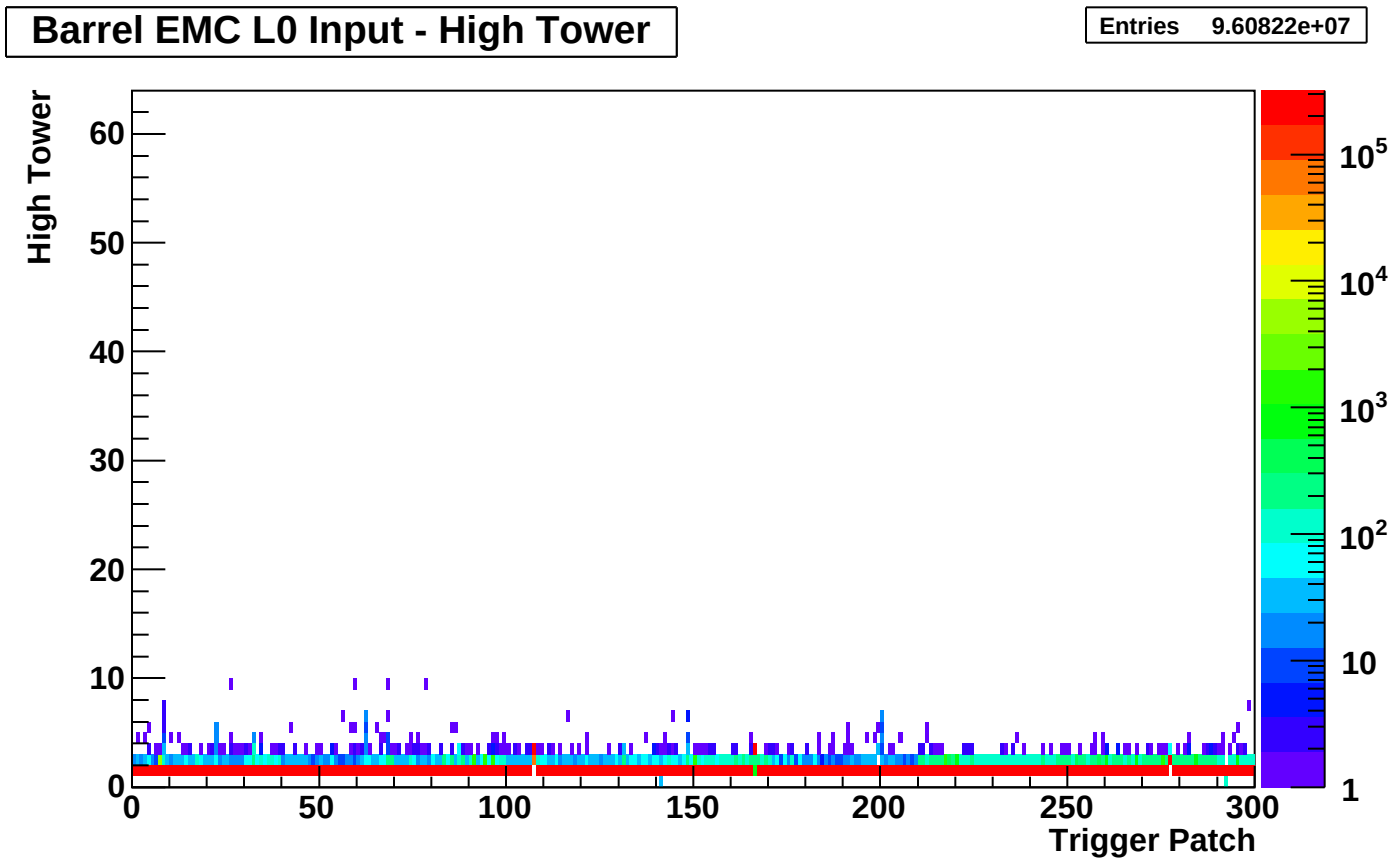
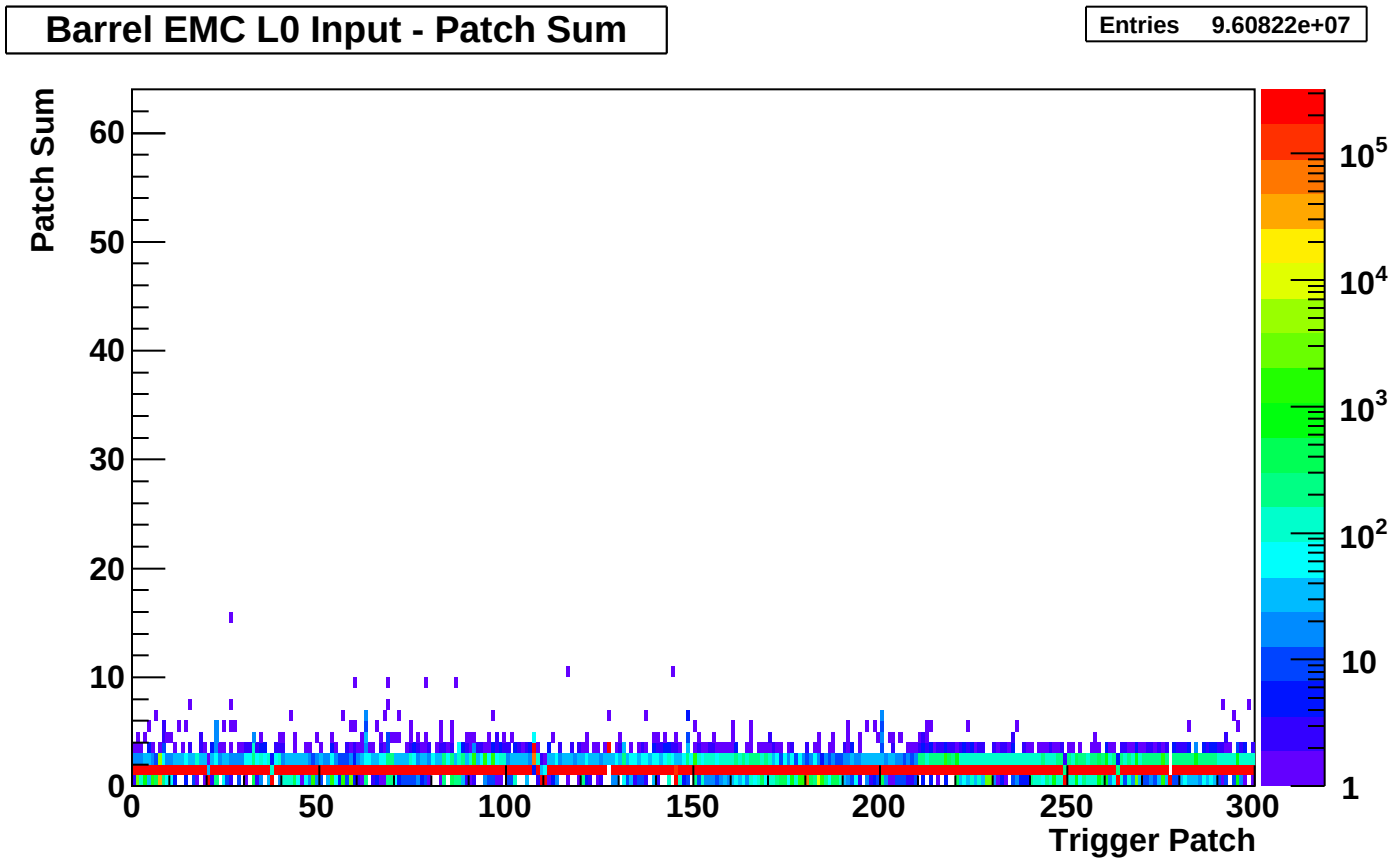
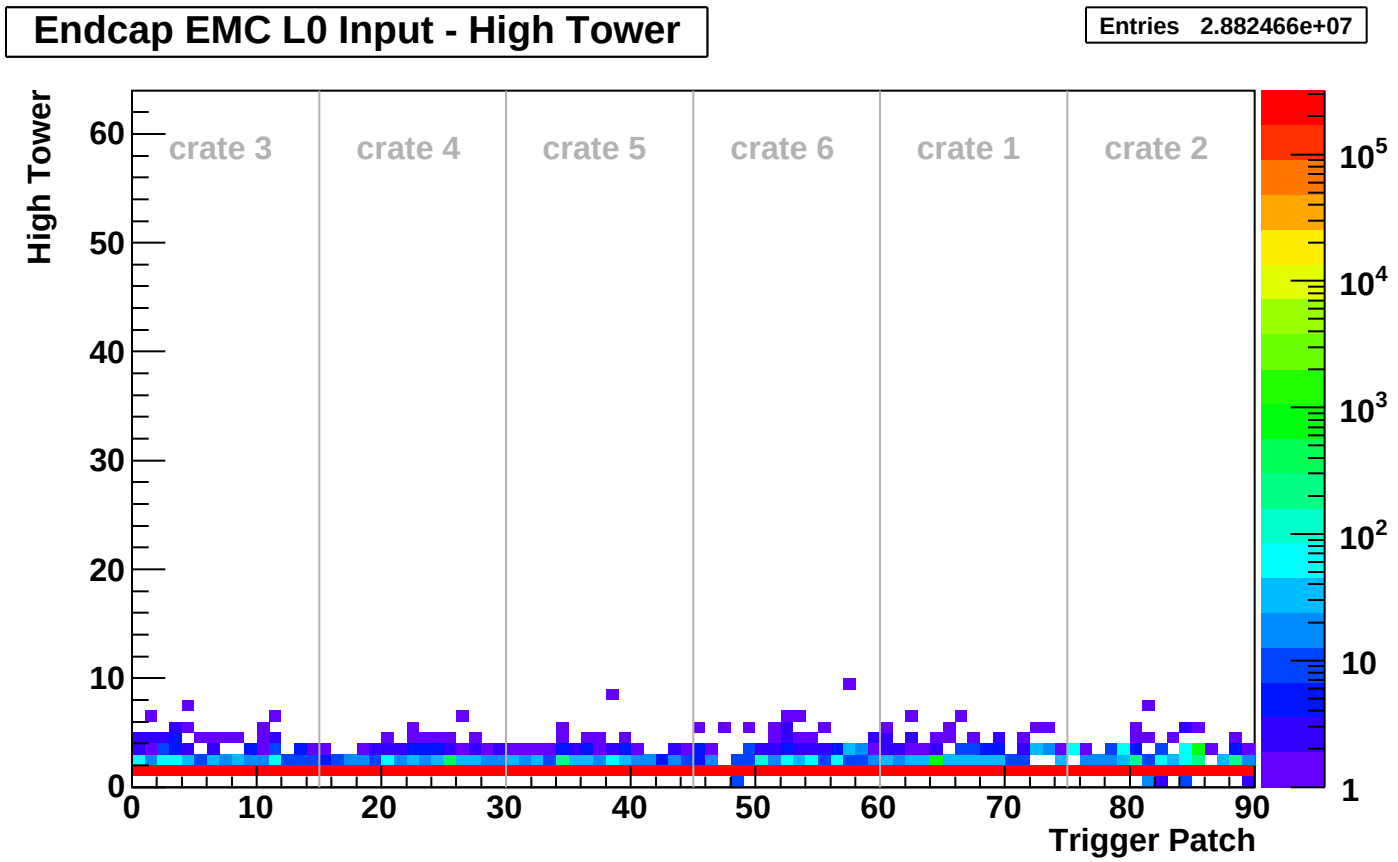
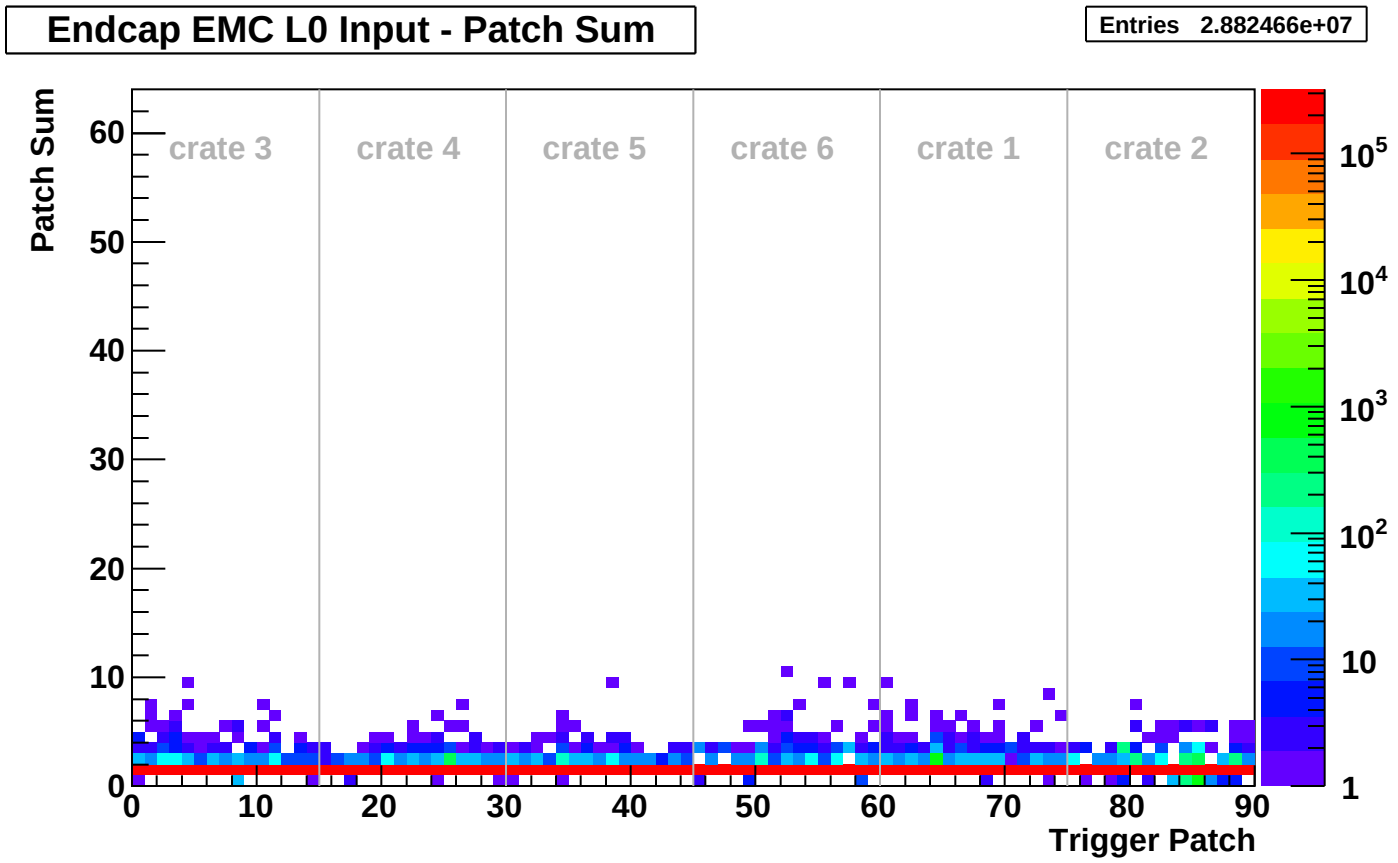
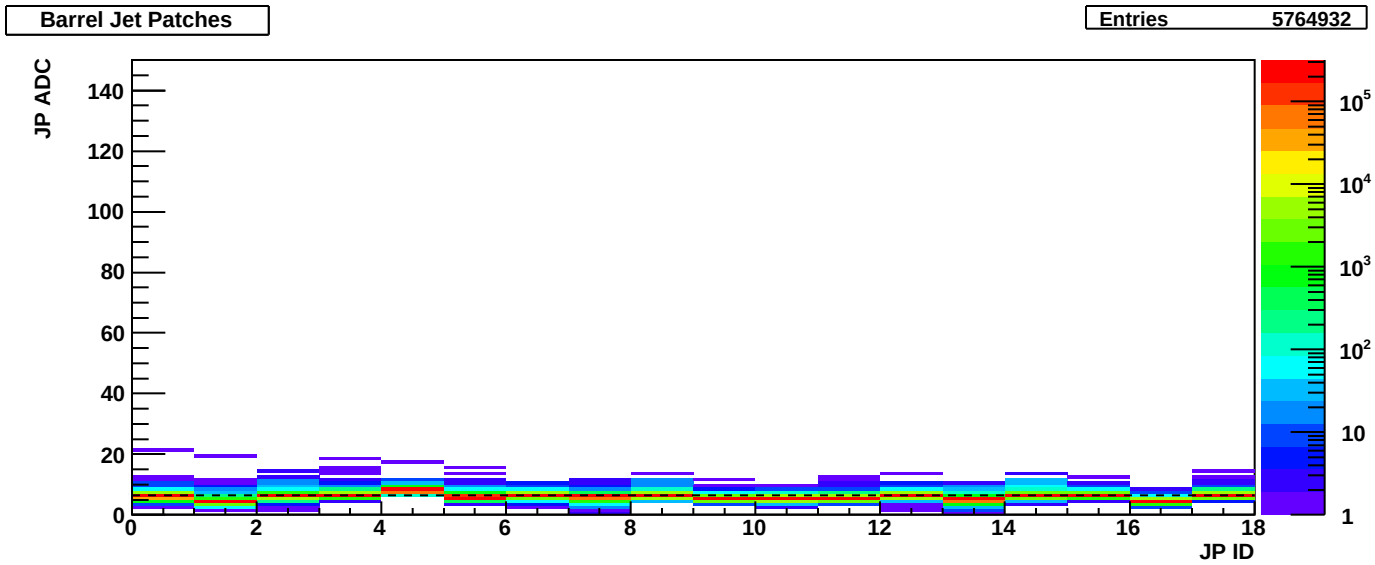
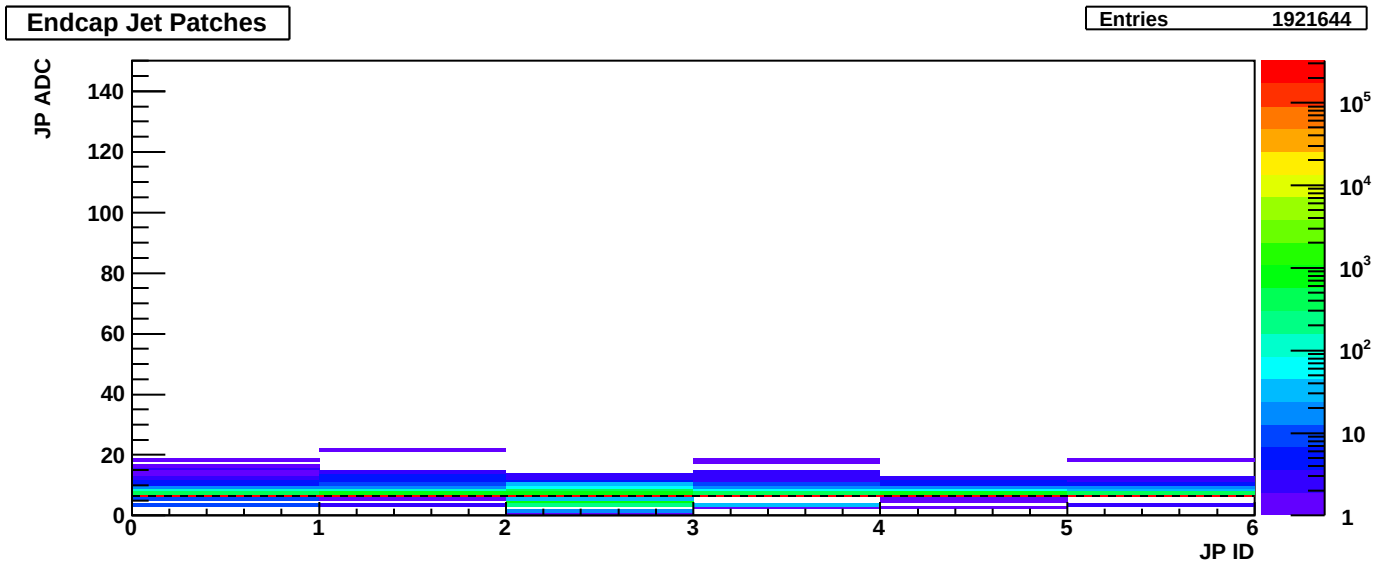

Barrel EMC L0 Input - High Tower
Entries 9.60822e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

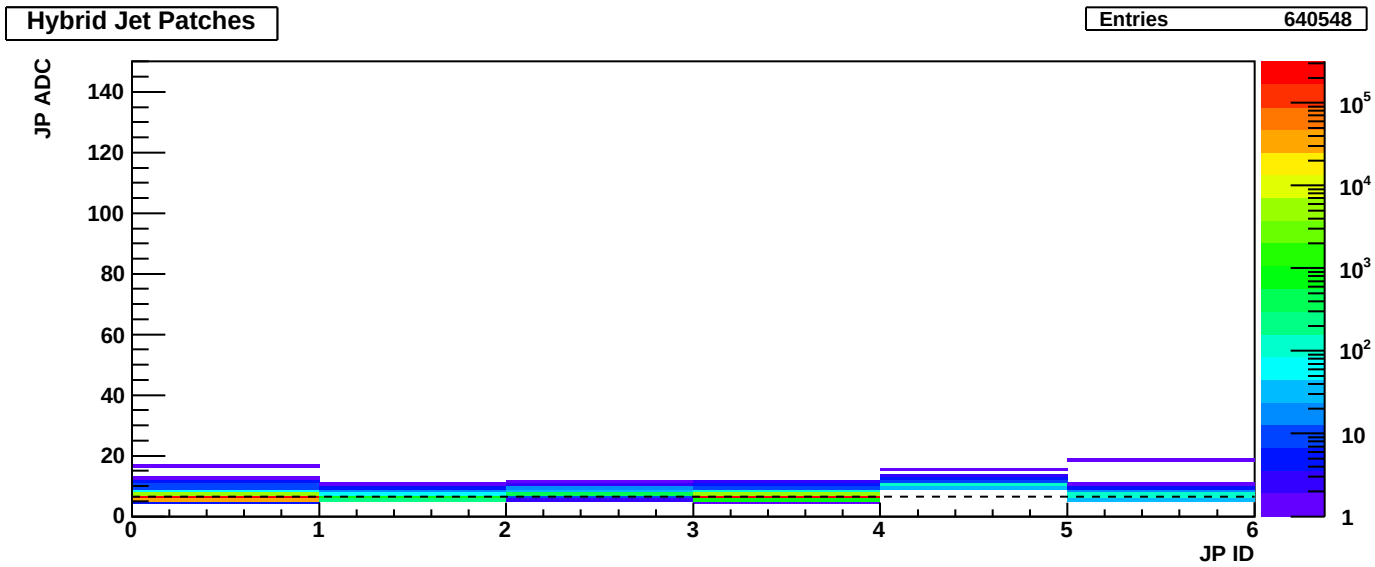

Barrel EMC L0 Input - Patch Sum
Entries 9.60822e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

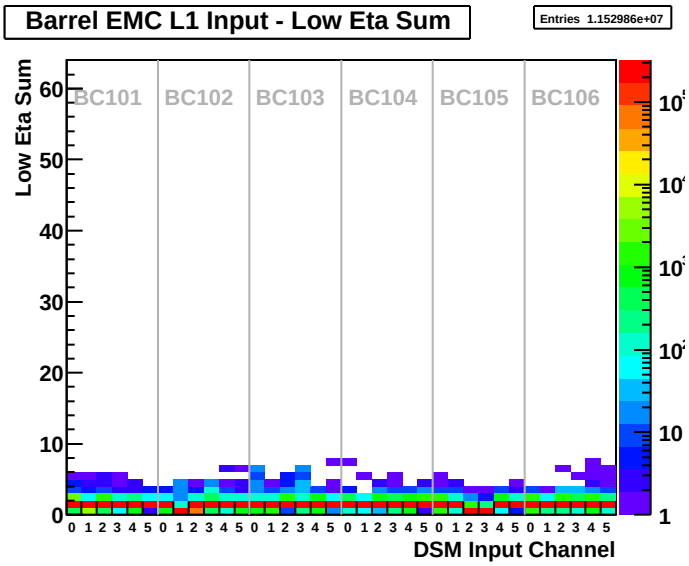

Endcap EMC L0 Input - High Tower
Entries 2.882466e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

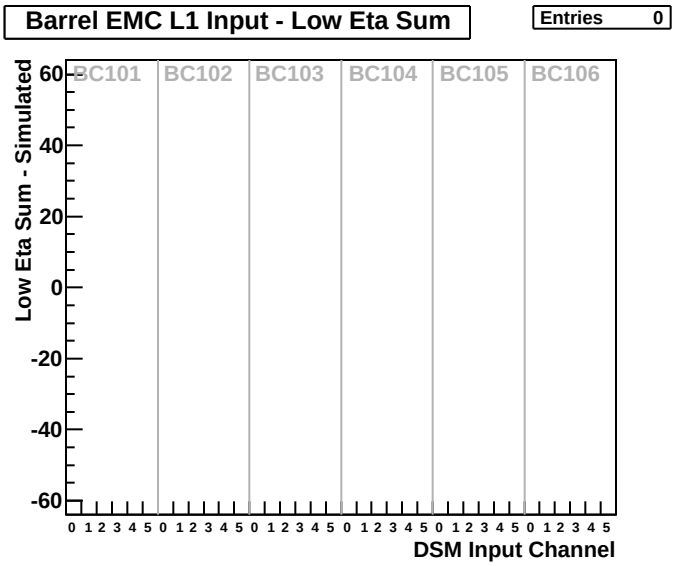

Endcap EMC L0 Input - Patch Sum
Entries 2.882466e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

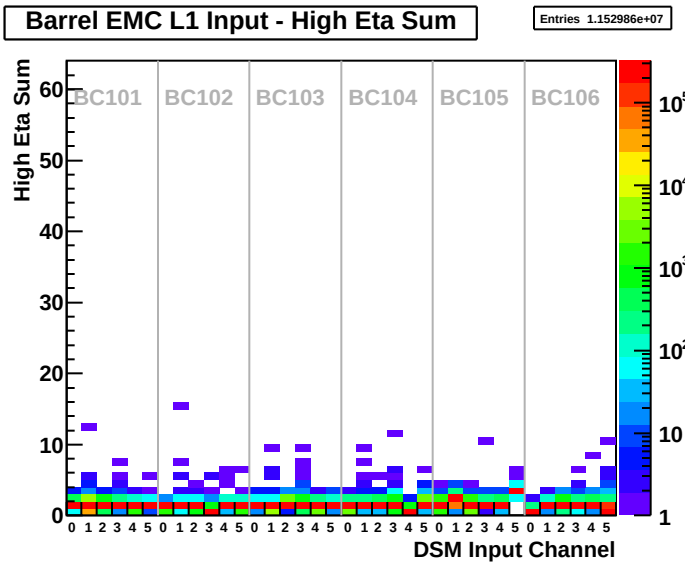

Barrel Jet Patches
Entries 5764932
JP ADC
JP ID

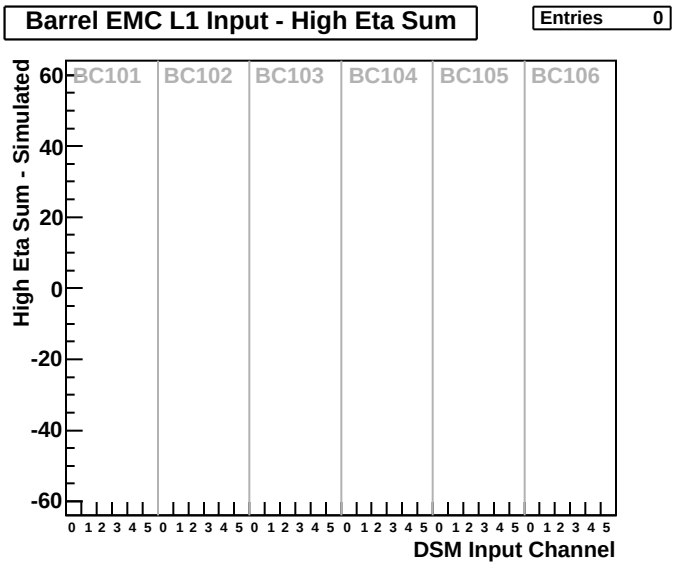

Endcap Jet Patches
Entries 1921644
JP ADC
JP ID

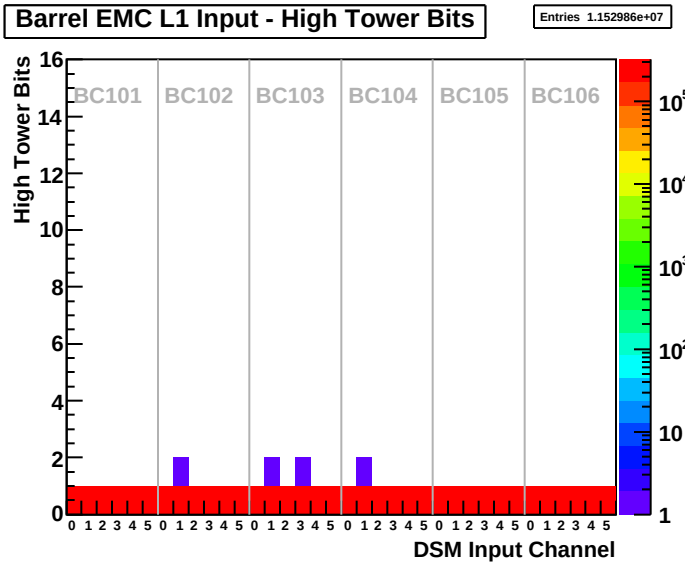

Hybrid Jet Patches
Entries 640548
JP ADC
JP ID

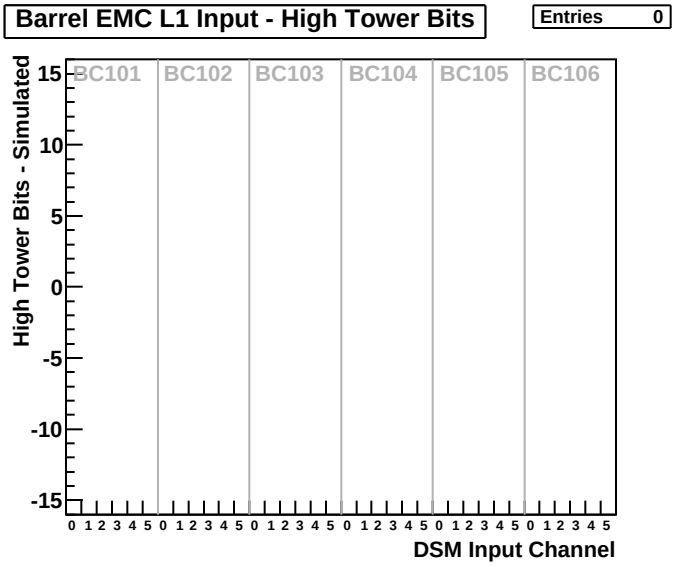

Barrel EMC L1 Input - Low Eta Sum
Entries 1.152986e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

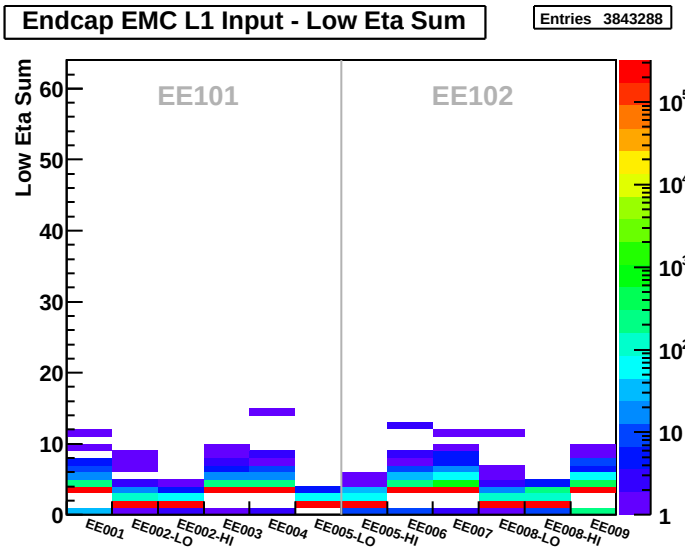

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

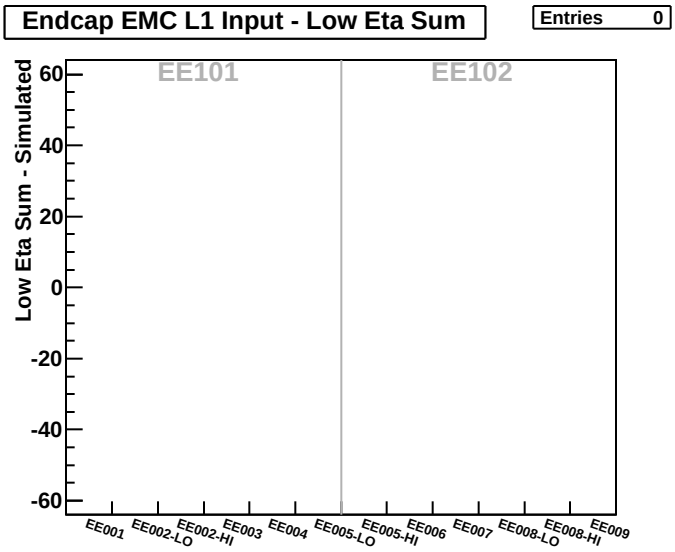

Barrel EMC L1 Input - High Eta Sum
Entries 1.152986e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

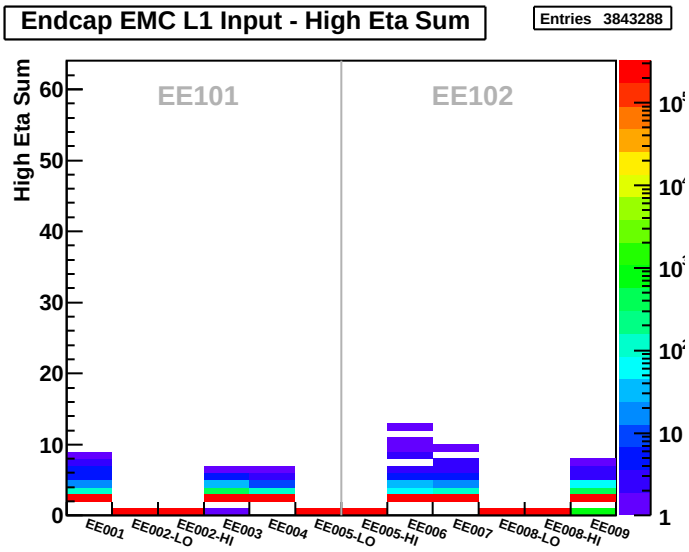

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

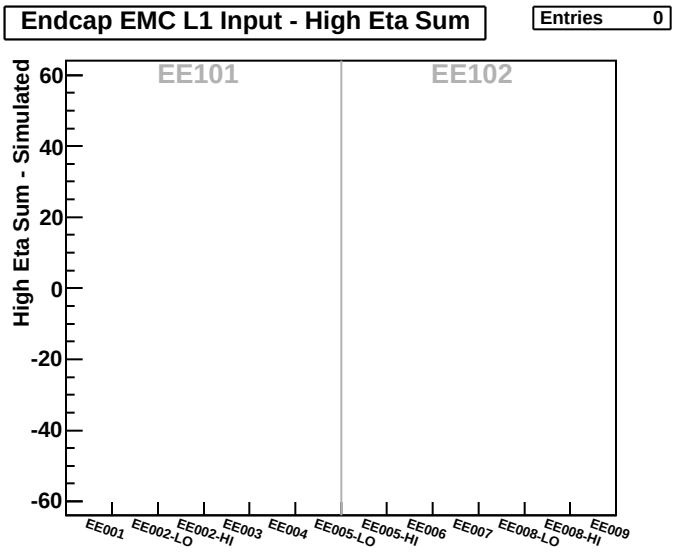

Barrel EMC L1 Input - High Tower Bits
Entries 1.152986e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

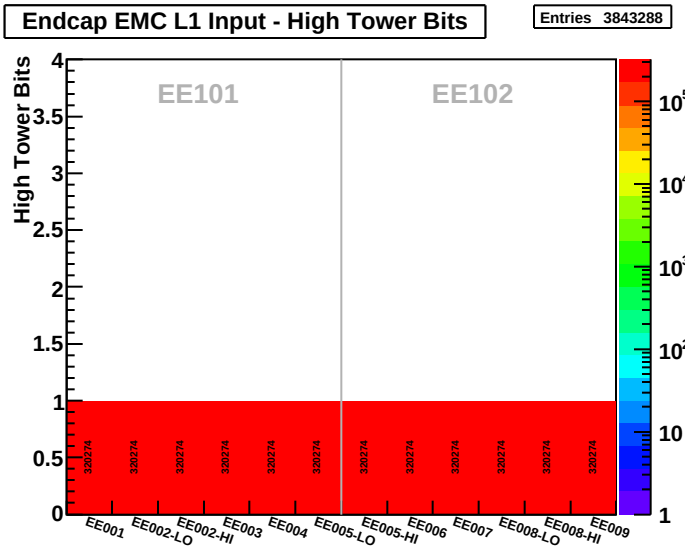

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

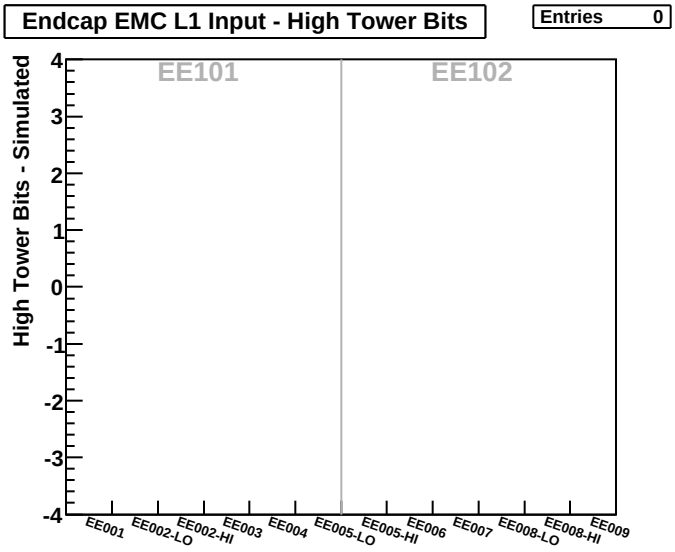

Endcap EMC L1 Input - Low Eta Sum
Entries 3843288
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

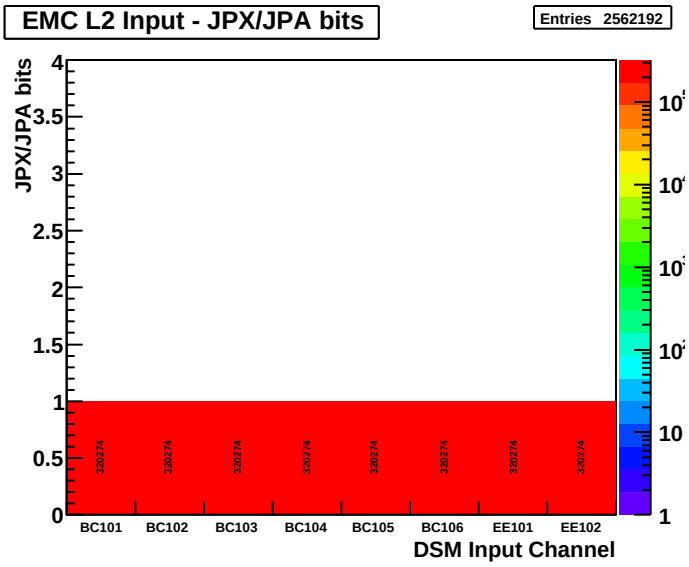

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

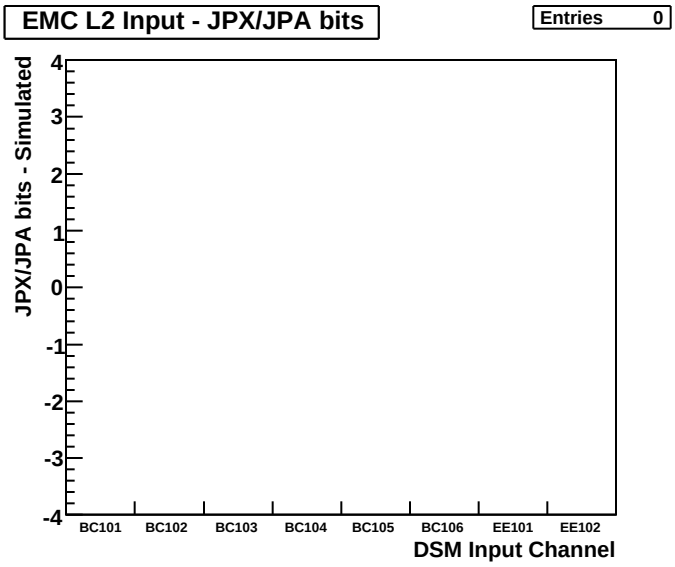

Endcap EMC L1 Input - High Eta Sum
Entries 3843288
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

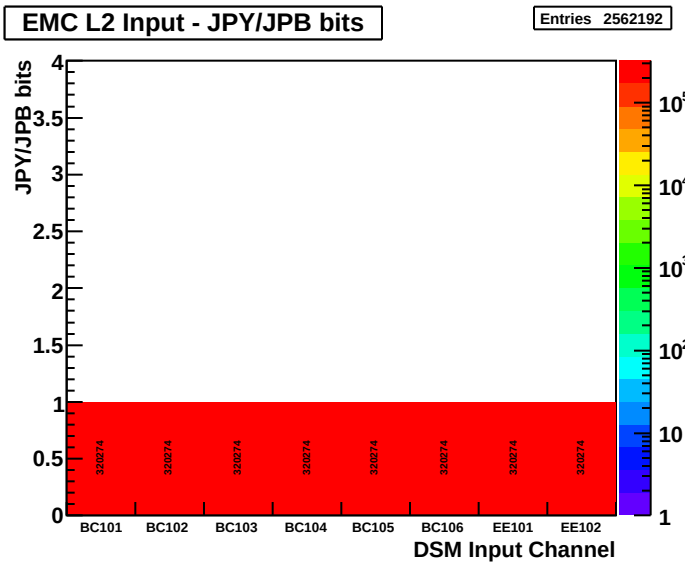

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

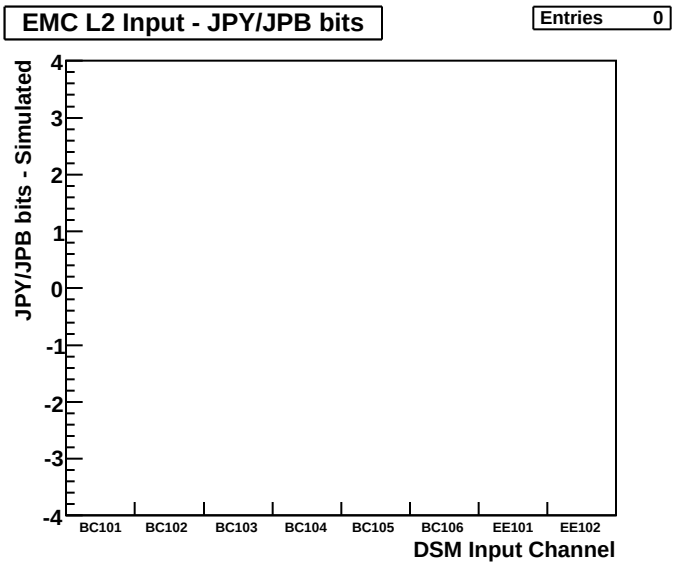

Endcap EMC L1 Input - High Tower Bits
Entries 3843288
High Tower Bits
EE101
EE102
320274
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

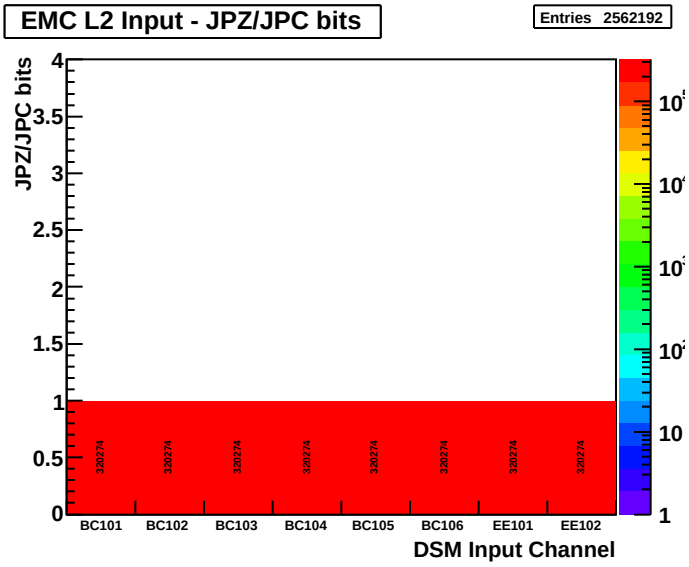

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

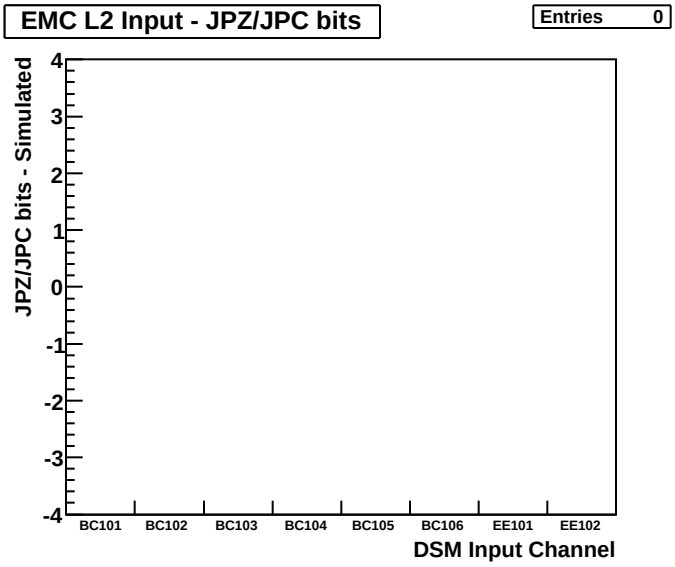

EMC L2 Input - JPX/JPA bits
Entries 2562192
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
320274

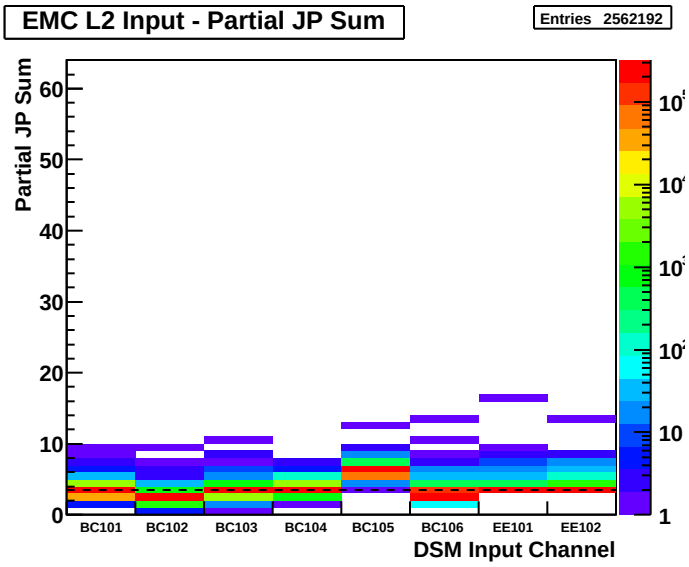

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

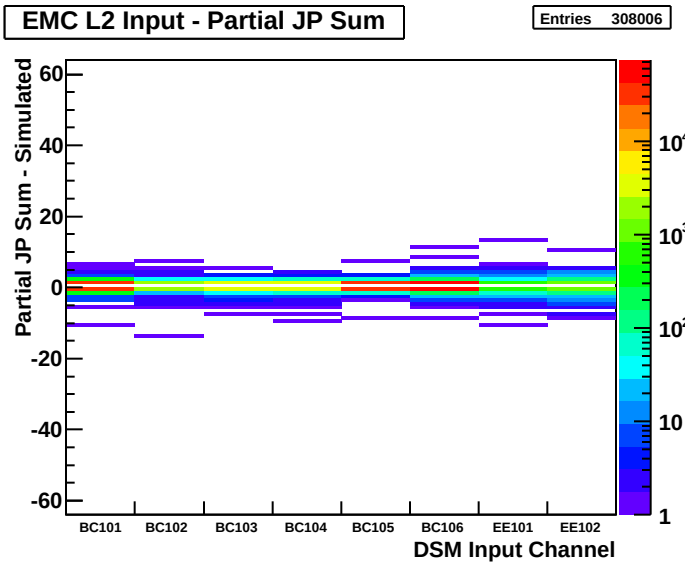

EMC L2 Input - JPY/JPB bits
Entries 2562192
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
320274

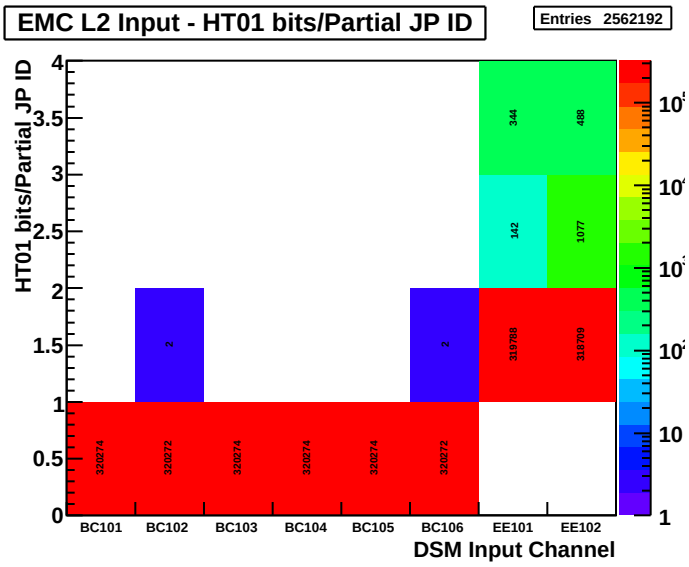

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

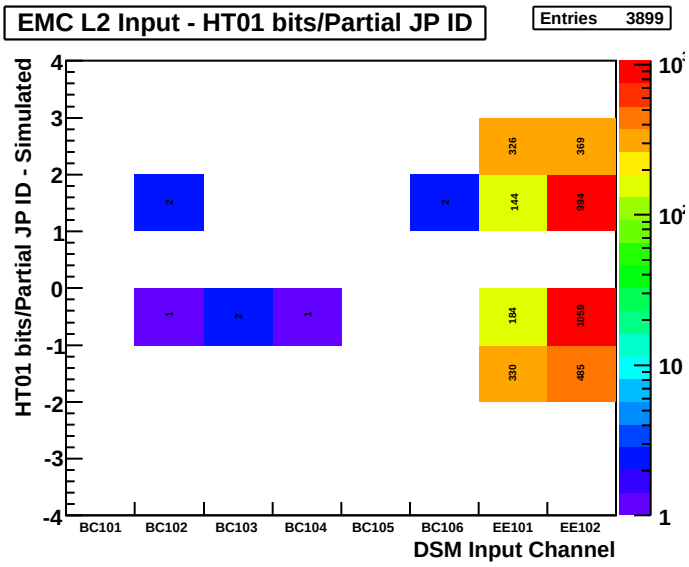

EMC L2 Input - JPZ/JPC bits
Entries 2562192
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
320274

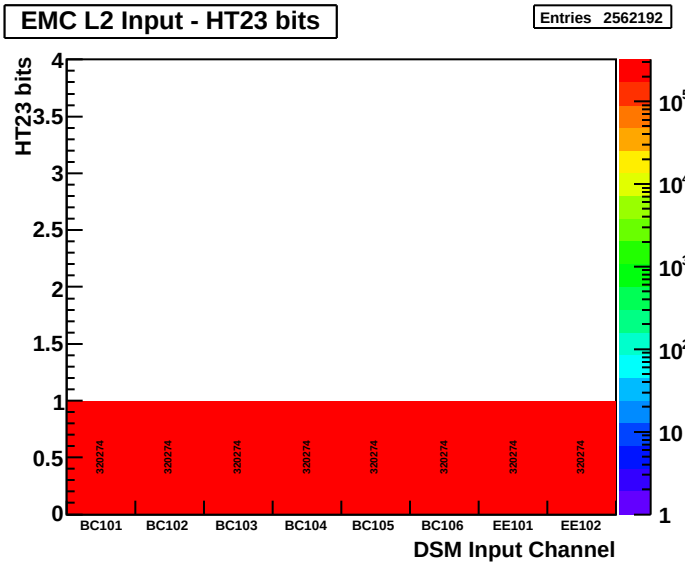

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

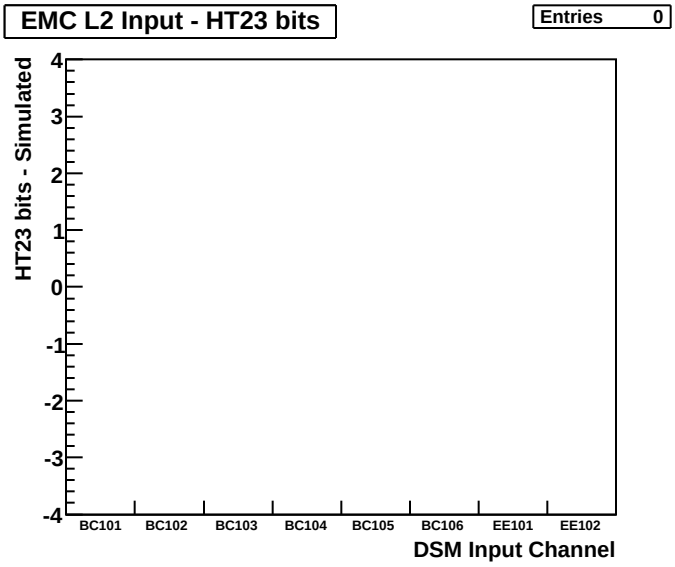

EMC L2 Input - Partial JP Sum
Entries 2562192
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

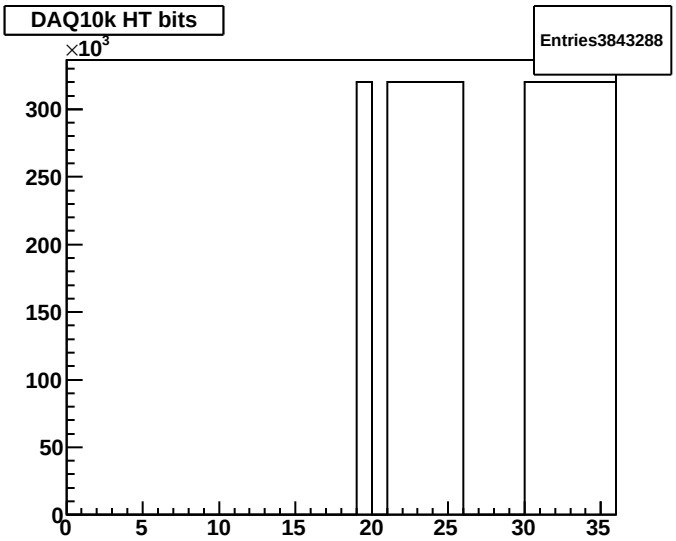

EMC L2 Input - Partial JP Sum
Entries 308006
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

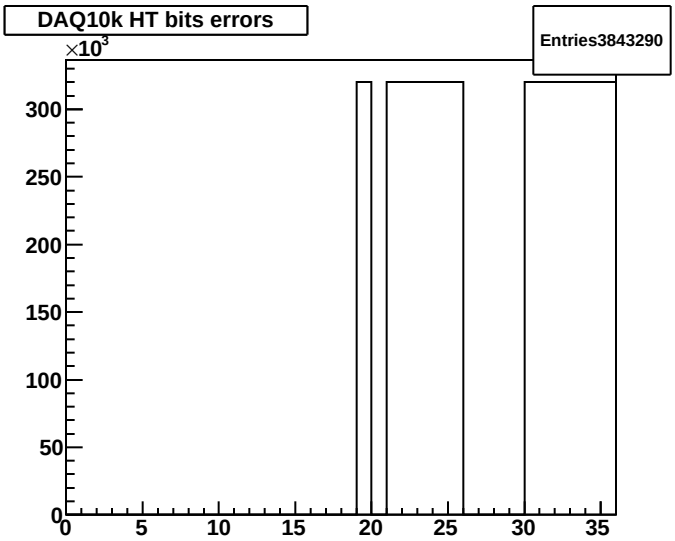

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2562192
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

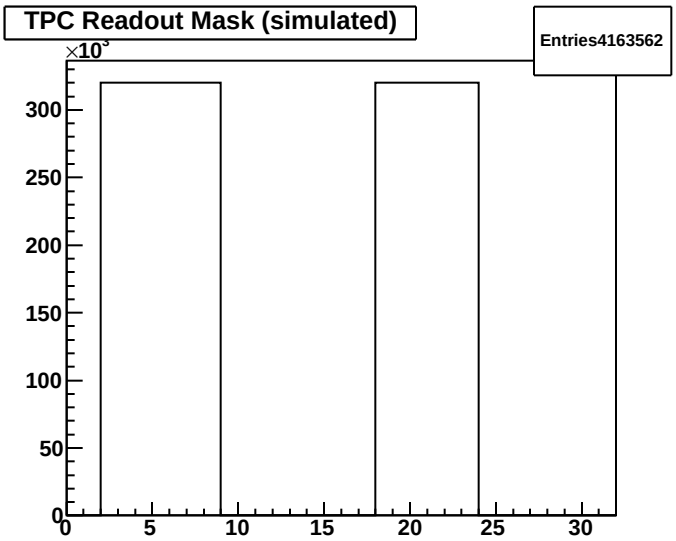

EMC L2 Input - HT01 bits/Partial JP ID
Entries 3899
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

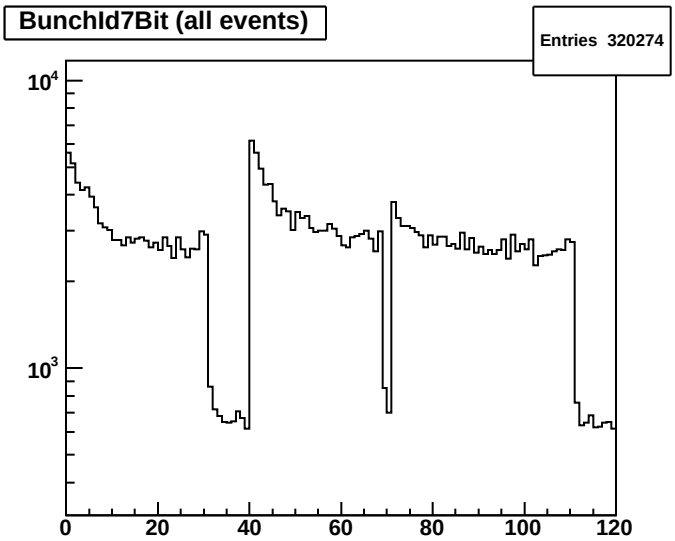

EMC L2 Input - HT23 bits
Entries 2562192
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

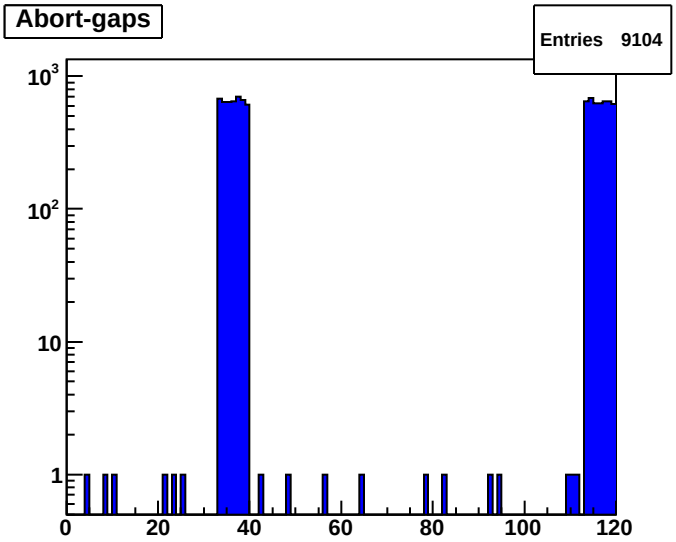

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

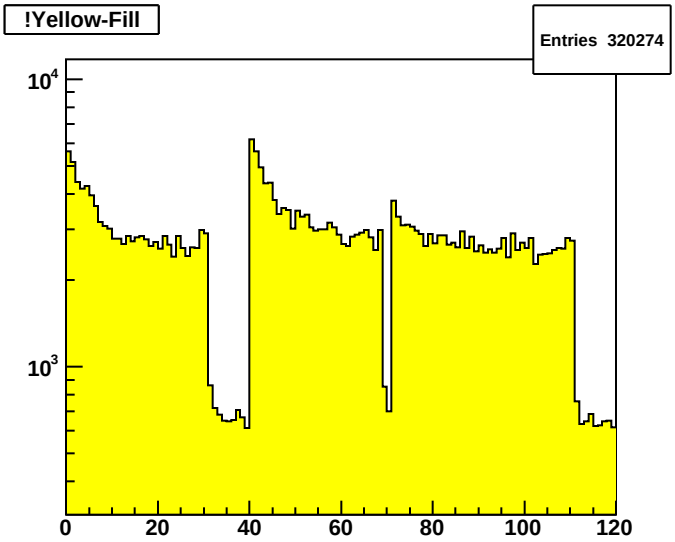

DAQ10k HT bits
Entries3843288
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

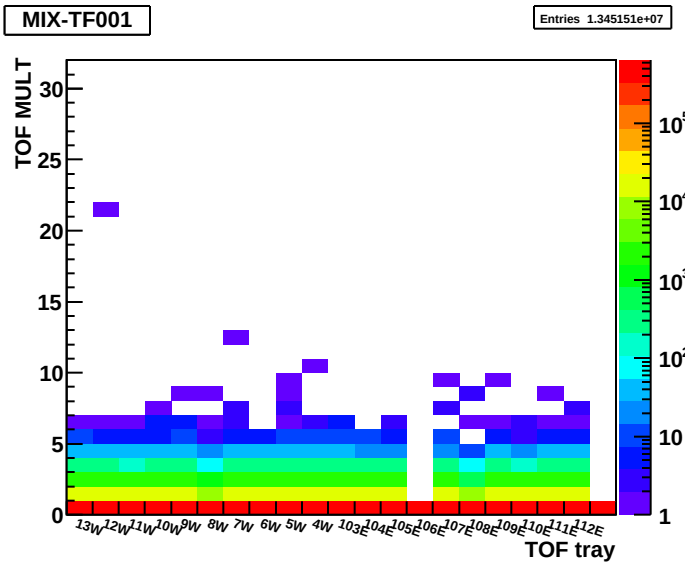

DAQ10k HT bits errors
Entries3843290
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

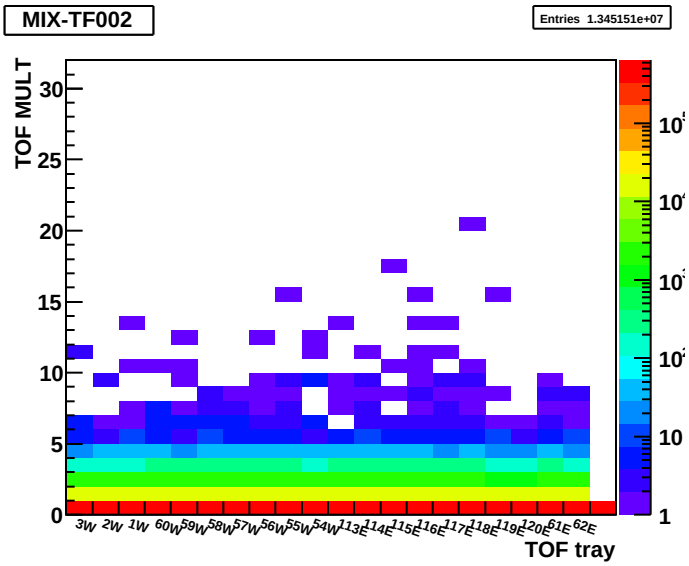

TPC Readout Mask (simulated)
Entries4163562
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30

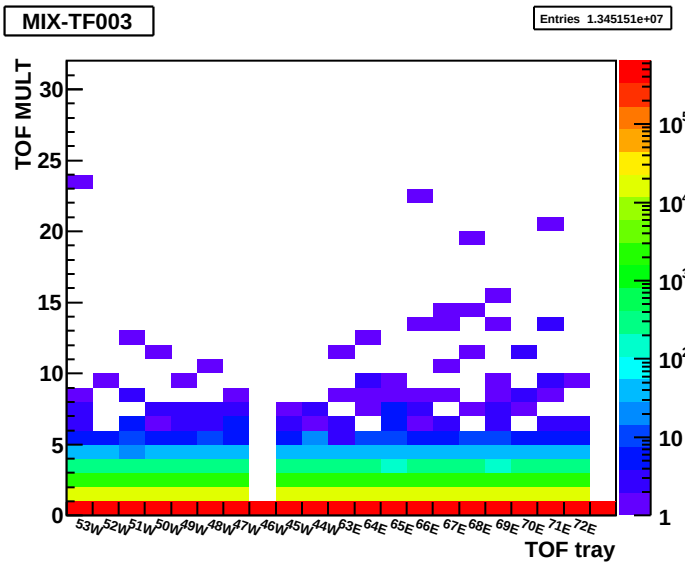

BunchId7Bit (all events)
Entries 320274
10^4
10^3
0 20 40 60 80 100 120

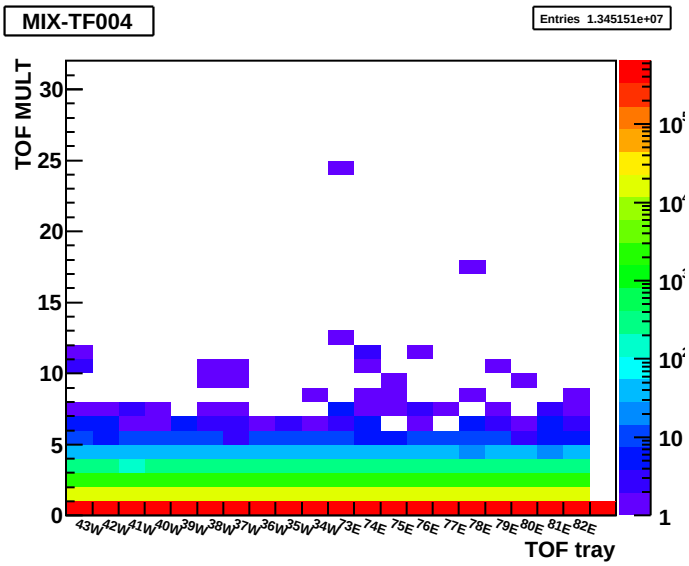

Abort-gaps
Entries 9104
10^3
10^2
10
1
0 20 40 60 80 100 120

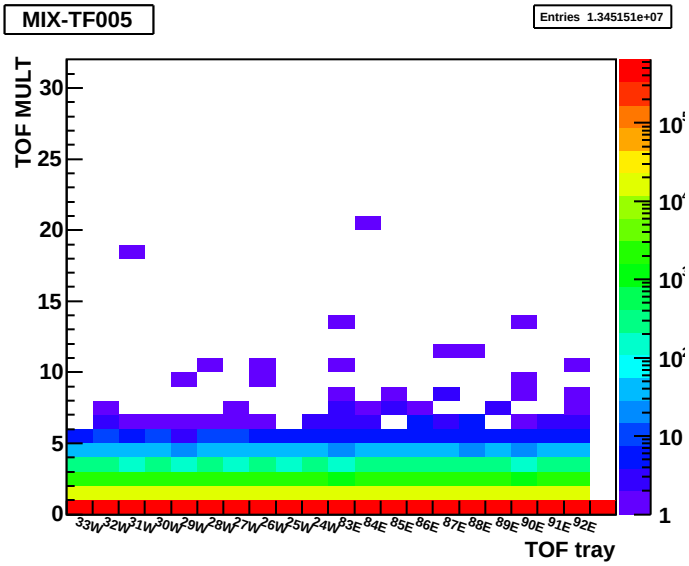

!Yellow-Fill
Entries 320274
10^4
10^3
0 20 40 60 80 100 120

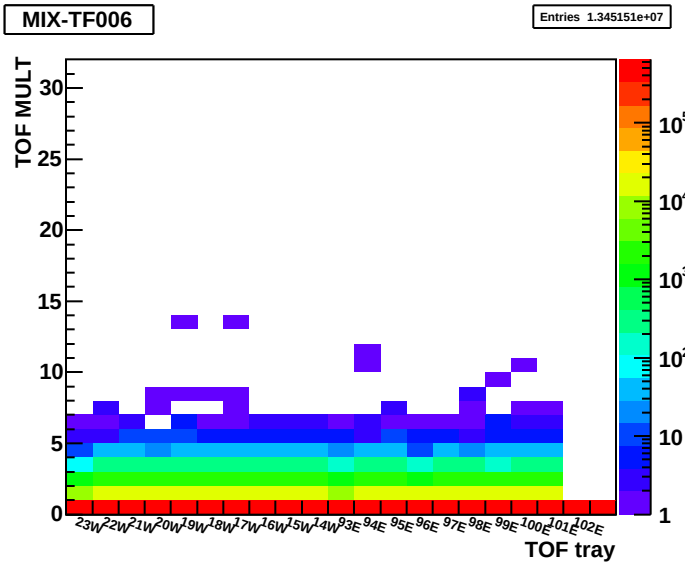

MIX-TF001
Entries 1.345151e+07
TOF MULT
TOF tray

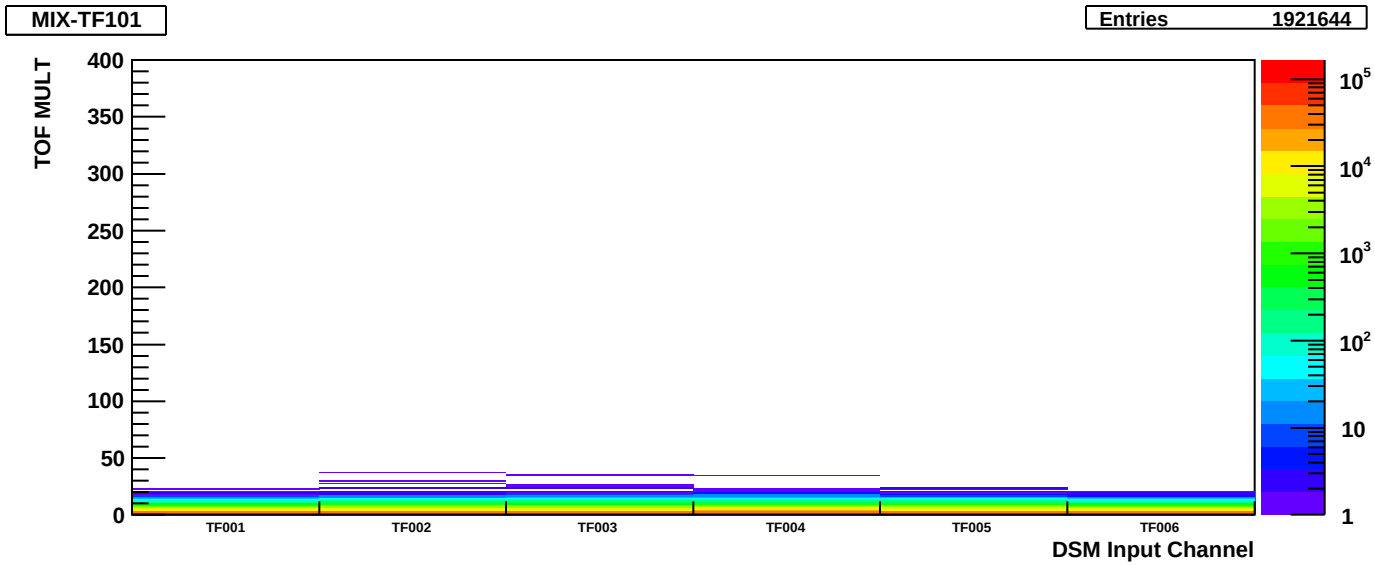

MIX-TF002
Entries 1.345151e+07
TOF MULT
TOF tray

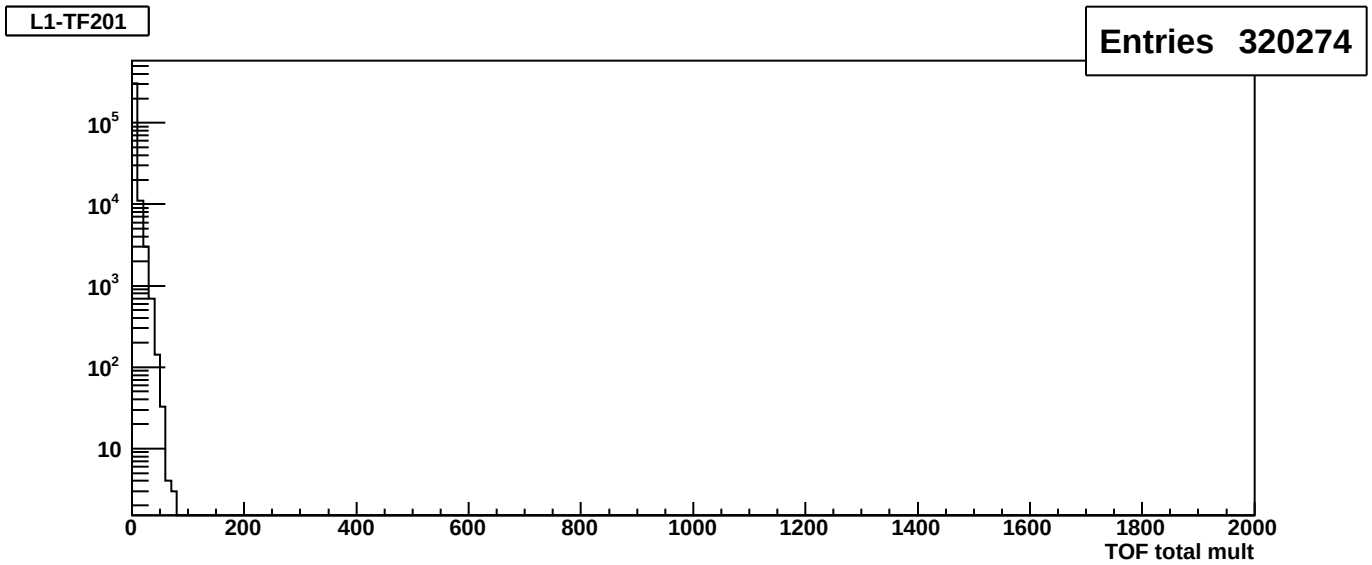

MIX-TF003
Entries 1.345151e+07
TOF MULT
TOF tray

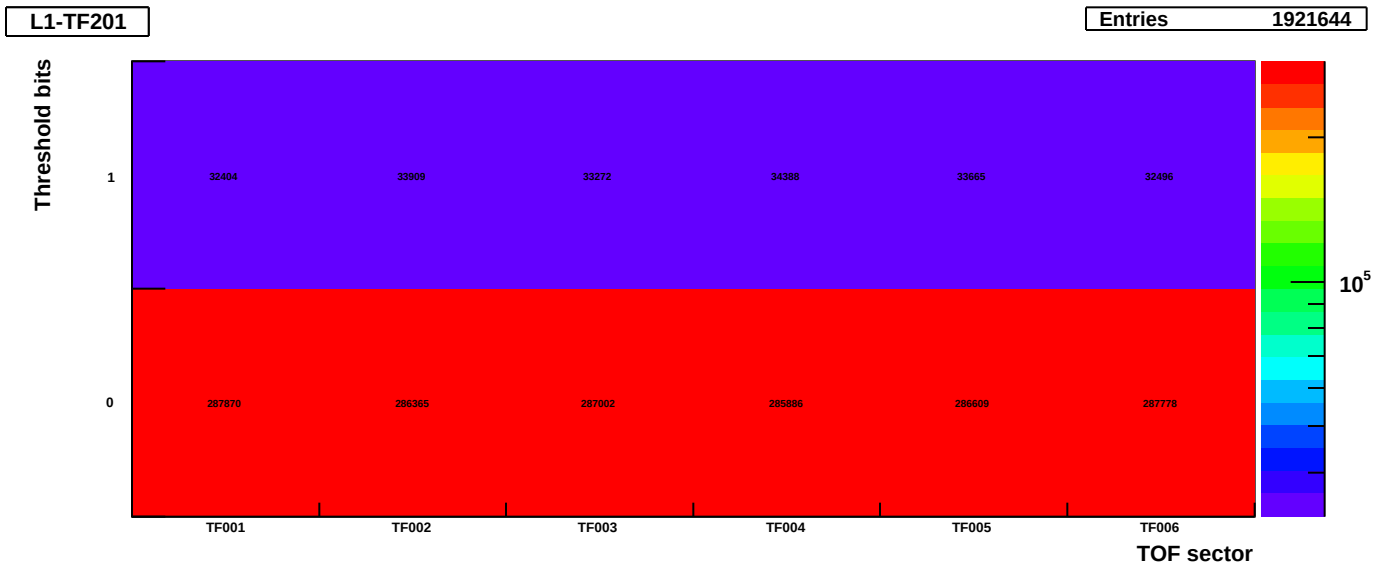

MIX-TF004
Entries 1.345151e+07
TOF MULT
TOF tray

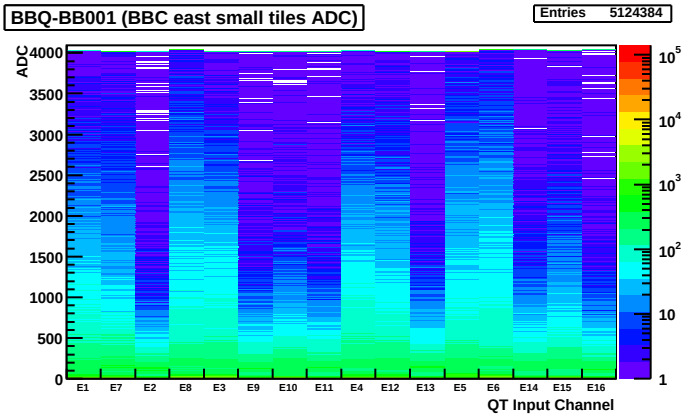

MIX-TF005
Entries 1.345151e+07
TOF MULT
TOF tray

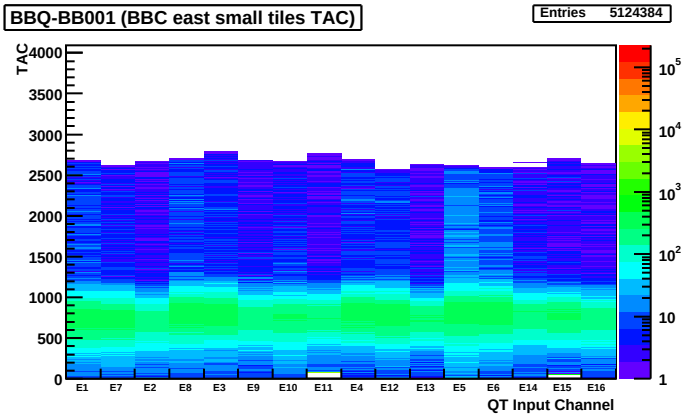

MIX-TF006
Entries 1.345151e+07
TOF MULT
TOF tray

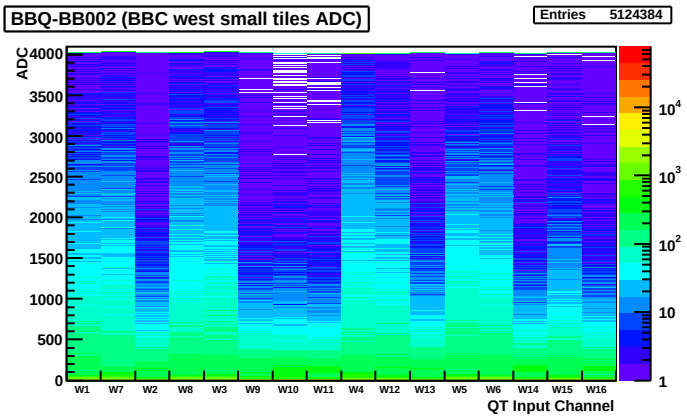

MIX-TF101
Entries 1921644
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

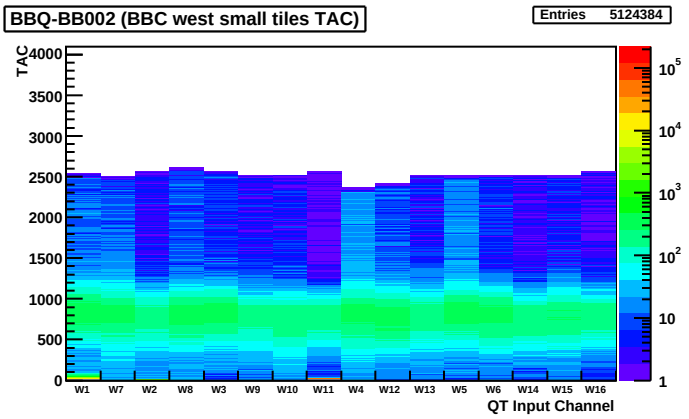

L1-TF201
Entries 320274
10^5
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

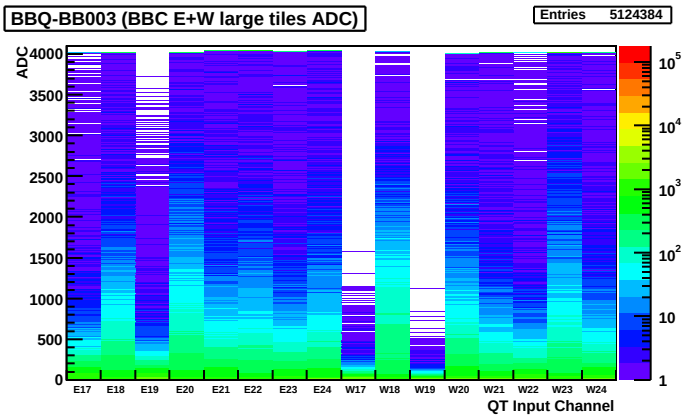

L1-TF201
Entries 1921644
Threshold bits
1
0
32404
33909
33272
34388
33665
32496
287870
286365
287002
285886
286609
287778
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

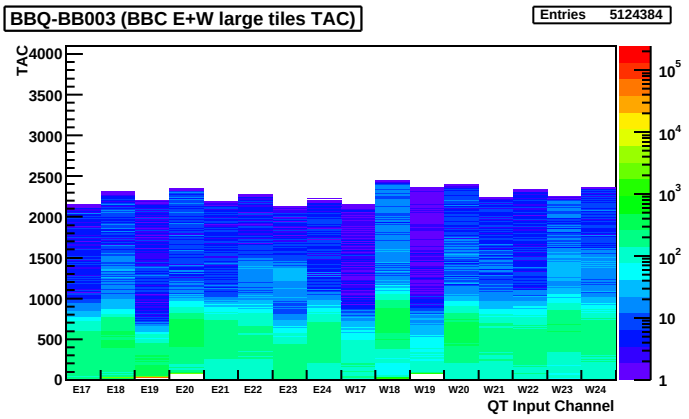

BBQ-BB001 (BBC east small tiles ADC)
Entries 5124384
ADC
QT Input Channel

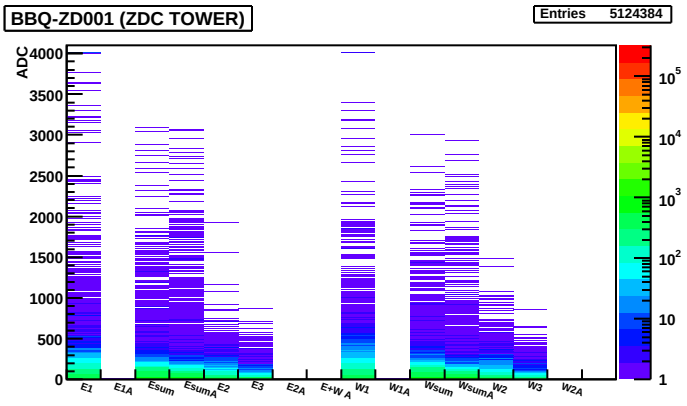

BBQ-BB001 (BBC east small tiles TAC)
Entries 5124384
TAC
QT Input Channel

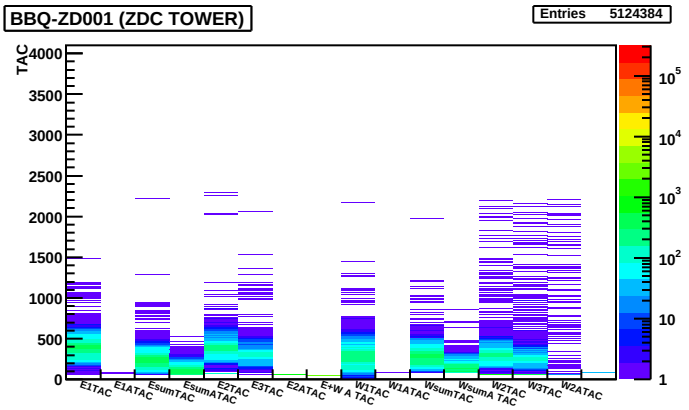

BBQ-BB002 (BBC west small tiles ADC)
Entries 5124384
ADC
QT Input Channel

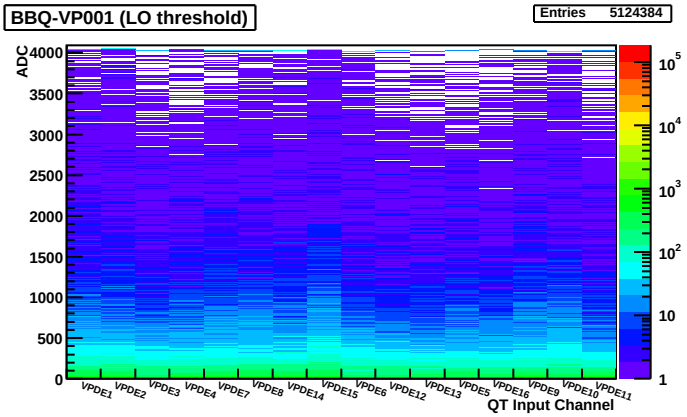

BBQ-BB002 (BBC west small tiles TAC)
Entries 5124384
TAC
QT Input Channel

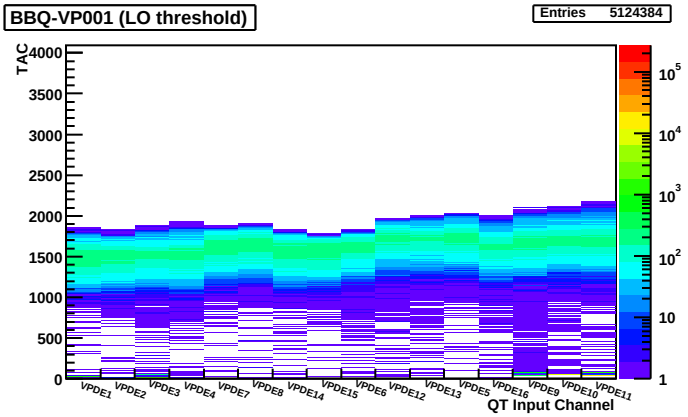

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 5124384
ADC
QT Input Channel

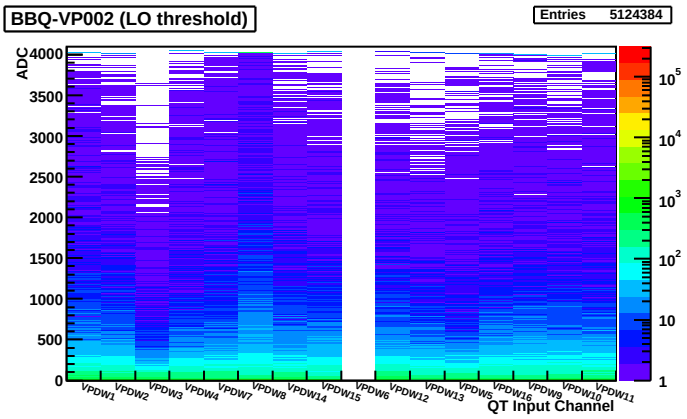

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 5124384
TAC
QT Input Channel

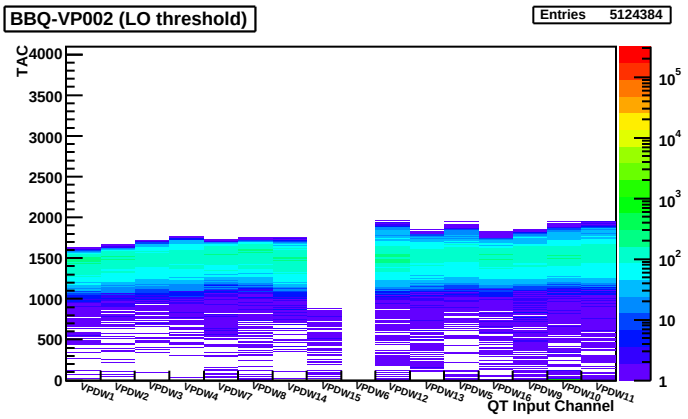

BBQ-ZD001 (ZDC TOWER)
Entries 5124384
ADC

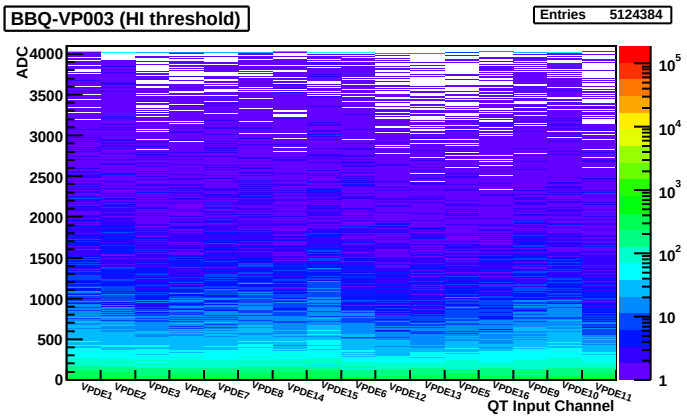

BBQ-ZD001 (ZDC TOWER)
Entries 5124384
TAC

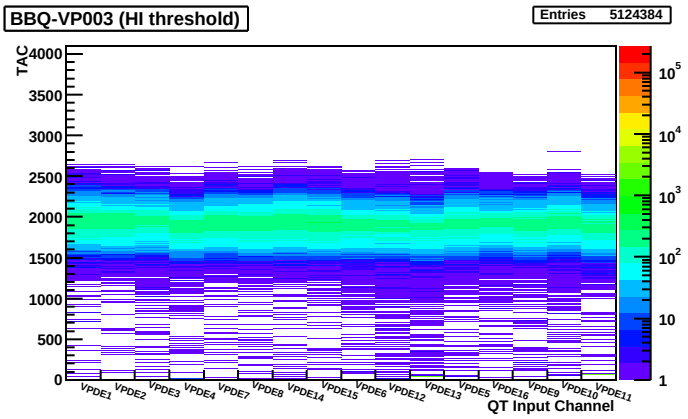

BBQ-VP001 (LO threshold)
Entries 5124384
ADC
QT Input Channel

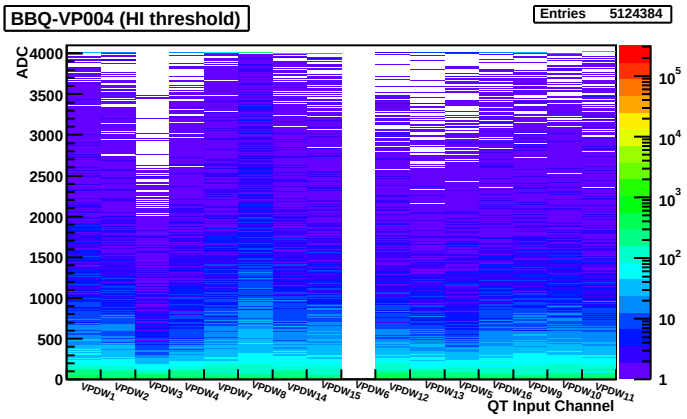

BBQ-VP001 (LO threshold)
Entries 5124384
TAC
QT Input Channel

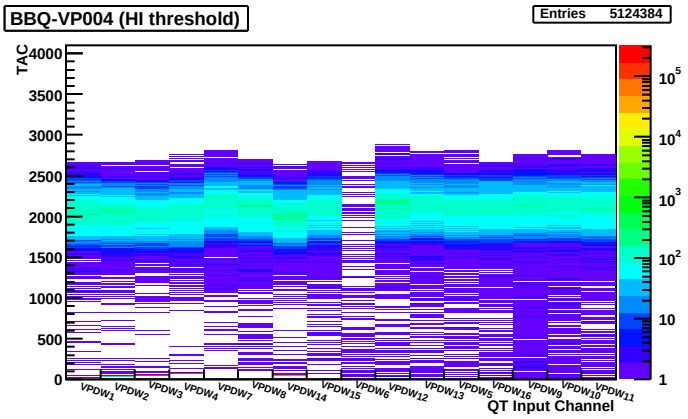

BBQ-VP002 (LO threshold)
Entries 5124384
ADC
QT Input Channel

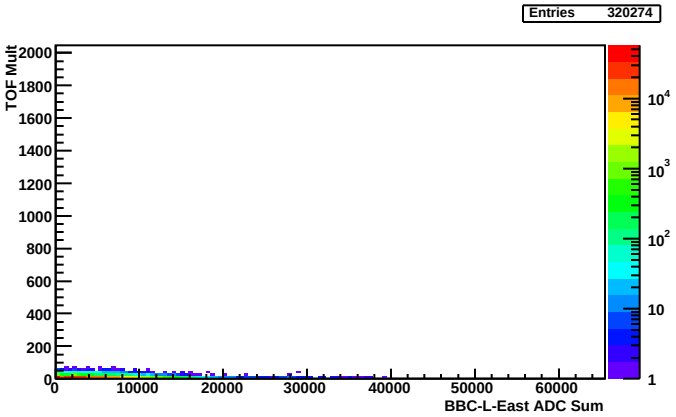

BBQ-VP002 (LO threshold)
Entries 5124384
TAC
QT Input Channel

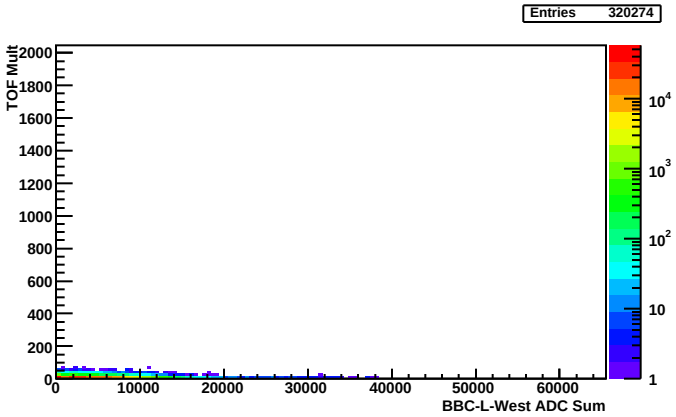

BBQ-VP003 (HI threshold)
Entries 5124384
ADC
QT Input Channel

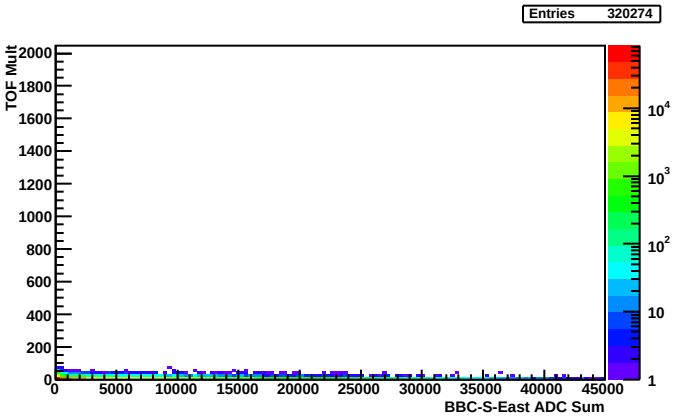

BBQ-VP003 (HI threshold)
Entries 5124384
TAC
QT Input Channel

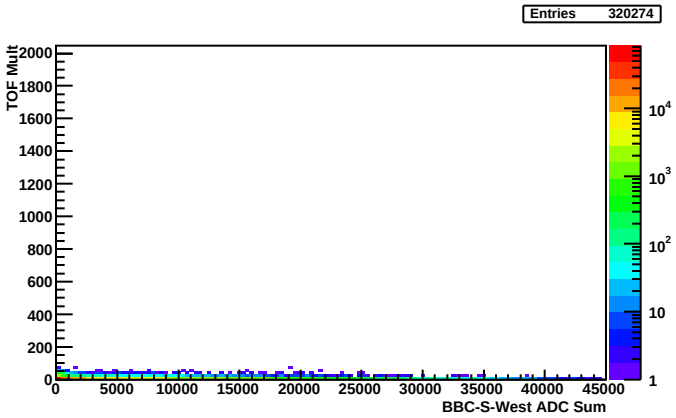

BBQ-VP004 (HI threshold)
Entries 5124384
ADC
QT Input Channel

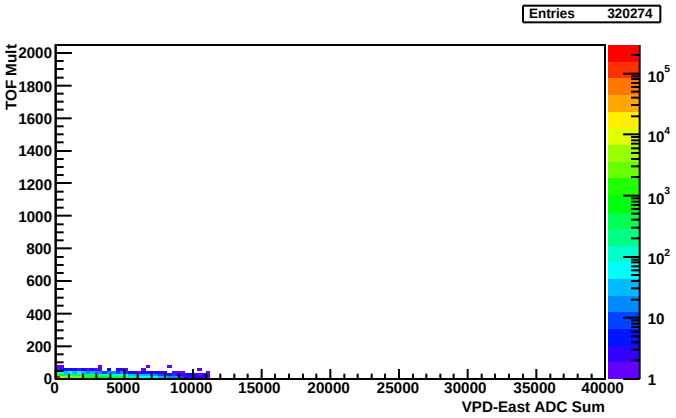

BBQ-VP004 (HI threshold)
Entries 5124384
TAC
QT Input Channel

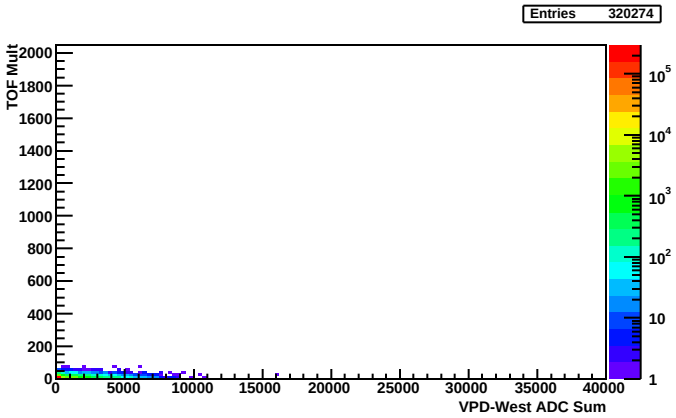

Entries 320274
TOF Mult
BBC-L-East ADC Sum

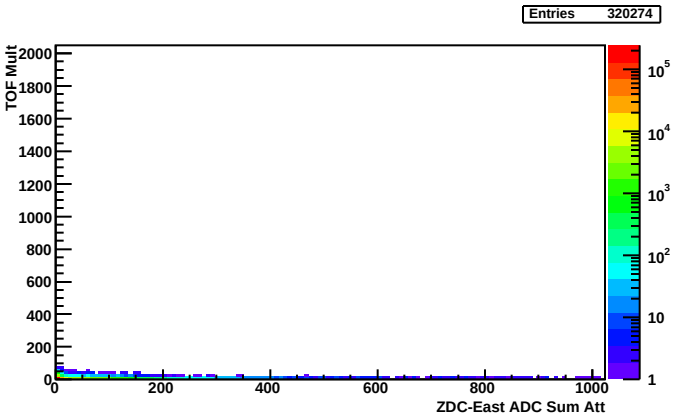

Entries 320274
TOF Mult
BBC-L-West ADC Sum

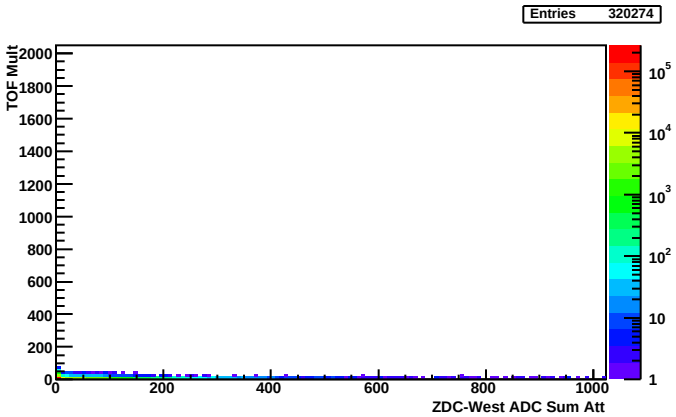

Entries 320274
TOF Mult
BBC-S-East ADC Sum

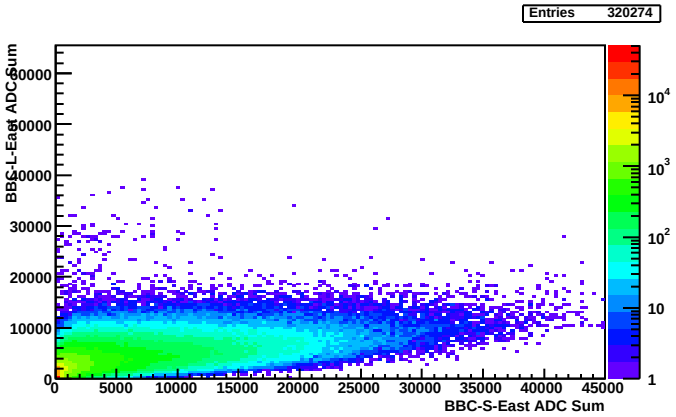

Entries 320274
TOF Mult
BBC-S-West ADC Sum

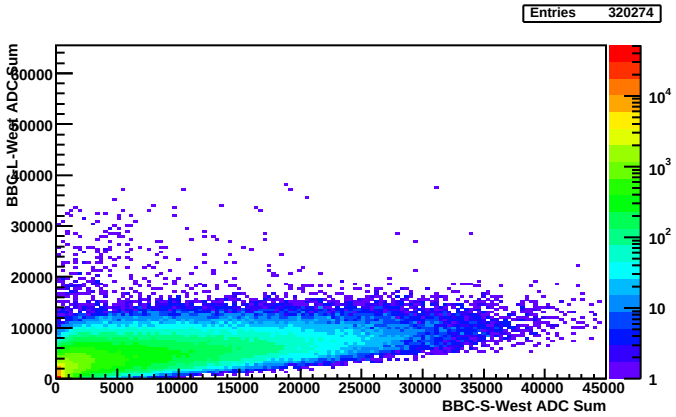

Entries 320274
TOF Mult
VPD-East ADC Sum

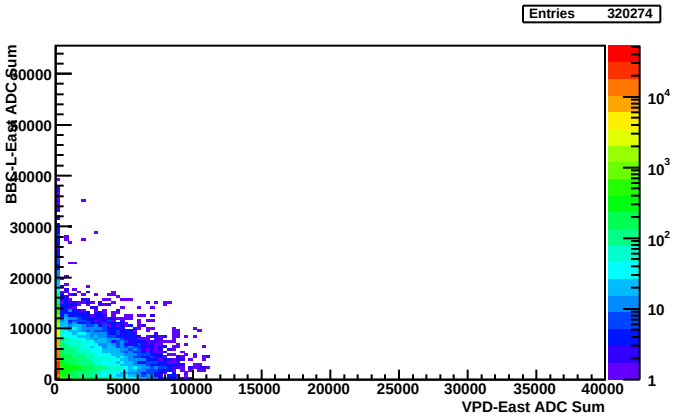

Entries 320274
TOF Mult
VPD-West ADC Sum

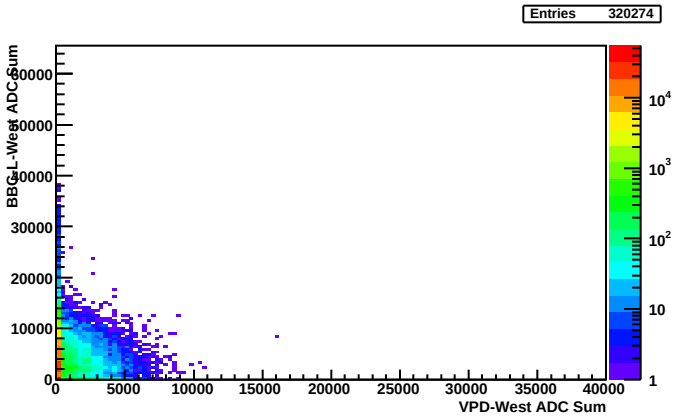

Entries 320274
TOF Mult
ZDC-East ADC Sum Att

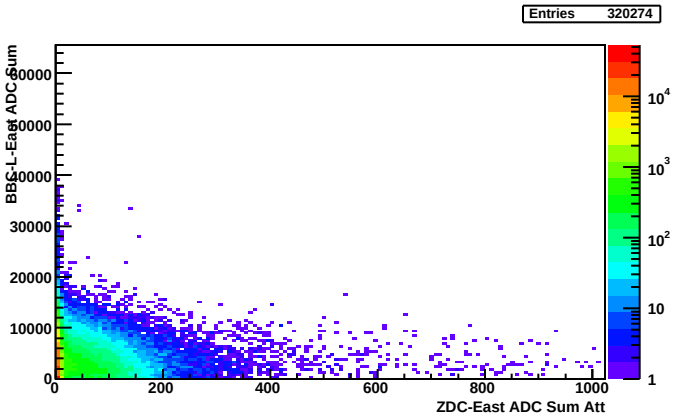

Entries 320274
TOF Mult
ZDC-West ADC Sum Att

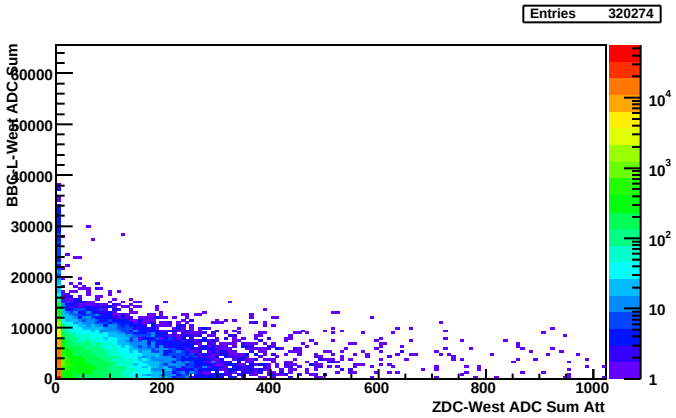

Entries 320274
BBC-L-East ADC Sum
BBC-S-East ADC Sum

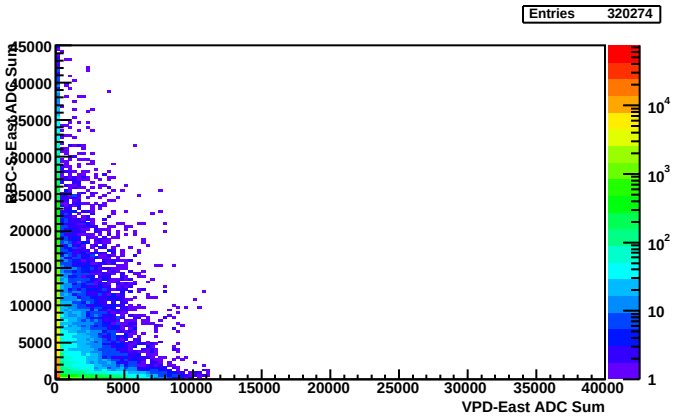

Entries 320274
BBC-L-West ADC Sum
BBC-S-West ADC Sum

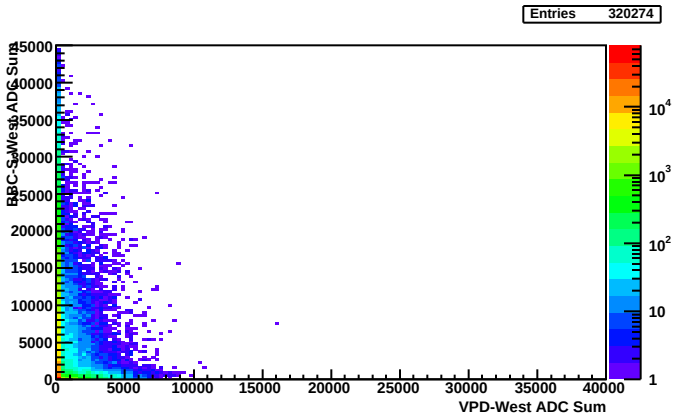

Entries 320274
BBC-L-East ADC Sum
VPD-East ADC Sum

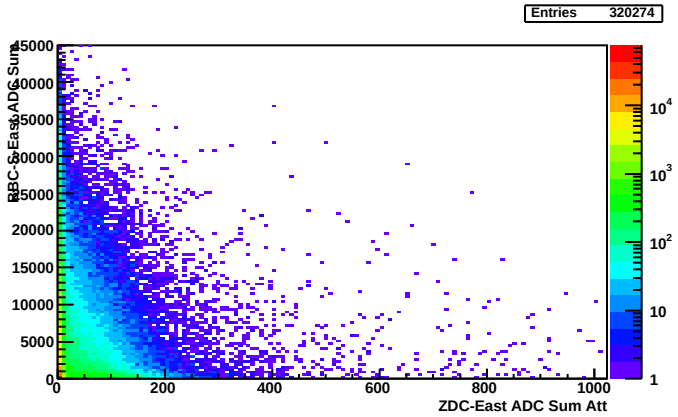

Entries 320274
BBC-L-West ADC Sum
VPD-West ADC Sum

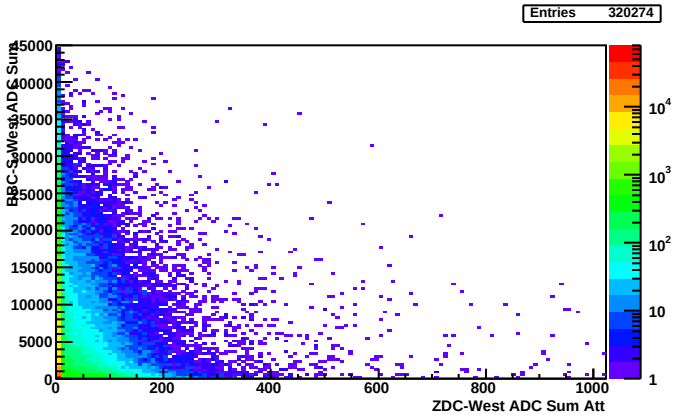

Entries 320274
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

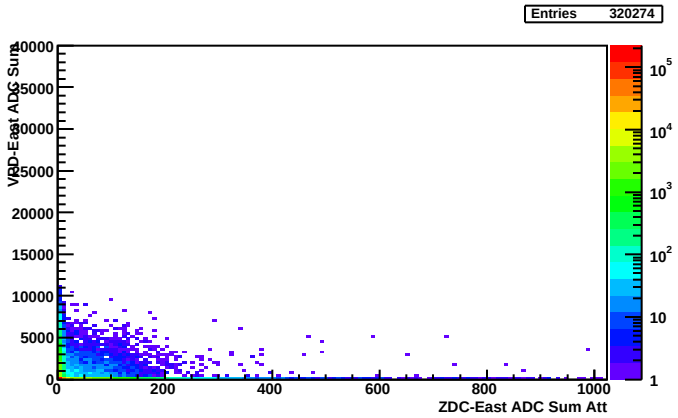

Entries 320274
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

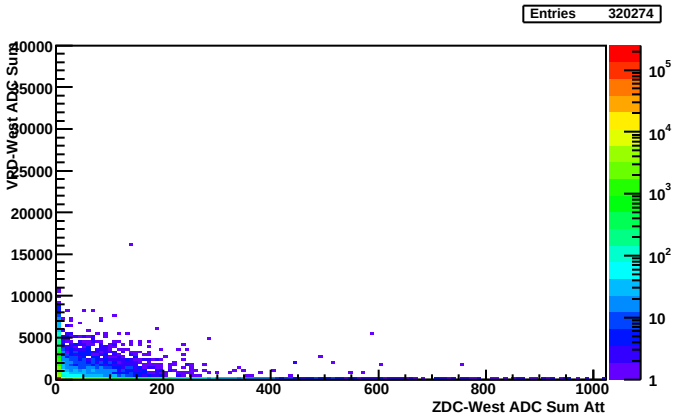

Entries 320274
BBC-S-East ADC Sum
VPD-East ADC Sum

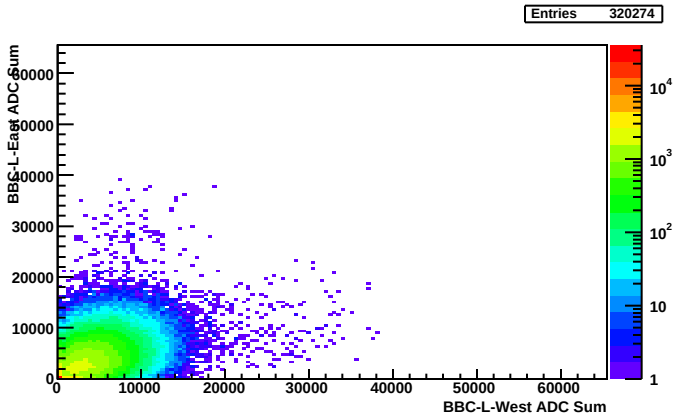

Entries 320274
BBC-S-West ADC Sum
VPD-West ADC Sum

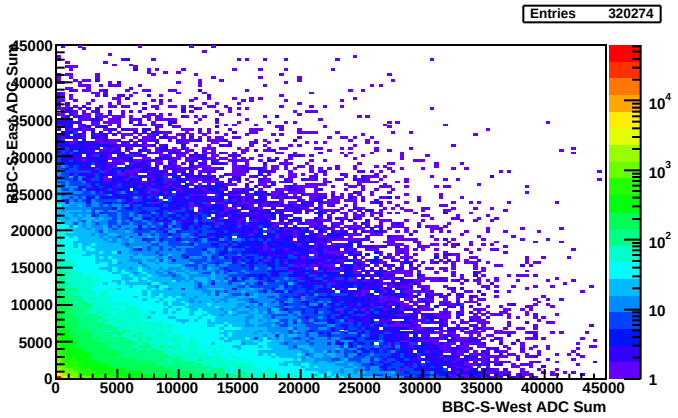

Entries 320274
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

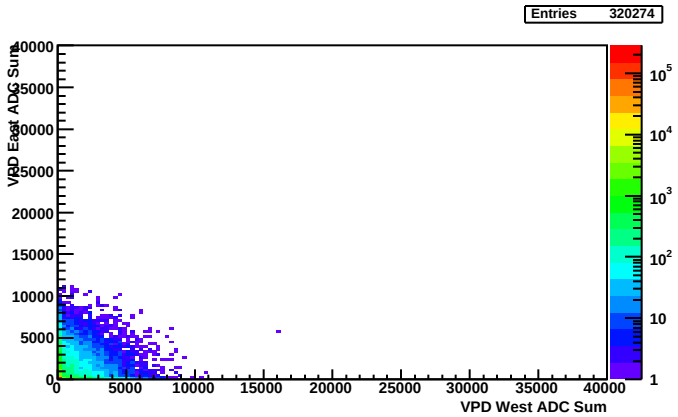

Entries 320274
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

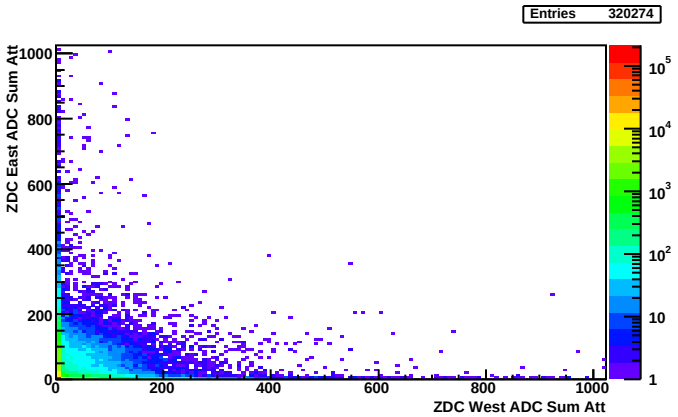

Entries 320274
VPD-East ADC Sum
ZDC-East ADC Sum Att

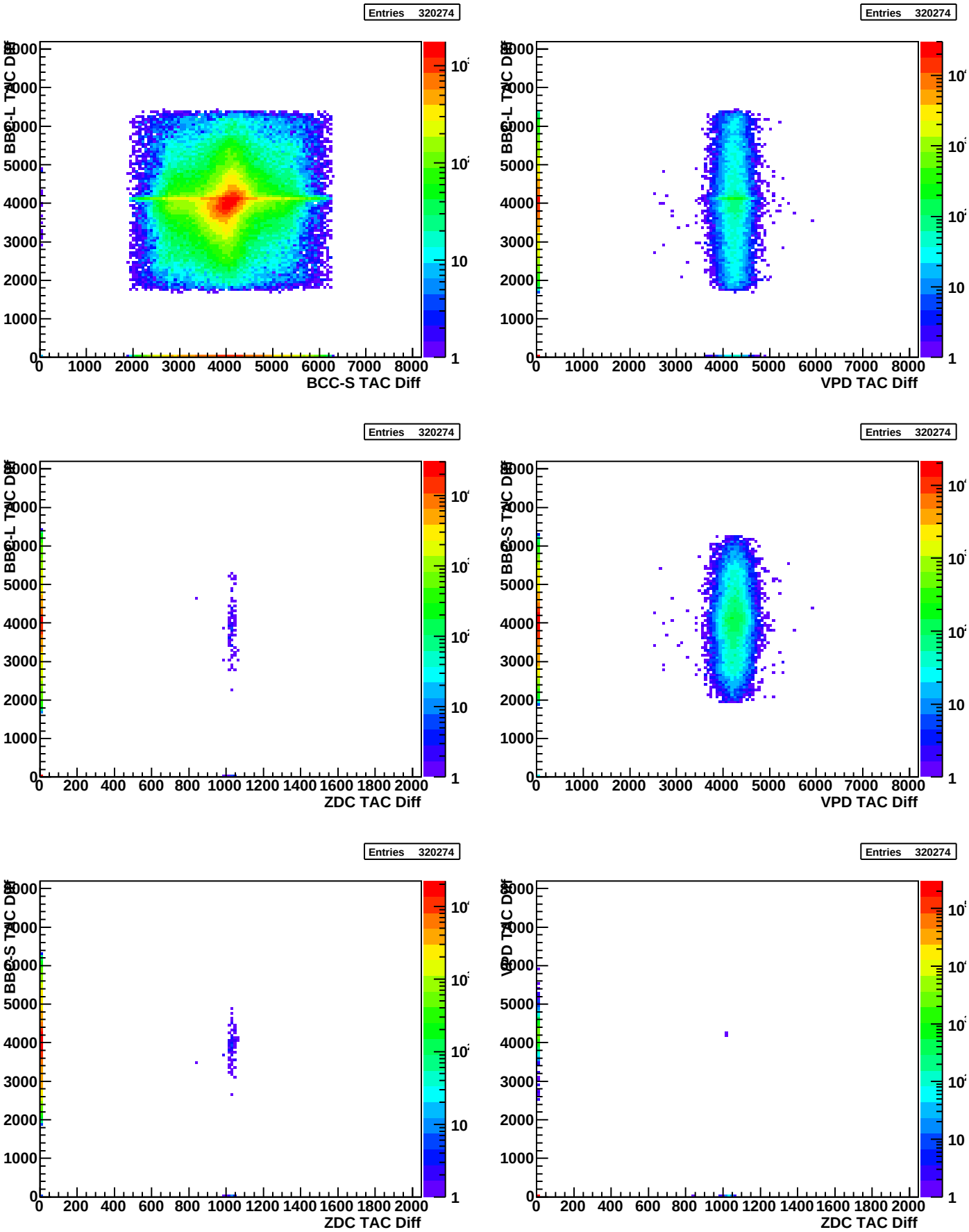

Entries 320274
VPD-West ADC Sum
ZDC-West ADC Sum Att

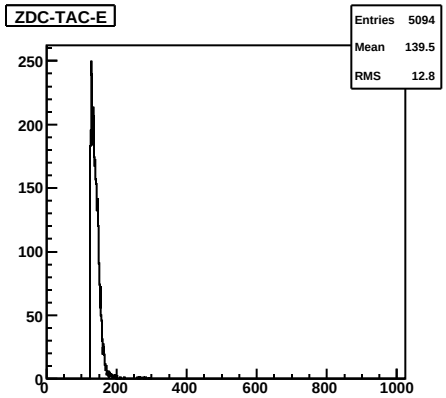

Entries 320274
BBC-L-East ADC Sum
BBC-L-West ADC Sum

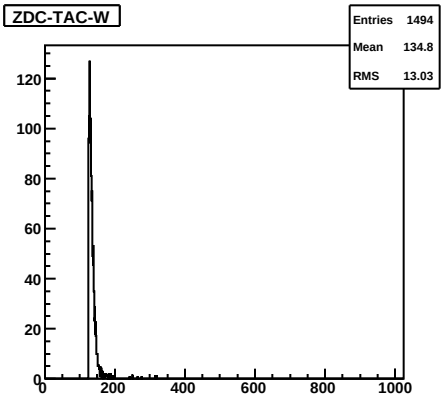

Entries 320274
BBC-S-East ADC Sum
BBC-S-West ADC Sum

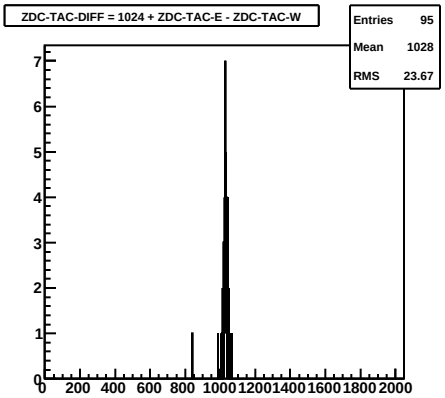

Entries 320274
VPD East ADC Sum
VPD West ADC Sum

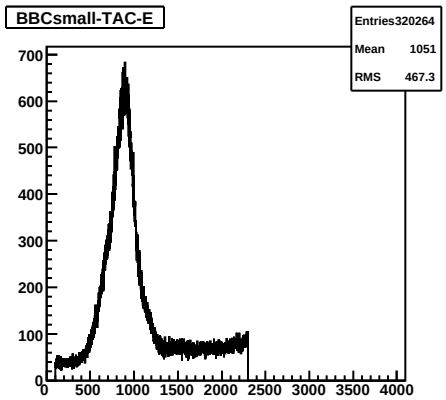

Entries 320274
ZDC East ADC Sum Att
ZDC West ADC Sum Att

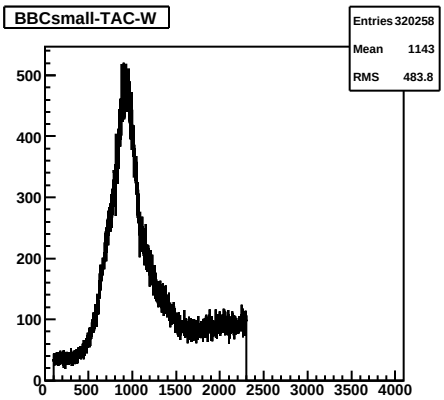

Entries 320274
BBC-L TAC Diff
BCC-S TAC Diff
Entries 320274
BBC-L TAC Diff
VPD TAC Diff
Entries 320274
BBC-L TAC Diff
ZDC TAC Diff
Entries 320274
BBC-S TAC Diff
VPD TAC Diff
Entries 320274
BBC-S TAC Diff
ZDC TAC Diff
Entries 320274
VPD TAC Diff
ZDC TAC Diff

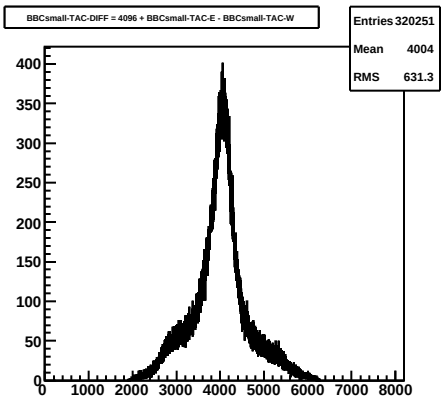

ZDC-TAC-E
Entries 5094
Mean 139.5
RMS 12.8

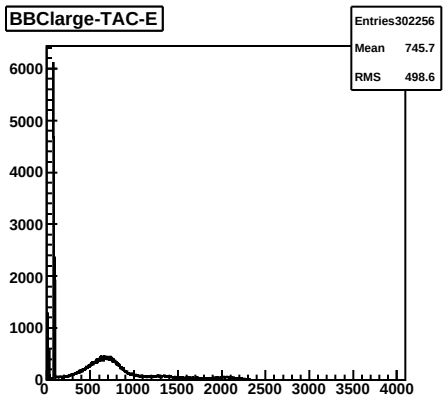

ZDC-TAC-W
Entries 1494
Mean 134.8
RMS 13.03

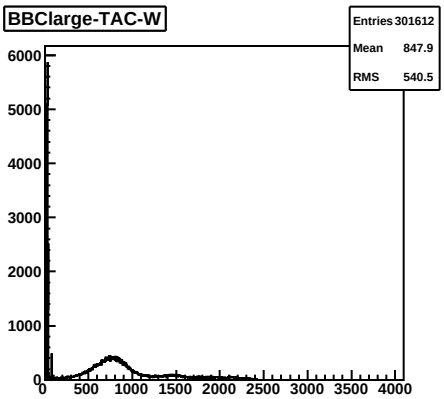

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 95
Mean 1028
RMS 23.67

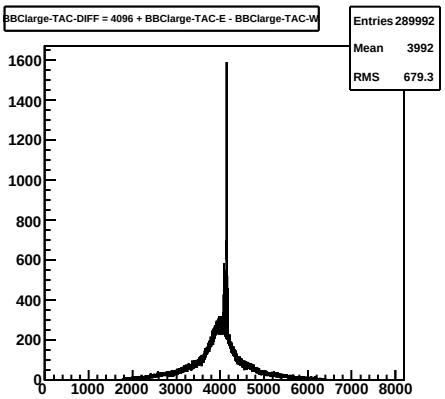

BBCsmall-TAC-E
Entries 320264
Mean 1051
RMS 467.3

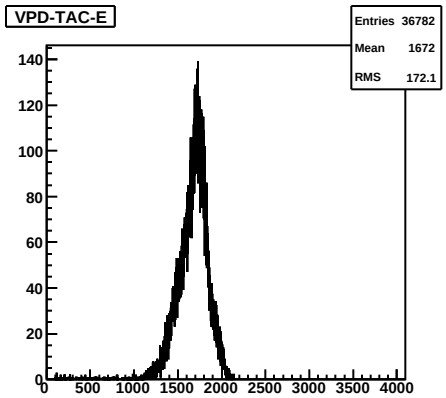

BBCsmall-TAC-W
Entries 320258
Mean 1143
RMS 483.8

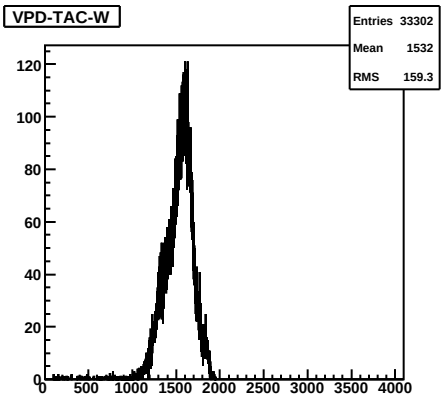

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 320251
Mean 4004
RMS 631.3

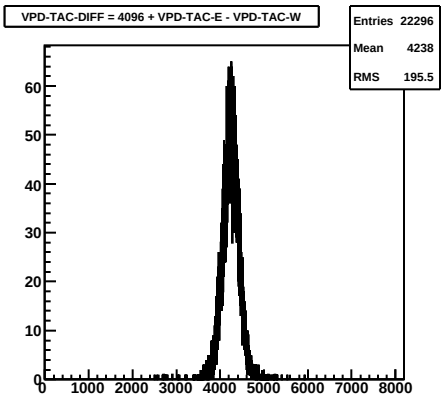

BBClarge-TAC-E
Entries 302256
Mean 745.7
RMS 498.6

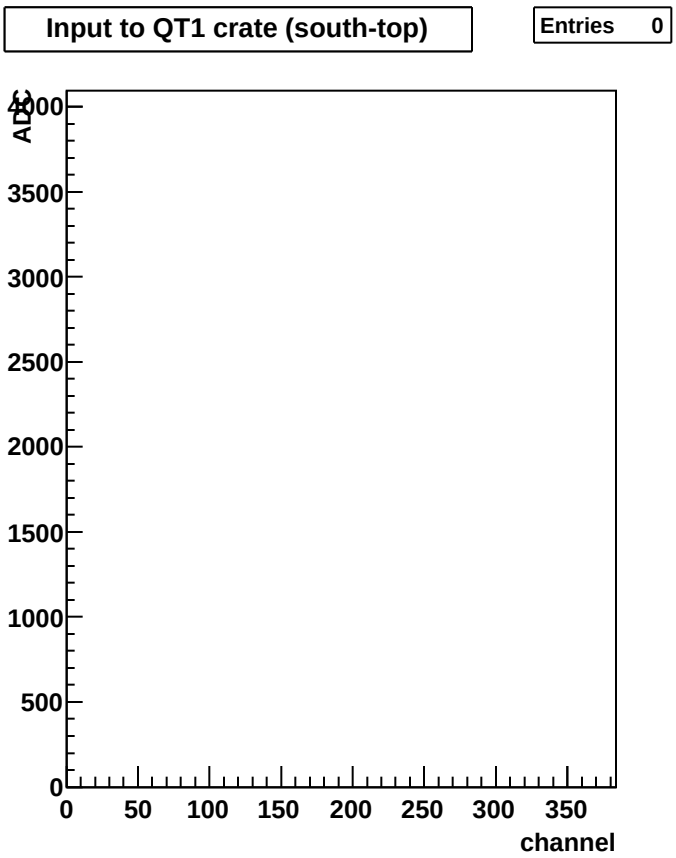

BBClarge-TAC-W
Entries 301612
Mean 847.9
RMS 540.5

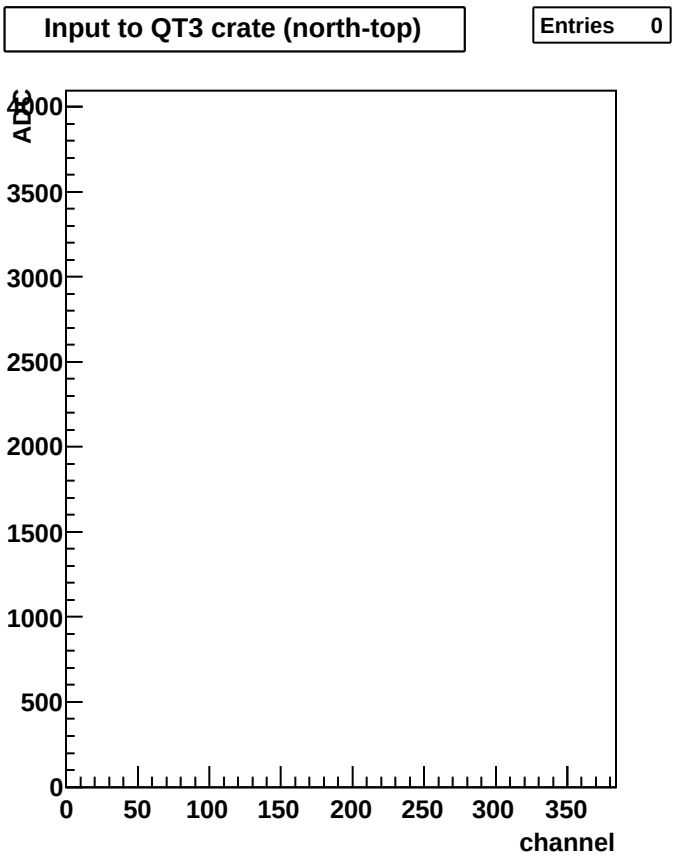

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 289992
Mean 3992
RMS 679.3

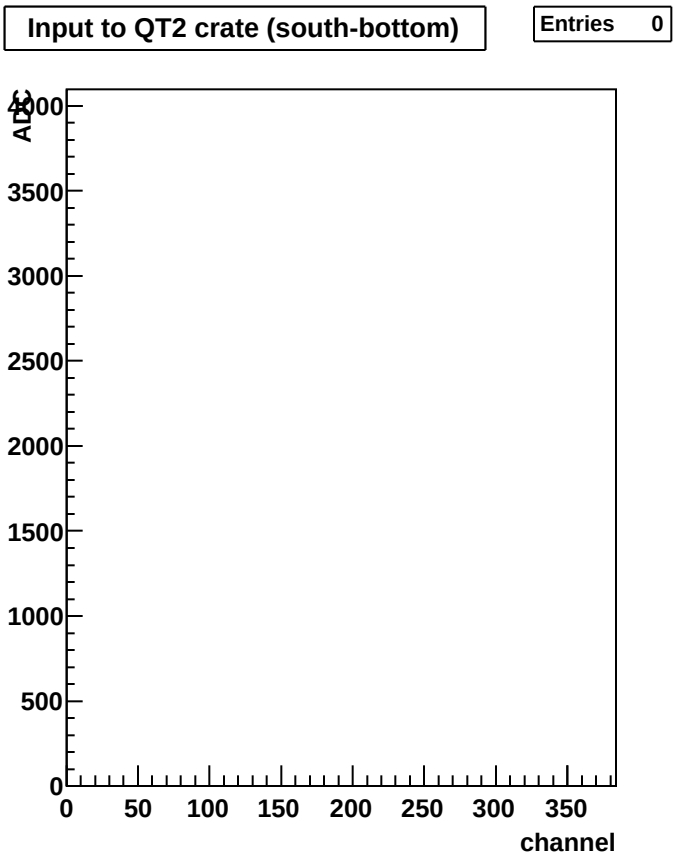

VPD-TAC-E
Entries 36782
Mean 1672
RMS 172.1

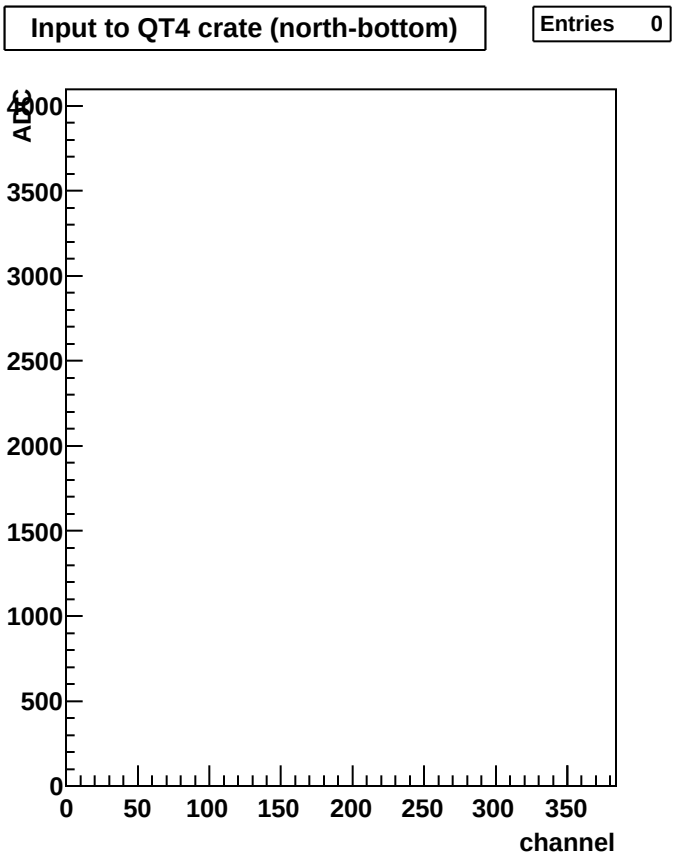

VPD-TAC-W
Entries 33302
Mean 1532
RMS 159.3

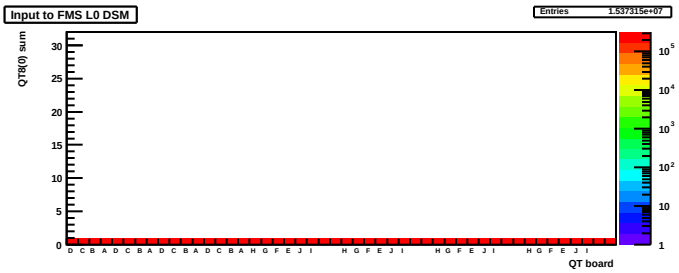

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 22296
Mean 4238
RMS 195.5

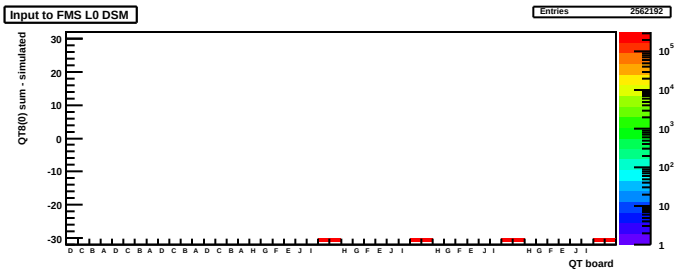

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

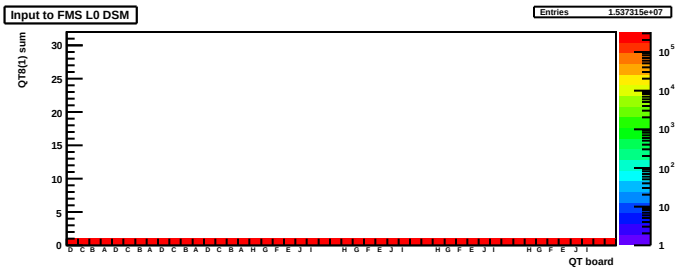

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

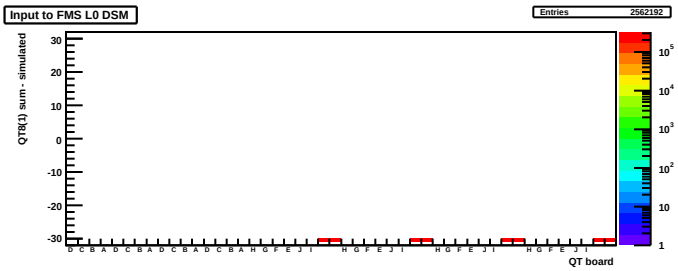

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

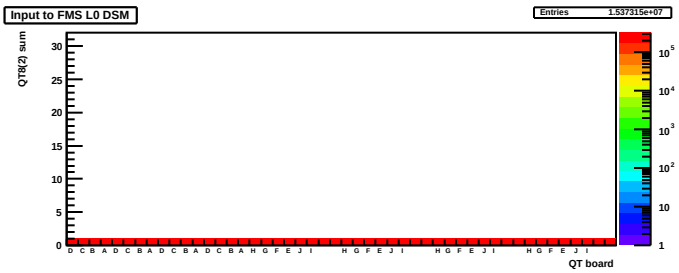

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

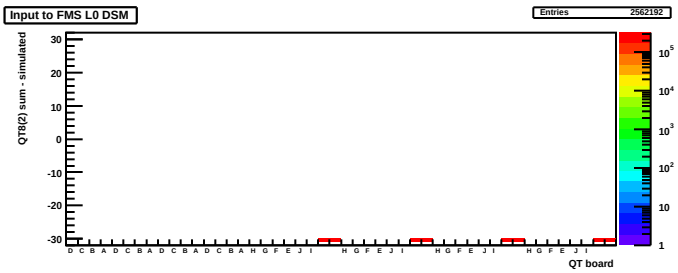

Input to FMS L0 DSM
Entries 1.537315e+07
QT8(0) sum
QT board

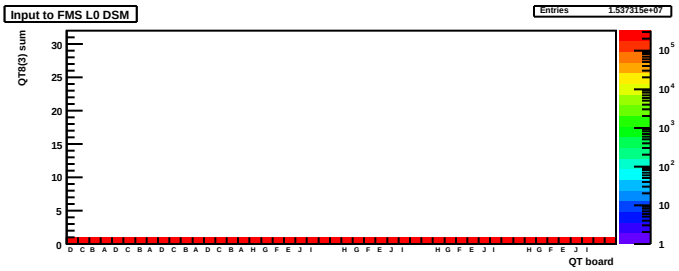

Input to FMS L0 DSM
Entries 2562192
QT8(0) sum - simulated
QT board

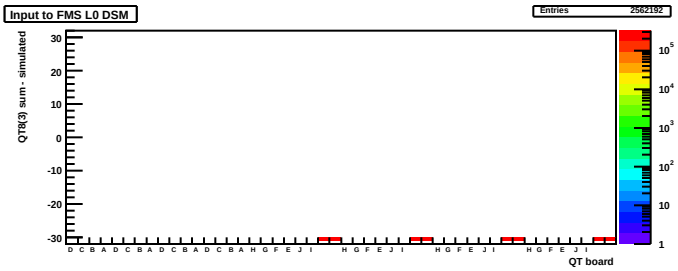

Input to FMS L0 DSM
Entries 1.537315e+07
QT8(1) sum
QT board

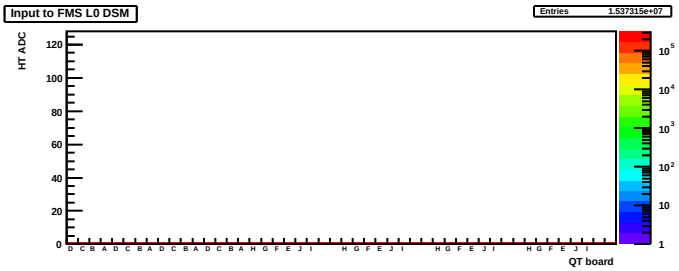

Input to FMS L0 DSM
Entries 2562192
QT8(1) sum - simulated
QT board

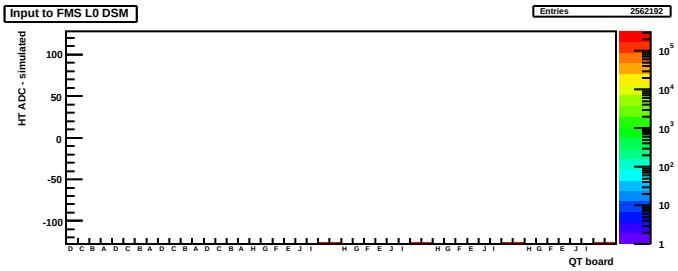

Input to FMS L0 DSM
Entries 1.537315e+07
QT8(2) sum
QT board

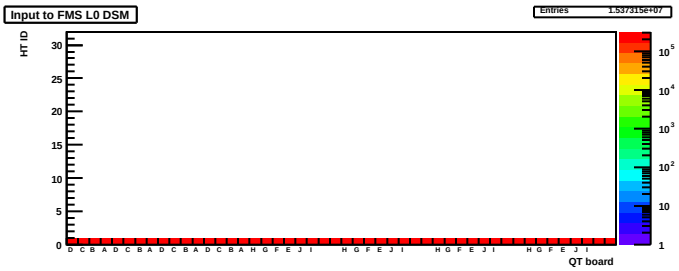

Input to FMS L0 DSM
Entries 2562192
QT8(2) sum - simulated
QT board

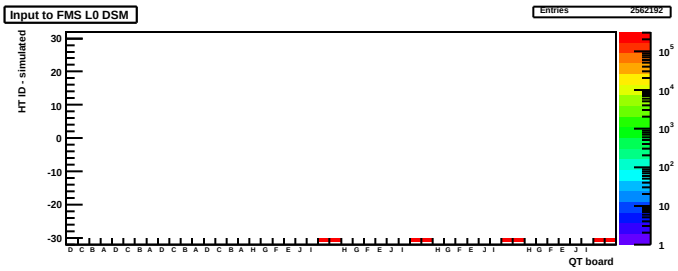

Input to FMS L0 DSM
Entries 1.537315e+07
QT8(3) sum
QT board

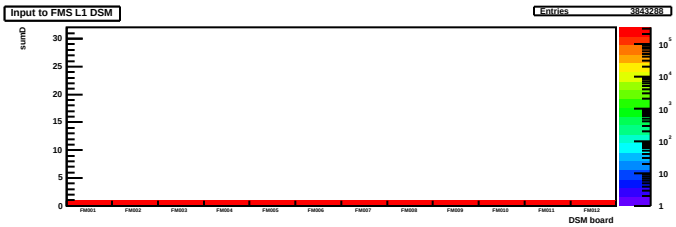

Input to FMS L0 DSM
Entries 2562192
QT8(3) sum - simulated
QT board

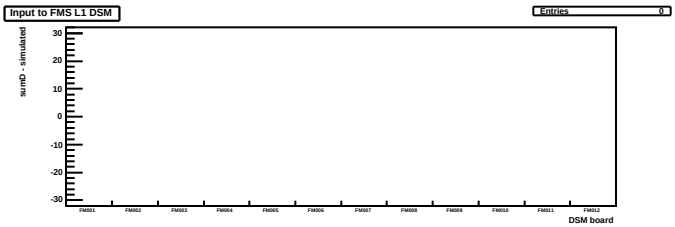

Input to FMS L0 DSM
Entries 1.537315e+07
HT ADC
QT board

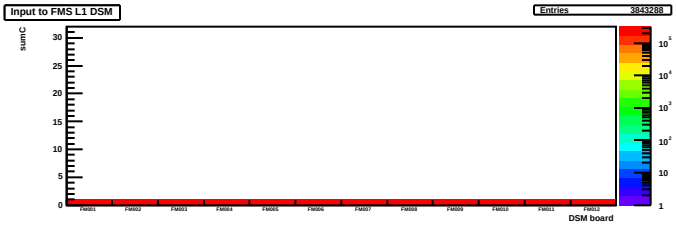

Input to FMS L0 DSM
Entries 2562192
HT ADC - simulated
QT board

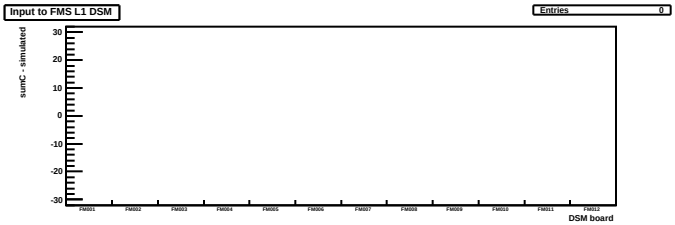

Input to FMS L0 DSM
Entries 1.537315e+07
HT ID
QT board

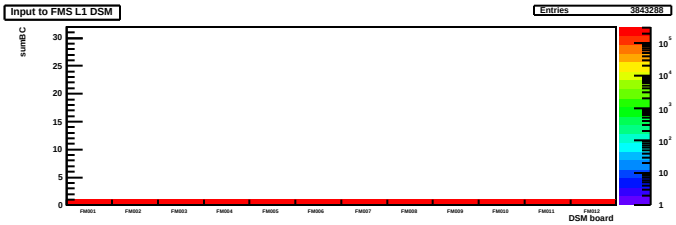

Input to FMS L0 DSM
Entries 2562192
HT ID - simulated
QT board

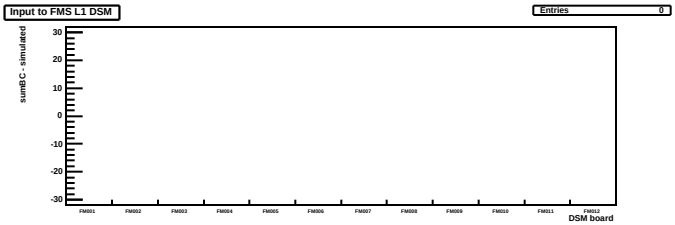

Input to FMS L1 DSM
Entries 3843288
sumD
DSM board

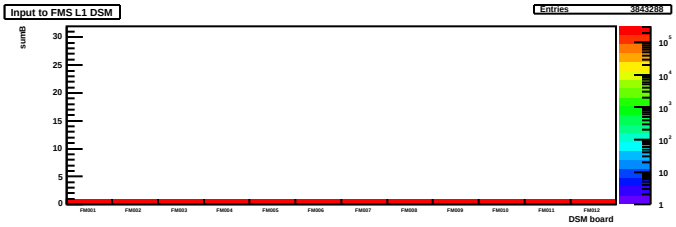

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

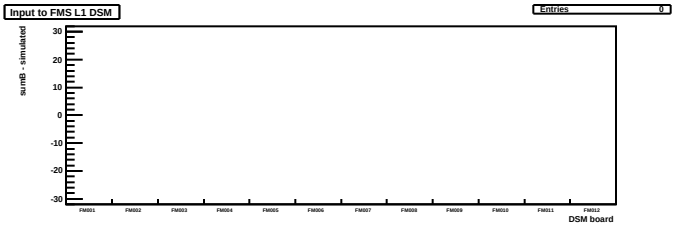

Input to FMS L1 DSM
Entries 3843288
sumC
DSM board

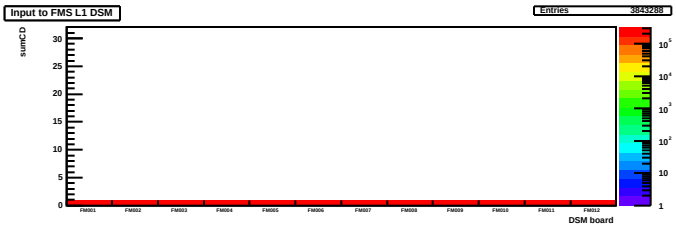

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

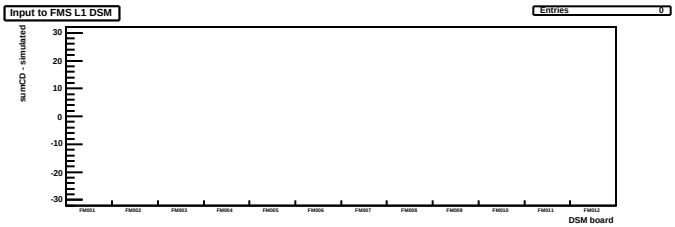

Input to FMS L1 DSM
Entries 3843288
sumBC
DSM board

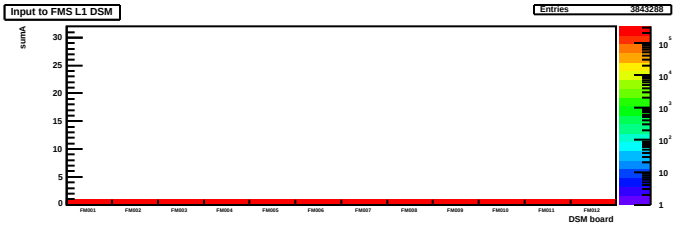

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

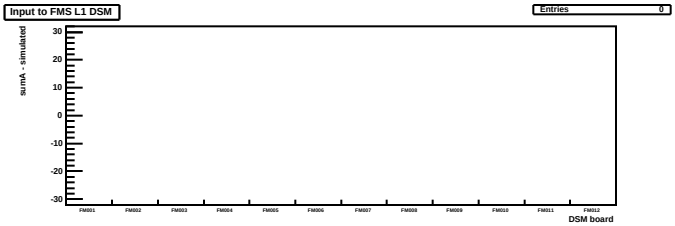

Input to FMS L1 DSM
Entries 3843288
sumB
DSM board

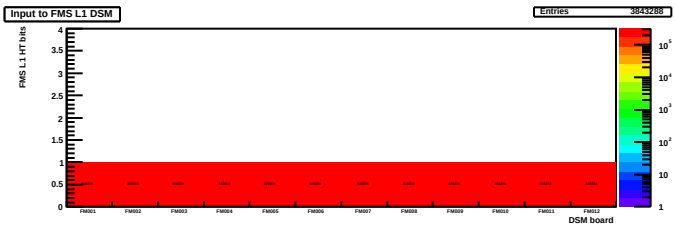

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

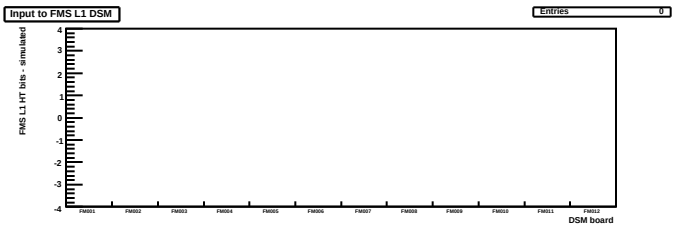

Input to FMS L1 DSM
Entries 3843288
sumCD
DSM board

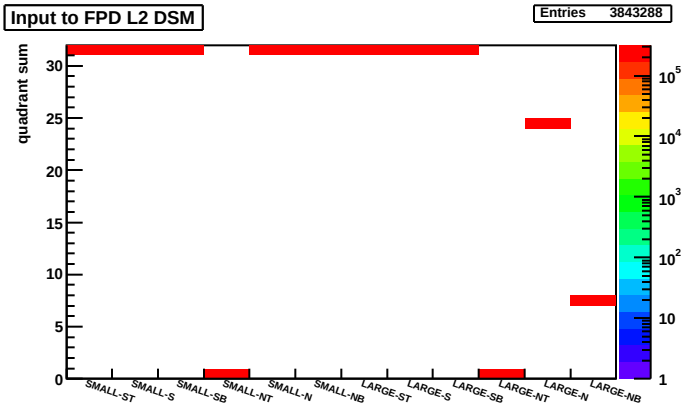

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

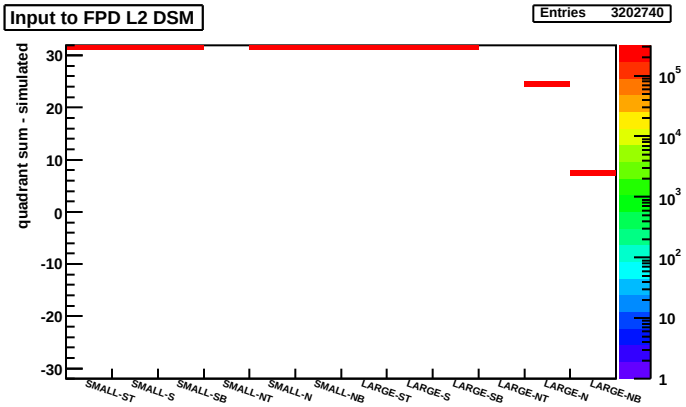

Input to FMS L1 DSM
Entries 3843288
sumA
DSM board

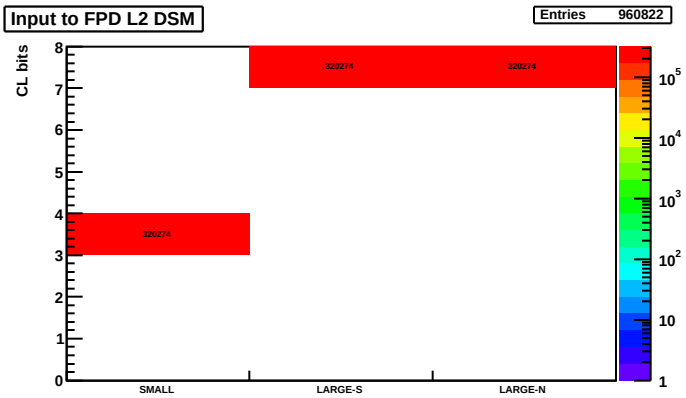

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

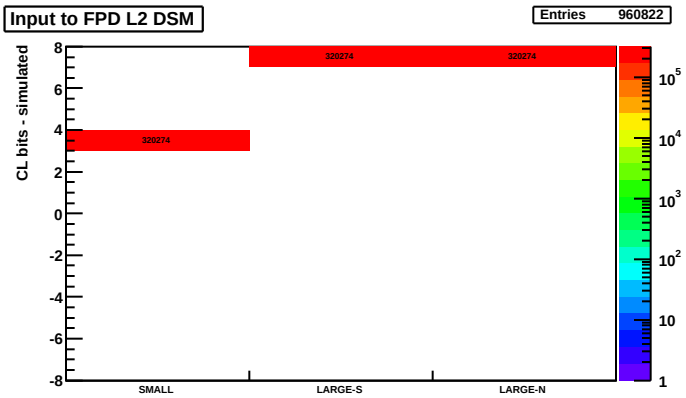

Input to FMS L1 DSM
Entries 3843288
FMS L1 HT bits
DSM board

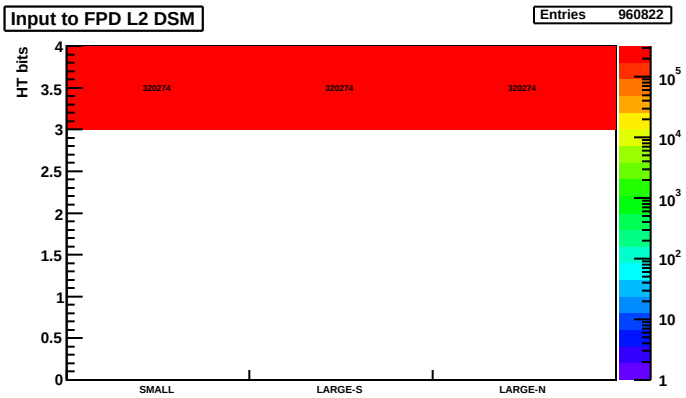

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

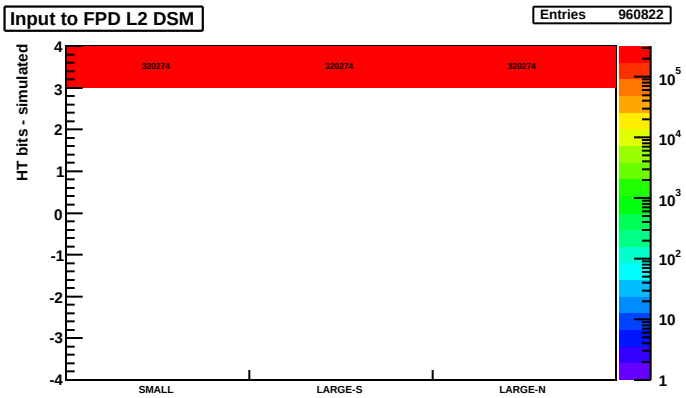

Input to FPD L2 DSM
Entries 3843288
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

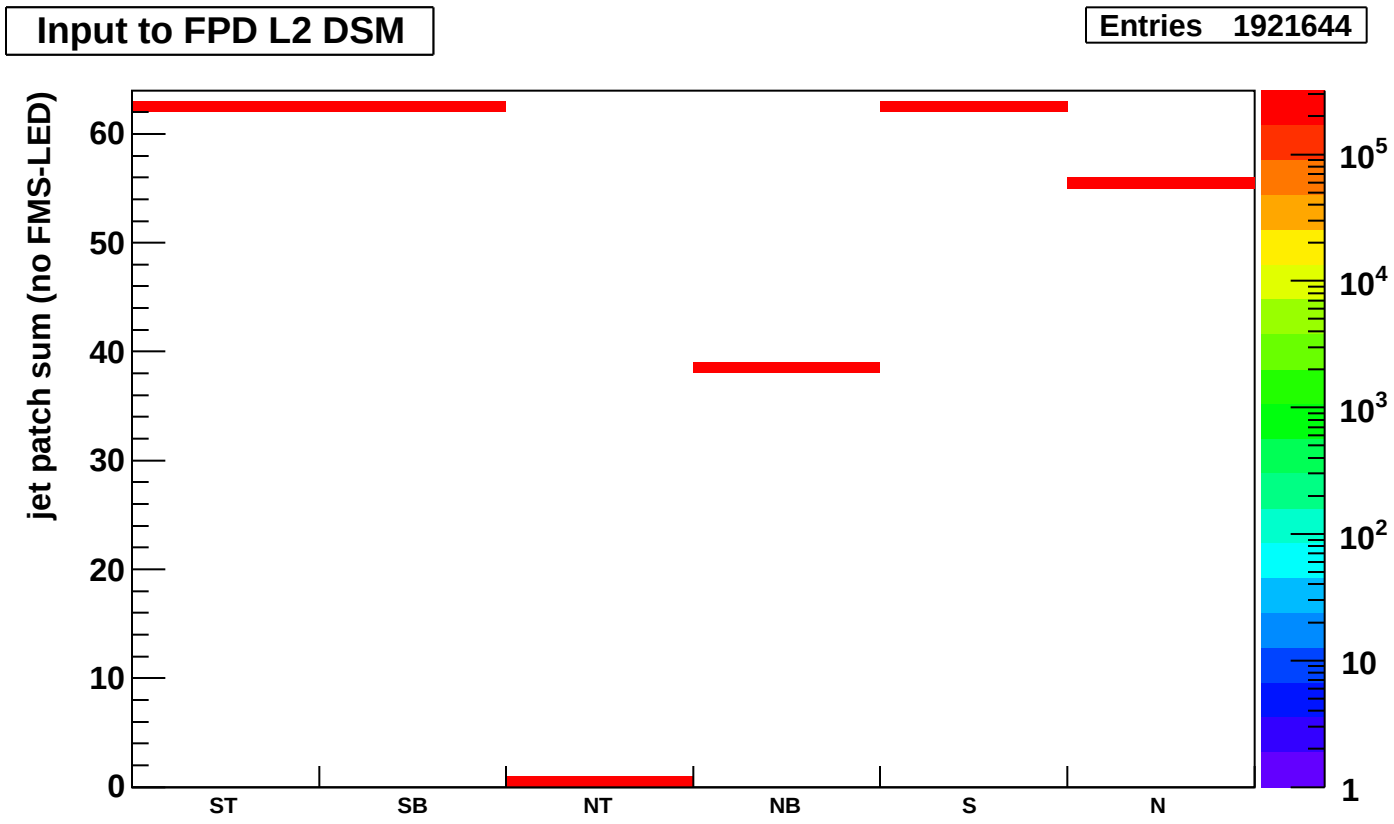

Input to FPD L2 DSM
Entries 3202740
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

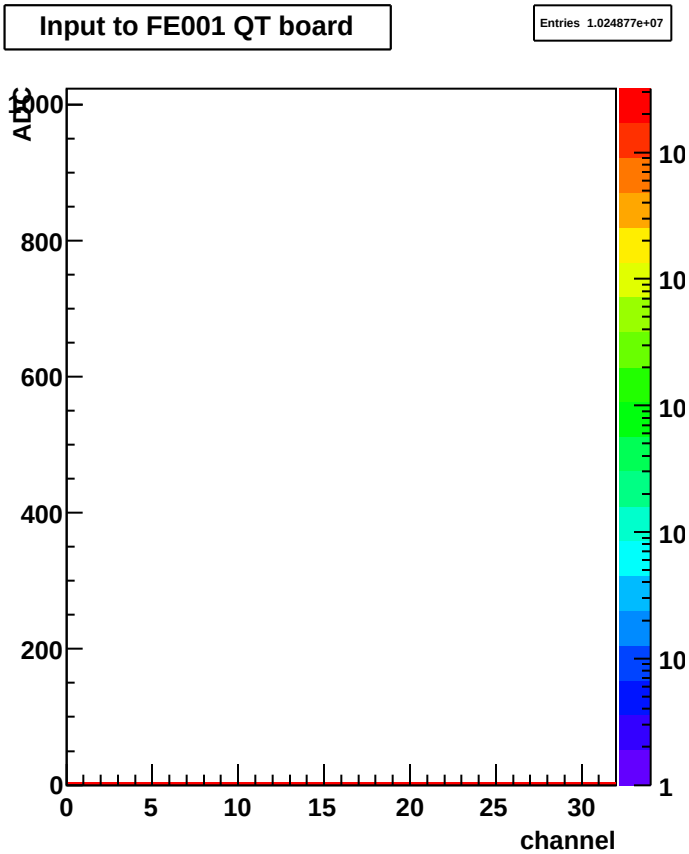

Input to FPD L2 DSM
Entries 960822
CL bits
320274
320274
320274
SMALL
LARGE-S
LARGE-N

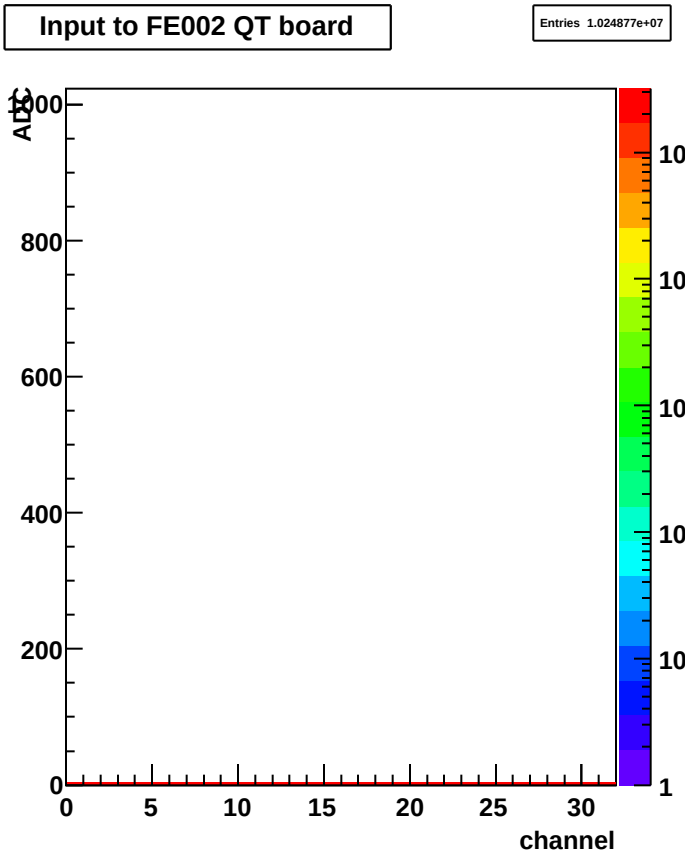

Input to FPD L2 DSM
Entries 960822
CL bits - simulated
320274
320274
320274
SMALL
LARGE-S
LARGE-N

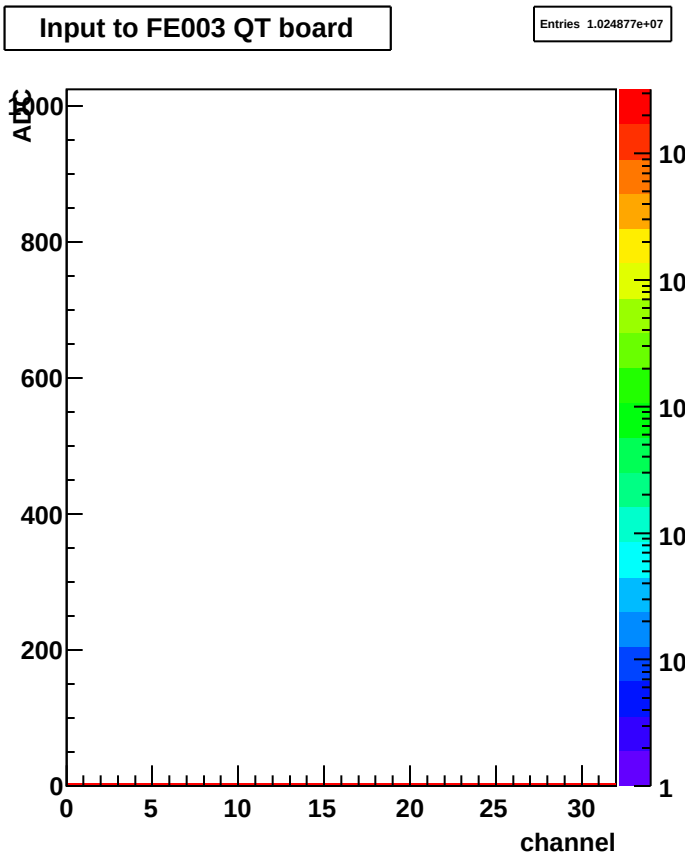

Input to FPD L2 DSM
Entries 960822
HT bits
320274
320274
320274
SMALL
LARGE-S
LARGE-N

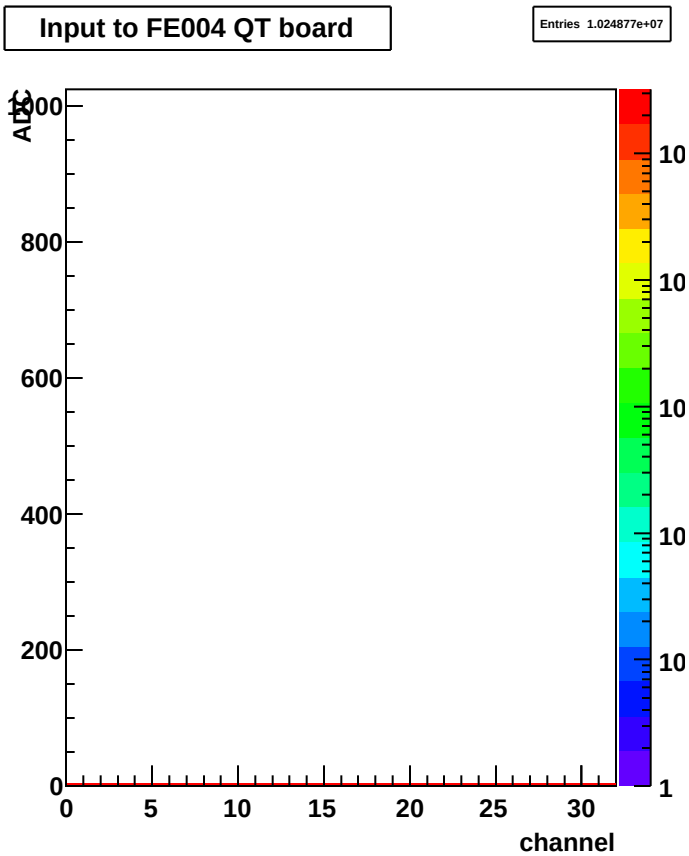

Input to FPD L2 DSM
Entries 960822
HT bits - simulated
320274
320274
320274
SMALL
LARGE-S
LARGE-N

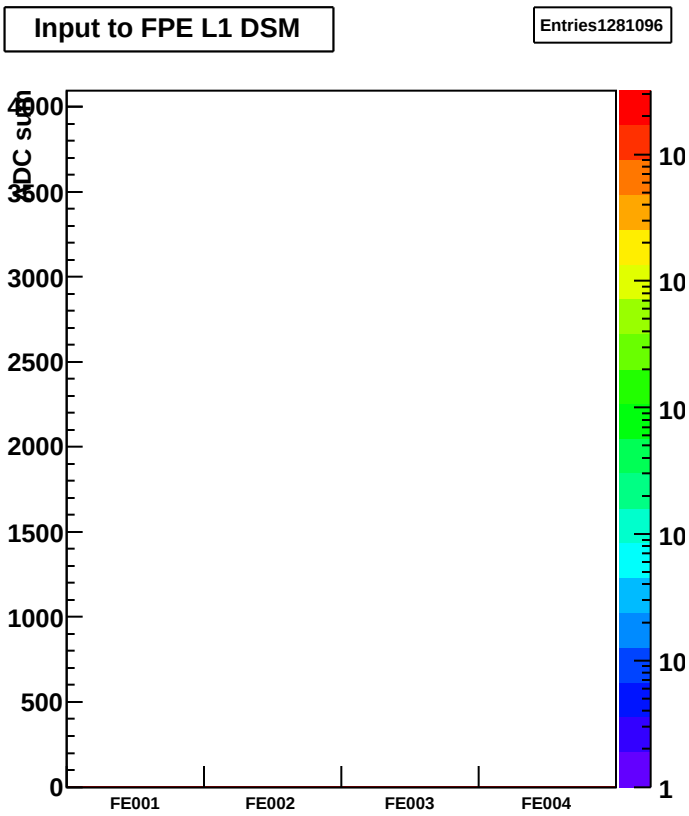

Input to FPD L2 DSM
Entries 1921644
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

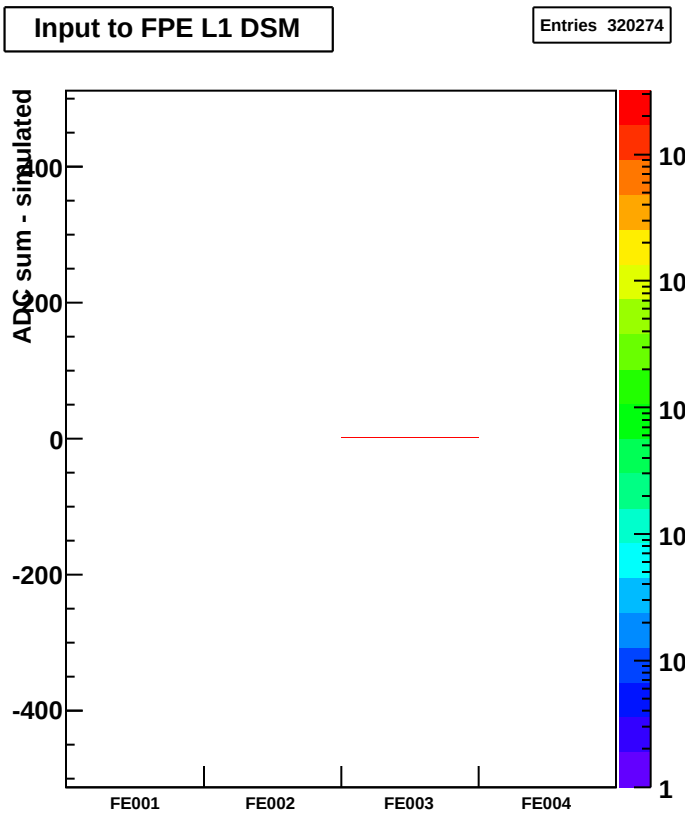

Input to FE001 QT board
Entries 1.024877e+07
ADC
channel

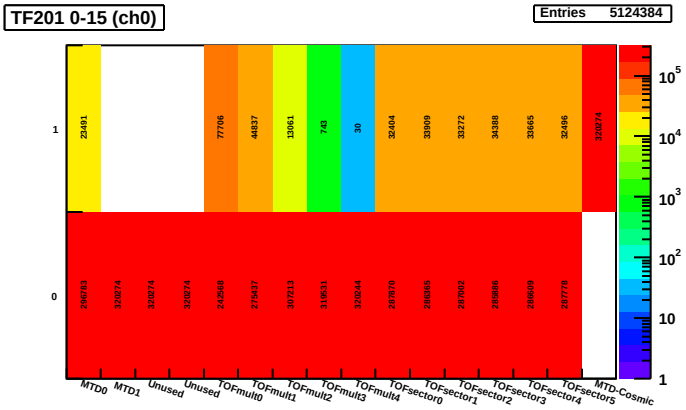

Input to FE002 QT board
Entries 1.024877e+07
ADC
channel

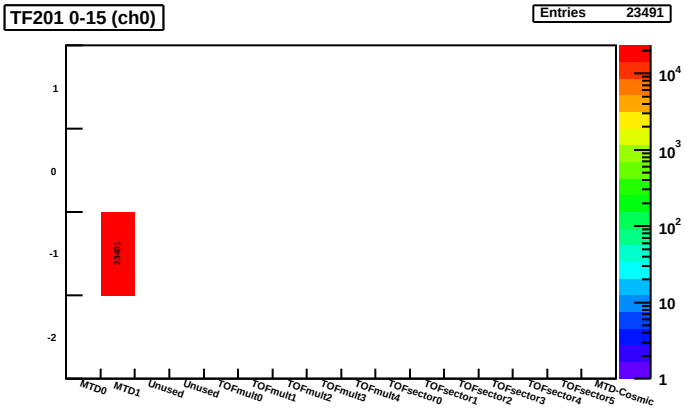

Input to FE003 QT board
Entries 1.024877e+07
ADC
channel

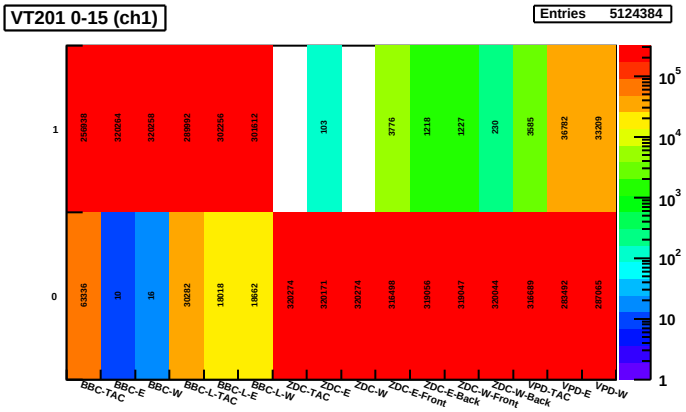

Input to FE004 QT board
Entries 1.024877e+07
ADC
channel

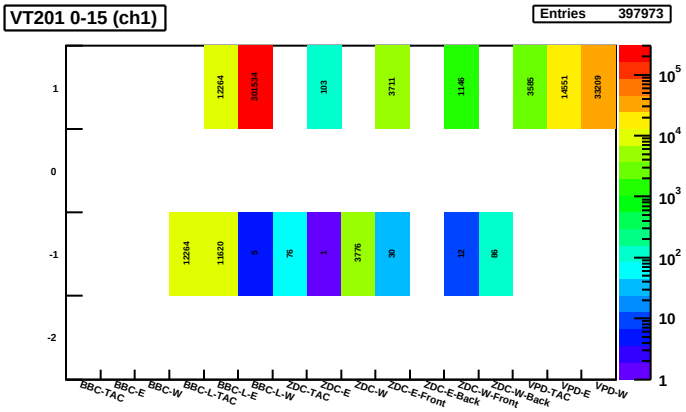

Input to FPE L1 DSM
Entries1281096
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

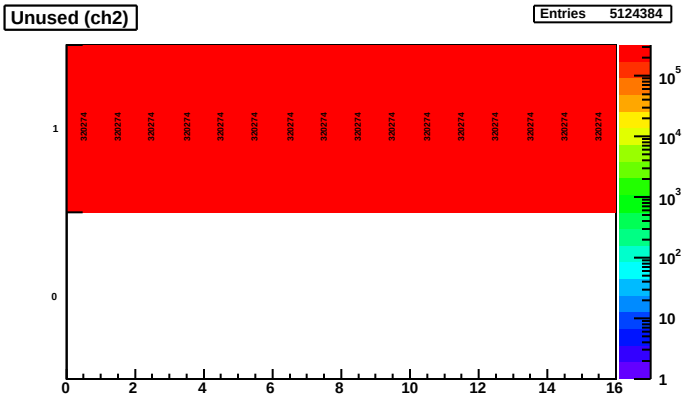

Input to FPE L1 DSM
Entries 320274
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

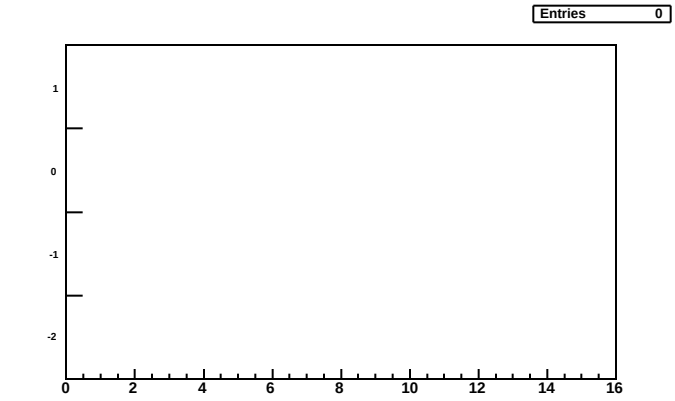

TF201 0-15 (ch0)
Entries 5124384
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

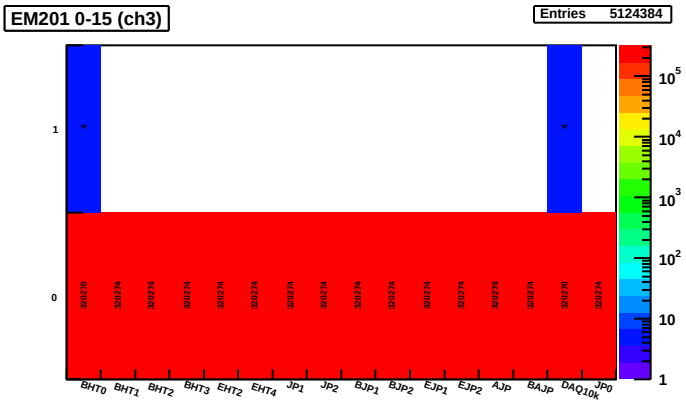

TF201 0-15 (ch0)
Entries 23491
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

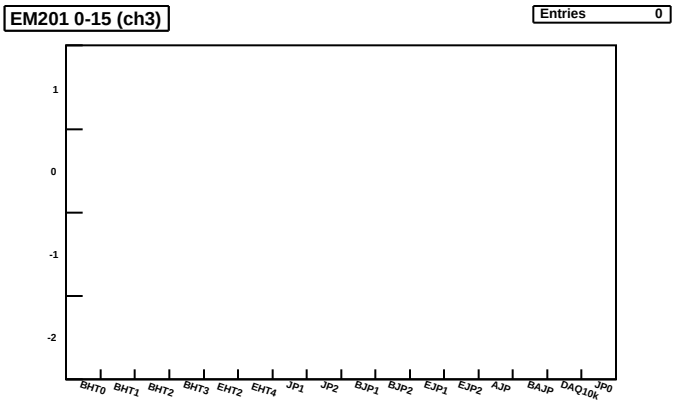

VT201 0-15 (ch1)
Entries 5124384
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 397973
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

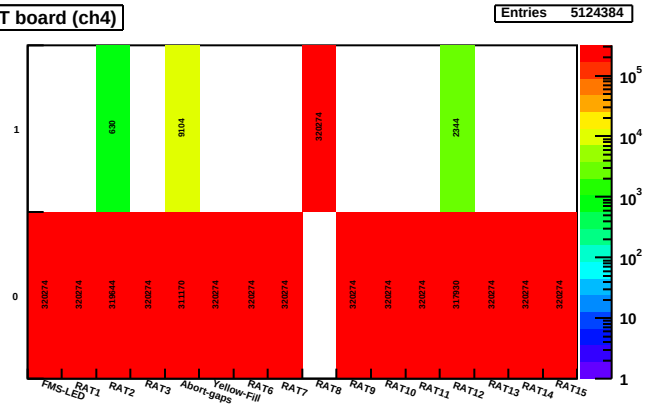

Unused (ch2)
Entries 5124384

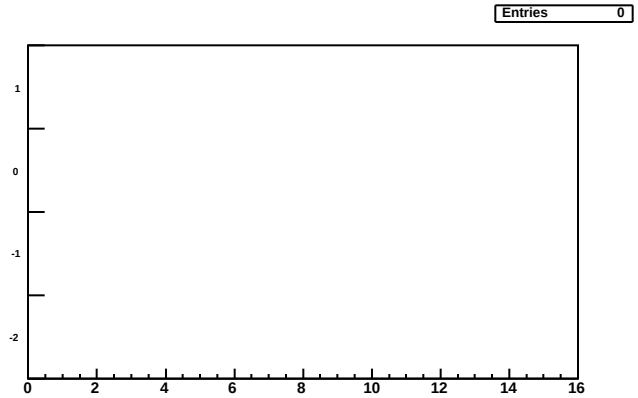

Entries 0


EM201 0-15 (ch3)
Entries 5124384
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

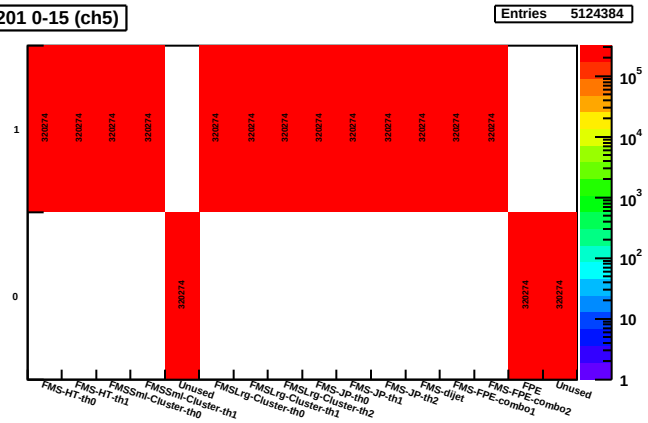

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

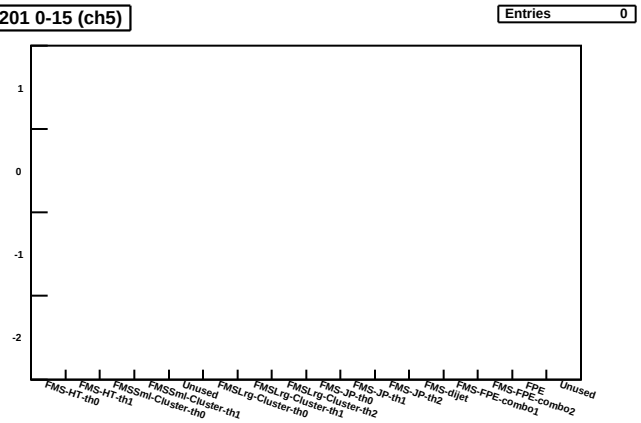




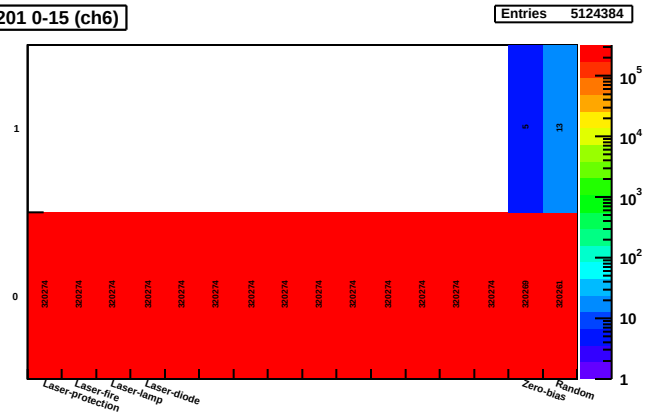
FP201 0-15 (ch5)

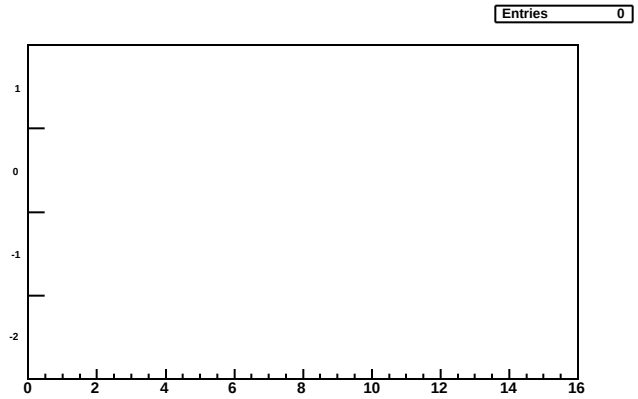
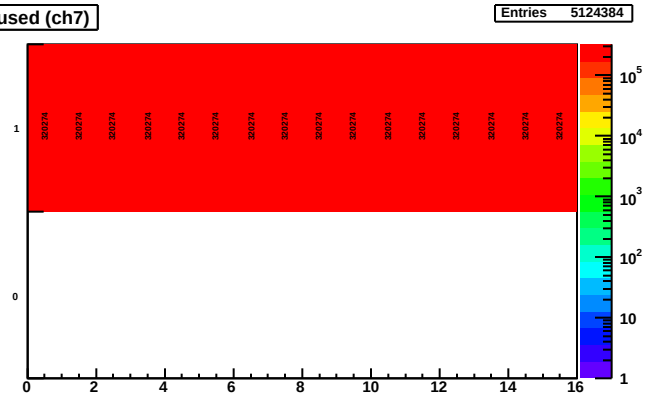
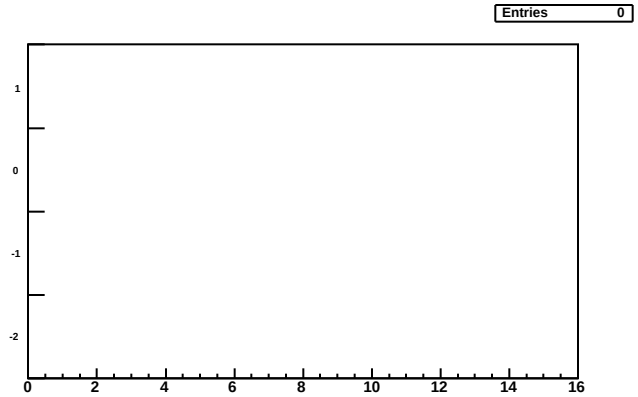


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)