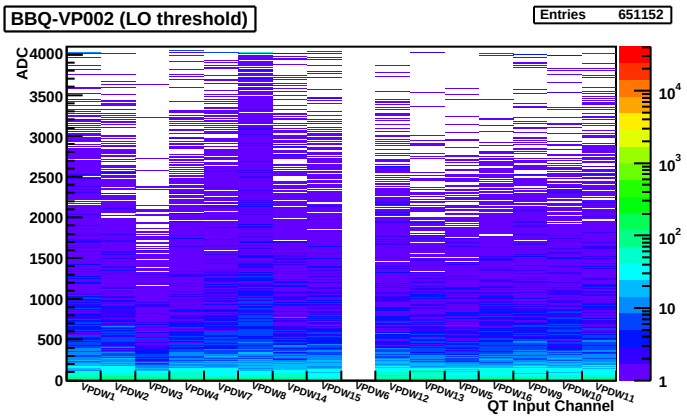

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 651152
TAC
QT Input Channel

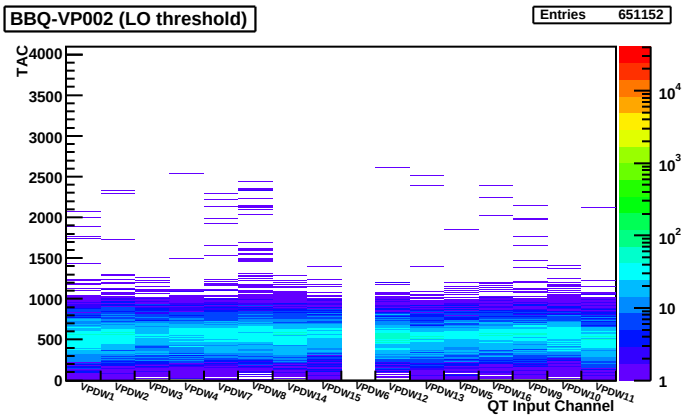

BBQ-ZD001 (ZDC TOWER)
Entries 651152
ADC

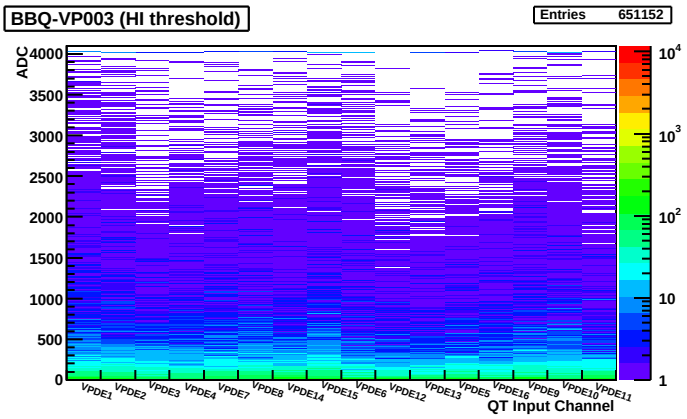

BBQ-ZD001 (ZDC TOWER)
Entries 651152
TAC

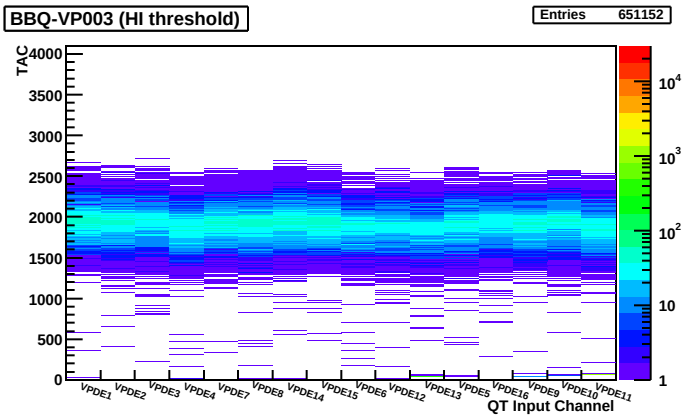

BBQ-VP001 (LO threshold)
Entries 651152
ADC
QT Input Channel

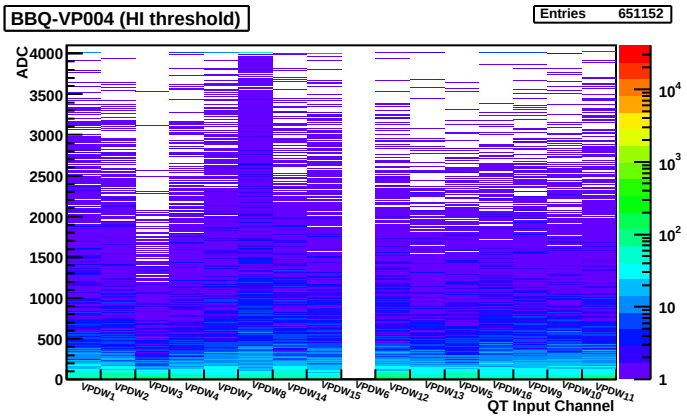

BBQ-VP001 (LO threshold)
Entries 651152
TAC
QT Input Channel

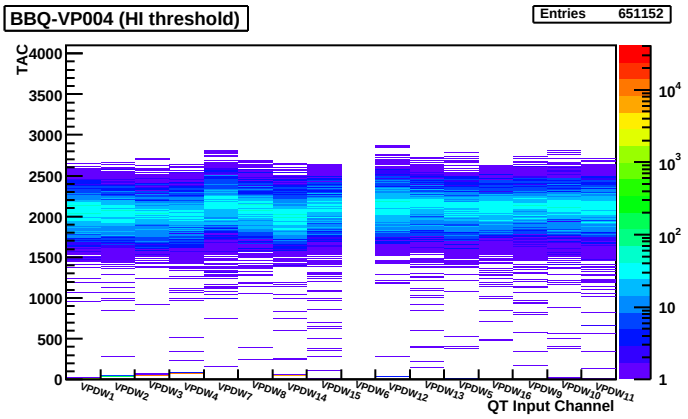

BBQ-VP002 (LO threshold)
Entries 651152
ADC
QT Input Channel

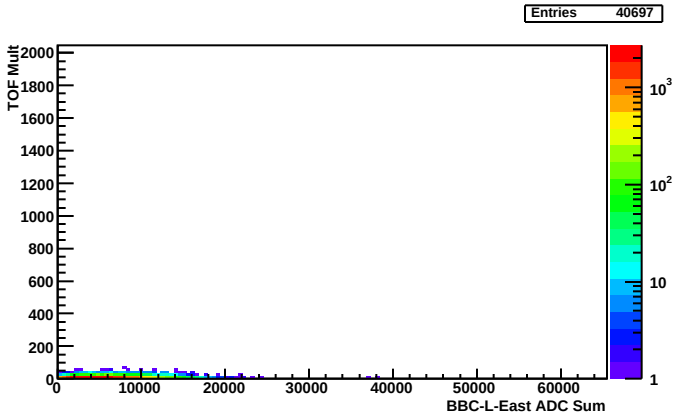

BBQ-VP002 (LO threshold)
Entries 651152
TAC
QT Input Channel

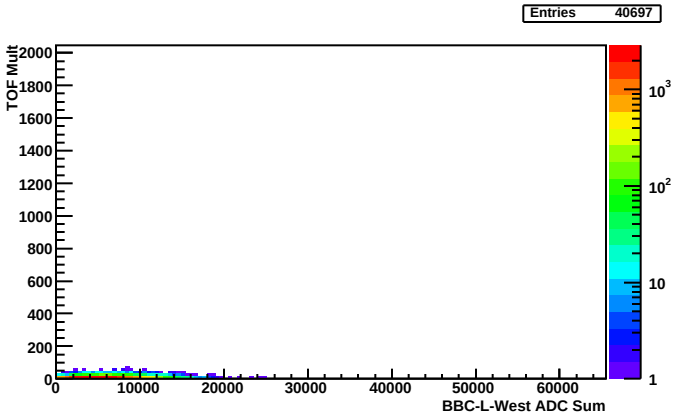

BBQ-VP003 (HI threshold)
Entries 651152
ADC
QT Input Channel

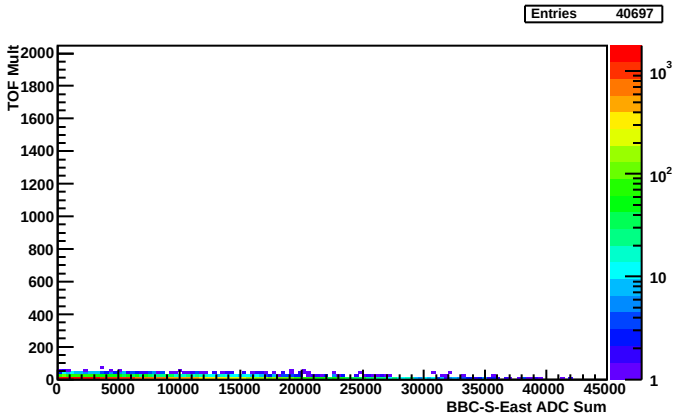

BBQ-VP003 (HI threshold)
Entries 651152
TAC
QT Input Channel

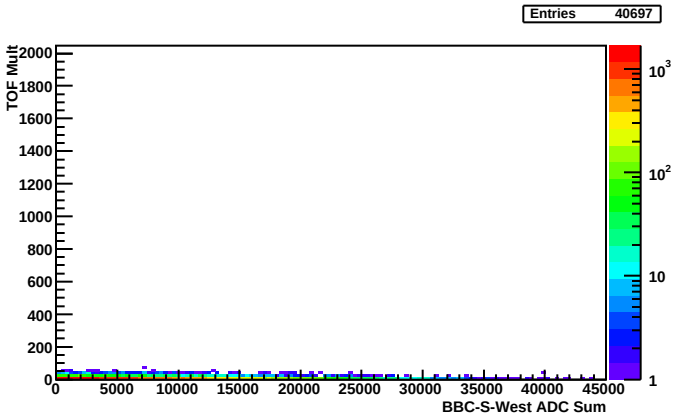

BBQ-VP004 (HI threshold)
Entries 651152
ADC
QT Input Channel

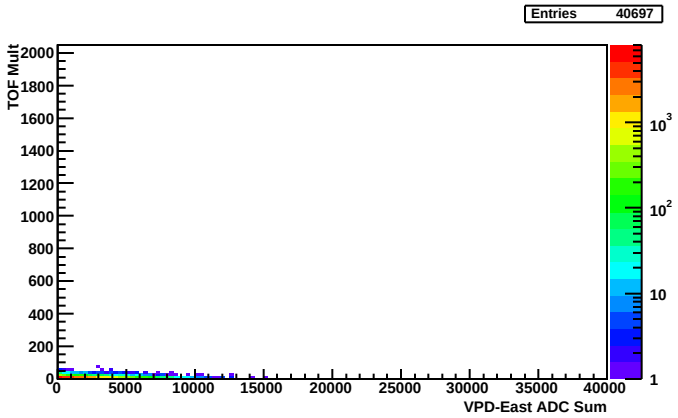

BBQ-VP004 (HI threshold)
Entries 651152
TAC
QT Input Channel

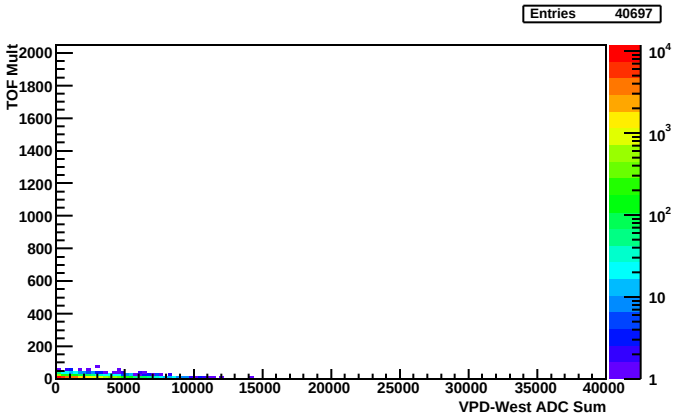

Entries 40697
TOF Mult
BBC-L-East ADC Sum

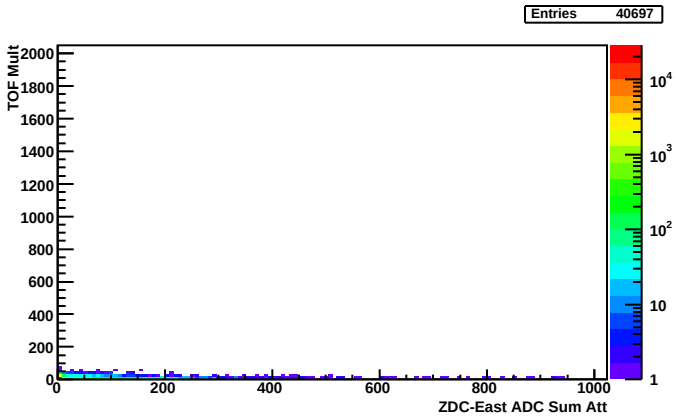

Entries 40697
TOF Mult
BBC-L-West ADC Sum

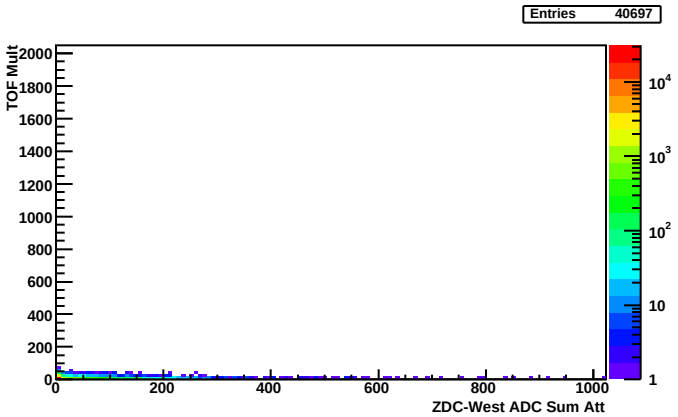

Entries 40697
TOF Mult
BBC-S-East ADC Sum

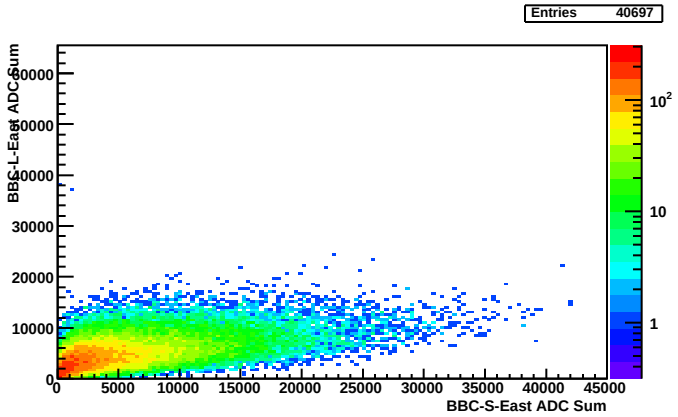

Entries 40697
TOF Mult
BBC-S-West ADC Sum

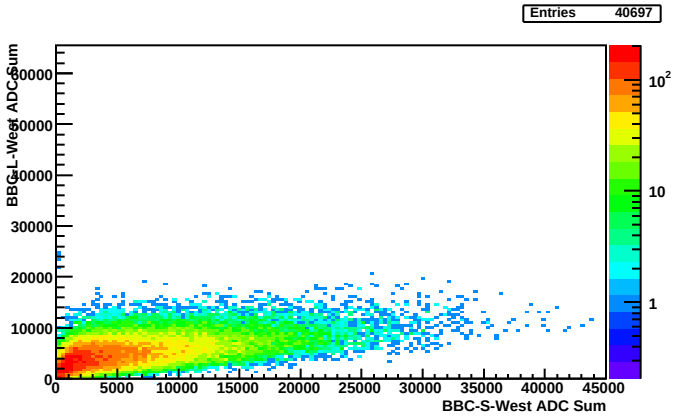

Entries 40697
TOF Mult
VPD-East ADC Sum

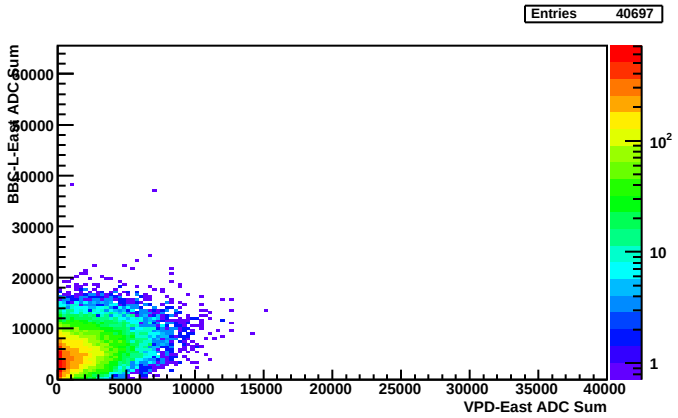

Entries 40697
TOF Mult
VPD-West ADC Sum

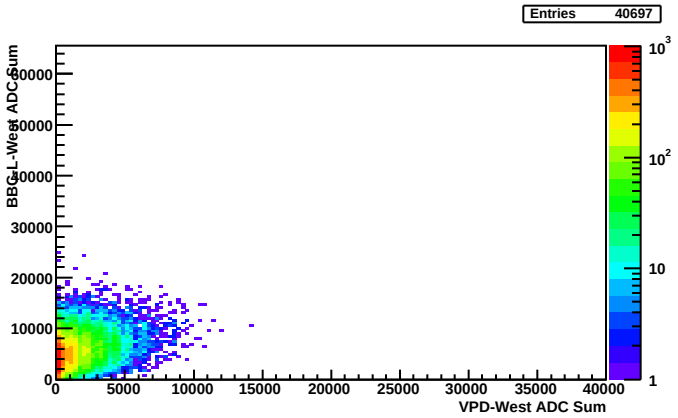

Entries 40697
TOF Mult
ZDC-East ADC Sum Att

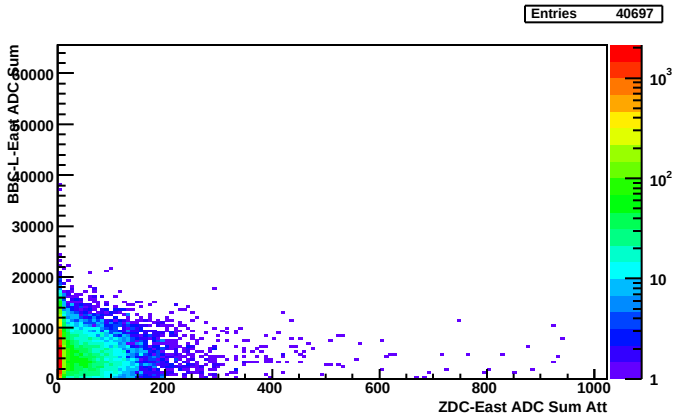

Entries 40697
TOF Mult
ZDC-West ADC Sum Att

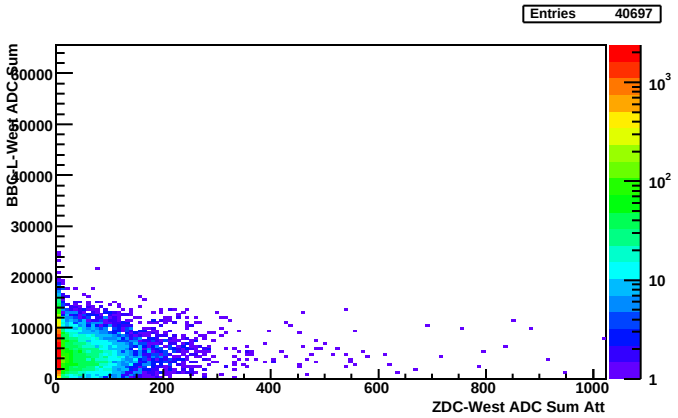

Entries 40697
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 40697
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 40697
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 40697
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 40697
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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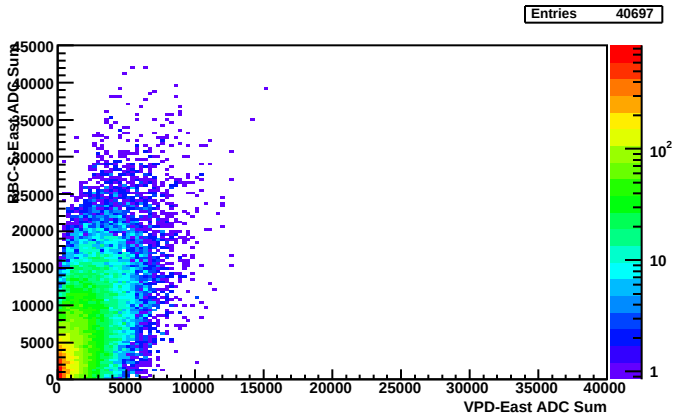
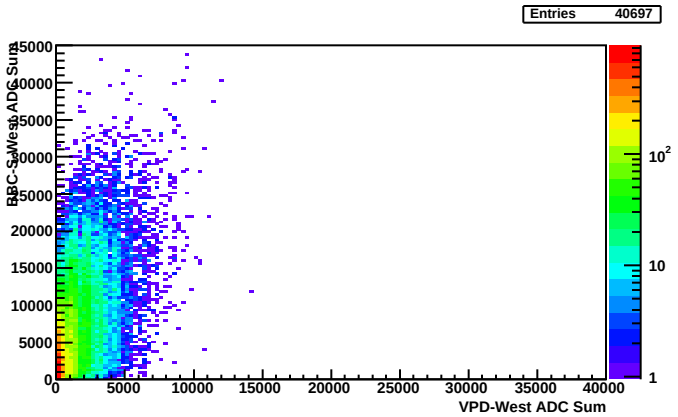
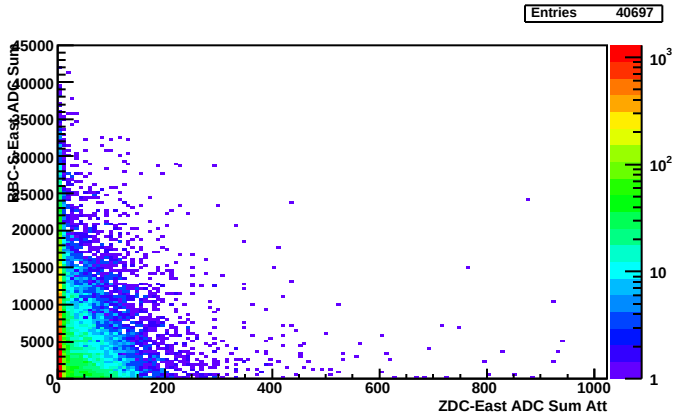
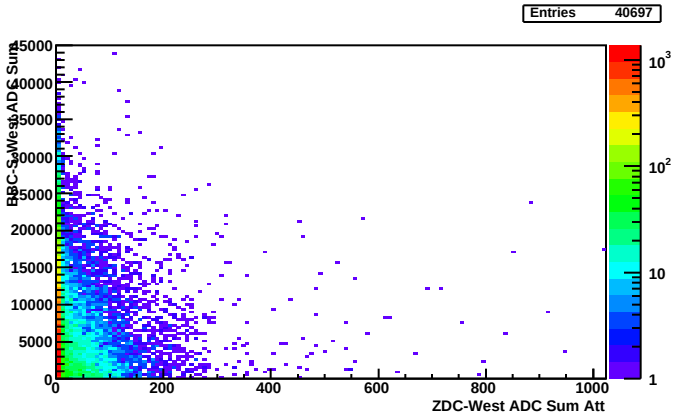
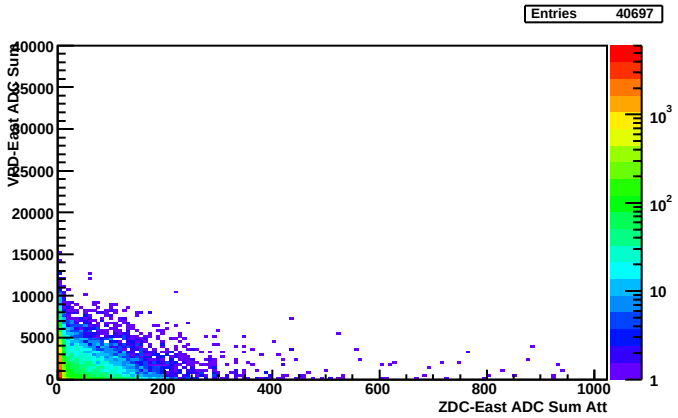
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

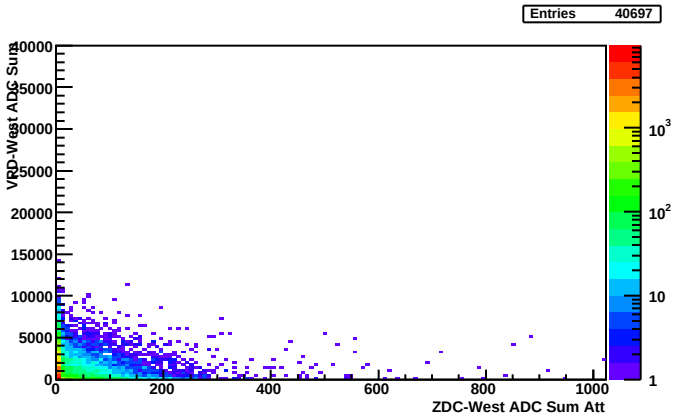

Entries 40697
BBC-S-East ADC Sum
VPD-East ADC Sum

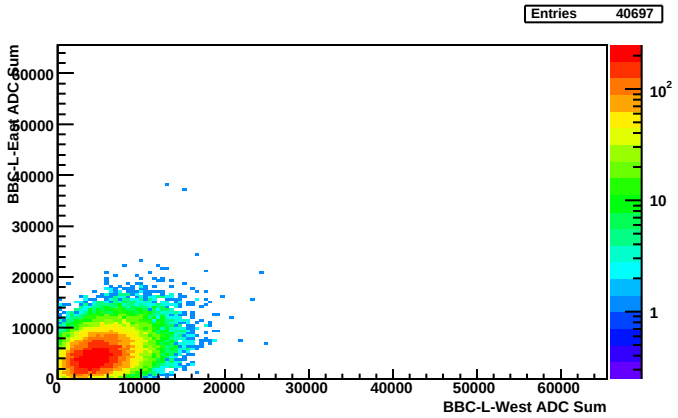

Entries 40697
BBC-S-West ADC Sum
VPD-West ADC Sum

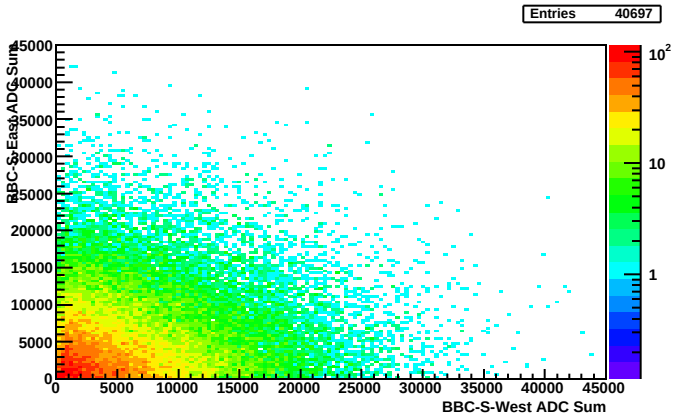

Entries 40697
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

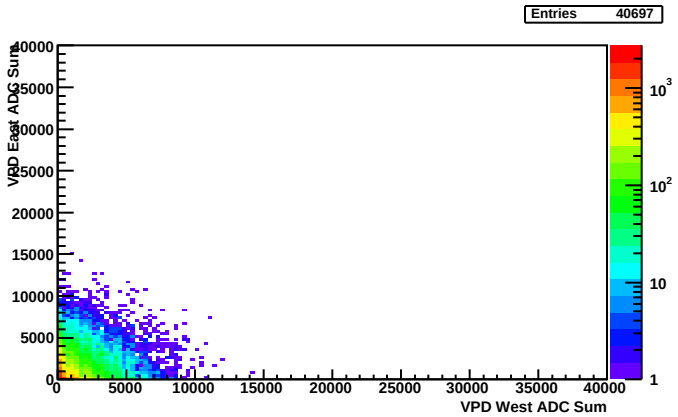

Entries 40697
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

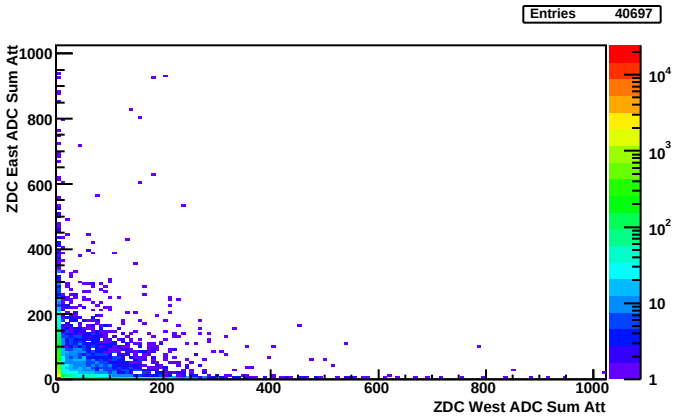

Entries 40697
VPD-East ADC Sum
ZDC-East ADC Sum Att

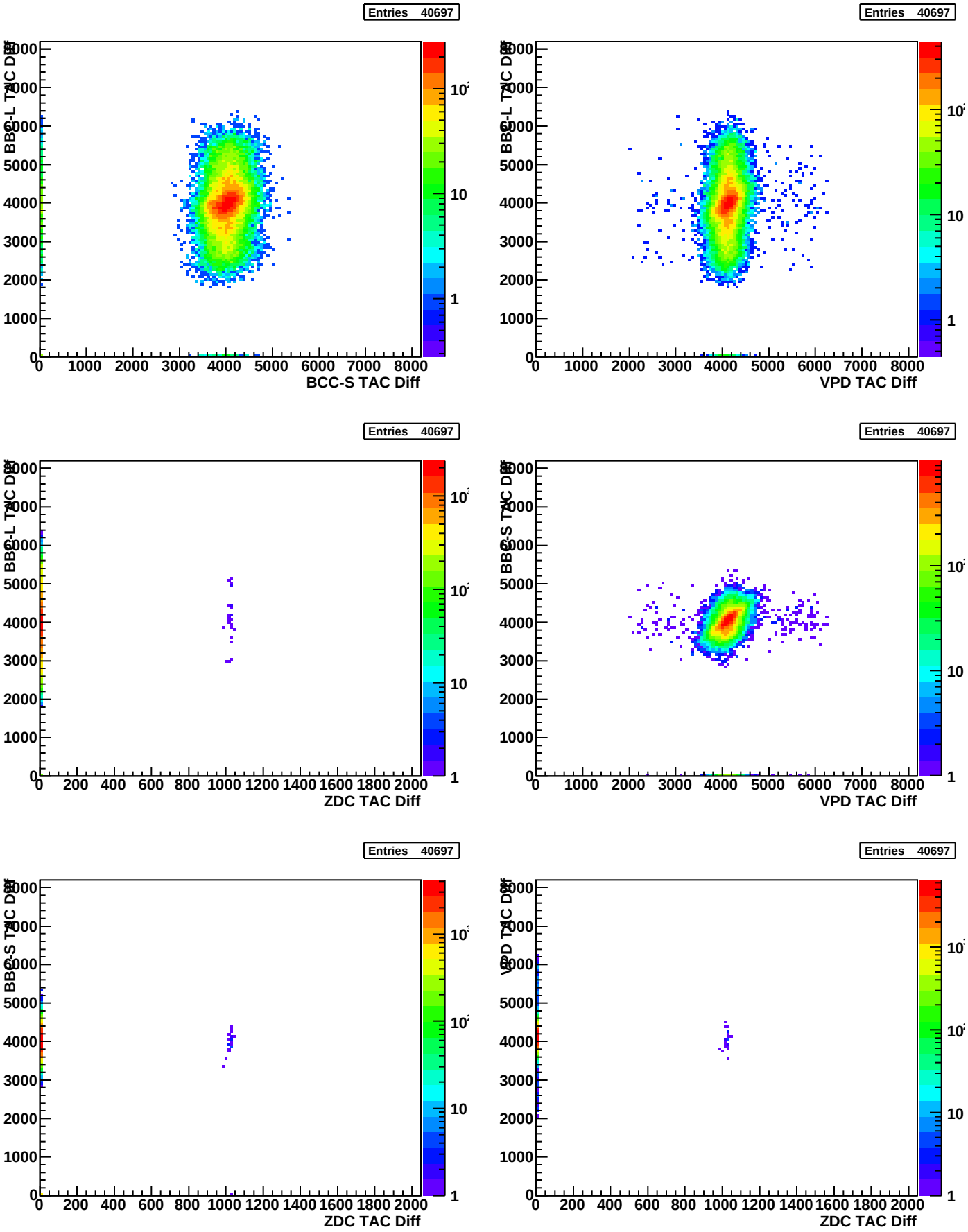

Entries 40697
VPD-West ADC Sum
ZDC-West ADC Sum Att

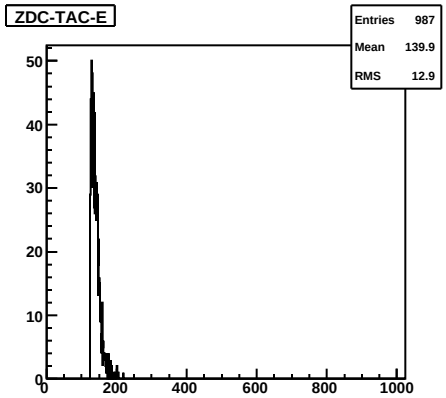

Entries 40697
BBC-L-East ADC Sum
BBC-L-West ADC Sum

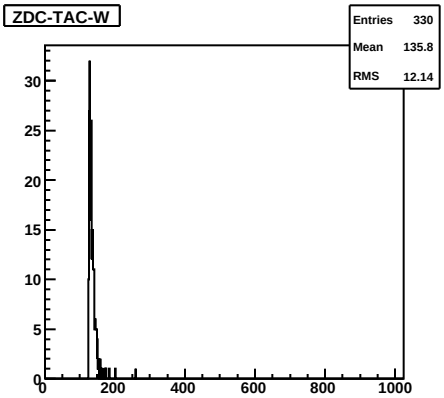

Entries 40697
BBC-S-East ADC Sum
BBC-S-West ADC Sum

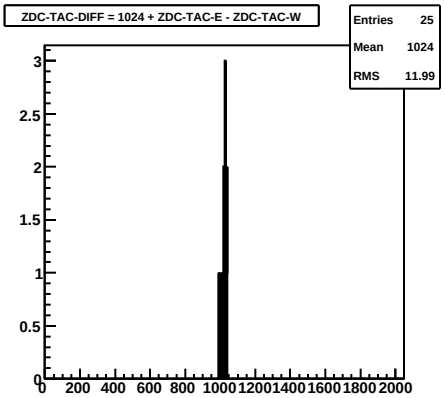

Entries 40697
VPD East ADC Sum
VPD West ADC Sum

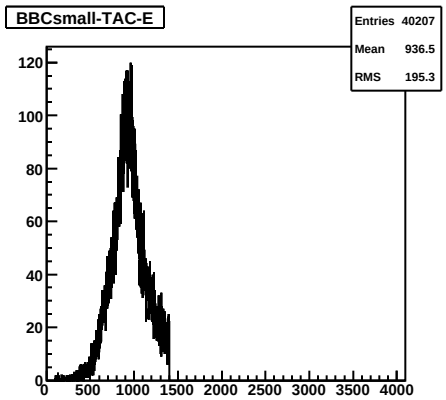

Entries 40697
ZDC East ADC Sum Att
ZDC West ADC Sum Att

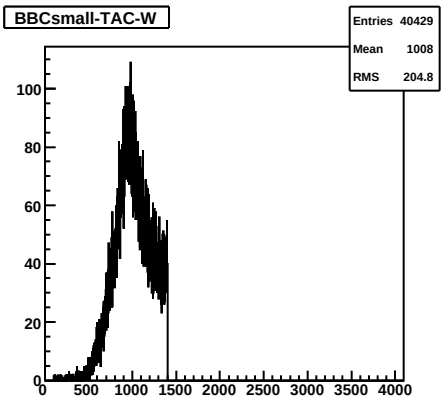

Entries 40697
BBC-L TAC Diff
BCC-S TAC Diff
Entries 40697
BBC-L TAC Diff
VPD TAC Diff
Entries 40697
BBC-L TAC Diff
ZDC TAC Diff
Entries 40697
BBC-S TAC Diff
VPD TAC Diff
Entries 40697
BBC-S TAC Diff
ZDC TAC Diff
Entries 40697
VPD TAC Diff
ZDC TAC Diff

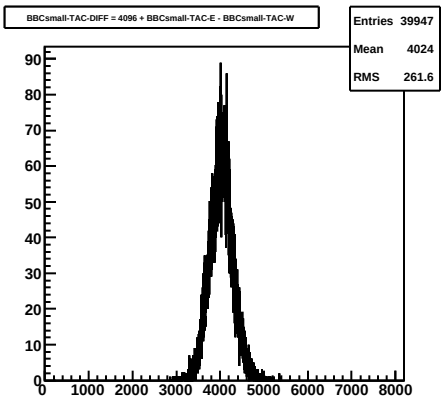

ZDC-TAC-E
Entries 987
Mean 139.9
RMS 12.9

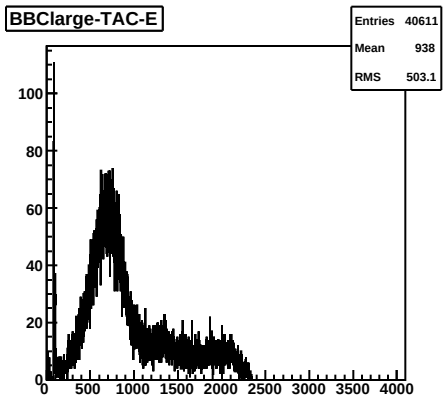

ZDC-TAC-W
Entries 330
Mean 135.8
RMS 12.14

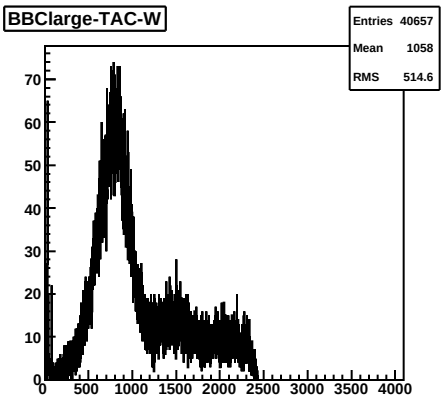

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 25
Mean 1024
RMS 11.99

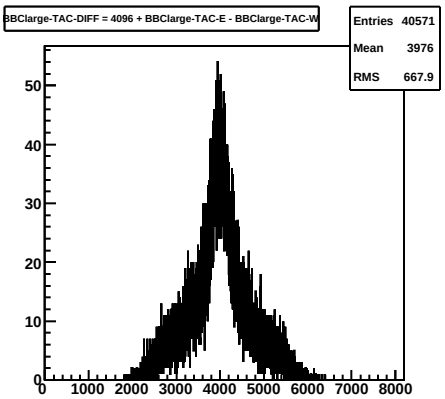

BBCsmall-TAC-E
Entries 40207
Mean 936.5
RMS 195.3

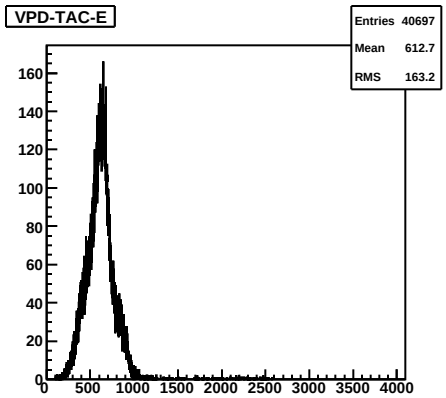

BBCsmall-TAC-W
Entries 40429
Mean 1008
RMS 204.8

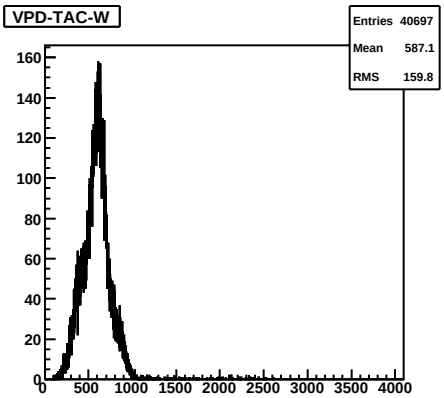

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 39947
Mean 4024
RMS 261.6

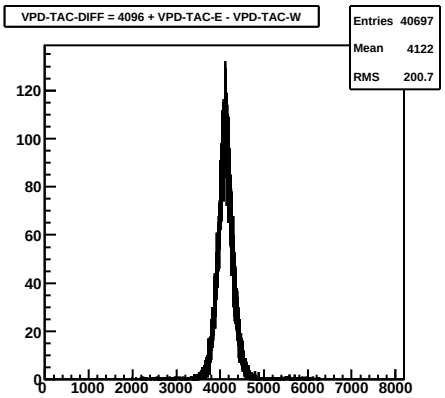

BBClarge-TAC-E
Entries 40611
Mean 938
RMS 503.1

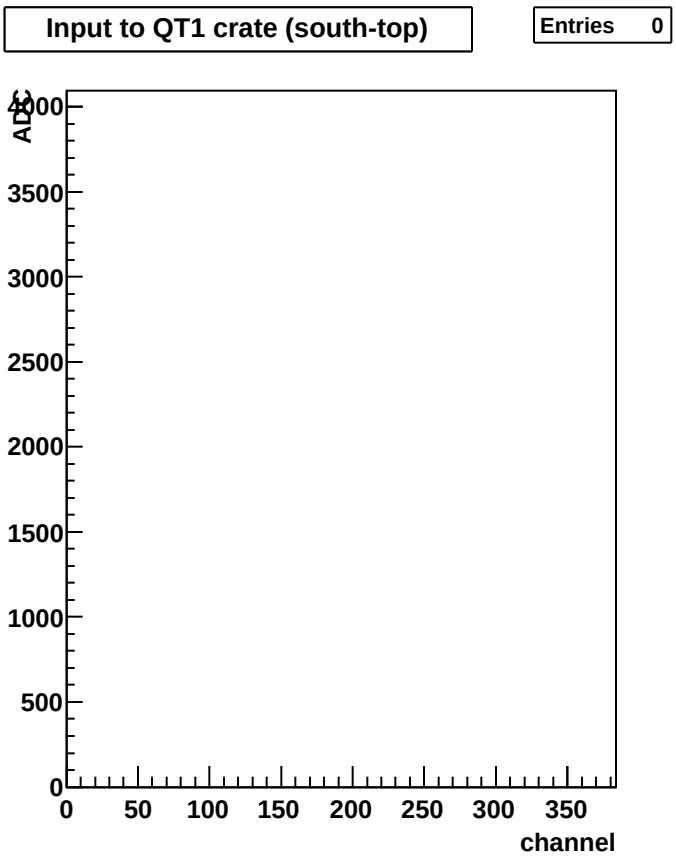

BBClarge-TAC-W
Entries 40657
Mean 1058
RMS 514.6

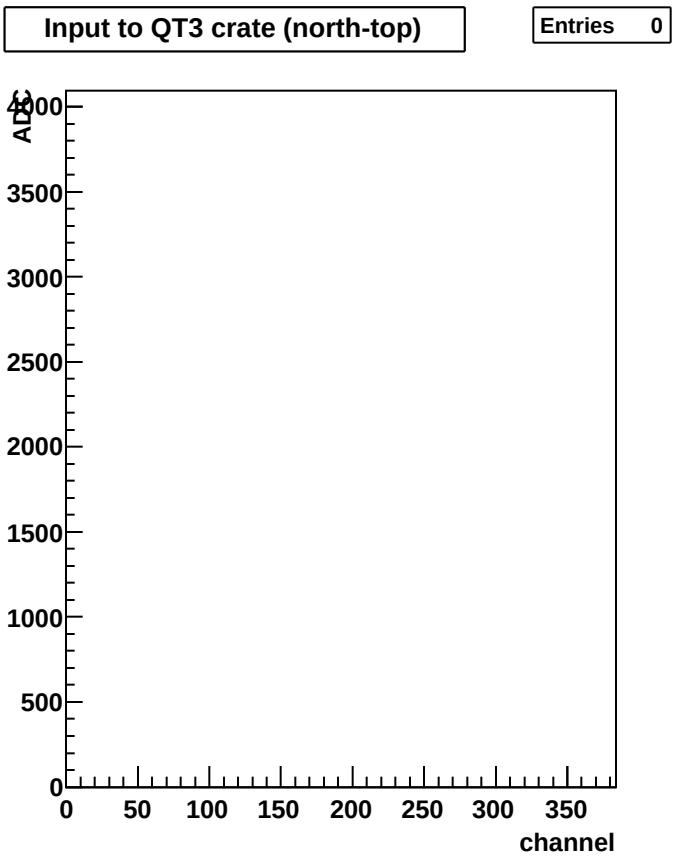

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 40571
Mean 3976
RMS 667.9

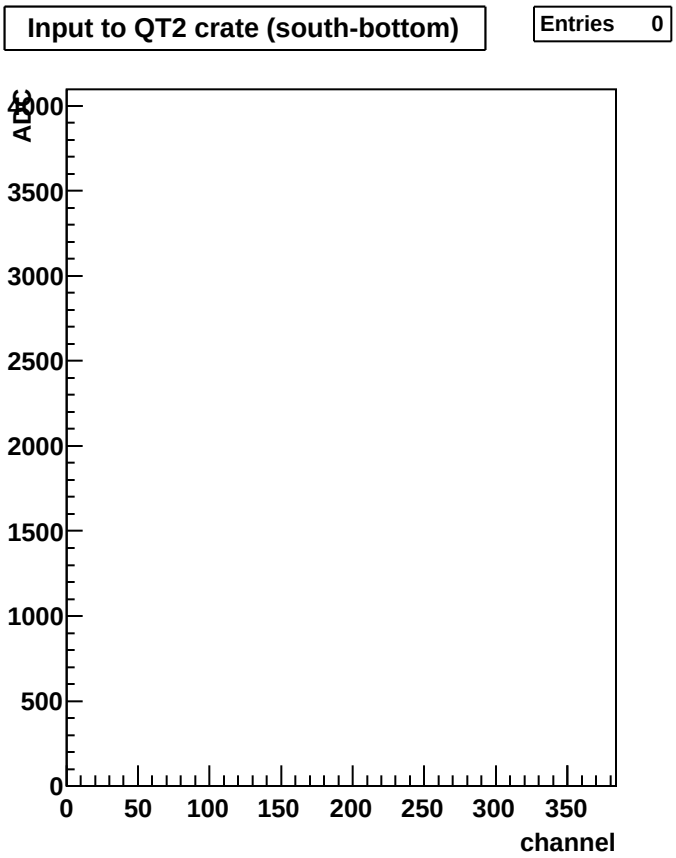

VPD-TAC-E
Entries 40697
Mean 612.7
RMS 163.2

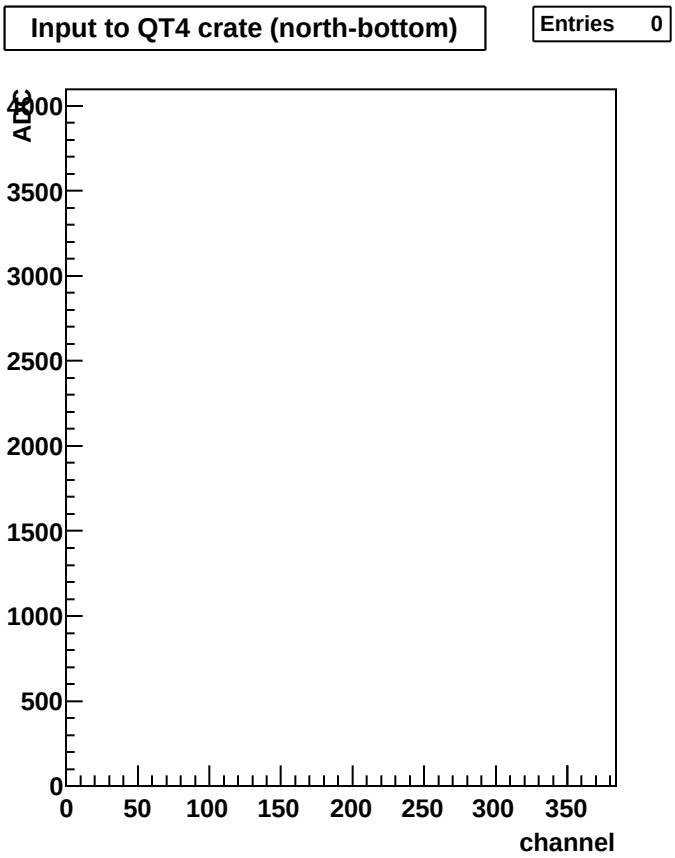

VPD-TAC-W
Entries 40697
Mean 587.1
RMS 159.8

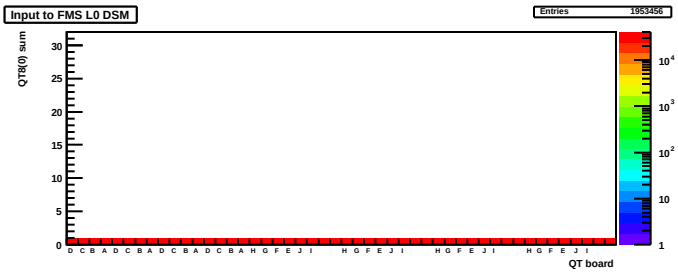

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 40697
Mean 4122
RMS 200.7

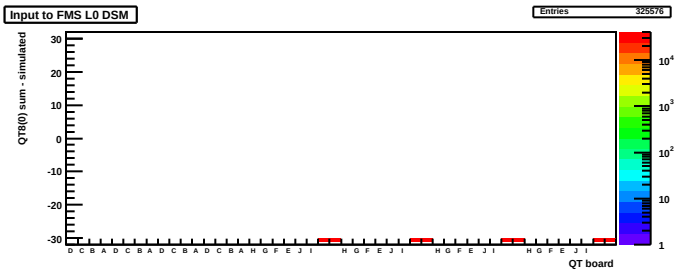

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

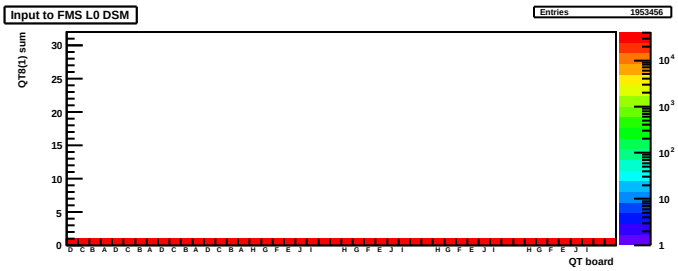

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

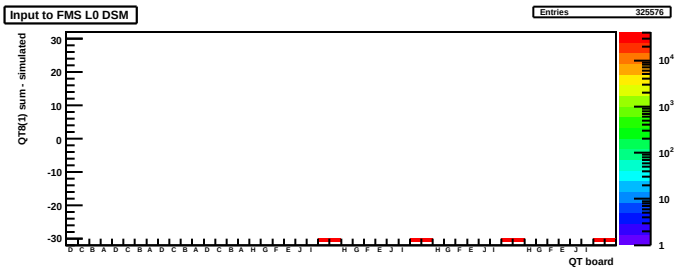

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

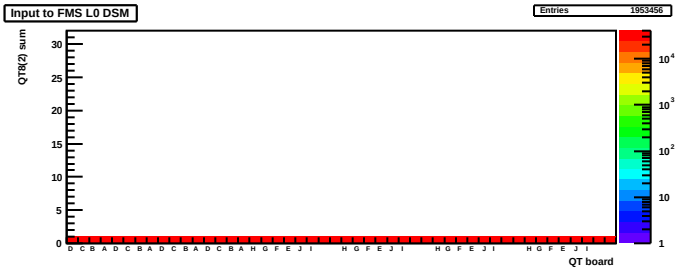

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

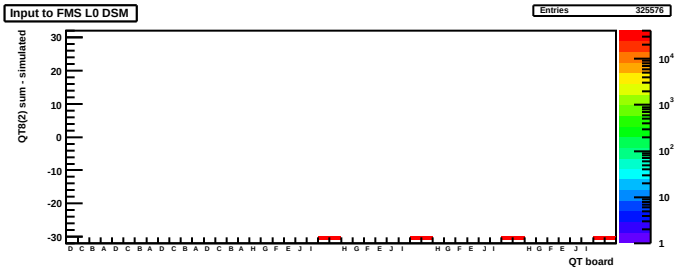

Input to FMS L0 DSM
Entries 1953456
QT8(0) sum
QT board

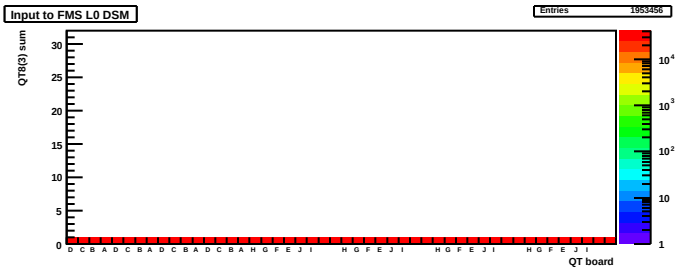

Input to FMS L0 DSM
Entries 325576
QT8(0) sum - simulated
QT board

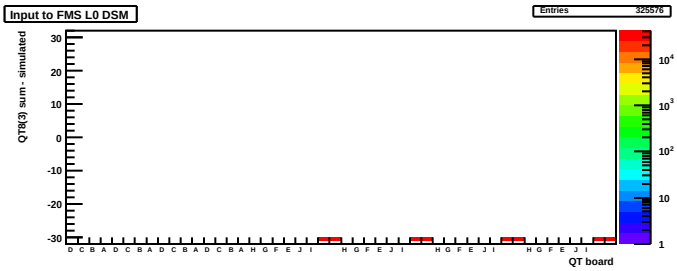

Input to FMS L0 DSM
Entries 1953456
QT8(1) sum
QT board

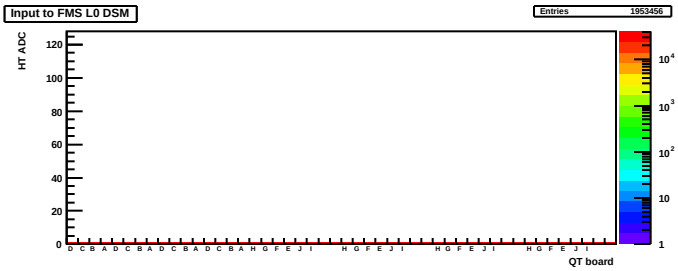

Input to FMS L0 DSM
Entries 325576
QT8(1) sum - simulated
QT board

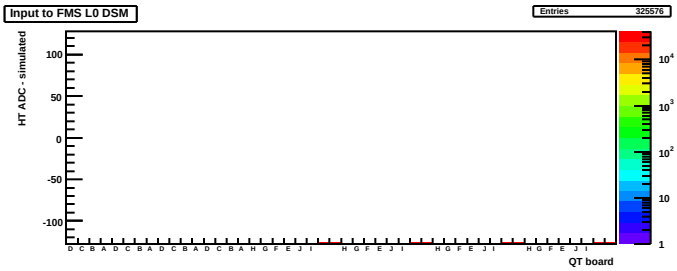

Input to FMS L0 DSM
Entries 1953456
QT8(2) sum
QT board

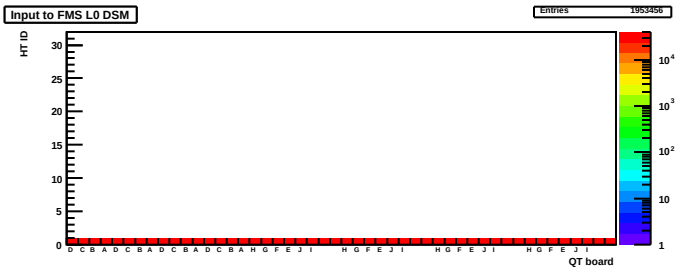

Input to FMS L0 DSM
Entries 325576
QT8(2) sum - simulated
QT board

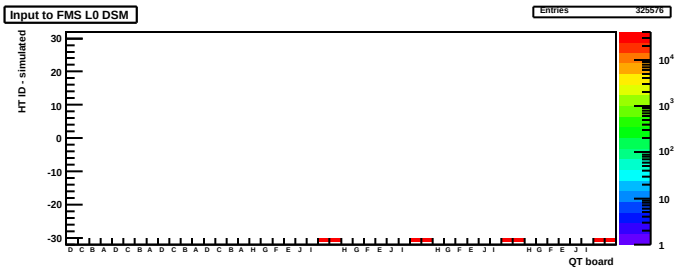

Input to FMS L0 DSM
Entries 1953456
QT8(3) sum
QT board

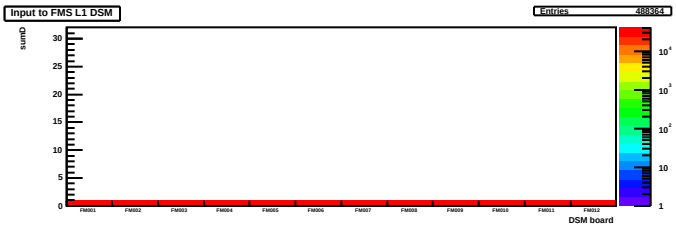

Input to FMS L0 DSM
Entries 325576
QT8(3) sum - simulated
QT board

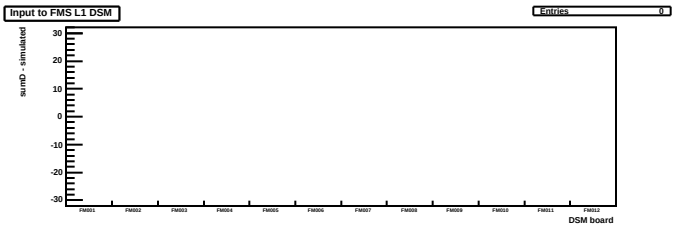

Input to FMS L0 DSM
Entries 1953456
HT ADC
QT board

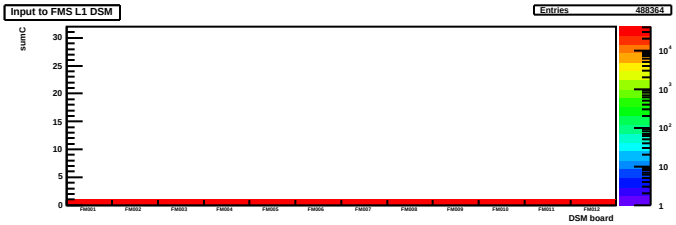

Input to FMS L0 DSM
Entries 325576
HT ADC - simulated
QT board

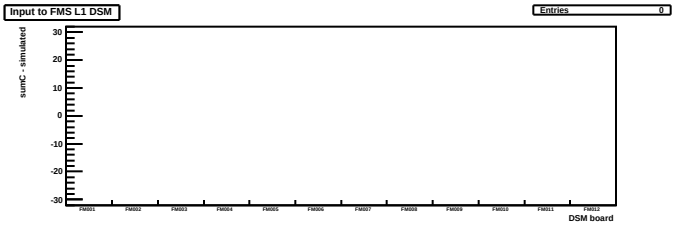

Input to FMS L0 DSM
Entries 1953456
HT ID
QT board

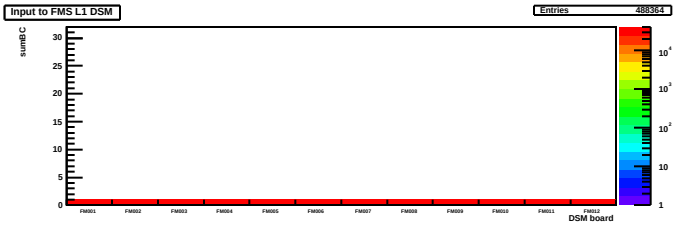

Input to FMS L0 DSM
Entries 325576
HT ID - simulated
QT board

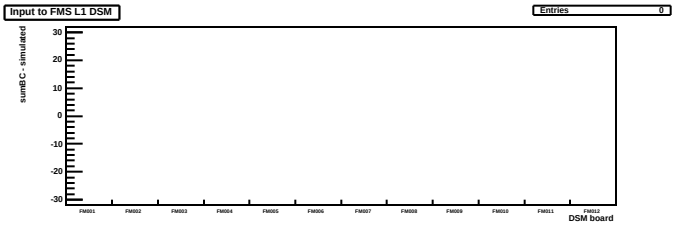

Input to FMS L1 DSM
Entries 488364
sumD
DSM board

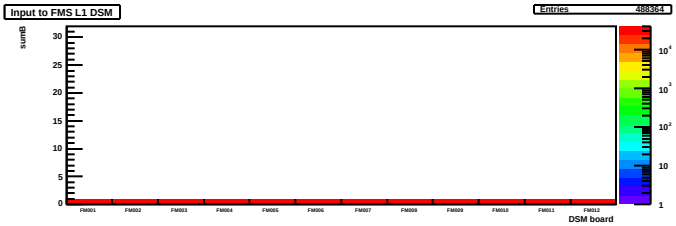

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

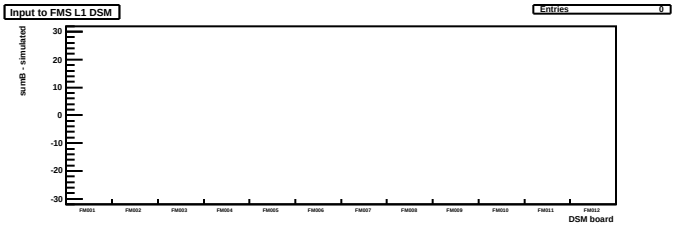

Input to FMS L1 DSM
Entries 488364
sumC
DSM board

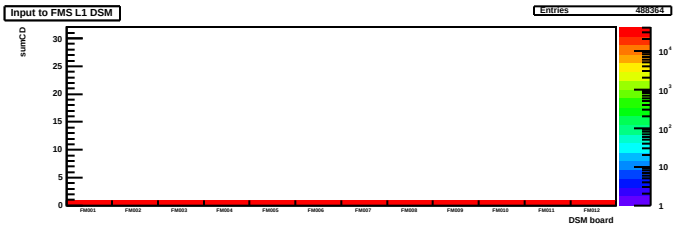

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

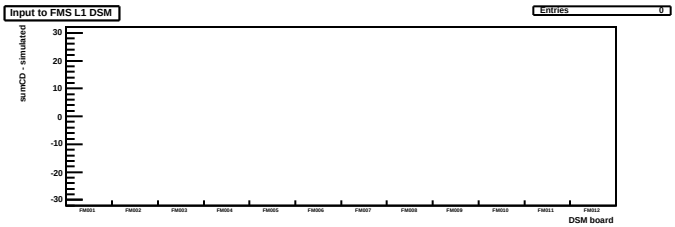

Input to FMS L1 DSM
Entries 488364
sumBC
DSM board

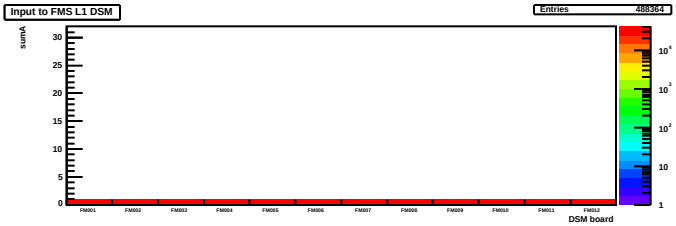

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

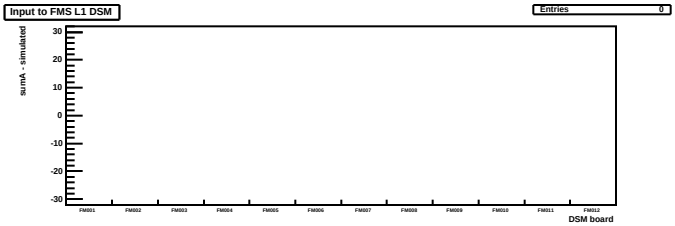

Input to FMS L1 DSM
Entries 488364
sumB
DSM board

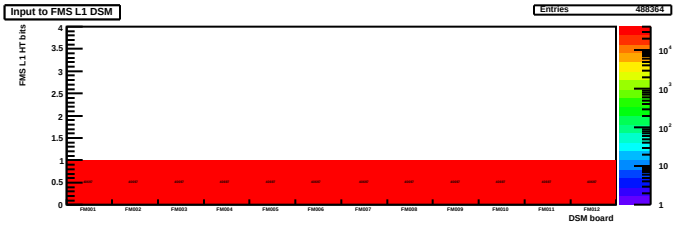

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

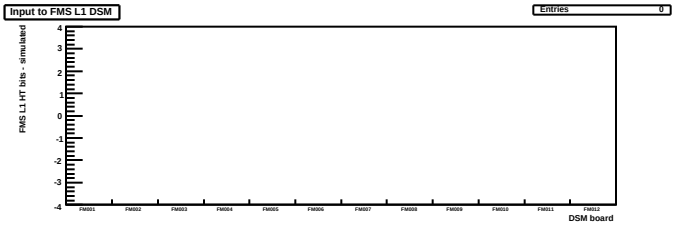

Input to FMS L1 DSM
Entries 488364
sumCD
DSM board

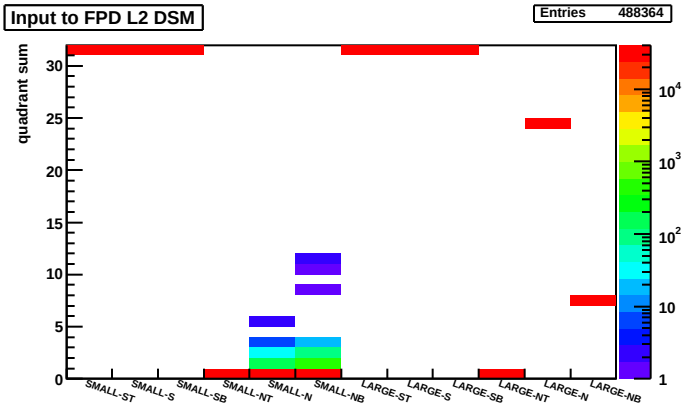

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

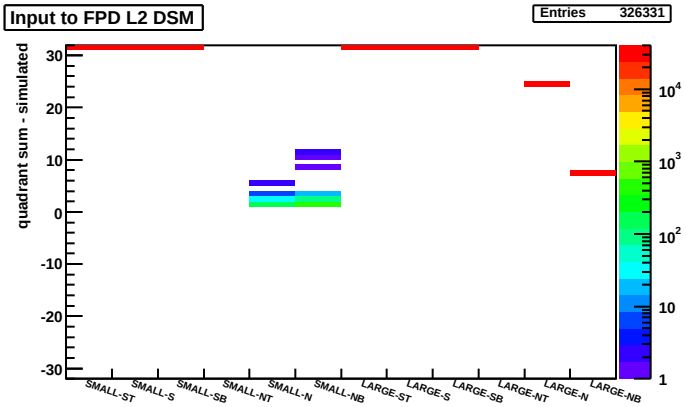

Input to FMS L1 DSM
Entries 488364
sumA
DSM board

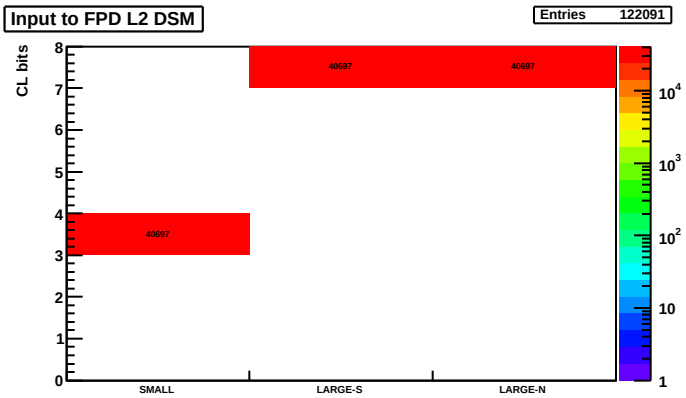

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

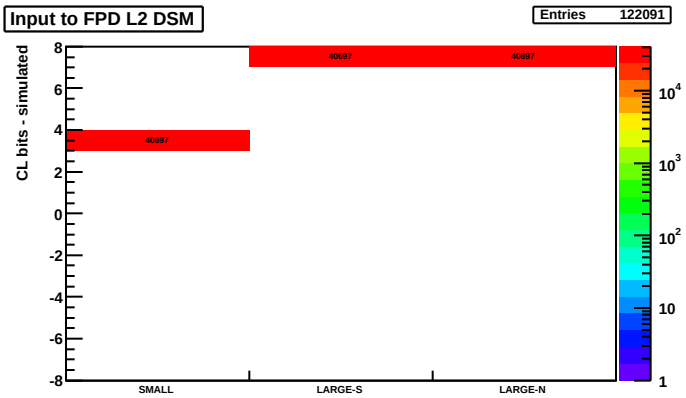

Input to FMS L1 DSM
Entries 488364
FMS L1 HT bits
DSM board

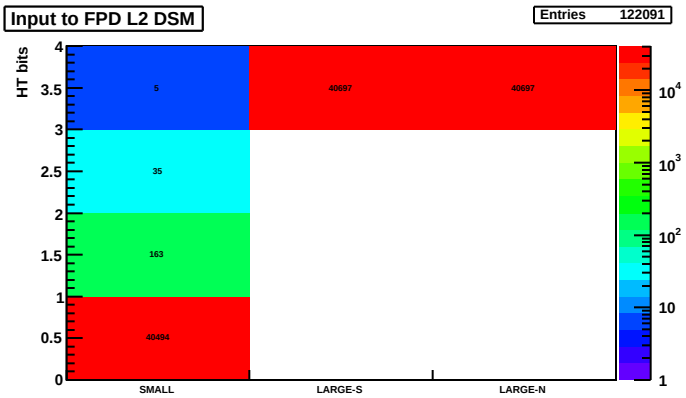

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

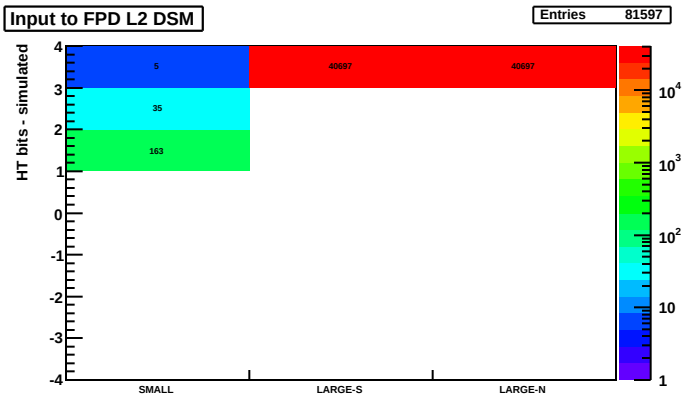

Input to FPD L2 DSM
Entries 488364
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

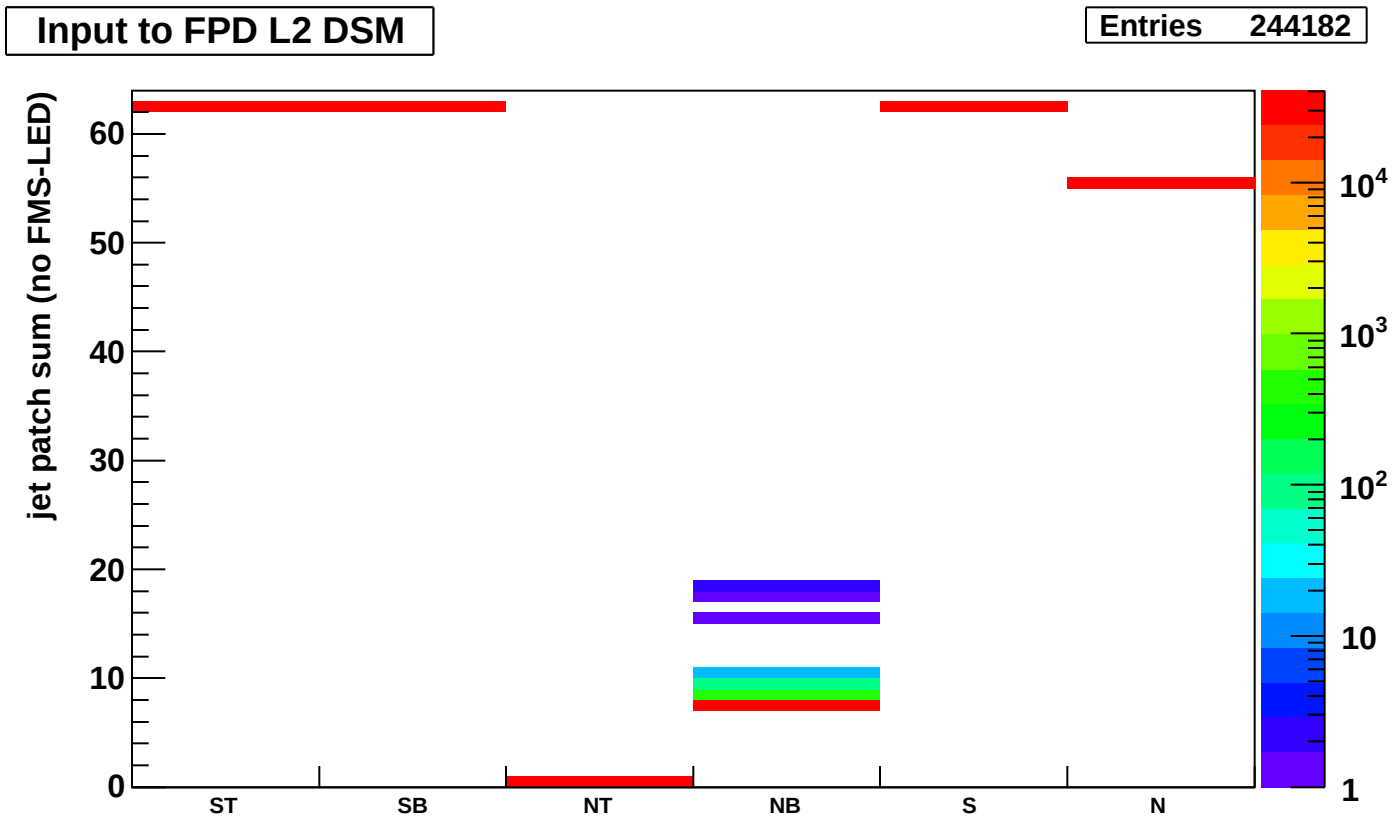

Input to FPD L2 DSM
Entries 326331
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

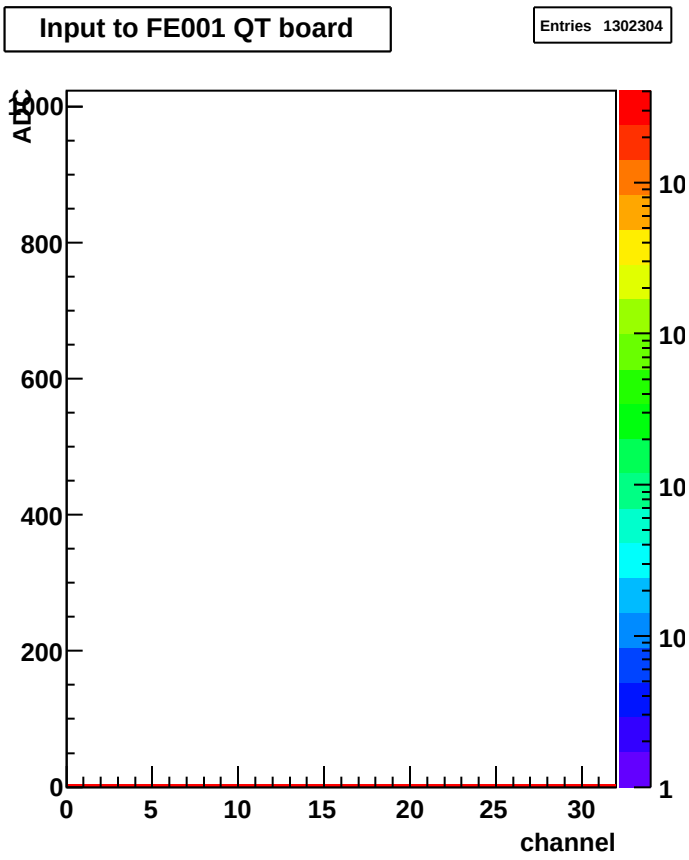

Input to FPD L2 DSM
Entries 122091
CL bits
40697
40697
40697
SMALL
LARGE-S
LARGE-N

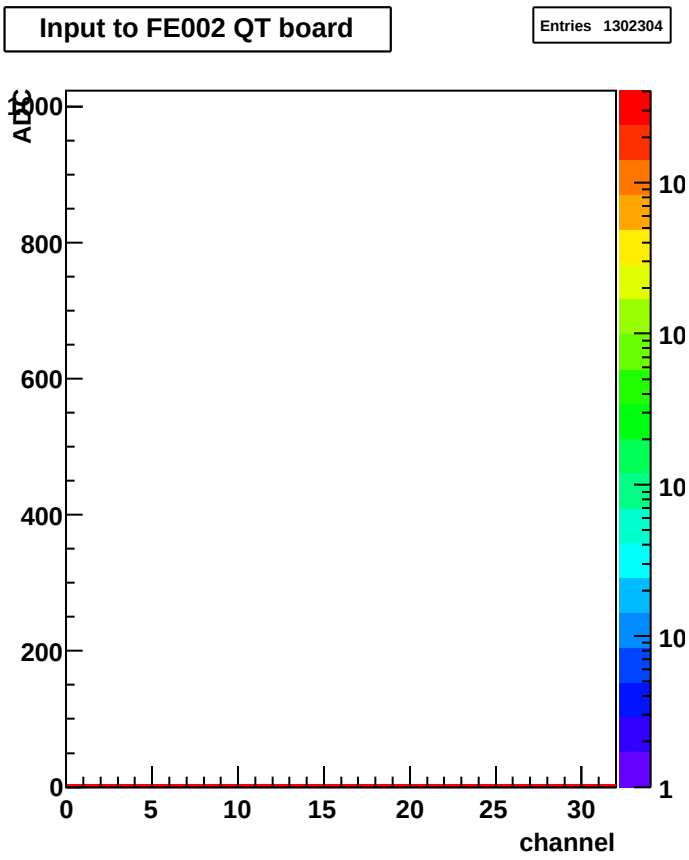

Input to FPD L2 DSM
Entries 122091
CL bits - simulated
40697
40697
40697
SMALL
LARGE-S
LARGE-N

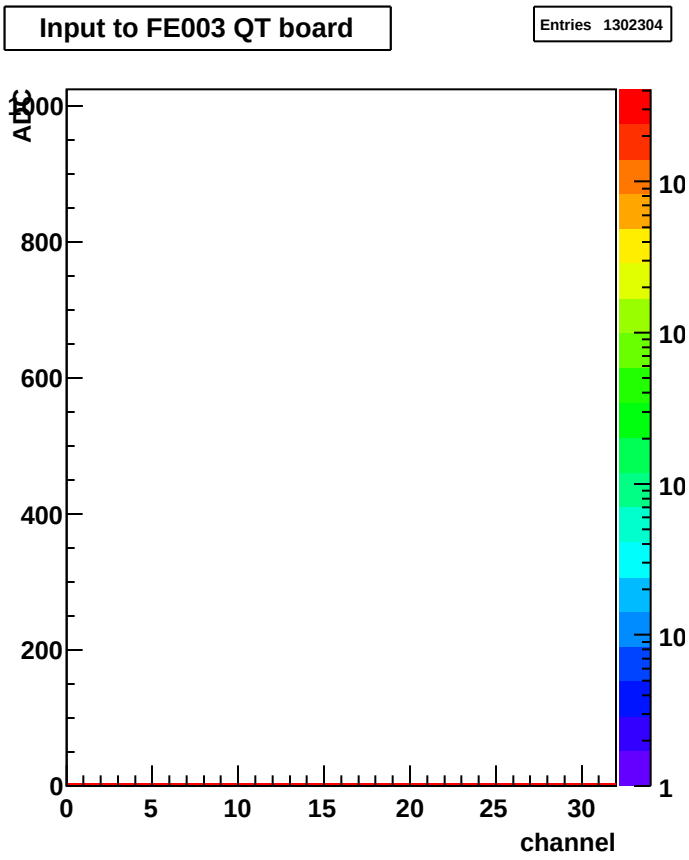

Input to FPD L2 DSM
Entries 122091
HT bits
5
35
163
40494
40697
40697
SMALL
LARGE-S
LARGE-N

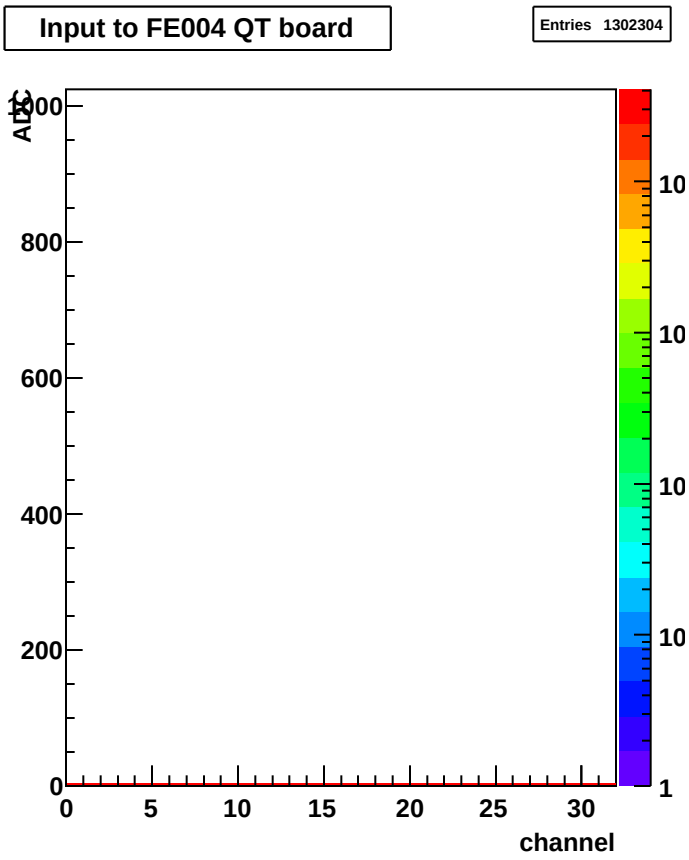

Input to FPD L2 DSM
Entries 81597
HT bits - simulated
5
35
163
40697
40697
SMALL
LARGE-S
LARGE-N

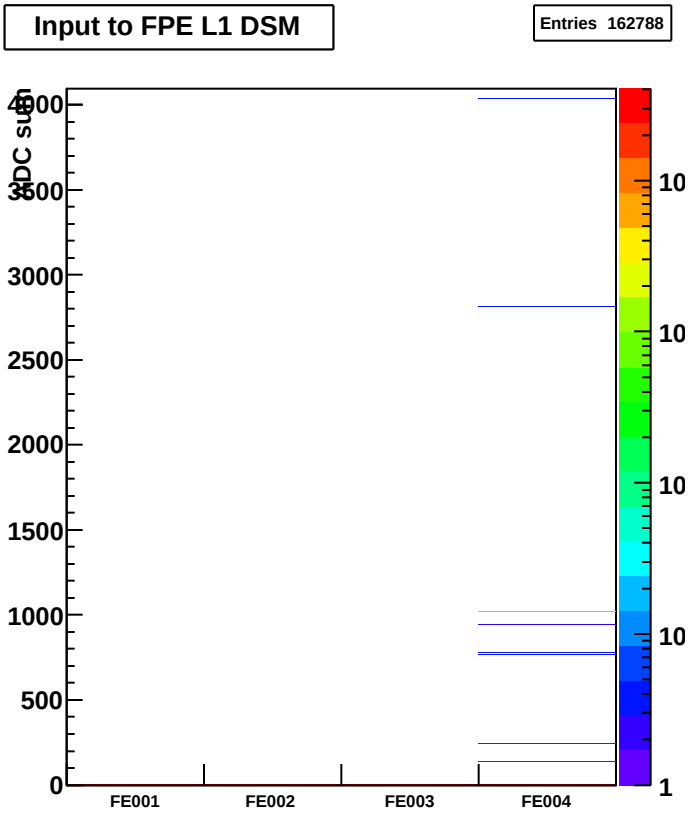

Input to FPD L2 DSM
Entries 244182
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

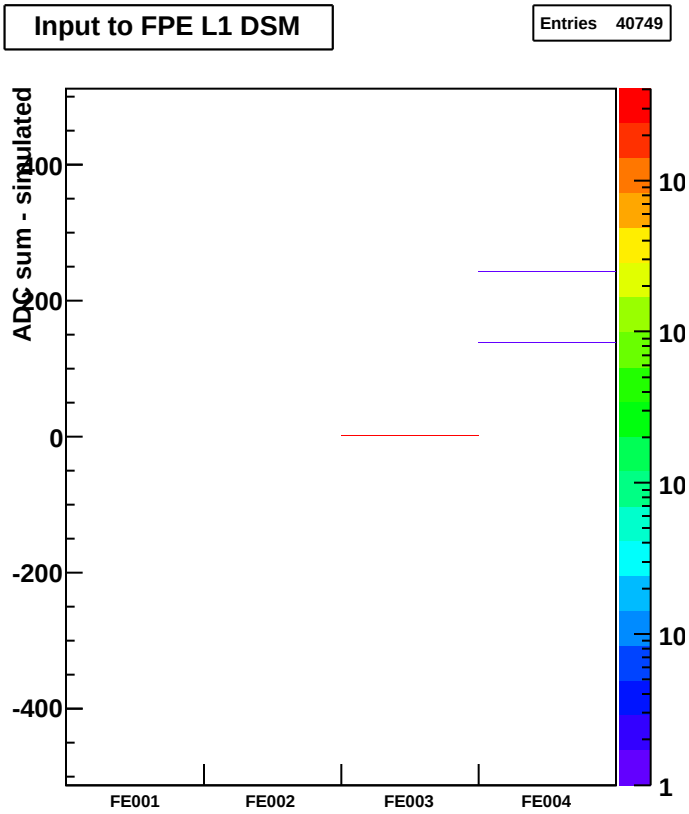

Input to FE001 QT board
Entries 1302304
ADC
channel

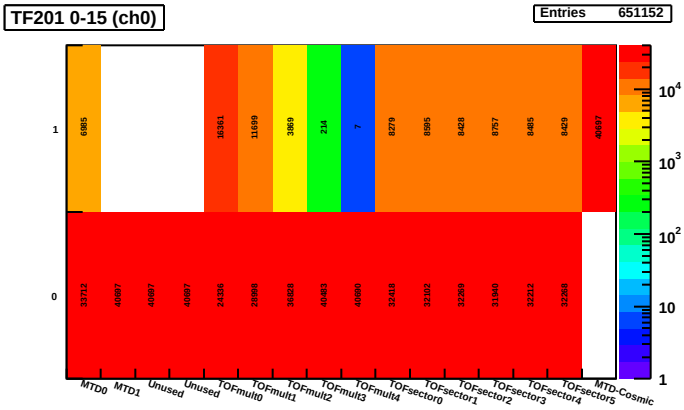

Input to FE002 QT board
Entries 1302304
ADC
channel

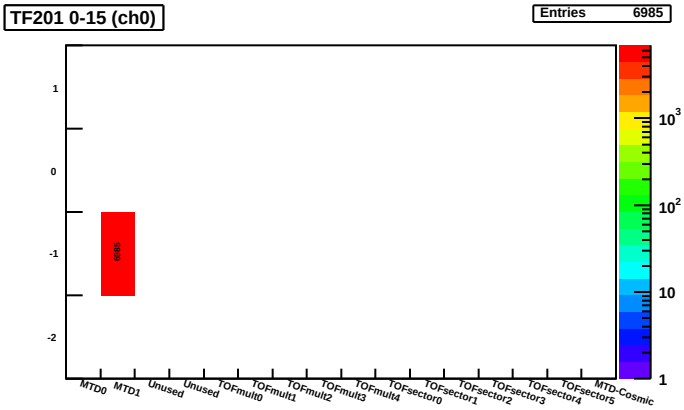

Input to FE003 QT board
Entries 1302304
ADC
channel

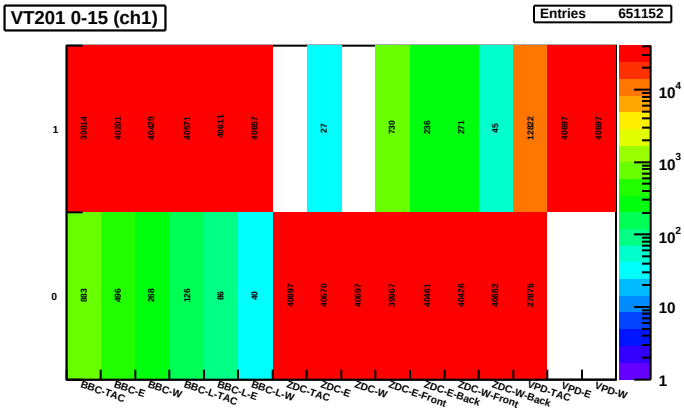

Input to FE004 QT board
Entries 1302304
ADC
channel

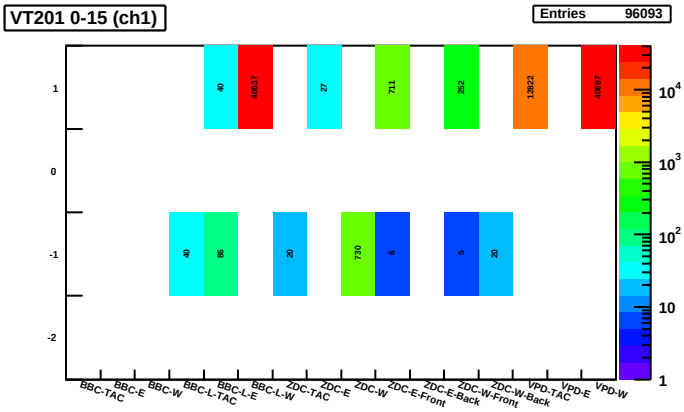

Input to FPE L1 DSM
Entries 162788
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

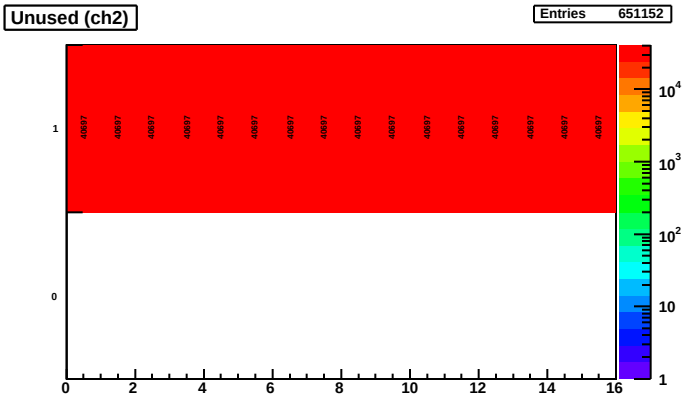

Input to FPE L1 DSM
Entries 40749
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

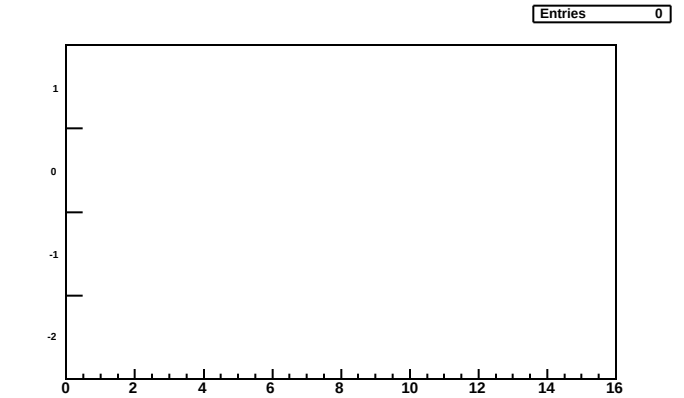

TF201 0-15 (ch0)
Entries 651152
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

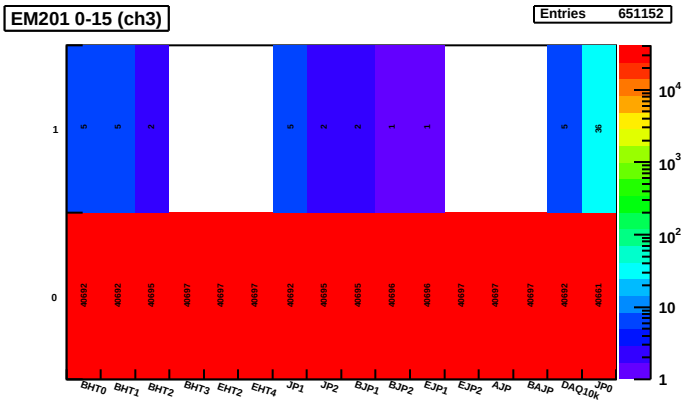

TF201 0-15 (ch0)
Entries 6985
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

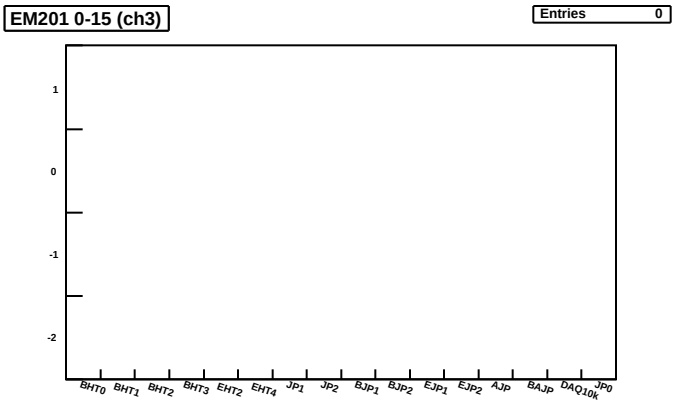

VT201 0-15 (ch1)
Entries 651152
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 96093
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

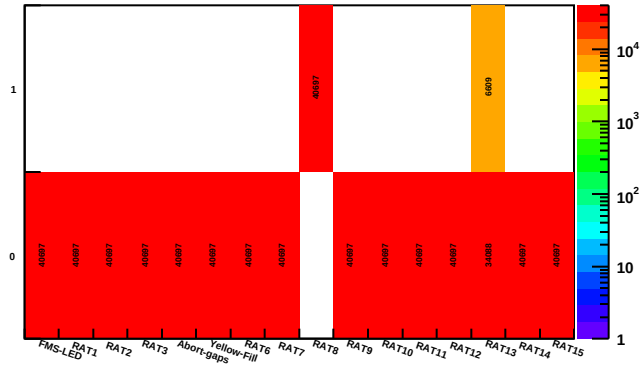

Unused (ch2)
Entries 651152

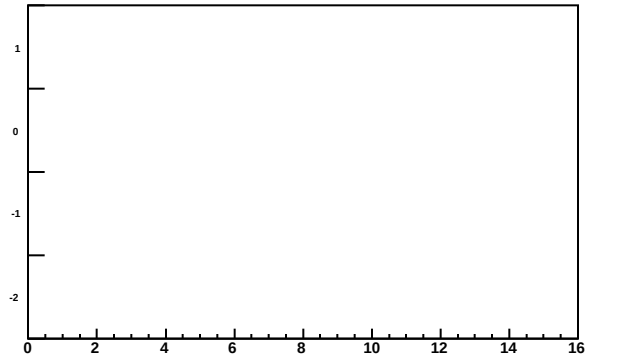

Entries 0


EM201 0-15 (ch3)
Entries 651152
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

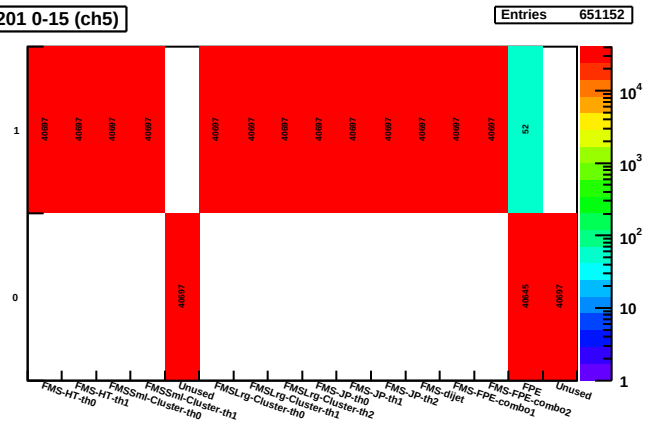

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

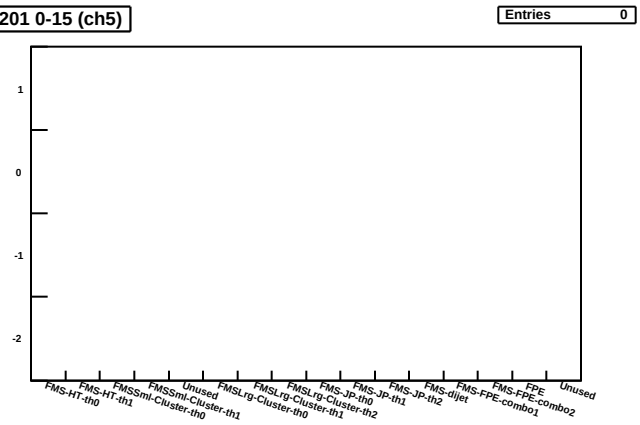




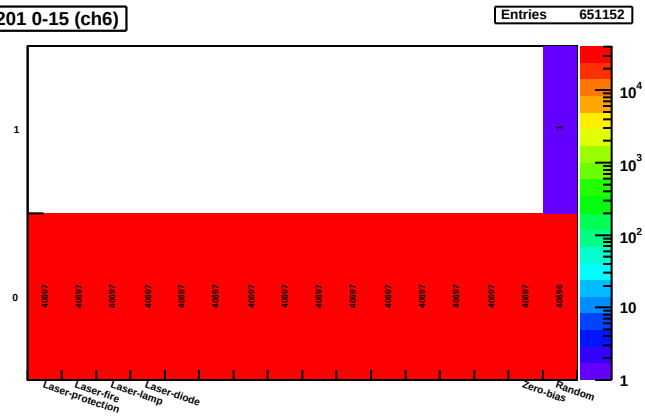
FP201 0-15 (ch5)

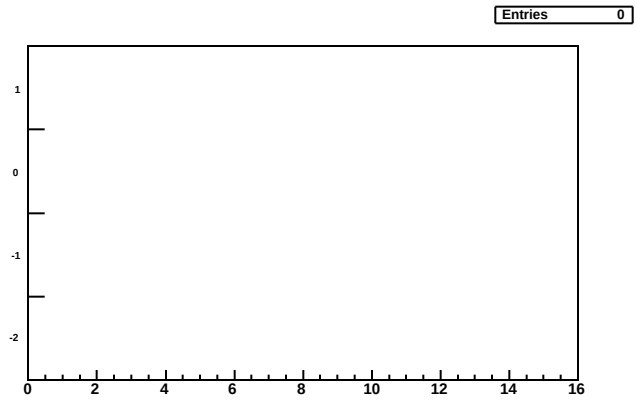
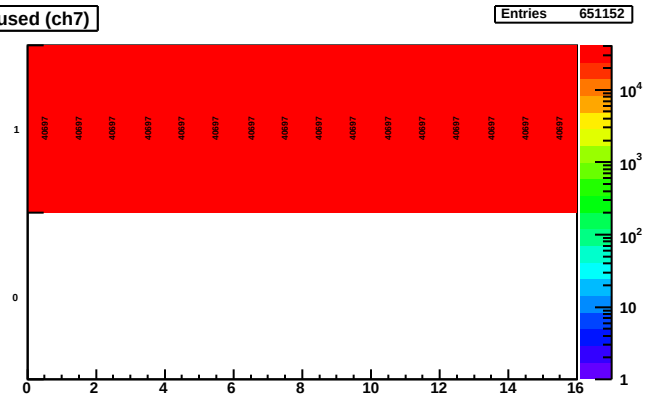
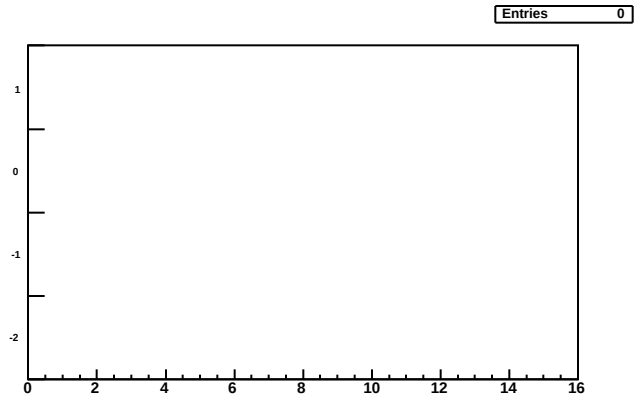


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)