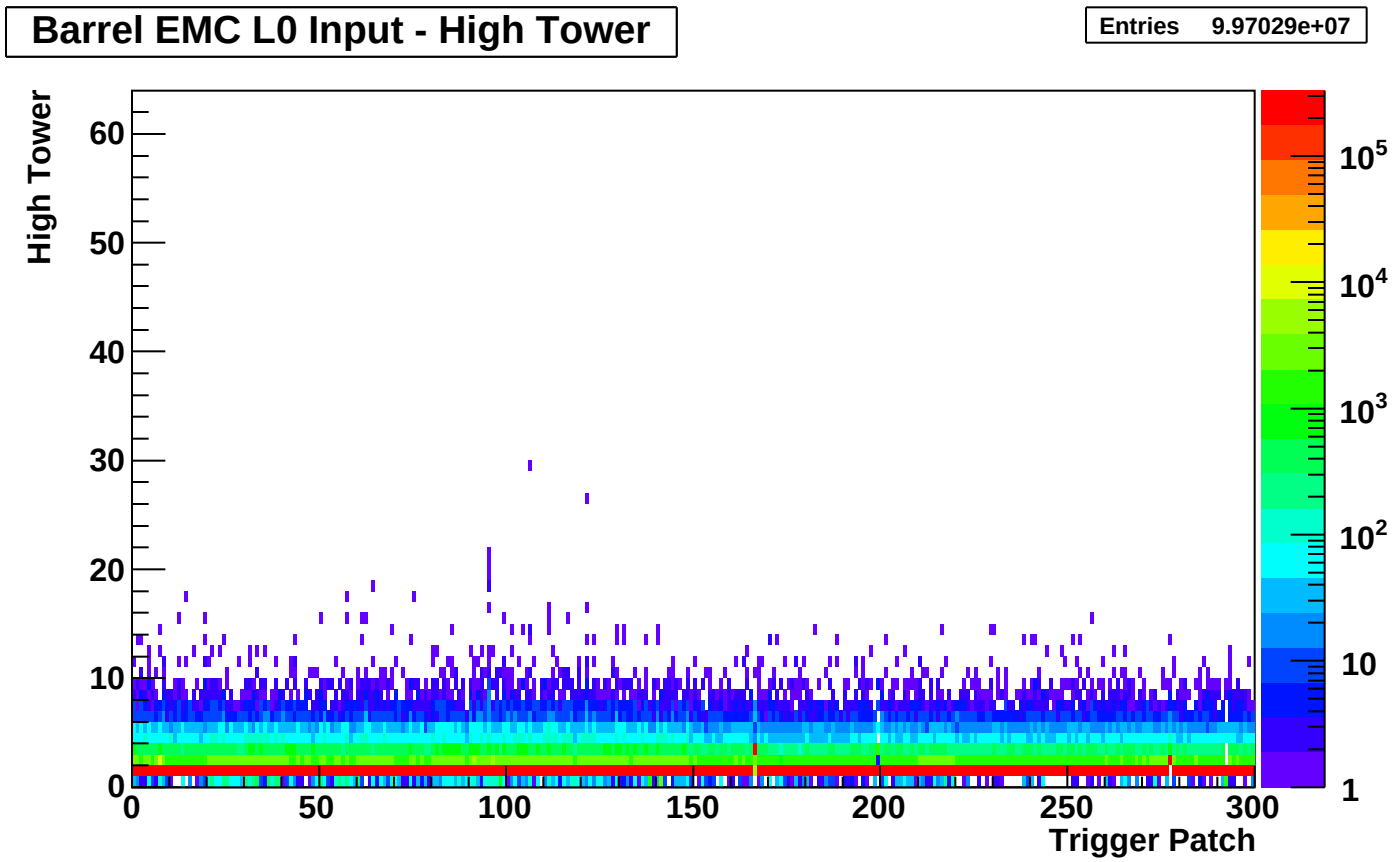
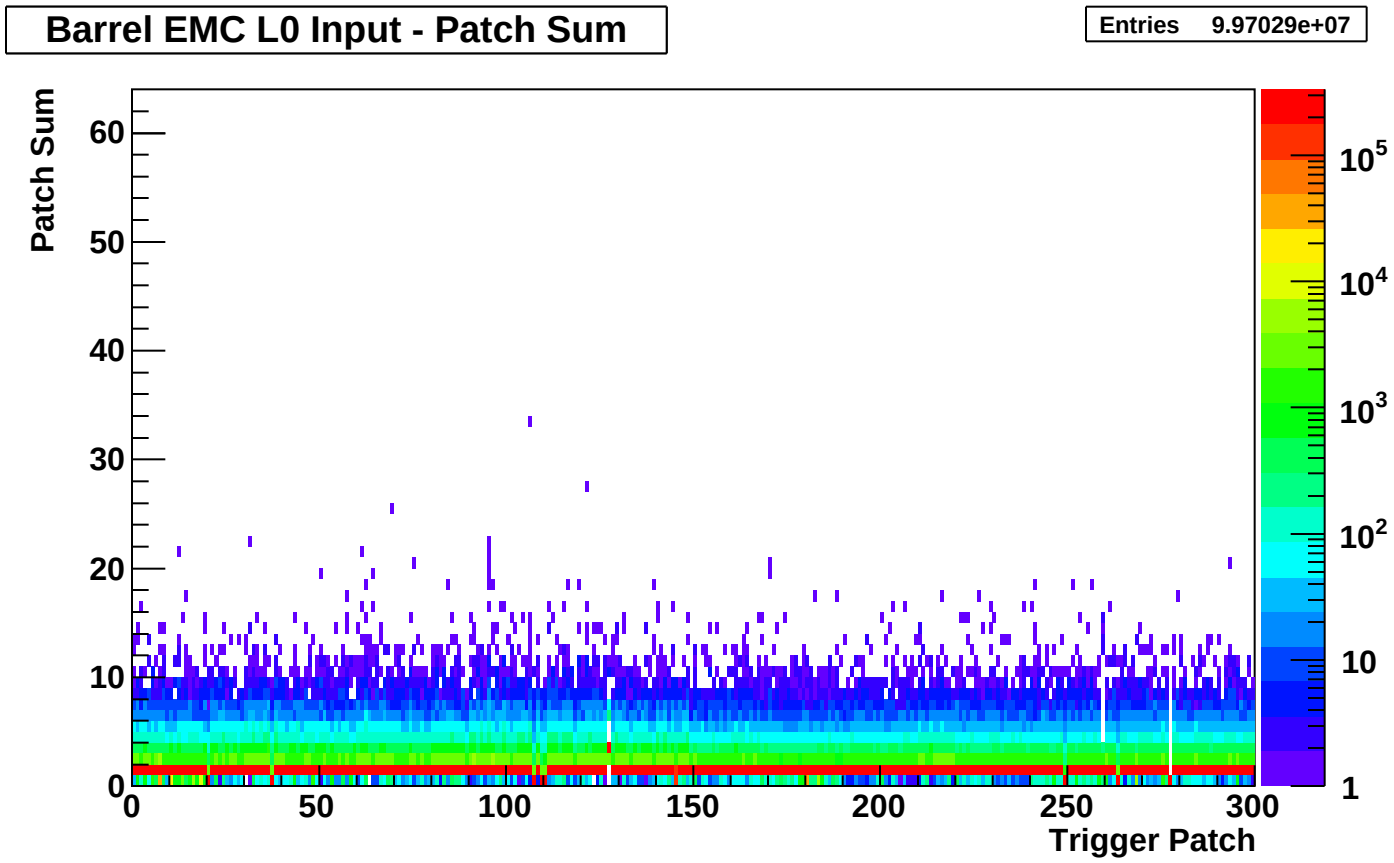
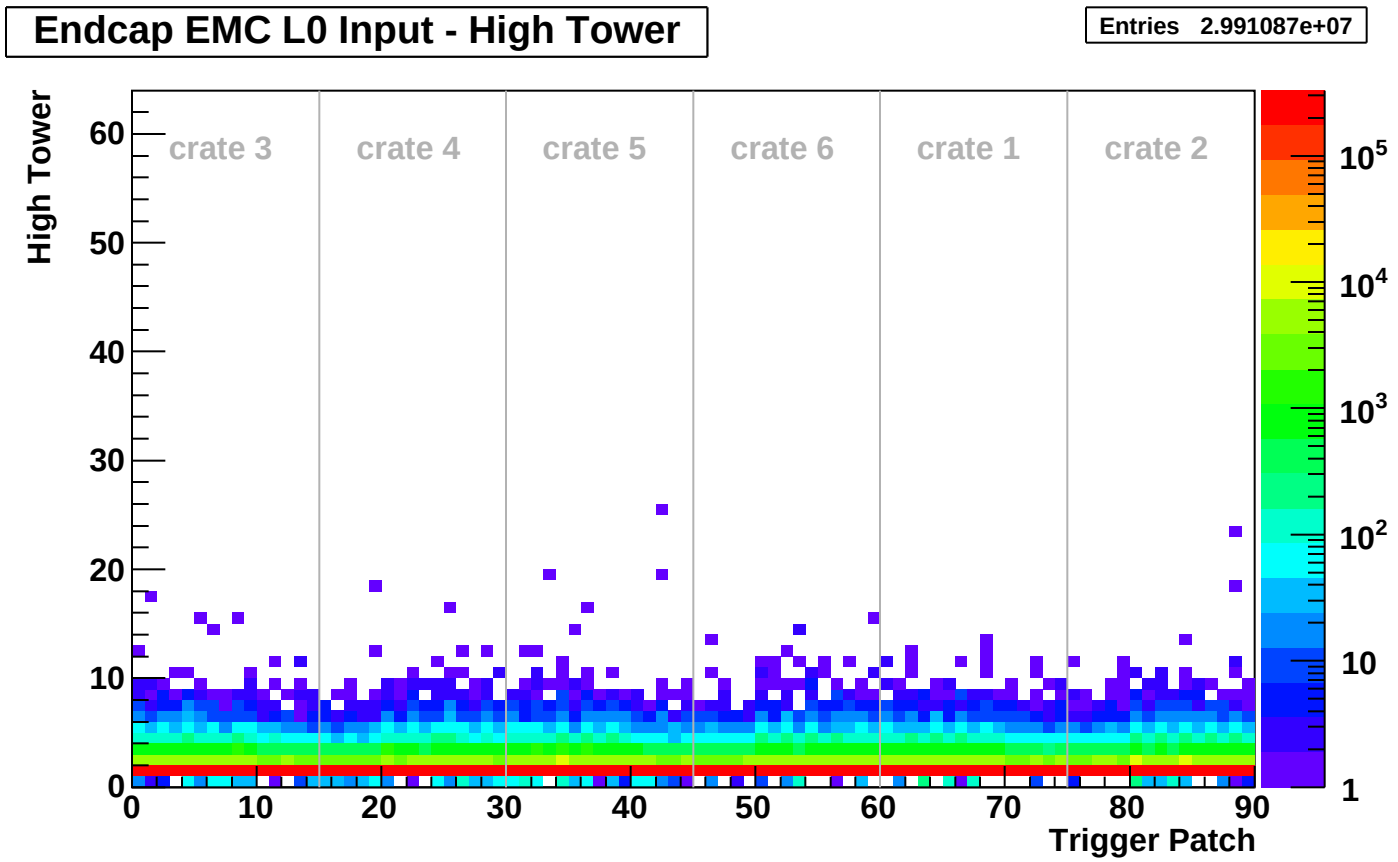
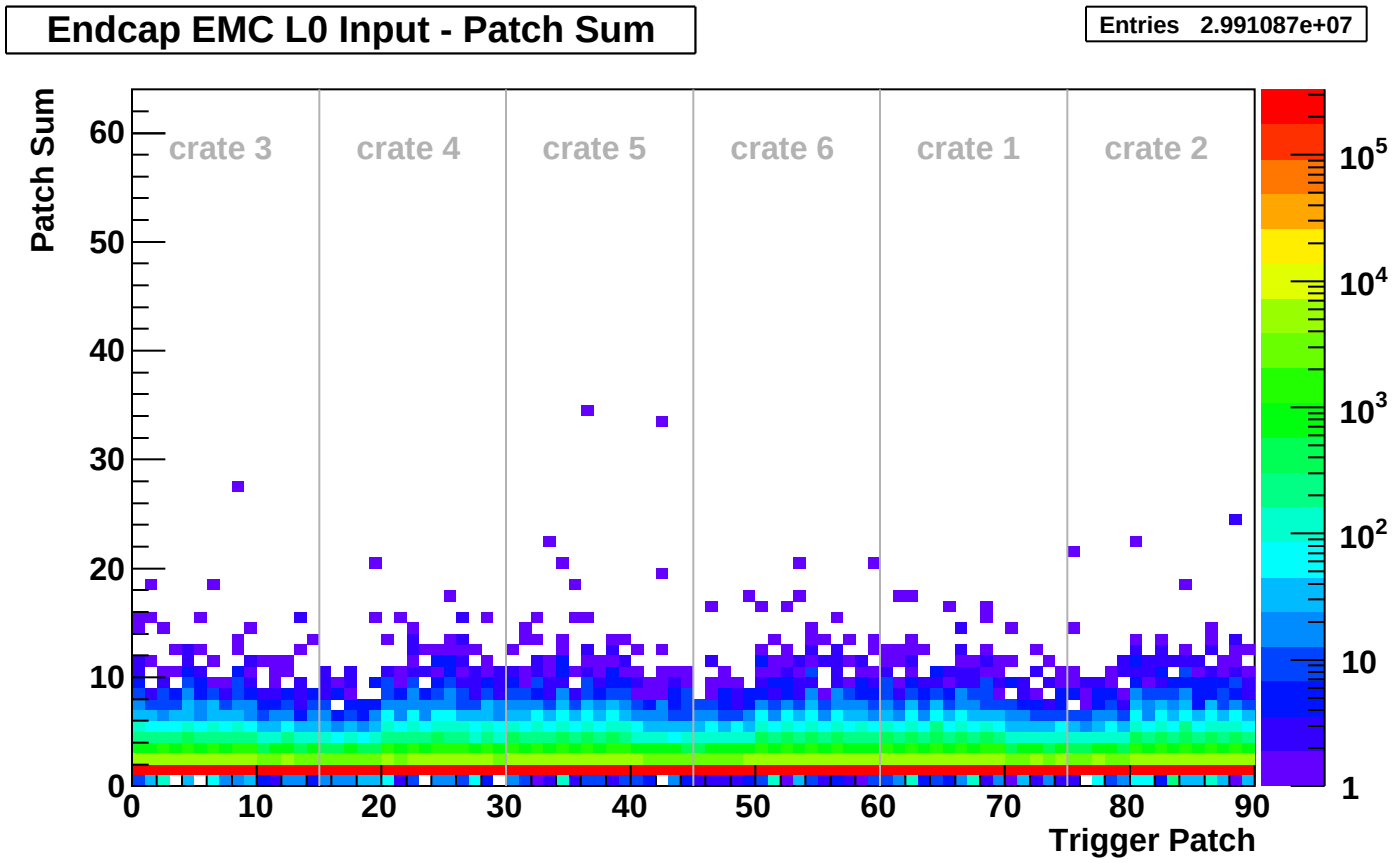
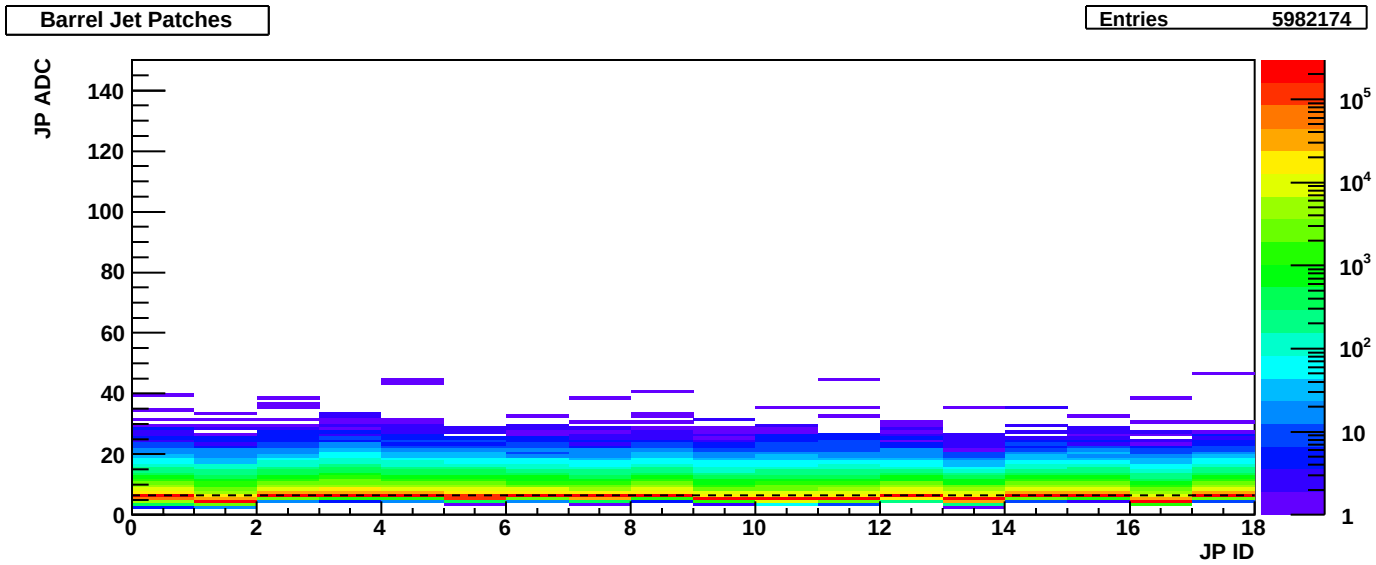
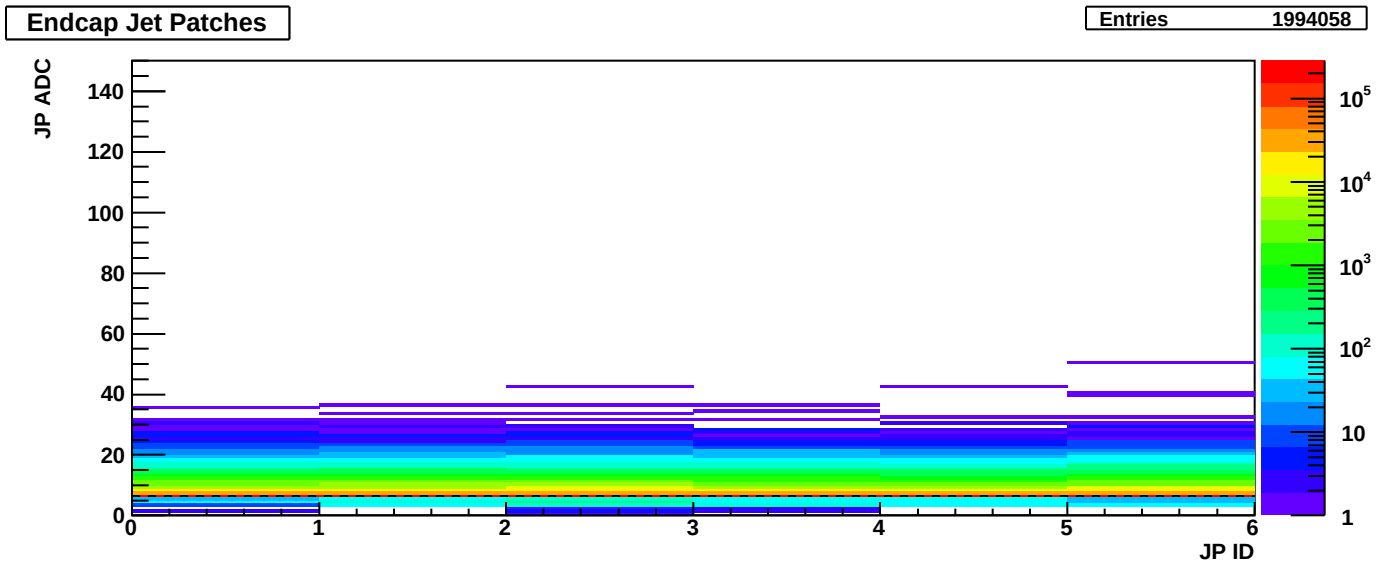

Barrel EMC L0 Input - High Tower
Entries 9.97029e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

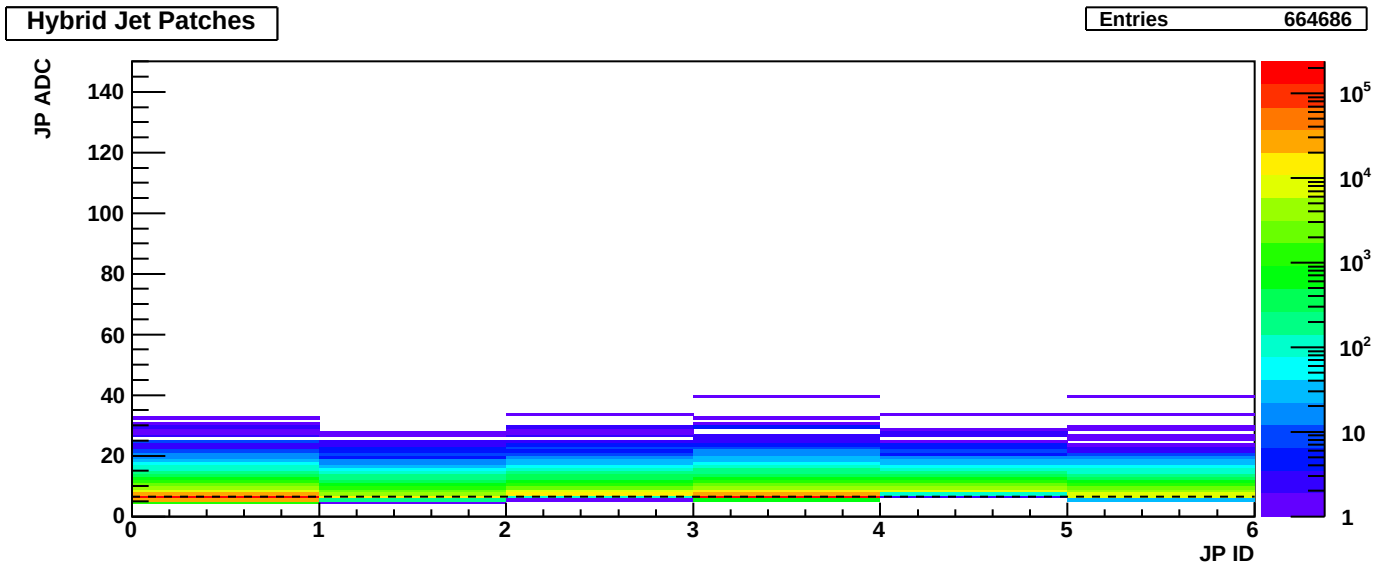

Barrel EMC L0 Input - Patch Sum
Entries 9.97029e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

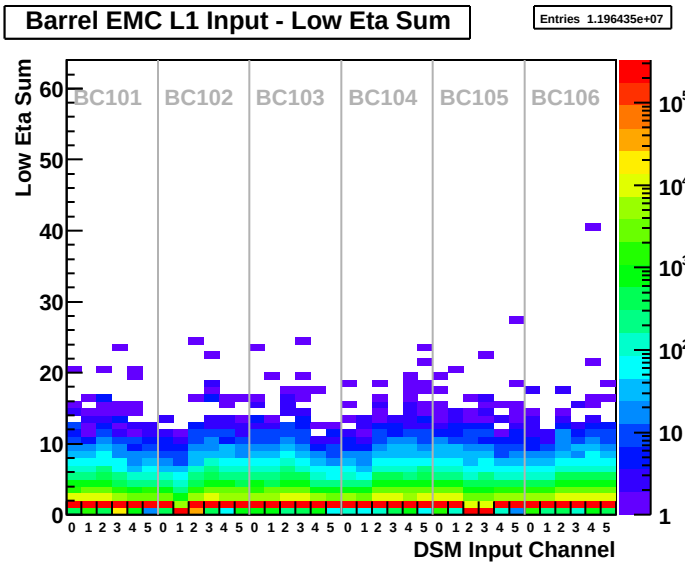

Endcap EMC L0 Input - High Tower
Entries 2.991087e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

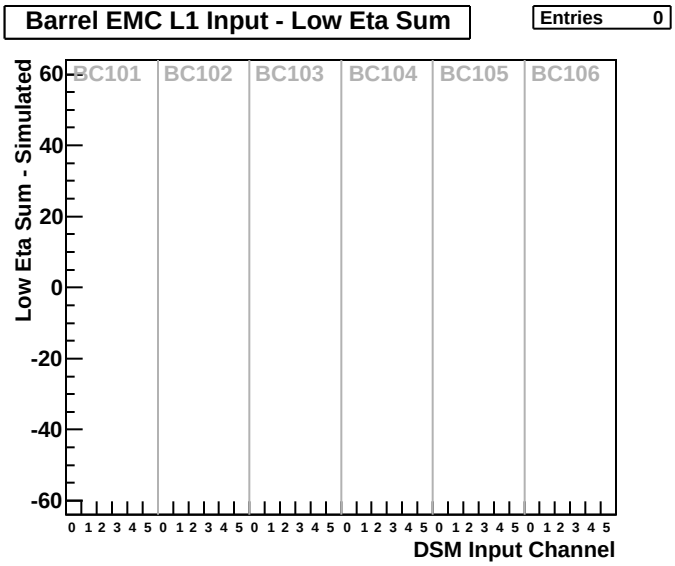

Endcap EMC L0 Input - Patch Sum
Entries 2.991087e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

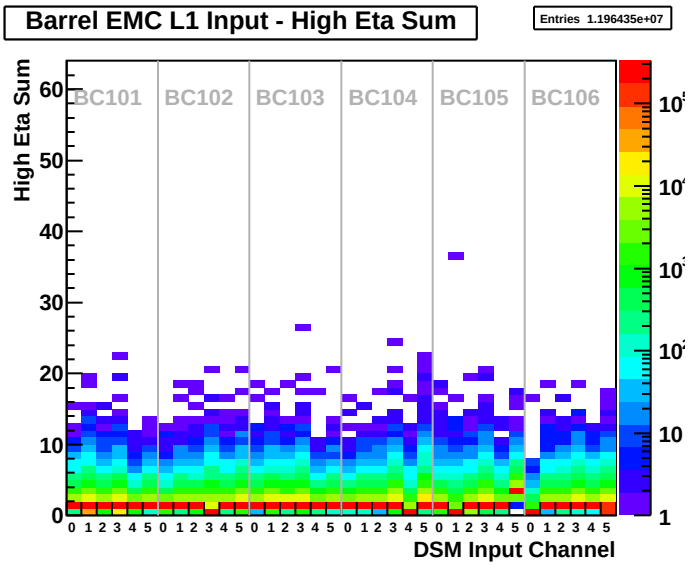

Barrel Jet Patches
Entries 5982174
JP ADC
JP ID

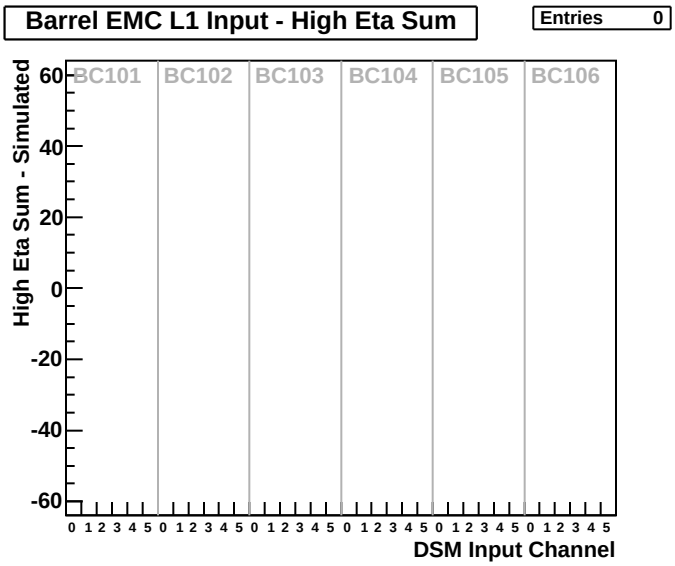

Endcap Jet Patches
Entries 1994058
JP ADC
JP ID

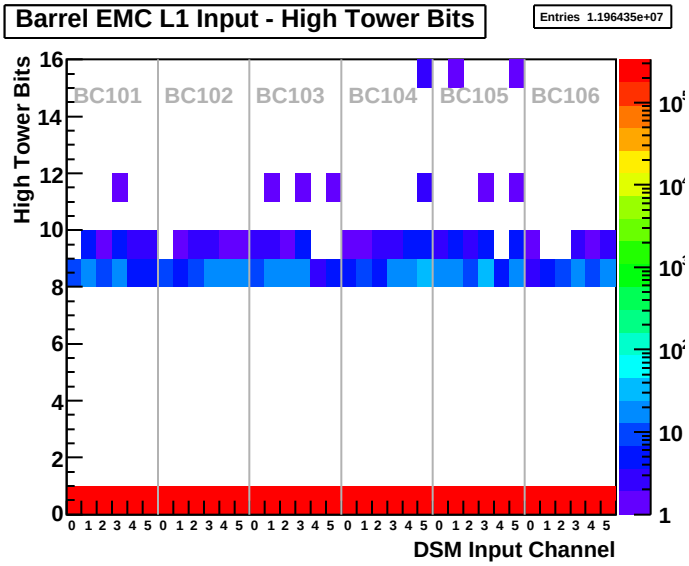

Hybrid Jet Patches
Entries 664686
JP ADC
JP ID

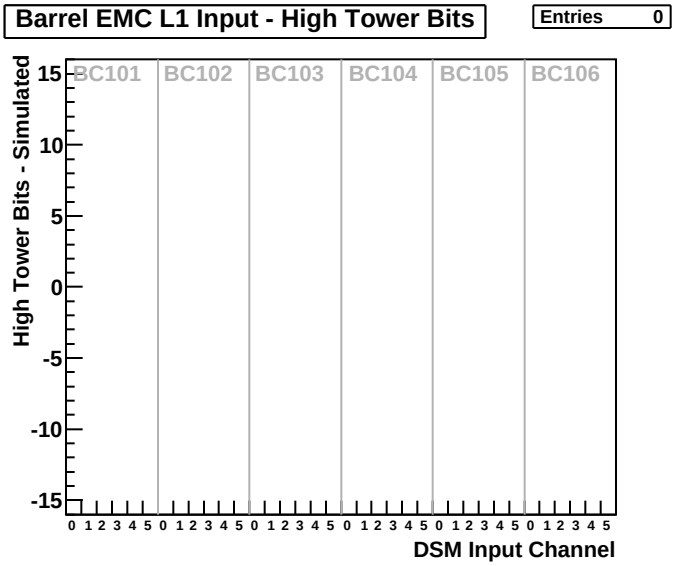

Barrel EMC L1 Input - Low Eta Sum
Entries 1.196435e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

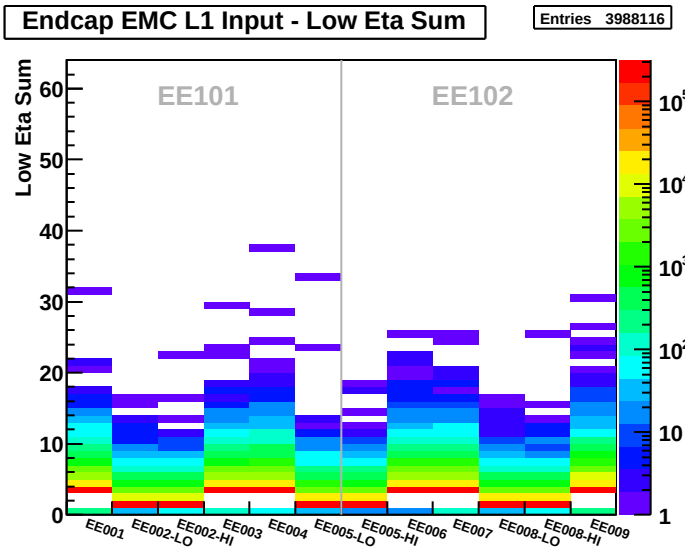

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

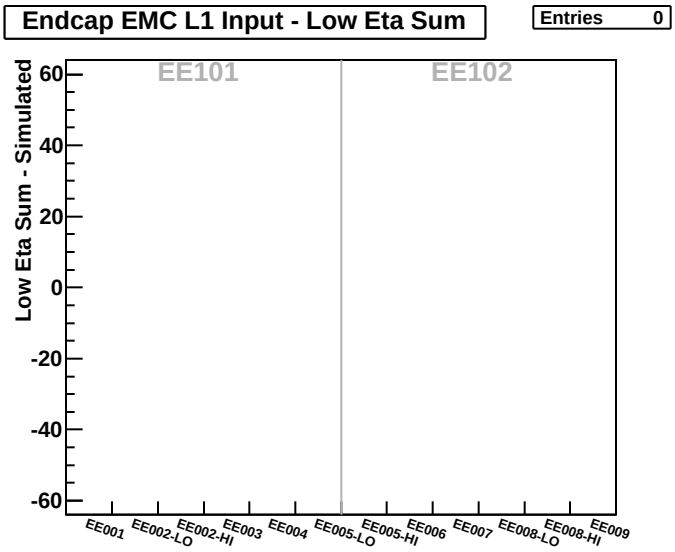

Barrel EMC L1 Input - High Eta Sum
Entries 1.196435e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

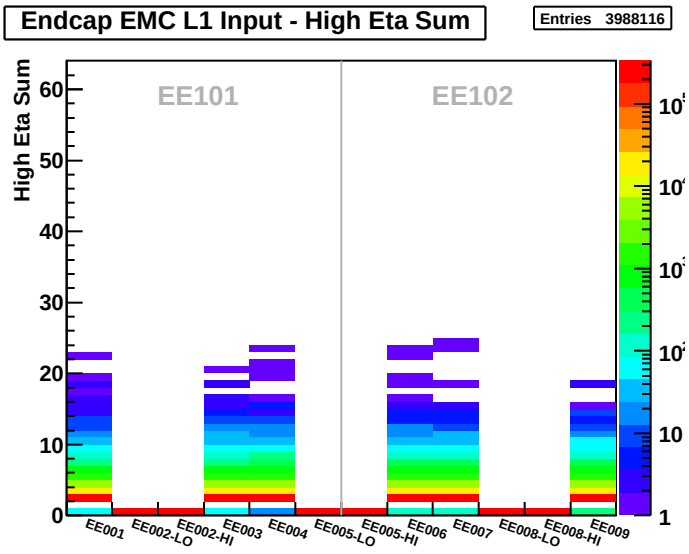

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

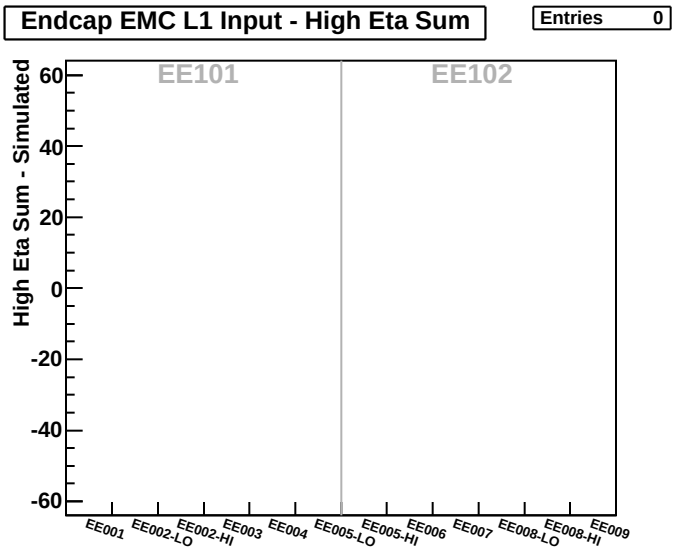

Barrel EMC L1 Input - High Tower Bits
Entries 1.196435e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

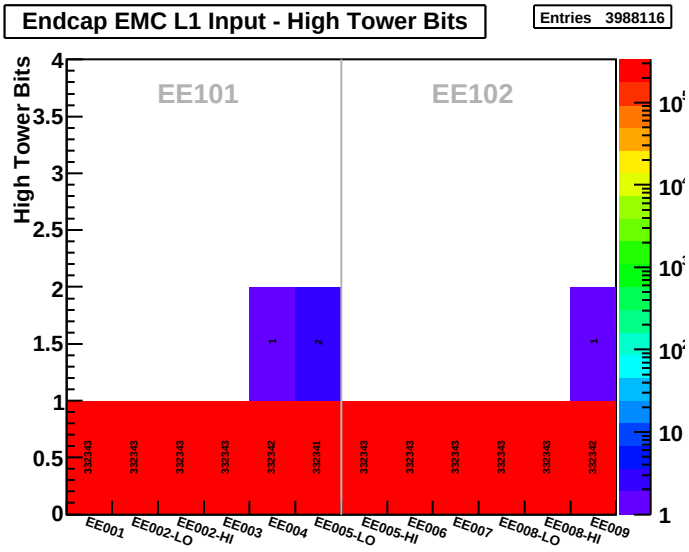

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

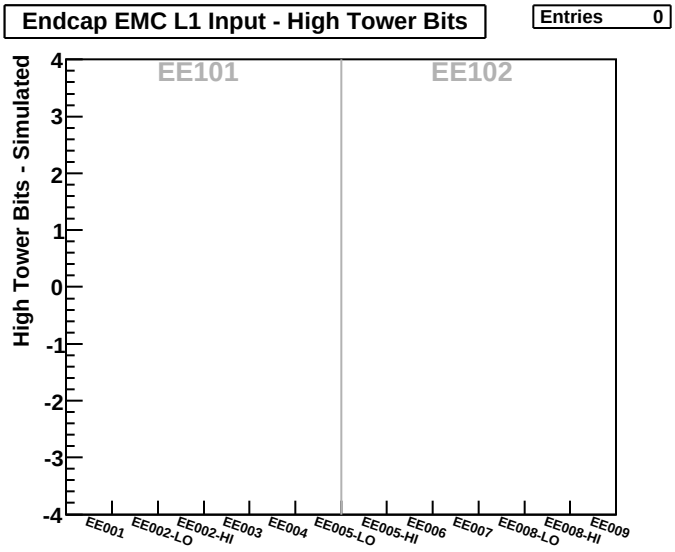

Endcap EMC L1 Input - Low Eta Sum
Entries 3988116
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

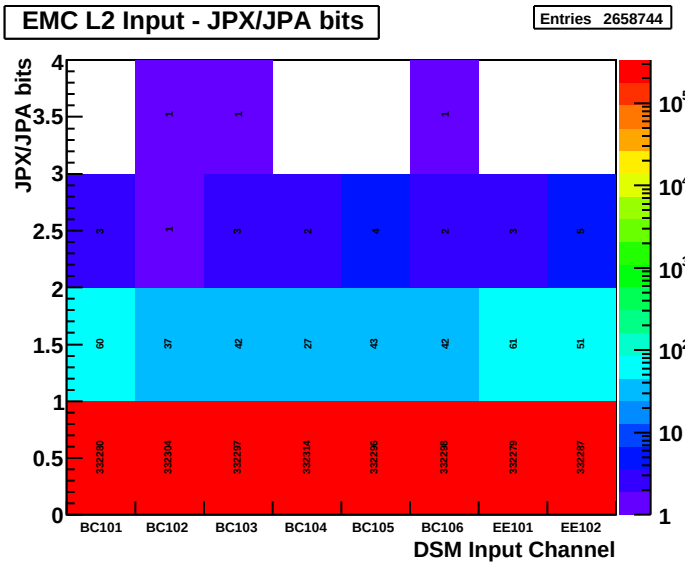

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

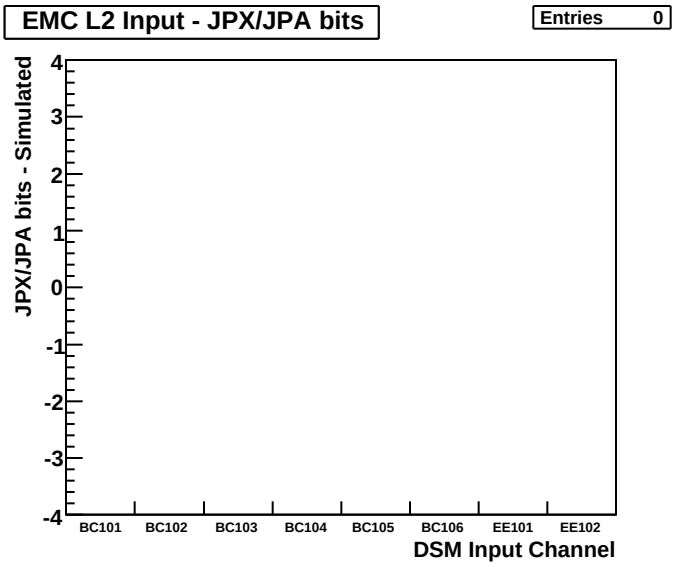

Endcap EMC L1 Input - High Eta Sum
Entries 3988116
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

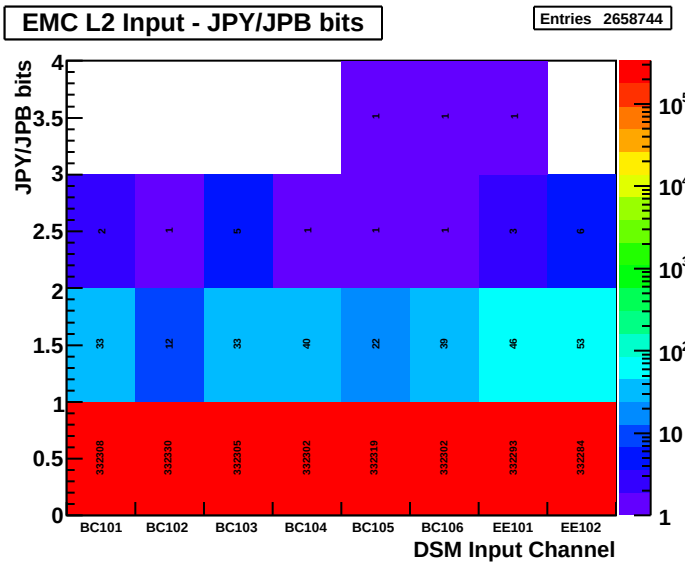

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

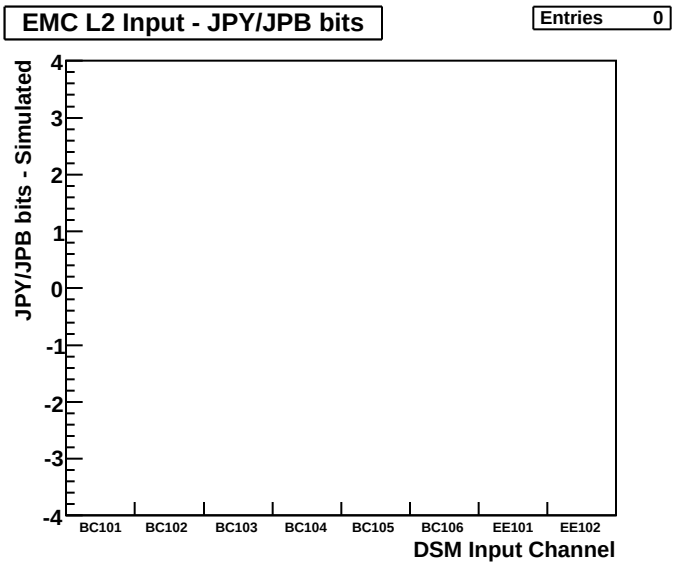

Endcap EMC L1 Input - High Tower Bits
Entries 3988116
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

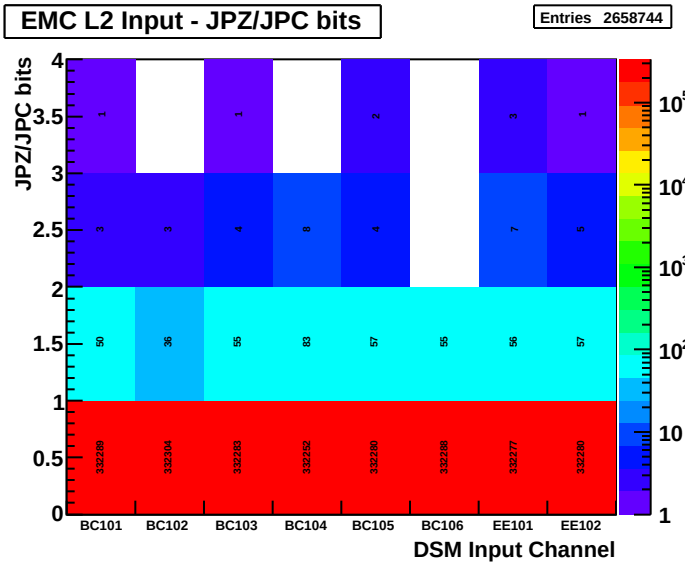

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

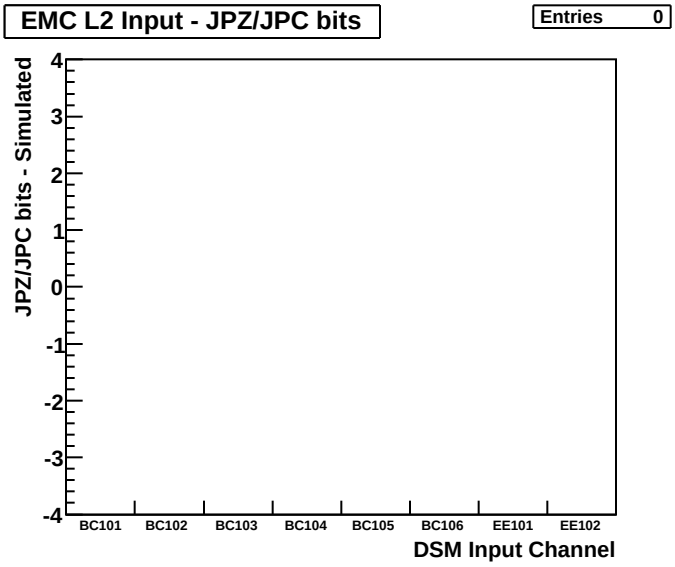

EMC L2 Input - JPX/JPA bits
Entries 2658744
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

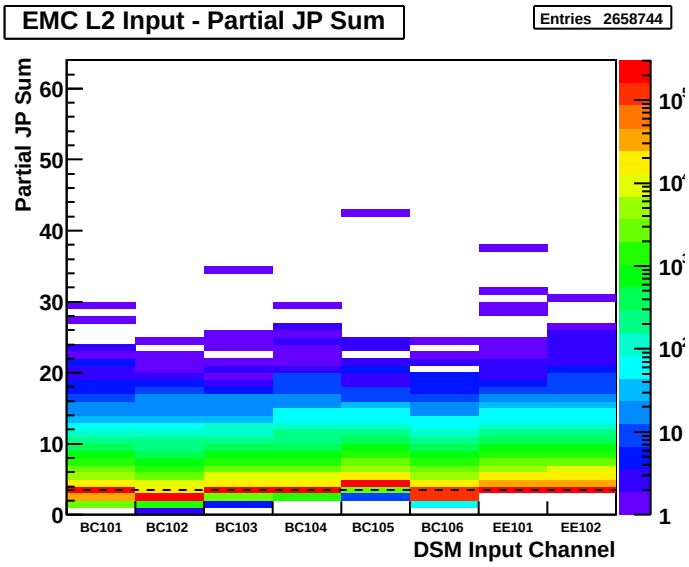

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

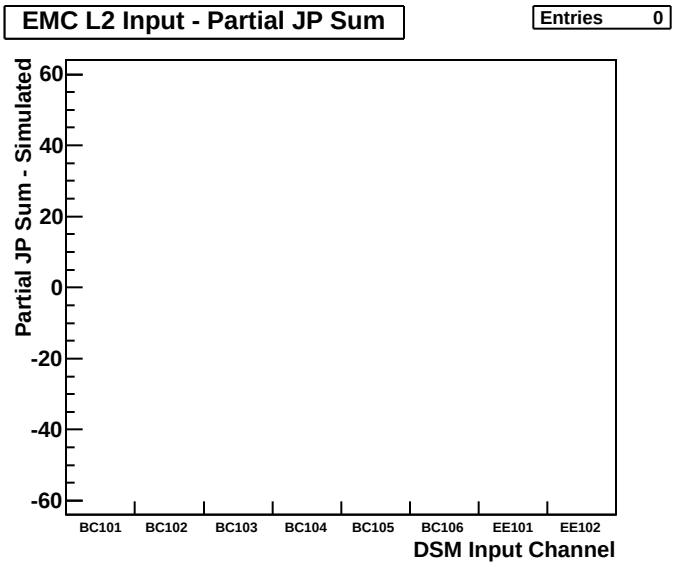

EMC L2 Input - JPY/JPB bits
Entries 2658744
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

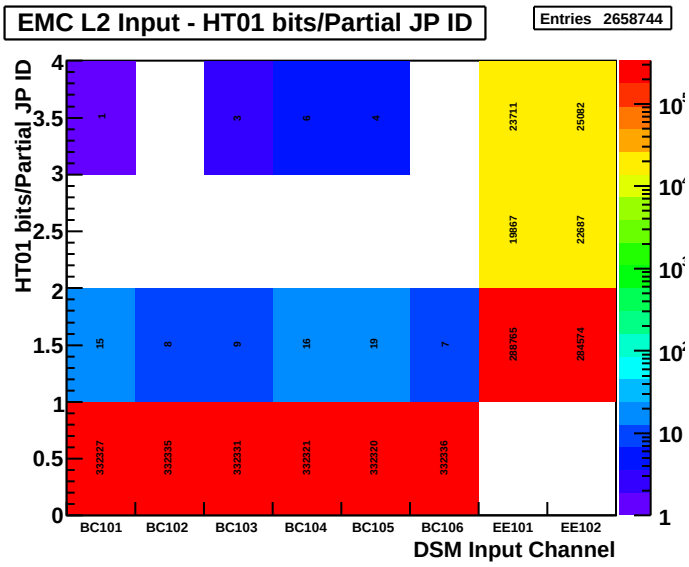

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

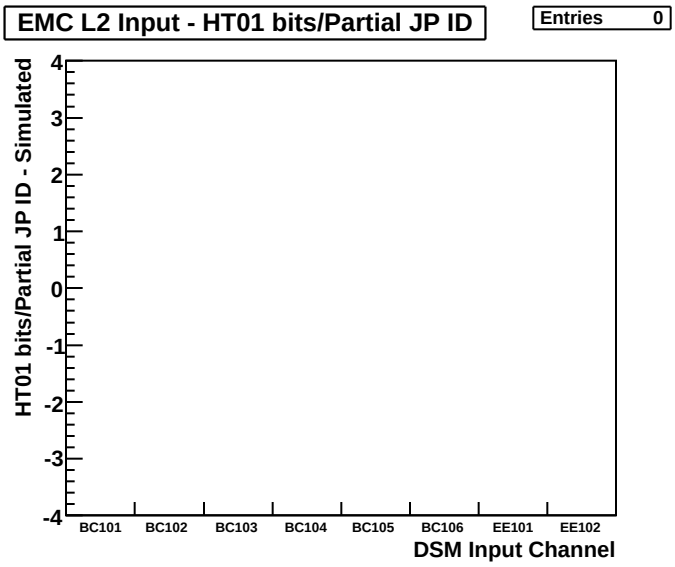

EMC L2 Input - JPZ/JPC bits
Entries 2658744
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

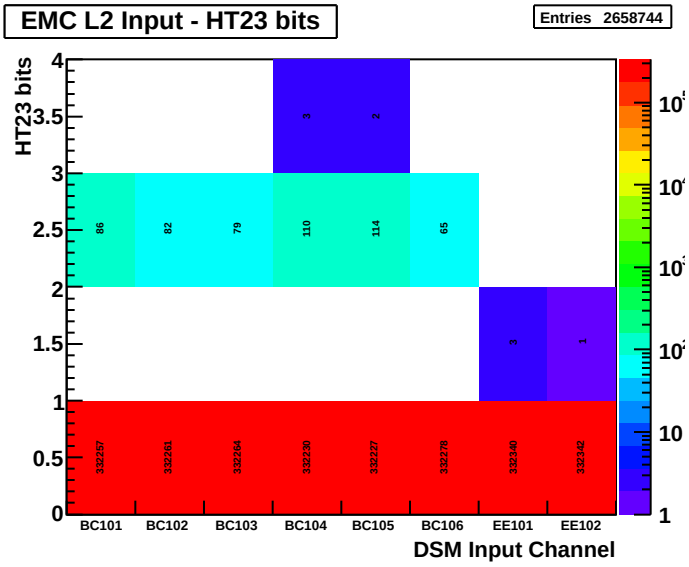

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

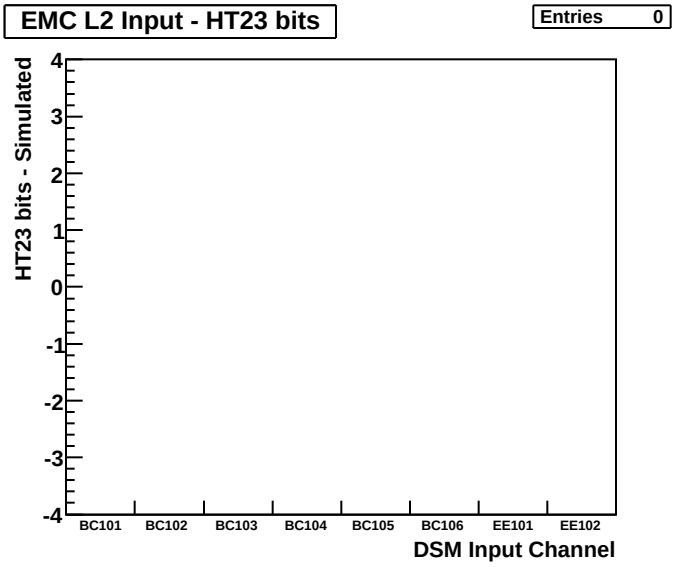

EMC L2 Input - Partial JP Sum
Entries 2658744
Partial JP Sum
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

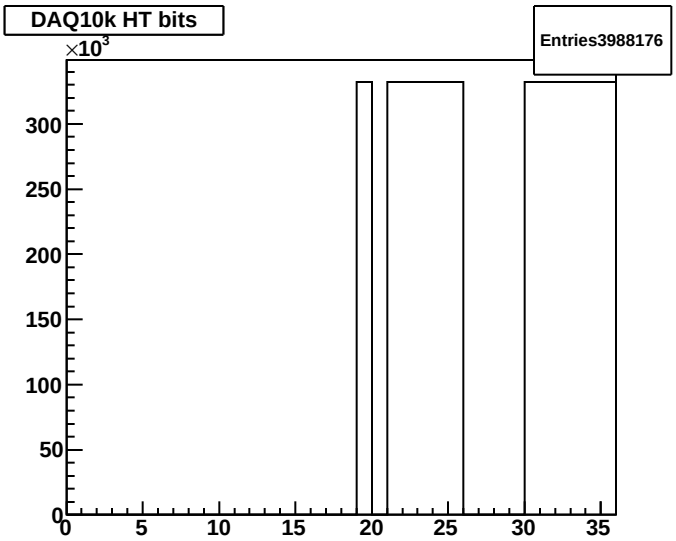

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

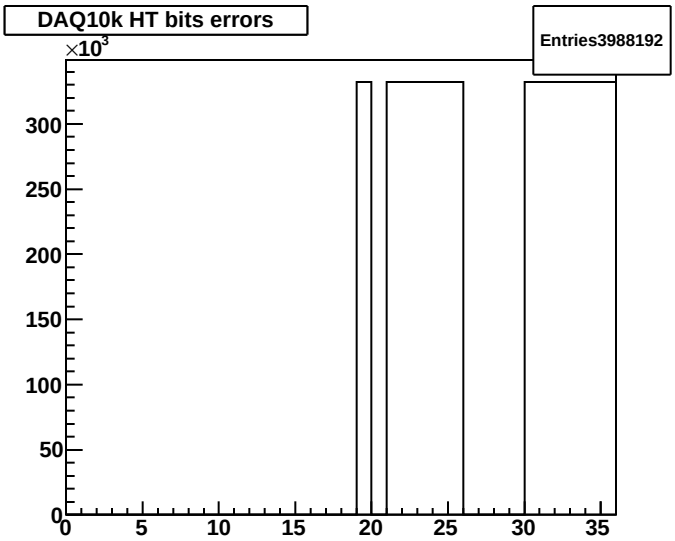

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2658744
HT01 bits/Partial JP ID
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

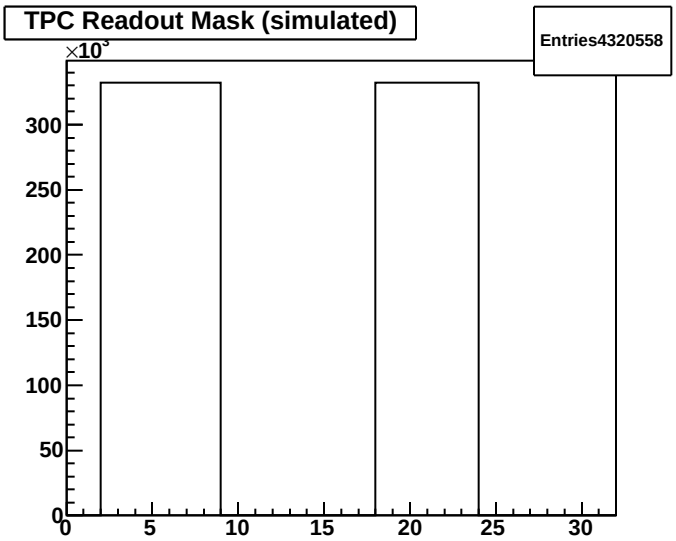

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

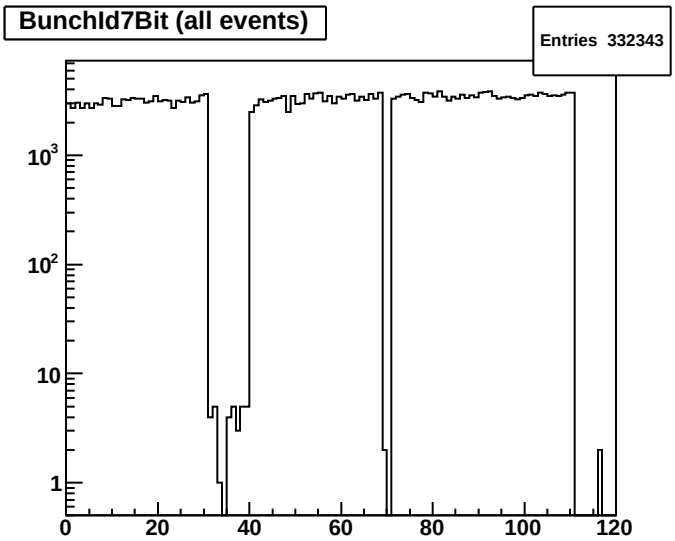

EMC L2 Input - HT23 bits
Entries 2658744
HT23 bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

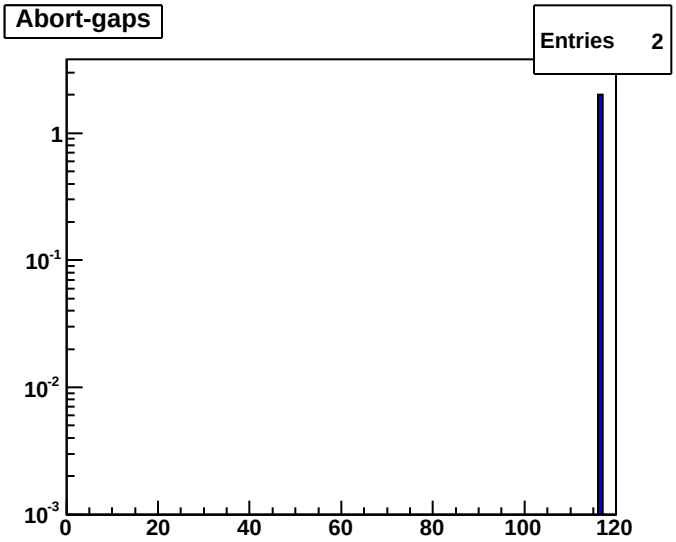

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

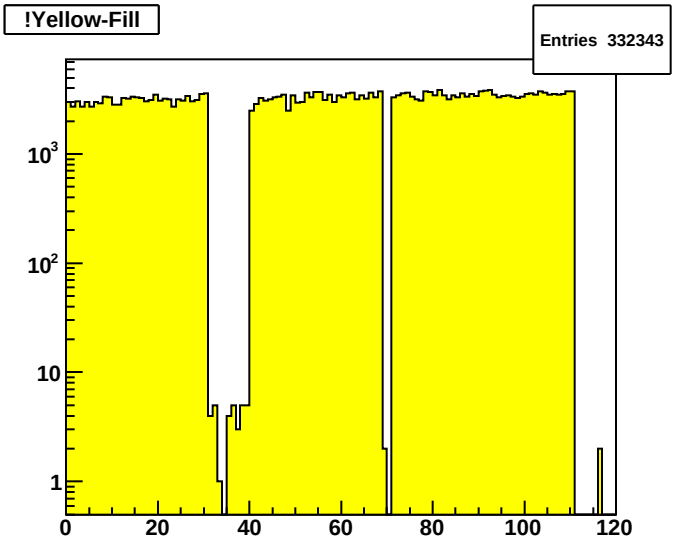

DAQ10k HT bits
Entries3988176
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

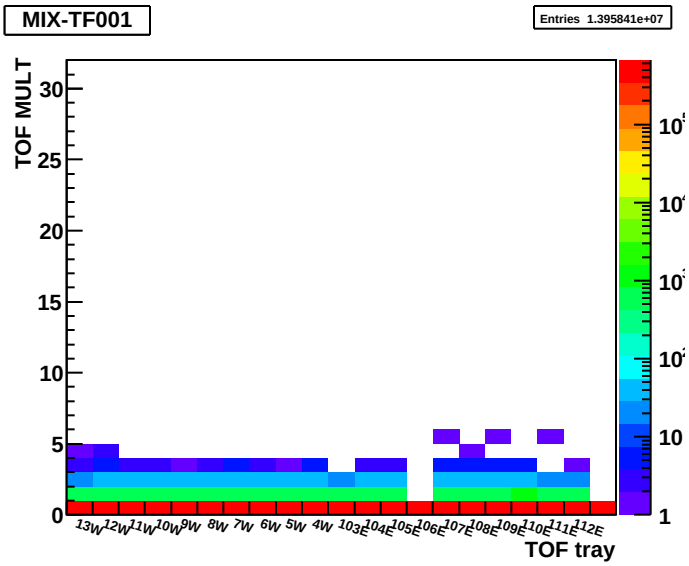

DAQ10k HT bits errors
Entries3988192
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

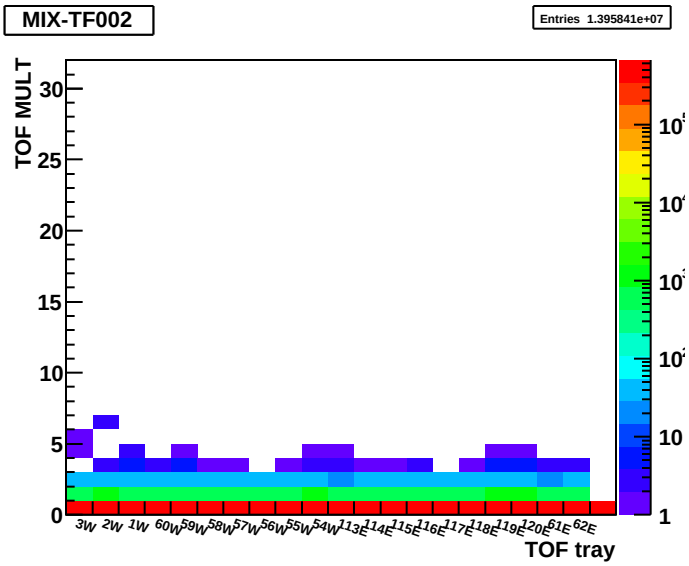

TPC Readout Mask (simulated)
Entries4320558
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30

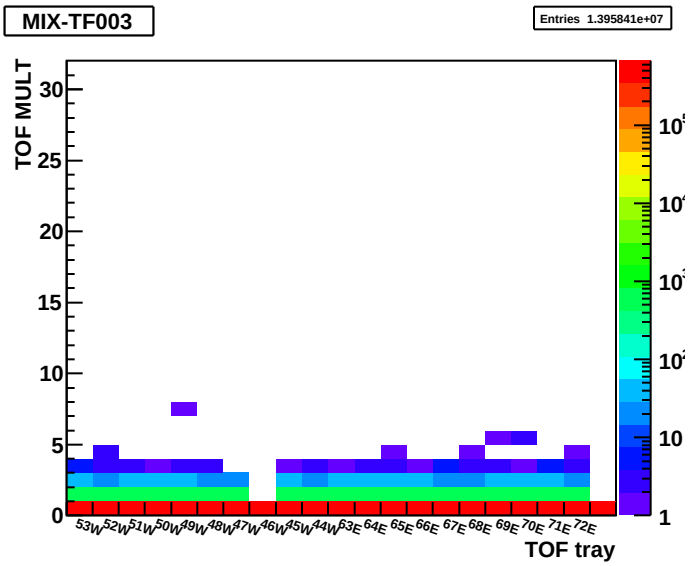

BunchId7Bit (all events)
Entries 332343
10^3
10^2
10
1
0 20 40 60 80 100 120

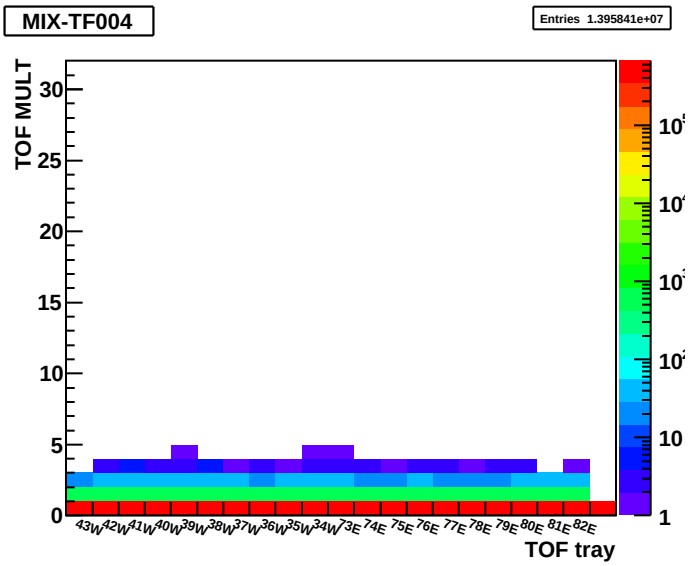

Abort-gaps
Entries 2
1
10^-1
10^-2
10^-3
0 20 40 60 80 100 120

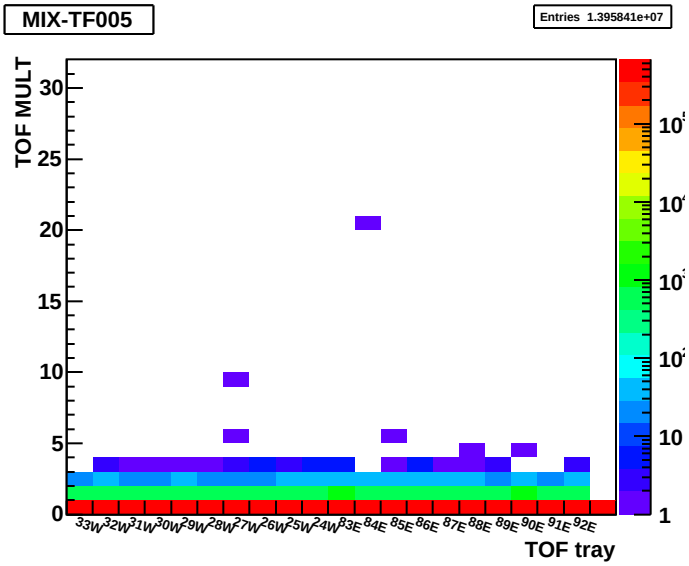

!Yellow-Fill
Entries 332343
10^3
10^2
10
1
0 20 40 60 80 100 120

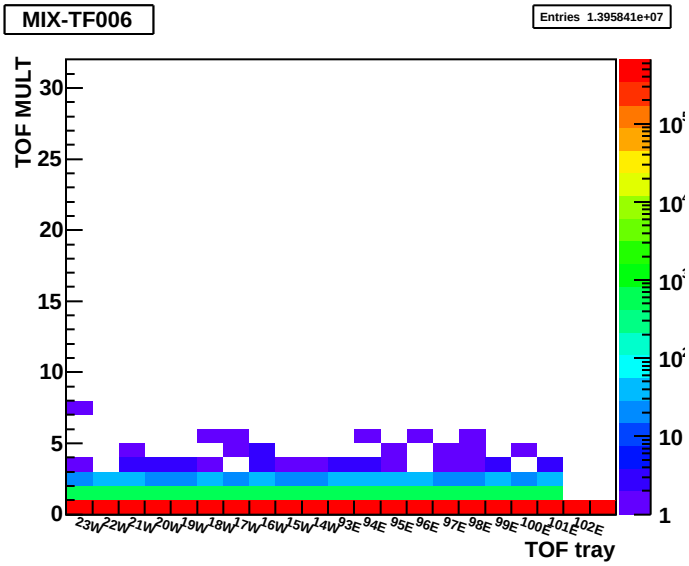

MIX-TF001
Entries 1.395841e+07
TOF MULT
TOF tray

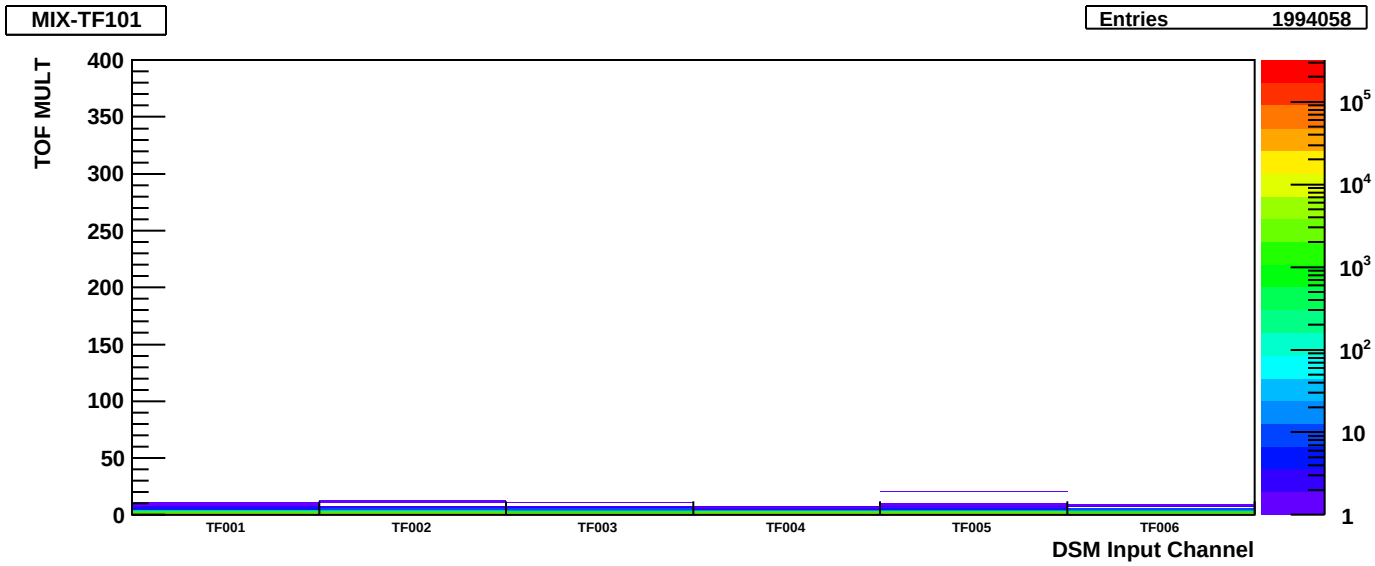

MIX-TF002
Entries 1.395841e+07
TOF MULT
TOF tray

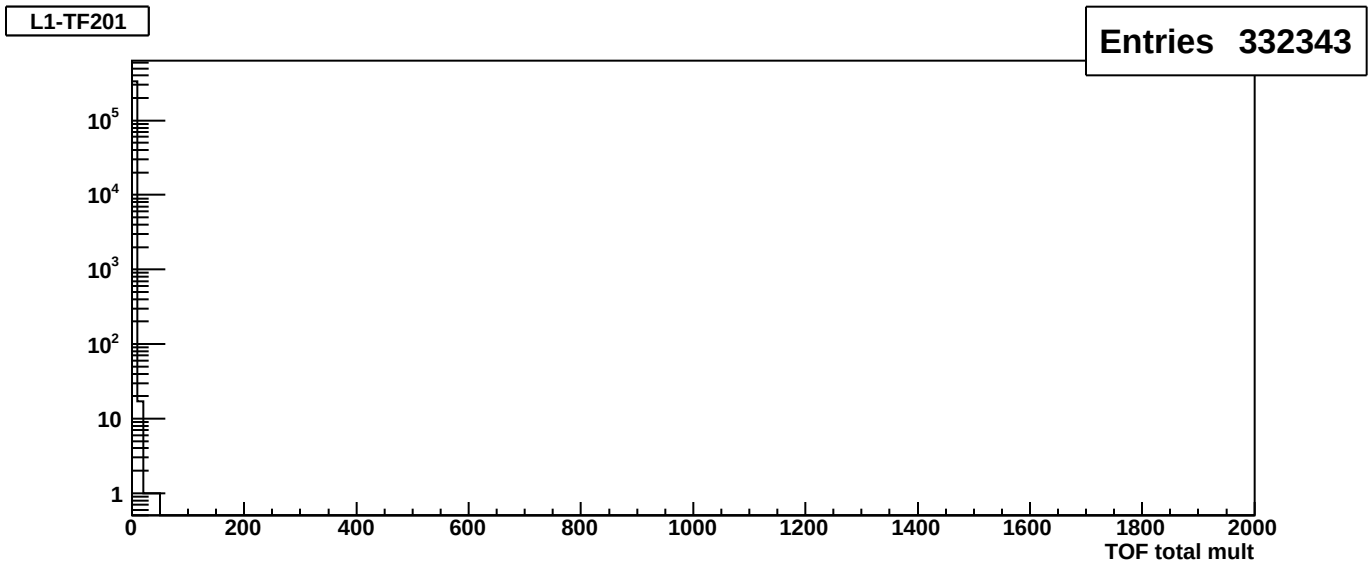

MIX-TF003
Entries 1.395841e+07
TOF MULT
TOF tray

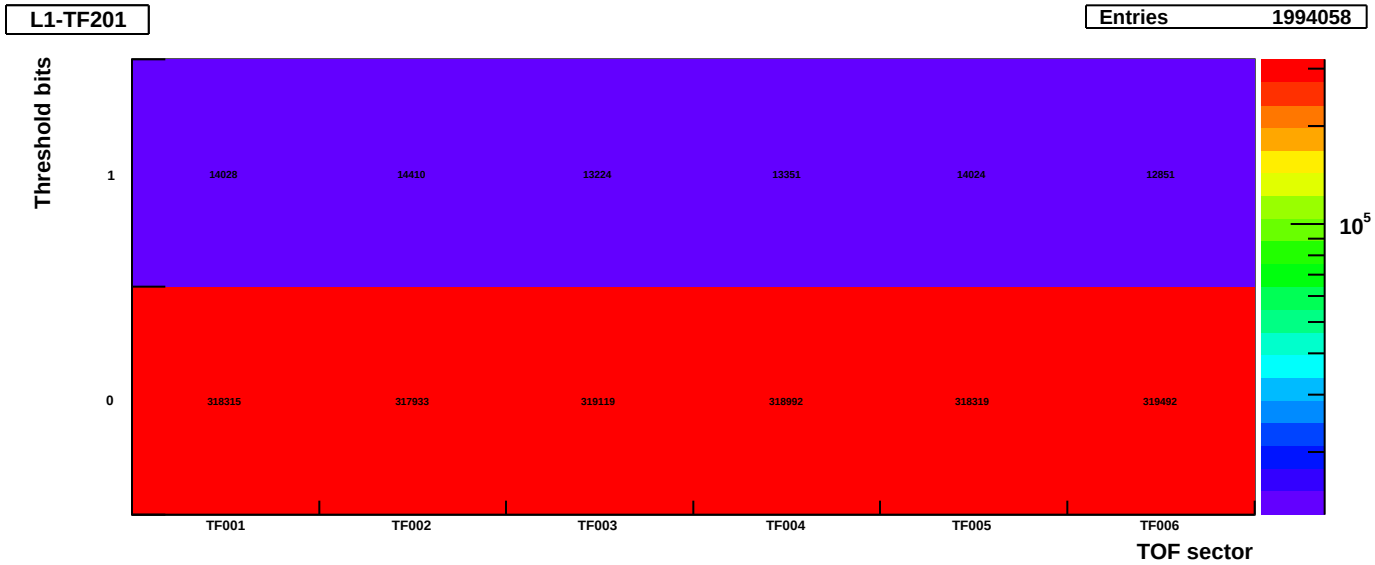

MIX-TF004
Entries 1.395841e+07
TOF MULT
TOF tray

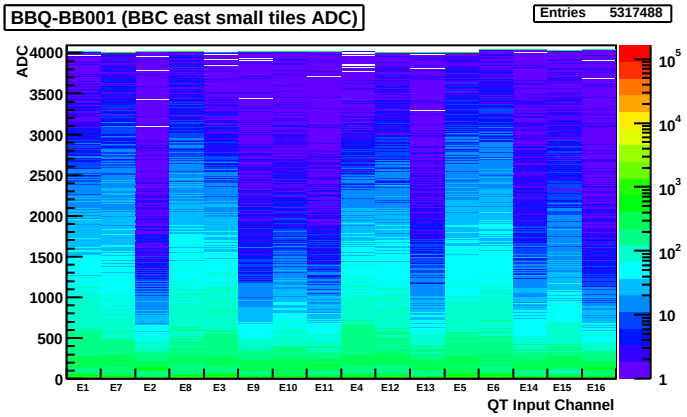

MIX-TF005
Entries 1.395841e+07
TOF MULT
TOF tray

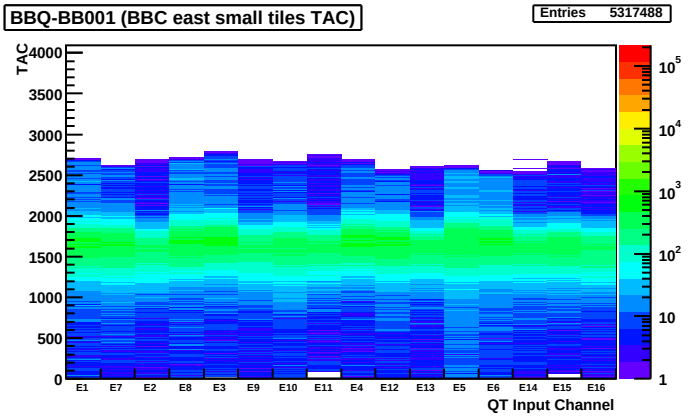

MIX-TF006
Entries 1.395841e+07
TOF MULT
TOF tray

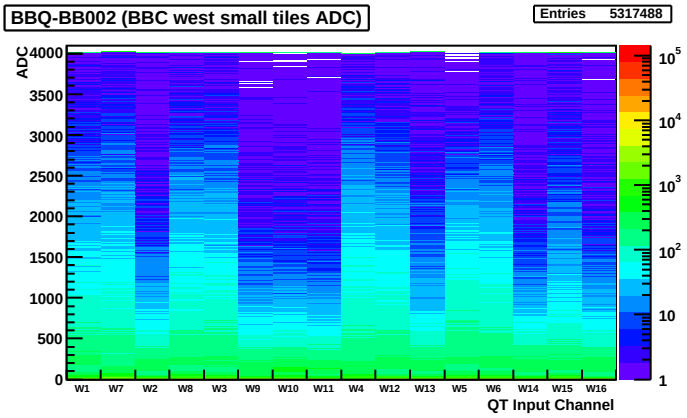

MIX-TF101
Entries 1994058
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

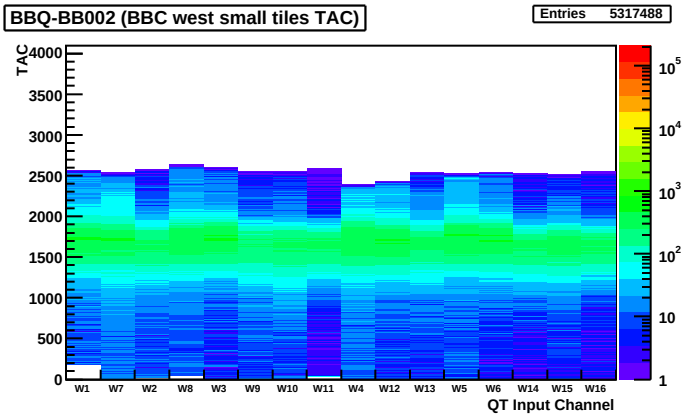

L1-TF201
Entries 332343
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

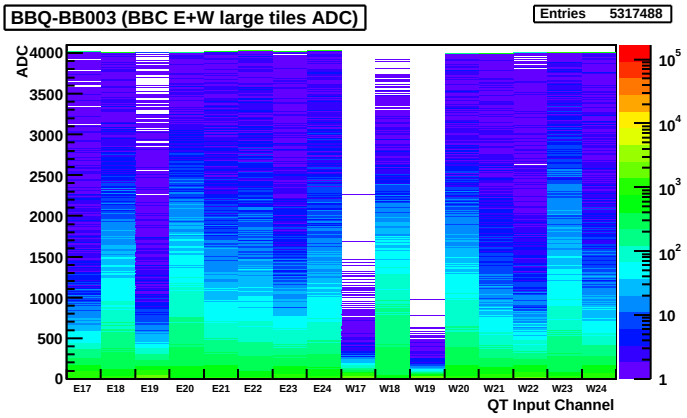

L1-TF201
Entries 1994058
Threshold bits
1
0
14028
14410
13224
13351
14024
12851
318315
317933
319119
318992
318319
319492
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

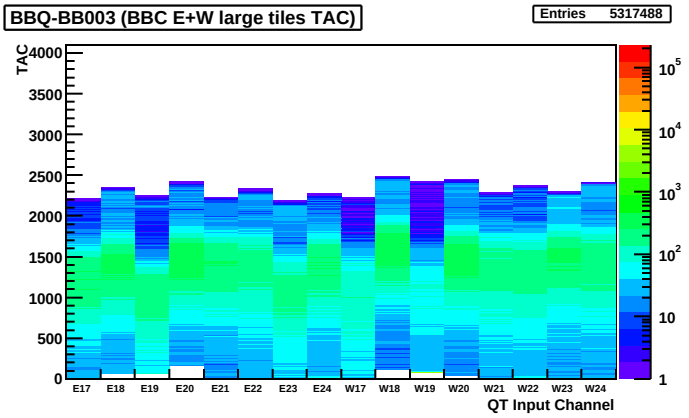

BBQ-BB001 (BBC east small tiles ADC)
Entries 5317488
ADC
QT Input Channel

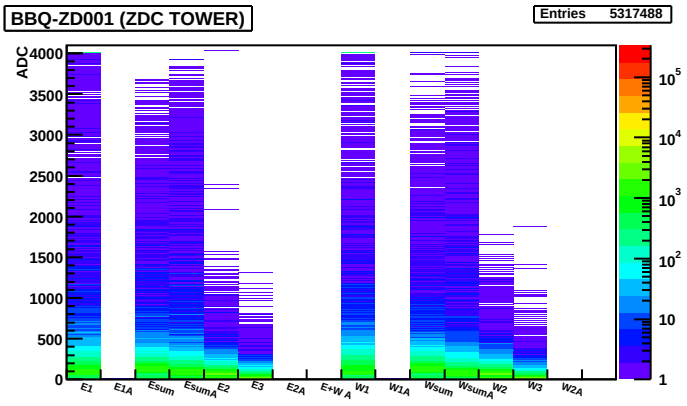

BBQ-BB001 (BBC east small tiles TAC)
Entries 5317488
TAC
QT Input Channel

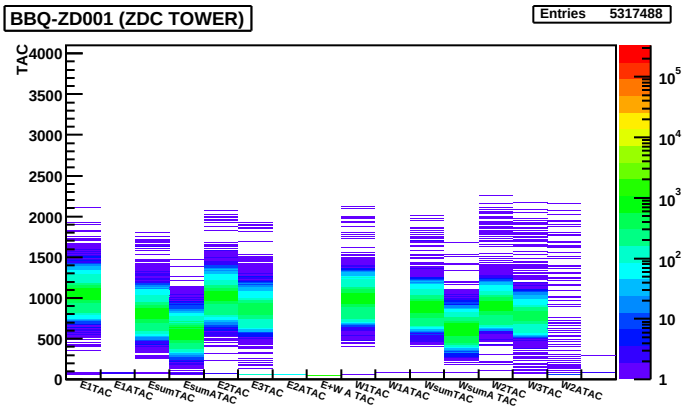

BBQ-BB002 (BBC west small tiles ADC)
Entries 5317488
ADC
QT Input Channel

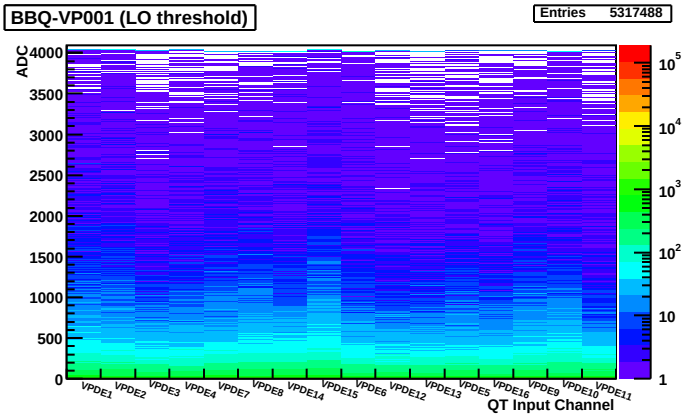

BBQ-BB002 (BBC west small tiles TAC)
Entries 5317488
TAC
QT Input Channel

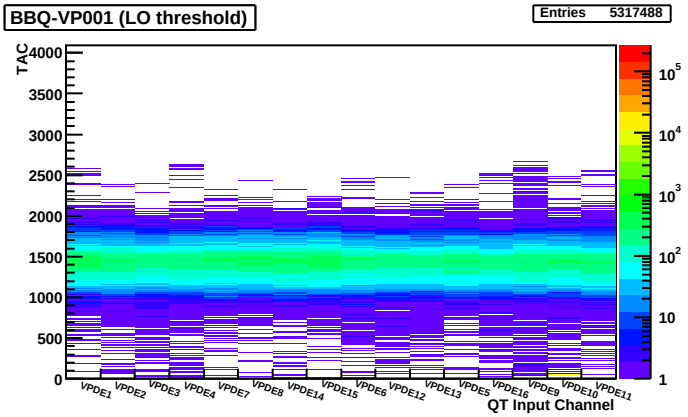

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 5317488
ADC
QT Input Channel

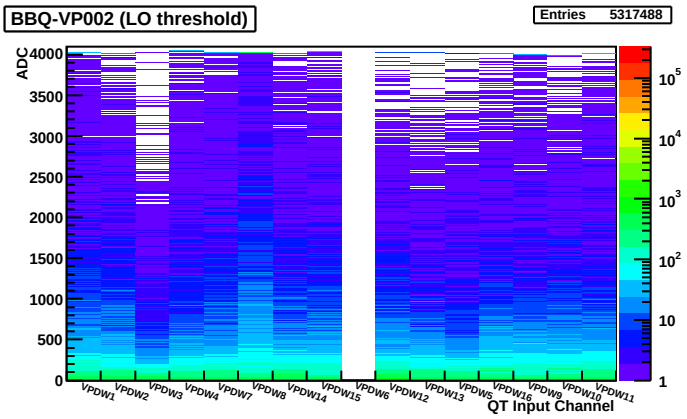

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 5317488
TAC
QT Input Channel

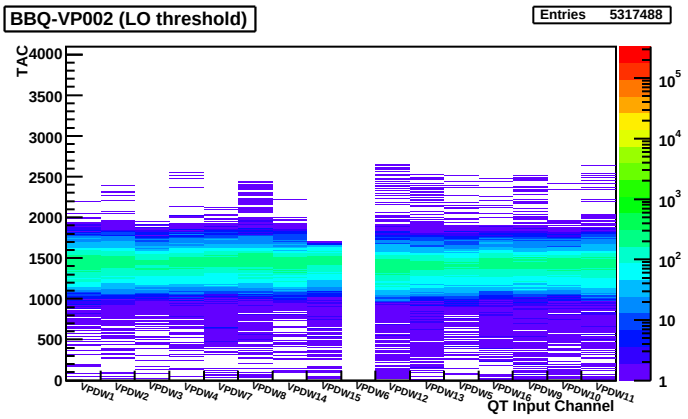

BBQ-ZD001 (ZDC TOWER)
Entries 5317488
ADC

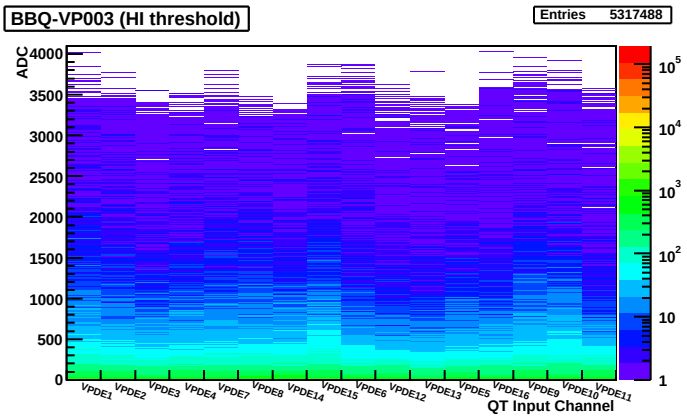

BBQ-ZD001 (ZDC TOWER)
Entries 5317488
TAC

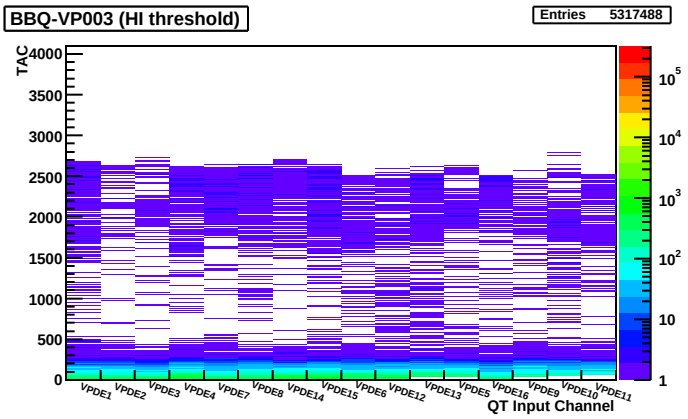

BBQ-VP001 (LO threshold)
Entries 5317488
ADC
QT Input Channel

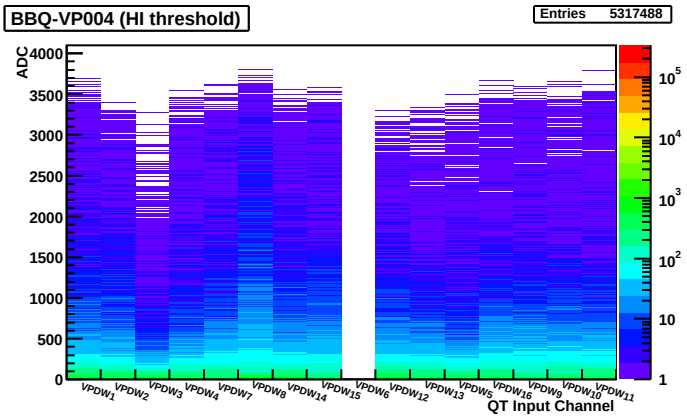

BBQ-VP001 (LO threshold)
Entries 5317488
TAC
QT Input Channel

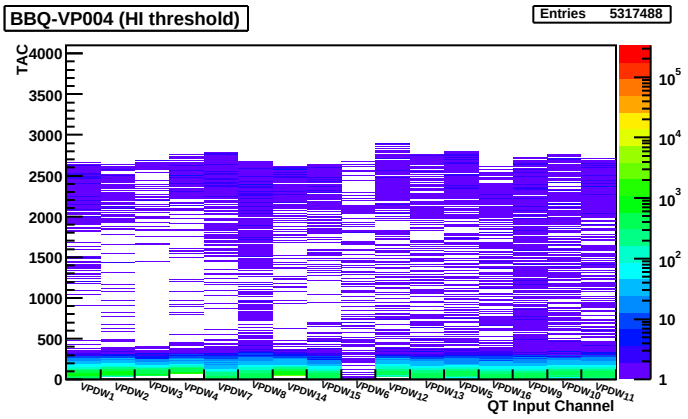

BBQ-VP002 (LO threshold)
Entries 5317488
ADC
QT Input Channel

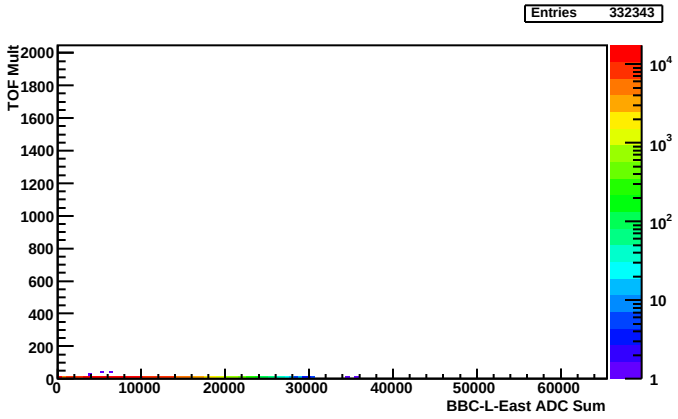

BBQ-VP002 (LO threshold)
Entries 5317488
TAC
QT Input Channel

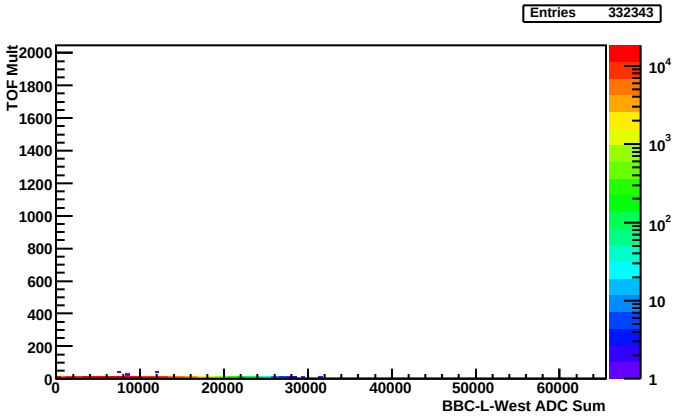

BBQ-VP003 (HI threshold)
Entries 5317488
ADC
QT Input Channel

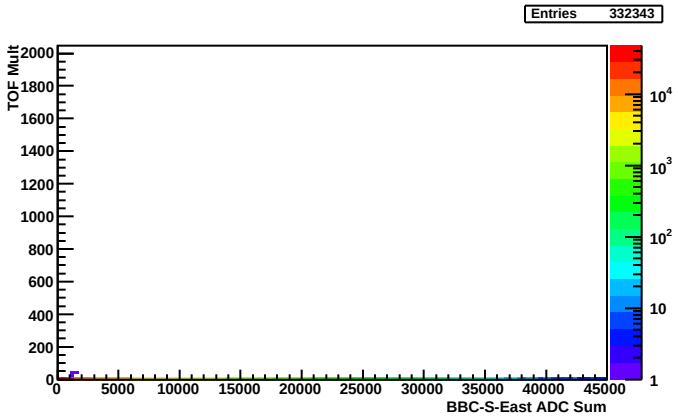

BBQ-VP003 (HI threshold)
Entries 5317488
TAC
QT Input Channel

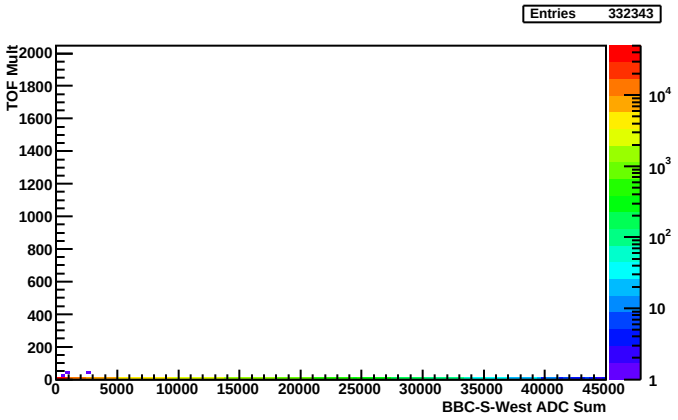

BBQ-VP004 (HI threshold)
Entries 5317488
ADC
QT Input Channel

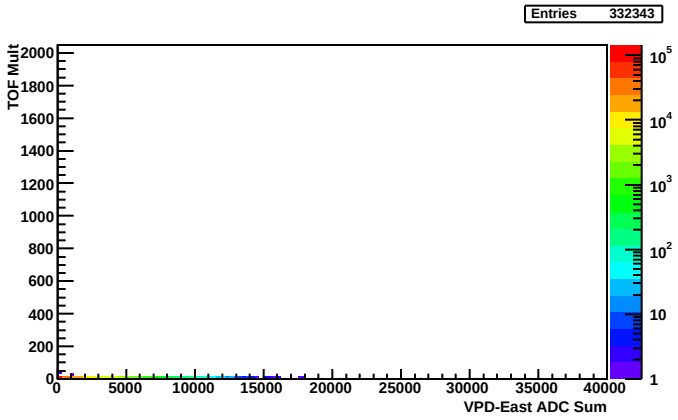

BBQ-VP004 (HI threshold)
Entries 5317488
TAC
QT Input Channel

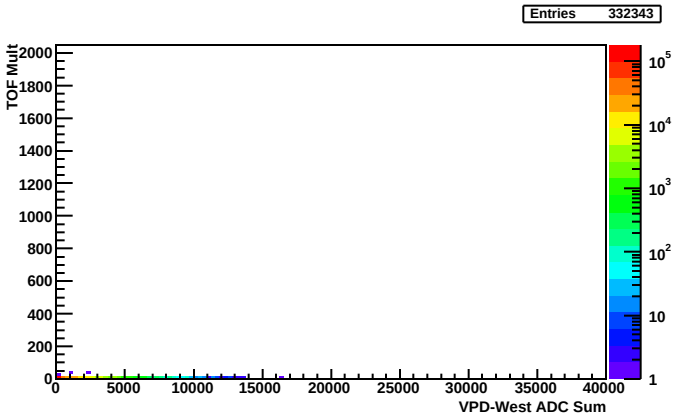

Entries 332343
TOF Mult
BBC-L-East ADC Sum

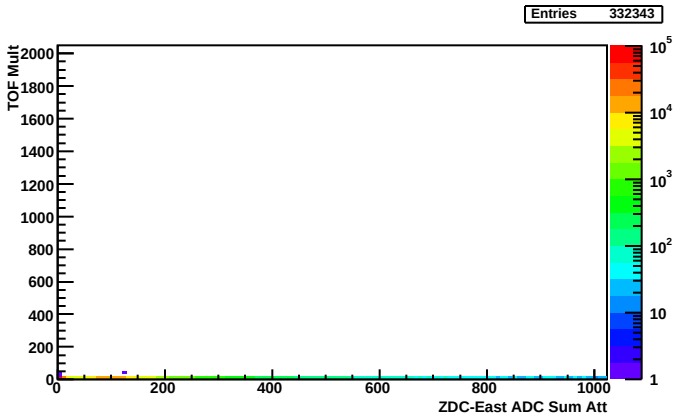

Entries 332343
TOF Mult
BBC-L-West ADC Sum

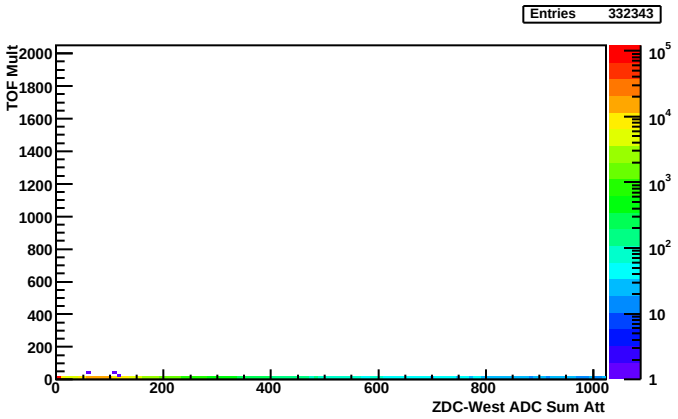

Entries 332343
TOF Mult
BBC-S-East ADC Sum

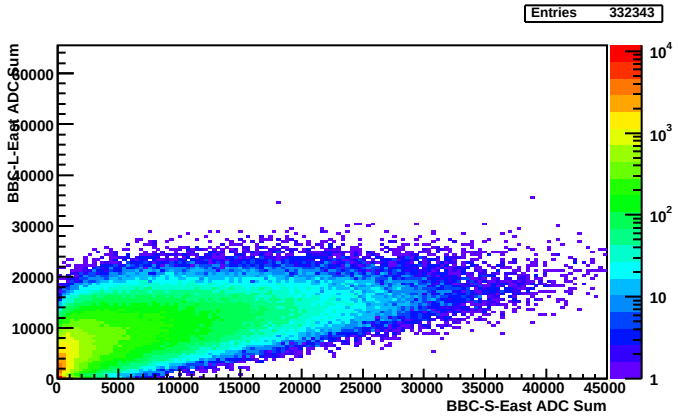

Entries 332343
TOF Mult
BBC-S-West ADC Sum

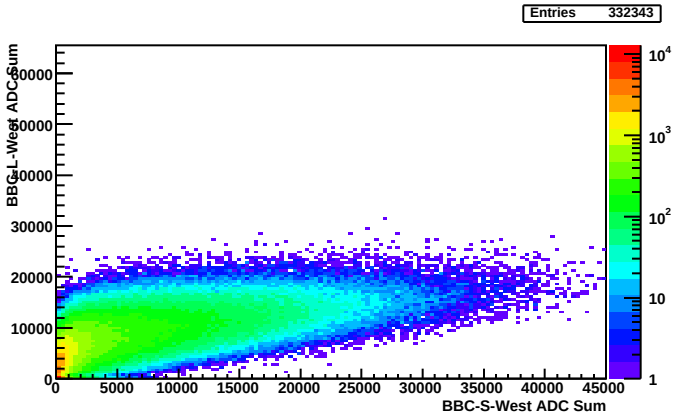

Entries 332343
TOF Mult
VPD-East ADC Sum

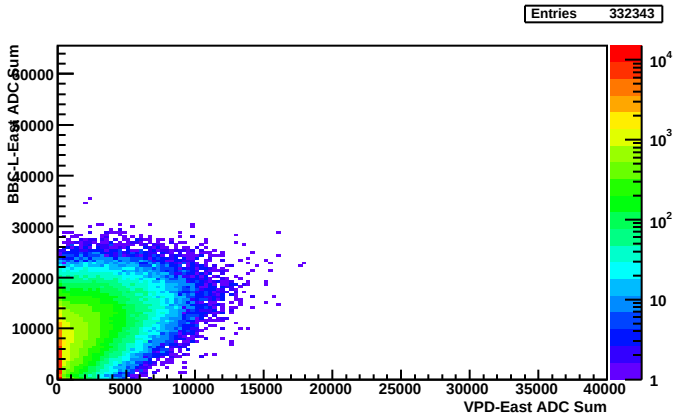

Entries 332343
TOF Mult
VPD-West ADC Sum

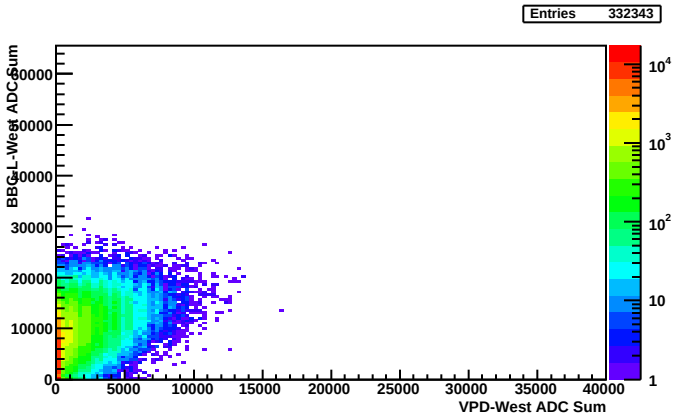

Entries 332343
TOF Mult
ZDC-East ADC Sum Att

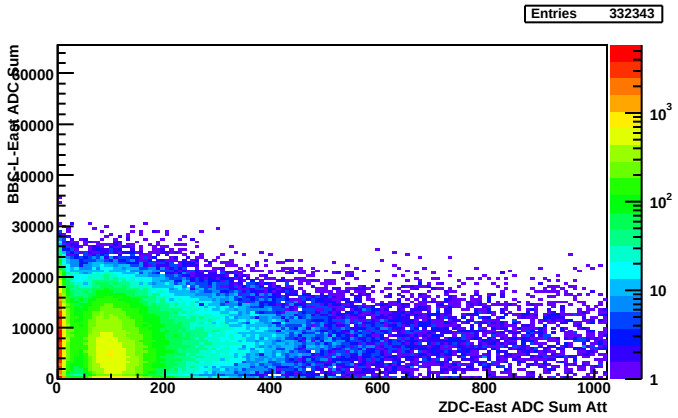

Entries 332343
TOF Mult
ZDC-West ADC Sum Att

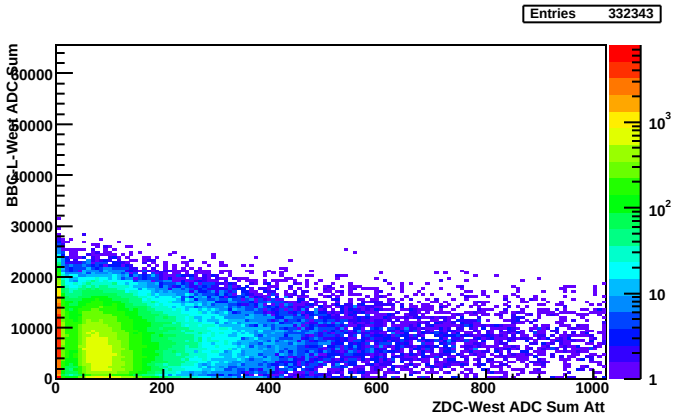

Entries 332343
BBC-L-East ADC Sum
BBC-S-East ADC Sum

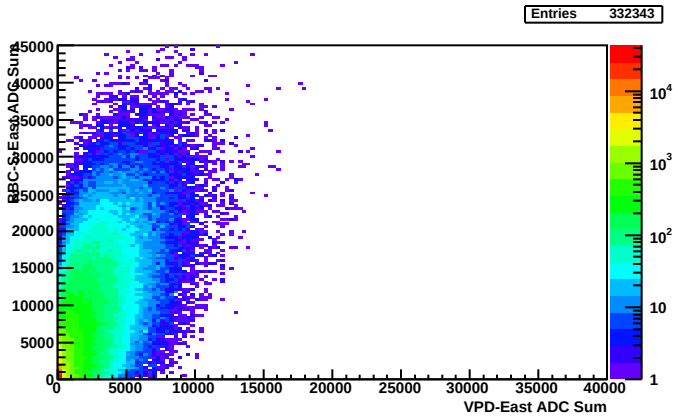

Entries 332343
BBC-L-West ADC Sum
BBC-S-West ADC Sum

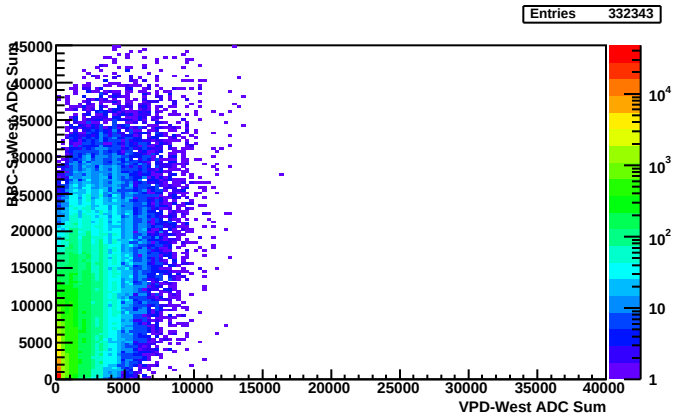

Entries 332343
BBC-L-East ADC Sum
VPD-East ADC Sum

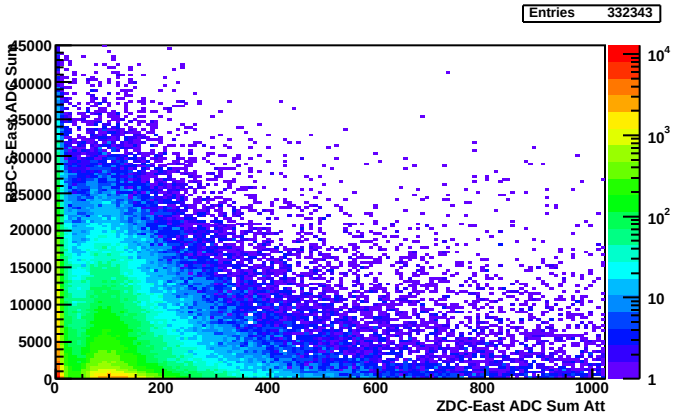

Entries 332343
BBC-L-West ADC Sum
VPD-West ADC Sum

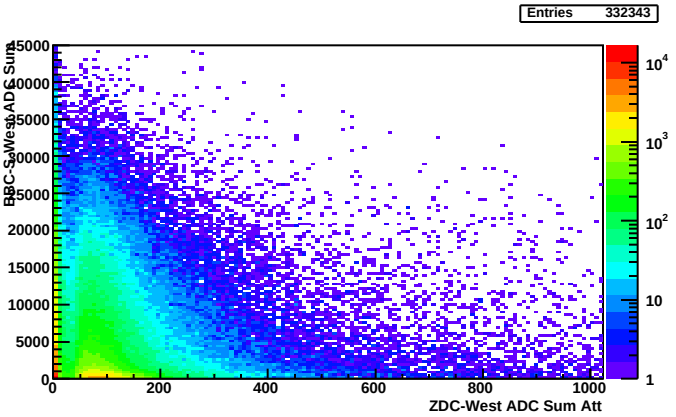

Entries 332343
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

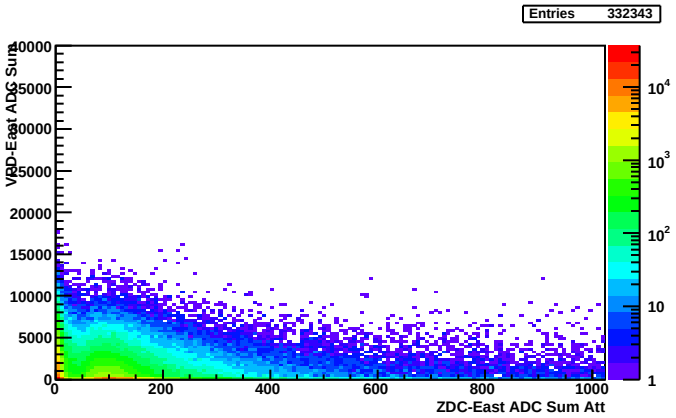

Entries 332343
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

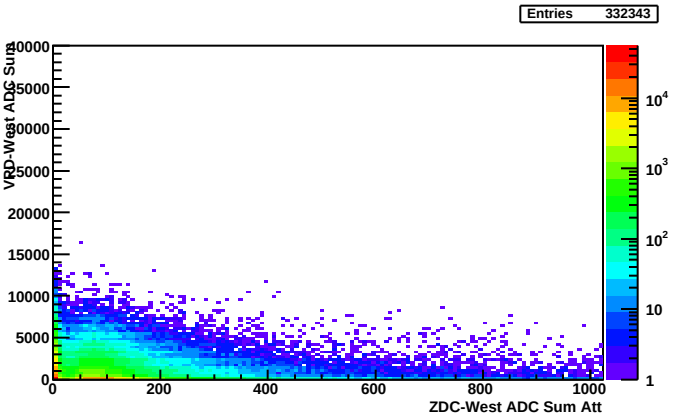

Entries 332343
BBC-S-East ADC Sum
VPD-East ADC Sum

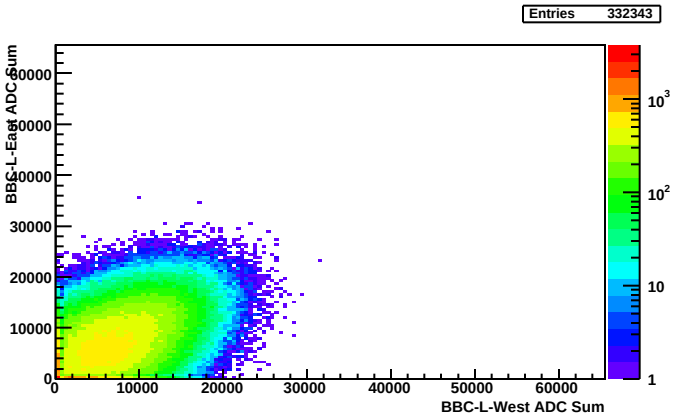

Entries 332343
BBC-S-West ADC Sum
VPD-West ADC Sum

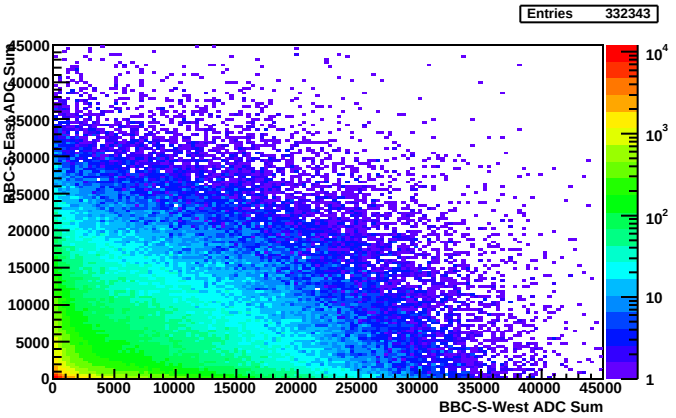

Entries 332343
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

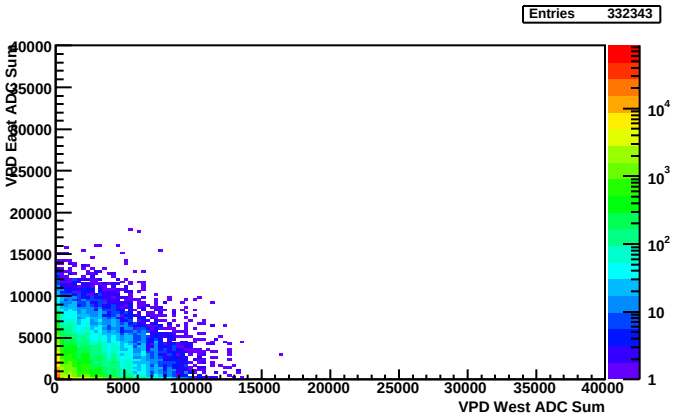

Entries 332343
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

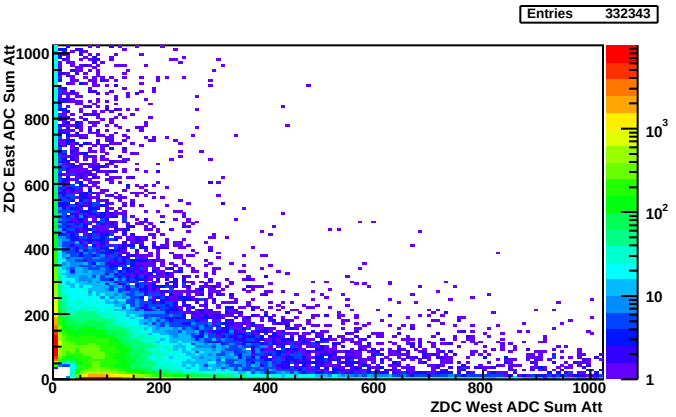

Entries 332343
VPD-East ADC Sum
ZDC-East ADC Sum Att

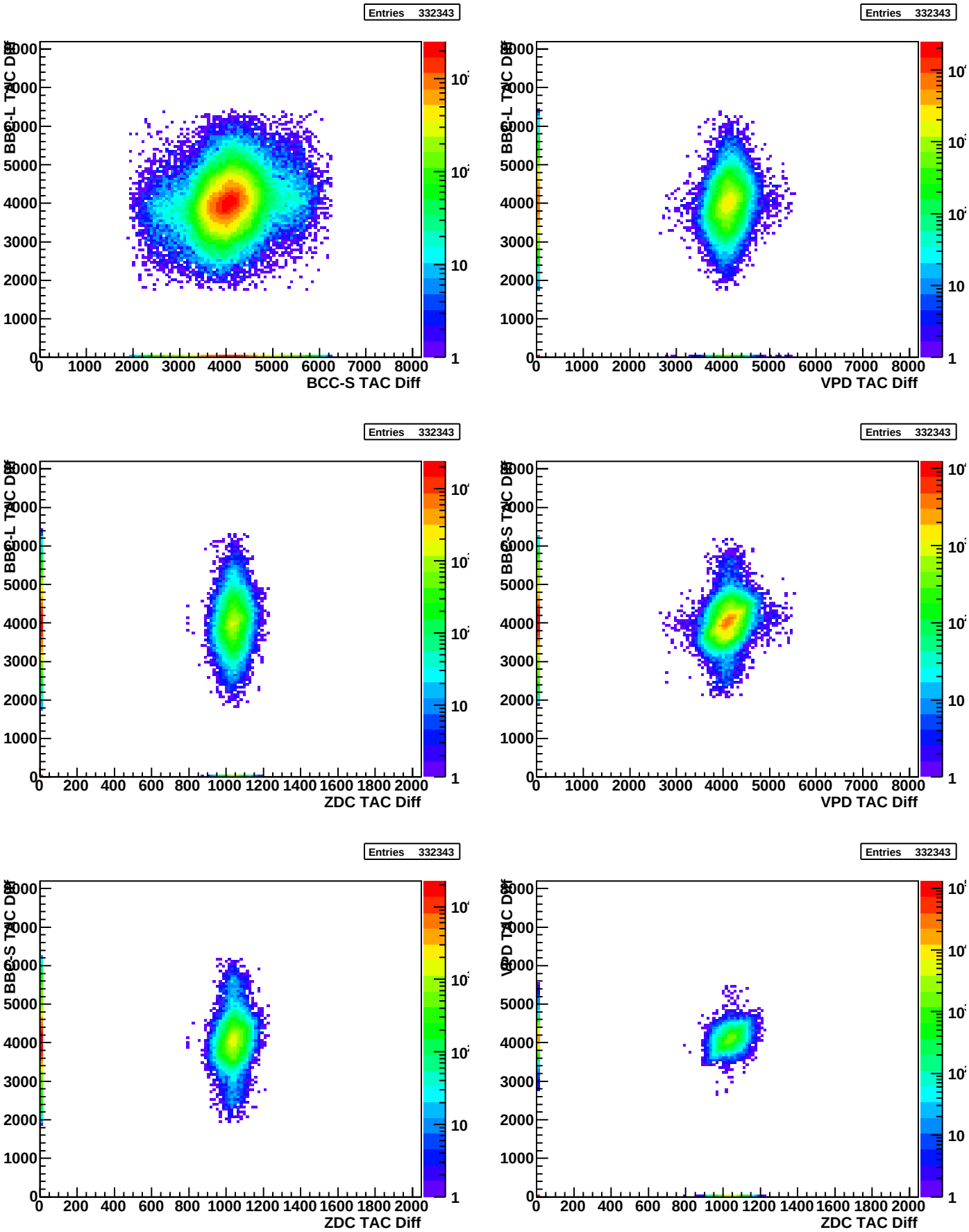

Entries 332343
VPD-West ADC Sum
ZDC-West ADC Sum Att

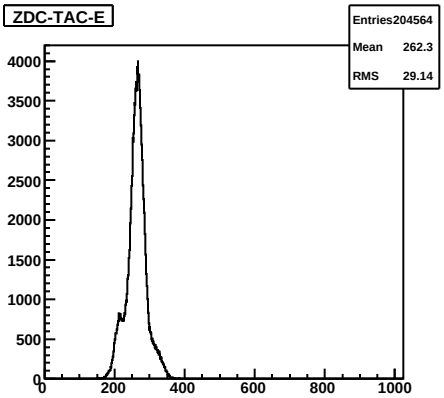

Entries 332343
BBC-L-East ADC Sum
BBC-L-West ADC Sum

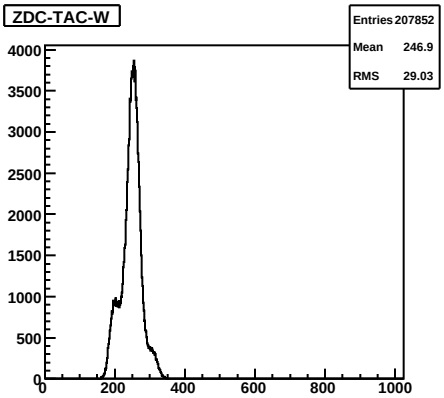

Entries 332343
BBC-S-East ADC Sum
BBC-S-West ADC Sum

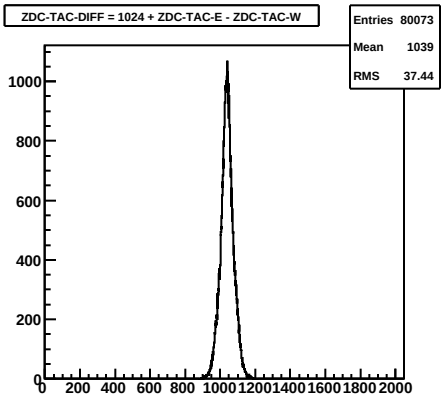

Entries 332343
VPD East ADC Sum
VPD West ADC Sum

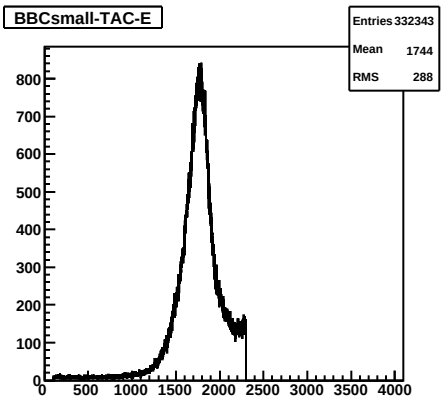

Entries 332343
ZDC East ADC Sum Att
ZDC West ADC Sum Att

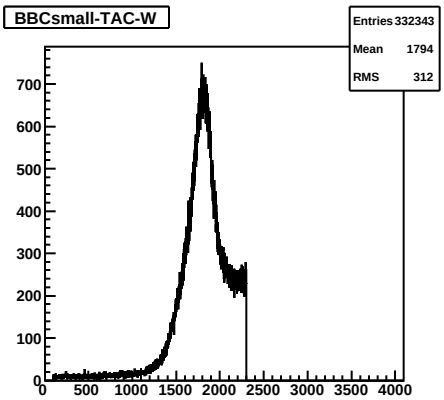

Entries 332343
BBC-L TAC Diff
BCC-S TAC Diff
Entries 332343
BBC-L TAC Diff
VPD TAC Diff
Entries 332343
BBC-L TAC Diff
ZDC TAC Diff
Entries 332343
BBC-S TAC Diff
VPD TAC Diff
Entries 332343
BBC-S TAC Diff
ZDC TAC Diff
Entries 332343
VPD TAC Diff
ZDC TAC Diff

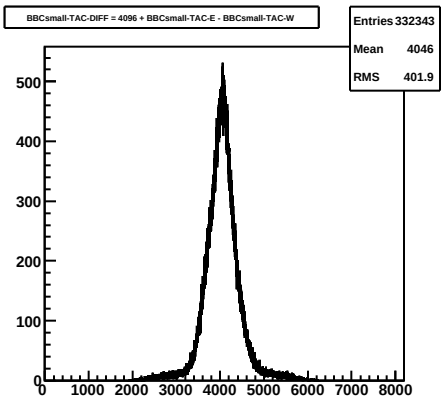

ZDC-TAC-E
Entries 204564
Mean 262.3
RMS 29.14

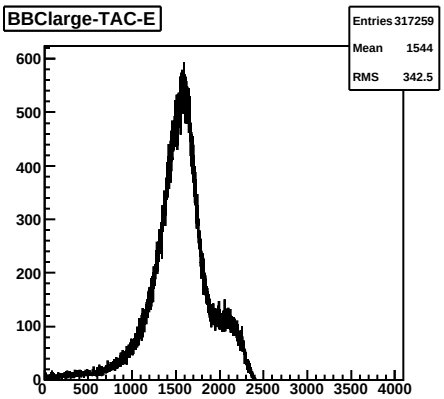

ZDC-TAC-W
Entries 207852
Mean 246.9
RMS 29.03

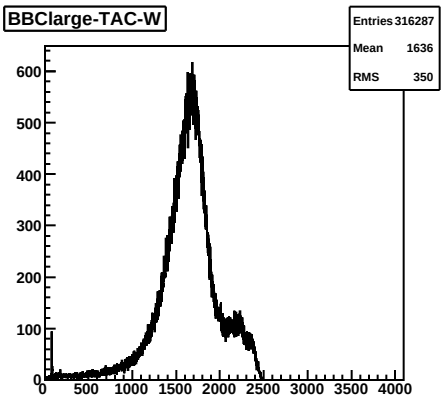

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 80073
Mean 1039
RMS 37.44

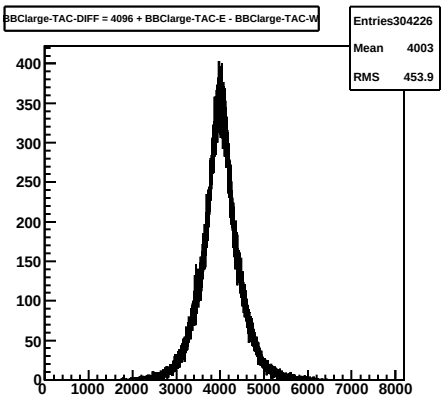

BBCsmall-TAC-E
Entries 332343
Mean 1744
RMS 288

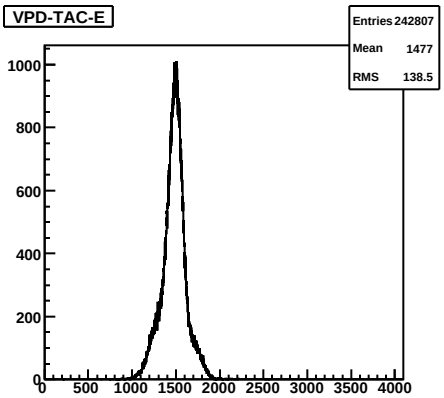

BBCsmall-TAC-W
Entries 332343
Mean 1794
RMS 312

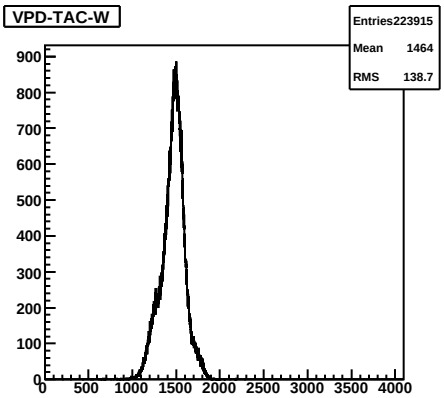

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 332343
Mean 4046
RMS 401.9

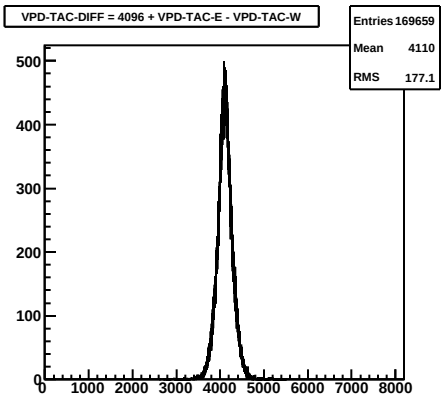

BBClarge-TAC-E
Entries 317259
Mean 1544
RMS 342.5

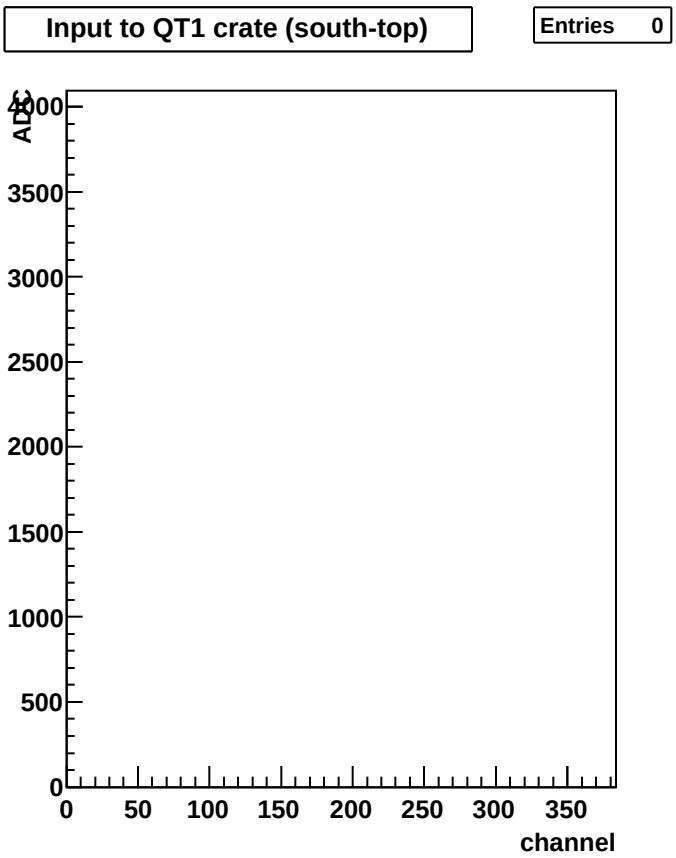

BBClarge-TAC-W
Entries 316287
Mean 1636
RMS 350

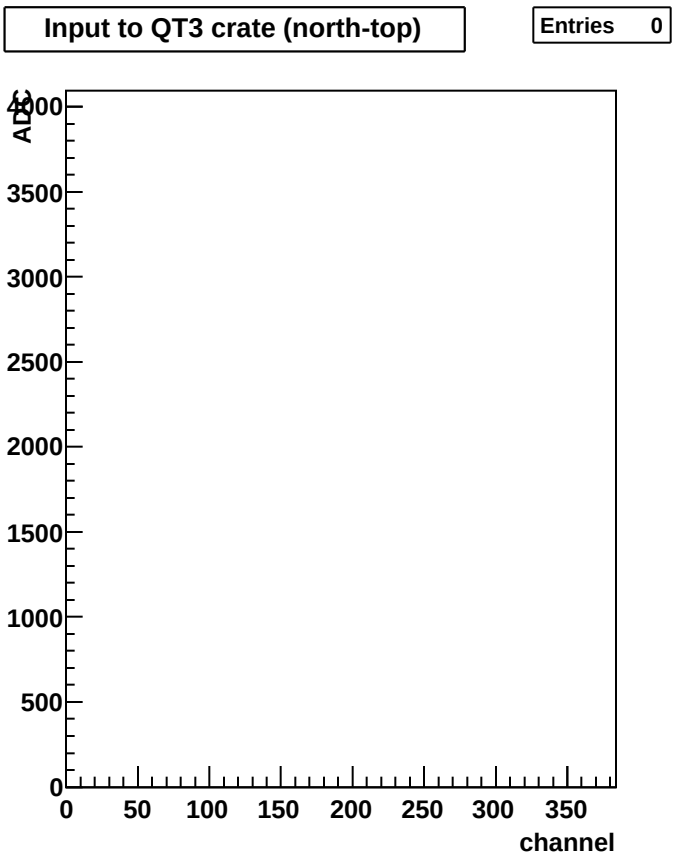

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 304226
Mean 4003
RMS 453.9

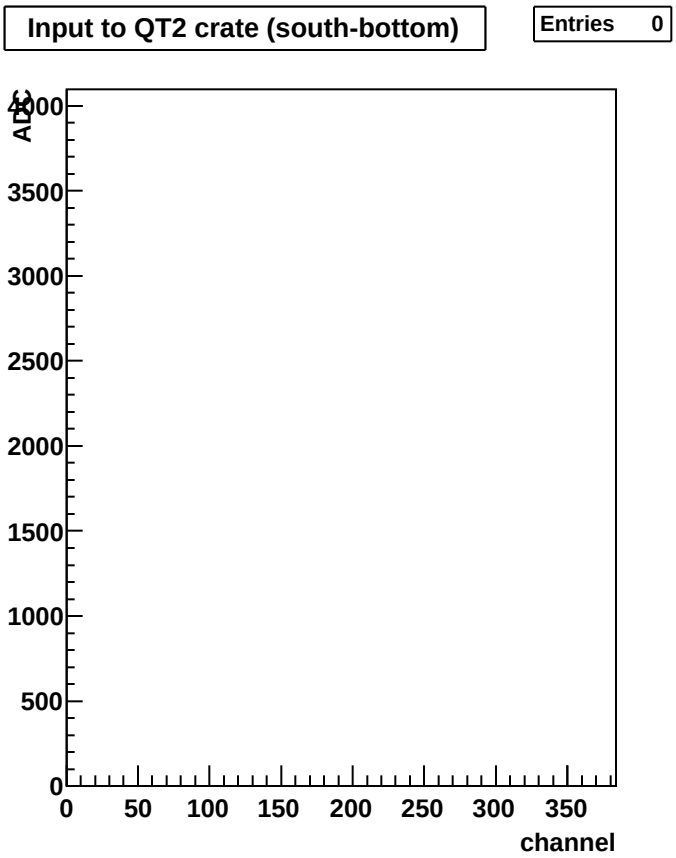

VPD-TAC-E
Entries 242807
Mean 1477
RMS 138.5

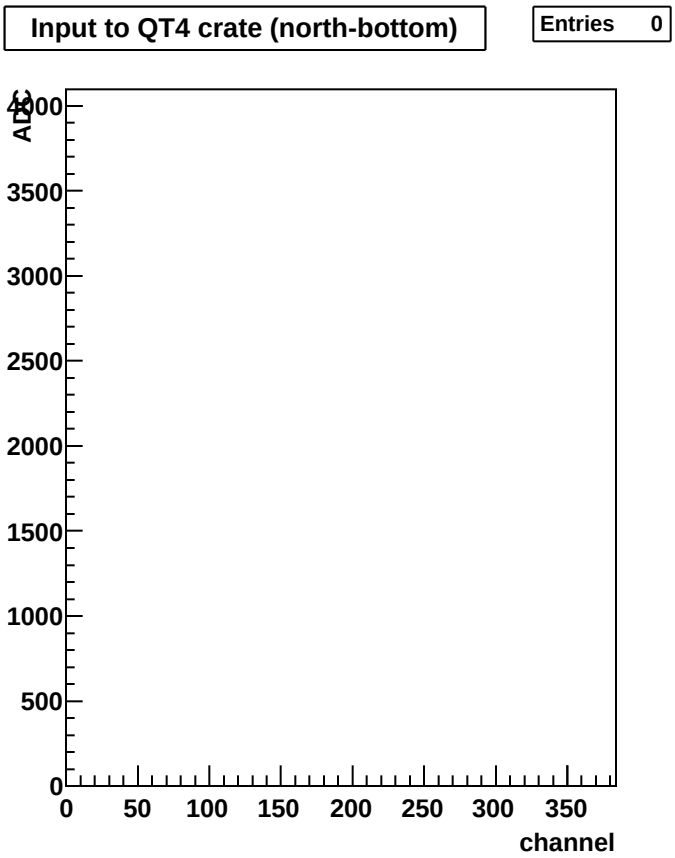

VPD-TAC-W
Entries 223915
Mean 1464
RMS 138.7

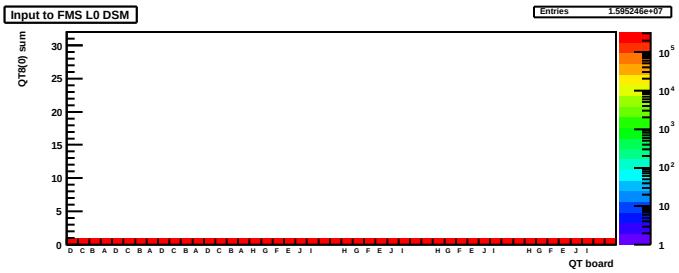

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 169659
Mean 4110
RMS 177.1

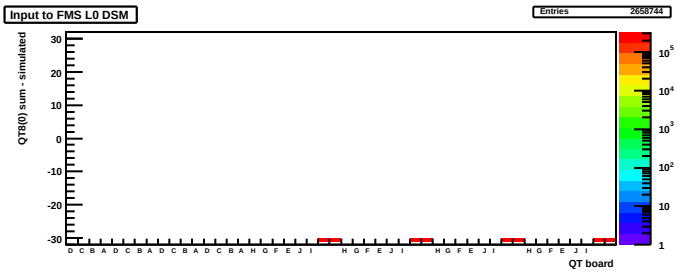

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

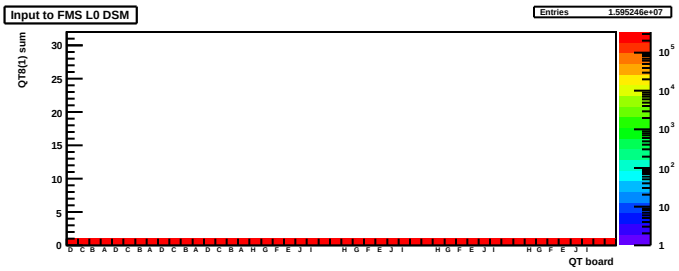

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

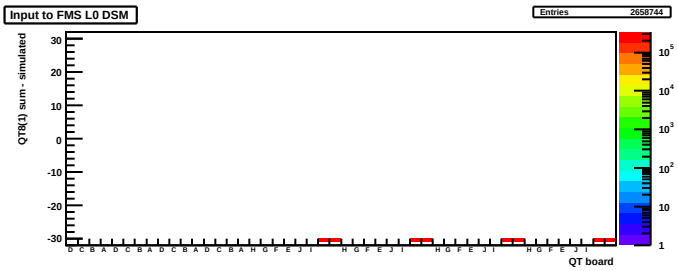

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

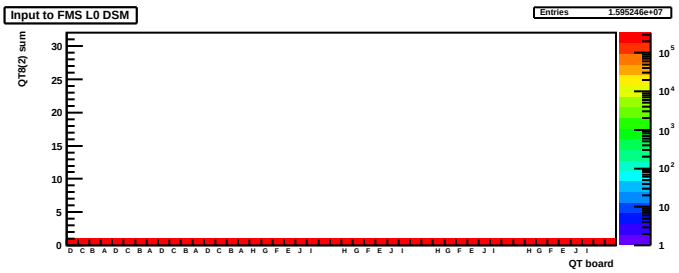

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

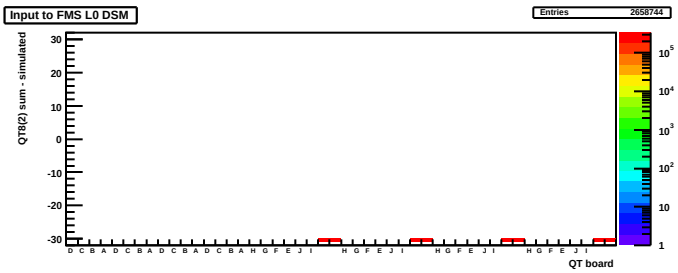

Input to FMS L0 DSM
Entries 1.595246e+07
QT8(0) sum
QT board

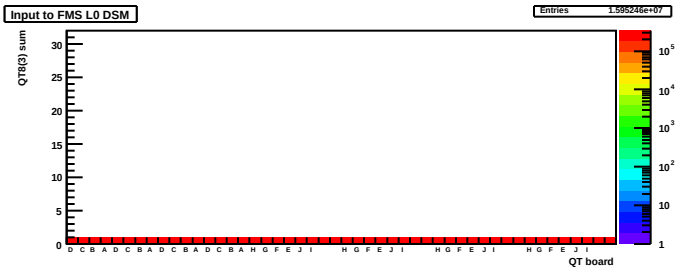

Input to FMS L0 DSM
Entries 2658744
QT8(0) sum - simulated
QT board

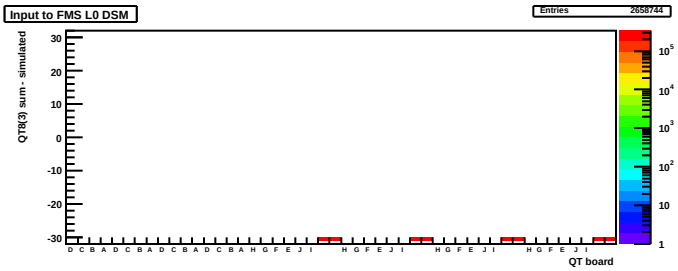

Input to FMS L0 DSM
Entries 1.595246e+07
QT8(1) sum
QT board

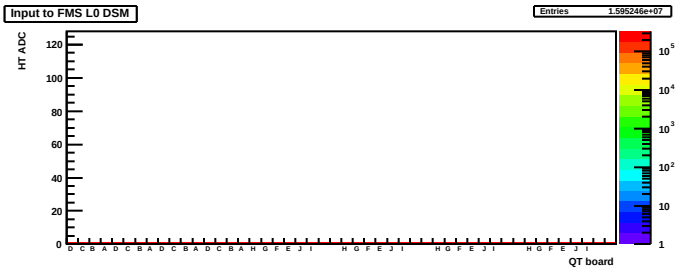

Input to FMS L0 DSM
Entries 2658744
QT8(1) sum - simulated
QT board

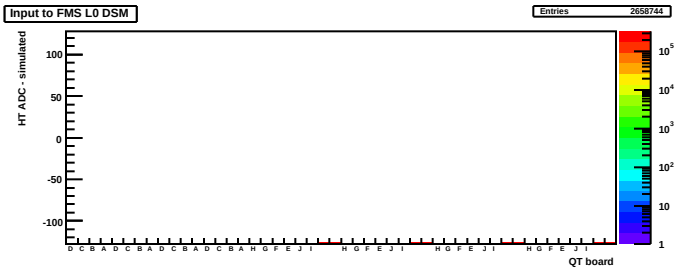

Input to FMS L0 DSM
Entries 1.595246e+07
QT8(2) sum
QT board

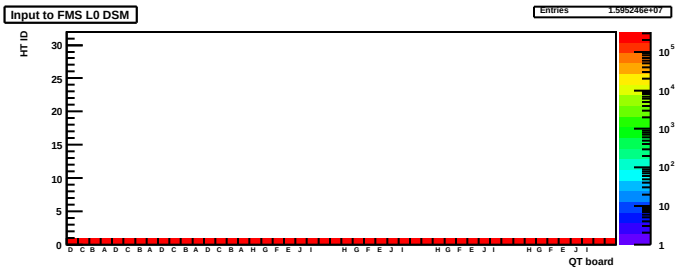

Input to FMS L0 DSM
Entries 2658744
QT8(2) sum - simulated
QT board

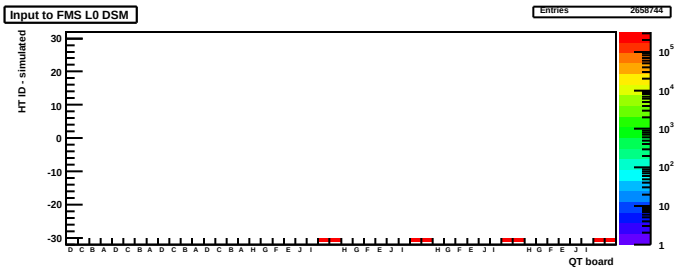

Input to FMS L0 DSM
Entries 1.595246e+07
QT8(3) sum
QT board

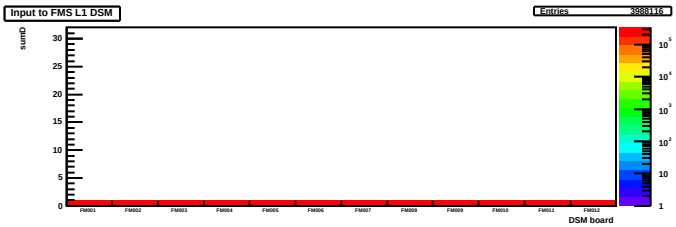

Input to FMS L0 DSM
Entries 2658744
QT8(3) sum - simulated
QT board

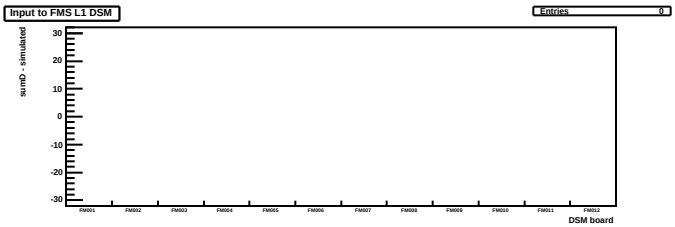

Input to FMS L0 DSM
Entries 1.595246e+07
HT ADC
QT board

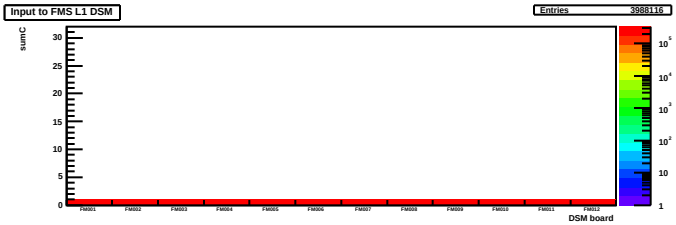

Input to FMS L0 DSM
Entries 2658744
HT ADC - simulated
QT board

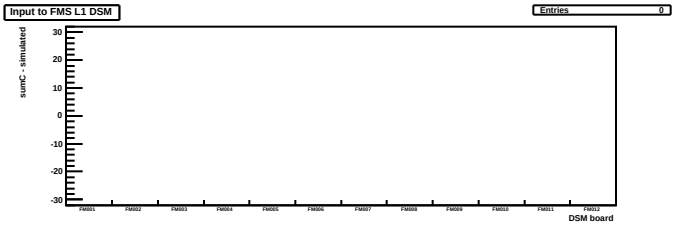

Input to FMS L0 DSM
Entries 1.595246e+07
HT ID
QT board

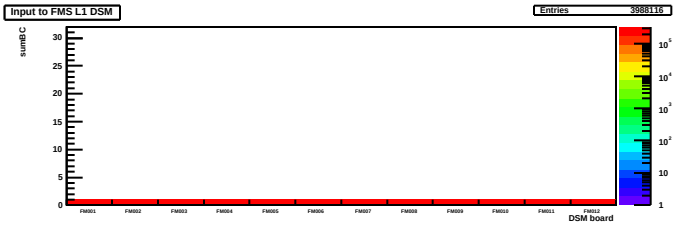

Input to FMS L0 DSM
Entries 2658744
HT ID - simulated
QT board

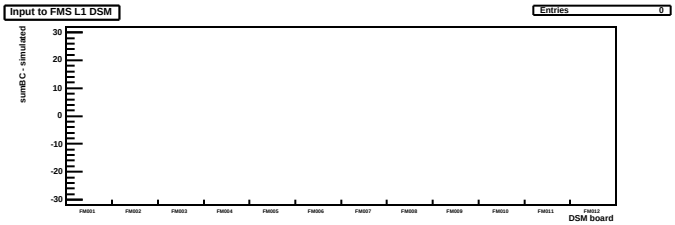

Input to FMS L1 DSM
Entries 3988116
sumD
DSM board

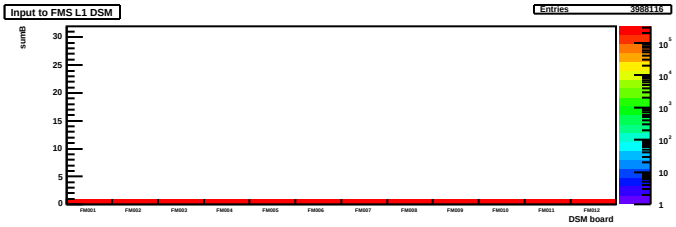

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

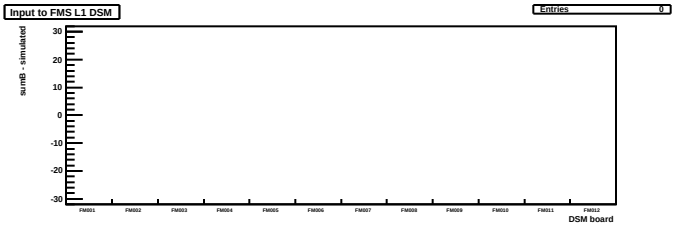

Input to FMS L1 DSM
Entries 3988116
sumC
DSM board

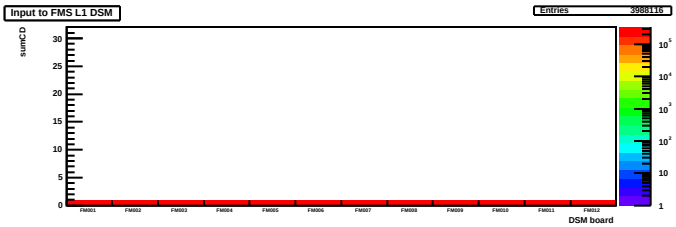

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

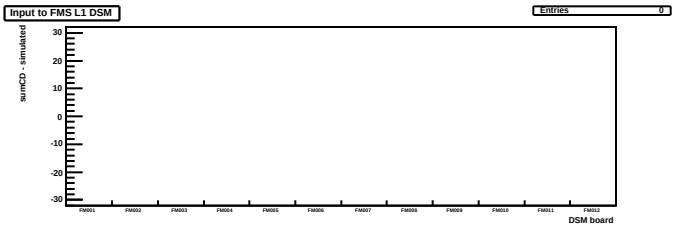

Input to FMS L1 DSM
Entries 3988116
sumBC
DSM board

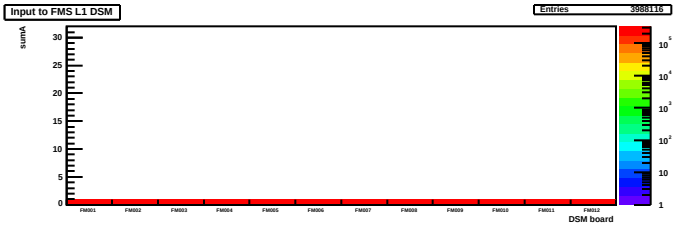

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

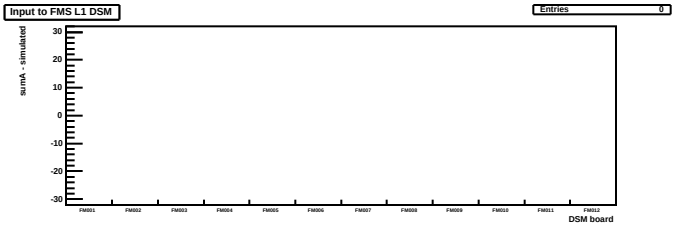

Input to FMS L1 DSM
Entries 3988116
sumB
DSM board

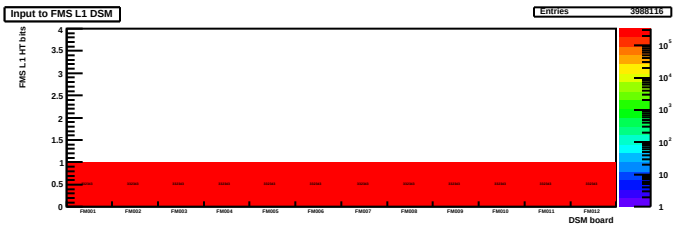

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

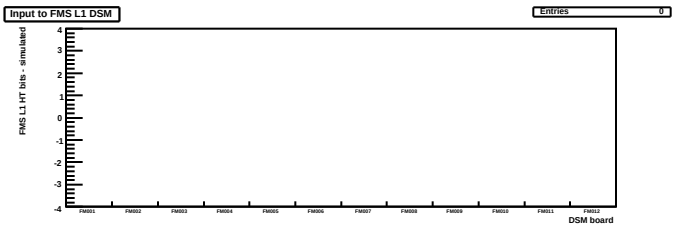

Input to FMS L1 DSM
Entries 3988116
sumCD
DSM board

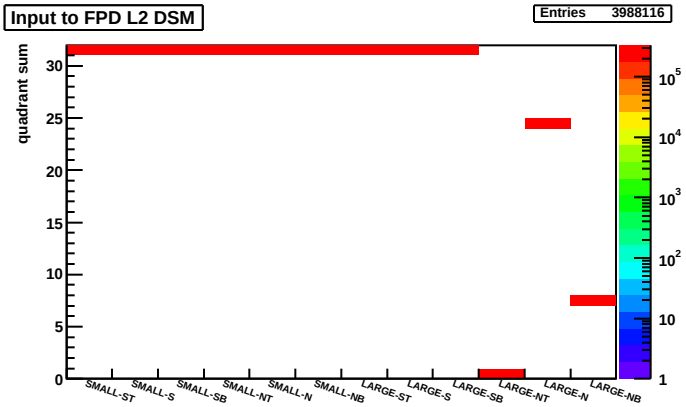

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

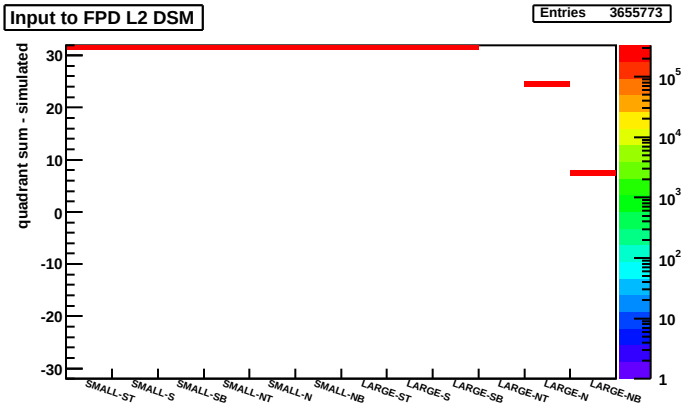

Input to FMS L1 DSM
Entries 3988116
sumA
DSM board

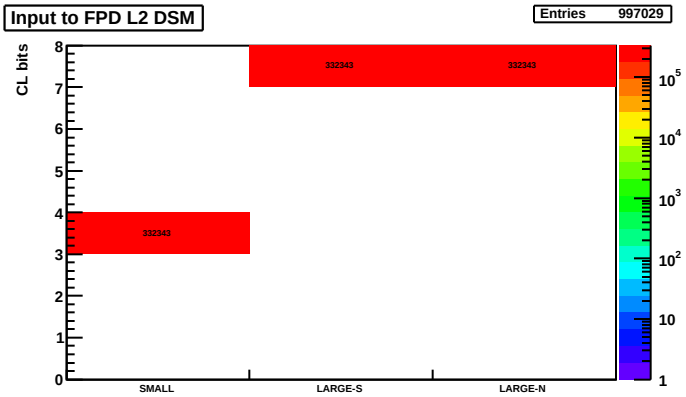

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

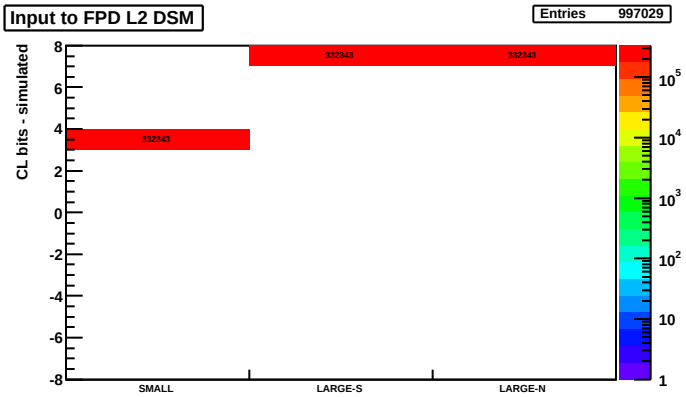

Input to FMS L1 DSM
Entries 3988116
FMS L1 HT bits
DSM board

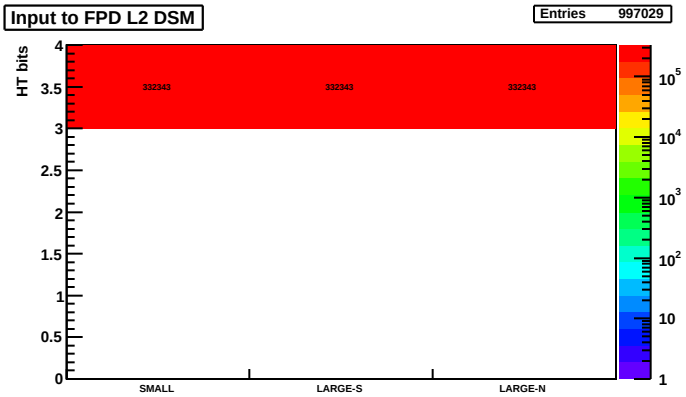

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

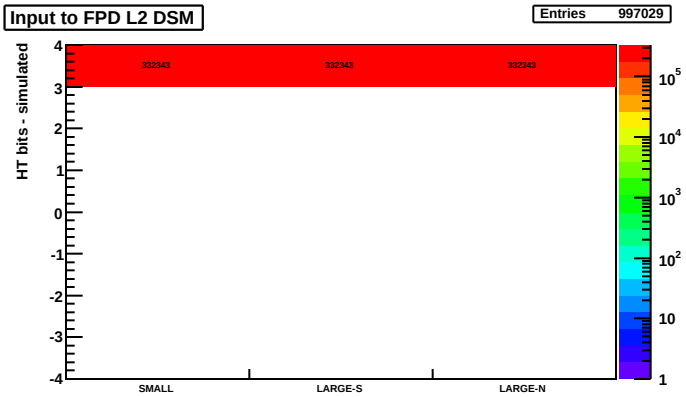

Input to FPD L2 DSM
Entries 3988116
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

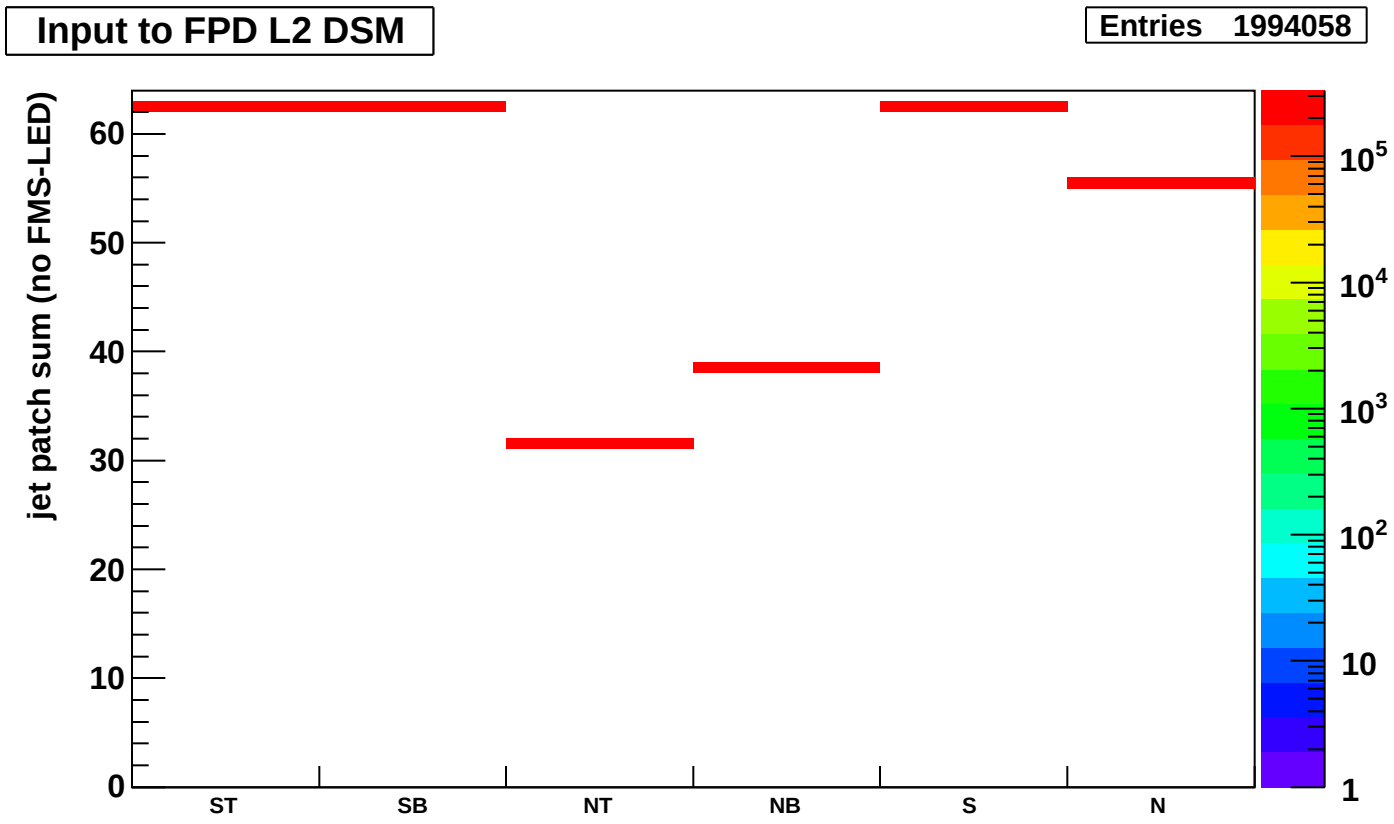

Input to FPD L2 DSM
Entries 3655773
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

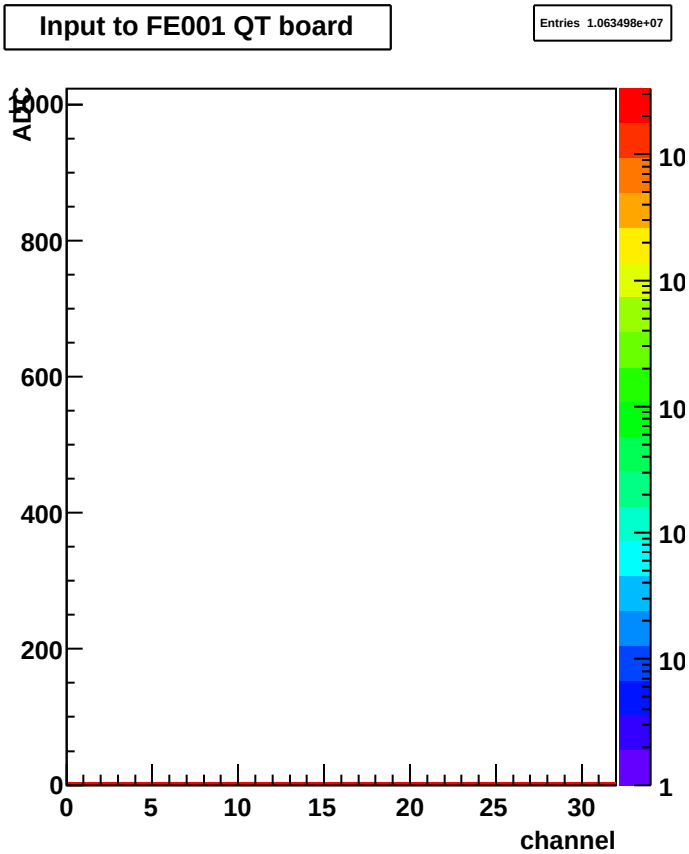

Input to FPD L2 DSM
Entries 997029
CL bits
332343
332343
332343
SMALL
LARGE-S
LARGE-N

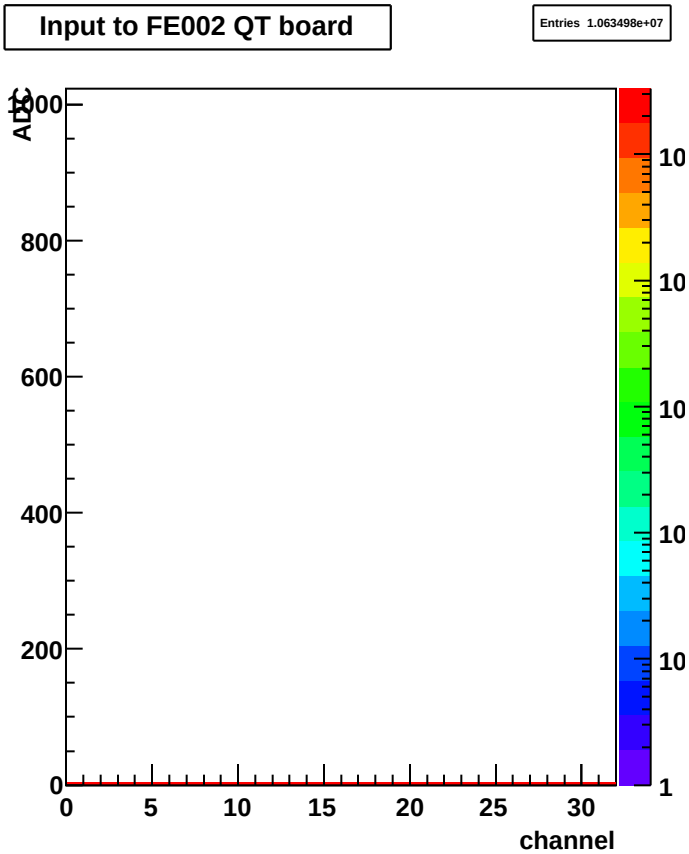

Input to FPD L2 DSM
Entries 997029
CL bits - simulated
332343
332343
332343
SMALL
LARGE-S
LARGE-N

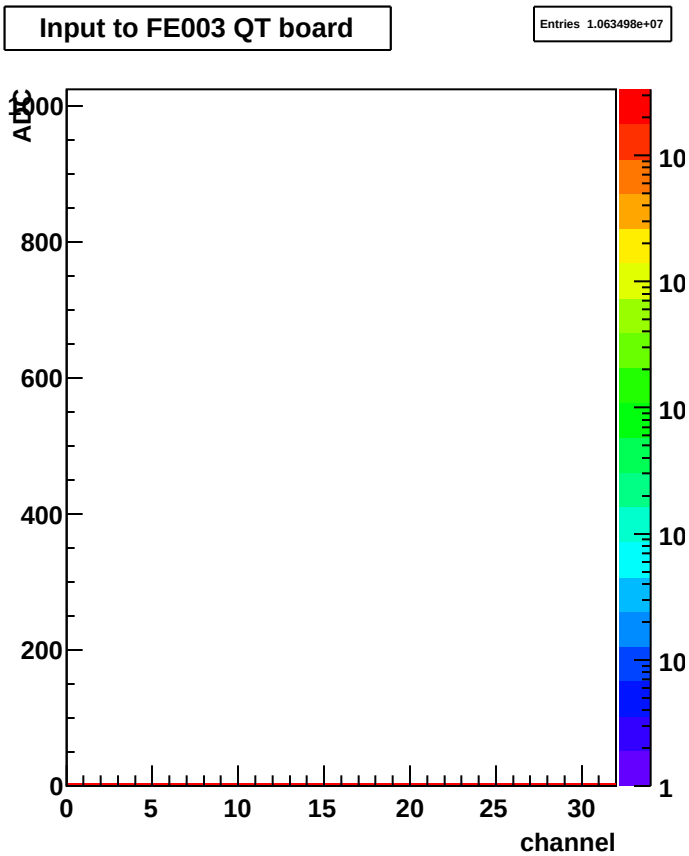

Input to FPD L2 DSM
Entries 997029
HT bits
332343
332343
332343
SMALL
LARGE-S
LARGE-N

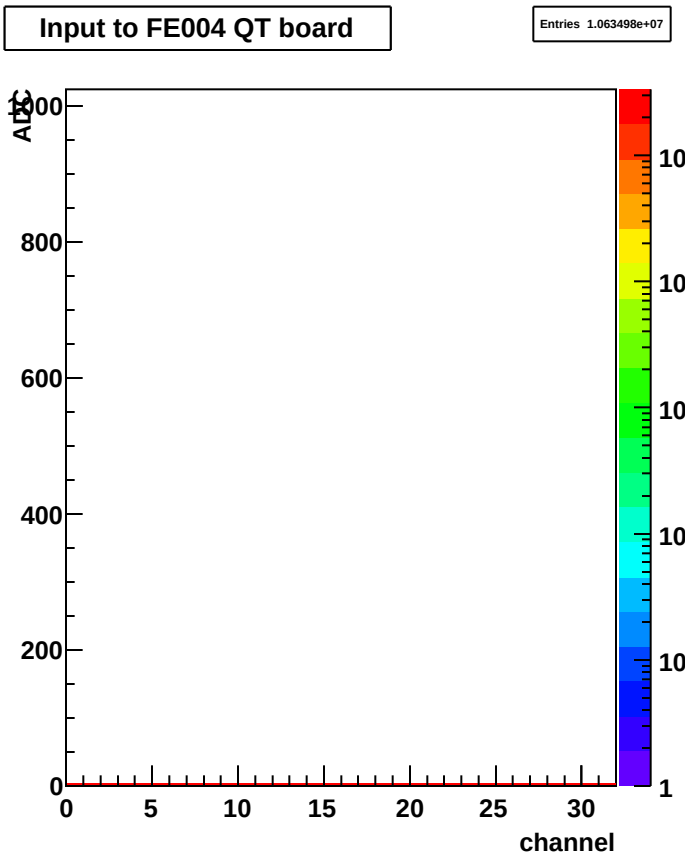

Input to FPD L2 DSM
Entries 997029
HT bits - simulated
332343
332343
332343
SMALL
LARGE-S
LARGE-N

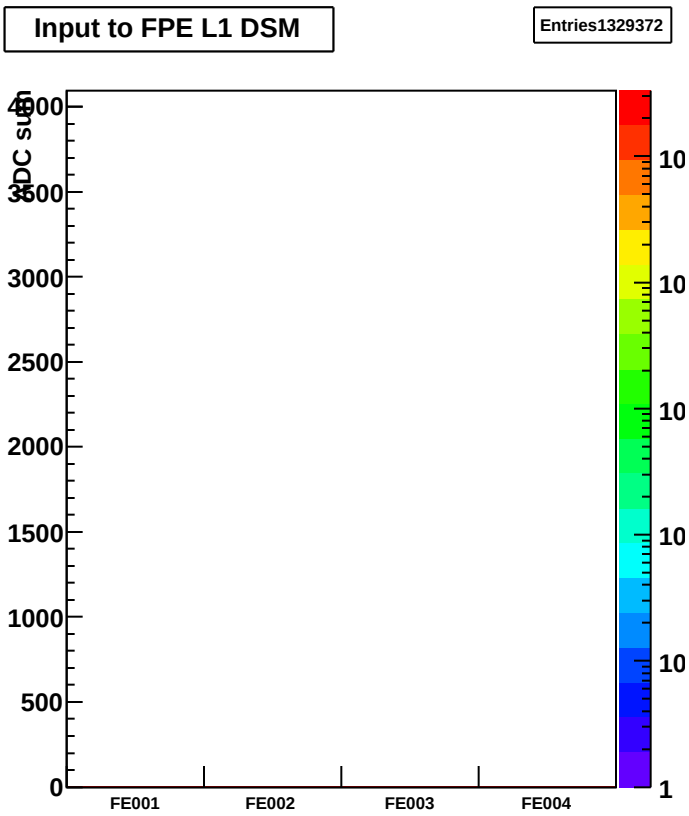

Input to FPD L2 DSM
Entries 1994058
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

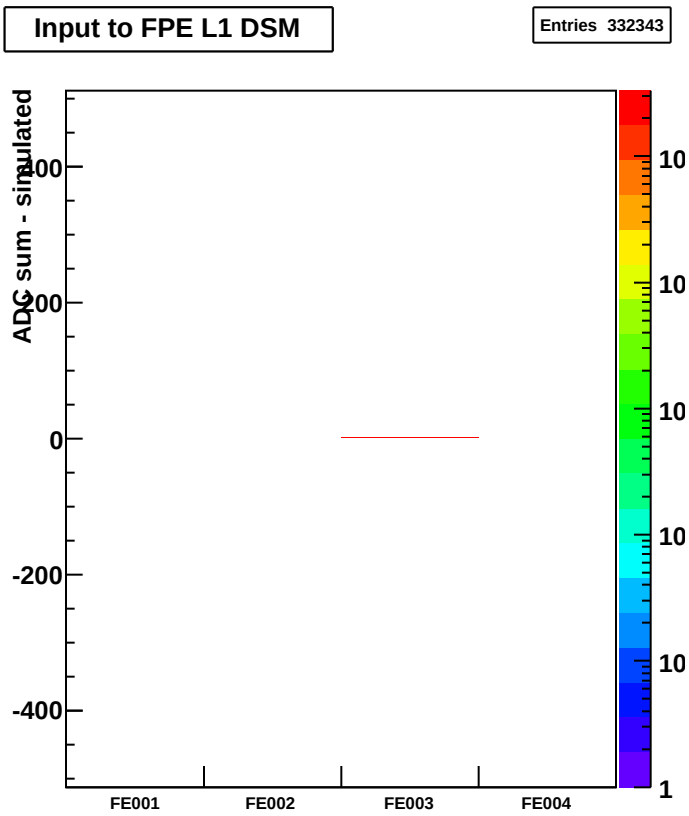

Input to FE001 QT board
Entries 1.063498e+07
ADC
channel

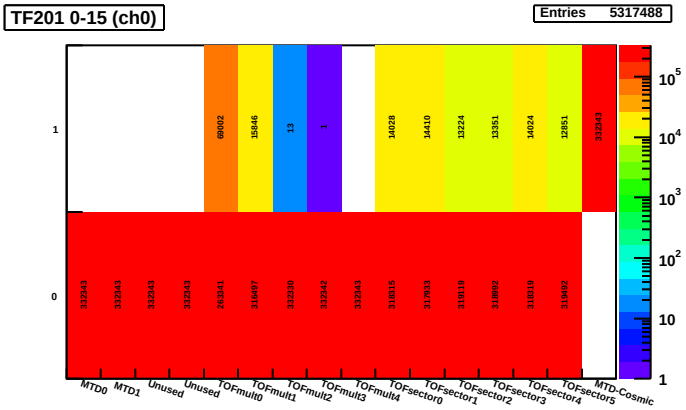

Input to FE002 QT board
Entries 1.063498e+07
ADC
channel

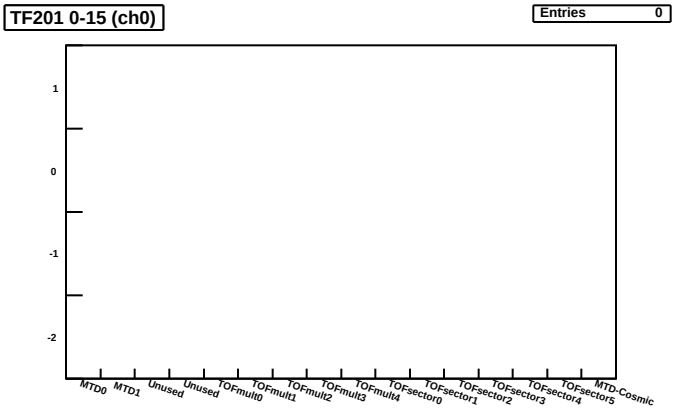

Input to FE003 QT board
Entries 1.063498e+07
ADC
channel

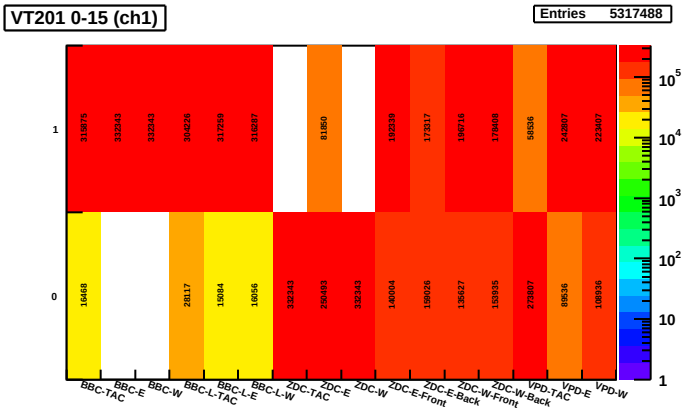

Input to FE004 QT board
Entries 1.063498e+07
ADC
channel

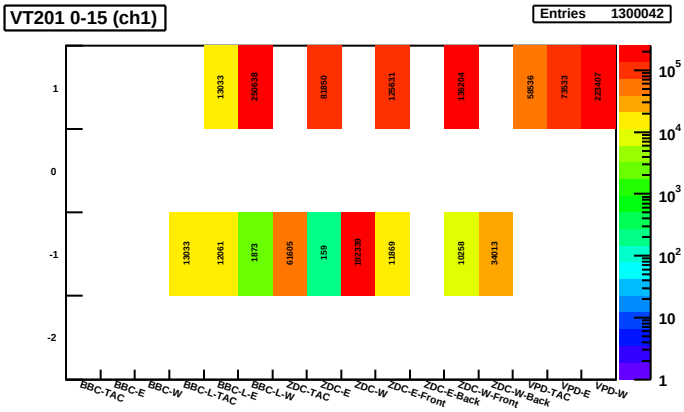

Input to FPE L1 DSM
Entries1329372
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 332343
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1


TF201 0-15 (ch0)
Entries 5317488
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 5317488
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 1300042
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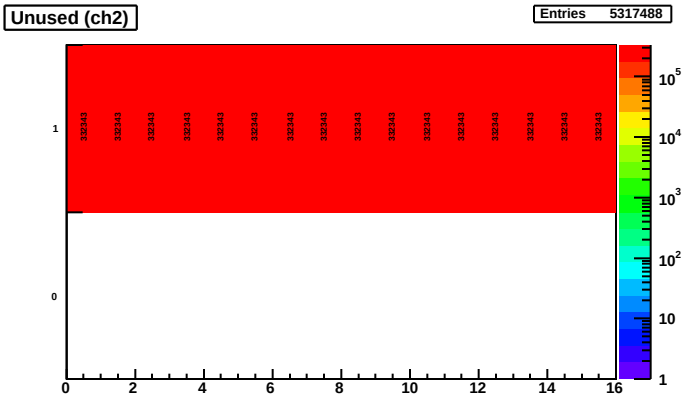
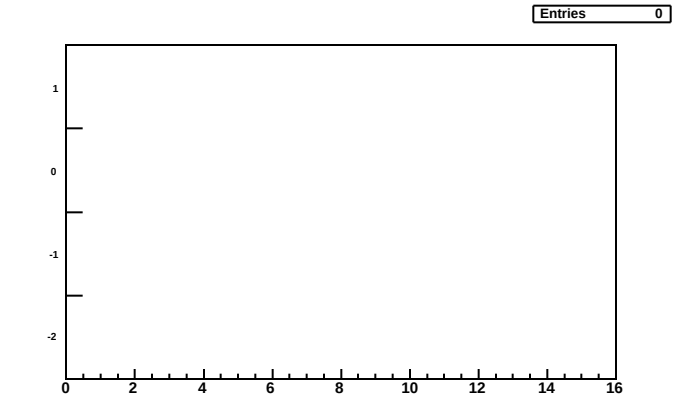
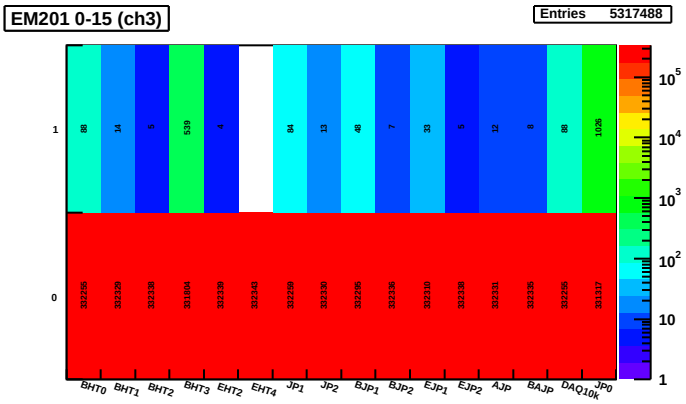

Unused (ch2)
Entries 5317488


Entries 0


EM201 0-15 (ch3)
Entries 5317488
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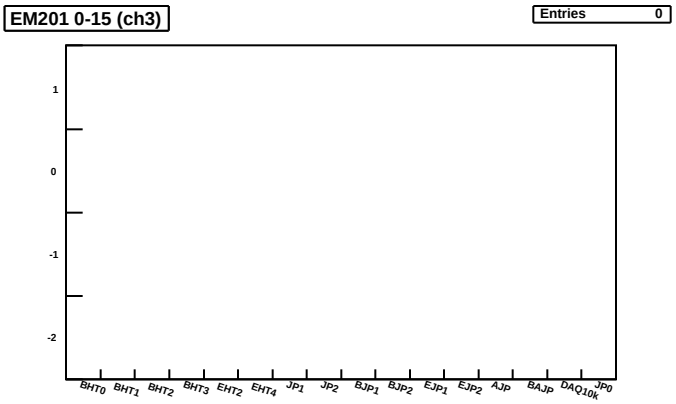
EM201 0-15 (ch3)
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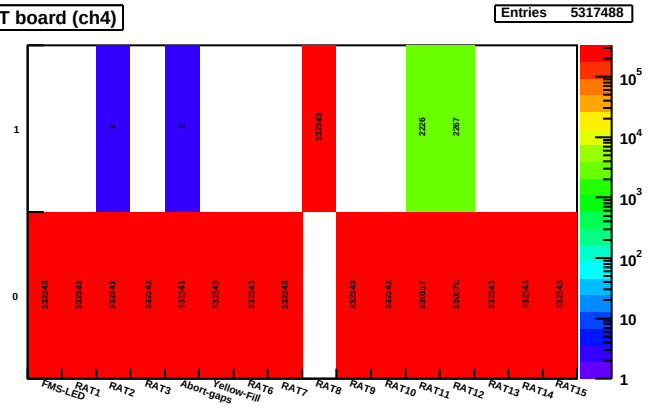
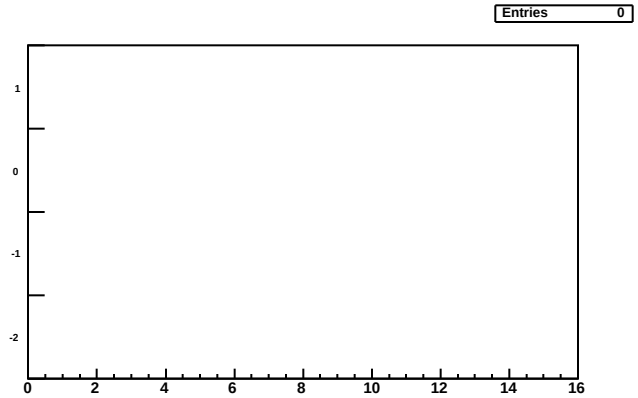
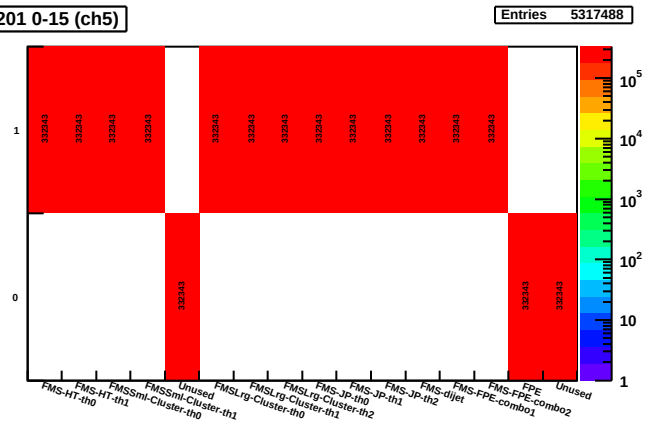
RAT board (ch4)





FP201 0-15 (ch5)



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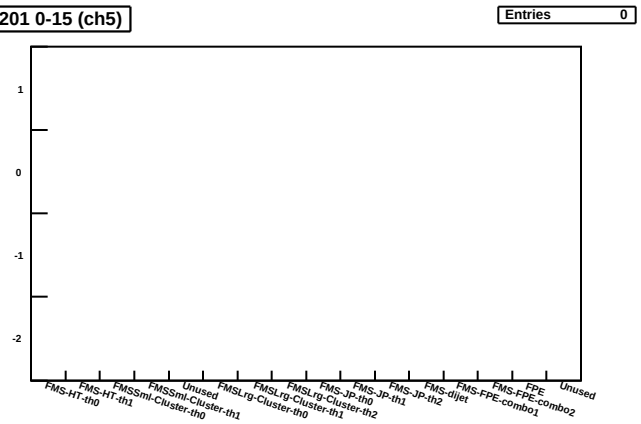
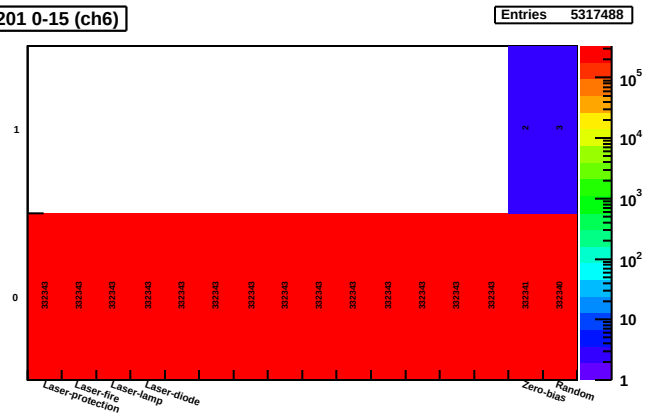
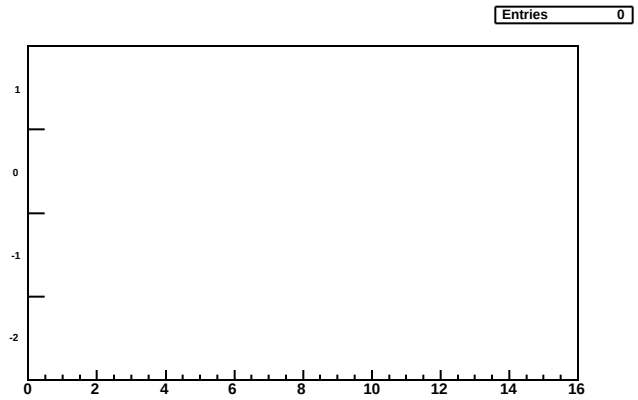
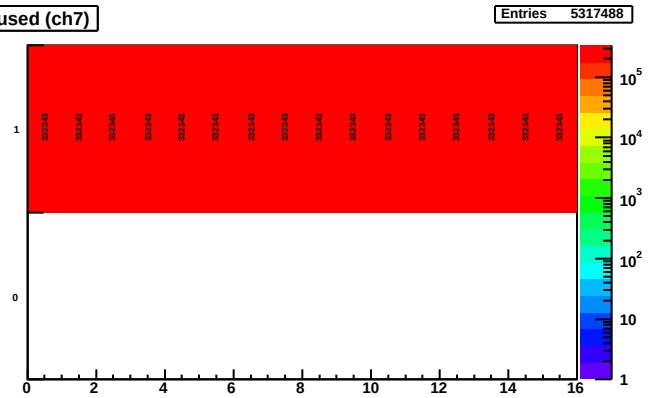
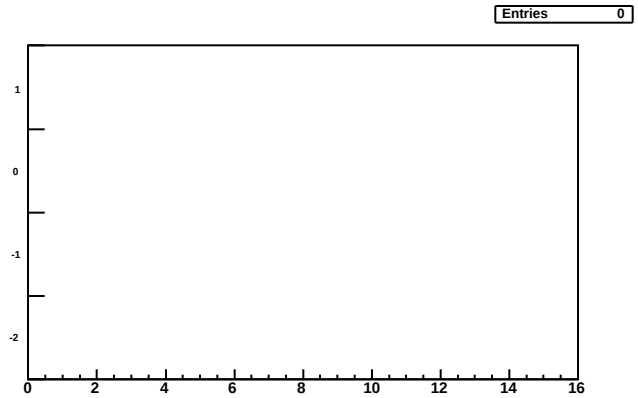


ST201 0-15 (ch6)





Unused (ch7)