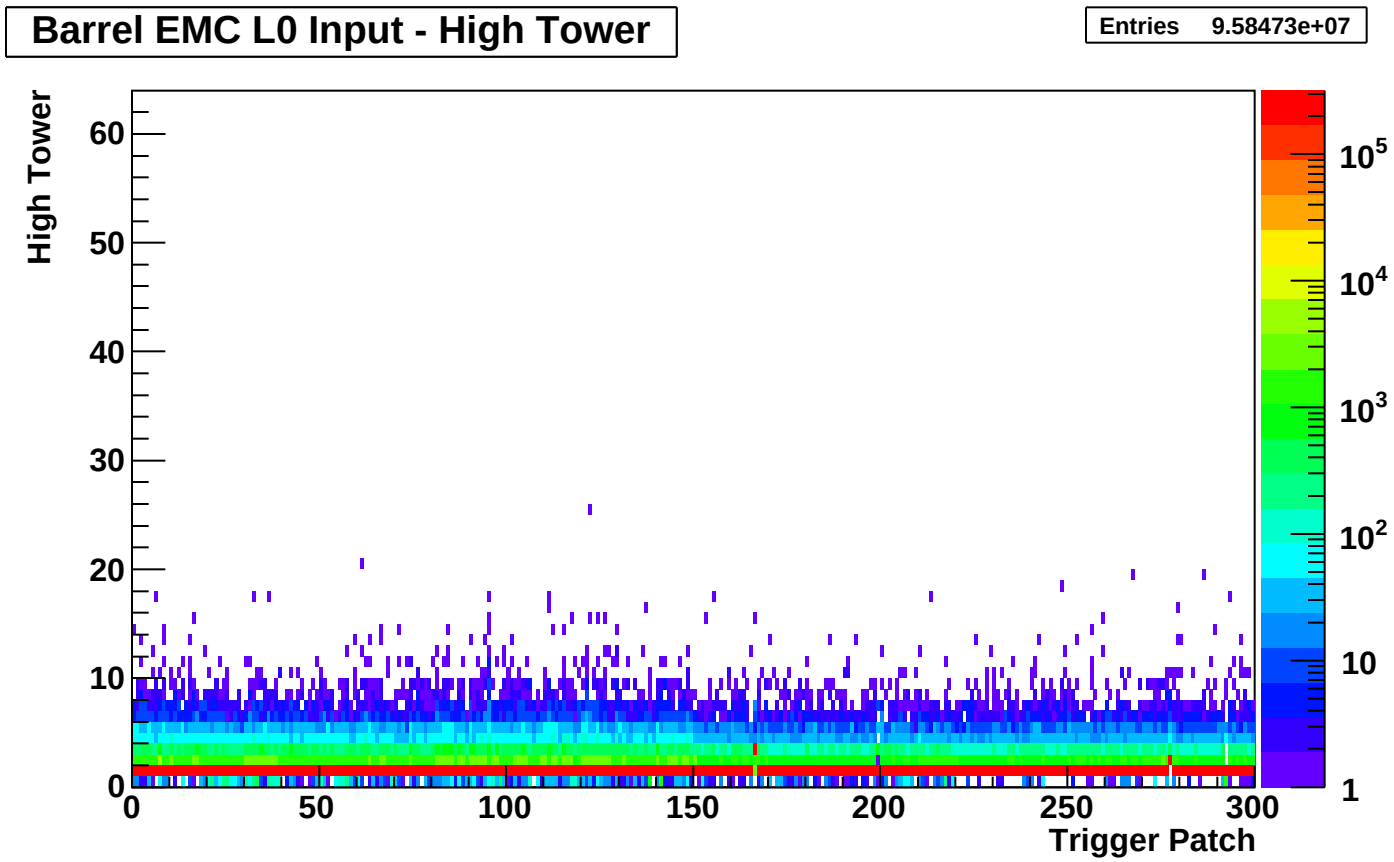
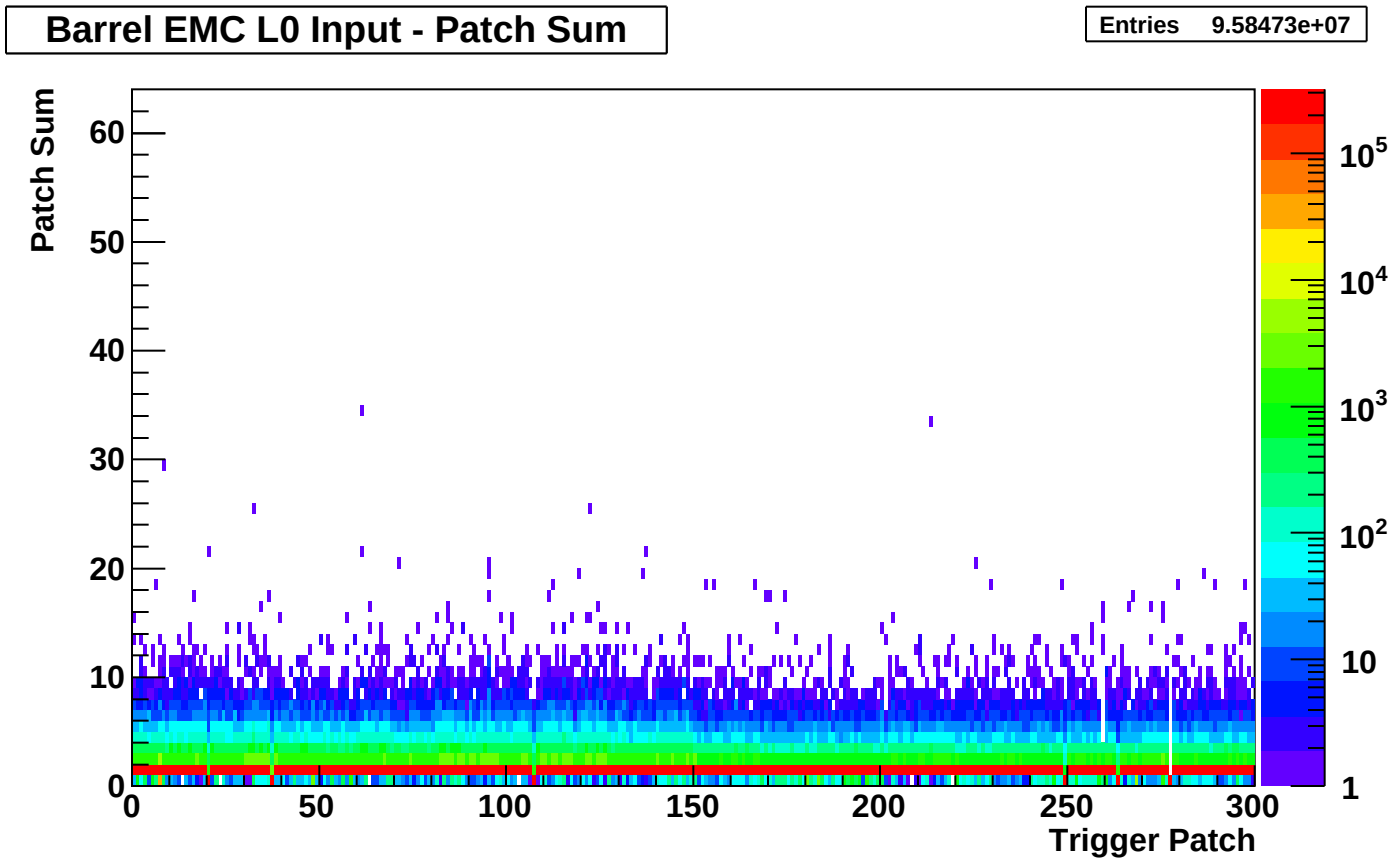
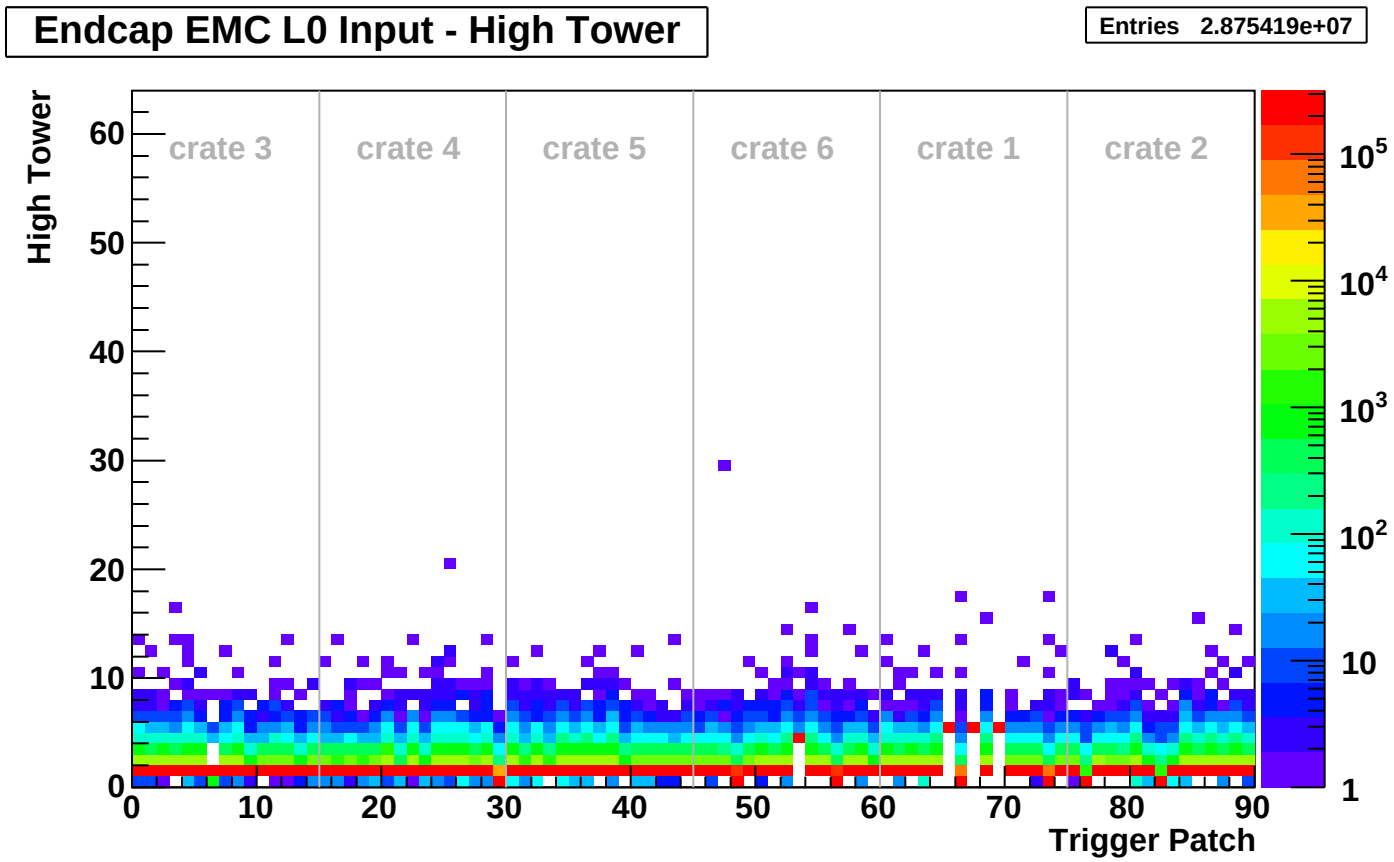
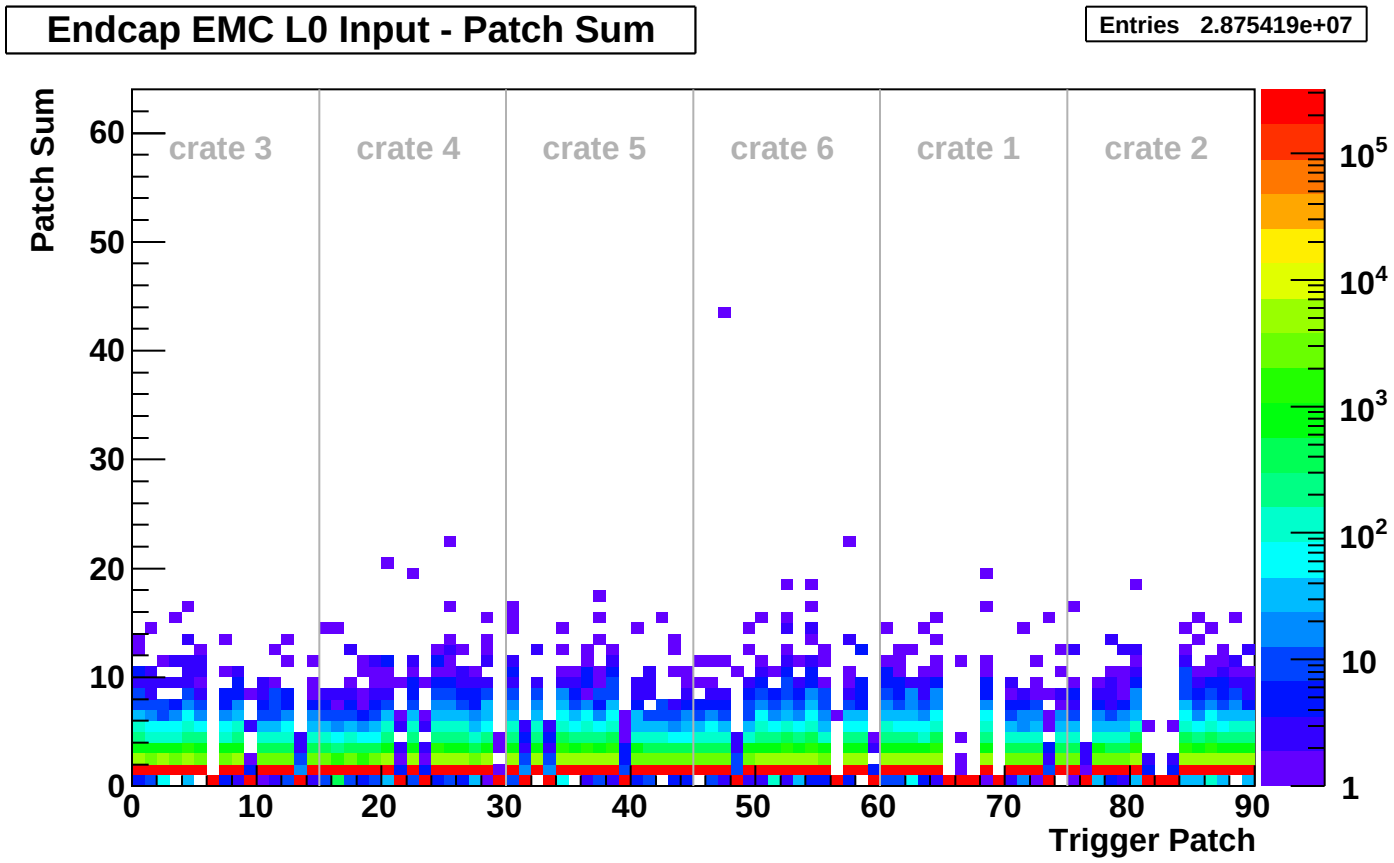
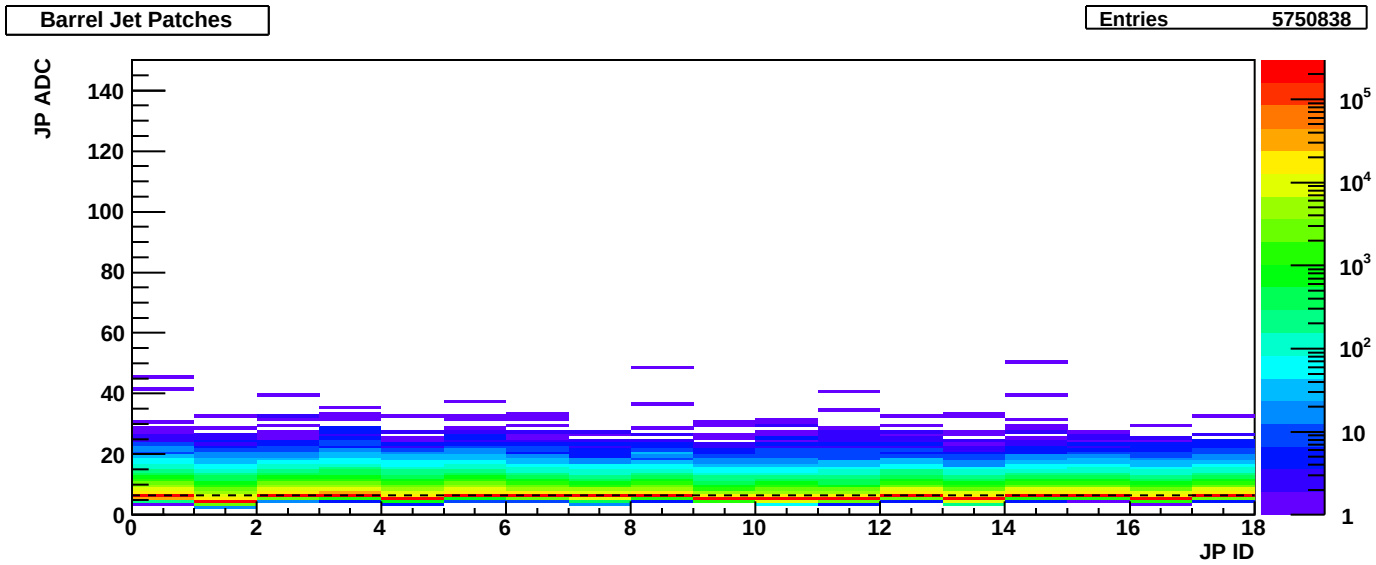
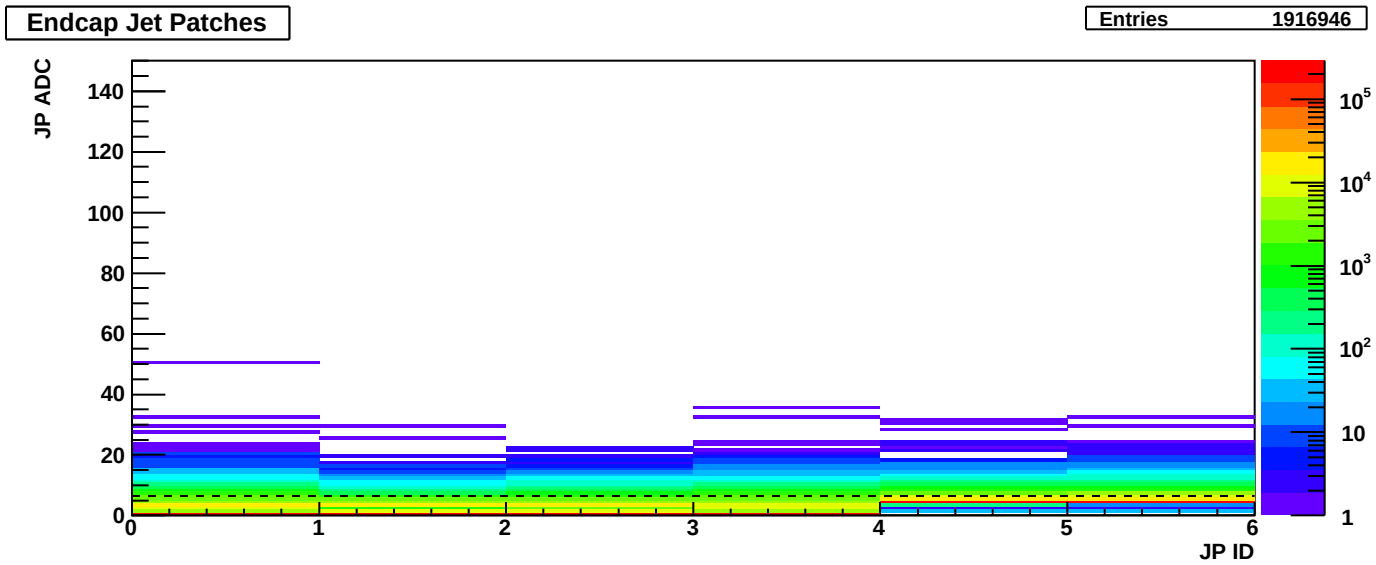

Barrel EMC L0 Input - High Tower
Entries 9.58473e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

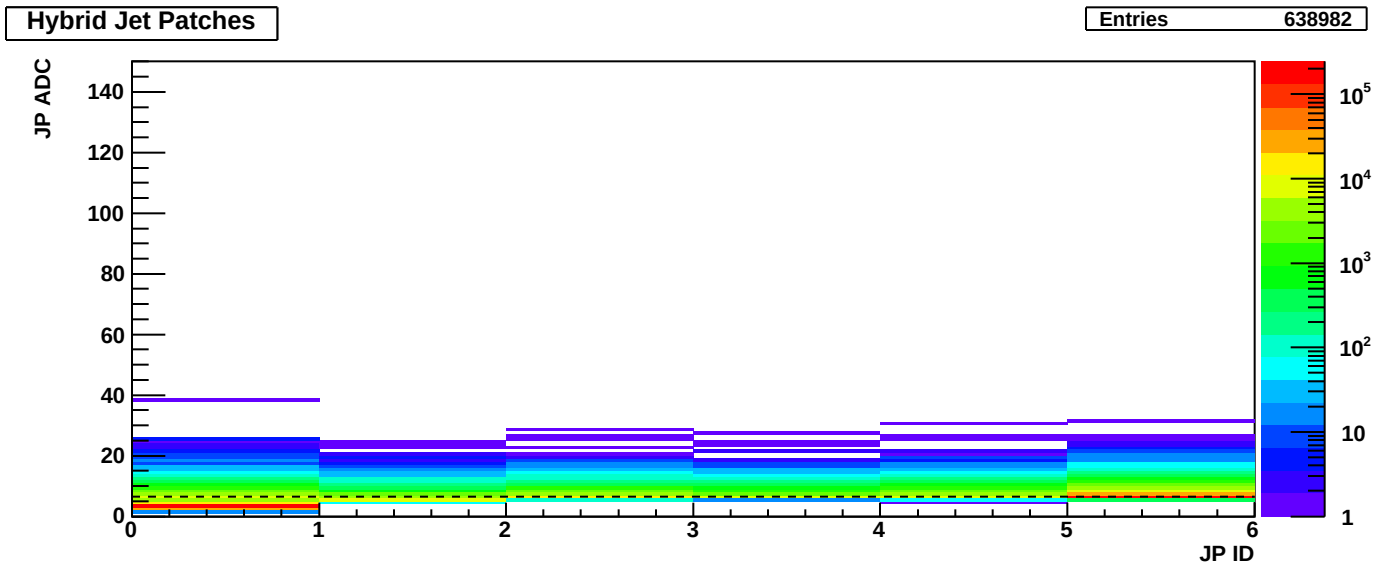

Barrel EMC L0 Input - Patch Sum
Entries 9.58473e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

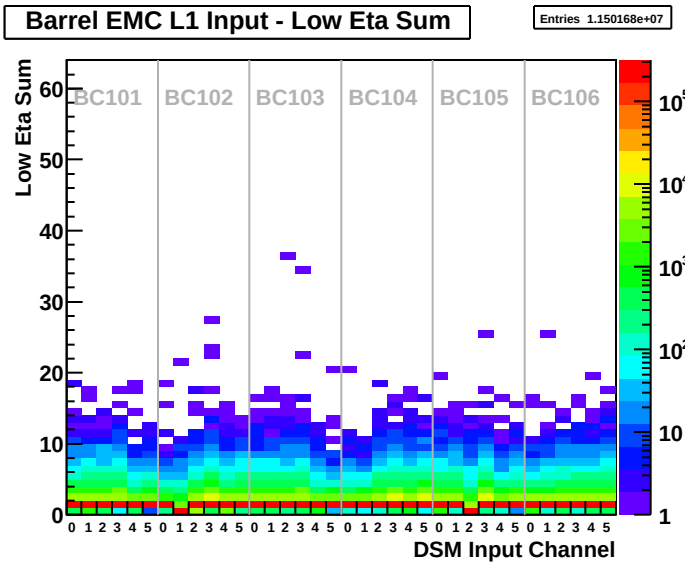

Endcap EMC L0 Input - High Tower
Entries 2.875419e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

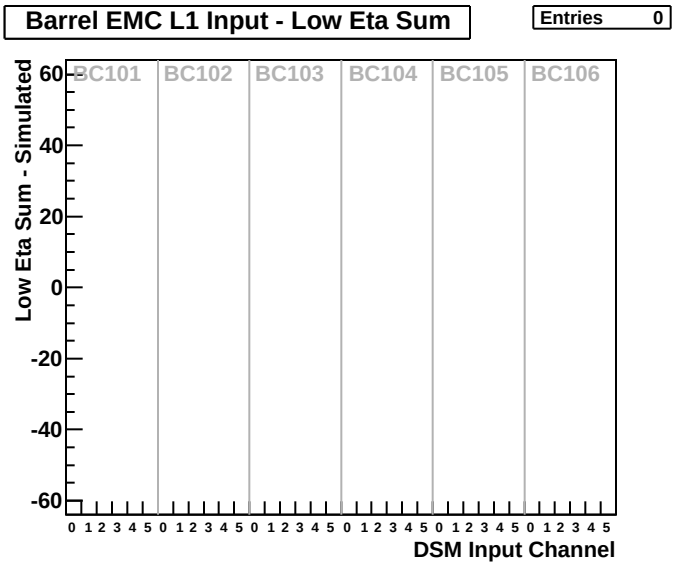

Endcap EMC L0 Input - Patch Sum
Entries 2.875419e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

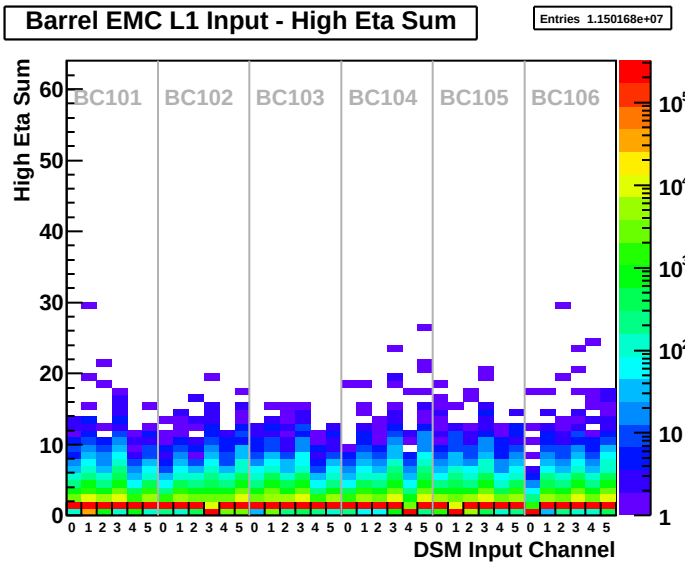

Barrel Jet Patches
Entries 5750838
JP ADC
JP ID

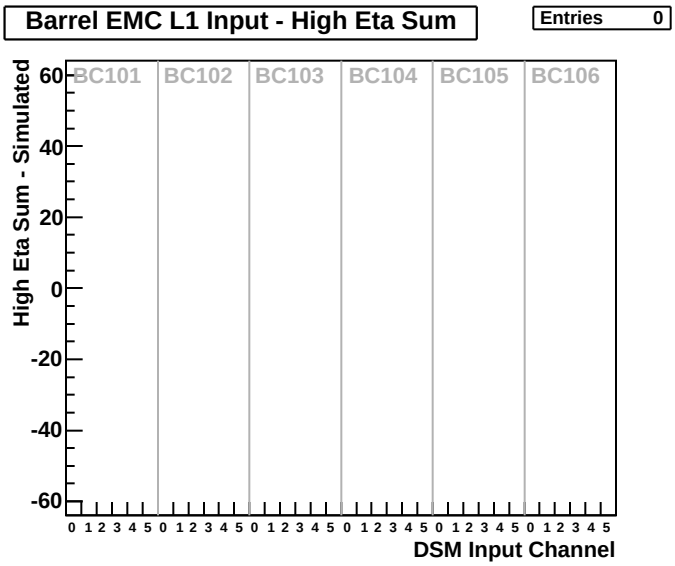

Endcap Jet Patches
Entries 1916946
JP ADC
JP ID

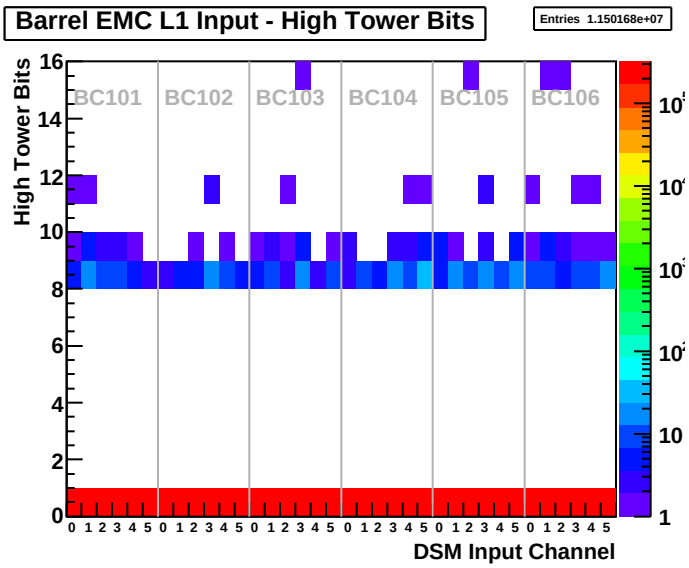

Hybrid Jet Patches
Entries 638982
JP ADC
JP ID

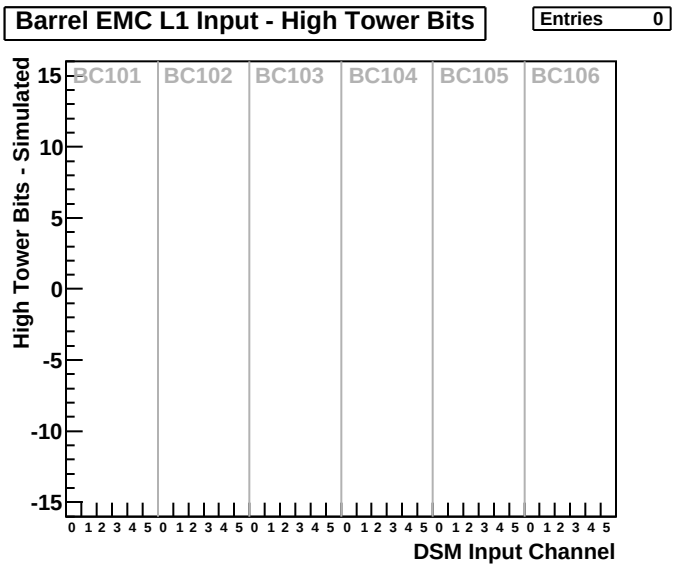

Barrel EMC L1 Input - Low Eta Sum
Entries 1.150168e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

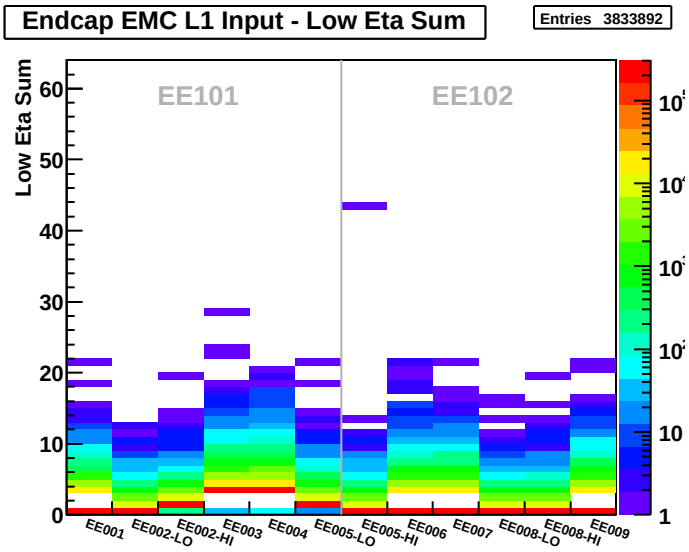

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

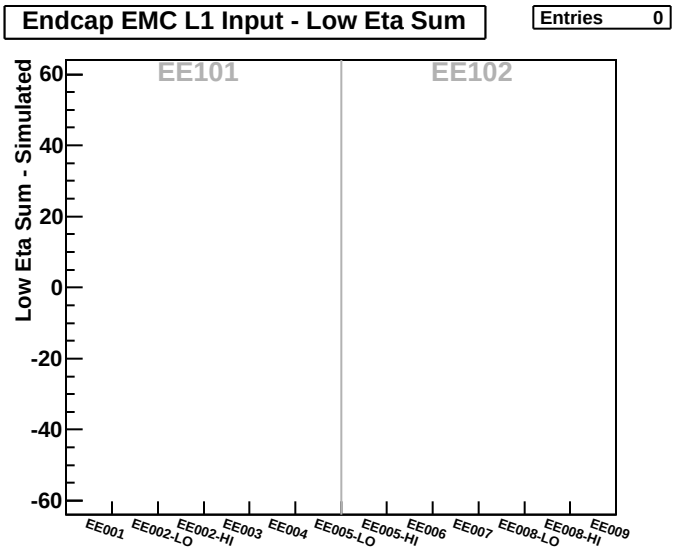

Barrel EMC L1 Input - High Eta Sum
Entries 1.150168e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

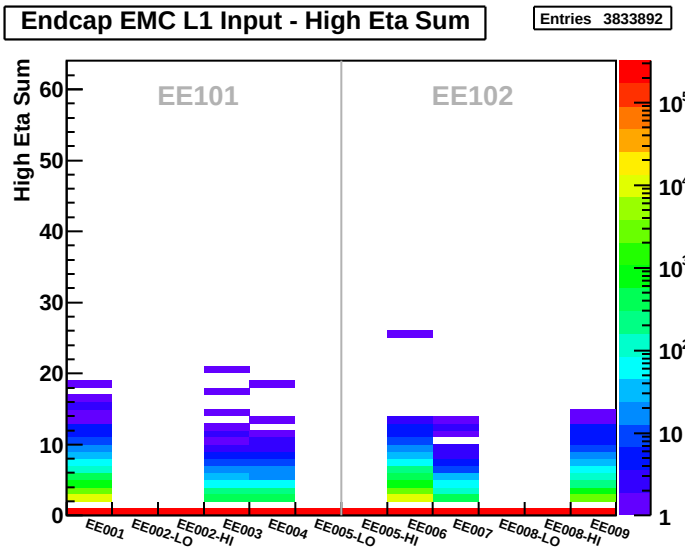

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

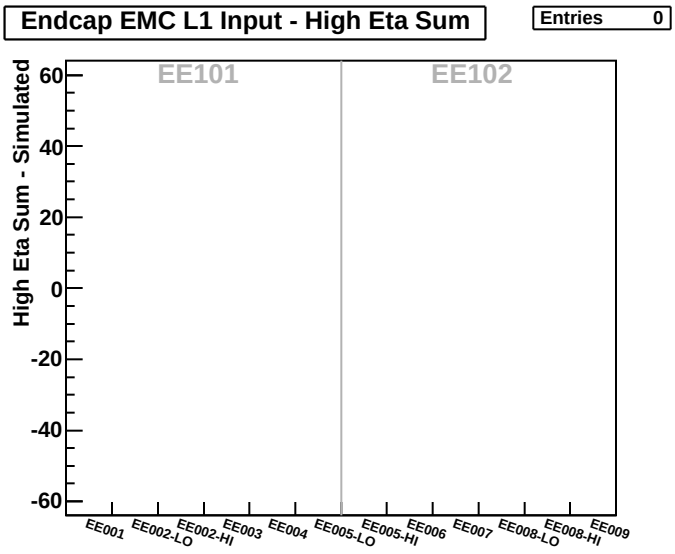

Barrel EMC L1 Input - High Tower Bits
Entries 1.150168e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

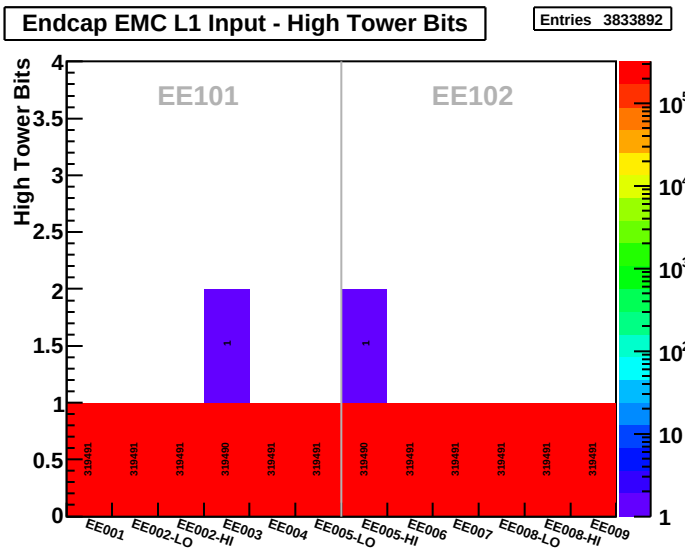

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

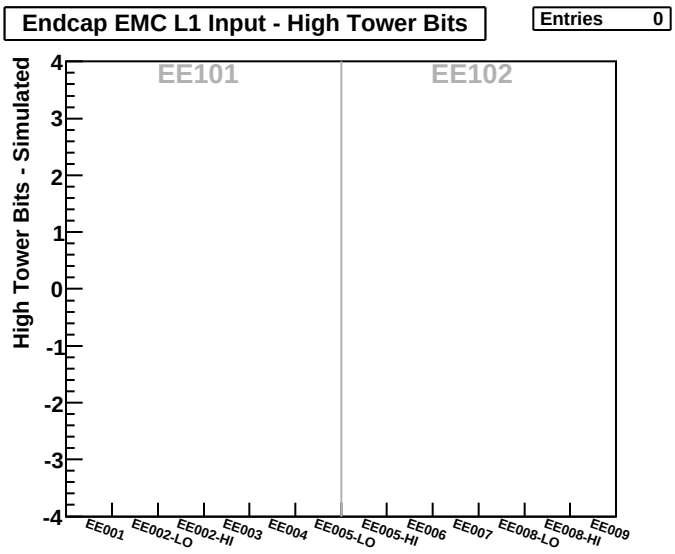

Endcap EMC L1 Input - Low Eta Sum
Entries 3833892
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

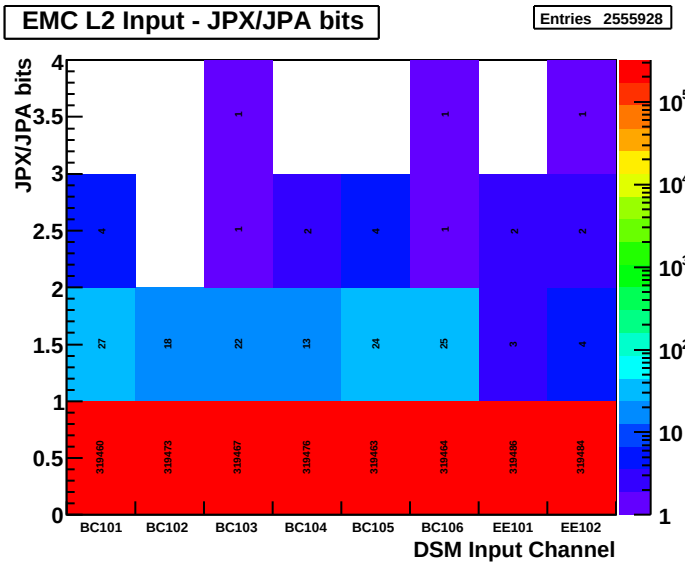

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

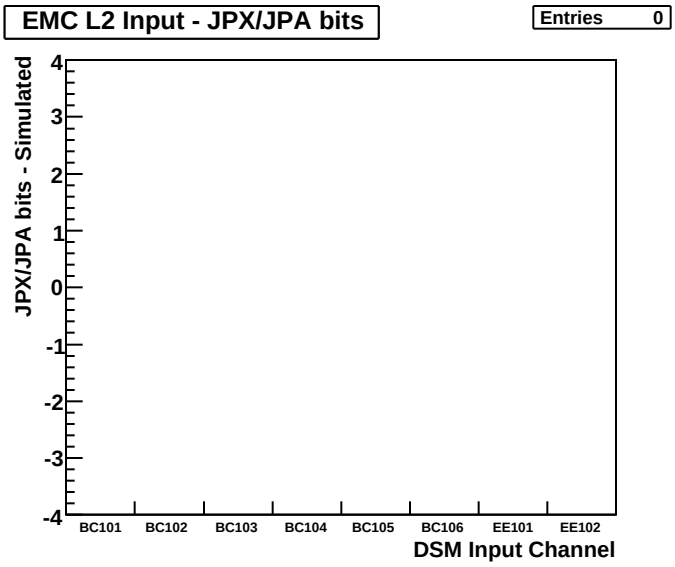

Endcap EMC L1 Input - High Eta Sum
Entries 3833892
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

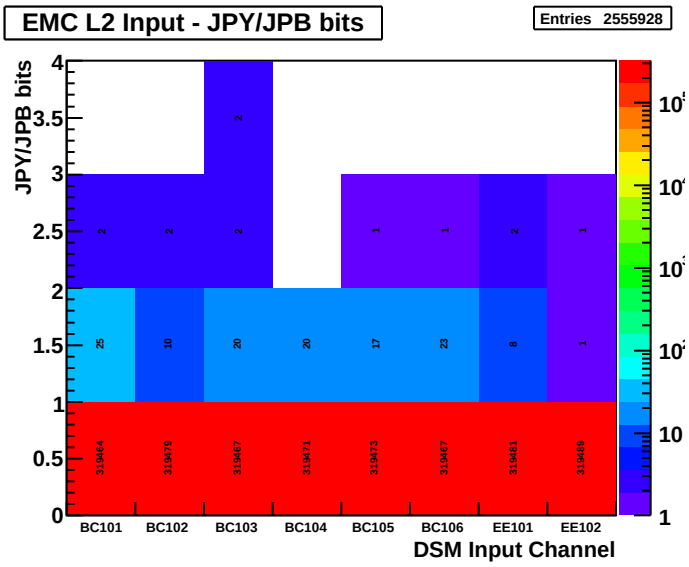

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

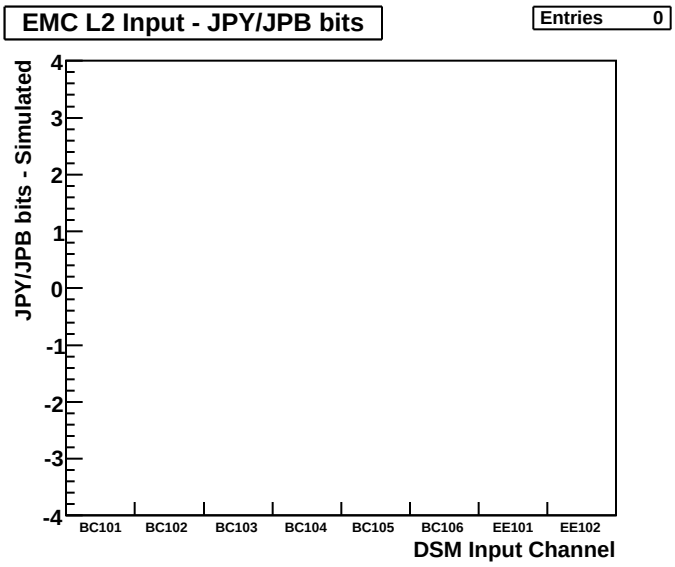

Endcap EMC L1 Input - High Tower Bits
Entries 3833892
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

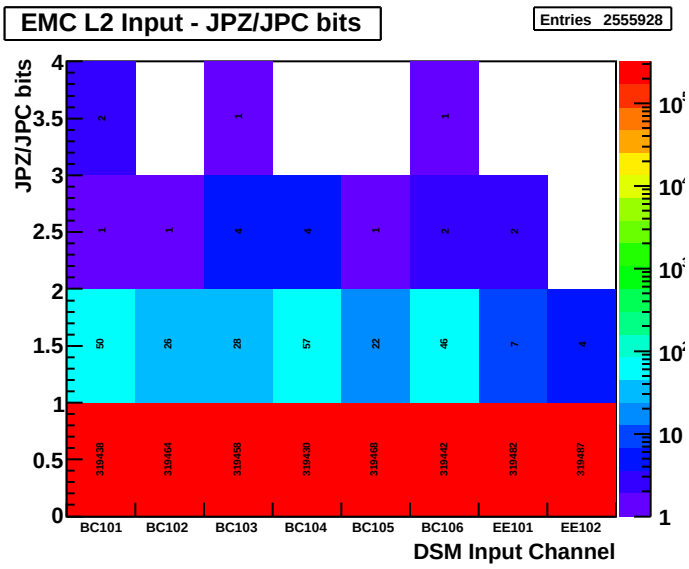

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

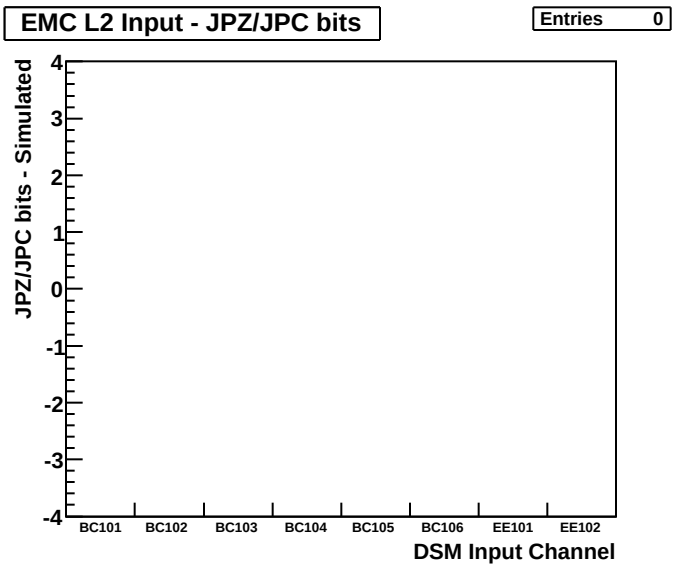

EMC L2 Input - JPX/JPA bits
Entries 2555928
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

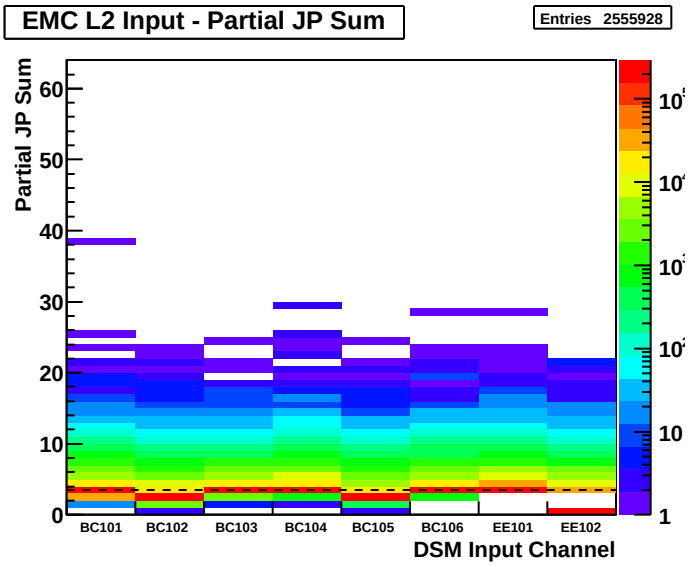

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

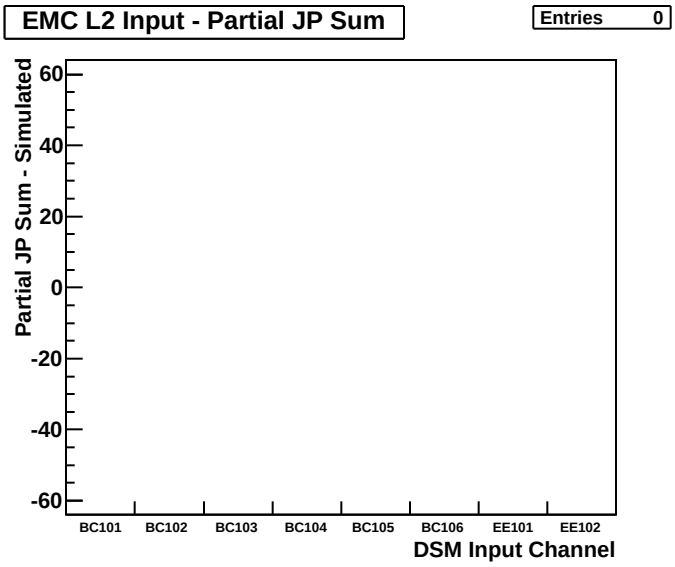

EMC L2 Input - JPY/JPB bits
Entries 2555928
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

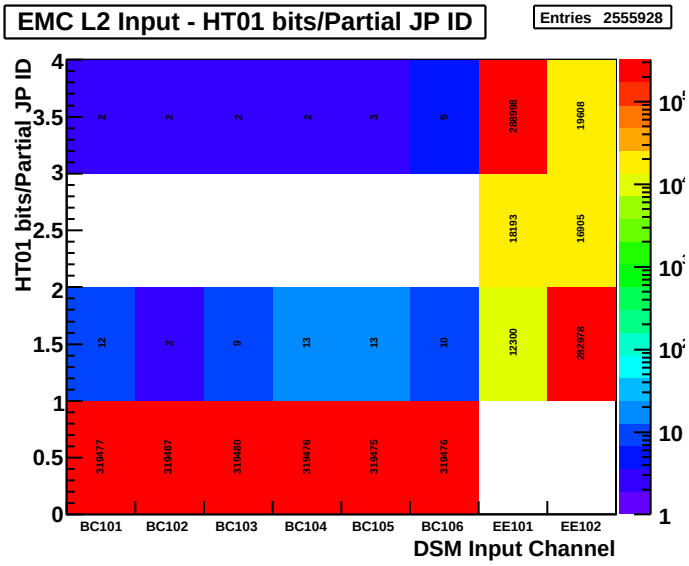

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

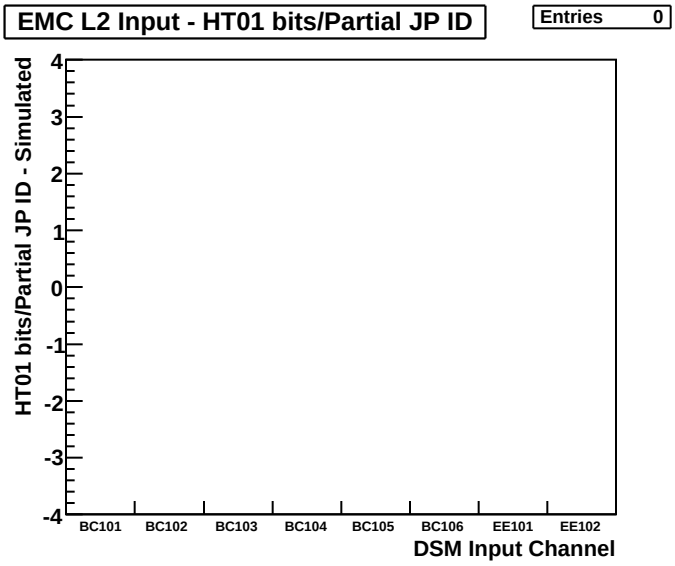

EMC L2 Input - JPZ/JPC bits
Entries 2555928
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

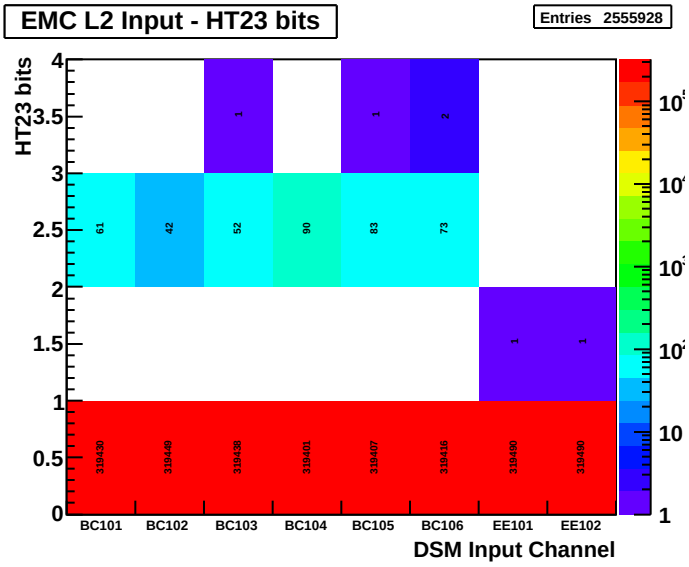

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

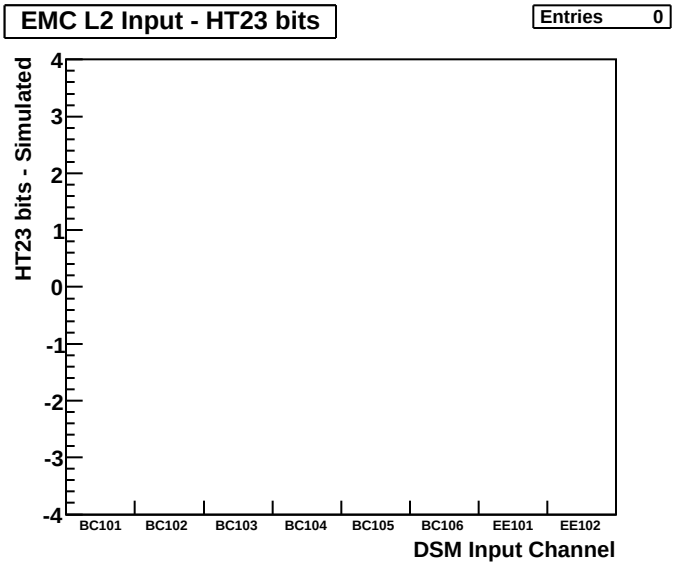

EMC L2 Input - Partial JP Sum
Entries 2555928
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

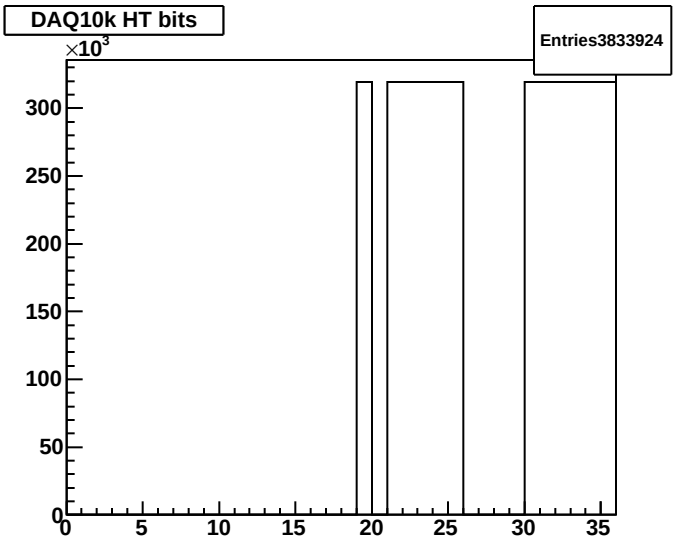

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

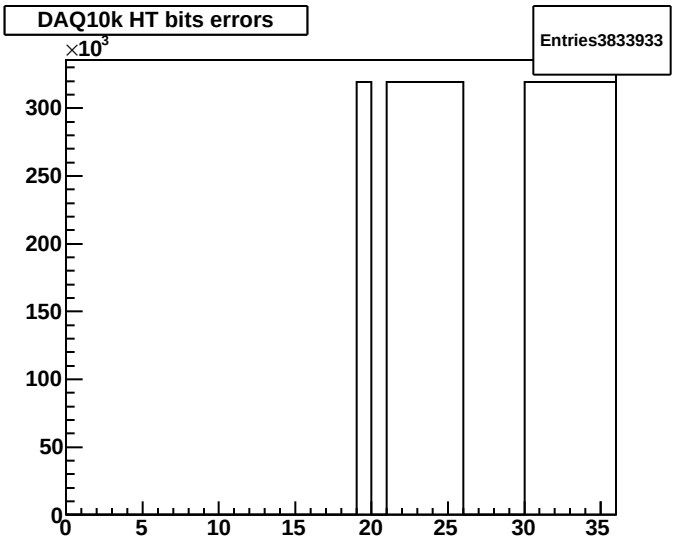

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2555928
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

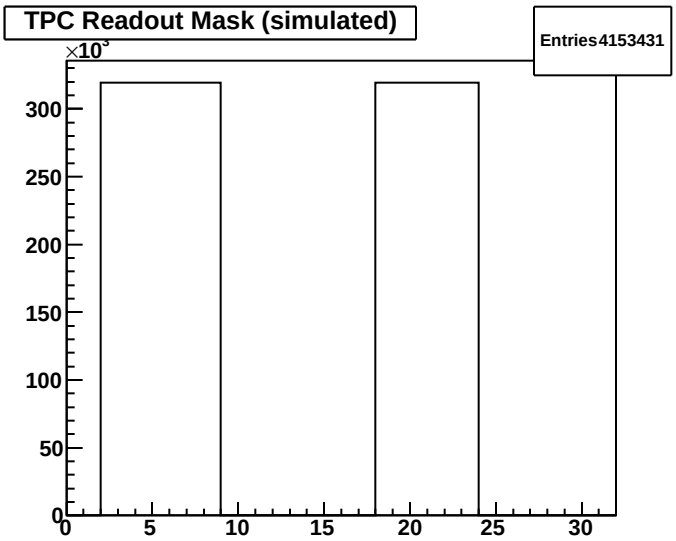

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

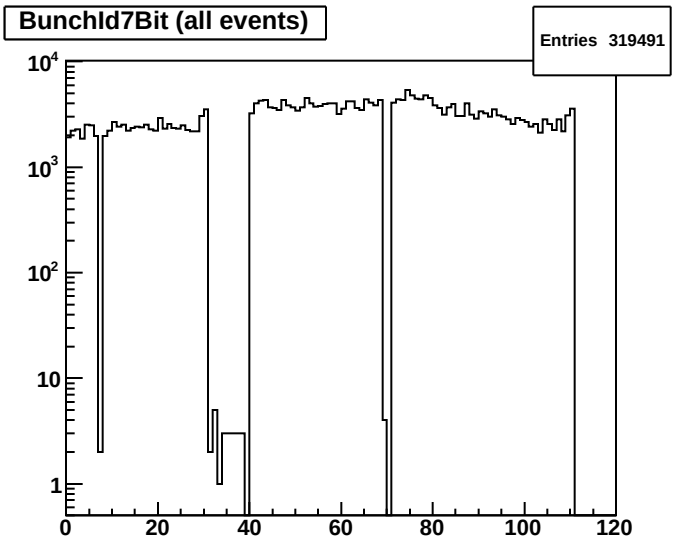

EMC L2 Input - HT23 bits
Entries 2555928
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

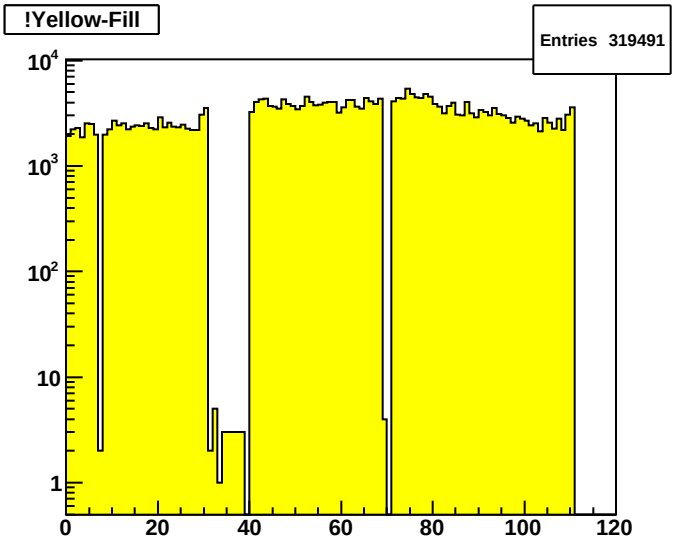

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

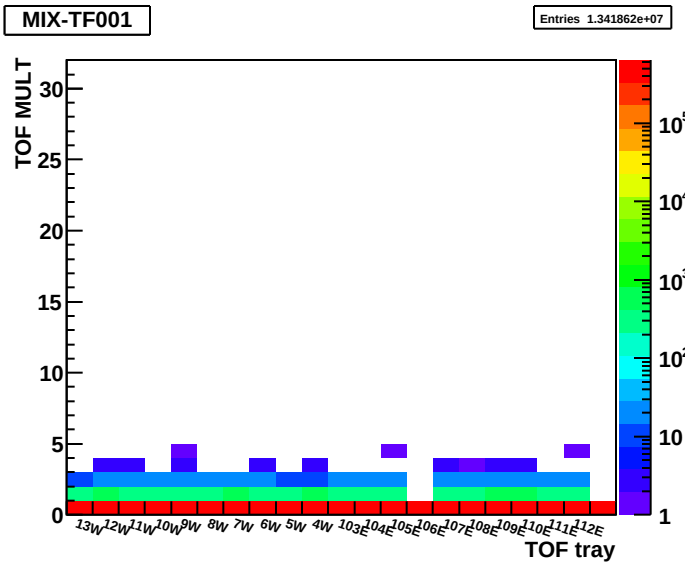

DAQ10k HT bits
Entries3833924
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

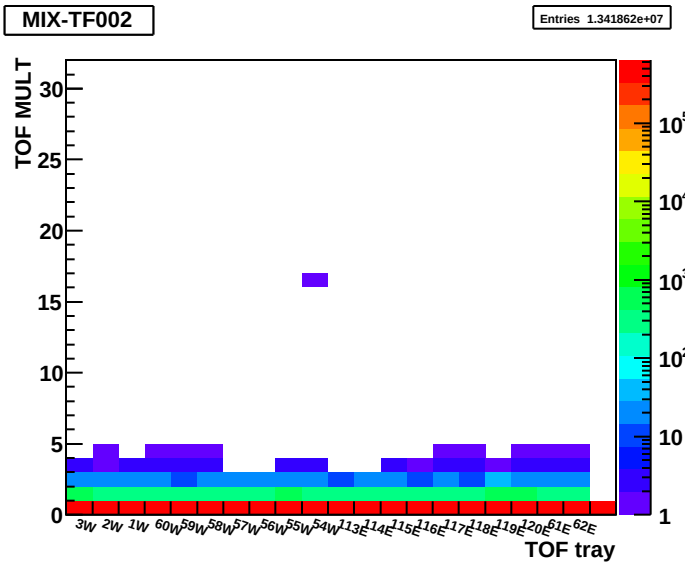

DAQ10k HT bits errors
Entries3833933
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

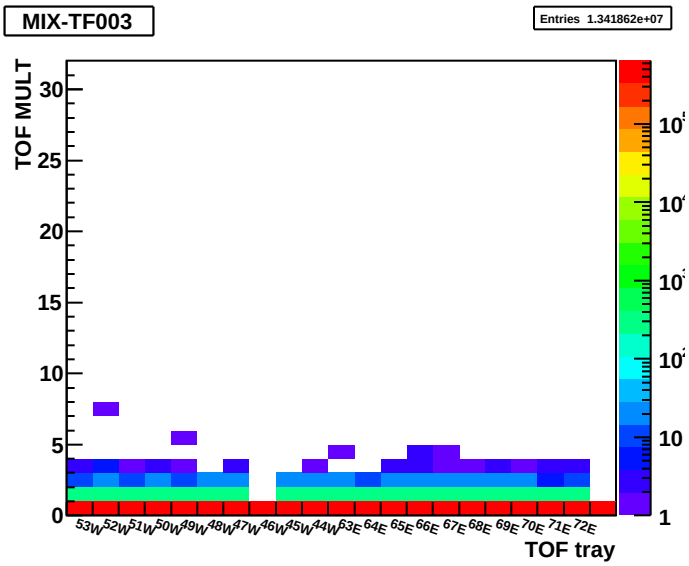

TPC Readout Mask (simulated)
Entries4153431
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30

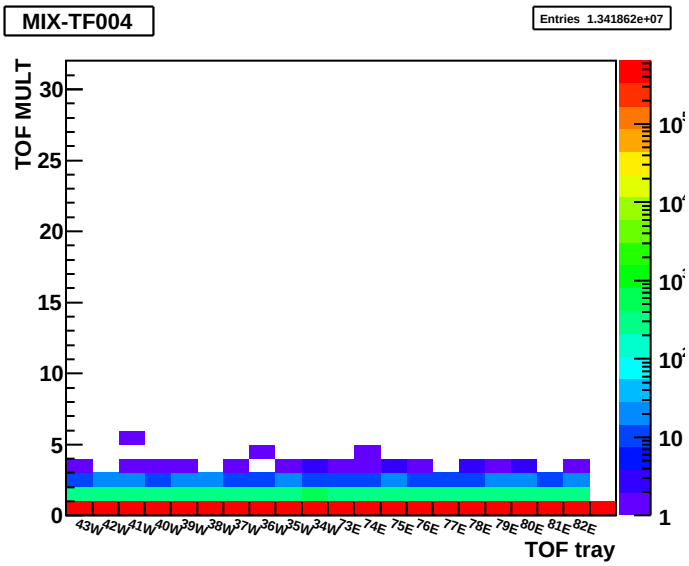

BunchId7Bit (all events)
Entries 319491
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

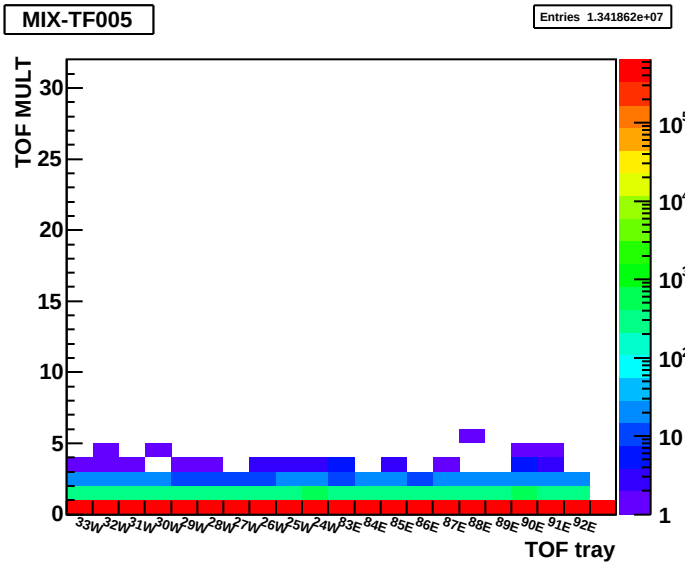

!Yellow-Fill
Entries 319491
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

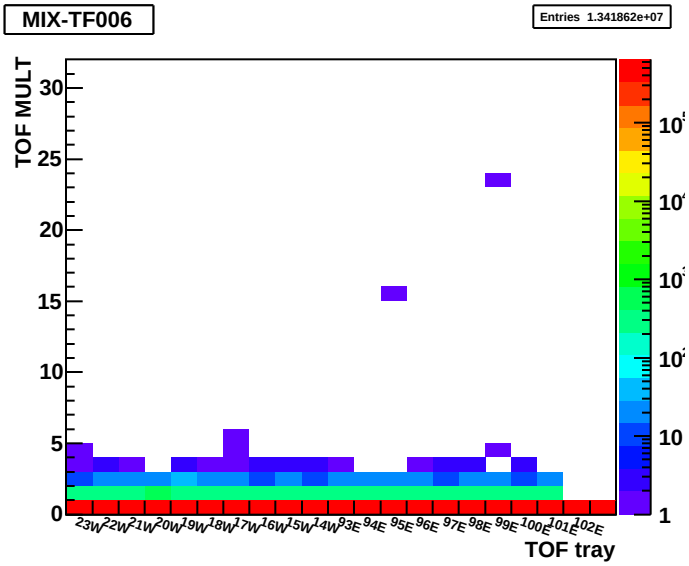

MIX-TF001
Entries 1.341862e+07
TOF MULT
TOF tray

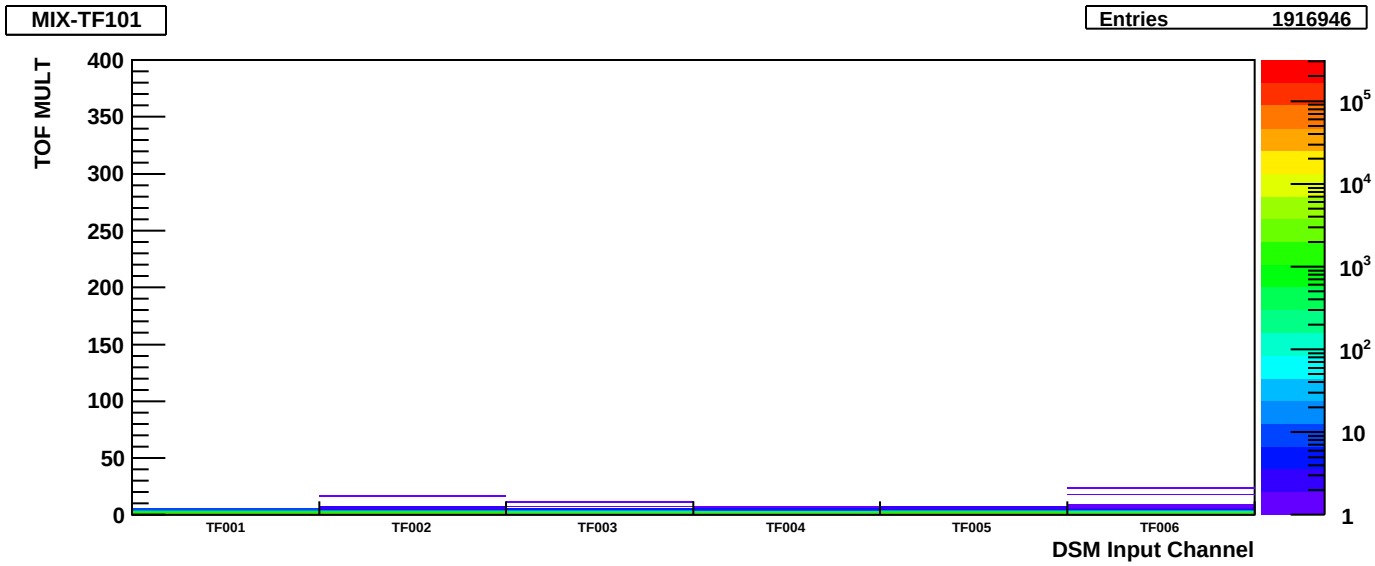

MIX-TF002
Entries 1.341862e+07
TOF MULT
TOF tray

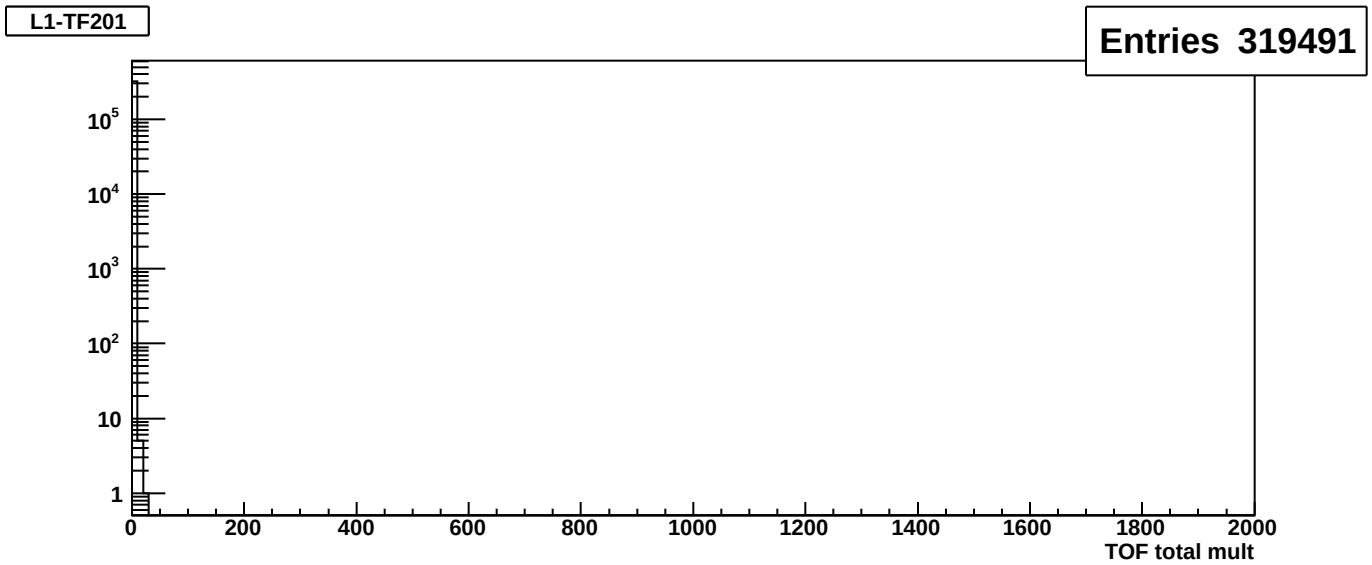

MIX-TF003
Entries 1.341862e+07
TOF MULT
TOF tray

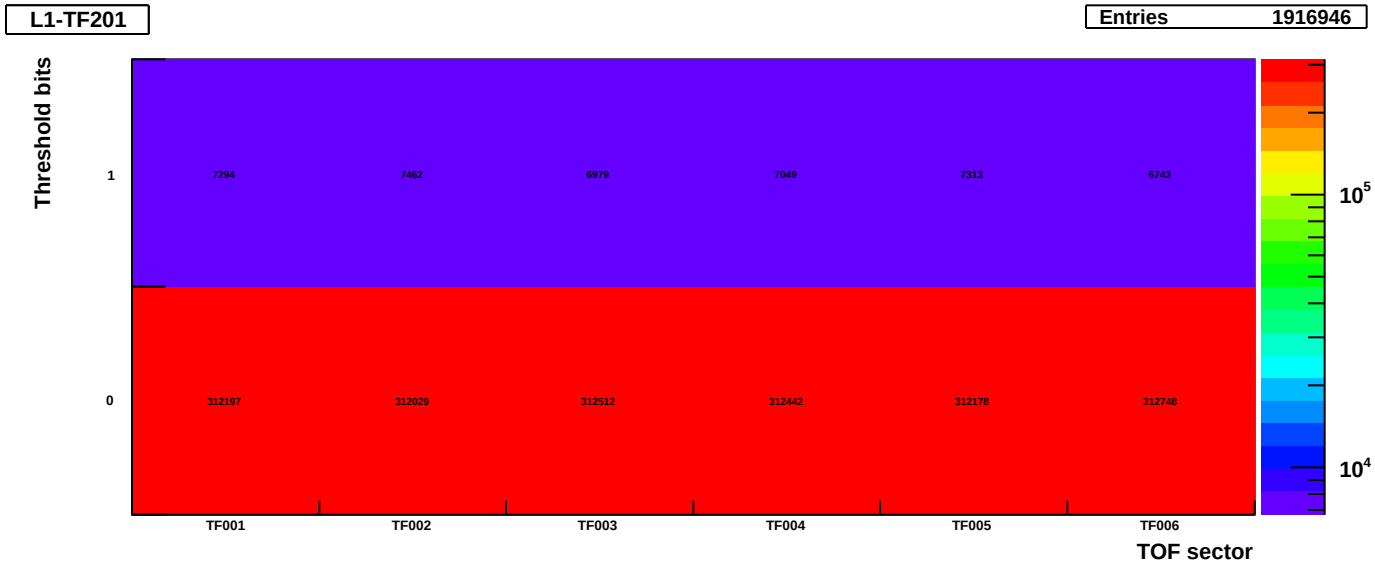

MIX-TF004
Entries 1.341862e+07
TOF MULT
TOF tray

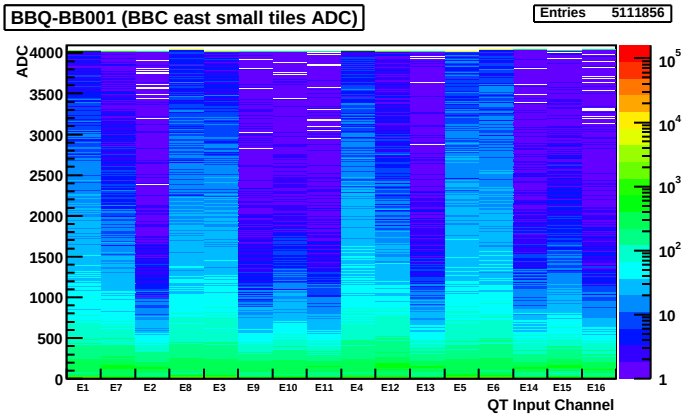

MIX-TF005
Entries 1.341862e+07
TOF MULT
TOF tray

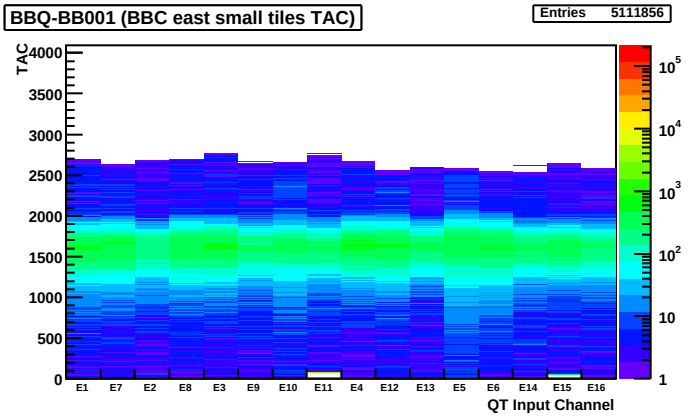

MIX-TF006
Entries 1.341862e+07
TOF MULT
TOF tray

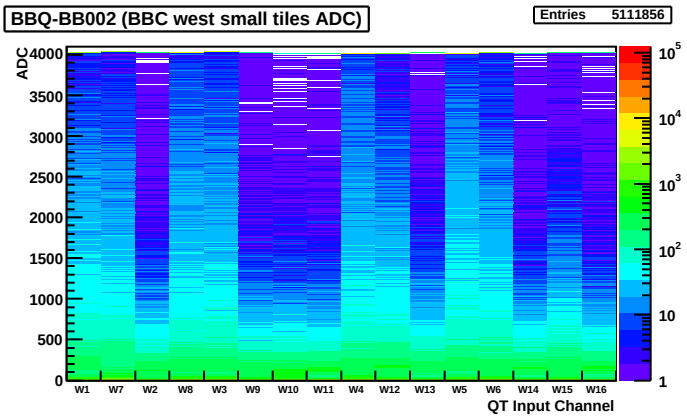

MIX-TF101
Entries 1916946
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

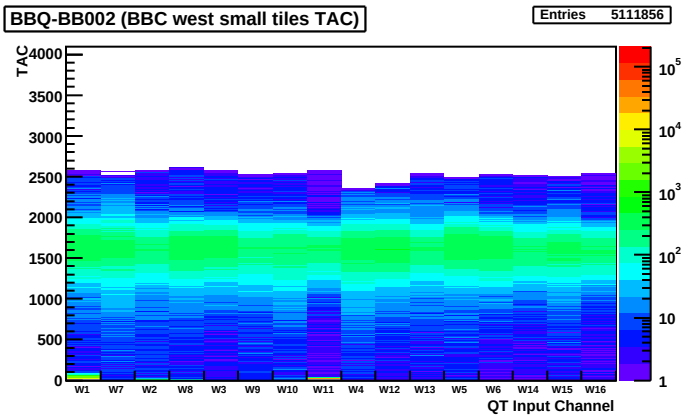

L1-TF201
Entries 319491
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

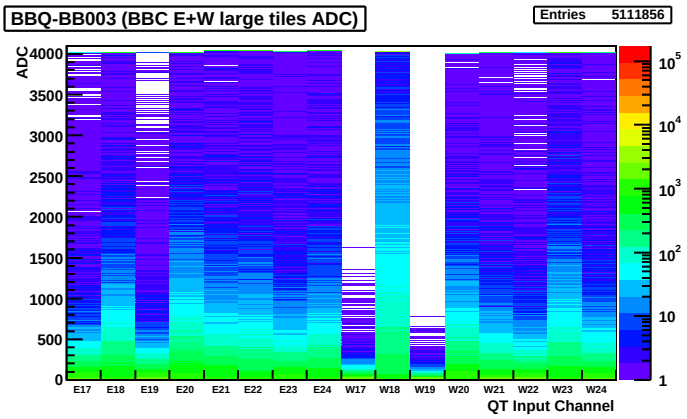

L1-TF201
Entries 1916946
Threshold bits
1
0
7294
7462
6979
7049
7313
6743
312197
312029
312512
312442
312178
312748
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4

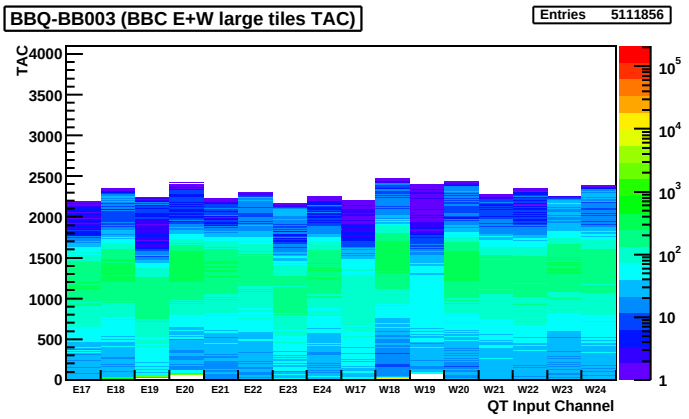

BBQ-BB001 (BBC east small tiles ADC)
Entries 5111856
ADC
QT Input Channel

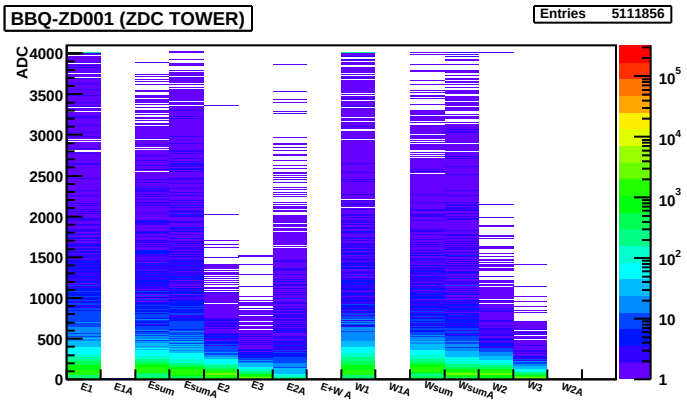

BBQ-BB001 (BBC east small tiles TAC)
Entries 5111856
TAC
QT Input Channel

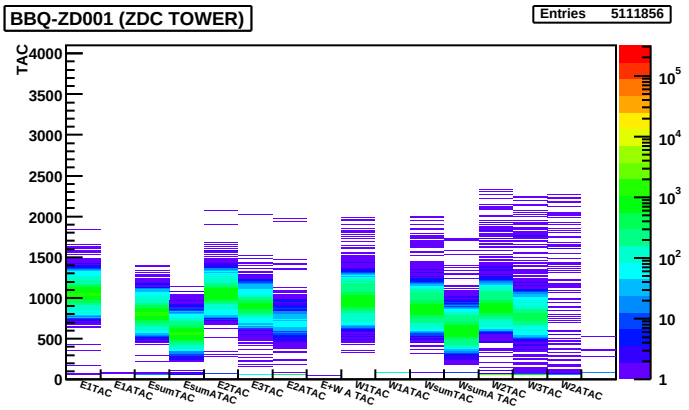

BBQ-BB002 (BBC west small tiles ADC)
Entries 5111856
ADC
QT Input Channel

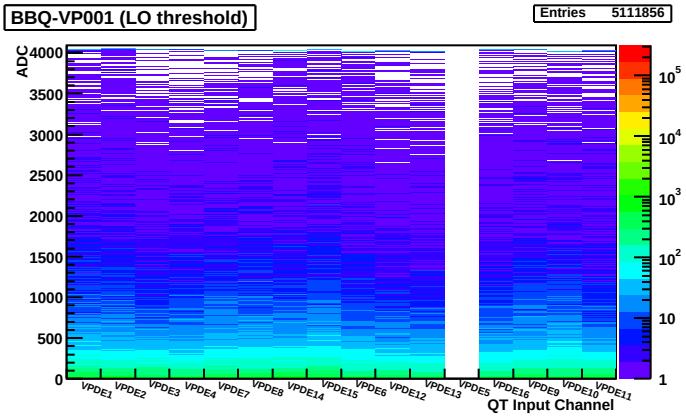

BBQ-BB002 (BBC west small tiles TAC)
Entries 5111856
TAC
QT Input Channel

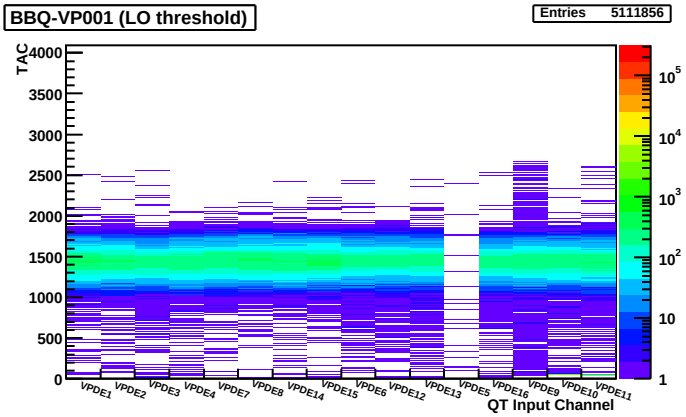

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 5111856
ADC
QT Input Channel

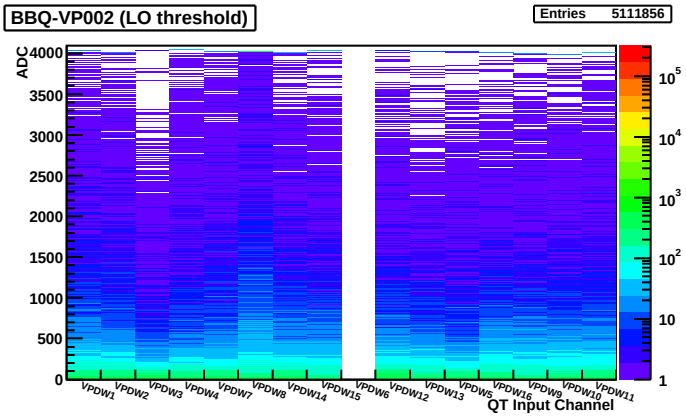

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 5111856
TAC
QT Input Channel

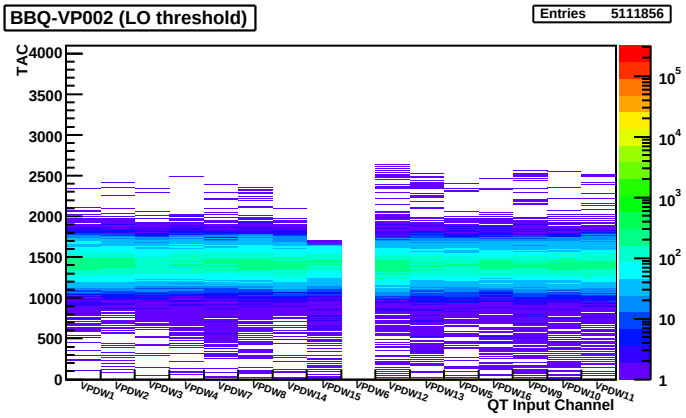

BBQ-ZD001 (ZDC TOWER)
Entries 5111856
ADC

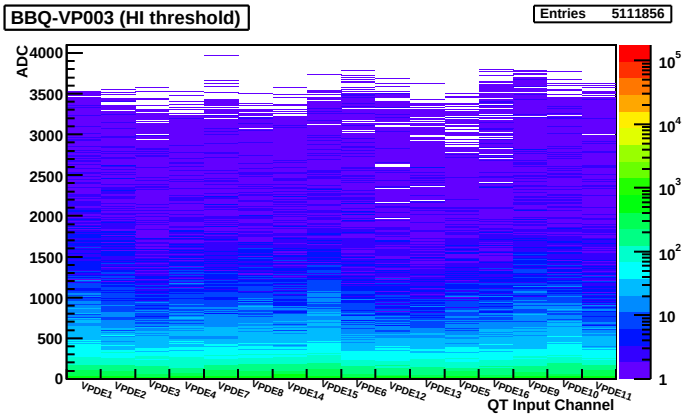

BBQ-ZD001 (ZDC TOWER)
Entries 5111856
TAC

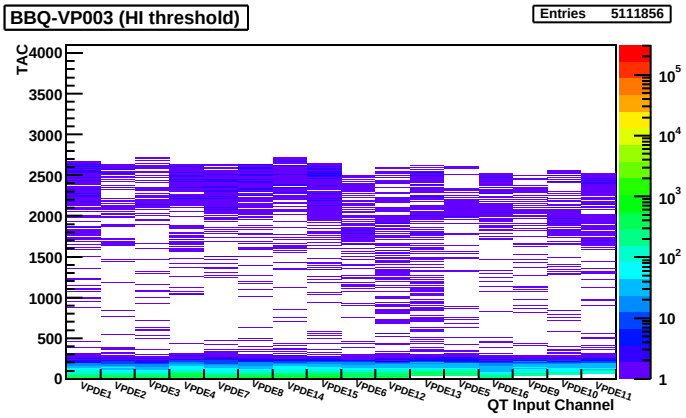

BBQ-VP001 (LO threshold)
Entries 5111856
ADC
QT Input Channel

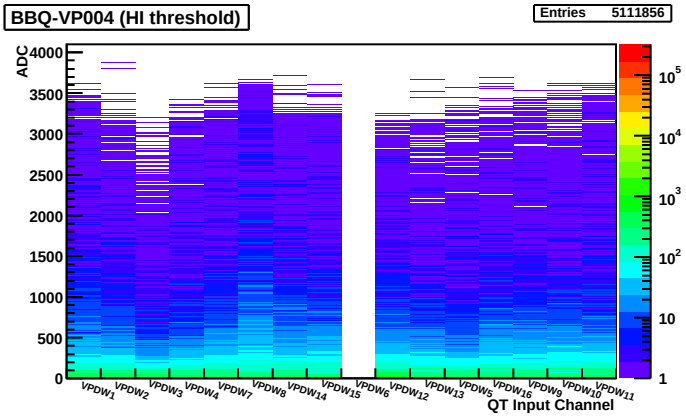

BBQ-VP001 (LO threshold)
Entries 5111856
TAC
QT Input Channel

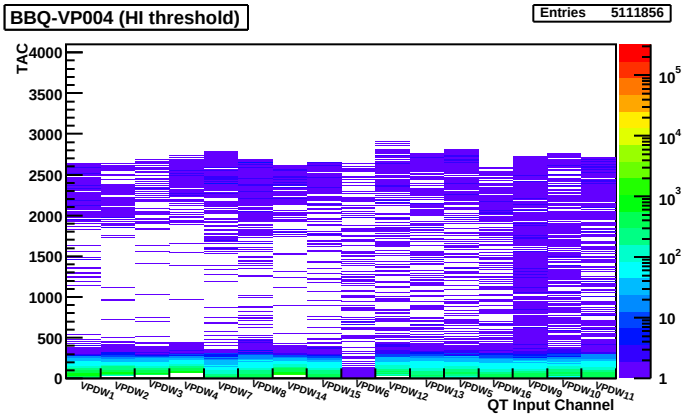

BBQ-VP002 (LO threshold)
Entries 5111856
ADC
QT Input Channel

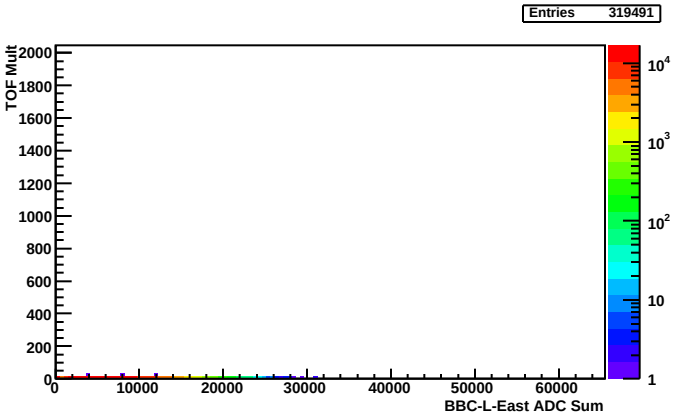

BBQ-VP002 (LO threshold)
Entries 5111856
TAC
QT Input Channel

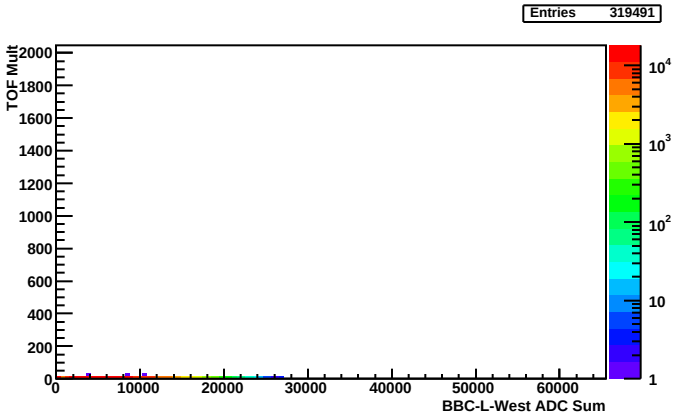

BBQ-VP003 (HI threshold)
Entries 5111856
ADC
QT Input Channel

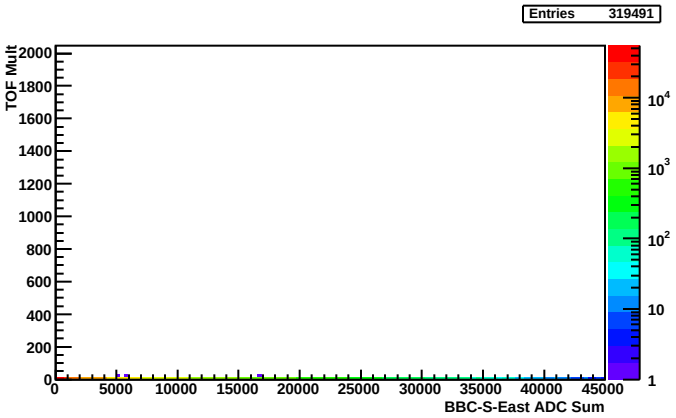

BBQ-VP003 (HI threshold)
Entries 5111856
TAC
QT Input Channel

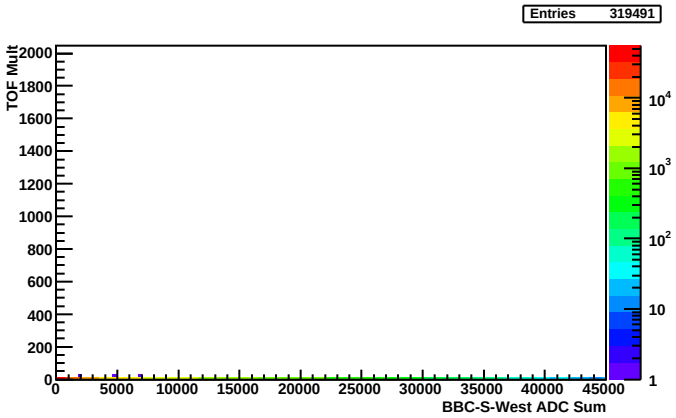

BBQ-VP004 (HI threshold)
Entries 5111856
ADC
QT Input Channel

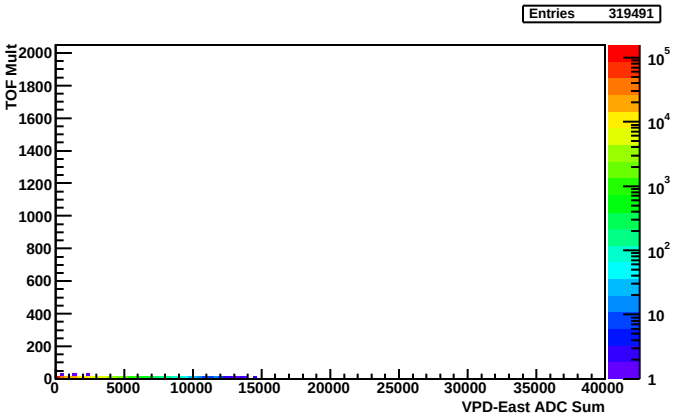

BBQ-VP004 (HI threshold)
Entries 5111856
TAC
QT Input Channel

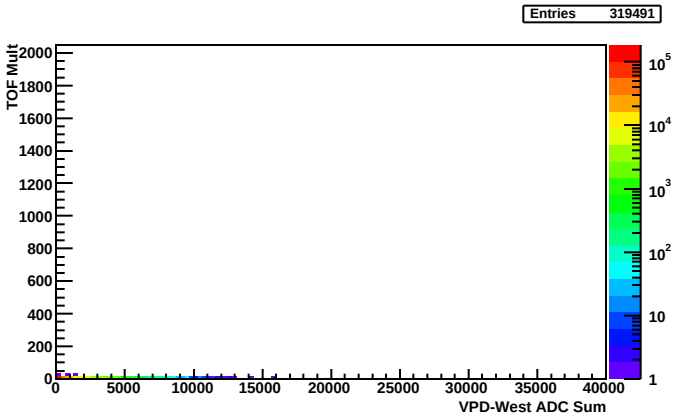

Entries 319491
TOF Mult
BBC-L-East ADC Sum

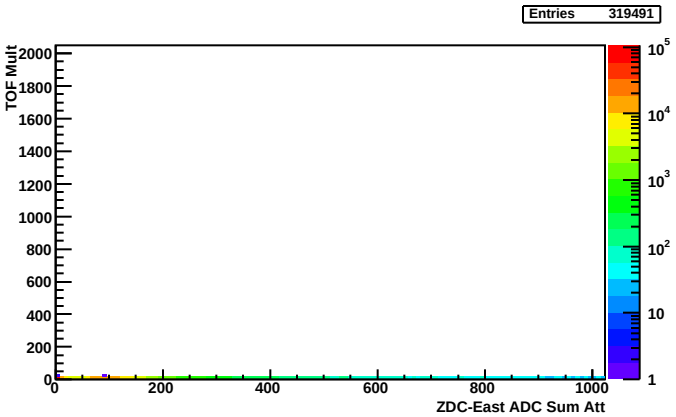

Entries 319491
TOF Mult
BBC-L-West ADC Sum

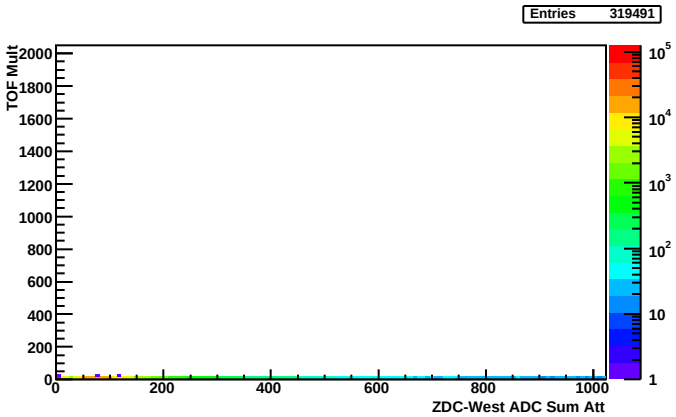

Entries 319491
TOF Mult
BBC-S-East ADC Sum

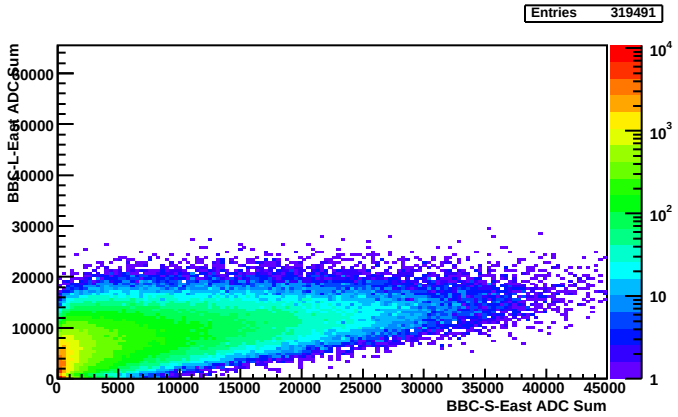

Entries 319491
TOF Mult
BBC-S-West ADC Sum

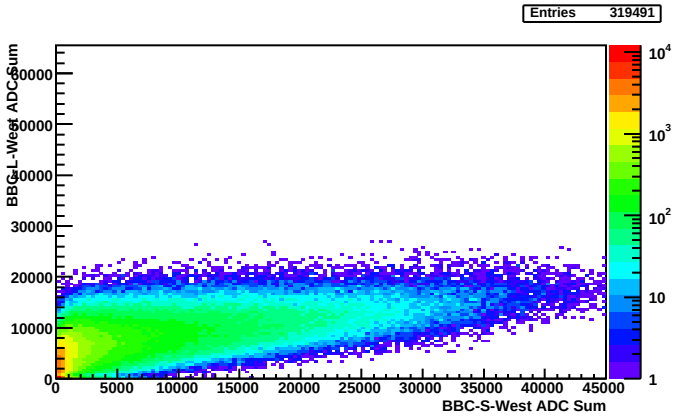

Entries 319491
TOF Mult
VPD-East ADC Sum

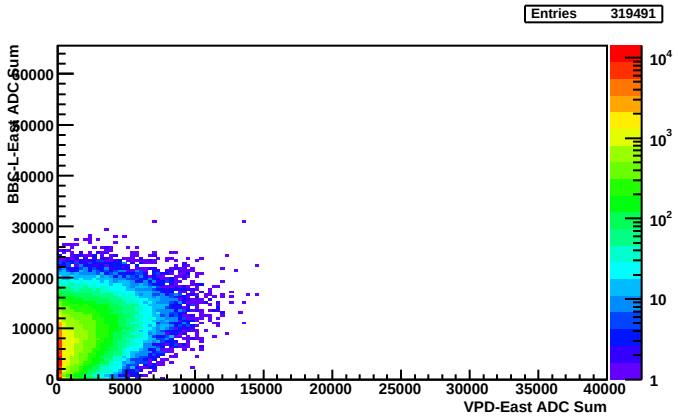

Entries 319491
TOF Mult
VPD-West ADC Sum

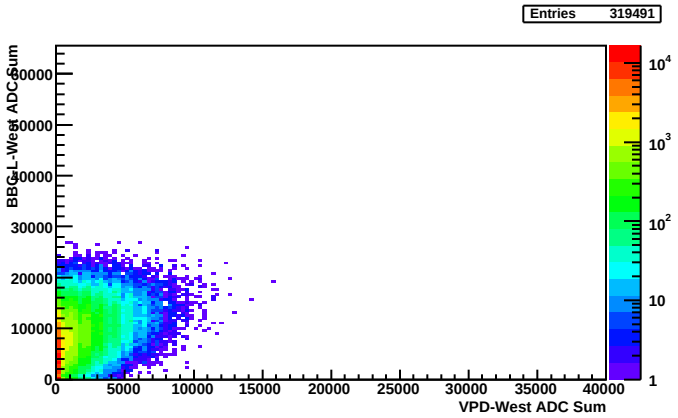

Entries 319491
TOF Mult
ZDC-East ADC Sum Att

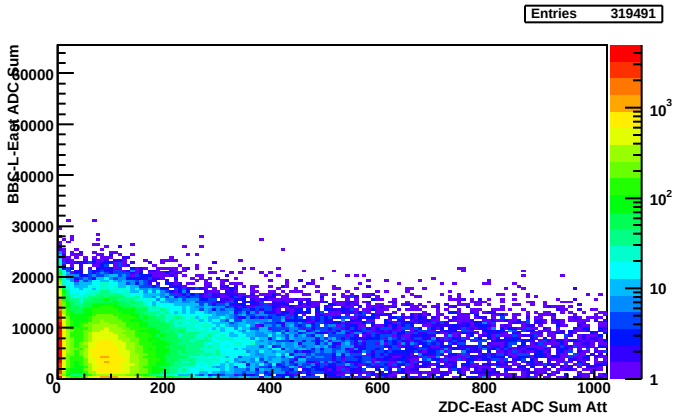

Entries 319491
TOF Mult
ZDC-West ADC Sum Att

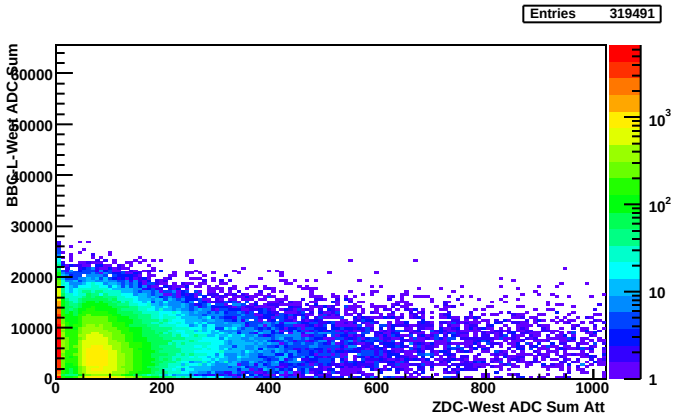

Entries 319491
BBC-L-East ADC Sum
BBC-S-East ADC Sum

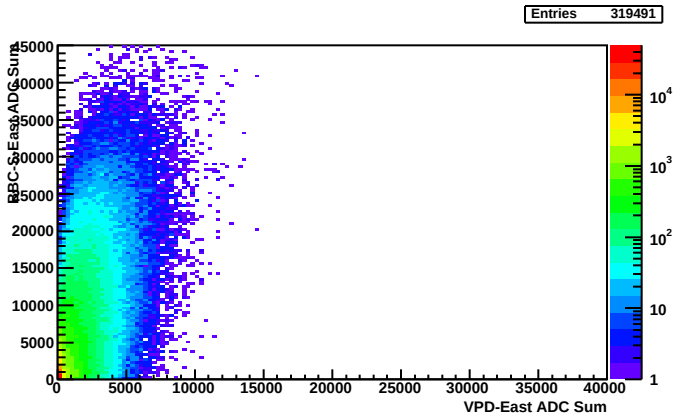

Entries 319491
BBC-L-West ADC Sum
BBC-S-West ADC Sum

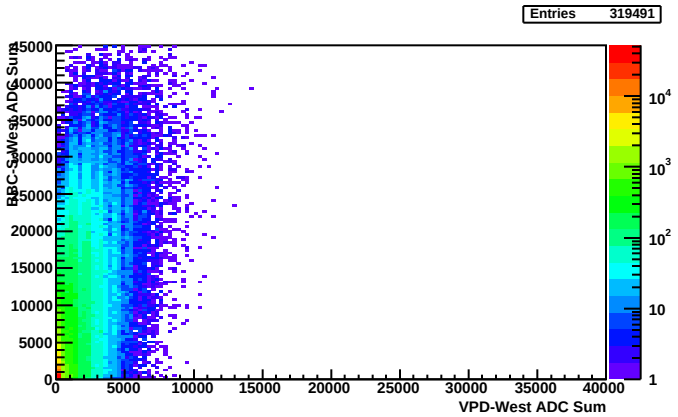

Entries 319491
BBC-L-East ADC Sum
VPD-East ADC Sum

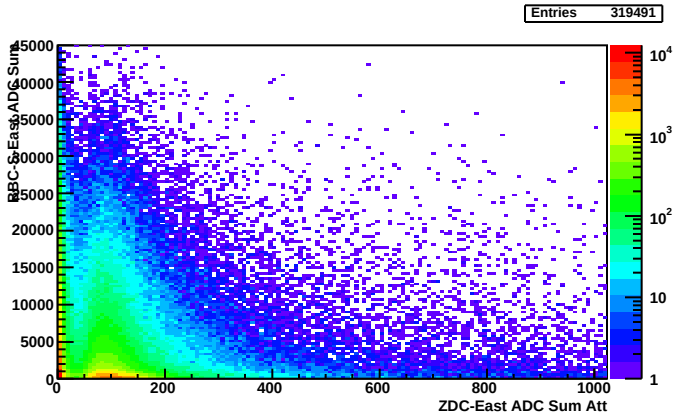

Entries 319491
BBC-L-West ADC Sum
VPD-West ADC Sum

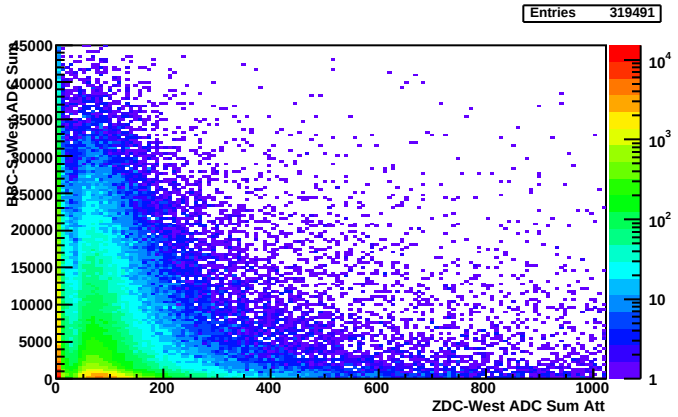

Entries 319491
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

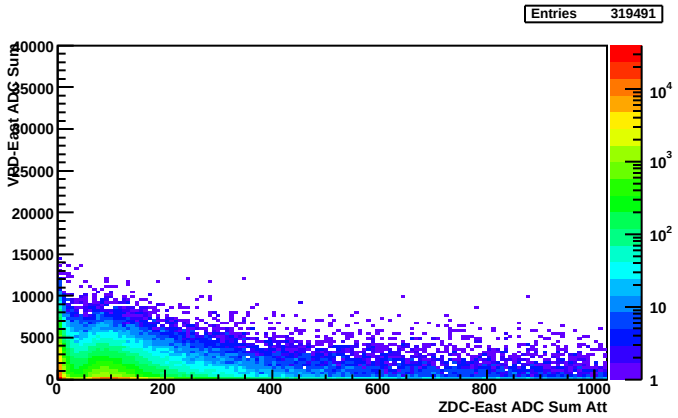

Entries 319491
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

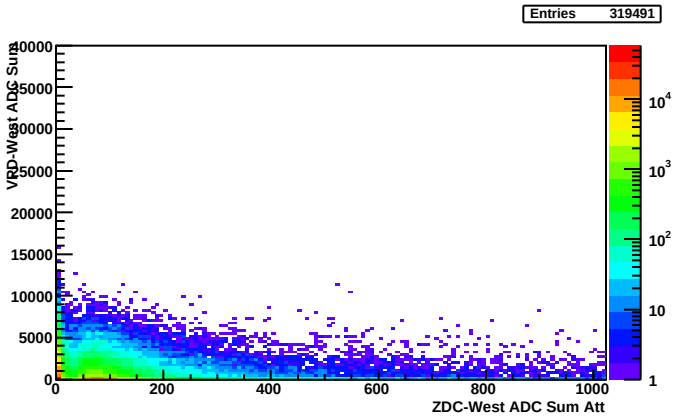

Entries 319491
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 319491
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 319491
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 319491
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 319491
VPD-East ADC Sum
ZDC-East ADC Sum Att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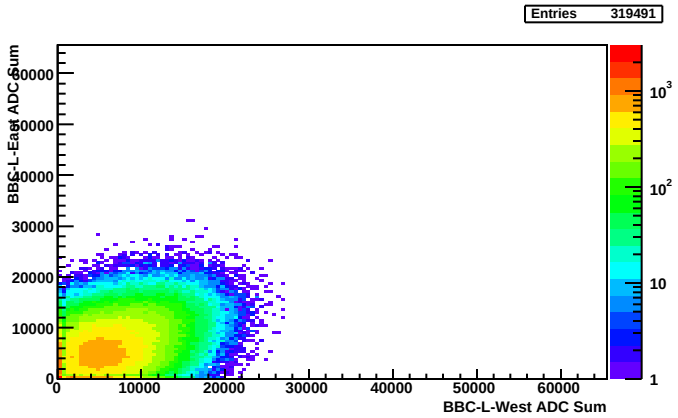
VPD-West ADC Sum
ZDC-West ADC Sum Att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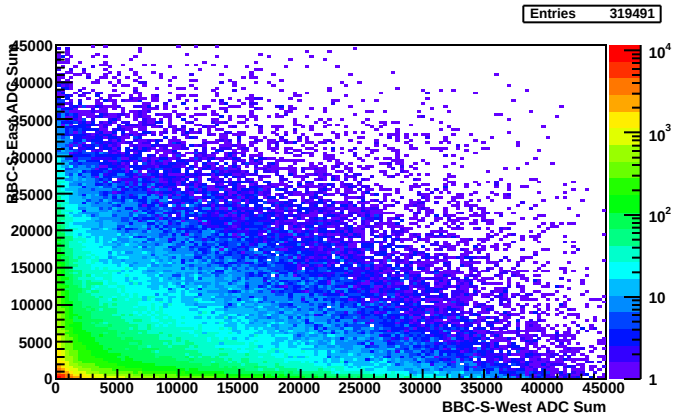
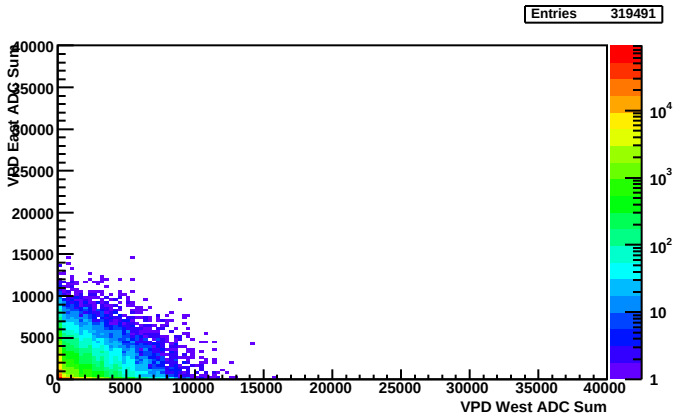
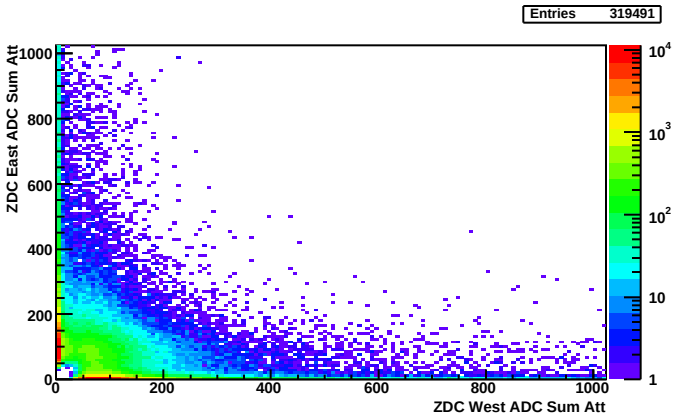
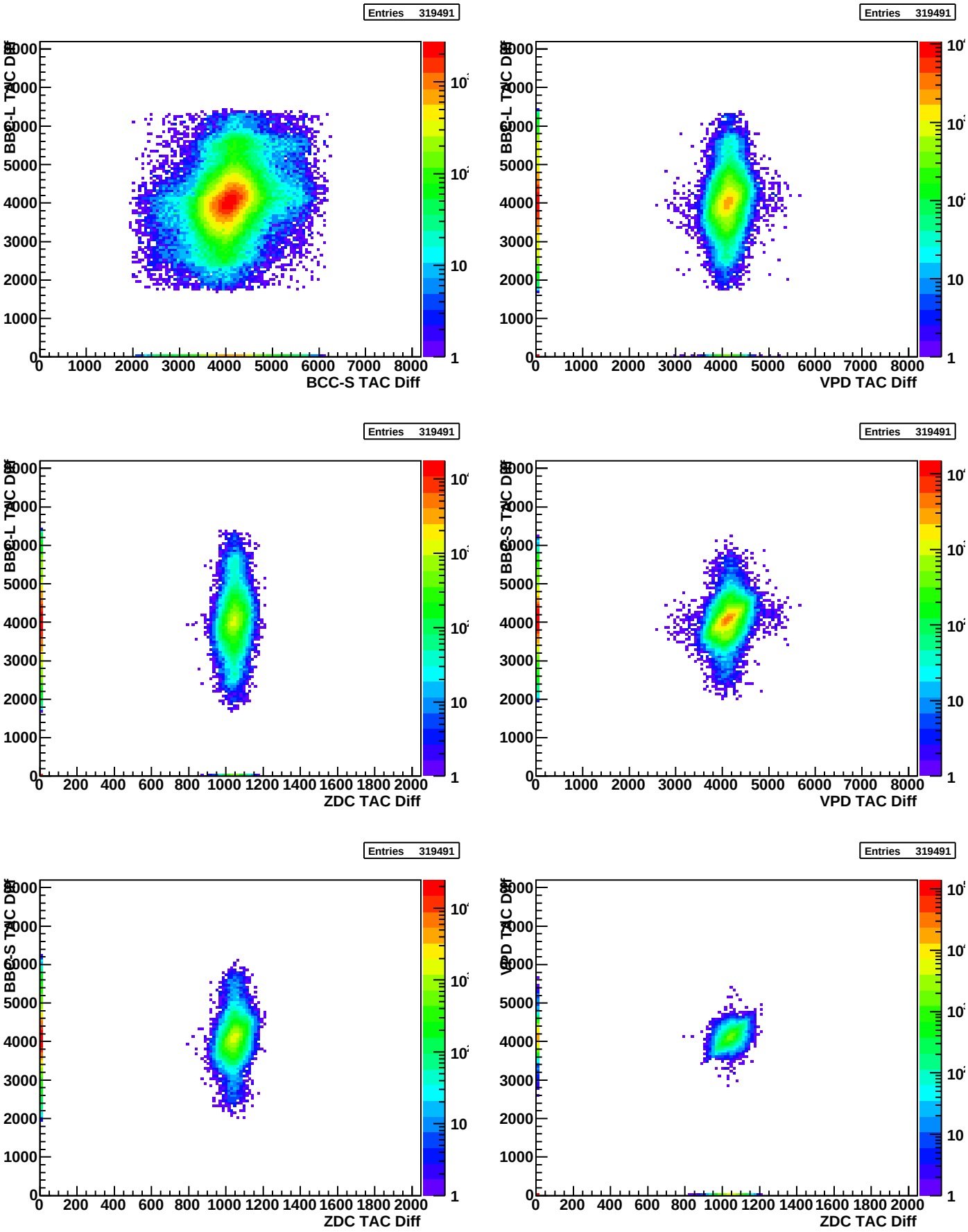
BBC-L-East ADC Sum
BBC-L-West ADC Sum


Entries 319491
BBC-S-East ADC Sum
BBC-S-West ADC Sum


Entries 319491
VPD East ADC Sum
VPD West ADC Sum


Entries 319491
ZDC East ADC Sum Att
ZDC West ADC Sum Att


Entries 319491
BBC-L TAC Diff
BCC-S TAC Diff
Entries 319491
BBC-L TAC Diff
VPD TAC Diff
Entries 319491
BBC-L TAC Diff
ZDC TAC Diff
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VPD TAC Diff
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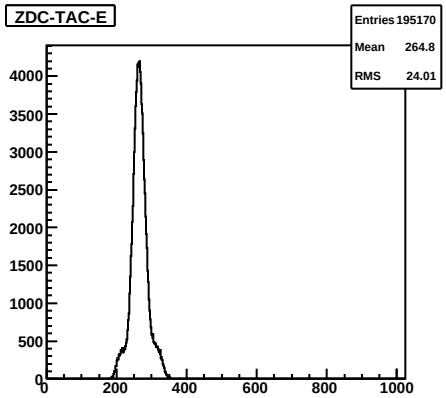
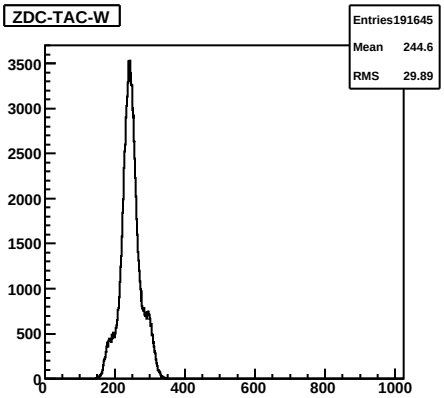
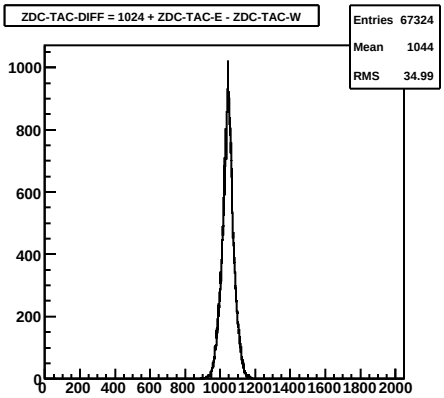
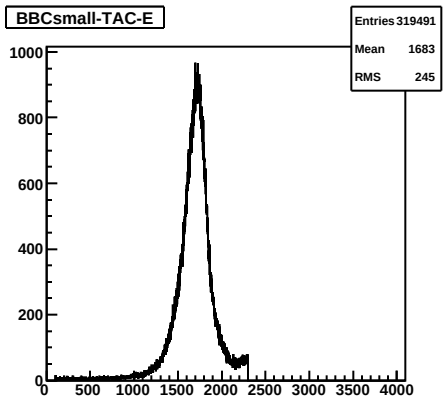
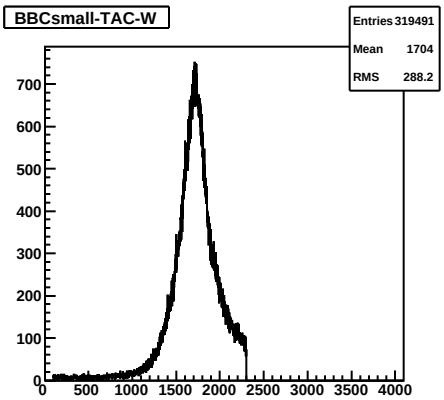
ZDC TAC Diff
Entries 319491
VPD TAC Diff
ZDC TAC Diff

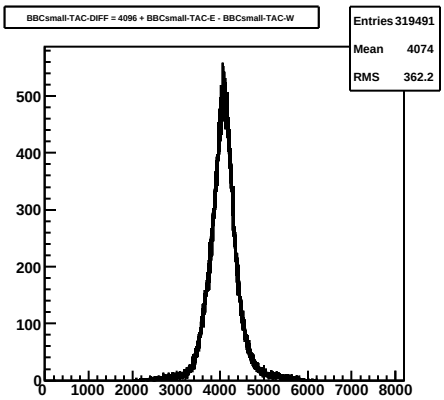

ZDC-TAC-E
Entries 195170
Mean 264.8
RMS 24.01

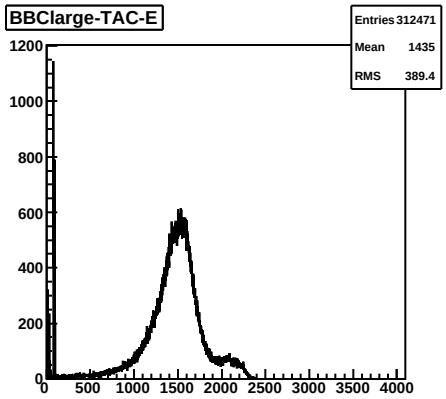

ZDC-TAC-W
Entries 191645
Mean 244.6
RMS 29.89

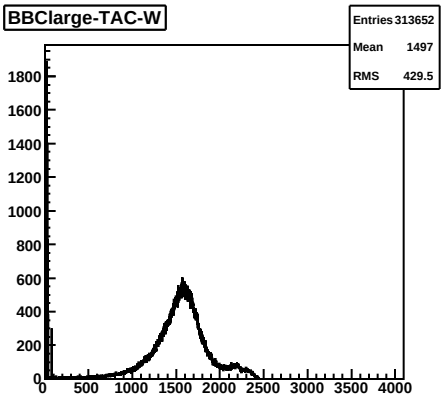

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 67324
Mean 1044
RMS 34.99

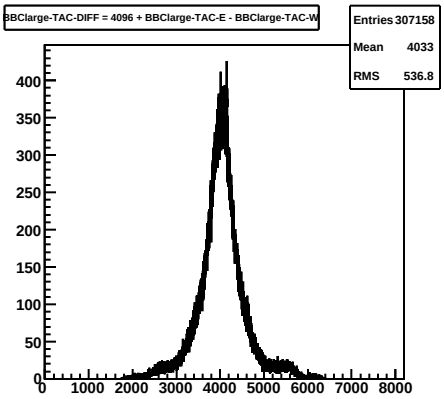

BBCsmall-TAC-E
Entries 319491
Mean 1683
RMS 245

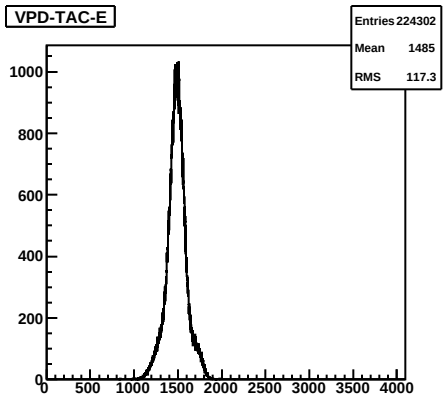

BBCsmall-TAC-W
Entries 319491
Mean 1704
RMS 288.2

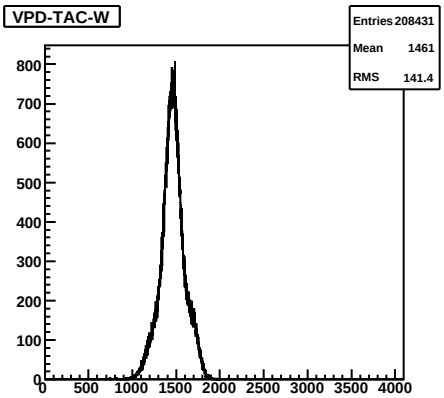

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 319491
Mean 4074
RMS 362.2

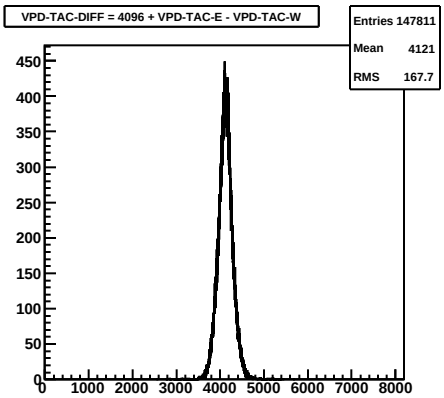

BBClarge-TAC-E
Entries 312471
Mean 1435
RMS 389.4

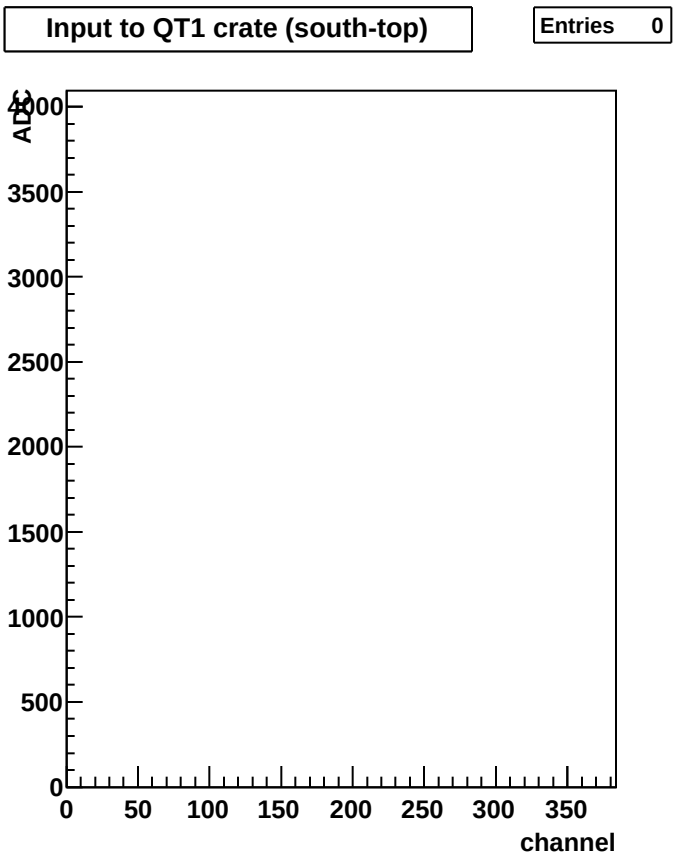

BBClarge-TAC-W
Entries 313652
Mean 1497
RMS 429.5

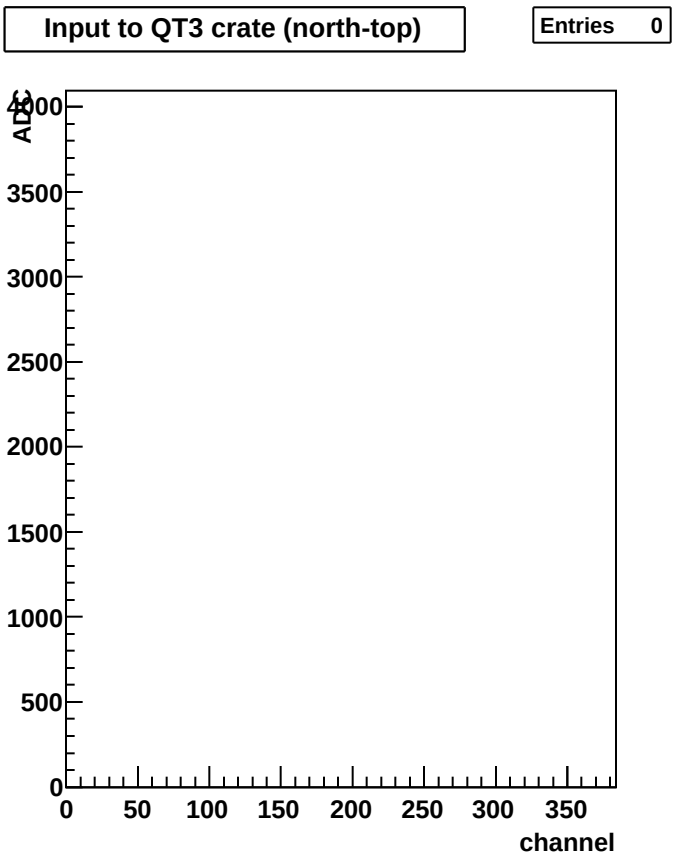

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 307158
Mean 4033
RMS 536.8

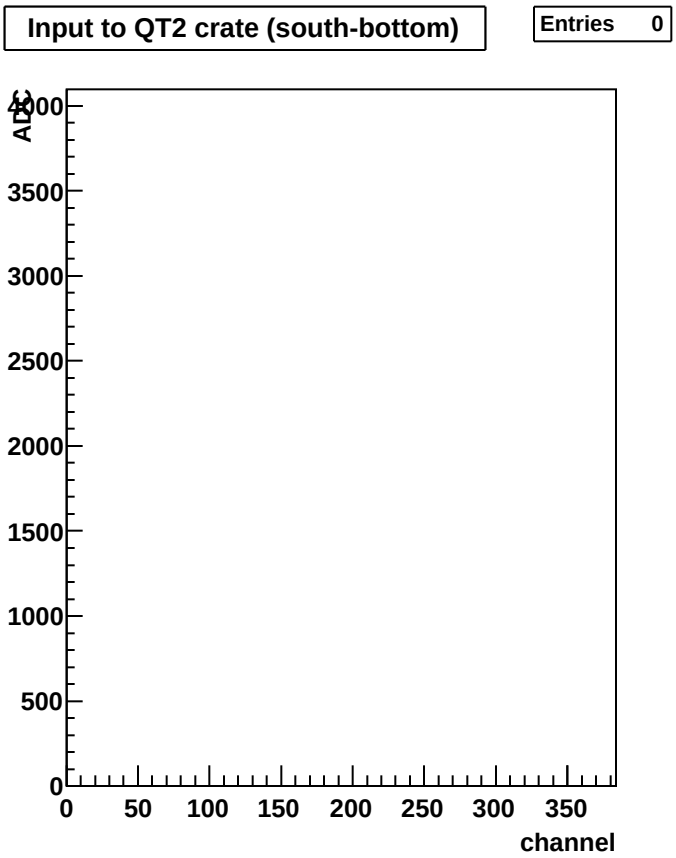

VPD-TAC-E
Entries 224302
Mean 1485
RMS 117.3

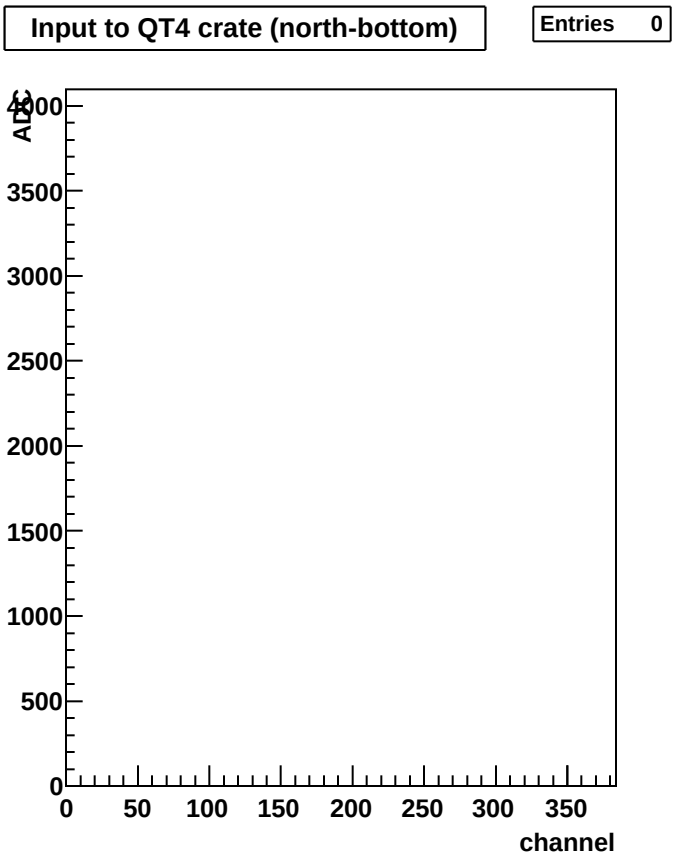

VPD-TAC-W
Entries 208431
Mean 1461
RMS 141.4

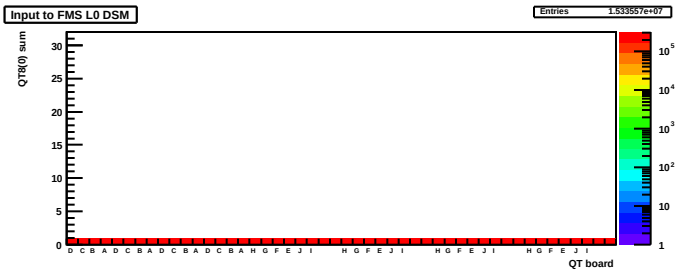

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 147811
Mean 4121
RMS 167.7

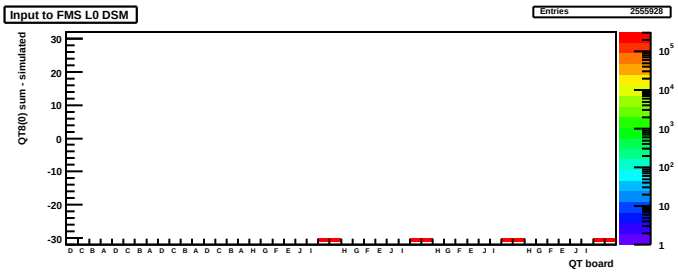

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

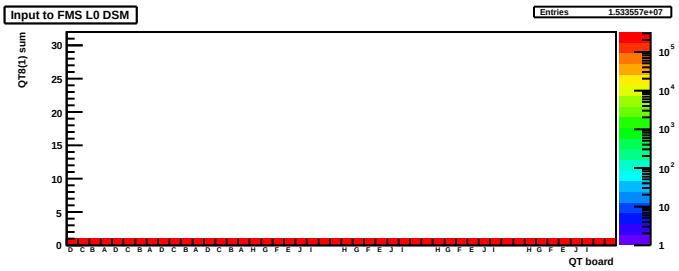

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

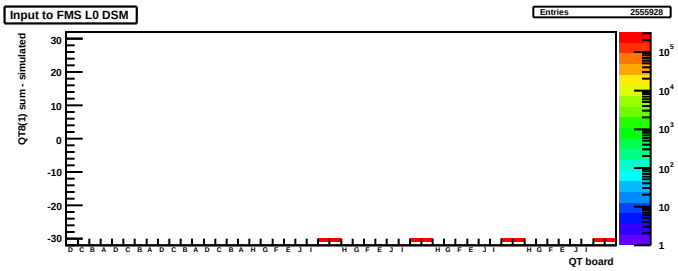

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

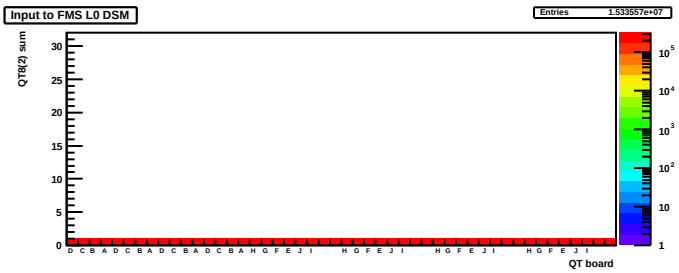

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

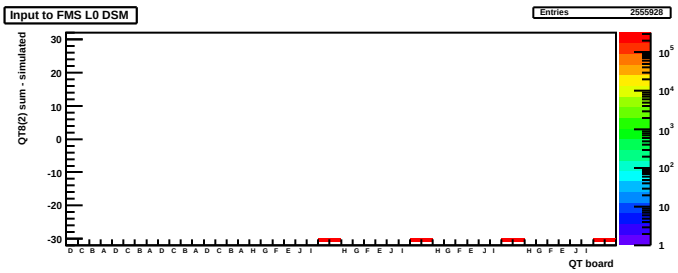

Input to FMS L0 DSM
Entries 1.533557e+07
QT8(0) sum
QT board

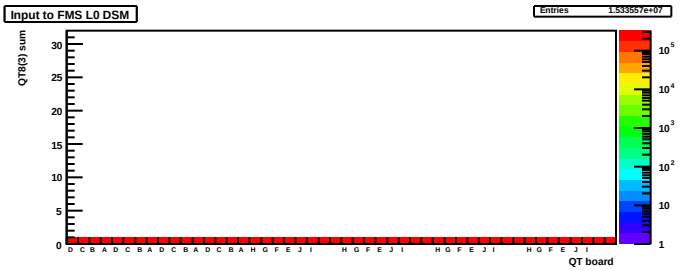

Input to FMS L0 DSM
Entries 2555928
QT8(0) sum - simulated
QT board

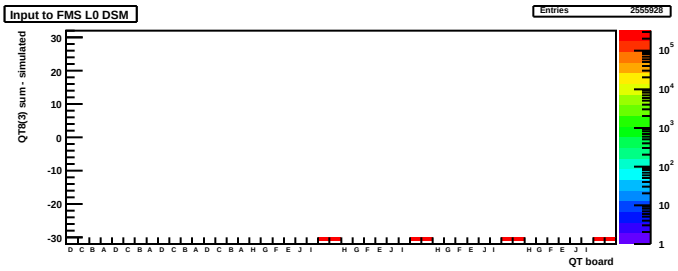

Input to FMS L0 DSM
Entries 1.533557e+07
QT8(1) sum
QT board

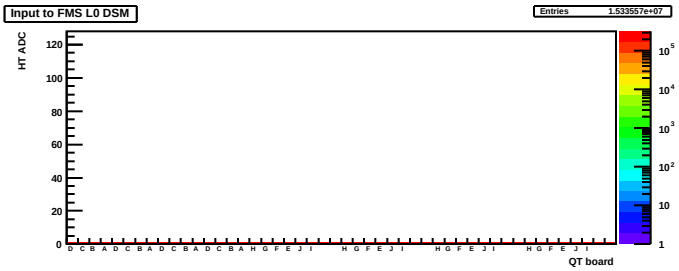

Input to FMS L0 DSM
Entries 2555928
QT8(1) sum - simulated
QT board

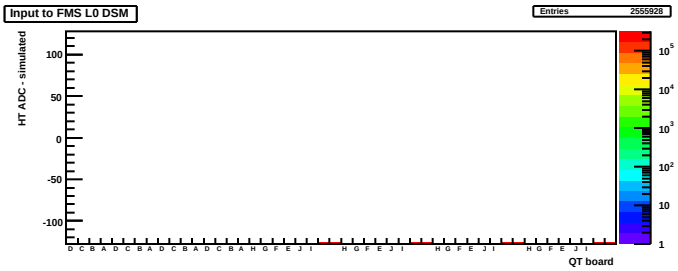

Input to FMS L0 DSM
Entries 1.533557e+07
QT8(2) sum
QT board

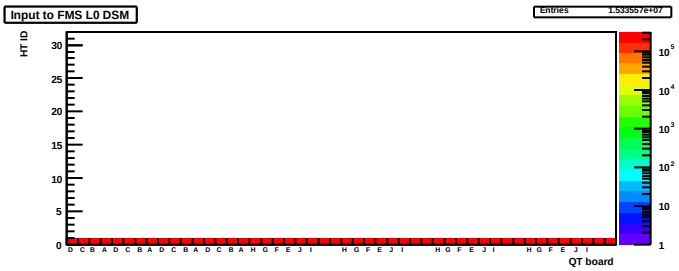

Input to FMS L0 DSM
Entries 2555928
QT8(2) sum - simulated
QT board

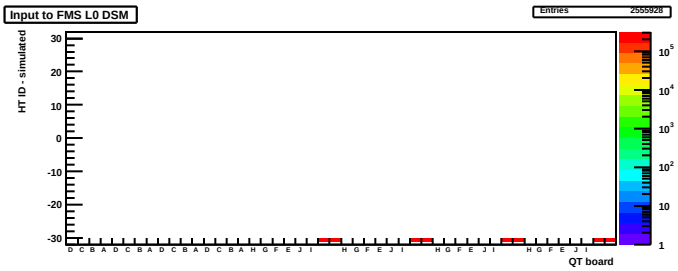

Input to FMS L0 DSM
Entries 1.533557e+07
QT8(3) sum
QT board

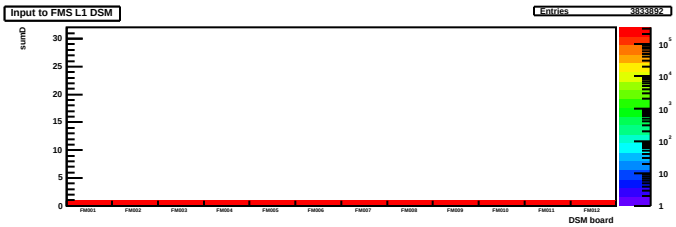

Input to FMS L0 DSM
Entries 2555928
QT8(3) sum - simulated
QT board

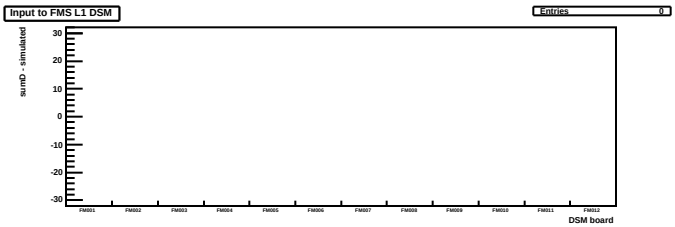

Input to FMS L0 DSM
Entries 1.533557e+07
HT ADC
QT board

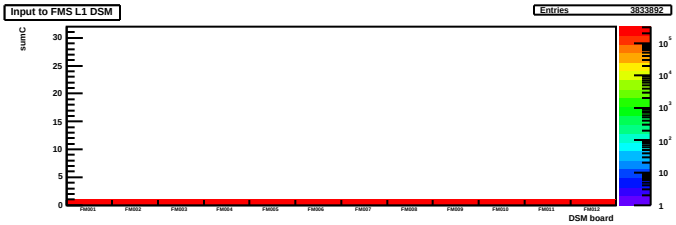

Input to FMS L0 DSM
Entries 2555928
HT ADC - simulated
QT board

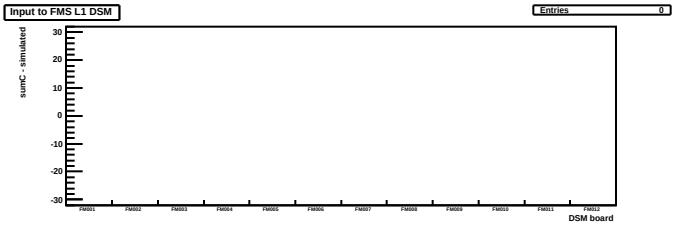

Input to FMS L0 DSM
Entries 1.533557e+07
HT ID
QT board

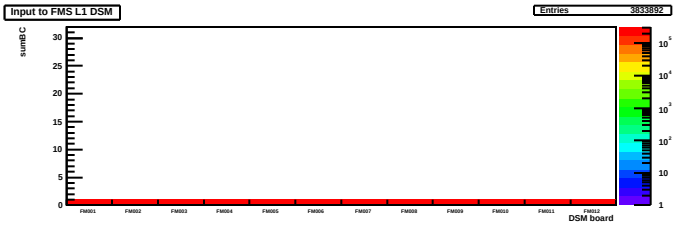

Input to FMS L0 DSM
Entries 2555928
HT ID - simulated
QT board

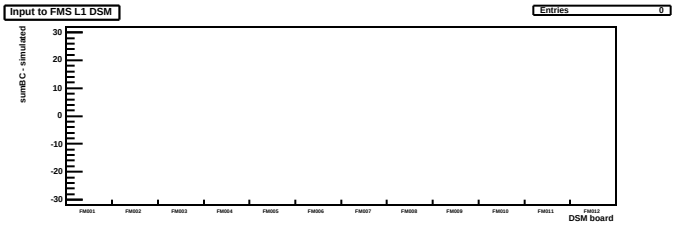

Input to FMS L1 DSM
Entries 3833892
sumD
DSM board

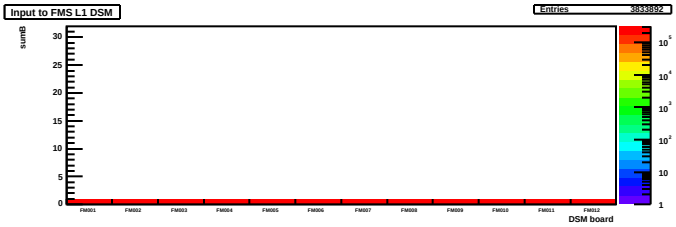

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

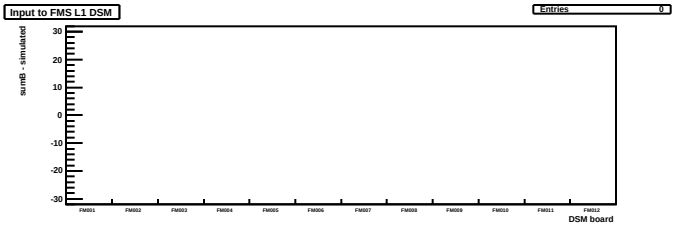

Input to FMS L1 DSM
Entries 3833892
sumC
DSM board

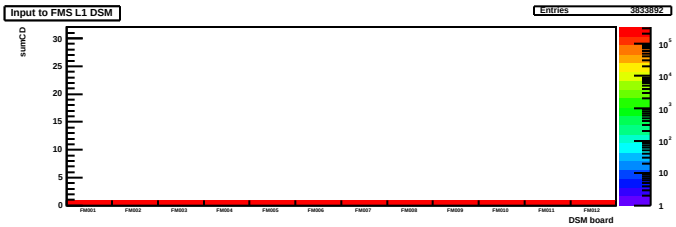

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

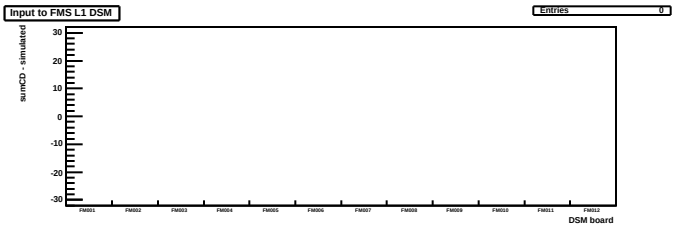

Input to FMS L1 DSM
Entries 3833892
sumBC
DSM board

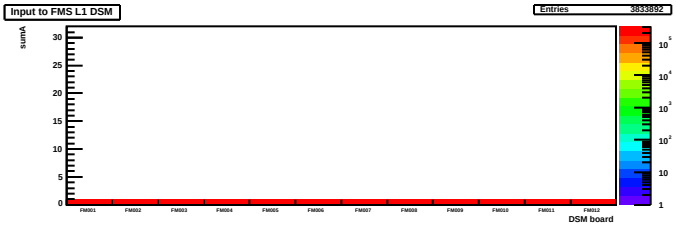

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

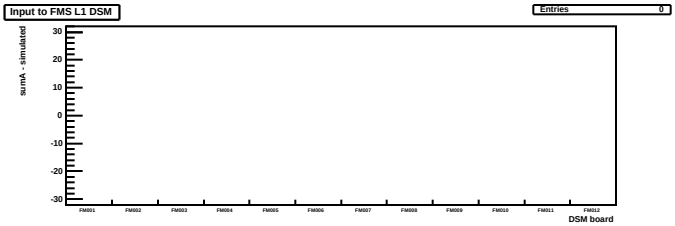

Input to FMS L1 DSM
Entries 3833892
sumB
DSM board

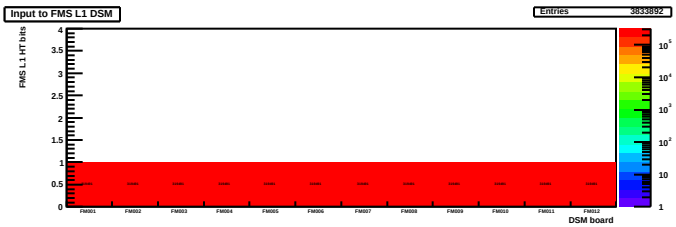

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

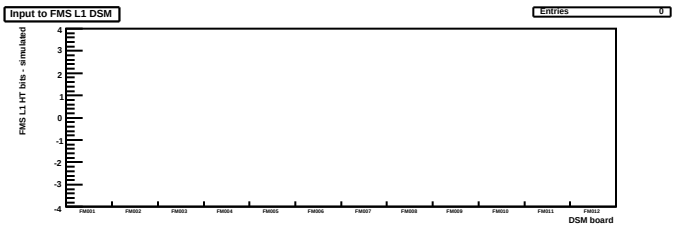

Input to FMS L1 DSM
Entries 3833892
sumCD
DSM board

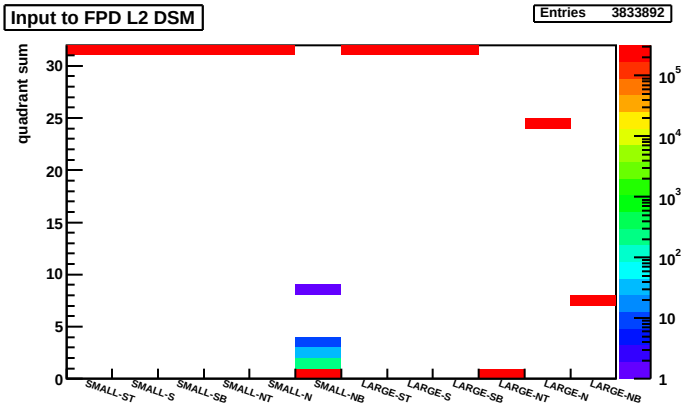

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

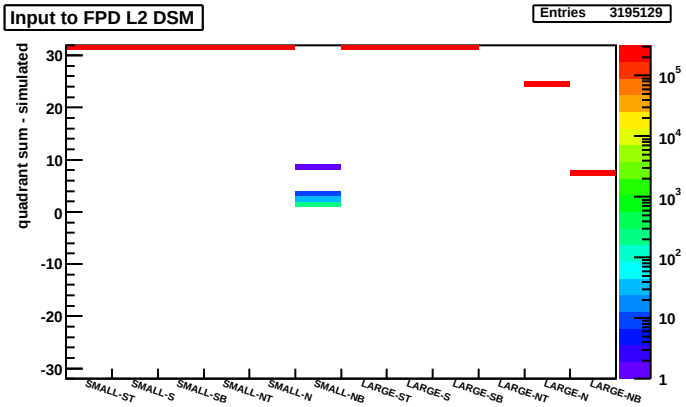

Input to FMS L1 DSM
Entries 3833892
sumA
DSM board

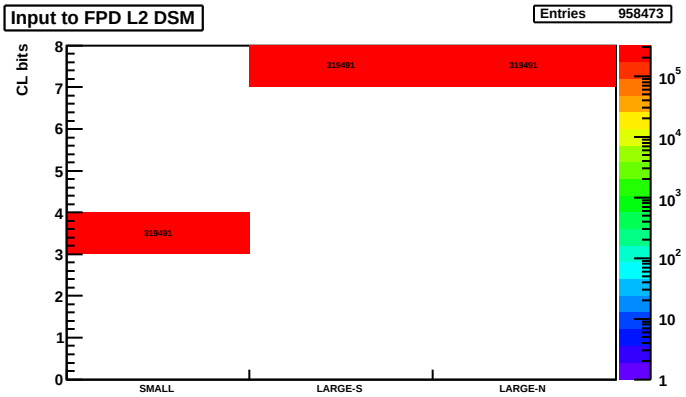

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

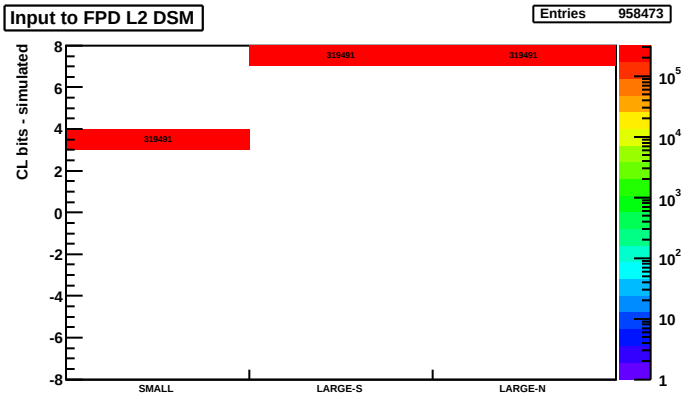

Input to FMS L1 DSM
Entries 3833892
FMS L1 HT bits
DSM board

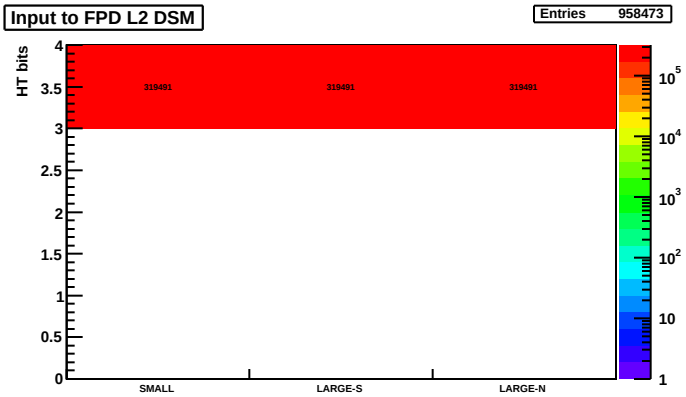

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

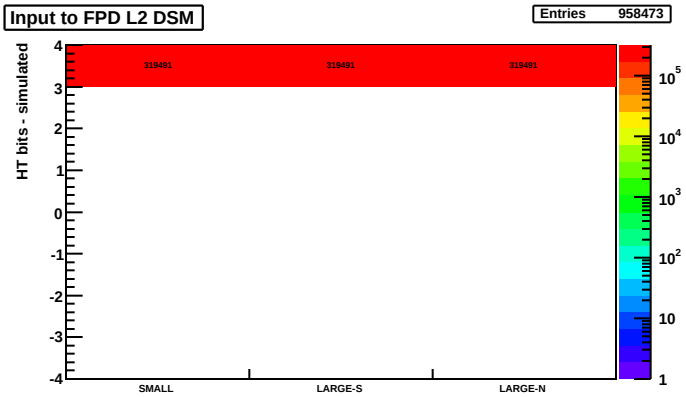

Input to FPD L2 DSM
Entries 3833892
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

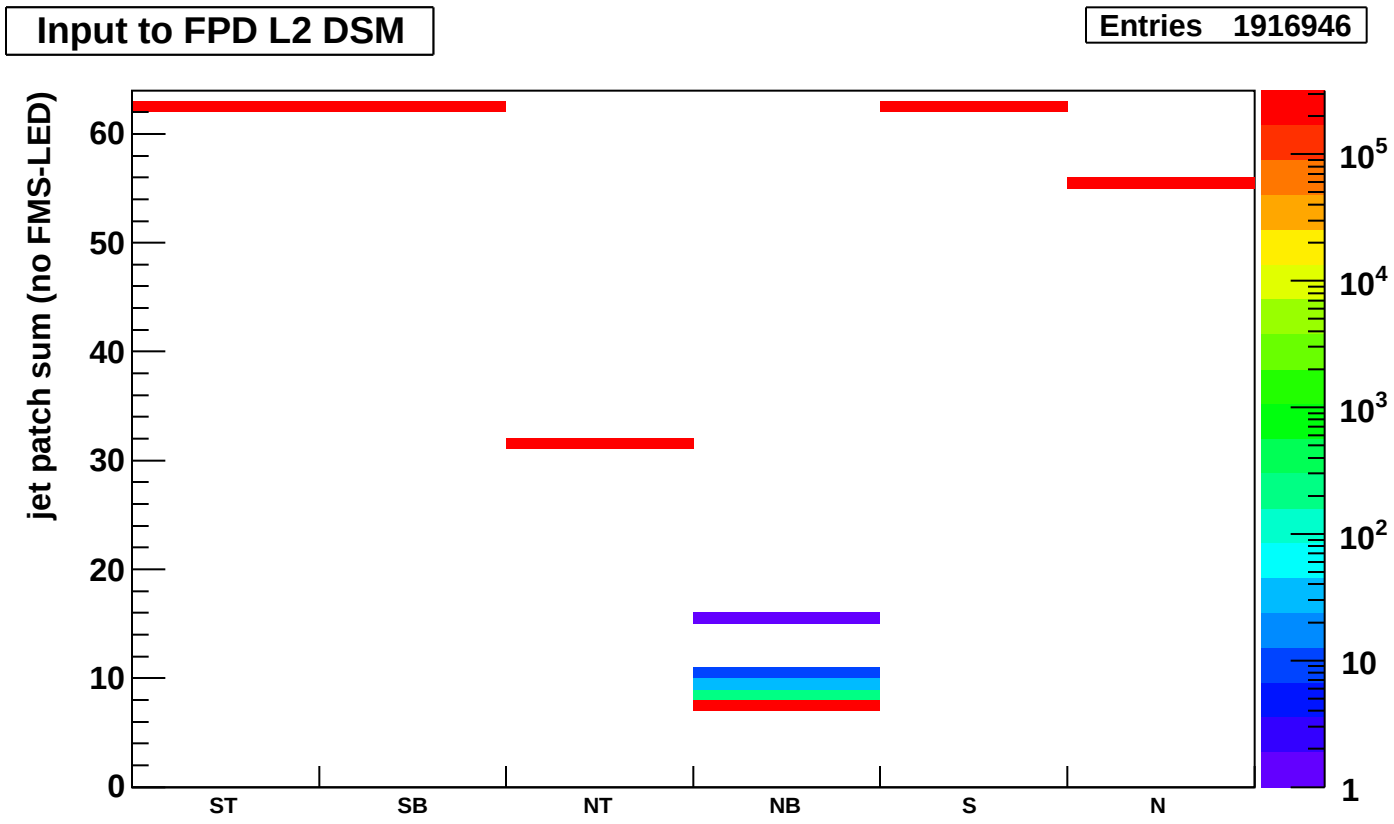

Input to FPD L2 DSM
Entries 3195129
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

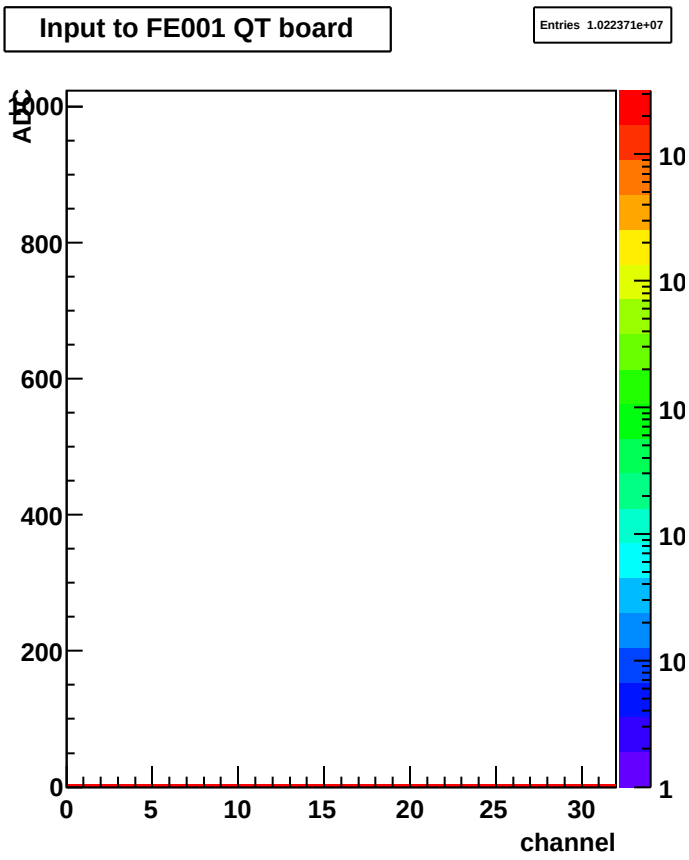

Input to FPD L2 DSM
Entries 958473
CL bits
319491
319491
319491
SMALL
LARGE-S
LARGE-N

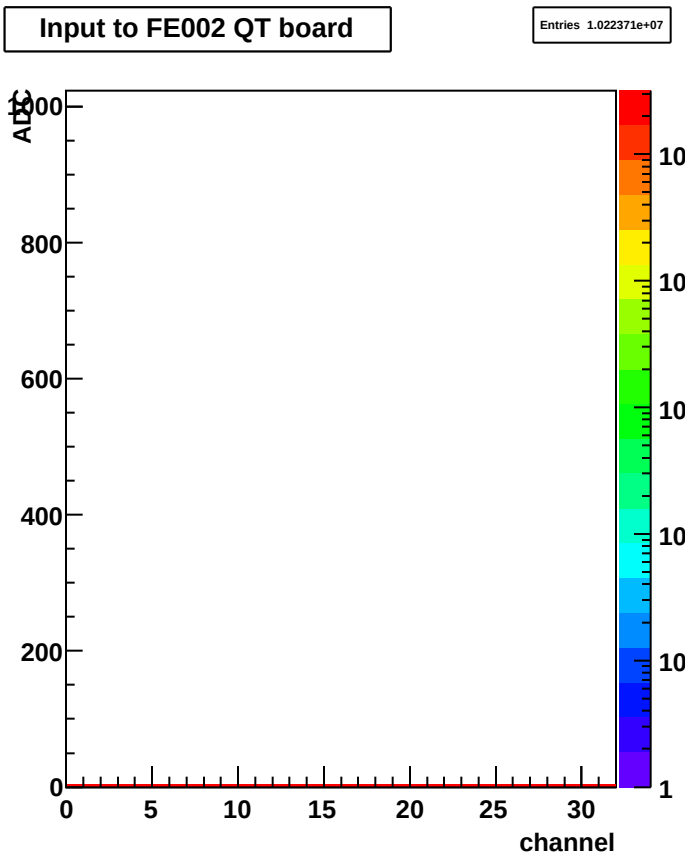

Input to FPD L2 DSM
Entries 958473
CL bits - simulated
319491
319491
319491
SMALL
LARGE-S
LARGE-N

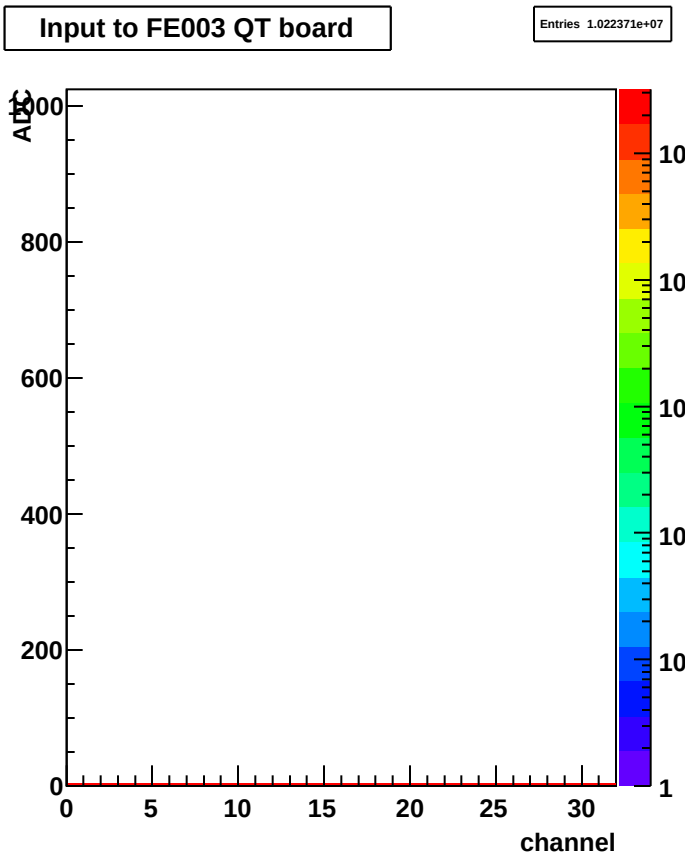

Input to FPD L2 DSM
Entries 958473
HT bits
319491
319491
319491
SMALL
LARGE-S
LARGE-N

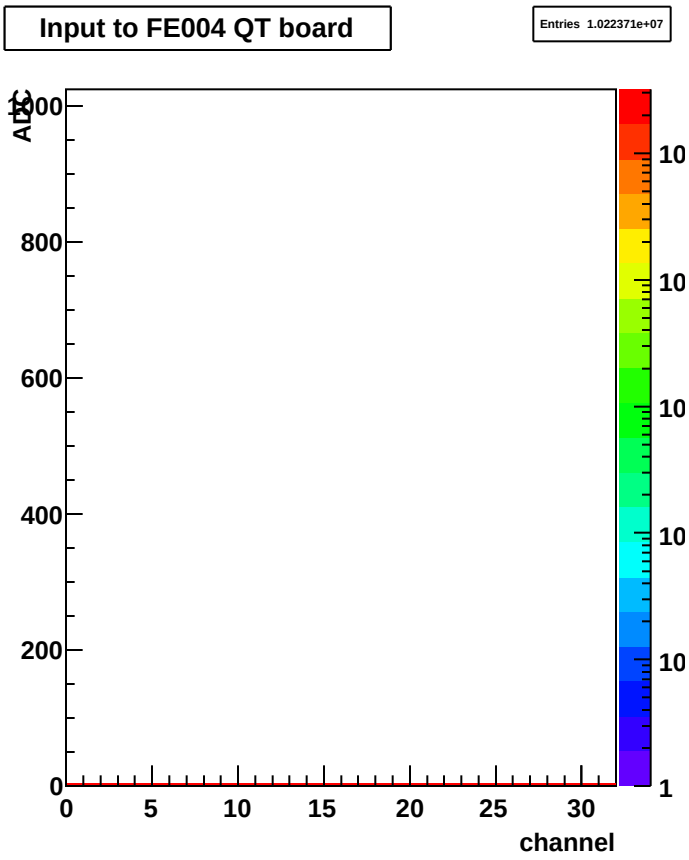

Input to FPD L2 DSM
Entries 958473
HT bits - simulated
319491
319491
319491
SMALL
LARGE-S
LARGE-N

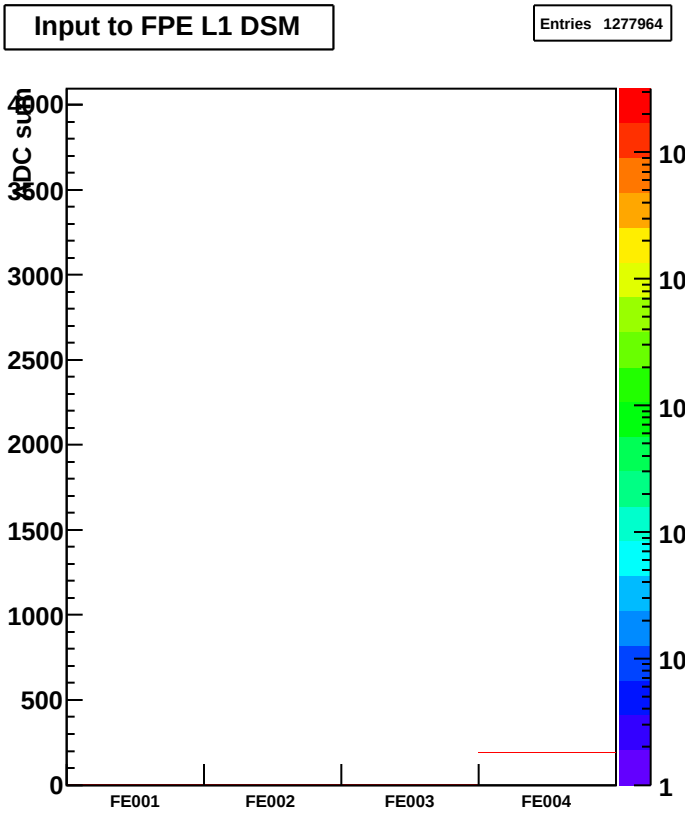

Input to FPD L2 DSM
Entries 1916946
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

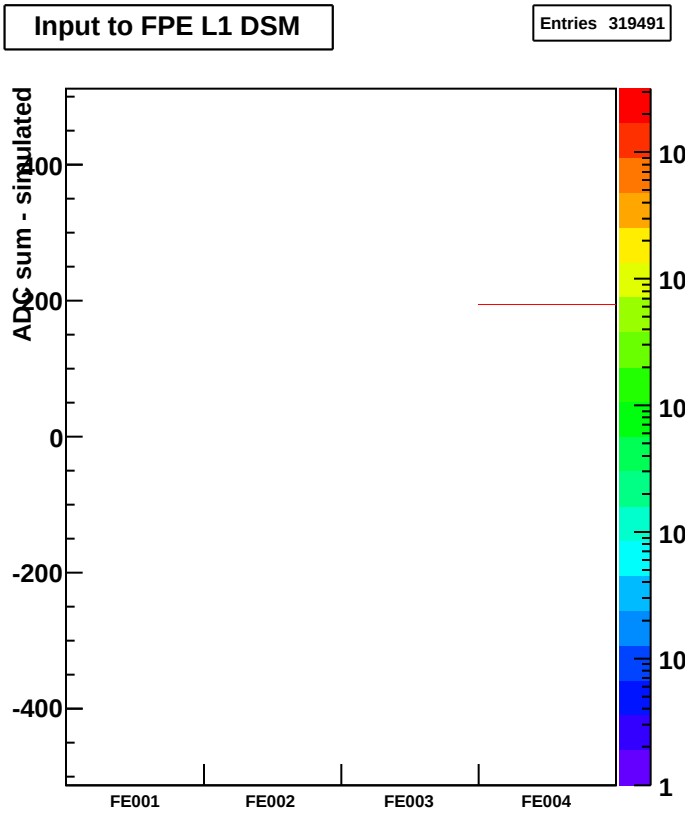

Input to FE001 QT board
Entries 1.022371e+07
ADC
channel

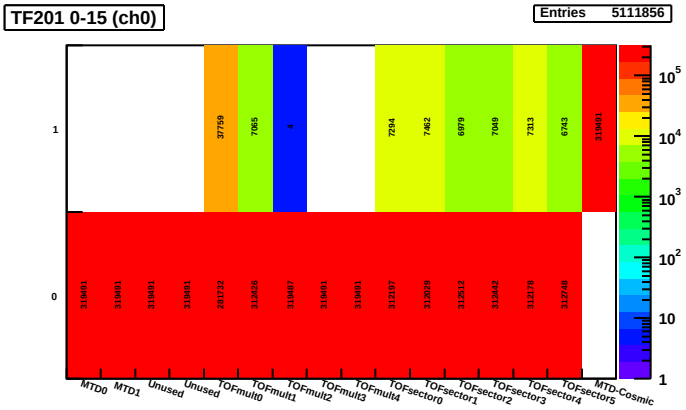

Input to FE002 QT board
Entries 1.022371e+07
ADC
channel

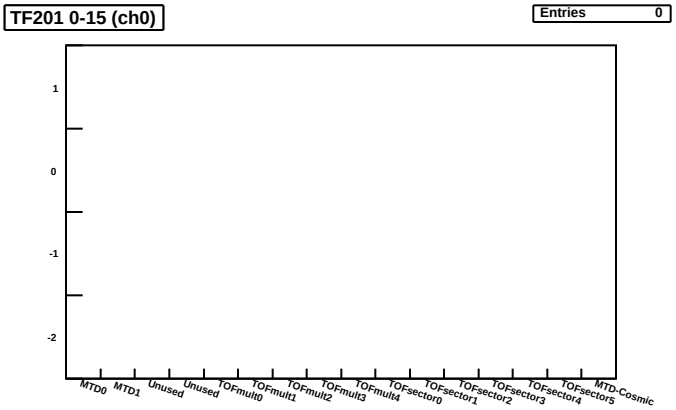

Input to FE003 QT board
Entries 1.022371e+07
ADC
channel

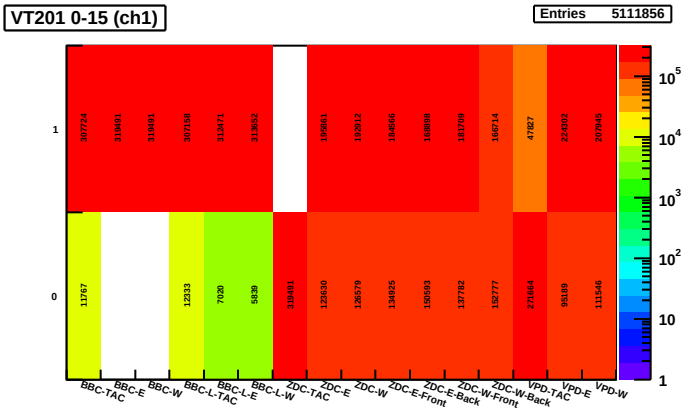

Input to FE004 QT board
Entries 1.022371e+07
ADC
channel

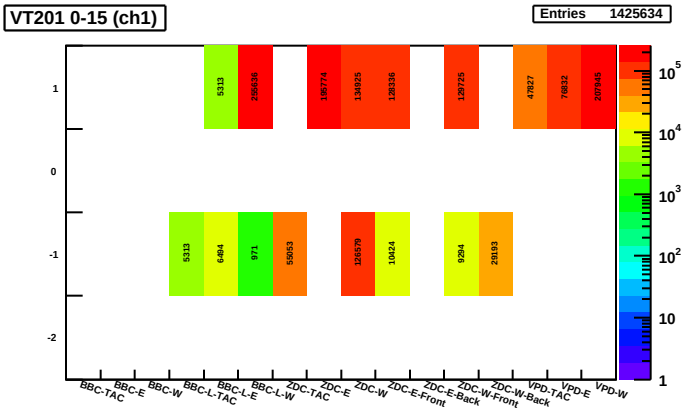

Input to FPE L1 DSM
Entries 1277964
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

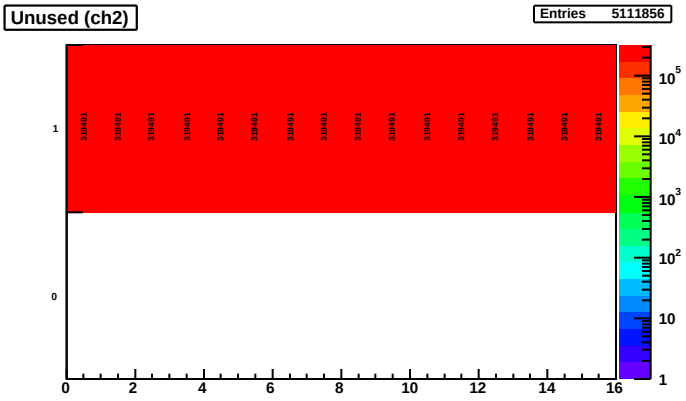

Input to FPE L1 DSM
Entries 319491
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

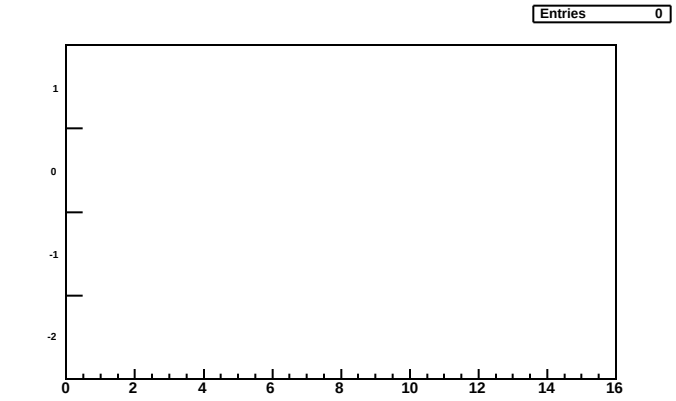

TF201 0-15 (ch0)
Entries 5111856
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

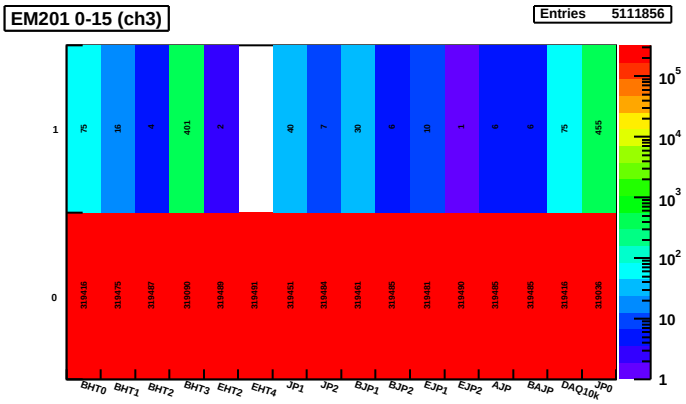

TF201 0-15 (ch0)
Entries 0
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

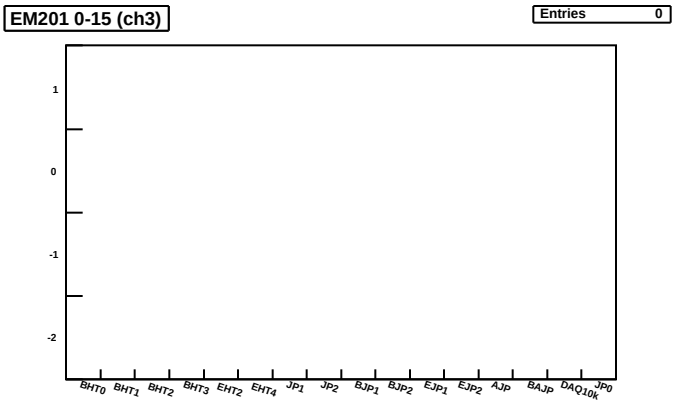

VT201 0-15 (ch1)
Entries 5111856
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 1425634
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 5111856


Entries 0


EM201 0-15 (ch3)
Entries 5111856
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


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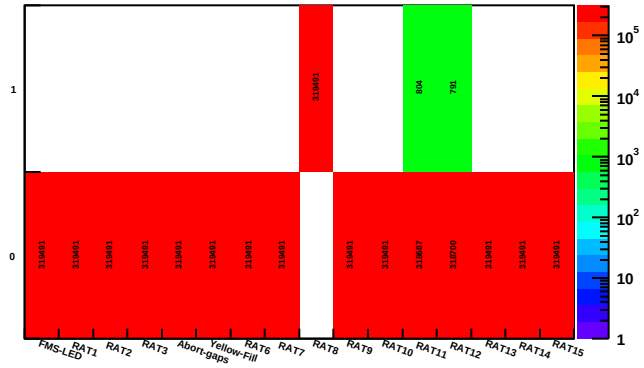
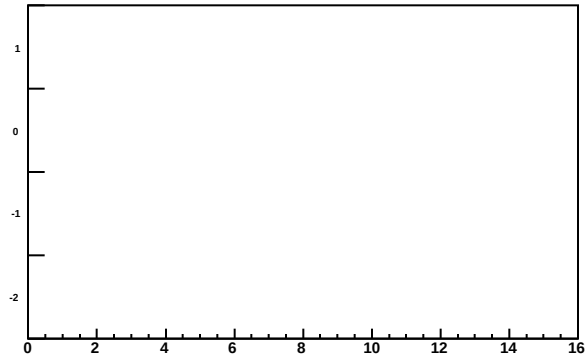
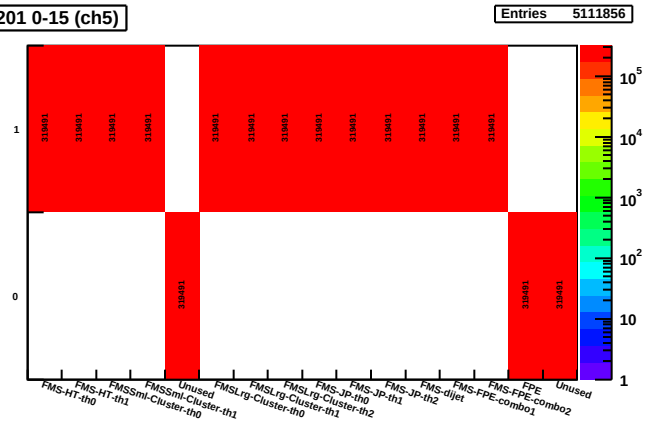
RAT board (ch4)

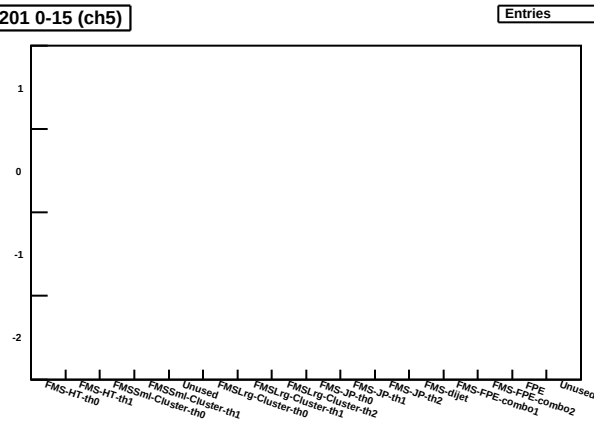




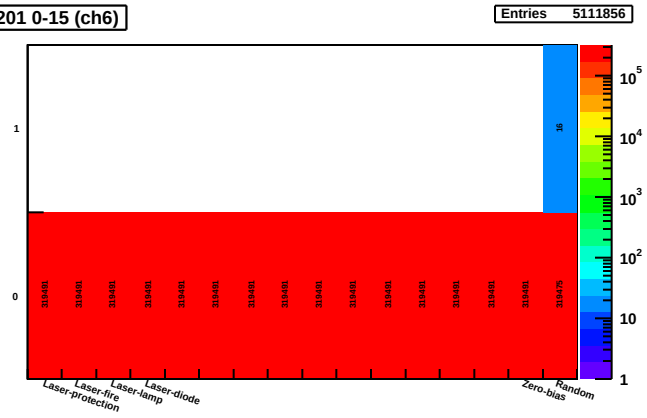
FP201 0-15 (ch5)

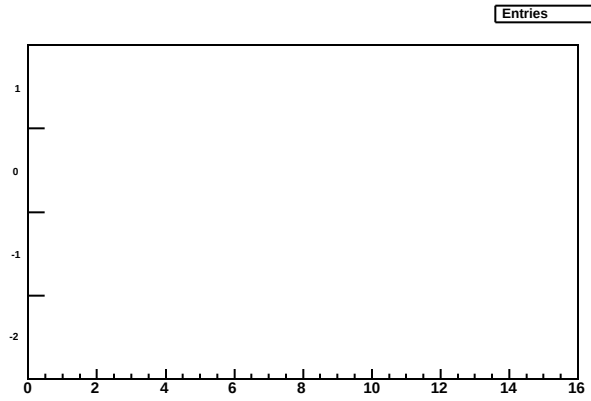
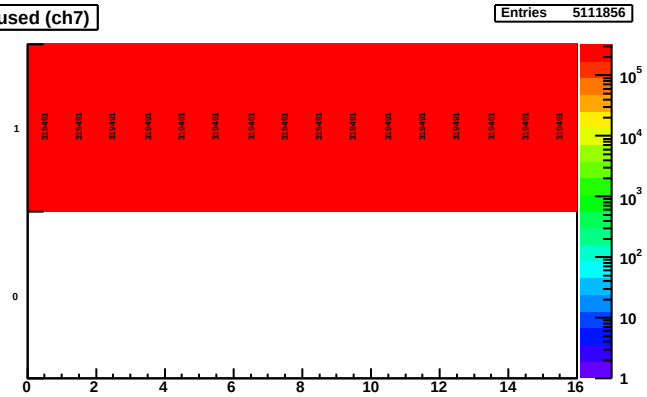
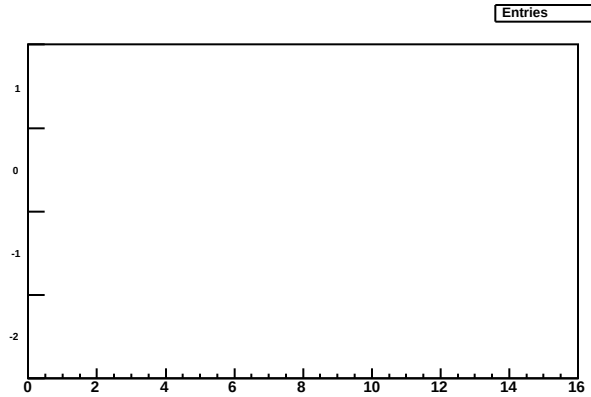


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)