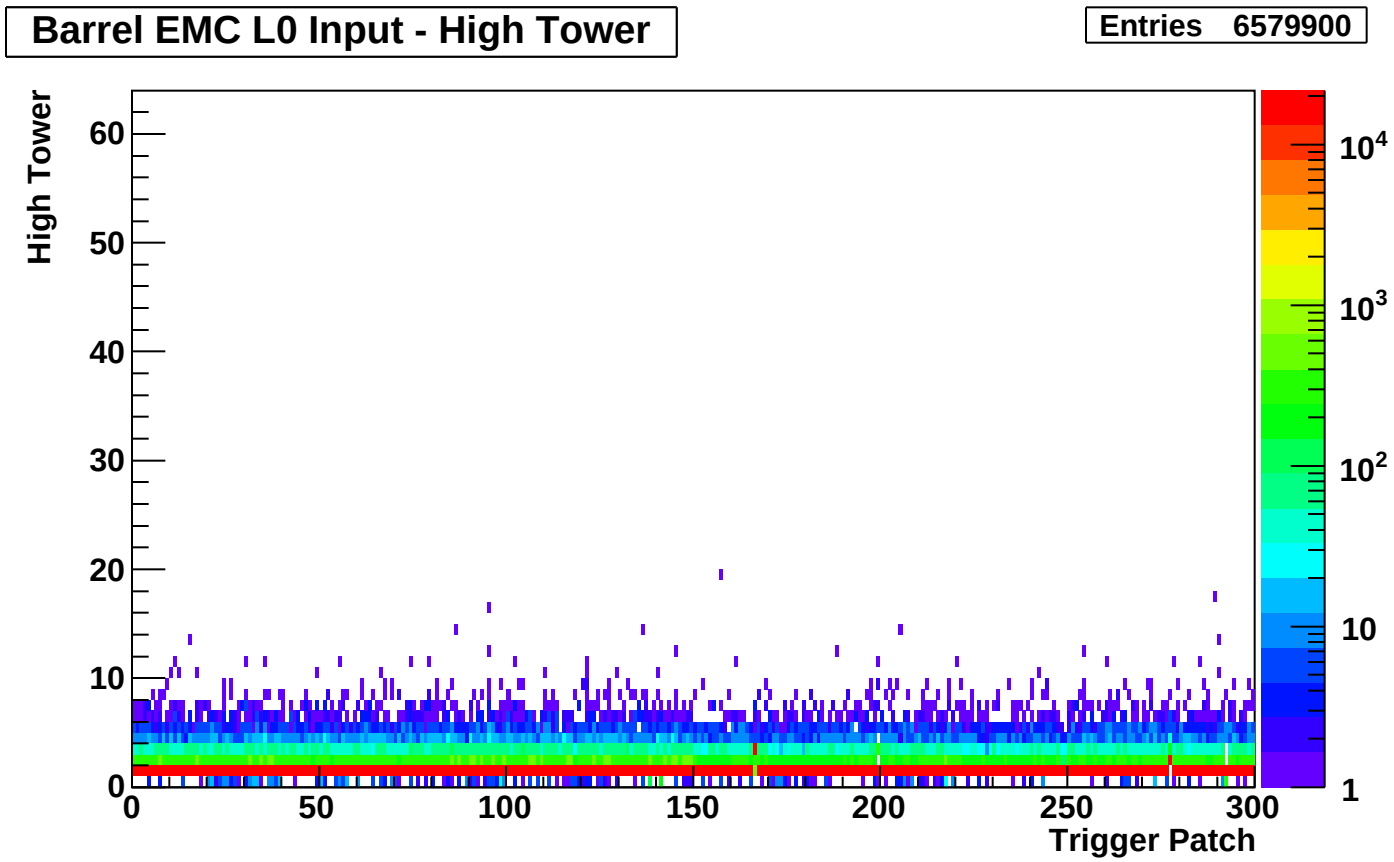
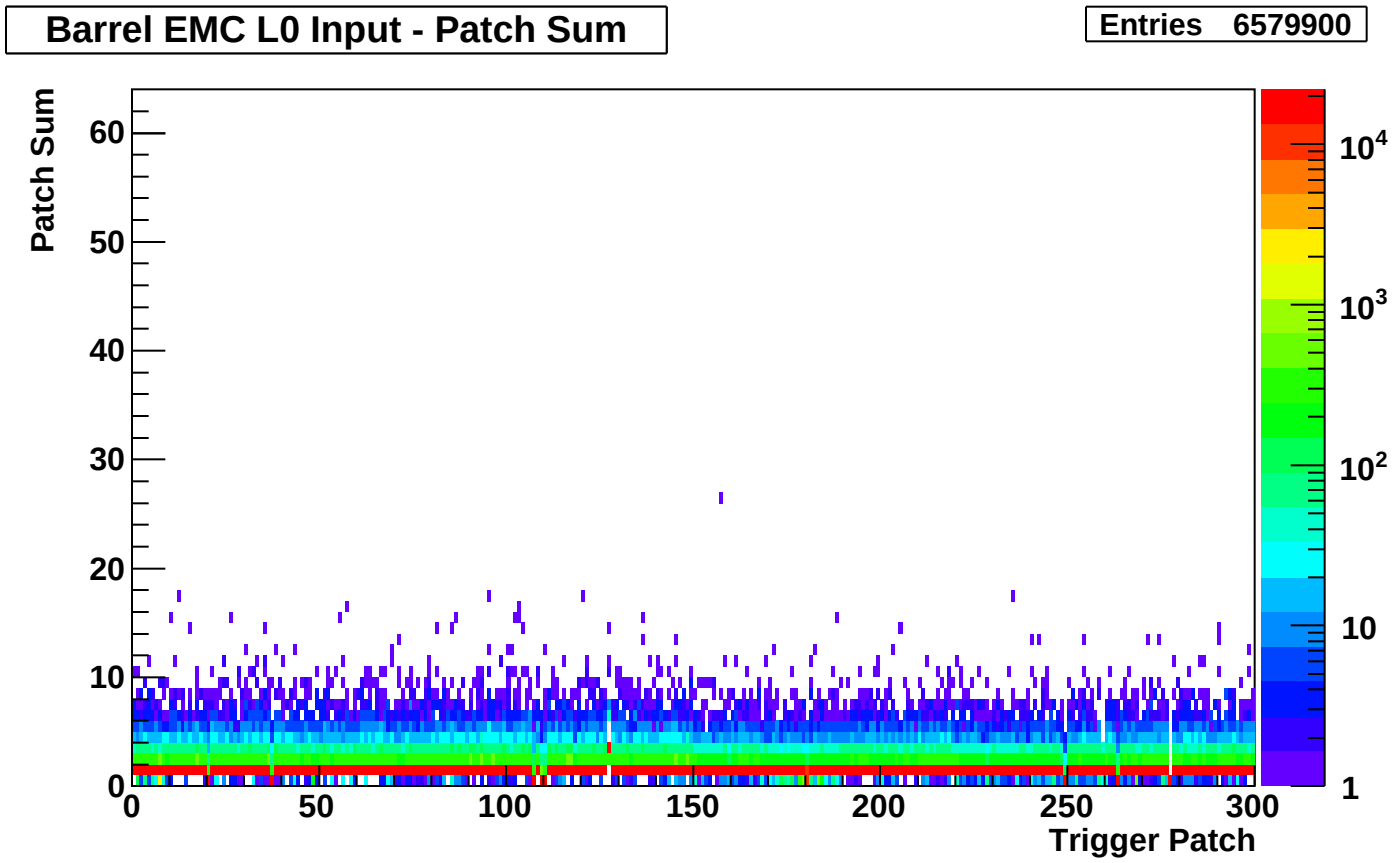
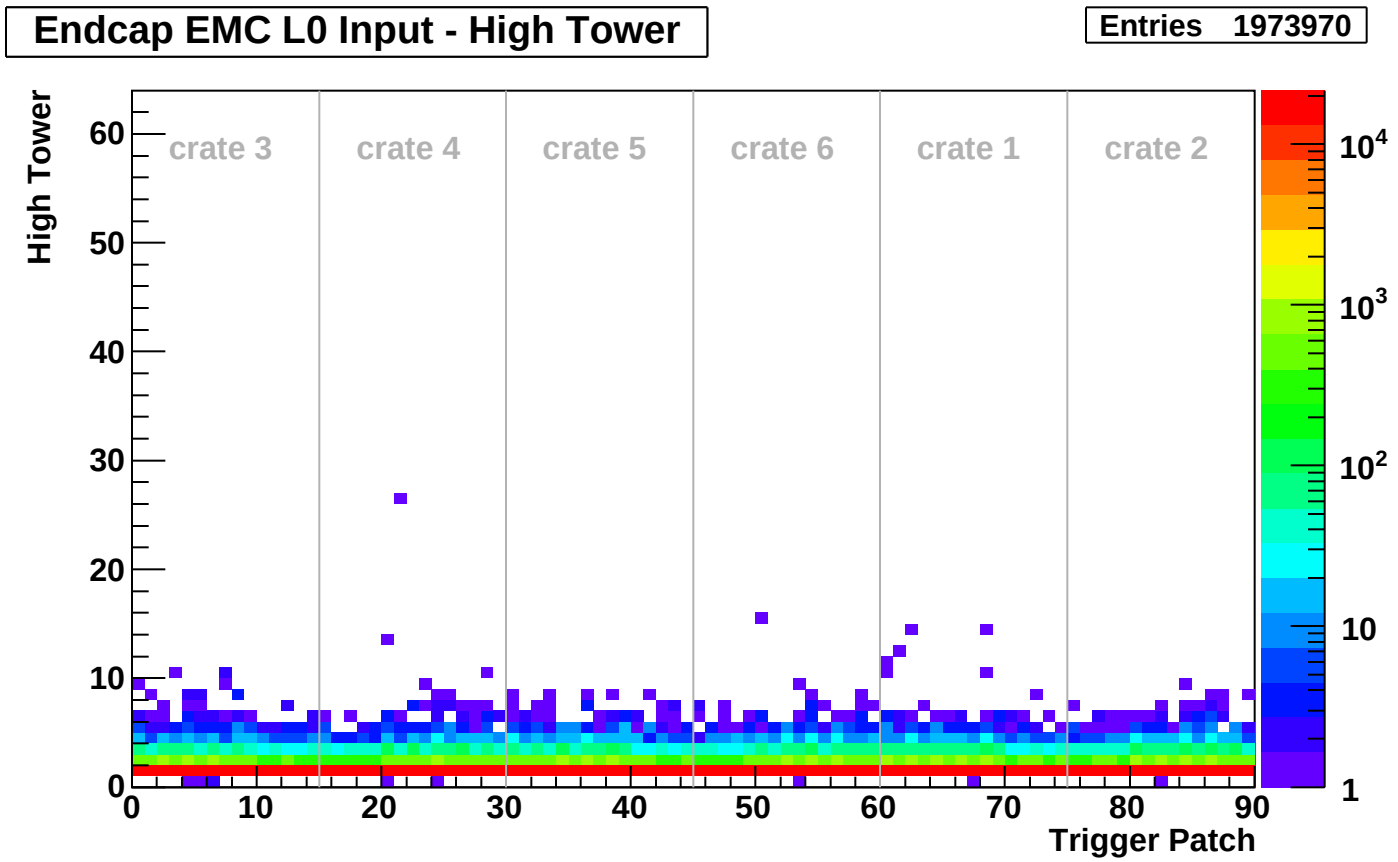
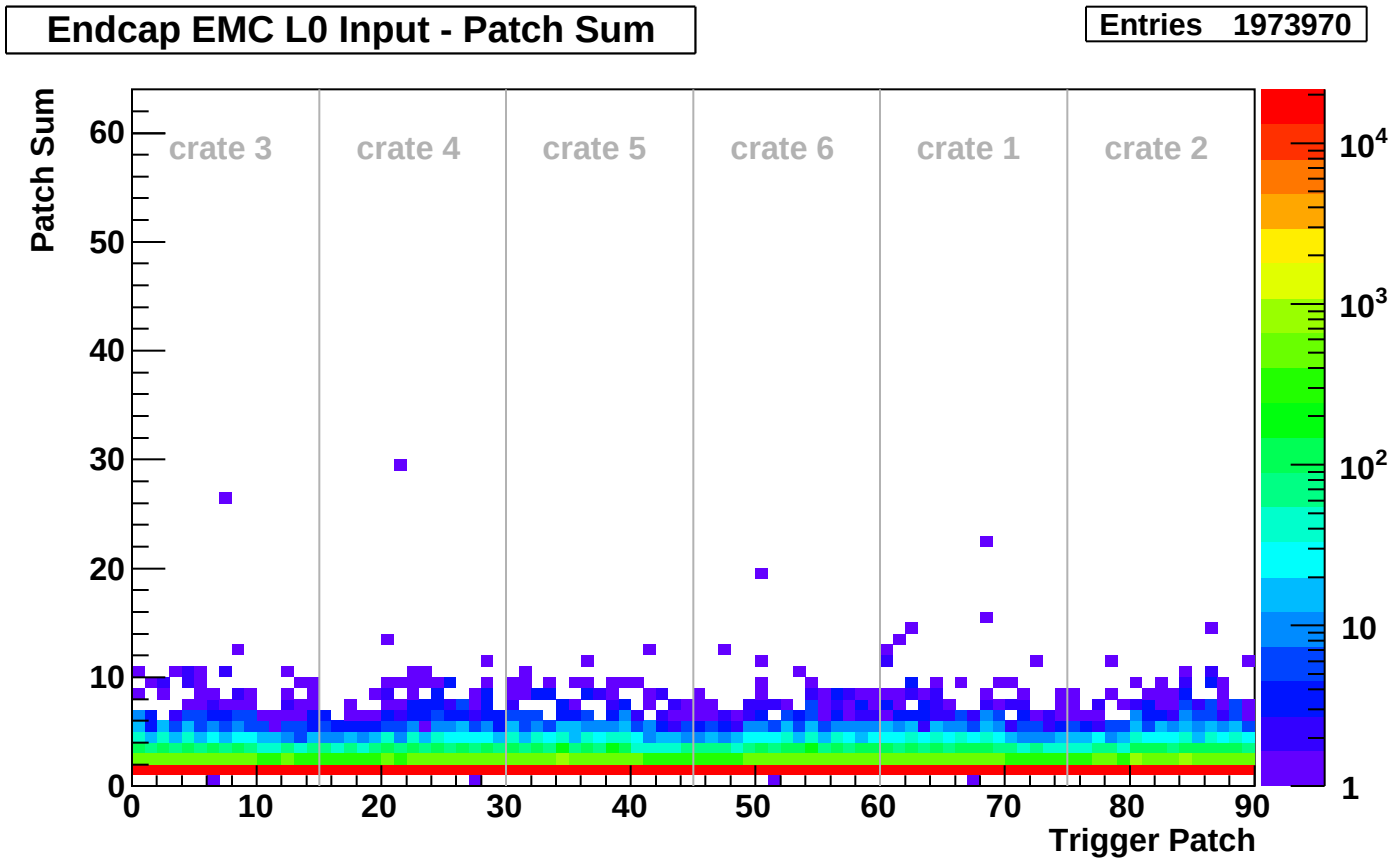
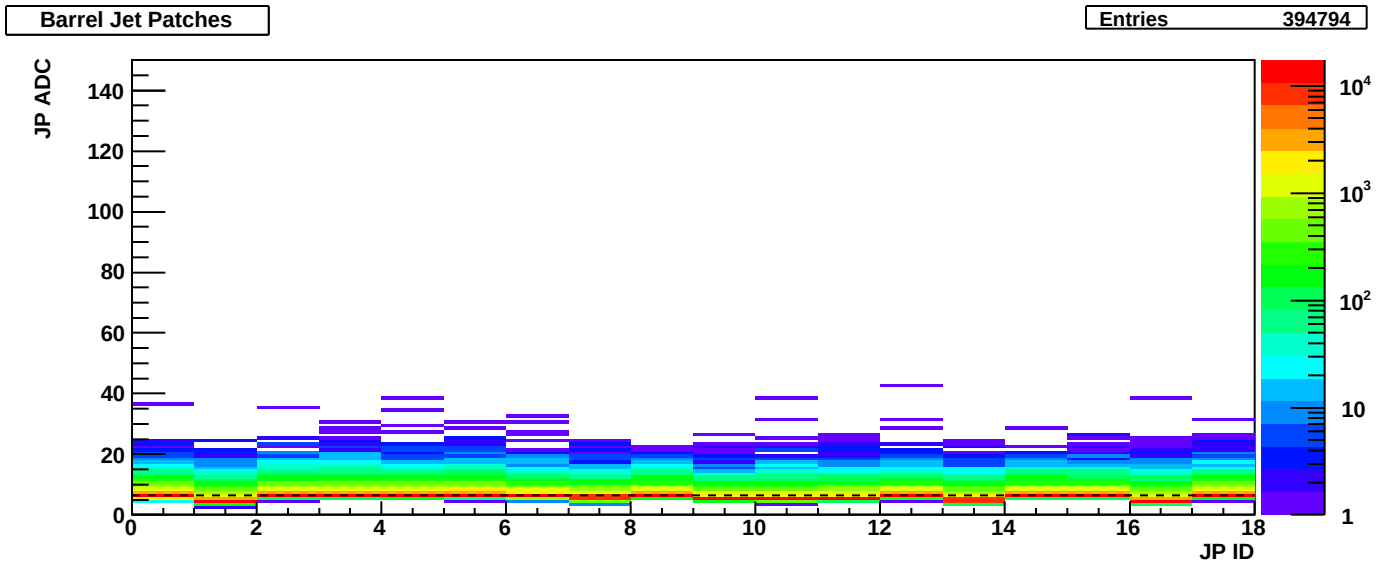
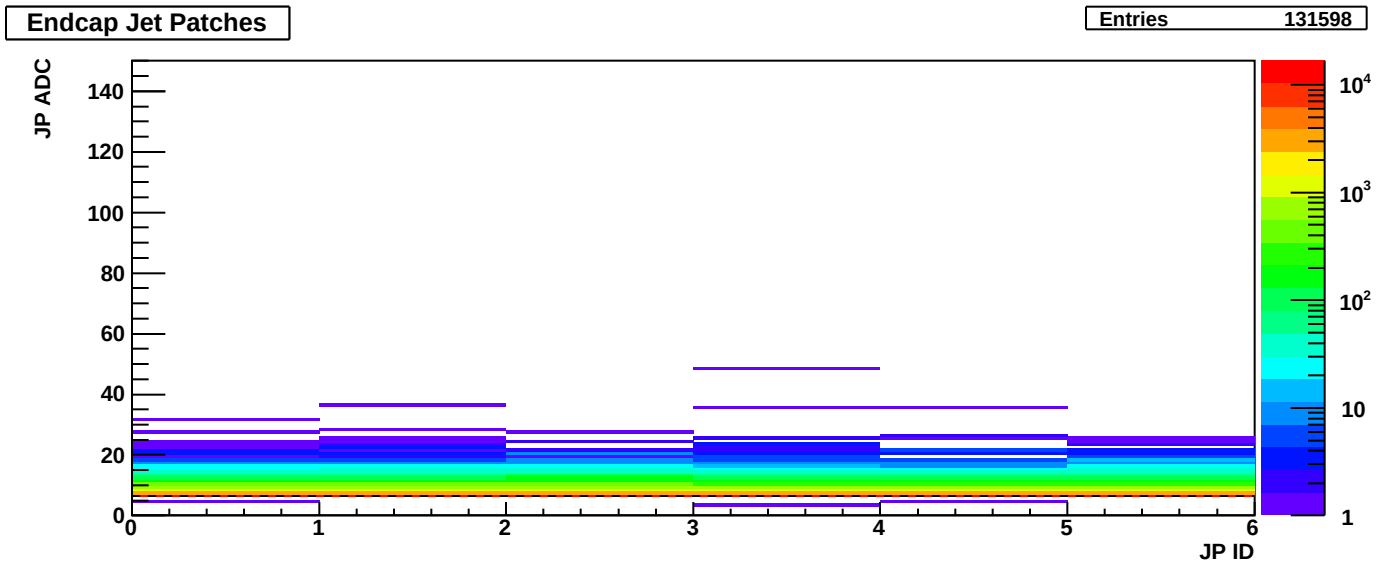

Barrel EMC L0 Input - High Tower
Entries 6579900
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

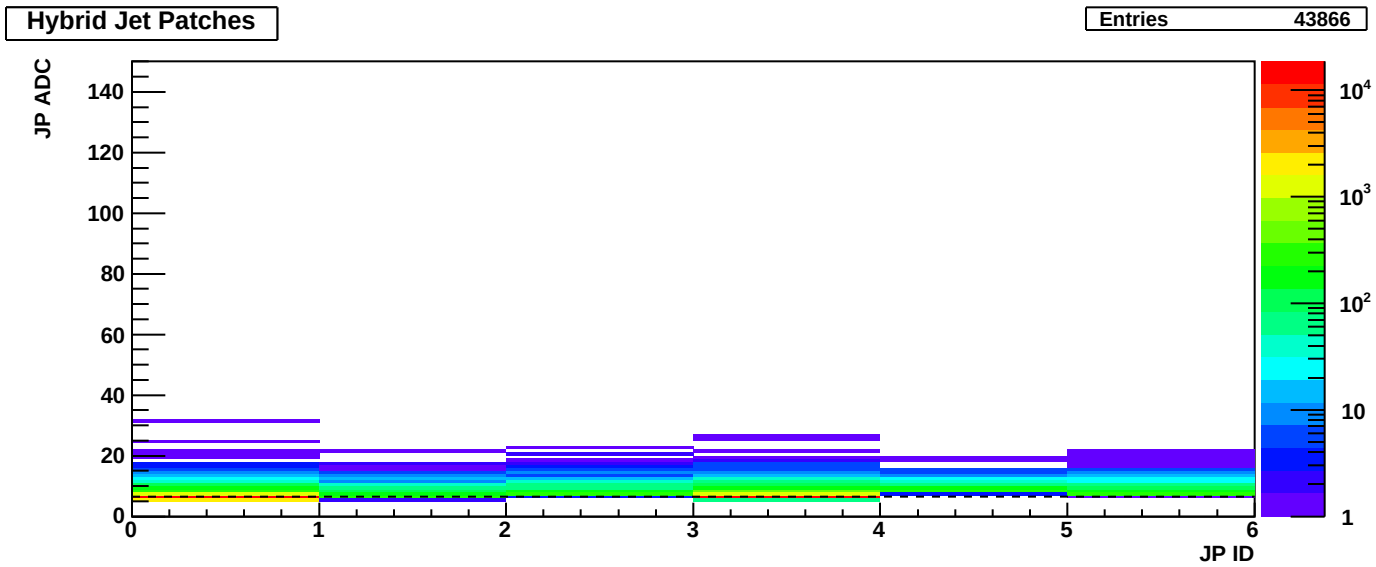

Barrel EMC L0 Input - Patch Sum
Entries 6579900
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

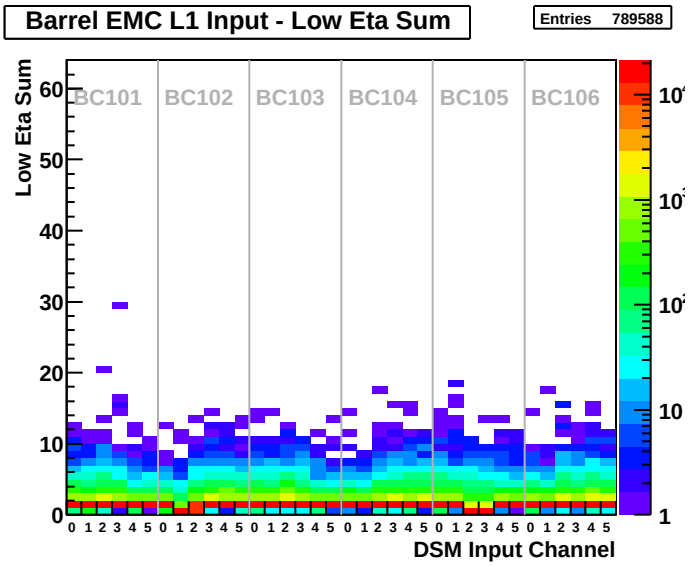

Endcap EMC L0 Input - High Tower
Entries 1973970
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

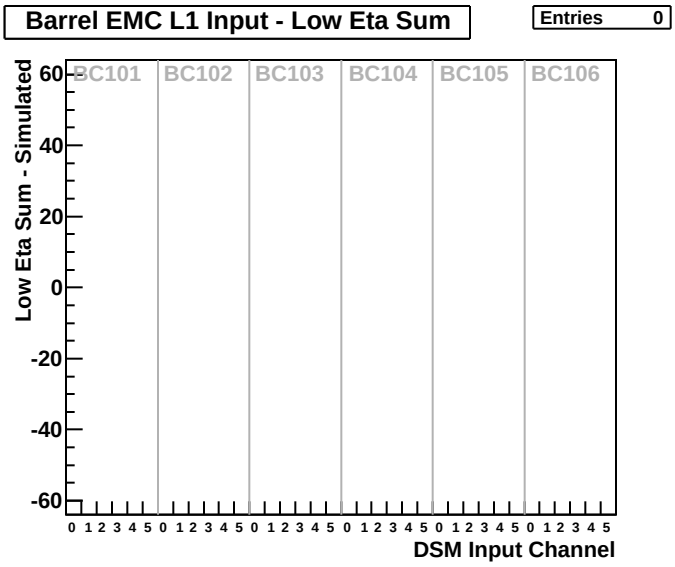

Endcap EMC L0 Input - Patch Sum
Entries 1973970
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

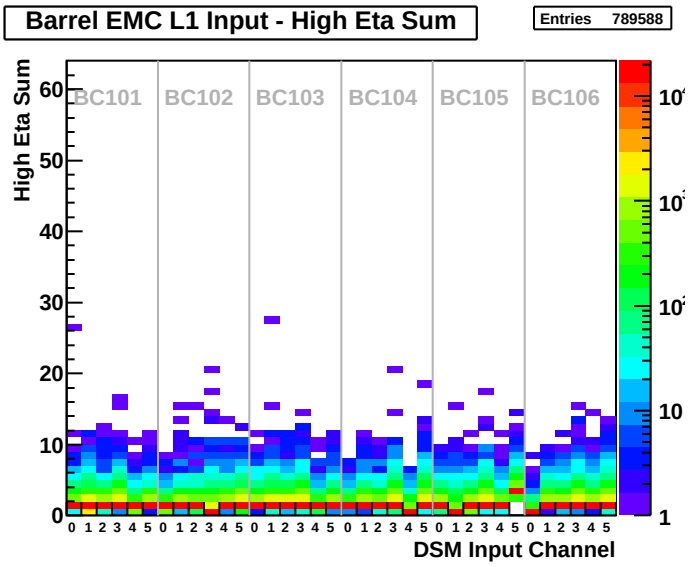

Barrel Jet Patches
Entries 394794
JP ADC
JP ID

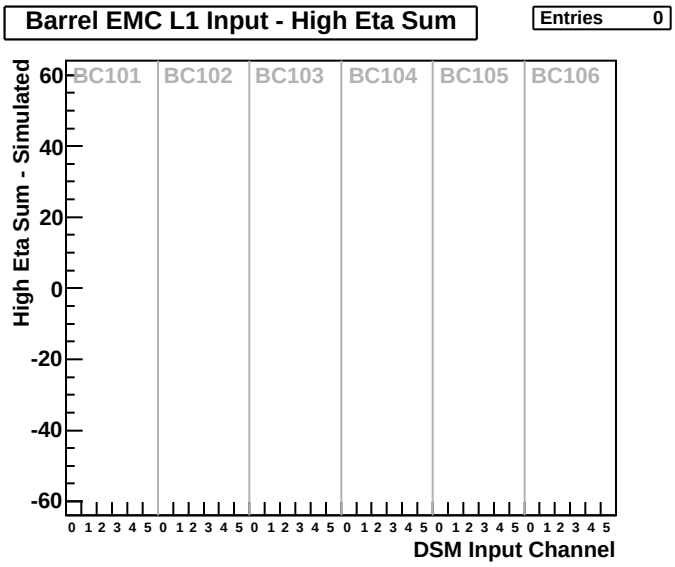

Endcap Jet Patches
Entries 131598
JP ADC
JP ID

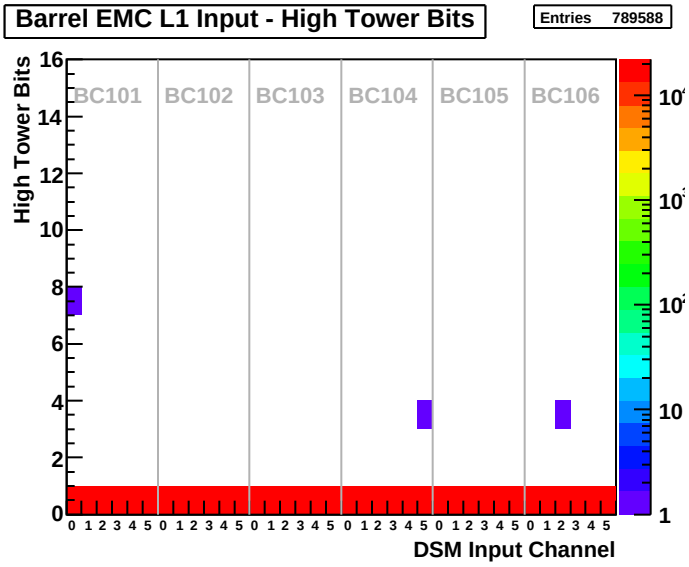

Hybrid Jet Patches
Entries 43866
JP ADC
JP ID

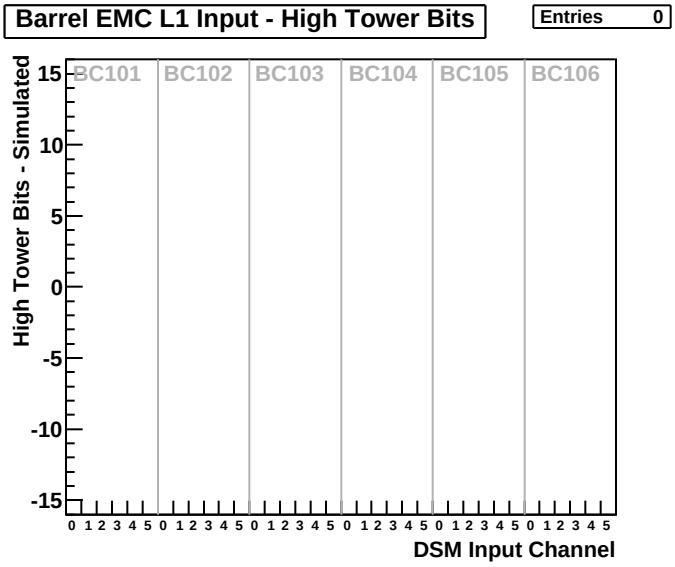

Barrel EMC L1 Input - Low Eta Sum
Entries 789588
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

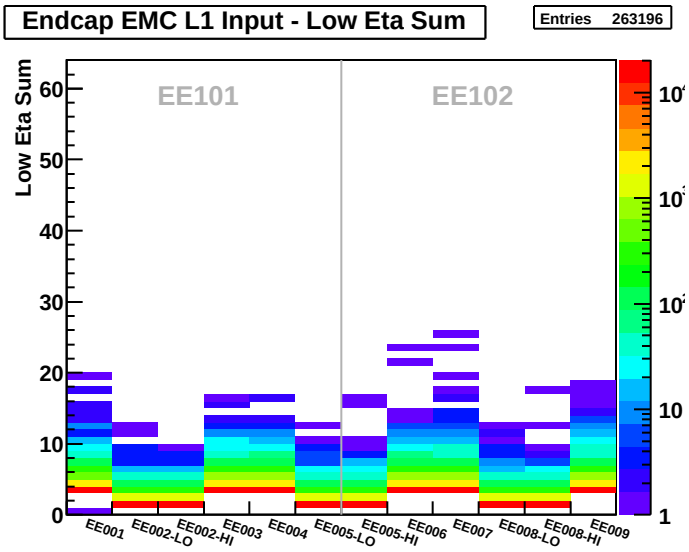

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

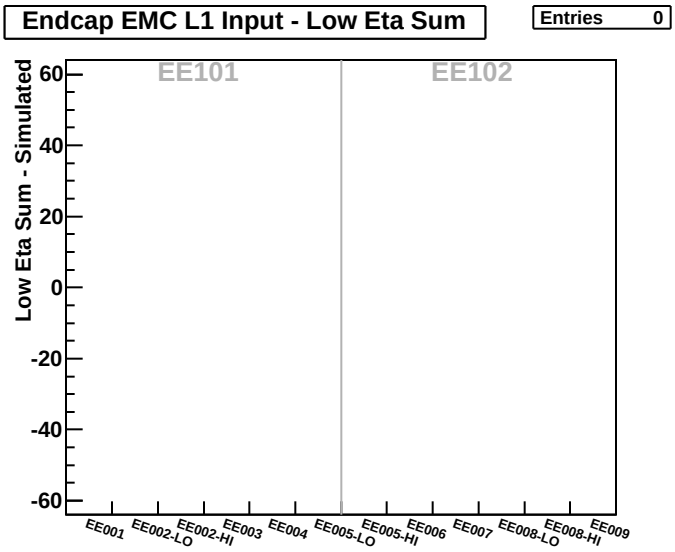

Barrel EMC L1 Input - High Eta Sum
Entries 789588
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

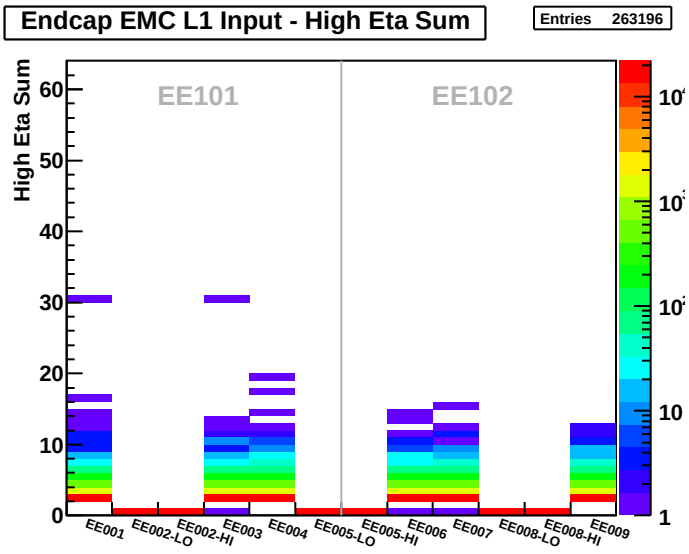

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

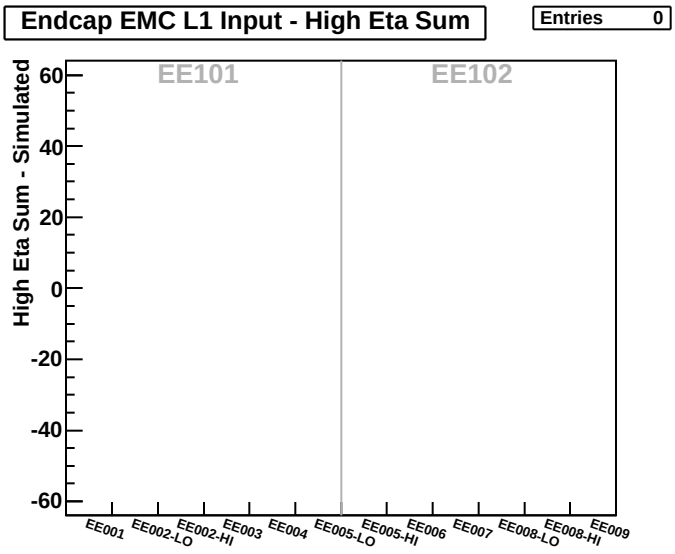

Barrel EMC L1 Input - High Tower Bits
Entries 789588
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

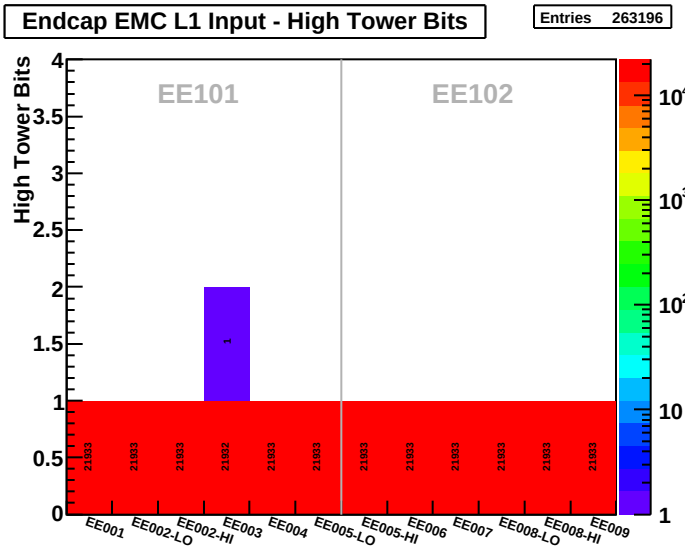

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

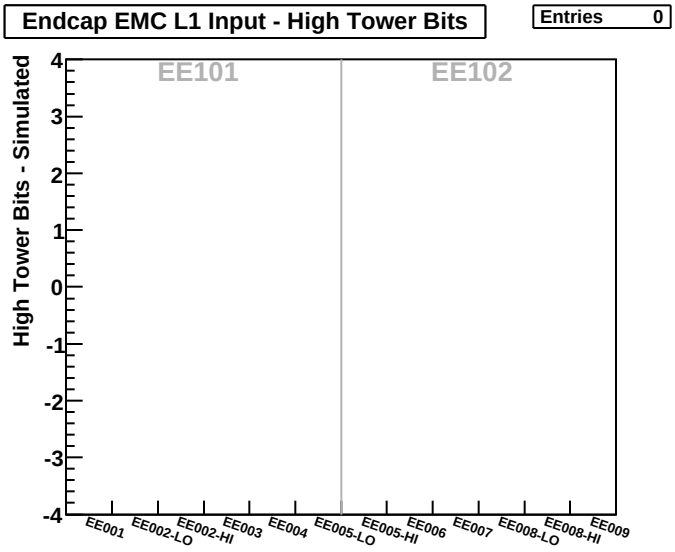

Endcap EMC L1 Input - Low Eta Sum
Entries 263196
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

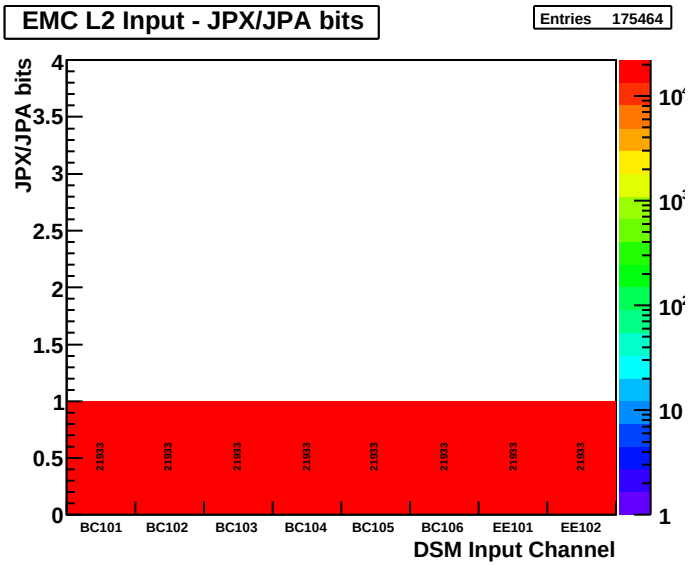

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

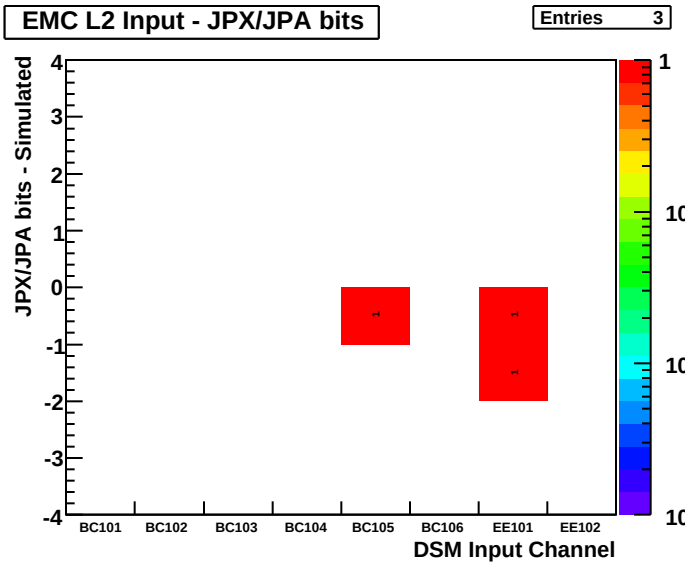

Endcap EMC L1 Input - High Eta Sum
Entries 263196
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

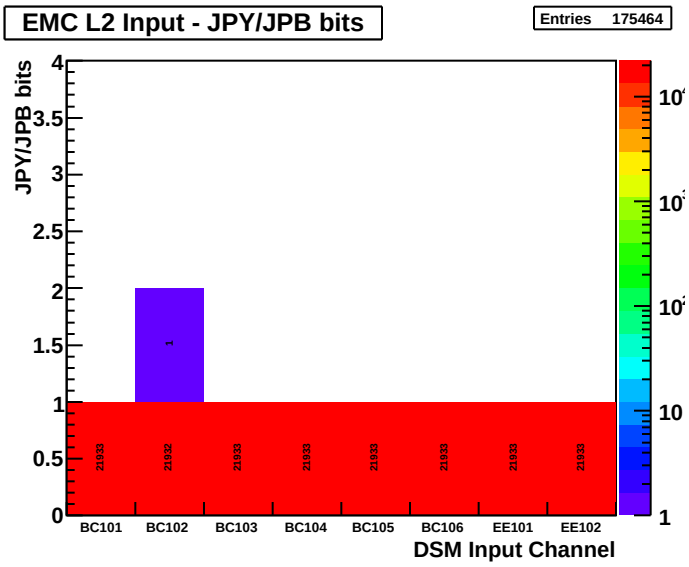

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

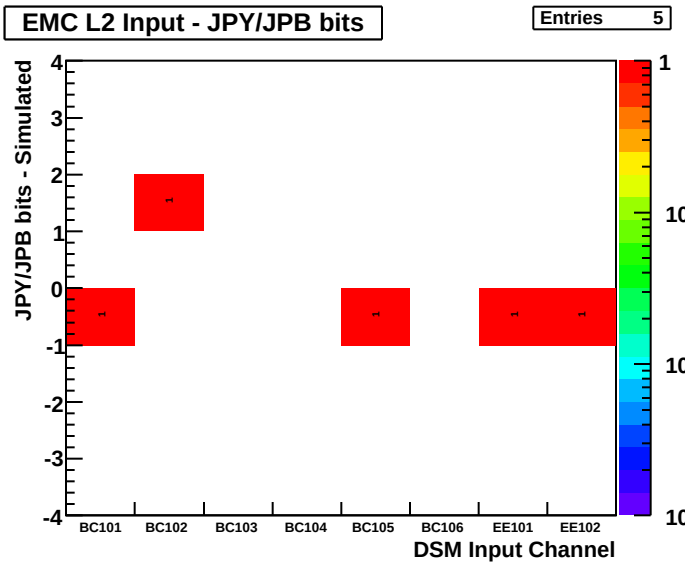

Endcap EMC L1 Input - High Tower Bits
Entries 263196
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

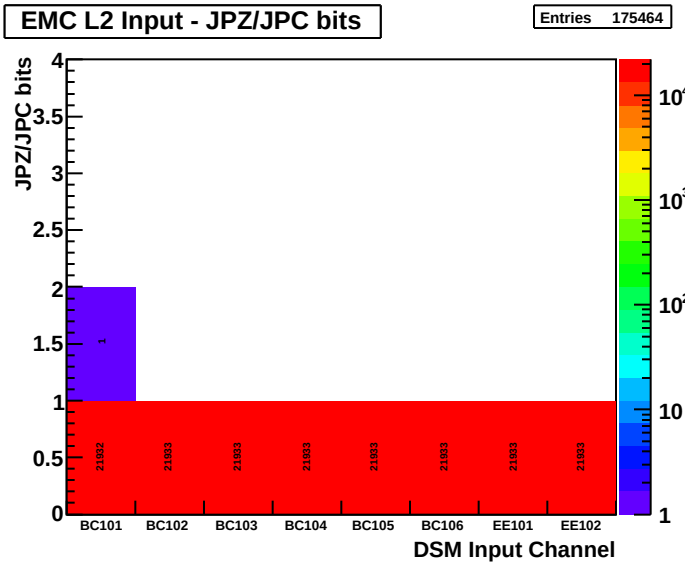

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

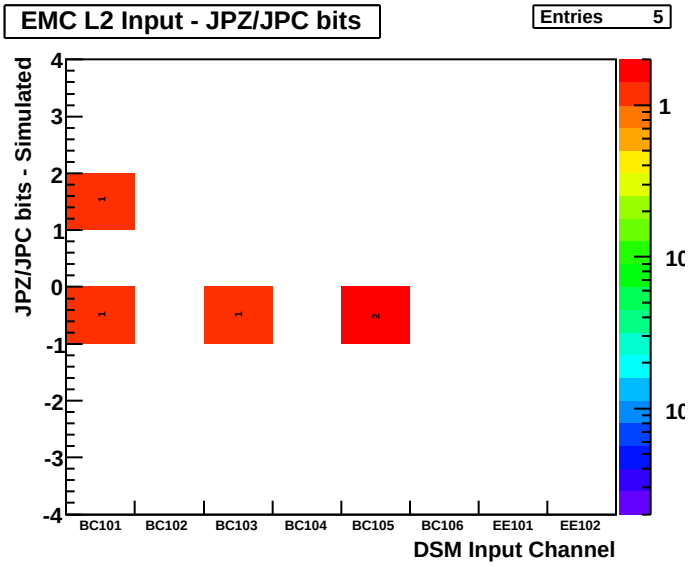

EMC L2 Input - JPX/JPA bits
Entries 175464
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

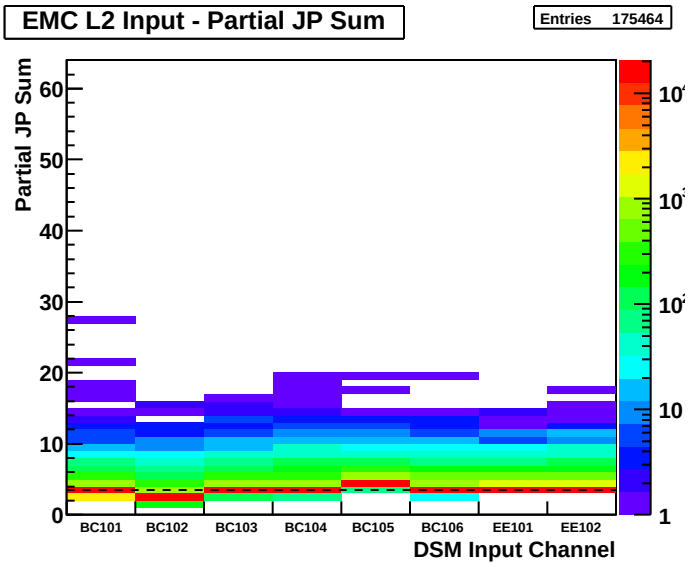

EMC L2 Input - JPX/JPA bits
Entries 3
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

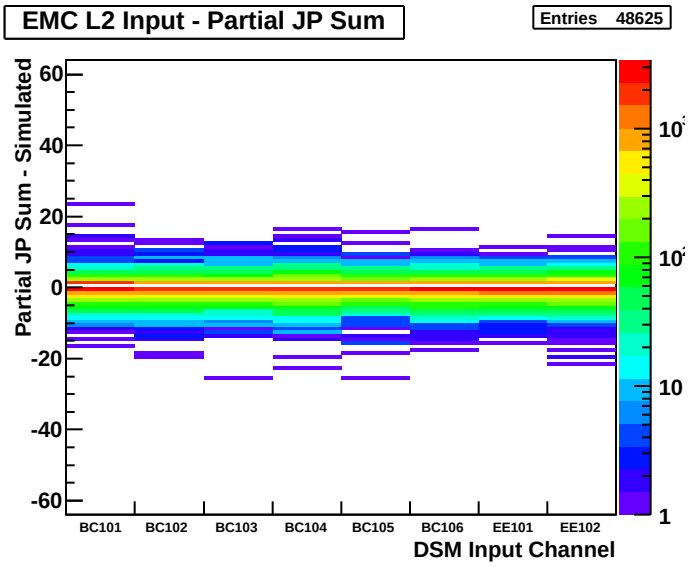

EMC L2 Input - JPY/JPB bits
Entries 175464
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

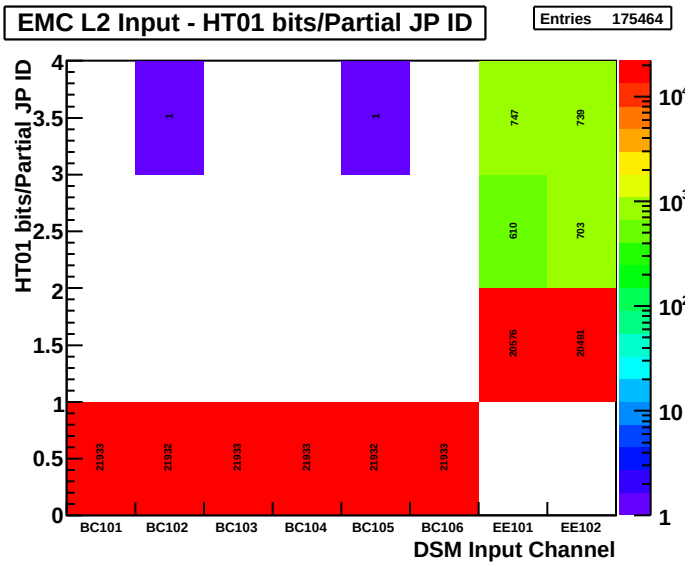

EMC L2 Input - JPY/JPB bits
Entries 5
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

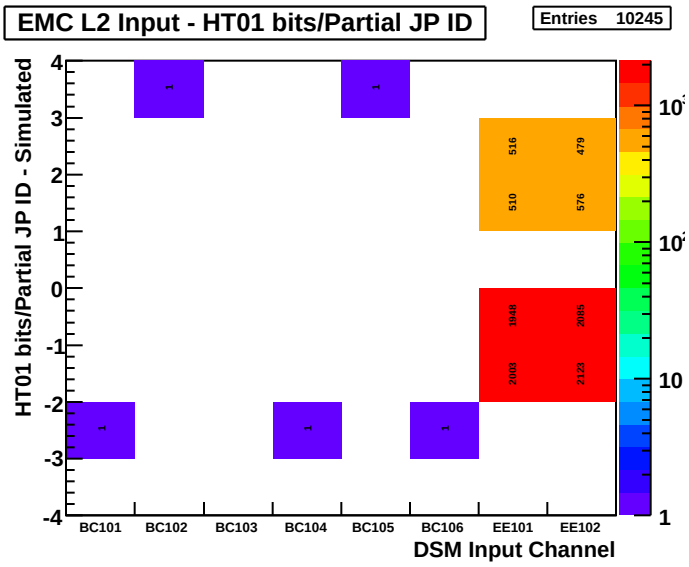

EMC L2 Input - JPZ/JPC bits
Entries 175464
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

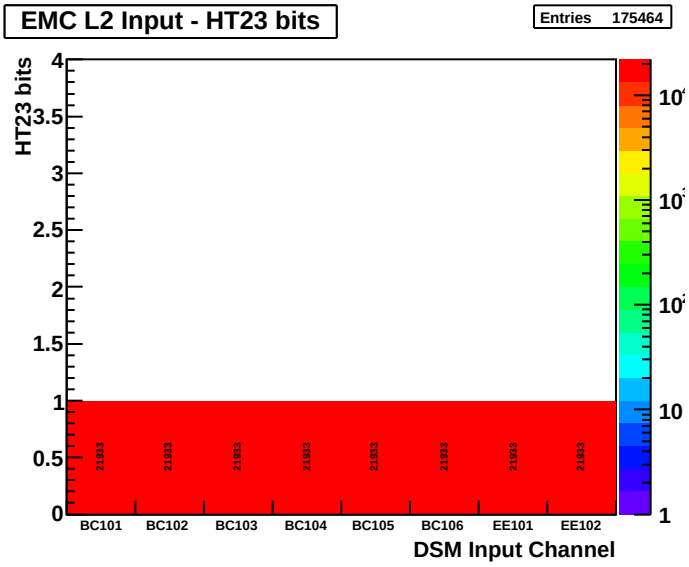

EMC L2 Input - JPZ/JPC bits
Entries 5
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

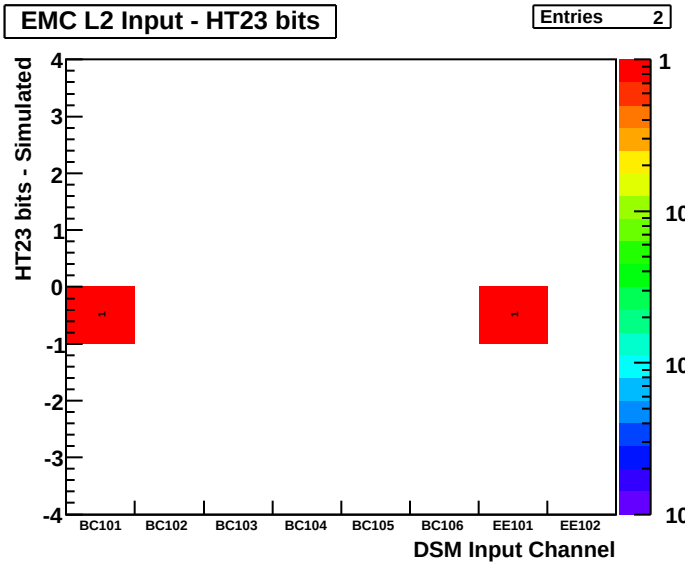

EMC L2 Input - Partial JP Sum
Entries 175464
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

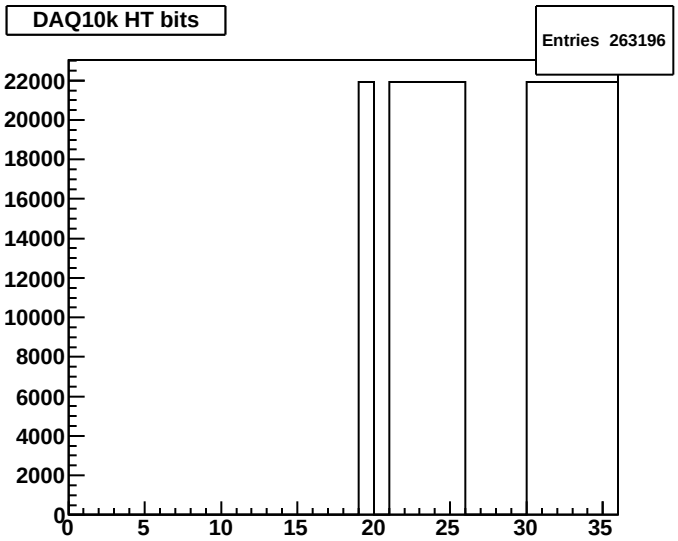

EMC L2 Input - Partial JP Sum
Entries 48625
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

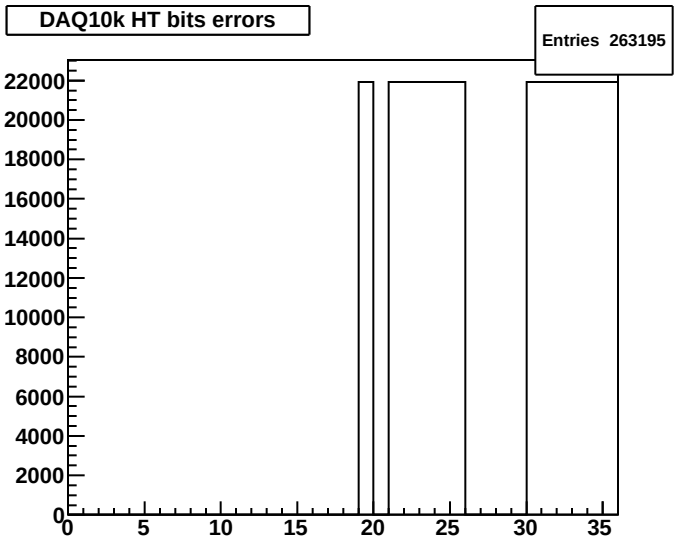

EMC L2 Input - HT01 bits/Partial JP ID
Entries 175464
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

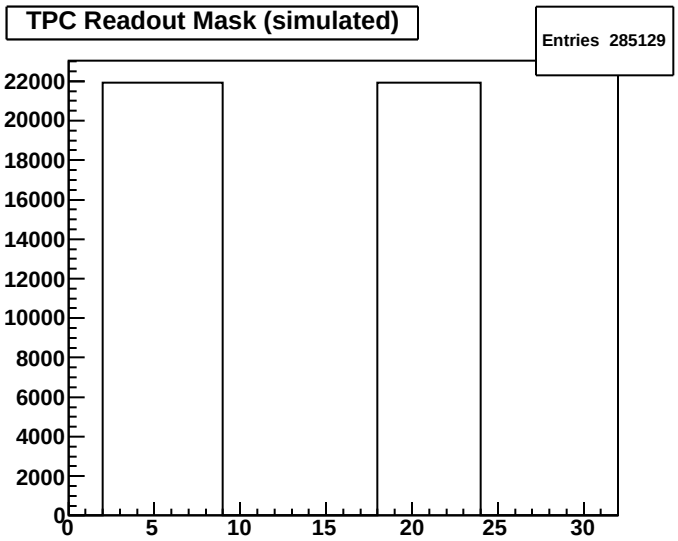

EMC L2 Input - HT01 bits/Partial JP ID
Entries 10245
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

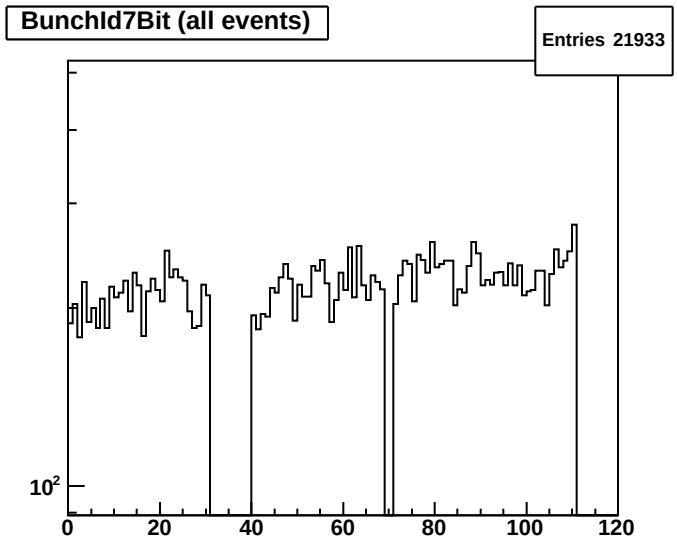

EMC L2 Input - HT23 bits
Entries 175464
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

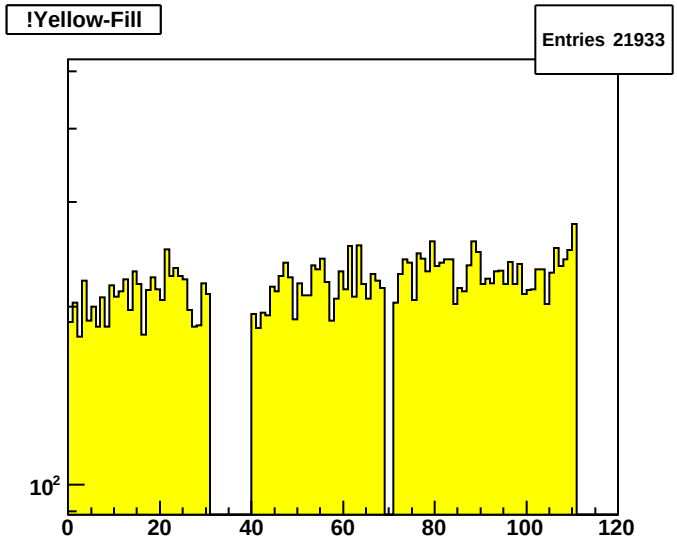

EMC L2 Input - HT23 bits
Entries 2
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

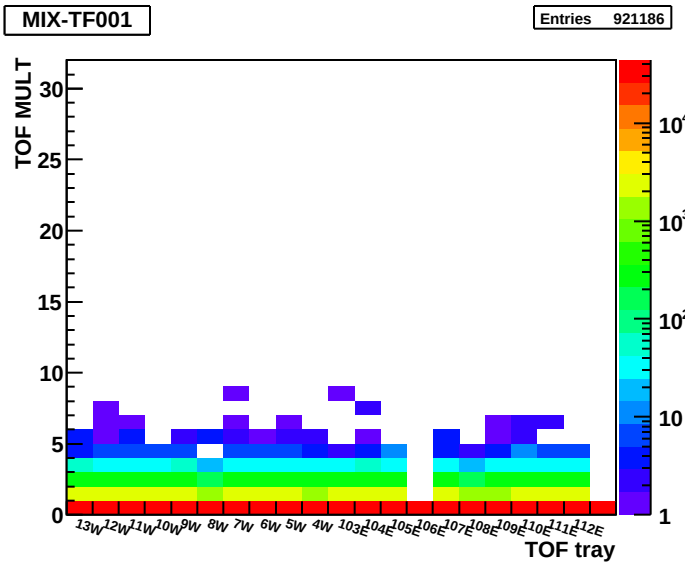

DAQ10k HT bits
Entries 263196
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0
5
10
15
20
25
30
35

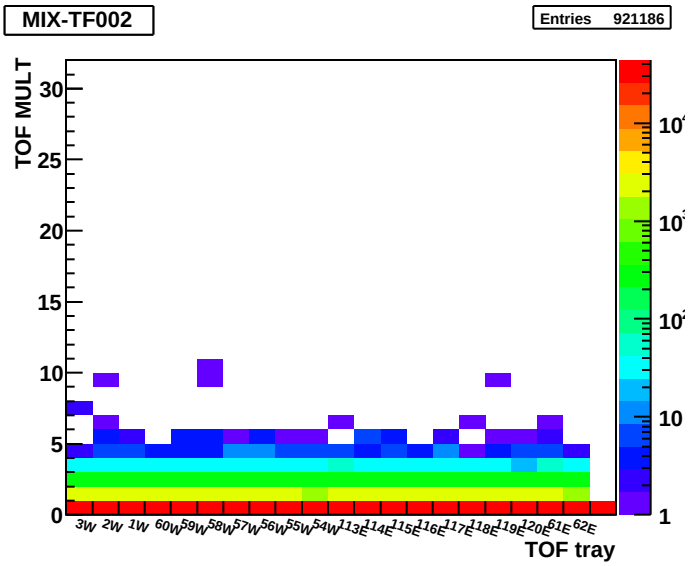

DAQ10k HT bits errors
Entries 263195
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0
5
10
15
20
25
30
35

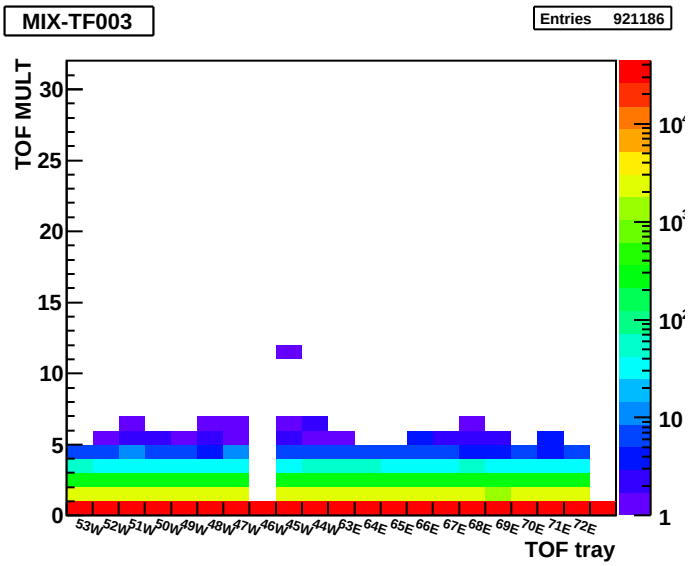

TPC Readout Mask (simulated)
Entries 285129
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0
5
10
15
20
25
30

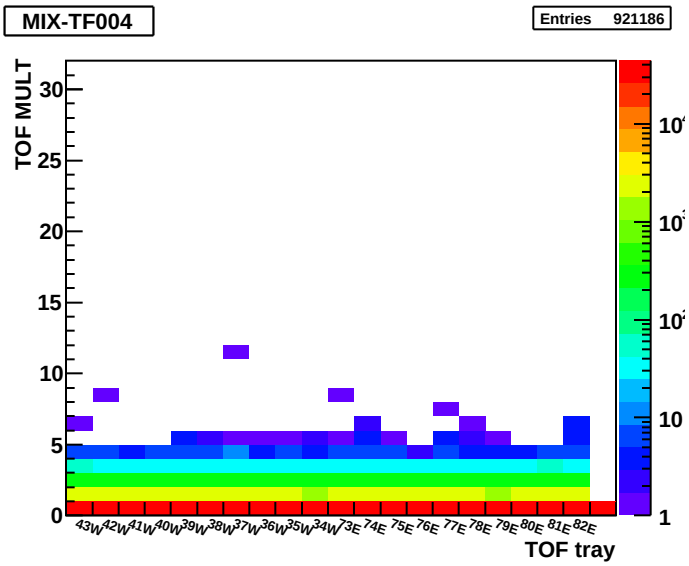

BunchId7Bit (all events)
Entries 21933
10^2
0
20
40
60
80
100
120

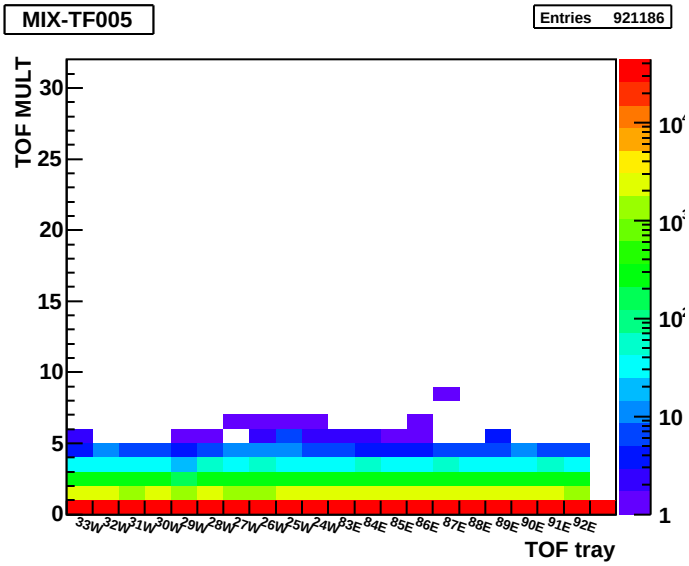

!Yellow-Fill
Entries 21933
10^2
0
20
40
60
80
100
120

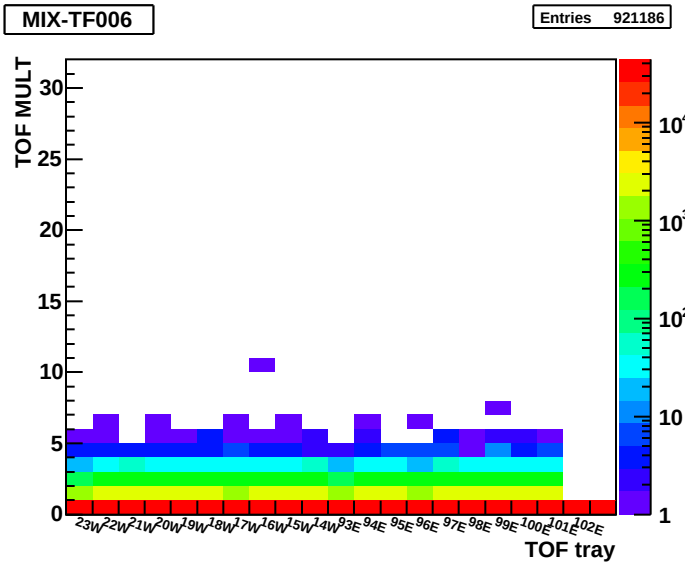

MIX-TF001
Entries 921186
TOF MULT
TOF tray

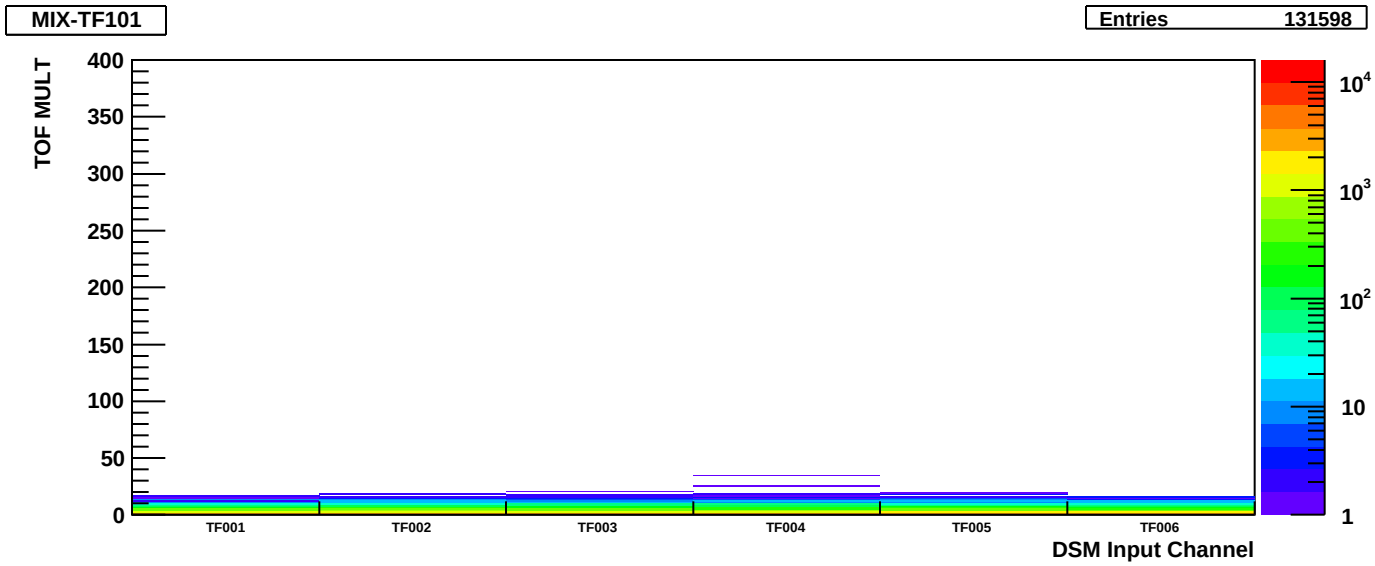

MIX-TF002
Entries 921186
TOF MULT
TOF tray

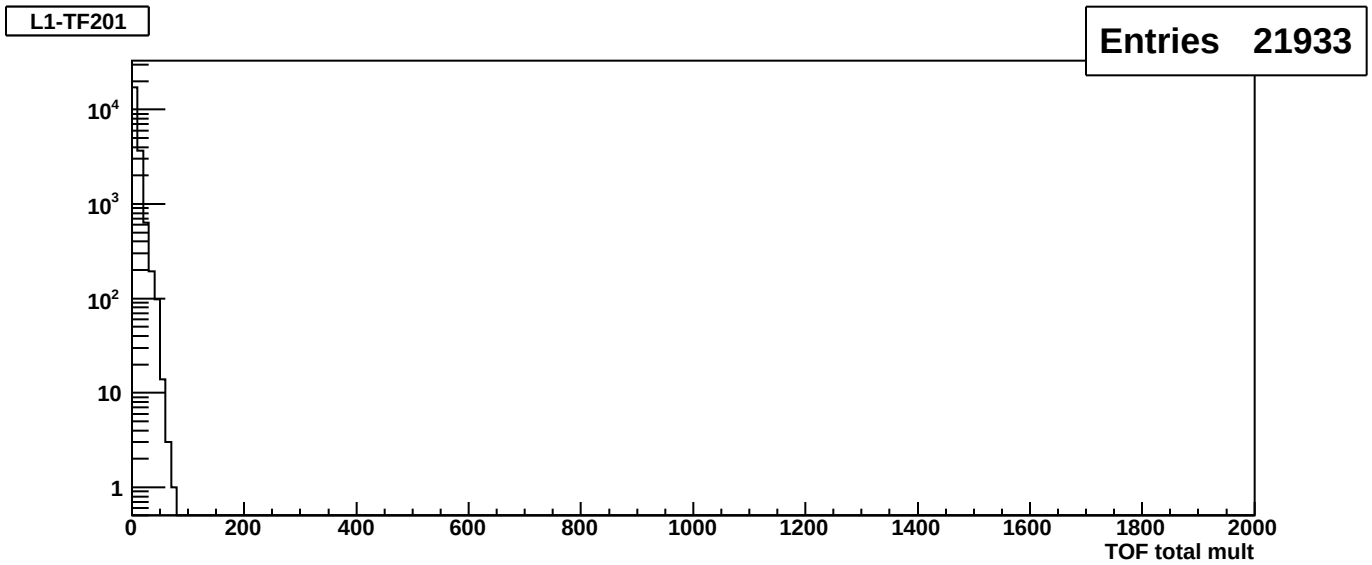

MIX-TF003
Entries 921186
TOF MULT
TOF tray

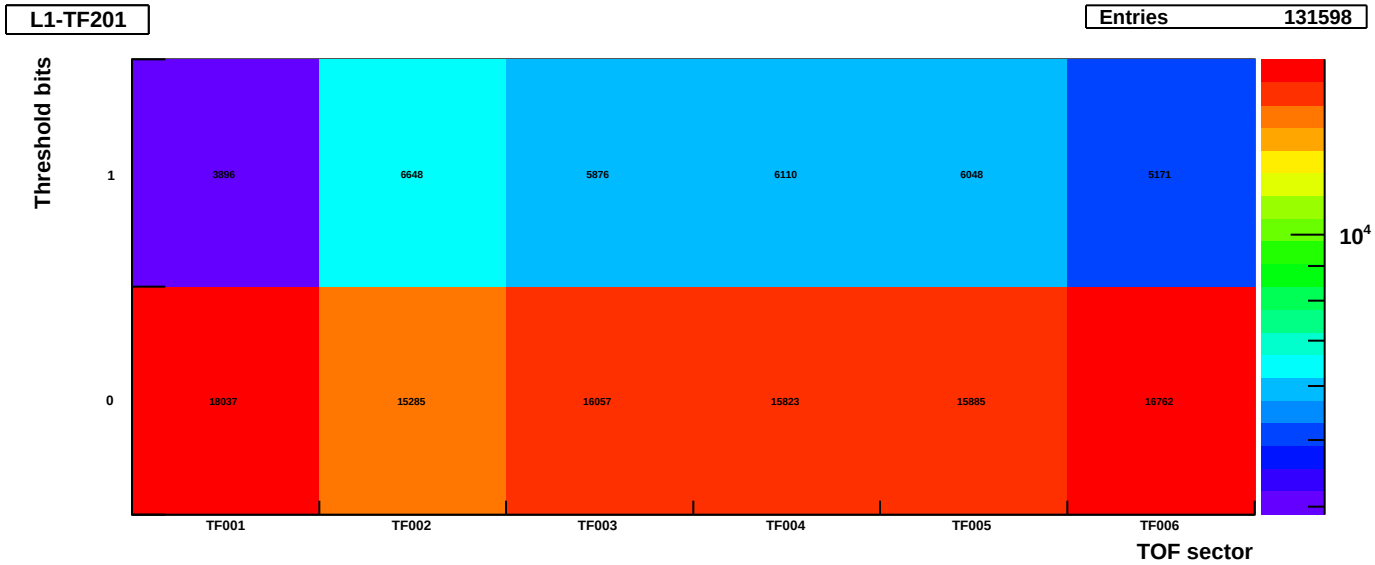

MIX-TF004
Entries 921186
TOF MULT
TOF tray

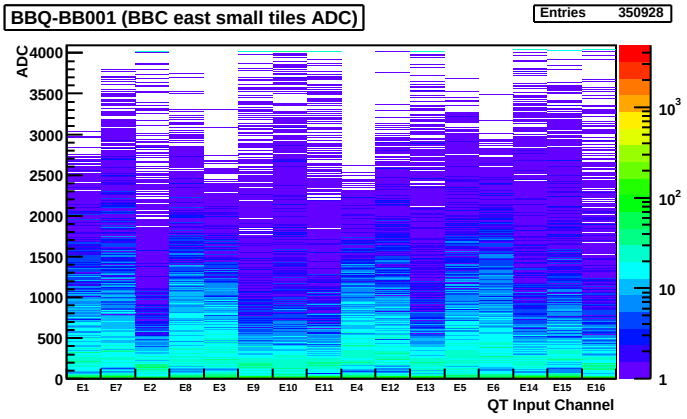

MIX-TF005
Entries 921186
TOF MULT
TOF tray

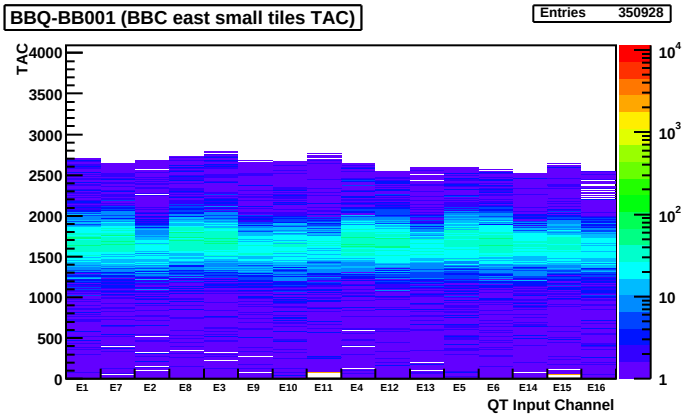

MIX-TF006
Entries 921186
TOF MULT
TOF tray

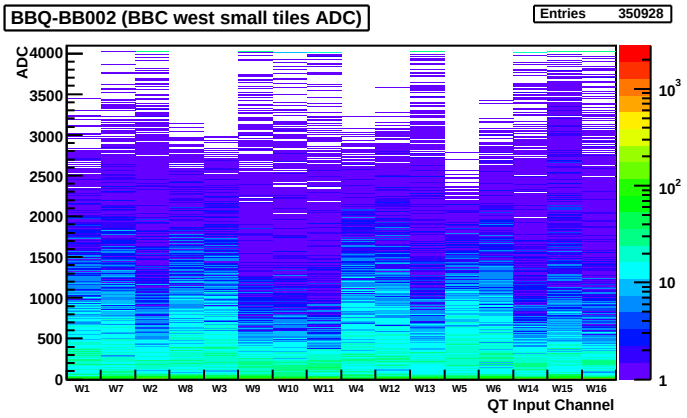

MIX-TF101
Entries 131598
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

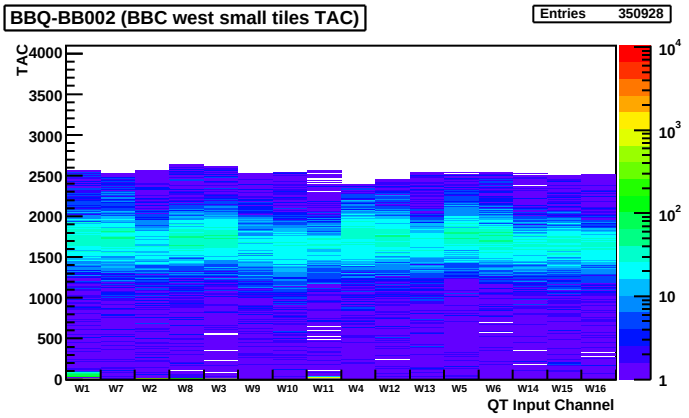

L1-TF201
Entries 21933
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

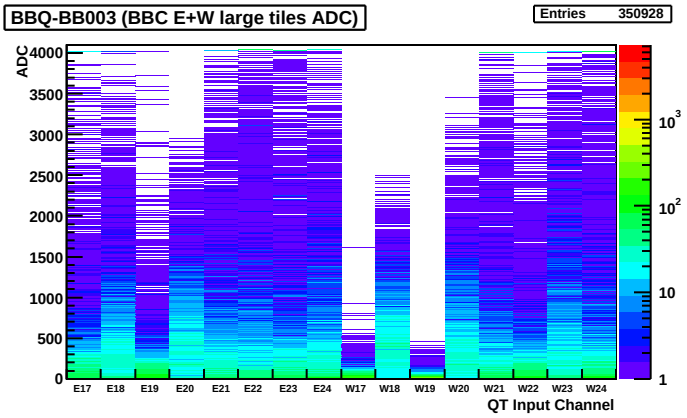

L1-TF201
Entries 131598
Threshold bits
1
0
3896
6648
5876
6110
6048
5171
18037
15285
16057
15823
15885
16762
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

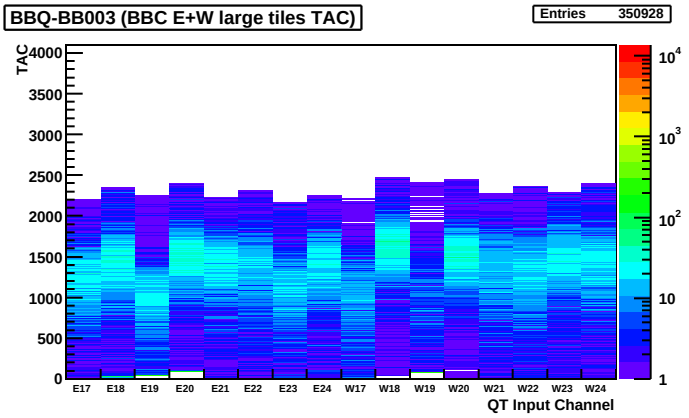

BBQ-BB001 (BBC east small tiles ADC)
Entries 350928
ADC
QT Input Channel

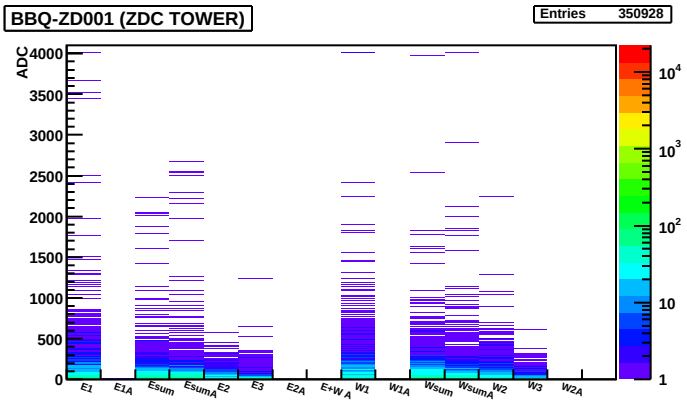

BBQ-BB001 (BBC east small tiles TAC)
Entries 350928
TAC
QT Input Channel

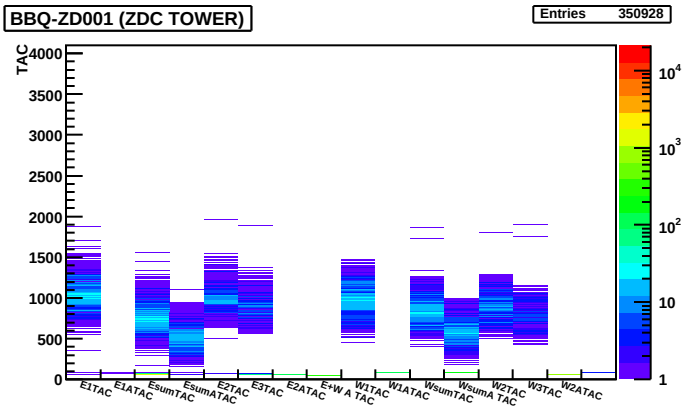

BBQ-BB002 (BBC west small tiles ADC)
Entries 350928
ADC
QT Input Channel

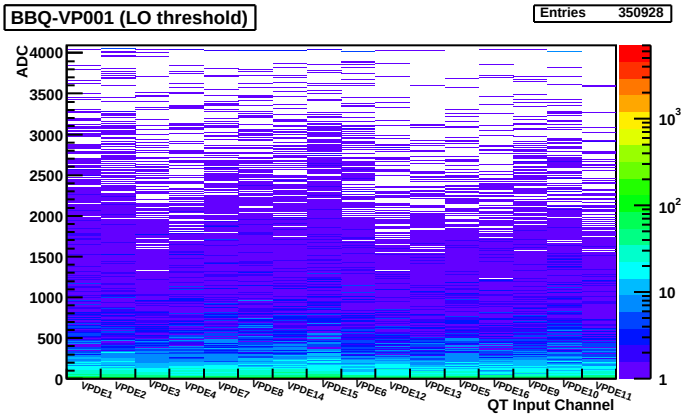

BBQ-BB002 (BBC west small tiles TAC)
Entries 350928
TAC
QT Input Channel

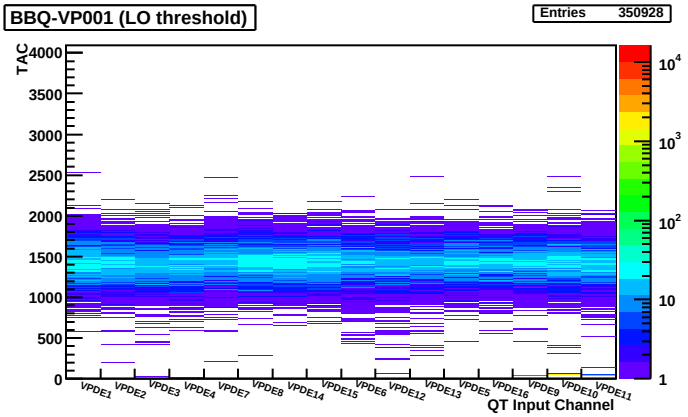

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 350928
ADC
QT Input Channel

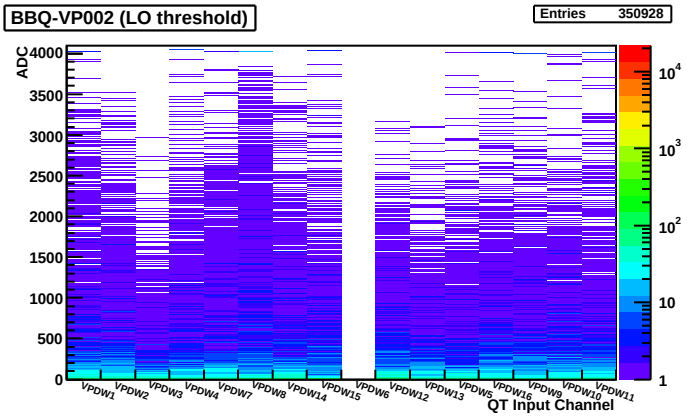

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 350928
TAC
QT Input Channel

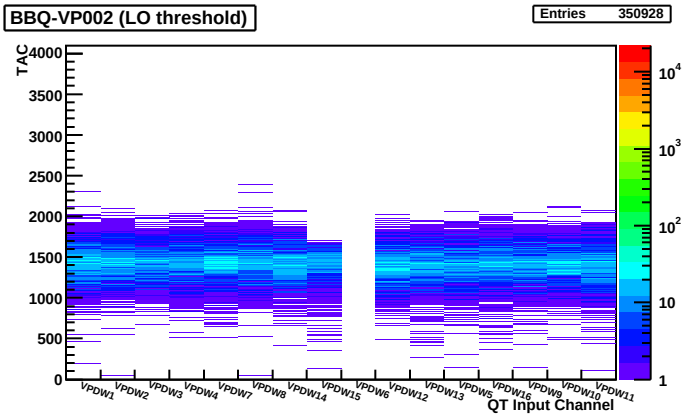

BBQ-ZD001 (ZDC TOWER)
Entries 350928
ADC

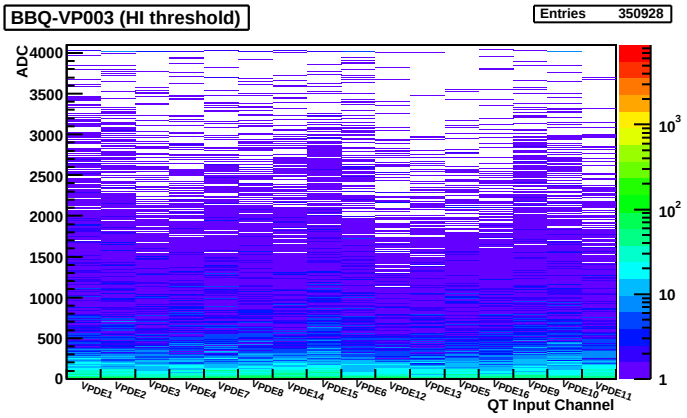

BBQ-ZD001 (ZDC TOWER)
Entries 350928
TAC

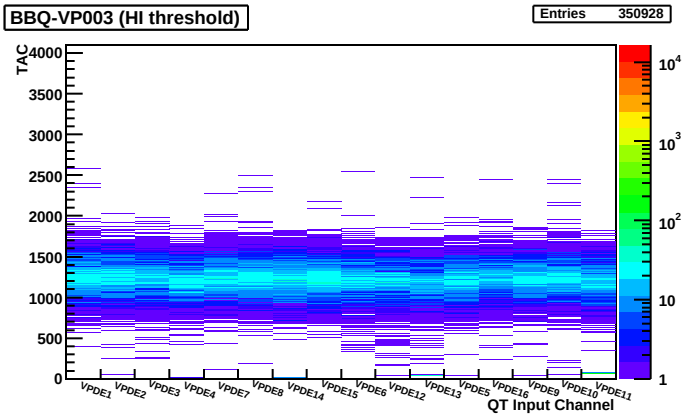

BBQ-VP001 (LO threshold)
Entries 350928
ADC
QT Input Channel

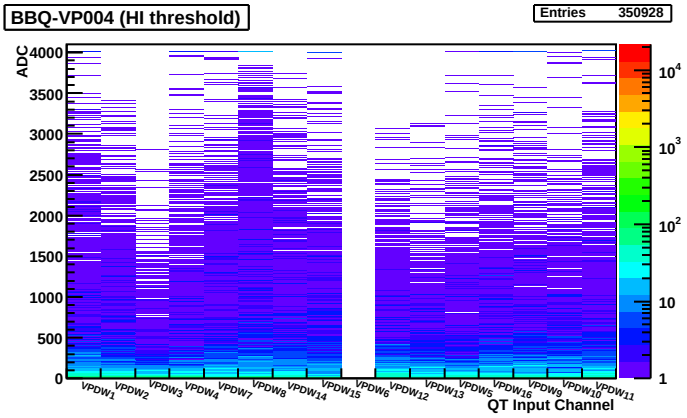

BBQ-VP001 (LO threshold)
Entries 350928
TAC
QT Input Channel

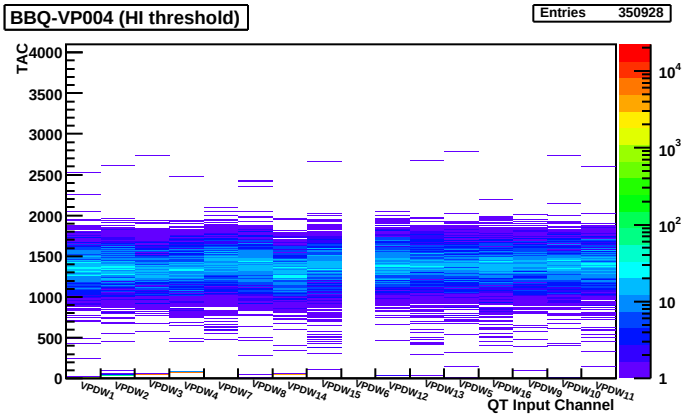

BBQ-VP002 (LO threshold)
Entries 350928
ADC
QT Input Channel

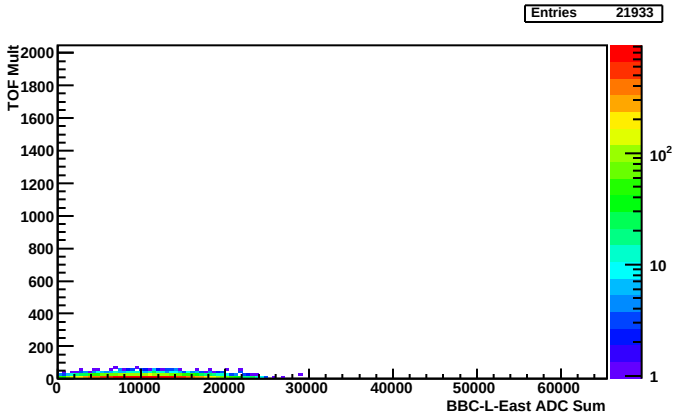

BBQ-VP002 (LO threshold)
Entries 350928
TAC
QT Input Channel

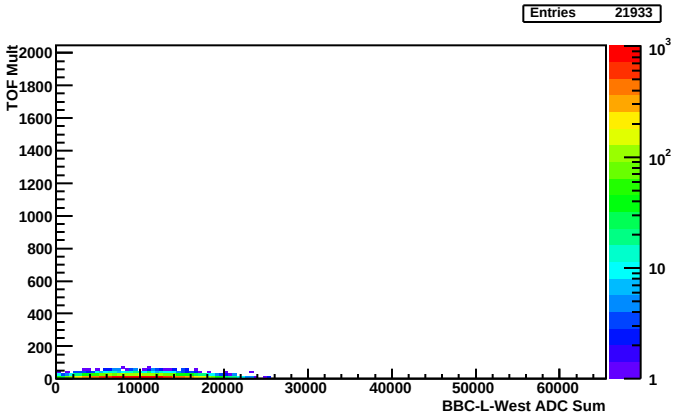

BBQ-VP003 (HI threshold)
Entries 350928
ADC
QT Input Channel

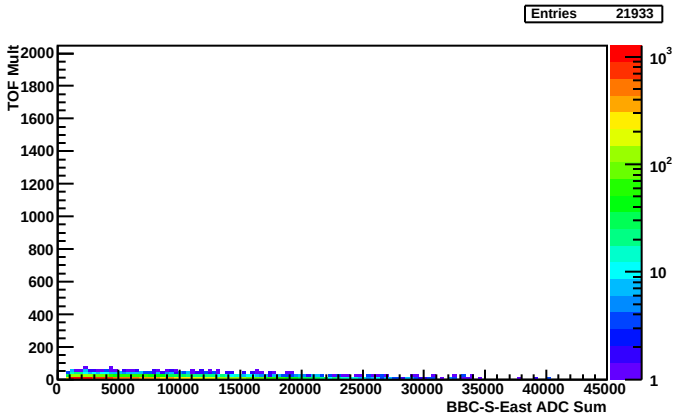

BBQ-VP003 (HI threshold)
Entries 350928
TAC
QT Input Channel

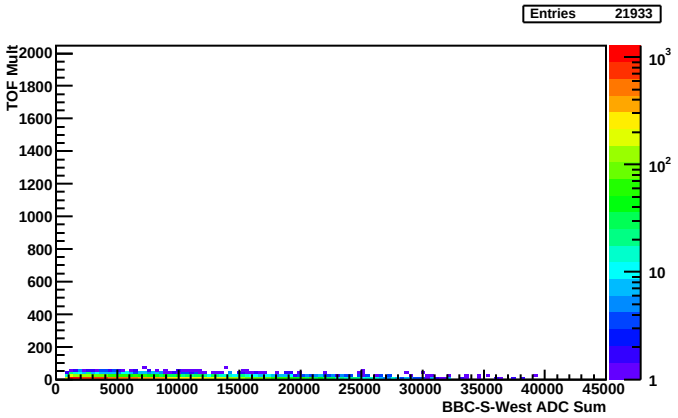

BBQ-VP004 (HI threshold)
Entries 350928
ADC
QT Input Channel

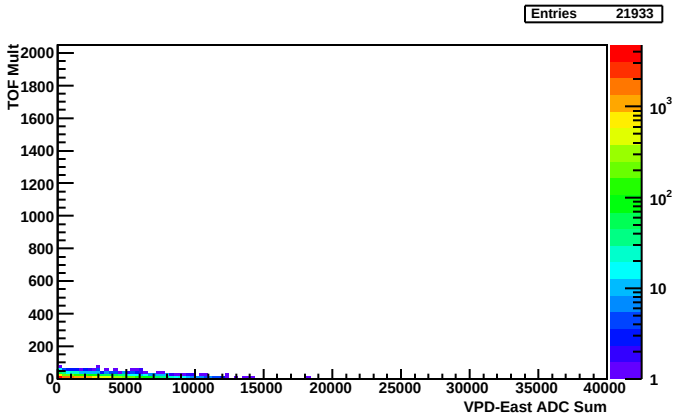

BBQ-VP004 (HI threshold)
Entries 350928
TAC
QT Input Channel

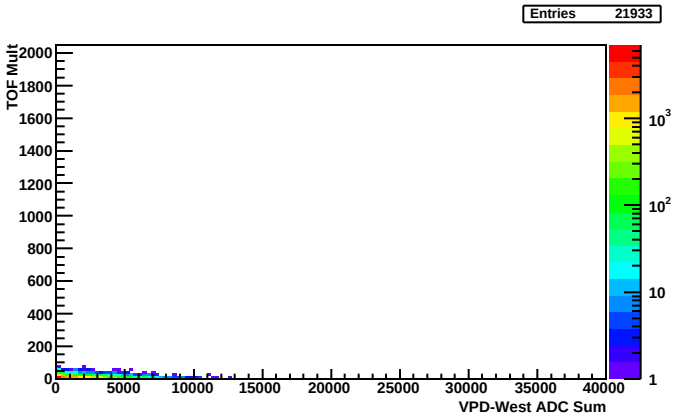

Entries 21933
TOF Mult
BBC-L-East ADC Sum

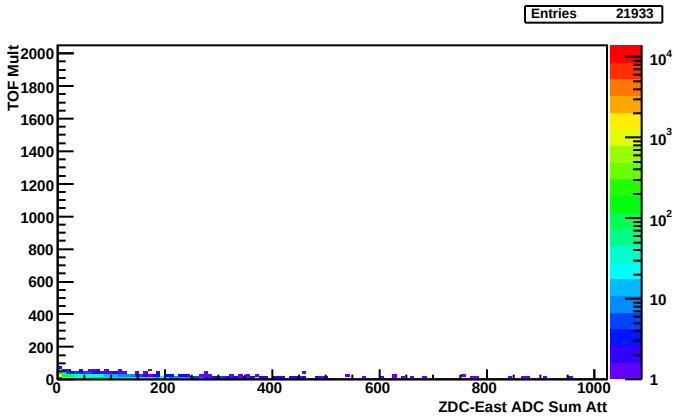

Entries 21933
TOF Mult
BBC-L-West ADC Sum

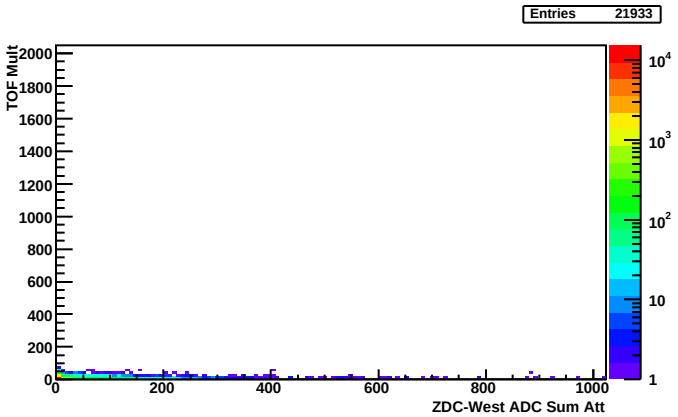

Entries 21933
TOF Mult
BBC-S-East ADC Sum

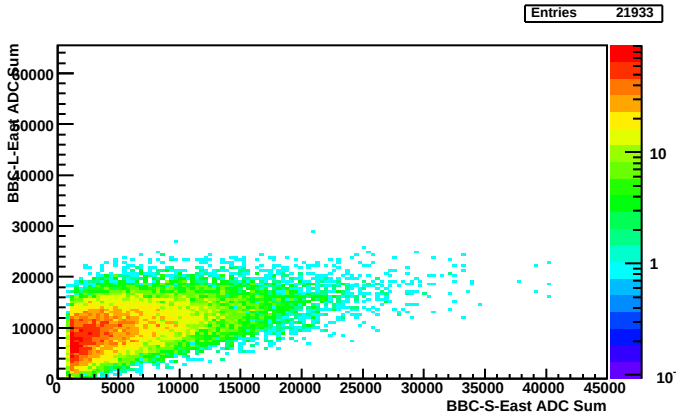

Entries 21933
TOF Mult
BBC-S-West ADC Sum

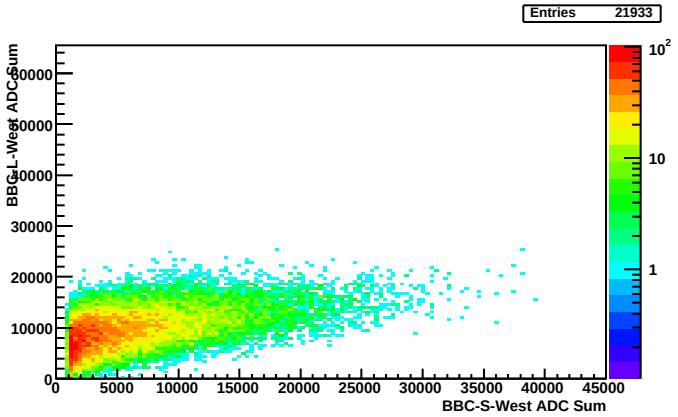

Entries 21933
TOF Mult
VPD-East ADC Sum

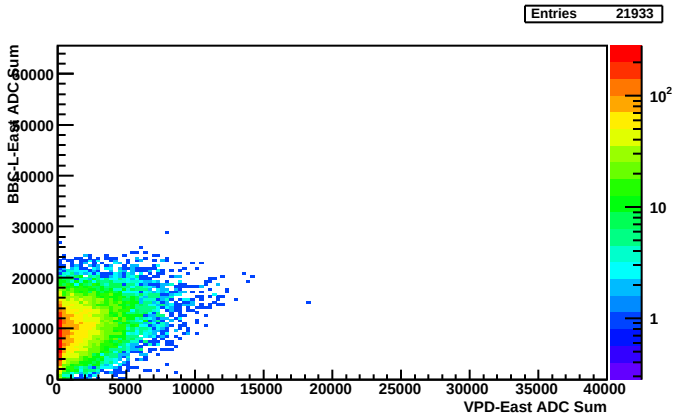

Entries 21933
TOF Mult
VPD-West ADC Sum

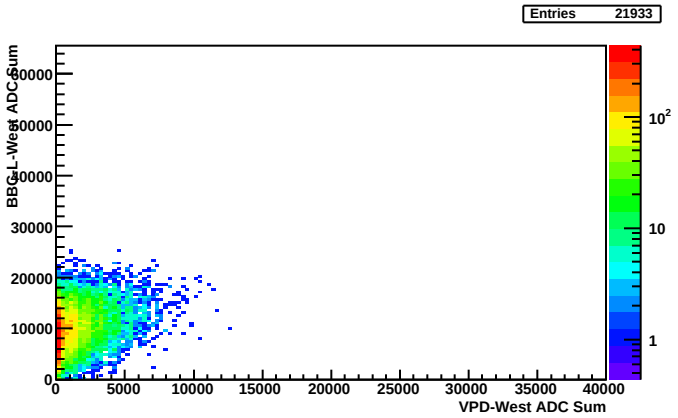

Entries 21933
TOF Mult
ZDC-East ADC Sum Att

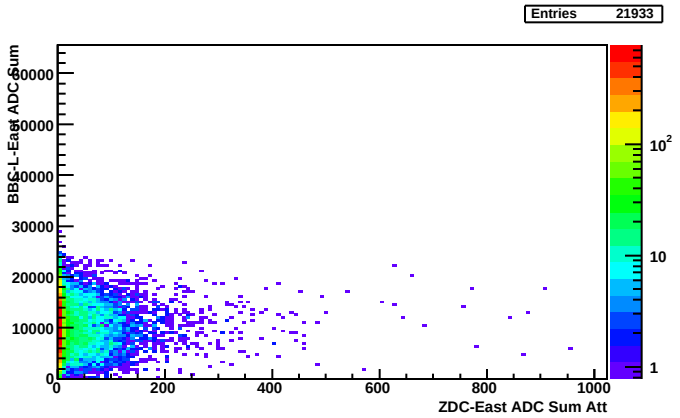

Entries 21933
TOF Mult
ZDC-West ADC Sum Att

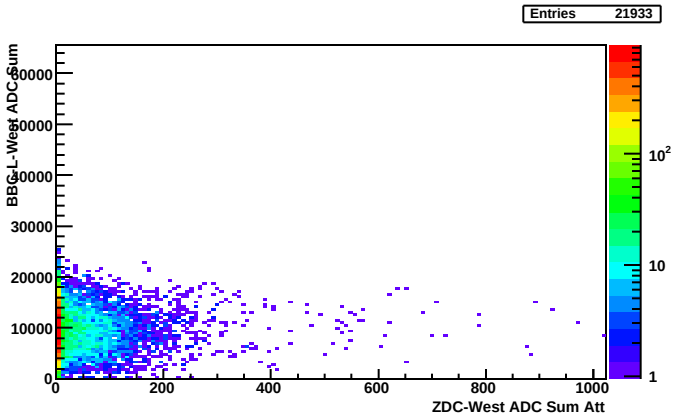

Entries 21933
BBC-L-East ADC Sum
BBC-S-East ADC Sum

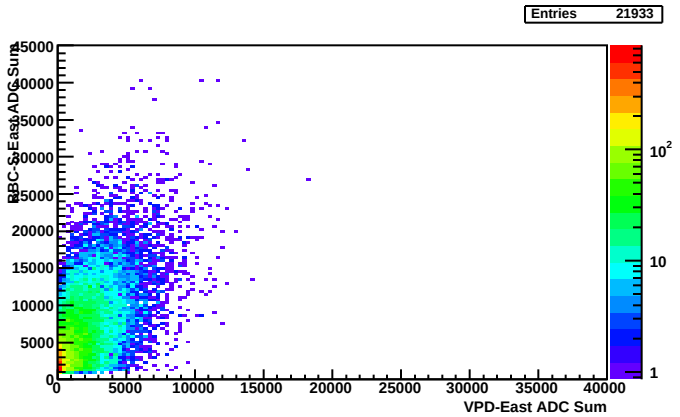

Entries 21933
BBC-L-West ADC Sum
BBC-S-West ADC Sum

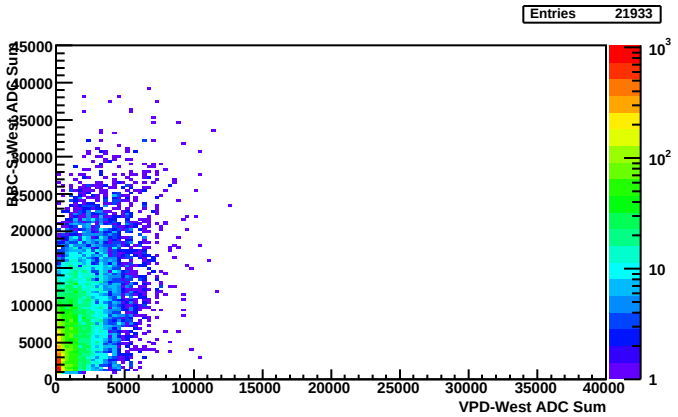

Entries 21933
BBC-L-East ADC Sum
VPD-East ADC Sum

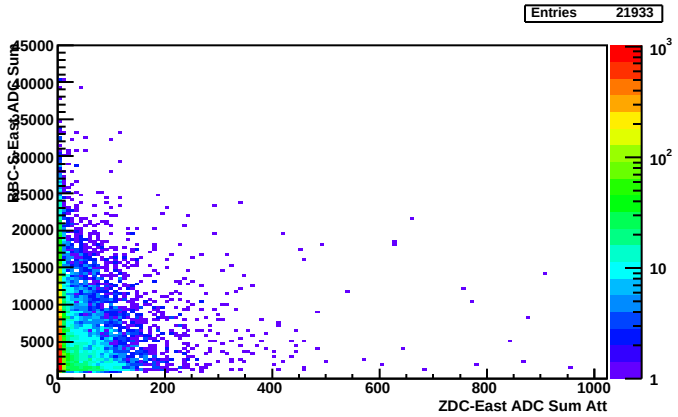

Entries 21933
BBC-L-West ADC Sum
VPD-West ADC Sum

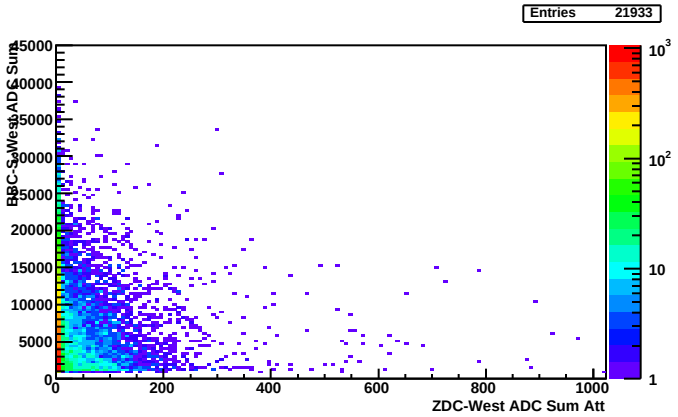

Entries 21933
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

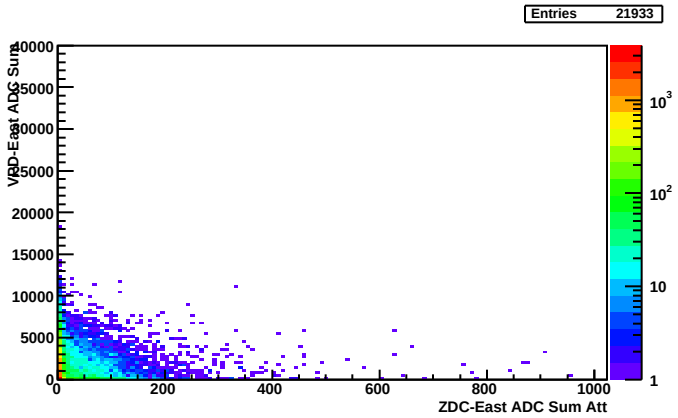

Entries 21933
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

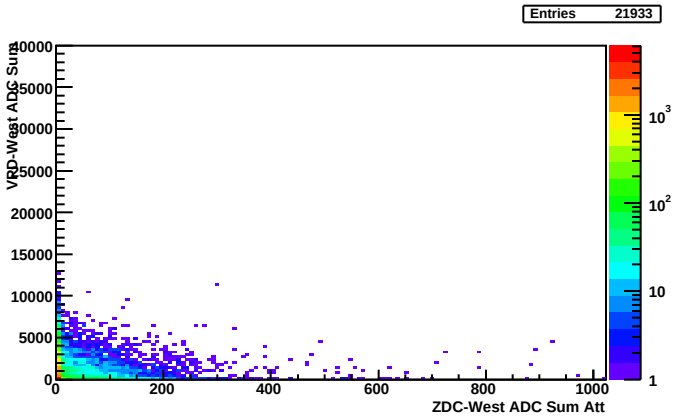

Entries 21933
BBC-S-East ADC Sum
VPD-East ADC Sum

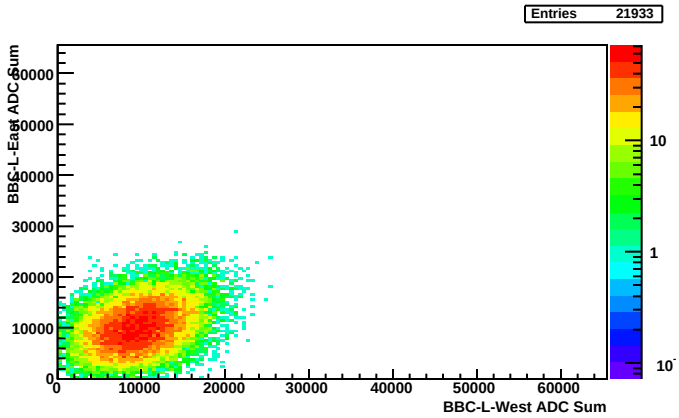

Entries 21933
BBC-S-West ADC Sum
VPD-West ADC Sum

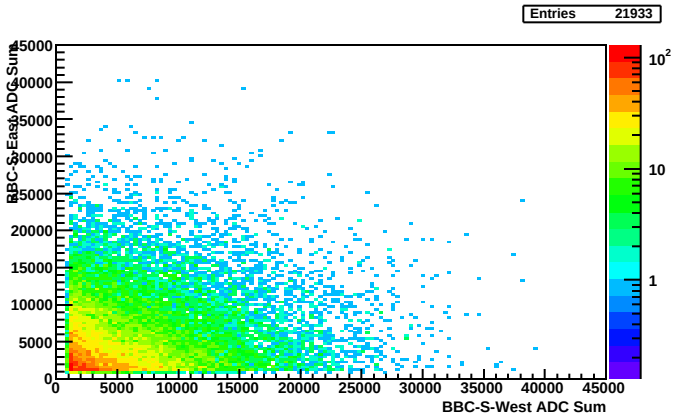

Entries 21933
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

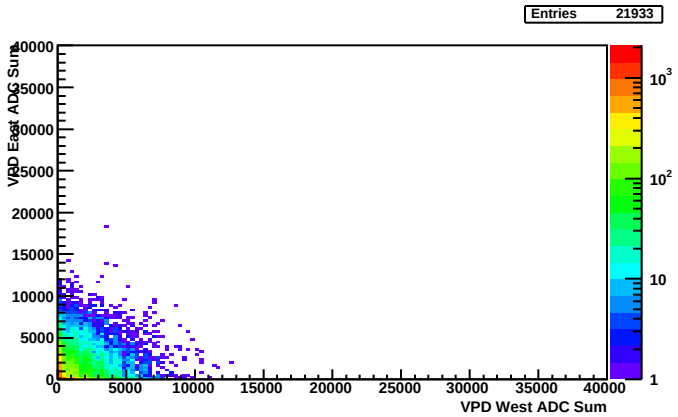

Entries 21933
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

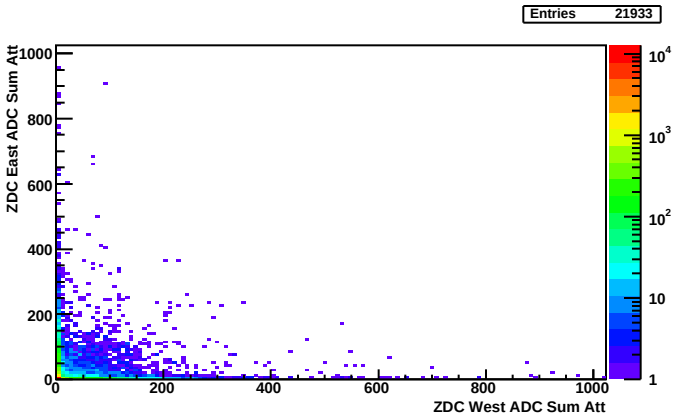

Entries 21933
VPD-East ADC Sum
ZDC-East ADC Sum Att

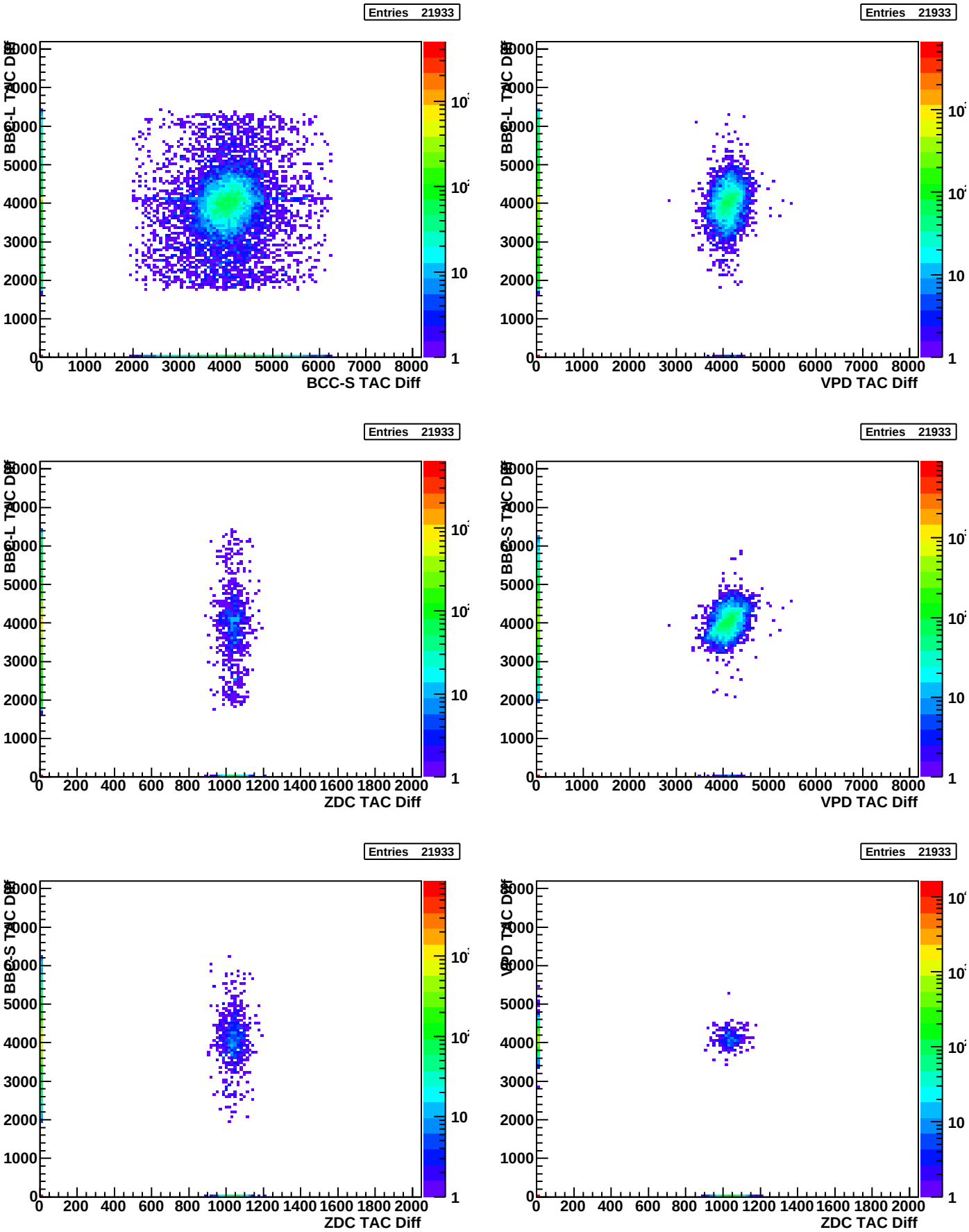

Entries 21933
VPD-West ADC Sum
ZDC-West ADC Sum Att

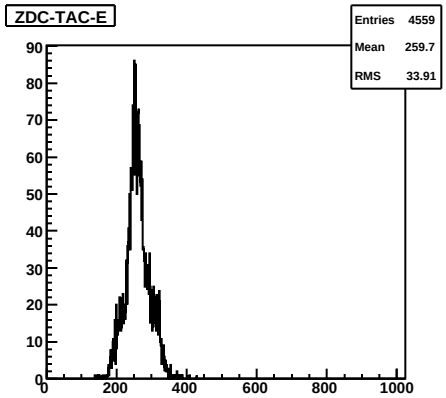

Entries 21933
BBC-L-East ADC Sum
BBC-L-West ADC Sum

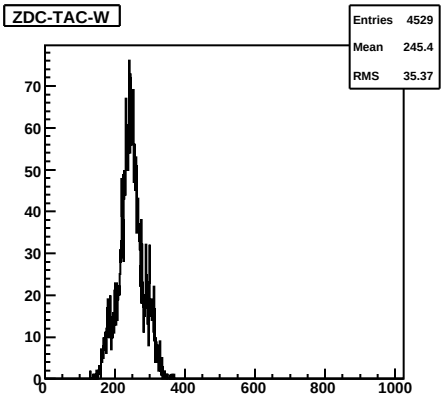

Entries 21933
BBC-S-East ADC Sum
BBC-S-West ADC Sum

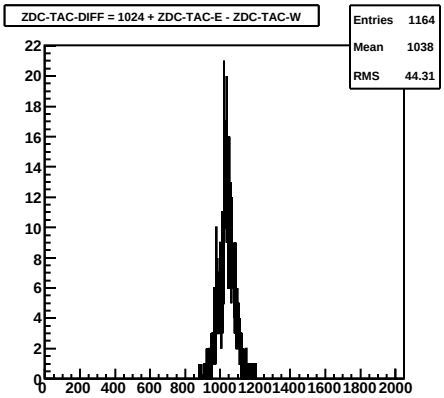

Entries 21933
VPD East ADC Sum
VPD West ADC Sum

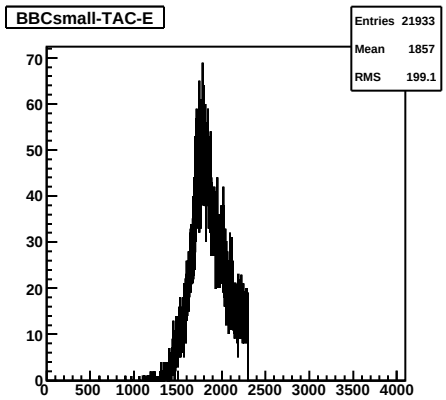

Entries 21933
ZDC East ADC Sum Att
ZDC West ADC Sum Att

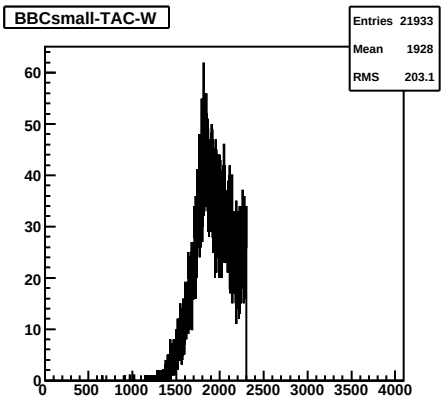

Entries 21933
BBC-L TAC Diff
BCC-S TAC Diff
Entries 21933
BBC-L TAC Diff
VPD TAC Diff
Entries 21933
BBC-L TAC Diff
ZDC TAC Diff
Entries 21933
BBC-S TAC Diff
VPD TAC Diff
Entries 21933
BBC-S TAC Diff
ZDC TAC Diff
Entries 21933
VPD TAC Diff
ZDC TAC Diff

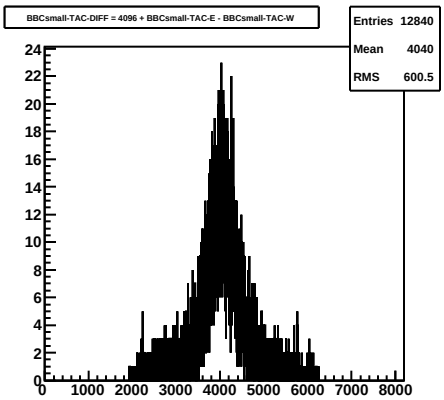

ZDC-TAC-E
Entries 4559
Mean 259.7
RMS 33.91

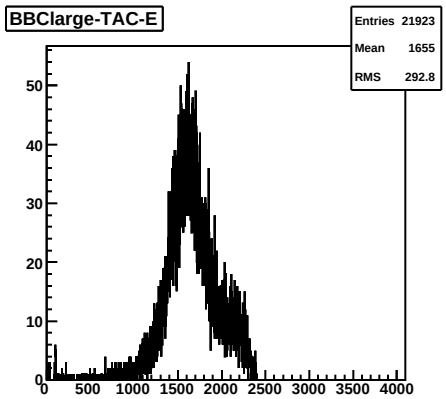

ZDC-TAC-W
Entries 4529
Mean 245.4
RMS 35.37

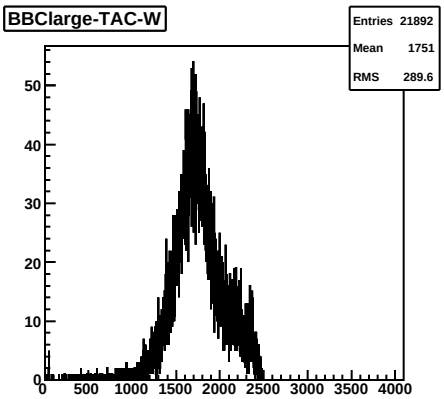

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1164
Mean 1038
RMS 44.31

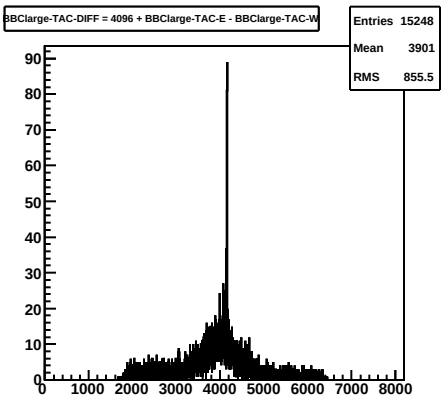

BBCsmall-TAC-E
Entries 21933
Mean 1857
RMS 199.1

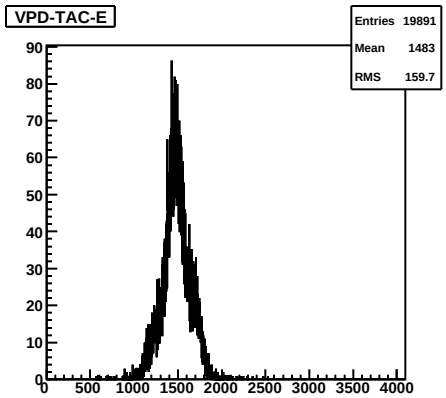

BBCsmall-TAC-W
Entries 21933
Mean 1928
RMS 203.1

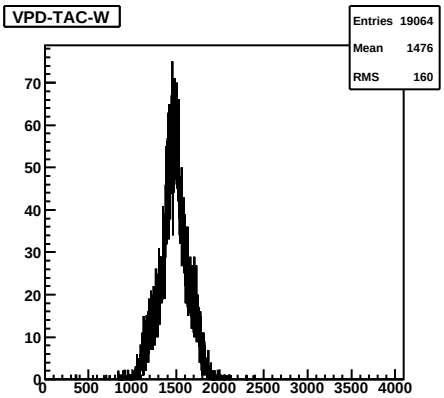

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 12840
Mean 4040
RMS 600.5

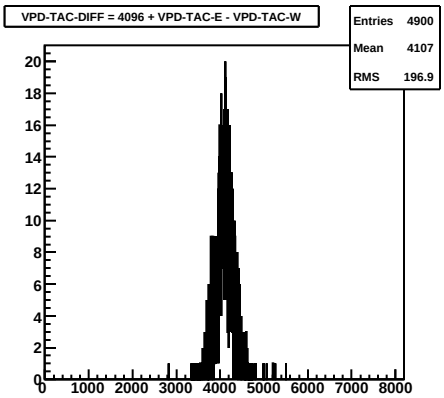

BBClarge-TAC-E
Entries 21923
Mean 1655
RMS 292.8

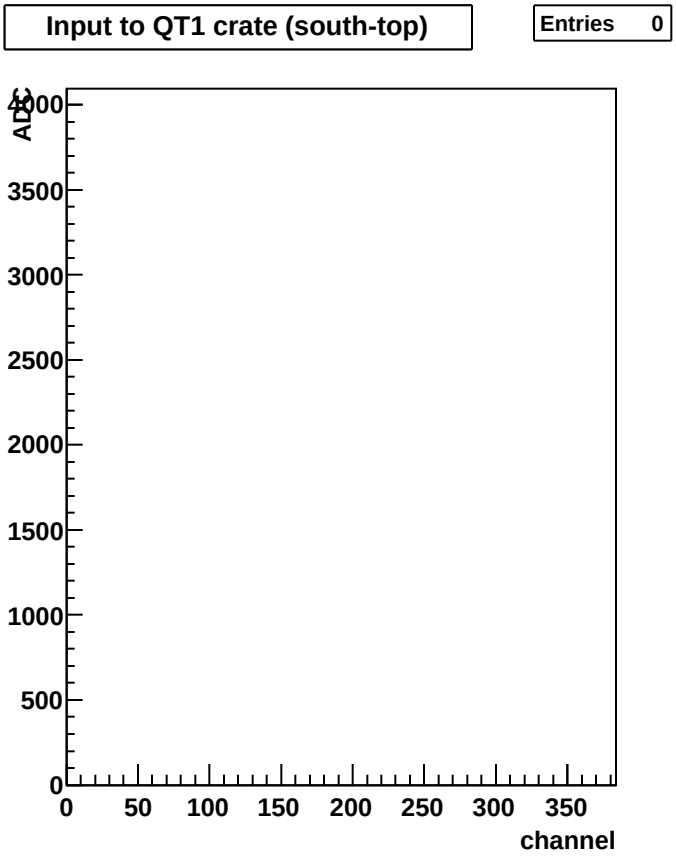

BBClarge-TAC-W
Entries 21892
Mean 1751
RMS 289.6

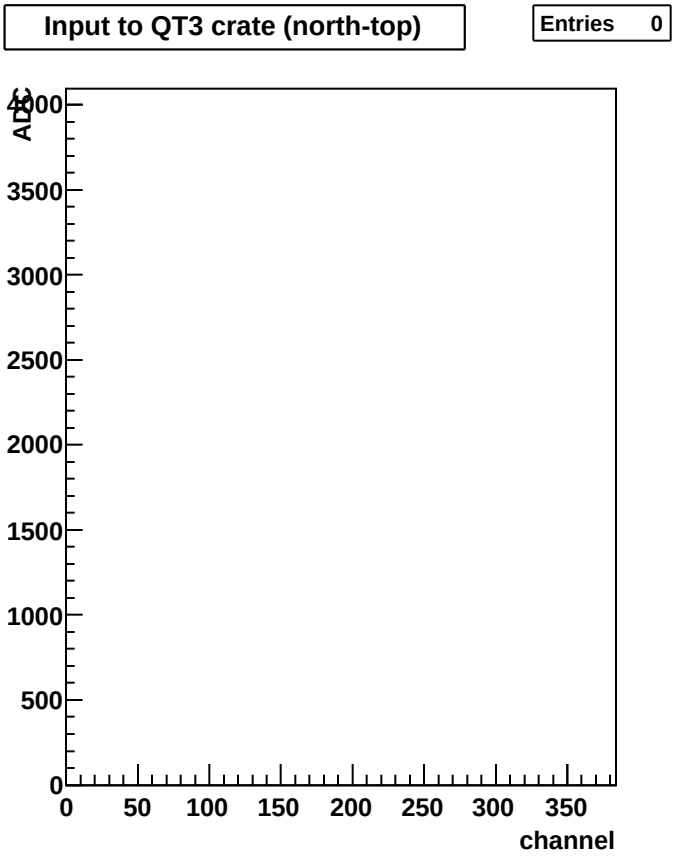

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 15248
Mean 3901
RMS 855.5

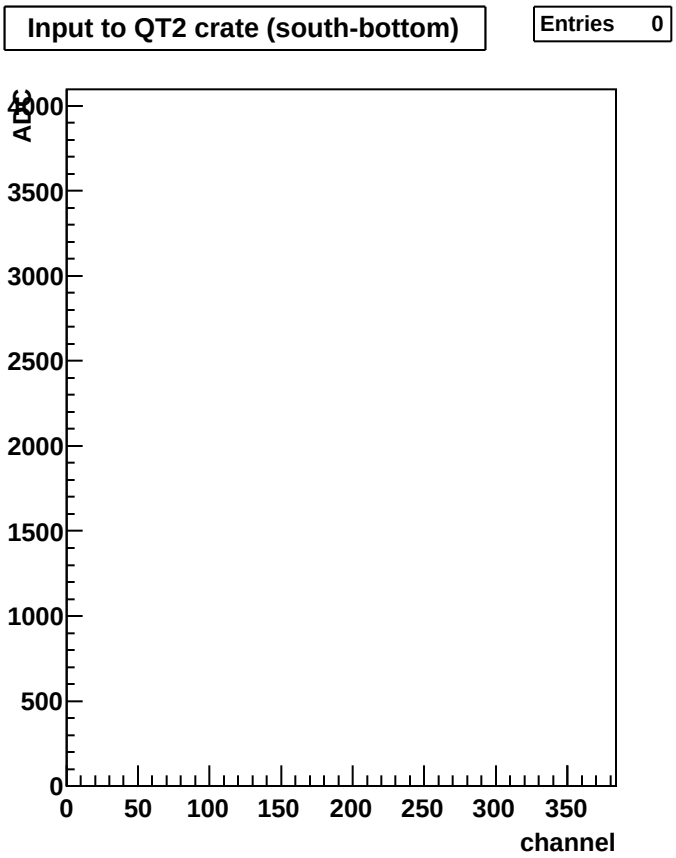

VPD-TAC-E
Entries 19891
Mean 1483
RMS 159.7

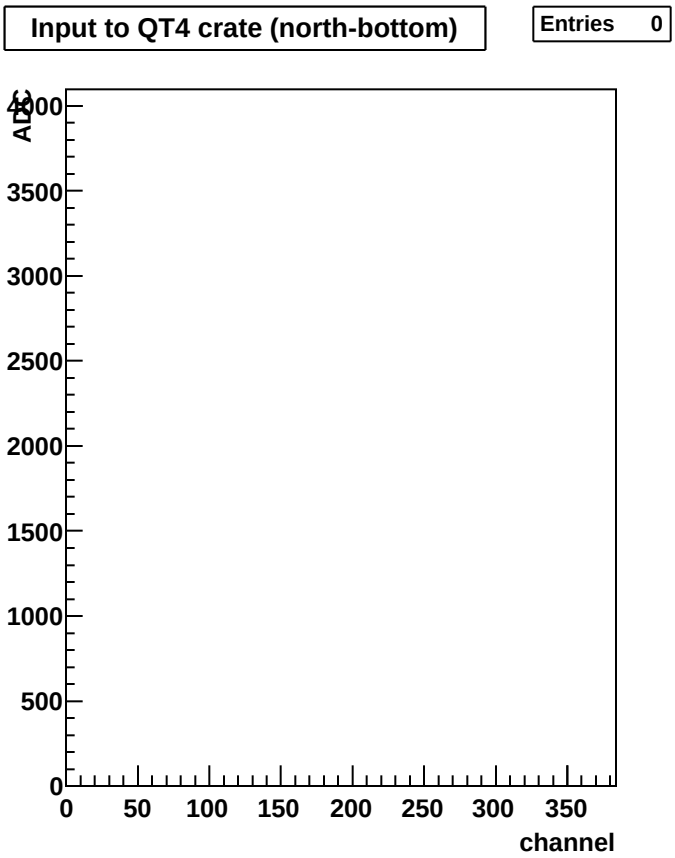

VPD-TAC-W
Entries 19064
Mean 1476
RMS 160

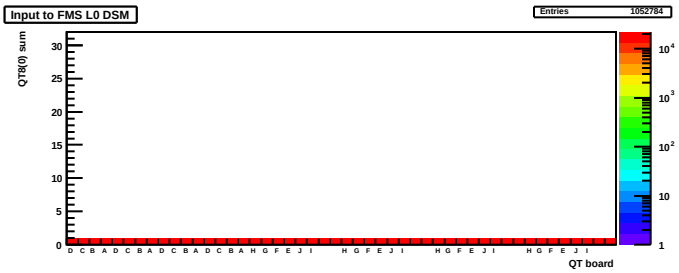

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 4900
Mean 4107
RMS 196.9

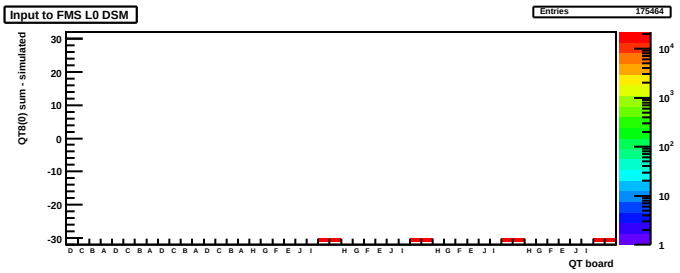

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

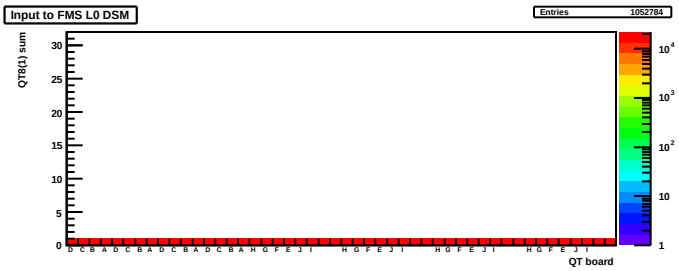

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

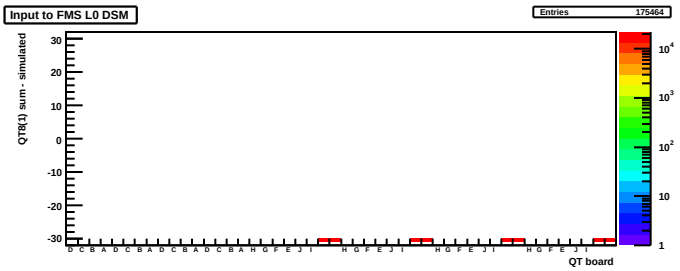

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

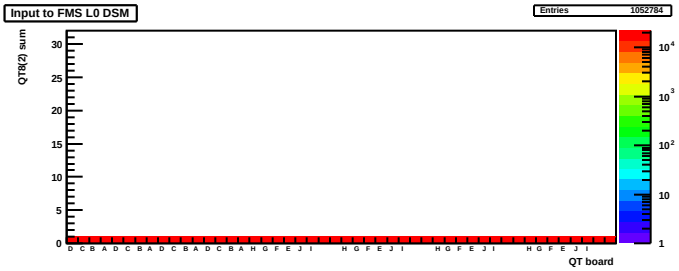

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

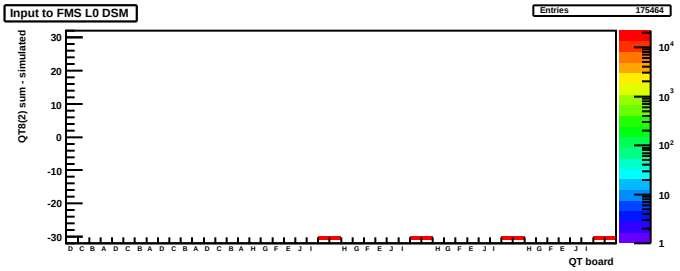

Input to FMS L0 DSM
Entries 1052784
QT8(0) sum
QT board

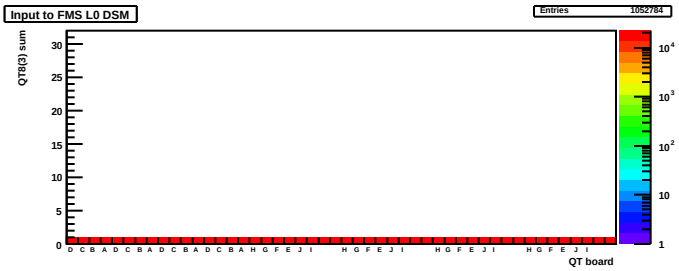

Input to FMS L0 DSM
Entries 175464
QT8(0) sum - simulated
QT board

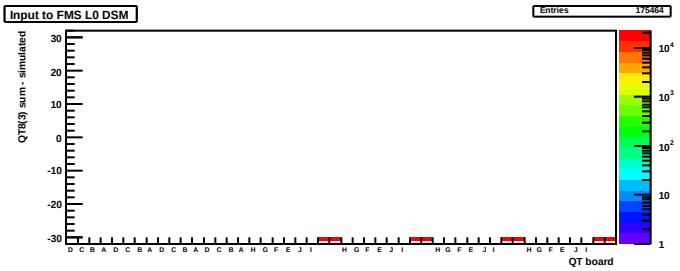

Input to FMS L0 DSM
Entries 1052784
QT8(1) sum
QT board

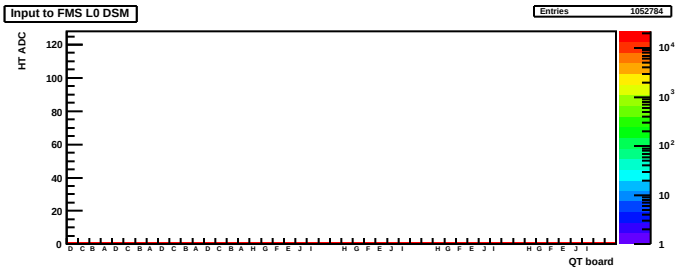

Input to FMS L0 DSM
Entries 175464
QT8(1) sum - simulated
QT board

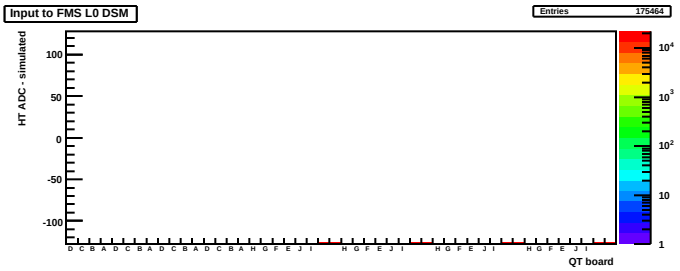

Input to FMS L0 DSM
Entries 1052784
QT8(2) sum
QT board

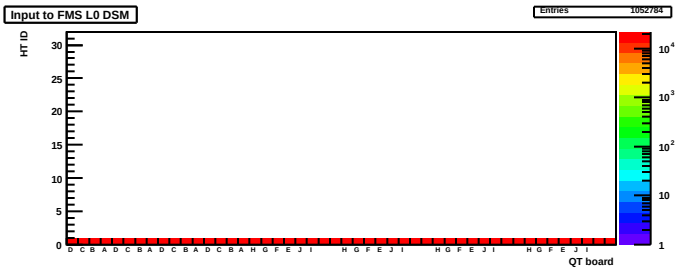

Input to FMS L0 DSM
Entries 175464
QT8(2) sum - simulated
QT board

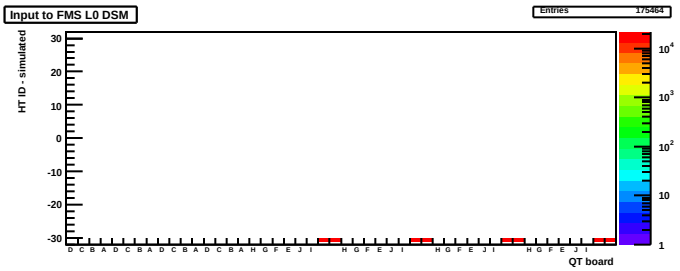

Input to FMS L0 DSM
Entries 1052784
QT8(3) sum
QT board

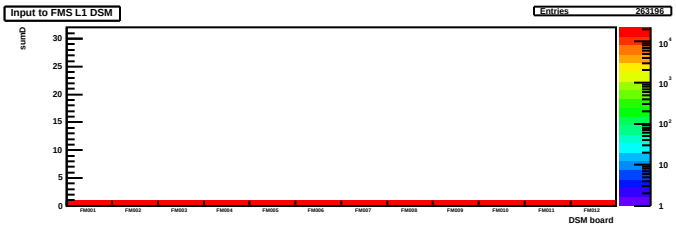

Input to FMS L0 DSM
Entries 175464
QT8(3) sum - simulated
QT board

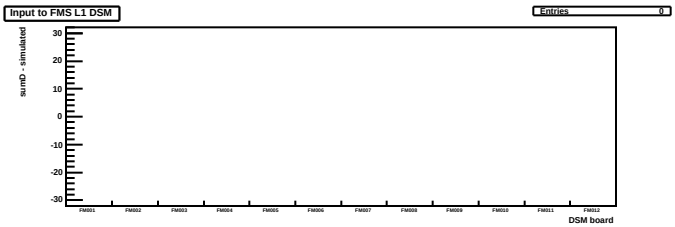

Input to FMS L0 DSM
Entries 1052784
HT ADC
QT board

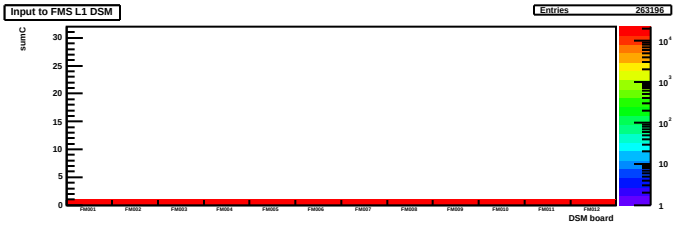

Input to FMS L0 DSM
Entries 175464
HT ADC - simulated
QT board

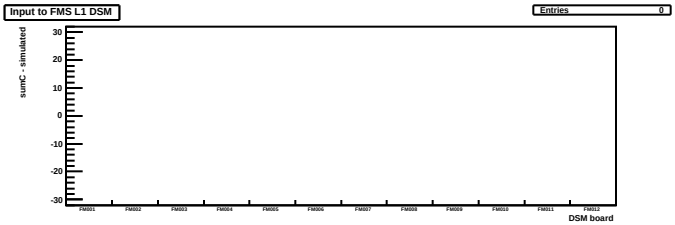

Input to FMS L0 DSM
Entries 1052784
HT ID
QT board

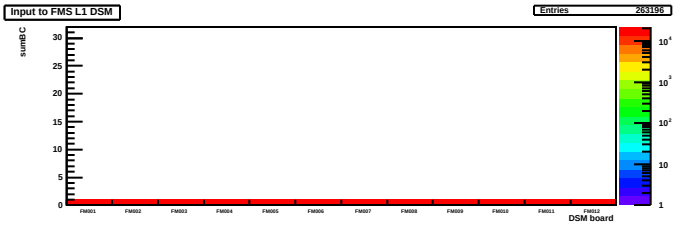

Input to FMS L0 DSM
Entries 175464
HT ID - simulated
QT board

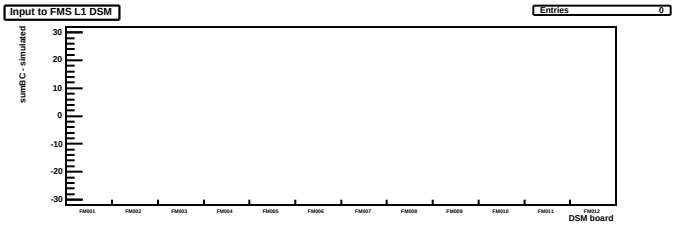

Input to FMS L1 DSM
Entries 263196
sumD
DSM board

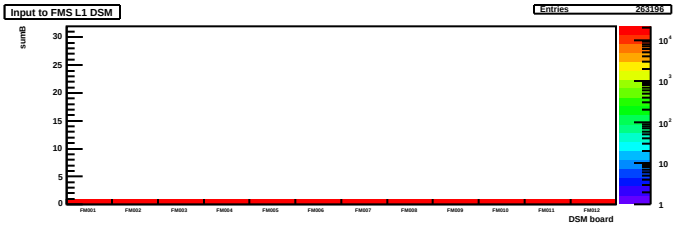

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

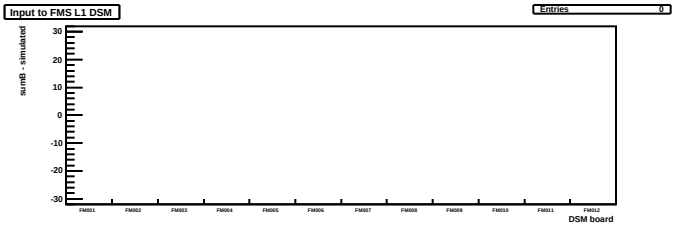

Input to FMS L1 DSM
Entries 263196
sumC
DSM board

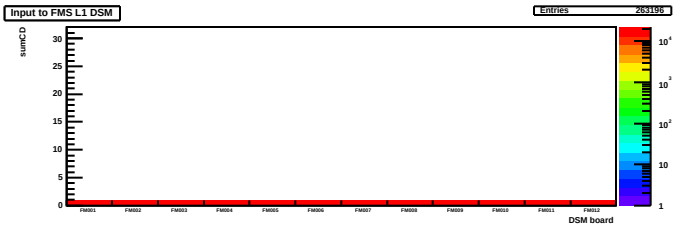

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

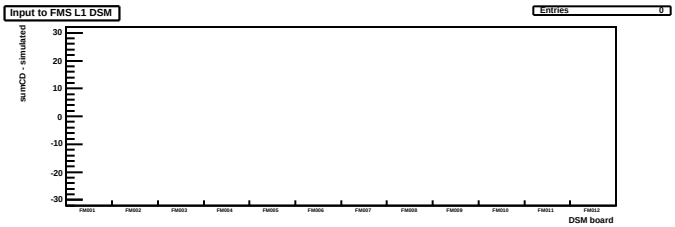

Input to FMS L1 DSM
Entries 263196
sumBC
DSM board

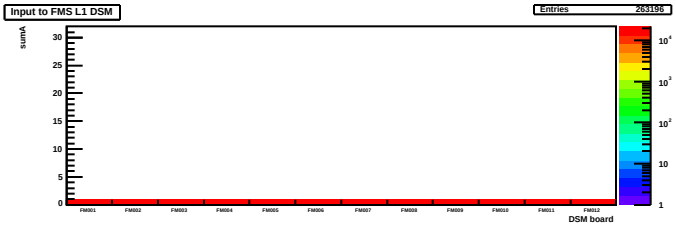

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

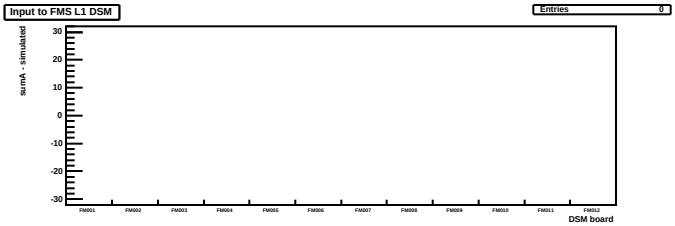

Input to FMS L1 DSM
Entries 263196
sumB
DSM board

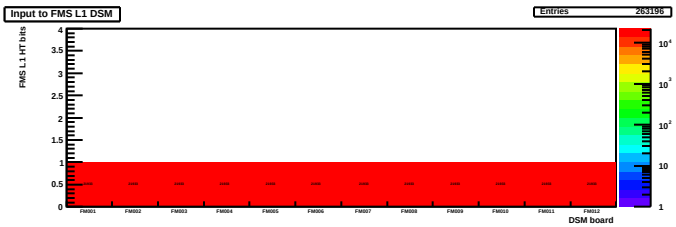

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

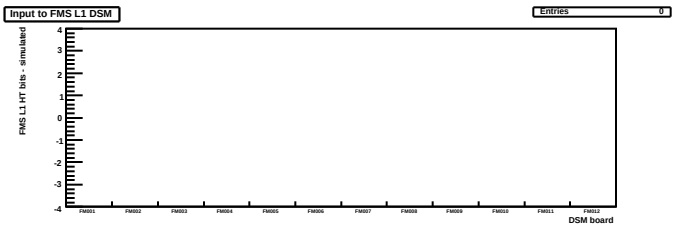

Input to FMS L1 DSM
Entries 263196
sumCD
DSM board

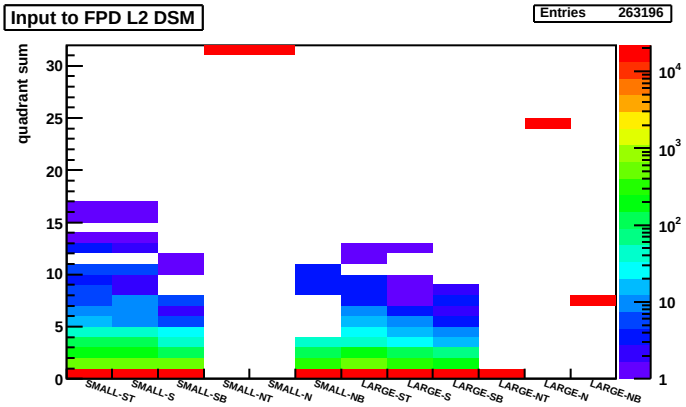

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

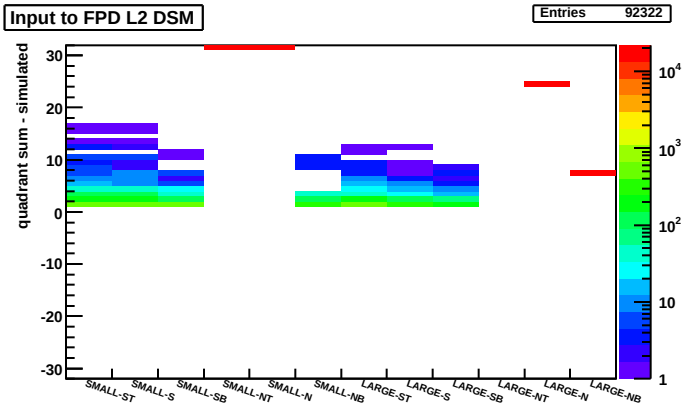

Input to FMS L1 DSM
Entries 263196
sumA
DSM board

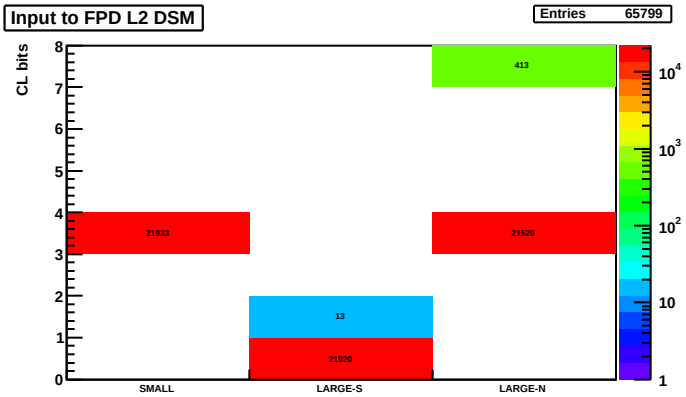

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

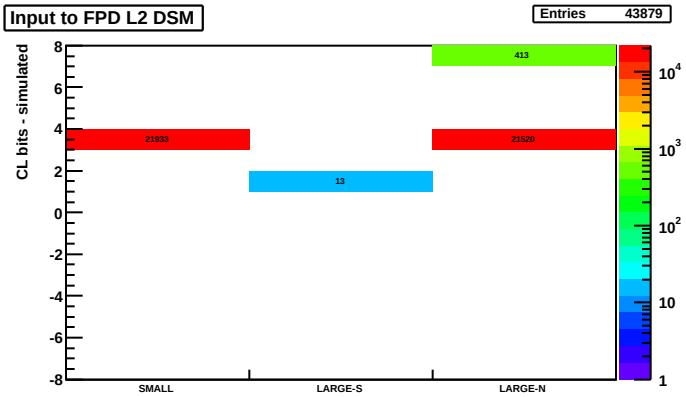

Input to FMS L1 DSM
Entries 263196
FMS L1 HT bits
DSM board

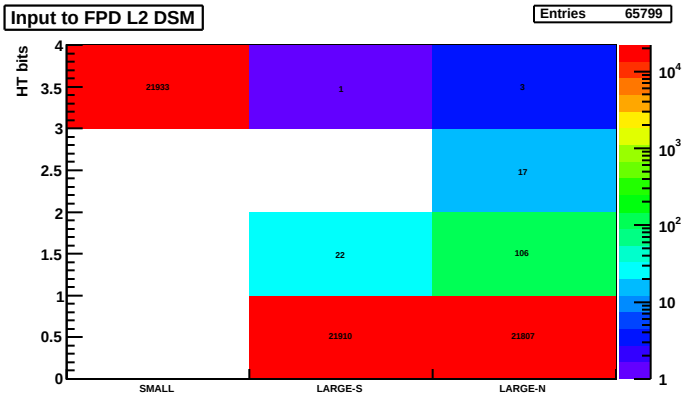

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

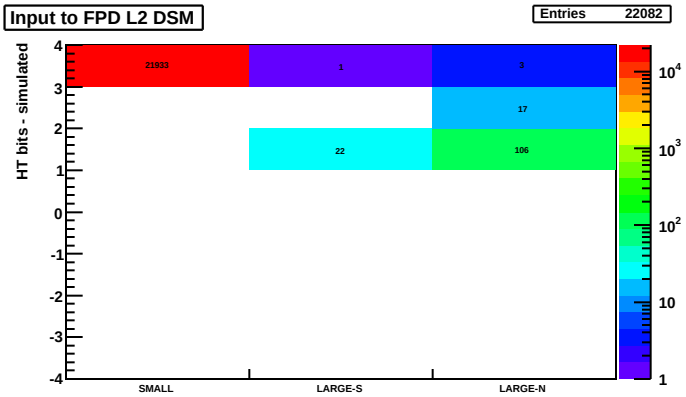

Input to FPD L2 DSM
Entries 263196
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

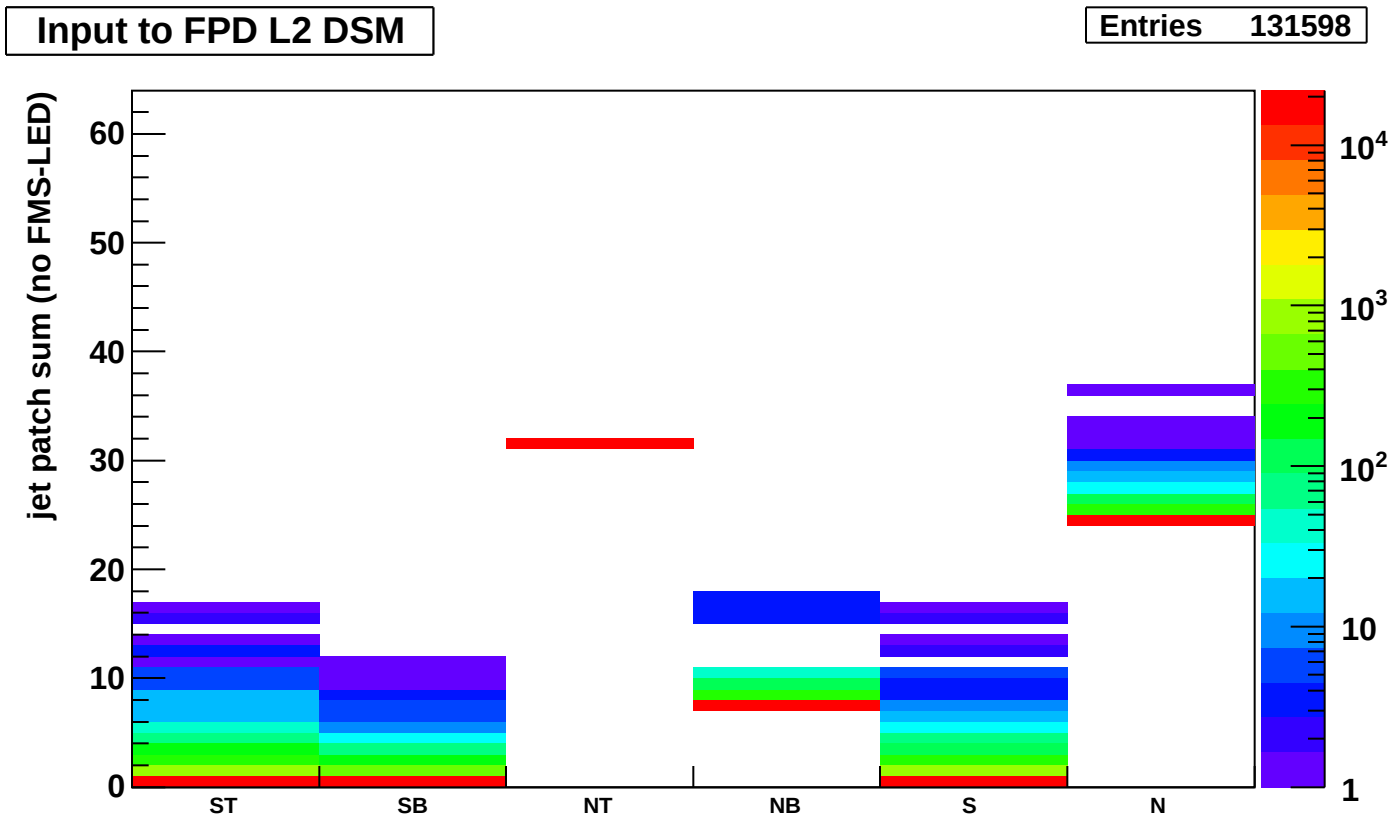

Input to FPD L2 DSM
Entries 92322
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

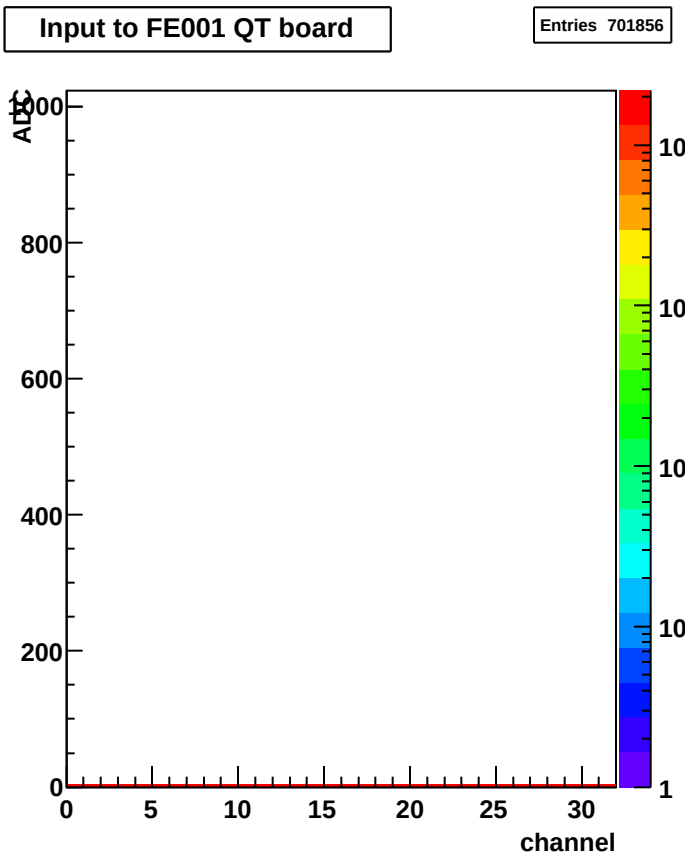

Input to FPD L2 DSM
Entries 65799
CL bits
413
21933
21520
13
21920
SMALL
LARGE-S
LARGE-N

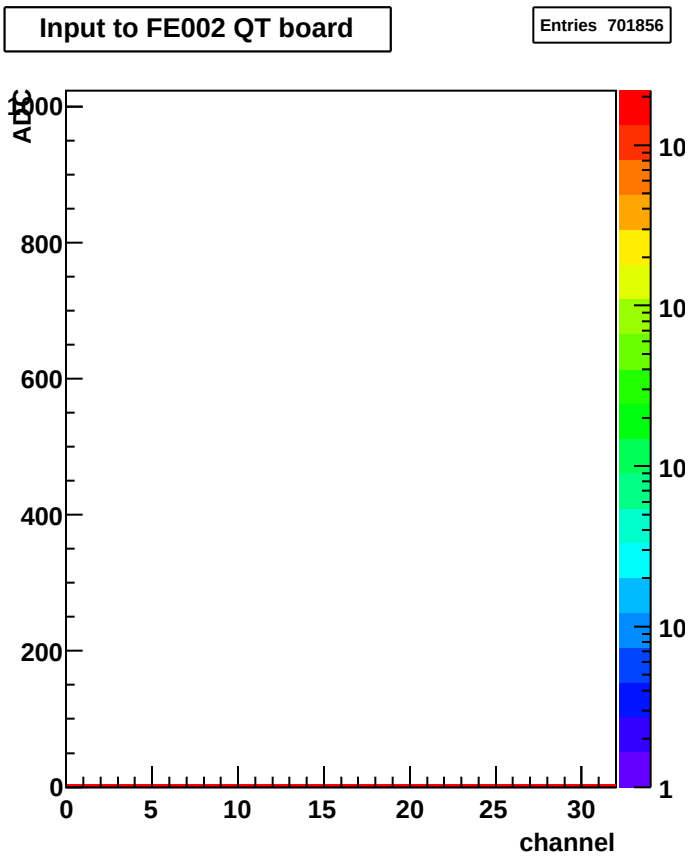

Input to FPD L2 DSM
Entries 43879
CL bits - simulated
413
21933
21520
13
SMALL
LARGE-S
LARGE-N

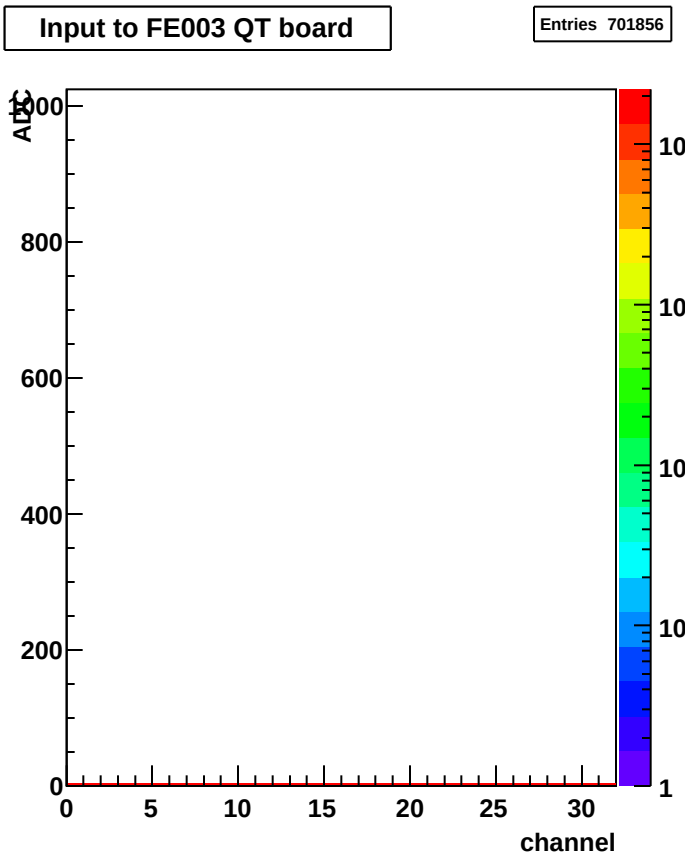

Input to FPD L2 DSM
Entries 65799
HT bits
21933
1
3
17
22
106
21910
21807
SMALL
LARGE-S
LARGE-N

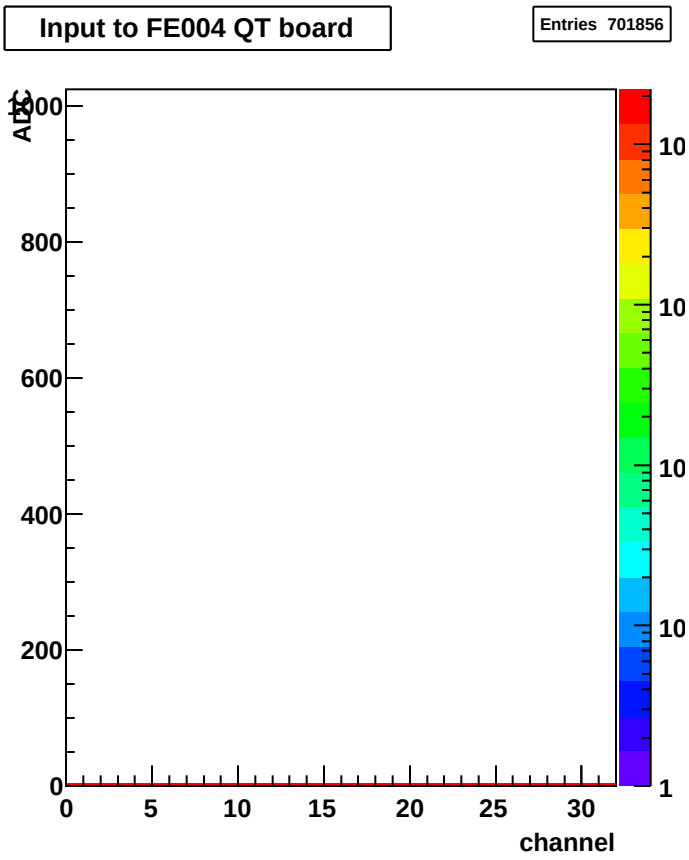

Input to FPD L2 DSM
Entries 22082
HT bits - simulated
21933
1
3
17
22
106
SMALL
LARGE-S
LARGE-N

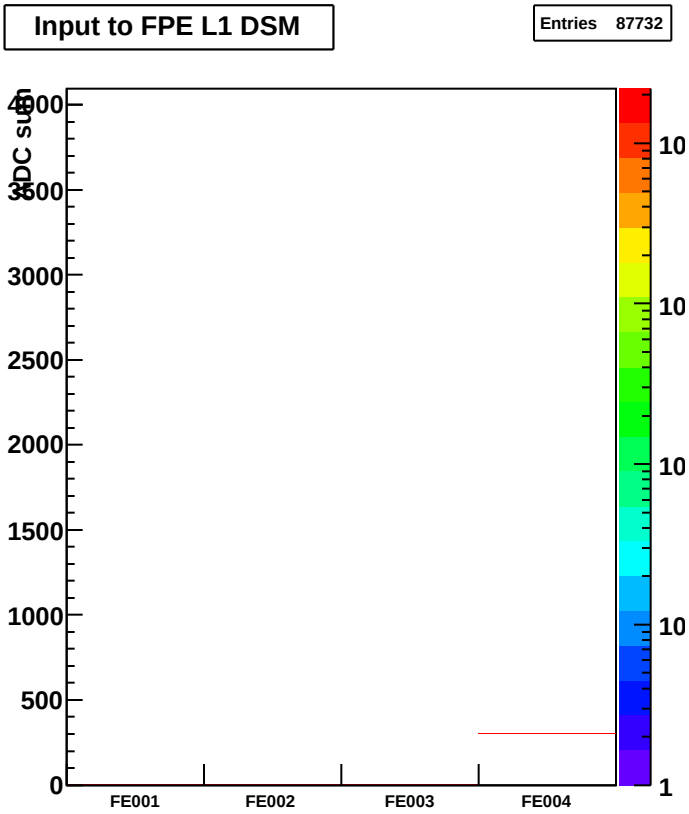

Input to FPD L2 DSM
Entries 131598
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

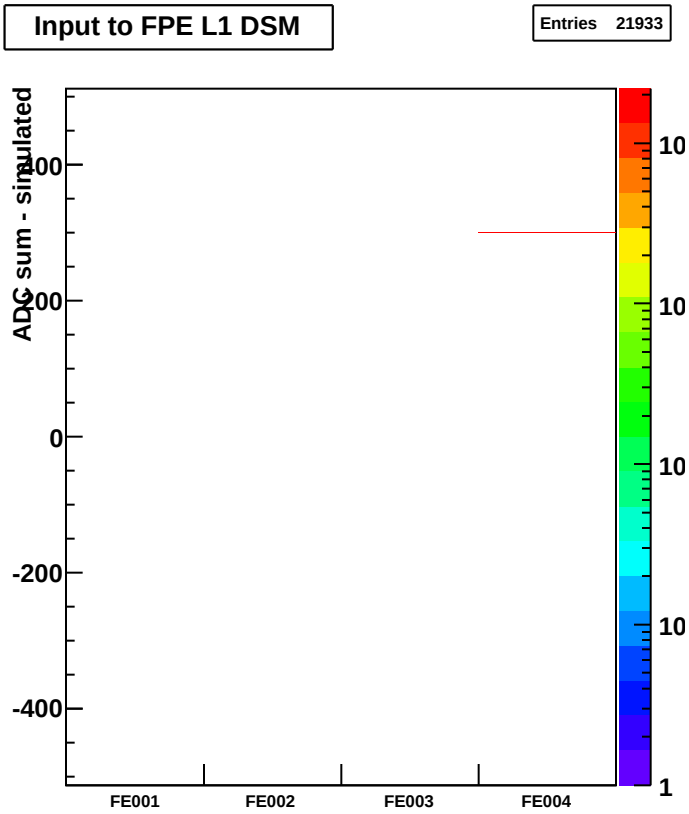

Input to FE001 QT board
Entries 701856
ADC
channel

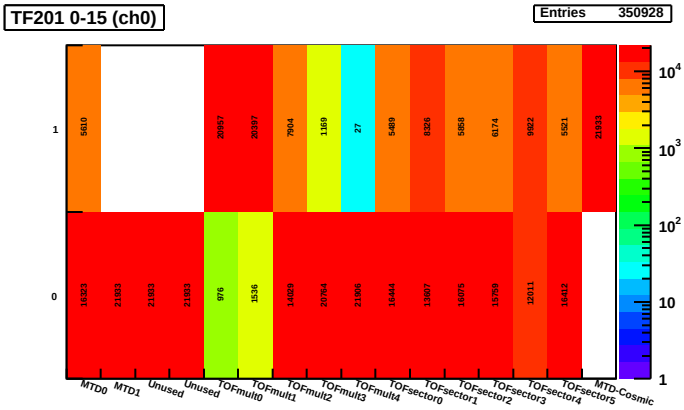

Input to FE002 QT board
Entries 701856
ADC
channel

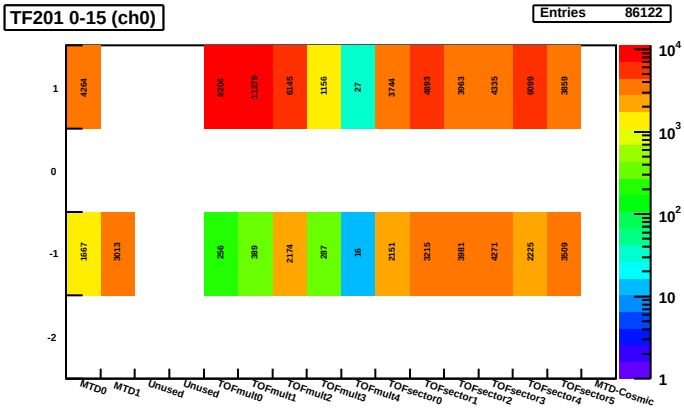

Input to FE003 QT board
Entries 701856
ADC
channel

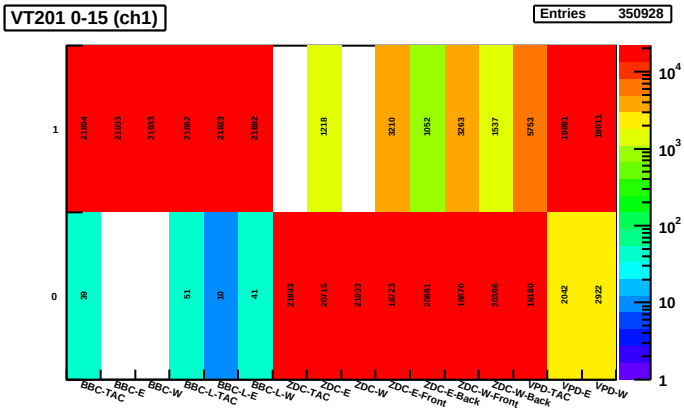

Input to FE004 QT board
Entries 701856
ADC
channel

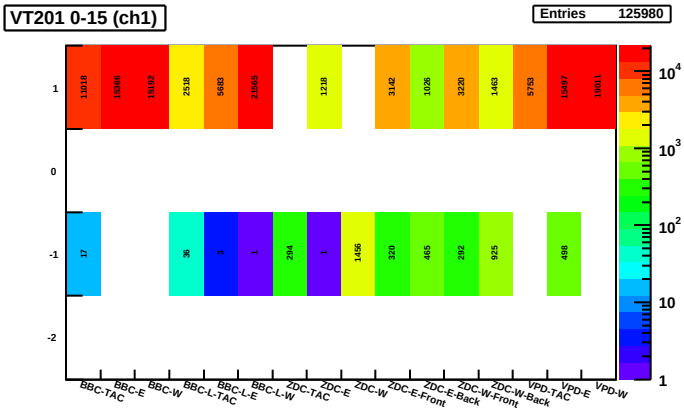

Input to FPE L1 DSM
Entries 87732
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

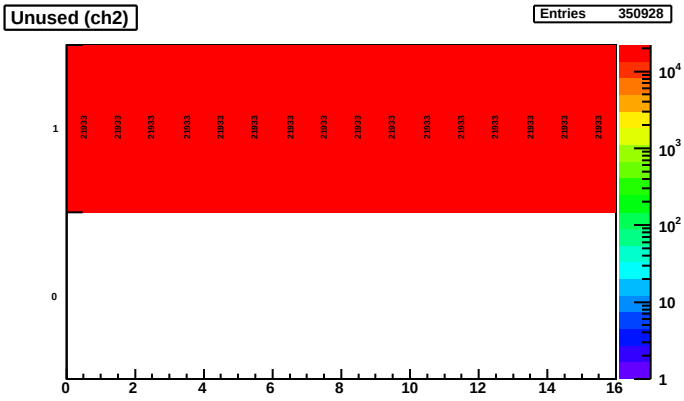

Input to FPE L1 DSM
Entries 21933
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

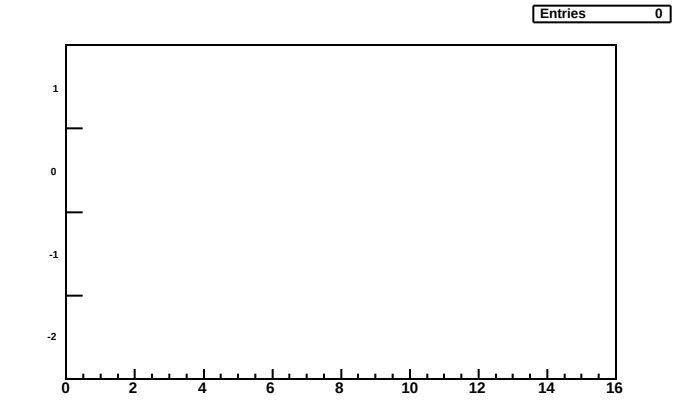

TF201 0-15 (ch0)
Entries 350928
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

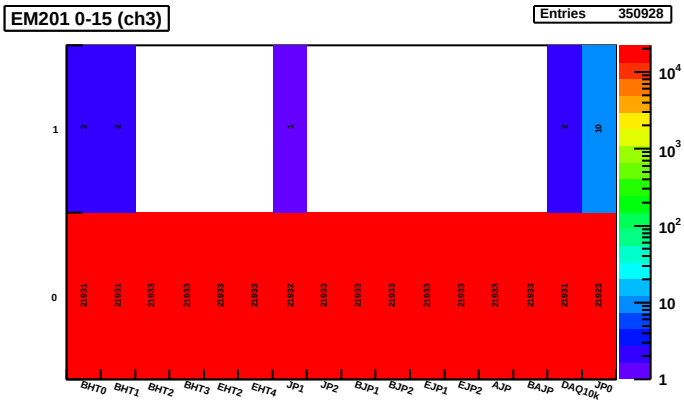

TF201 0-15 (ch0)
Entries 86122
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

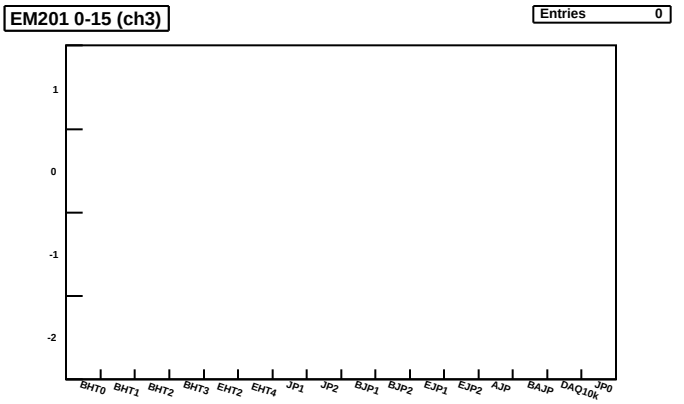

VT201 0-15 (ch1)
Entries 350928
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 125980
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

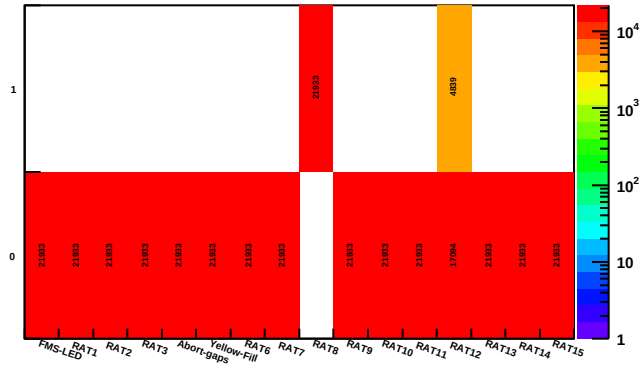

Unused (ch2)
Entries 350928

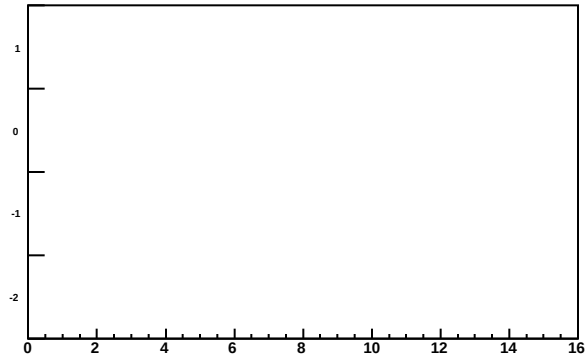

Entries 0


EM201 0-15 (ch3)
Entries 350928
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

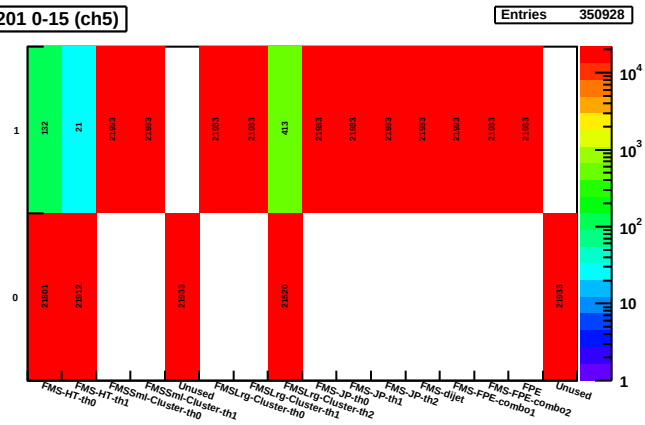

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

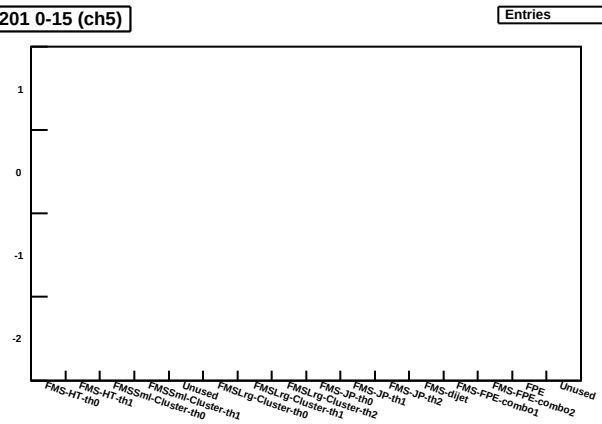




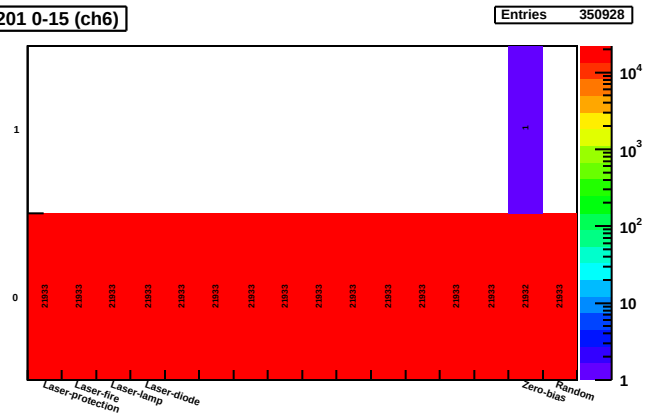
FP201 0-15 (ch5)

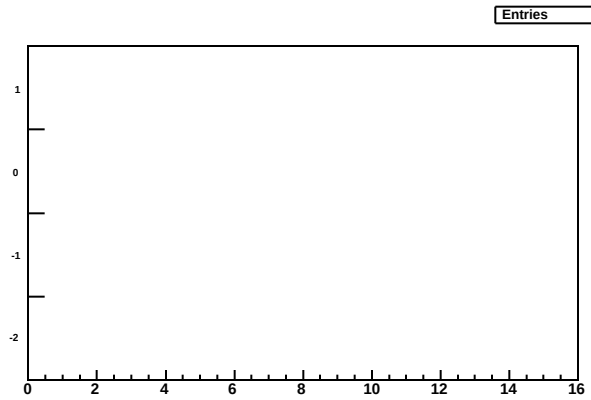
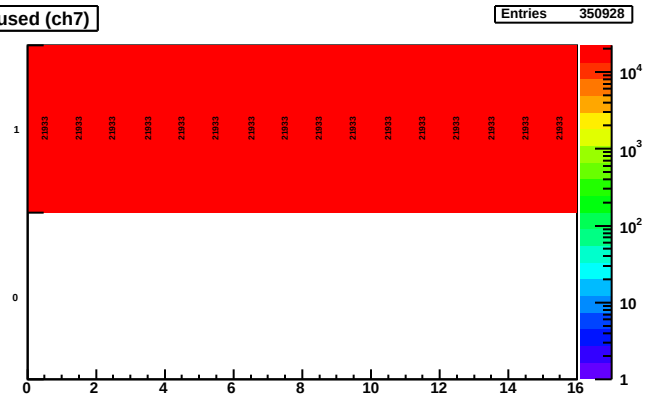
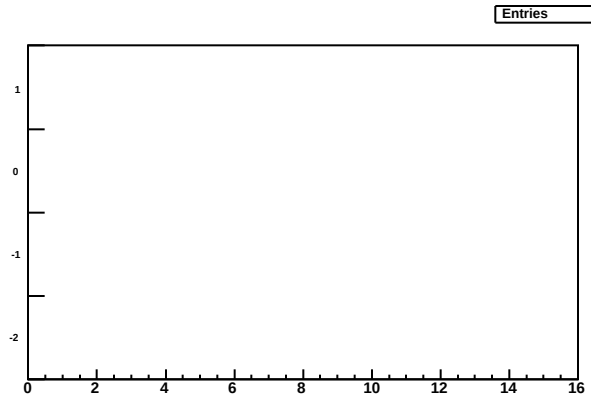


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)