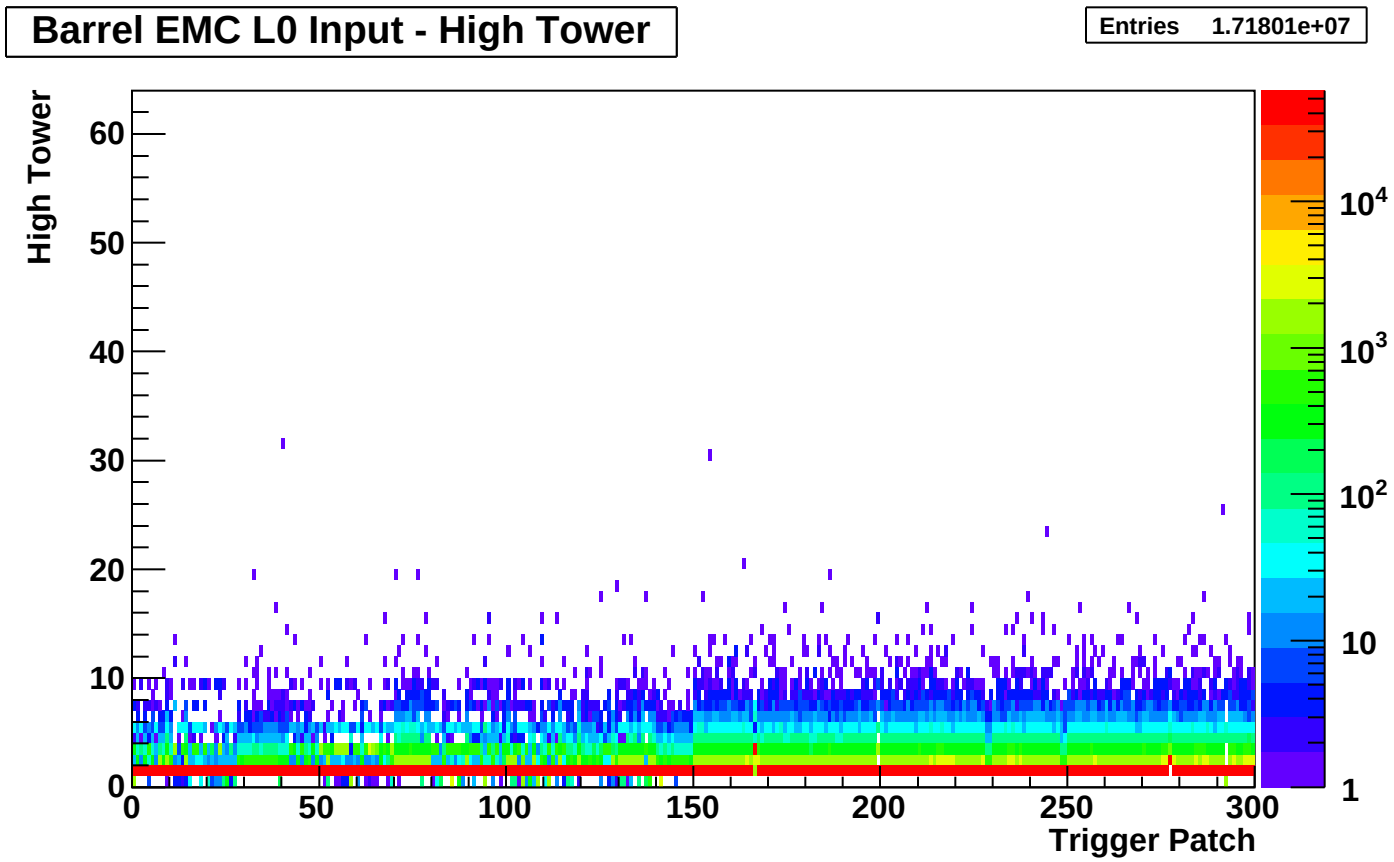
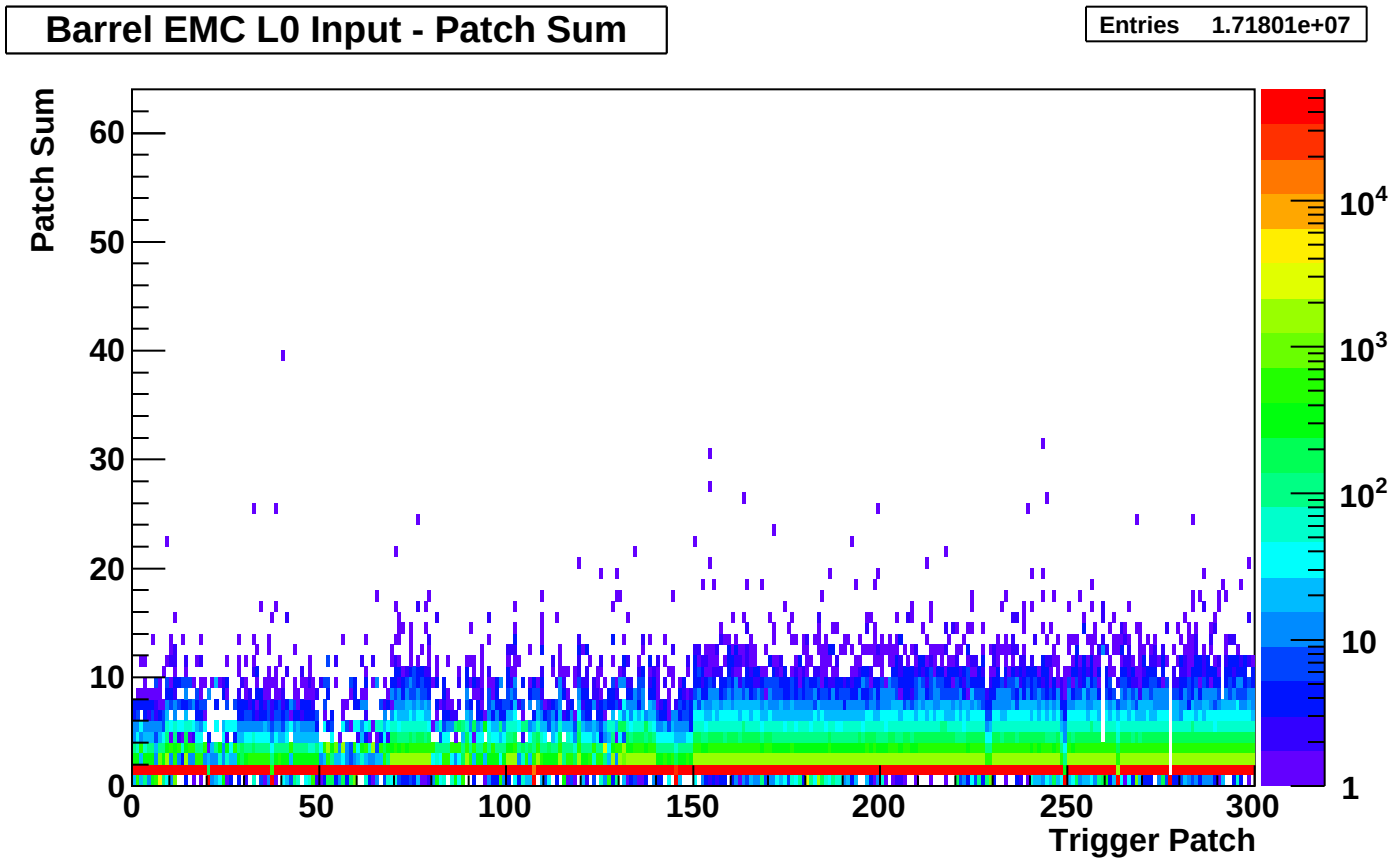
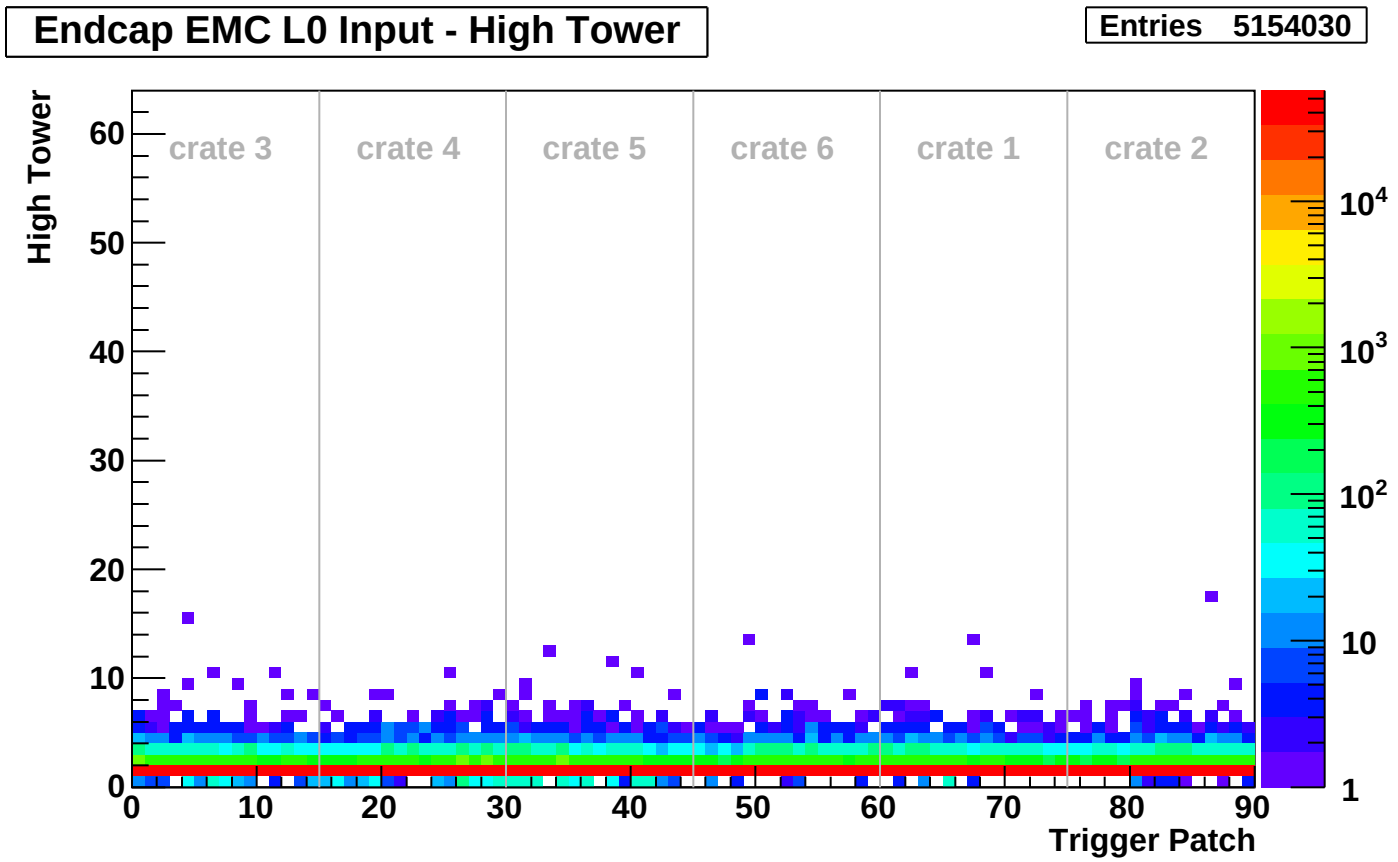
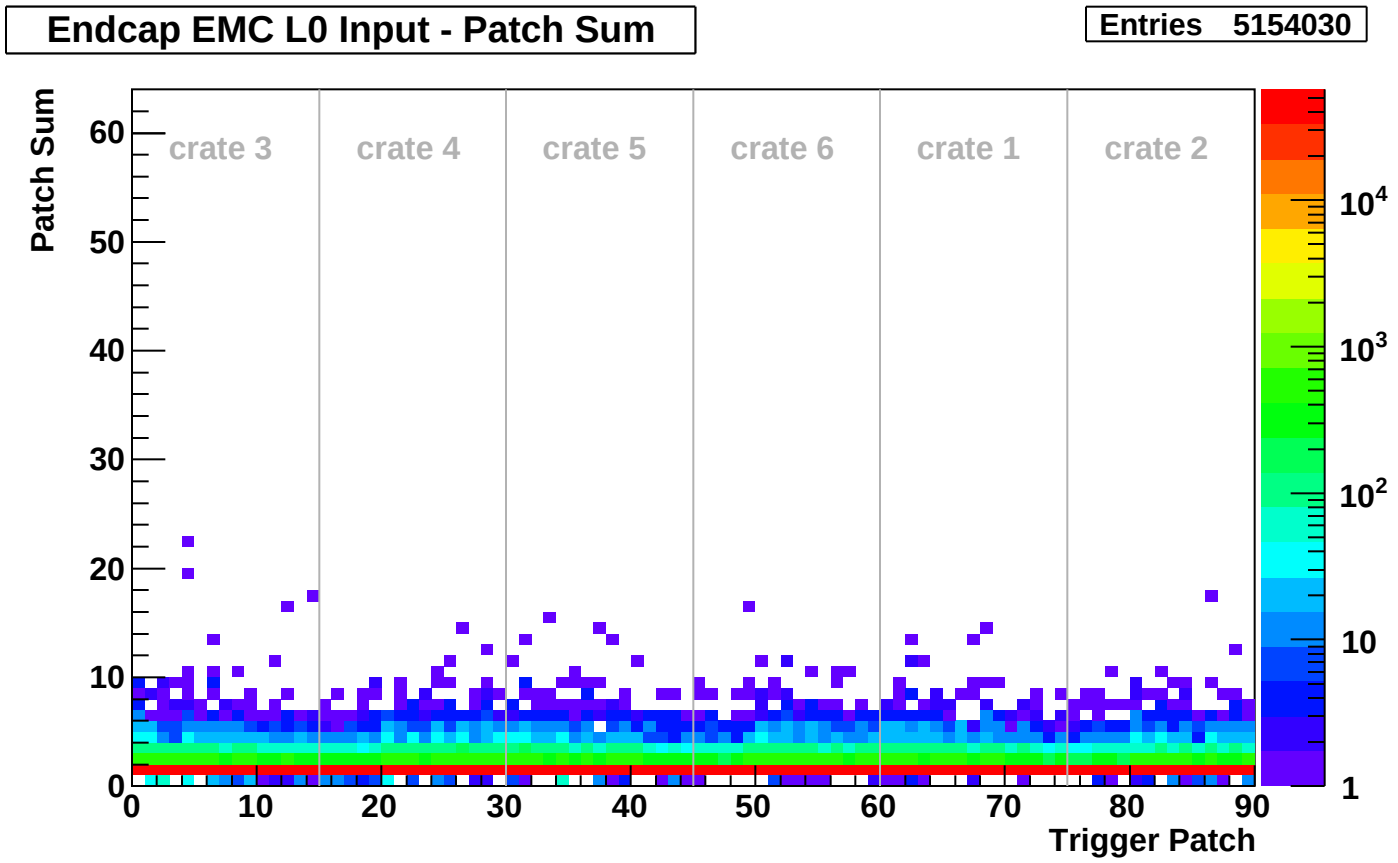
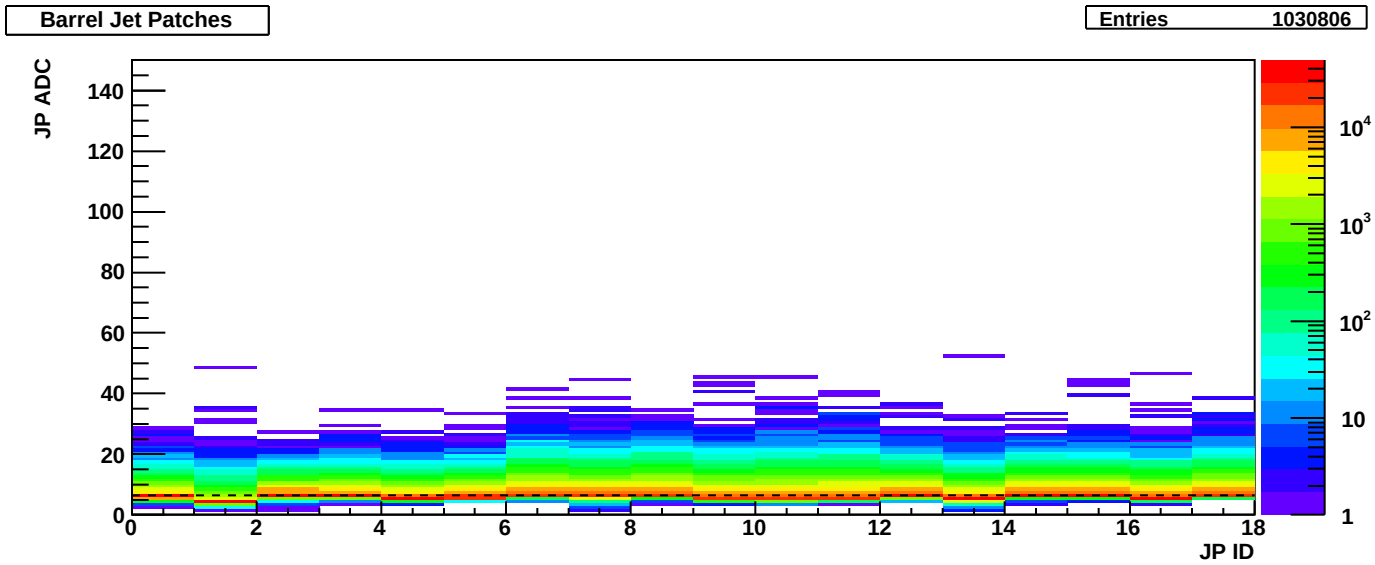
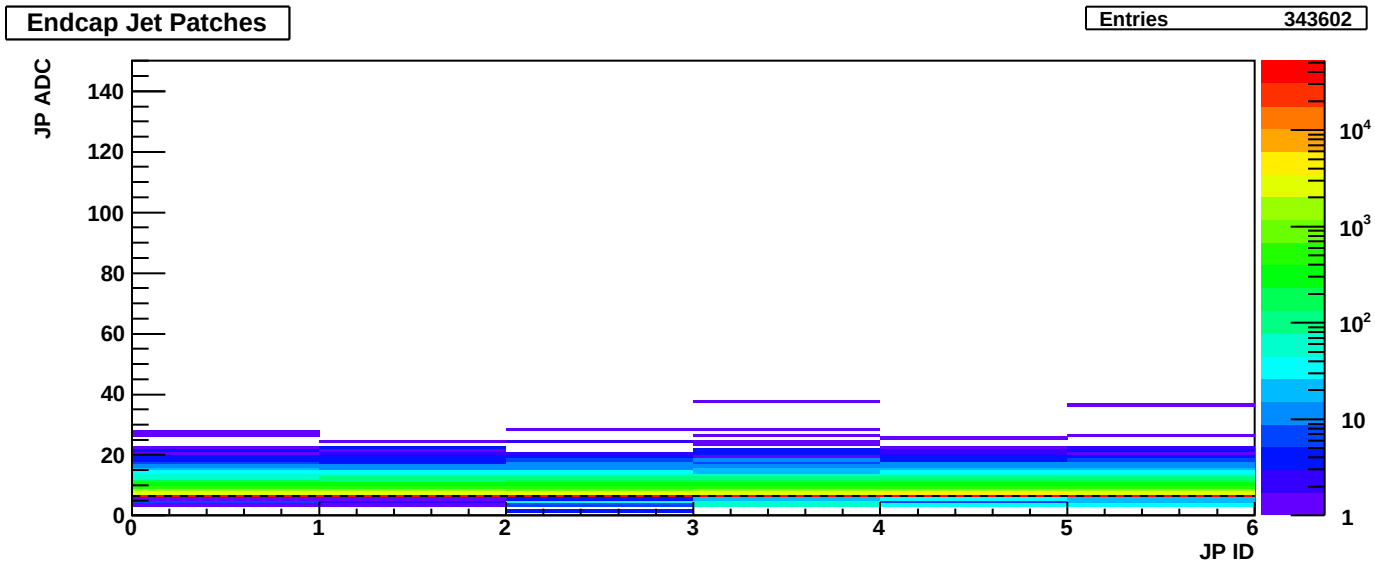

Barrel EMC L0 Input - High Tower
Entries 1.71801e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

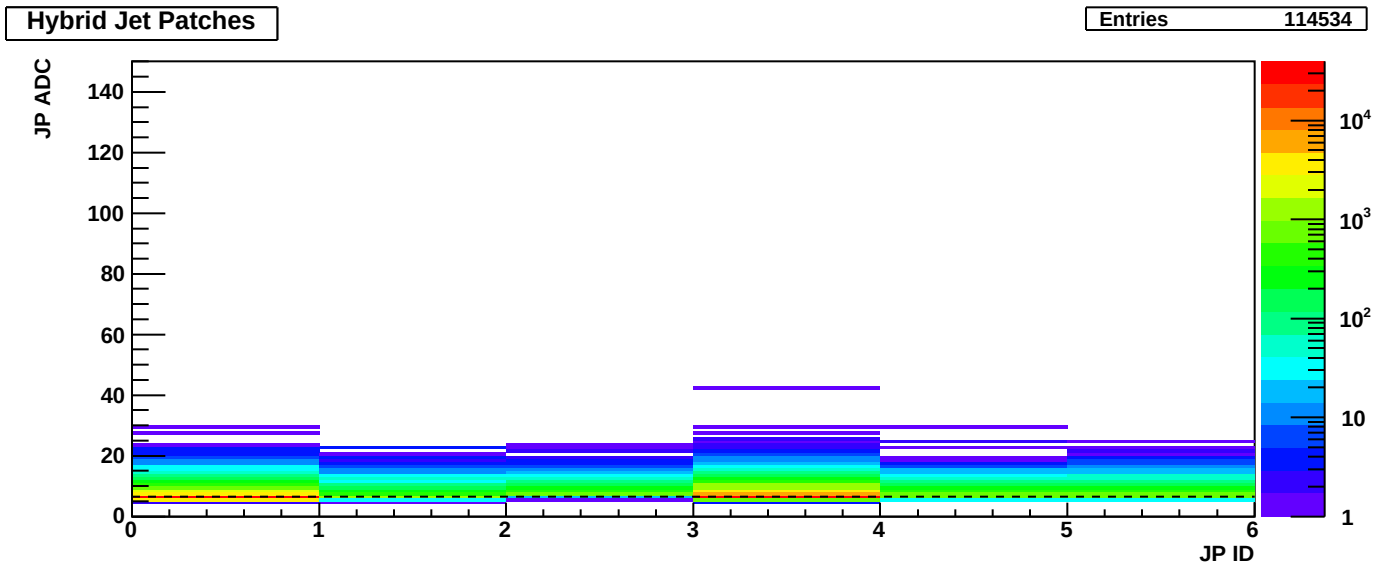

Barrel EMC L0 Input - Patch Sum
Entries 1.71801e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

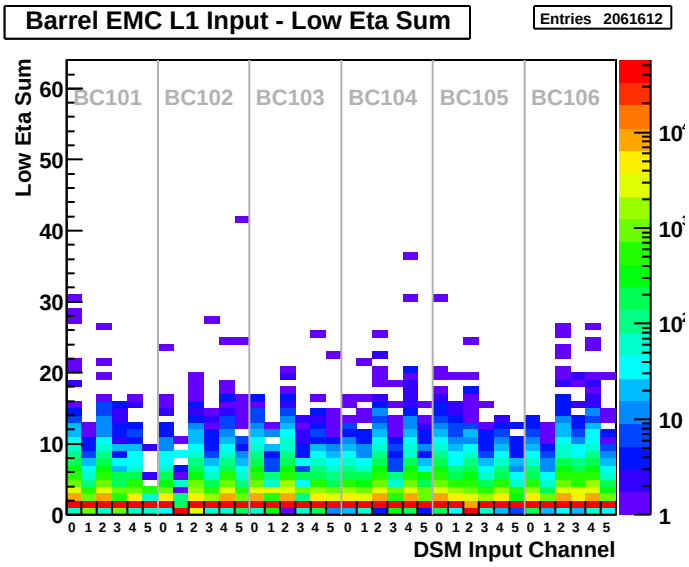

Endcap EMC L0 Input - High Tower
Entries 5154030
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

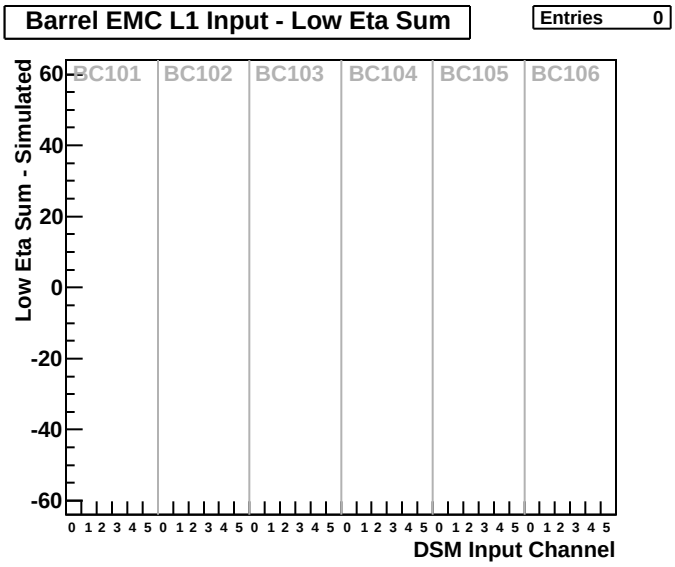

Endcap EMC L0 Input - Patch Sum
Entries 5154030
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

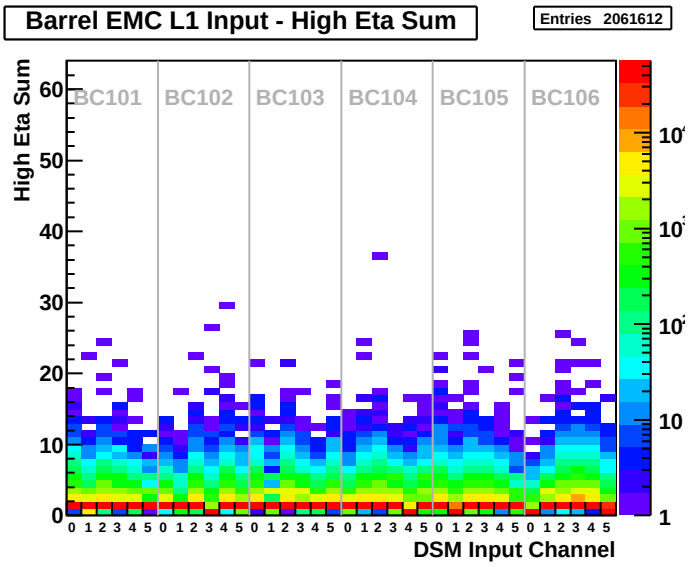

Barrel Jet Patches
Entries 1030806
JP ADC
JP ID

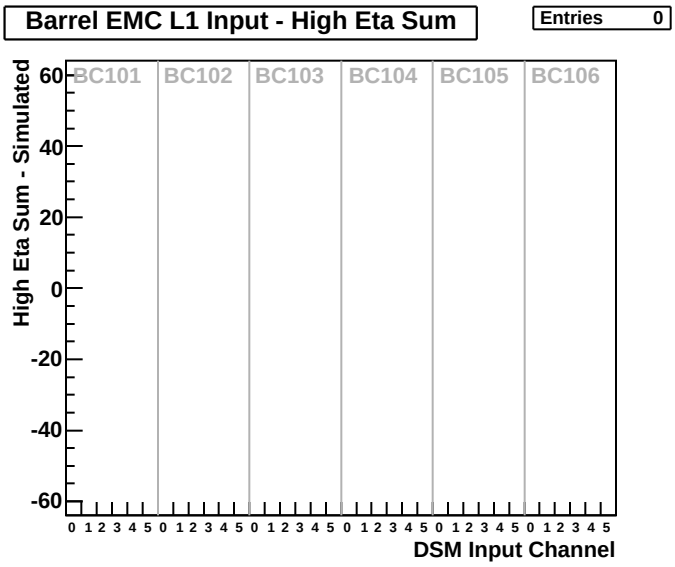

Endcap Jet Patches
Entries 343602
JP ADC
JP ID

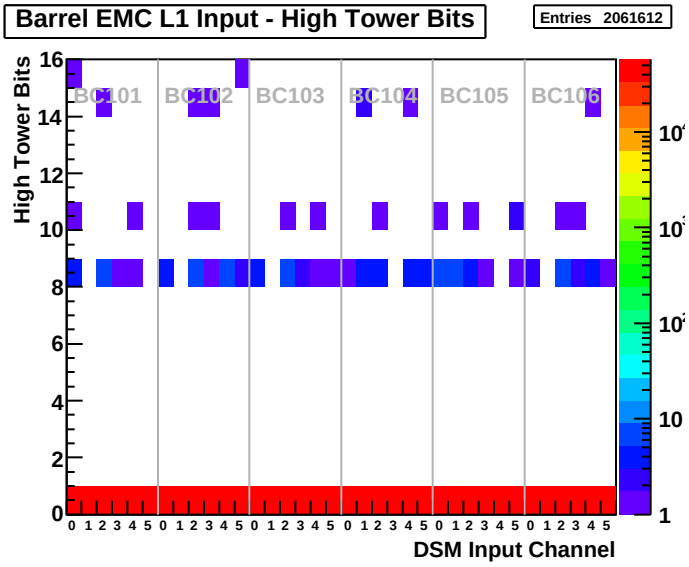

Hybrid Jet Patches
Entries 114534
JP ADC
JP ID

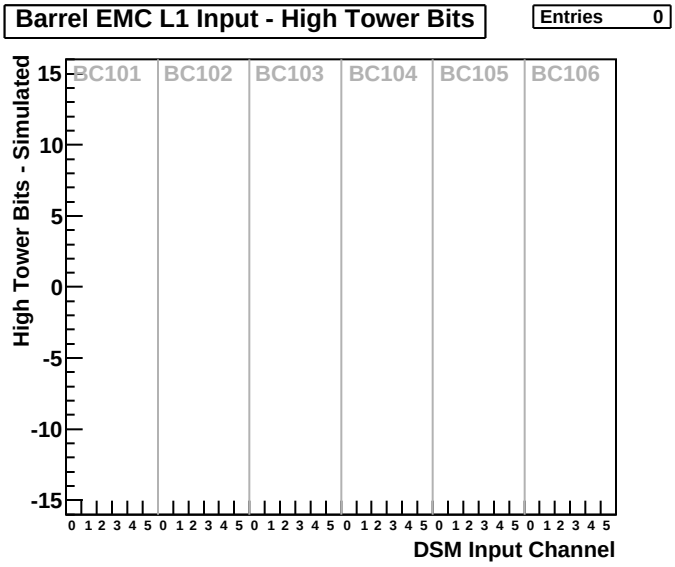

Barrel EMC L1 Input - Low Eta Sum
Entries 2061612
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

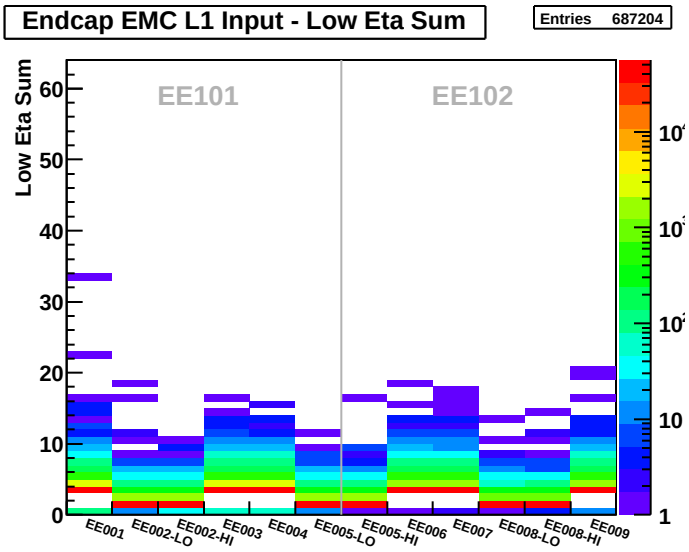

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

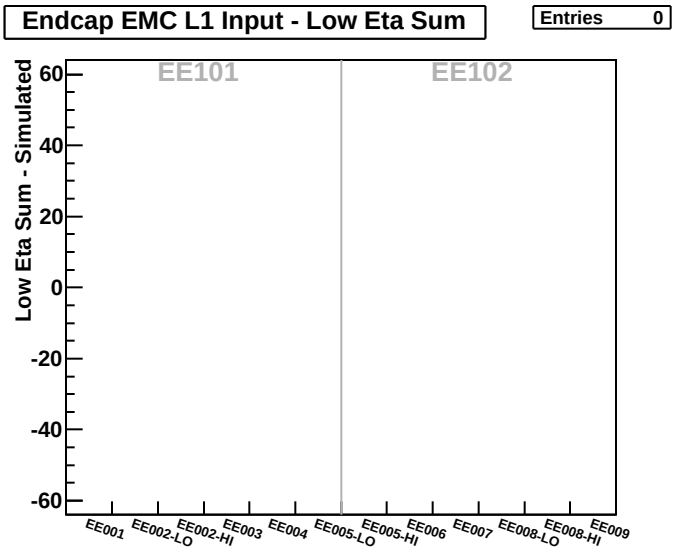

Barrel EMC L1 Input - High Eta Sum
Entries 2061612
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

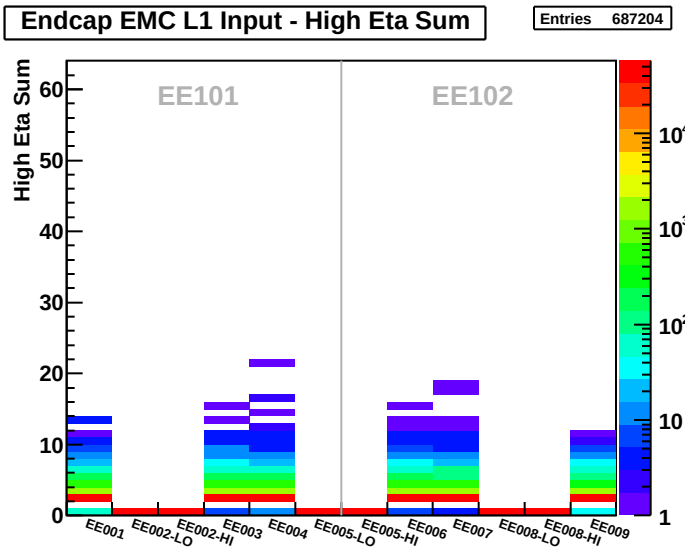

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

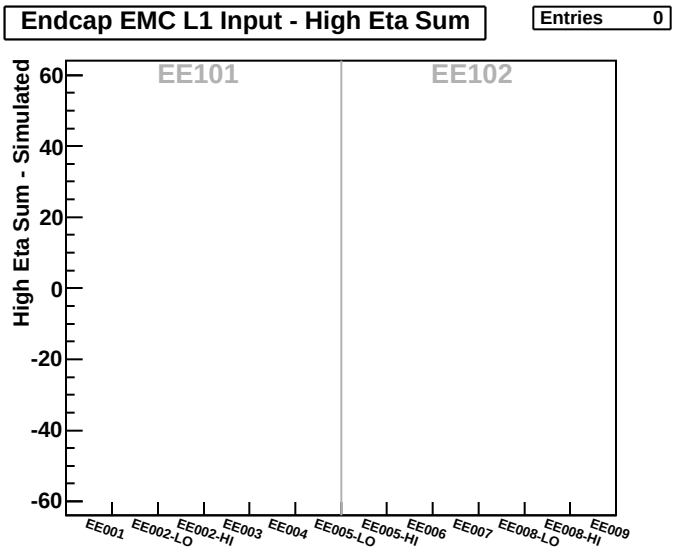

Barrel EMC L1 Input - High Tower Bits
Entries 2061612
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

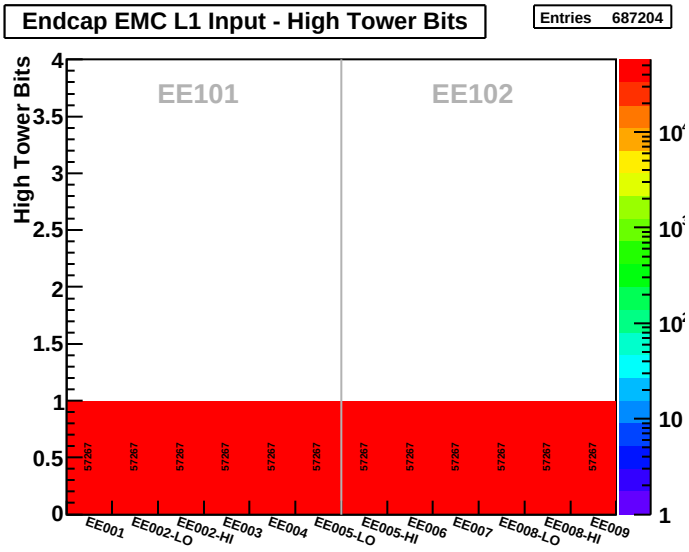

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

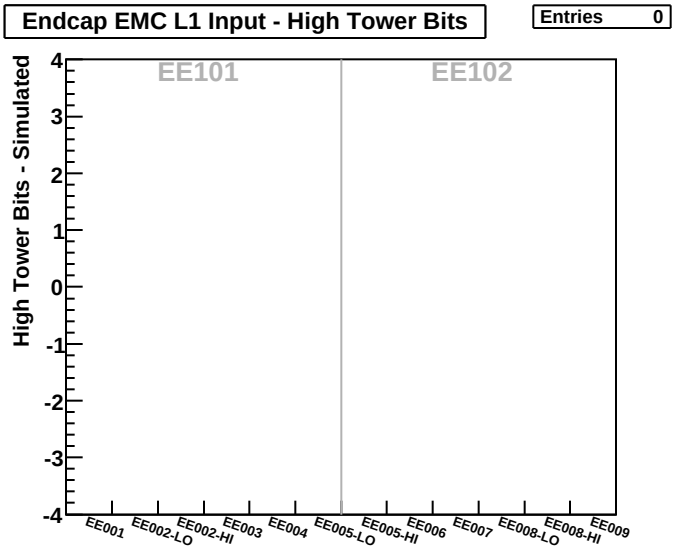

Endcap EMC L1 Input - Low Eta Sum
Entries 687204
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

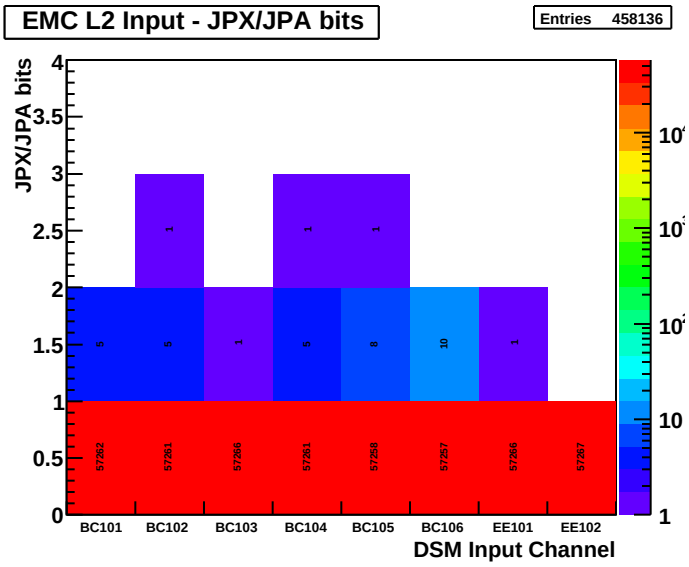

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

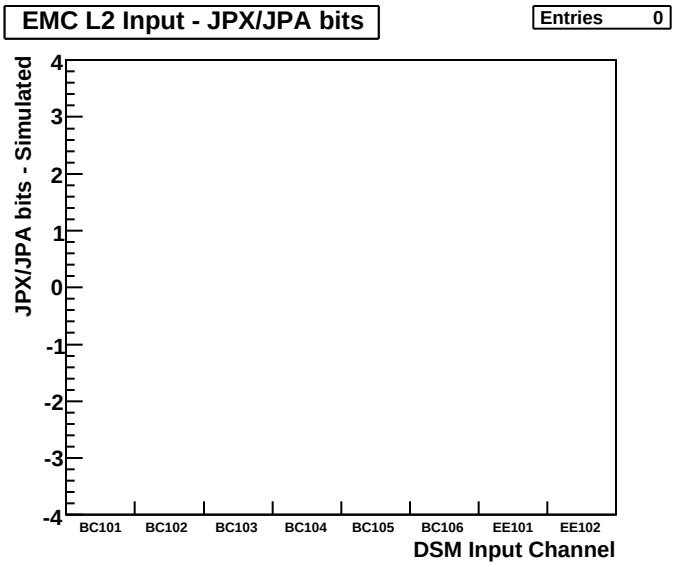

Endcap EMC L1 Input - High Eta Sum
Entries 687204
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

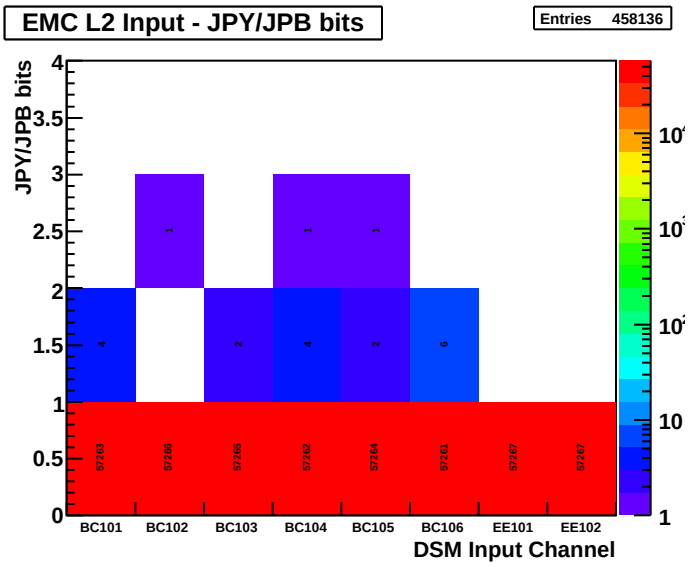

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

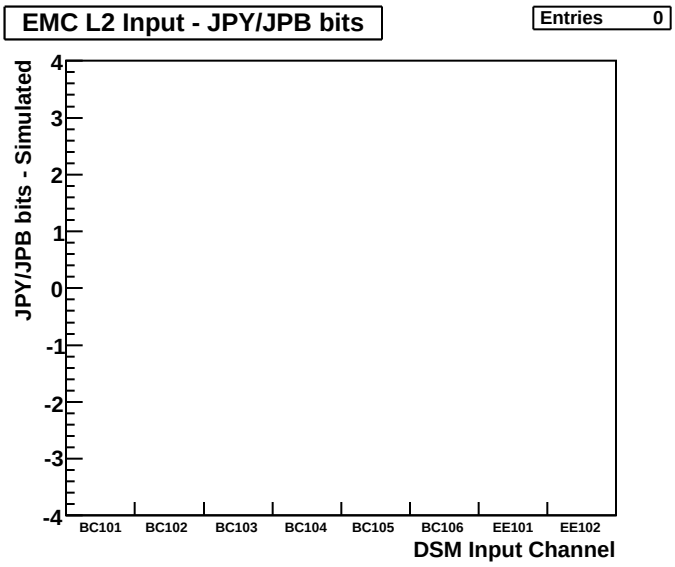

Endcap EMC L1 Input - High Tower Bits
Entries 687204
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

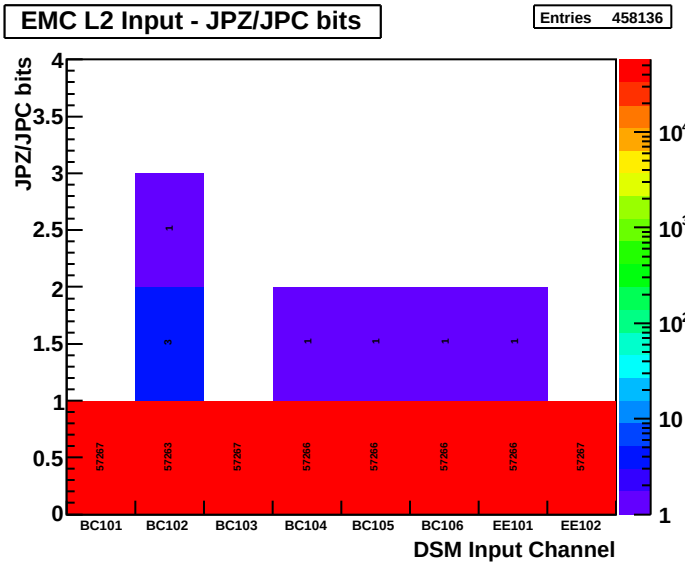

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

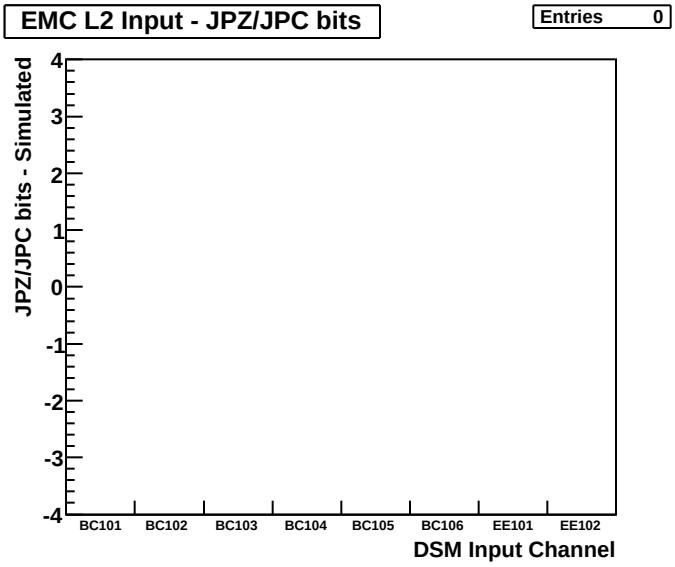

EMC L2 Input - JPX/JPA bits
Entries 458136
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

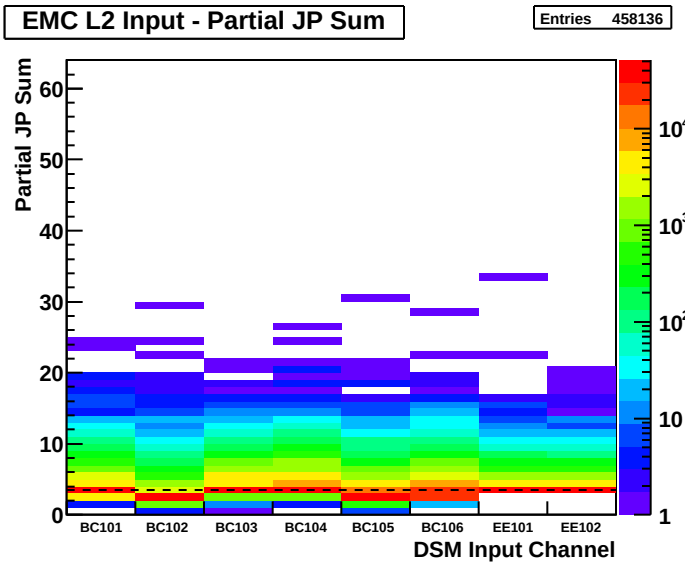

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

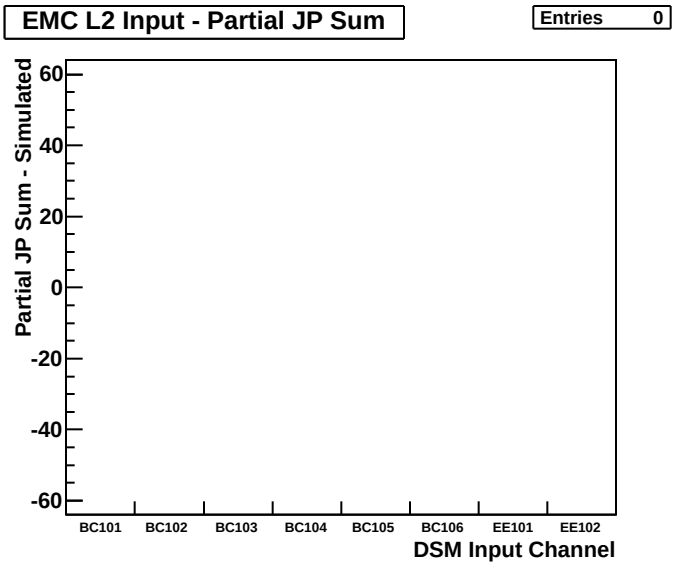

EMC L2 Input - JPY/JPB bits
Entries 458136
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

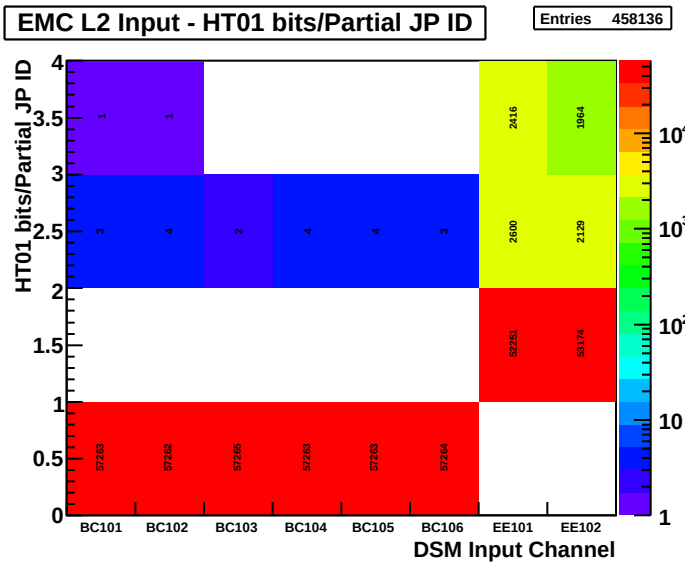

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

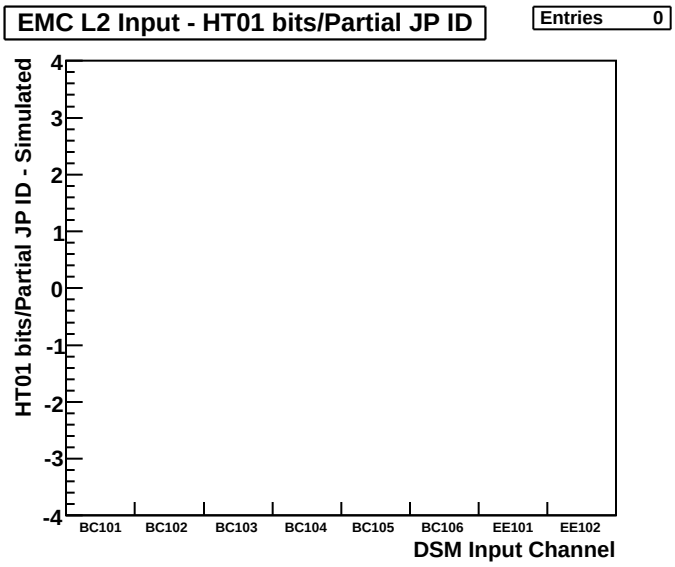

EMC L2 Input - JPZ/JPC bits
Entries 458136
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

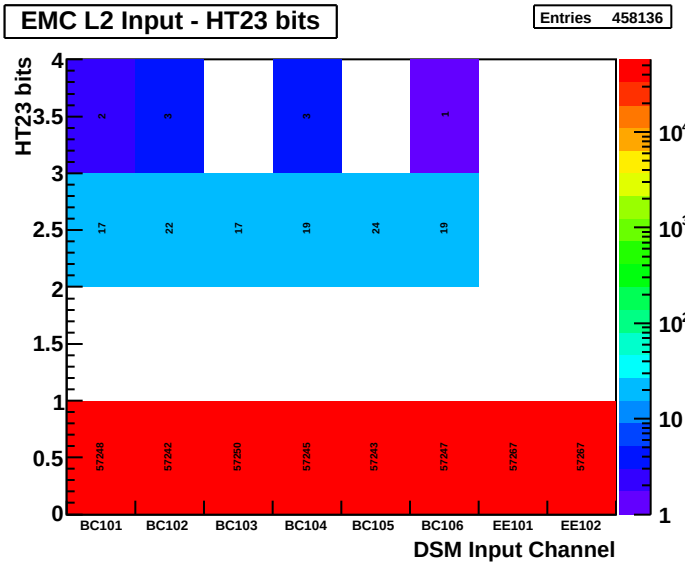

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

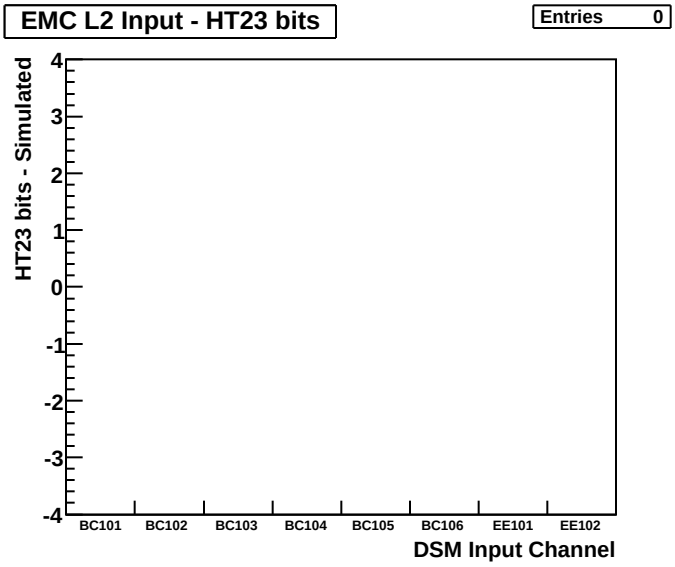

EMC L2 Input - Partial JP Sum
Entries 458136
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

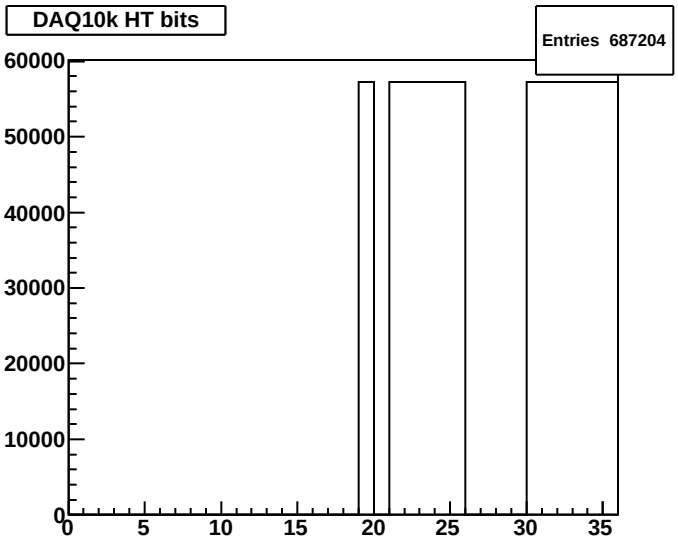

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

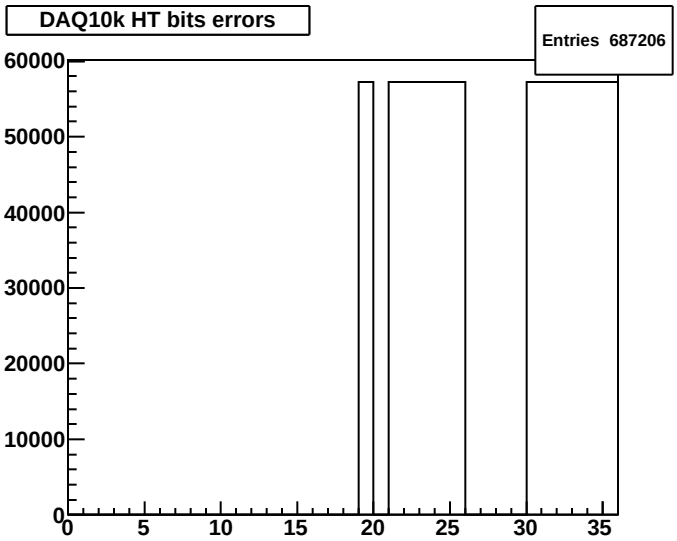

EMC L2 Input - HT01 bits/Partial JP ID
Entries 458136
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

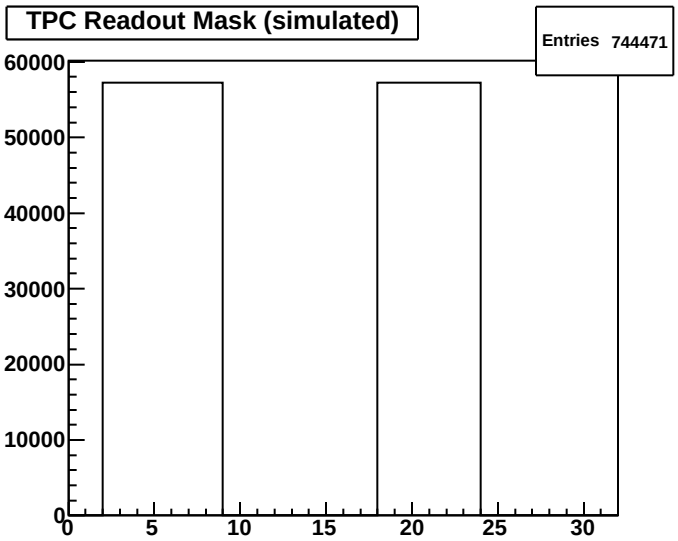

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

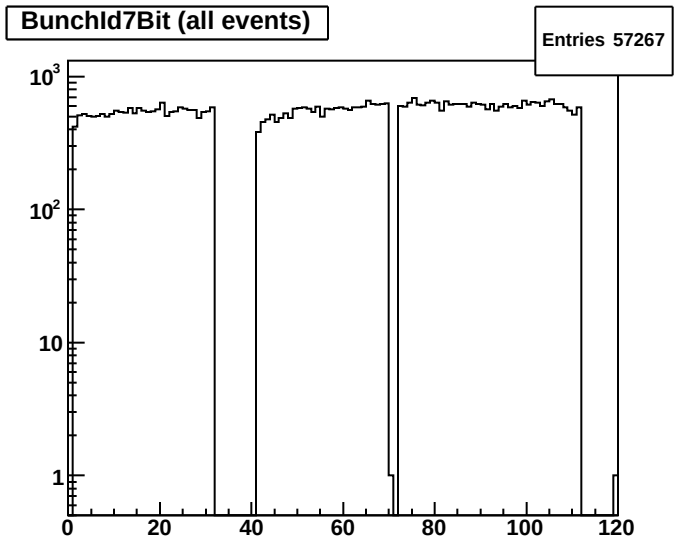

EMC L2 Input - HT23 bits
Entries 458136
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

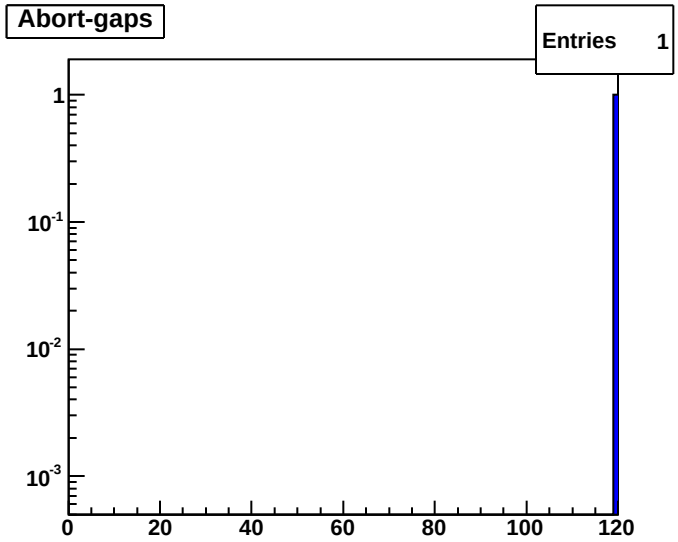

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

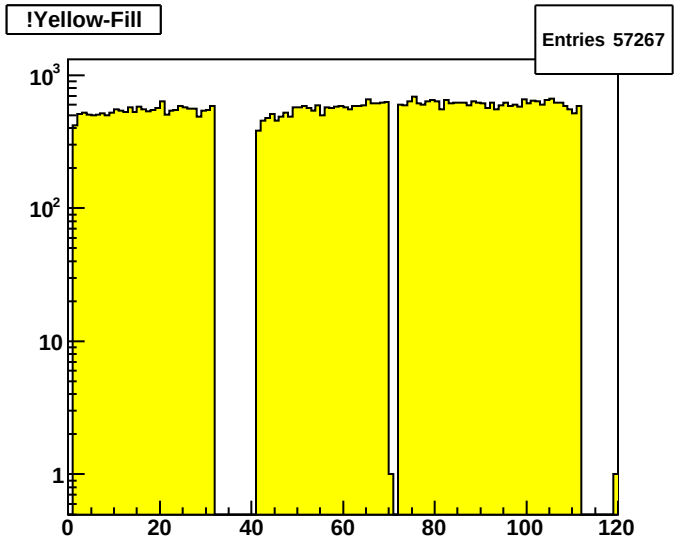

DAQ10k HT bits
Entries 687204
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

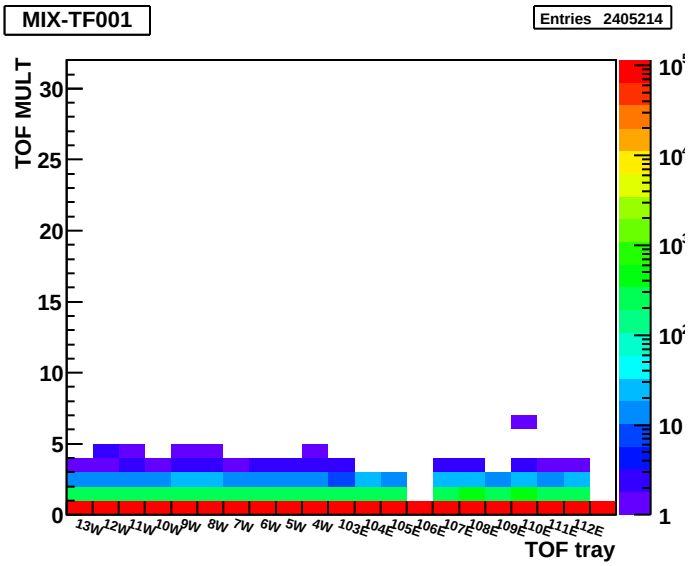

DAQ10k HT bits errors
Entries 687206
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

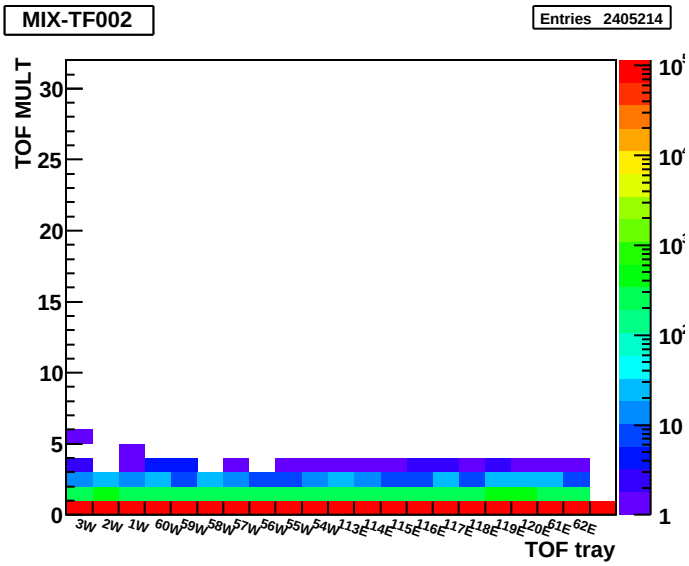

TPC Readout Mask (simulated)
Entries 744471
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

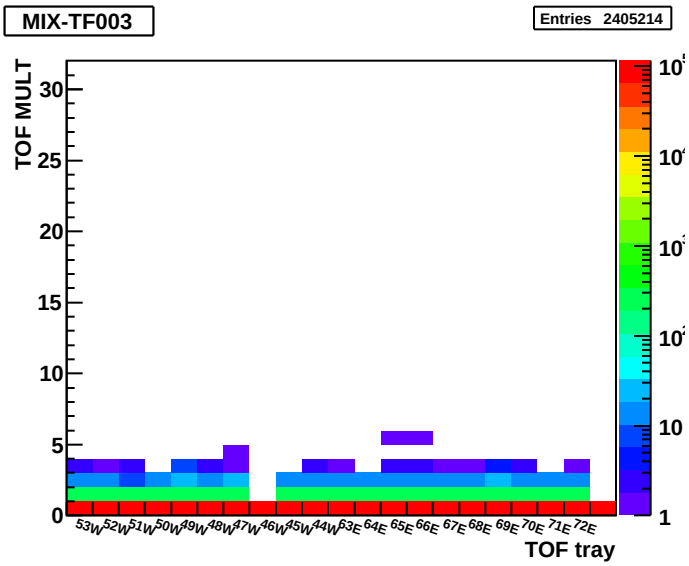

BunchId7Bit (all events)
Entries 57267
10^3
10^2
10
1
0 20 40 60 80 100 120

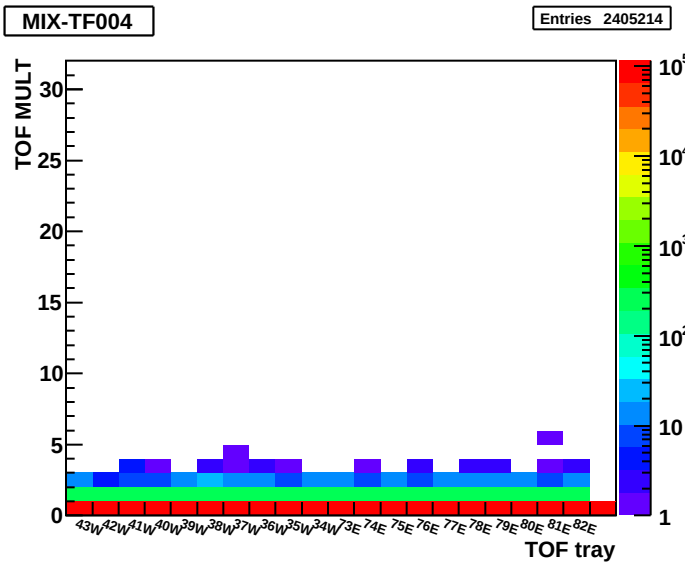

Abort-gaps
Entries 1
1
10^{-1}
10^{-2}
10^{-3}
0 20 40 60 80 100 120

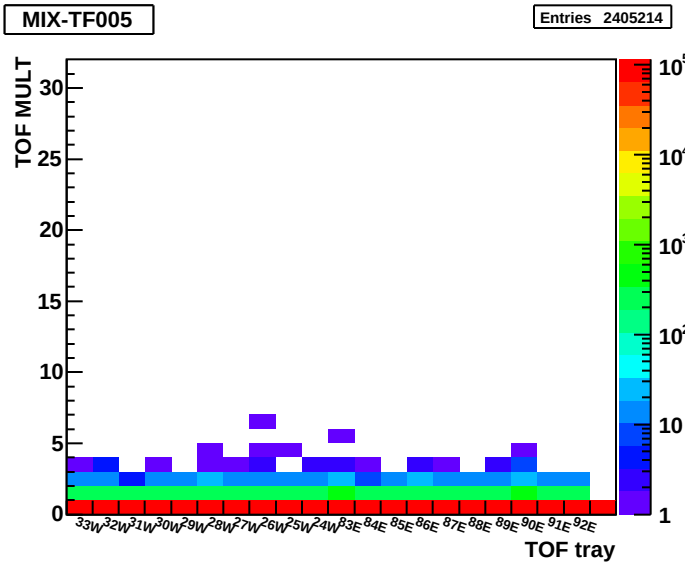

!Yellow-Fill
Entries 57267
10^3
10^2
10
1
0 20 40 60 80 100 120

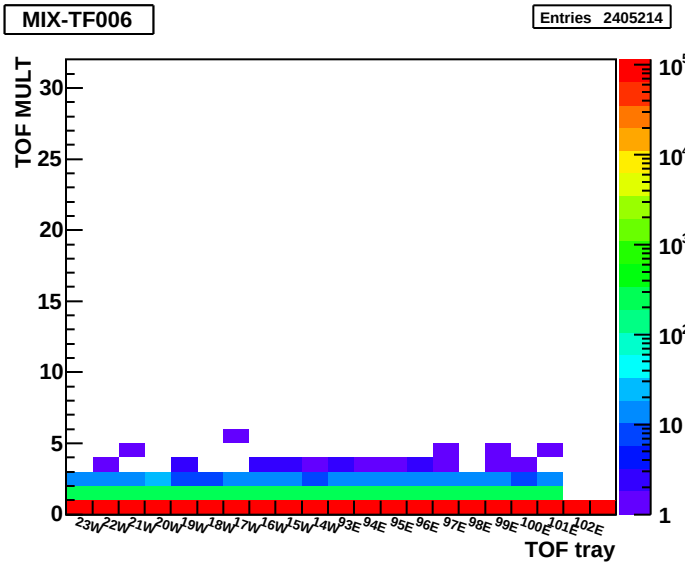

MIX-TF001
Entries 2405214
TOF MULT
TOF tray

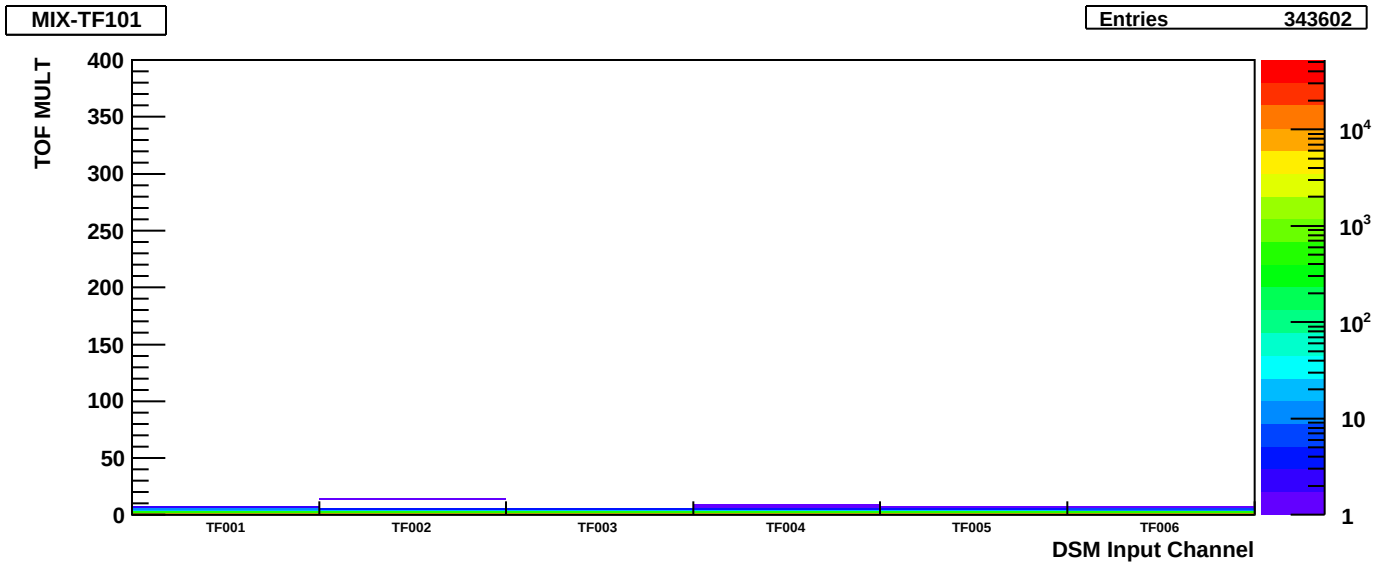

MIX-TF002
Entries 2405214
TOF MULT
TOF tray

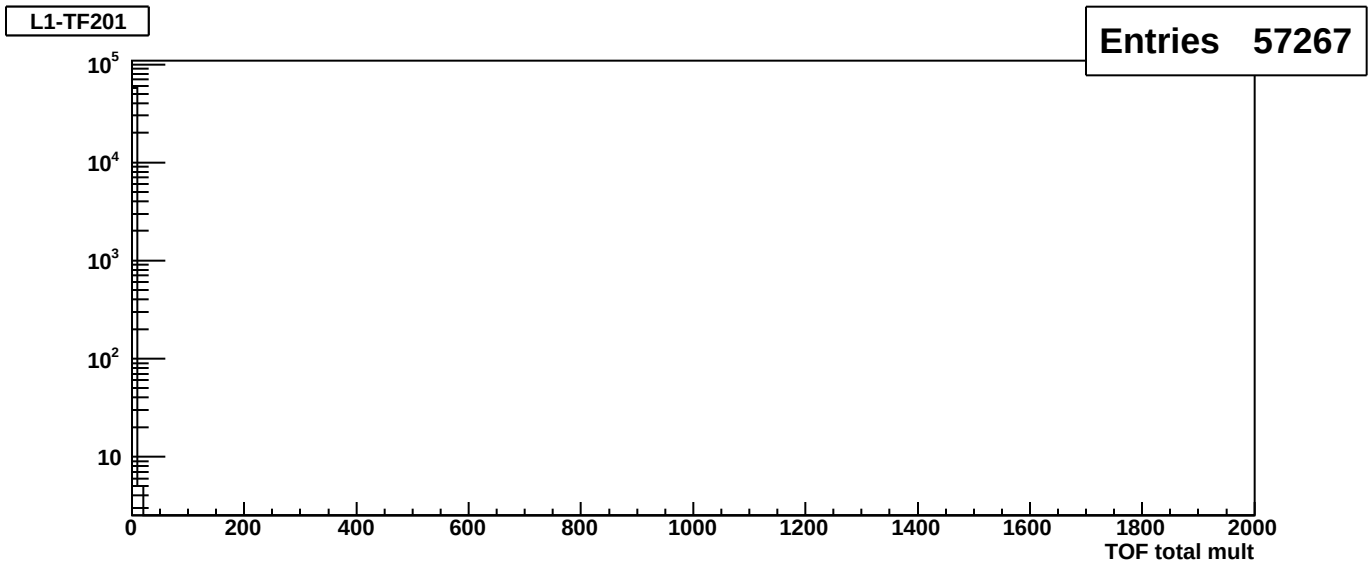

MIX-TF003
Entries 2405214
TOF MULT
TOF tray

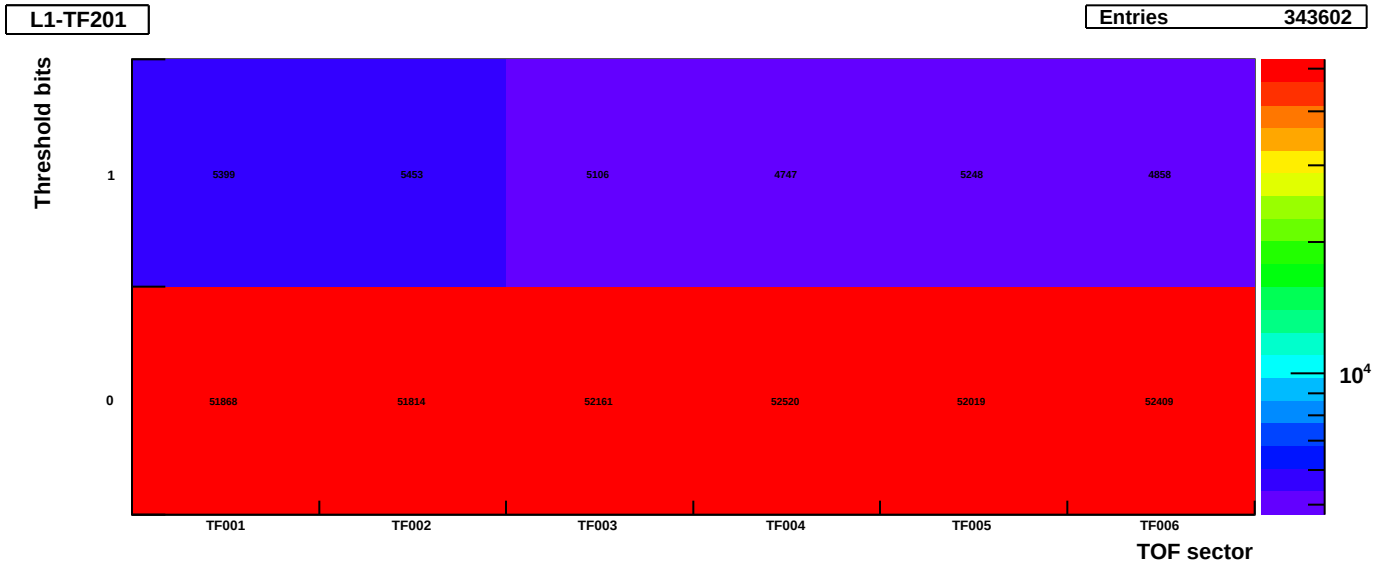

MIX-TF004
Entries 2405214
TOF MULT
TOF tray

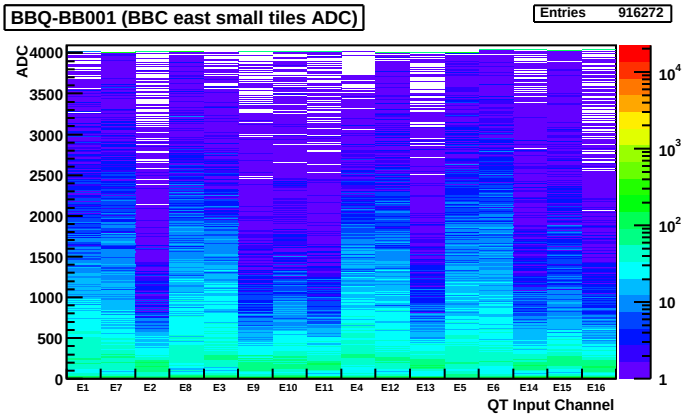

MIX-TF005
Entries 2405214
TOF MULT
TOF tray

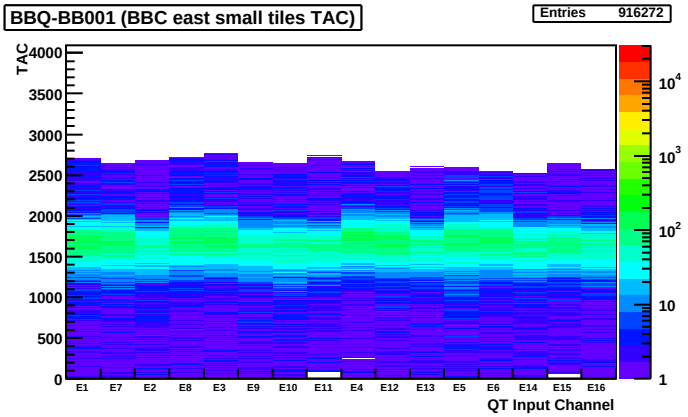

MIX-TF006
Entries 2405214
TOF MULT
TOF tray

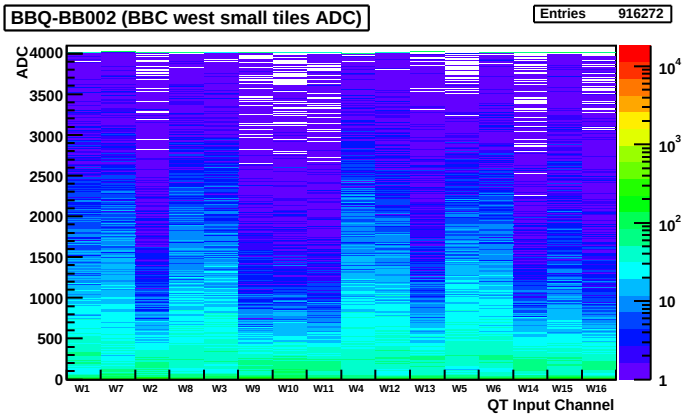

MIX-TF101
Entries 343602
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

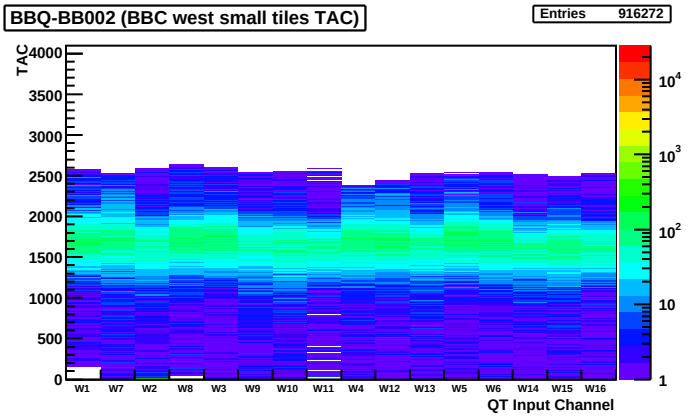

L1-TF201
Entries 57267
10^5
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

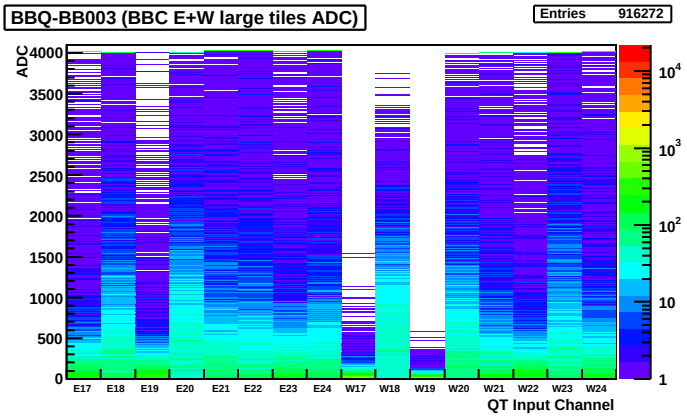

L1-TF201
Entries 343602
Threshold bits
1
0
5399
5453
5106
4747
5248
4858
51868
51814
52161
52520
52019
52409
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

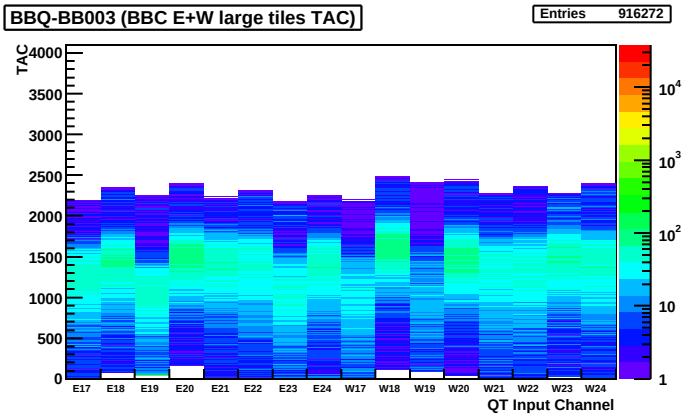

BBQ-BB001 (BBC east small tiles ADC)
Entries 916272
ADC
QT Input Channel

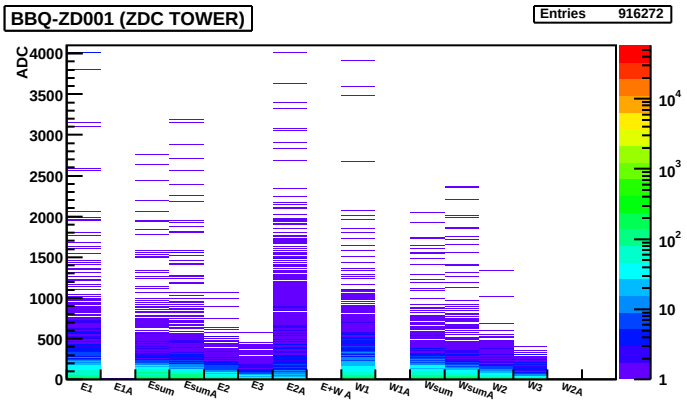

BBQ-BB001 (BBC east small tiles TAC)
Entries 916272
TAC
QT Input Channel

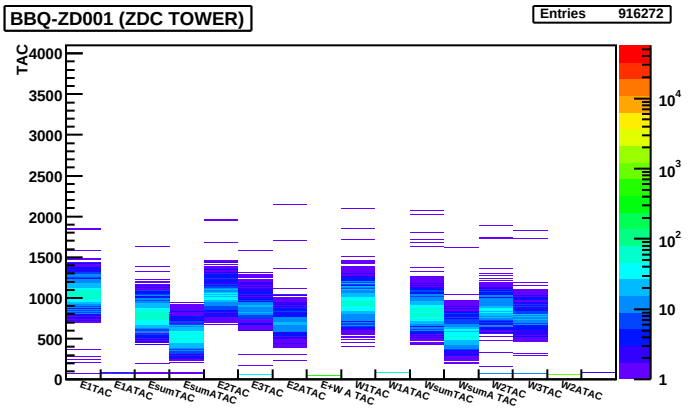

BBQ-BB002 (BBC west small tiles ADC)
Entries 916272
ADC
QT Input Channel

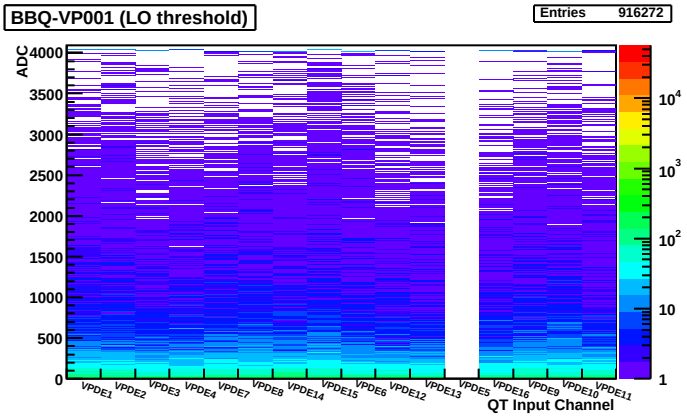

BBQ-BB002 (BBC west small tiles TAC)
Entries 916272
TAC
QT Input Channel

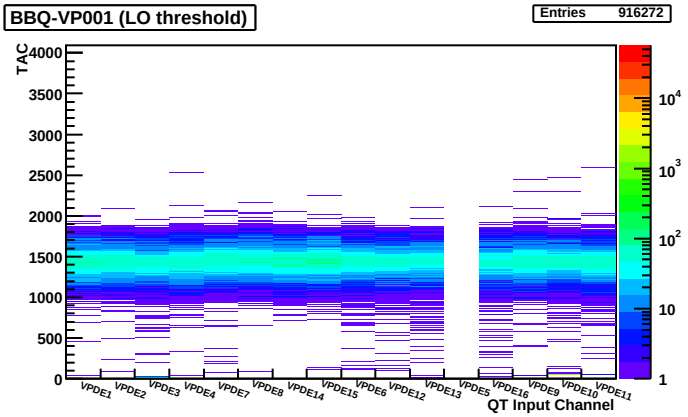

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 916272
ADC
QT Input Channel

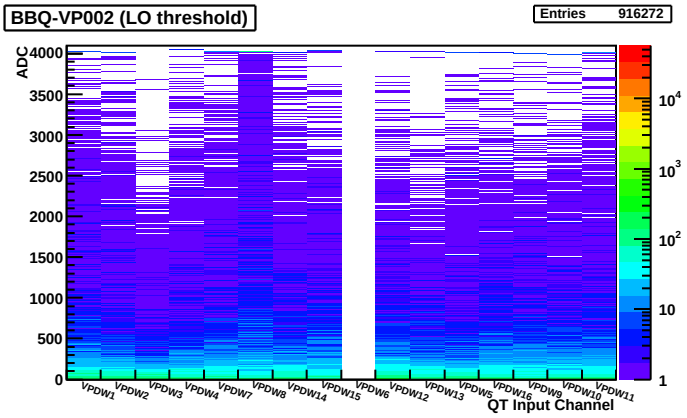

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 916272
TAC
QT Input Channel

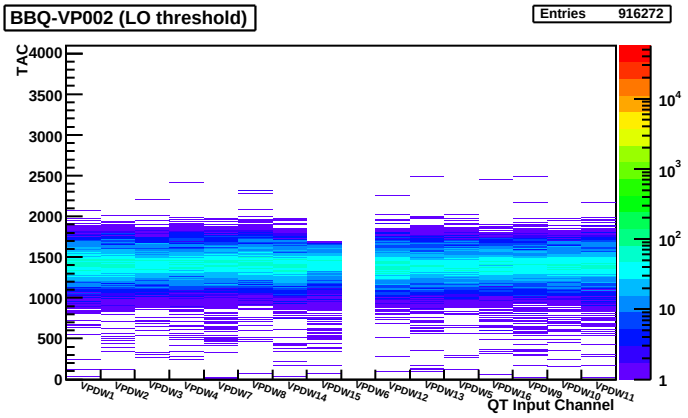

BBQ-ZD001 (ZDC TOWER)
Entries 916272
ADC

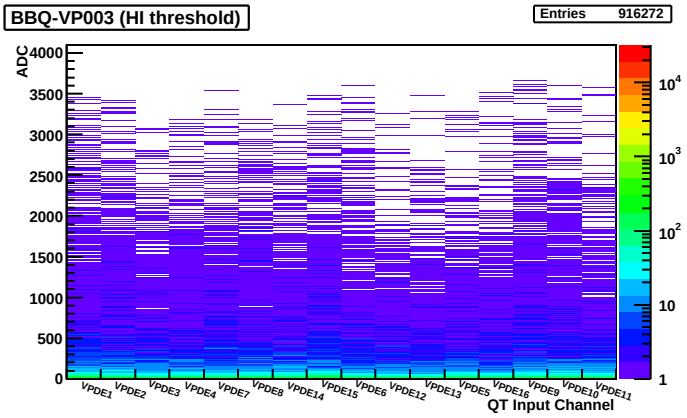

BBQ-ZD001 (ZDC TOWER)
Entries 916272
TAC

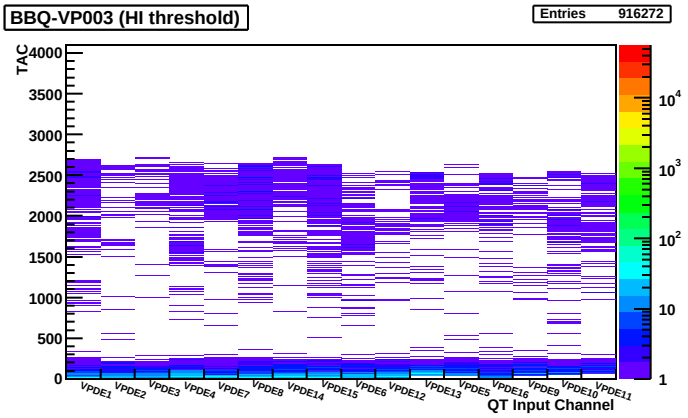

BBQ-VP001 (LO threshold)
Entries 916272
ADC
QT Input Channel

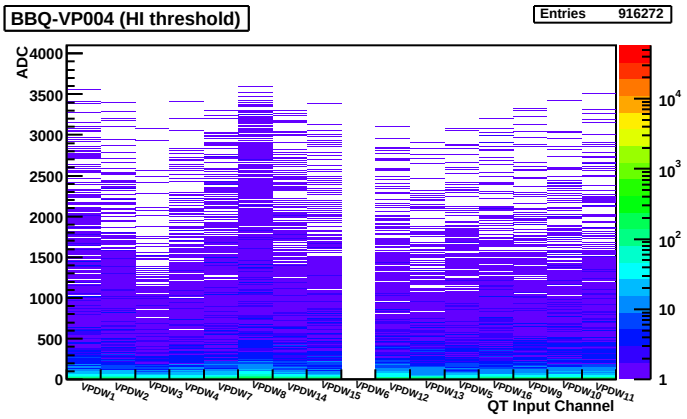

BBQ-VP001 (LO threshold)
Entries 916272
TAC
QT Input Channel

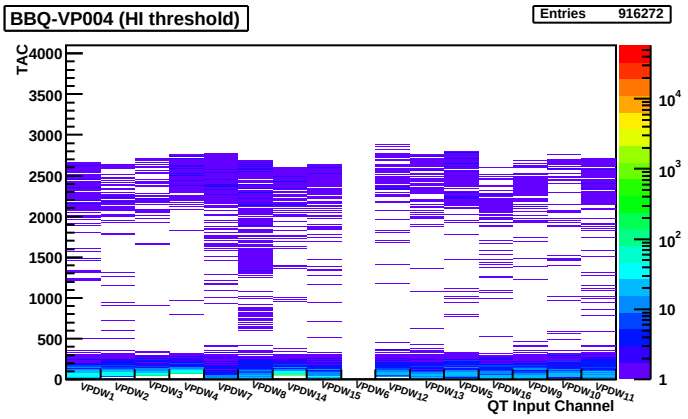

BBQ-VP002 (LO threshold)
Entries 916272
ADC
QT Input Channel

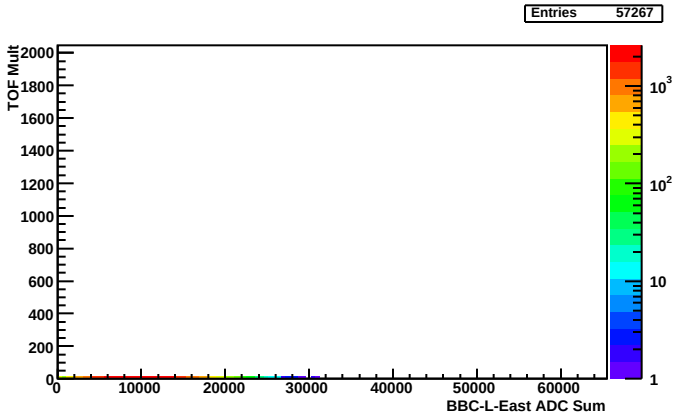

BBQ-VP002 (LO threshold)
Entries 916272
TAC
QT Input Channel

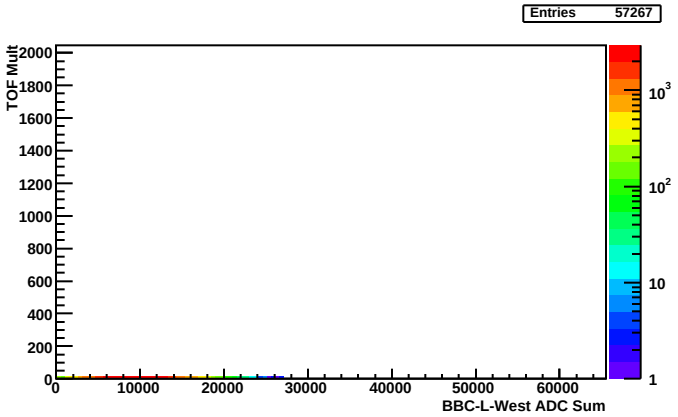

BBQ-VP003 (HI threshold)
Entries 916272
ADC
QT Input Channel

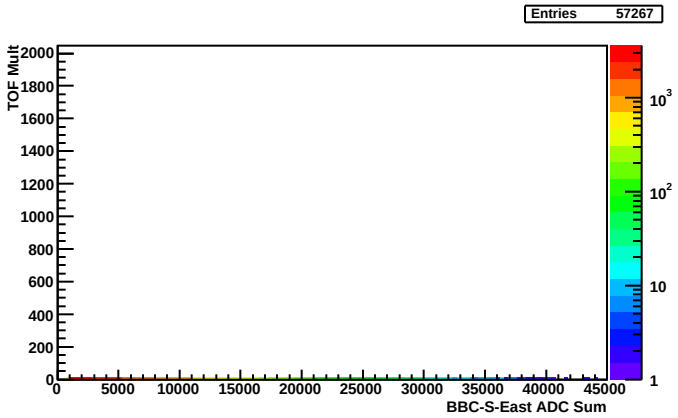

BBQ-VP003 (HI threshold)
Entries 916272
TAC
QT Input Channel

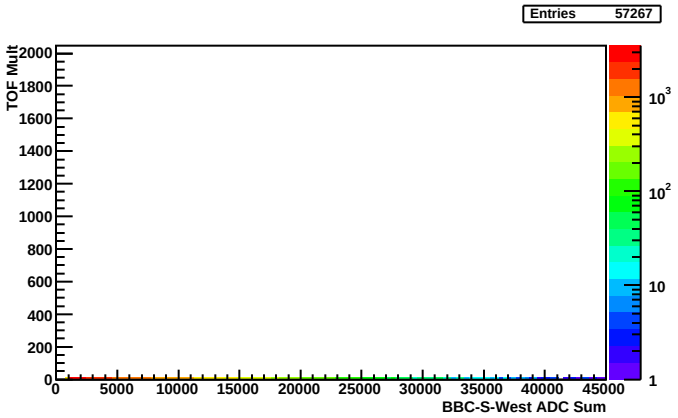

BBQ-VP004 (HI threshold)
Entries 916272
ADC
QT Input Channel

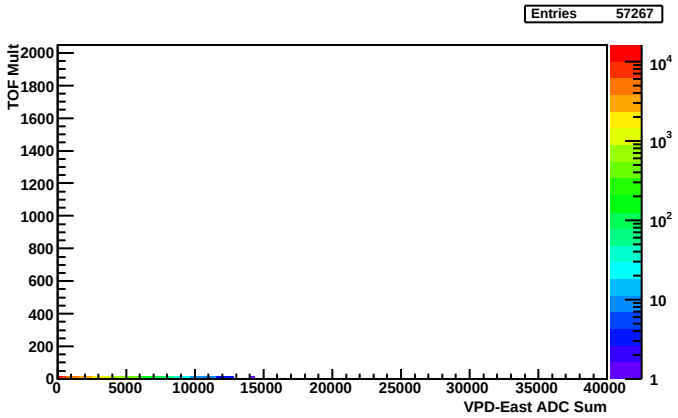

BBQ-VP004 (HI threshold)
Entries 916272
TAC
QT Input Channel

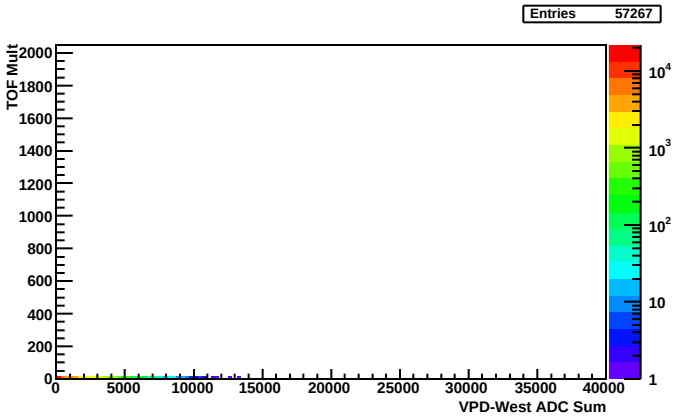

Entries 57267
TOF Mult
BBC-L-East ADC Sum

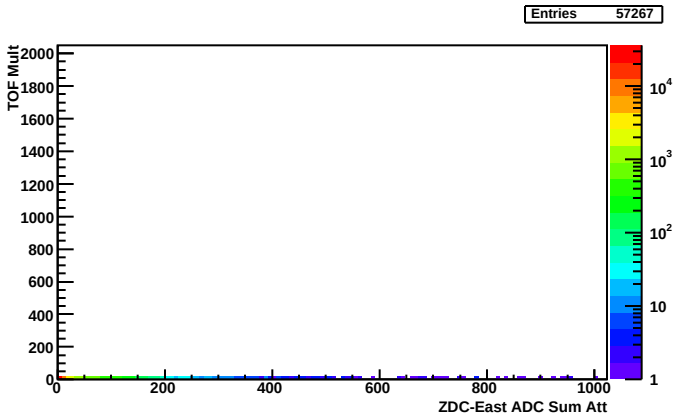

Entries 57267
TOF Mult
BBC-L-West ADC Sum

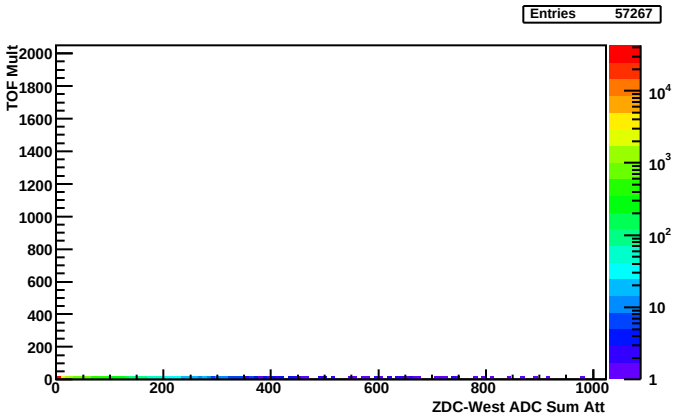

Entries 57267
TOF Mult
BBC-S-East ADC Sum

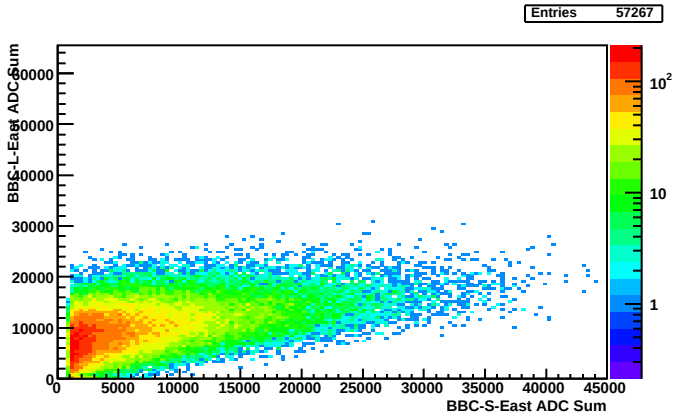

Entries 57267
TOF Mult
BBC-S-West ADC Sum

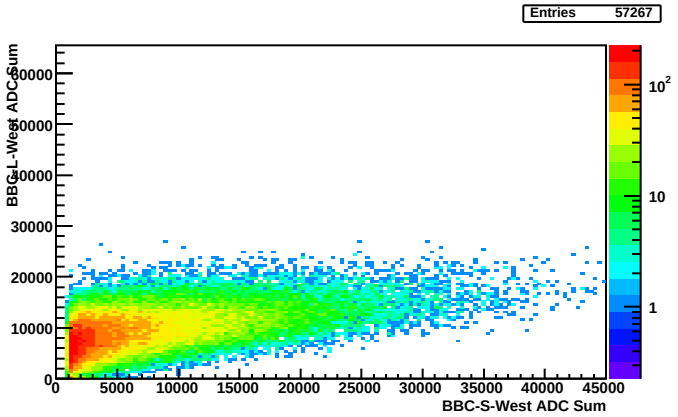

Entries 57267
TOF Mult
VPD-East ADC Sum

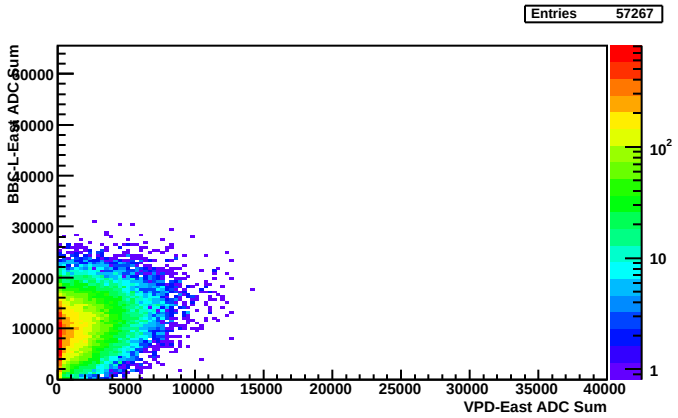

Entries 57267
TOF Mult
VPD-West ADC Sum

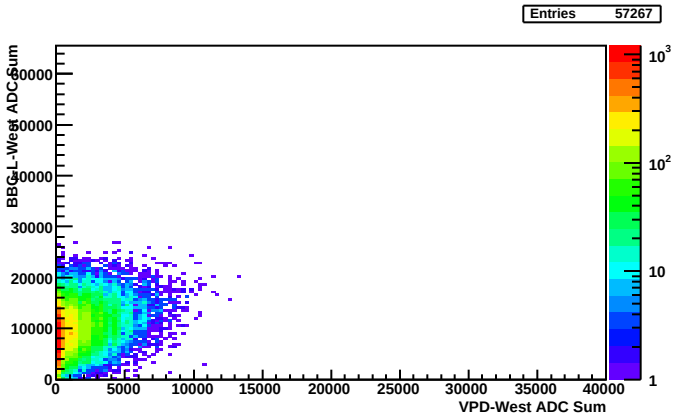

Entries 57267
TOF Mult
ZDC-East ADC Sum Att

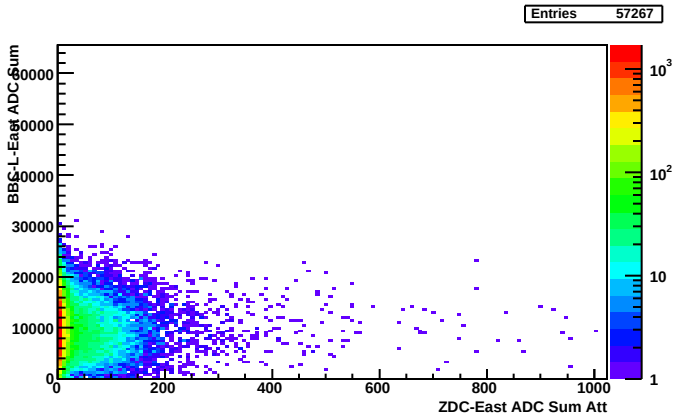

Entries 57267
TOF Mult
ZDC-West ADC Sum Att

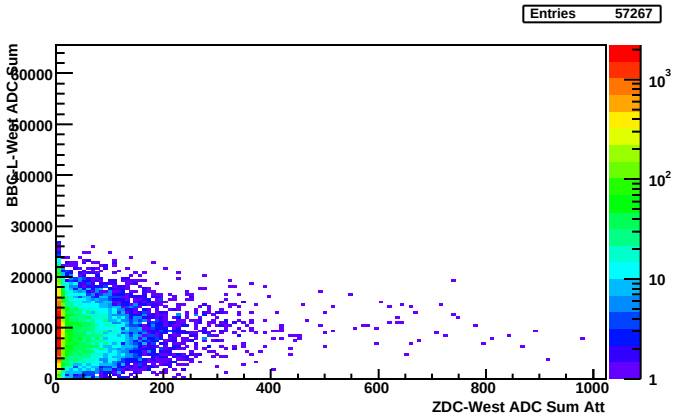

Entries 57267
BBC-L-East ADC Sum
BBC-S-East ADC Sum

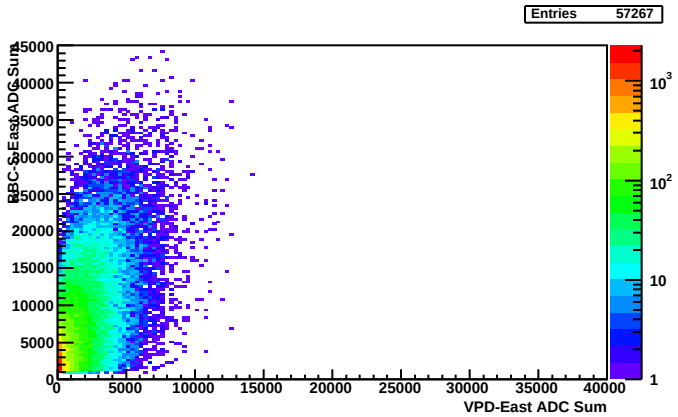

Entries 57267
BBC-L-West ADC Sum
BBC-S-West ADC Sum

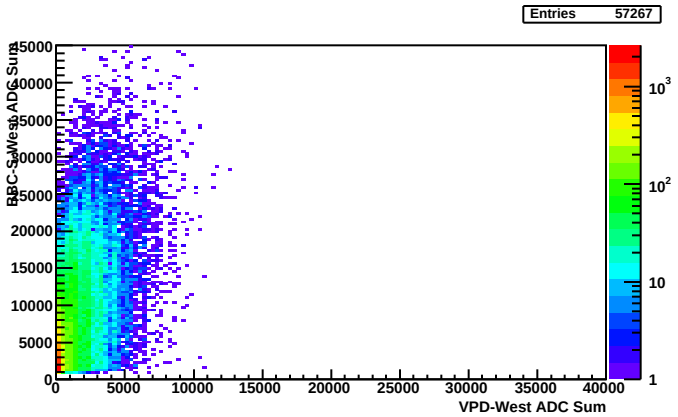

Entries 57267
BBC-L-East ADC Sum
VPD-East ADC Sum

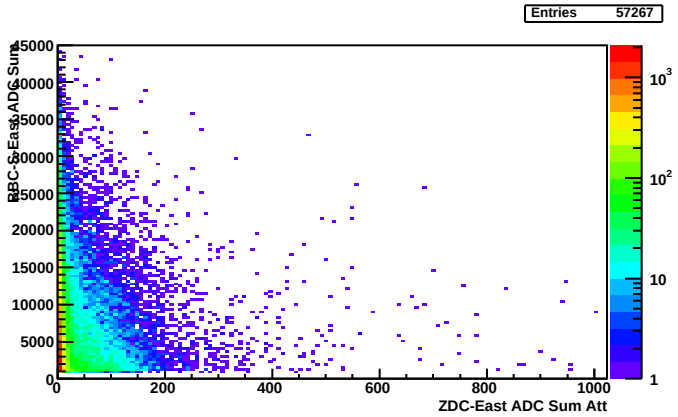

Entries 57267
BBC-L-West ADC Sum
VPD-West ADC Sum

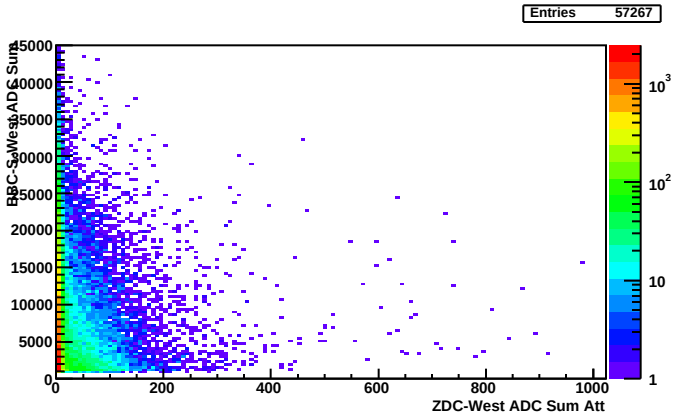

Entries 57267
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

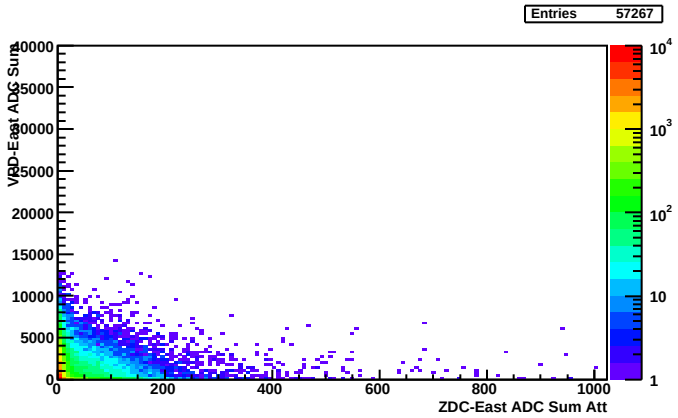

Entries 57267
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

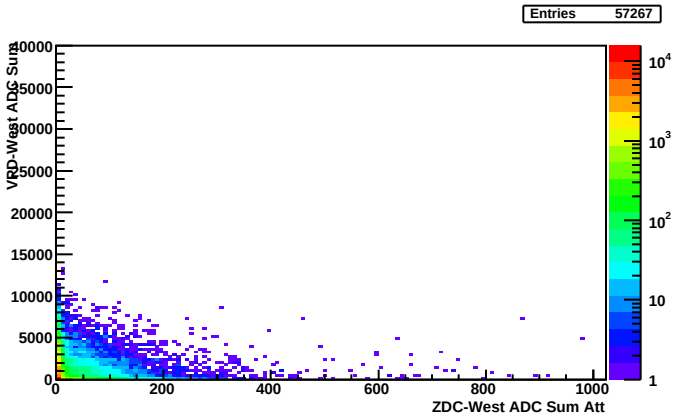

Entries 57267
BBC-S-East ADC Sum
VPD-East ADC Sum

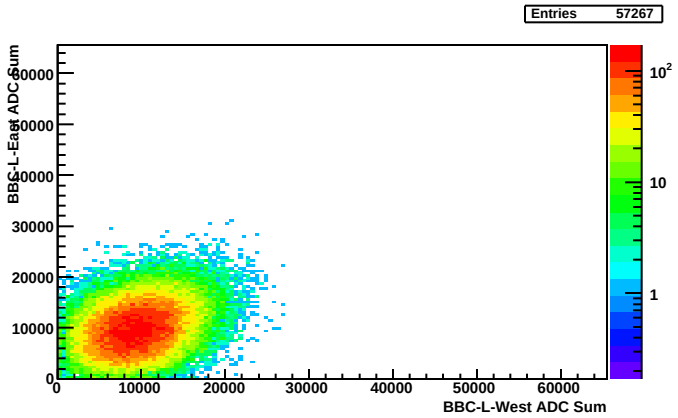

Entries 57267
BBC-S-West ADC Sum
VPD-West ADC Sum

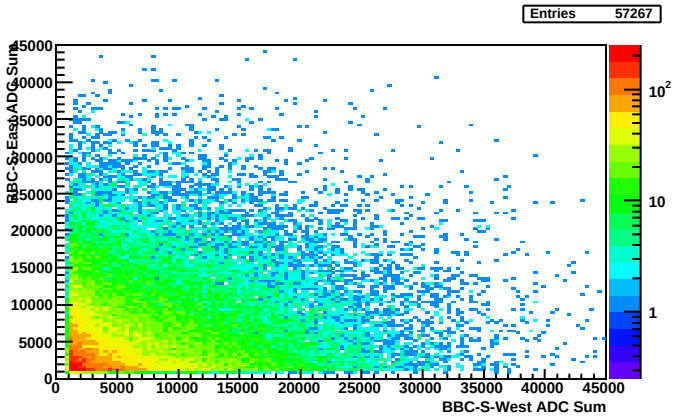

Entries 57267
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

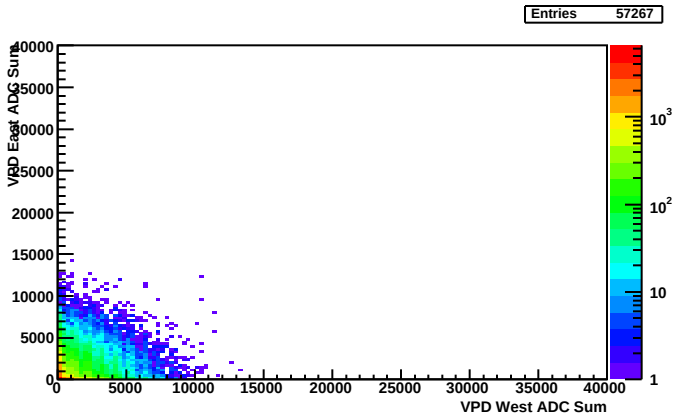

Entries 57267
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

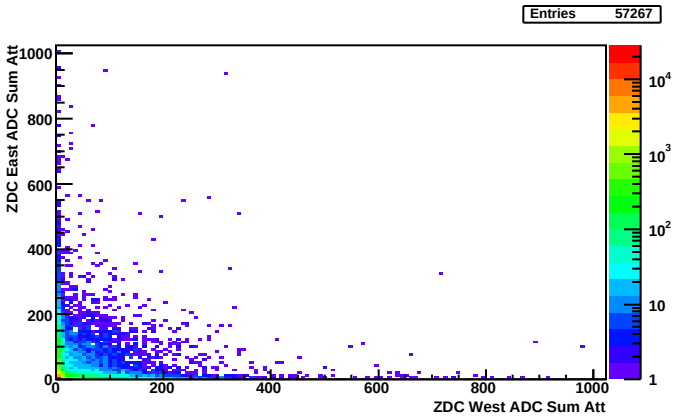

Entries 57267
VPD-East ADC Sum
ZDC-East ADC Sum Att

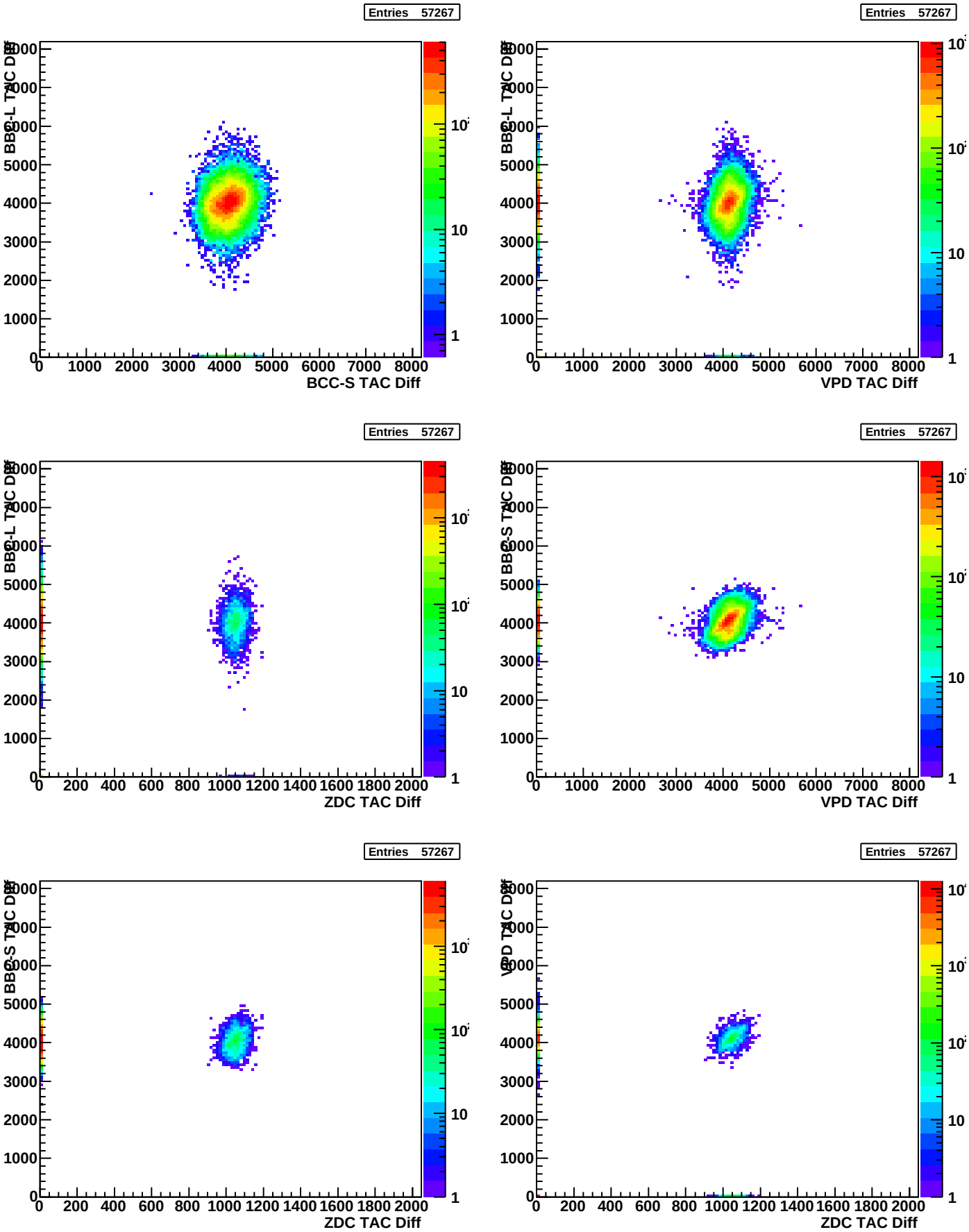

Entries 57267
VPD-West ADC Sum
ZDC-West ADC Sum Att

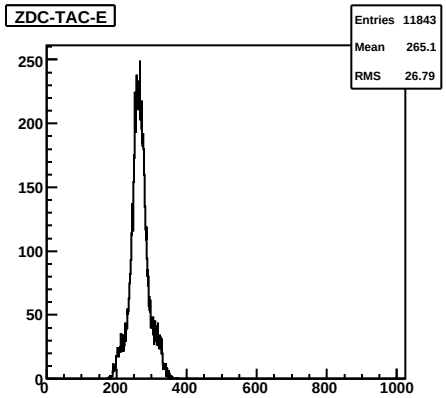

Entries 57267
BBC-L-East ADC Sum
BBC-L-West ADC Sum

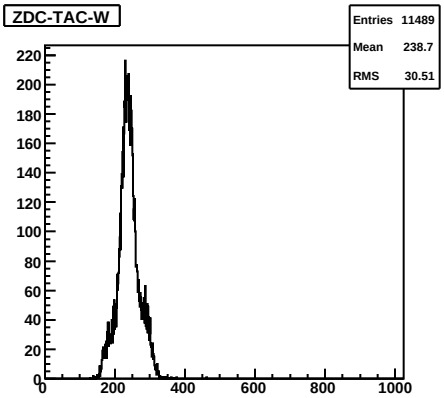

Entries 57267
BBC-S-East ADC Sum
BBC-S-West ADC Sum

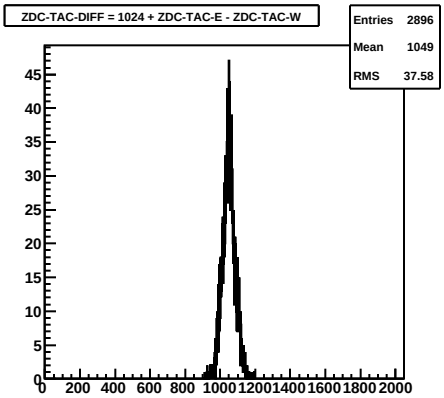

Entries 57267
VPD East ADC Sum
VPD West ADC Sum

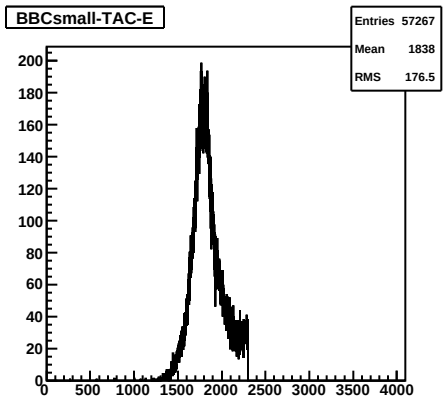

Entries 57267
ZDC East ADC Sum Att
ZDC West ADC Sum Att

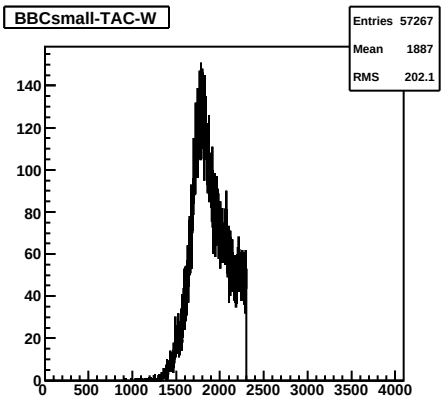

Entries 57267
BBC-L TAC Diff
BCC-S TAC Diff
Entries 57267
BBC-L TAC Diff
VPD TAC Diff
Entries 57267
BBC-L TAC Diff
ZDC TAC Diff
Entries 57267
BBC-S TAC Diff
VPD TAC Diff
Entries 57267
BBC-S TAC Diff
ZDC TAC Diff
Entries 57267
VPD TAC Diff
ZDC TAC Diff

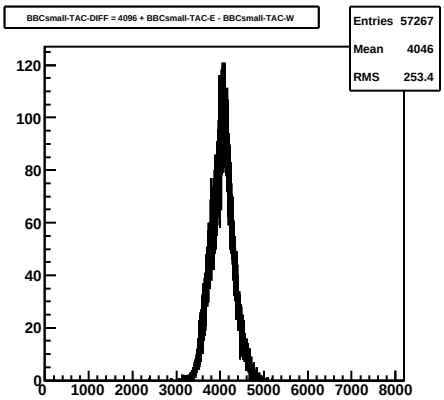

ZDC-TAC-E
Entries 11843
Mean 265.1
RMS 26.79

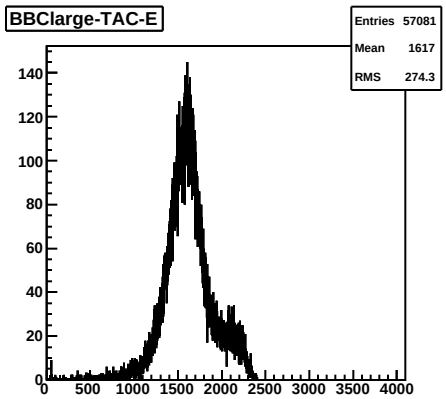

ZDC-TAC-W
Entries 11489
Mean 238.7
RMS 30.51

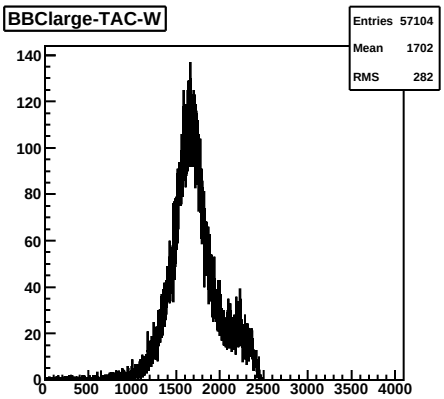

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 2896
Mean 1049
RMS 37.58

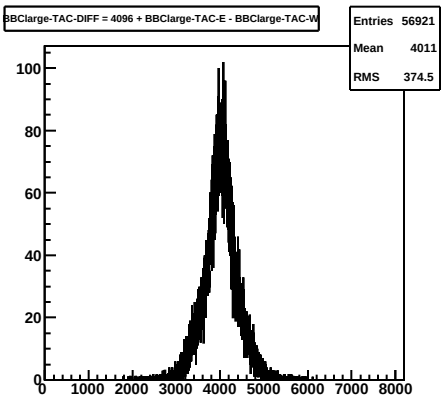

BBCsmall-TAC-E
Entries 57267
Mean 1838
RMS 176.5

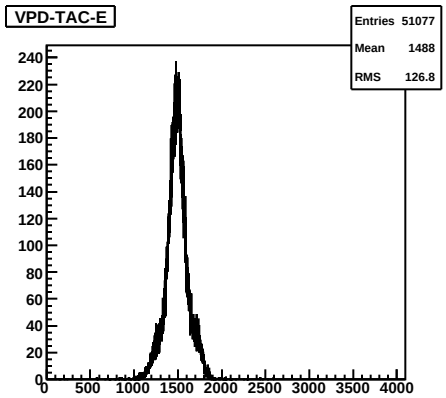

BBCsmall-TAC-W
Entries 57267
Mean 1887
RMS 202.1

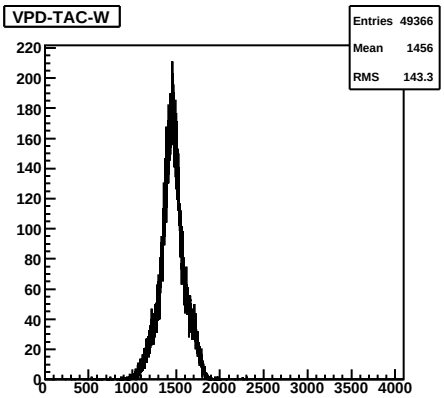

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 57267
Mean 4046
RMS 253.4

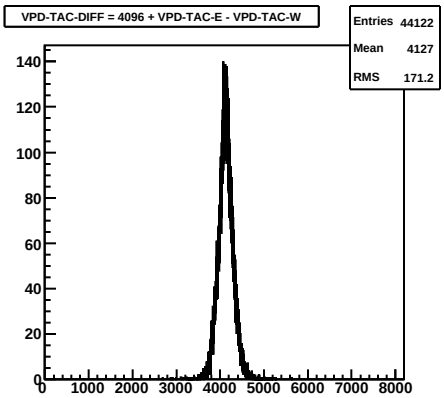

BBClarge-TAC-E
Entries 57081
Mean 1617
RMS 274.3

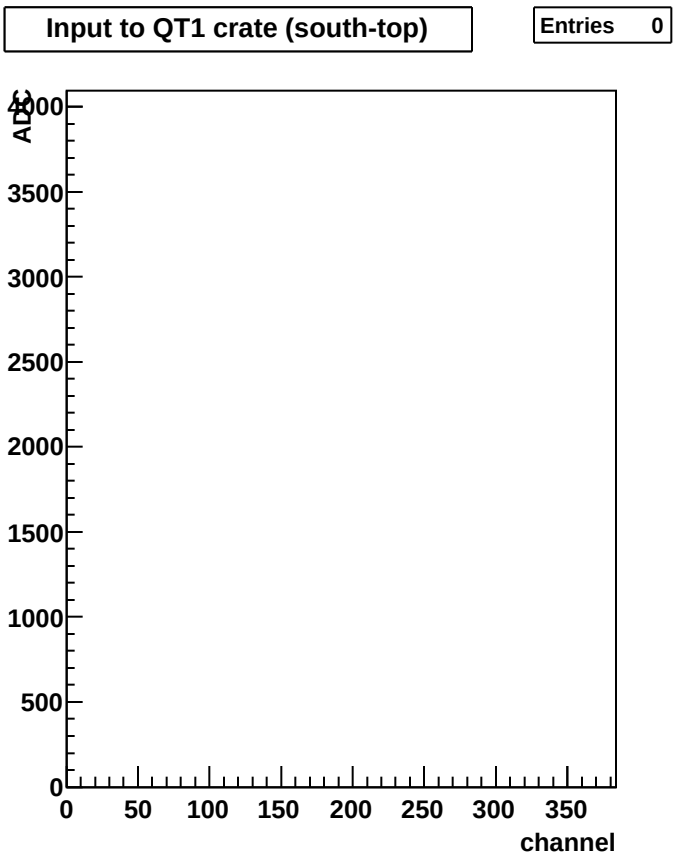

BBClarge-TAC-W
Entries 57104
Mean 1702
RMS 282

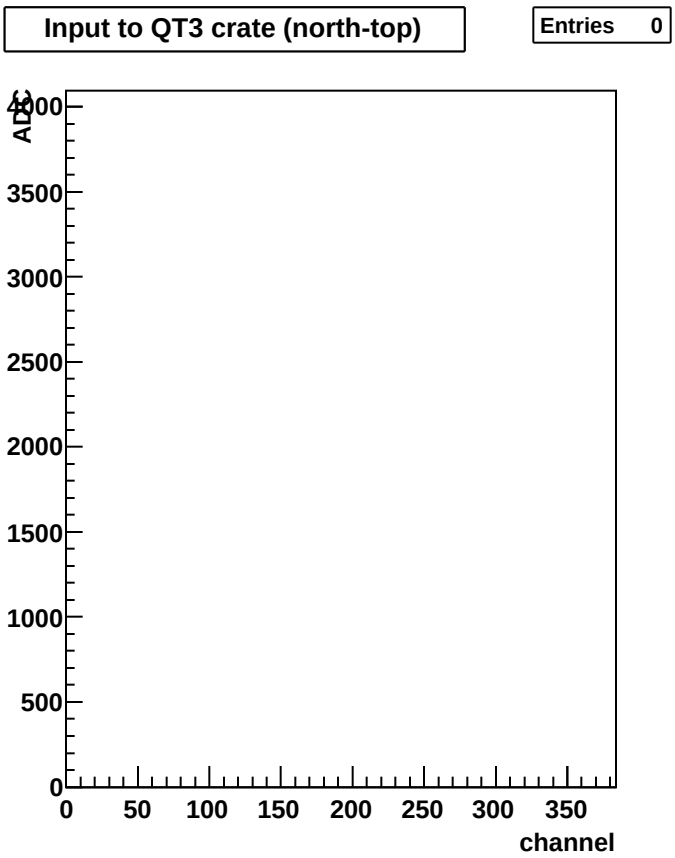

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 56921
Mean 4011
RMS 374.5

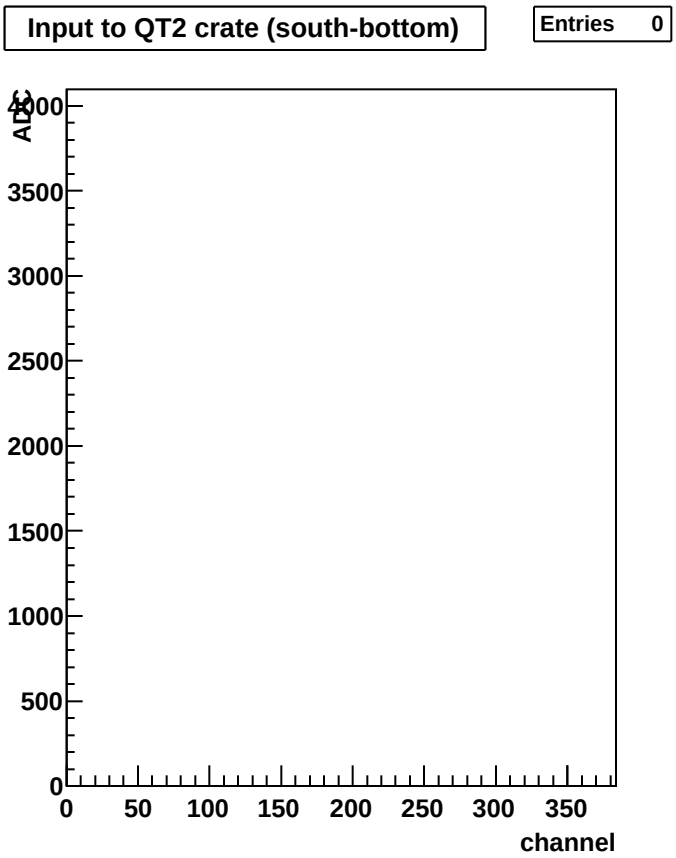

VPD-TAC-E
Entries 51077
Mean 1488
RMS 126.8

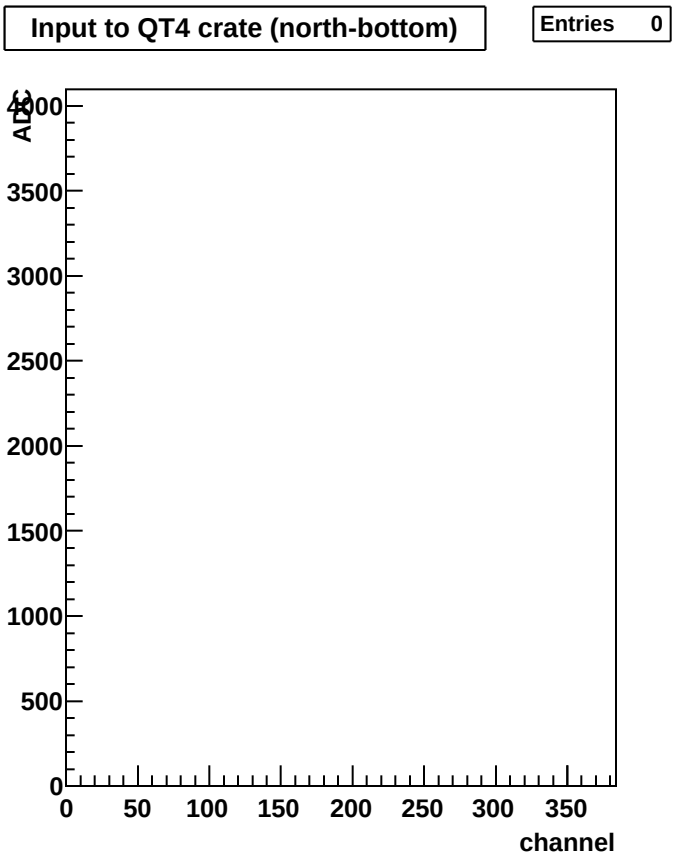

VPD-TAC-W
Entries 49366
Mean 1456
RMS 143.3

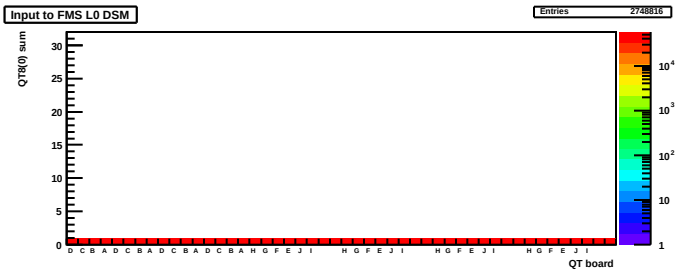

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 44122
Mean 4127
RMS 171.2

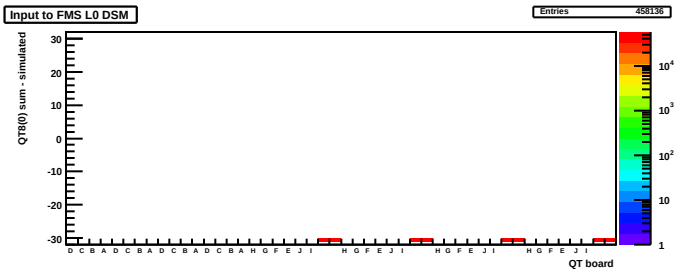

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

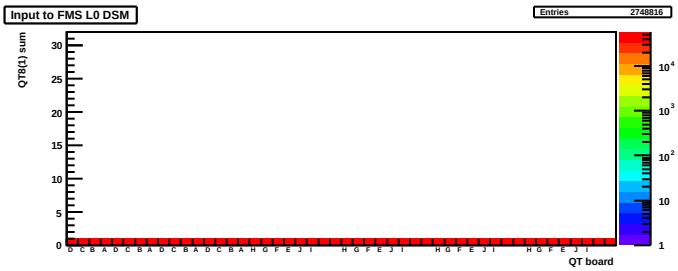

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

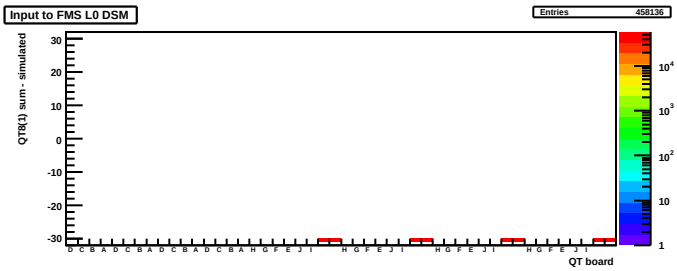

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

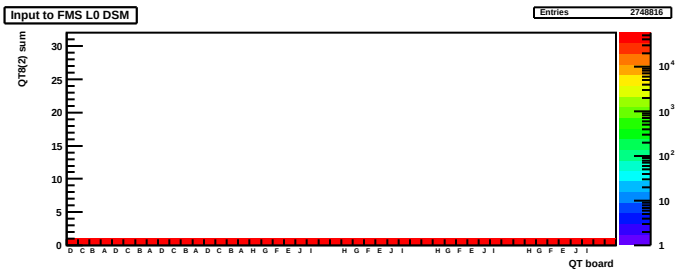

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

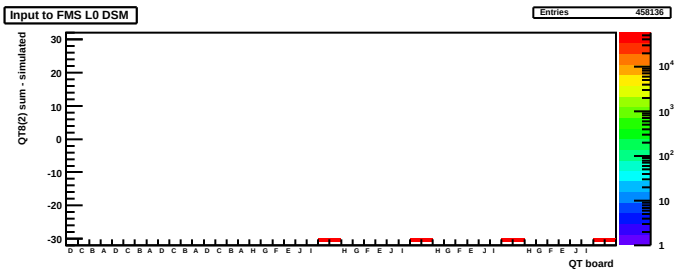

Input to FMS L0 DSM
Entries 2748816
QT8(0) sum
QT board

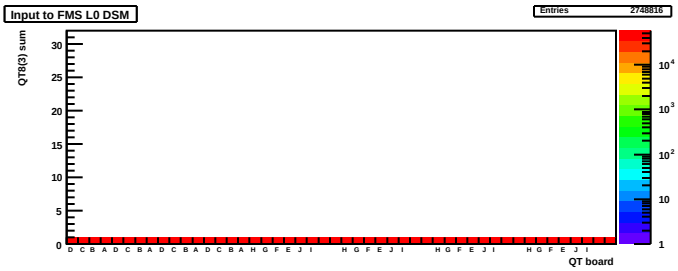

Input to FMS L0 DSM
Entries 458136
QT8(0) sum - simulated
QT board

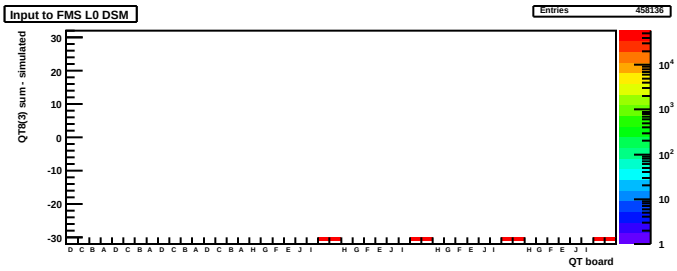

Input to FMS L0 DSM
Entries 2748816
QT8(1) sum
QT board

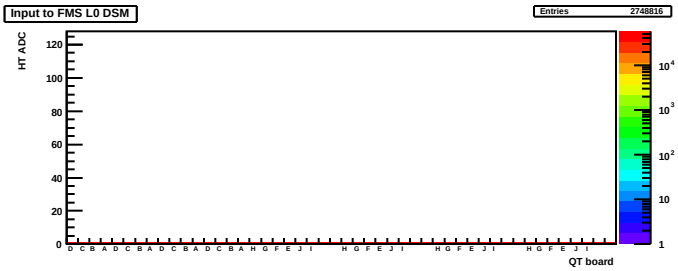

Input to FMS L0 DSM
Entries 458136
QT8(1) sum - simulated
QT board

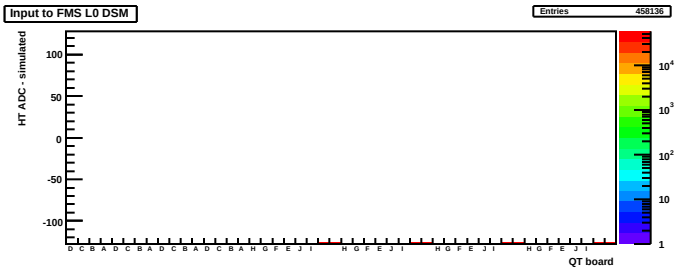

Input to FMS L0 DSM
Entries 2748816
QT8(2) sum
QT board

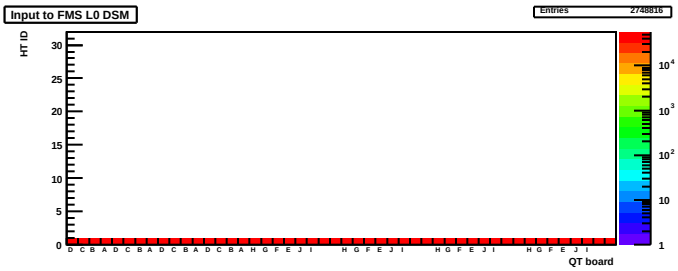

Input to FMS L0 DSM
Entries 458136
QT8(2) sum - simulated
QT board

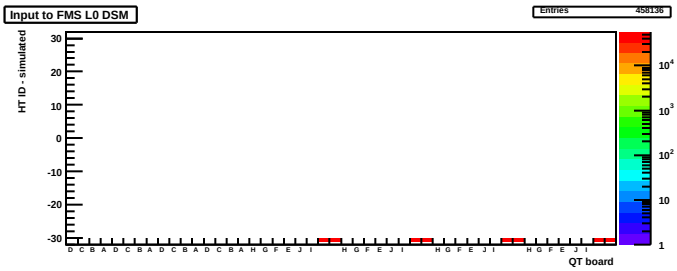

Input to FMS L0 DSM
Entries 2748816
QT8(3) sum
QT board

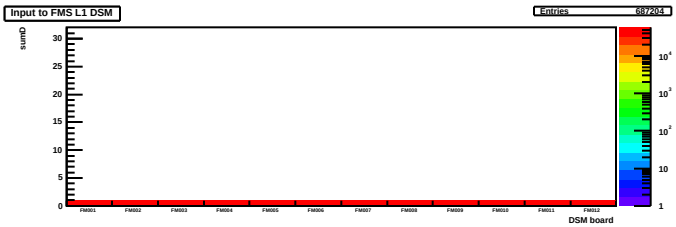

Input to FMS L0 DSM
Entries 458136
QT8(3) sum - simulated
QT board

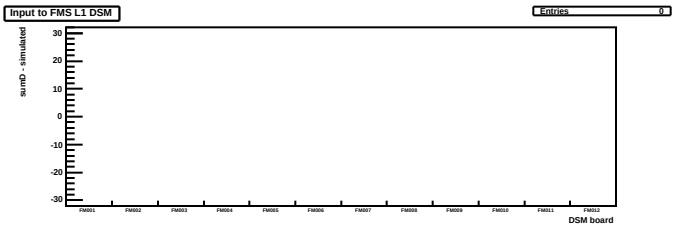

Input to FMS L0 DSM
Entries 2748816
HT ADC
QT board

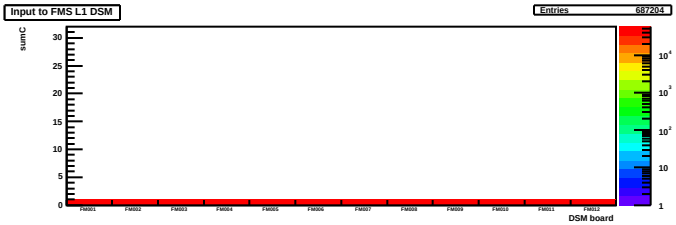

Input to FMS L0 DSM
Entries 458136
HT ADC - simulated
QT board

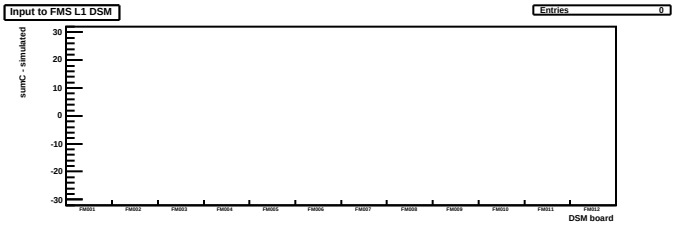

Input to FMS L0 DSM
Entries 2748816
HT ID
QT board

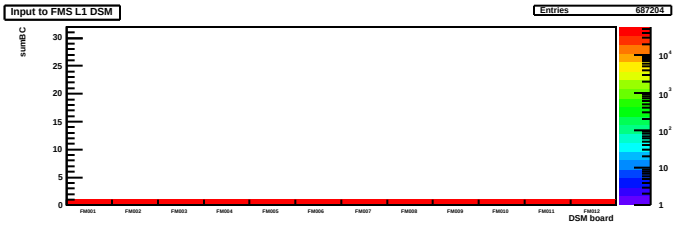

Input to FMS L0 DSM
Entries 458136
HT ID - simulated
QT board

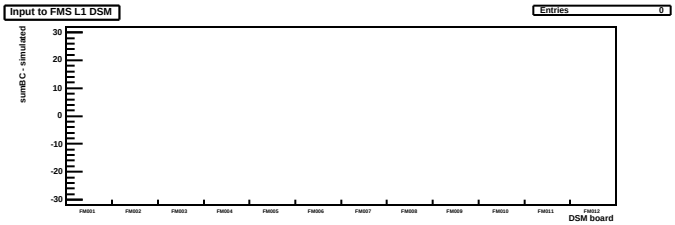

Input to FMS L1 DSM
Entries 687204
sumD
DSM board

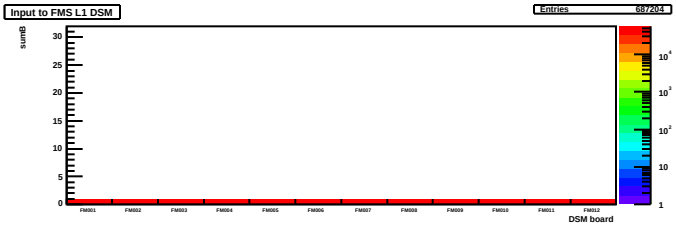

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

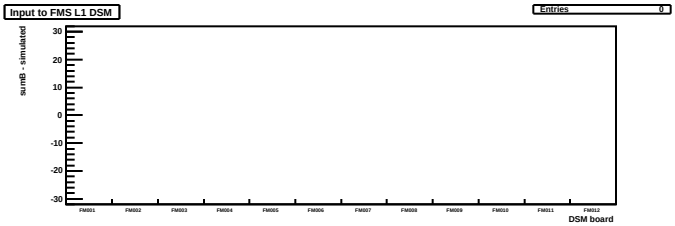

Input to FMS L1 DSM
Entries 687204
sumC
DSM board

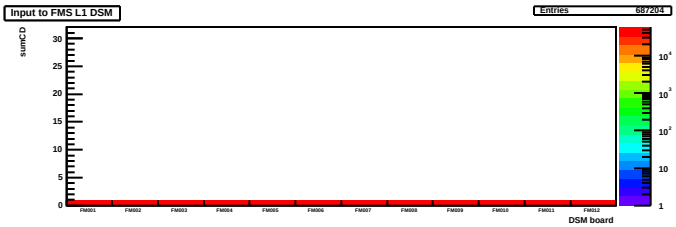

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

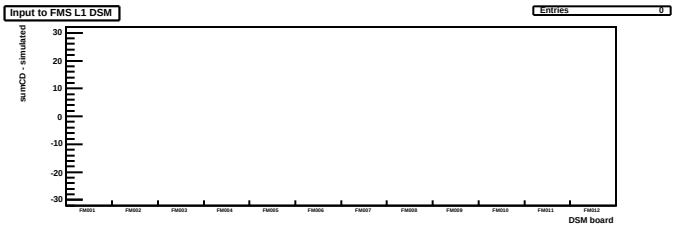

Input to FMS L1 DSM
Entries 687204
sumBC
DSM board

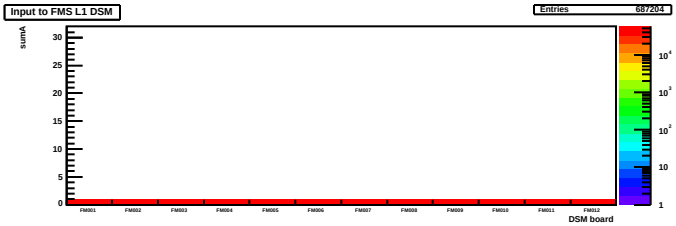

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

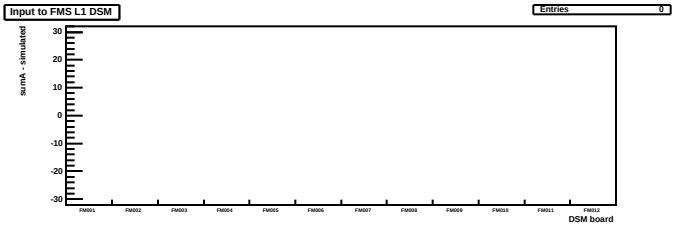

Input to FMS L1 DSM
Entries 687204
sumB
DSM board

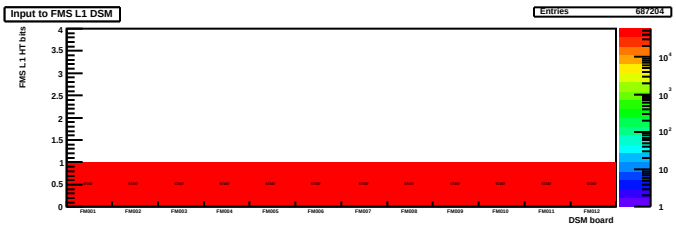

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

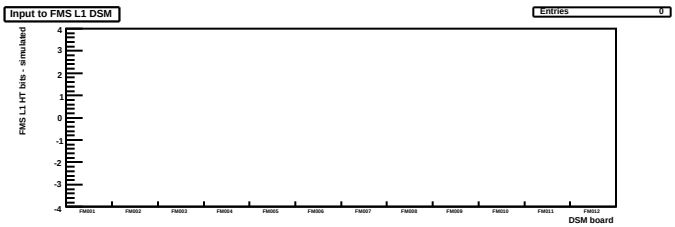

Input to FMS L1 DSM
Entries 687204
sumCD
DSM board

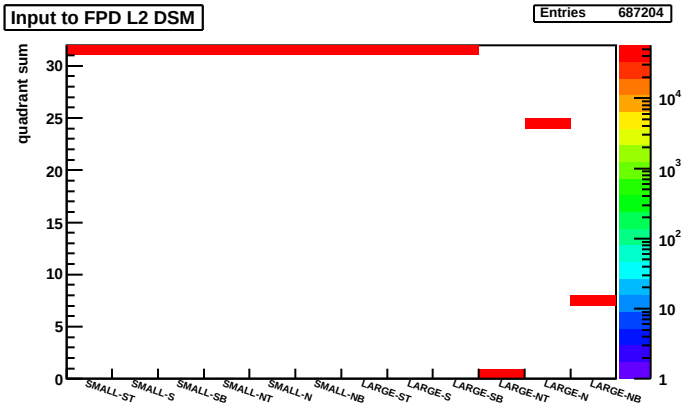

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

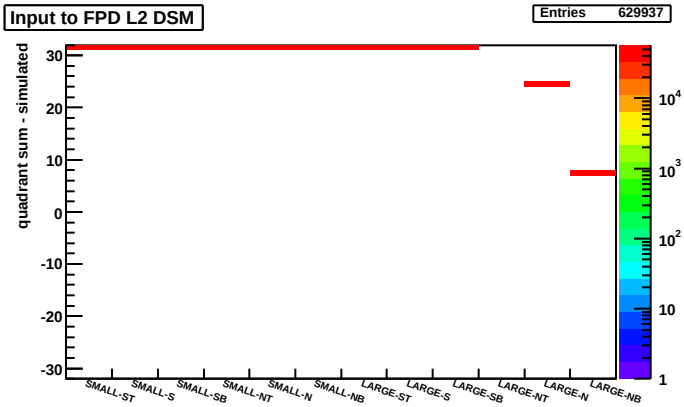

Input to FMS L1 DSM
Entries 687204
sumA
DSM board

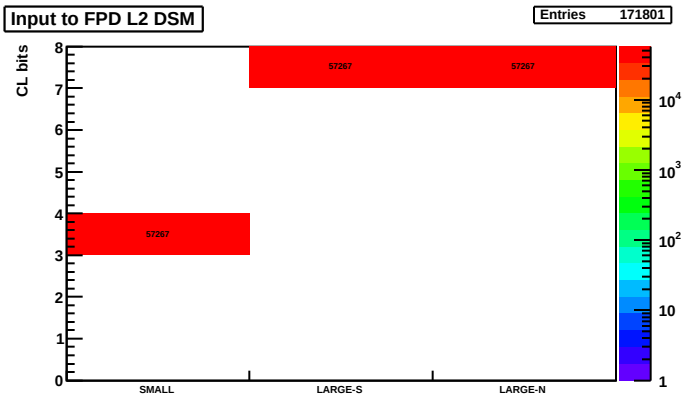

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

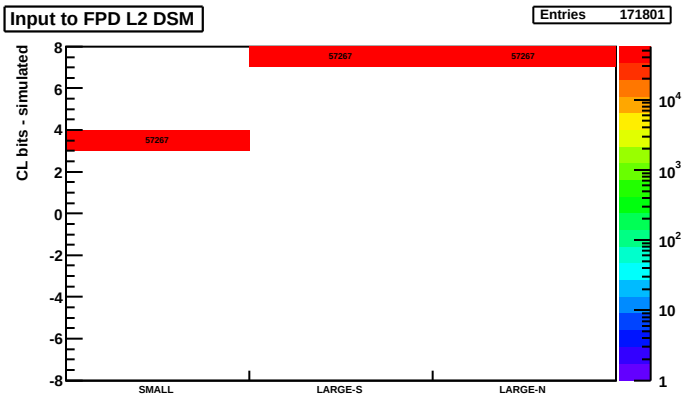

Input to FMS L1 DSM
Entries 687204
FMS L1 HT bits
DSM board

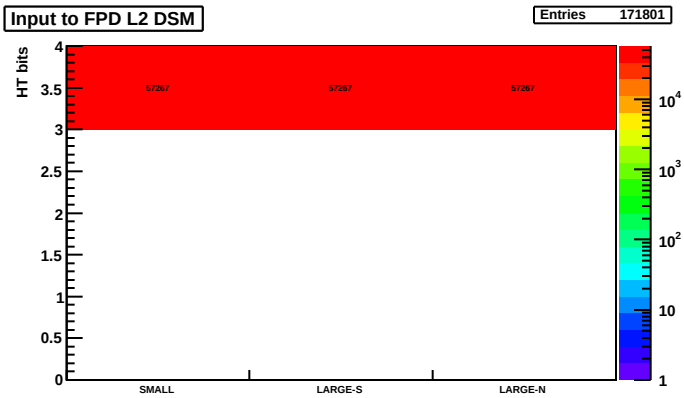

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

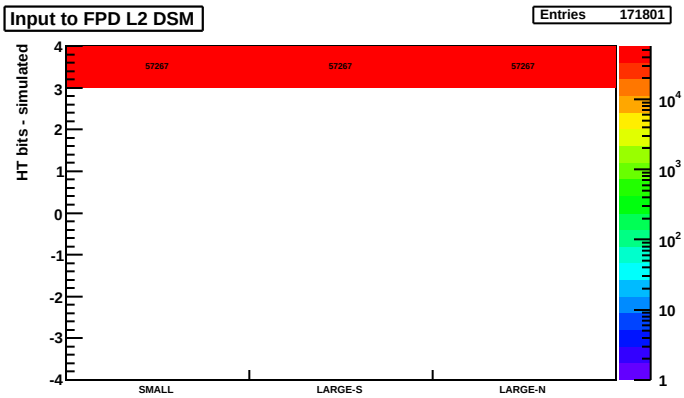

Input to FPD L2 DSM
Entries 687204
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

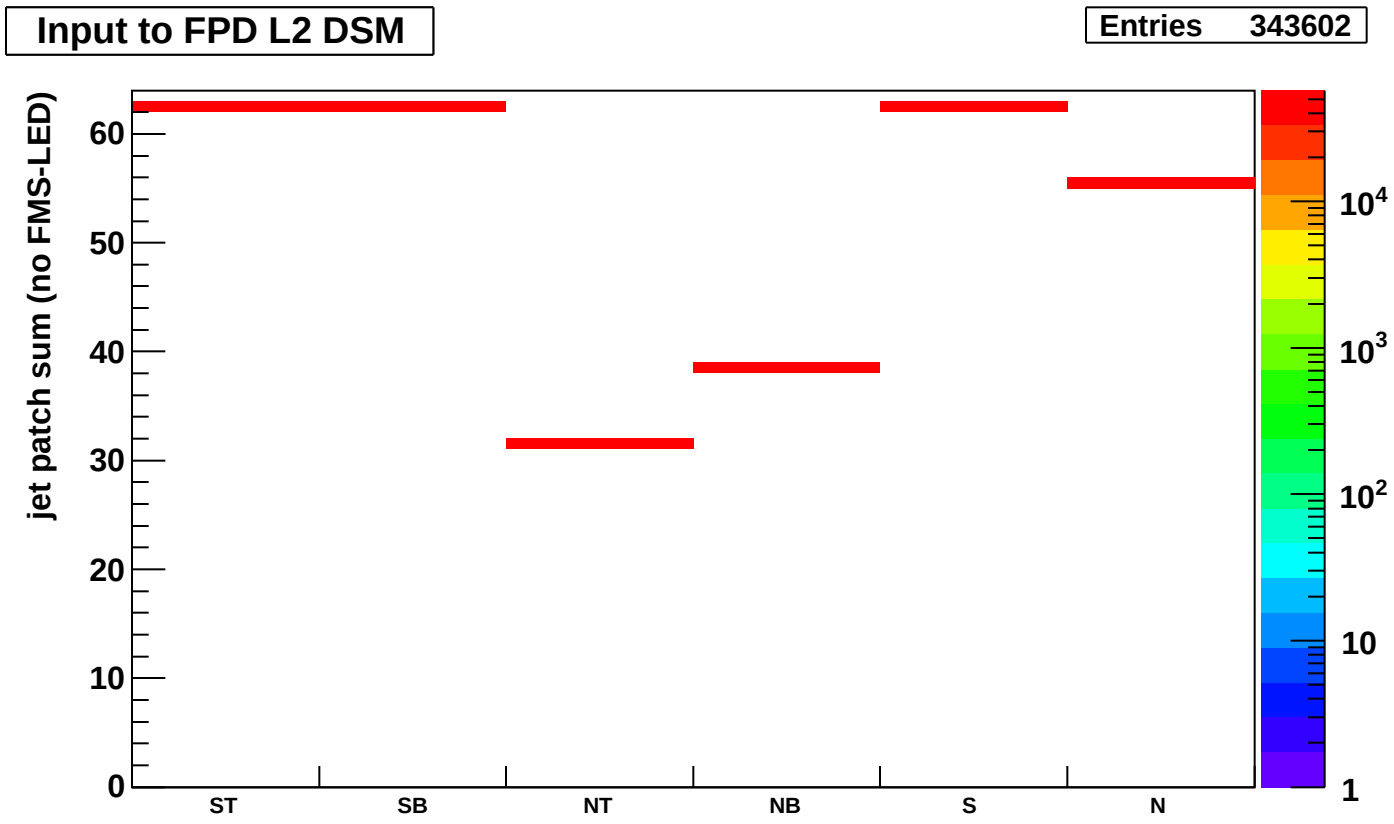

Input to FPD L2 DSM
Entries 629937
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

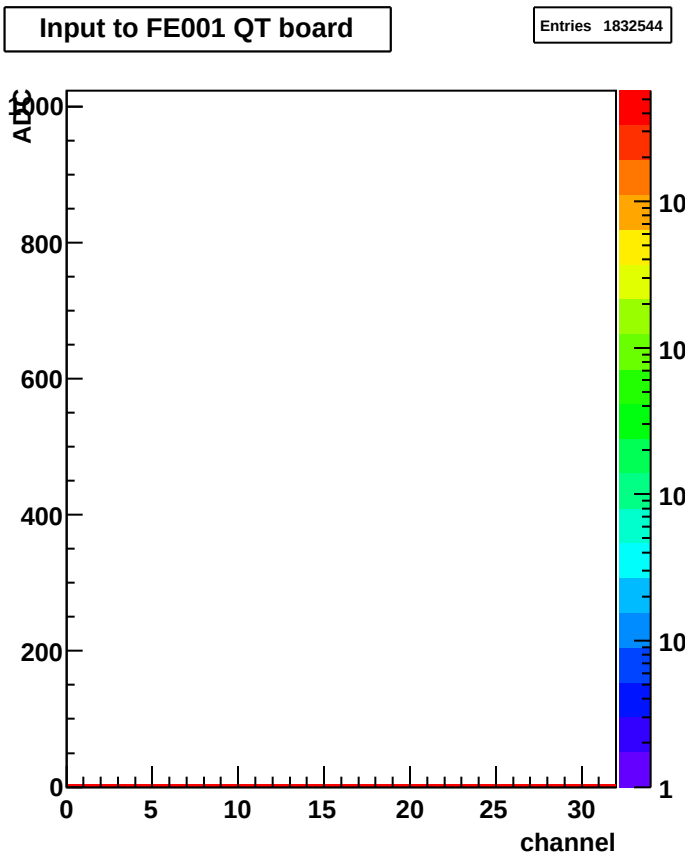

Input to FPD L2 DSM
Entries 171801
CL bits
57267
57267
57267
SMALL
LARGE-S
LARGE-N

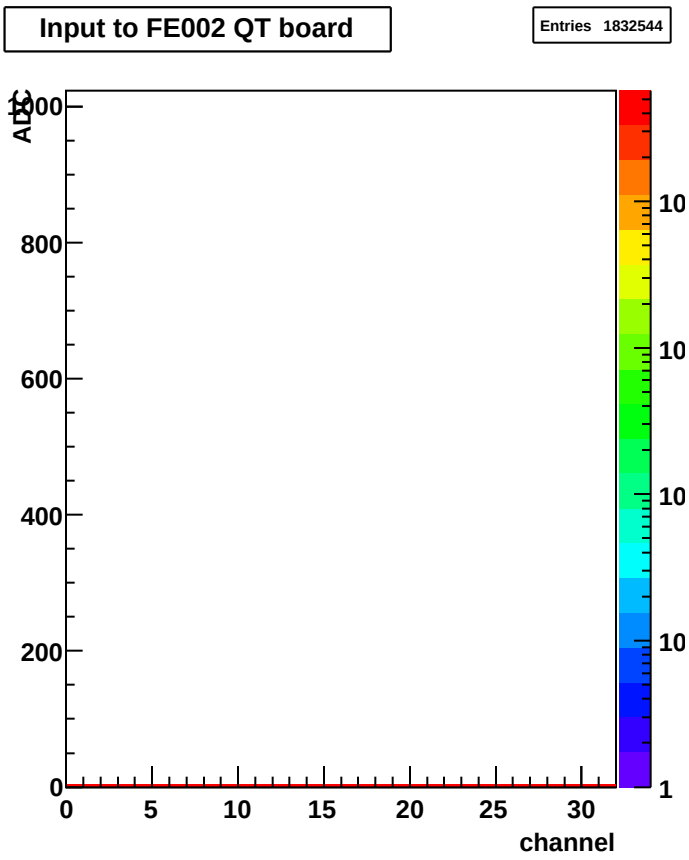

Input to FPD L2 DSM
Entries 171801
CL bits - simulated
57267
57267
57267
SMALL
LARGE-S
LARGE-N

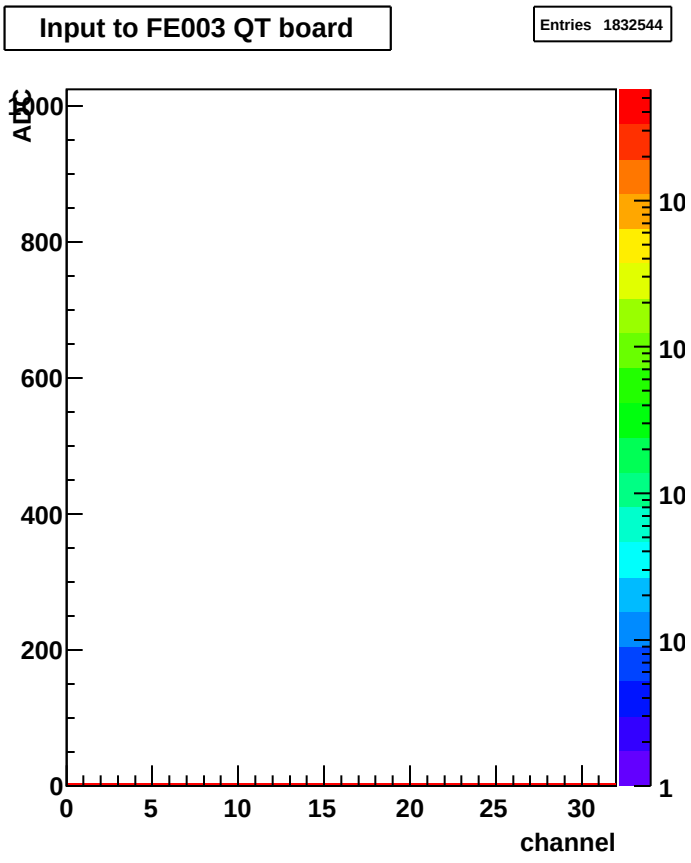

Input to FPD L2 DSM
Entries 171801
HT bits
57267
57267
57267
SMALL
LARGE-S
LARGE-N

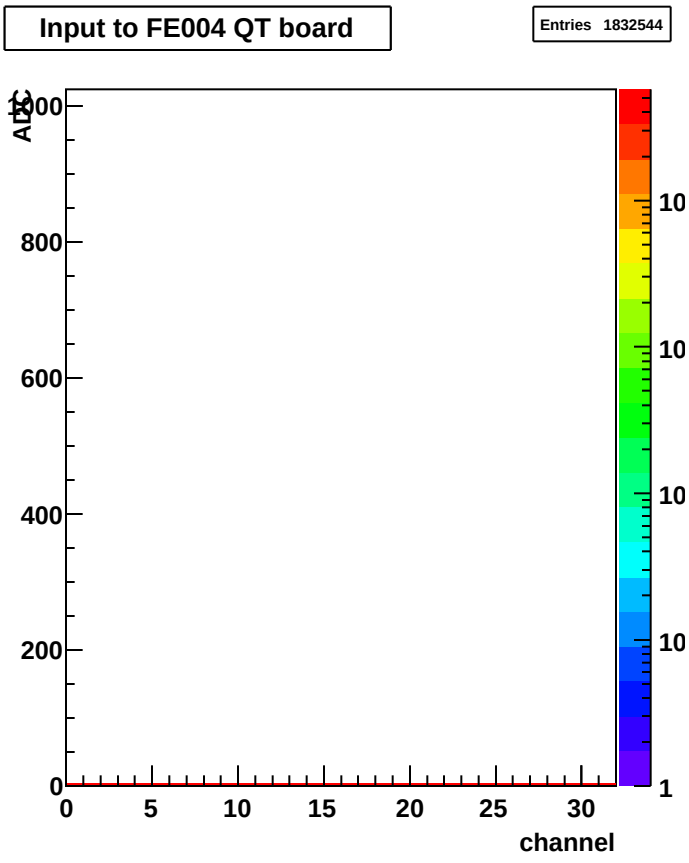

Input to FPD L2 DSM
Entries 171801
HT bits - simulated
57267
57267
57267
SMALL
LARGE-S
LARGE-N

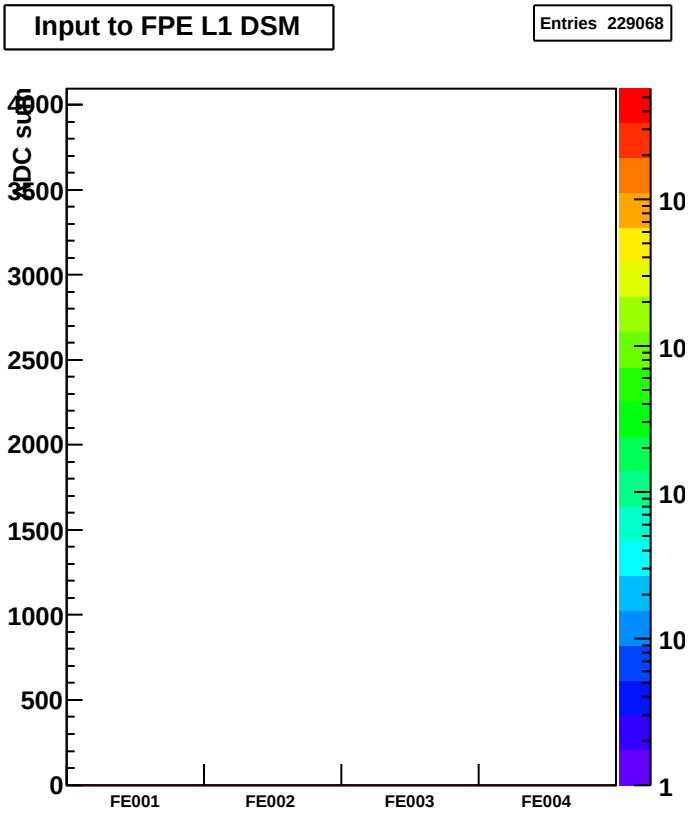

Input to FPD L2 DSM
Entries 343602
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

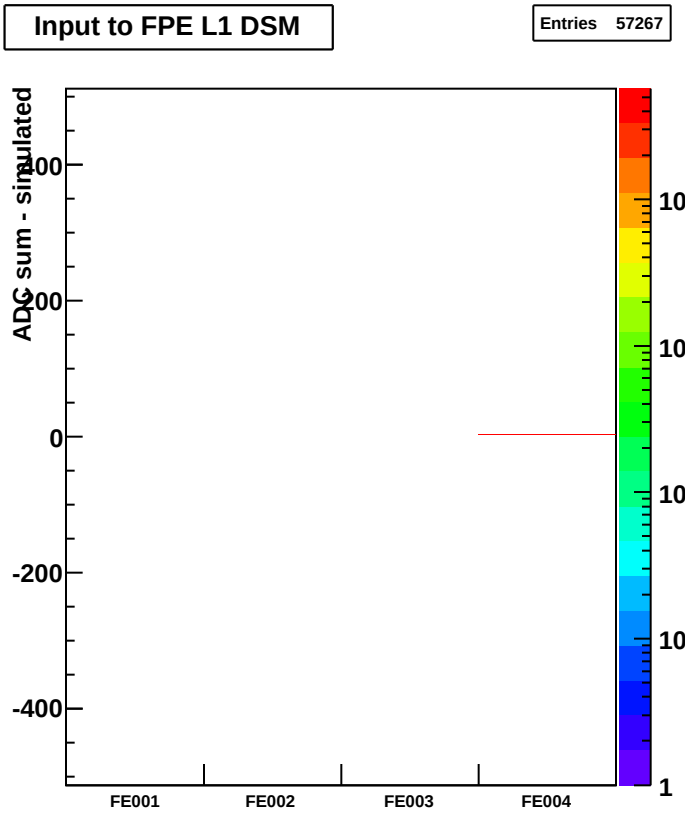

Input to FE001 QT board
Entries 1832544
ADC
channel

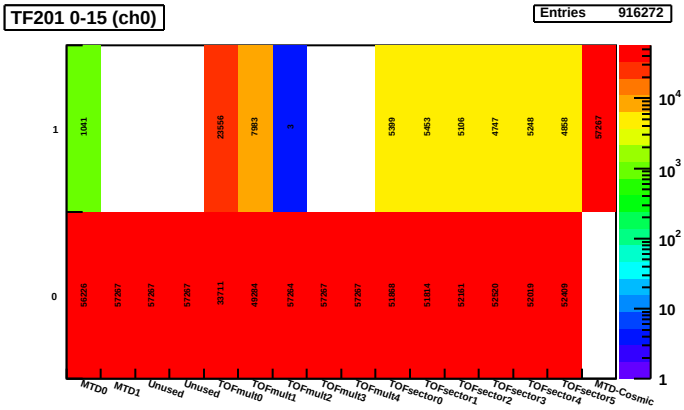

Input to FE002 QT board
Entries 1832544
ADC
channel

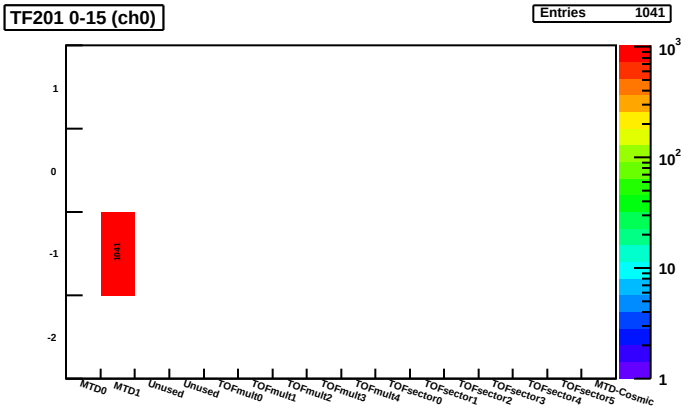

Input to FE003 QT board
Entries 1832544
ADC
channel

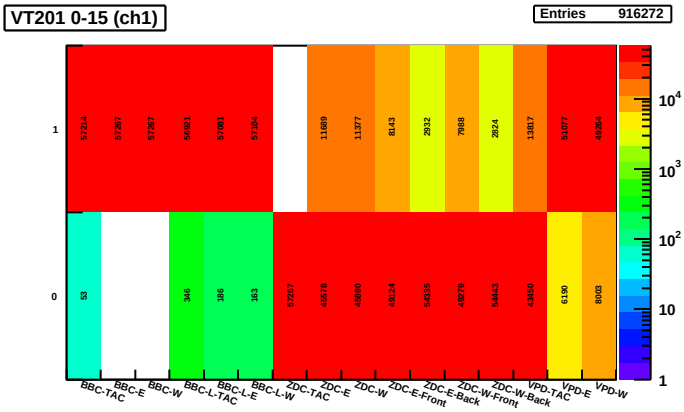

Input to FE004 QT board
Entries 1832544
ADC
channel

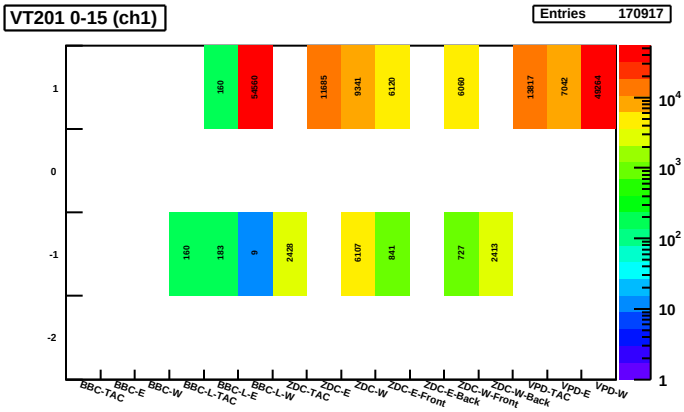

Input to FPE L1 DSM
Entries 229068
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

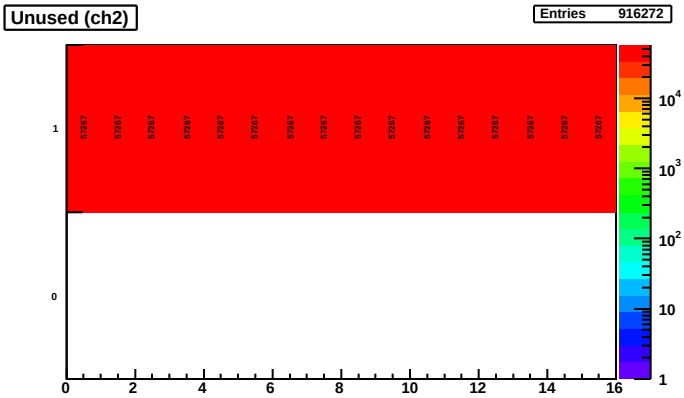

Input to FPE L1 DSM
Entries 57267
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

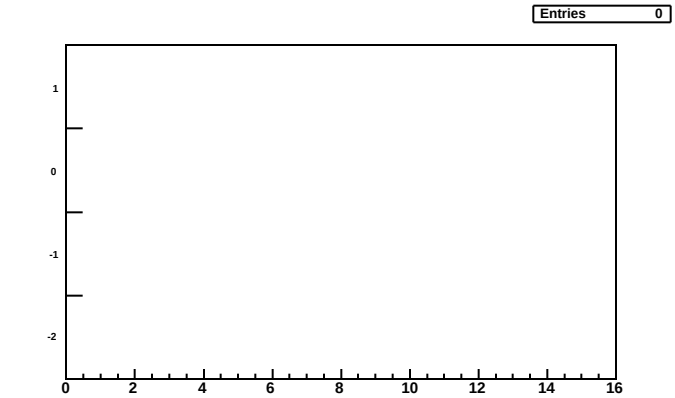

TF201 0-15 (ch0)
Entries 916272
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

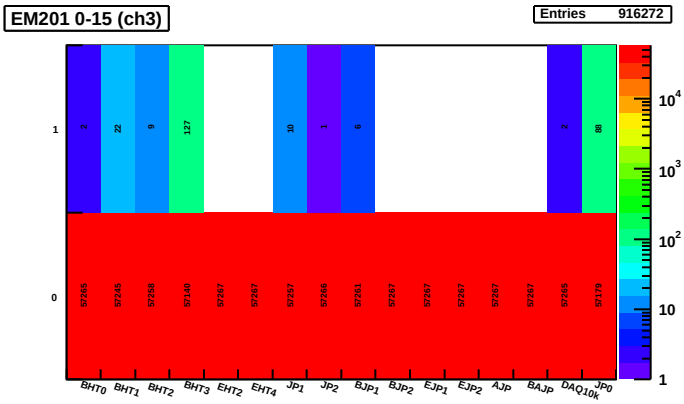

TF201 0-15 (ch0)
Entries 1041
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

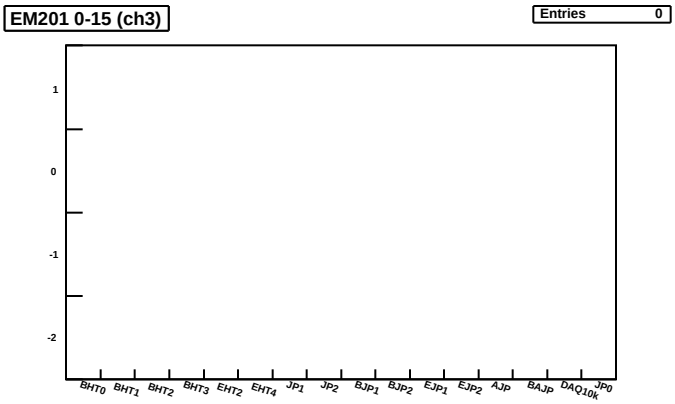

VT201 0-15 (ch1)
Entries 916272
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 170917
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

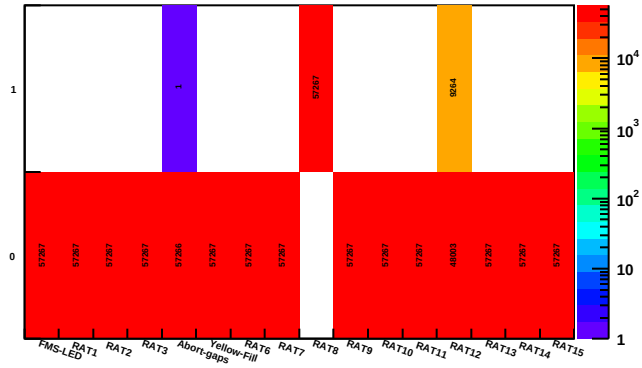

Unused (ch2)
Entries 916272

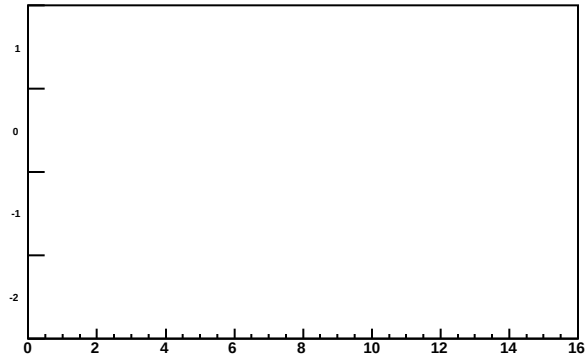

Entries 0


EM201 0-15 (ch3)
Entries 916272
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

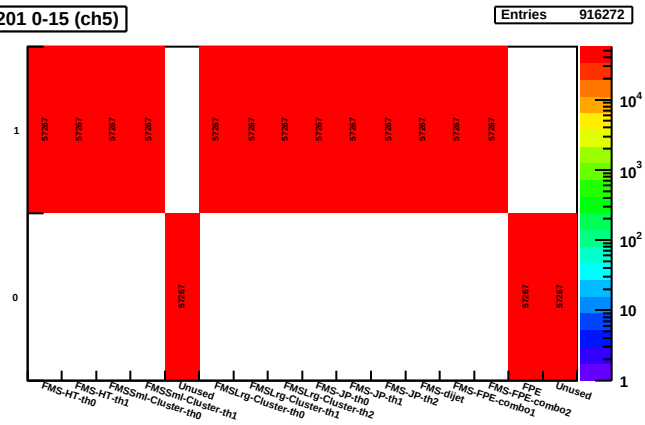

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

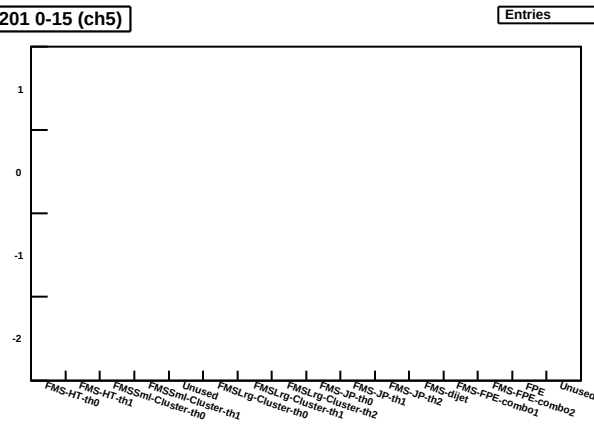




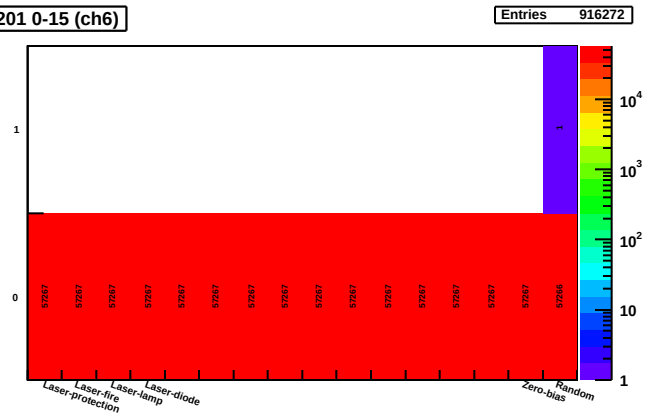
FP201 0-15 (ch5)

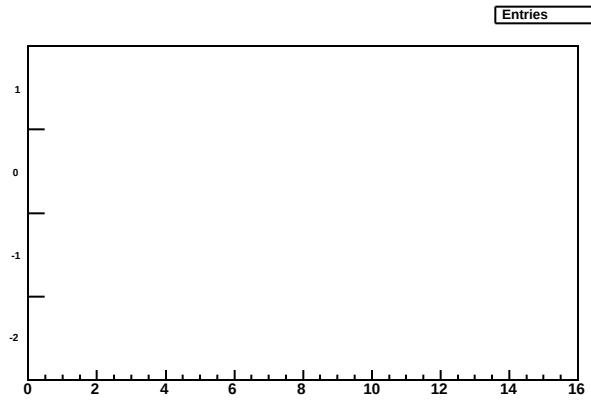
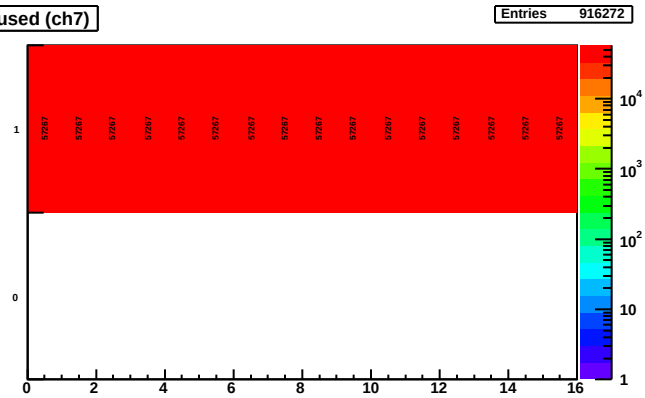
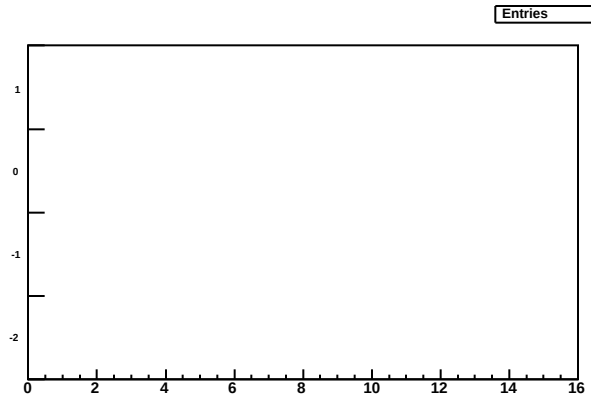


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)